



07 July 2021

Delaney Peterson
Anchor QEA, LLC
1201 3rd Ave, Suite 2600
Seattle, WA 98101

RE: Gasco Siltronic - US Moorings

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)
21D0180

Associated SDG ID(s)
N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclosed Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Shelly Fishel, Project Manager



ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

2100180

POC: # Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225

Project: GascoSiltronic: US Moorings
Client: NW Natural

COC ID: ARI-20210414-132323
Sample Custodian: jm, cd, dp
Lab: Analytical Resources Inc.

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
001	USMPDI-010SG-210414	N	SE	04/14/2021	11:41	1	<input type="checkbox"/>	PAHs and Alk. PAHs TPH Total solids (ARI)	SW8270ESIM NWTPHDx SM2540G	30 30 30	4°C 4°C 4°C
002	USMPDI-015SG-210414	N	SE	04/14/2021	10:35	1	<input type="checkbox"/>	PAHs and Alk. PAHs TPH Total solids (ARI)	SW8270ESIM NWTPHDx SM2540G	30 30 30	4°C 4°C 4°C
003	USMPDI-019SG-210414	N	SE	04/14/2021	8:36	1	<input type="checkbox"/>	PAHs and Alk. PAHs TPH Total solids (ARI)	SW8270ESIM NWTPHDx SM2540G	30 30 30	4°C 4°C 4°C
004	USMPDI-029SG-210414	N	SE	04/14/2021	9:22	1	<input type="checkbox"/>	PAHs and Alk. PAHs TPH Total solids (ARI)	SW8270ESIM NWTPHDx SM2540G	30 30 30	4°C 4°C 4°C

Comment:

Relinquished By: Signature <i>[Signature]</i>	Received By: Signature <i>[Signature]</i>	Relinquished By: Signature	Received By: Signature	Relinquished By: Signature	Received By: Signature
Print Name D Peterson	Print Name Jacob Weirte	Print Name	Print Name	Print Name	Print Name
Company AQ	Company ART	Company	Company	Company	Company
Date/Time 4.15.21 1400	Date/Time 04/16/2021 1030	Date/Time	Date/Time	Date/Time	Date/Time



Cooler Receipt Form

ARI Client: Anchev QEA

Project Name: Gasco Siltronic: US Mornings

COC No(s): _____ (NA)

Delivered by: Fed-EX UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 21D0180

Tracking No: 7734 5848 2883 NA

Preliminary Examination Phase:

- Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES NO
- Were custody papers included with the cooler? YES NO
- Were custody papers properly filled out (ink, signed, etc.) YES NO
- Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1030

2.5

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: DOO 506

Cooler Accepted by: JS Date: 04/16/21 Time: 1030

Complete custody forms and attach all shipping documents

Log-In Phase:

- Was a temperature blank included in the cooler? YES NO
- What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____
- Was sufficient ice used (if appropriate)? NA YES NO
- How were bottles sealed in plastic bags? Individually Grouped Not
- Did all bottles arrive in good condition (unbroken)? YES NO
- Were all bottle labels complete and legible? YES NO
- Did the number of containers listed on COC match with the number of containers received? YES NO
- Did all bottle labels and tags agree with custody papers? YES NO
- Were all bottles used correct for the requested analyses? YES NO
- Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ... NA YES NO
- Were all VOC vials free of air bubbles? NA YES NO
- Was sufficient amount of sample sent in each bottle? YES NO
- Date VOC Trip Blank was made at ARI... NA
- Were the sample(s) split by ARI? NA YES NO Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: SC Date: 4/16/21 Time: 1143 Labels checked by: SC

**** Notify Project Manager of discrepancies or concerns ****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____



Anchor QEA, LLC
1201 3rd Ave, Suite 2600
Seattle, WA 98101

Project: Gasco Siltronic - US Moorings
Project Number: [none]
Project Manager: Delaney Peterson

Reported:
07/07/2021 16:52

ANALYTICAL REPORT FOR SAMPLES

Laboratory ID	Sample ID	Matrix	Date Sampled	Date Received
21D0180-01	USMPDI-010SG-210414	Solid	04/14/21 11:41	04/16/21 10:30
21D0180-02	USMPDI-015SG-210414	Solid	04/14/21 10:35	04/16/21 10:30
21D0180-03	USMPDI-019SG-210414	Solid	04/14/21 08:36	04/16/21 10:30
21D0180-04	USMPDI-029SG-210414	Solid	04/14/21 09:22	04/16/21 10:30



Anchor QEA, LLC
1201 3rd Ave, Suite 2600
Seattle WA, 98101

Project: Gasco Siltronic - US Moorings
Project Number: [none]
Project Manager: Delaney Peterson

Reported:
07-Jul-2021 16:52

Case Narrative

Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Work Order: 21D0180

Revised Report - July 7, 2021

This report was revised to include Motor Oil Range Organics which were inadvertently not reported.

Sample receipt

Samples as listed on the preceding page were received 16-Apr-2021 10:30 under ARI work order 21D0180. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Alkyl PAH - EPA Method SW8270E-SIM

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements except Acenaphthylene, 2,3,5-Trimethylnaphthalene and Dibenzothiophene which were out of control high. All samples which contain analyte have been flagged with a "Q" qualifier.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

Diesel/Heavy Oil Range Organics - WA-Ecology Method NW-TPHDx

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

Wet Chemistry

The sample(s) were prepared and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.



Anchor QEA, LLC
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Project: Gasco Siltronic - US Moorings
Project Number: [none]
Project Manager: Delaney Peterson

Reported:
07-Jul-2021 16:52

Case Narrative



Anchor QEA, LLC
1201 3rd Ave, Suite 2600
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Project: Gasco Siltronic - US Moorings
Project Number: [none]
Project Manager: Delaney Peterson

Reported:
07-Jul-2021 16:52

Case Narrative



QUALIFIERS AND NOTES

<u>Qualifier</u>	<u>Definition</u>
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
Q	Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20% RSD, <20% drift or minimum RRF)
J	Estimated concentration value detected below the reporting limit.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL)
D	The reported value is from a dilution
*	Flagged value is not within established control limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Alkyl PAH Parents

Laboratory: Analytical Resources, Inc.
Client: Anchor OEA, LLC
Project: Gasco Siltronic - US Moorings
Matrix: Sediment Laboratory ID: 21D0180-01 A SDG: 21D0180
Sampled: 04/14/21 11:41 Prepared: 04/22/21 11:05 File ID: NT1421043063.D
% Solids: 46.63 Preparation: EPA 3546 (Microwave) Analyzed: 05/02/21 09:13
Batch: BJD0507 Sequence: SJE0004 Initial/Final: 21.51 g Wet / 0.5 mL
Instrument: NT14 Column: ZB-5MS Calibration: EE00001
Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
493-02-7	trans-Decalin	1	5.0	U	0.03	5.0
493-01-6	cis-Decalin	1	5.0	U	0.5	5.0
91-20-3	Naphthalene	1	24.9		0.4	5.0
90-12-0	1-Methylnaphthalene	1	6.3		0.4	5.0
91-57-6	2-Methylnaphthalene	1	10.1		0.4	5.0
92-52-4	Biphenyl	1	4.9	J	0.3	5.0
581-42-0	2,6-Dimethylnaphthalene	1	4.6	J	0.4	5.0
208-96-8	Acenaphthylene	1	13.0	Q	0.3	5.0
83-32-9	Acenaphthene	1	26.2		0.5	5.0
132-64-9	Dibenzofuran	1	9.2		0.4	5.0
2245-38-7	2,3,5-Trimethylnaphthalene	1	4.0	J	0.4	5.0
86-73-7	Fluorene	1	21.4		0.5	5.0
95-15-8	Benzo(b)thiophene	1	2.3	J	0.4	5.0
85-01-8	Phenanthrene	1	136		0.9	5.0
120-12-7	Anthracene	1	35.6		0.05	5.0
86-74-8	Carbazole	1	14.3		0.7	5.0
832-69-9	1-Methylphenanthrene	1	18.5		0.5	5.0
206-44-0	Fluoranthene	1	449		1.4	5.0
132-65-0	Dibenzothiophene	1	11.7		0.7	5.0
129-00-0	Pyrene	1	391		1.0	5.0
56-55-3	Benzo(a)anthracene	1	122		1.4	5.0
218-01-9	Chrysene	1	251		0.7	5.0
205-99-2	Benzo(b)fluoranthene	1	189		0.8	5.0
205-82-3	Benzo(j)fluoranthene	1	82.1		0.7	5.0
207-08-9	Benzo(k)fluoranthene	1	86.4		0.8	5.0
197-97-2	Benzo(e)pyrene	1	152		0.6	5.0
50-32-8	Benzo(a)pyrene	1	171		1.0	5.0
193-39-5	Indeno(1,2,3-cd)pyrene	1	131		0.4	5.0
53-70-3	Dibenzo(a,h)anthracene	1	19.5		0.7	5.0
191-24-2	Benzo(g,h,i)perylene	1	190		0.5	5.0



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Alkyl PAH Parents

Laboratory: Analytical Resources, Inc.
 Client: Anchor OEA, LLC
 Project: Gasco Siltronic - US Moorings
 Matrix: Sediment Laboratory ID: 21D0180-01 A SDG: 21D0180
 Sampled: 04/14/21 11:41 Prepared: 04/22/21 11:05 File ID: NT1421043063.D
 % Solids: 46.63 Preparation: EPA 3546 (Microwave) Analyzed: 05/02/21 09:13
 Batch: BJD0507 Sequence: SJE0004 Initial/Final: 21.51 g Wet / 0.5 mL
 Instrument: NT14 Column: ZB-5MS Calibration: EE00001
 Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
1985-5-0	Perylene	1	145		0.4	5.0
239-35-0	Benzo(b)naphtho(2,1-d)thiophene	1	34.8		5.0	5.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
Naphthalene-d8	149.55	102	68.1	30 - 160	
Acenaphthene-d10	149.55	113	75.5	30 - 160	
Phenanthrene-d10	149.55	102	67.9	30 - 160	
Chrysene-d12	149.55	100	67.0	30 - 160	
Perylene-d12	149.55	113	75.7	30 - 160	

Data File: \\target\share\chem3\nt14.1\20210430D.6\NT1421043063.D

Date: 02-MAY-2021 09:13

Client ID:

Sample Info: 21D0180-01

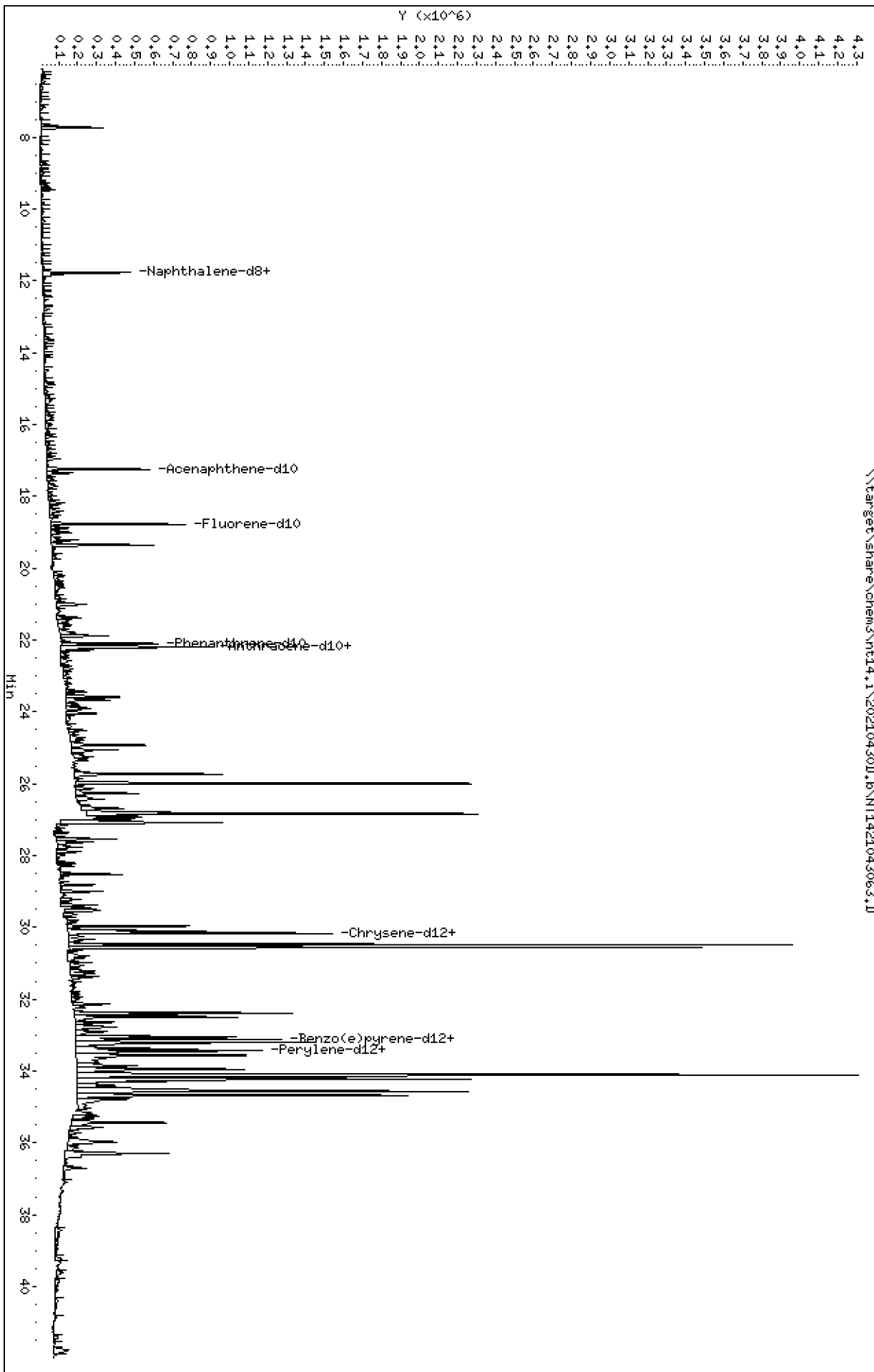
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

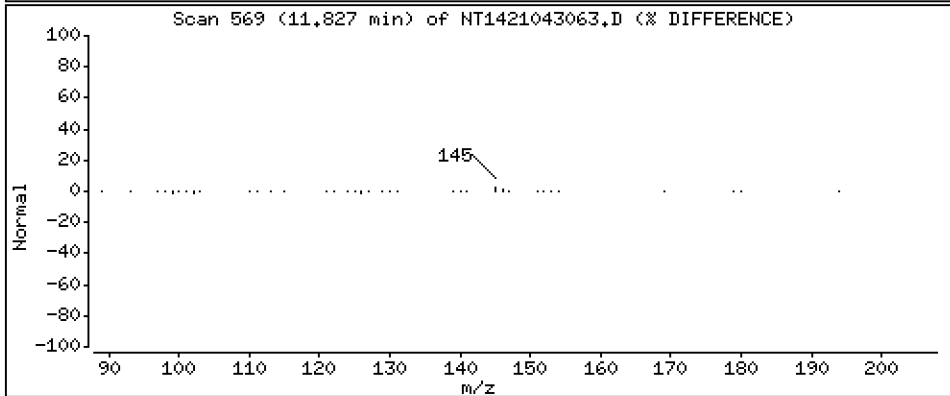
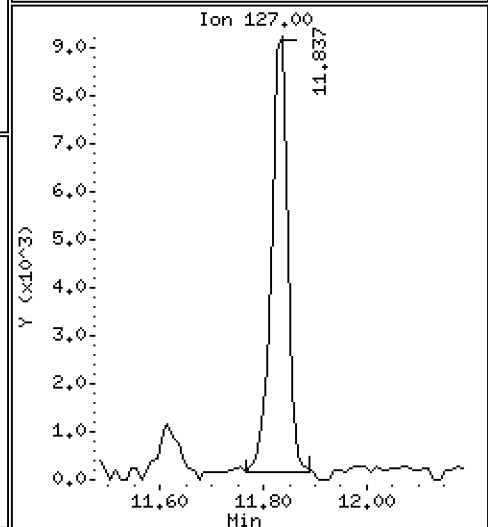
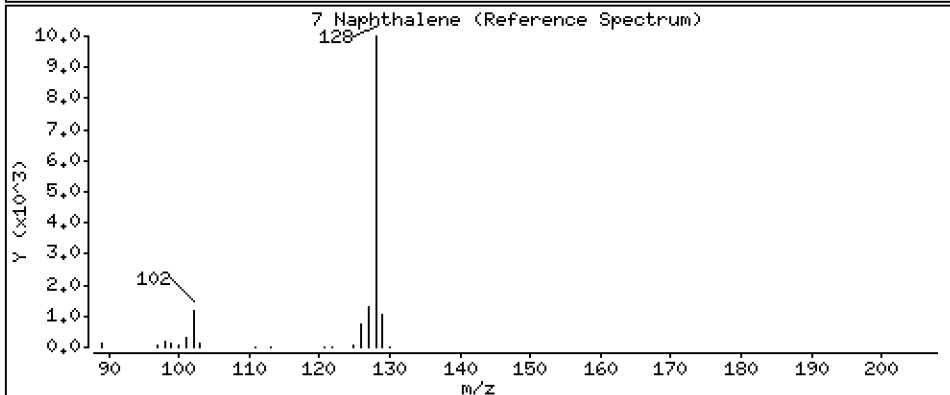
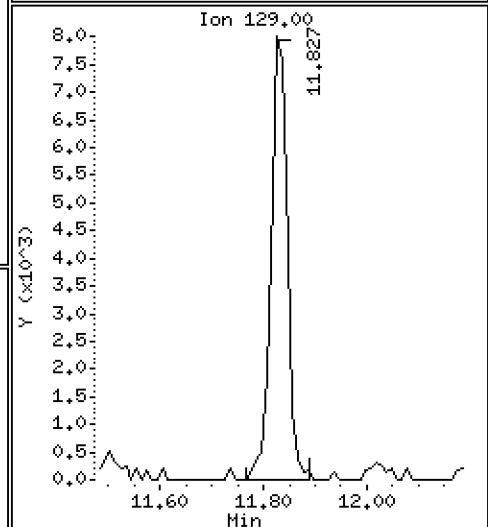
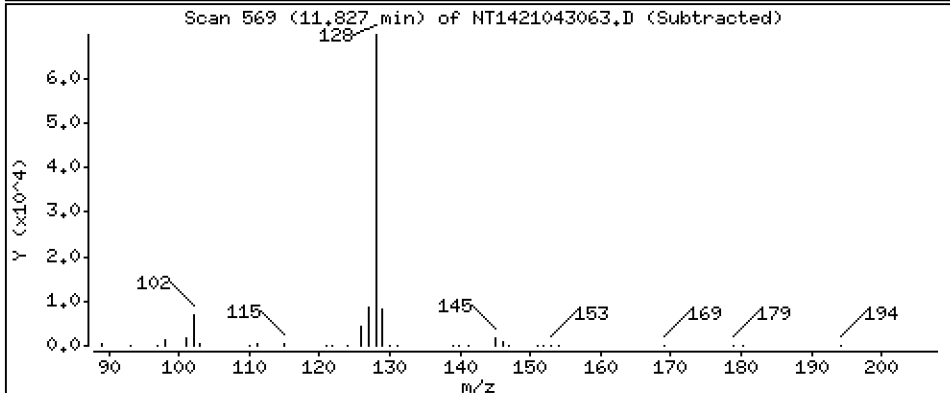
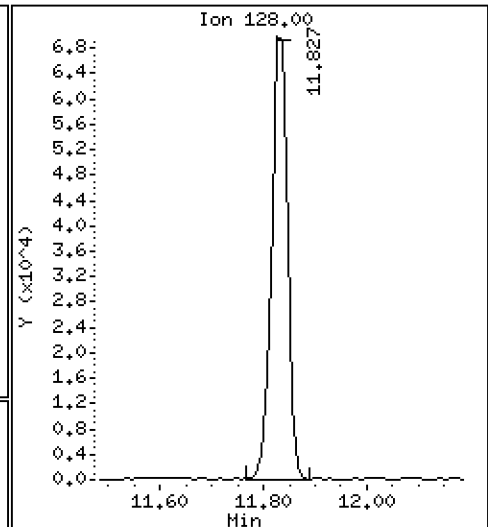
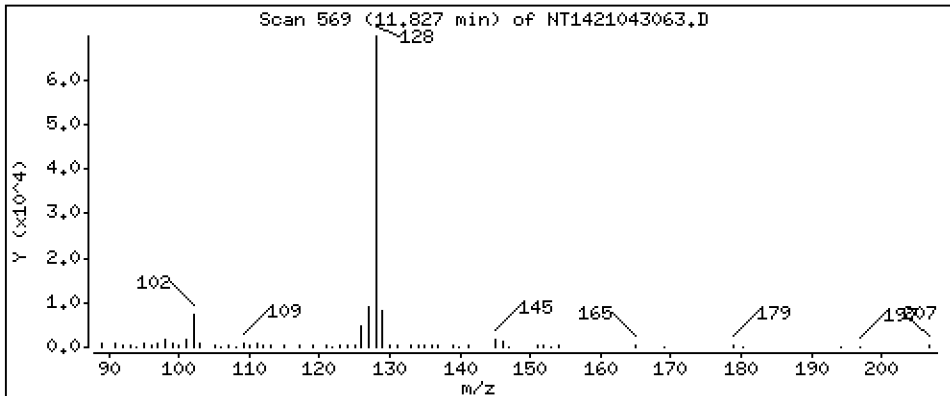
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

7 Naphthalene

Concentration: 0.5001 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

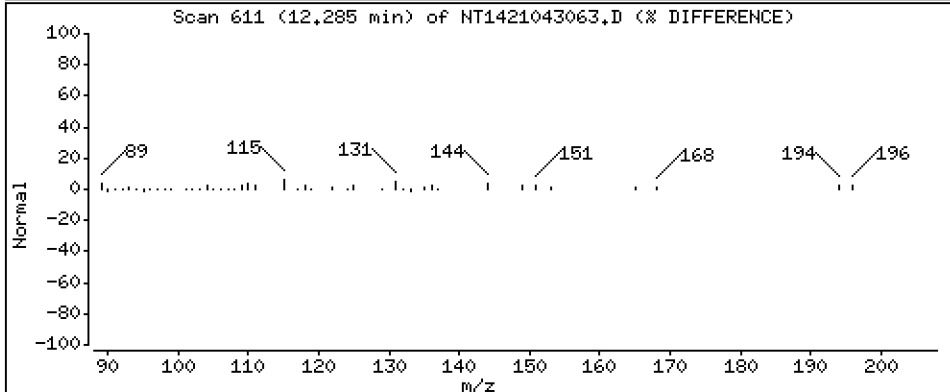
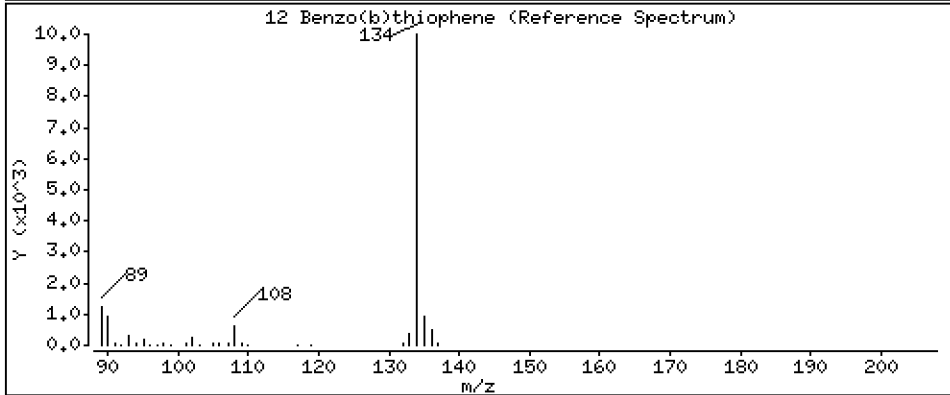
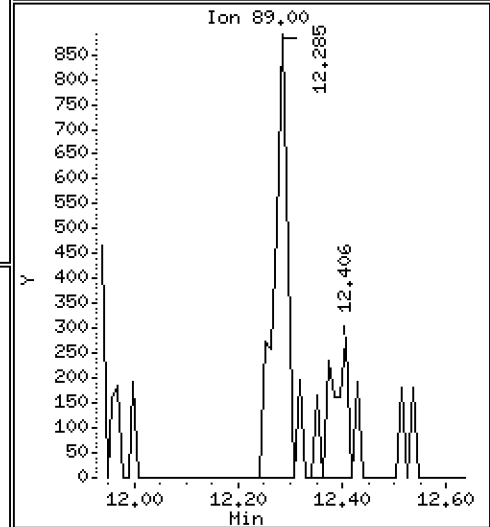
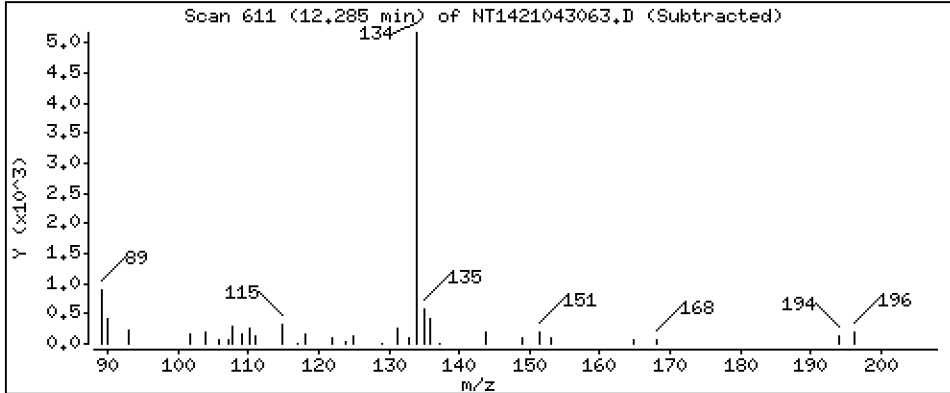
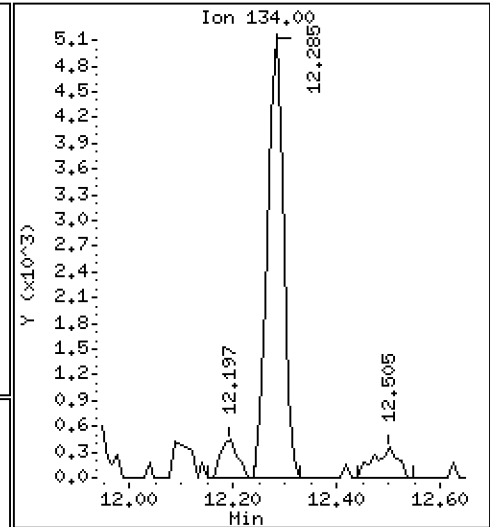
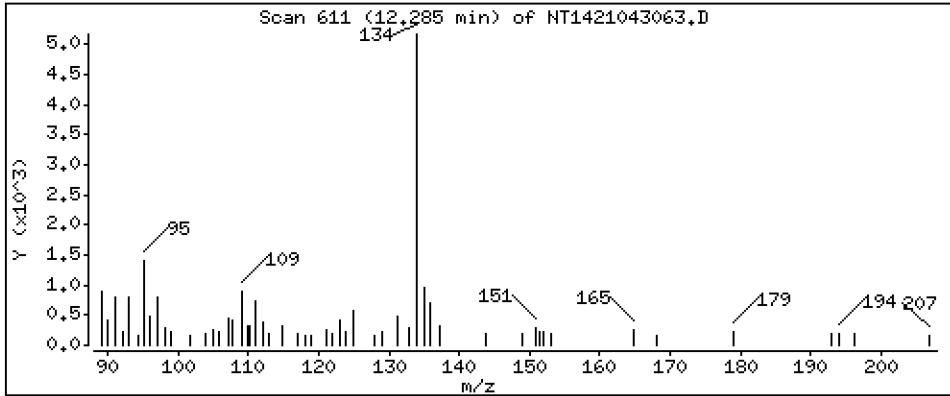
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

12 Benzo(b)thiophene

Concentration: 0,04534 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

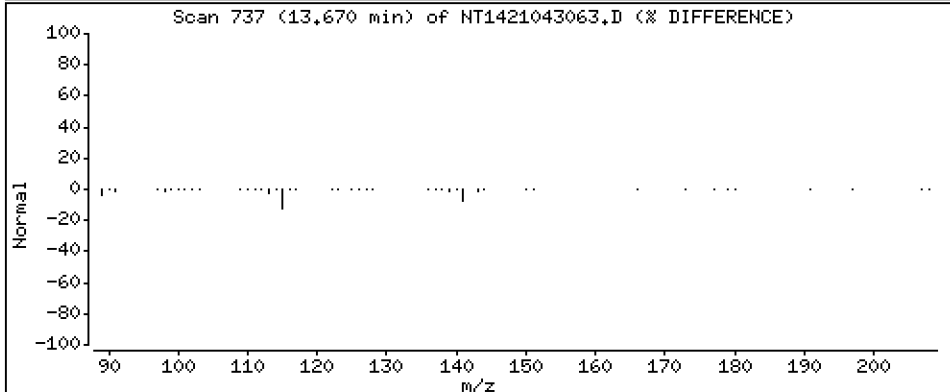
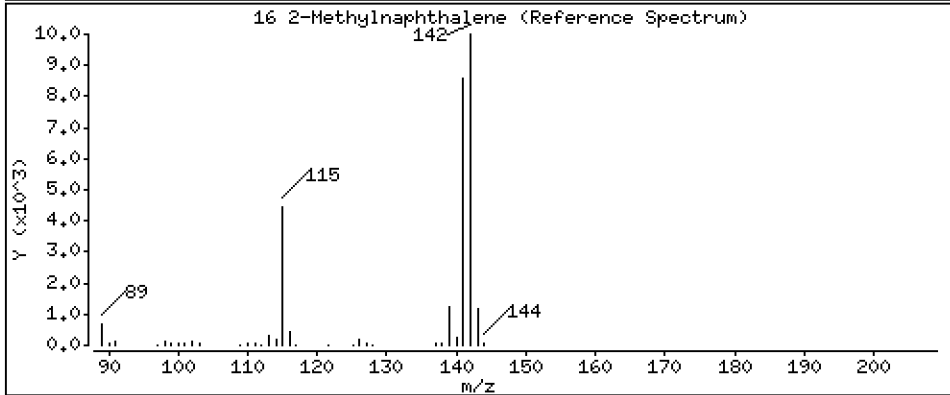
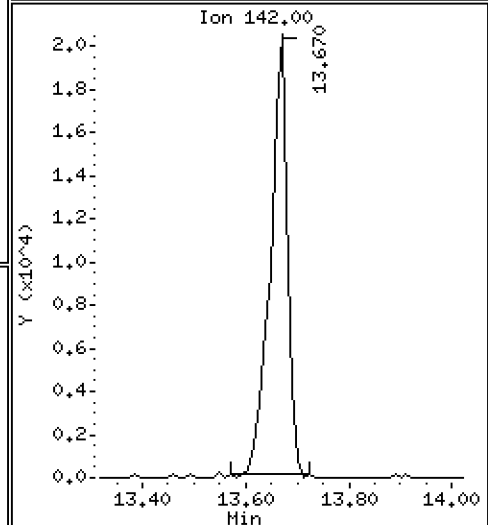
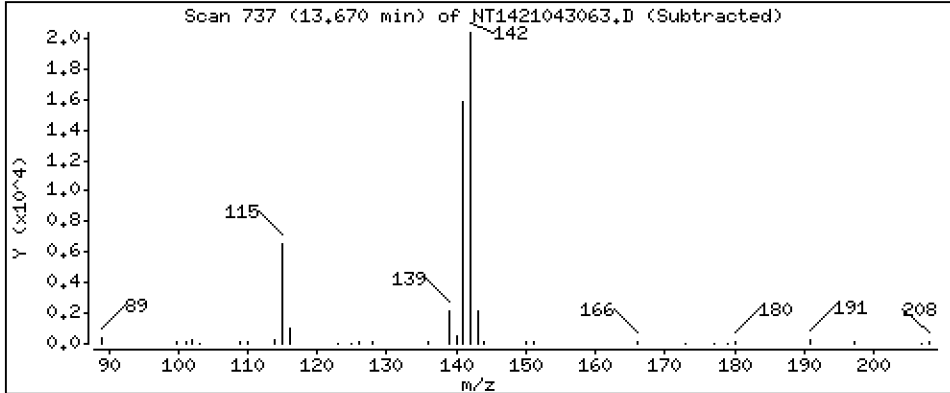
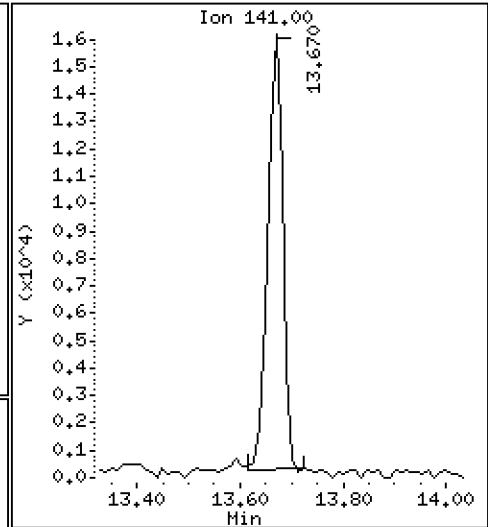
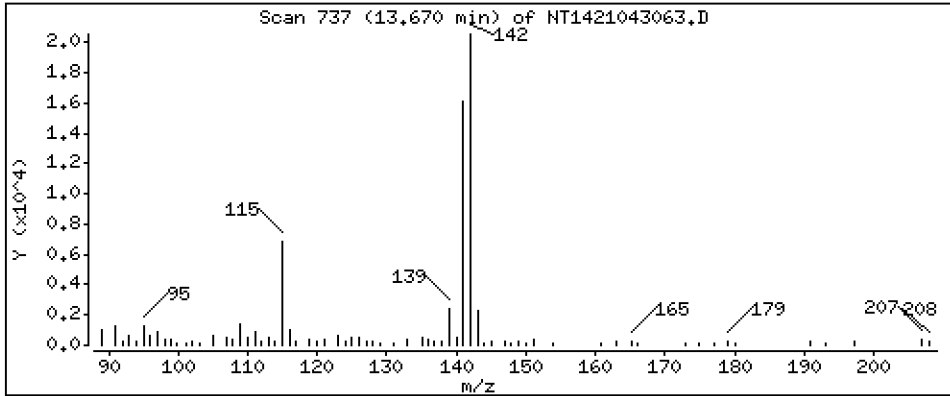
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

16 2-Methylnaphthalene

Concentration: 0.2028 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

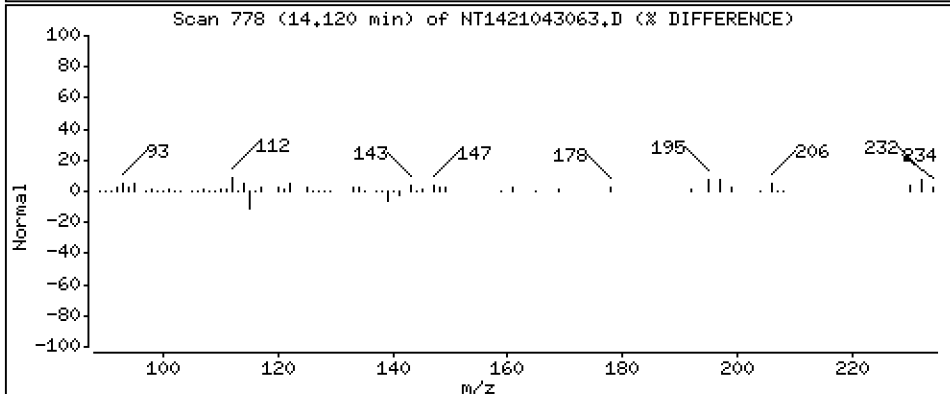
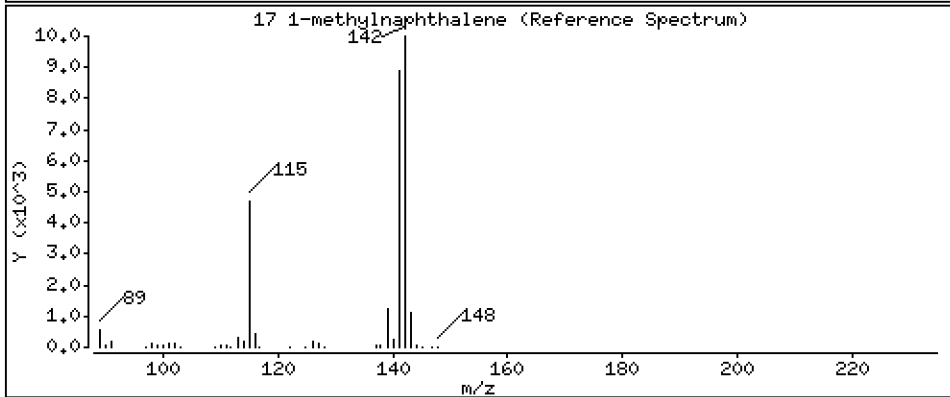
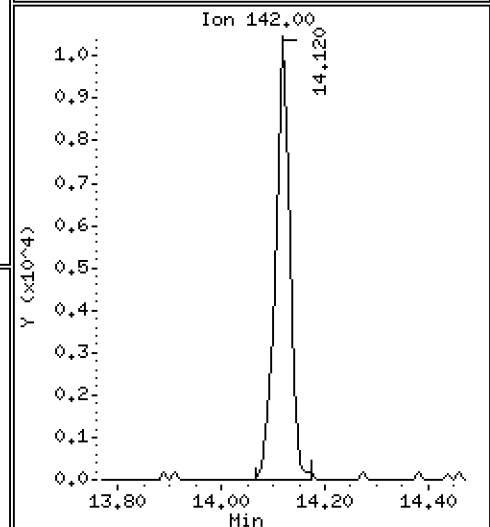
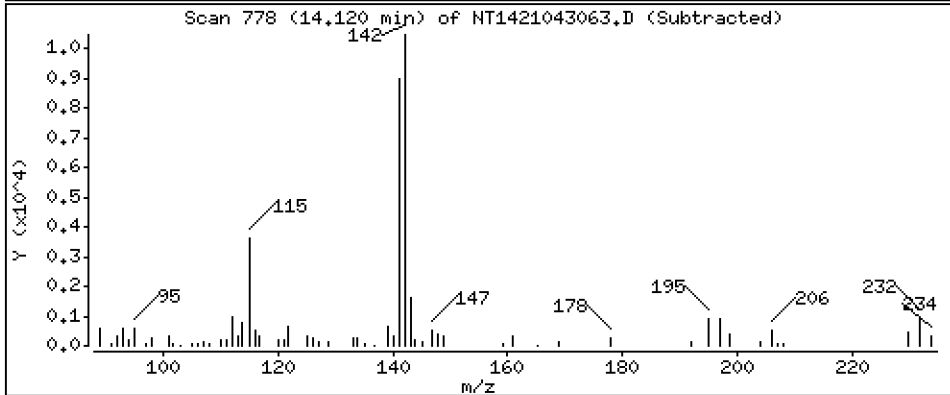
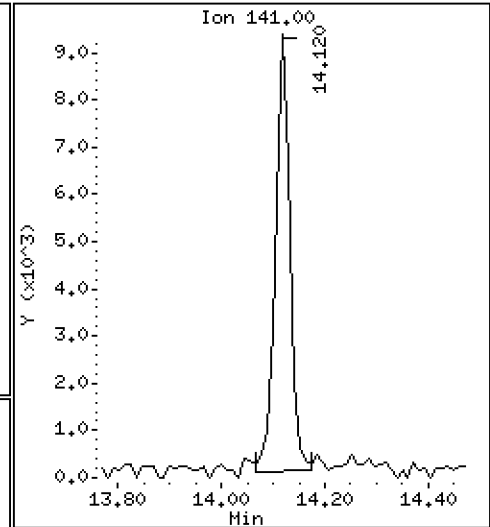
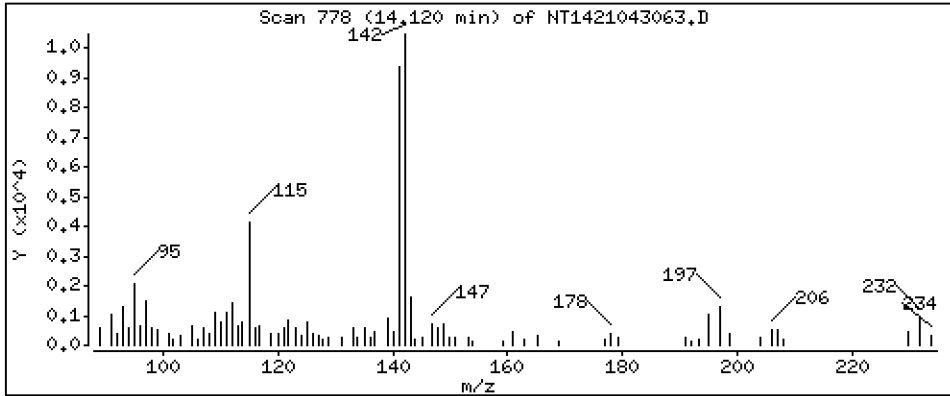
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 1-methylnaphthalene

Concentration: 0,1266 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

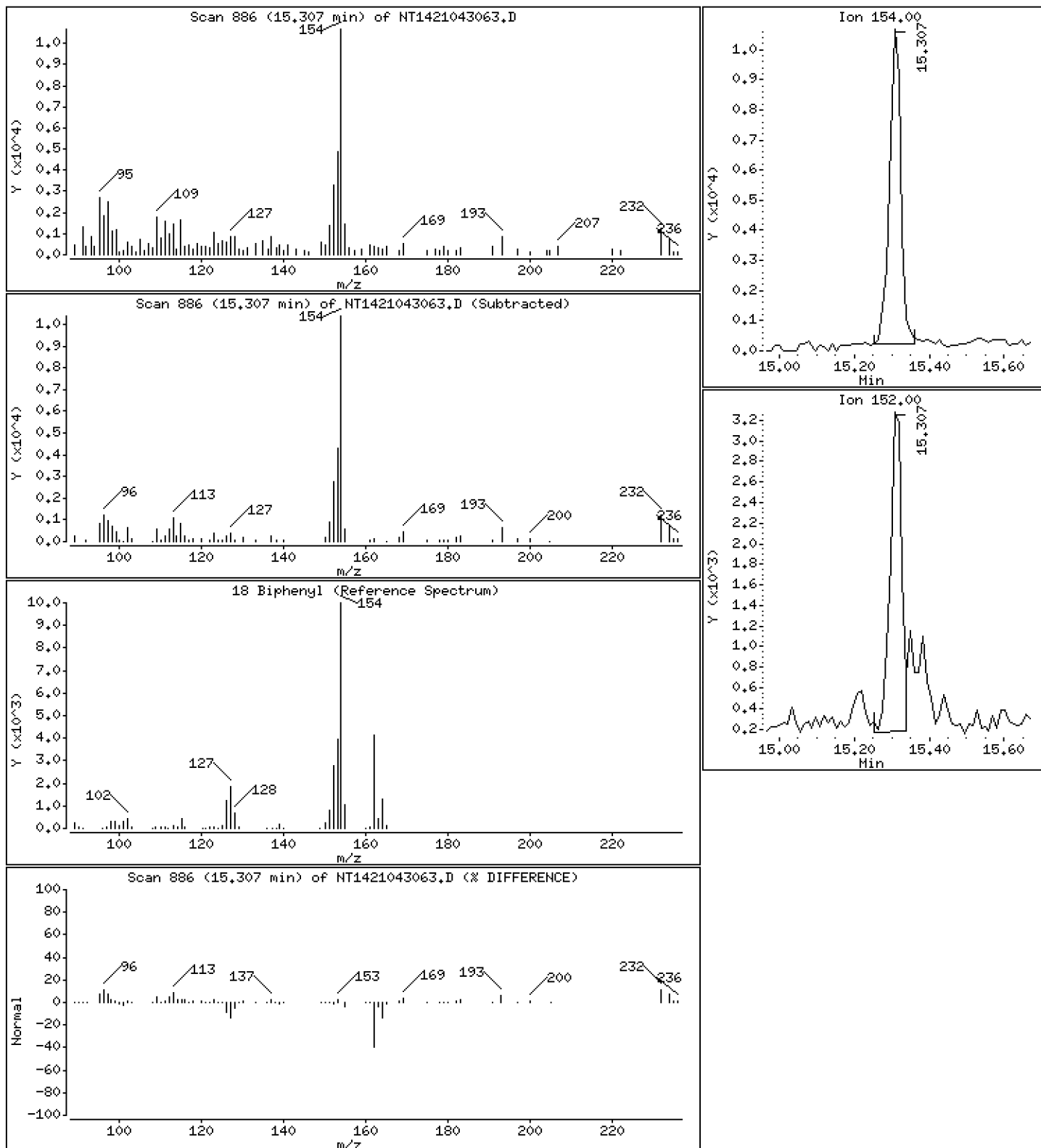
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

18 Biphenyl

Concentration: 0,09763 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

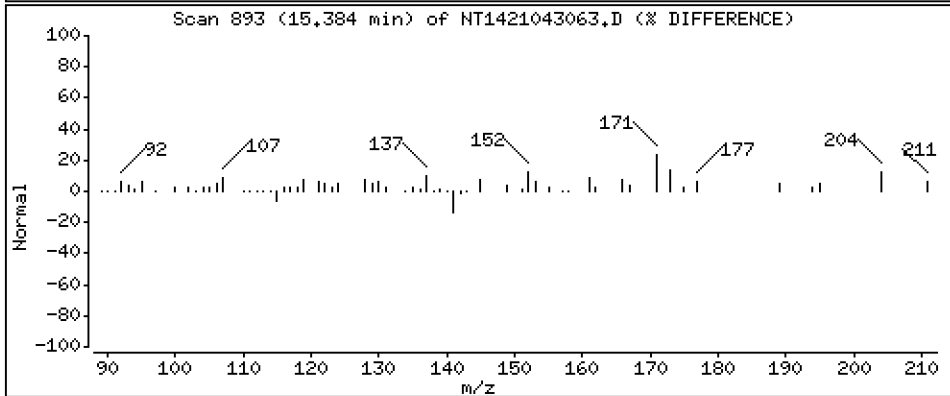
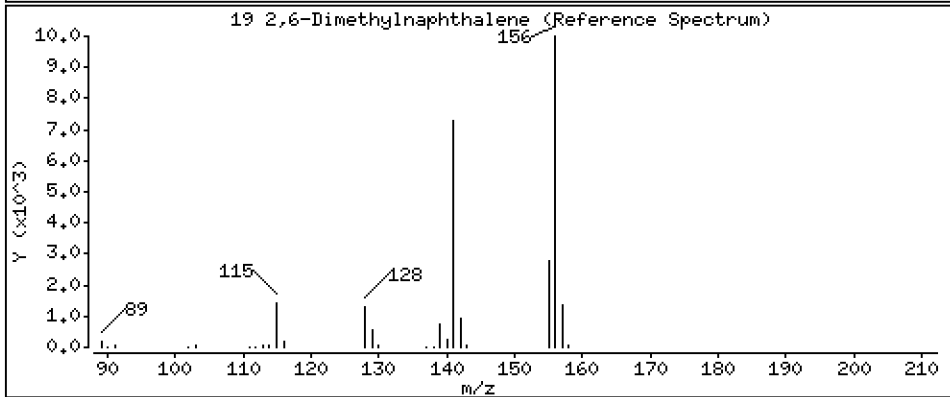
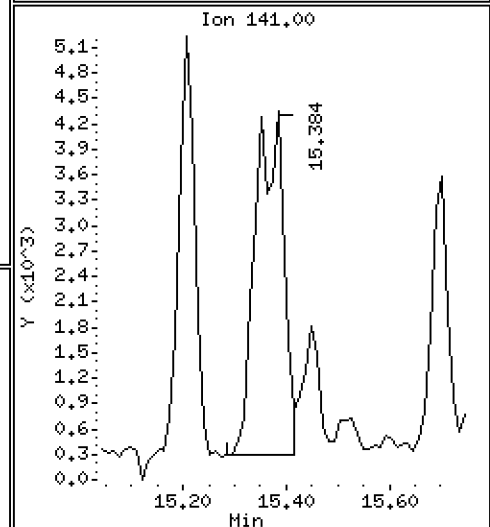
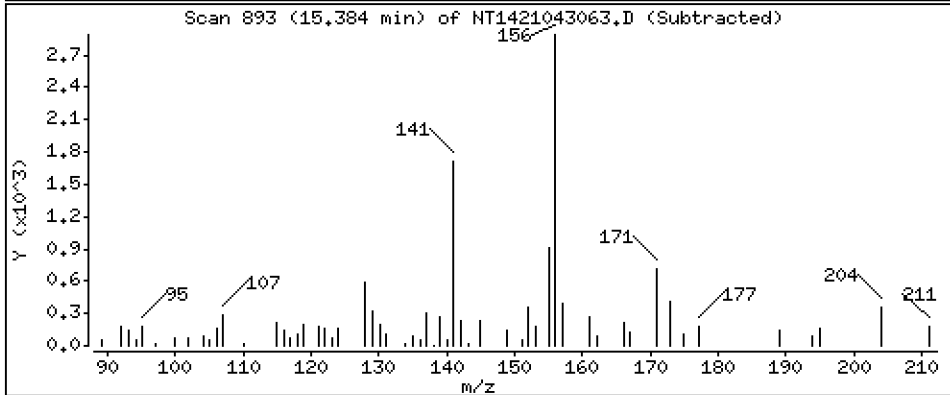
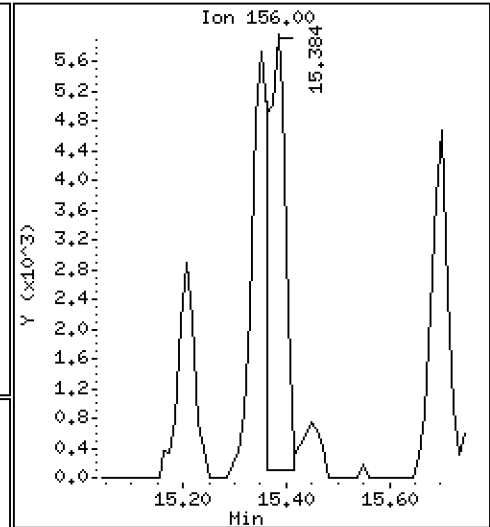
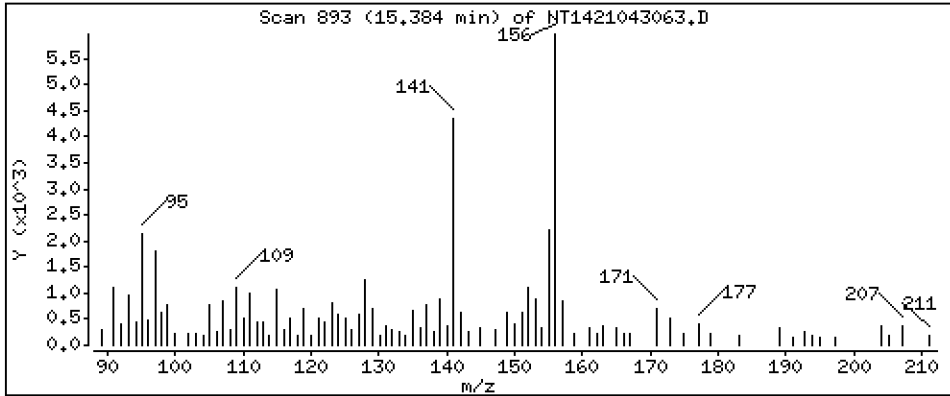
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 2,6-Dimethylnaphthalene

Concentration: 0,09328 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

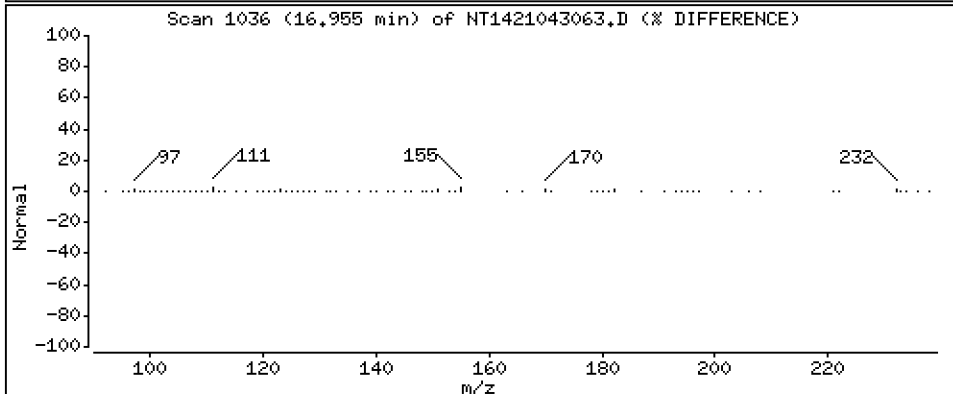
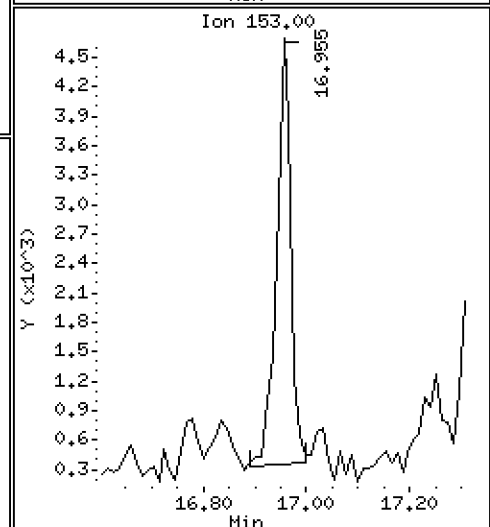
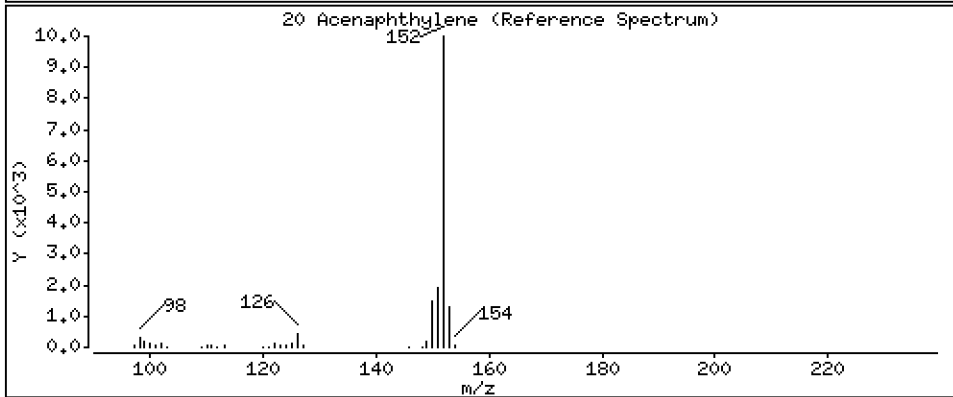
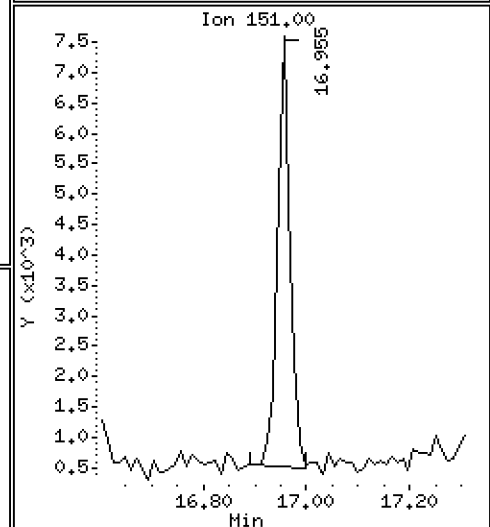
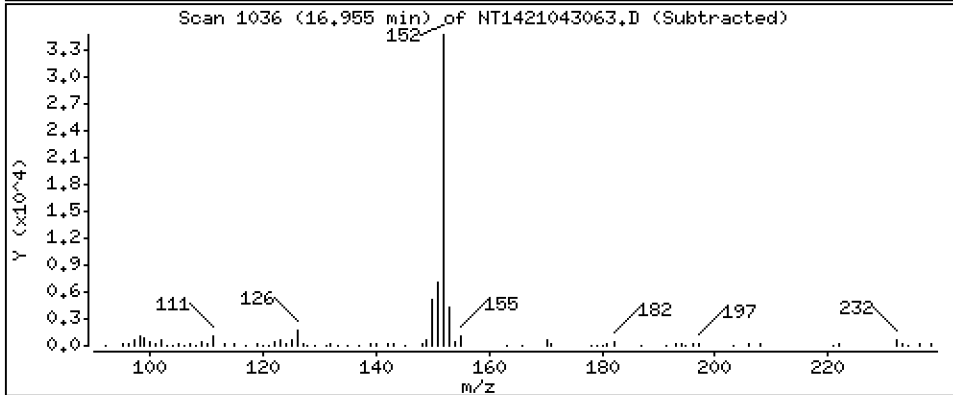
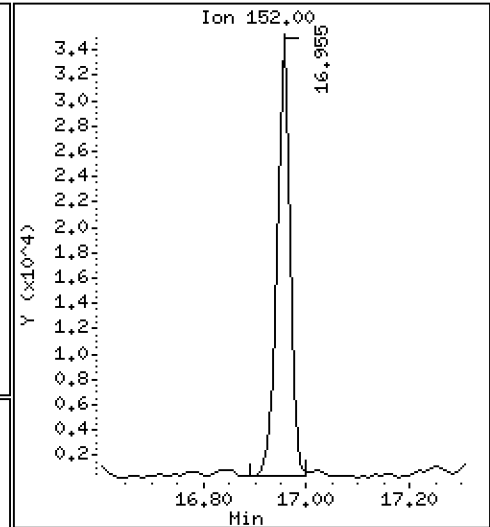
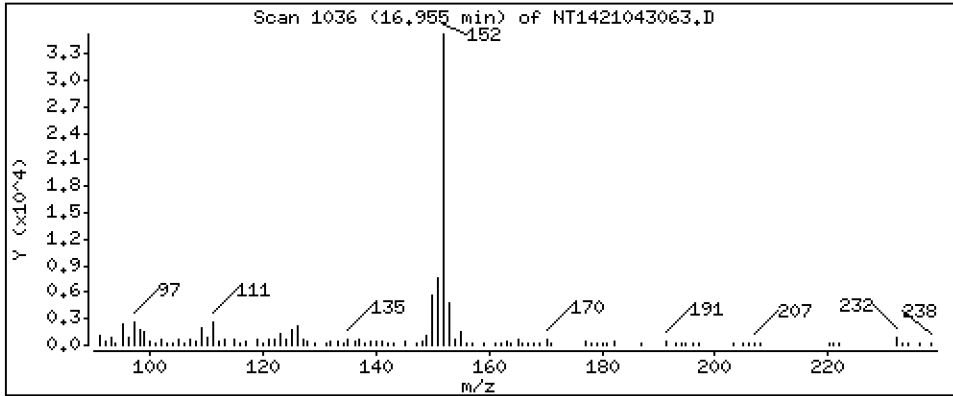
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

20 Acenaphthylene

Concentration: 0.2612 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

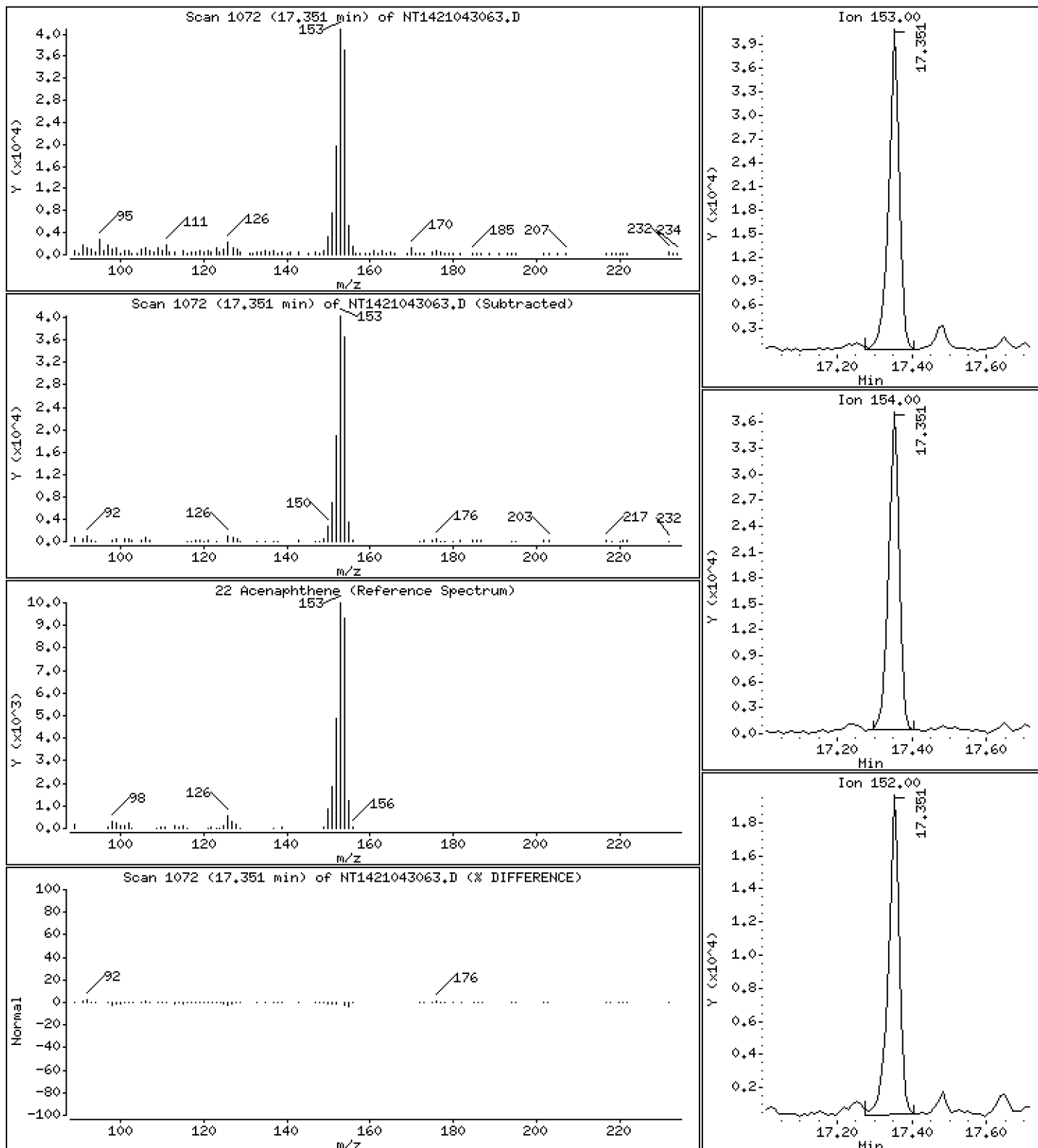
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Acenaphthene

Concentration: 0,5261 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

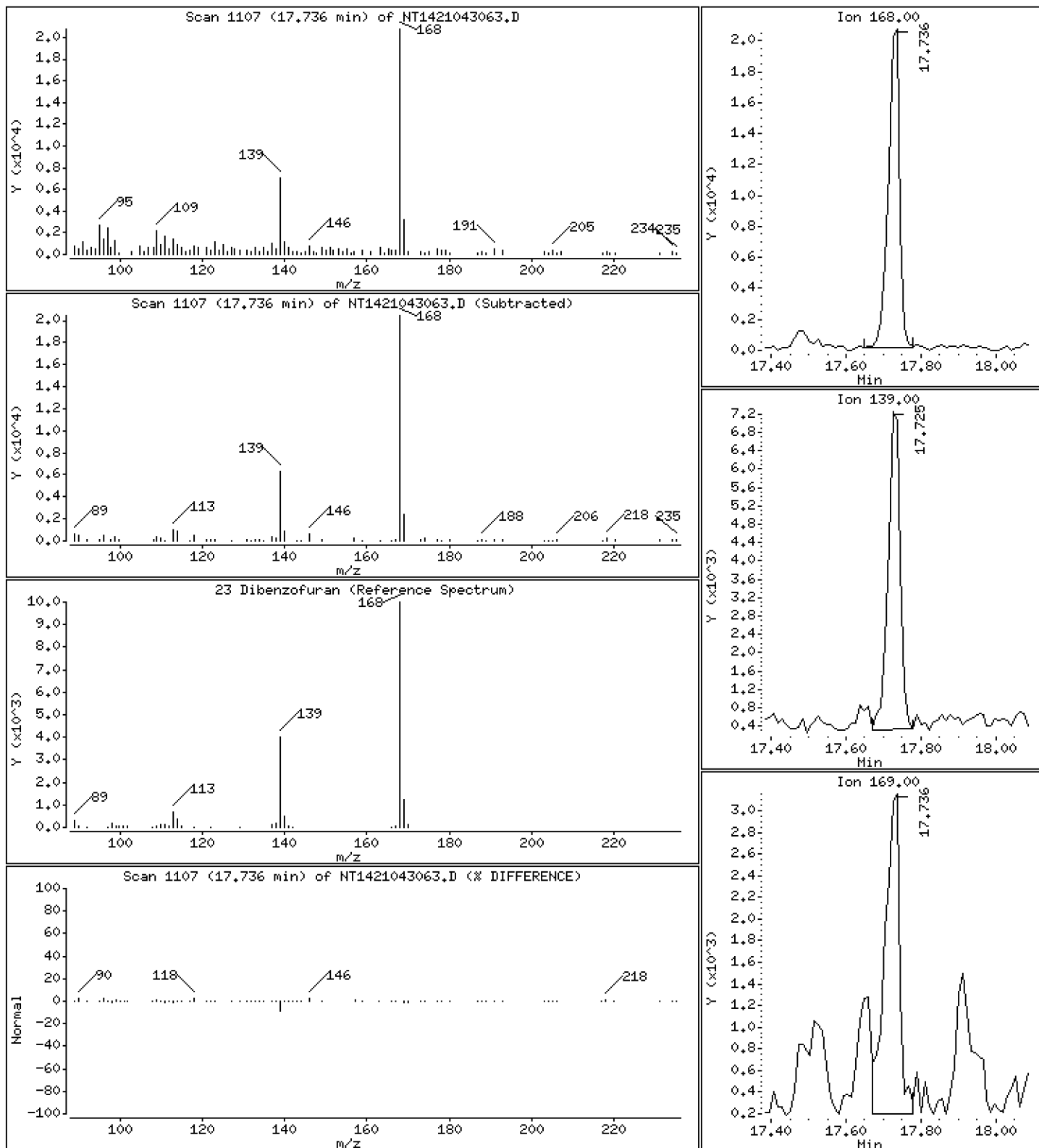
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 Dibenzofuran

Concentration: 0,1849 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

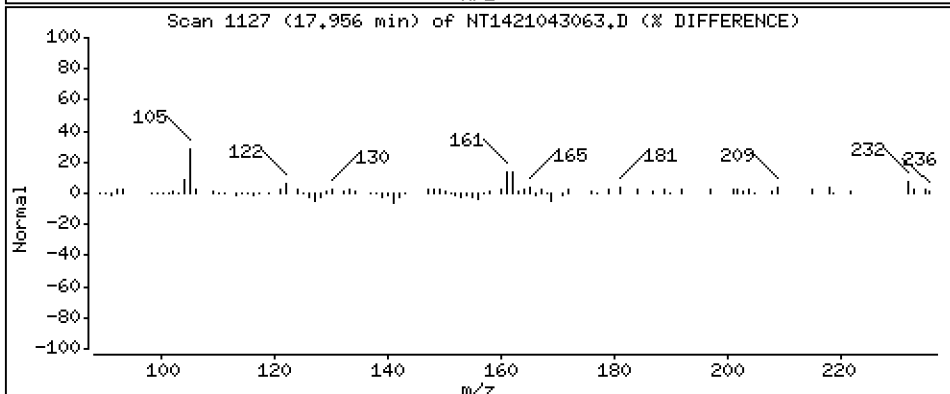
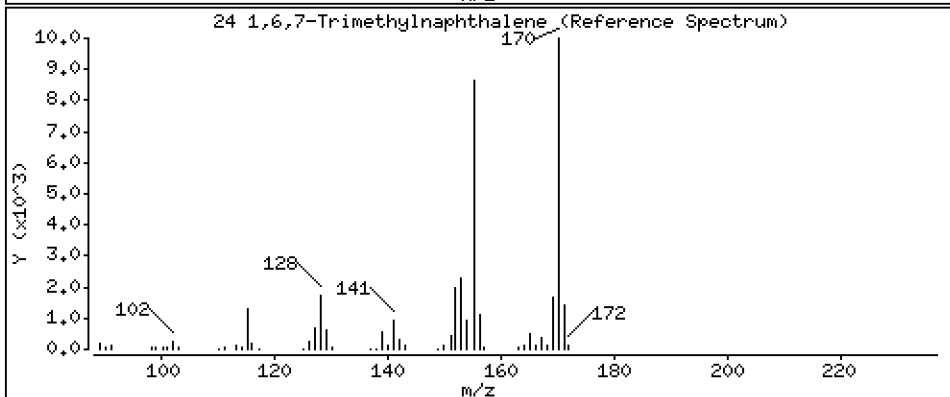
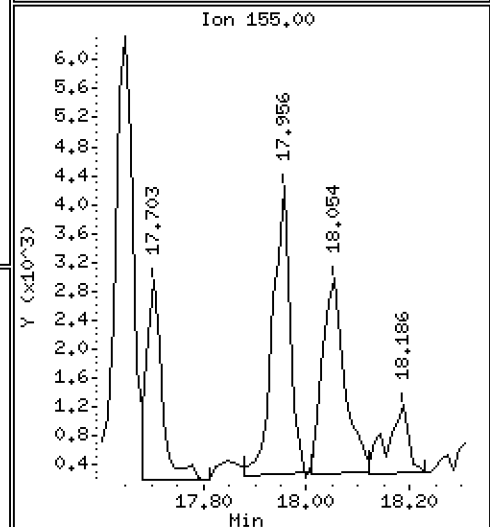
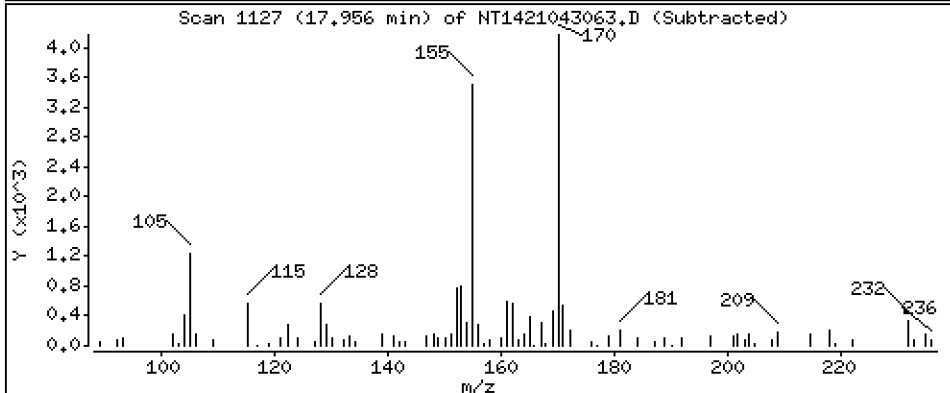
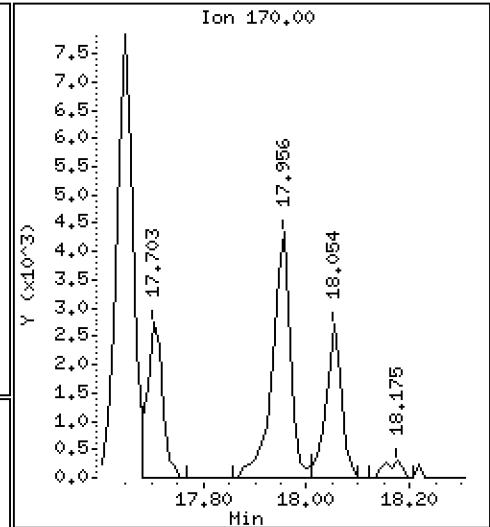
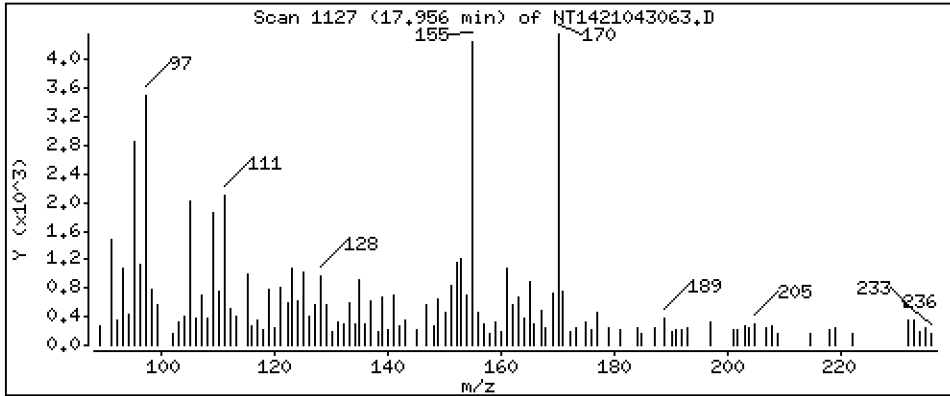
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

24 1,6,7-Trimethylnaphthalene

Concentration: 0.07955 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

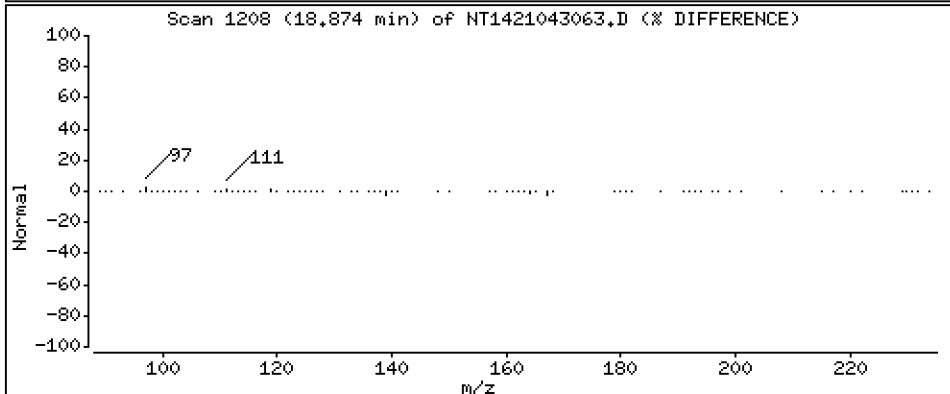
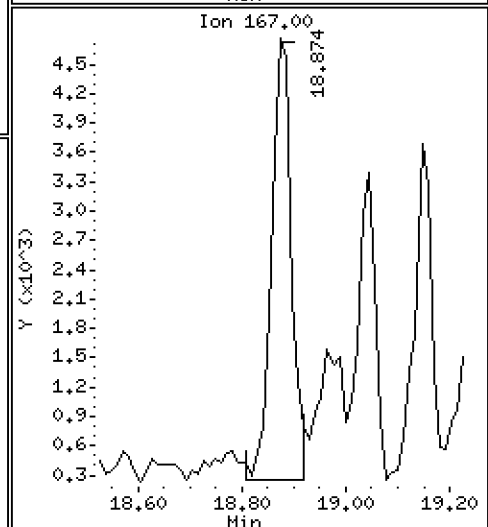
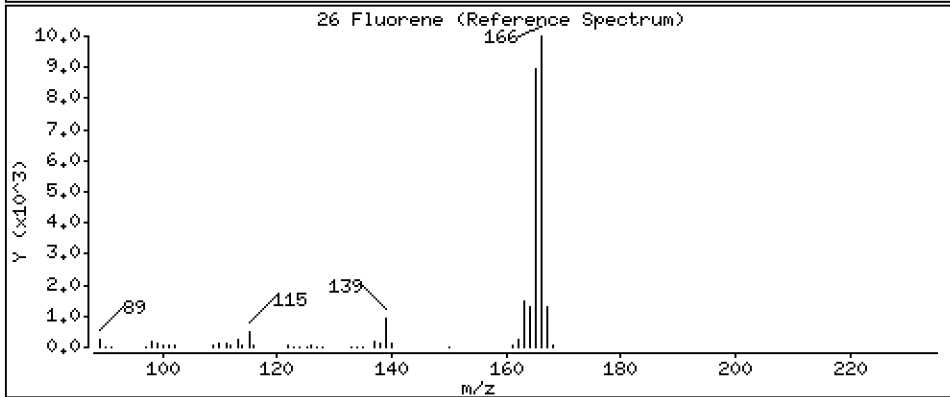
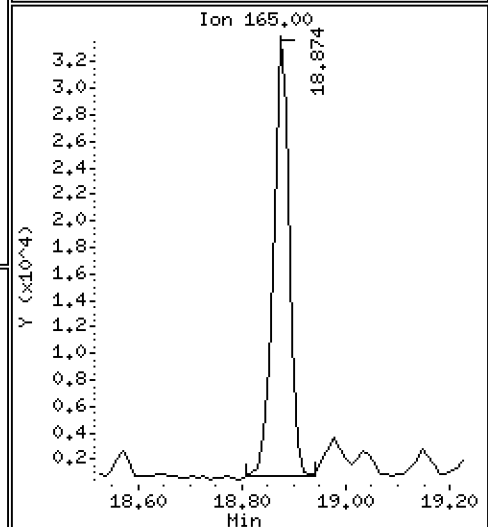
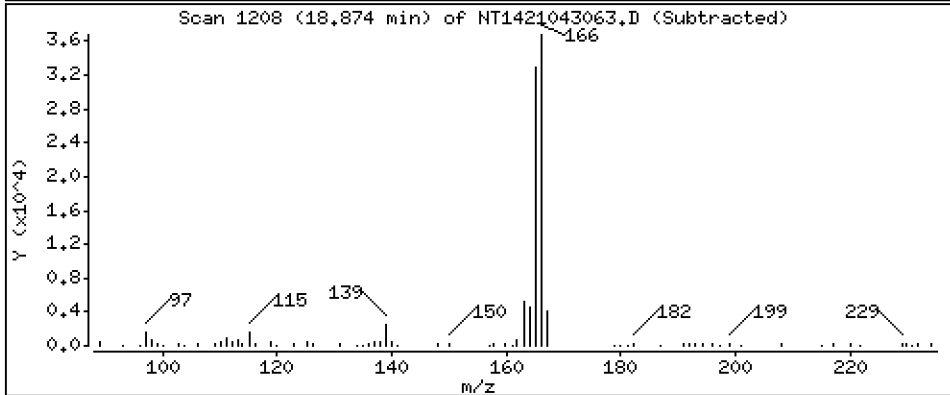
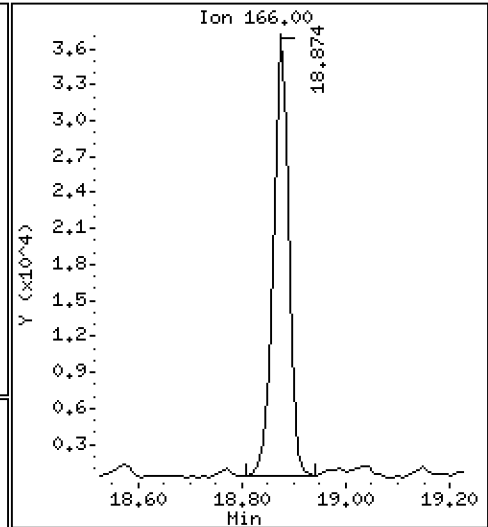
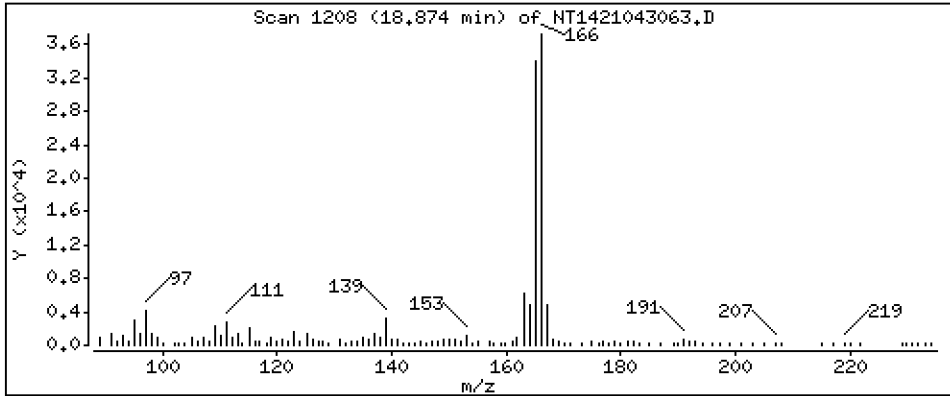
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Fluorene

Concentration: 0,4298 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

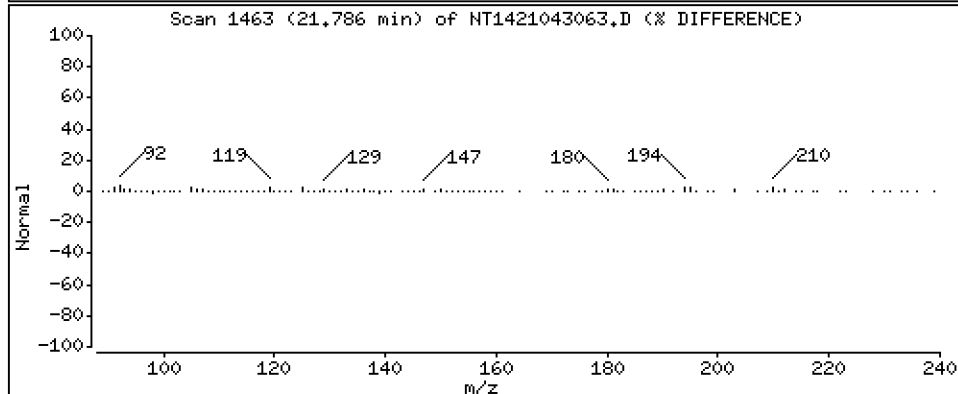
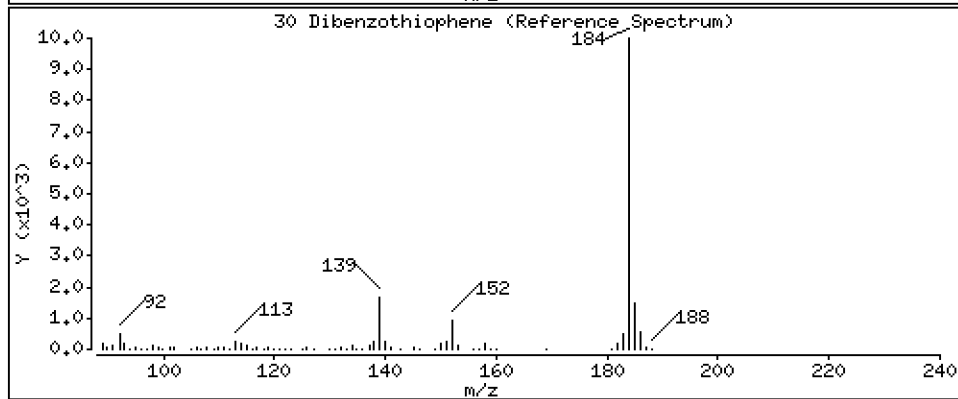
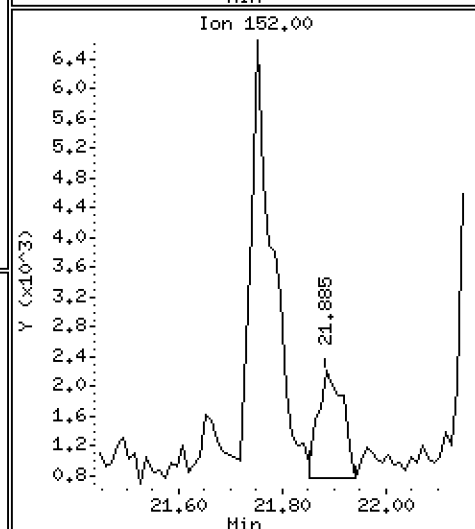
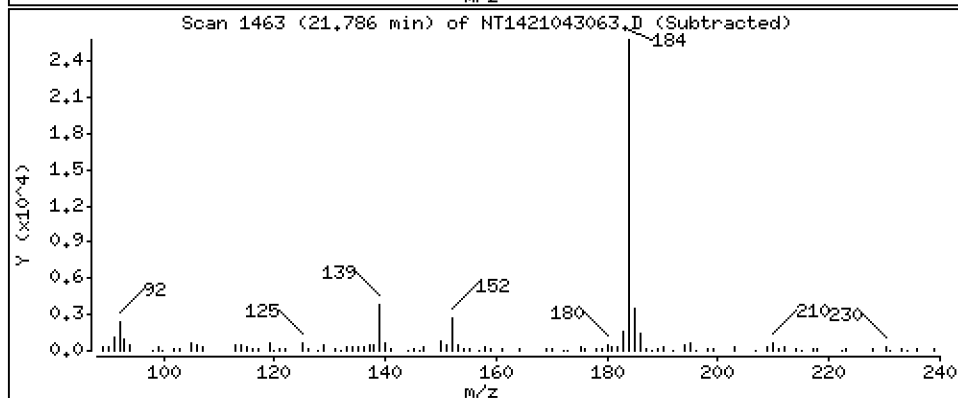
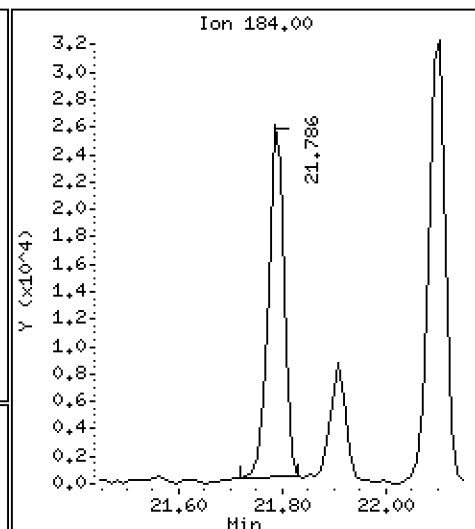
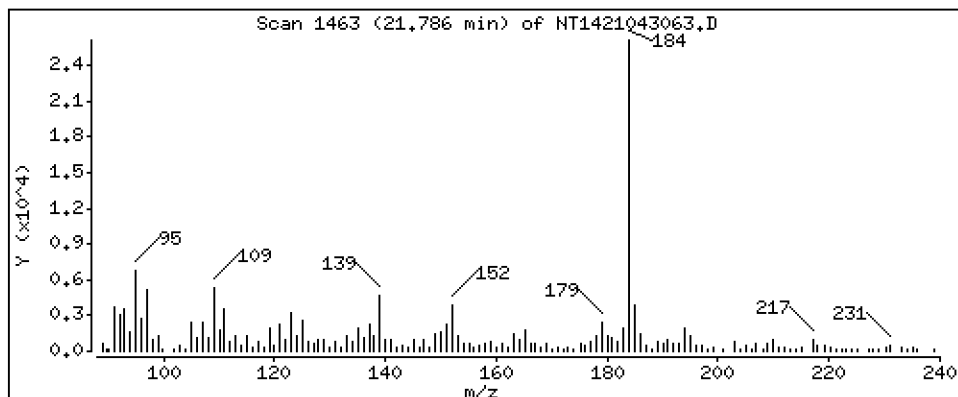
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Dibenzothiophene

Concentration: 0,2344 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

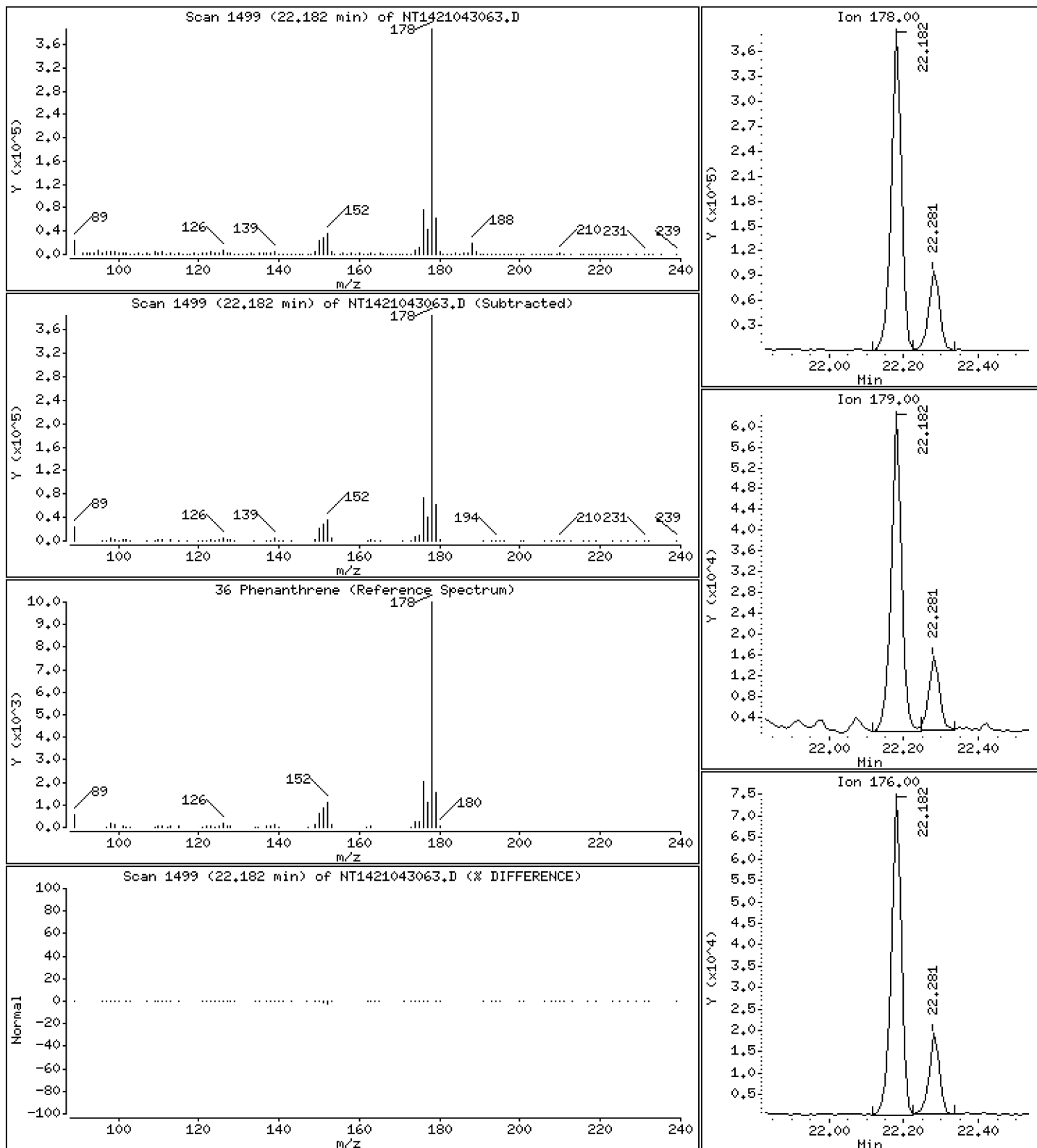
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

36 Phenanthrene

Concentration: 2,737 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

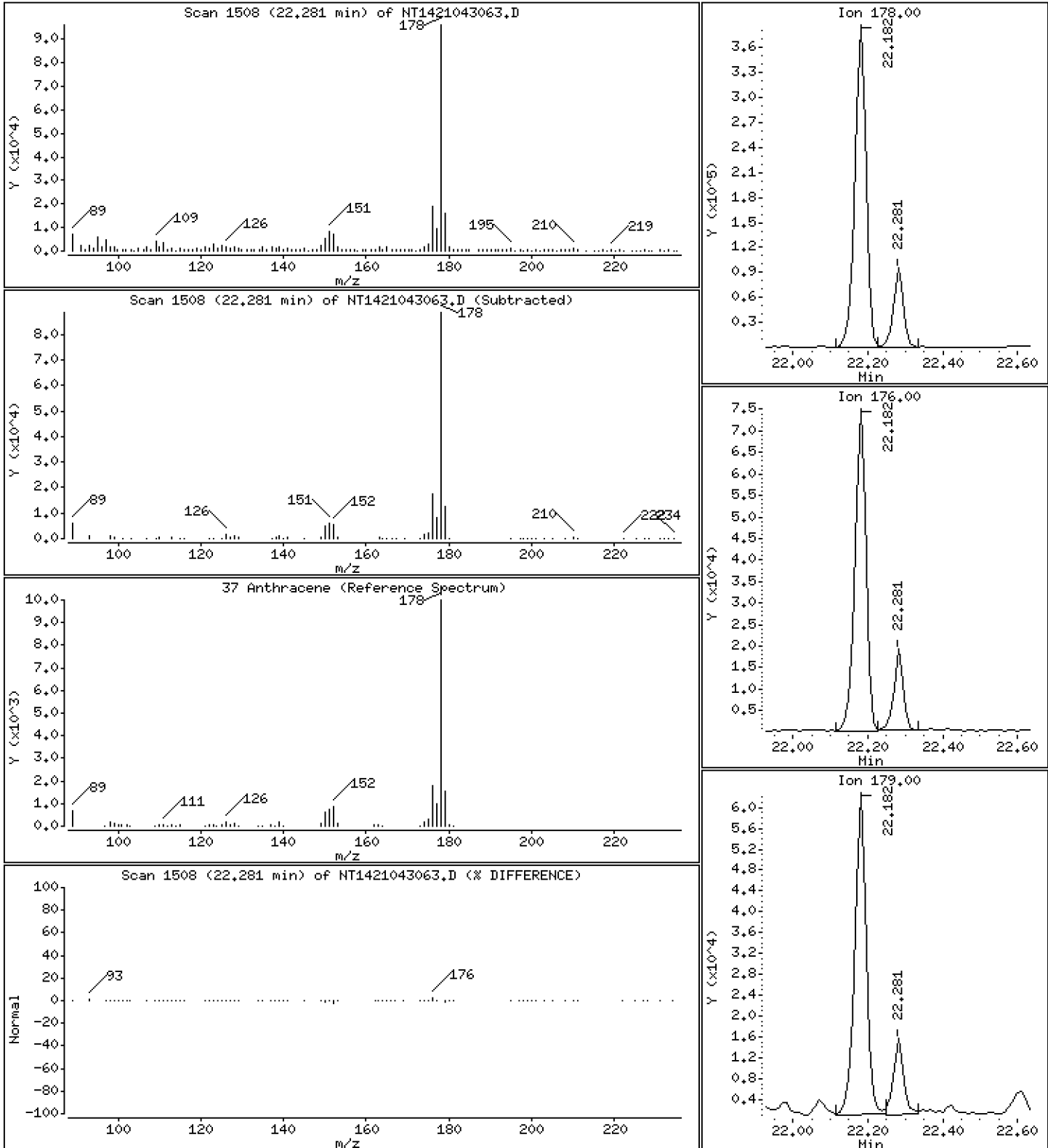
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

37 Anthracene

Concentration: 0,7150 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

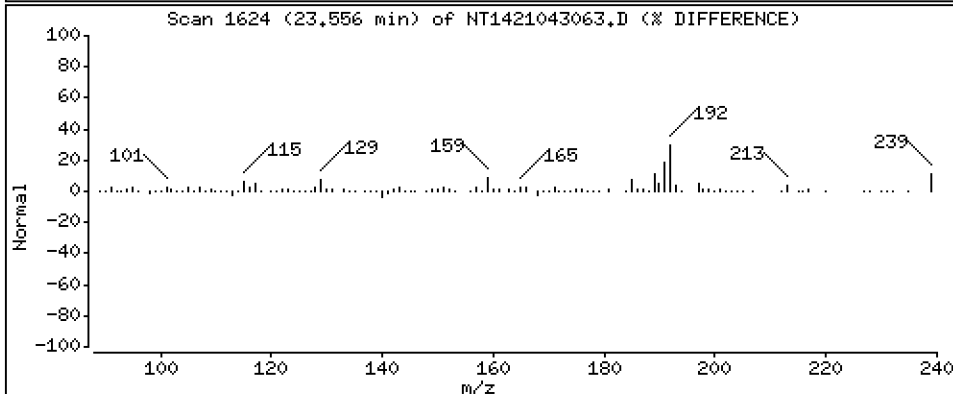
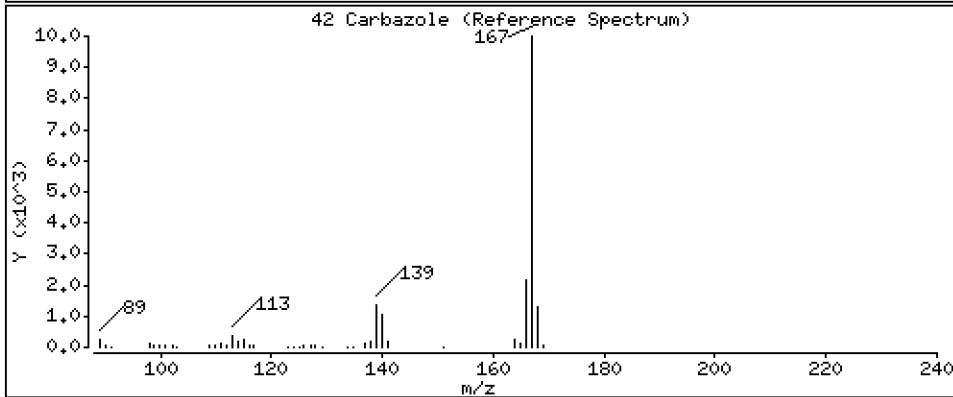
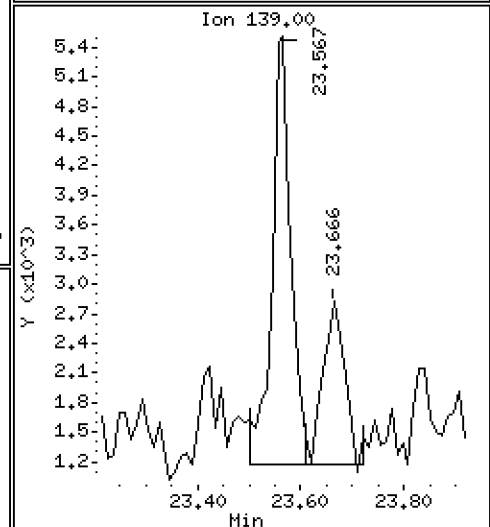
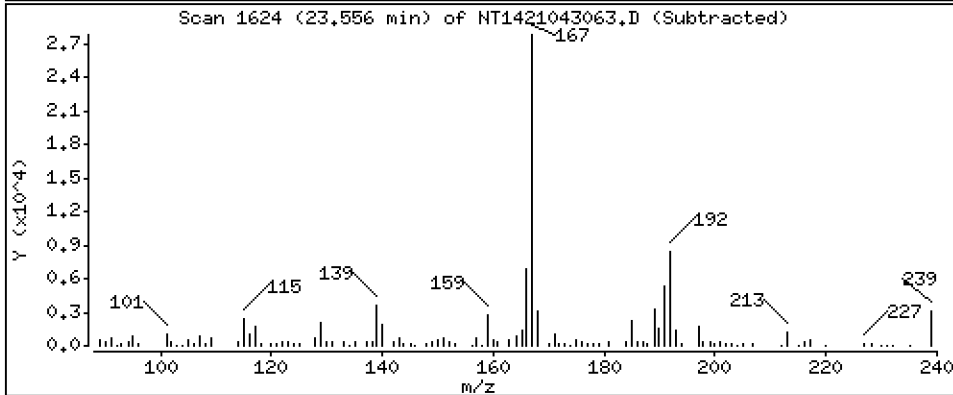
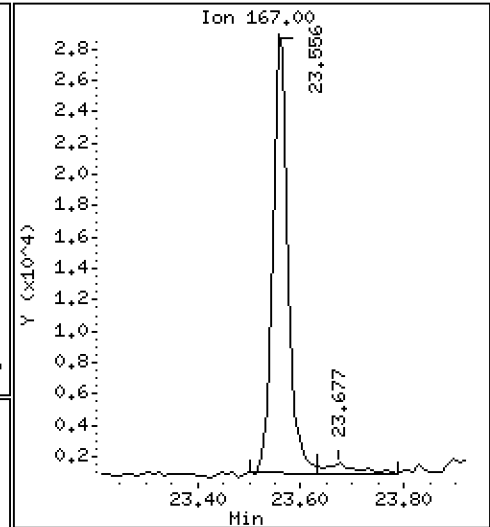
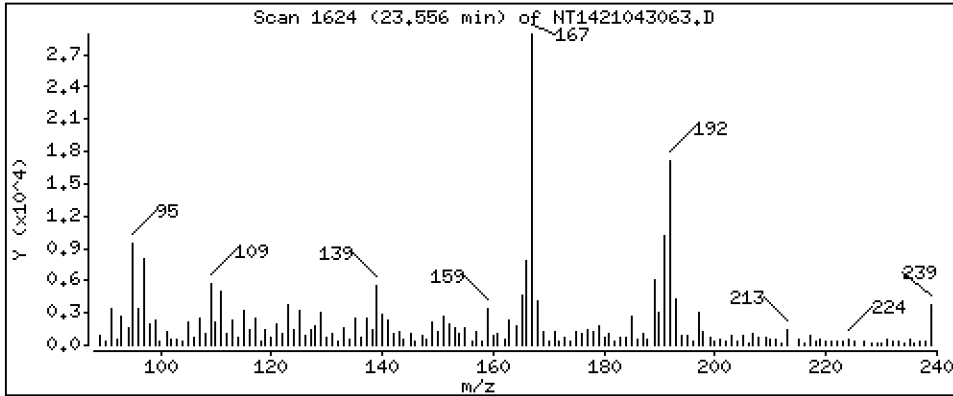
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

42 Carbazole

Concentration: 0,2870 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

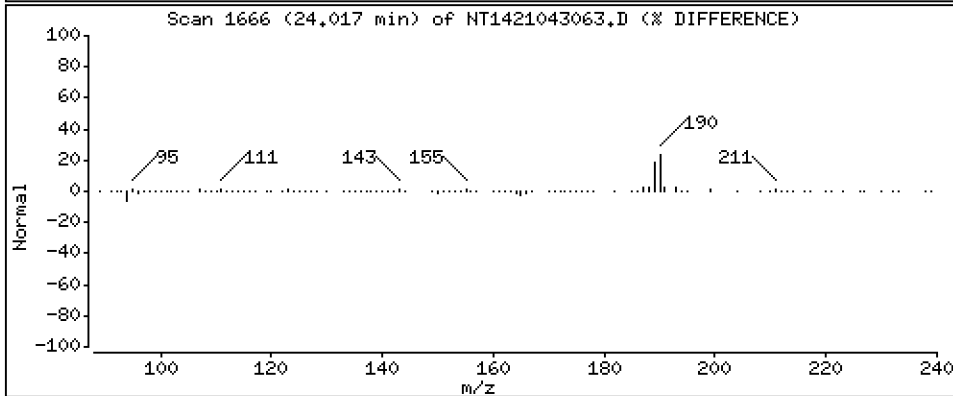
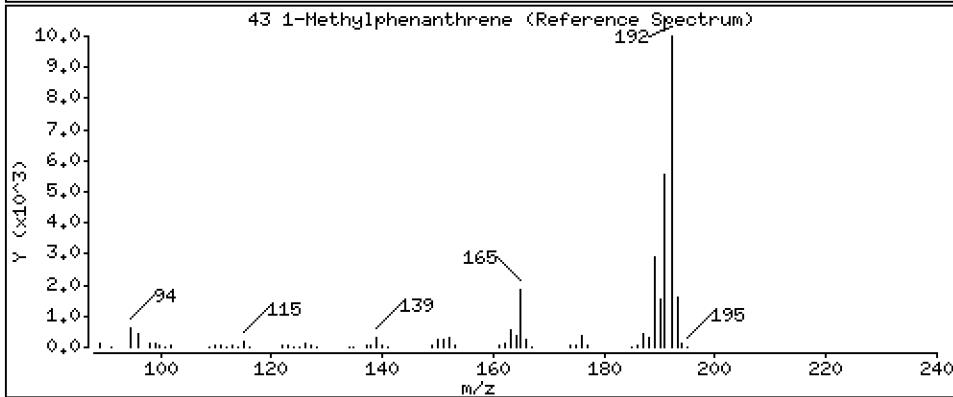
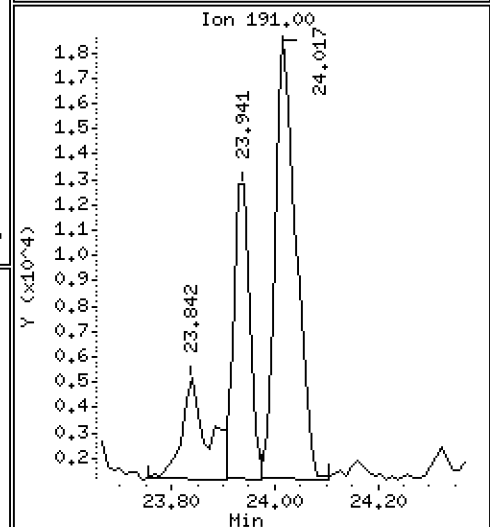
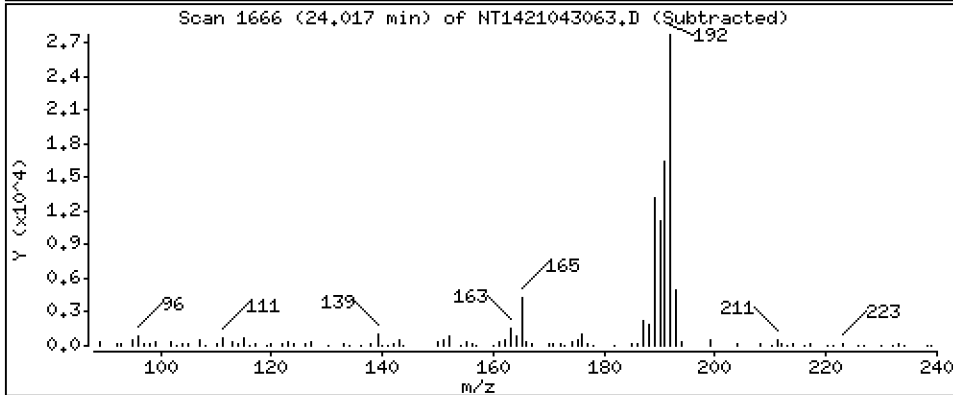
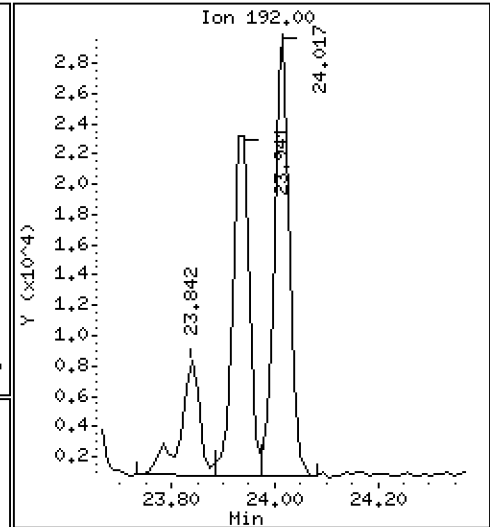
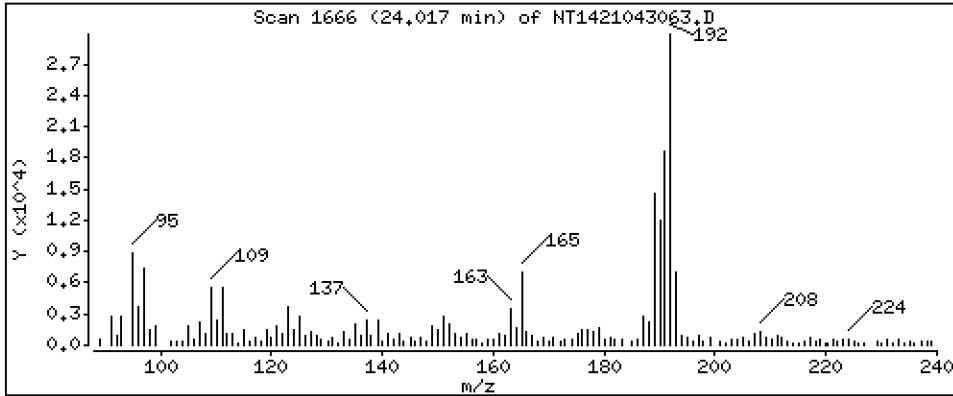
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

43 1-Methylphenanthrene

Concentration: 0.3719 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

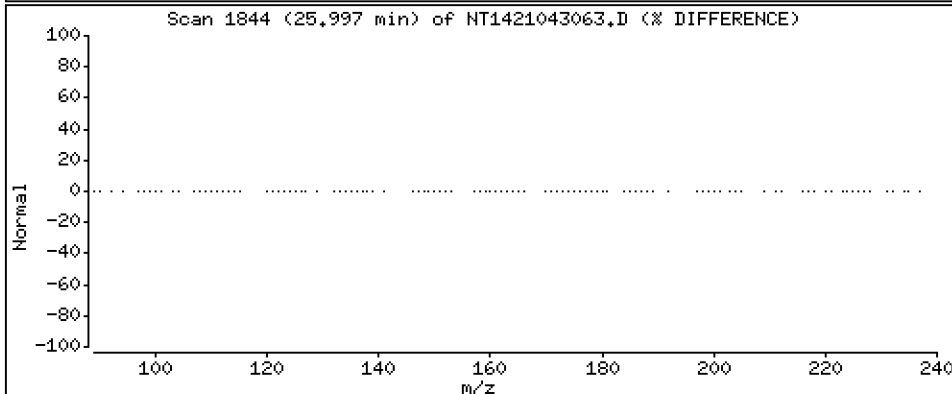
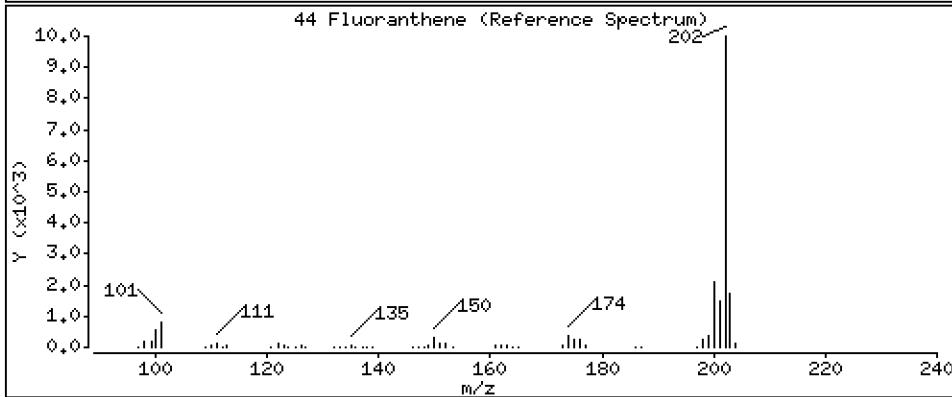
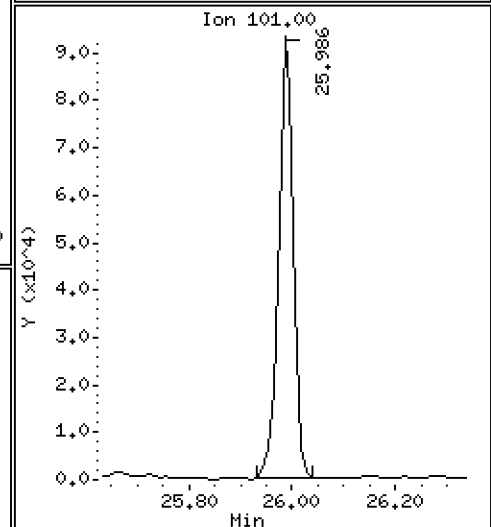
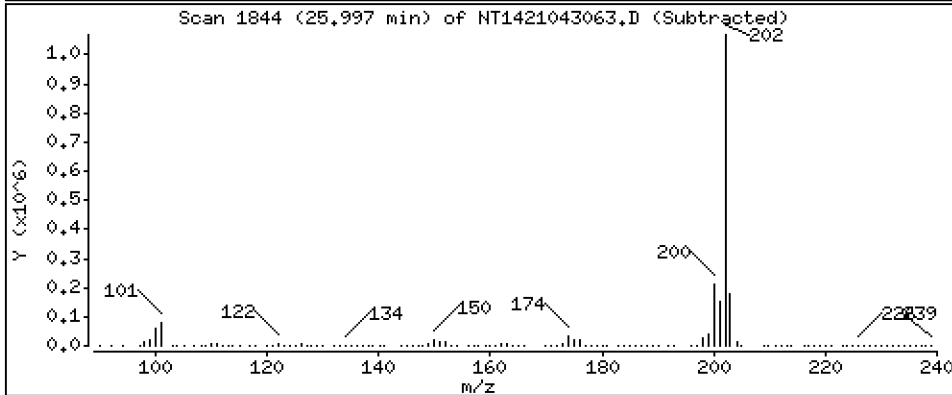
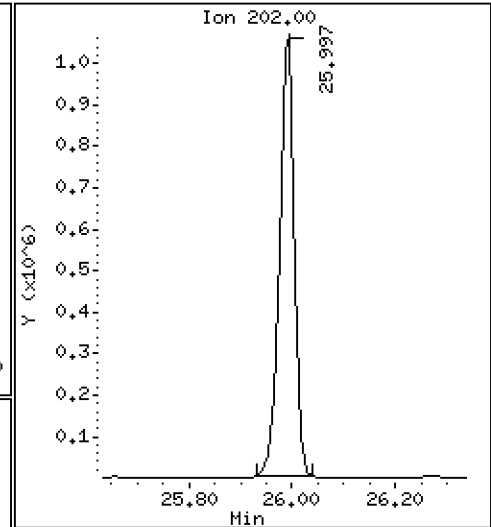
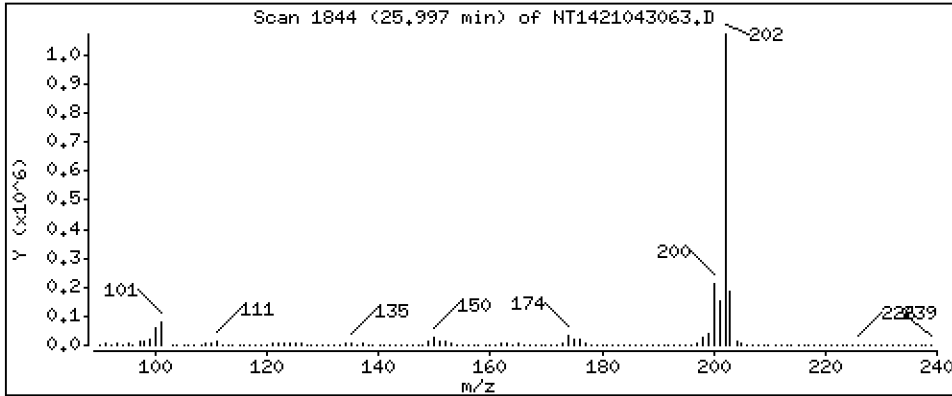
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

44 Fluoranthene

Concentration: 9,003 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

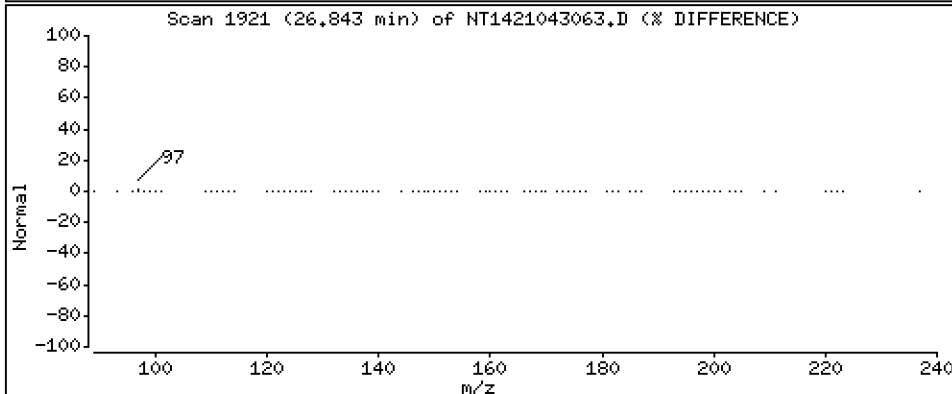
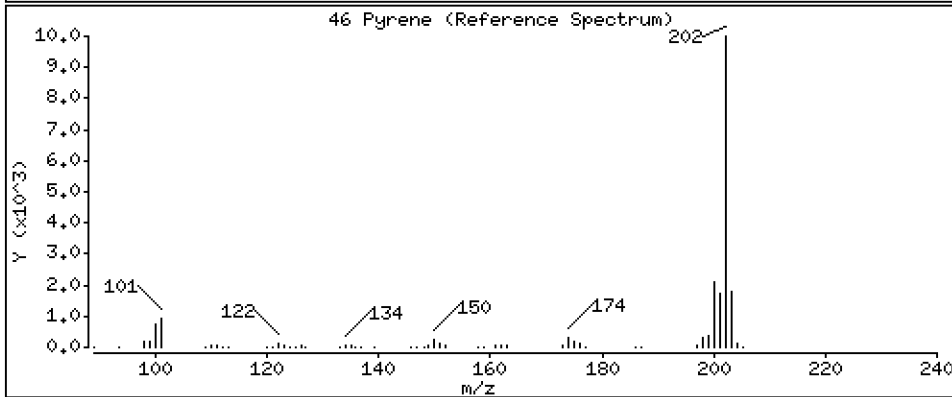
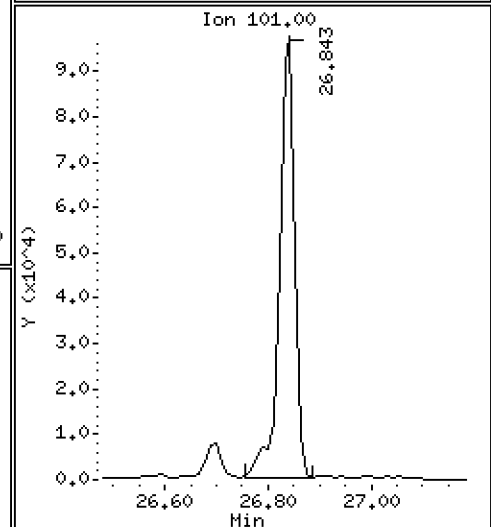
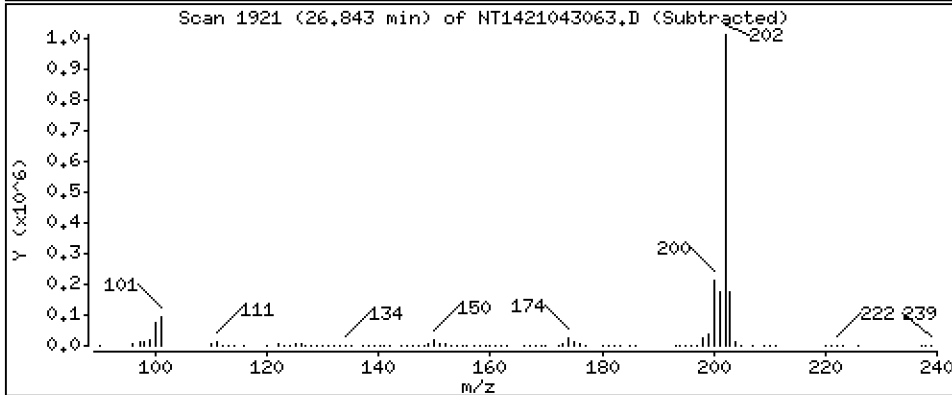
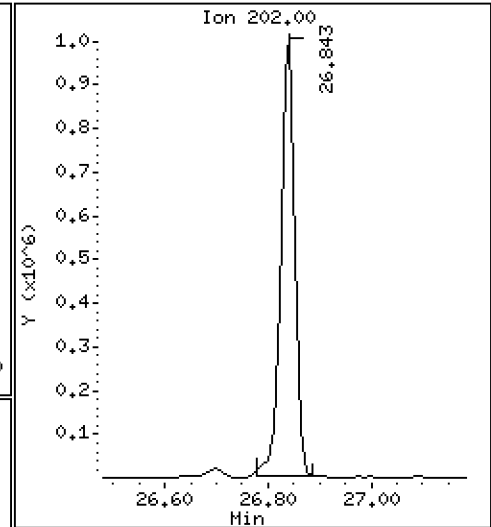
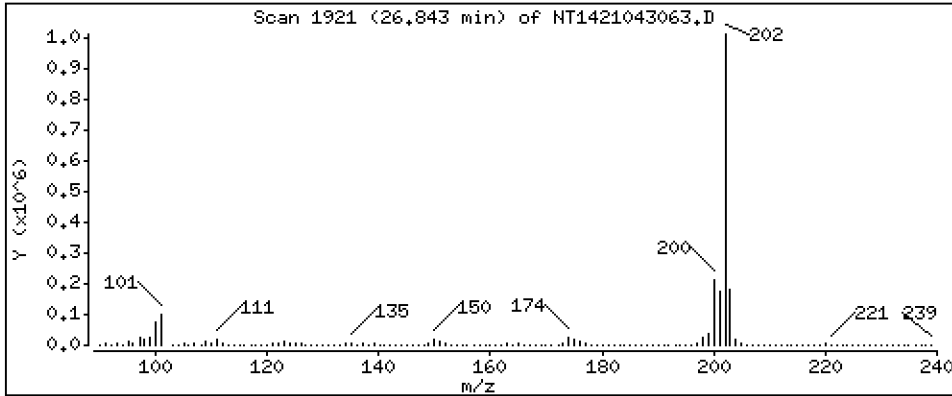
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

46 Pyrene

Concentration: 7,845 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

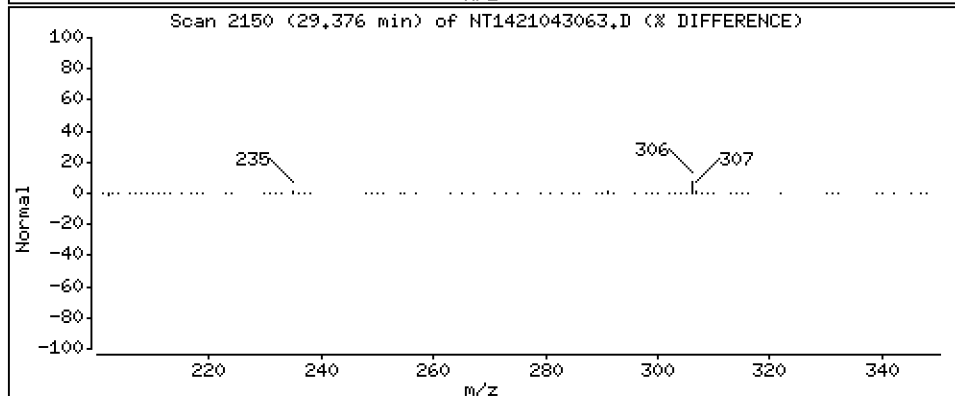
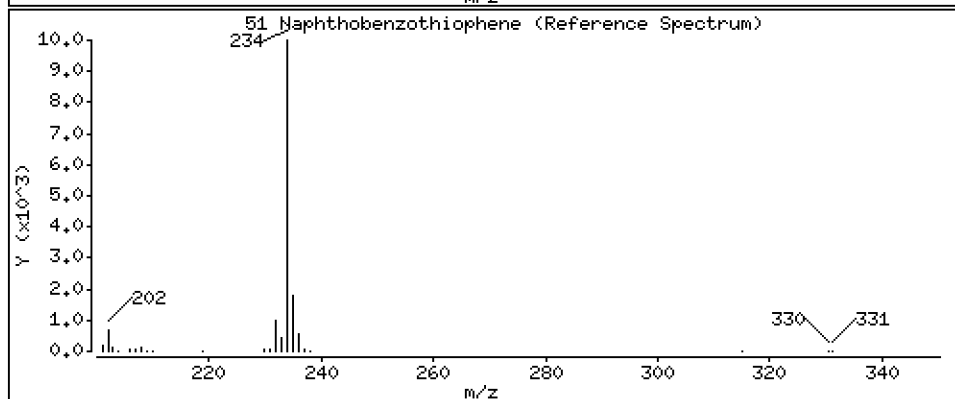
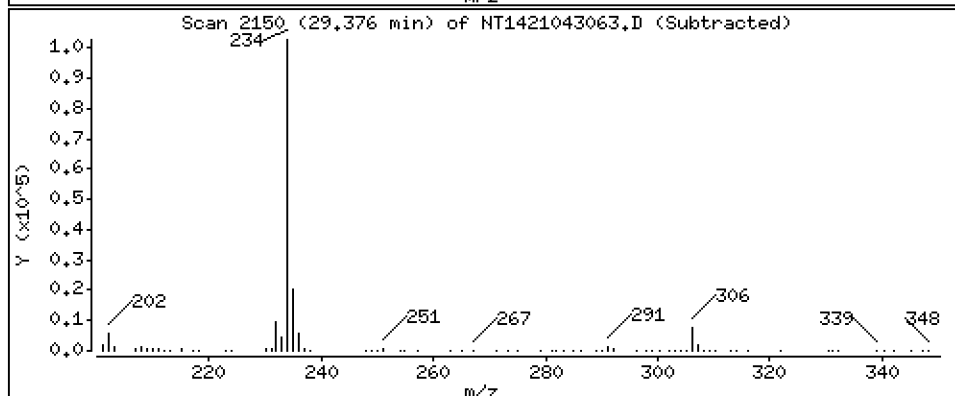
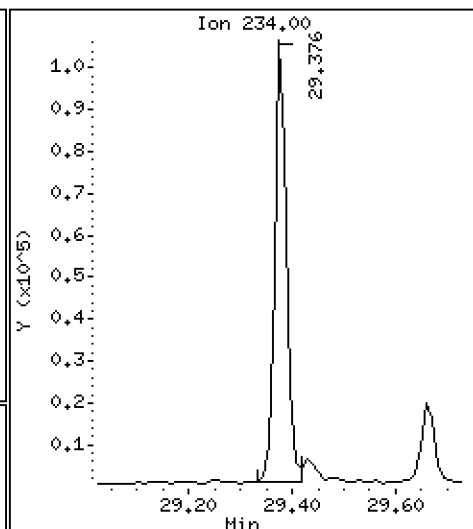
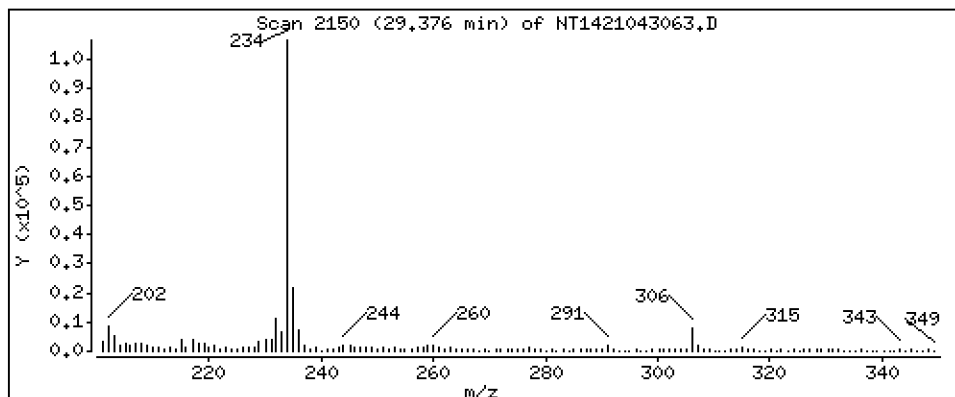
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

51 Naphthobenzothiophene

Concentration: 0,6982 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

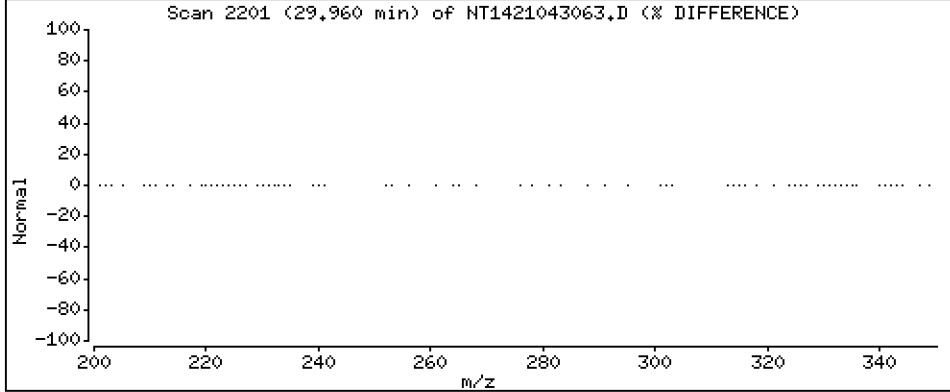
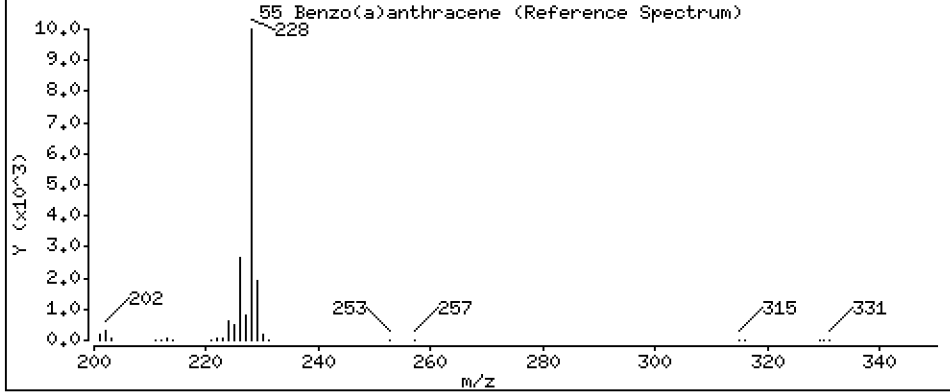
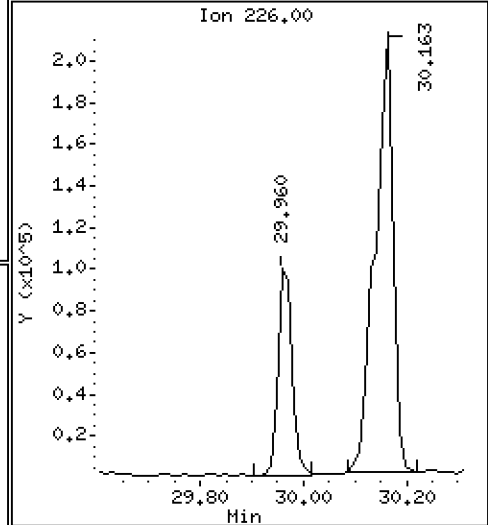
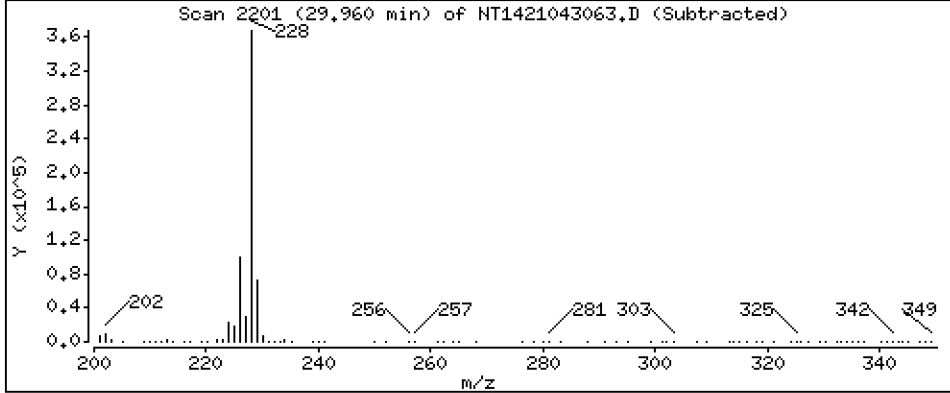
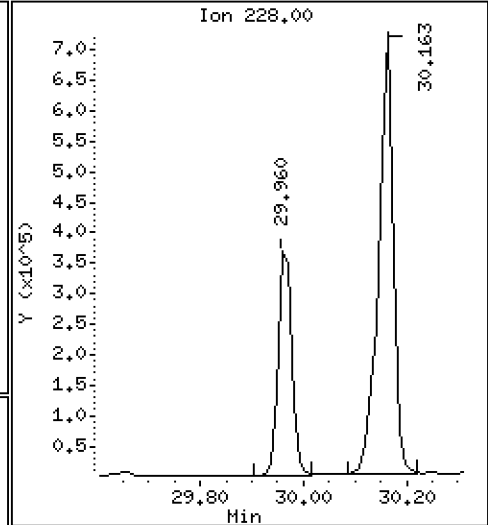
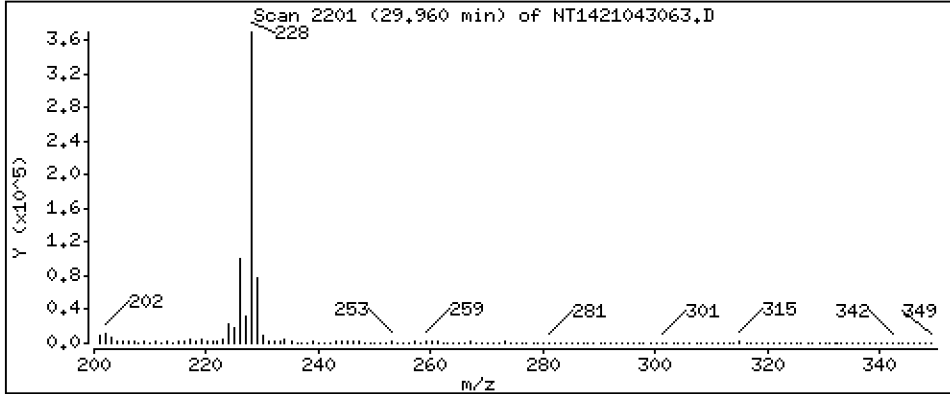
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

55 Benzo(a)anthracene

Concentration: 2,457 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

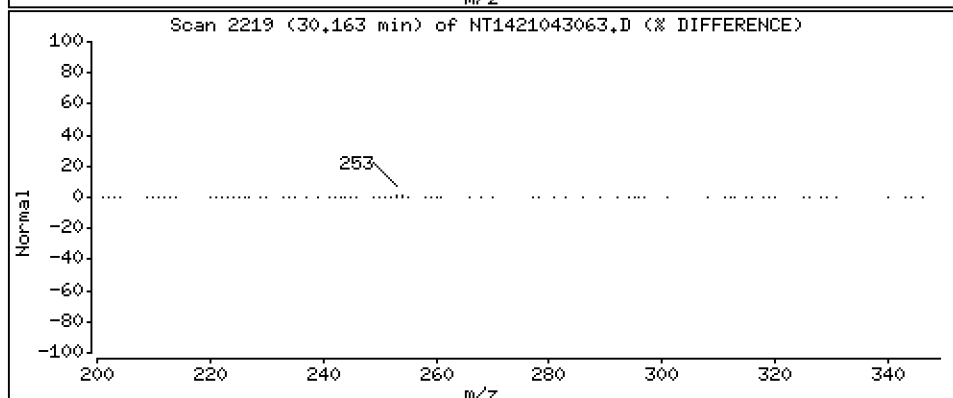
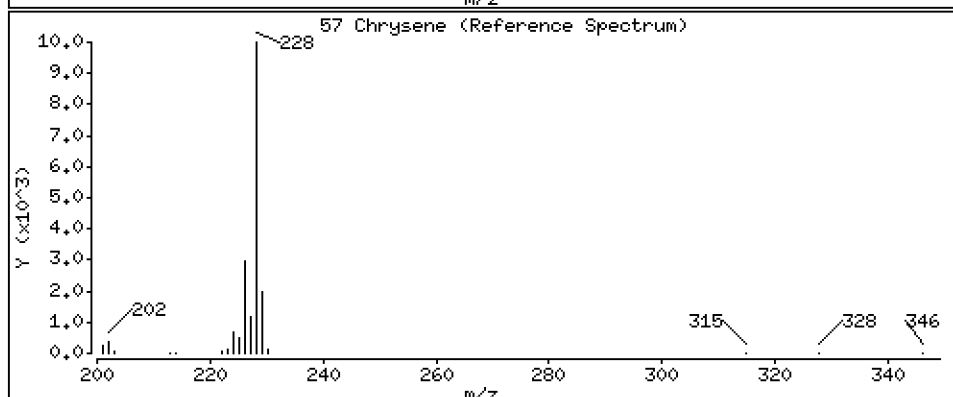
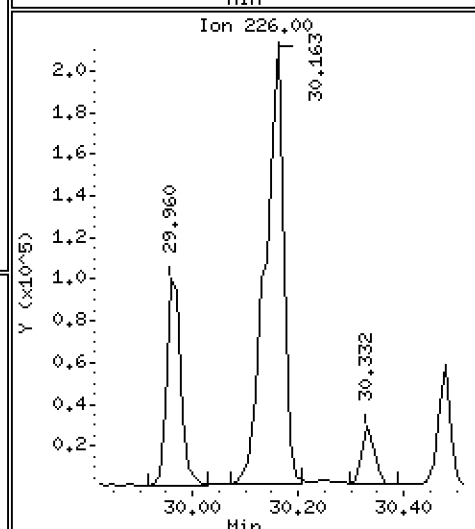
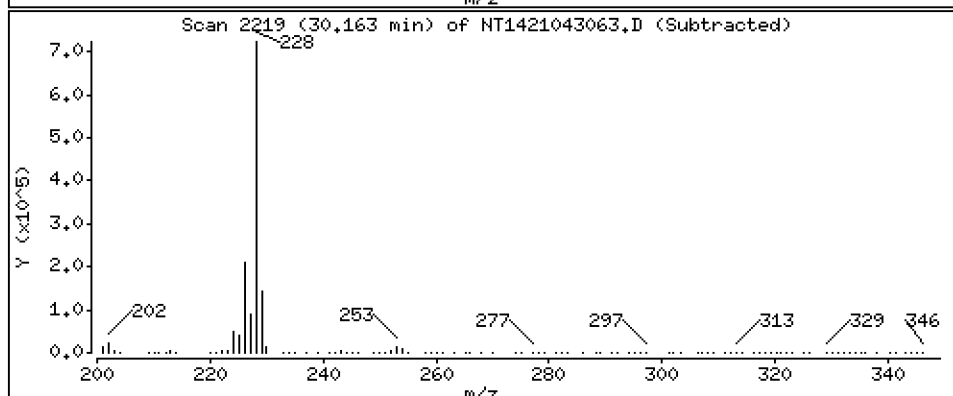
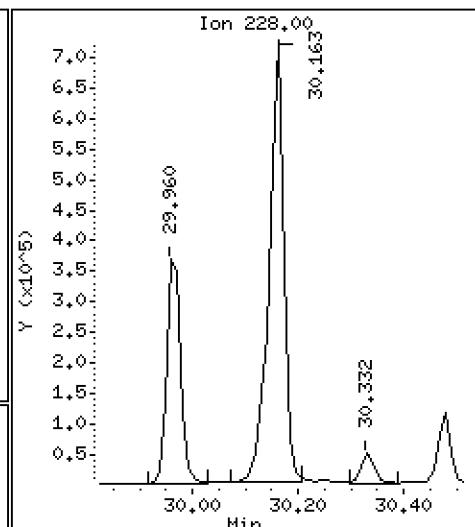
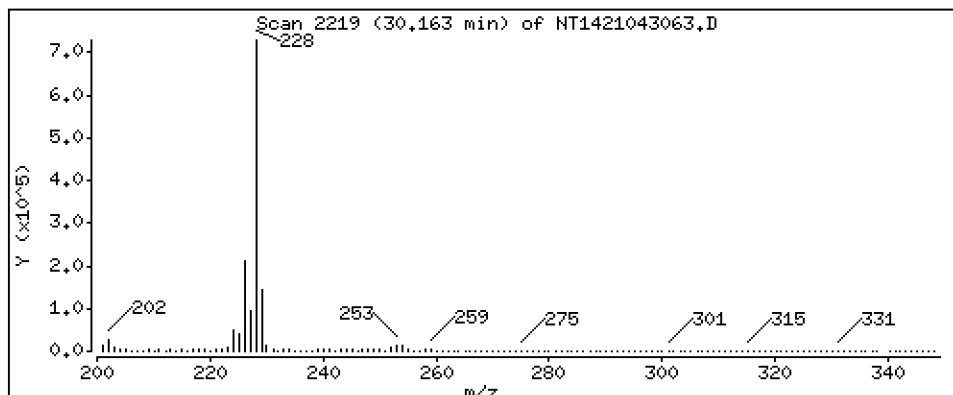
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

57 Chrysene

Concentration: 5,035 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

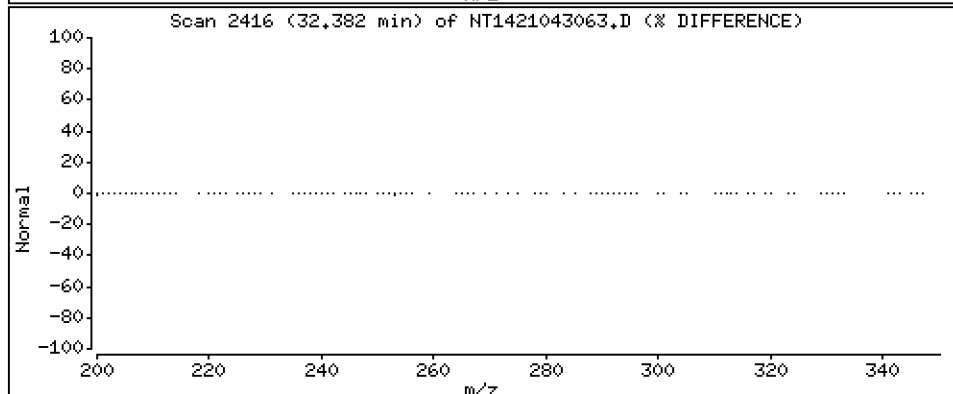
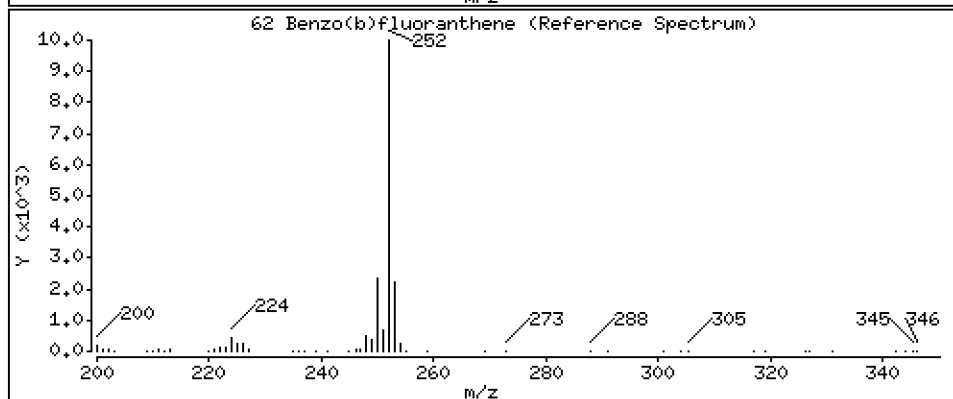
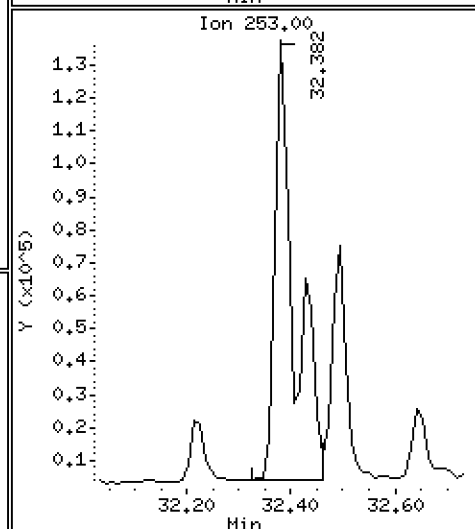
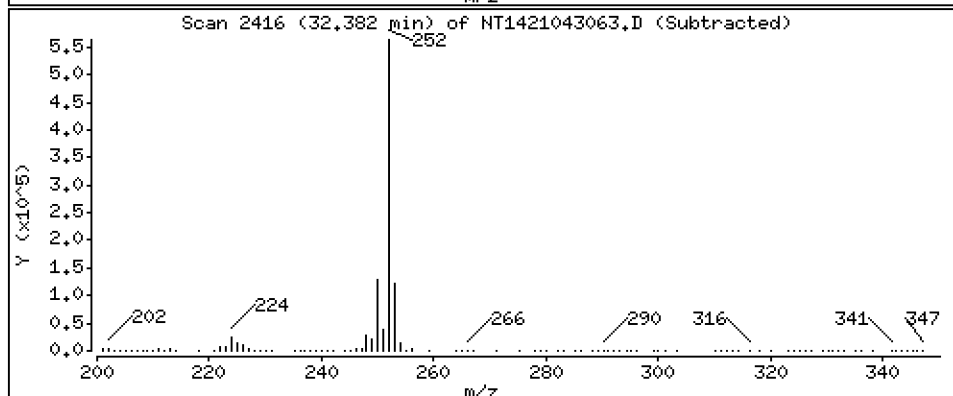
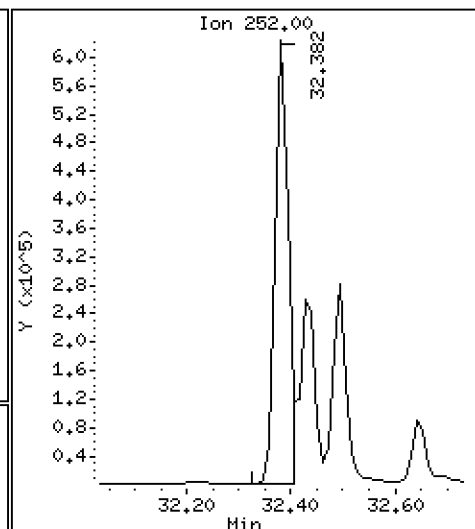
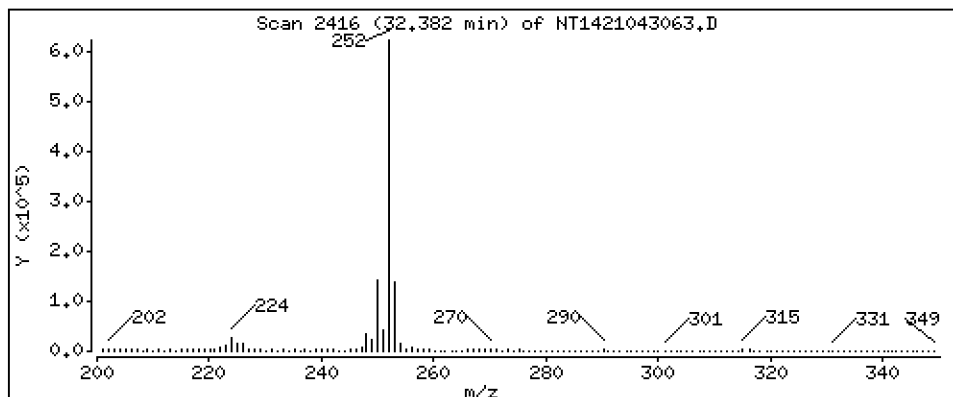
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

62 Benzo(b)fluoranthene

Concentration: 3,795 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

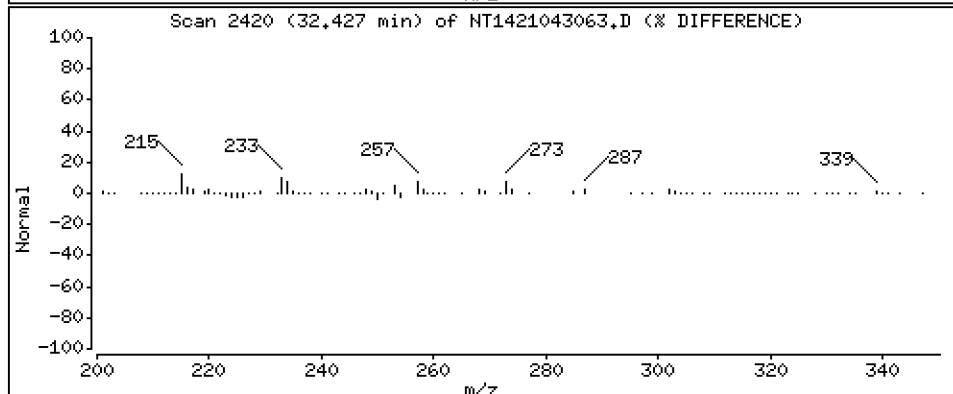
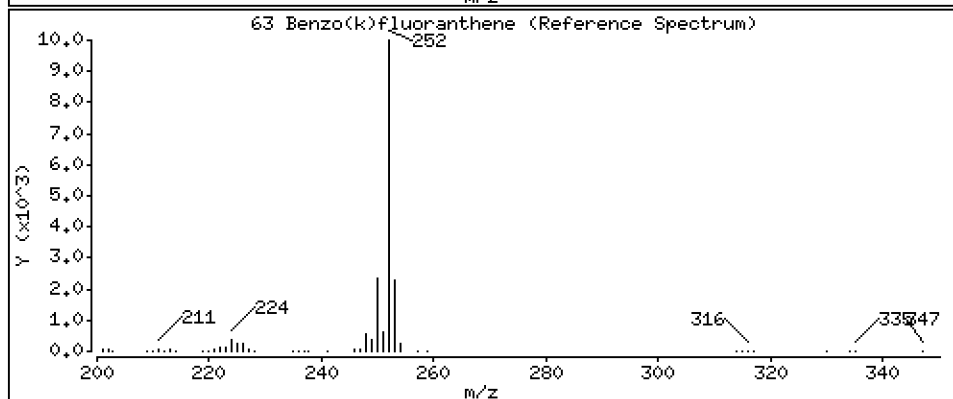
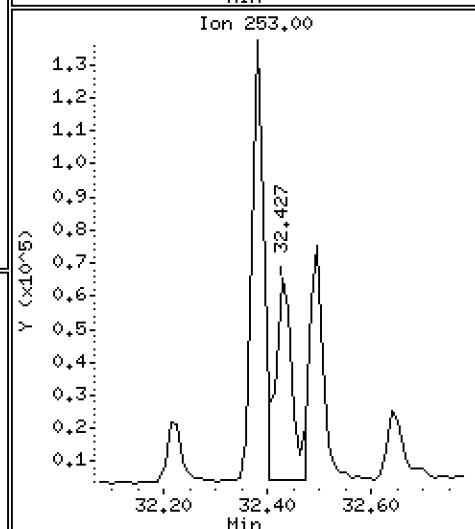
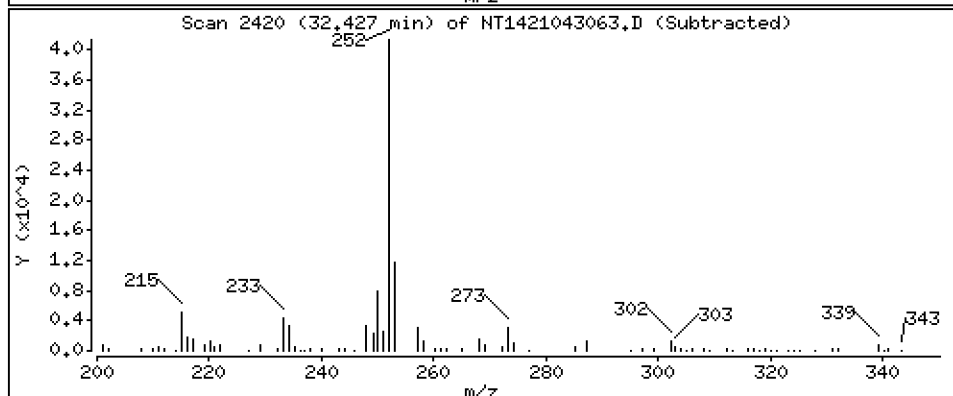
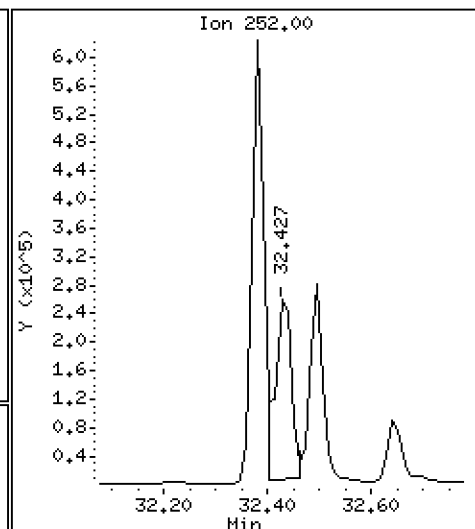
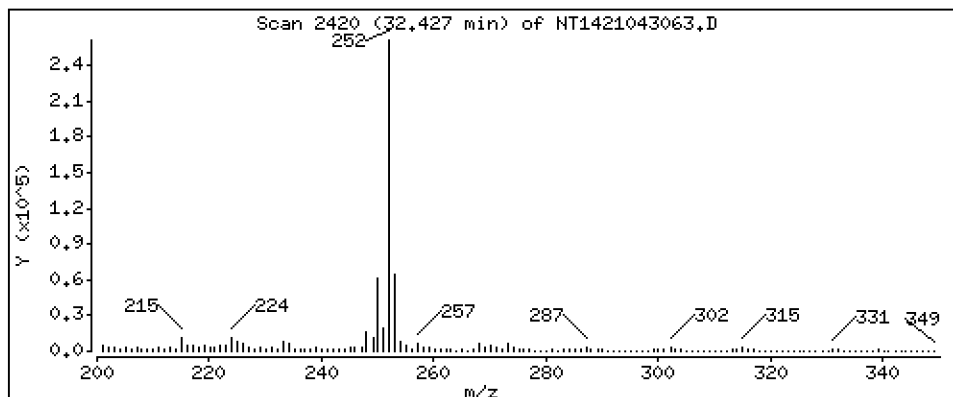
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

63 Benzo(k)fluoranthene

Concentration: 1,733 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

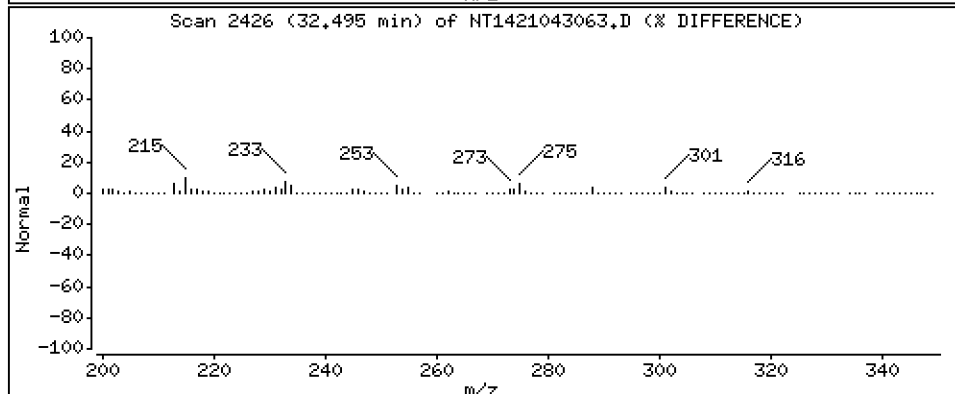
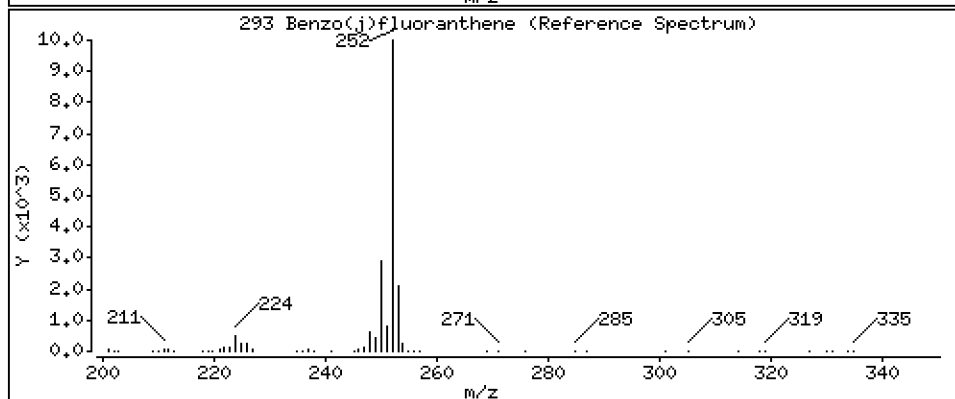
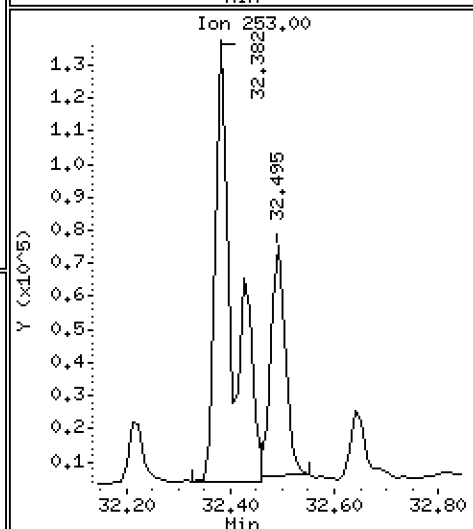
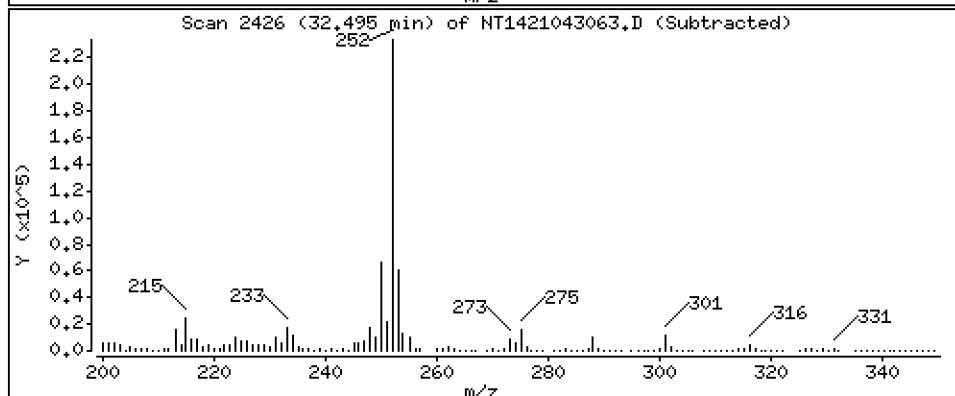
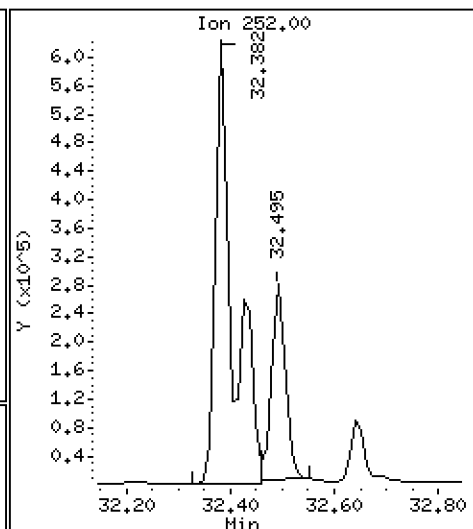
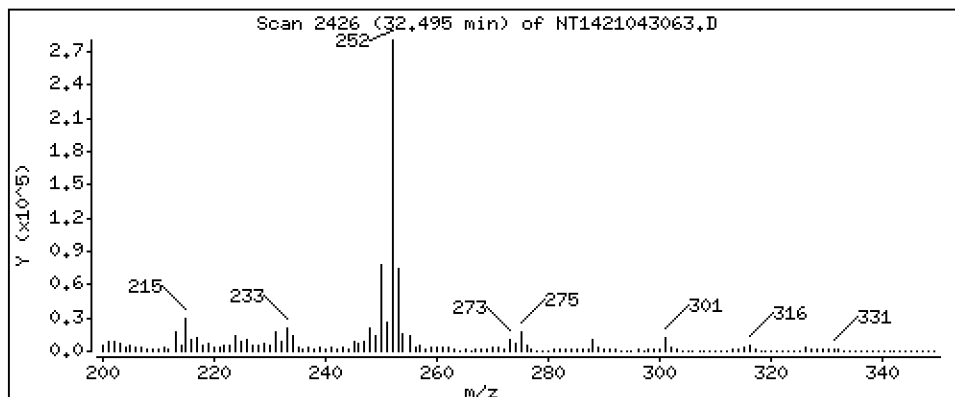
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

293 Benzo(j)fluoranthene

Concentration: 1,646 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

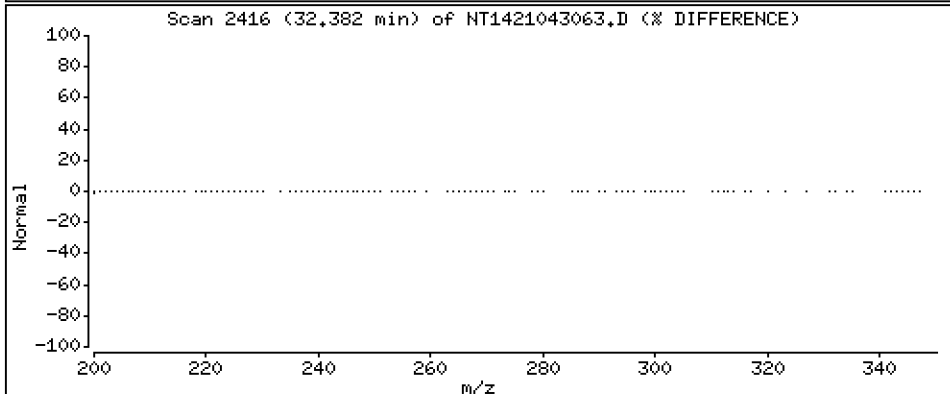
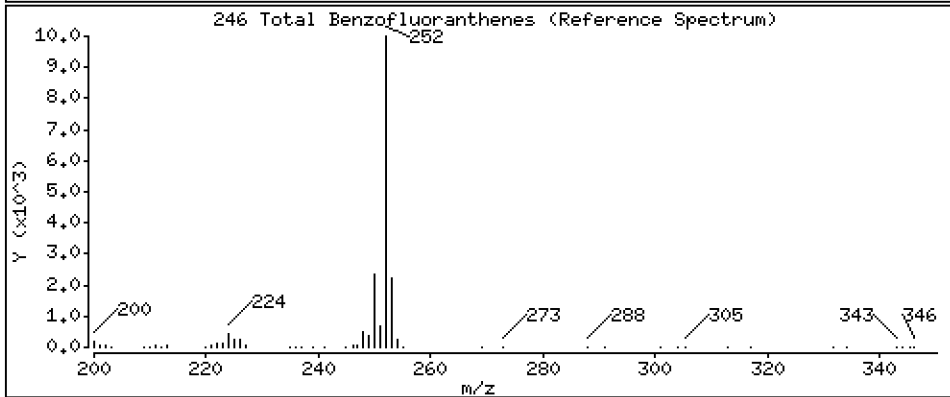
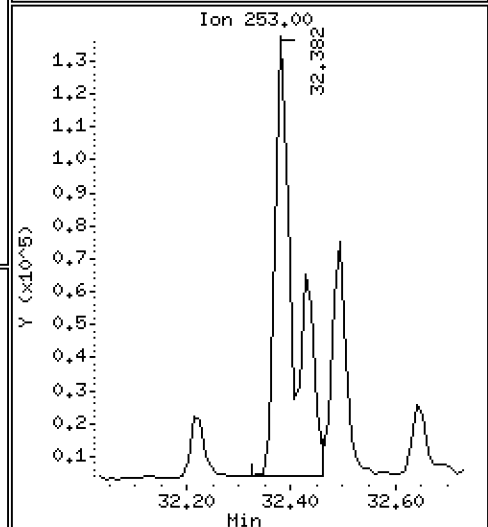
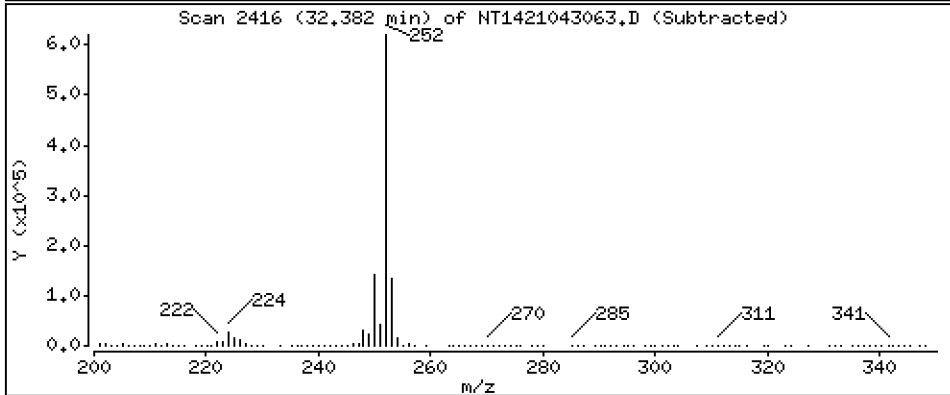
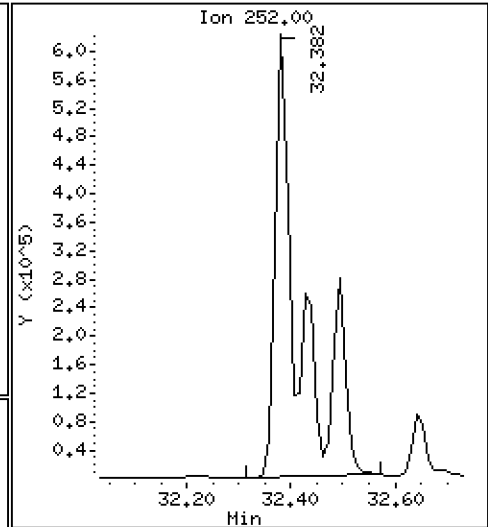
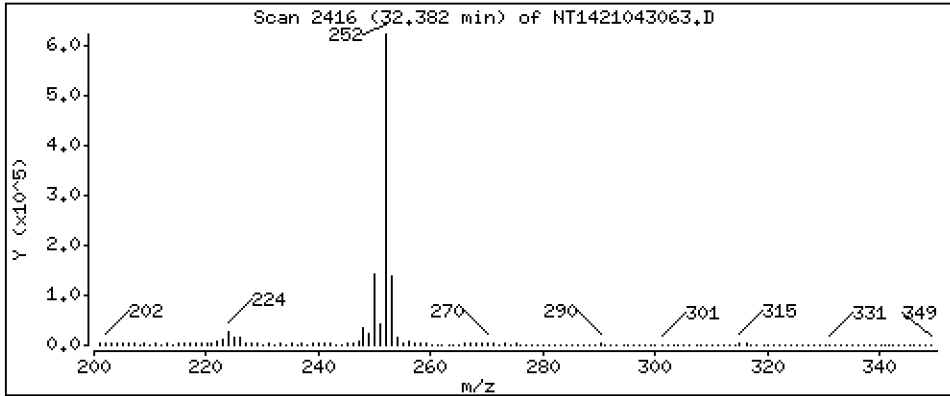
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

246 Total Benzofluoranthenes

Concentration: 6,907 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

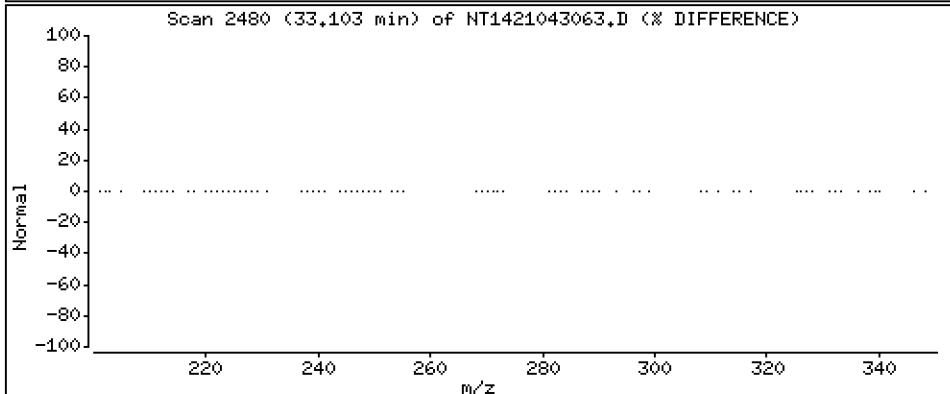
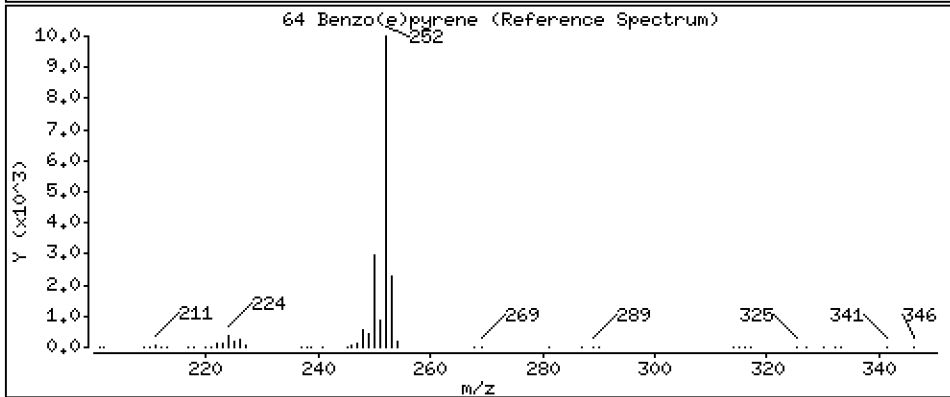
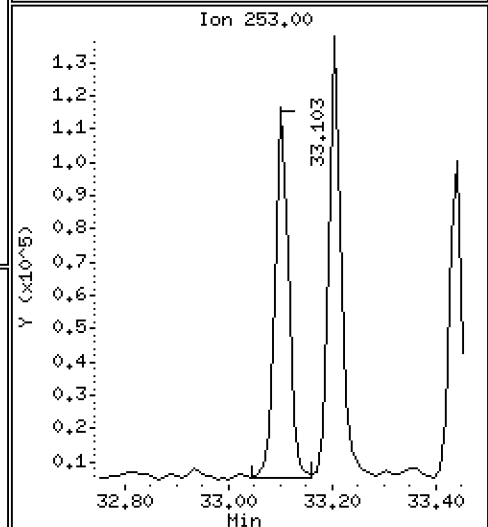
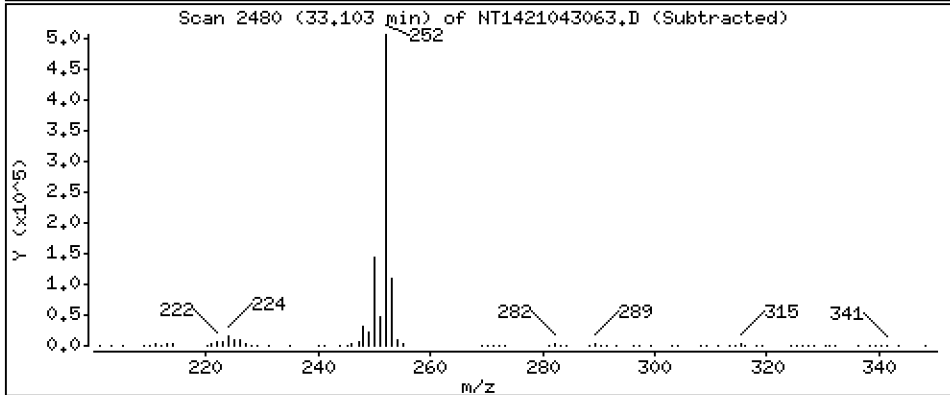
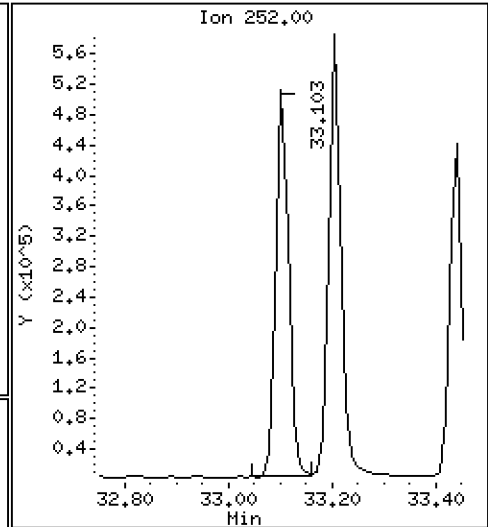
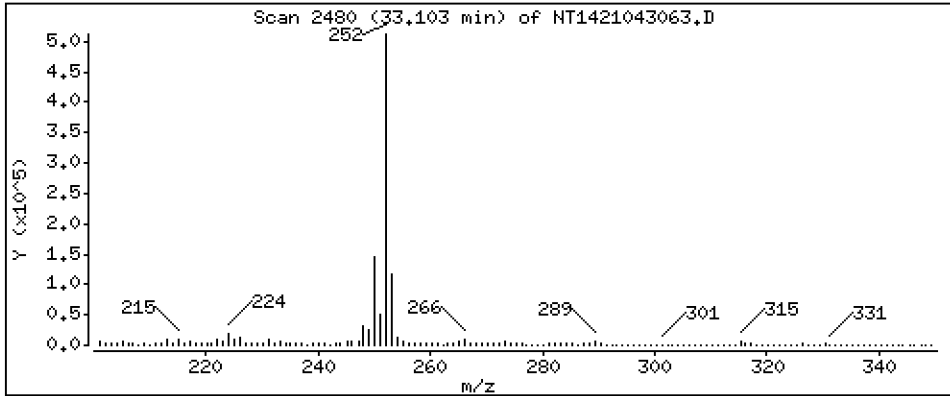
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

64 Benzo(e)pyrene

Concentration: 3,057 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

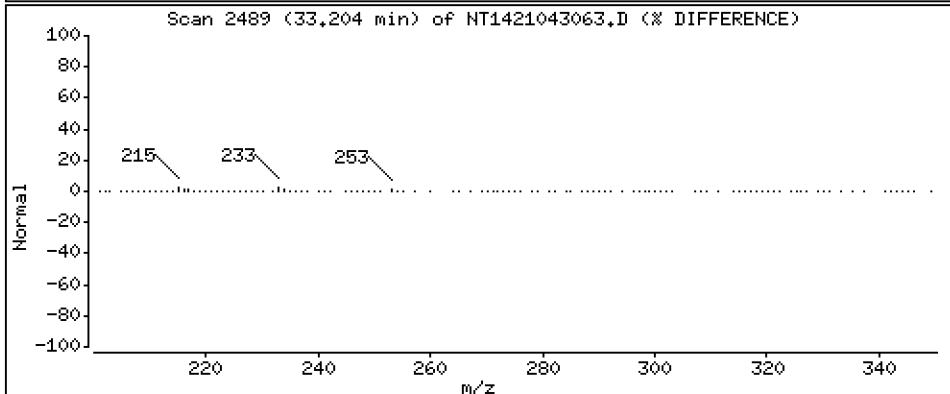
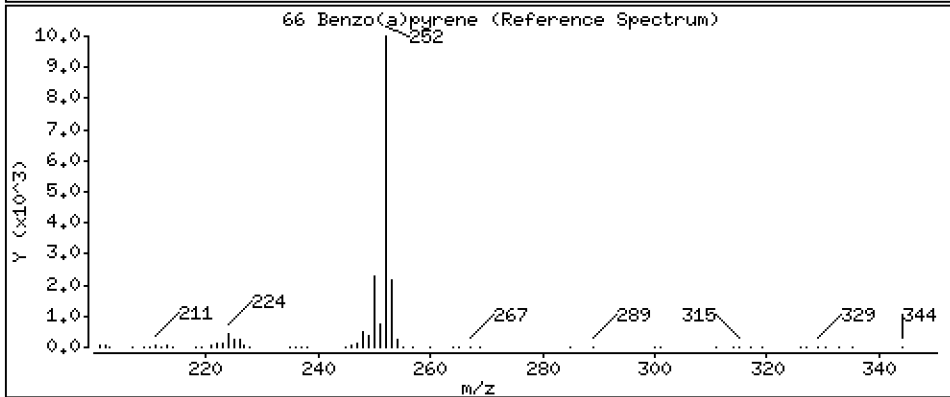
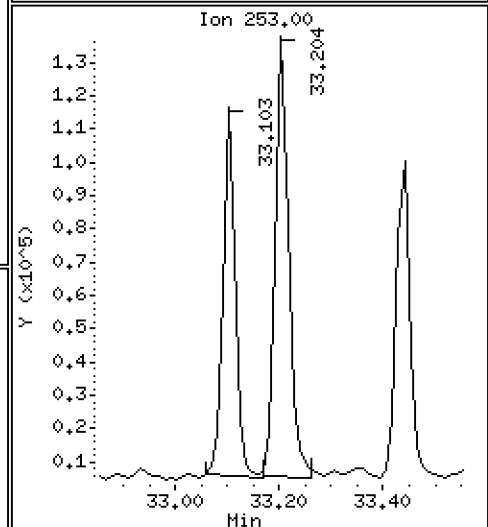
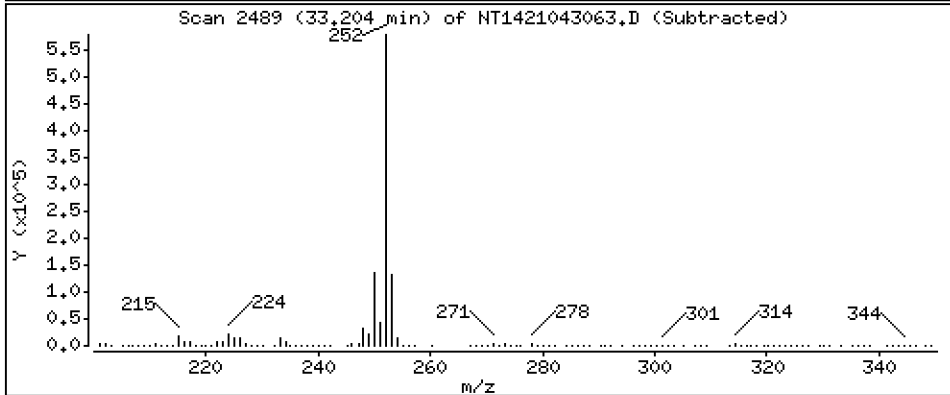
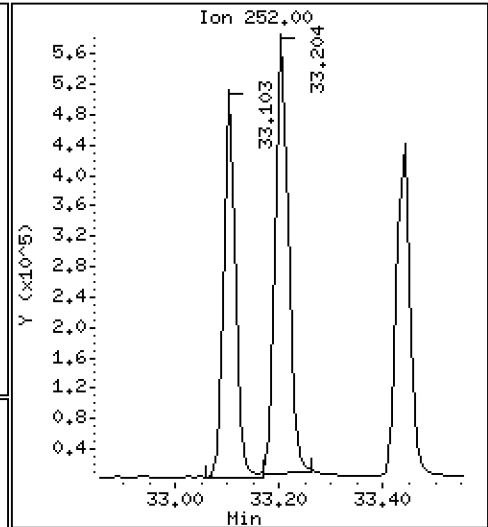
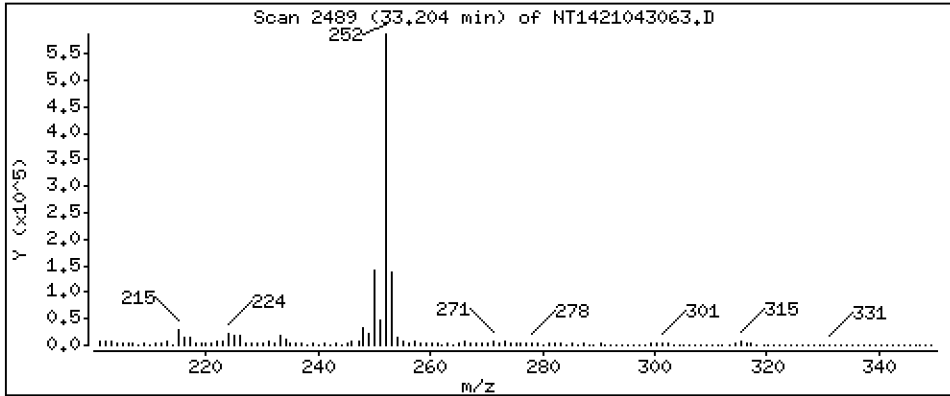
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

66 Benzo(a)pyrene

Concentration: 3,433 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

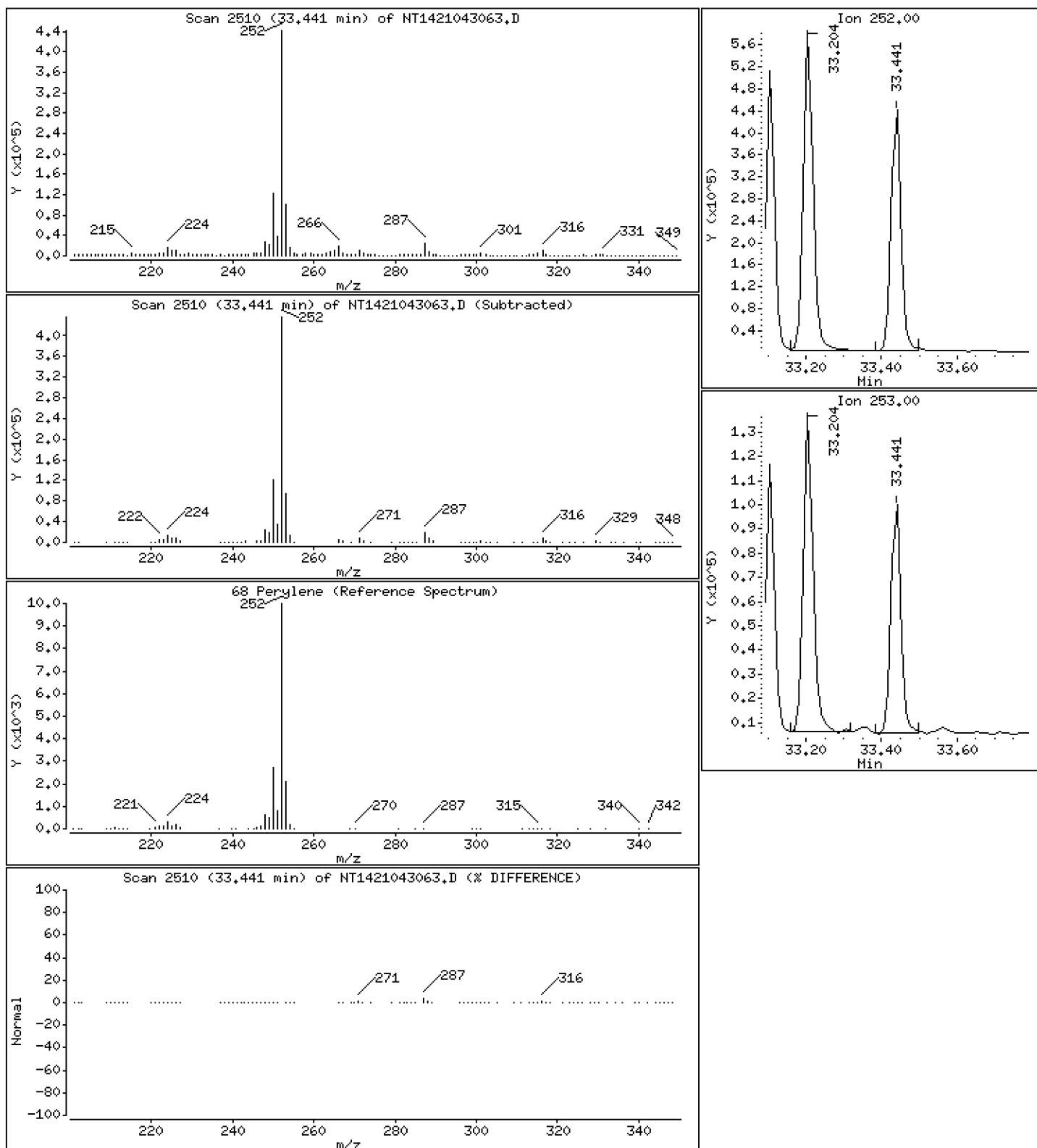
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

68 Perylene

Concentration: 2,906 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

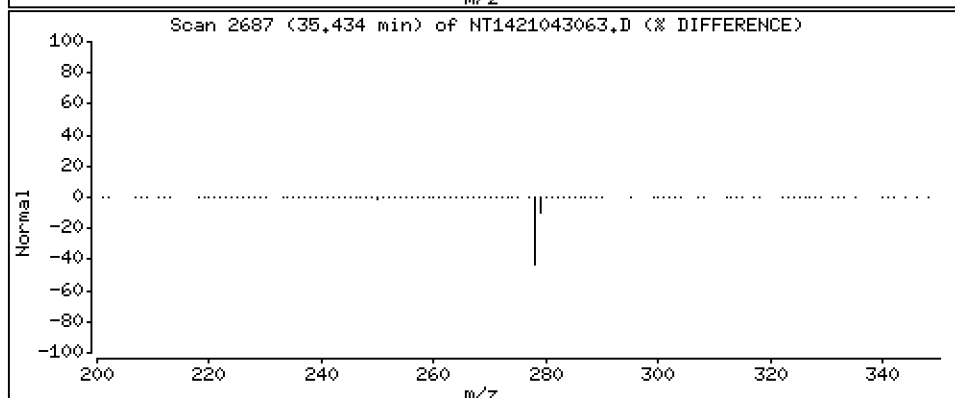
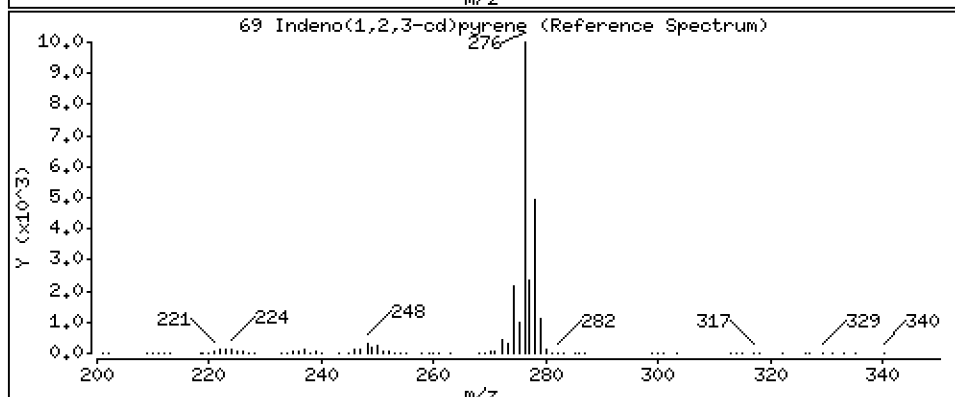
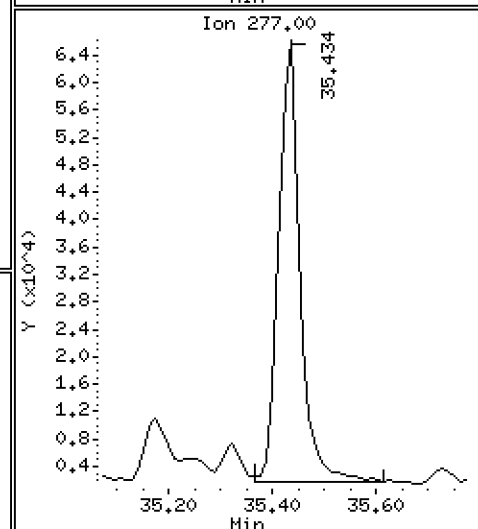
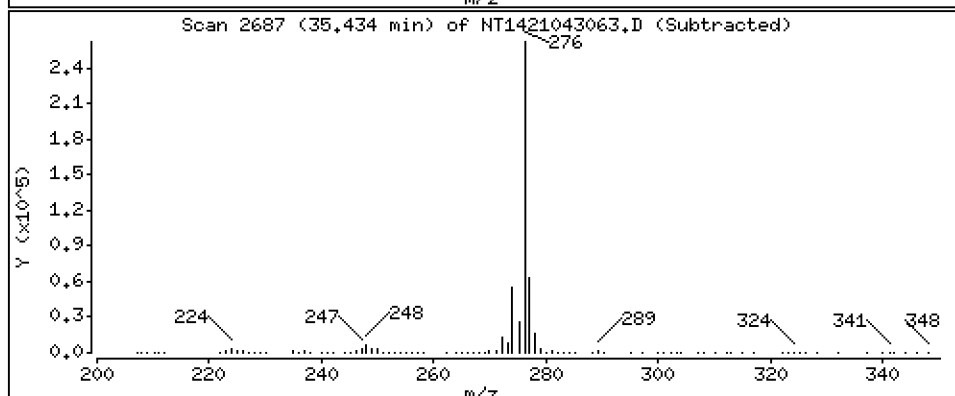
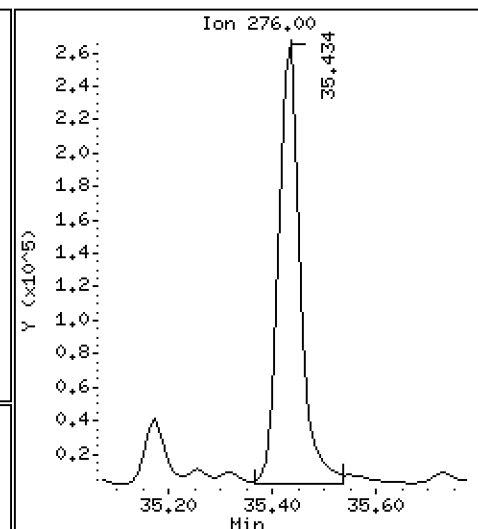
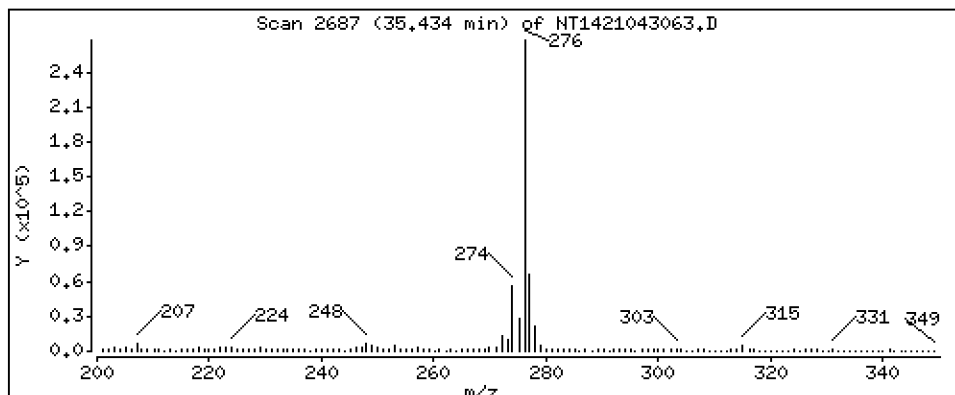
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

69 Indeno(1,2,3-cd)pyrene

Concentration: 2,619 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

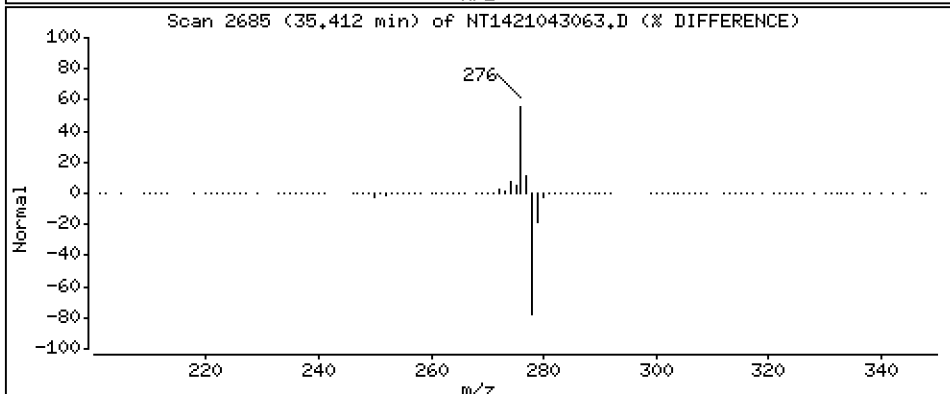
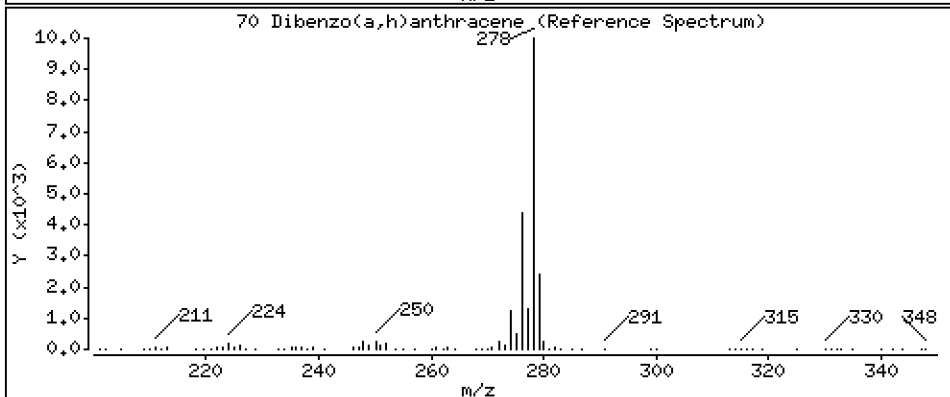
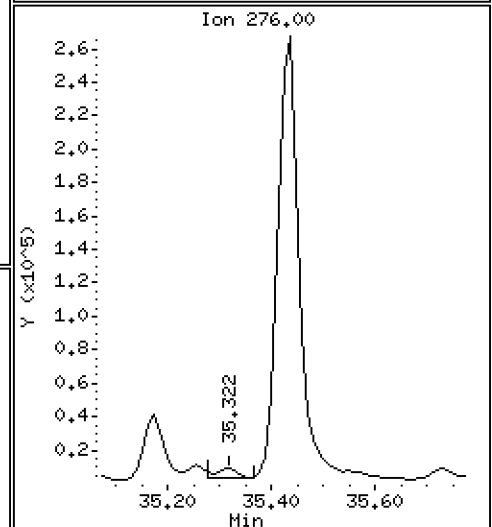
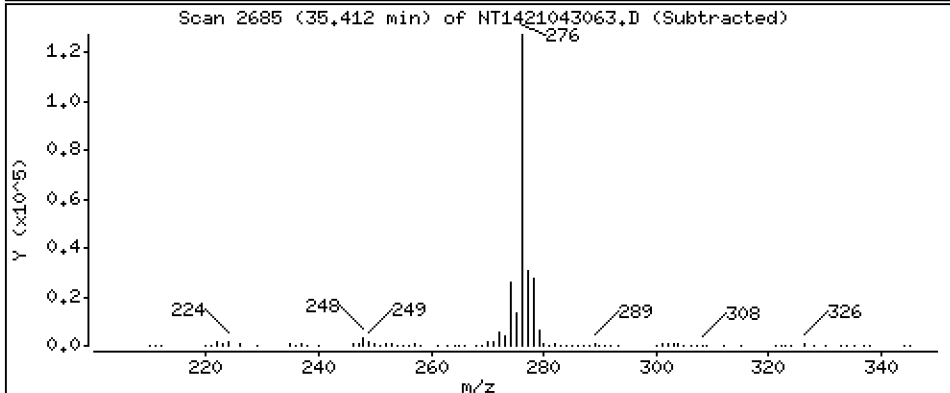
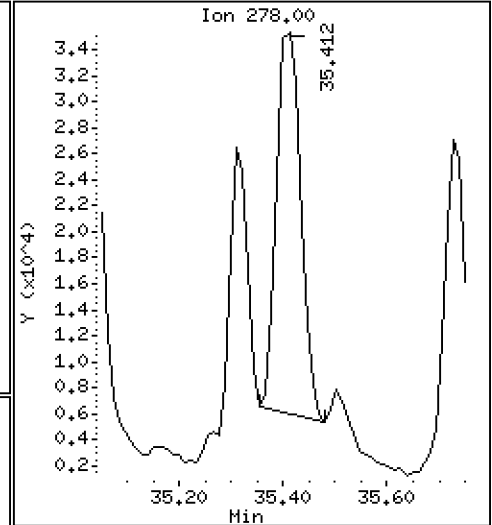
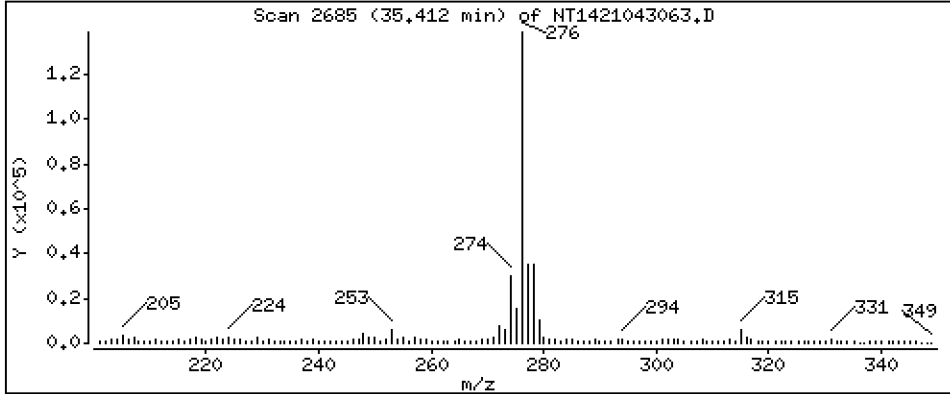
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

70 Dibenzo(a,h)anthracene

Concentration: 0,3919 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

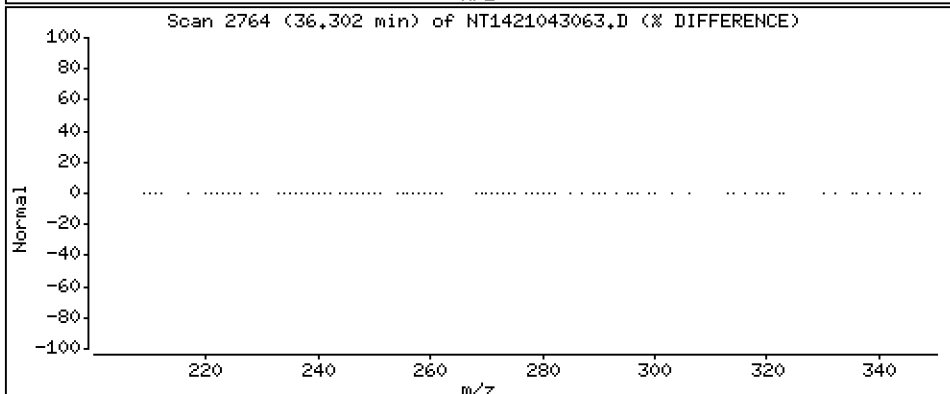
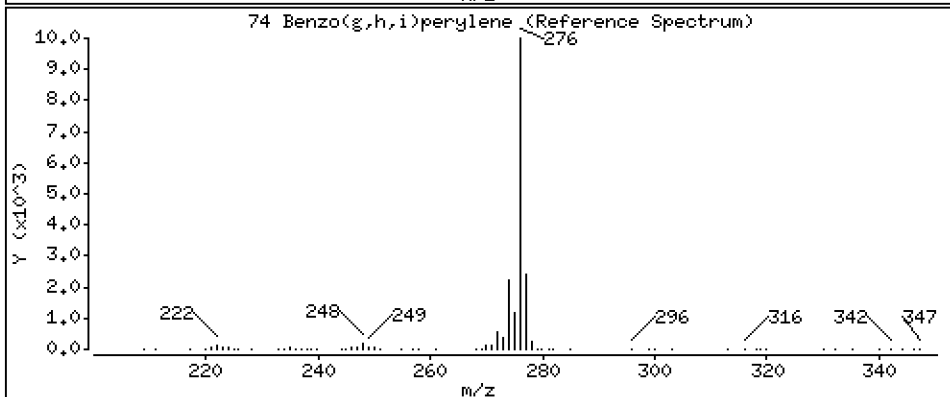
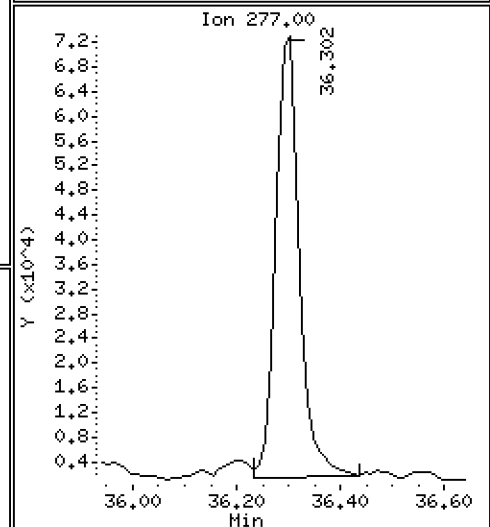
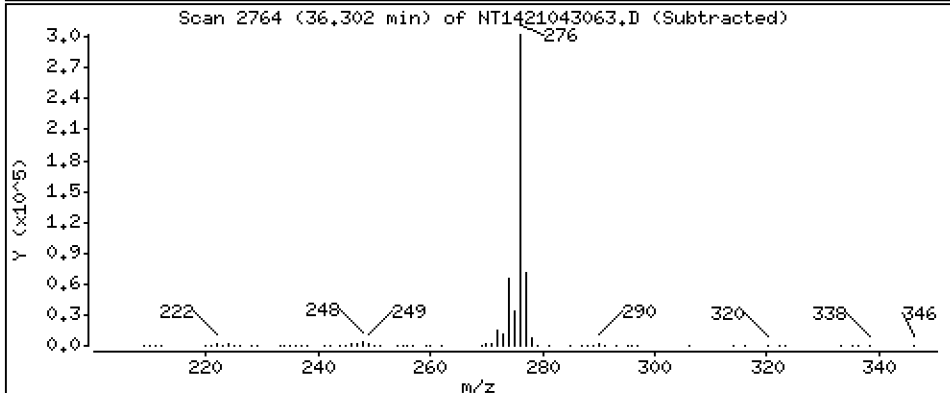
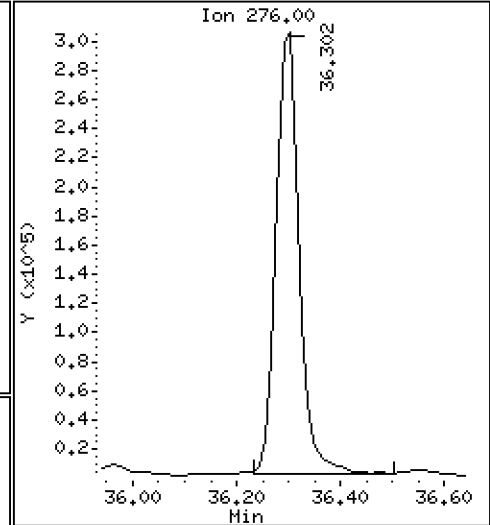
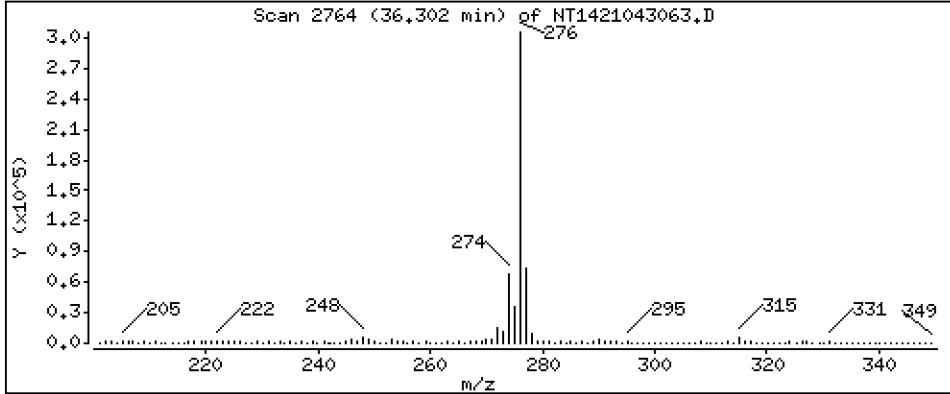
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

74 Benzo(g,h,i)perylene

Concentration: 3,811 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430D.b\NT1421043063.D
 Lab Smp Id: 21D0180-01
 Inj Date : 02-MAY-2021 09:13
 Operator : VTS
 Smp Info : 21D0180-01
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
 Meth Date : 04-May-2021 08:25 van
 Cal Date : 30-APR-2021 13:32
 Als bottle: 44
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-202011

Inst ID: nt14.i

Quant Type: ISTD
 Cal File: NT1421043009.D

Compound Sublist: TARGETS.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	====		====	=====	=====	=====	=====	=====
1 trans-Decalin	138		Compound Not Detected.					
2 cis-Decalin	138		Compound Not Detected.					
\$ 6 Naphthalene-d8	136		11.766	11.776	(0.627)	619031	2.04393	2.044 (R)
7 Naphthalene	128		11.826	11.836	(0.630)	154069	0.50013	0.5001
12 Benzo(b)thiophene	134		12.284	12.295	(0.654)	11113	0.04534	0.04534
16 2-Methylnaphthalene	141		13.669	13.680	(0.728)	33341	0.20281	0.2028
17 1-methylnaphthalene	141		14.120	14.120	(0.752)	19720	0.12660	0.1266
18 Biphenyl	154		15.307	15.318	(0.815)	22969	0.09763	0.09763
19 2,6-Dimethylnaphthalene	156		15.383	15.394	(0.820)	15102	0.09328	0.09328 (M)
20 Acenaphthylene	152		16.955	16.955	(0.903)	66541	0.26118	0.2612
\$ 21 Acenaphthene-d10	164		17.241	17.241	(0.918)	335141	2.26626	2.266 (R)
22 Acenaphthene	153		17.351	17.362	(0.924)	86143	0.52610	0.5261
23 Dibenzofuran	168		17.735	17.735	(0.945)	45885	0.18494	0.1849
24 1,6,7-Trimethylnaphthalene	170		17.955	17.955	(0.956)	11303	0.07955	0.07955
* 25 Fluorene-d10	176		18.772	18.772	(1.000)	524796	2.00000	
26 Fluorene	166		18.874	18.874	(1.005)	77499	0.42980	0.4298
30 Dibenzothiophene	184		21.785	21.796	(1.161)	53345	0.23436	0.2344 (M)
\$ 35 Phenanthrene-d10	188		22.104	22.104	(0.995)	522837	2.03652	2.037 (R)
36 Phenanthrene	178		22.181	22.181	(0.999)	784387	2.73669	2.737
* 250 Anthracene-d10	188		22.214	22.214	(1.000)	475082	2.00000	
37 Anthracene	178		22.280	22.280	(1.003)	188912	0.71501	0.7150
42 Carbazole	167		23.555	23.566	(1.060)	62497	0.28705	0.2870
43 1-Methylphenanthrene	192		24.017	24.017	(1.081)	64723	0.37192	0.3719
44 Fluoranthene	202		25.996	25.985	(1.170)	2291717	9.00306	9.003
46 Pyrene	202		26.843	26.832	(1.208)	2069336	7.84496	7.845
51 Naphthobenzothiophene	234		29.375	29.375	(1.322)	179477	0.69821	0.6982 (M)
55 Benzo(a)anthracene	228		29.960	29.960	(0.907)	695043	2.45719	2.457
\$ 56 Chrysene-d12	240		30.095	30.084	(0.911)	450778	2.01129	2.011 (R)
57 Chrysene	228		30.163	30.163	(0.913)	1450421	5.03499	5.035
62 Benzo(b)fluoranthene	252		32.381	32.382	(0.980)	1019410	3.79540	3.795 (M)
63 Benzo(k)fluoranthene	252		32.427	32.427	(0.981)	547996	1.73254	1.733 (M)
293 Benzo(j)fluoranthene	252		32.494	32.494	(0.983)	483022	1.64622	1.646
246 Total Benzofluoranthenes	252		32.381	32.382	(0.980)	1985813	6.90701	6.907 (M)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.046	33.046	(1.000)	616810	2.00000	
64 Benzo(e)pyrene	252	33.102	33.102	(1.002)	803203	3.05737	3.057
66 Benzo(a)pyrene	252	33.204	33.204	(1.005)	933564	3.43257	3.433
\$ 67 Perylene-d12	264	33.384	33.373	(1.010)	543643	2.27199	2.272 (R)
68 Perylene	252	33.440	33.440	(1.012)	729226	2.90625	2.906
69 Indeno(1,2,3-cd)pyrene	276	35.434	35.423	(1.072)	734728	2.61936	2.619 (M)
70 Dibenzo(a,h)anthracene	278	35.411	35.400	(1.072)	91530	0.39189	0.3919 (M)
74 Benzo(g,h,i)perylene	276	36.301	36.290	(1.098)	900686	3.81102	3.811

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 01-MAY-2021
 Lab File ID: NT1421043063.D Calibration Time: 23:35
 Lab Smp Id: 21D0180-01
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	504442	252221	1008884	524796	4.03
250 Anthracene-d10	459103	229552	918206	475082	3.48
251 Benzo(e)pyrene-d1	516794	258397	1033588	616810	19.35

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.77	18.27	19.27	18.77	-0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	-0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	-0.00

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.

REVIEW SUMMARY FOR FILE - NT1421043063.D

Lab ID: 21D0180-01

nt14.i, 20210430D.b\ALKYLPNA.m, 02-MAY-2021 09:13

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

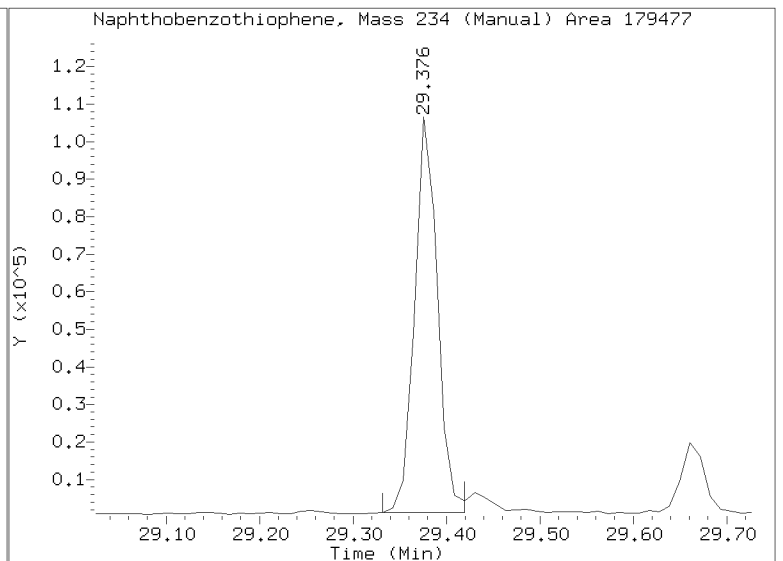
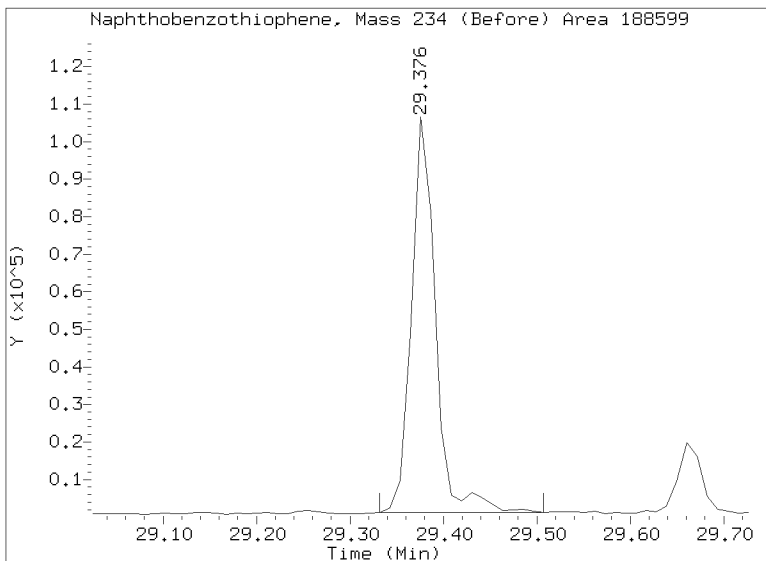
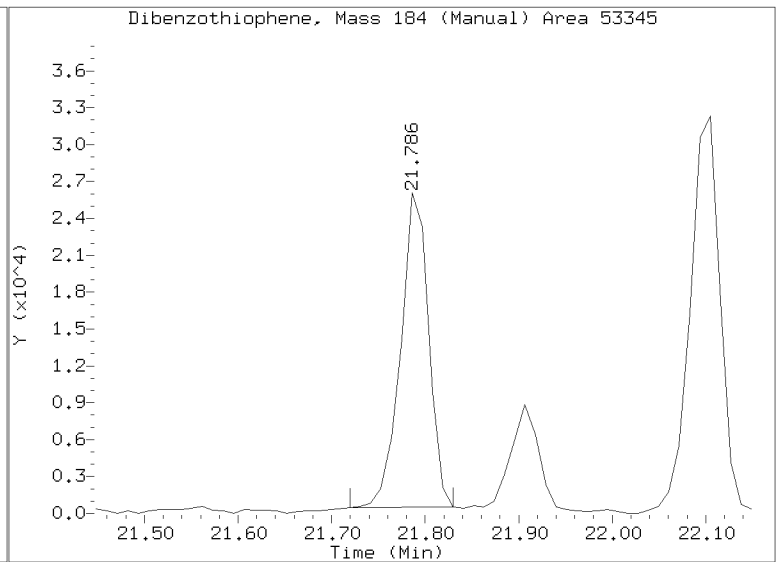
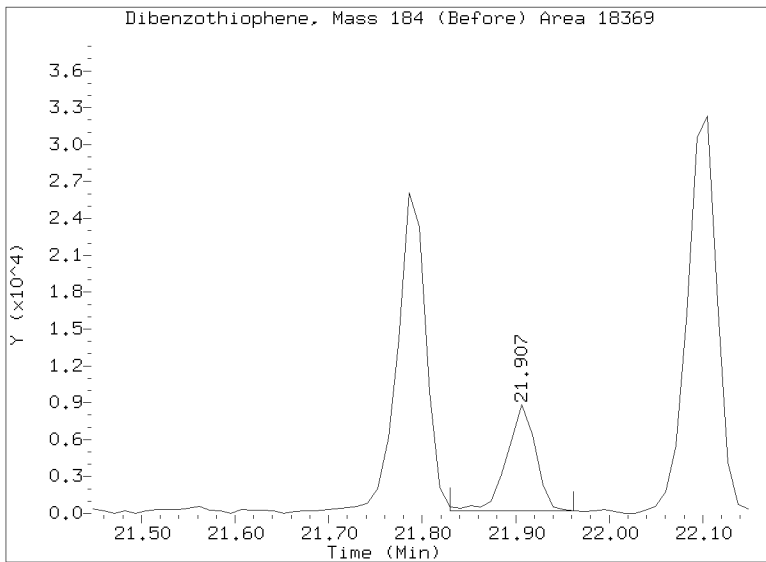
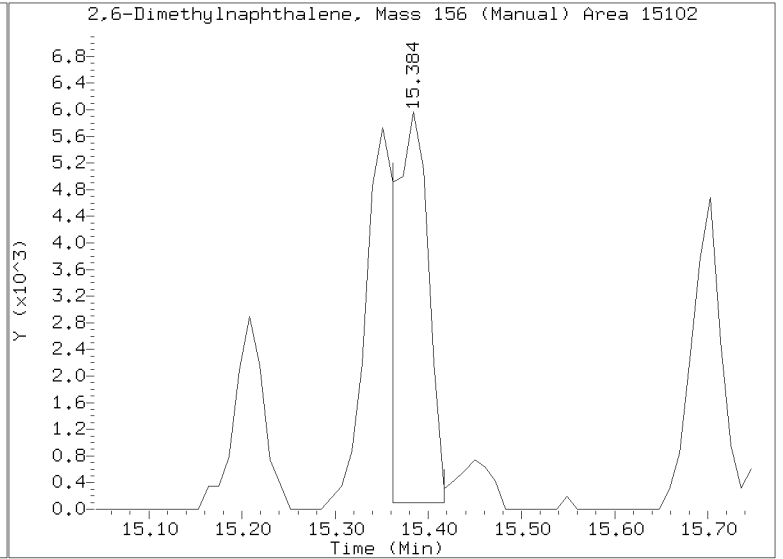
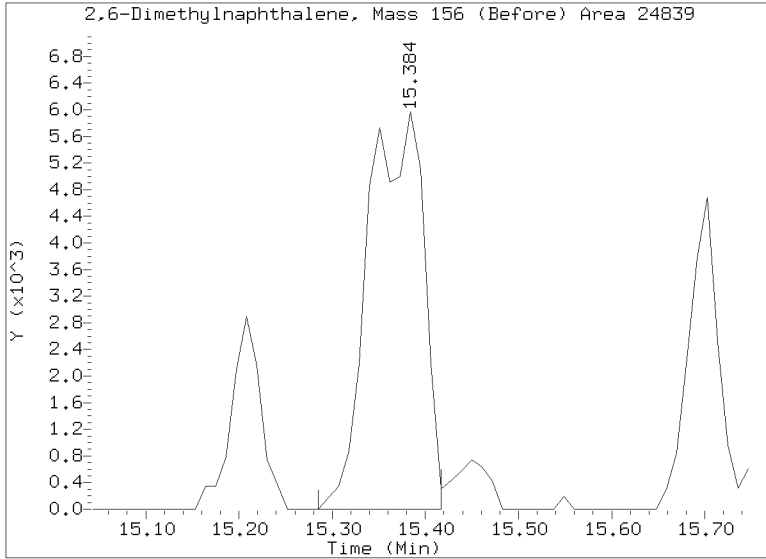
RRT check based on Ccal File: NT1421043051ICV.D

On Column LOD for nt14.i, 20210430D.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

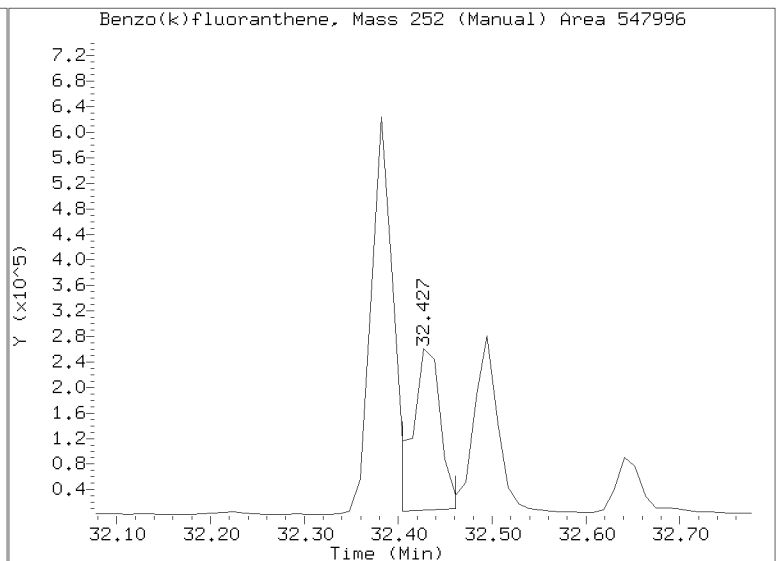
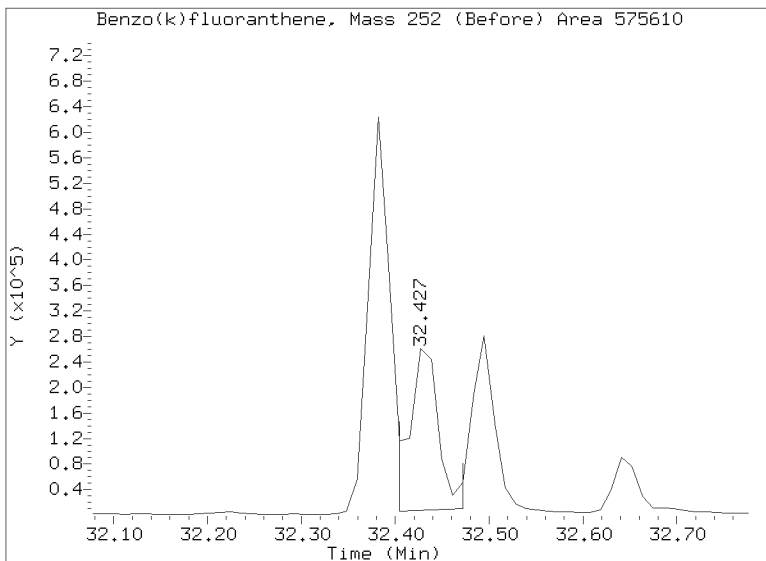
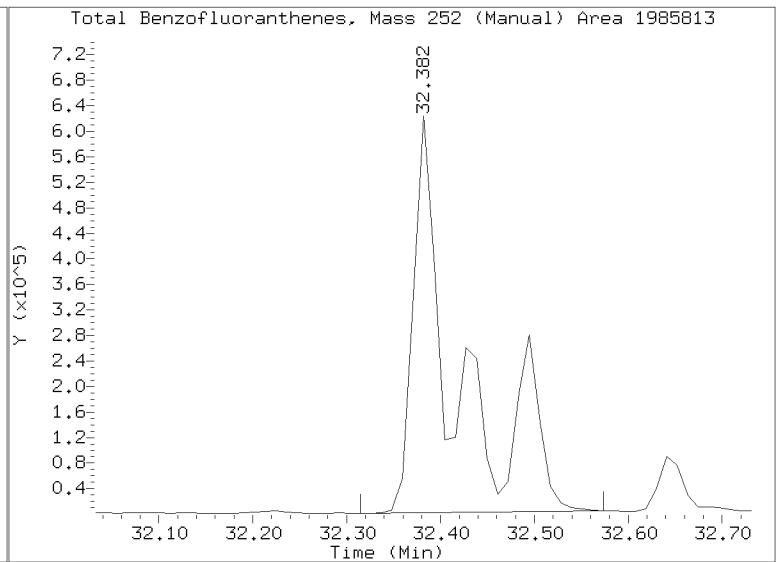
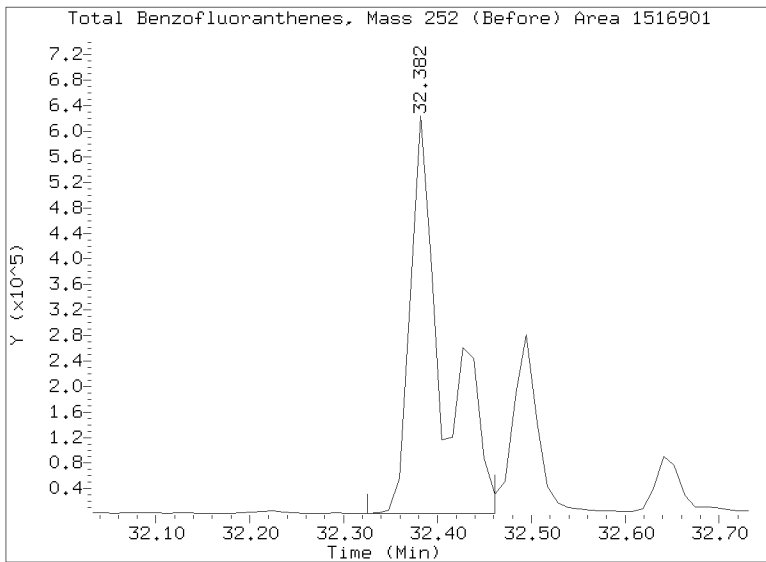
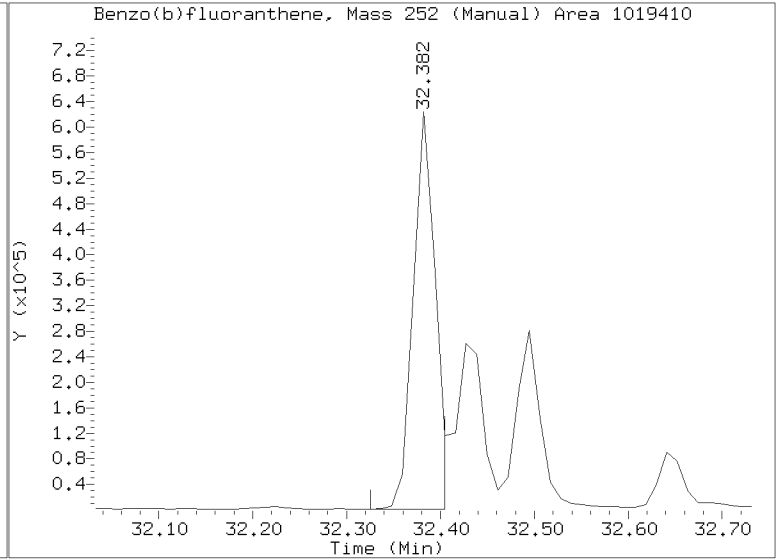
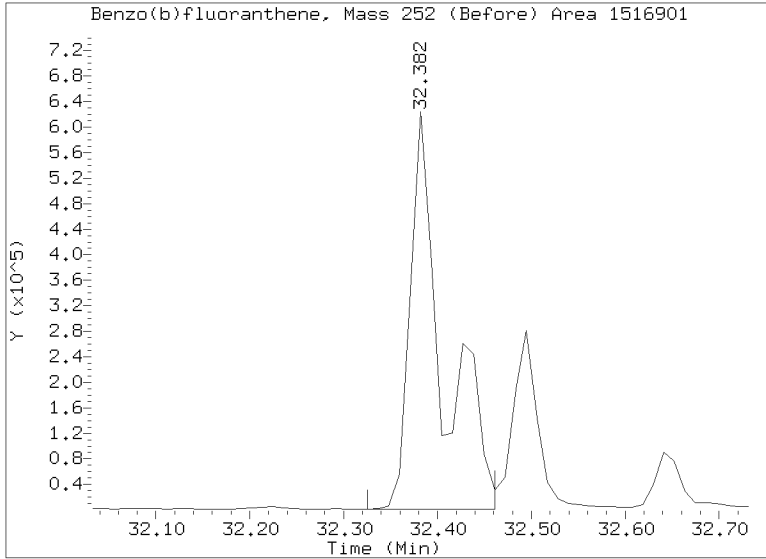
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043063.D
Injection Date: 02-MAY-2021 09:13
Lab ID:21D0180-01 Client ID:
Report Date: 05/04/2021 13:21



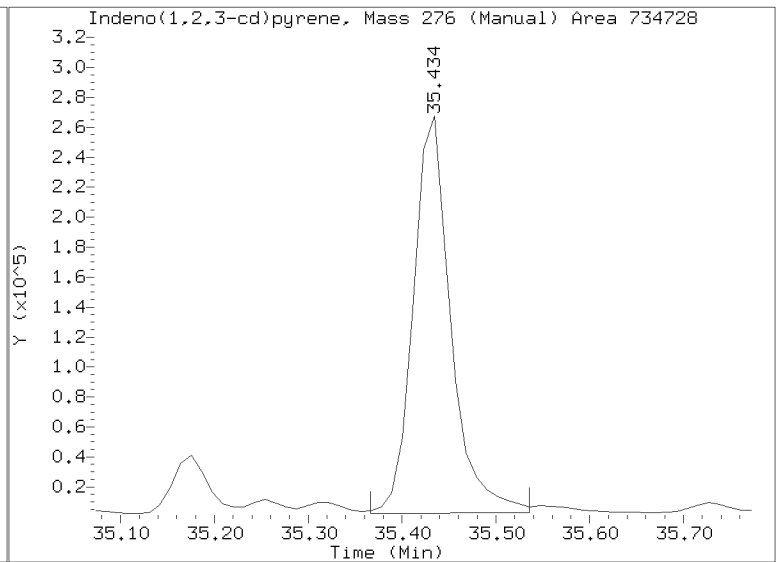
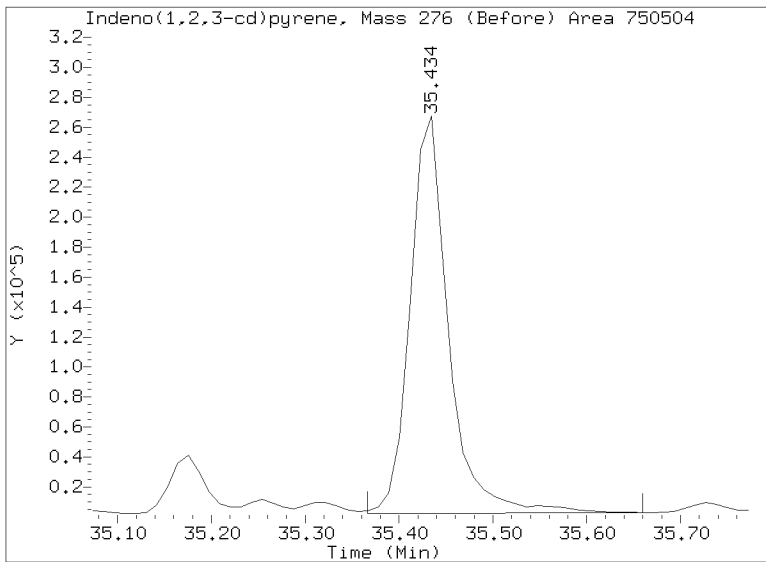
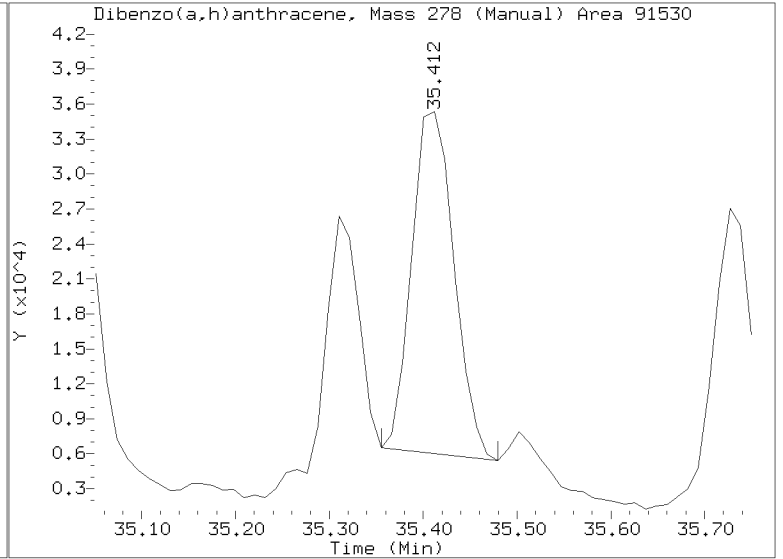
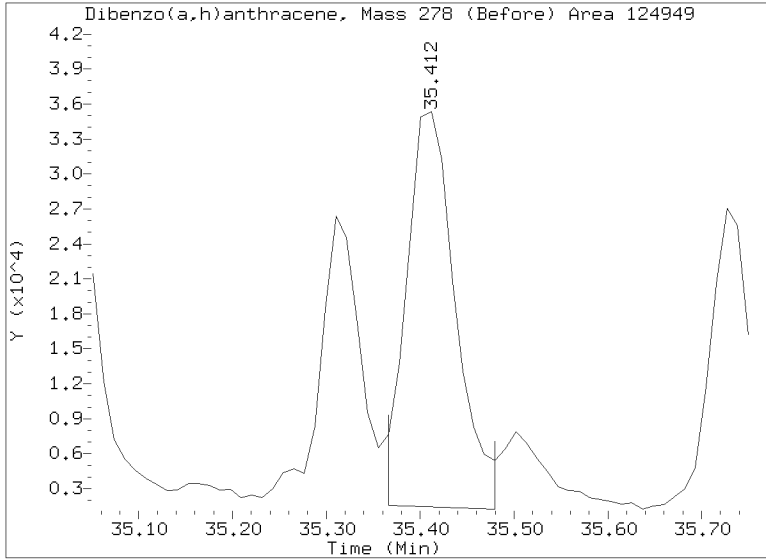
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043063.D
Injection Date: 02-MAY-2021 09:13
Lab ID:21D0180-01 Client ID:
Report Date: 05/04/2021 13:21



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043063.D
Injection Date: 02-MAY-2021 09:13
Lab ID:21D0180-01 Client ID:
Report Date: 05/04/2021 13:21





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Alkyl PAH Ranges

Laboratory: Analytical Resources, Inc.
 Client: Anchor OEA, LLC
 Project: Gasco Siltronic - US Moorings
 Matrix: Sediment Laboratory ID: 21D0180-01 A SDG: 21D0180
 Sampled: 04/14/21 11:41 Prepared: 04/22/21 11:05 File ID: NT1421043063S.D
 % Solids: 46.63 Preparation: EPA 3546 (Microwave) Analyzed: 05/02/21 09:13
 Batch: BJD0507 Sequence: SJE0095 Initial/Final: 21.51 g Wet / 0.5 mL
 Instrument: NT14 Column: ZB-5MS Calibration: EE00019
 Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
C1DEC	C1-Decalins	1	3.2	J	0.5	5.0
C2DEC	C2-Decalins	1	15.1		0.5	5.0
C3DEC	C3-Decalins	1	10.7		0.5	5.0
C4DEC	C4-Decalins	1	5.0	U	0.5	5.0
C1NAPH	C1-Naphthalenes	1	11.5		0.4	5.0
C2NAPH	C2-Naphthalenes	1	14.2		0.4	5.0
C3NAPH	C3-Naphthalenes	1	13.0		0.4	5.0
C4NAPH	C4-Naphthalenes	1	8.5		0.4	5.0
C1FLR	C1-Fluorenes	1	13.6		0.5	5.0
C2FLR	C2-Fluorenes	1	14.3		0.5	5.0
C3FLR	C3-Fluorenes	1	14.5		0.5	5.0
C1DBTPH	C1-Dibenzothiophenes	1	12.7		0.7	5.0
C2DBTPH	C2-Dibenzothiophenes	1	15.9		0.7	5.0
C3DBTPH	C3-Dibenzothiophenes	1	13.2		0.7	5.0
C4DBTPH	C4-Dibenzothiophenes	1	5.0	U	0.7	5.0
C1PHNANT	C1-Phenanthrenes/Anthracenes	1	67.0		0.9	5.0
C2PHNANT	C2-Phenanthrenes/Anthracenes	1	61.6		0.9	5.0
C3PHNANT	C3-Phenanthrenes/Anthracenes	1	44.7		0.9	5.0
C4PHNANT	C4-Phenanthrenes/Anthracenes	1	11.6		0.9	5.0
C1FLPYR	C1-Fluoranthenes/Pyrenes	1	140		1.0	5.0
C2FLPYR	C2-Fluoranthenes/Pyrenes	1	94.7		1.0	5.0
C3FLPYR	C3-Fluoranthenes/Pyrenes	1	37.0		1.0	5.0
C4FLPYR	C4-Fluoranthenes/Pyrenes	1	22.3		1.0	5.0
C1BAACYR	C1-Benzo(a)anthracenes/Chrysenes	1	112		0.7	5.0
C2BAACYR	C2-Benzo(a)anthracenes/Chrysenes	1	41.7		0.7	5.0
C3BAACYR	C3-Benzo(a)anthracenes/Chrysenes	1	31.0		0.7	5.0
C4BAACYR	C4-Benzo(a)anthracenes/Chrysenes	1	14.4		0.7	5.0
C1BZTPH	C1-Benzothiophenes	1	2.4	J	0.4	5.0
C2BZTPH	C2-Benzothiophenes	1	3.0	J	0.4	5.0
C3BZTPH	C3-Benzothiophenes	1	2.4	J	0.4	5.0



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Alkyl PAH Ranges

Laboratory: Analytical Resources, Inc.
Client: Anchor OEA, LLC
Project: Gasco Siltronic - US Moorings
Matrix: Sediment Laboratory ID: 21D0180-01 A SDG: 21D0180
Sampled: 04/14/21 11:41 Prepared: 04/22/21 11:05 File ID: NT1421043063S.D
% Solids: 46.63 Preparation: EPA 3546 (Microwave) Analyzed: 05/02/21 09:13
Batch: BJD0507 Sequence: SJE0095 Initial/Final: 21.51 g Wet / 0.5 mL
Instrument: NT14 Column: ZB-5MS Calibration: EE00019
Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
C1NPBTP	C1-Naphthobenzothiophenes	1	26.4		2.5	5.0
C2NPBTP	C2-Naphthobenzothiophenes	1	22.9		2.5	5.0
C3NPBTP	C3-Naphthobenzothiophenes	1	19.7		2.5	5.0
C4NPBTP	C4-Naphthobenzothiophenes	1	6.3		2.5	5.0
C1DBA	C1-Dibenzo(a)anthracenes	1	28.4		0.7	5.0
C2DBA	C2-Dibenzo(a)anthracenes	1	2.6	J	0.7	5.0
C3DBA	C3-Dibenzo(a)anthracenes	1	4.4	J	0.7	5.0

Data File: \\target\share\chem3\nt14.1\20210430.1\SIH.B\NT1421043063S.D

Date : 02-MAY-2021 09:13

Client ID:

Sample Info: 21D0180-01

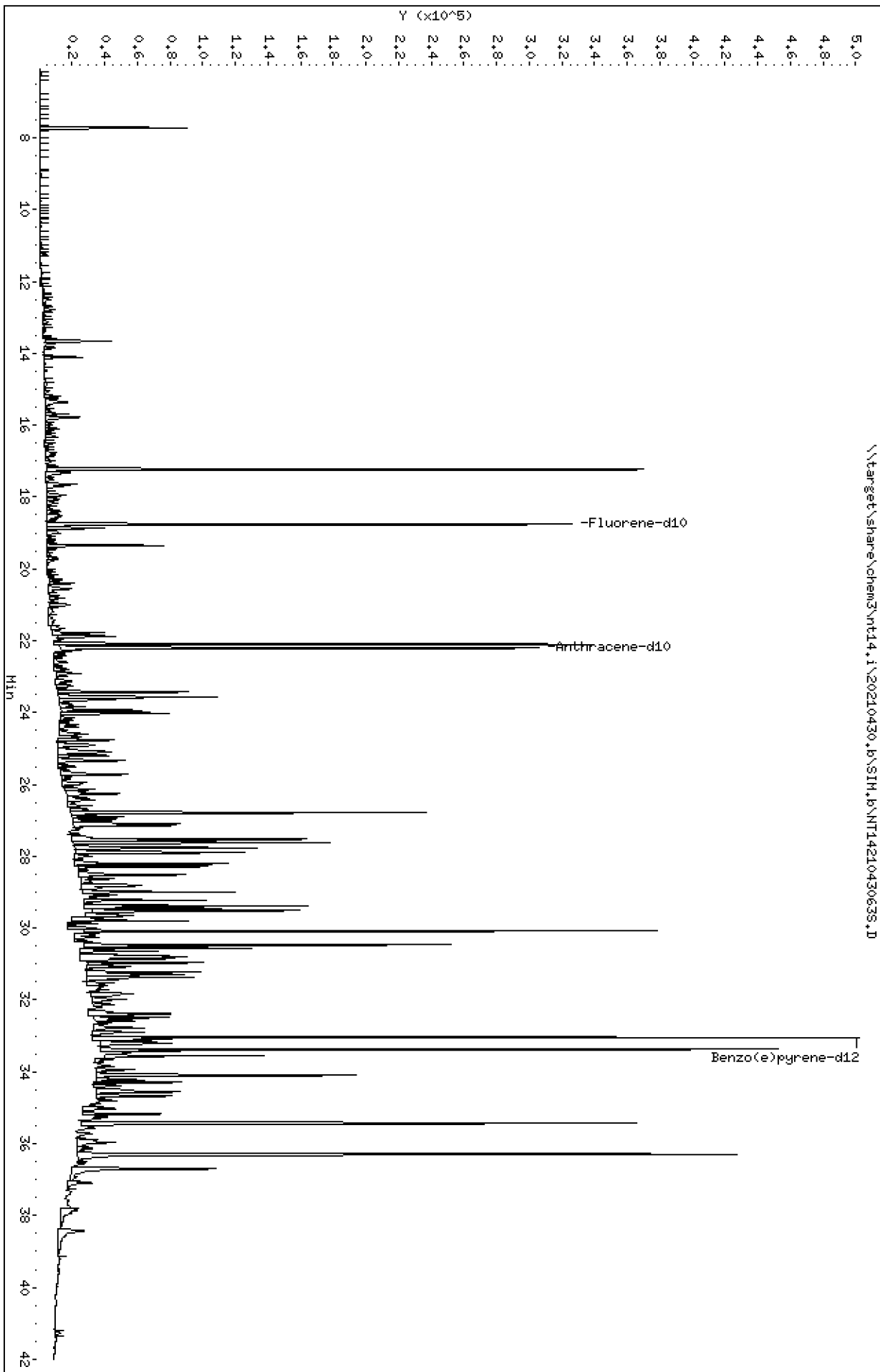
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14.1\20210430.1\SIH.B\NT1421043063S.D



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

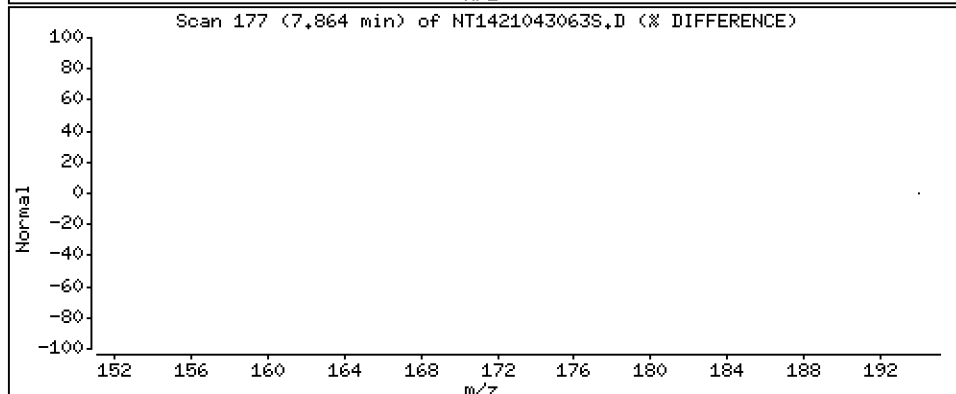
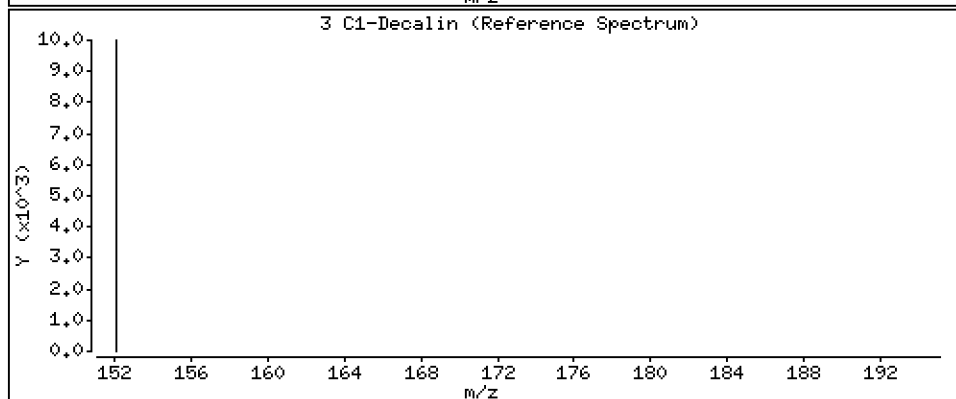
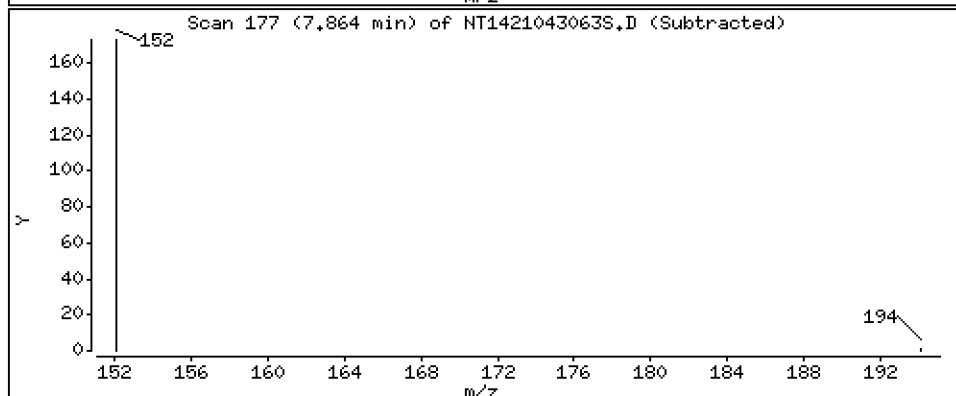
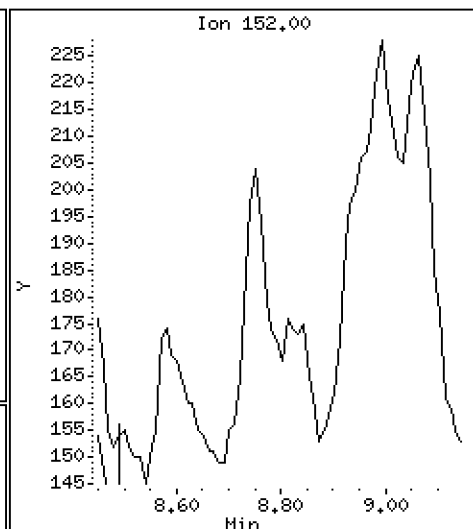
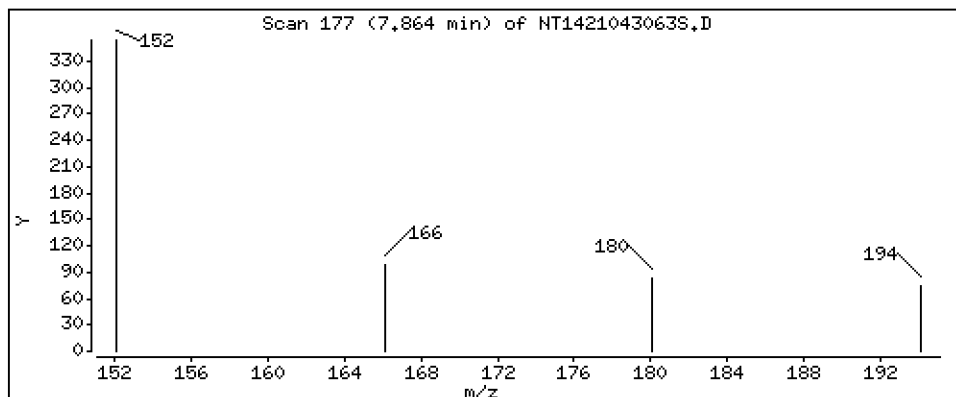
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

3 Cl-Decalin

Concentration: 0,06493 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

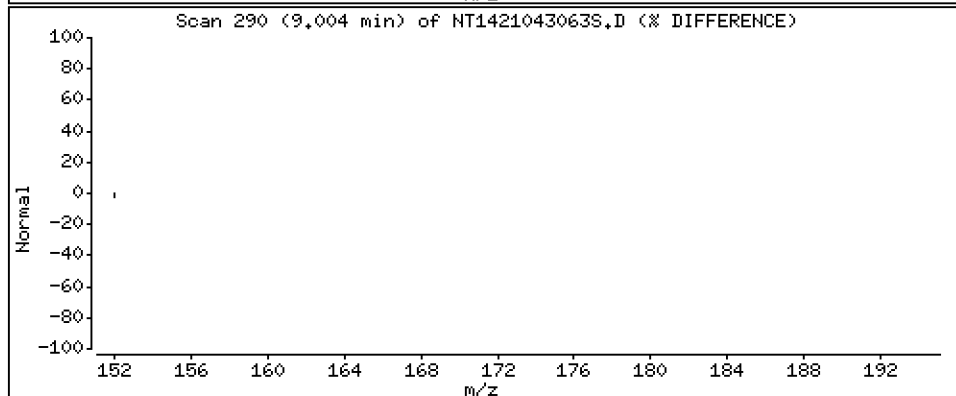
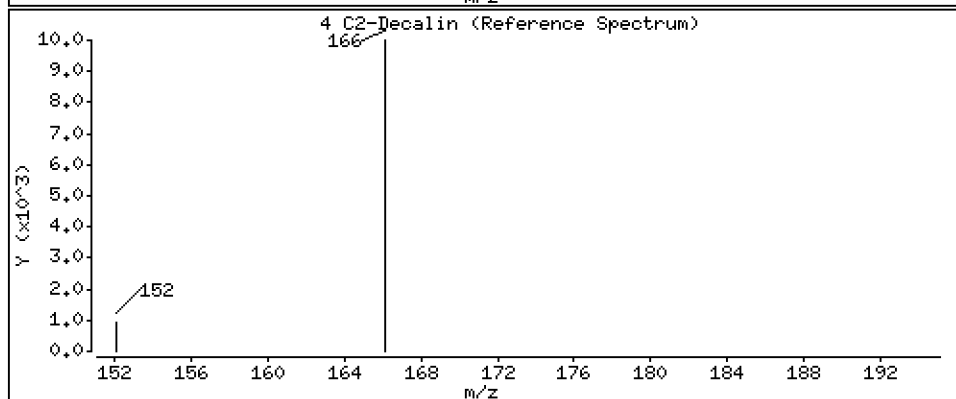
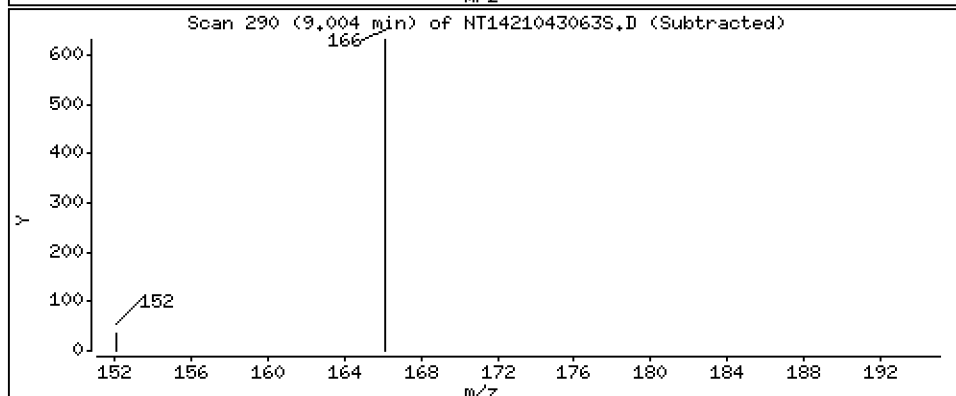
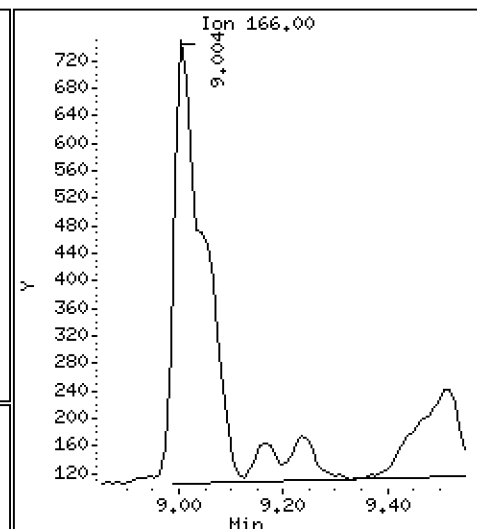
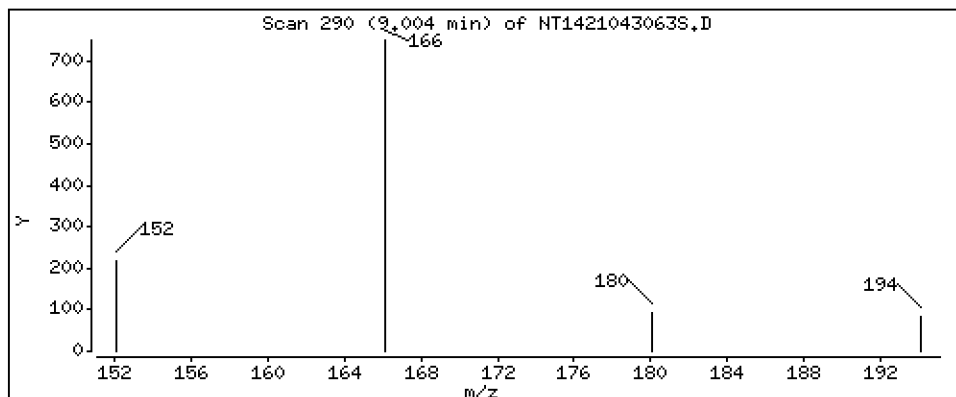
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

4 C2-Decalin

Concentration: 0,3025 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

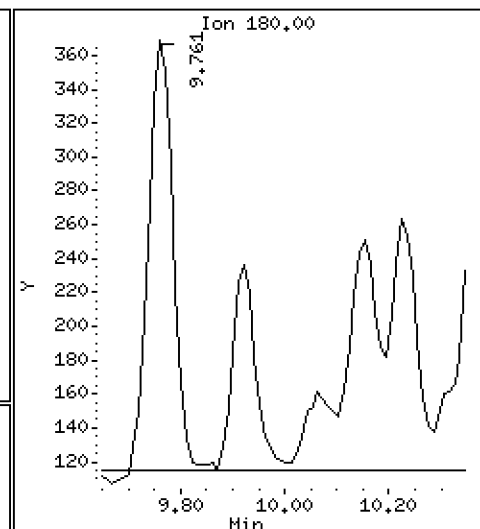
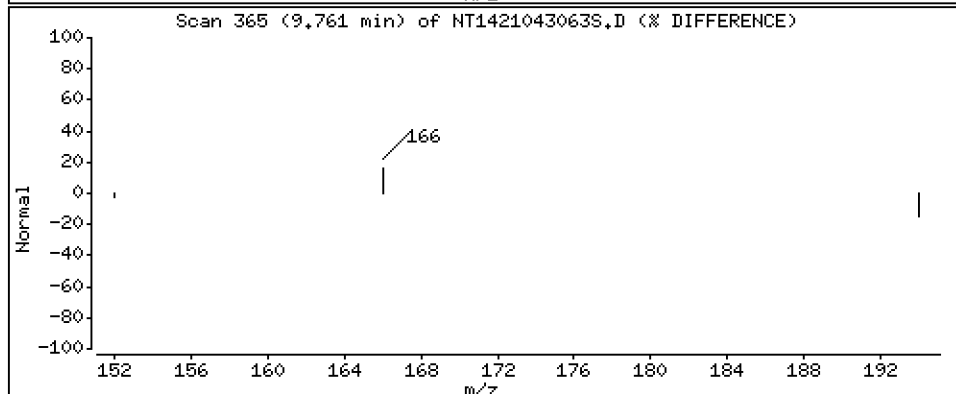
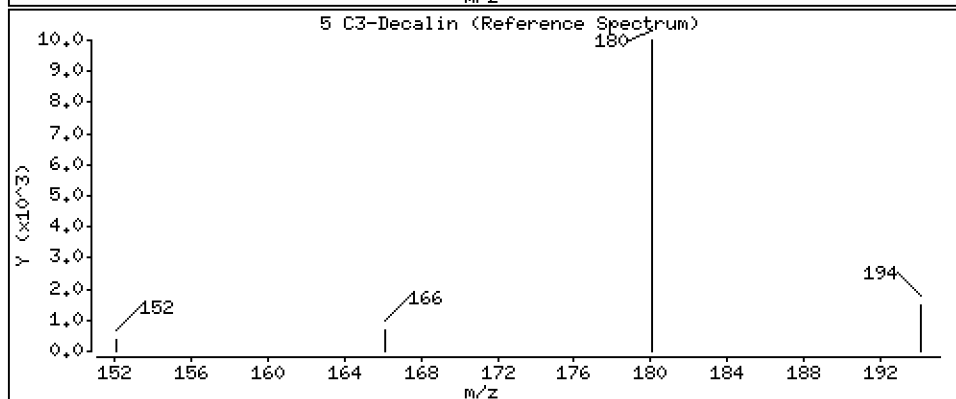
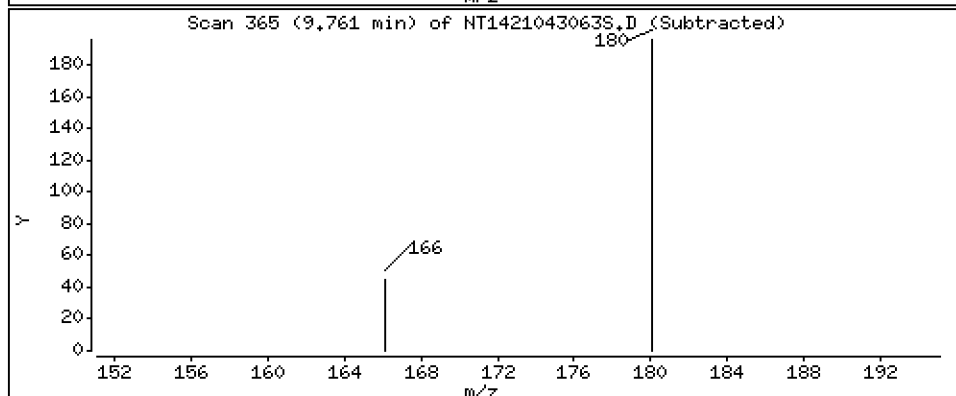
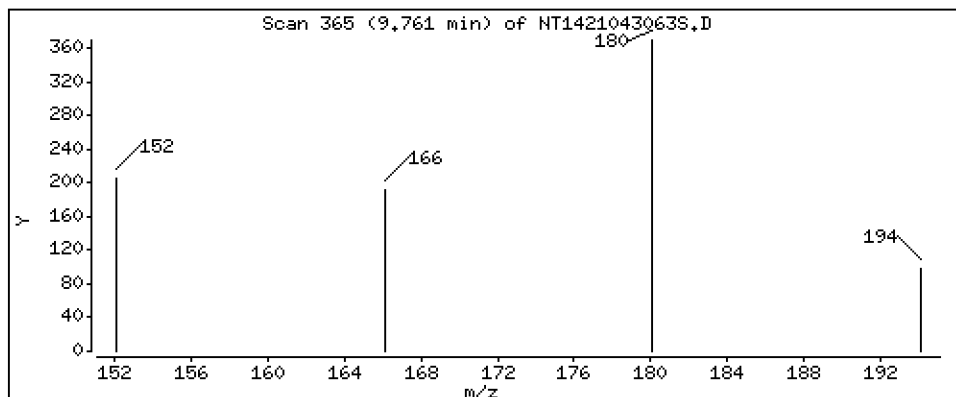
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

5 C3-Decalin

Concentration: 0,2152 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

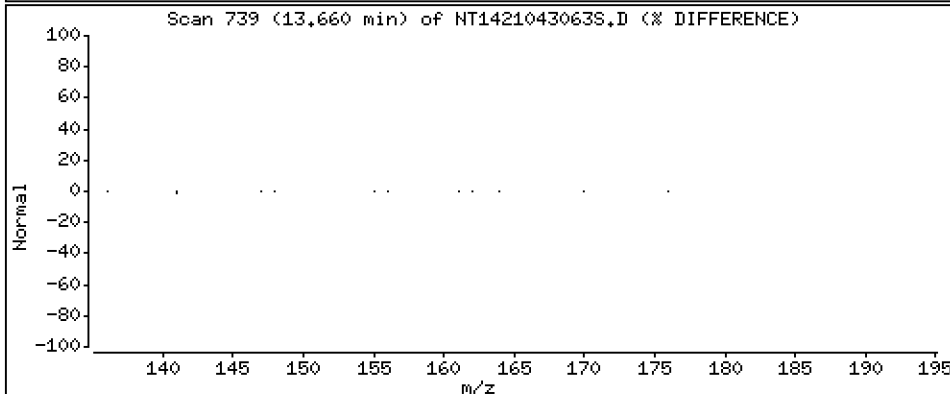
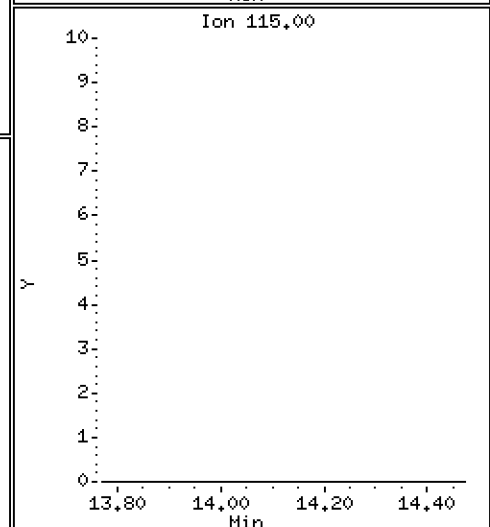
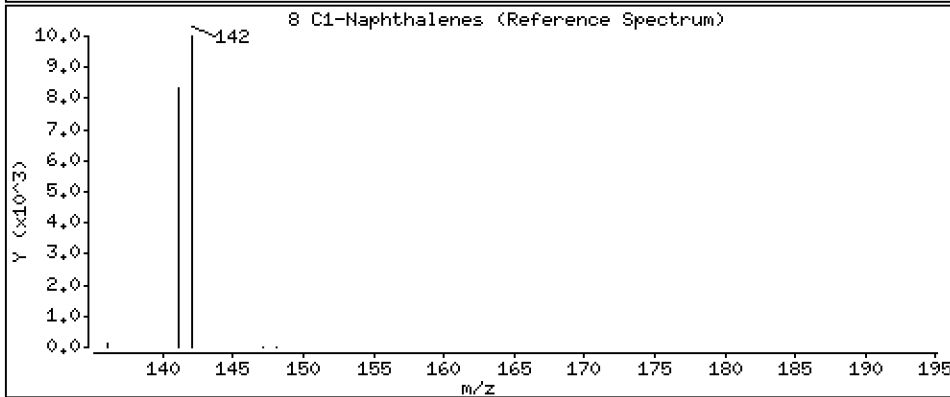
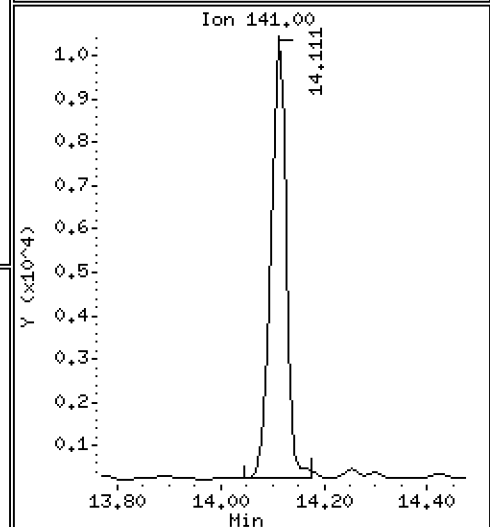
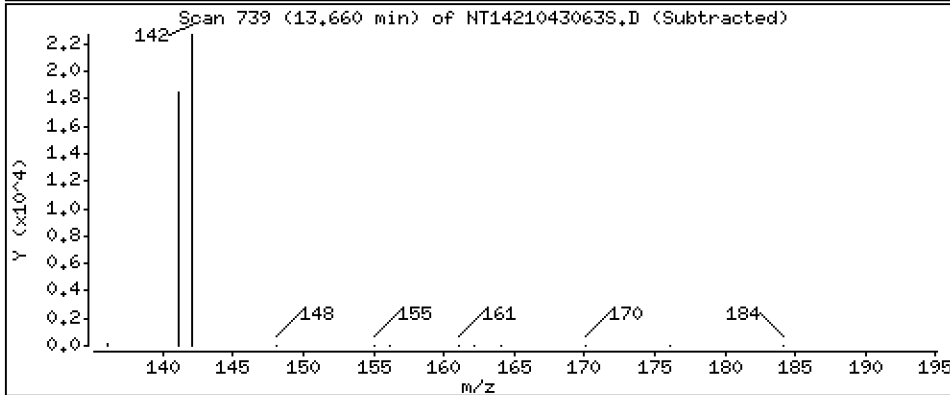
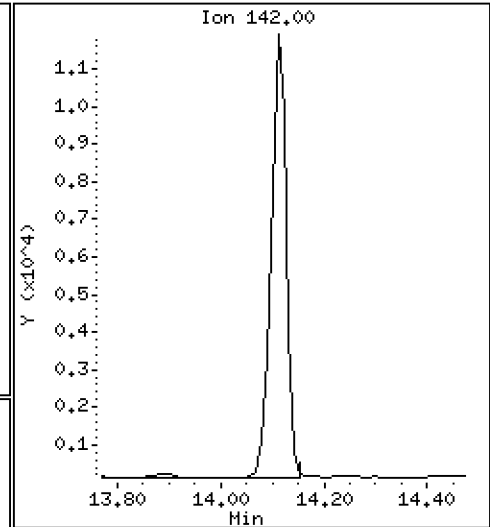
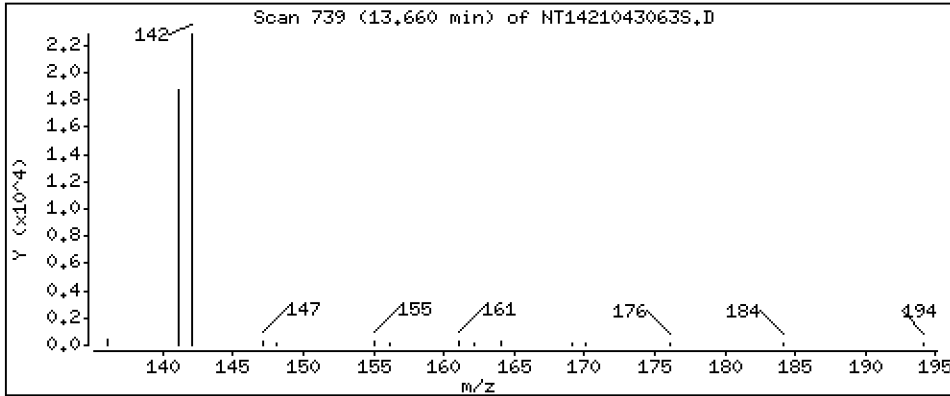
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

8 Cl-Naphthalenes

Concentration: 0,2300 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

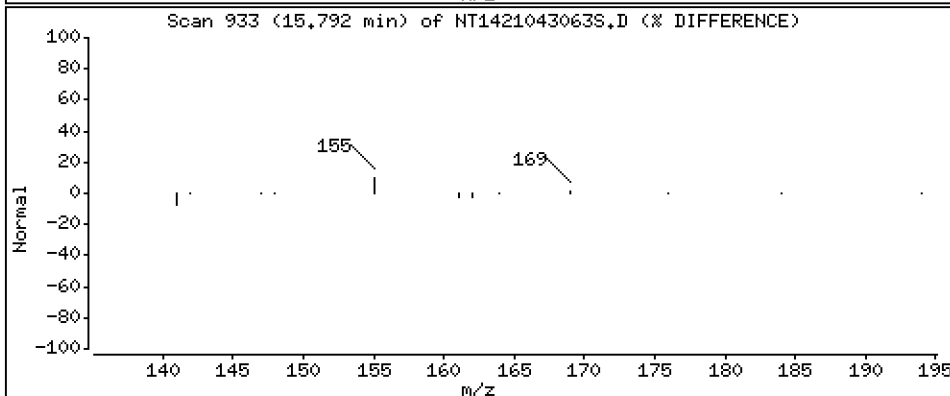
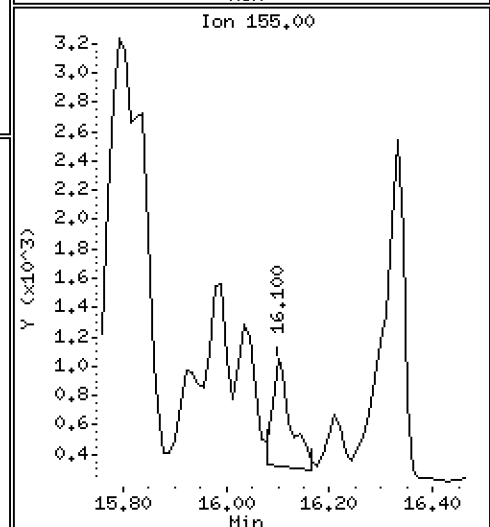
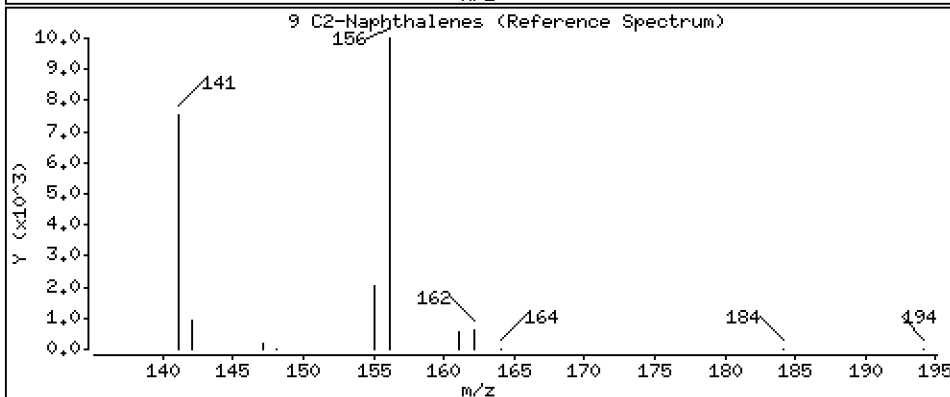
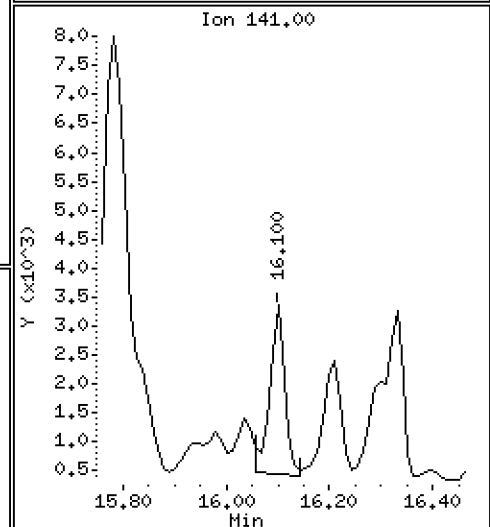
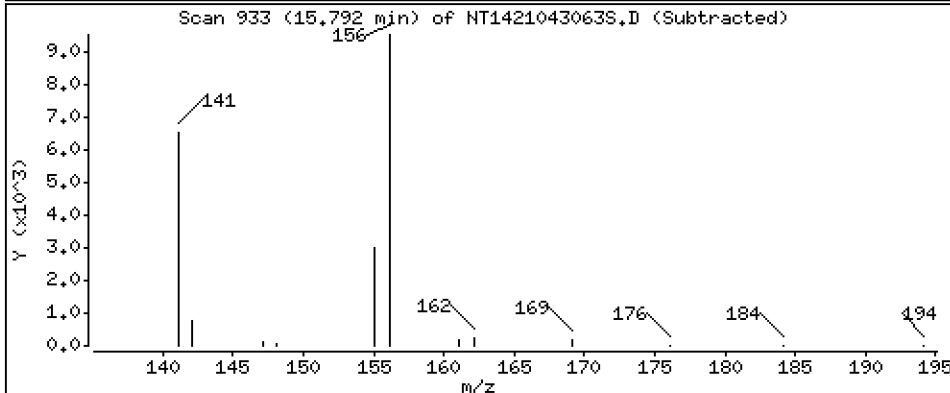
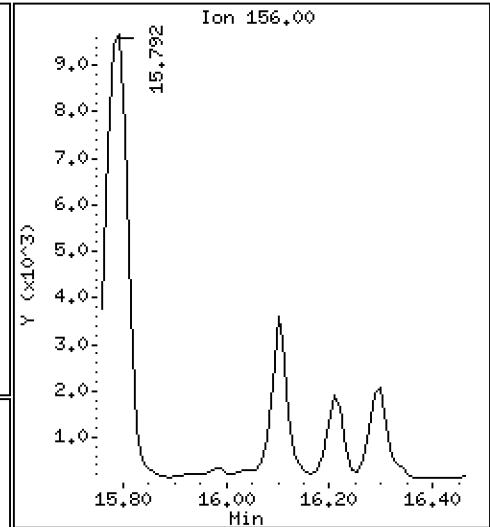
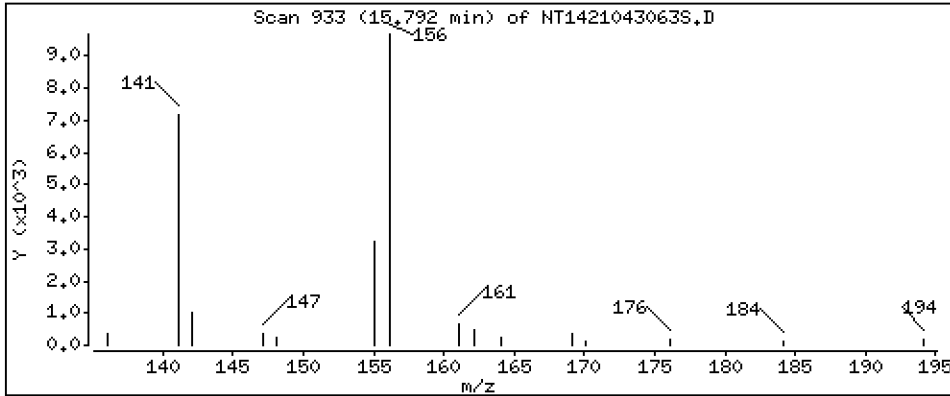
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

9 C2-Naphthalenes

Concentration: 0.2849 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

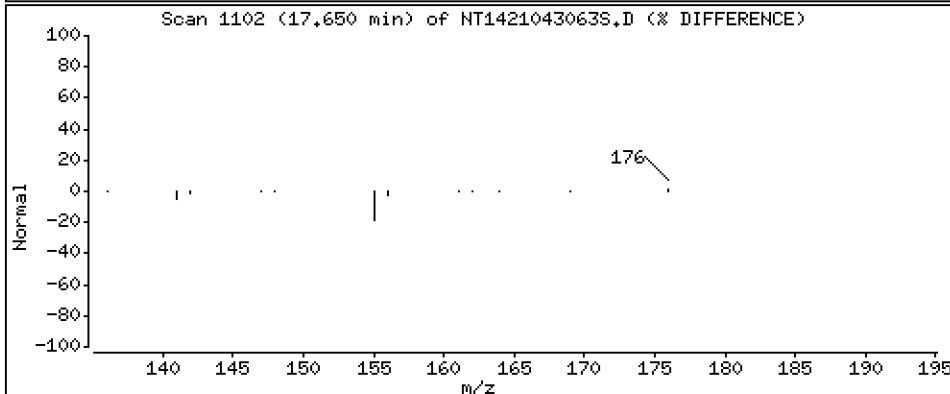
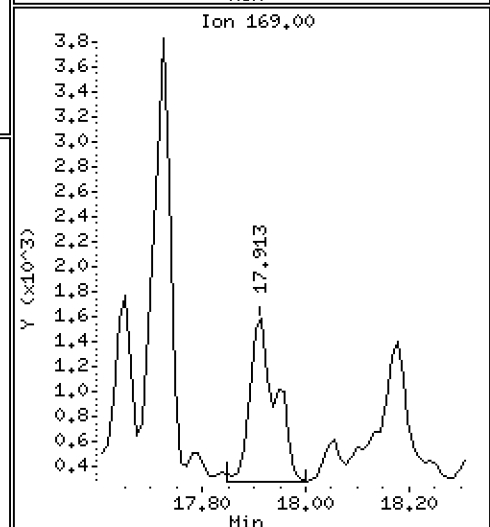
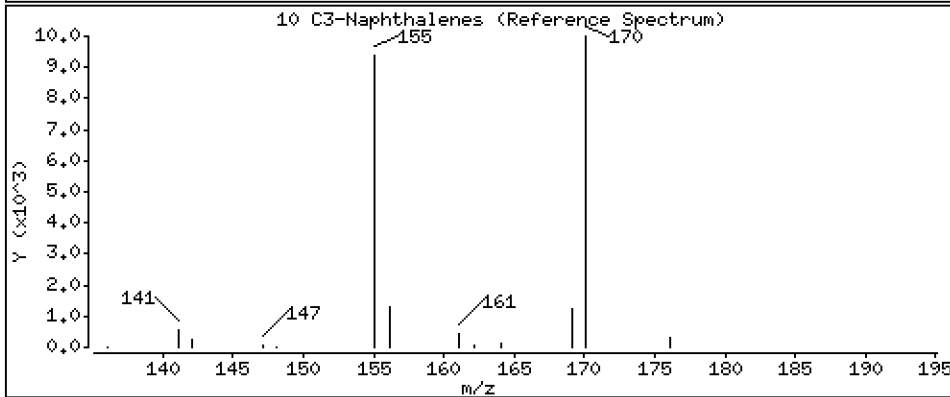
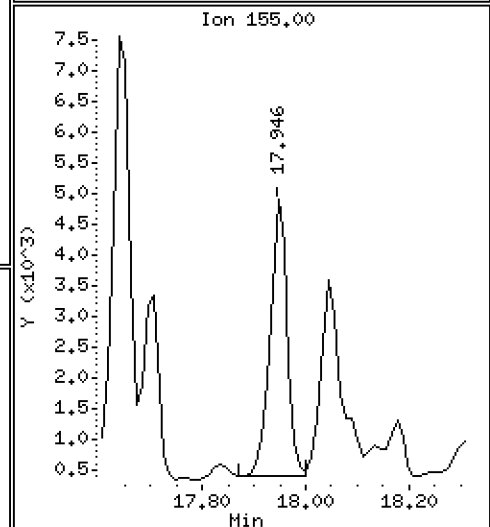
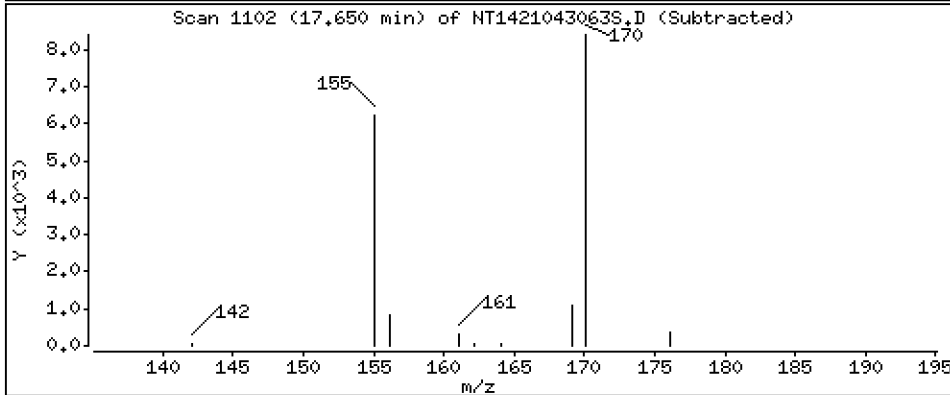
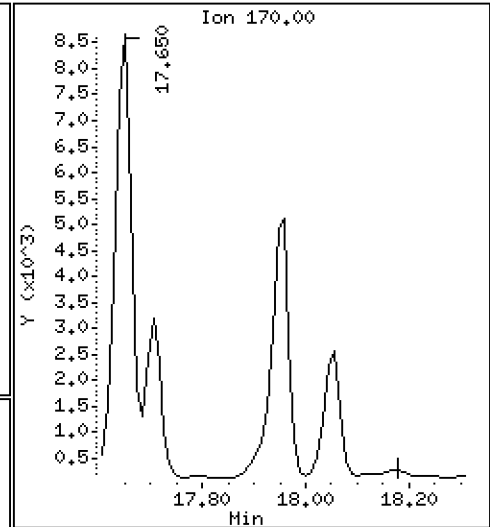
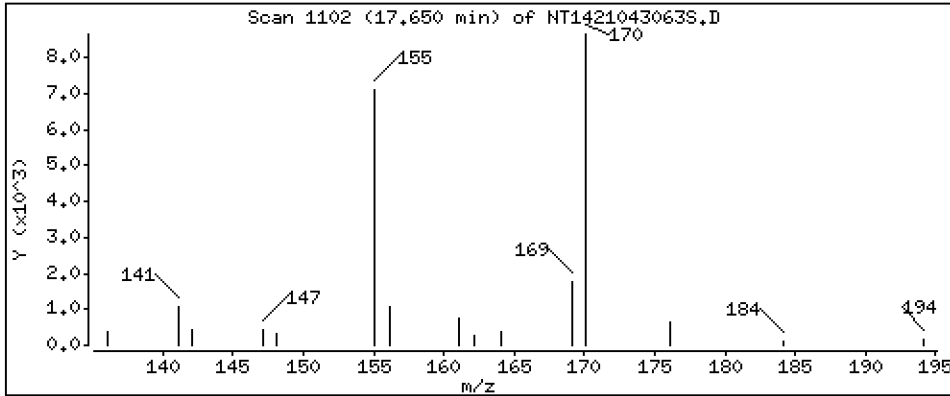
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

10 C3-Naphthalenes

Concentration: 0.2602 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

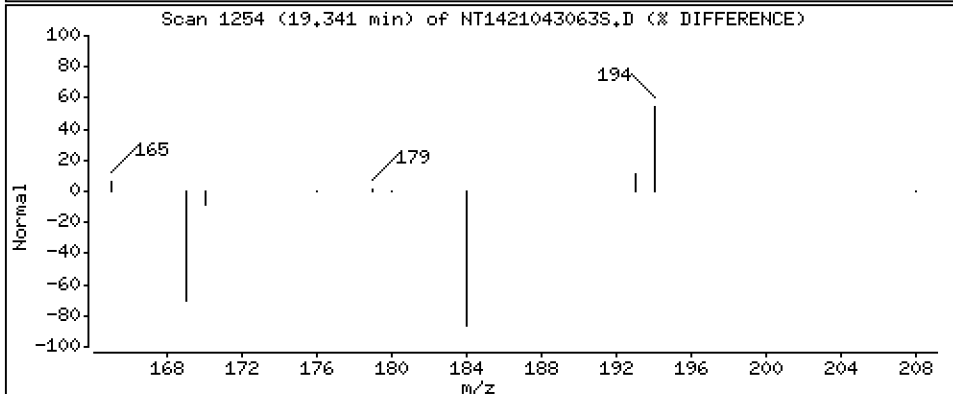
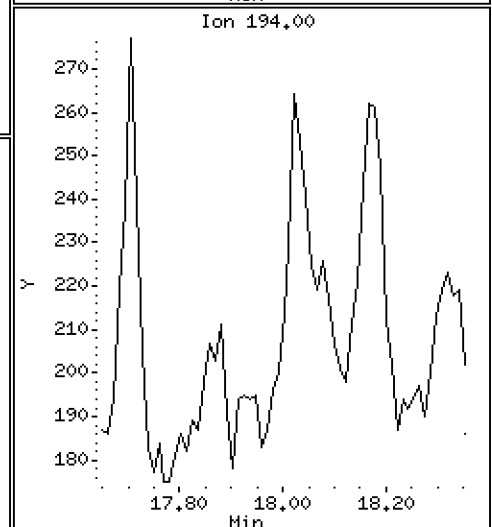
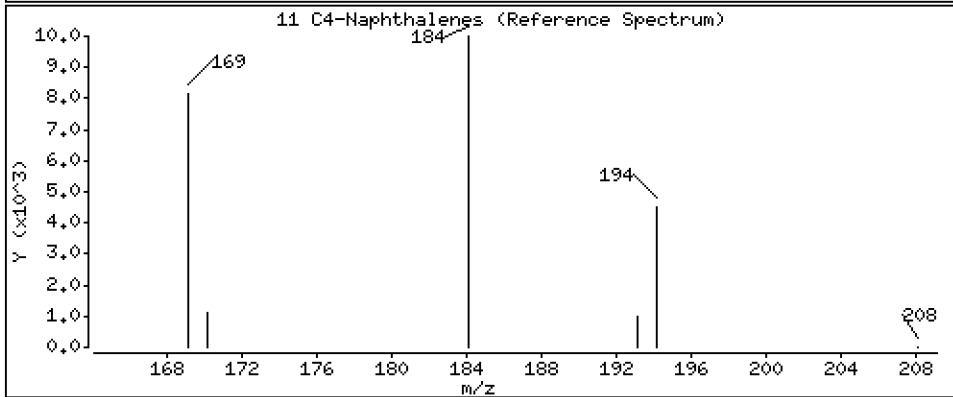
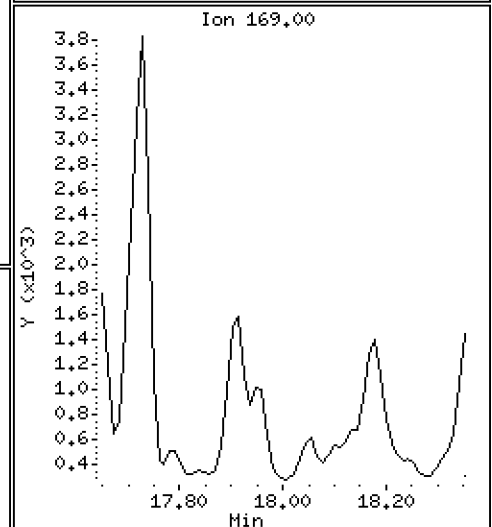
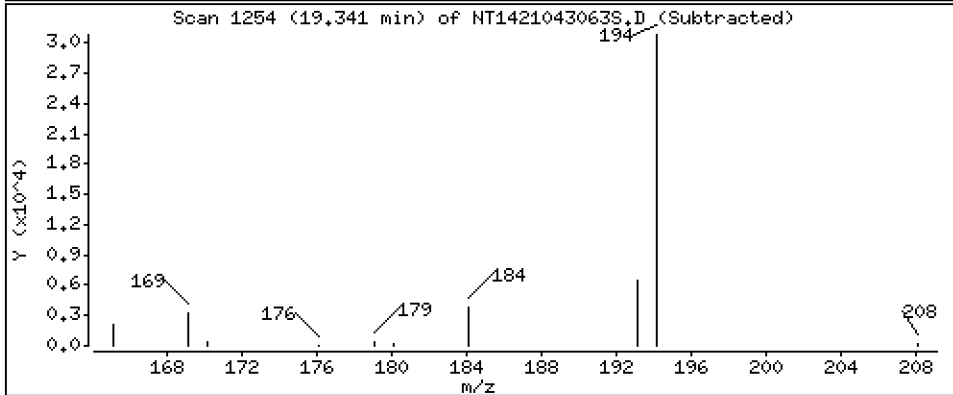
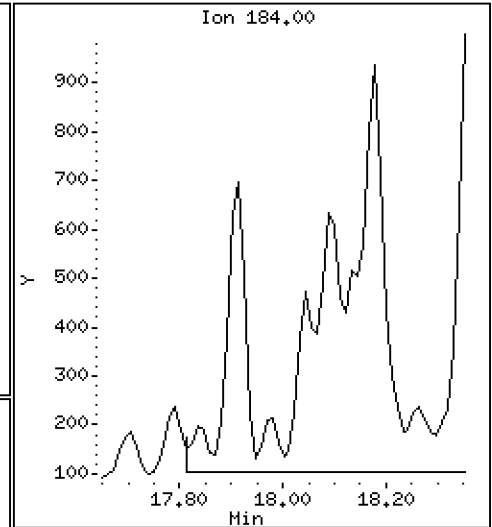
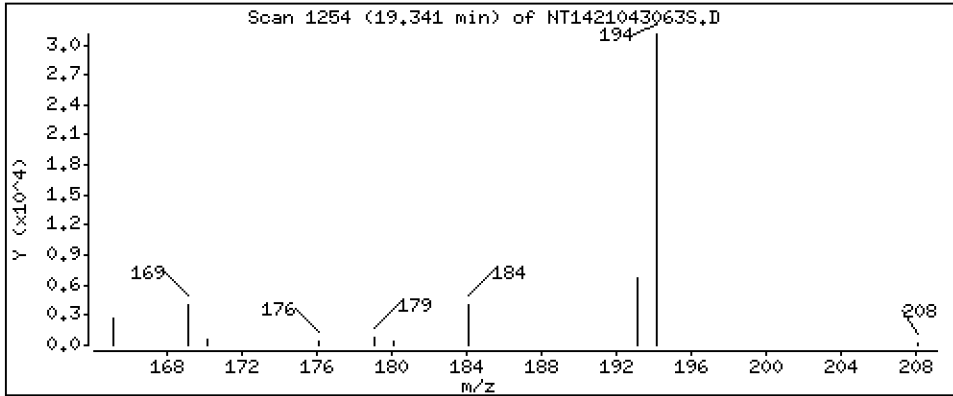
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

Concentration: 0.1703 ug/mL

11 C4-Naphthalenes



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

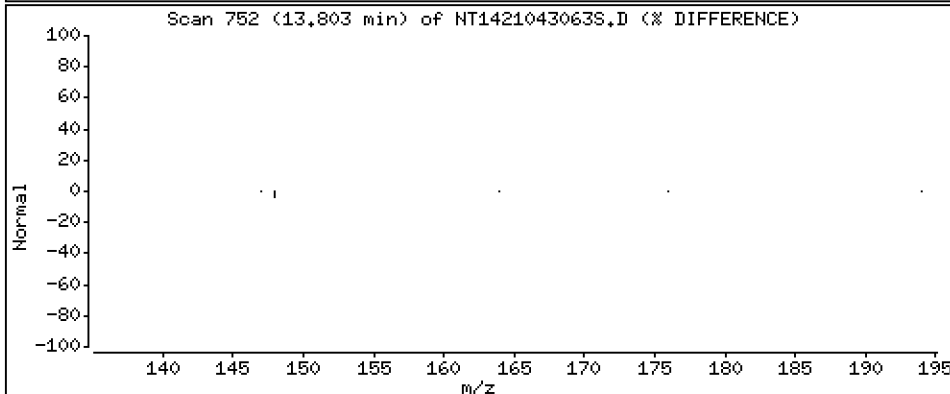
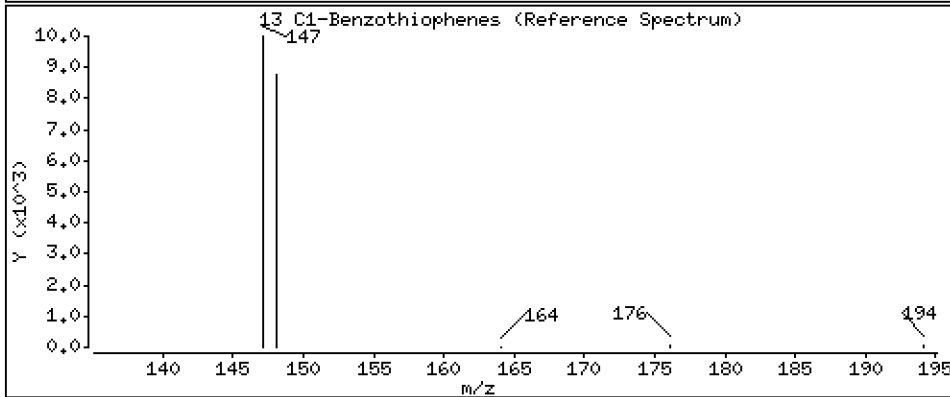
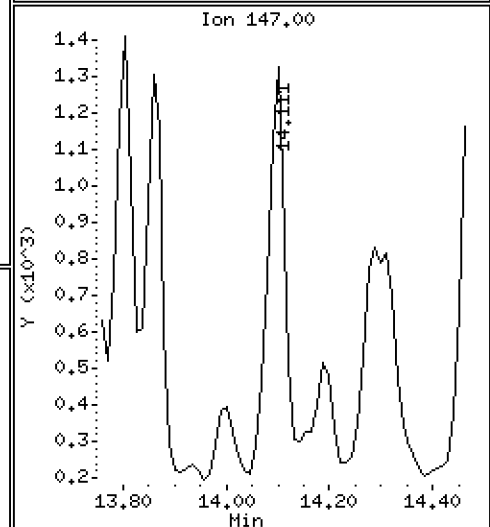
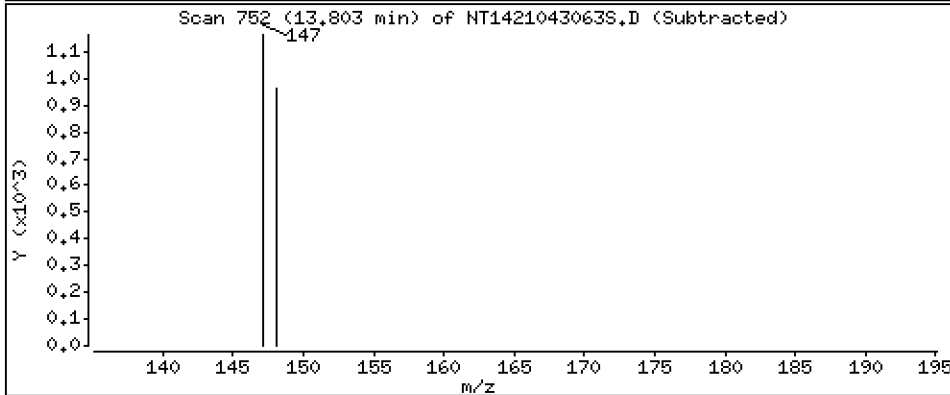
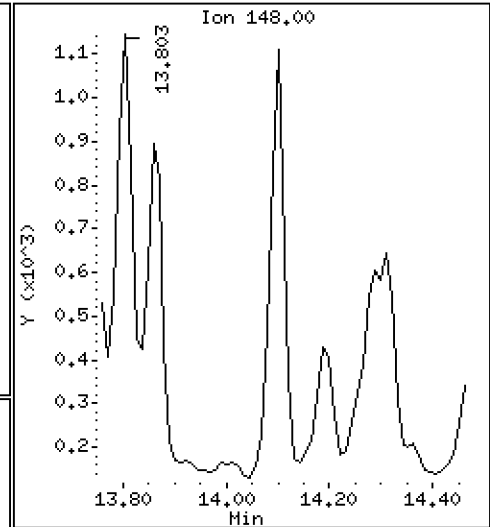
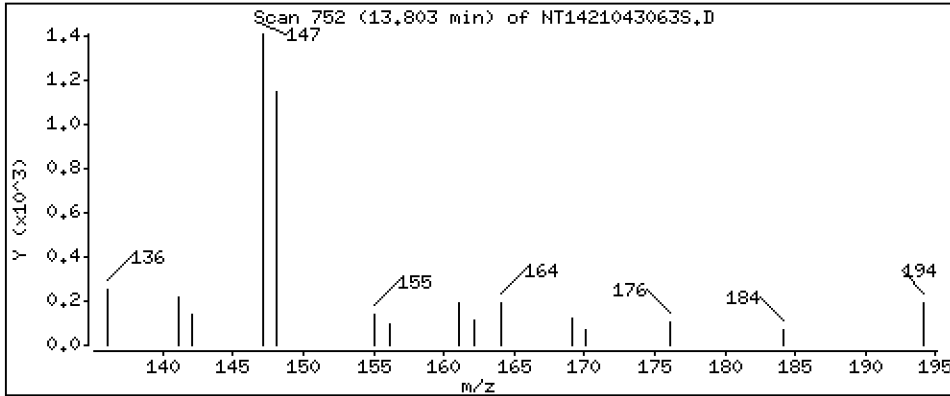
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

13 C1-Benzothiophenes

Concentration: 0.04906 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

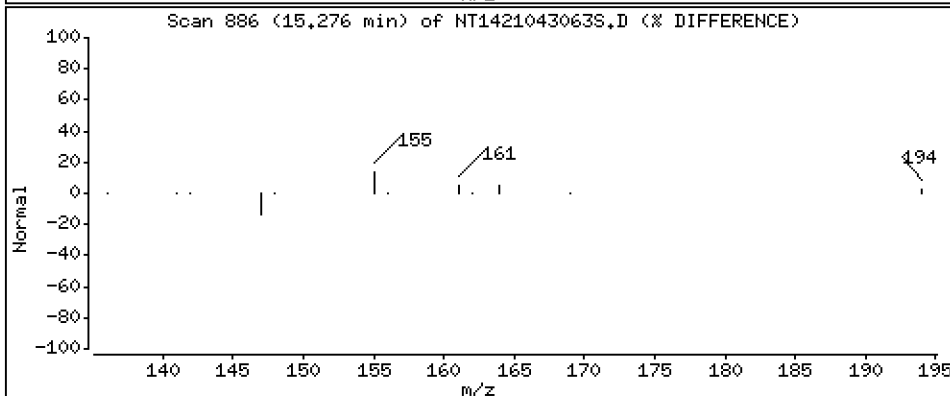
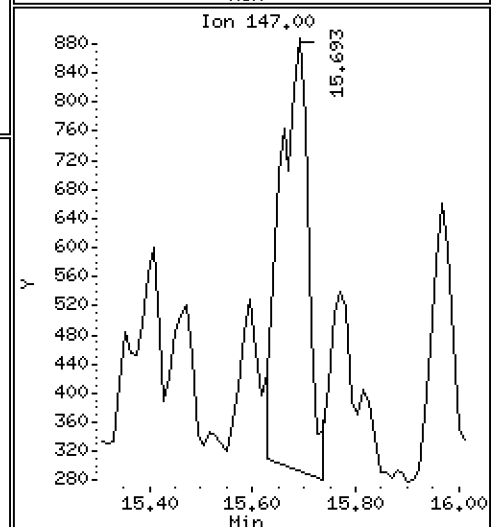
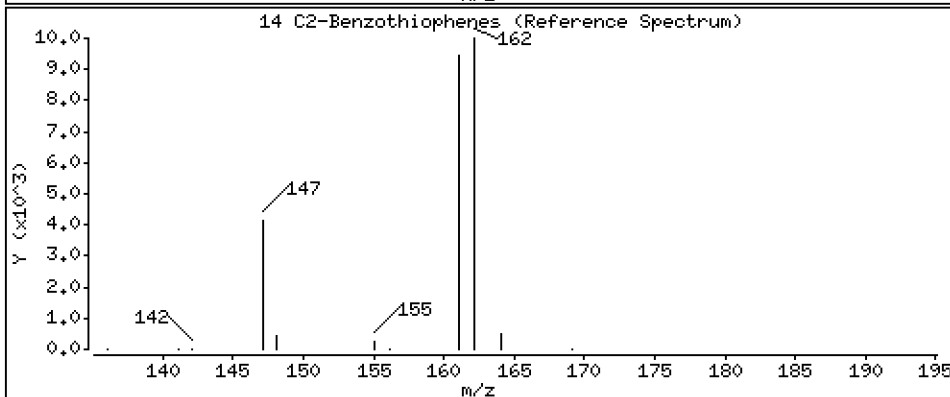
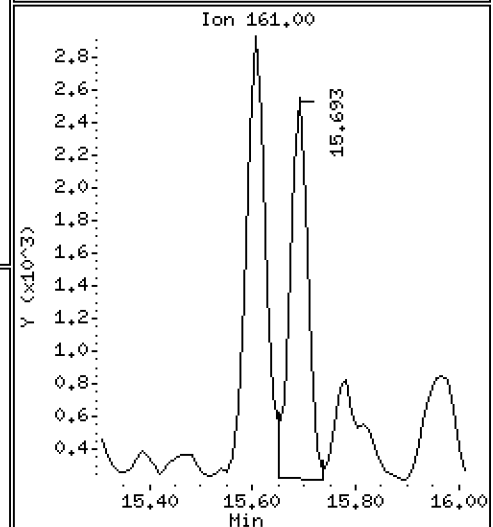
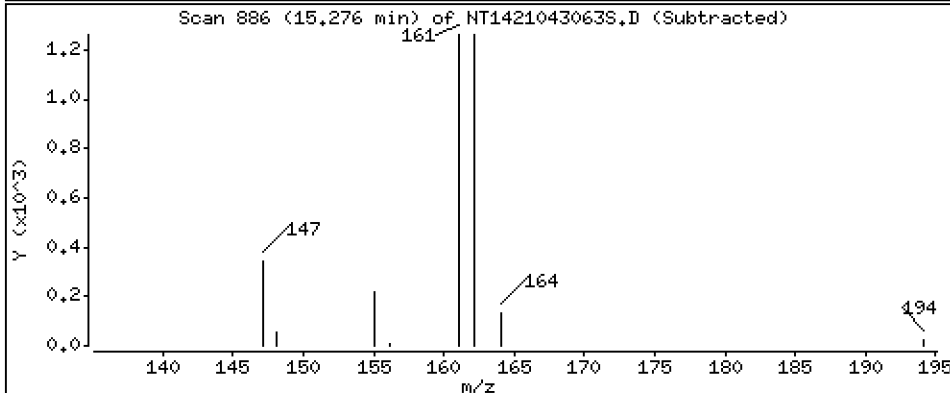
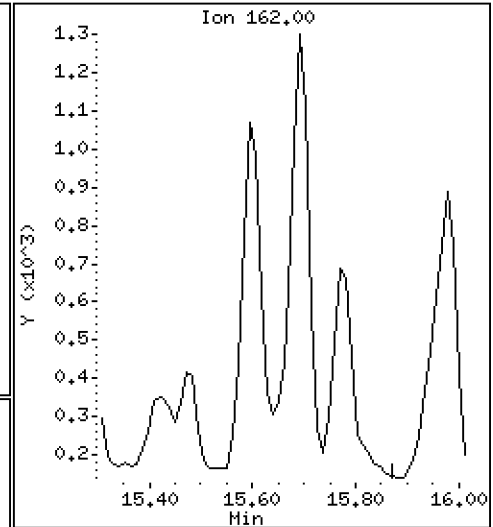
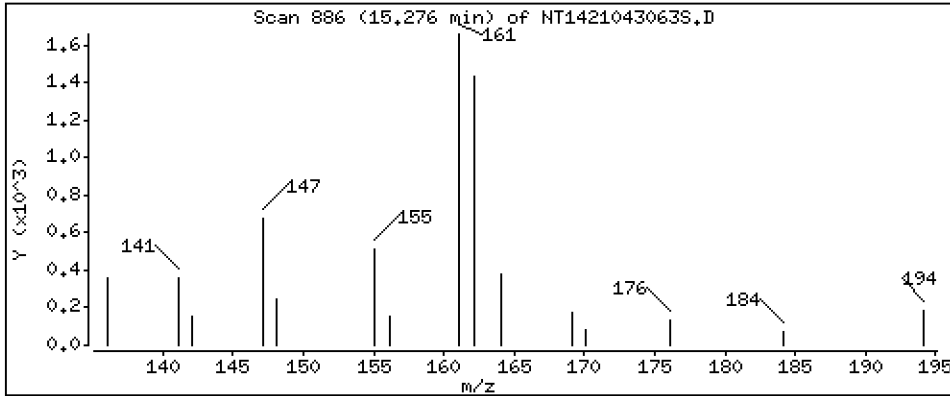
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

14 C2-Benzothiophenes

Concentration: 0.05990 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

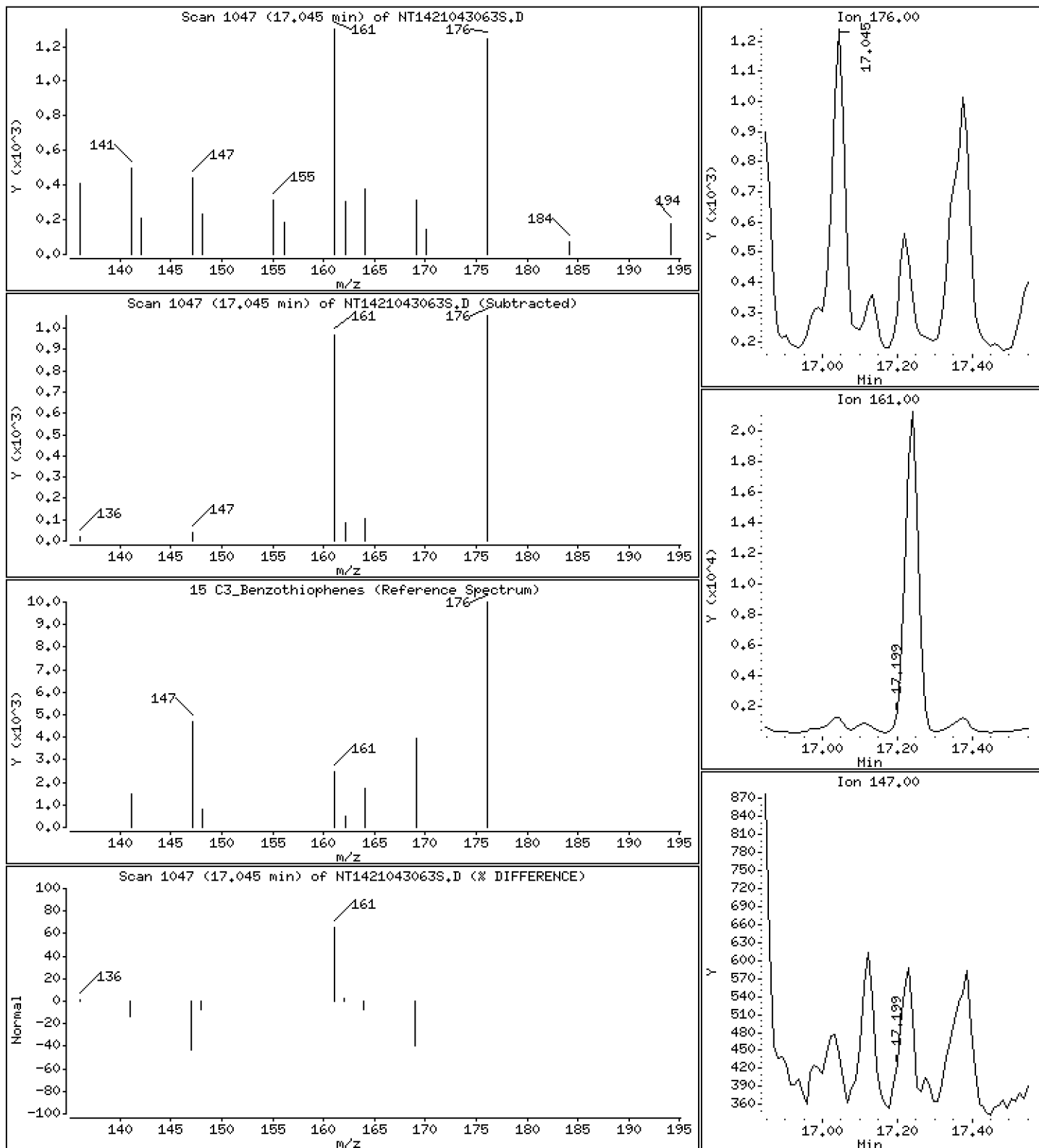
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

15 C3_Benzothiophenes

Concentration: 0,04830 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

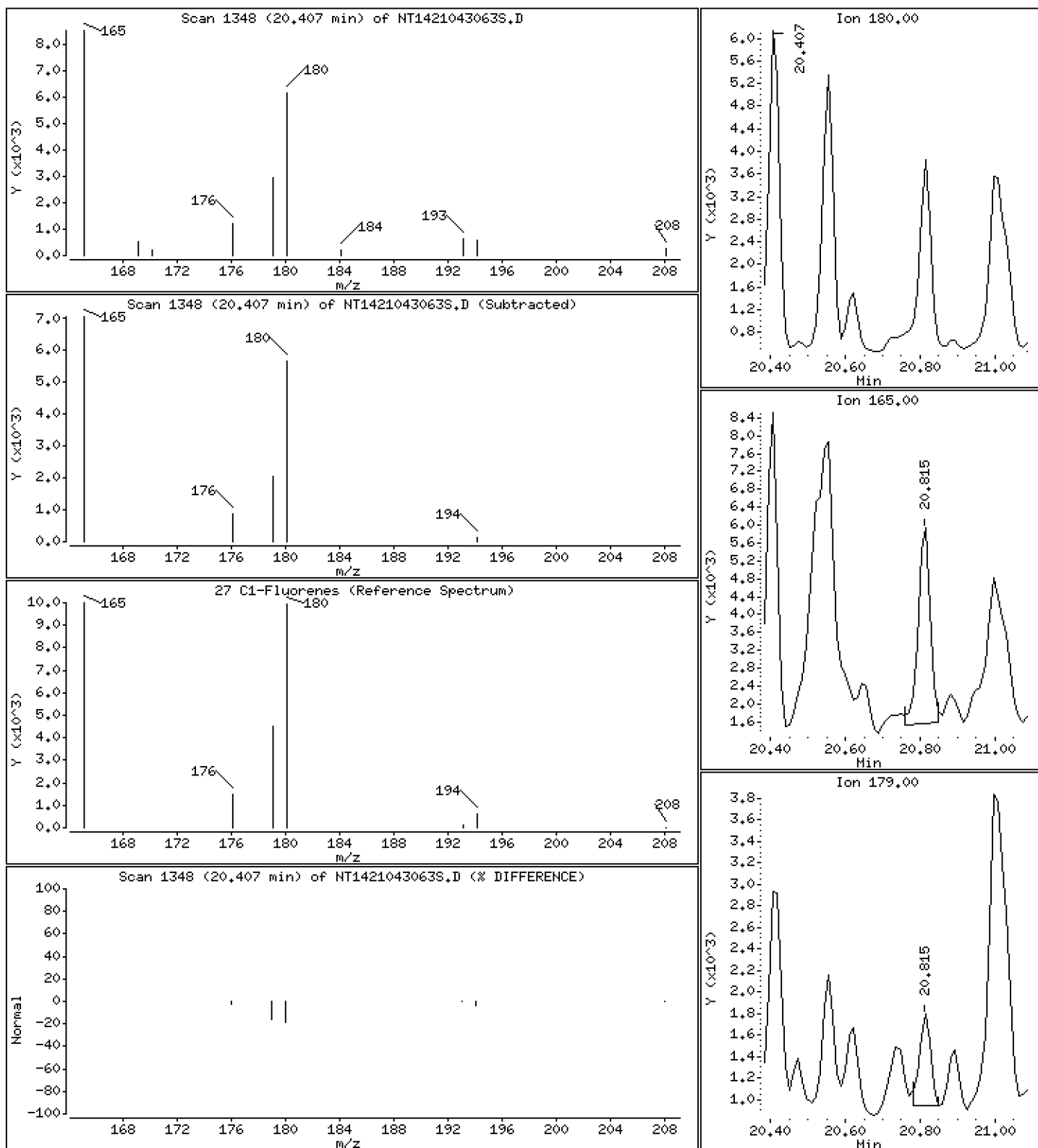
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

27 C1-Fluorenes

Concentration: 0.2722 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

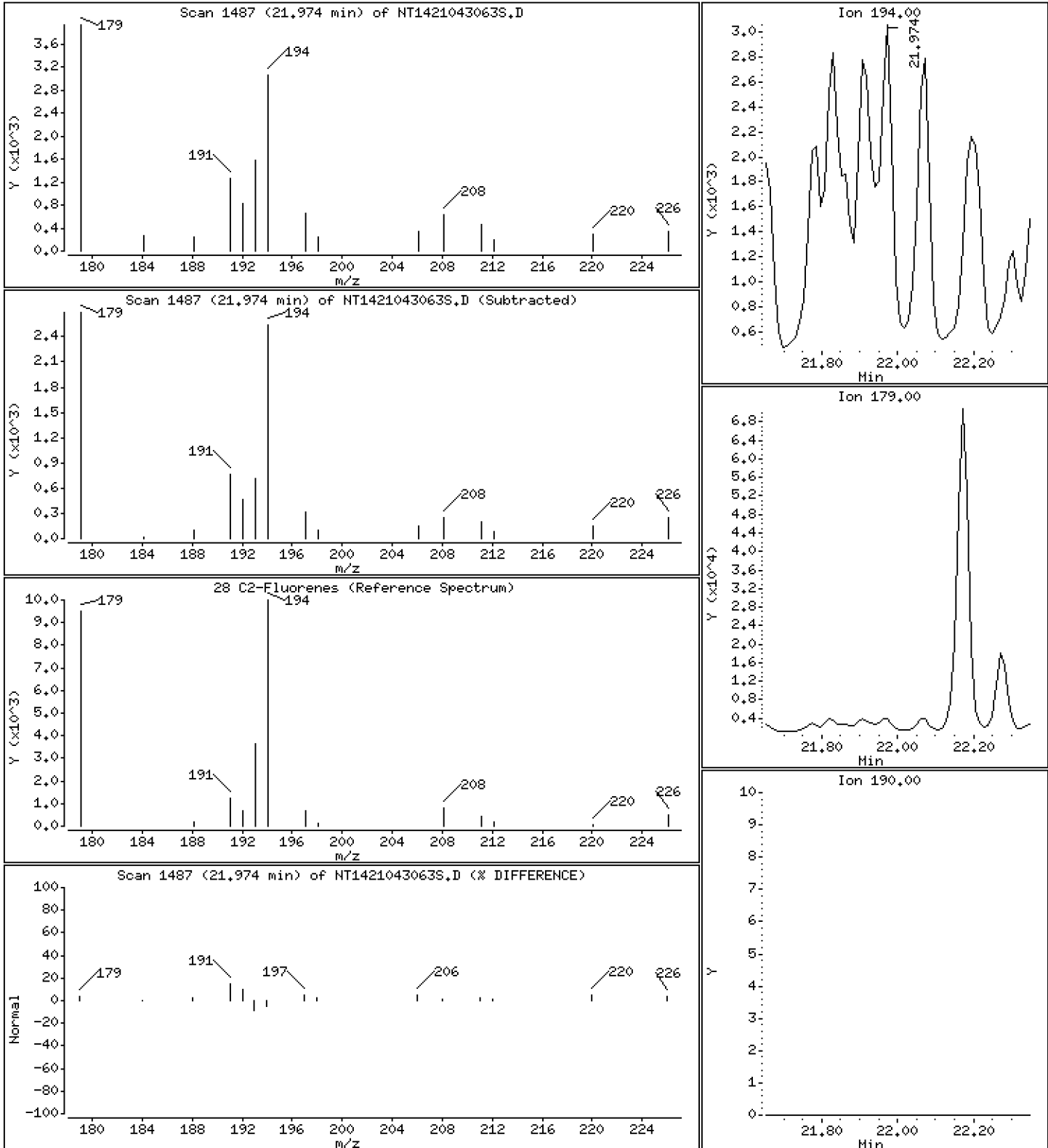
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

28 C2-Fluorenes

Concentration: 0,2862 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

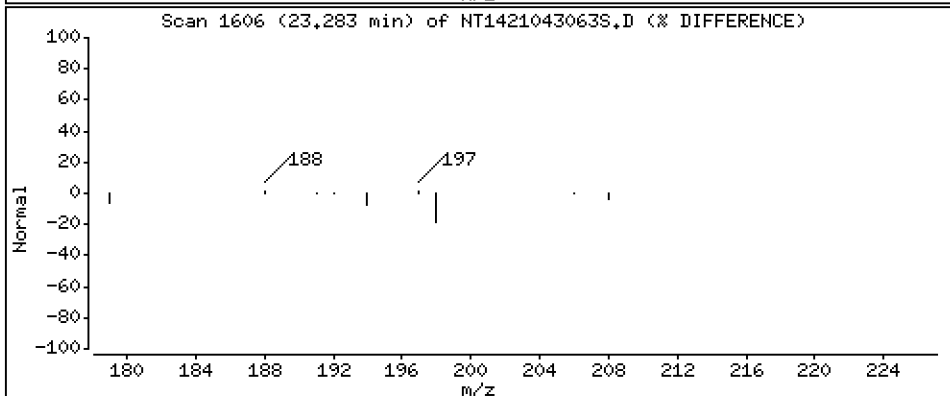
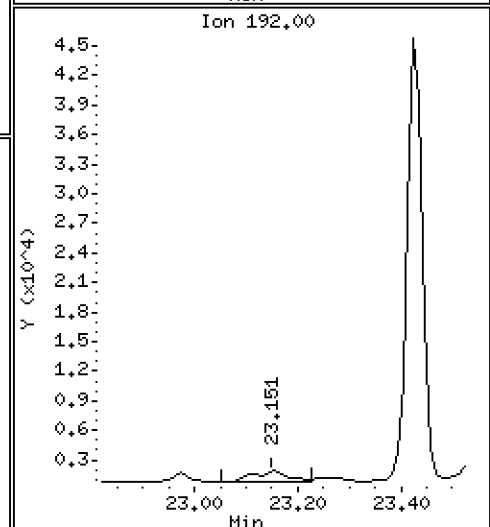
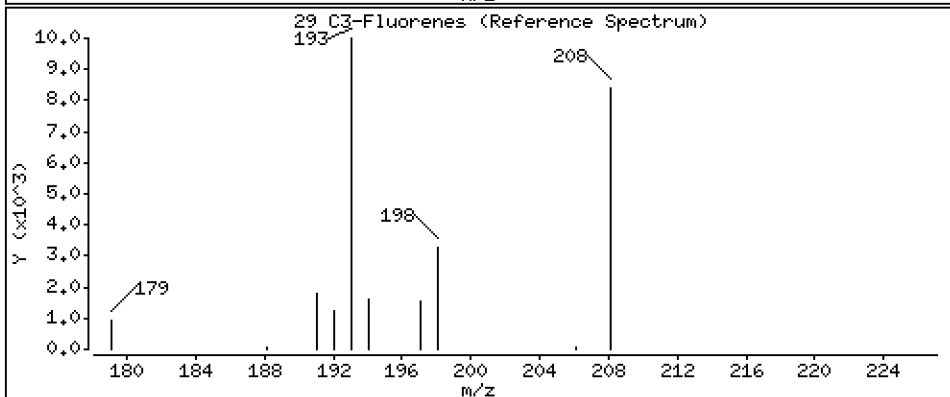
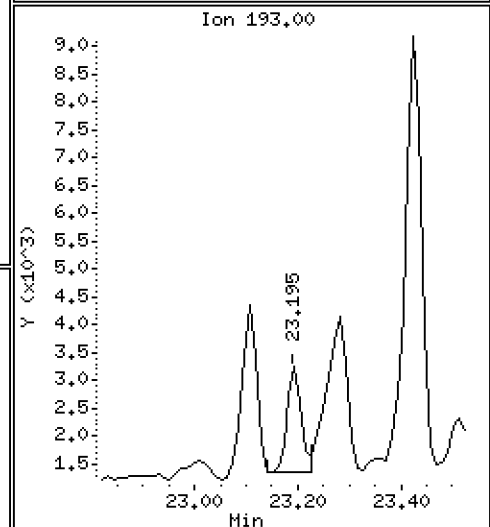
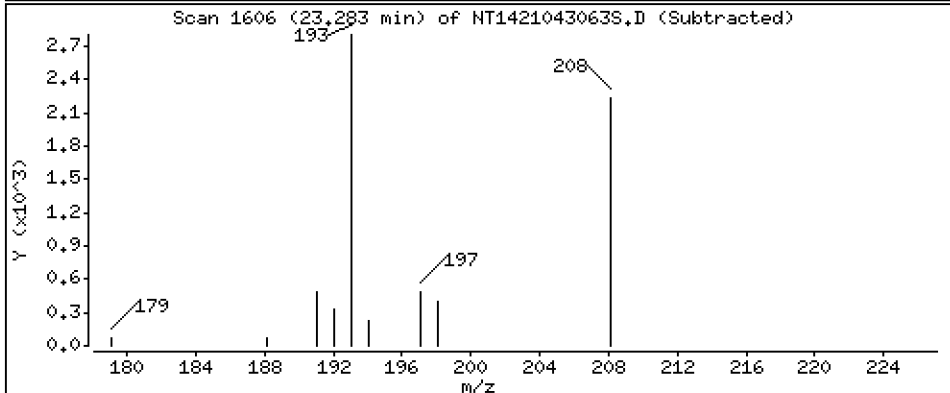
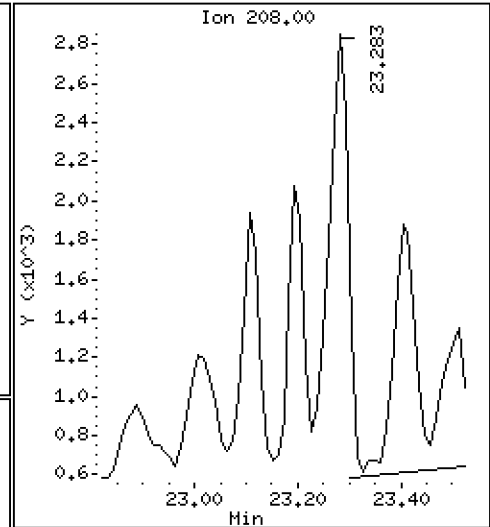
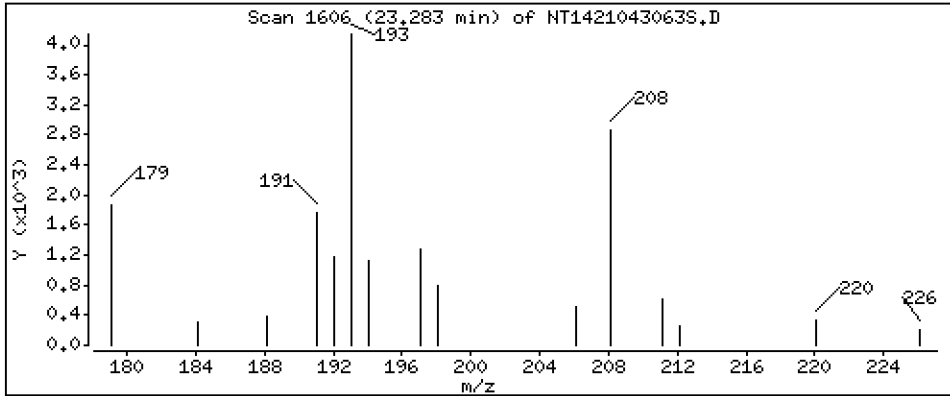
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

29 C3-Fluorenes

Concentration: 0,2900 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

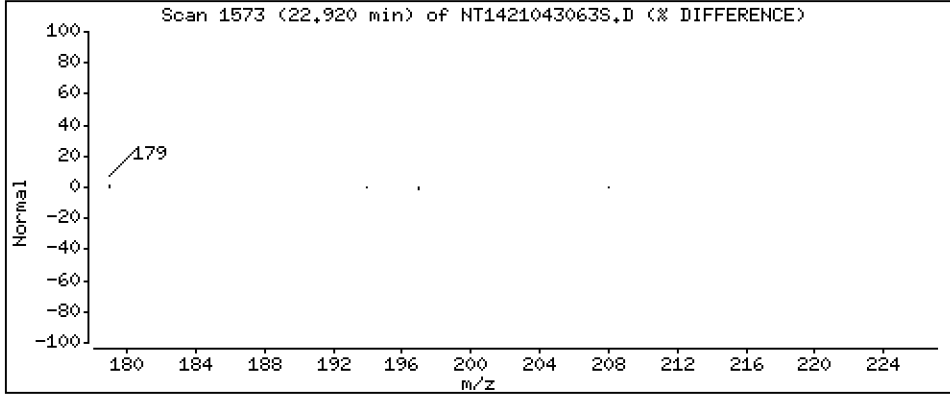
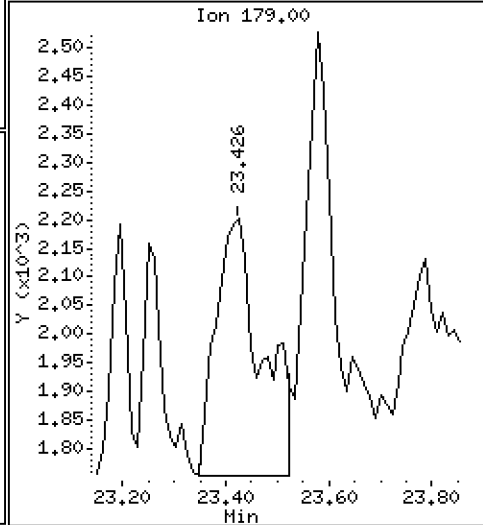
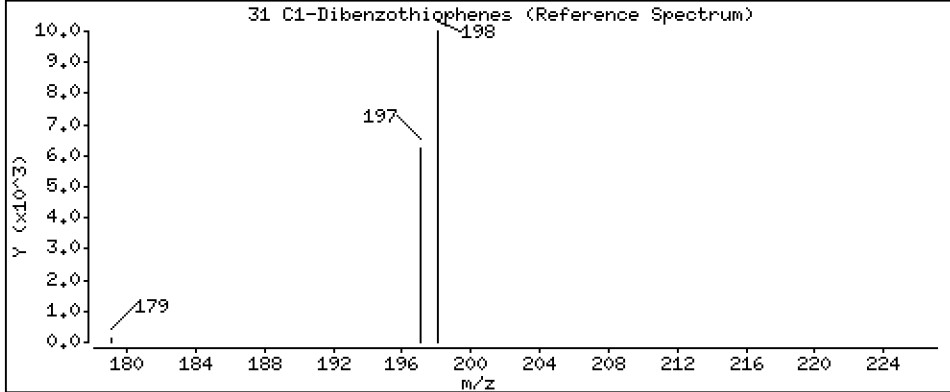
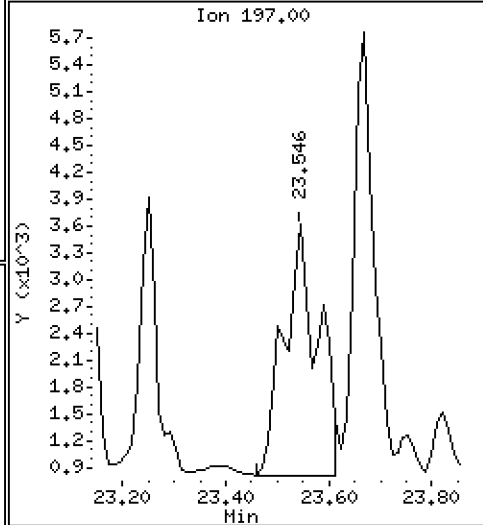
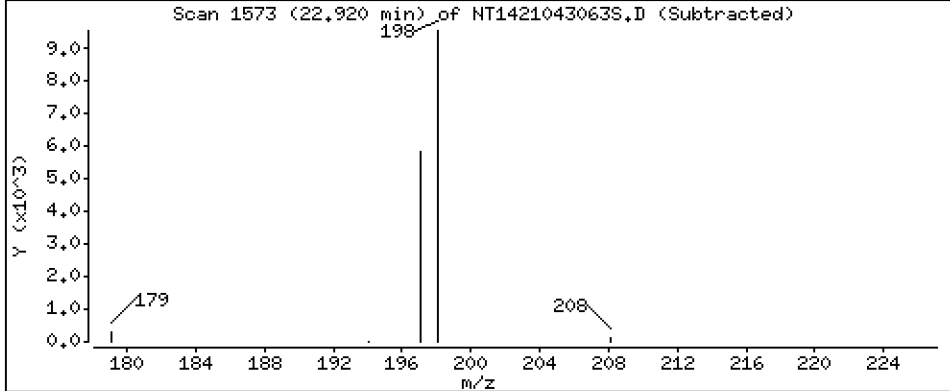
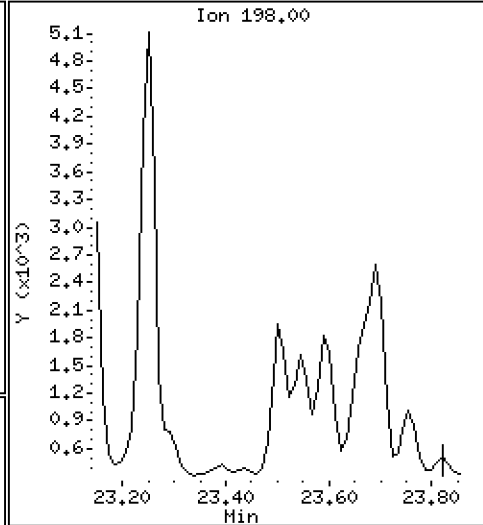
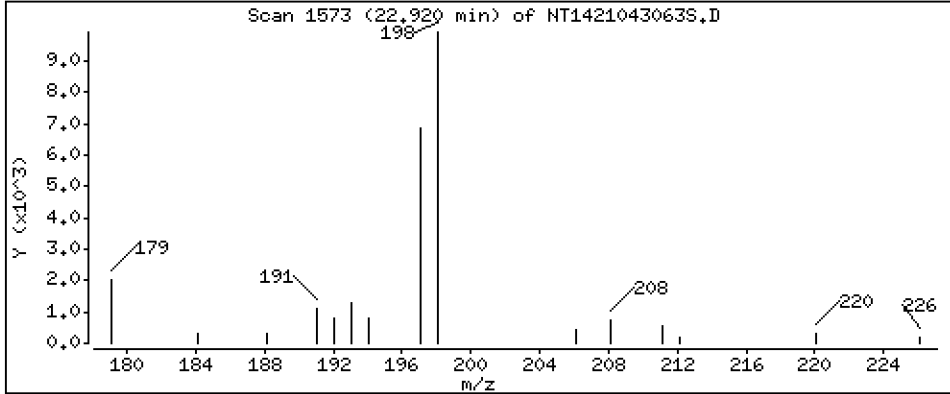
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

31 C1-Dibenzothiophenes

Concentration: 0,2550 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

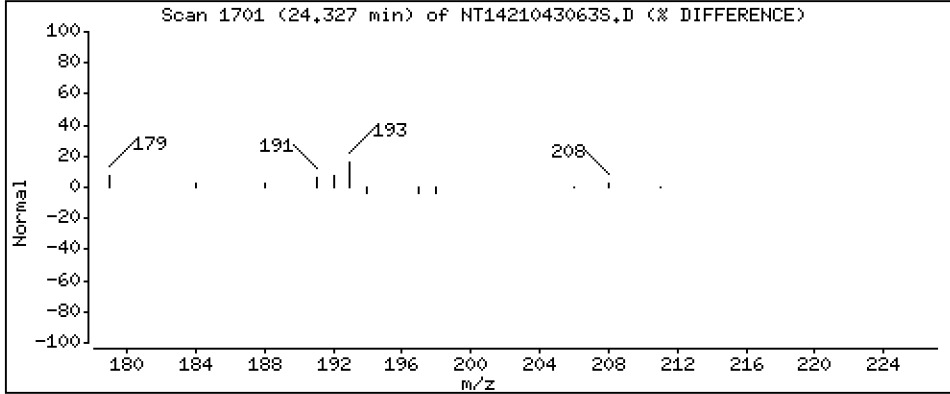
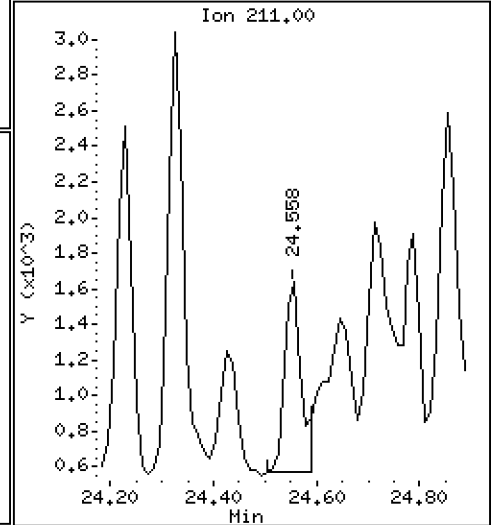
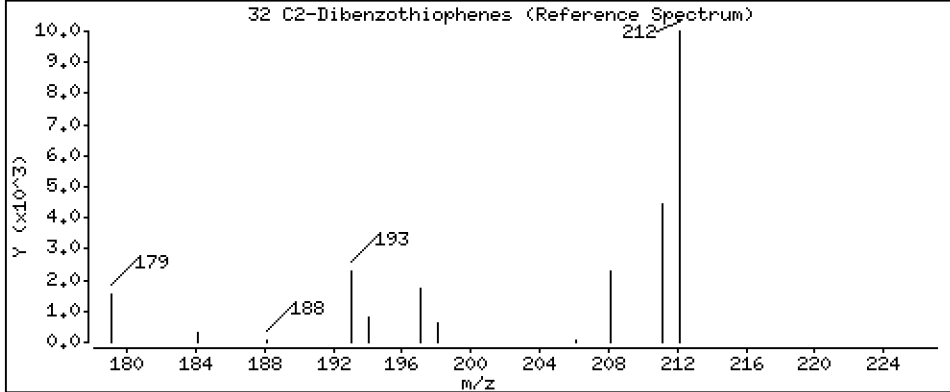
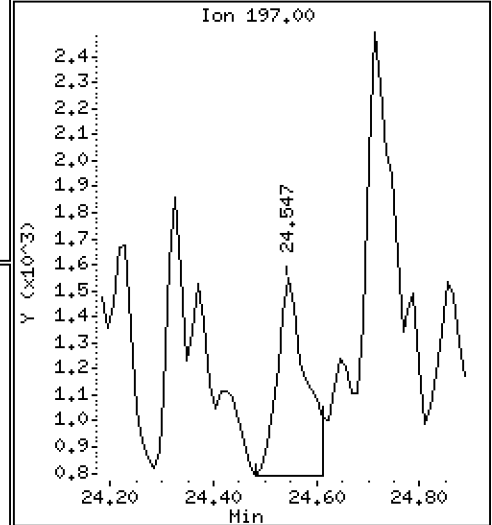
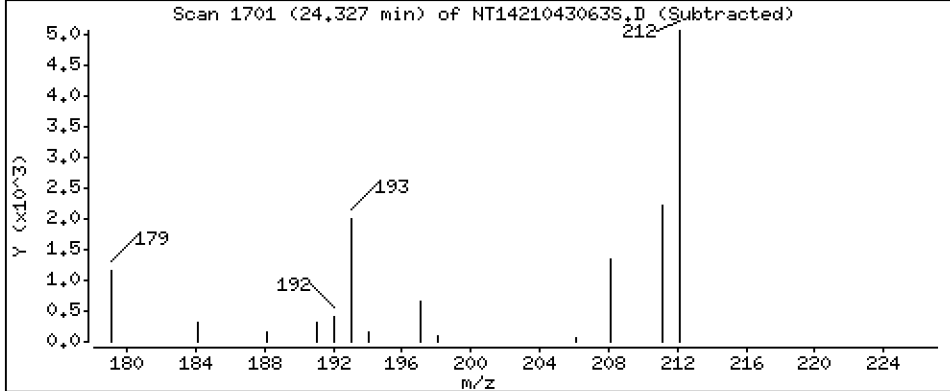
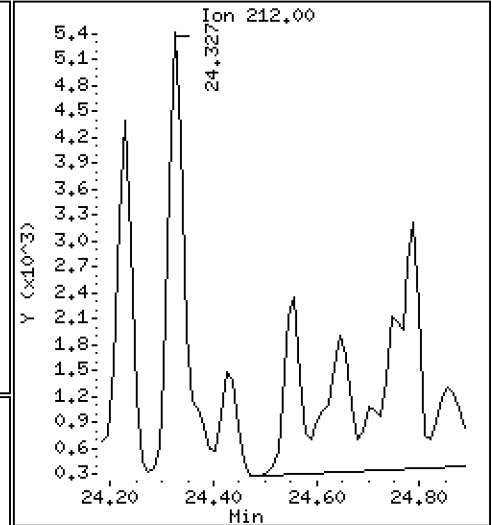
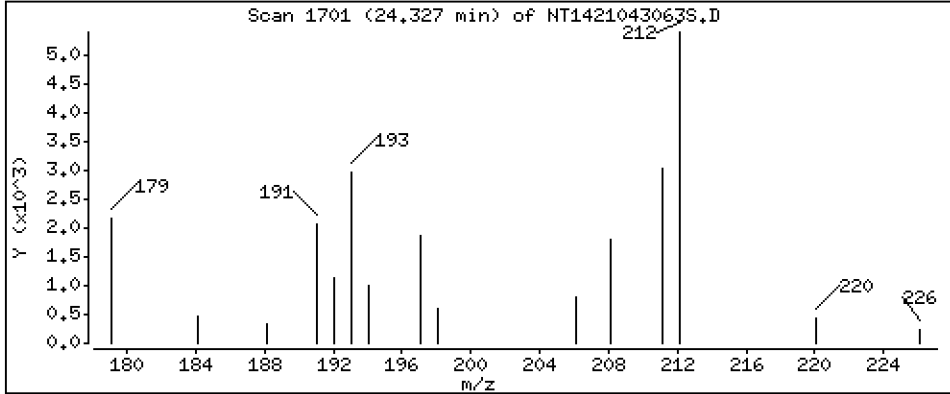
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

Concentration: 0.3189 ug/mL

32 C2-Dibenzothiophenes



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

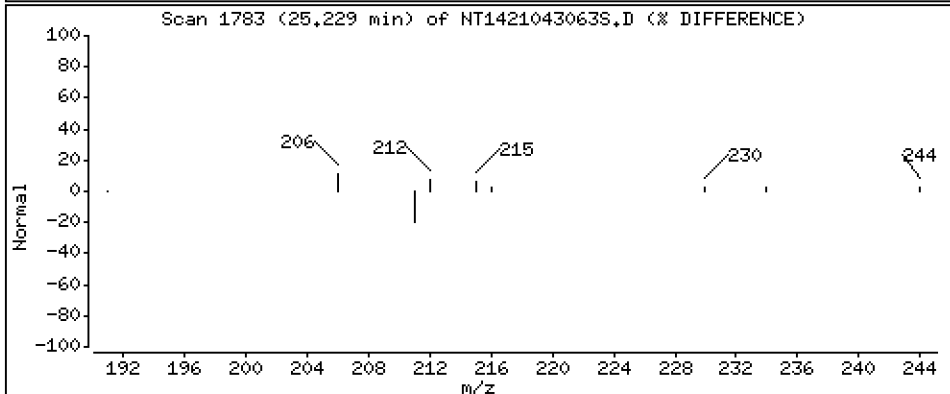
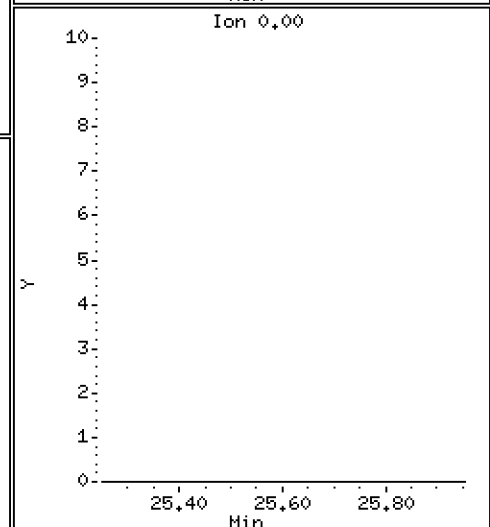
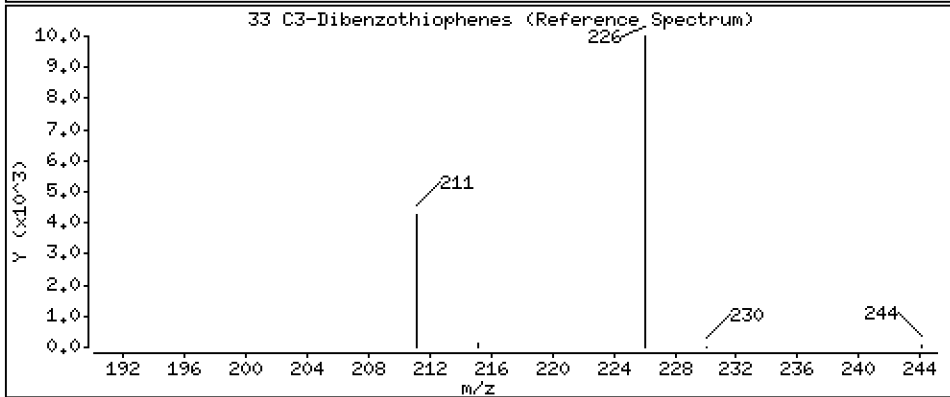
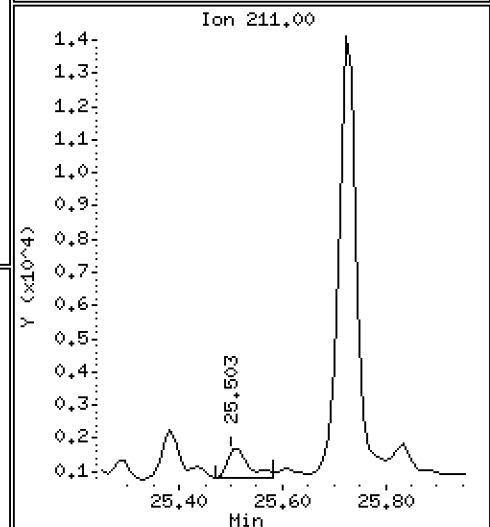
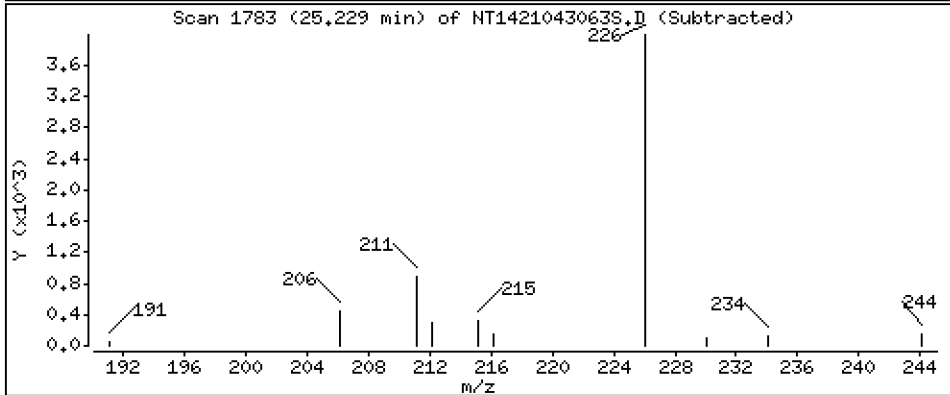
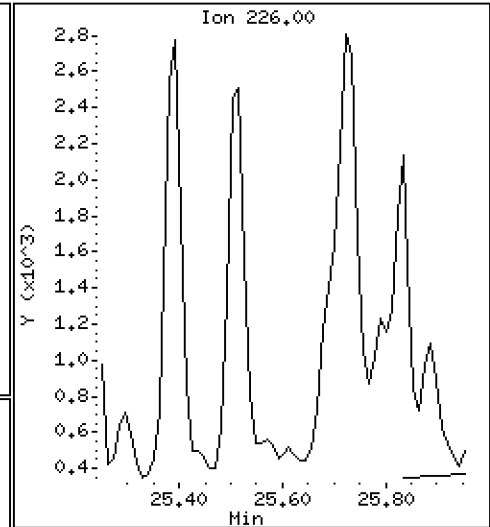
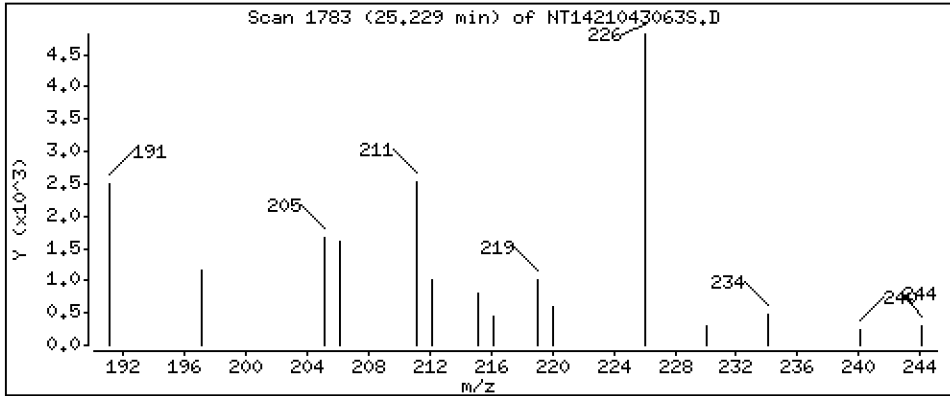
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

33 C3-Dibenzothiophenes

Concentration: 0,2648 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

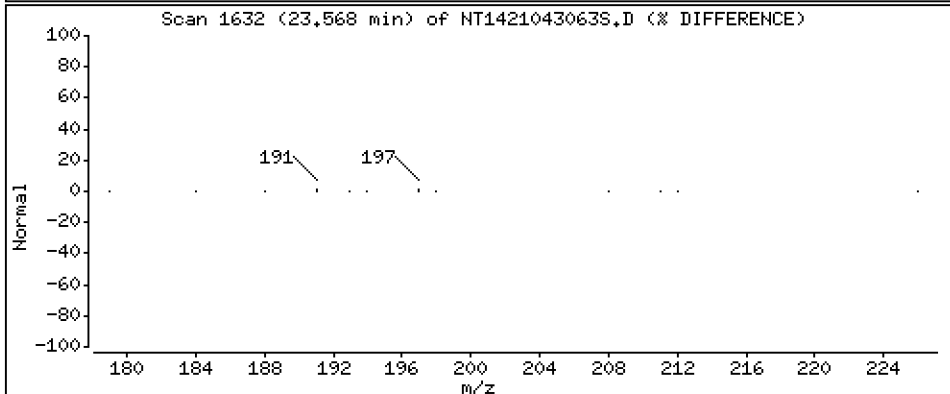
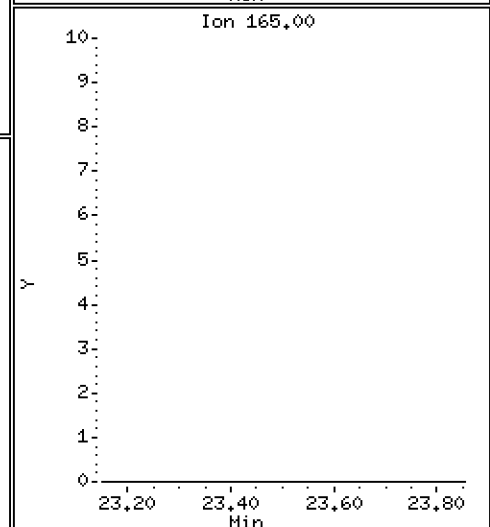
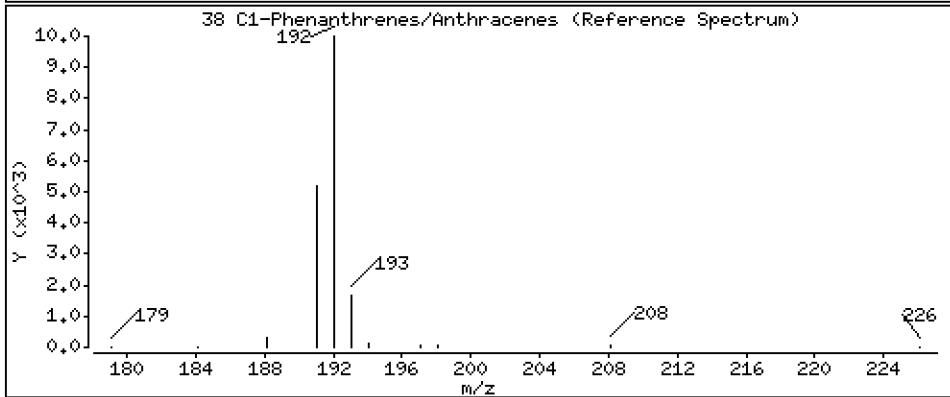
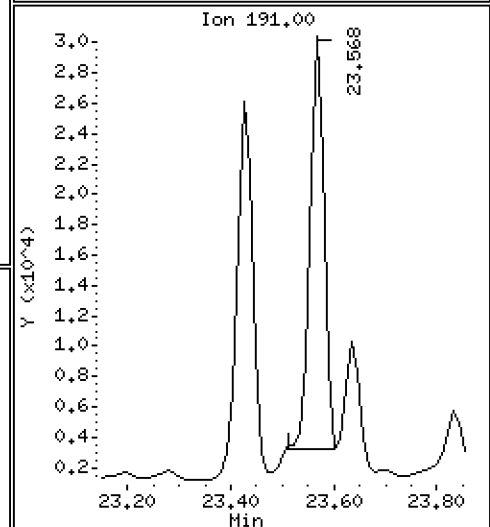
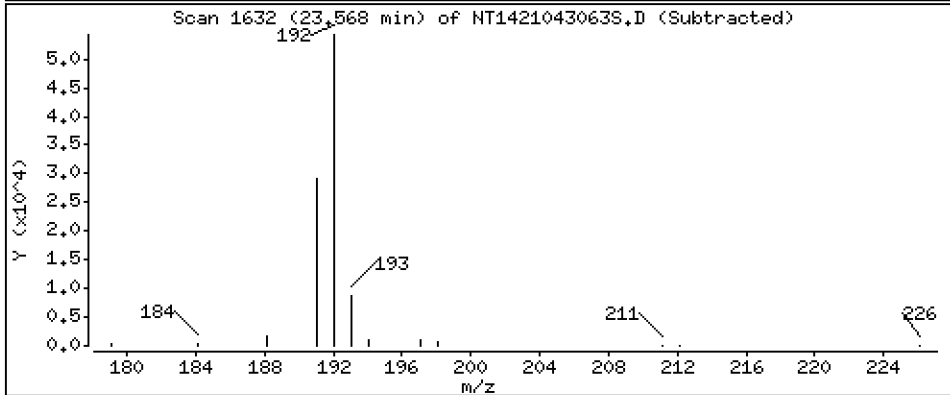
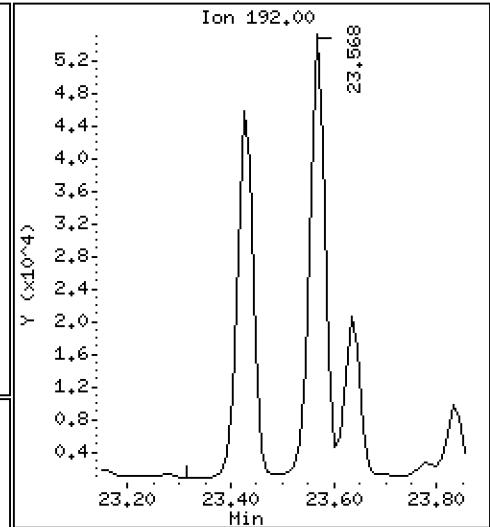
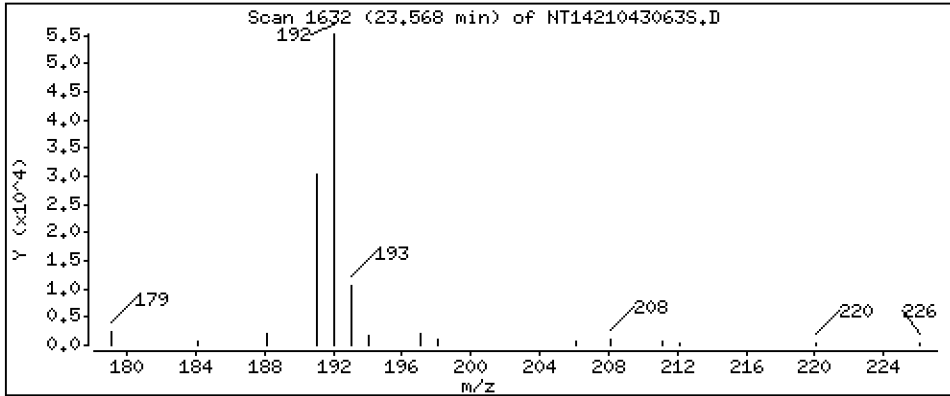
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

38 C1-Phenanthrenes/Anthracenes

Concentration: 1,344 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

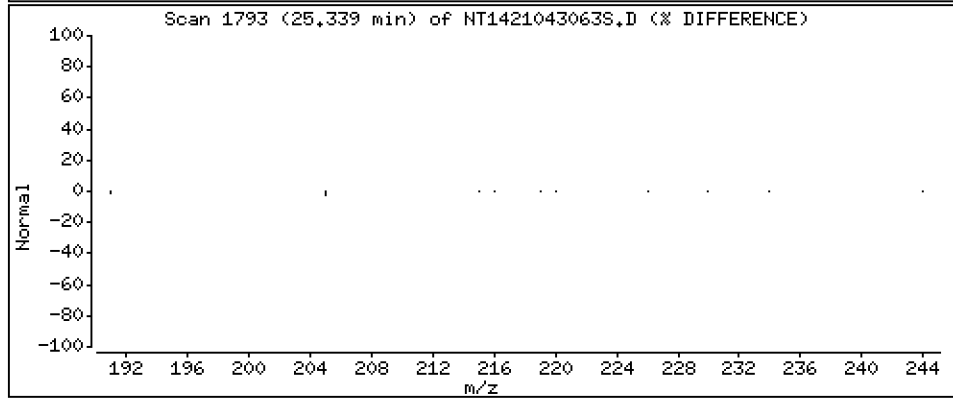
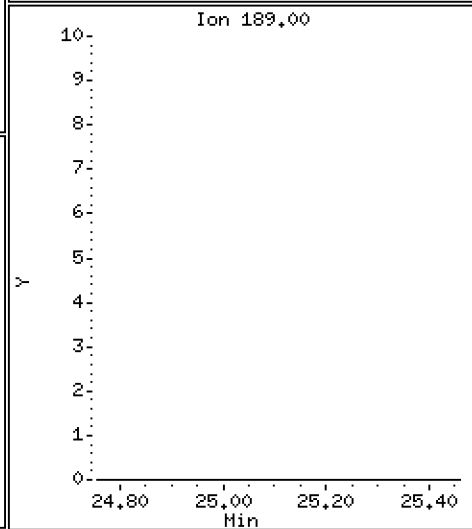
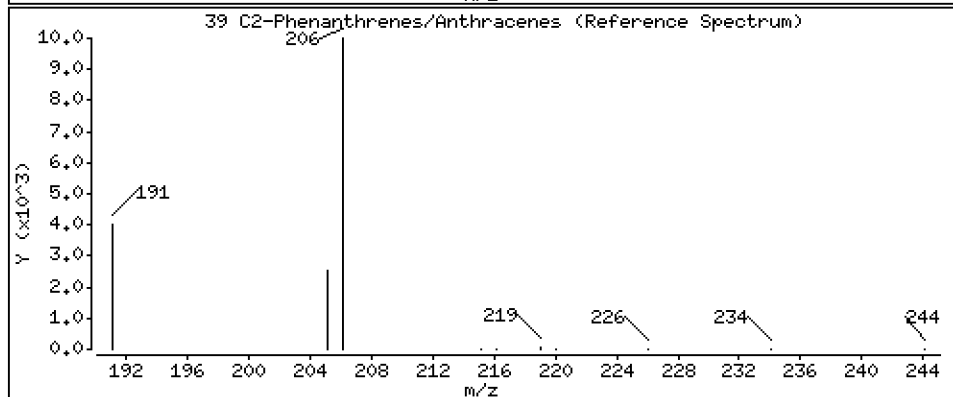
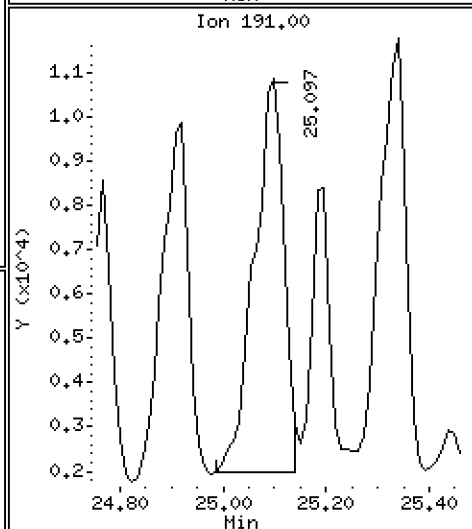
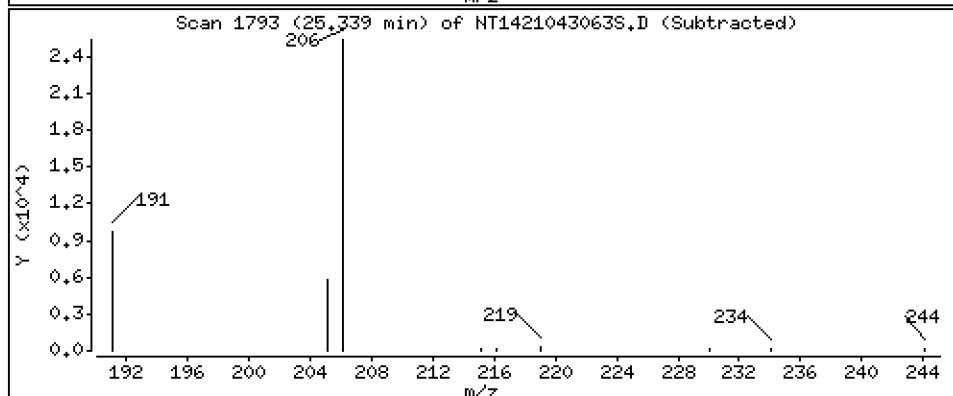
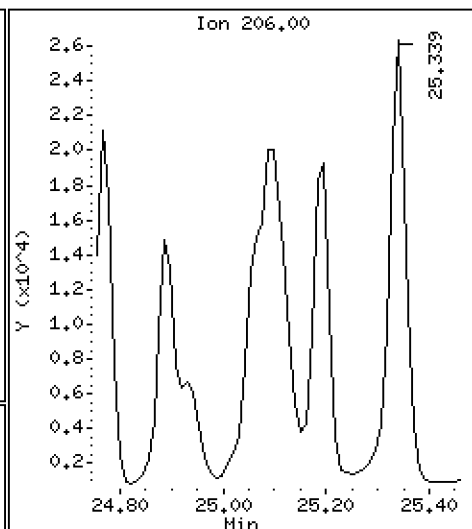
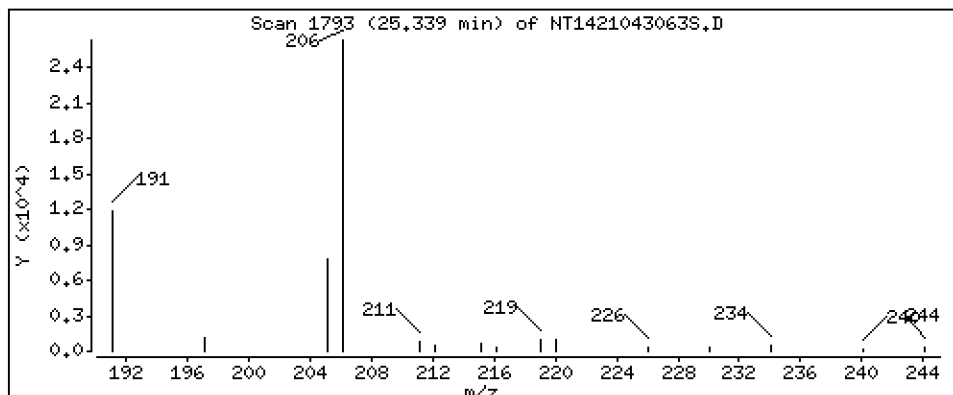
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

39 C2-Phenanthrenes/Anthracenes

Concentration: 1,236 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

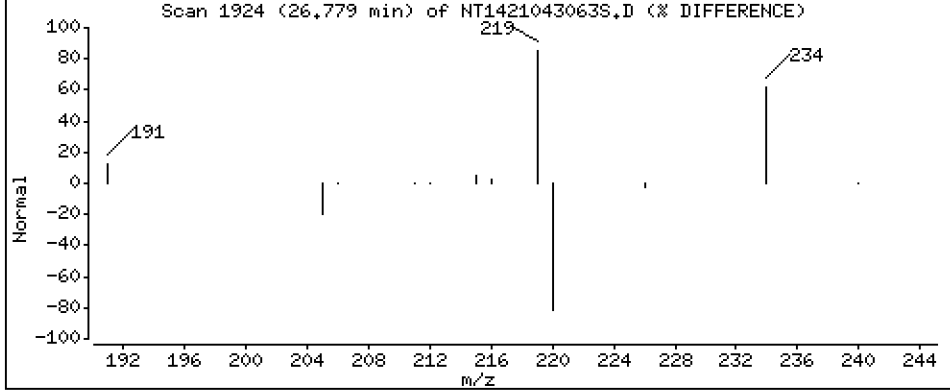
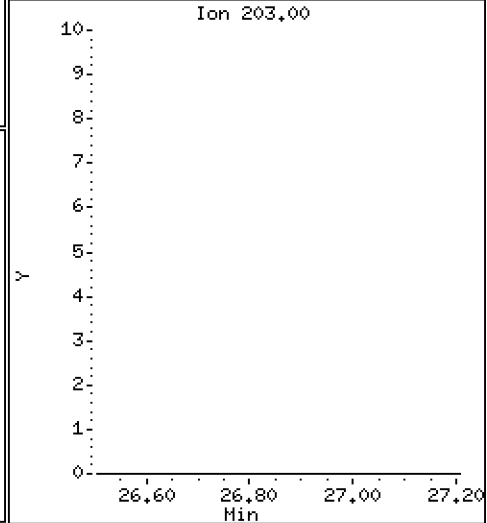
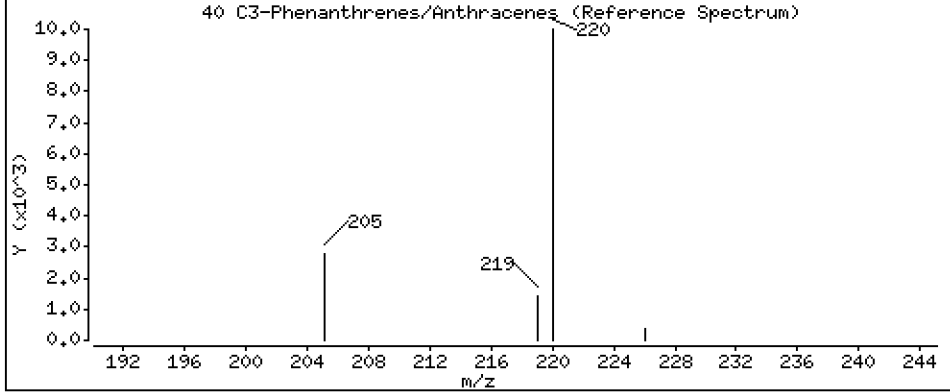
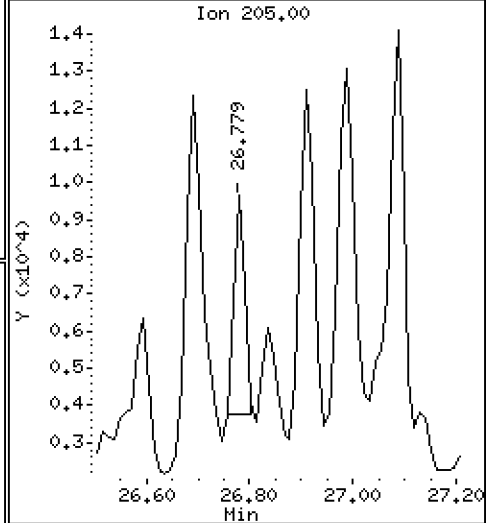
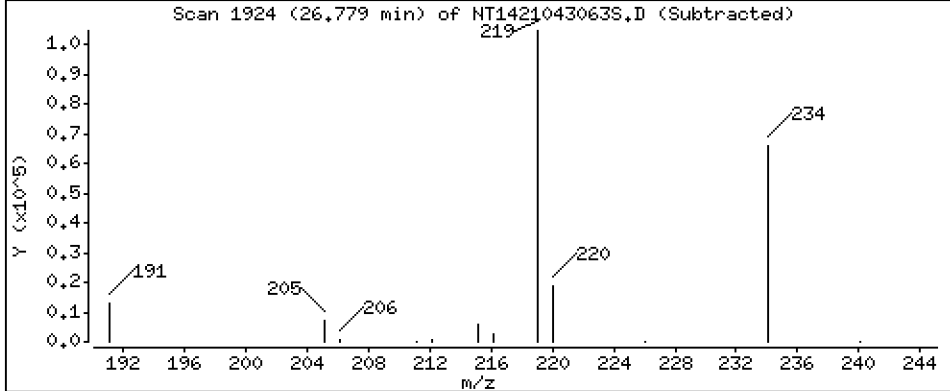
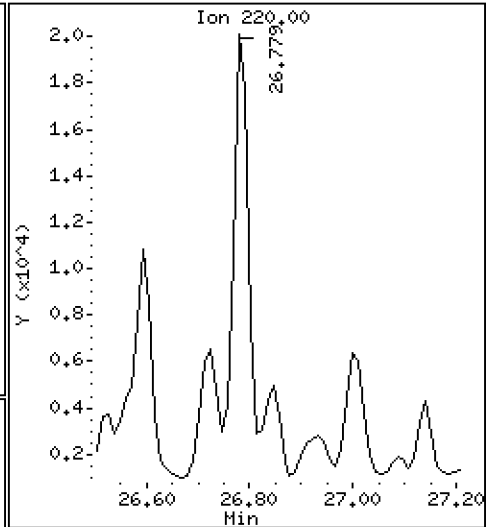
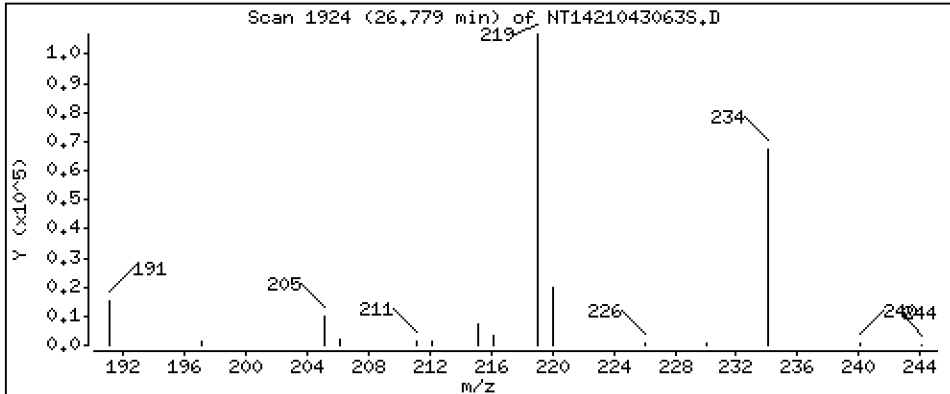
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

40 C3-Phenanthrenes/Anthracenes

Concentration: 0,8970 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

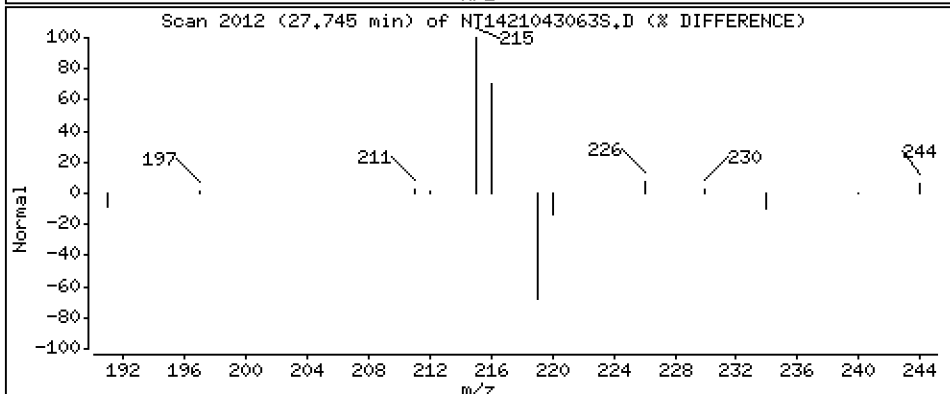
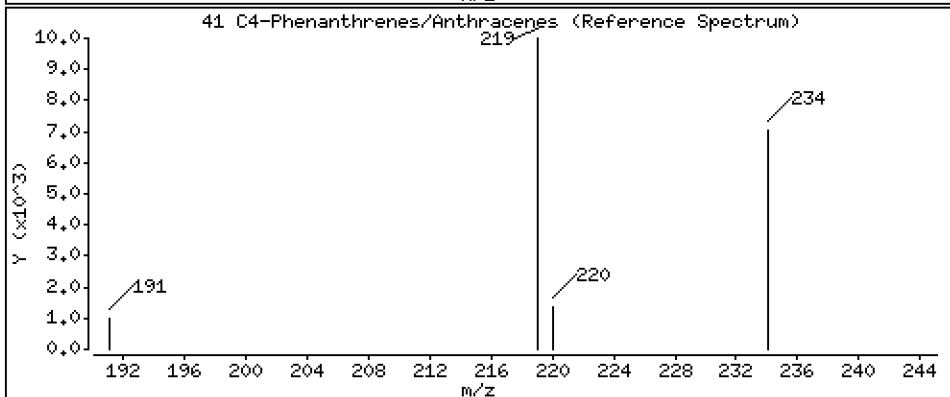
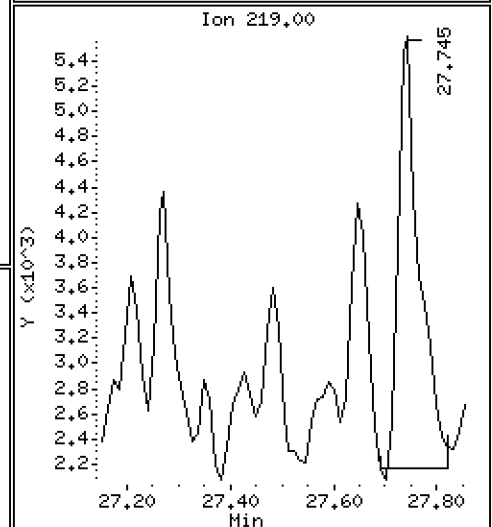
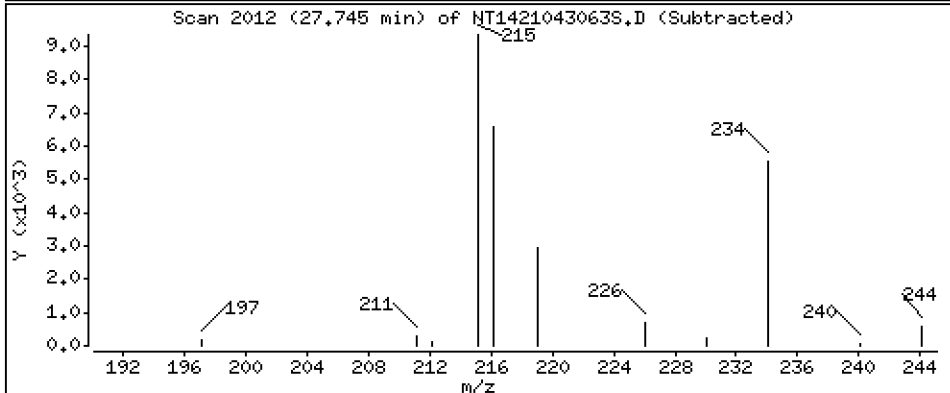
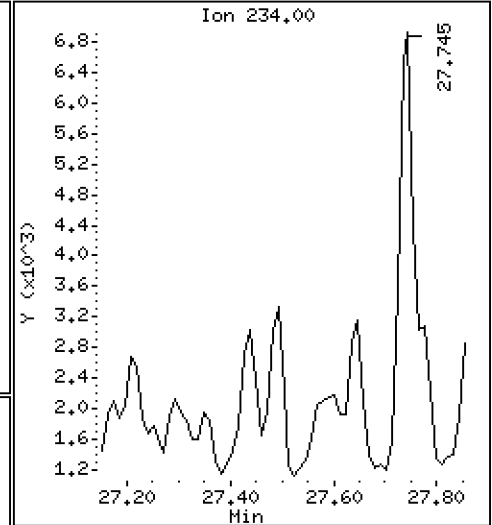
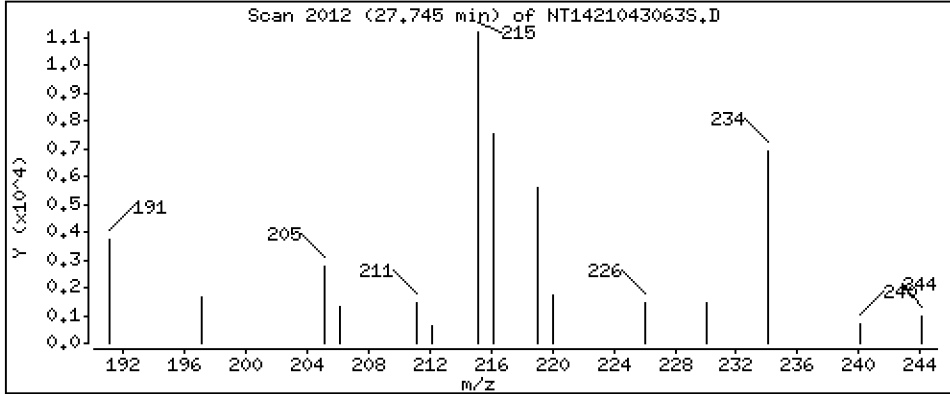
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

41 C4-Phenanthrenes/Anthracenes

Concentration: 0,2322 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

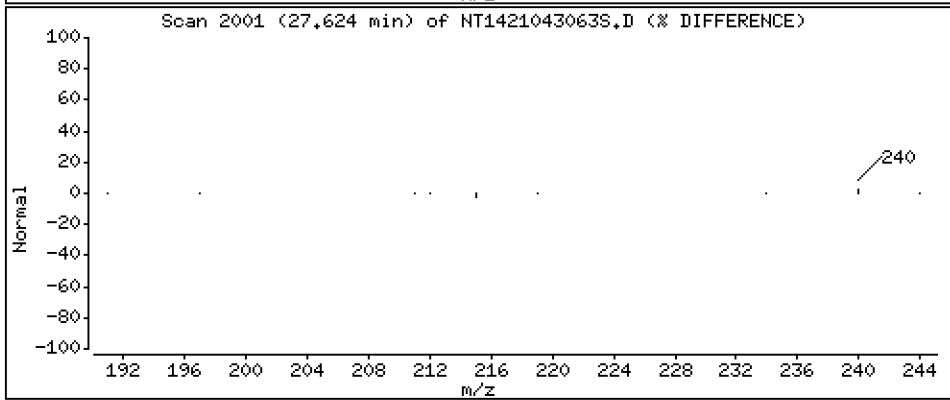
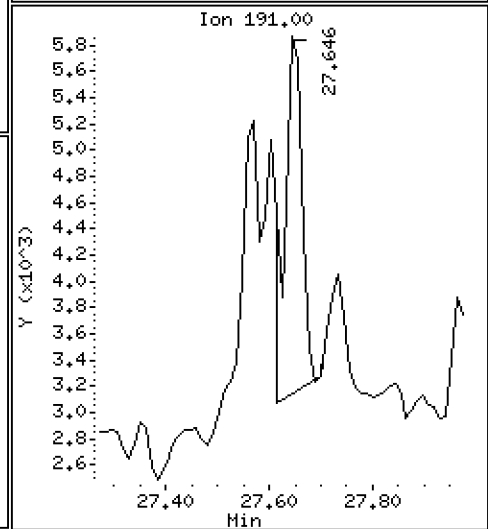
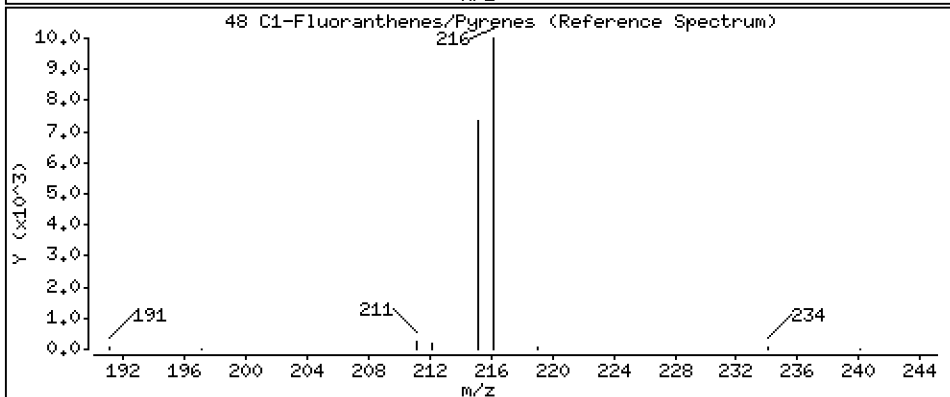
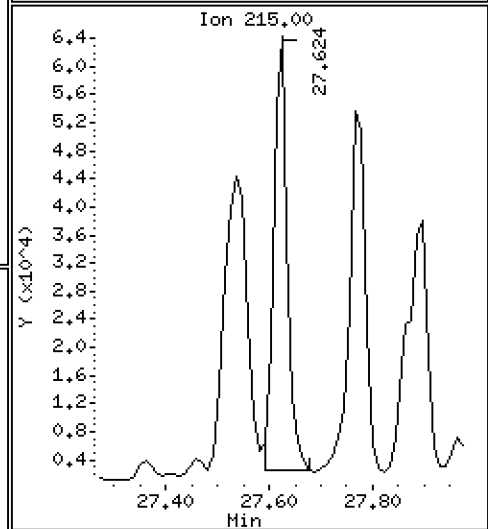
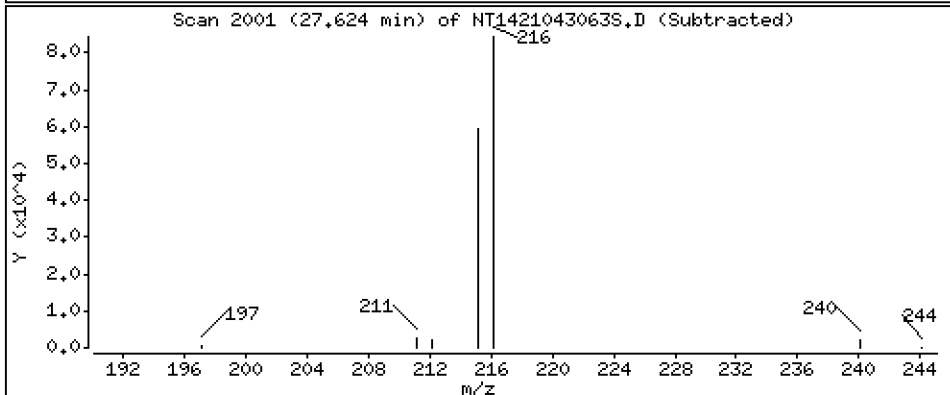
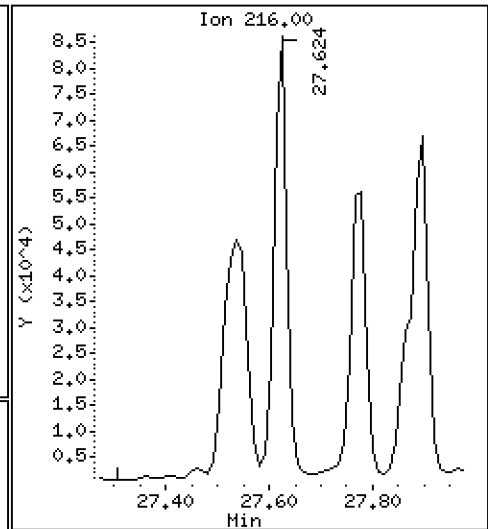
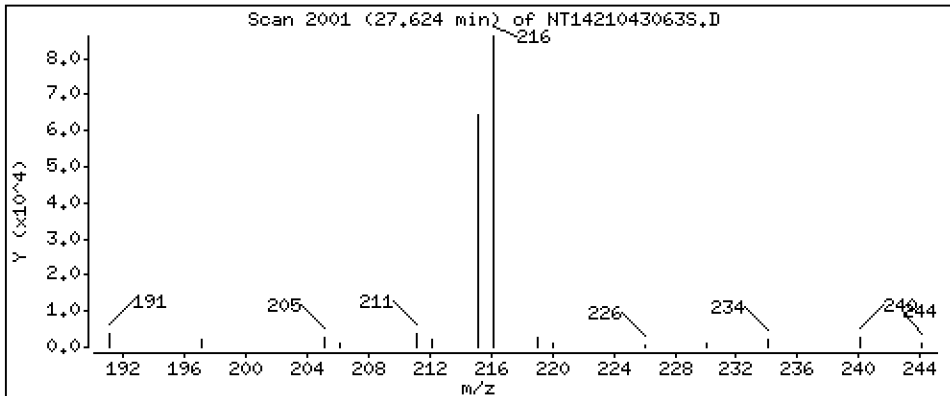
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

48 C1-Fluoranthenes/Pyrenes

Concentration: 2,809 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

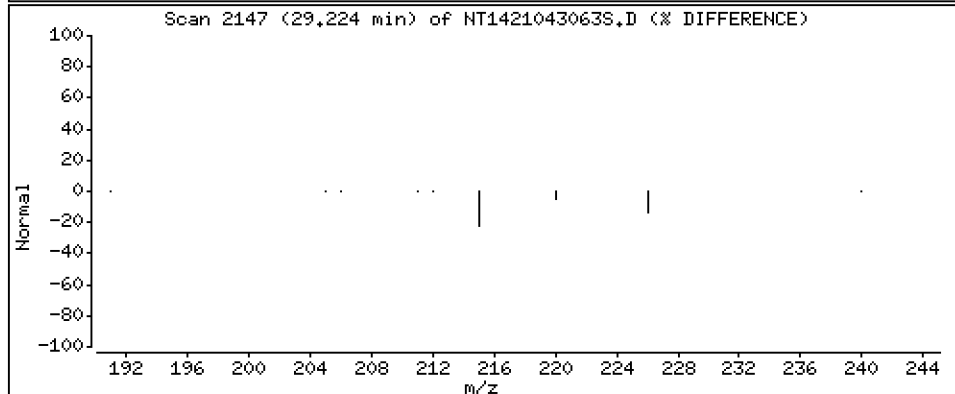
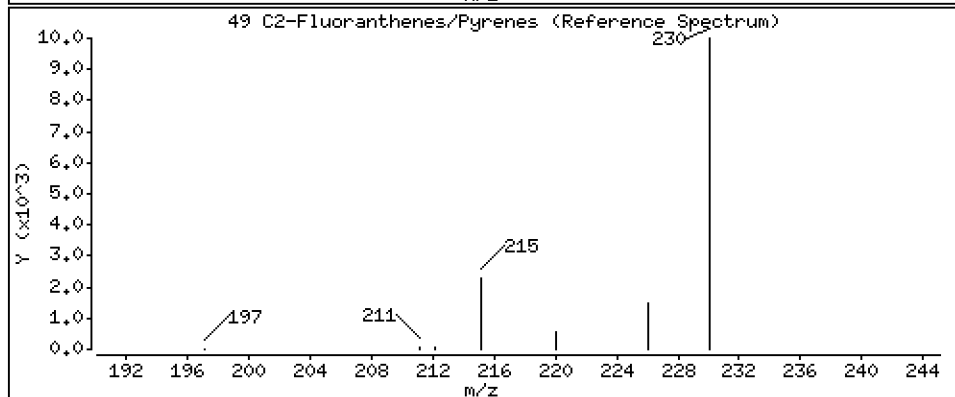
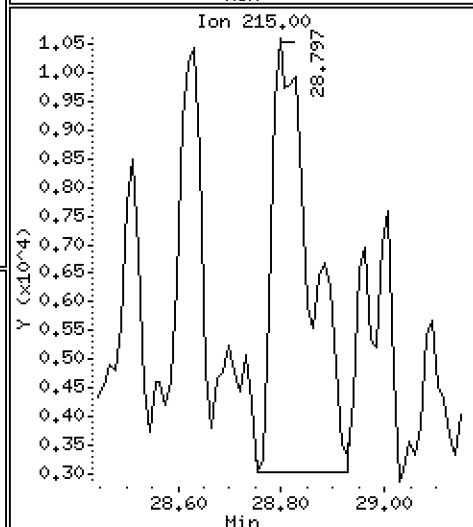
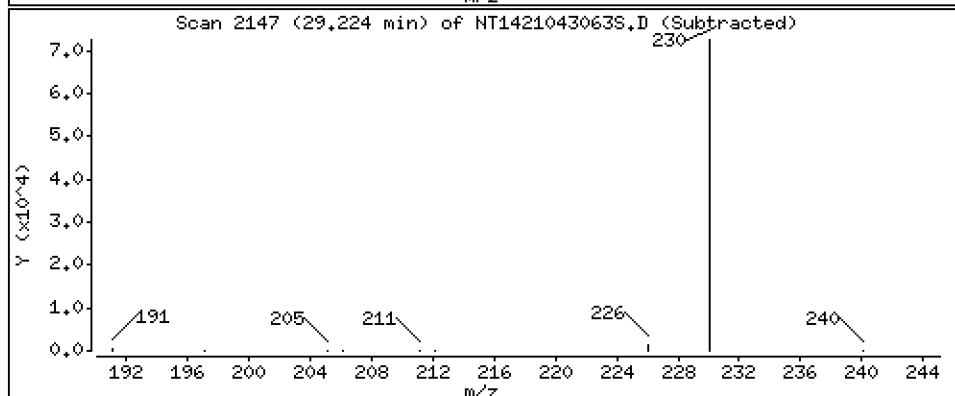
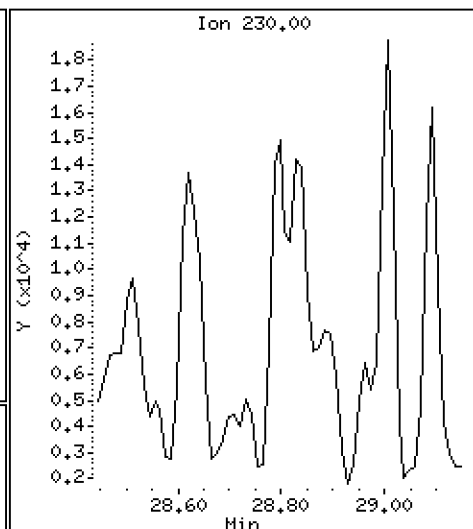
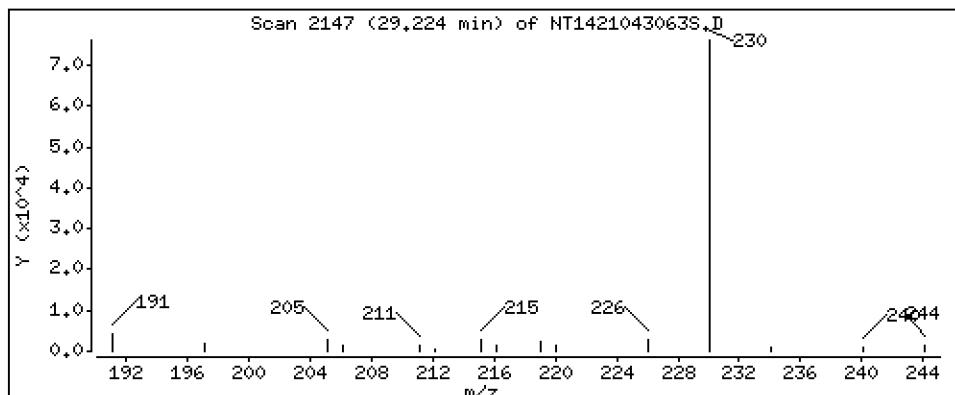
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

49 C2-Fluoranthenes/Pyrenes

Concentration: 1.901 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

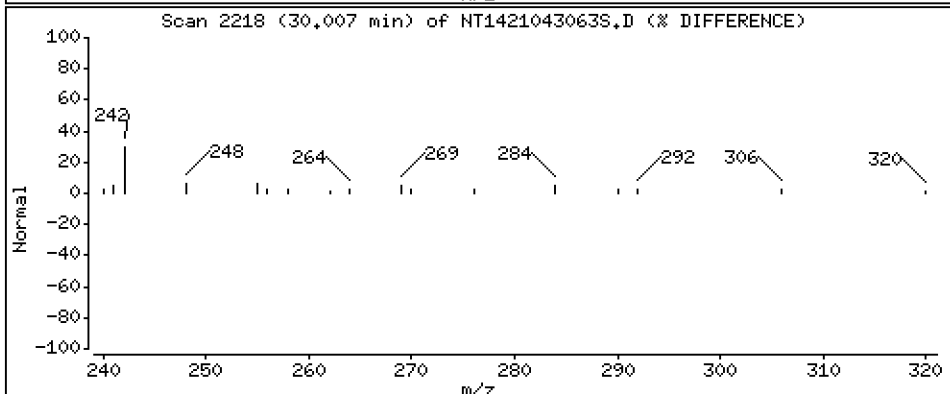
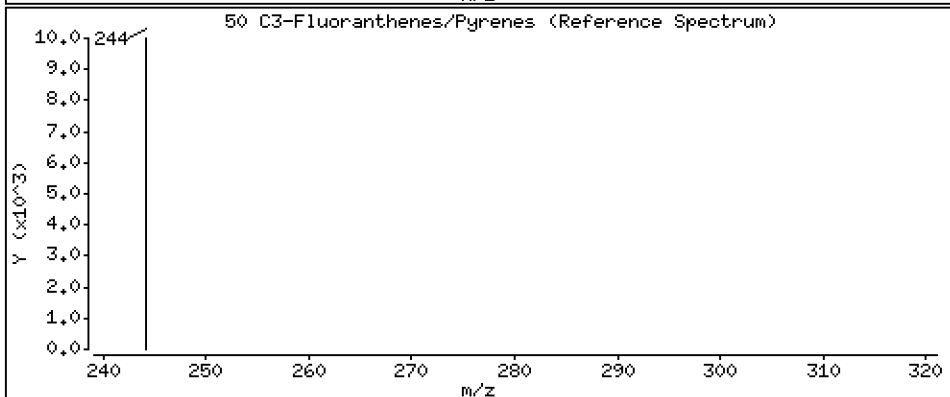
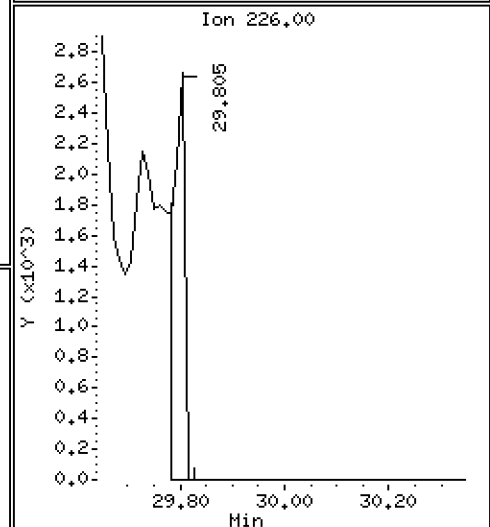
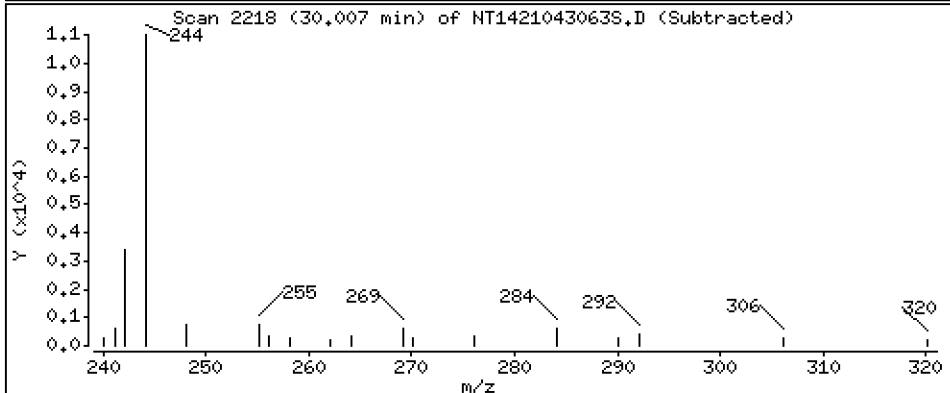
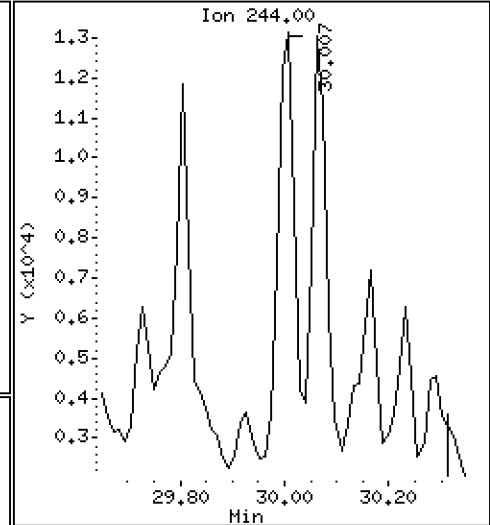
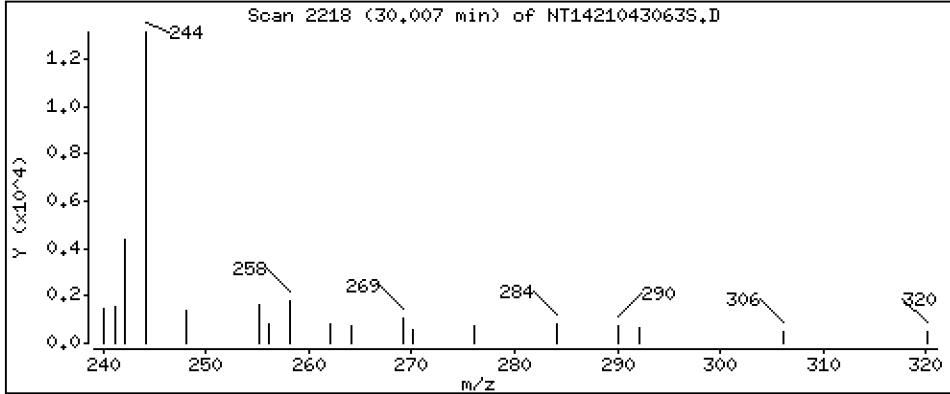
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

50 C3-Fluoranthenes/Pyrenes

Concentration: 0,7432 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

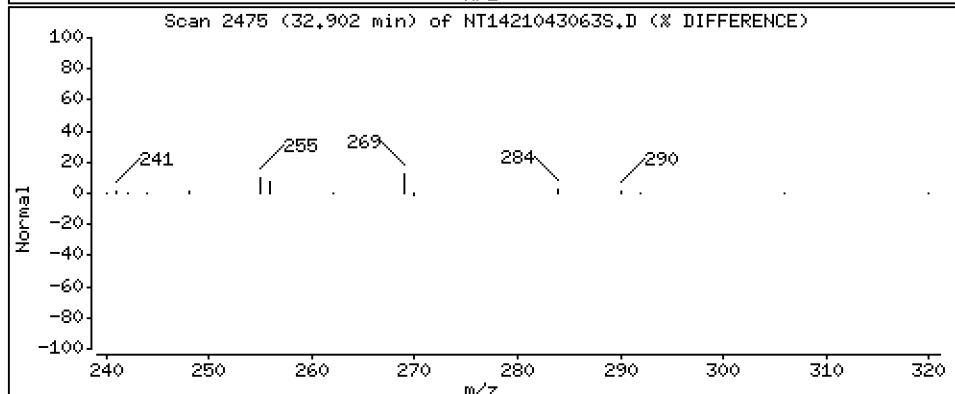
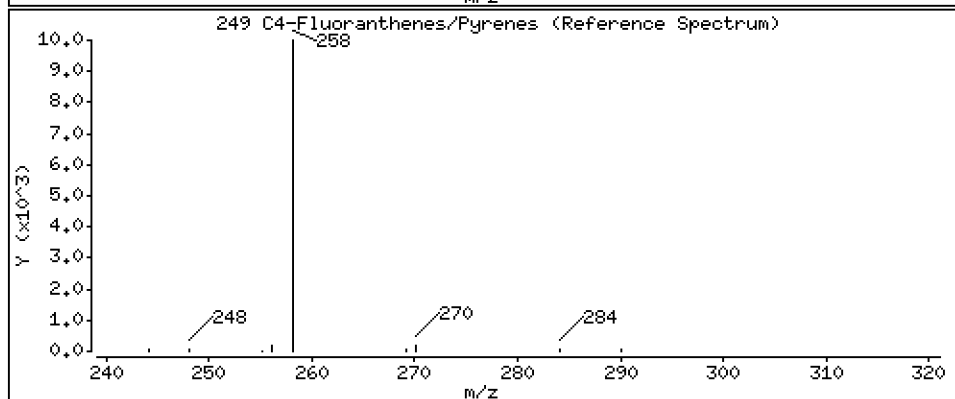
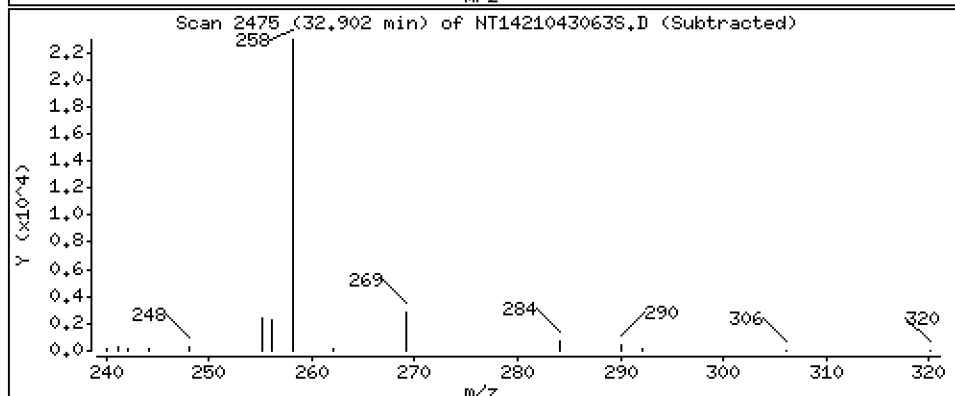
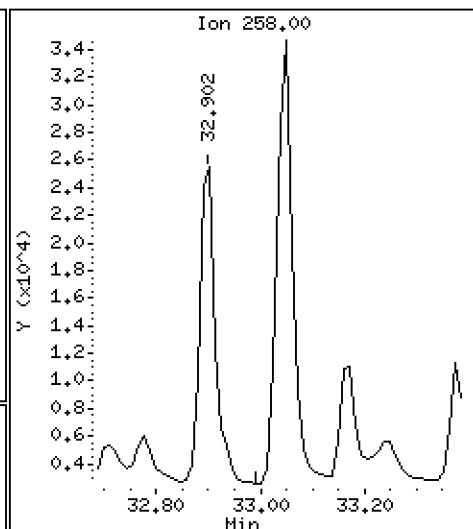
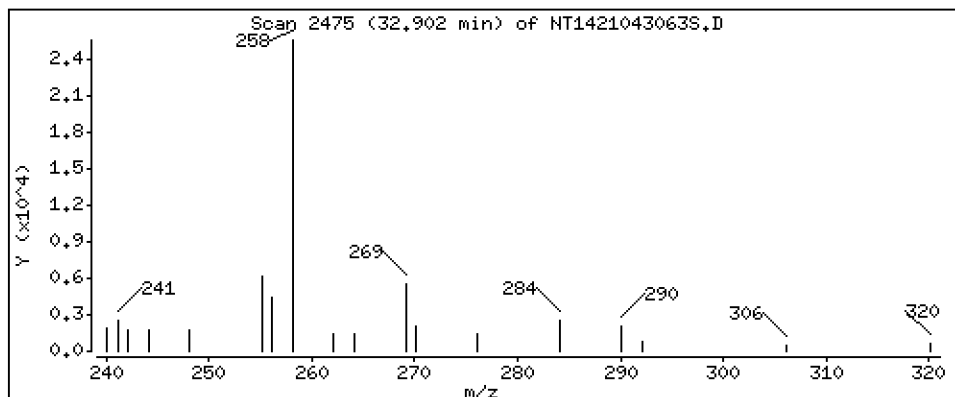
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

249 C4-Fluoranthenes/Pyrenes

Concentration: 0,4466 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

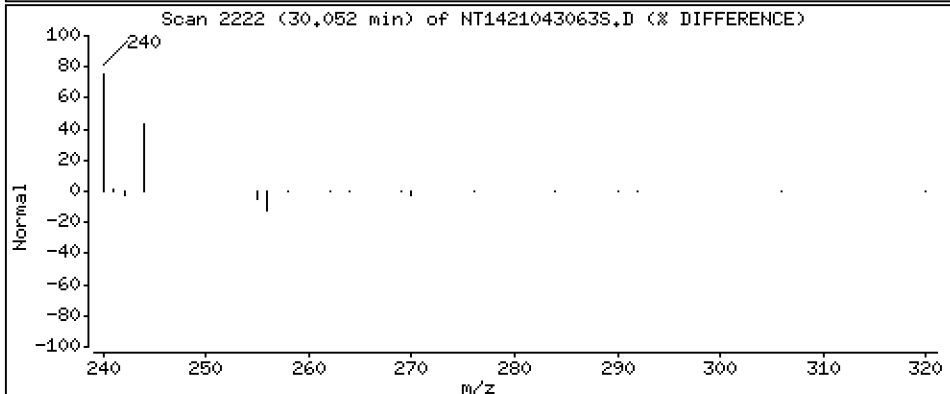
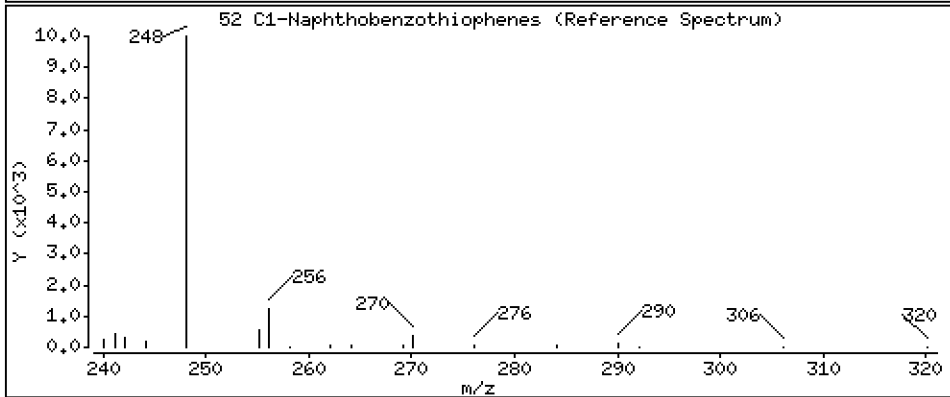
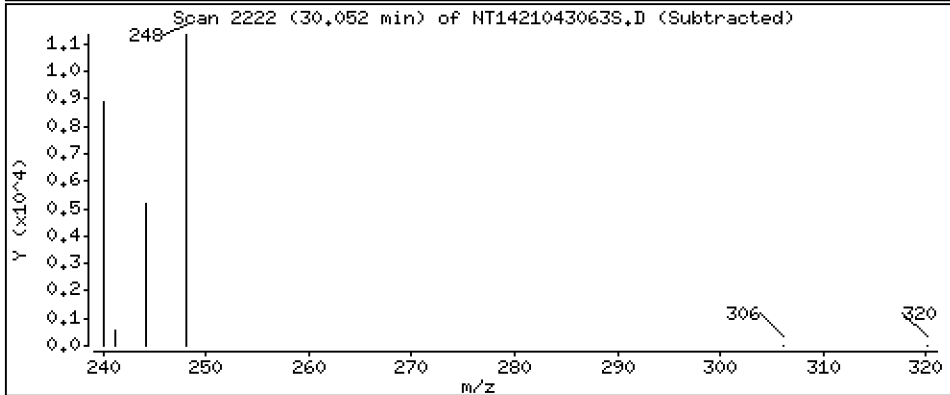
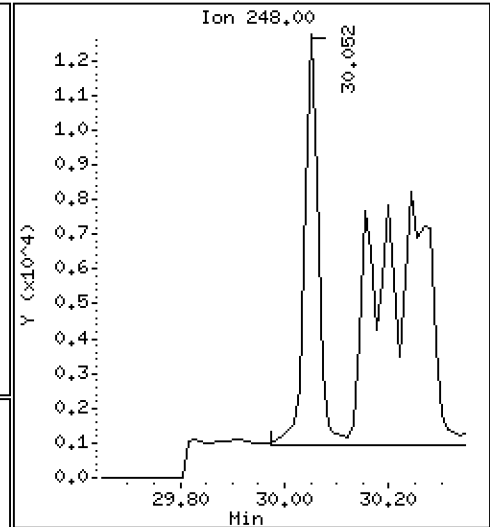
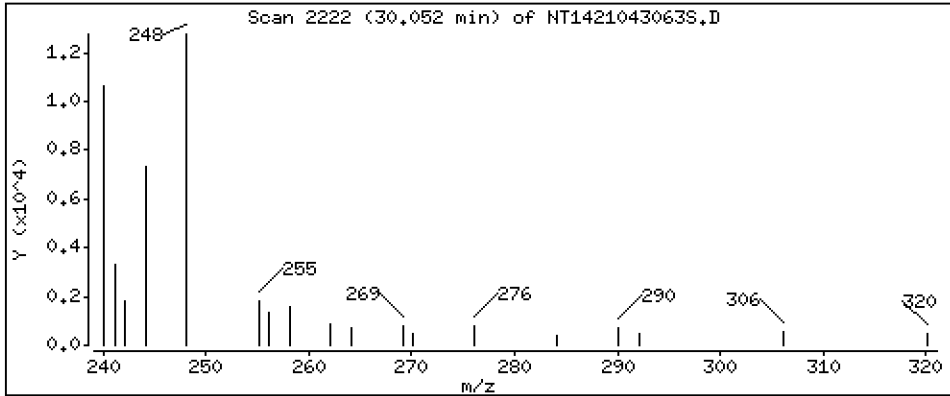
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

52 C1-Naphthobenzothiophenes

Concentration: 0,5299 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

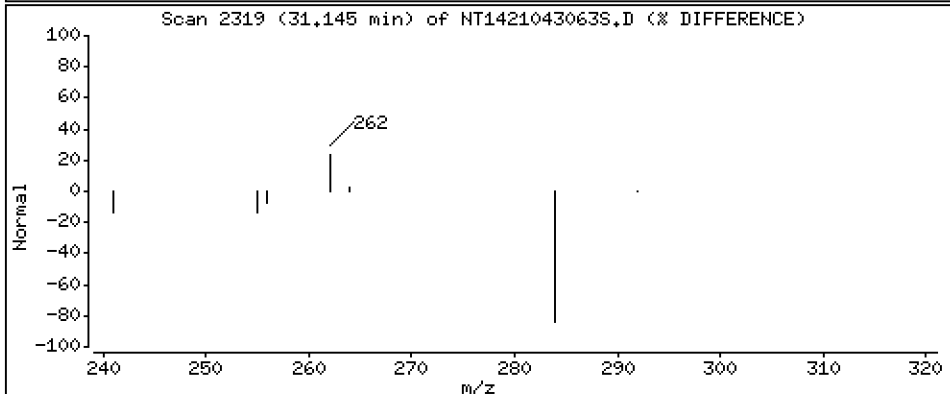
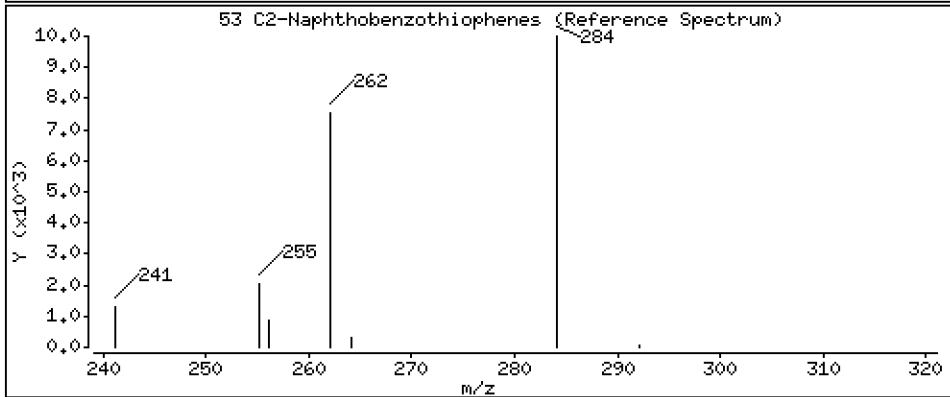
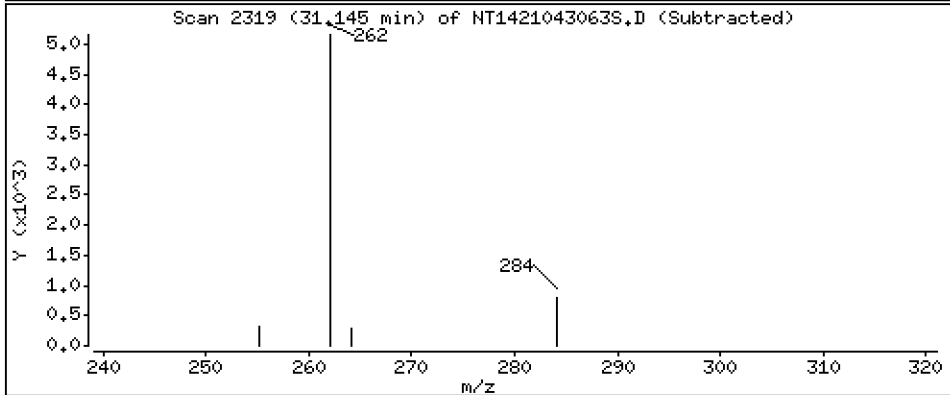
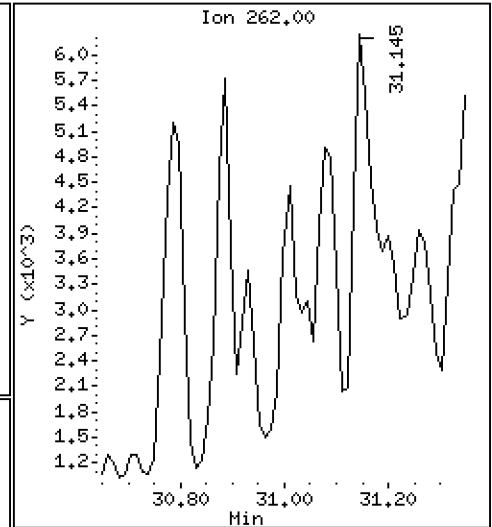
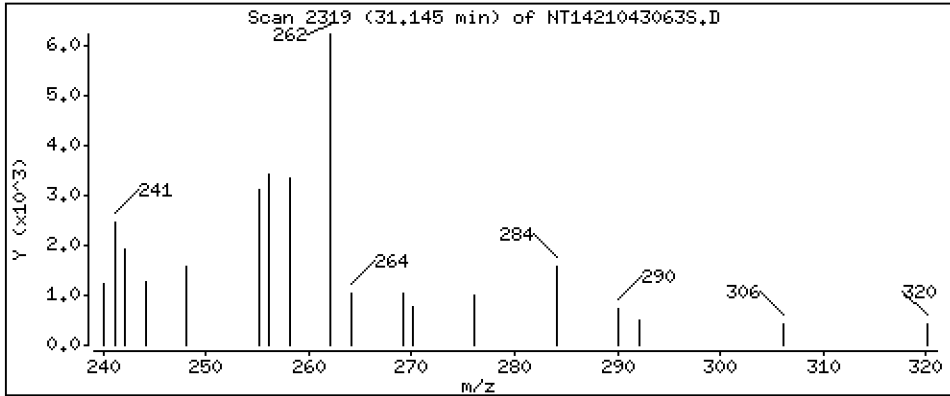
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

53 C2-Naphthobenzothiophenes

Concentration: 0,4589 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

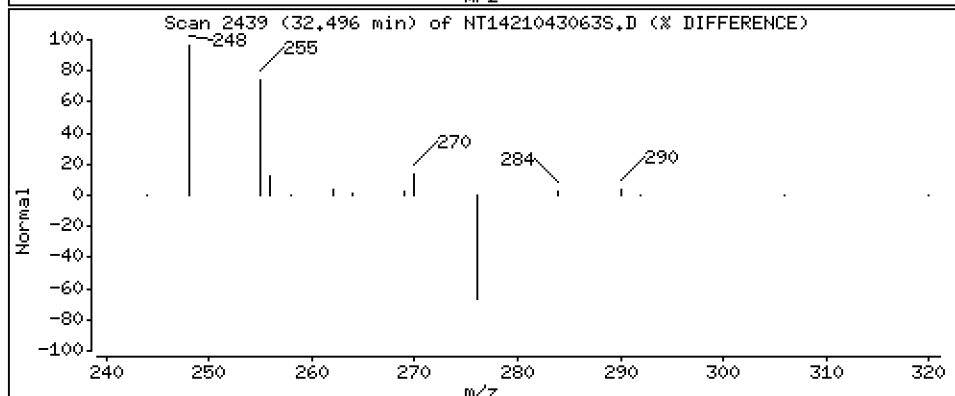
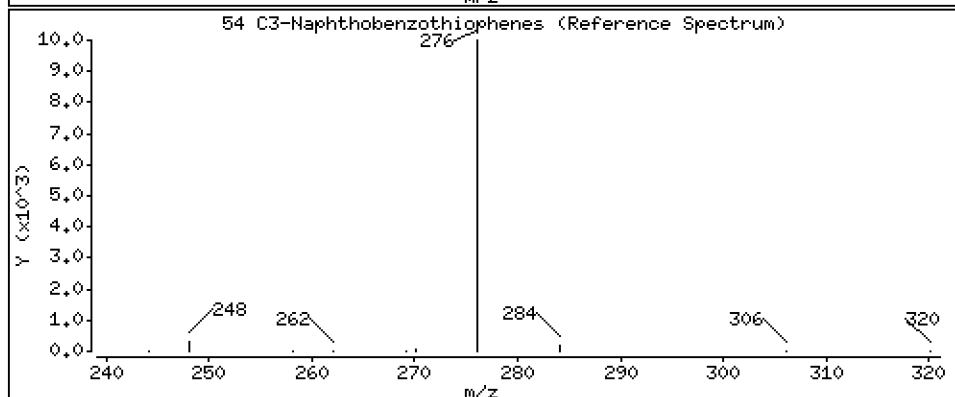
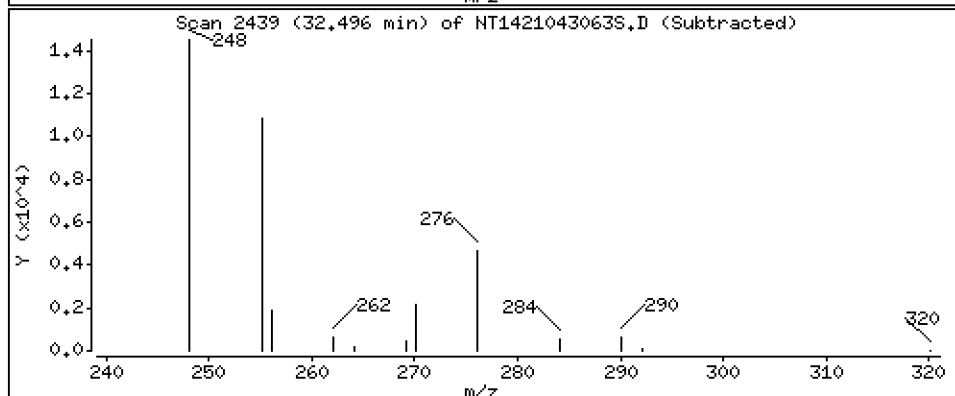
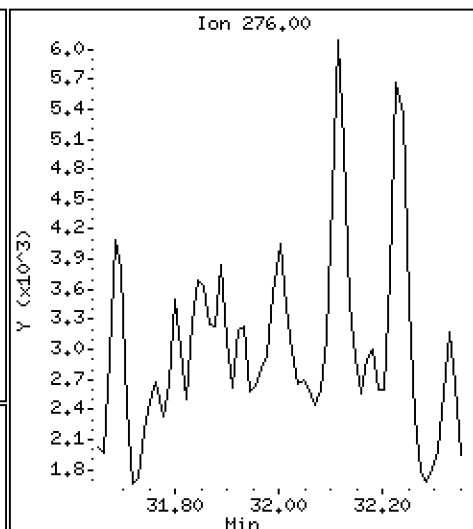
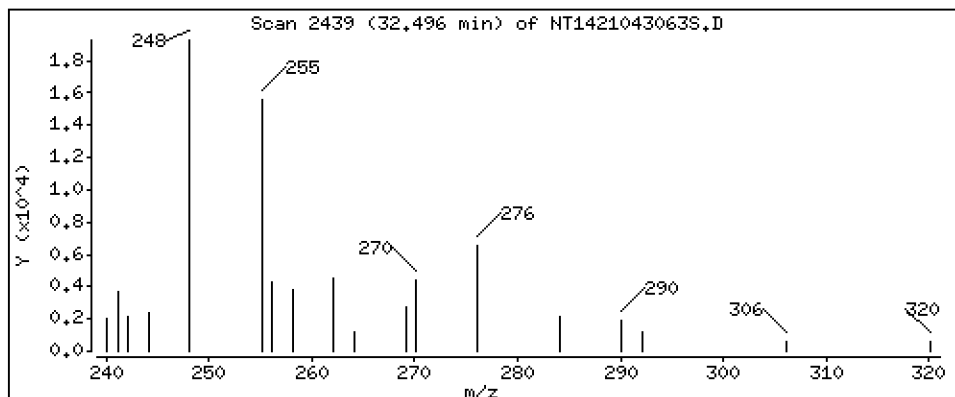
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

54 C3-Naphthobenzothiophenes

Concentration: 0,3957 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

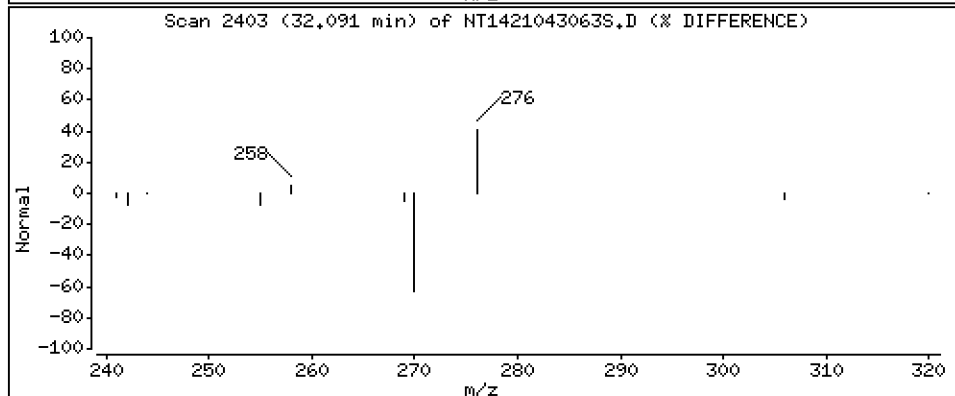
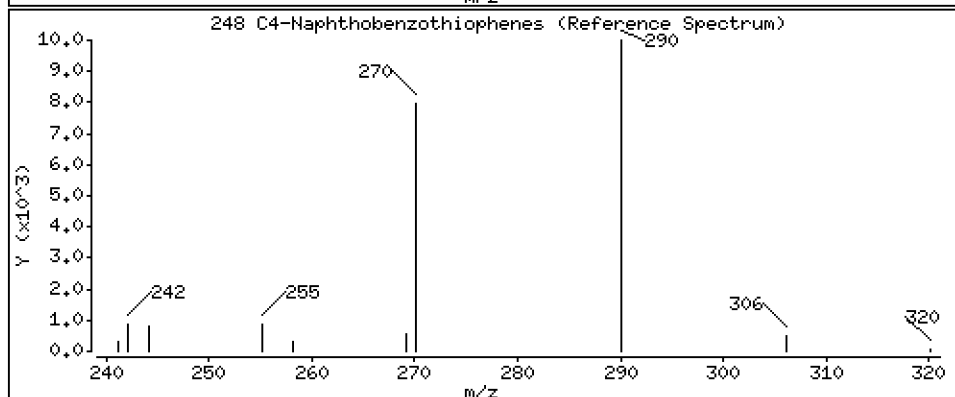
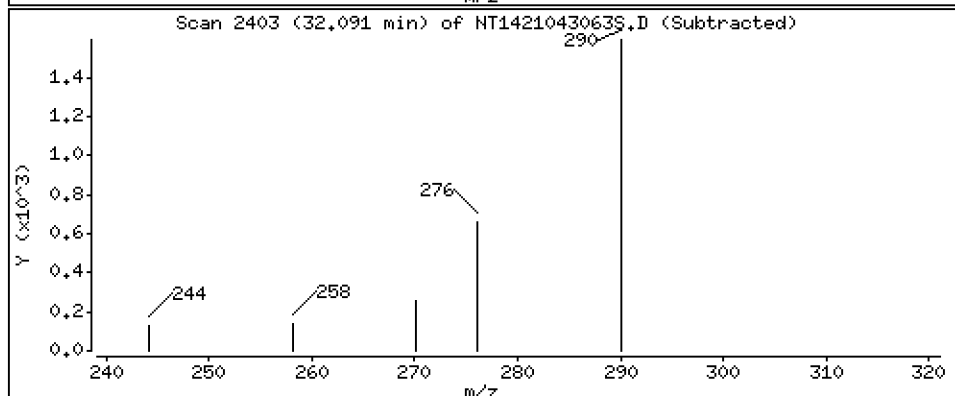
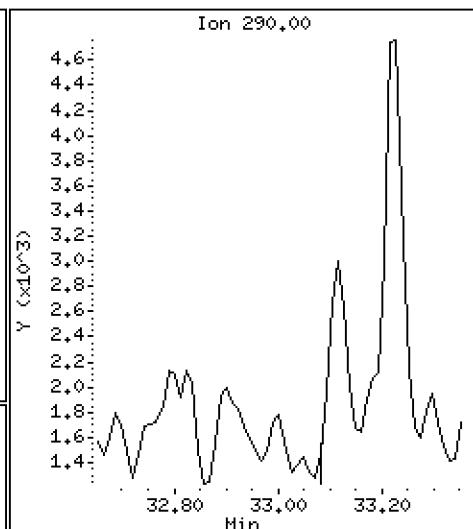
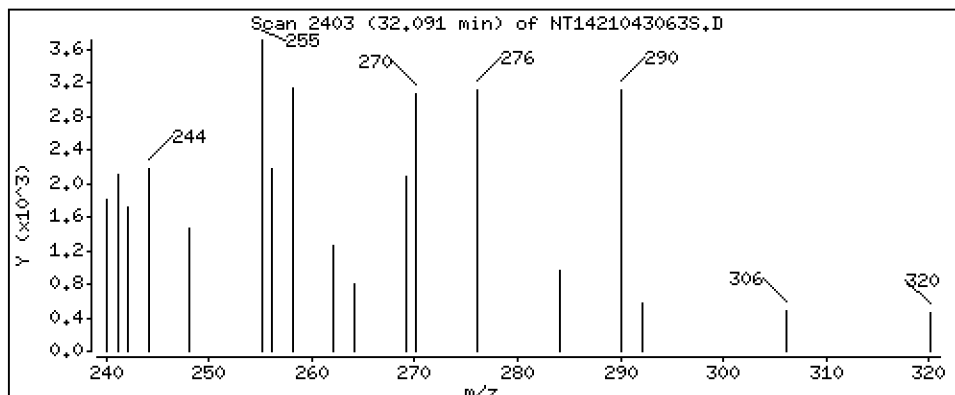
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

248 C4-Naphthobenzothiophenes

Concentration: 0,1265 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

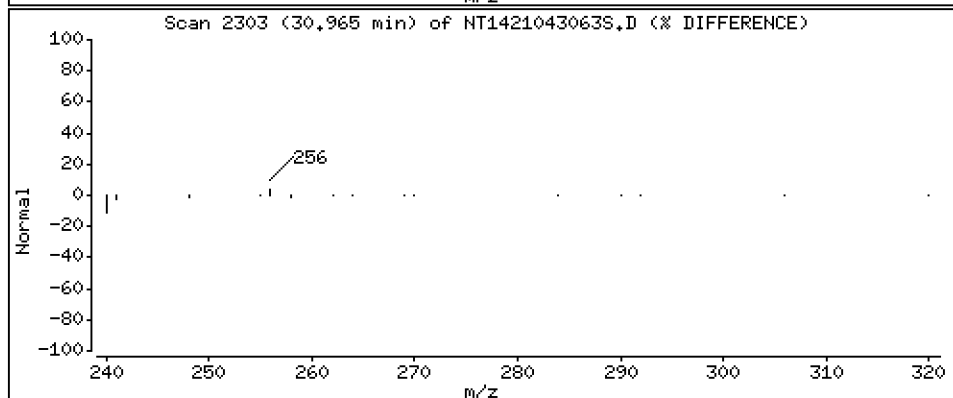
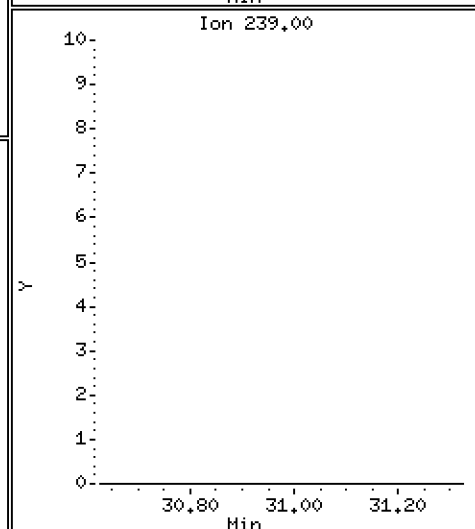
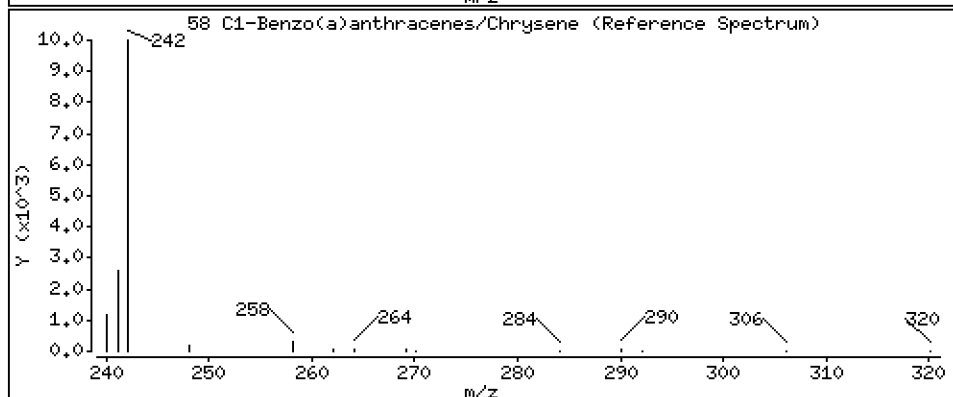
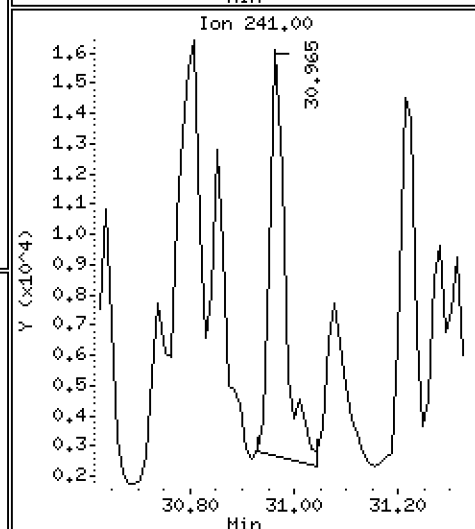
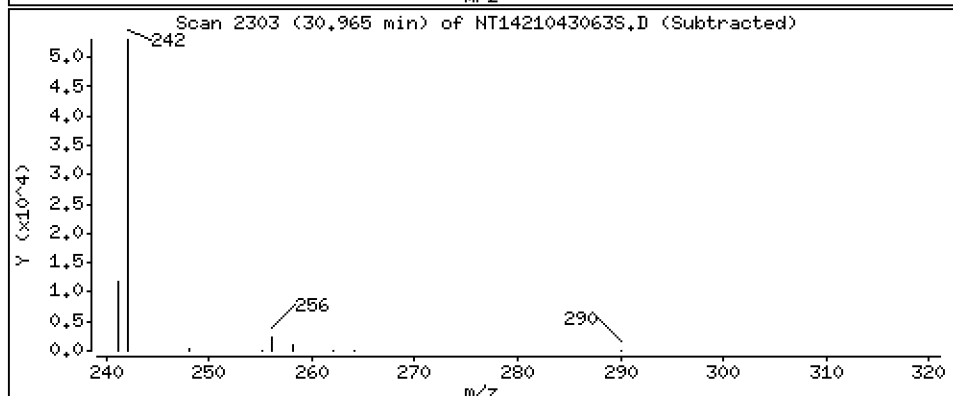
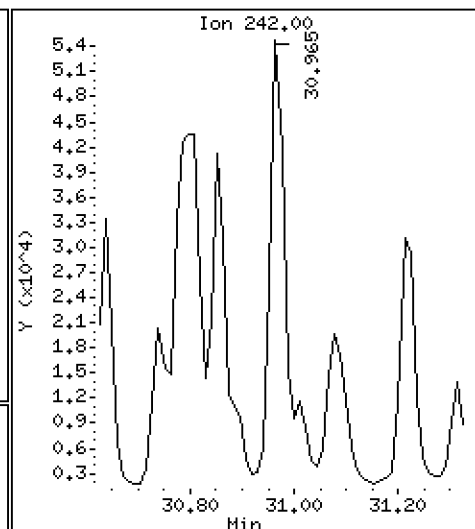
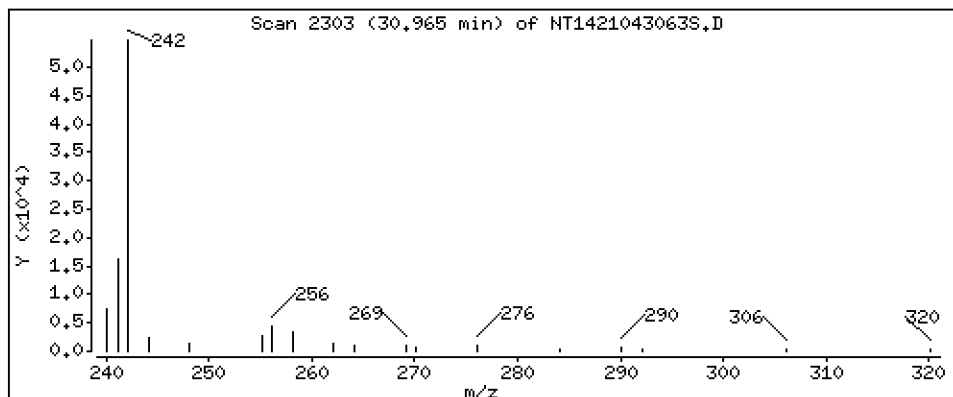
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

58 C1-Benzo(a)anthracenes/Chrysene

Concentration: 2,244 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

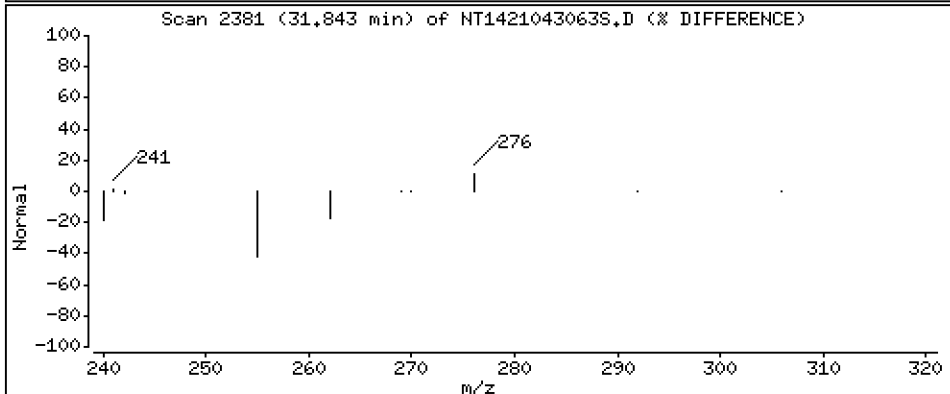
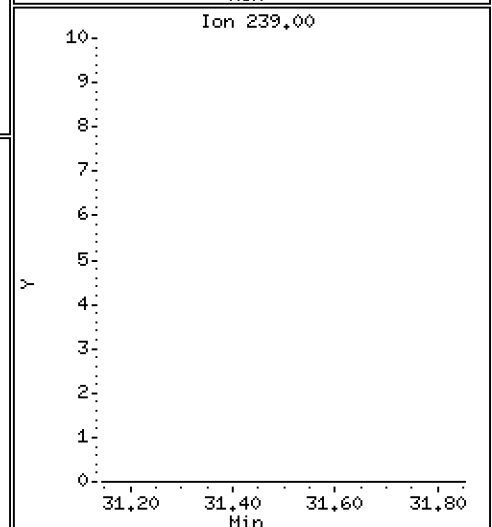
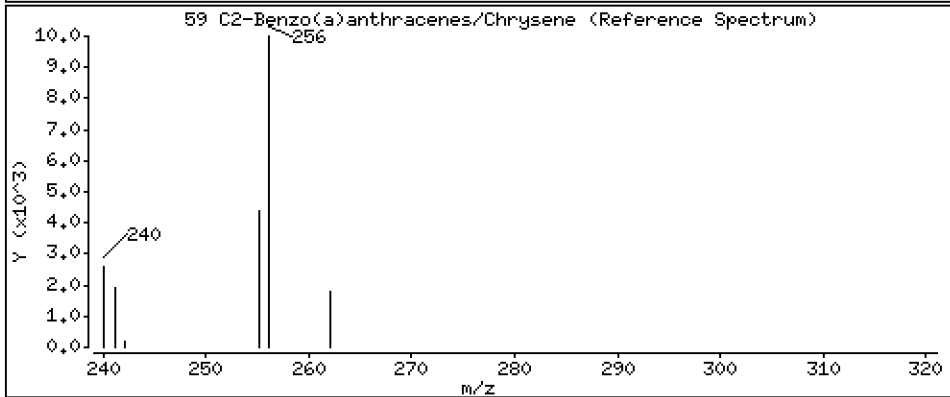
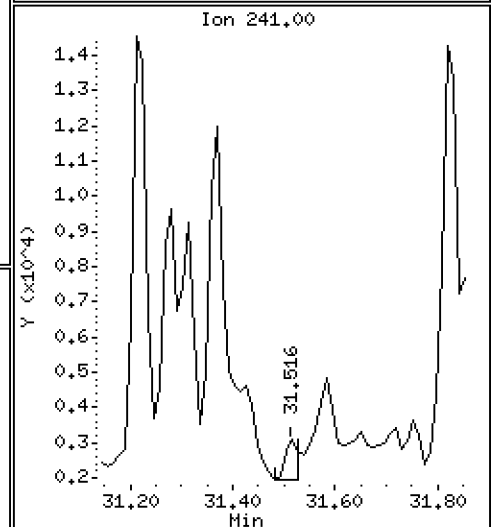
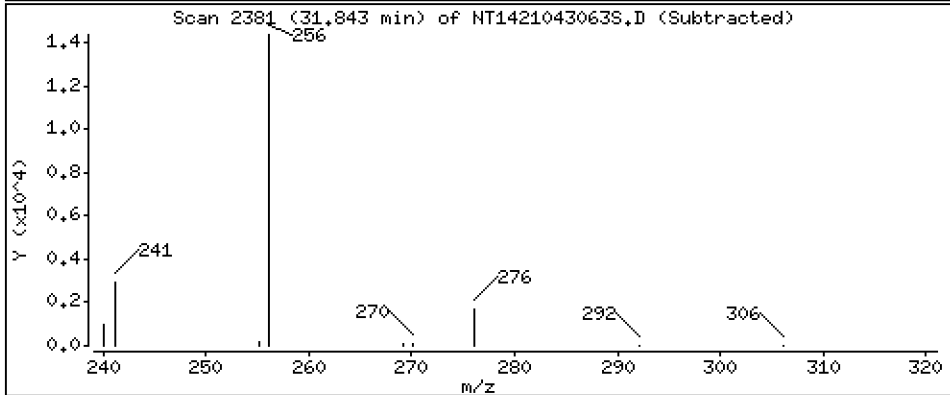
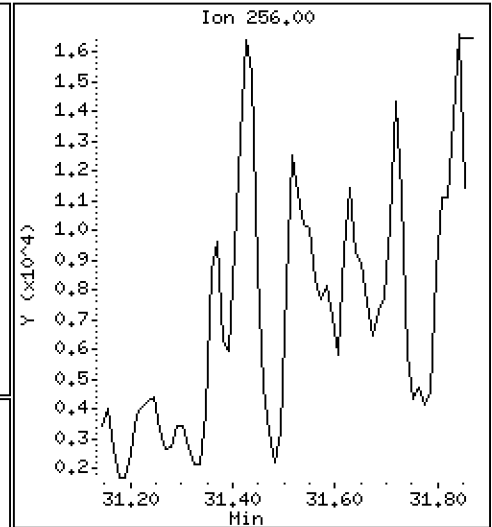
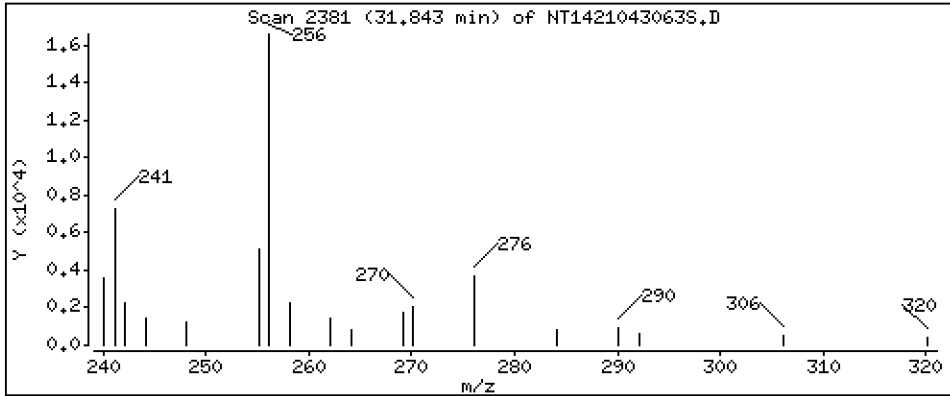
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

59 C2-Benzo(a)anthracenes/Chrysene

Concentration: 0,8366 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

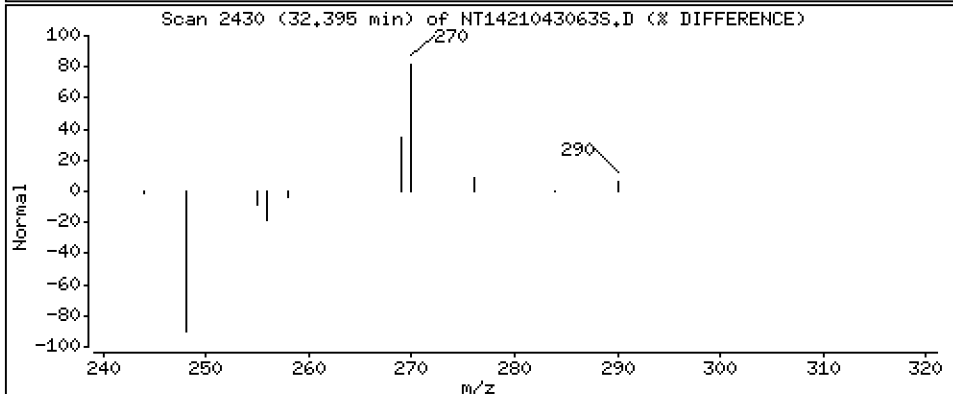
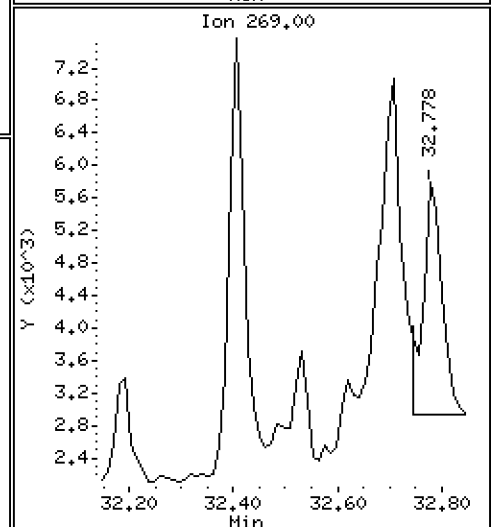
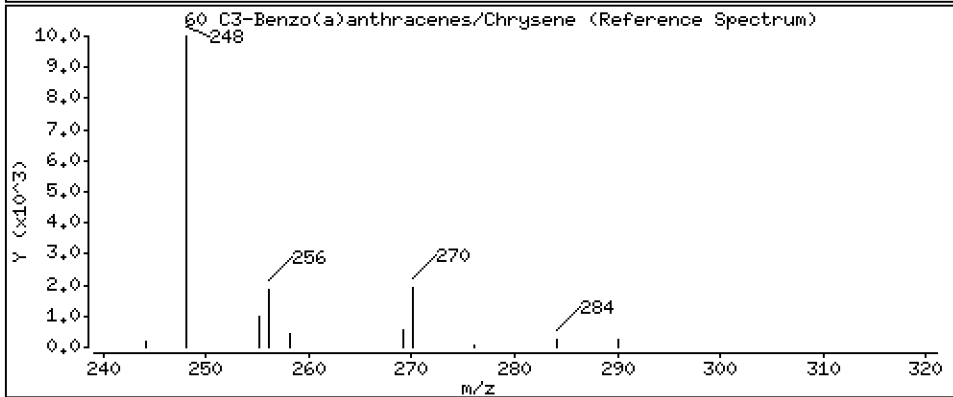
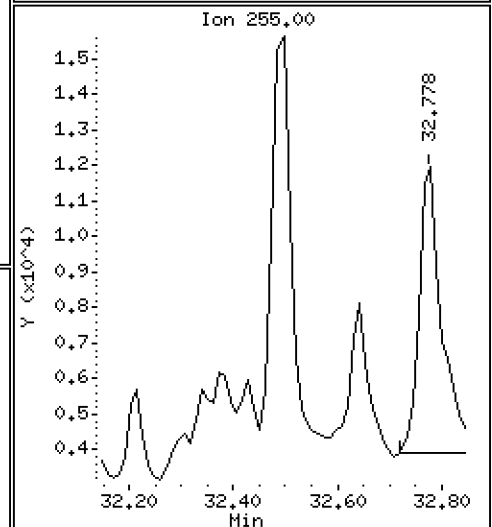
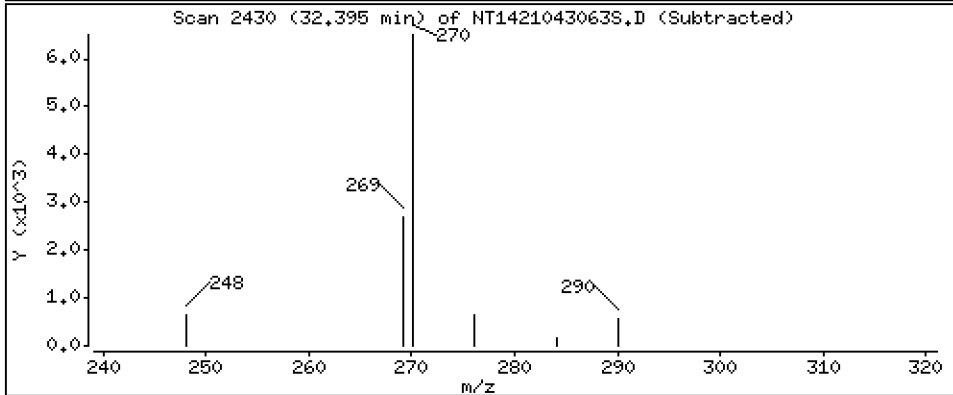
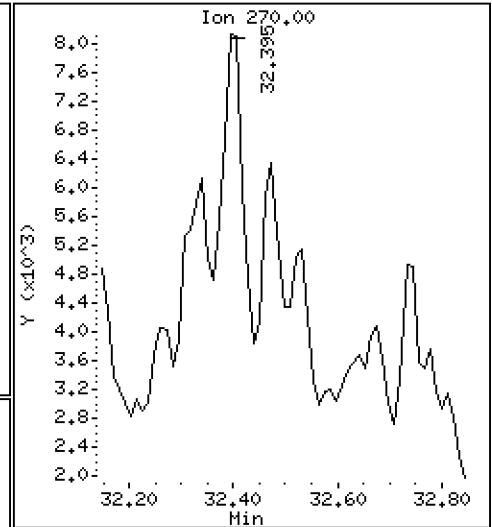
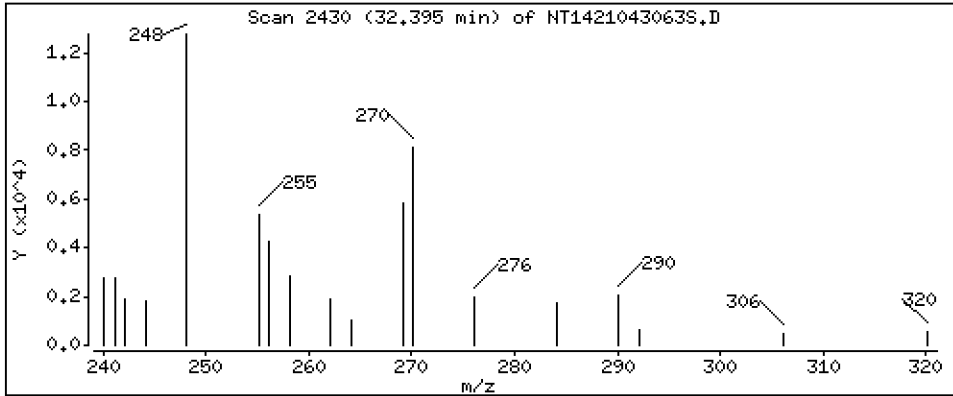
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

60 C3-Benzo(a)anthracenes/Chrysene

Concentration: 0,6228 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

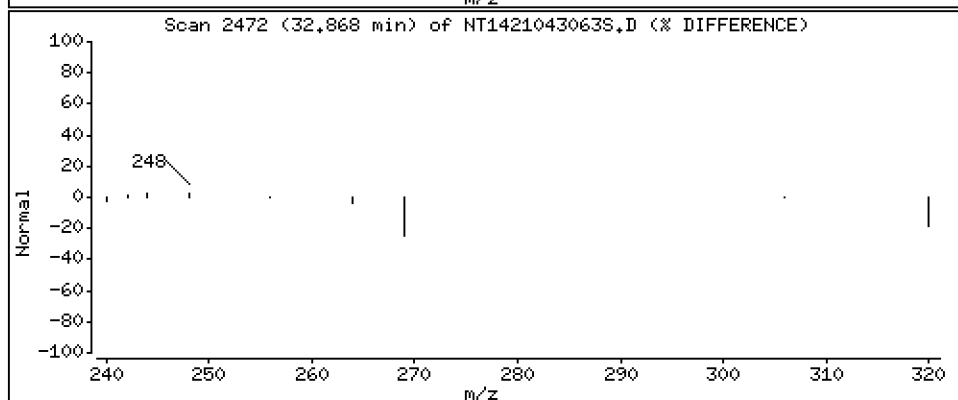
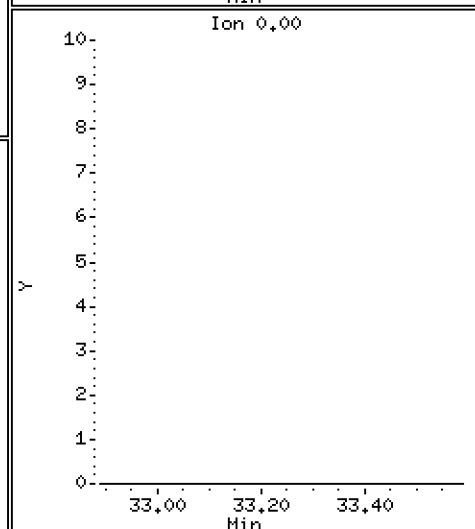
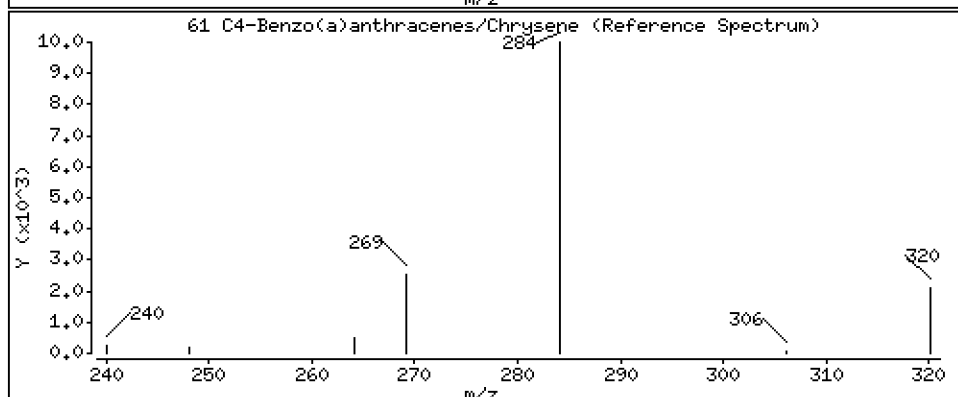
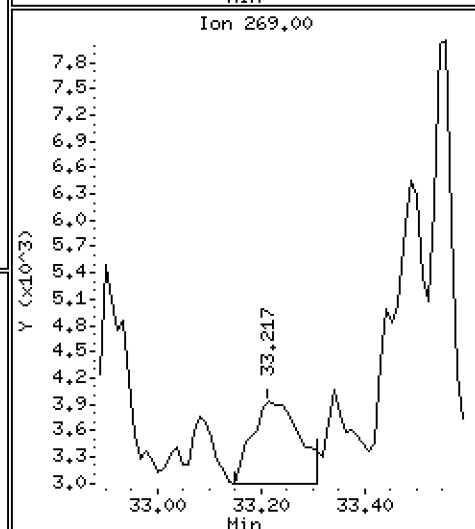
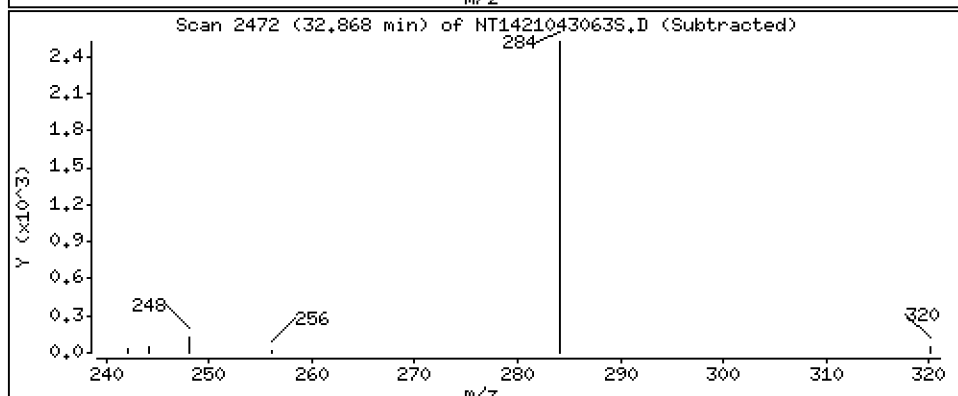
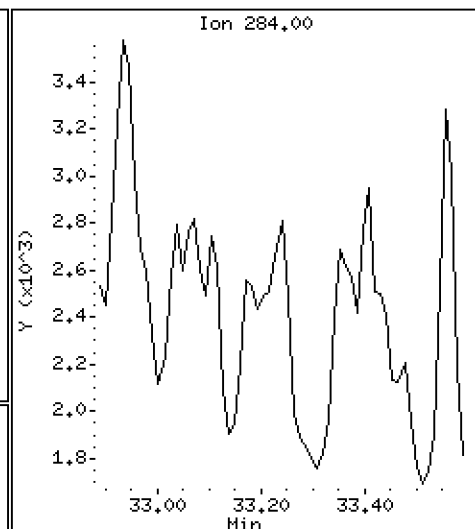
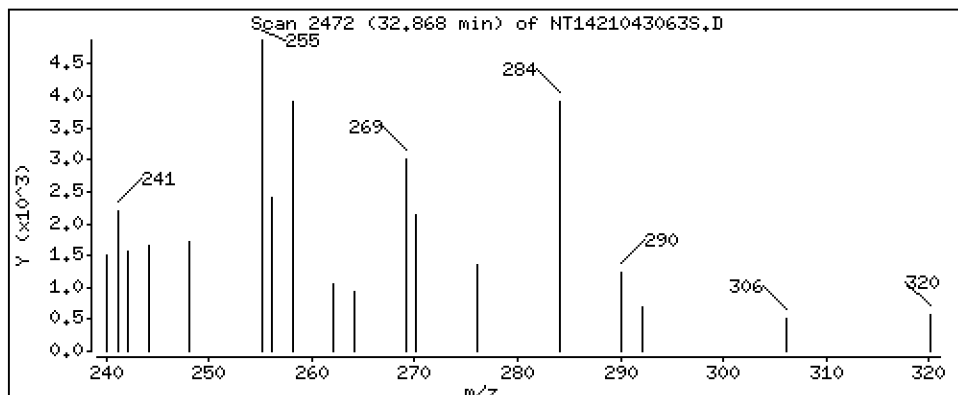
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

61 C4-Benzo(a)anthracenes/Chrysene

Concentration: 0,2893 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

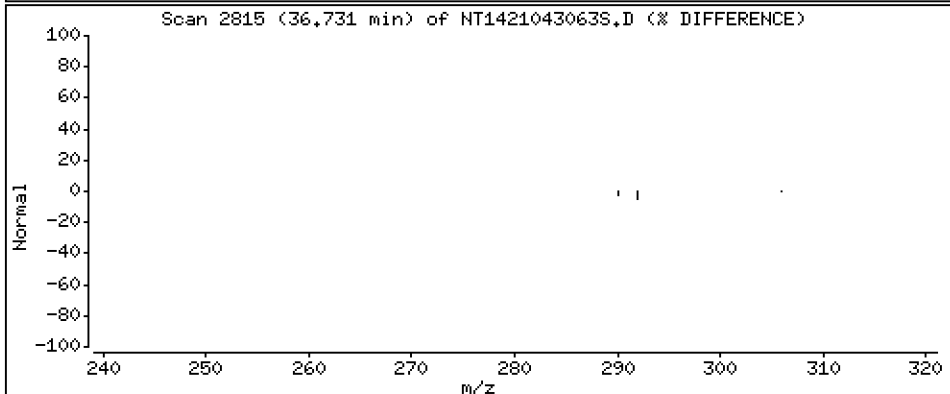
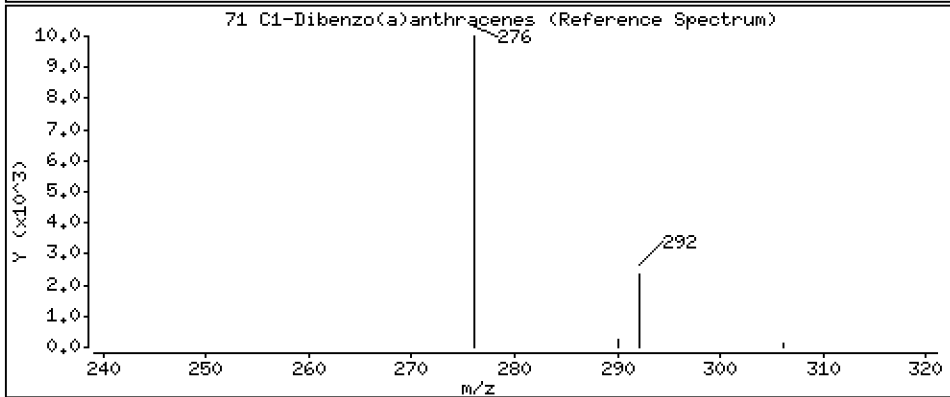
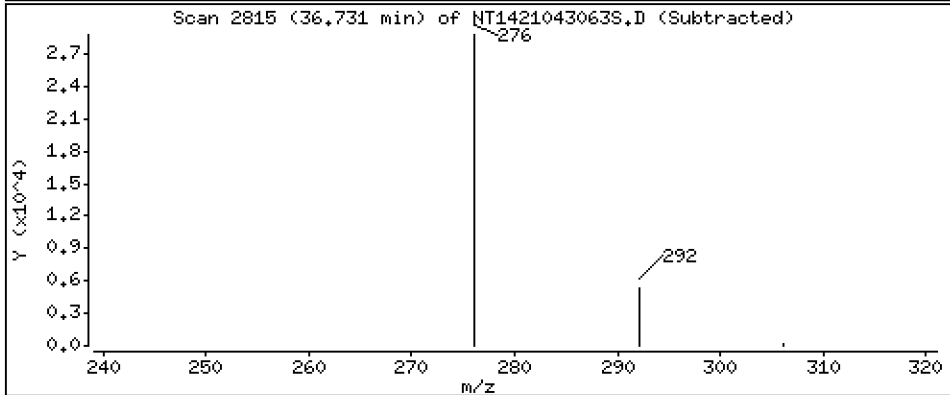
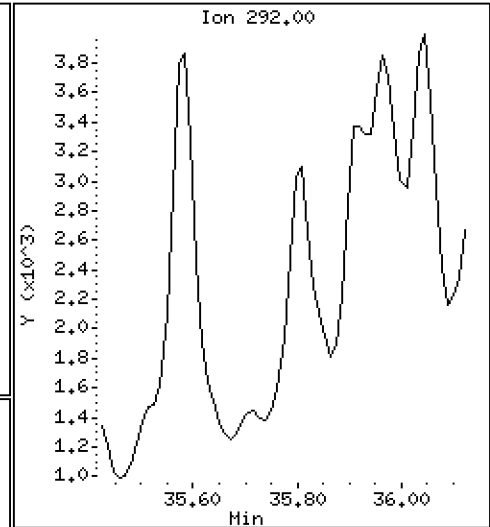
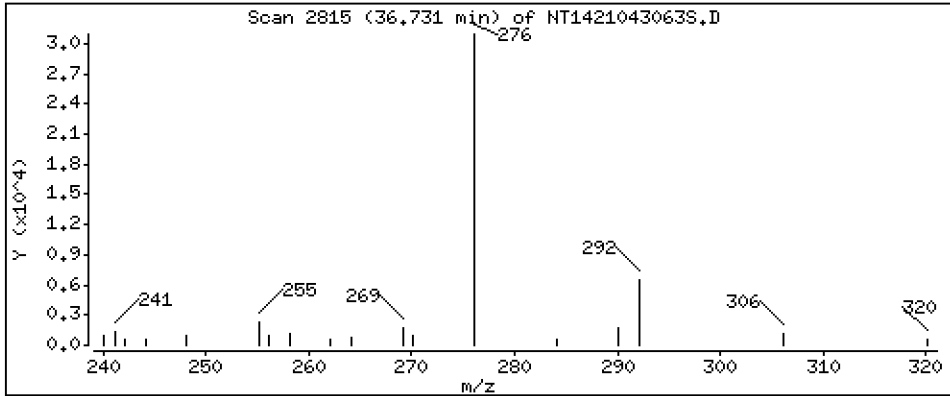
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

71 C1-Dibenzo(a)anthracenes

Concentration: 0,5687 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

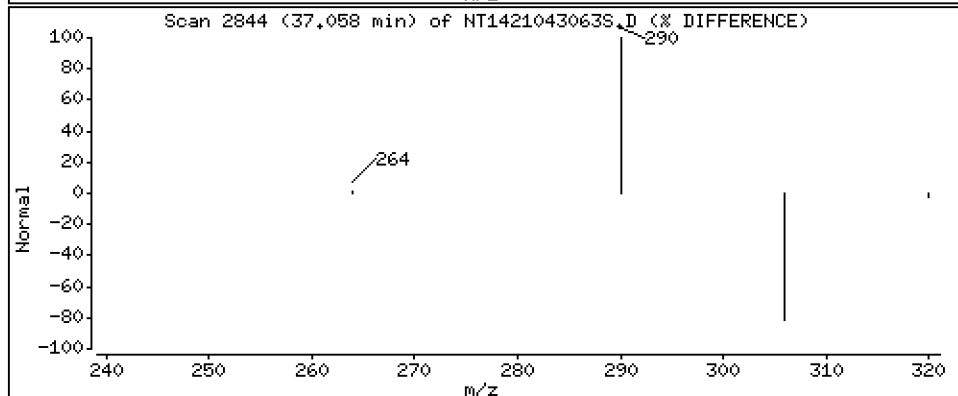
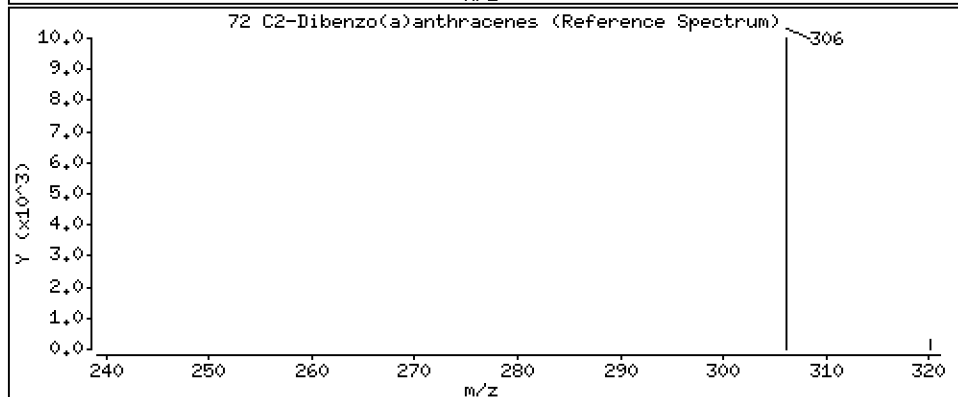
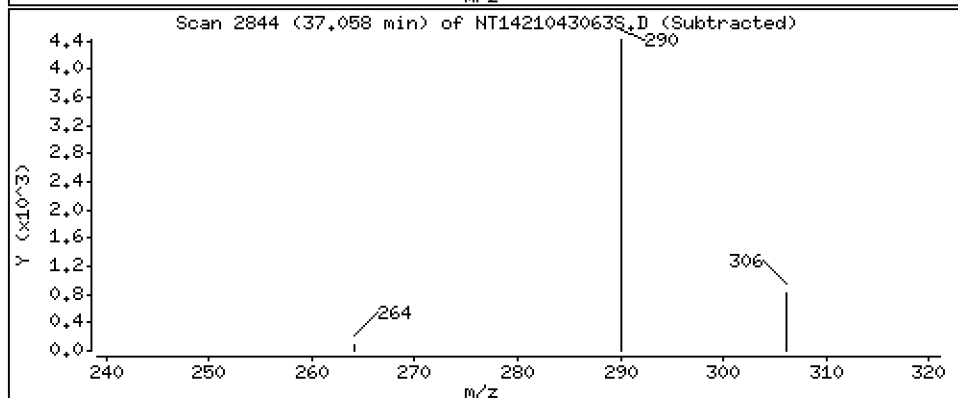
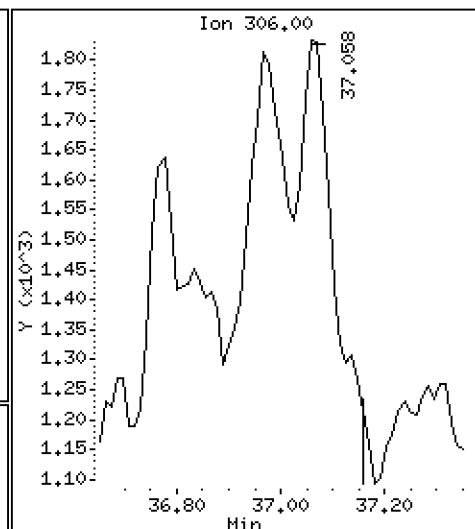
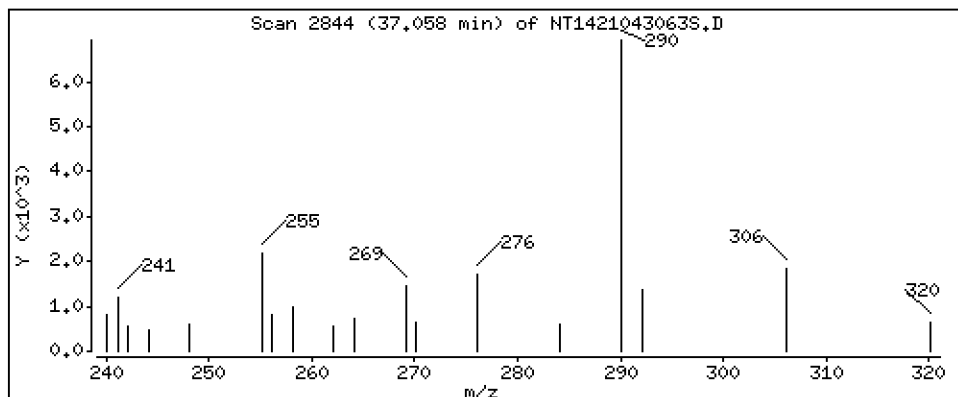
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

72 C2-Dibenzo(a)anthracenes

Concentration: 0,05269 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

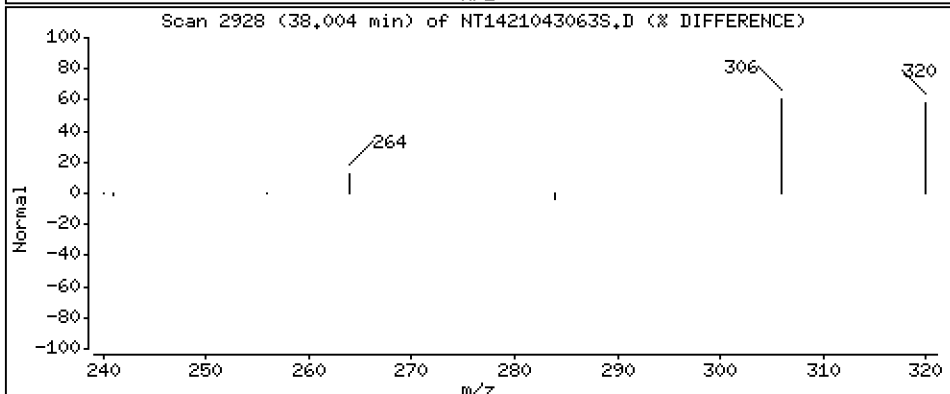
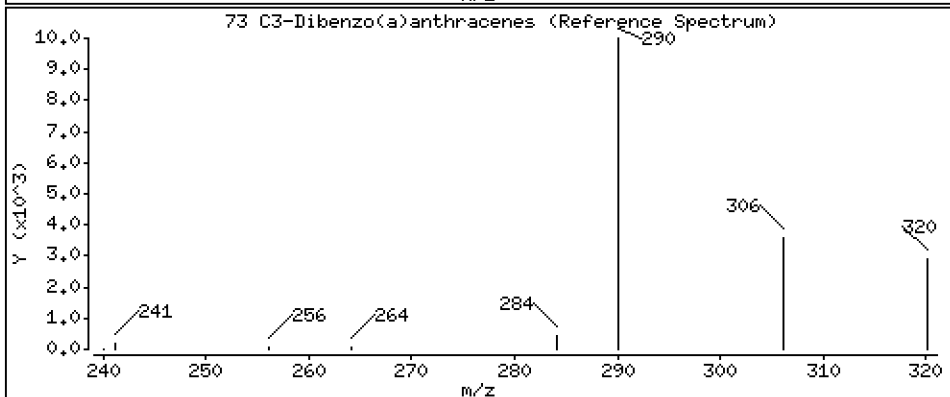
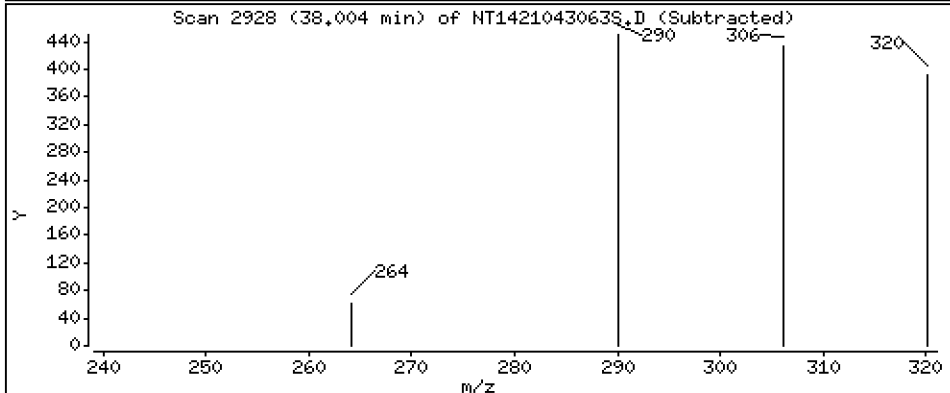
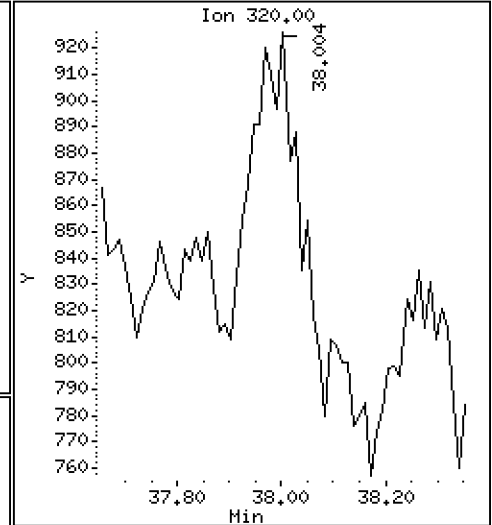
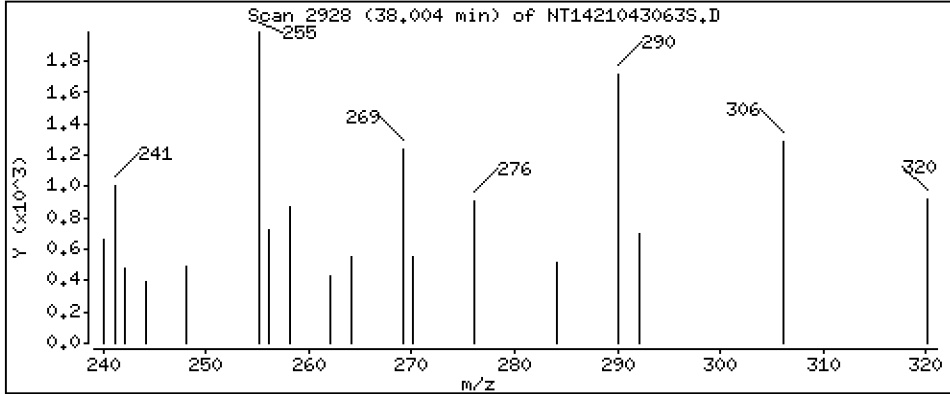
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

73 C3-Dibenzo(a)anthracenes

Concentration: 0,08777 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT1421043063S.D
Lab Smp Id: 21D0180-01
Inj Date : 02-MAY-2021 09:13
Operator : VTS
Smp Info : 21D0180-01
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\SIM.b\ALKYLRANGES.m
Meth Date : 07-May-2021 11:15 yev
Cal Date : 01-MAY-2021 01:56
Als bottle: 44
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 4.14
Processing Host: ORGDATA102

Inst ID: nt14.i

Quant Type: ISTD
Cal File: NT1421043024S.D

Compound Sublist: ALKYLRANGES.sub

Compounds	QUANT	SIG	CONCENTRATIONS					
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)
3 C1-Decalin	152	====	7.864	8.800	(0.419)	2050	0.06493	0.06493 (M)
4 C2-Decalin	166		9.004	9.200	(0.480)	9550	0.30246	0.3025 (M)
5 C3-Decalin	180		9.760	10.000	(0.520)	6795	0.21520	0.2152 (M)
247 C4-Decalin	194		Compound Not Detected.					
8 C1-Naphthalenes	142		13.660	14.121	(0.728)	82906	0.23002	0.2300 (M)
9 C2-Naphthalenes	156		15.792	16.111	(0.842)	102675	0.28487	0.2849 (M)
10 C3-Naphthalenes	170		17.649	17.957	(0.941)	93790	0.26022	0.2602 (M)
11 C4-Naphthalenes	184		19.340	18.000	(1.031)	61381	0.17030	0.1703 (M)
13 C1-Benzothiophenes	148		13.803	14.110	(0.736)	14068	0.04906	0.04906 (M)
14 C2-Benzothiophenes	162		15.275	15.660	(0.814)	17177	0.05990	0.05990 (M)
15 C3-Benzothiophenes	176		17.045	17.199	(0.908)	13849	0.04830	0.04830 (M)
27 C1-Fluorenes	180		20.406	20.735	(1.088)	57429	0.27222	0.2722 (M)
* 25 Fluorene-d10	176		18.762	18.774	(1.000)	614005	2.00000	
28 C2-Fluorenes	194		21.974	22.000	(1.171)	60370	0.28616	0.2862 (M)
29 C3-Fluorenes	208		23.282	23.172	(1.241)	61182	0.29001	0.2900 (M)
31 C1-Dibenzothiophenes	198		22.919	23.500	(1.222)	67904	0.25498	0.2550 (M)
32 C2-Dibenzothiophenes	212		24.326	24.535	(1.297)	84929	0.31891	0.3189 (M)
33 C3-Dibenzothiophenes	226		25.228	25.600	(1.345)	70517	0.26479	0.2648 (M)
34 C4-Dibenzothiophenes	240		Compound Not Detected.					
38 C1-Phenanthrenes/Anthracenes	192		23.568	23.500	(1.061)	417758	1.34370	1.344 (M)
* 250 Anthracene-d10	188		22.205	22.216	(1.000)	559042	2.00000	
39 C2-Phenanthrenes/Anthracenes	206		25.338	25.107	(1.141)	384402	1.23641	1.236 (M)
40 C3-Phenanthrenes/Anthracenes	220		26.779	26.856	(1.206)	278865	0.89696	0.8970 (M)
41 C4-Phenanthrenes/Anthracenes	234		27.744	27.500	(1.249)	72204	0.23224	0.2322 (M)
48 C1-Fluoranthenes/Pyrenes	216		27.623	27.624	(1.244)	841455	2.80921	2.809 (M)
49 C2-Fluoranthenes/Pyrenes	230		29.223	28.800	(1.316)	569320	1.90068	1.901 (M)
50 C3-Fluoranthenes/Pyrenes	244		30.007	29.995	(1.351)	222611	0.74319	0.7432 (M)
249 C4-Fluoranthenes/Pyrenes	258		32.901	33.037	(1.482)	133779	0.44662	0.4466 (M)
52 C1-Naphthobenzothiophenes	248		30.052	30.000	(1.353)	160285	0.52990	0.5299 (M)
53 C2-Naphthobenzothiophenes	262		31.144	31.000	(1.403)	138820	0.45894	0.4589 (M)
54 C3-Naphthobenzothiophenes	276		32.496	32.000	(1.463)	119687	0.39569	0.3957 (M)
248 C4-Naphthobenzothiophenes	290		32.090	33.000	(1.445)	38254	0.12647	0.1265 (M)
58 C1-Benzo(a)anthracenes/Chrysen	242		30.964	30.975	(0.937)	785382	2.24366	2.244 (M)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
59 C2-Benzo(a)anthracenes/Chrysen	256	31.843	31.500	(0.964)	292832	0.83656	0.8366 (M)
60 C3-Benzo(a)anthracenes/Chrysen	270	32.394	32.500	(0.981)	217991	0.62275	0.6228 (M)
61 C4-Benzo(a)anthracenes/Chrysen	284	32.868	33.239	(0.995)	101277	0.28933	0.2893 (M)
71 C1-Dibenzo(a)anthracenes	292	36.731	35.773	(1.112)	283197	0.56874	0.5687 (M)
* 251 Benzo(e)pyrene-d12	264	33.036	33.037	(1.000)	749516	2.00000	
72 C2-Dibenzo(a)anthracenes	306	37.057	37.000	(1.122)	26235	0.05269	0.05269 (M)
73 C3-Dibenzo(a)anthracenes	320	38.004	38.000	(1.150)	43703	0.08777	0.08777 (M)

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i
 Lab File ID: NT1421043063S.D
 Lab Smp Id: 21D0180-01
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\ALKYLRANGES.m
 Misc Info:

Calibration Date: 01-MAY-2021
 Calibration Time: 01:56
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

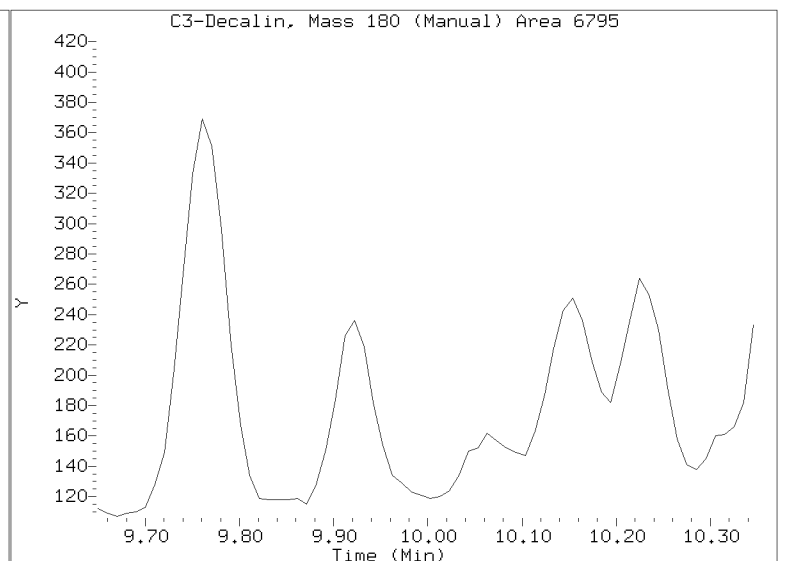
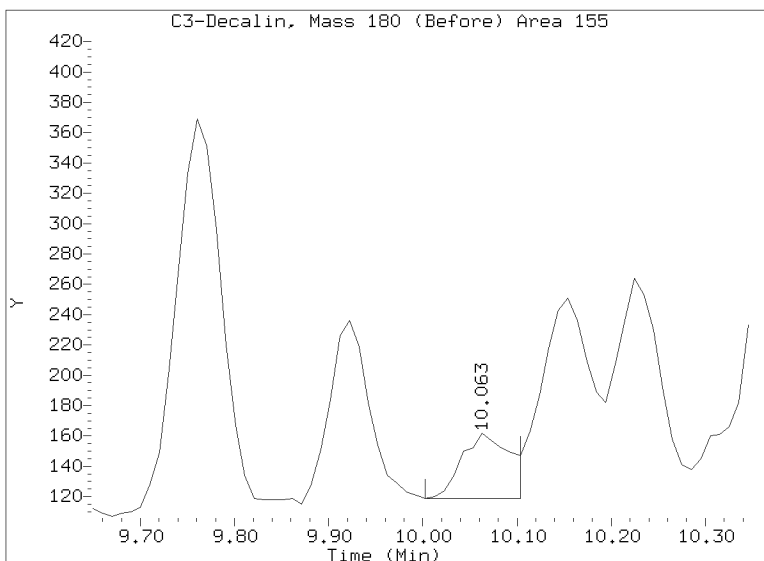
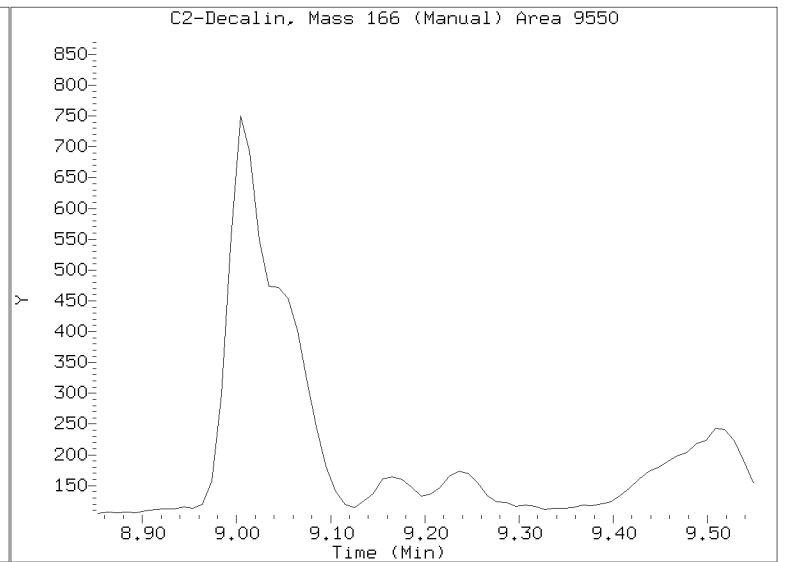
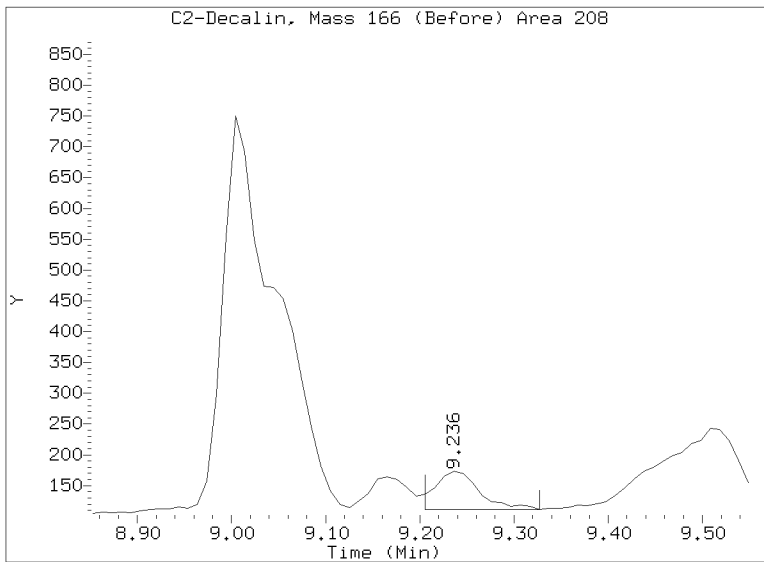
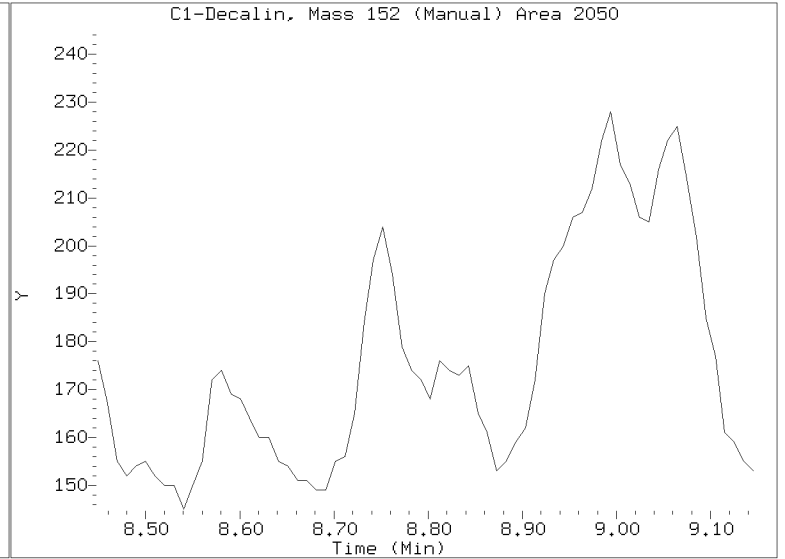
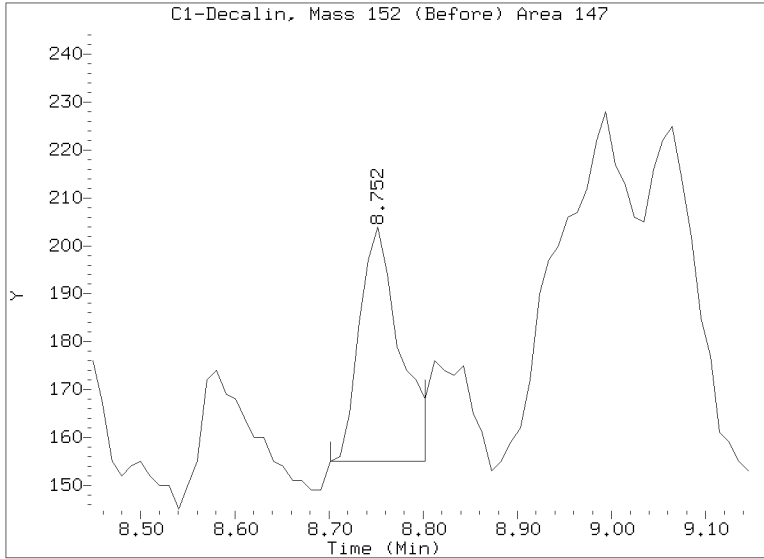
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	615800	307900	1231600	614005	-0.29
250 Anthracene-d10	563384	281692	1126768	559042	-0.77
251 Benzo(e)pyrene-d1	606671	303336	1213342	749516	23.55

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.77	18.27	19.27	18.76	-0.06
250 Anthracene-d10	22.22	21.72	22.72	22.21	-0.05
251 Benzo(e)pyrene-d1	33.04	32.54	33.54	33.04	-0.00

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.

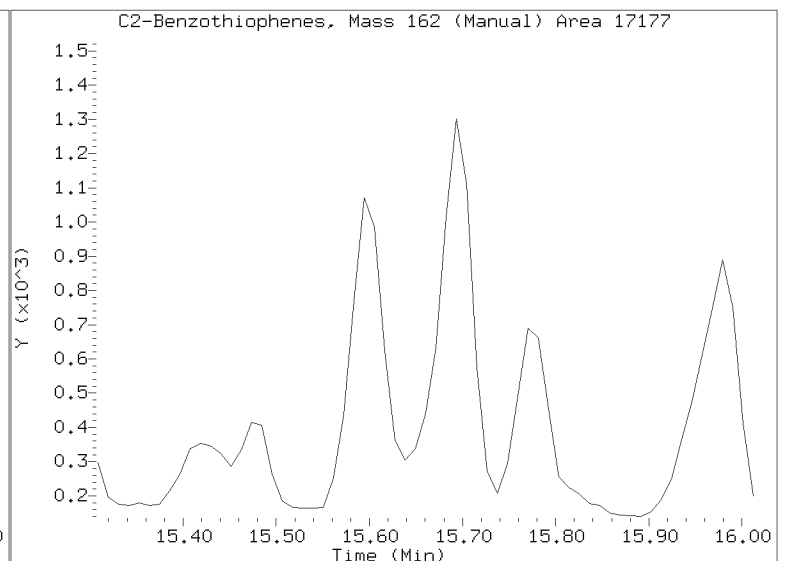
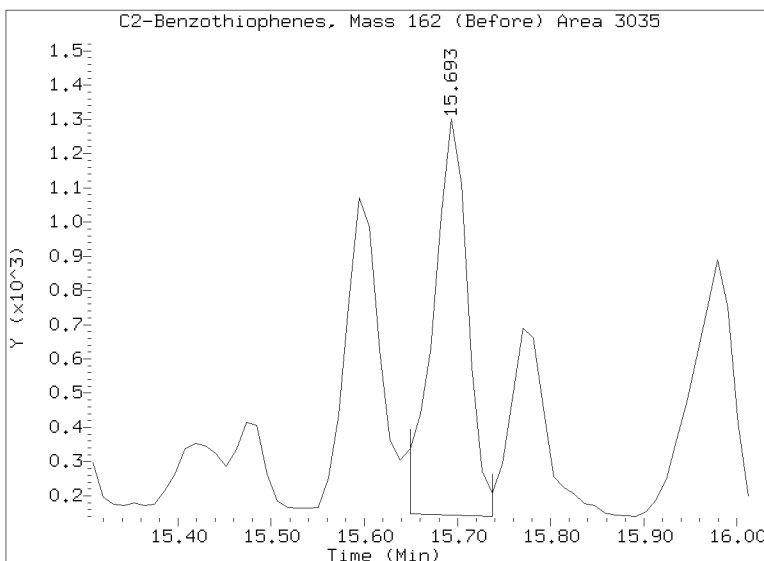
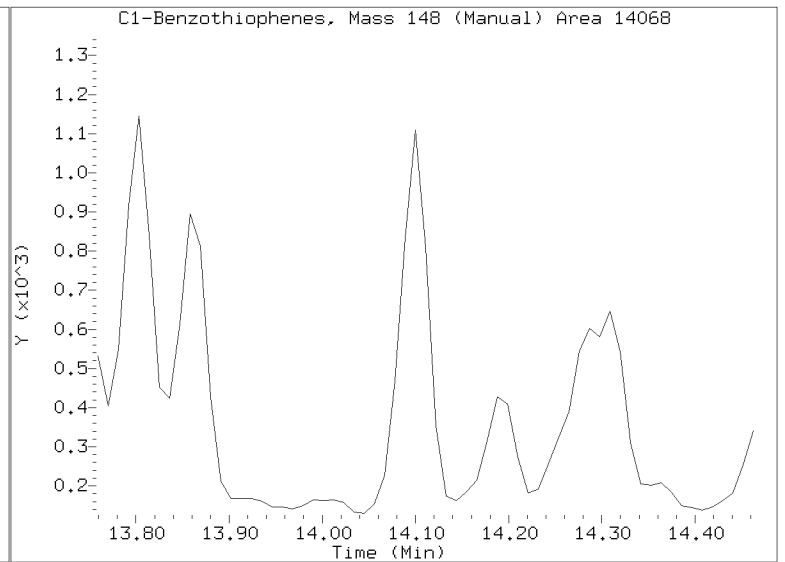
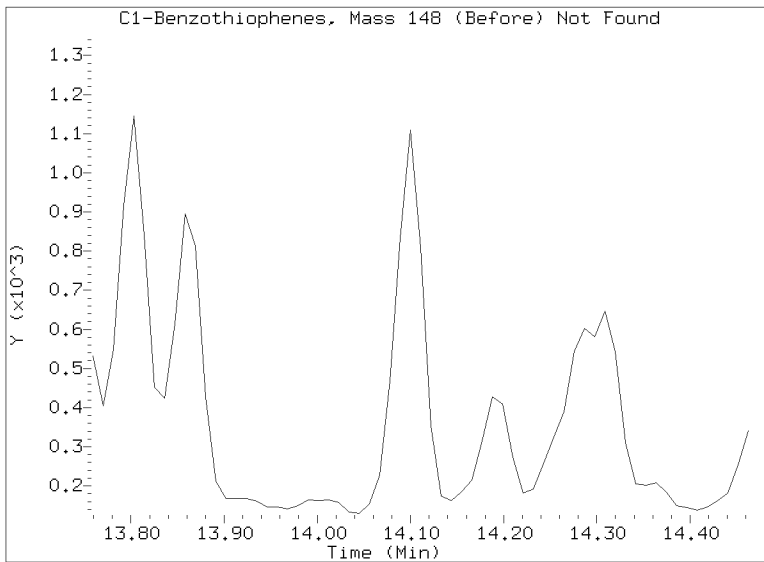
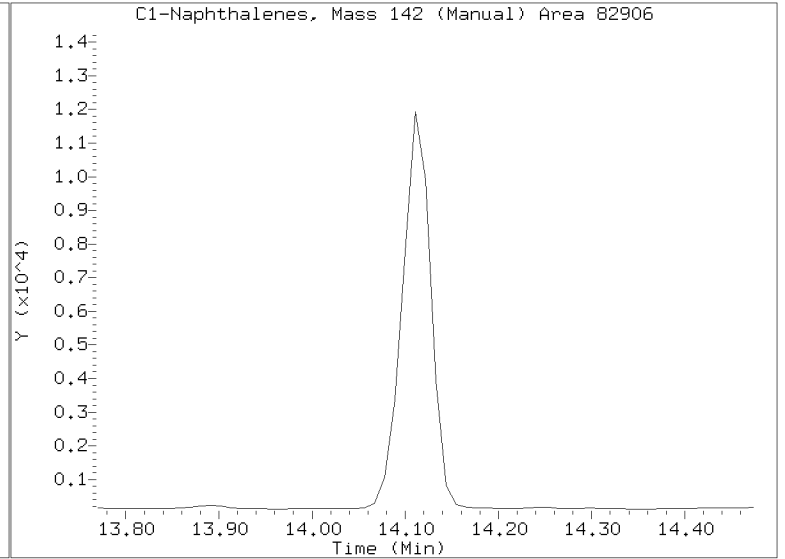
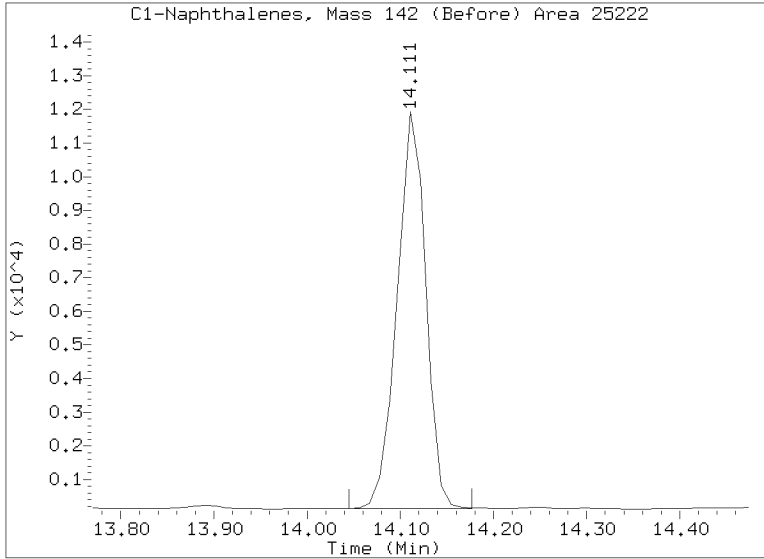
Quant Ion Manual Peak Adjustment Report

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Injection Date: 02-MAY-2021 09:13
Lab ID:21D0180-01 Client ID:
Report Date: 05/07/2021 15:37



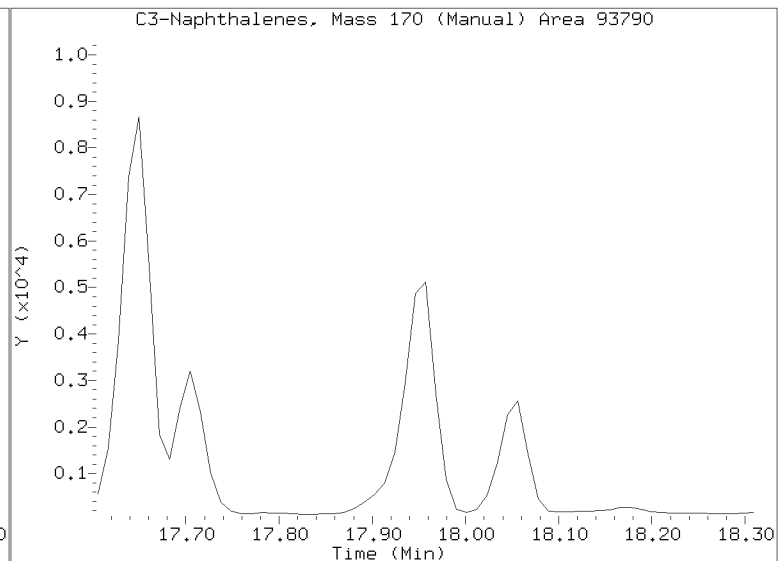
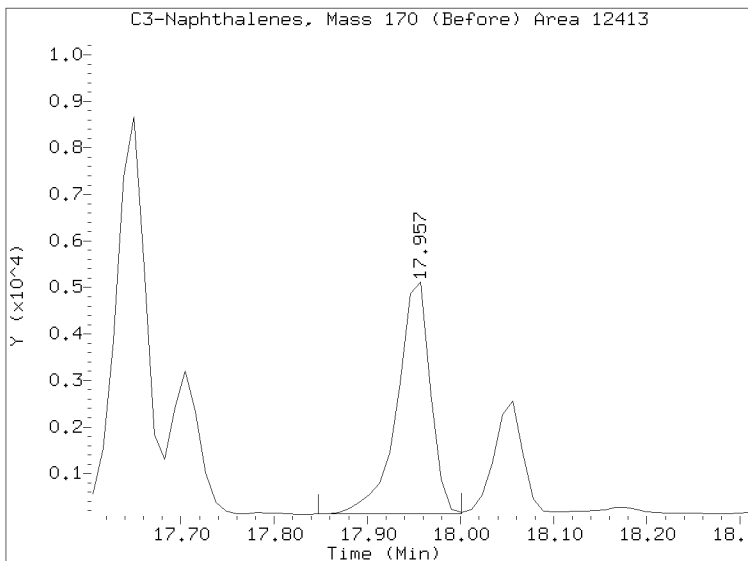
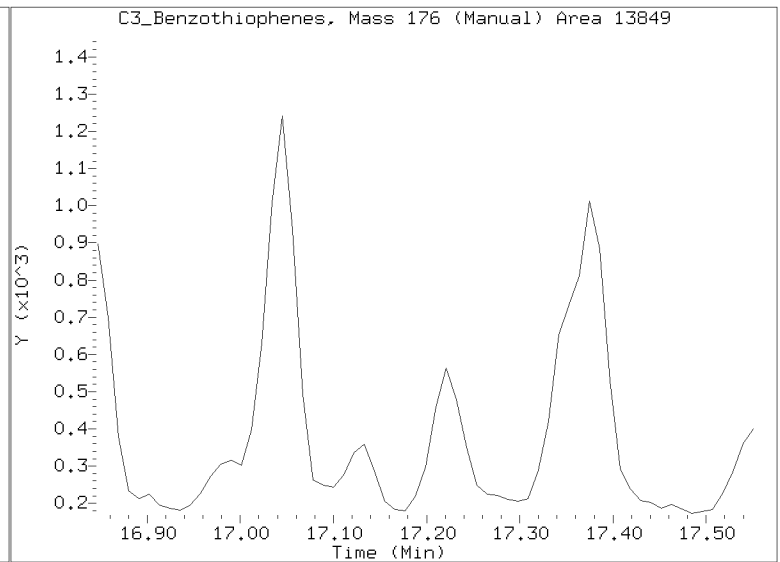
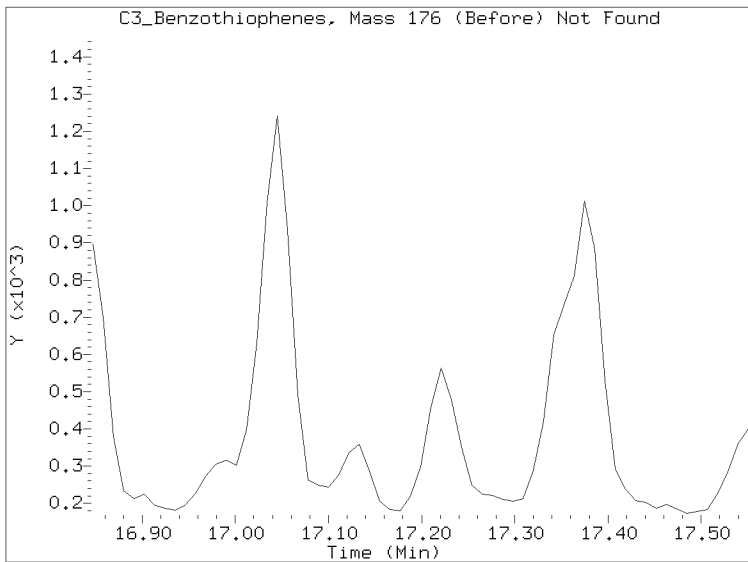
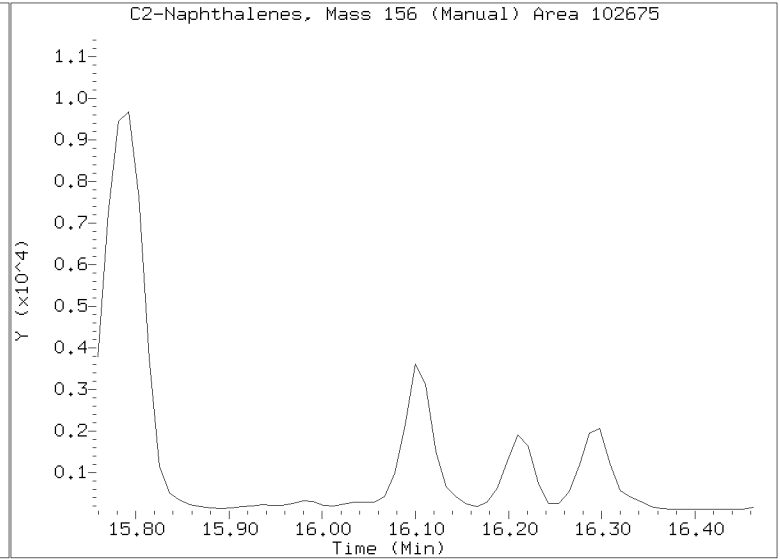
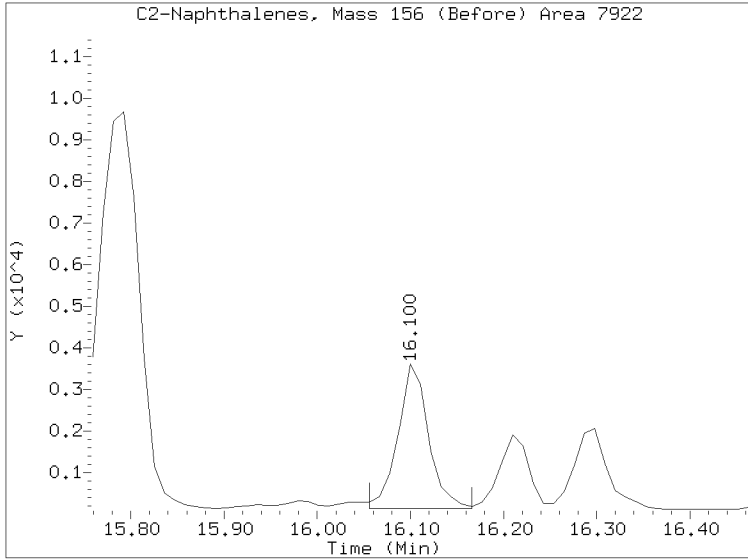
Quant Ion Manual Peak Adjustment Report

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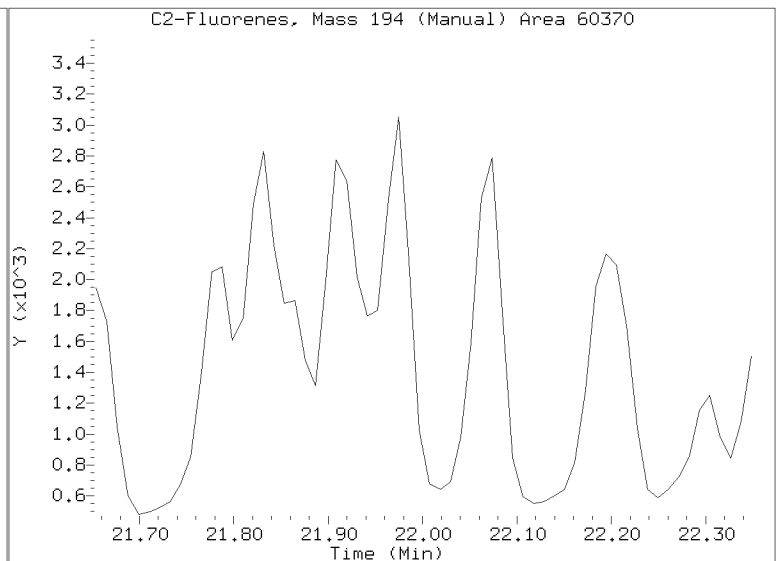
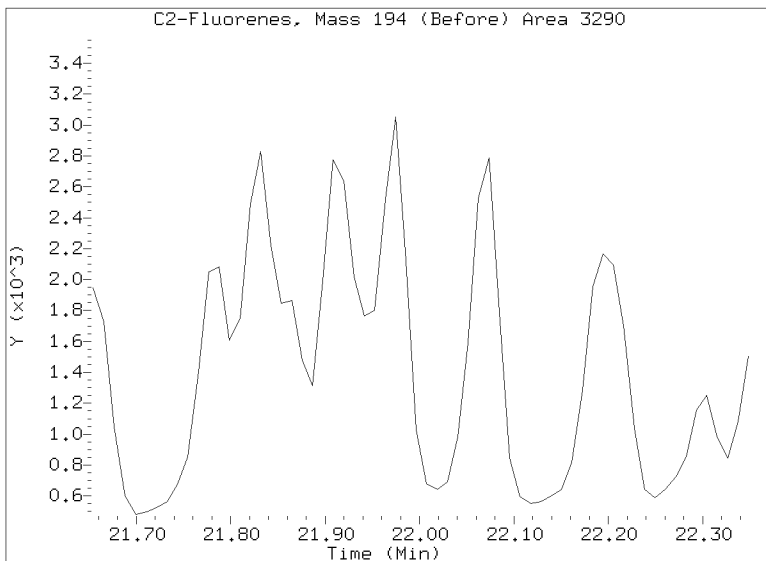
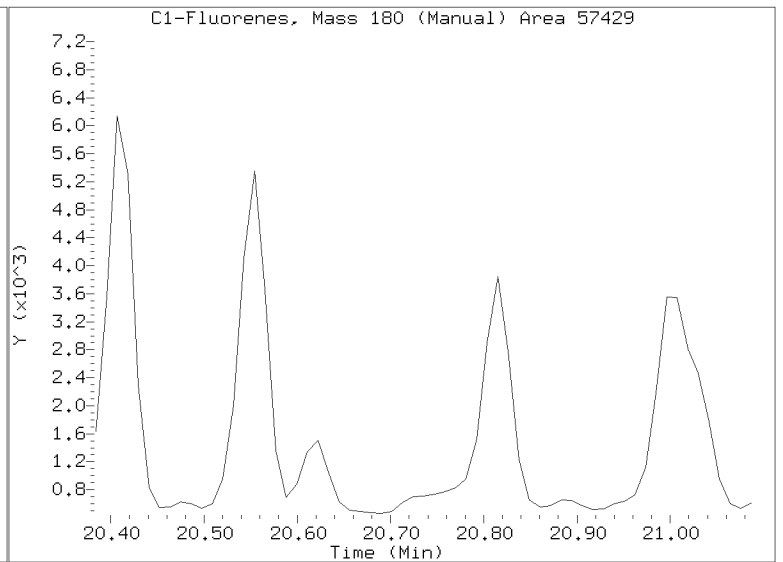
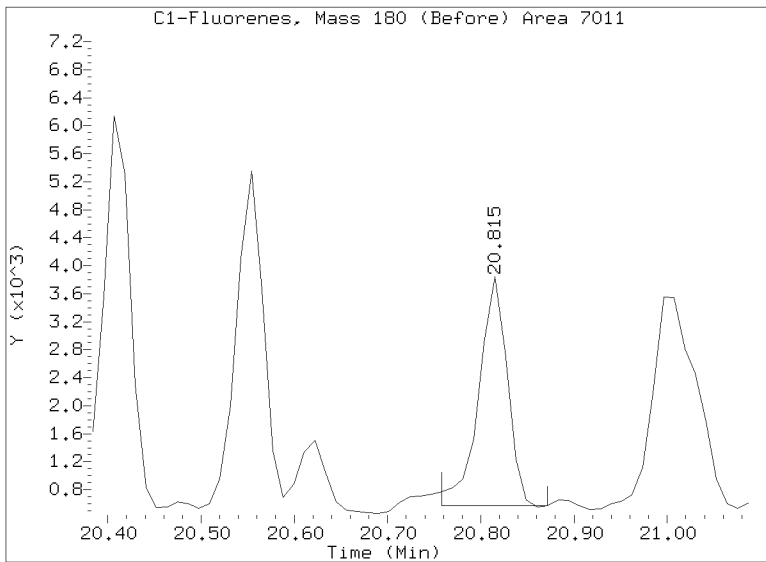
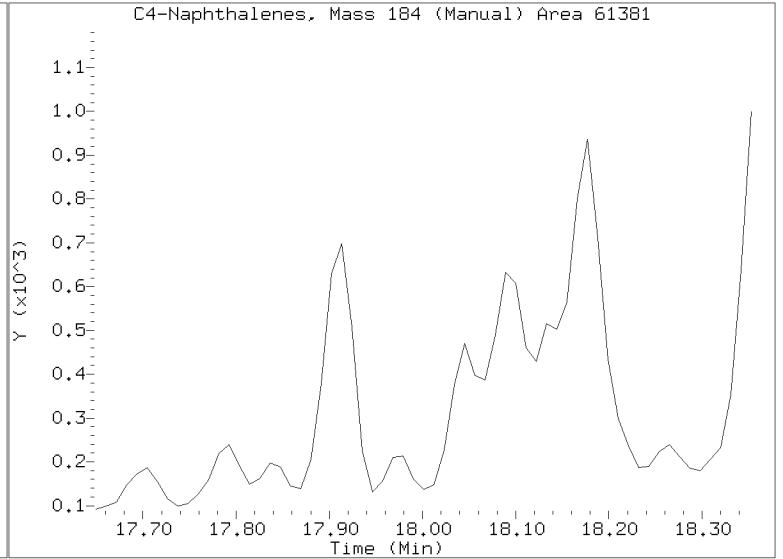
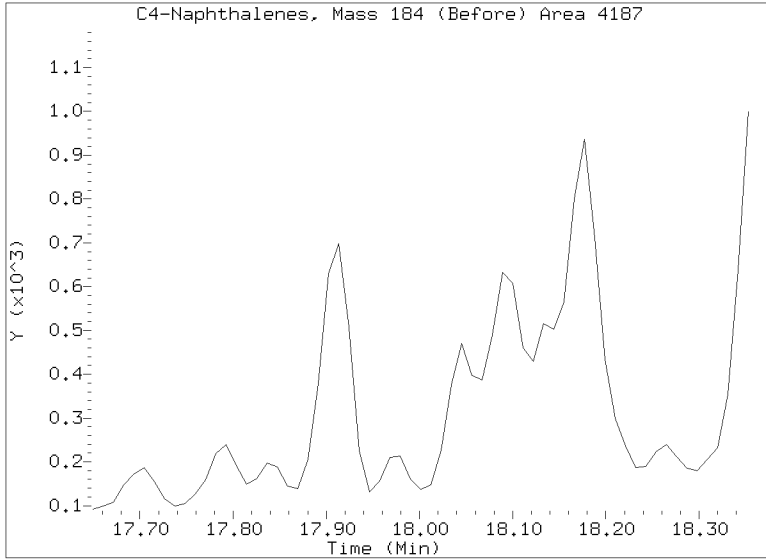
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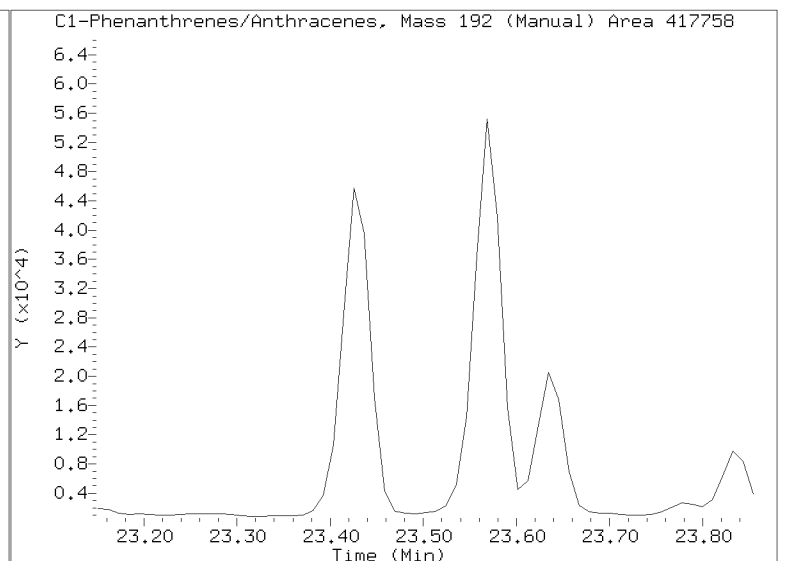
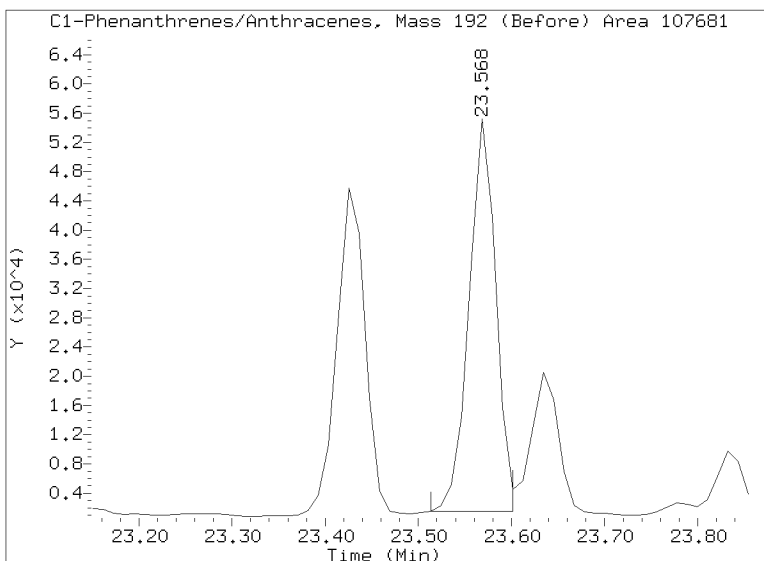
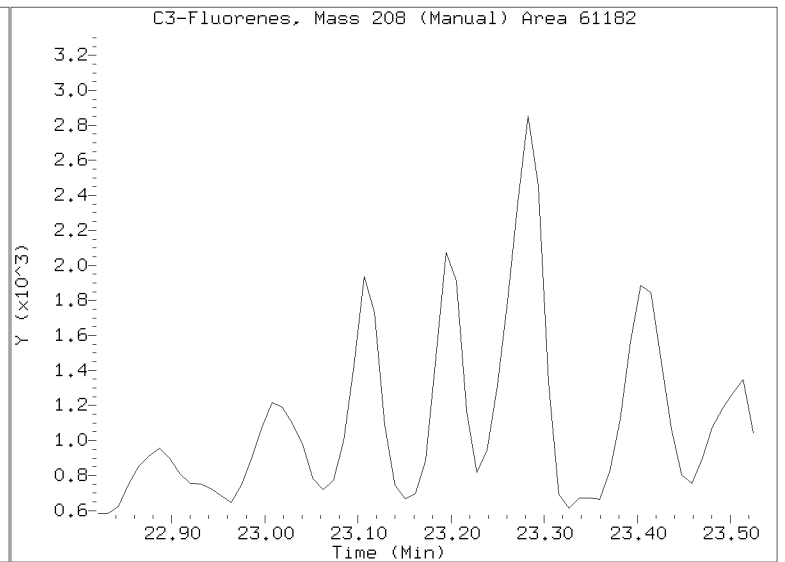
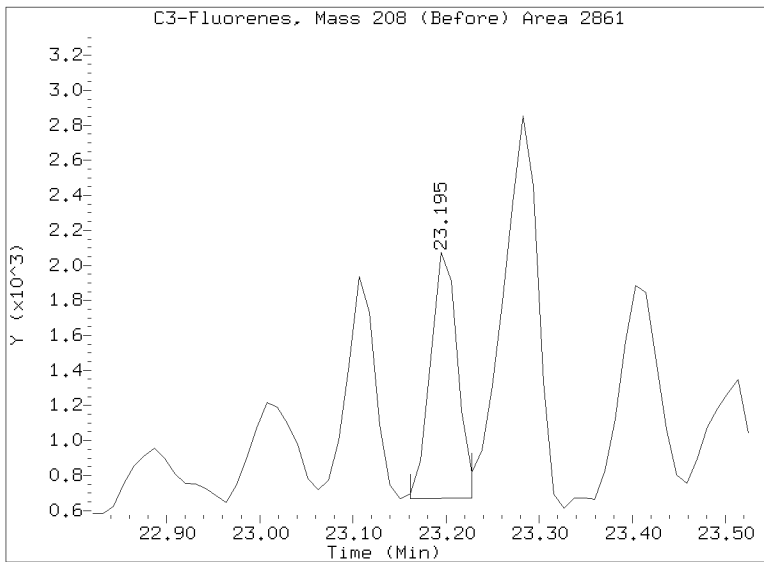
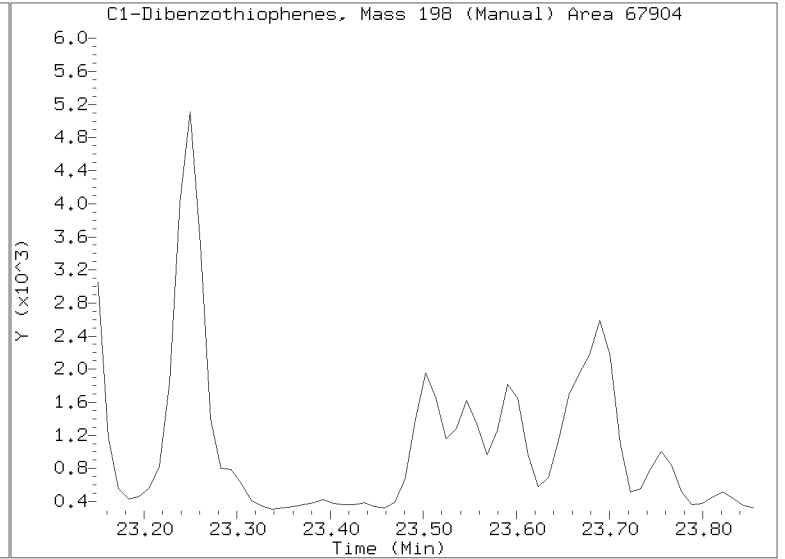
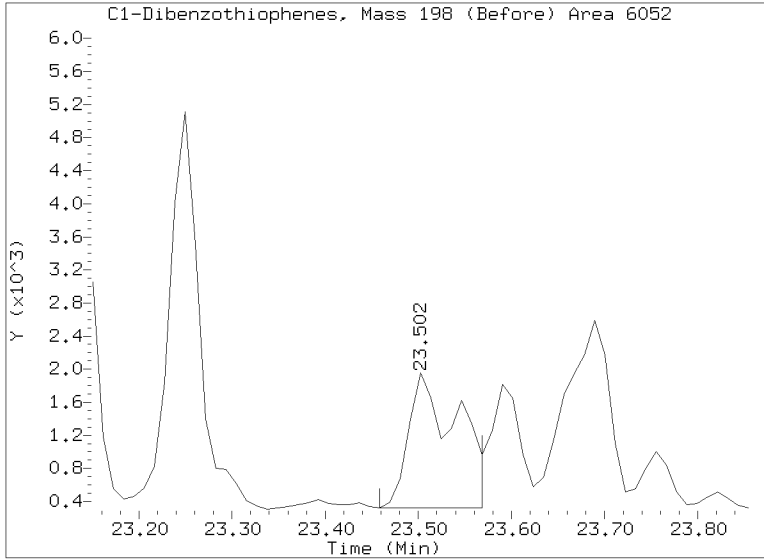
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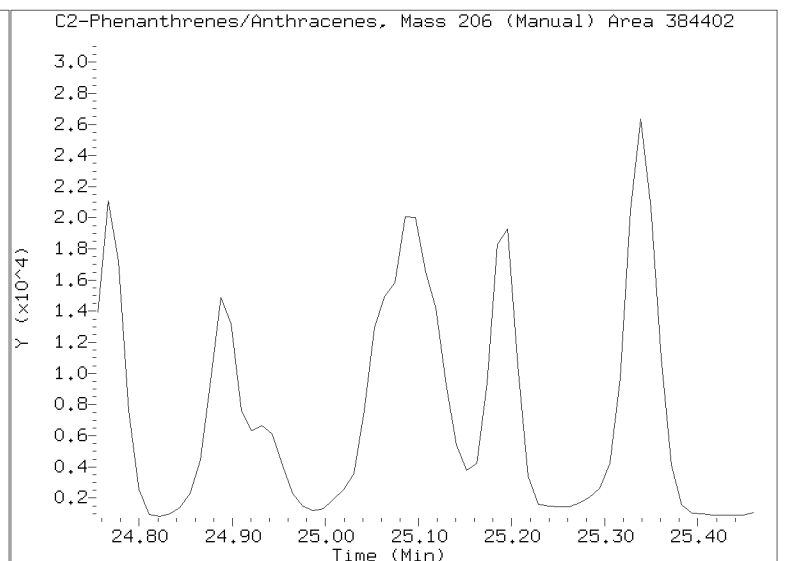
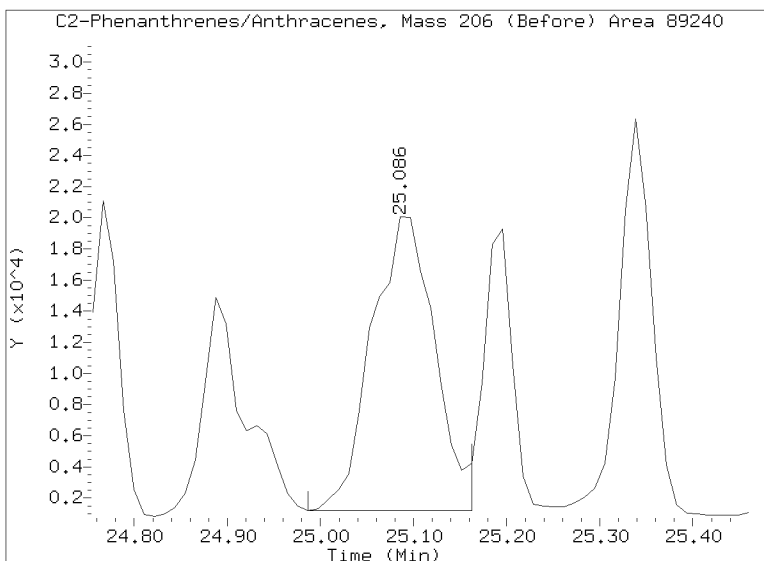
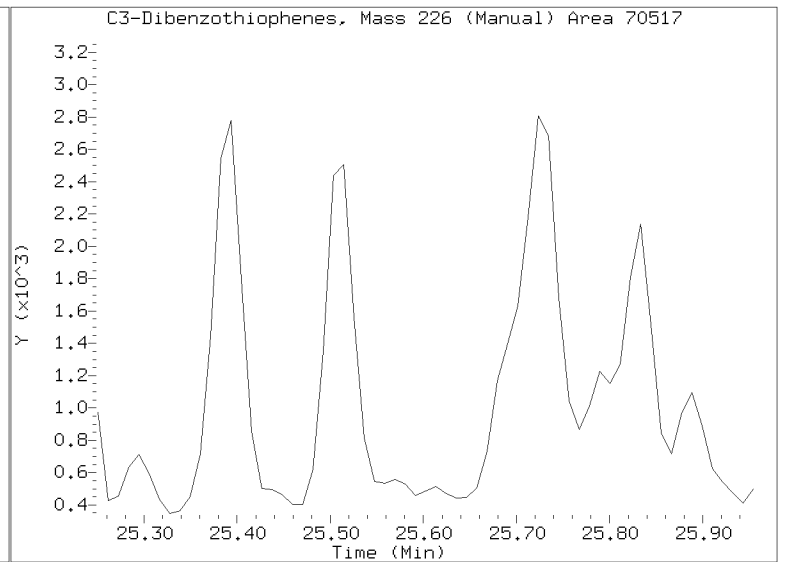
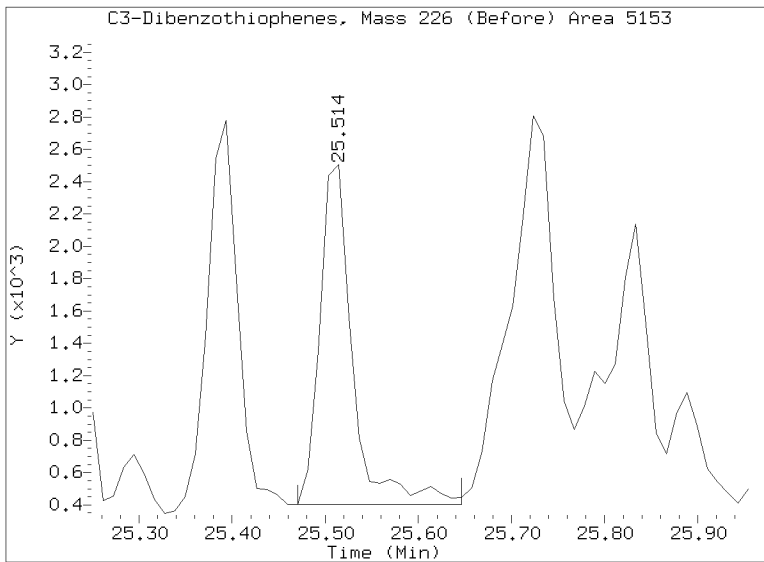
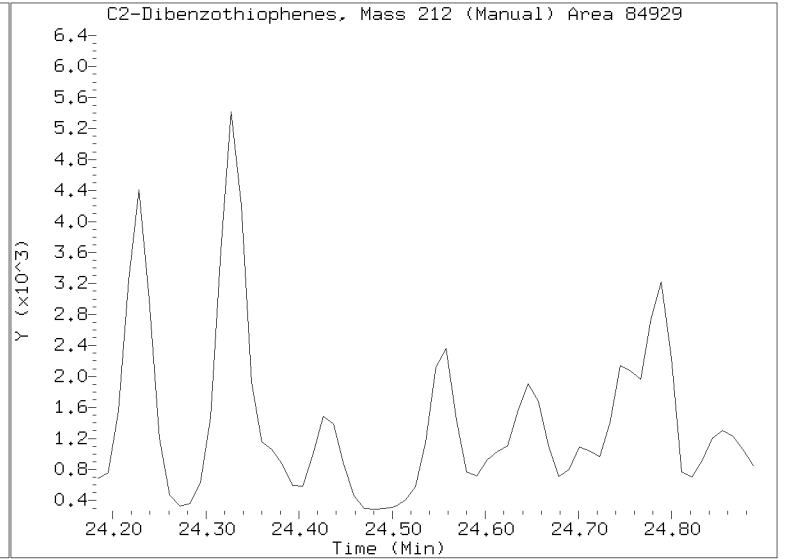
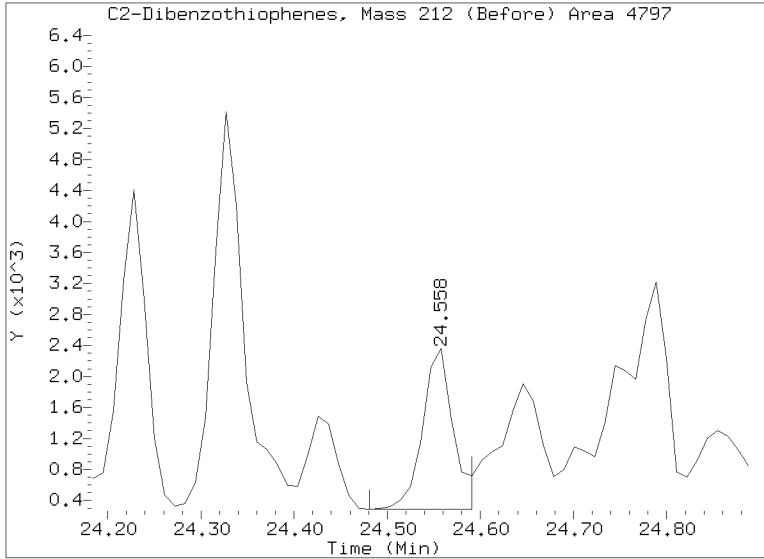
Quant Ion Manual Peak Adjustment Report

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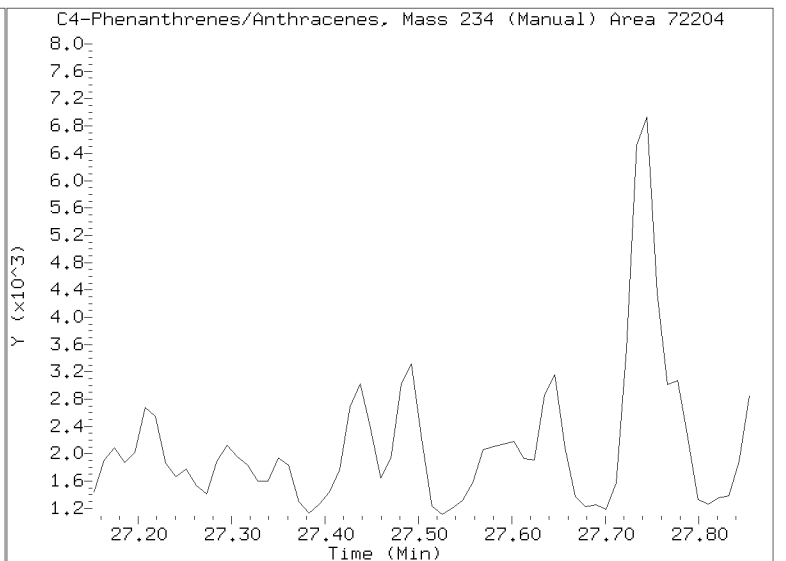
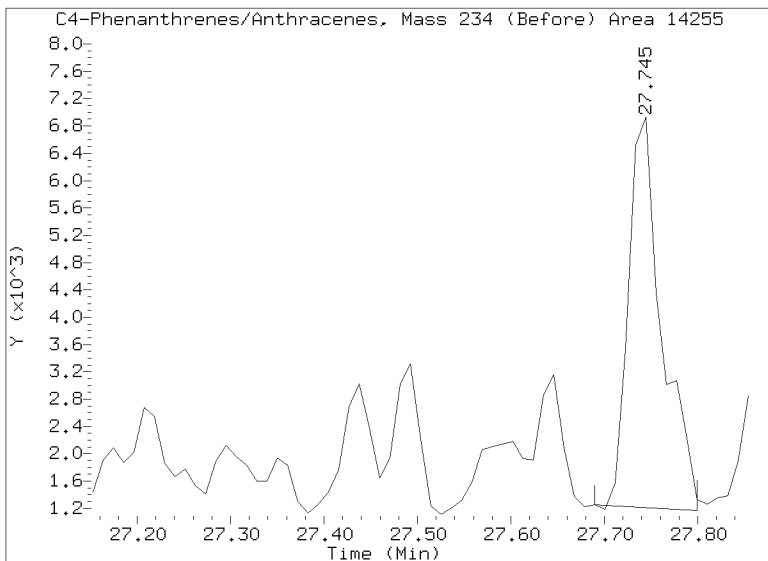
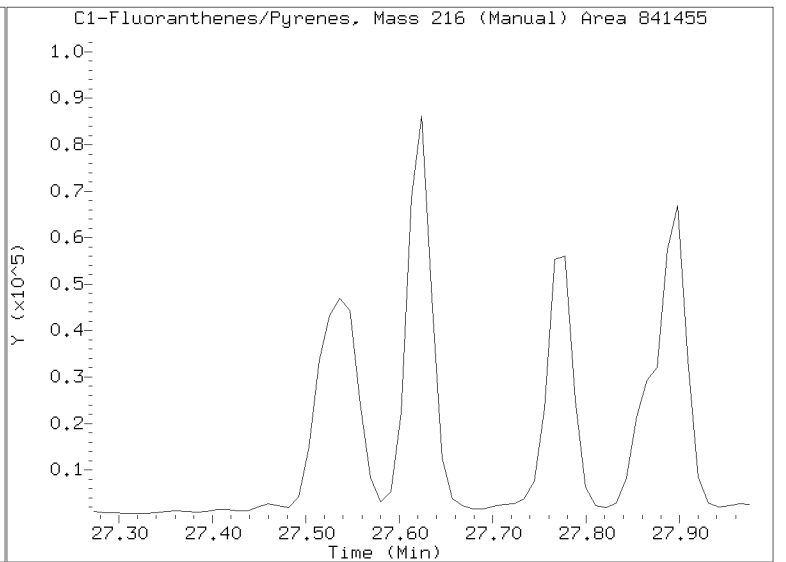
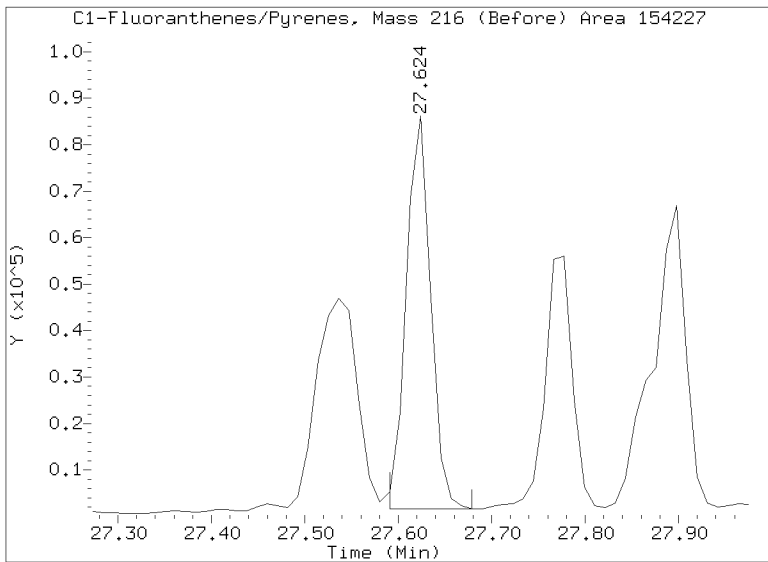
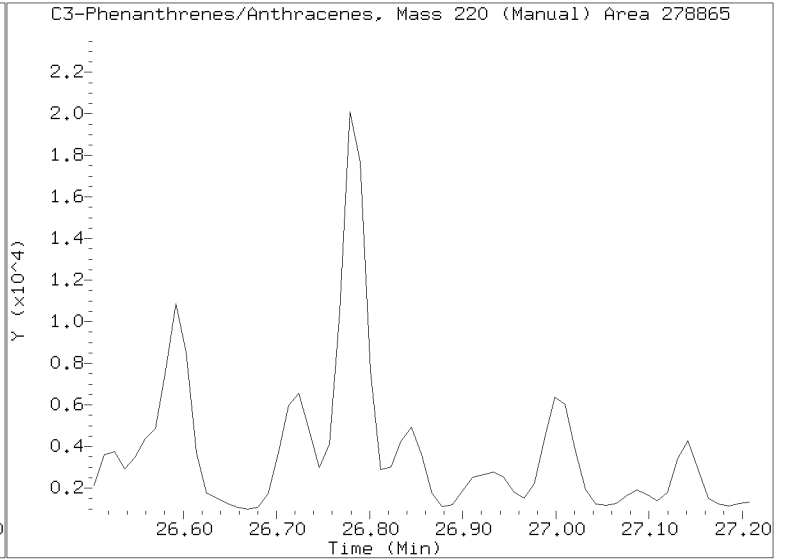
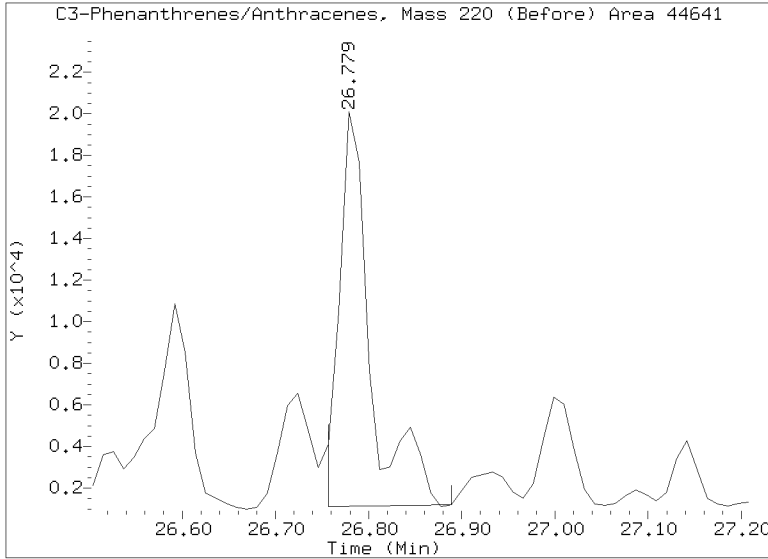
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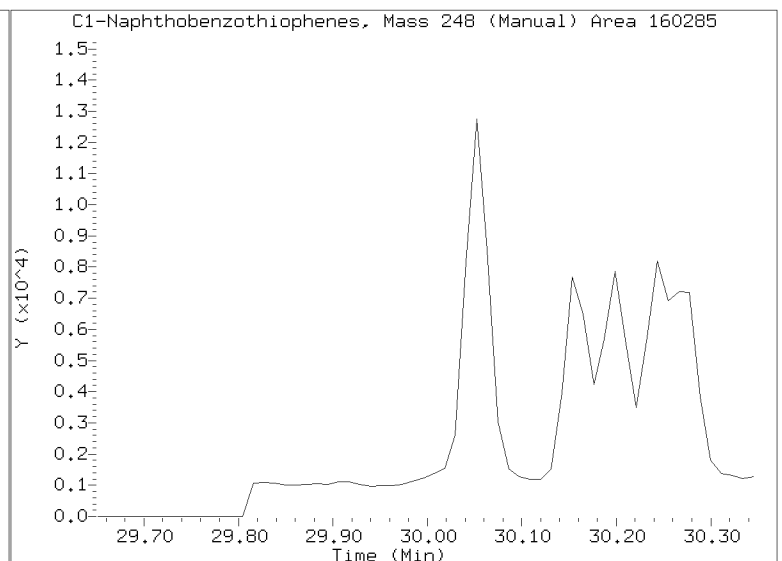
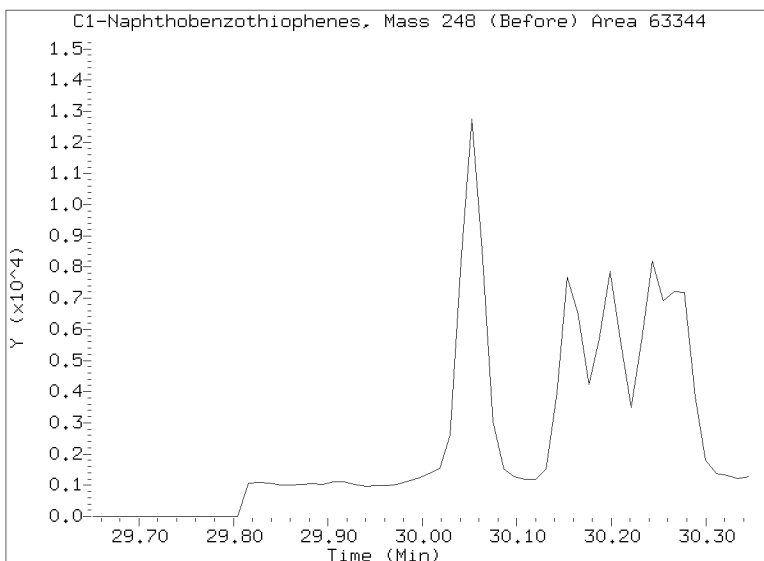
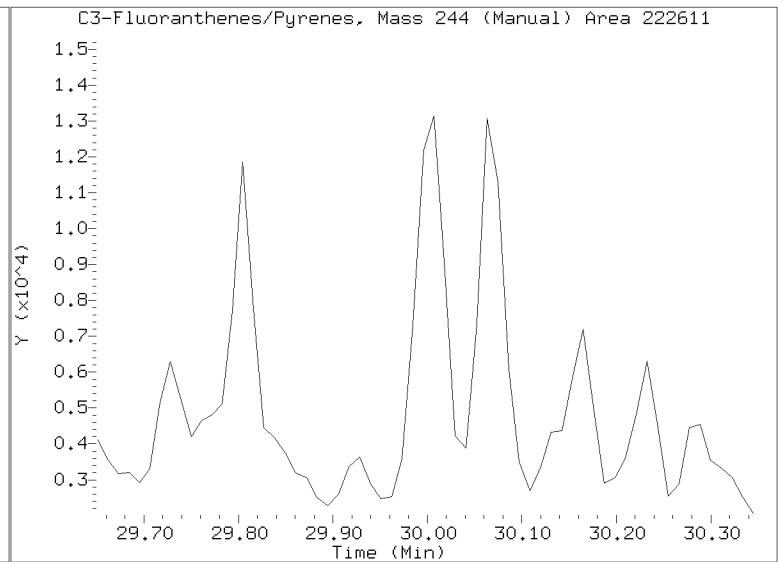
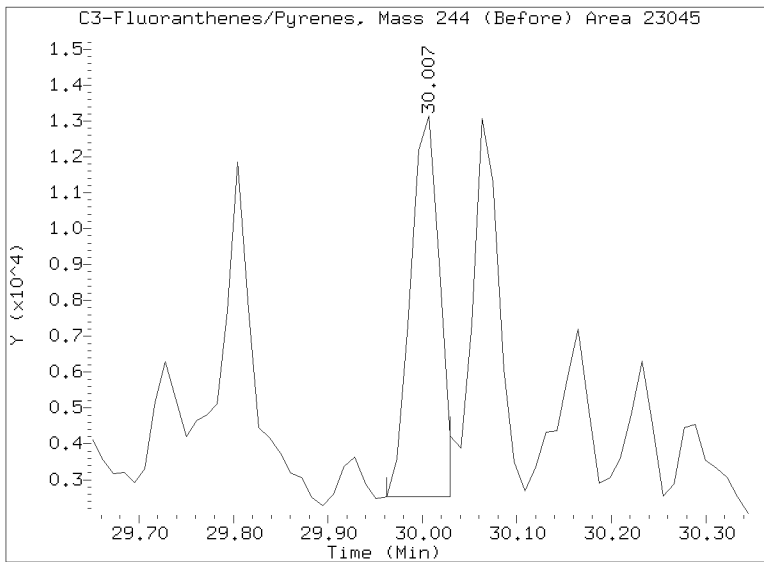
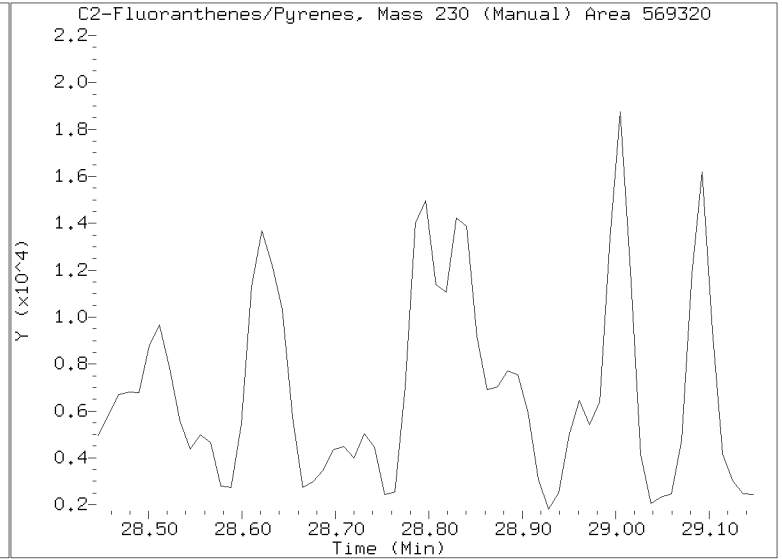
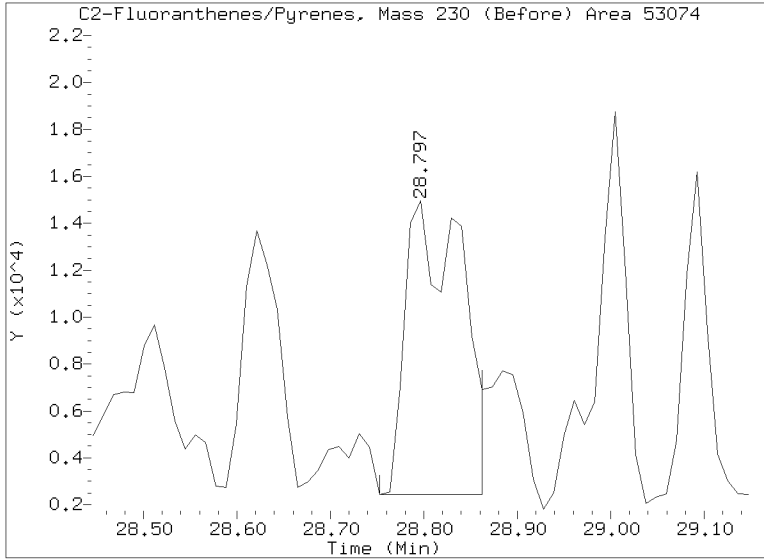
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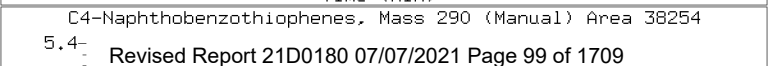
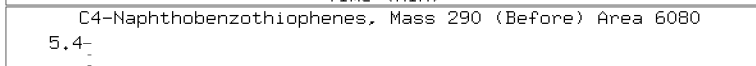
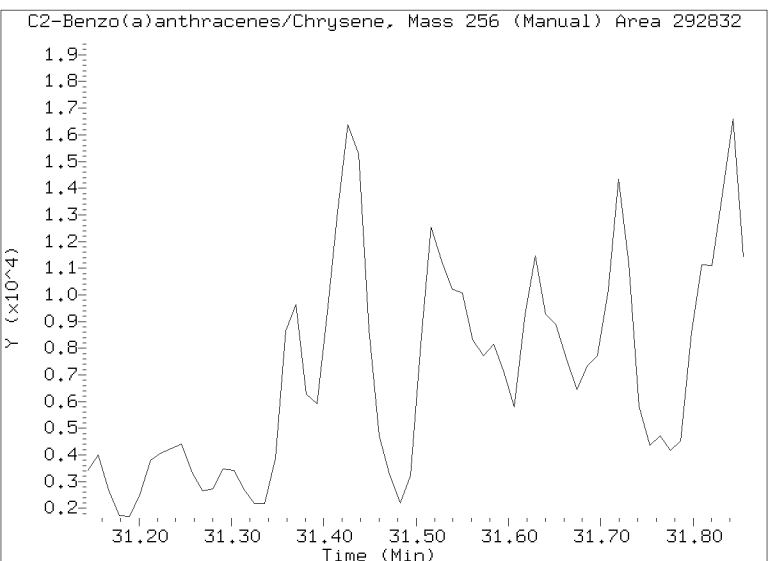
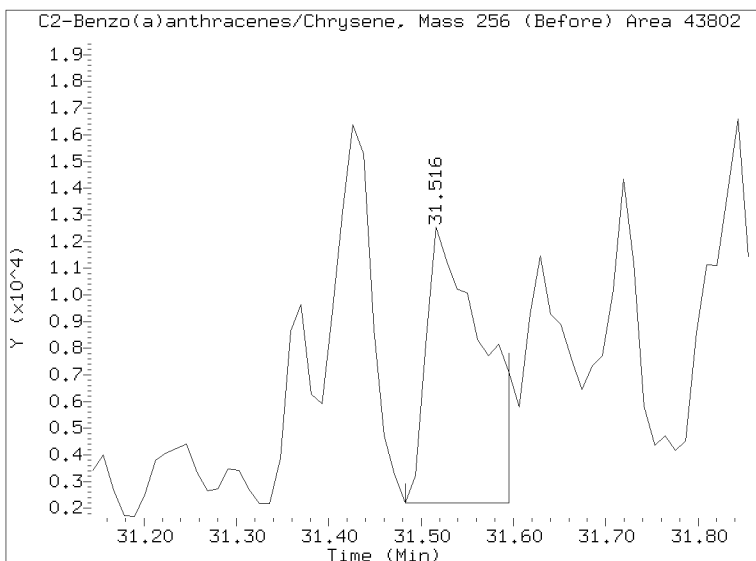
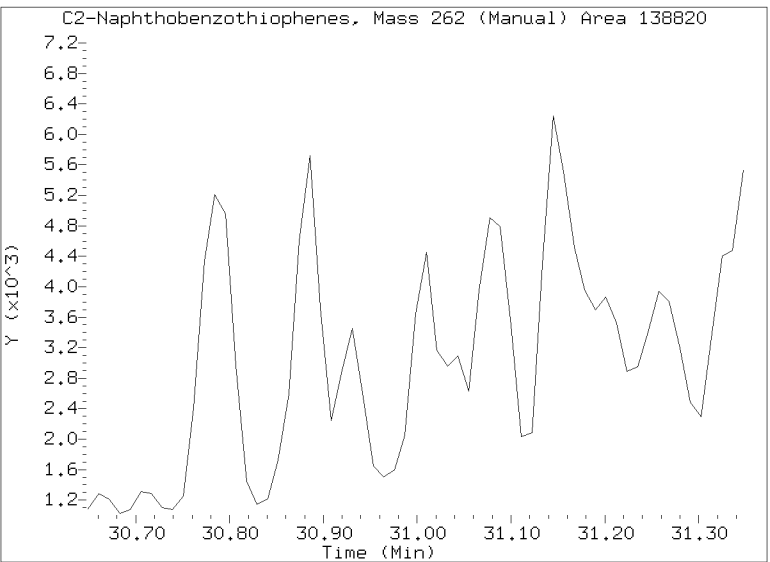
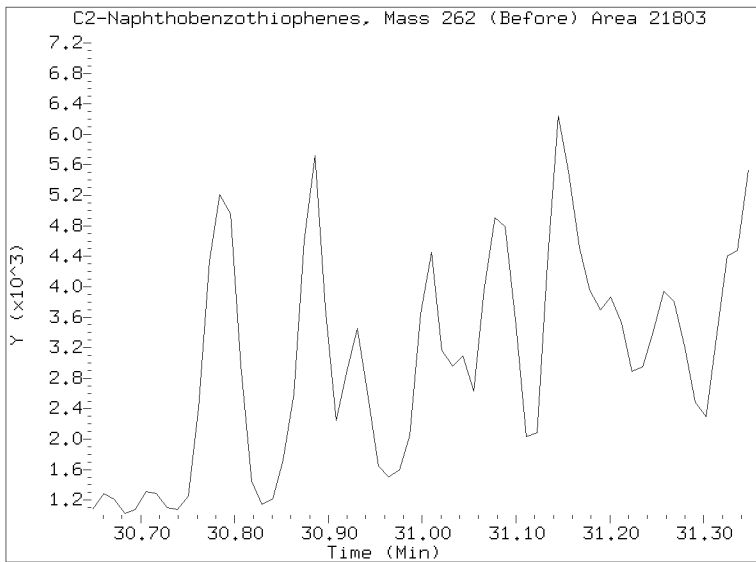
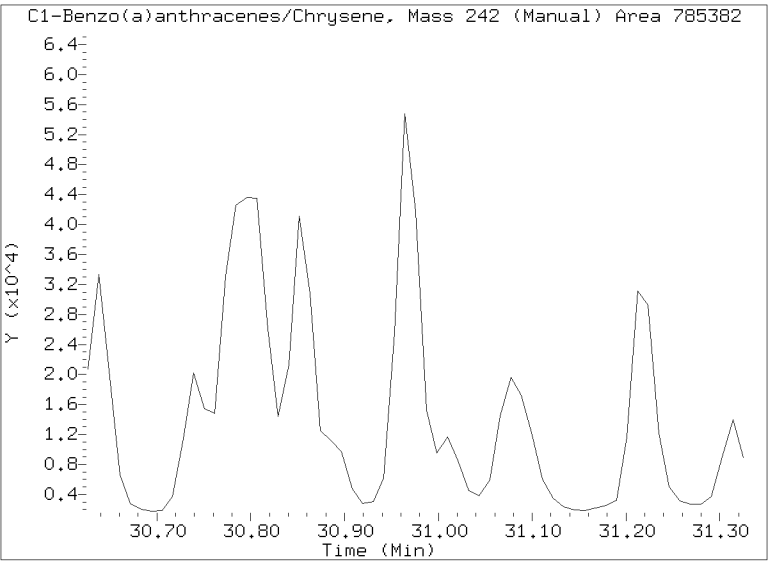
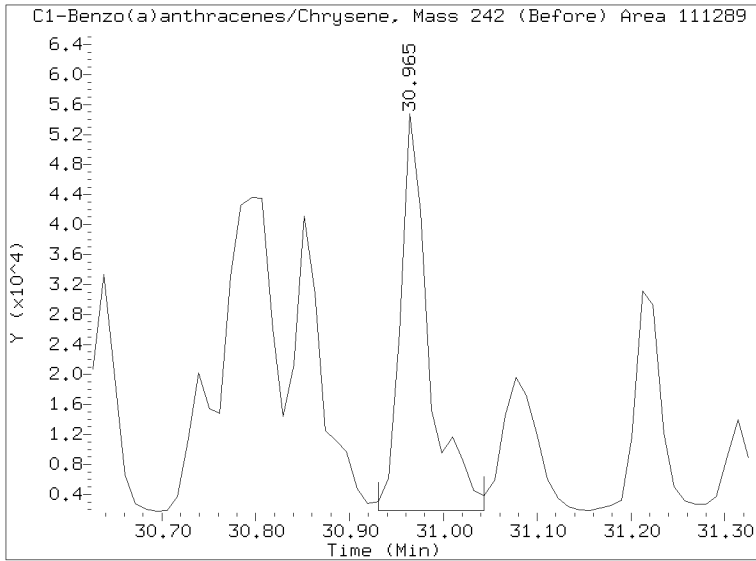
Quant Ion Manual Peak Adjustment Report

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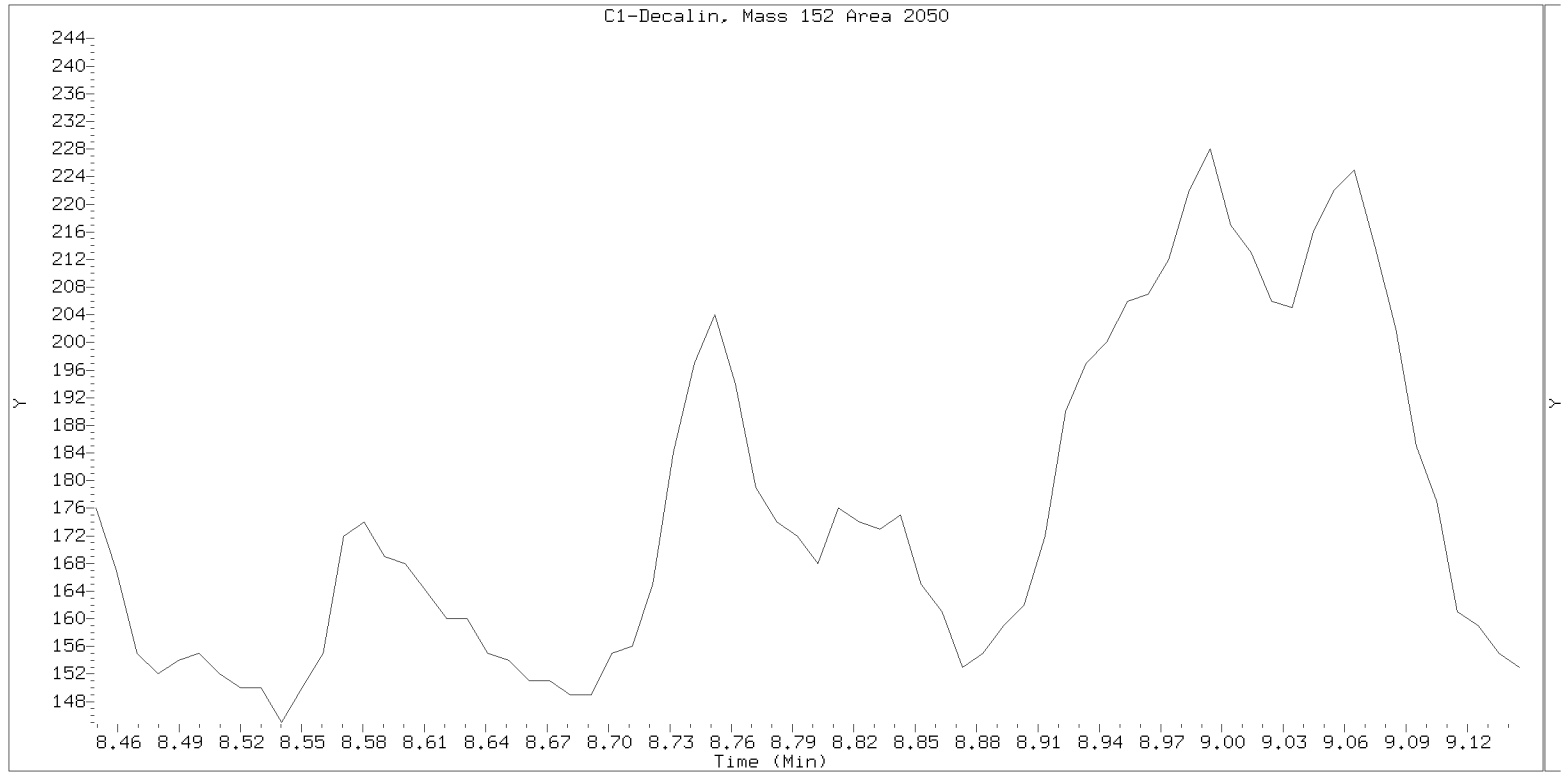
Quant Ion Manual Peak Adjustment Report

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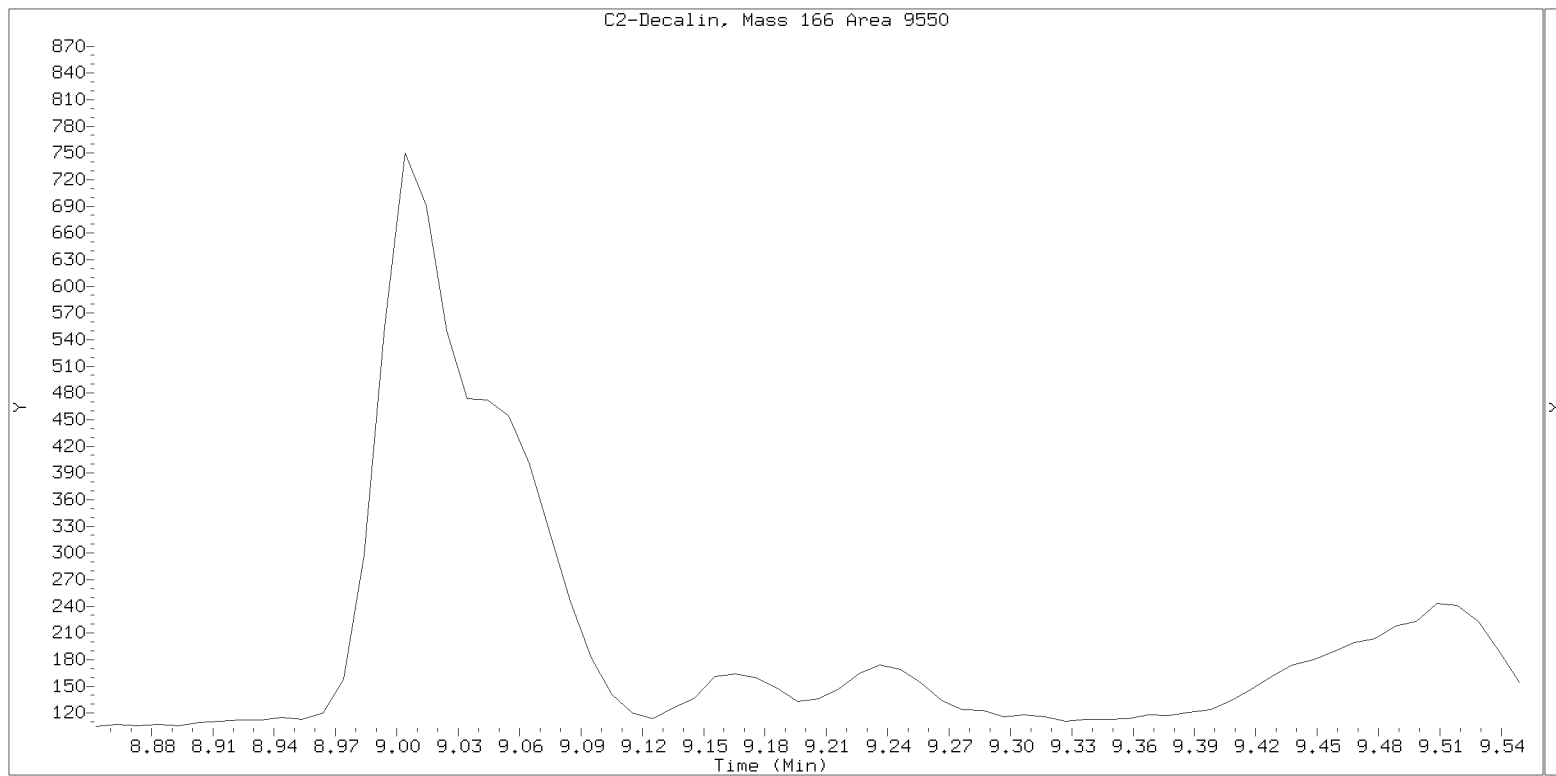
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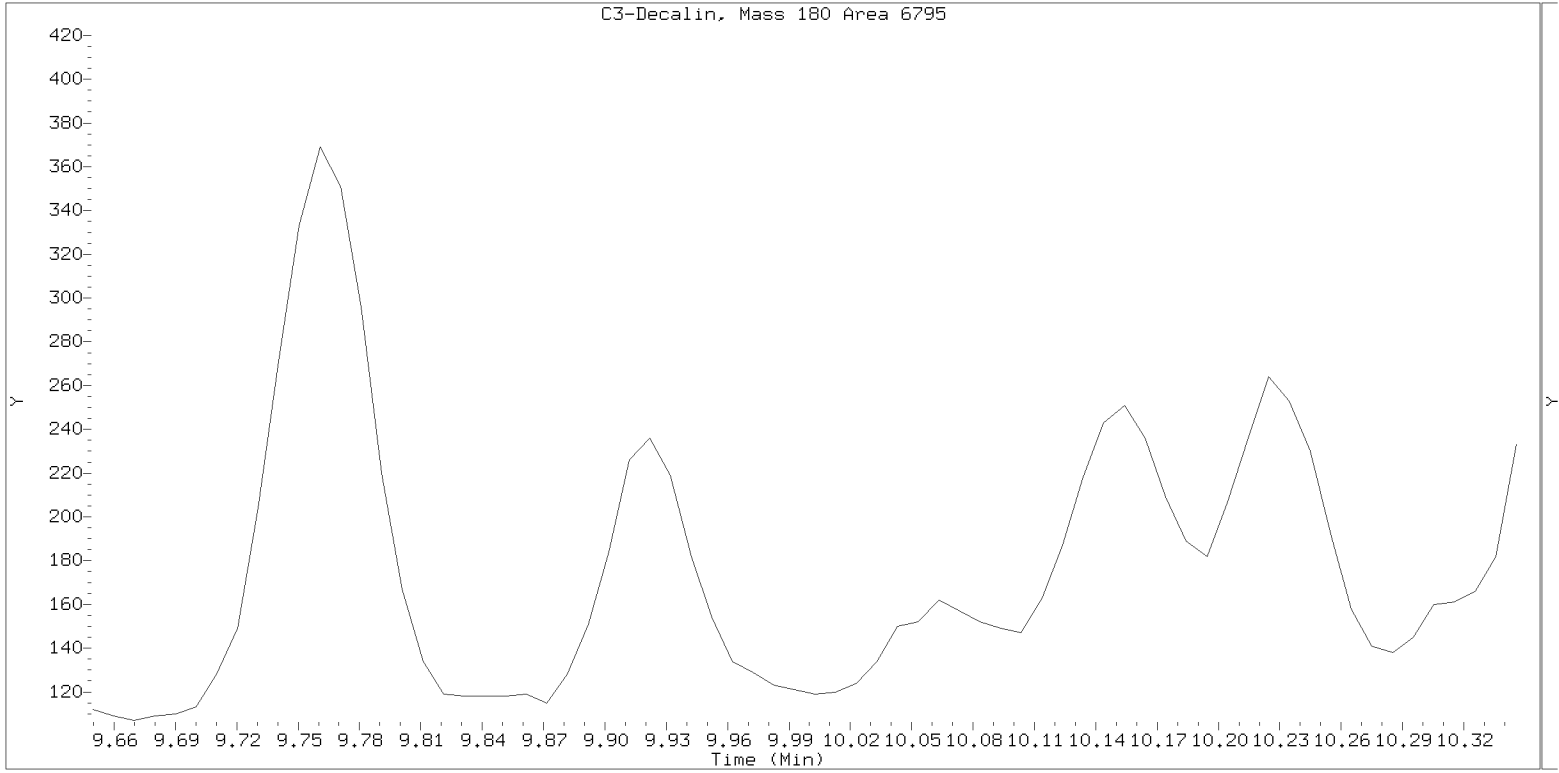
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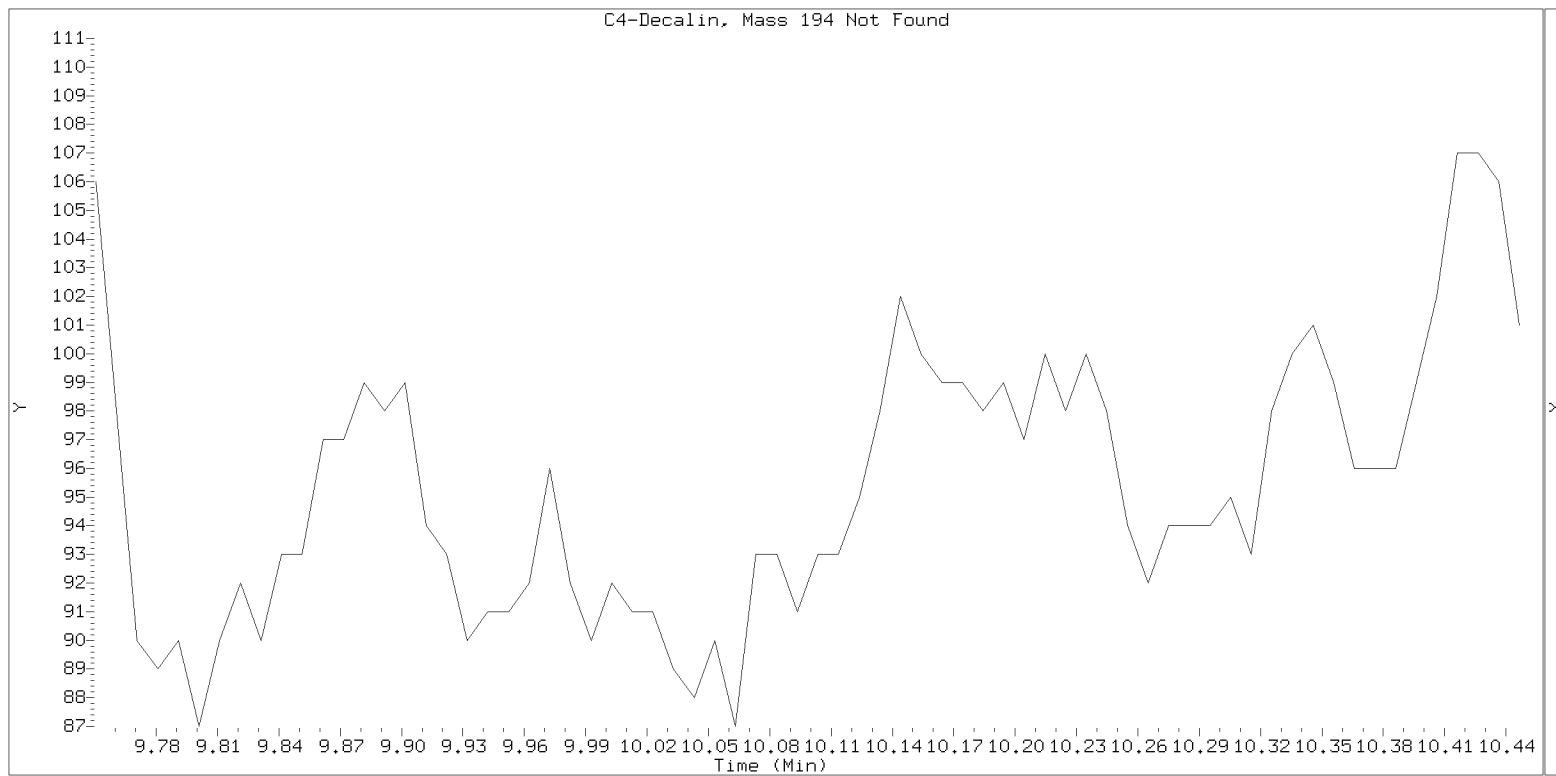
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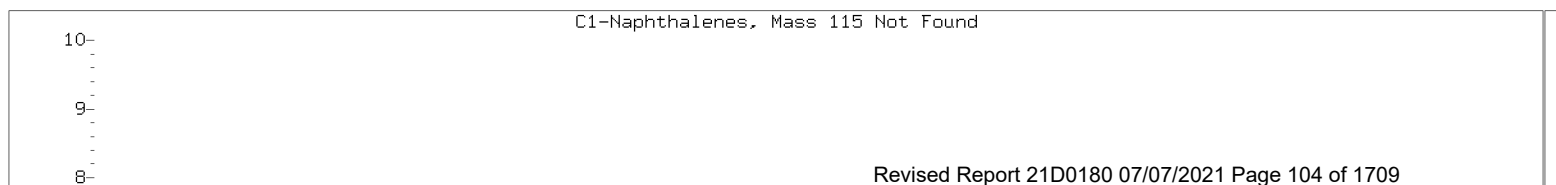
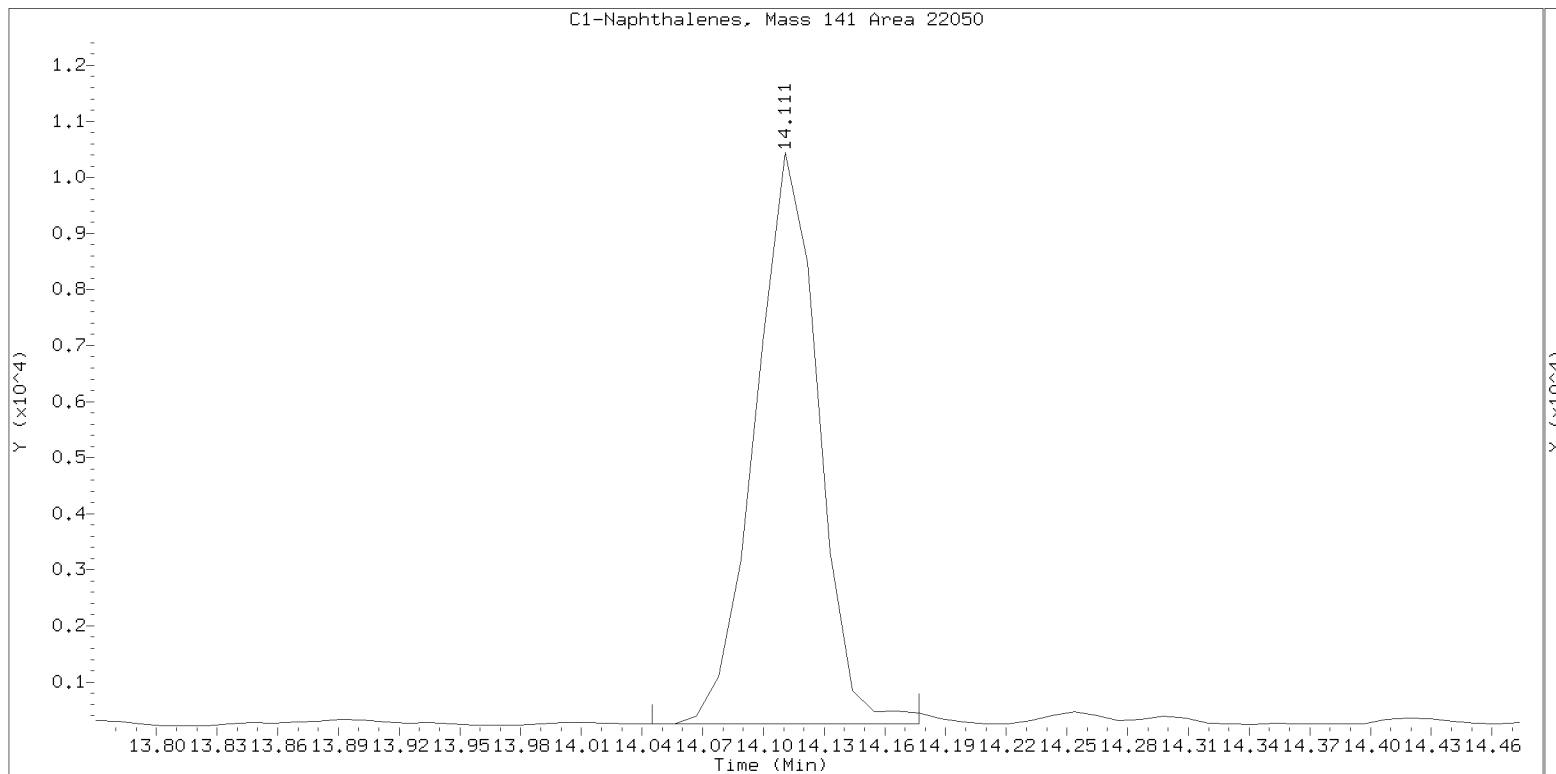
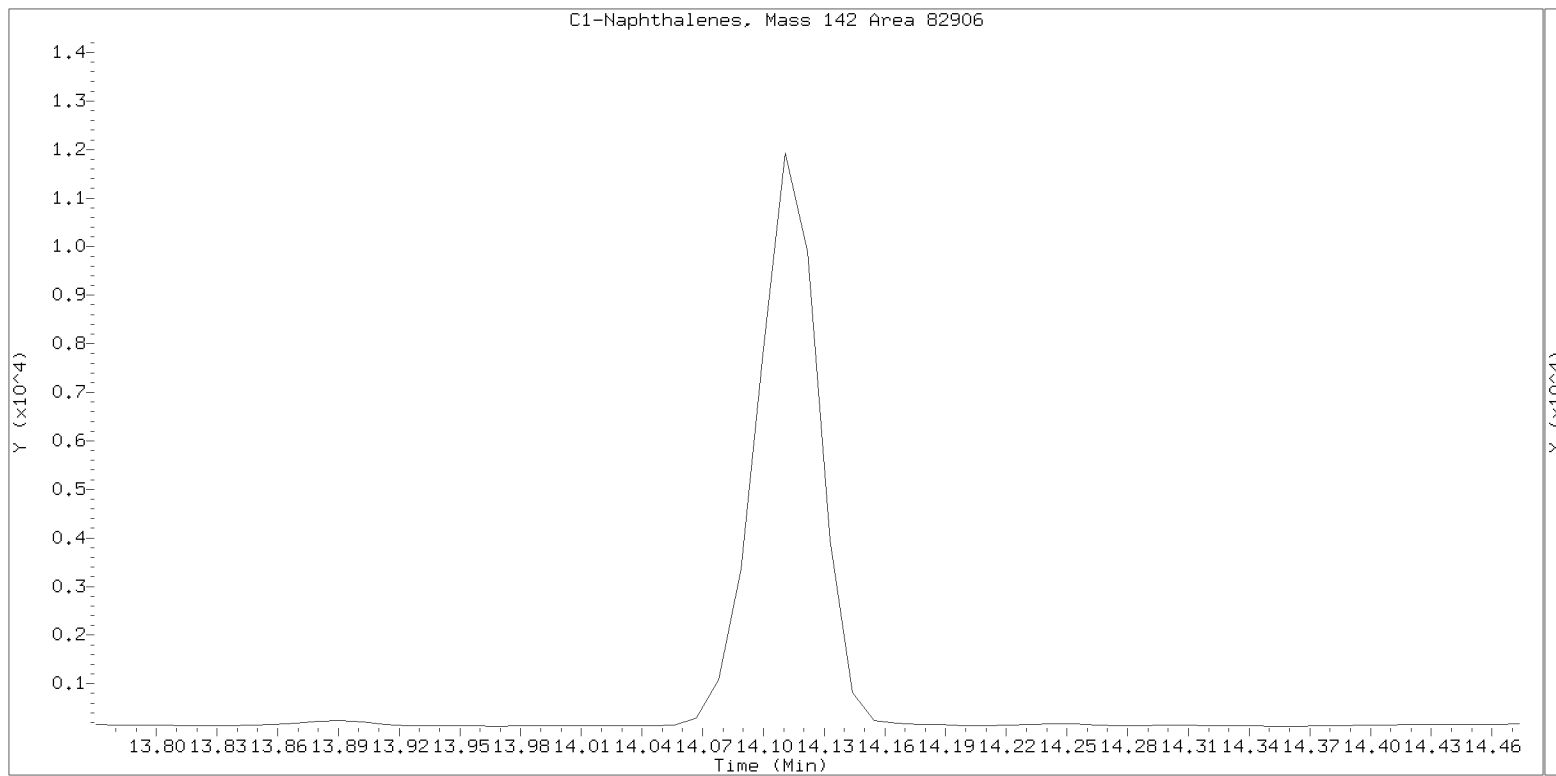
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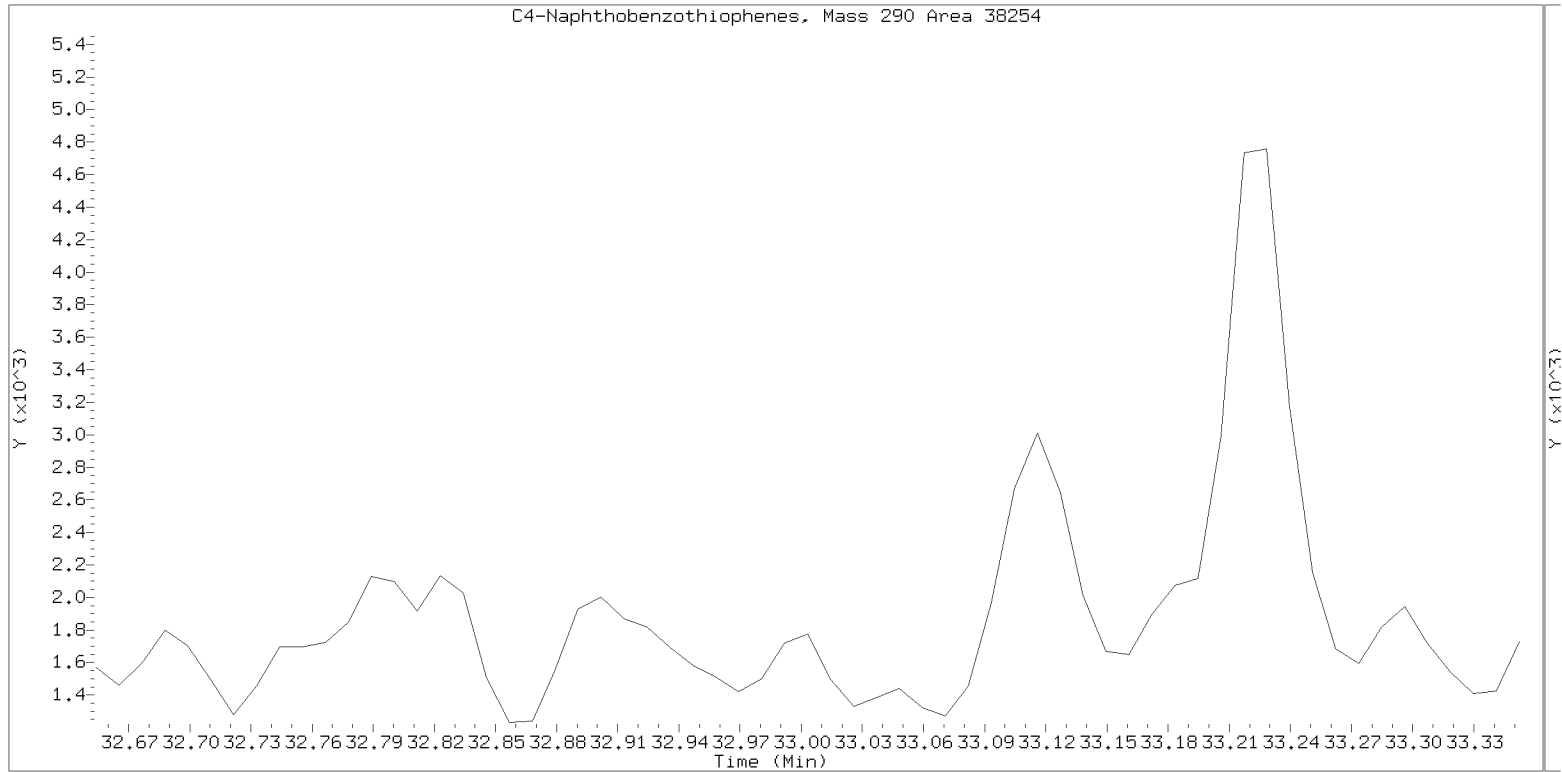
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043063S.D

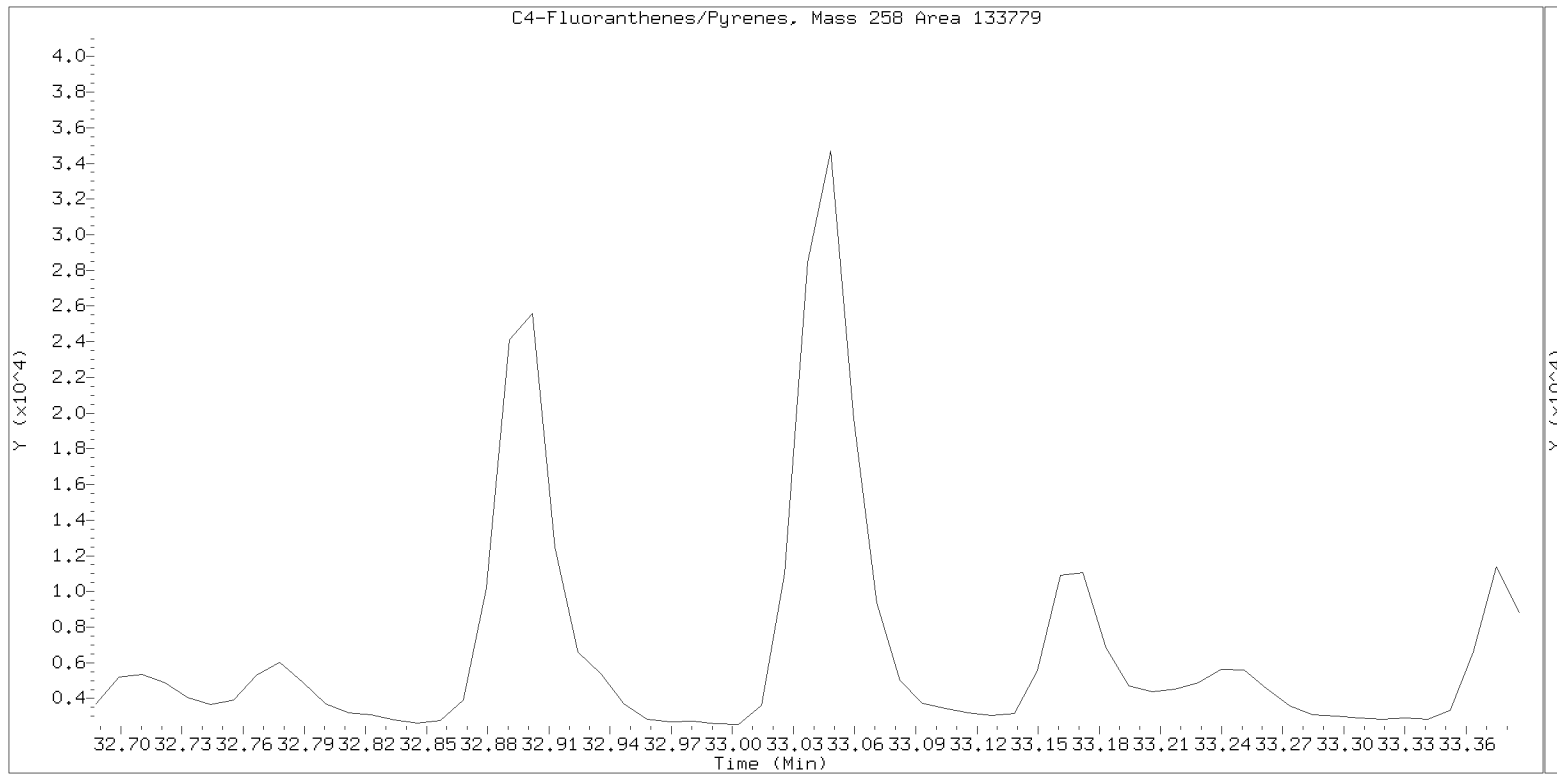
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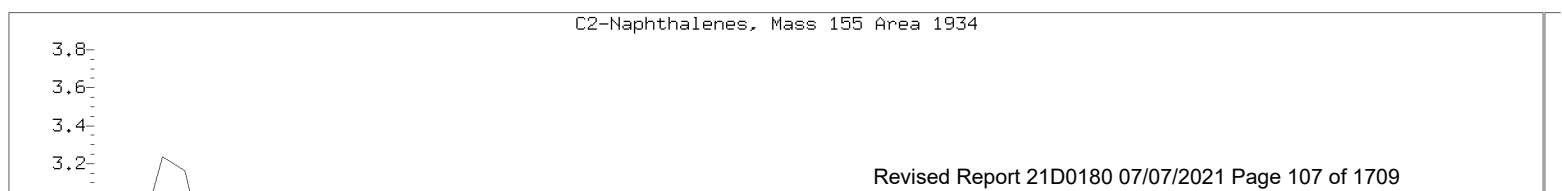
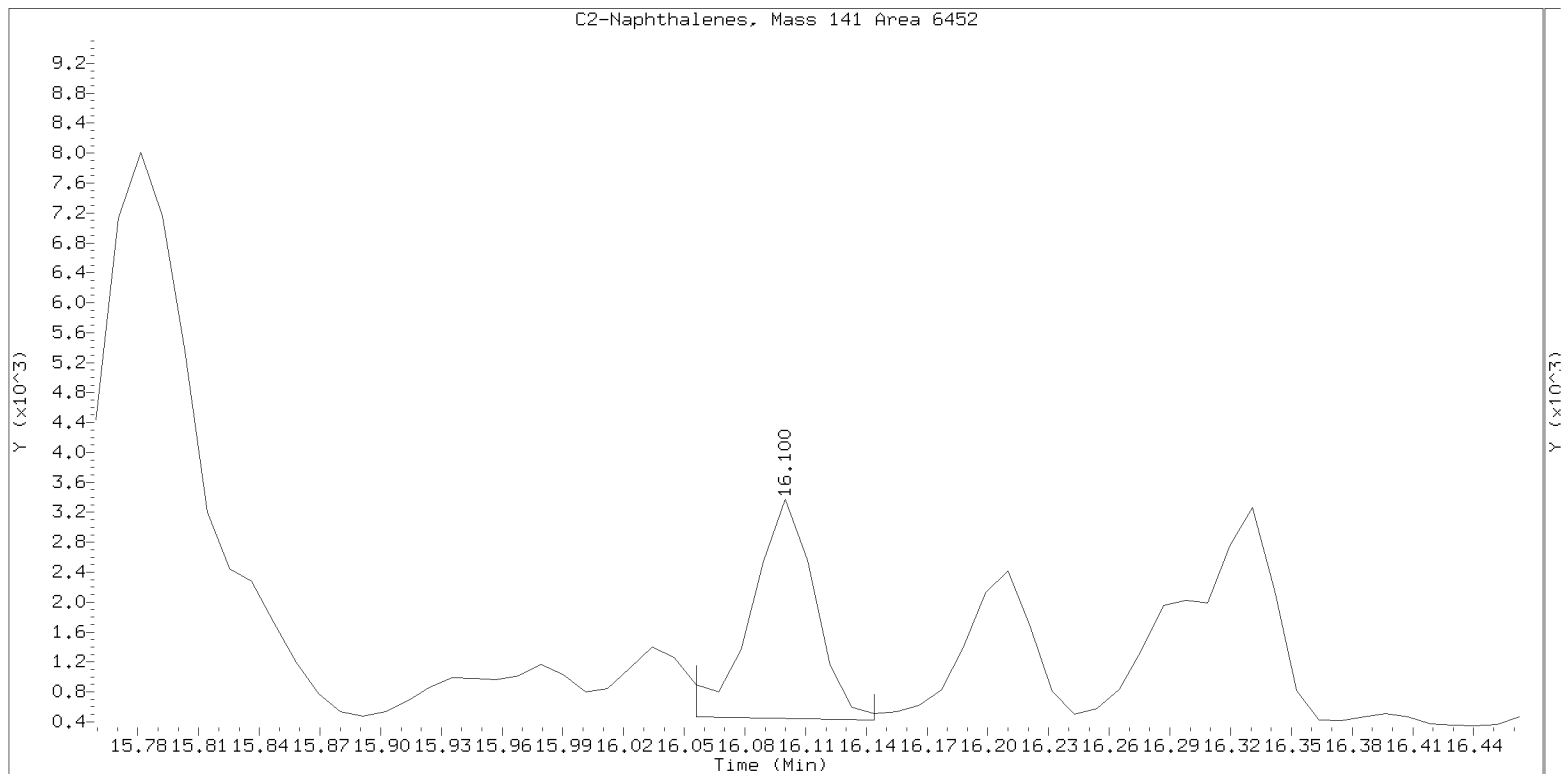
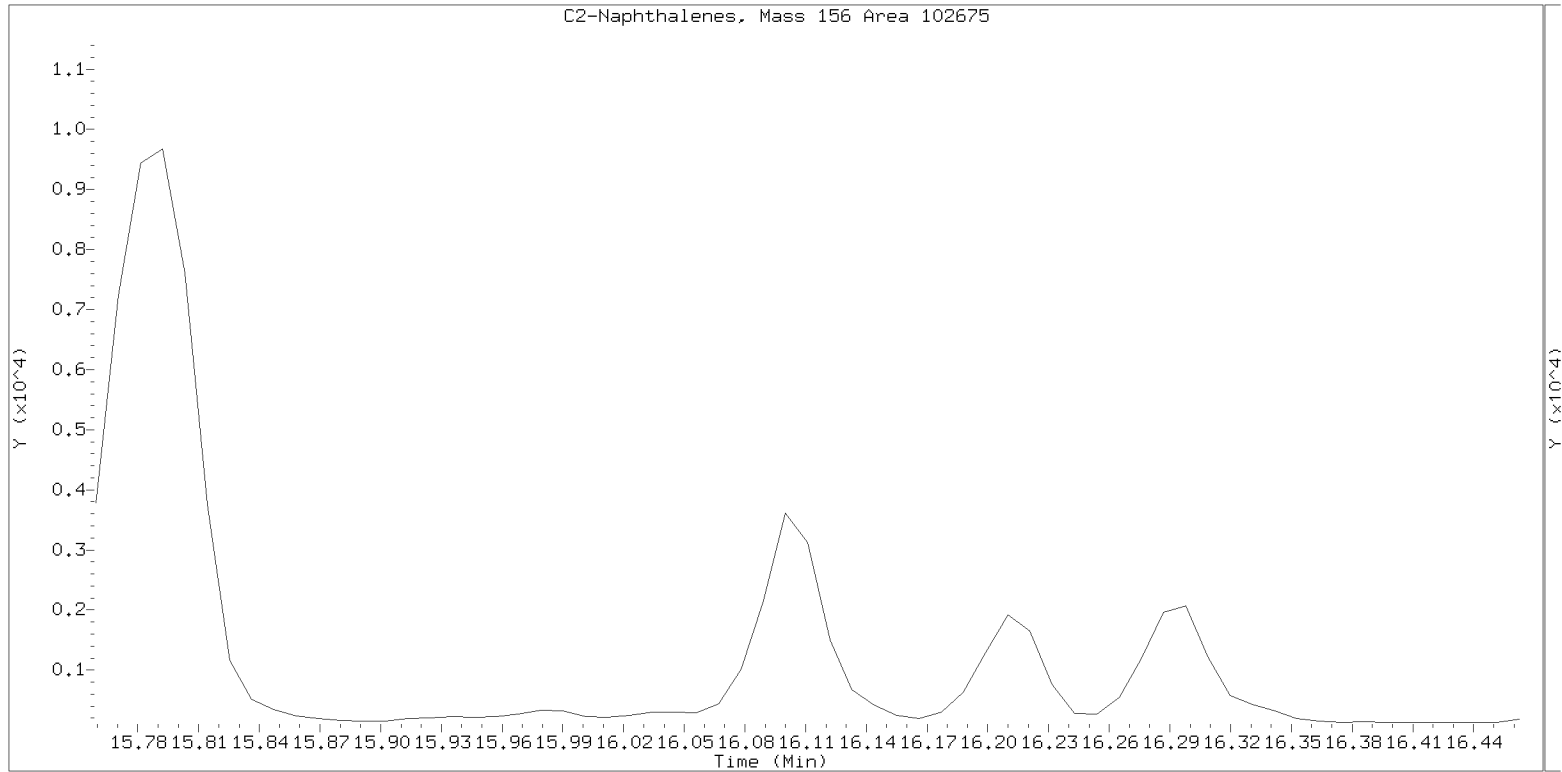
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043063S.D

Lab ID: 21D0180-01

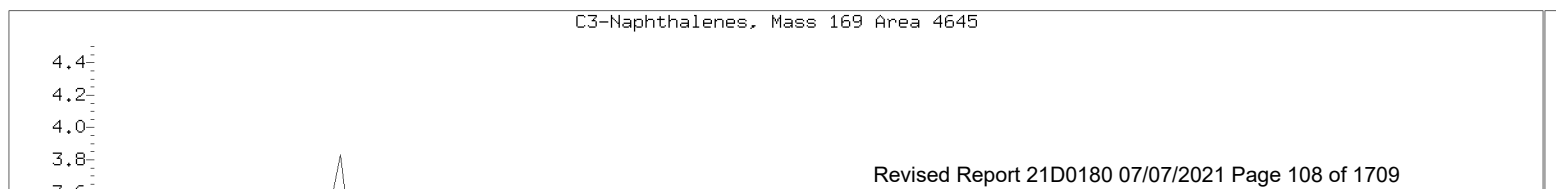
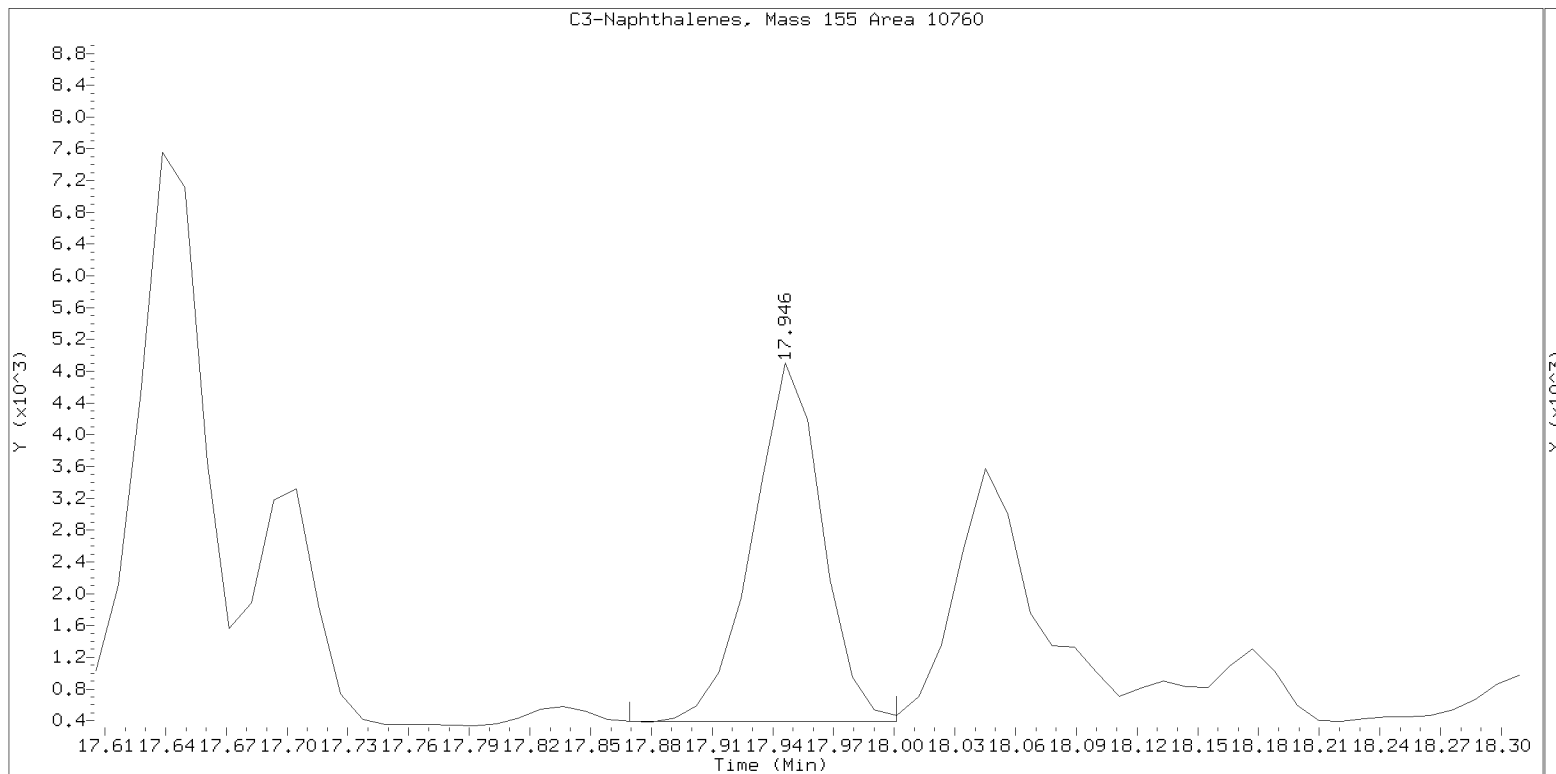
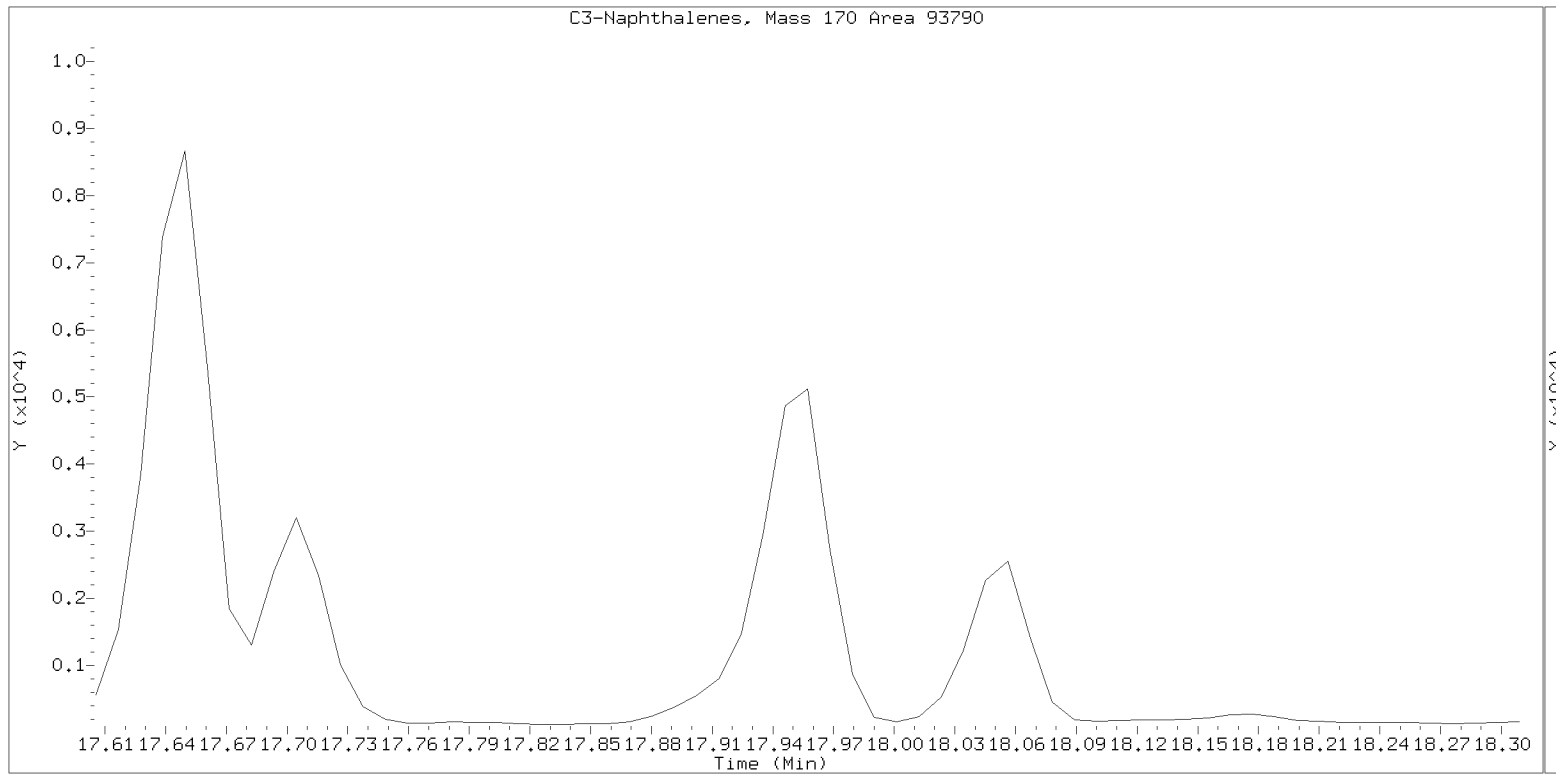
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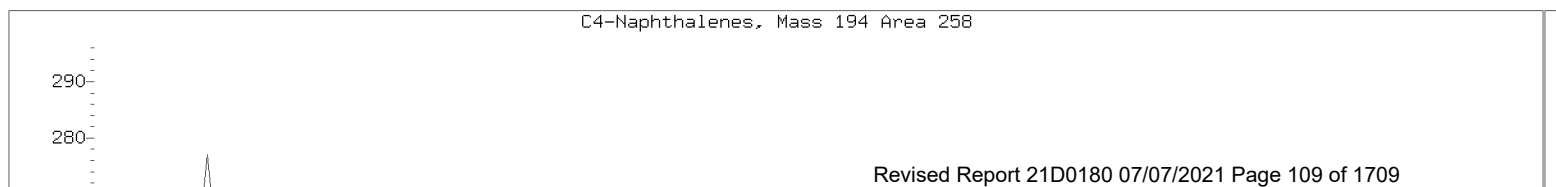
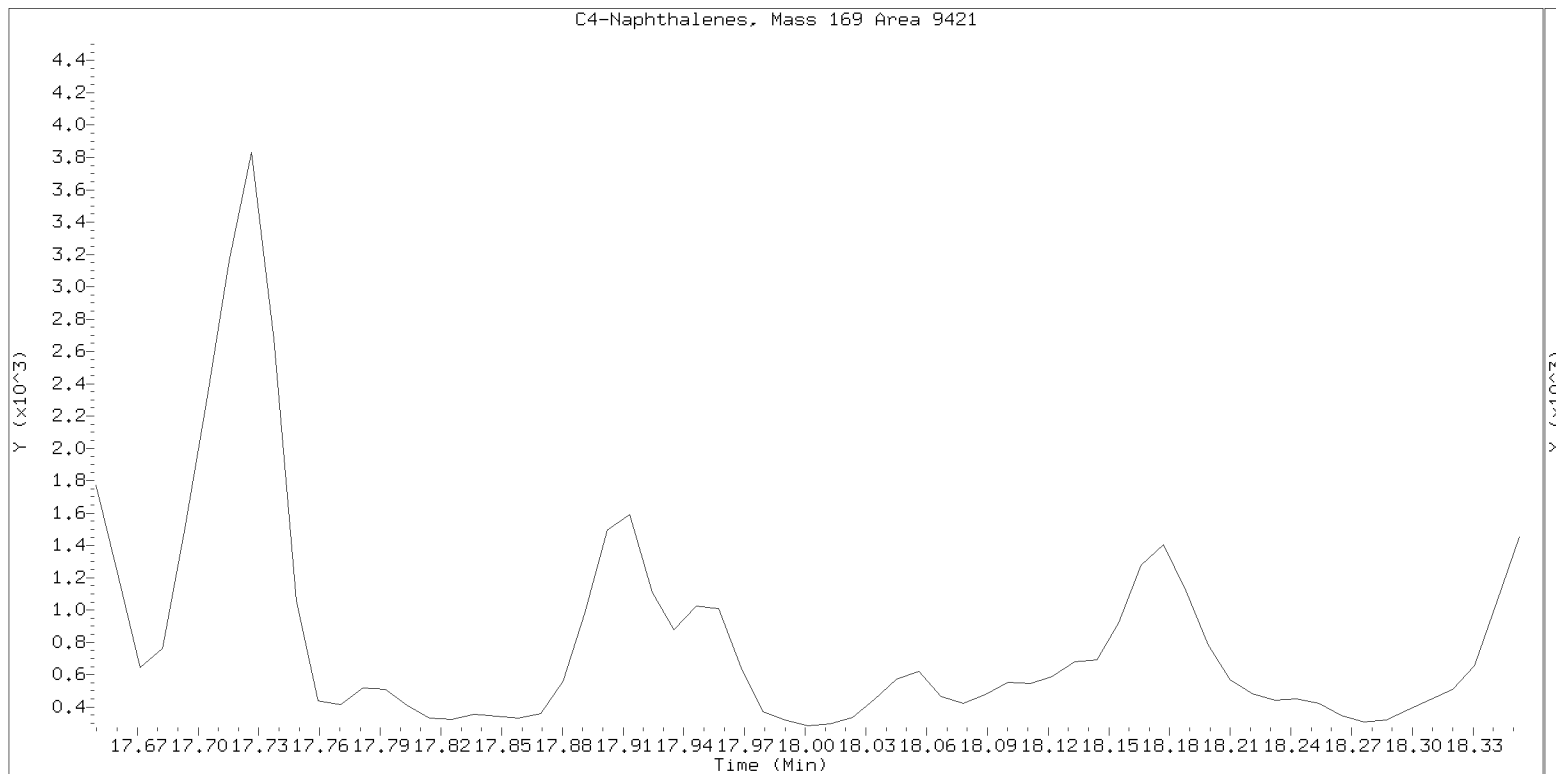
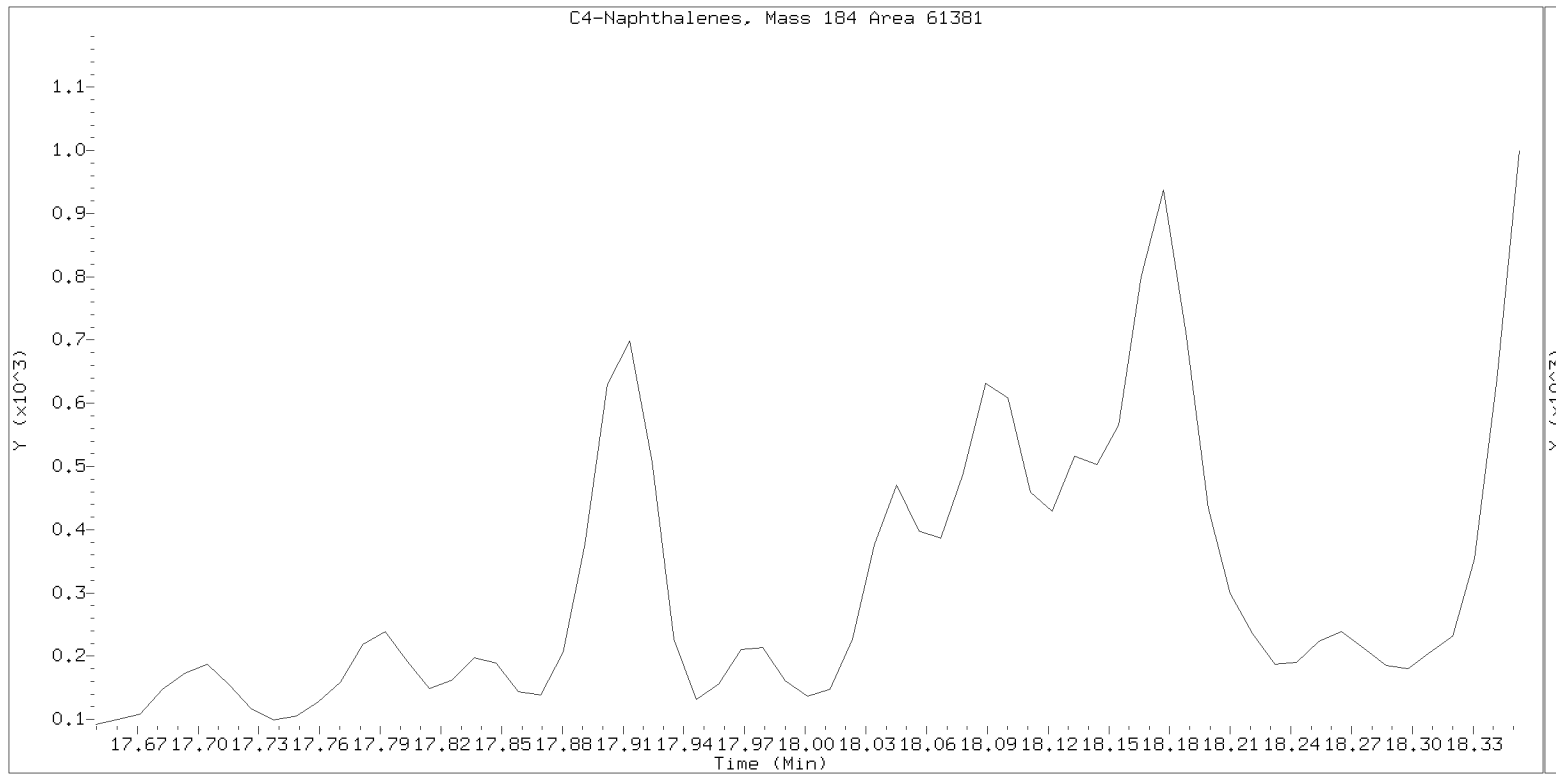
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043063S.D

Lab ID: 21D0180-01

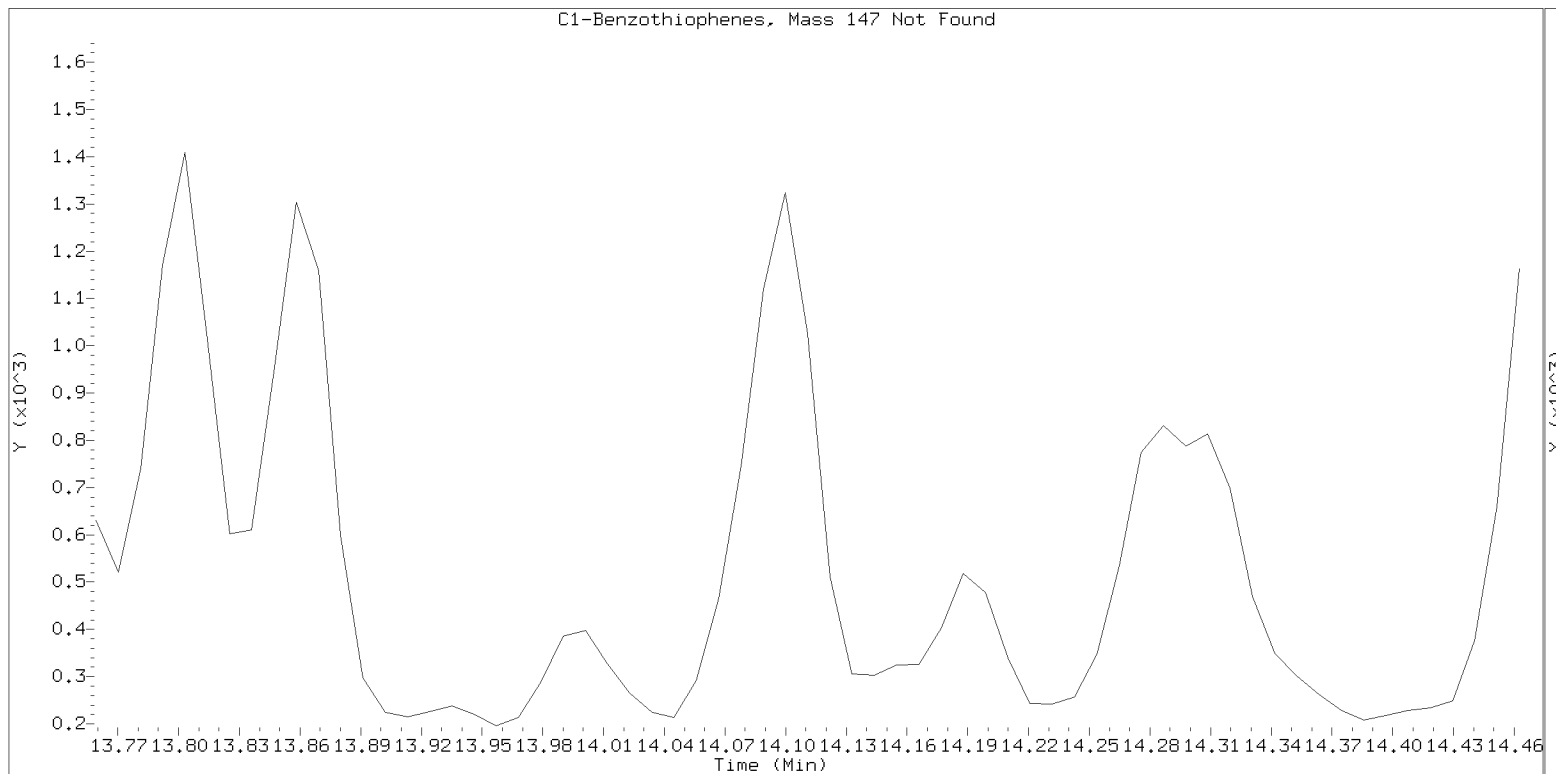
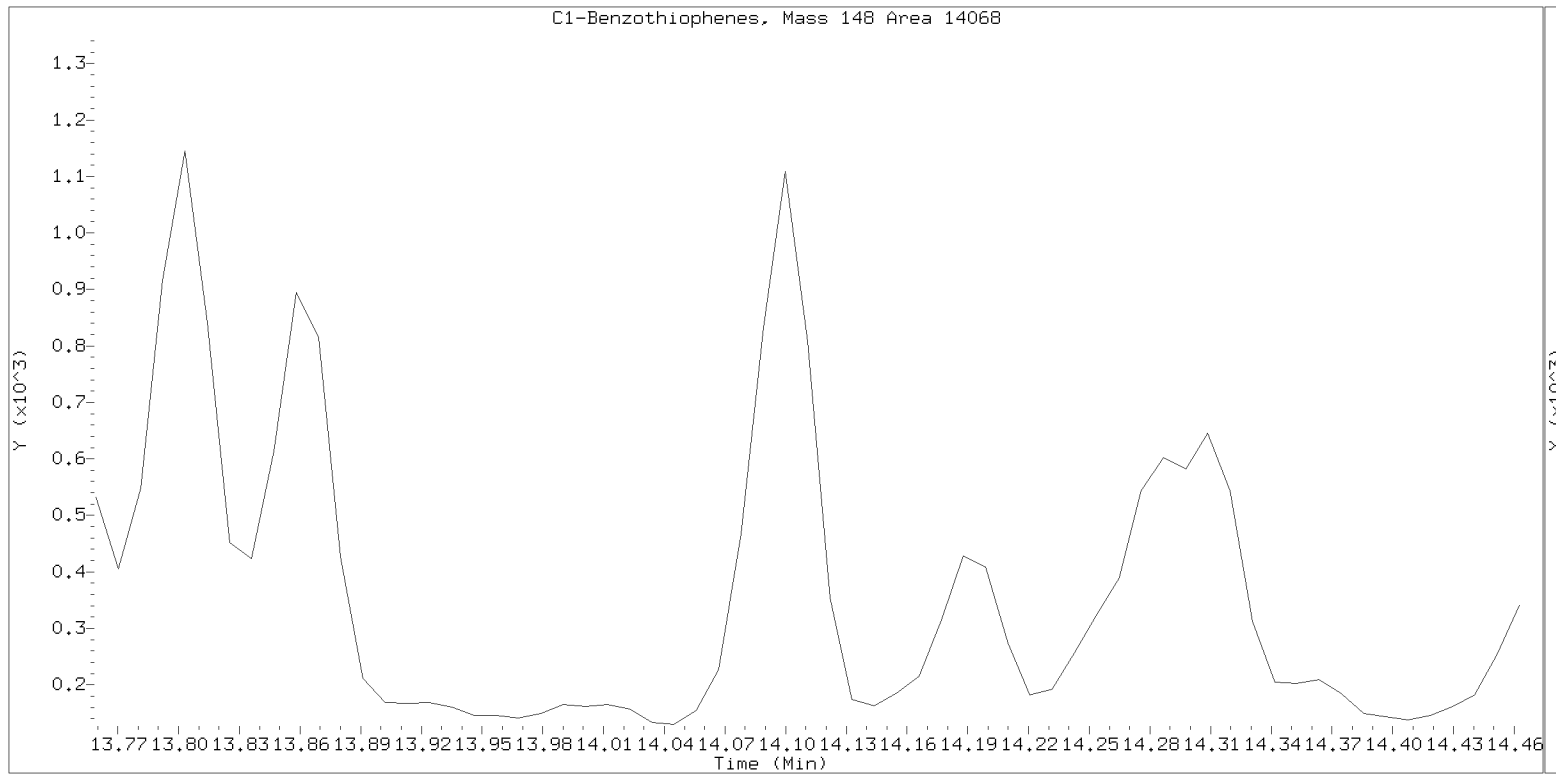
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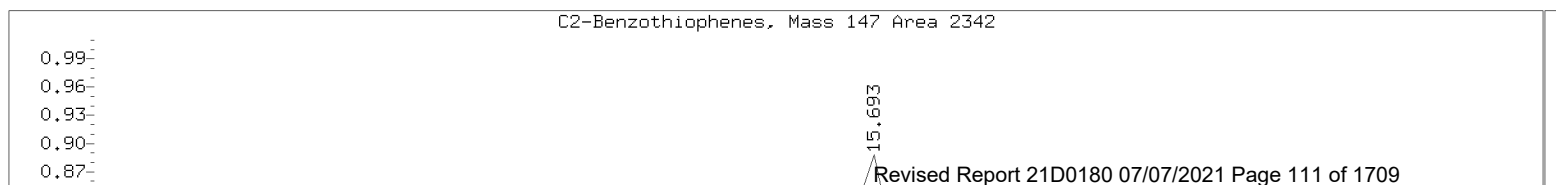
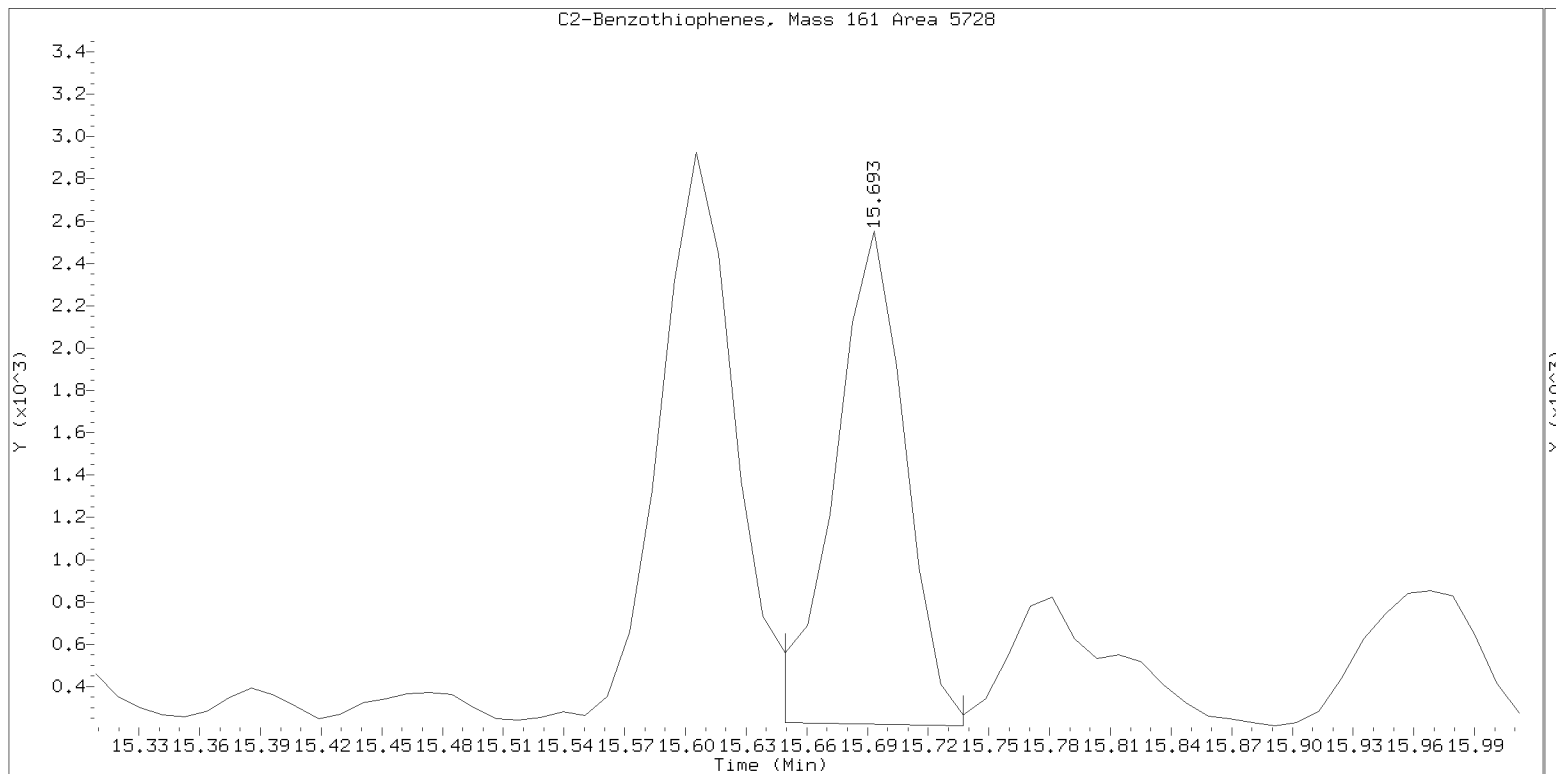
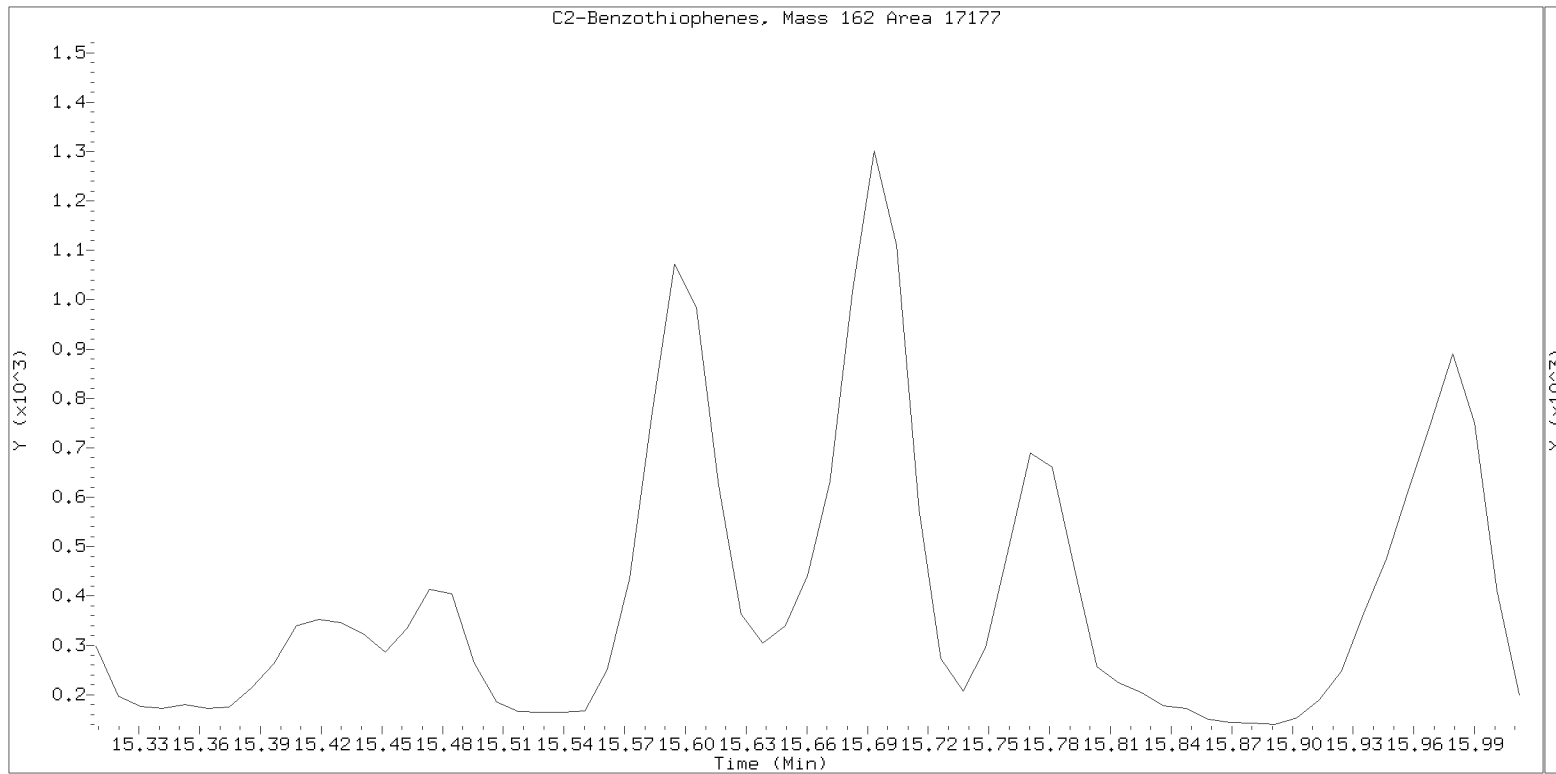
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043063S.D

Lab ID: 21D0180-01

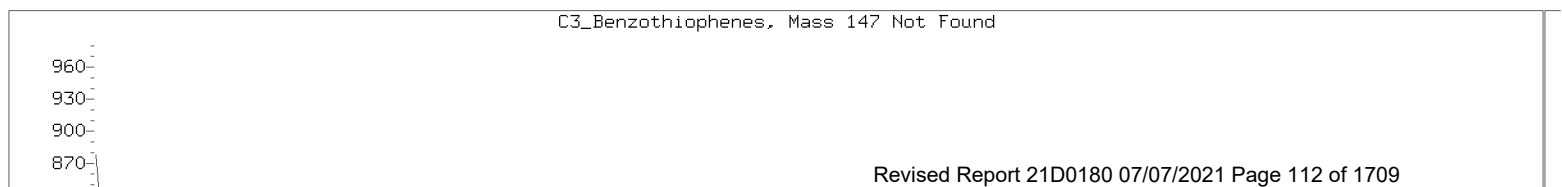
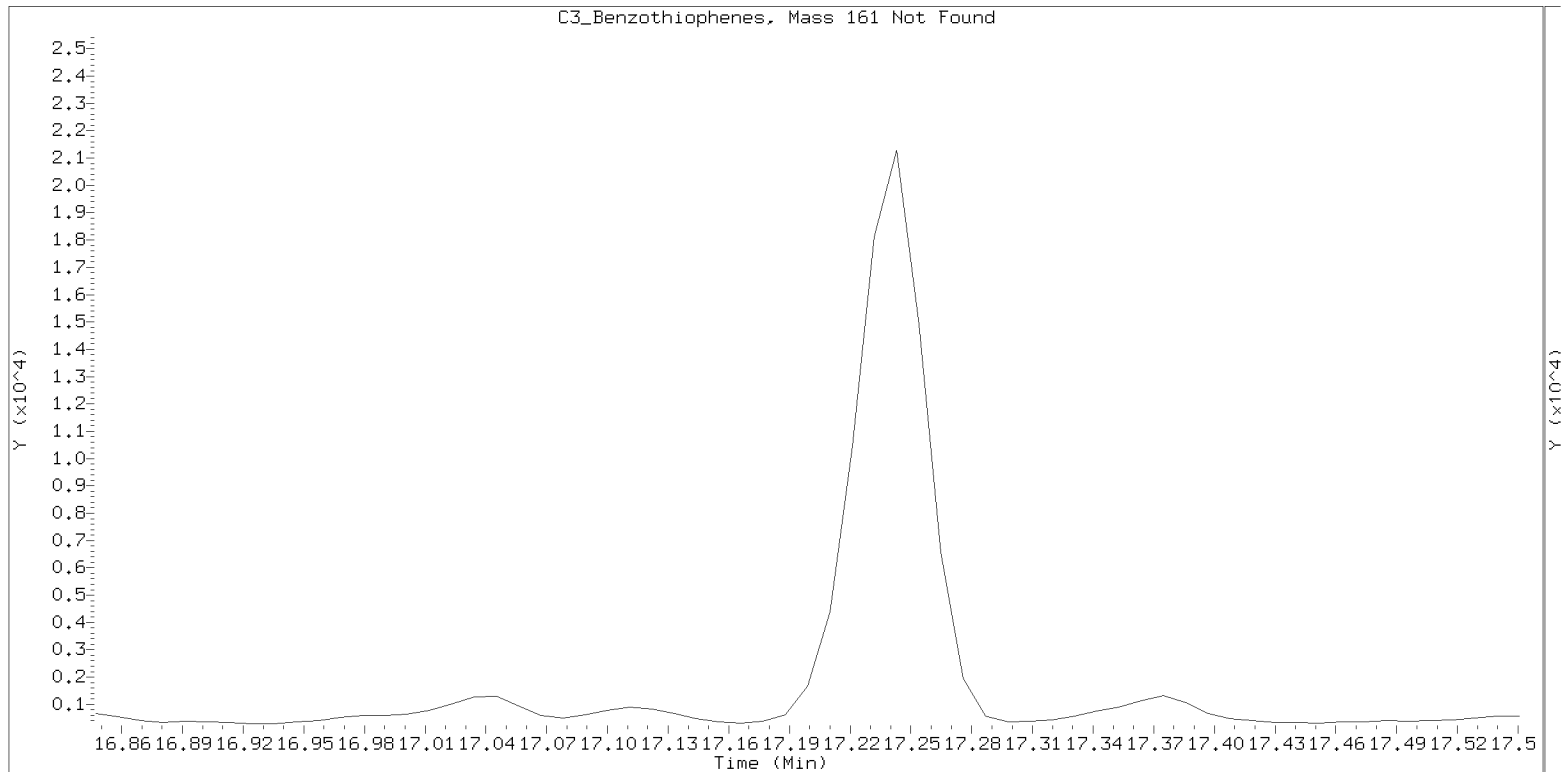
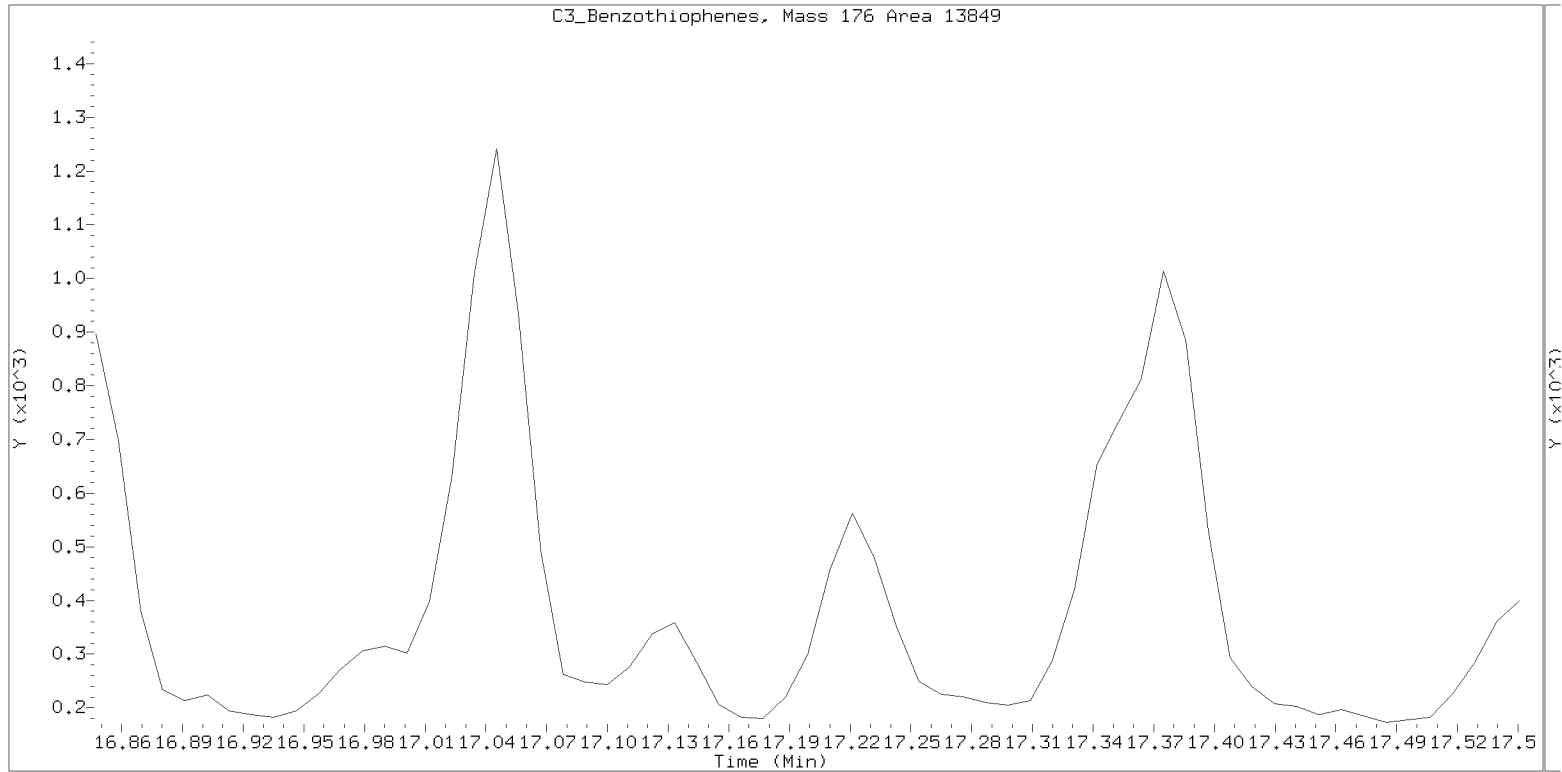
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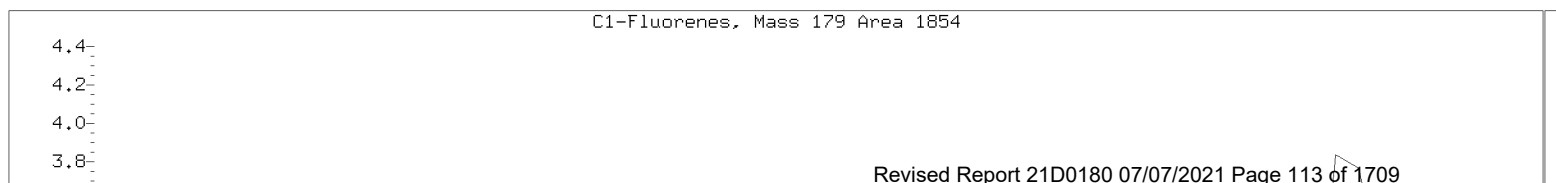
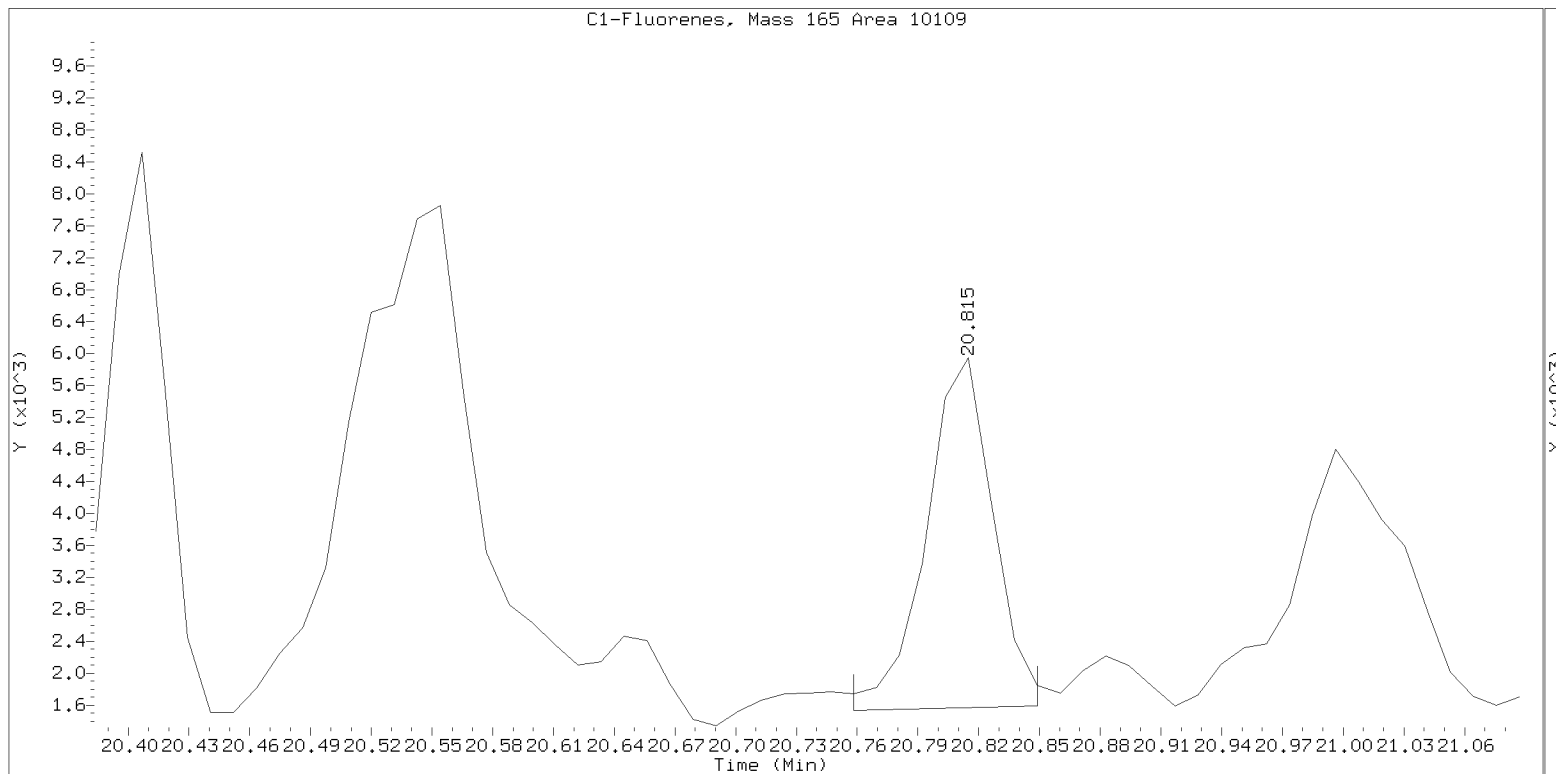
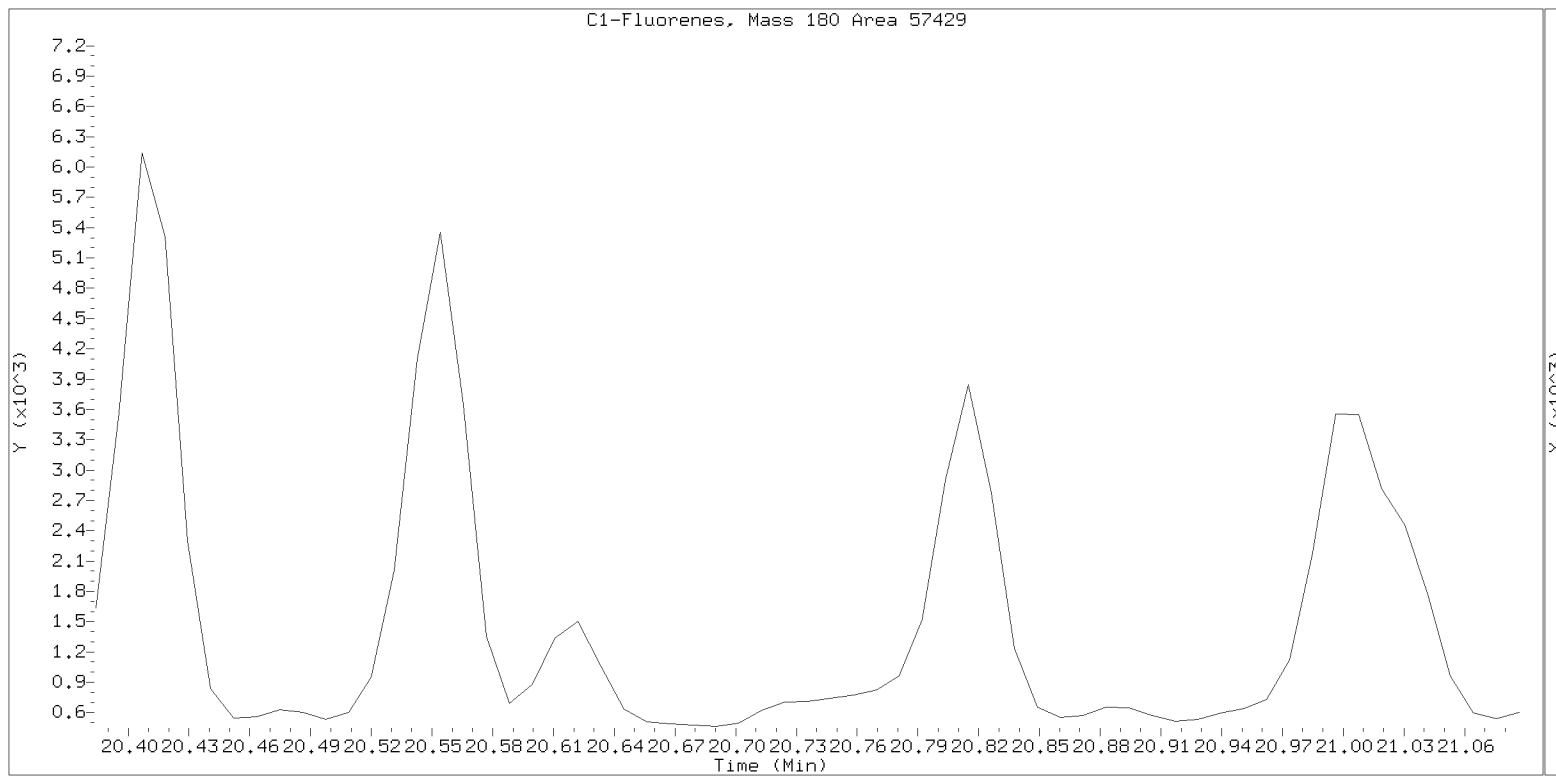
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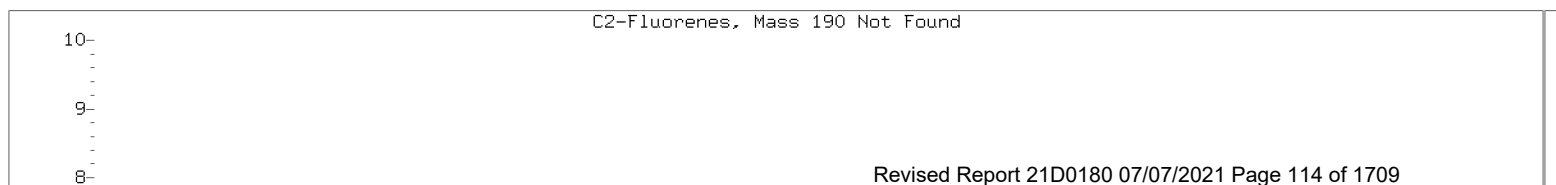
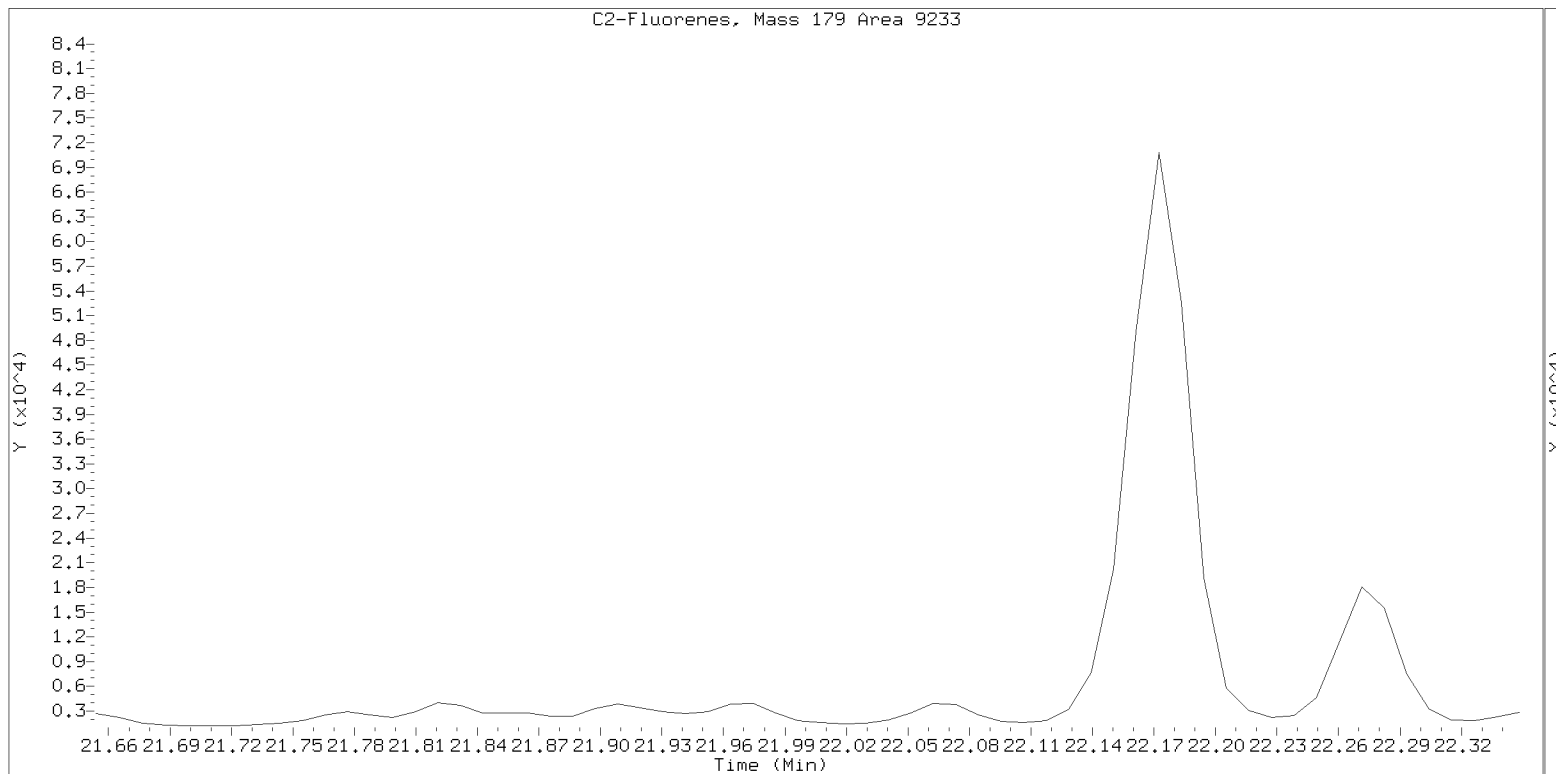
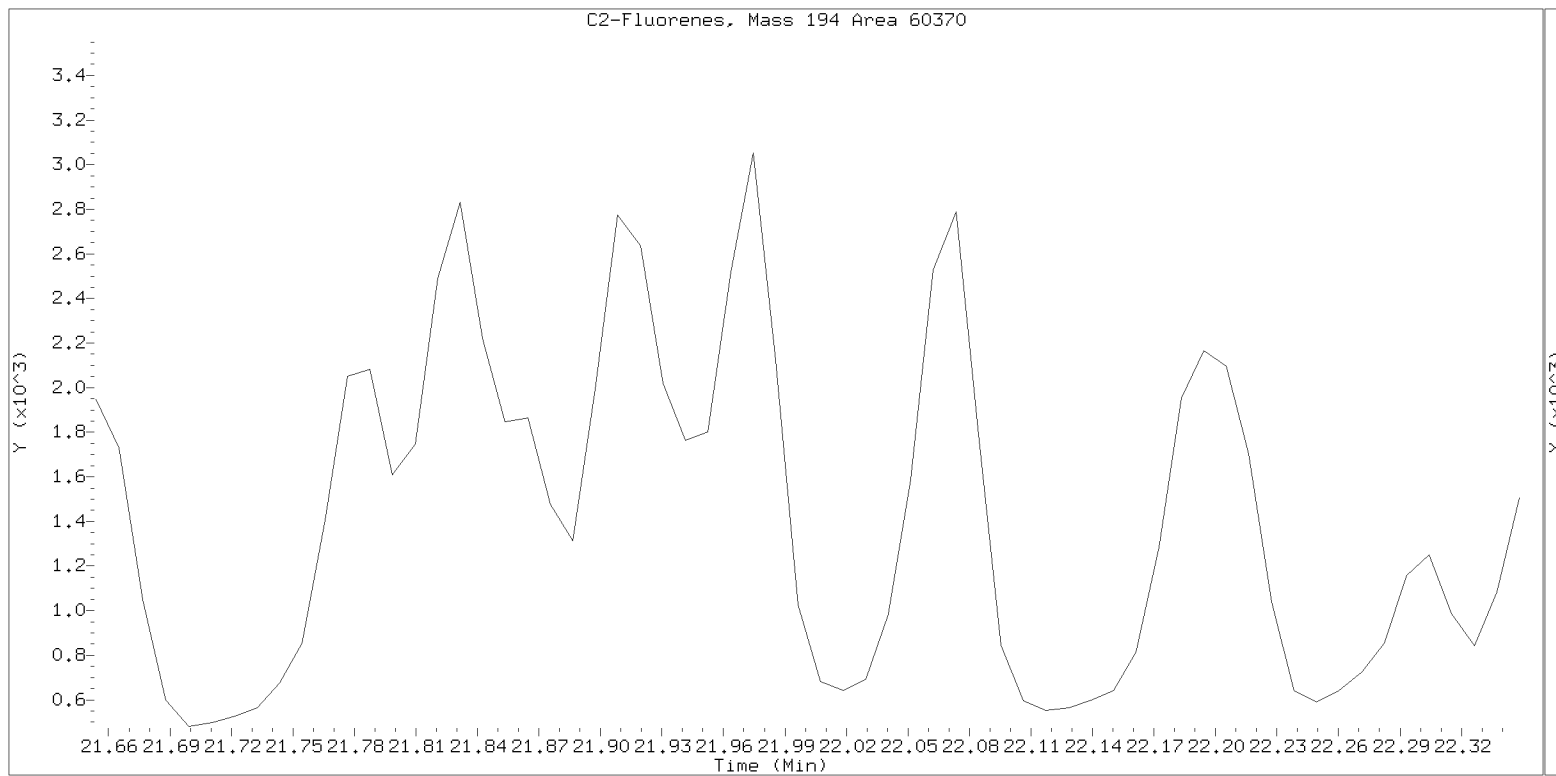
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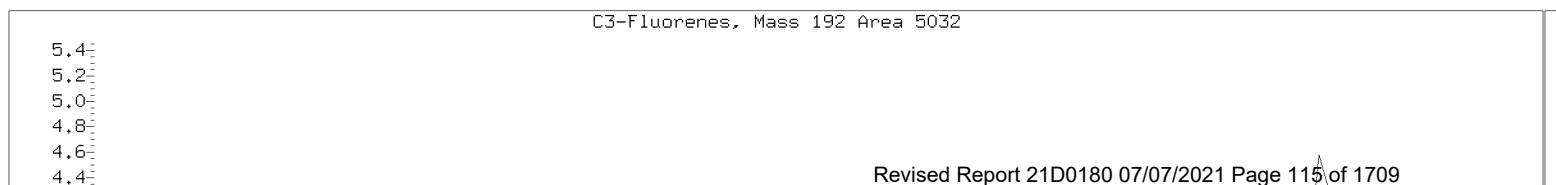
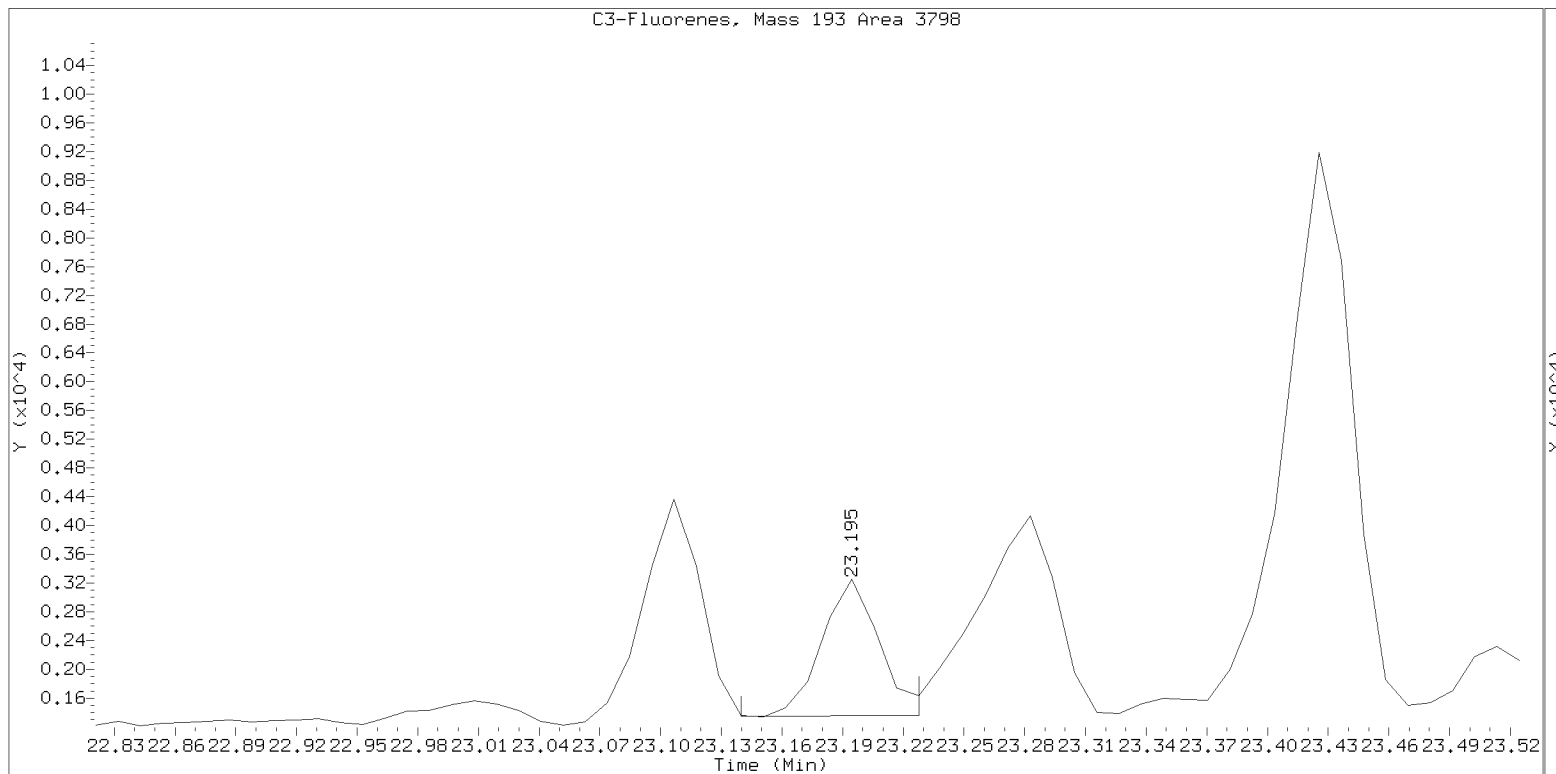
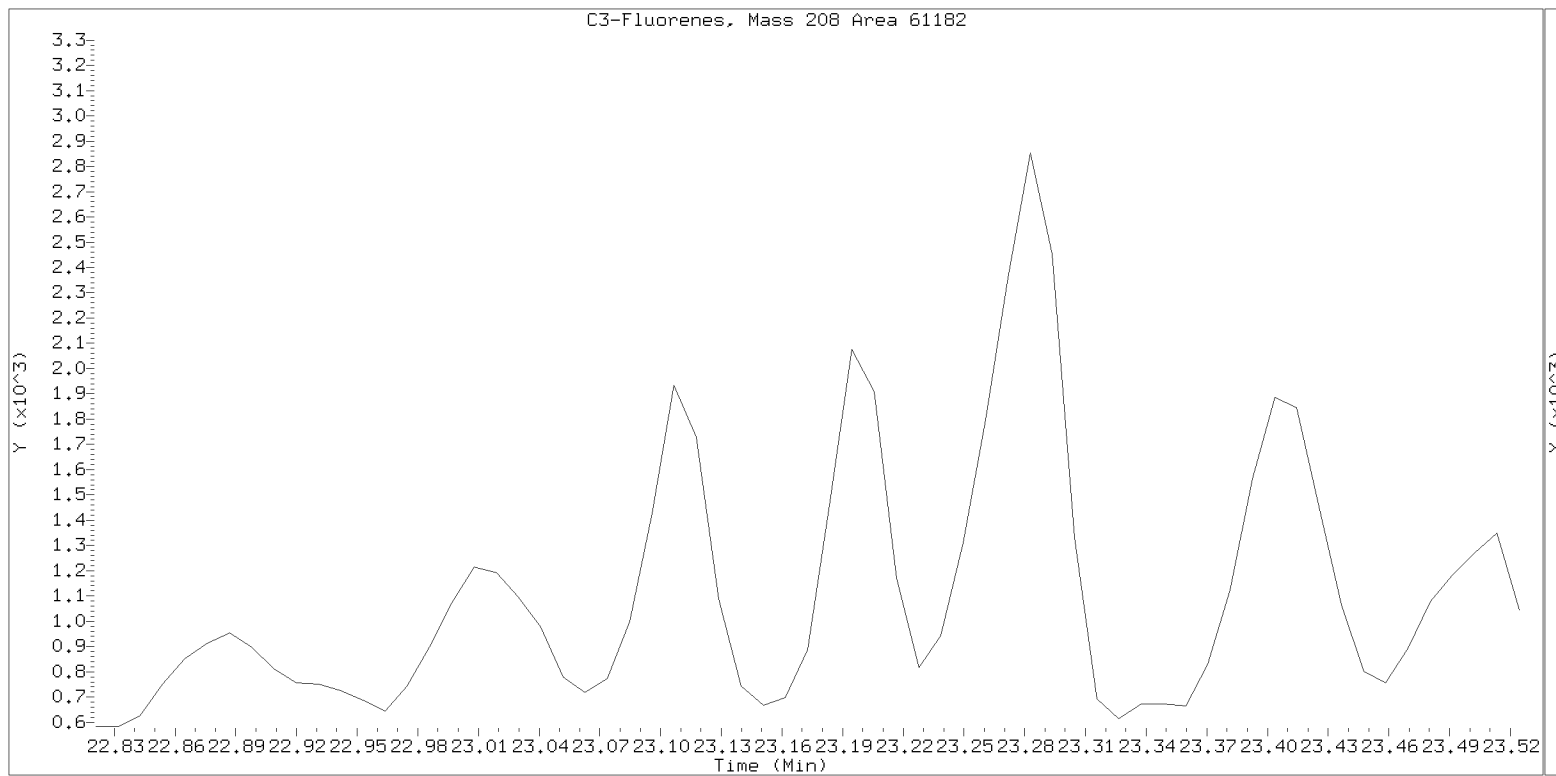
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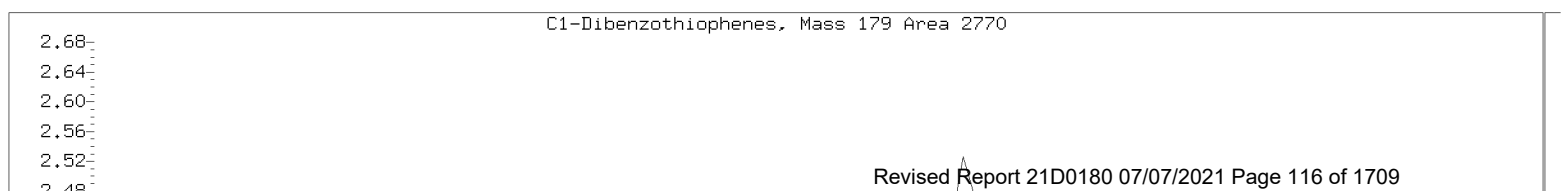
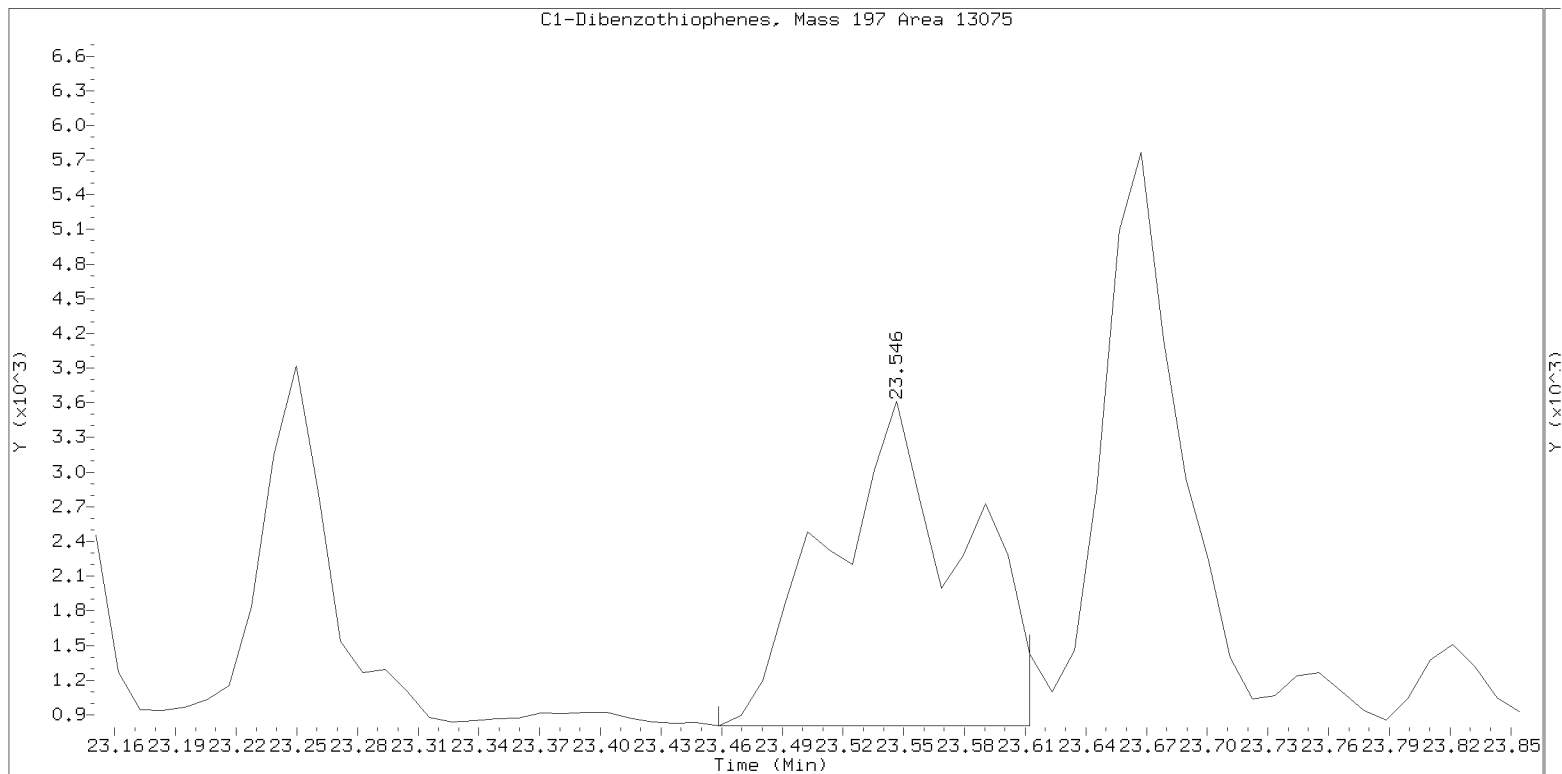
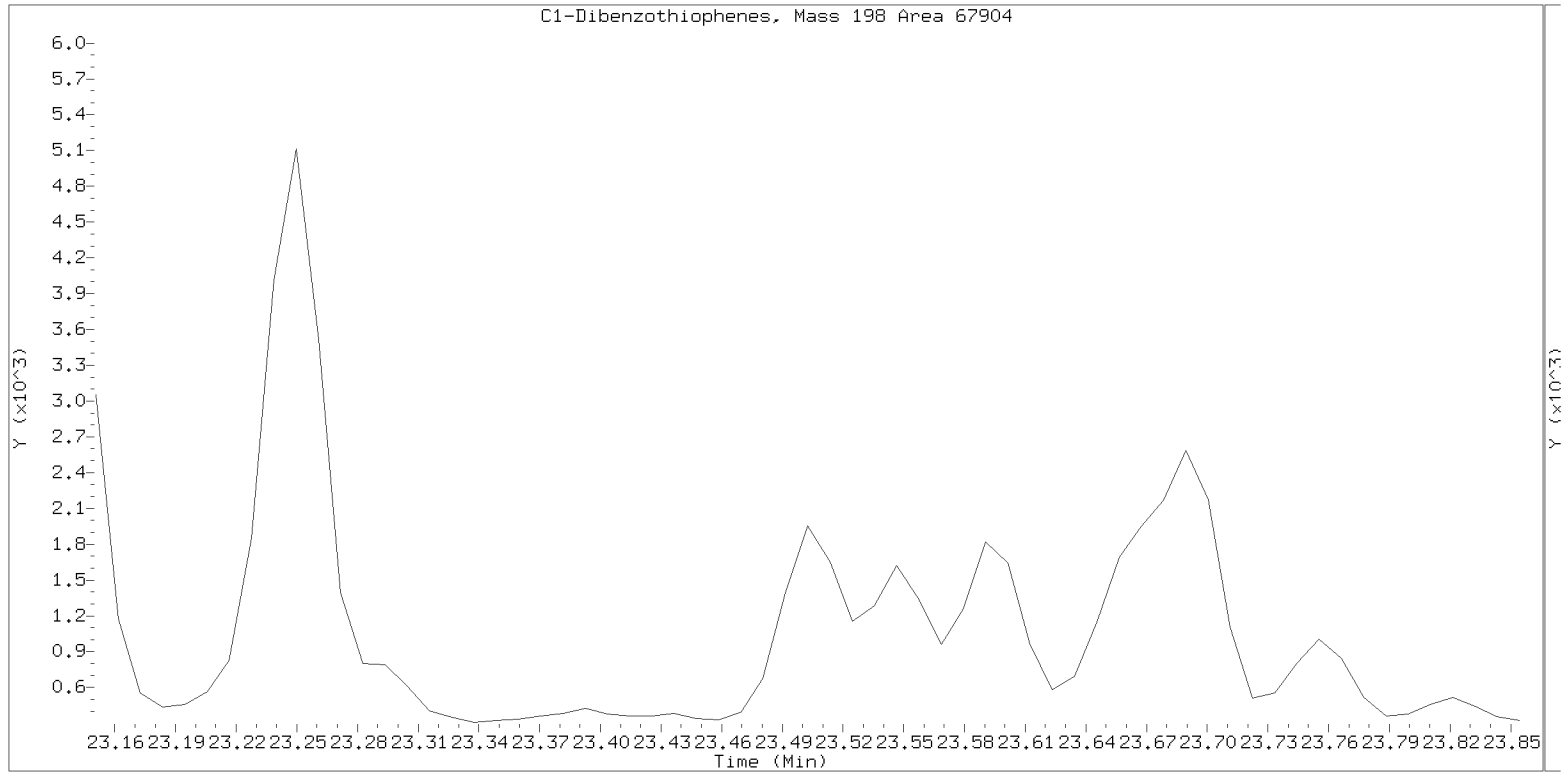
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043063S.D

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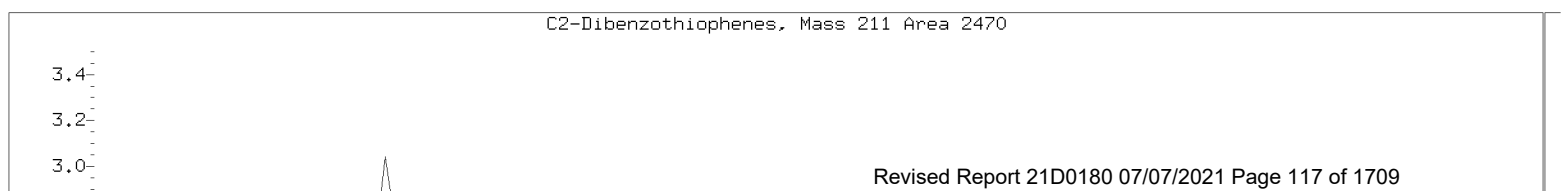
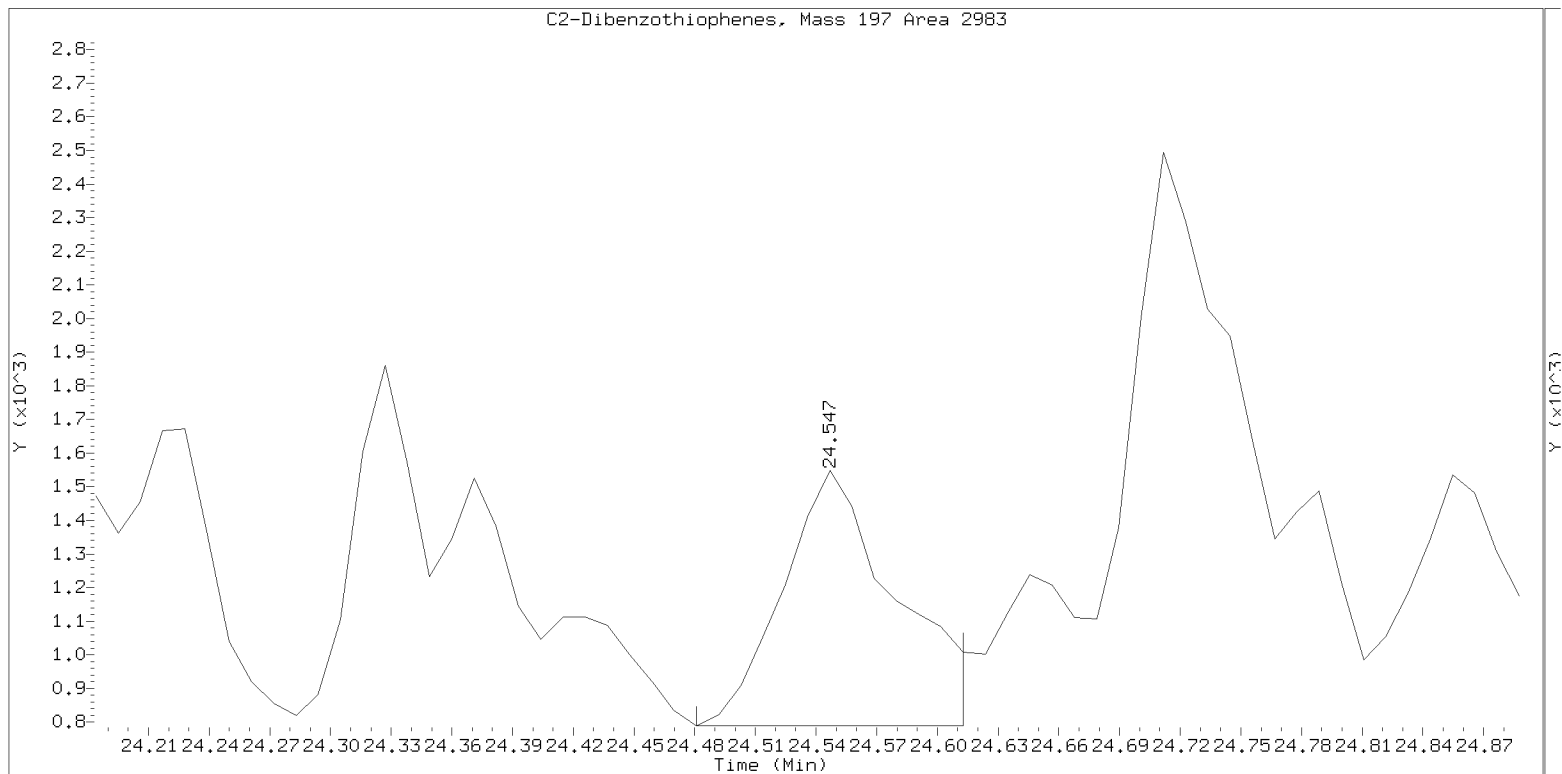
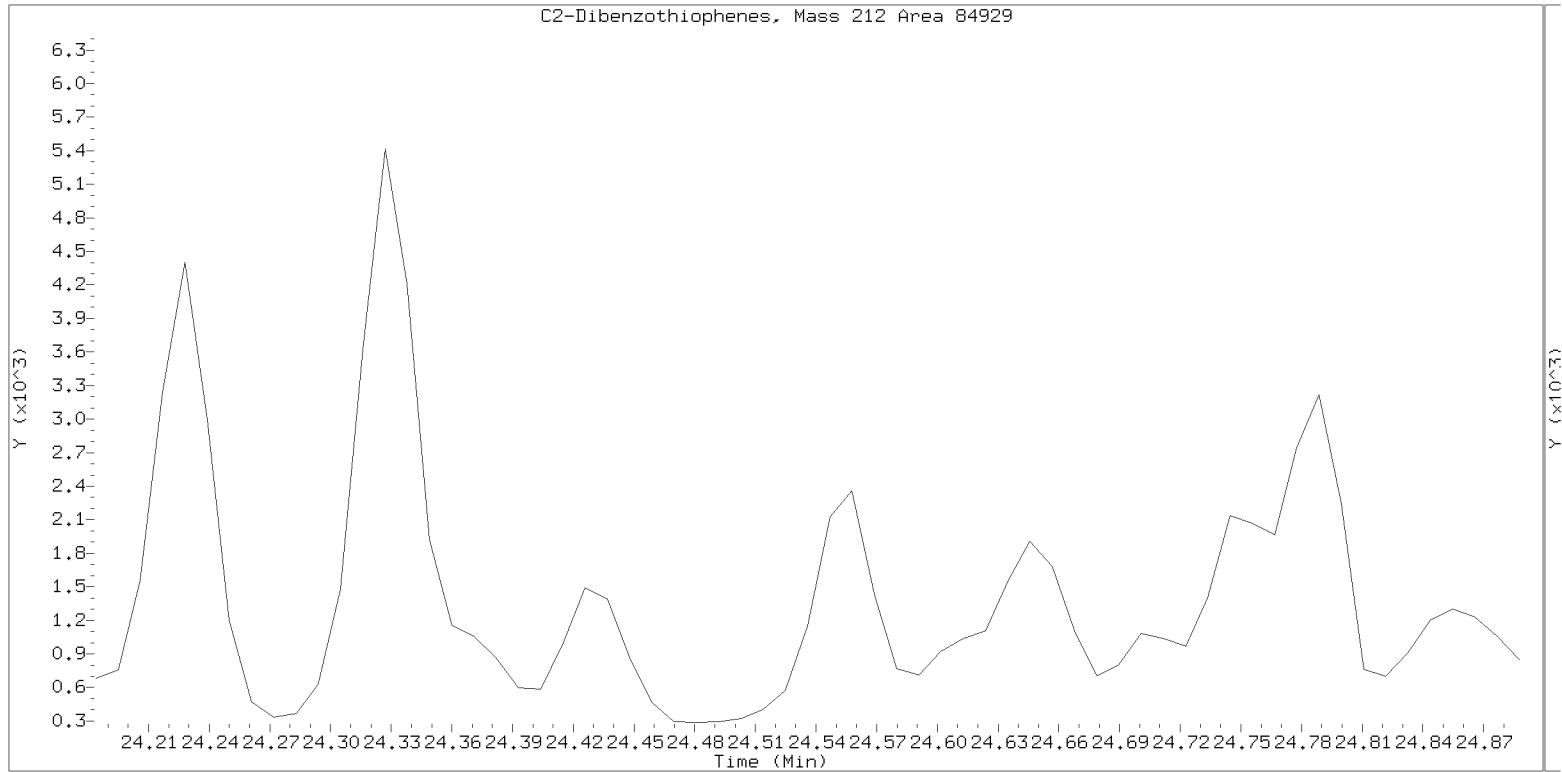
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043063S.D

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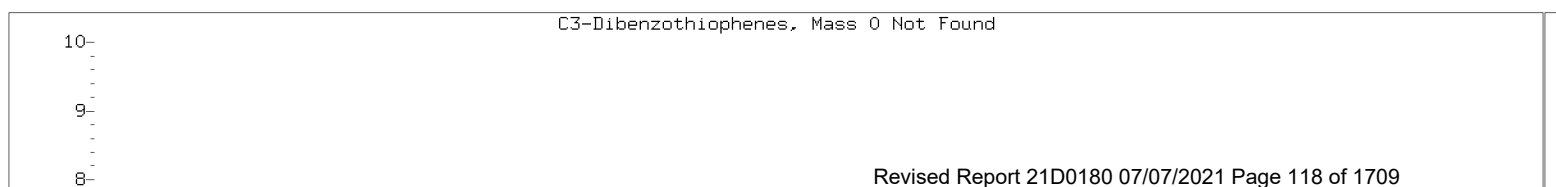
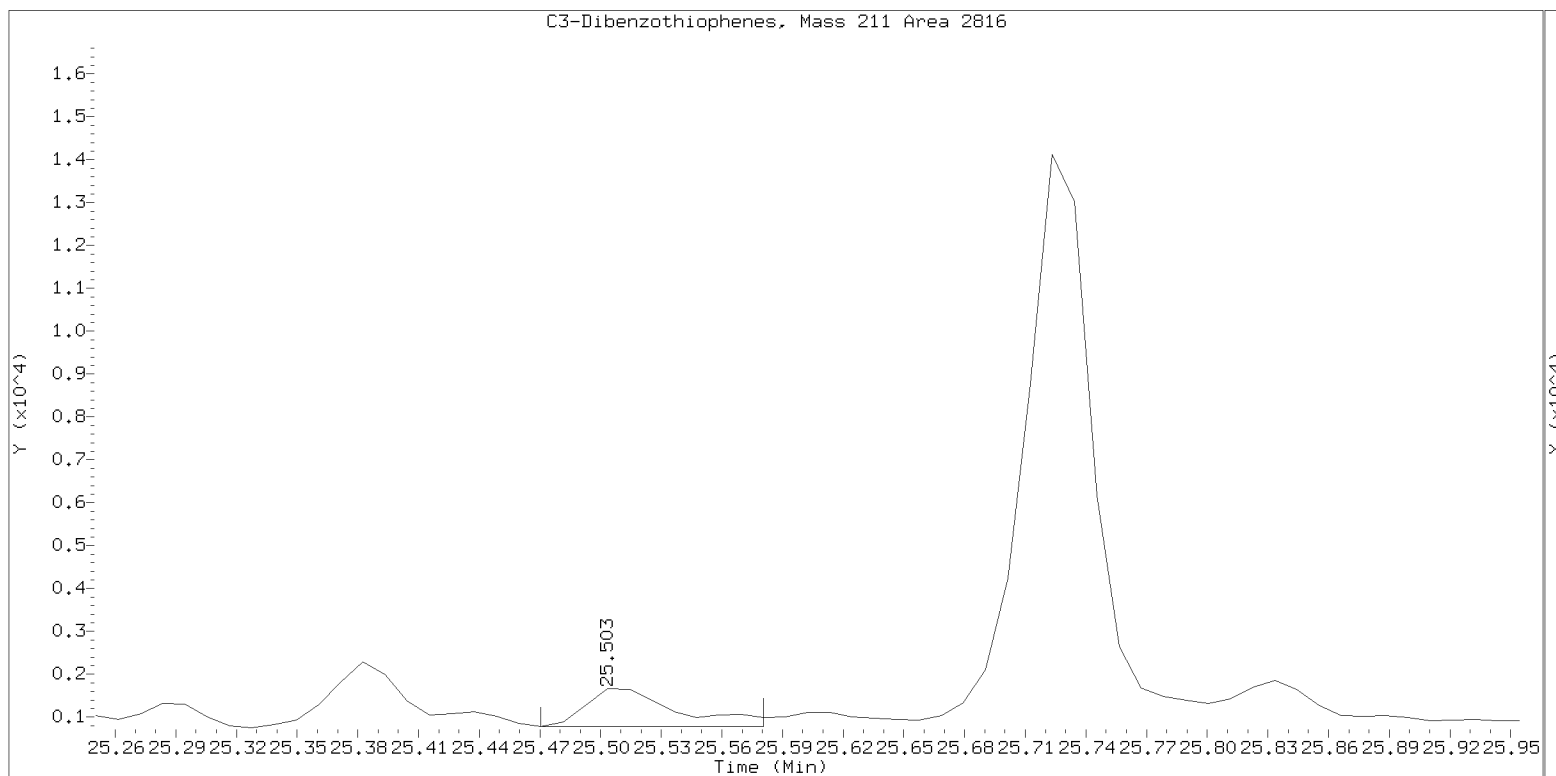
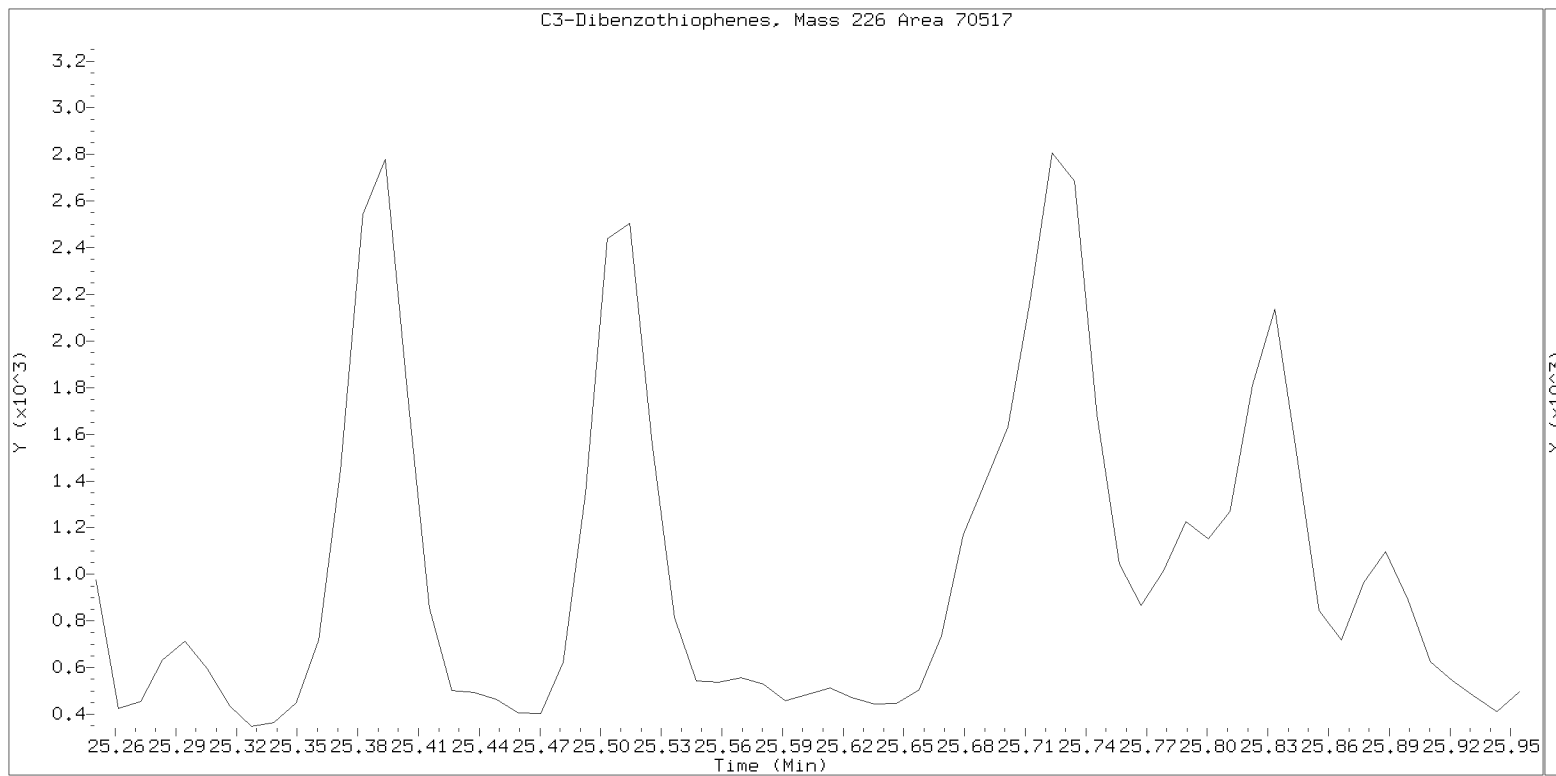
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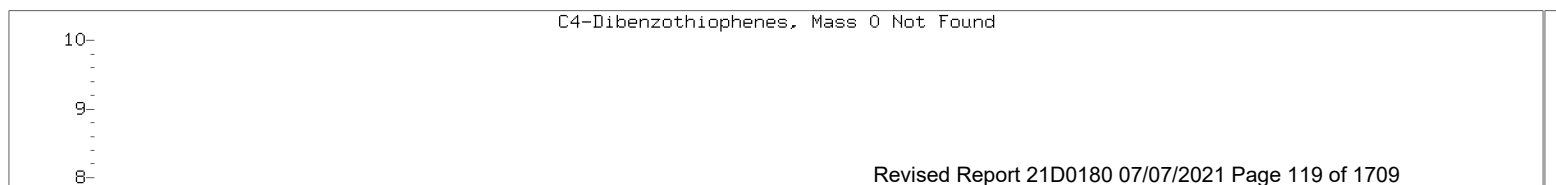
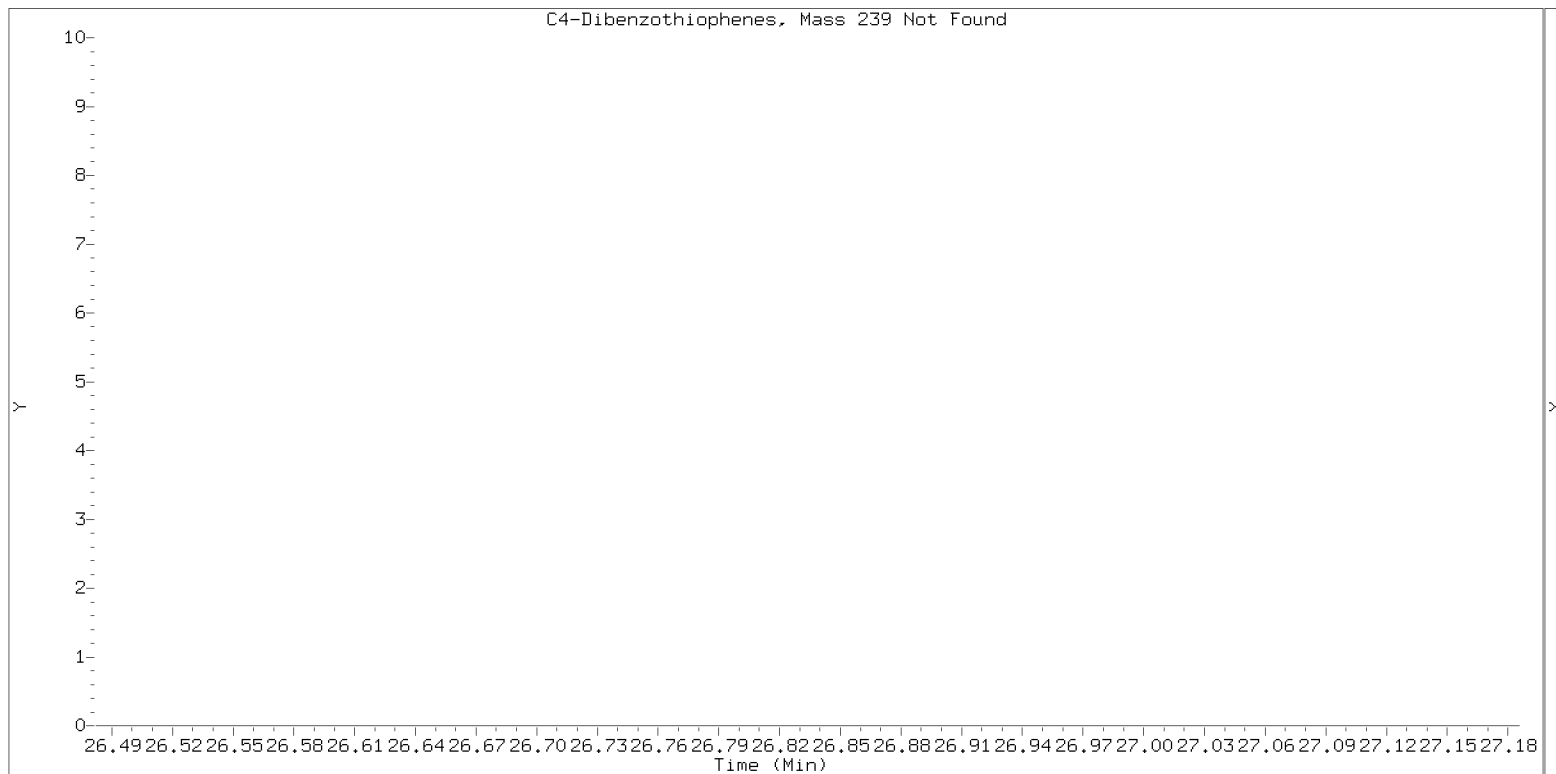
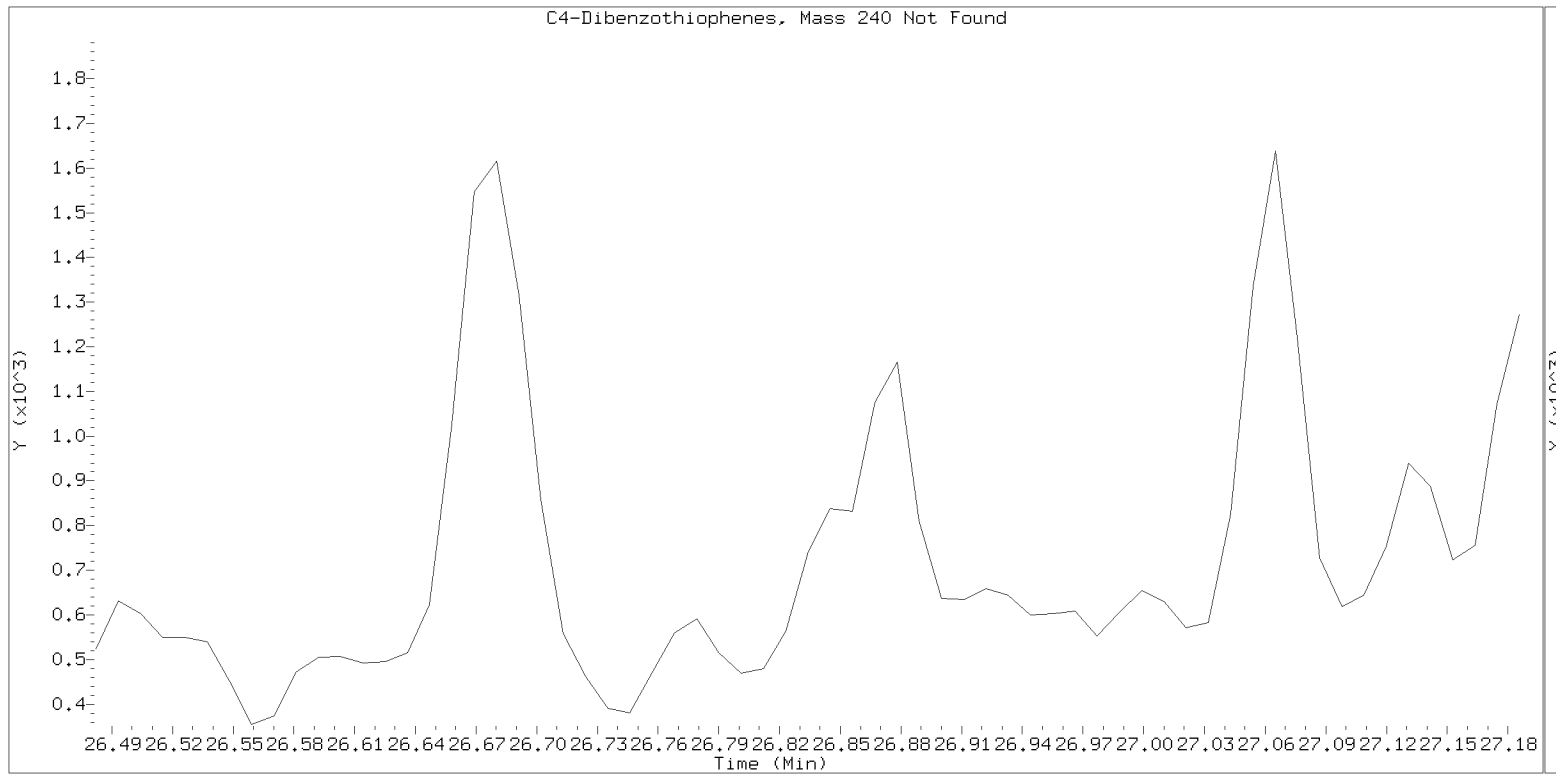
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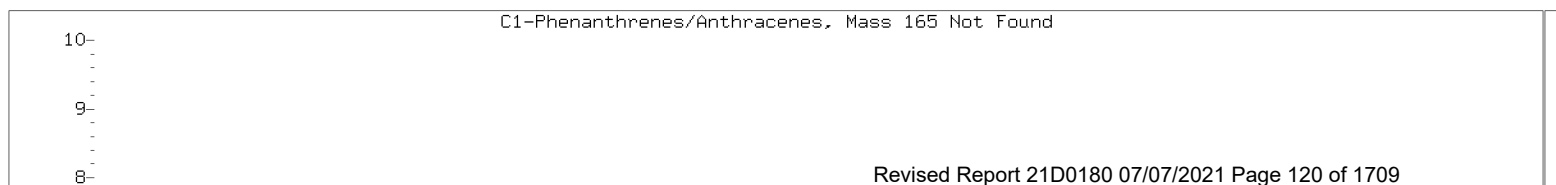
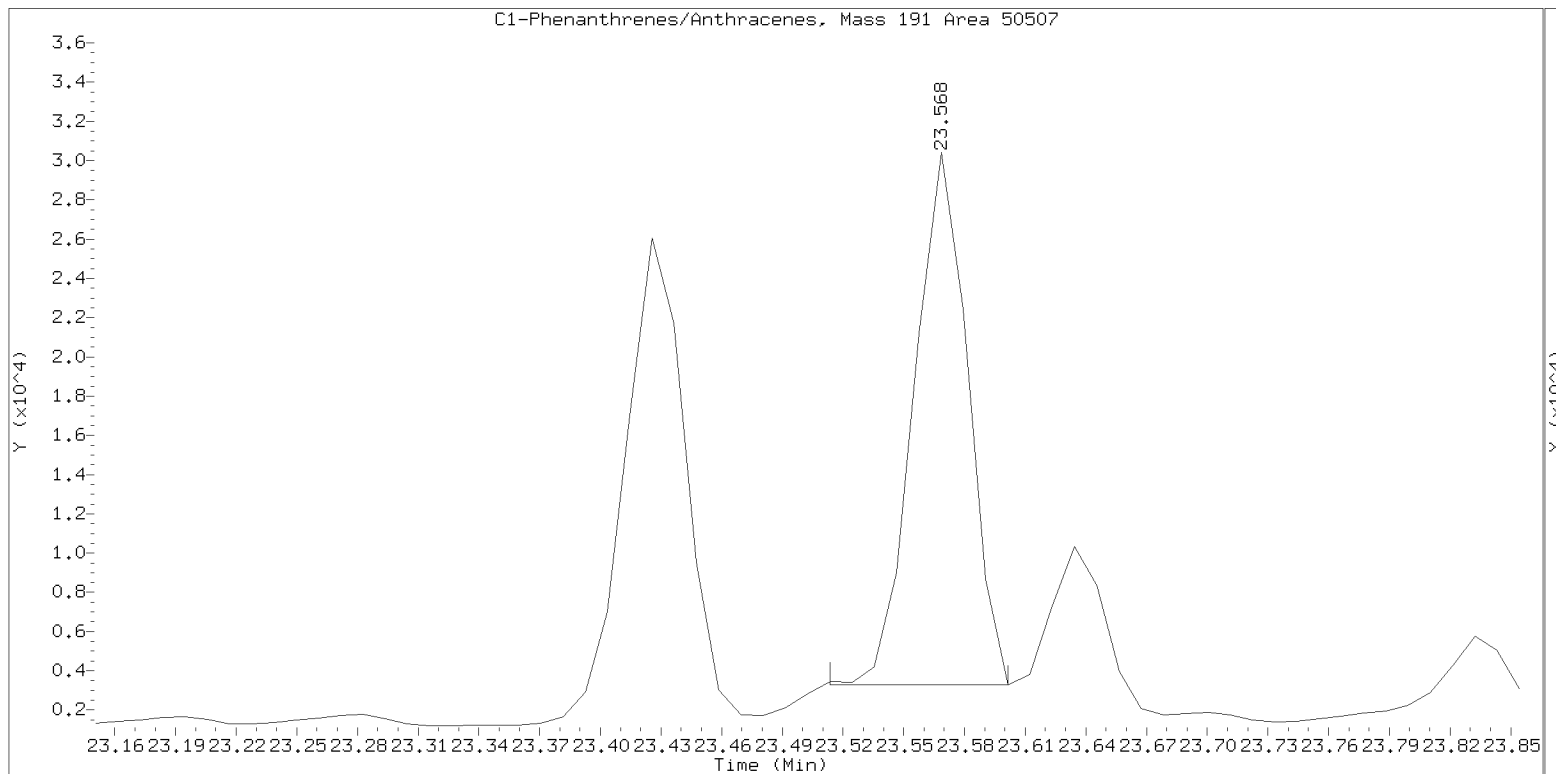
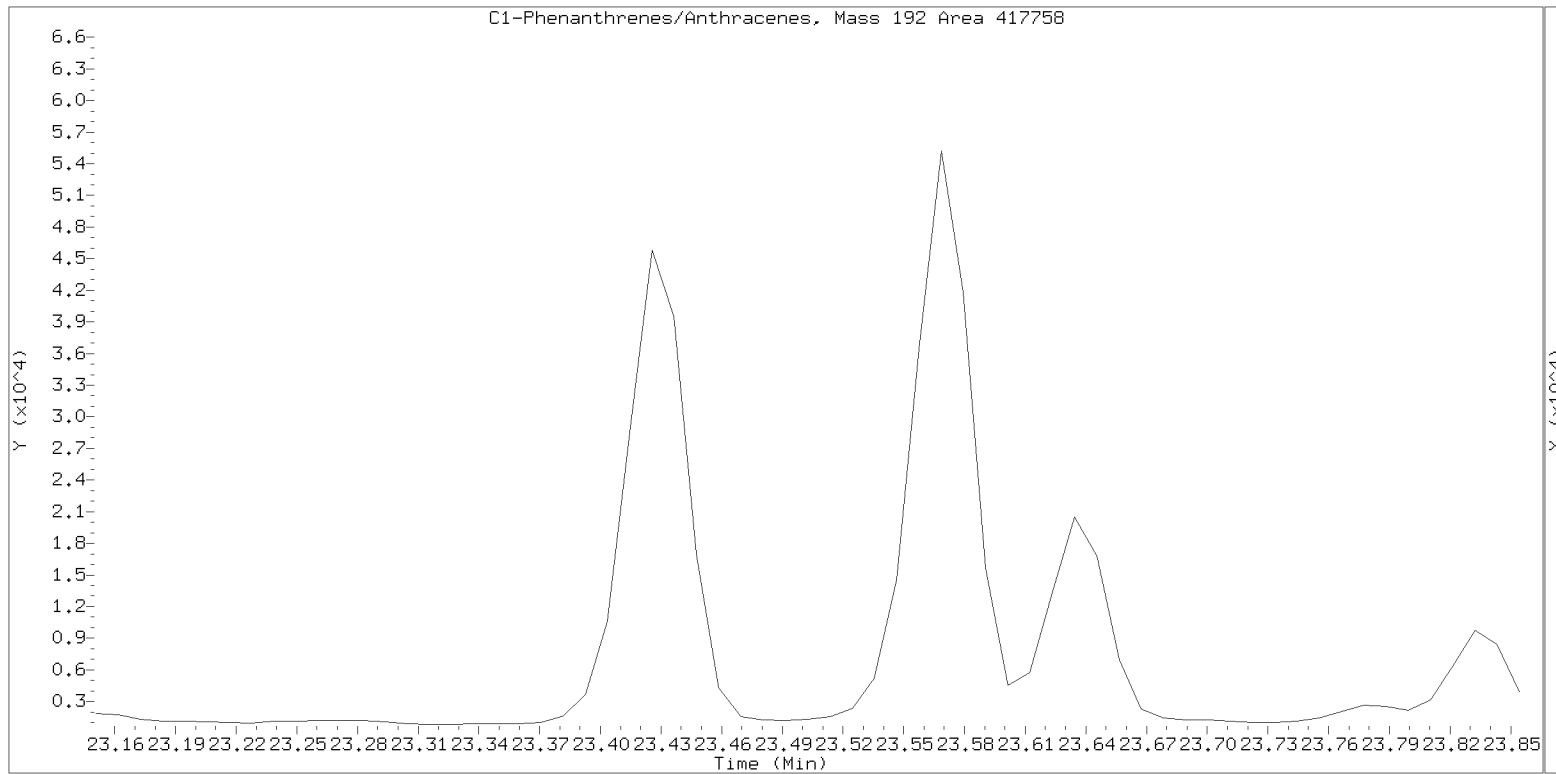
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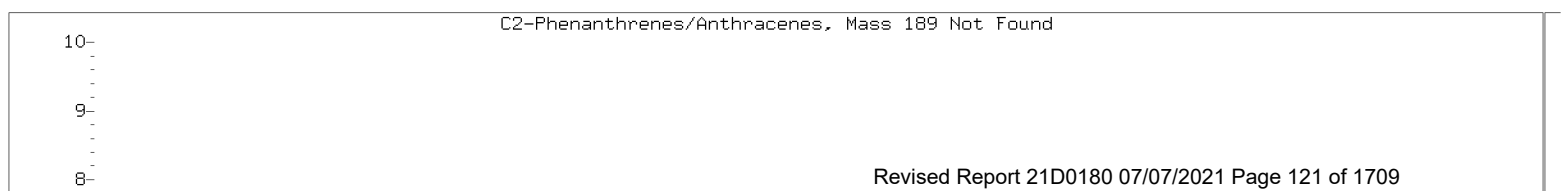
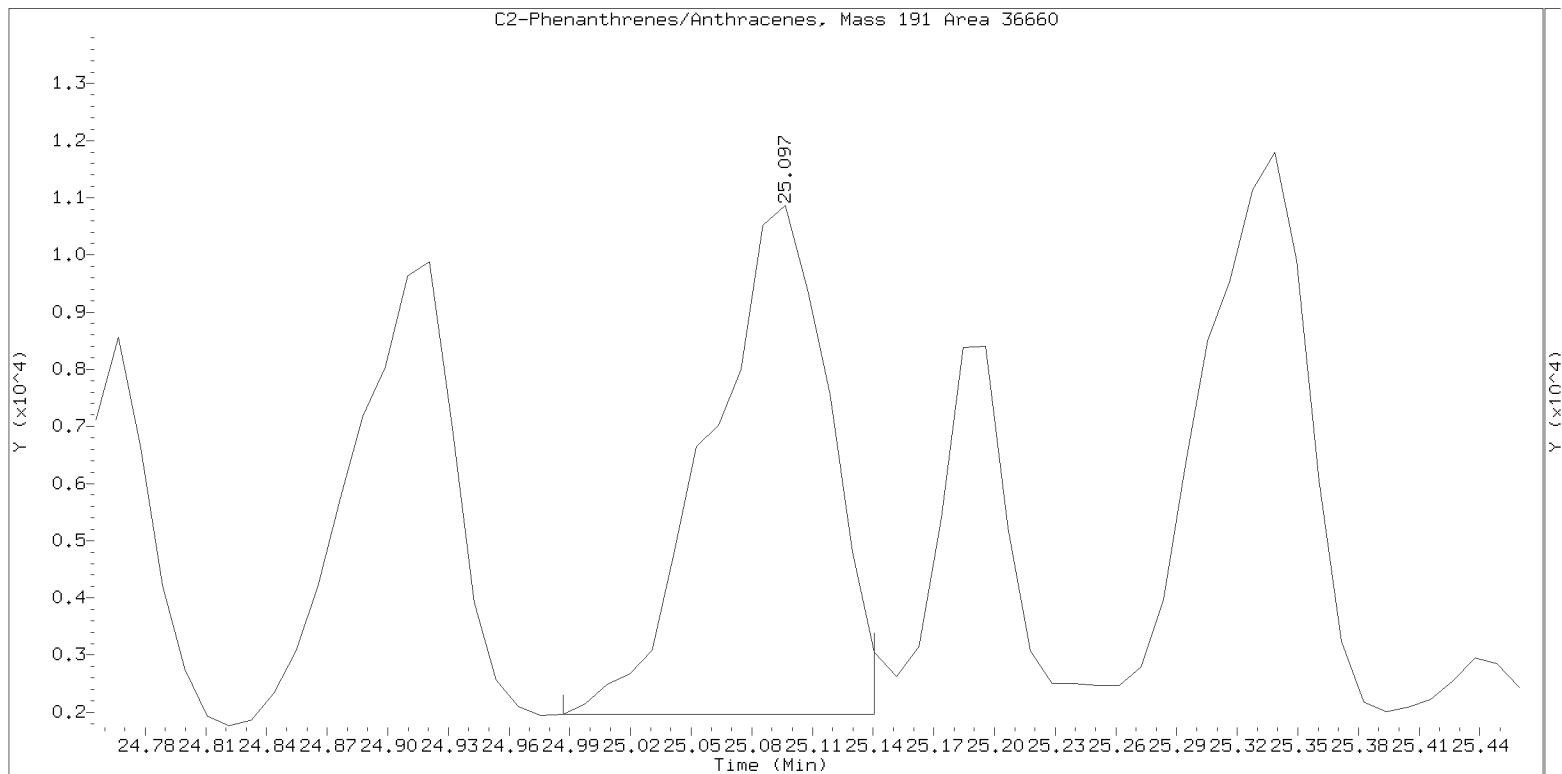
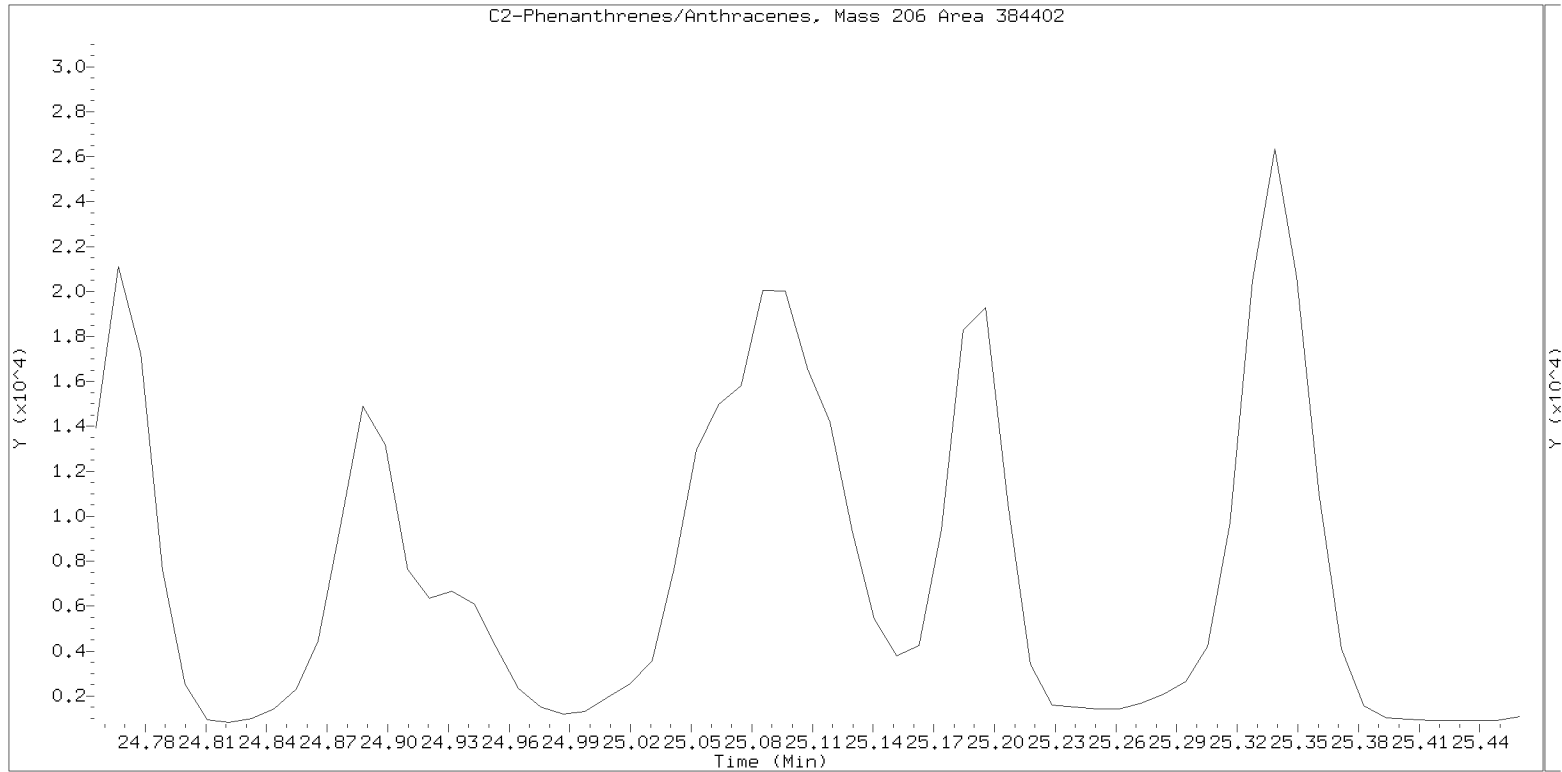
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043063S.D

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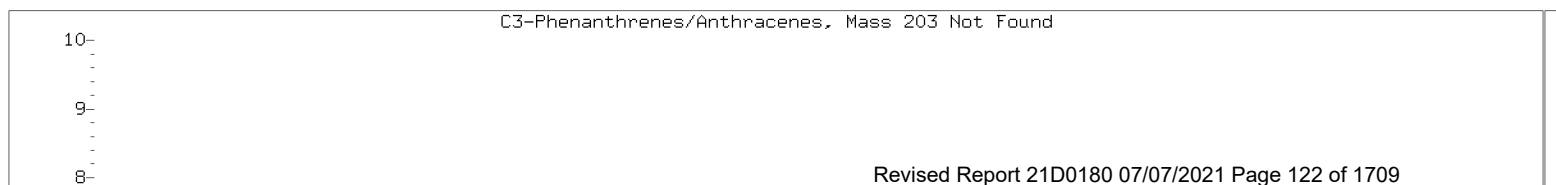
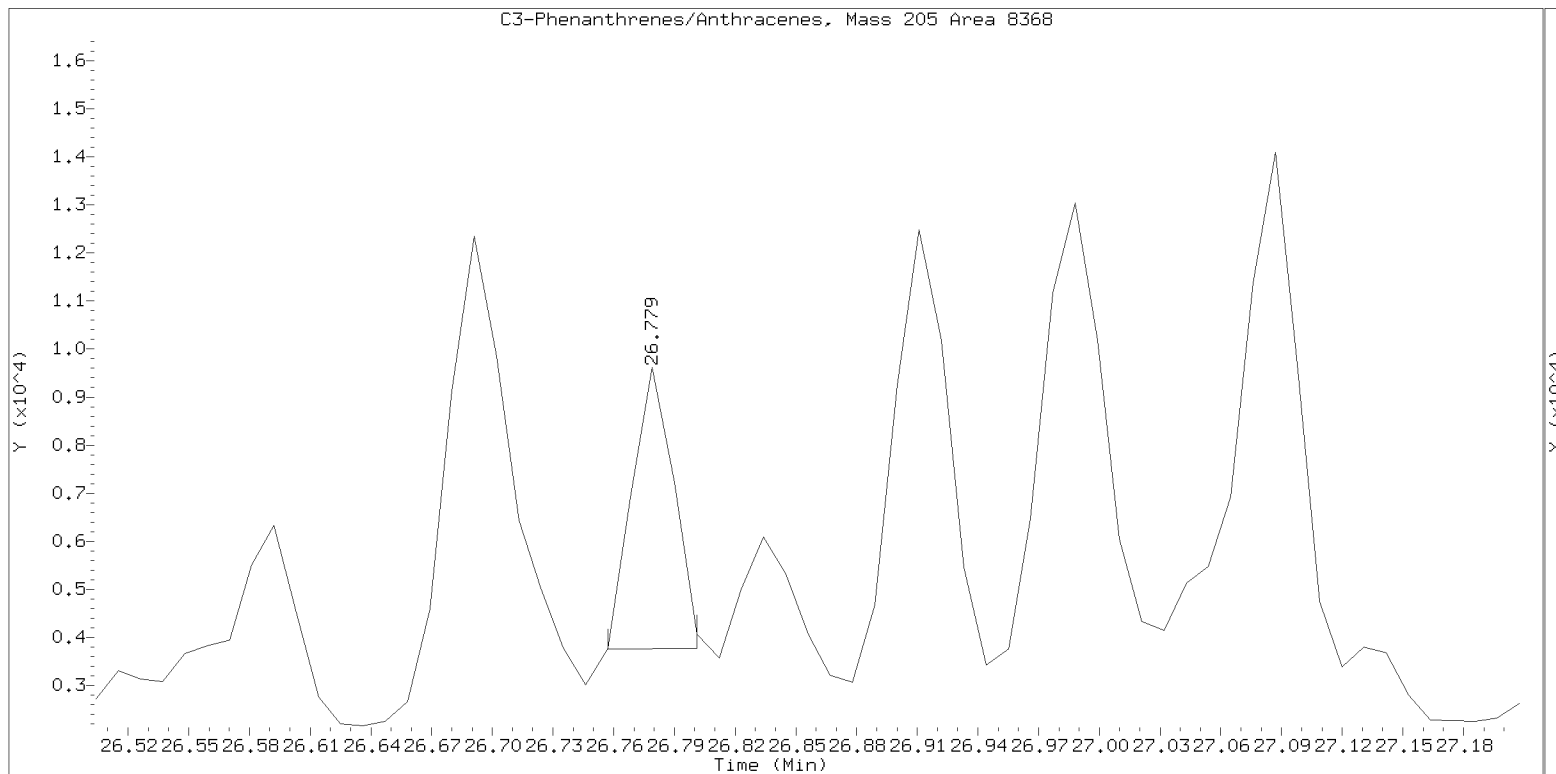
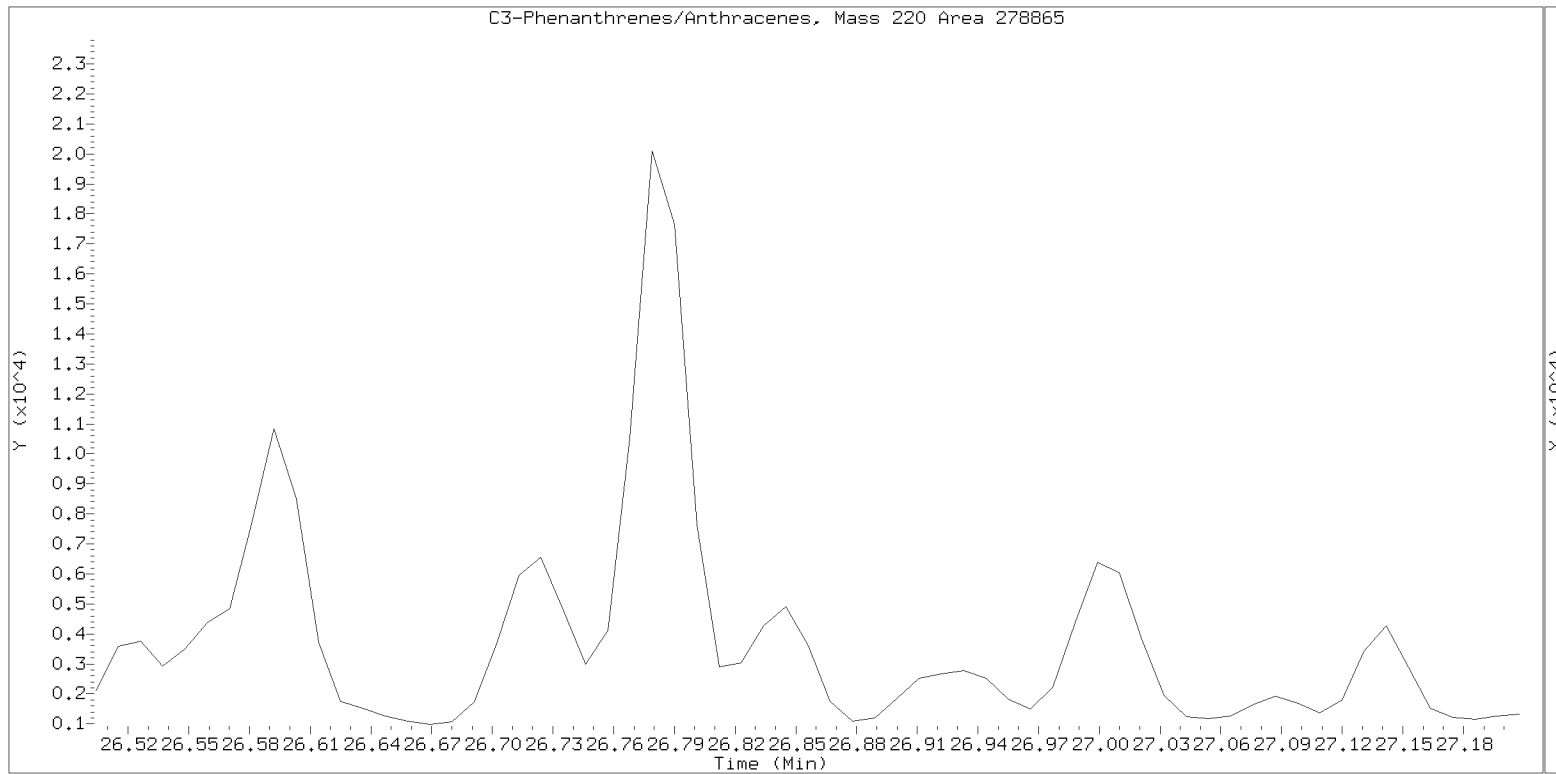
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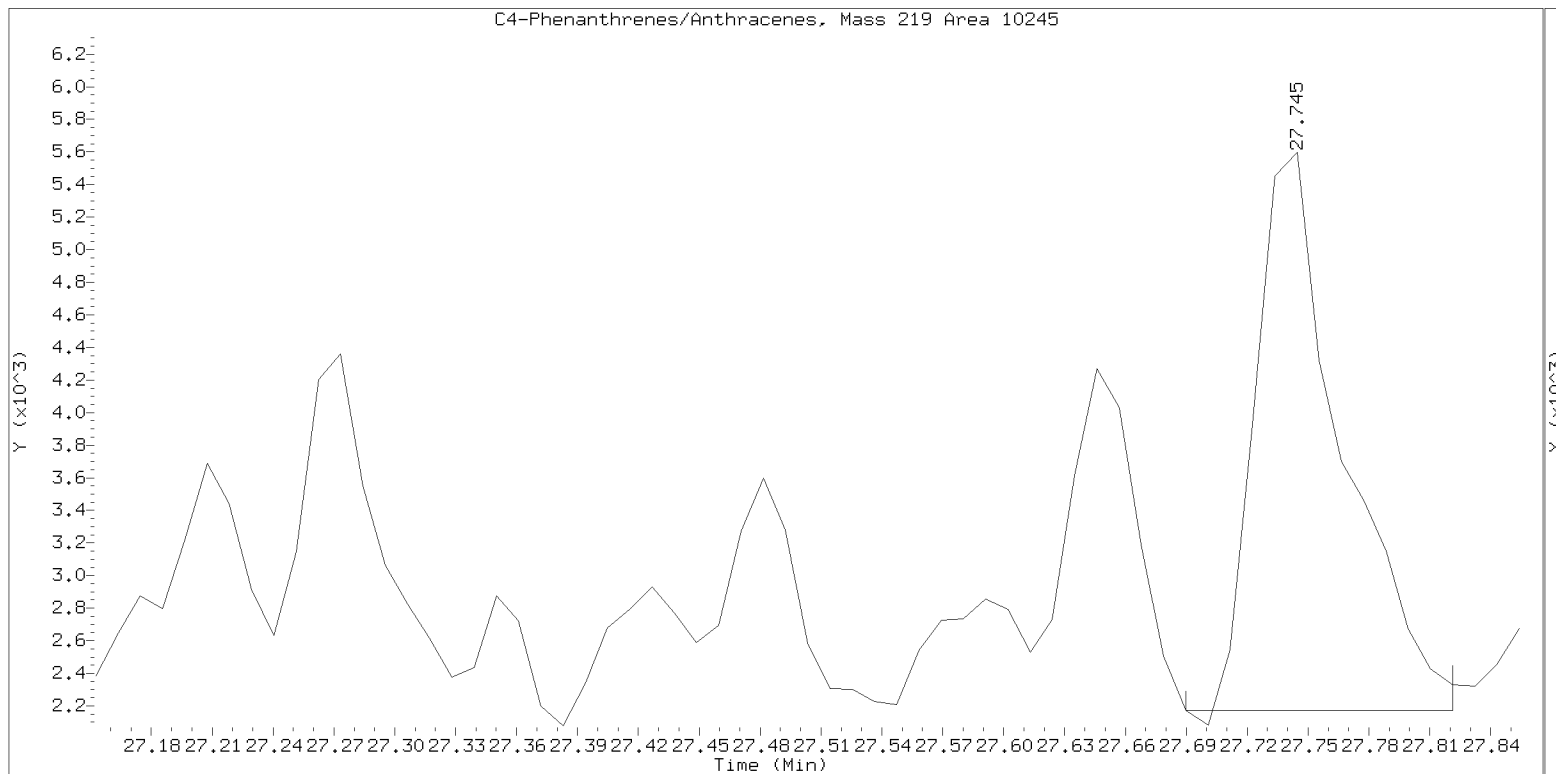
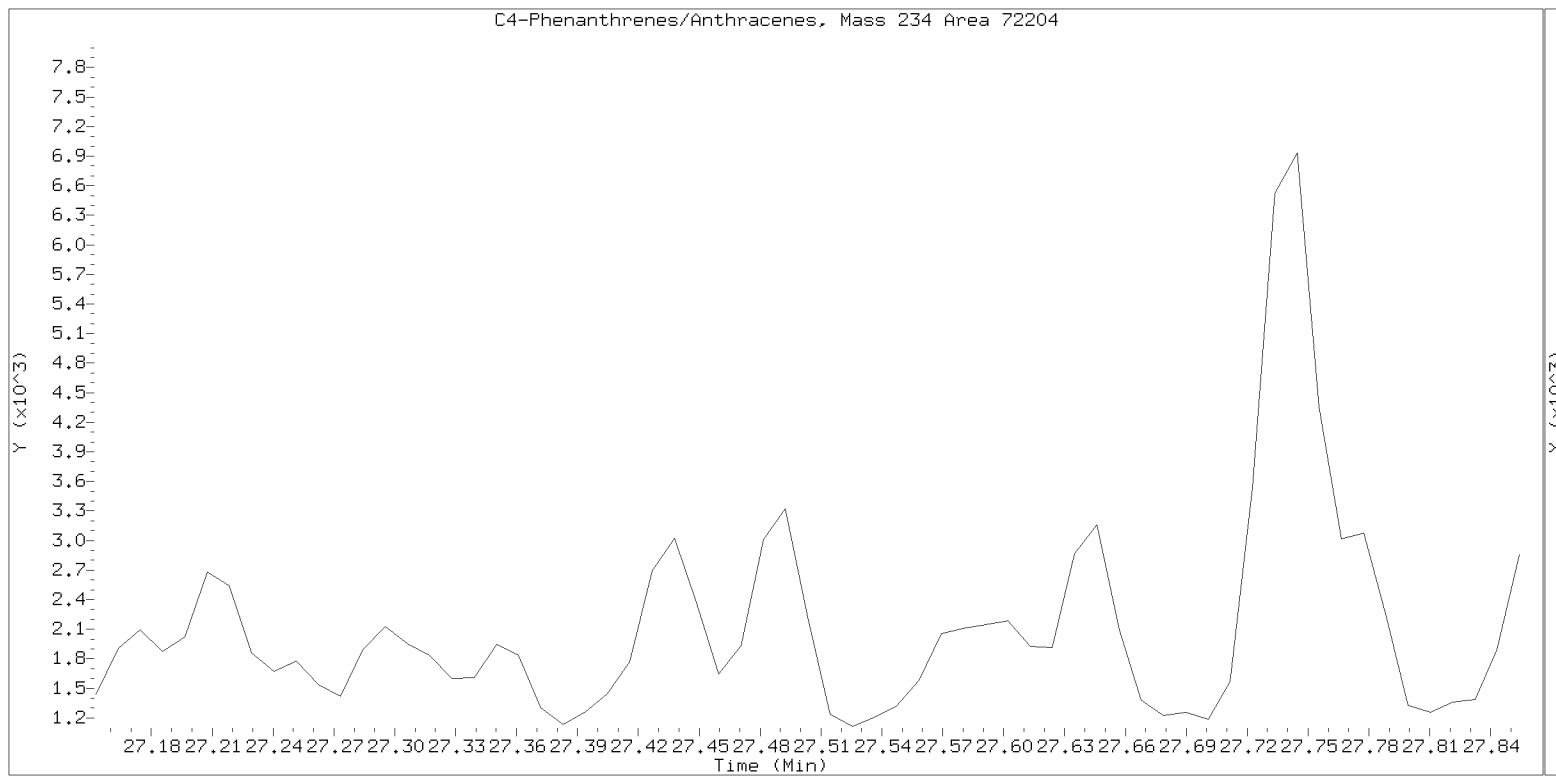
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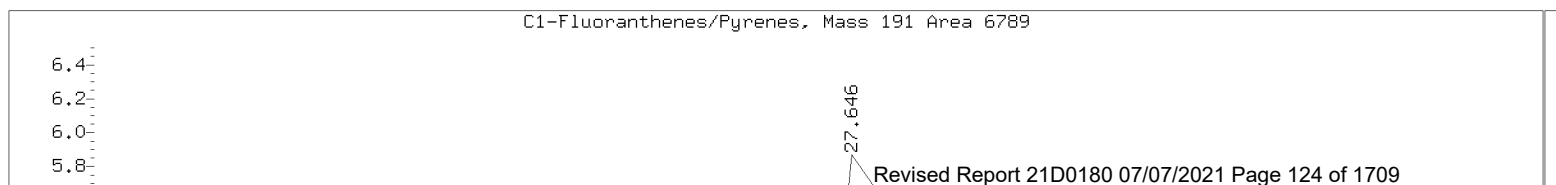
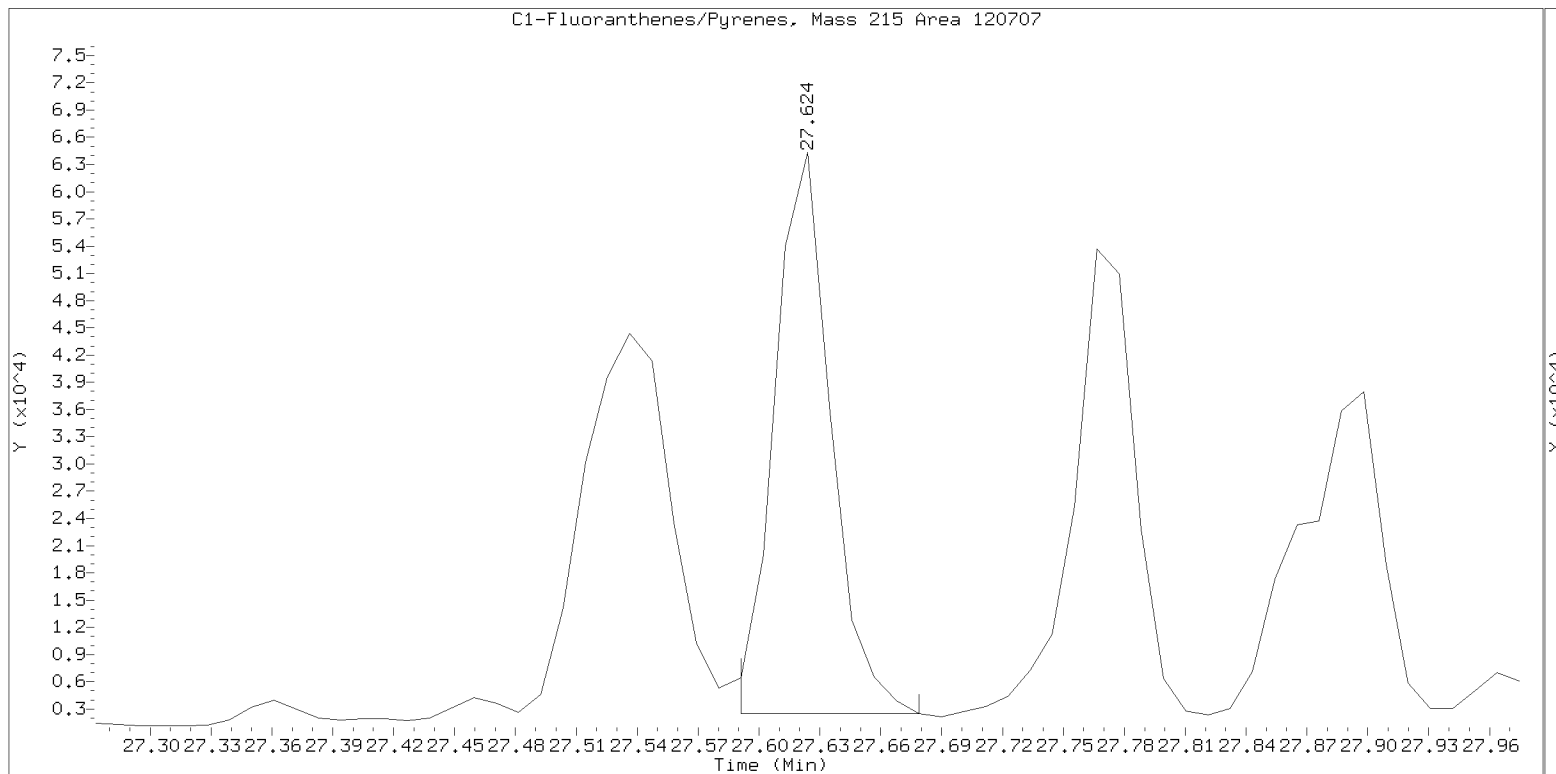
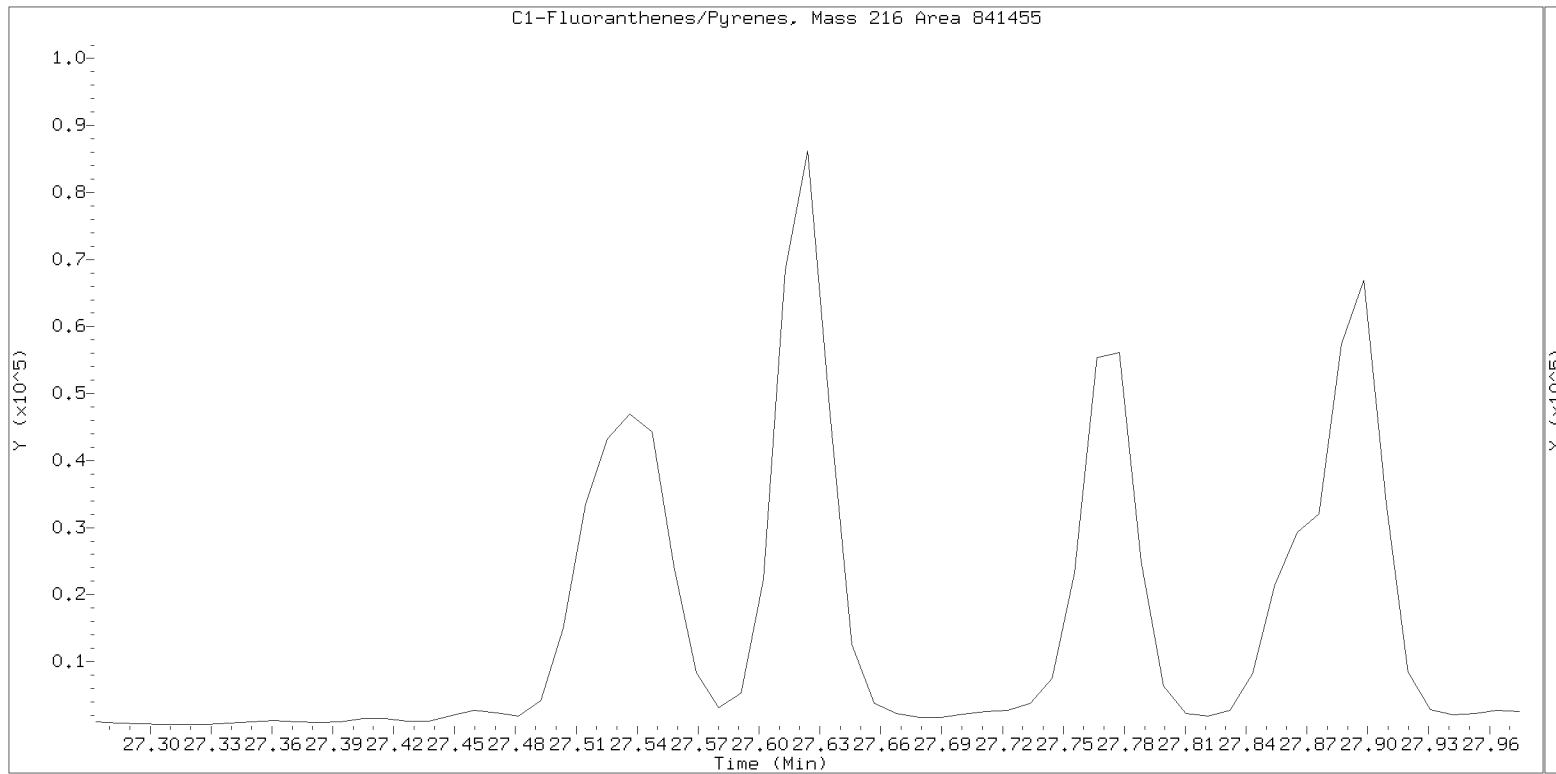
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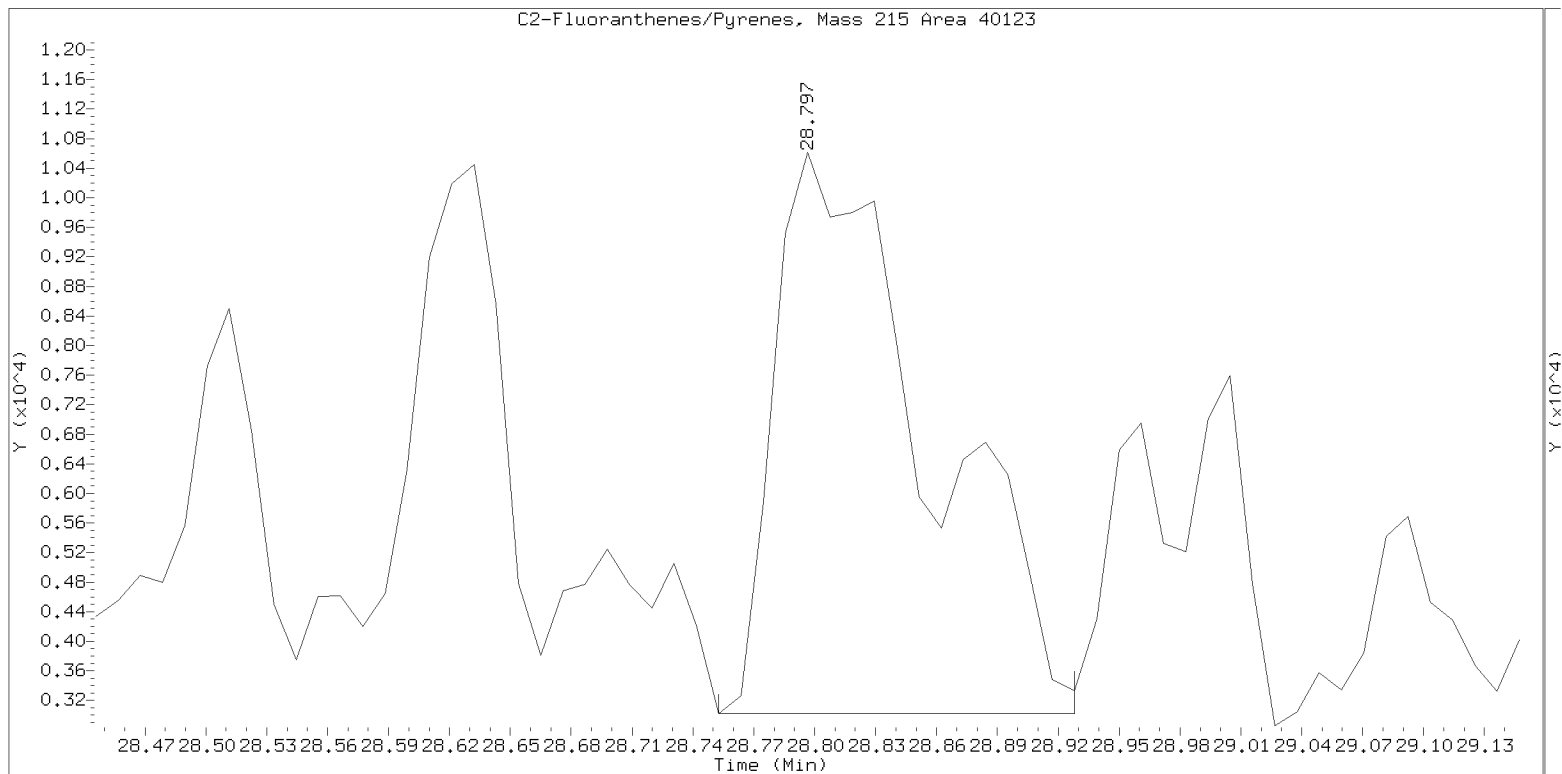
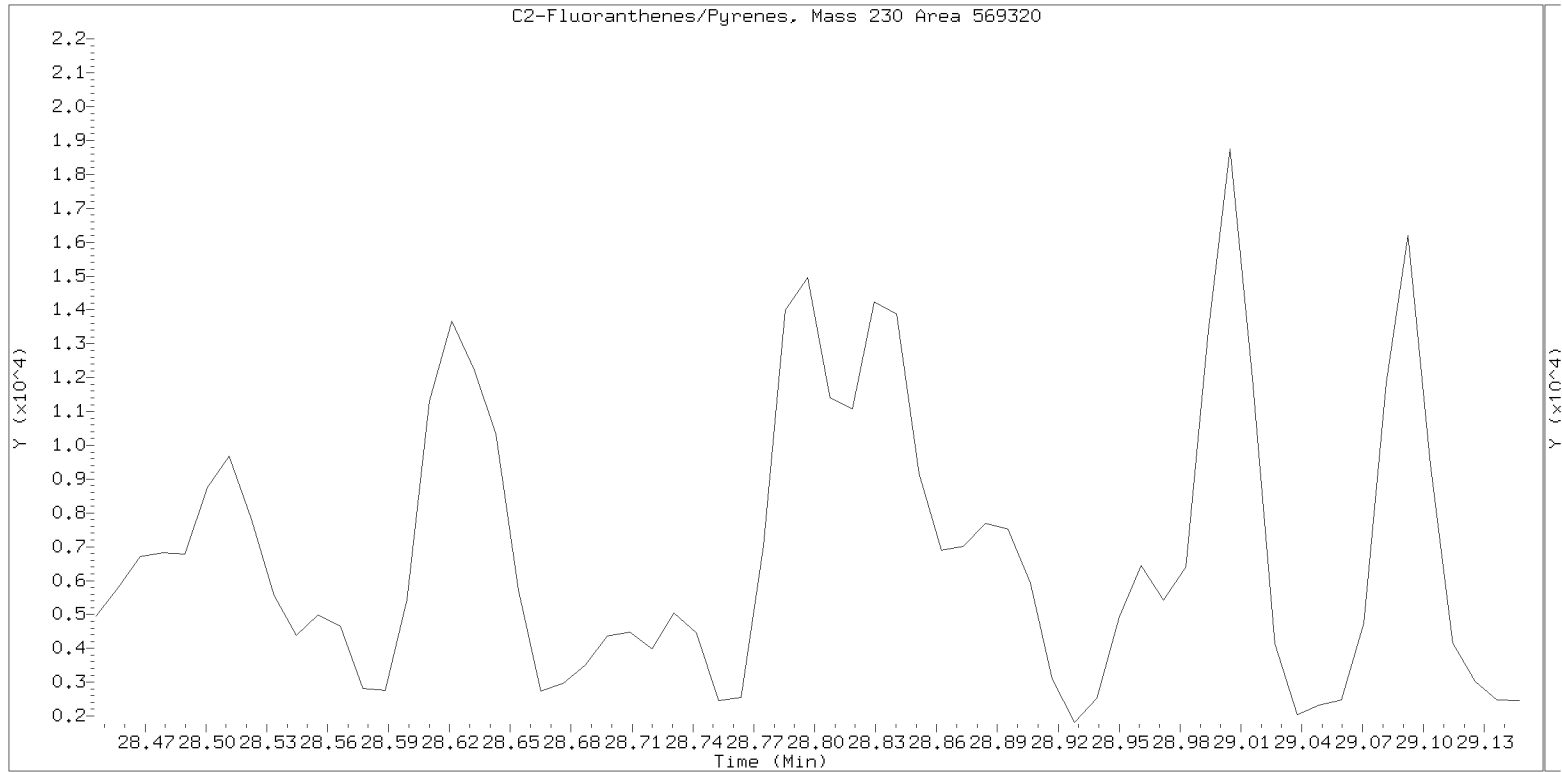
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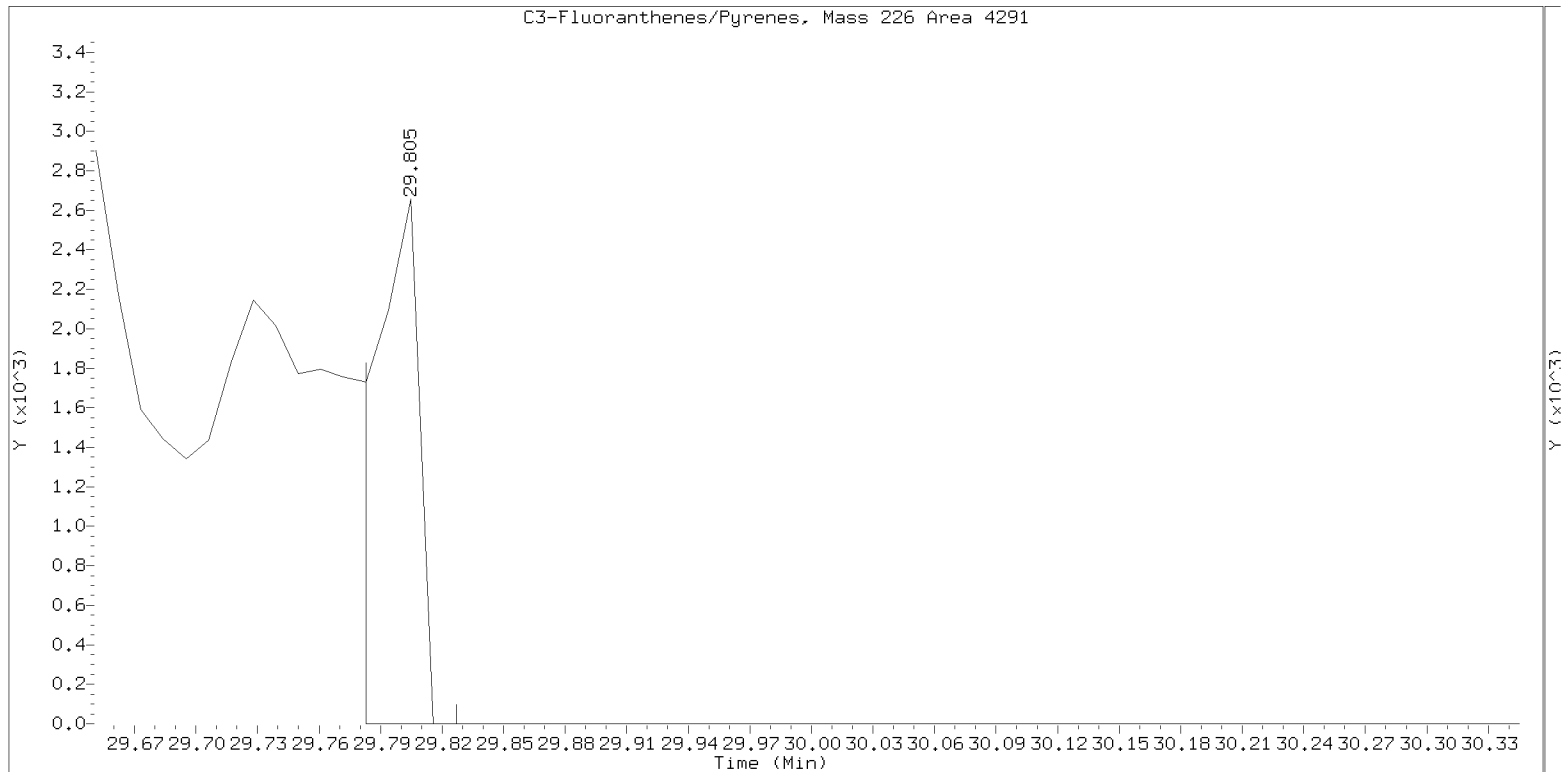
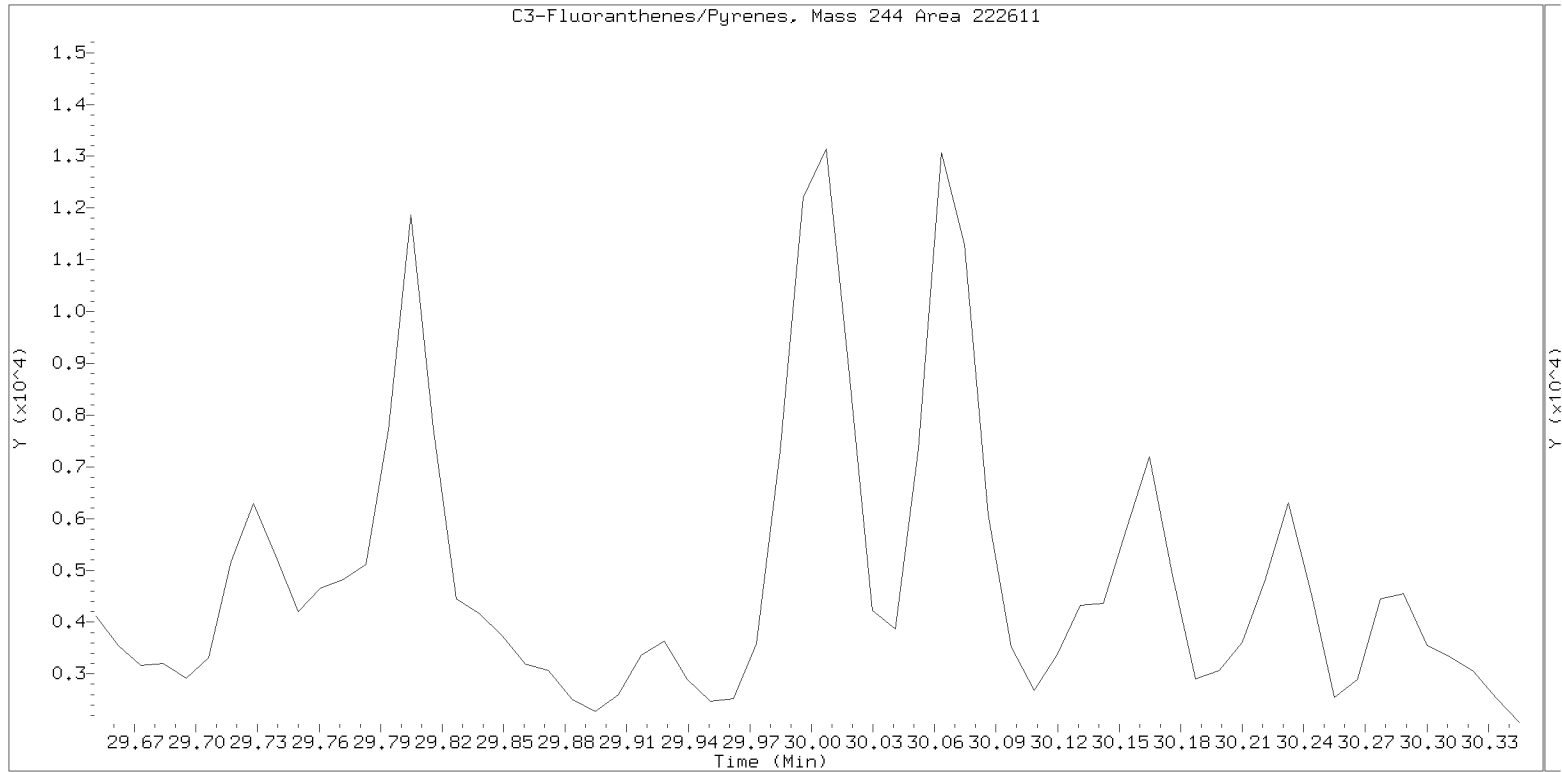
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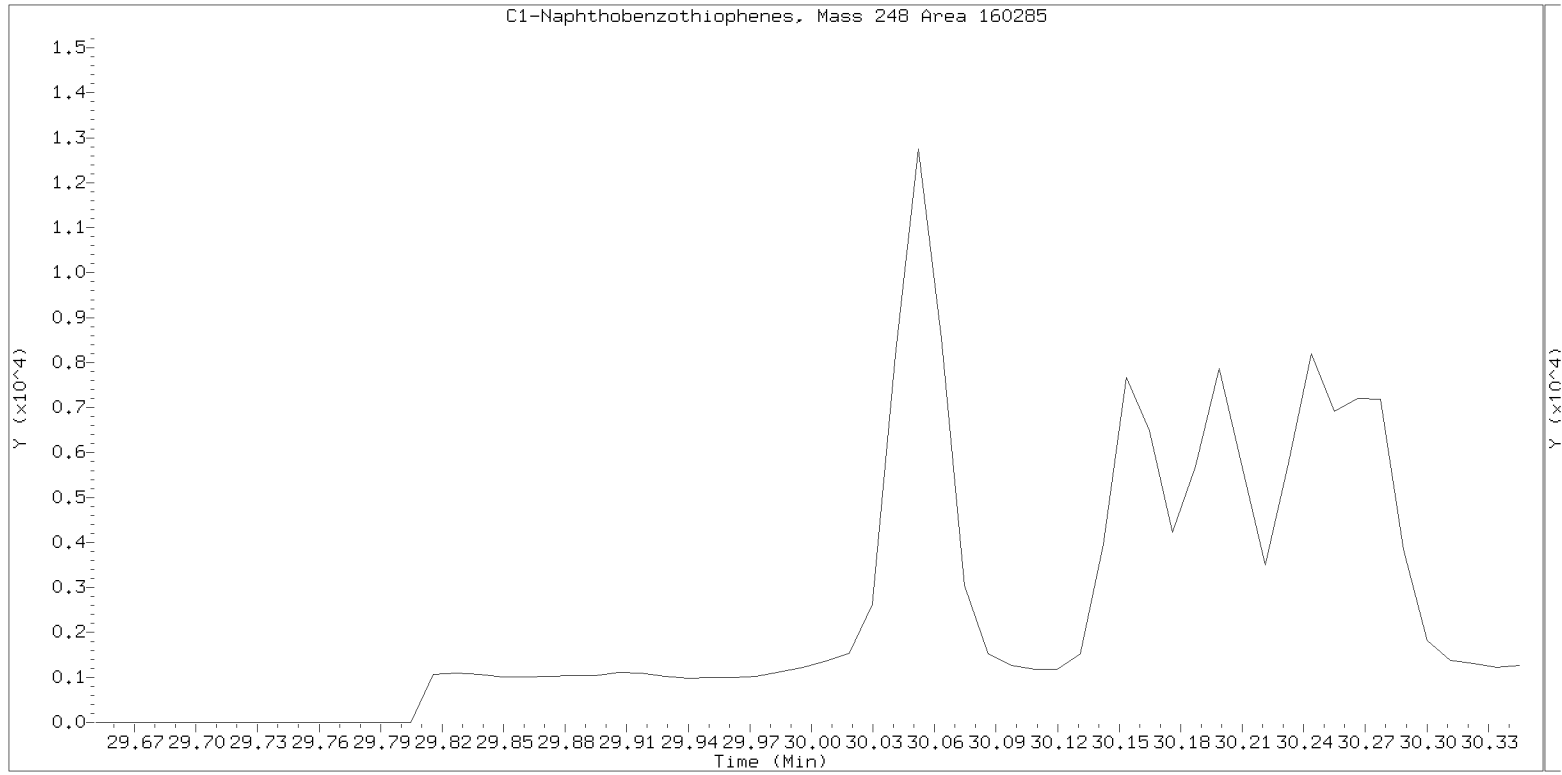
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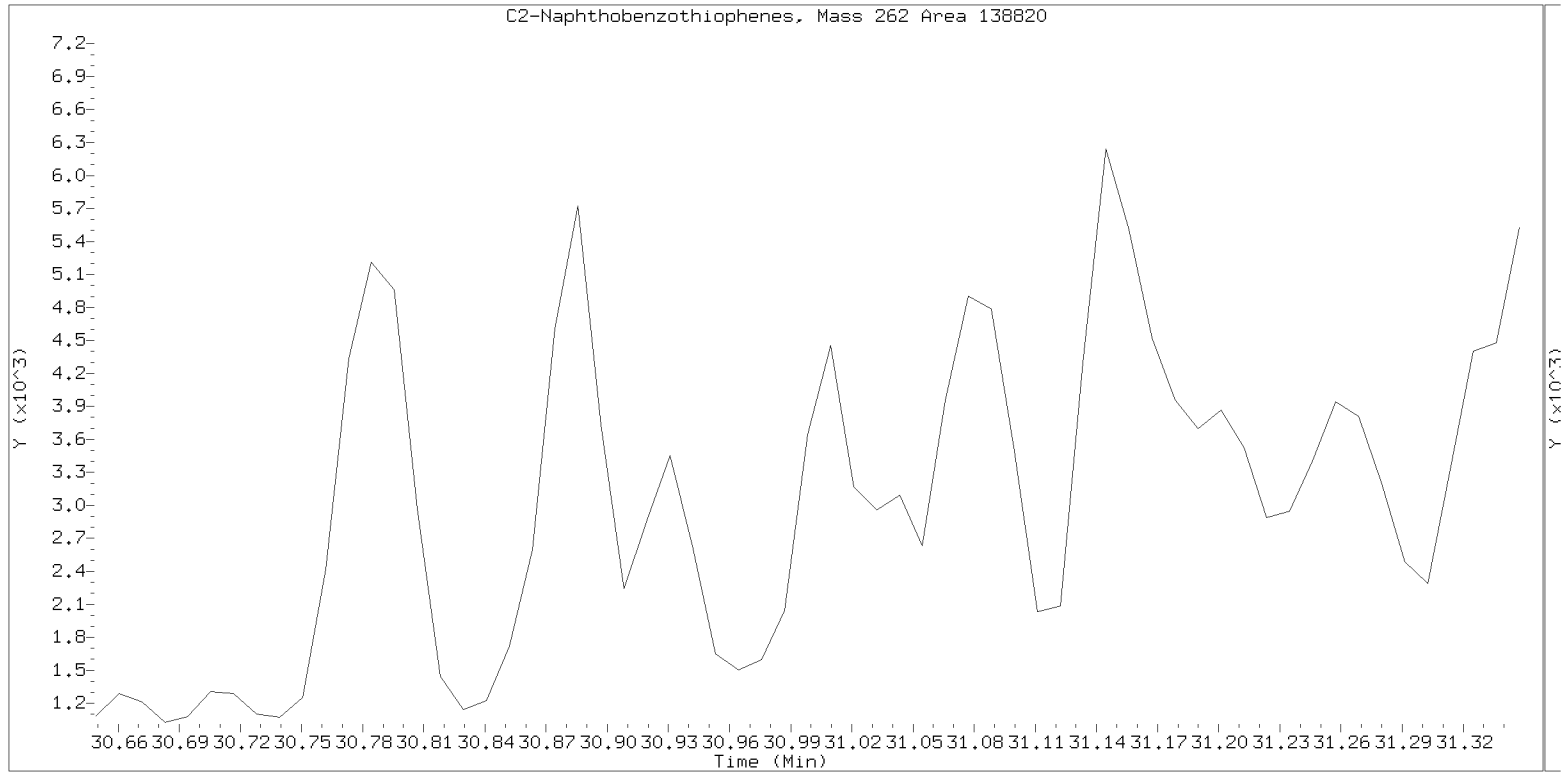
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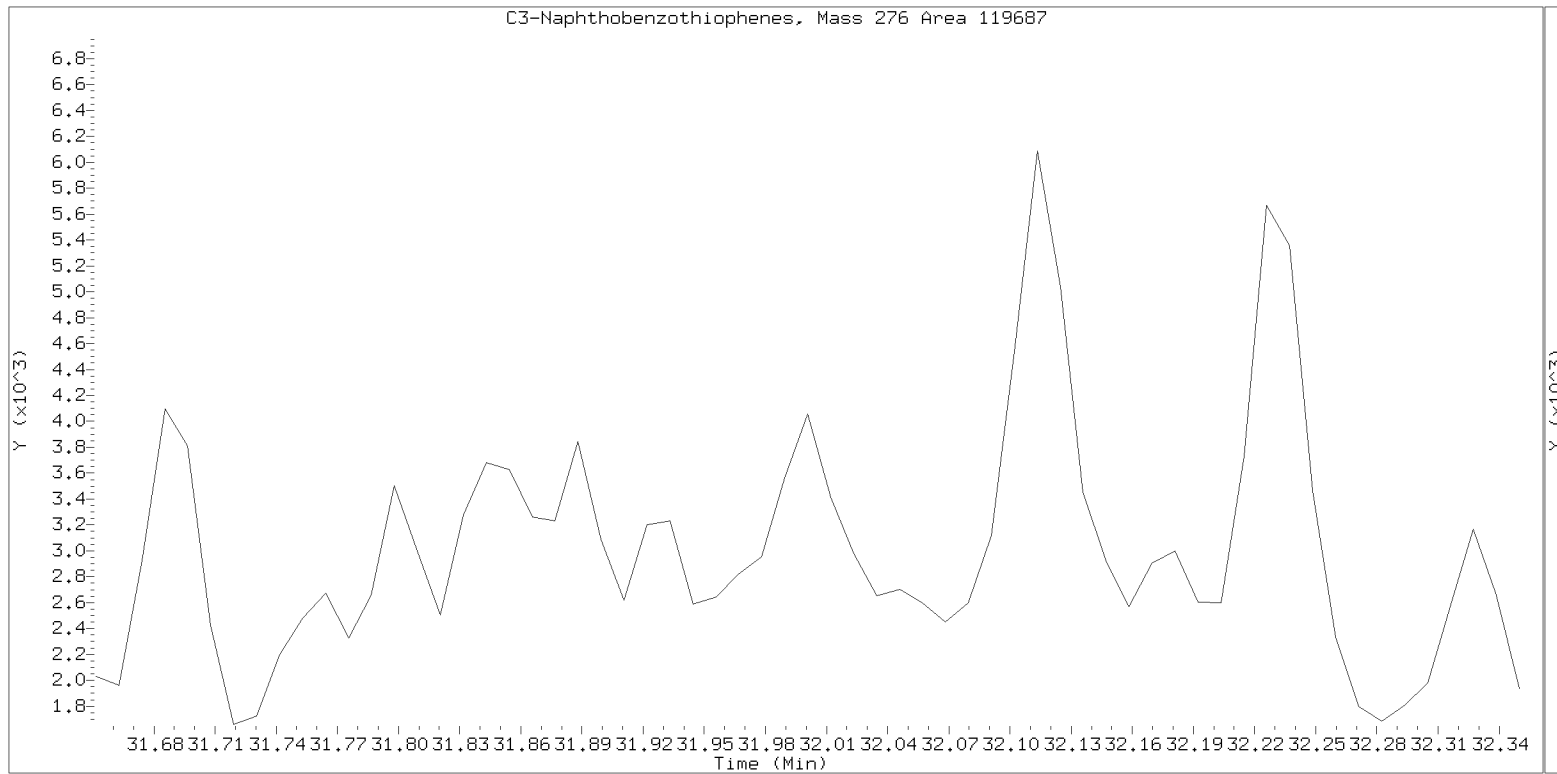
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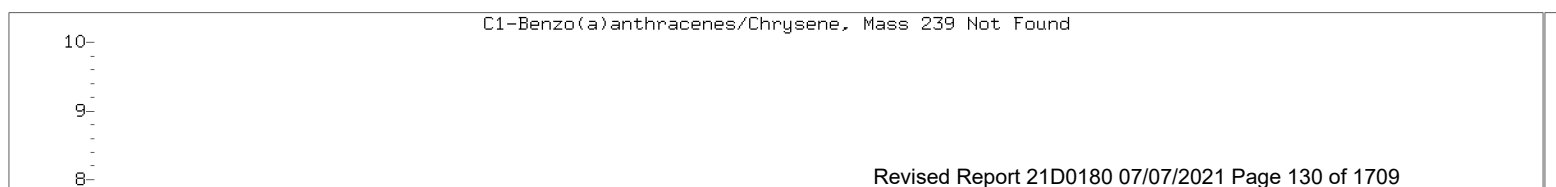
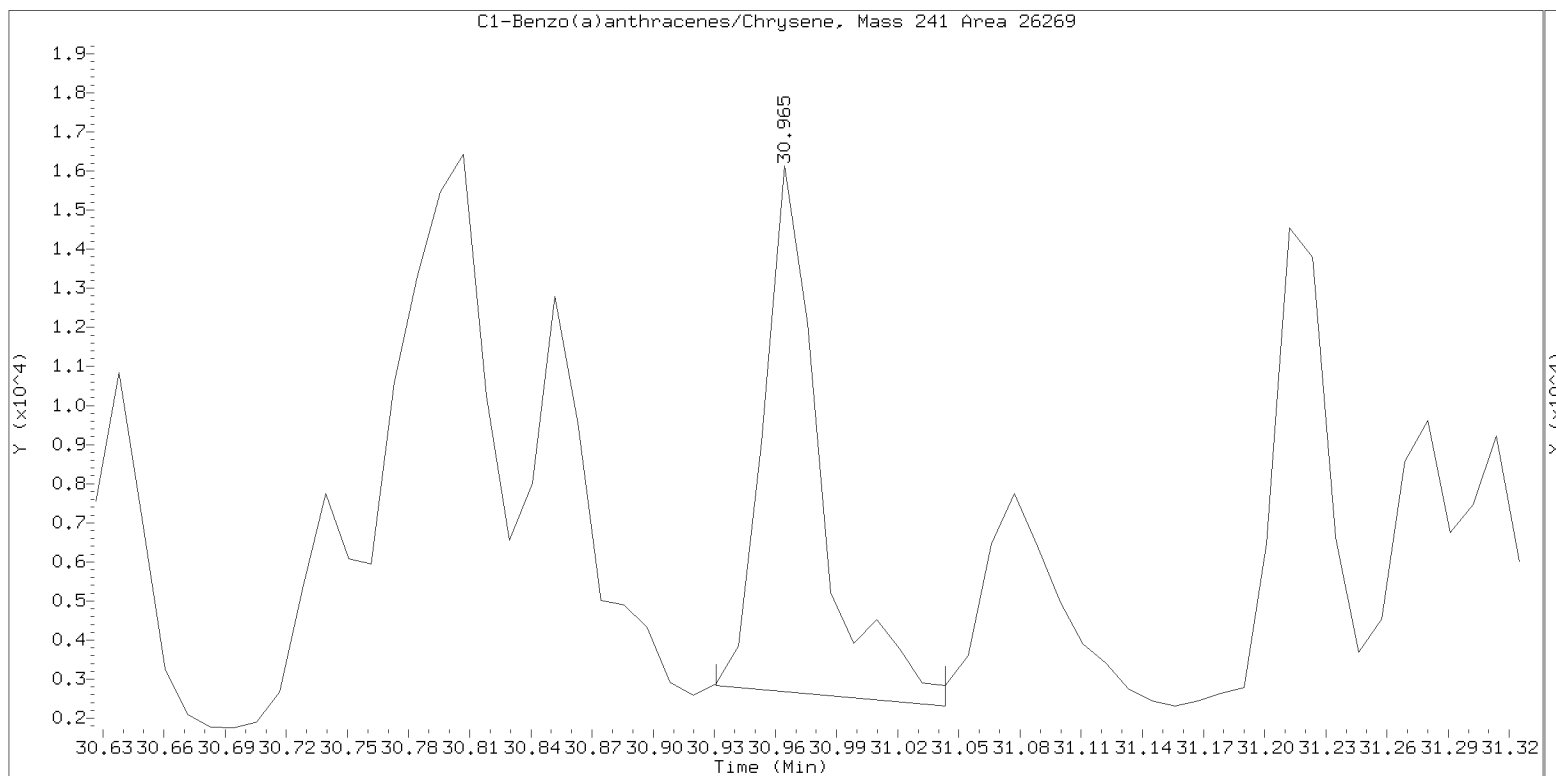
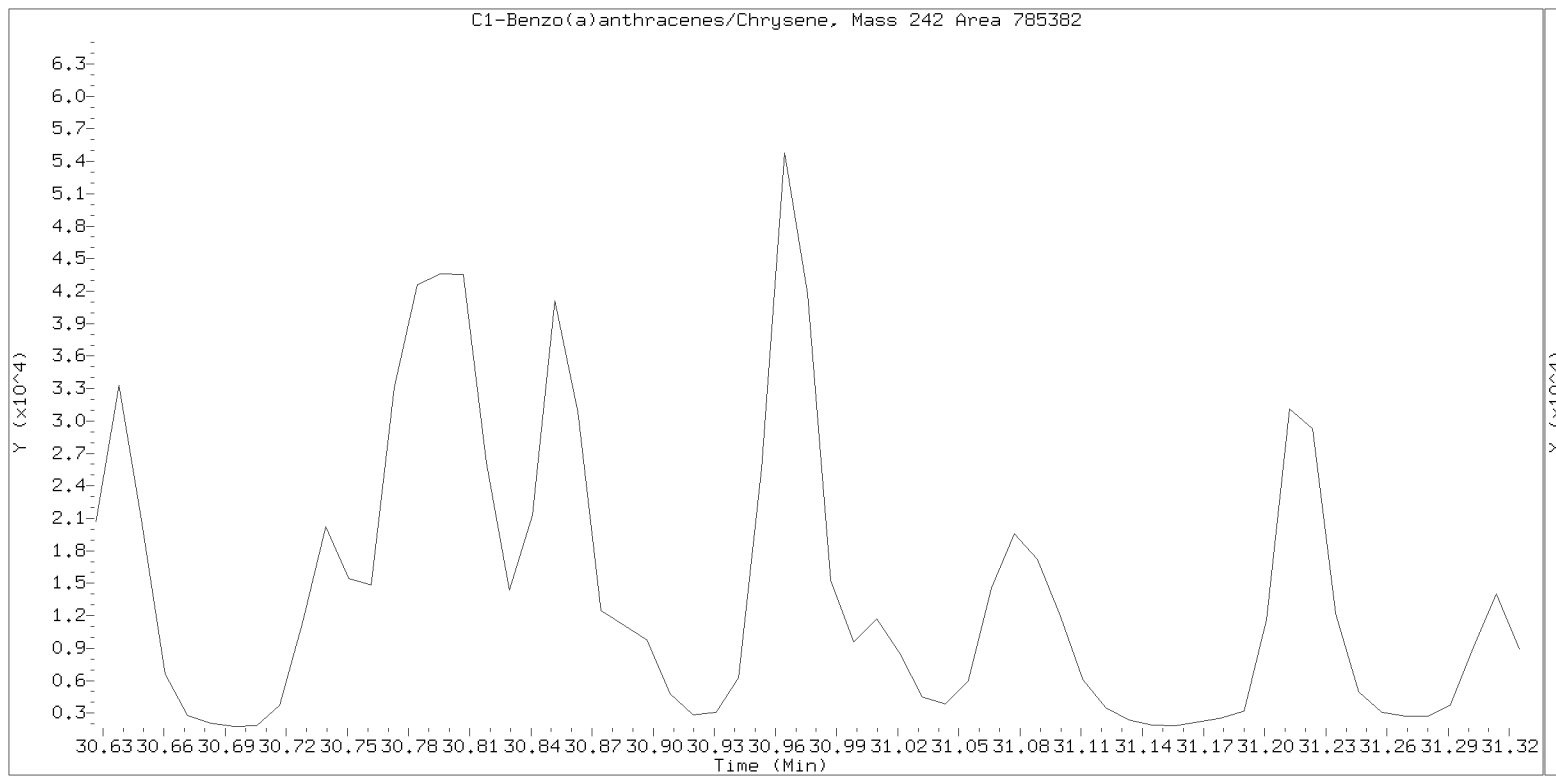
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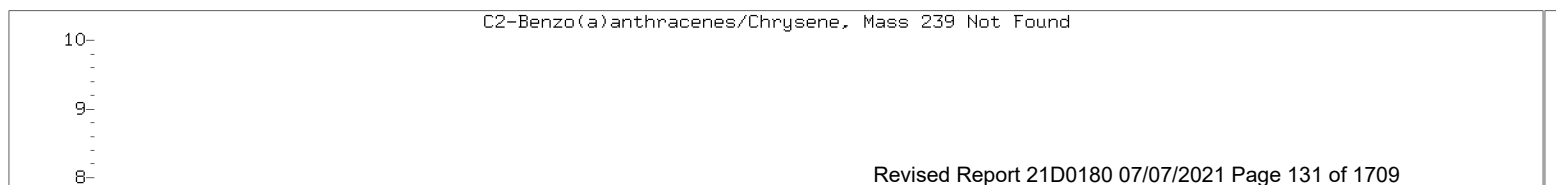
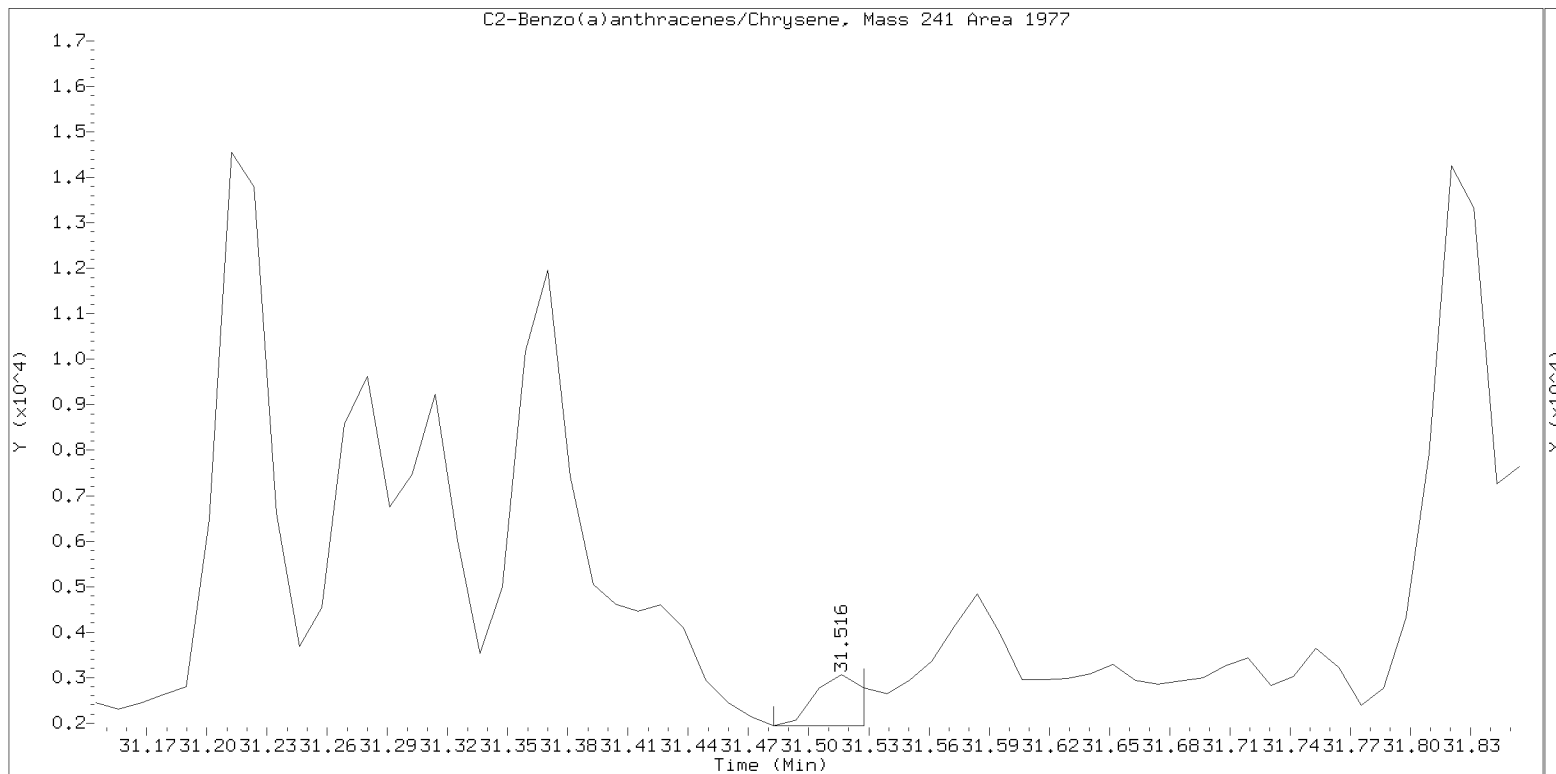
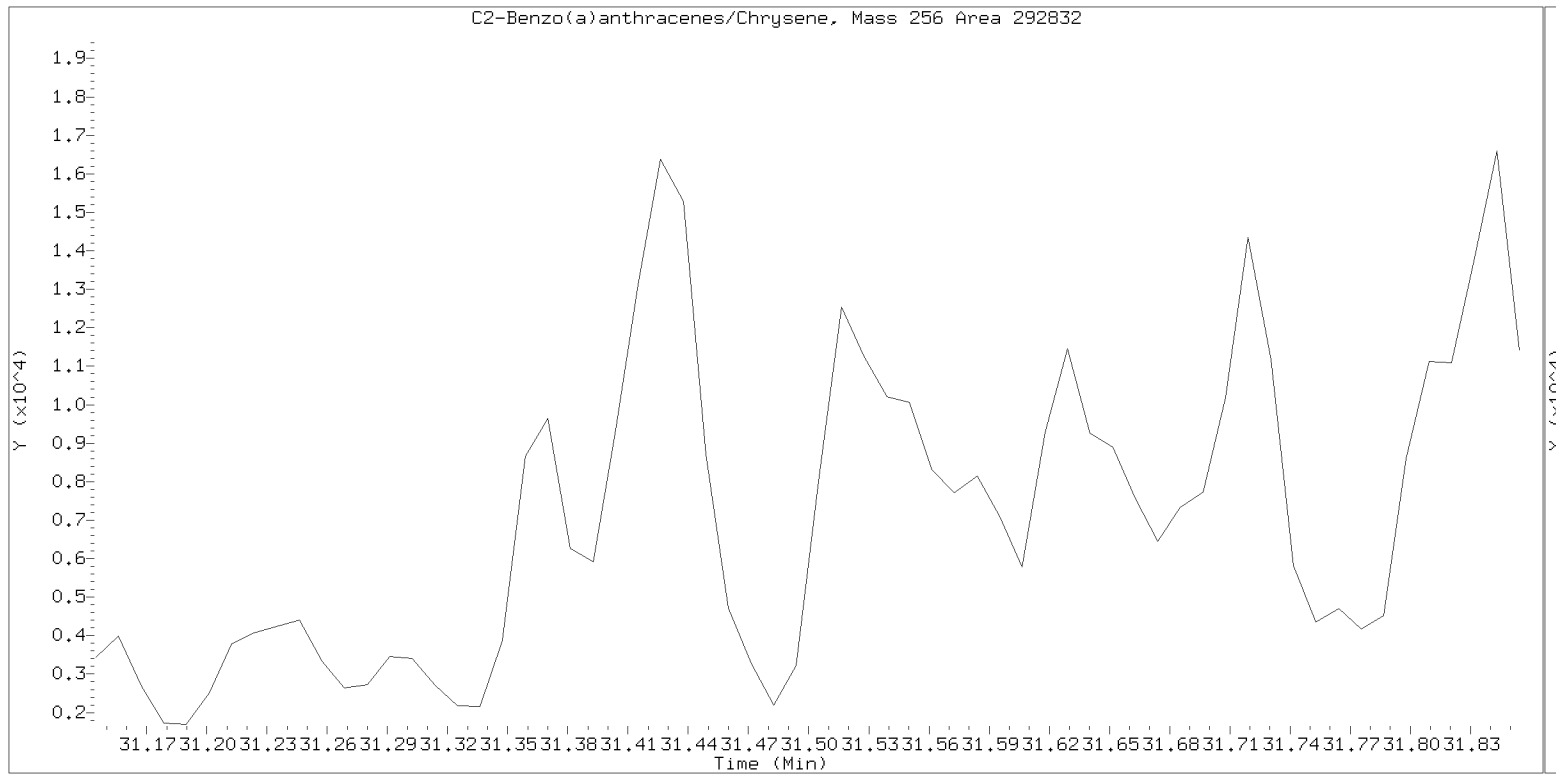
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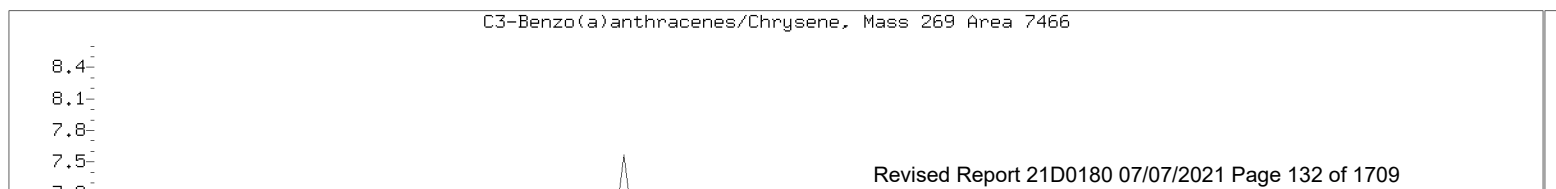
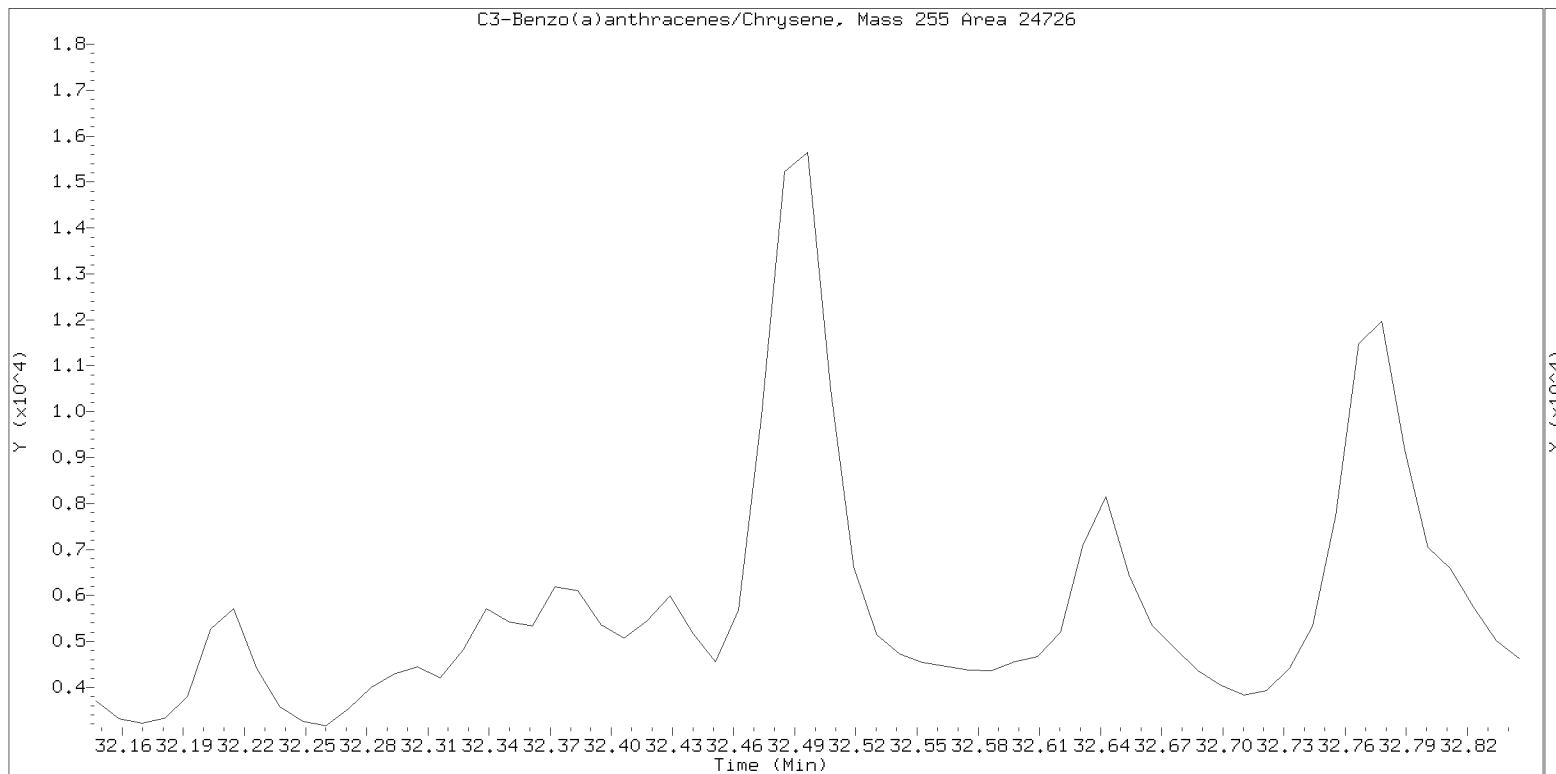
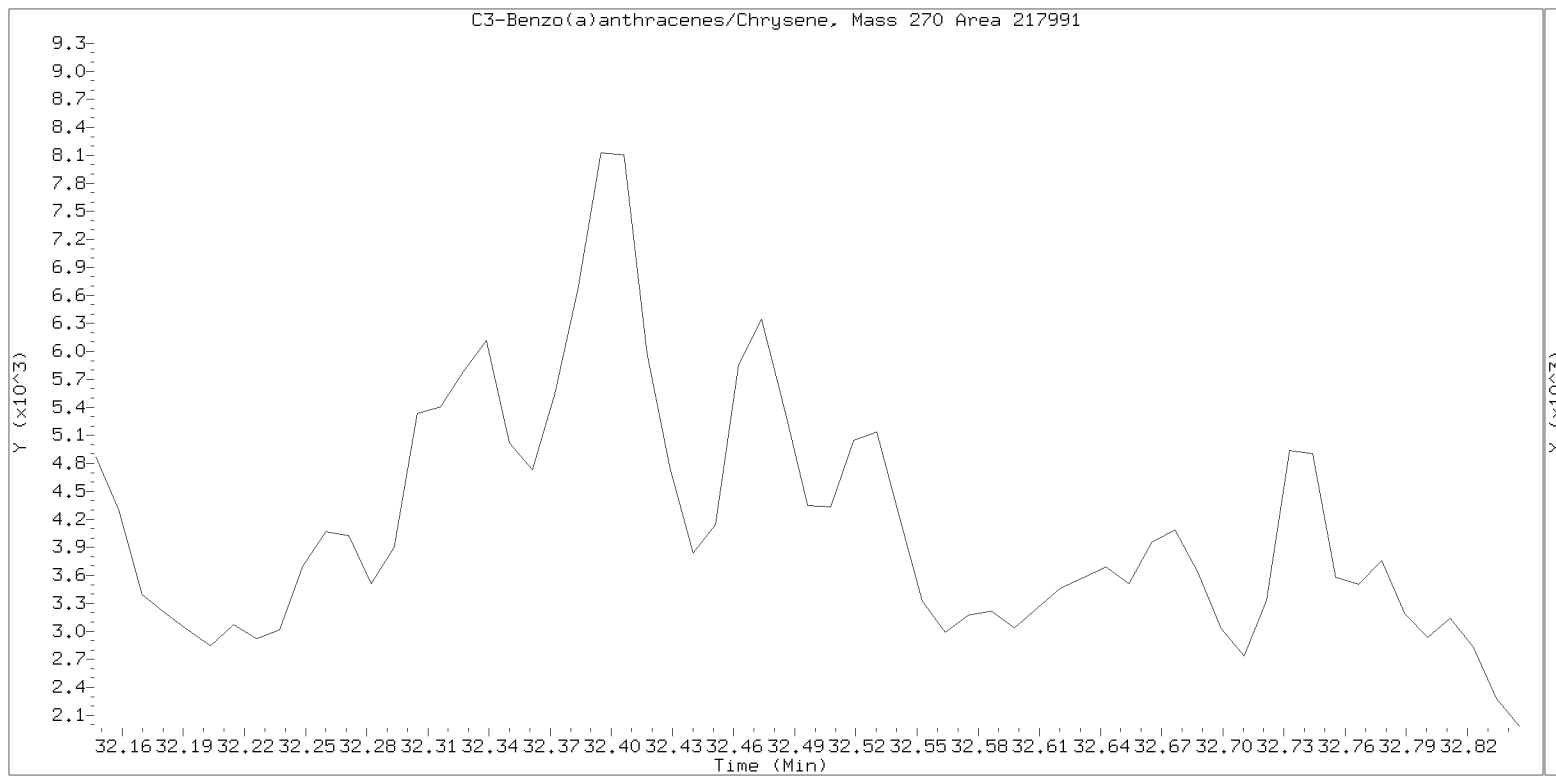
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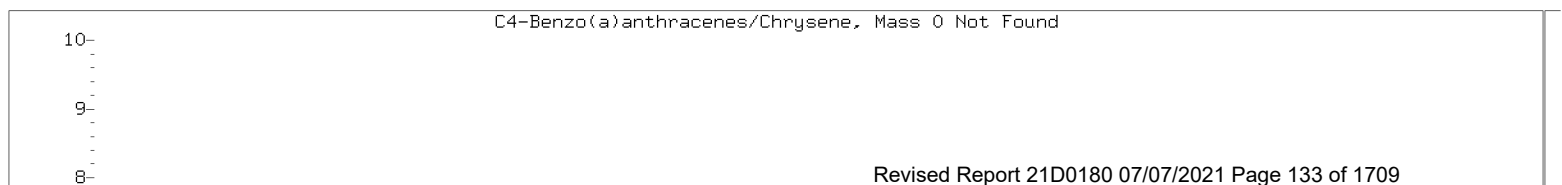
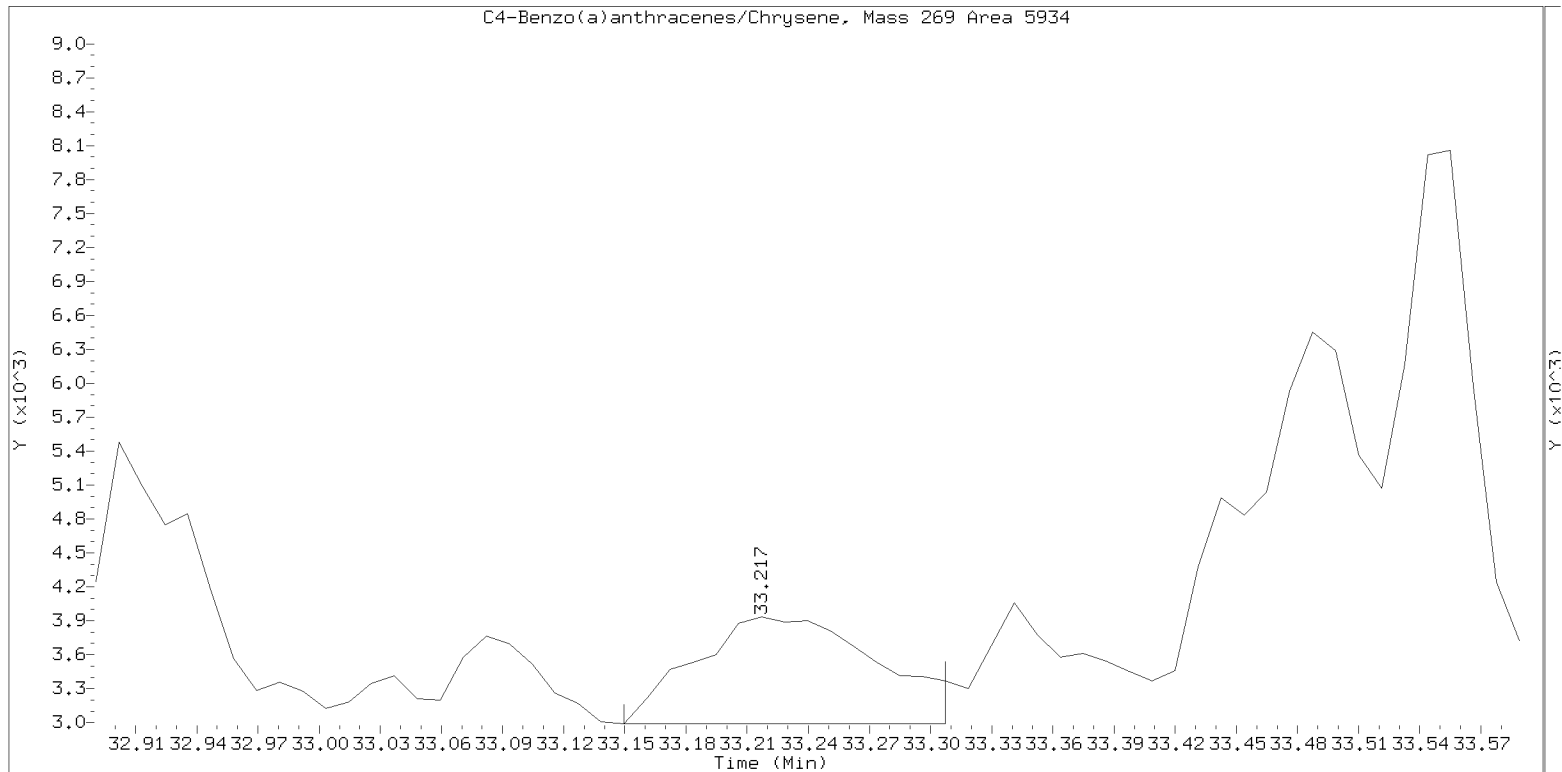
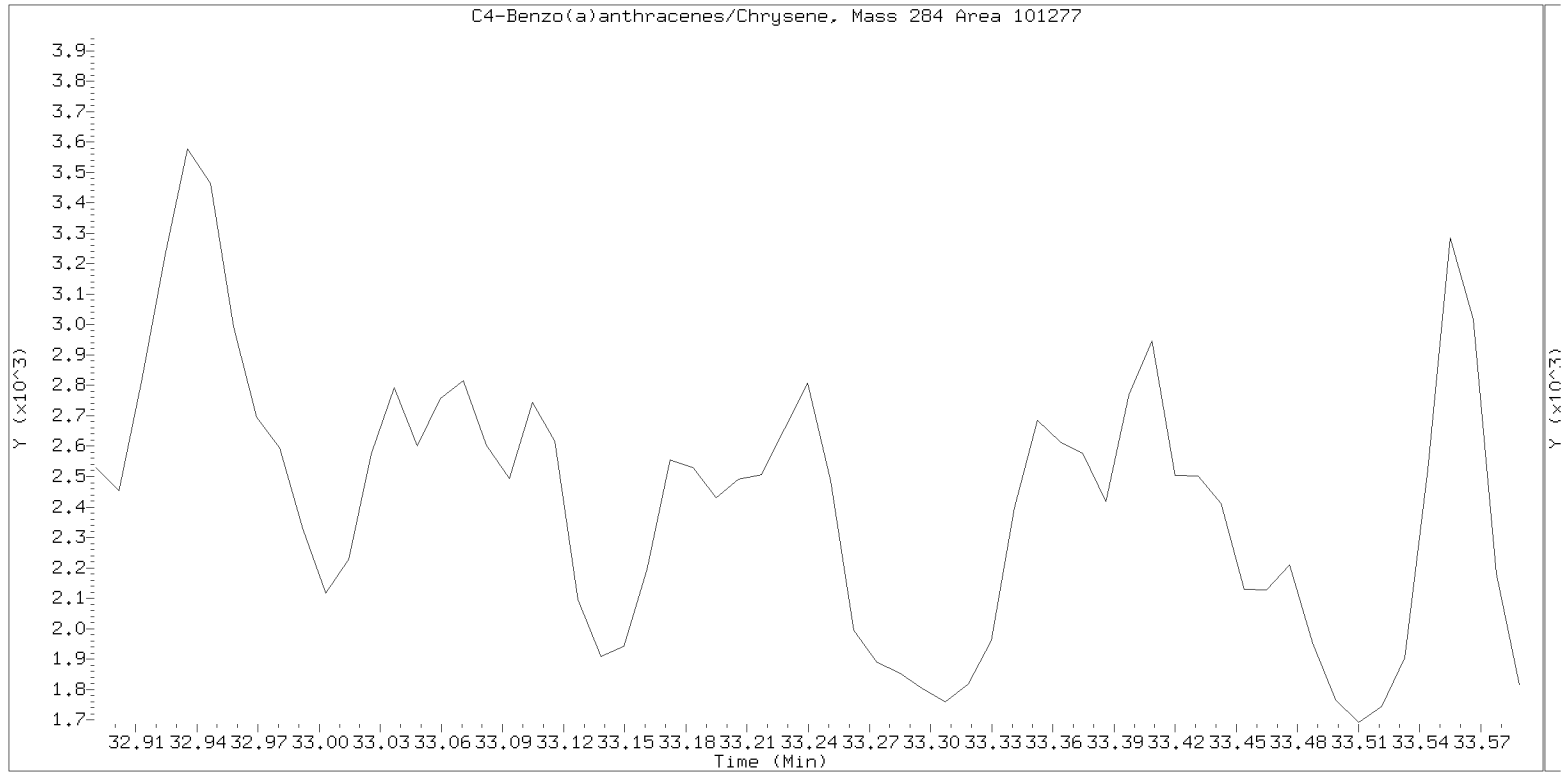
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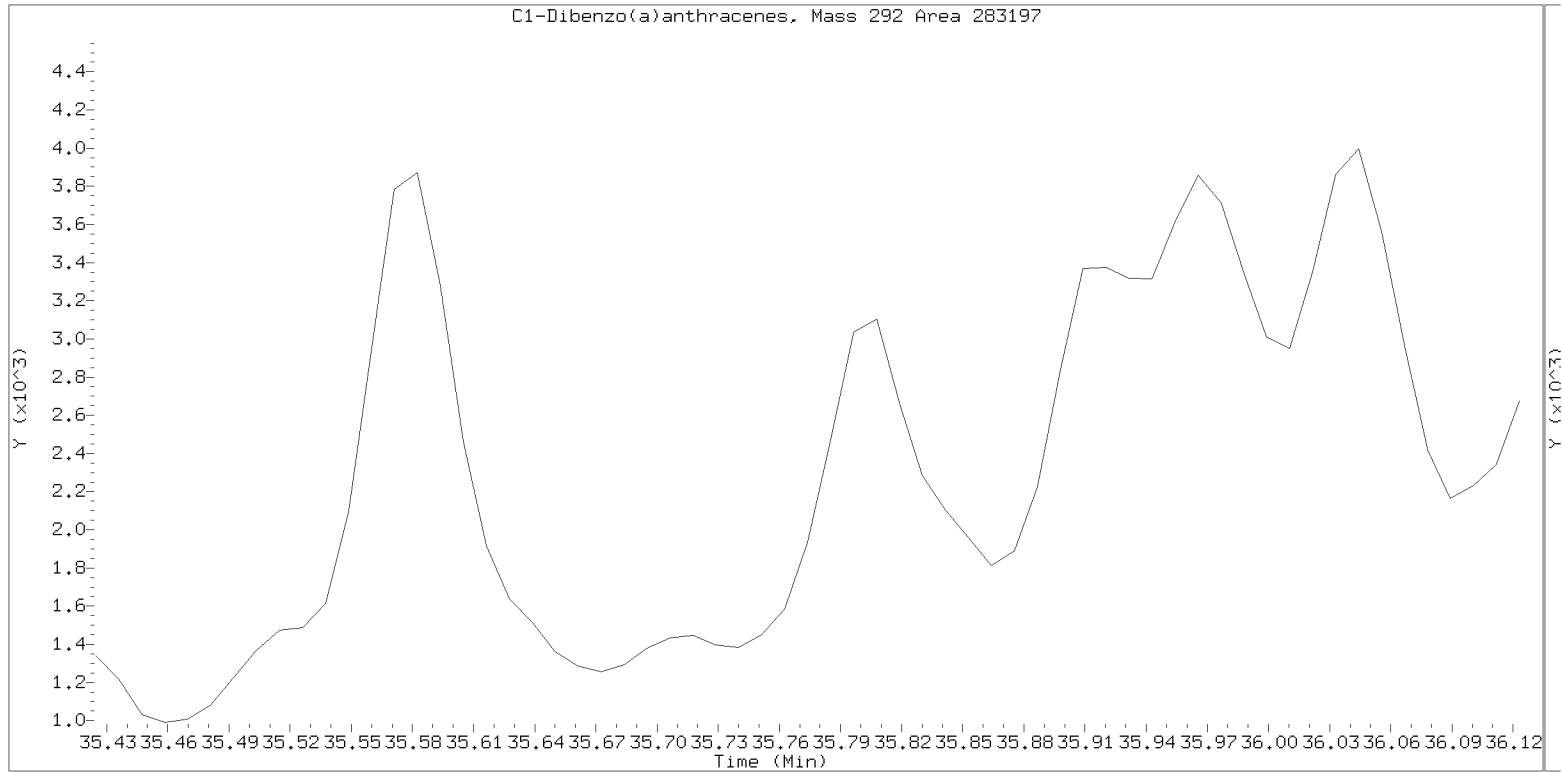
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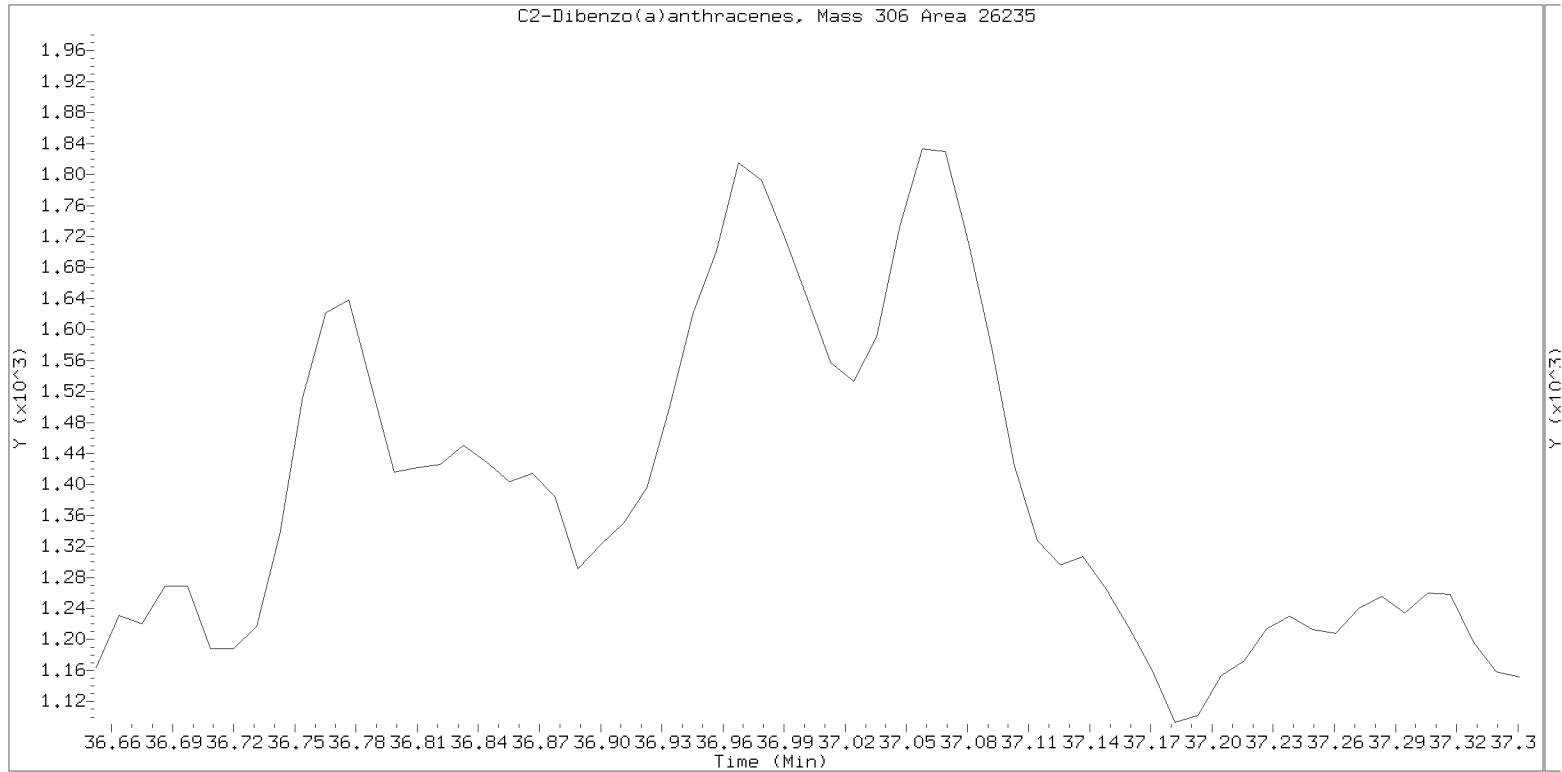
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043063S.D

Lab ID: 21D0180-01

nt14.i, SIM.b\ALKYLRANGES.m, 02-MAY-2021 09:13



Lab ID: 21D0180-01

nt14.i, SIM.b\ALKYLRANGES.m, 02-MAY-2021 09:13





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Alkyl PAH Parents

Laboratory: Analytical Resources, Inc.
Client: Anchor OEA, LLC
Project: Gasco Siltronic - US Moorings
Matrix: Sediment Laboratory ID: 21D0180-02 A SDG: 21D0180
Sampled: 04/14/21 10:35 Prepared: 04/22/21 11:05 File ID: NT1421043064.D
% Solids: 45.49 Preparation: EPA 3546 (Microwave) Analyzed: 05/02/21 10:01
Batch: BJD0507 Sequence: SJE0004 Initial/Final: 21.98 g Wet / 0.5 mL
Instrument: NT14 Column: ZB-5MS Calibration: EE00001
Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
493-02-7	trans-Decalin	1	5.0	U	0.03	5.0
493-01-6	cis-Decalin	1	5.0	U	0.5	5.0
91-20-3	Naphthalene	1	21.7		0.4	5.0
90-12-0	1-Methylnaphthalene	1	5.7		0.4	5.0
91-57-6	2-Methylnaphthalene	1	9.6		0.4	5.0
92-52-4	Biphenyl	1	5.1		0.3	5.0
581-42-0	2,6-Dimethylnaphthalene	1	3.6	J	0.4	5.0
208-96-8	Acenaphthylene	1	7.5	Q	0.3	5.0
83-32-9	Acenaphthene	1	20.3		0.5	5.0
132-64-9	Dibenzofuran	1	5.7		0.4	5.0
2245-38-7	2,3,5-Trimethylnaphthalene	1	3.6	J	0.4	5.0
86-73-7	Fluorene	1	13.6		0.5	5.0
95-15-8	Benzo(b)thiophene	1	1.8	J	0.4	5.0
85-01-8	Phenanthrene	1	68.4		0.9	5.0
120-12-7	Anthracene	1	21.0		0.05	5.0
86-74-8	Carbazole	1	4.4	J	0.7	5.0
832-69-9	1-Methylphenanthrene	1	12.4		0.5	5.0
206-44-0	Fluoranthene	1	197		1.4	5.0
132-65-0	Dibenzothiophene	1	7.8		0.7	5.0
129-00-0	Pyrene	1	222		1.0	5.0
56-55-3	Benzo(a)anthracene	1	81.6		1.4	5.0
218-01-9	Chrysene	1	108		0.7	5.0
205-99-2	Benzo(b)fluoranthene	1	101		0.8	5.0
205-82-3	Benzo(j)fluoranthene	1	50.8		0.7	5.0
207-08-9	Benzo(k)fluoranthene	1	49.7		0.8	5.0
197-97-2	Benzo(e)pyrene	1	95.4		0.6	5.0
50-32-8	Benzo(a)pyrene	1	128		1.0	5.0
193-39-5	Indeno(1,2,3-cd)pyrene	1	94.4		0.4	5.0
53-70-3	Dibenzo(a,h)anthracene	1	14.7		0.7	5.0
191-24-2	Benzo(g,h,i)perylene	1	134		0.5	5.0



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Alkyl PAH Parents

Laboratory: Analytical Resources, Inc.
 Client: Anchor OEA, LLC
 Project: Gasco Siltronic - US Moorings
 Matrix: Sediment Laboratory ID: 21D0180-02 A SDG: 21D0180
 Sampled: 04/14/21 10:35 Prepared: 04/22/21 11:05 File ID: NT1421043064.D
 % Solids: 45.49 Preparation: EPA 3546 (Microwave) Analyzed: 05/02/21 10:01
 Batch: BJD0507 Sequence: SJE0004 Initial/Final: 21.98 g Wet / 0.5 mL
 Instrument: NT14 Column: ZB-5MS Calibration: EE00001
 Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
1985-5-0	Perylene	1	98.9		0.4	5.0
239-35-0	Benzo(b)naphtho(2,1-d)thiophene	1	16.3		5.0	5.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
Naphthalene-d8	150.02	95.4	63.6	30 - 160	
Acenaphthene-d10	150.02	107	71.5	30 - 160	
Phenanthrene-d10	150.02	97.5	65.0	30 - 160	
Chrysene-d12	150.02	101	67.4	30 - 160	
Perylene-d12	150.02	113	75.6	30 - 160	

Data File: \\target\share\chem3\nt14.1\20210430D.16\NT1421043064.D

Date : 02-MAY-2021 10:01

Client ID:

Sample Info: 21D0180-02

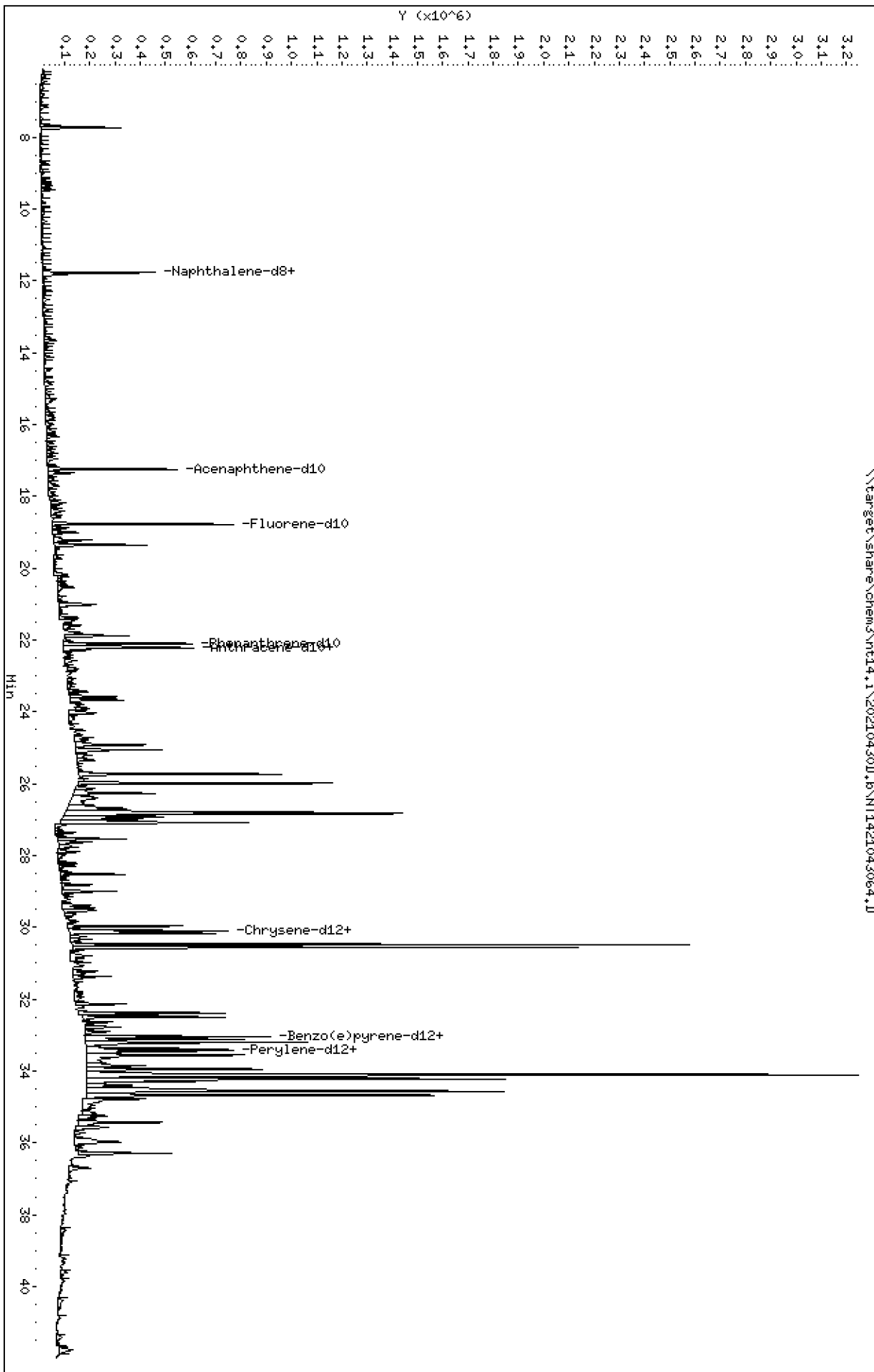
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14.1\20210430D.16\NT1421043064.D



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

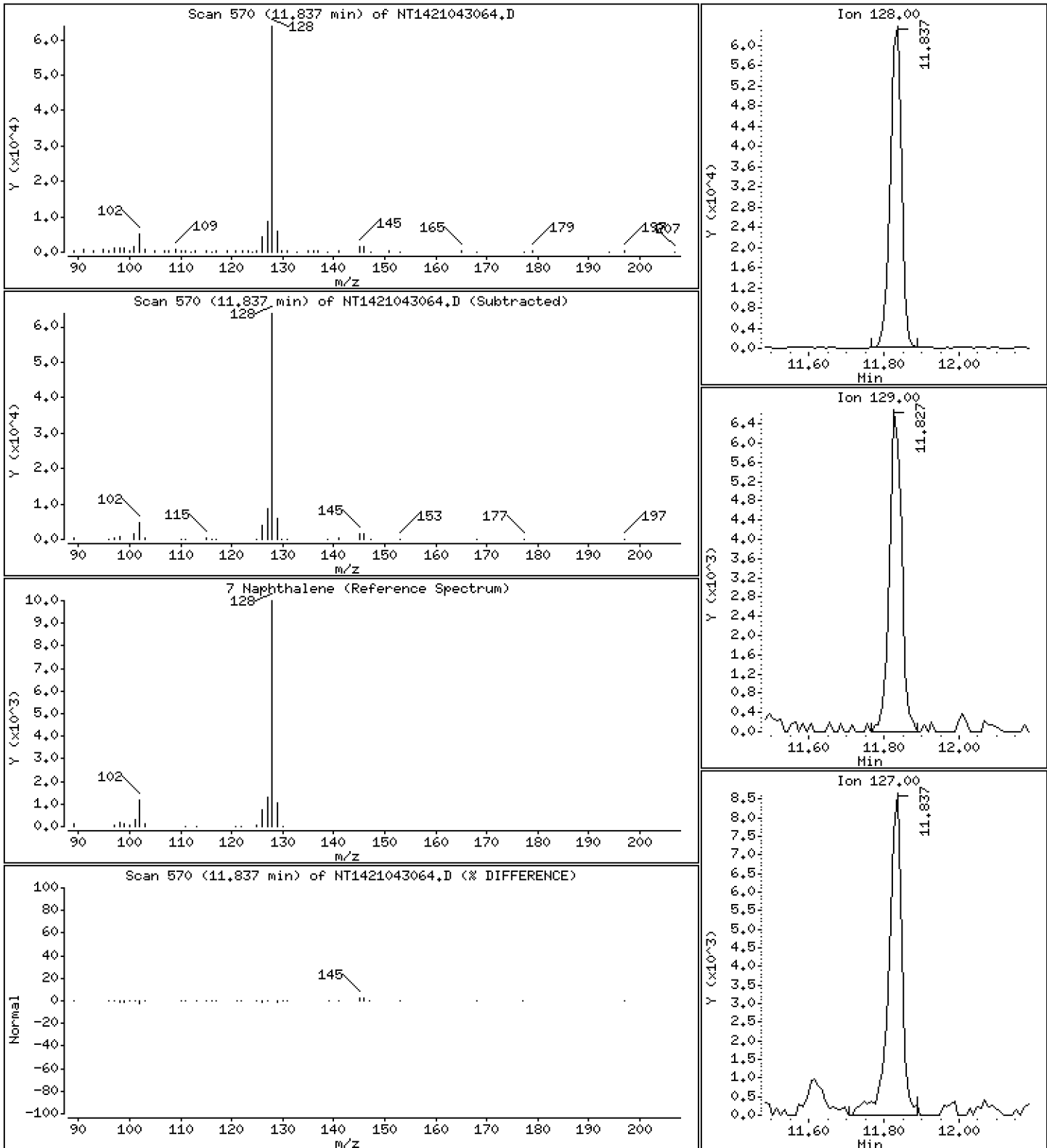
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

7 Naphthalene

Concentration: 0.4331 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

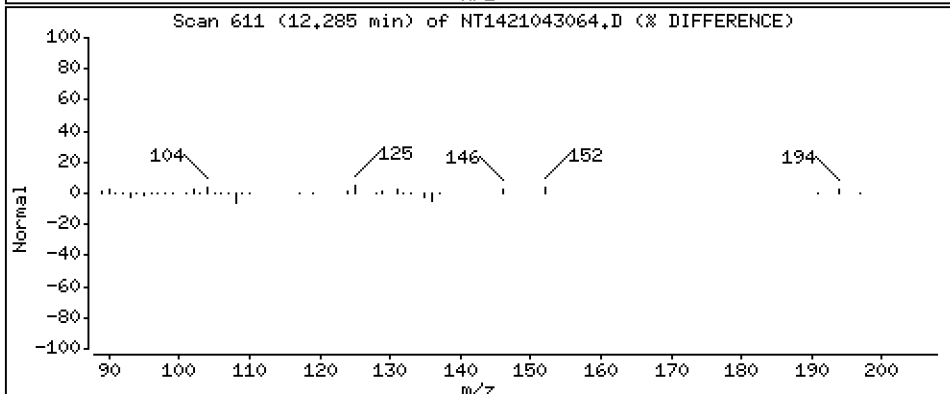
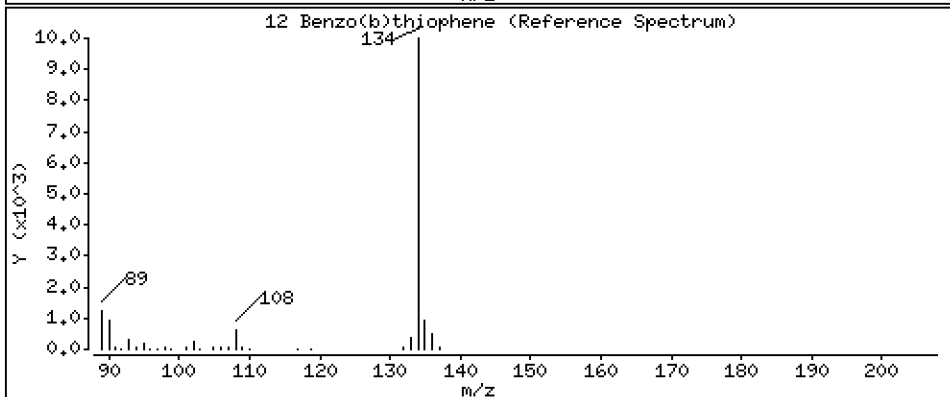
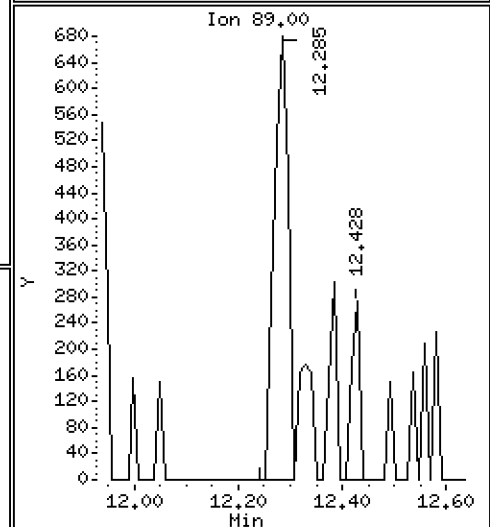
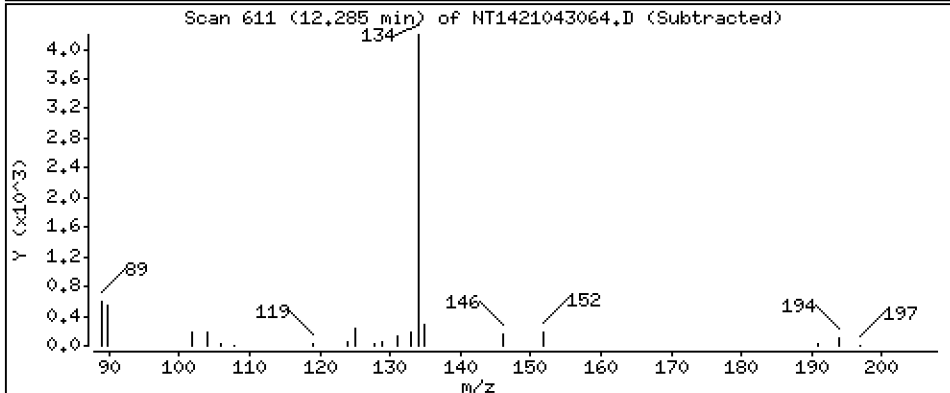
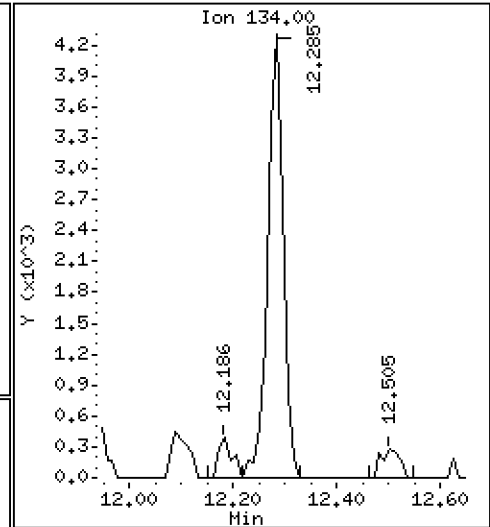
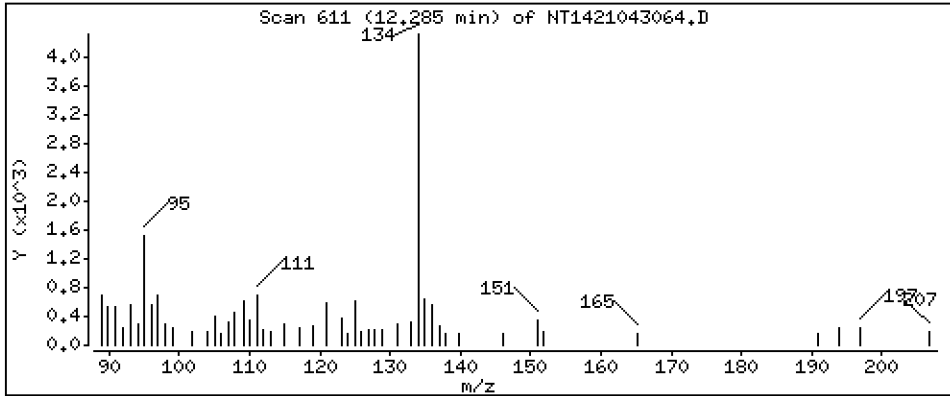
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

12 Benzo(b)thiophene

Concentration: 0,03573 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

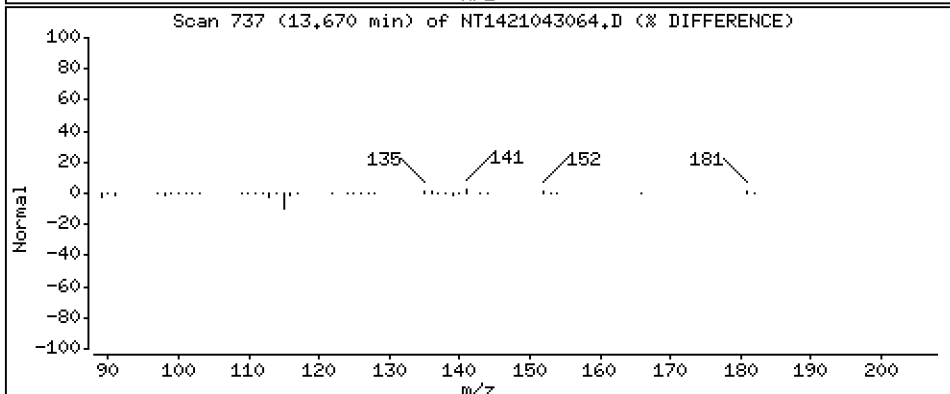
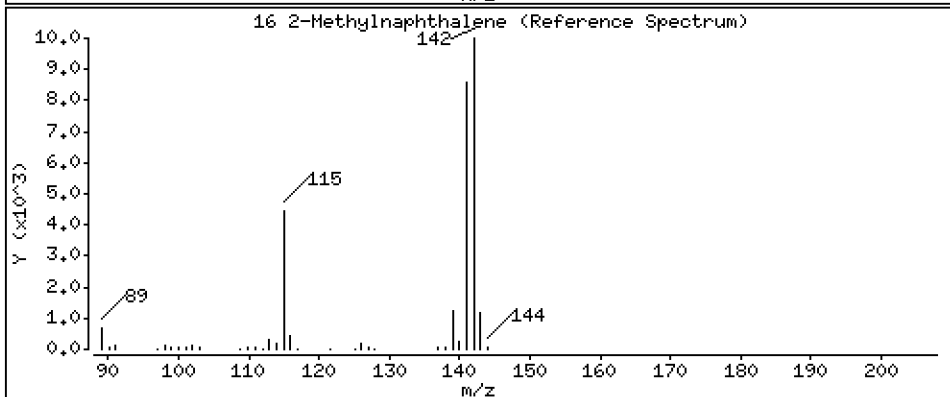
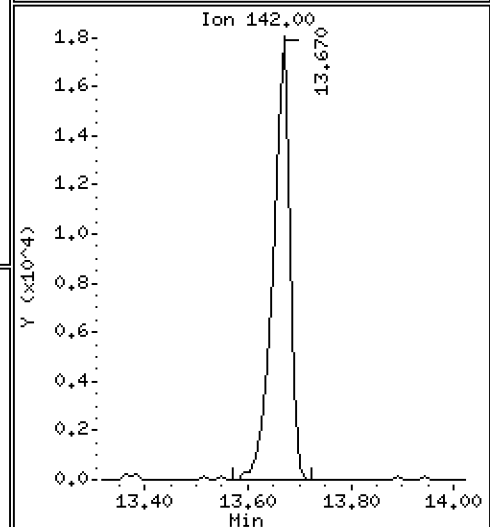
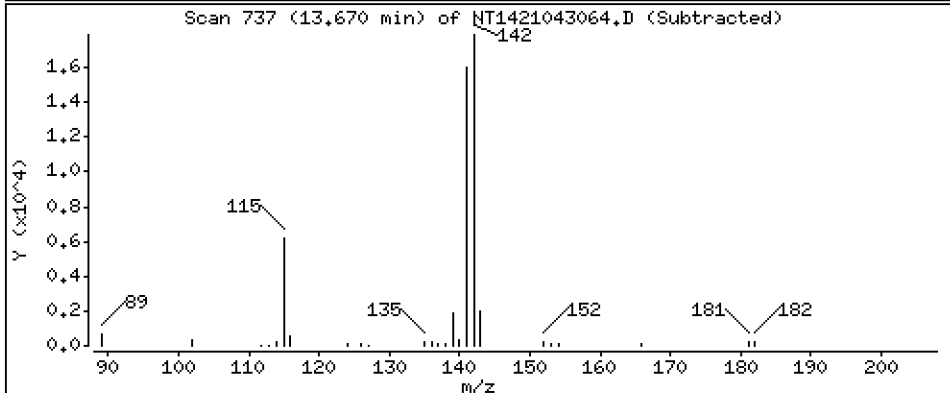
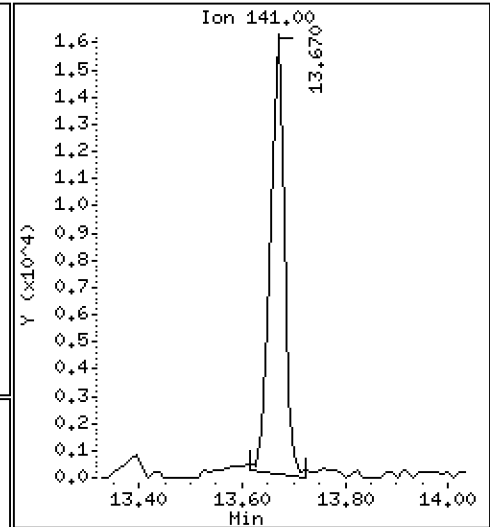
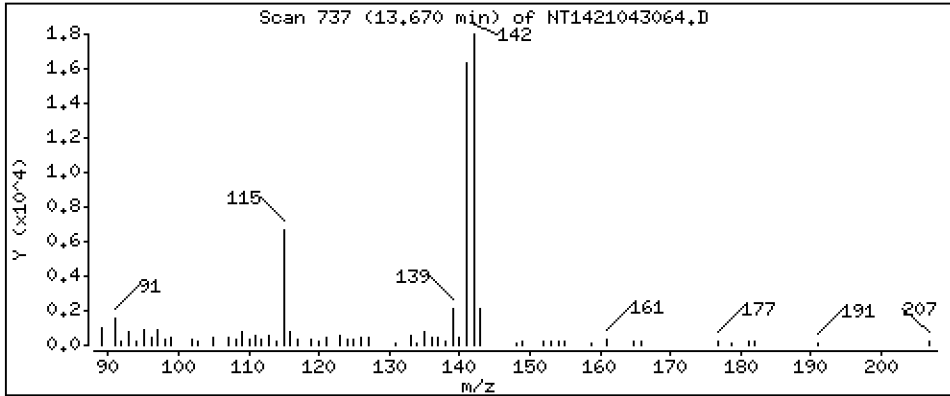
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 2-Methylnaphthalene

Concentration: 0,1914 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

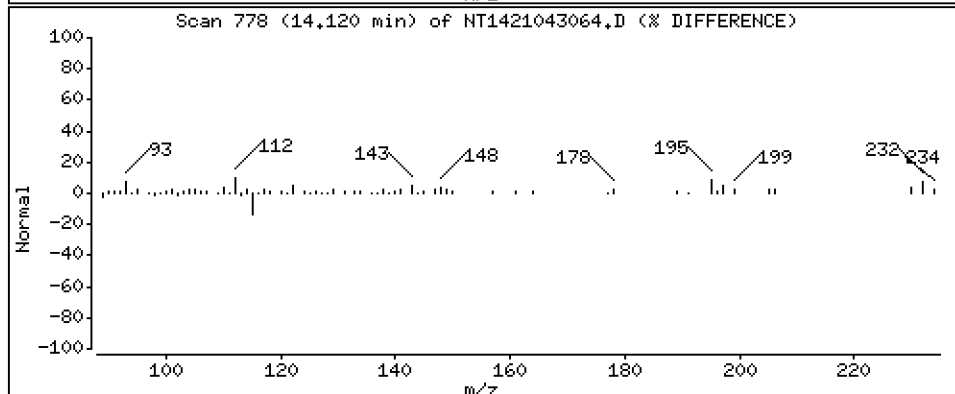
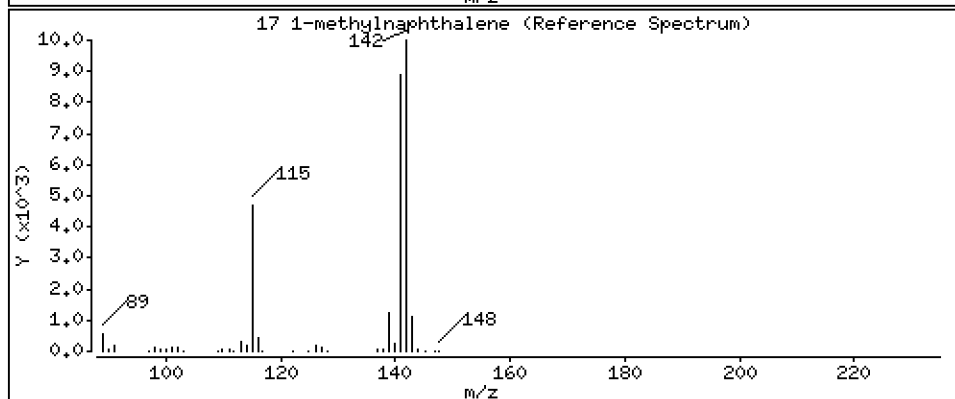
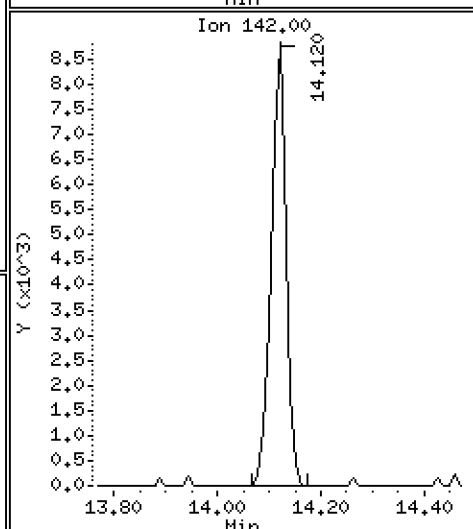
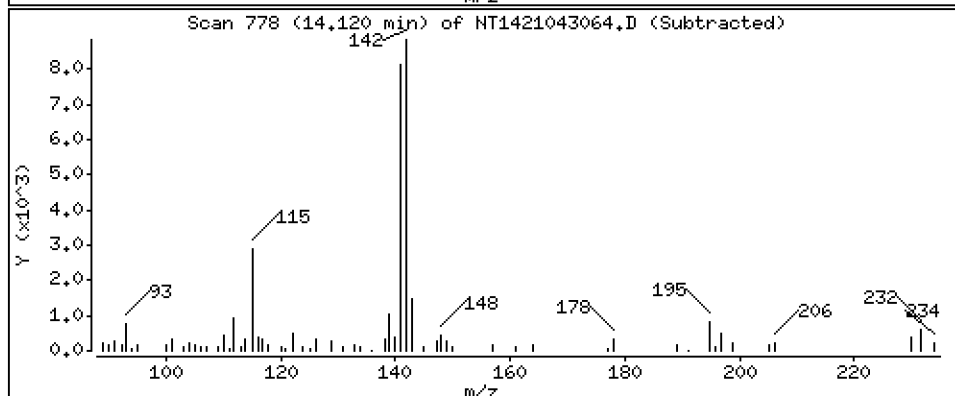
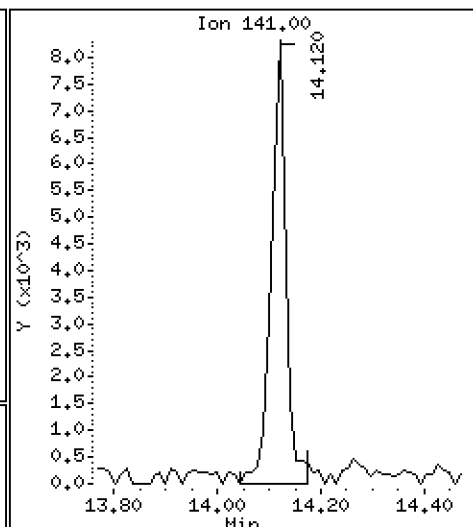
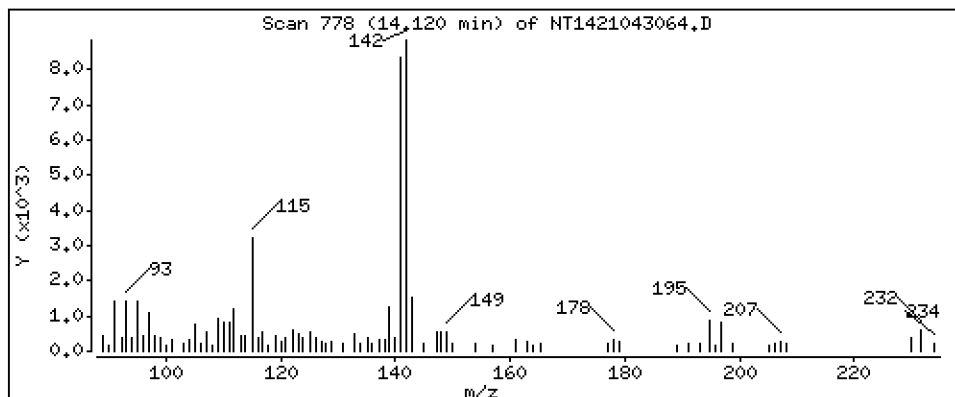
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 1-methylnaphthalene

Concentration: 0,1140 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

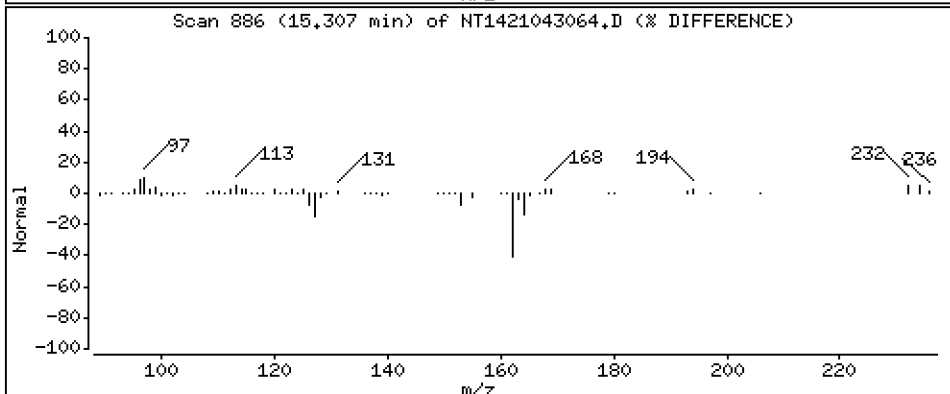
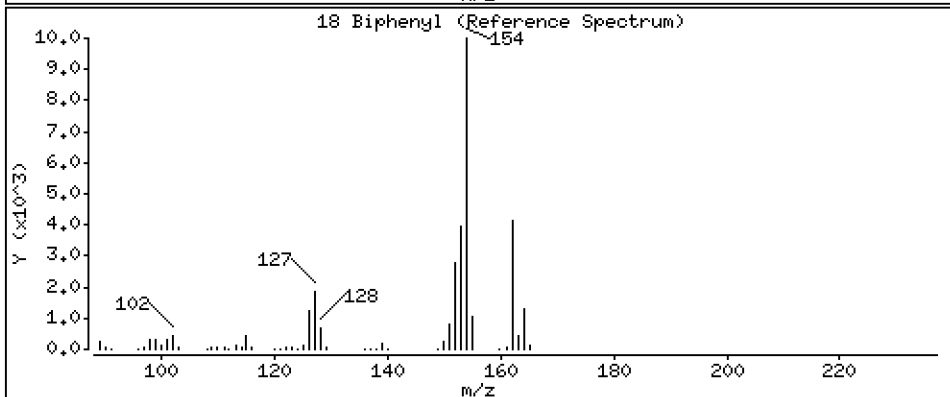
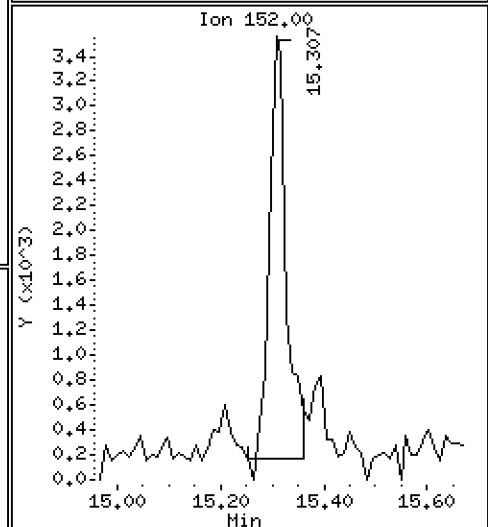
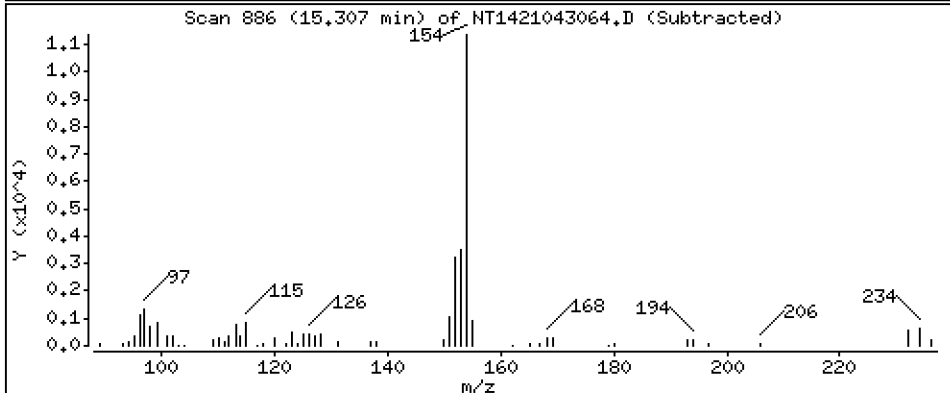
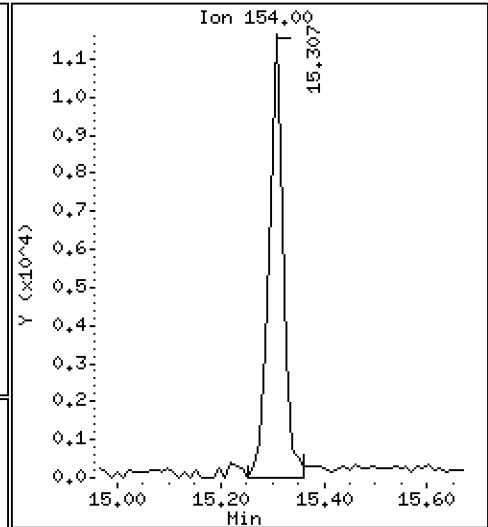
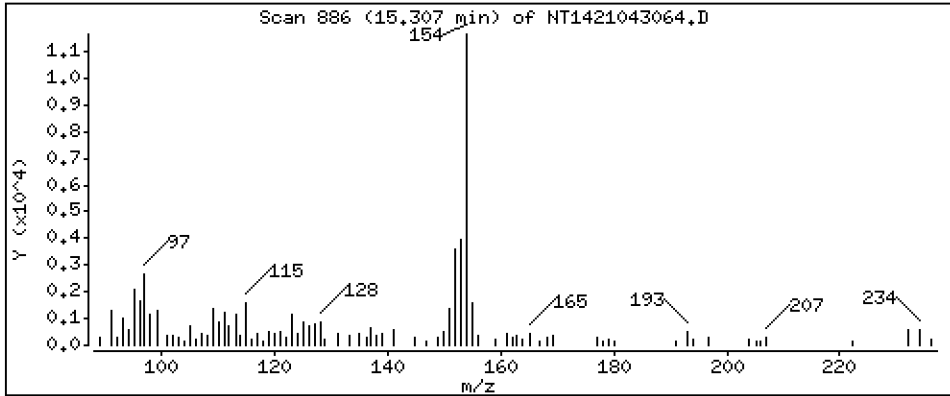
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

18 Biphenyl

Concentration: 0.1017 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

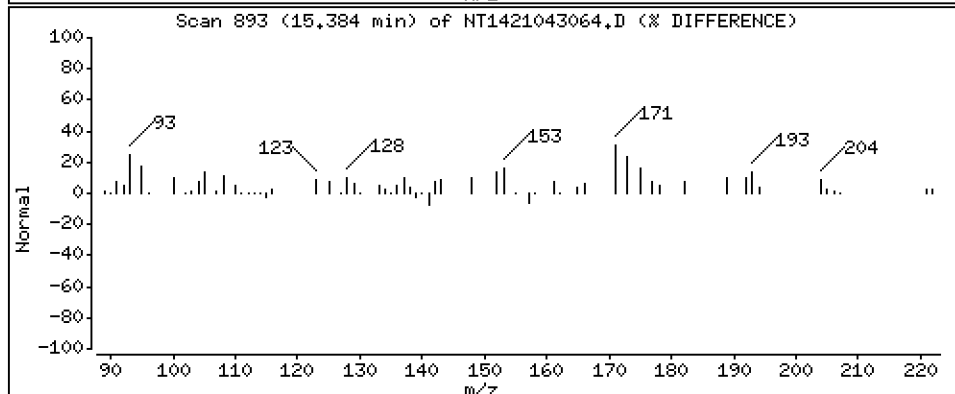
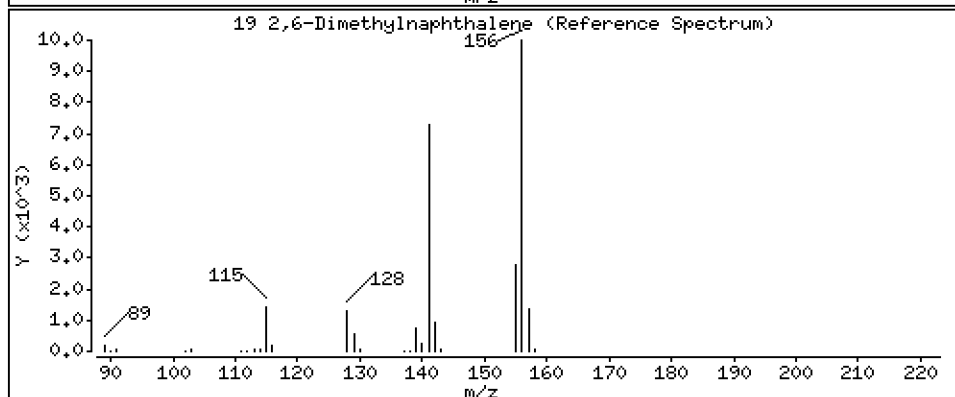
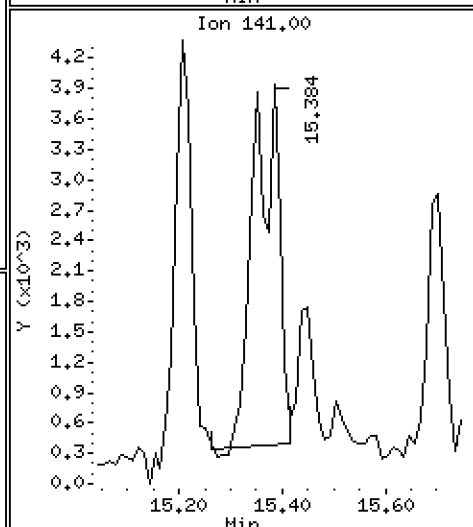
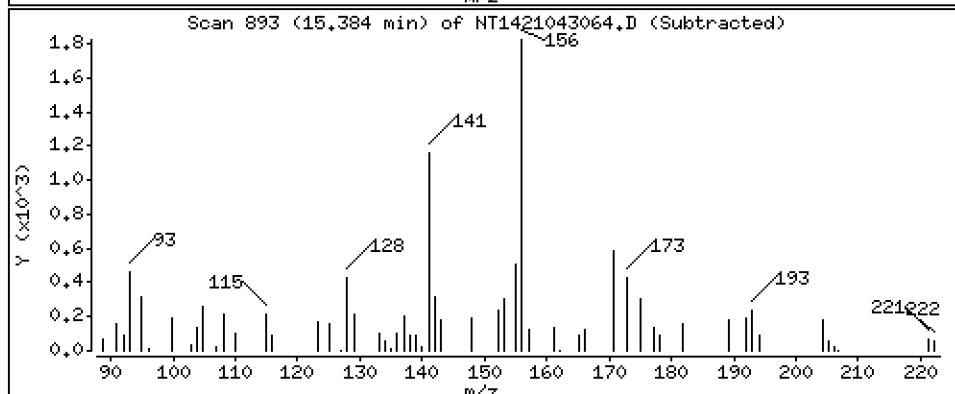
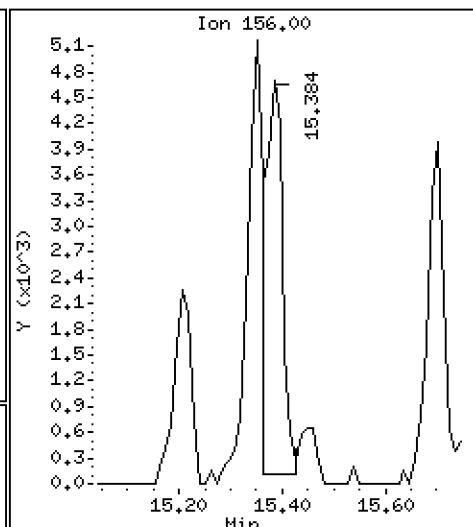
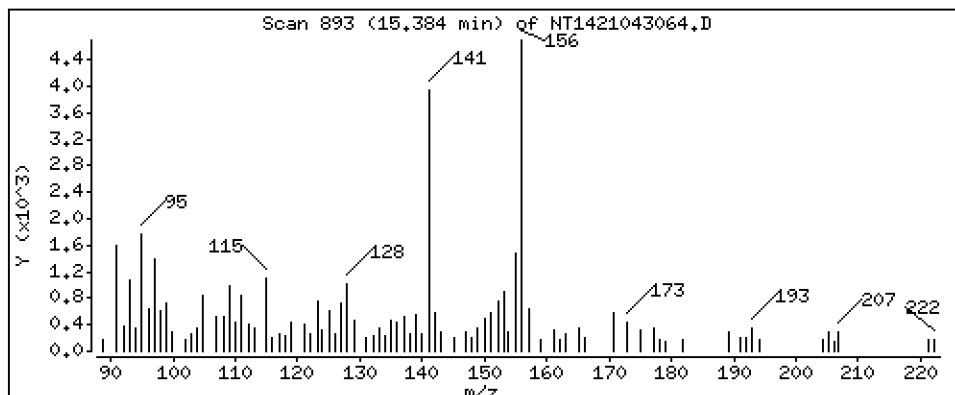
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 2,6-Dimethylnaphthalene

Concentration: 0,07162 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

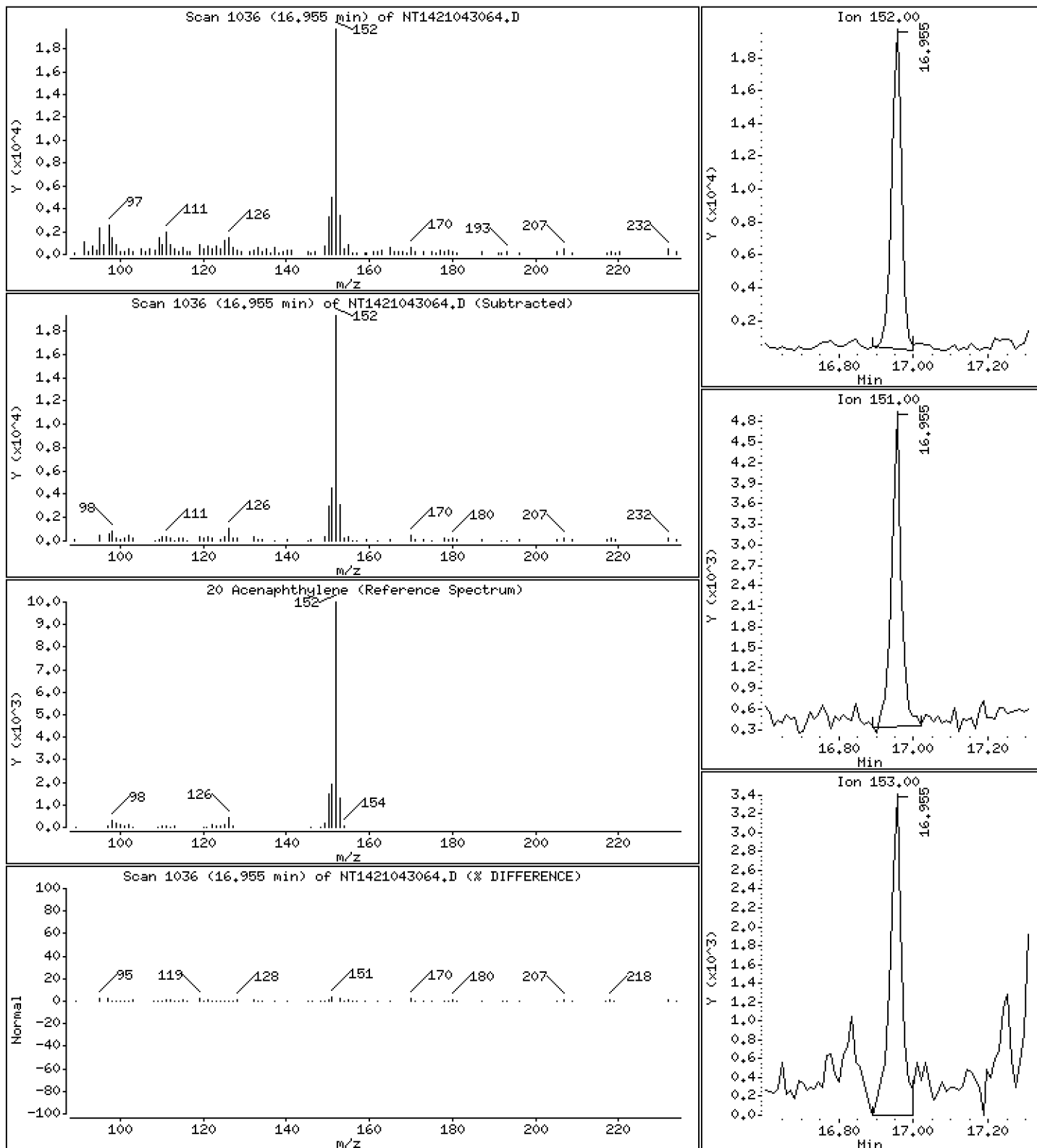
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

20 Acenaphthylene

Concentration: 0.1510 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

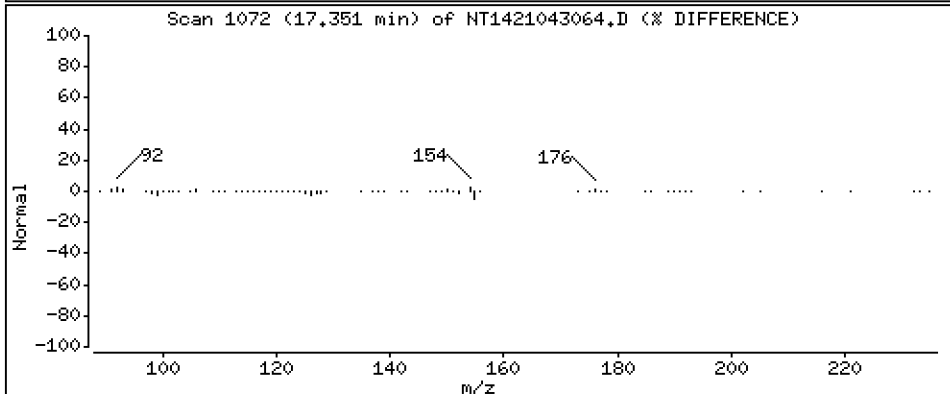
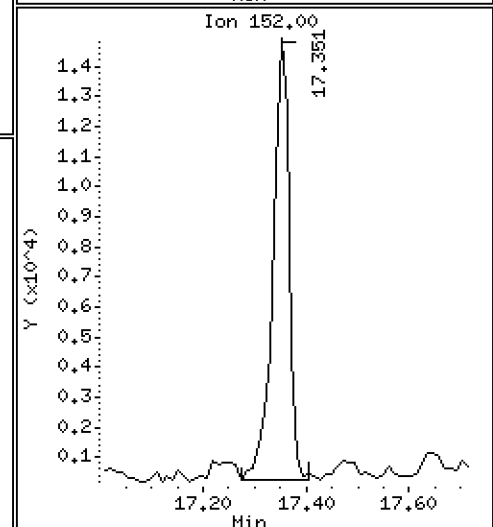
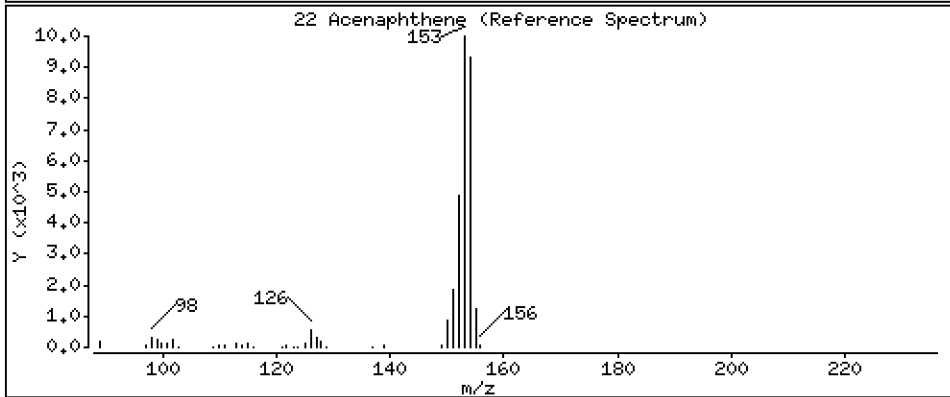
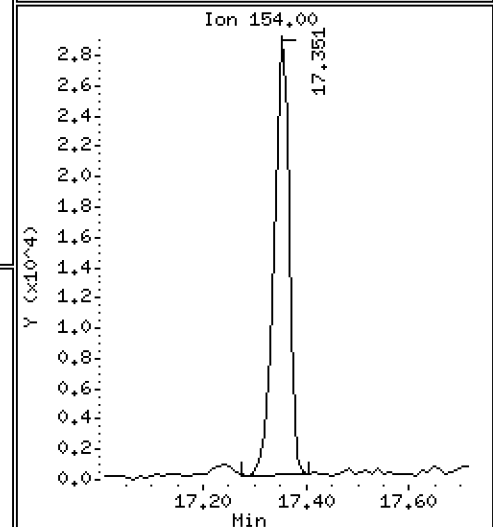
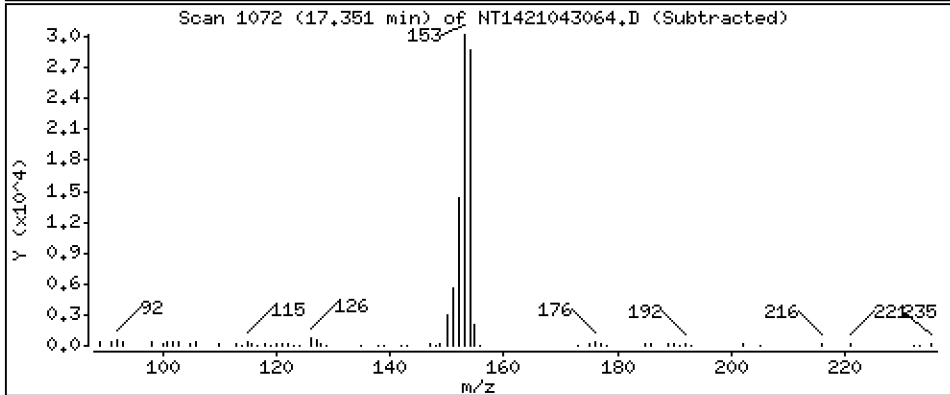
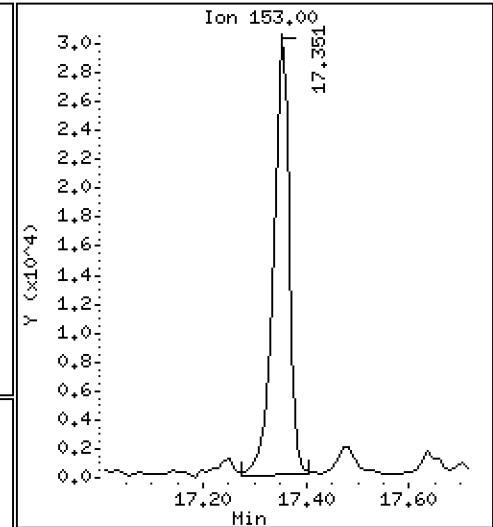
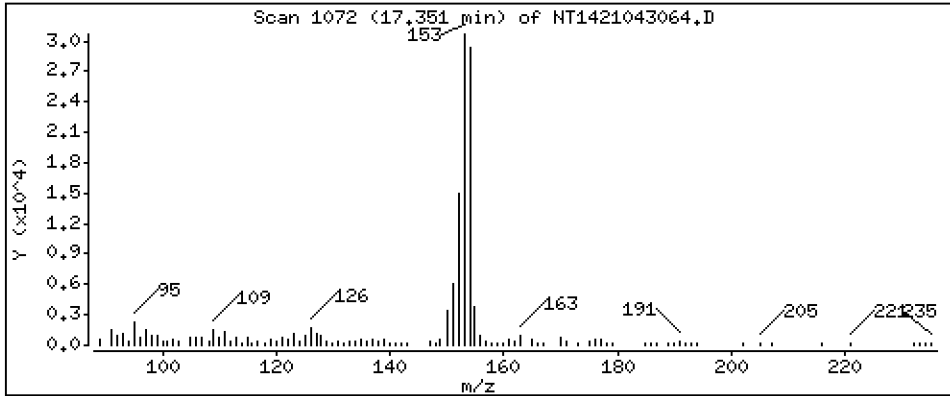
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Acenaphthene

Concentration: 0,4059 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

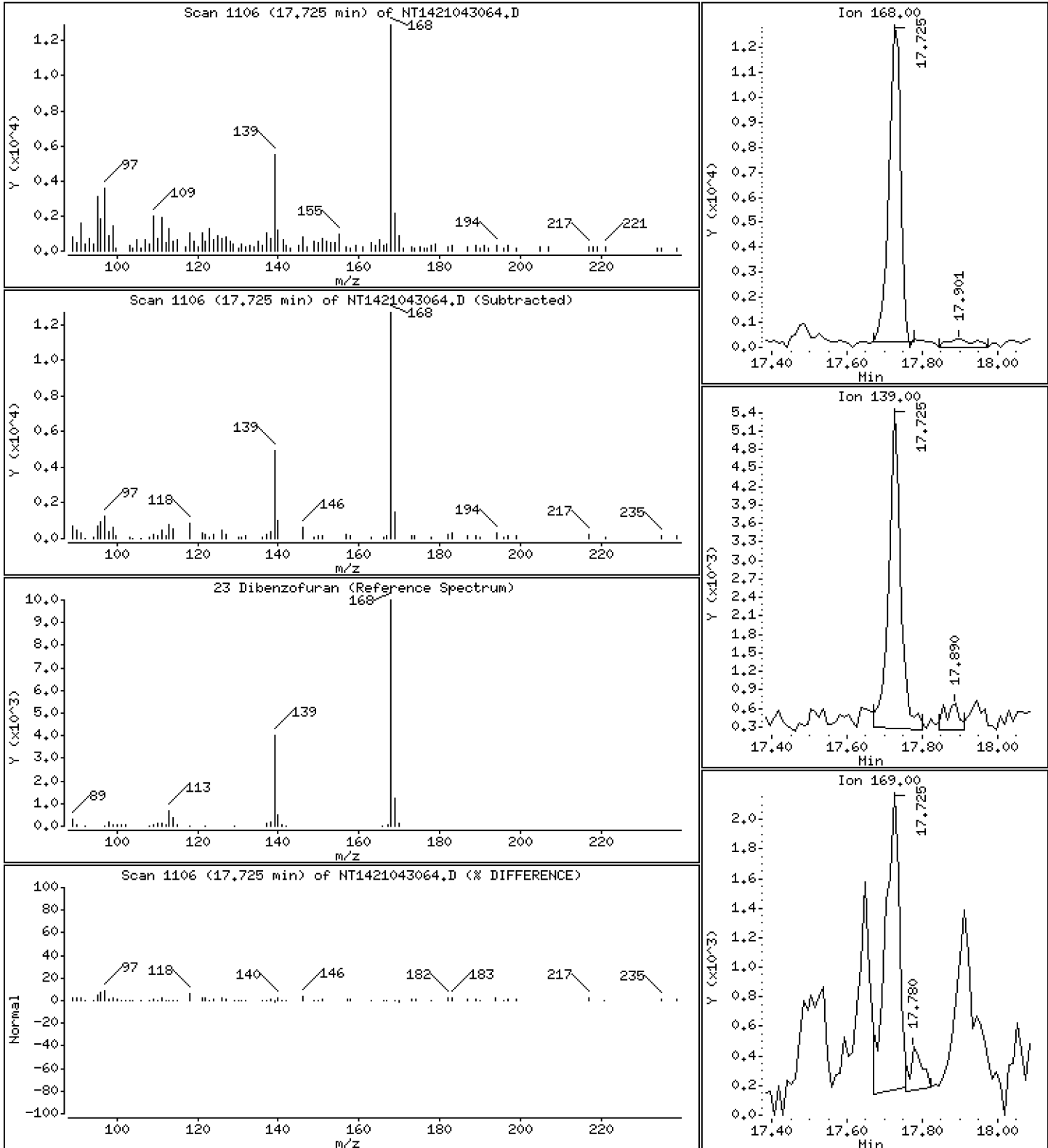
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 Dibenzofuran

Concentration: 0,1146 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

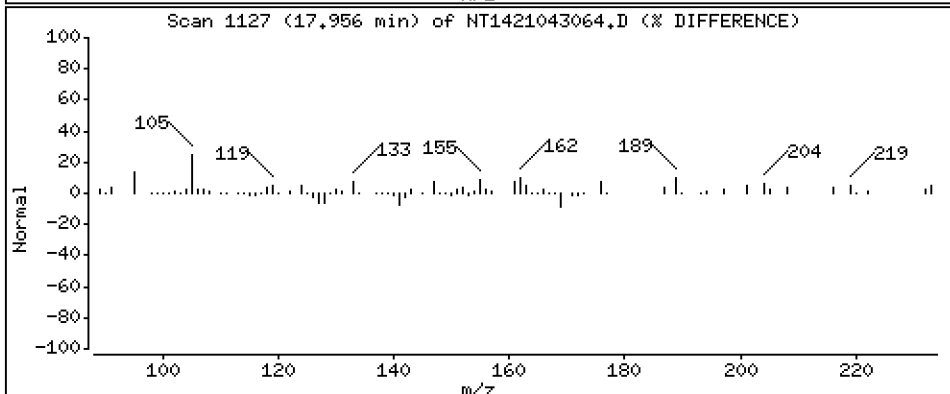
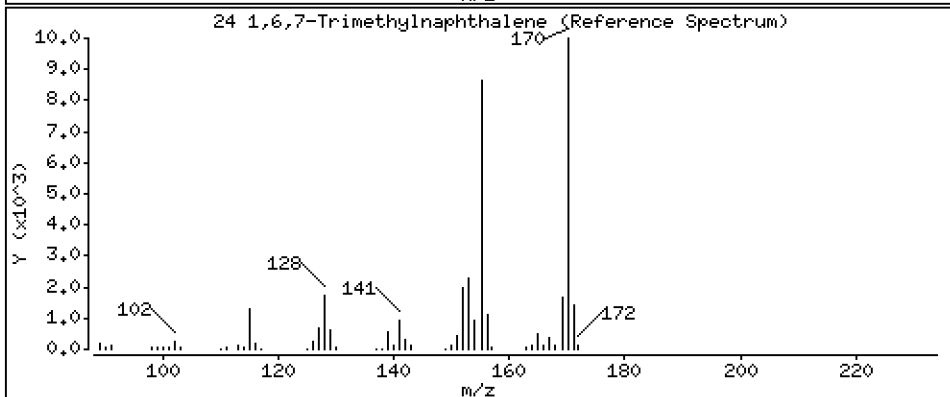
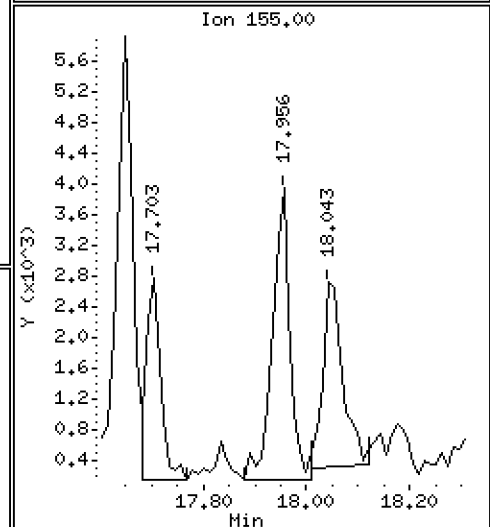
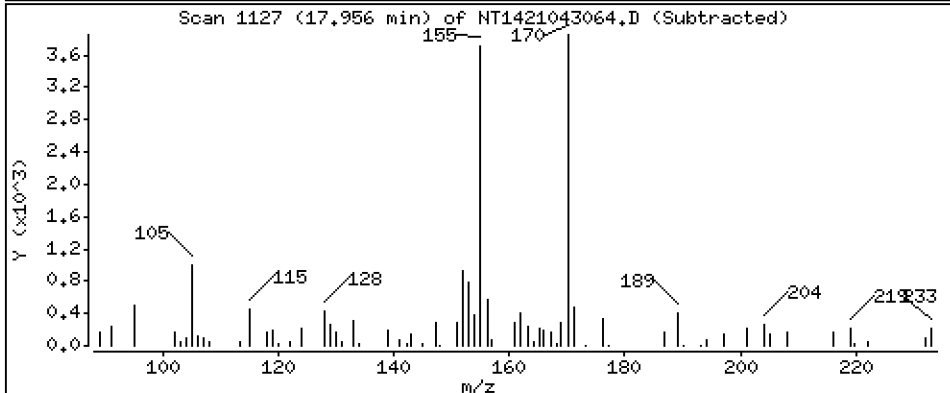
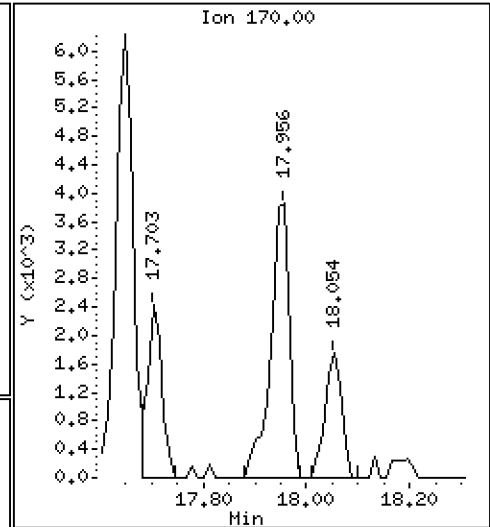
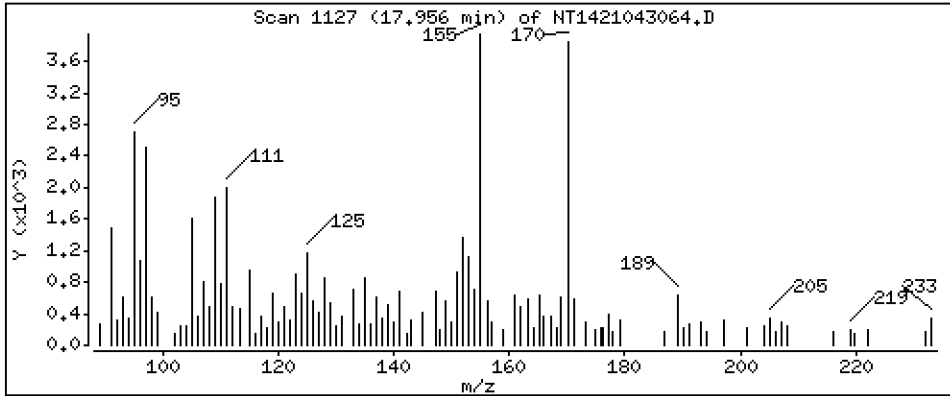
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

24 1,6,7-Trimethylnaphthalene

Concentration: 0.07160 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

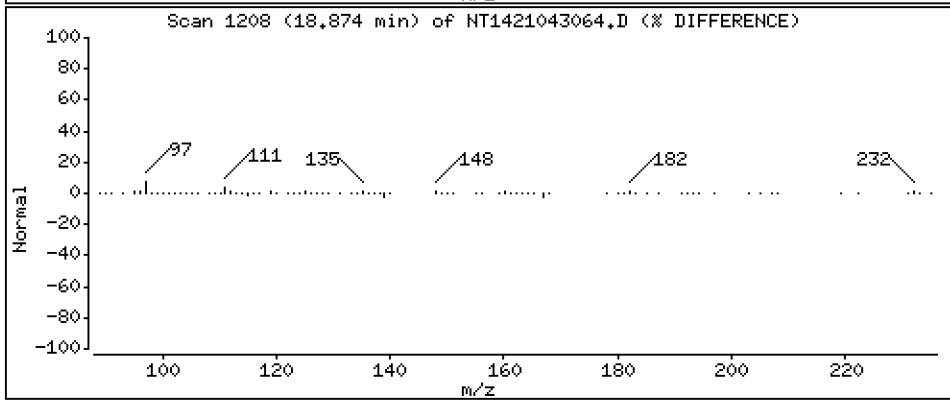
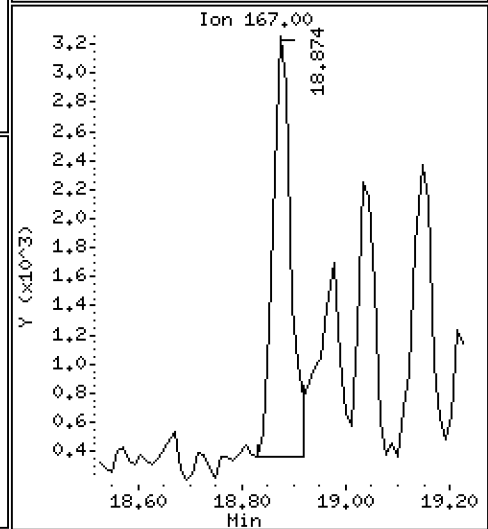
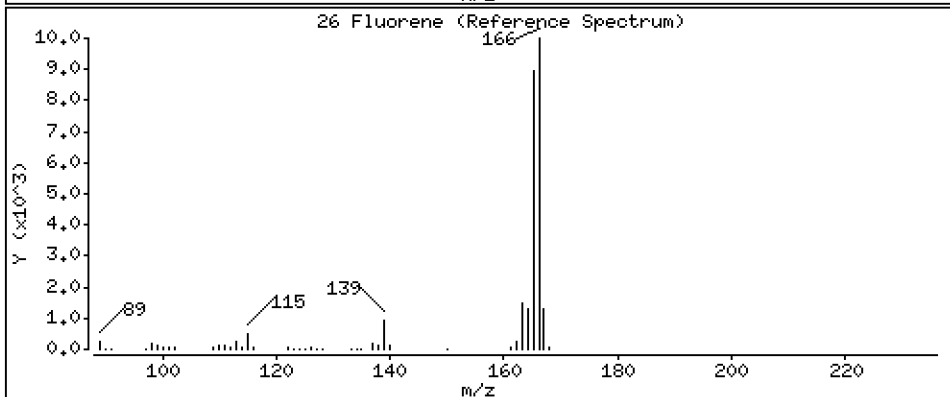
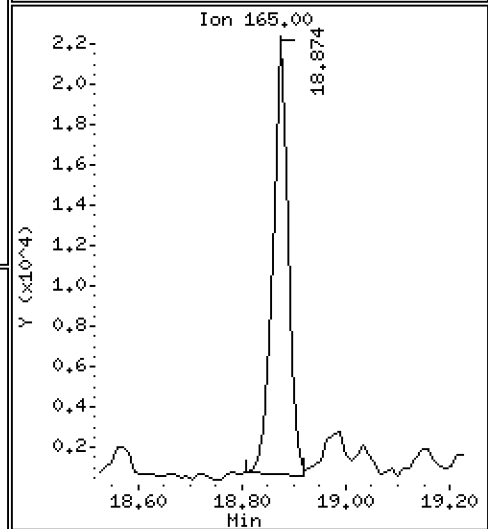
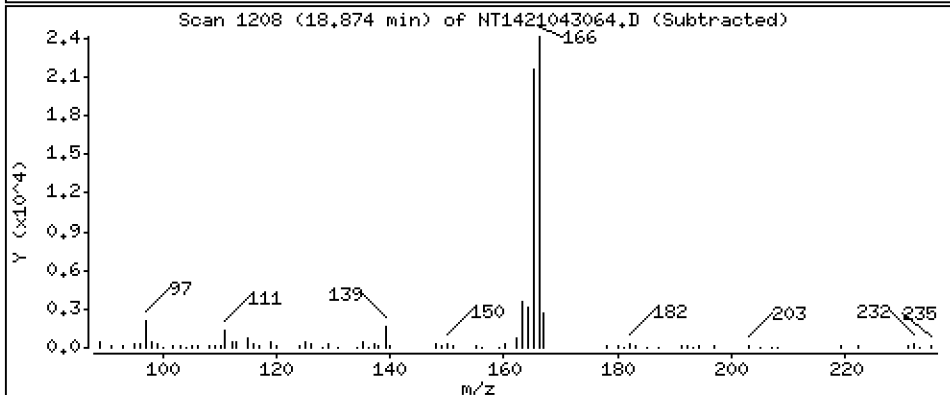
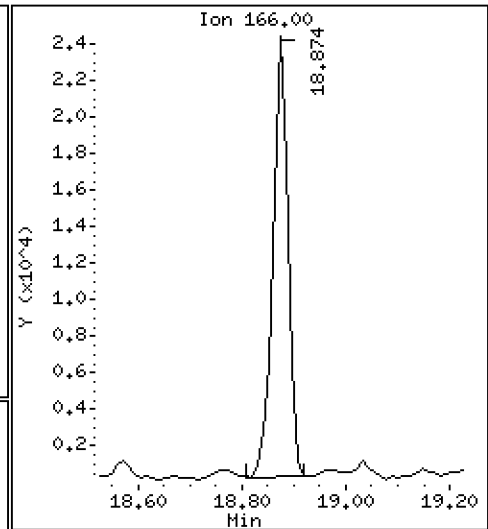
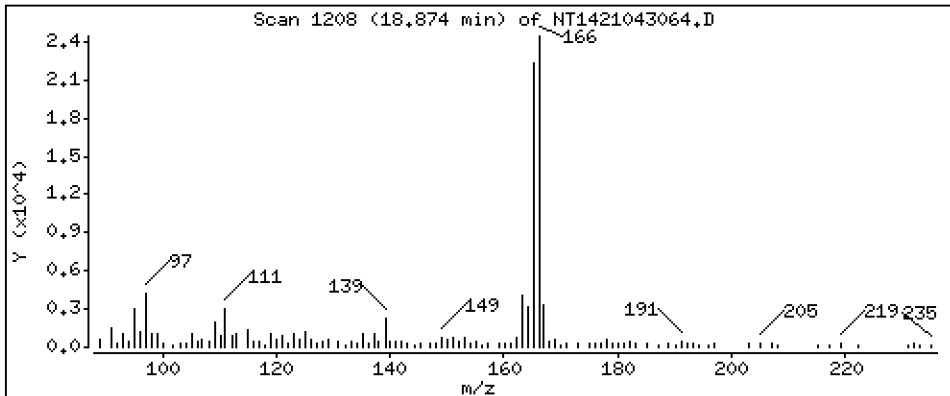
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

26 Fluorene

Concentration: 0.2716 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

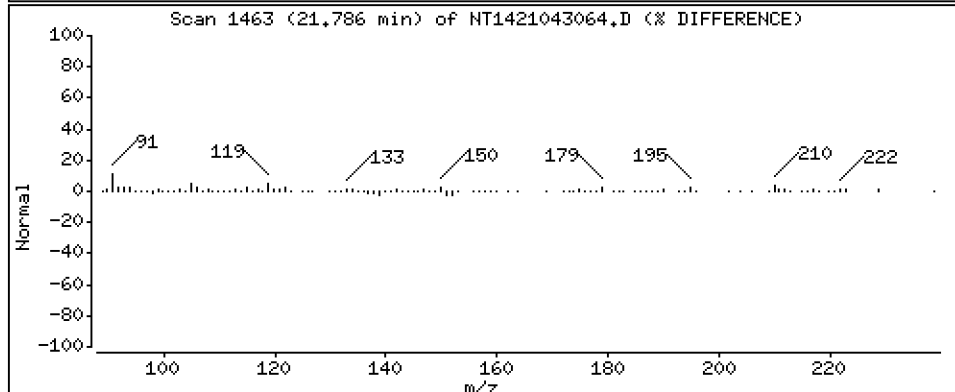
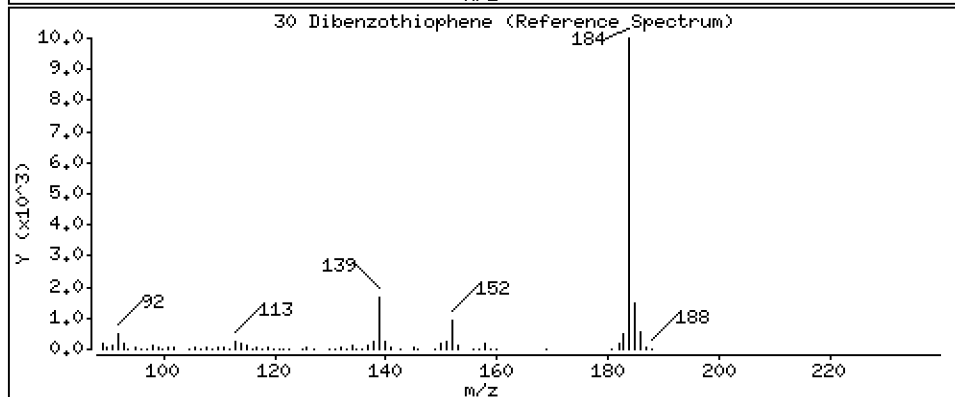
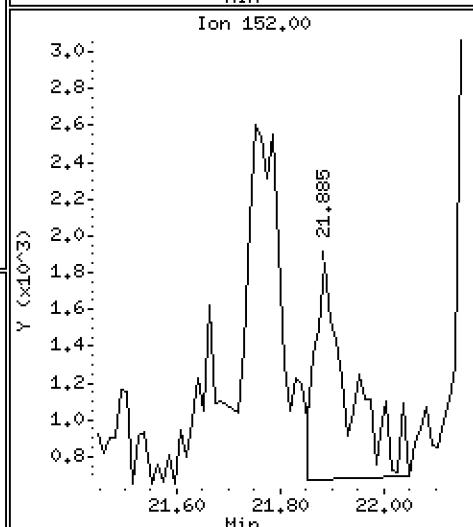
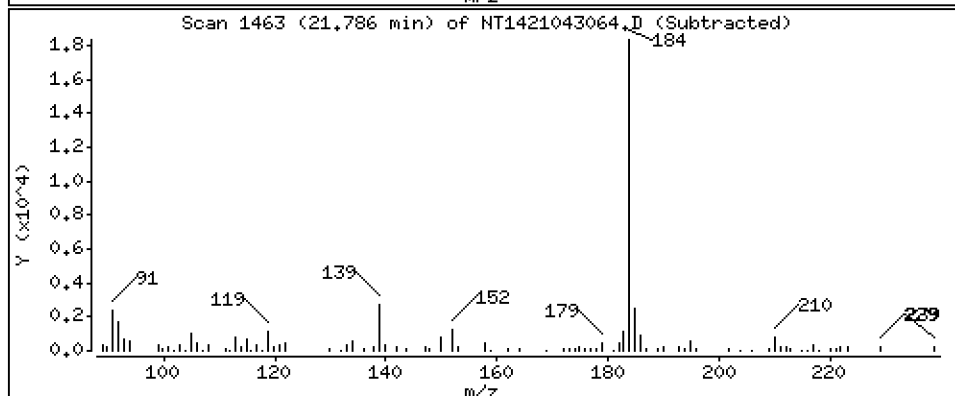
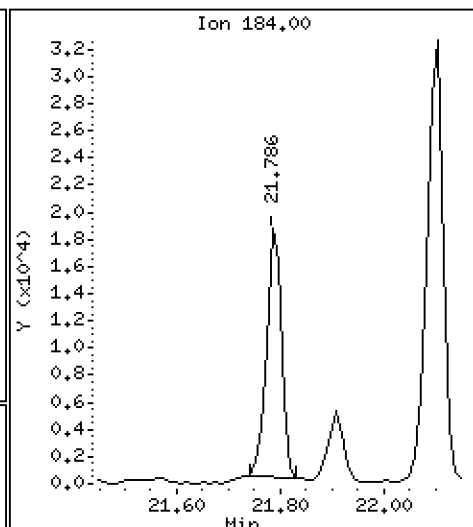
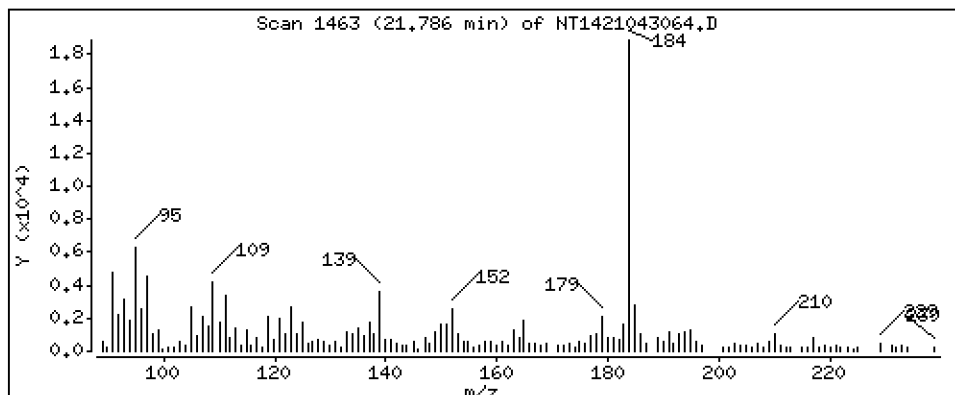
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

30 Dibenzothiophene

Concentration: 0.1566 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

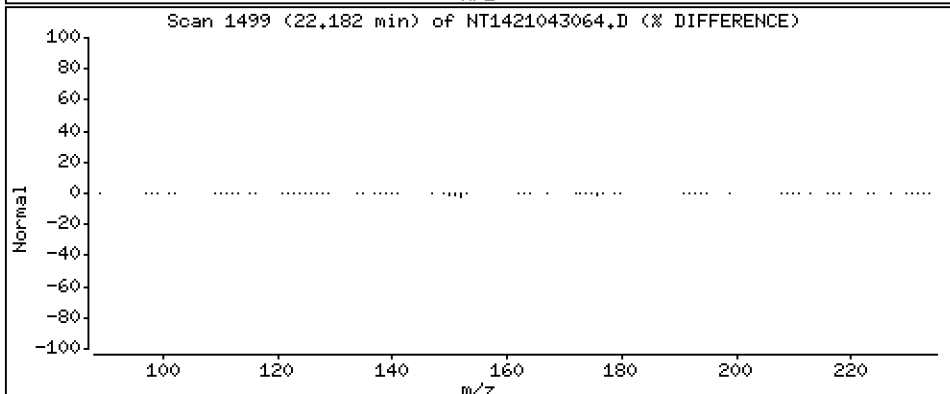
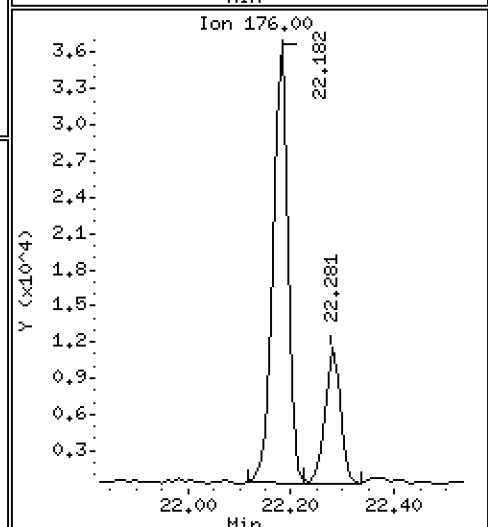
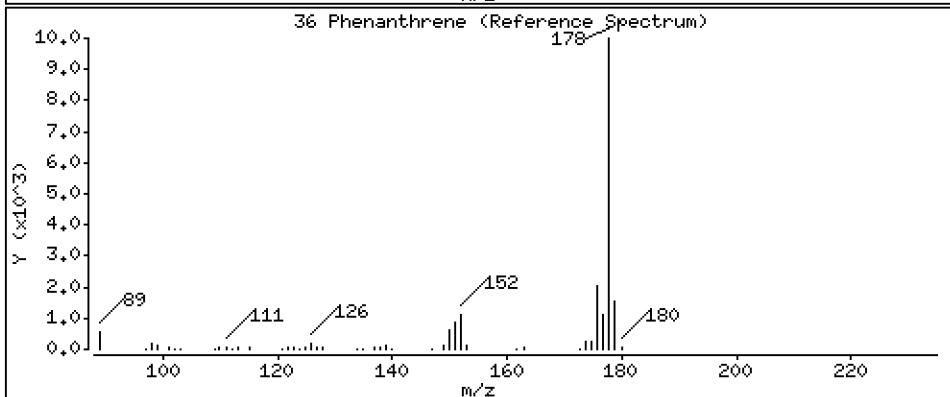
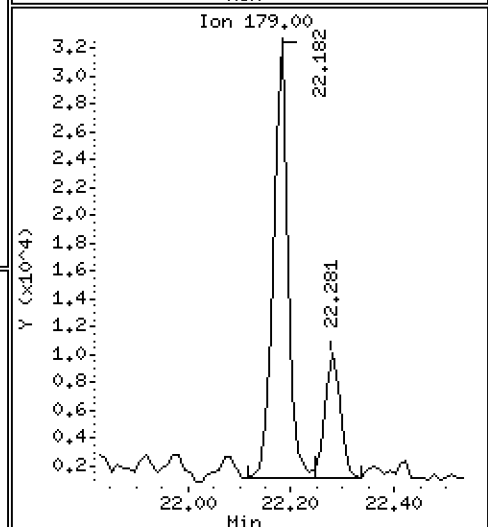
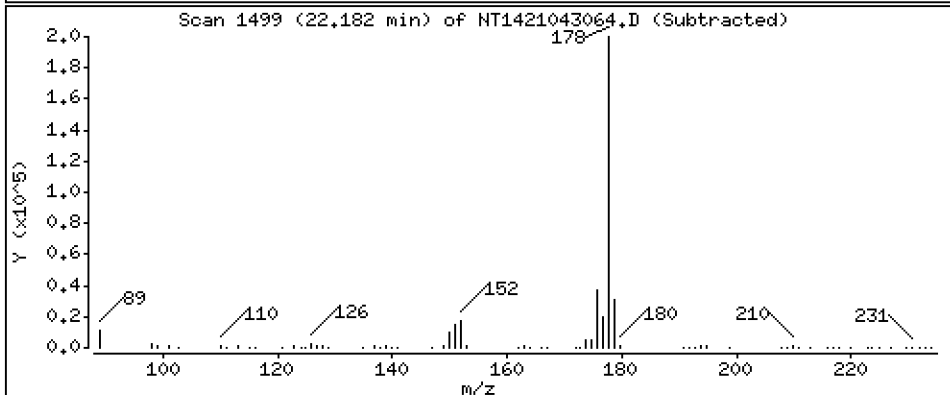
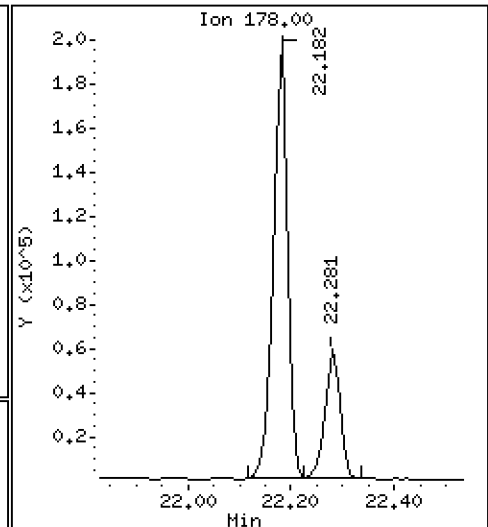
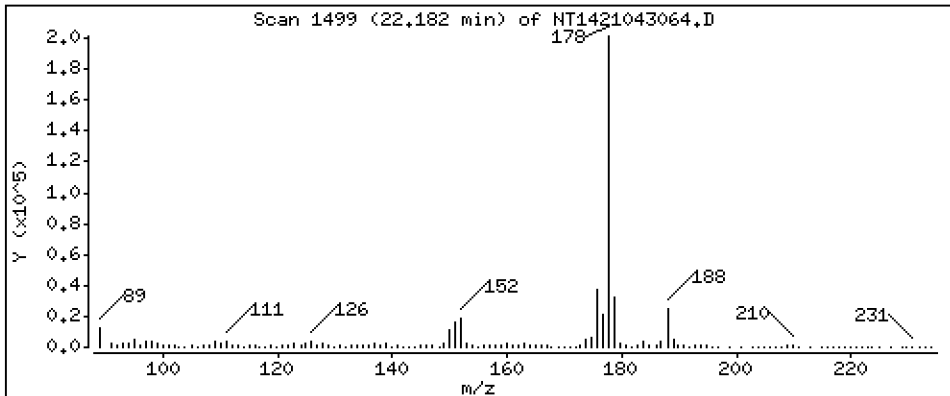
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

36 Phenanthrene

Concentration: 1.368 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

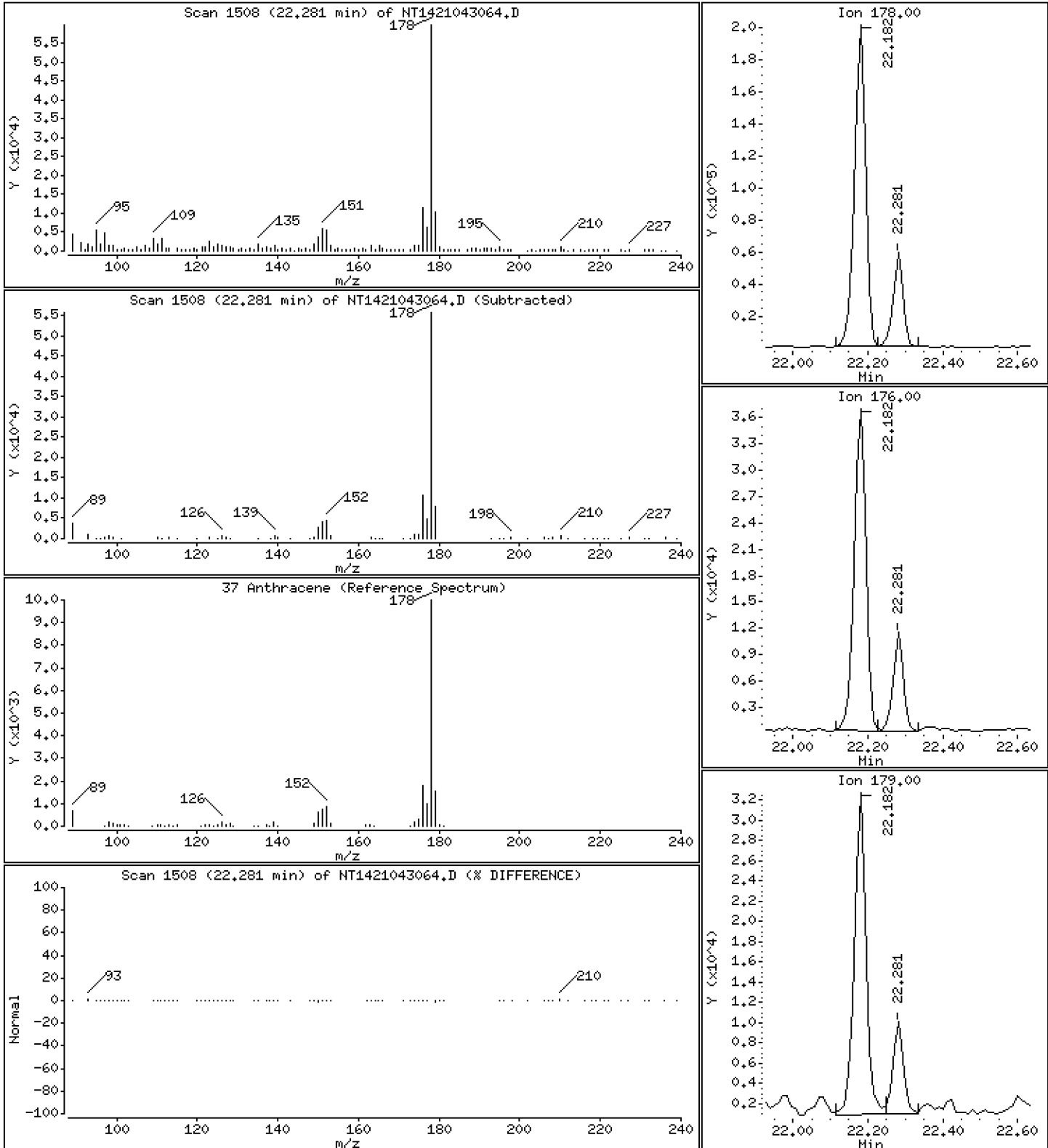
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

37 Anthracene

Concentration: 0.4193 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

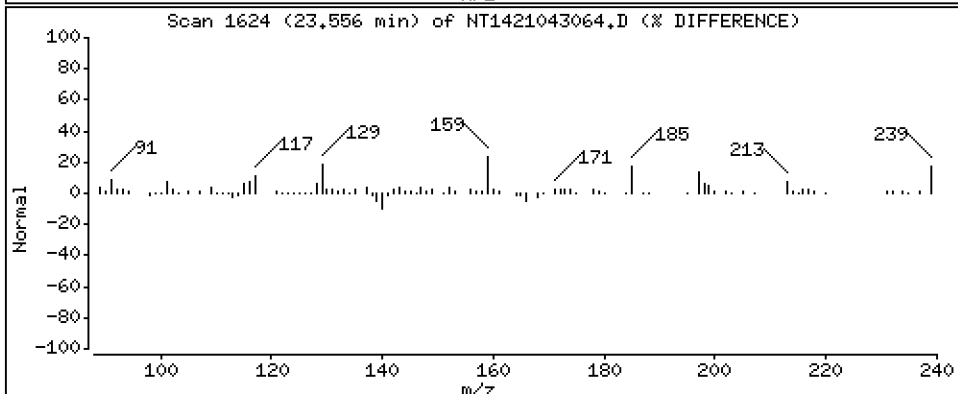
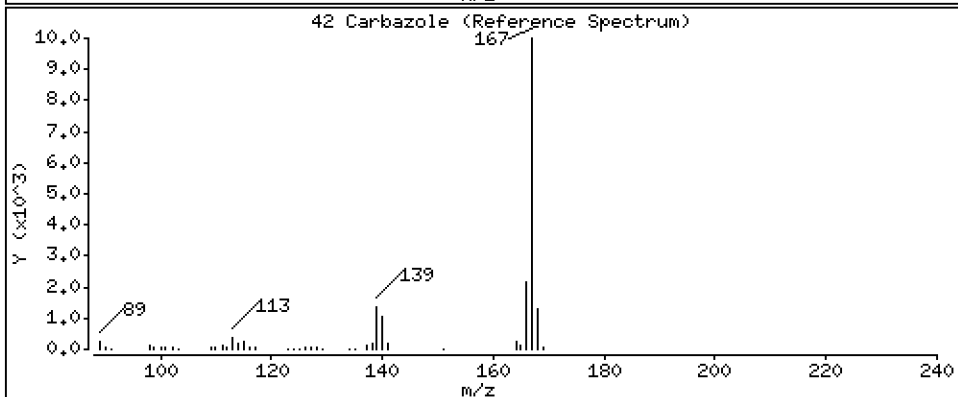
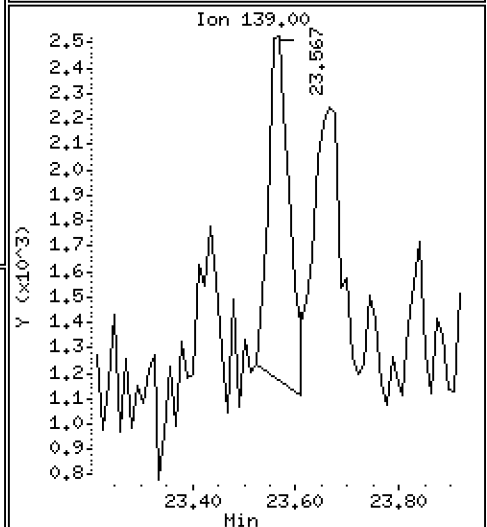
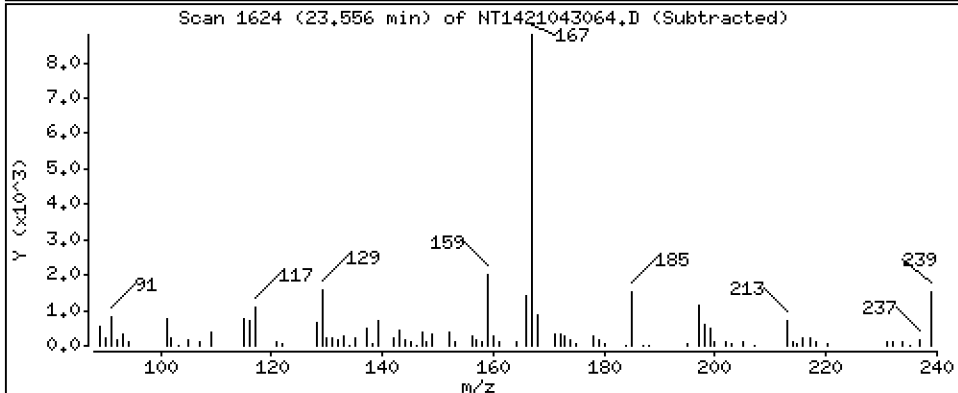
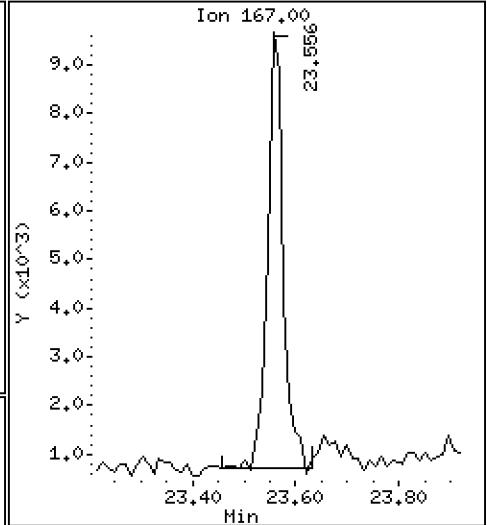
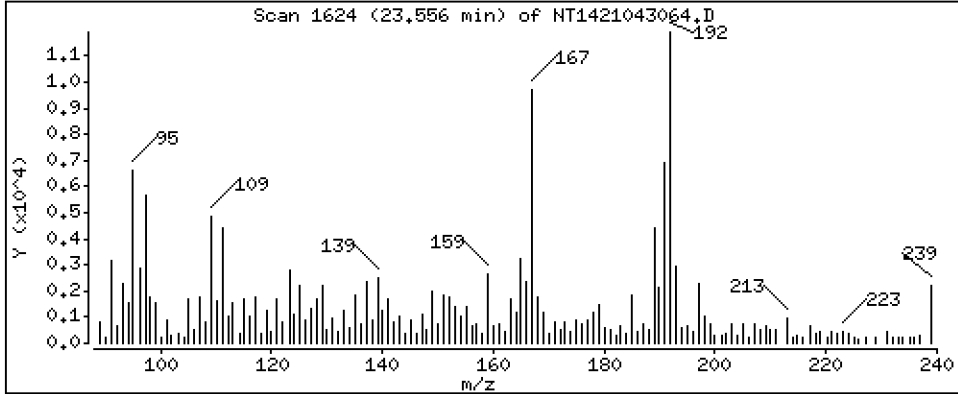
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

42 Carbazole

Concentration: 0,08863 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

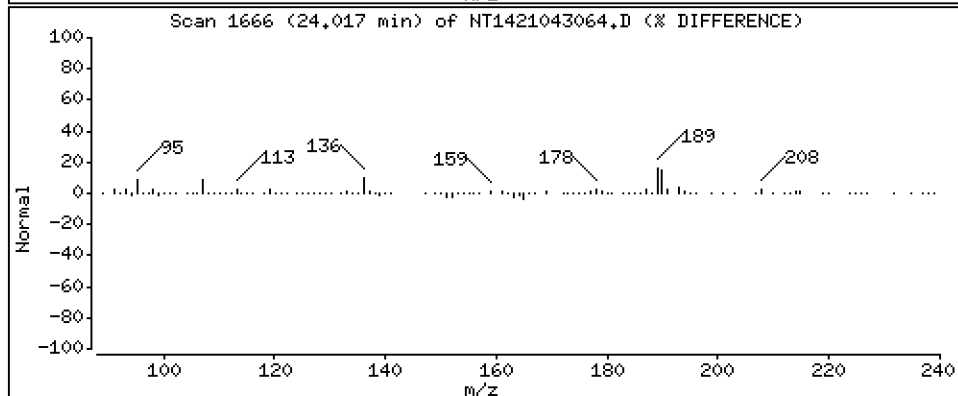
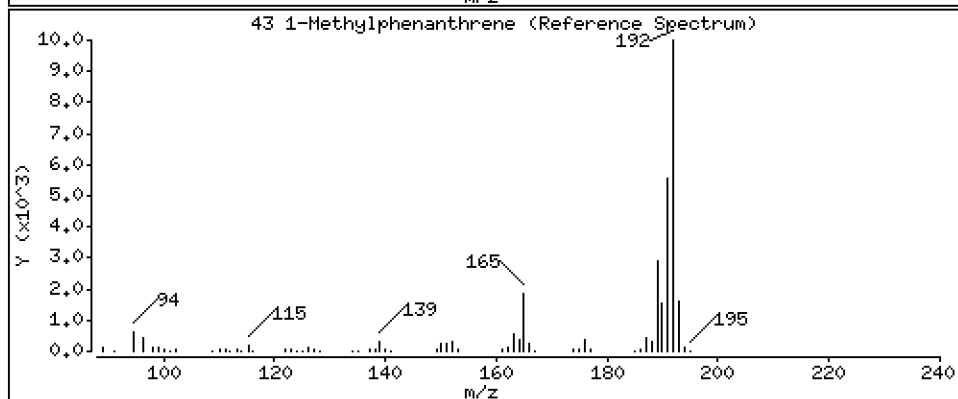
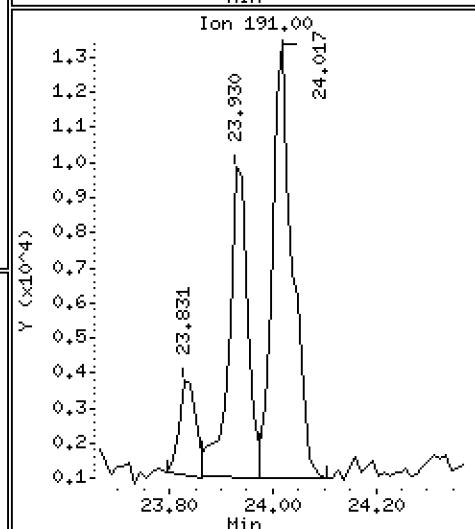
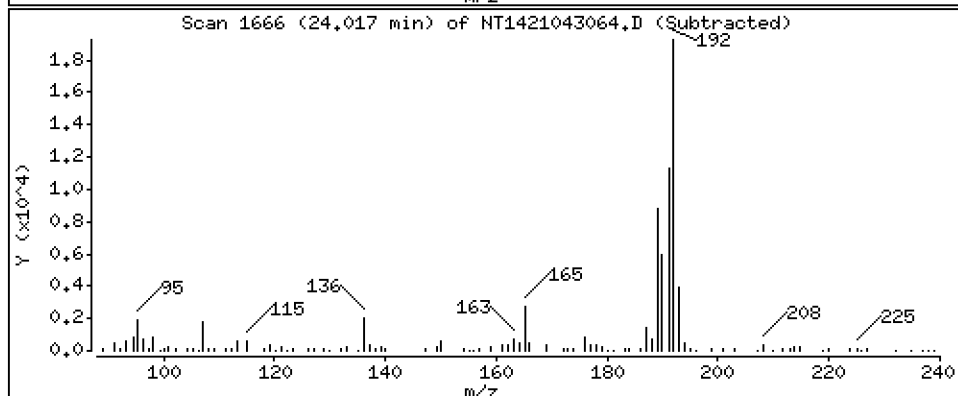
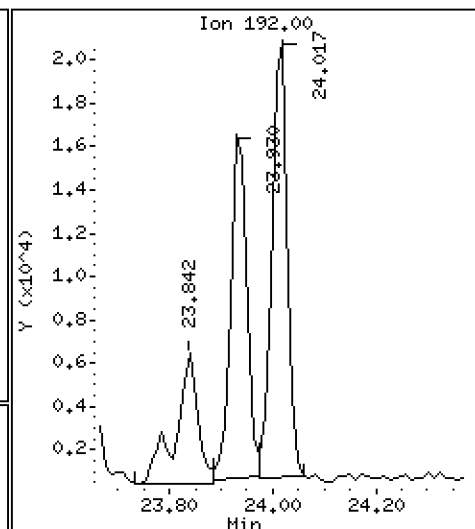
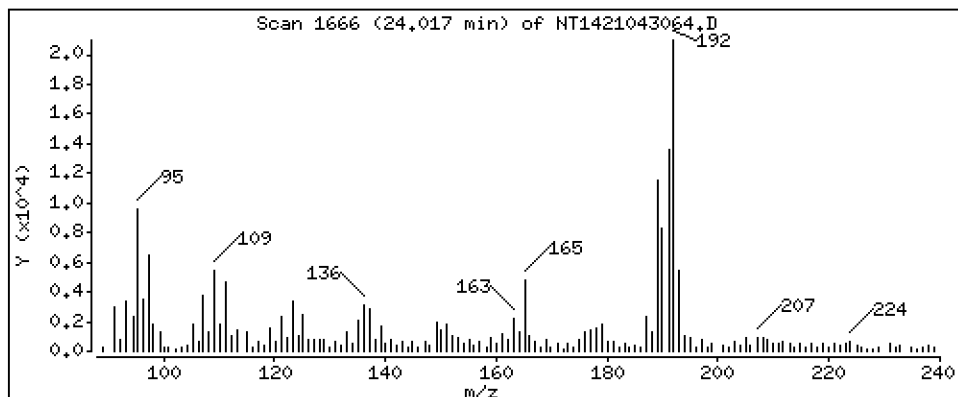
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

43 1-Methylphenanthrene

Concentration: 0.2477 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

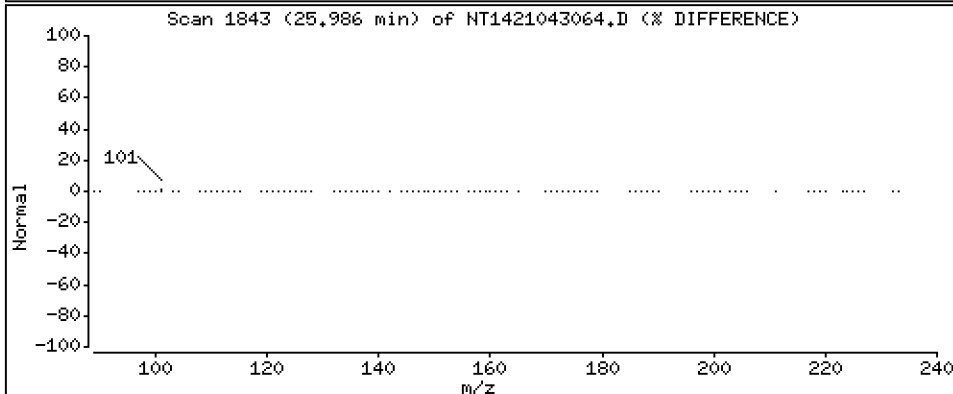
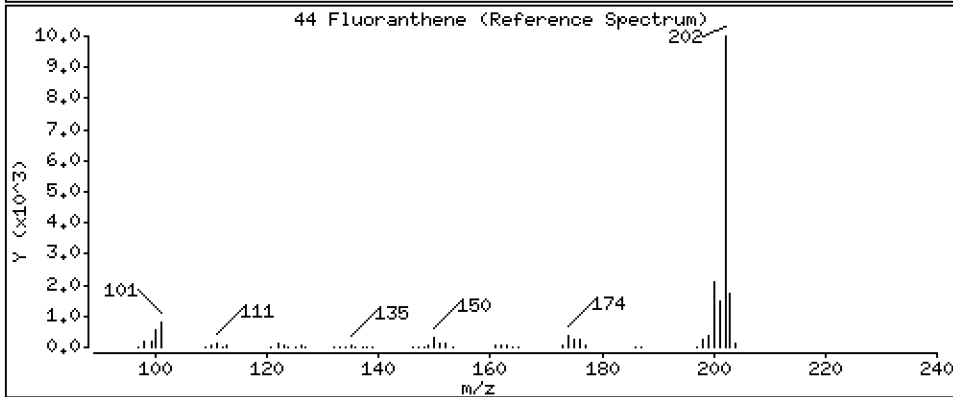
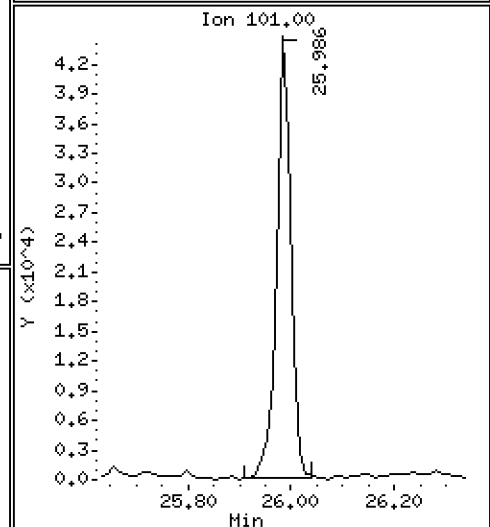
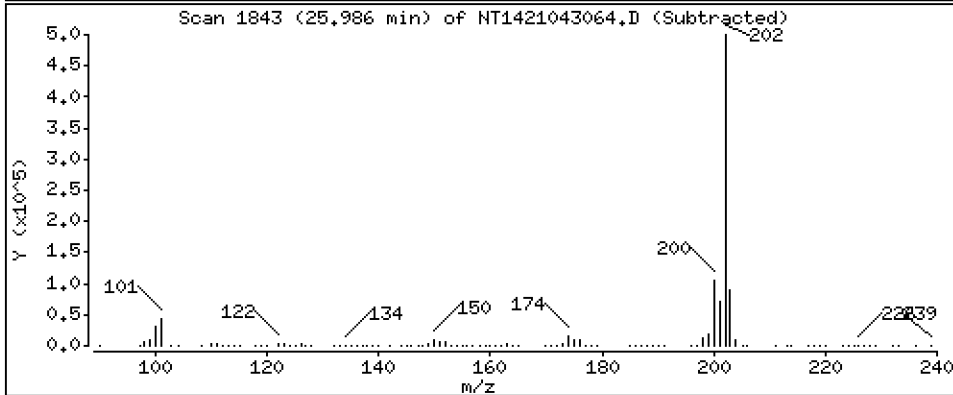
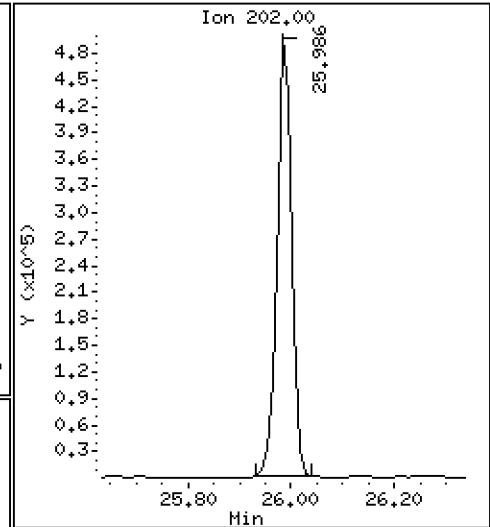
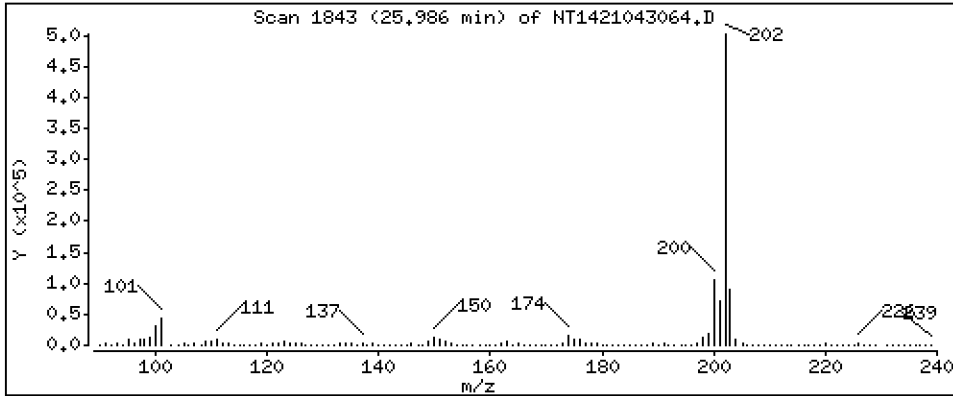
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

44 Fluoranthene

Concentration: 3,939 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

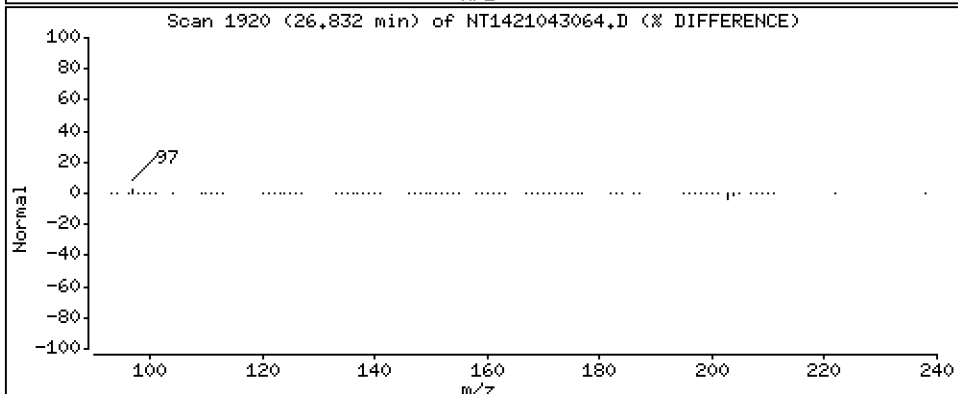
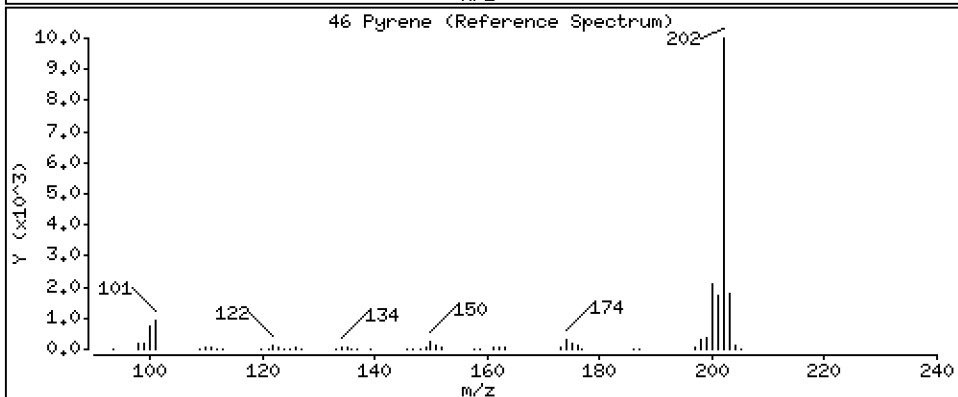
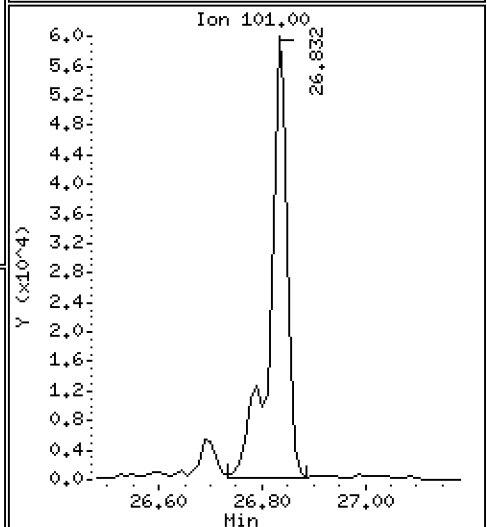
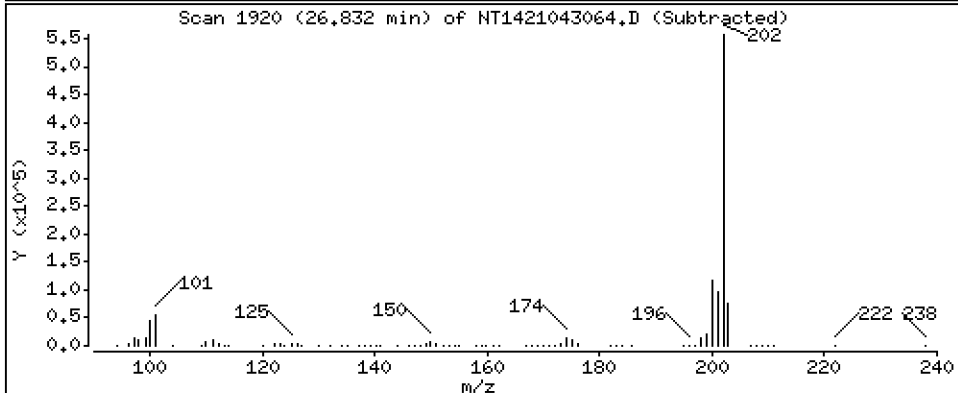
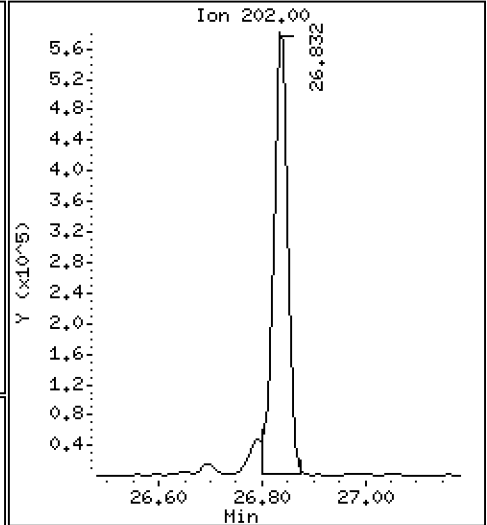
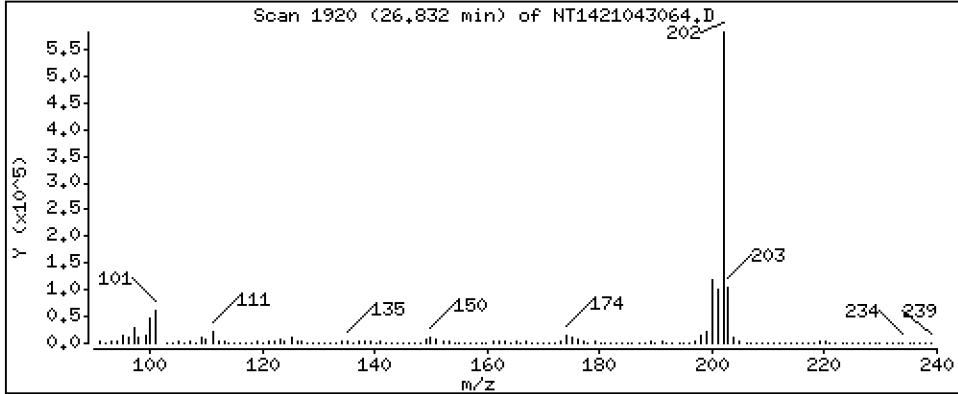
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

46 Pyrene

Concentration: 4,436 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

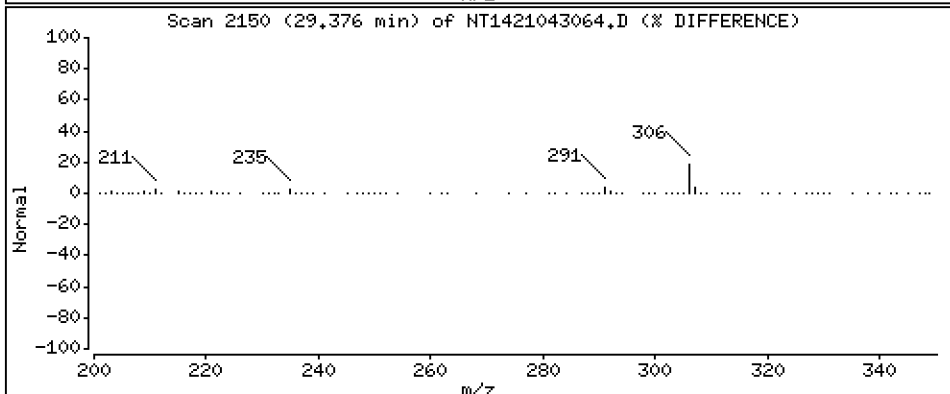
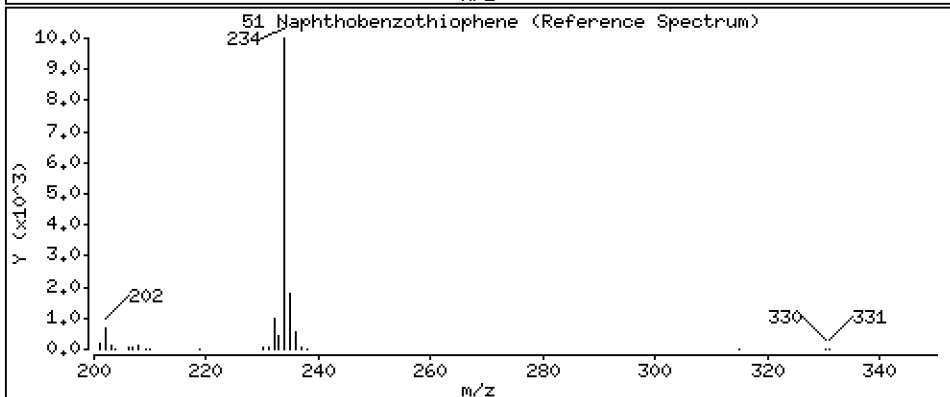
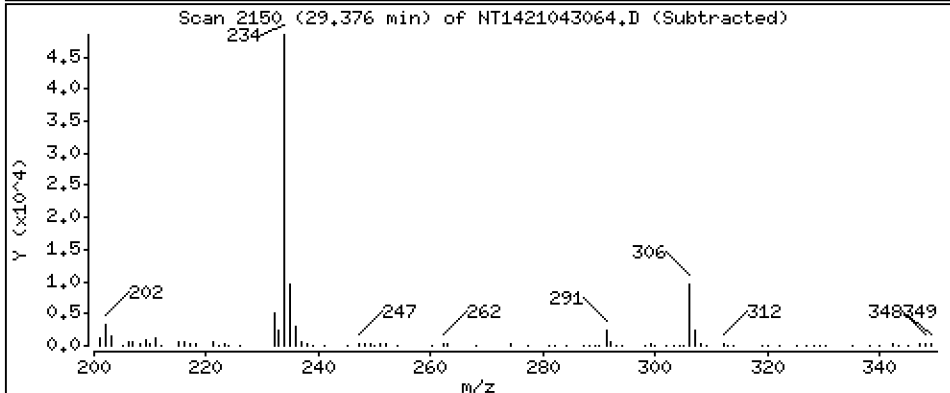
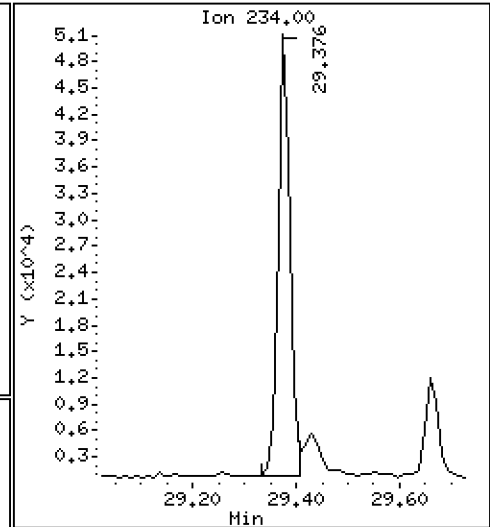
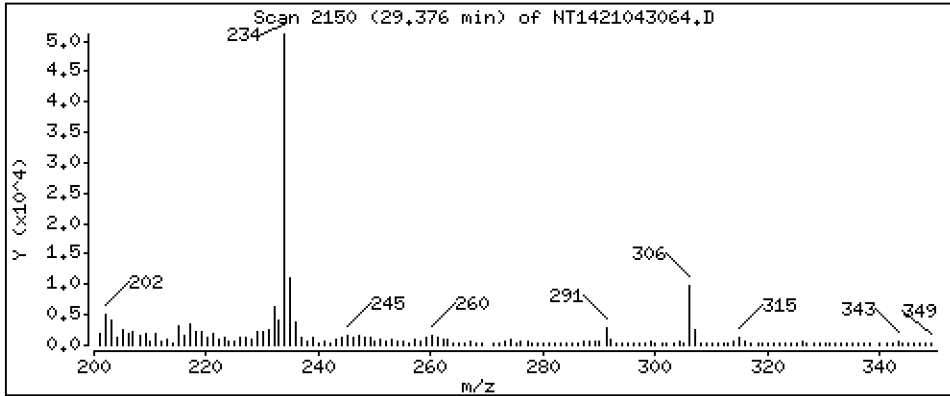
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

51 Naphthobenzothiophene

Concentration: 0,3251 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

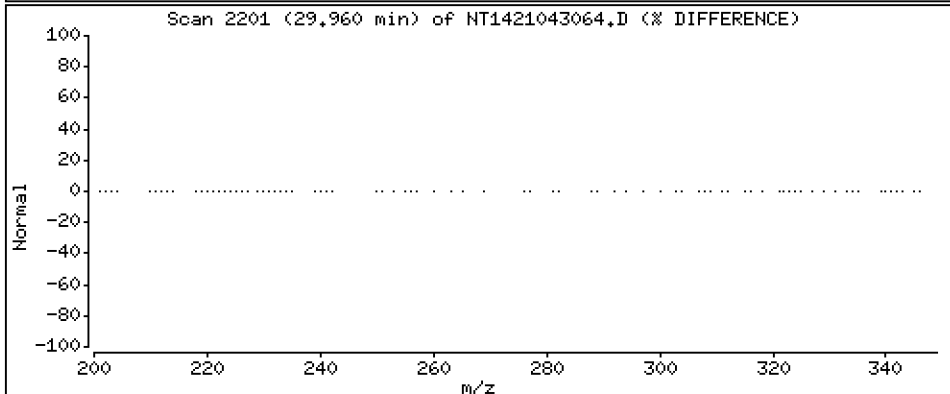
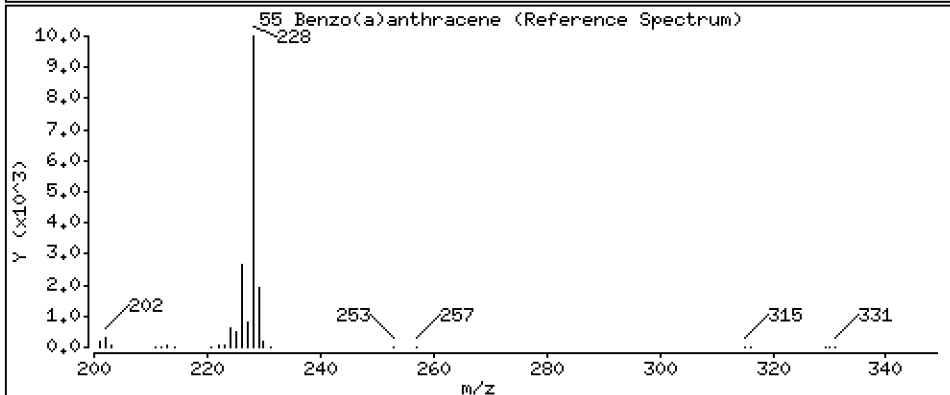
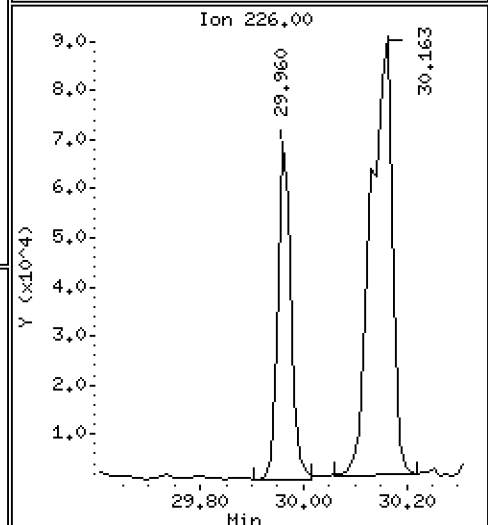
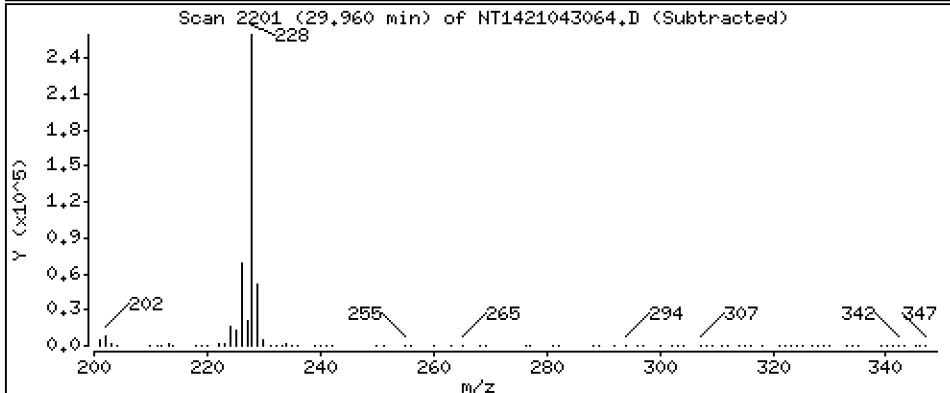
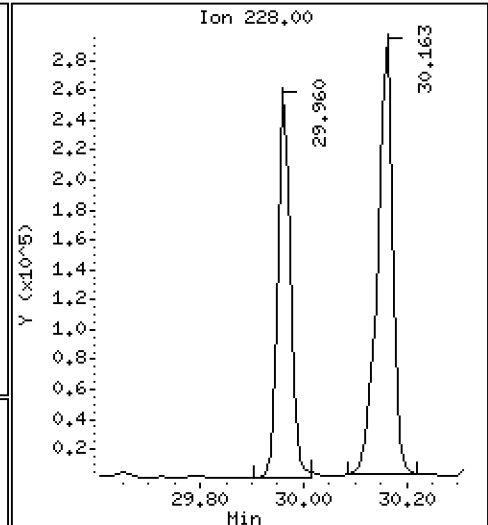
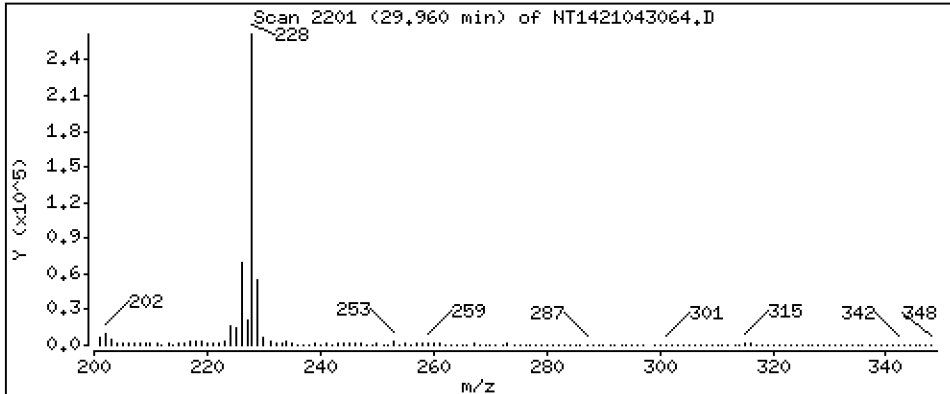
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

55 Benzo(a)anthracene

Concentration: 1,632 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

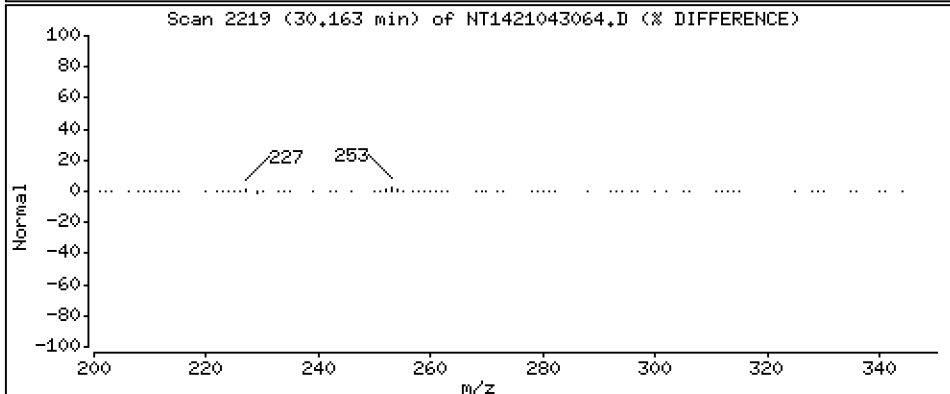
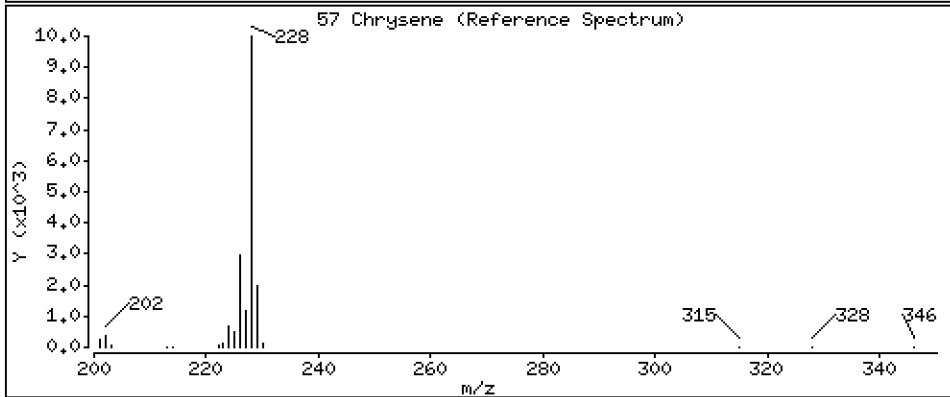
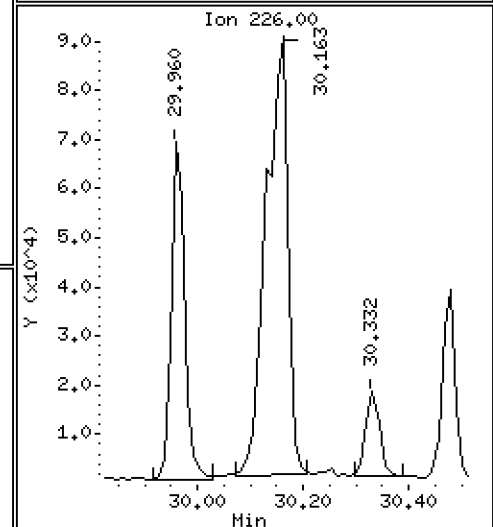
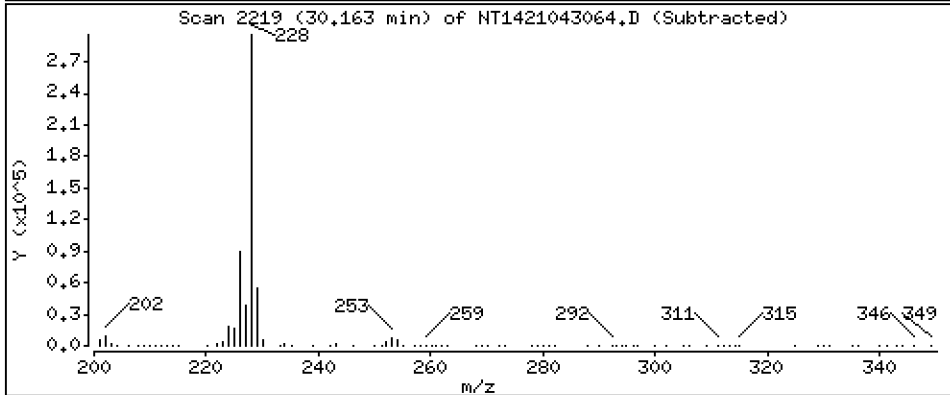
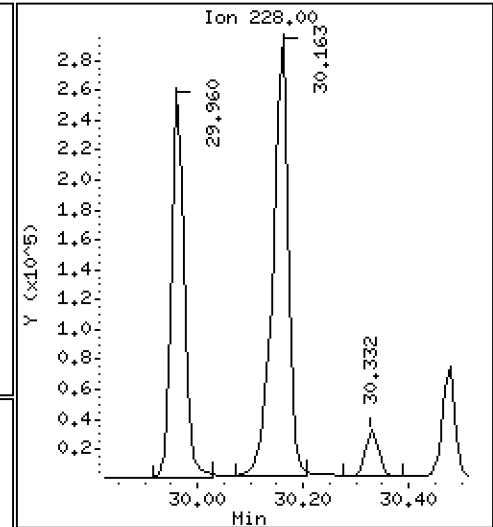
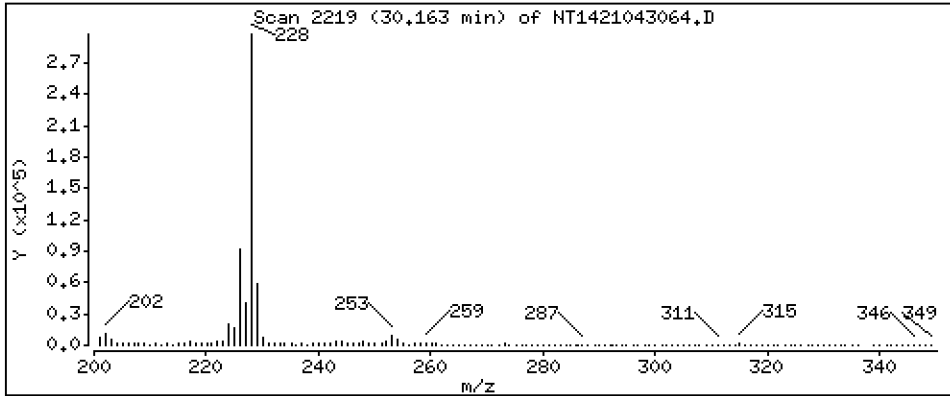
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

57 Chrysene

Concentration: 2,159 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

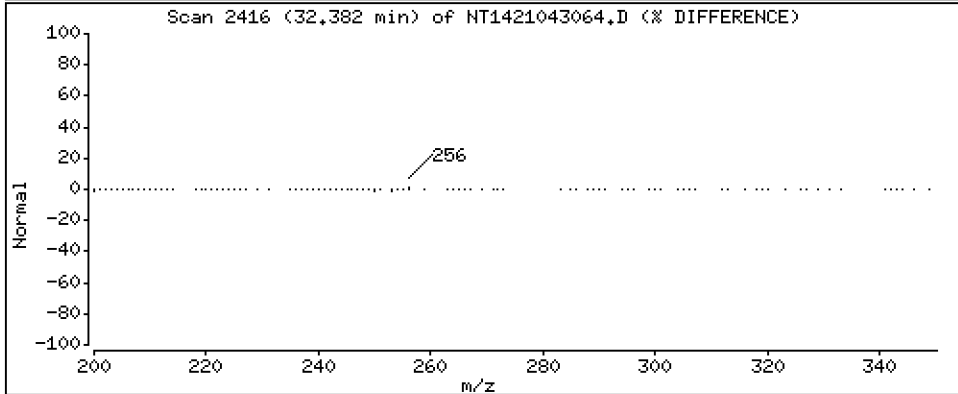
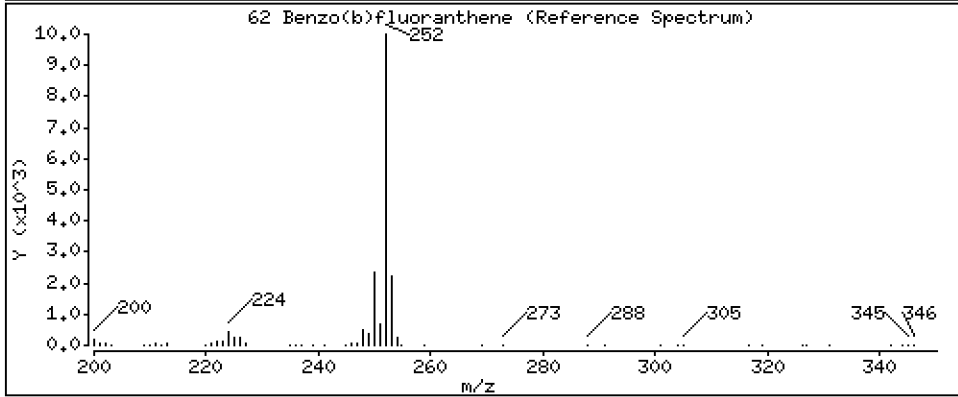
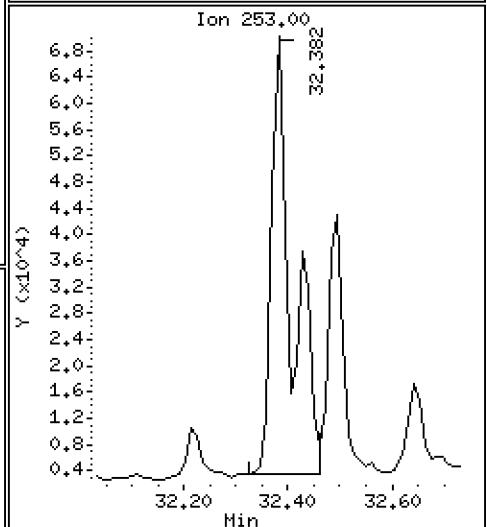
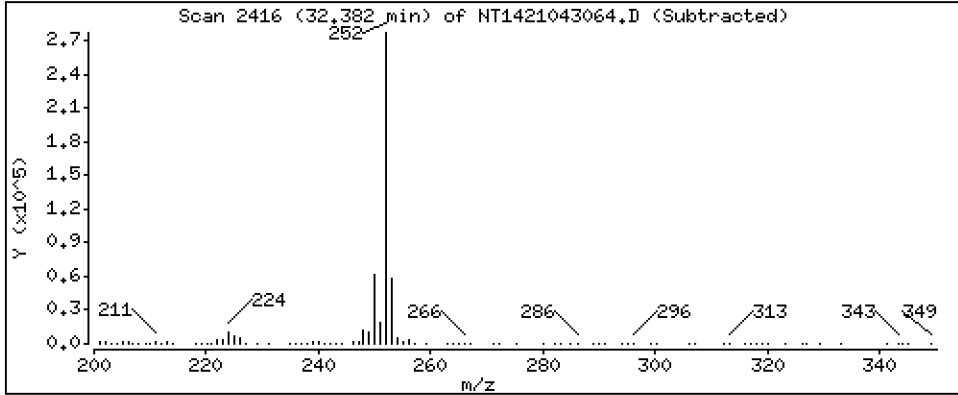
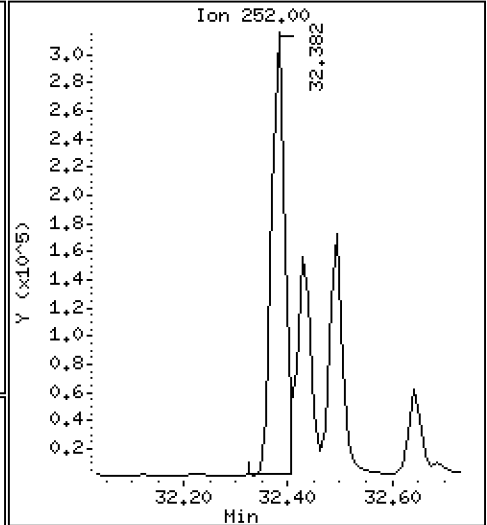
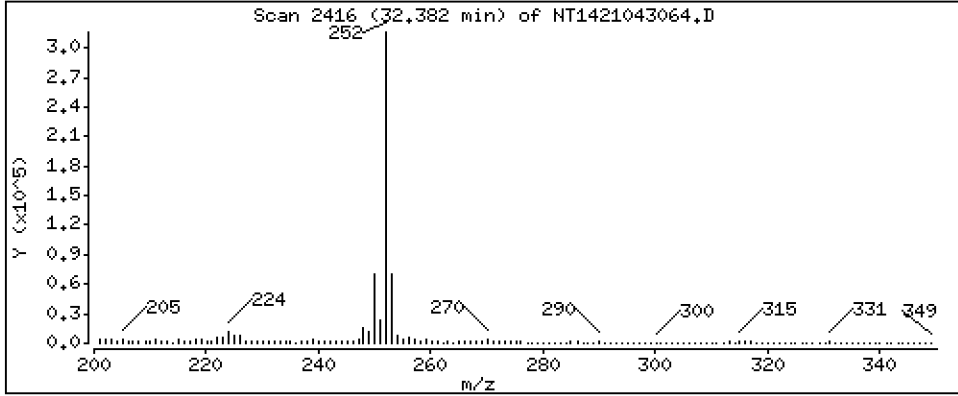
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

62 Benzo(b)fluoranthene

Concentration: 2,023 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

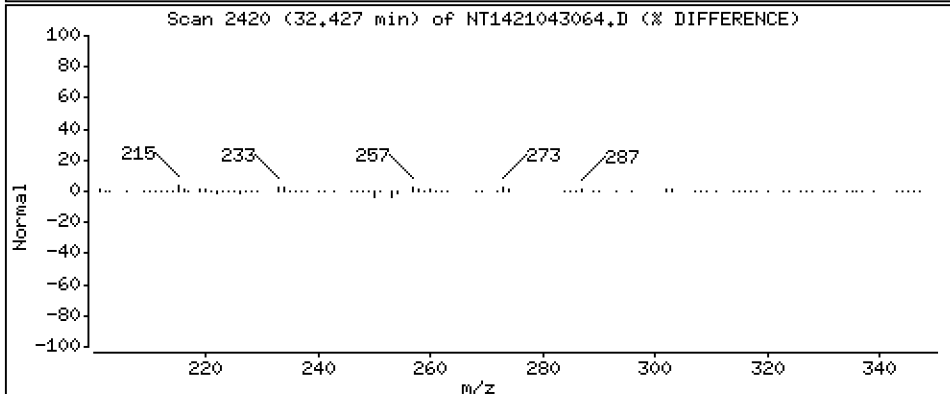
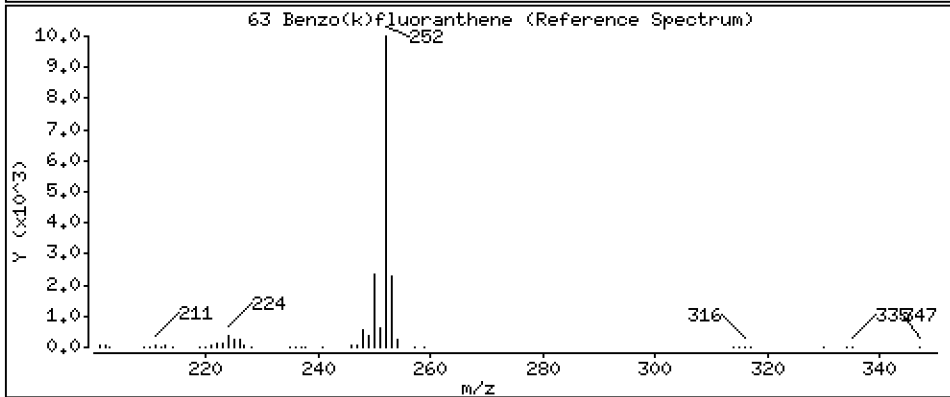
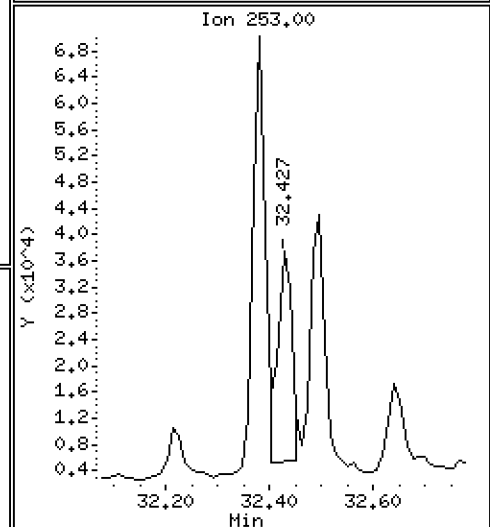
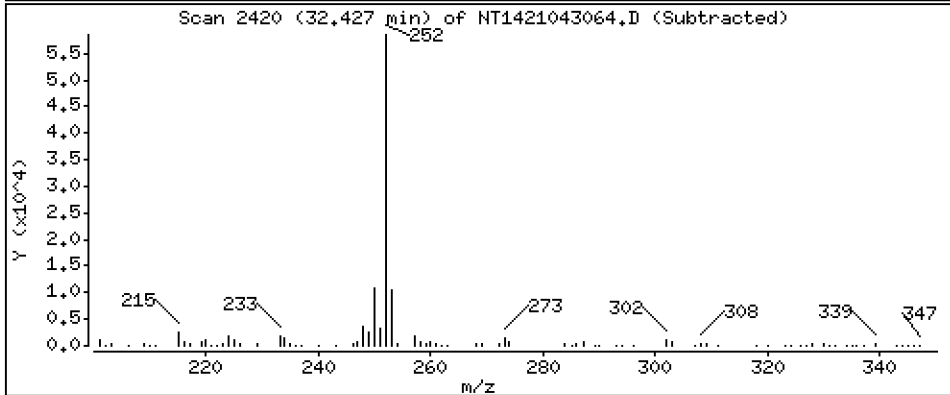
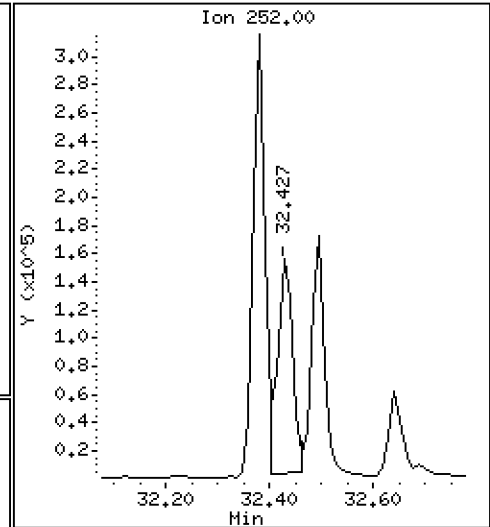
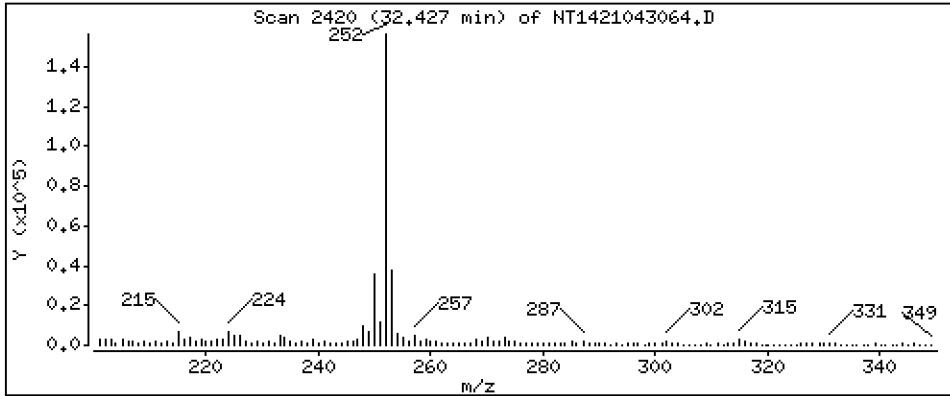
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

63 Benzo(k)fluoranthene

Concentration: 0,9930 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

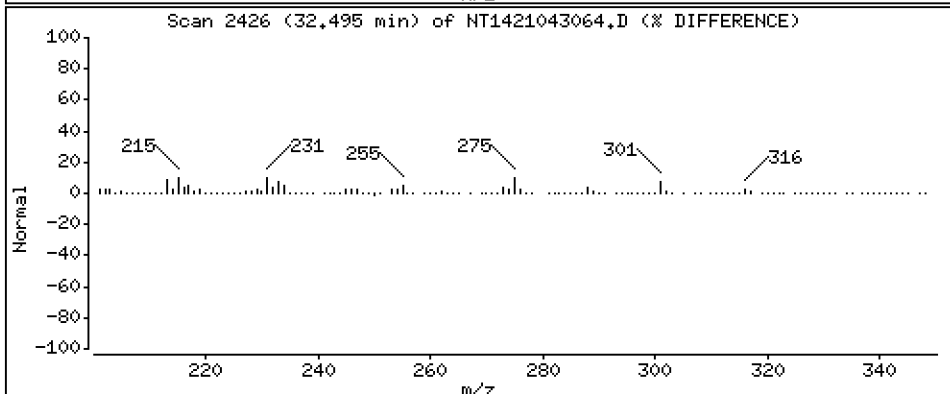
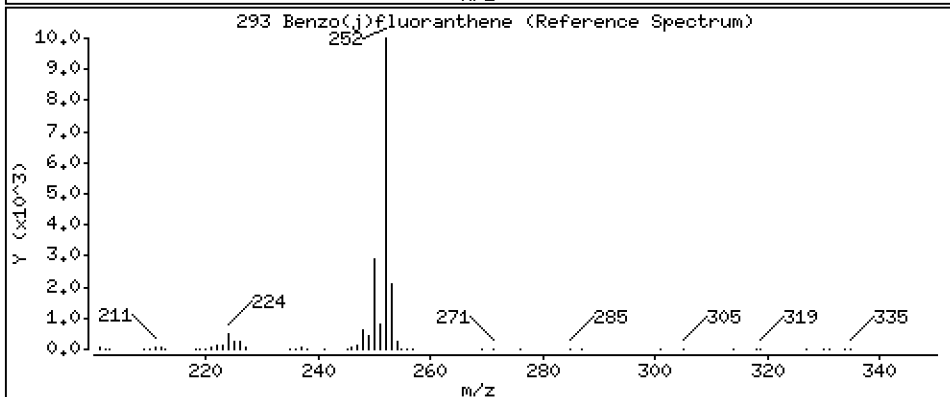
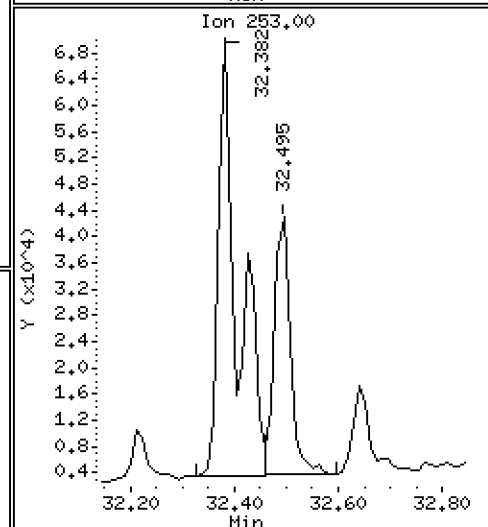
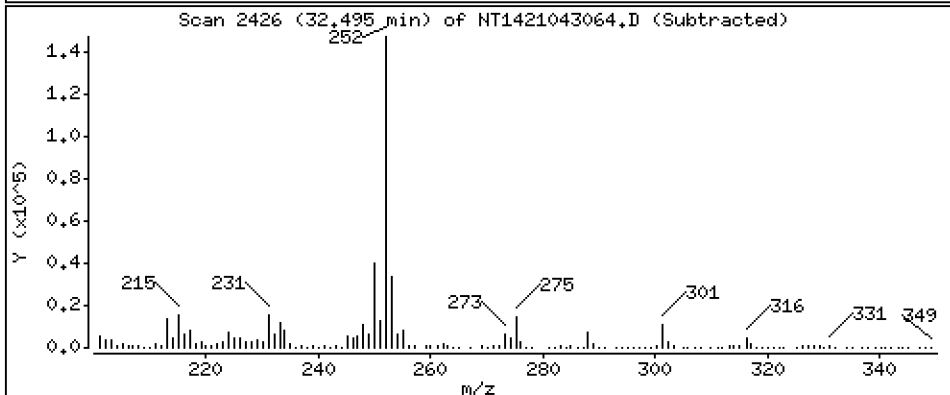
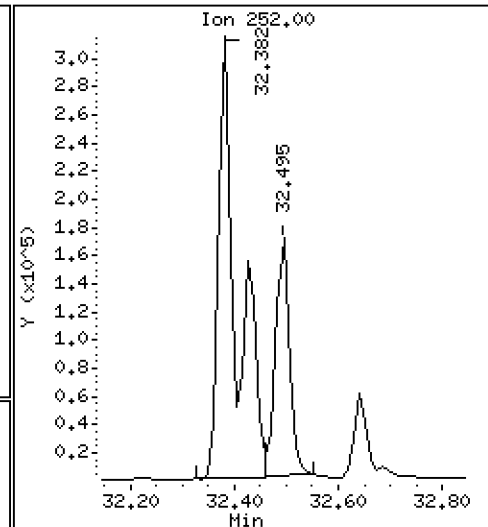
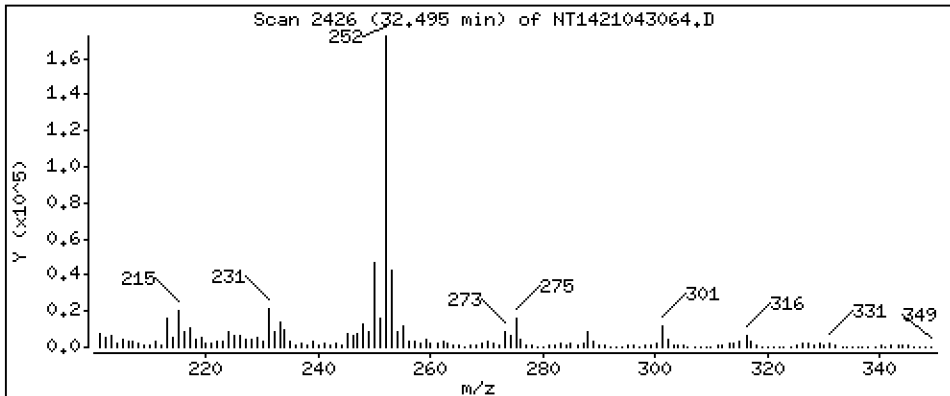
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

293 Benzo(j)fluoranthene

Concentration: 1,015 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

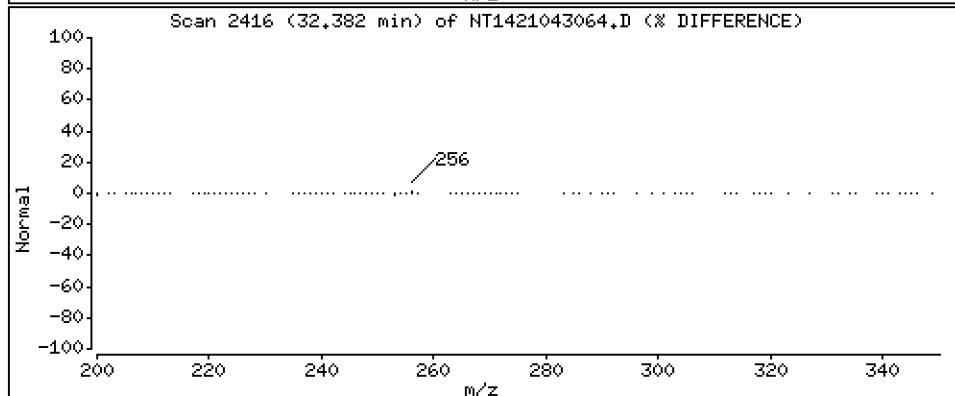
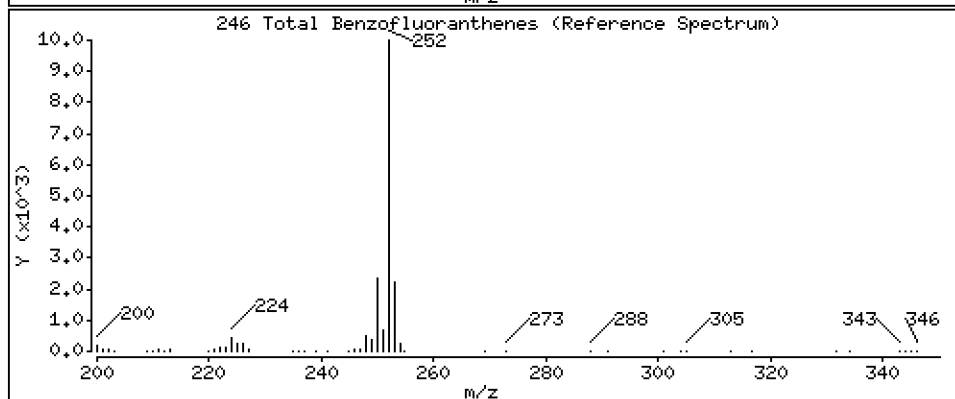
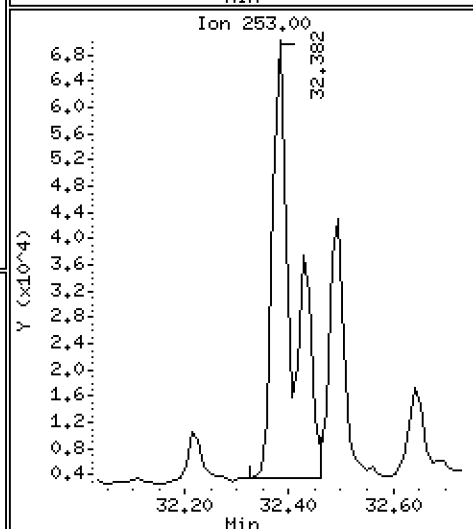
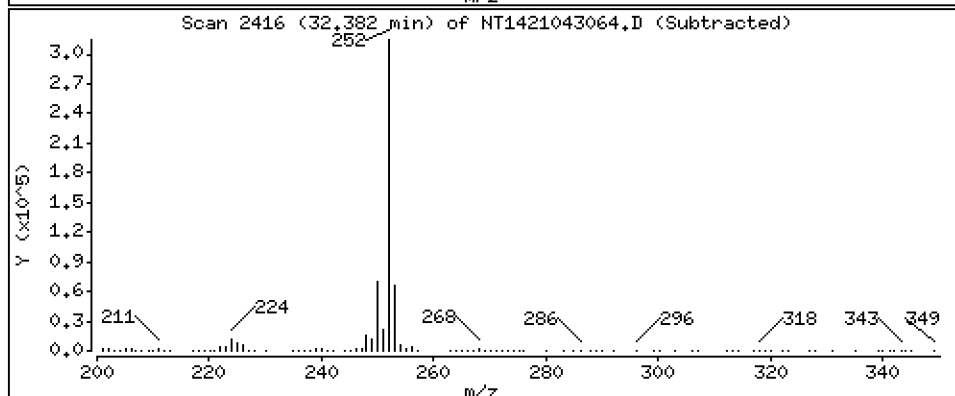
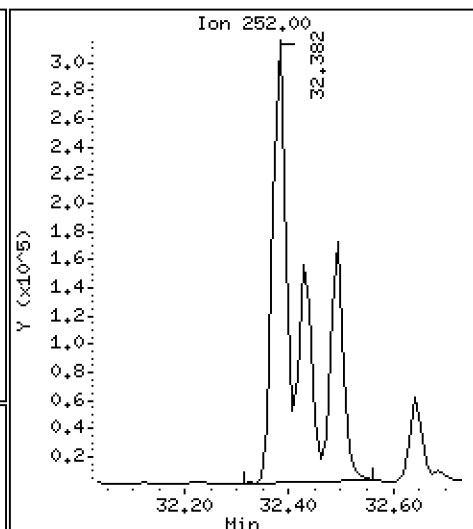
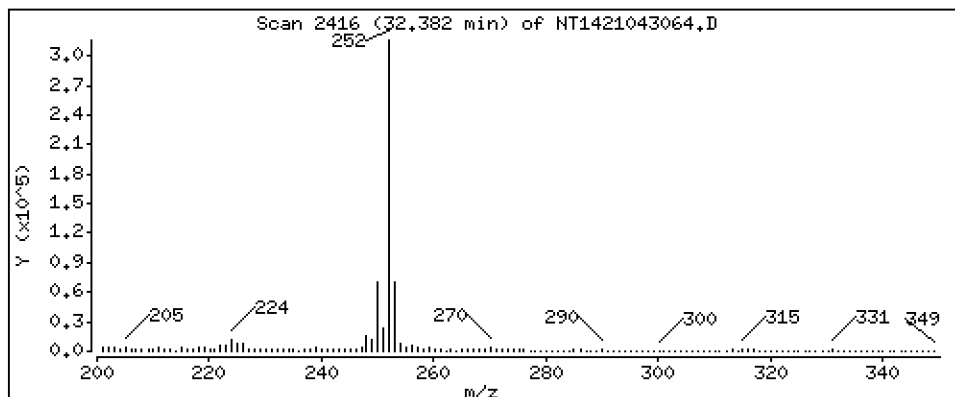
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

246 Total Benzofluoranthenes

Concentration: 3,879 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

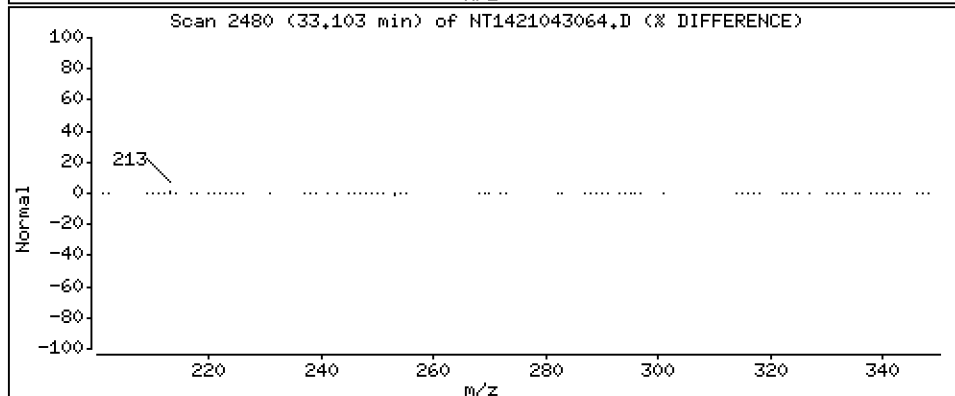
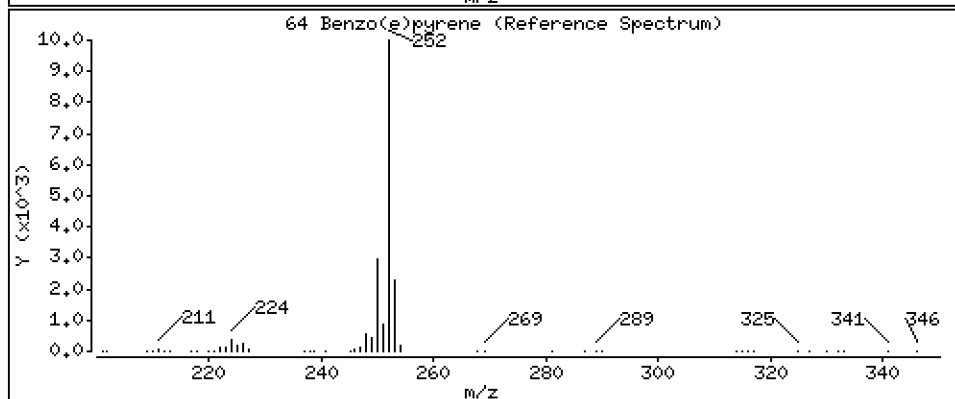
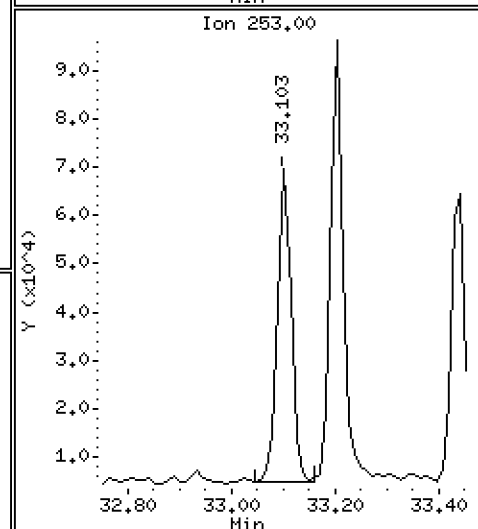
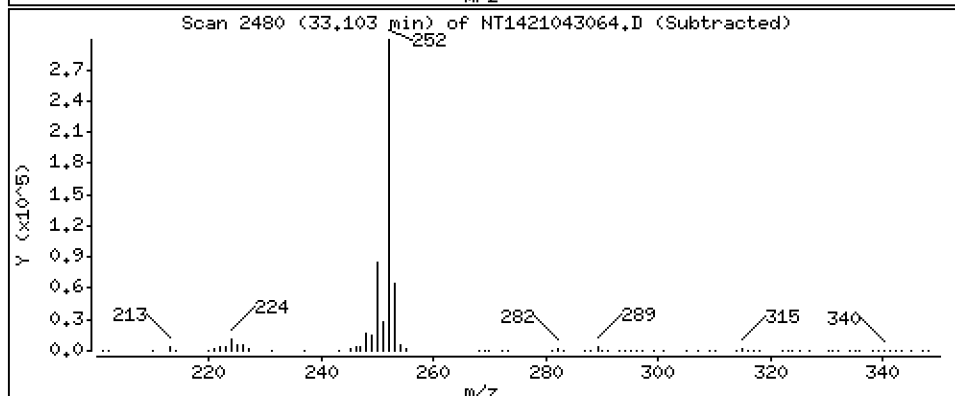
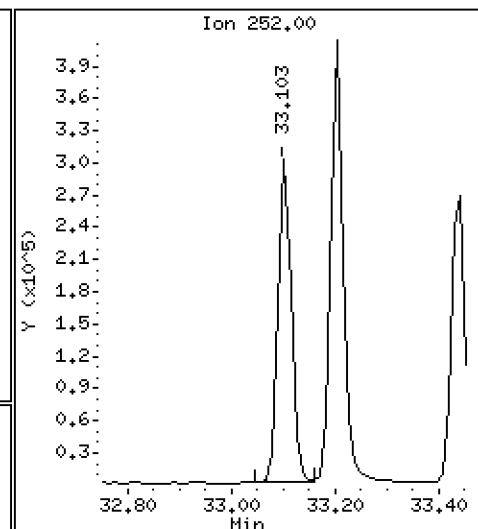
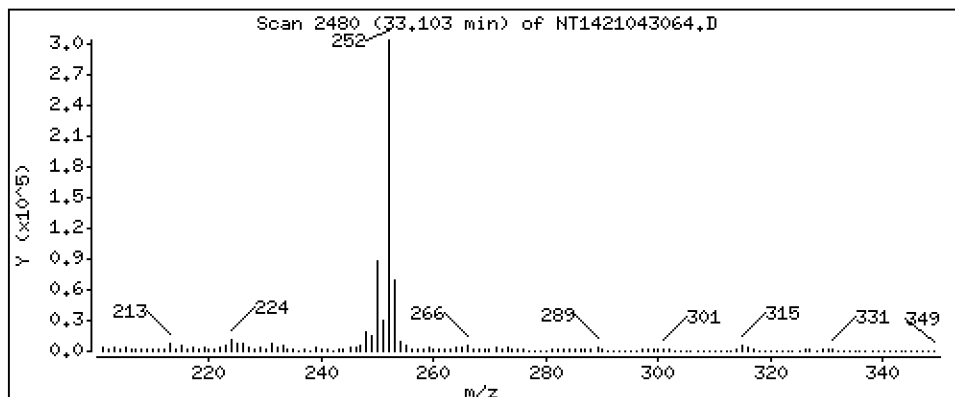
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

64 Benzo(e)pyrene

Concentration: 1,907 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

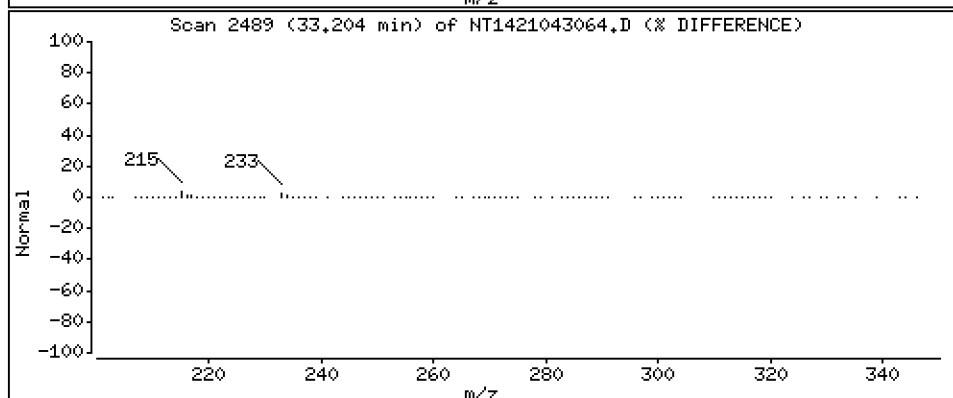
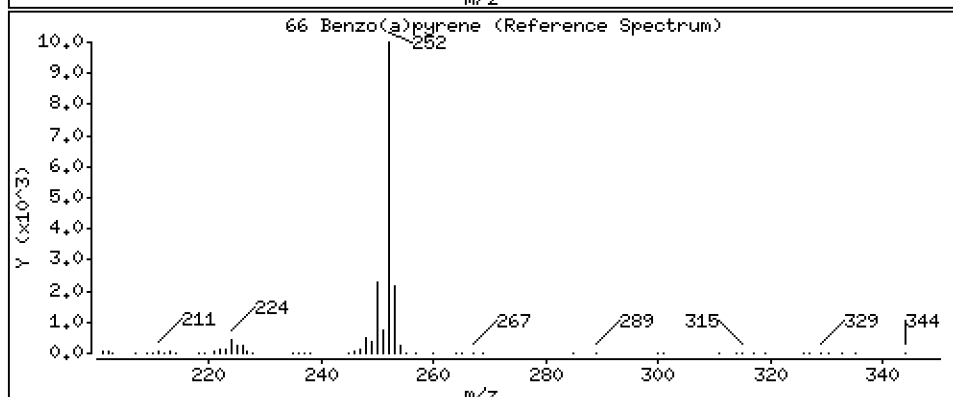
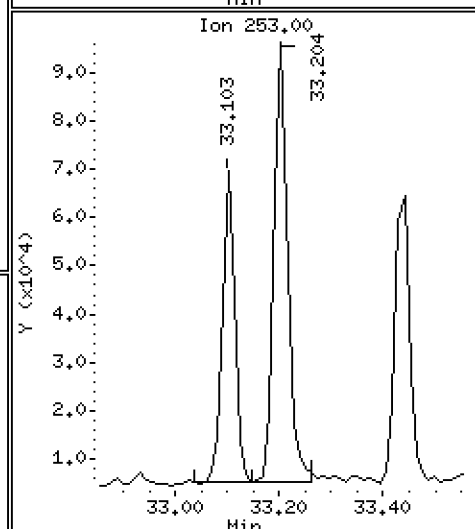
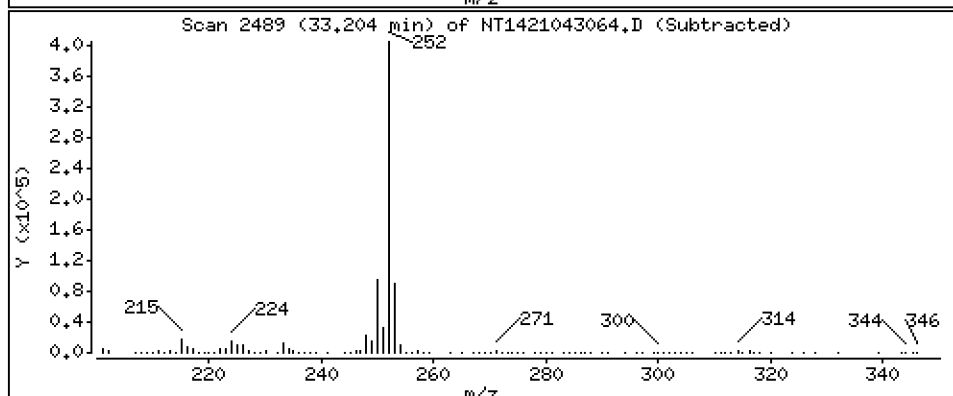
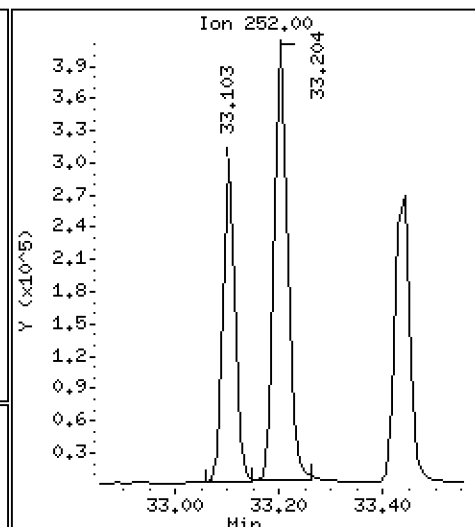
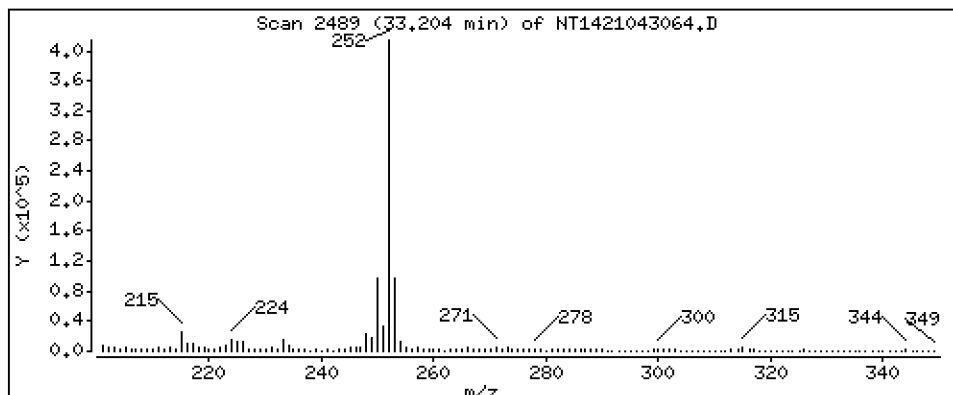
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

66 Benzo(a)pyrene

Concentration: 2,555 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

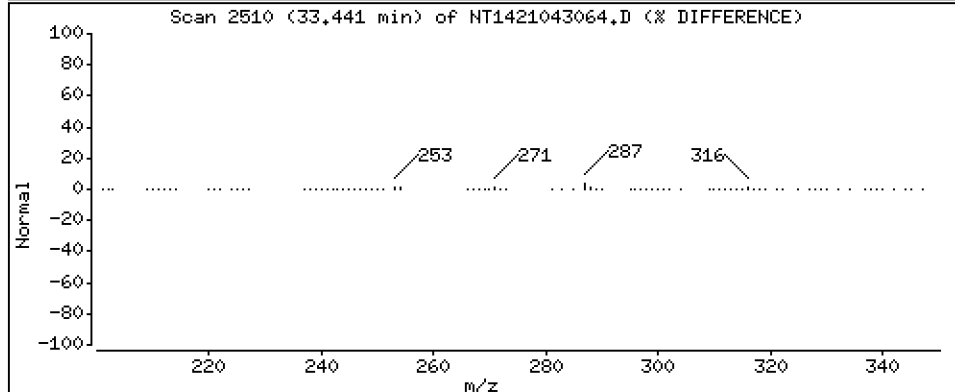
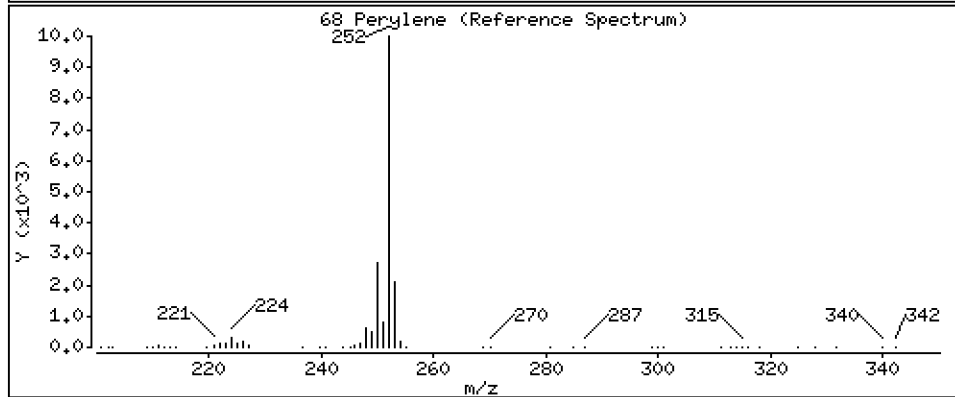
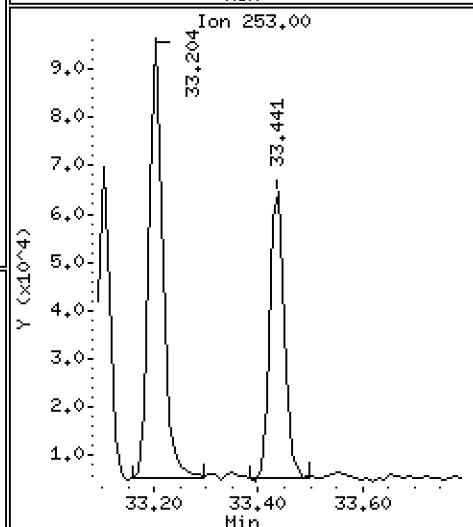
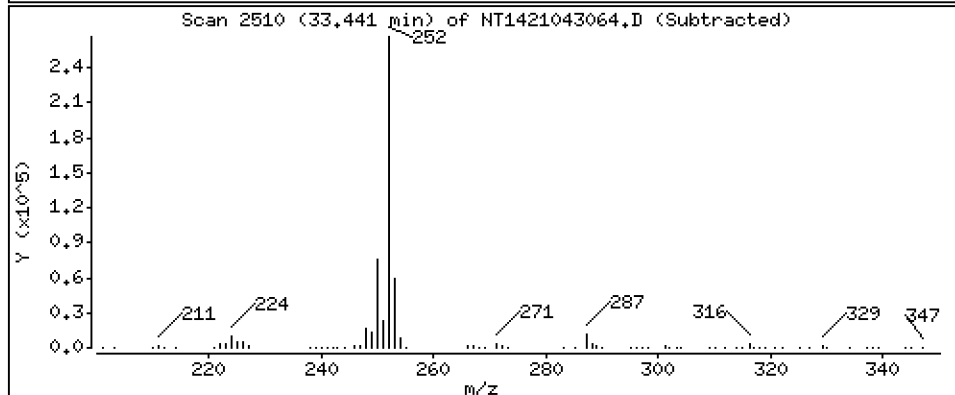
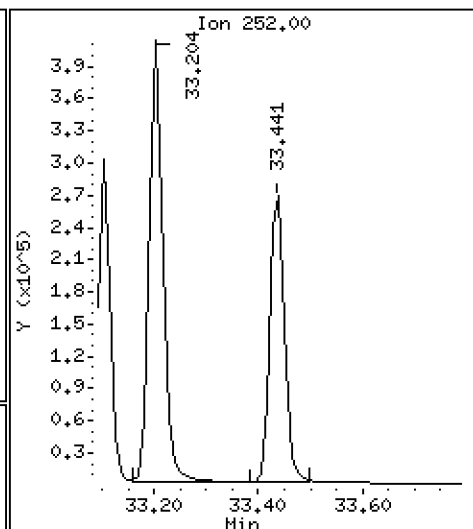
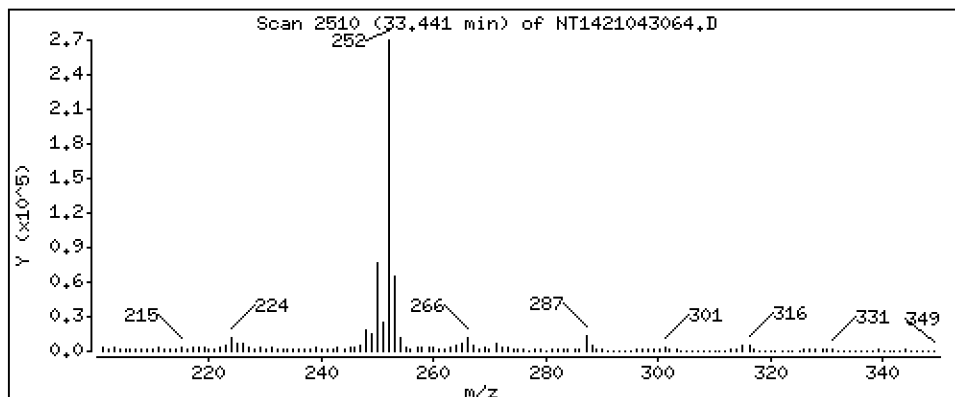
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

68 Perylene

Concentration: 1,978 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

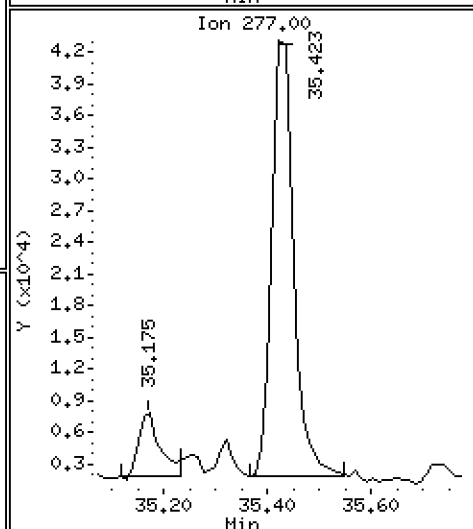
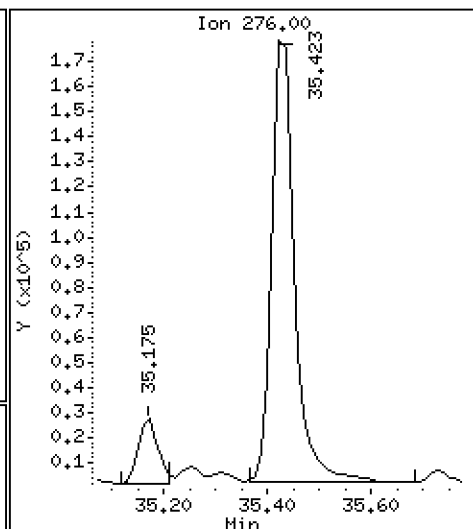
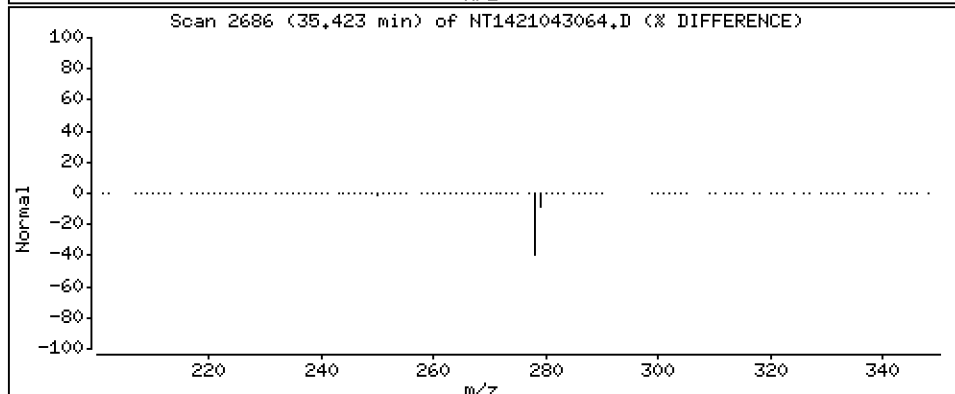
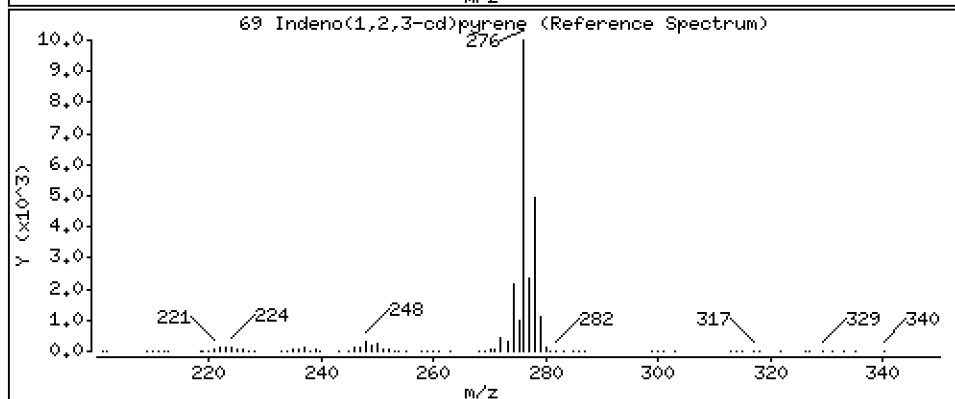
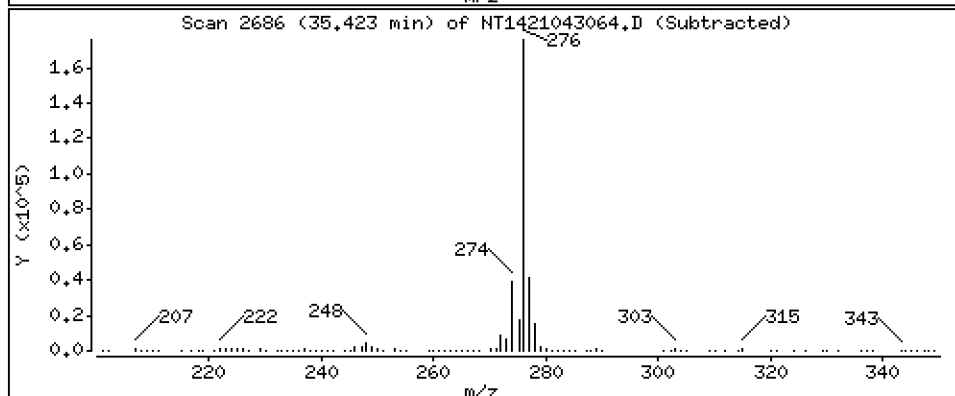
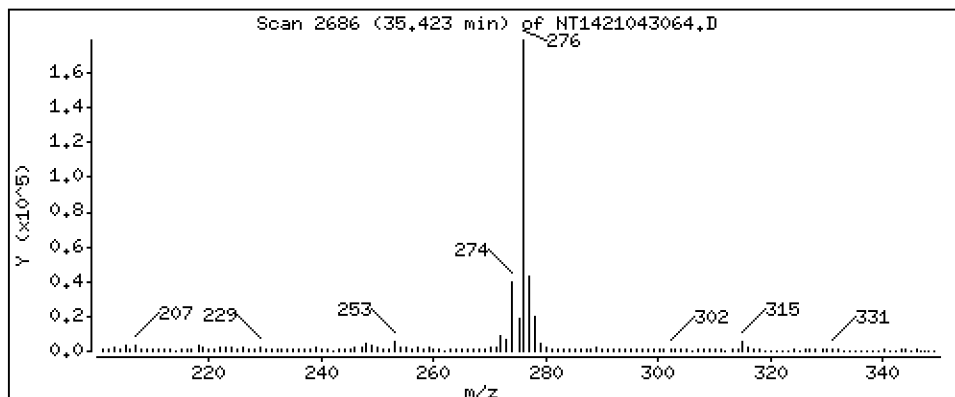
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

69 Indeno(1,2,3-cd)pyrene

Concentration: 1,888 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

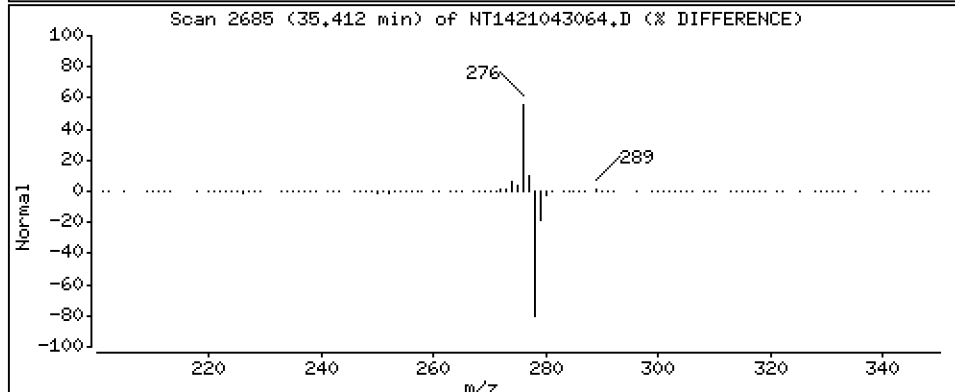
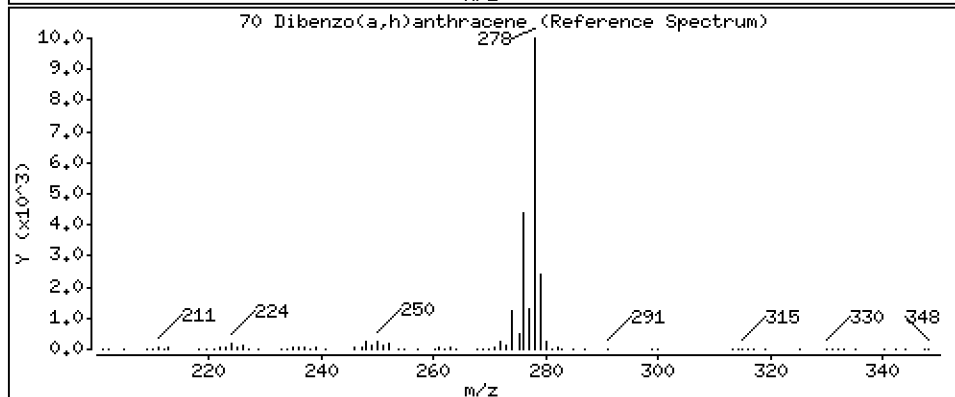
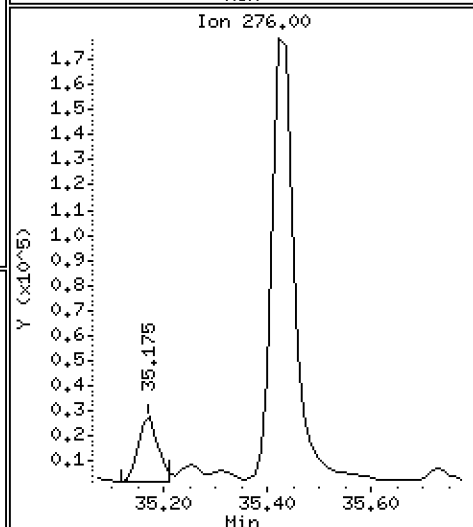
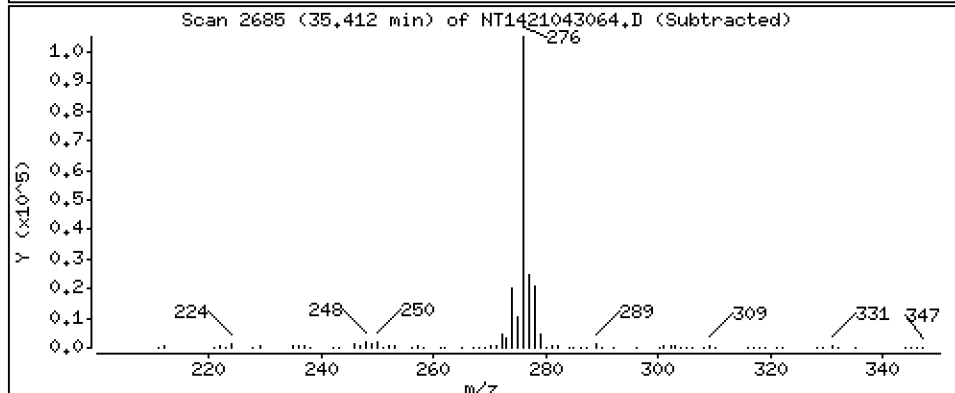
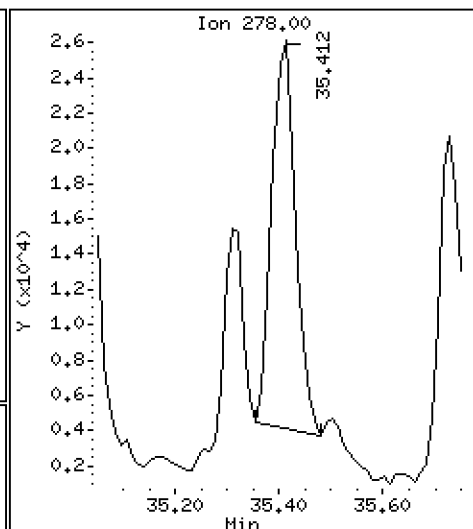
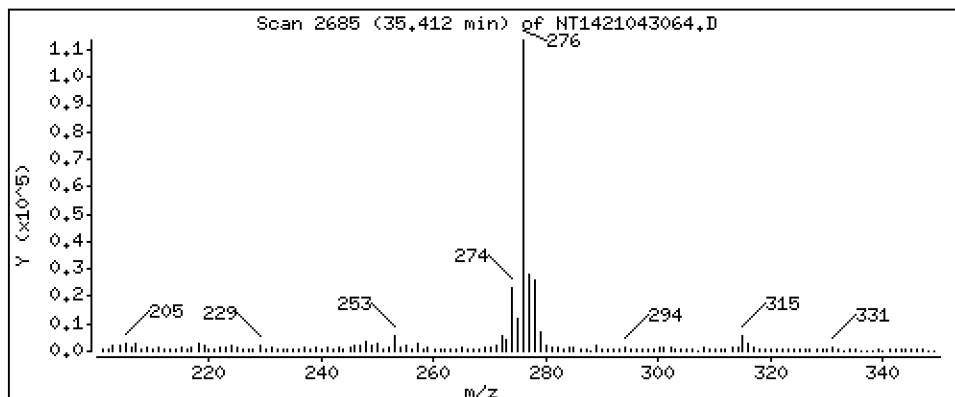
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

70 Dibenzo(a,h)anthracene

Concentration: 0,2933 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

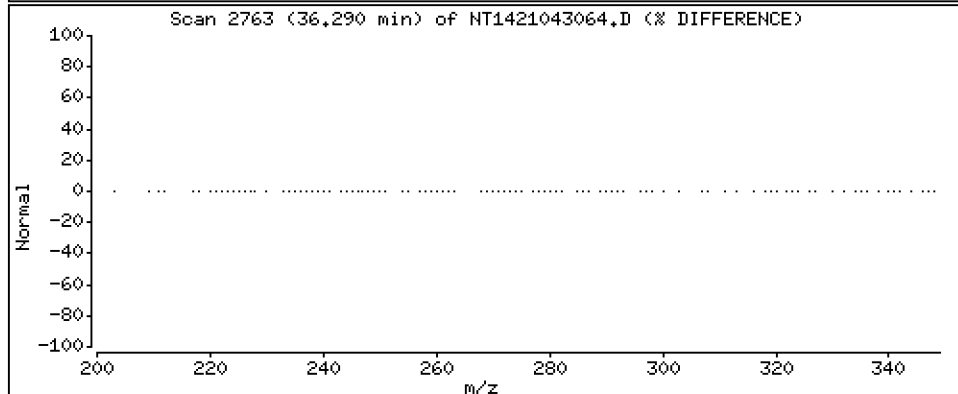
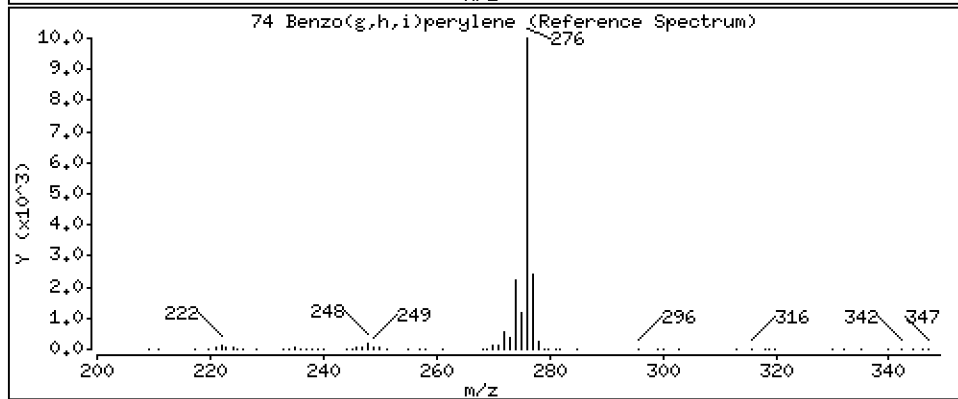
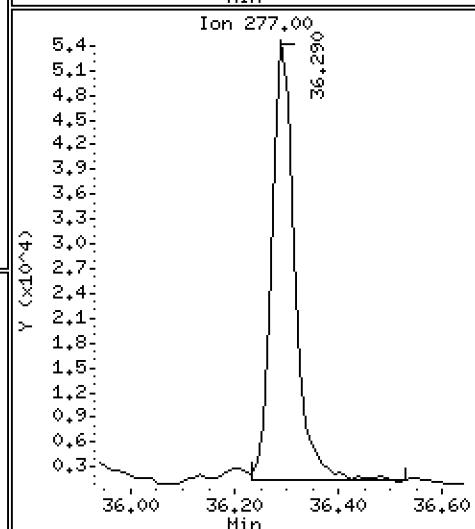
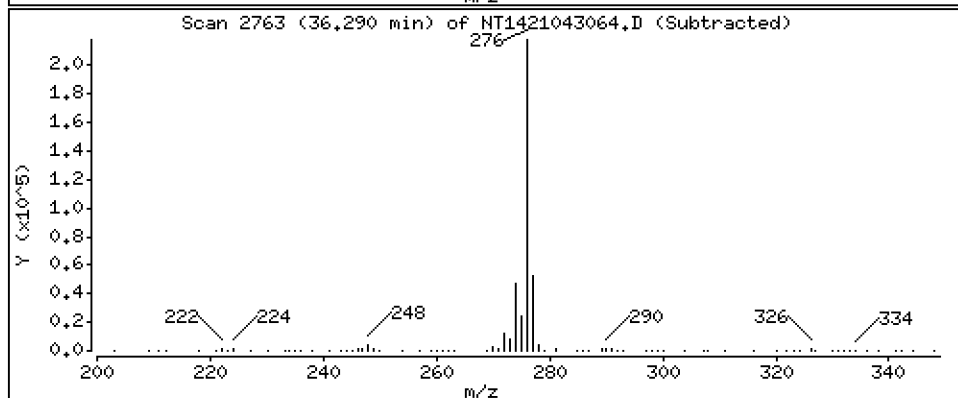
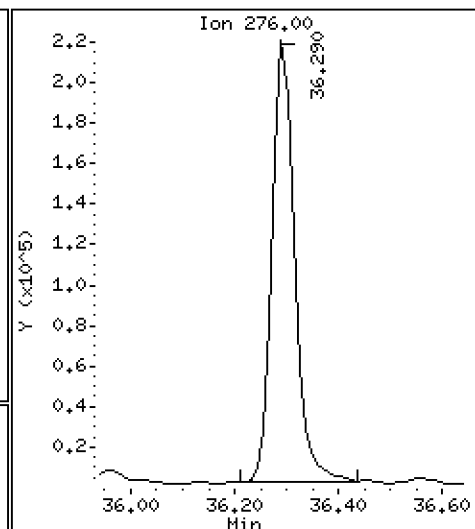
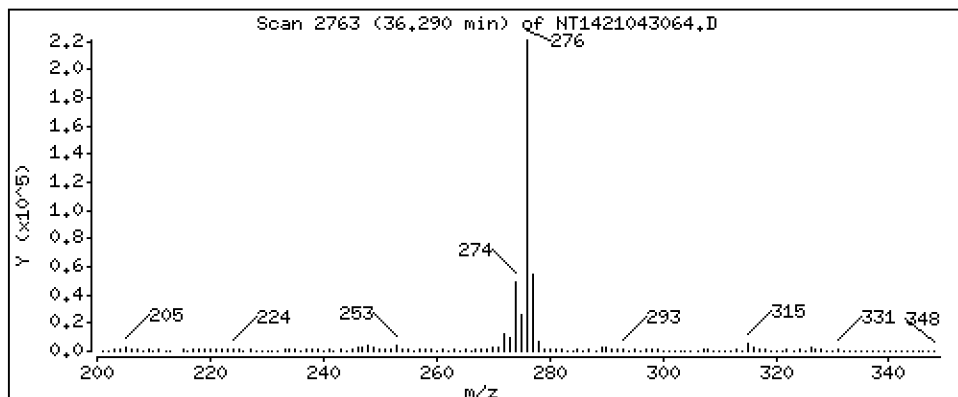
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

74 Benzo(g,h,i)perylene

Concentration: 2,675 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430D.b\NT1421043064.D
 Lab Smp Id: 21D0180-02
 Inj Date : 02-MAY-2021 10:01
 Operator : VTS
 Smp Info : 21D0180-02
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
 Meth Date : 04-May-2021 08:25 van
 Cal Date : 30-APR-2021 13:32
 Als bottle: 45
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-202011

Inst ID: nt14.i

Quant Type: ISTD
 Cal File: NT1421043009.D

Compound Sublist: TARGETS.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
1 trans-Decalin	138		Compound Not Detected.					
2 cis-Decalin	138		Compound Not Detected.					
\$ 6 Naphthalene-d8	136		11.766	11.776	(0.627)	587843	1.90839	1.908 (R)
7 Naphthalene	128		11.836	11.836	(0.631)	135689	0.43307	0.4331
12 Benzo(b)thiophene	134		12.284	12.295	(0.654)	8907	0.03573	0.03573
16 2-Methylnaphthalene	141		13.669	13.680	(0.728)	32010	0.19145	0.1914
17 1-methylnaphthalene	141		14.120	14.120	(0.752)	18054	0.11396	0.1140
18 Biphenyl	154		15.307	15.318	(0.815)	24329	0.10167	0.1017
19 2,6-Dimethylnaphthalene	156		15.383	15.394	(0.820)	11792	0.07162	0.07162 (M)
20 Acenaphthylene	152		16.955	16.955	(0.903)	39116	0.15096	0.1510
\$ 21 Acenaphthene-d10	164		17.241	17.241	(0.918)	322483	2.14407	2.144 (R)
22 Acenaphthene	153		17.351	17.362	(0.924)	67598	0.40591	0.4059
23 Dibenzofuran	168		17.724	17.735	(0.944)	28920	0.11461	0.1146
24 1,6,7-Trimethylnaphthalene	170		17.955	17.955	(0.956)	10346	0.07160	0.07160
* 25 Fluorene-d10	176		18.772	18.772	(1.000)	533752	2.00000	
26 Fluorene	166		18.874	18.874	(1.005)	49817	0.27165	0.2716
30 Dibenzothiophene	184		21.785	21.796	(1.161)	36260	0.15663	0.1566 (M)
\$ 35 Phenanthrene-d10	188		22.104	22.104	(0.995)	521318	1.95001	1.950 (R)
36 Phenanthrene	178		22.181	22.181	(0.999)	408211	1.36771	1.368
* 250 Anthracene-d10	188		22.214	22.214	(1.000)	494716	2.00000	
37 Anthracene	178		22.280	22.280	(1.003)	115362	0.41930	0.4193
42 Carbazole	167		23.555	23.566	(1.060)	20058	0.08863	0.08863
43 1-Methylphenanthrene	192		24.017	24.017	(1.081)	44889	0.24771	0.2477
44 Fluoranthene	202		25.985	25.985	(1.170)	1044215	3.93942	3.939
46 Pyrene	202		26.832	26.832	(1.208)	1218405	4.43572	4.436 (M)
51 Naphthobenzothiophene	234		29.375	29.375	(1.322)	87017	0.32508	0.3251 (M)
55 Benzo(a)anthracene	228		29.960	29.960	(0.907)	449194	1.63181	1.632
\$ 56 Chrysene-d12	240		30.084	30.084	(0.910)	446643	2.02167	2.022 (R)
57 Chrysene	228		30.163	30.163	(0.913)	613076	2.15902	2.159
62 Benzo(b)fluoranthene	252		32.381	32.382	(0.980)	519559	2.02329	2.023 (M)
63 Benzo(k)fluoranthene	252		32.427	32.427	(0.981)	306261	0.99302	0.9930 (M)
293 Benzo(j)fluoranthene	252		32.494	32.494	(0.983)	293530	1.01487	1.015
246 Total Benzofluoranthenes	252		32.381	32.382	(0.980)	1086309	3.87928	3.879 (M)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.046	33.046	(1.000)	608015	2.00000	
64 Benzo(e)pyrene	252	33.102	33.102	(1.002)	493809	1.90686	1.907
66 Benzo(a)pyrene	252	33.204	33.204	(1.005)	681220	2.55493	2.555
\$ 67 Perylene-d12	264	33.384	33.373	(1.010)	534710	2.26710	2.267 (R)
68 Perylene	252	33.440	33.440	(1.012)	489246	1.97804	1.978
69 Indeno(1,2,3-cd)pyrene	276	35.423	35.423	(1.072)	516119	1.88793	1.888
70 Dibenzo(a,h)anthracene	278	35.411	35.400	(1.072)	67425	0.29332	0.2933 (M)
74 Benzo(g,h,i)perylene	276	36.290	36.290	(1.098)	623286	2.67542	2.675

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i
 Lab File ID: NT1421043064.D
 Lab Smp Id: 21D0180-02
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
 Misc Info:

Calibration Date: 01-MAY-2021
 Calibration Time: 23:35
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	504442	252221	1008884	533752	5.81
250 Anthracene-d10	459103	229552	918206	494716	7.76
251 Benzo(e)pyrene-d1	516794	258397	1033588	608015	17.65

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.77	18.27	19.27	18.77	-0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	-0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	-0.00

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.

REVIEW SUMMARY FOR FILE - NT1421043064.D

Lab ID: 21D0180-02
nt14.i, 20210430D.b\ALKYLPNA.m, 02-MAY-2021 10:01

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

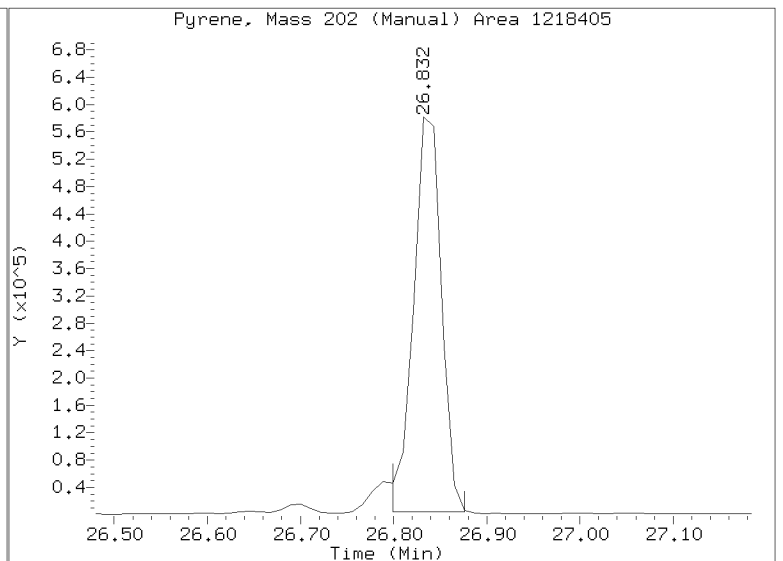
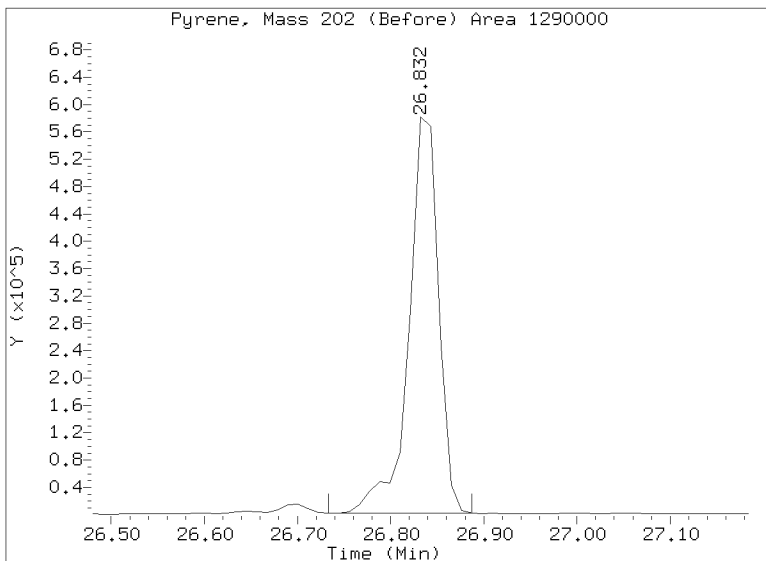
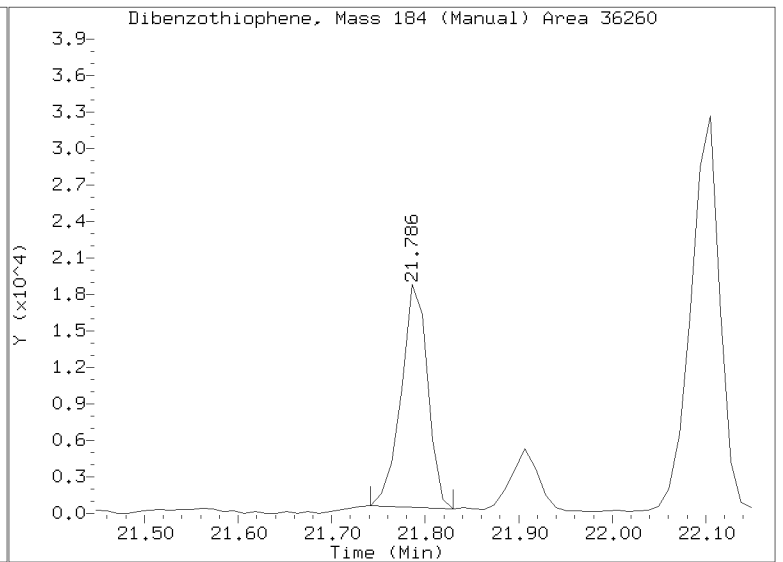
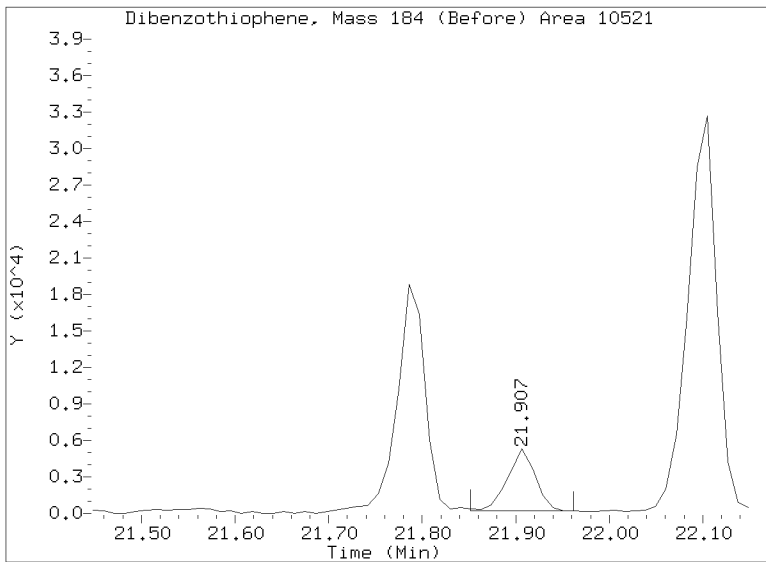
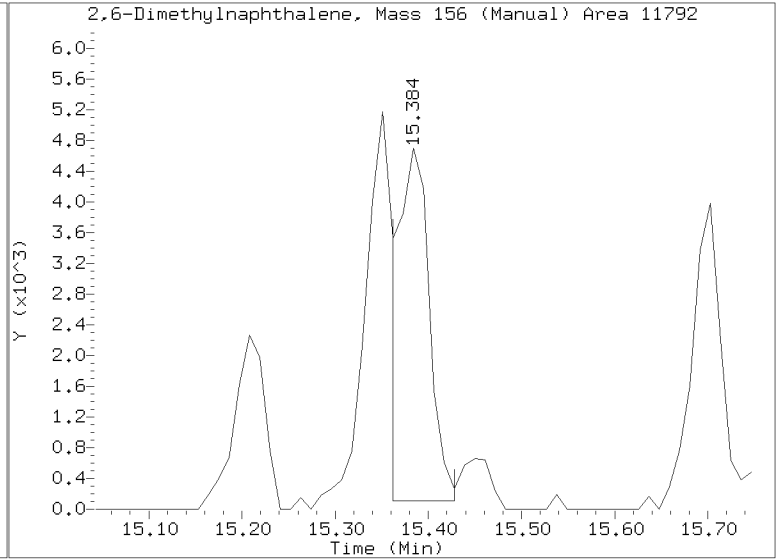
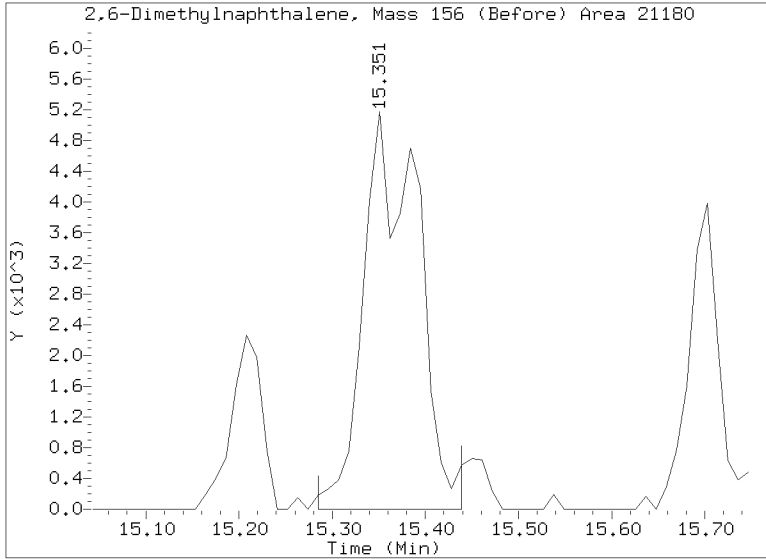
RRT check based on Ccal File: NT1421043051ICV.D

On Column LOD for nt14.i, 20210430D.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

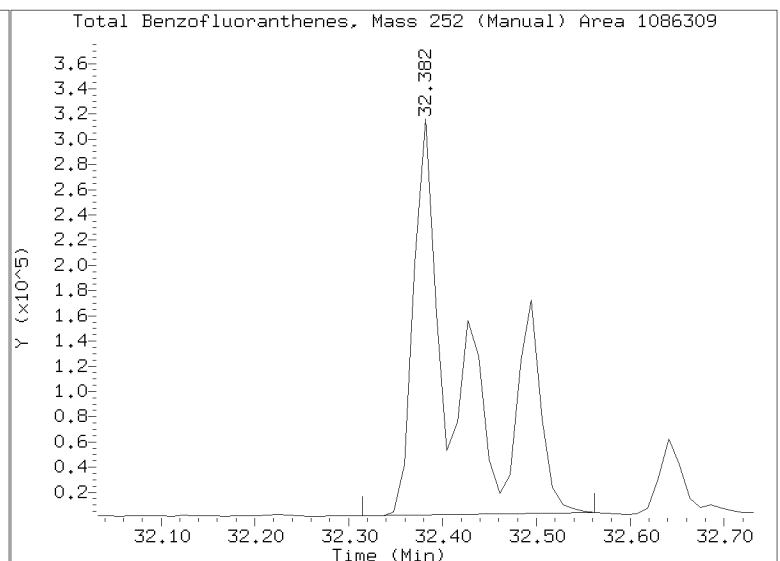
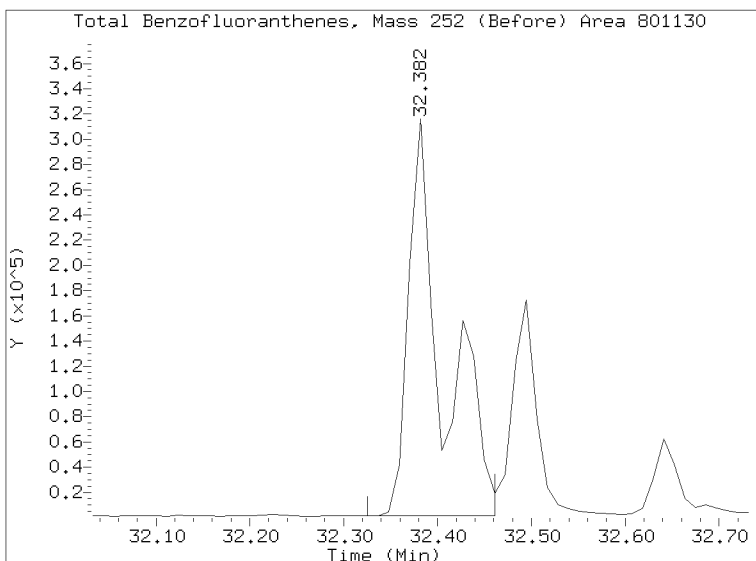
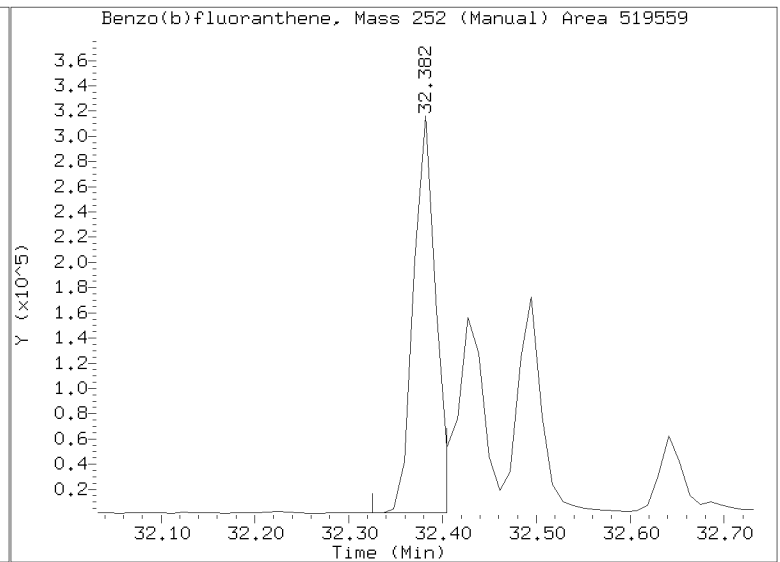
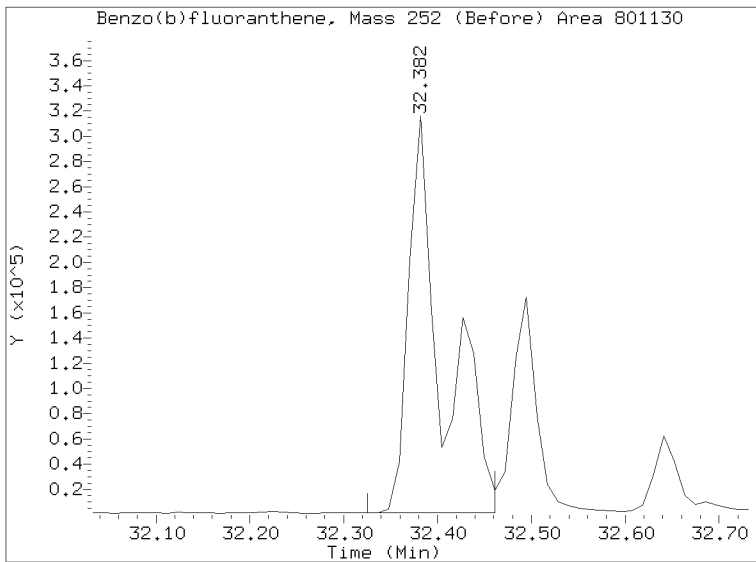
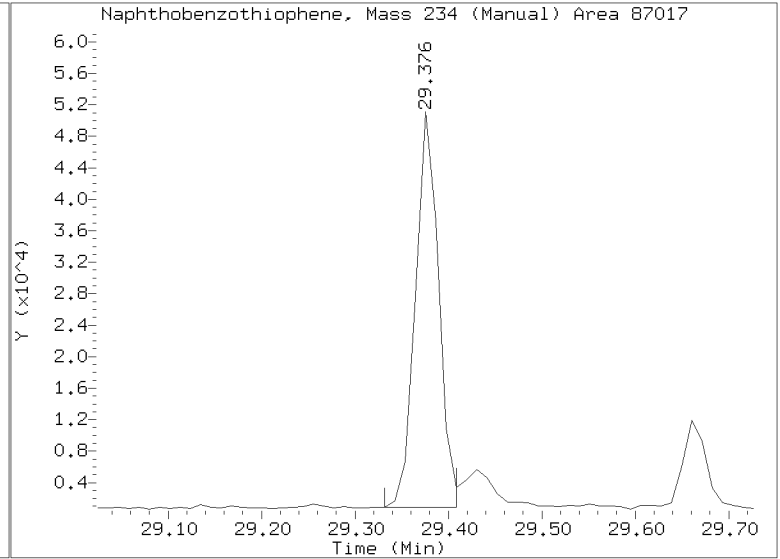
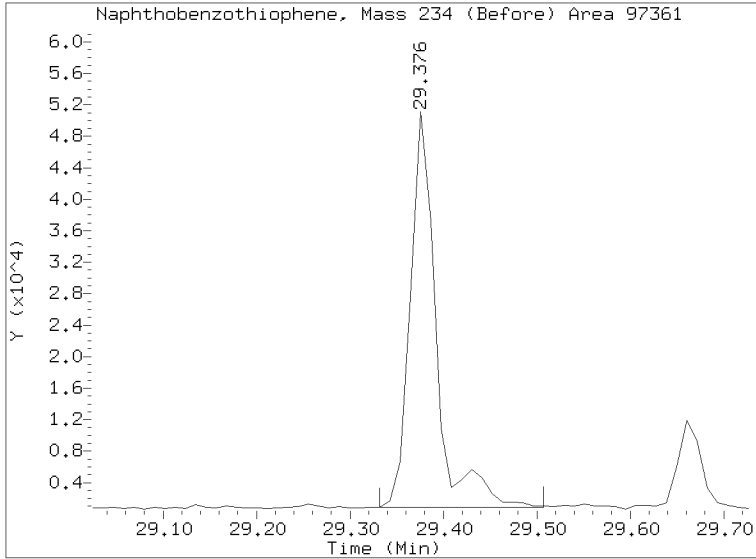
Quant Ion Manual Peak Adjustment Report

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Injection Date: 02-MAY-2021 10:01
Lab ID:21D0180-02 Client ID:
Report Date: 05/04/2021 13:21



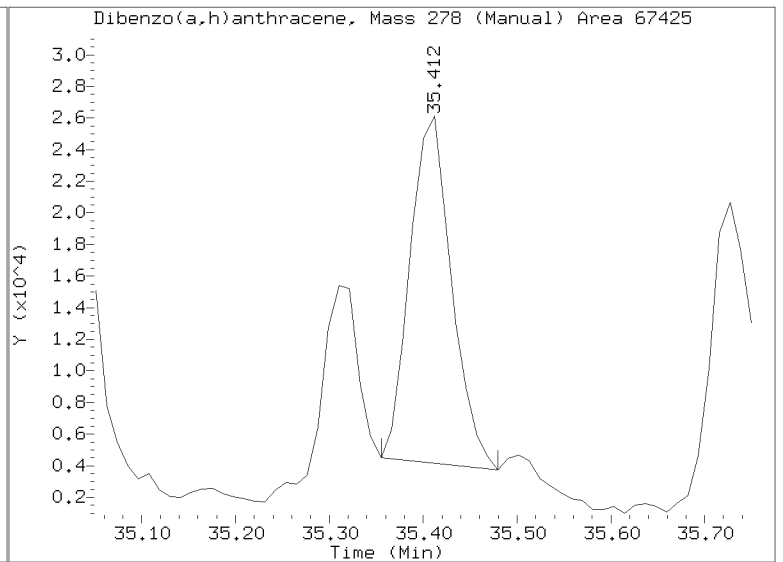
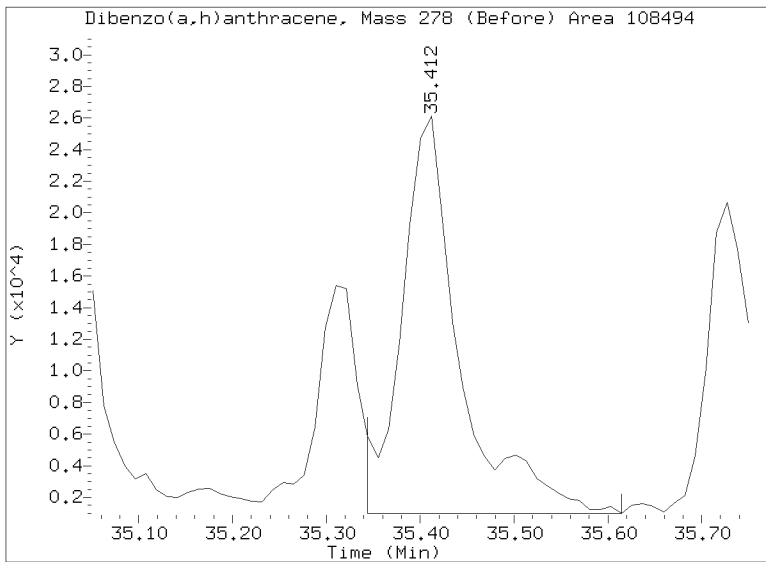
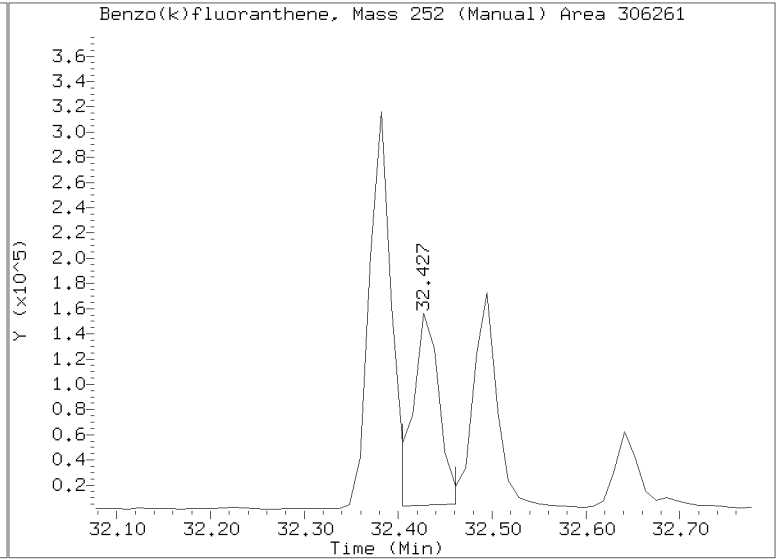
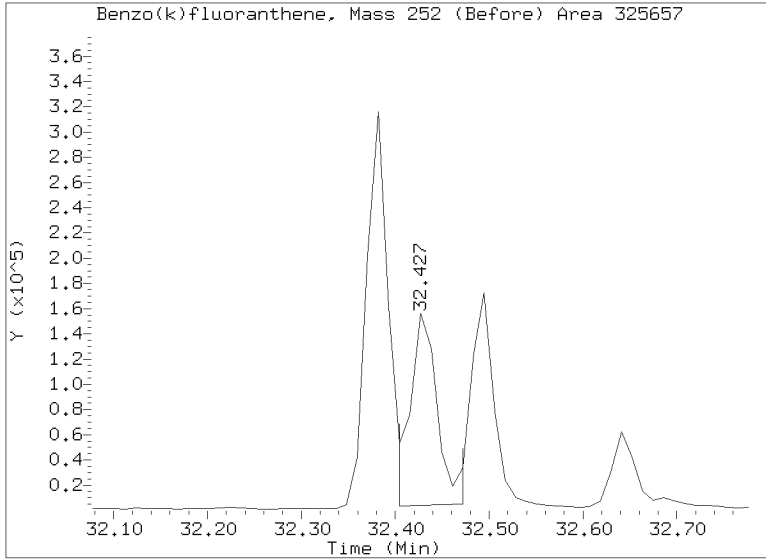
Quant Ion Manual Peak Adjustment Report

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Injection Date: 02-MAY-2021 10:01
Lab ID:21D0180-02 Client ID:
Report Date: 05/04/2021 13:21



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043064.D
Injection Date: 02-MAY-2021 10:01
Lab ID:21D0180-02 Client ID:
Report Date: 05/04/2021 13:21





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Alkyl PAH Ranges

Laboratory: Analytical Resources, Inc.
 Client: Anchor OEA, LLC
 Project: Gasco Siltronic - US Moorings
 Matrix: Sediment Laboratory ID: 21D0180-02 A SDG: 21D0180
 Sampled: 04/14/21 10:35 Prepared: 04/22/21 11:05 File ID: NT1421043064S.D
 % Solids: 45.49 Preparation: EPA 3546 (Microwave) Analyzed: 05/02/21 10:01
 Batch: BJD0507 Sequence: SJE0095 Initial/Final: 21.98 g Wet / 0.5 mL
 Instrument: NT14 Column: ZB-5MS Calibration: EE00019
 Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
C1DEC	C1-Decalins	1	5.0	U	0.5	5.0
C2DEC	C2-Decalins	1	5.0	U	0.5	5.0
C3DEC	C3-Decalins	1	5.0	U	0.5	5.0
C4DEC	C4-Decalins	1	5.0	U	0.5	5.0
C1NAPH	C1-Naphthalenes	1	10.6		0.4	5.0
C2NAPH	C2-Naphthalenes	1	13.6		0.4	5.0
C3NAPH	C3-Naphthalenes	1	11.9		0.4	5.0
C4NAPH	C4-Naphthalenes	1	5.0	U	0.4	5.0
C1FLR	C1-Fluorenes	1	12.0		0.5	5.0
C2FLR	C2-Fluorenes	1	13.3		0.5	5.0
C3FLR	C3-Fluorenes	1	12.3		0.5	5.0
C1DBTPH	C1-Dibenzothiophenes	1	9.5		0.7	5.0
C2DBTPH	C2-Dibenzothiophenes	1	13.4		0.7	5.0
C3DBTPH	C3-Dibenzothiophenes	1	12.9		0.7	5.0
C4DBTPH	C4-Dibenzothiophenes	1	5.0	U	0.7	5.0
C1PHNANT	C1-Phenanthrenes/Anthracenes	1	44.7		0.9	5.0
C2PHNANT	C2-Phenanthrenes/Anthracenes	1	47.9		0.9	5.0
C3PHNANT	C3-Phenanthrenes/Anthracenes	1	18.8		0.9	5.0
C4PHNANT	C4-Phenanthrenes/Anthracenes	1	12.3		0.9	5.0
C1FLPYR	C1-Fluoranthenes/Pyrenes	1	90.6		1.0	5.0
C2FLPYR	C2-Fluoranthenes/Pyrenes	1	39.2		1.0	5.0
C3FLPYR	C3-Fluoranthenes/Pyrenes	1	15.1		1.0	5.0
C4FLPYR	C4-Fluoranthenes/Pyrenes	1	20.4		1.0	5.0
C1BAACYR	C1-Benzo(a)anthracenes/Chrysenes	1	75.9		0.7	5.0
C2BAACYR	C2-Benzo(a)anthracenes/Chrysenes	1	33.5		0.7	5.0
C3BAACYR	C3-Benzo(a)anthracenes/Chrysenes	1	15.3		0.7	5.0
C4BAACYR	C4-Benzo(a)anthracenes/Chrysenes	1	12.2		0.7	5.0
C1BZTPH	C1-Benzothiophenes	1	3.0	J	0.4	5.0
C2BZTPH	C2-Benzothiophenes	1	4.4	J	0.4	5.0
C3BZTPH	C3-Benzothiophenes	1	5.0	U	0.4	5.0



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Alkyl PAH Ranges

Laboratory: Analytical Resources, Inc.
Client: Anchor OEA, LLC
Project: Gasco Siltronic - US Moorings
Matrix: Sediment Laboratory ID: 21D0180-02 A SDG: 21D0180
Sampled: 04/14/21 10:35 Prepared: 04/22/21 11:05 File ID: NT1421043064S.D
% Solids: 45.49 Preparation: EPA 3546 (Microwave) Analyzed: 05/02/21 10:01
Batch: BJD0507 Sequence: SJE0095 Initial/Final: 21.98 g Wet / 0.5 mL
Instrument: NT14 Column: ZB-5MS Calibration: EE00019
Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
C1NPBTP	C1-Naphthobenzothiophenes	1	17.5		2.5	5.0
C2NPBTP	C2-Naphthobenzothiophenes	1	15.5		2.5	5.0
C3NPBTP	C3-Naphthobenzothiophenes	1	5.0	U	2.5	5.0
C4NPBTP	C4-Naphthobenzothiophenes	1	5.0	U	2.5	5.0
C1DBA	C1-Dibenzo(a)anthracenes	1	12.5		0.7	5.0
C2DBA	C2-Dibenzo(a)anthracenes	1	5.4		0.7	5.0
C3DBA	C3-Dibenzo(a)anthracenes	1	5.0	U	0.7	5.0

Data File: \\target\share\chem3\nt14.1\20210430.16\SIH.6\NT1421043064S.D

Date : 02-May-2021 10:01

Client ID:

Sample Info: 21D0180-02

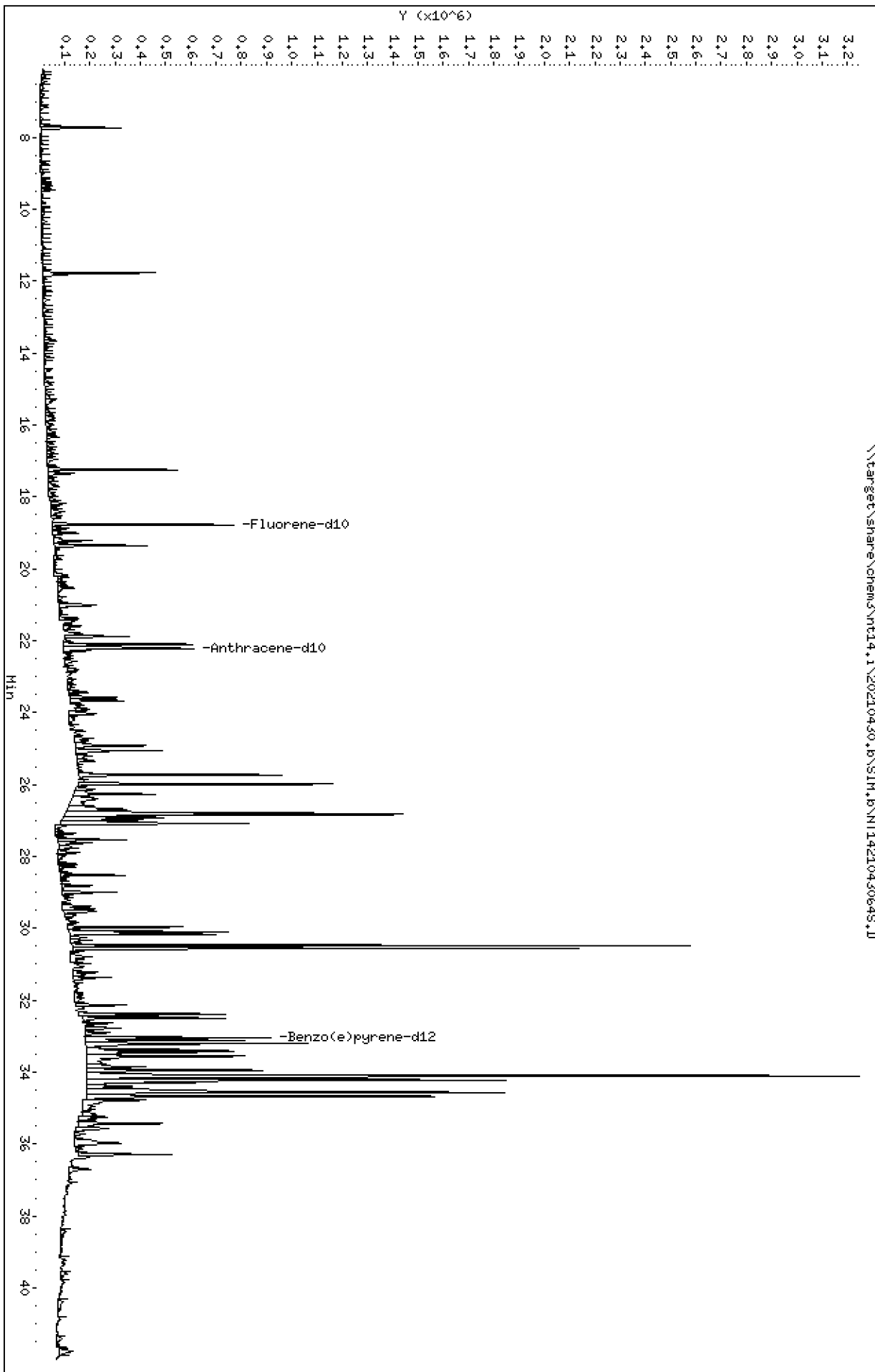
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

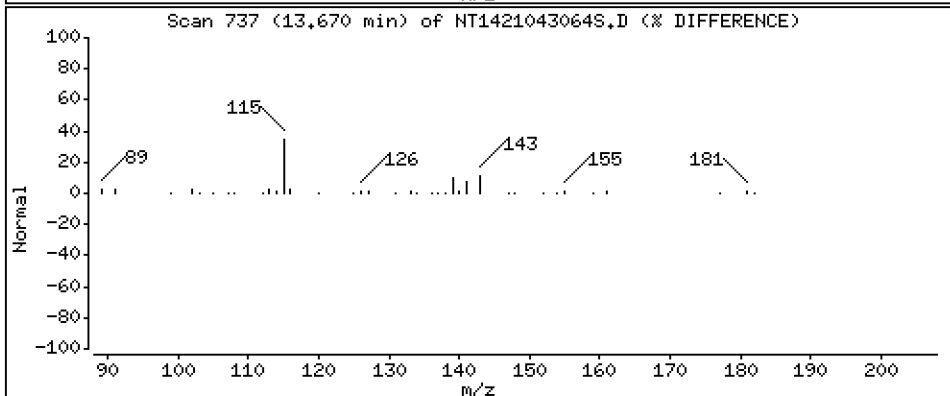
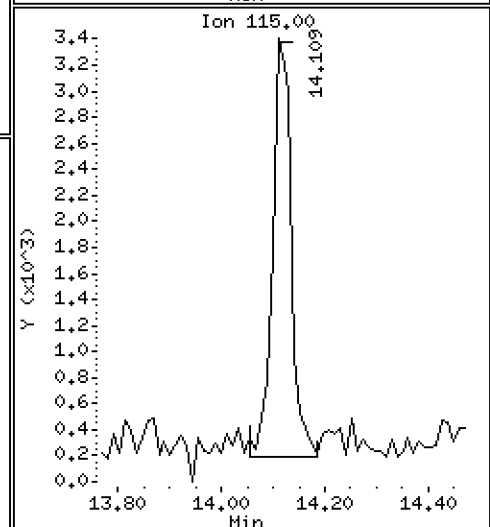
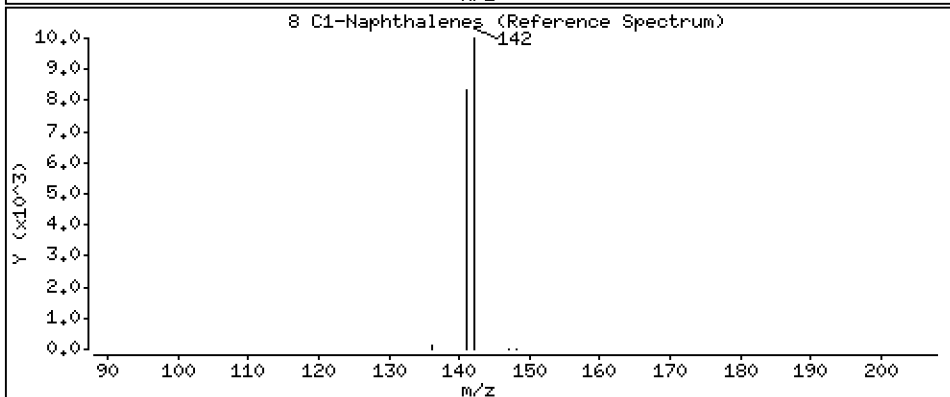
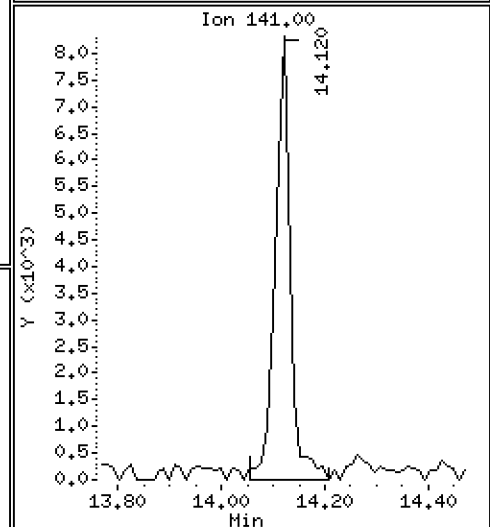
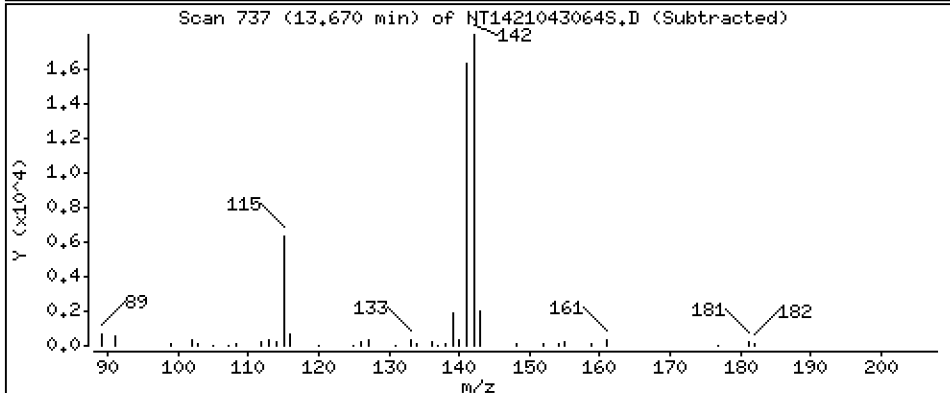
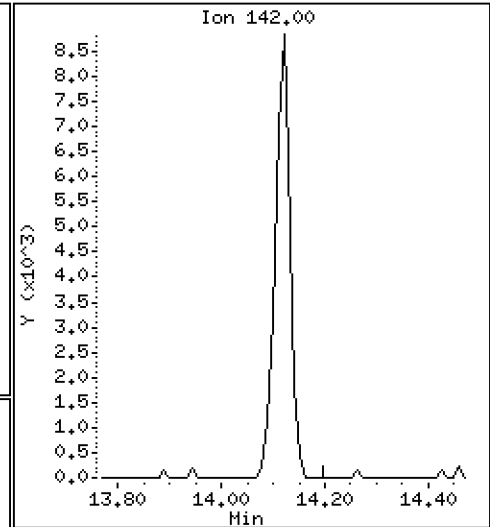
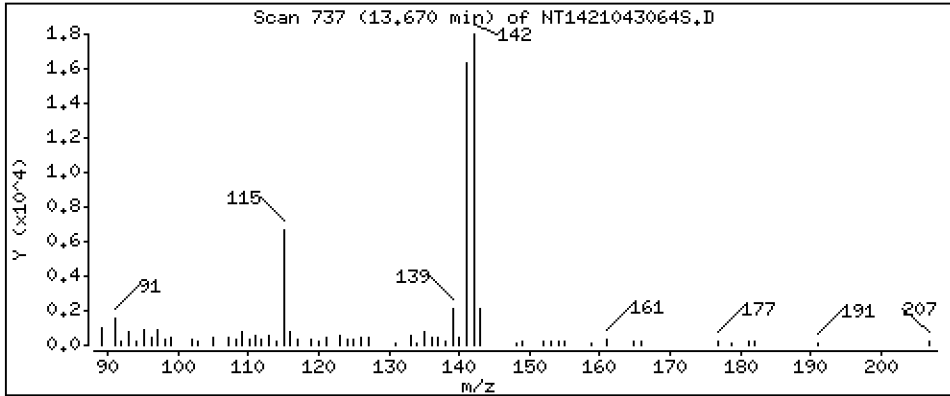
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

8 C1-Naphthalenes

Concentration: 0.2124 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

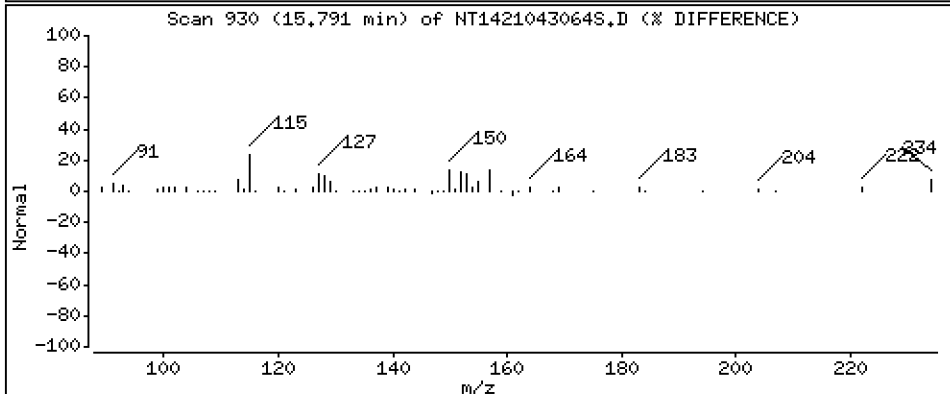
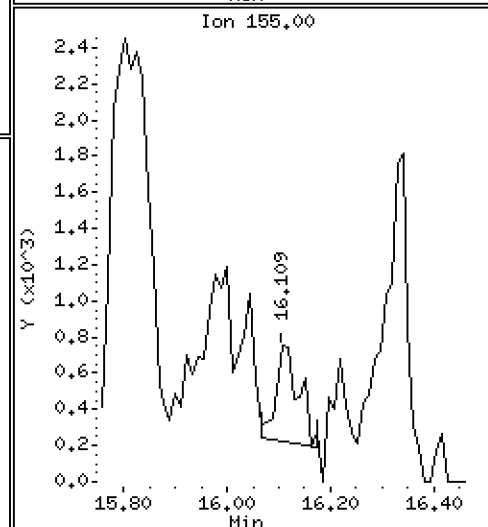
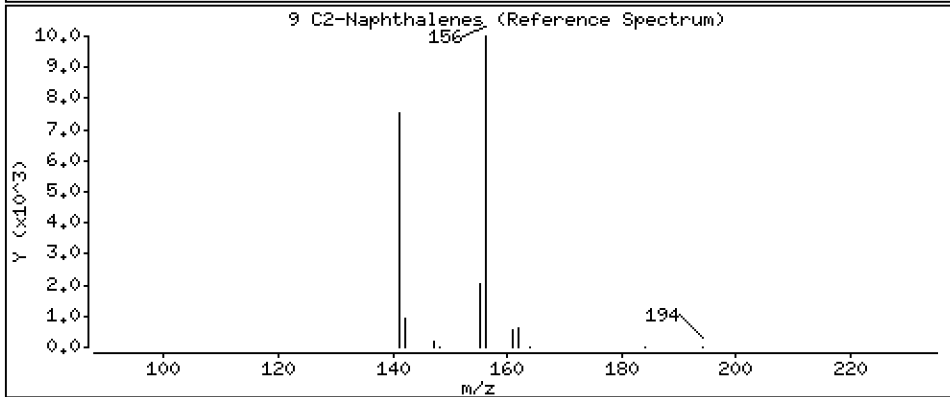
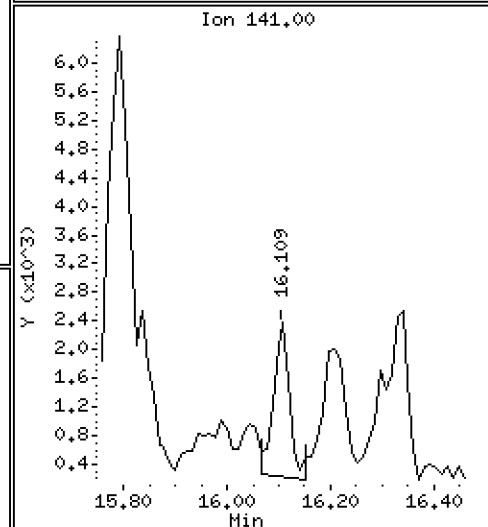
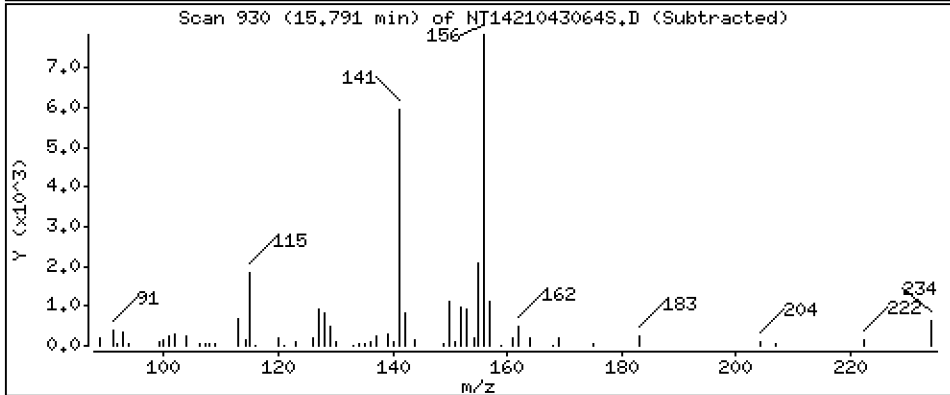
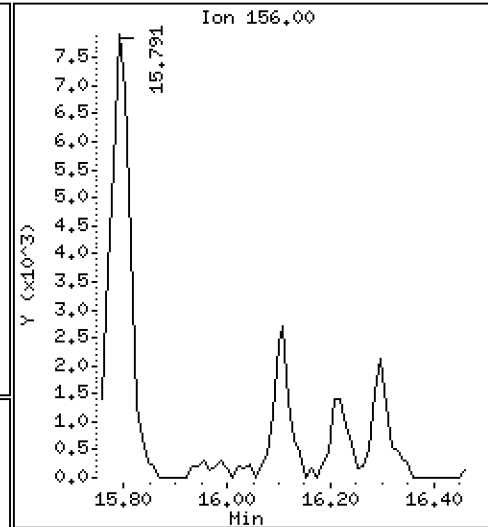
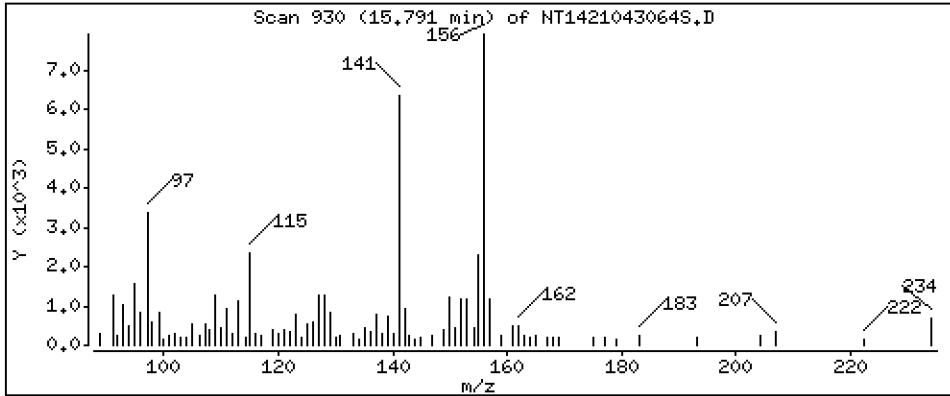
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

9 C2-Naphthalenes

Concentration: 0.2727 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

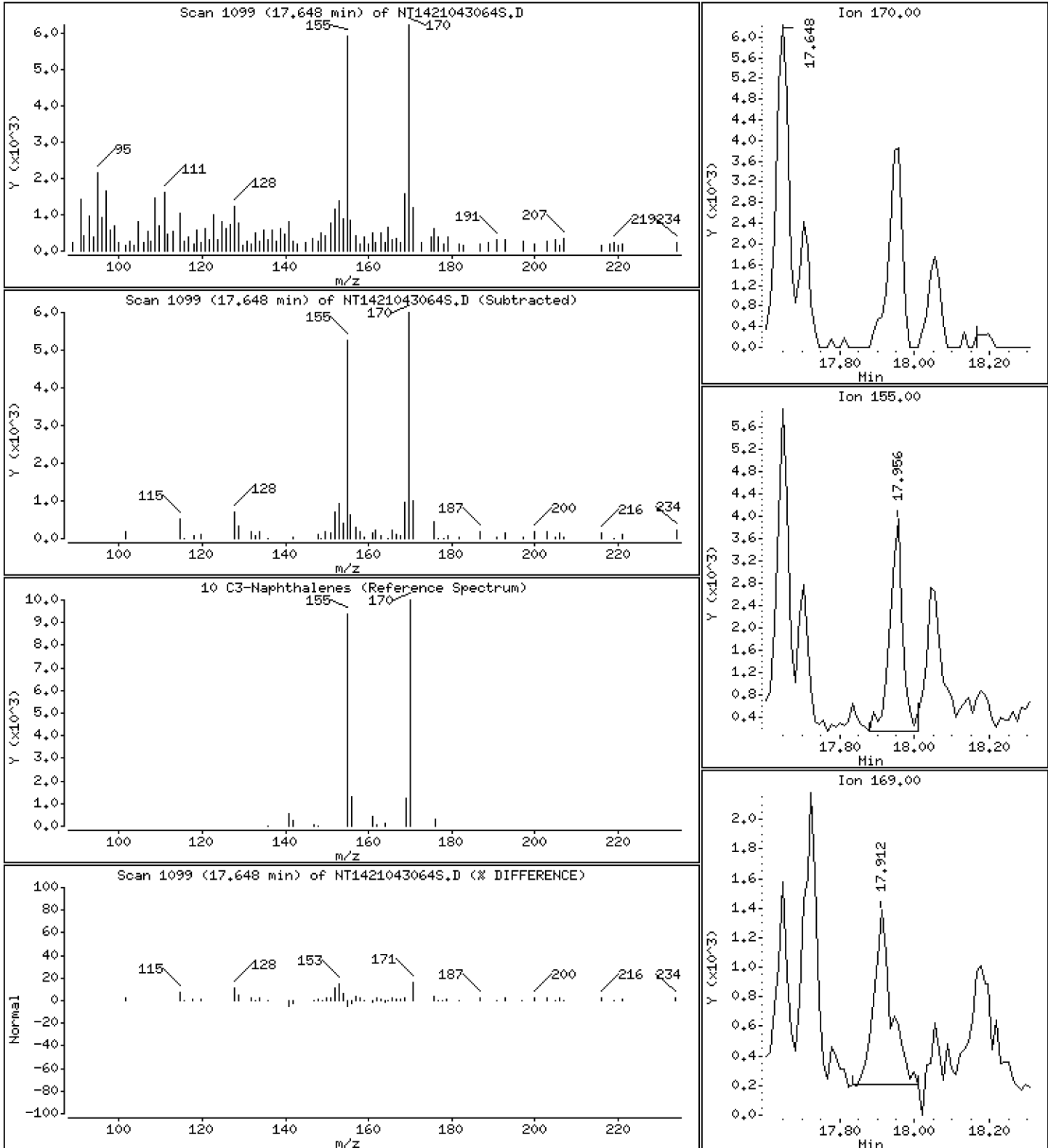
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

10 C3-Naphthalenes

Concentration: 0.2376 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

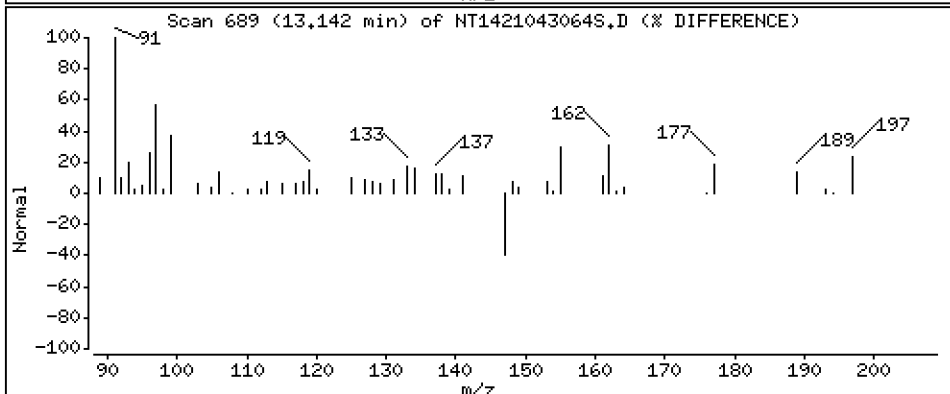
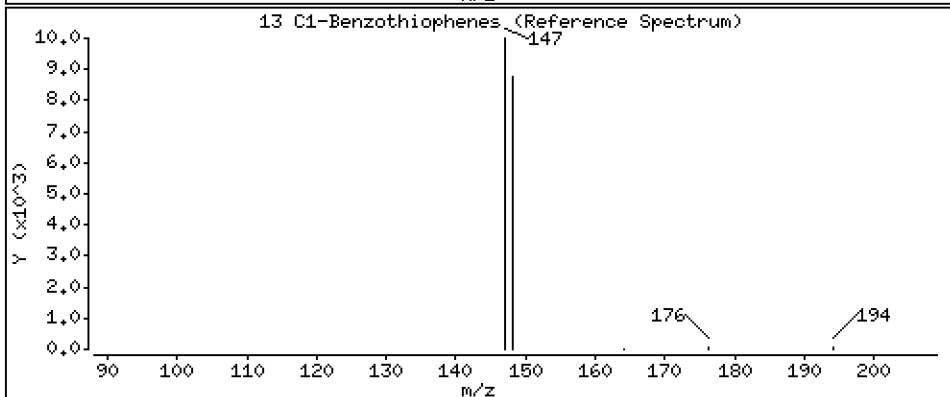
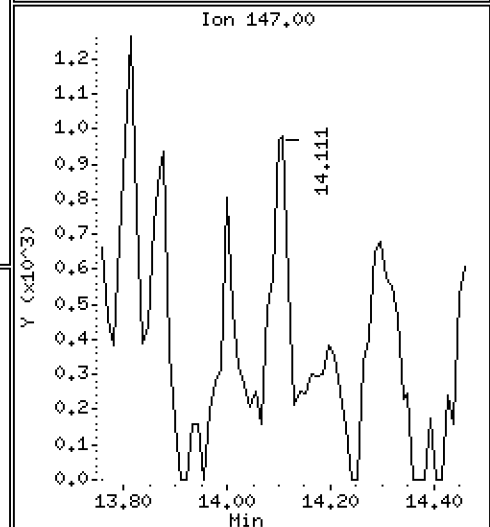
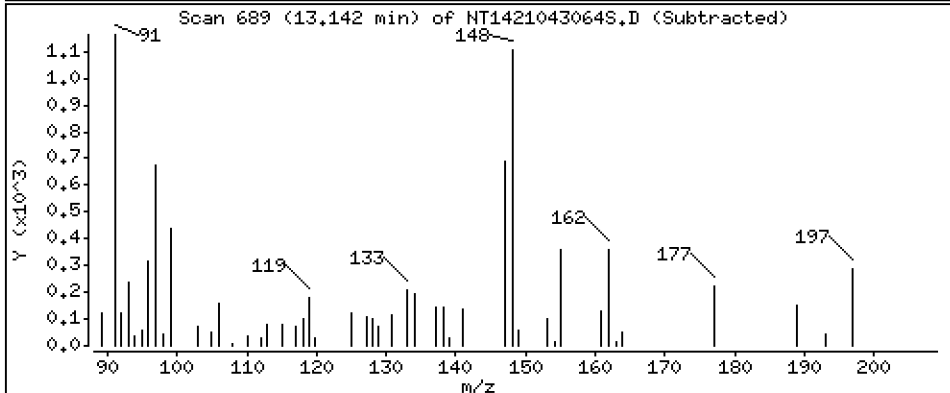
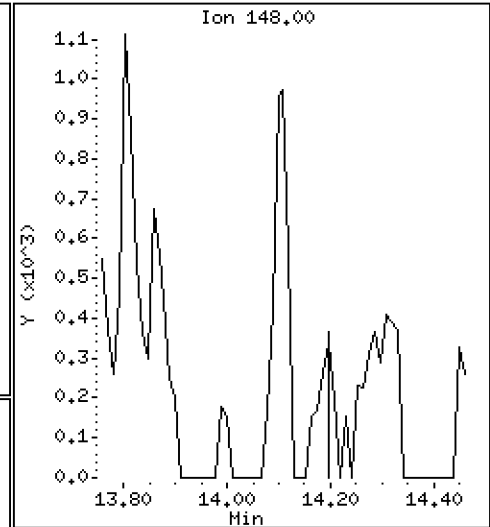
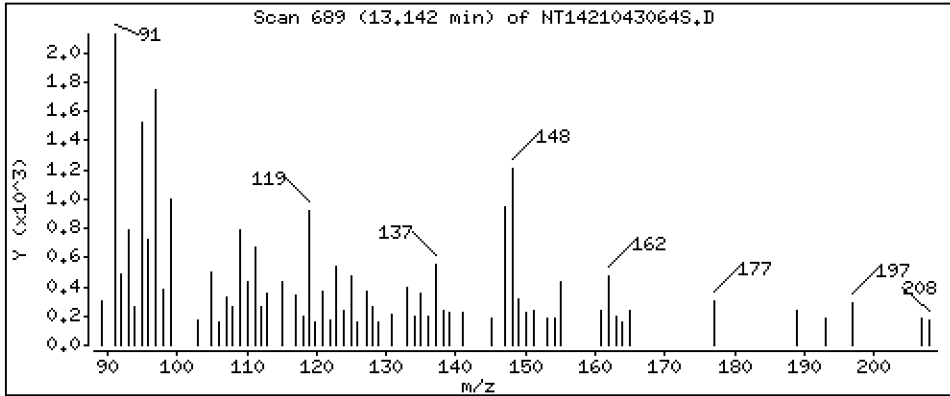
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

13 C1-Benzothiophenes

Concentration: 0.05948 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

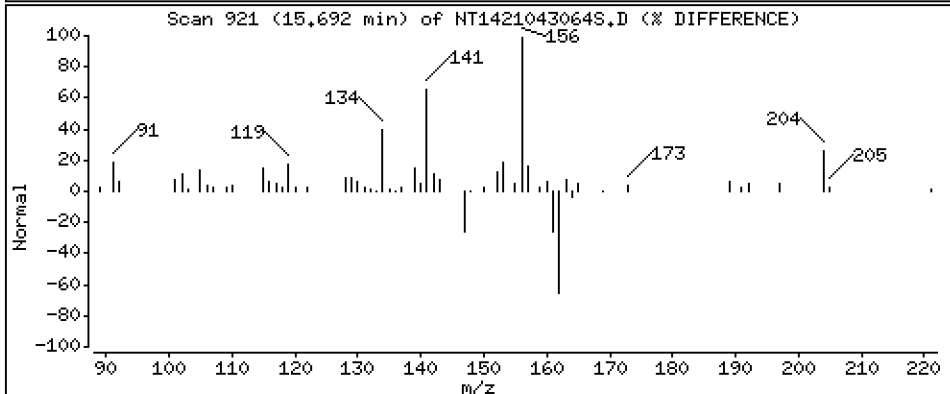
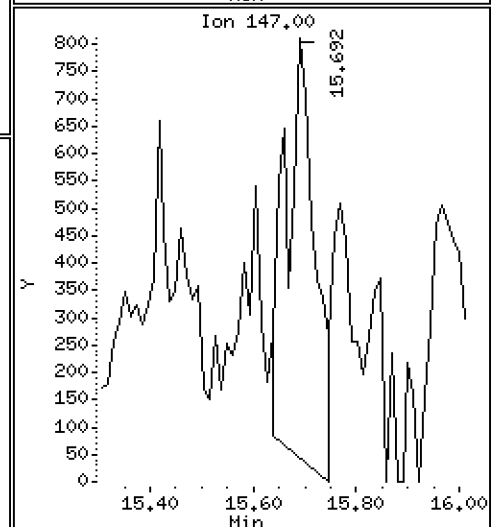
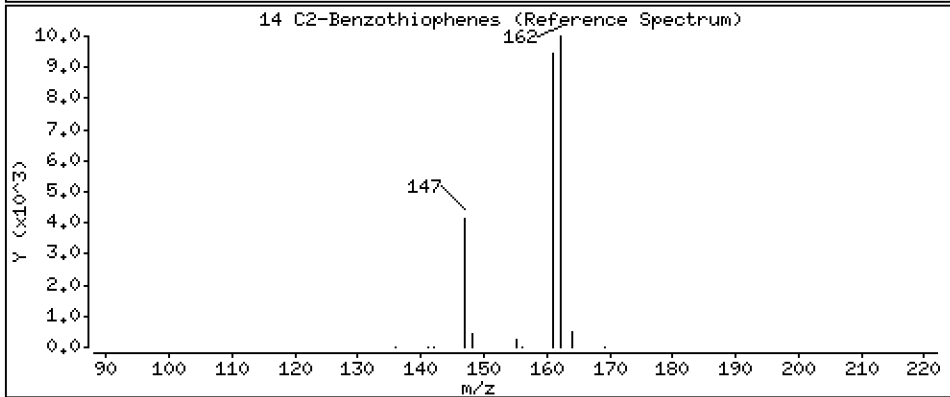
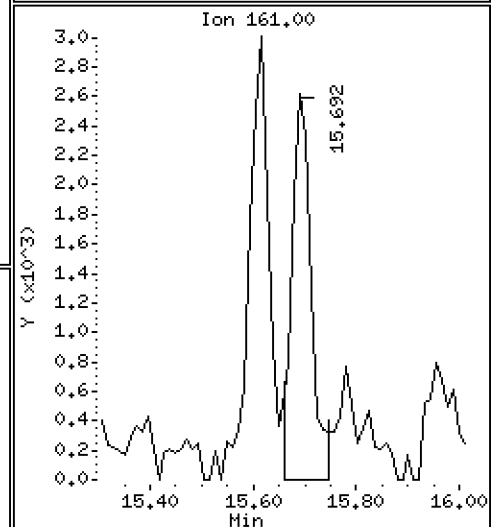
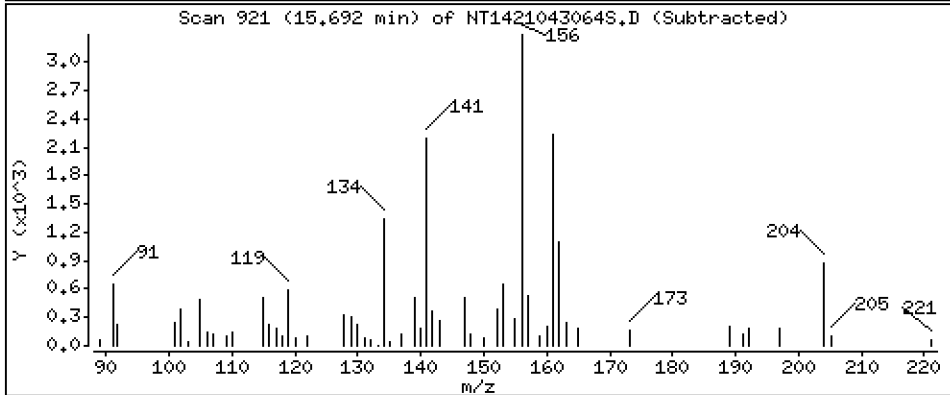
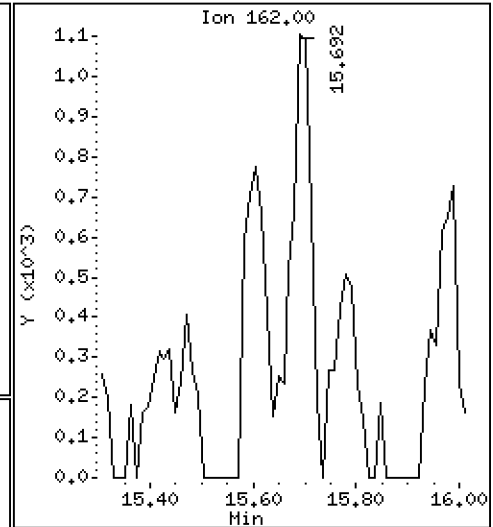
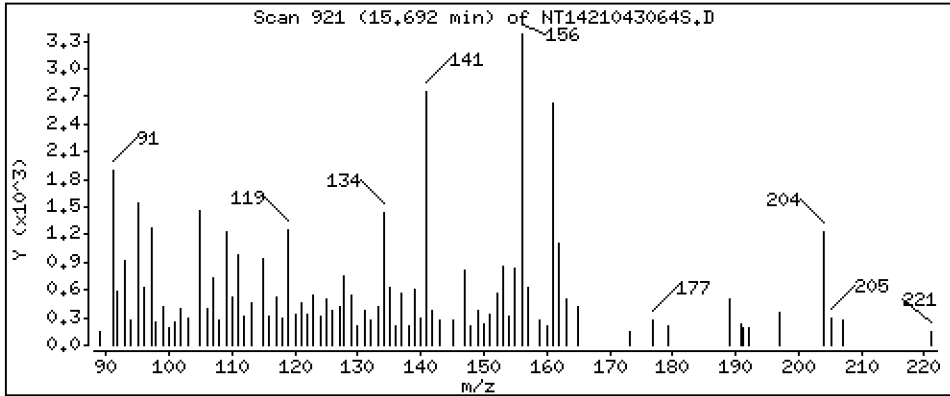
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

14 C2-Benzothiophenes

Concentration: 0.08740 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

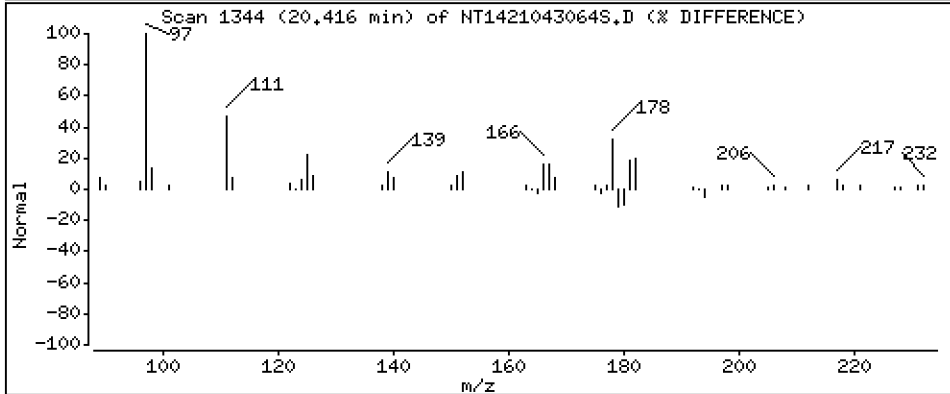
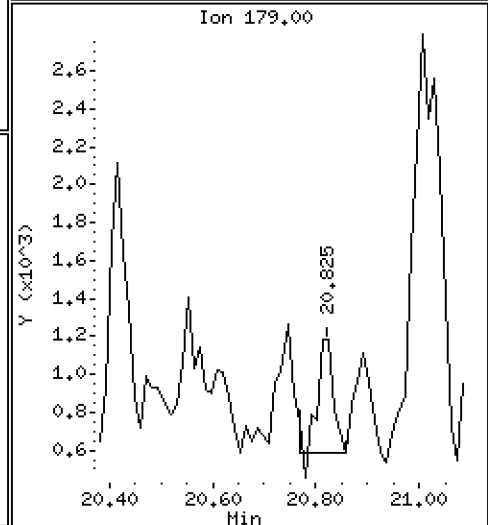
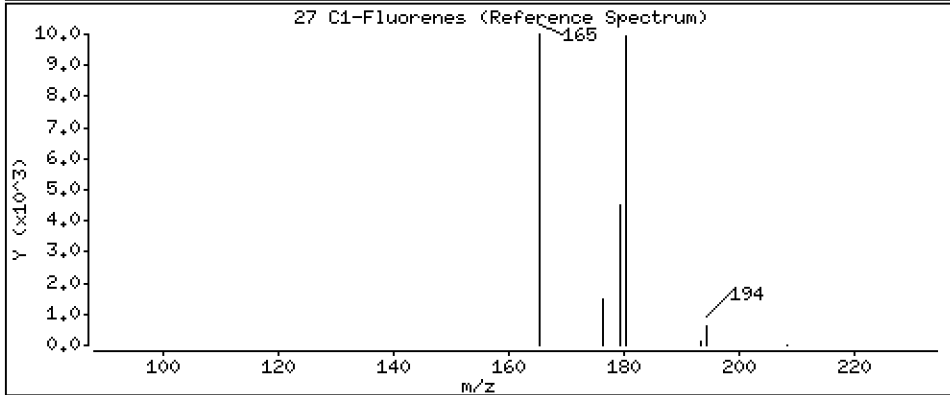
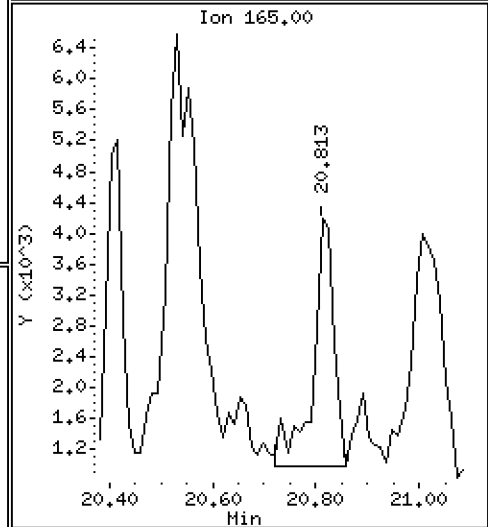
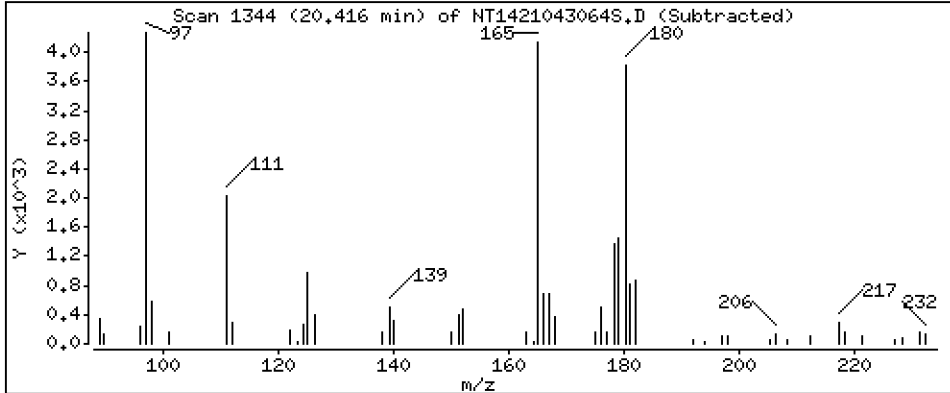
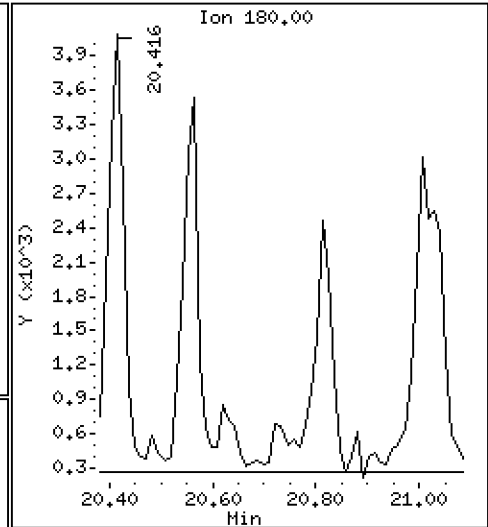
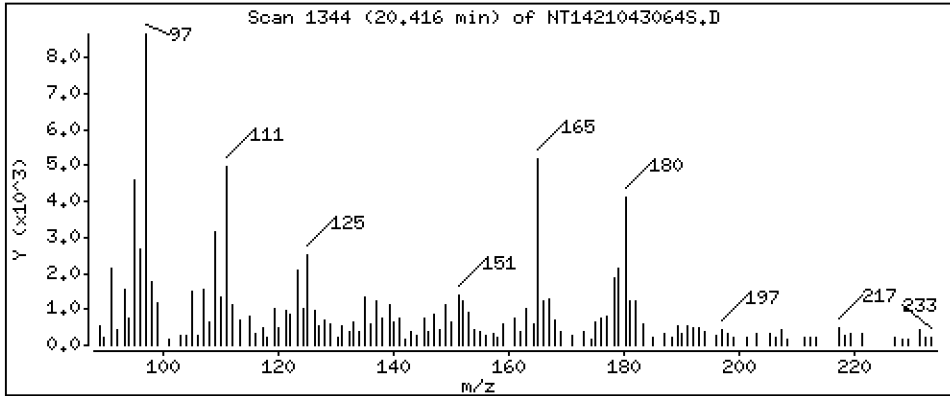
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

27 C1-Fluorenes

Concentration: 0.2404 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

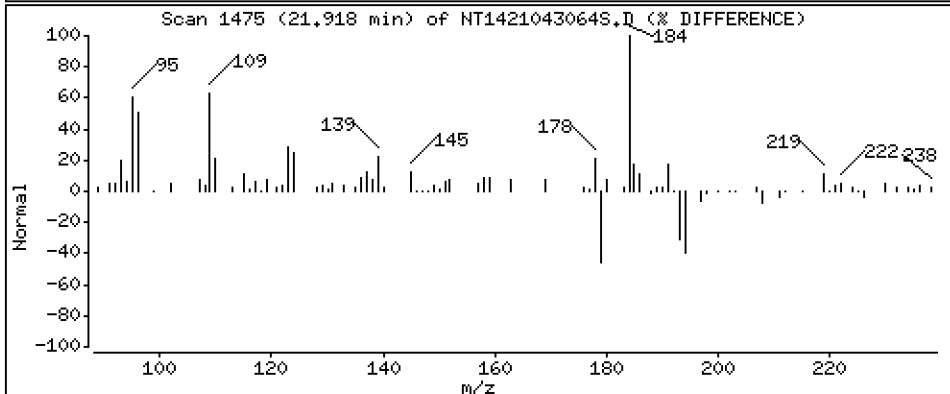
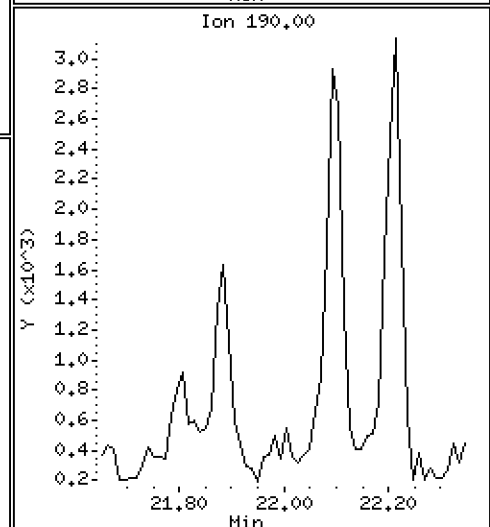
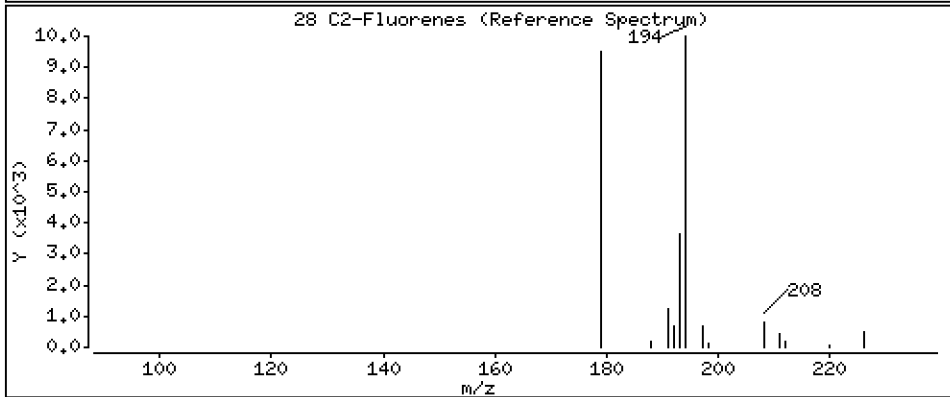
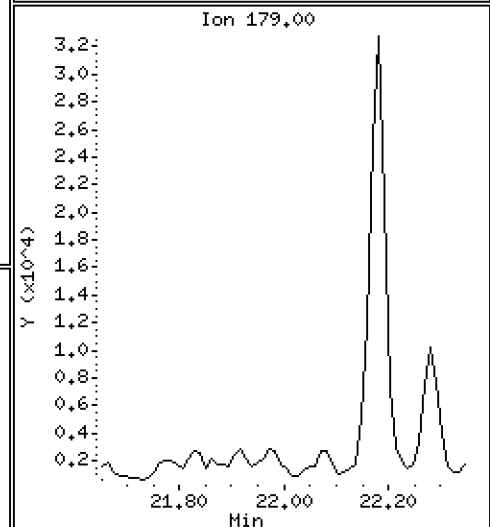
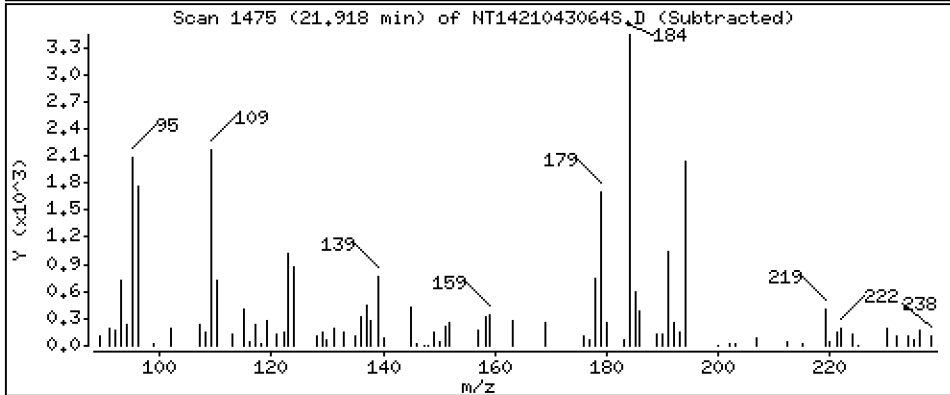
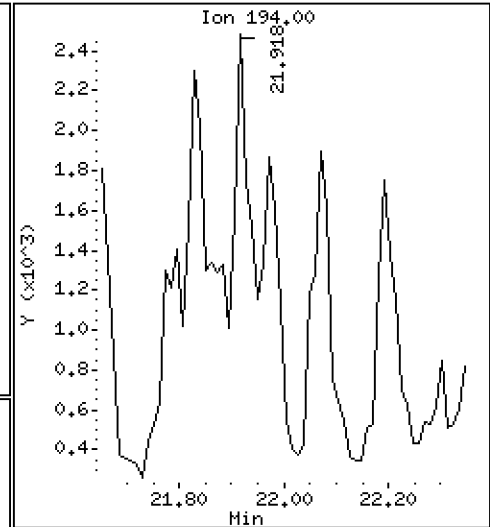
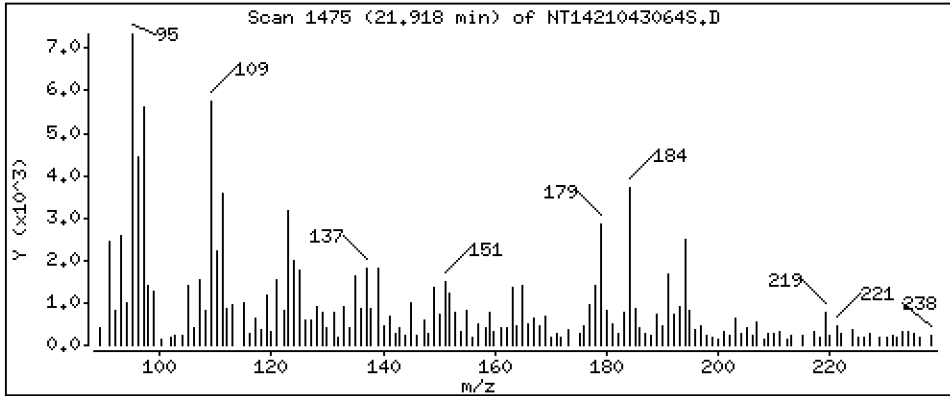
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

28 C2-Fluorenes

Concentration: 0,2665 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

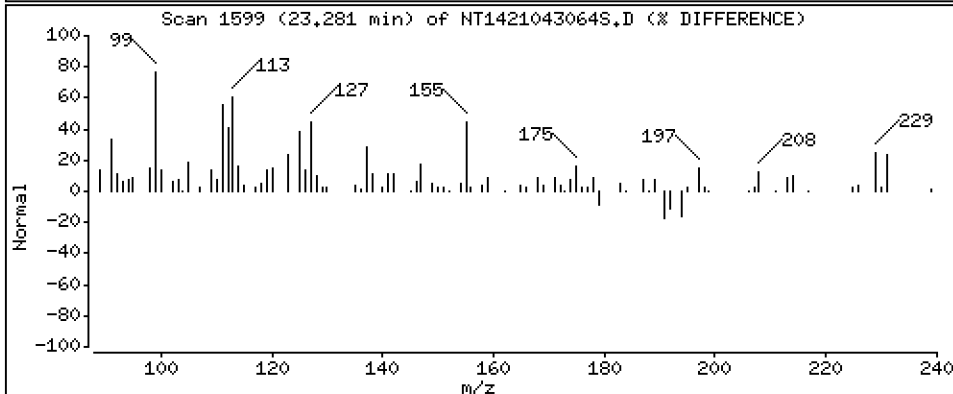
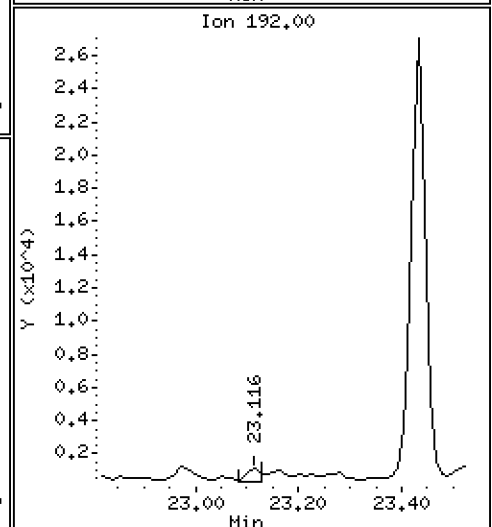
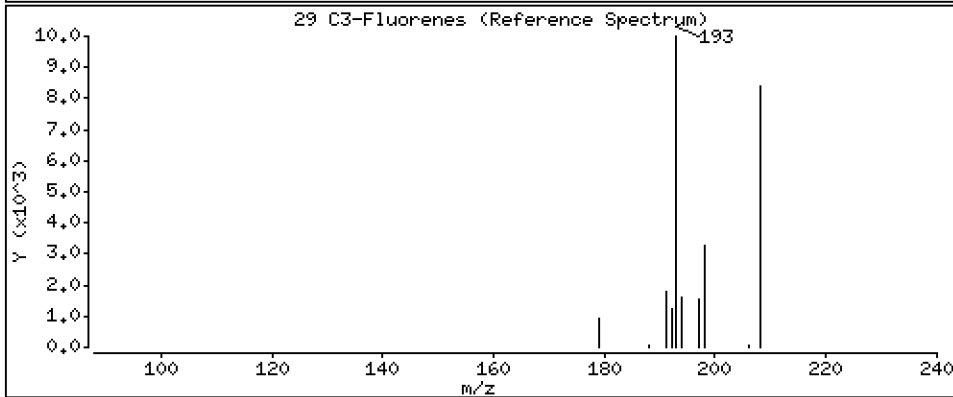
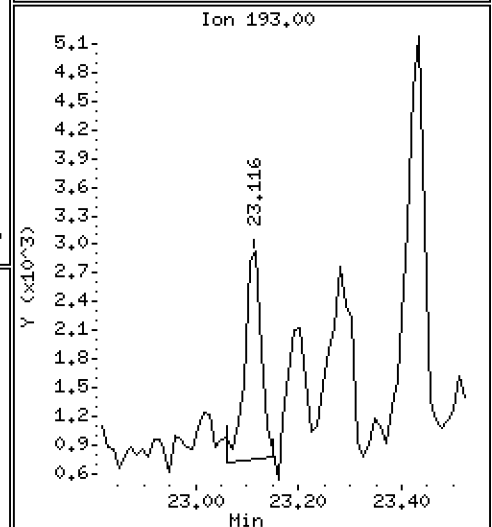
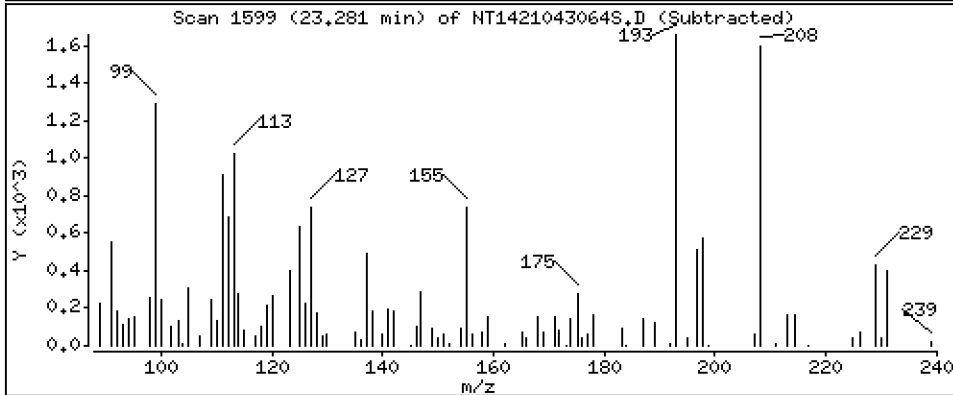
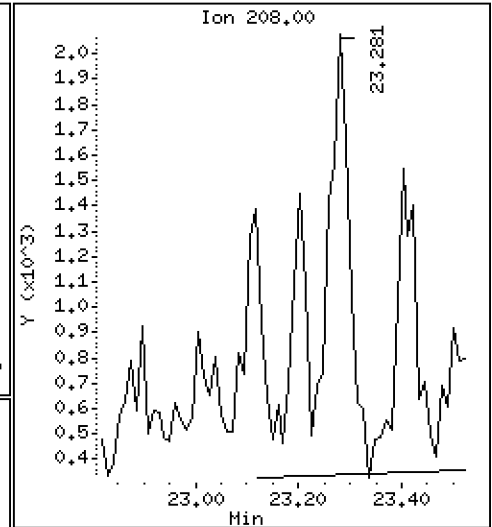
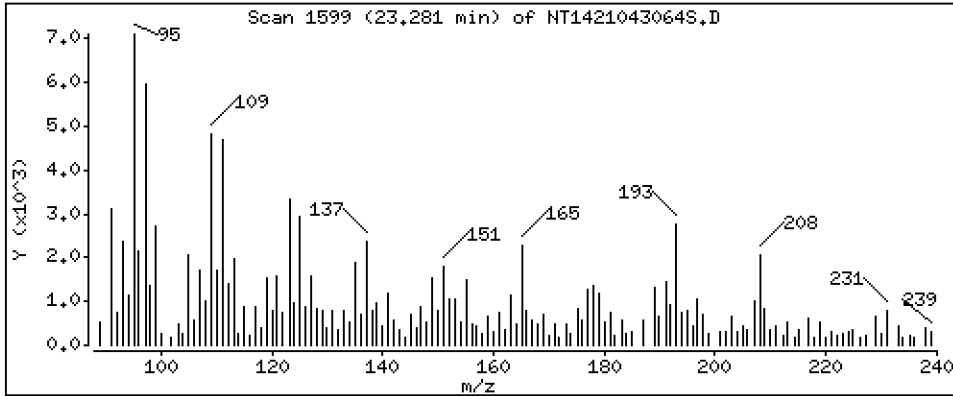
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

29 C3-Fluorenes

Concentration: 0.2456 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

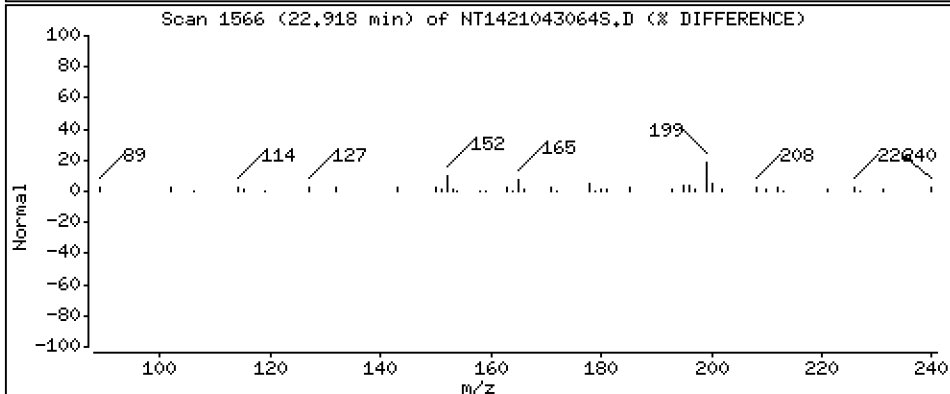
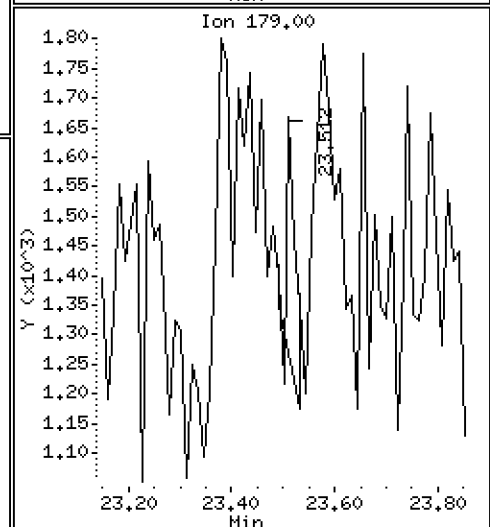
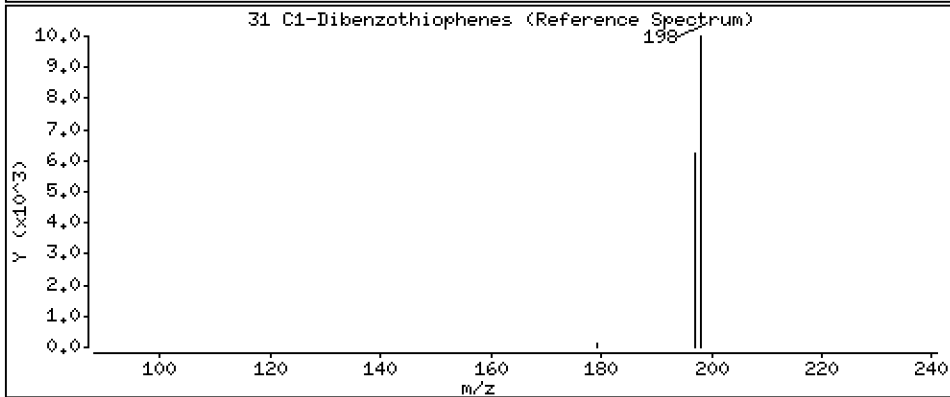
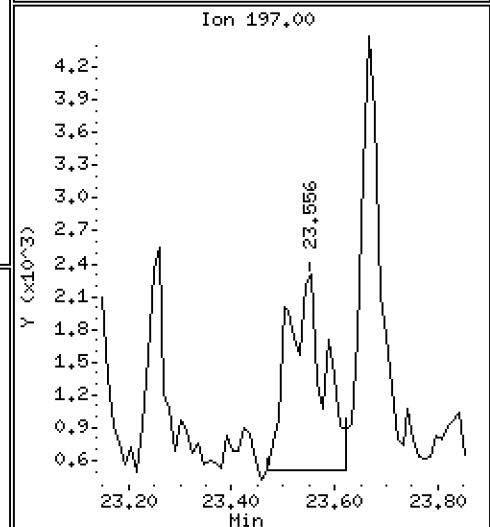
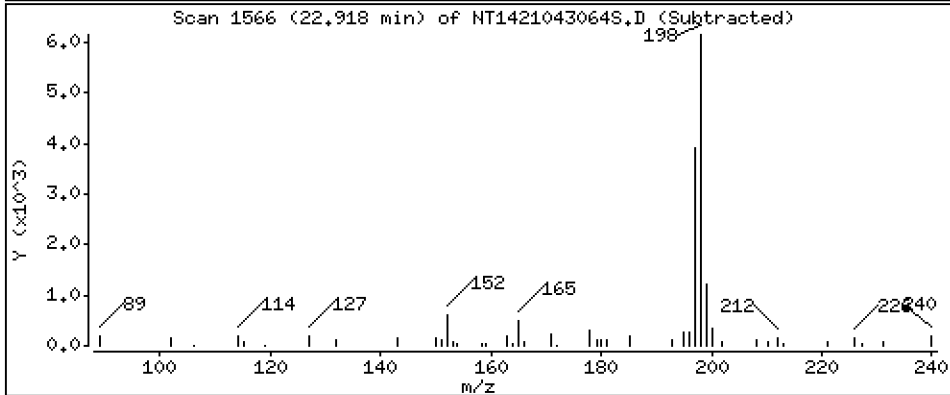
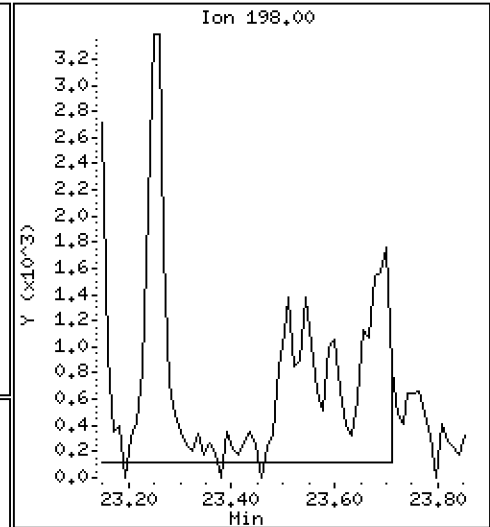
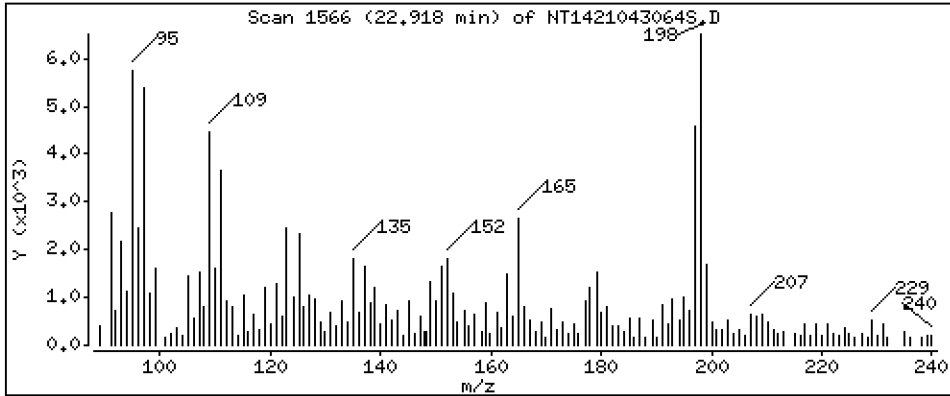
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

31 C1-Dibenzothiophenes

Concentration: 0.1899 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

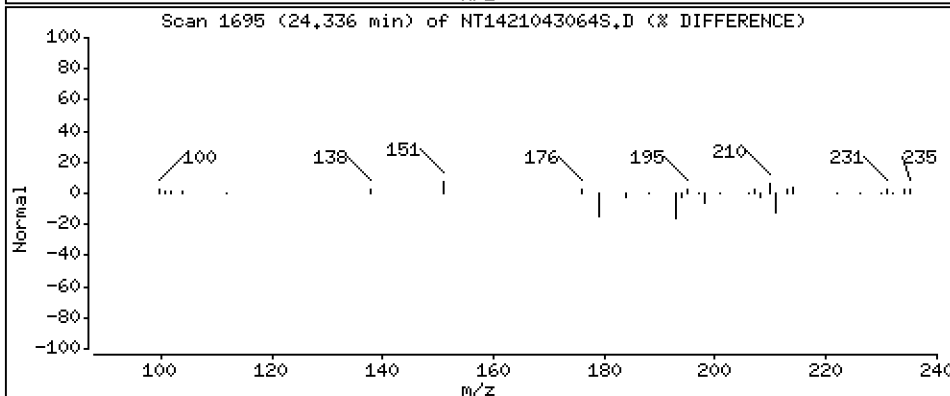
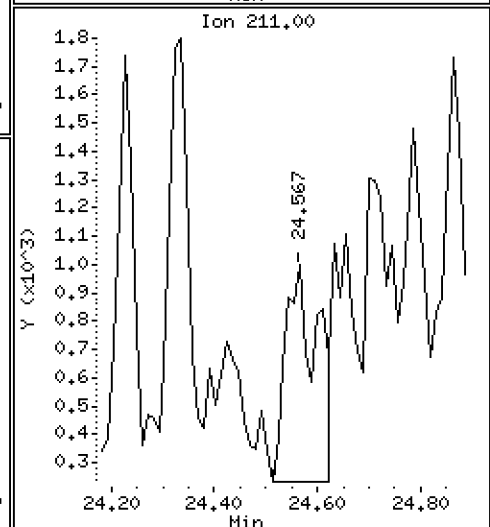
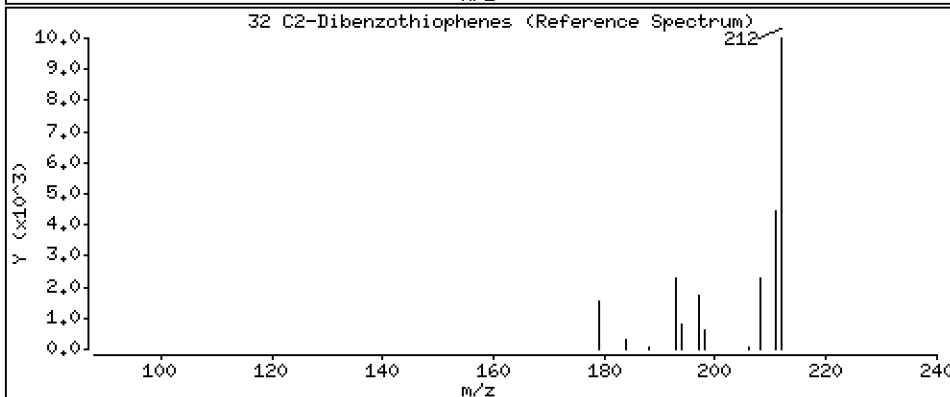
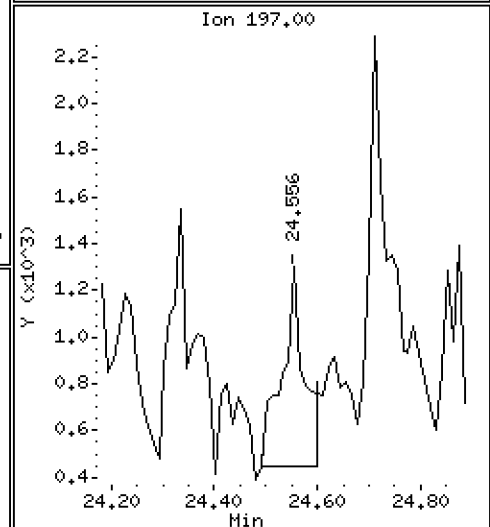
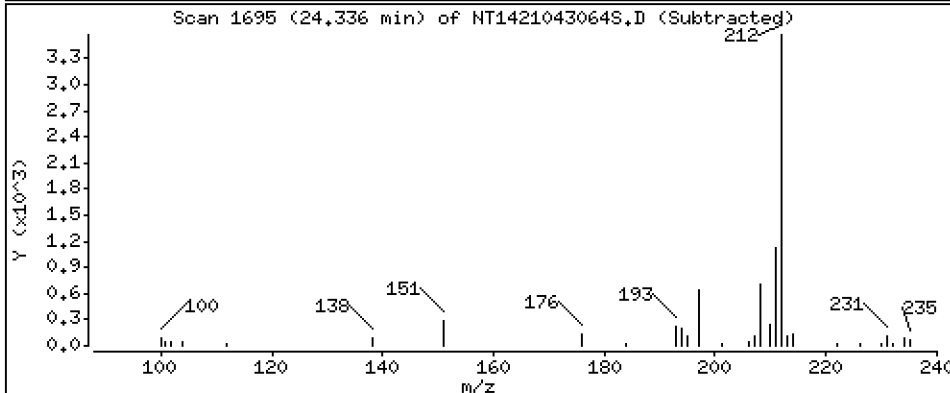
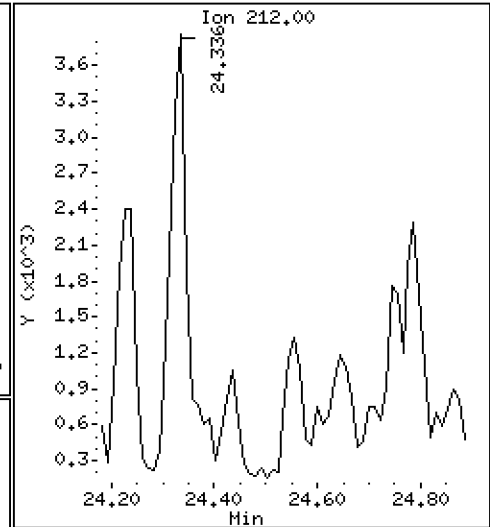
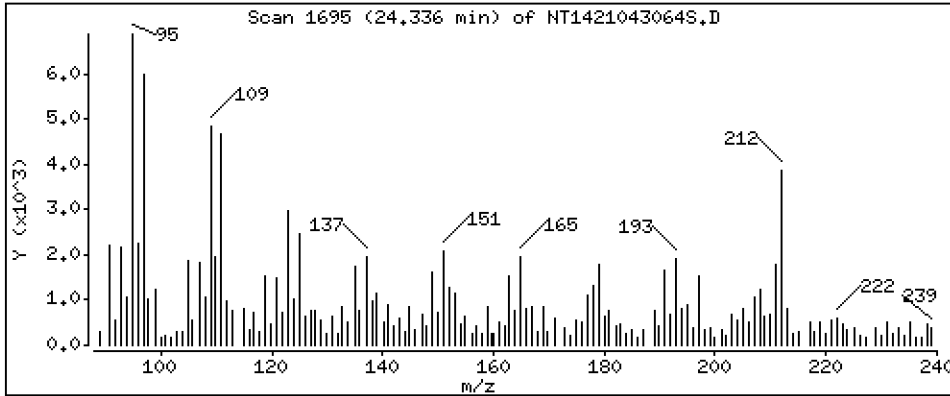
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

32 C2-Dibenzothiophenes

Concentration: 0,2683 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

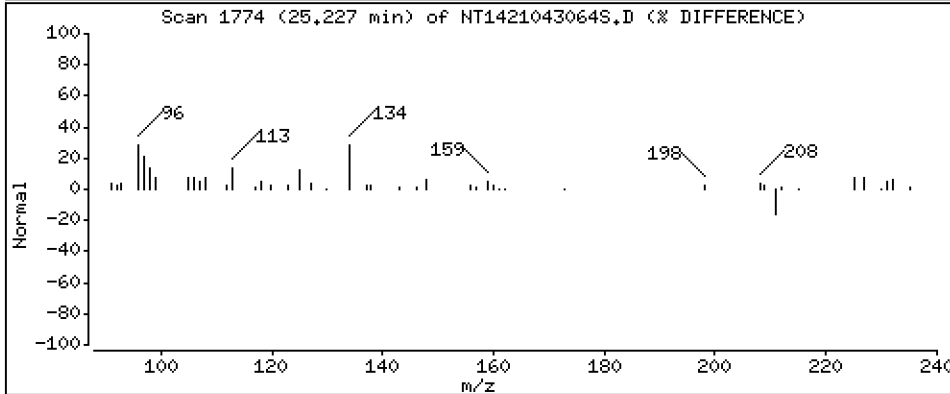
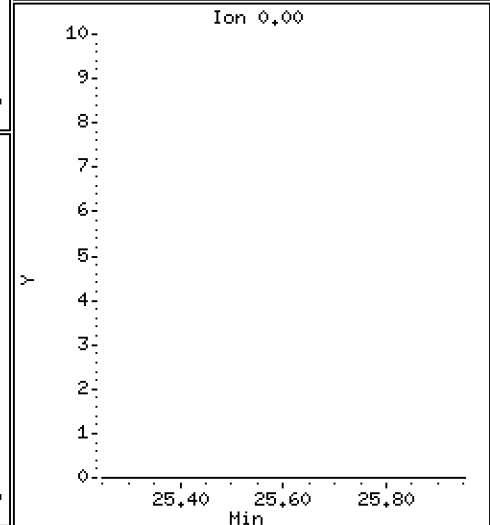
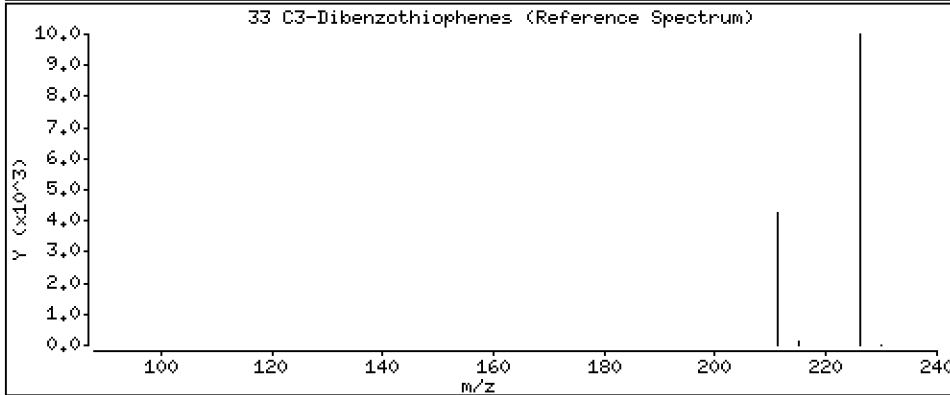
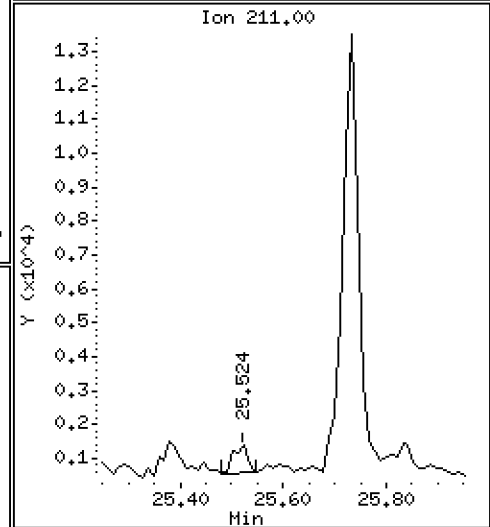
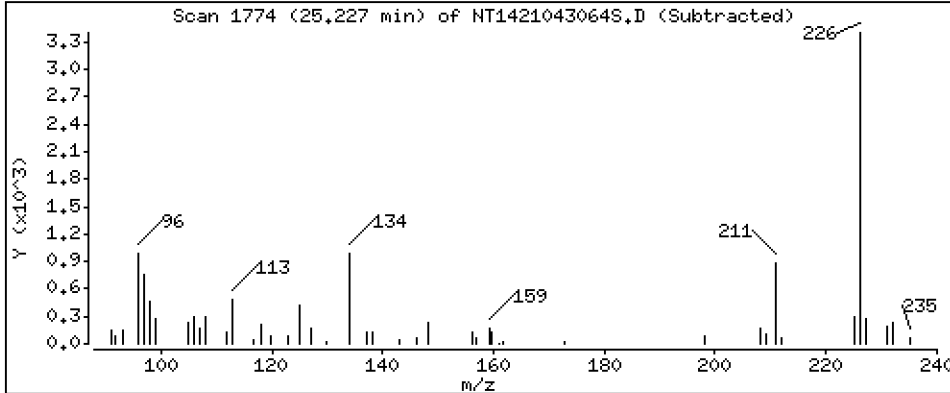
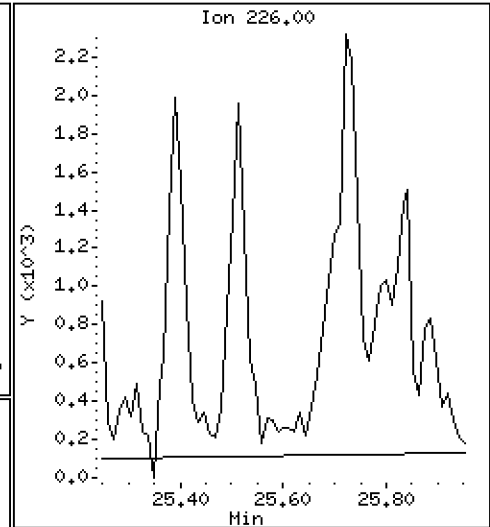
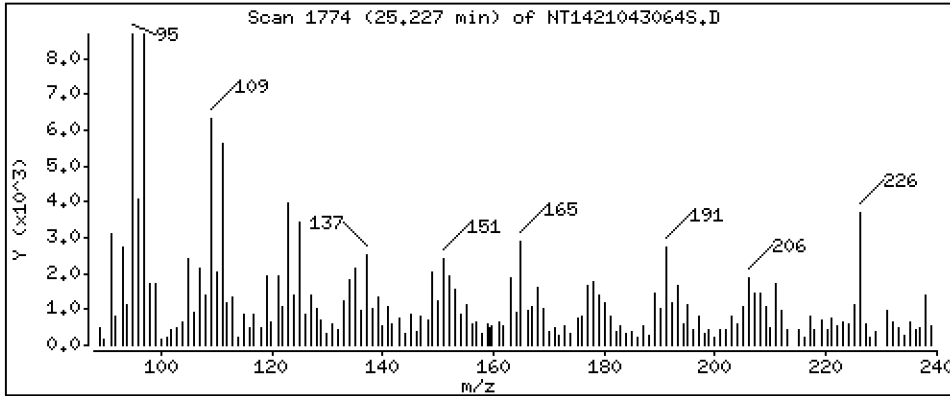
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

33 C3-Dibenzothiophenes

Concentration: 0,2587 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

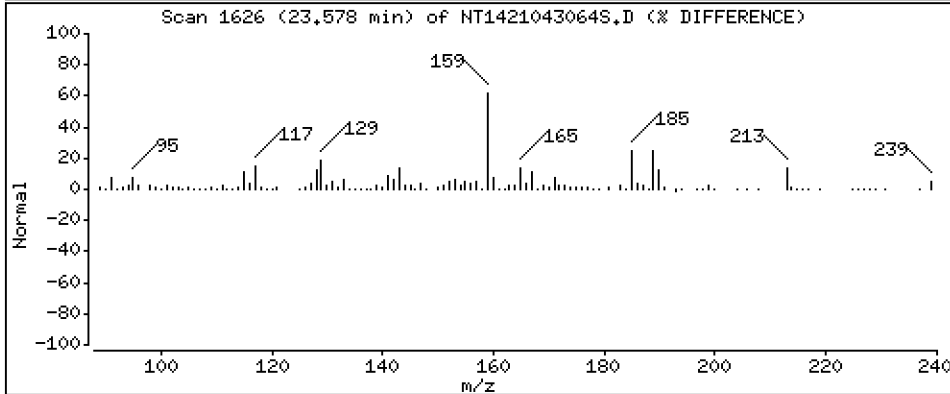
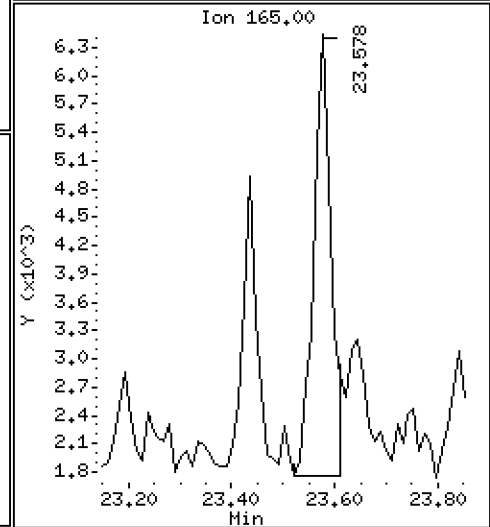
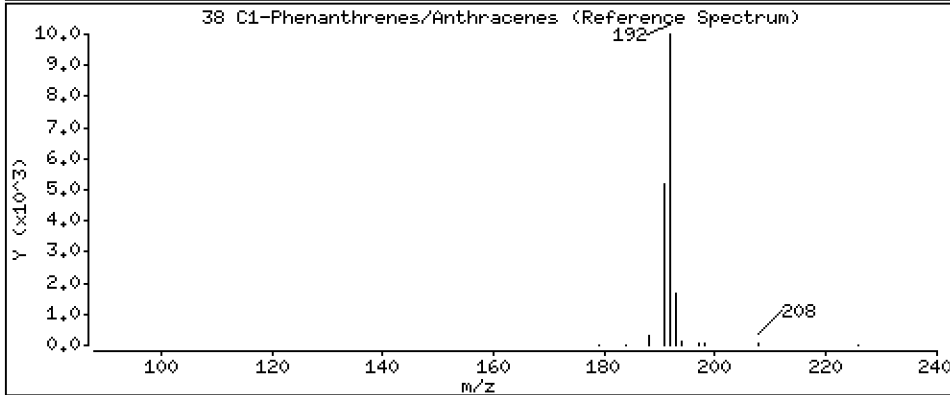
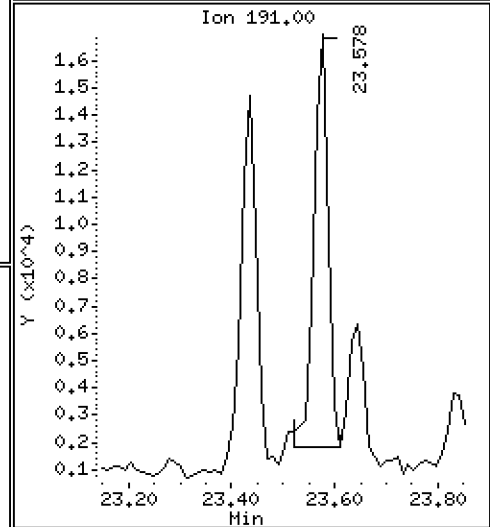
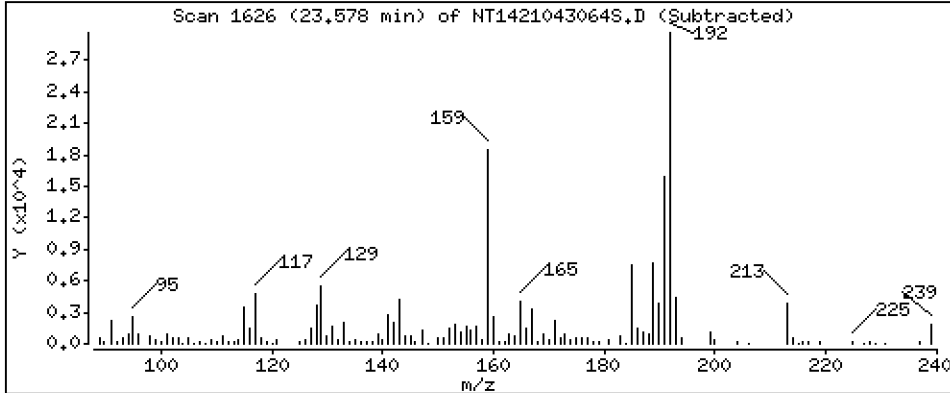
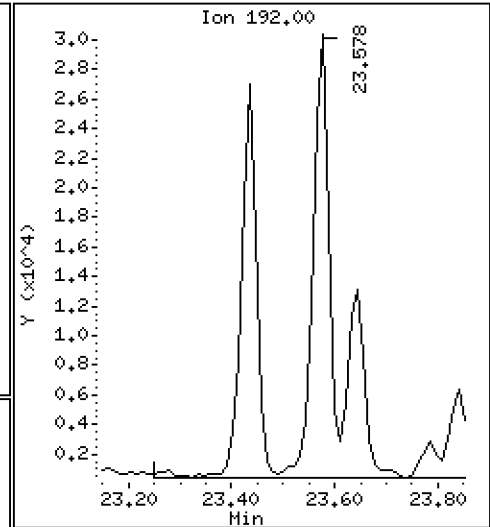
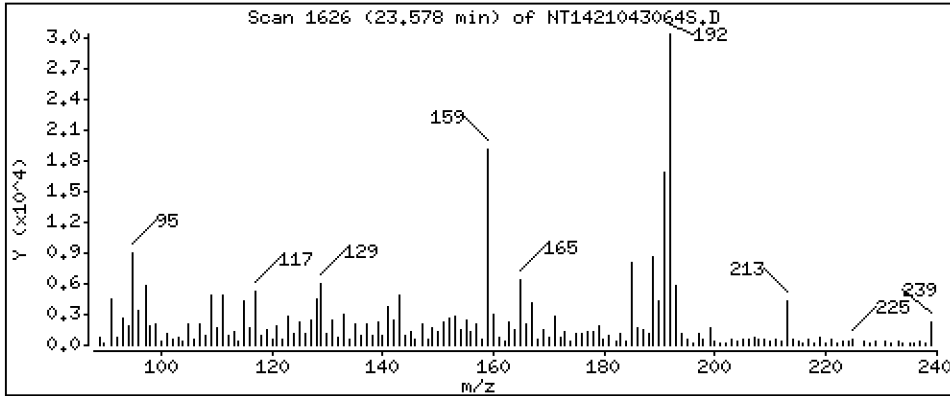
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

38 C1-Phenanthrenes/Anthracenes

Concentration: 0,8941 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

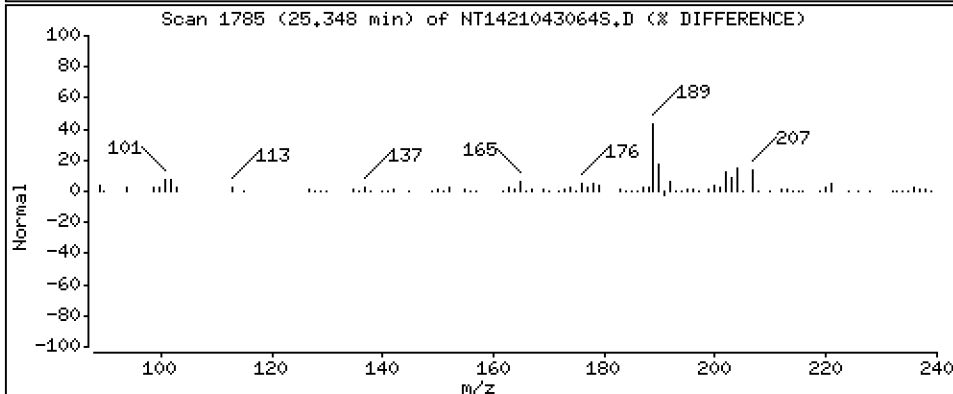
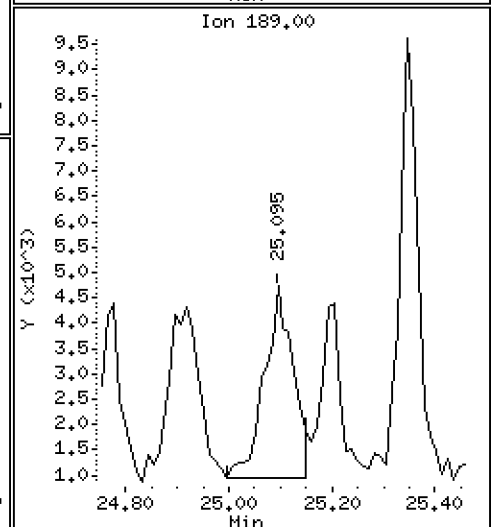
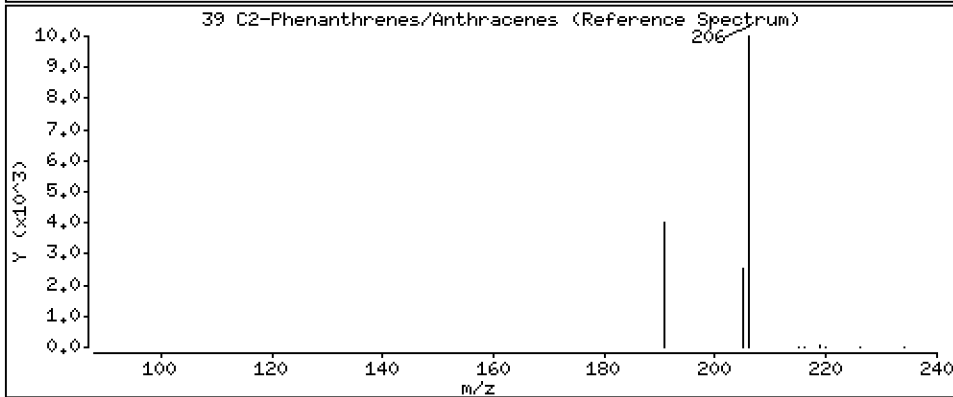
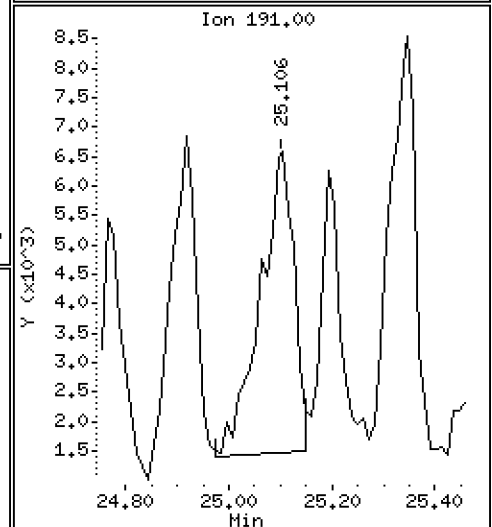
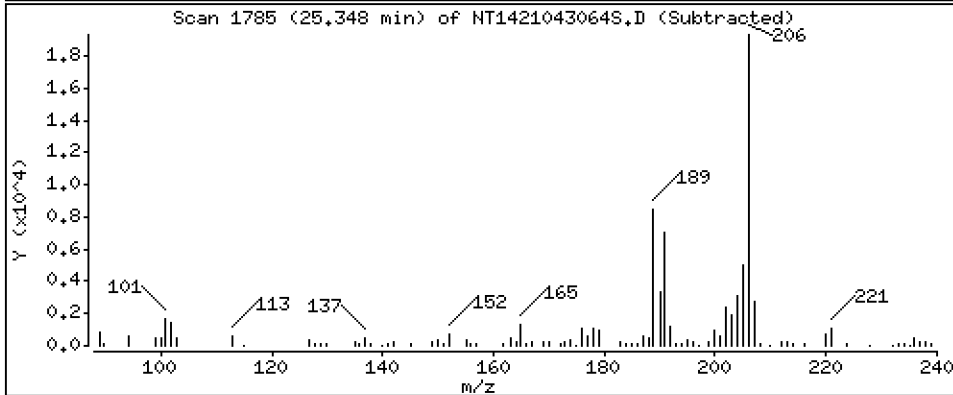
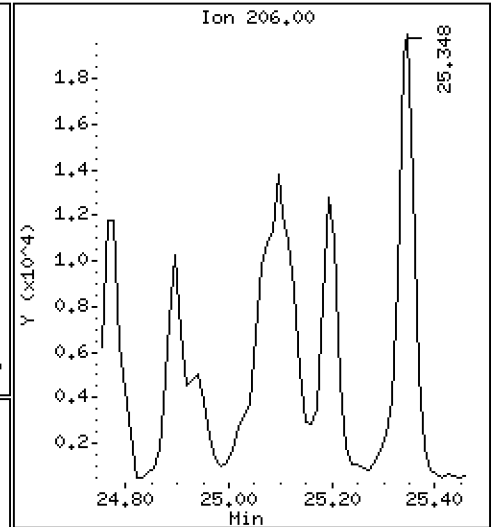
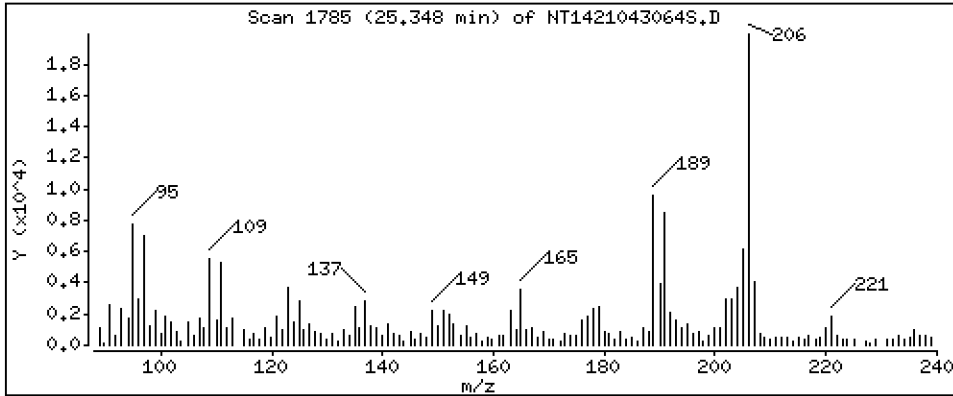
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

39 C2-Phenanthrenes/Anthracenes

Concentration: 0,9571 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

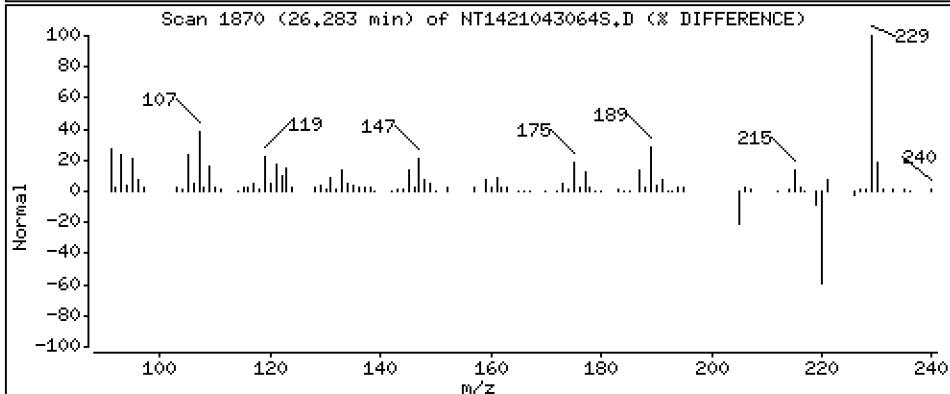
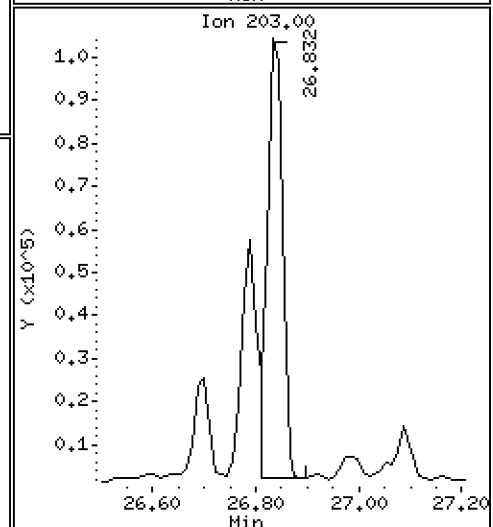
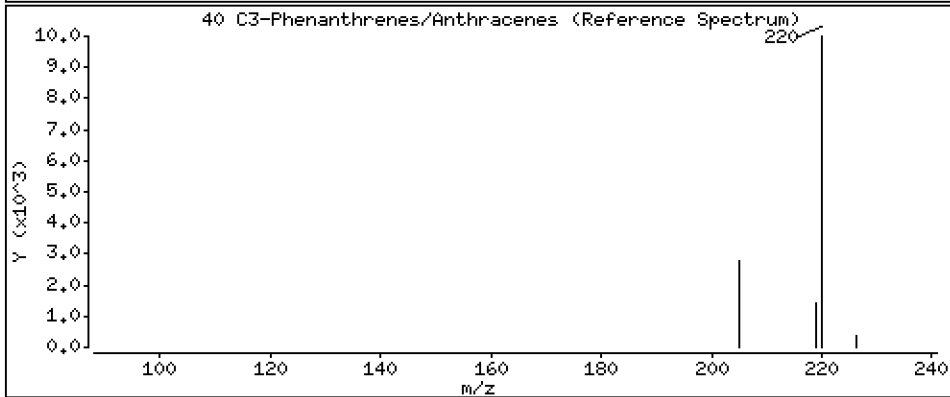
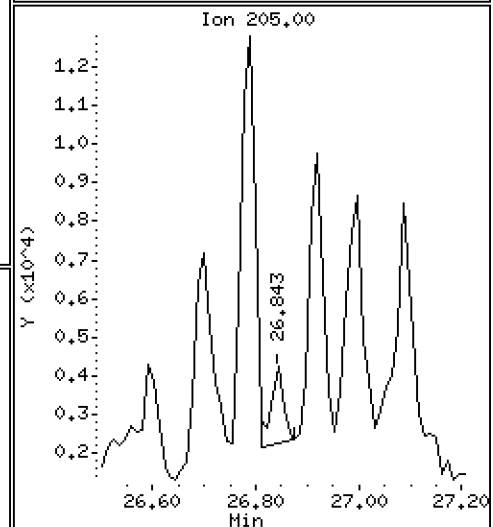
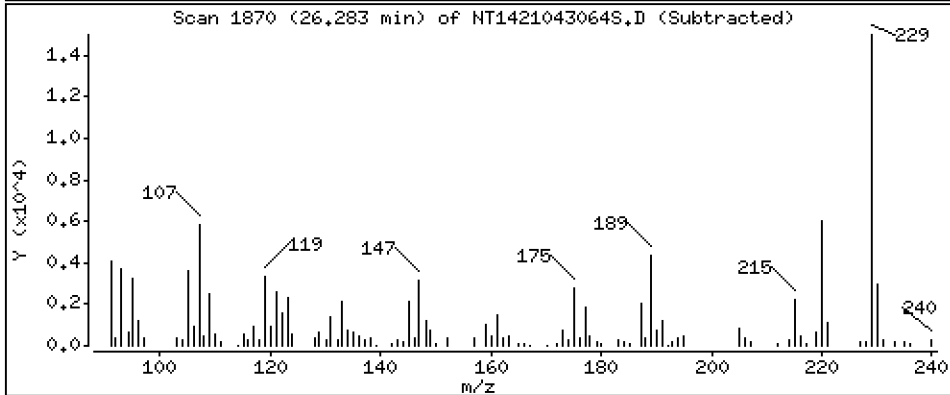
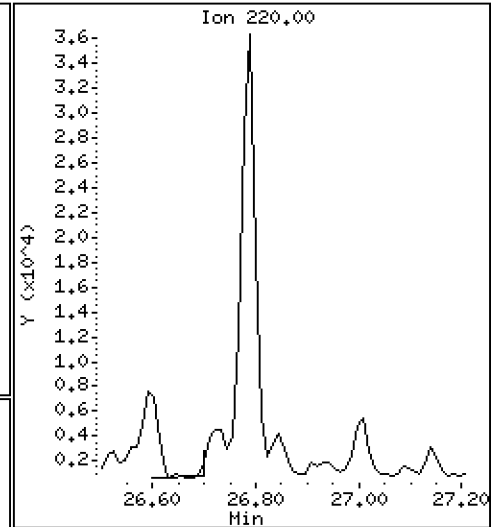
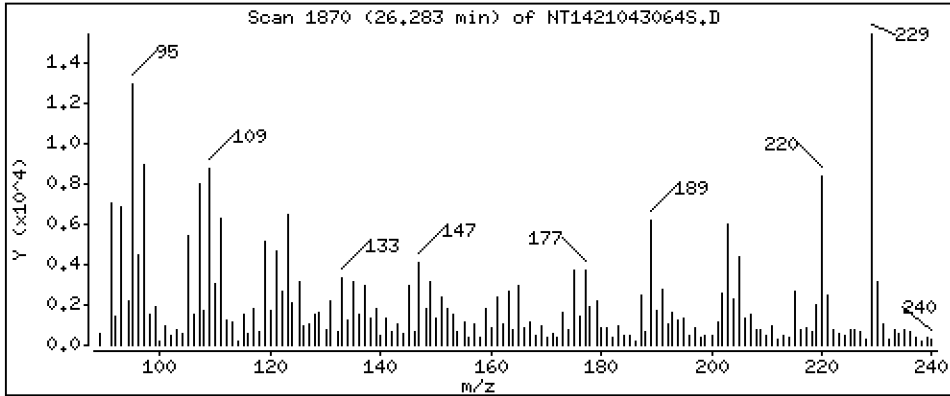
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

40 C3-Phenanthrenes/Anthracenes

Concentration: 0,3753 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

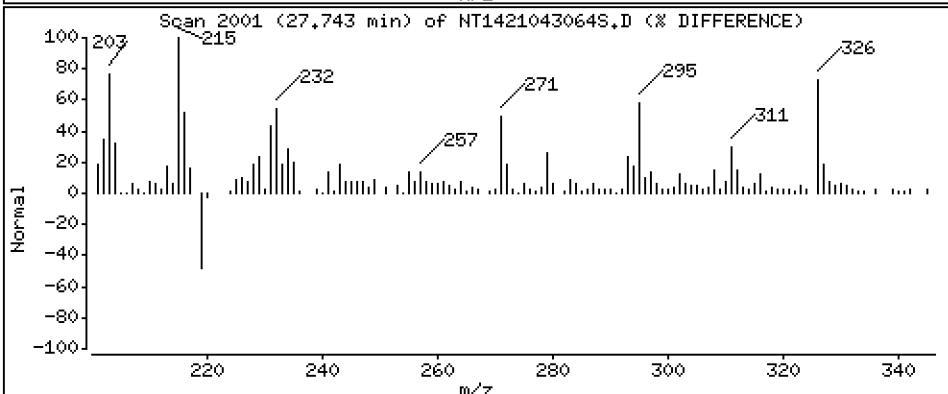
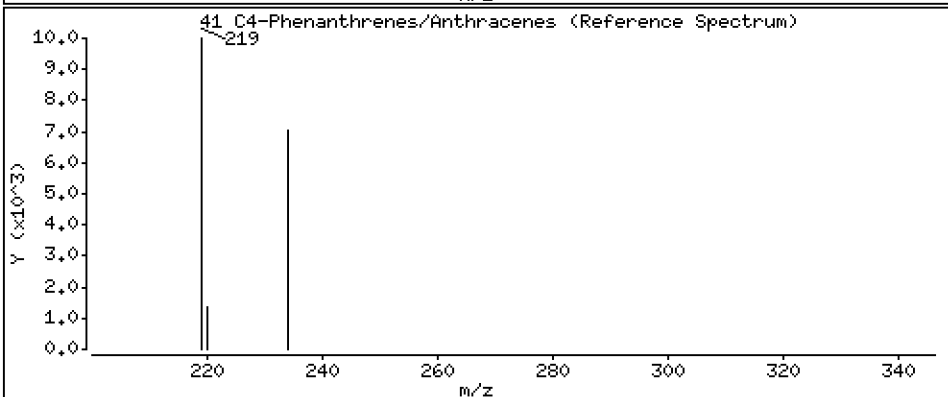
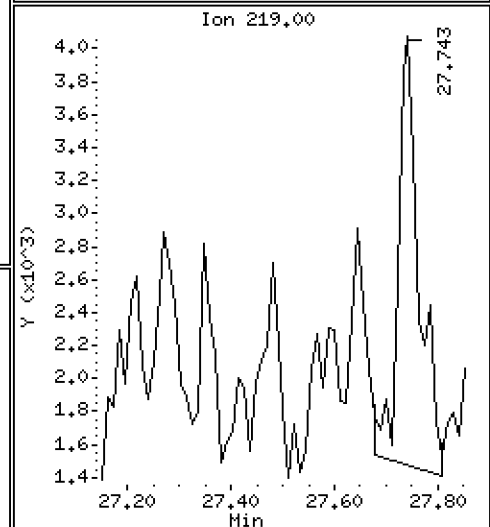
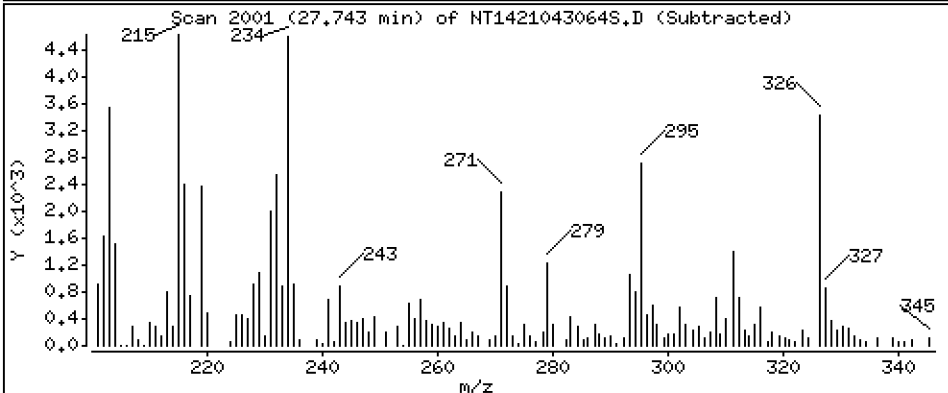
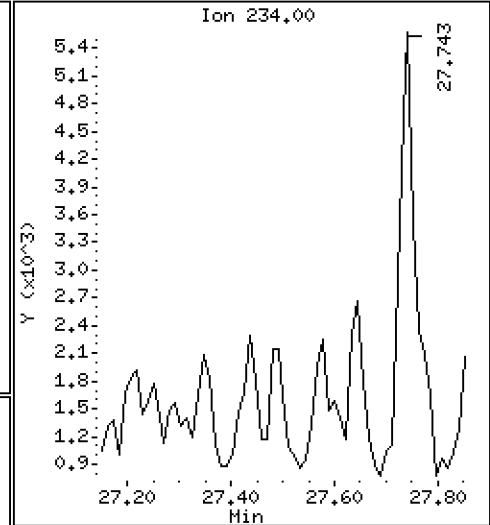
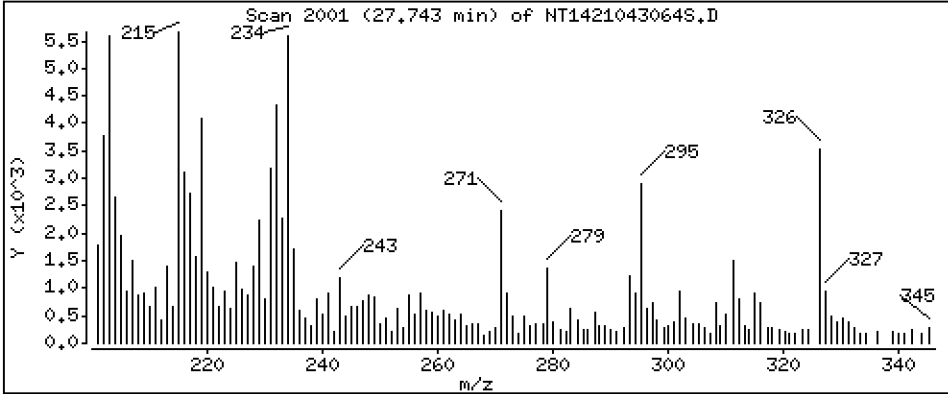
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

41 C4-Phenanthrenes/Anthracenes

Concentration: 0,2461 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

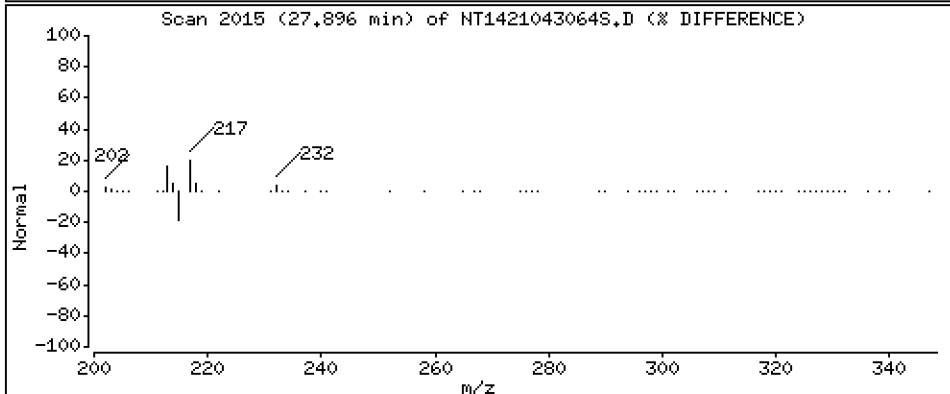
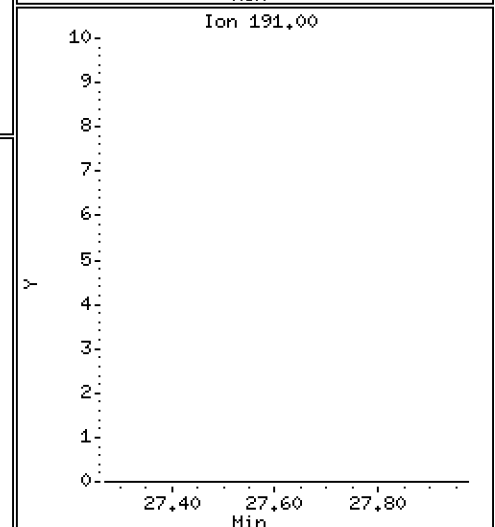
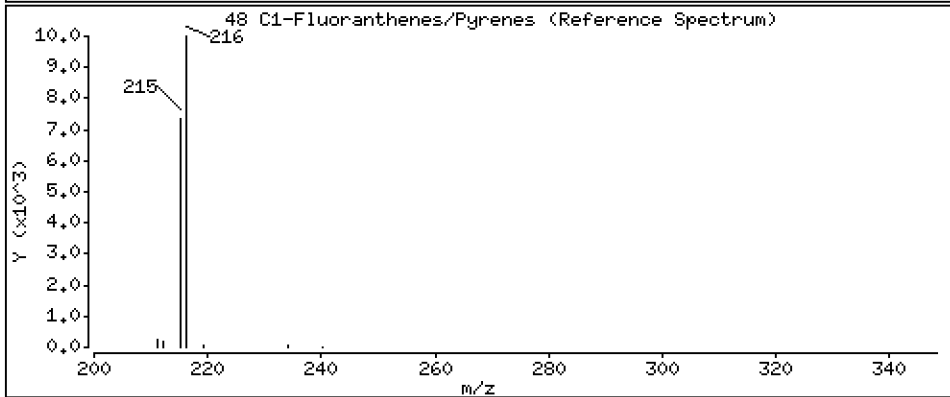
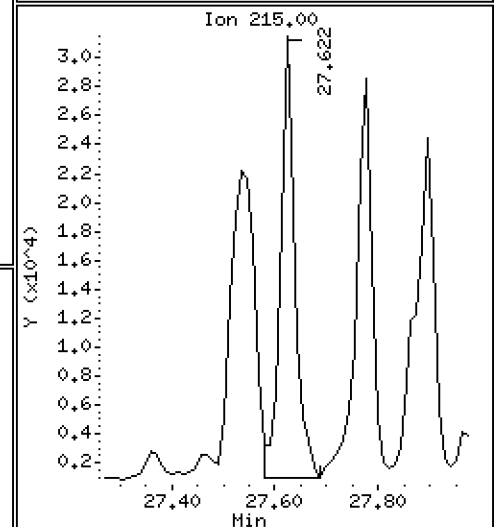
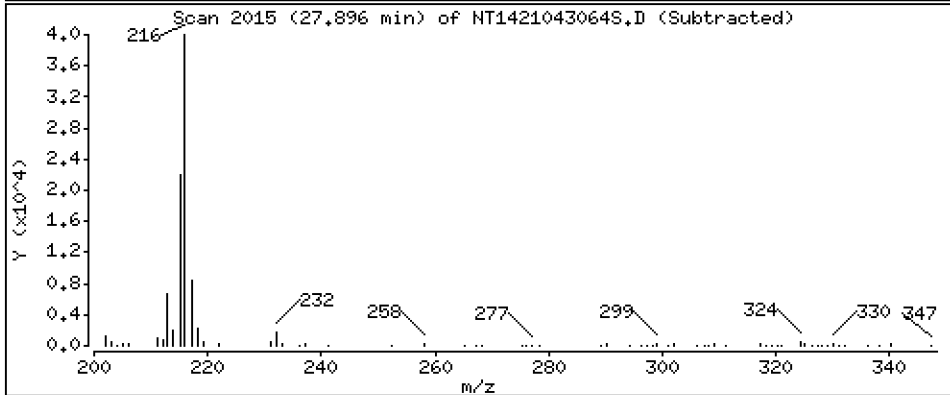
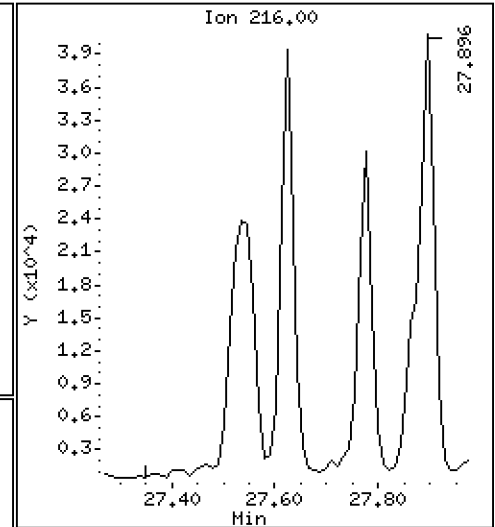
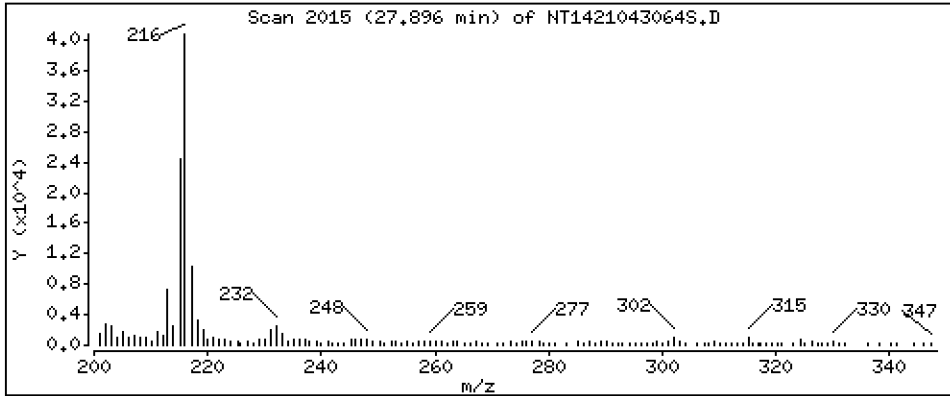
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

48 C1-Fluoranthenes/Pyrenes

Concentration: 1,812 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

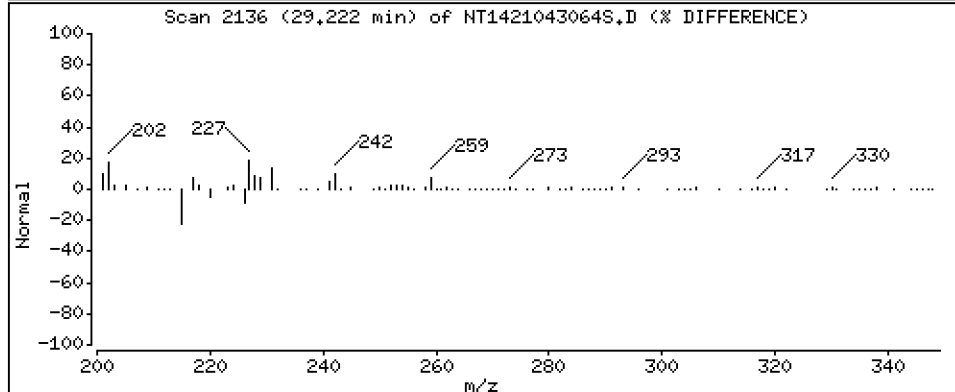
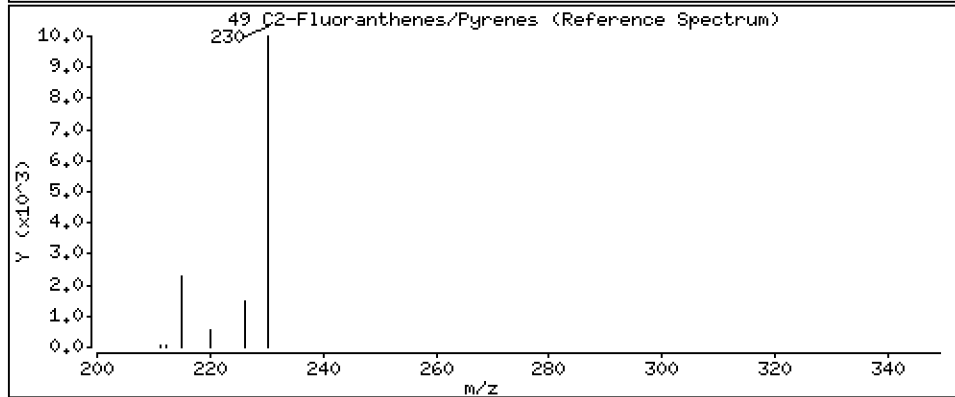
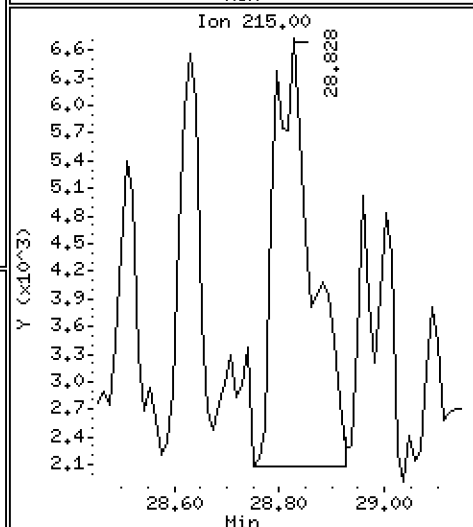
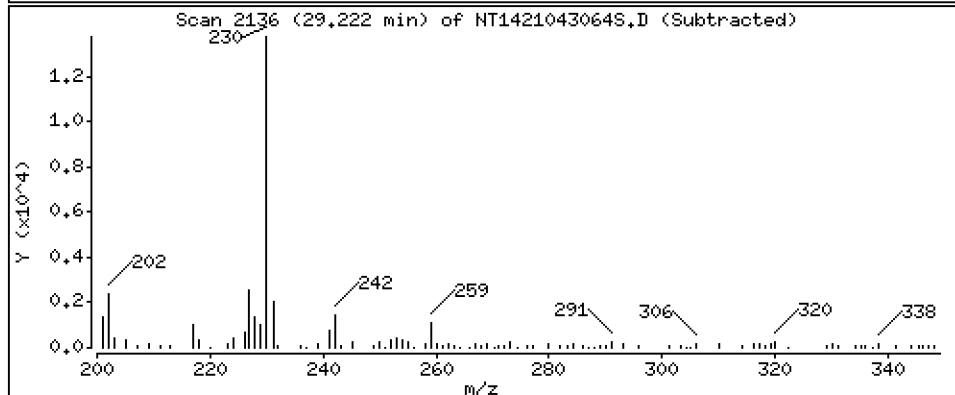
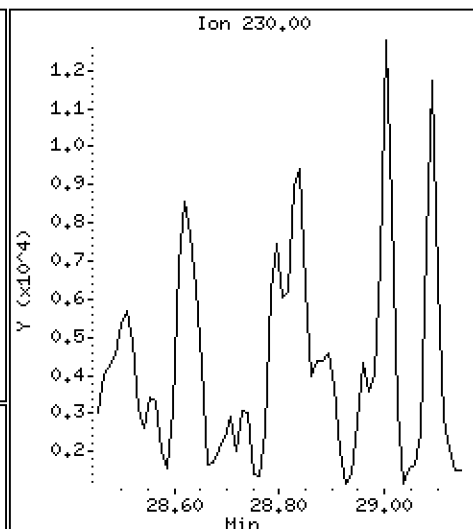
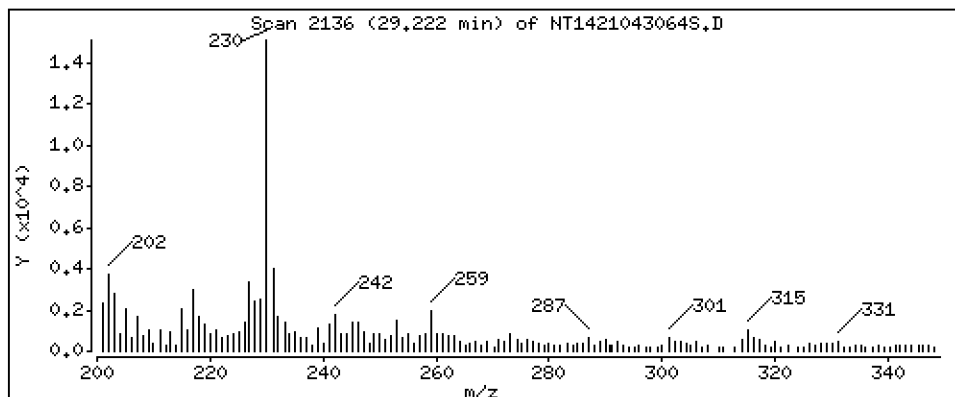
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

49 C2-Fluoranthenes/Pyrenes

Concentration: 0,7843 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

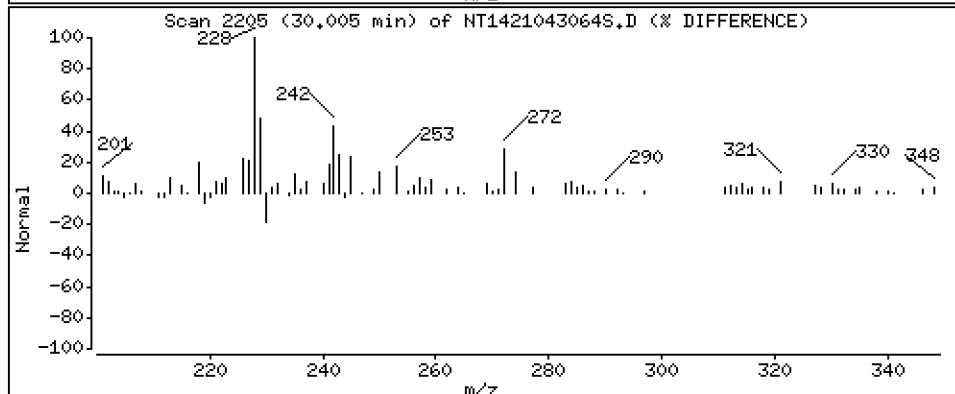
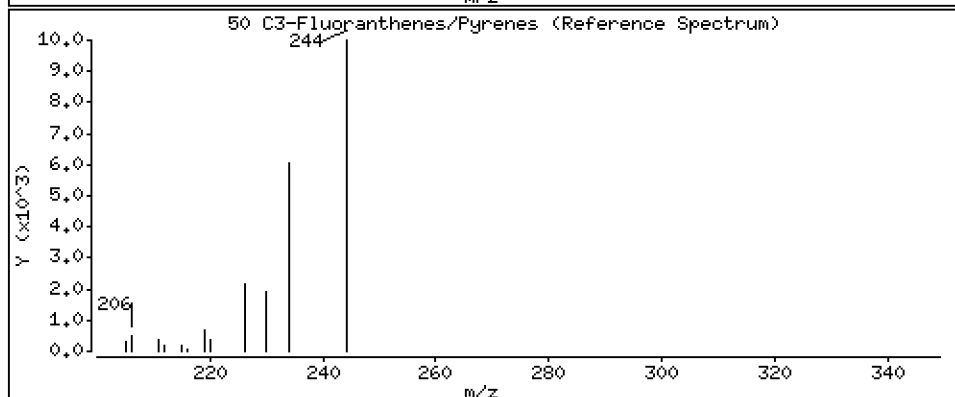
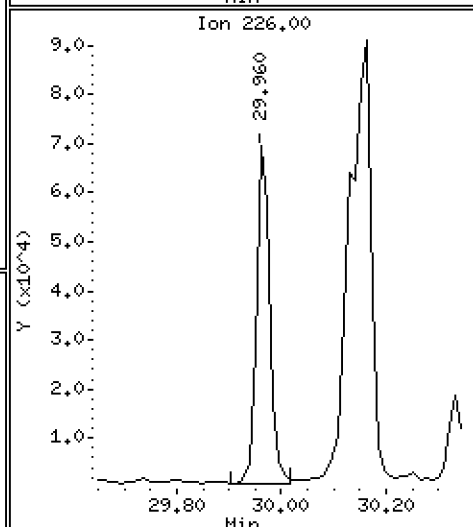
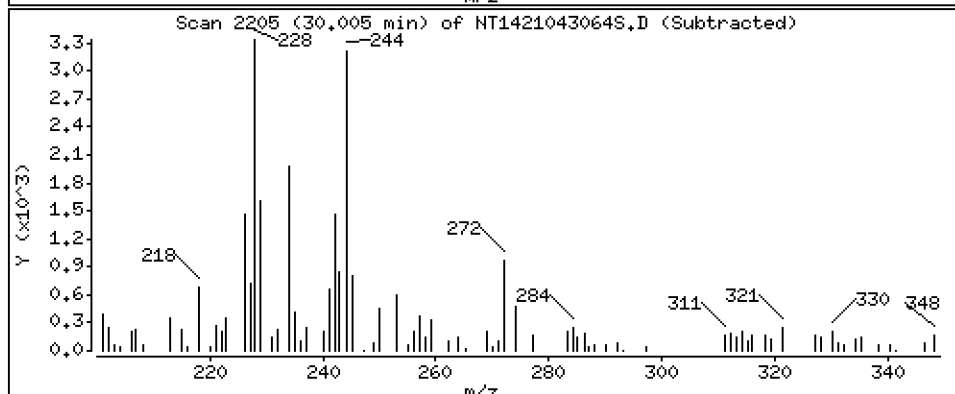
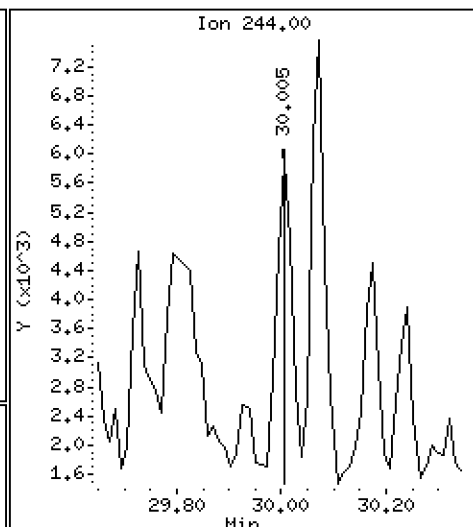
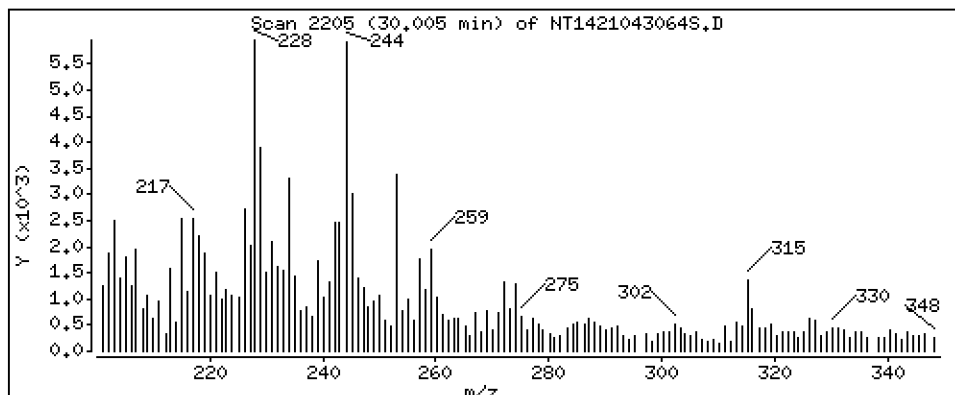
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

50 C3-Fluoranthenes/Pyrenes

Concentration: 0,3015 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

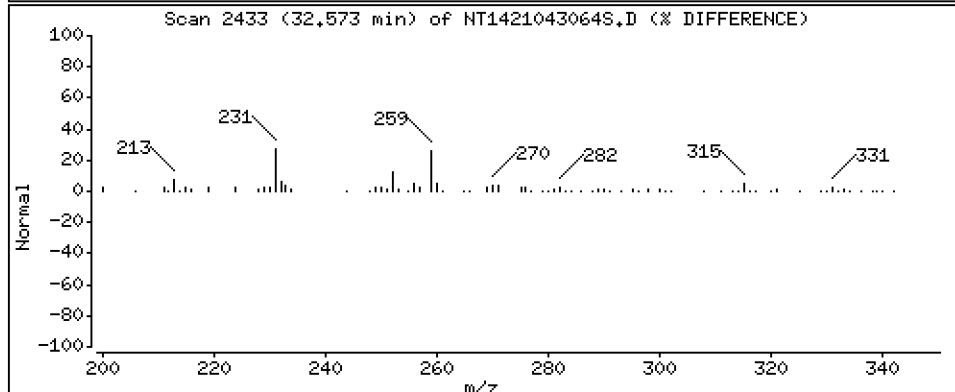
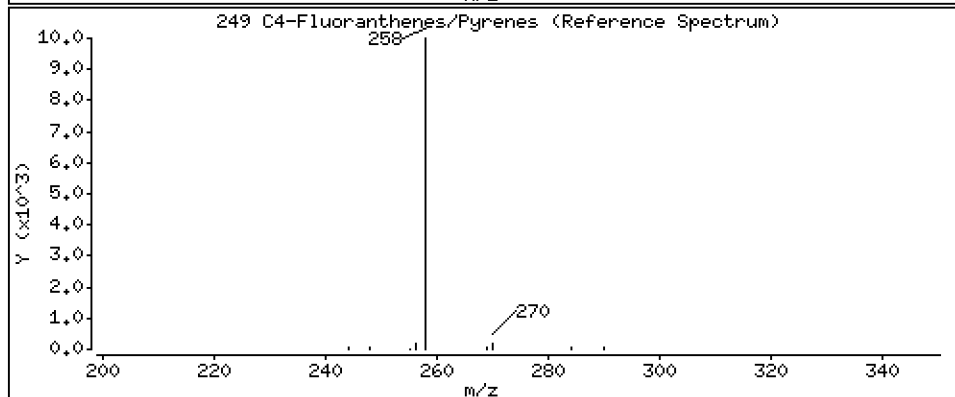
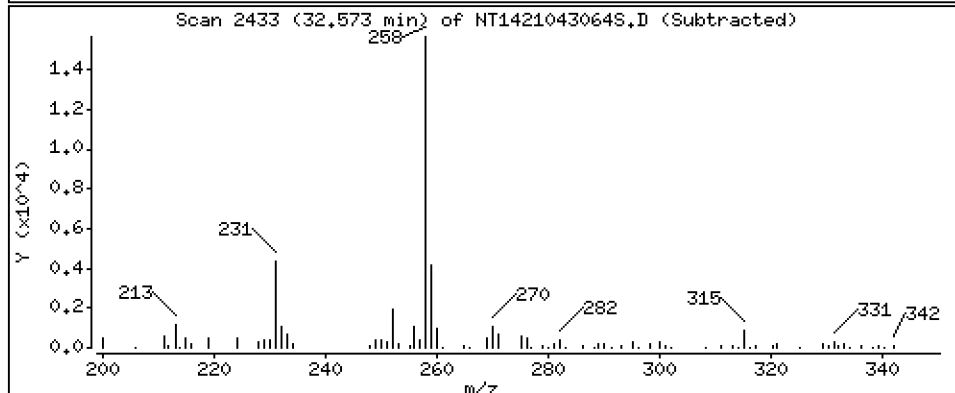
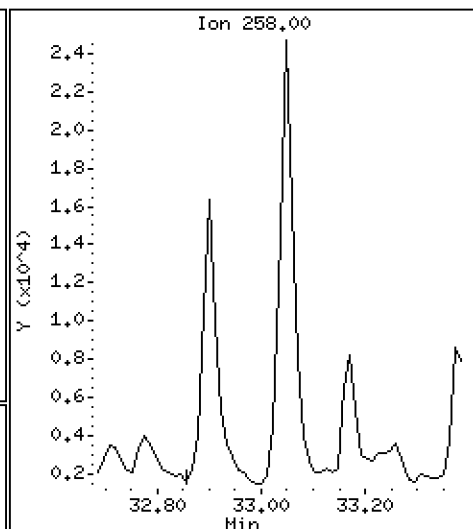
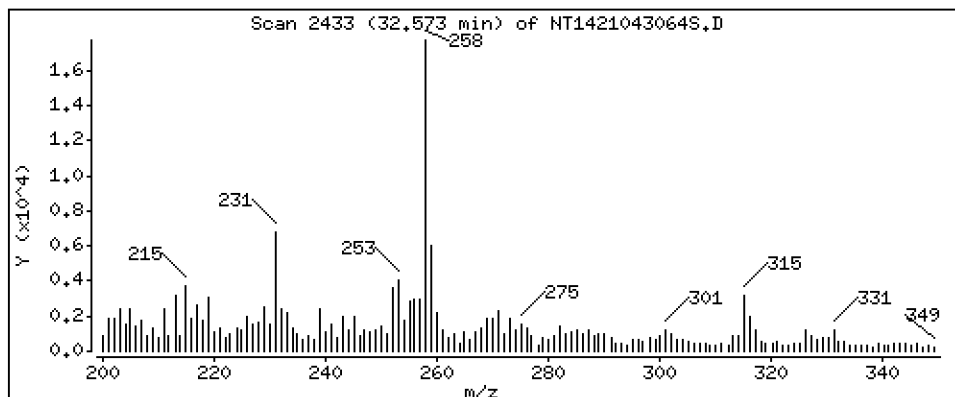
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

249 C4-Fluoranthenes/Pyrenes

Concentration: 0,4083 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

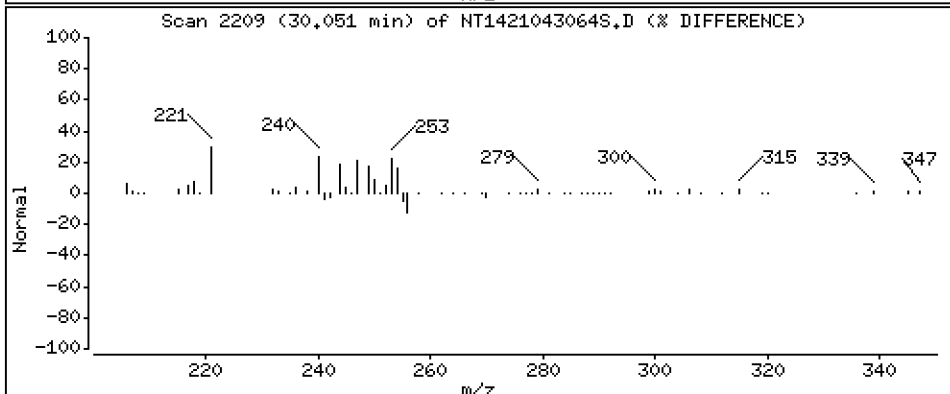
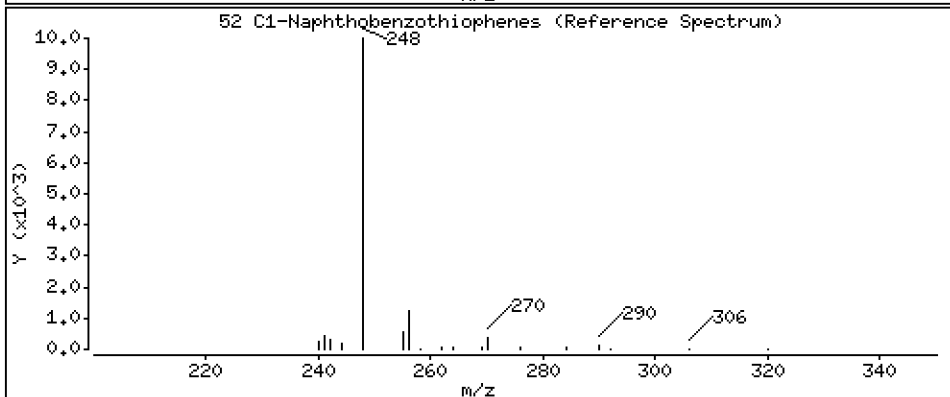
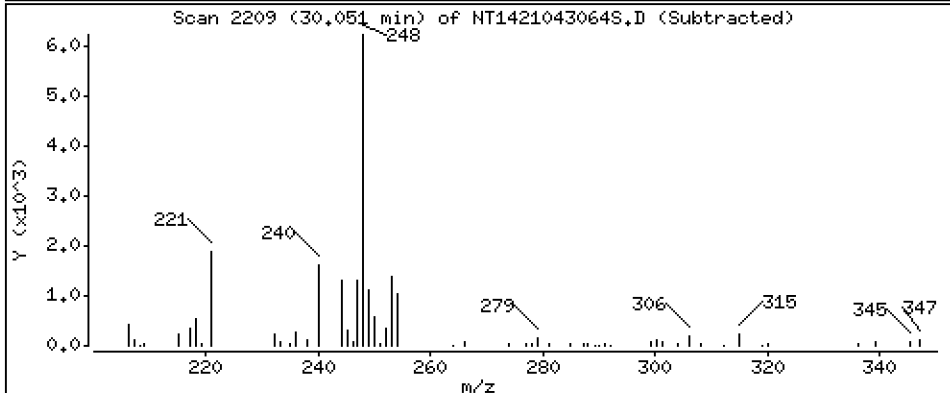
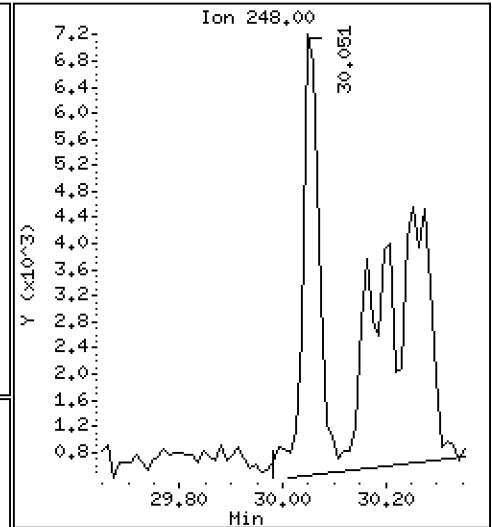
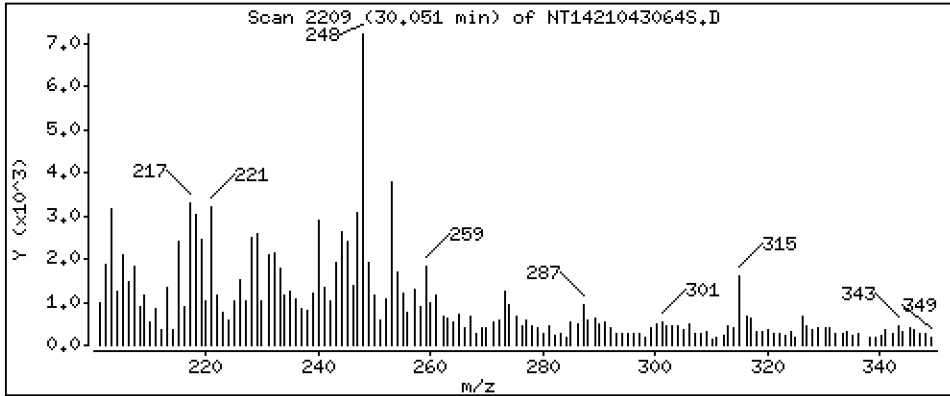
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

52 C1-Naphthobenzothiophenes

Concentration: 0,3507 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

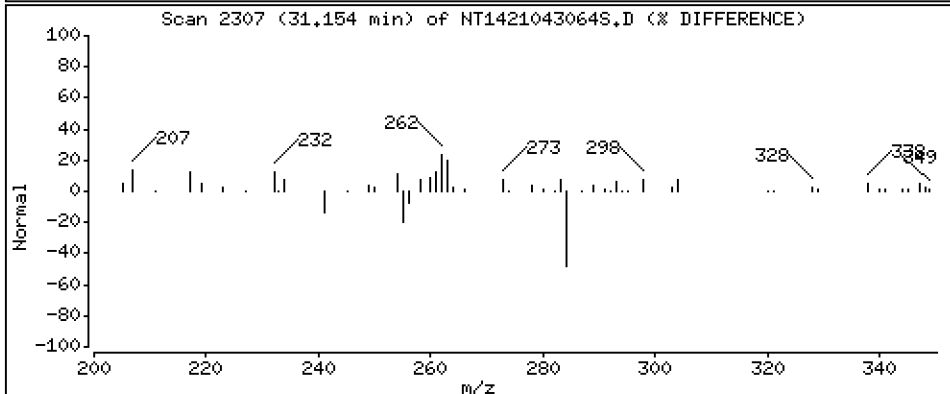
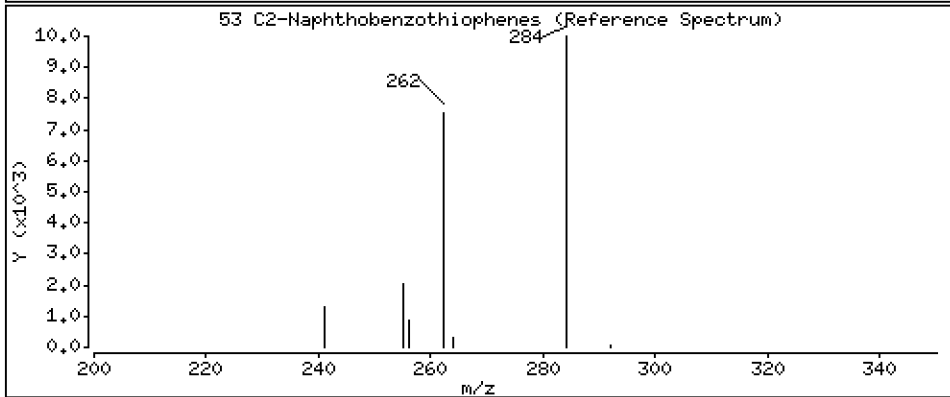
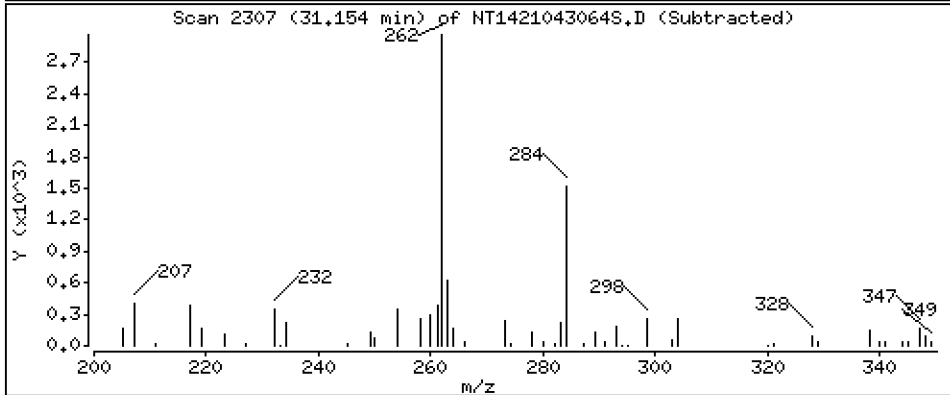
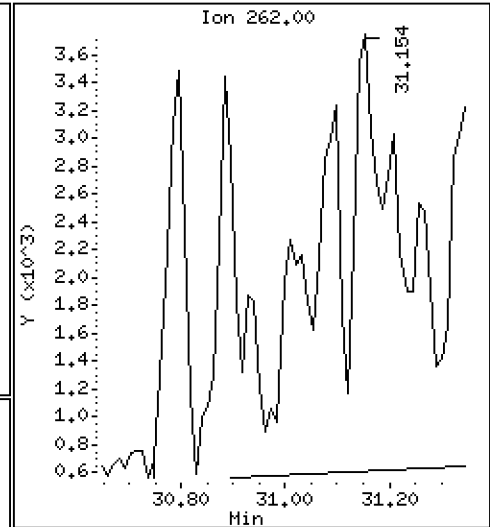
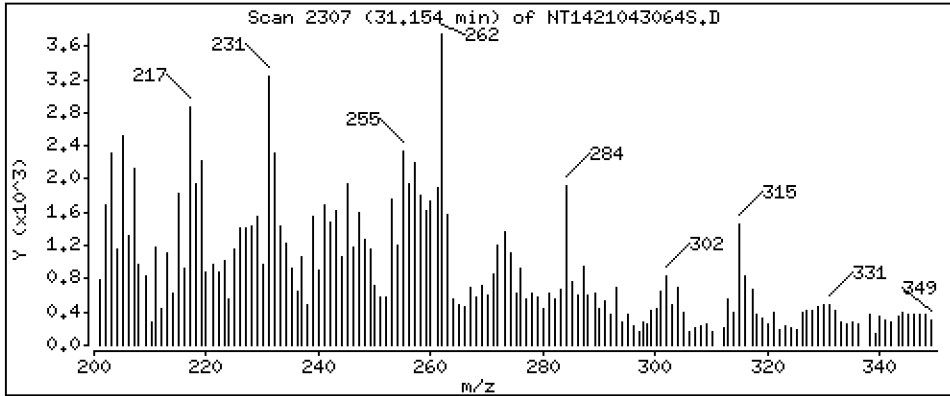
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

53 C2-Naphthobenzothiophenes

Concentration: 0,3096 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

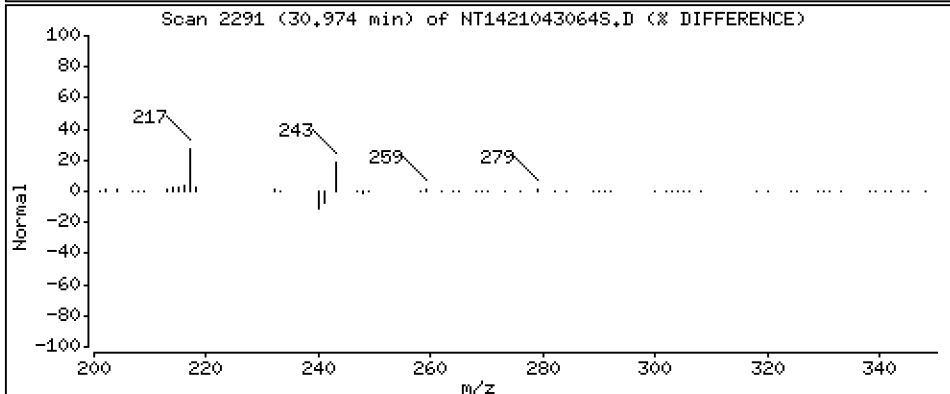
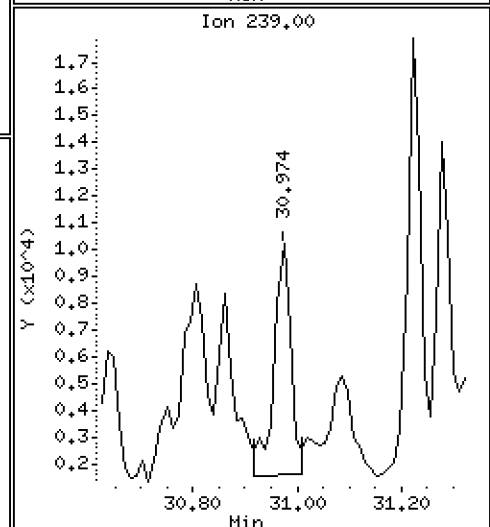
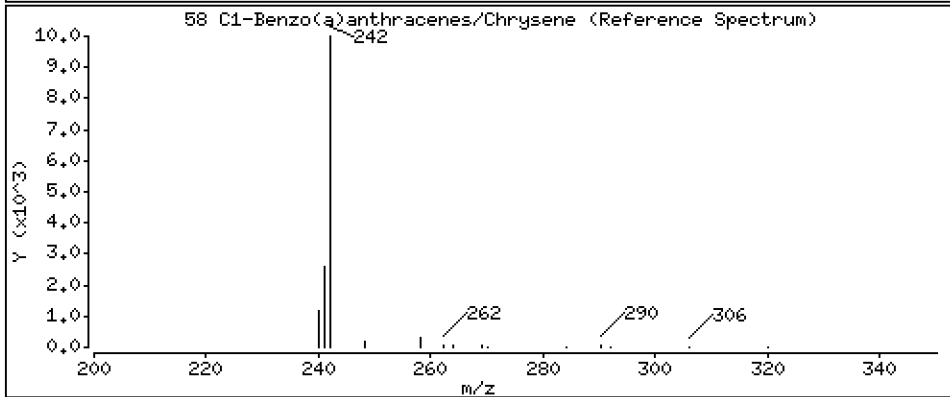
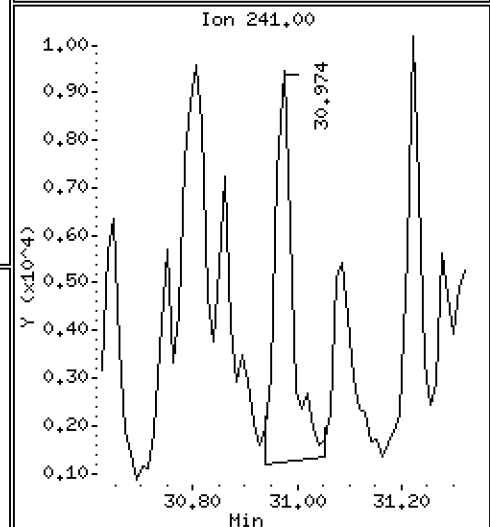
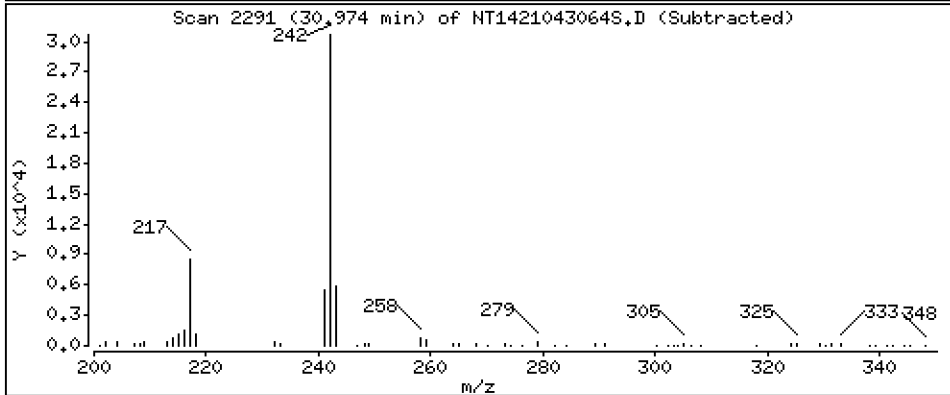
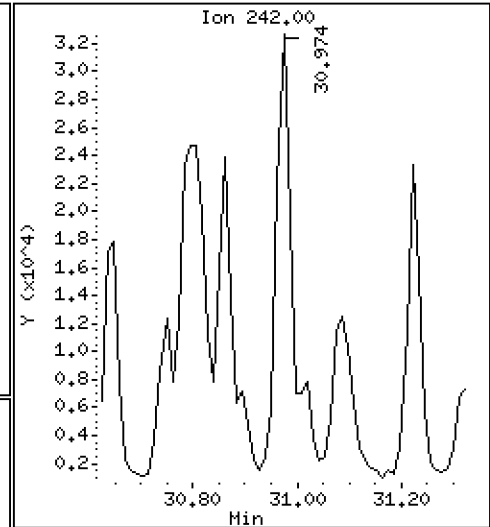
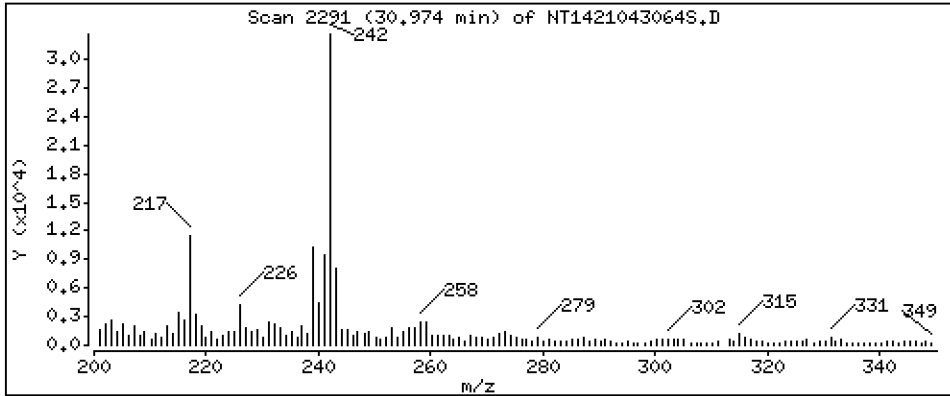
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

58 C1-Benzo(a)anthracenes/Chrysene

Concentration: 1.518 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

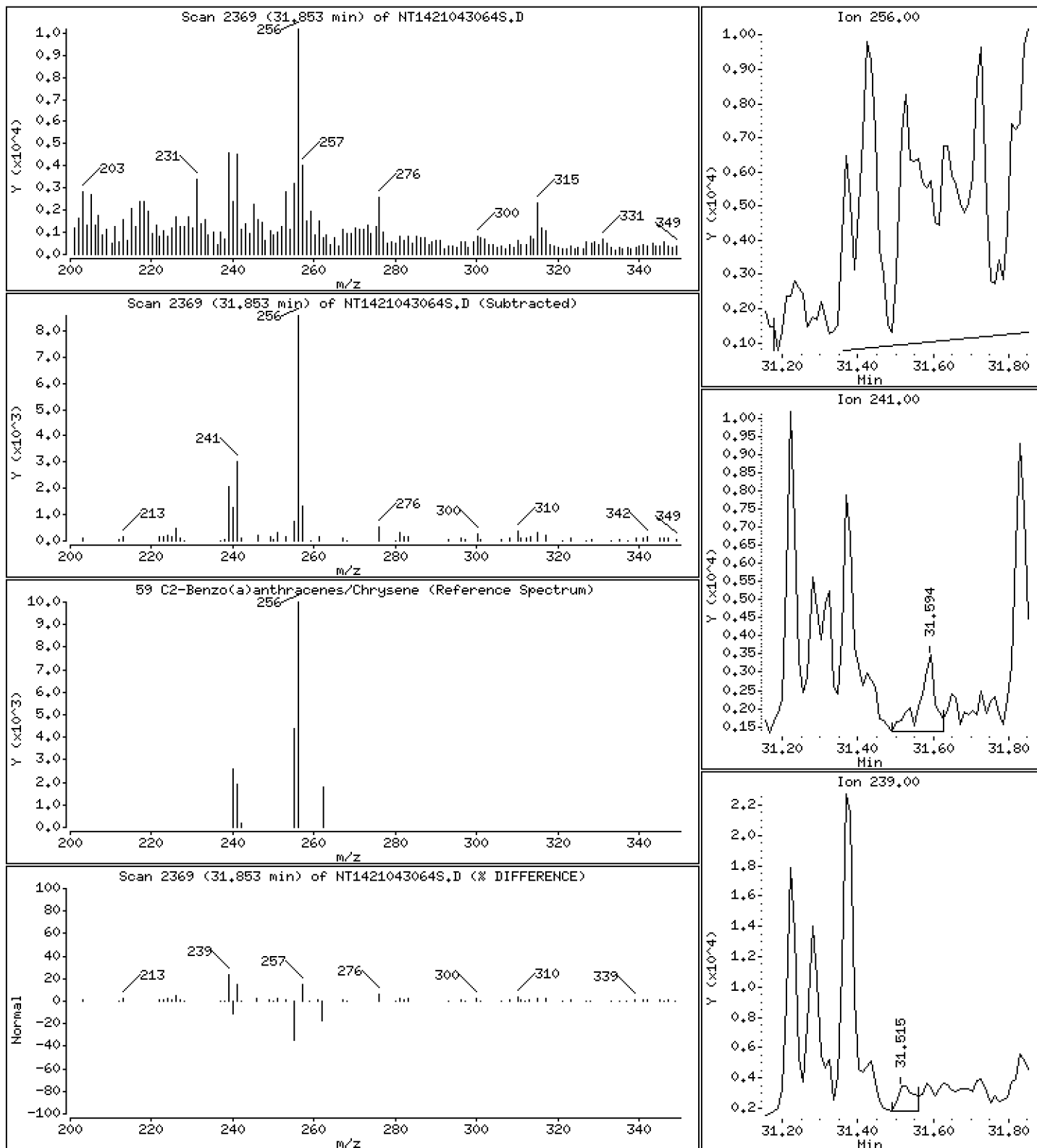
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

59 C2-Benzo(a)anthracenes/Chrysene

Concentration: 0.6696 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

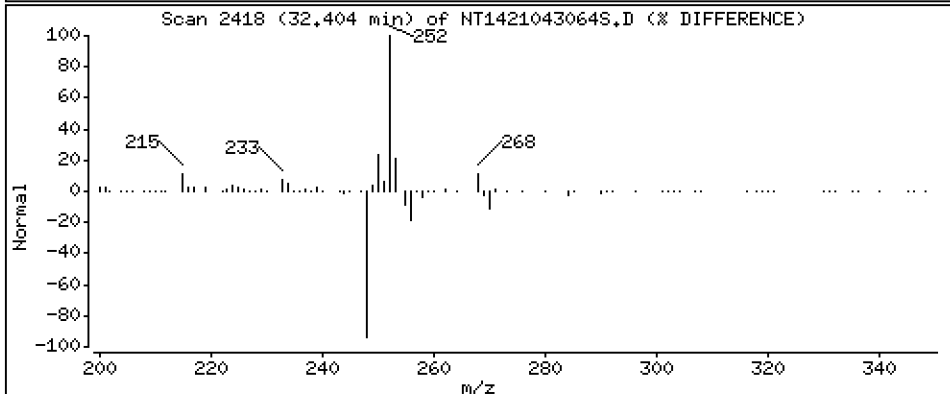
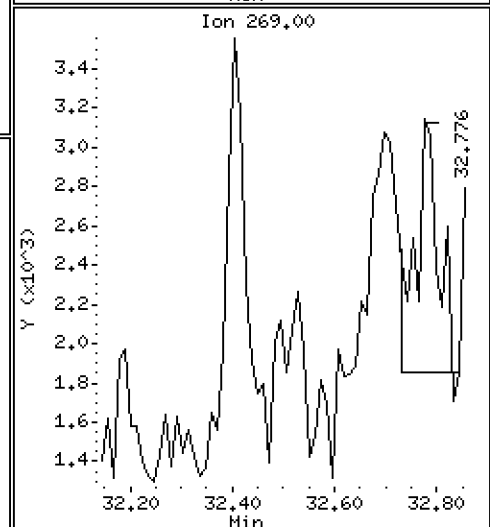
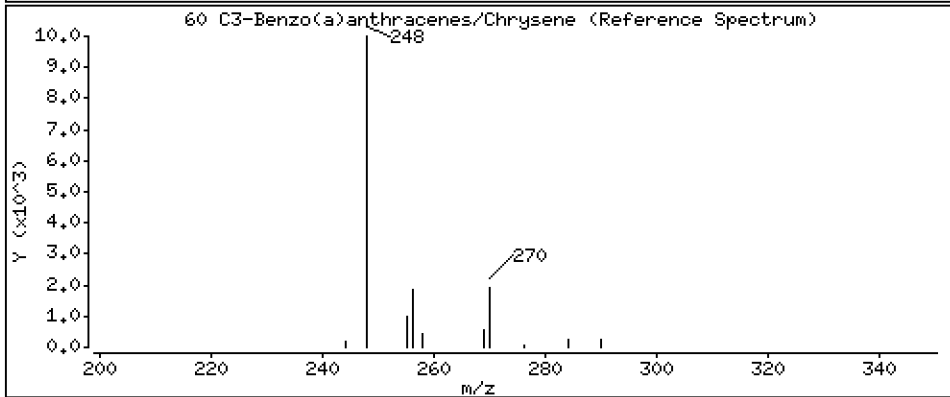
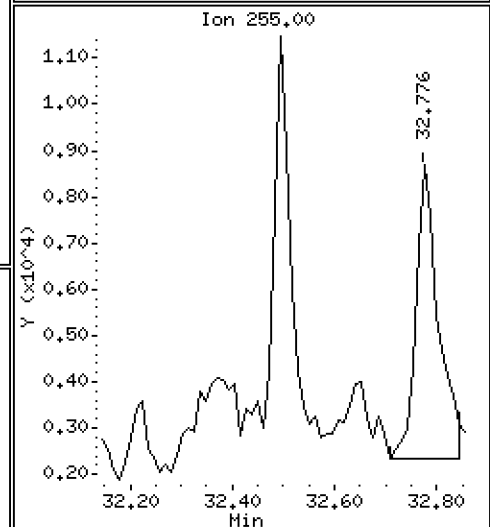
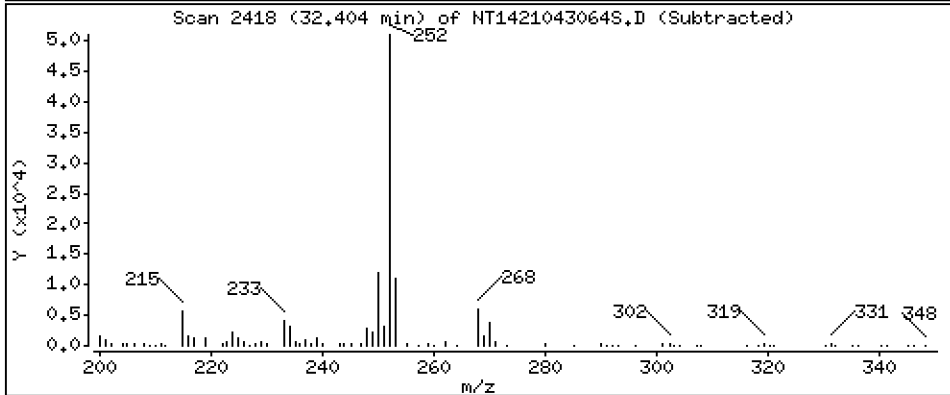
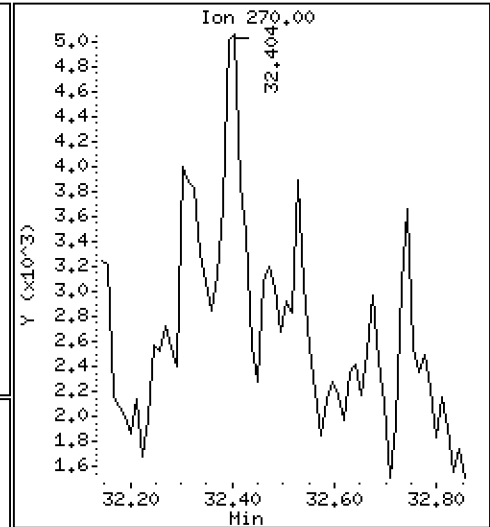
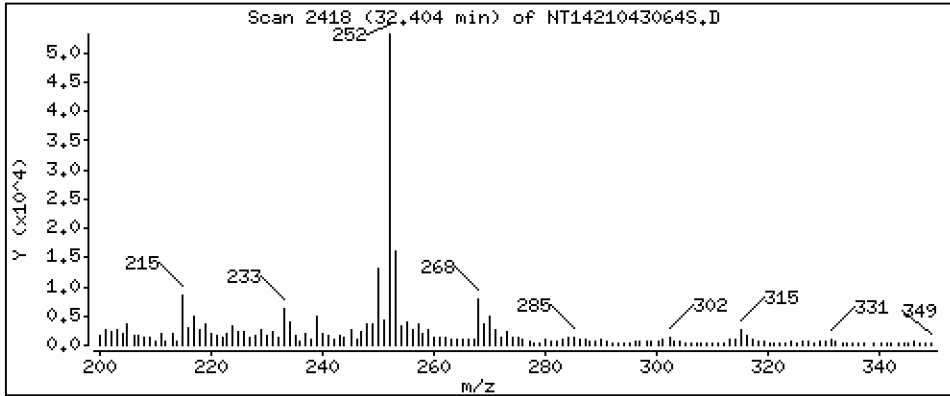
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

60 C3-Benzo(a)anthracenes/Chrysene

Concentration: 0,3069 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

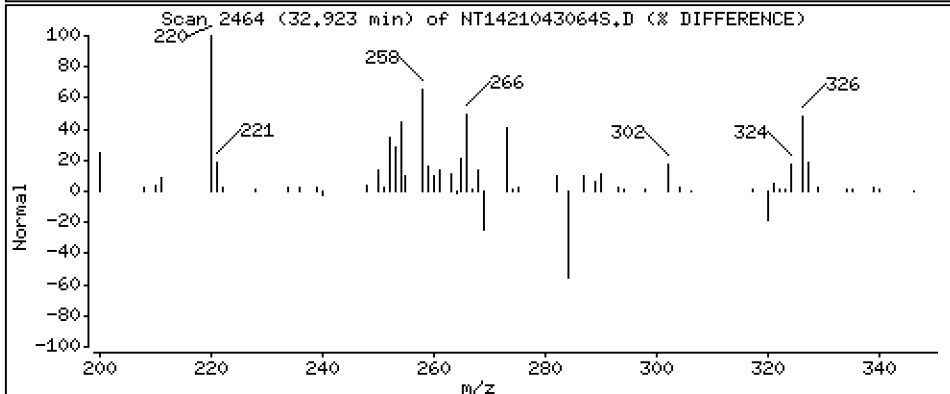
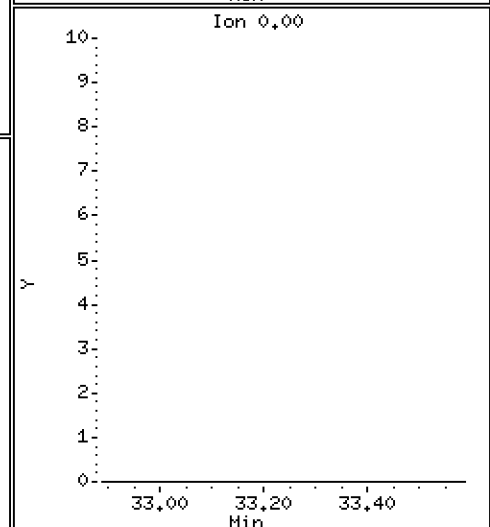
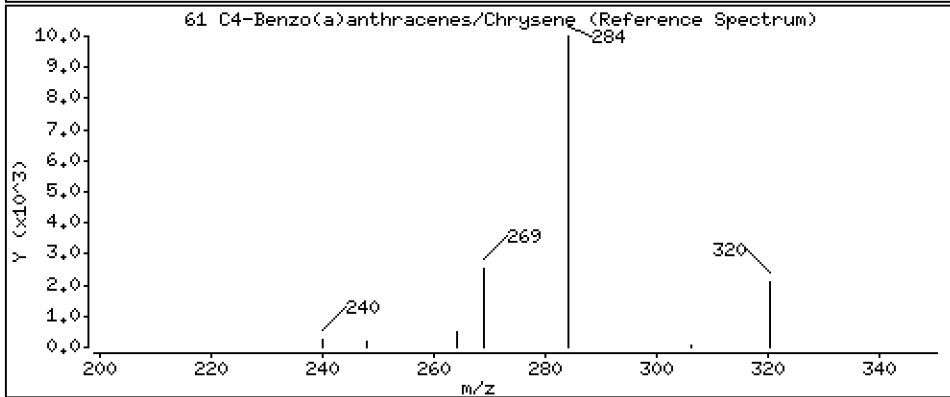
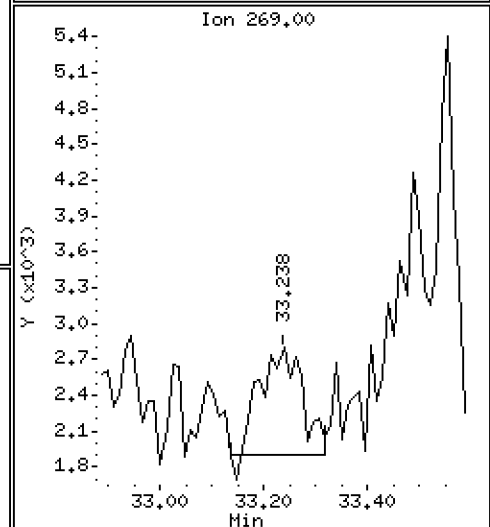
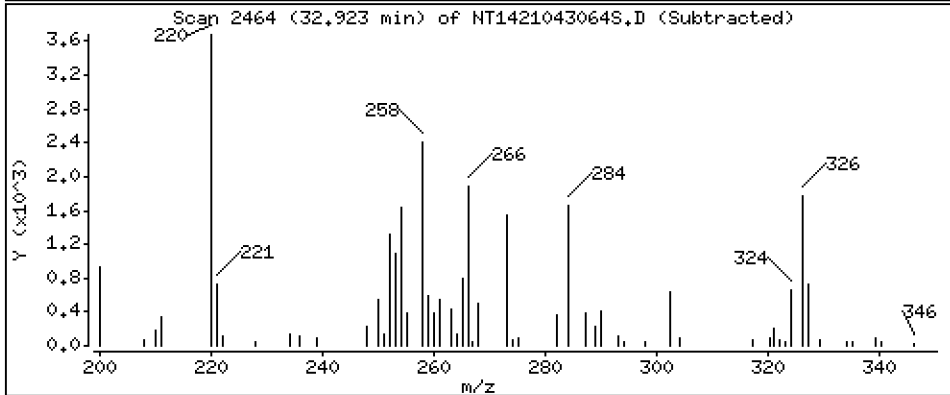
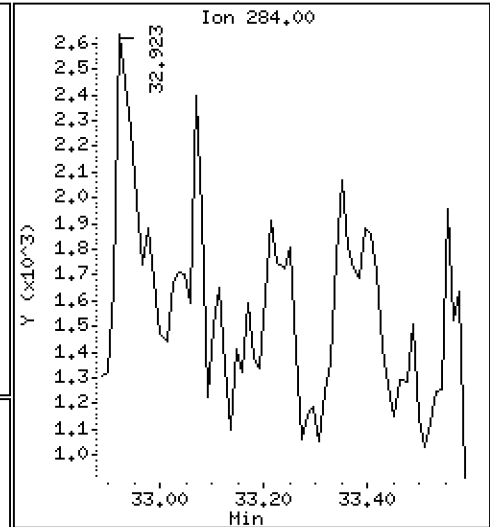
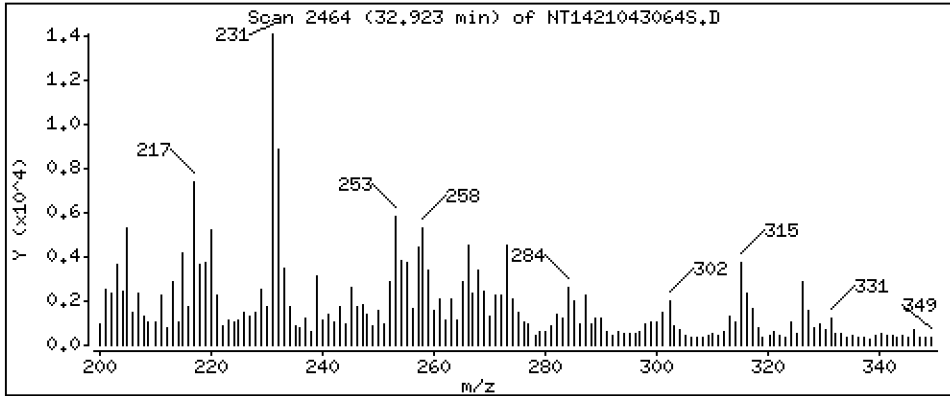
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

61 C4-Benzo(a)anthracenes/Chrysene

Concentration: 0.2432 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

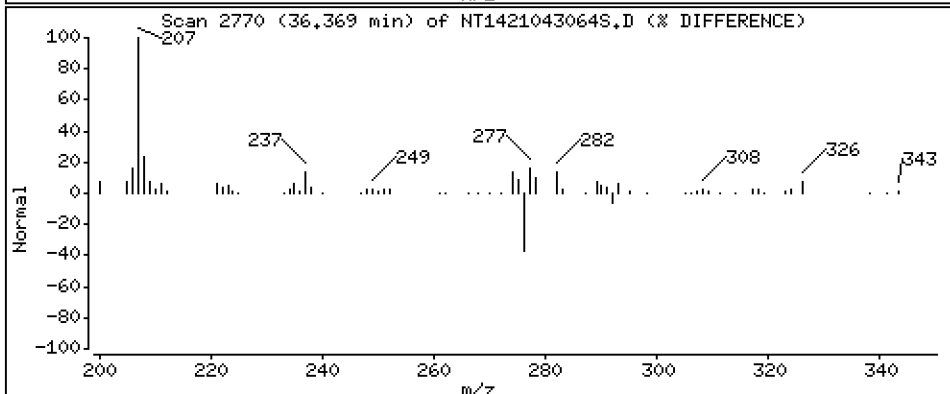
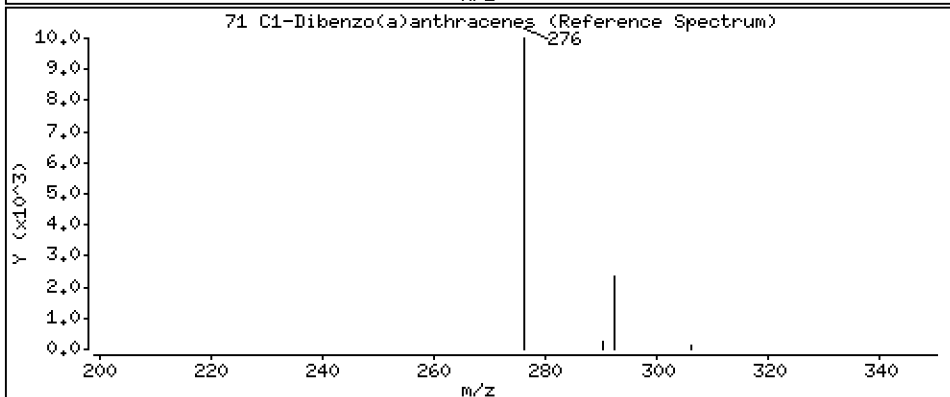
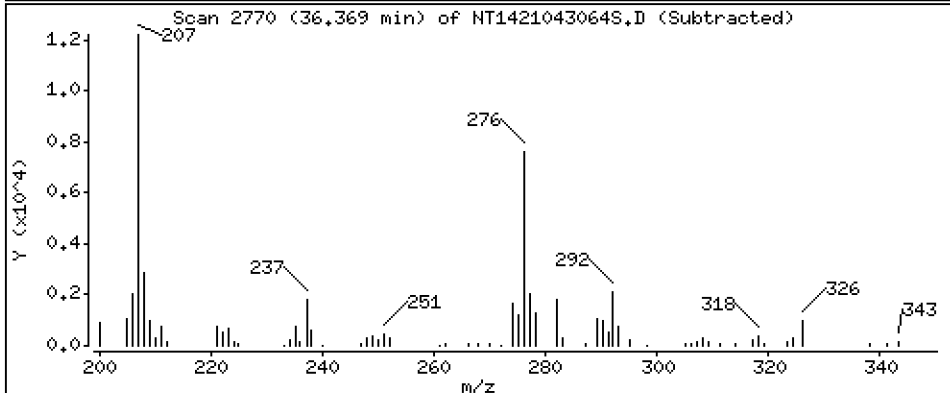
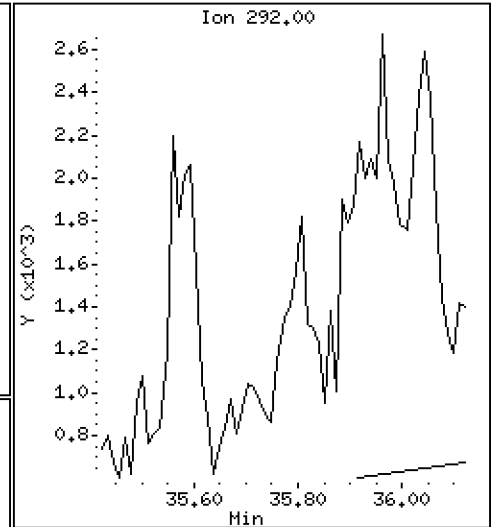
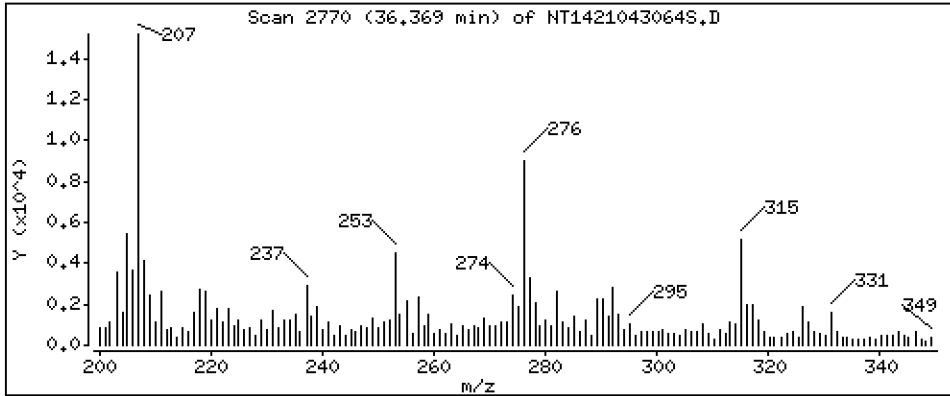
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

71 C1-Dibenzo(a)anthracenes

Concentration: 0,2497 ug/mL



Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

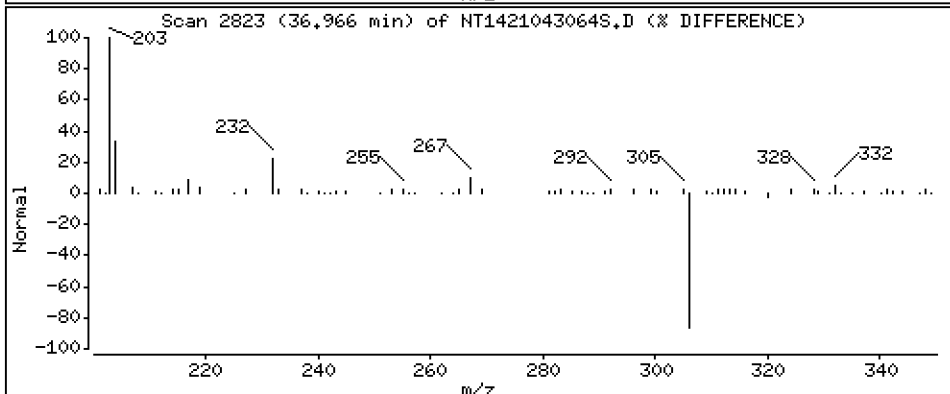
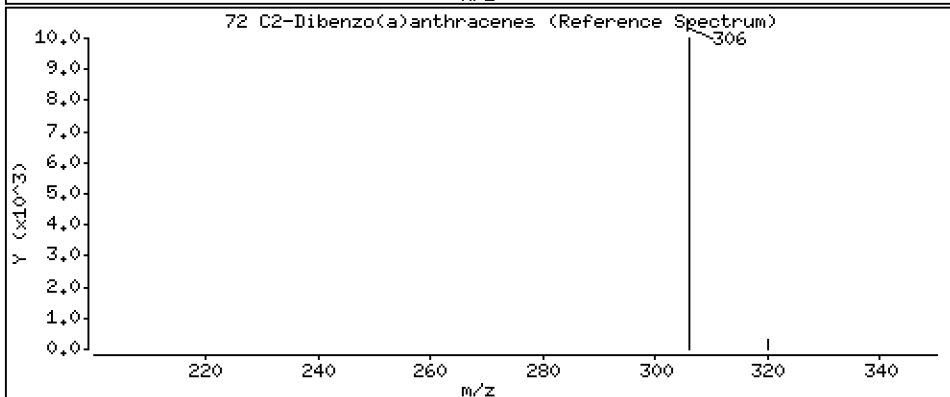
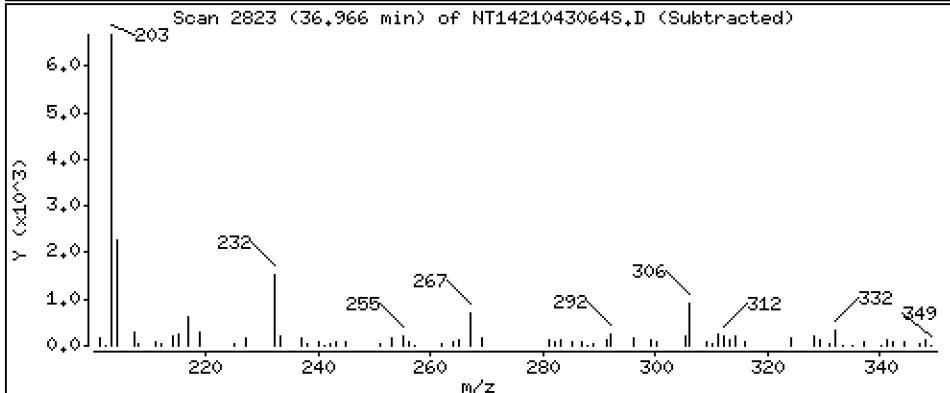
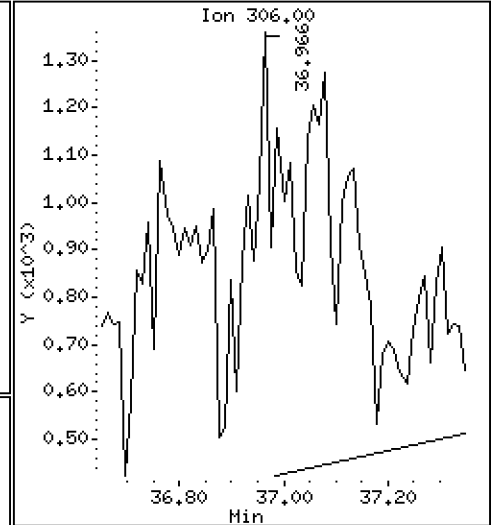
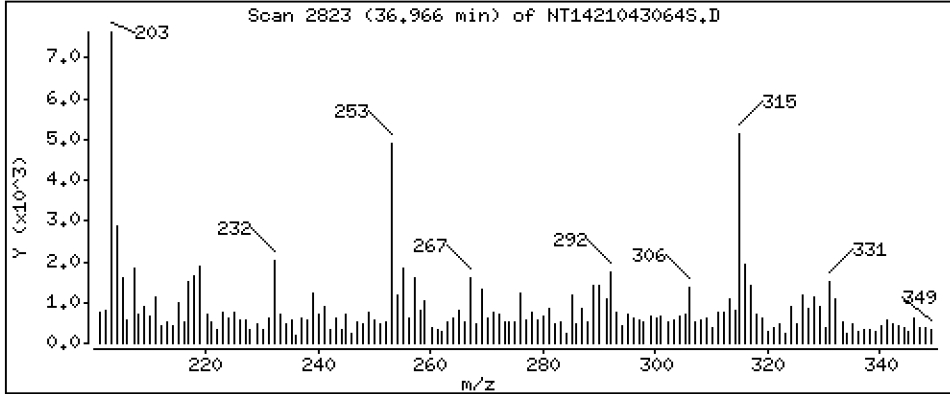
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

72 C2-Dibenzo(a)anthracenes

Concentration: 0,1079 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT1421043064S.D
 Lab Smp Id: 21D0180-02
 Inj Date : 02-MAY-2021 10:01
 Operator : VTS
 Smp Info : 21D0180-02
 Misc Info :
 Comment : 1ul Injection
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 Meth Date : 07-May-2021 11:15 yev
 Cal Date : 01-MAY-2021 01:56
 Als bottle: 45
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: ORGDATA102

Inst ID: nt14.i

Quant Type: ISTD
 Cal File: NT1421043024S.D

Compound Sublist: ALKYLRANGES.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
3 C1-Decalin	152							
4 C2-Decalin	166							
5 C3-Decalin	180							
247 C4-Decalin	194							
8 C1-Naphthalenes	142		13.669	14.121	(0.728)	66553	0.21242	0.2124 (M)
9 C2-Naphthalenes	156		15.790	16.111	(0.841)	85440	0.27270	0.2727 (M)
10 C3-Naphthalenes	170		17.647	17.957	(0.940)	74428	0.23755	0.2376 (M)
11 C4-Naphthalenes	184							
13 C1-Benzothiophenes	148		13.142	14.110	(0.700)	14826	0.05948	0.05948 (M)
14 C2-Benzothiophenes	162		15.691	15.660	(0.836)	21787	0.08740	0.08740 (M)
15 C3-Benzothiophenes	176							
27 C1-Fluorenes	180		20.416	20.735	(1.088)	44089	0.24041	0.2404 (M)
* 25 Fluorene-d10	176		18.772	18.774	(1.000)	533752	2.00000	
28 C2-Fluorenes	194		21.917	22.000	(1.168)	48882	0.26655	0.2665 (M)
29 C3-Fluorenes	208		23.280	23.172	(1.240)	45040	0.24560	0.2456 (M)
31 C1-Dibenzothiophenes	198		22.918	23.500	(1.221)	43972	0.18994	0.1899 (M)
32 C2-Dibenzothiophenes	212		24.336	24.535	(1.296)	62111	0.26830	0.2683 (M)
33 C3-Dibenzothiophenes	226		25.226	25.600	(1.344)	59889	0.25870	0.2587 (M)
34 C4-Dibenzothiophenes	240							
38 C1-Phenanthrenes/Anthracenes	192		23.577	23.500	(1.061)	245983	0.89407	0.8941 (M)
* 250 Anthracene-d10	188		22.214	22.216	(1.000)	494716	2.00000	
39 C2-Phenanthrenes/Anthracenes	206		25.347	25.107	(1.141)	263315	0.95707	0.9571 (M)
40 C3-Phenanthrenes/Anthracenes	220		26.282	26.856	(1.183)	103260	0.37532	0.3753 (M)
41 C4-Phenanthrenes/Anthracenes	234		27.742	27.500	(1.249)	67703	0.24608	0.2461 (M)
48 C1-Fluoranthenes/Pyrenes	216		27.896	27.624	(1.256)	480244	1.81177	1.812 (M)
49 C2-Fluoranthenes/Pyrenes	230		29.222	28.800	(1.315)	207894	0.78430	0.7843 (M)
50 C3-Fluoranthenes/Pyrenes	244		30.005	29.995	(1.351)	79916	0.30149	0.3015 (M)
249 C4-Fluoranthenes/Pyrenes	258		32.573	33.037	(1.466)	108237	0.40834	0.4083 (M)
52 C1-Naphthobenzothiophenes	248		30.050	30.000	(1.353)	93864	0.35066	0.3507 (M)
53 C2-Naphthobenzothiophenes	262		31.154	31.000	(1.402)	82884	0.30964	0.3096 (M)
54 C3-Naphthobenzothiophenes	276							
248 C4-Naphthobenzothiophenes	290							
58 C1-Benzo(a)anthracenes/Chrysen	242		30.974	30.975	(0.937)	434500	1.51813	1.518 (M)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
59 C2-Benzo(a)anthracenes/Chrysen	256	31.852	31.500	(0.964)	191650	0.66962	0.6696 (M)
60 C3-Benzo(a)anthracenes/Chrysen	270	32.404	32.500	(0.981)	87839	0.30691	0.3069 (M)
61 C4-Benzo(a)anthracenes/Chrysen	284	32.922	33.239	(0.996)	69593	0.24316	0.2432 (M)
71 C1-Dibenzo(a)anthracenes	292	36.369	35.773	(1.101)	101659	0.24970	0.2497 (M)
* 251 Benzo(e)pyrene-d12	264	33.046	33.037	(1.000)	612826	2.00000	
72 C2-Dibenzo(a)anthracenes	306	36.966	37.000	(1.119)	43939	0.10793	0.1079 (M)
73 C3-Dibenzo(a)anthracenes	320	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i
 Lab File ID: NT1421043064S.D
 Lab Smp Id: 21D0180-02
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\ALKYLRANGES.m
 Misc Info:

Calibration Date: 01-MAY-2021
 Calibration Time: 01:56
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

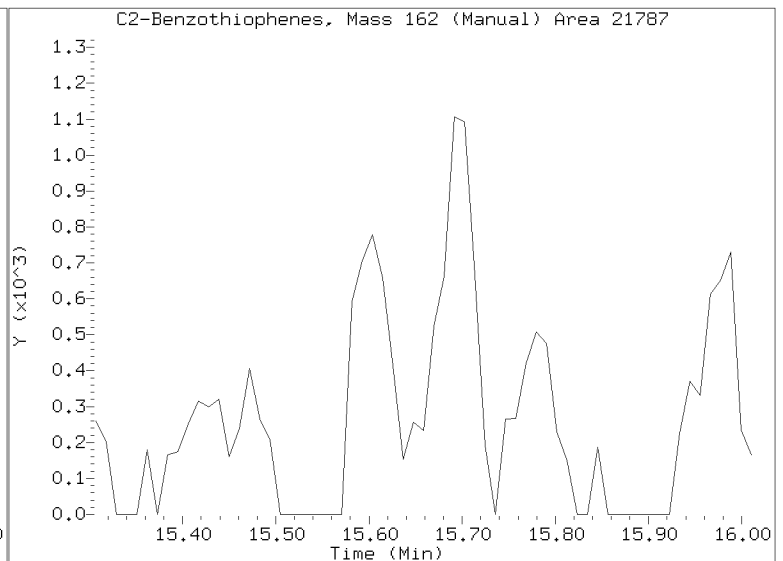
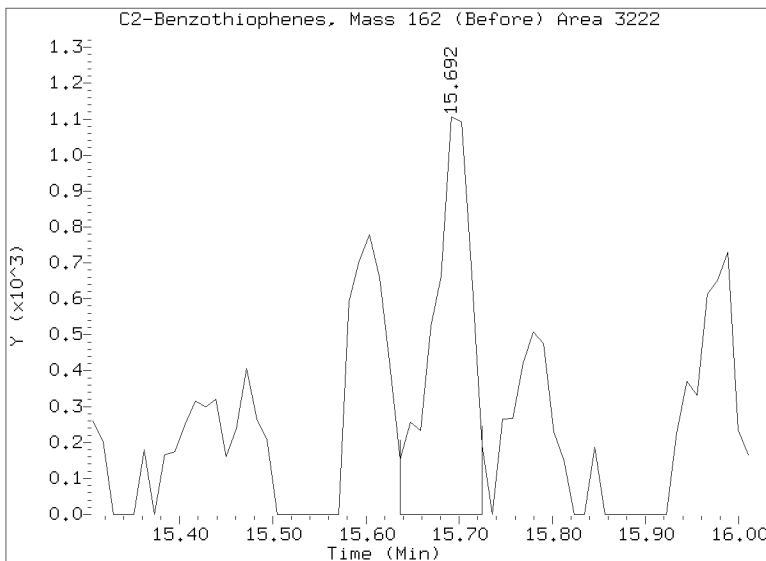
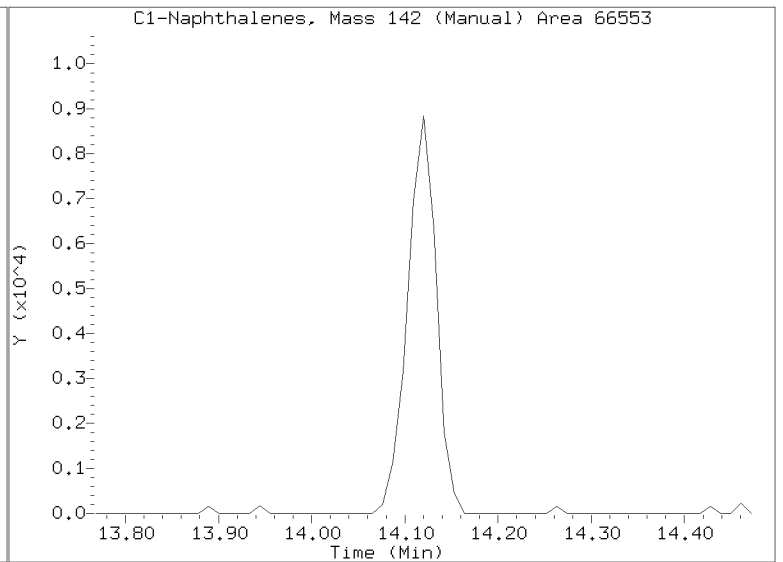
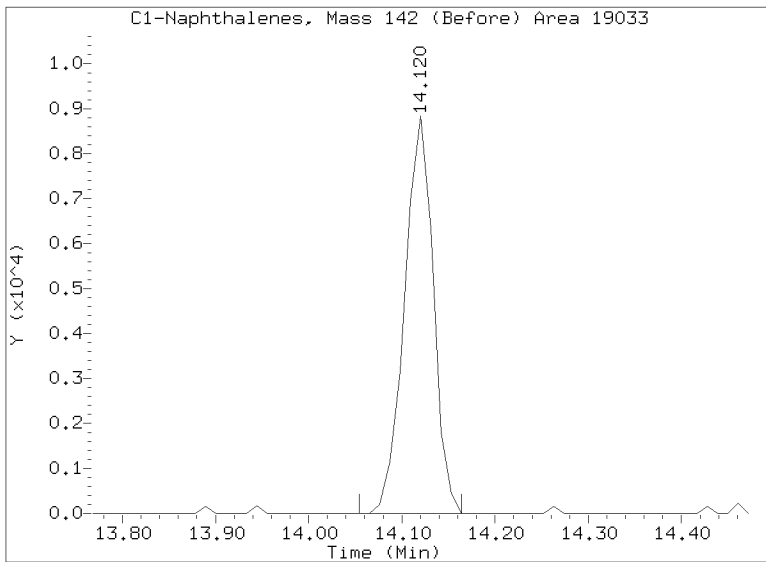
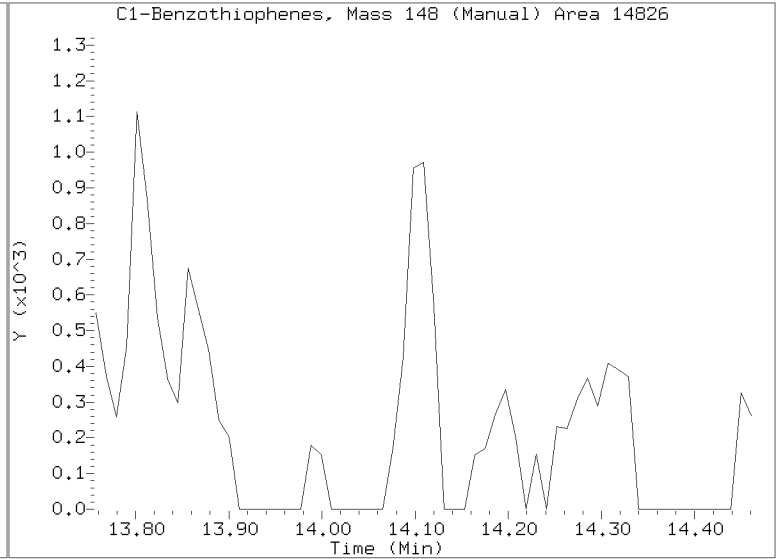
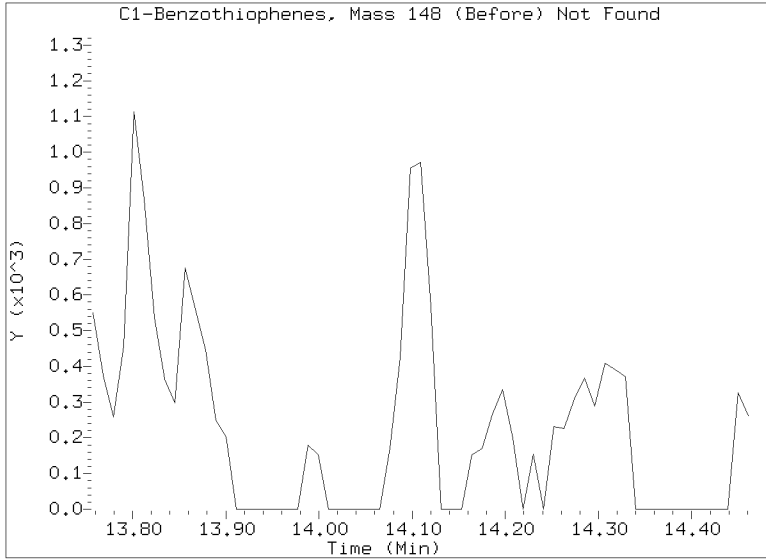
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		LOWER	UPPER		
25 Fluorene-d10	615800	307900	1231600	533752	-13.32
250 Anthracene-d10	563384	281692	1126768	494716	-12.19
251 Benzo(e)pyrene-d1	606671	303336	1213342	612826	1.01

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.77	18.27	19.27	18.77	-0.01
250 Anthracene-d10	22.22	21.72	22.72	22.21	-0.01
251 Benzo(e)pyrene-d1	33.04	32.54	33.54	33.05	0.03

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.

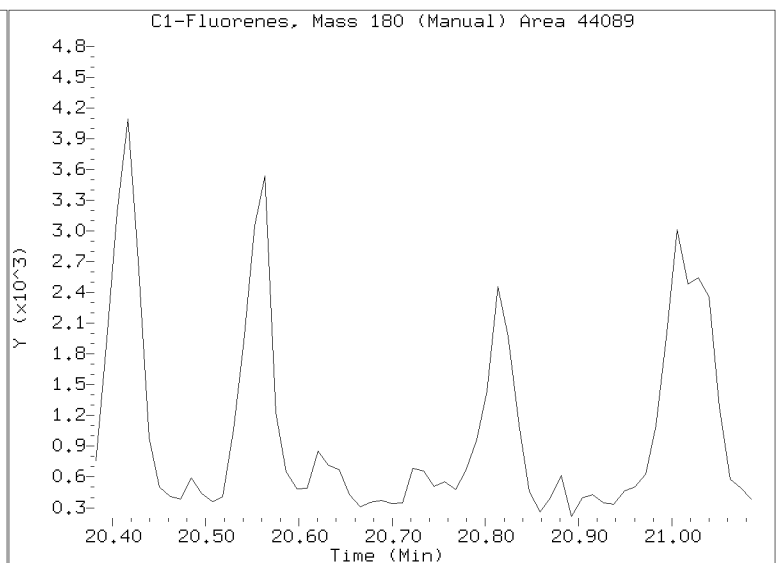
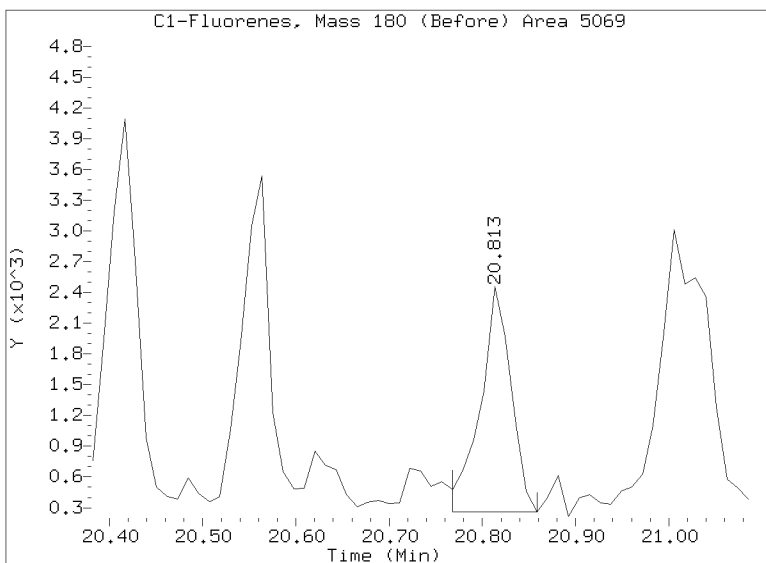
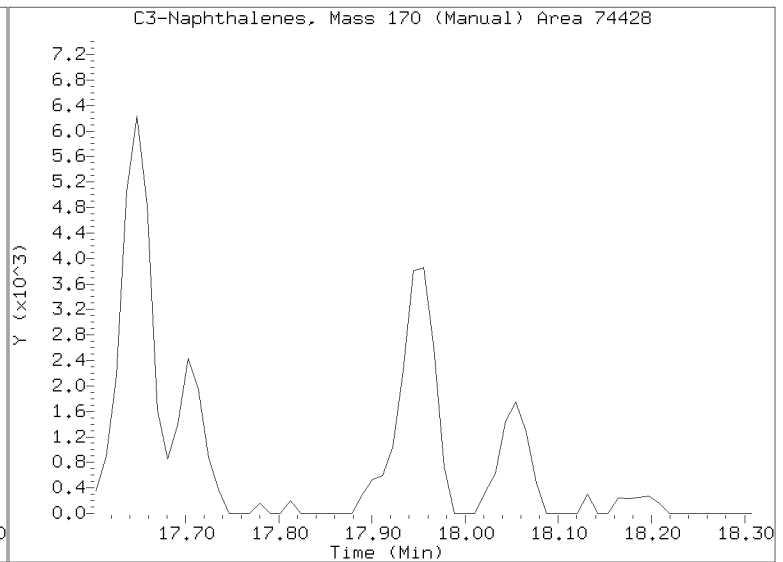
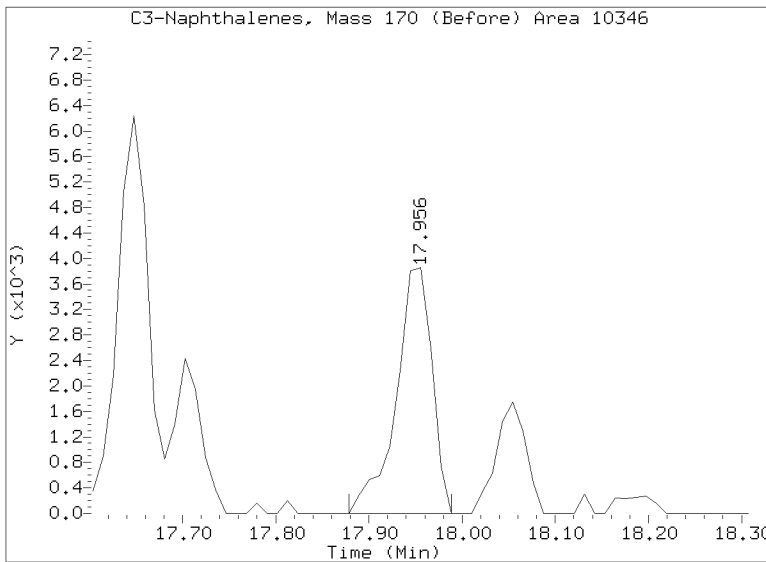
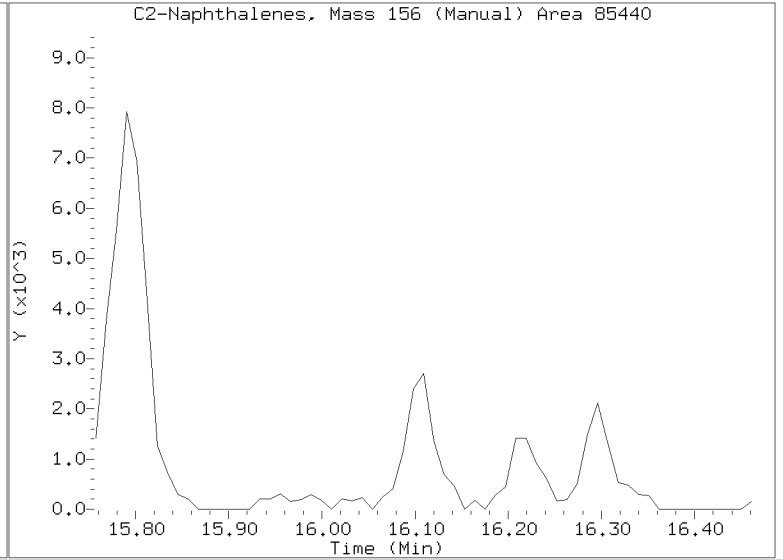
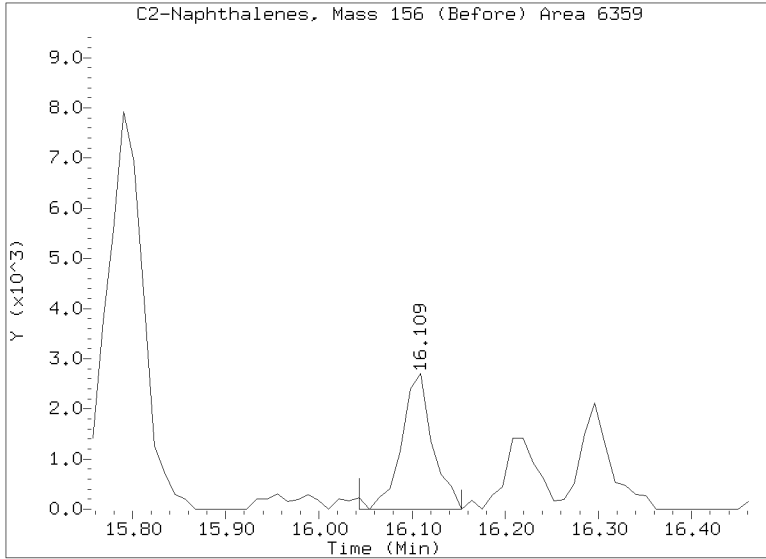
Quant Ion Manual Peak Adjustment Report

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Injection Date: 02-MAY-2021 10:01
Lab ID:21D0180-02 Client ID:
Report Date: 05/07/2021 15:32



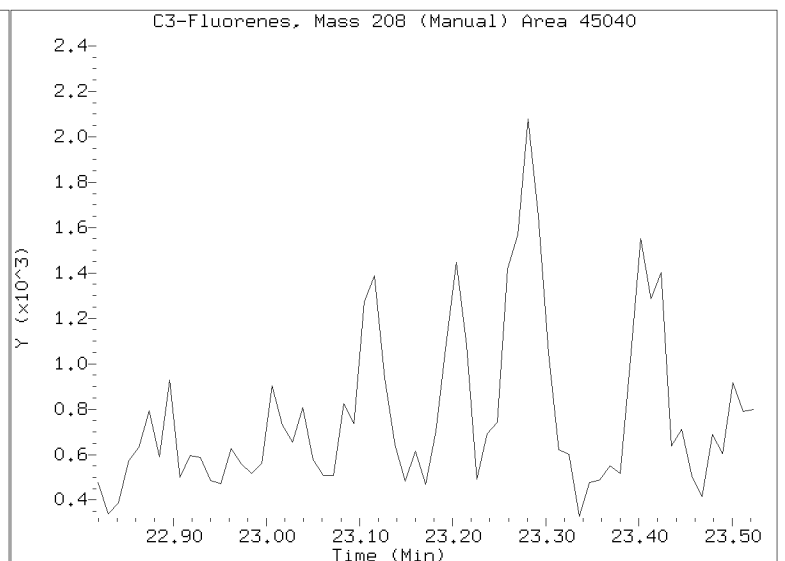
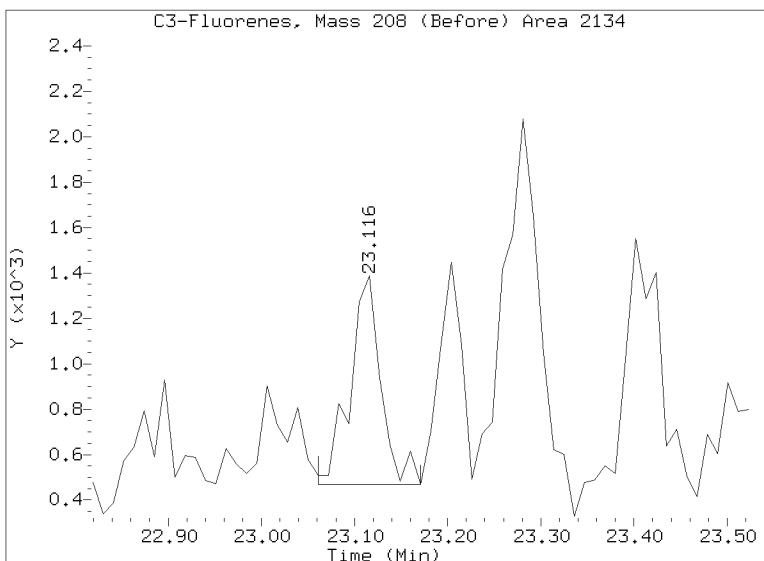
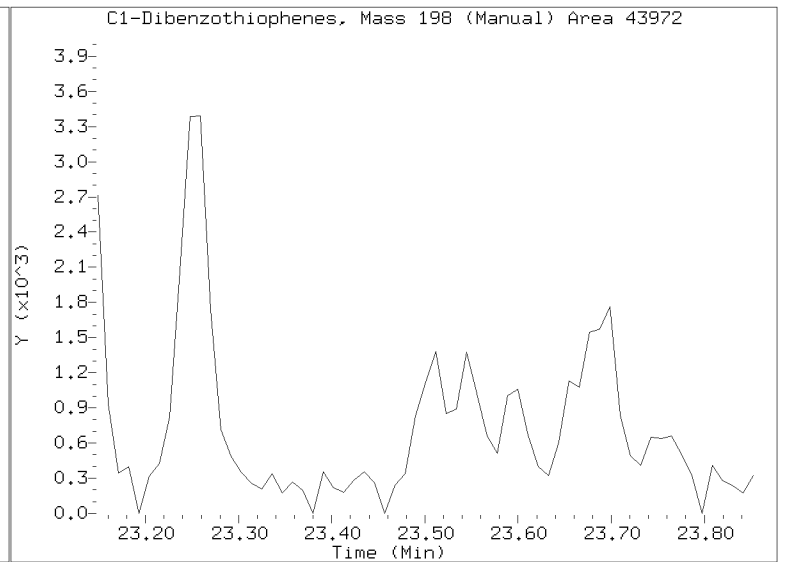
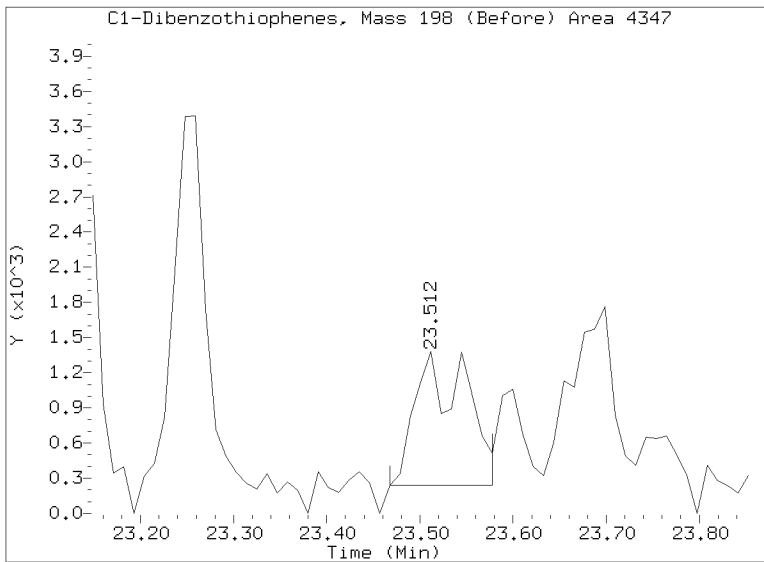
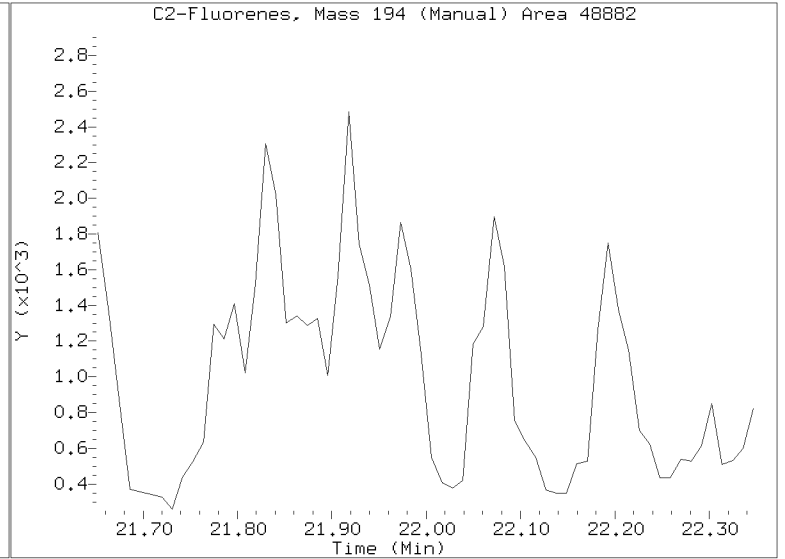
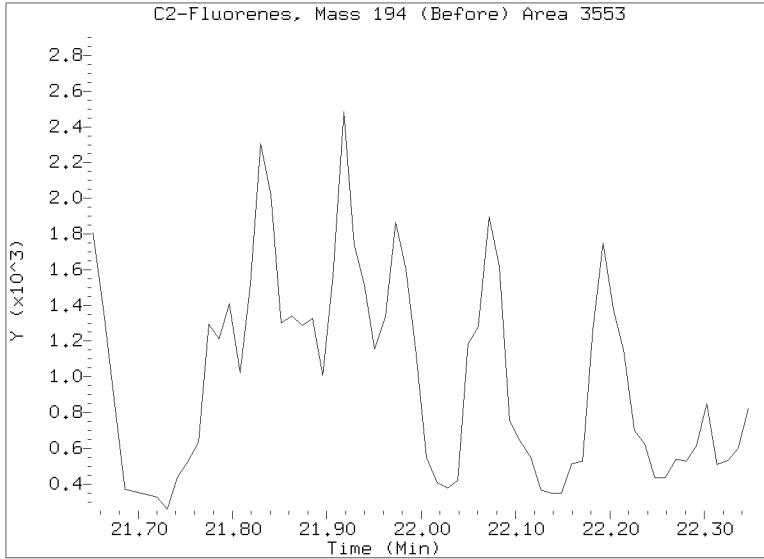
Quant Ion Manual Peak Adjustment Report

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Lab ID:21D0180-02 Client ID:
Report Date: 05/07/2021 15:32



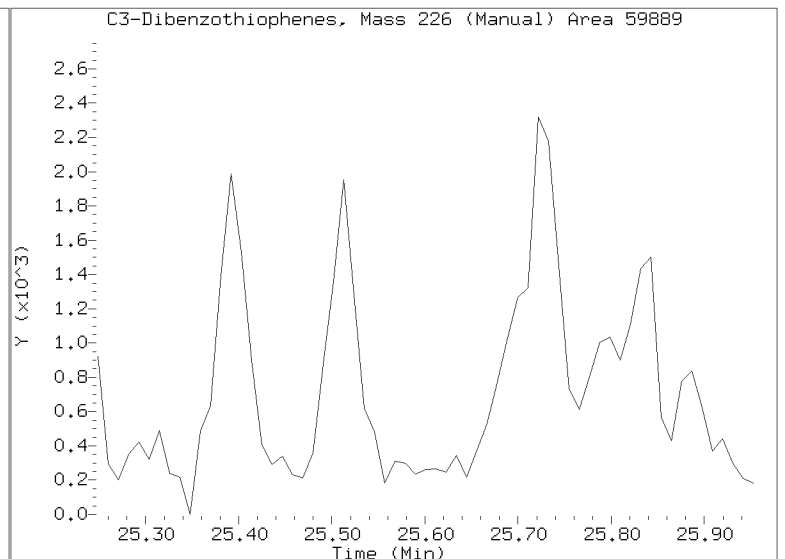
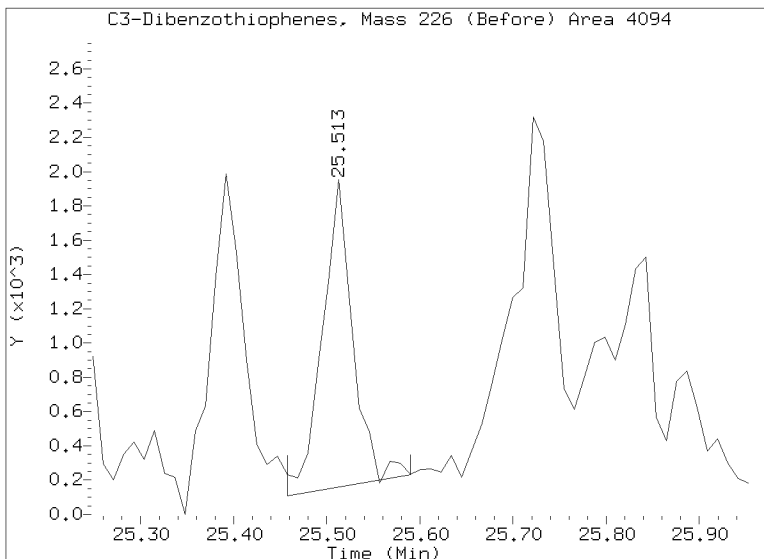
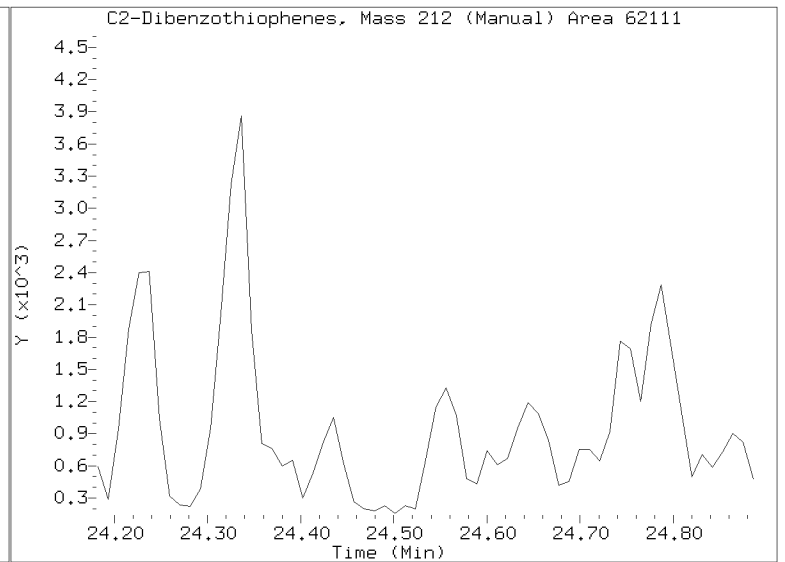
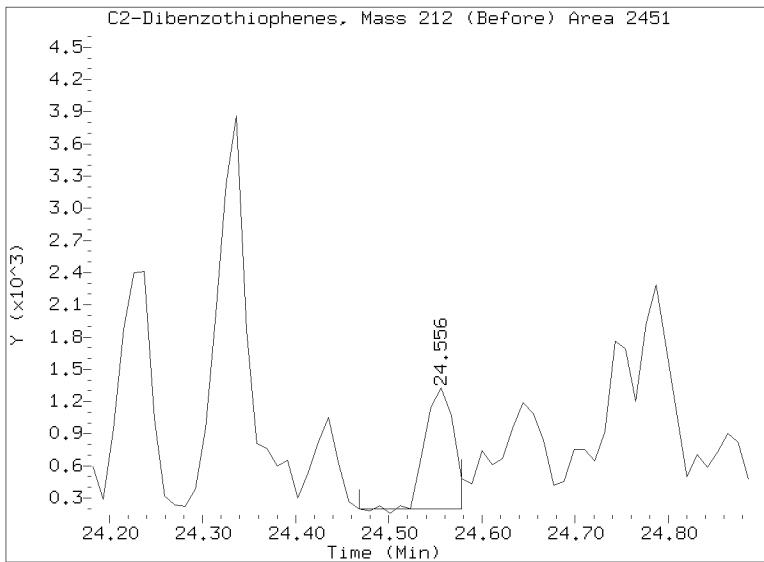
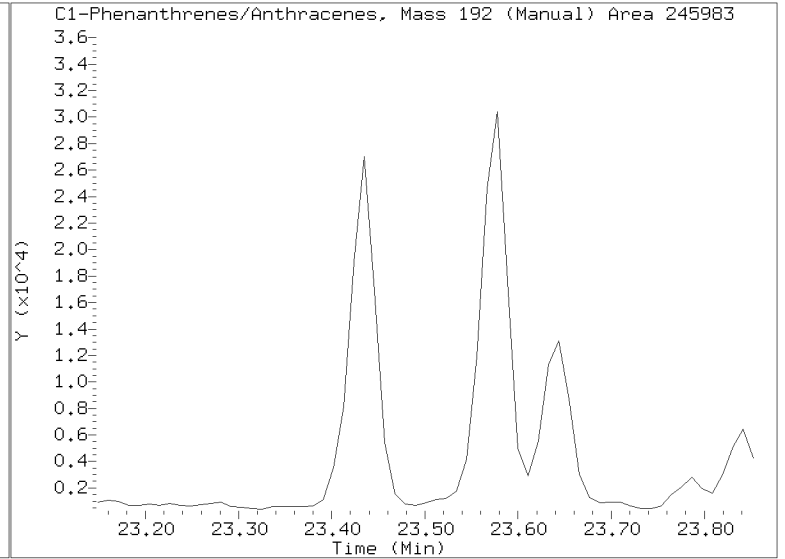
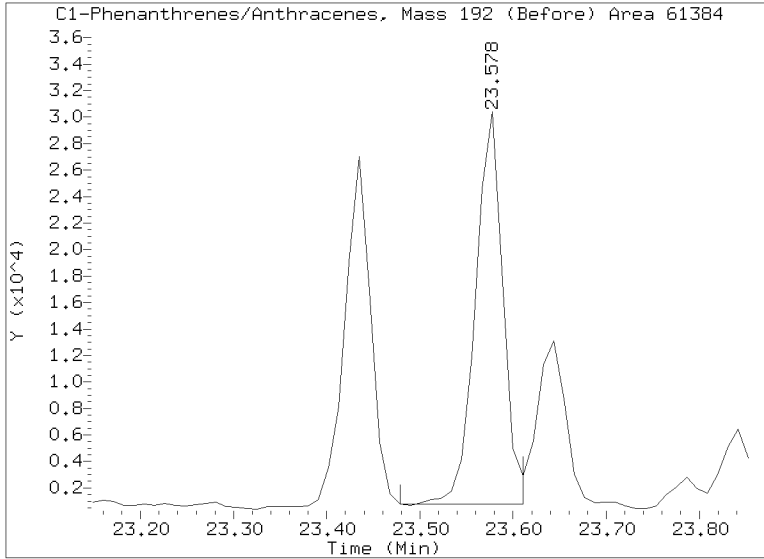
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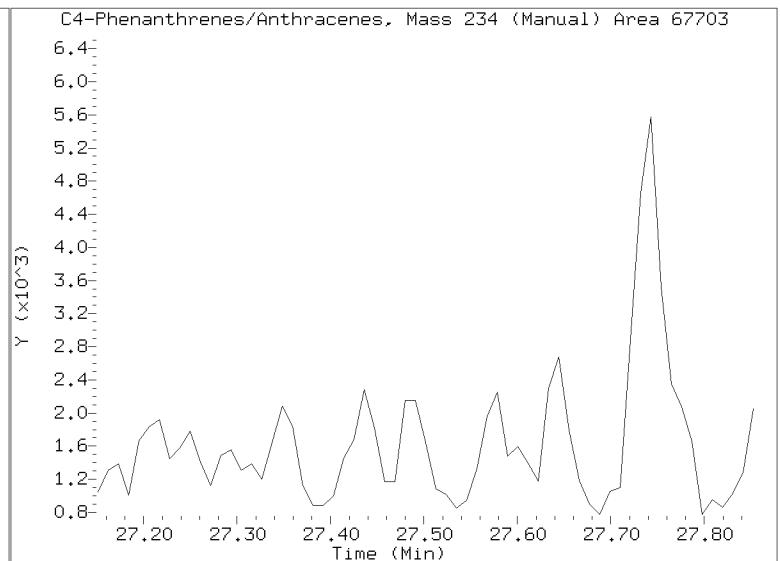
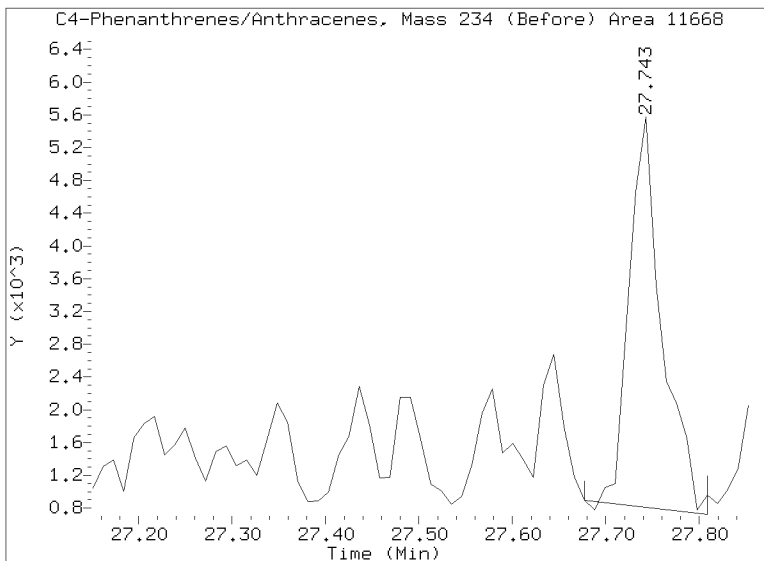
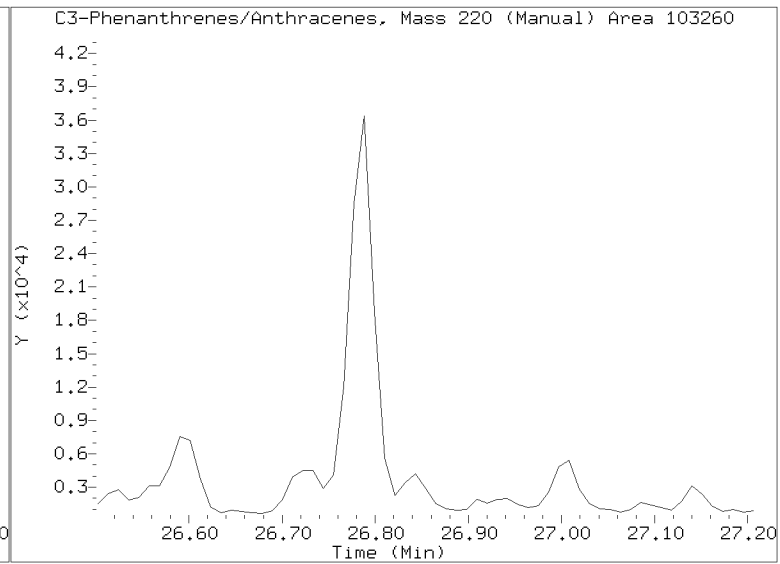
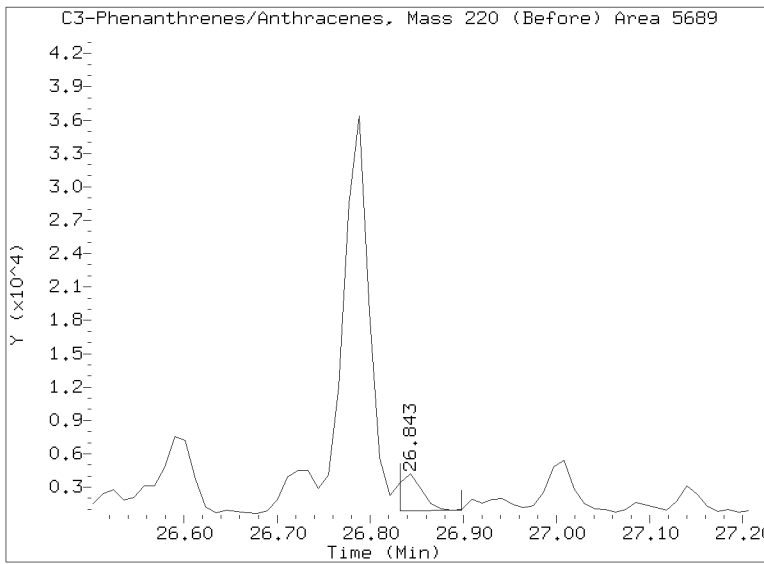
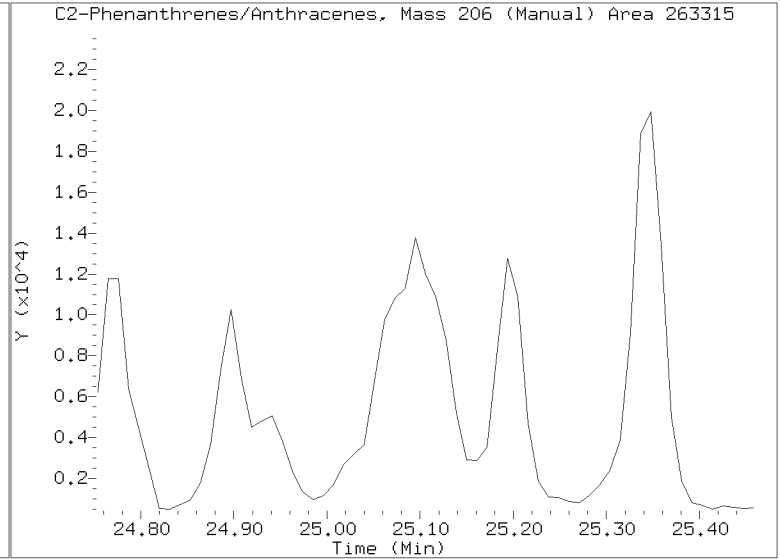
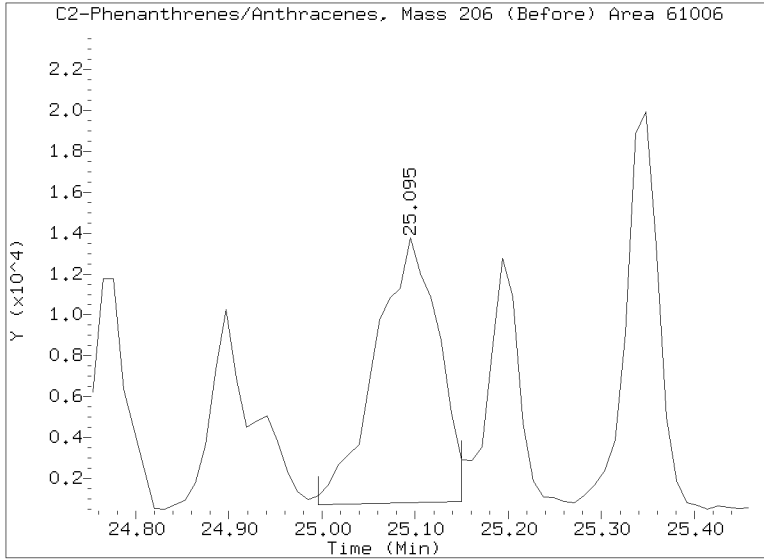
Quant Ion Manual Peak Adjustment Report

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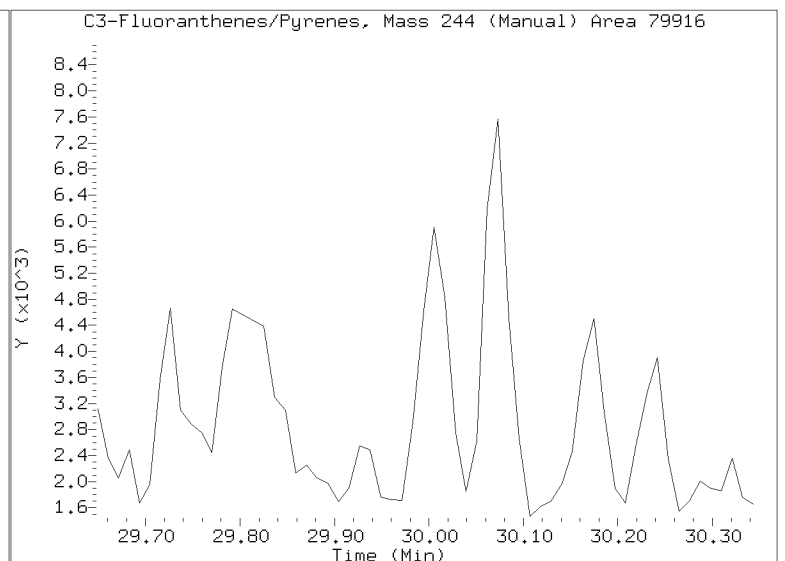
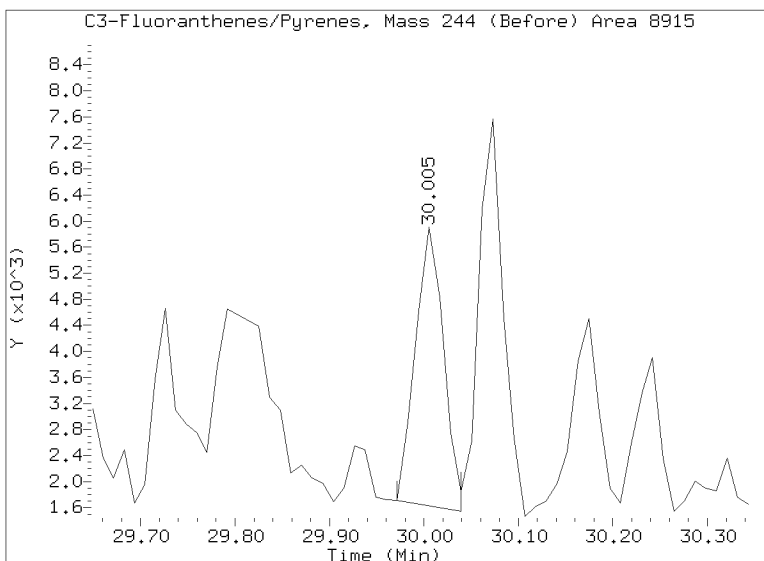
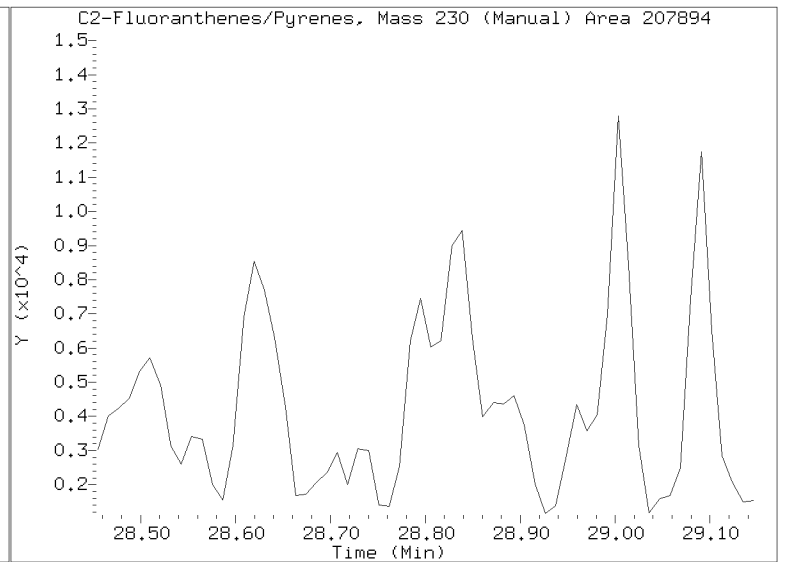
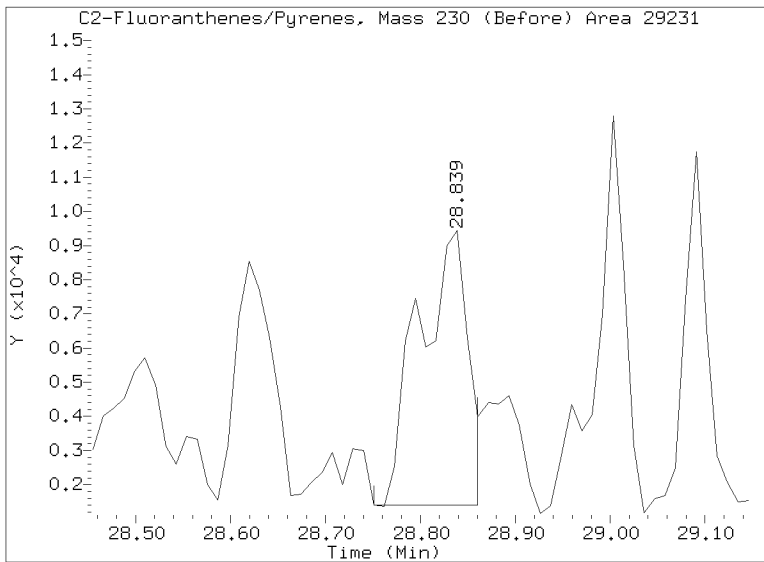
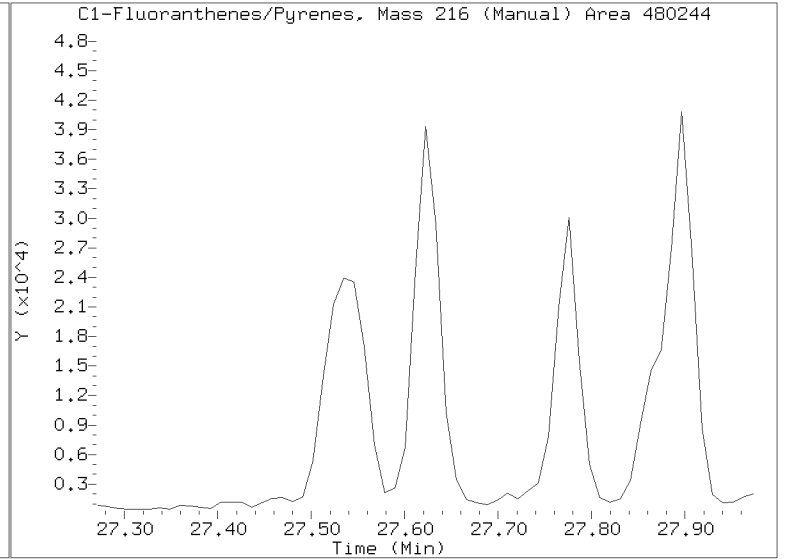
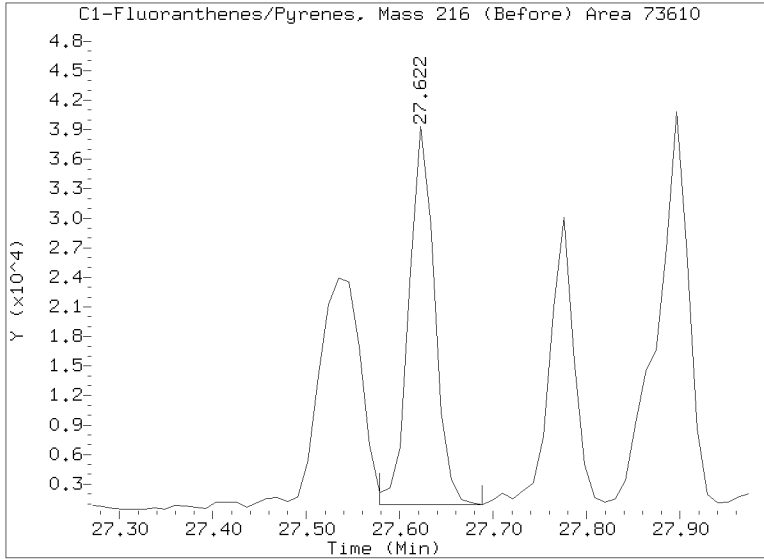
Quant Ion Manual Peak Adjustment Report

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Lab ID:21D0180-02 Client ID:
Report Date: 05/07/2021 15:32



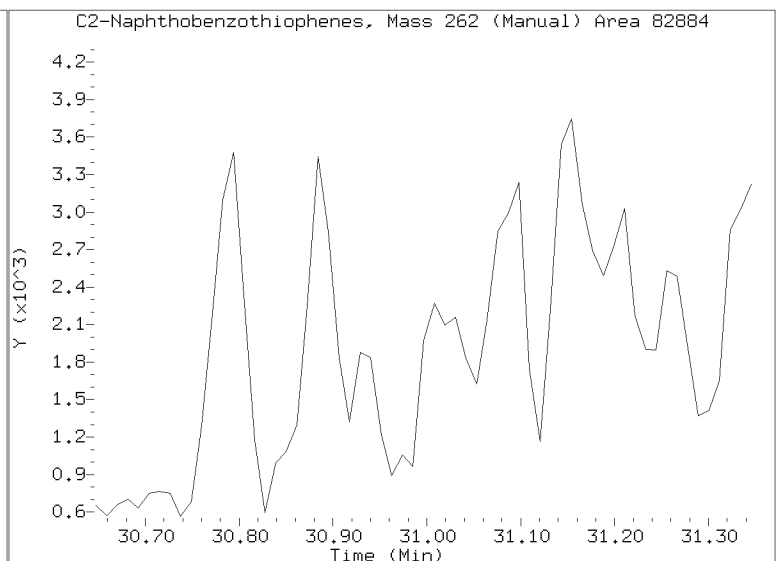
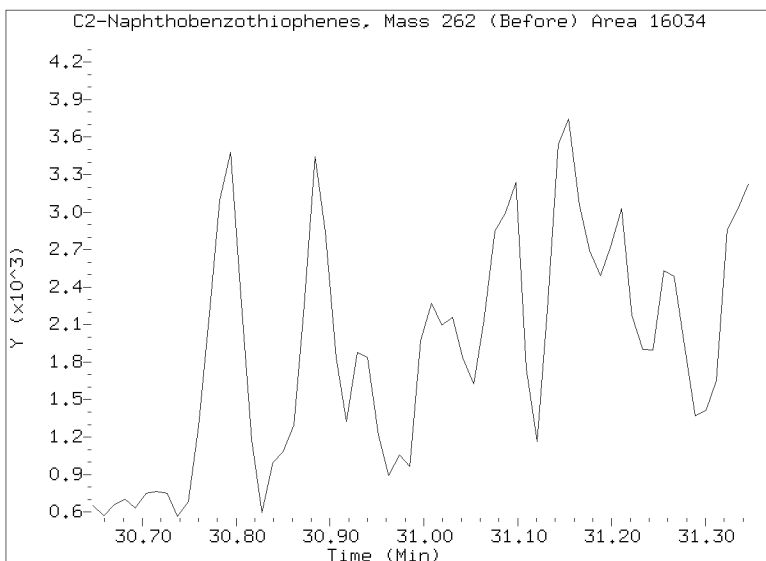
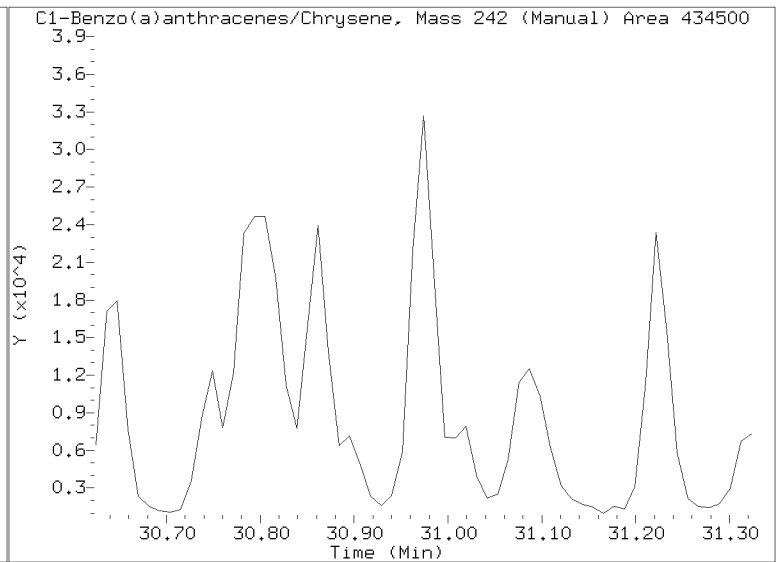
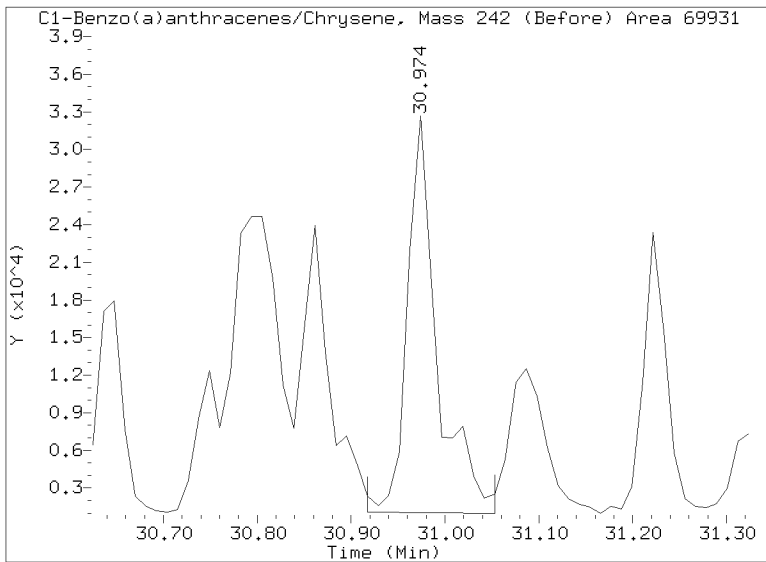
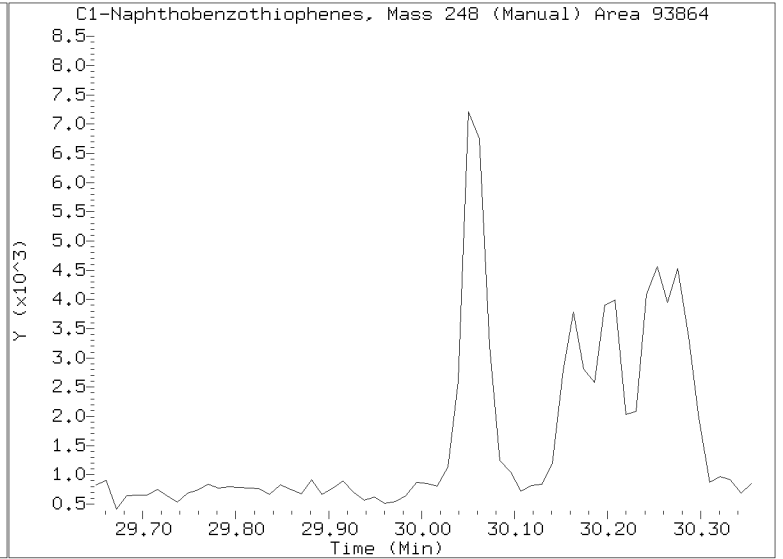
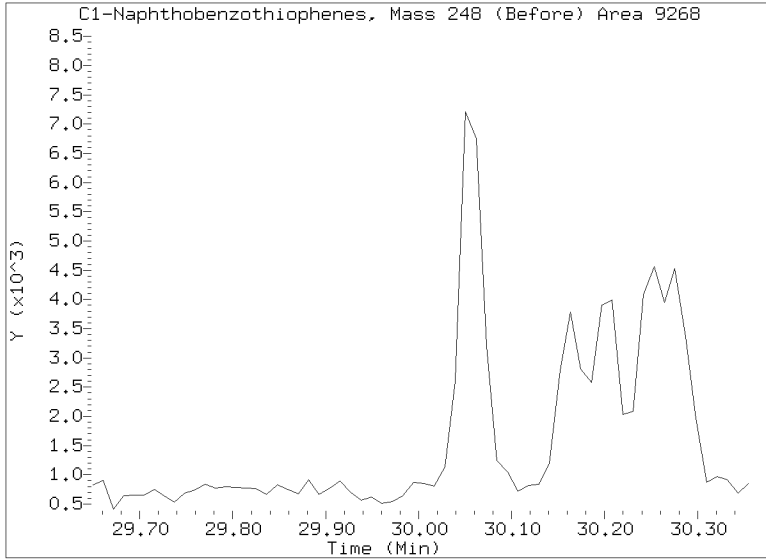
Quant Ion Manual Peak Adjustment Report

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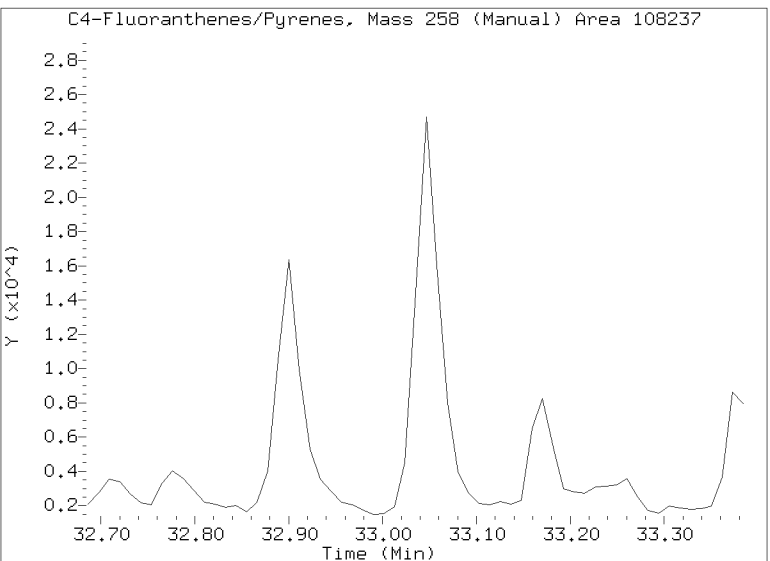
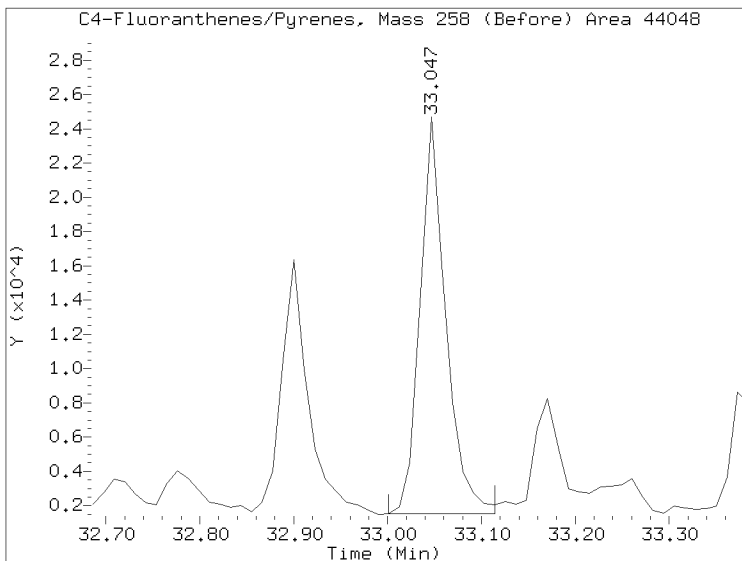
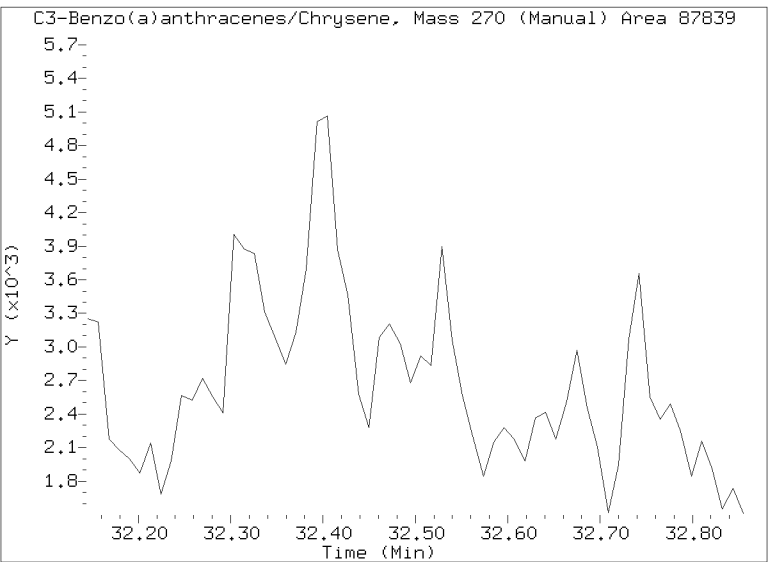
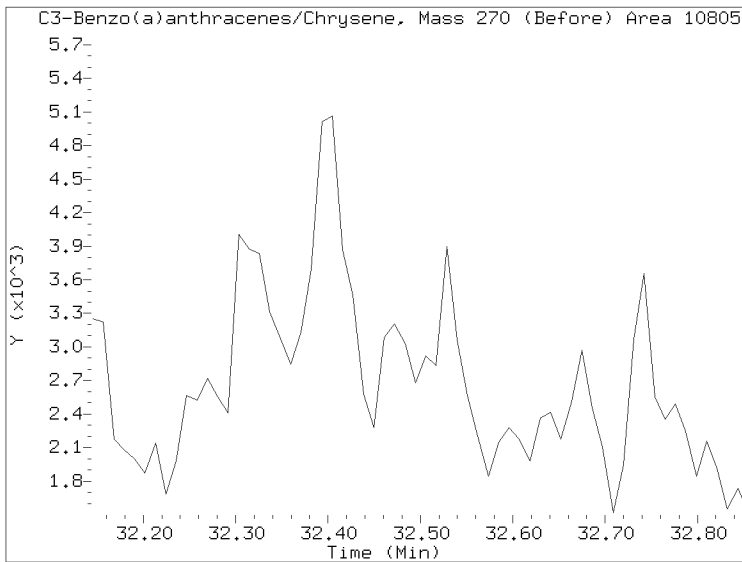
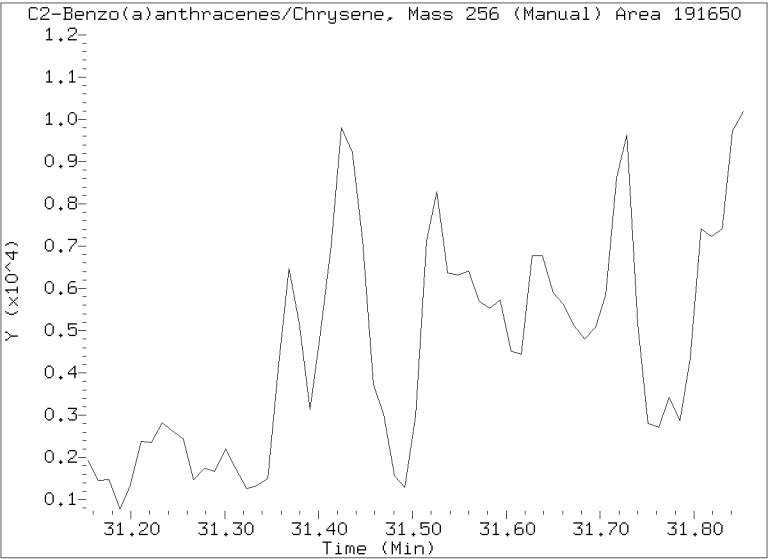
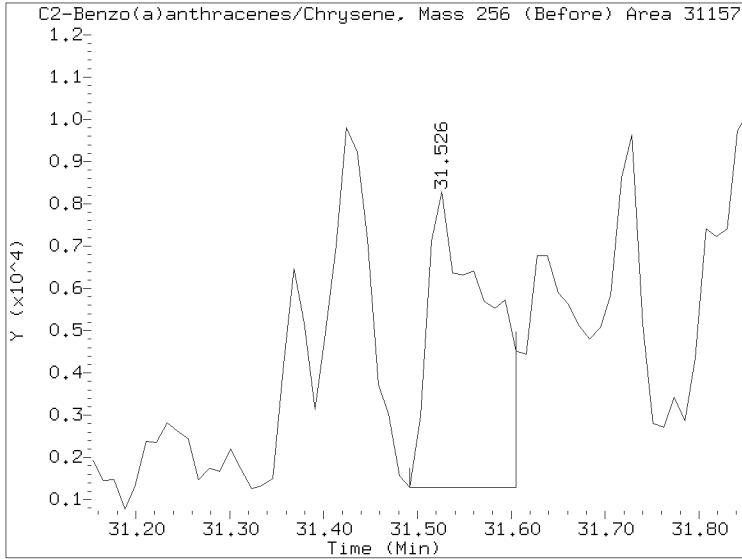
Quant Ion Manual Peak Adjustment Report

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Lab ID:21D0180-02 Client ID:
Report Date: 05/07/2021 15:32



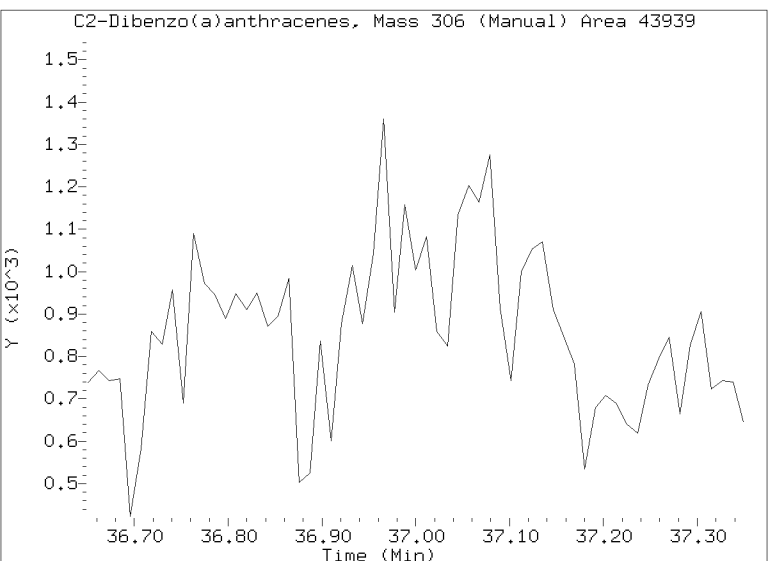
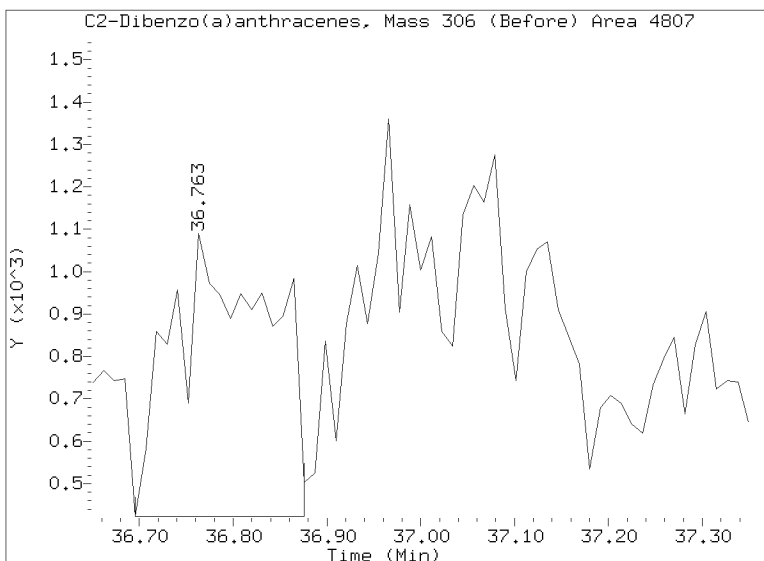
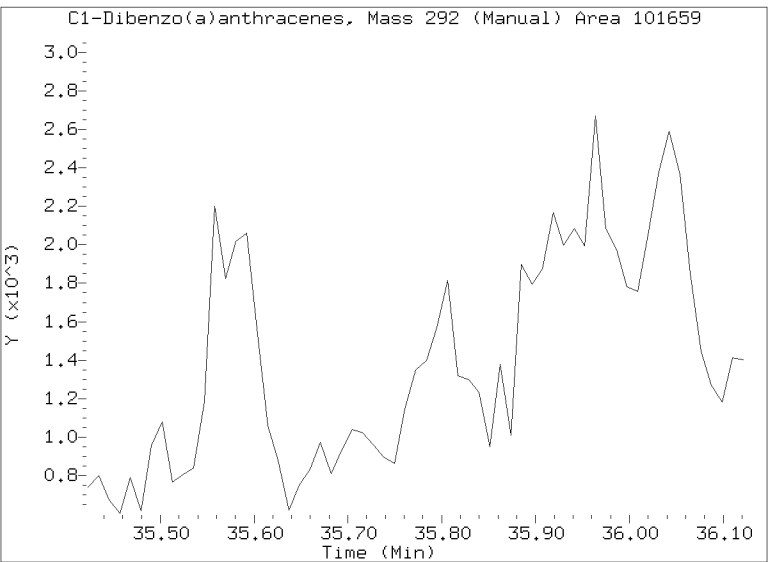
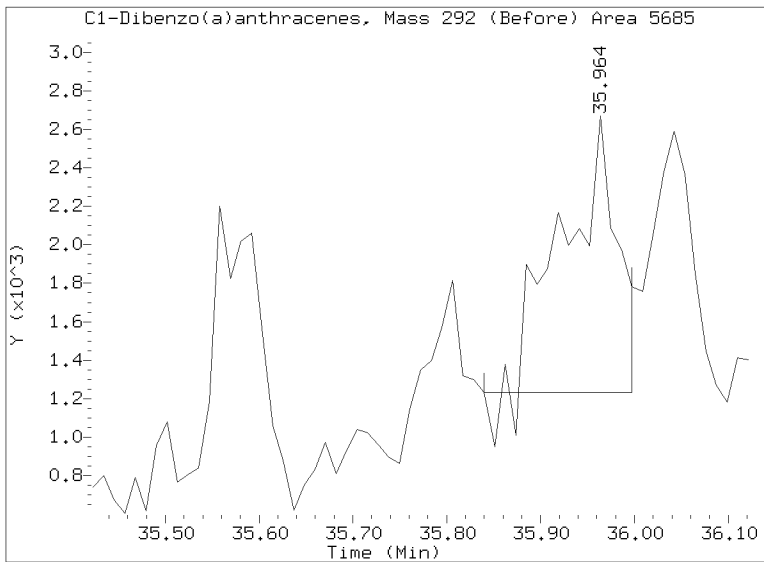
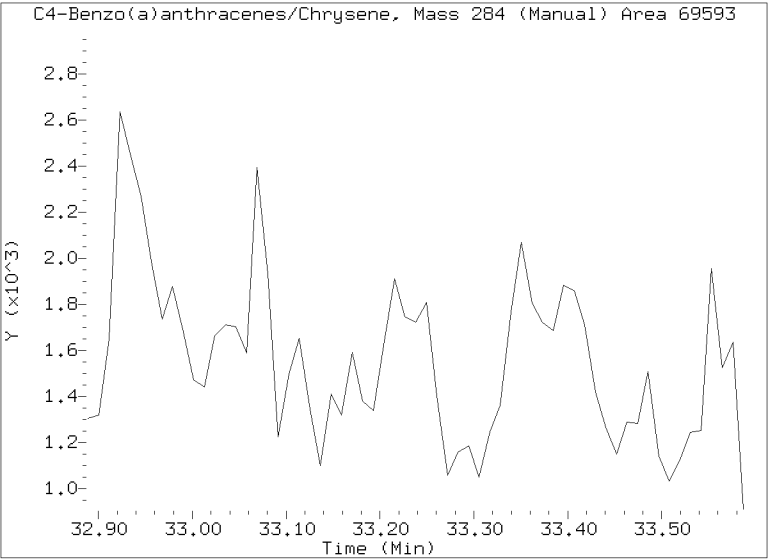
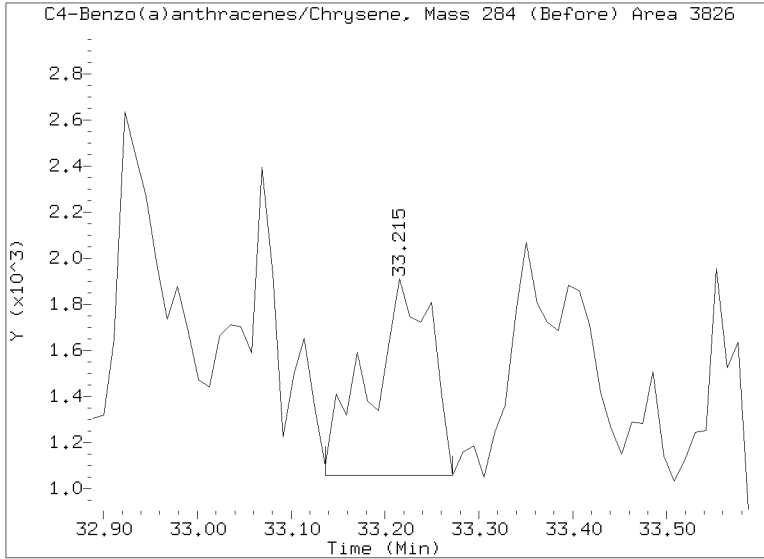
Quant Ion Manual Peak Adjustment Report

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Lab ID:21D0180-02 Client ID:
Report Date: 05/07/2021 15:32



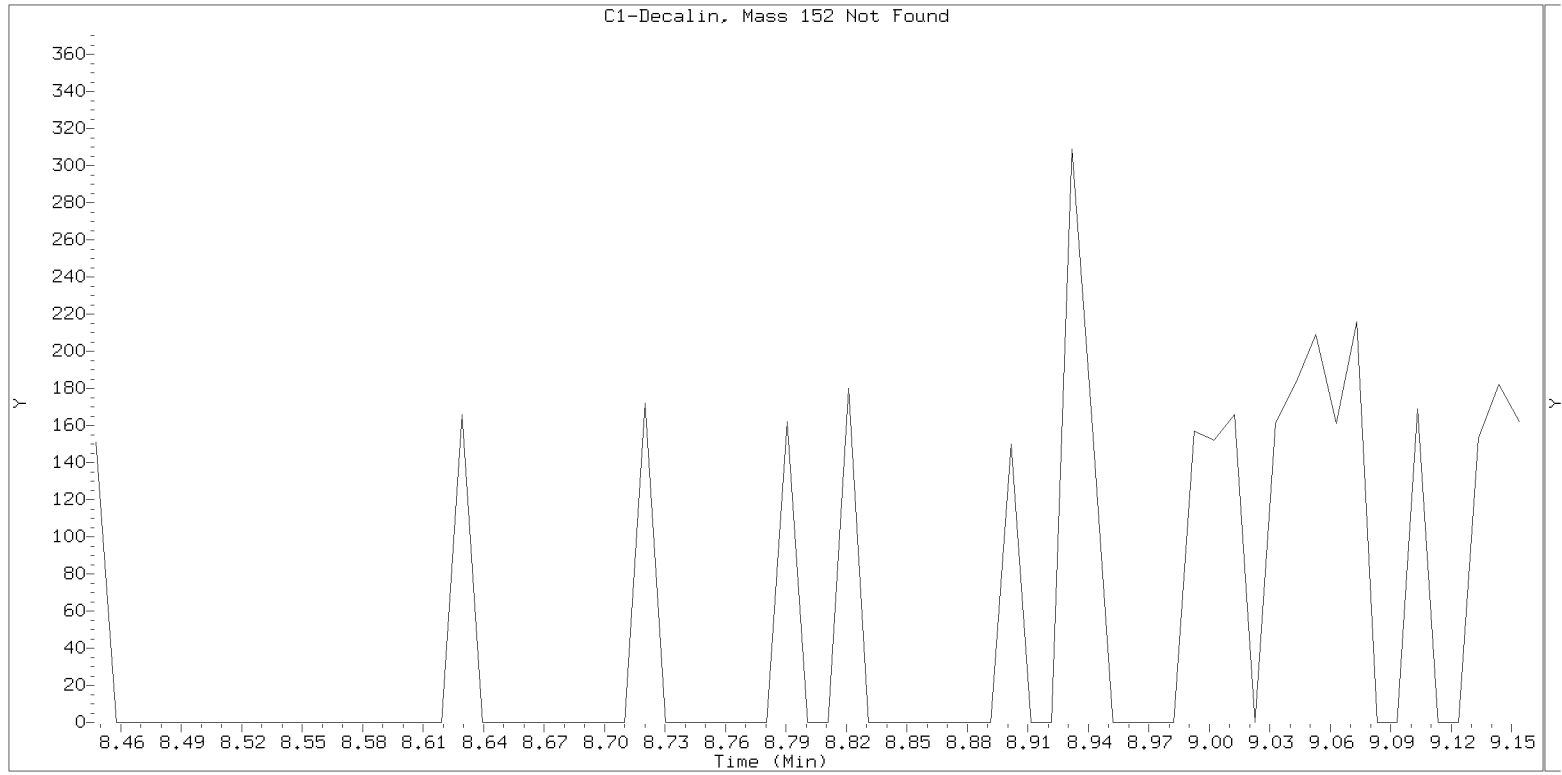
Quant Ion Manual Peak Adjustment Report

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Lab ID:21D0180-02 Client ID:
Report Date: 05/07/2021 15:32



Lab ID: 21D0180-02

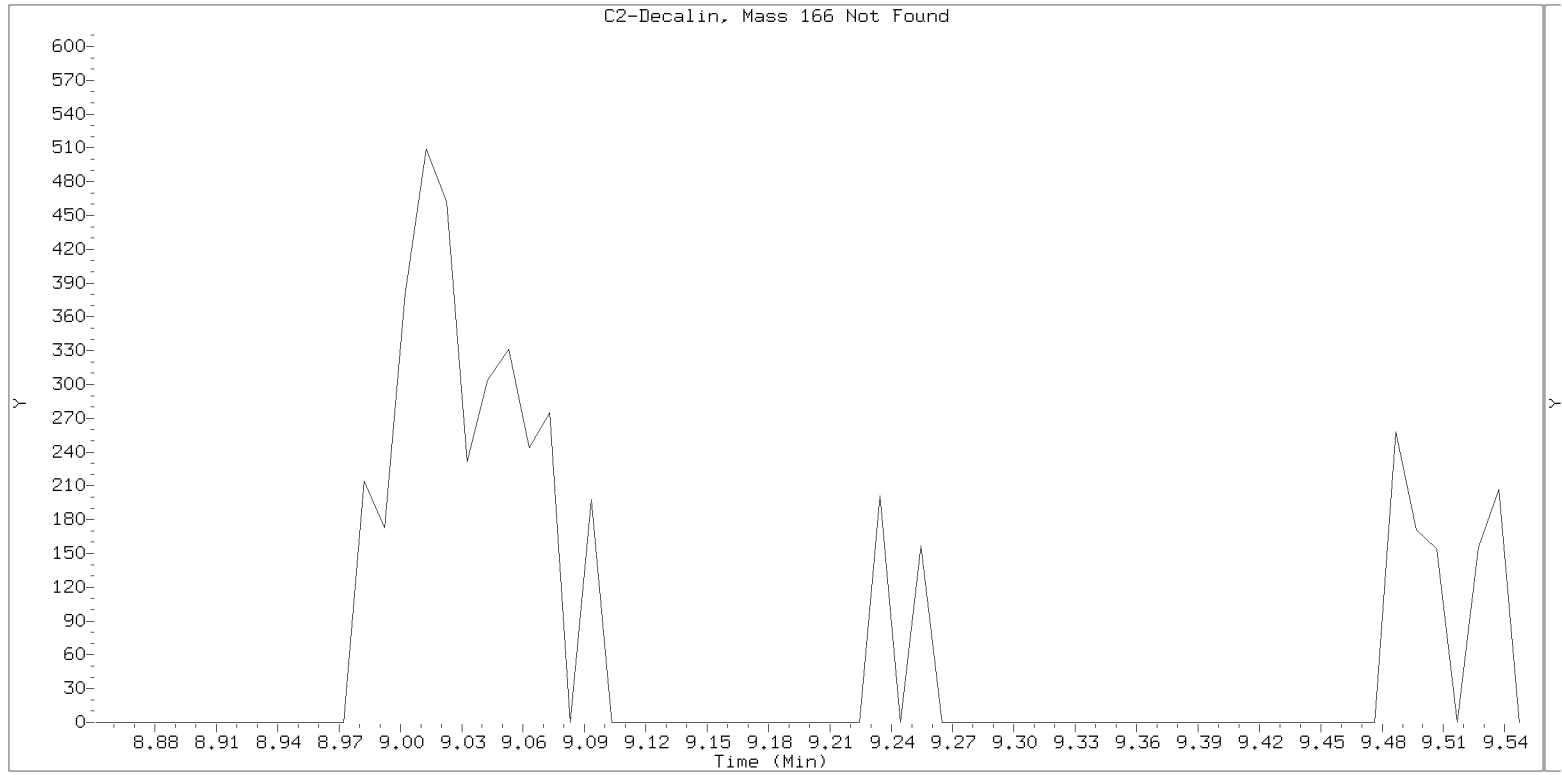
nt14.i, SIM.b\ALKYLRANGES.m, 02-MAY-2021 10:01



SIM ALKYL PNA RANGE ION WINDOWS - NT1421043064S.D

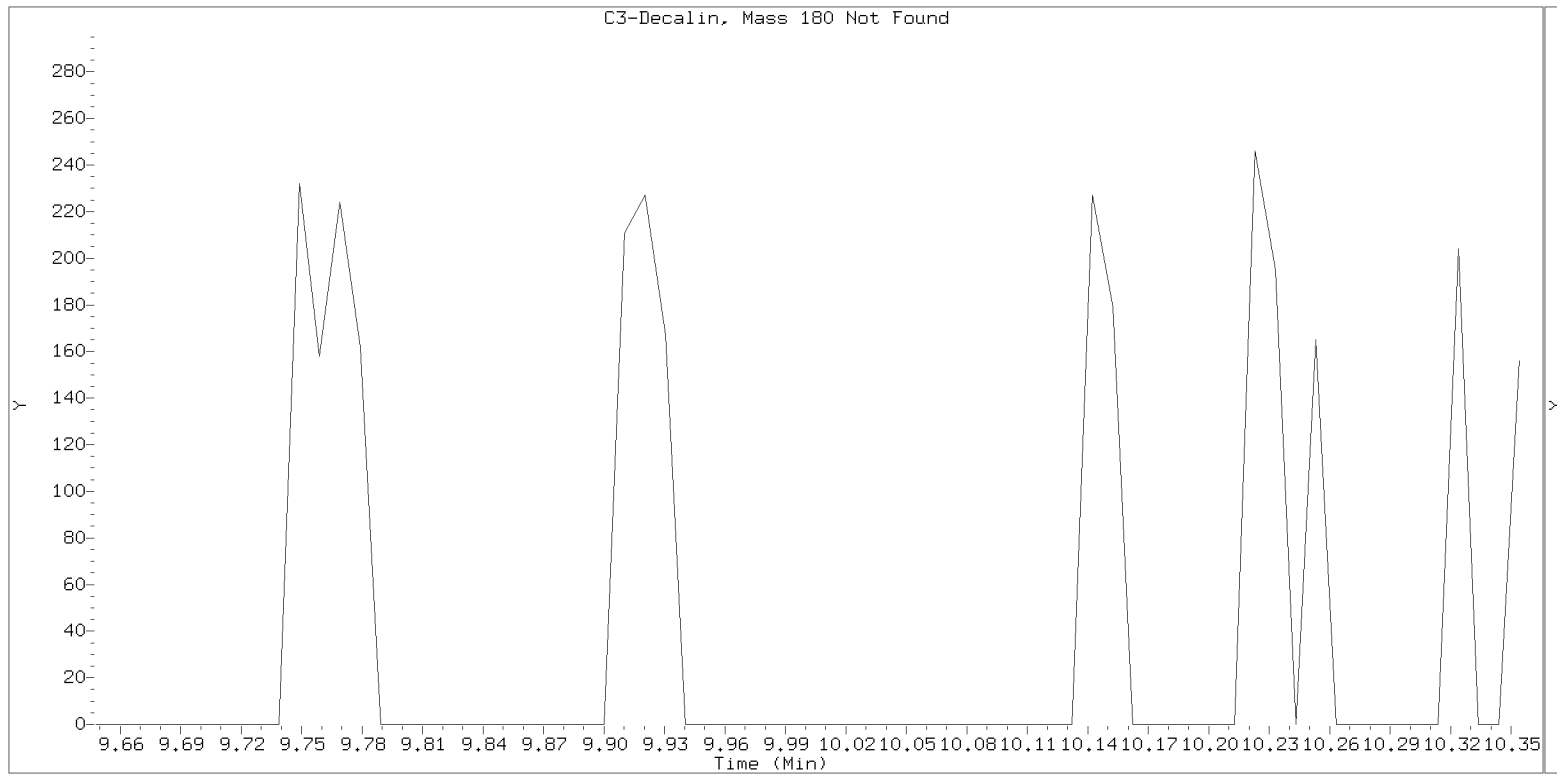
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Lab ID: 21D0180-02

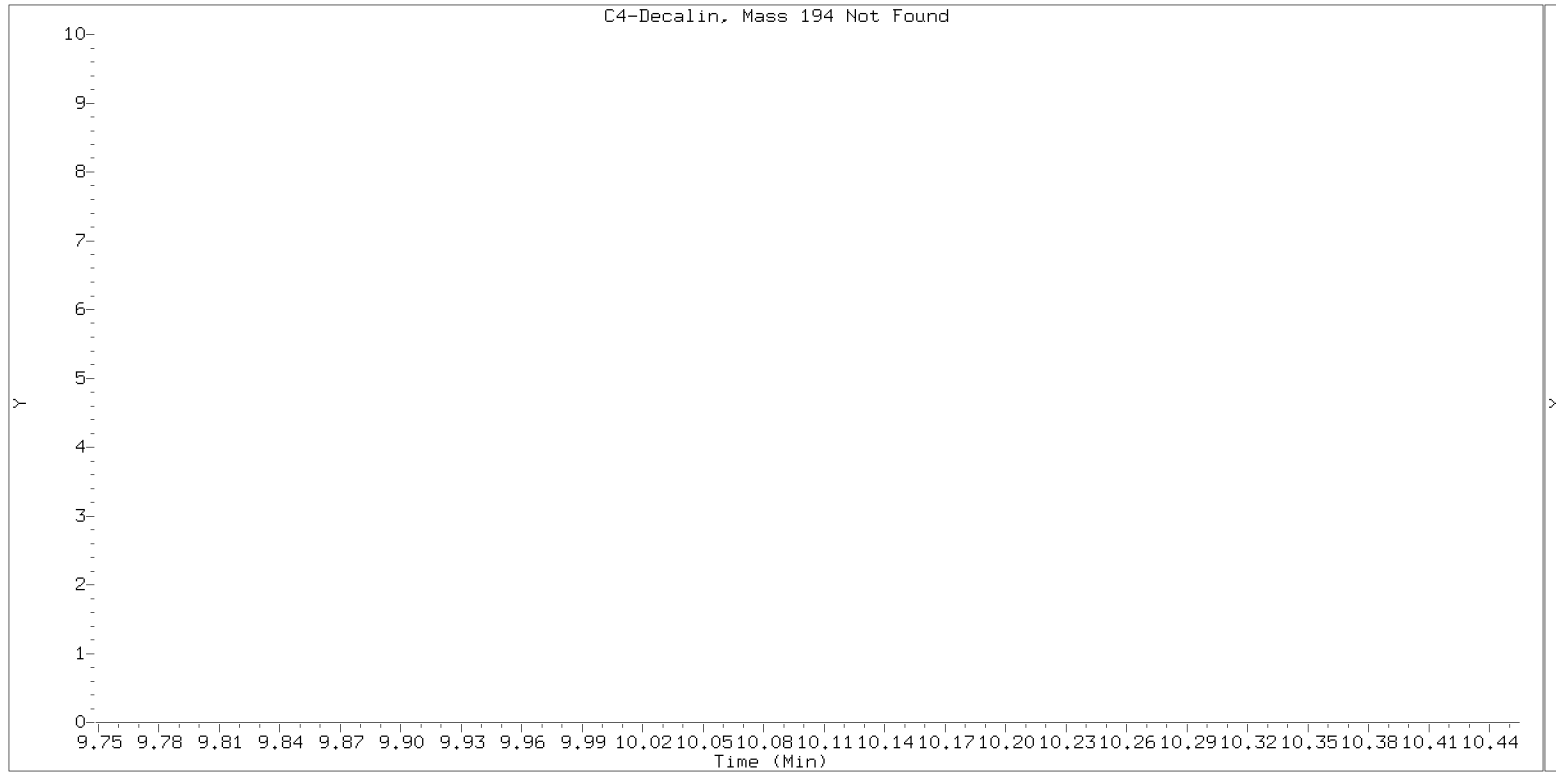
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043064S.D

Lab ID: 21D0180-02

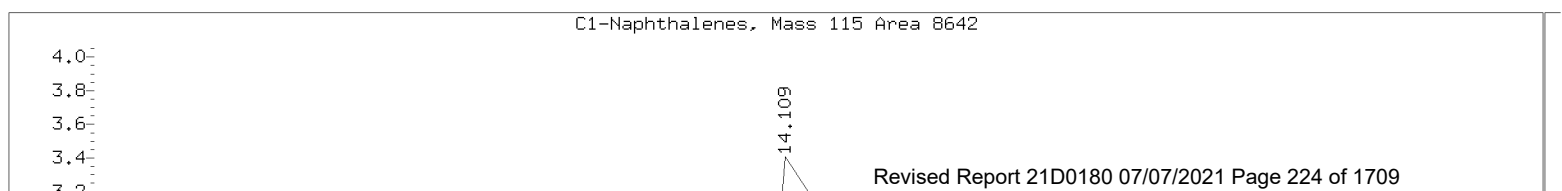
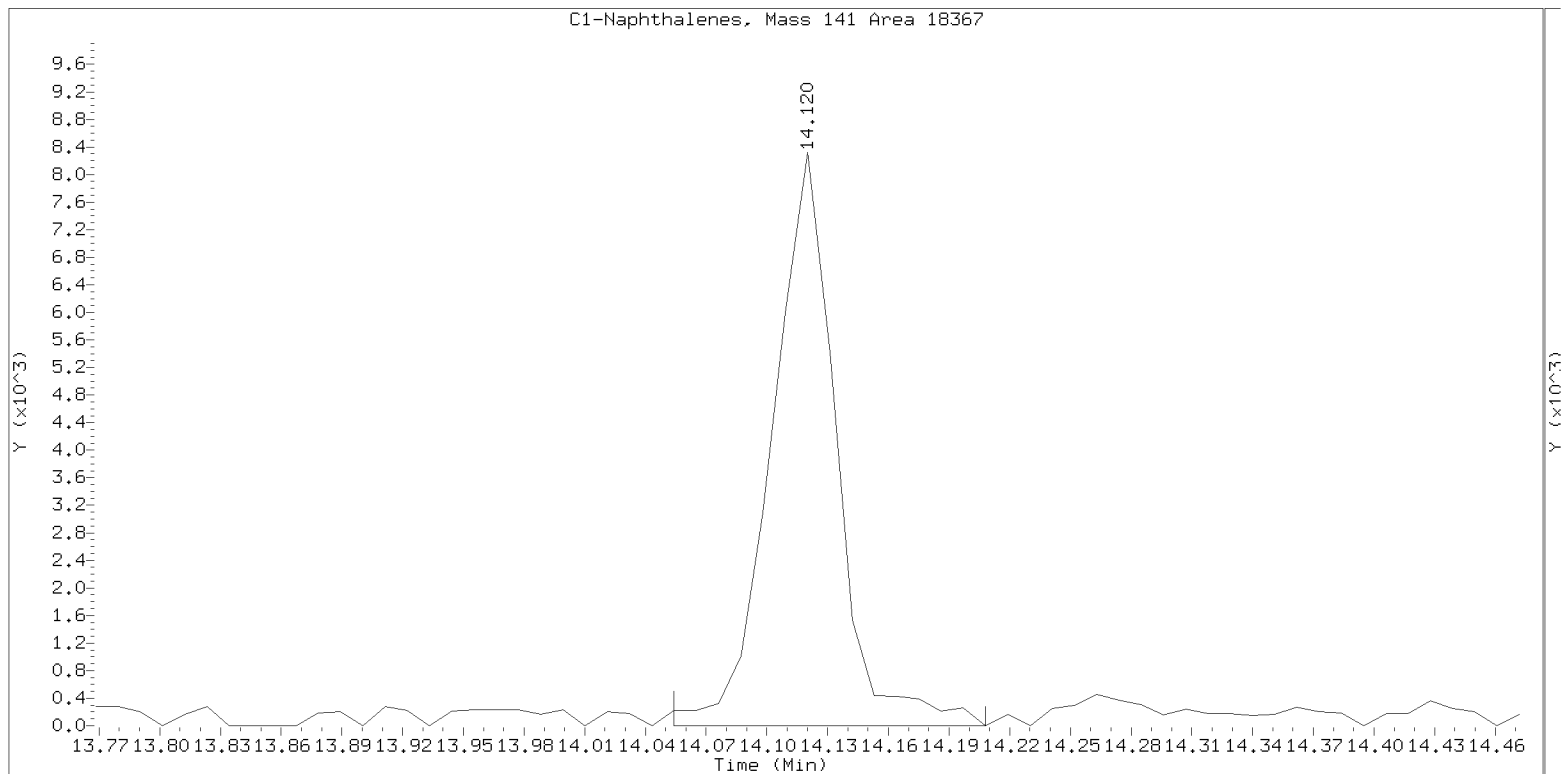
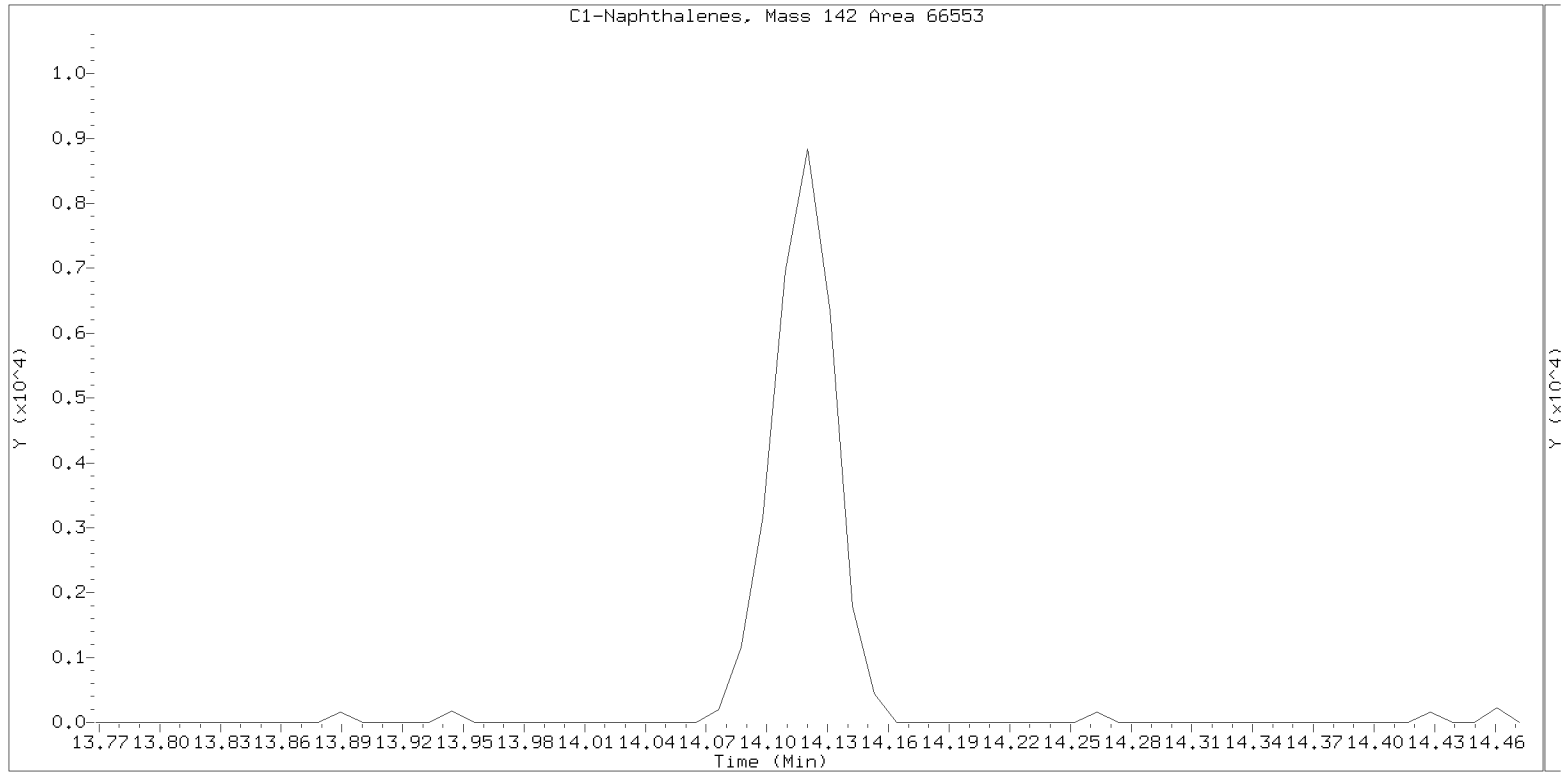
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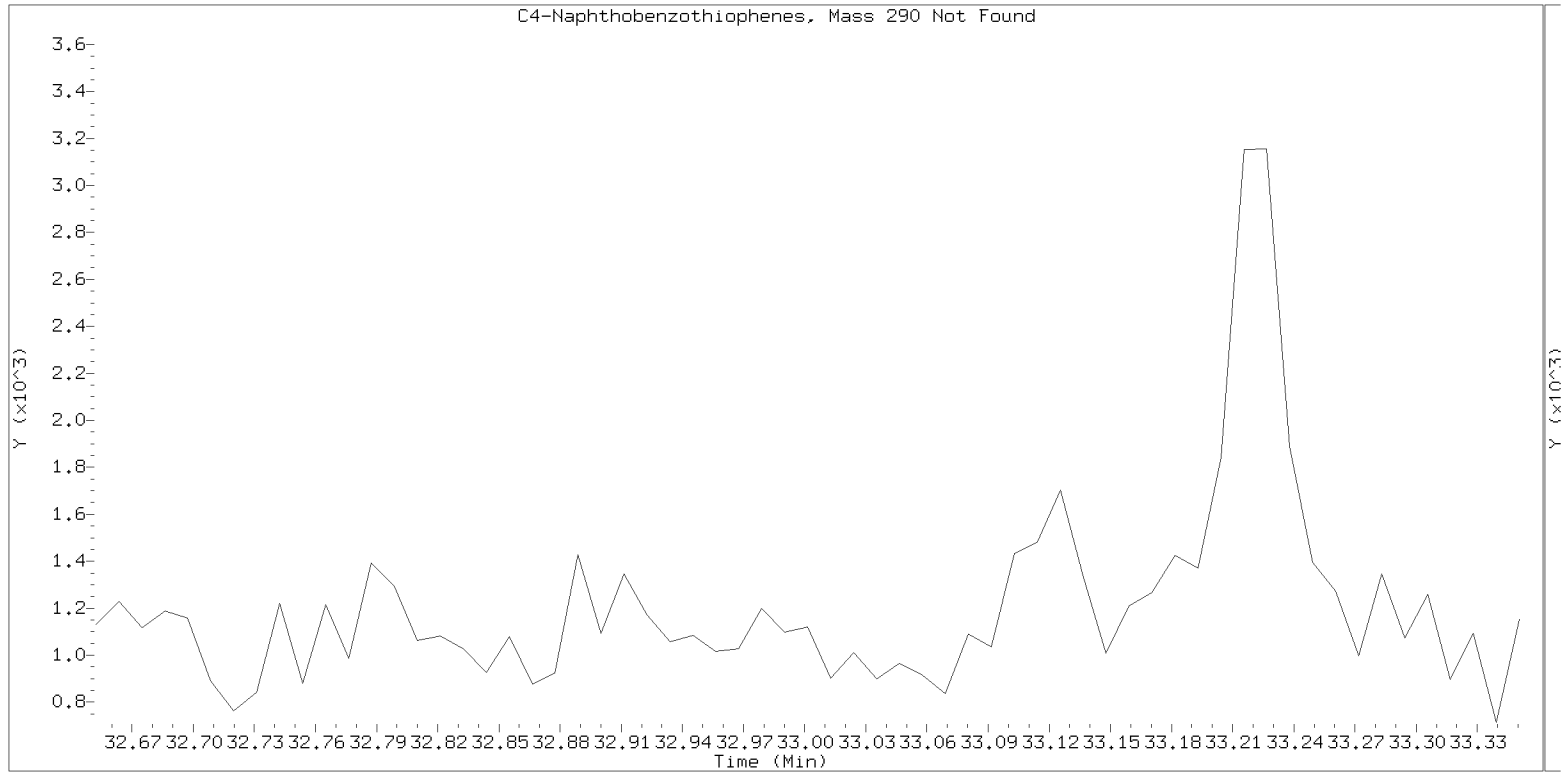
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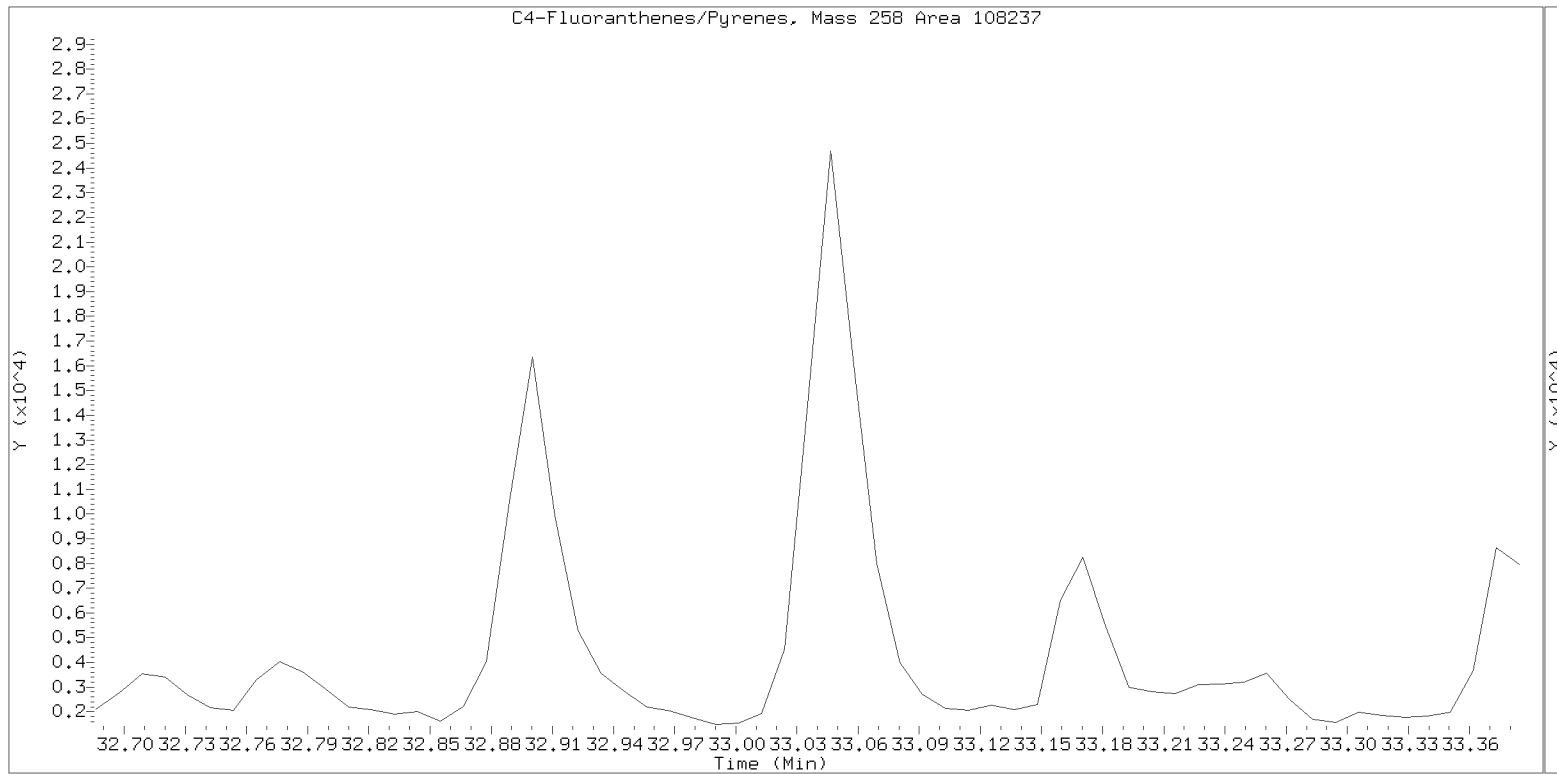
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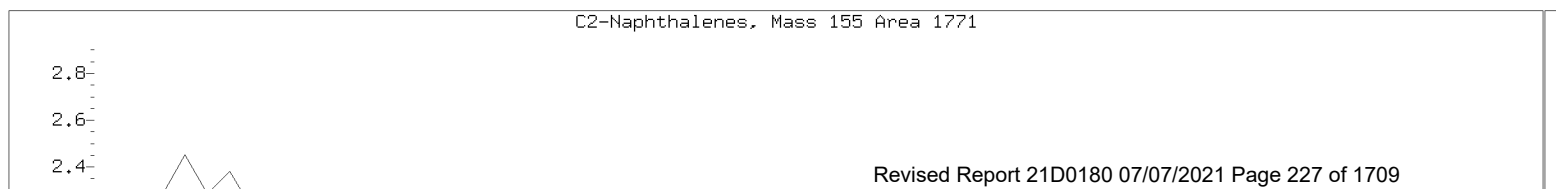
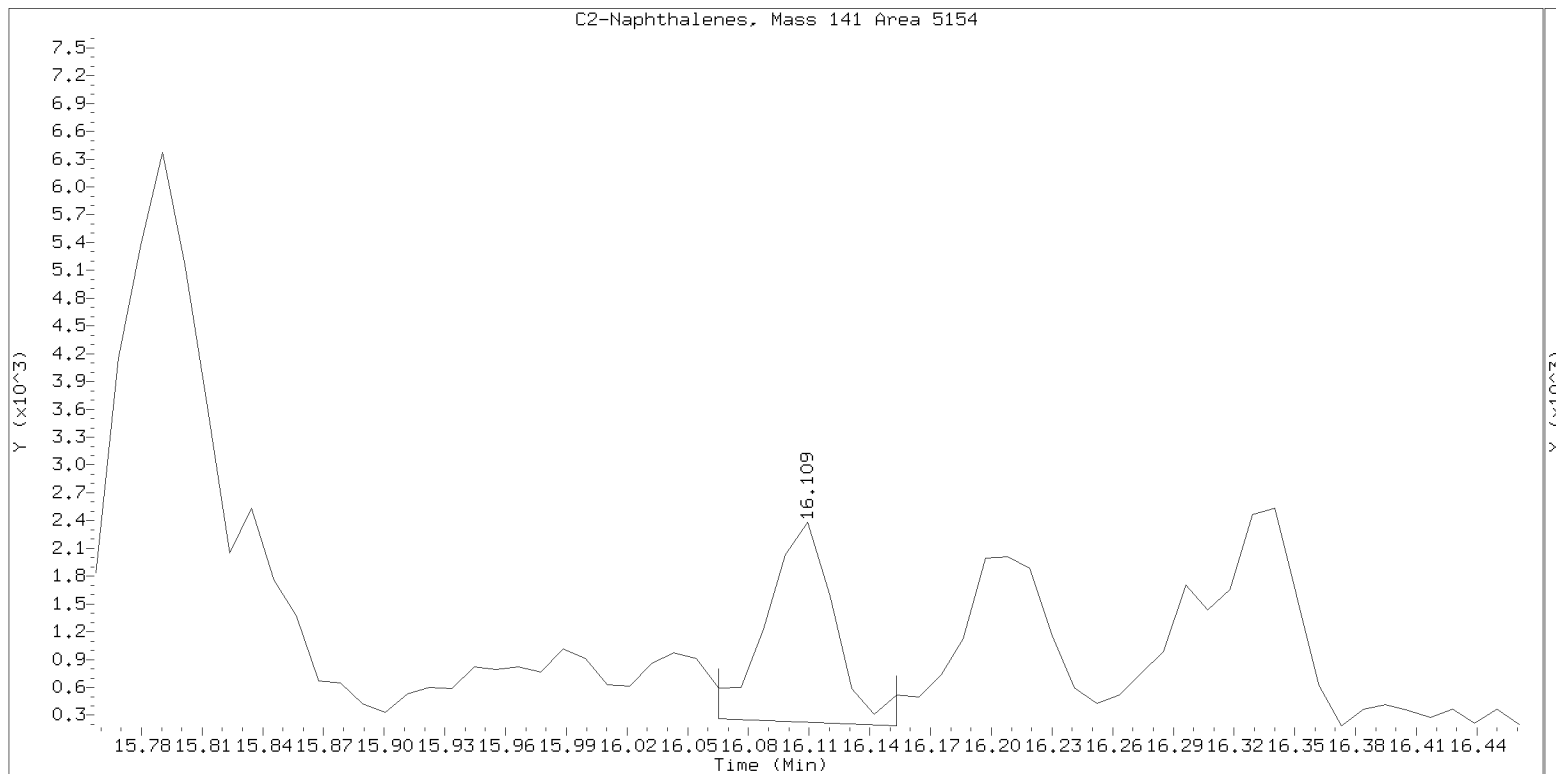
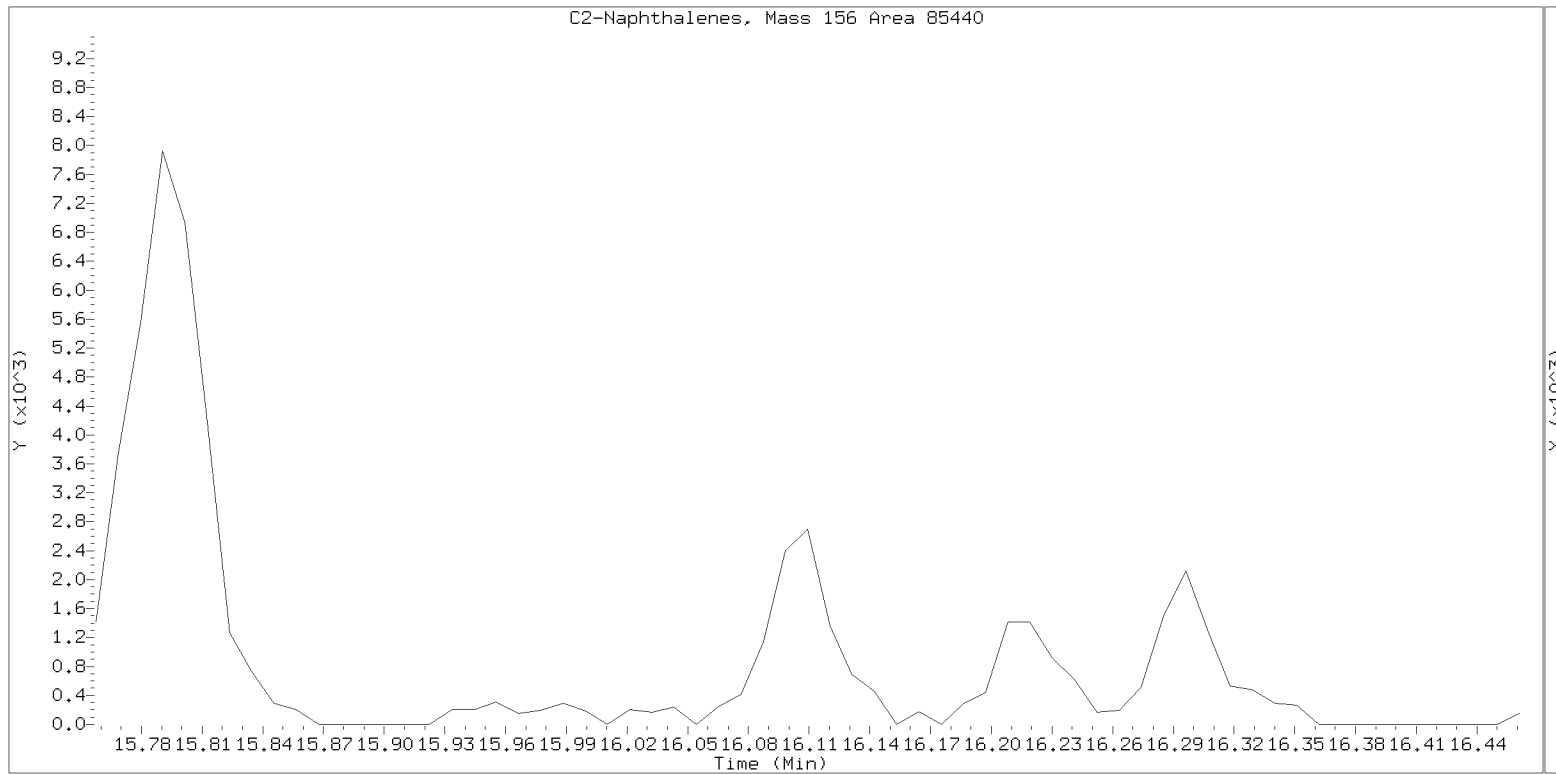
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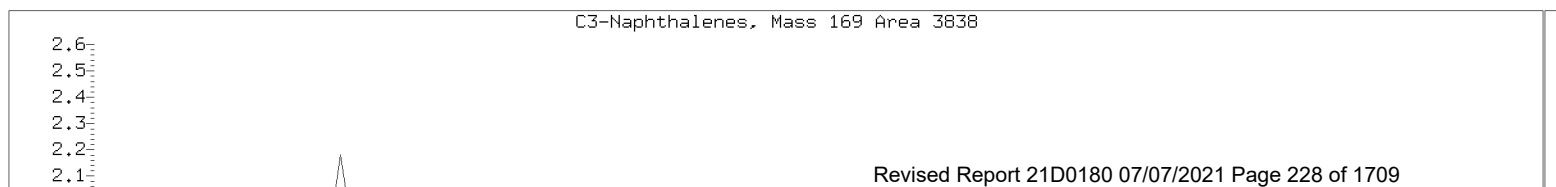
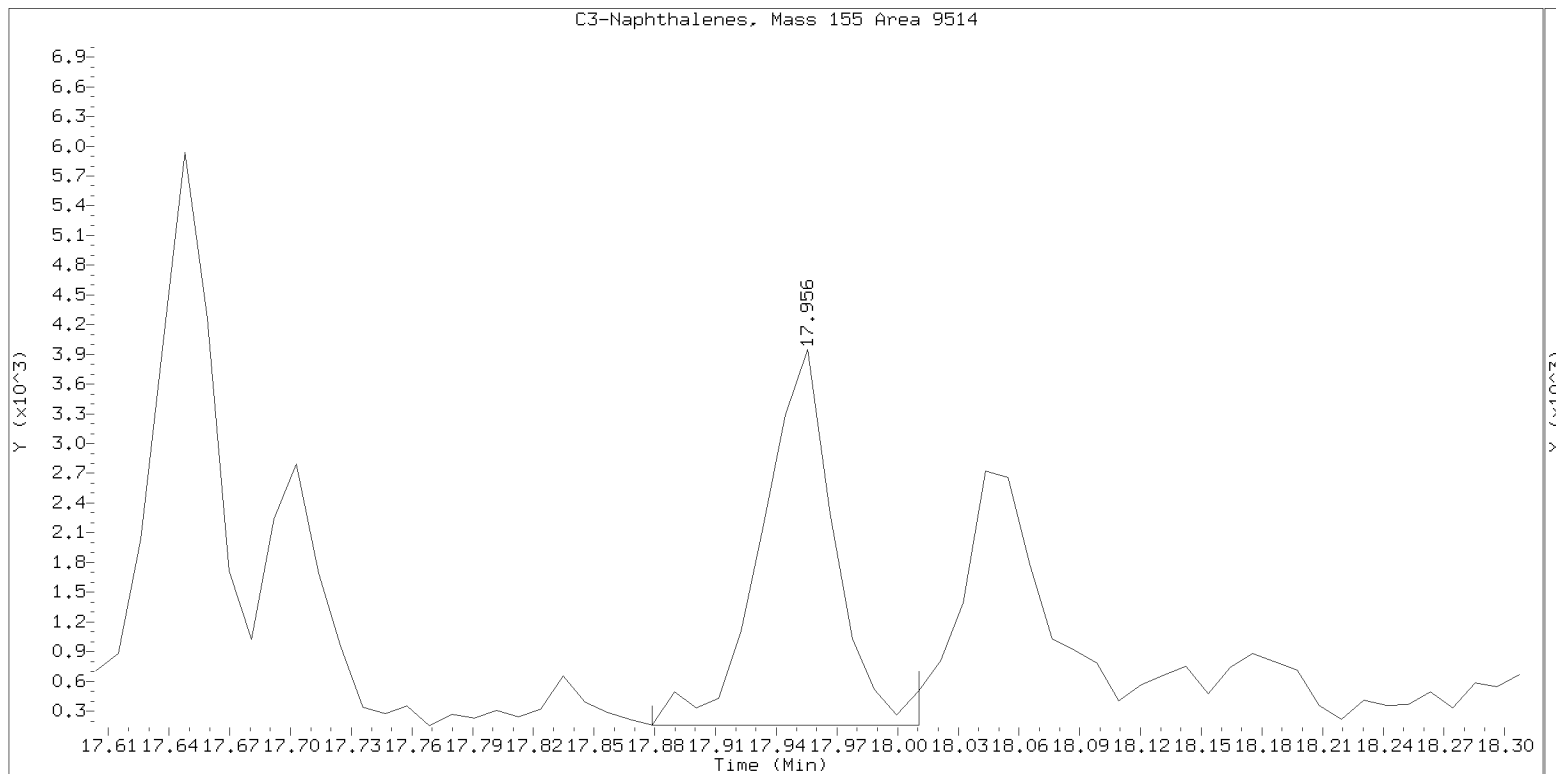
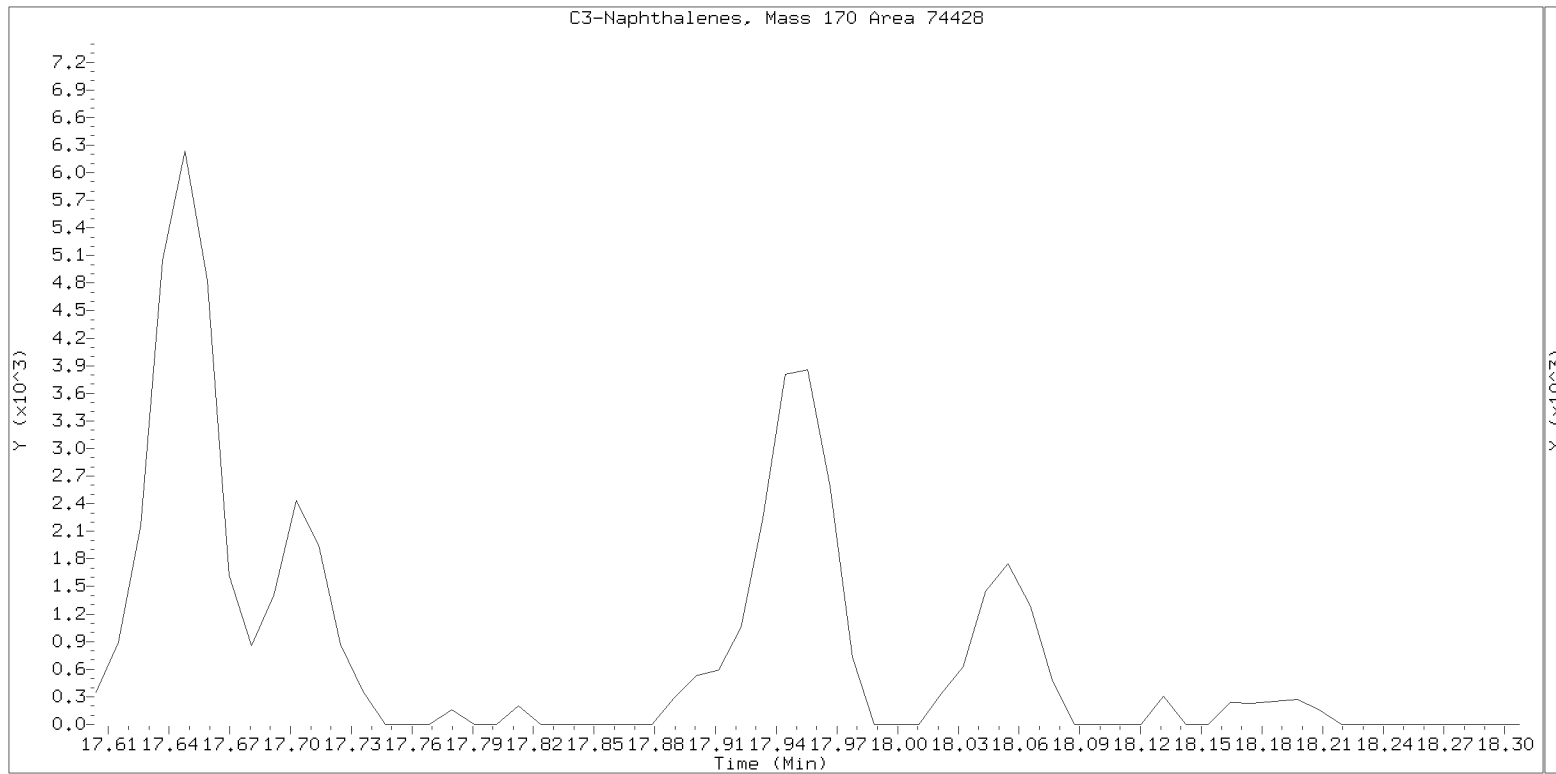
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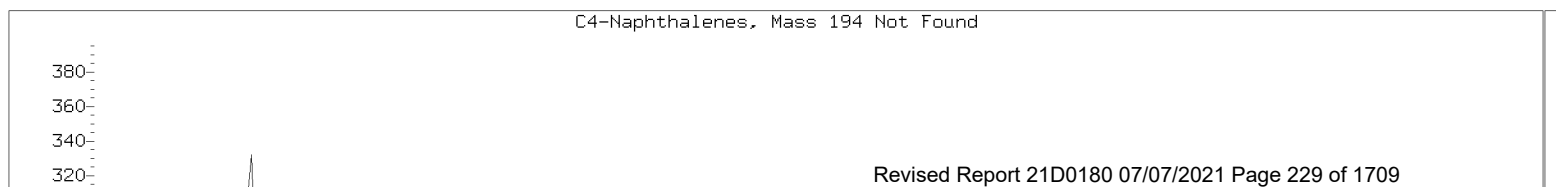
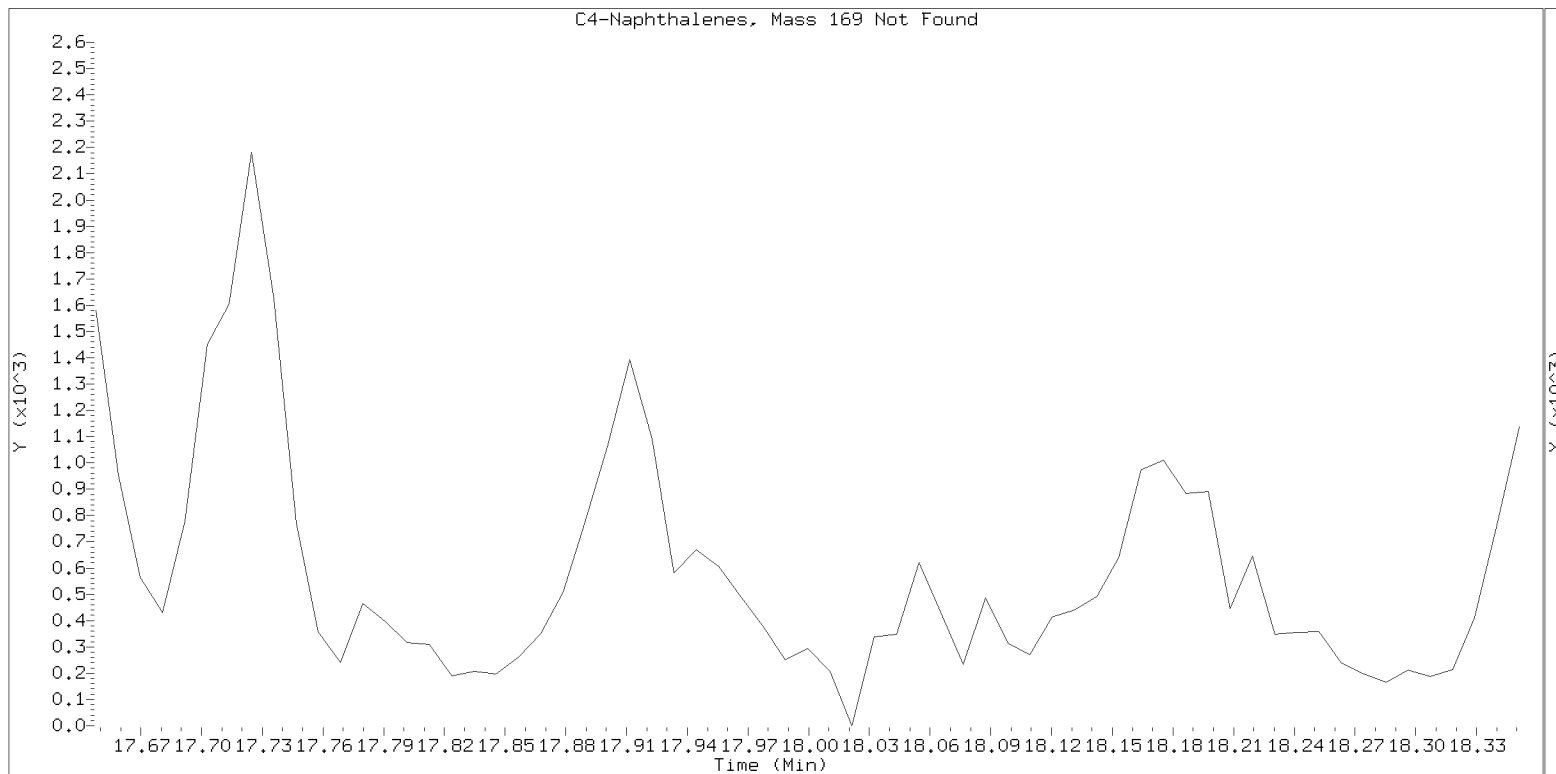
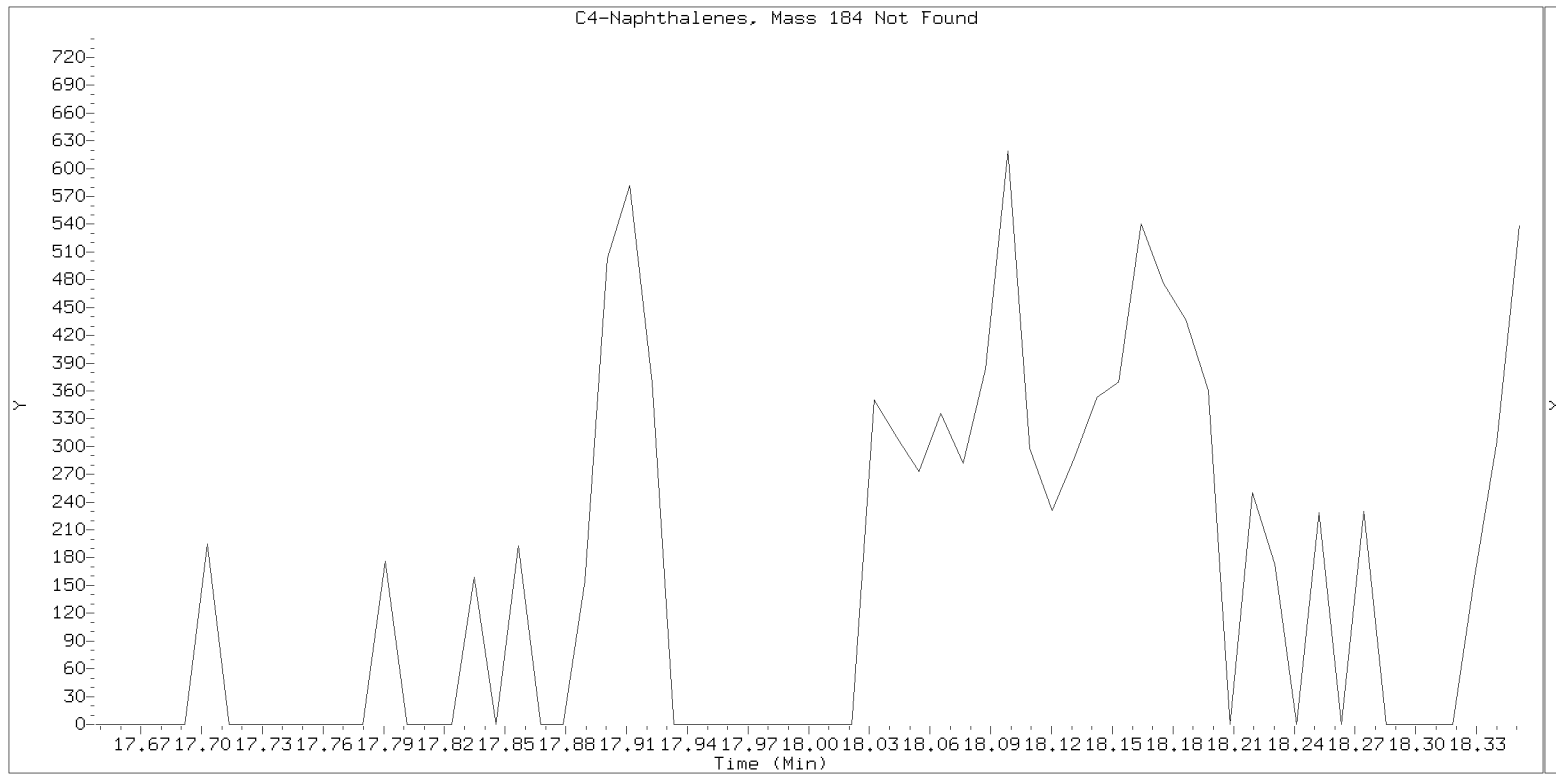
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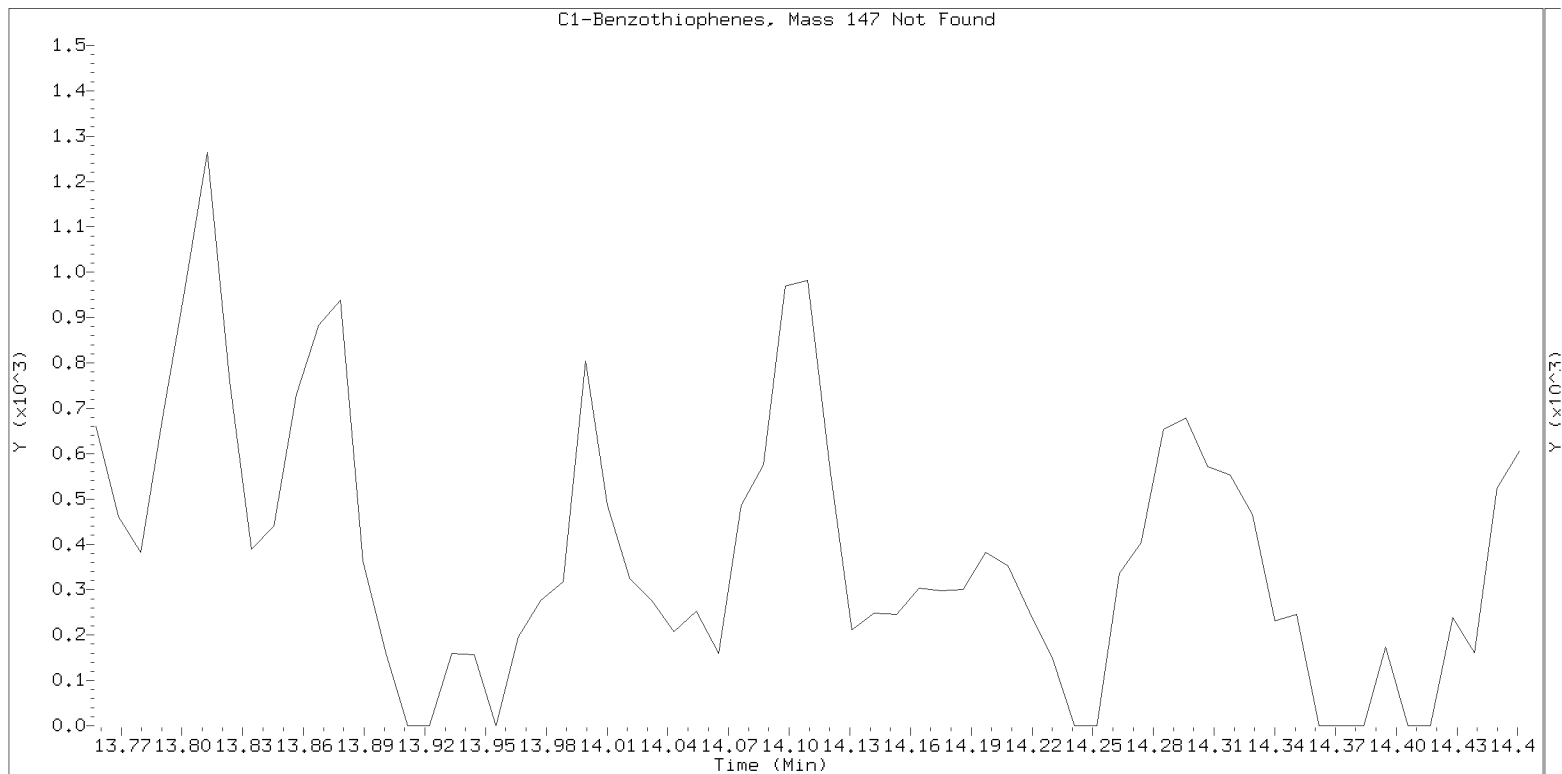
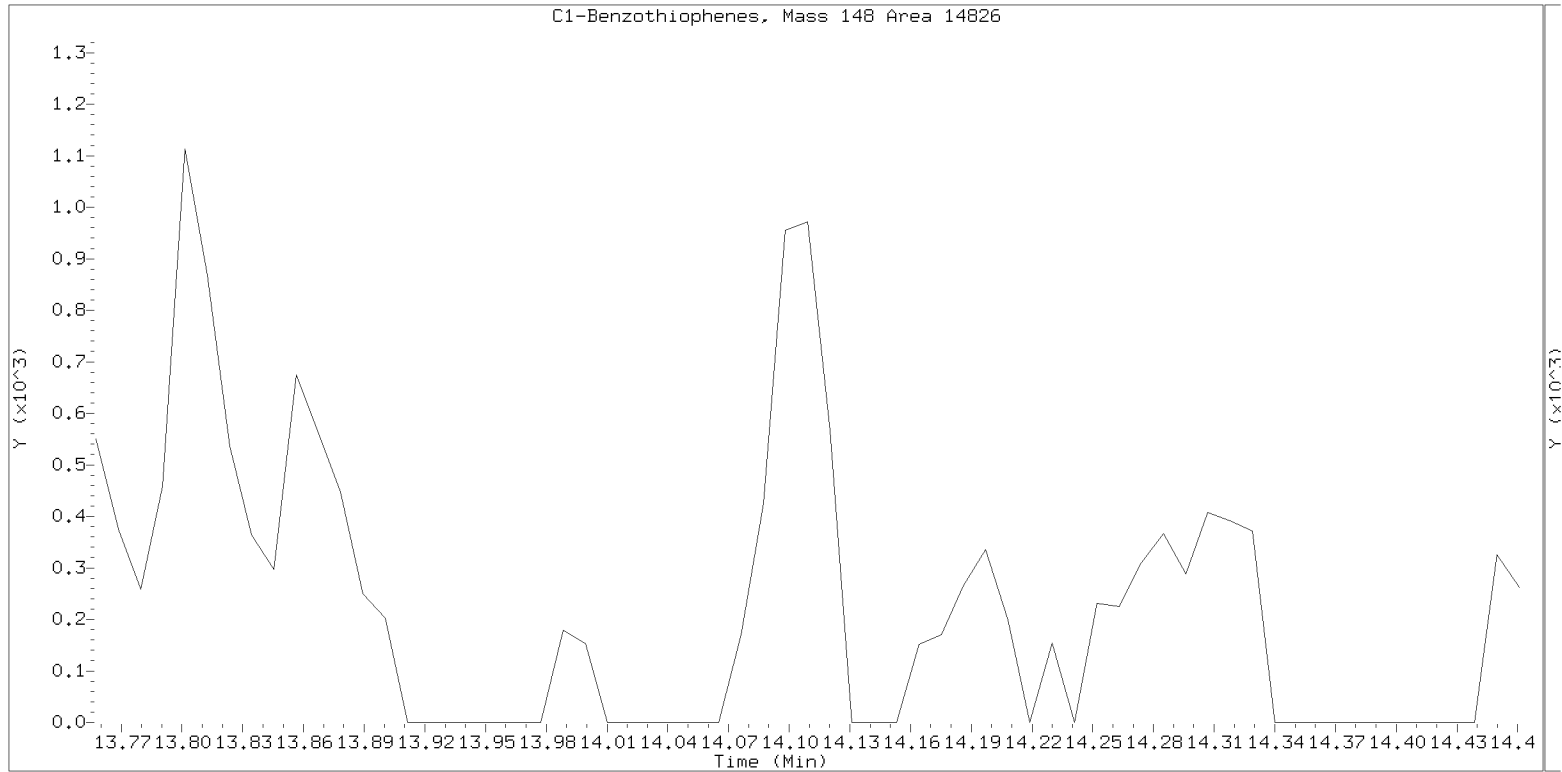
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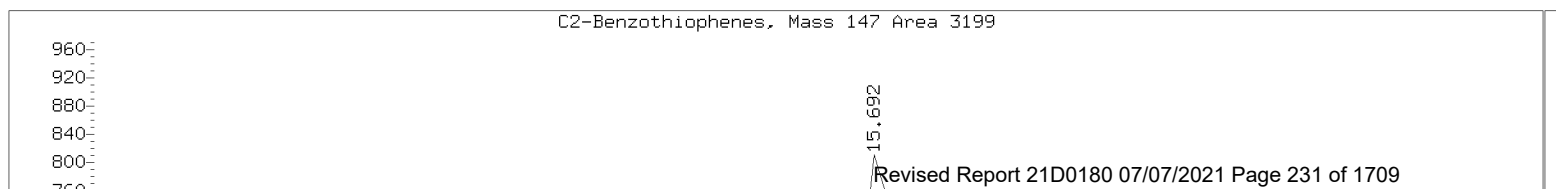
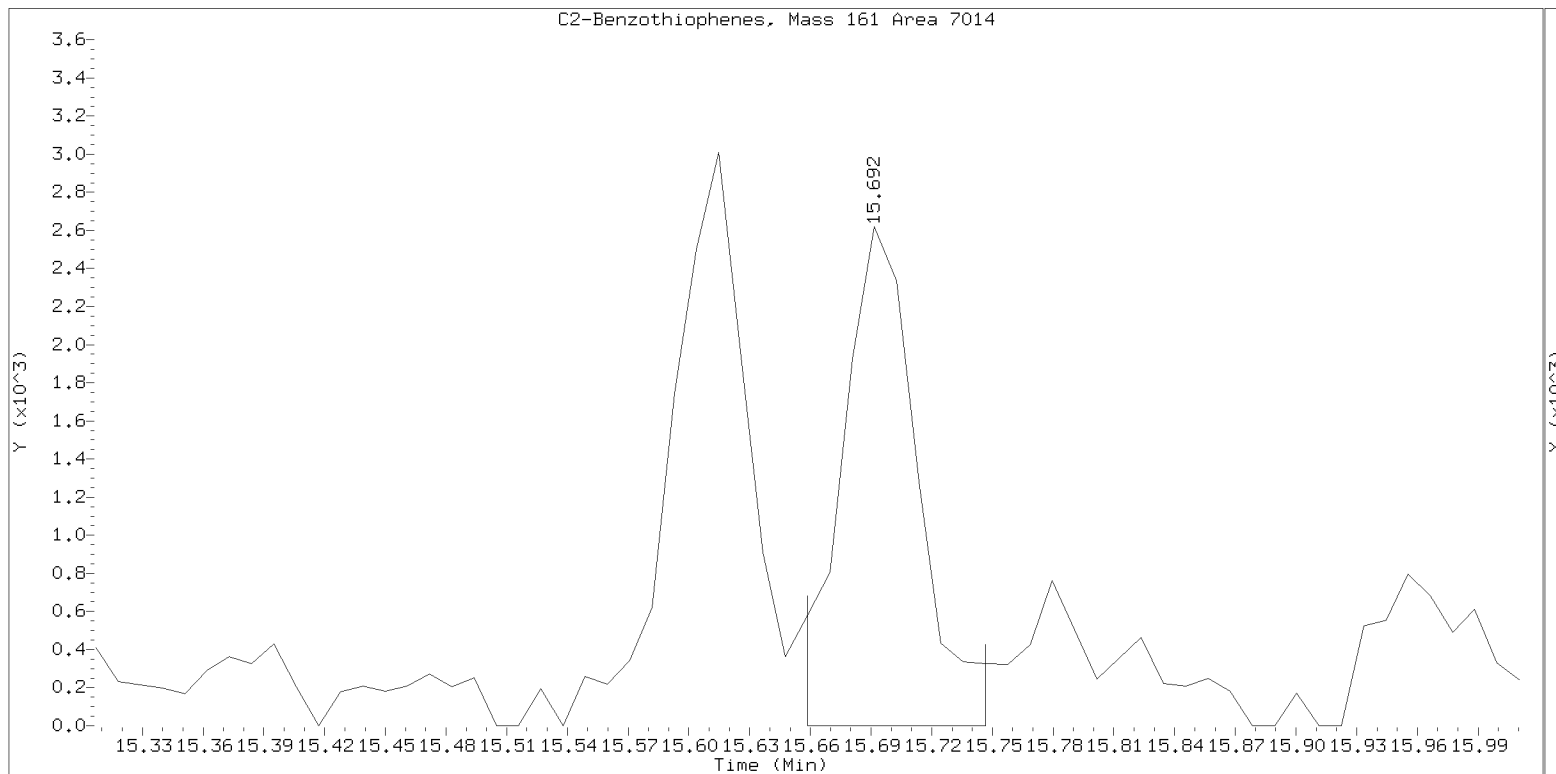
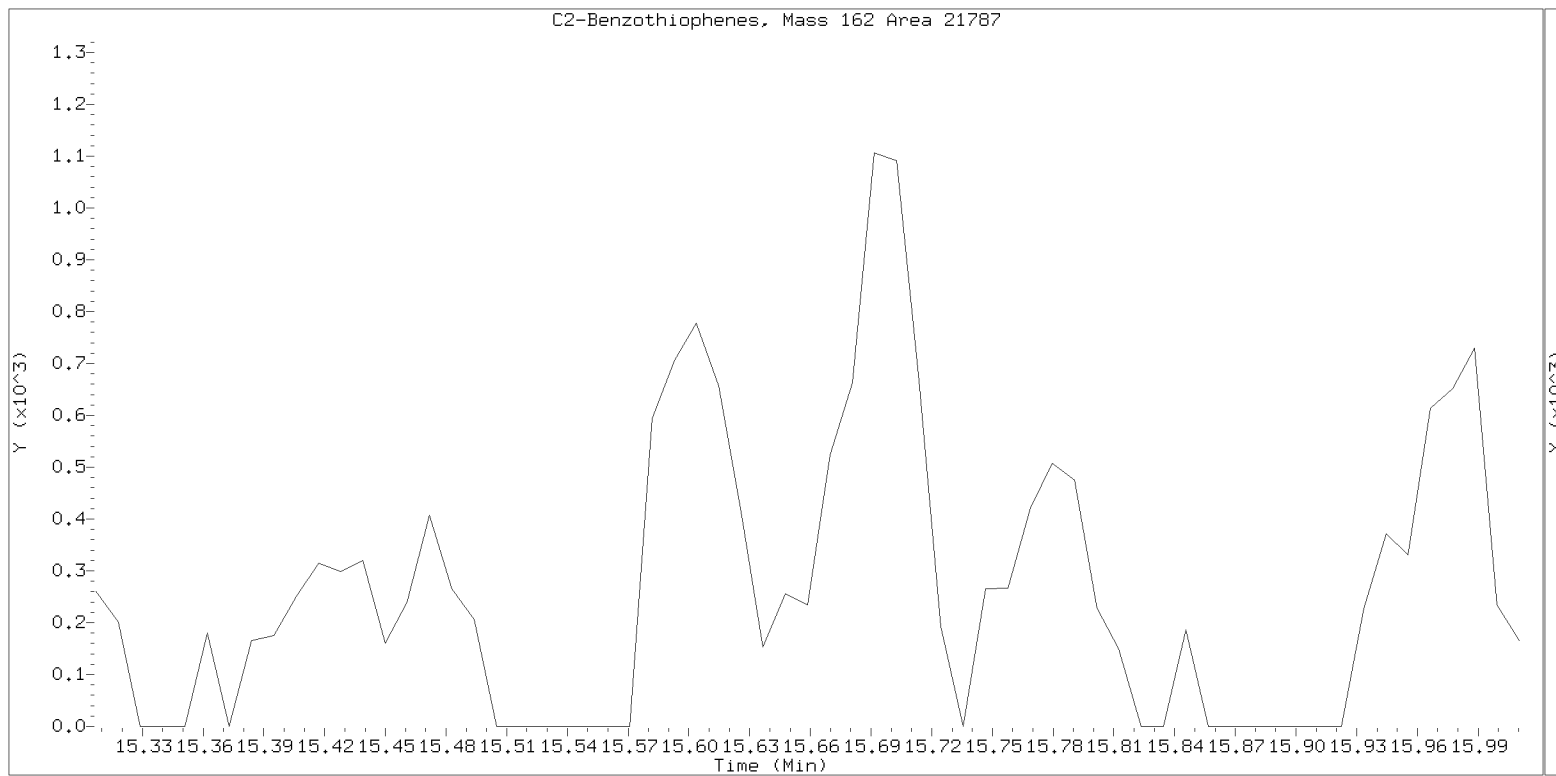
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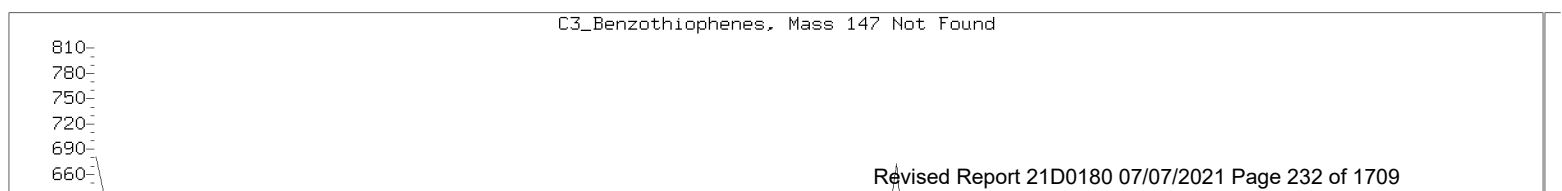
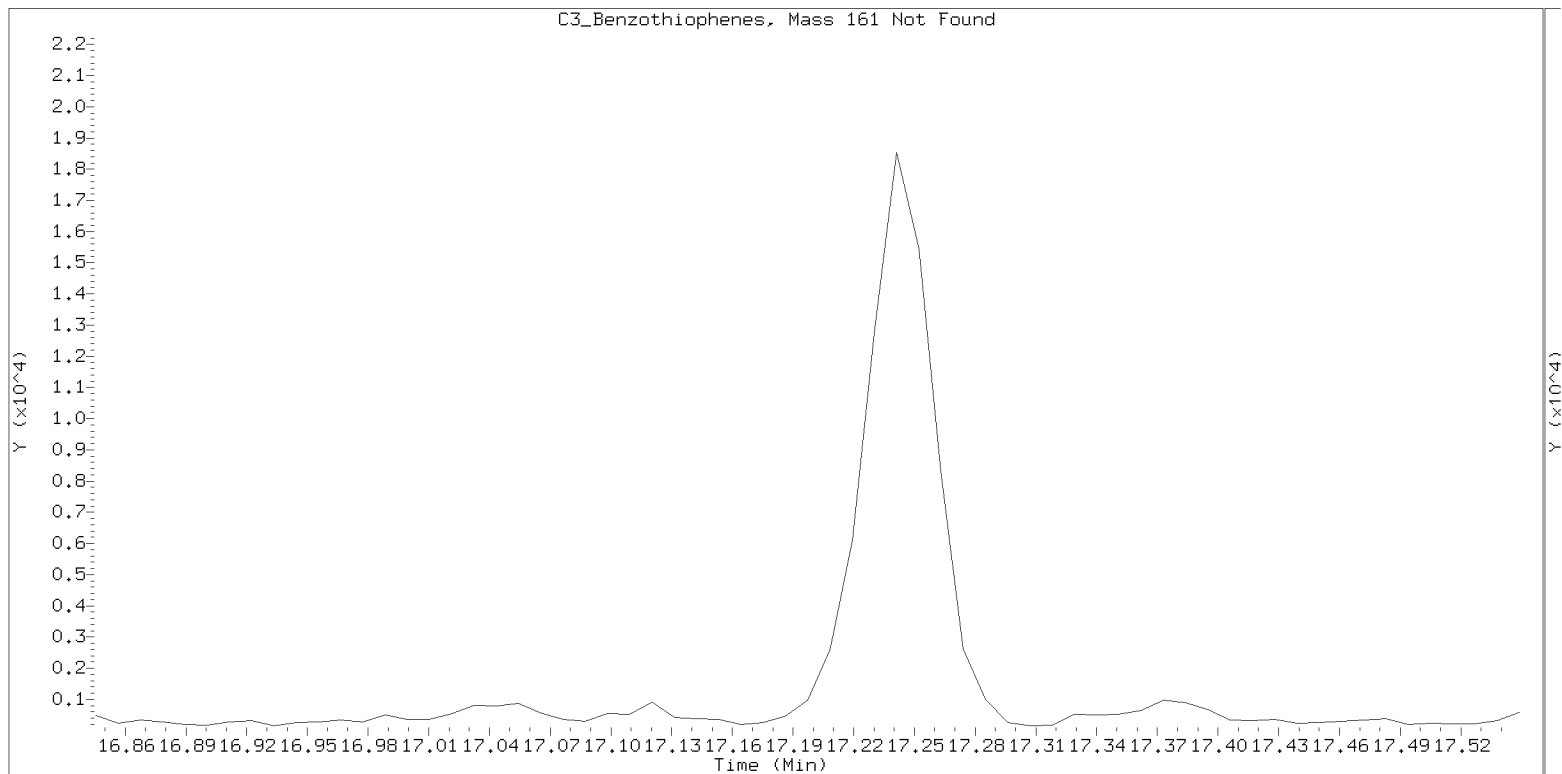
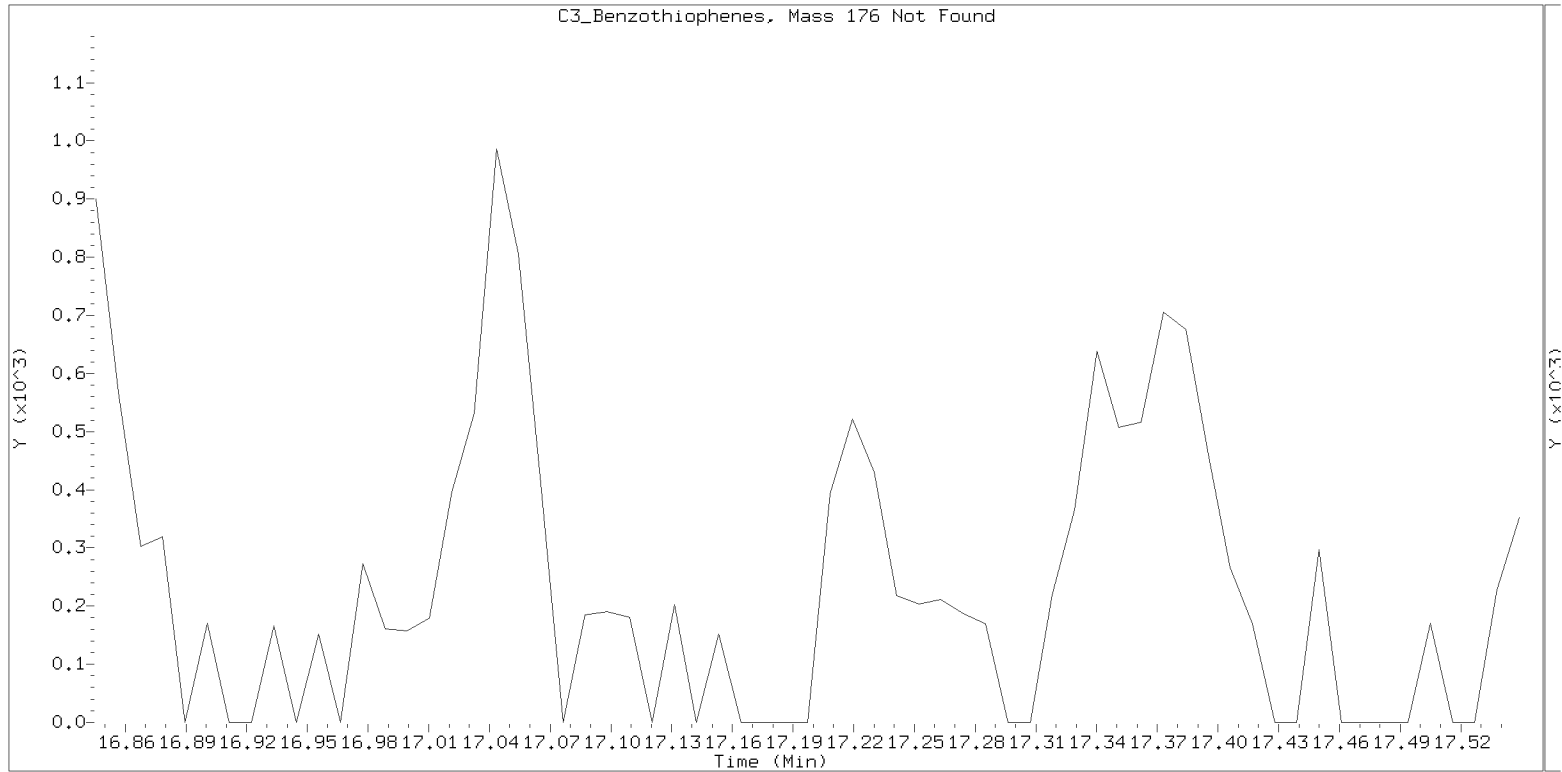
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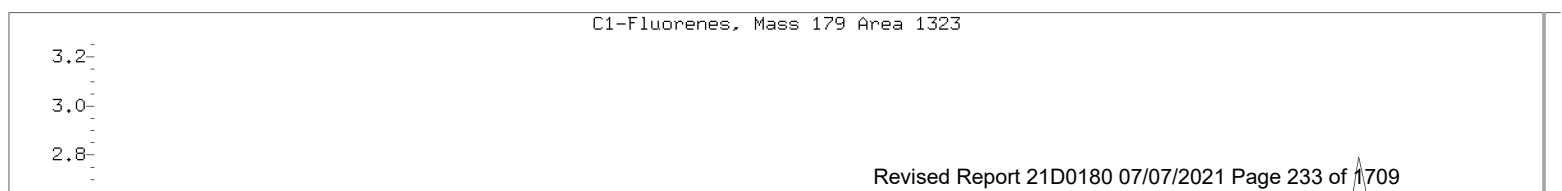
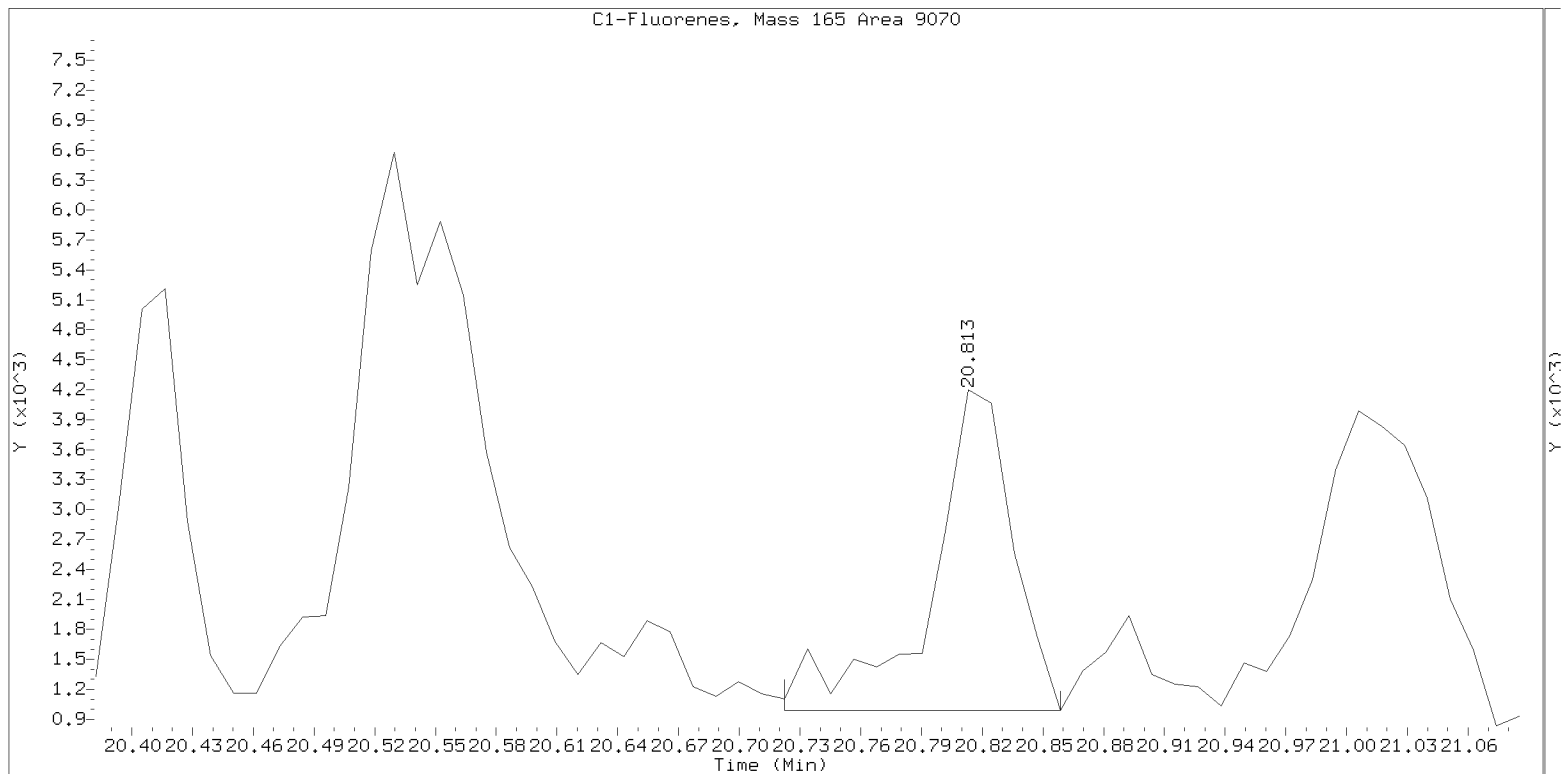
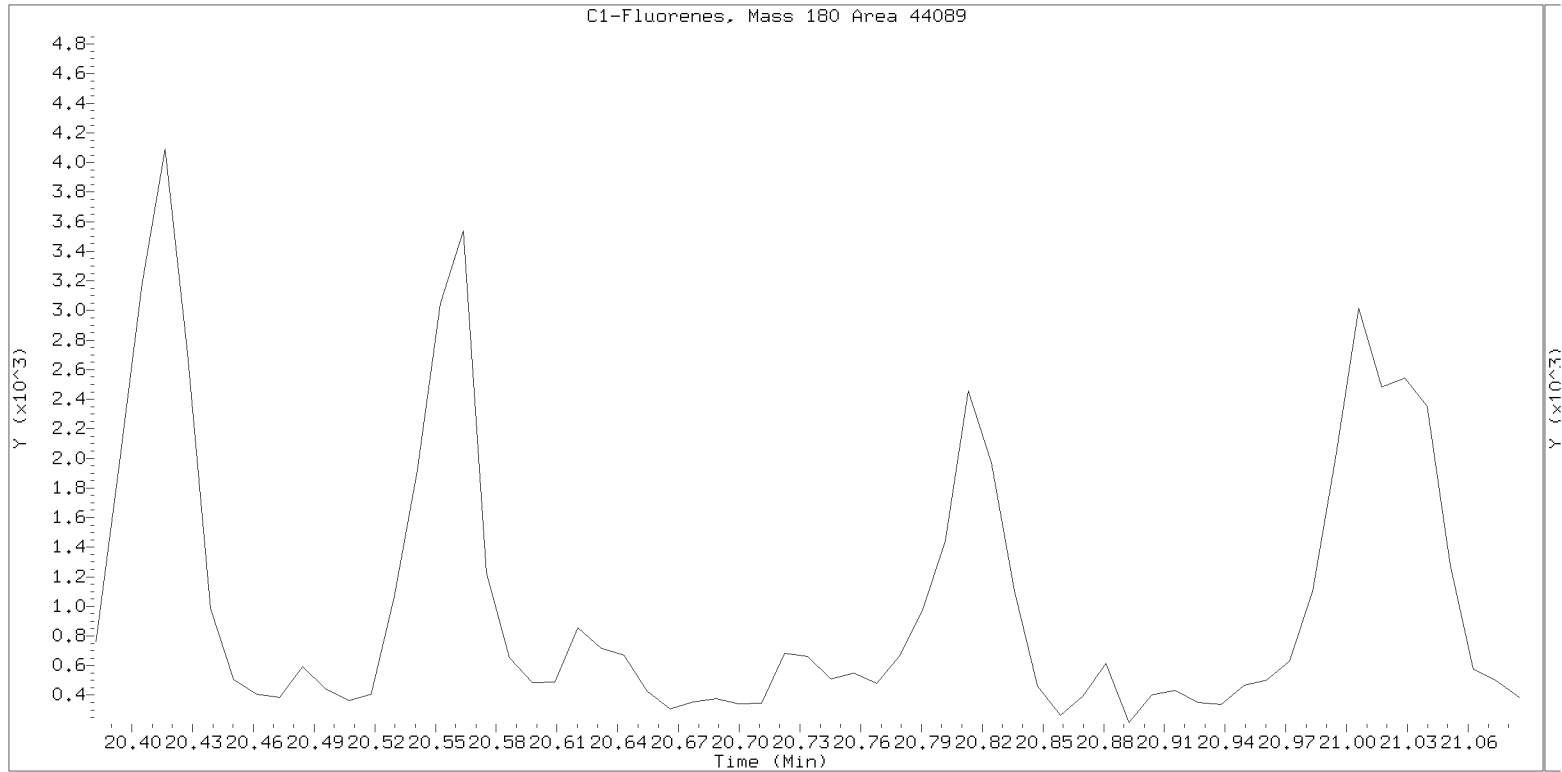
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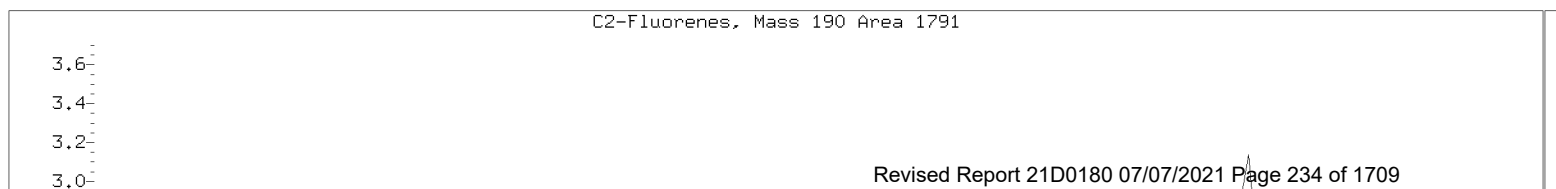
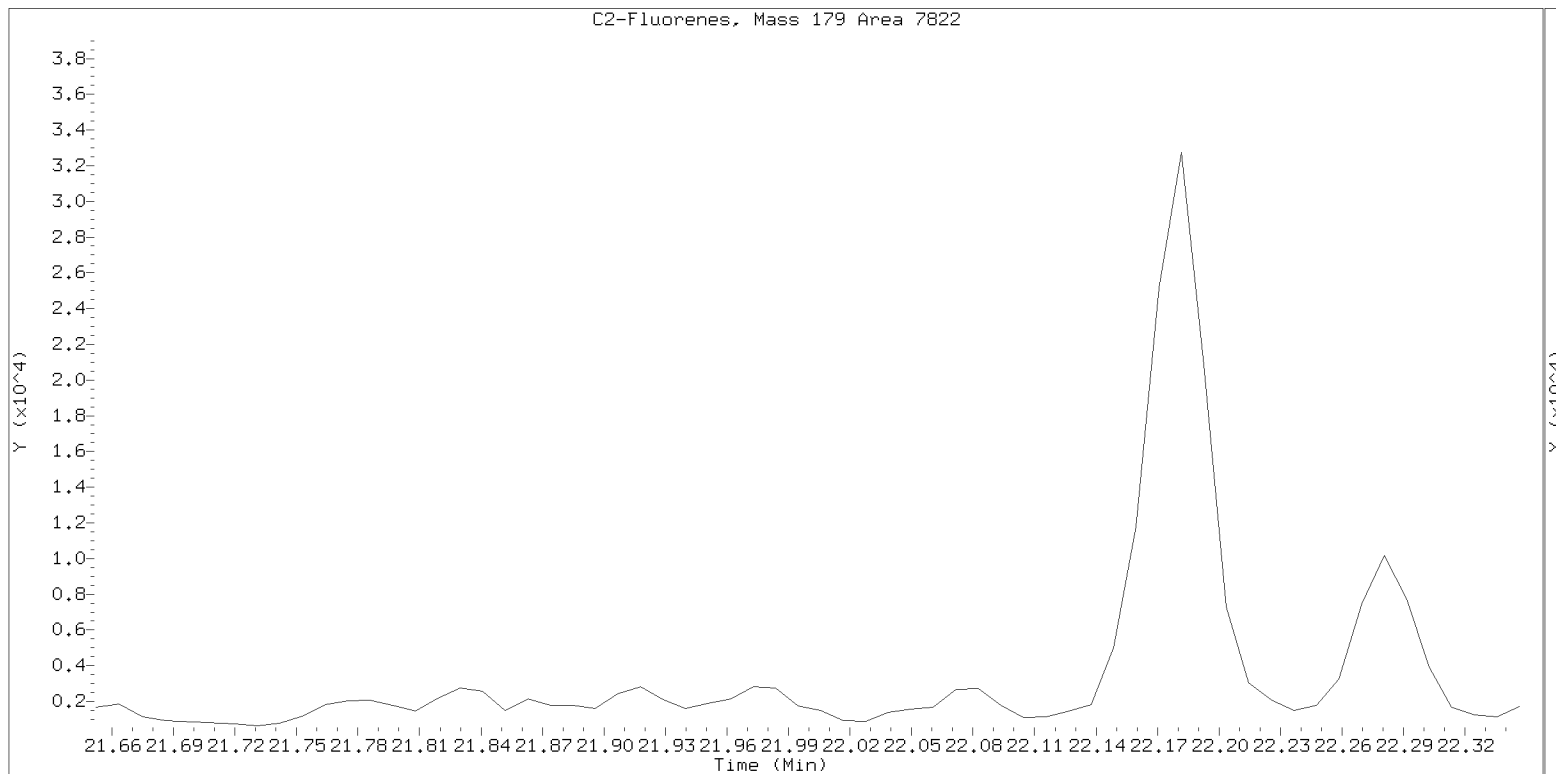
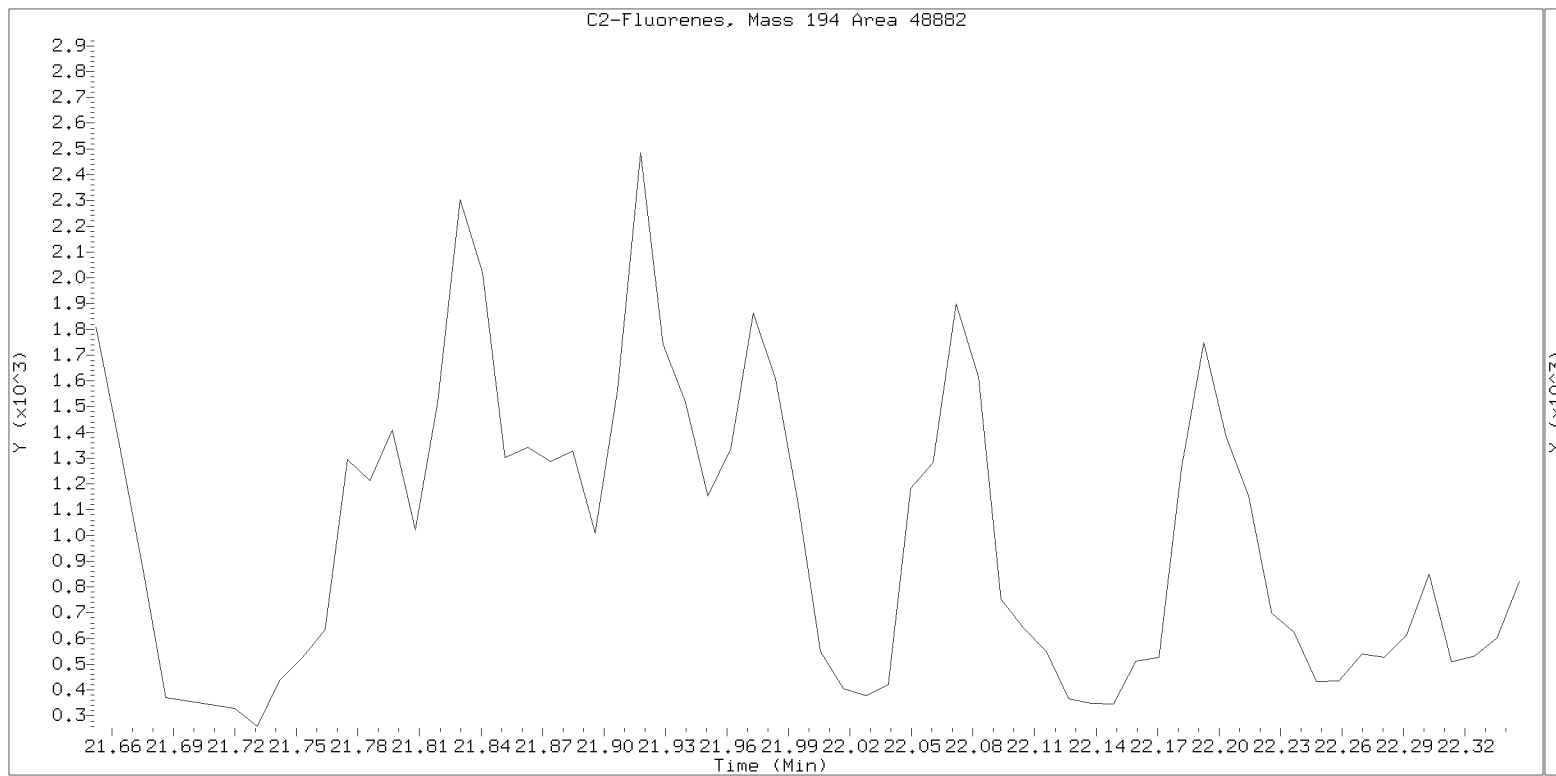
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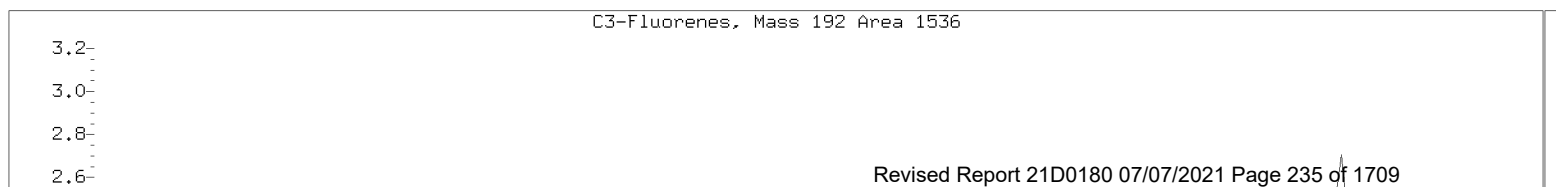
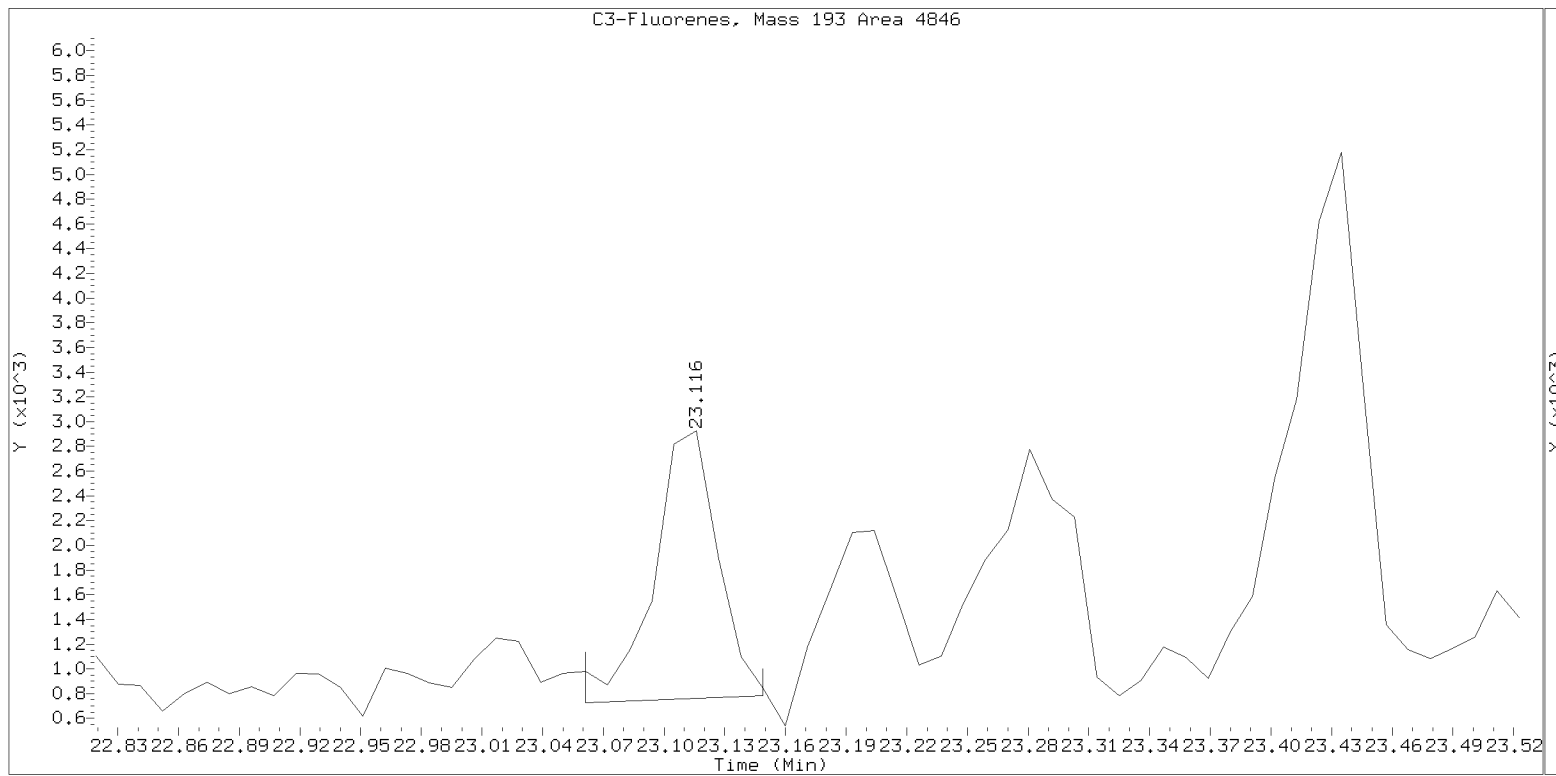
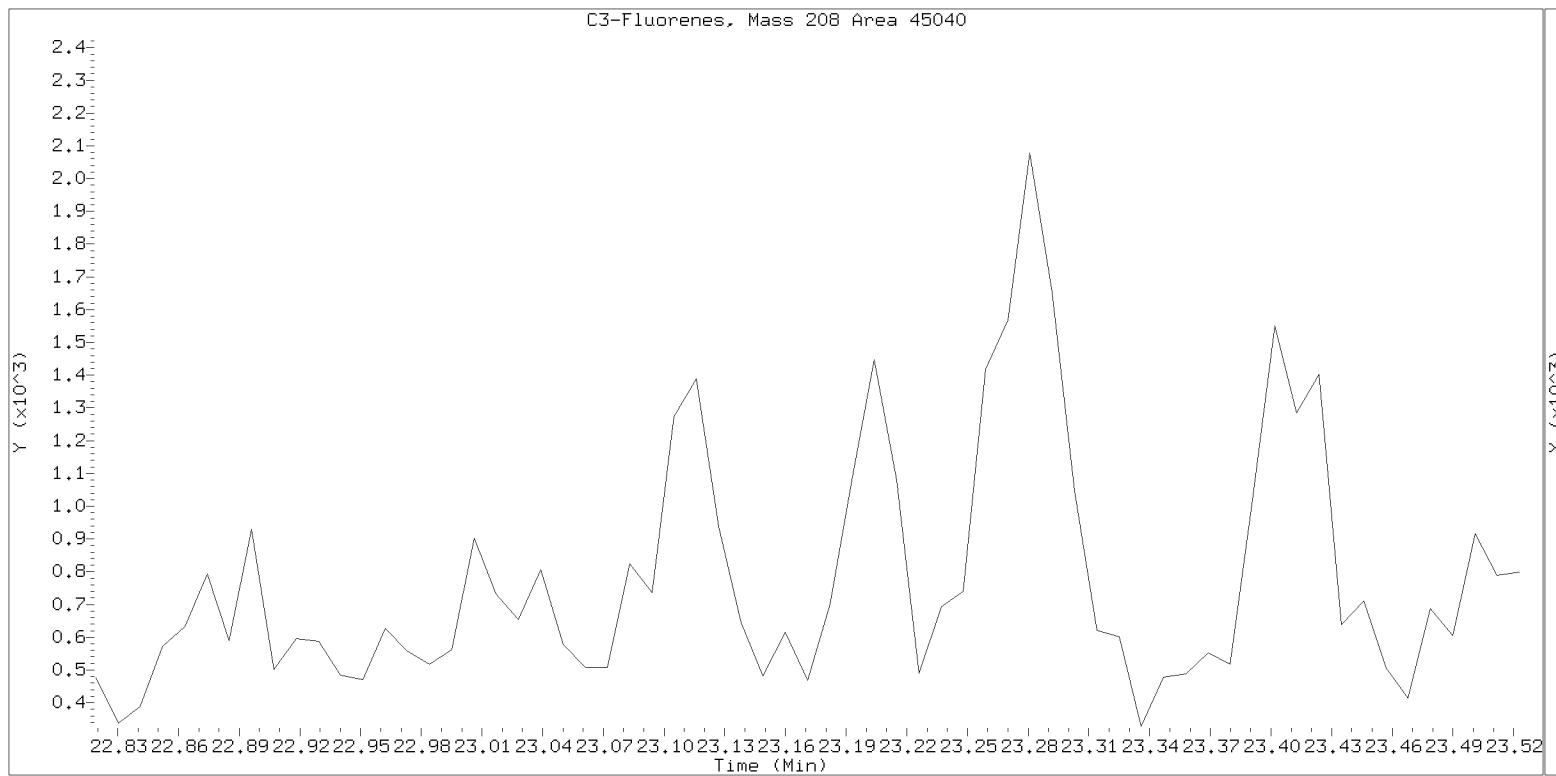
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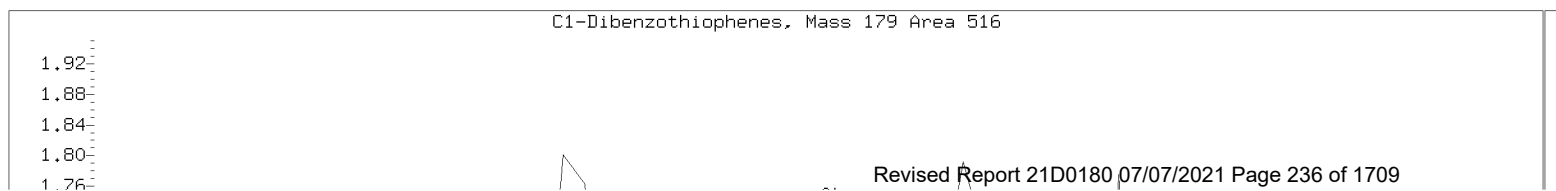
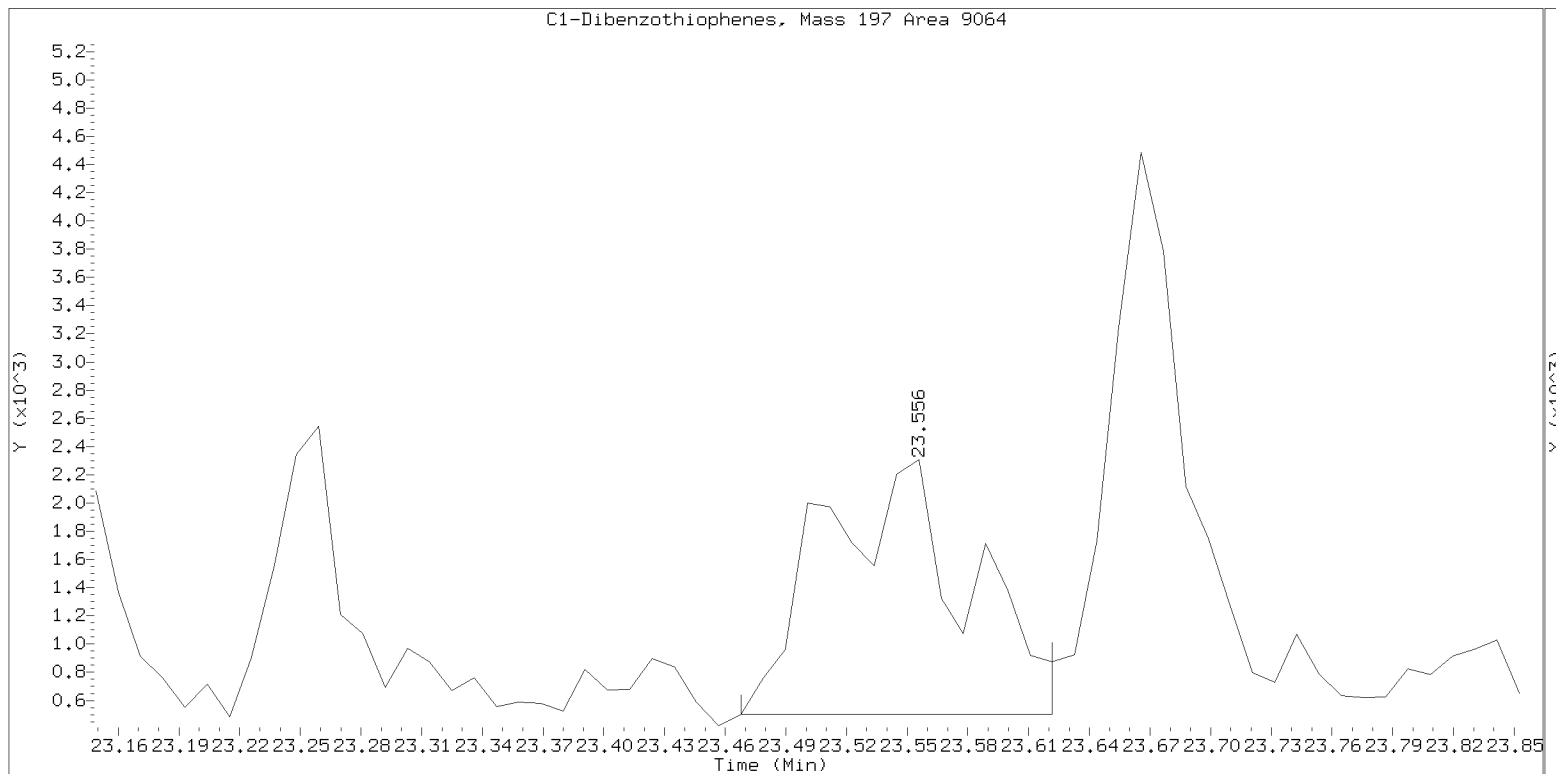
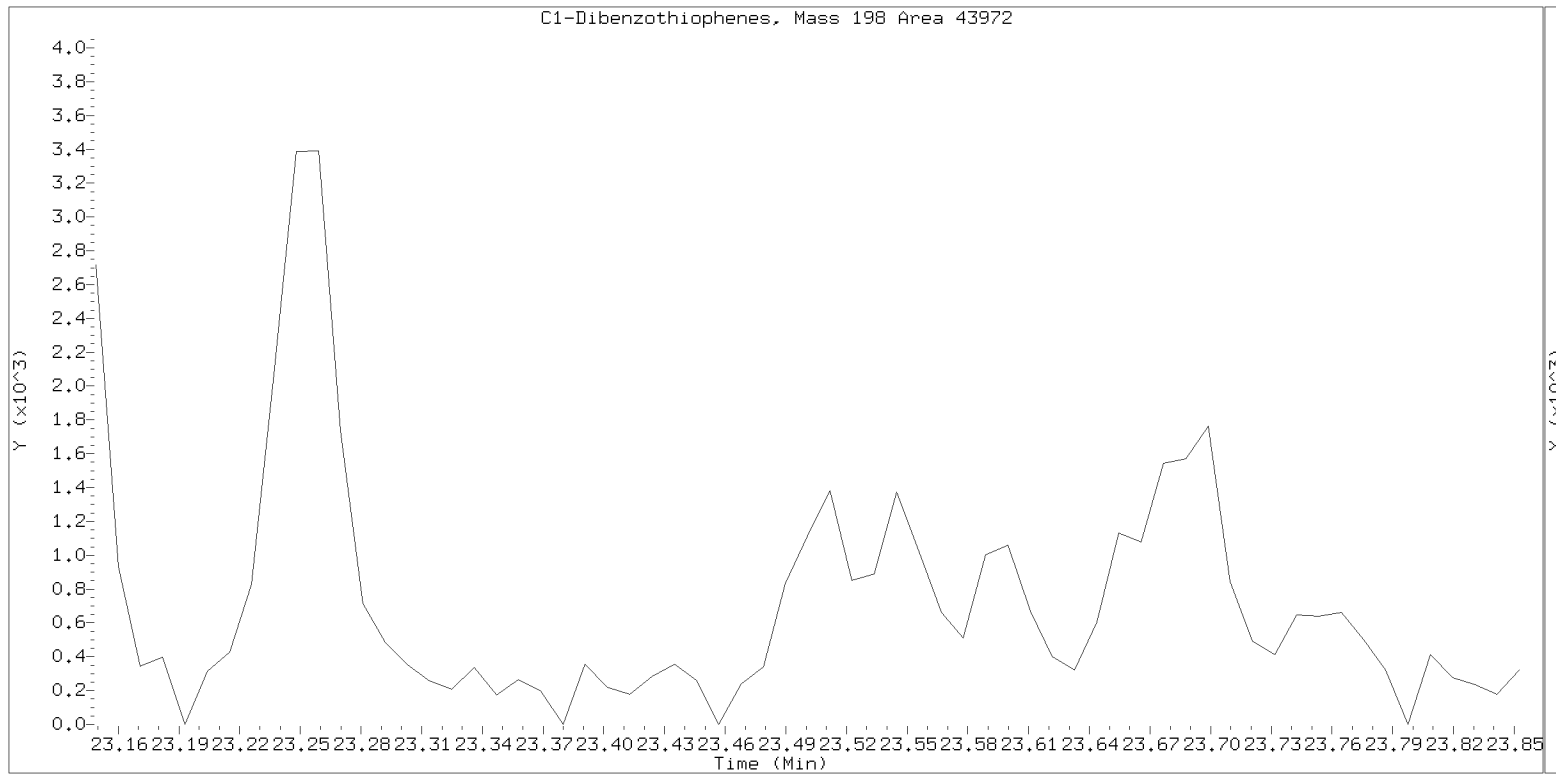
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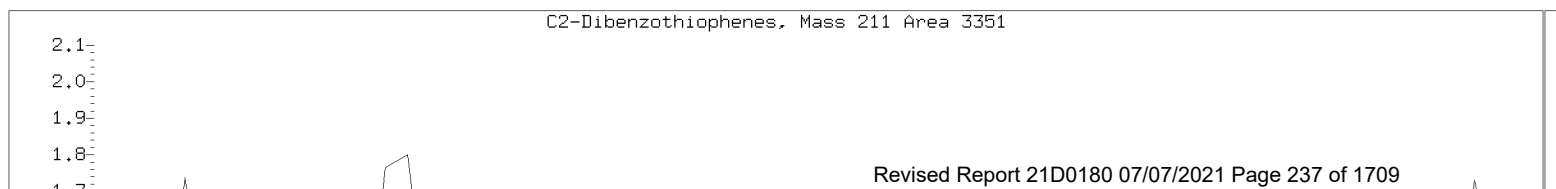
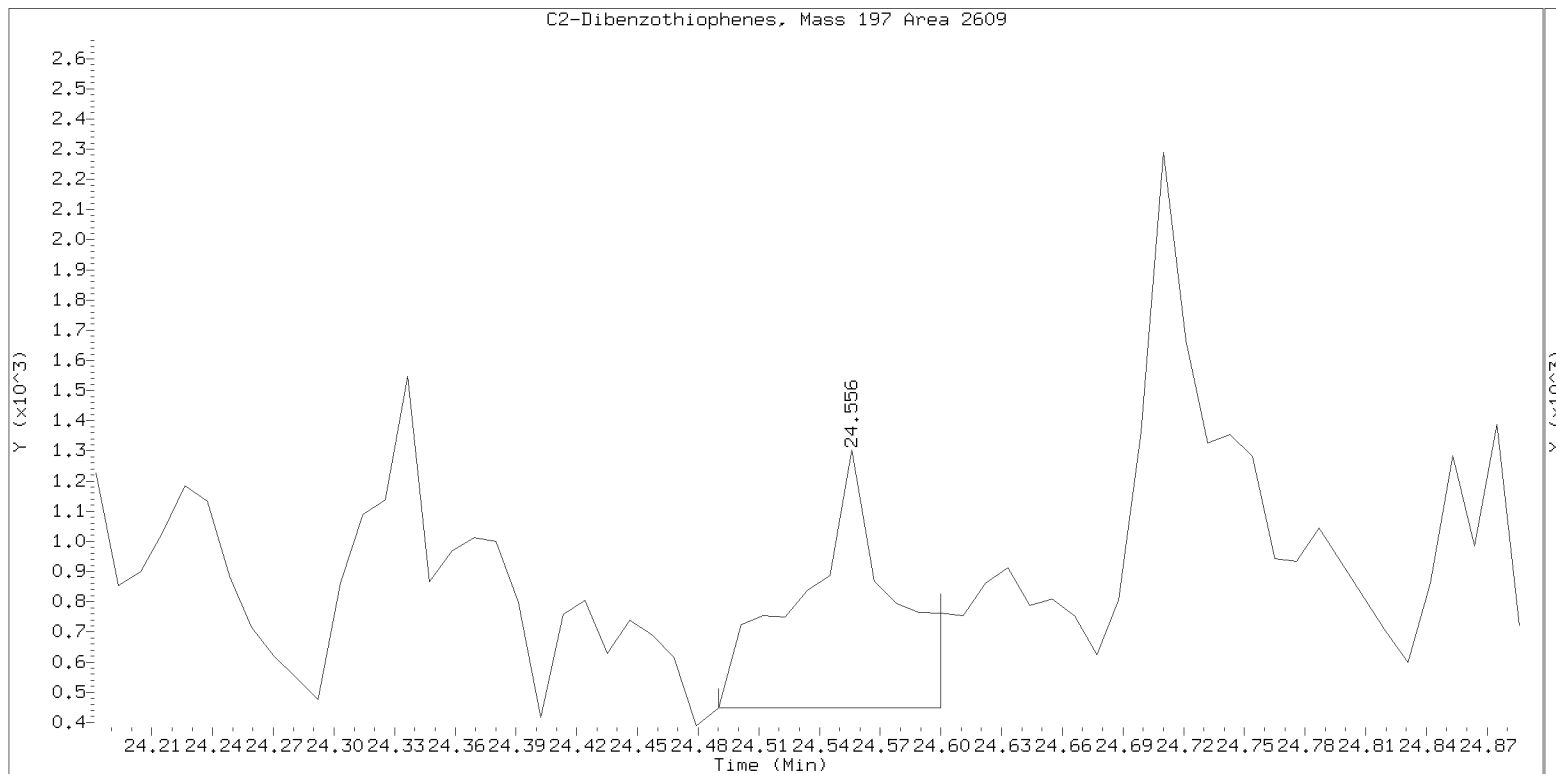
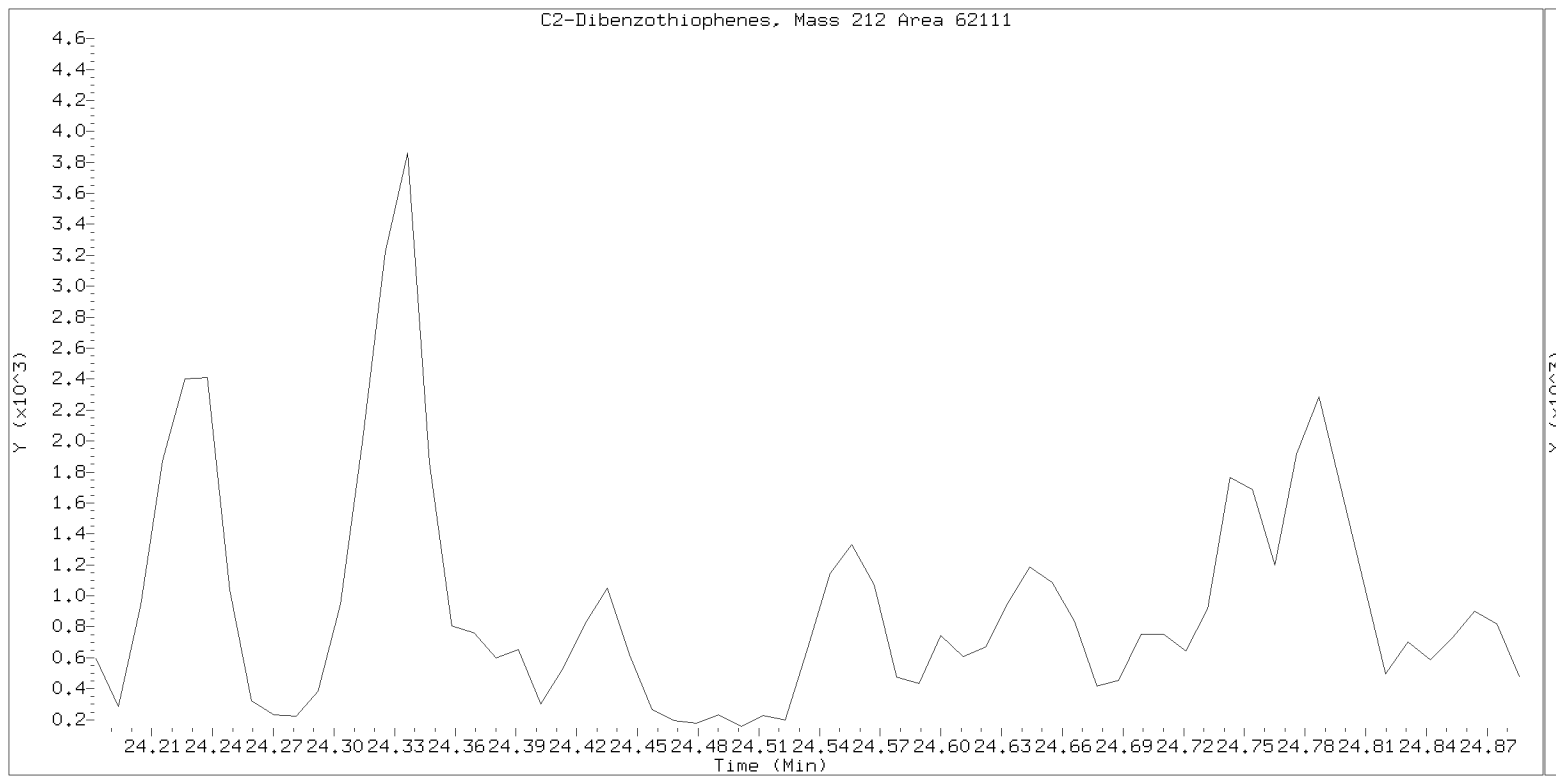
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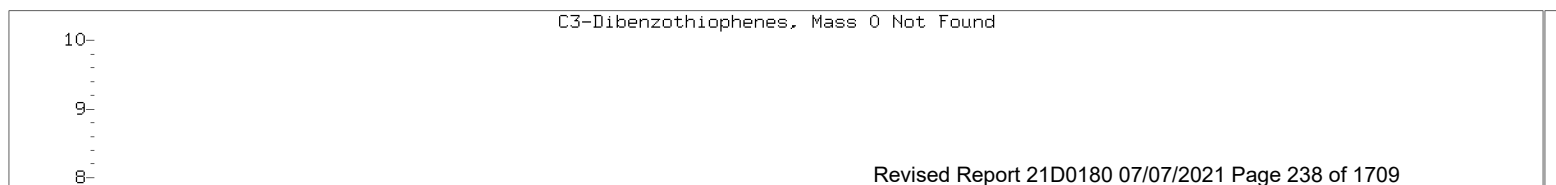
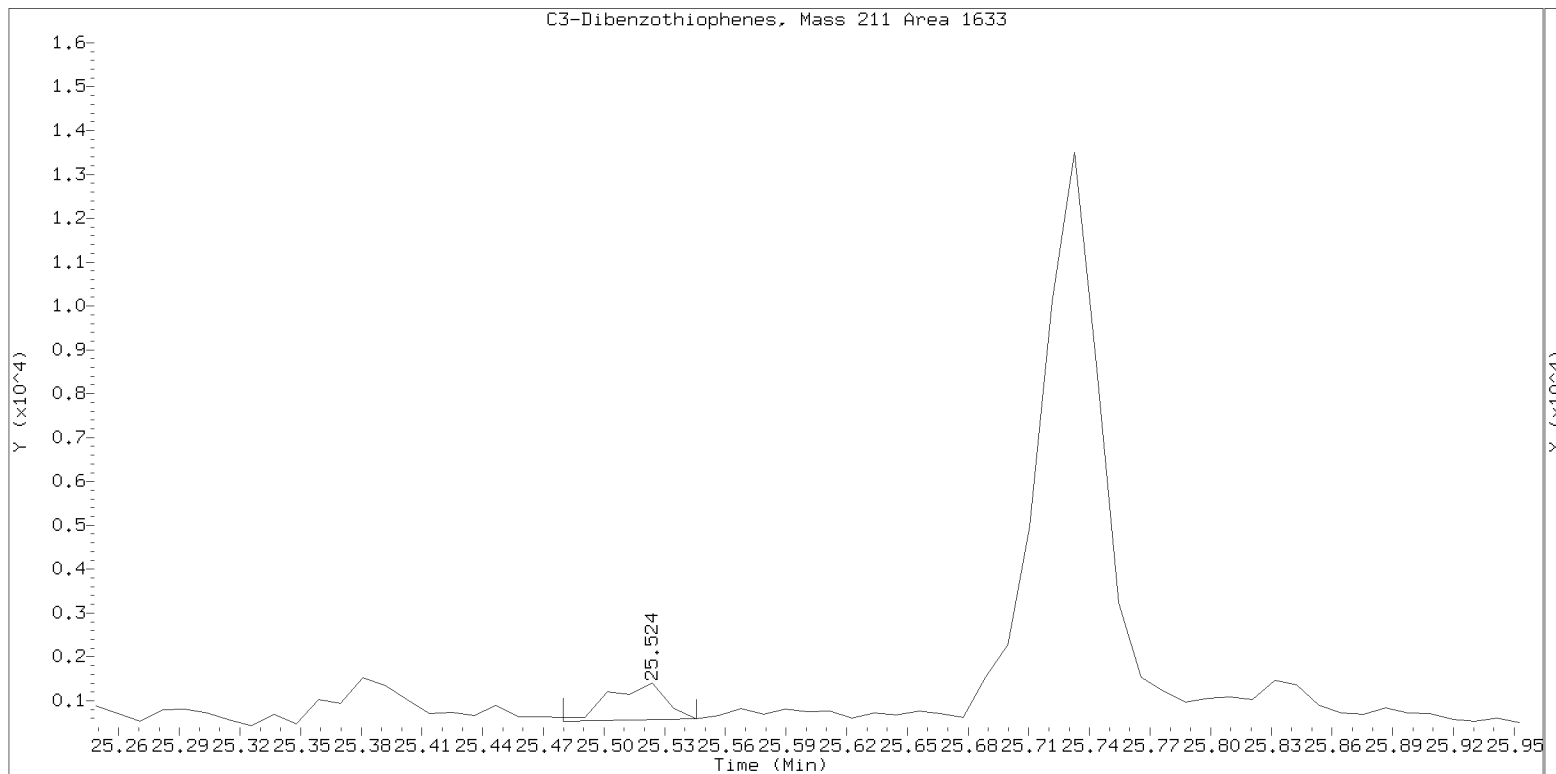
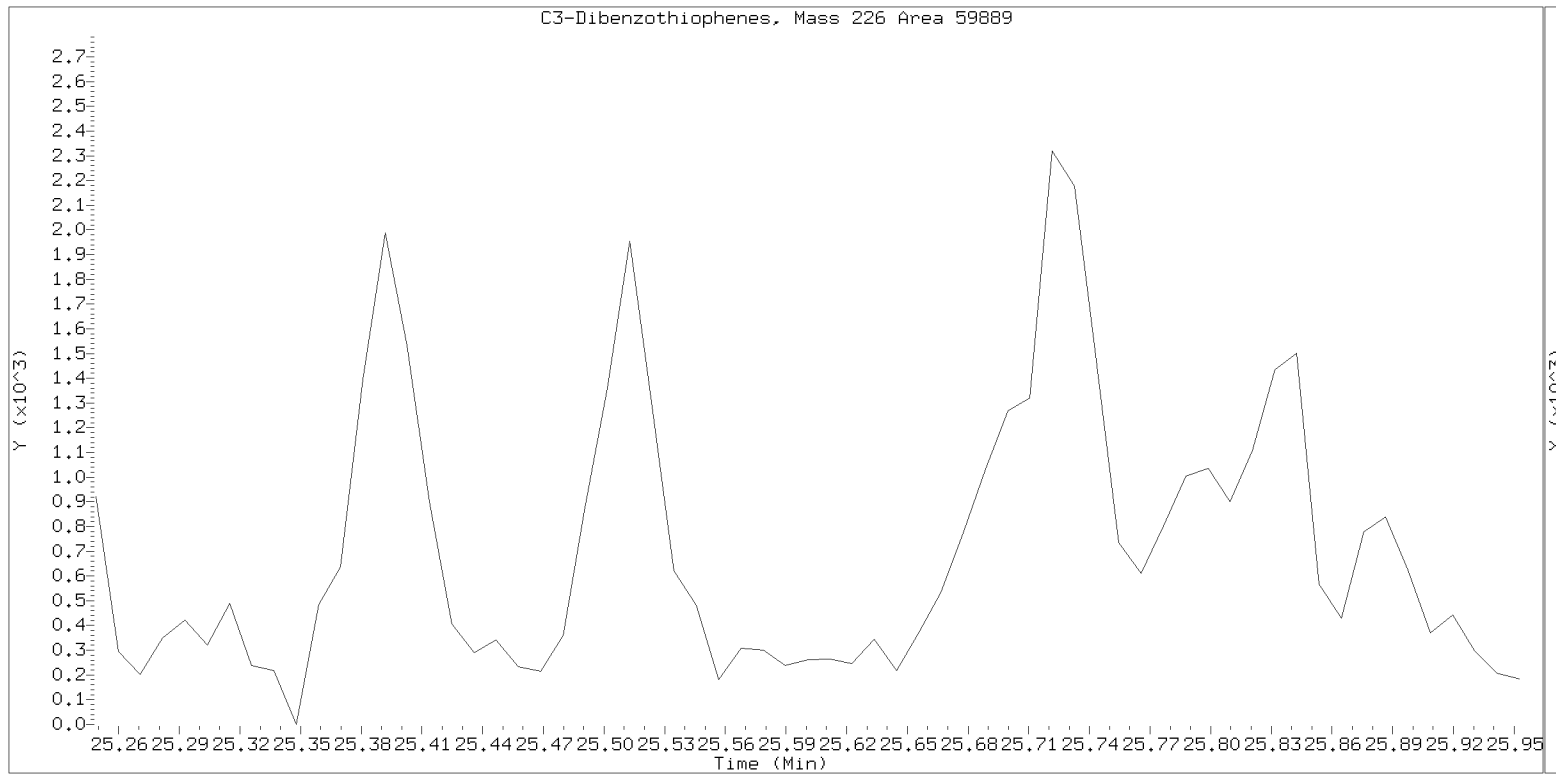
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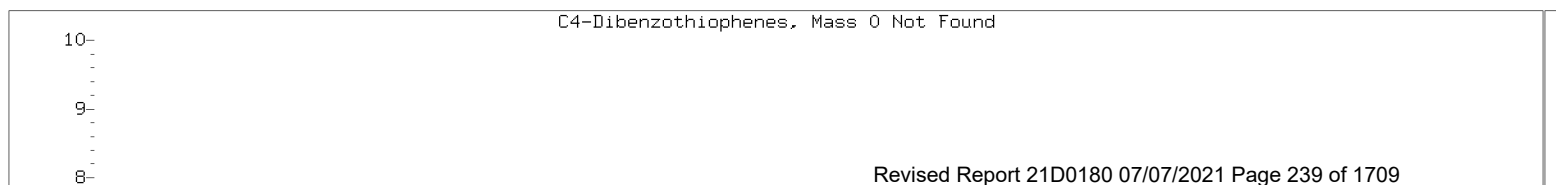
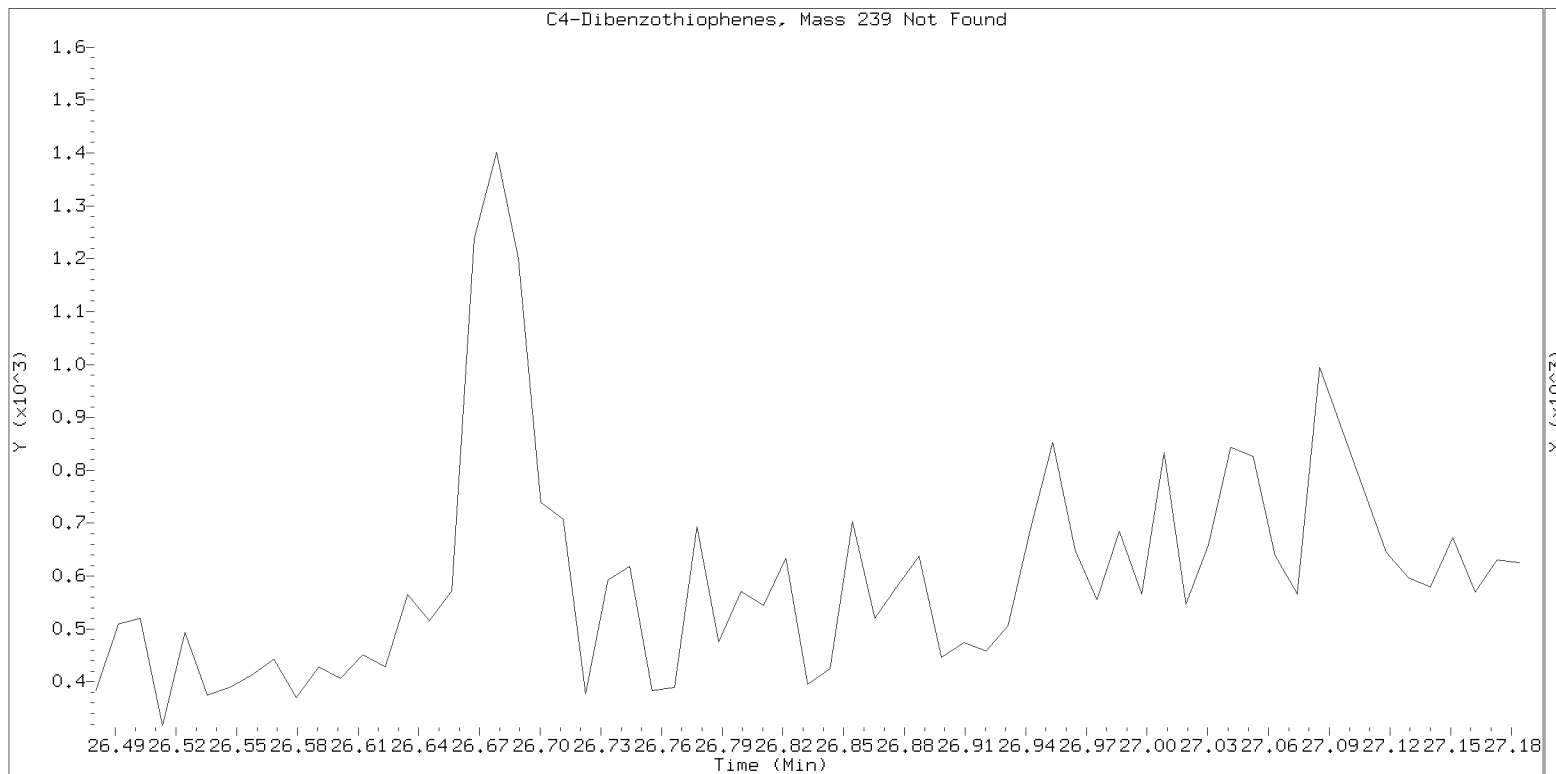
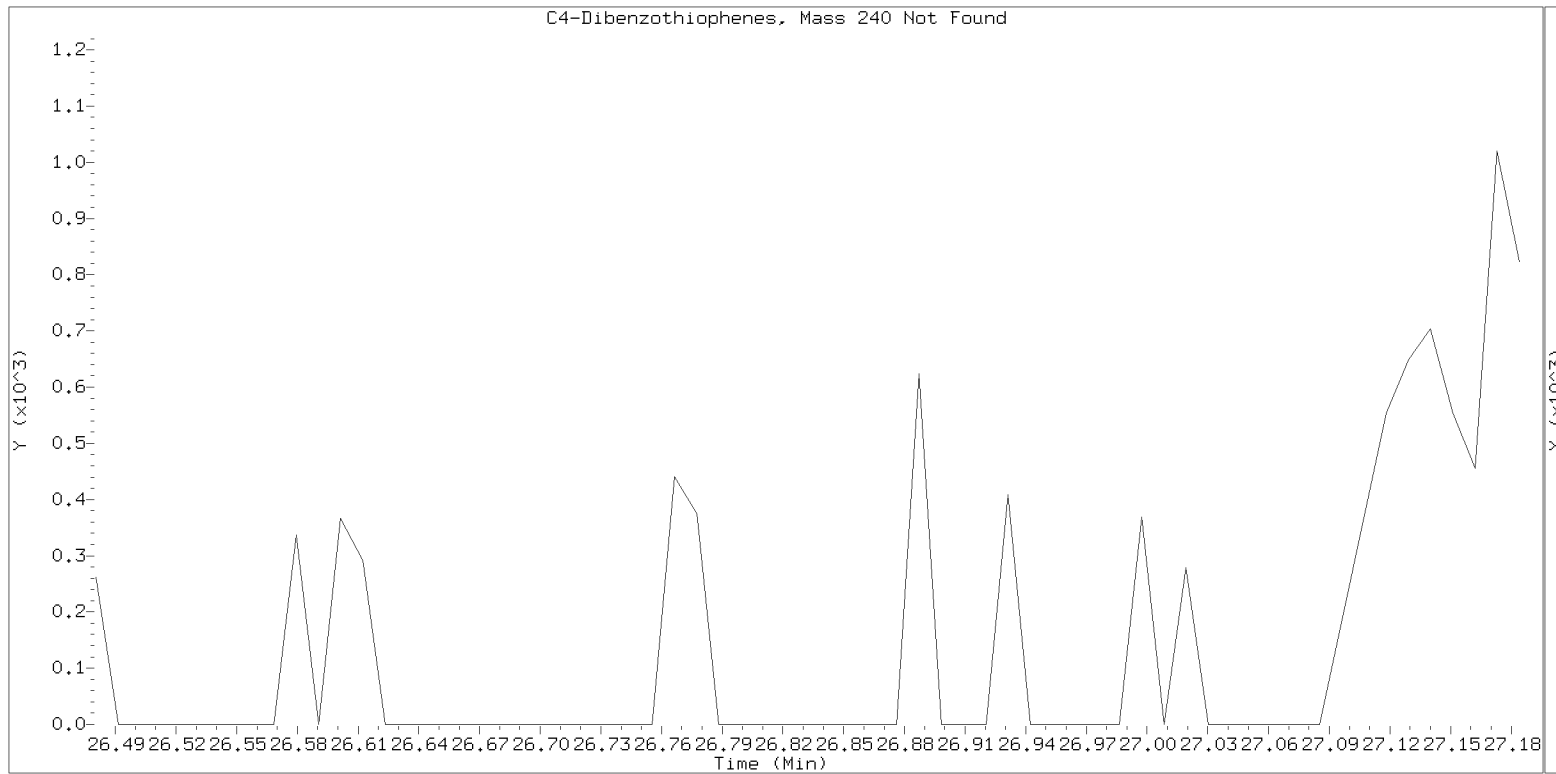
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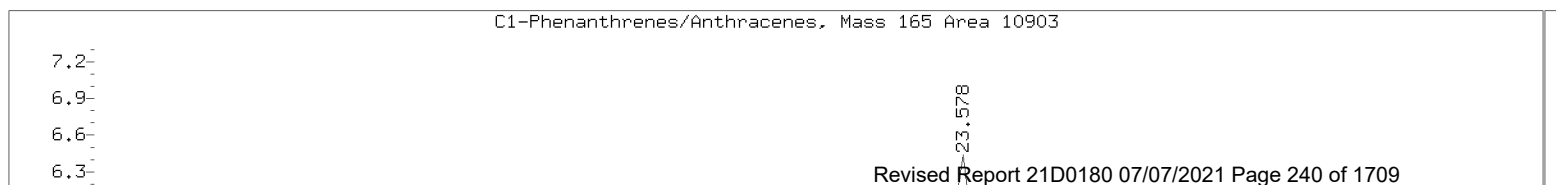
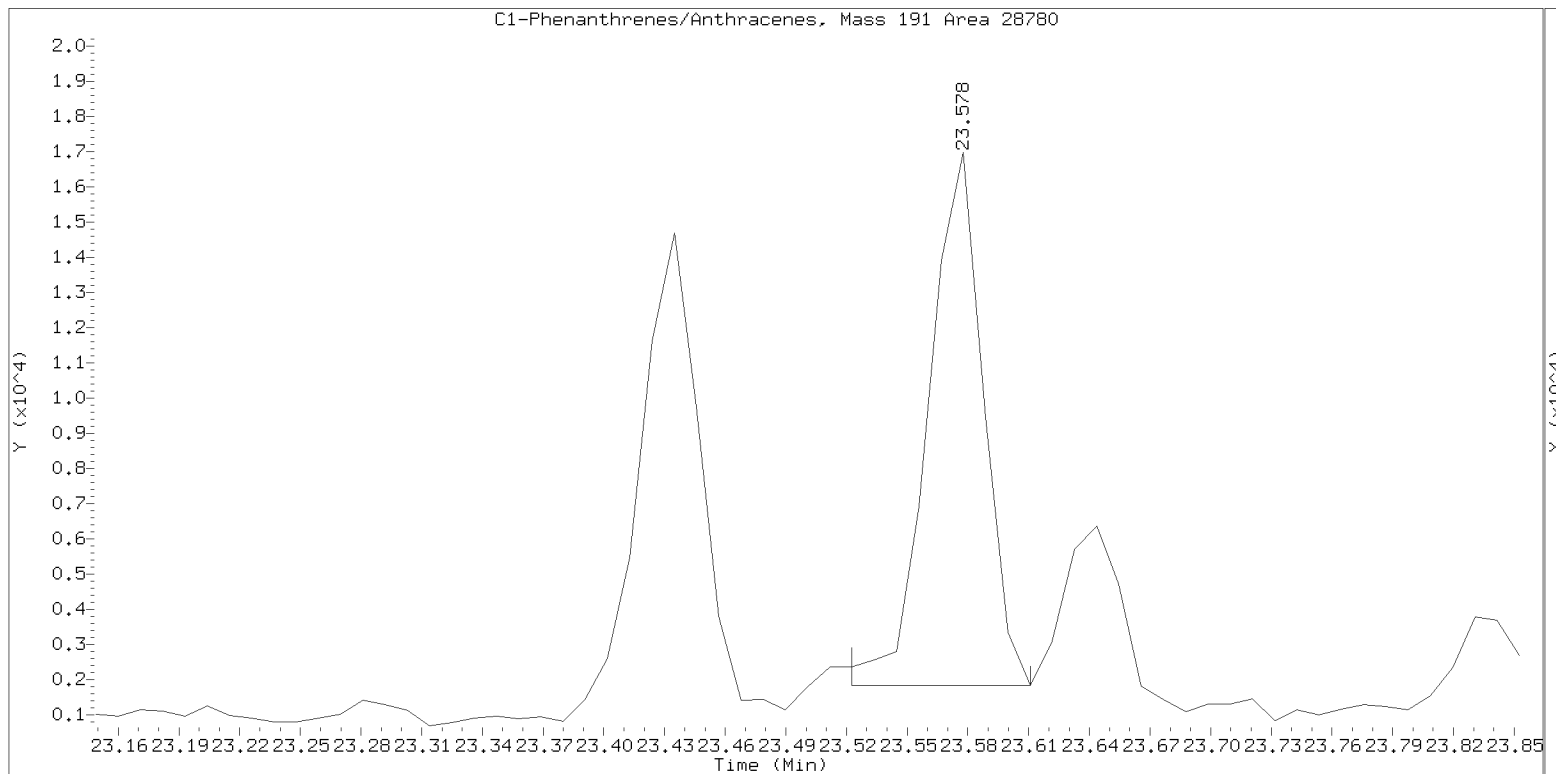
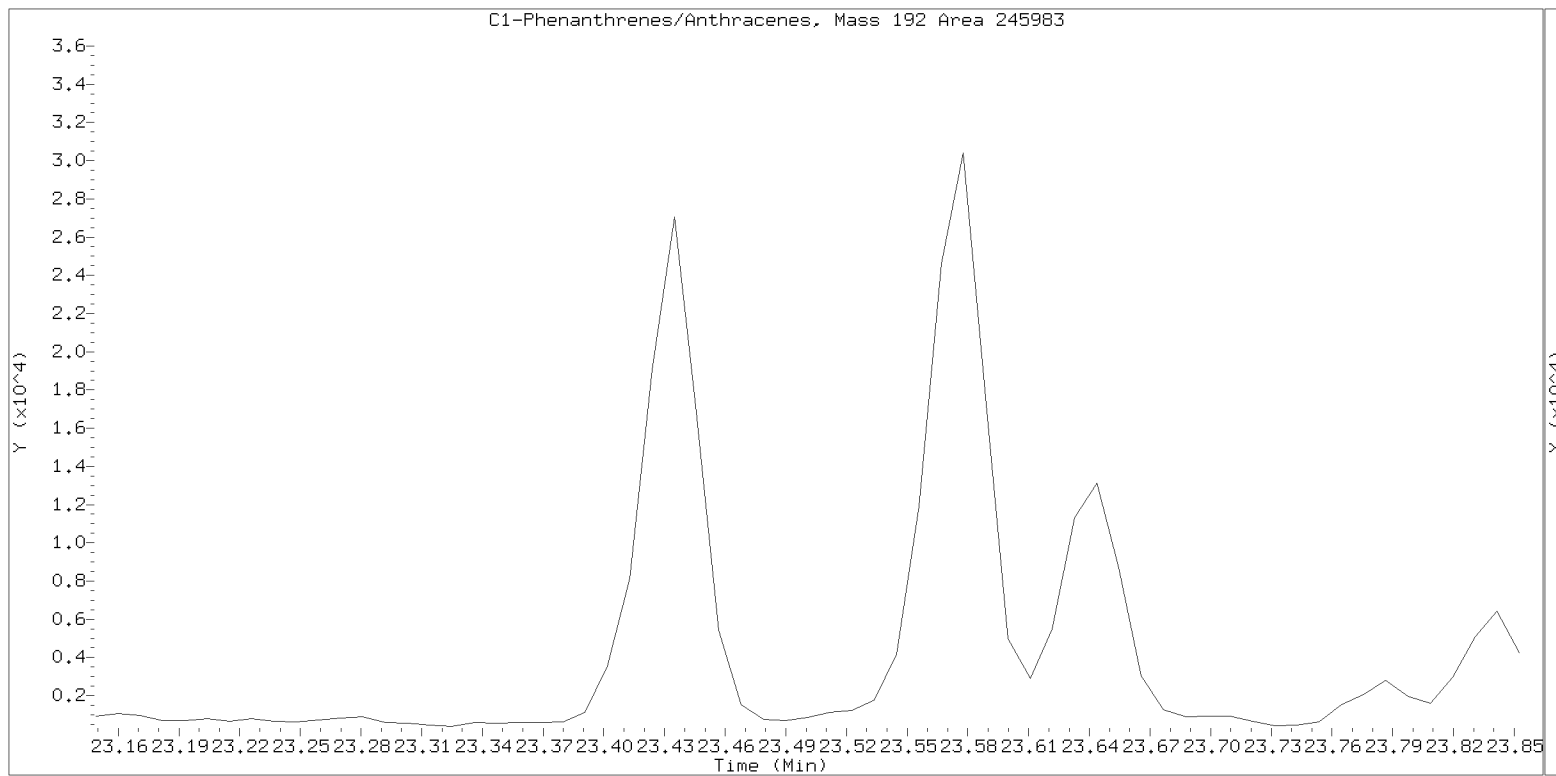
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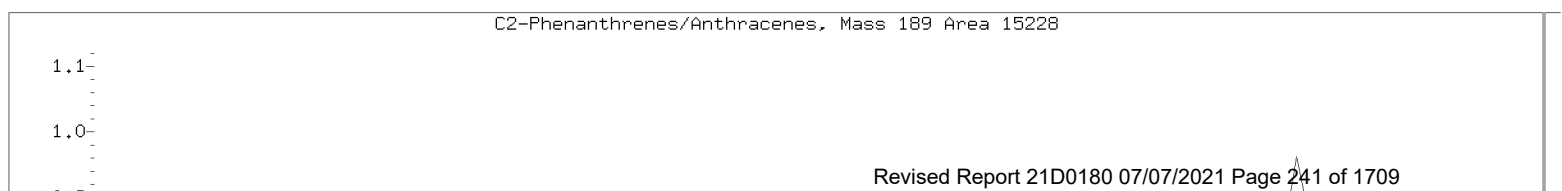
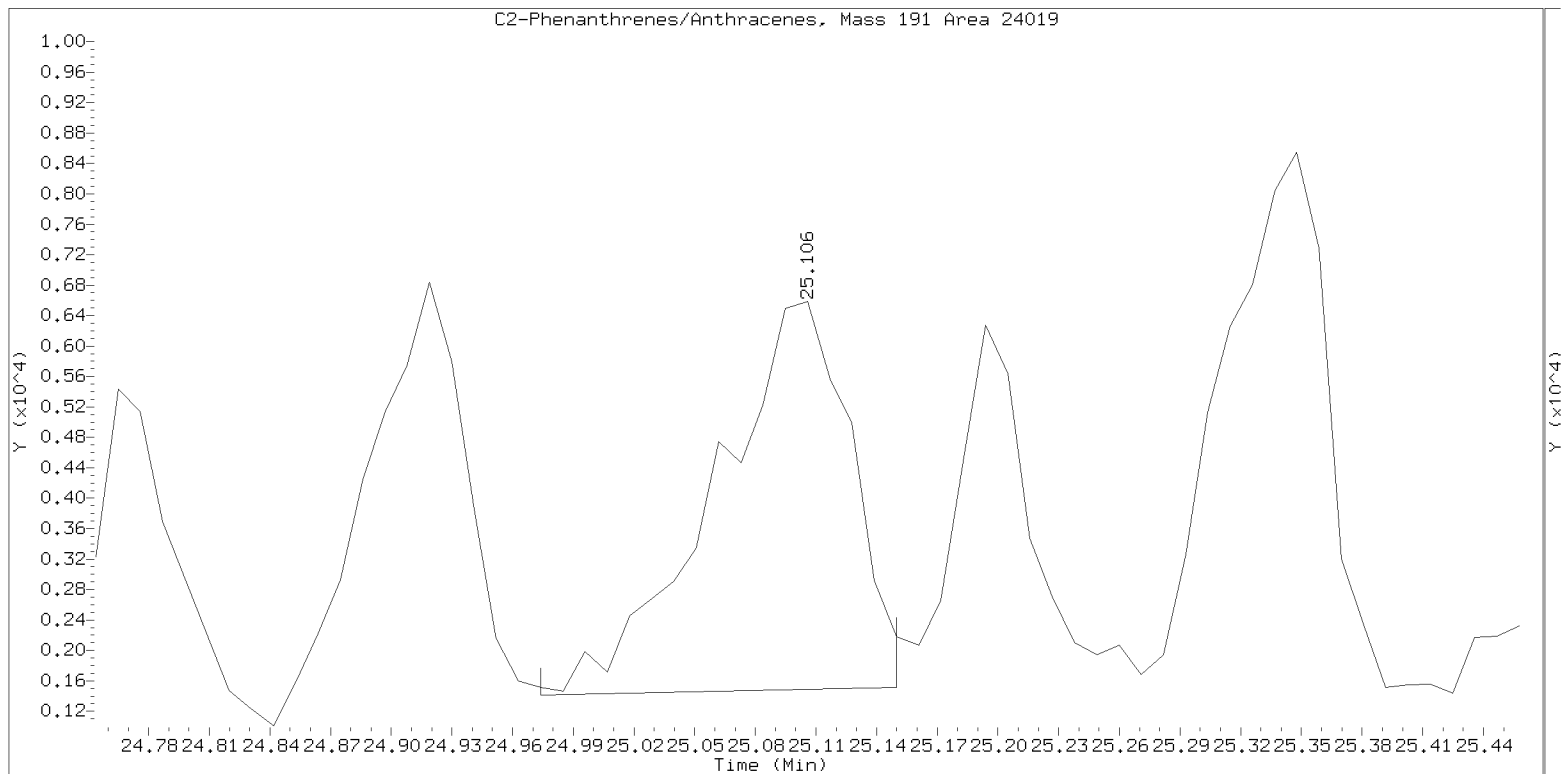
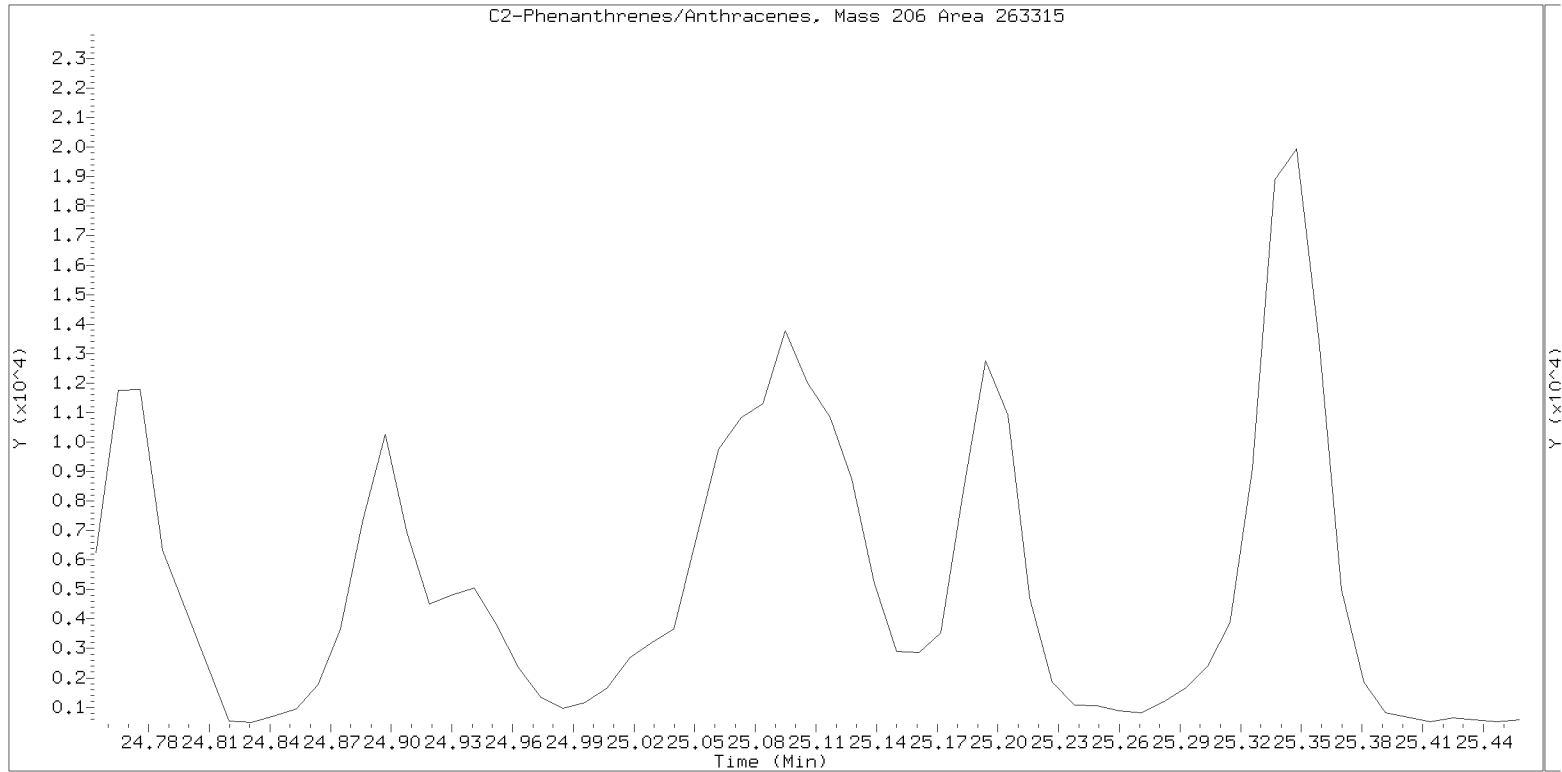
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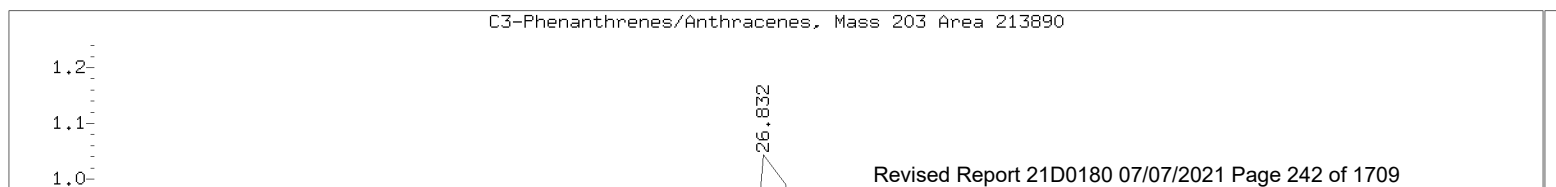
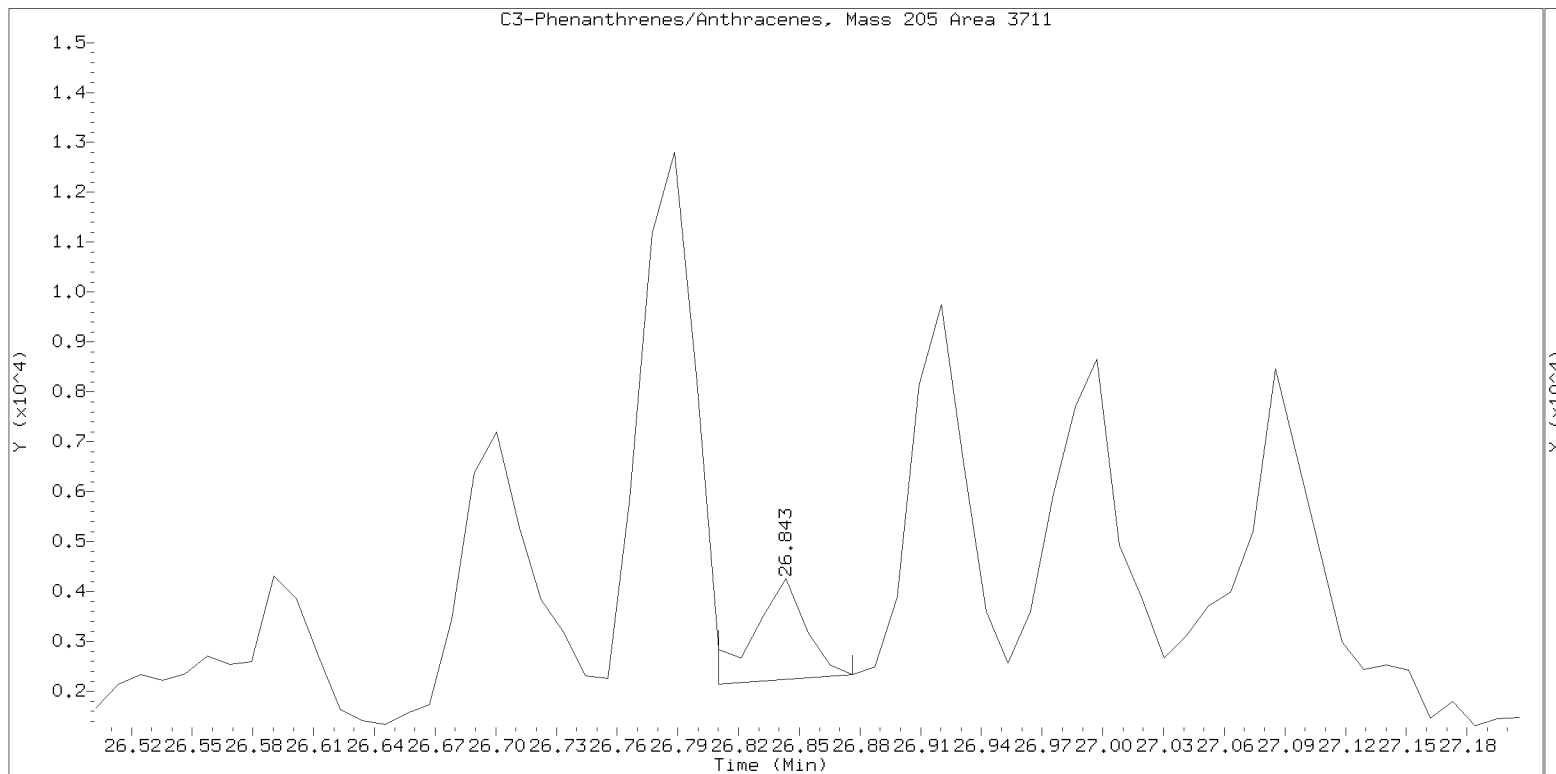
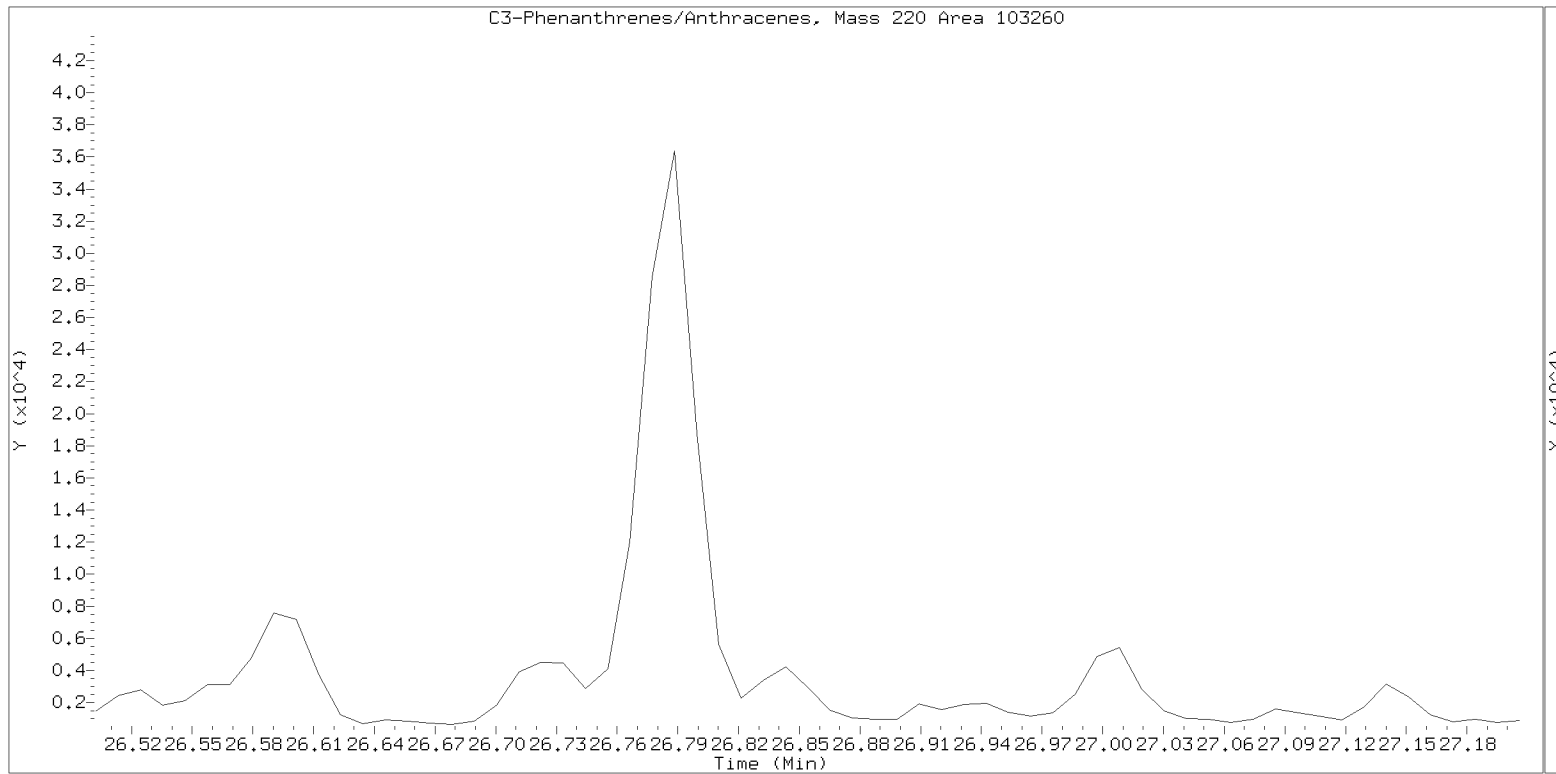
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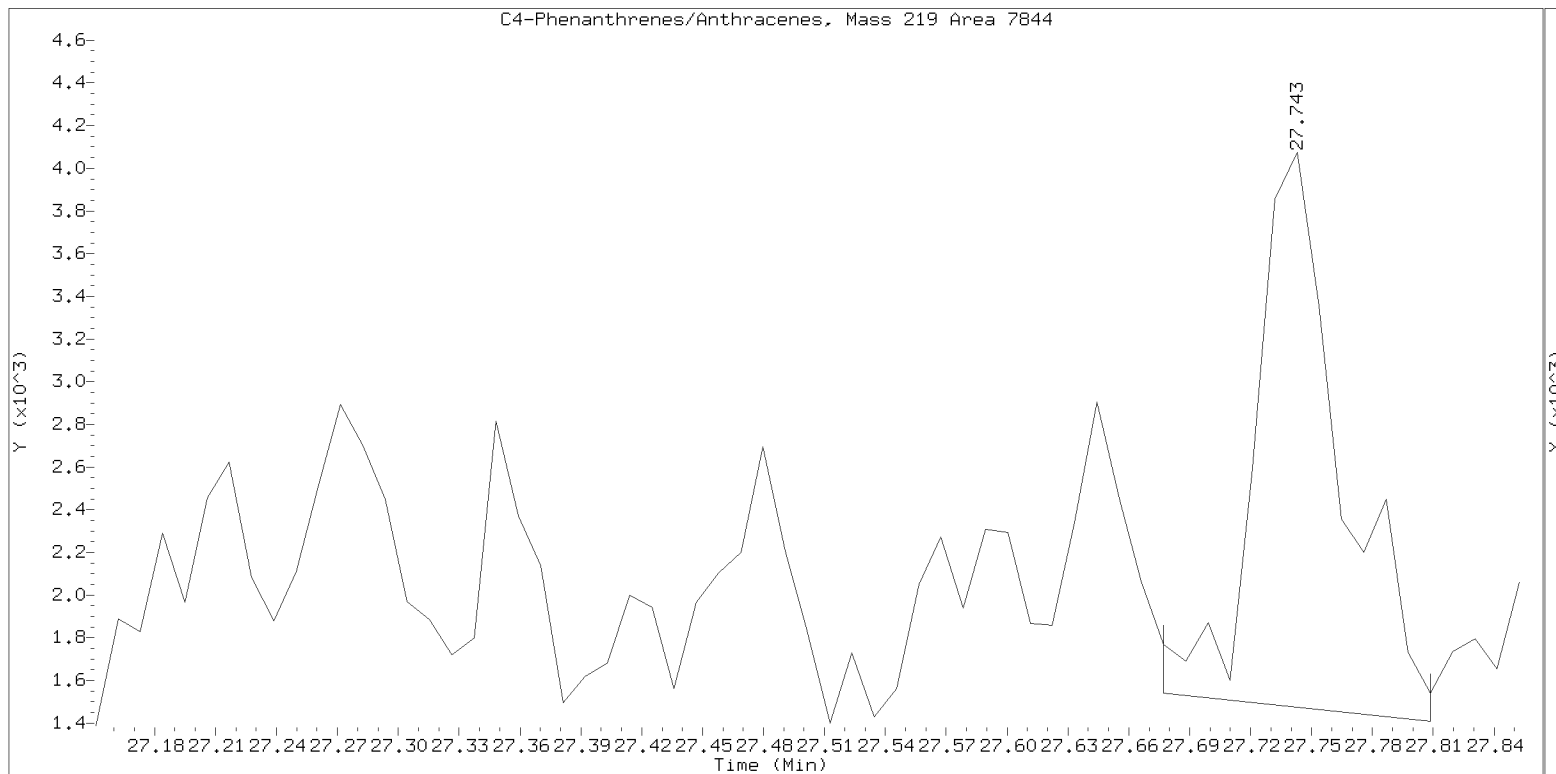
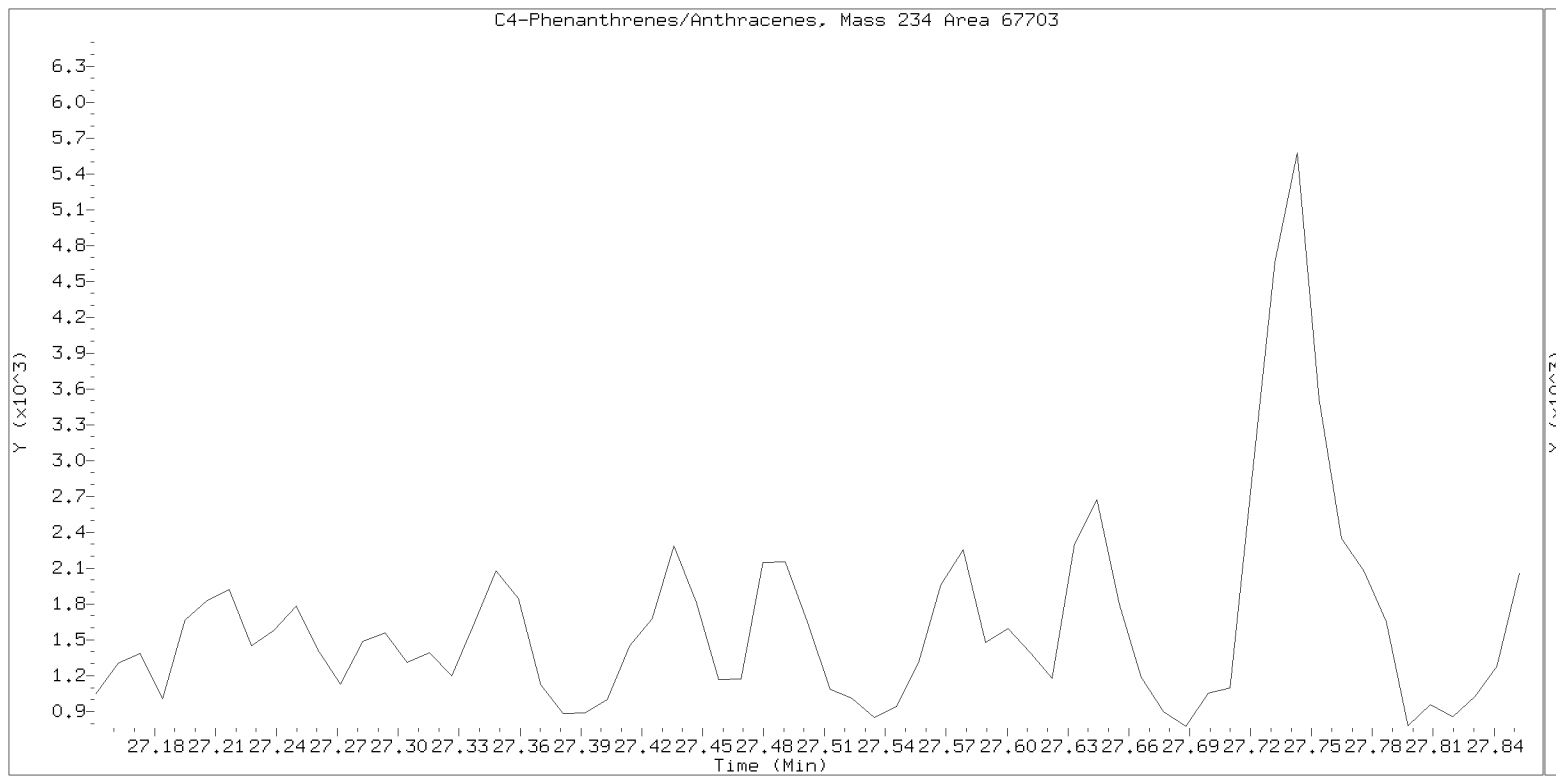
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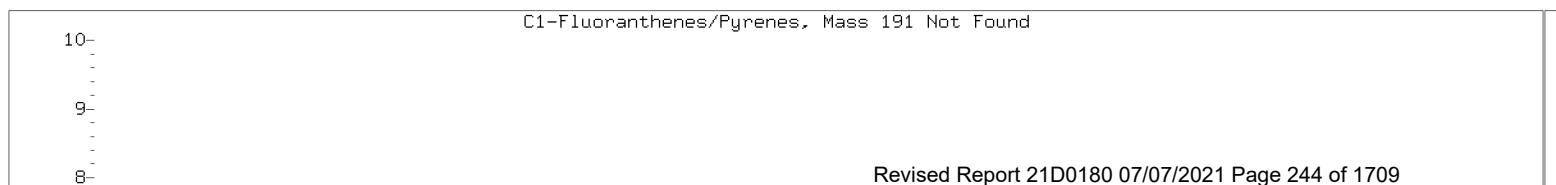
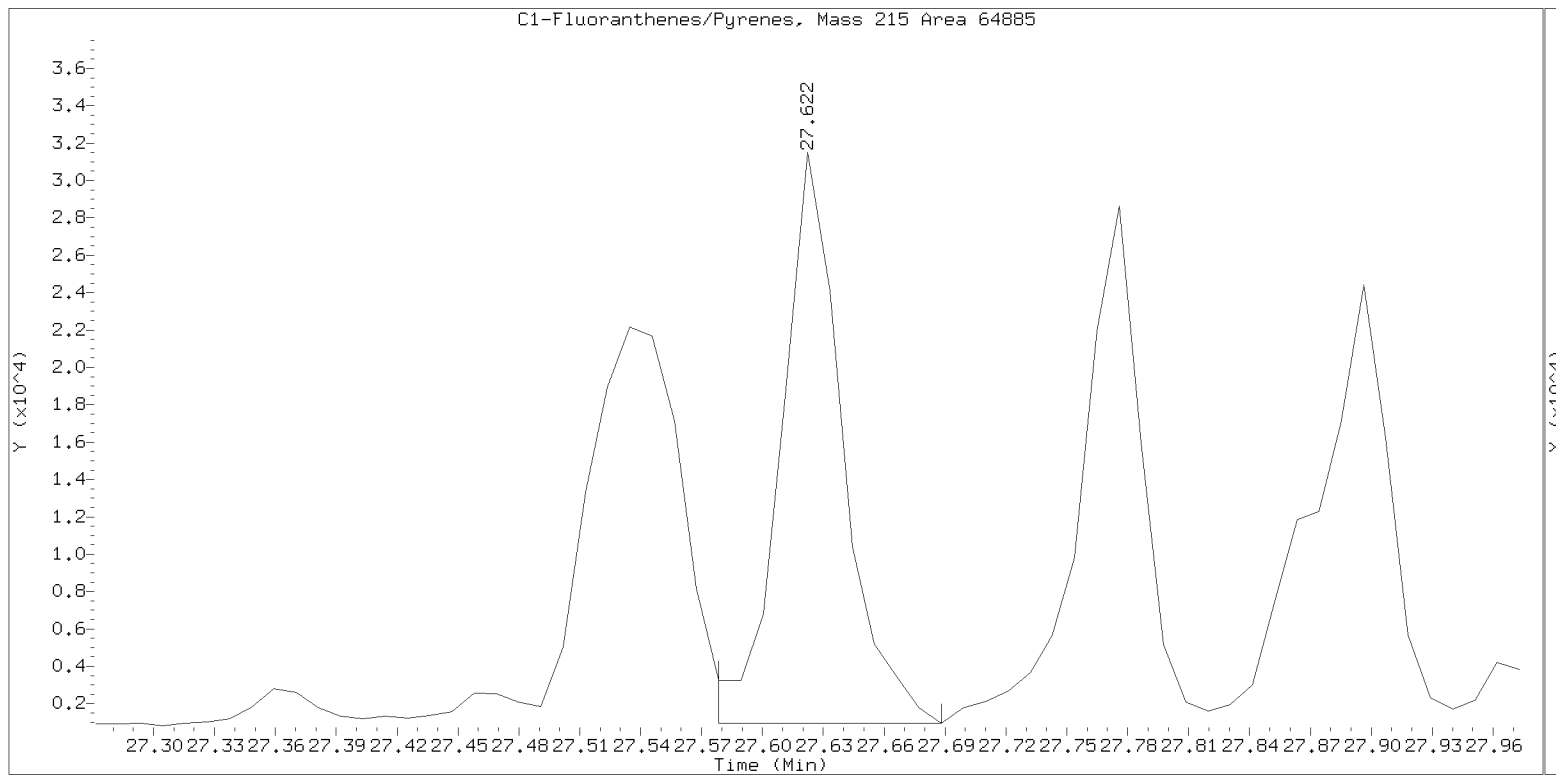
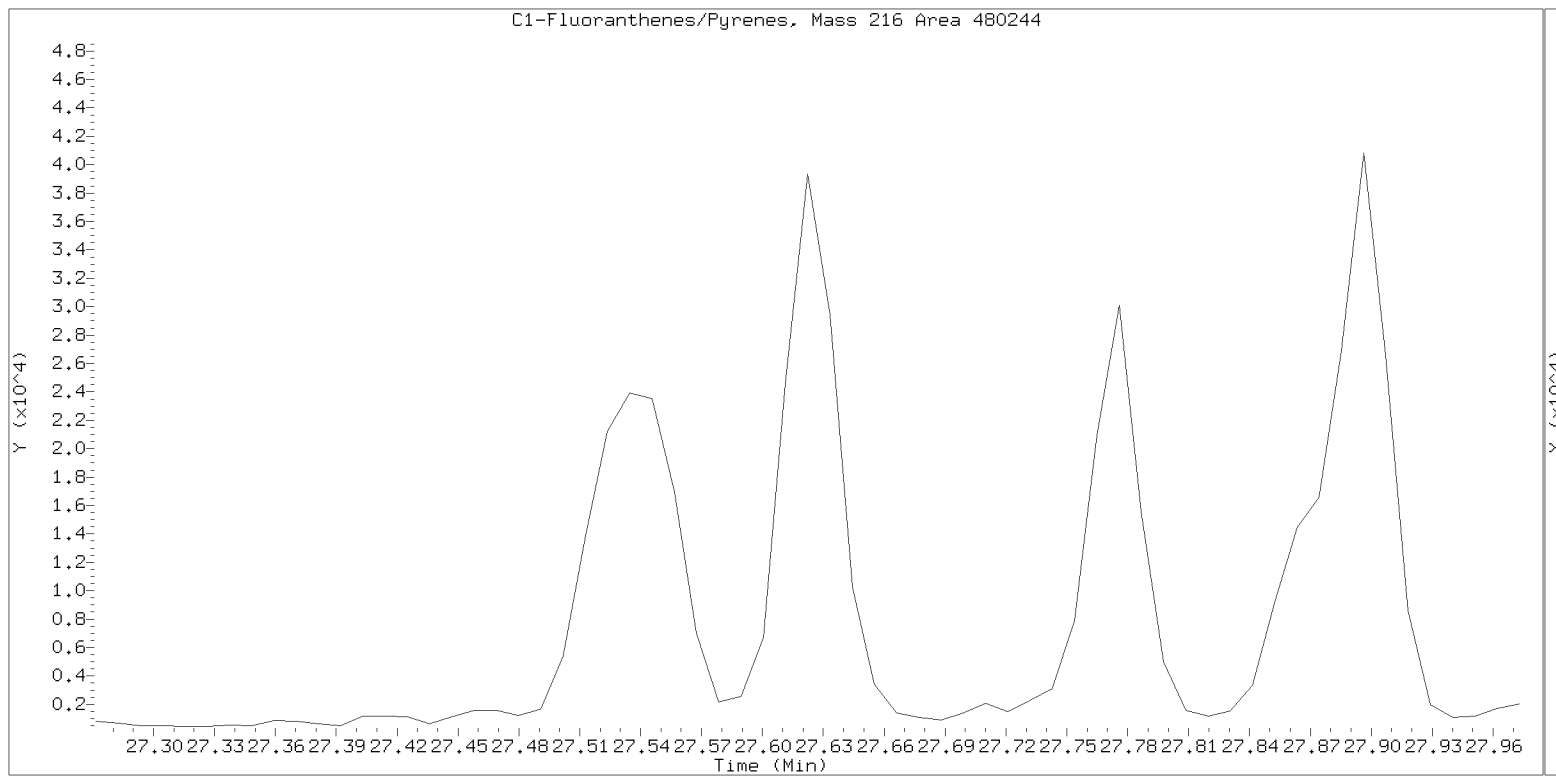
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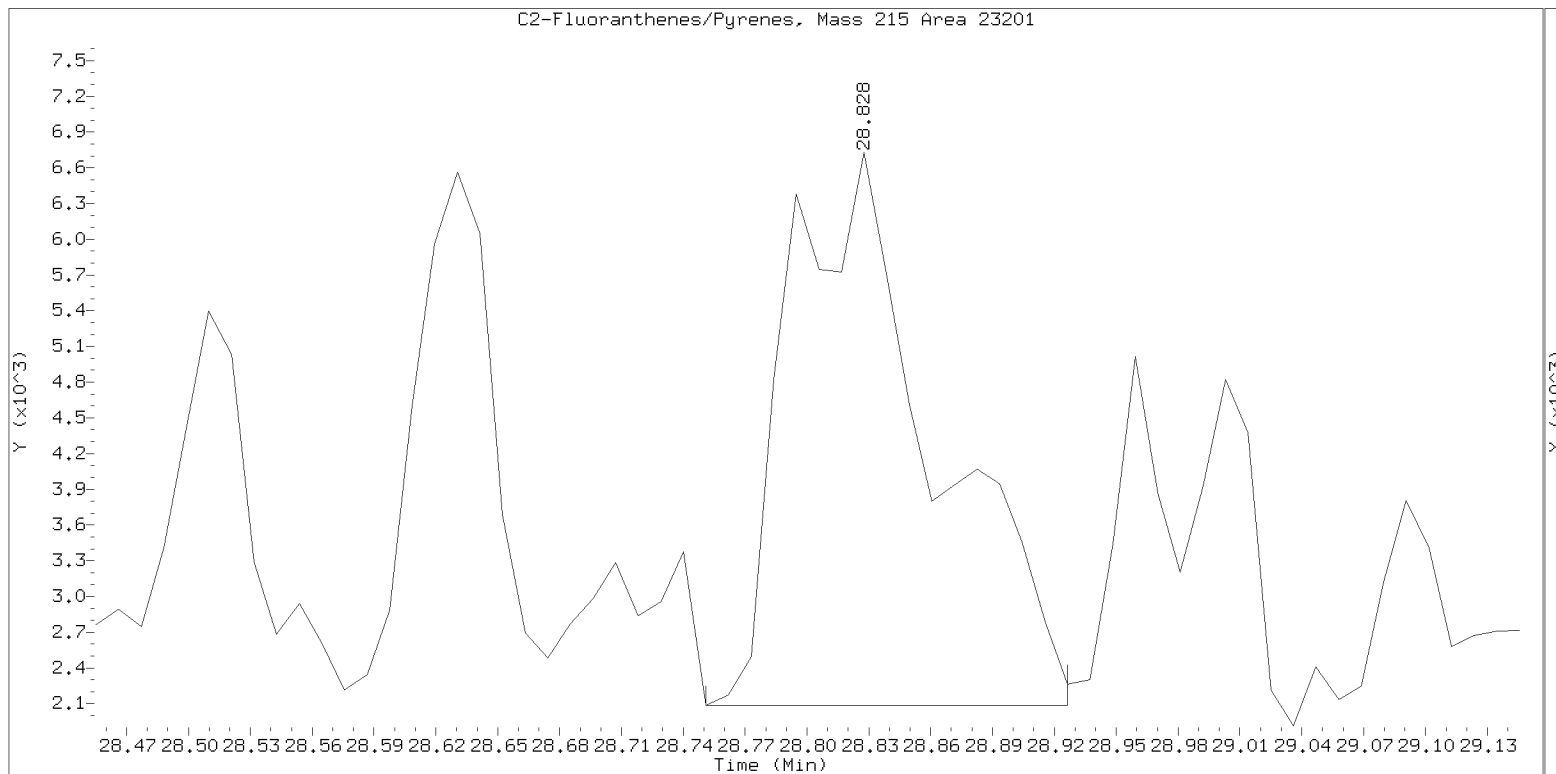
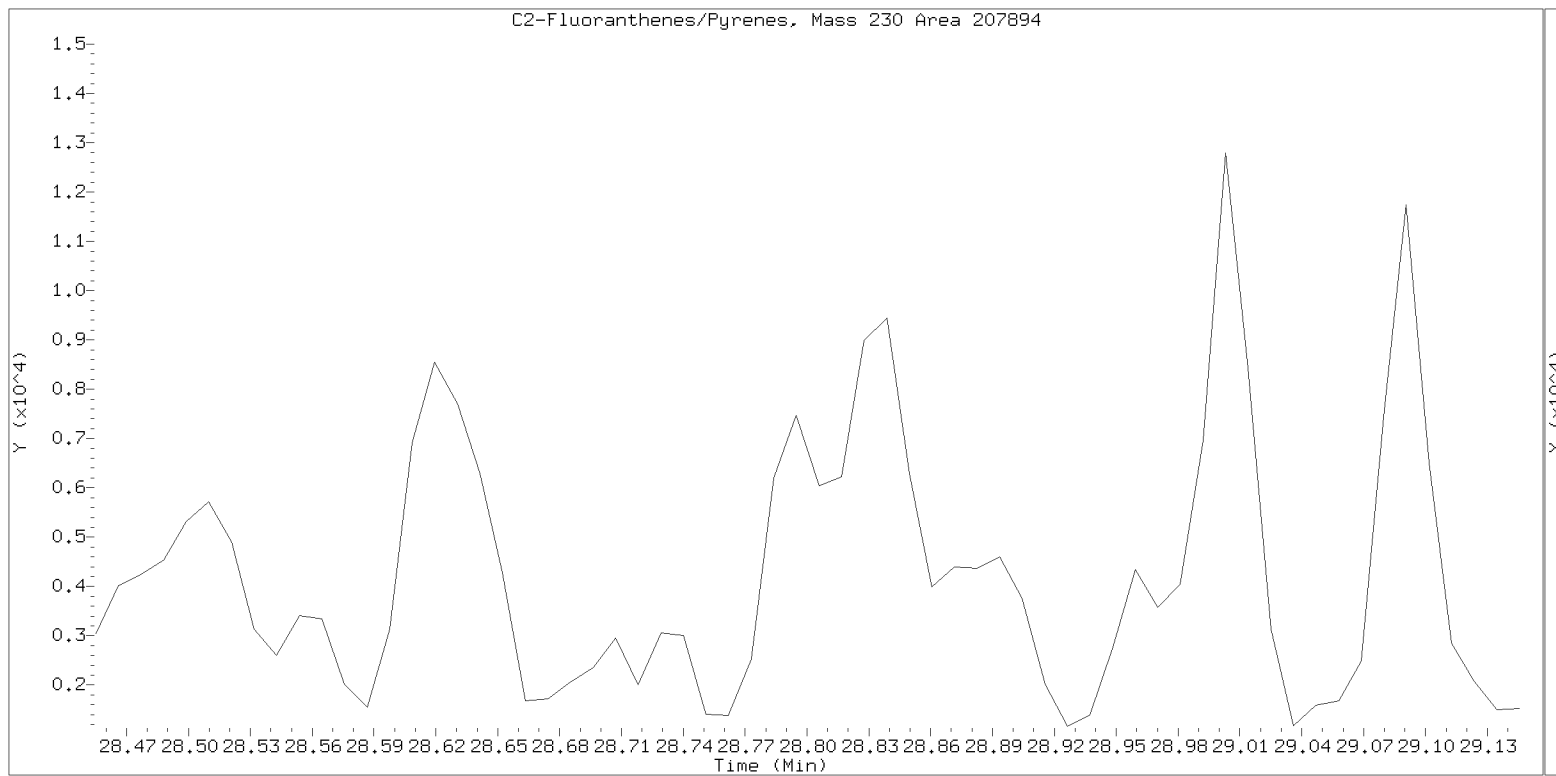
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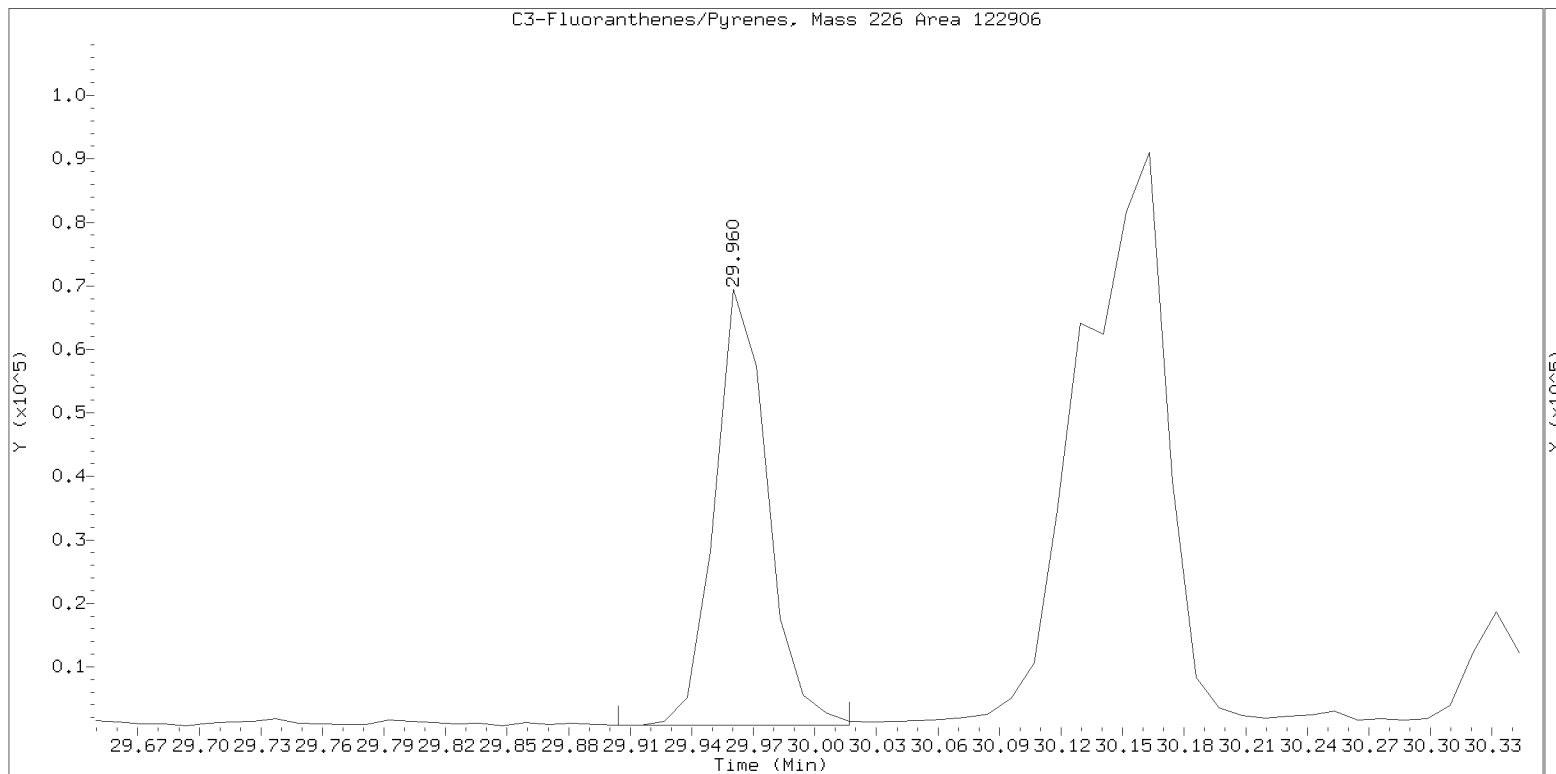
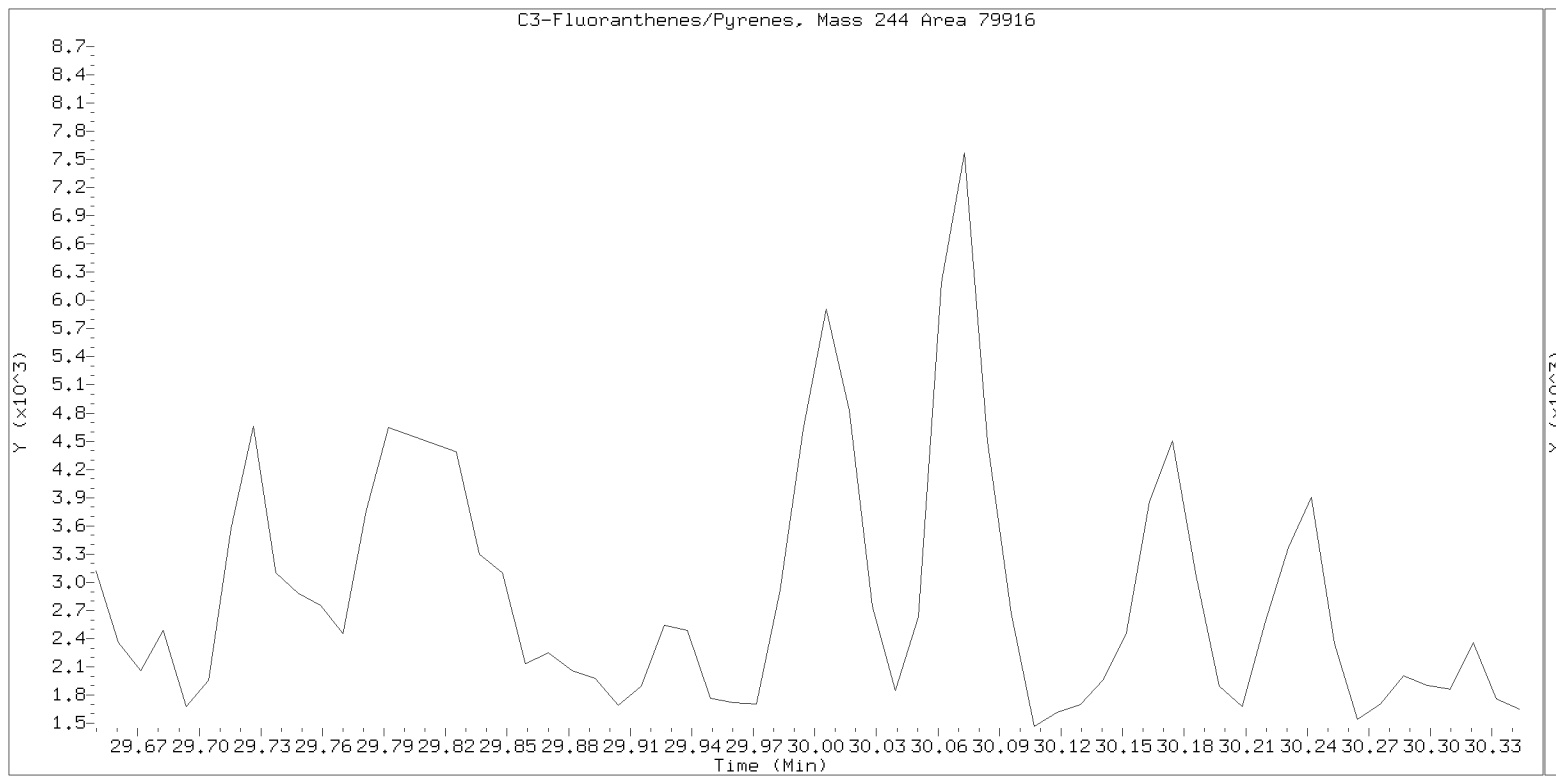
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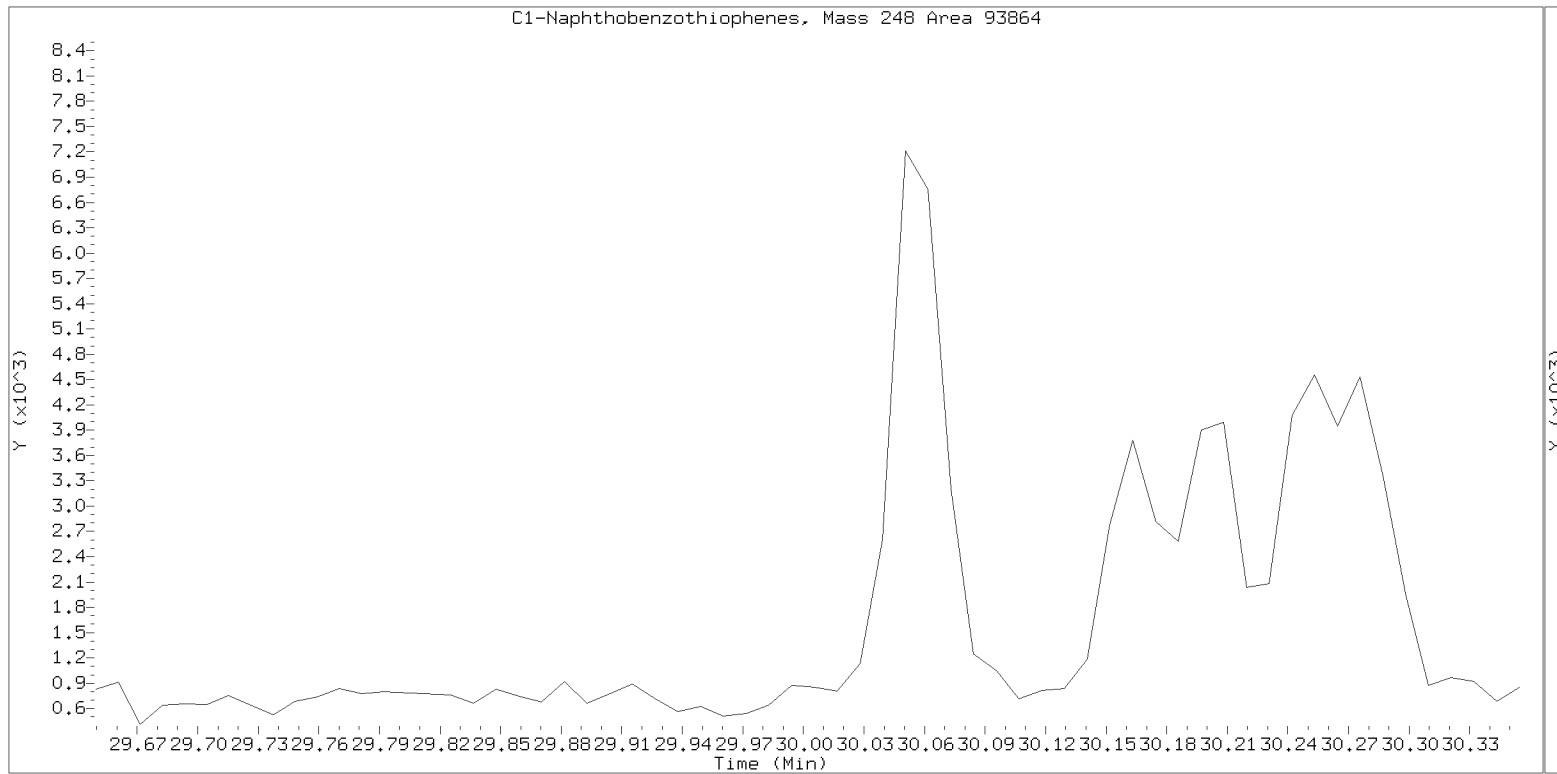
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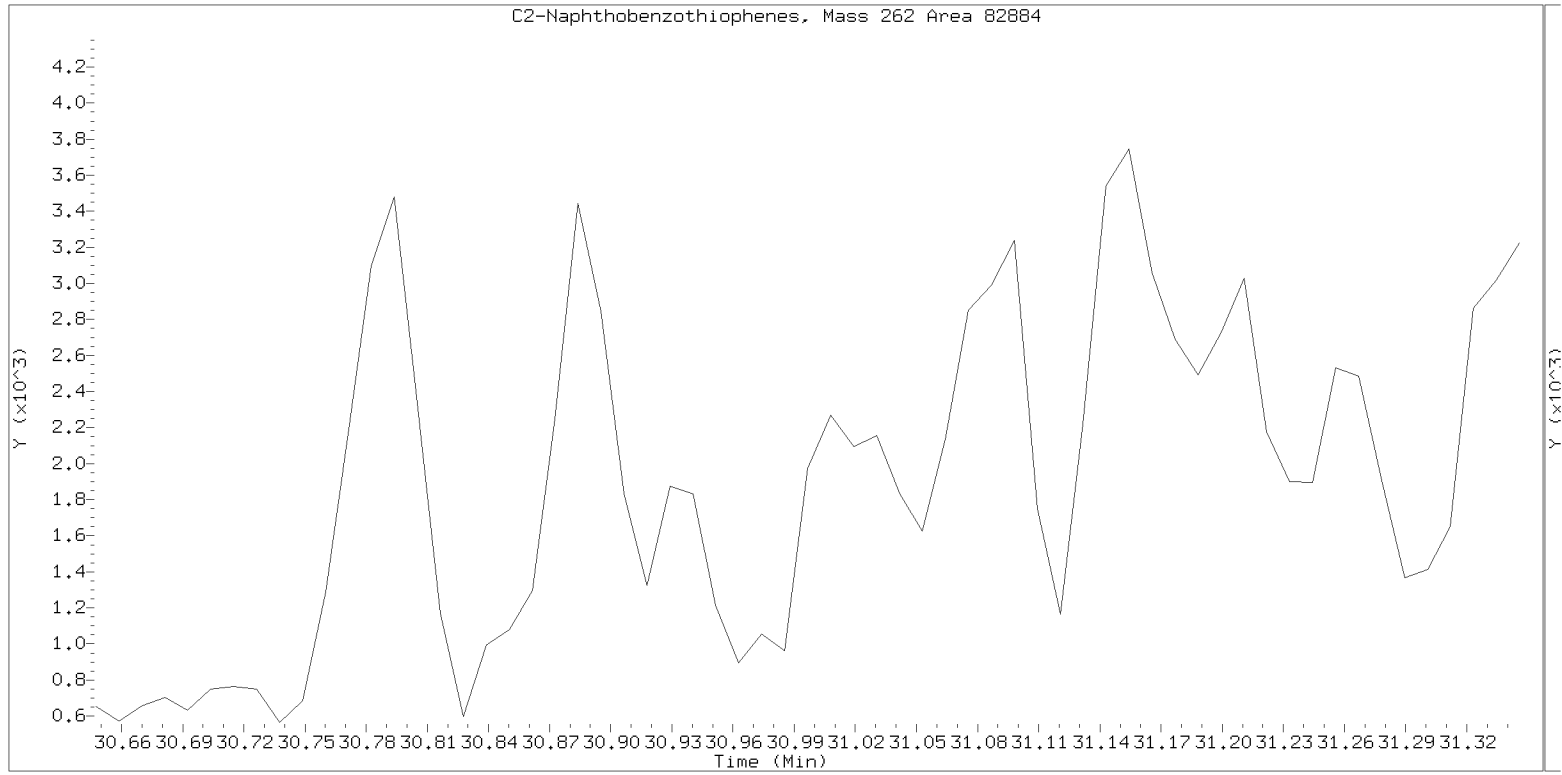
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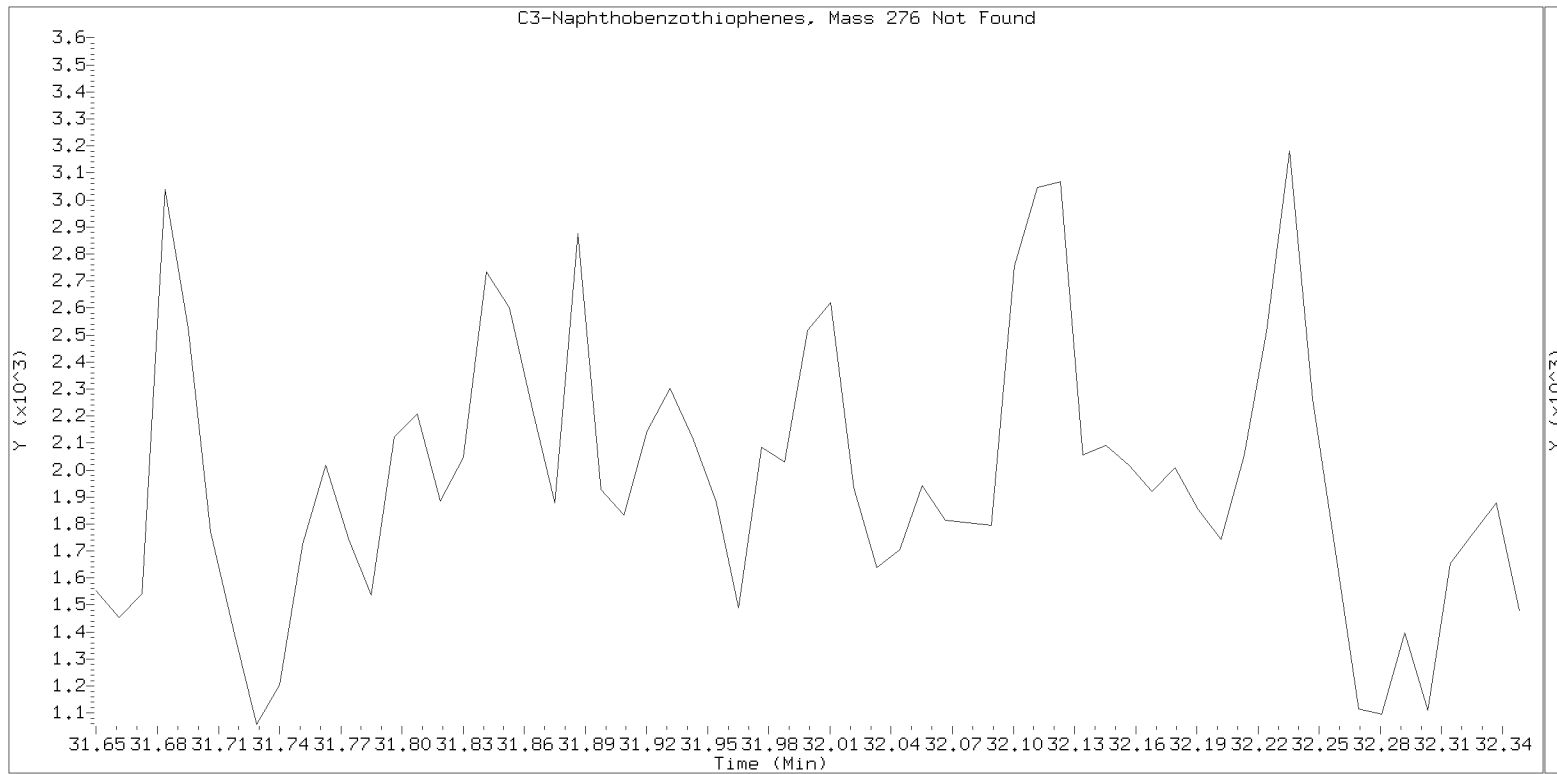
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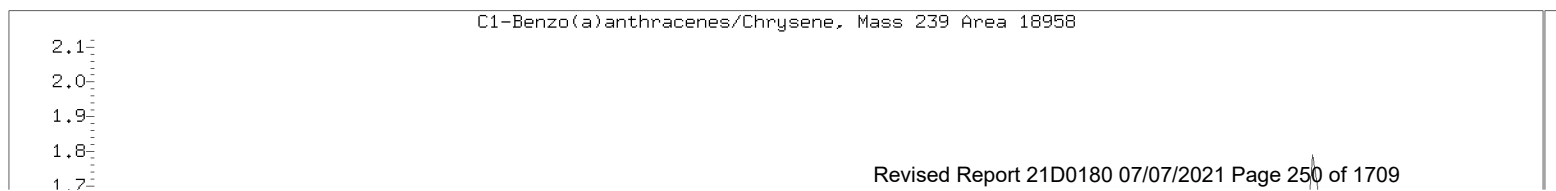
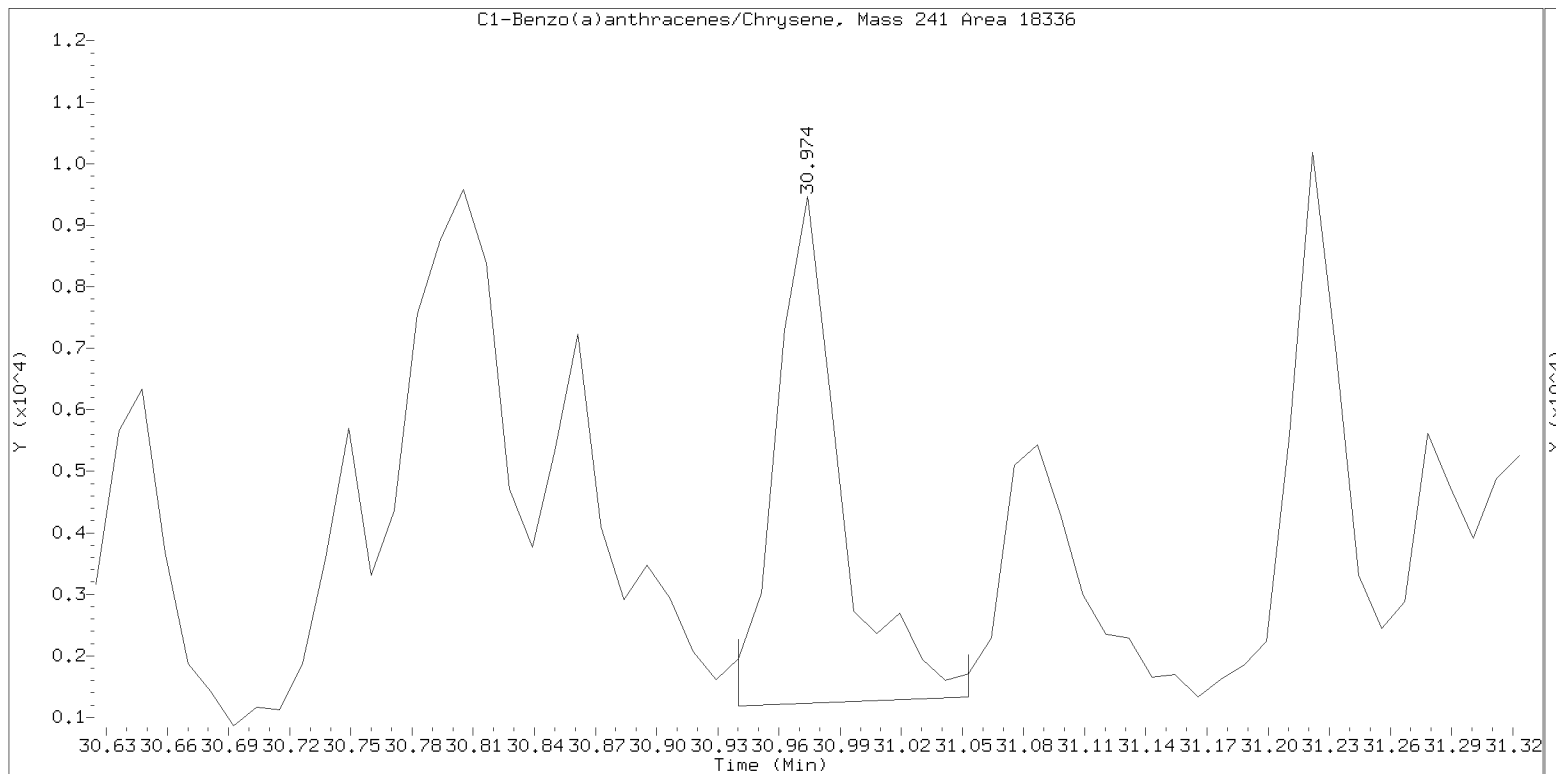
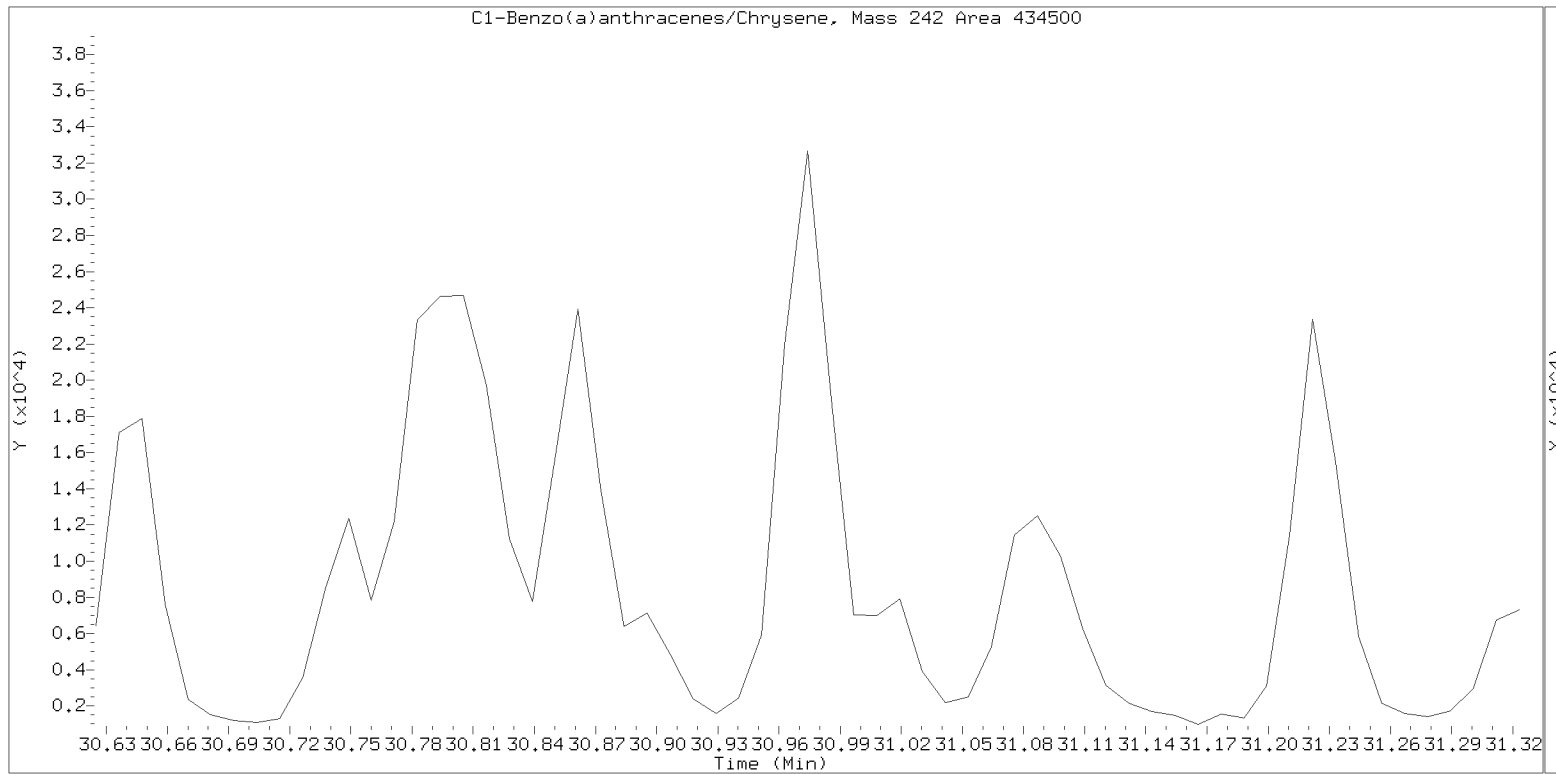


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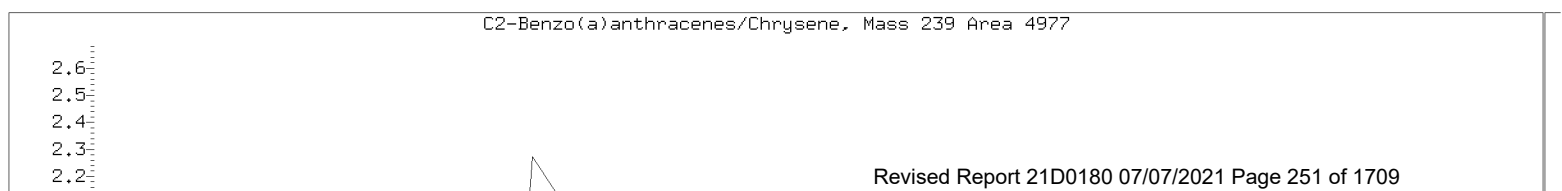
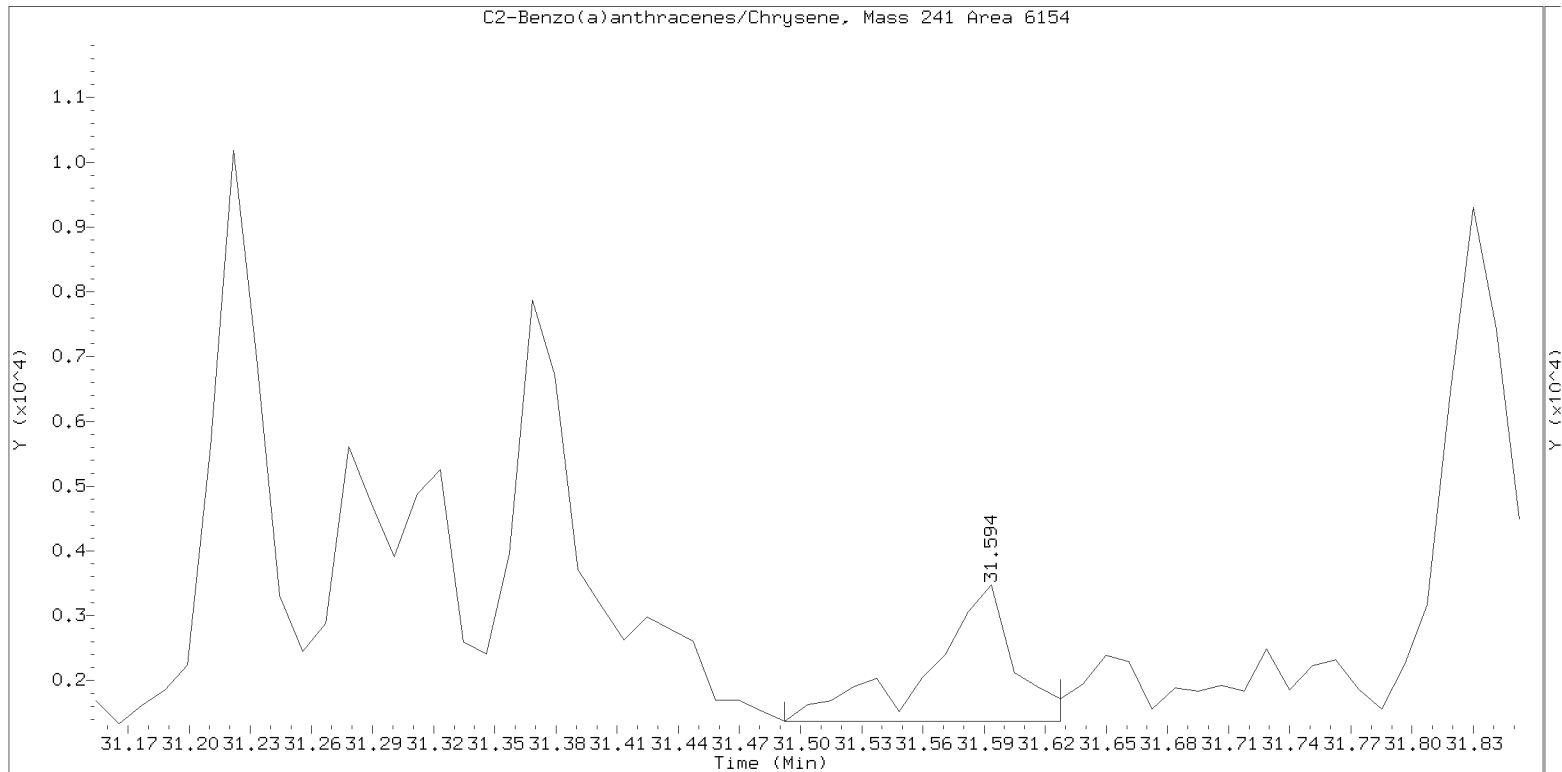
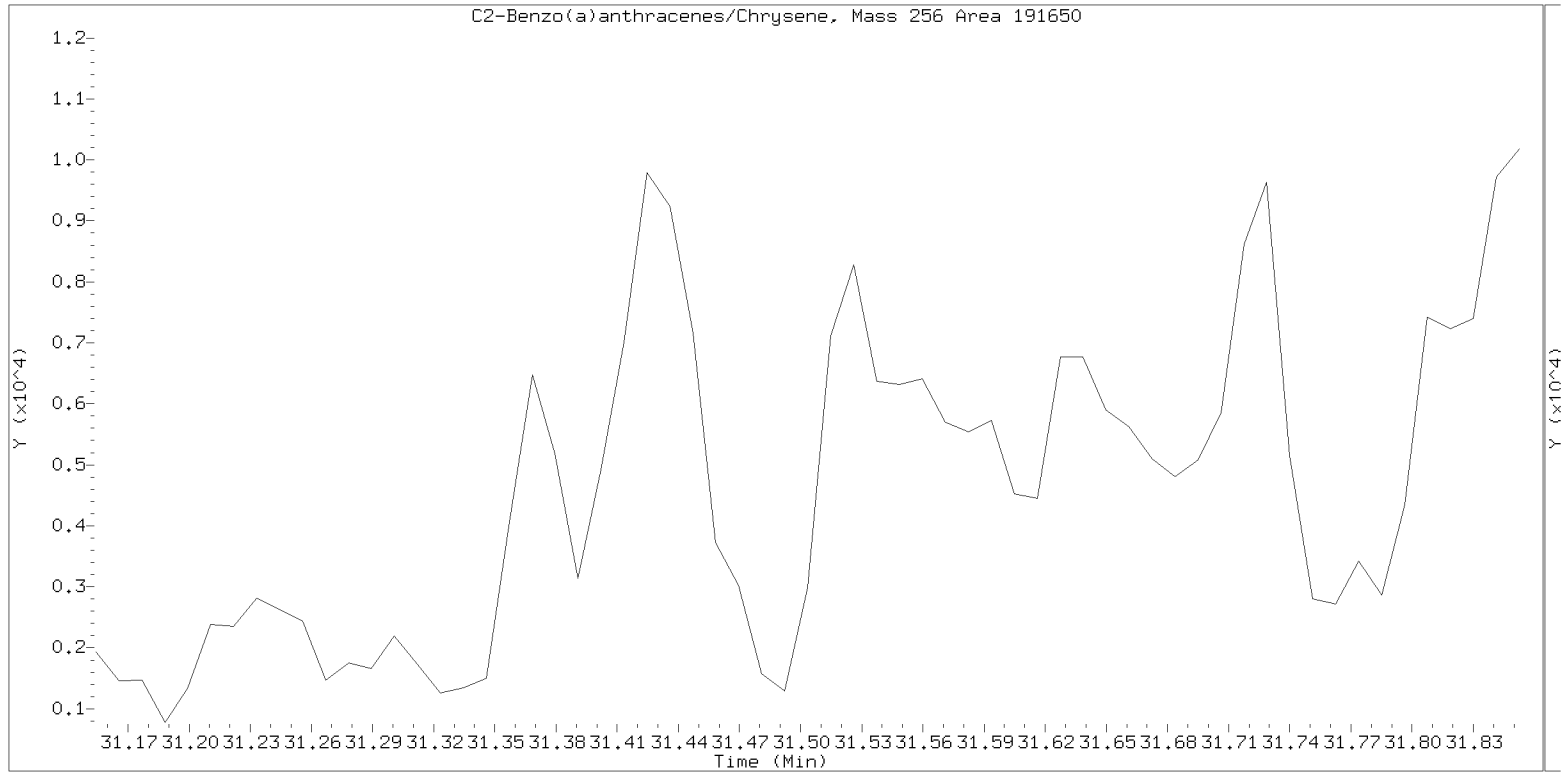
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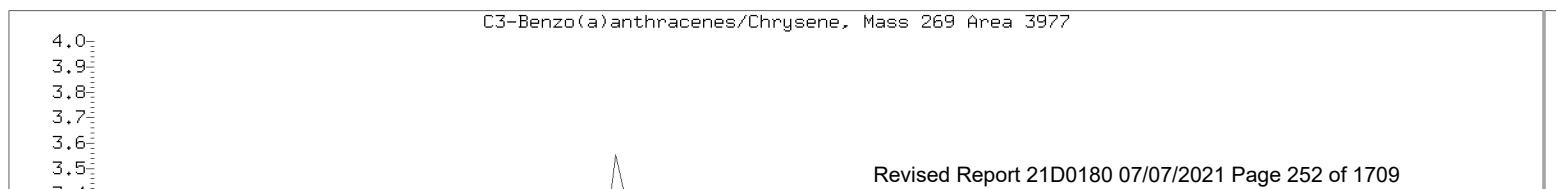
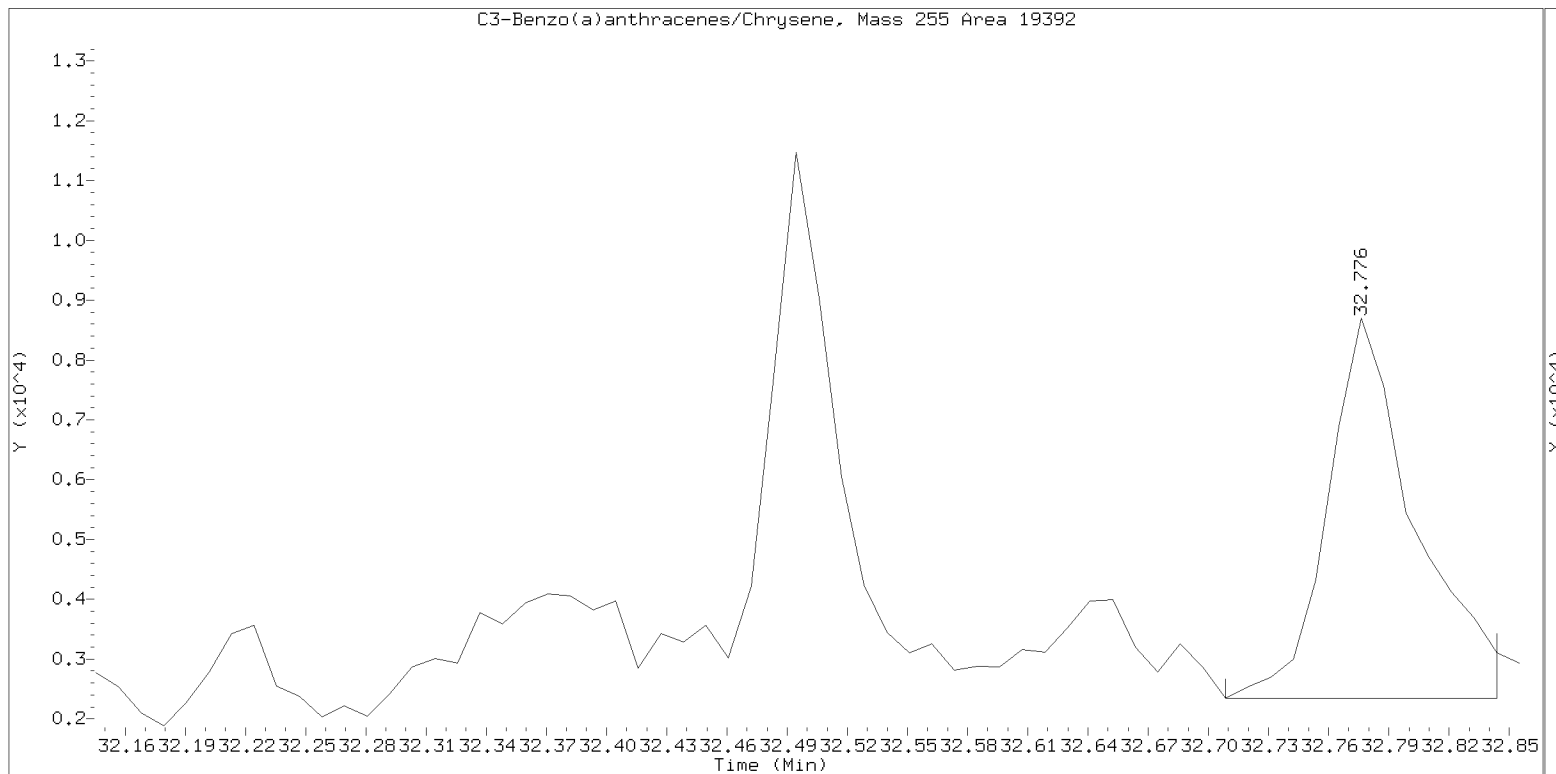
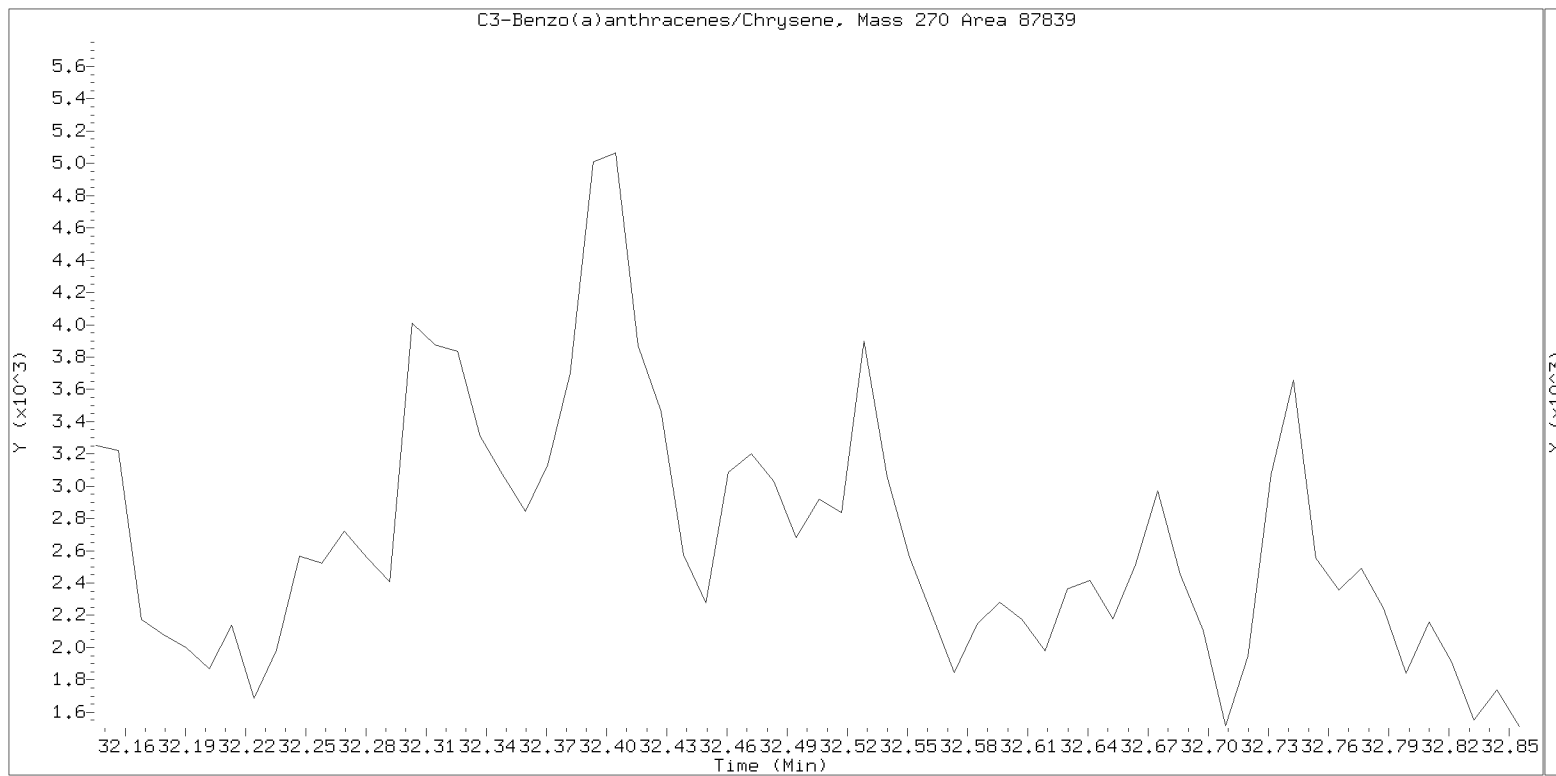
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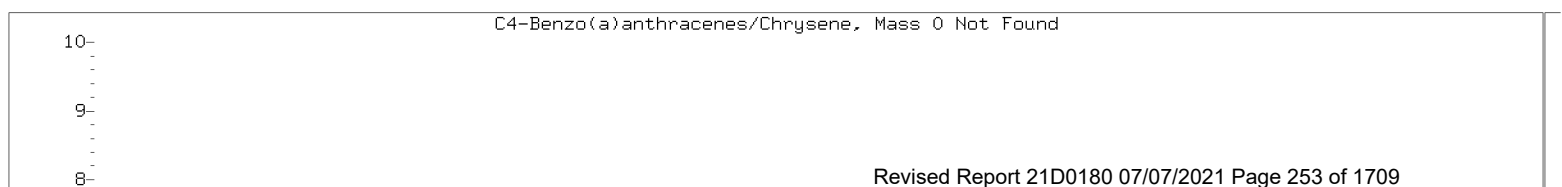
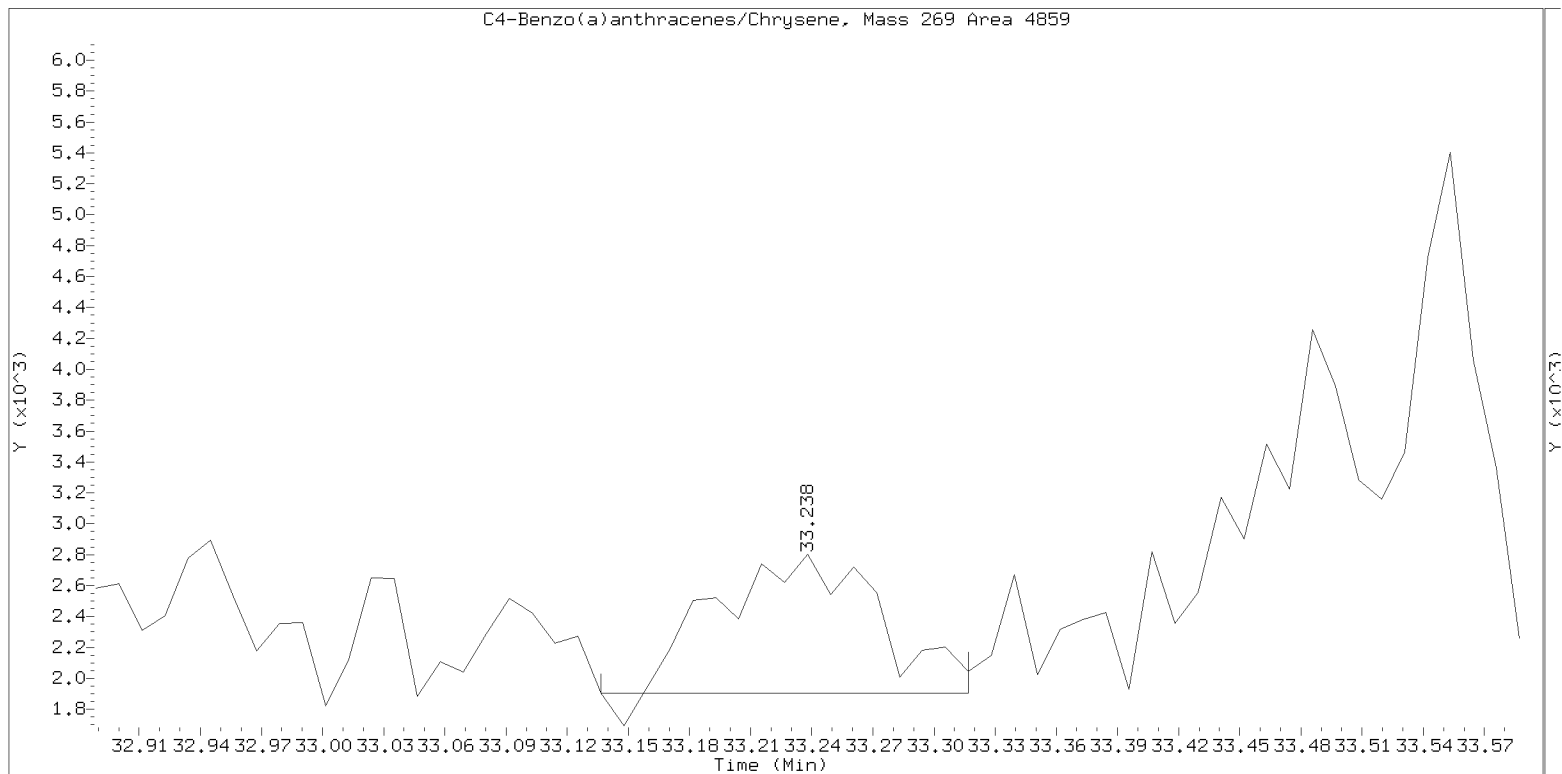
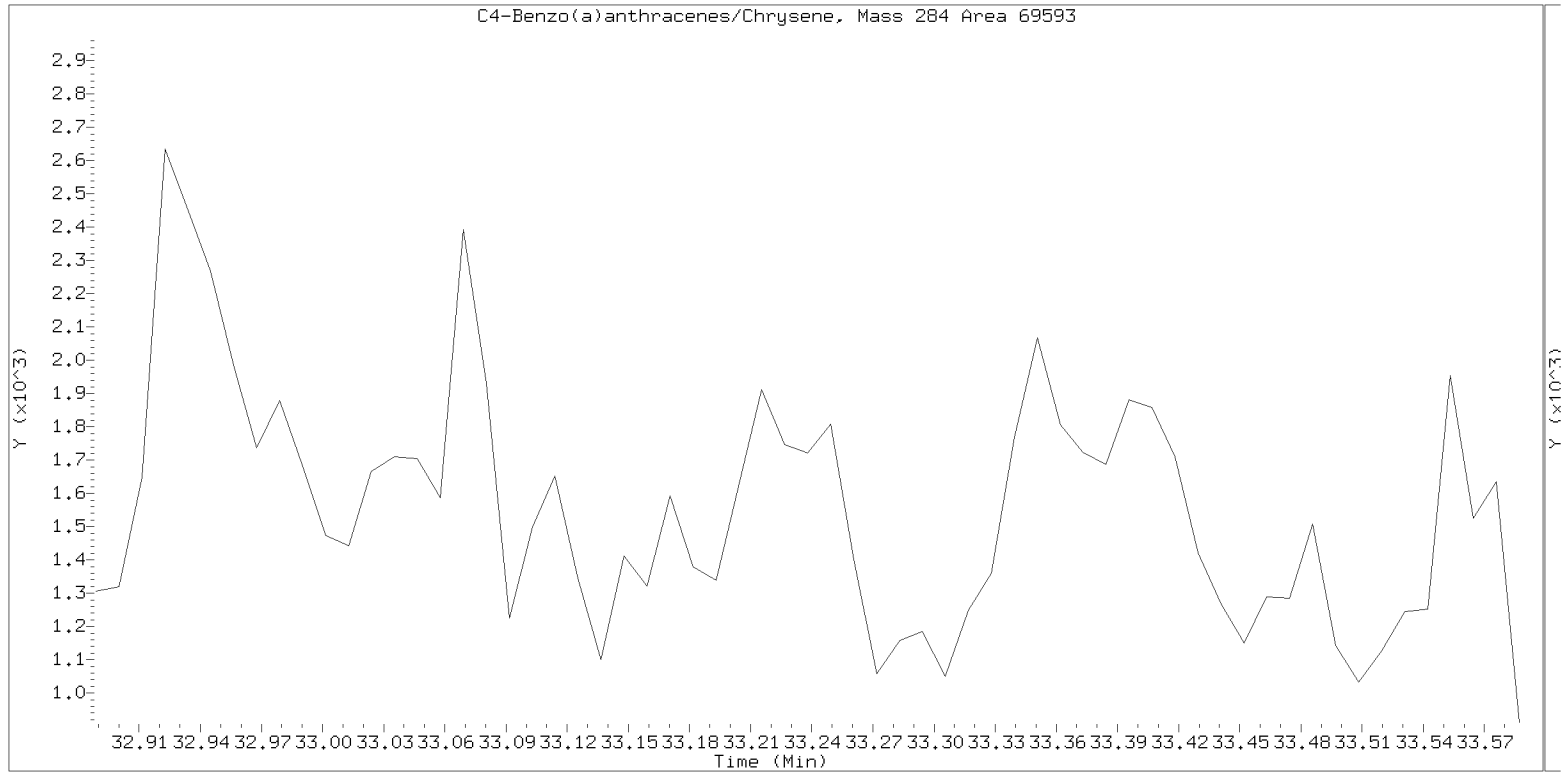
nt14.i, SIM.b\ALKYLRANGES.m, 02-MAY-2021 10:01



SIM ALKYL PNA RANGE ION WINDOWS - NT1421043064S.D

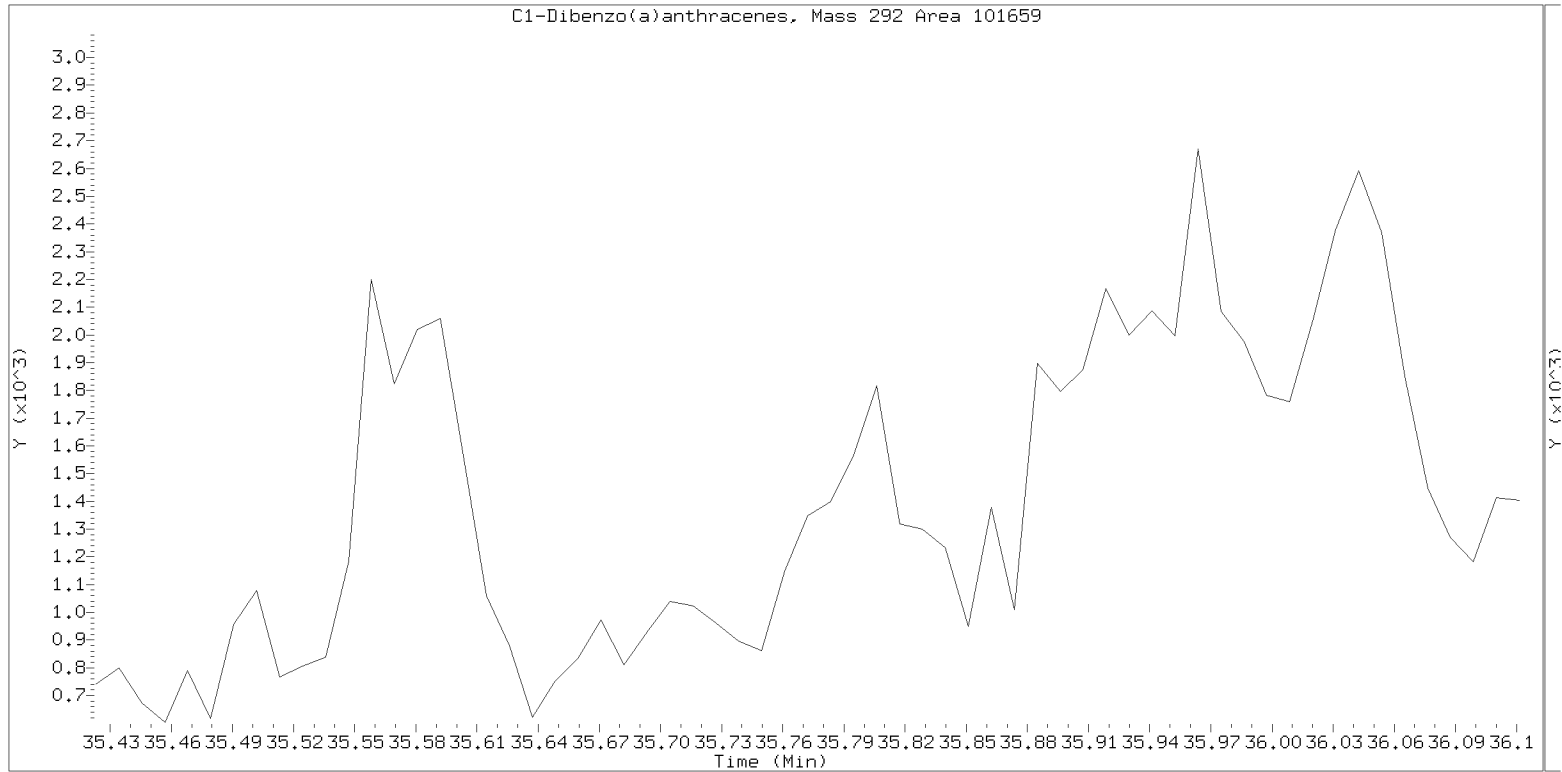
Lab ID: 21D0180-02

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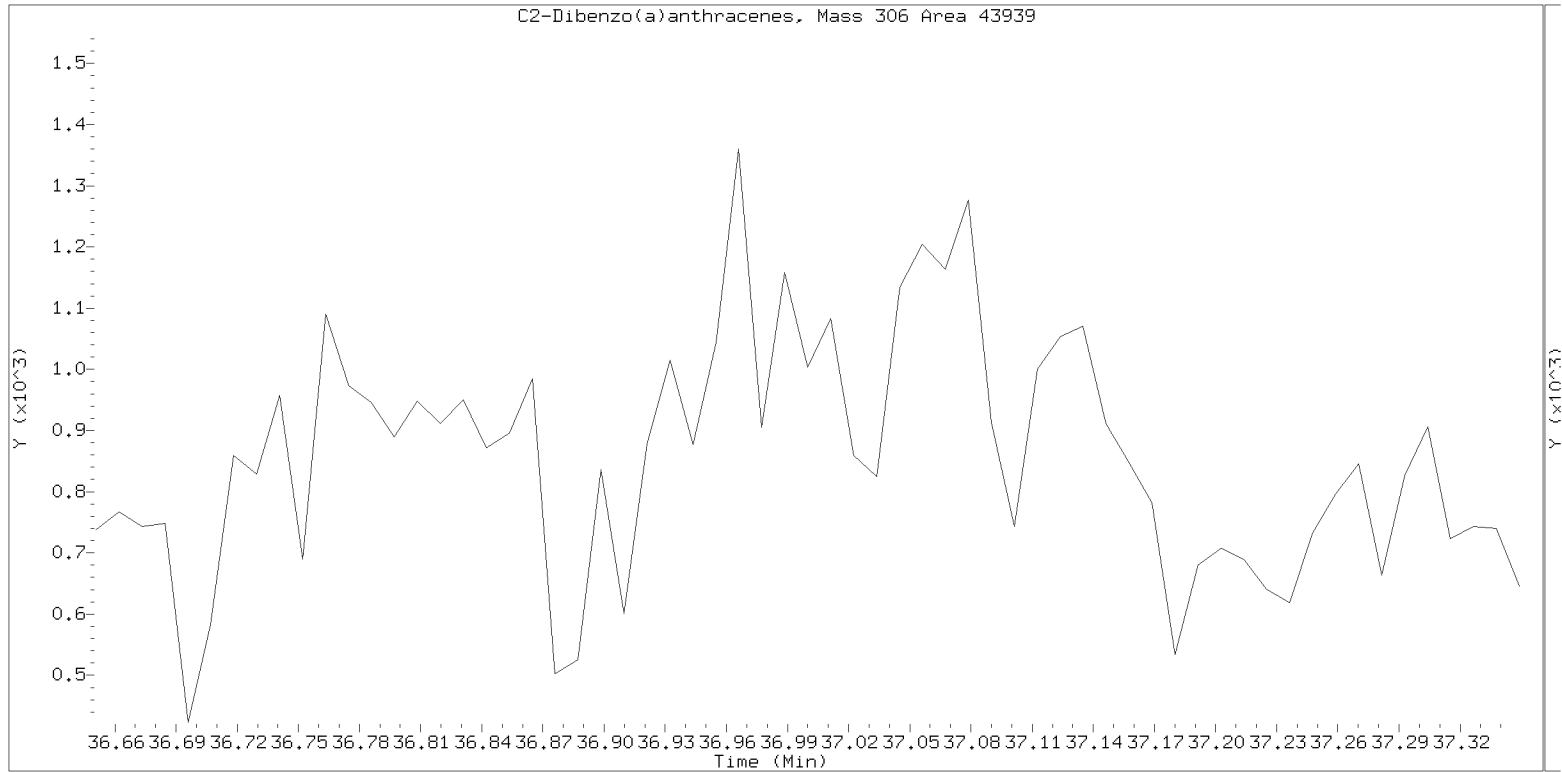
Lab ID: 21D0180-02

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Lab ID: 21D0180-02

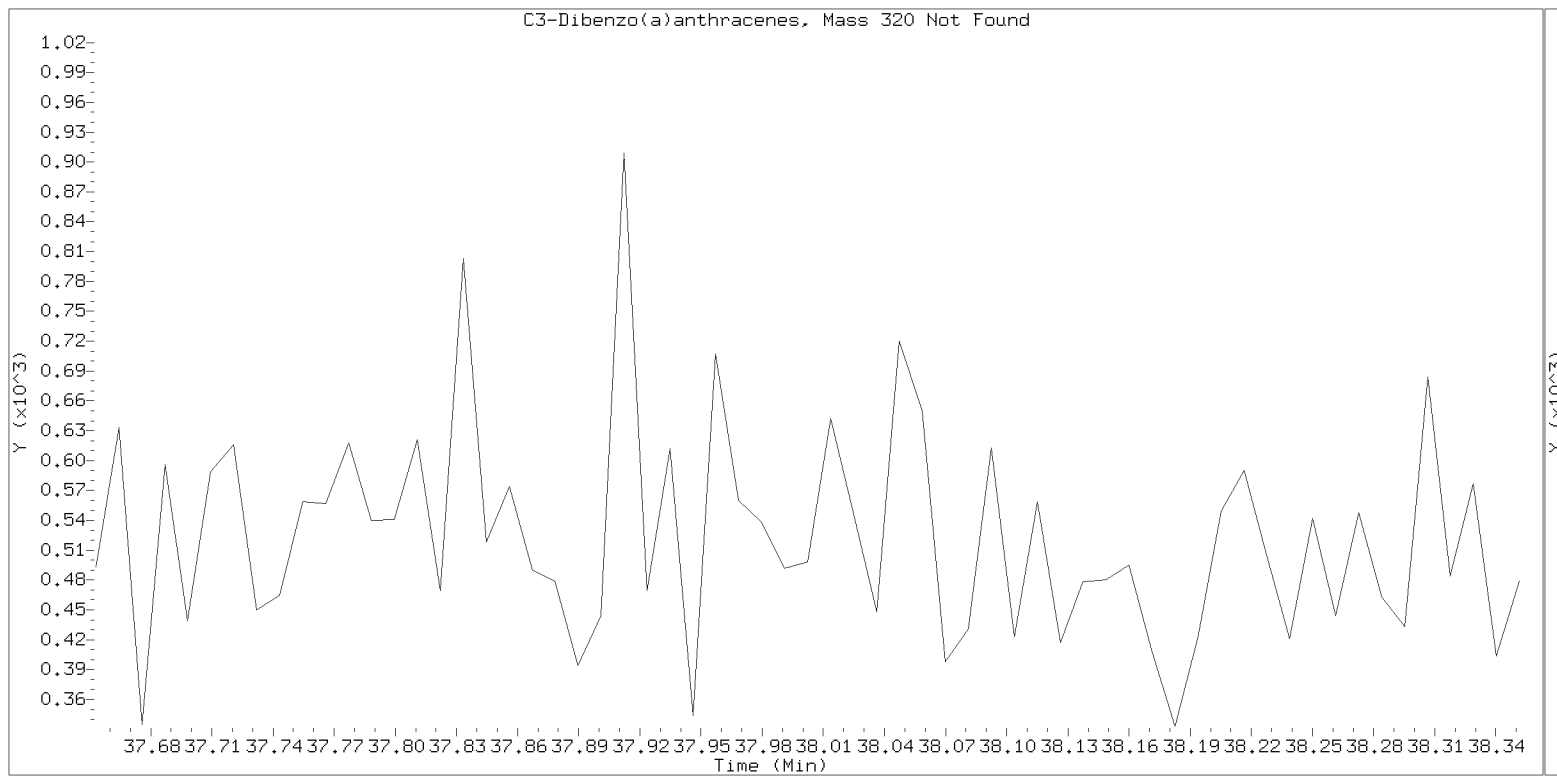
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043064S.D

Lab ID: 21D0180-02

nt14.i, SIM.b\ALKYLRANGES.m, 02-MAY-2021 10:01





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Alkyl PAH Parents

Laboratory: Analytical Resources, Inc.
Client: Anchor OEA, LLC
Project: Gasco Siltronic - US Moorings
Matrix: Sediment Laboratory ID: 21D0180-03 A SDG: 21D0180
Sampled: 04/14/21 08:36 Prepared: 04/22/21 11:05 File ID: NT1421043065.D
% Solids: 46.60 Preparation: EPA 3546 (Microwave) Analyzed: 05/02/21 10:49
Batch: BJD0507 Sequence: SJE0004 Initial/Final: 21.46 g Wet / 0.5 mL
Instrument: NT14 Column: ZB-5MS Calibration: EE00001
Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
493-02-7	trans-Decalin	1	5.0	U	0.03	5.0
493-01-6	cis-Decalin	1	5.0	U	0.5	5.0
91-20-3	Naphthalene	1	26.2		0.4	5.0
90-12-0	1-Methylnaphthalene	1	5.6		0.4	5.0
91-57-6	2-Methylnaphthalene	1	10.7		0.4	5.0
92-52-4	Biphenyl	1	4.2	J	0.3	5.0
581-42-0	2,6-Dimethylnaphthalene	1	2.6	J	0.4	5.0
208-96-8	Acenaphthylene	1	7.3	Q	0.3	5.0
83-32-9	Acenaphthene	1	13.7		0.5	5.0
132-64-9	Dibenzofuran	1	6.4		0.4	5.0
2245-38-7	2,3,5-Trimethylnaphthalene	1	3.0	J	0.4	5.0
86-73-7	Fluorene	1	13.7		0.5	5.0
95-15-8	Benzo(b)thiophene	1	2.0	J	0.4	5.0
85-01-8	Phenanthrene	1	75.2		0.9	5.0
120-12-7	Anthracene	1	22.9		0.05	5.0
86-74-8	Carbazole	1	5.2		0.7	5.0
832-69-9	1-Methylphenanthrene	1	13.3		0.5	5.0
206-44-0	Fluoranthene	1	192		1.4	5.0
132-65-0	Dibenzothiophene	1	7.6		0.7	5.0
129-00-0	Pyrene	1	205		1.0	5.0
56-55-3	Benzo(a)anthracene	1	76.6		1.4	5.0
218-01-9	Chrysene	1	130		0.7	5.0
205-99-2	Benzo(b)fluoranthene	1	91.2		0.8	5.0
205-82-3	Benzo(j)fluoranthene	1	44.2		0.7	5.0
207-08-9	Benzo(k)fluoranthene	1	45.3		0.8	5.0
197-97-2	Benzo(e)pyrene	1	84.8		0.6	5.0
50-32-8	Benzo(a)pyrene	1	108		1.0	5.0
193-39-5	Indeno(1,2,3-cd)pyrene	1	83.3		0.4	5.0
53-70-3	Dibenzo(a,h)anthracene	1	12.1		0.7	5.0
191-24-2	Benzo(g,h,i)perylene	1	123		0.5	5.0



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Alkyl PAH Parents

Laboratory: Analytical Resources, Inc.
 Client: Anchor OEA, LLC
 Project: Gasco Siltronic - US Moorings
 Matrix: Sediment Laboratory ID: 21D0180-03 A SDG: 21D0180
 Sampled: 04/14/21 08:36 Prepared: 04/22/21 11:05 File ID: NT1421043065.D
 % Solids: 46.60 Preparation: EPA 3546 (Microwave) Analyzed: 05/02/21 10:49
 Batch: BJD0507 Sequence: SJE0004 Initial/Final: 21.46 g Wet / 0.5 mL
 Instrument: NT14 Column: ZB-5MS Calibration: EE00001
 Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
1985-5-0	Perylene	1	113		0.4	5.0
239-35-0	Benzo(b)naphtho(2,1-d)thiophene	1	16.5		5.0	5.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
Naphthalene-d8	149.99	89.6	59.8	30 - 160	
Acenaphthene-d10	149.99	104	69.4	30 - 160	
Phenanthrene-d10	149.99	95.1	63.4	30 - 160	
Chrysene-d12	149.99	98.7	65.8	30 - 160	
Perylene-d12	149.99	109	72.4	30 - 160	

Data File: \\target\share\chem3\nt14.1\20210430D.6\NT1421043065.D

Date: 02-MAY-2021 10:49

Client ID:

Sample Info: 21D0180-03

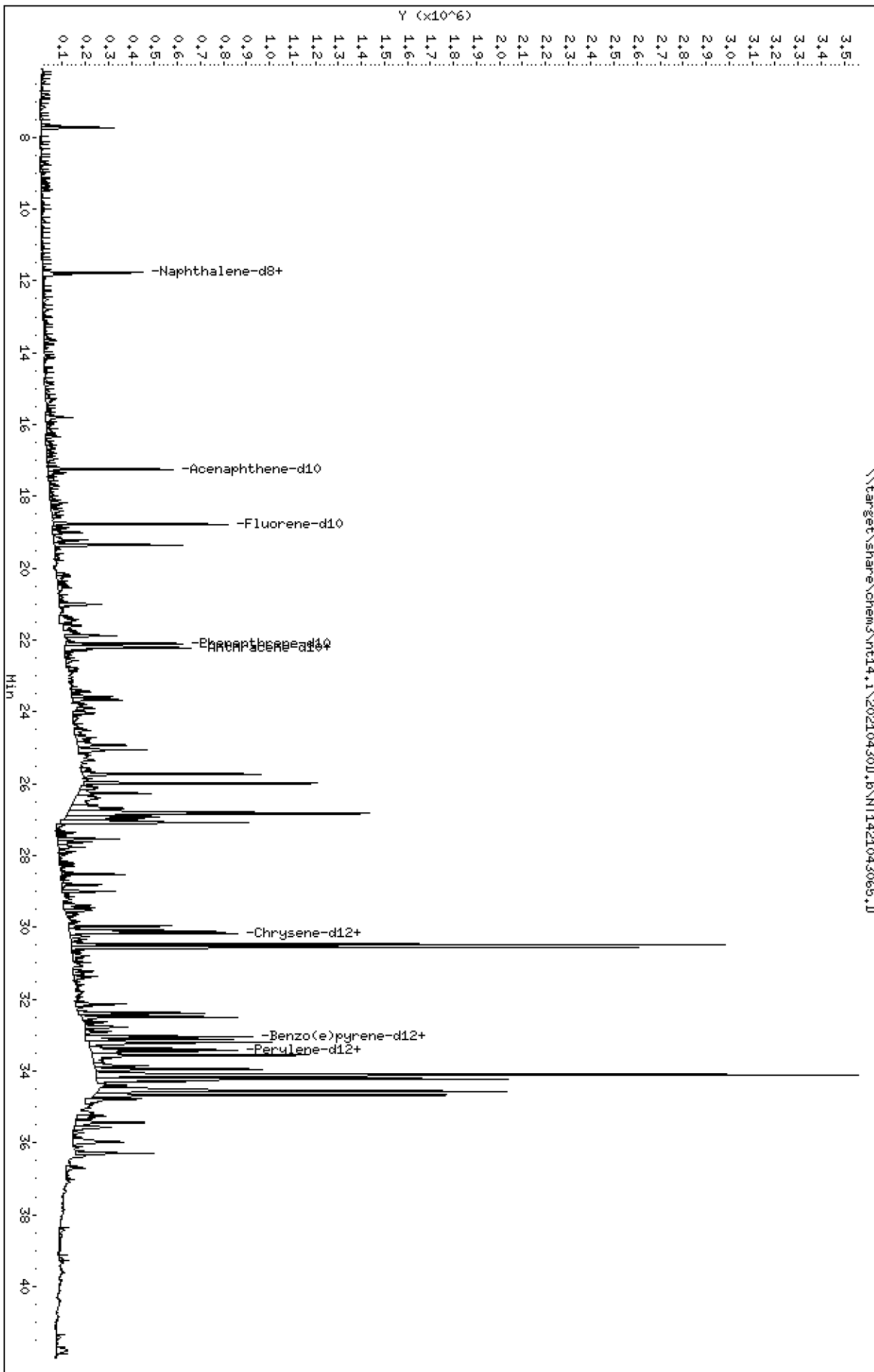
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14.1\20210430D.6\NT1421043065.D



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

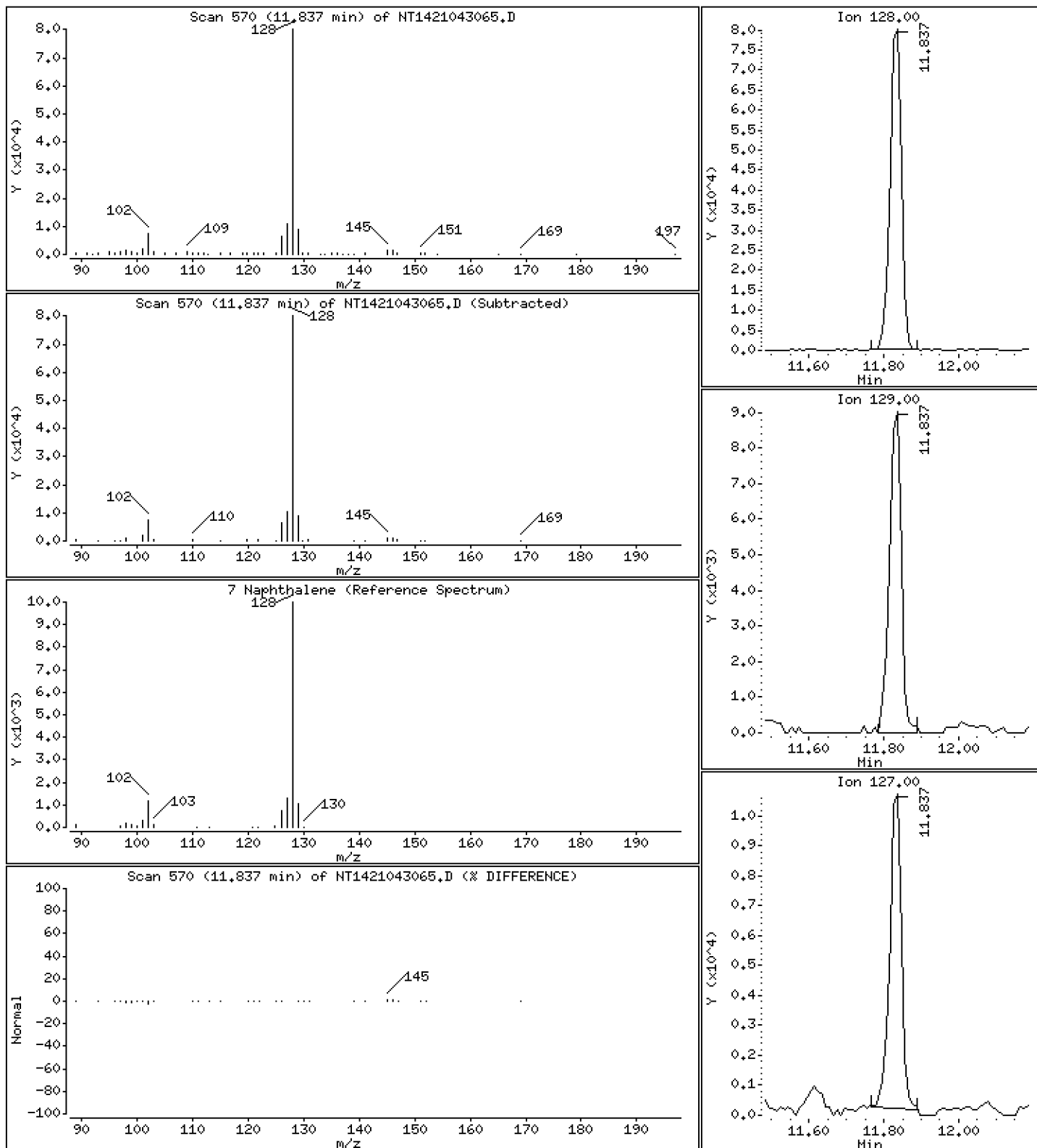
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

7 Naphthalene

Concentration: 0.5236 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

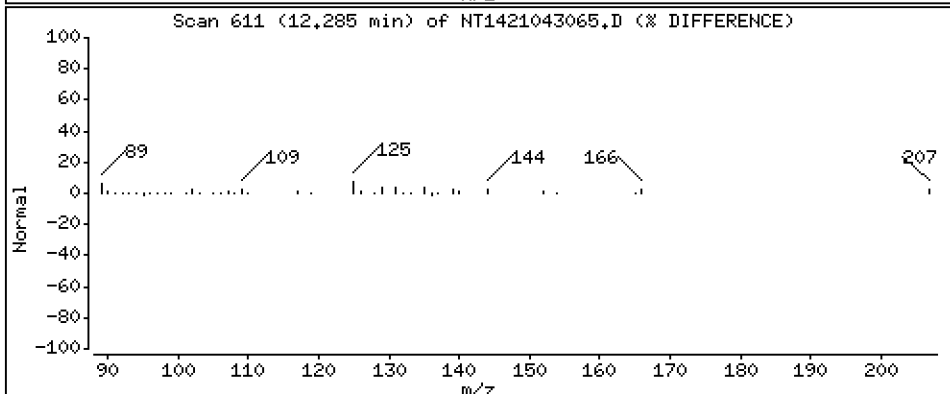
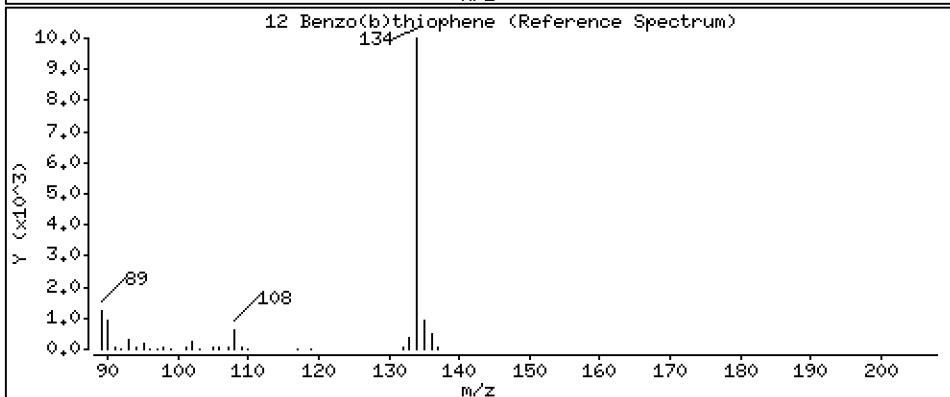
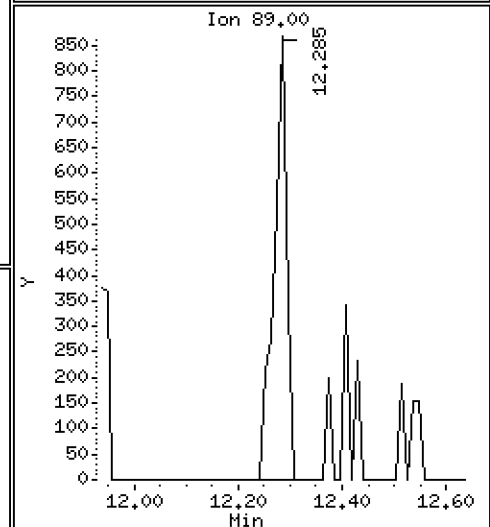
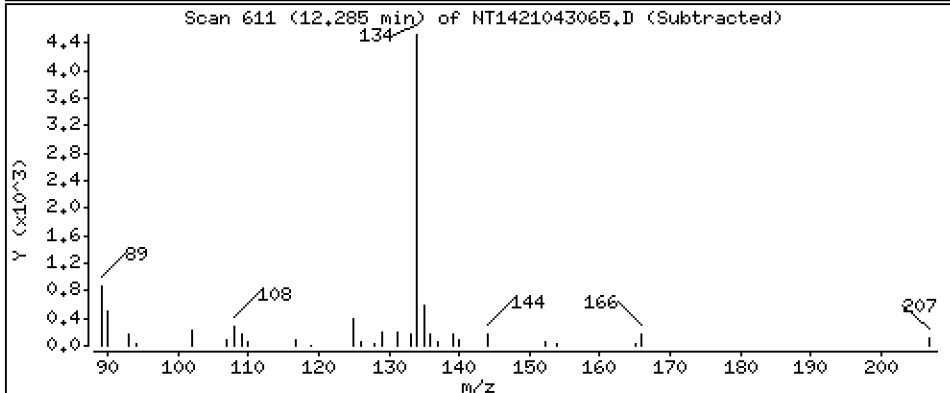
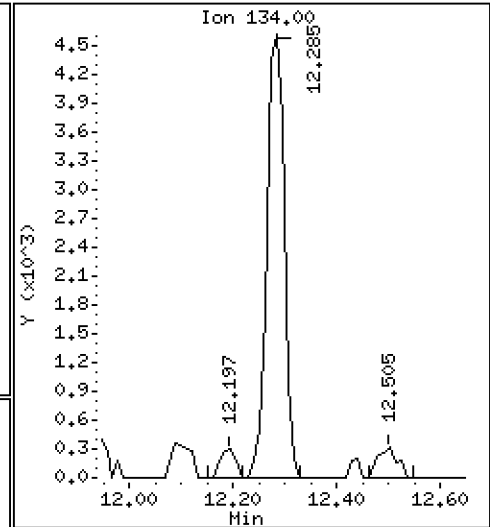
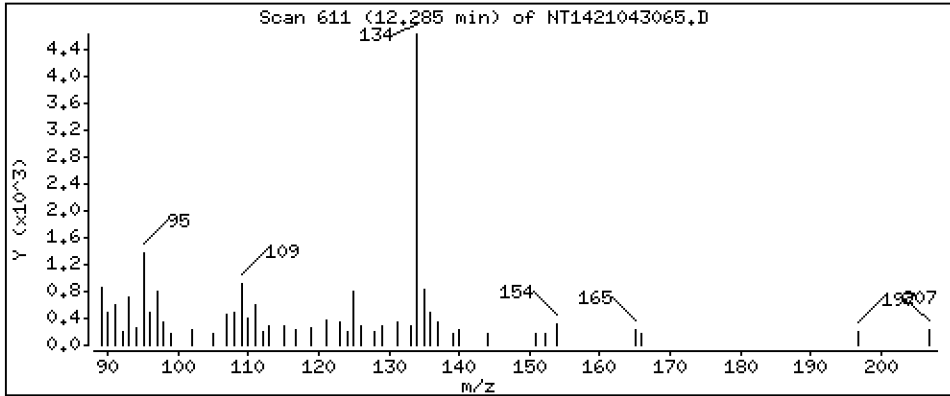
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

12 Benzo(b)thiophene

Concentration: 0.04074 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

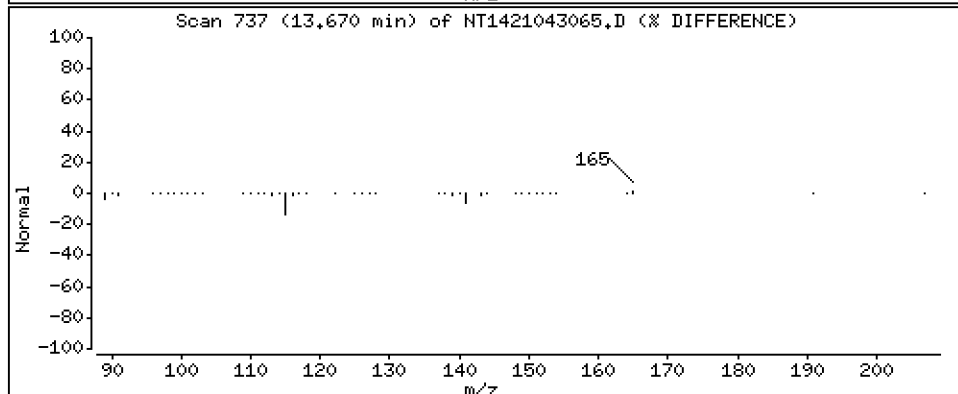
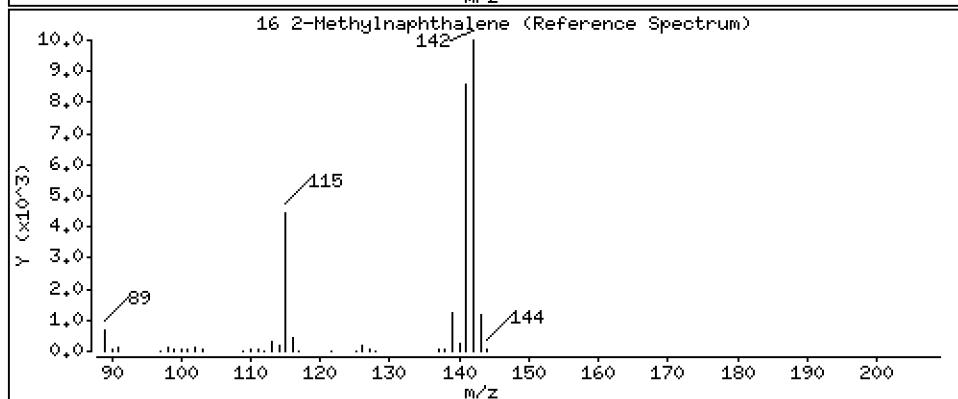
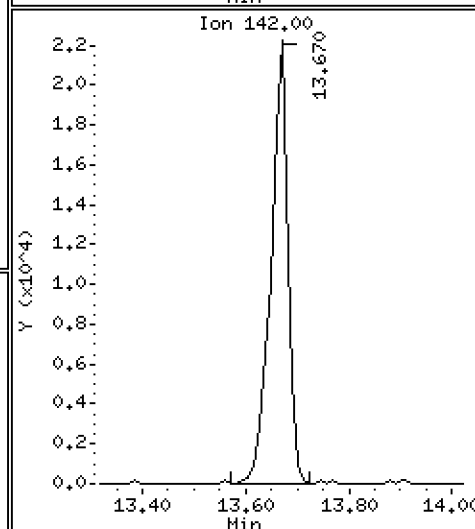
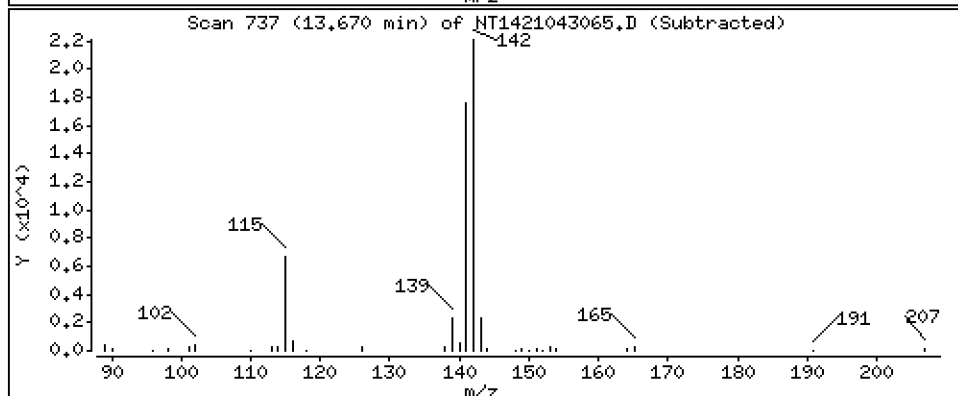
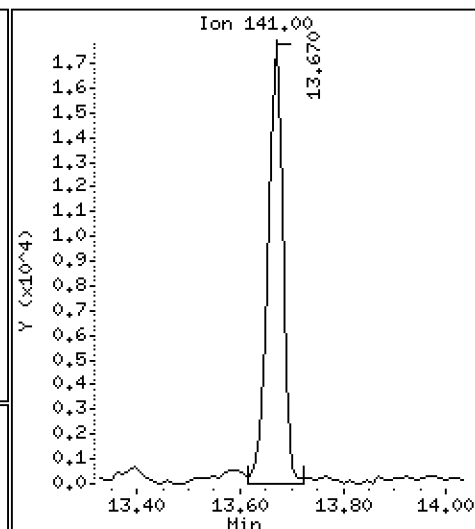
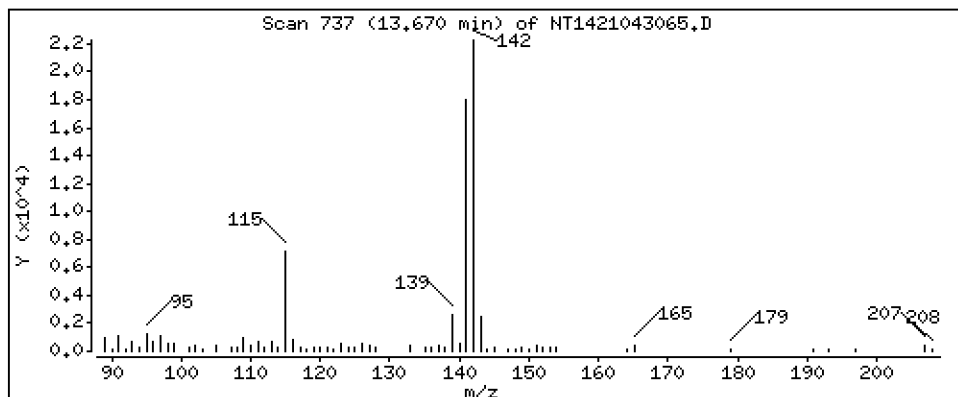
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

16 2-Methylnaphthalene

Concentration: 0.2147 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

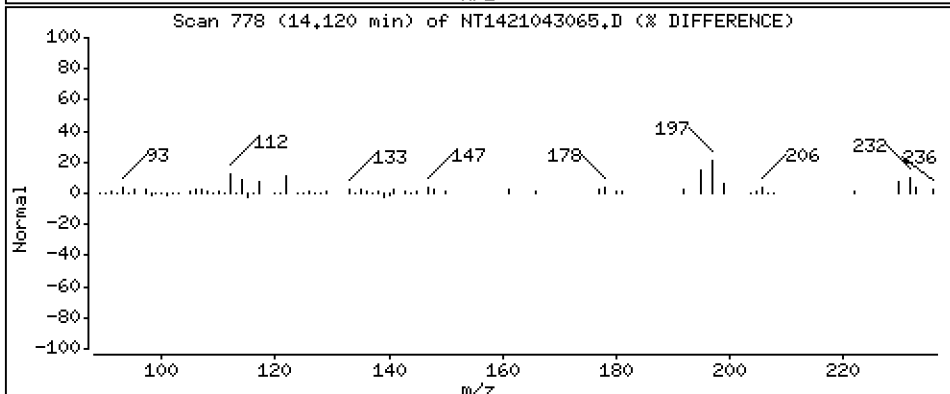
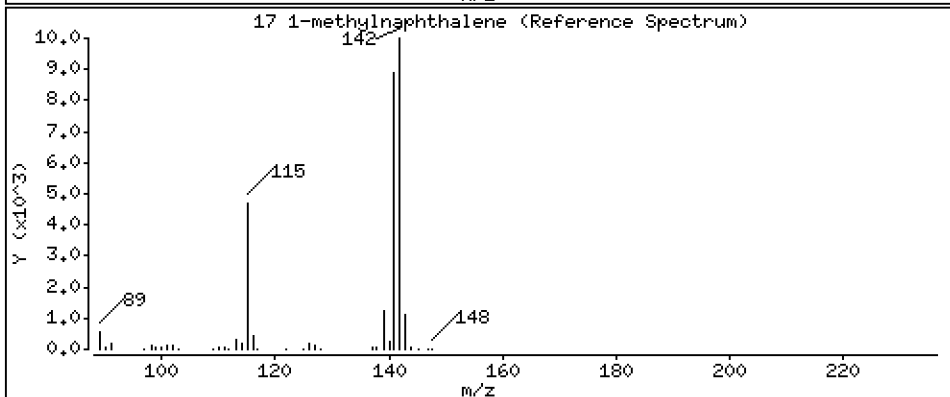
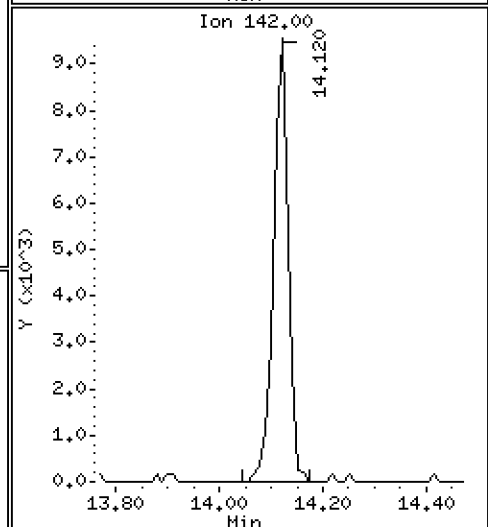
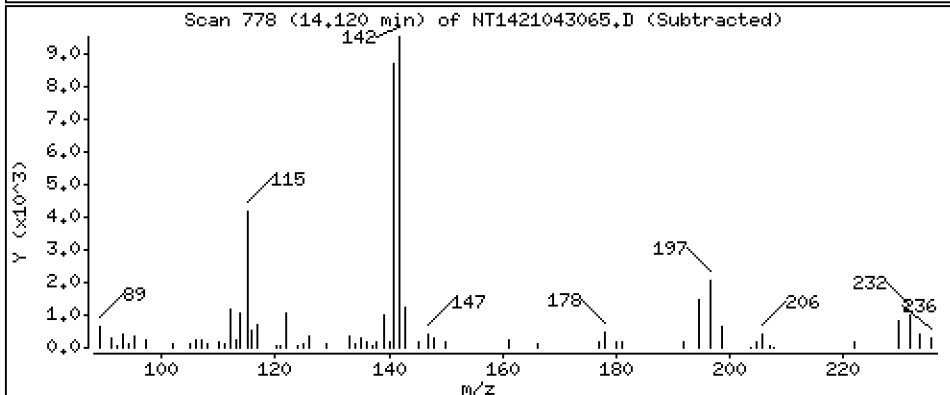
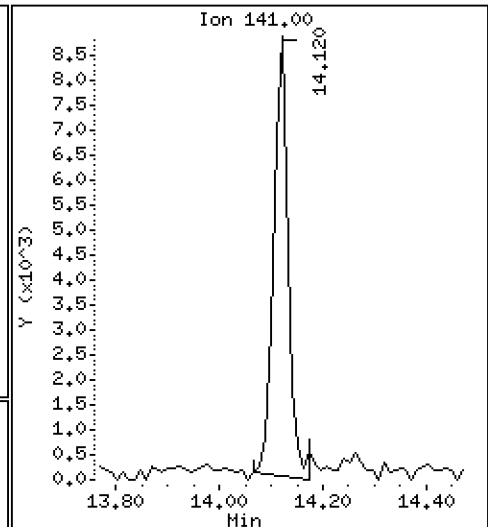
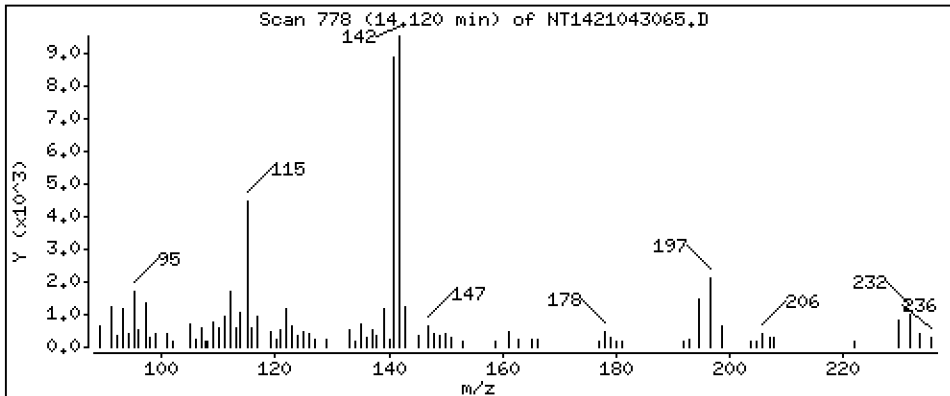
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 1-methylnaphthalene

Concentration: 0,1122 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

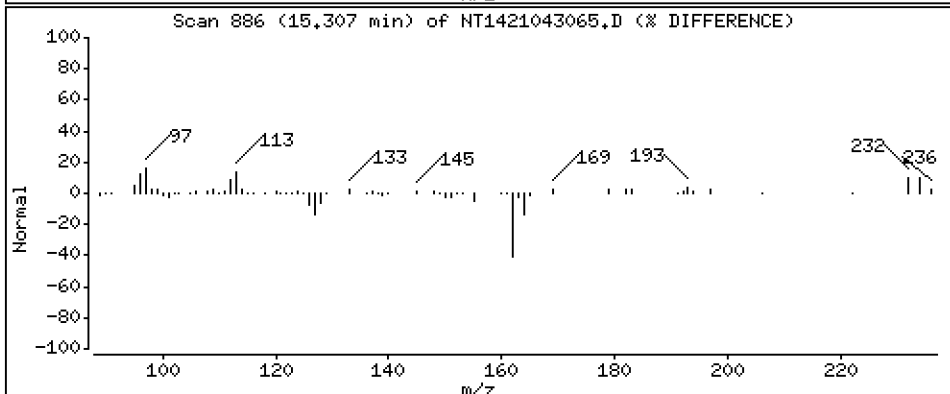
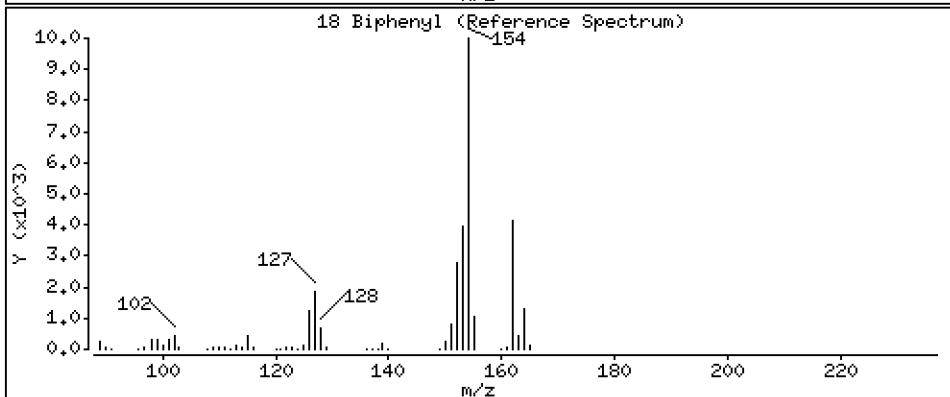
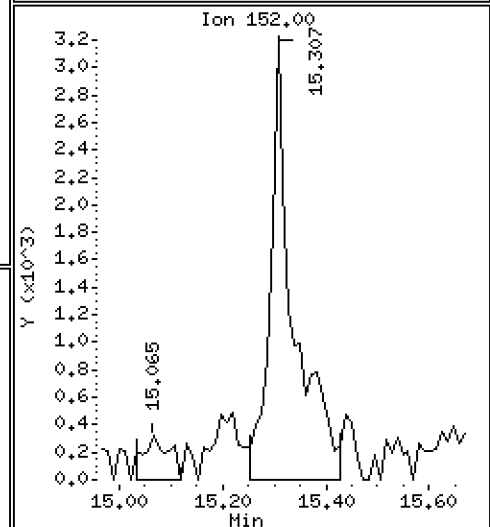
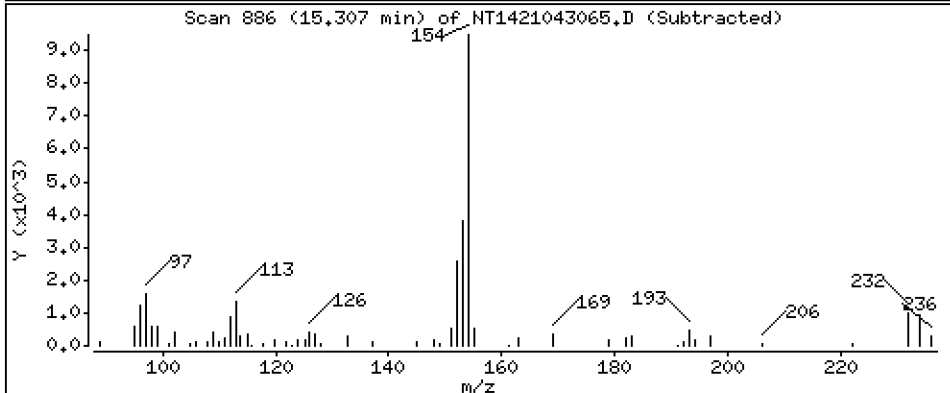
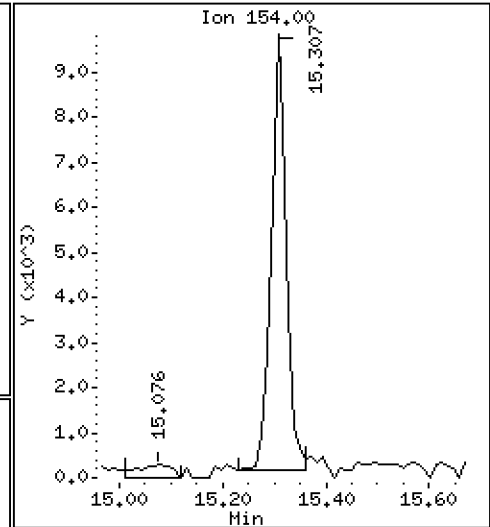
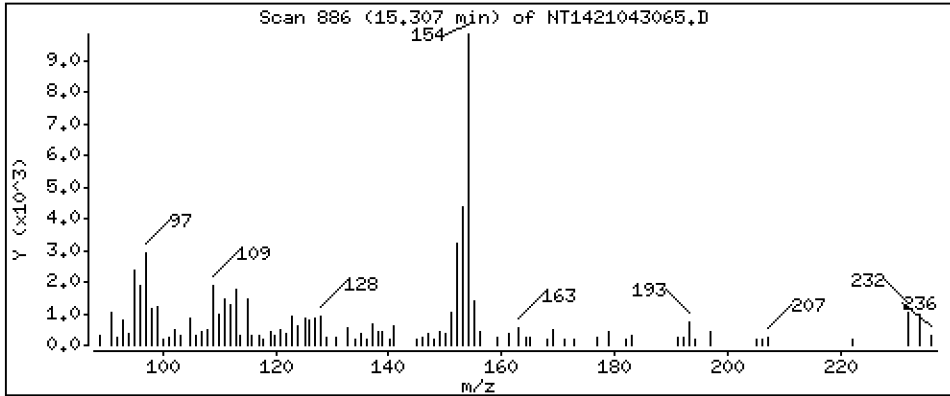
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

Concentration: 0.08406 ug/mL

18 Biphenyl



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

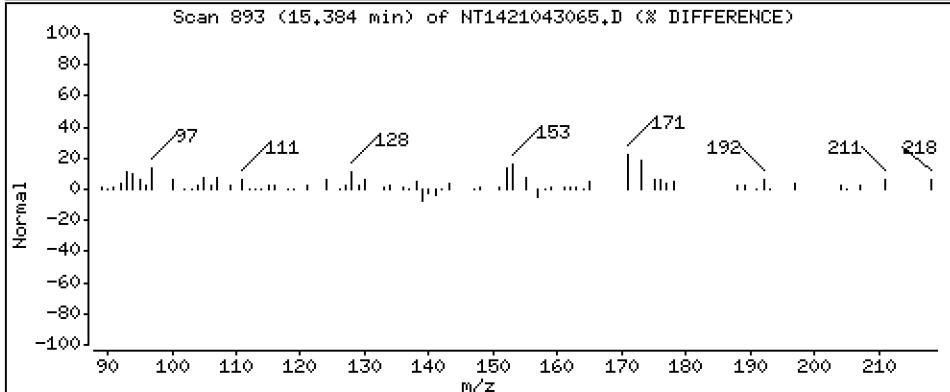
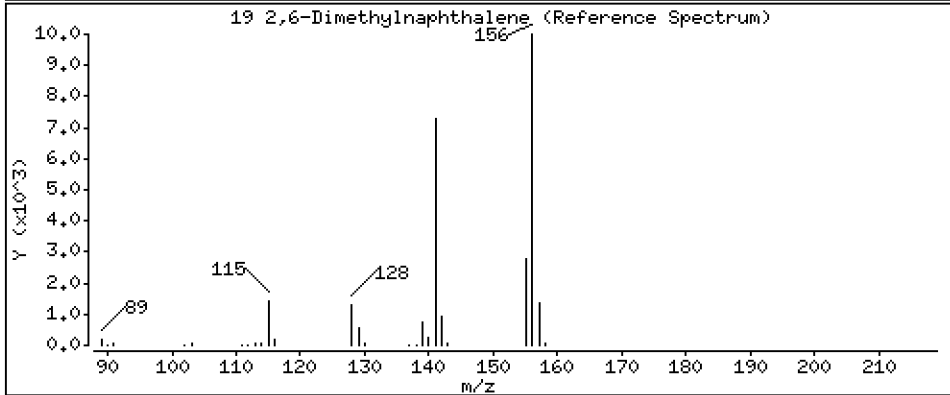
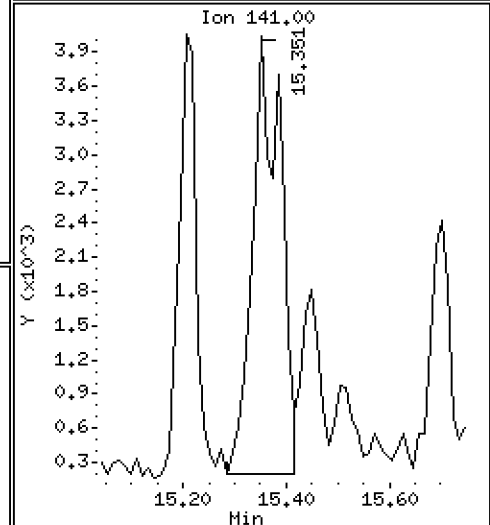
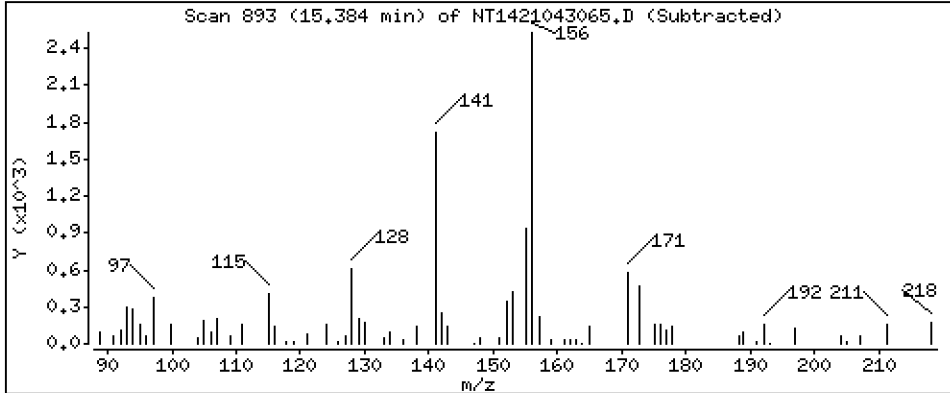
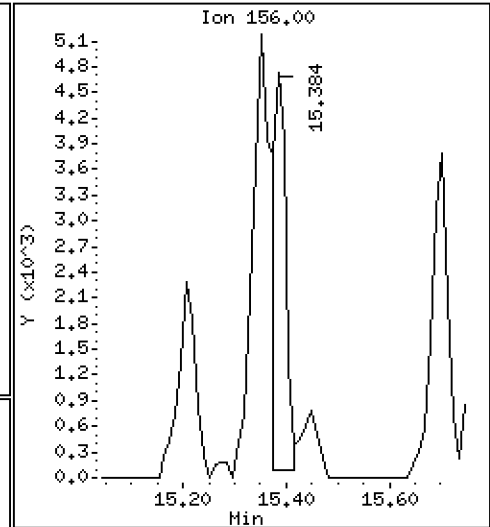
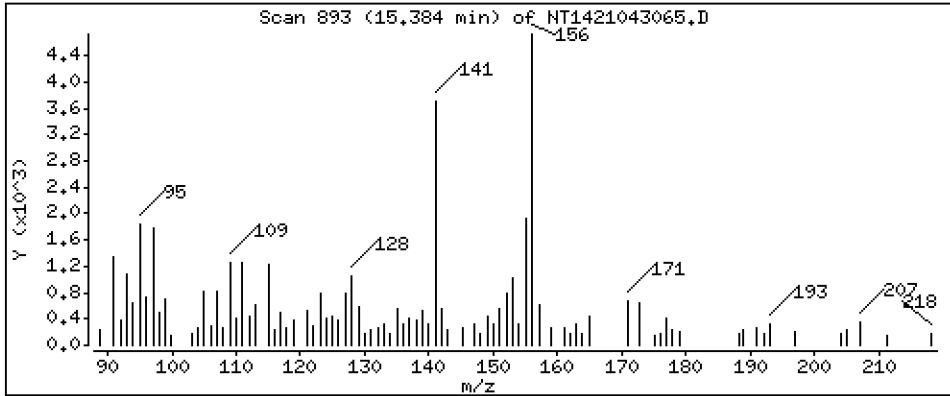
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

19 2,6-Dimethylnaphthalene

Concentration: 0.05180 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

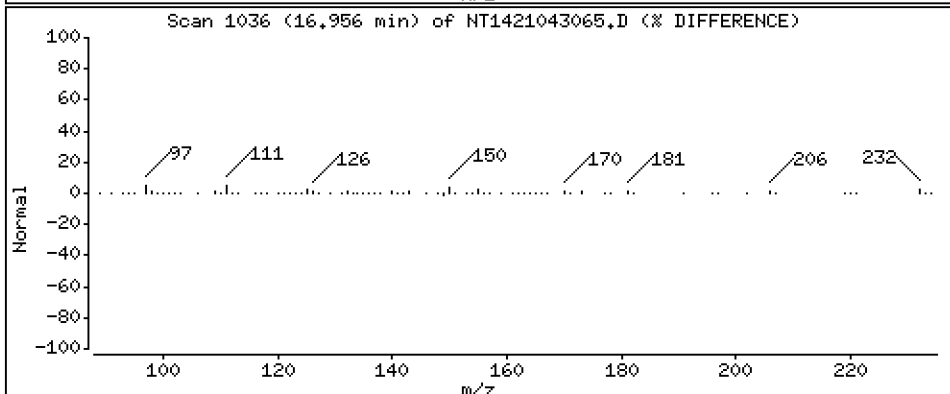
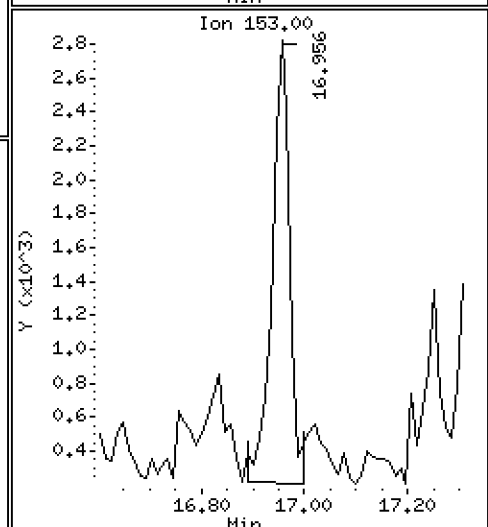
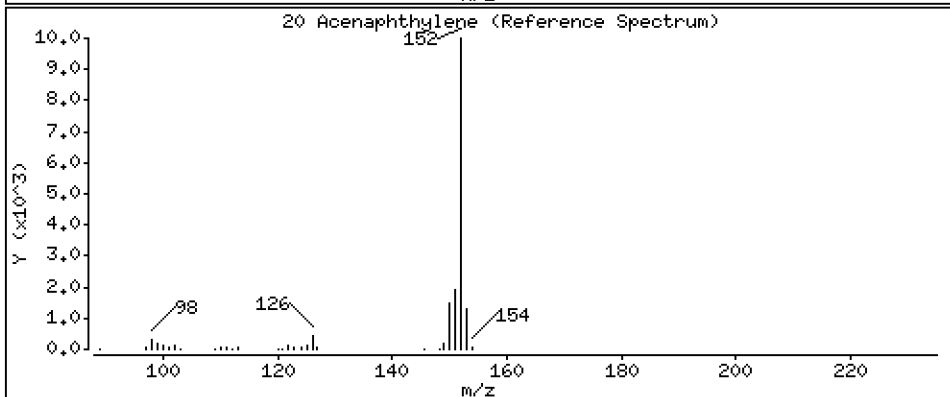
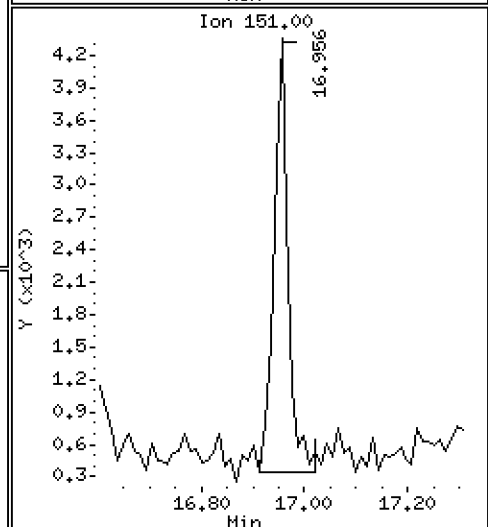
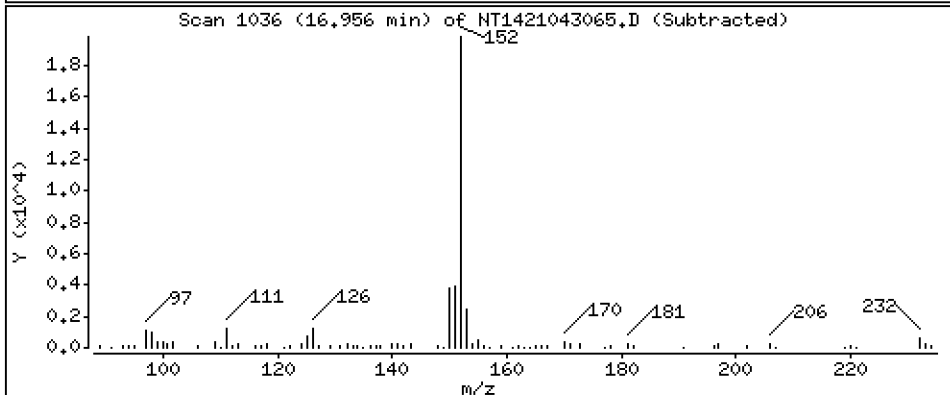
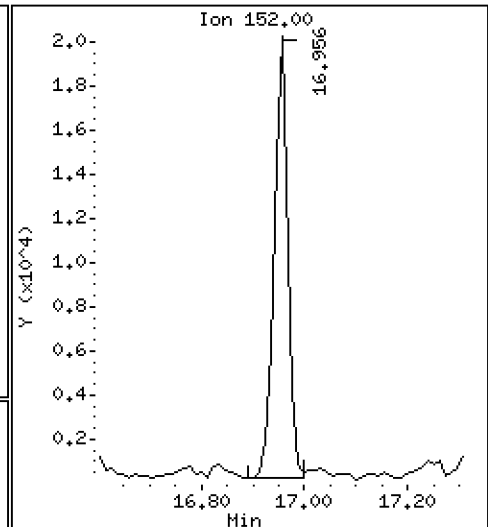
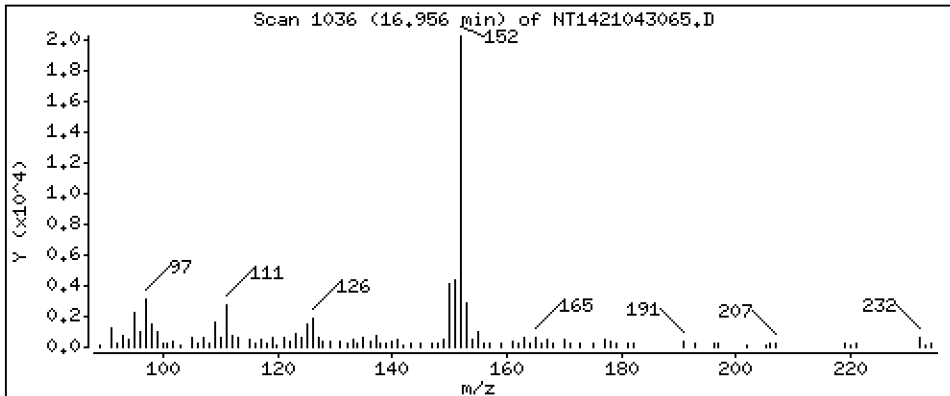
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

20 Acenaphthylene

Concentration: 0,1455 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

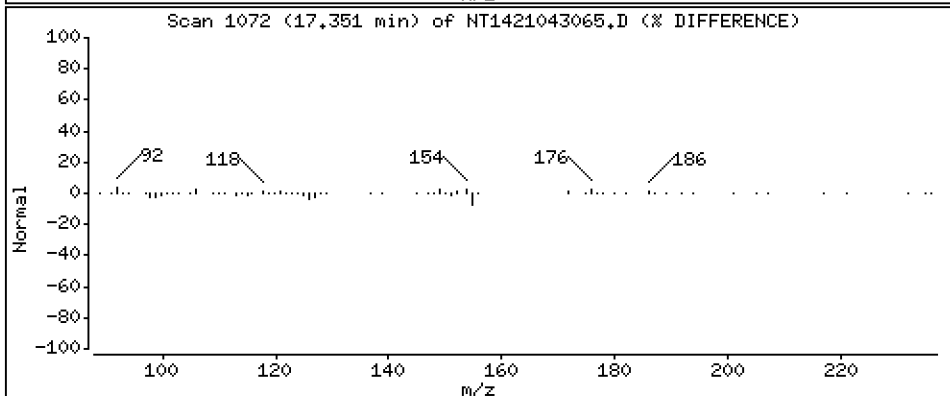
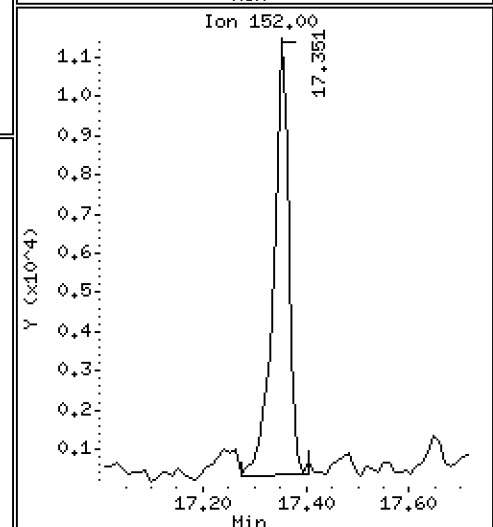
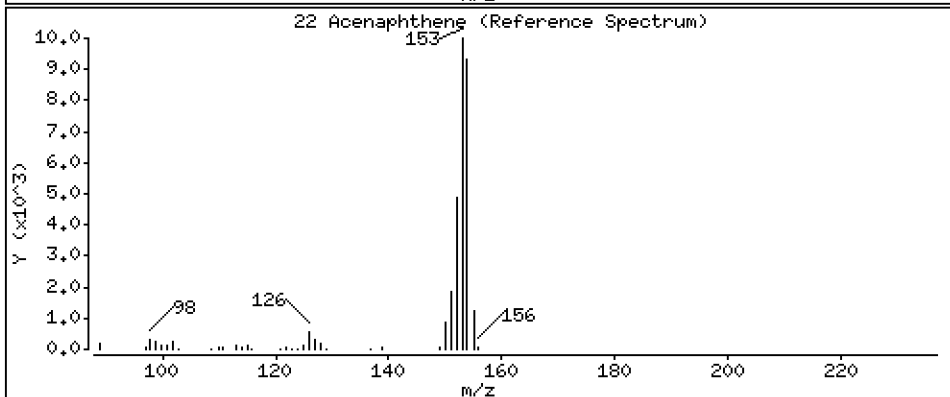
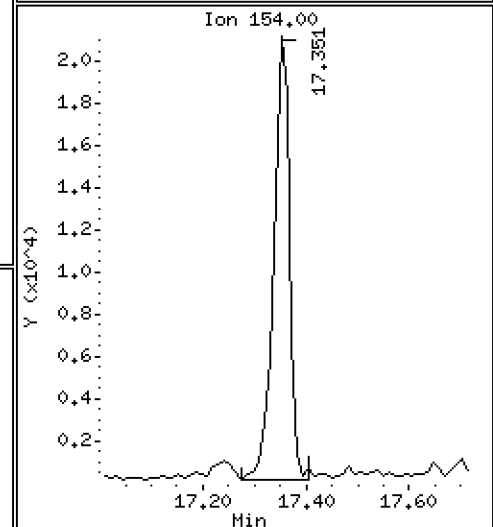
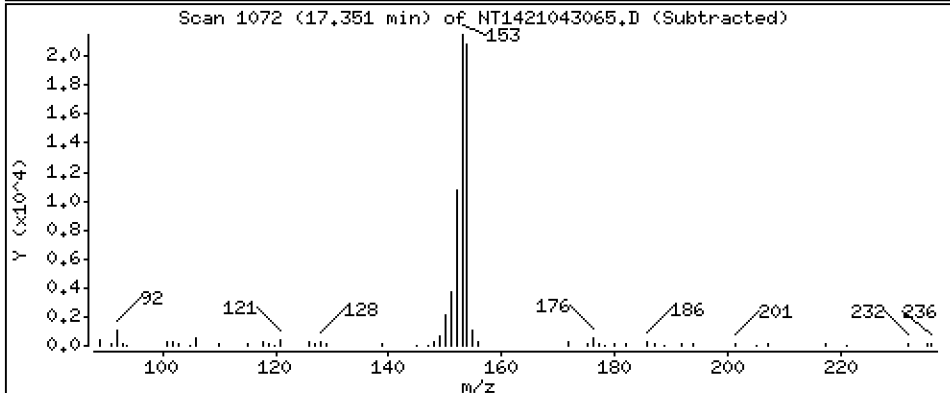
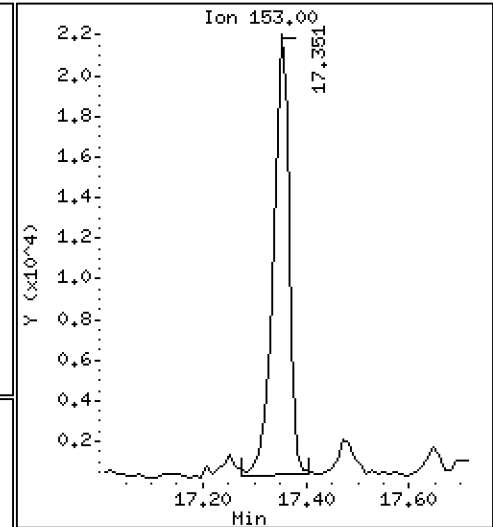
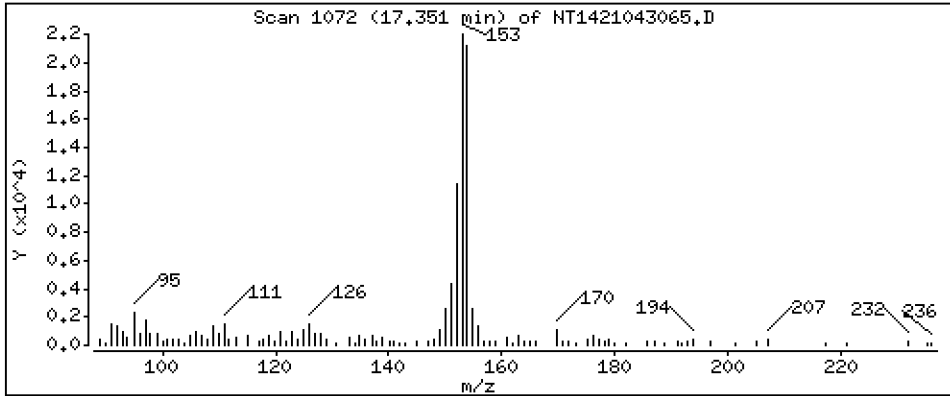
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Acenaphthene

Concentration: 0,2745 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

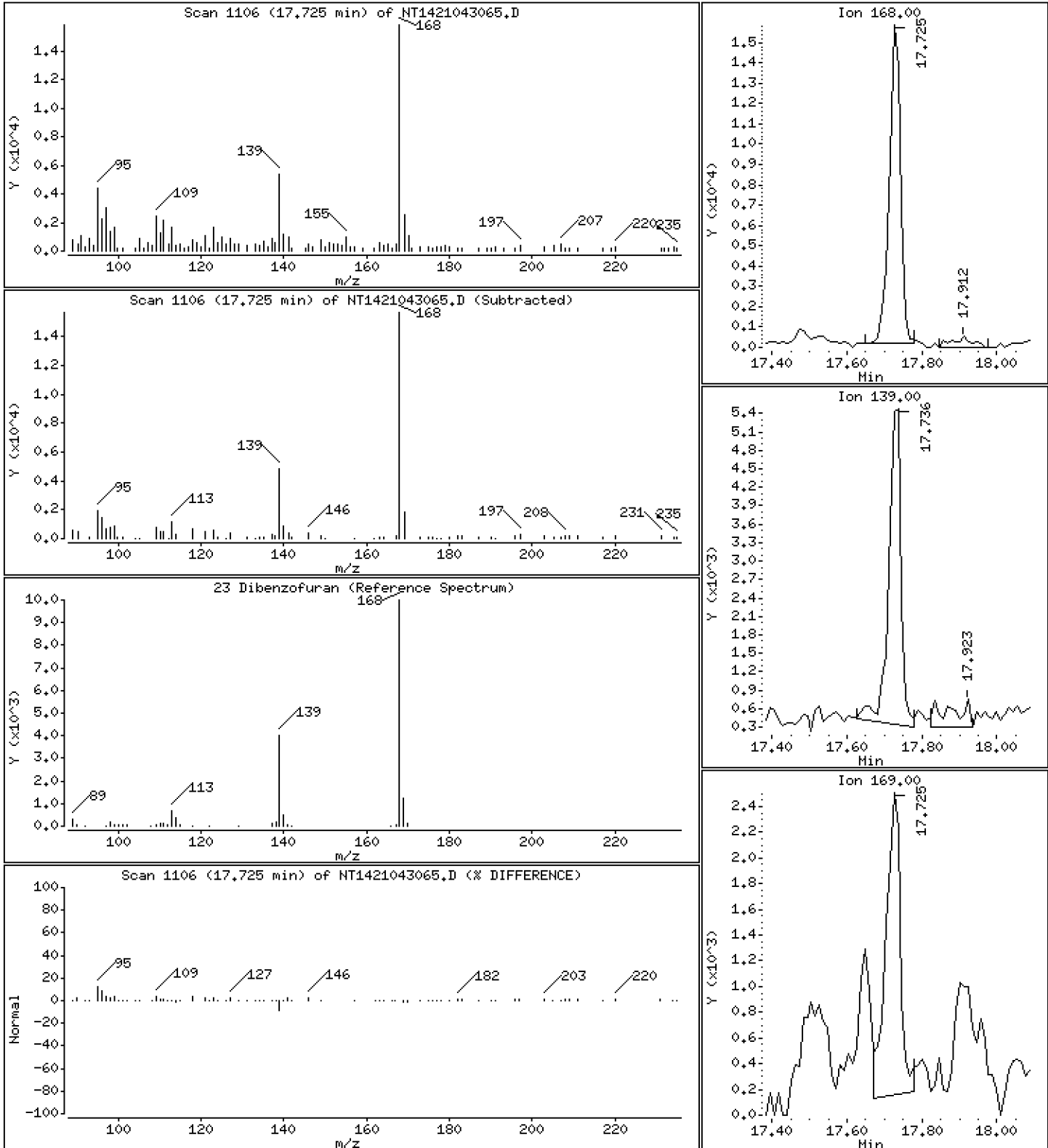
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 Dibenzofuran

Concentration: 0,1287 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

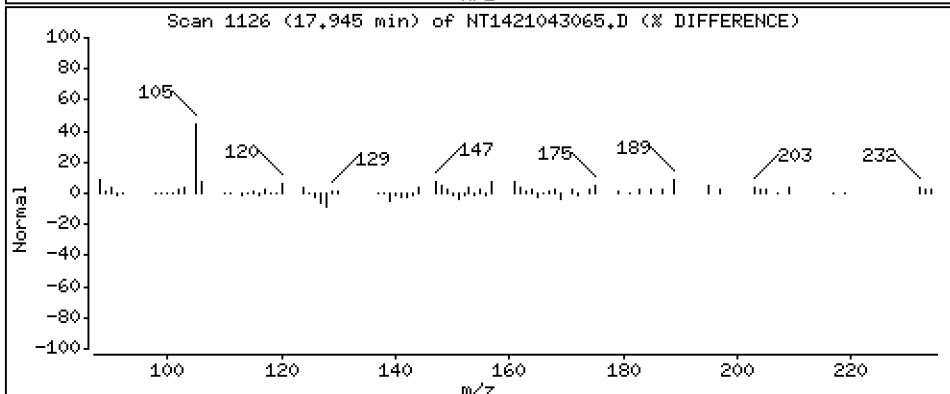
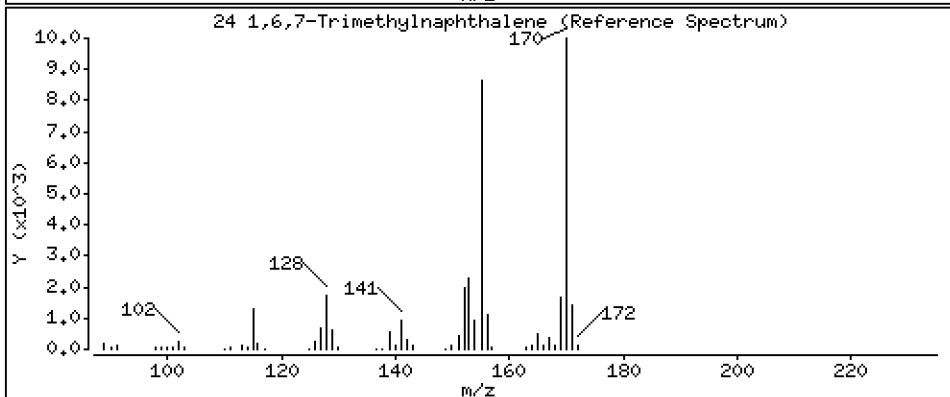
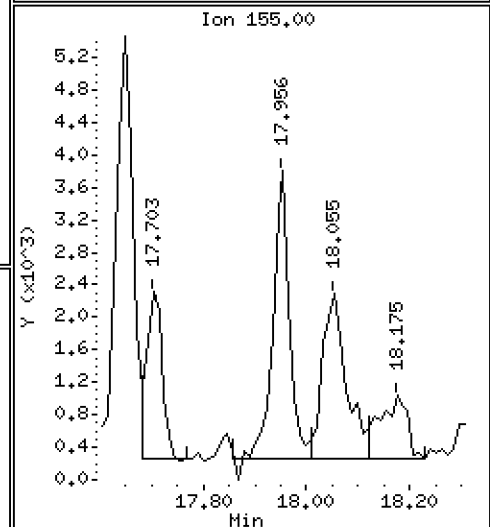
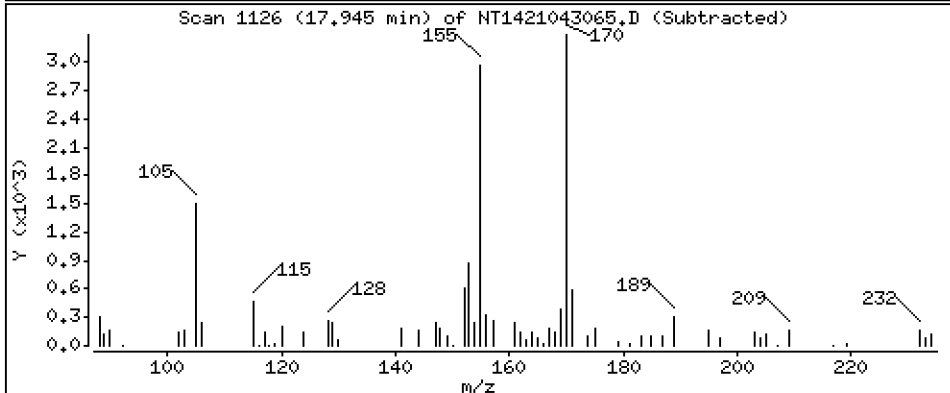
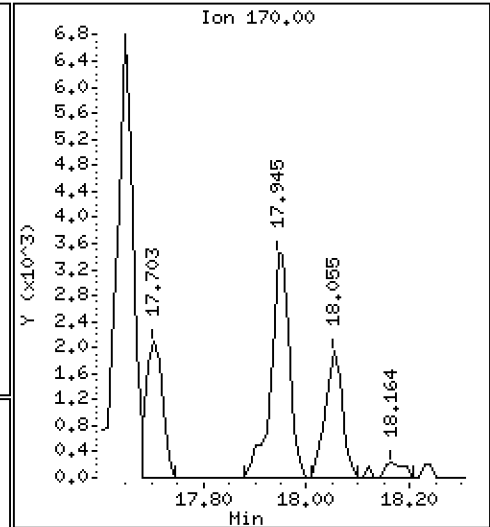
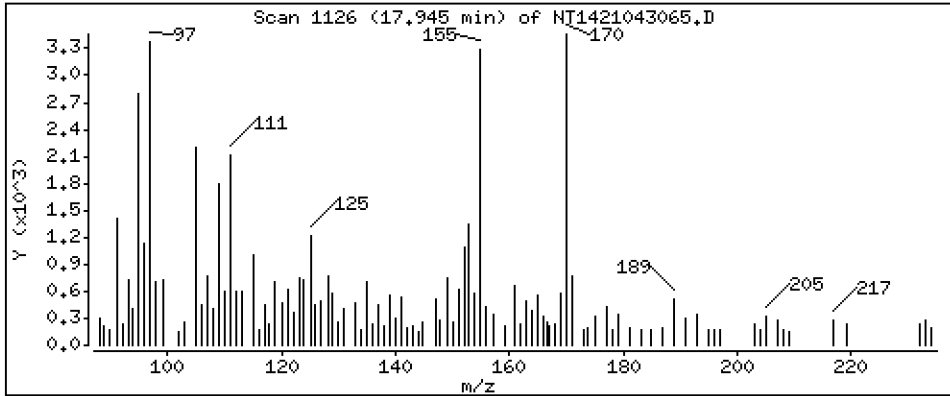
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

24 1,6,7-Trimethylnaphthalene

Concentration: 0.06025 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

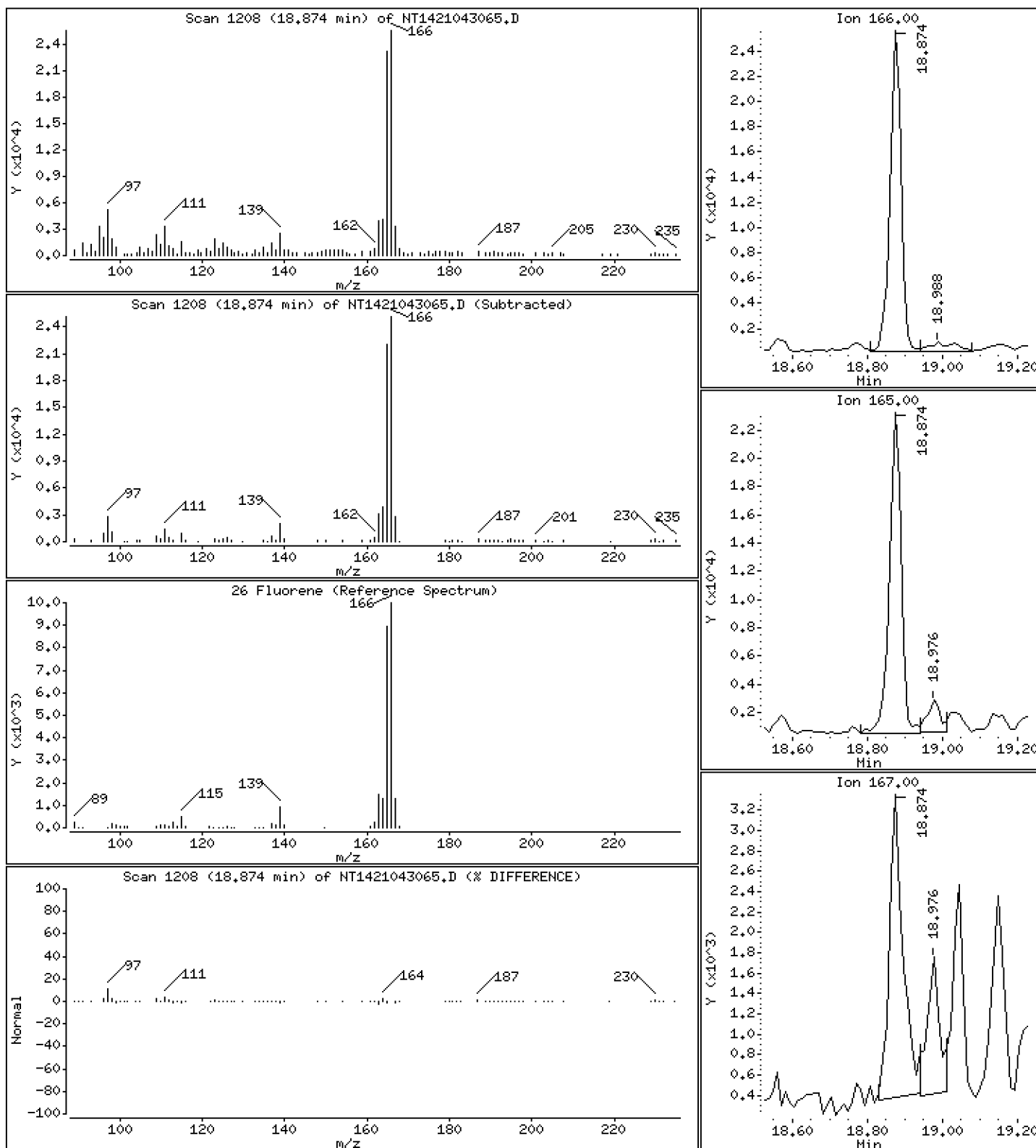
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Fluorene

Concentration: 0,2744 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

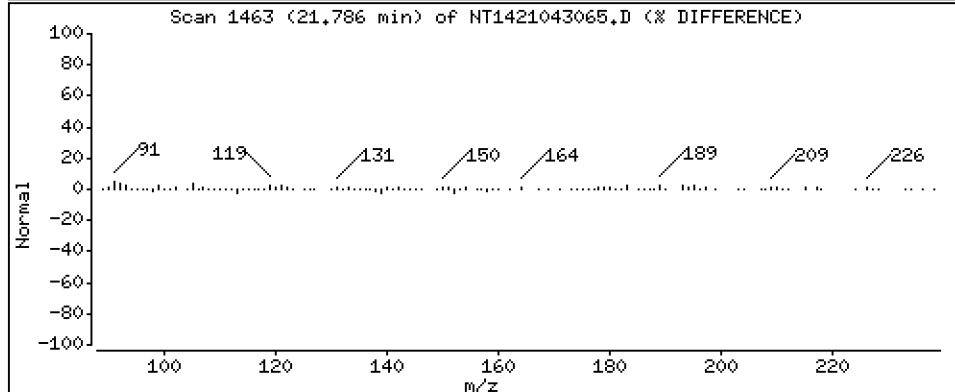
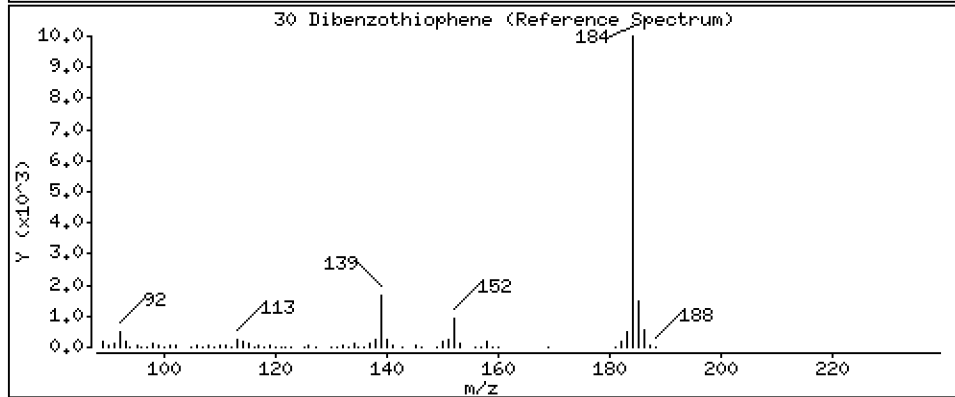
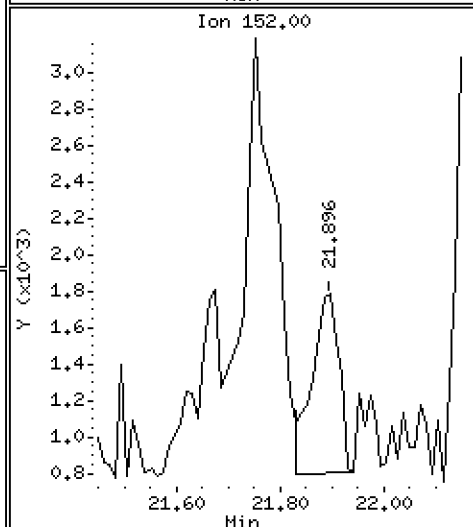
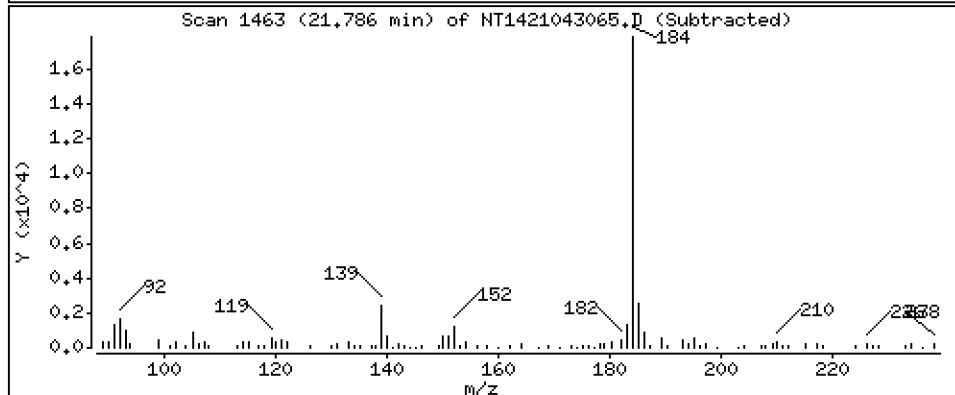
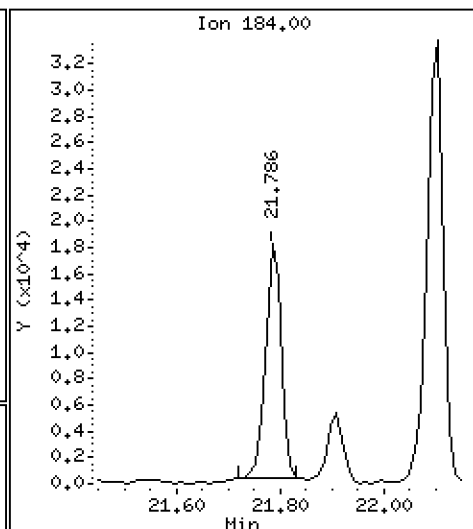
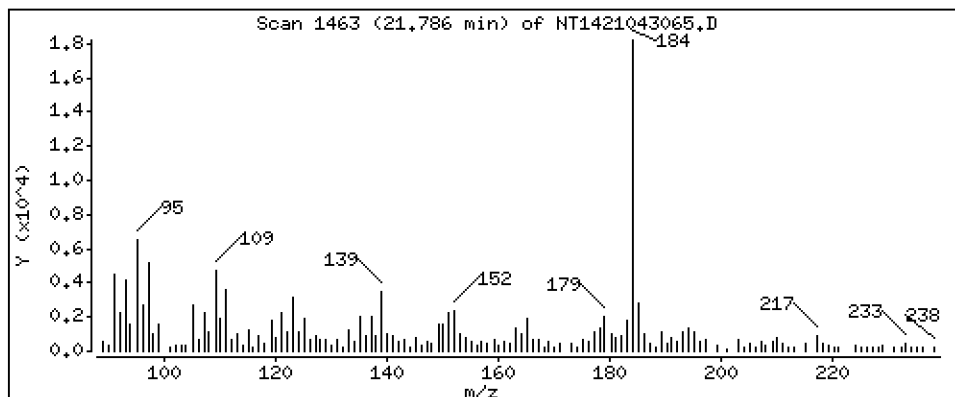
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Dibenzothiophene

Concentration: 0,1521 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

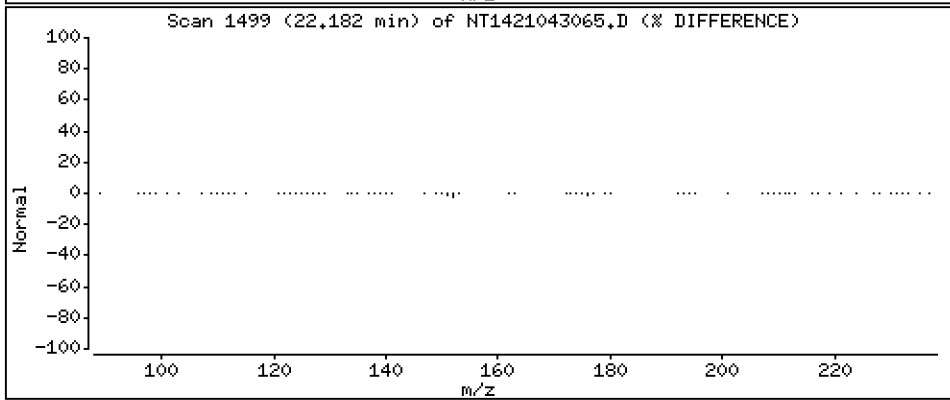
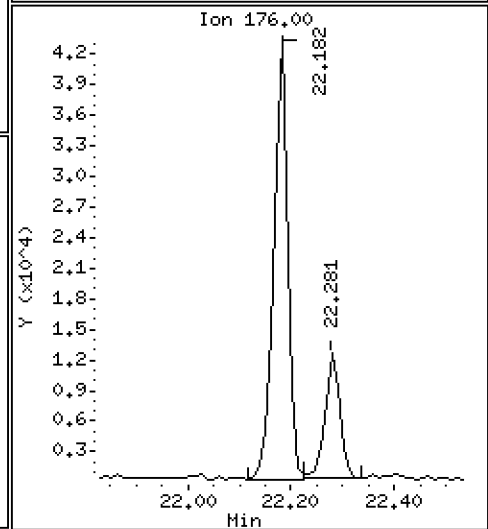
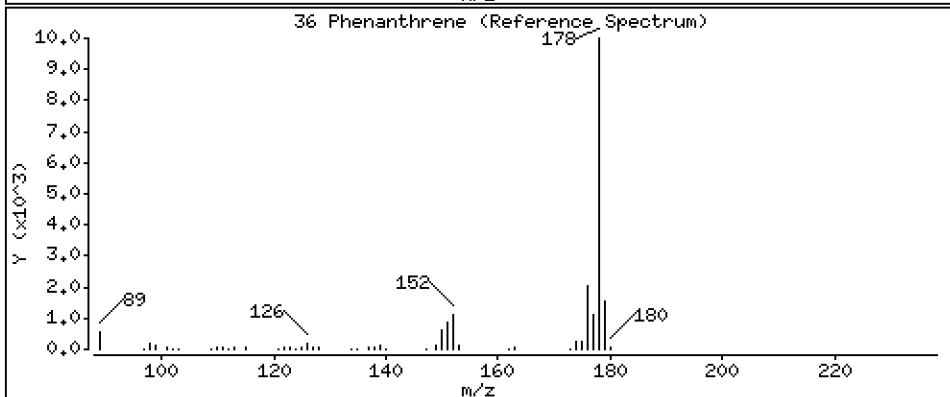
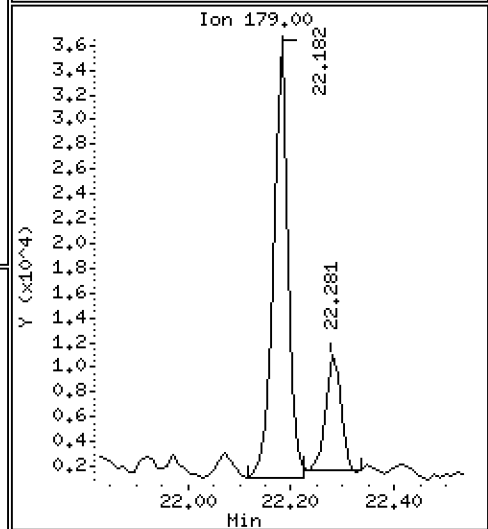
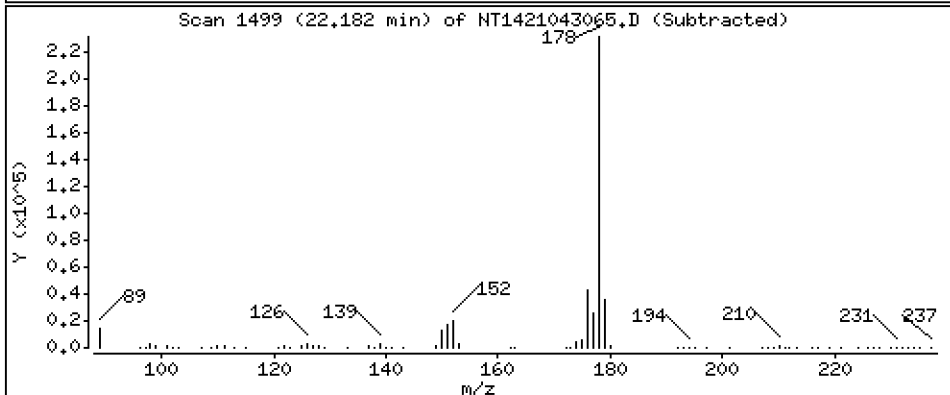
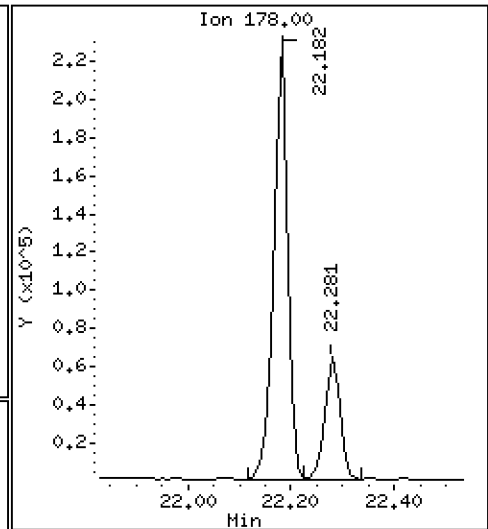
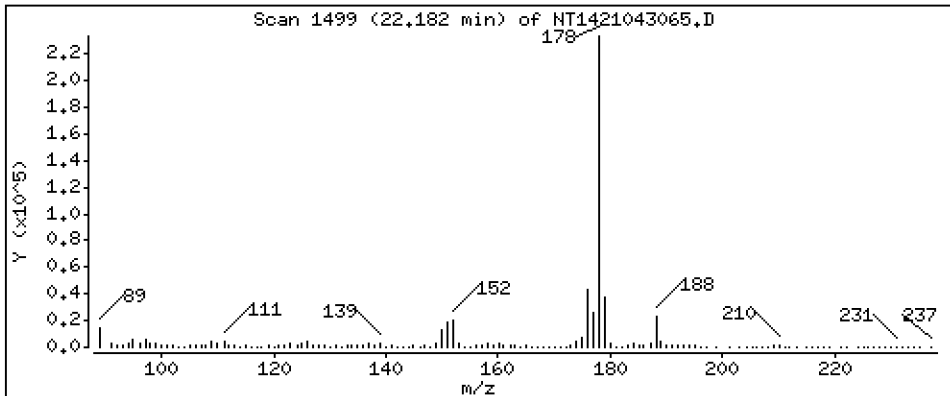
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

36 Phenanthrene

Concentration: 1,503 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

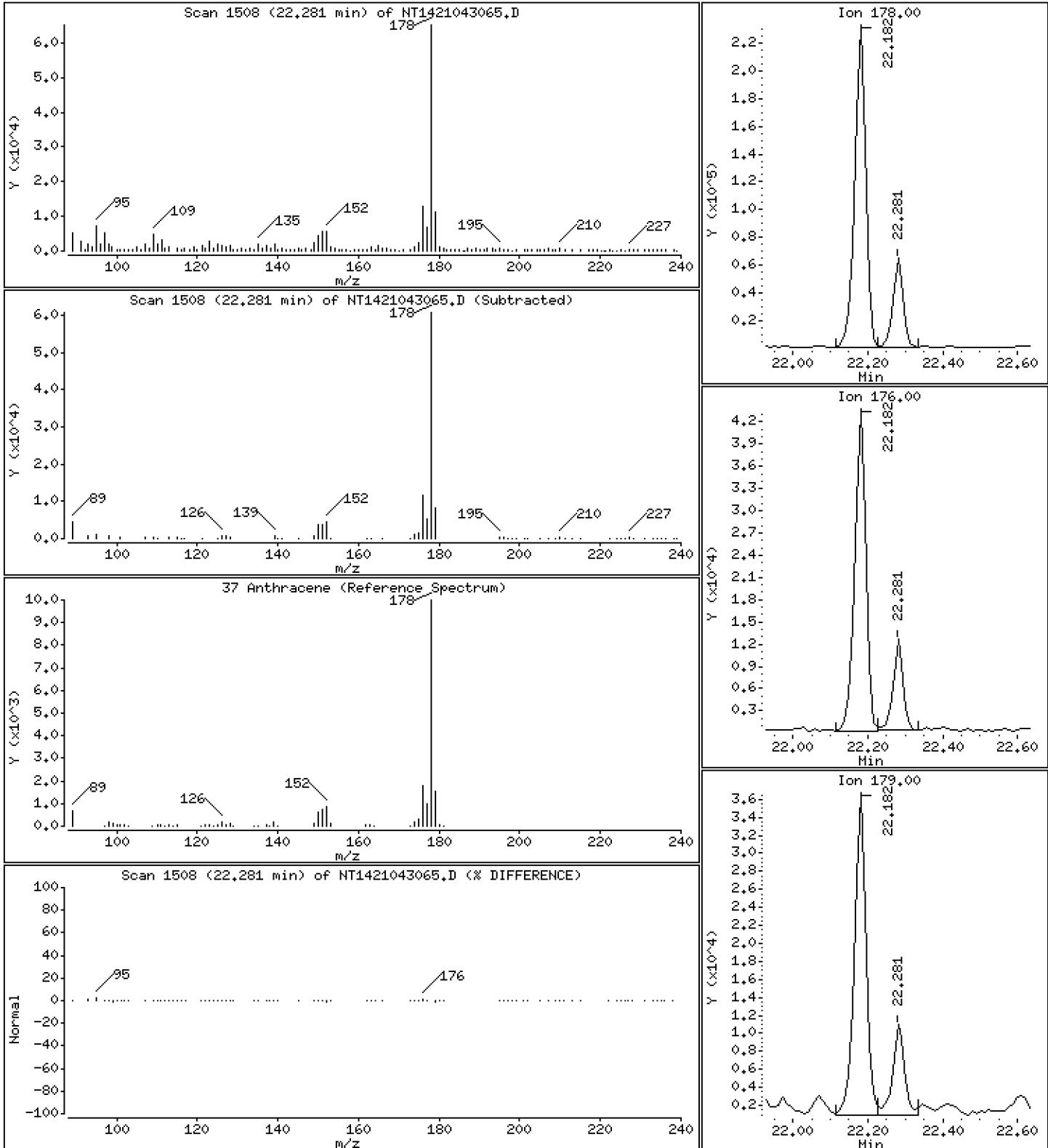
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

37 Anthracene

Concentration: 0,4586 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

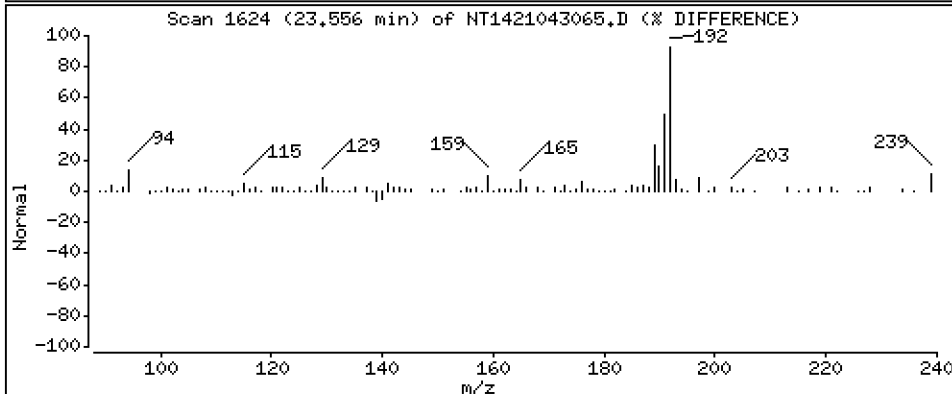
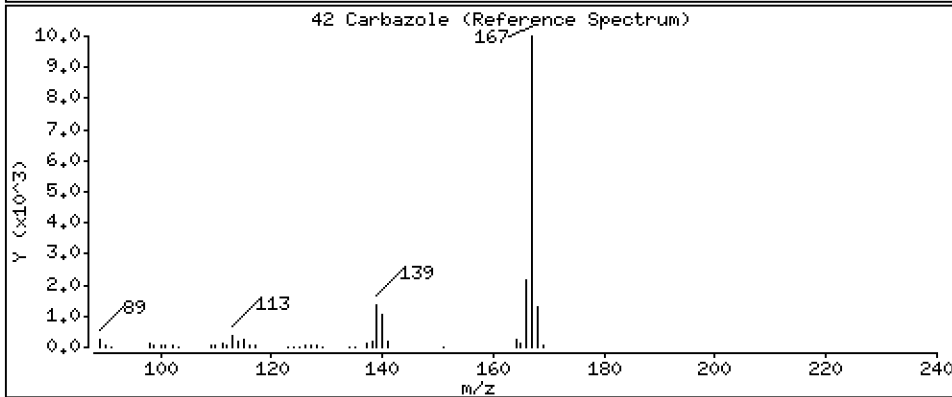
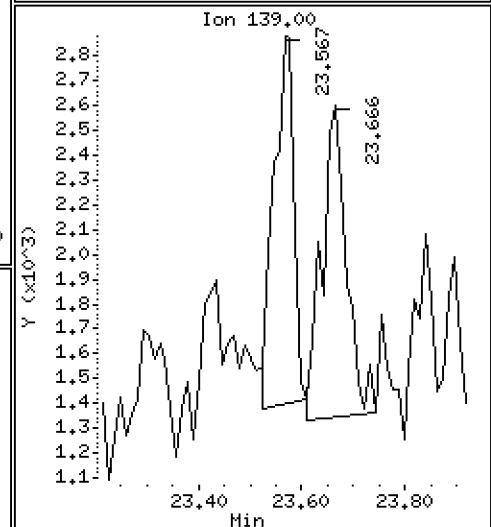
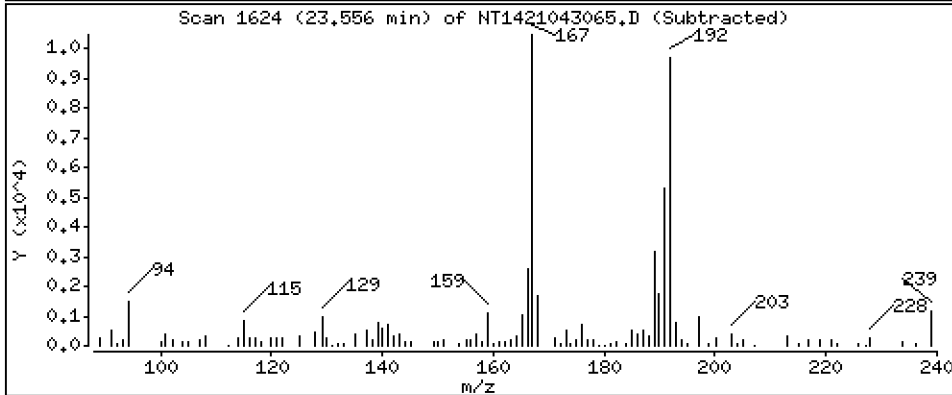
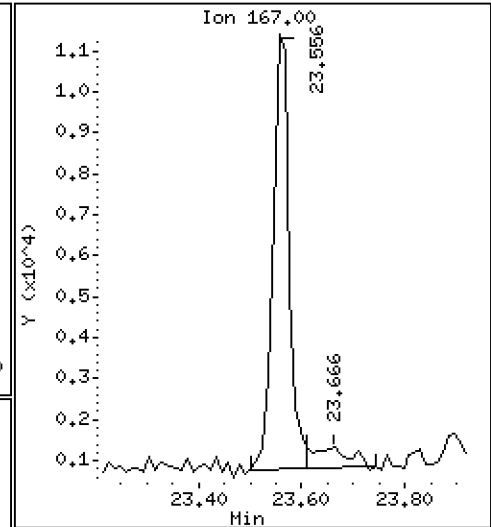
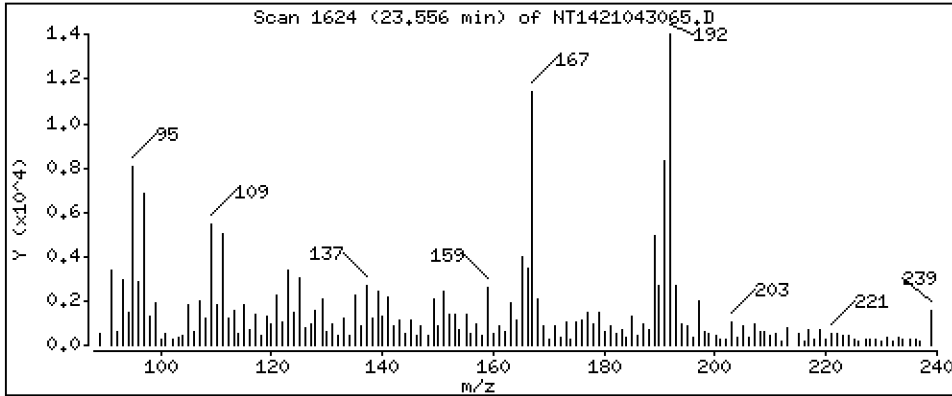
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

42 Carbazole

Concentration: 0.1047 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

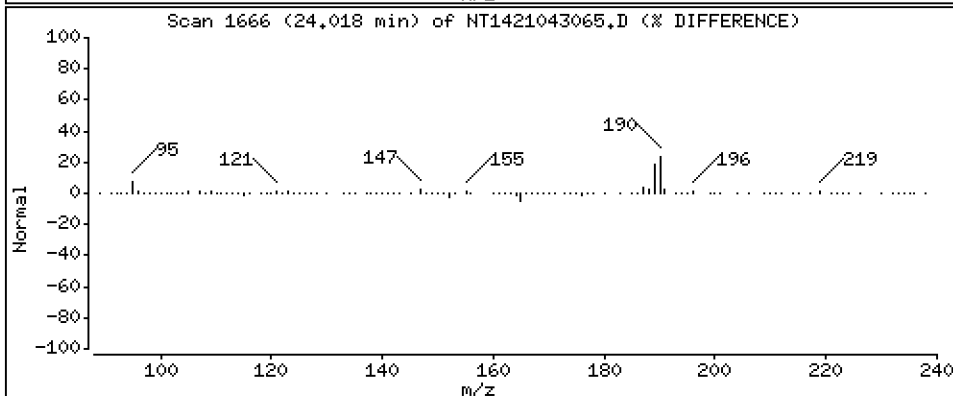
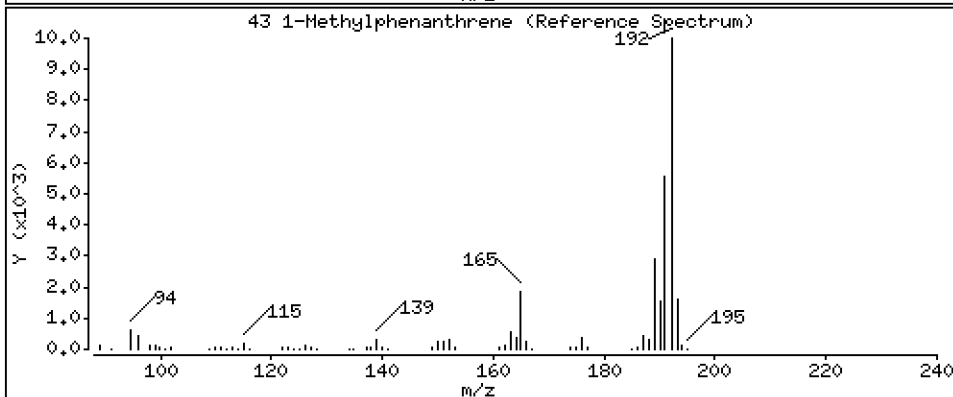
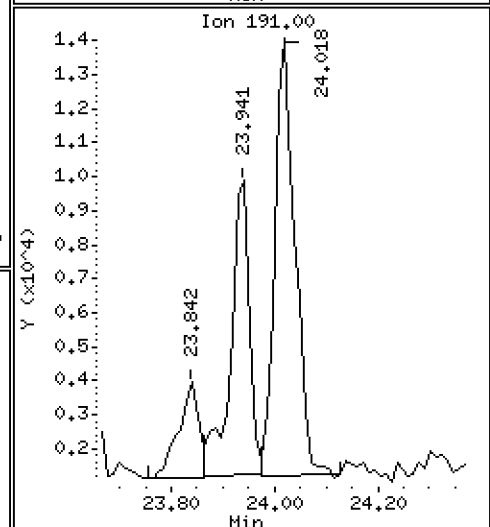
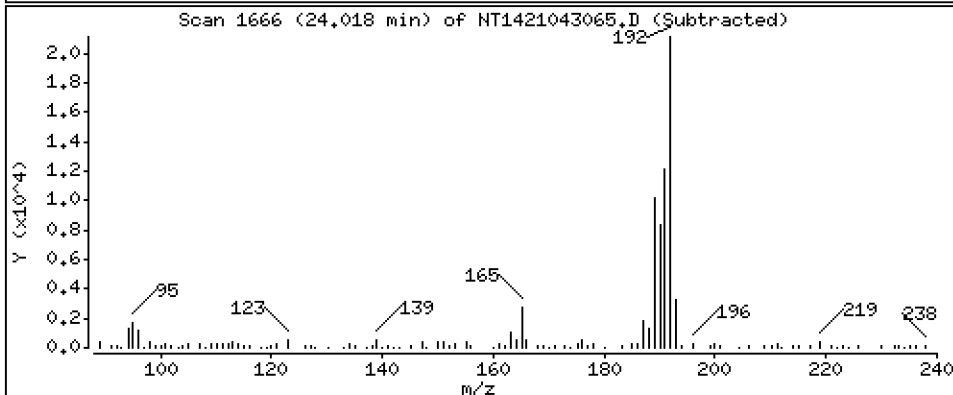
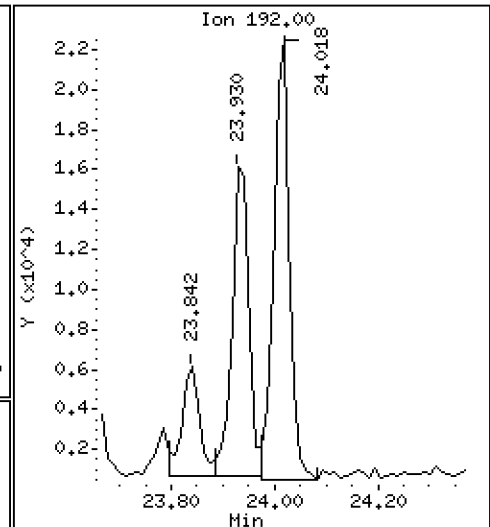
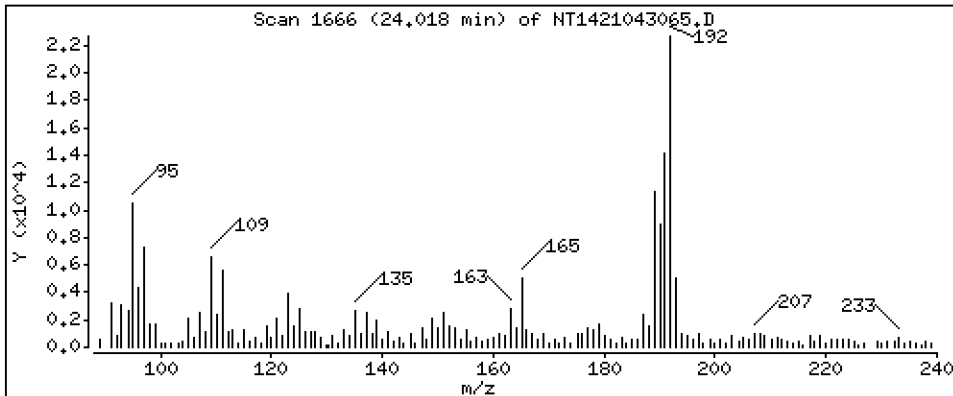
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

43 1-Methylphenanthrene

Concentration: 0.2658 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

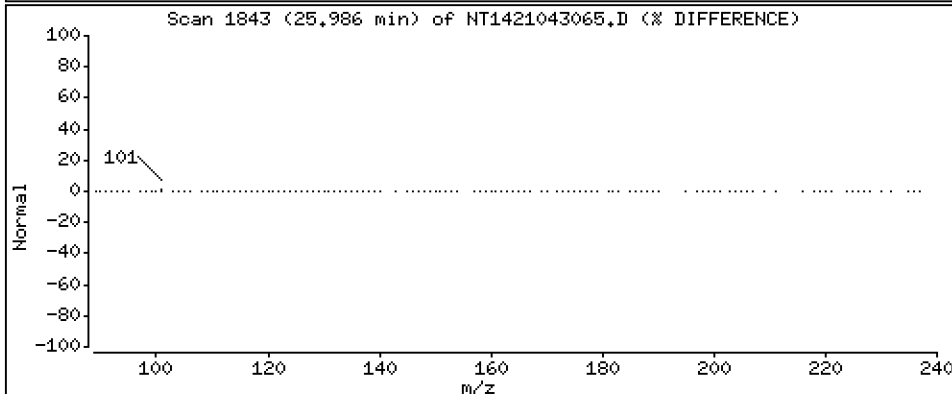
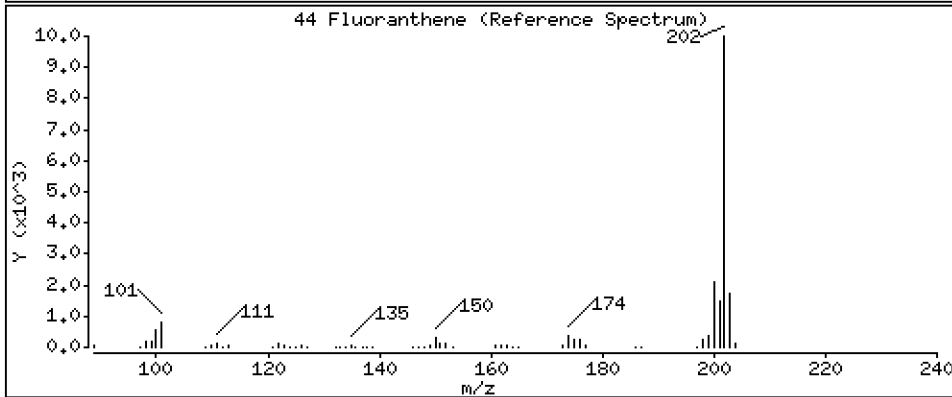
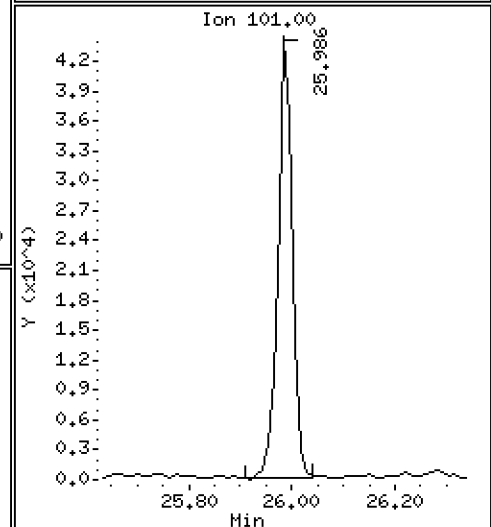
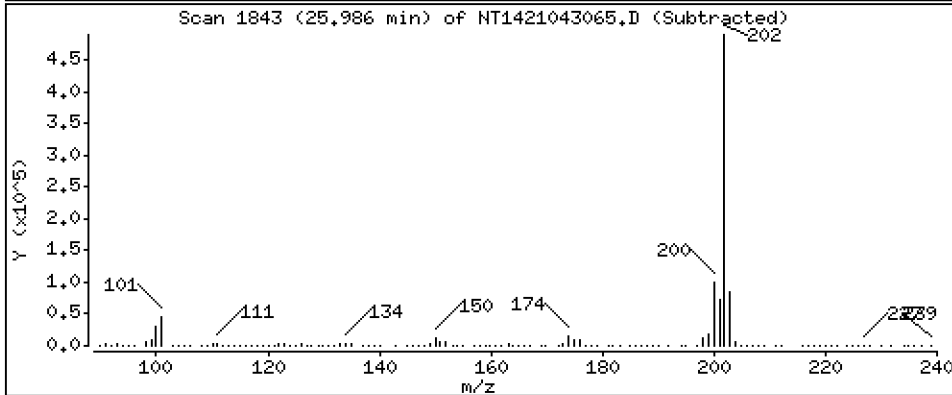
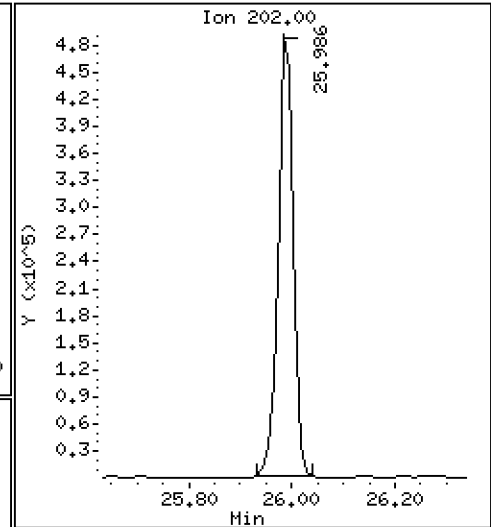
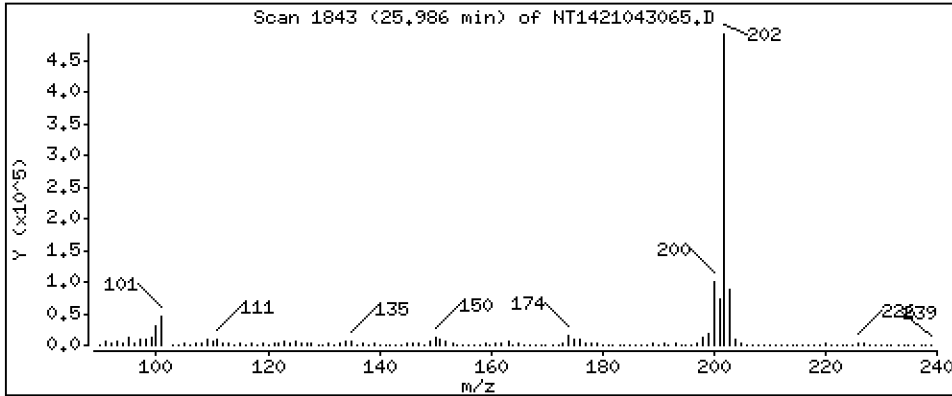
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

44 Fluoranthene

Concentration: 3,838 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

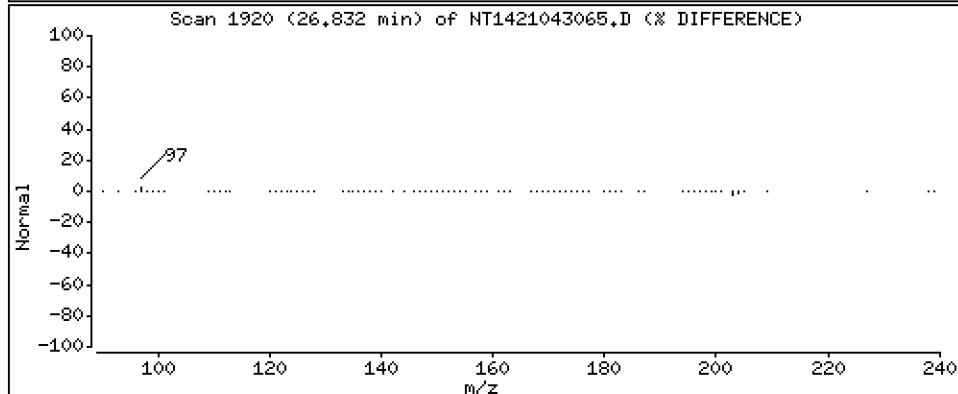
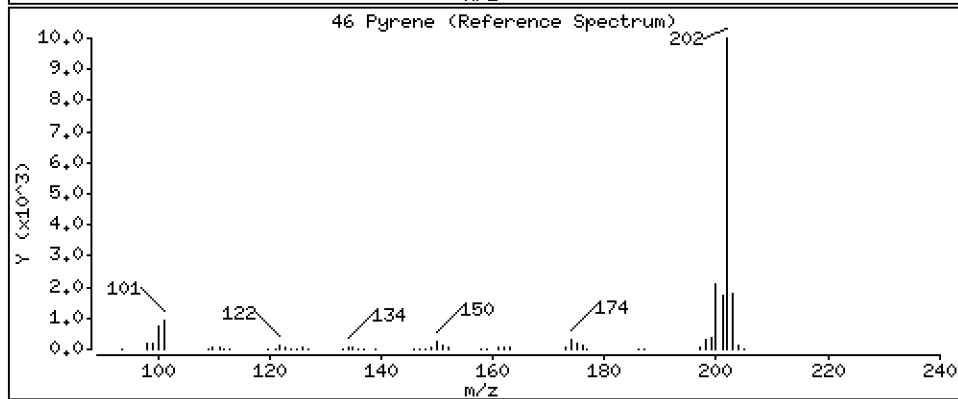
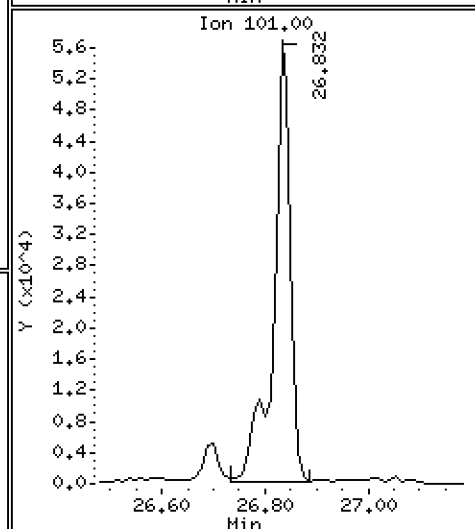
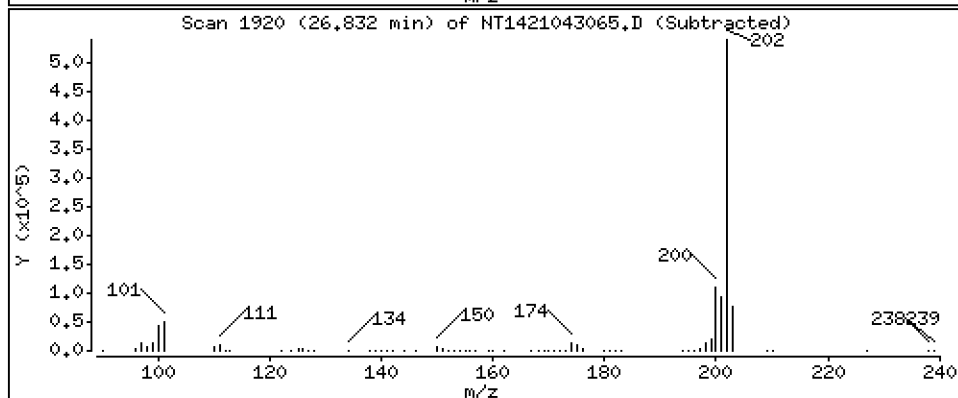
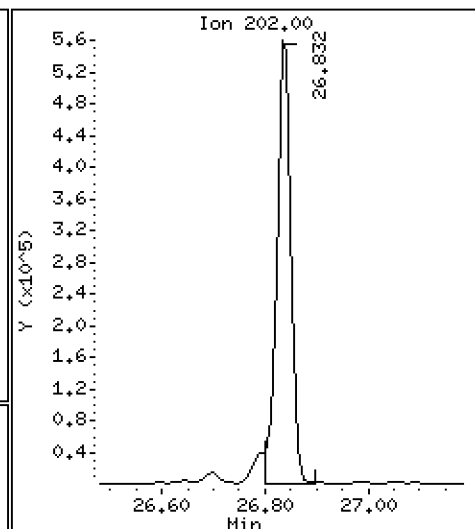
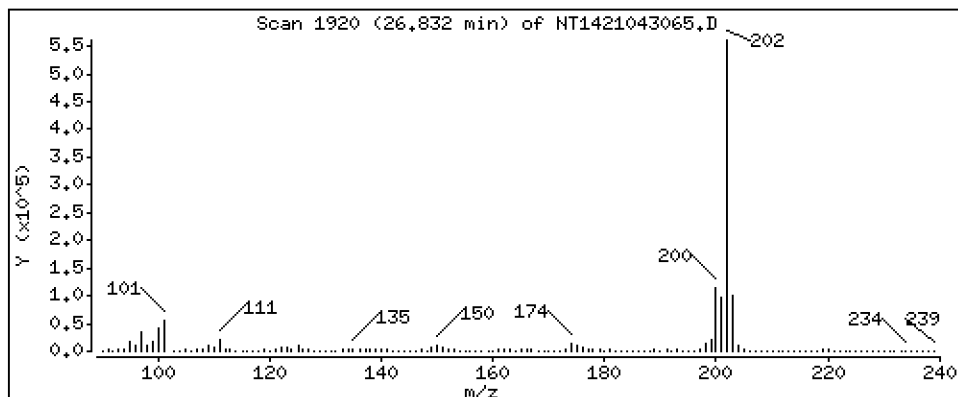
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

46 Pyrene

Concentration: 4,106 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

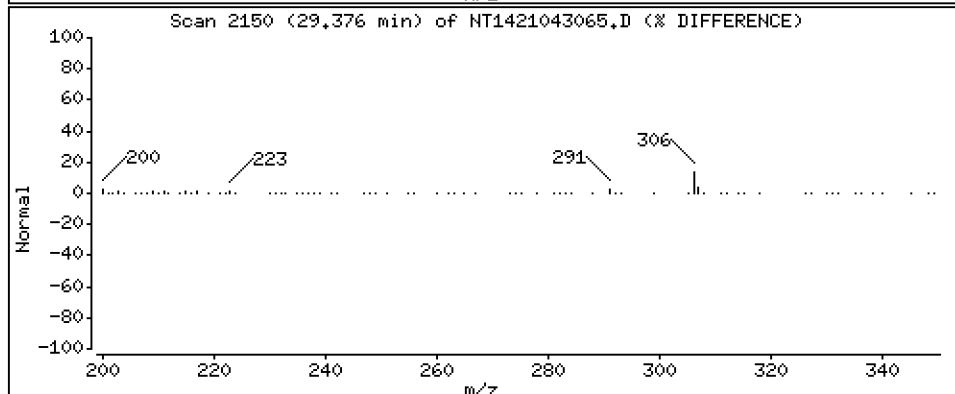
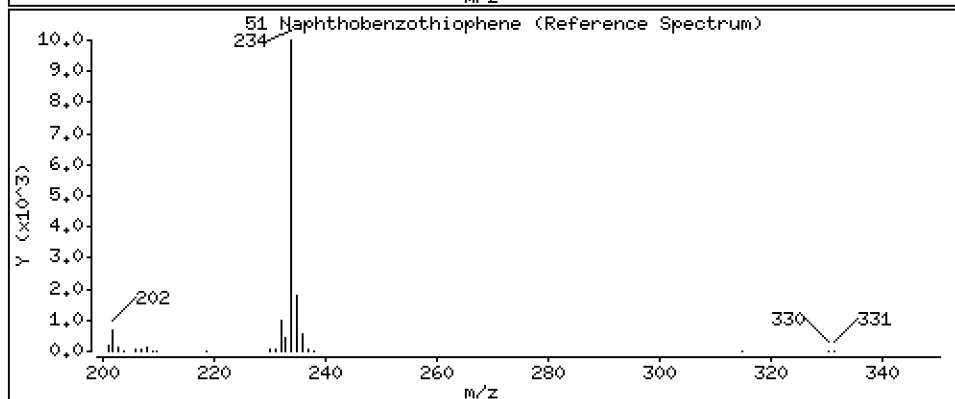
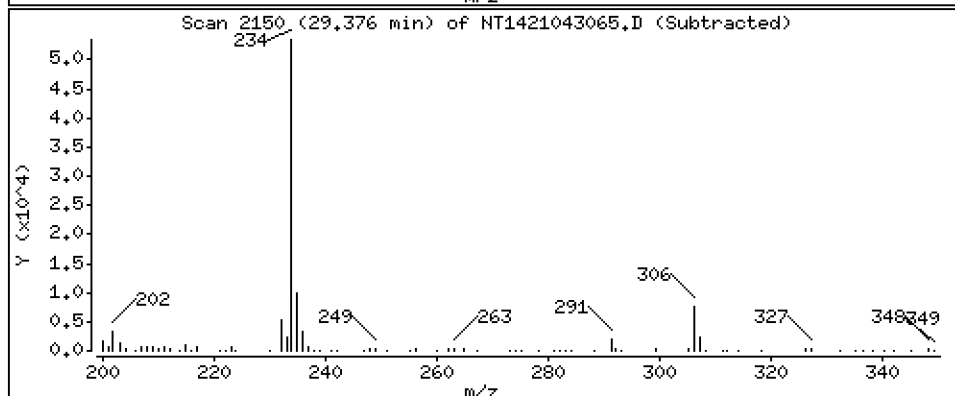
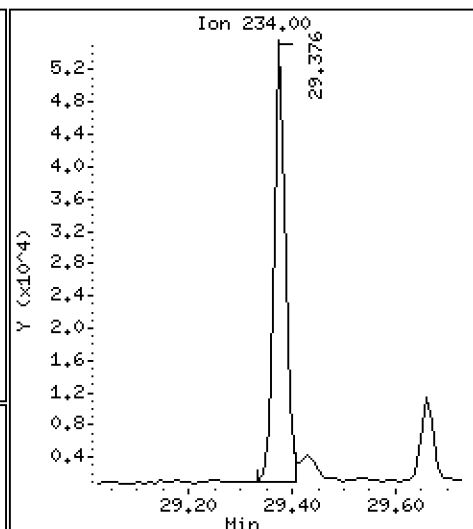
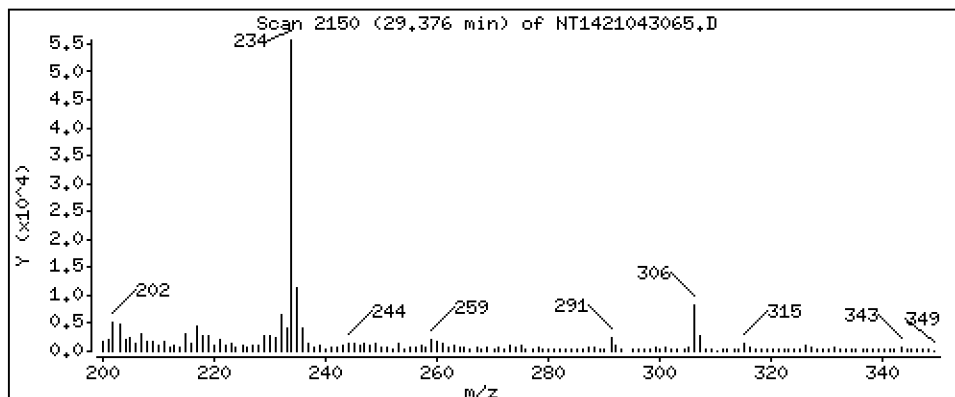
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

51 Naphthobenzothiophene

Concentration: 0,3301 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

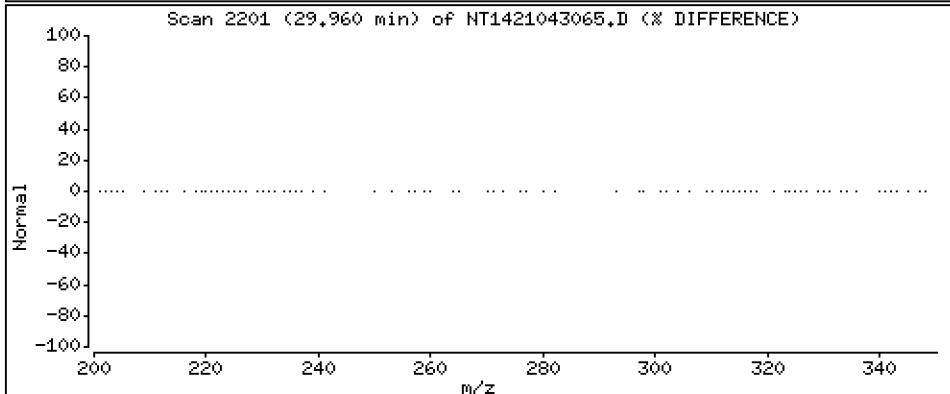
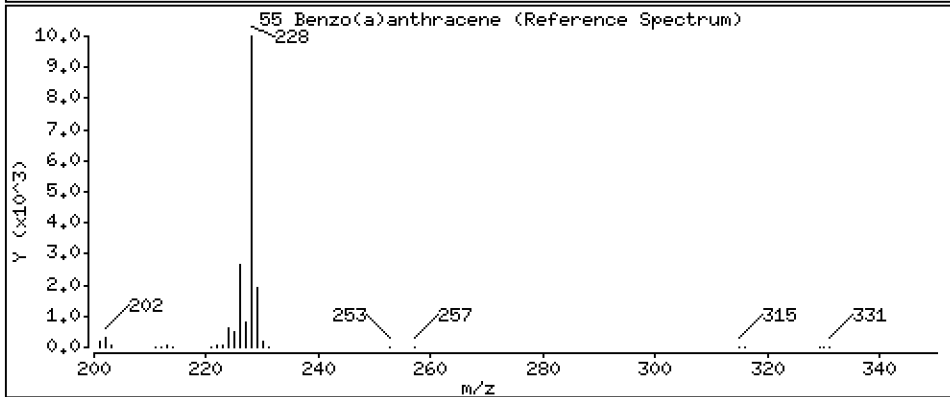
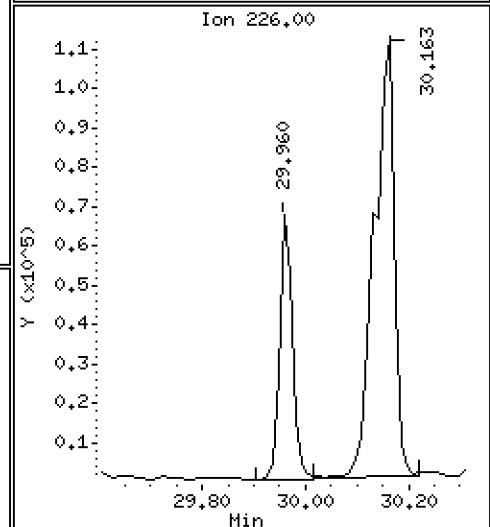
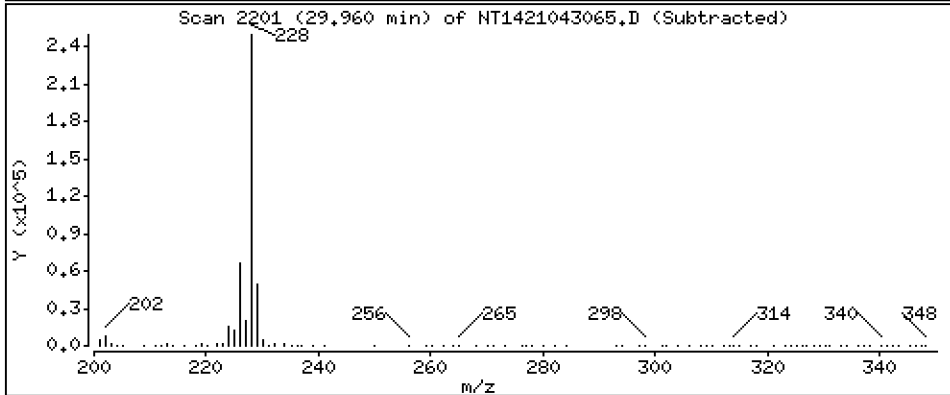
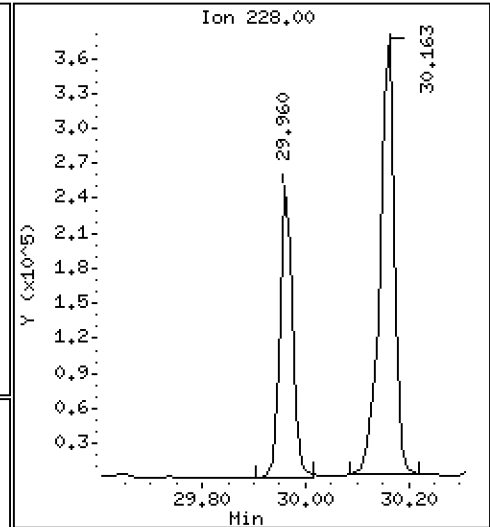
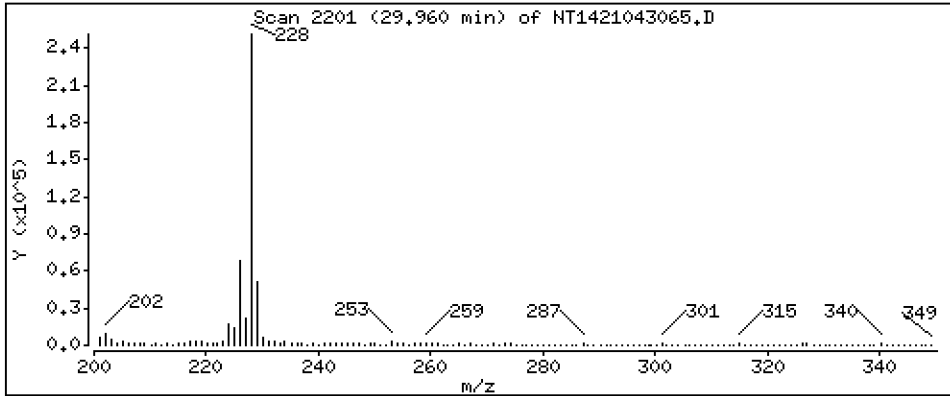
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

55 Benzo(a)anthracene

Concentration: 1,533 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

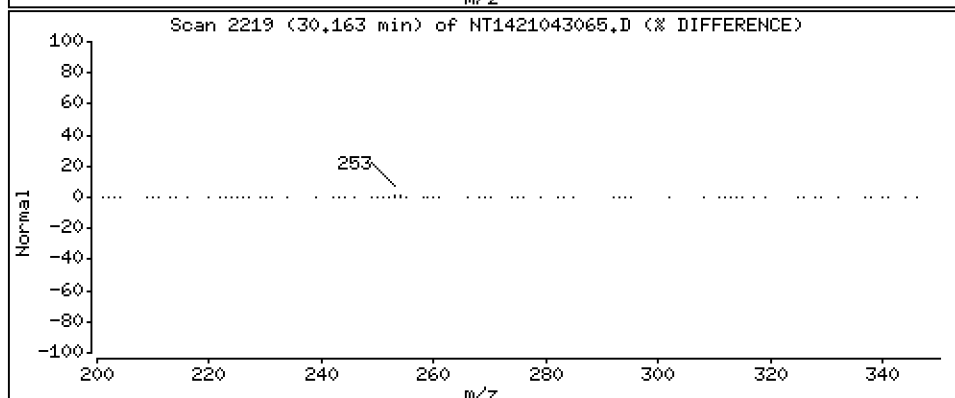
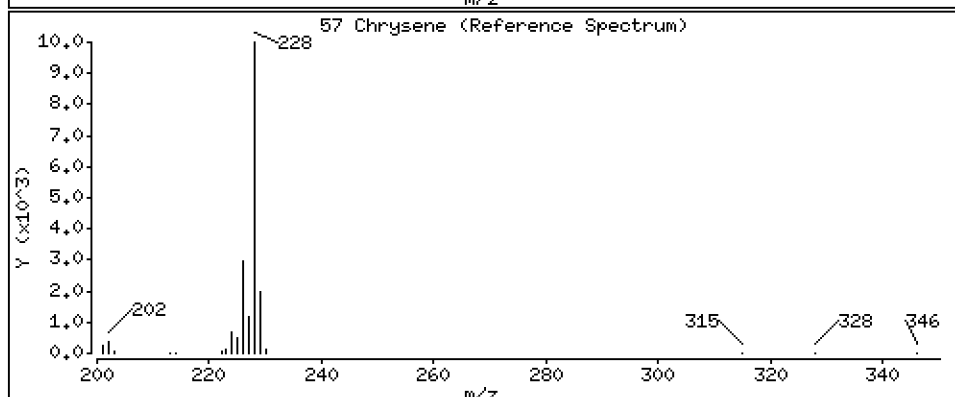
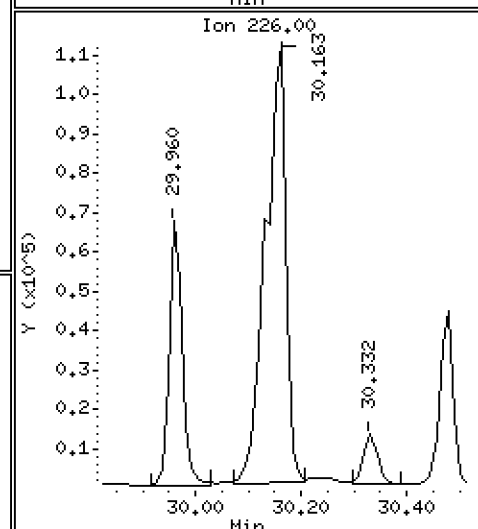
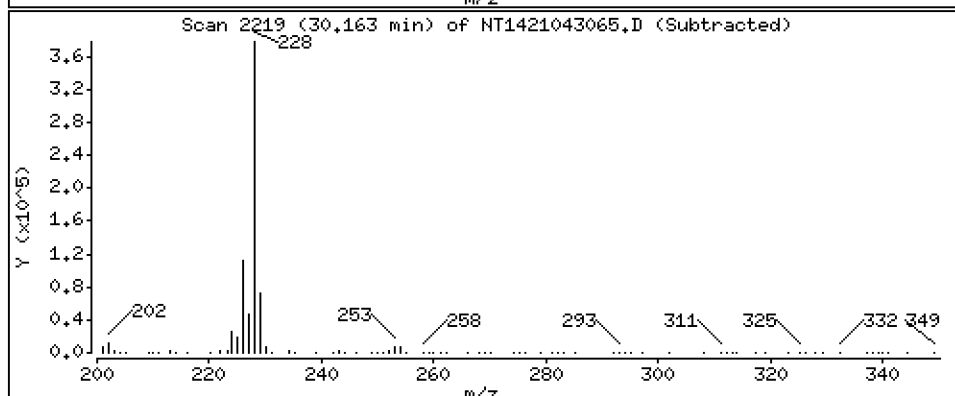
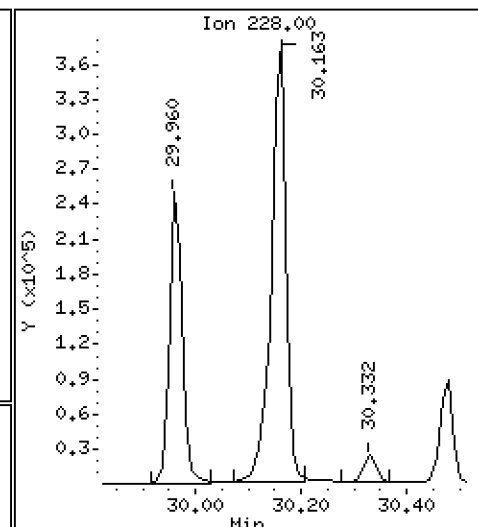
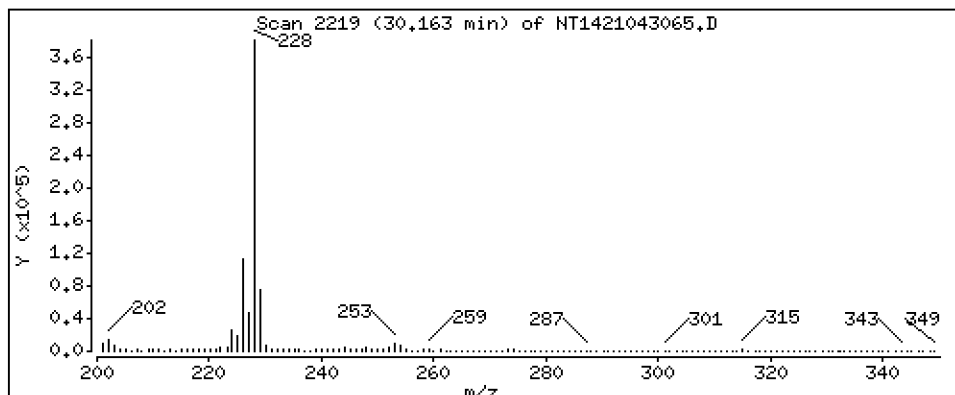
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

57 Chrysene

Concentration: 2,595 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

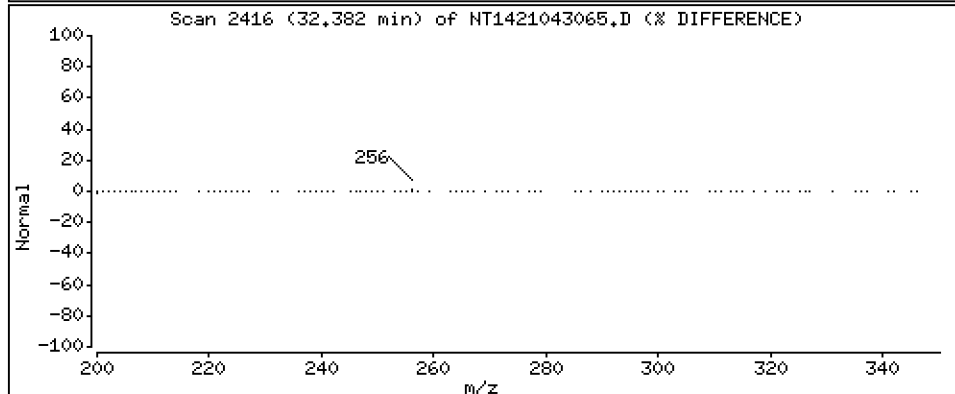
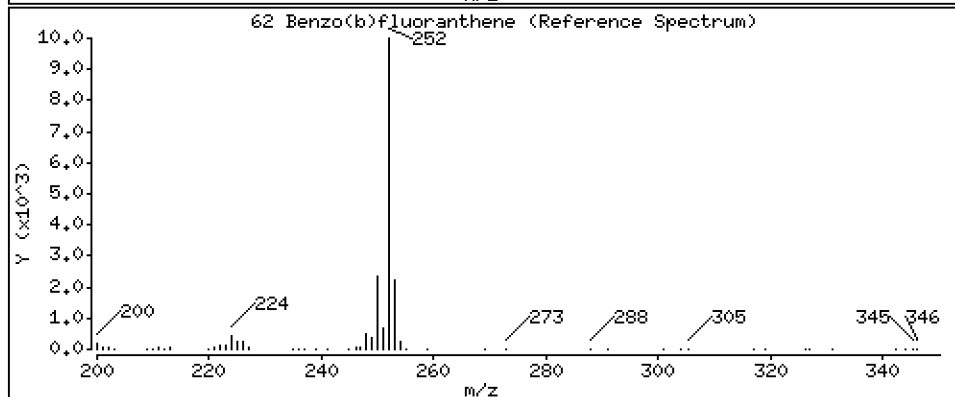
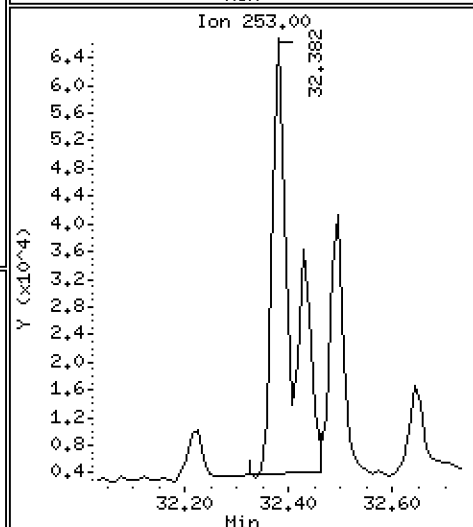
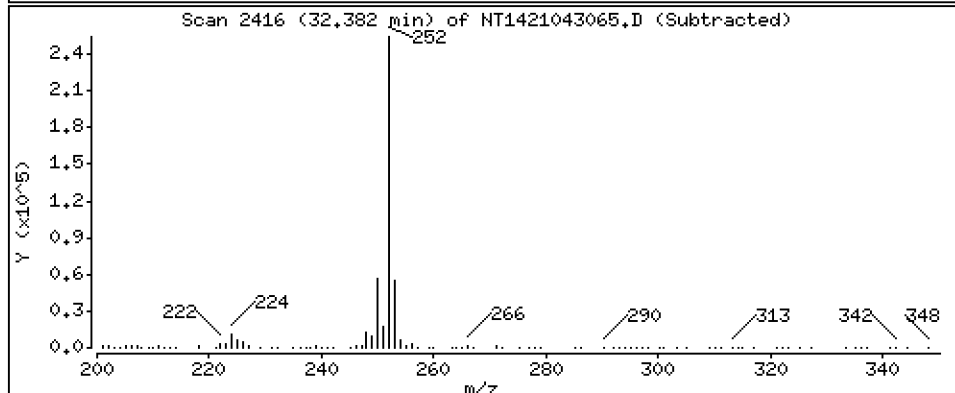
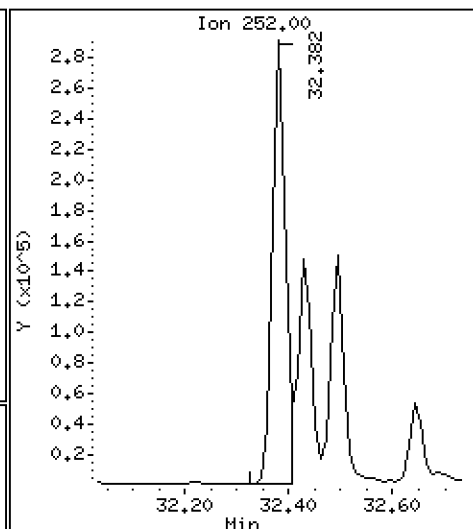
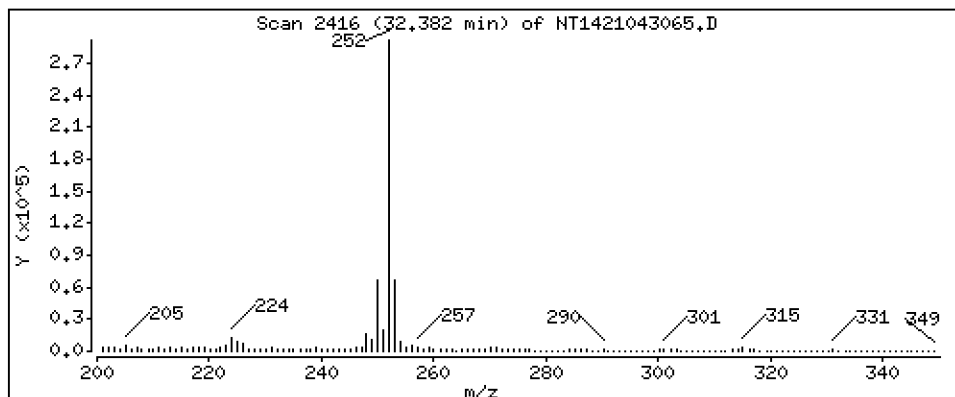
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

62 Benzo(b)fluoranthene

Concentration: 1,824 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

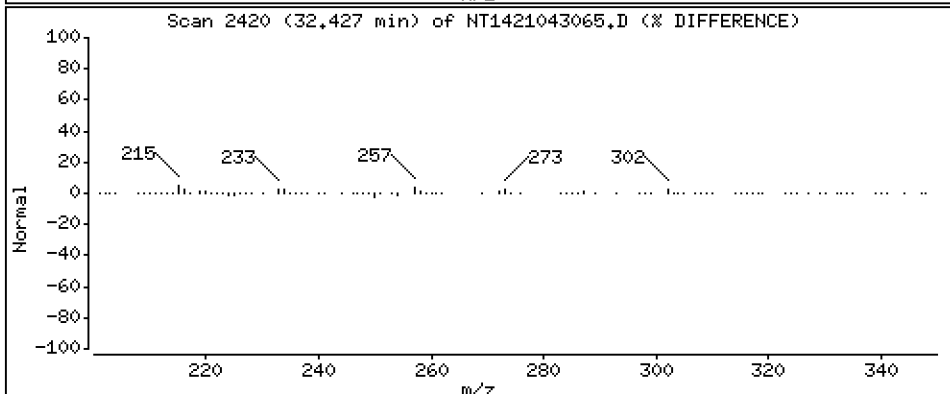
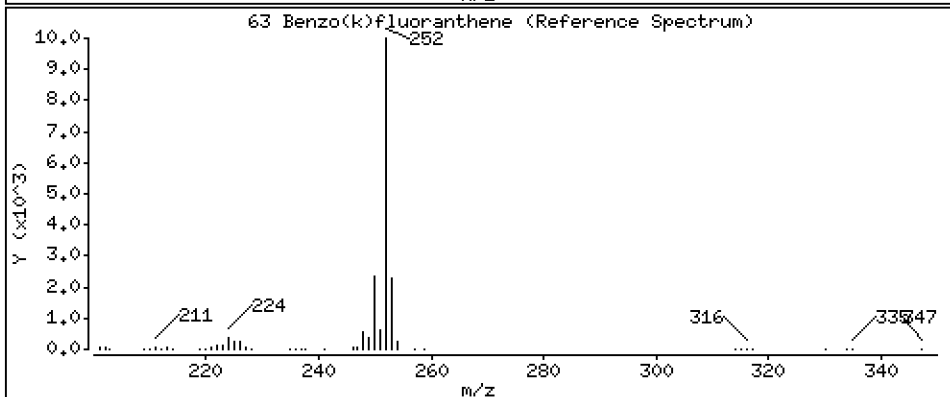
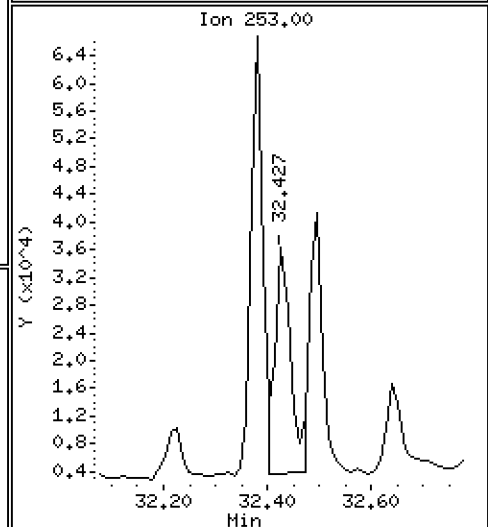
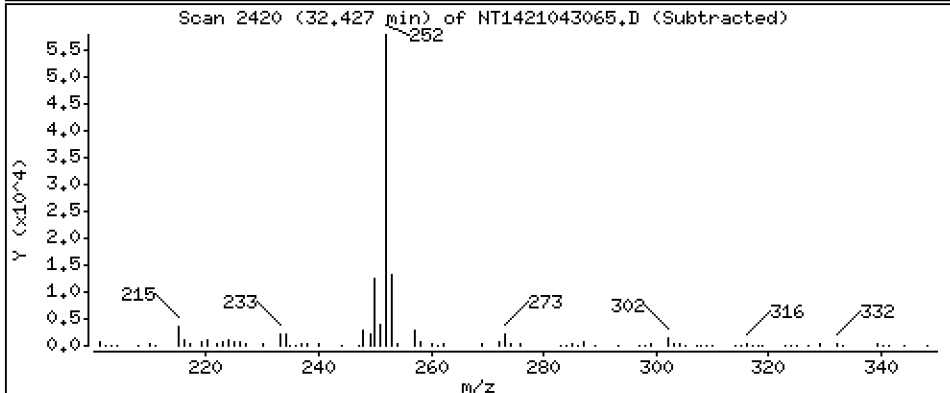
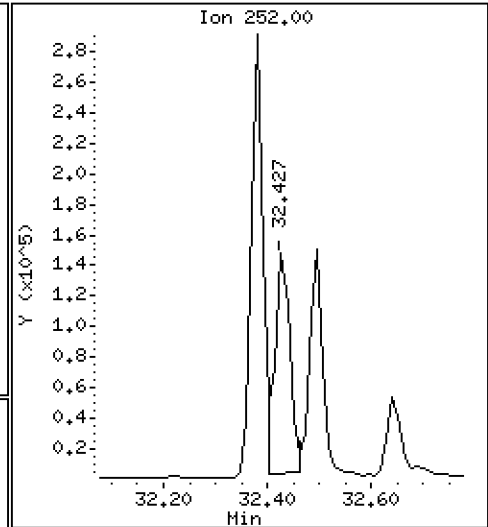
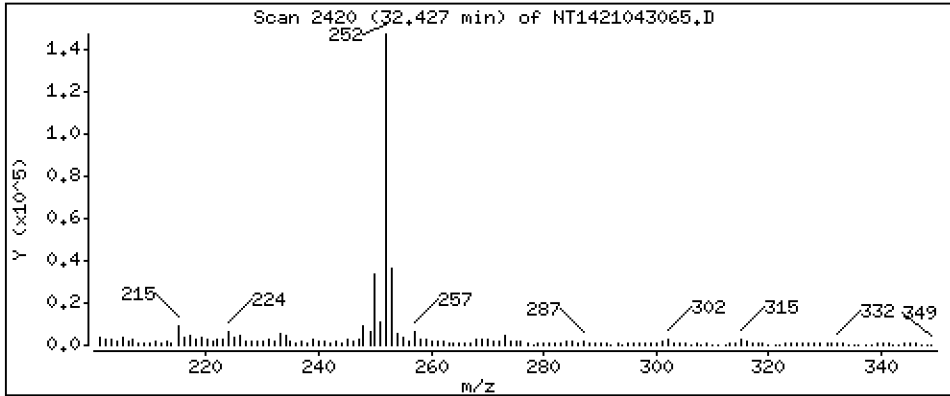
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

63 Benzo(k)fluoranthene

Concentration: 0,9057 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

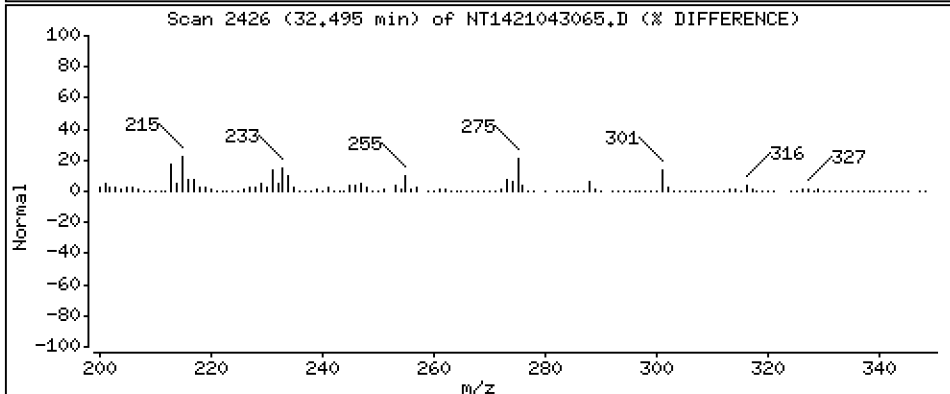
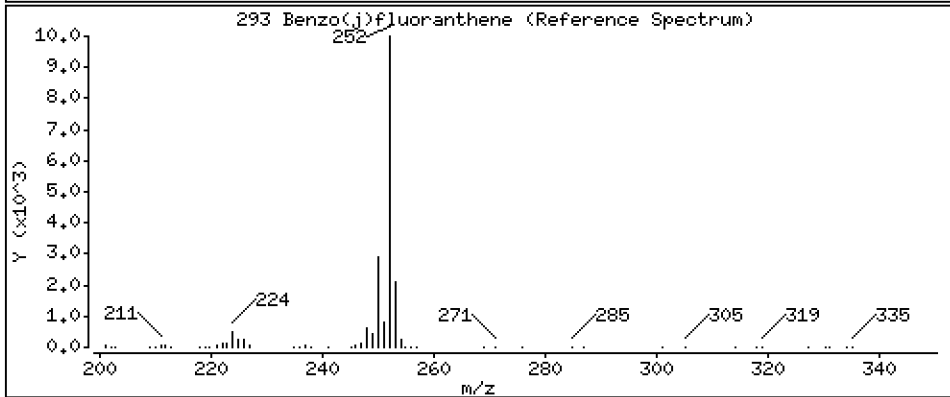
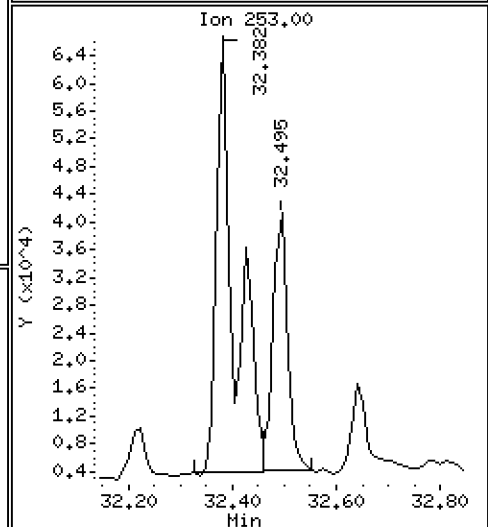
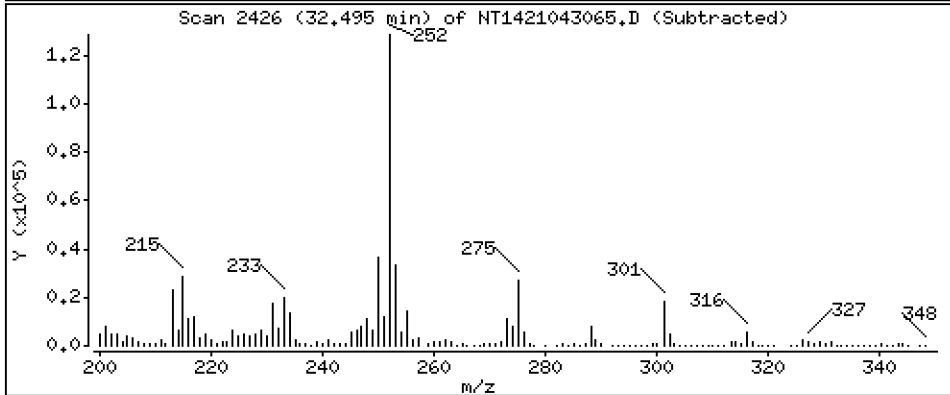
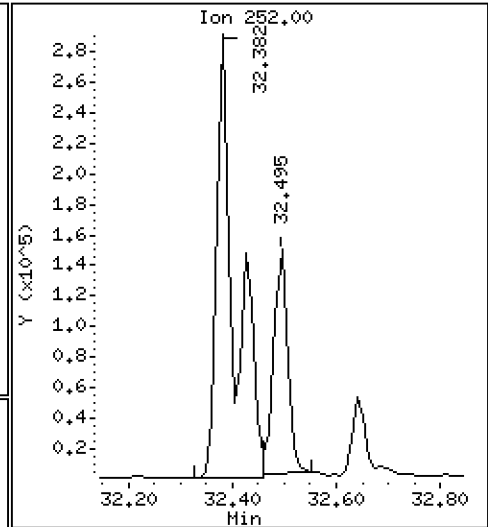
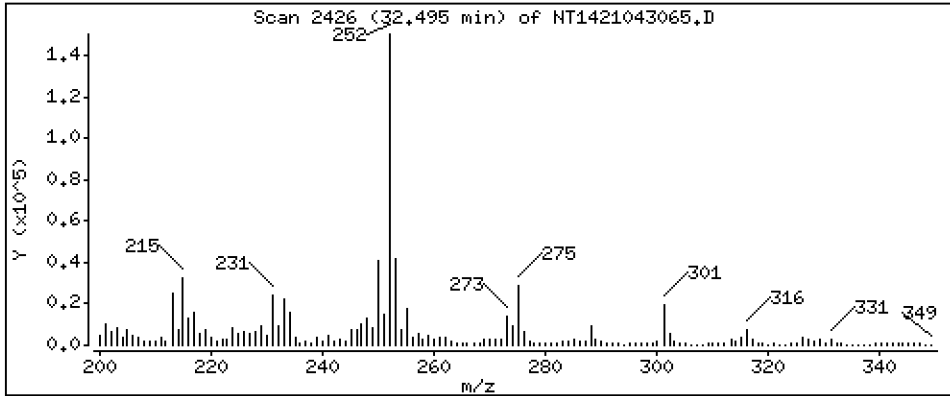
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

293 Benzo(j)fluoranthene

Concentration: 0,8845 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

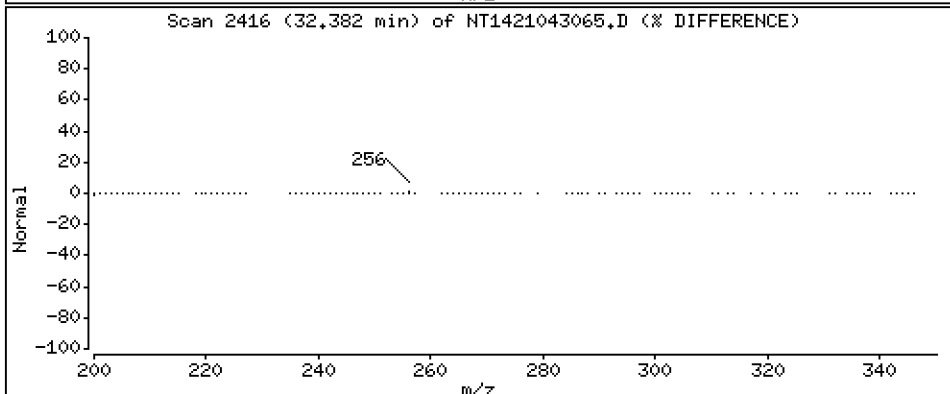
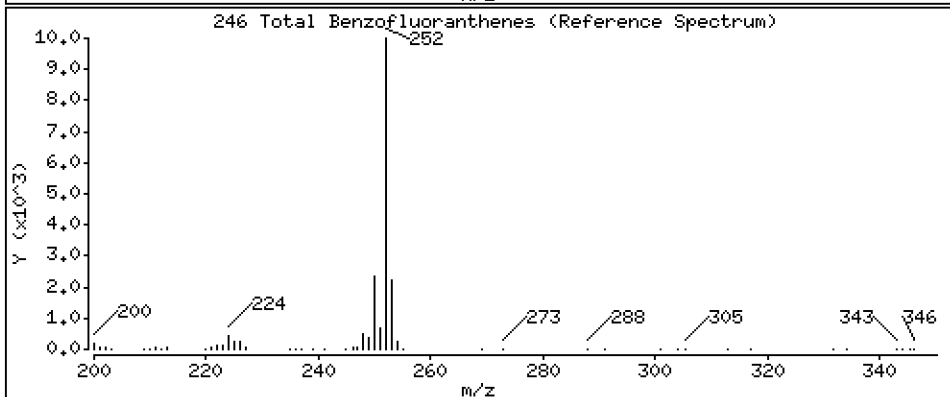
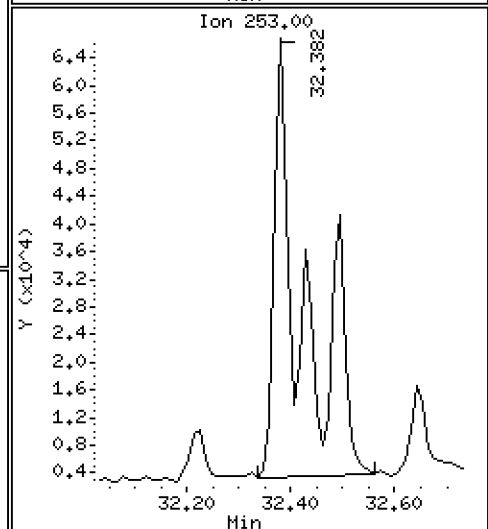
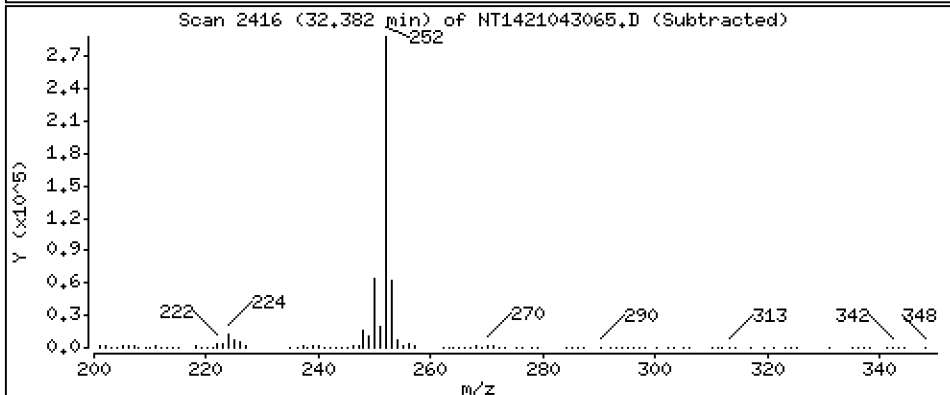
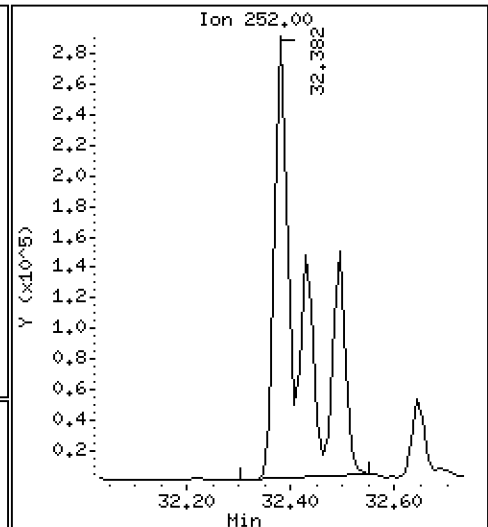
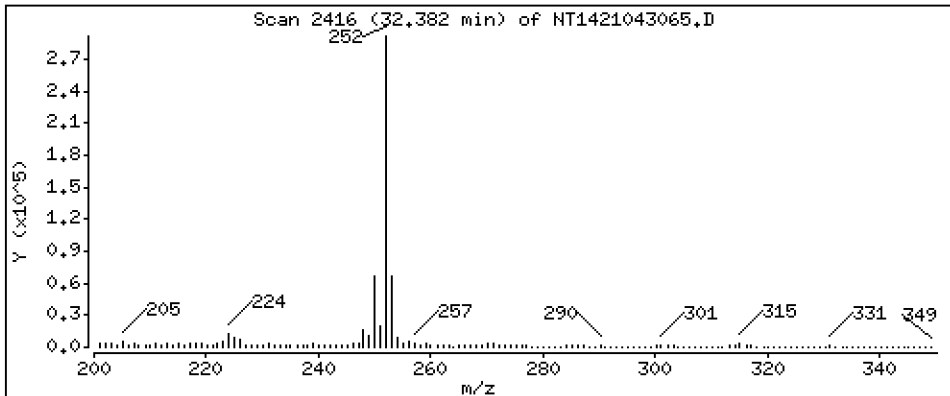
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

246 Total Benzofluoranthenes

Concentration: 3,432 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

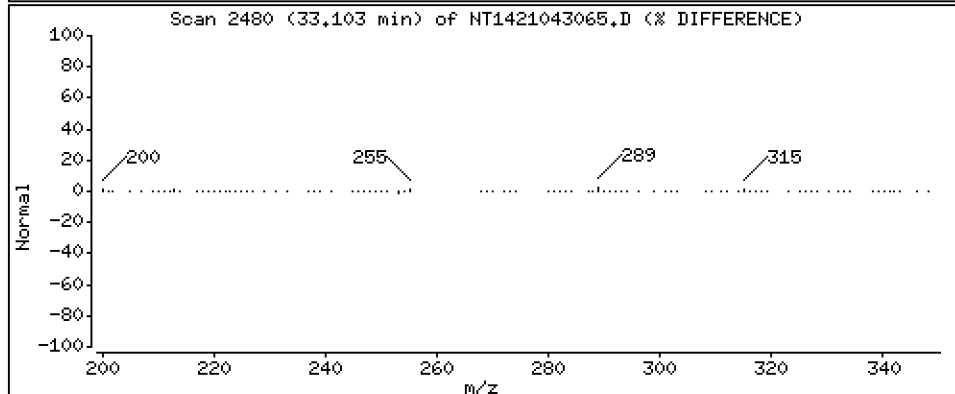
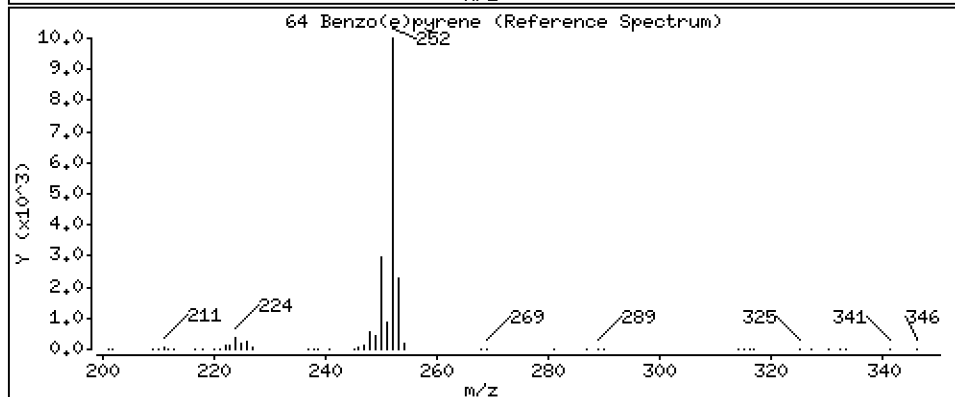
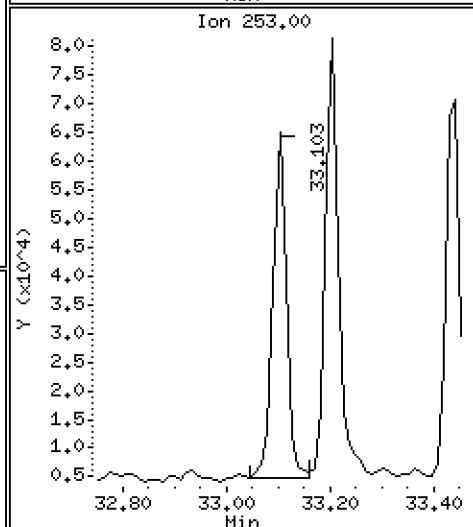
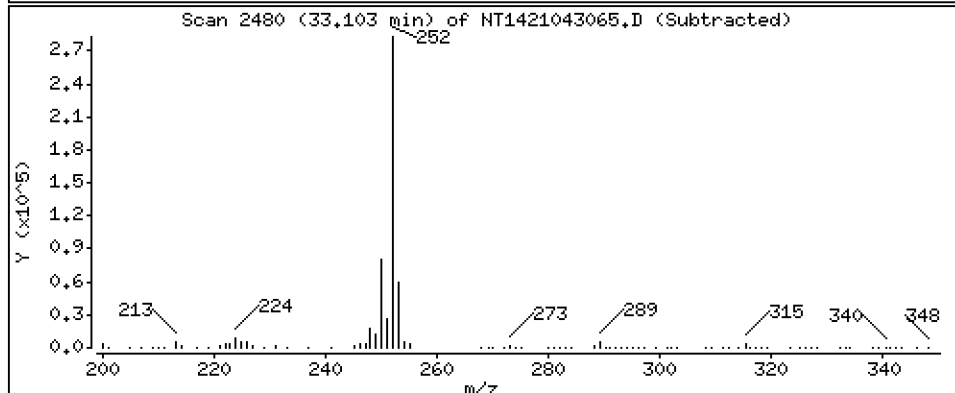
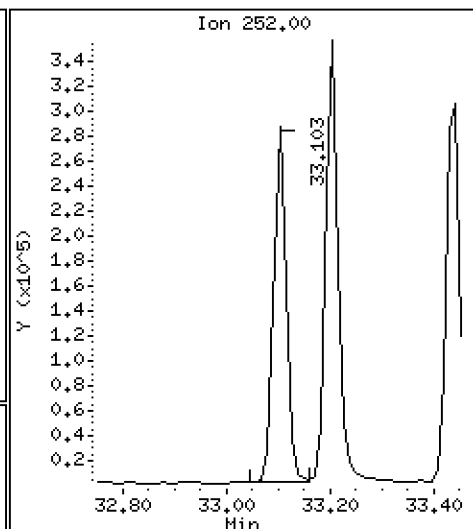
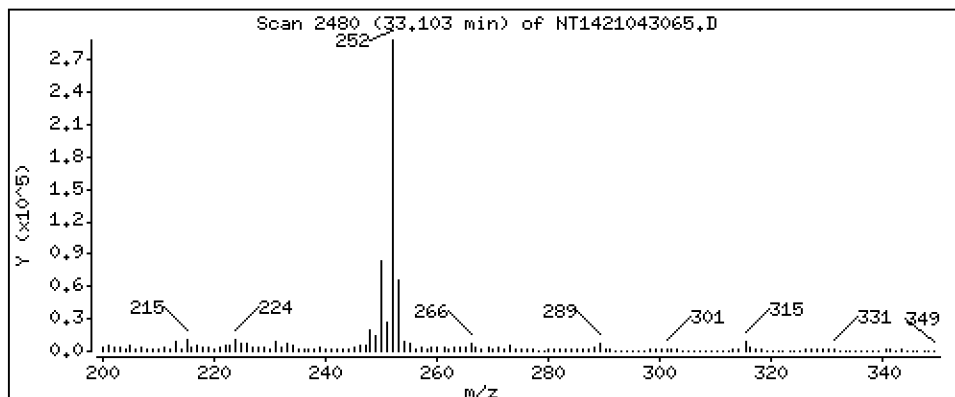
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

64 Benzo(e)pyrene

Concentration: 1,696 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

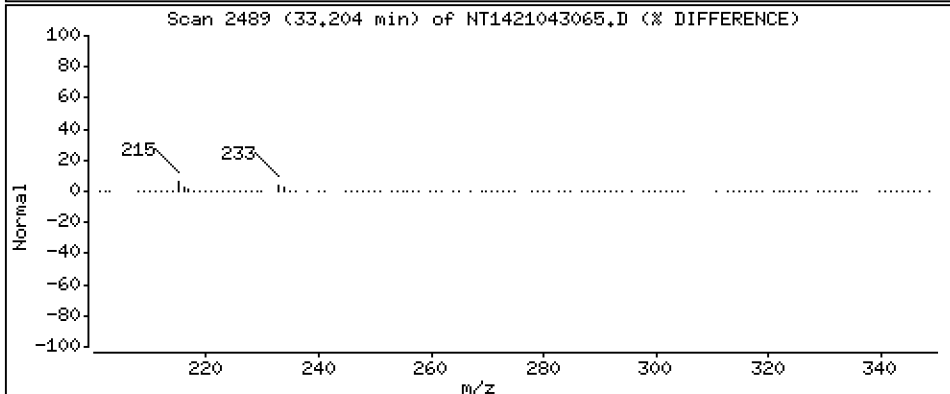
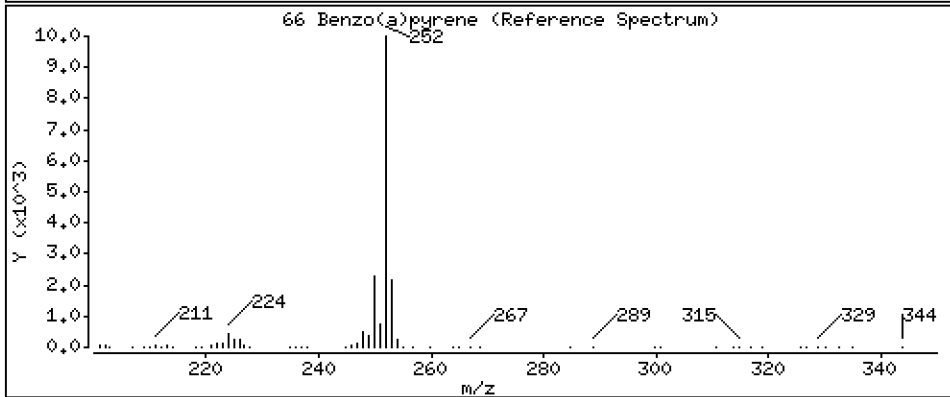
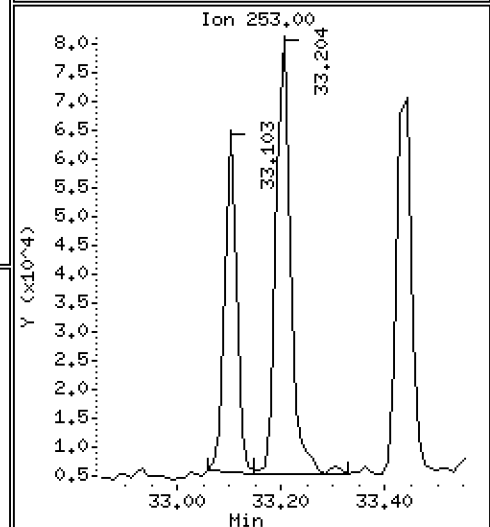
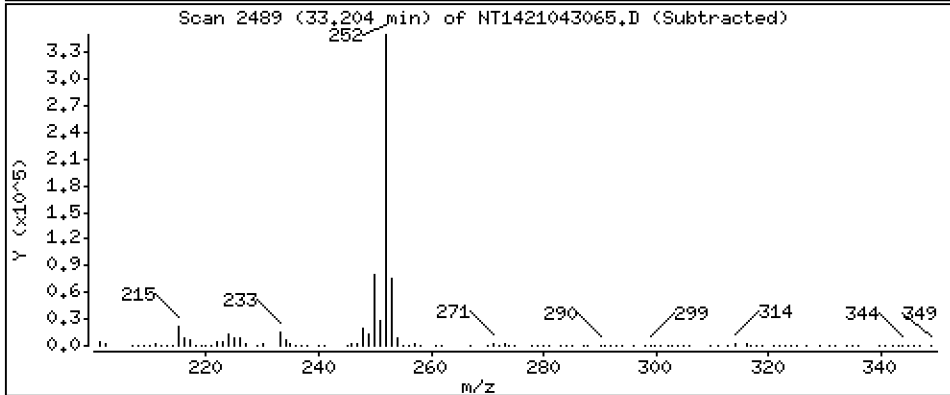
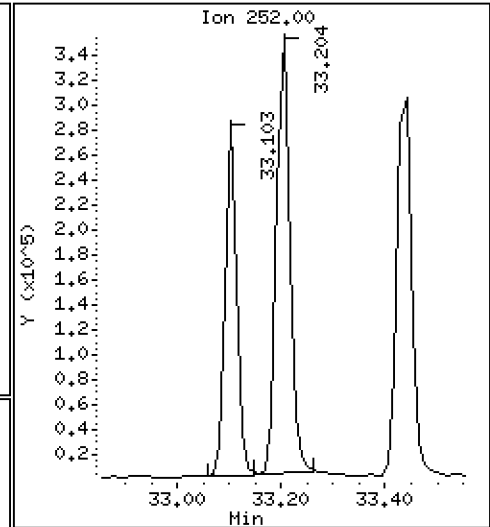
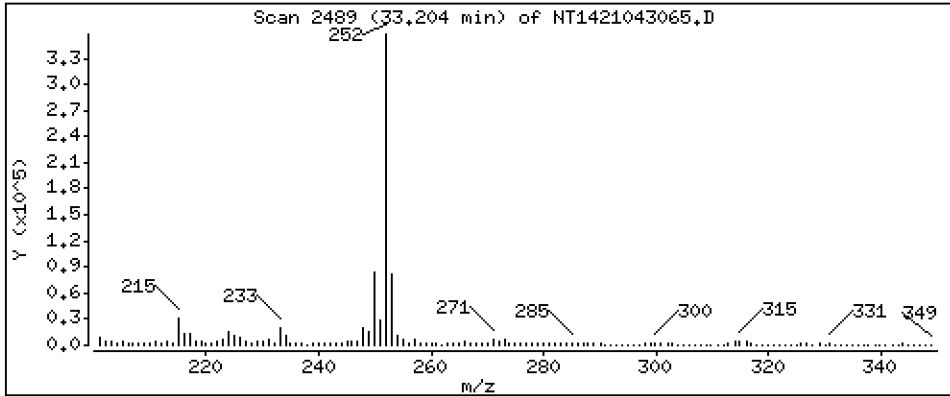
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

66 Benzo(a)pyrene

Concentration: 2,162 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

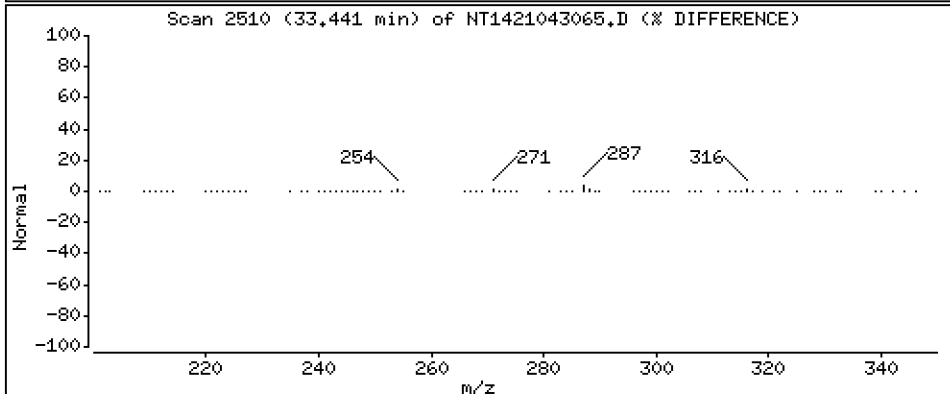
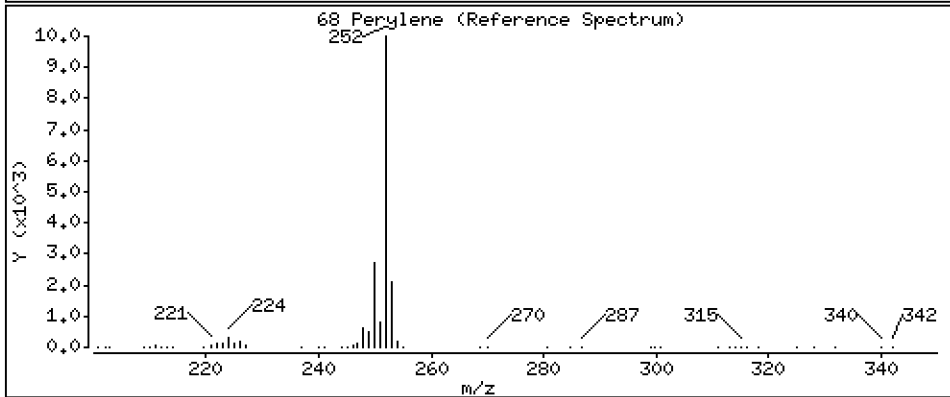
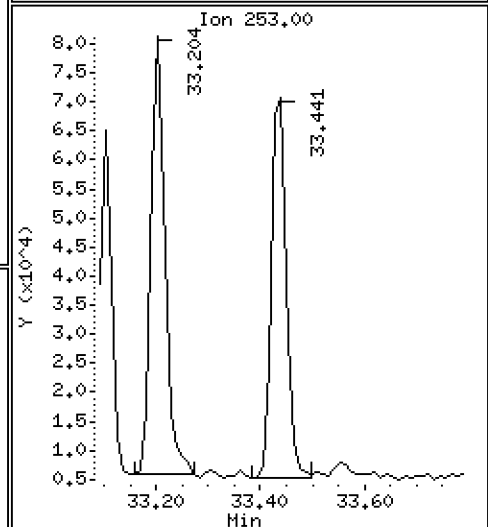
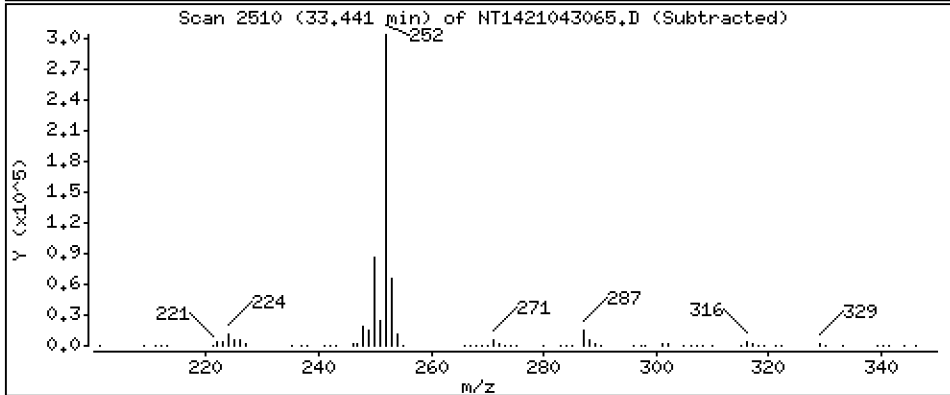
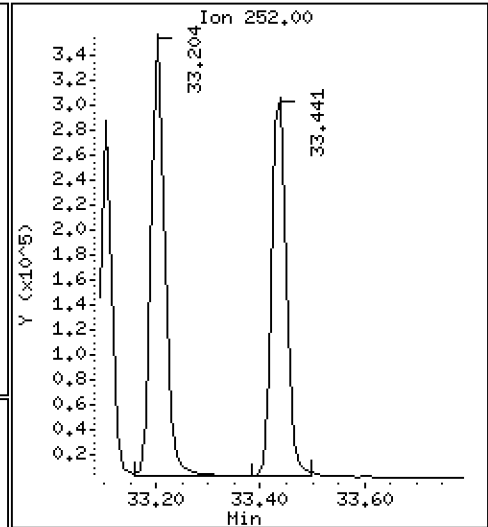
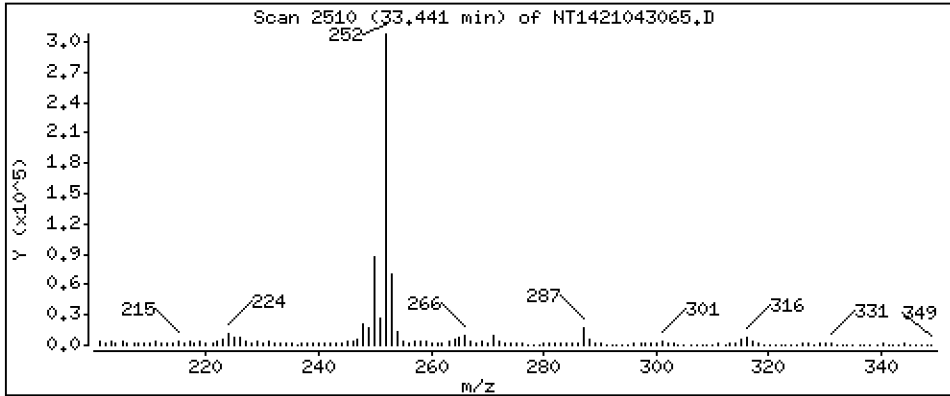
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

68 Perylene

Concentration: 2,252 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

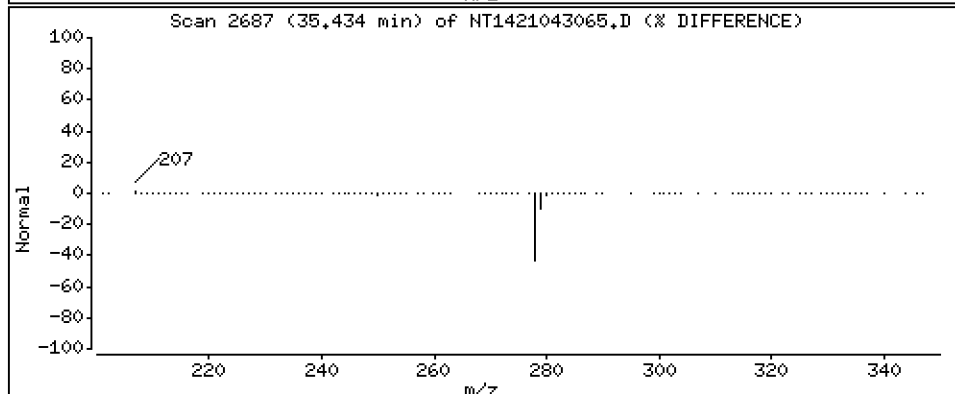
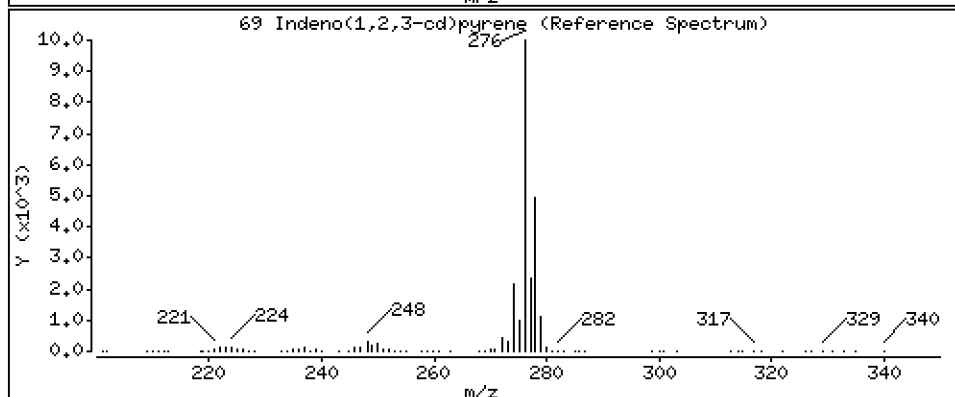
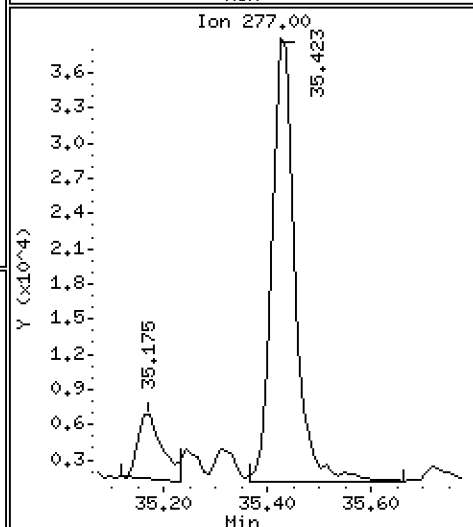
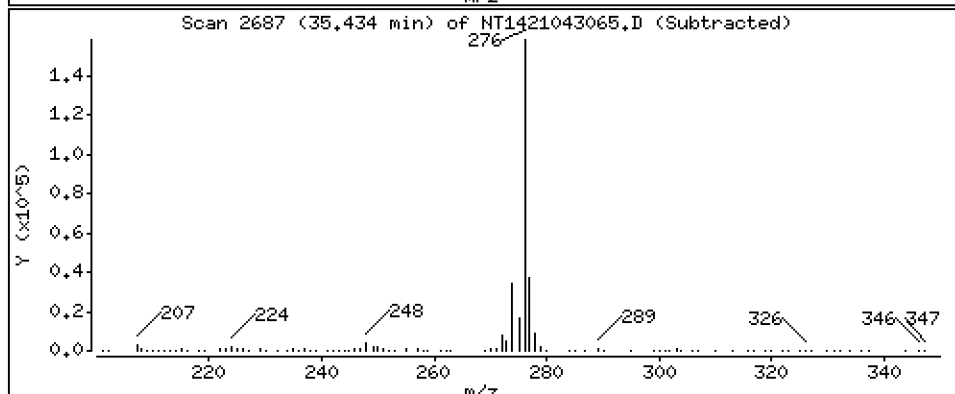
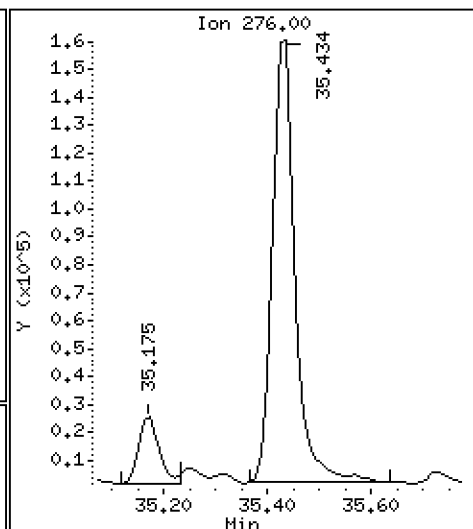
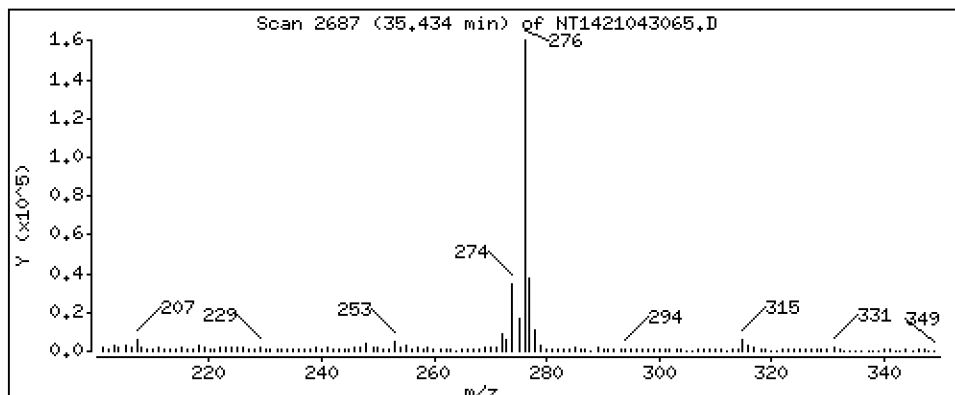
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

69 Indeno(1,2,3-cd)pyrene

Concentration: 1,666 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

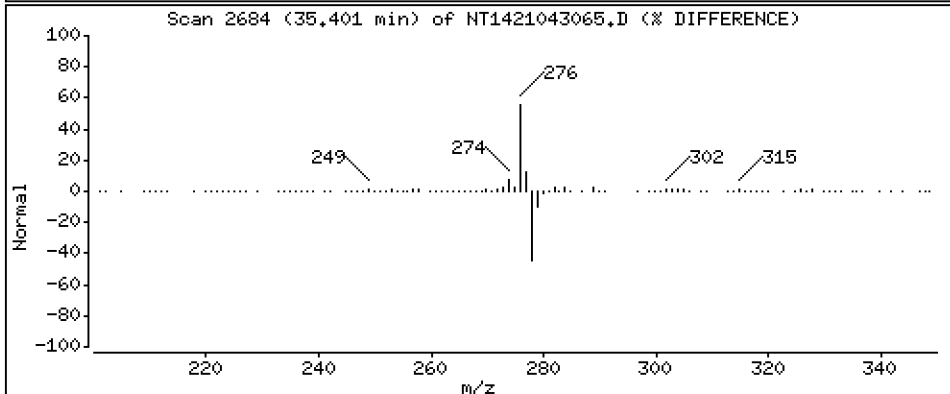
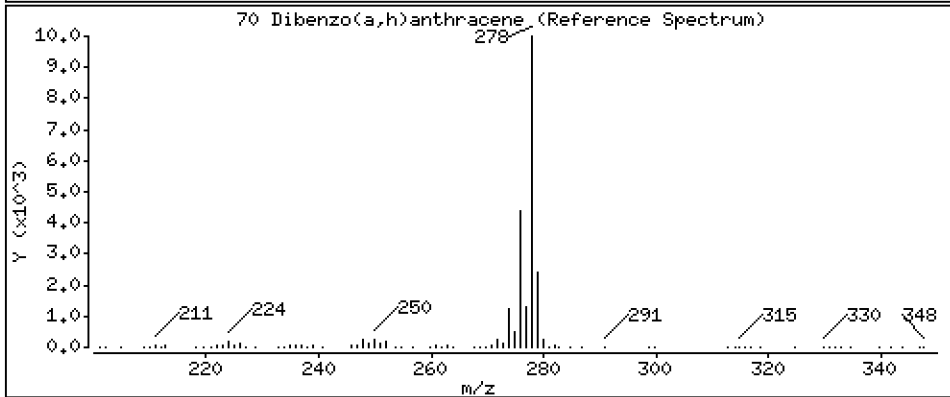
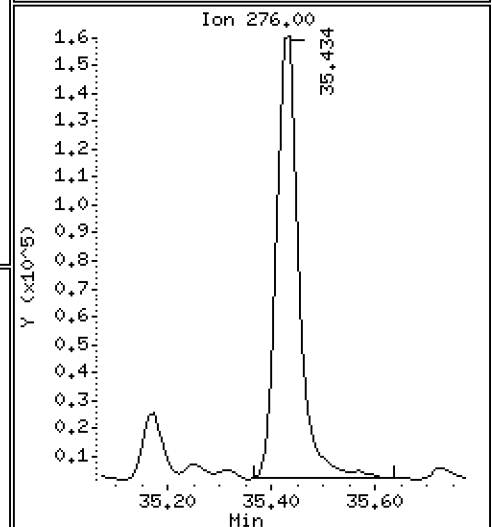
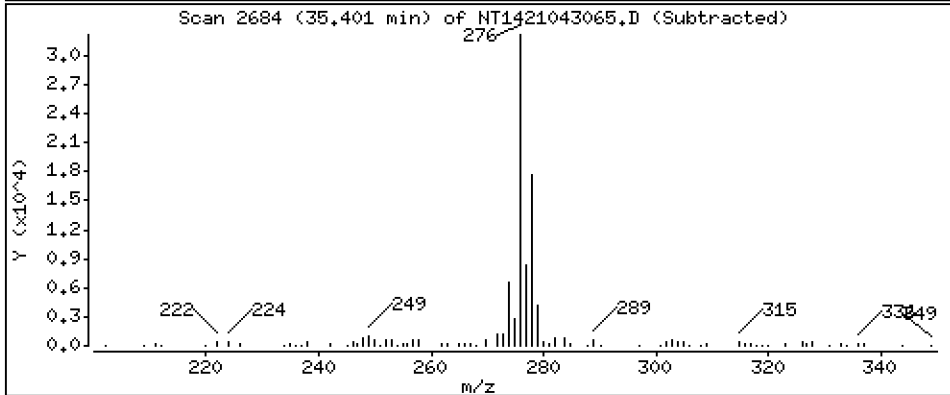
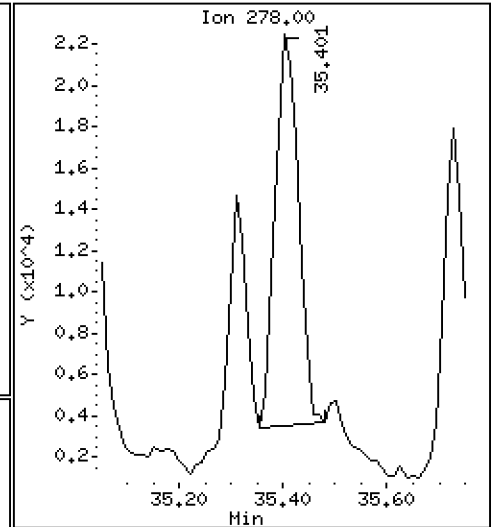
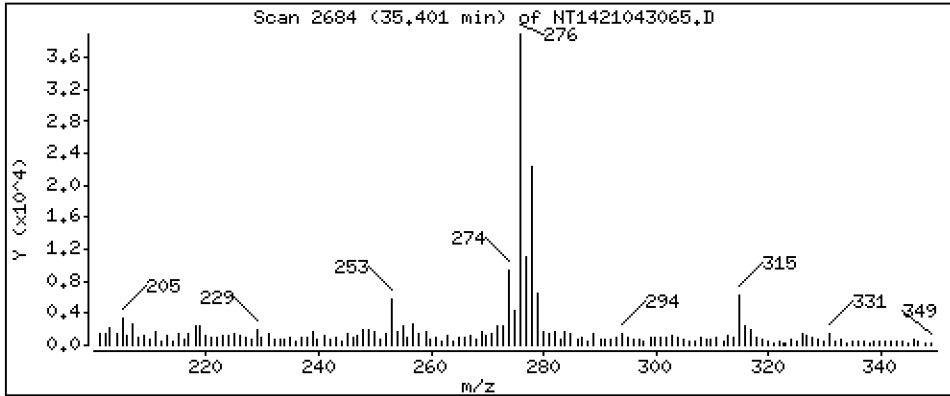
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

70 Dibenzo(a,h)anthracene

Concentration: 0,2430 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

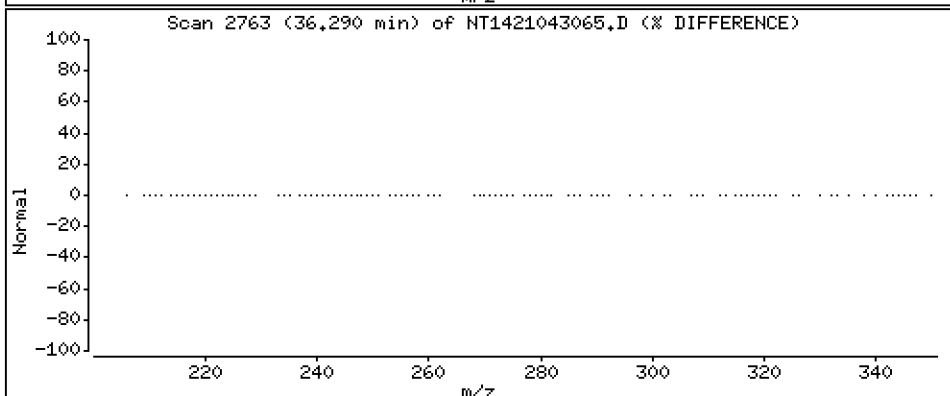
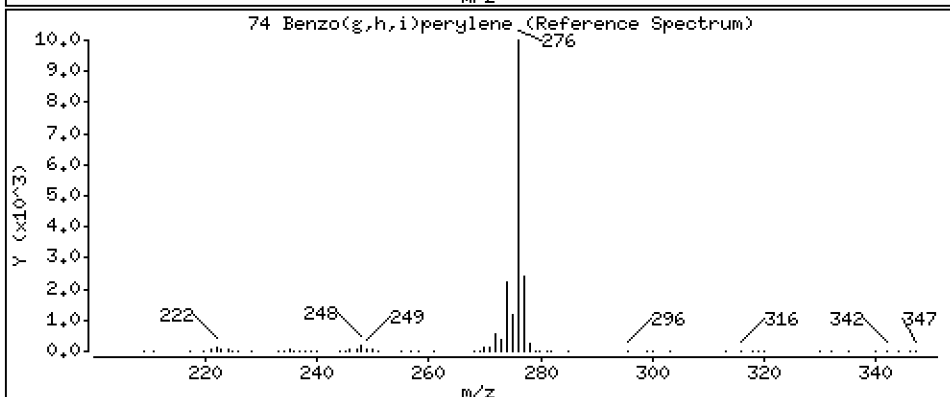
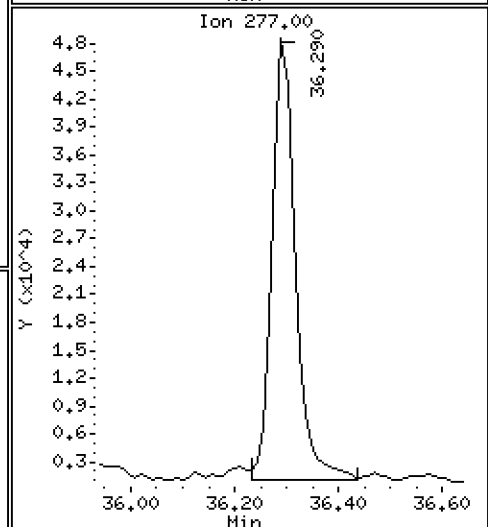
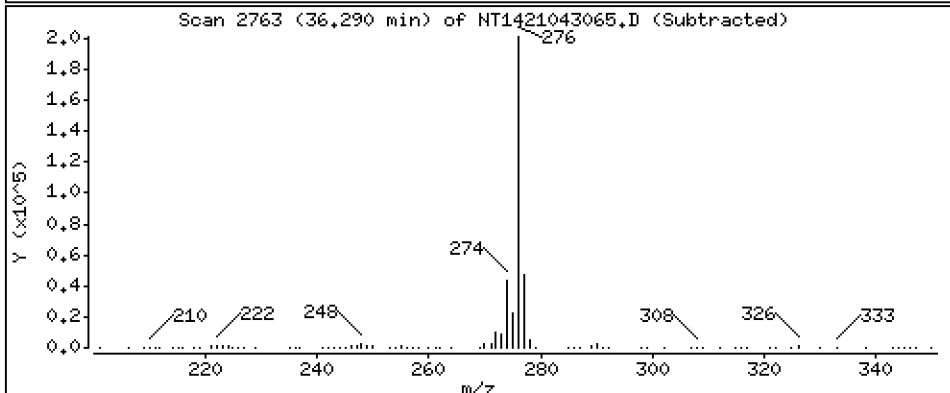
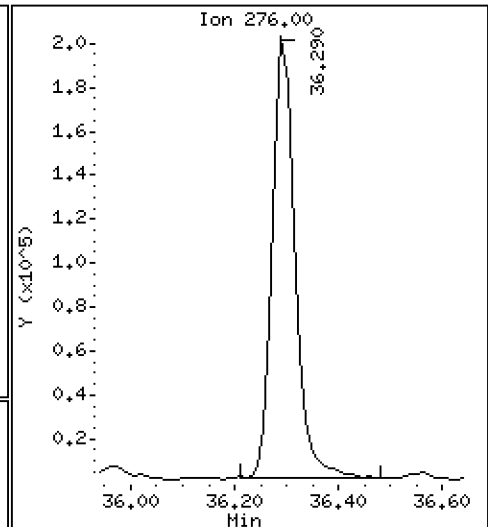
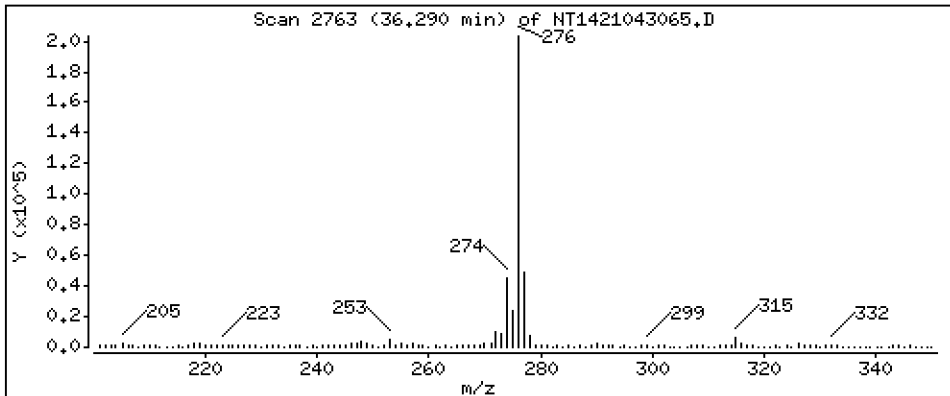
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

74 Benzo(g,h,i)perylene

Concentration: 2,459 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430D.b\NT1421043065.D
 Lab Smp Id: 21D0180-03
 Inj Date : 02-MAY-2021 10:49
 Operator : VTS
 Smp Info : 21D0180-03
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
 Meth Date : 04-May-2021 08:25 van
 Cal Date : 30-APR-2021 13:32
 Als bottle: 46
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-202011

Inst ID: nt14.i

Quant Type: ISTD
 Cal File: NT1421043009.D

Compound Sublist: TARGETS.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	====		====	=====	=====	=====	=====	=====
1 trans-Decalin	138		Compound Not Detected.					
2 cis-Decalin	138		Compound Not Detected.					
\$ 6 Naphthalene-d8	136		11.766	11.776	(0.627)	581692	1.79298	1.793 (R)
7 Naphthalene	128		11.836	11.836	(0.631)	172776	0.52357	0.5236
12 Benzo(b)thiophene	134		12.284	12.295	(0.654)	10697	0.04074	0.04074
16 2-Methylnaphthalene	141		13.669	13.680	(0.728)	37817	0.21475	0.2147
17 1-methylnaphthalene	141		14.120	14.120	(0.752)	18716	0.11217	0.1122
18 Biphenyl	154		15.307	15.318	(0.815)	21186	0.08406	0.08406
19 2,6-Dimethylnaphthalene	156		15.384	15.394	(0.820)	8984	0.05180	0.05180 (M)
20 Acenaphthylene	152		16.955	16.955	(0.903)	39698	0.14546	0.1455
\$ 21 Acenaphthene-d10	164		17.241	17.241	(0.918)	329912	2.08261	2.083 (R)
22 Acenaphthene	153		17.351	17.362	(0.924)	48142	0.27447	0.2745
23 Dibenzofuran	168		17.724	17.735	(0.944)	34206	0.12870	0.1287
24 1,6,7-Trimethylnaphthalene	170		17.944	17.955	(0.956)	9170	0.06025	0.06025
* 25 Fluorene-d10	176		18.772	18.772	(1.000)	562163	2.00000	
26 Fluorene	166		18.874	18.874	(1.005)	52996	0.27438	0.2744
30 Dibenzothiophene	184		21.785	21.796	(1.161)	37085	0.15210	0.1521 (M)
\$ 35 Phenanthrene-d10	188		22.104	22.104	(0.995)	525990	1.90212	1.902 (R)
36 Phenanthrene	178		22.181	22.181	(0.999)	464073	1.50321	1.503
* 250 Anthracene-d10	188		22.214	22.214	(1.000)	511717	2.00000	
37 Anthracene	178		22.280	22.280	(1.003)	130513	0.45861	0.4586
42 Carbazole	167		23.555	23.566	(1.060)	24511	0.10470	0.1047
43 1-Methylphenanthrene	192		24.017	24.017	(1.081)	49828	0.26583	0.2658
44 Fluoranthene	202		25.985	25.985	(1.170)	1052225	3.83775	3.838
46 Pyrene	202		26.832	26.832	(1.208)	1166701	4.10637	4.106 (M)
51 Naphthobenzothiophene	234		29.375	29.375	(1.322)	91395	0.33010	0.3301 (M)
55 Benzo(a)anthracene	228		29.960	29.960	(0.907)	428442	1.53294	1.533
\$ 56 Chrysene-d12	240		30.084	30.084	(0.910)	443530	1.97432	1.974 (R)
57 Chrysene	228		30.163	30.163	(0.913)	749198	2.59468	2.595
62 Benzo(b)fluoranthene	252		32.382	32.382	(0.980)	474803	1.82430	1.824 (M)
63 Benzo(k)fluoranthene	252		32.427	32.427	(0.981)	283690	0.90574	0.9057 (M)
293 Benzo(j)fluoranthene	252		32.494	32.494	(0.983)	260139	0.88452	0.8845
246 Total Benzofluoranthenes	252		32.382	32.382	(0.980)	975426	3.43156	3.432 (M)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.046	33.046	(1.000)	618257	2.00000	
64 Benzo(e)pyrene	252	33.102	33.102	(1.002)	446673	1.69627	1.696
66 Benzo(a)pyrene	252	33.204	33.204	(1.005)	584709	2.16187	2.162
\$ 67 Perylene-d12	264	33.384	33.373	(1.010)	520017	2.17050	2.171 (R)
68 Perylene	252	33.440	33.440	(1.012)	566458	2.25227	2.252
69 Indeno(1,2,3-cd)pyrene	276	35.434	35.423	(1.072)	461497	1.66577	1.666
70 Dibenzo(a,h)anthracene	278	35.400	35.400	(1.071)	56753	0.24300	0.2430 (M)
74 Benzo(g,h,i)perylene	276	36.290	36.290	(1.098)	582604	2.45937	2.459

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 01-MAY-2021
 Lab File ID: NT1421043065.D Calibration Time: 23:35
 Lab Smp Id: 21D0180-03
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	504442	252221	1008884	562163	11.44
250 Anthracene-d10	459103	229552	918206	511717	11.46
251 Benzo(e)pyrene-d1	516794	258397	1033588	618257	19.63

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.77	18.27	19.27	18.77	0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	0.00

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.

REVIEW SUMMARY FOR FILE - NT1421043065.D

Lab ID: 21D0180-03

nt14.i, 20210430D.b\ALKYLPNA.m, 02-MAY-2021 10:49

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

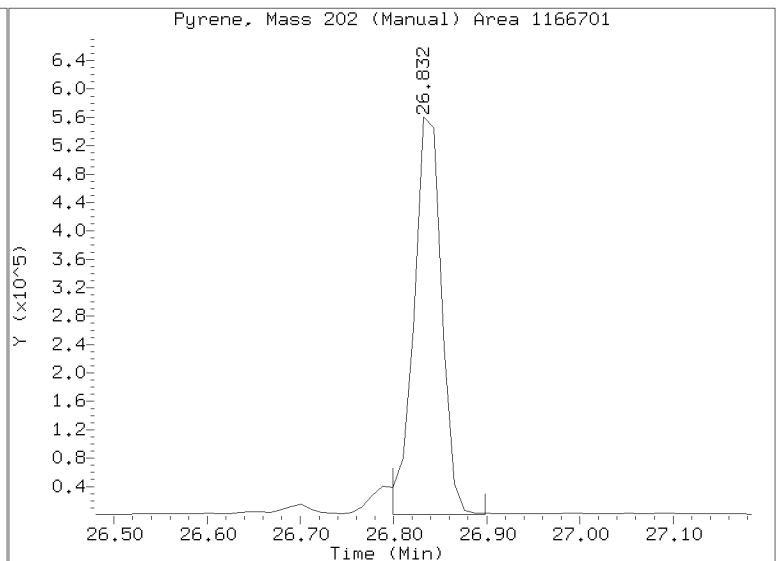
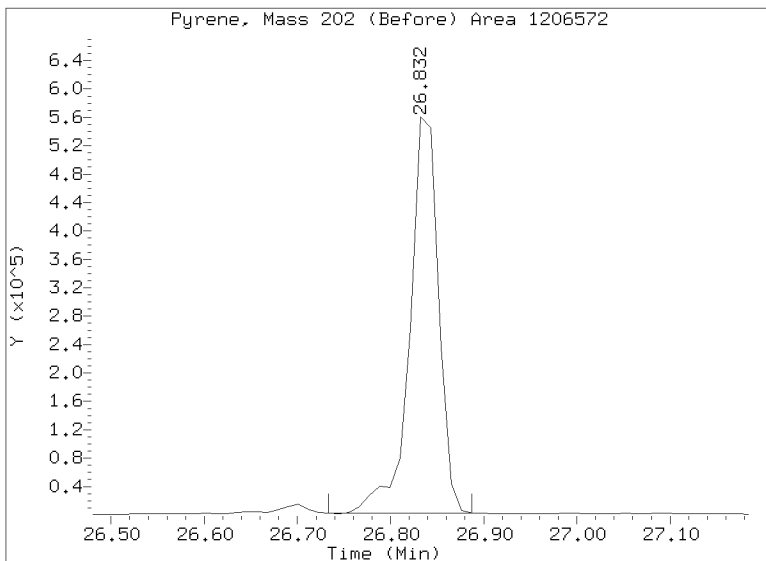
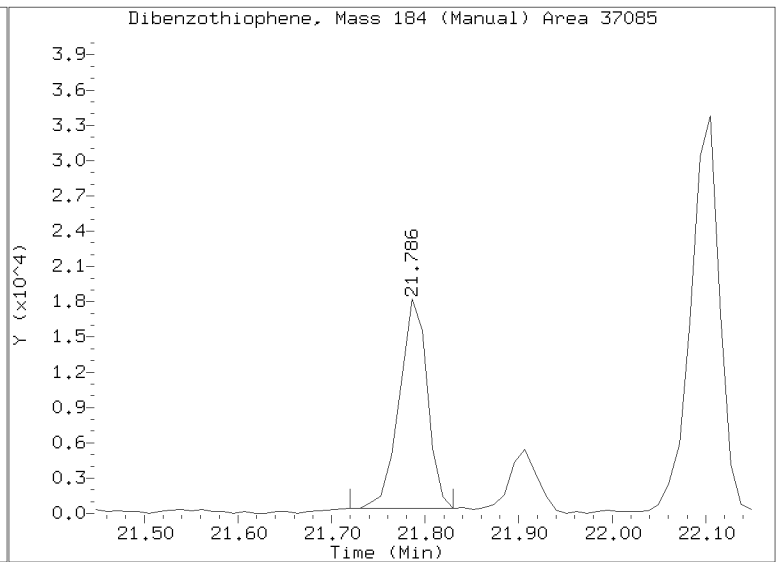
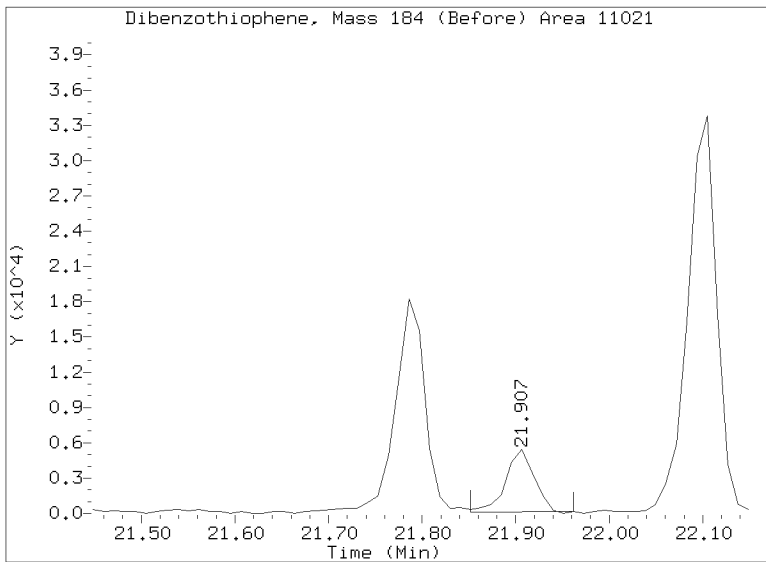
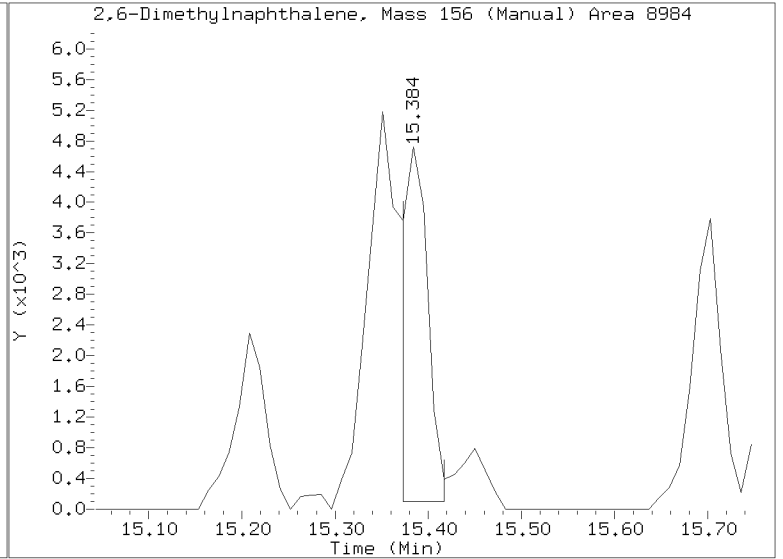
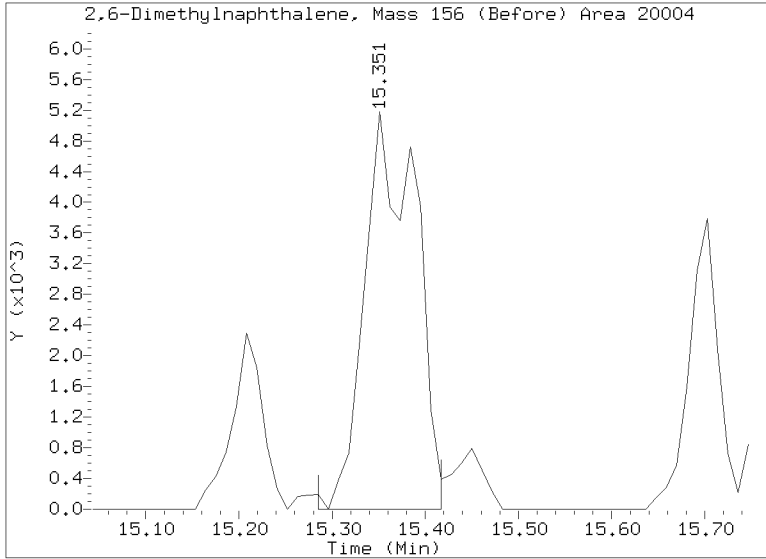
RRT check based on Ccal File: NT1421043051ICV.D

On Column LOD for nt14.i, 20210430D.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

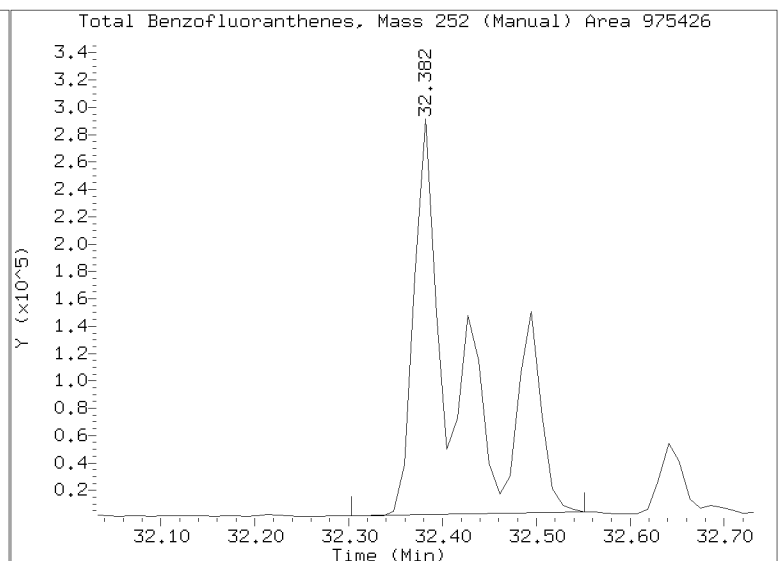
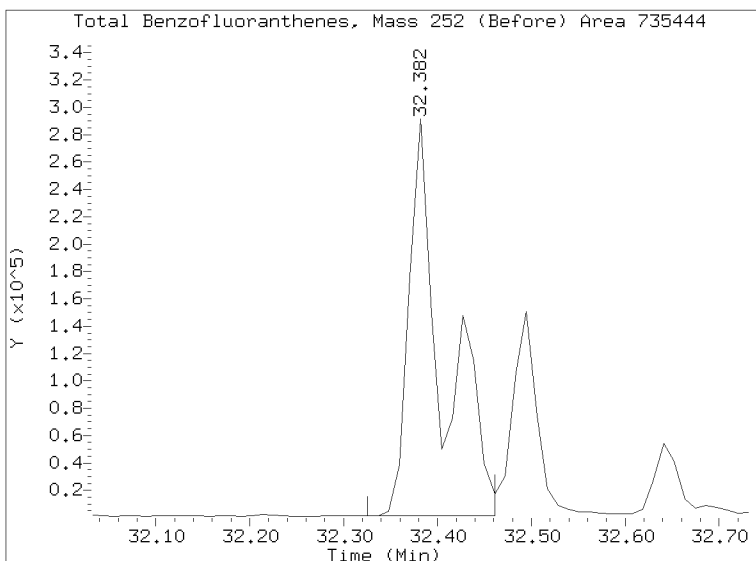
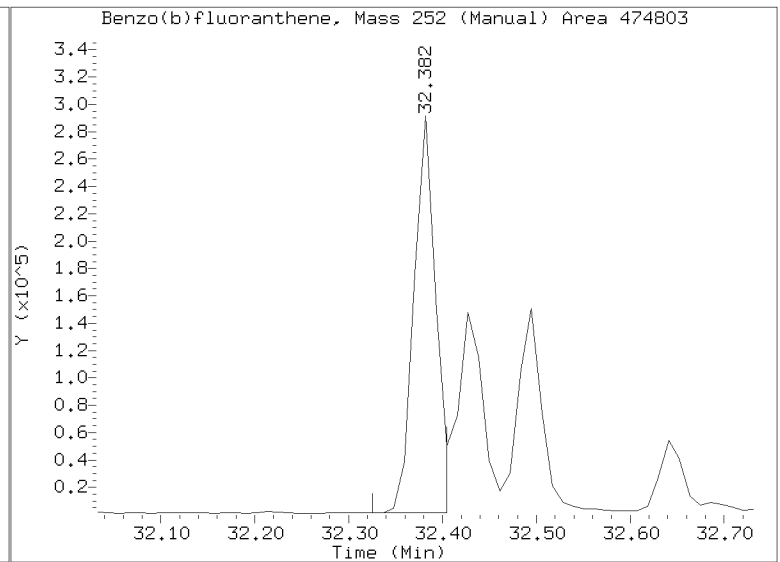
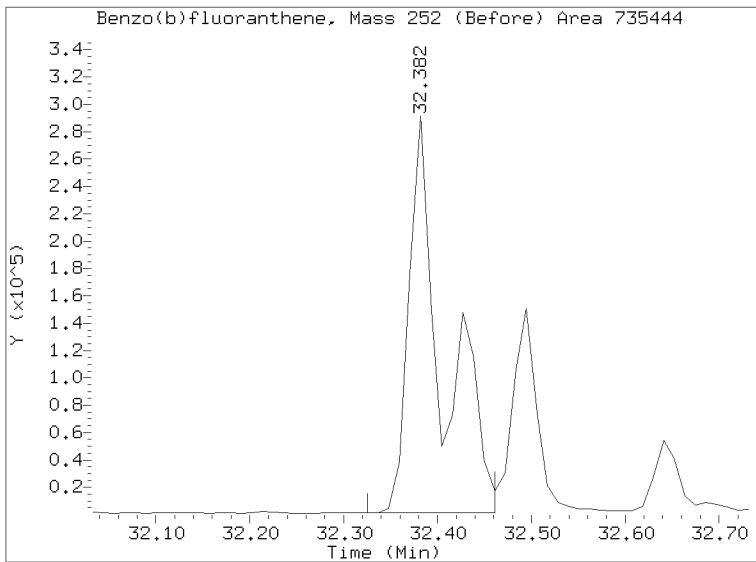
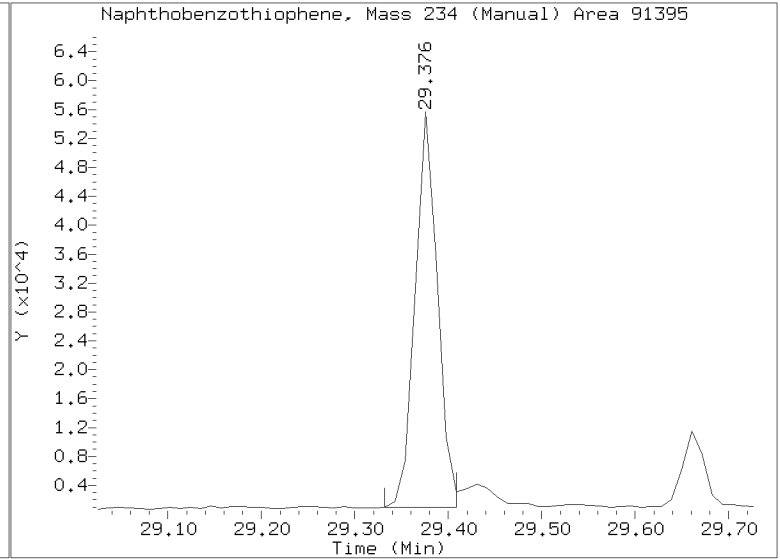
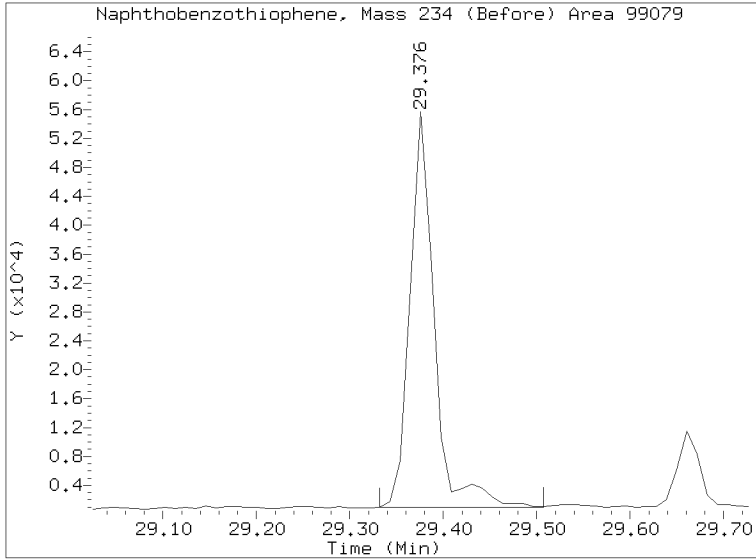
Quant Ion Manual Peak Adjustment Report

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Injection Date: 02-MAY-2021 10:49
Lab ID:21D0180-03 Client ID:
Report Date: 05/04/2021 13:21



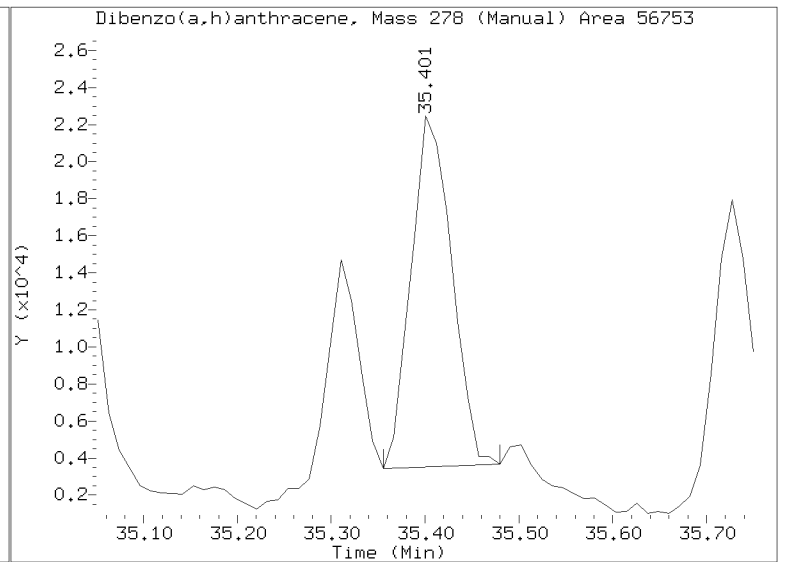
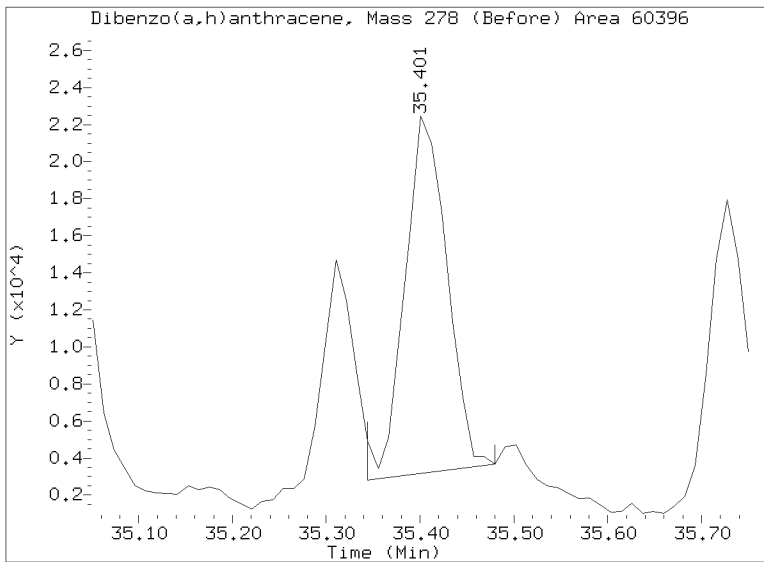
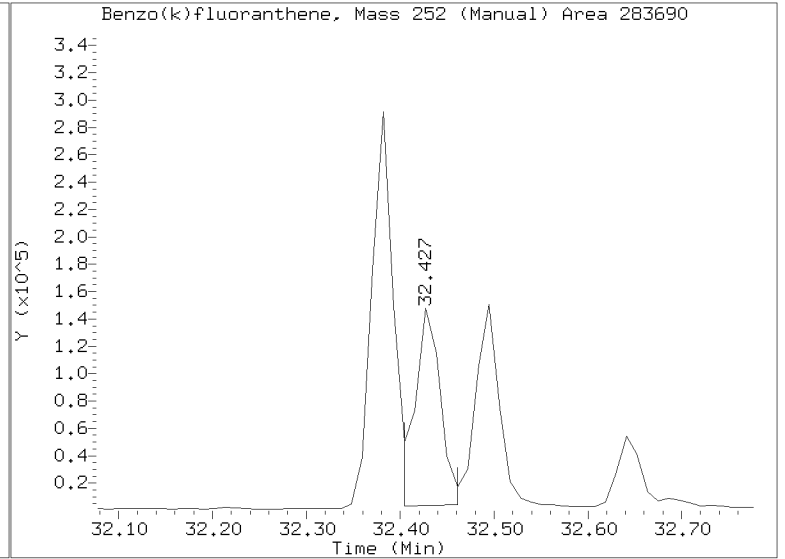
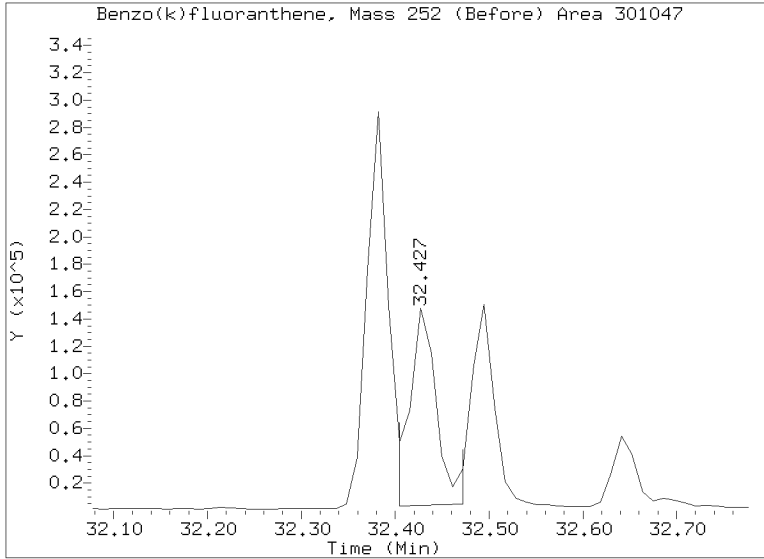
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043065.D
Injection Date: 02-MAY-2021 10:49
Lab ID:21D0180-03 Client ID:
Report Date: 05/04/2021 13:21



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043065.D
Injection Date: 02-MAY-2021 10:49
Lab ID:21D0180-03 Client ID:
Report Date: 05/04/2021 13:21





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Alkyl PAH Ranges

Laboratory: Analytical Resources, Inc.
 Client: Anchor OEA, LLC
 Project: Gasco Siltronic - US Moorings
 Matrix: Sediment Laboratory ID: 21D0180-03 A SDG: 21D0180
 Sampled: 04/14/21 08:36 Prepared: 04/22/21 11:05 File ID: NT1421043065S.D
 % Solids: 46.60 Preparation: EPA 3546 (Microwave) Analyzed: 05/02/21 10:49
 Batch: BJD0507 Sequence: SJE0095 Initial/Final: 21.46 g Wet / 0.5 mL
 Instrument: NT14 Column: ZB-5MS Calibration: EE00019
 Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
C1DEC	C1-Decalins	1	2.4	J	0.5	5.0
C2DEC	C2-Decalins	1	15.2		0.5	5.0
C3DEC	C3-Decalins	1	5.0	U	0.5	5.0
C4DEC	C4-Decalins	1	5.0	U	0.5	5.0
C1NAPH	C1-Naphthalenes	1	10.9		0.4	5.0
C2NAPH	C2-Naphthalenes	1	11.8		0.4	5.0
C3NAPH	C3-Naphthalenes	1	10.0		0.4	5.0
C4NAPH	C4-Naphthalenes	1	4.4	J	0.4	5.0
C1FLR	C1-Fluorenes	1	10.7		0.5	5.0
C2FLR	C2-Fluorenes	1	9.5		0.5	5.0
C3FLR	C3-Fluorenes	1	10.8		0.5	5.0
C1DBTPH	C1-Dibenzothiophenes	1	9.3		0.7	5.0
C2DBTPH	C2-Dibenzothiophenes	1	12.2		0.7	5.0
C3DBTPH	C3-Dibenzothiophenes	1	13.0		0.7	5.0
C4DBTPH	C4-Dibenzothiophenes	1	5.0	U	0.7	5.0
C1PHNANT	C1-Phenanthrenes/Anthracenes	1	47.9		0.9	5.0
C2PHNANT	C2-Phenanthrenes/Anthracenes	1	36.9		0.9	5.0
C3PHNANT	C3-Phenanthrenes/Anthracenes	1	19.1		0.9	5.0
C4PHNANT	C4-Phenanthrenes/Anthracenes	1	8.0		0.9	5.0
C1FLPYR	C1-Fluoranthenes/Pyrenes	1	99.1		1.0	5.0
C2FLPYR	C2-Fluoranthenes/Pyrenes	1	44.7		1.0	5.0
C3FLPYR	C3-Fluoranthenes/Pyrenes	1	18.3		1.0	5.0
C4FLPYR	C4-Fluoranthenes/Pyrenes	1	19.1		1.0	5.0
C1BAACYR	C1-Benzo(a)anthracenes/Chrysenes	1	67.1		0.7	5.0
C2BAACYR	C2-Benzo(a)anthracenes/Chrysenes	1	26.7		0.7	5.0
C3BAACYR	C3-Benzo(a)anthracenes/Chrysenes	1	21.5		0.7	5.0
C4BAACYR	C4-Benzo(a)anthracenes/Chrysenes	1	8.8		0.7	5.0
C1BZTPH	C1-Benzothiophenes	1	1.8	J	0.4	5.0
C2BZTPH	C2-Benzothiophenes	1	3.0	J	0.4	5.0
C3BZTPH	C3-Benzothiophenes	1	2.0	J	0.4	5.0



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Alkyl PAH Ranges

Laboratory: Analytical Resources, Inc.
Client: Anchor OEA, LLC
Project: Gasco Siltronic - US Moorings
Matrix: Sediment Laboratory ID: 21D0180-03 A SDG: 21D0180
Sampled: 04/14/21 08:36 Prepared: 04/22/21 11:05 File ID: NT1421043065S.D
% Solids: 46.60 Preparation: EPA 3546 (Microwave) Analyzed: 05/02/21 10:49
Batch: BJD0507 Sequence: SJE0095 Initial/Final: 21.46 g Wet / 0.5 mL
Instrument: NT14 Column: ZB-5MS Calibration: EE00019
Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
C1NPBTP	C1-Naphthobenzothiophenes	1	16.2		2.5	5.0
C2NPBTP	C2-Naphthobenzothiophenes	1	14.6		2.5	5.0
C3NPBTP	C3-Naphthobenzothiophenes	1	10.7		2.5	5.0
C4NPBTP	C4-Naphthobenzothiophenes	1	6.4		2.5	5.0
C1DBA	C1-Dibenzo(a)anthracenes	1	16.1		0.7	5.0
C2DBA	C2-Dibenzo(a)anthracenes	1	3.3	J	0.7	5.0
C3DBA	C3-Dibenzo(a)anthracenes	1	2.3	J	0.7	5.0

Data File: \\target\share\chem3\nt14.1\20210430.1\SIH.B\NT14210430655.D

Date: 02-May-2021 10:49

Client ID:

Sample Info: 21D0180-03

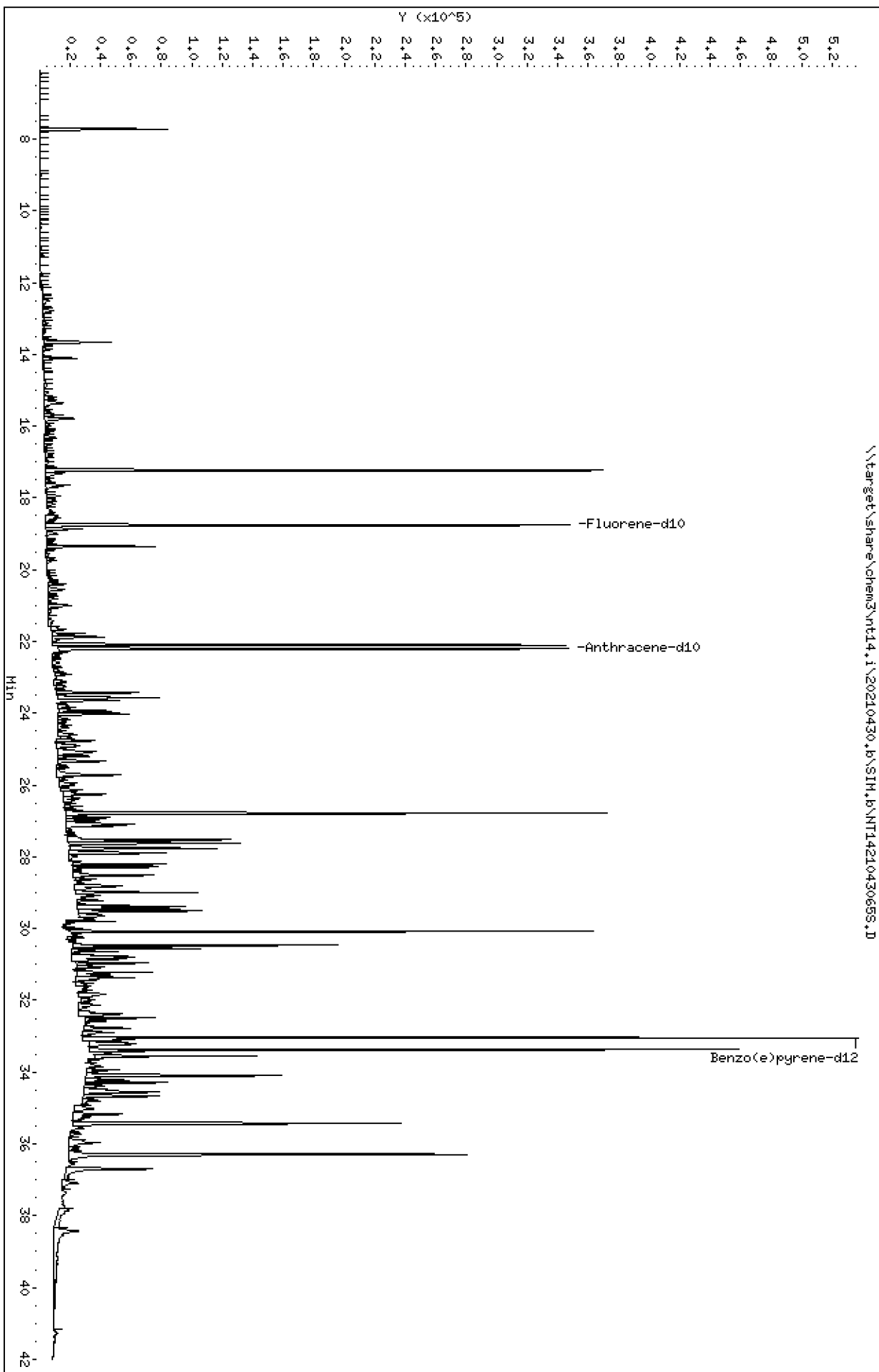
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14.1\20210430.1\SIH.B\NT14210430655.D



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

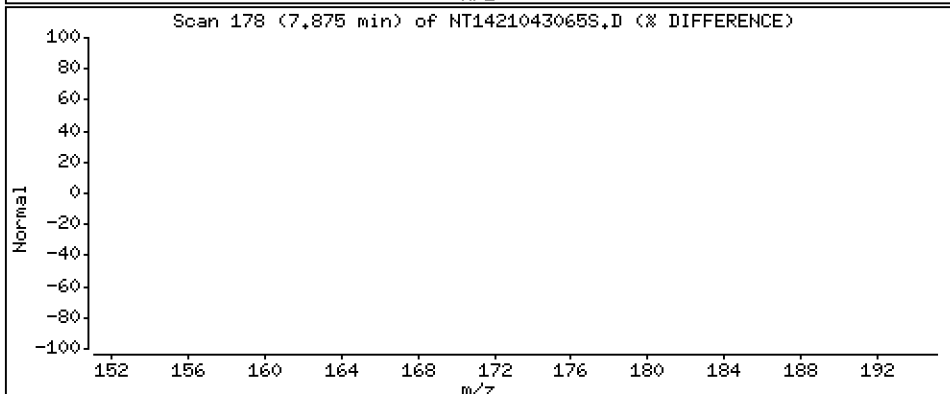
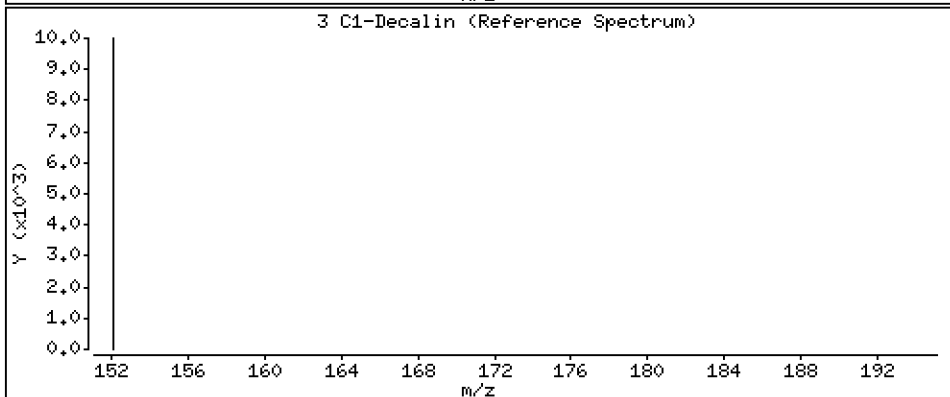
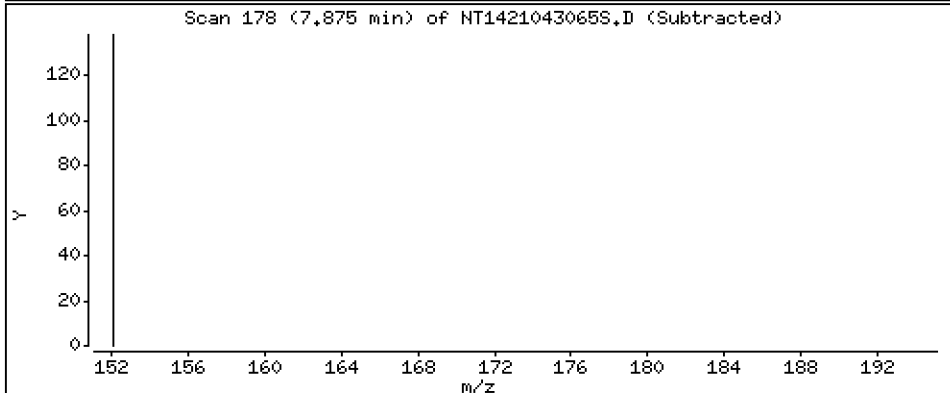
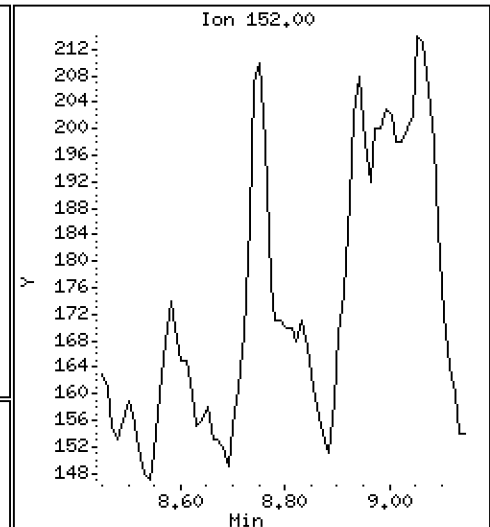
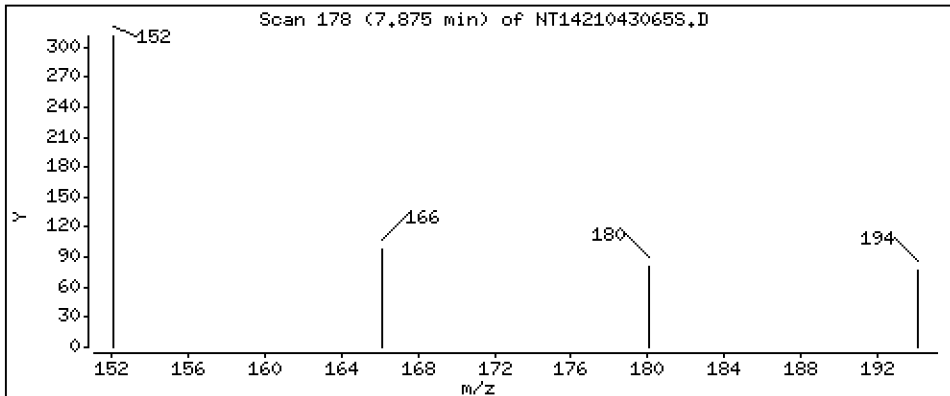
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

3 Cl-Decalin

Concentration: 0,04859 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

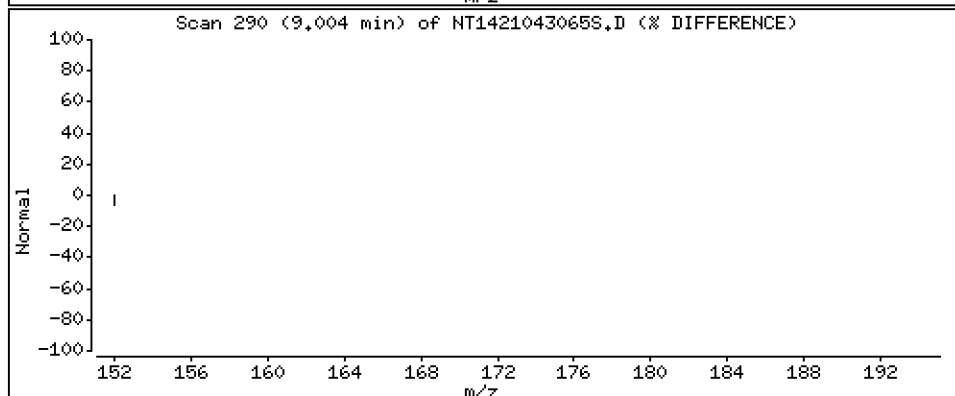
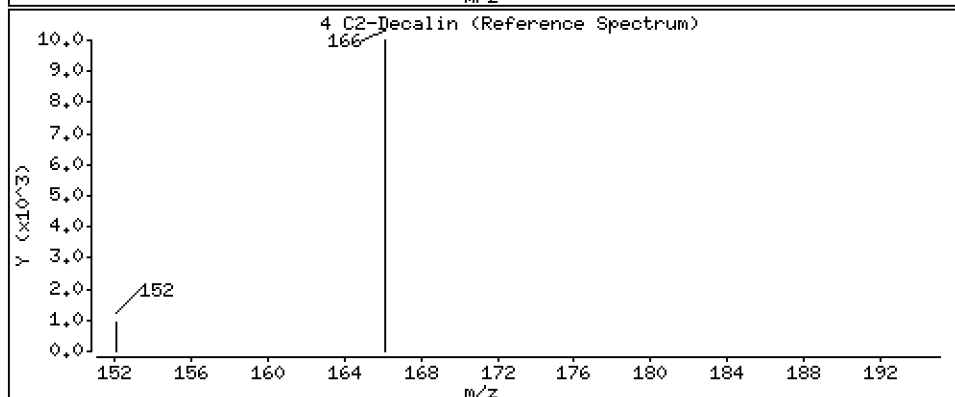
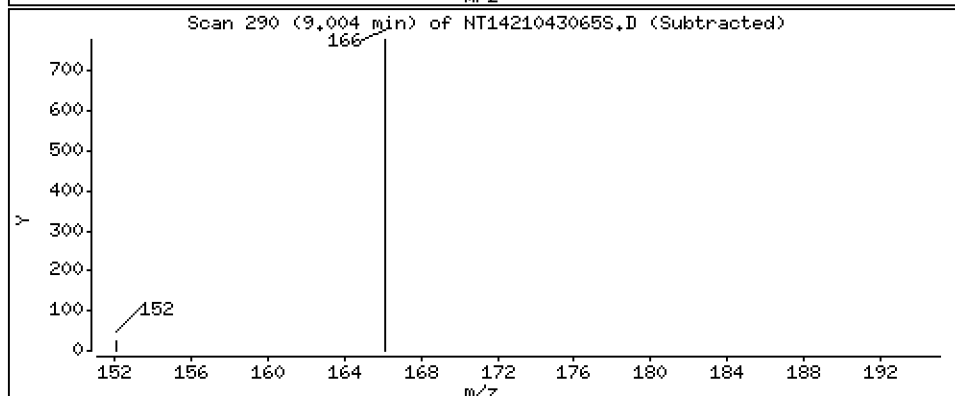
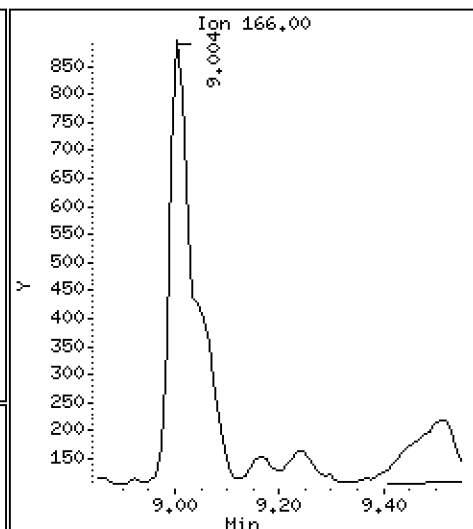
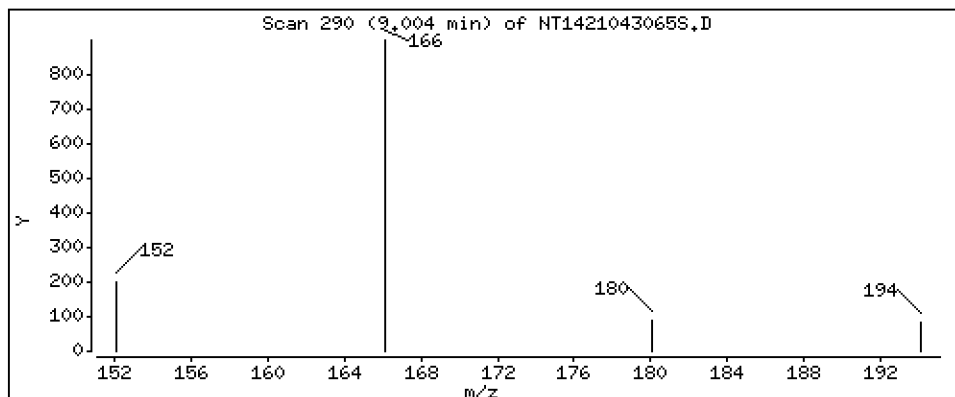
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

4 C2-Decalin

Concentration: 0,3037 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

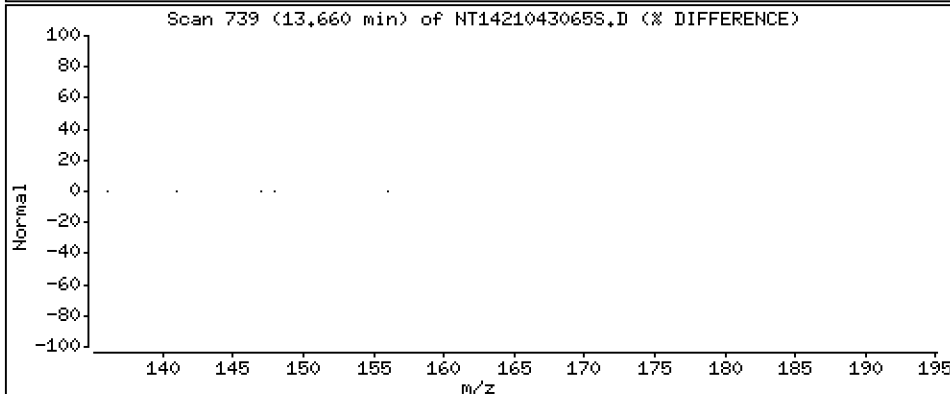
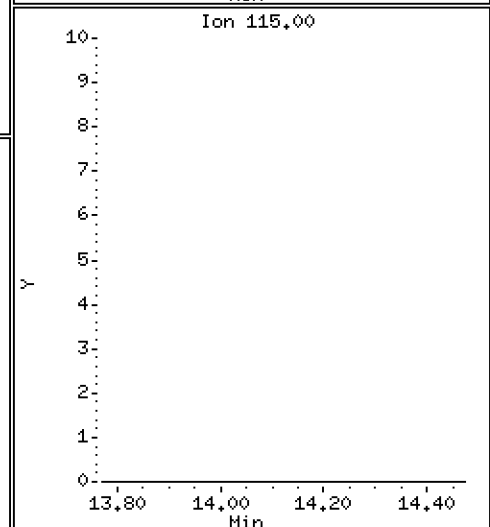
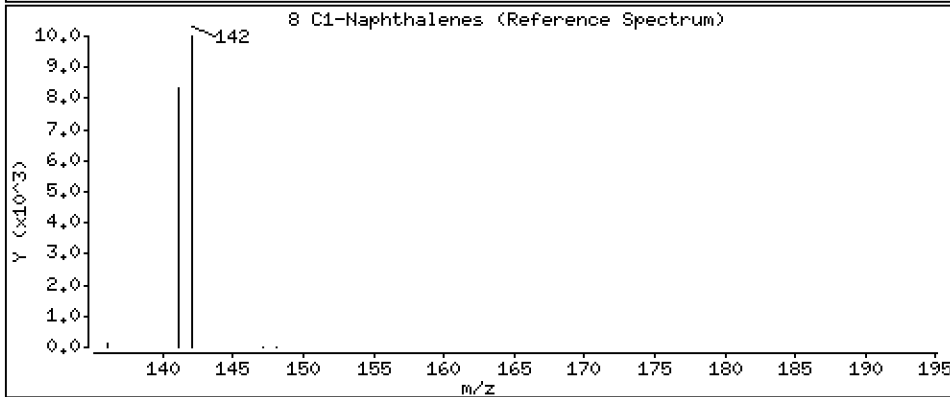
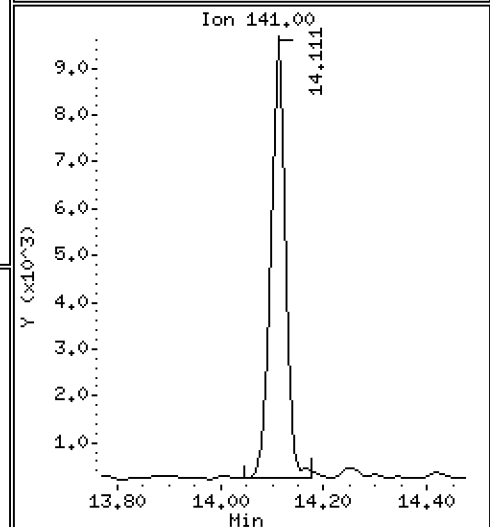
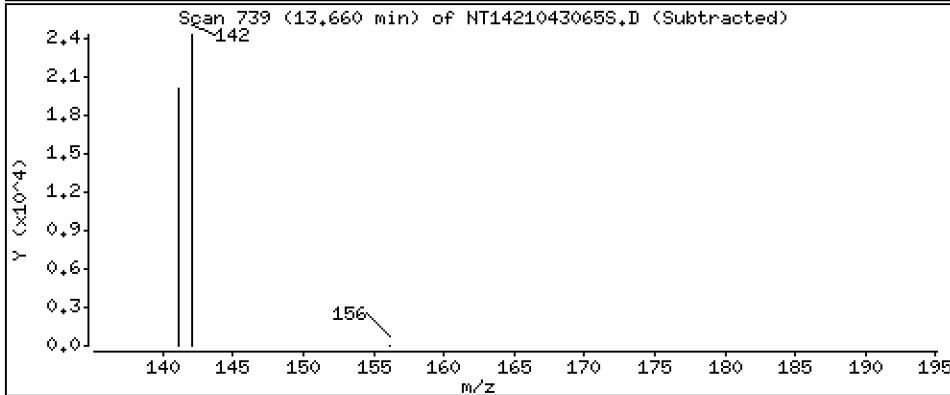
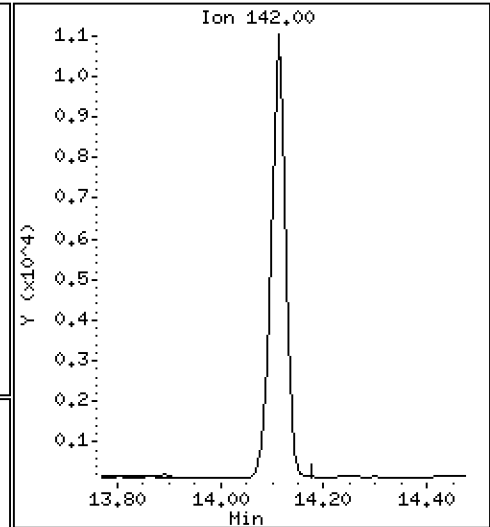
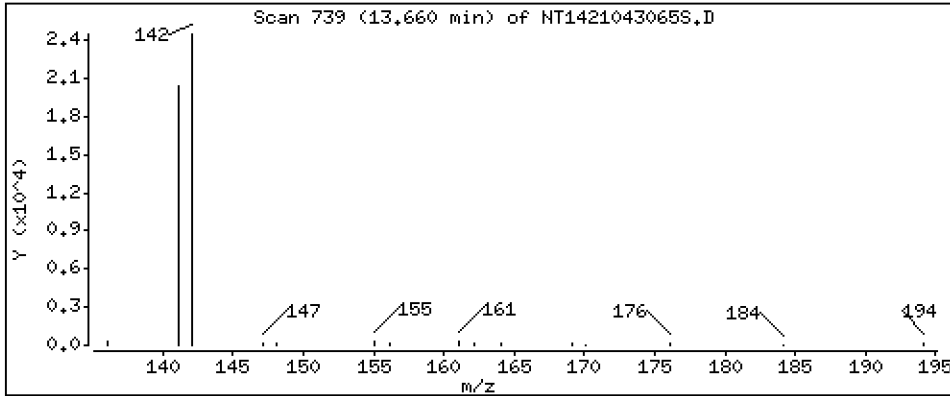
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

8 C1-Naphthalenes

Concentration: 0,2181 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

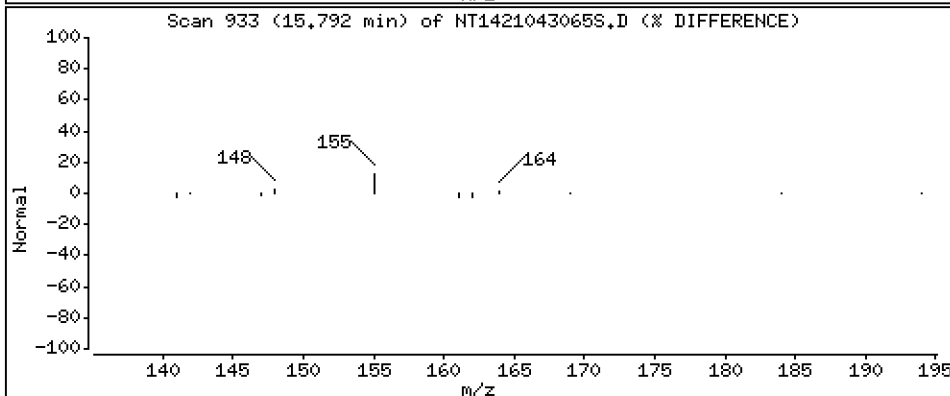
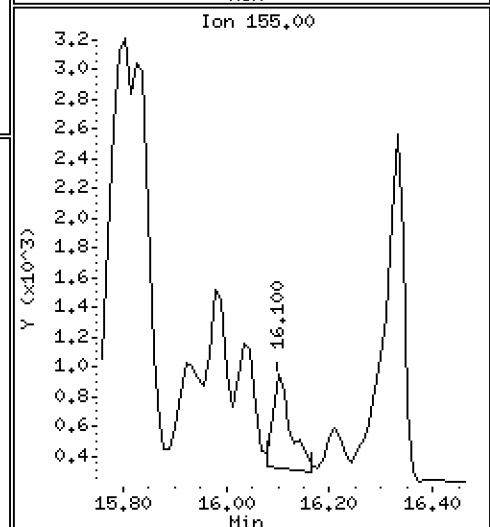
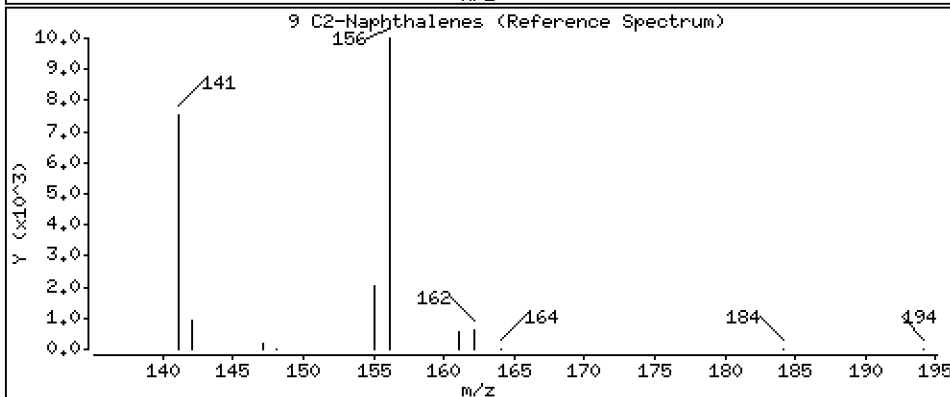
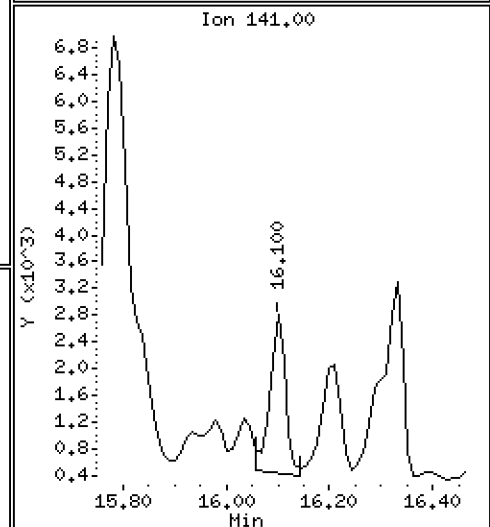
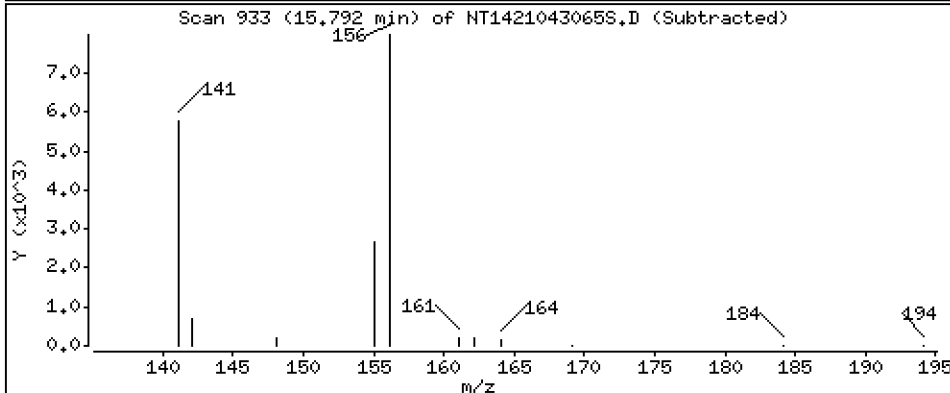
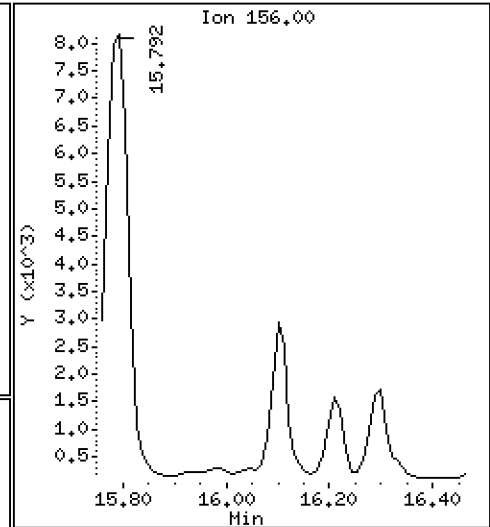
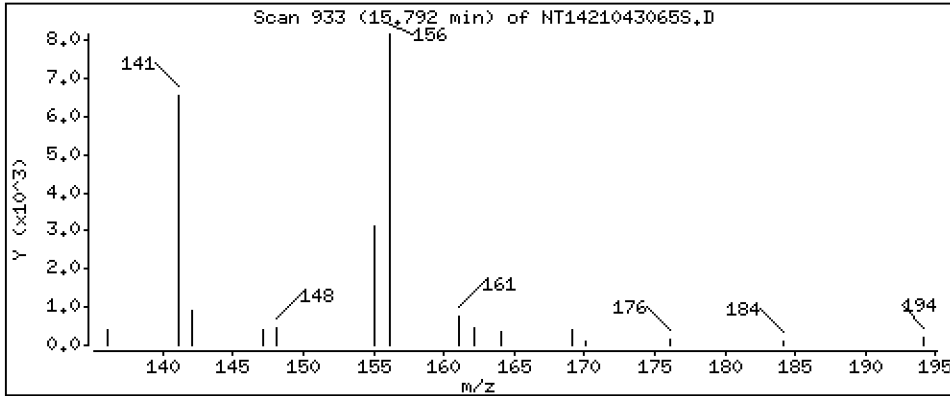
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

9 C2-Naphthalenes

Concentration: 0.2359 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

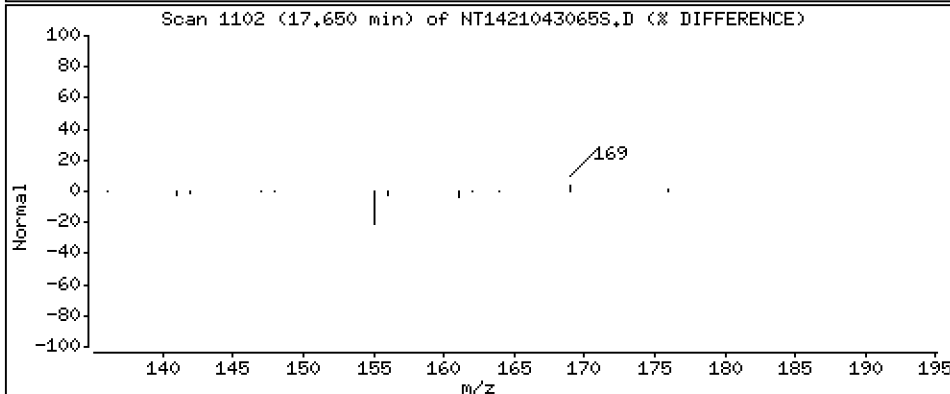
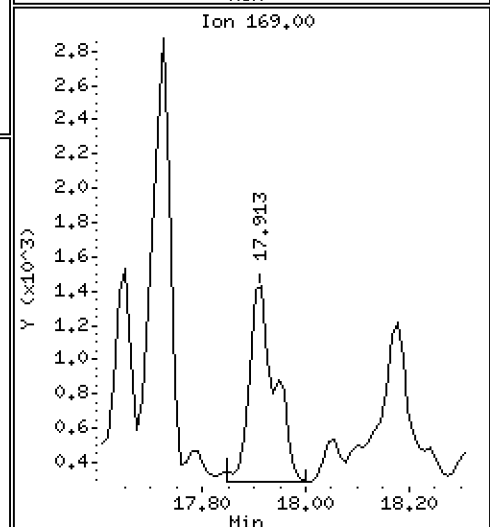
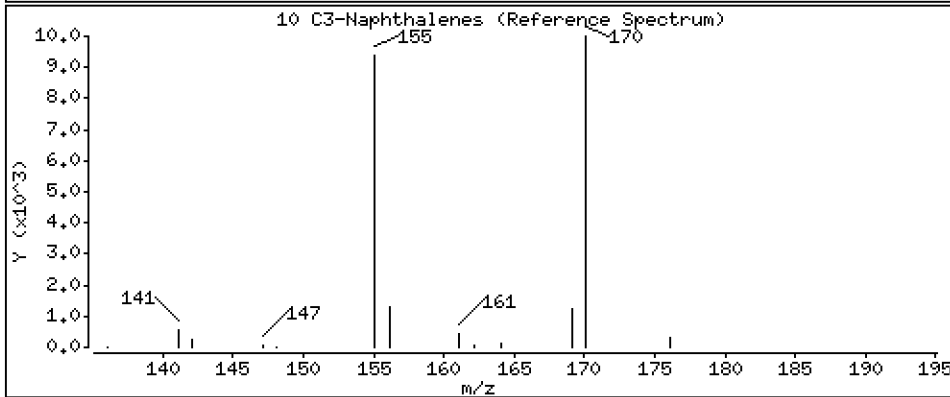
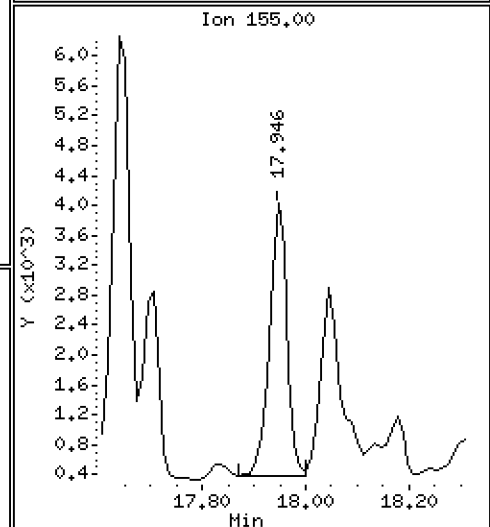
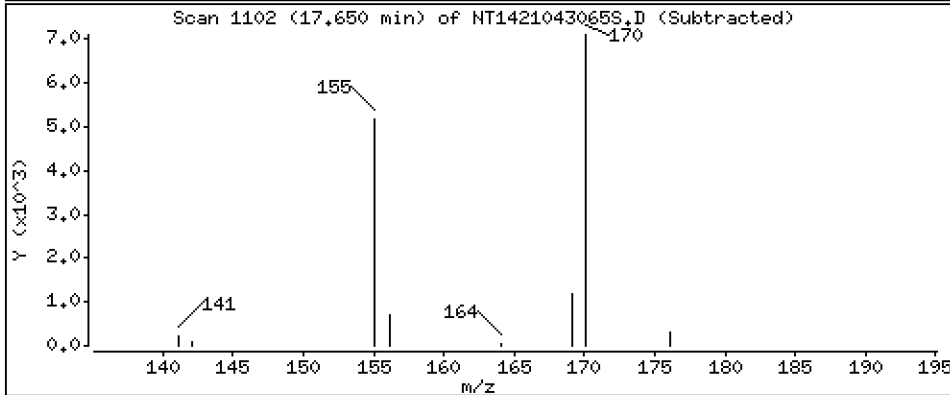
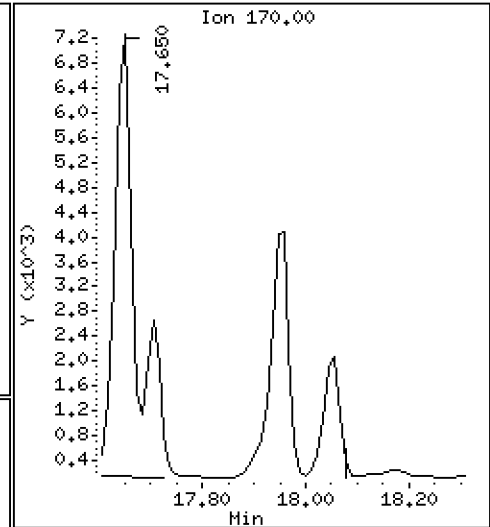
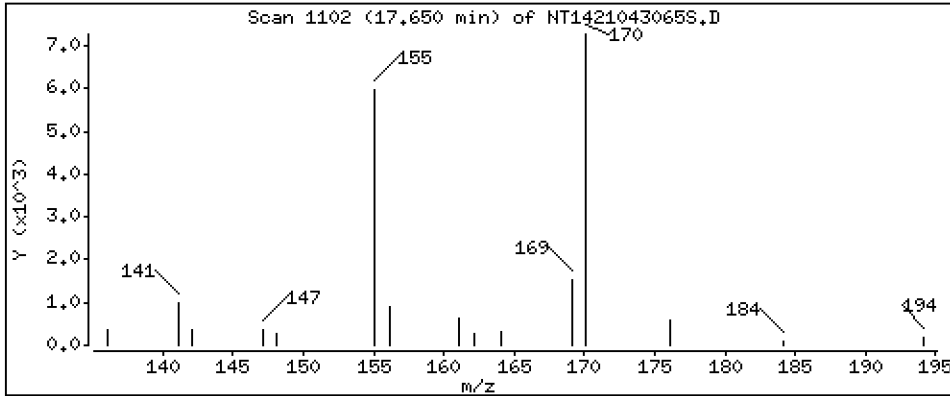
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

10 C3-Naphthalenes

Concentration: 0.2005 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

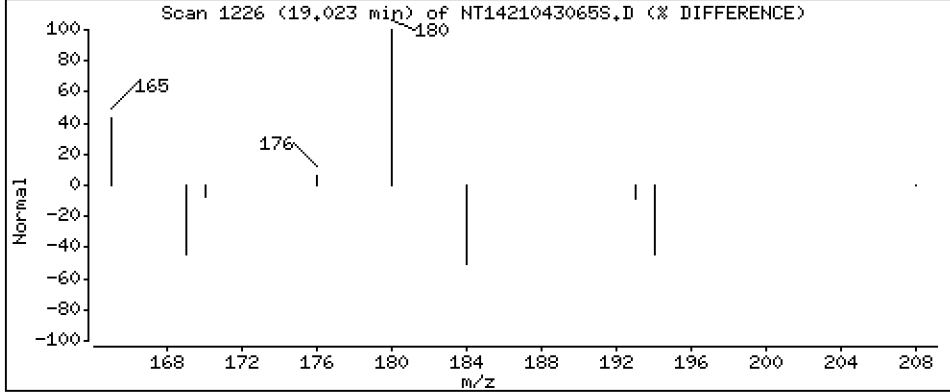
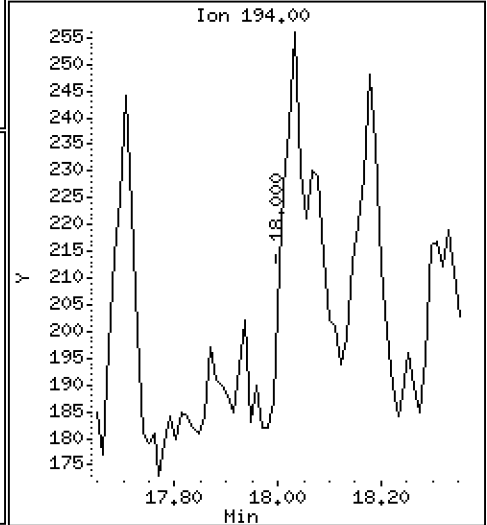
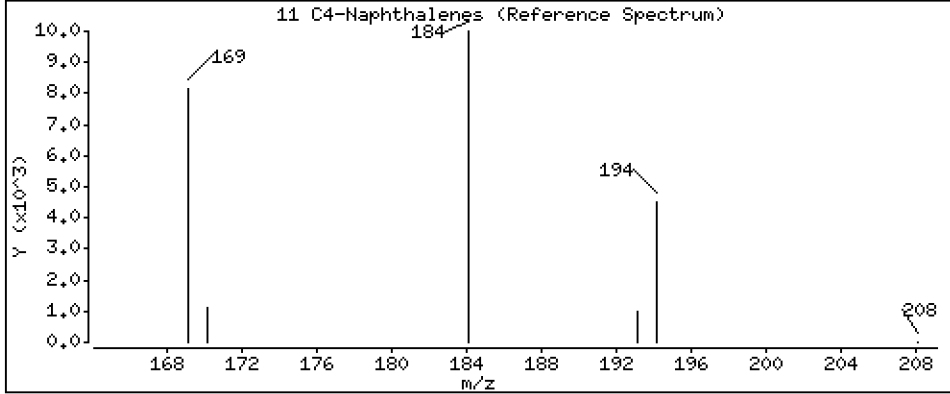
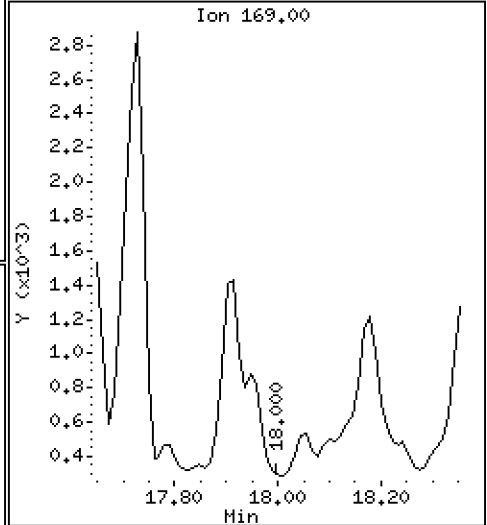
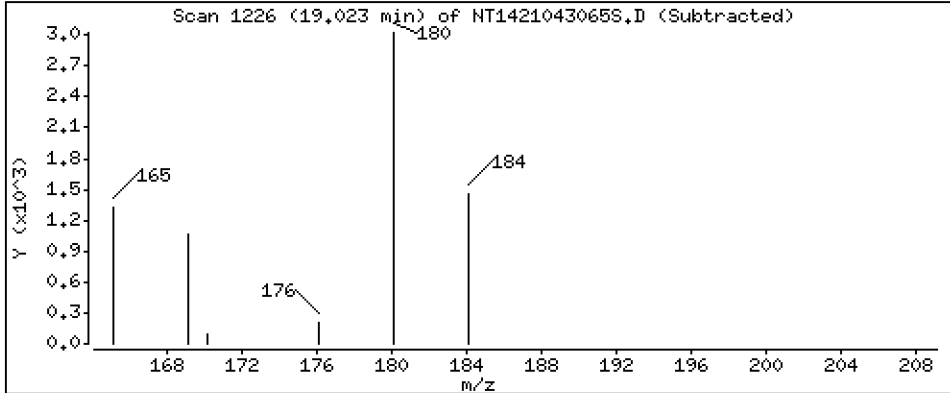
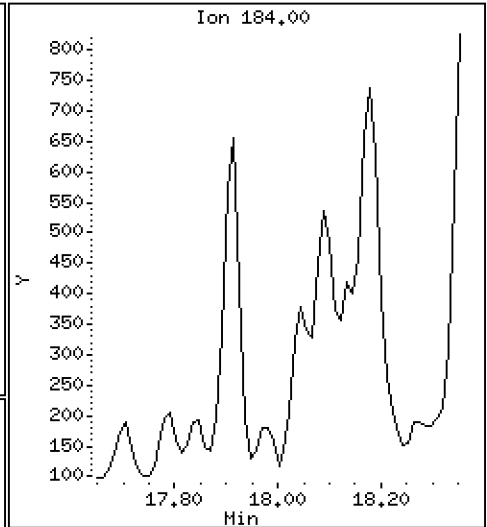
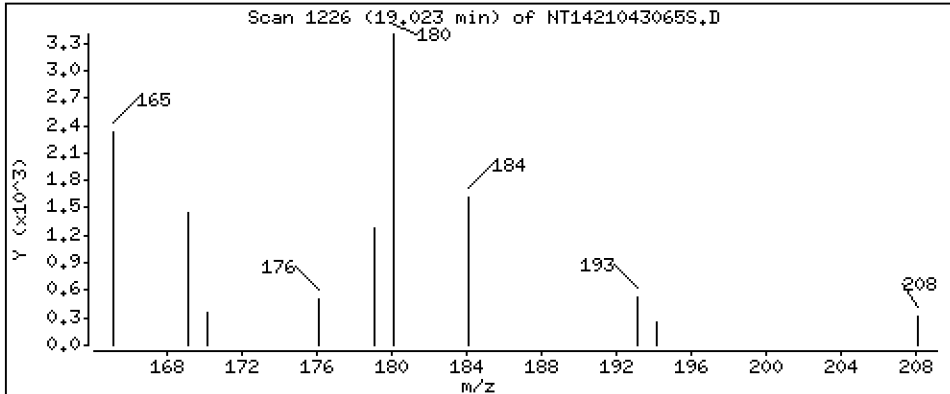
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

Concentration: 0.08710 ug/mL

11 C4-Naphthalenes



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

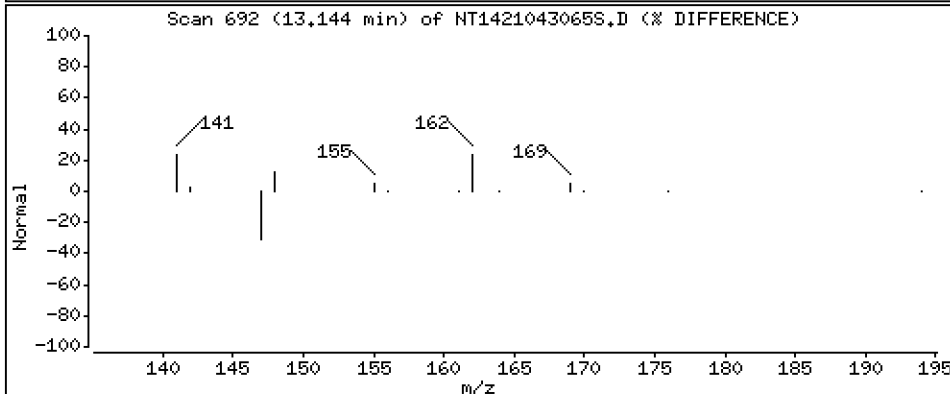
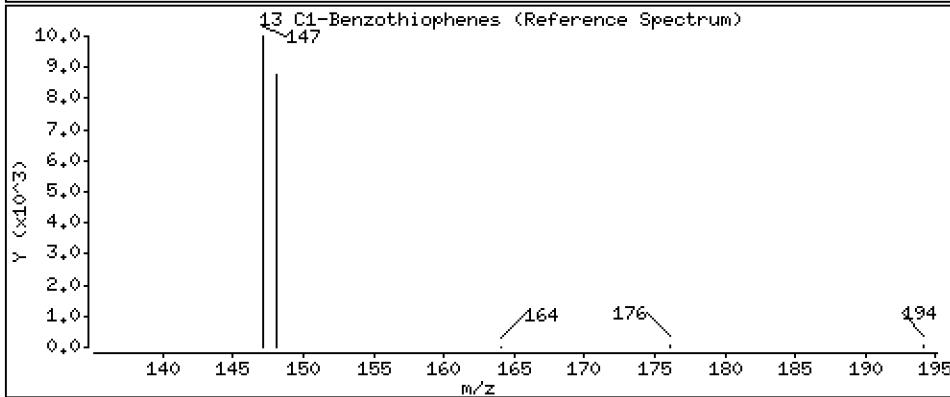
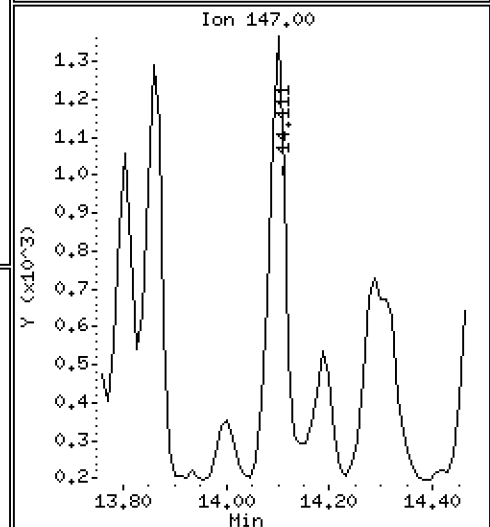
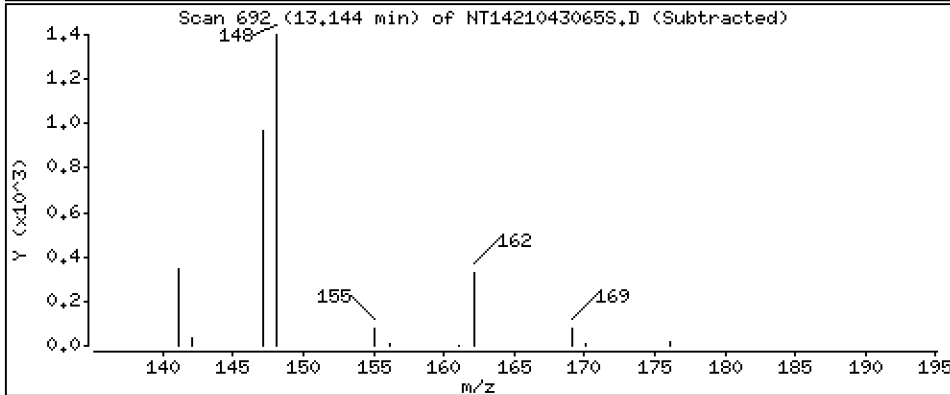
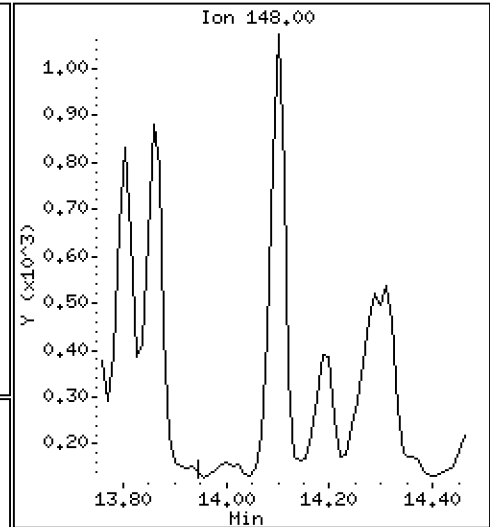
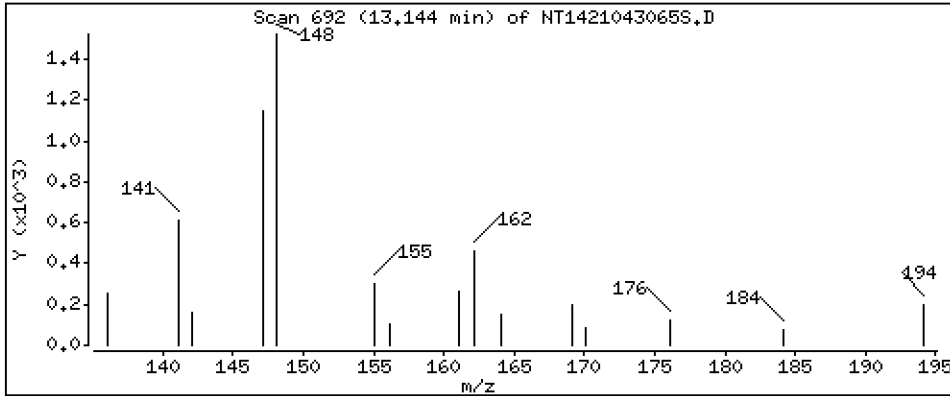
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

13 C1-Benzothiophenes

Concentration: 0.03639 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

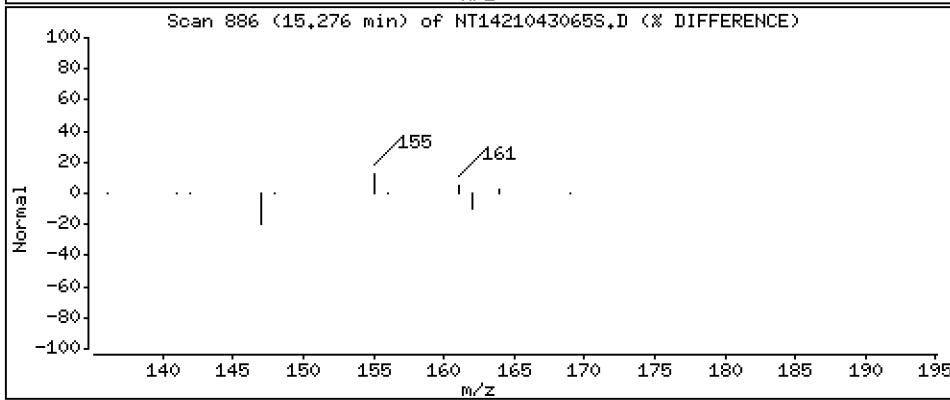
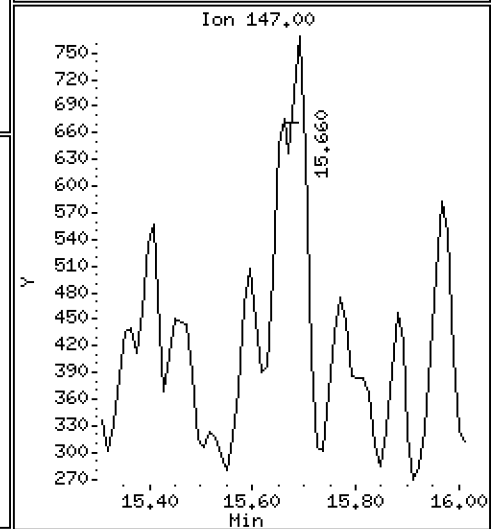
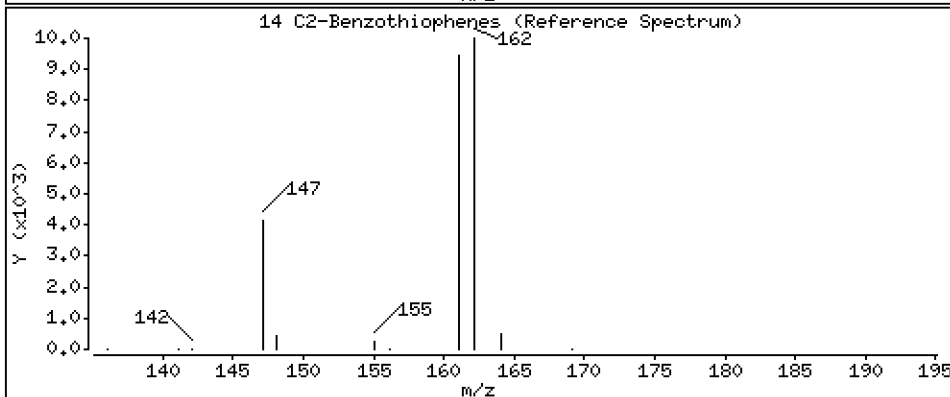
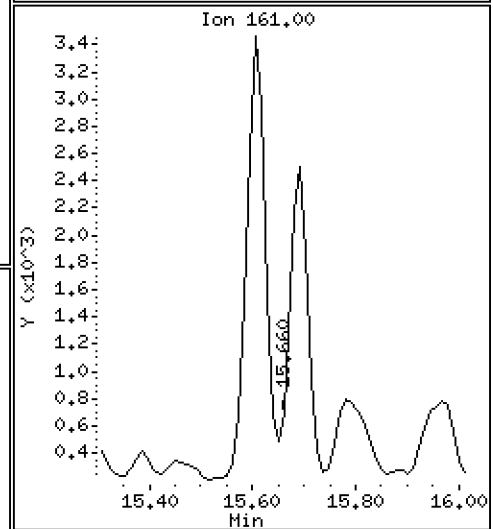
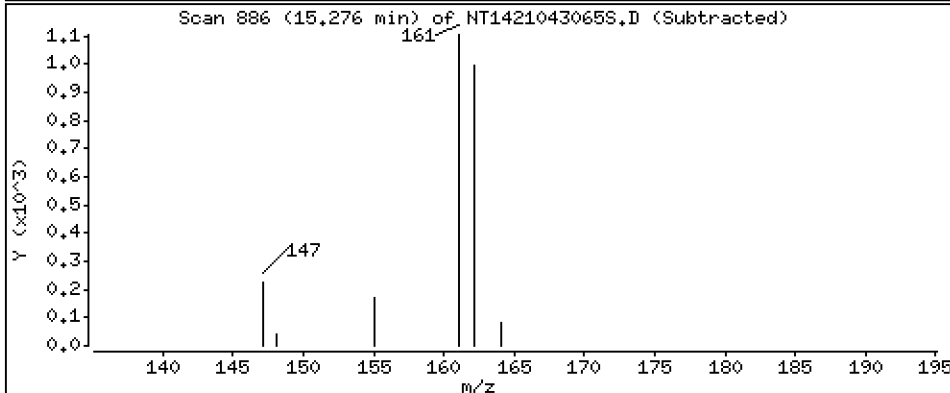
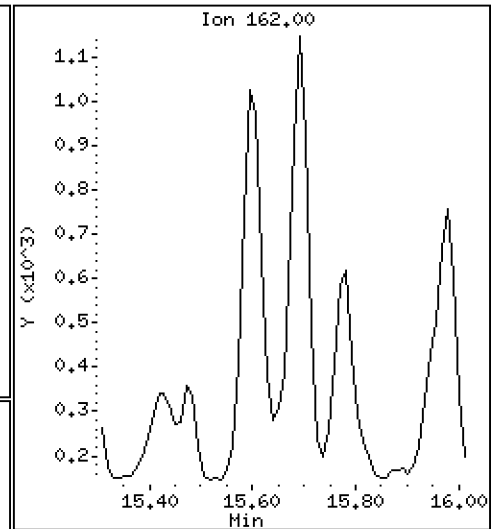
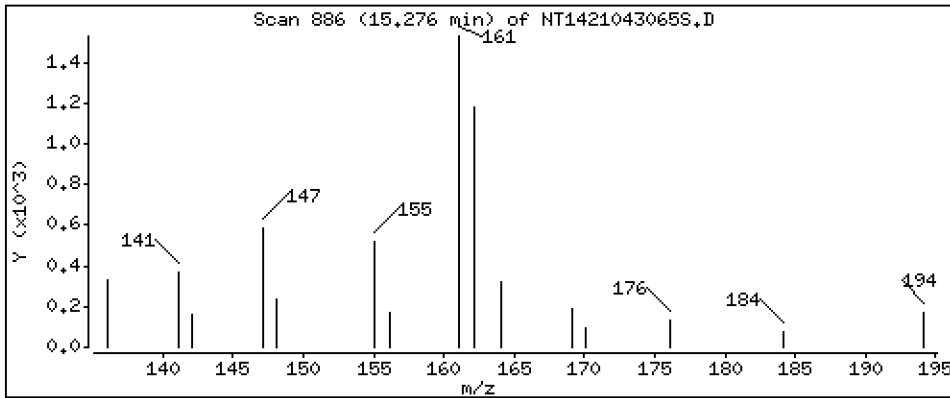
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

14 C2-Benzothiophenes

Concentration: 0.05917 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

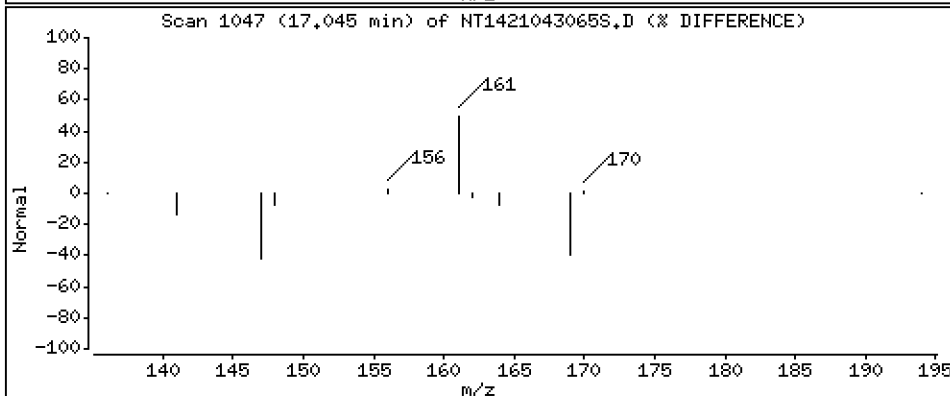
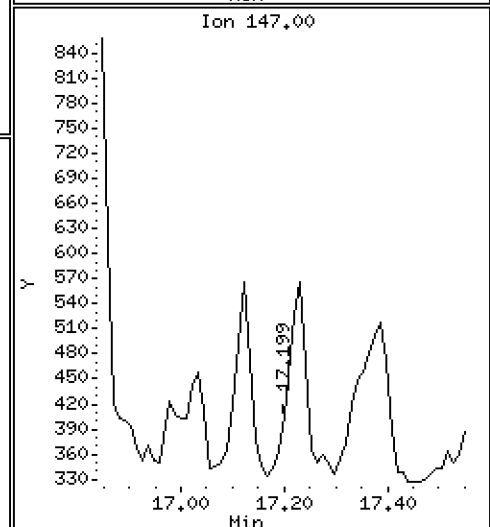
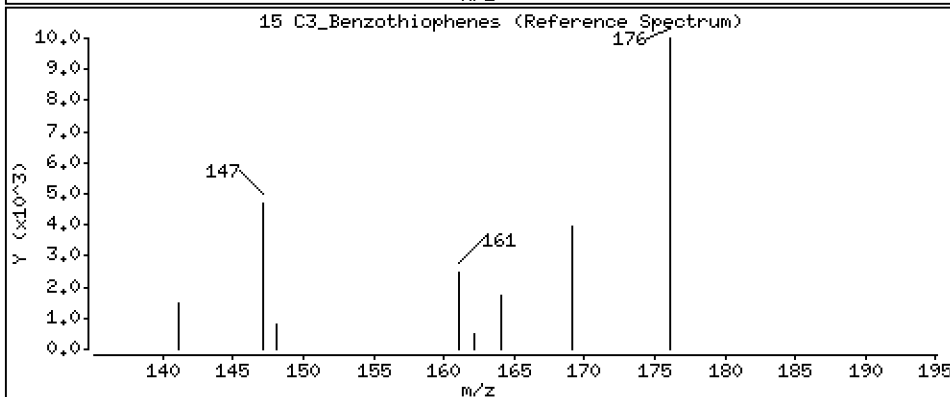
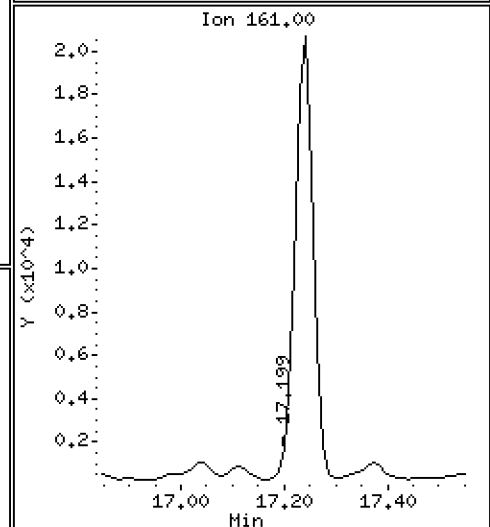
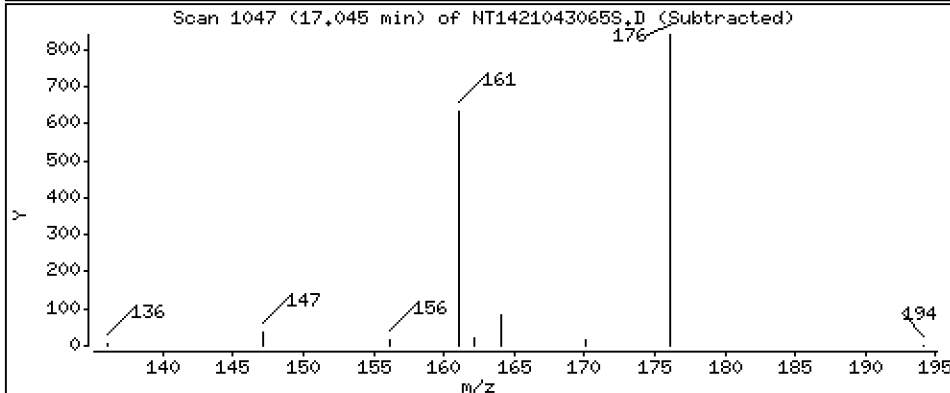
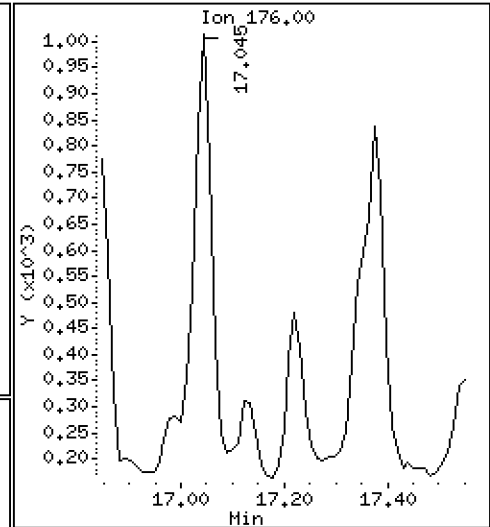
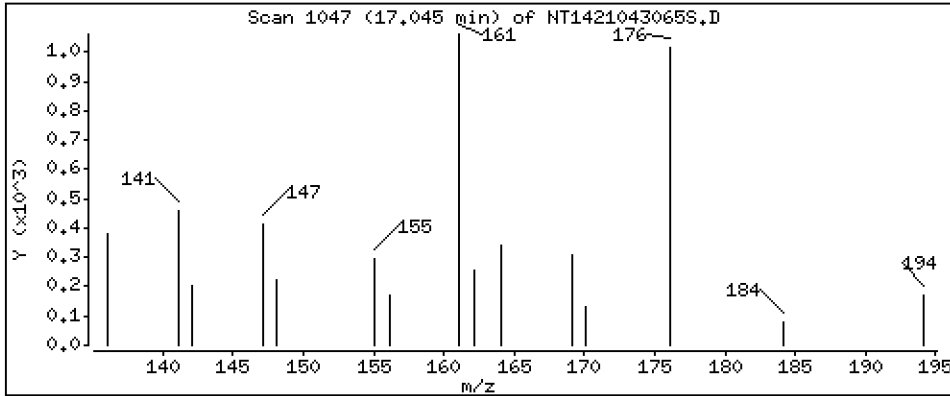
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

15 C3-Benzothiophenes

Concentration: 0.04052 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

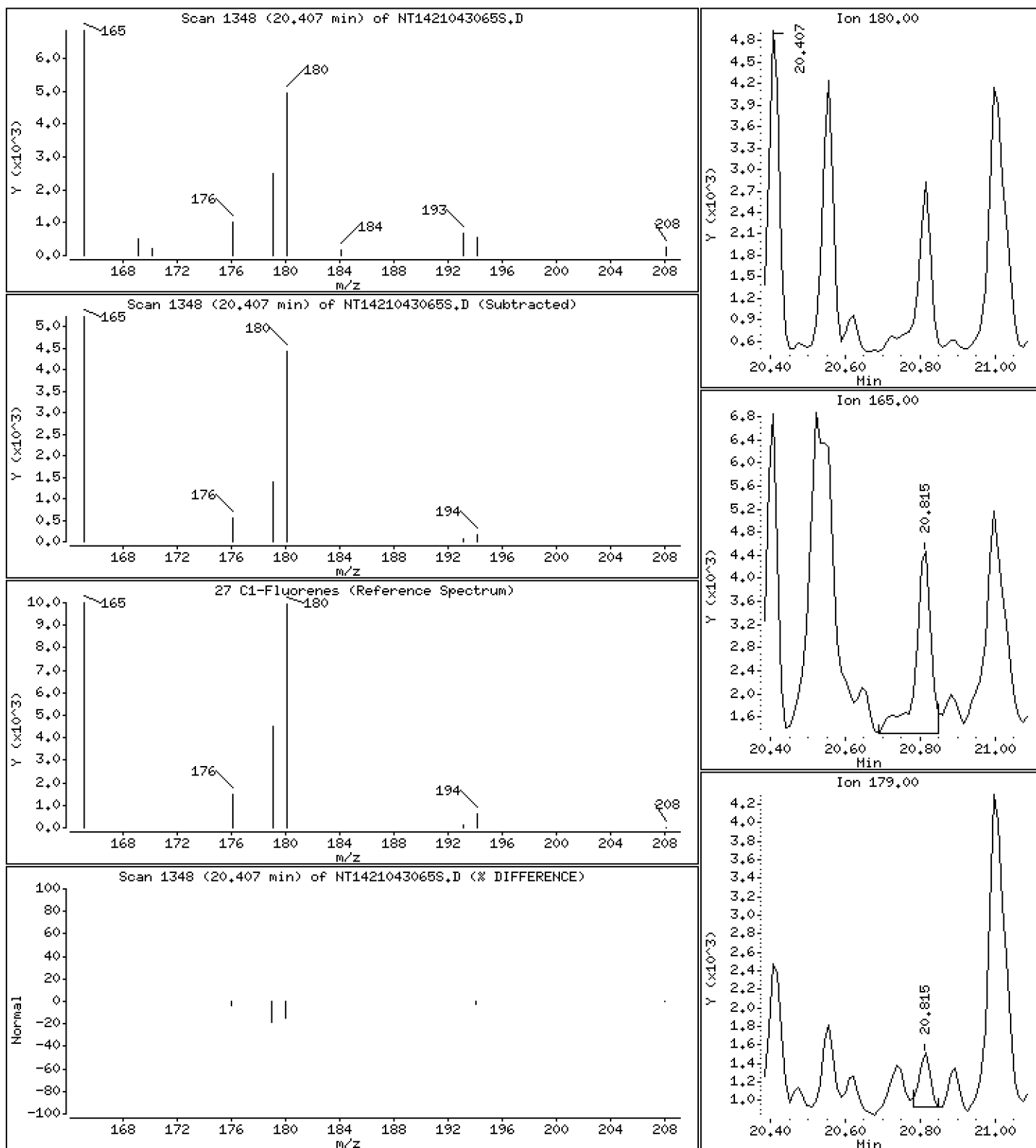
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

27 C1-Fluorenes

Concentration: 0,2145 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

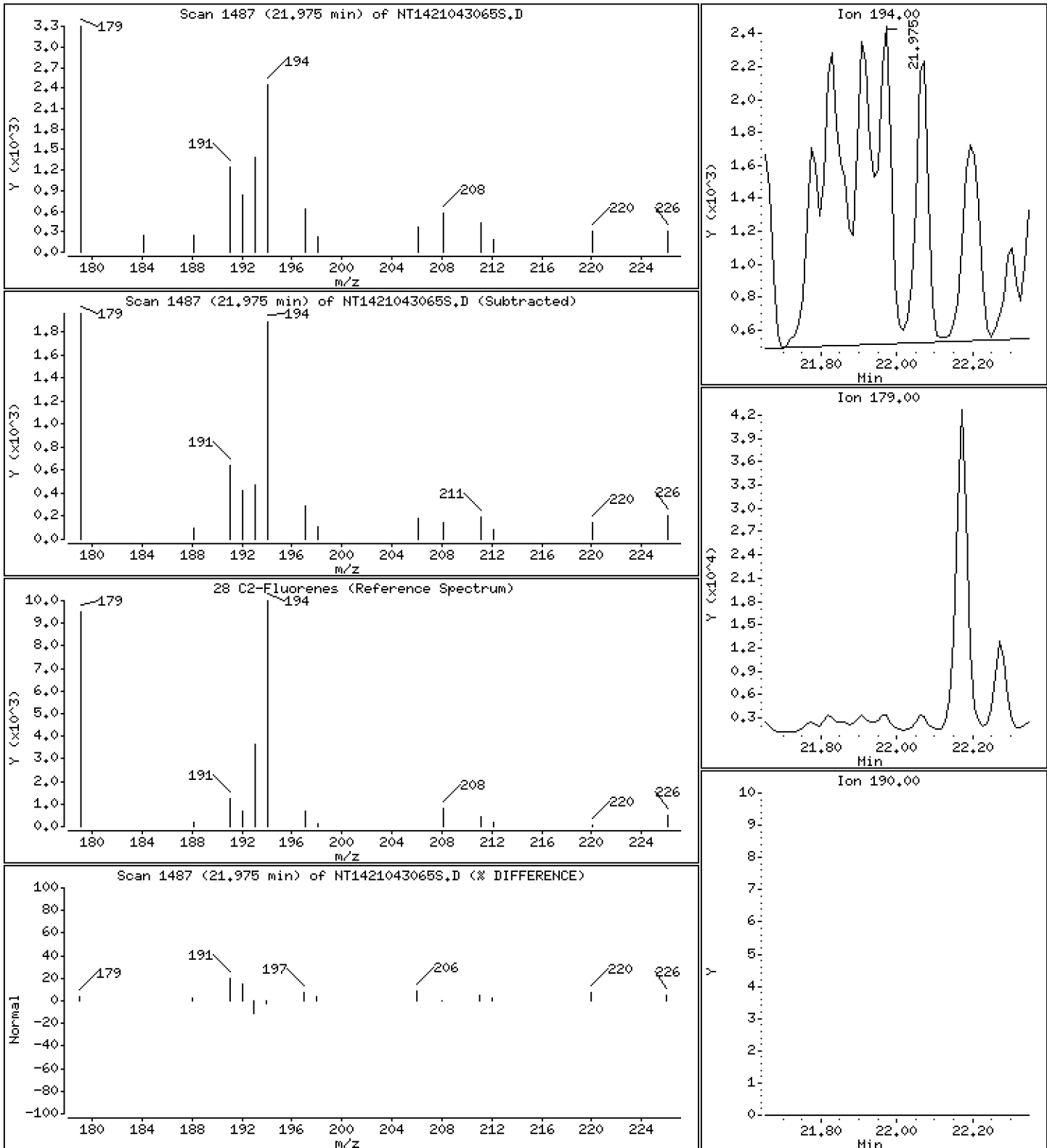
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

28 C2-Fluorenes

Concentration: 0,1908 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

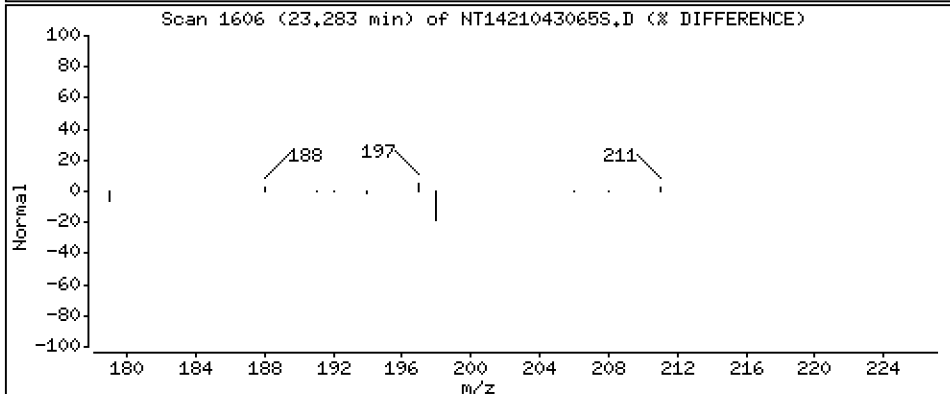
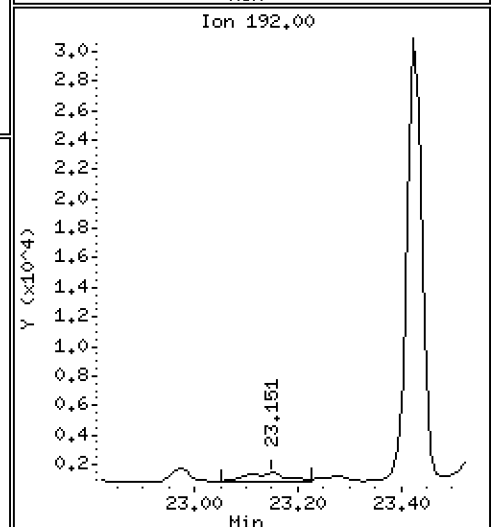
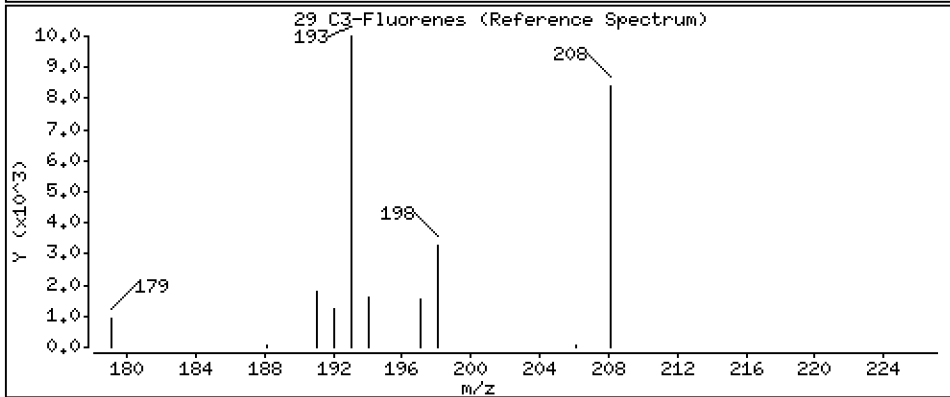
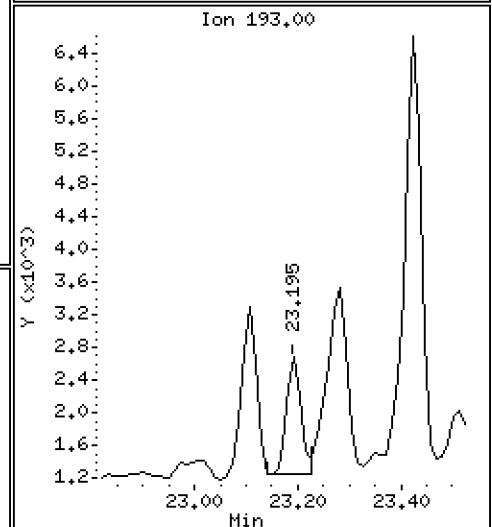
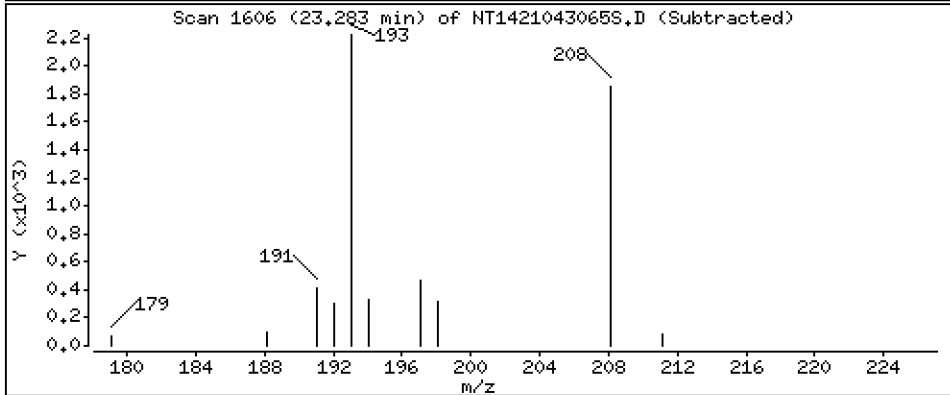
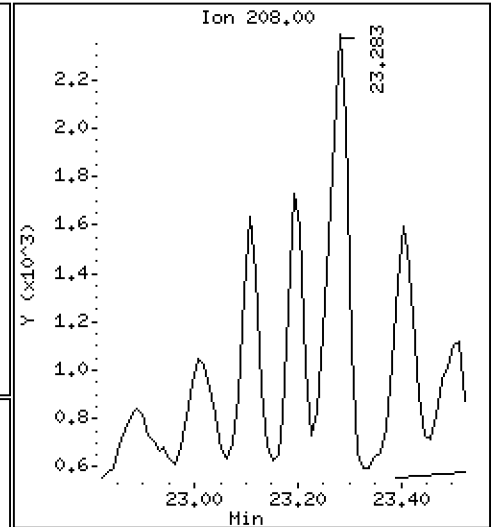
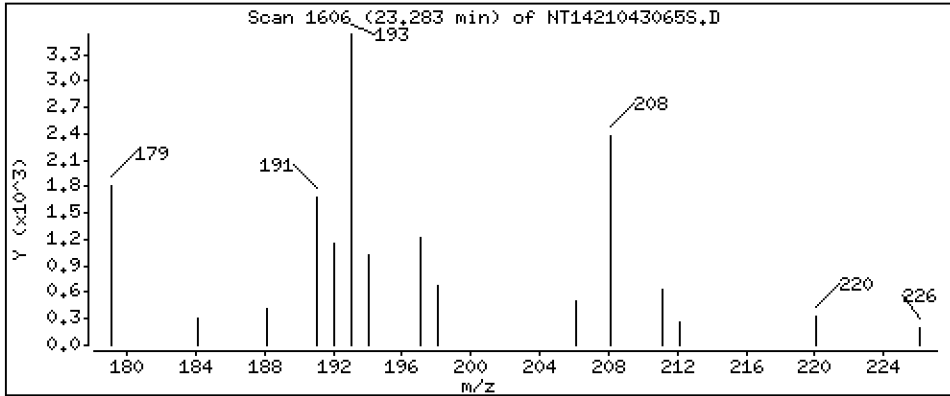
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

29 C3-Fluorenes

Concentration: 0,2164 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

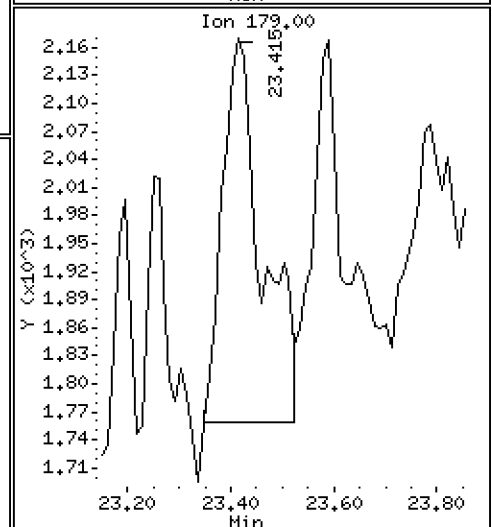
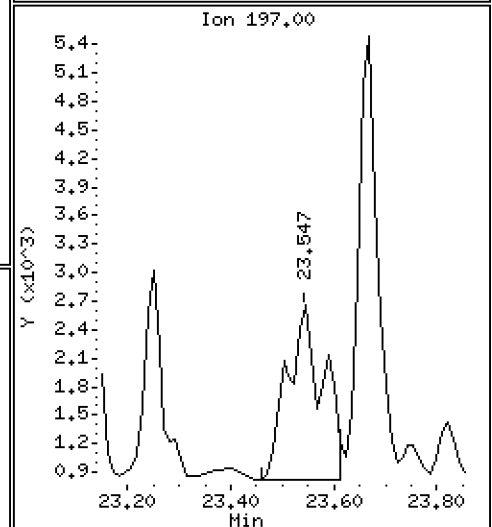
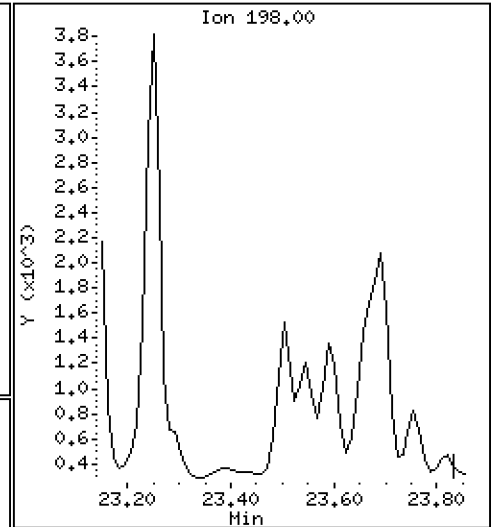
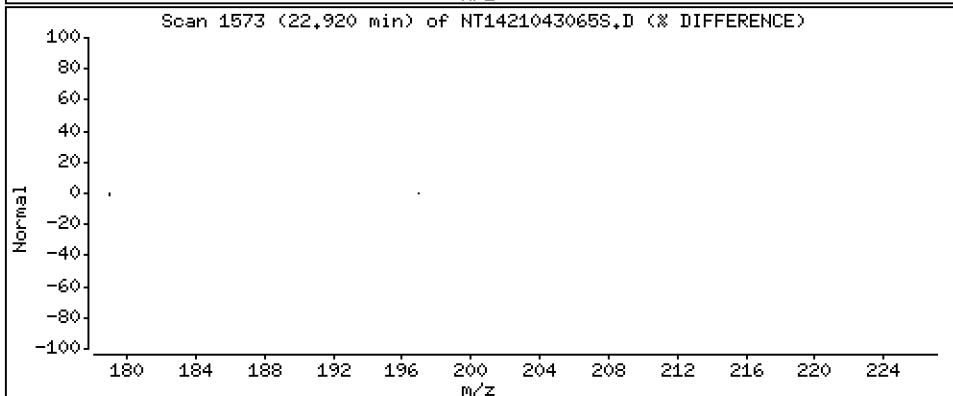
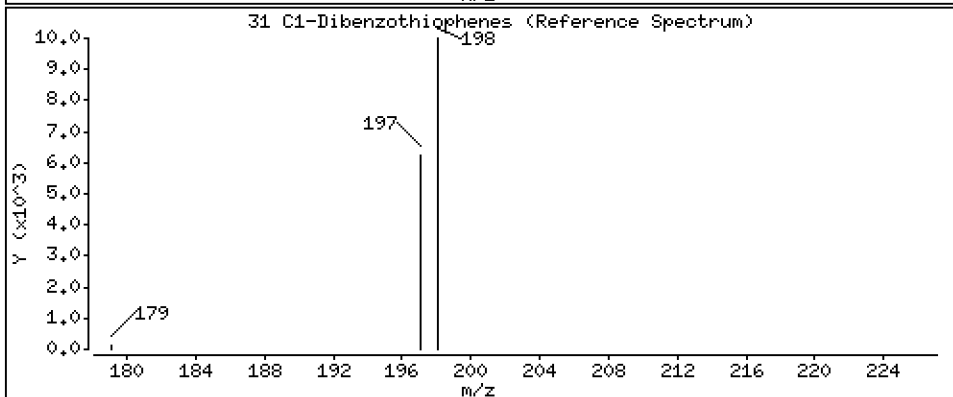
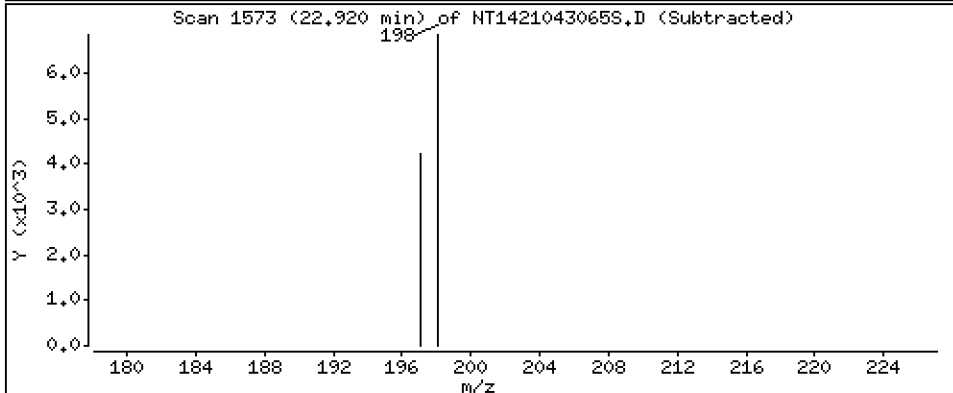
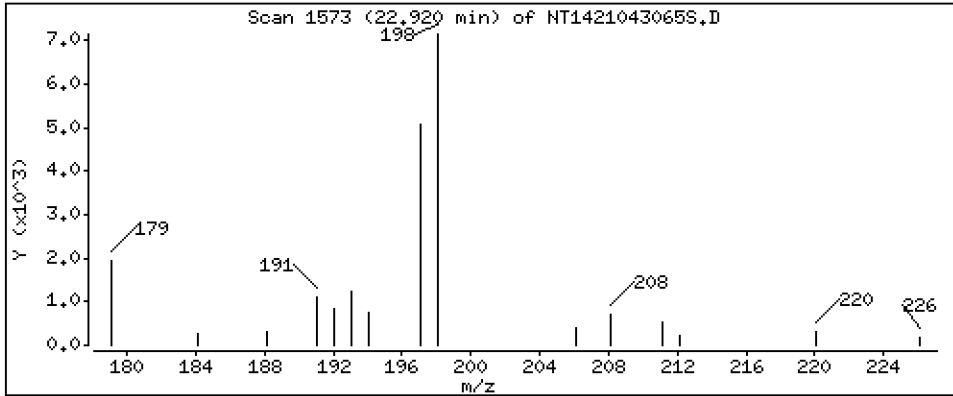
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

Concentration: 0.1854 ug/mL

31 C1-Dibenzothiophenes



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

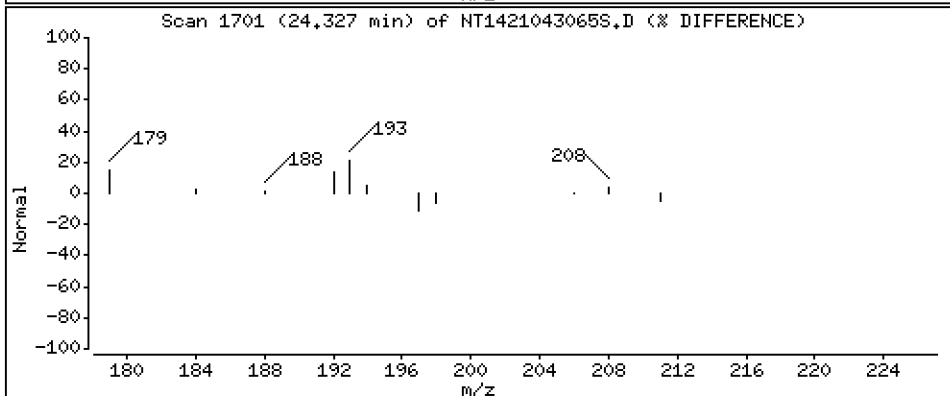
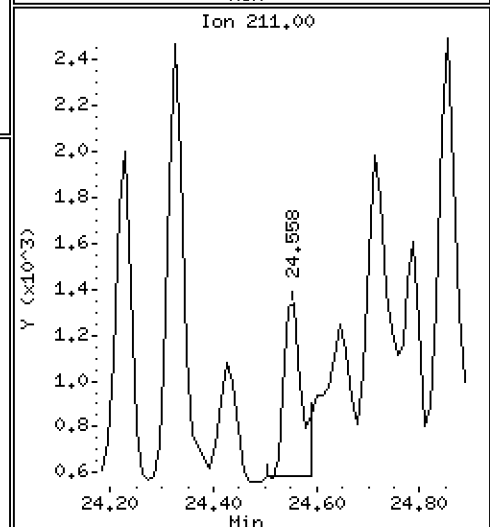
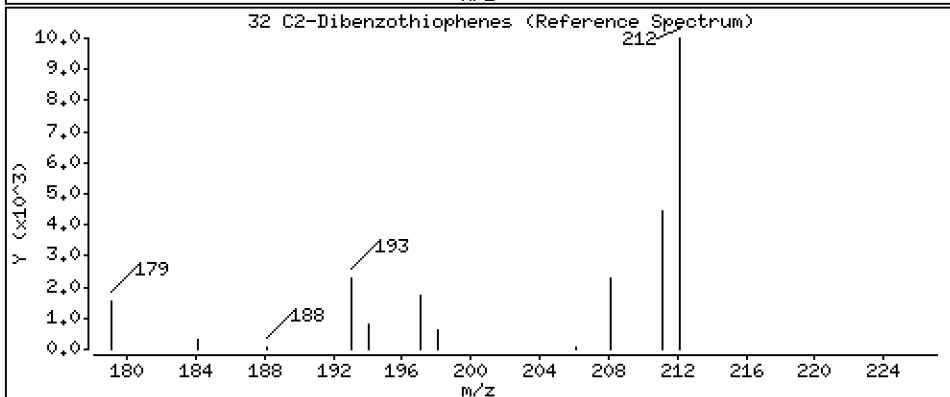
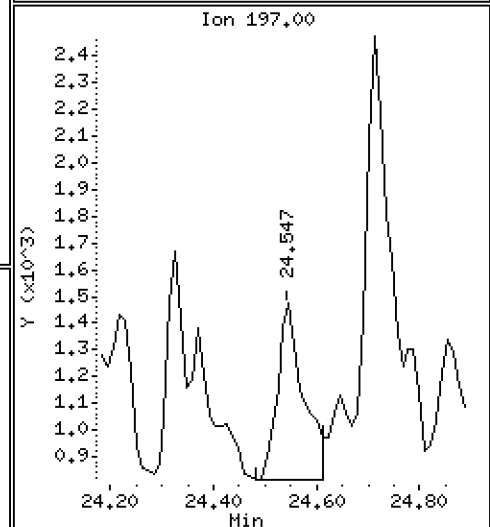
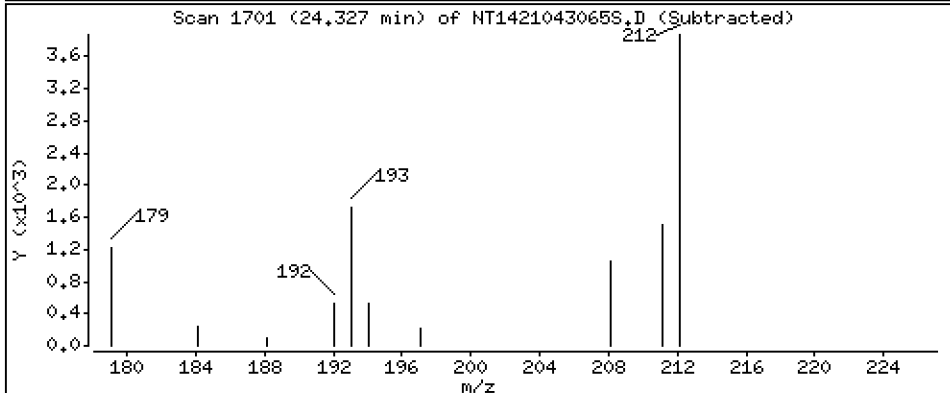
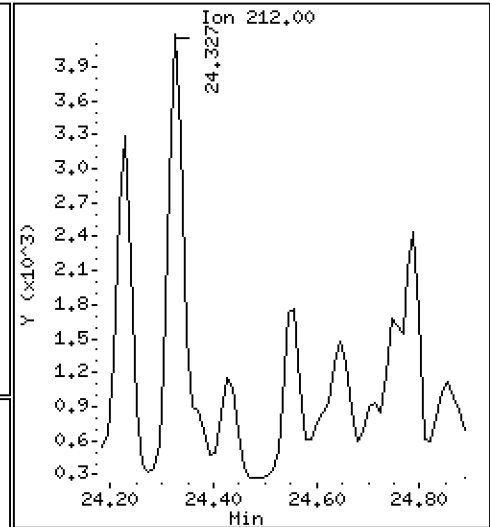
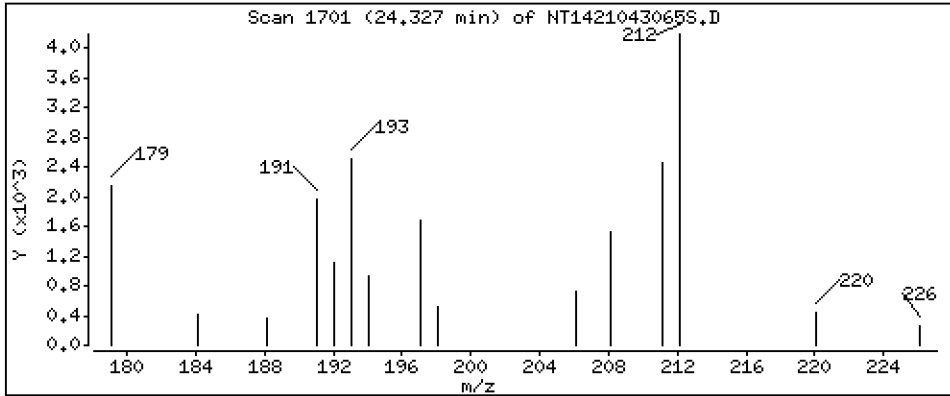
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

32 C2-Dibenzothiophenes

Concentration: 0.2438 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

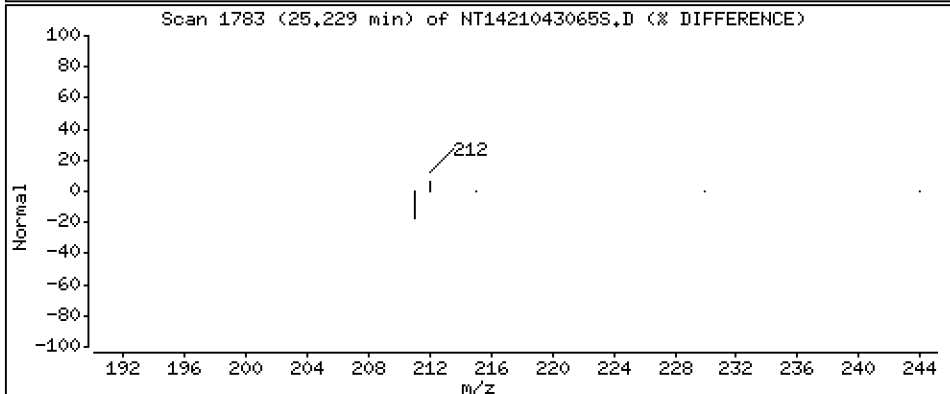
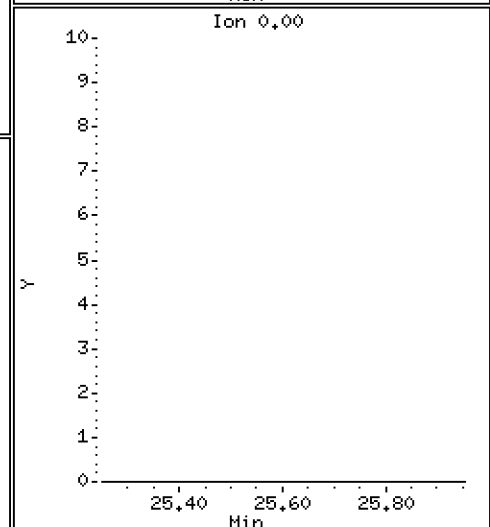
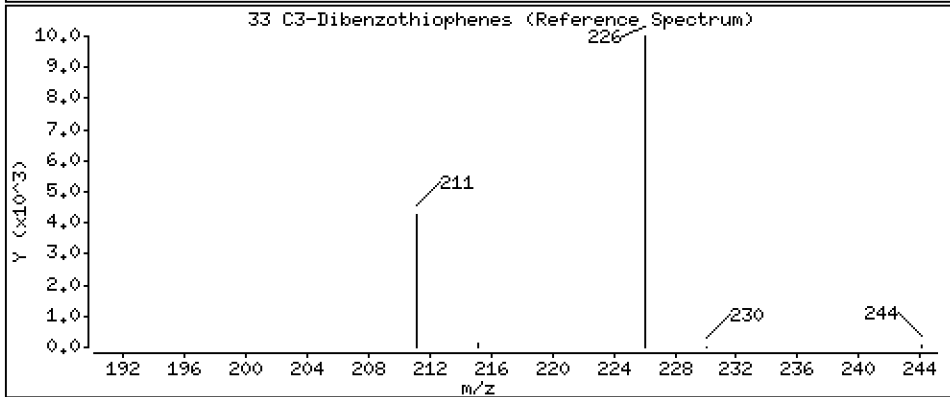
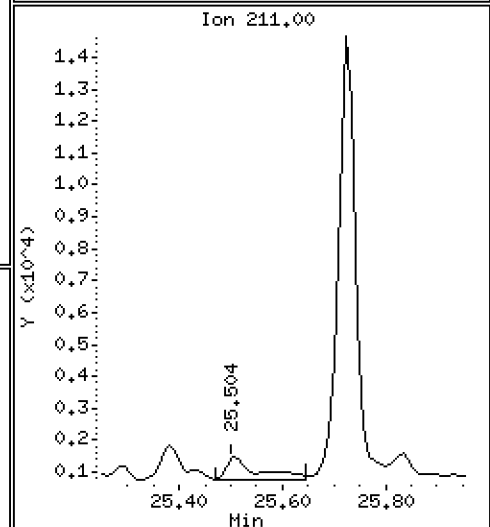
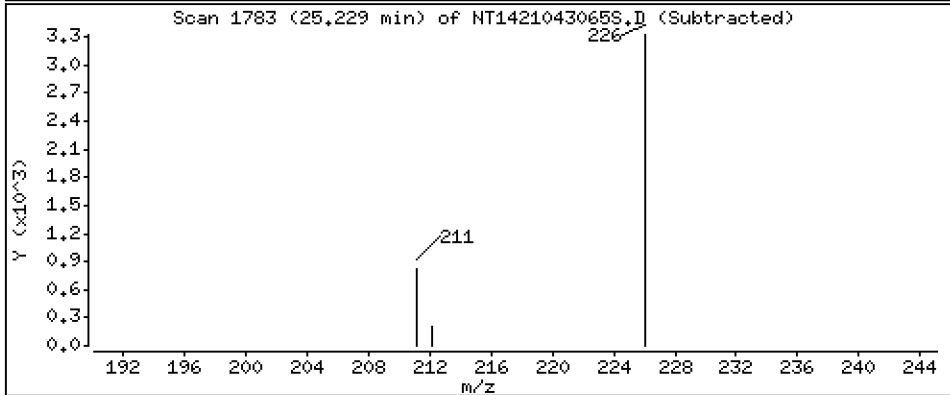
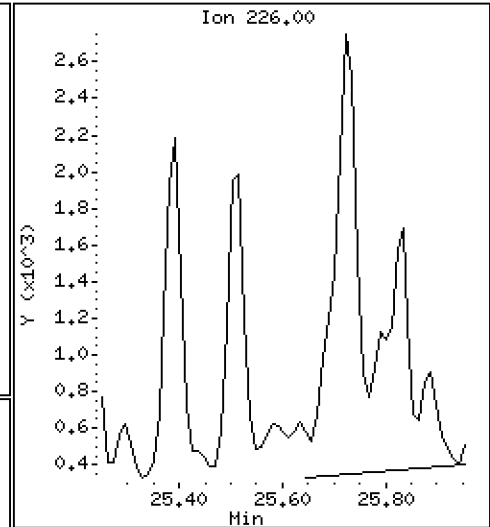
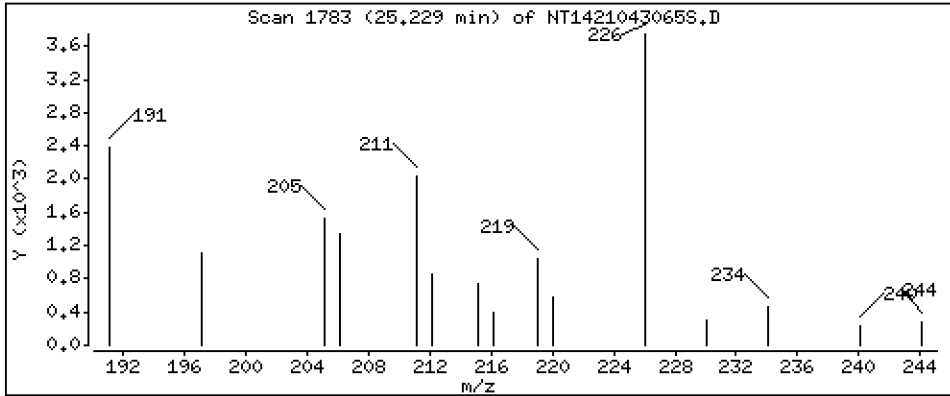
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

33 C3-Dibenzothiophenes

Concentration: 0,2607 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

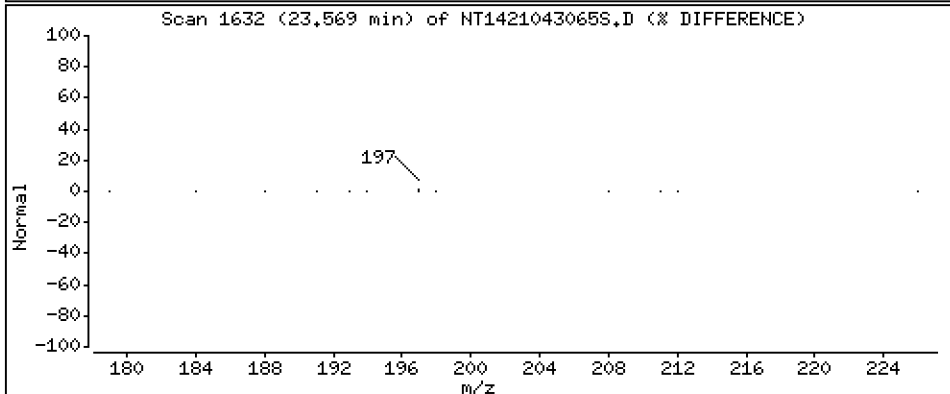
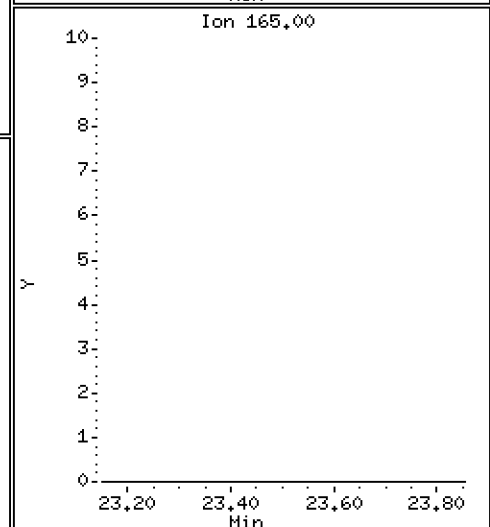
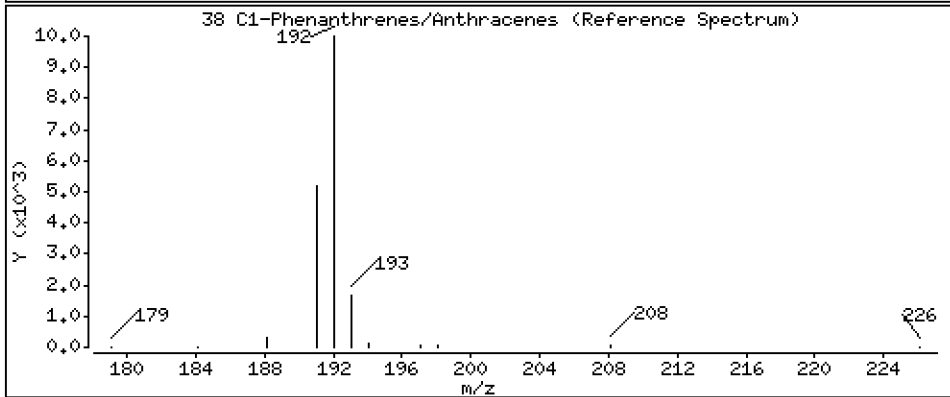
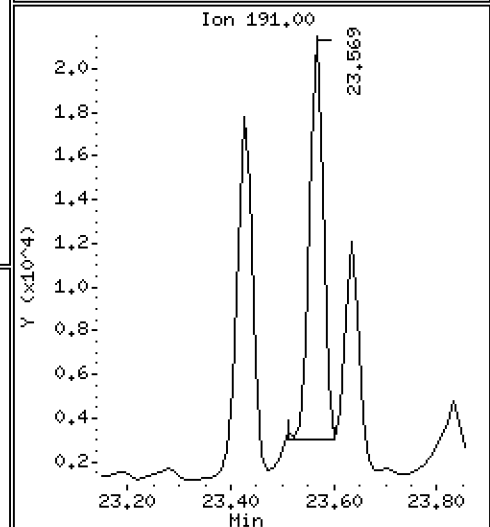
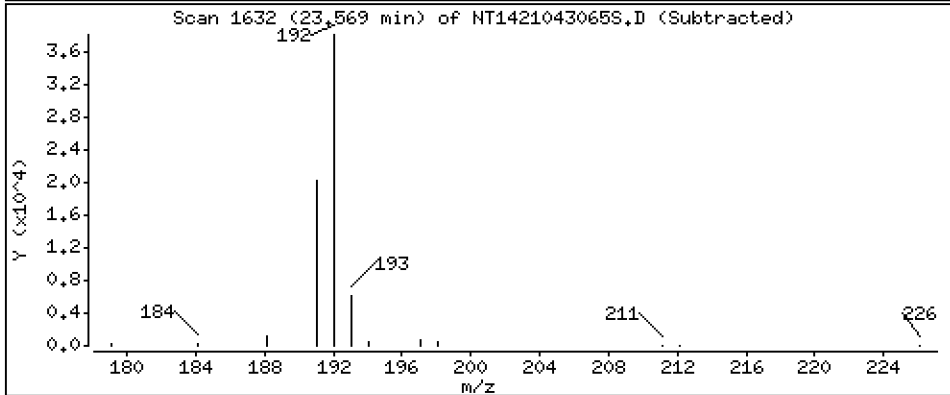
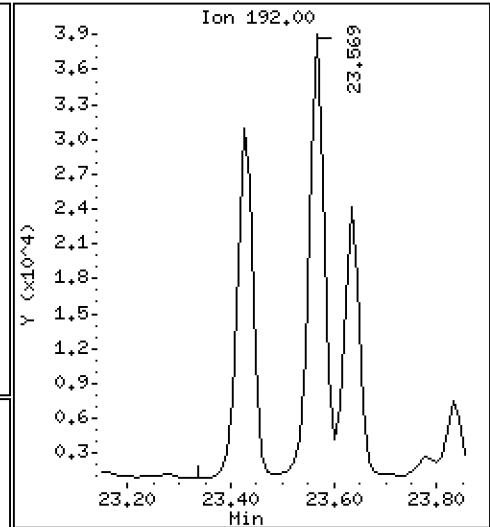
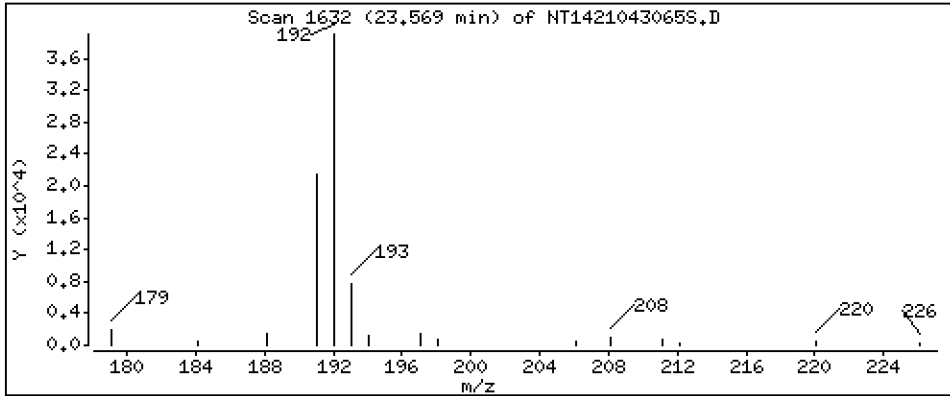
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

38 C1-Phenanthrenes/Anthracenes

Concentration: 0,9579 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

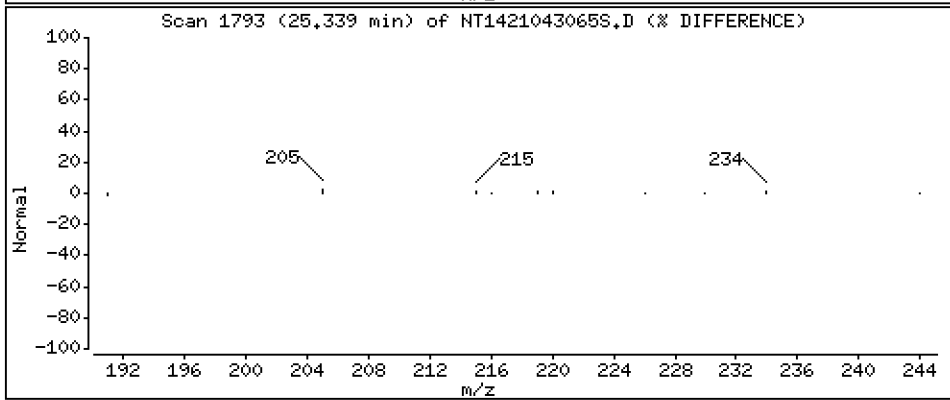
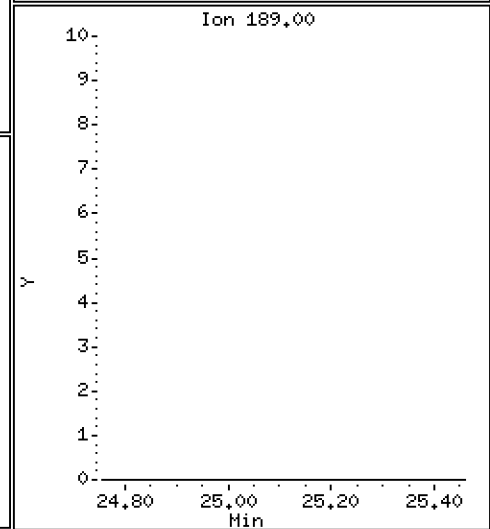
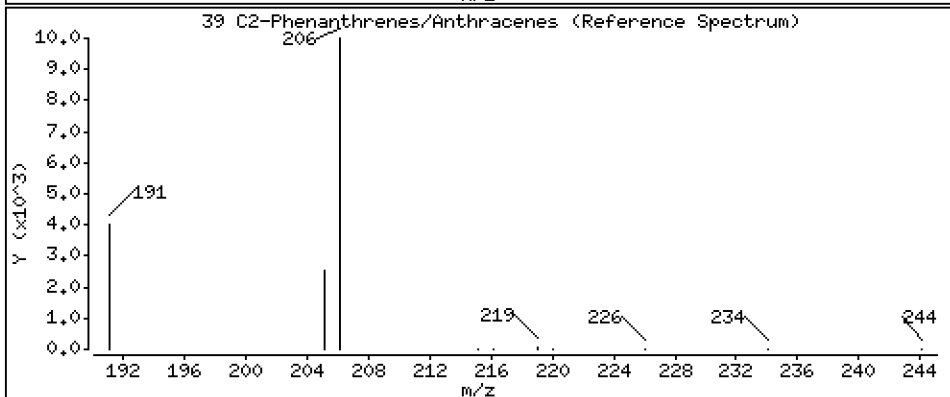
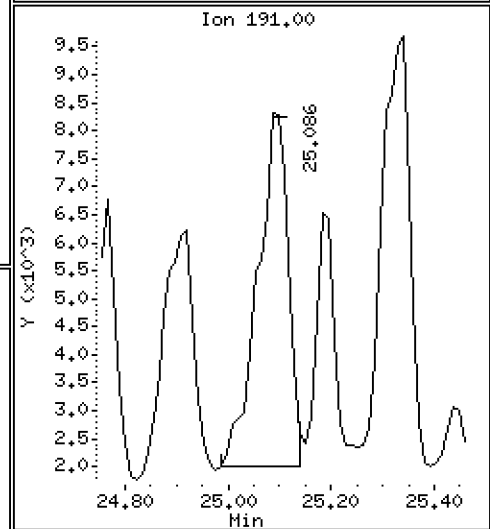
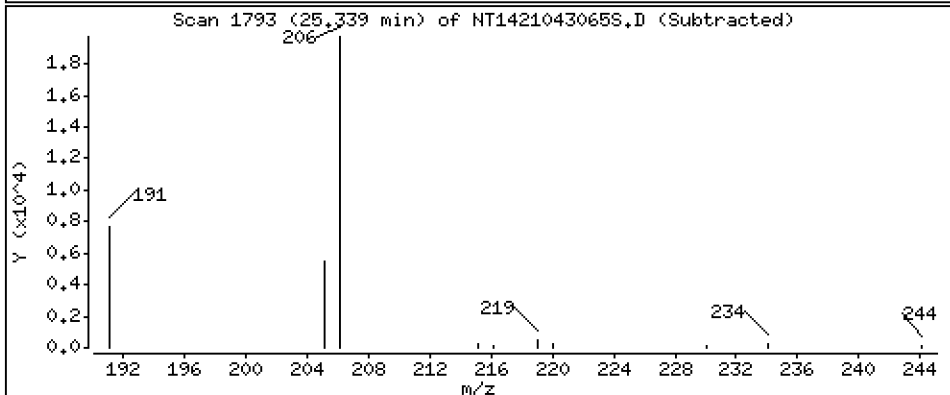
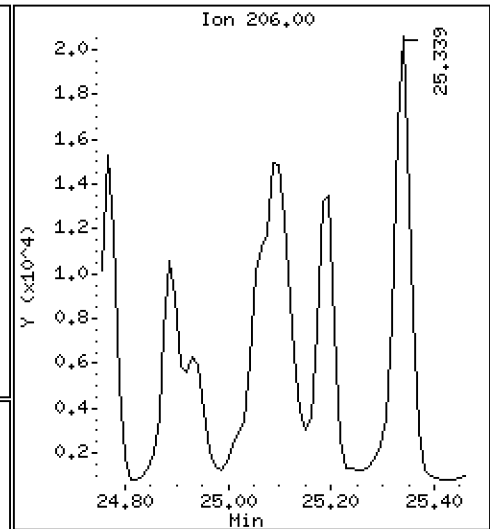
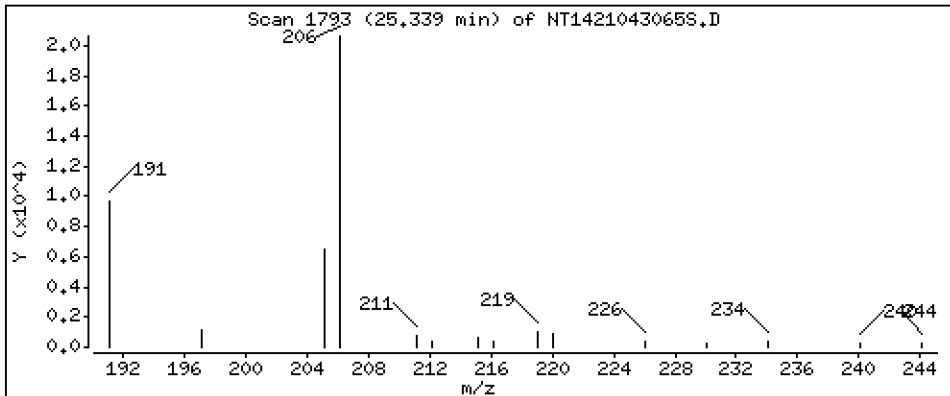
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

39 C2-Phenanthrenes/Anthracenes

Concentration: 0,7379 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

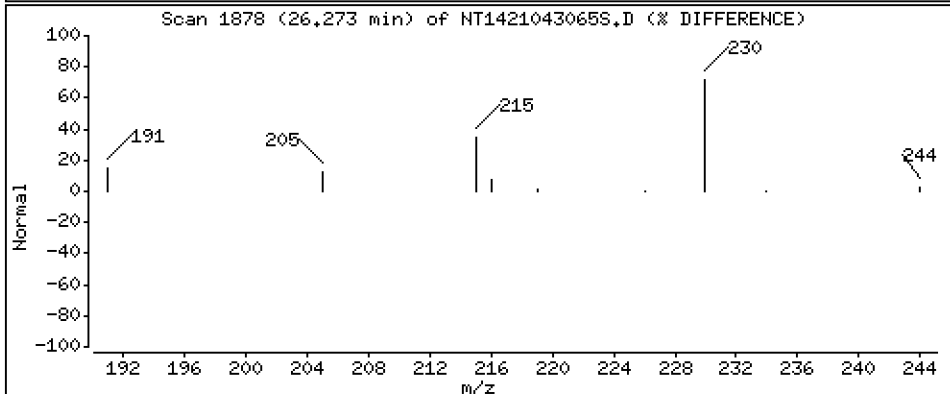
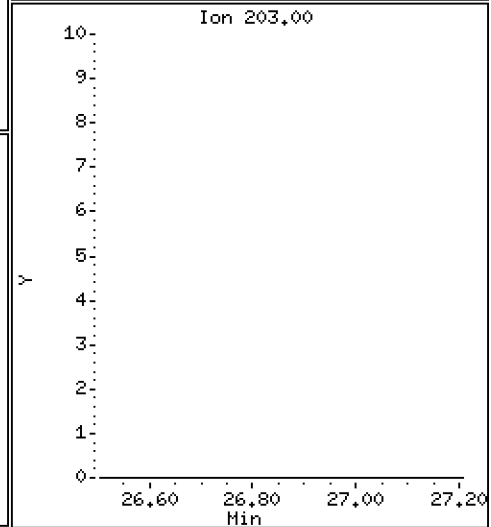
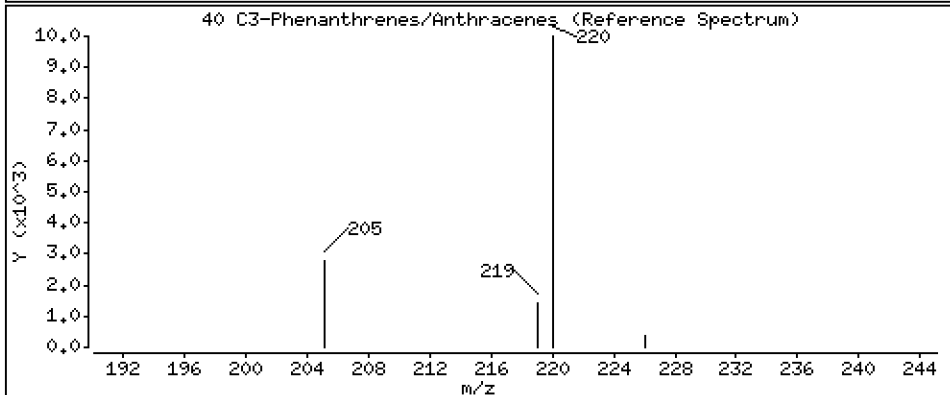
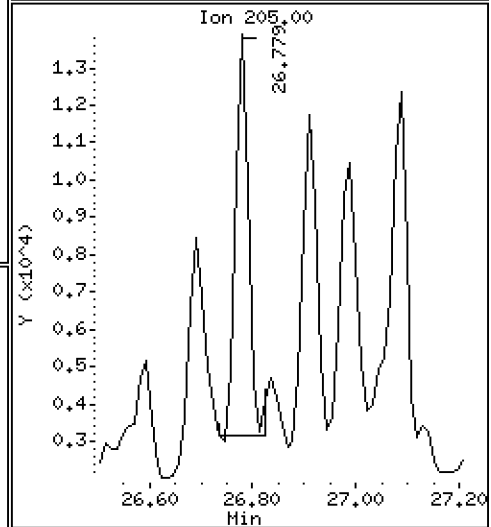
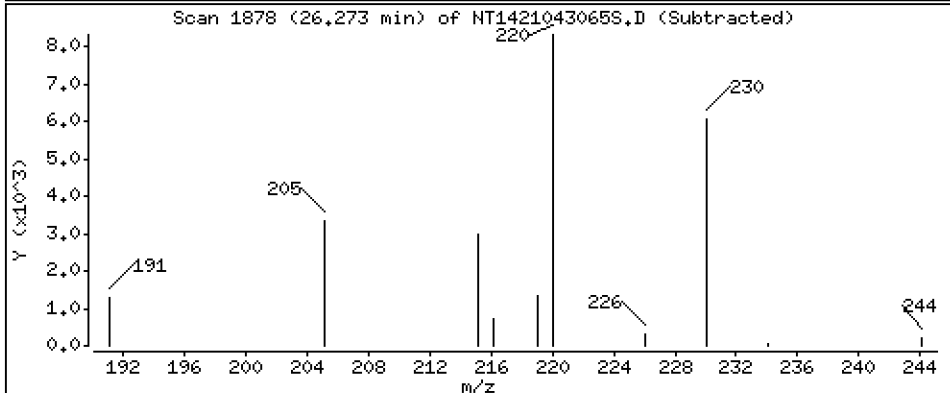
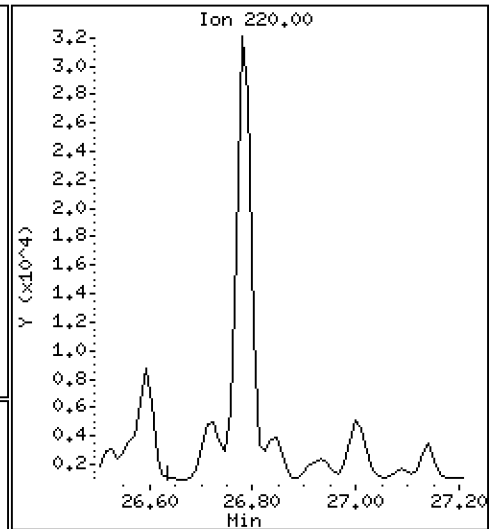
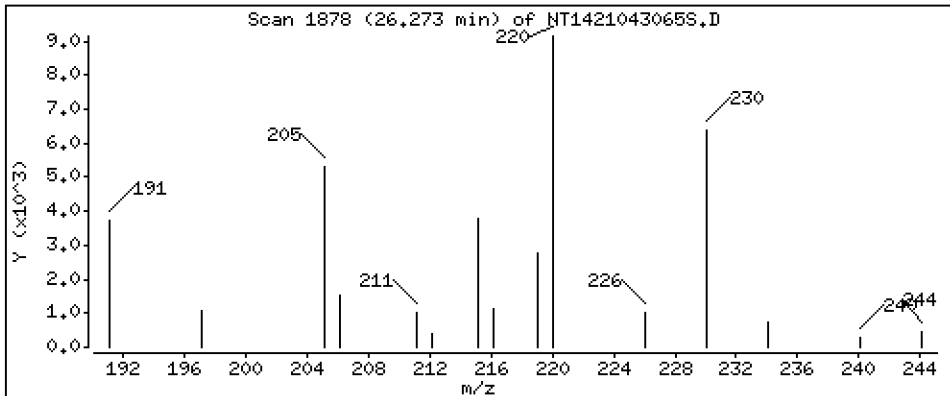
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

40 C3-Phenanthrenes/Anthracenes

Concentration: 0.3825 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

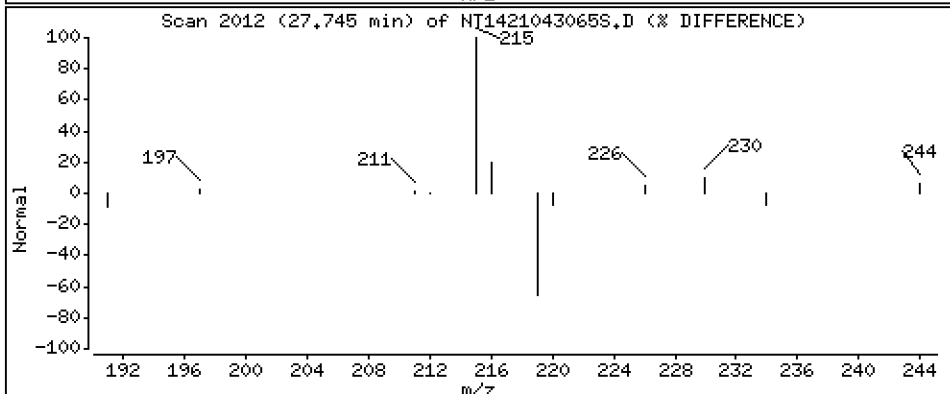
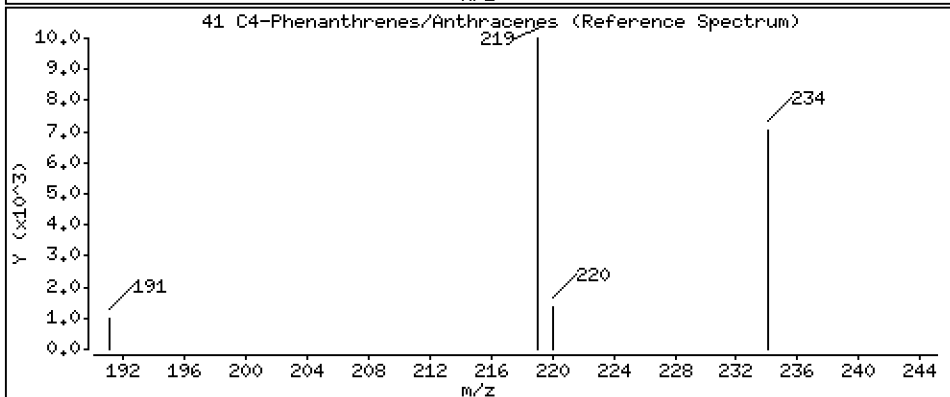
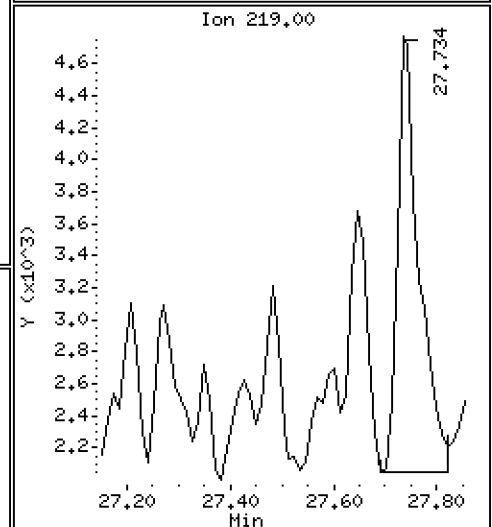
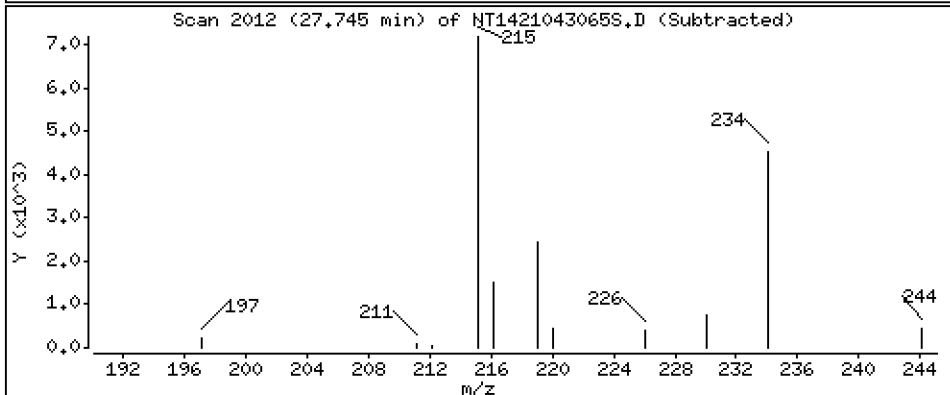
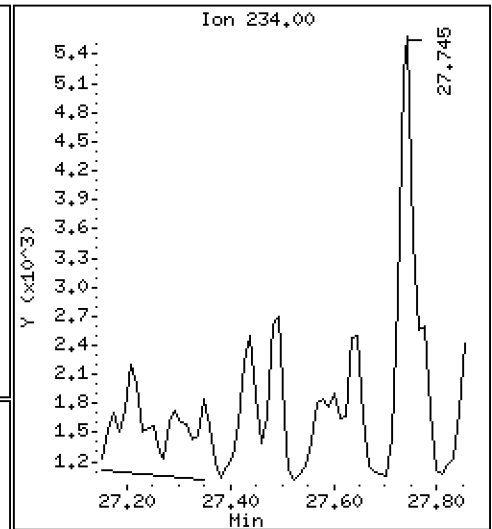
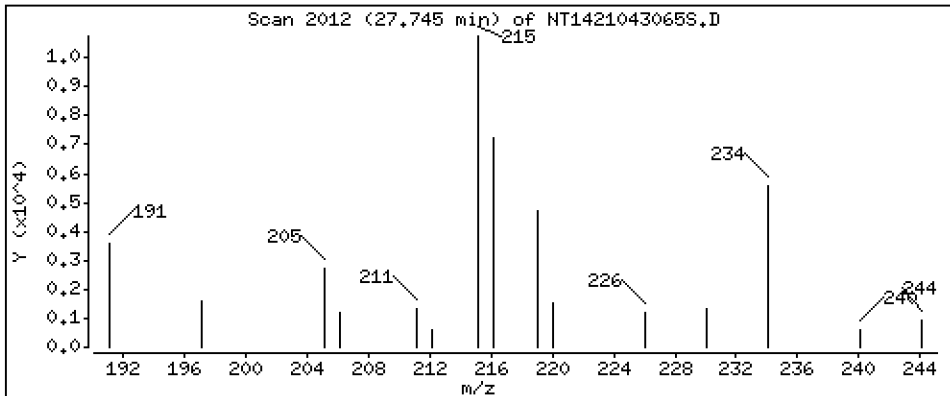
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

41 C4-Phenanthrenes/Anthracenes

Concentration: 0,1606 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

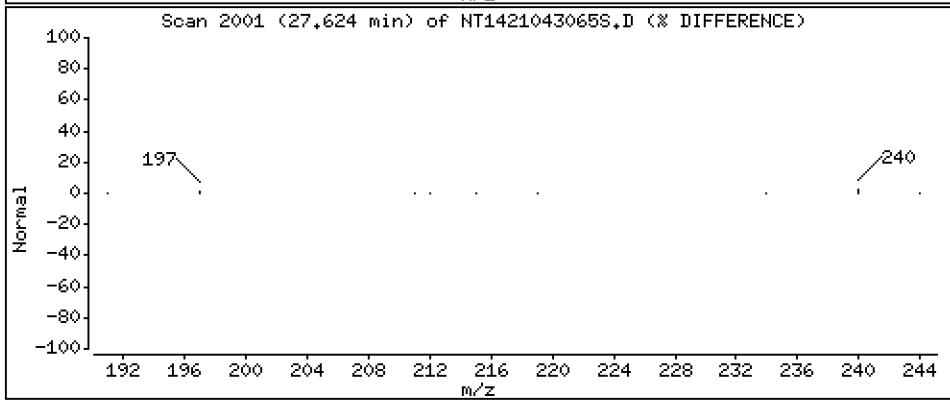
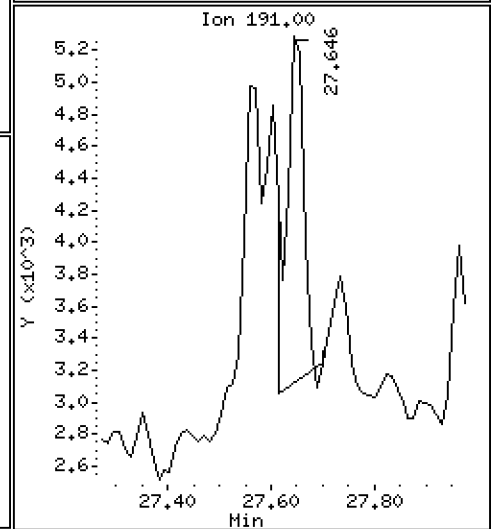
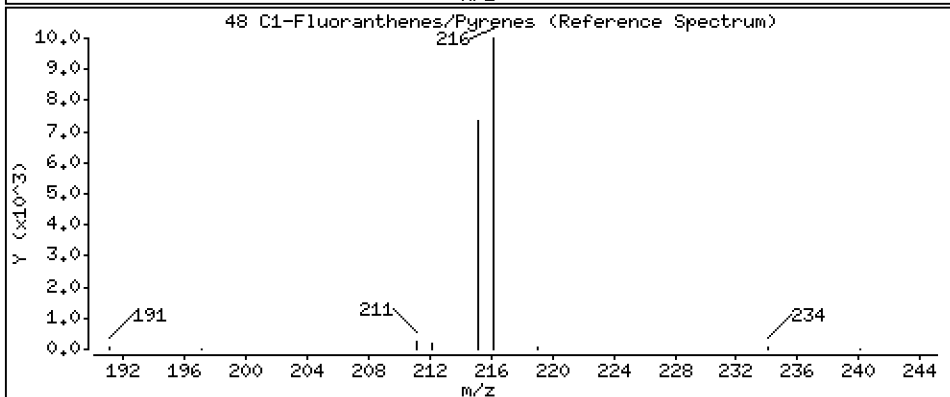
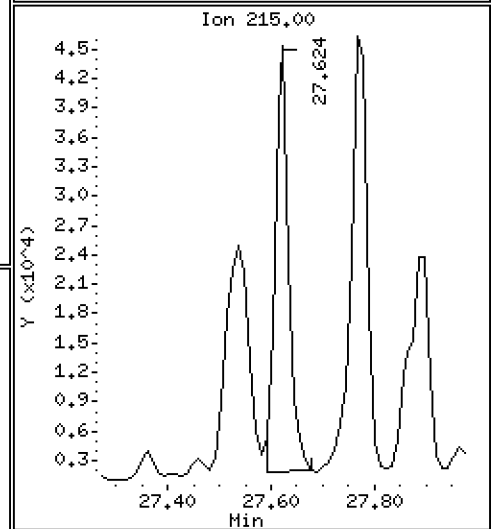
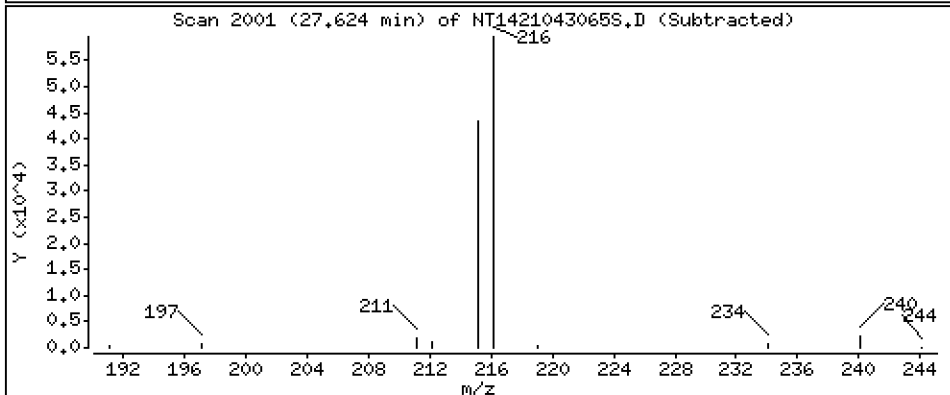
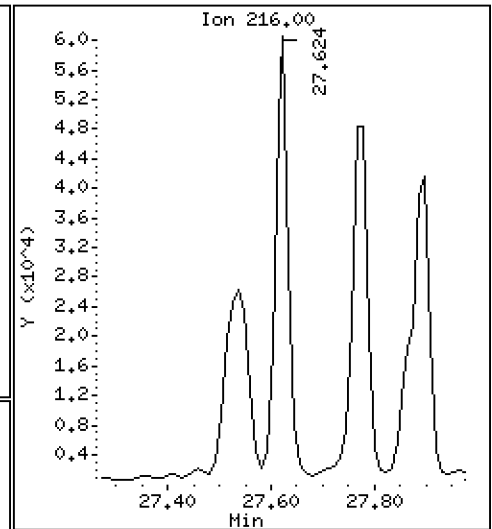
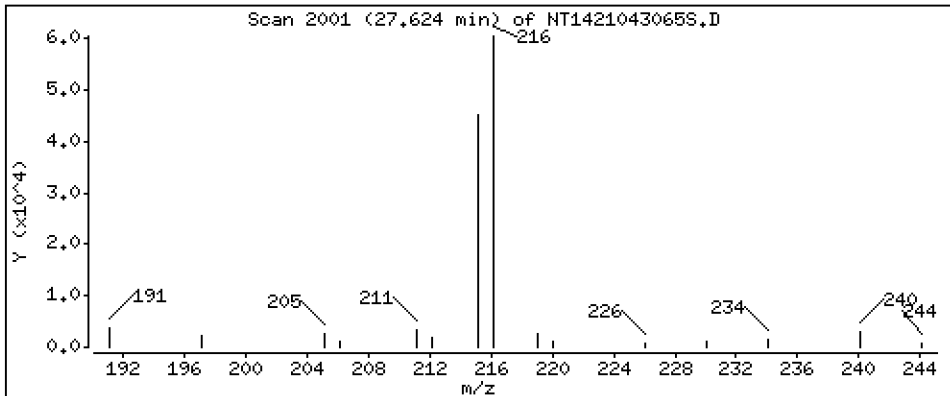
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

48 C1-Fluoranthenes/Pyrenes

Concentration: 1,981 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

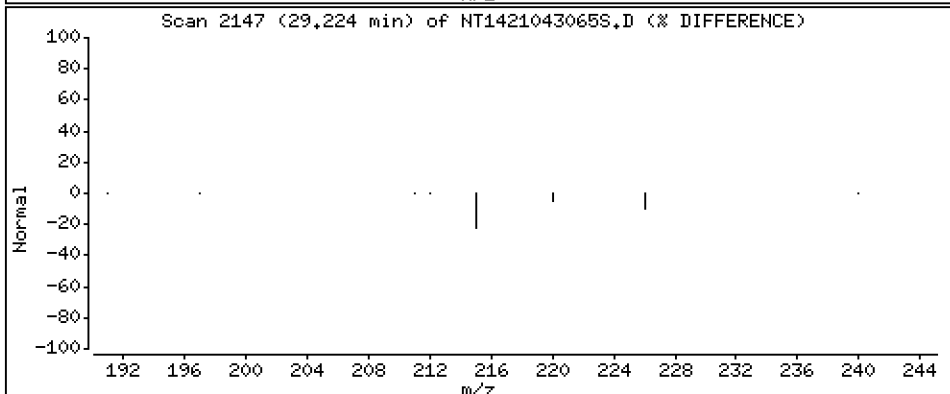
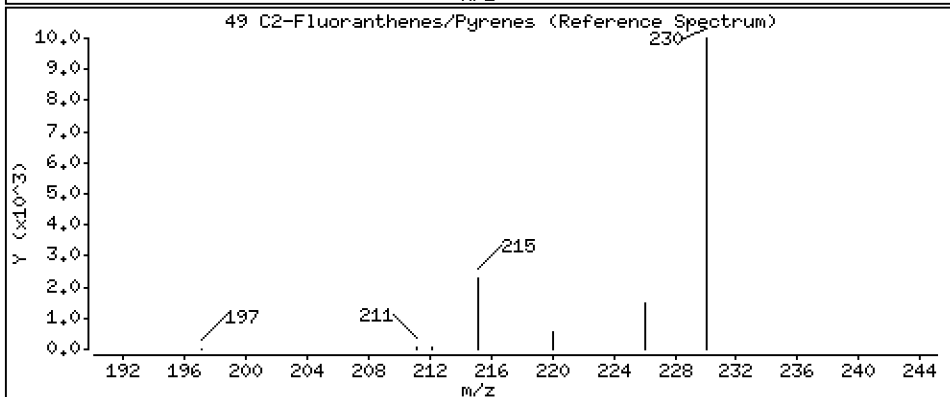
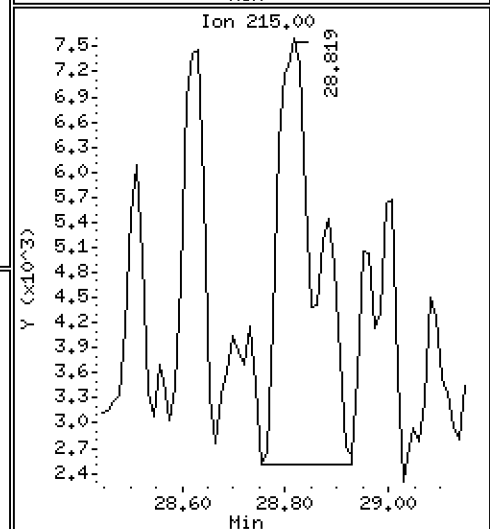
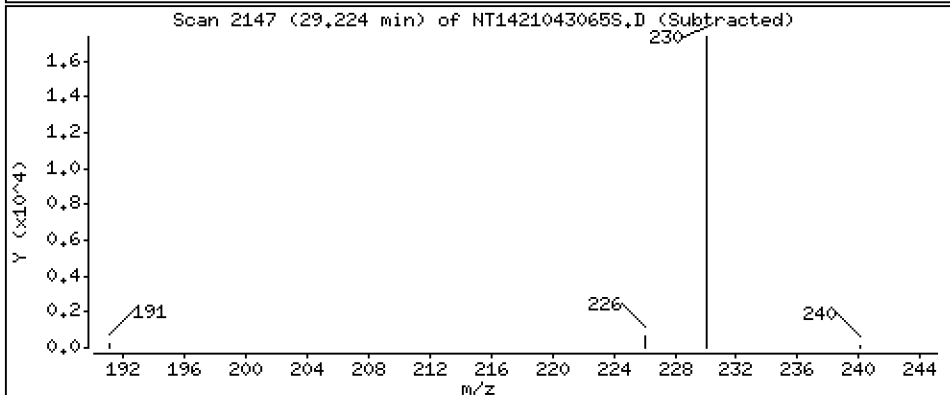
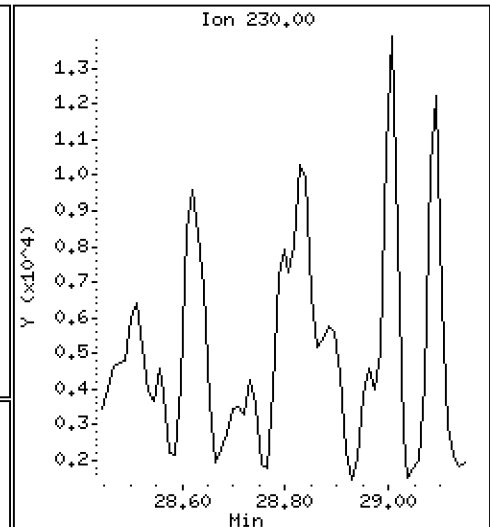
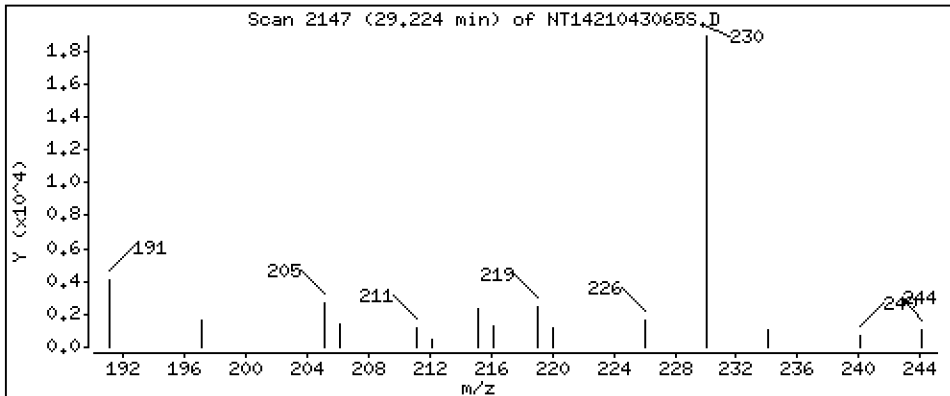
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

49 C2-Fluoranthenes/Pyrenes

Concentration: 0,8942 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

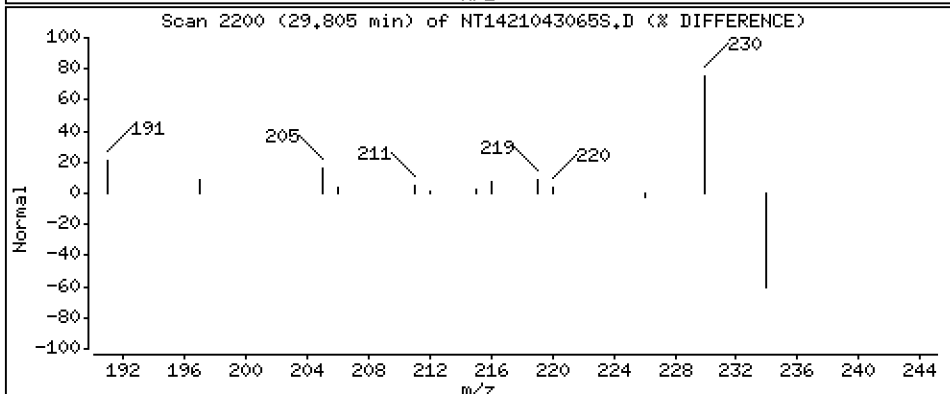
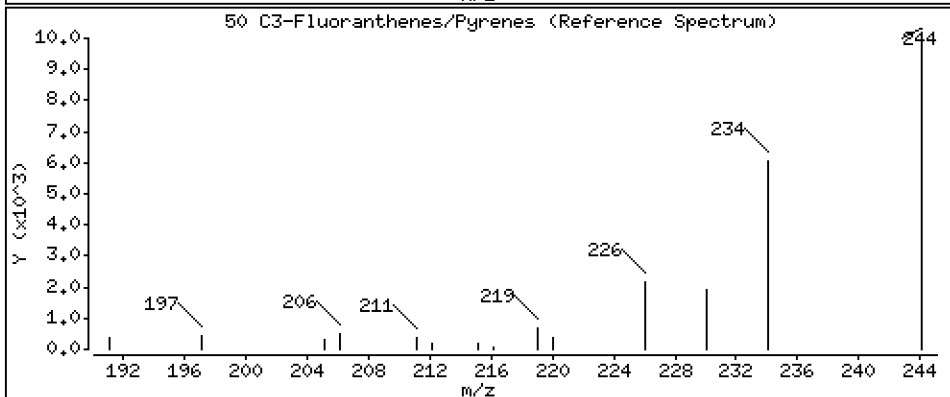
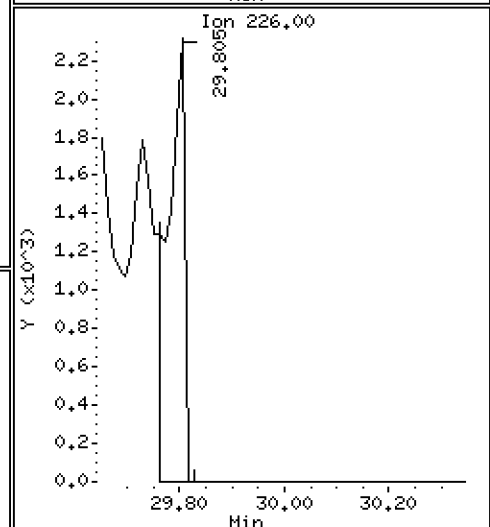
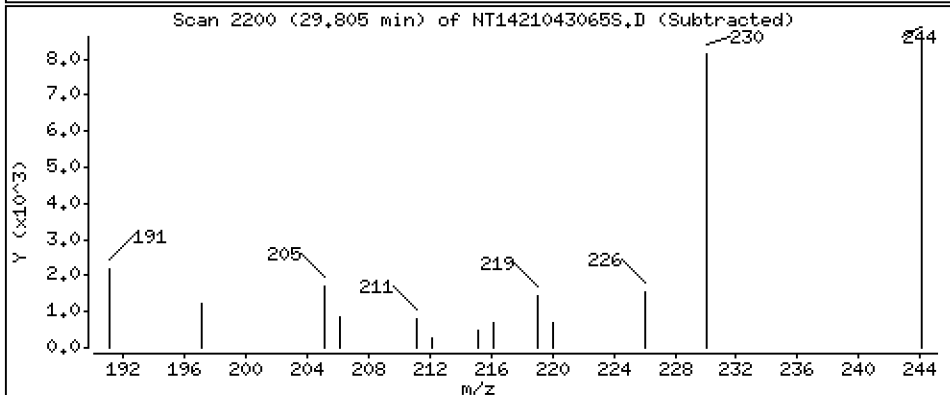
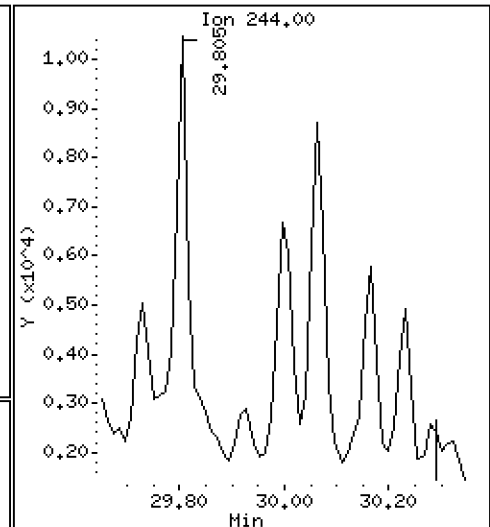
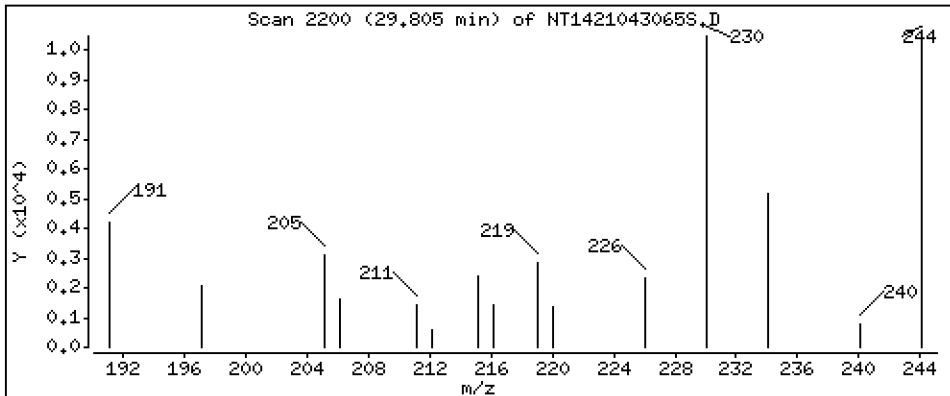
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

50 C3-Fluoranthenes/Pyrenes

Concentration: 0,3660 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

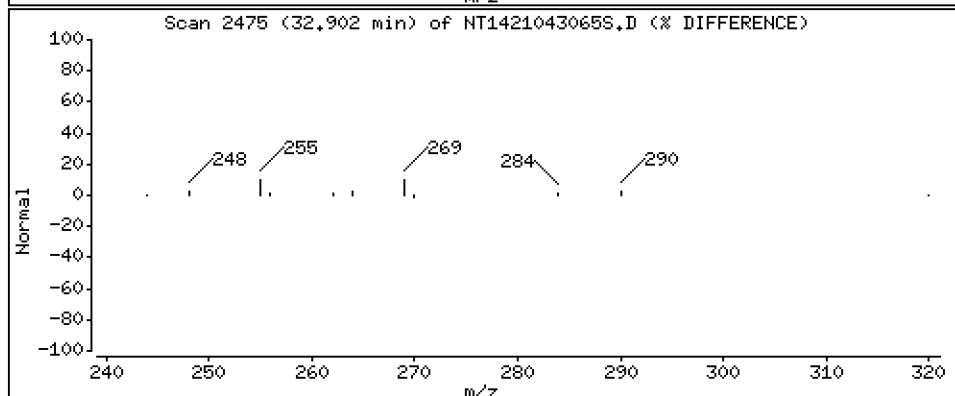
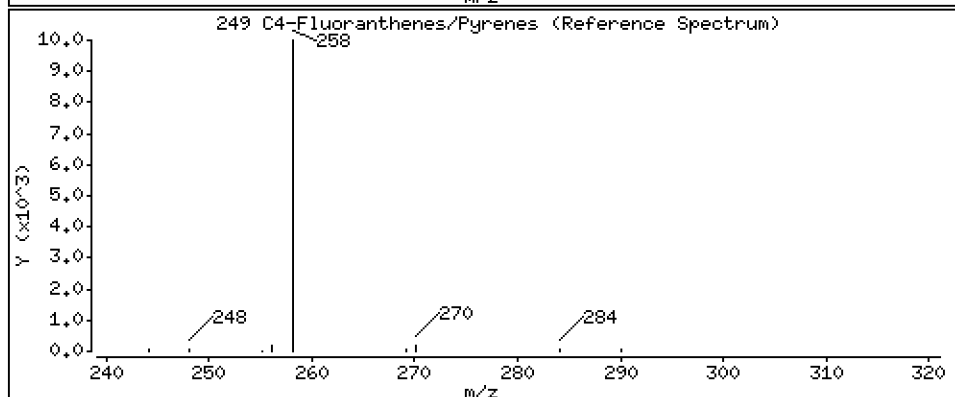
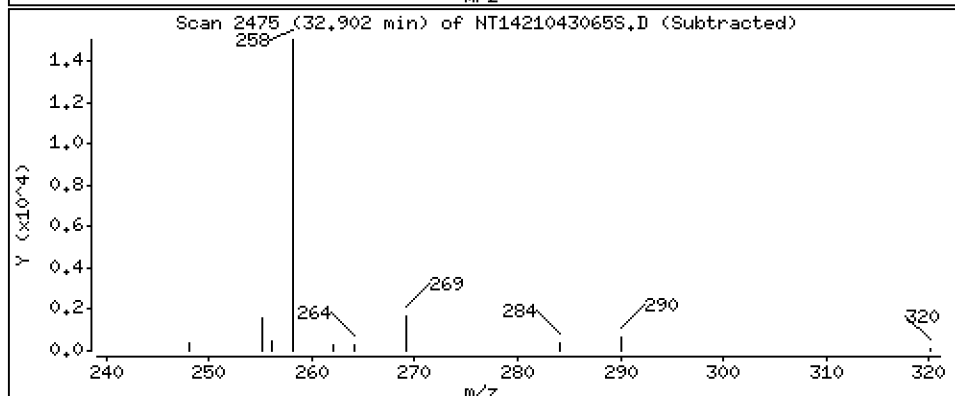
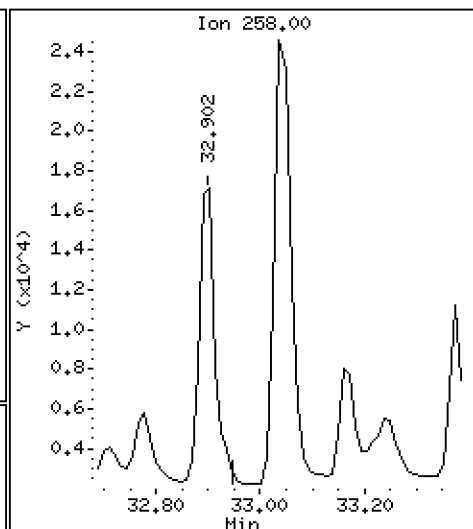
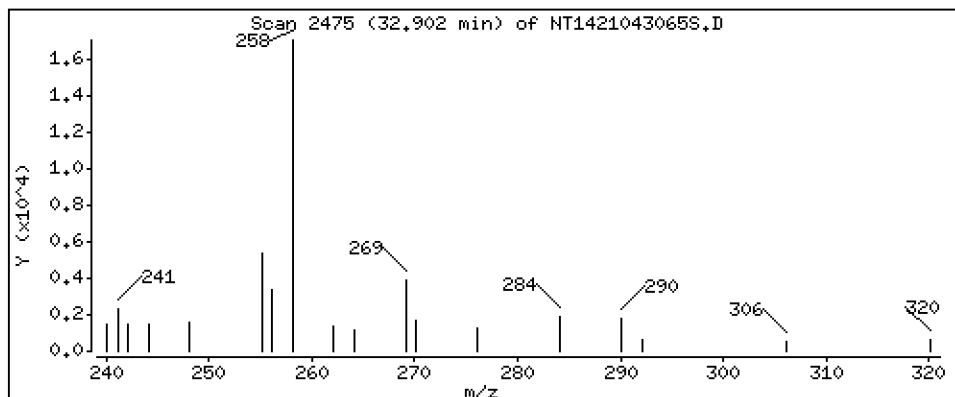
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

249 C4-Fluoranthenes/Pyrenes

Concentration: 0,3812 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

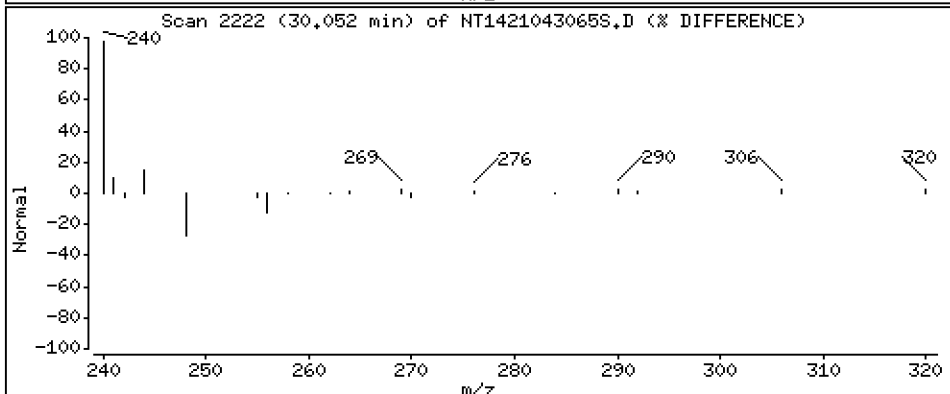
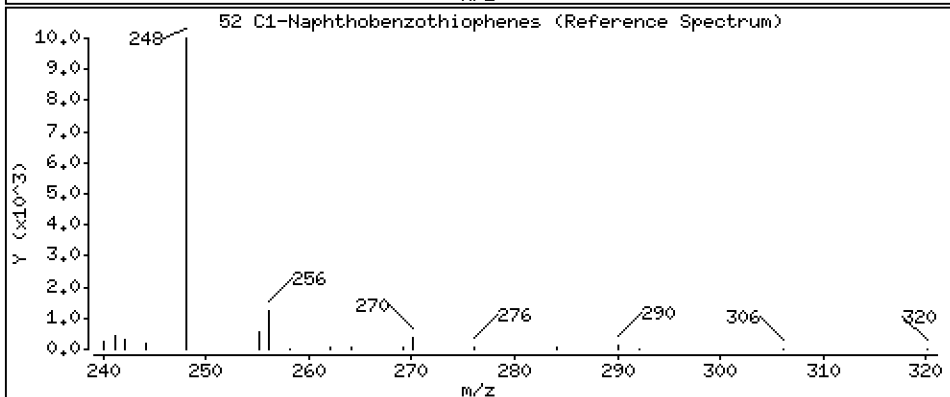
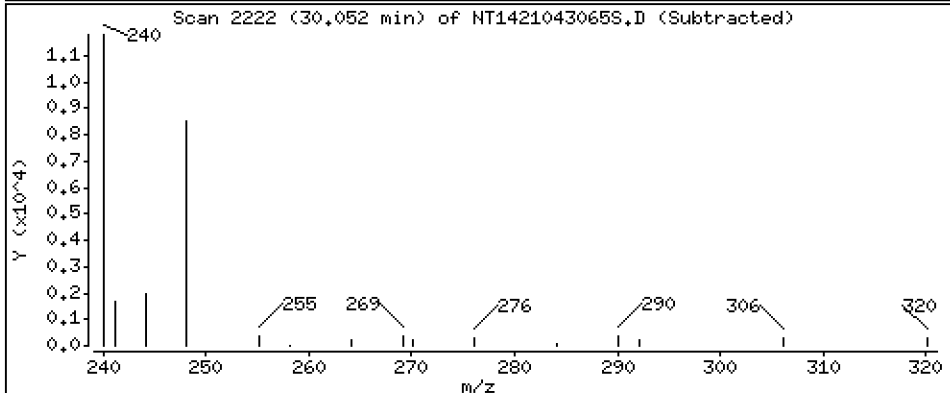
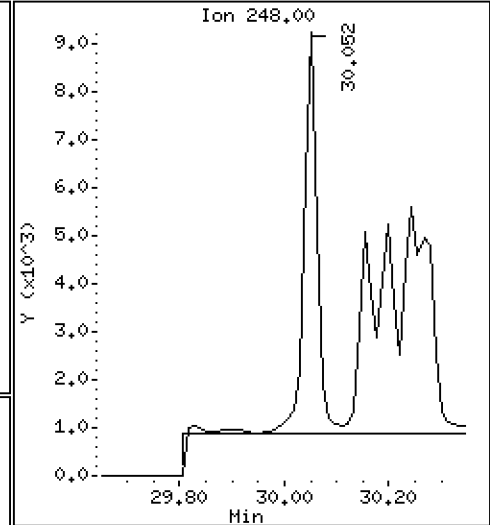
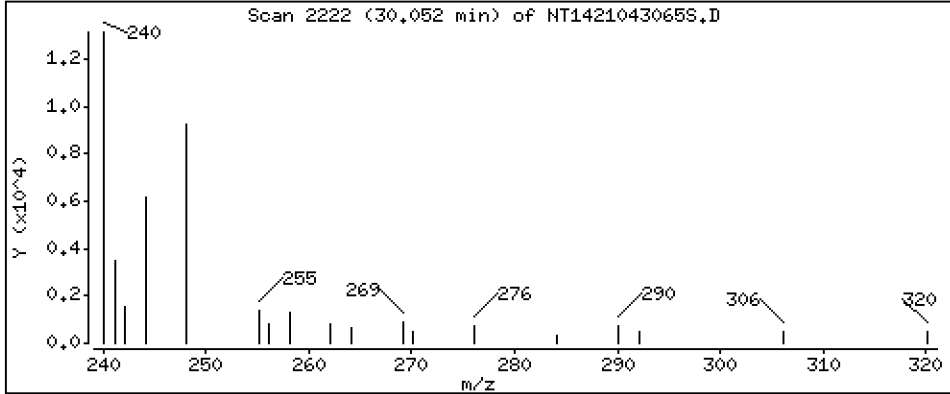
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

52 C1-Naphthobenzothiophenes

Concentration: 0,3245 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

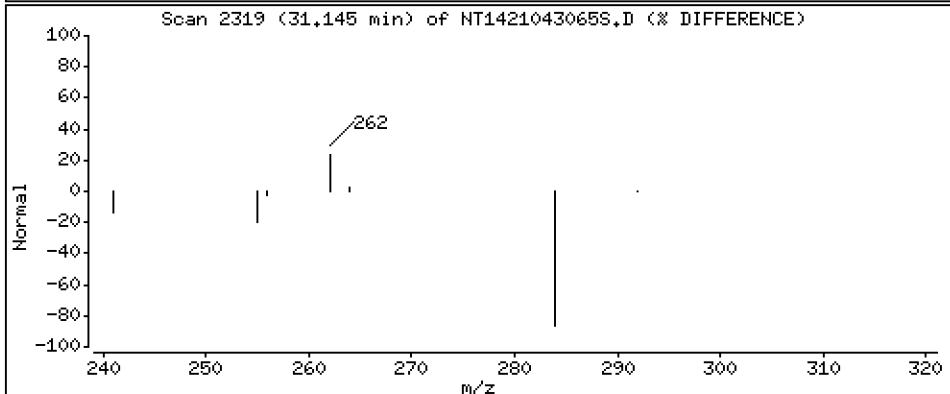
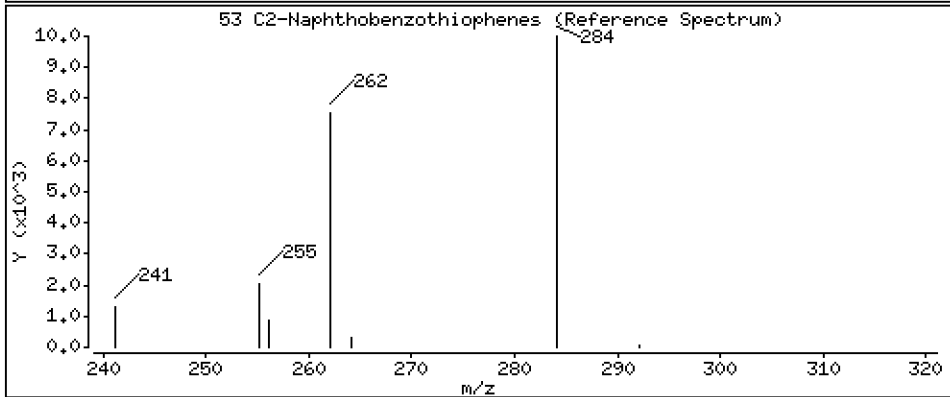
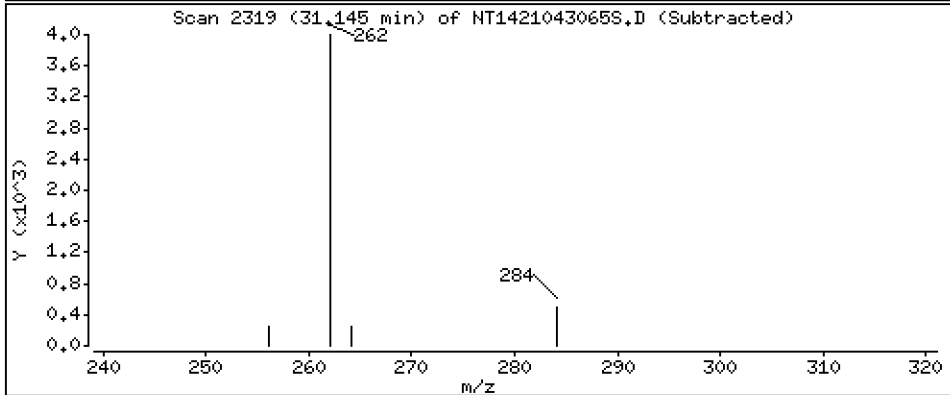
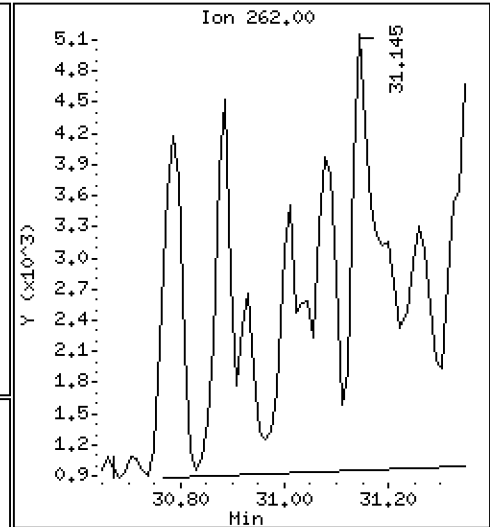
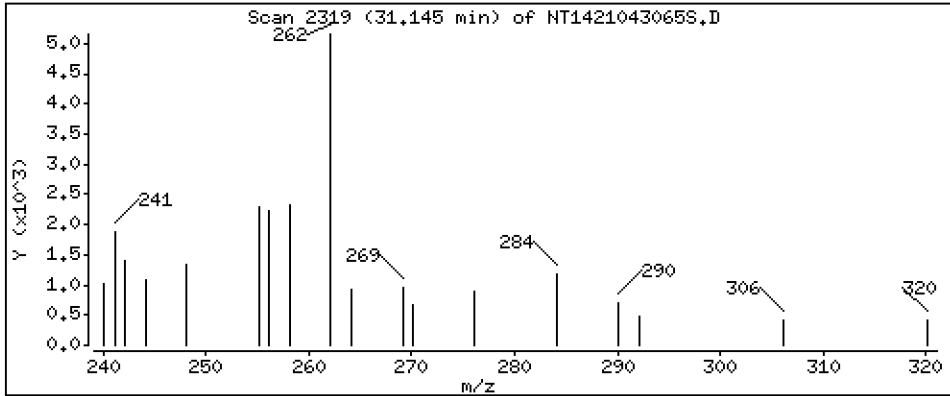
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

53 C2-Naphthobenzothiophenes

Concentration: 0,2924 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

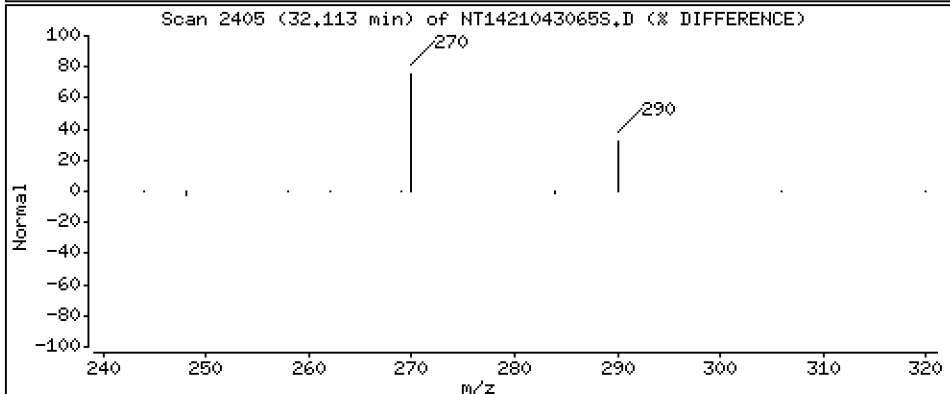
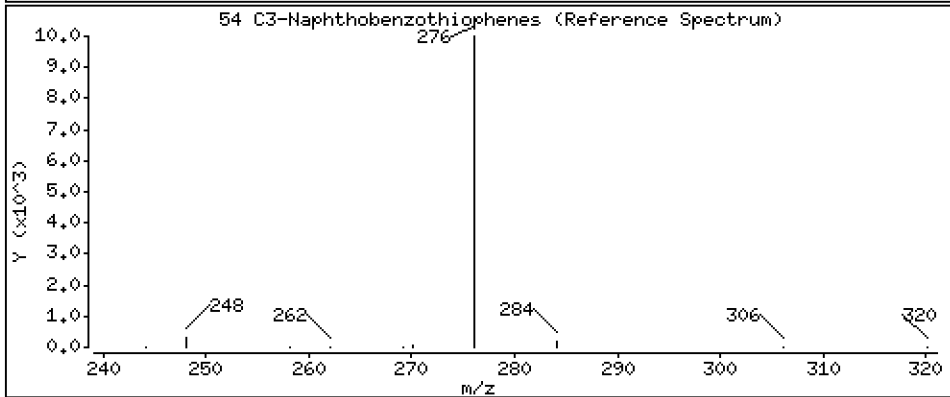
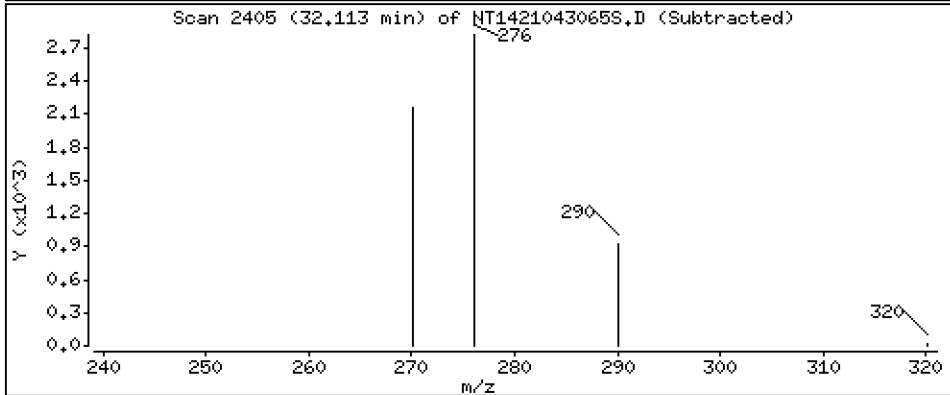
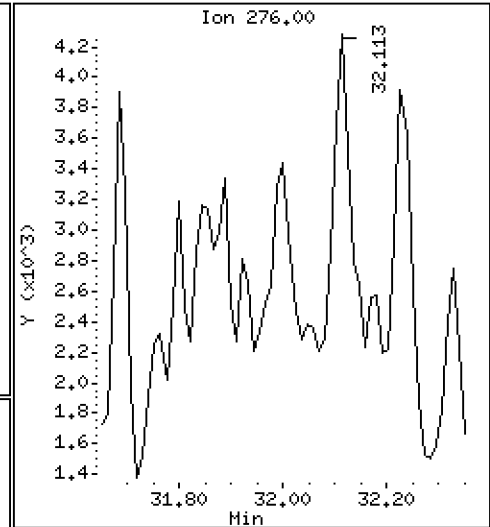
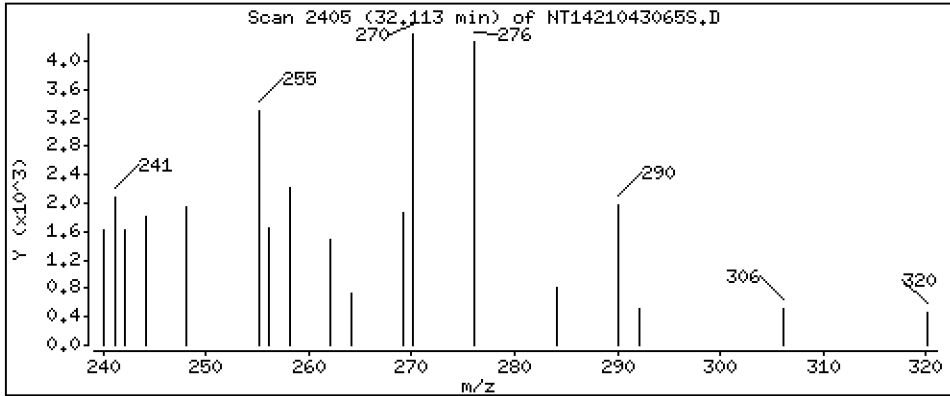
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

54 C3-Naphthobenzothiophenes

Concentration: 0,2139 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

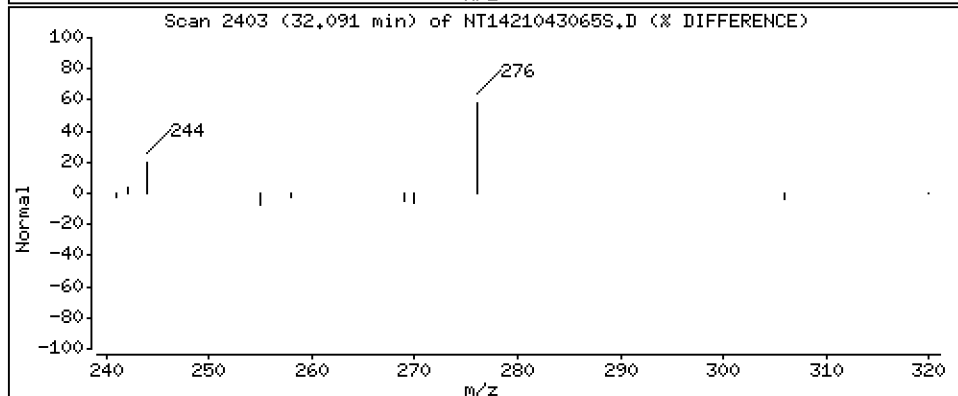
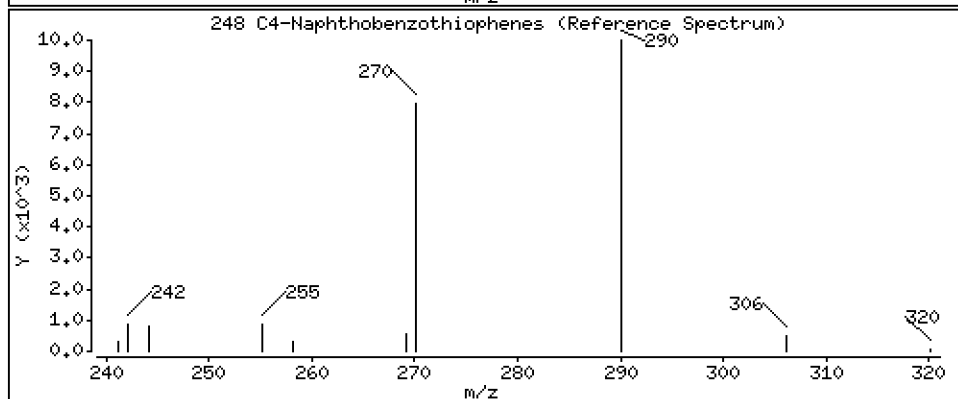
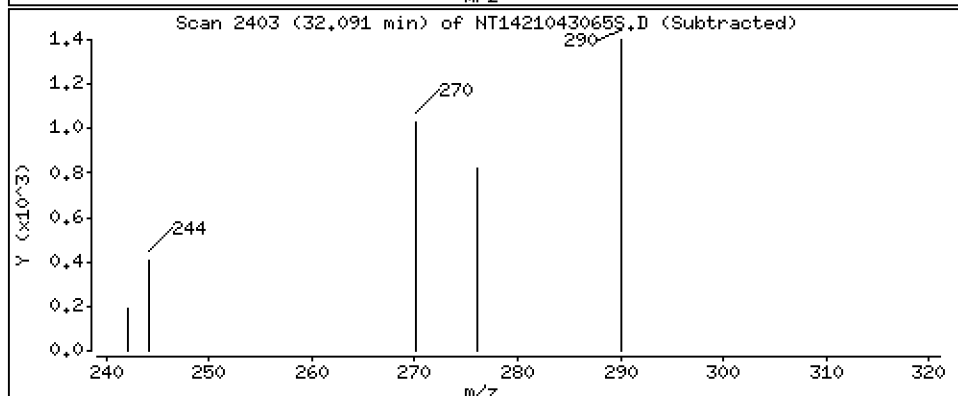
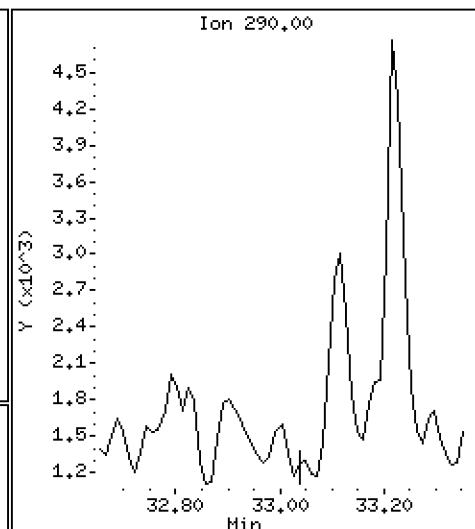
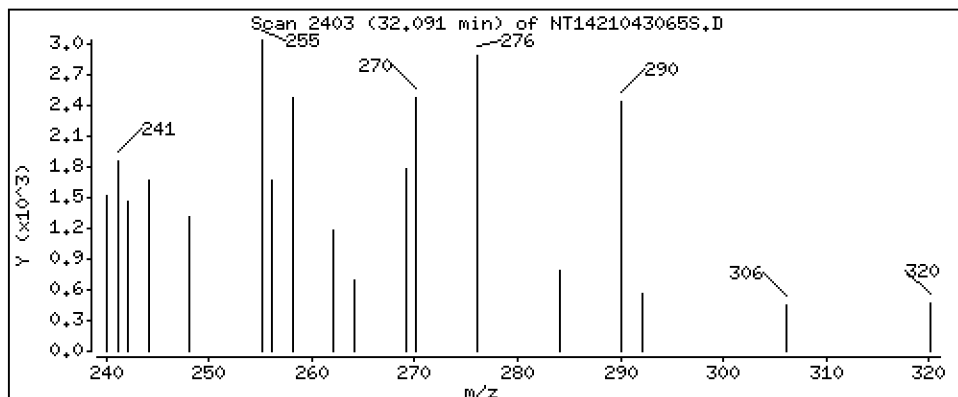
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

248 C4-Naphthobenzothiophenes

Concentration: 0,1284 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

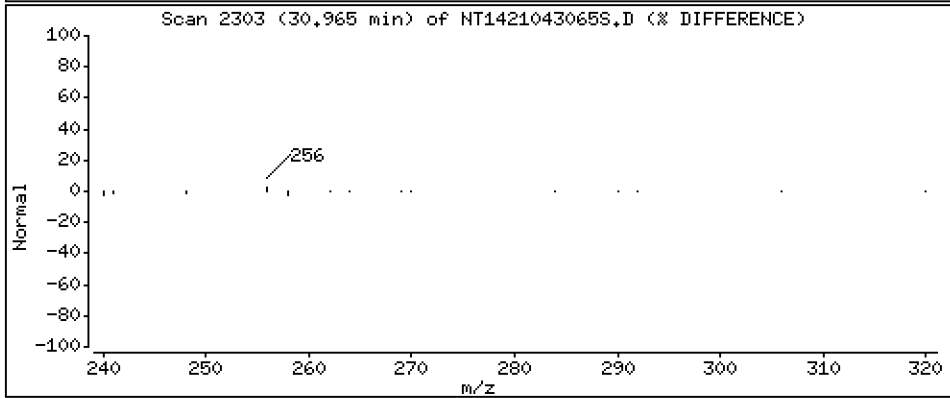
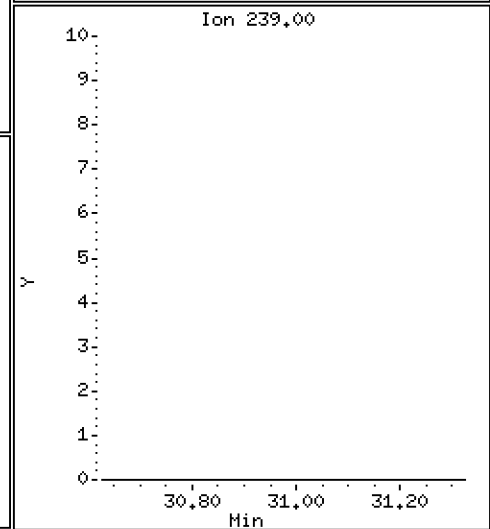
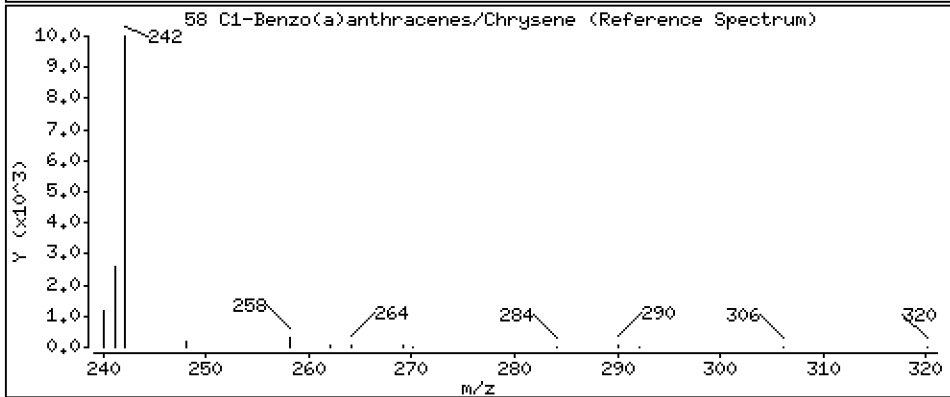
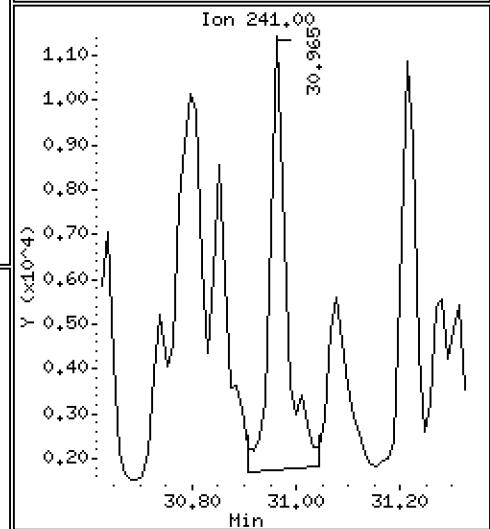
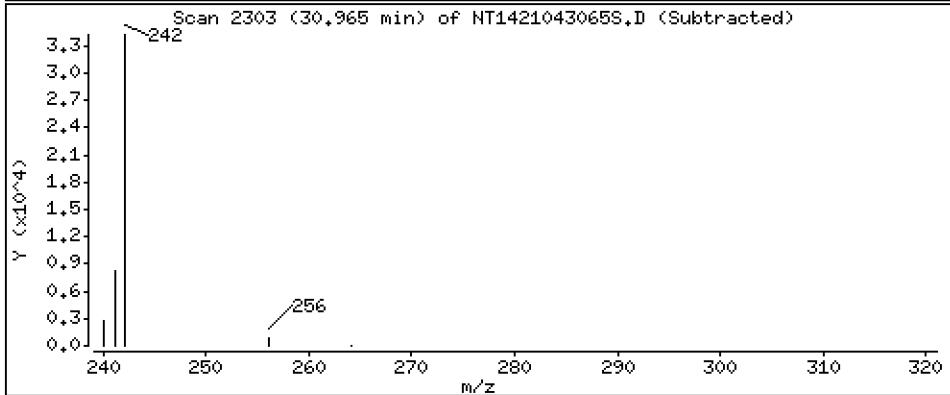
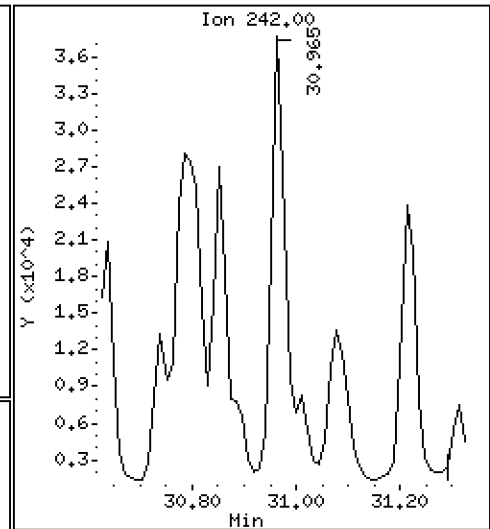
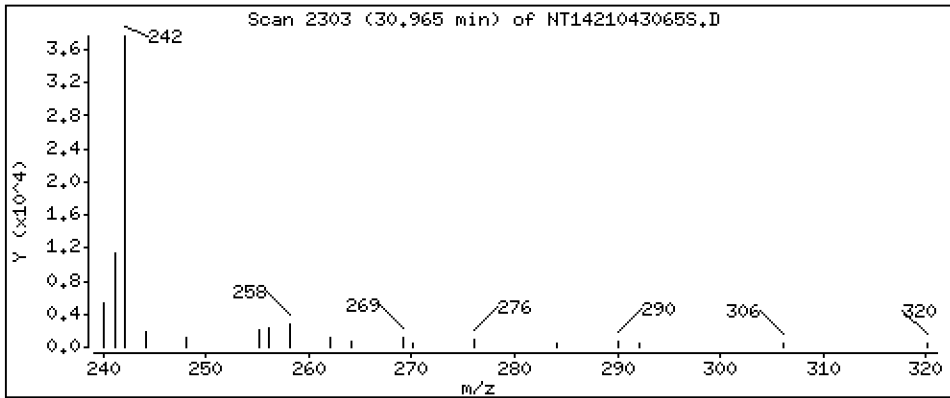
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

58 C1-Benzo(a)anthracenes/Chrysene

Concentration: 1,342 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

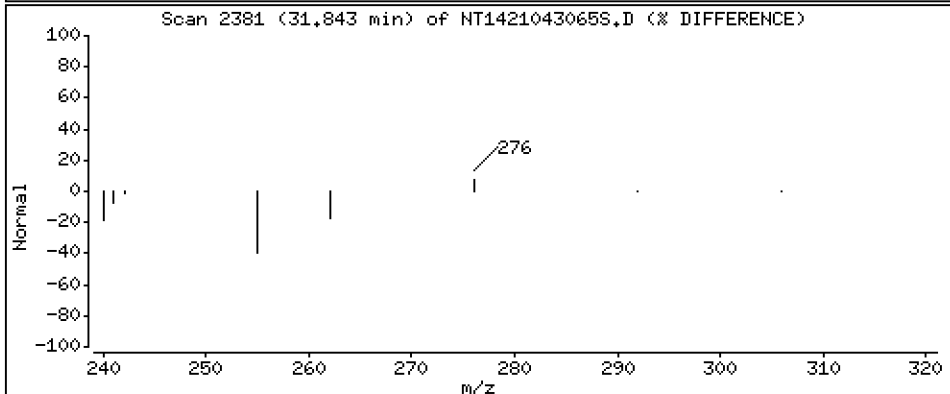
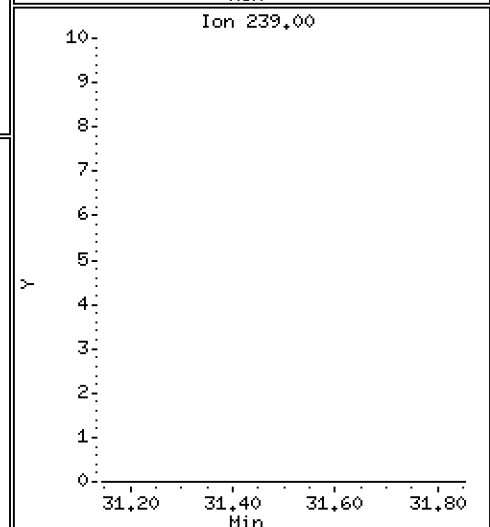
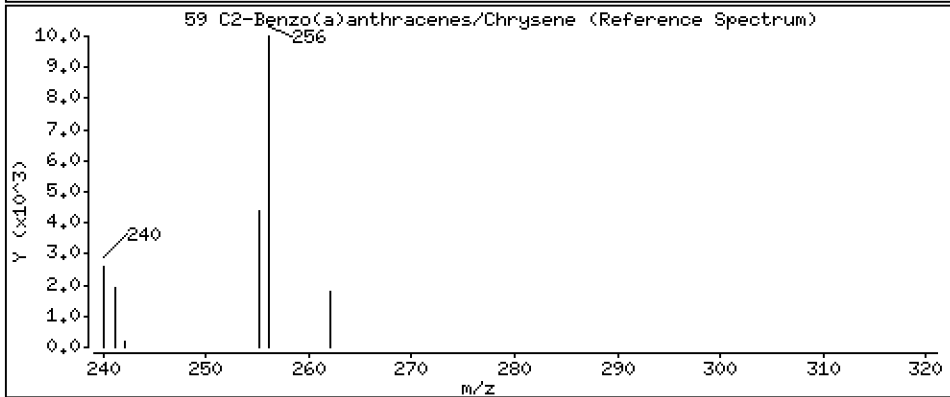
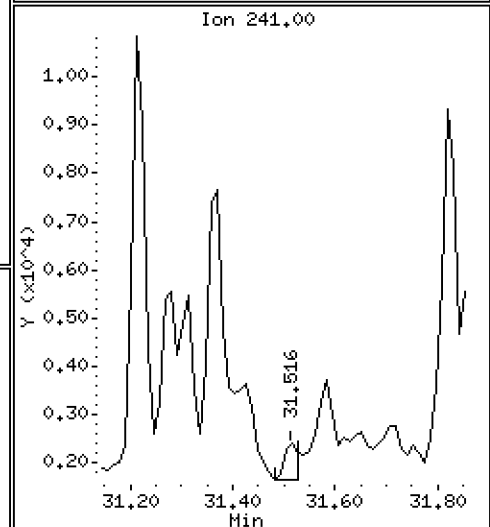
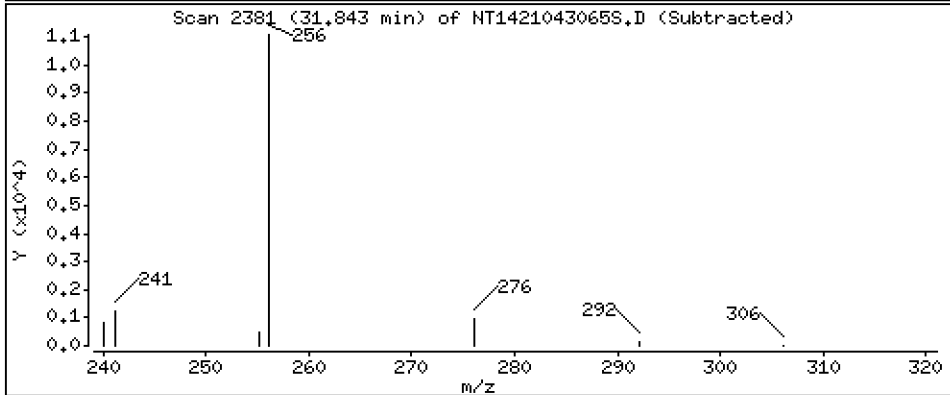
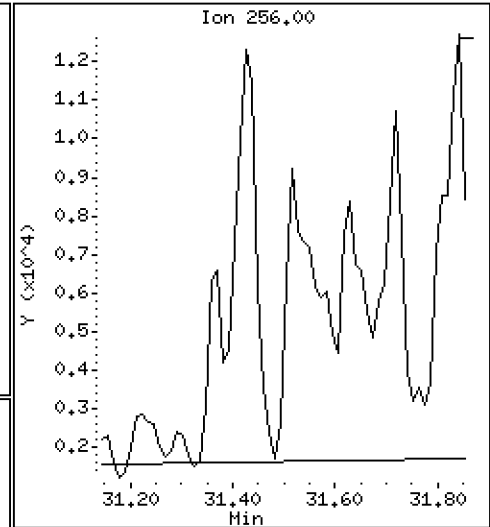
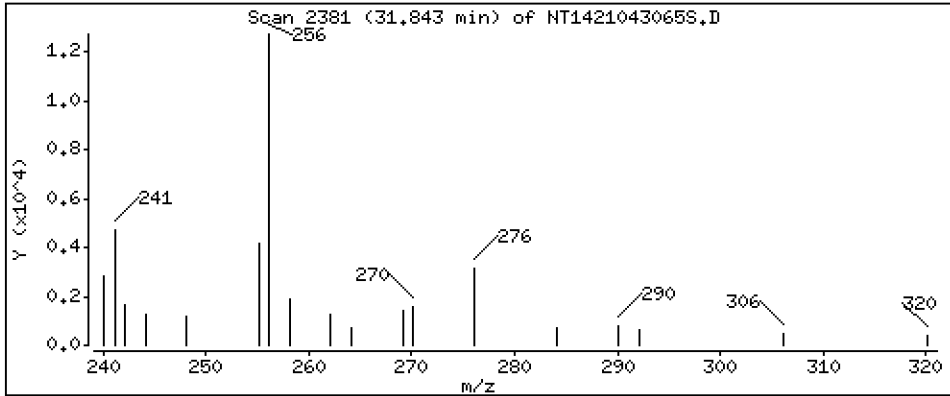
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

59 C2-Benzo(a)anthracenes/Chrysene

Concentration: 0,5332 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

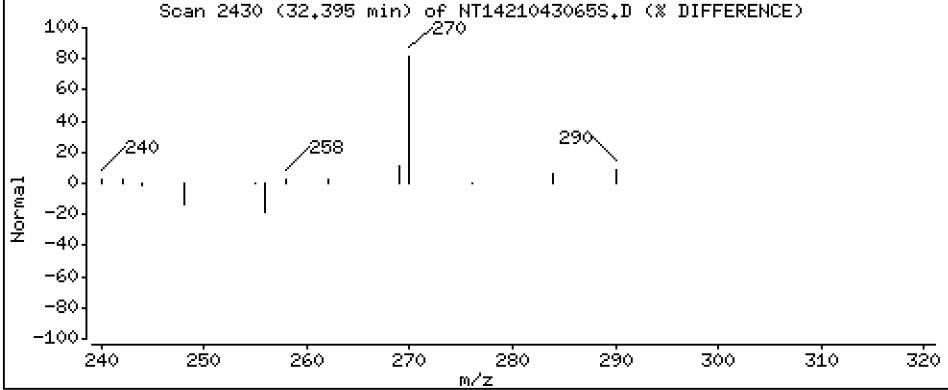
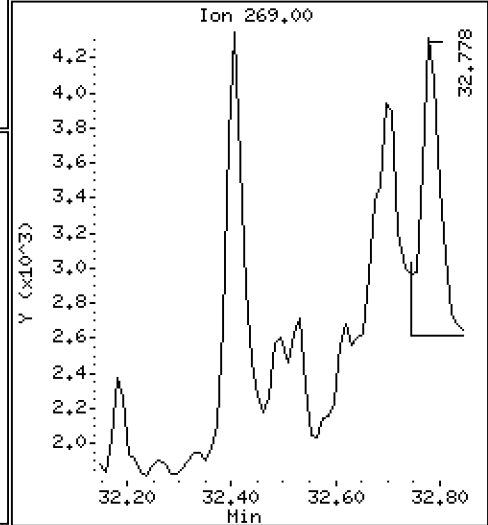
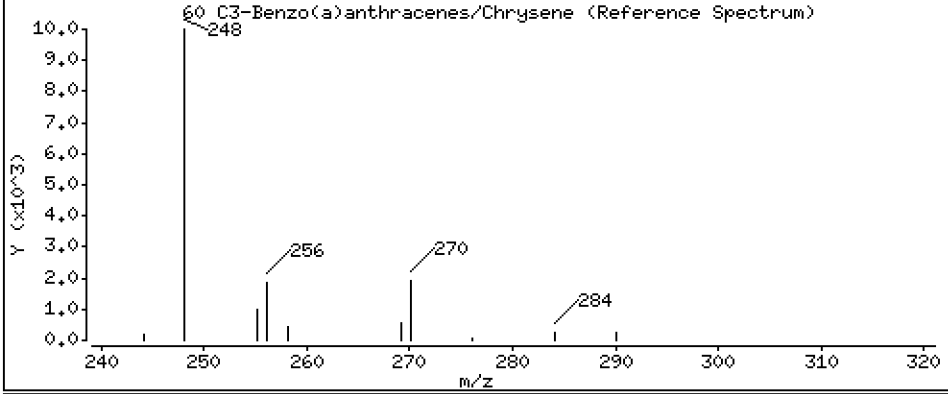
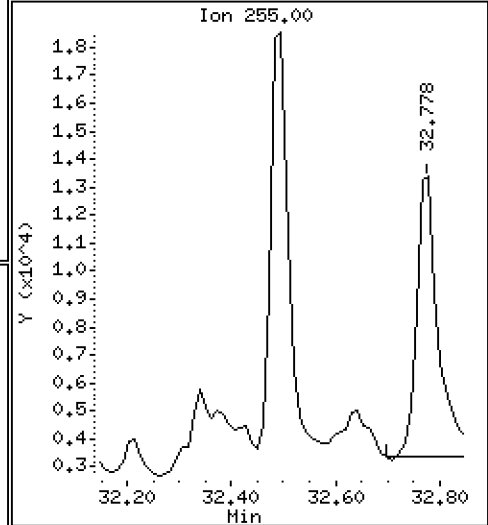
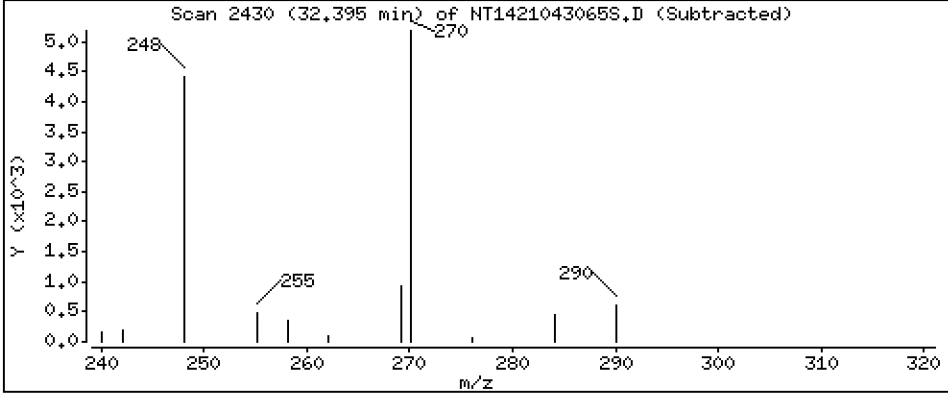
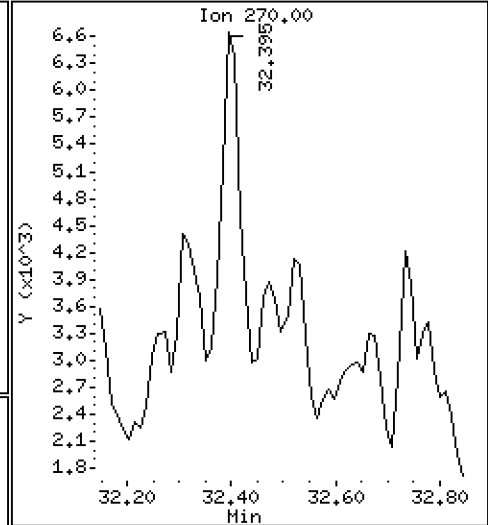
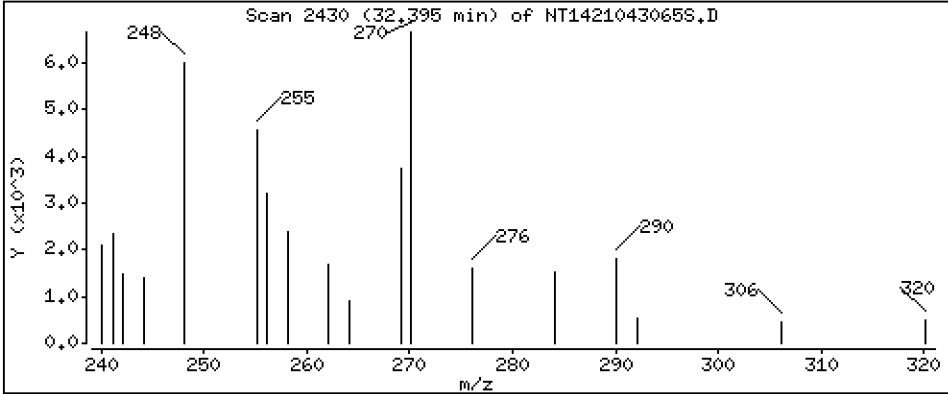
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

60 C3-Benzo(a)anthracenes/Chrysene

Concentration: 0,4297 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

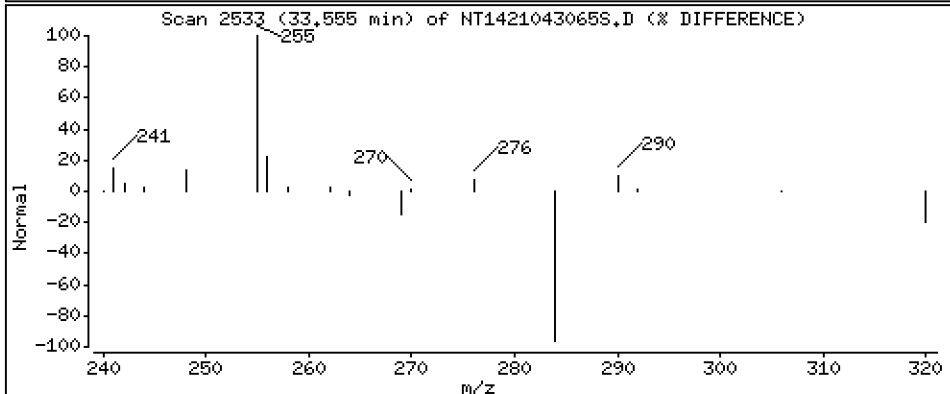
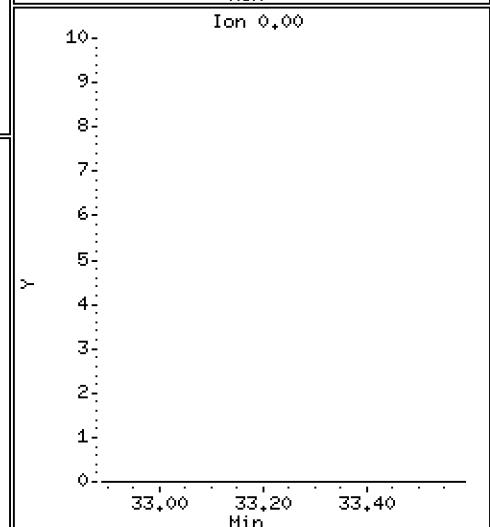
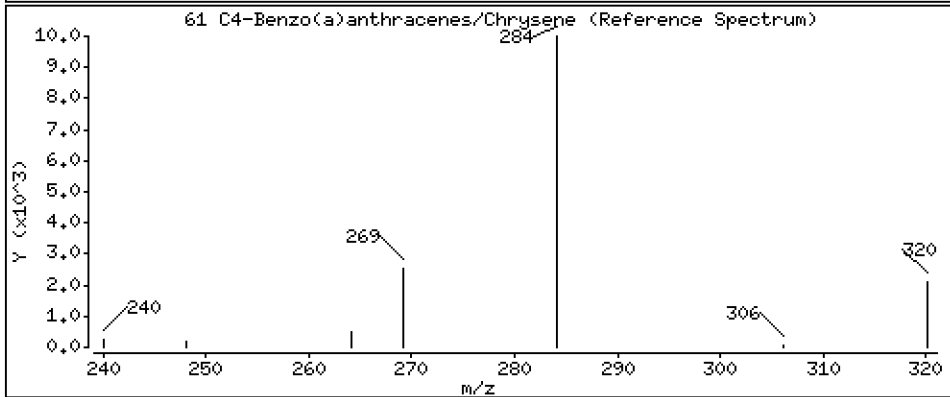
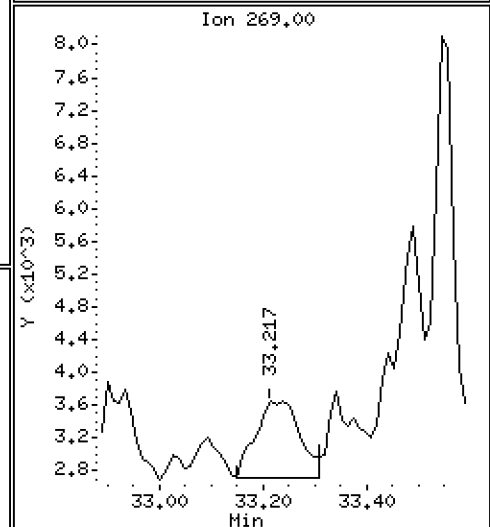
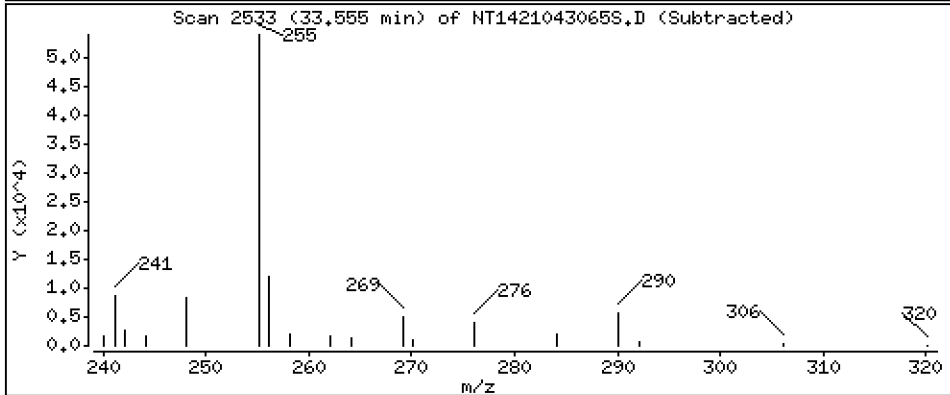
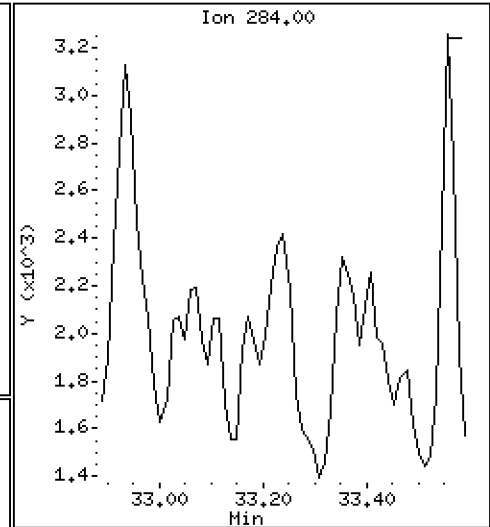
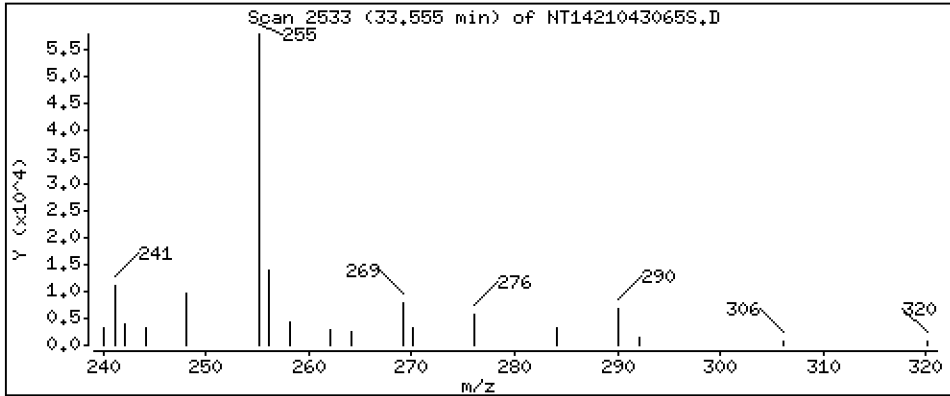
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

61 C4-Benzo(a)anthracenes/Chrysene

Concentration: 0,1764 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

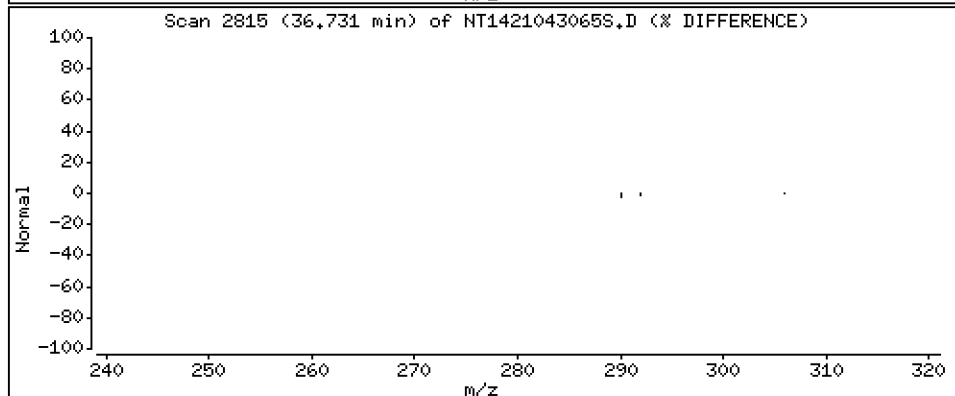
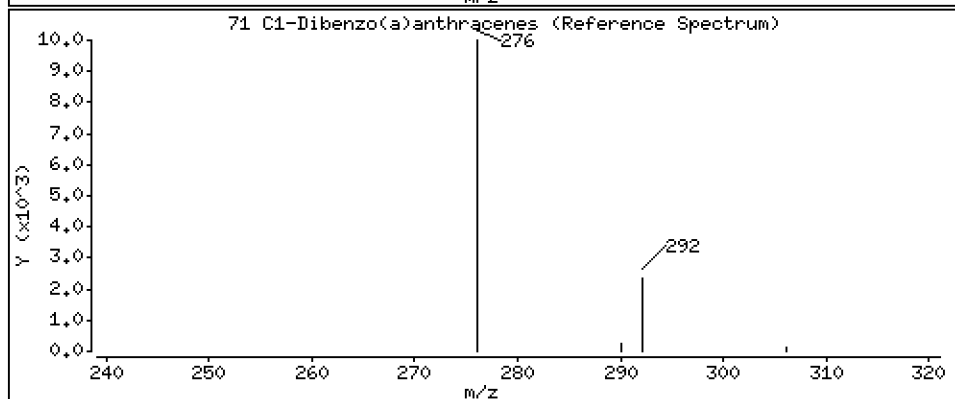
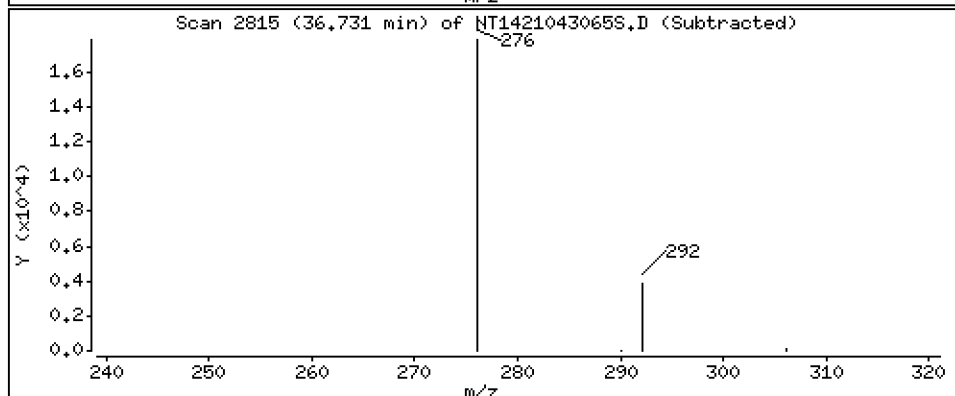
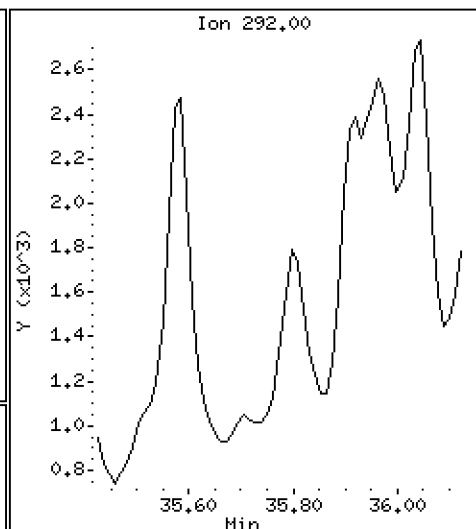
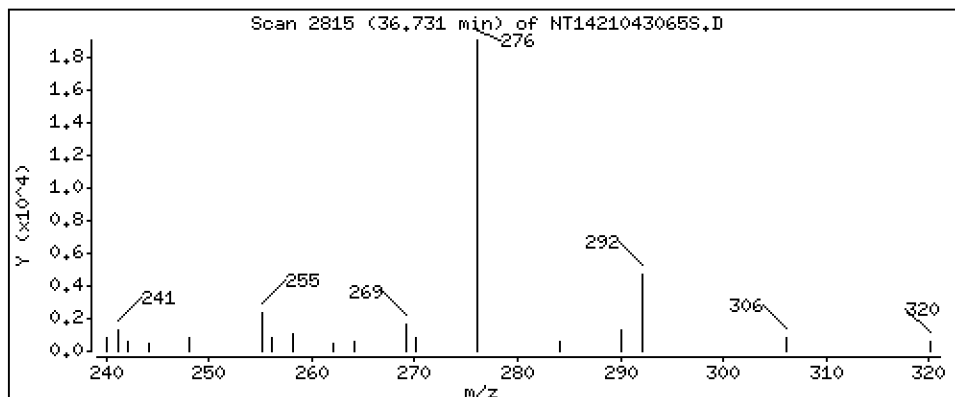
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

71 C1-Dibenzo(a)anthracenes

Concentration: 0,3227 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

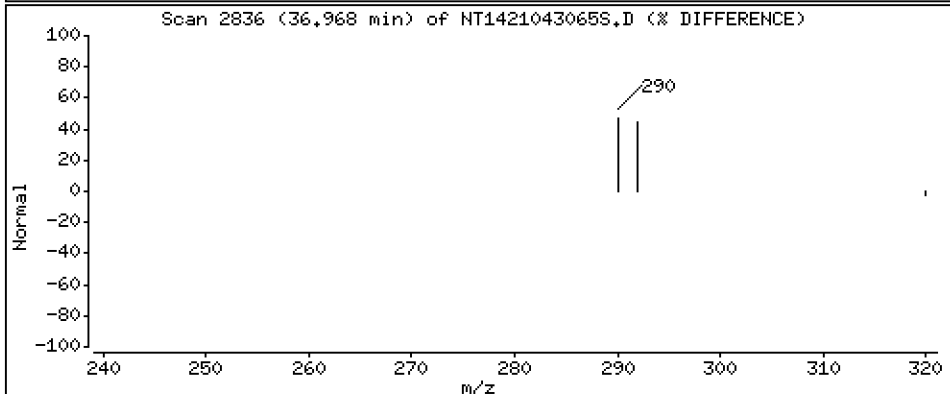
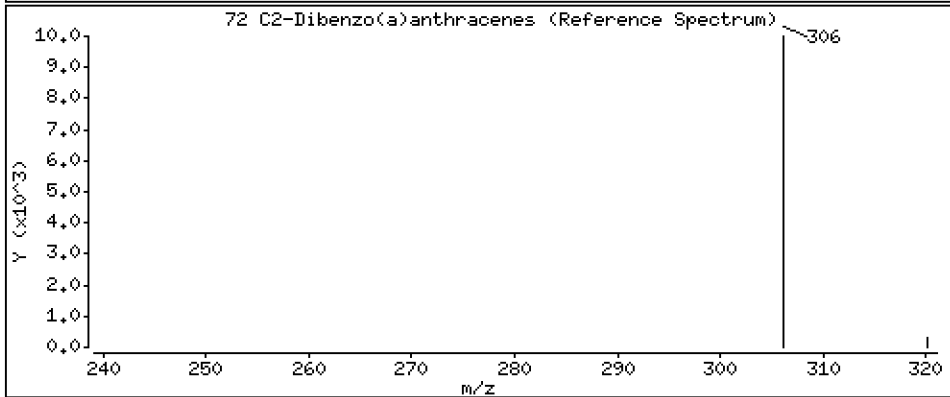
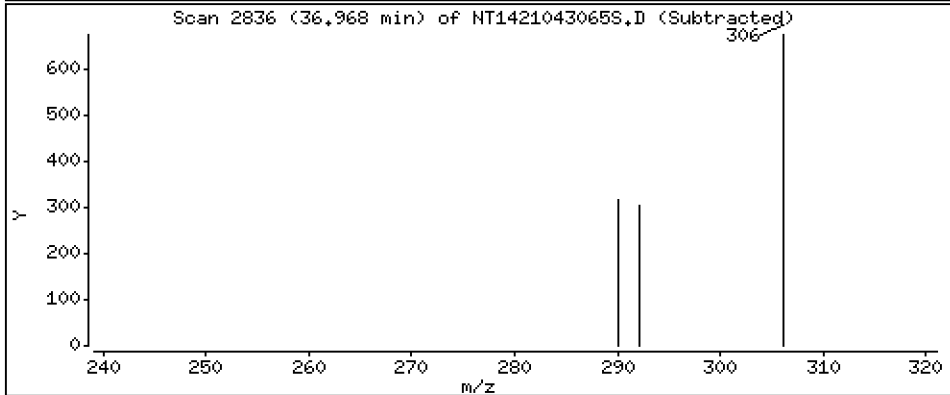
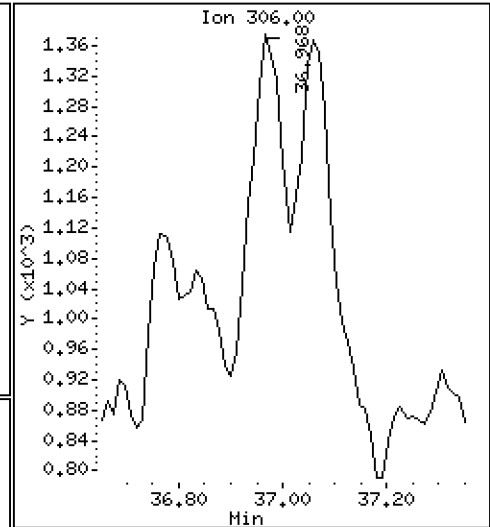
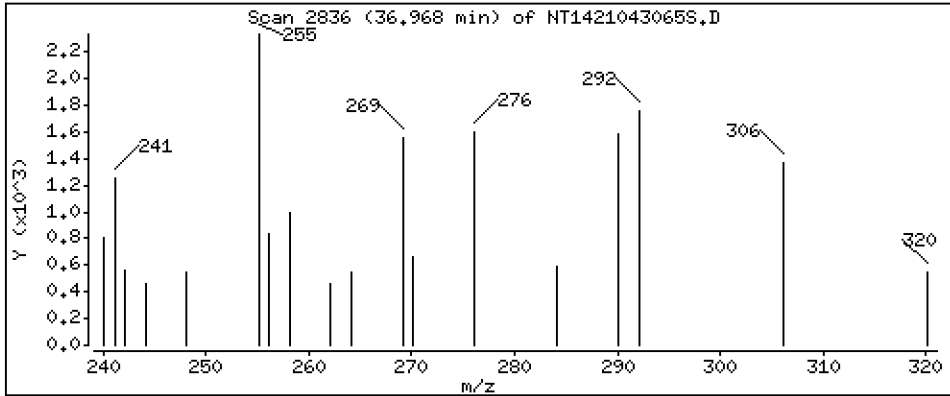
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

72 C2-Dibenzo(a)anthracenes

Concentration: 0,06676 ug/mL



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

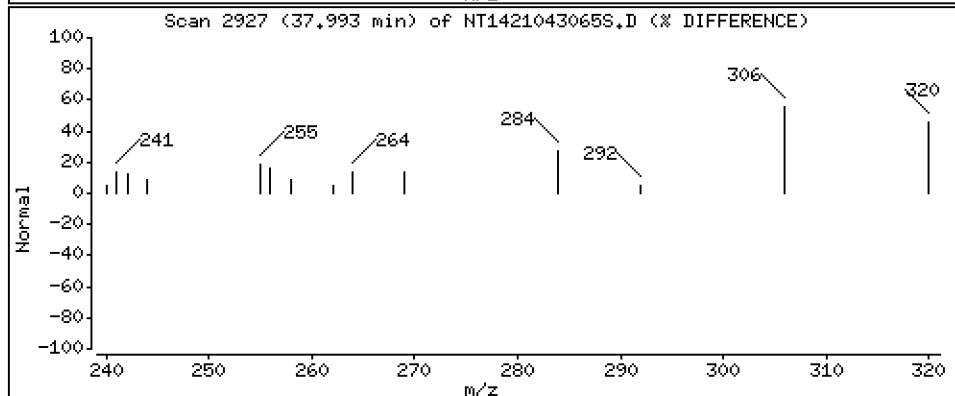
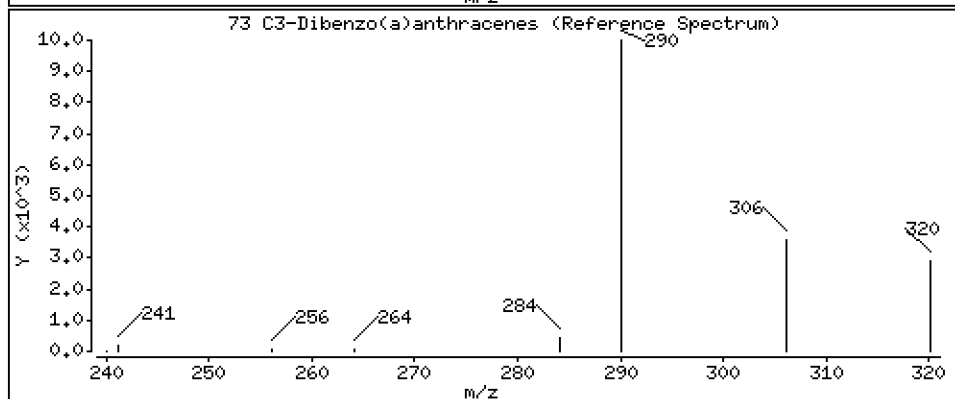
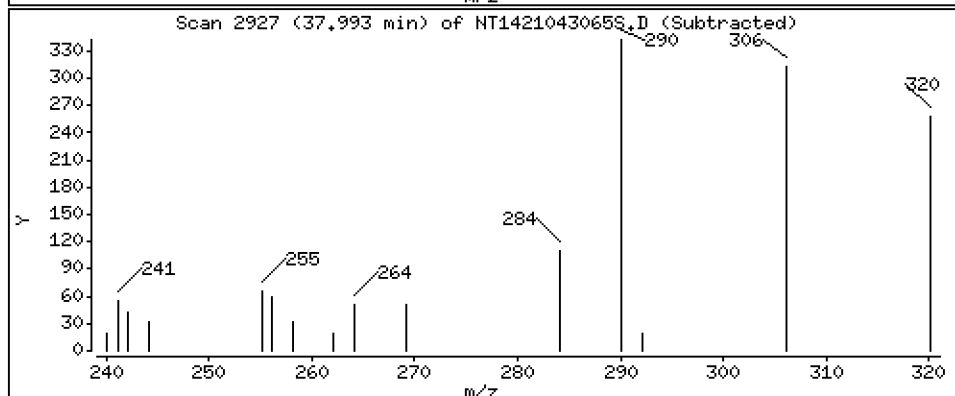
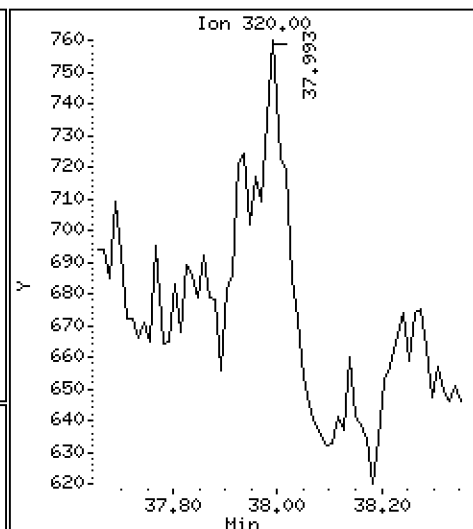
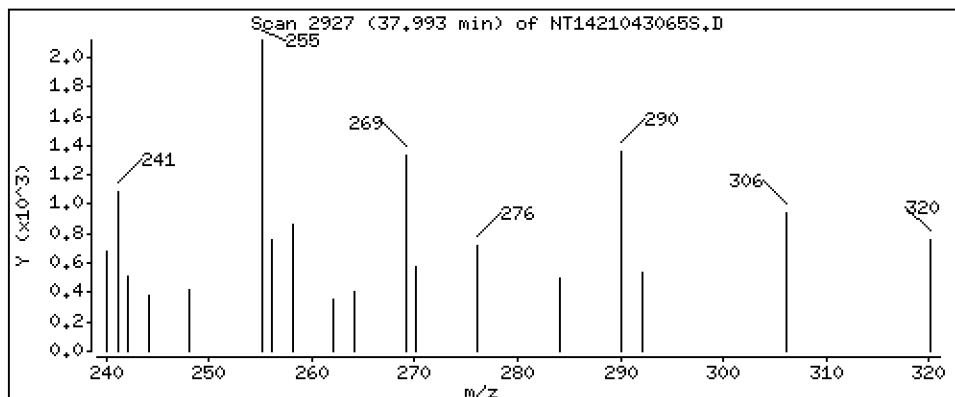
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

73 C3-Dibenzo(a)anthracenes

Concentration: 0,04675 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT1421043065S.D
 Lab Smp Id: 21D0180-03
 Inj Date : 02-MAY-2021 10:49
 Operator : VTS
 Smp Info : 21D0180-03
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt14.i\20210430.b\SIM.b\ALKYLRANGES.m
 Meth Date : 07-May-2021 11:15 yev
 Cal Date : 01-MAY-2021 01:56
 Als bottle: 46
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: ORGDATA102

Inst ID: nt14.i

Quant Type: ISTD
 Cal File: NT1421043024S.D

Compound Sublist: ALKYLRANGES.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
3 C1-Decalin	152		7.874	8.800	(0.420)	1613	0.04859	0.04859 (M)
4 C2-Decalin	166		9.004	9.200	(0.480)	10082	0.30372	0.3037 (M)
5 C3-Decalin	180		Compound Not Detected.					
247 C4-Decalin	194		Compound Not Detected.					
8 C1-Naphthalenes	142		13.660	14.121	(0.728)	82654	0.21813	0.2181 (M)
9 C2-Naphthalenes	156		15.792	16.111	(0.842)	89396	0.23592	0.2359 (M)
10 C3-Naphthalenes	170		17.649	17.957	(0.941)	75990	0.20054	0.2005 (M)
11 C4-Naphthalenes	184		19.023	18.000	(1.014)	33003	0.08710	0.08710 (M)
13 C1-Benzothiophenes	148		13.143	14.110	(0.701)	10971	0.03639	0.03639 (M)
14 C2-Benzothiophenes	162		15.275	15.660	(0.814)	17837	0.05917	0.05917 (M)
15 C3-Benzothiophenes	176		17.045	17.199	(0.908)	12216	0.04052	0.04052 (M)
27 C1-Fluorenes	180		20.406	20.735	(1.088)	47580	0.21453	0.2145 (M)
* 25 Fluorene-d10	176		18.762	18.774	(1.000)	645514	2.00000	
28 C2-Fluorenes	194		21.974	22.000	(1.171)	42328	0.19085	0.1908 (M)
29 C3-Fluorenes	208		23.282	23.172	(1.241)	47993	0.21639	0.2164 (M)
31 C1-Dibenzothiophenes	198		22.919	23.500	(1.222)	51909	0.18541	0.1854 (M)
32 C2-Dibenzothiophenes	212		24.327	24.535	(1.297)	68269	0.24384	0.2438 (M)
33 C3-Dibenzothiophenes	226		25.228	25.600	(1.345)	72976	0.26065	0.2607 (M)
34 C4-Dibenzothiophenes	240		Compound Not Detected.					
38 C1-Phenanthrenes/Anthracenes	192		23.568	23.500	(1.061)	323489	0.95793	0.9579 (M)
* 250 Anthracene-d10	188		22.205	22.216	(1.000)	607222	2.00000	
39 C2-Phenanthrenes/Anthracenes	206		25.338	25.107	(1.141)	249170	0.73785	0.7379 (M)
40 C3-Phenanthrenes/Anthracenes	220		26.273	26.856	(1.183)	129152	0.38245	0.3825 (M)
41 C4-Phenanthrenes/Anthracenes	234		27.744	27.500	(1.249)	54239	0.16062	0.1606 (M)
48 C1-Fluoranthenes/Pyrenes	216		27.624	27.624	(1.244)	644596	1.98124	1.981 (M)
49 C2-Fluoranthenes/Pyrenes	230		29.223	28.800	(1.316)	290933	0.89422	0.8942 (M)
50 C3-Fluoranthenes/Pyrenes	244		29.804	29.995	(1.342)	119081	0.36601	0.3660 (M)
249 C4-Fluoranthenes/Pyrenes	258		32.901	33.037	(1.482)	124026	0.38121	0.3812 (M)
52 C1-Naphthobenzothiophenes	248		30.052	30.000	(1.353)	106610	0.32449	0.3245 (M)
53 C2-Naphthobenzothiophenes	262		31.144	31.000	(1.403)	96073	0.29242	0.2924 (M)
54 C3-Naphthobenzothiophenes	276		32.113	32.000	(1.446)	70271	0.21388	0.2139 (M)
248 C4-Naphthobenzothiophenes	290		32.090	33.000	(1.445)	42182	0.12839	0.1284 (M)
58 C1-Benzo(a)anthracenes/Chrysen	242		30.964	30.975	(0.937)	471269	1.34174	1.342 (M)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
59 C2-Benzo(a)anthracenes/Chrysen	256	31.843	31.500	(0.964)	187280	0.53320	0.5332 (M)
60 C3-Benzo(a)anthracenes/Chrysen	270	32.395	32.500	(0.981)	150938	0.42973	0.4297 (M)
61 C4-Benzo(a)anthracenes/Chrysen	284	33.555	33.239	(1.016)	61966	0.17642	0.1764 (M)
71 C1-Dibenzo(a)anthracenes	292	36.731	35.773	(1.112)	161223	0.32269	0.3227 (M)
* 251 Benzo(e)pyrene-d12	264	33.037	33.037	(1.000)	752067	2.00000	
72 C2-Dibenzo(a)anthracenes	306	36.967	37.000	(1.119)	33355	0.06676	0.06676 (M)
73 C3-Dibenzo(a)anthracenes	320	37.992	38.000	(1.150)	23356	0.04675	0.04675 (M)

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i
 Lab File ID: NT1421043065S.D
 Lab Smp Id: 21D0180-03
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\ALKYLRANGES.m
 Misc Info:

Calibration Date: 01-MAY-2021
 Calibration Time: 01:56
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

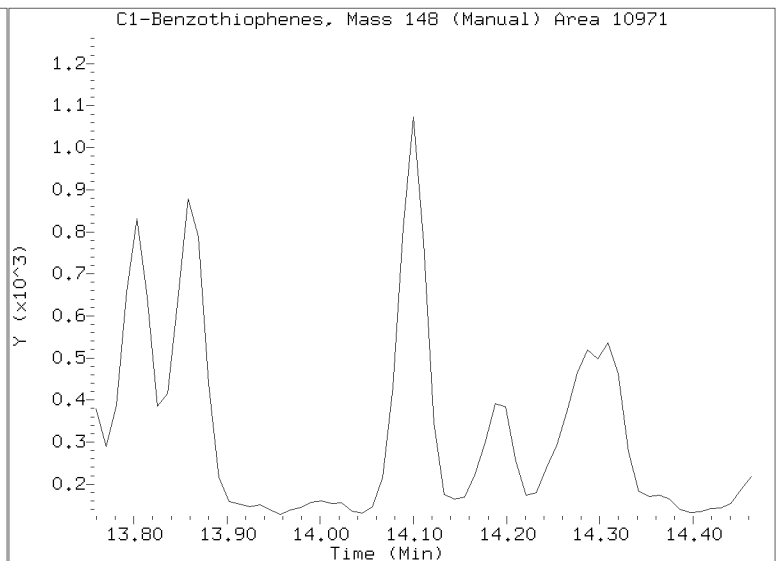
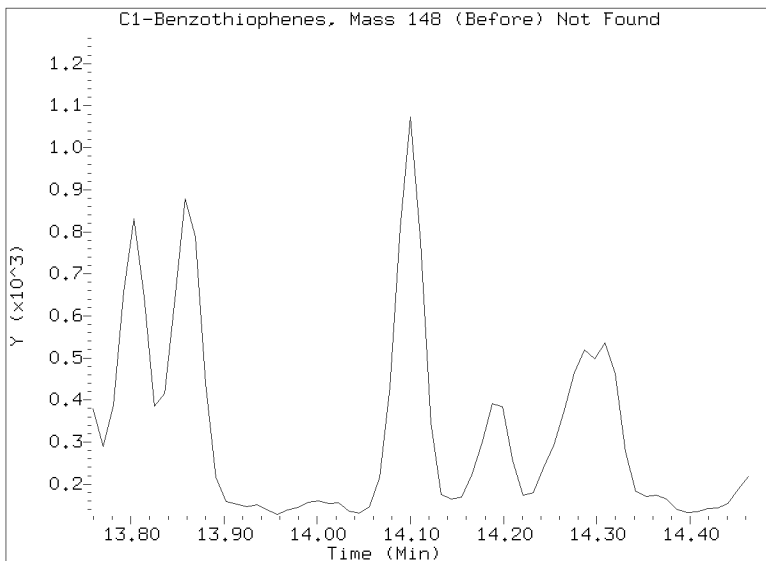
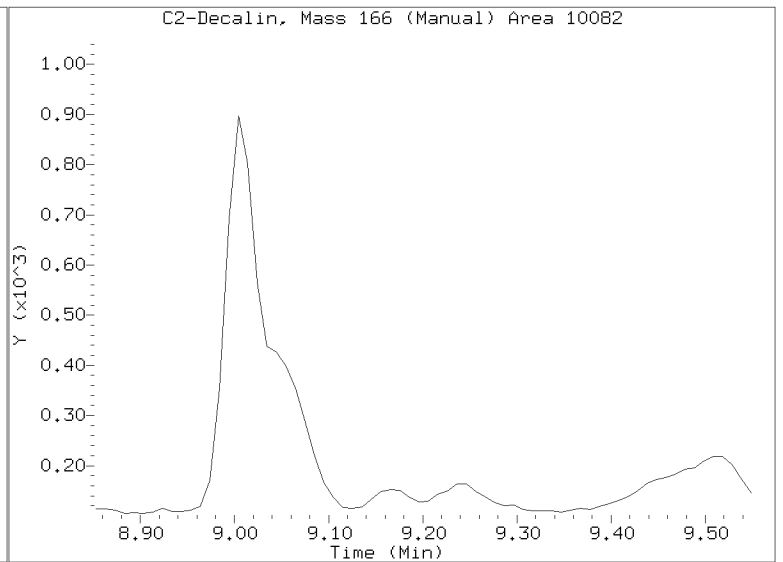
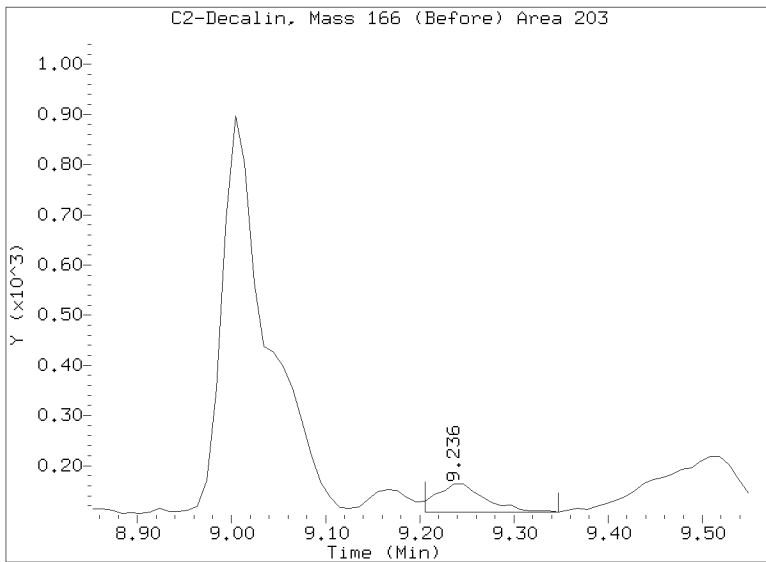
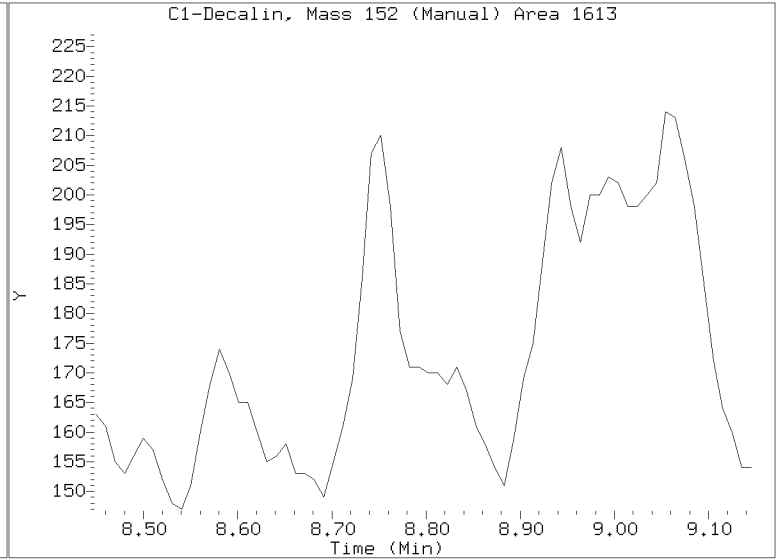
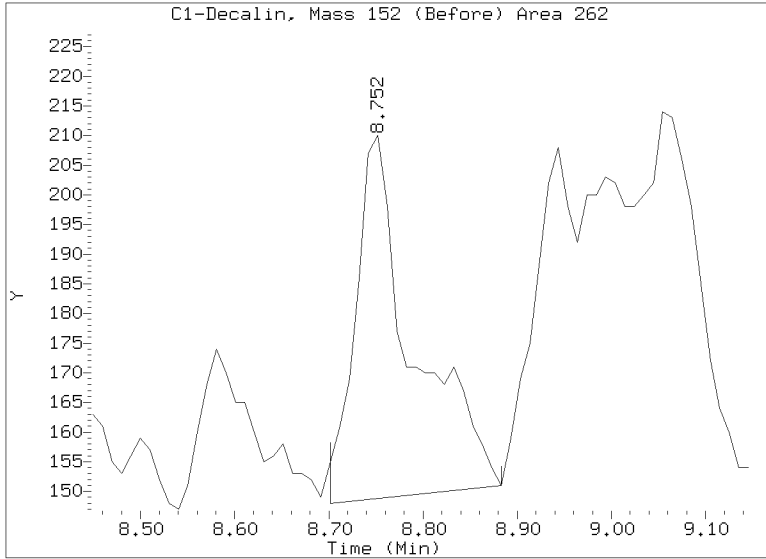
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	615800	307900	1231600	645514	4.83
250 Anthracene-d10	563384	281692	1126768	607222	7.78
251 Benzo(e)pyrene-d1	606671	303336	1213342	752067	23.97

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.77	18.27	19.27	18.76	-0.06
250 Anthracene-d10	22.22	21.72	22.72	22.21	-0.05
251 Benzo(e)pyrene-d1	33.04	32.54	33.54	33.04	-0.00

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.

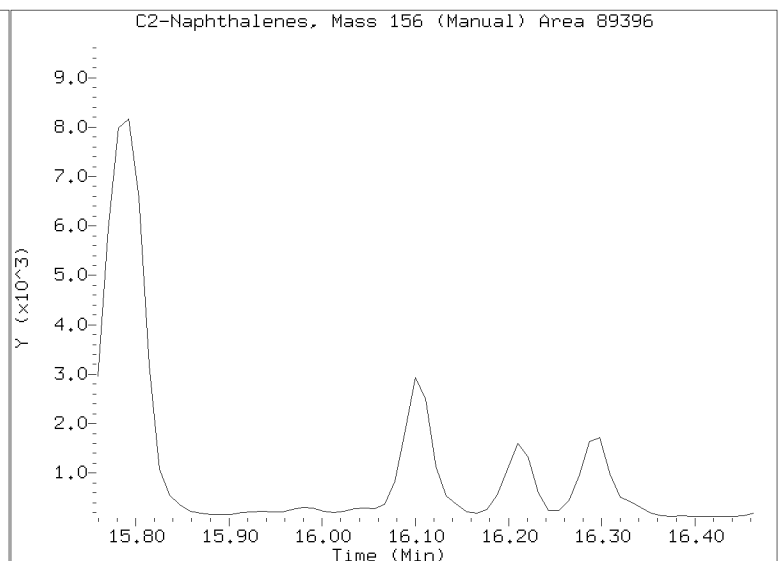
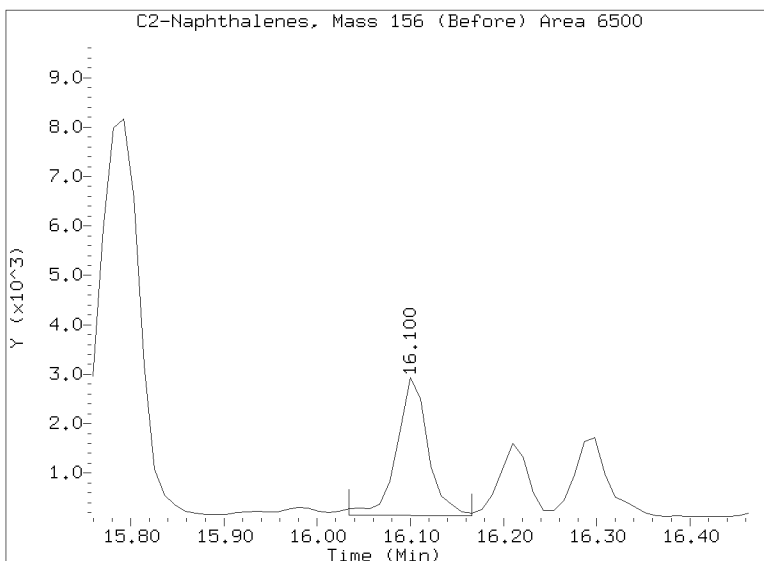
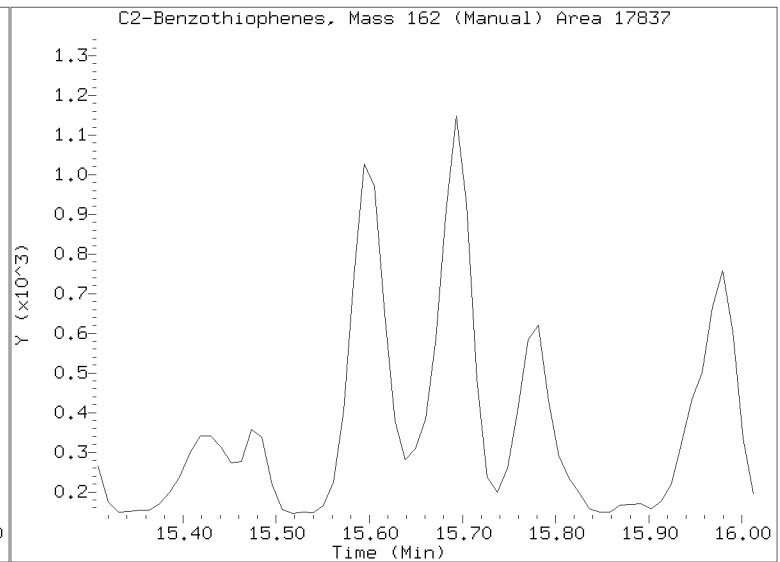
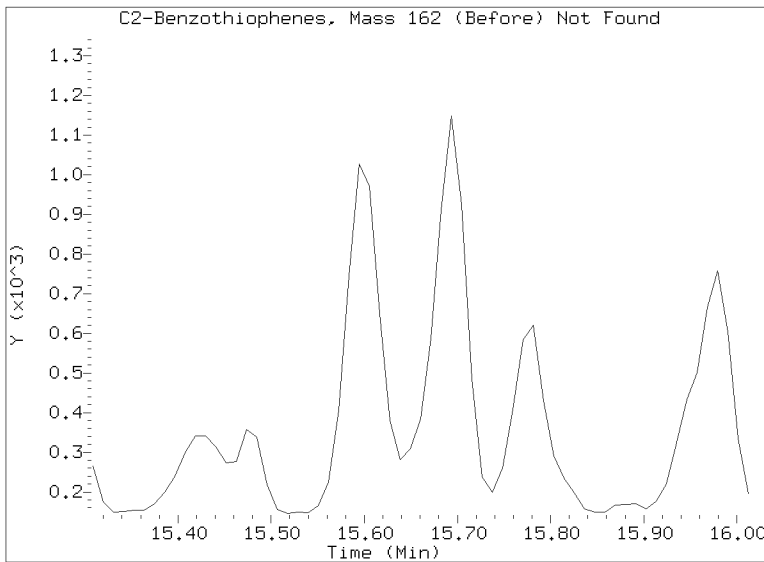
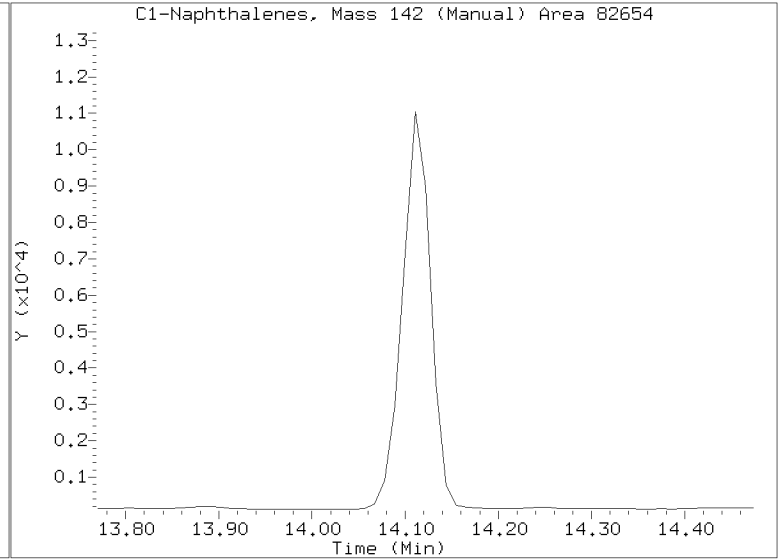
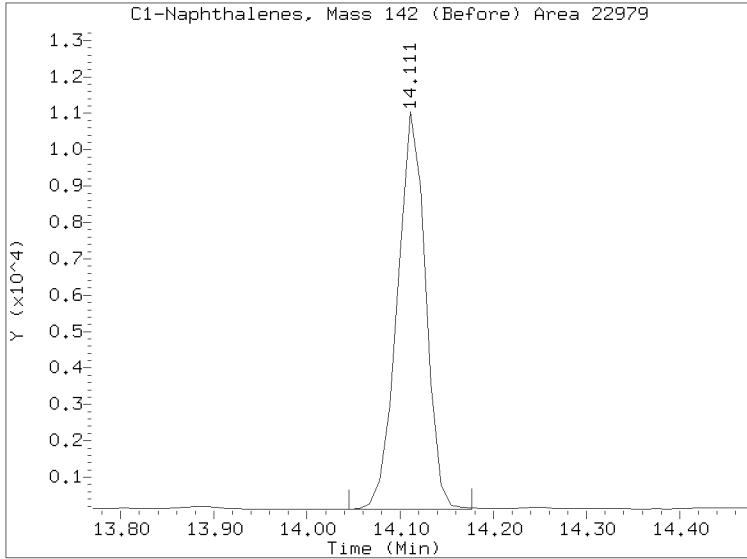
Quant Ion Manual Peak Adjustment Report

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Injection Date: 02-MAY-2021 10:49
Lab ID:21D0180-03 Client ID:
Report Date: 05/07/2021 15:32



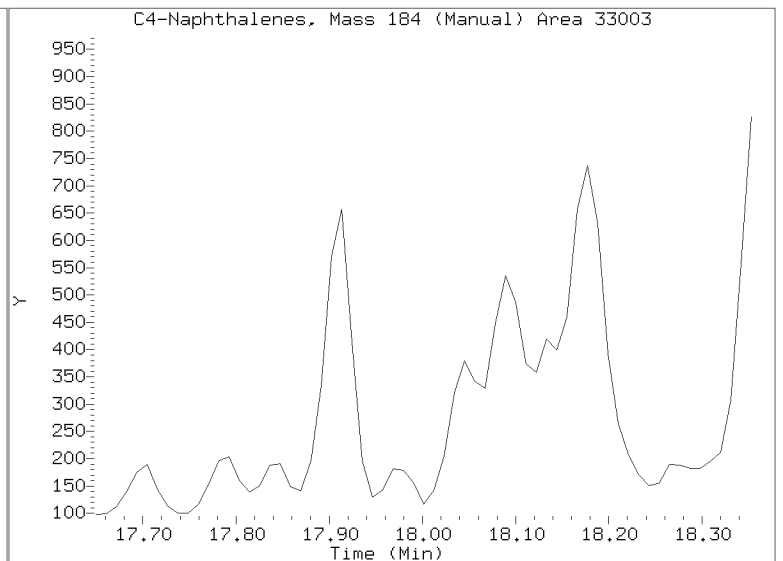
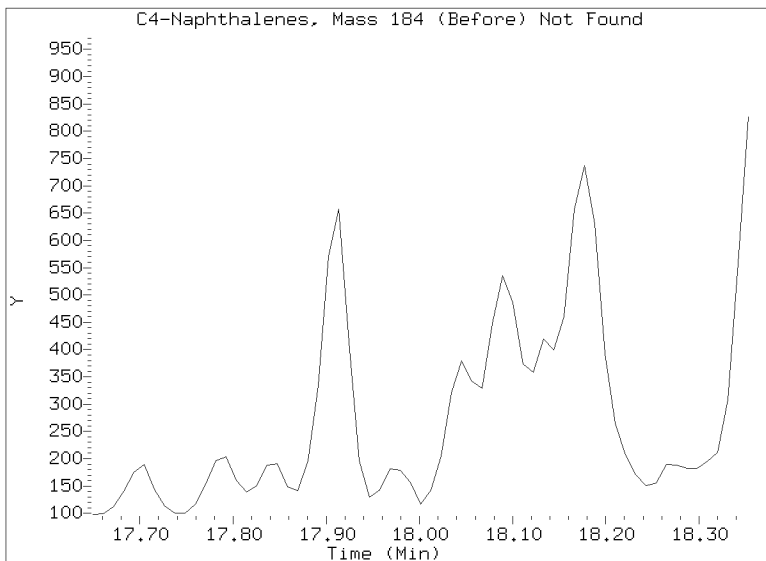
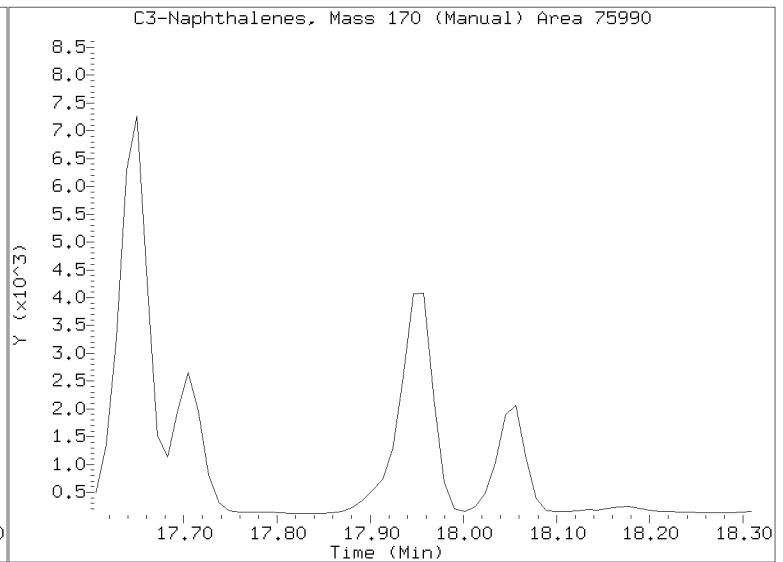
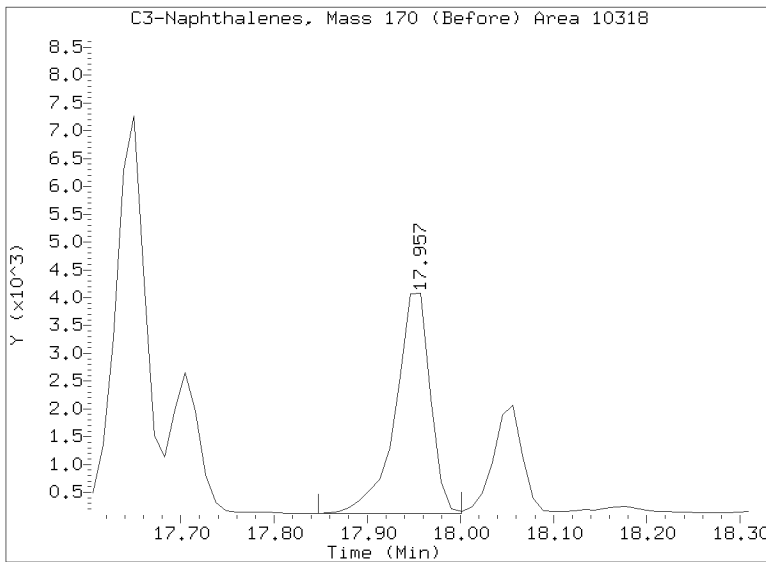
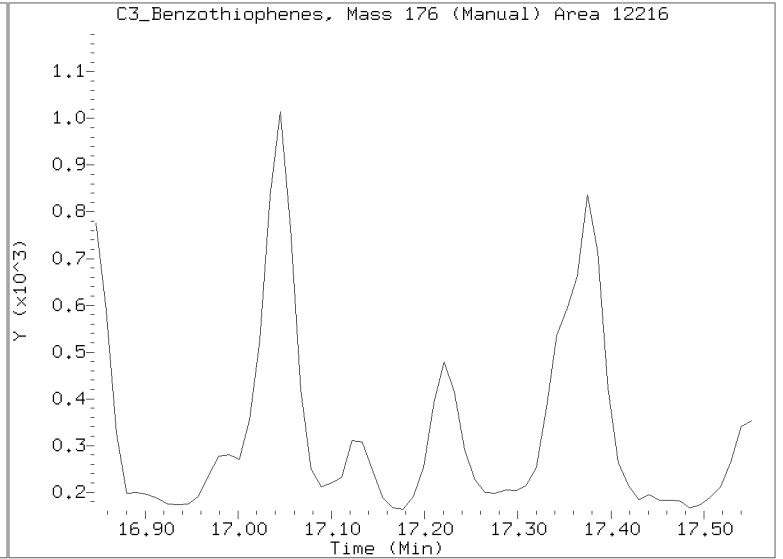
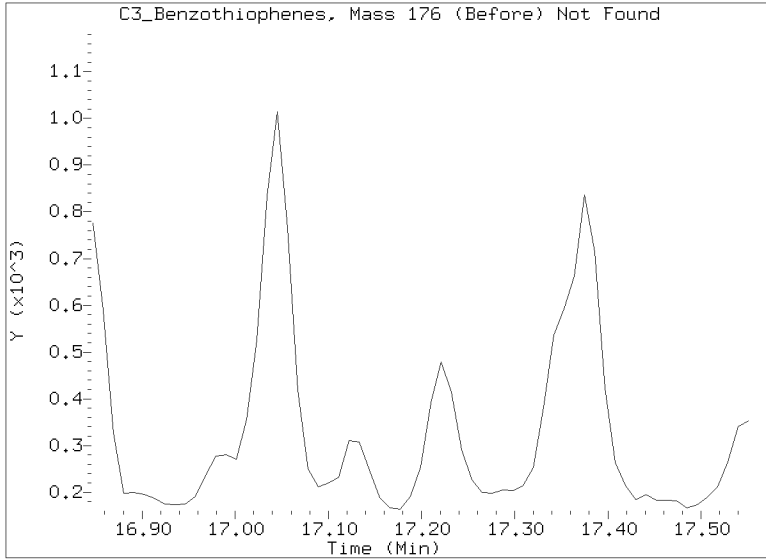
Quant Ion Manual Peak Adjustment Report

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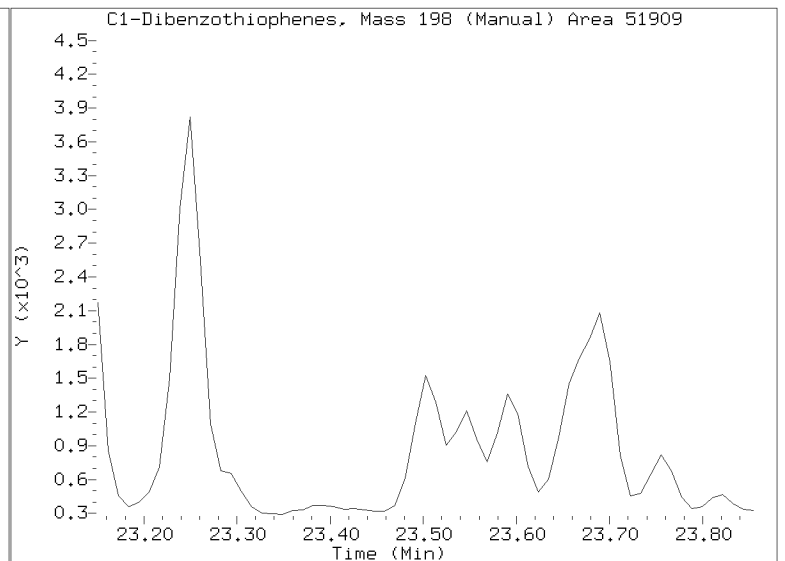
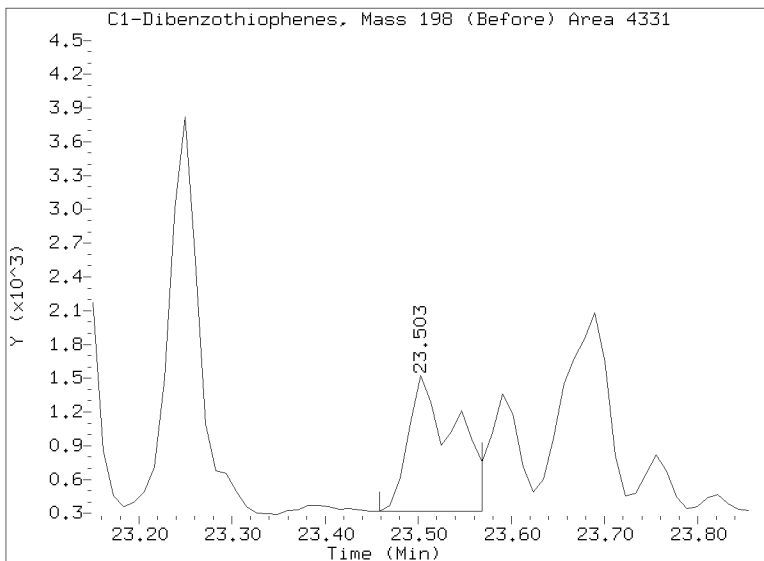
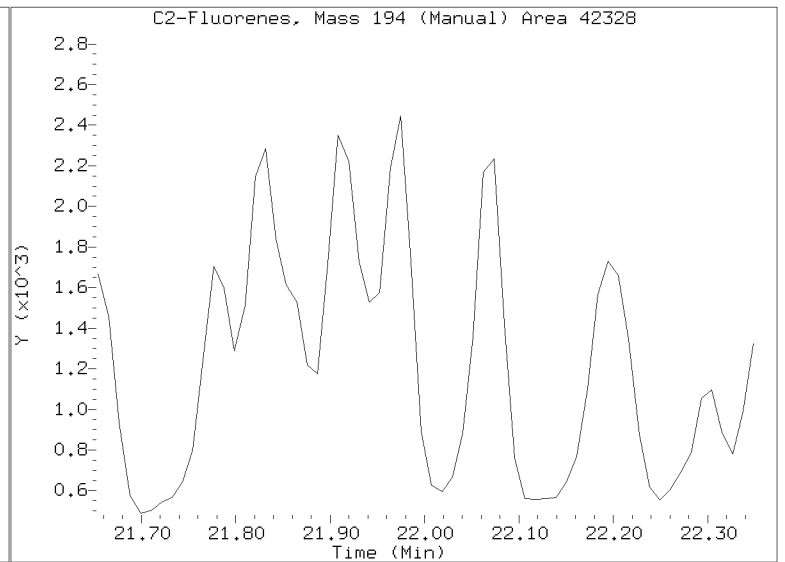
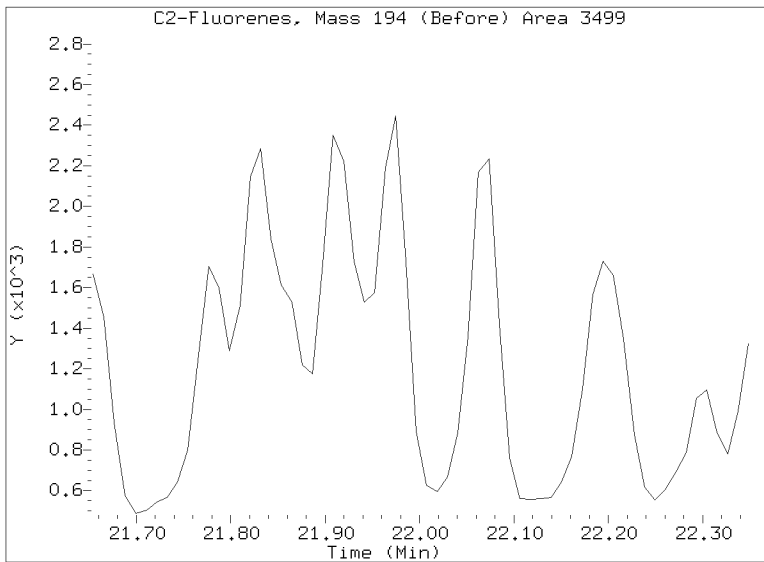
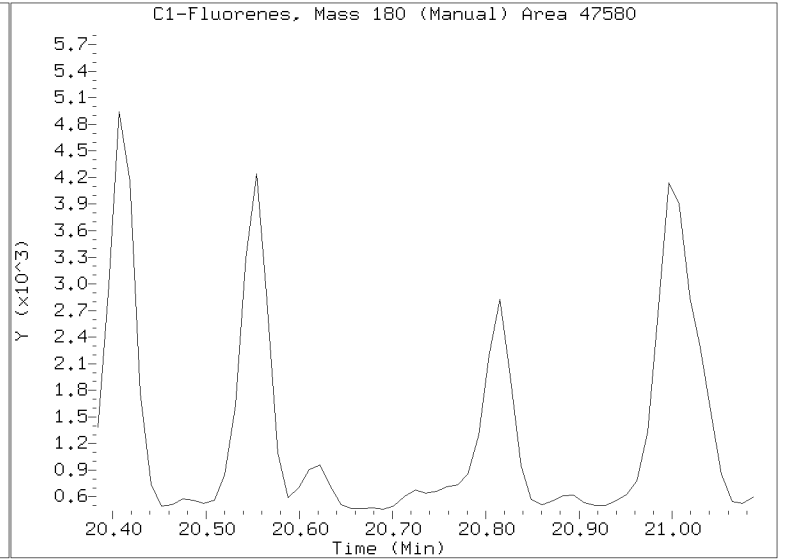
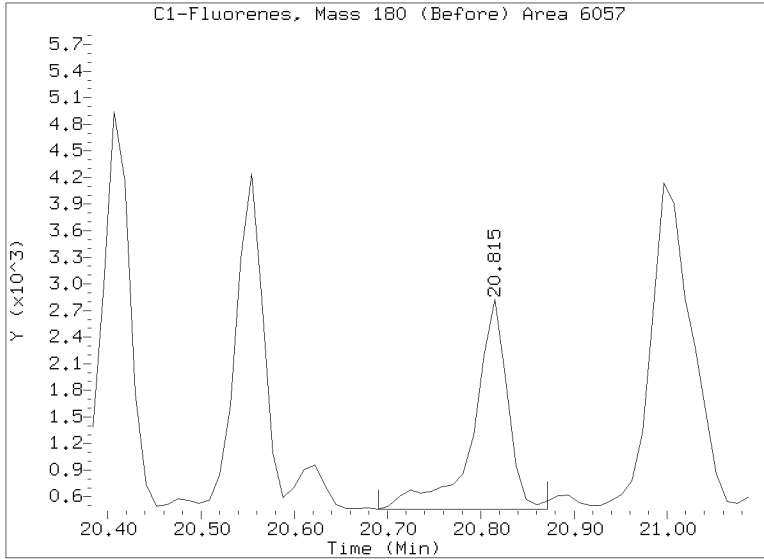
Quant Ion Manual Peak Adjustment Report

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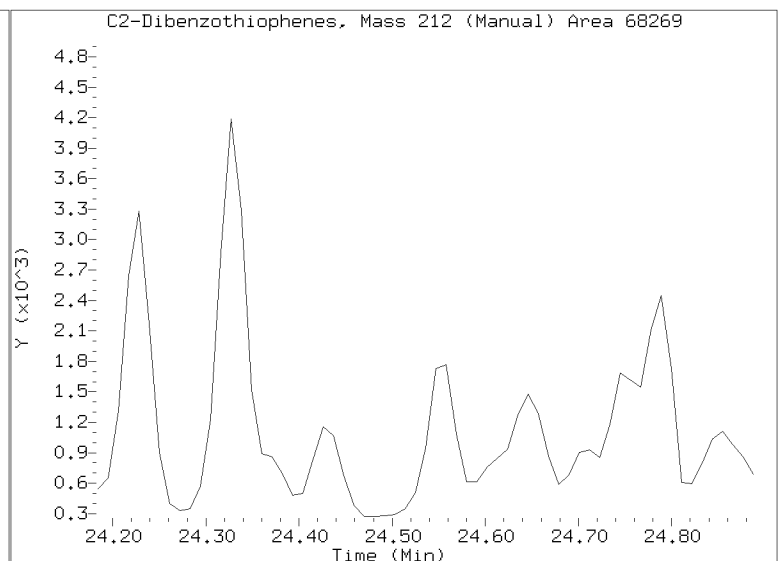
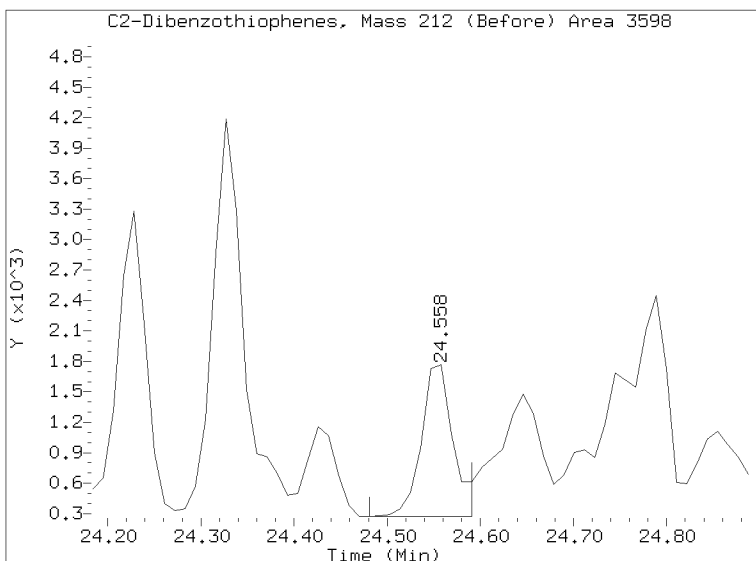
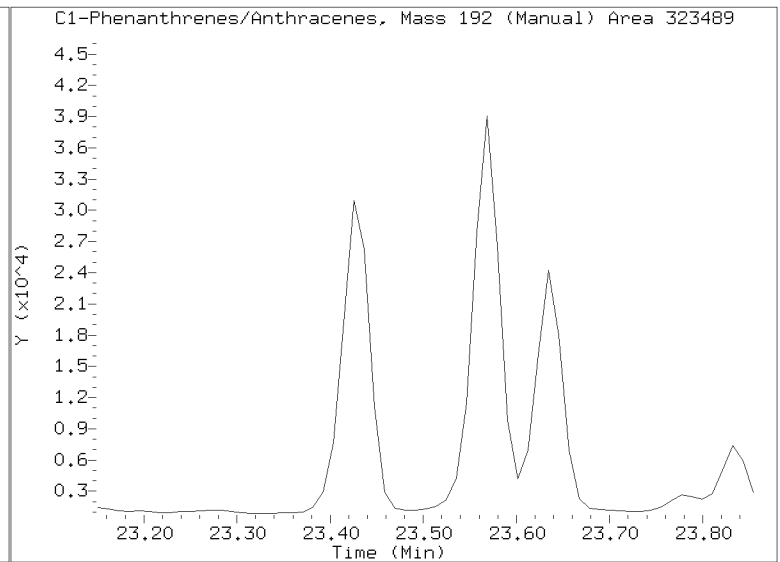
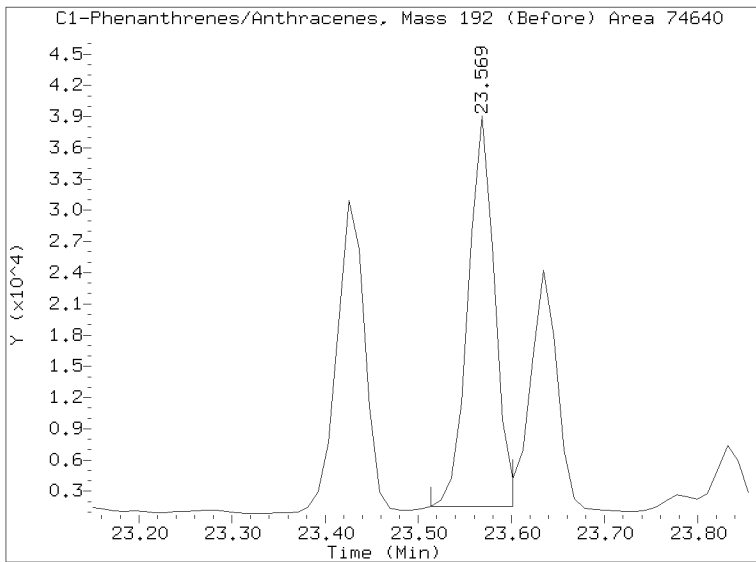
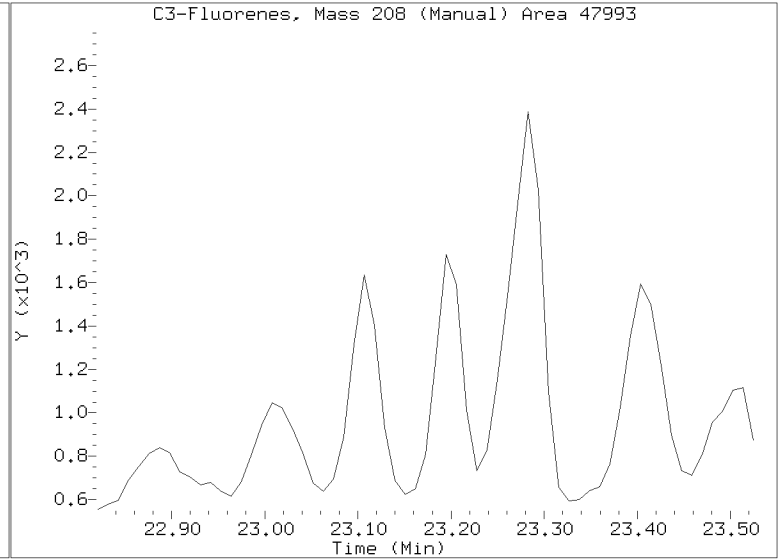
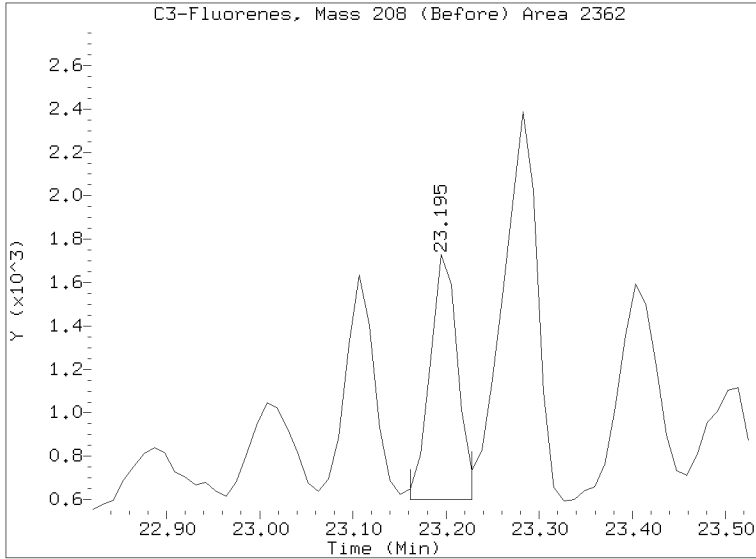
Quant Ion Manual Peak Adjustment Report

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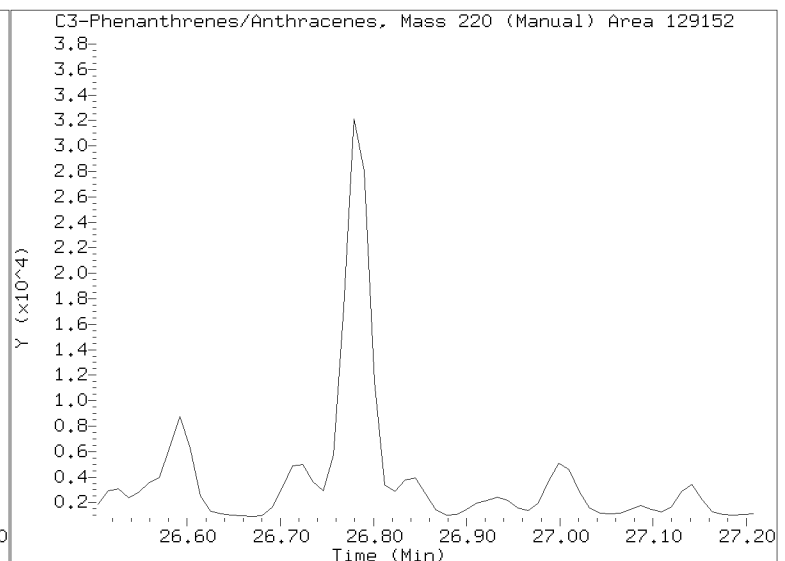
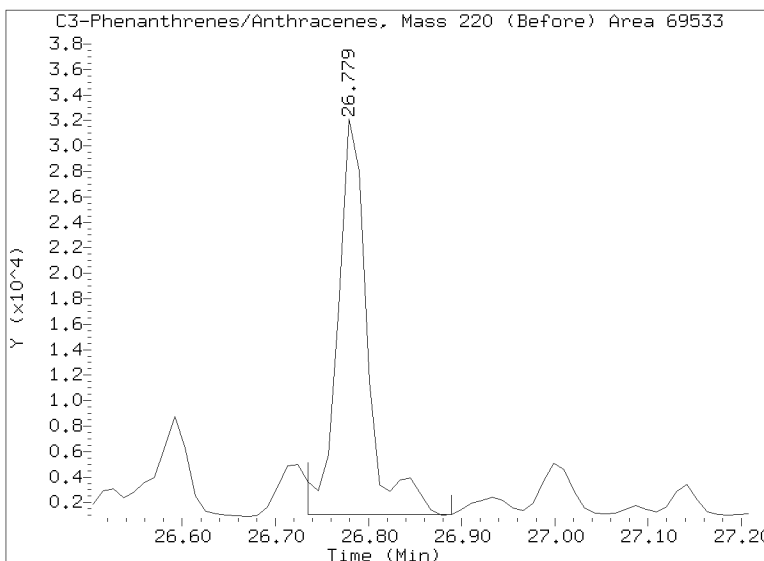
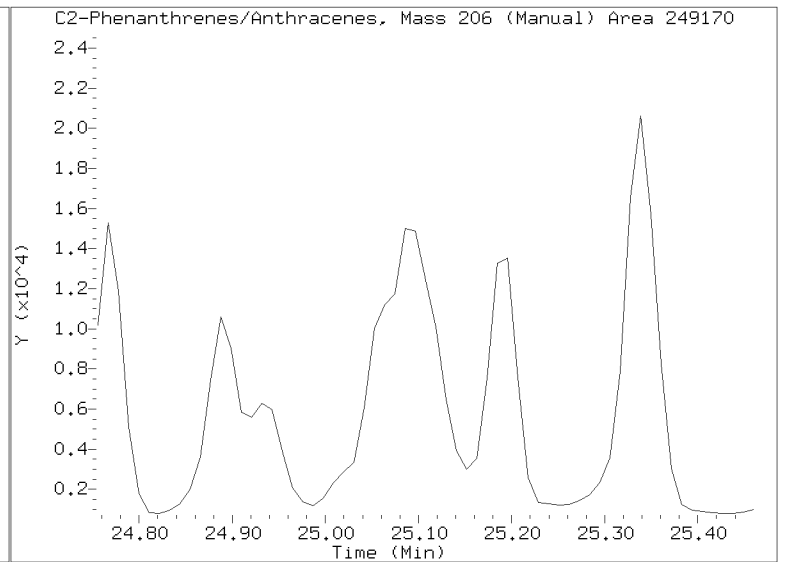
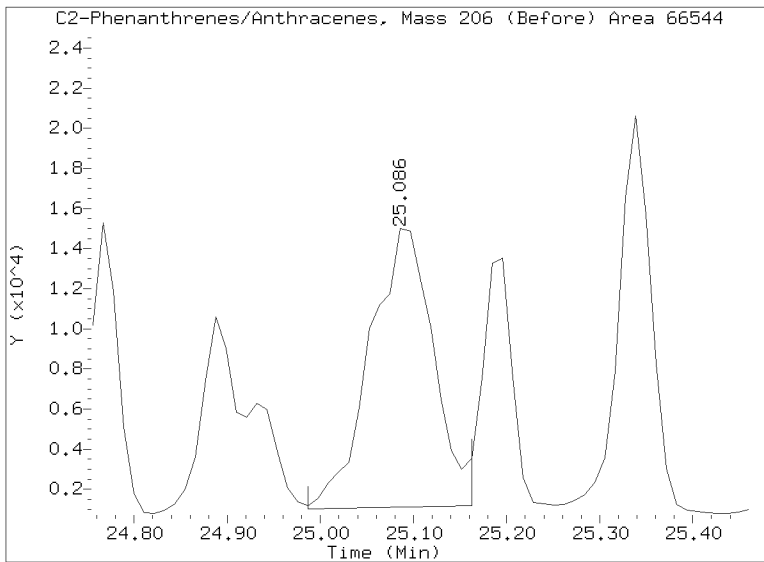
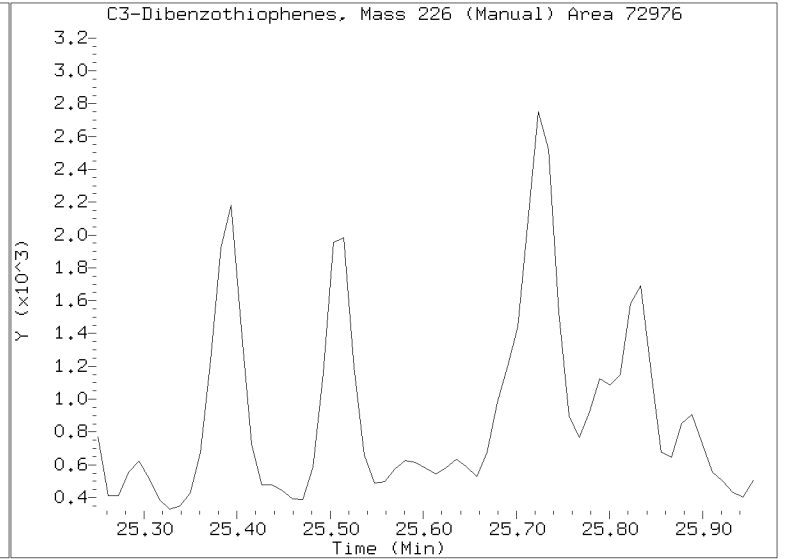
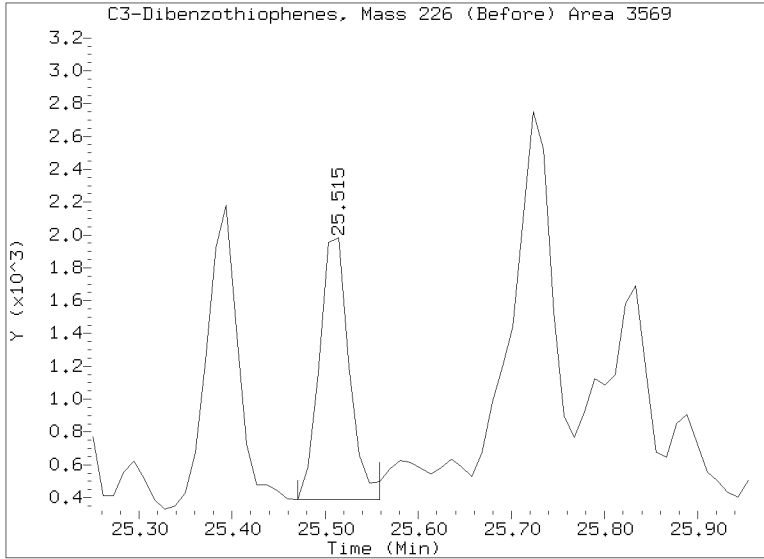
Quant Ion Manual Peak Adjustment Report

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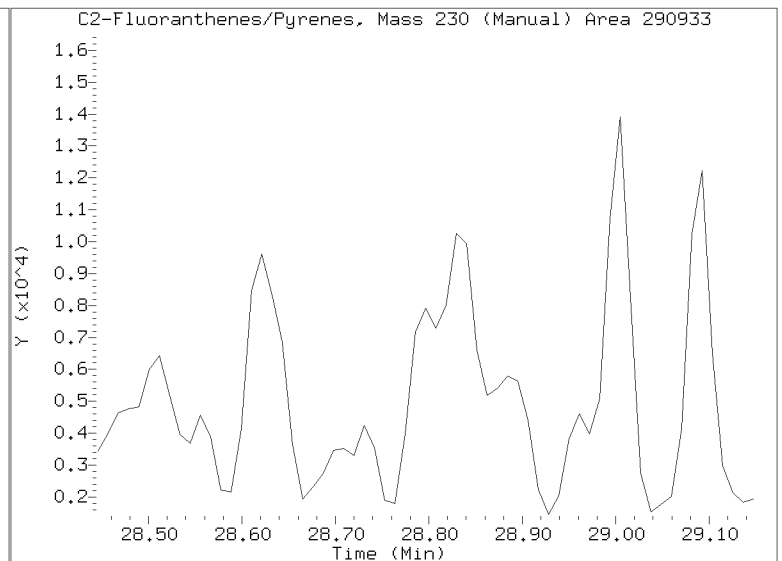
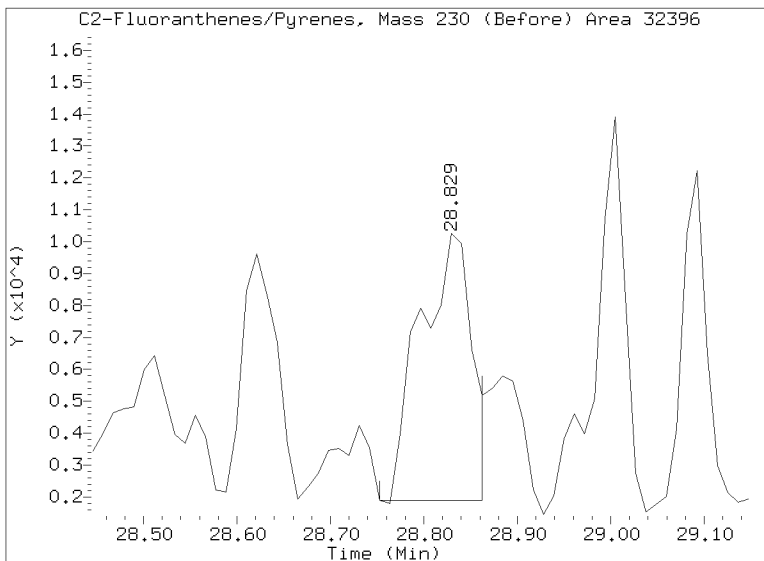
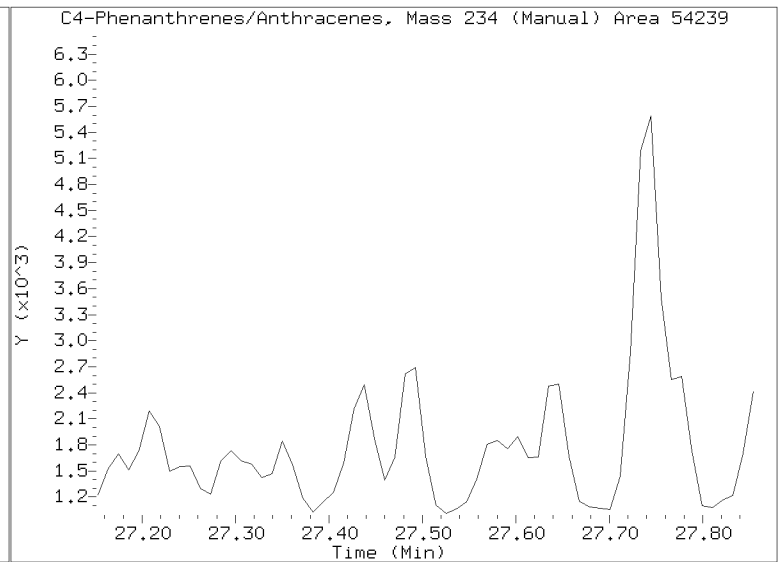
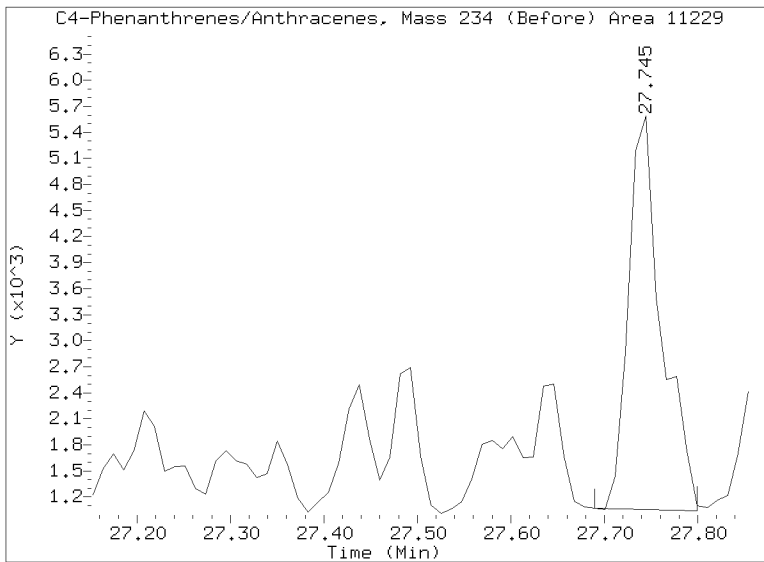
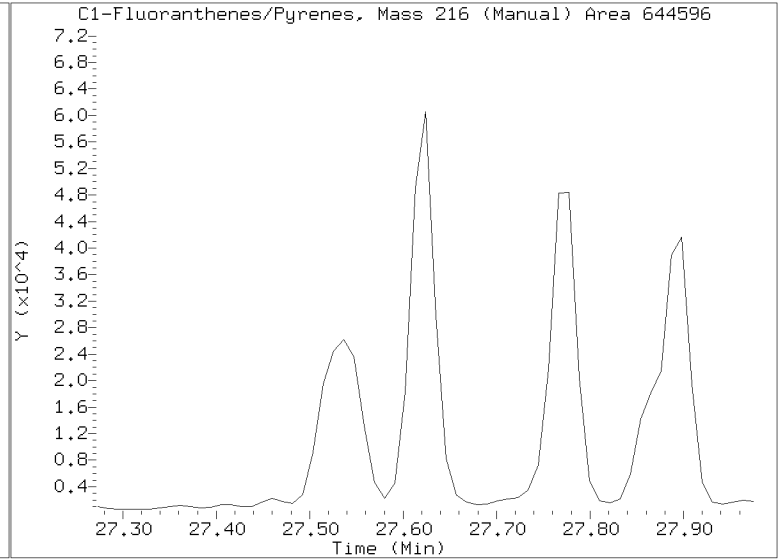
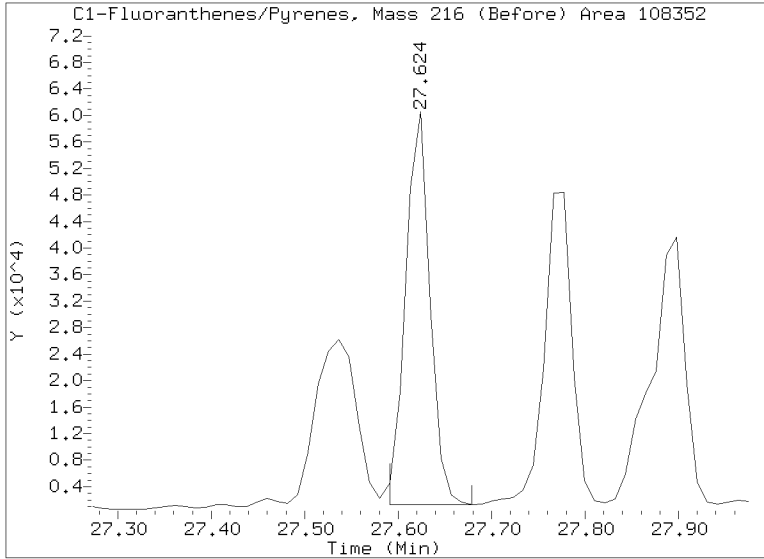
Quant Ion Manual Peak Adjustment Report

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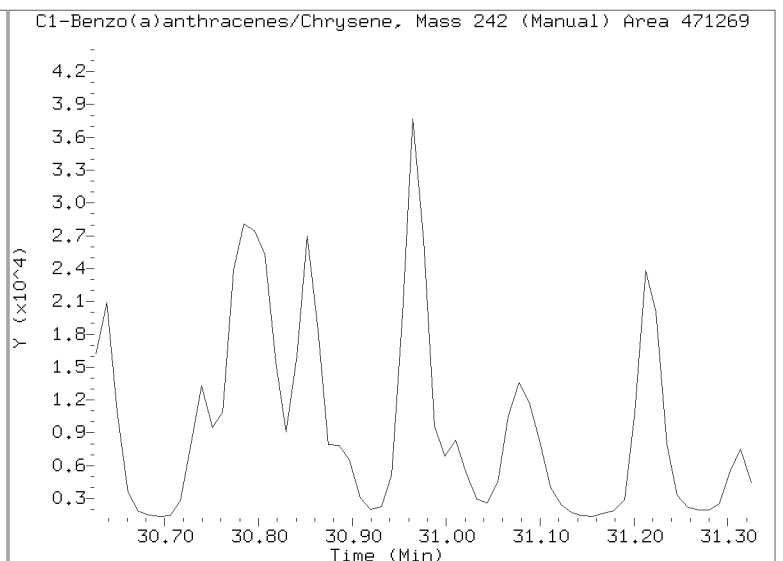
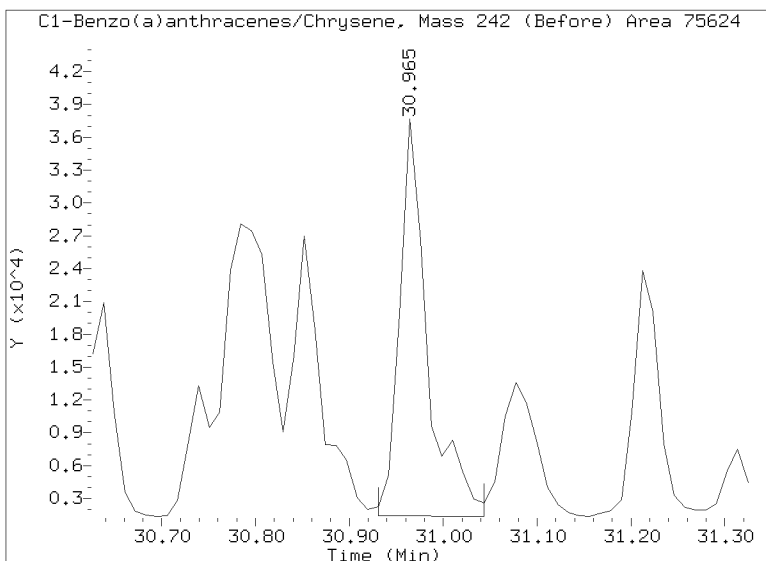
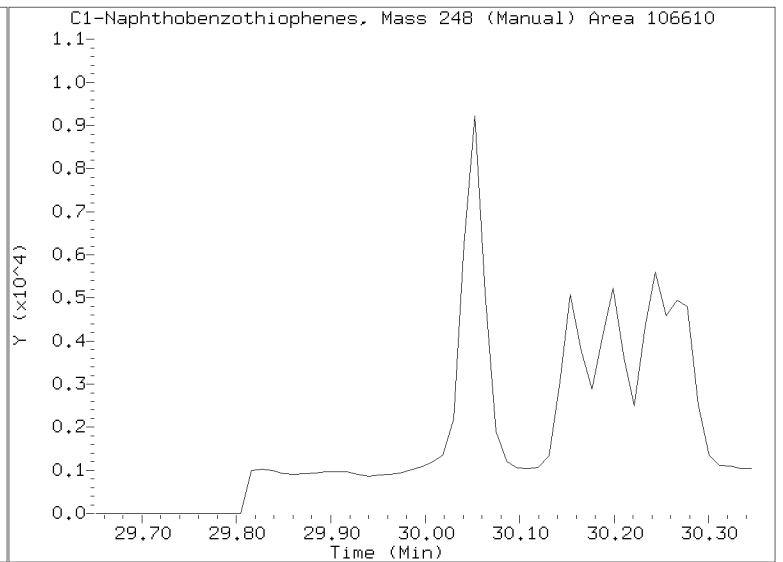
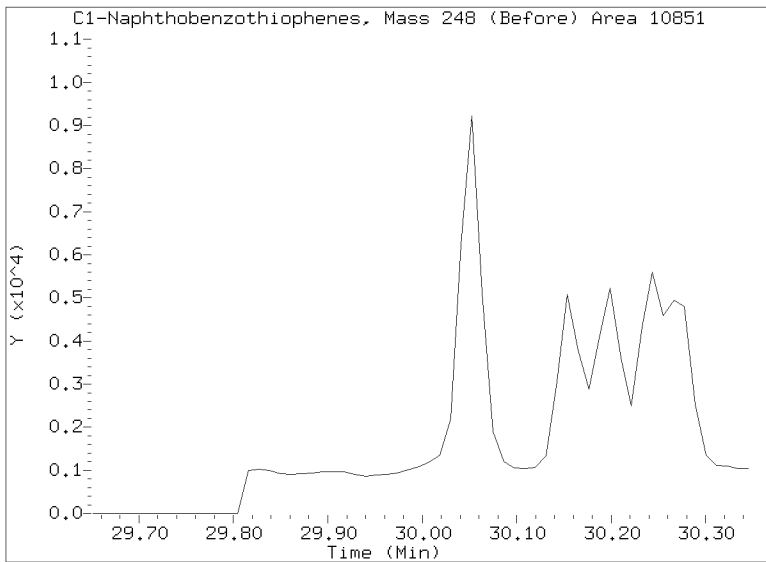
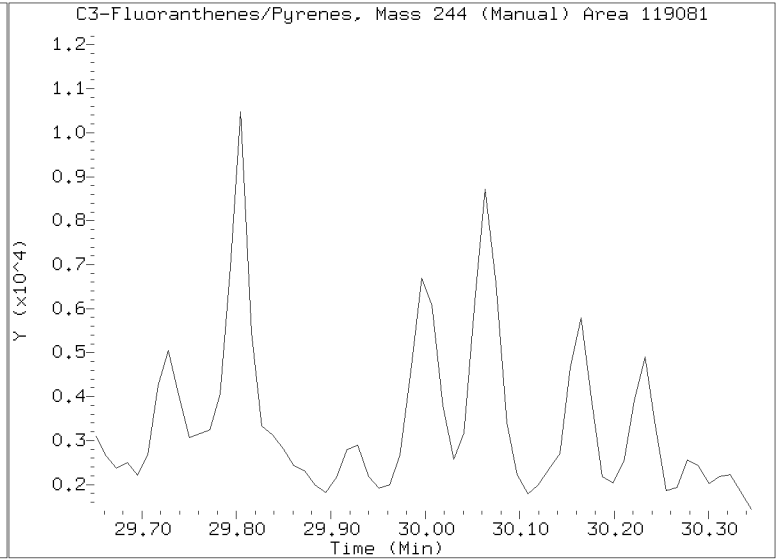
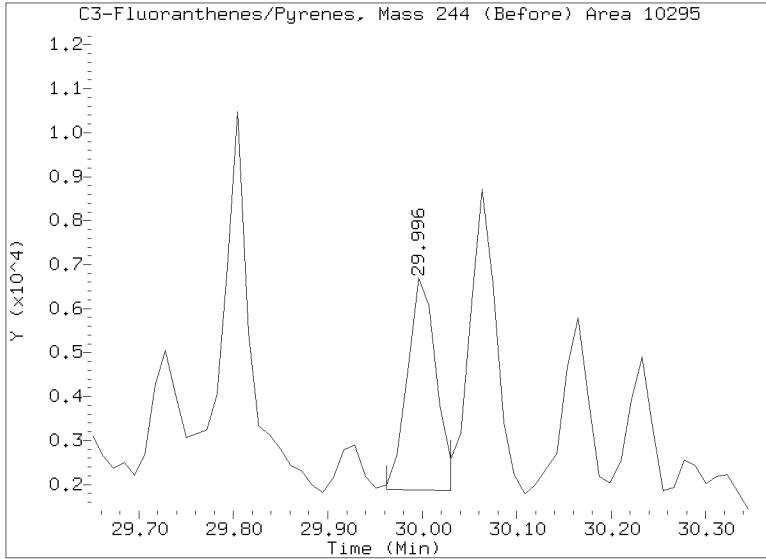
Quant Ion Manual Peak Adjustment Report

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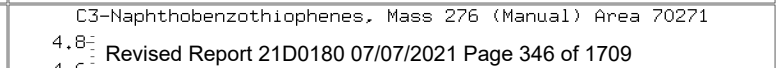
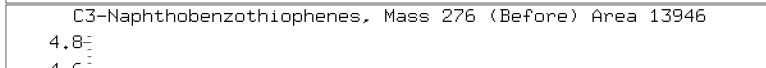
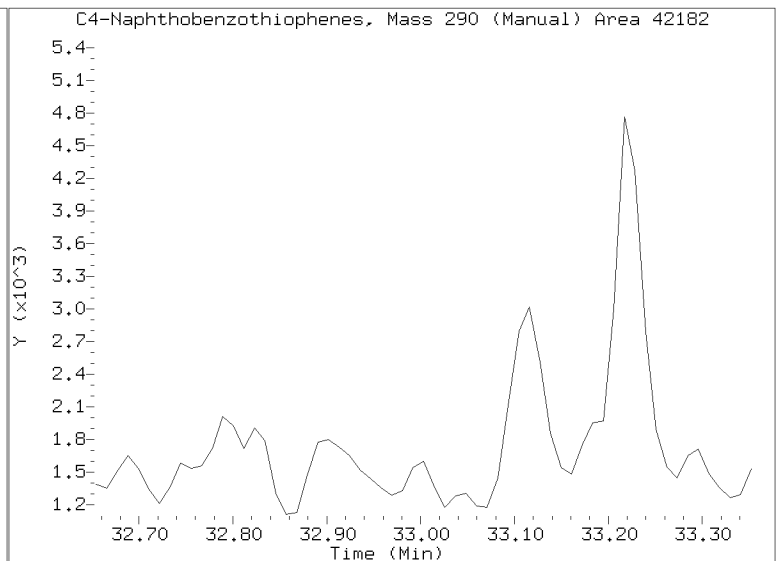
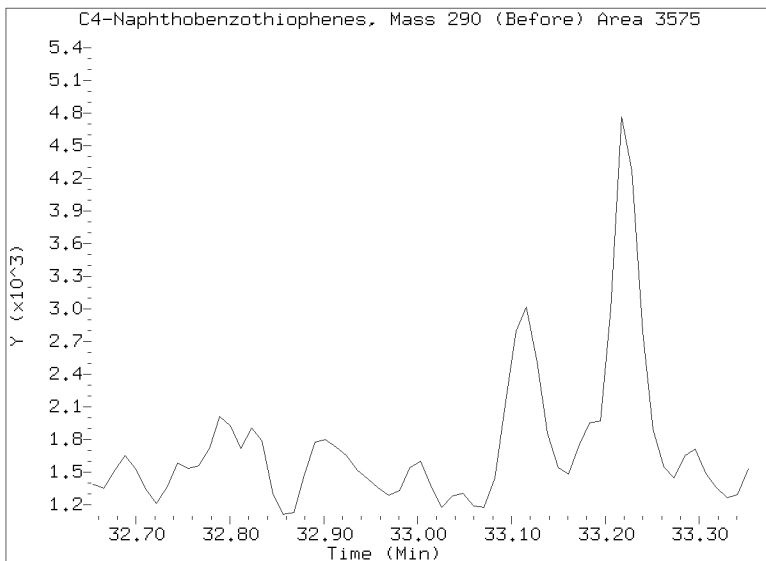
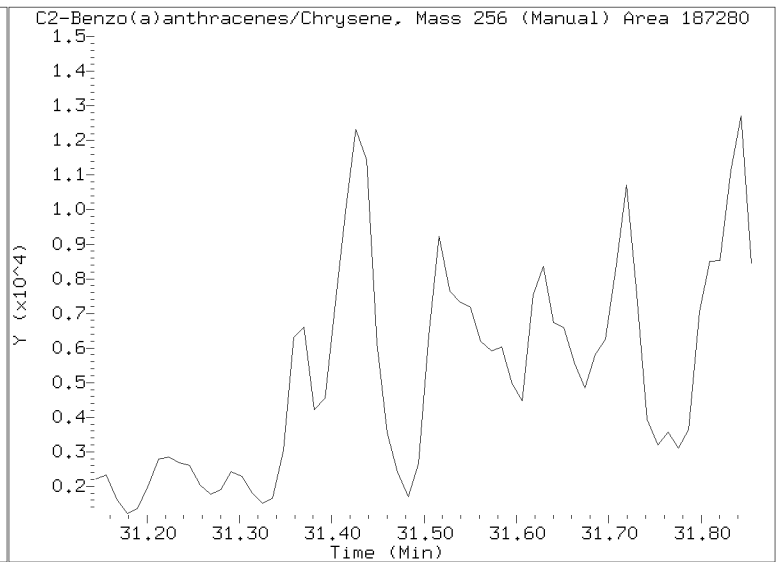
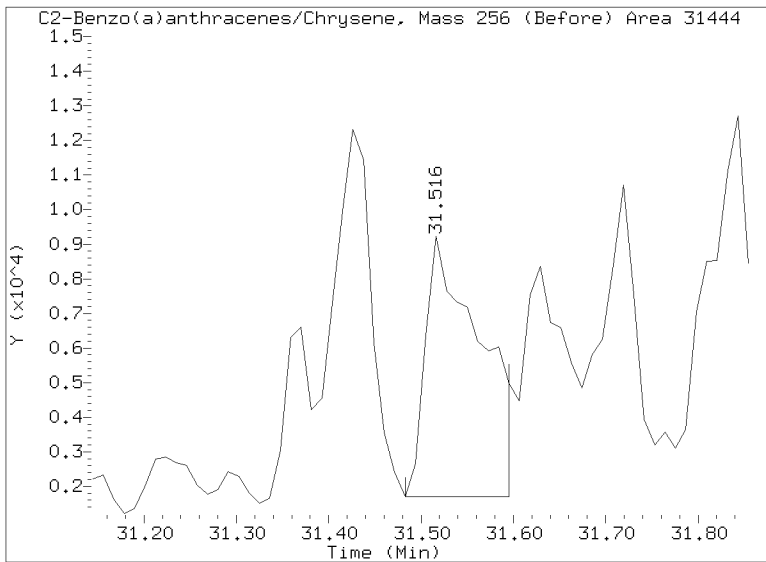
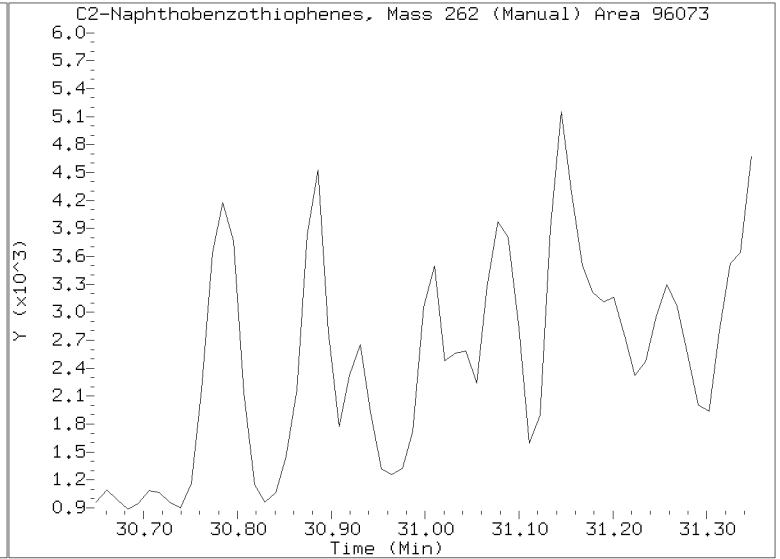
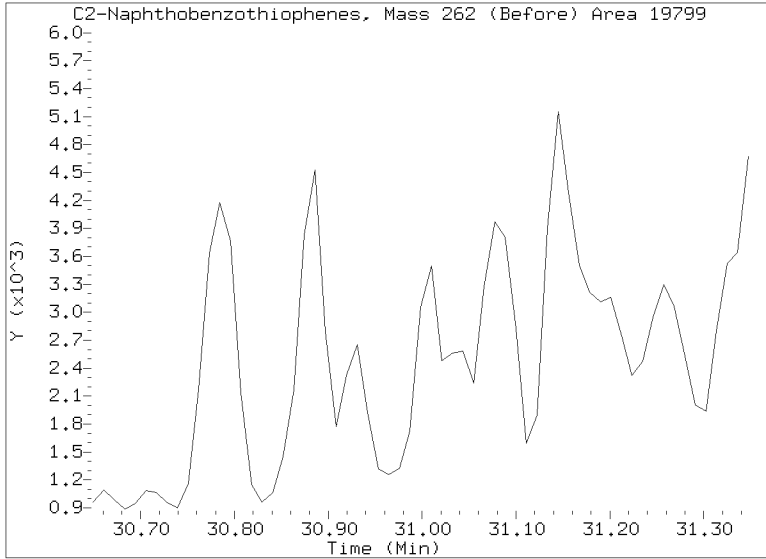
Quant Ion Manual Peak Adjustment Report

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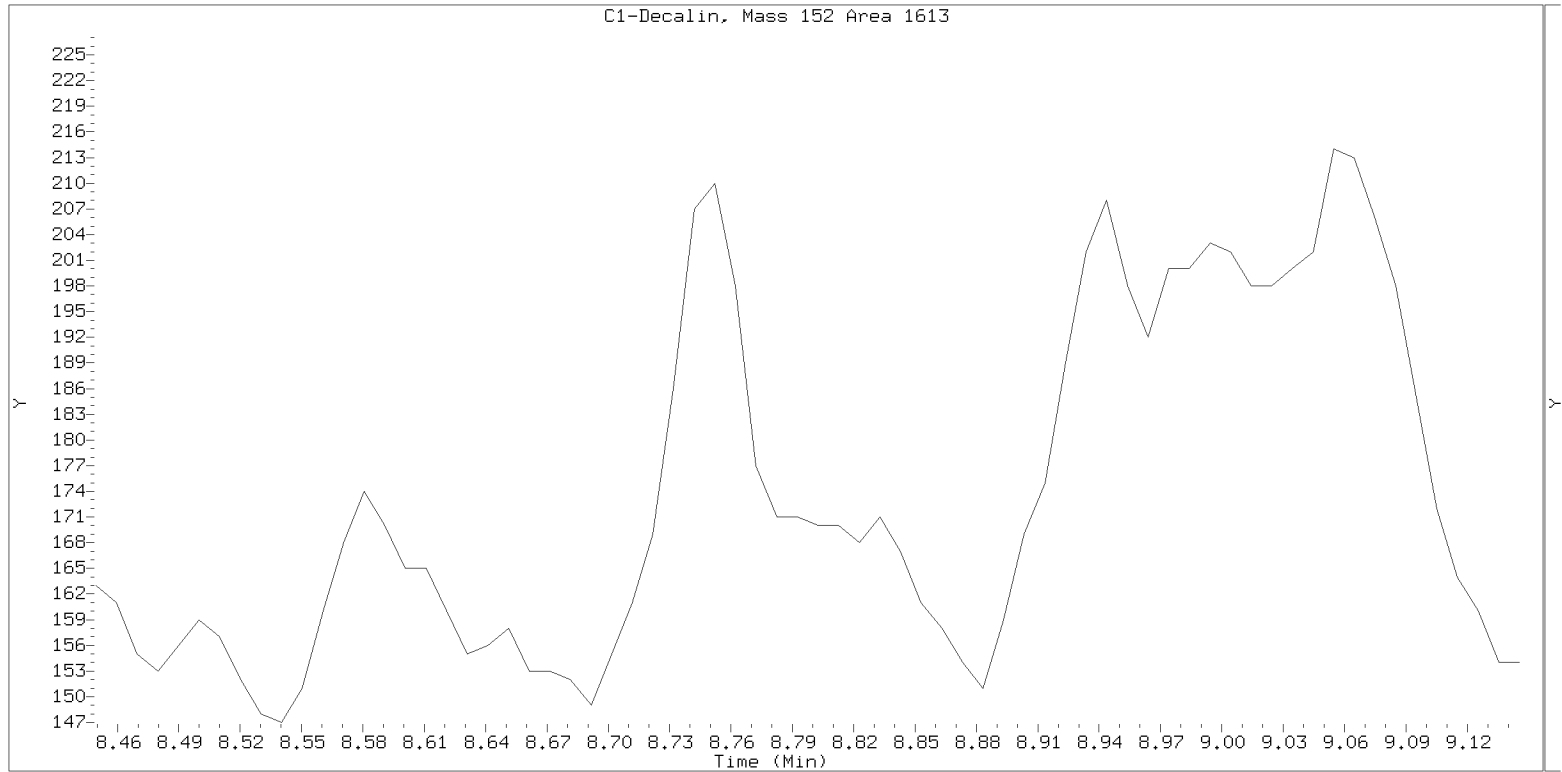
Quant Ion Manual Peak Adjustment Report

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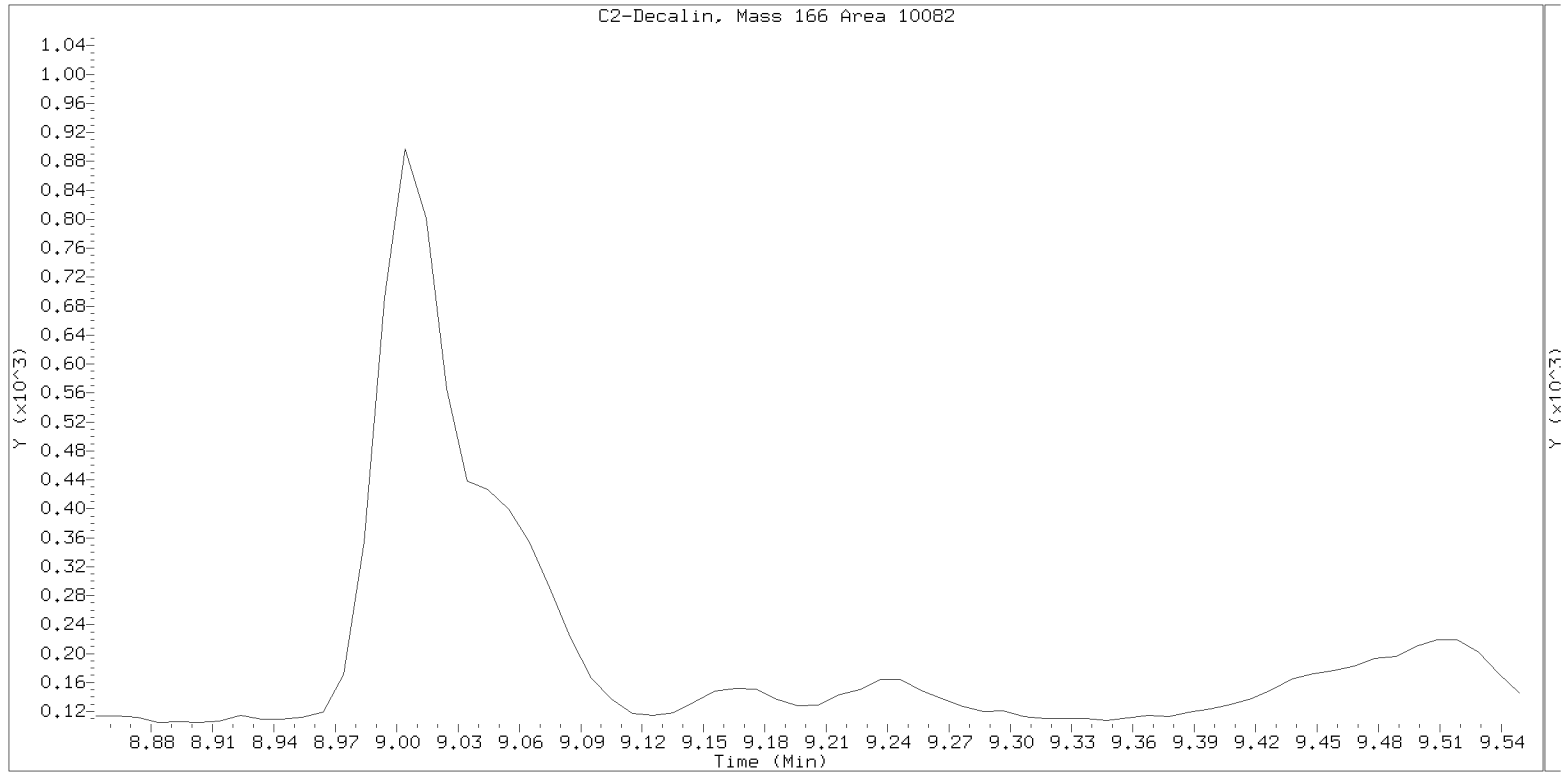
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

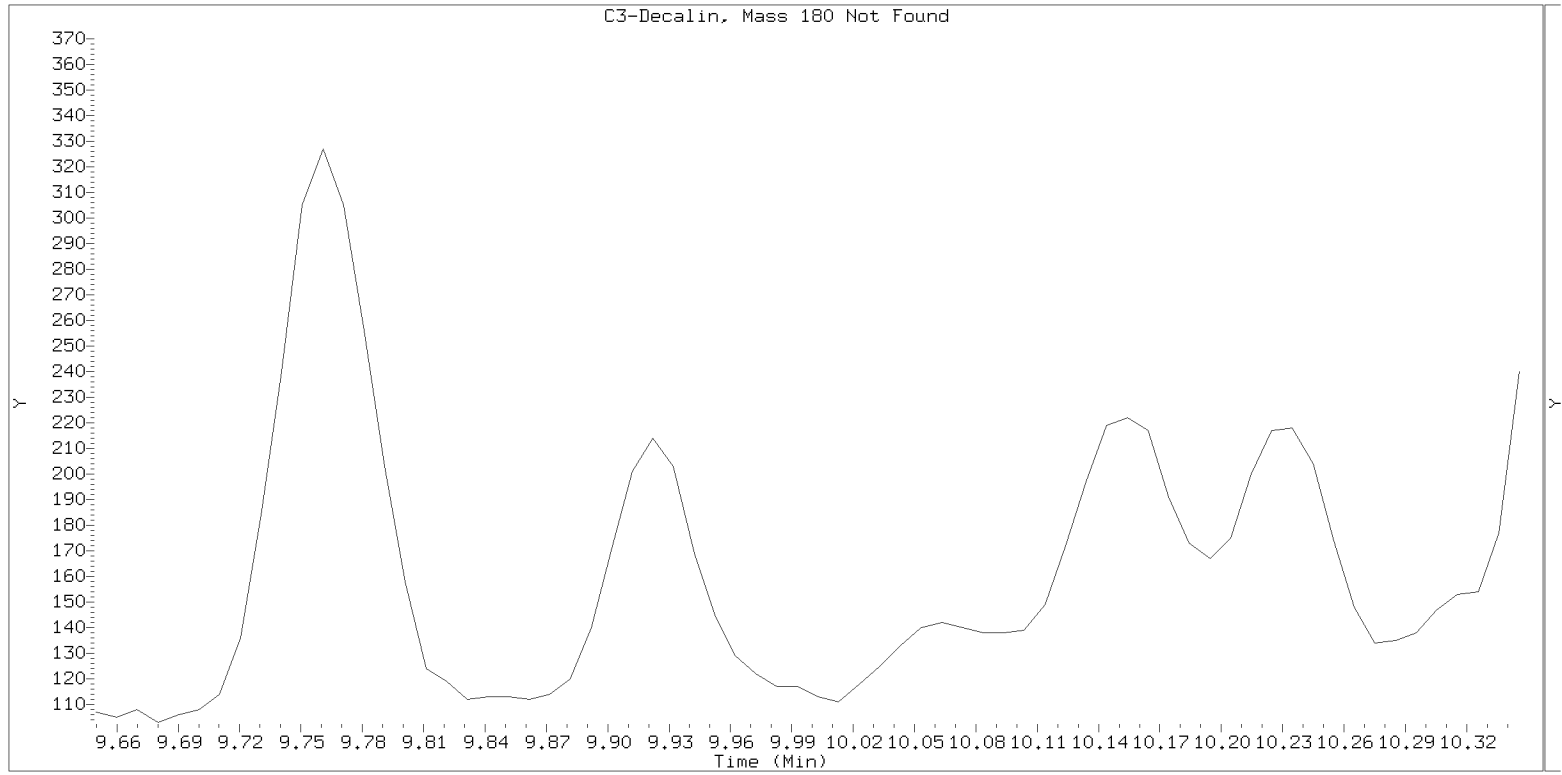
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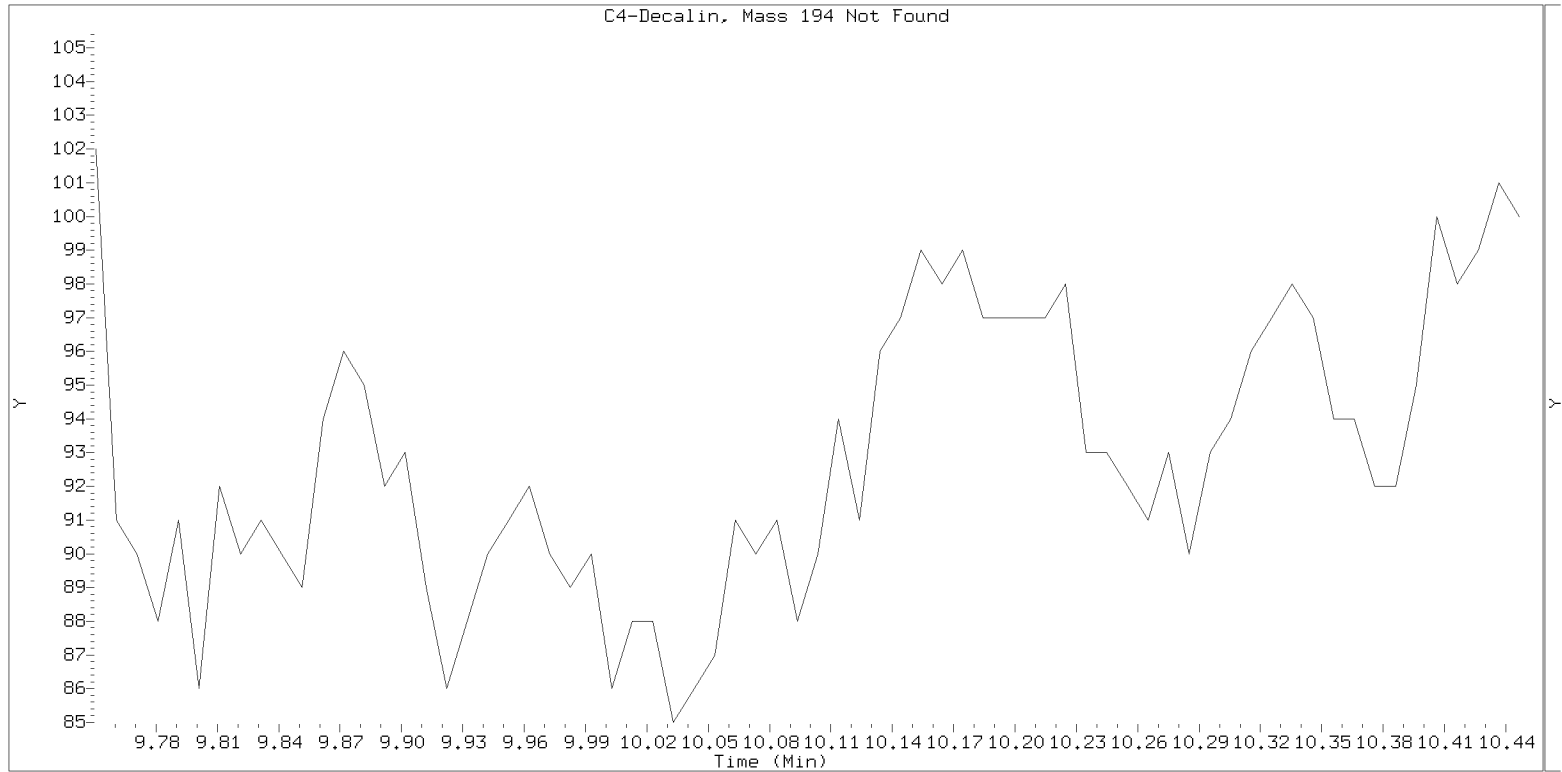
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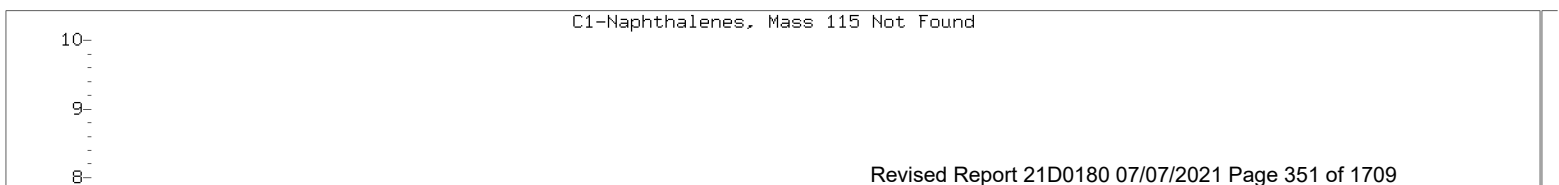
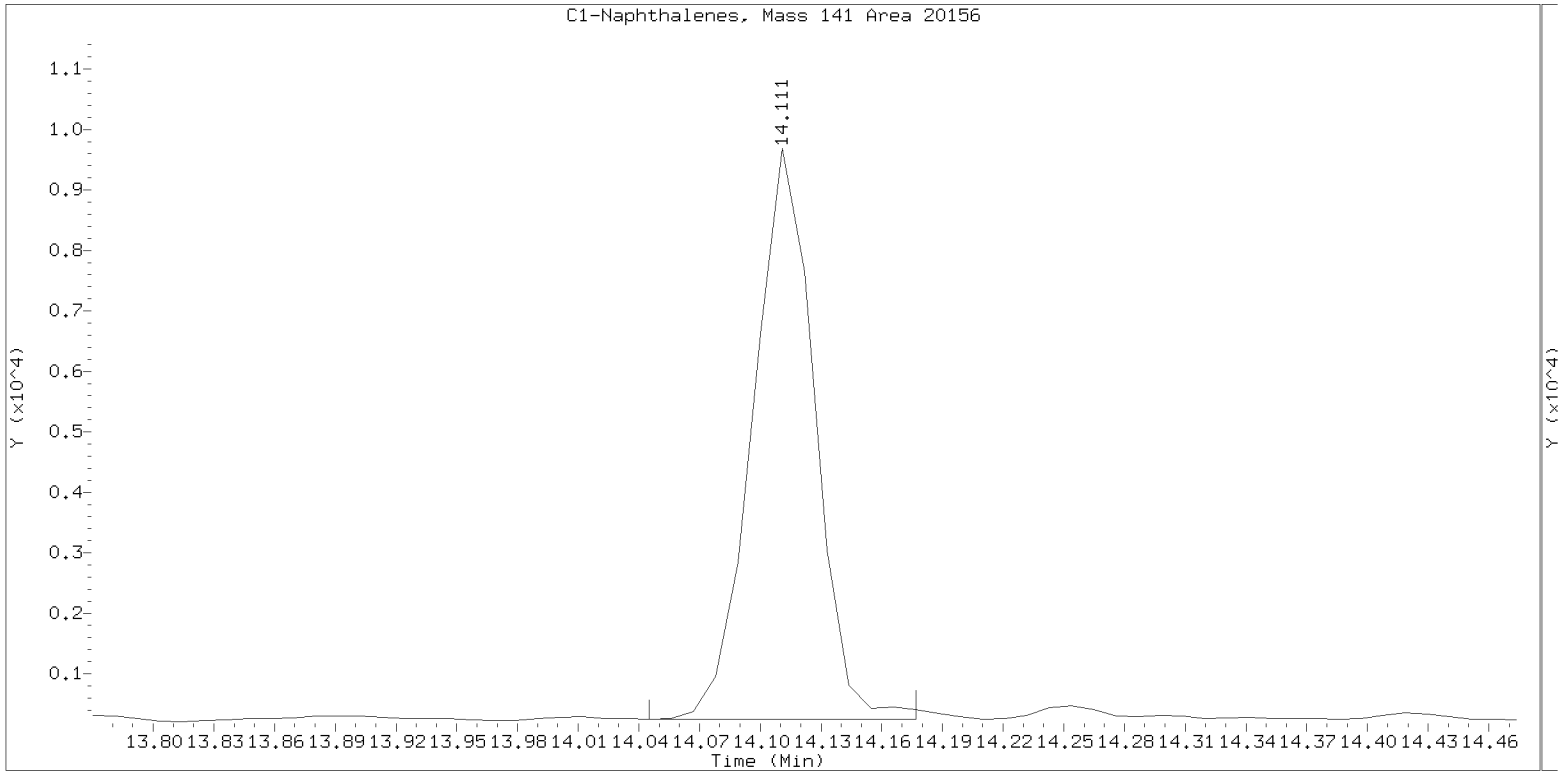
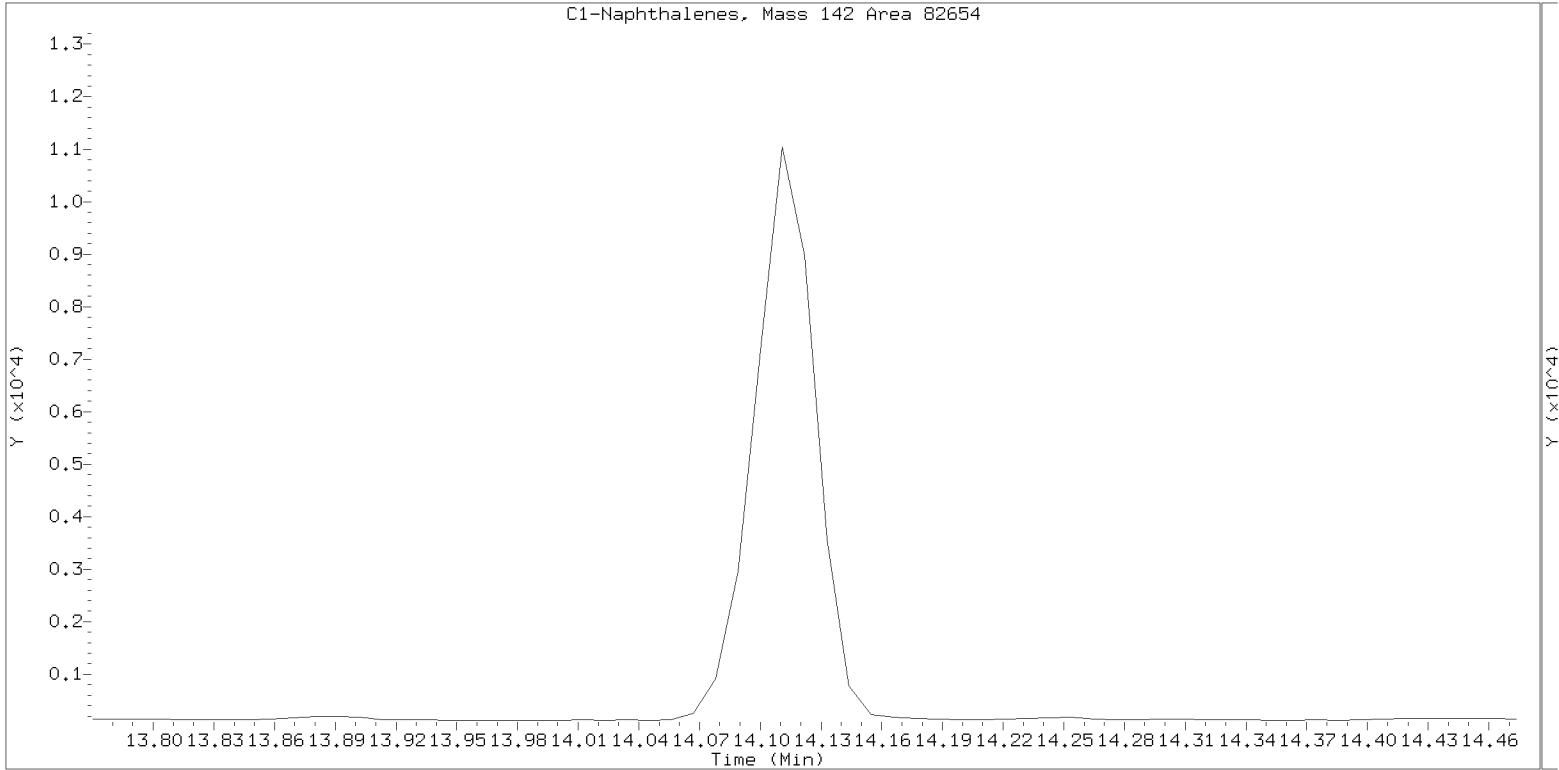
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

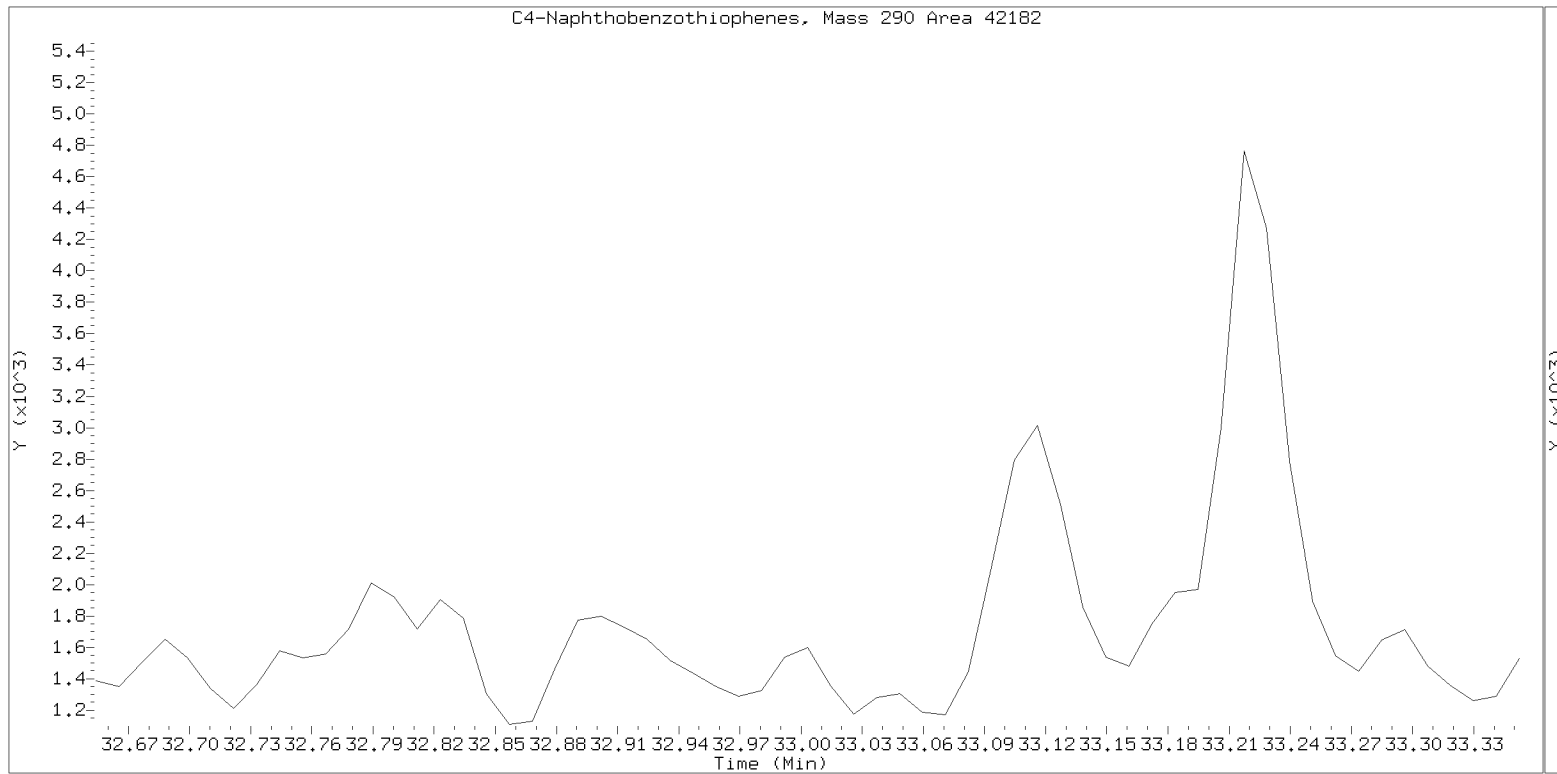
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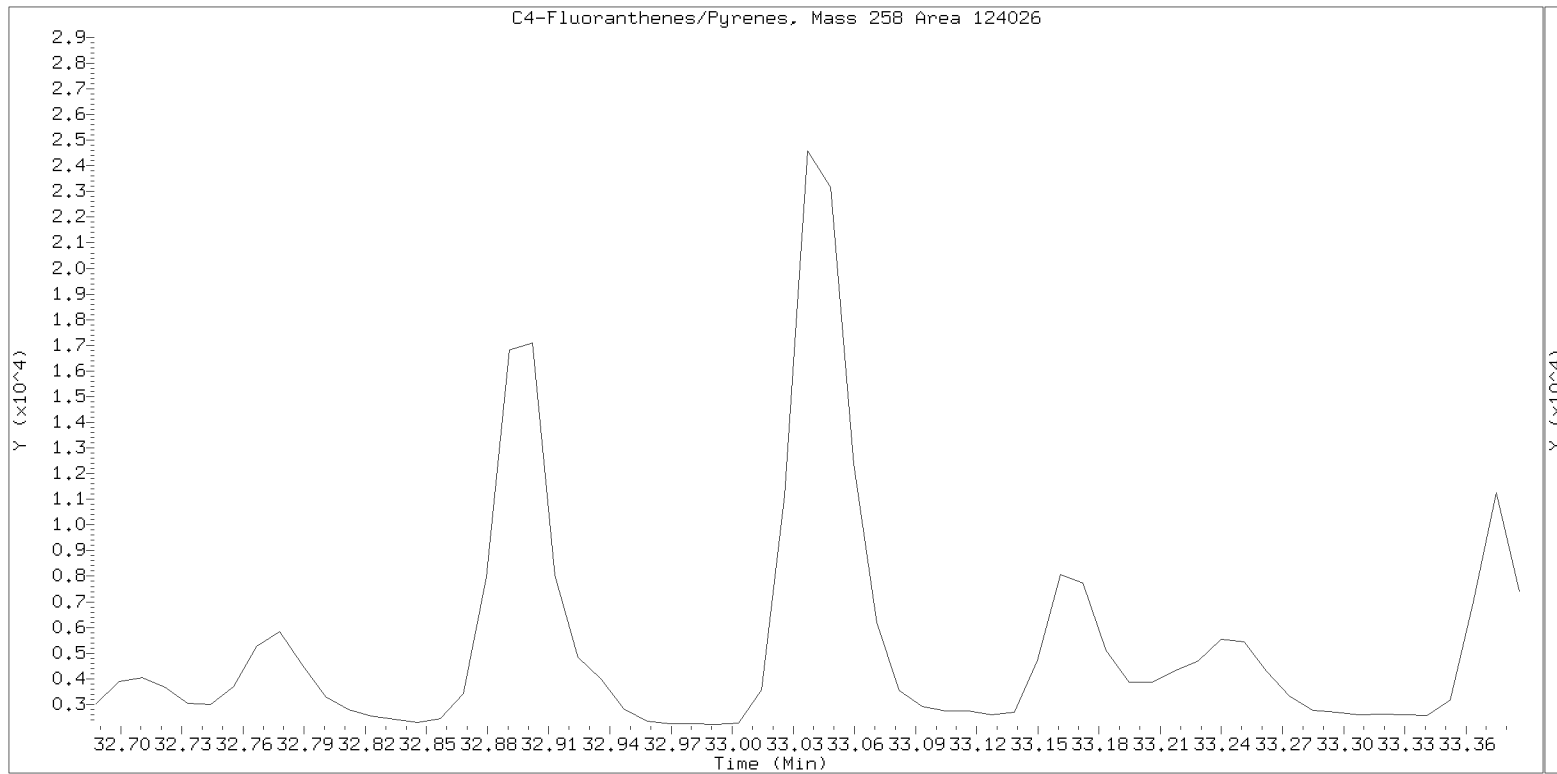
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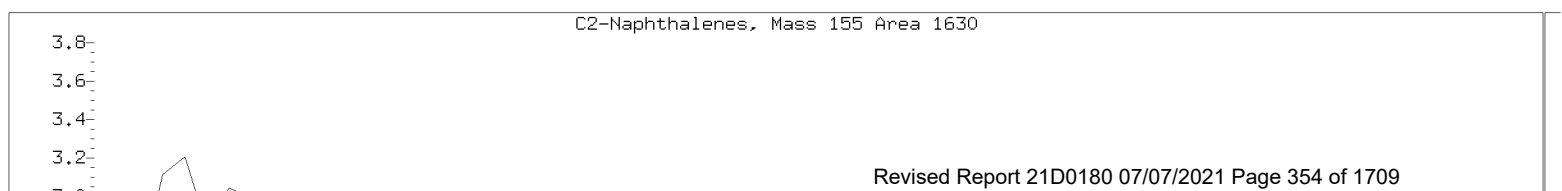
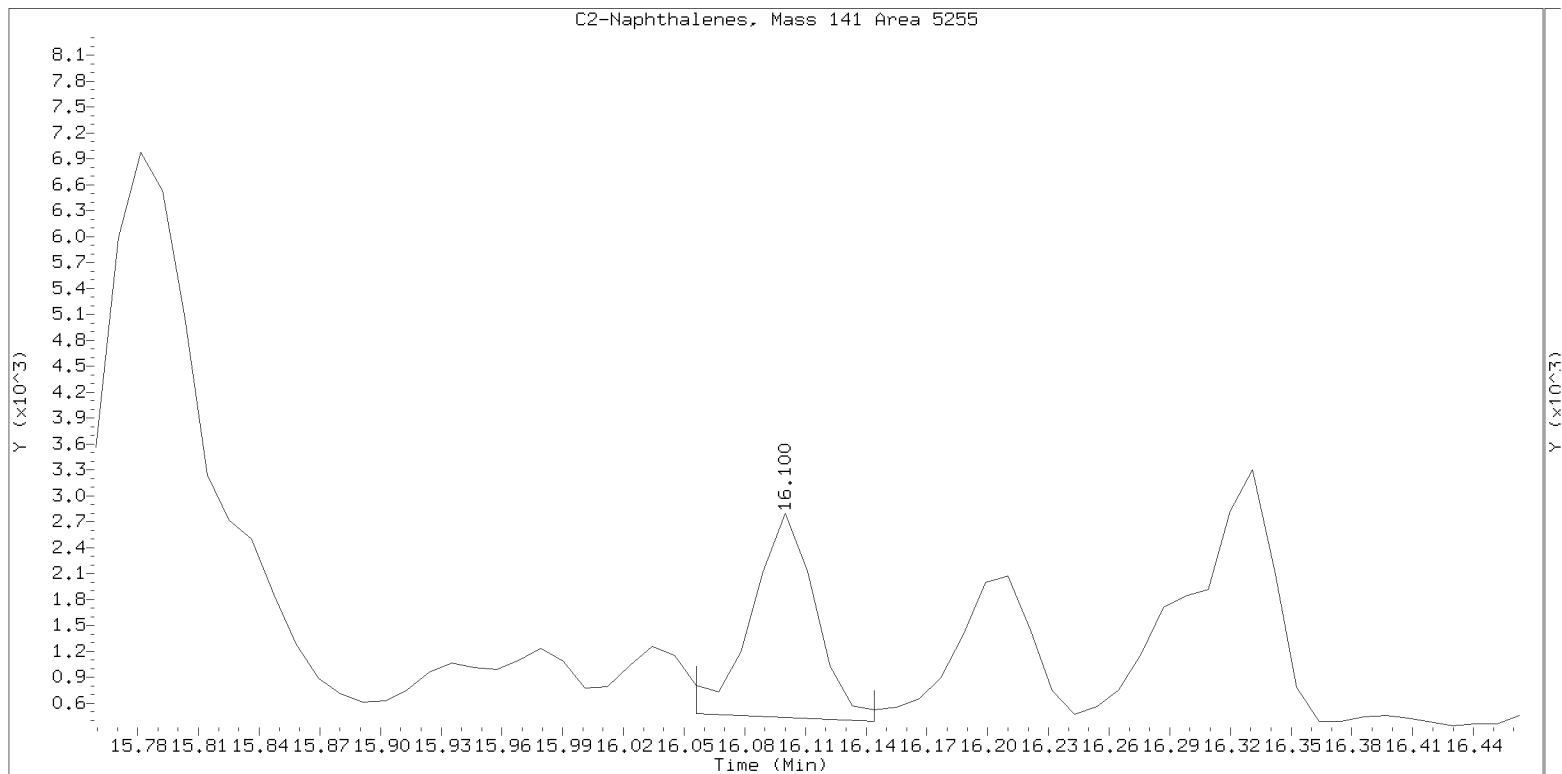
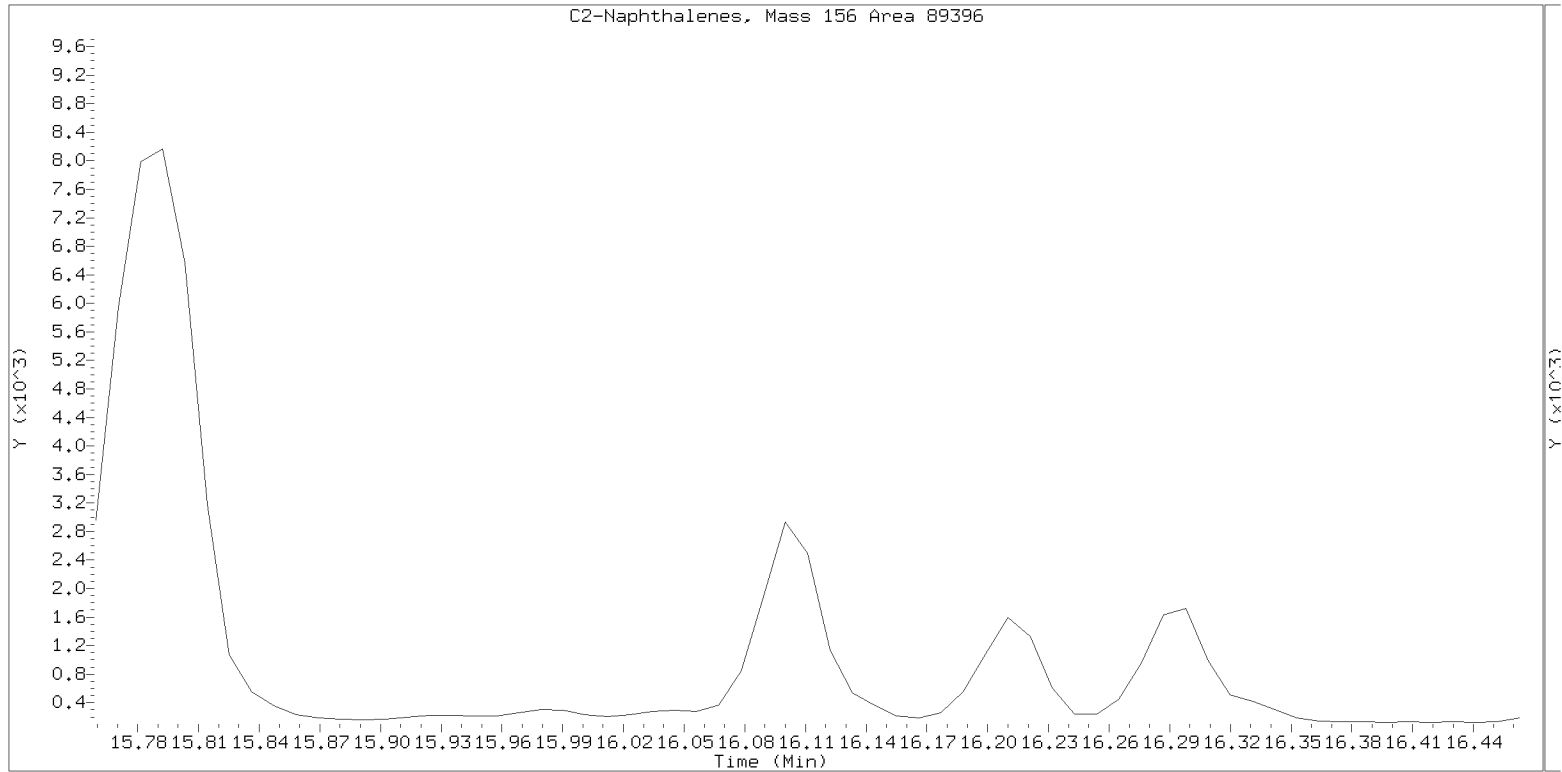
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

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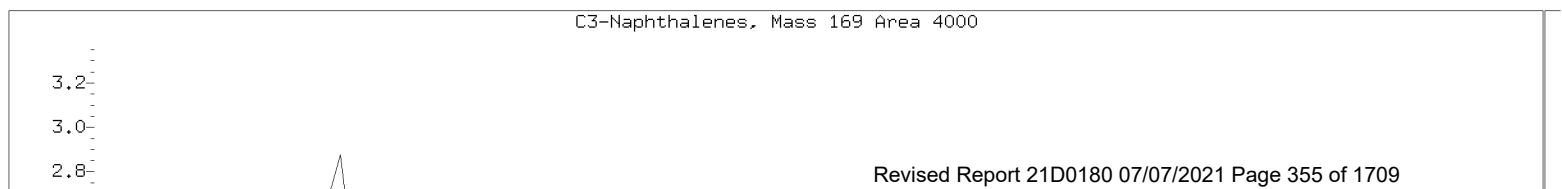
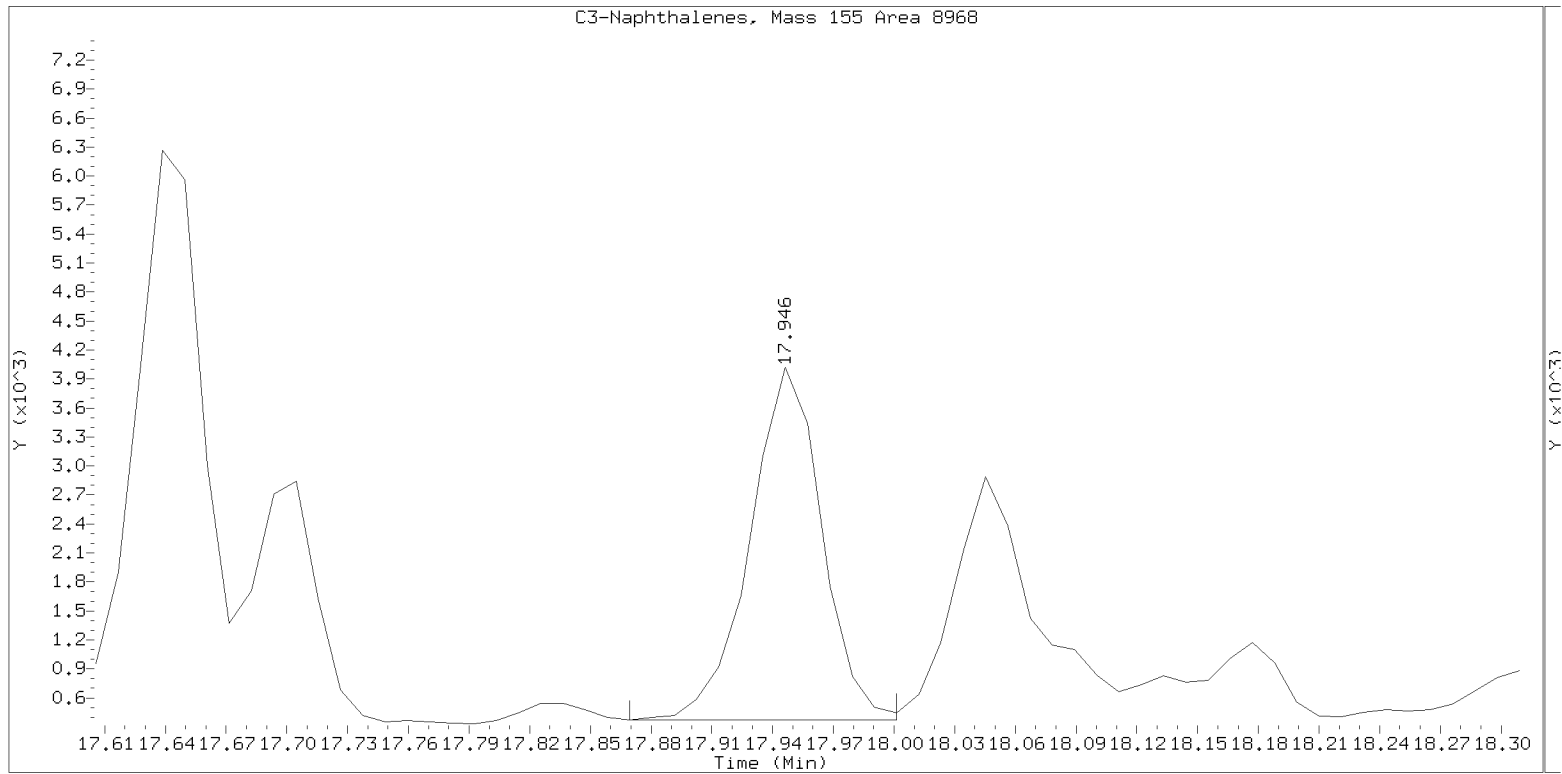
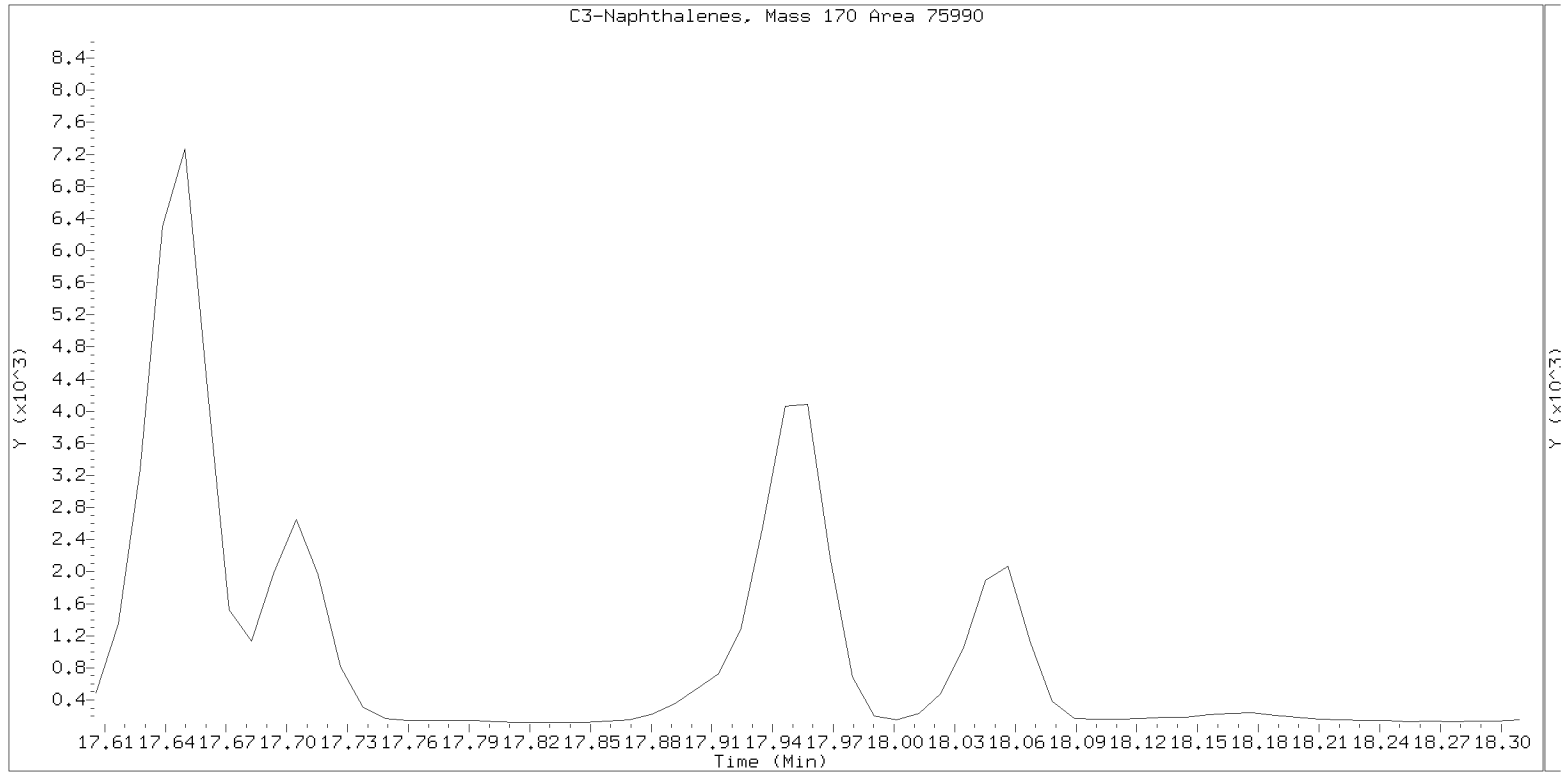
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

Lab ID: 21D0180-03

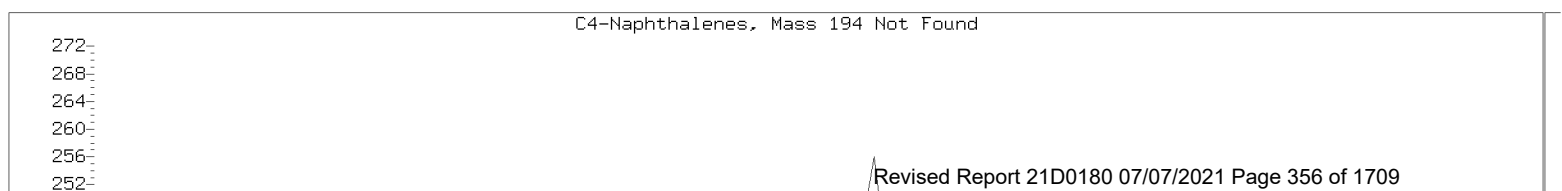
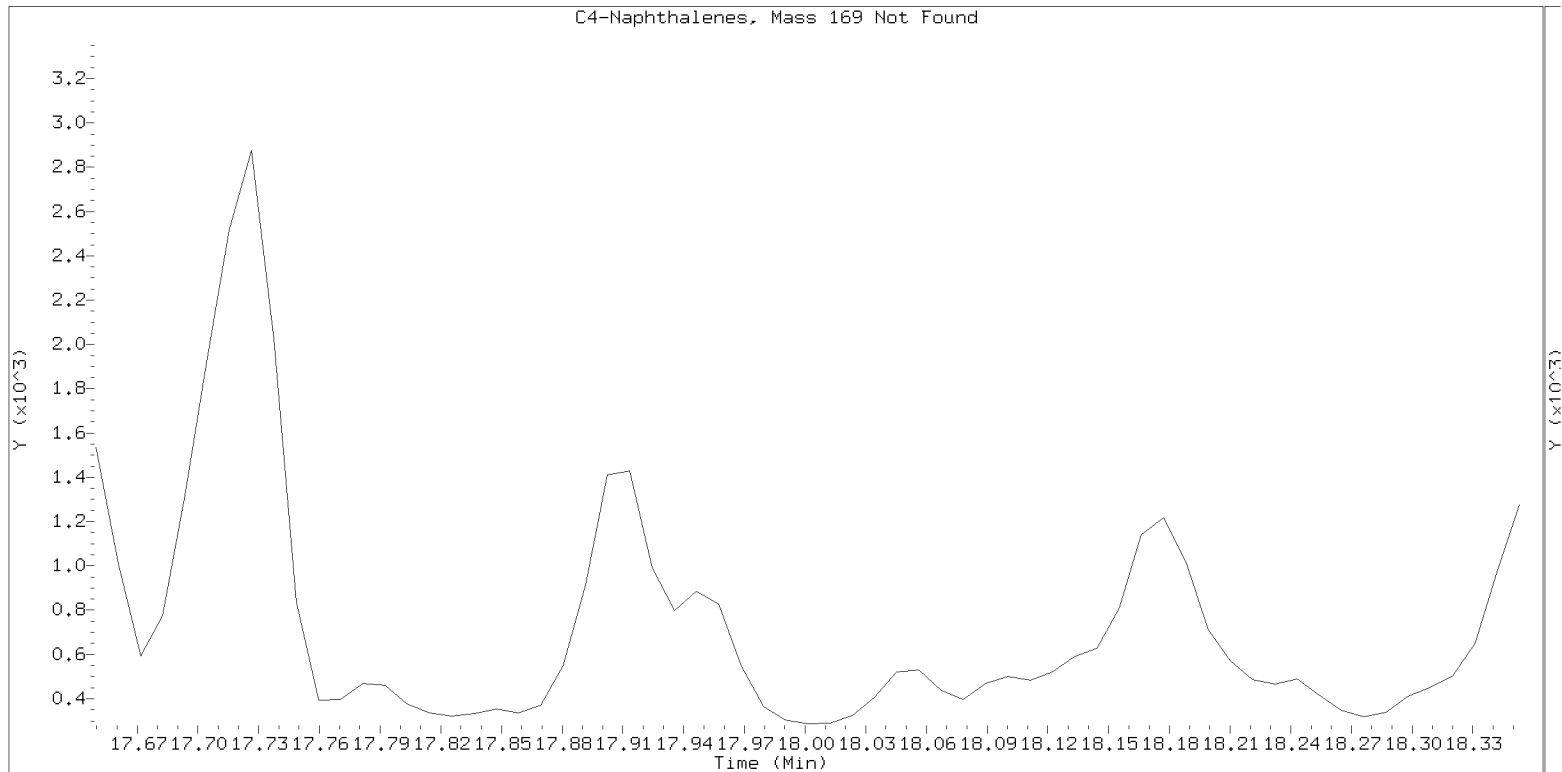
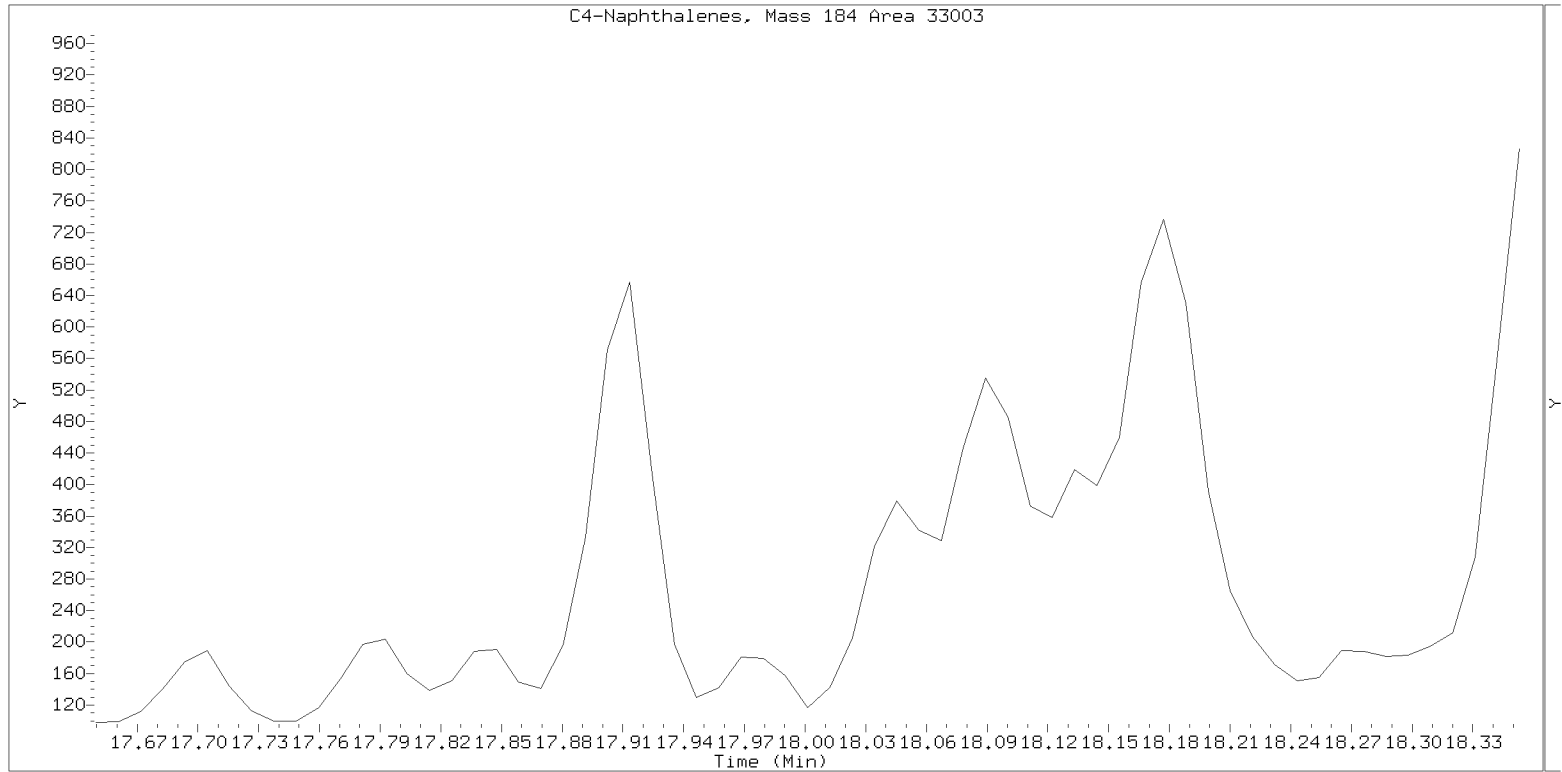
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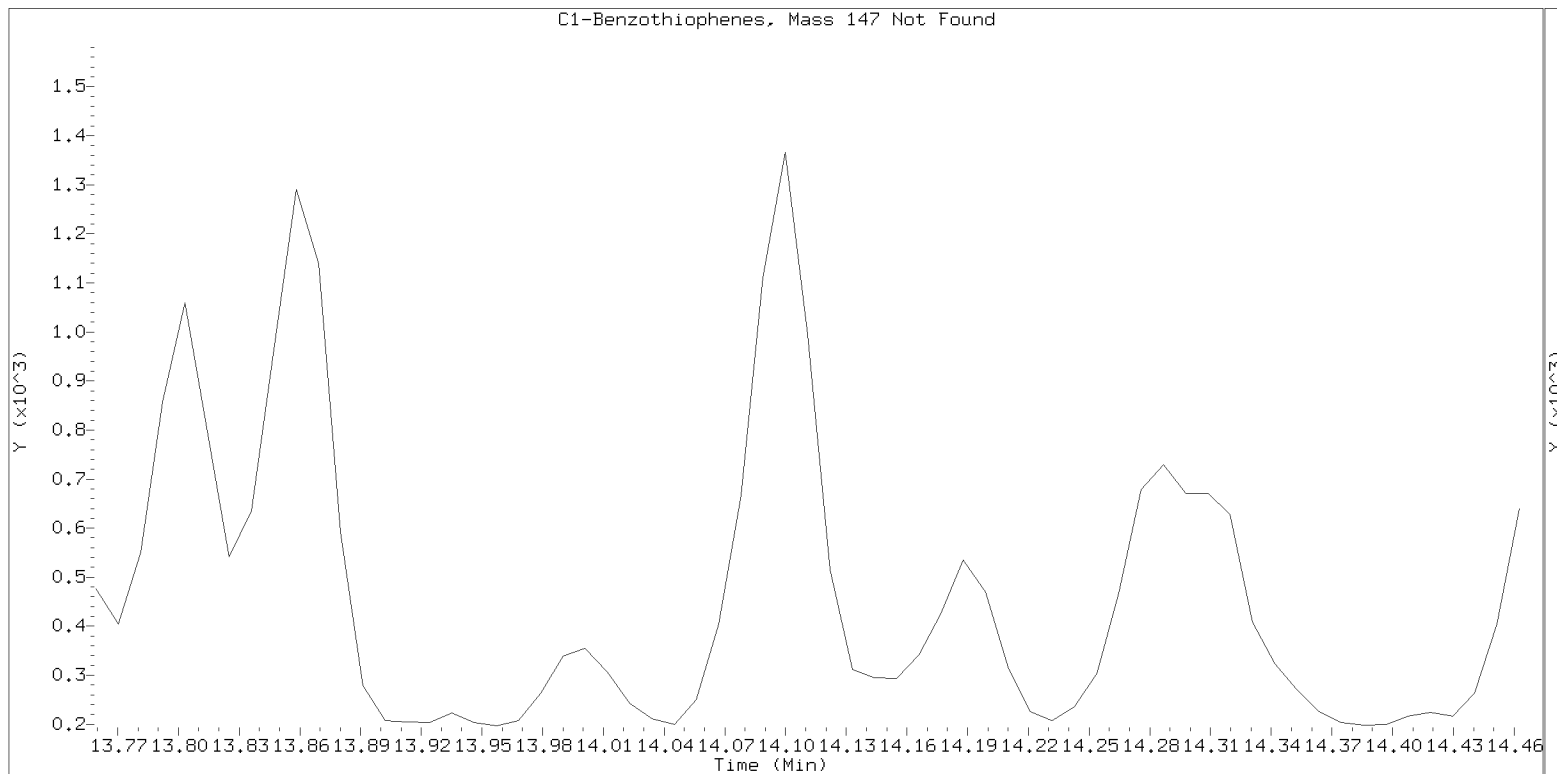
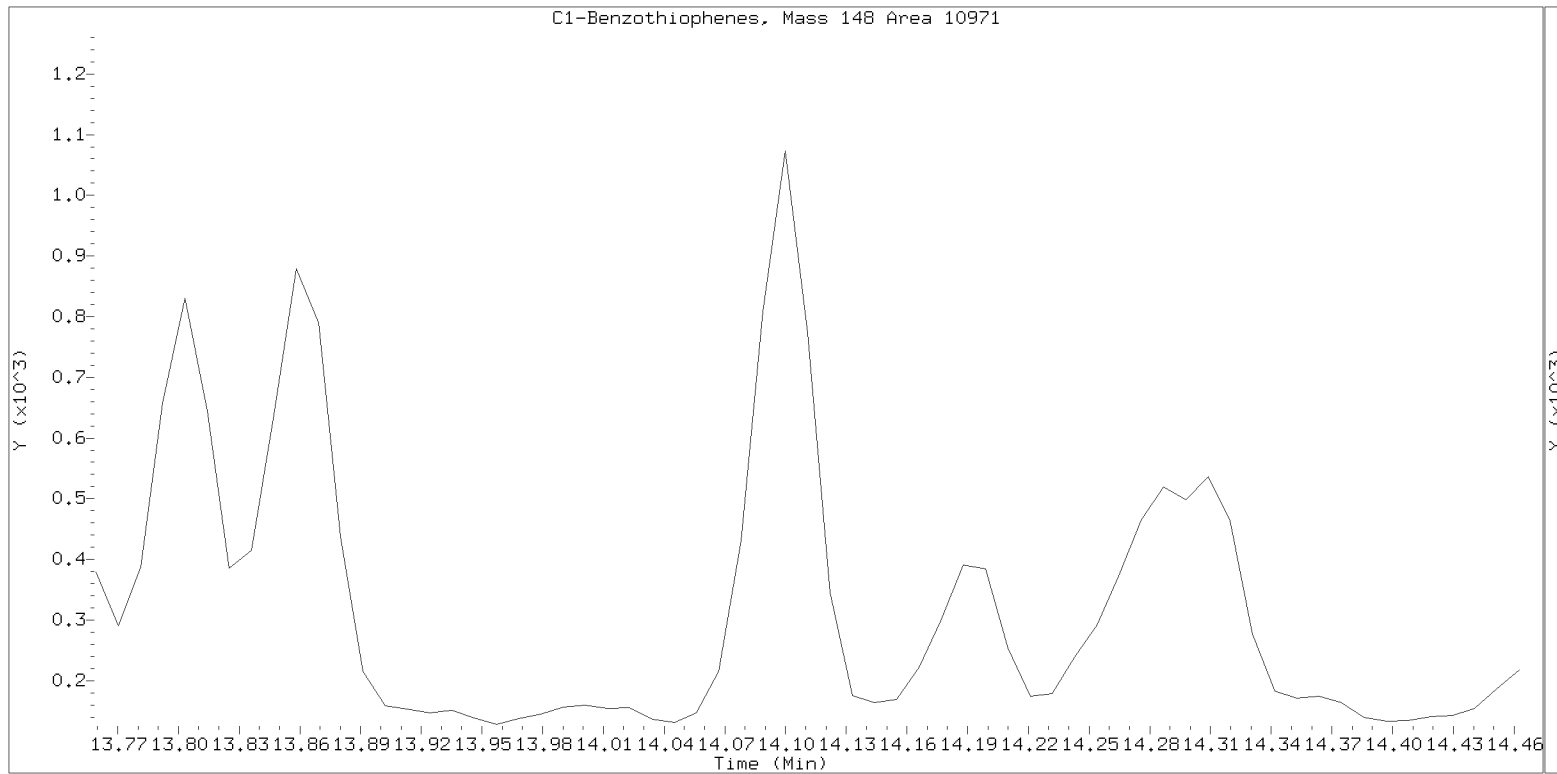
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

Lab ID: 21D0180-03

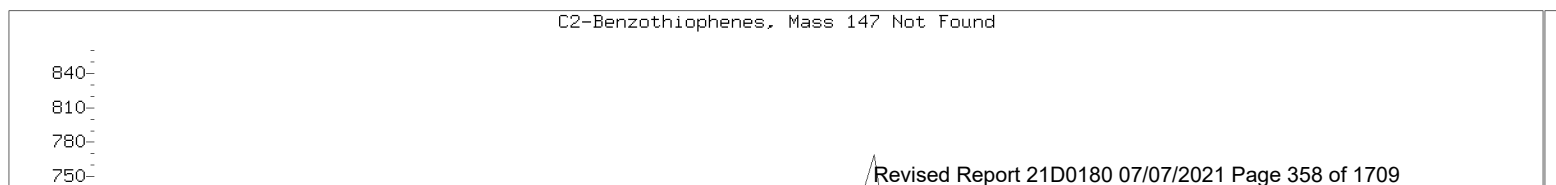
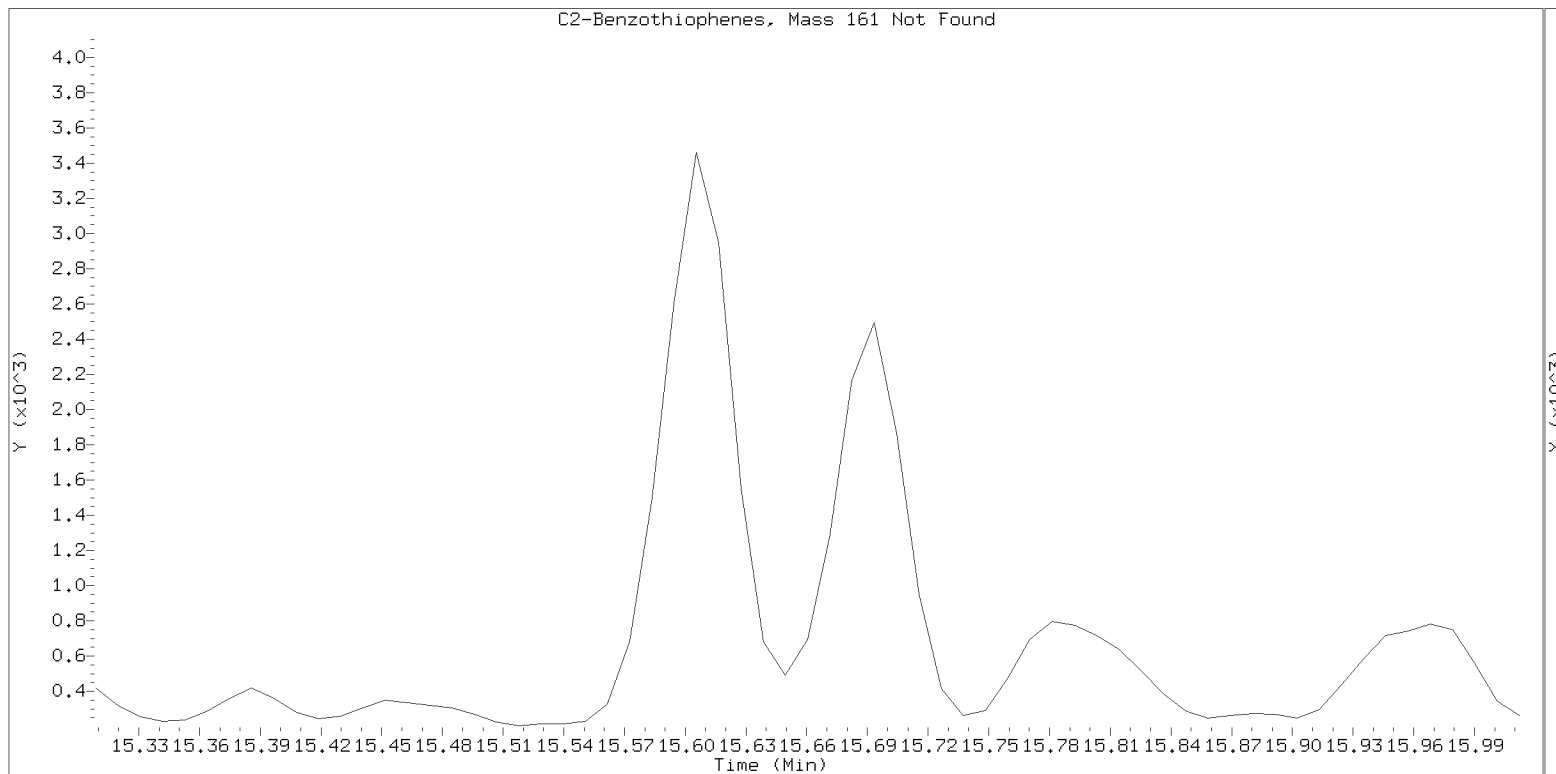
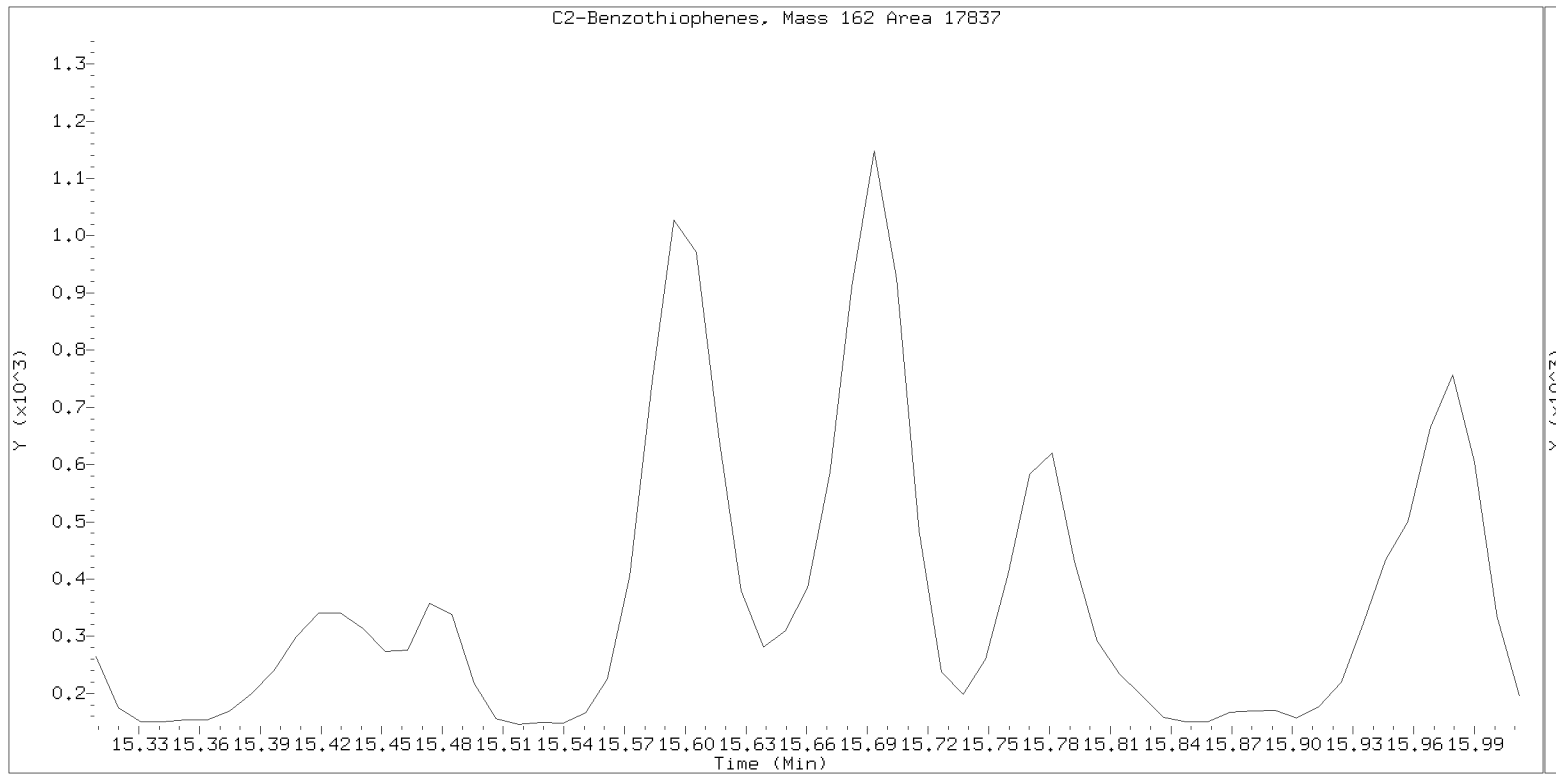
nt14.i, SIM.b\ALKYLRANGES.m, 02-MAY-2021 10:49



SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

Lab ID: 21D0180-03

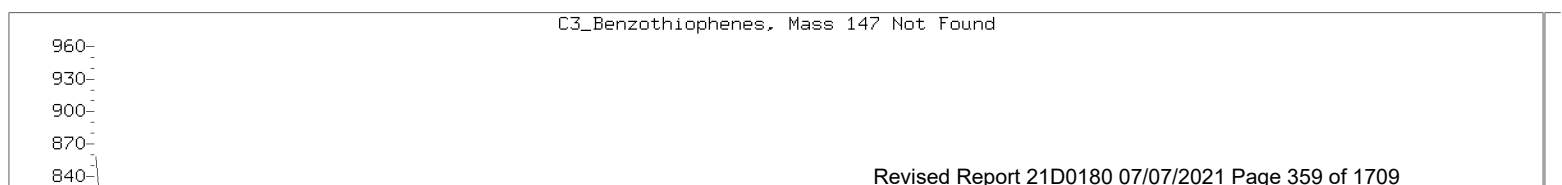
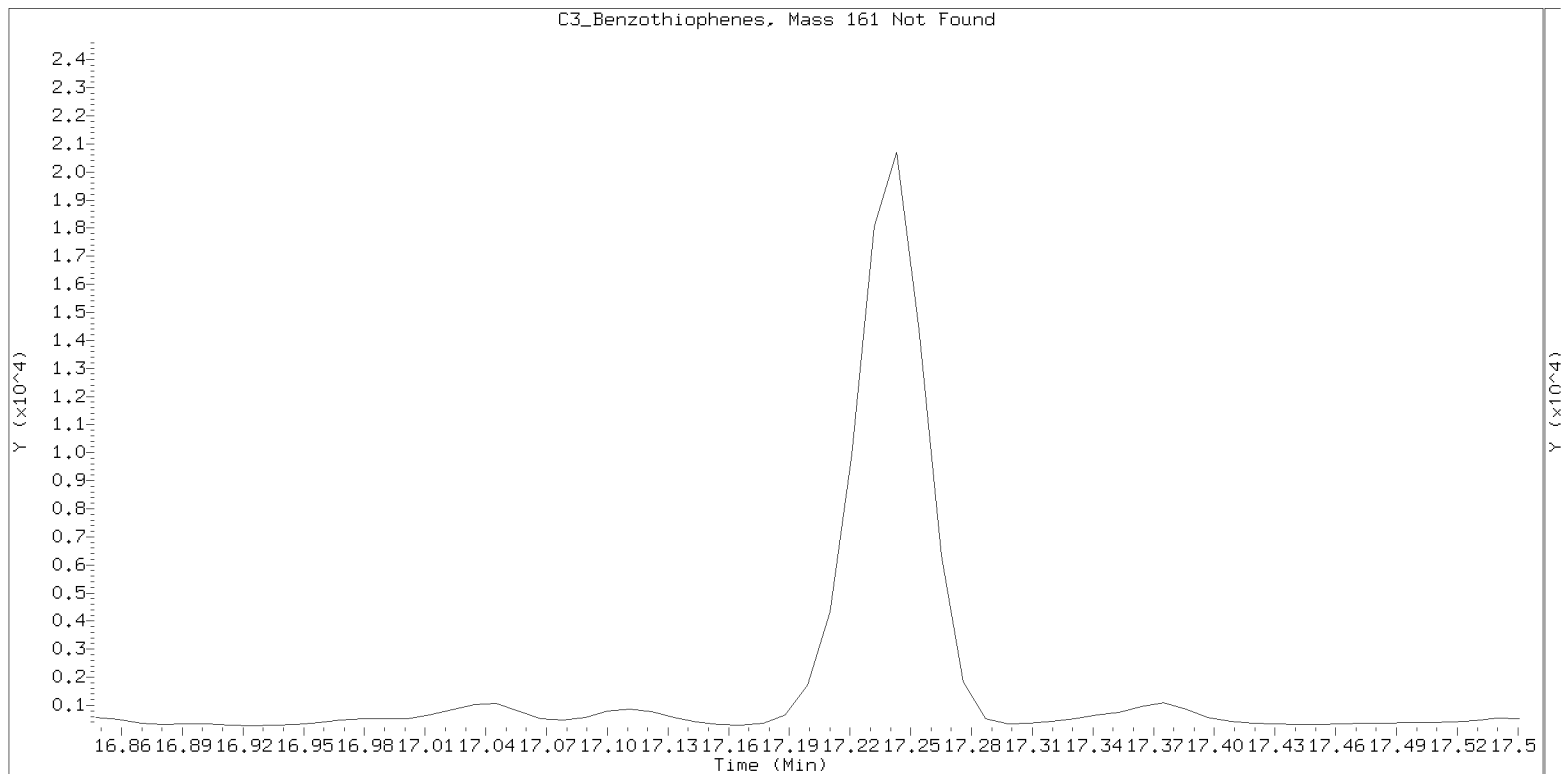
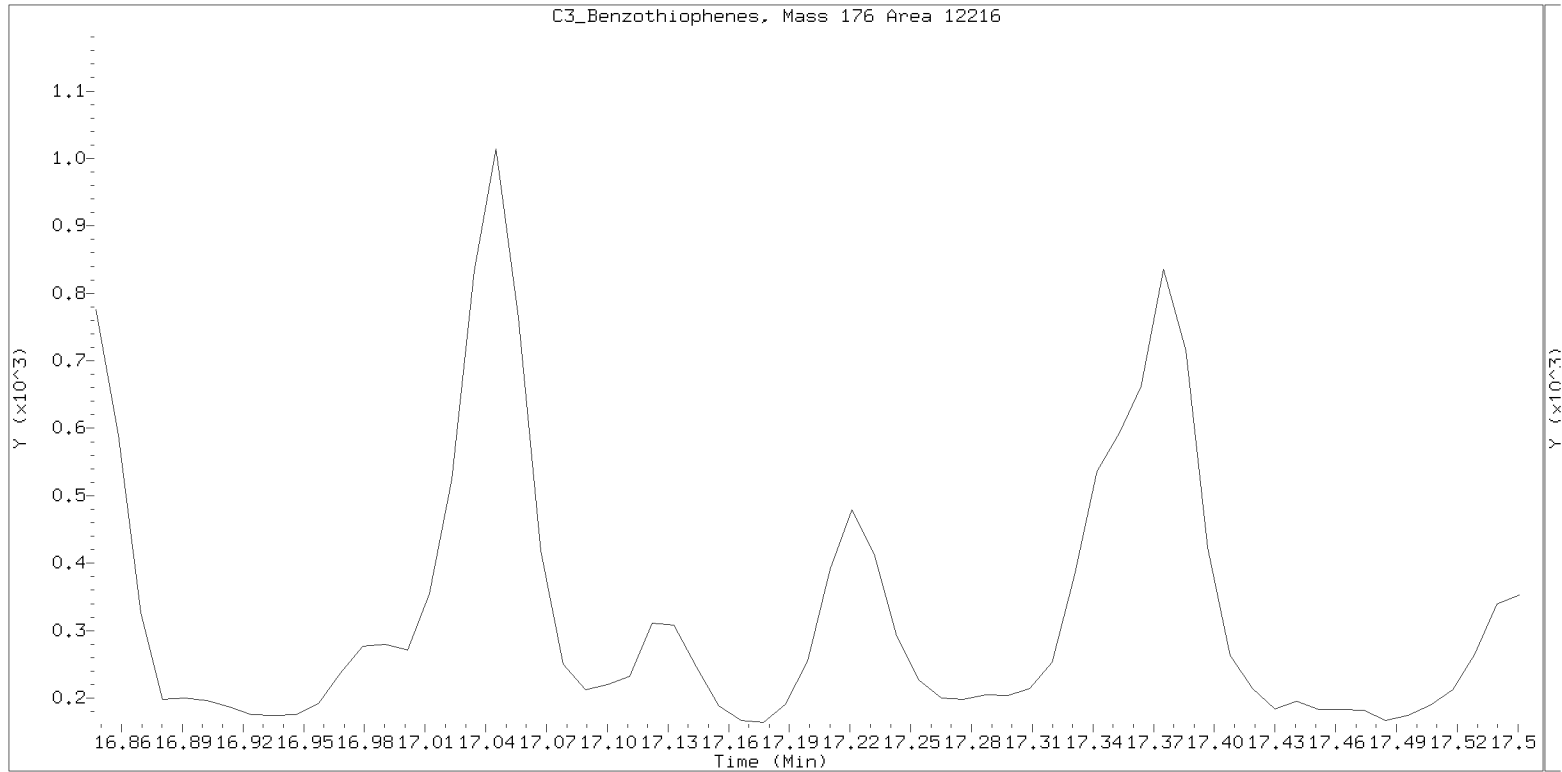
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

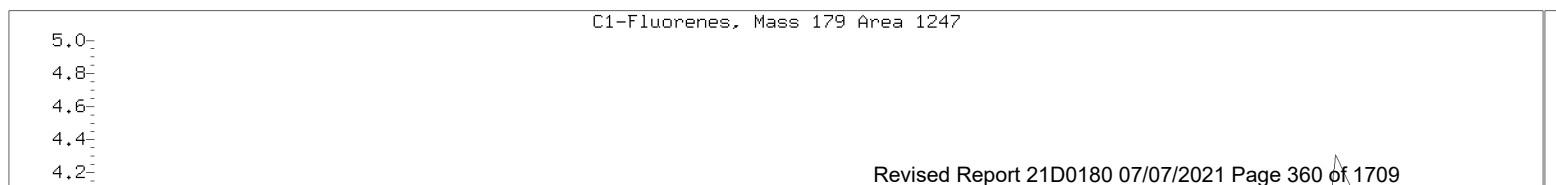
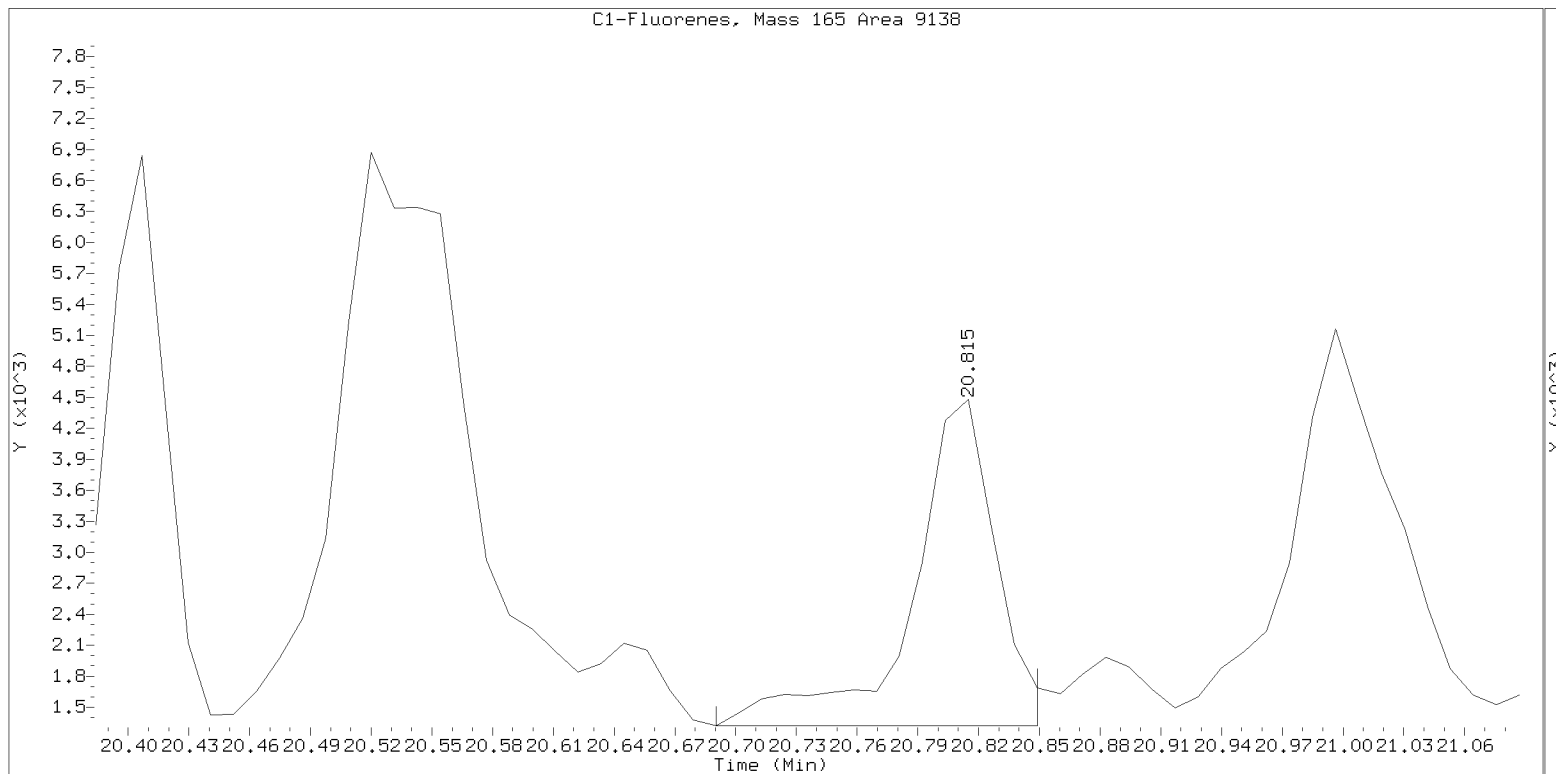
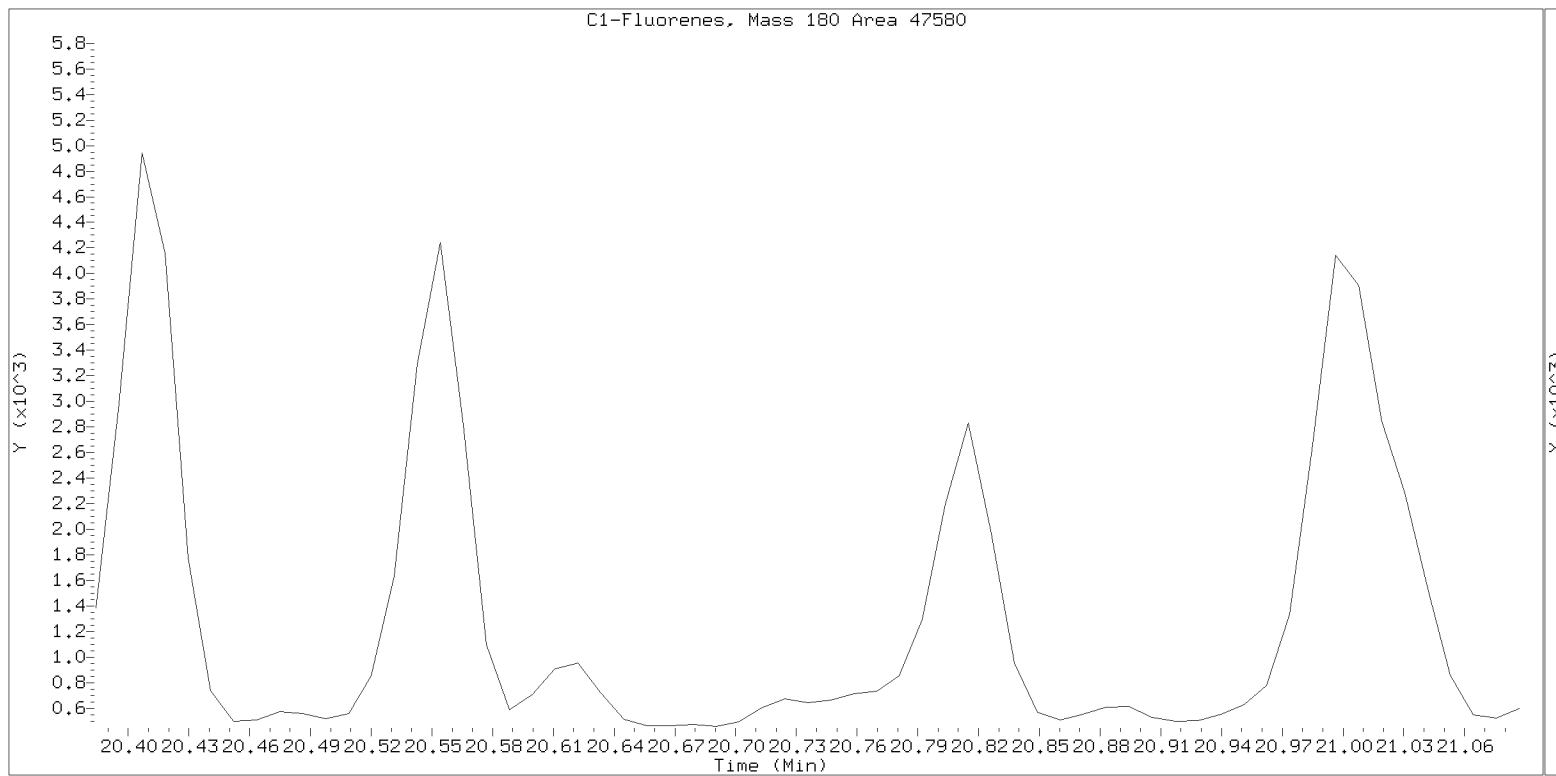
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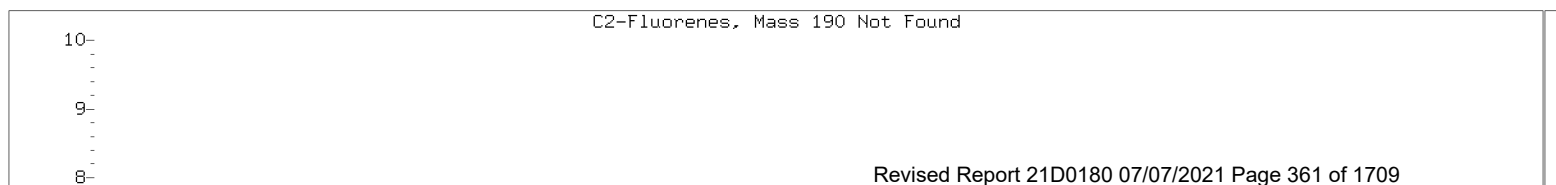
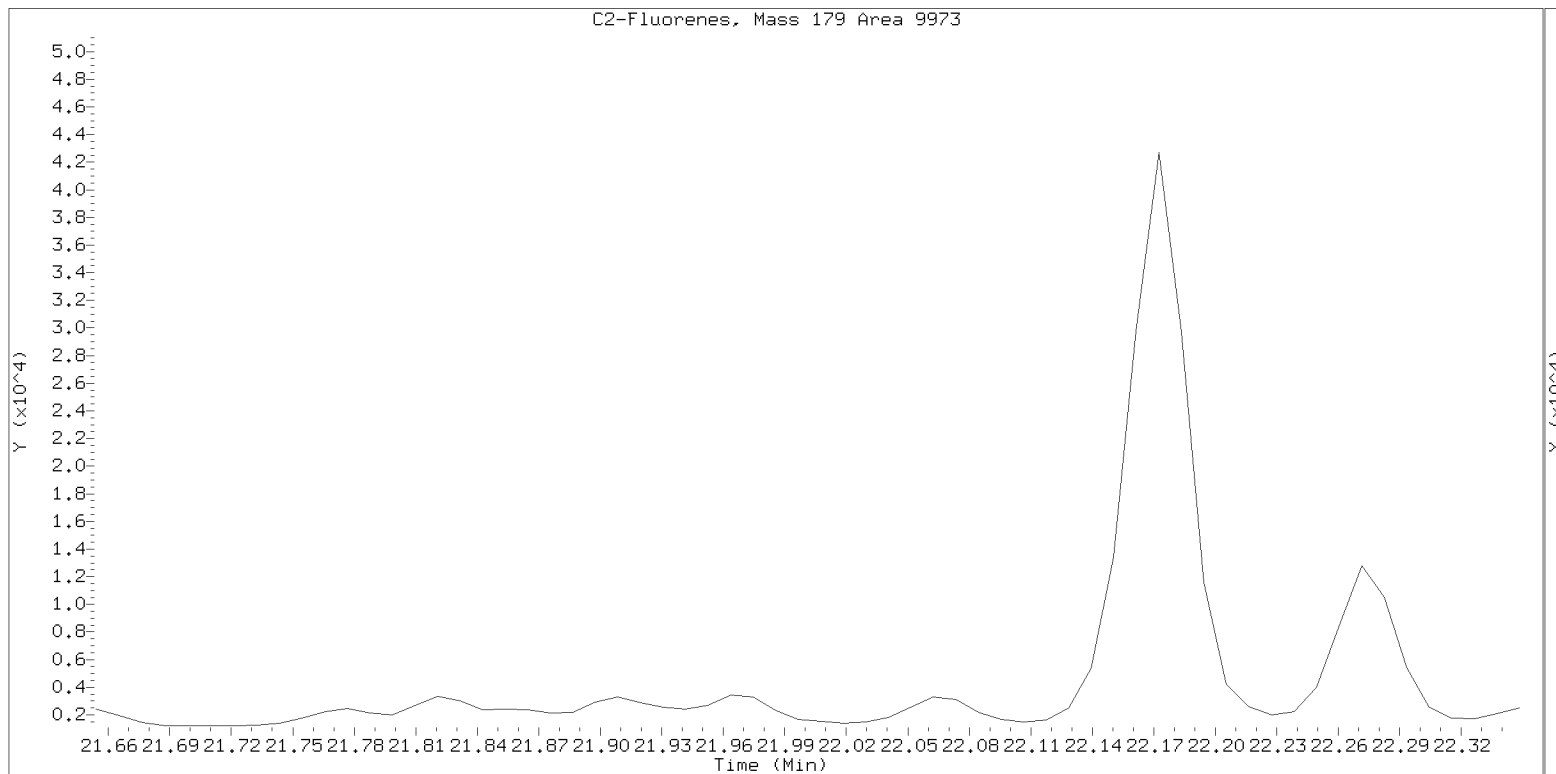
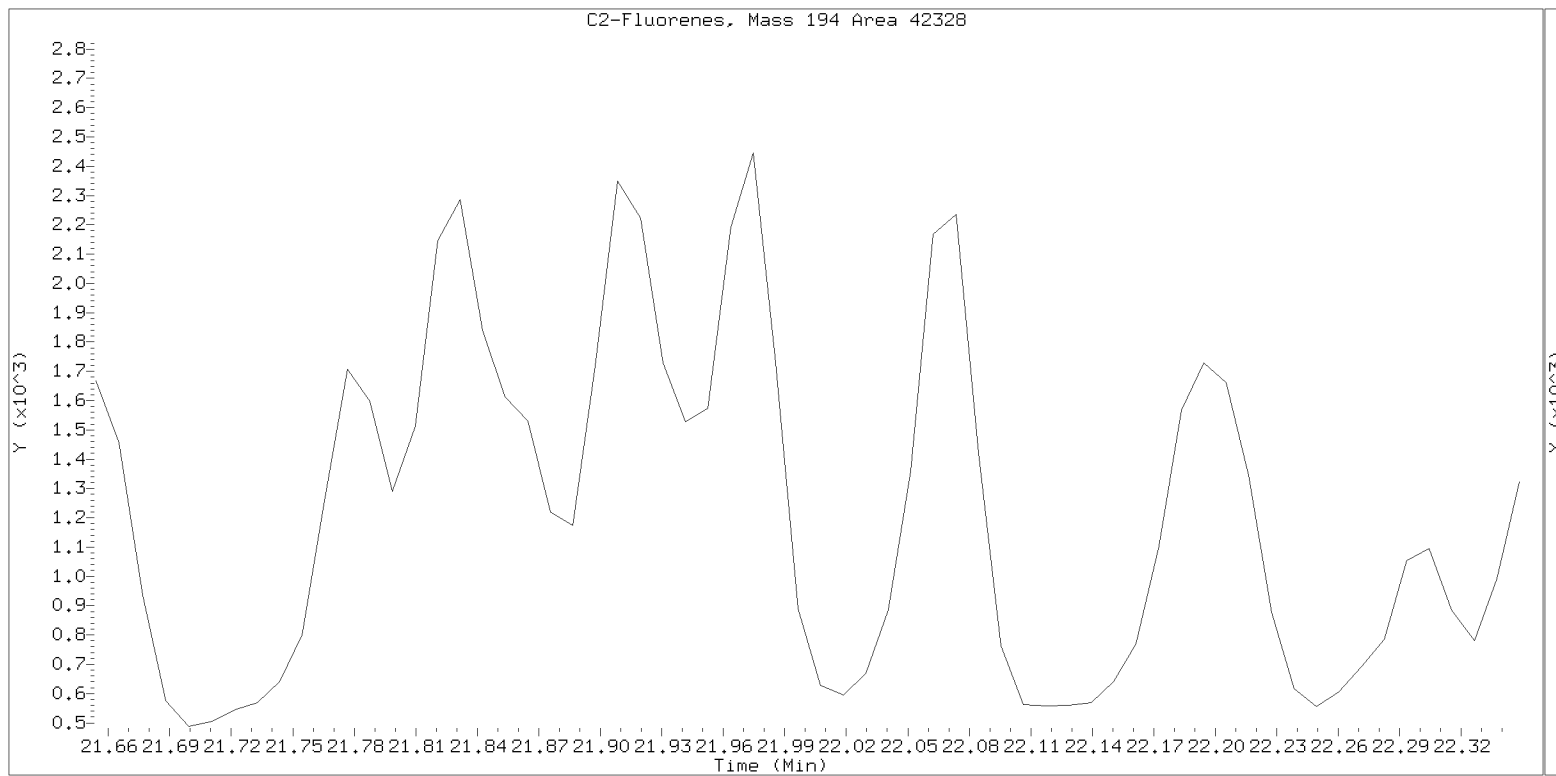
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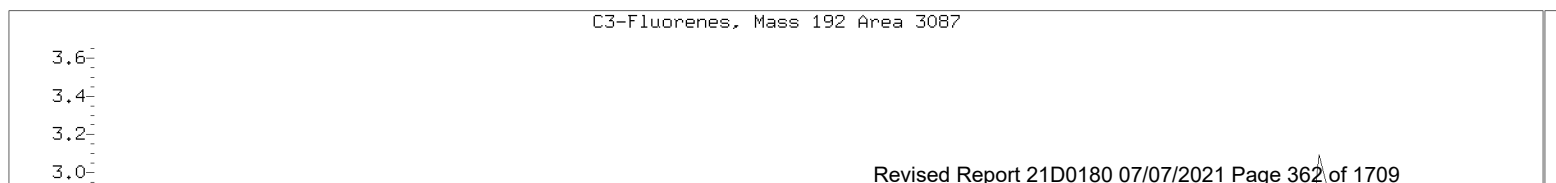
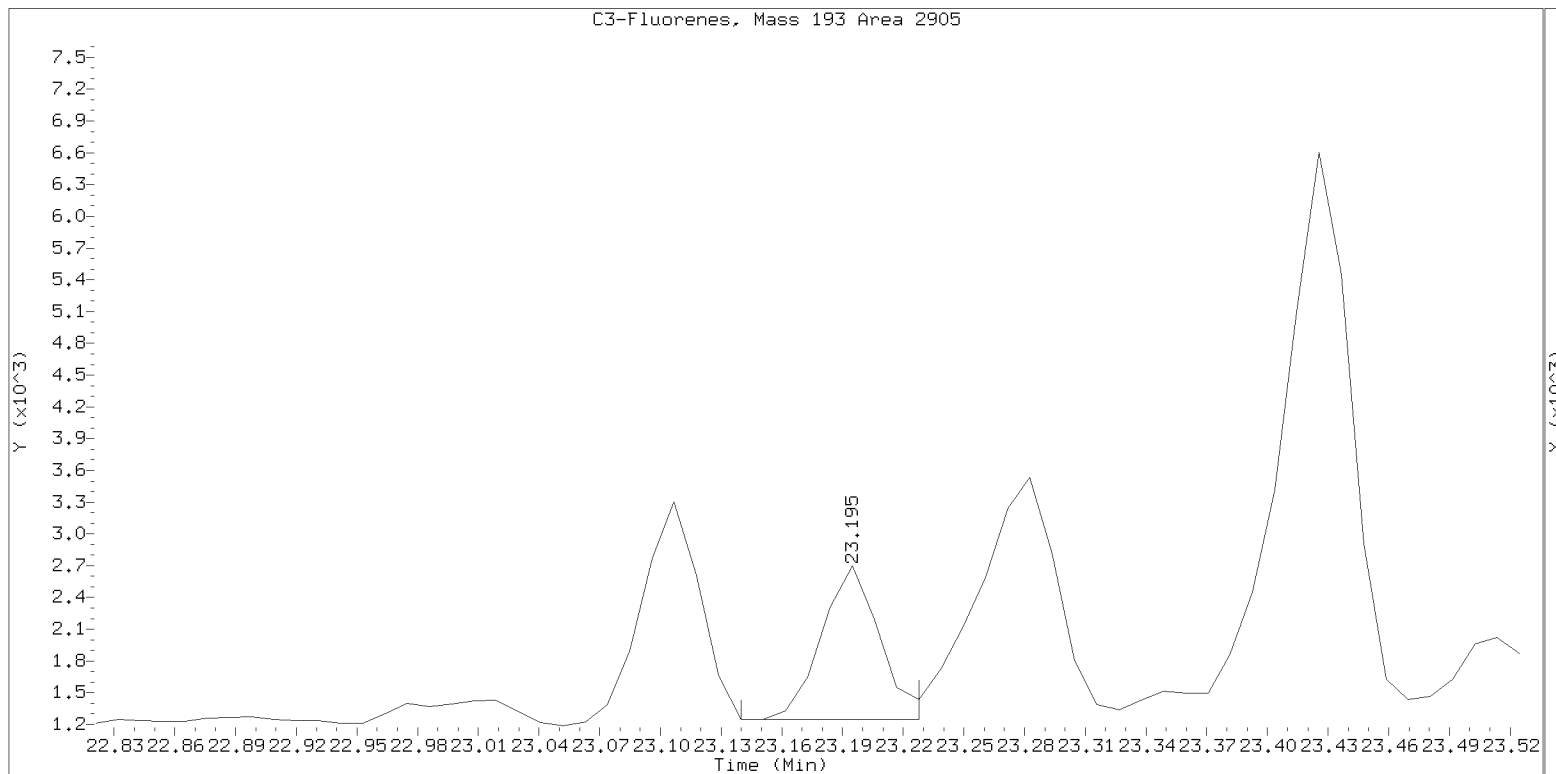
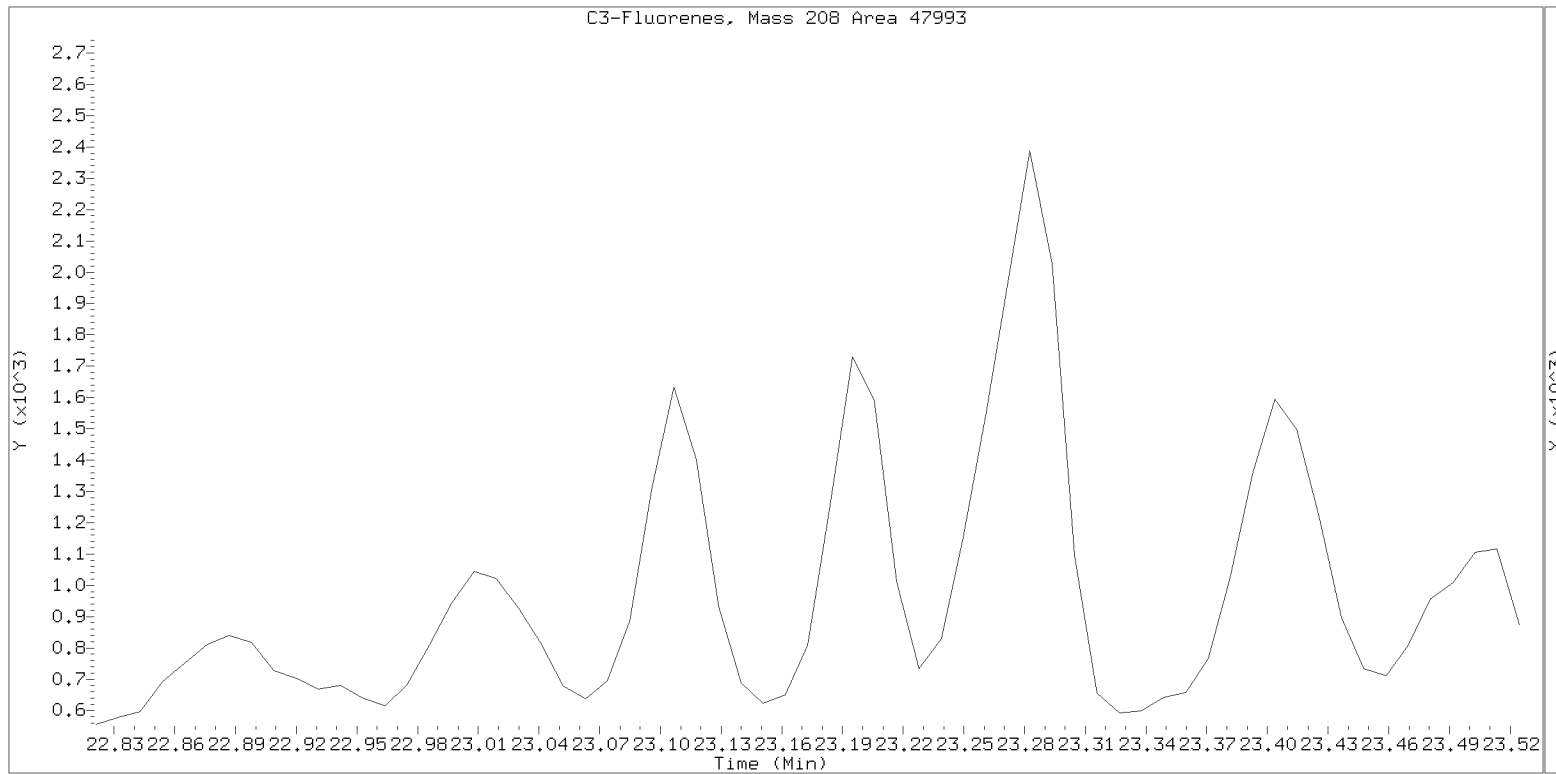
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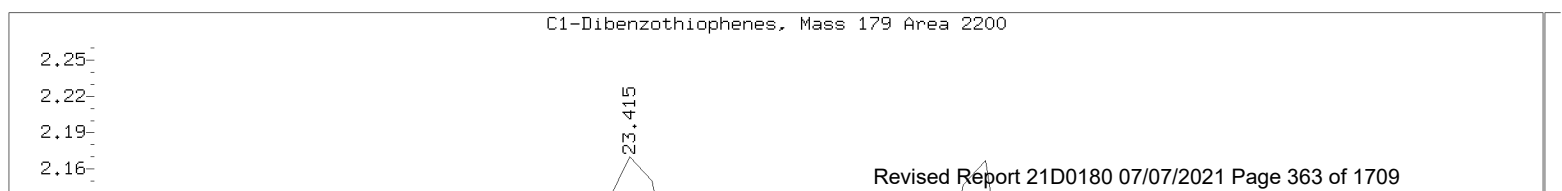
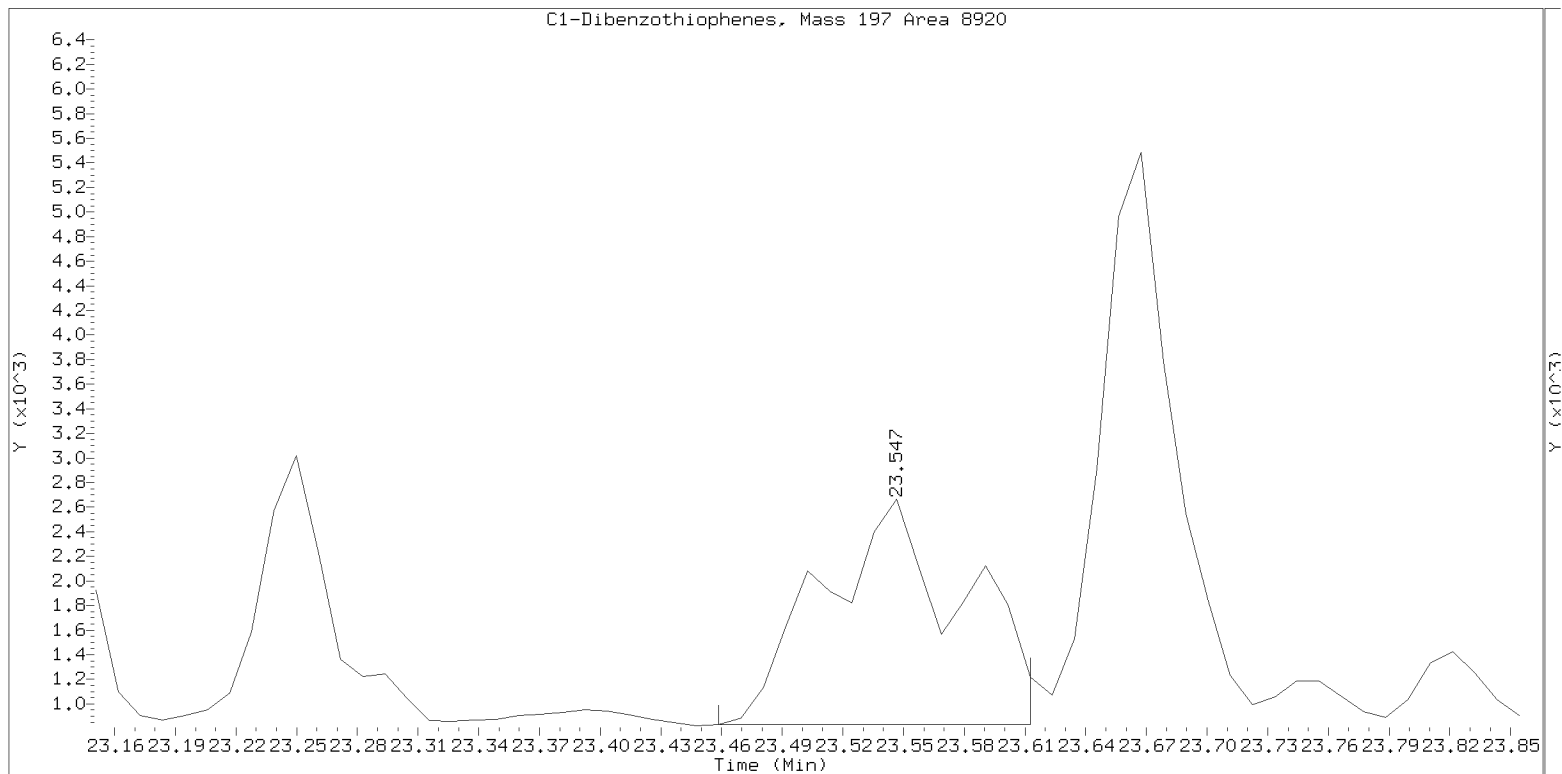
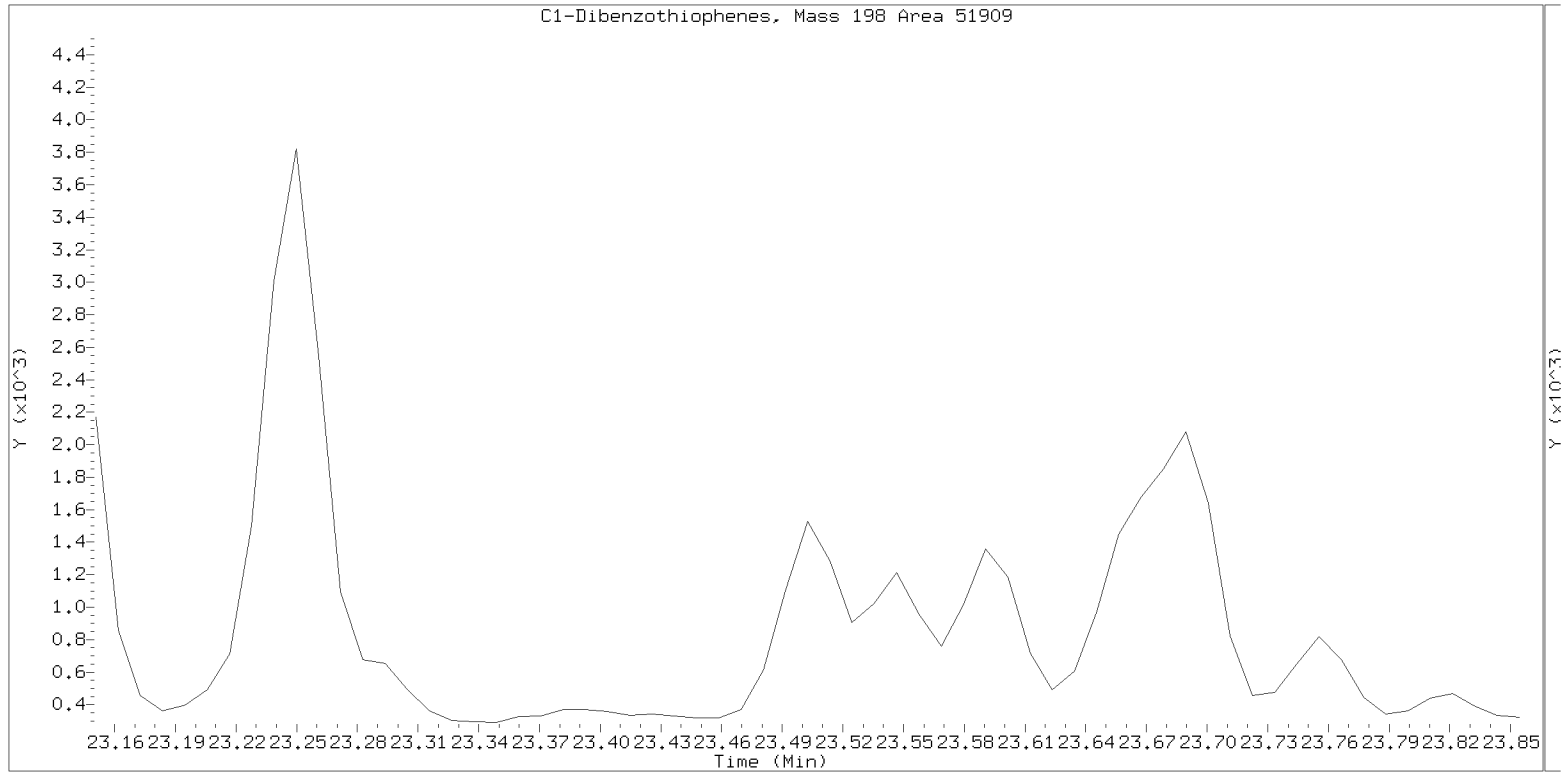
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

Lab ID: 21D0180-03

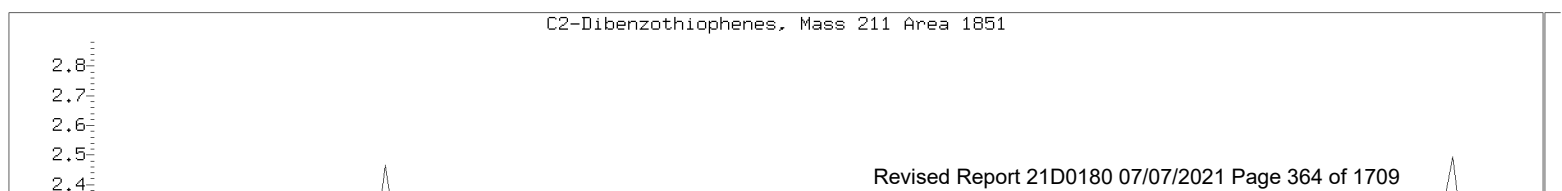
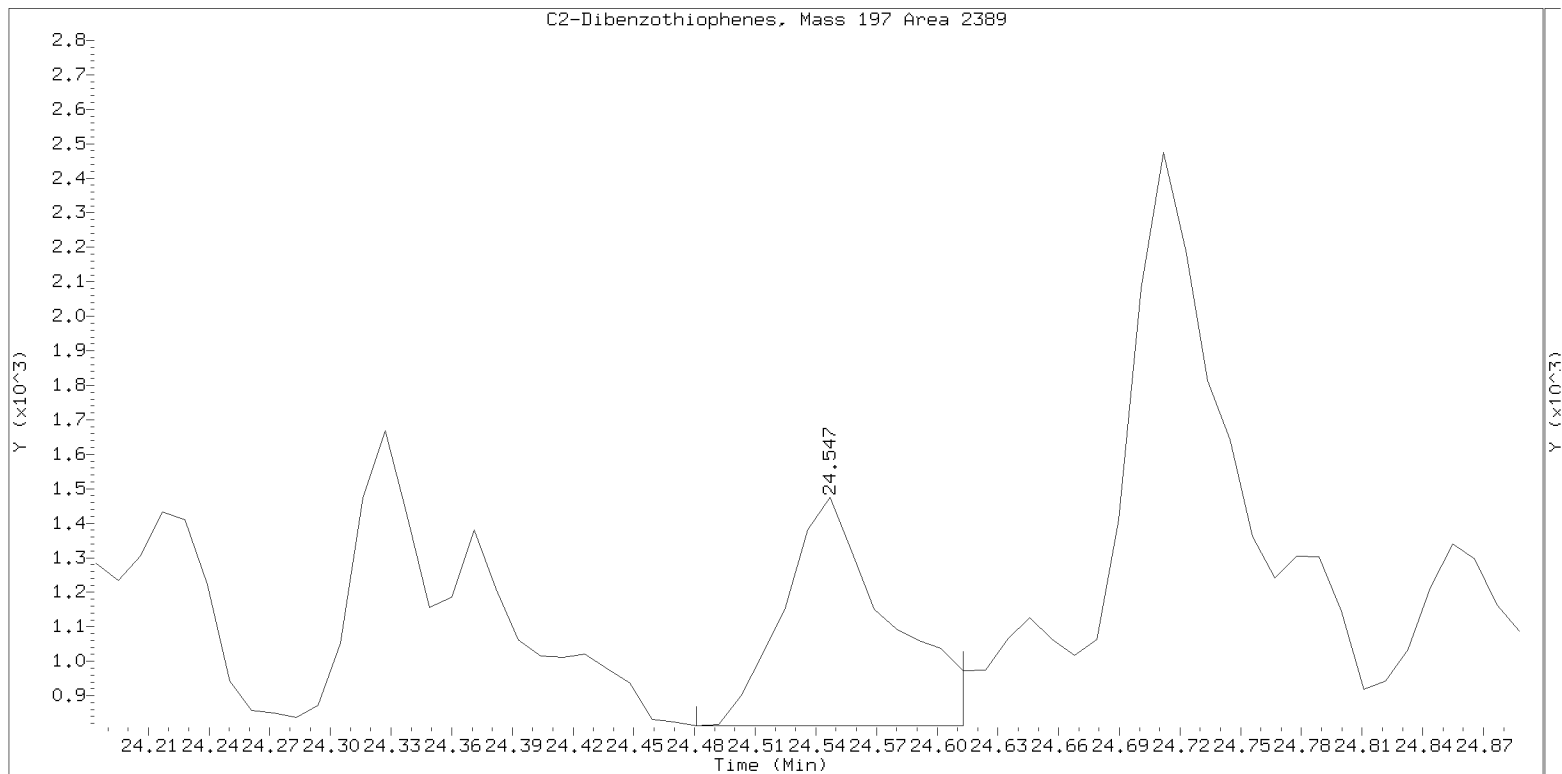
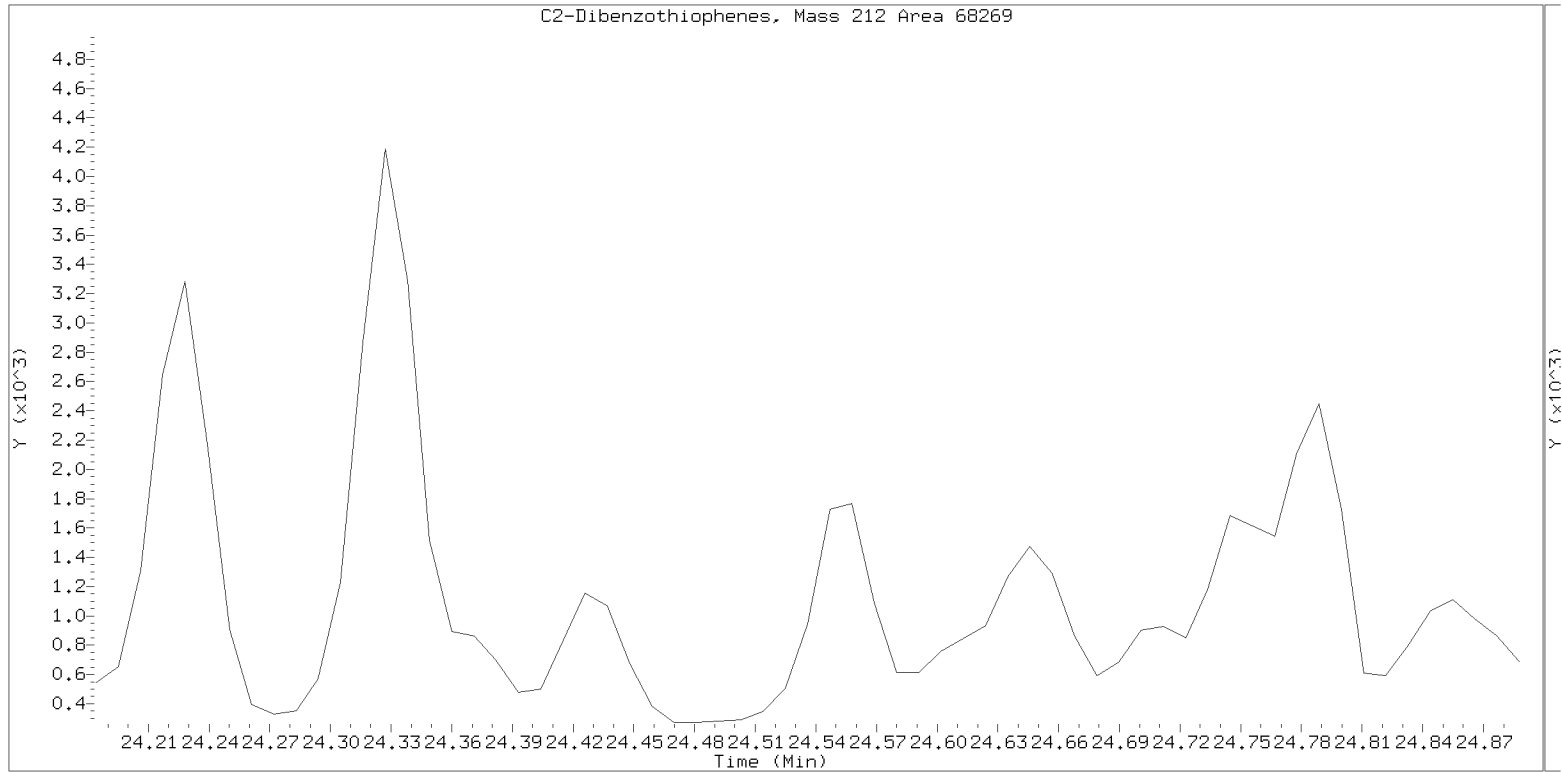
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

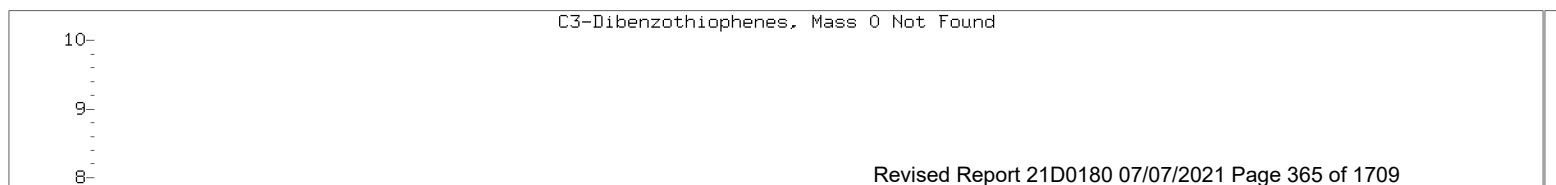
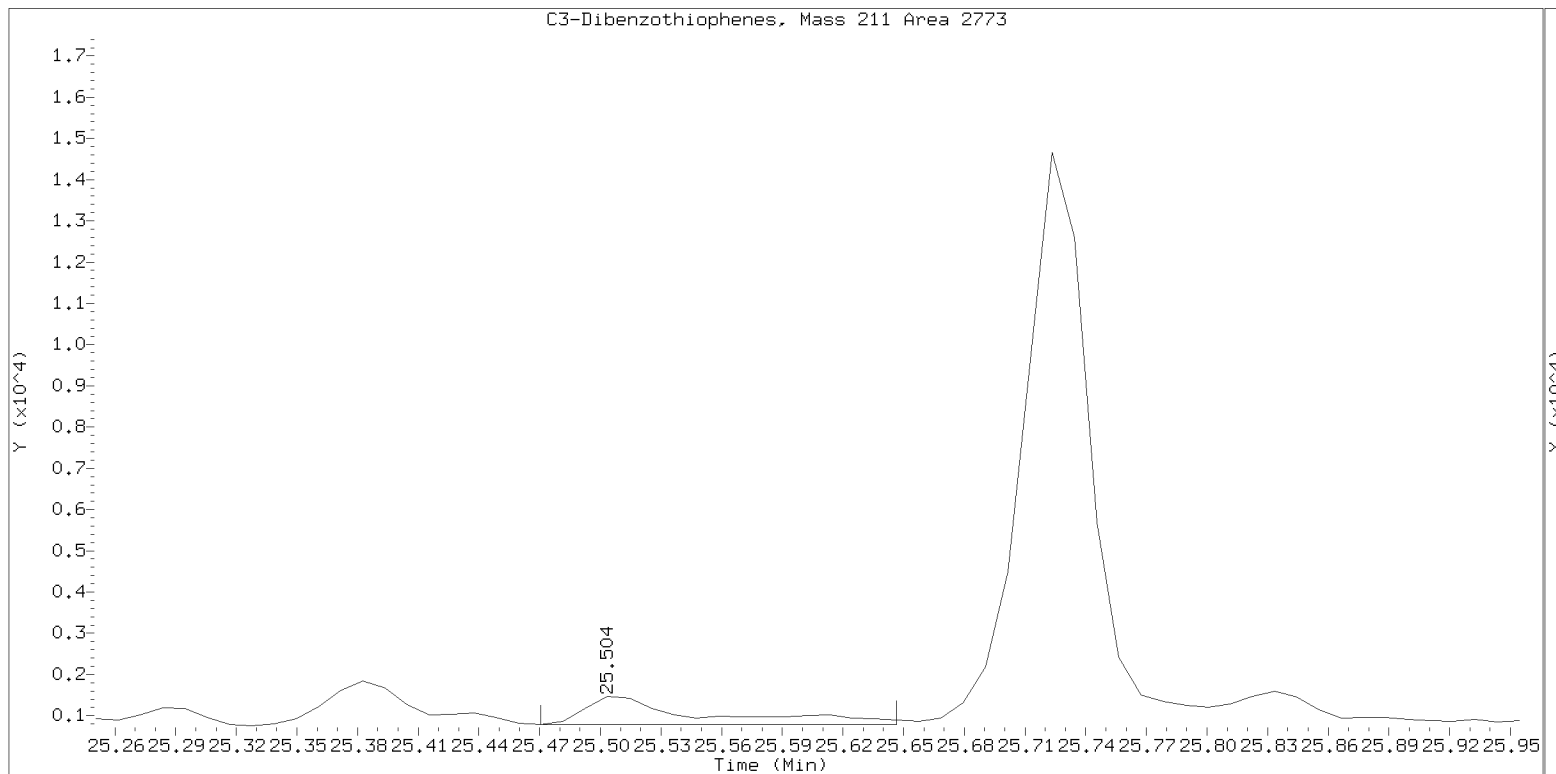
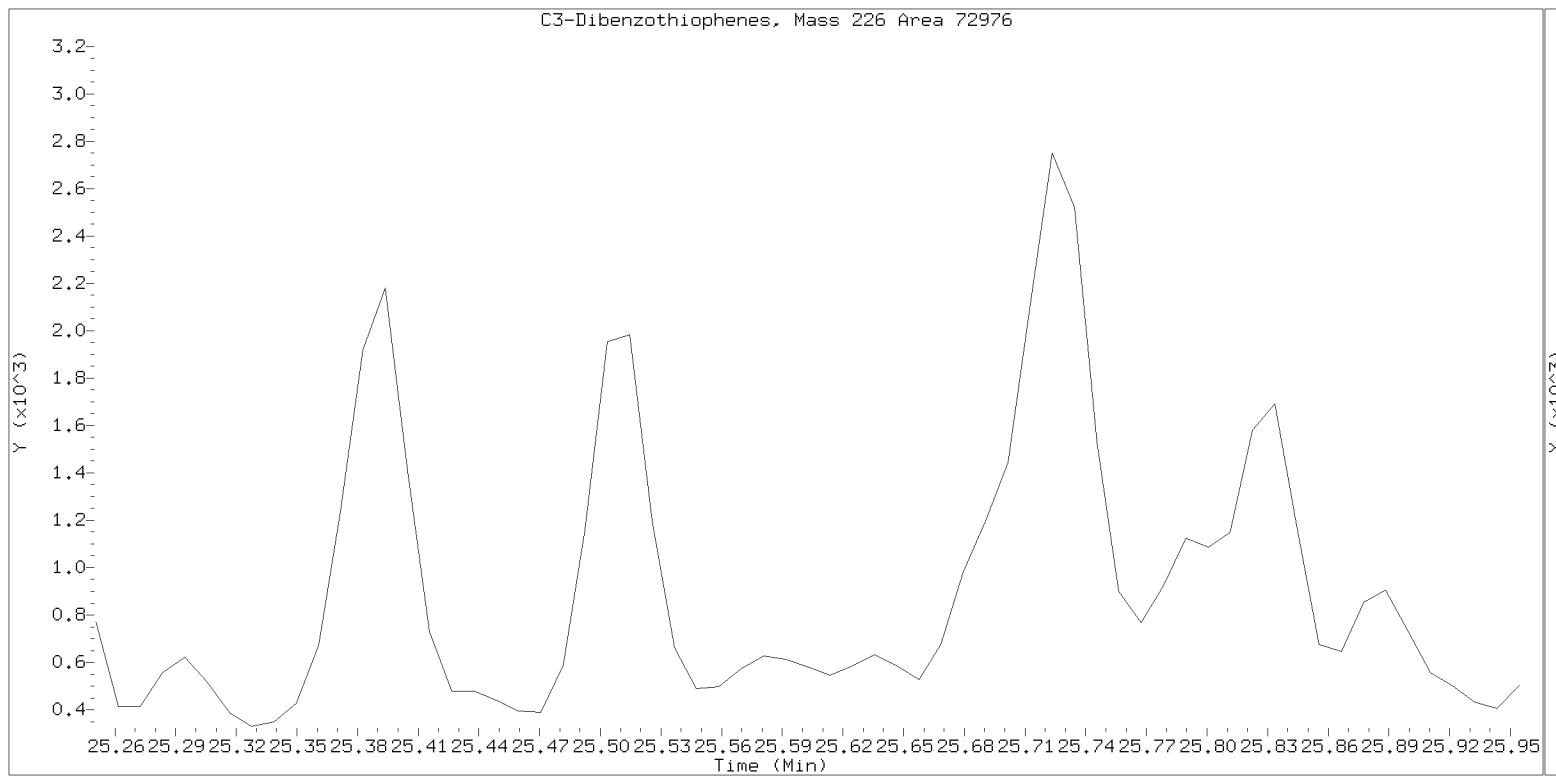
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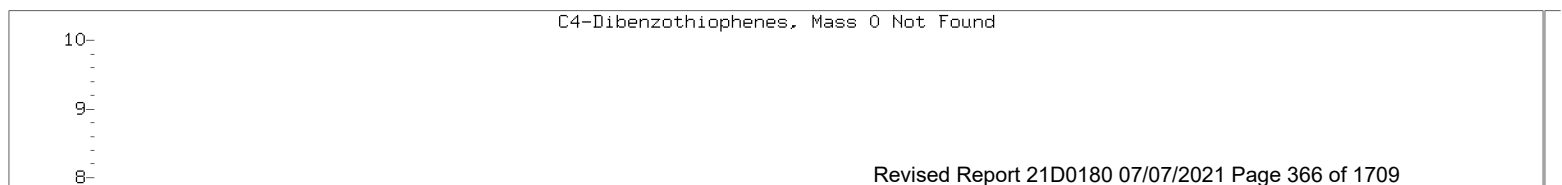
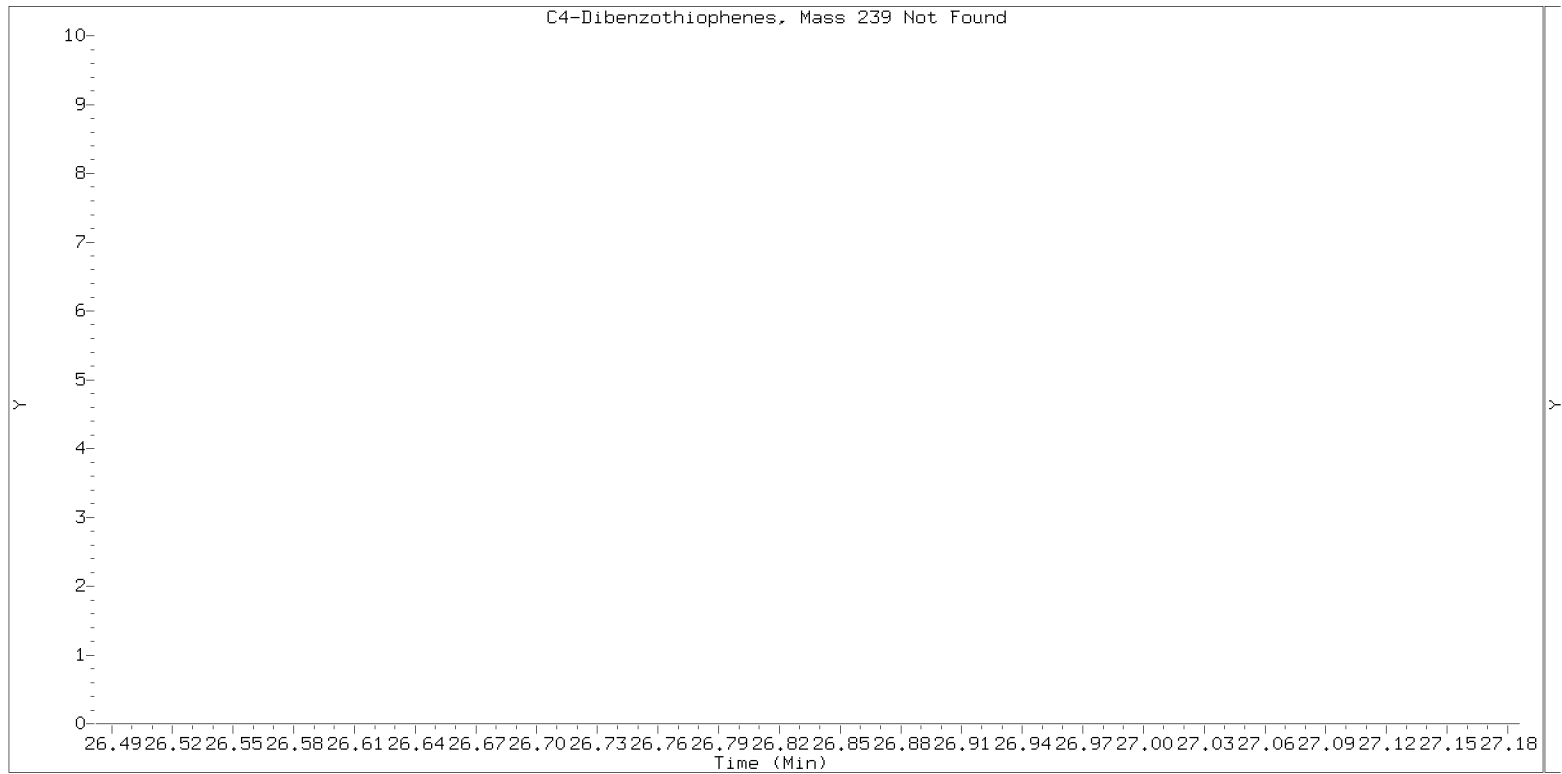
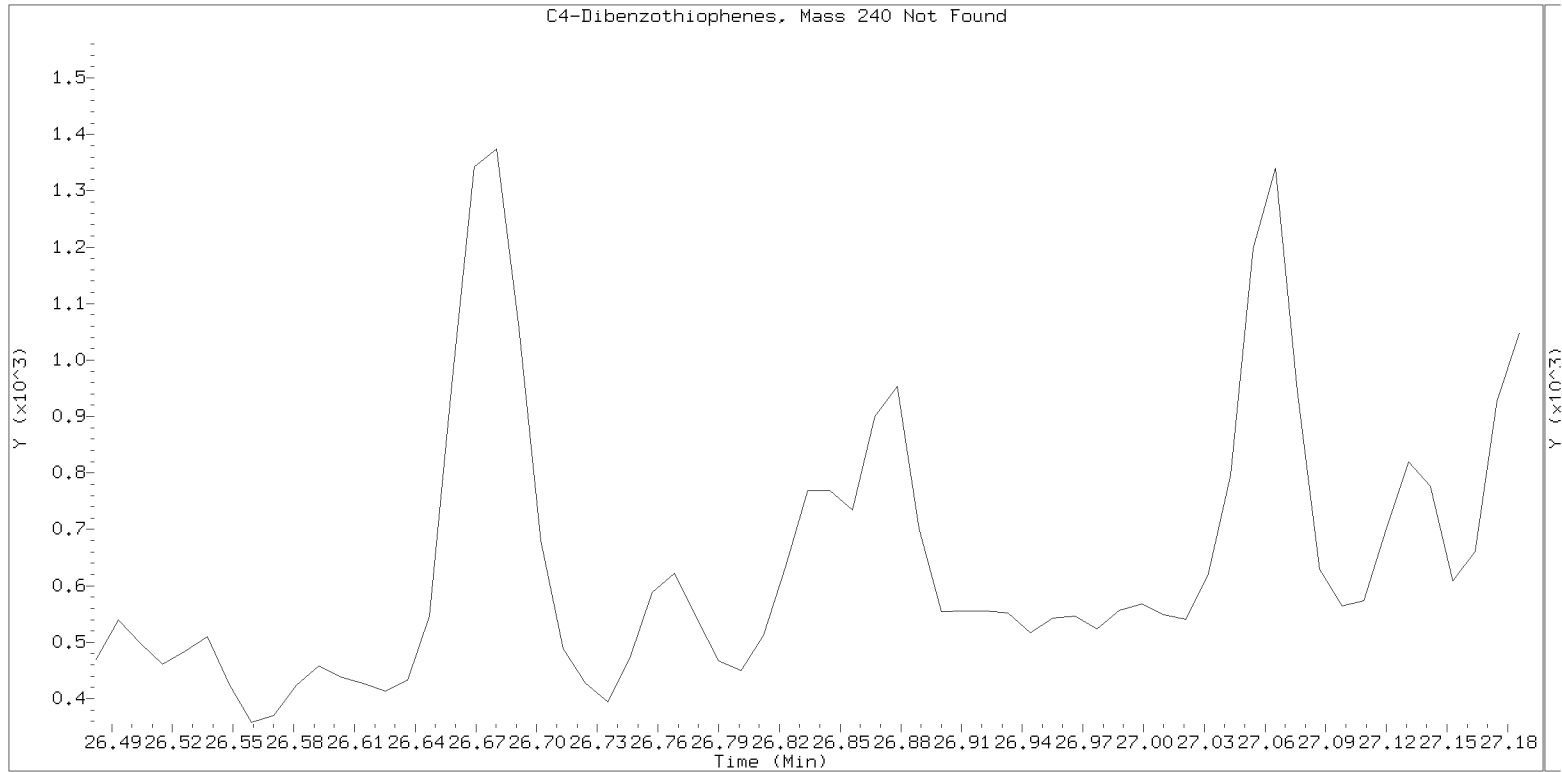
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

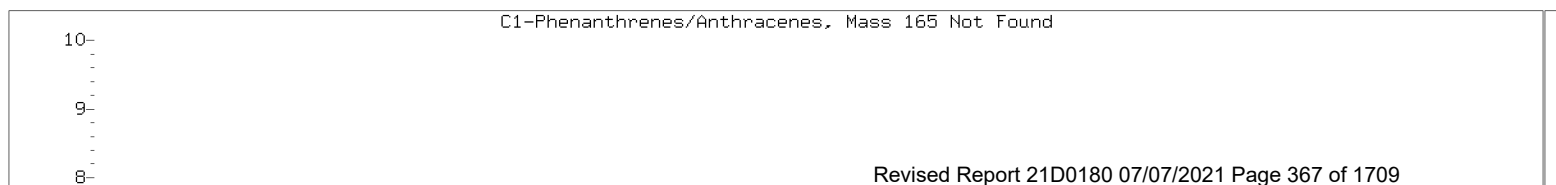
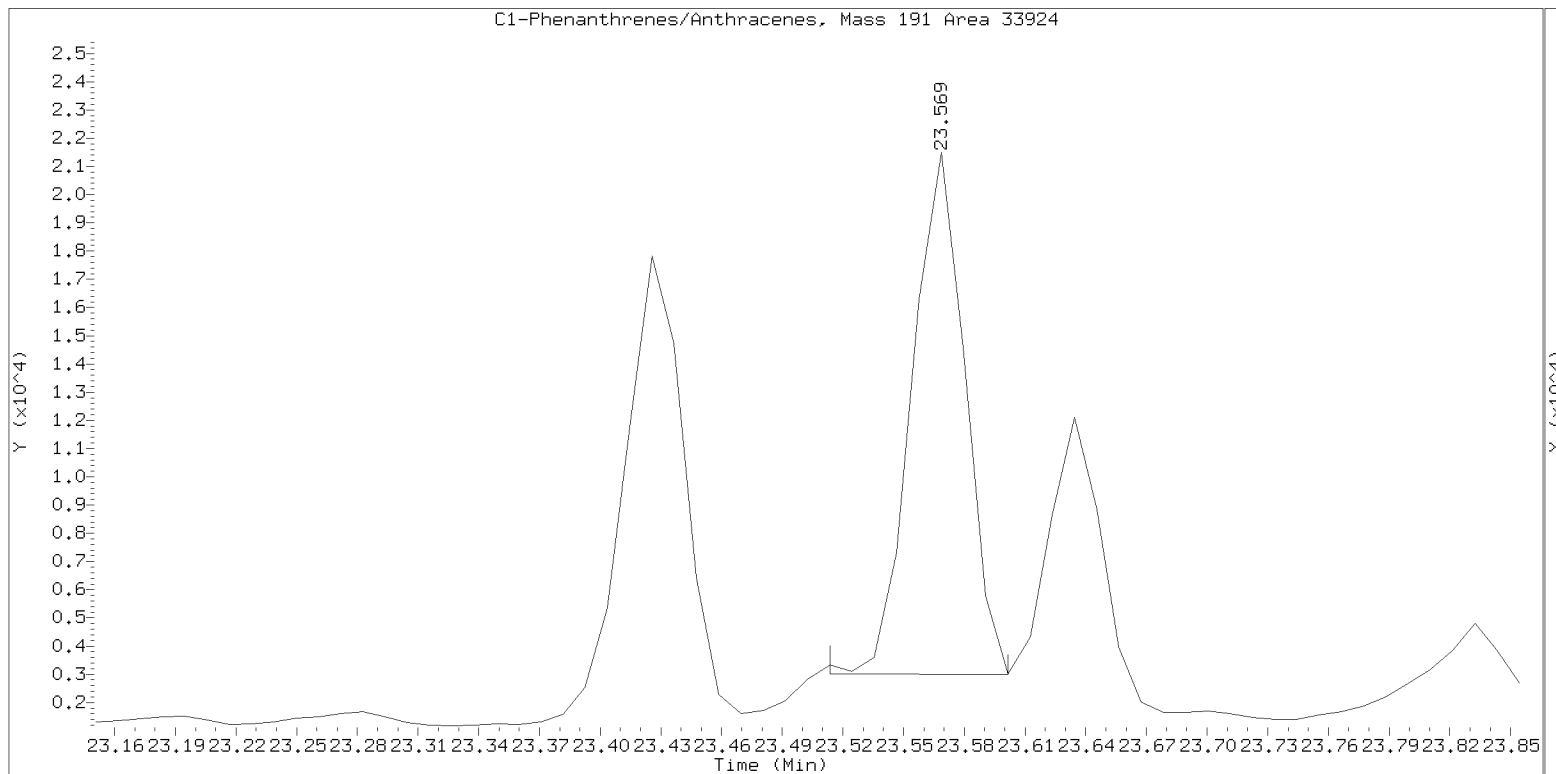
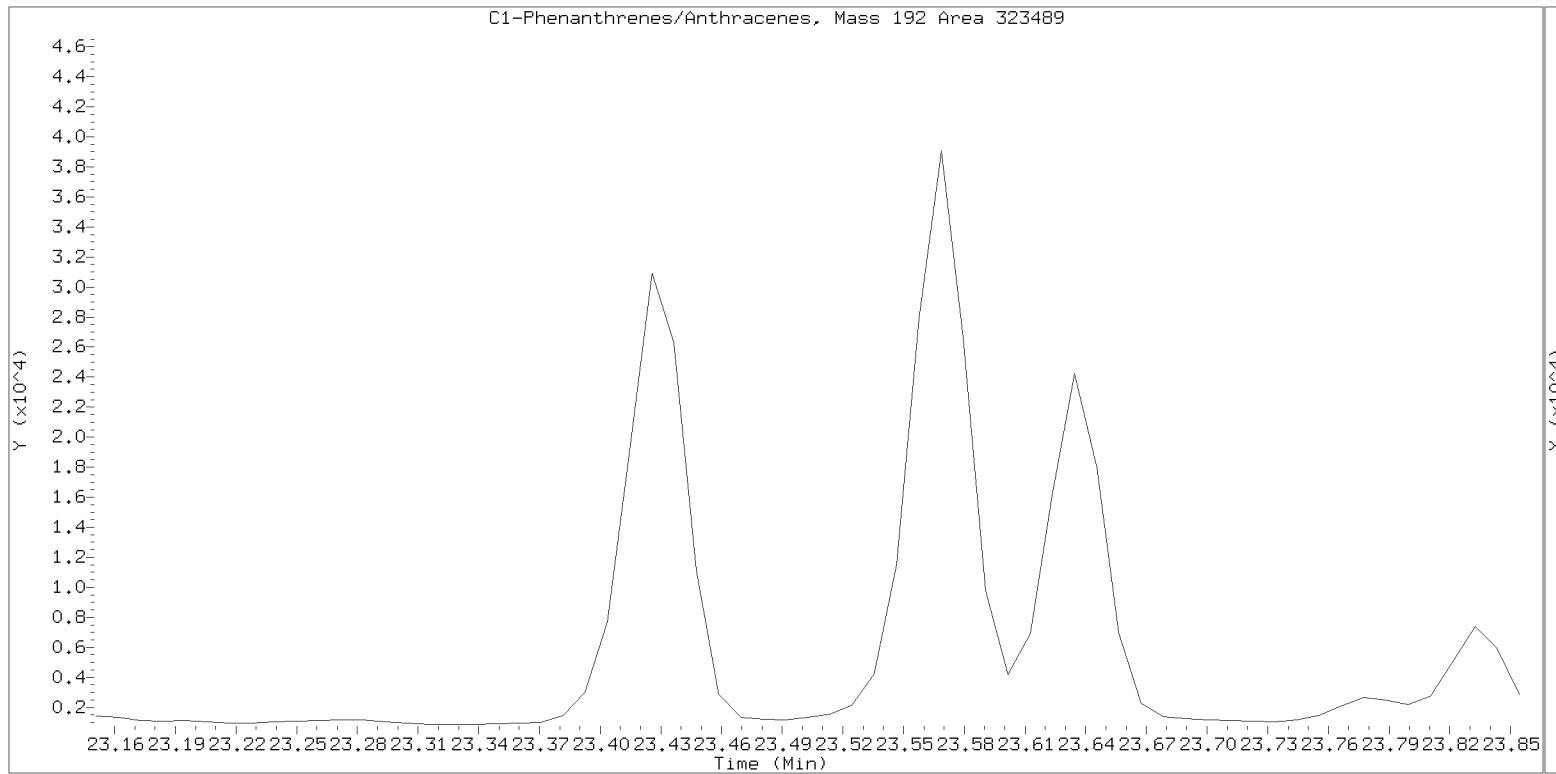
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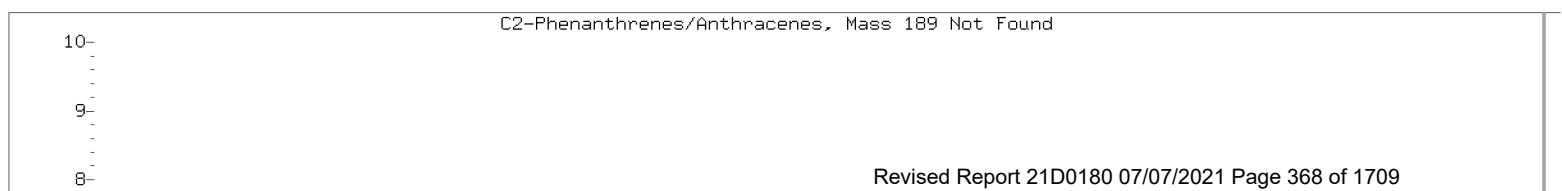
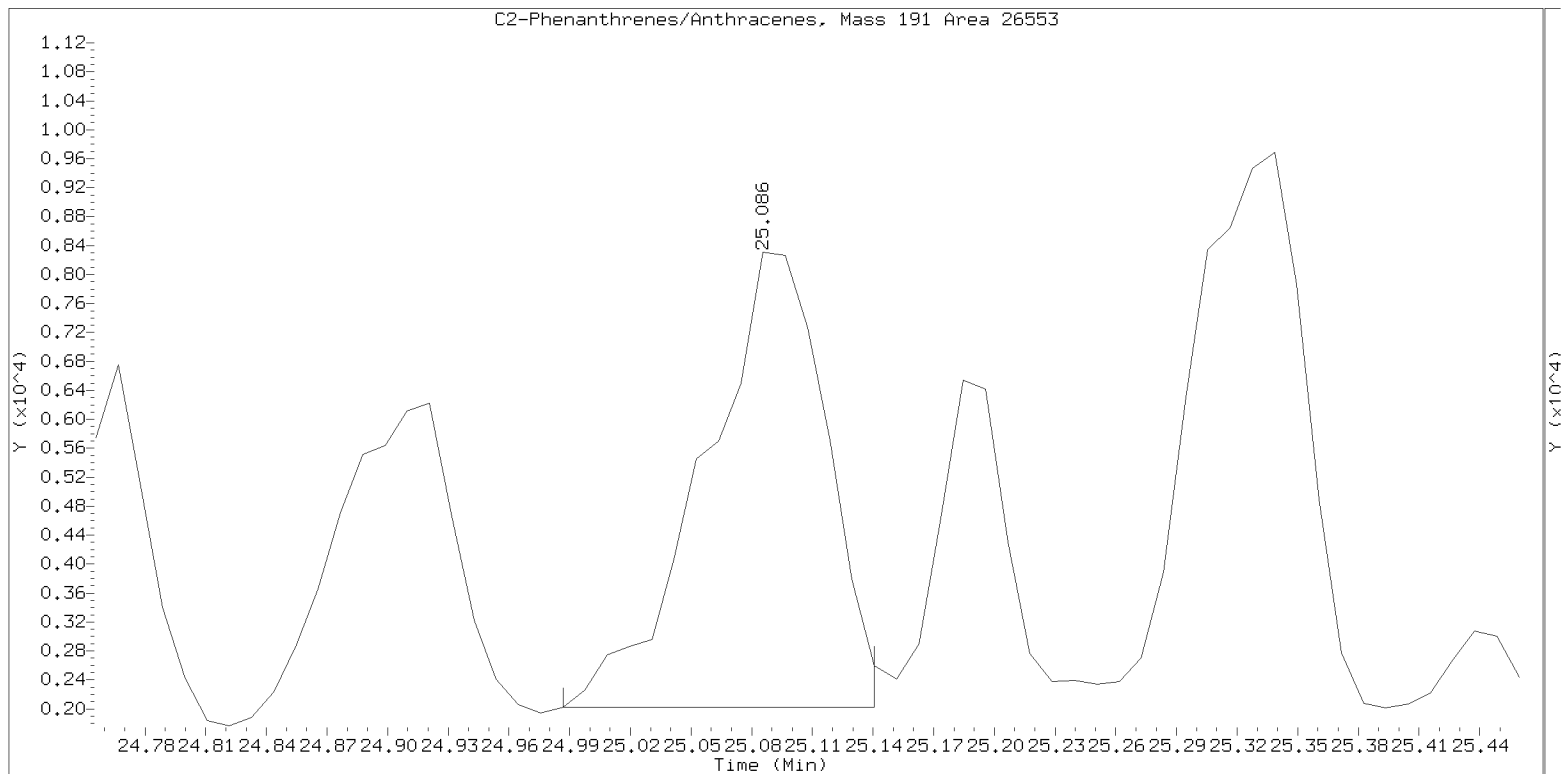
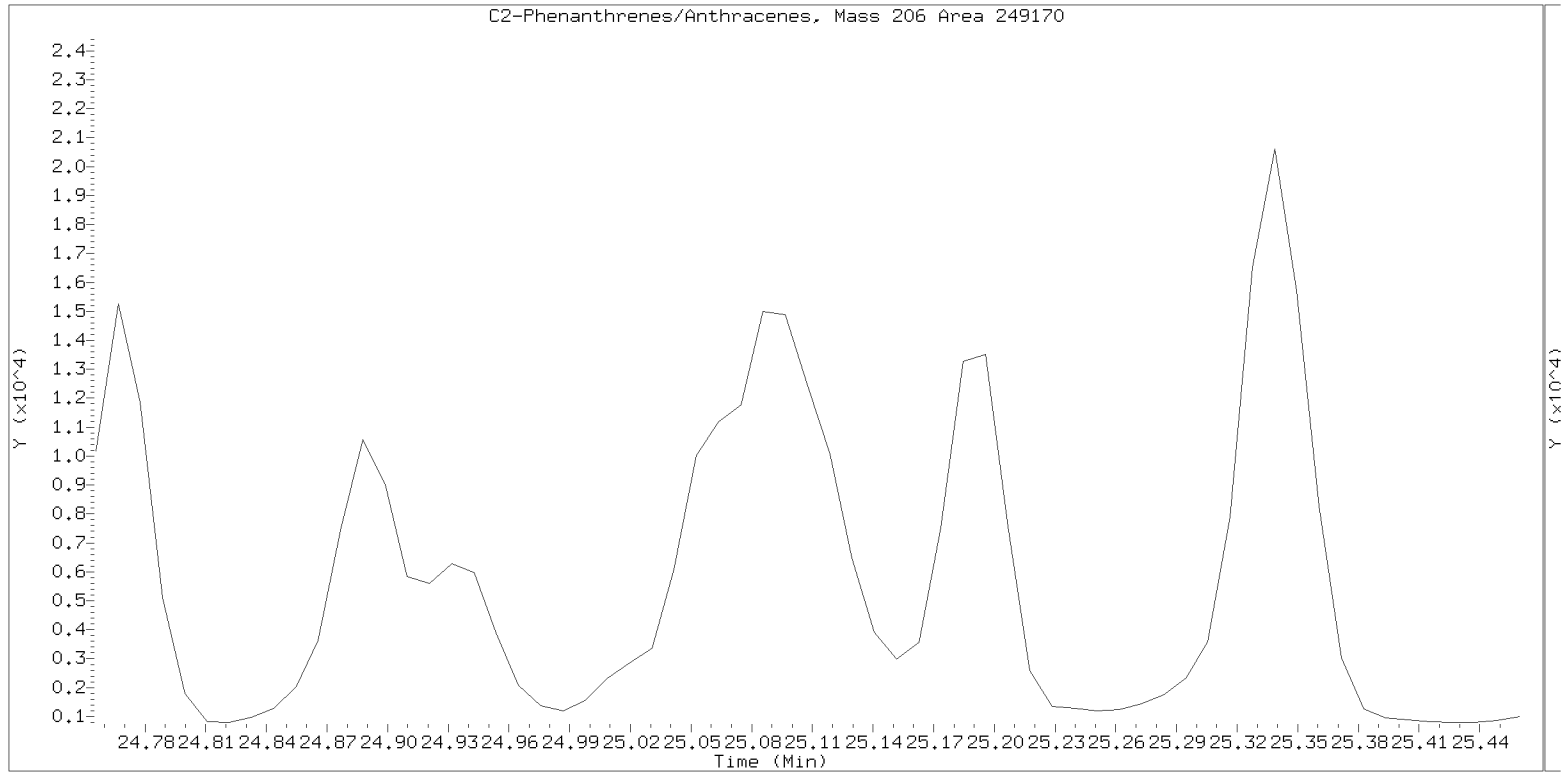
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

Lab ID: 21D0180-03

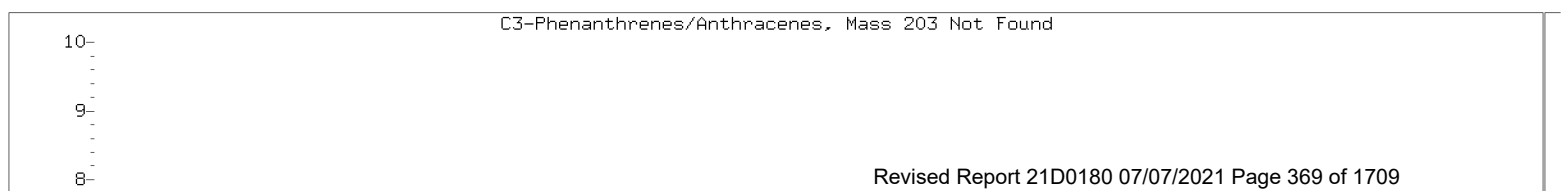
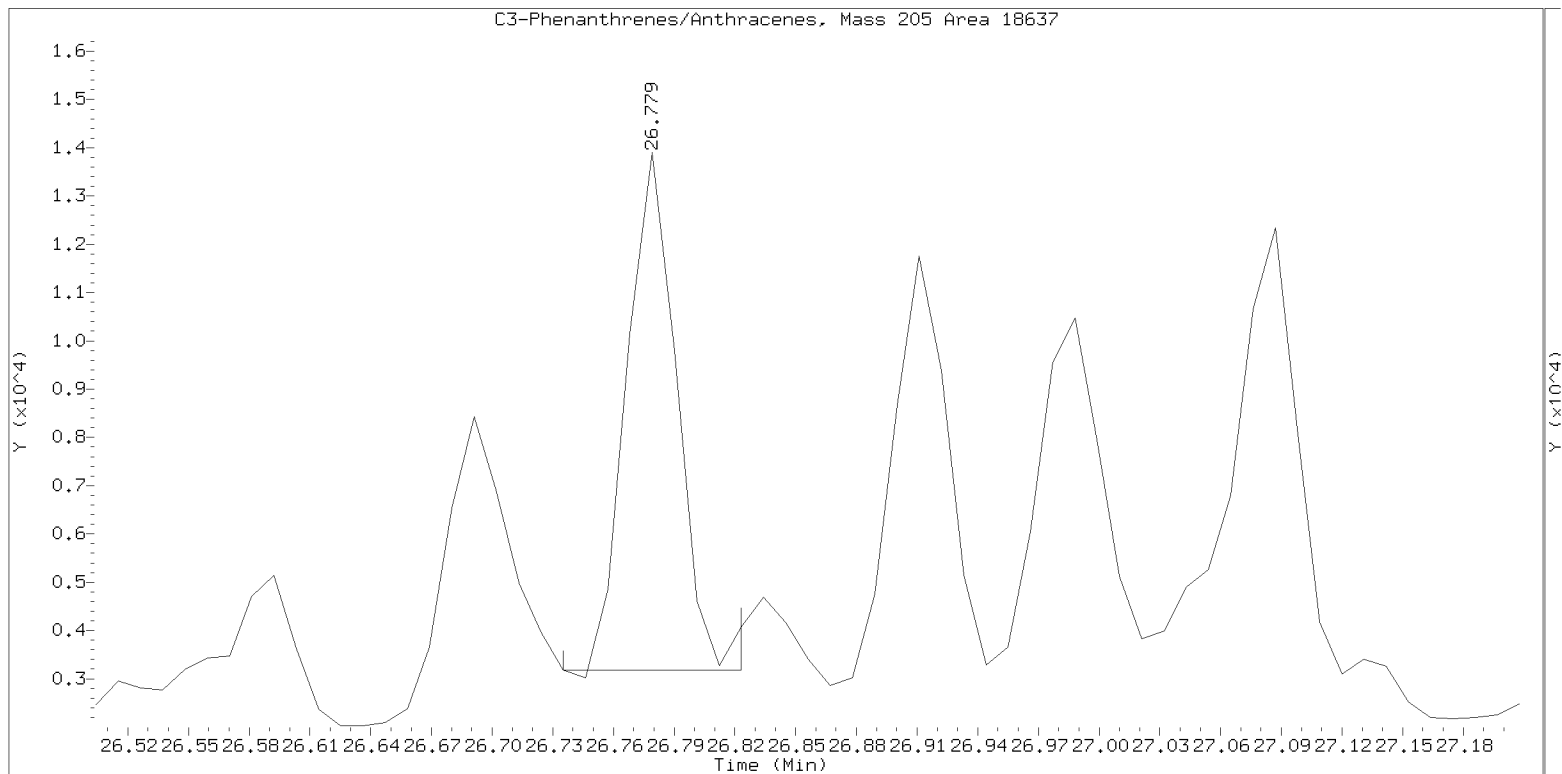
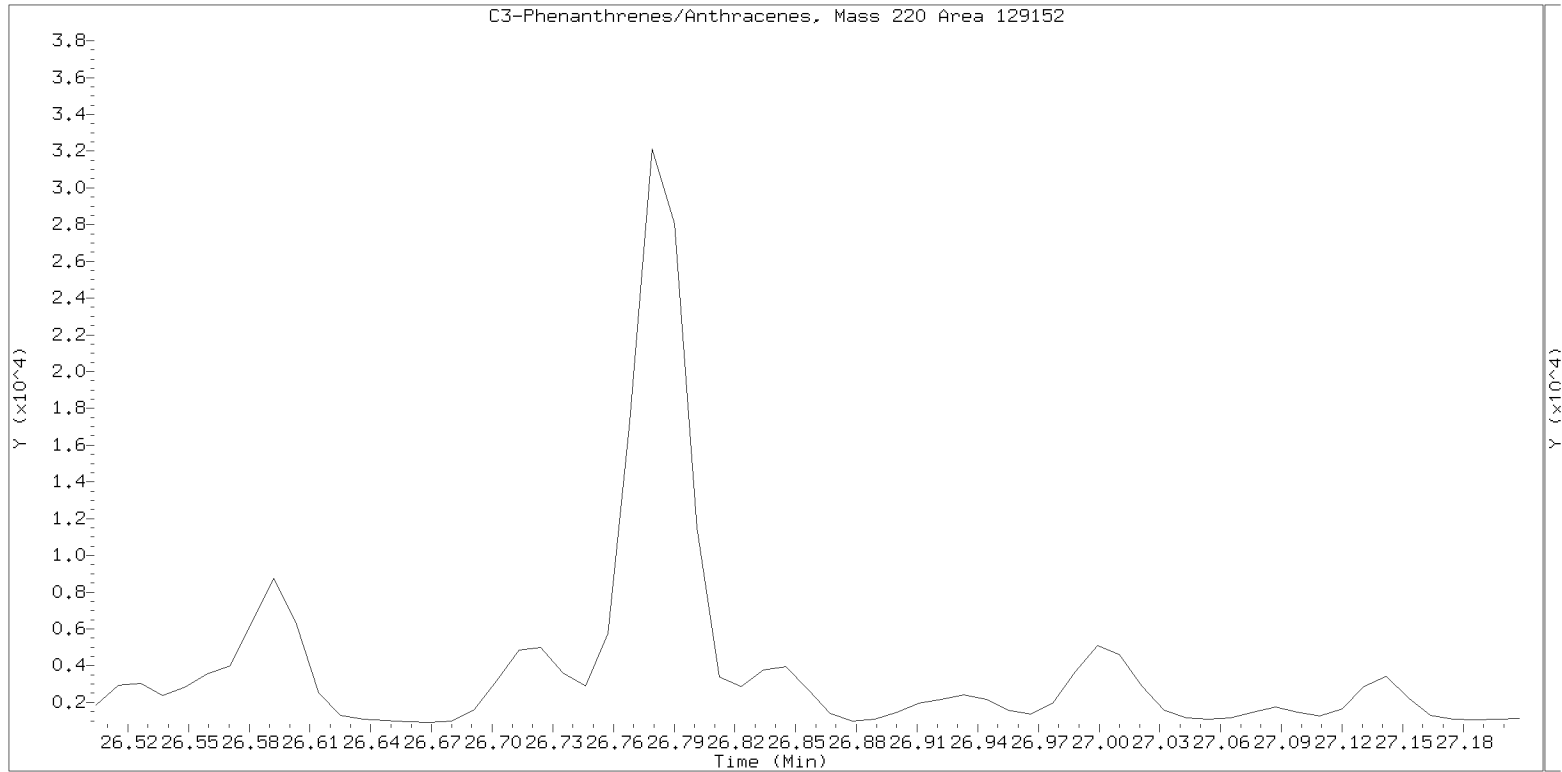
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

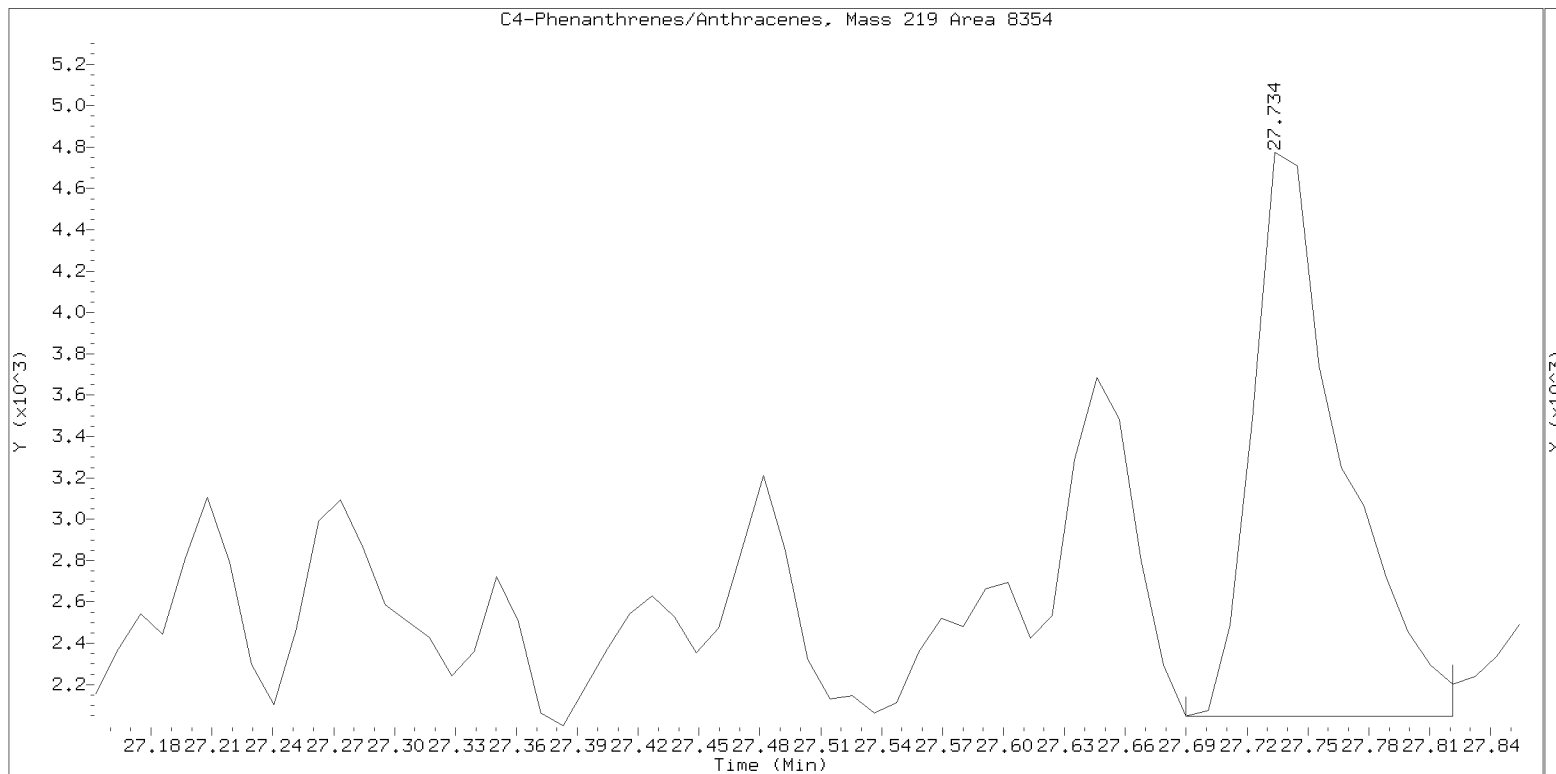
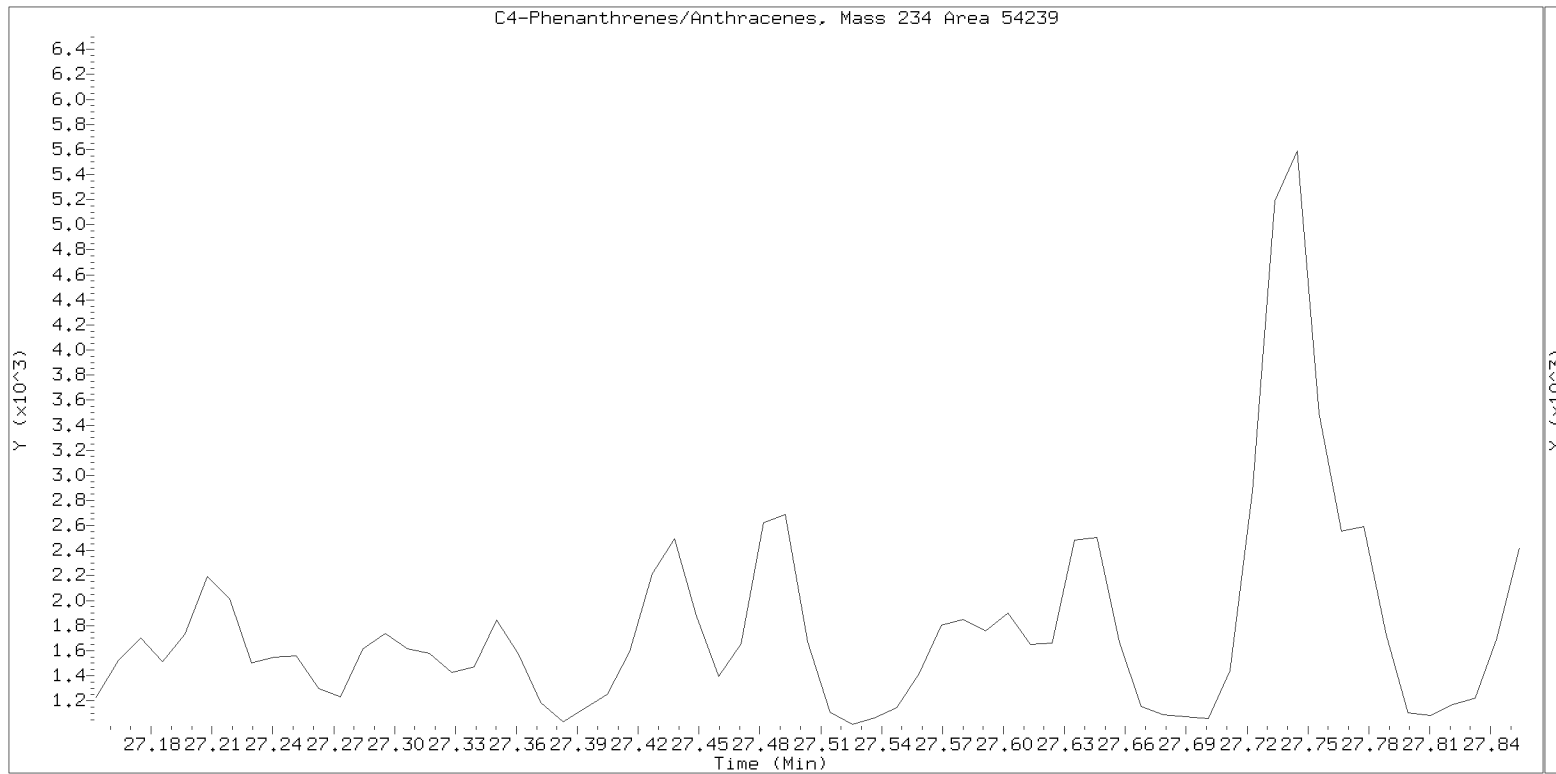
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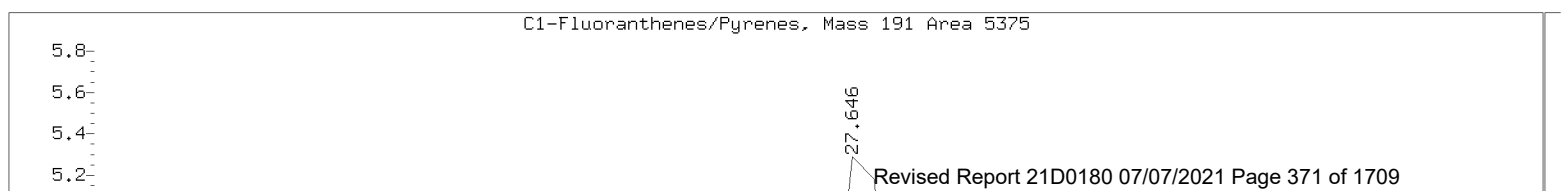
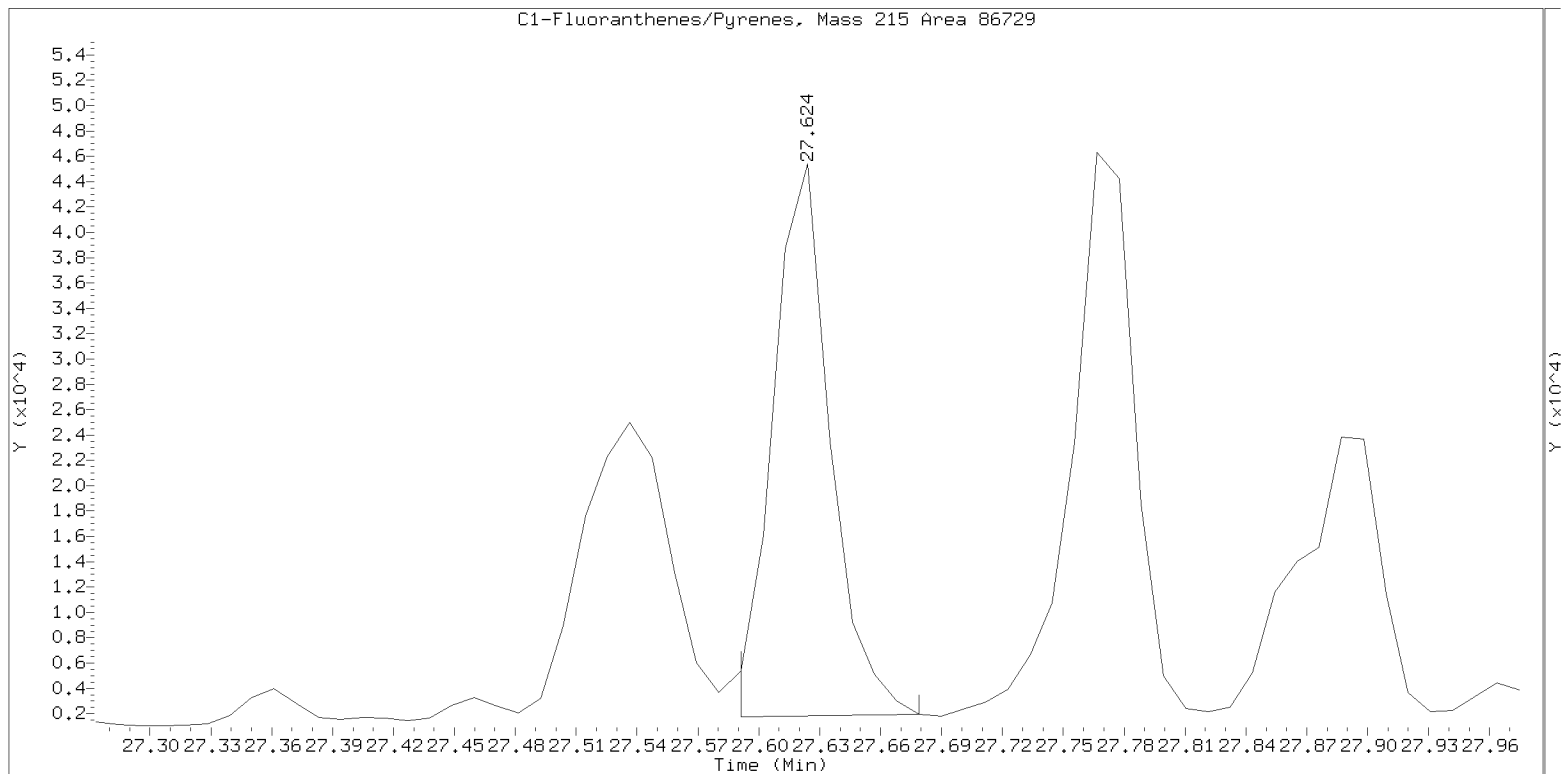
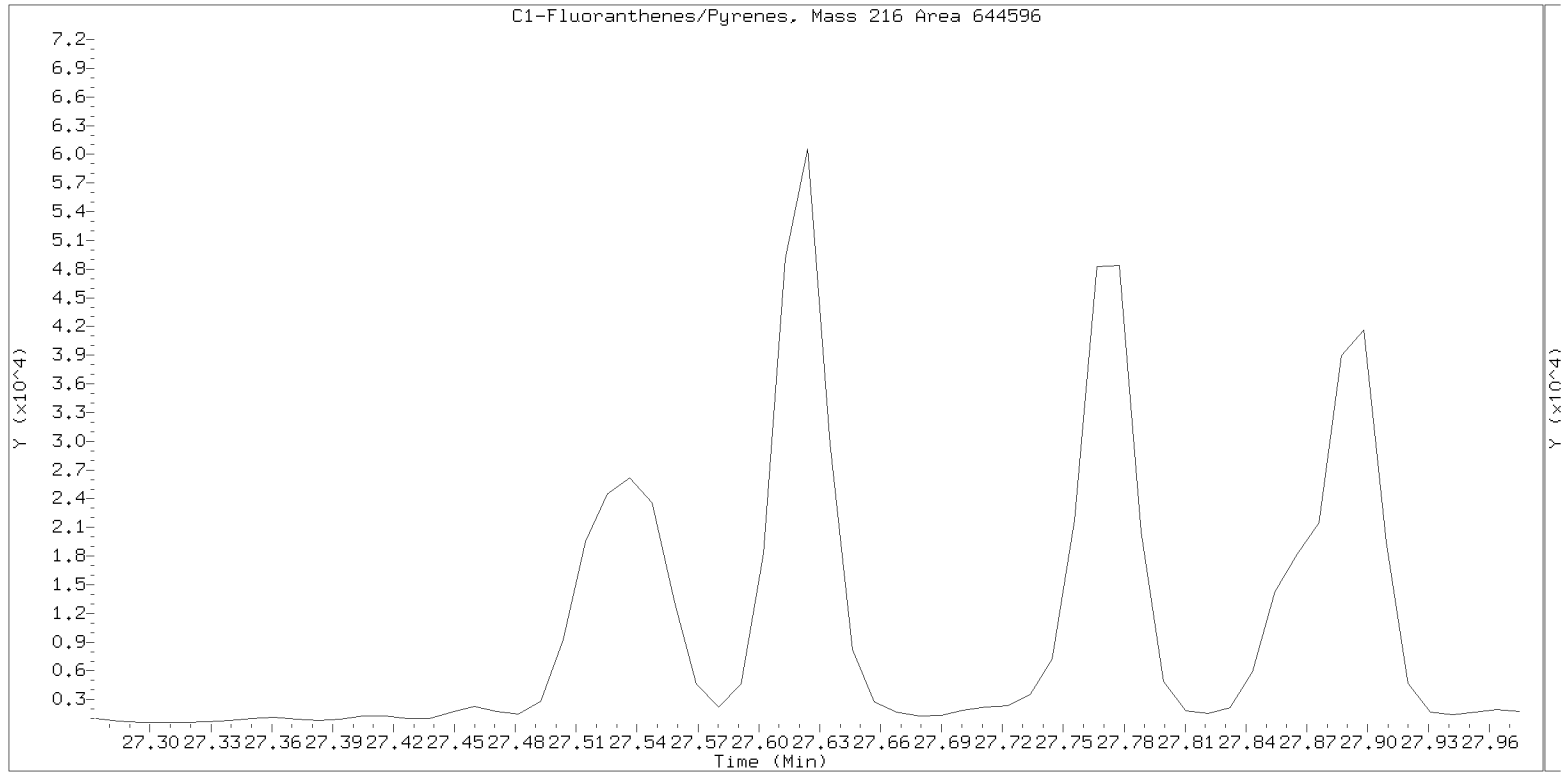
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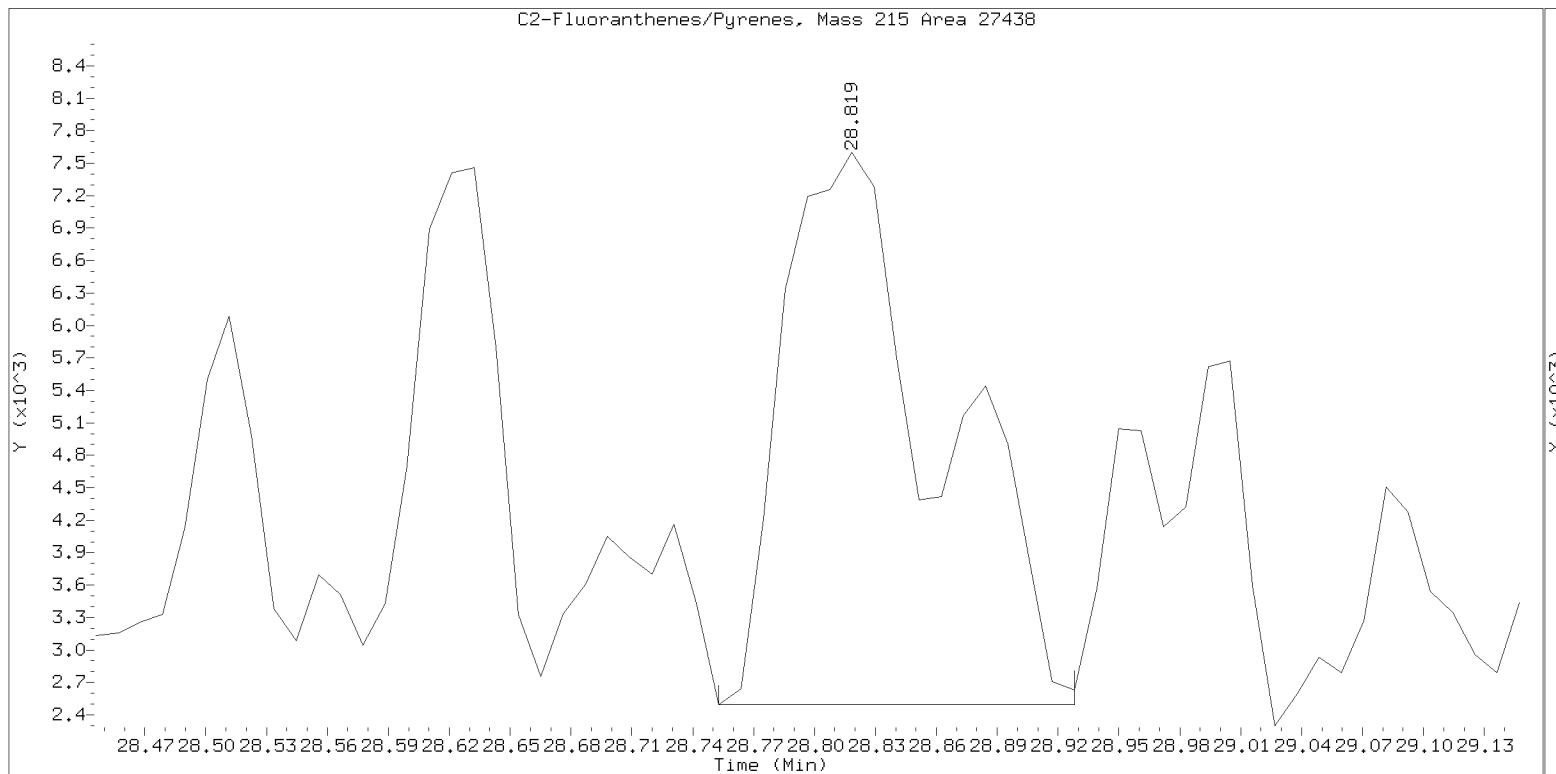
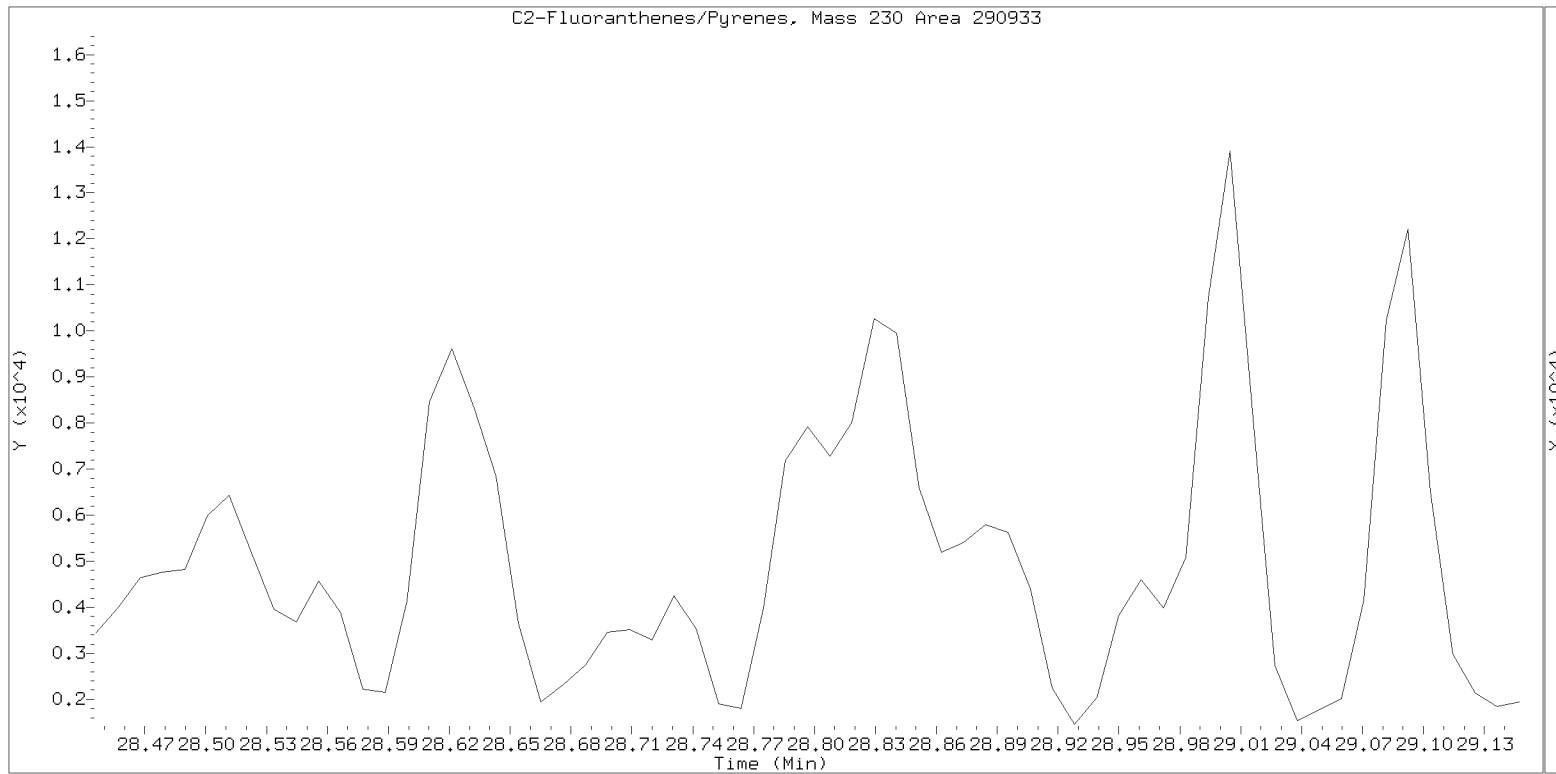
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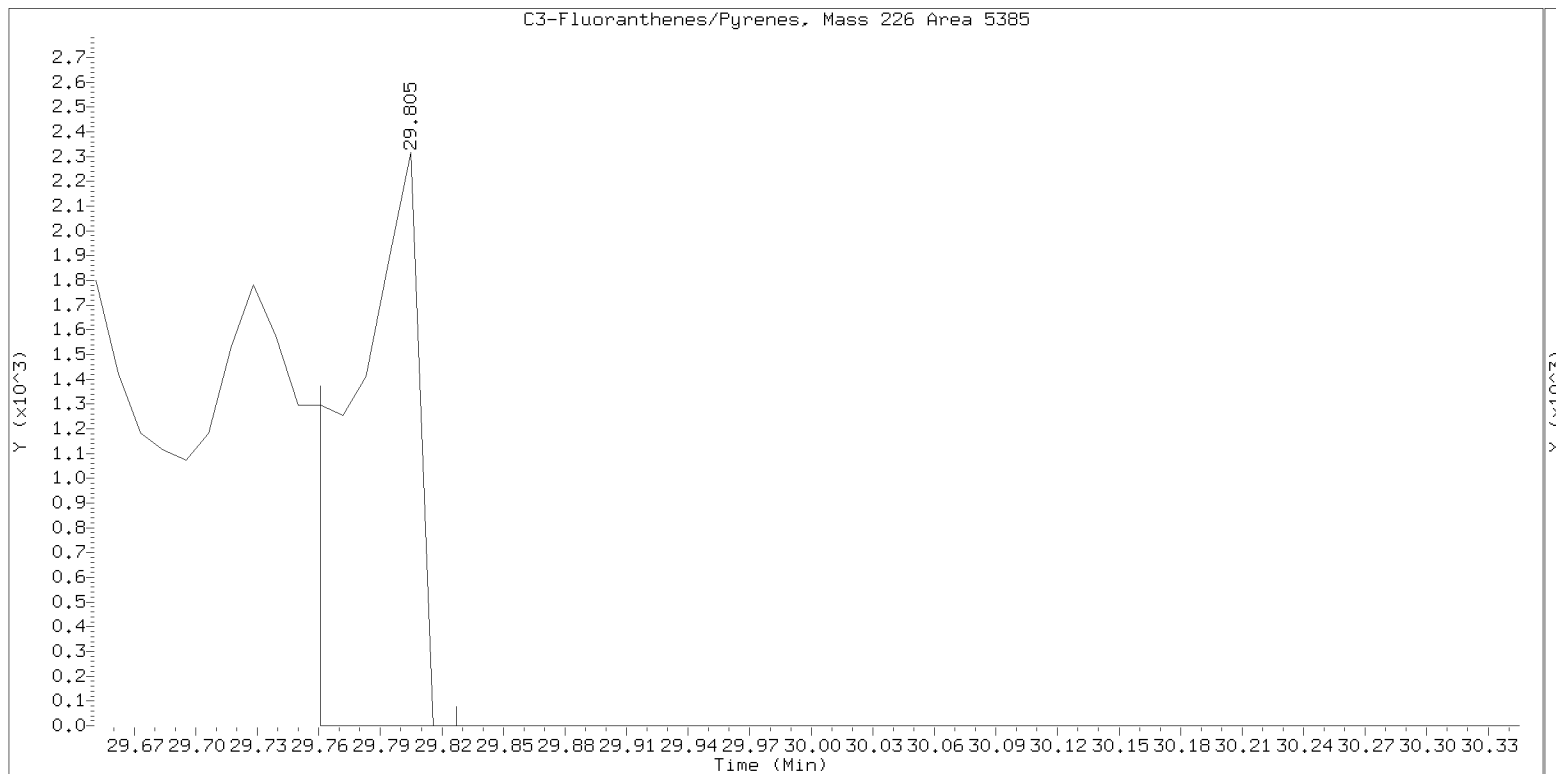
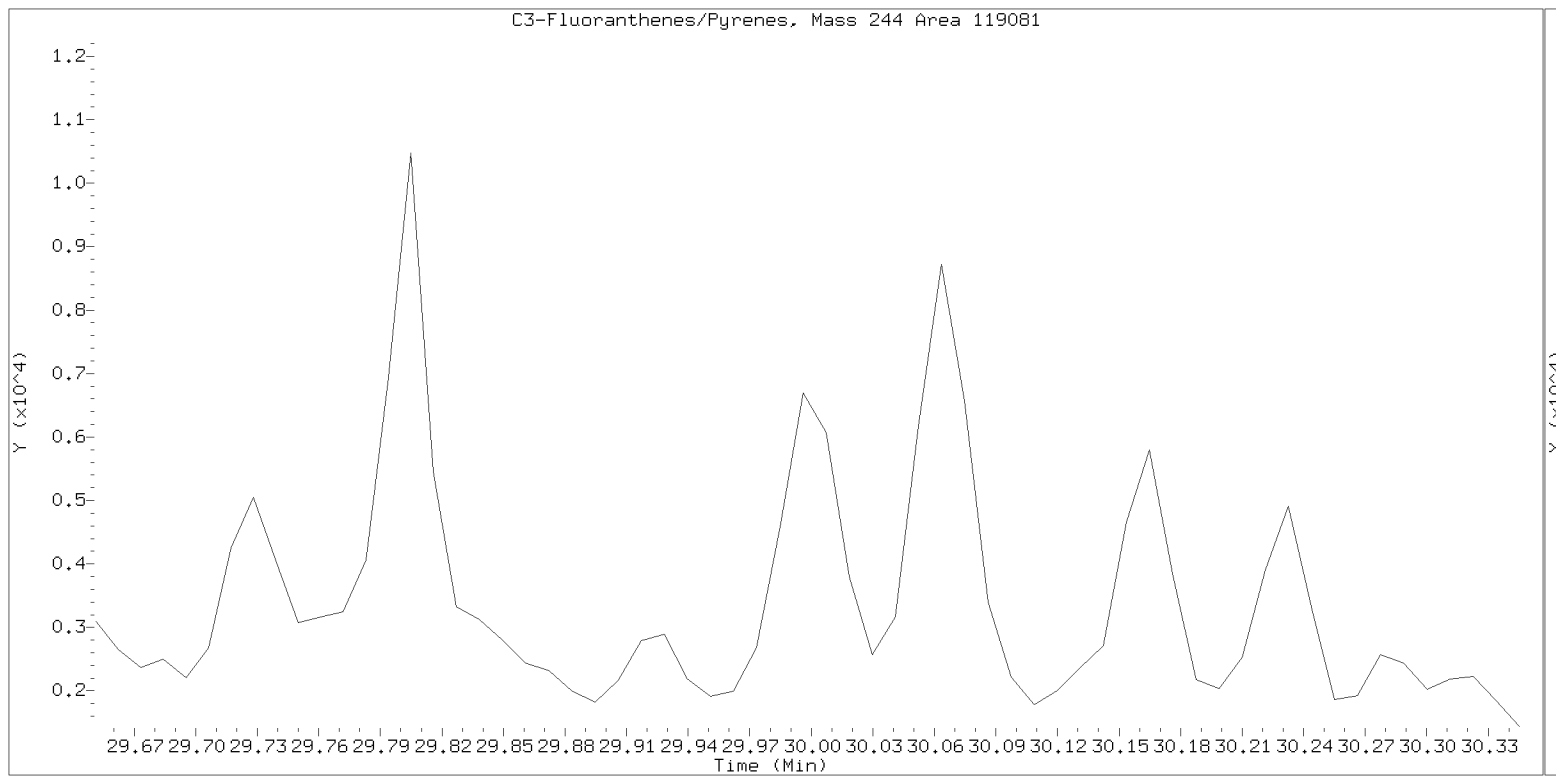
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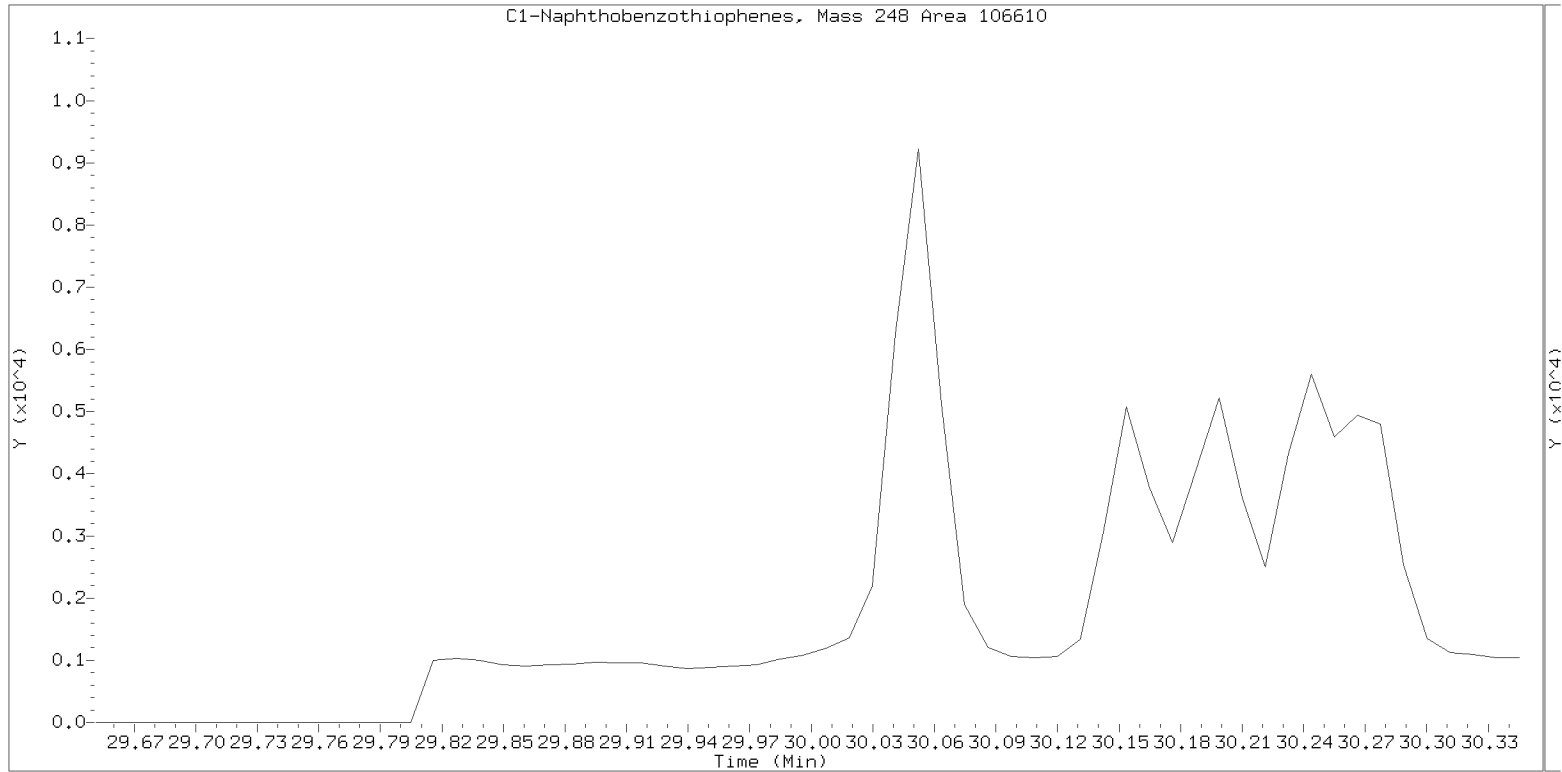
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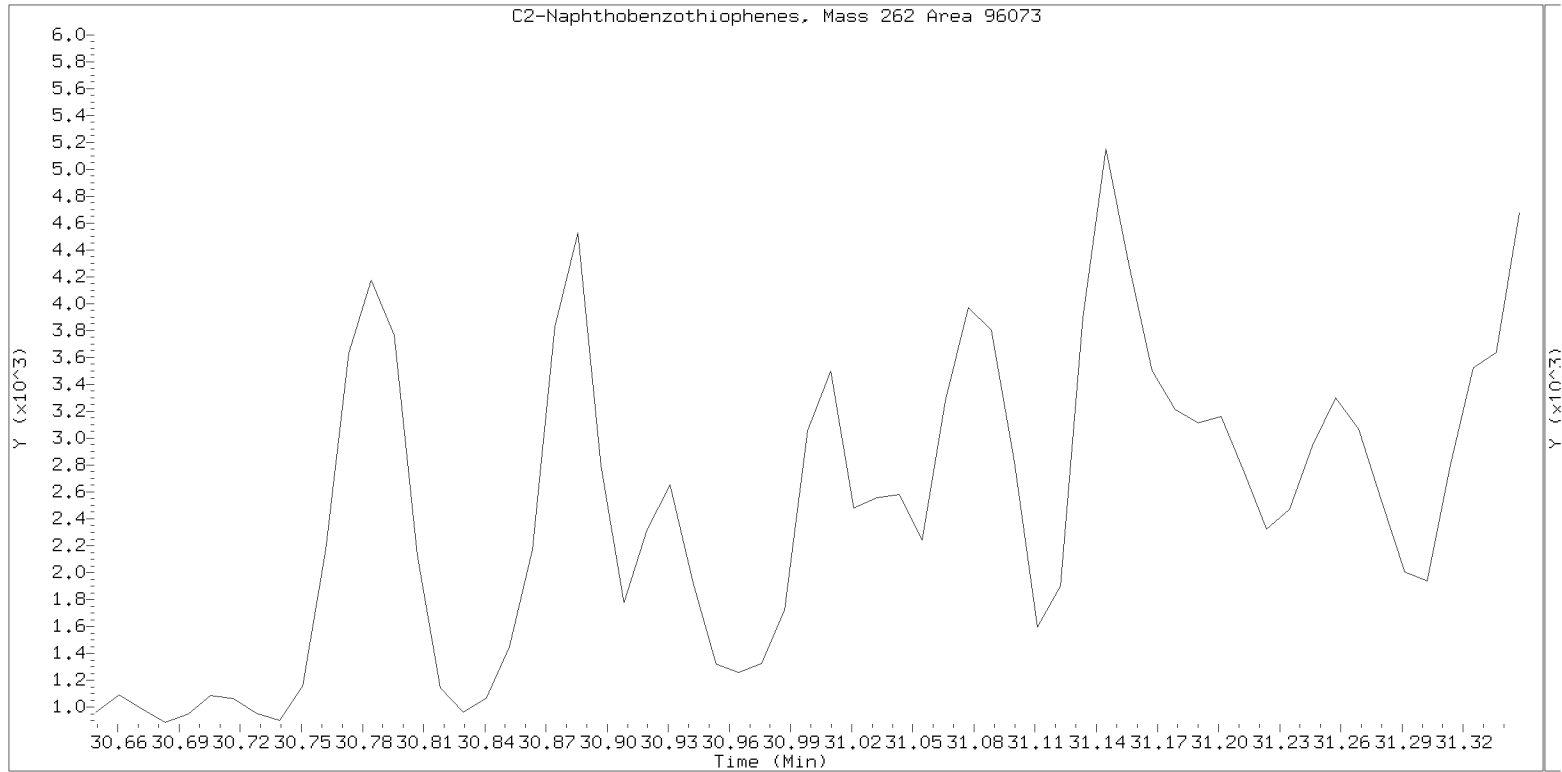
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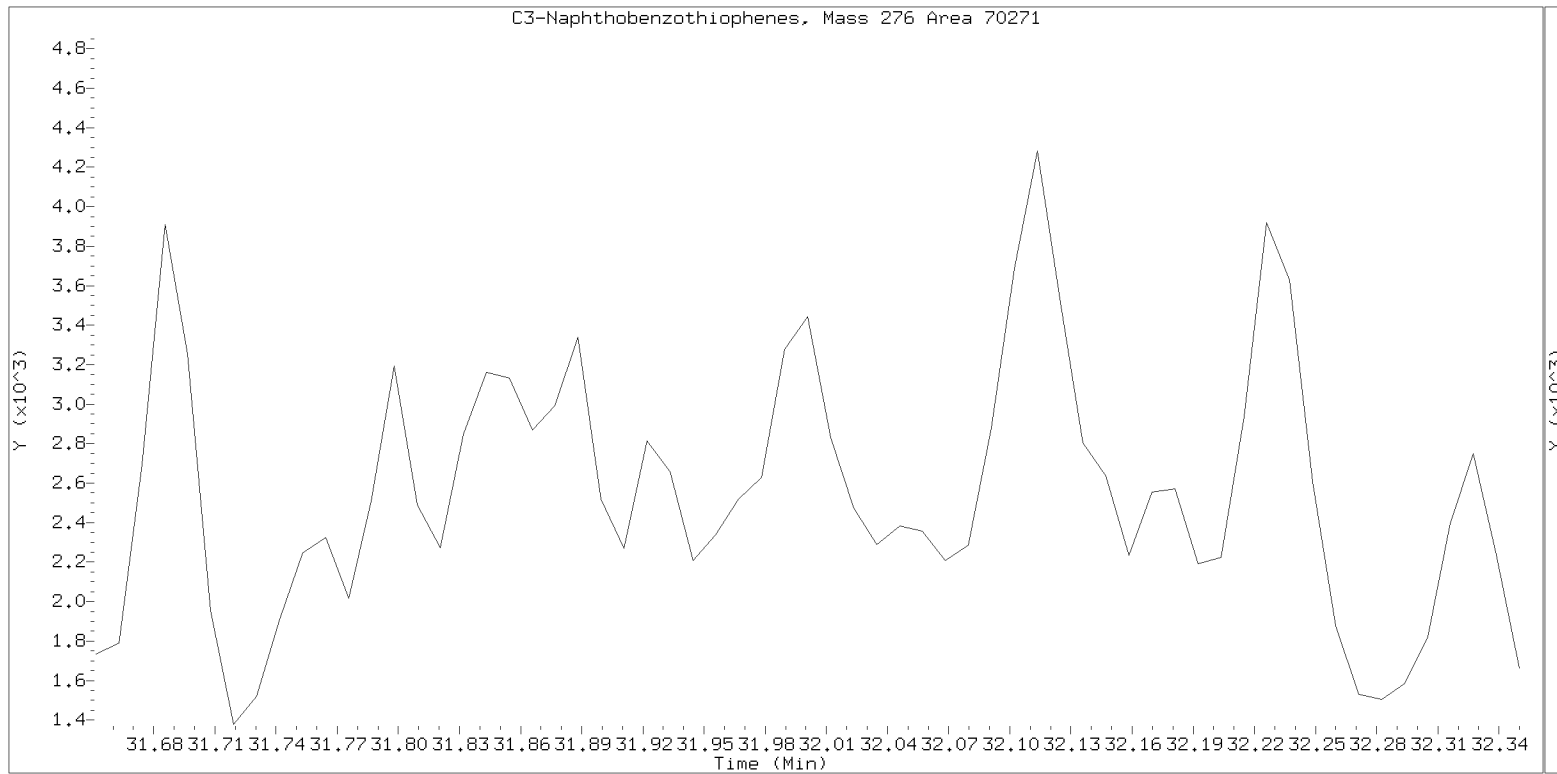
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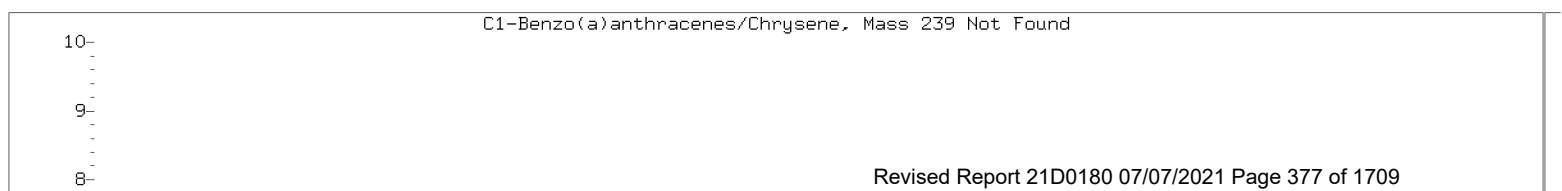
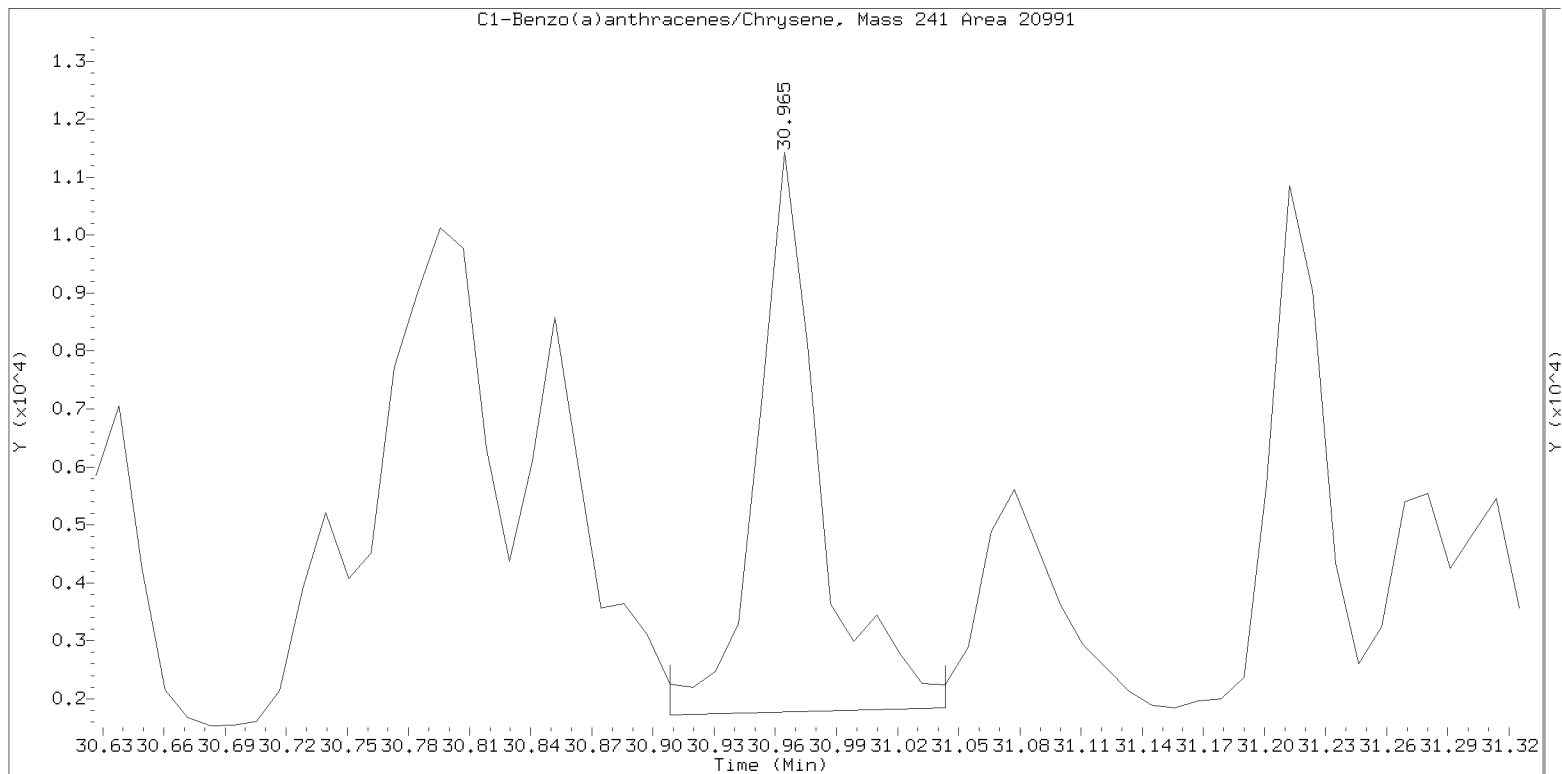
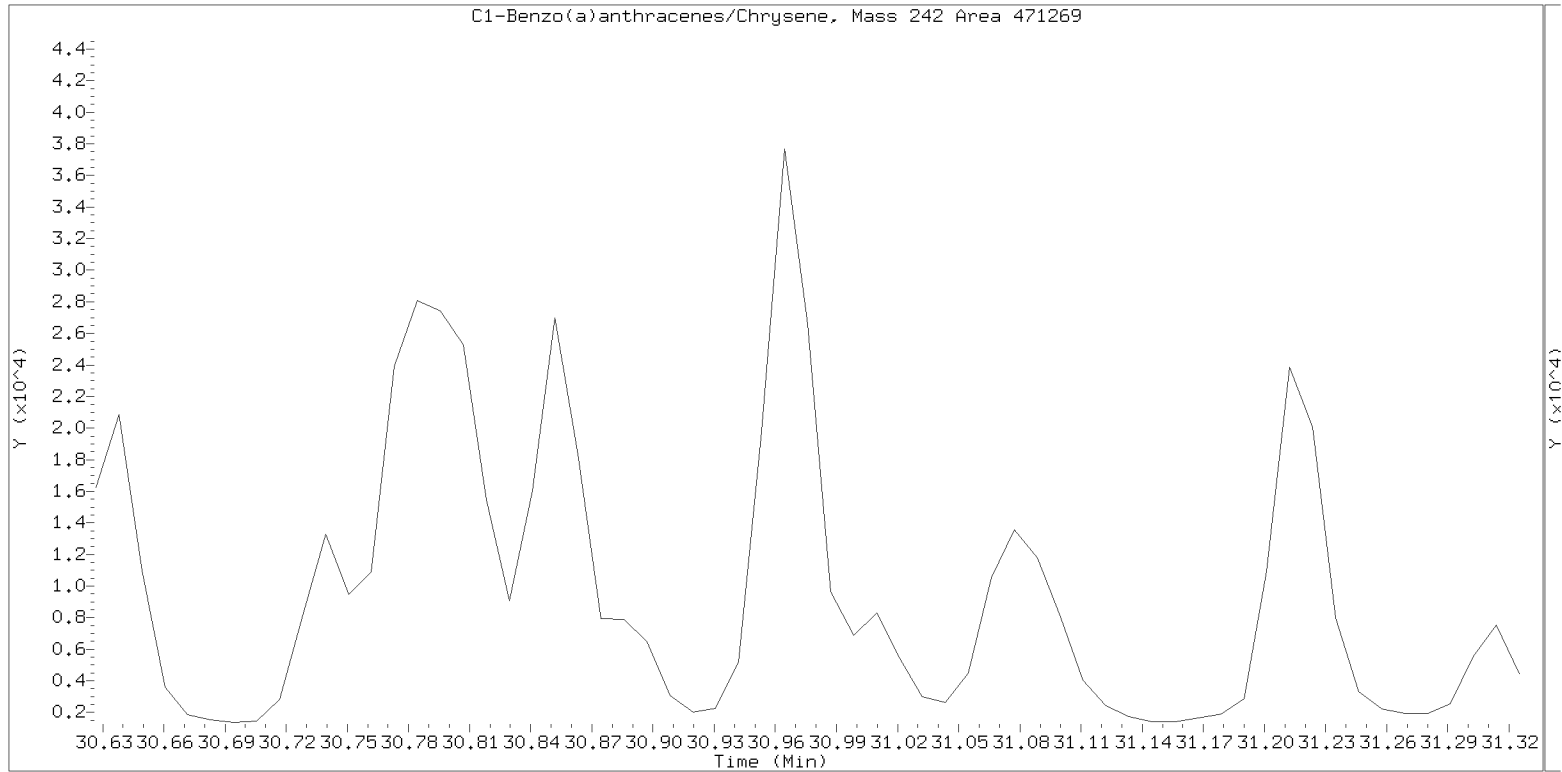
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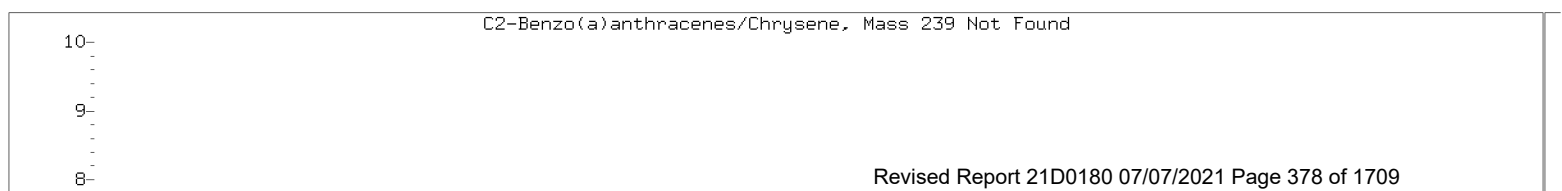
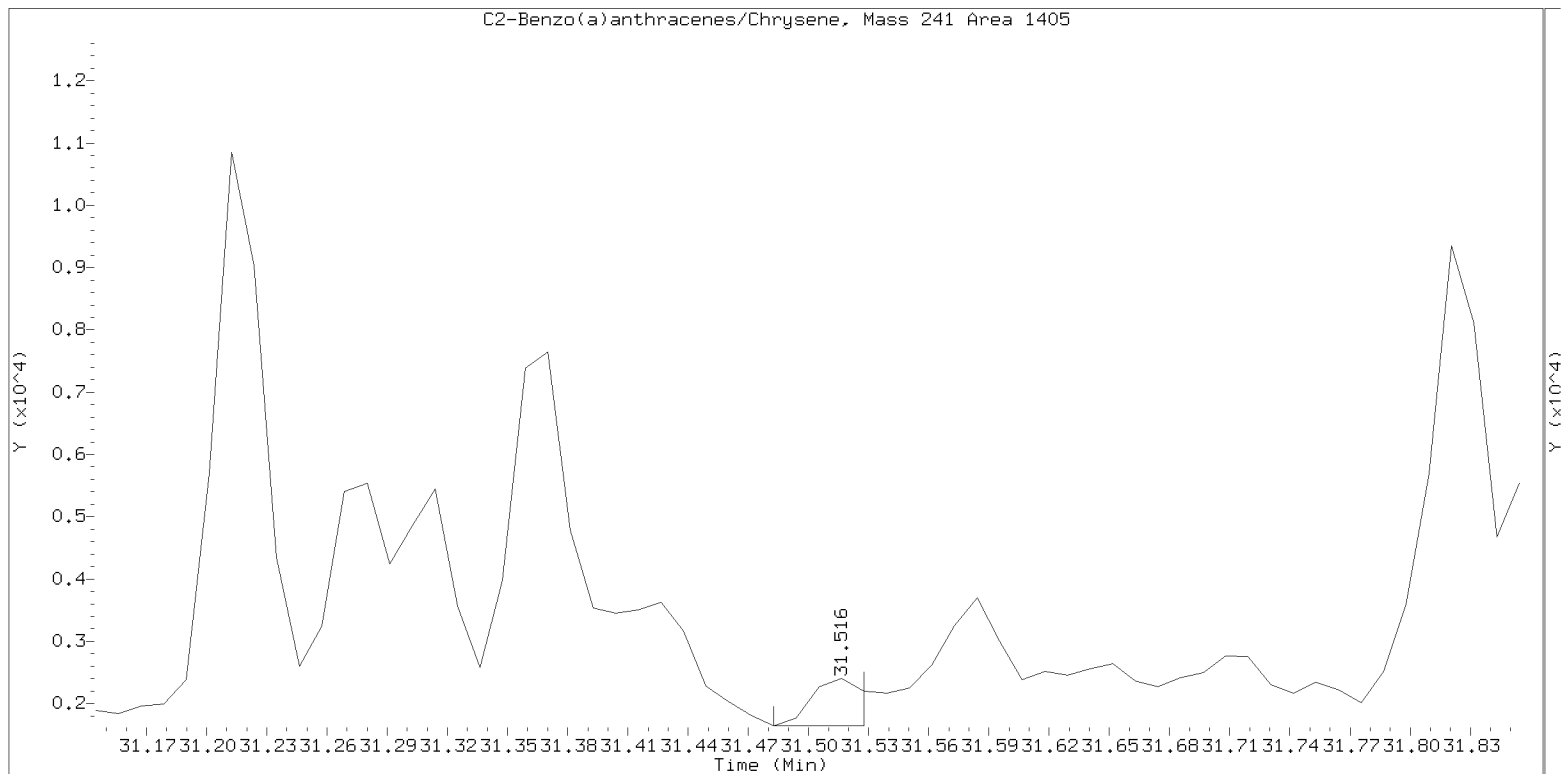
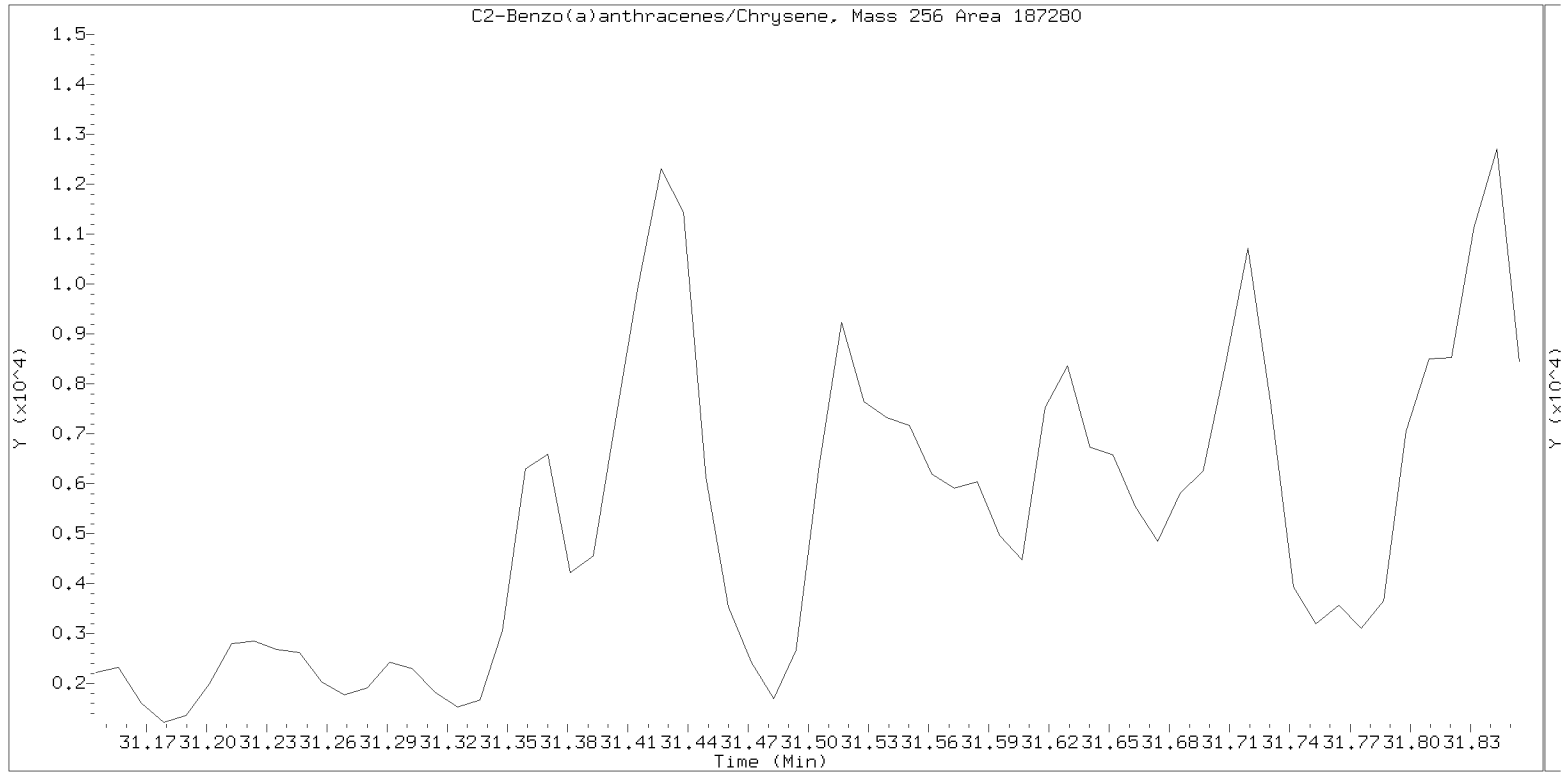
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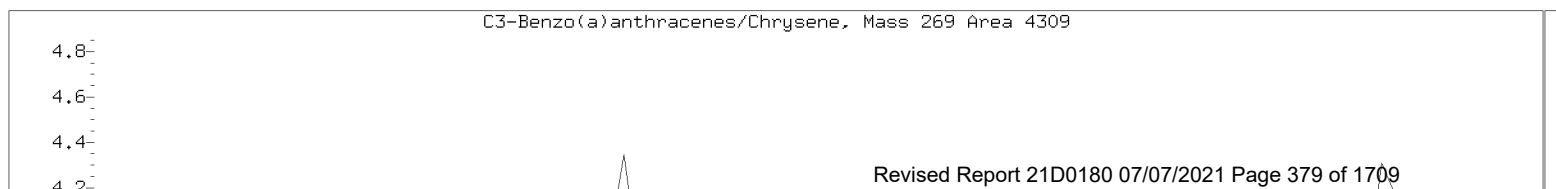
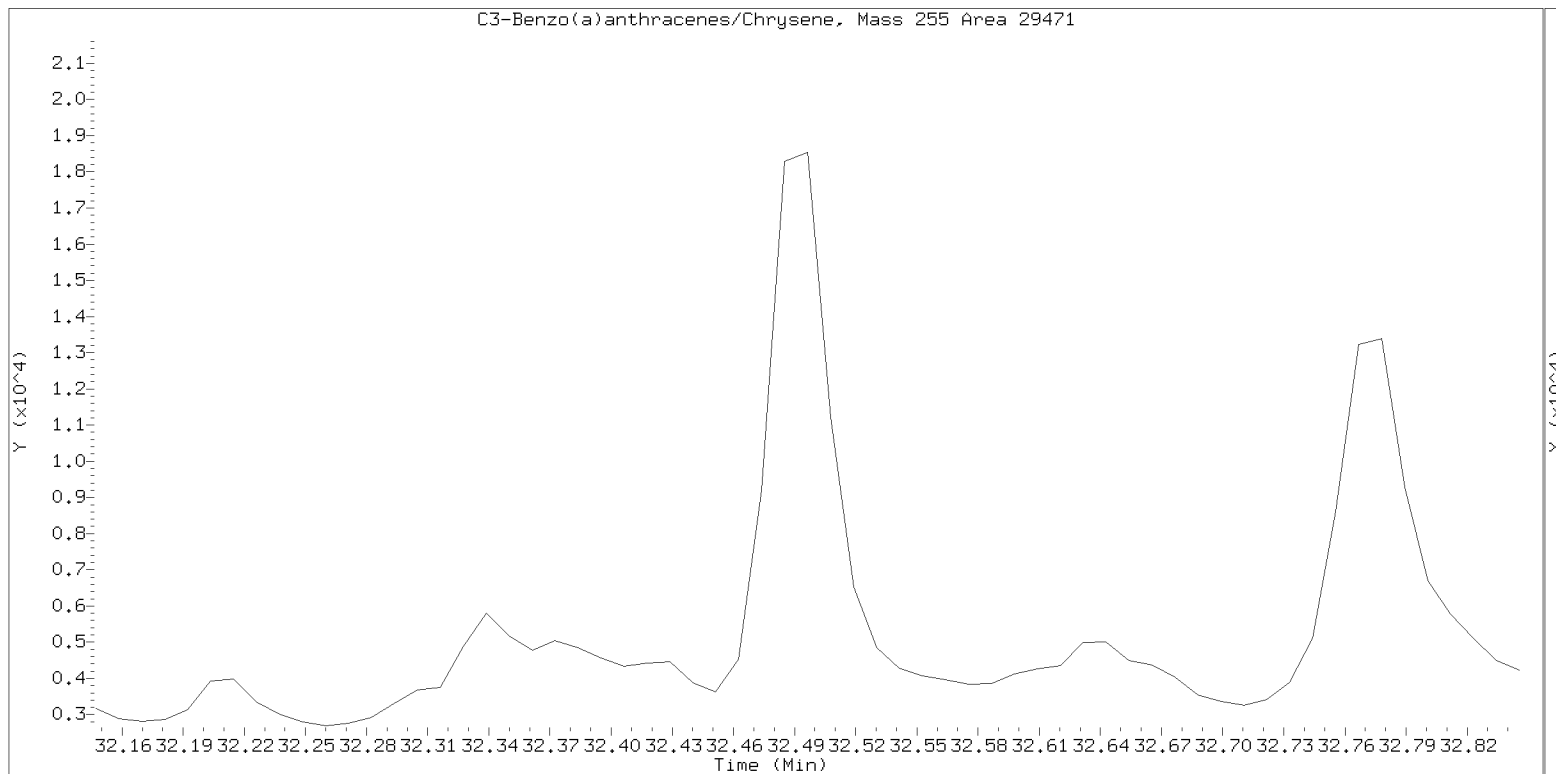
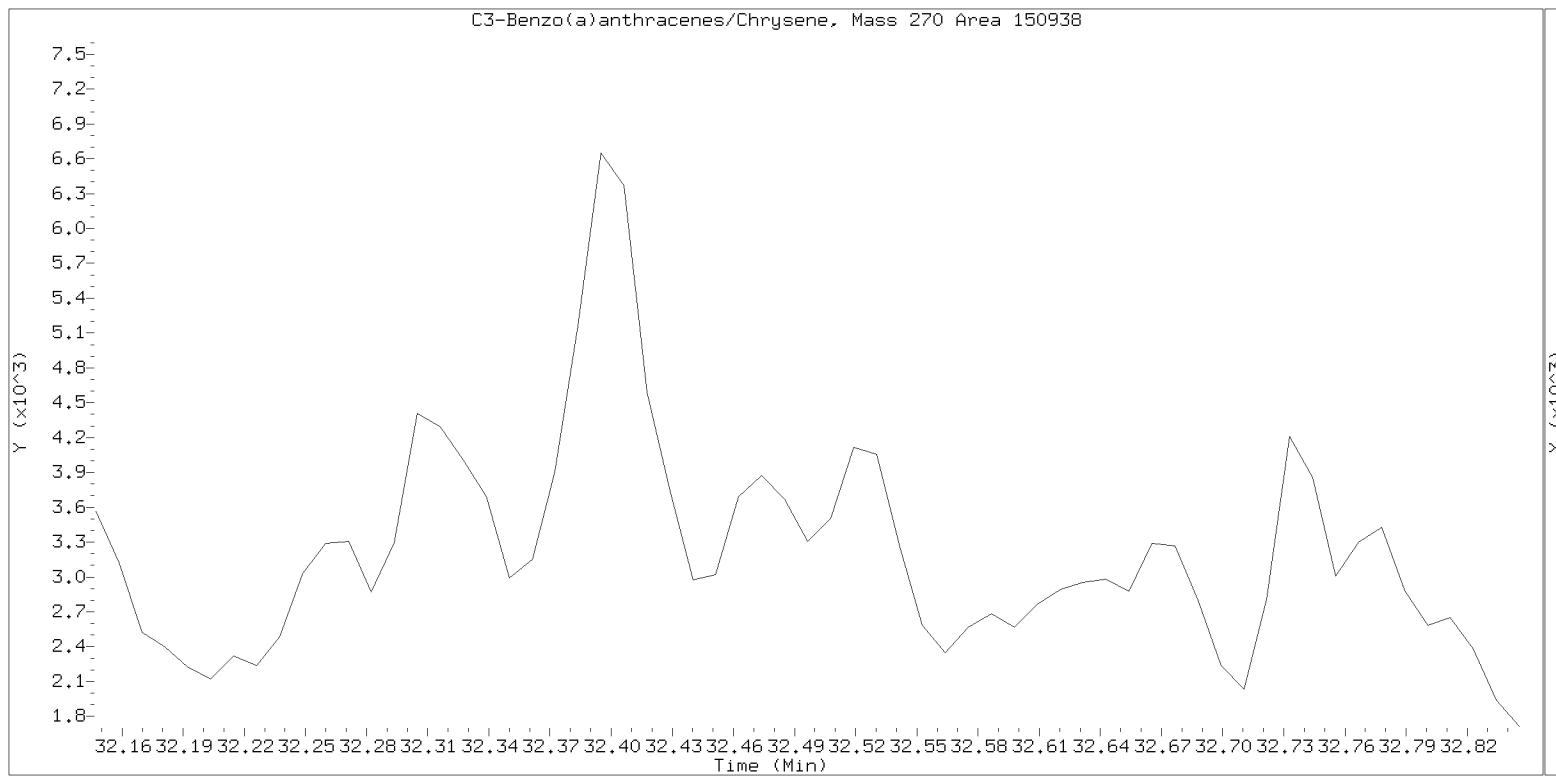
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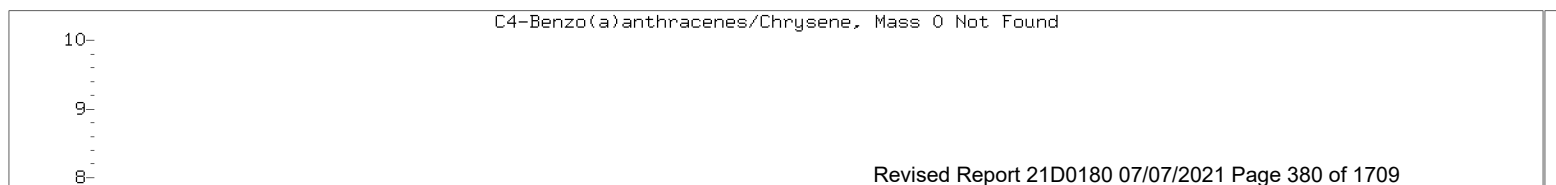
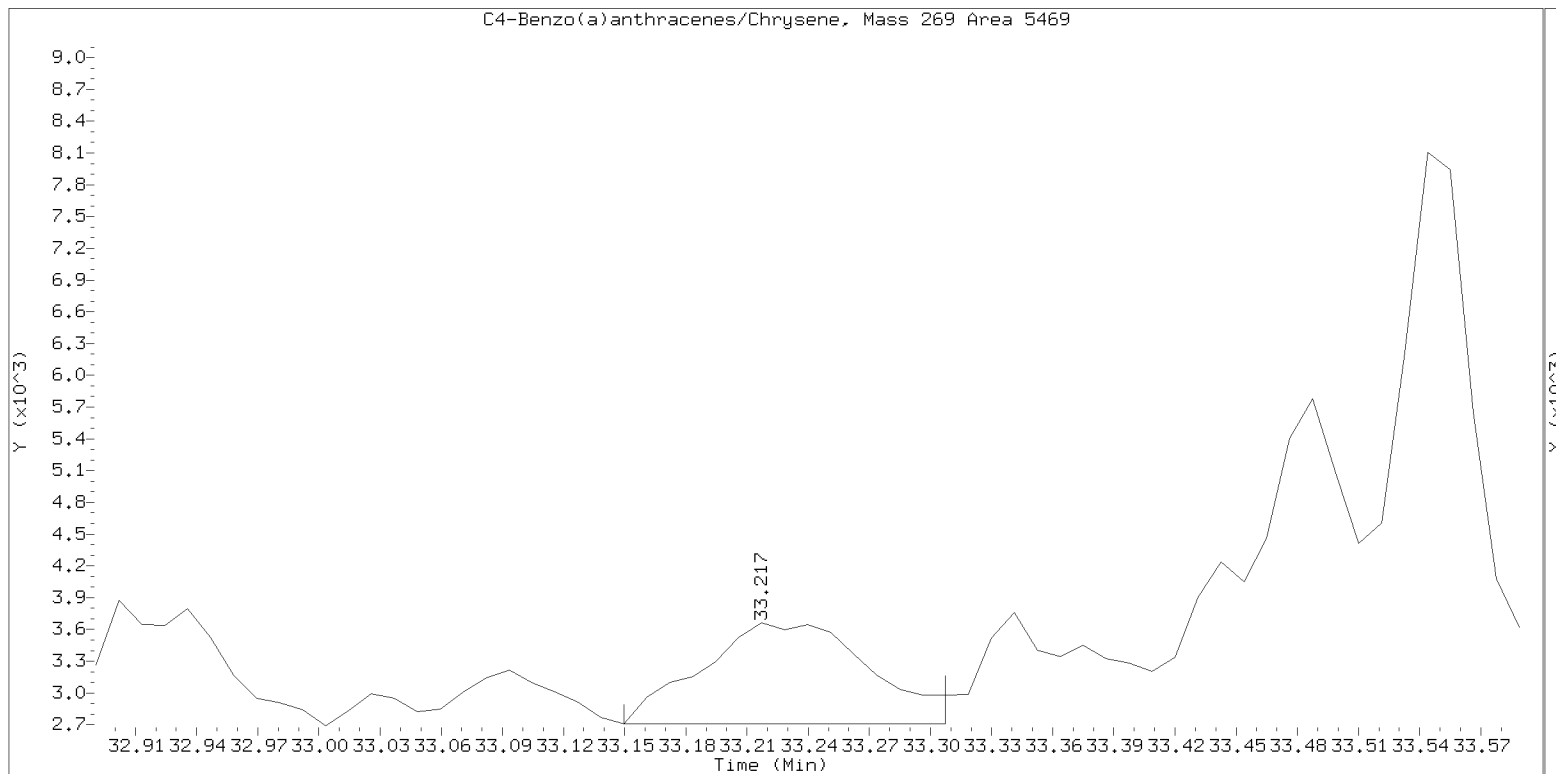
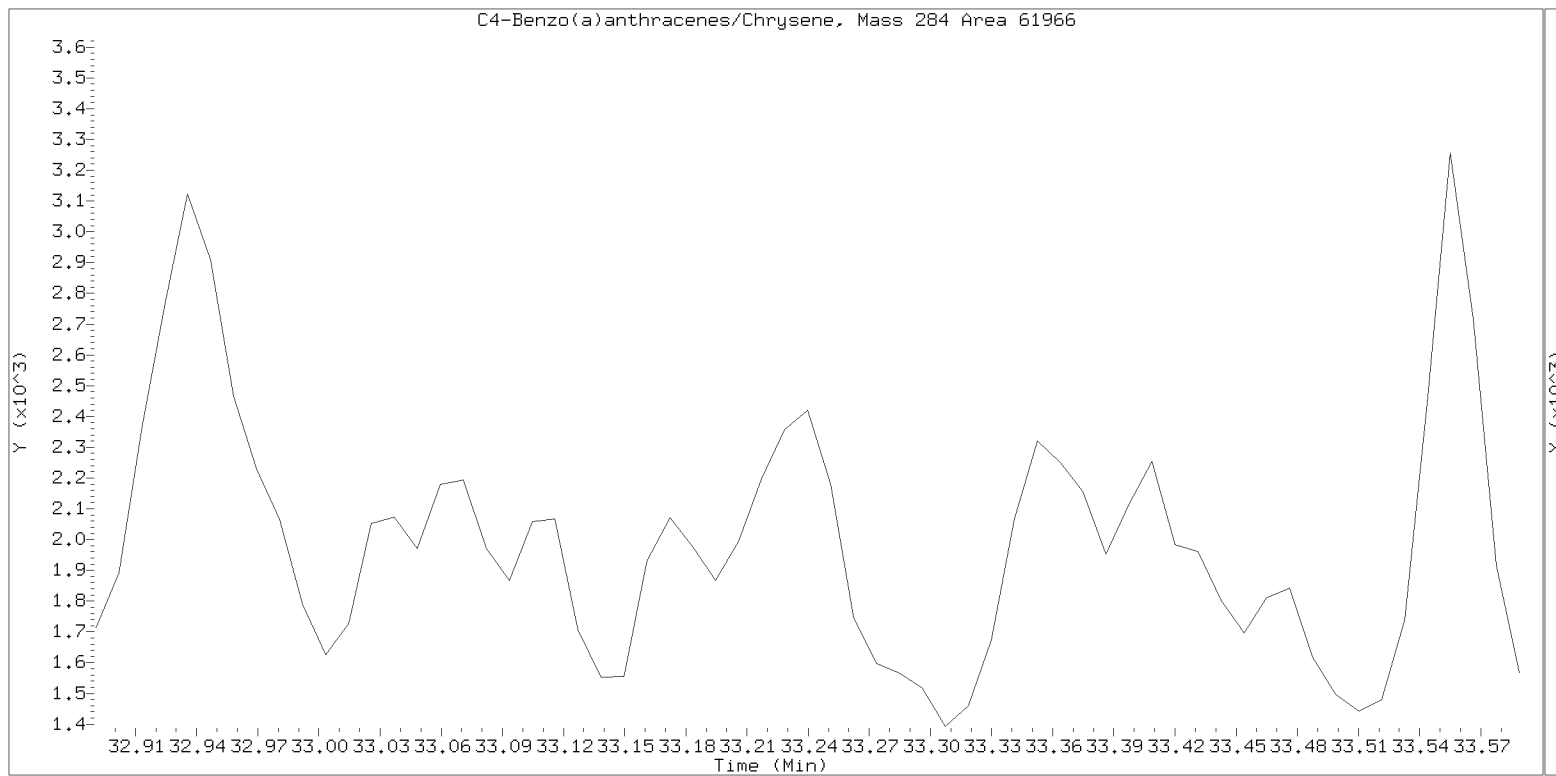
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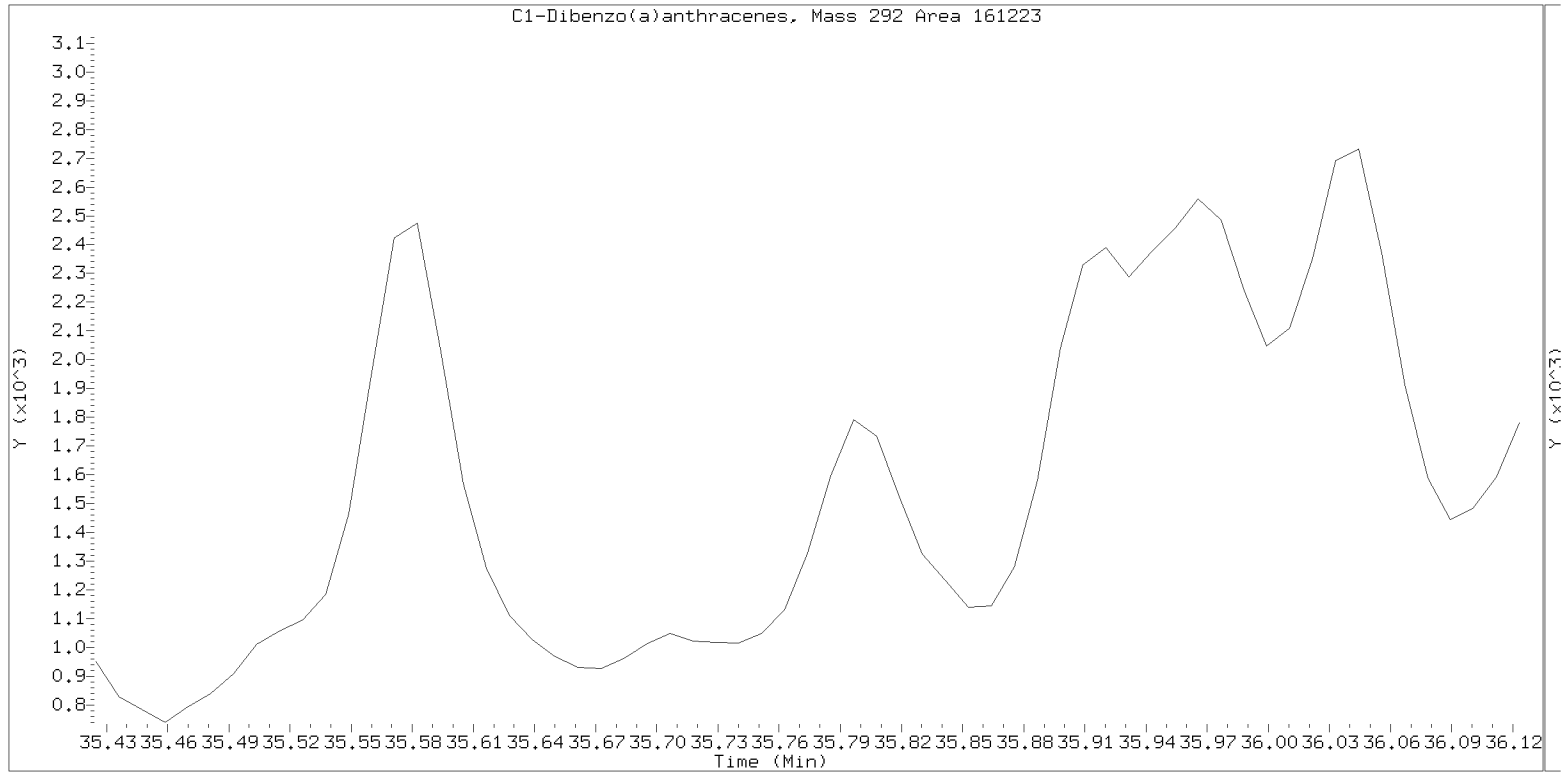
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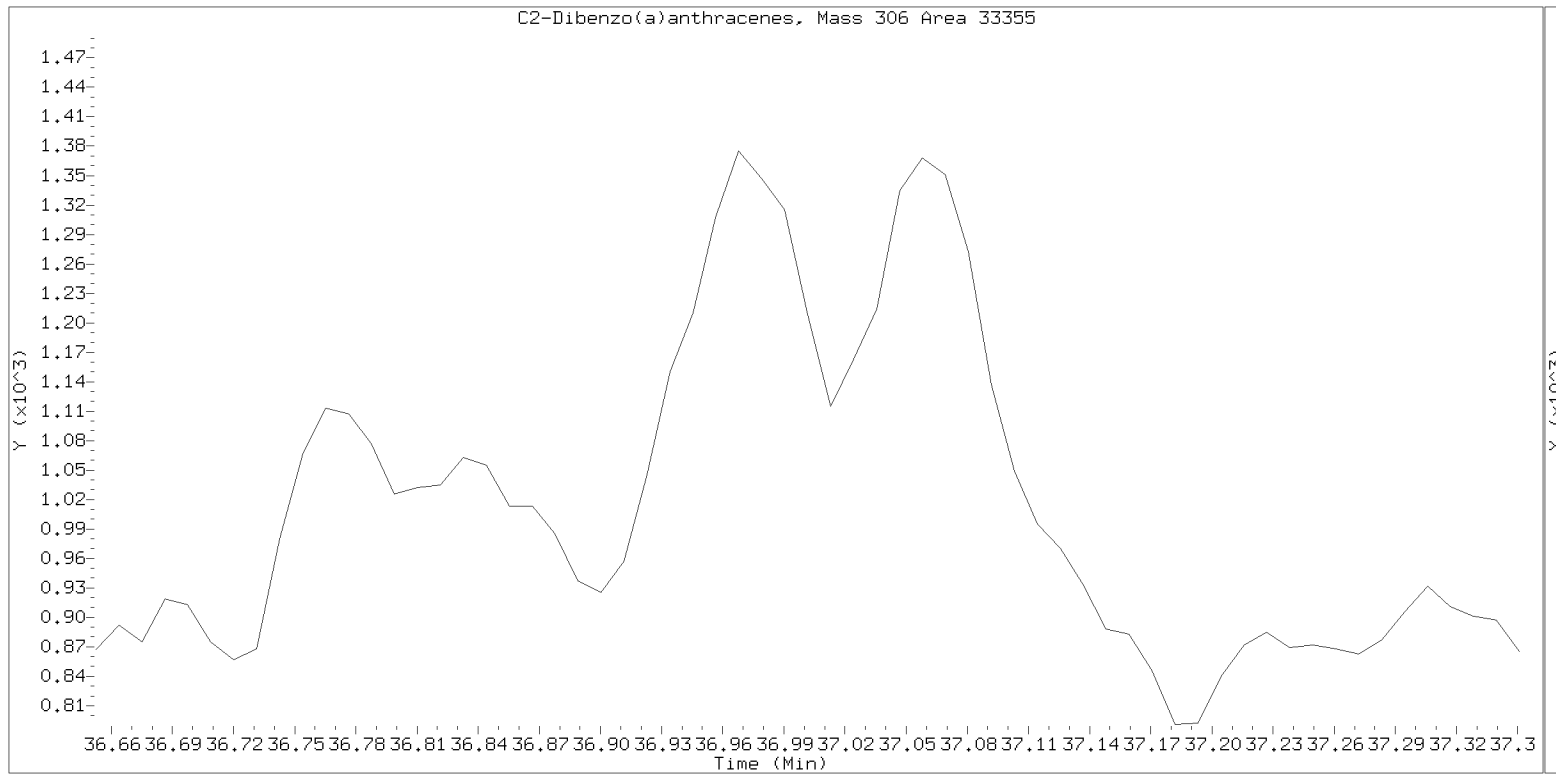
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nt14.i, SIM.b\ALKYLRANGES.m, 02-MAY-2021 10:49





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Alkyl PAH Parents

Laboratory: Analytical Resources, Inc.
Client: Anchor OEA, LLC
Project: Gasco Siltronic - US Moorings
Matrix: Sediment Laboratory ID: 21D0180-04 A SDG: 21D0180
Sampled: 04/14/21 09:22 Prepared: 04/22/21 11:05 File ID: NT1421050404.D
% Solids: 35.60 Preparation: EPA 3546 (Microwave) Analyzed: 05/04/21 15:19
Batch: BJD0507 Sequence: SJE0028 Initial/Final: 28.11 g Wet / 0.5 mL
Instrument: NT14 Column: ZB-5MS Calibration: EE00001
Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
493-02-7	trans-Decalin	1	5.0	U	0.03	5.0
493-01-6	cis-Decalin	1	5.0	U	0.5	5.0
91-20-3	Naphthalene	1	14.0		0.4	5.0
90-12-0	1-Methylnaphthalene	1	4.5	J	0.4	5.0
91-57-6	2-Methylnaphthalene	1	5.8		0.4	5.0
92-52-4	Biphenyl	1	3.6	J	0.3	5.0
581-42-0	2,6-Dimethylnaphthalene	1	1.8	J	0.4	5.0
208-96-8	Acenaphthylene	1	4.7	J	0.3	5.0
83-32-9	Acenaphthene	1	10.2		0.5	5.0
132-64-9	Dibenzofuran	1	3.5	J	0.4	5.0
2245-38-7	2,3,5-Trimethylnaphthalene	1	2.3	J	0.4	5.0
86-73-7	Fluorene	1	7.7		0.5	5.0
95-15-8	Benzo(b)thiophene	1	1.1	J	0.4	5.0
85-01-8	Phenanthrene	1	53.6		0.9	5.0
120-12-7	Anthracene	1	14.1		0.05	5.0
86-74-8	Carbazole	1	3.5	J	0.7	5.0
832-69-9	1-Methylphenanthrene	1	7.8		0.5	5.0
206-44-0	Fluoranthene	1	108		1.4	5.0
132-65-0	Dibenzothiophene	1	6.7	Q	0.7	5.0
129-00-0	Pyrene	1	126		1.0	5.0
56-55-3	Benzo(a)anthracene	1	44.9		1.4	5.0
218-01-9	Chrysene	1	58.5		0.7	5.0
205-99-2	Benzo(b)fluoranthene	1	46.0		0.8	5.0
205-82-3	Benzo(j)fluoranthene	1	25.1		0.7	5.0
207-08-9	Benzo(k)fluoranthene	1	24.6		0.8	5.0
197-97-2	Benzo(e)pyrene	1	46.1		0.6	5.0
50-32-8	Benzo(a)pyrene	1	65.6		1.0	5.0
193-39-5	Indeno(1,2,3-cd)pyrene	1	41.3		0.4	5.0
53-70-3	Dibenzo(a,h)anthracene	1	6.8		0.7	5.0
191-24-2	Benzo(g,h,i)perylene	1	65.5		0.5	5.0



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ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Alkyl PAH Parents

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 Client: Anchor OEA, LLC
 Project: Gasco Siltronic - US Moorings
 Matrix: Sediment Laboratory ID: 21D0180-04 A SDG: 21D0180
 Sampled: 04/14/21 09:22 Prepared: 04/22/21 11:05 File ID: NT1421050404.D
 % Solids: 35.60 Preparation: EPA 3546 (Microwave) Analyzed: 05/04/21 15:19
 Batch: BJD0507 Sequence: SJE0028 Initial/Final: 28.11 g Wet / 0.5 mL
 Instrument: NT14 Column: ZB-5MS Calibration: EE00001
 Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
1985-5-0	Perylene	1	34.0		0.4	5.0
239-35-0	Benzo(b)naphtho(2,1-d)thiophene	1	8.7		5.0	5.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
Naphthalene-d8	149.89	94.3	62.9	30 - 160	
Acenaphthene-d10	149.89	107	71.5	30 - 160	
Phenanthrene-d10	149.89	100	66.8	30 - 160	
Chrysene-d12	149.89	102	68.0	30 - 160	
Perylene-d12	149.89	107	71.2	30 - 160	

Data File: \\target\share\chem3\nt14,1\20210504,1\NT1421050404.D

Date : 04-May-2021 15:19

Client ID:

Sample Info: 21D0180-04

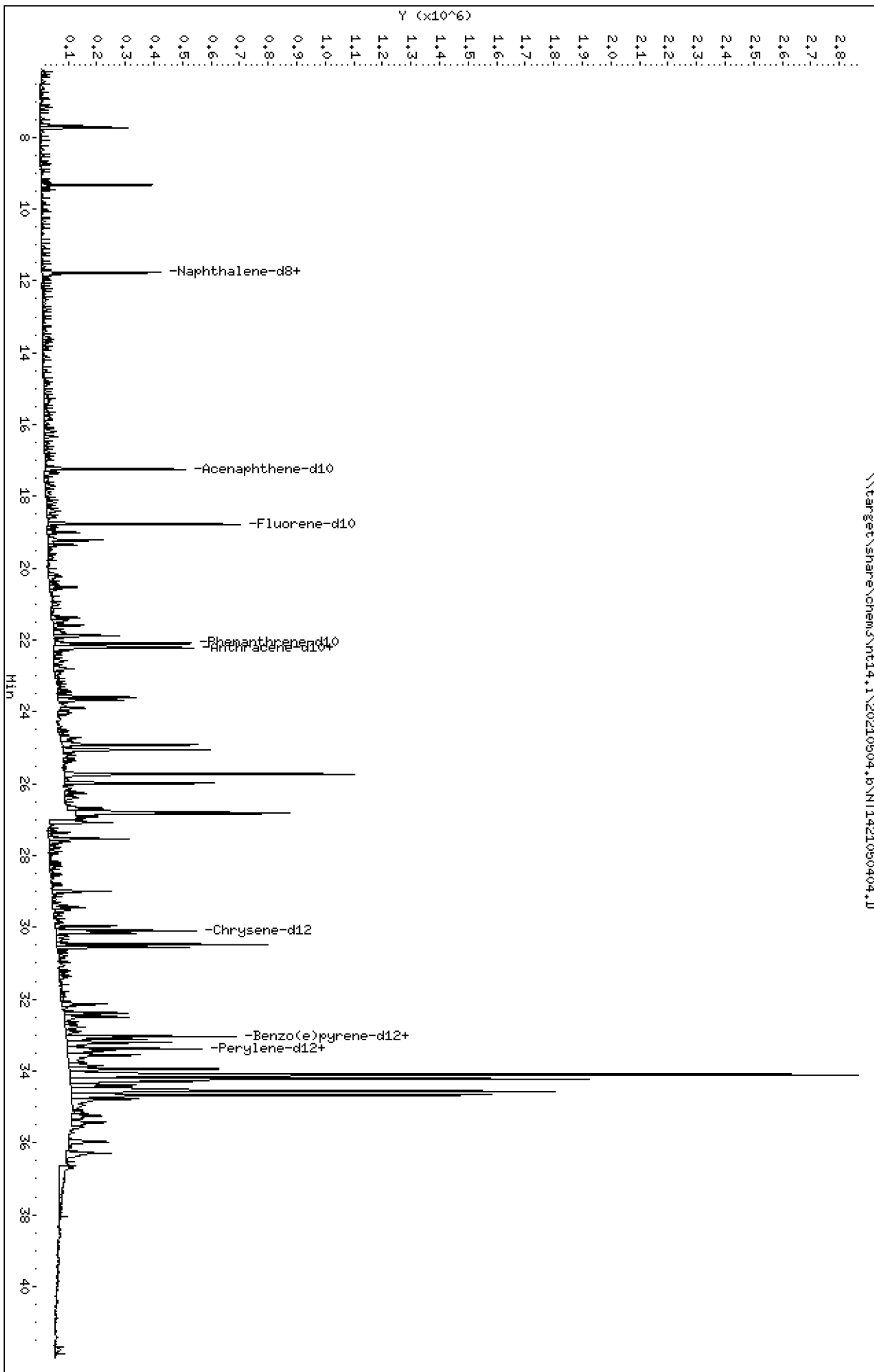
Column phase: Rxi-17S11 MS

Instrument: nt14,1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14,1\20210504,1\NT1421050404.D



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

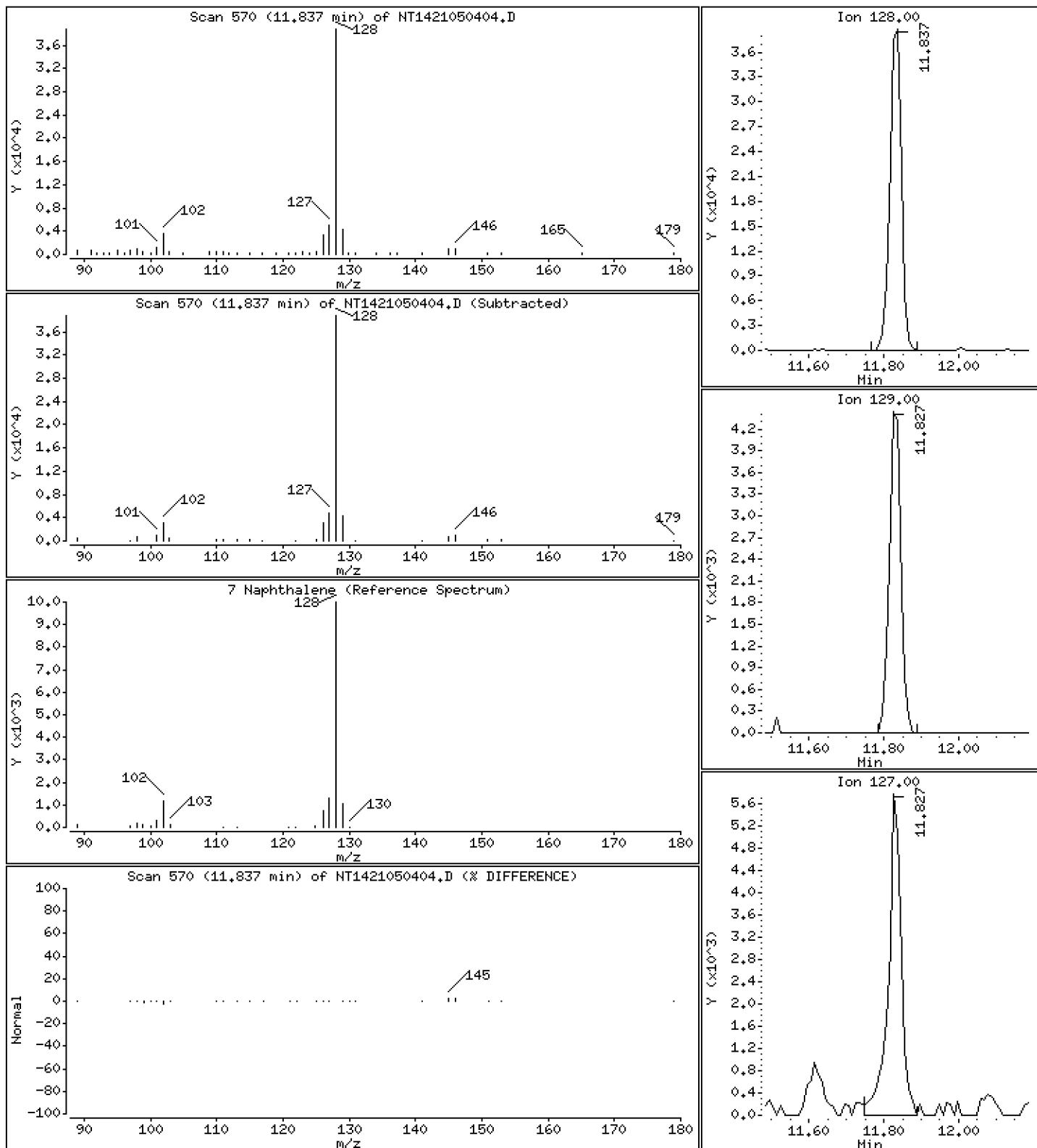
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

7 Naphthalene

Concentration: 0.2800 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

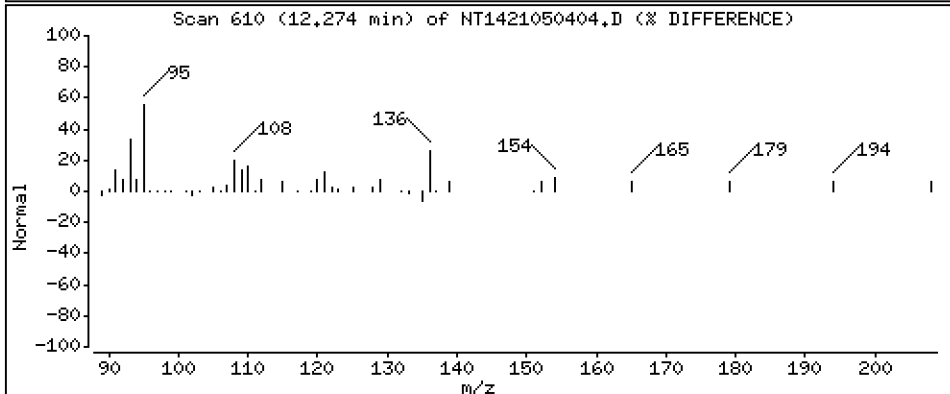
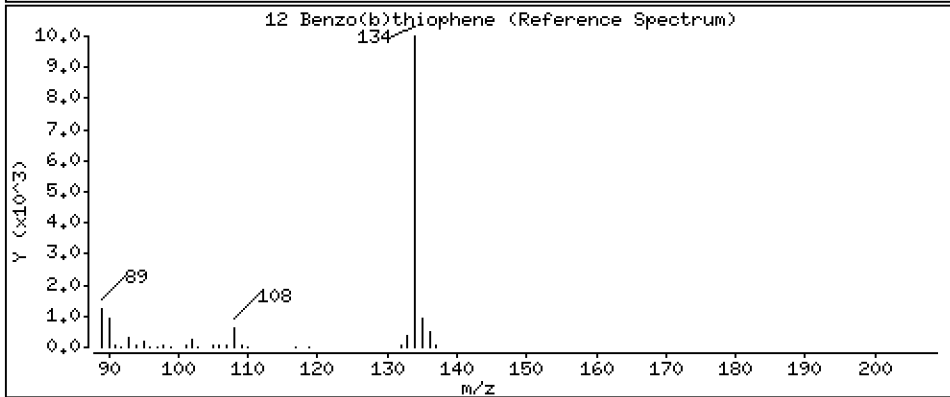
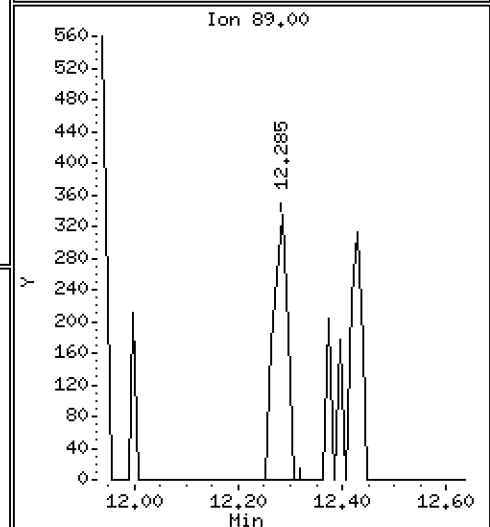
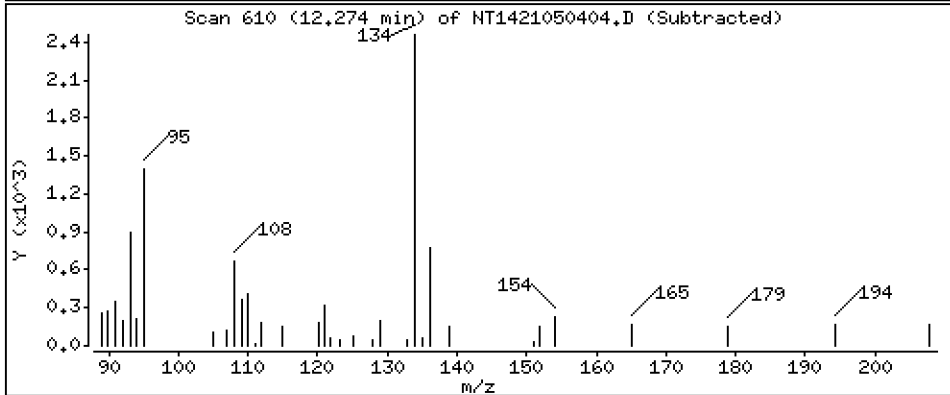
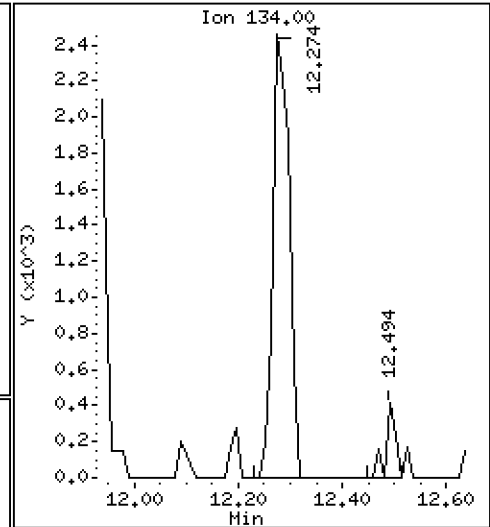
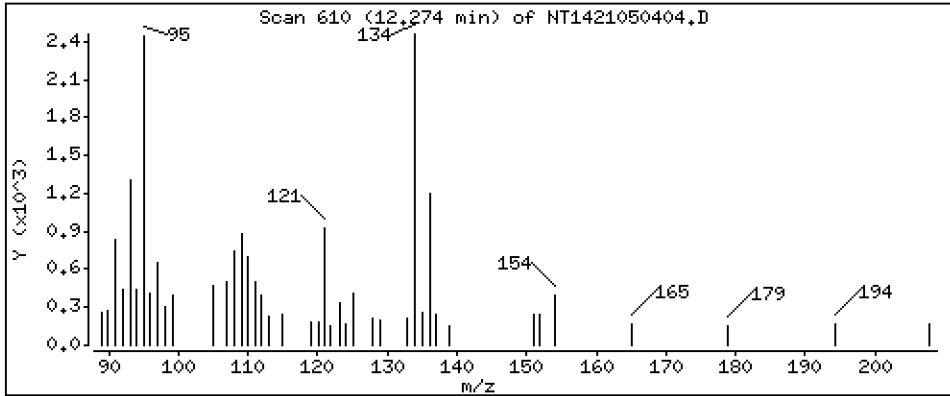
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

12 Benzo(b)thiophene

Concentration: 0,02235 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

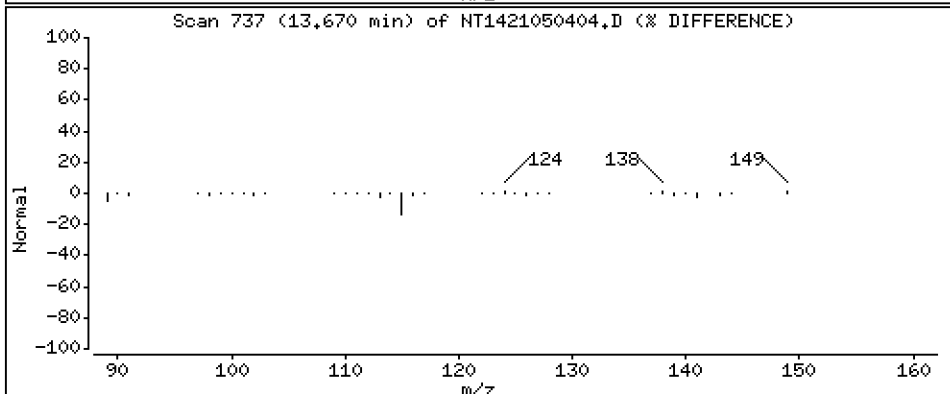
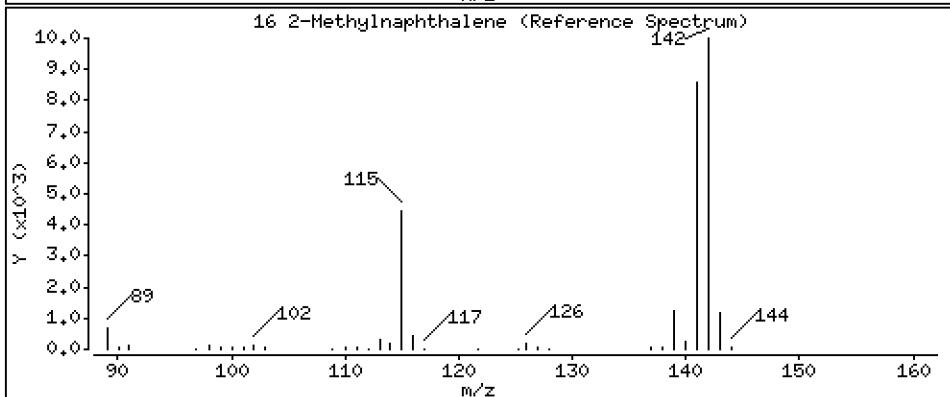
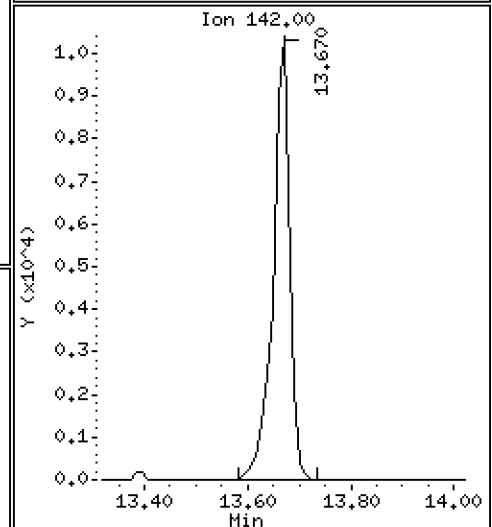
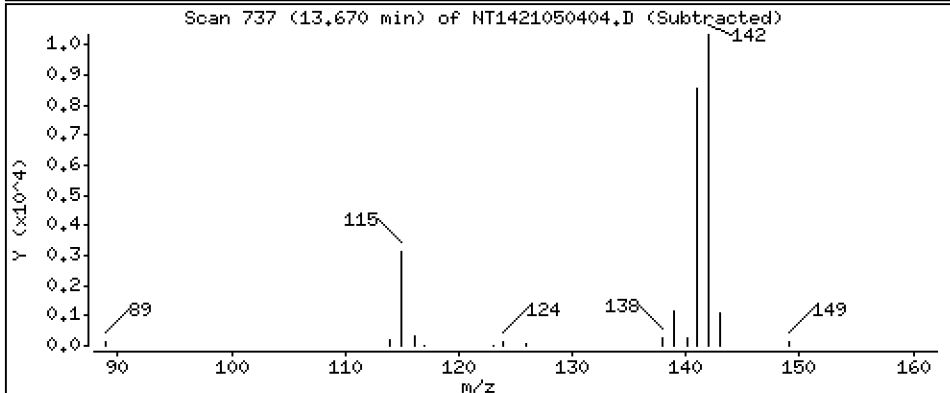
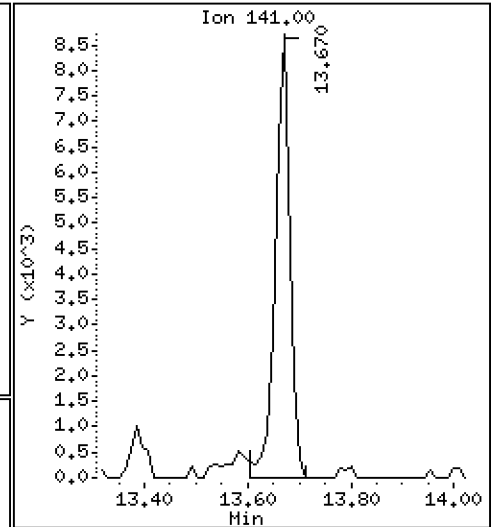
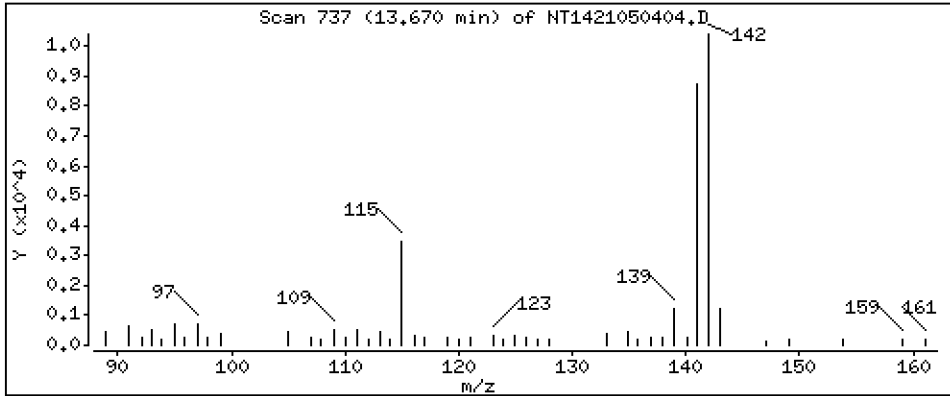
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 2-Methylnaphthalene

Concentration: 0,1151 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

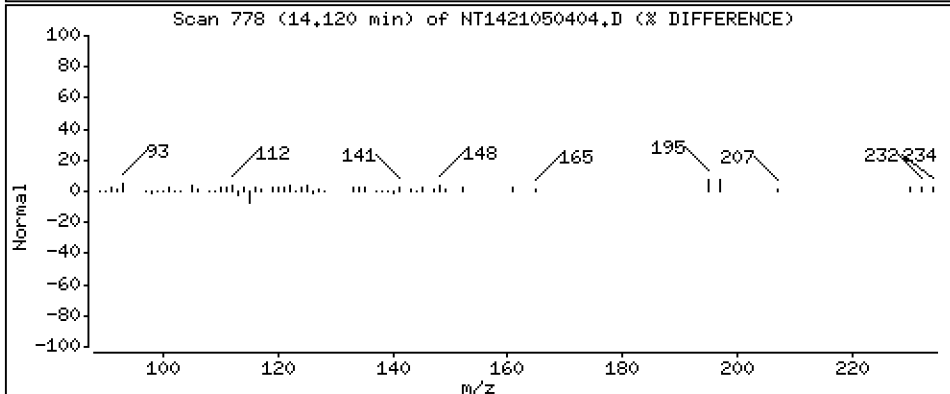
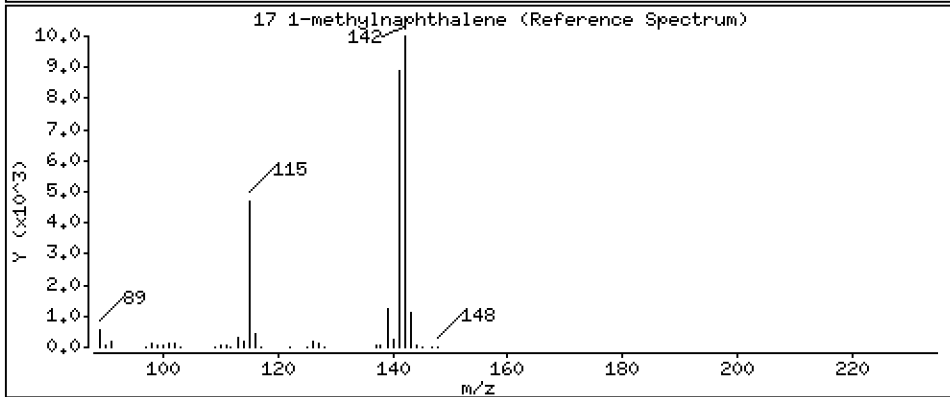
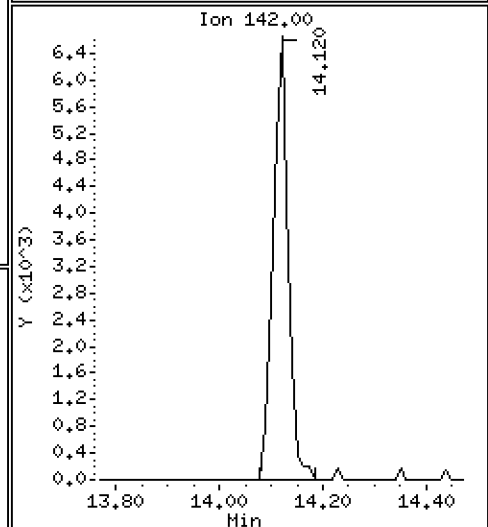
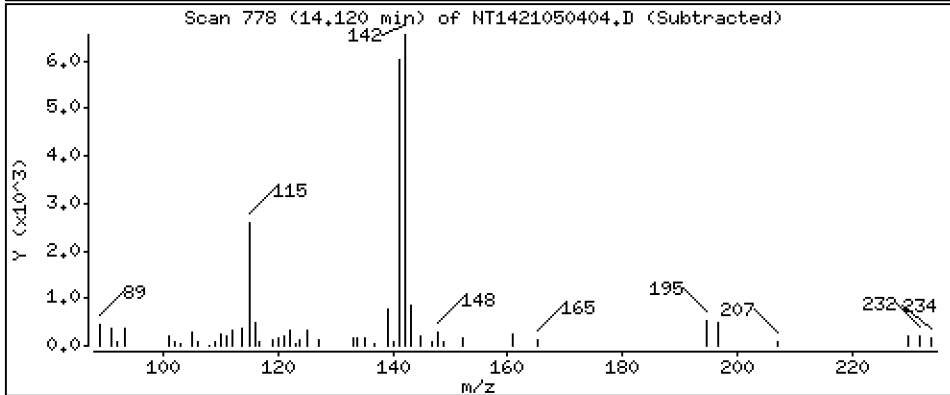
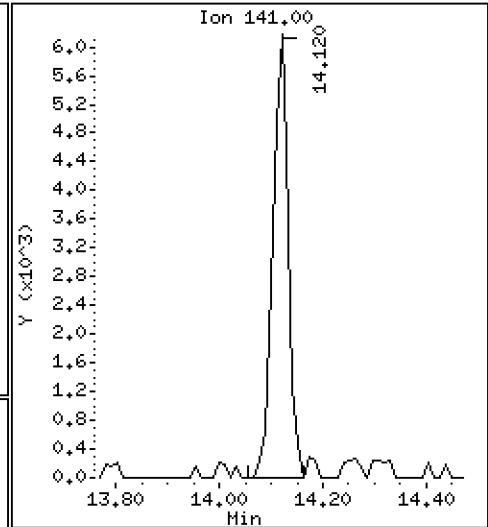
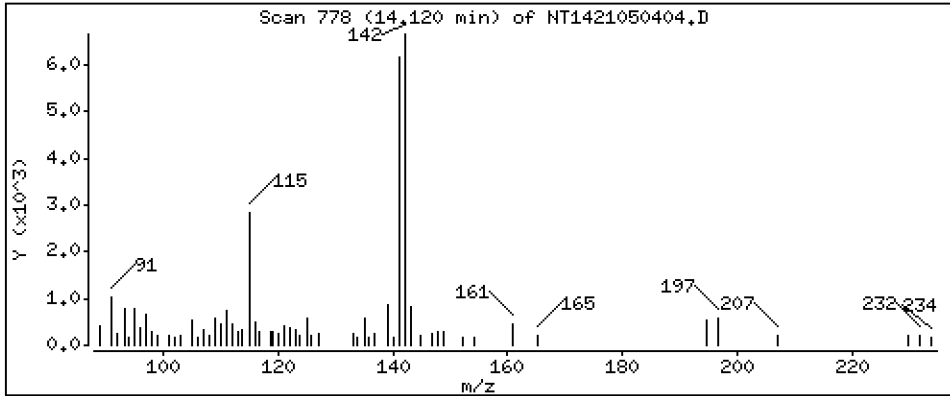
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 1-methylnaphthalene

Concentration: 0,09054 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

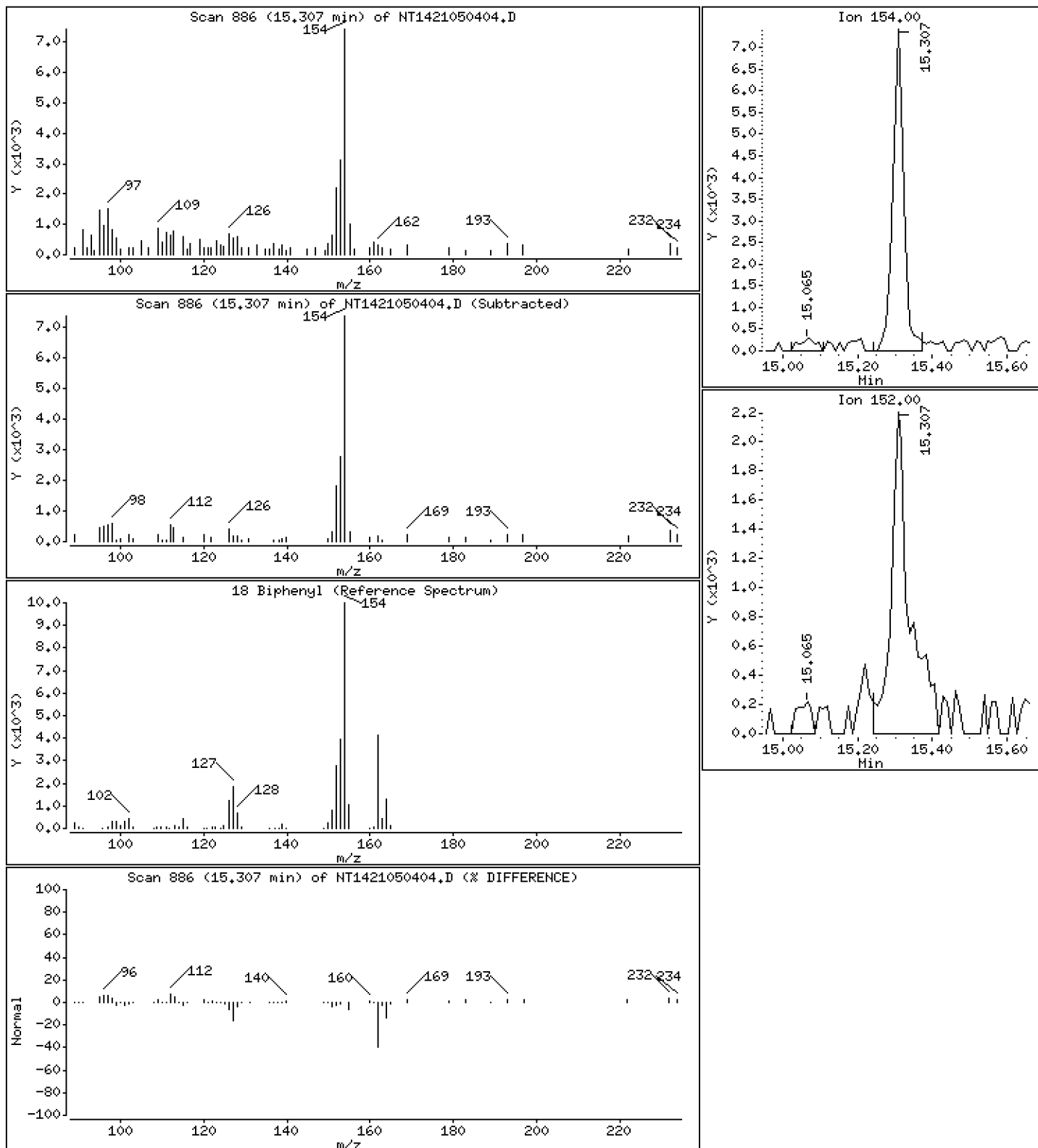
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

18 Biphenyl

Concentration: 0,07114 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

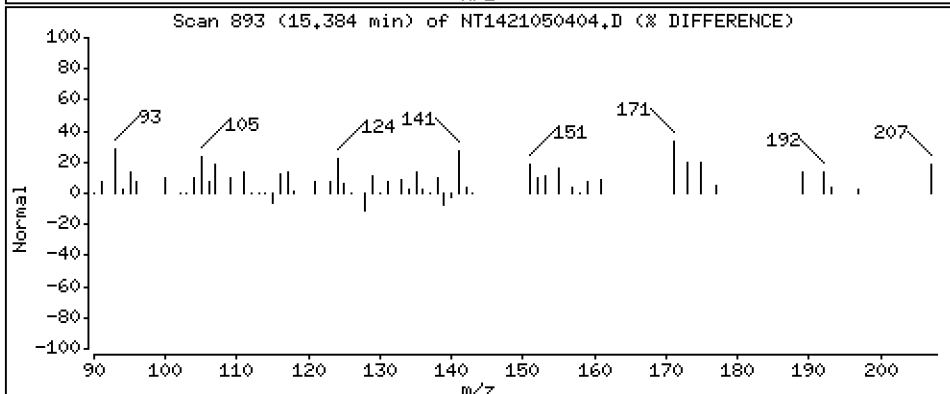
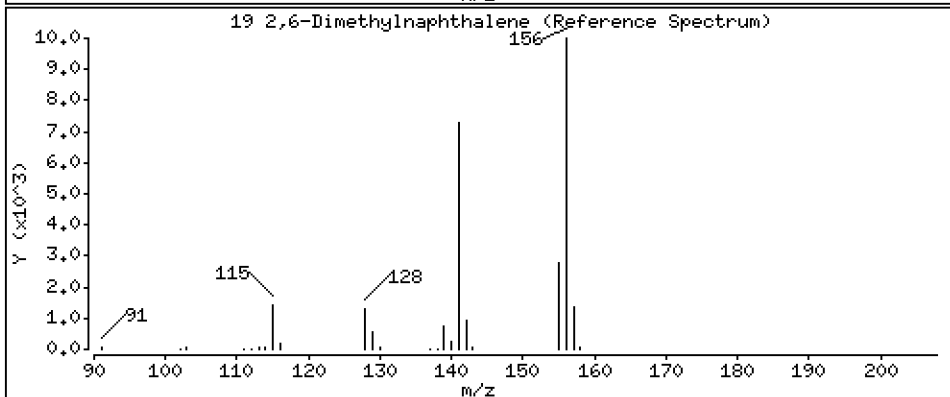
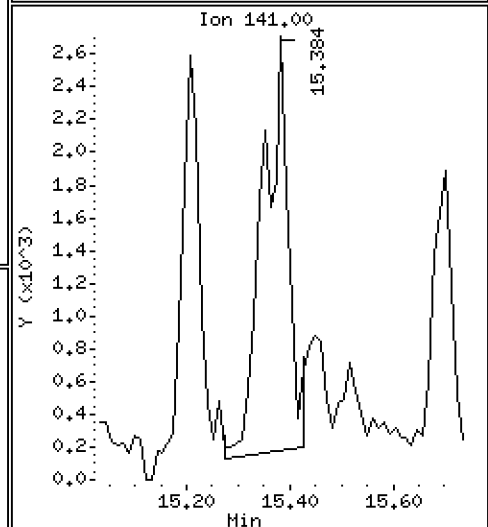
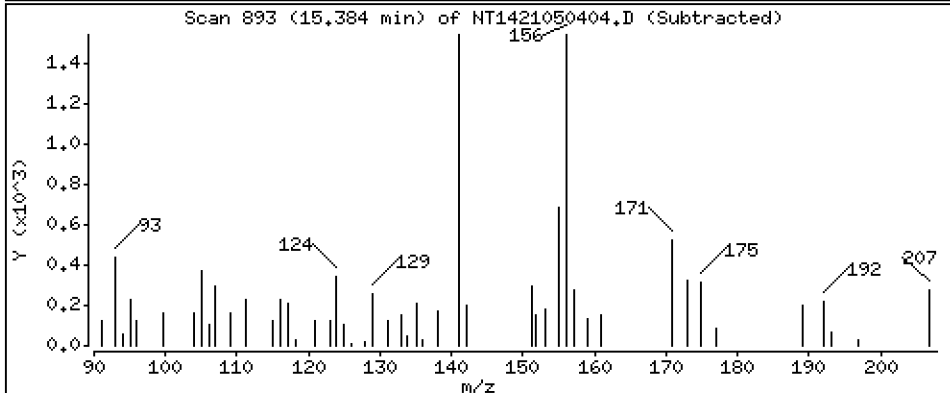
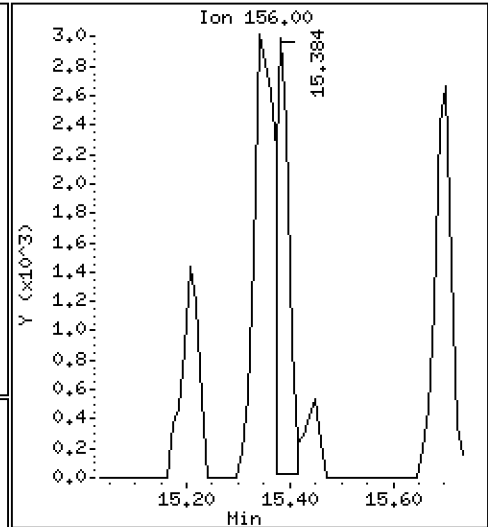
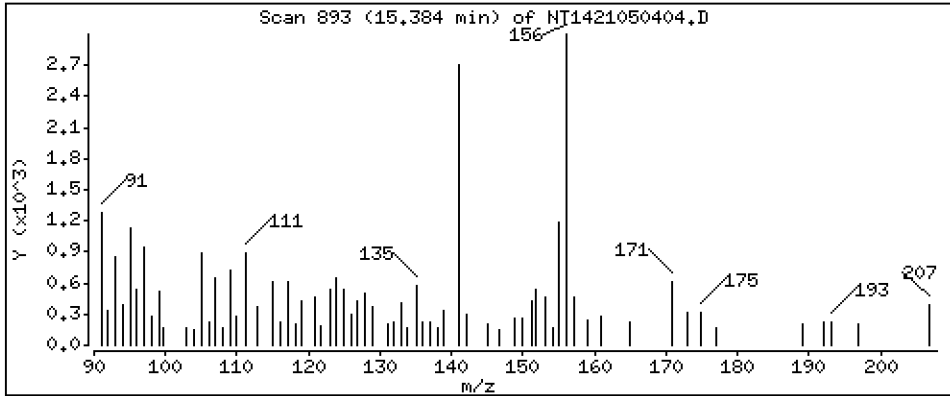
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

19 2,6-Dimethylnaphthalene

Concentration: 0.03583 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

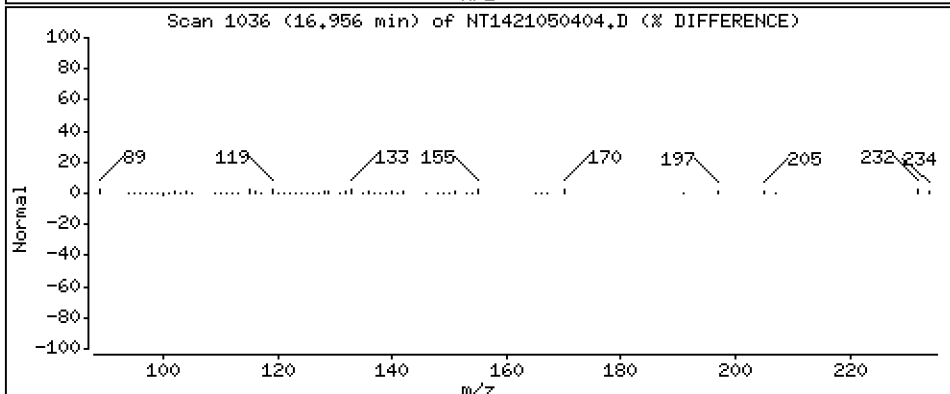
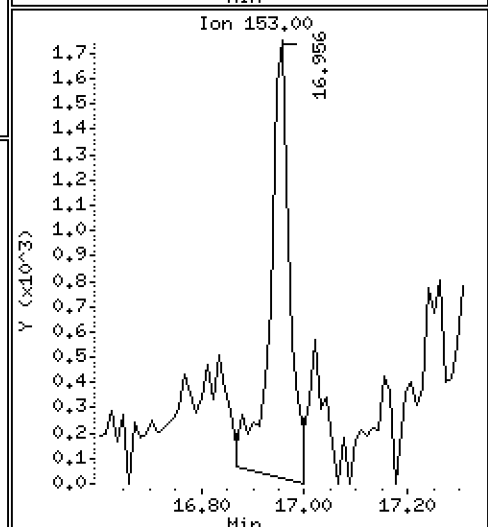
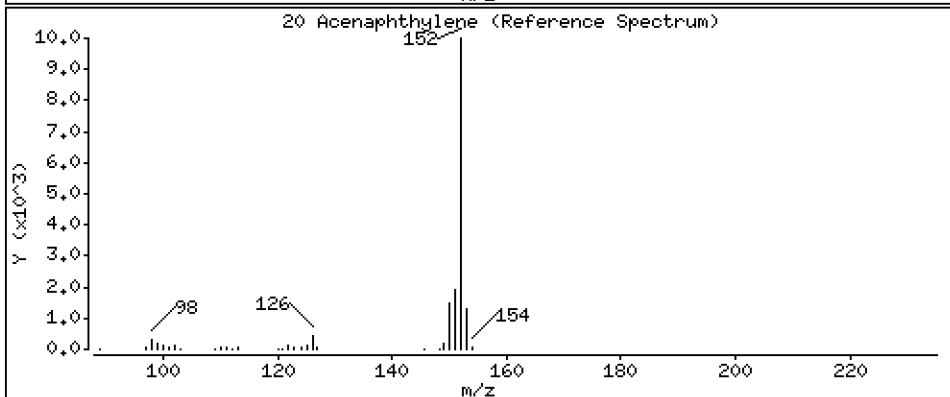
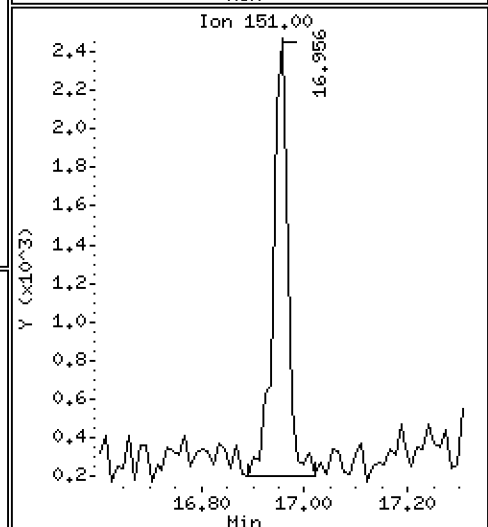
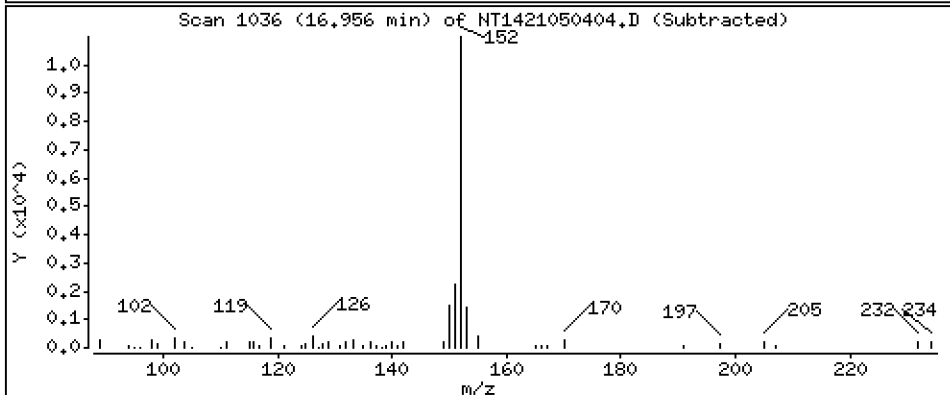
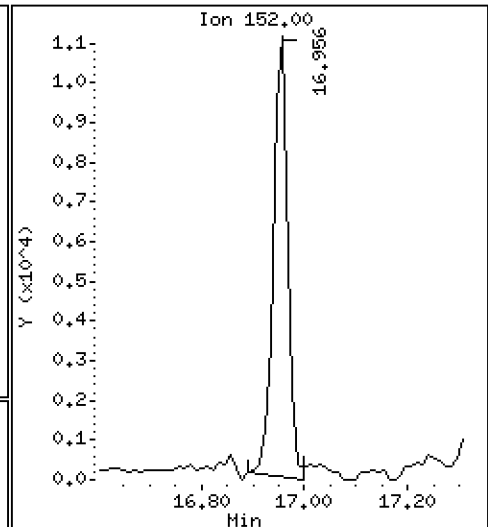
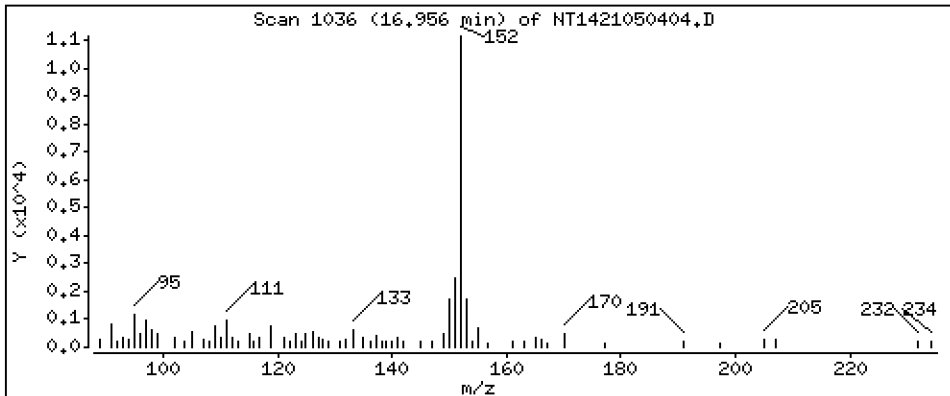
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

20 Acenaphthylene

Concentration: 0.09351 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

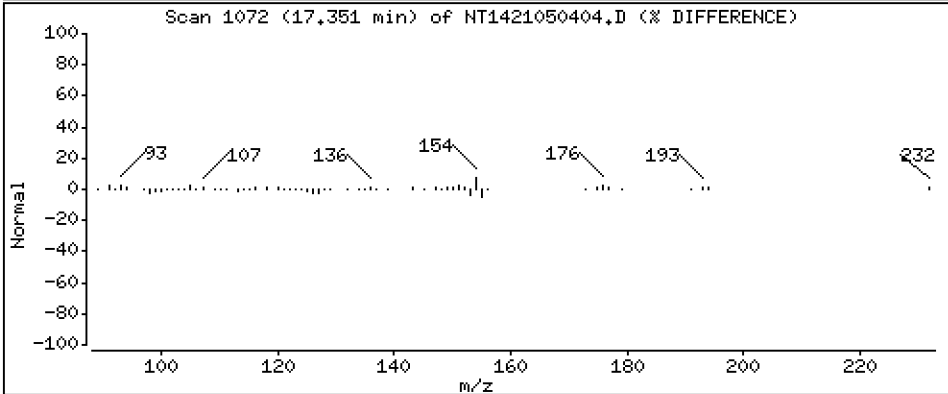
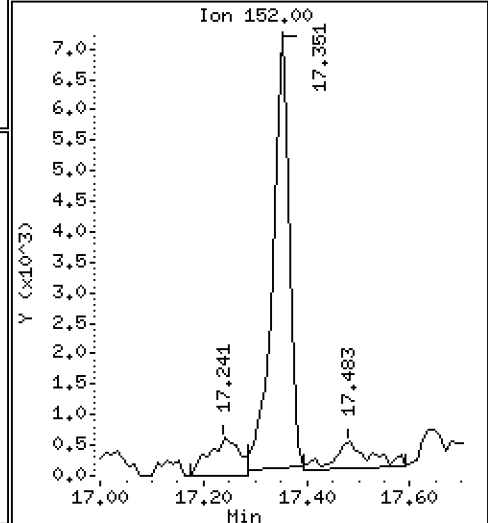
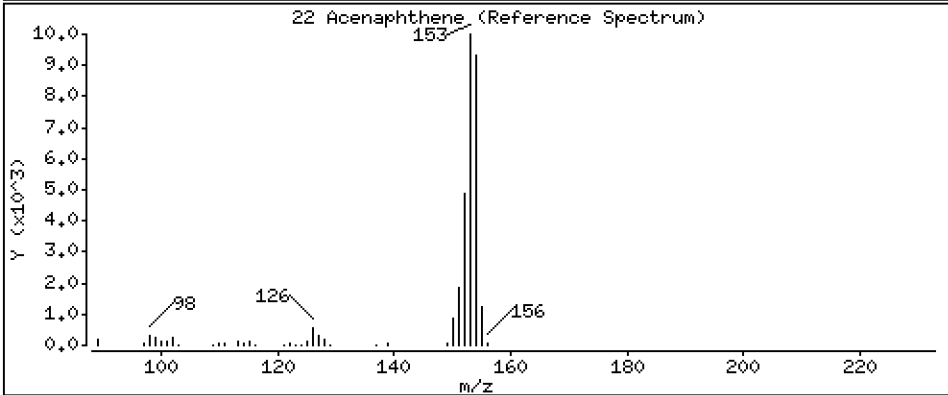
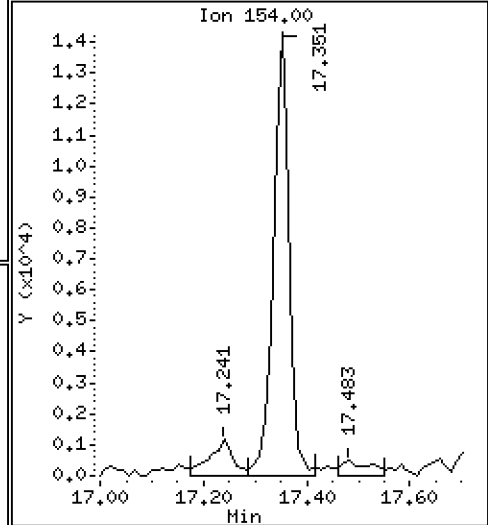
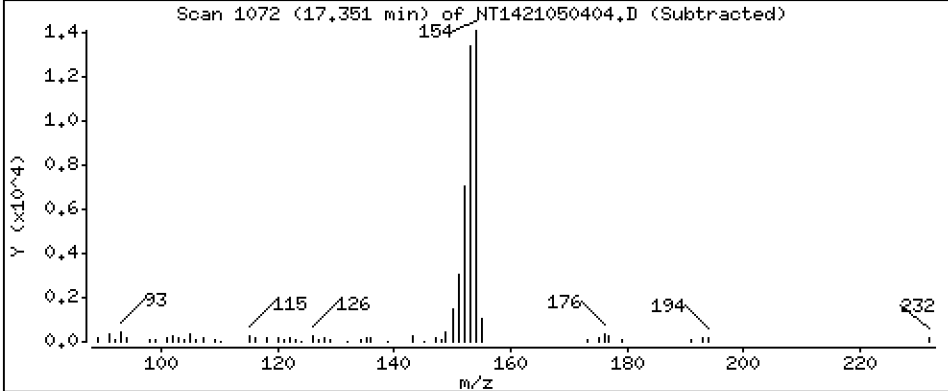
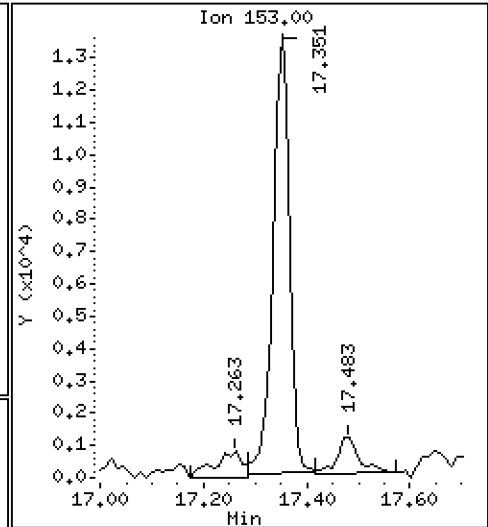
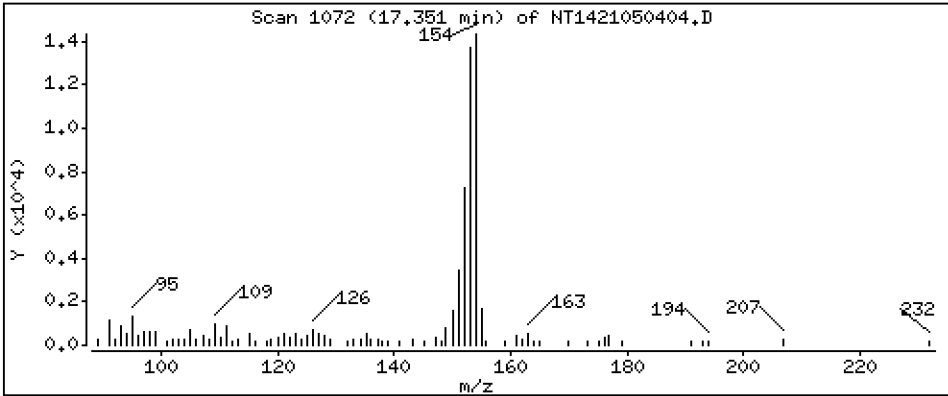
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Acenaphthene

Concentration: 0,2038 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

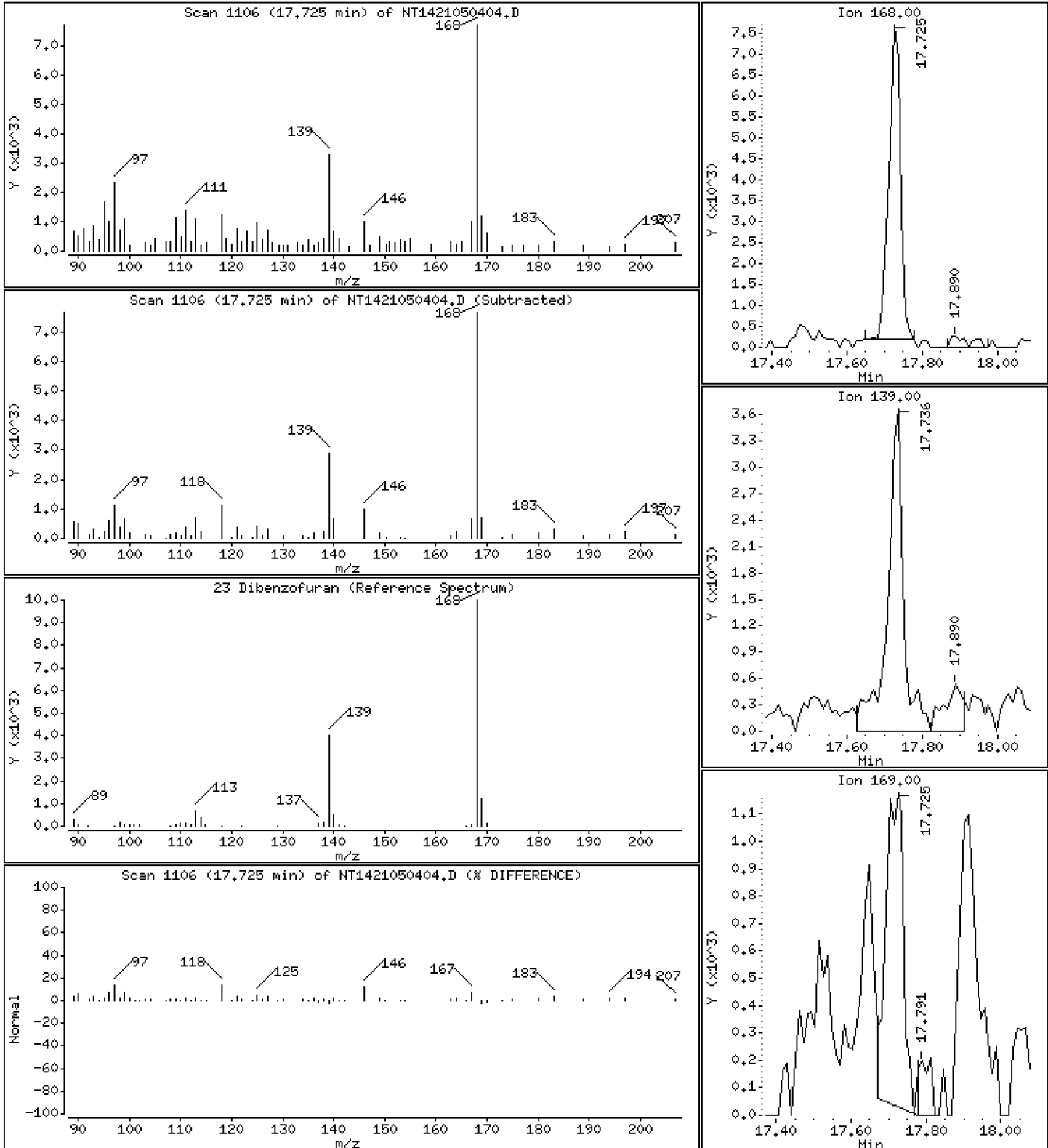
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 Dibenzofuran

Concentration: 0,06972 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

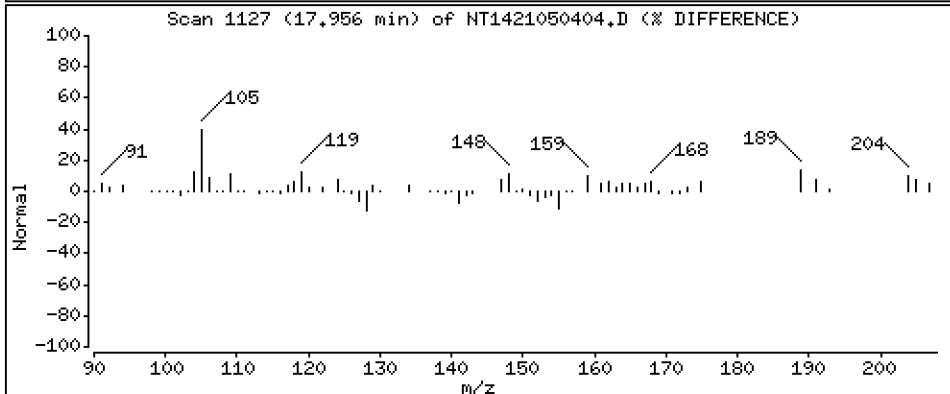
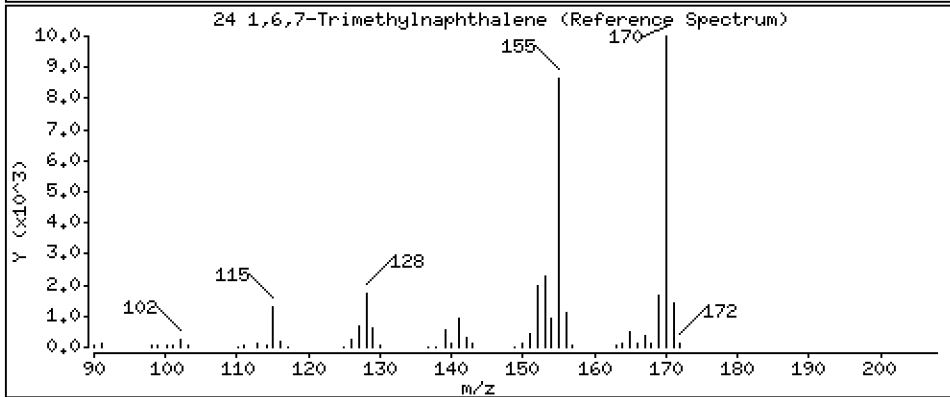
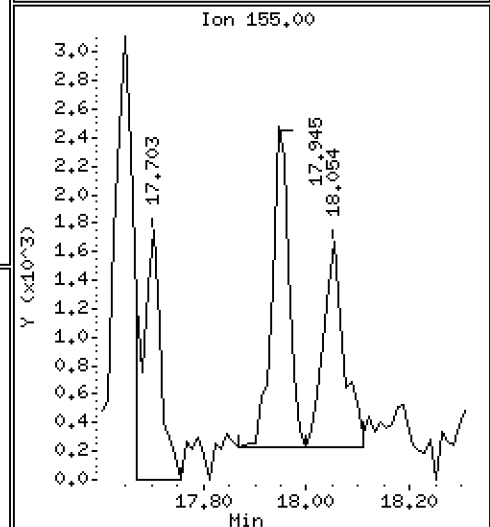
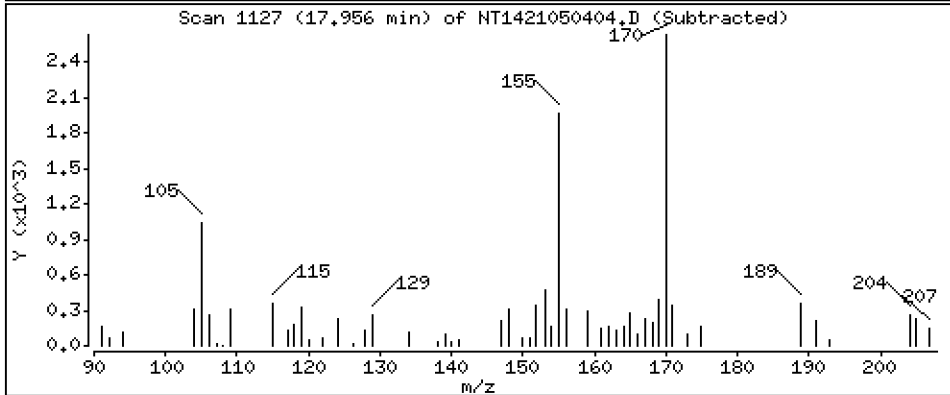
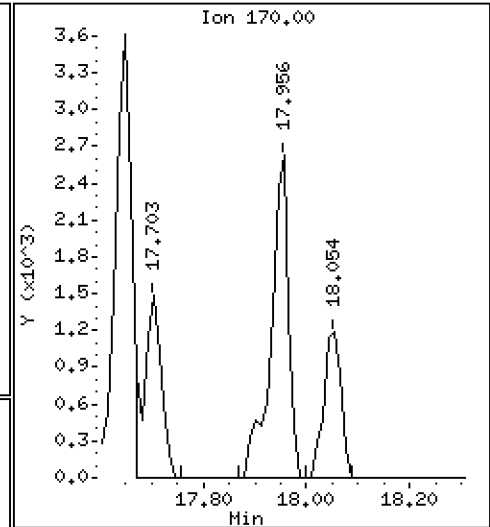
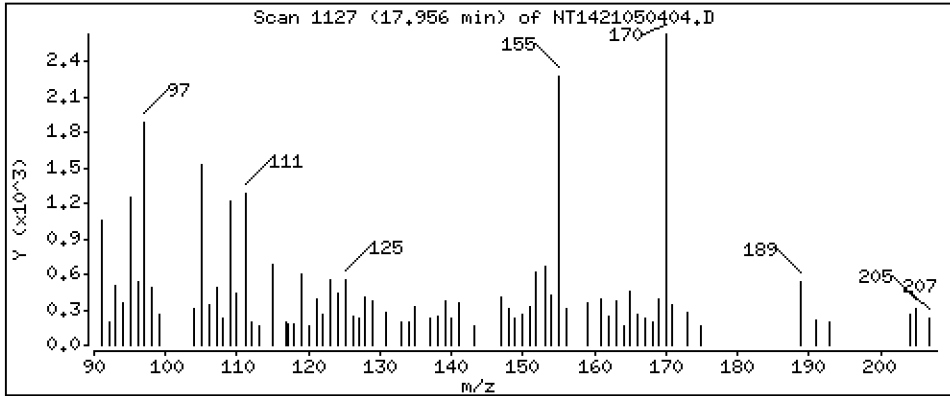
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

24 1,6,7-Trimethylnaphthalene

Concentration: 0.04680 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

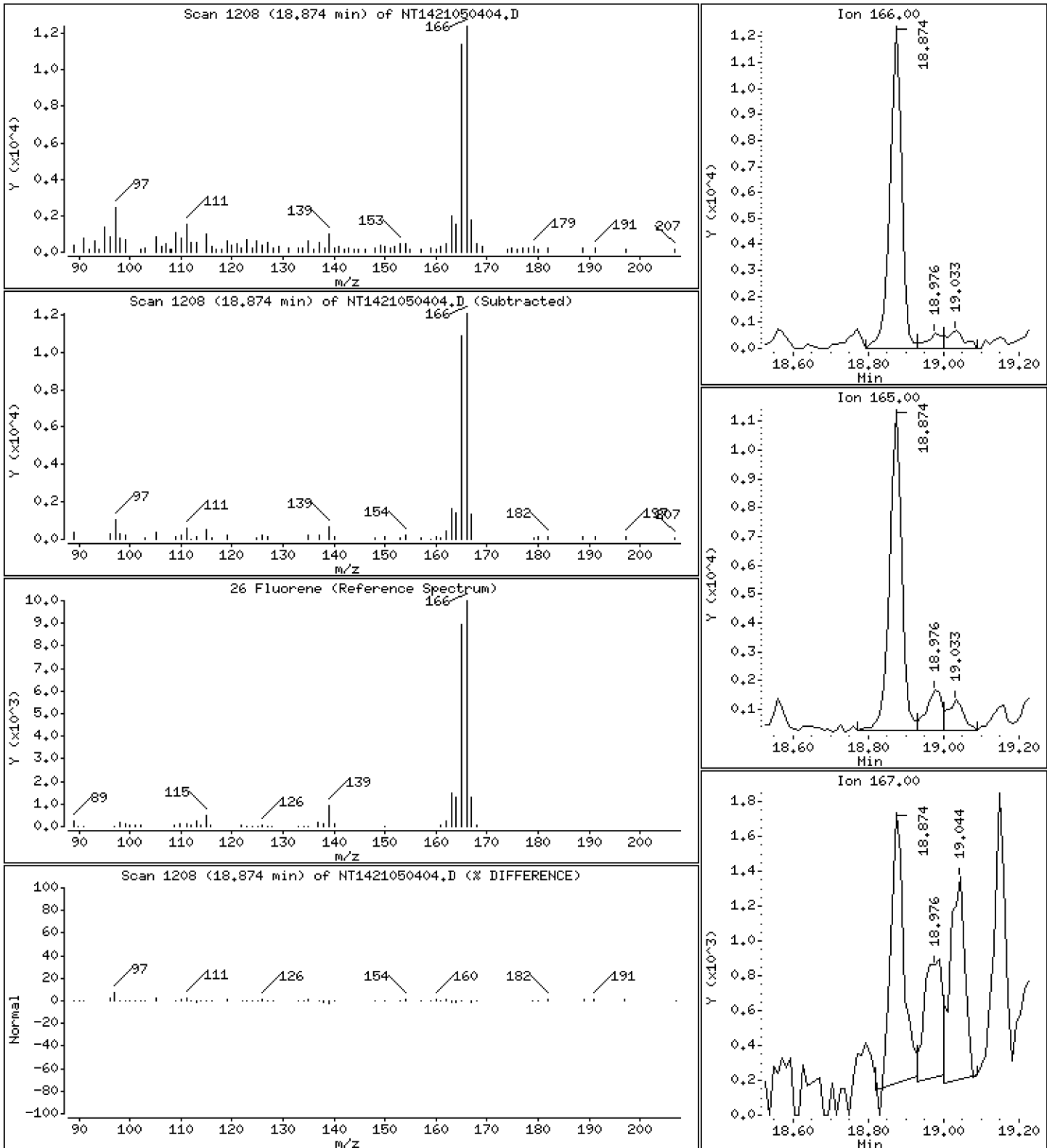
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

26 Fluorene

Concentration: 0.1537 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

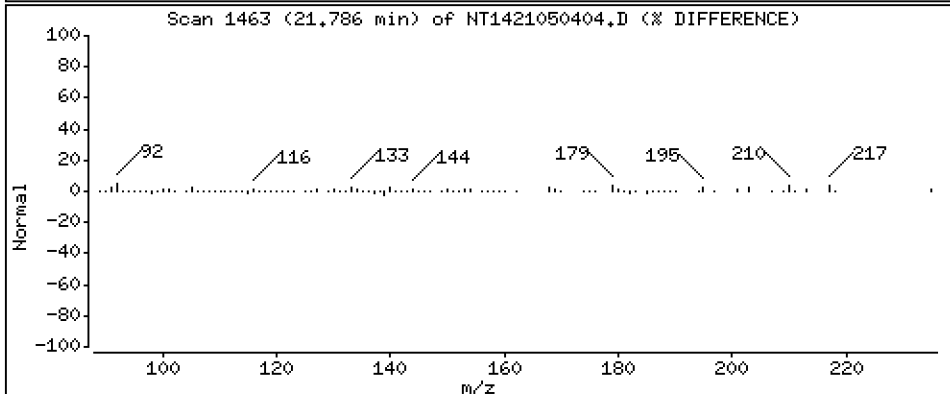
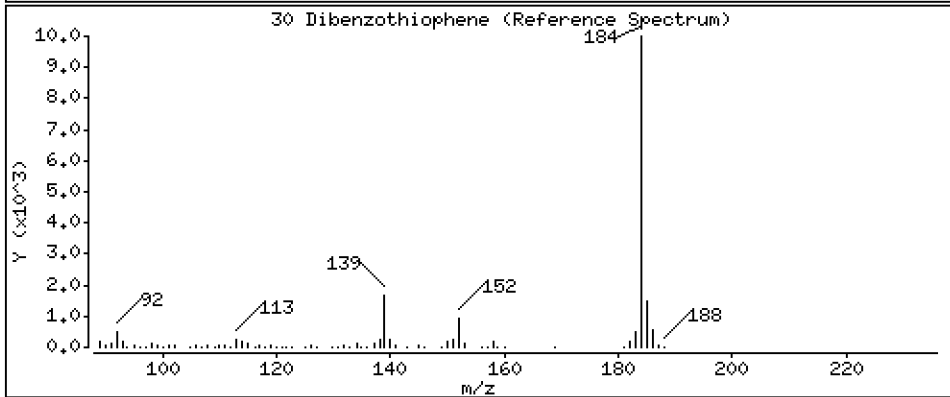
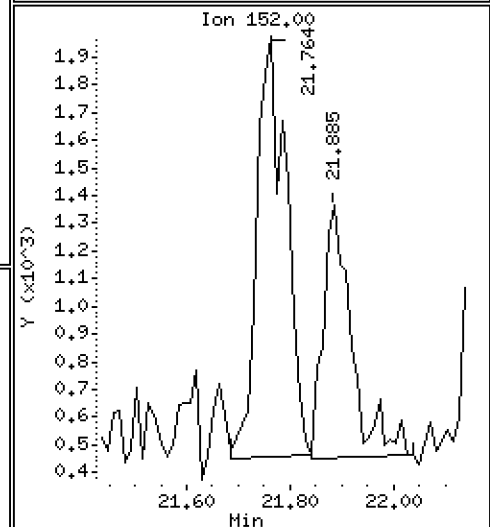
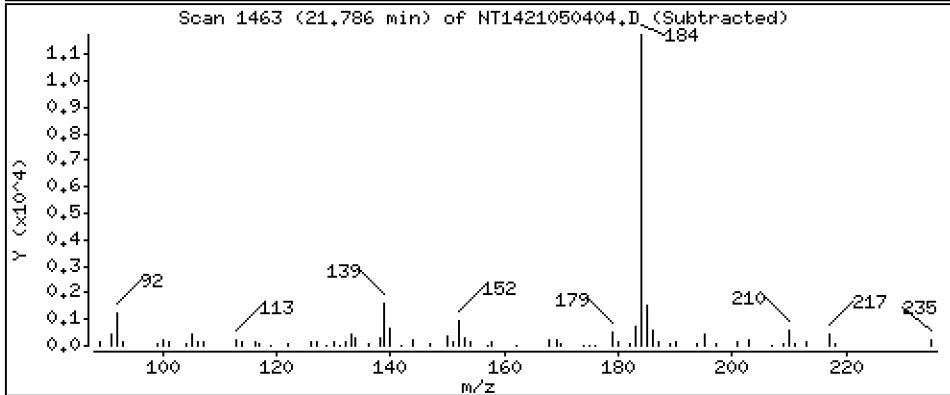
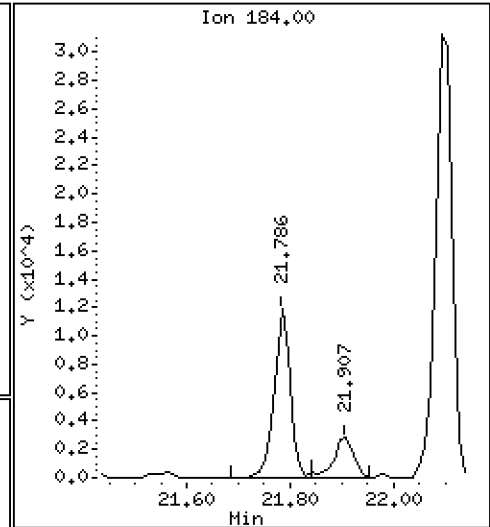
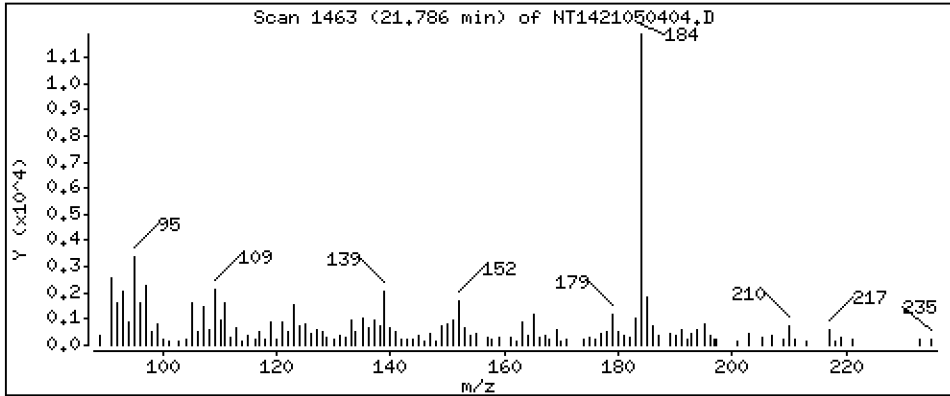
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

30 Dibenzothiophene

Concentration: 0.1343 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

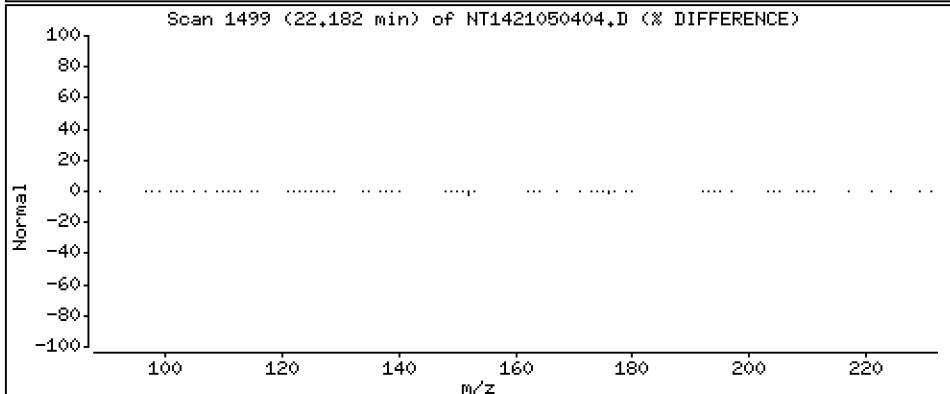
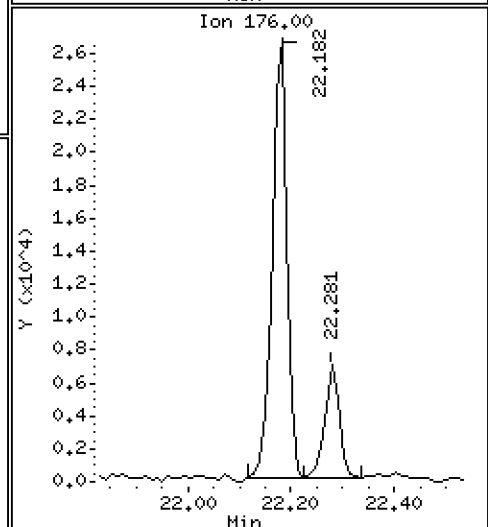
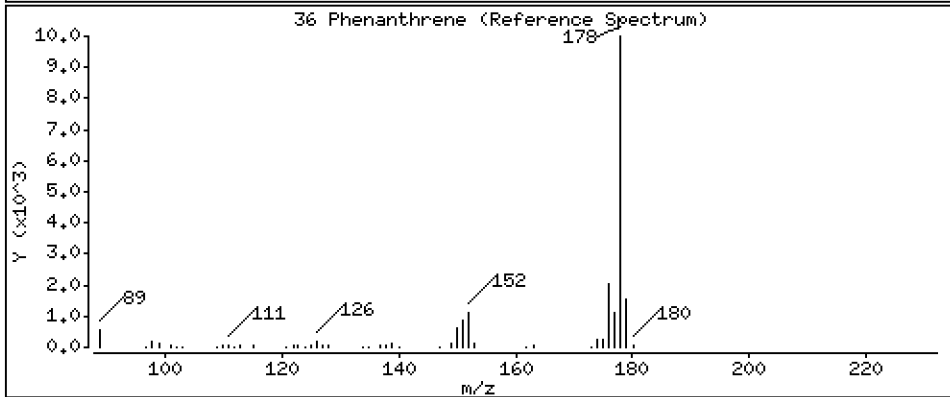
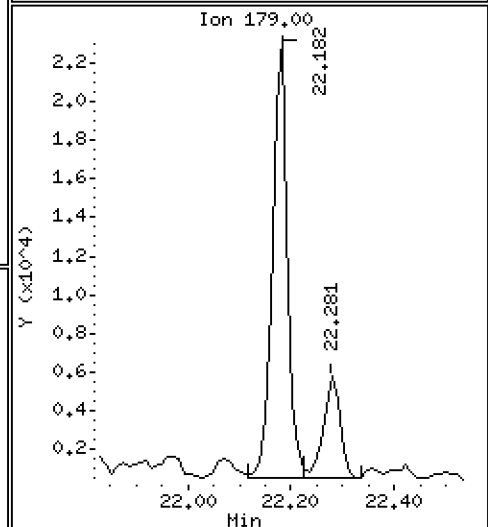
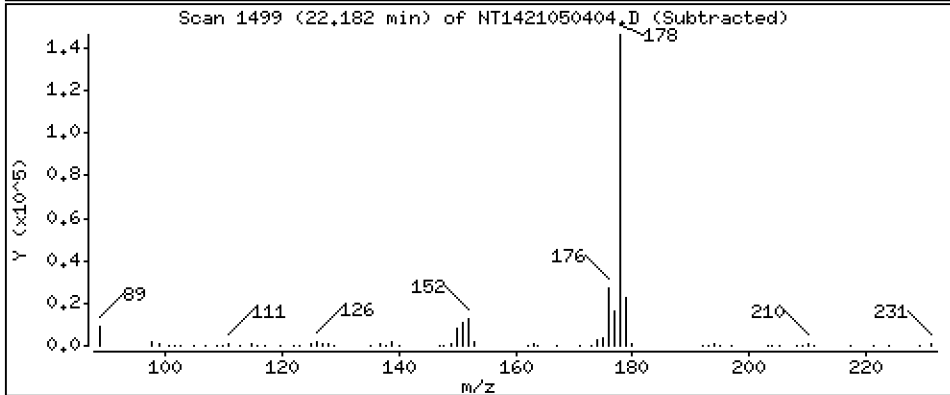
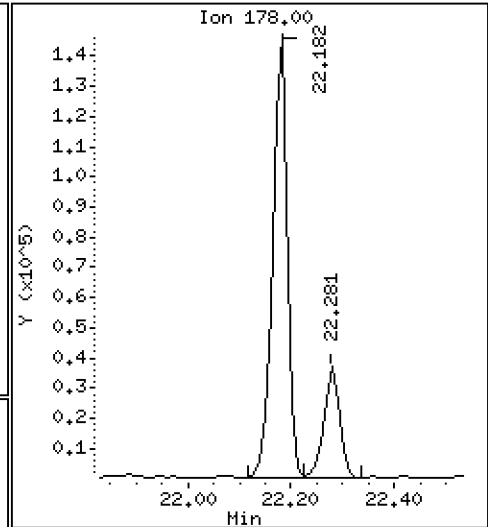
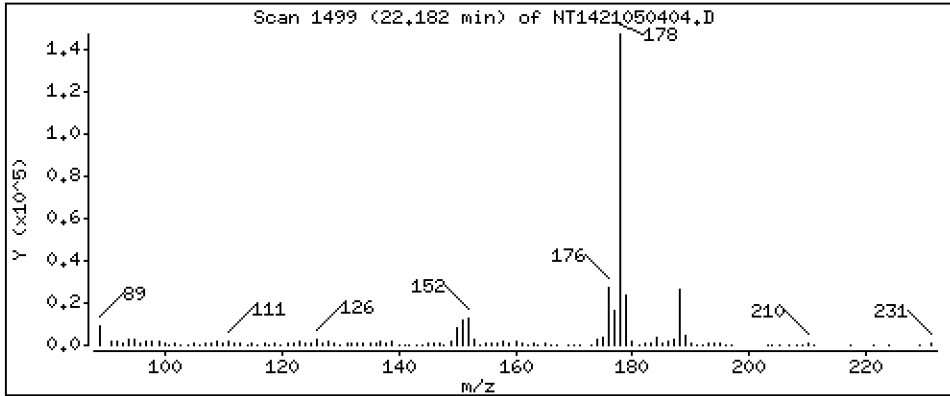
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

36 Phenanthrene

Concentration: 1,073 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

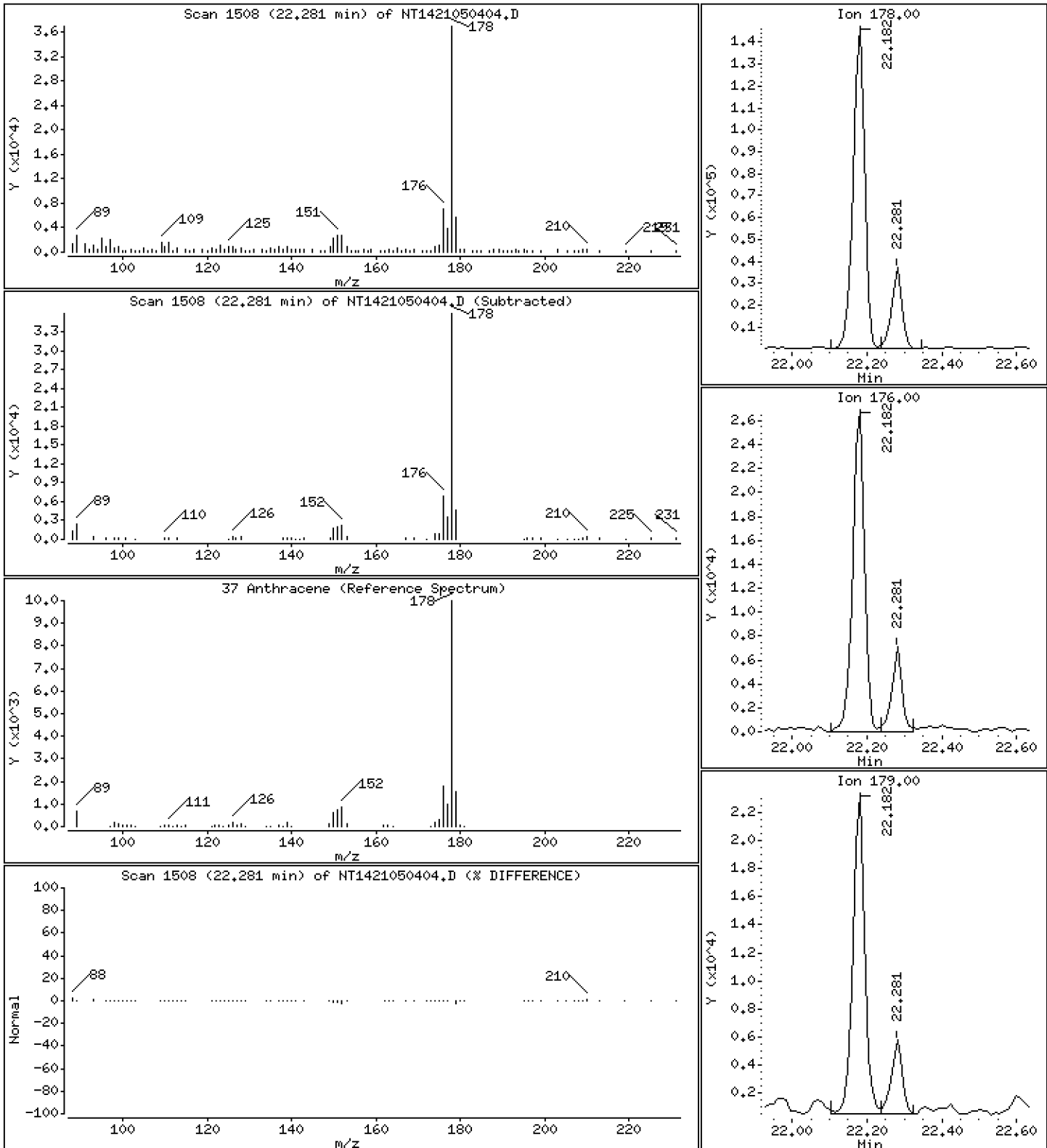
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

37 Anthracene

Concentration: 0,2824 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

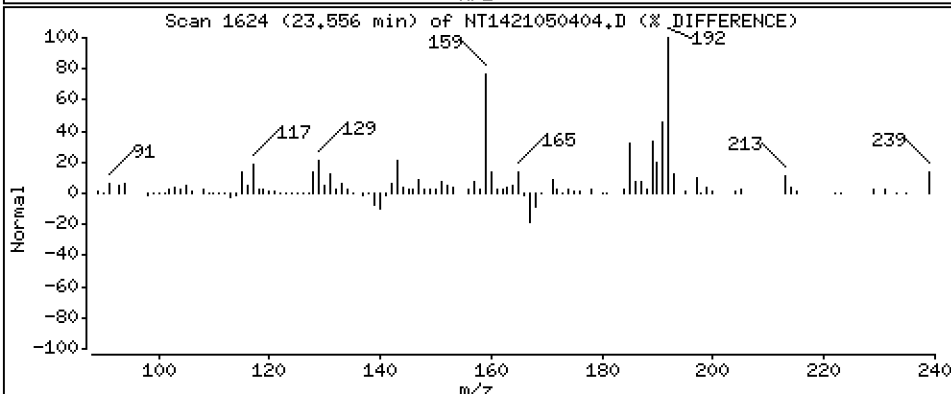
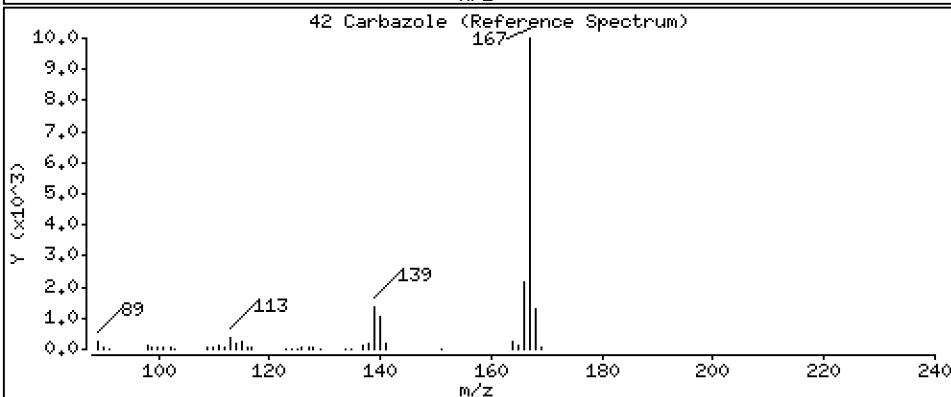
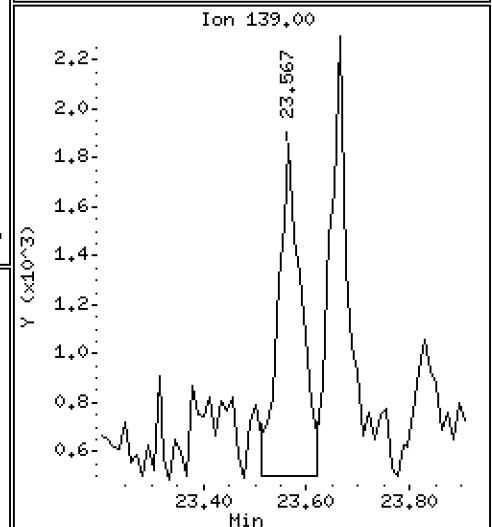
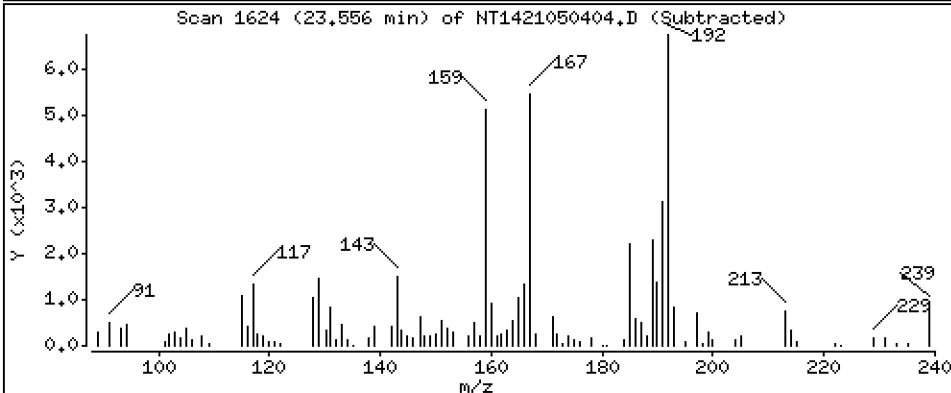
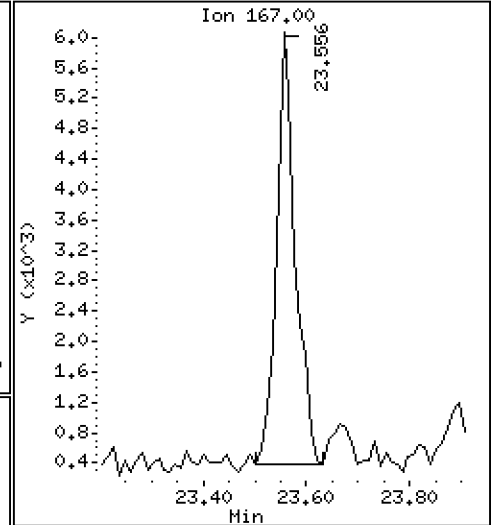
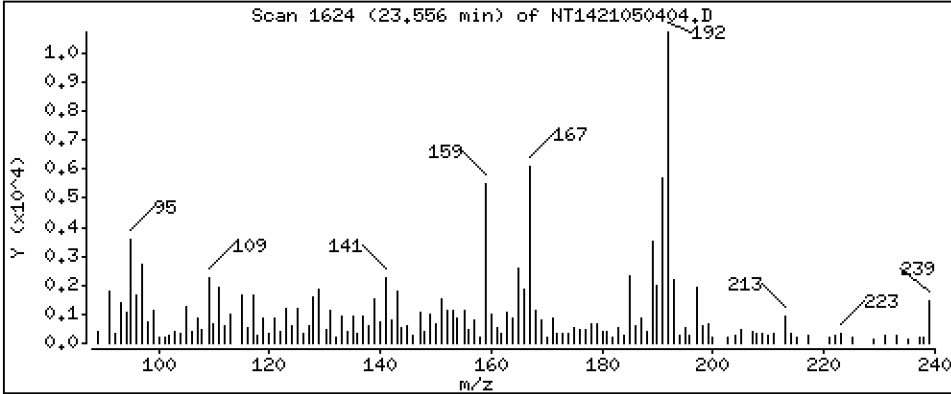
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

42 Carbazole

Concentration: 0,07018 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

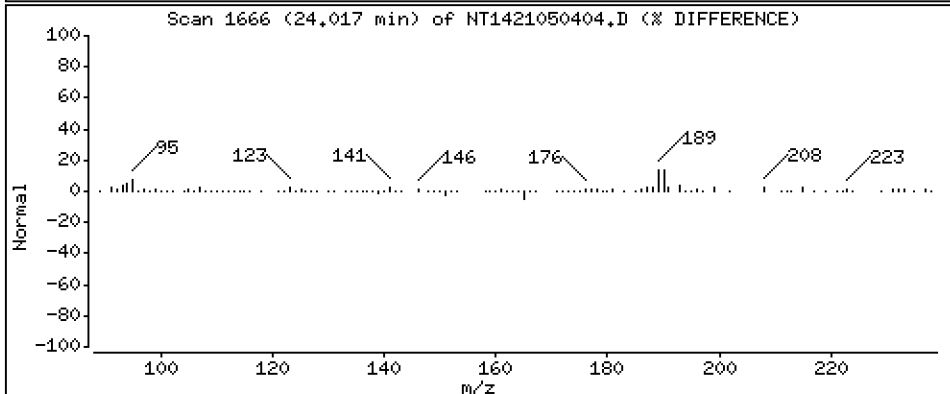
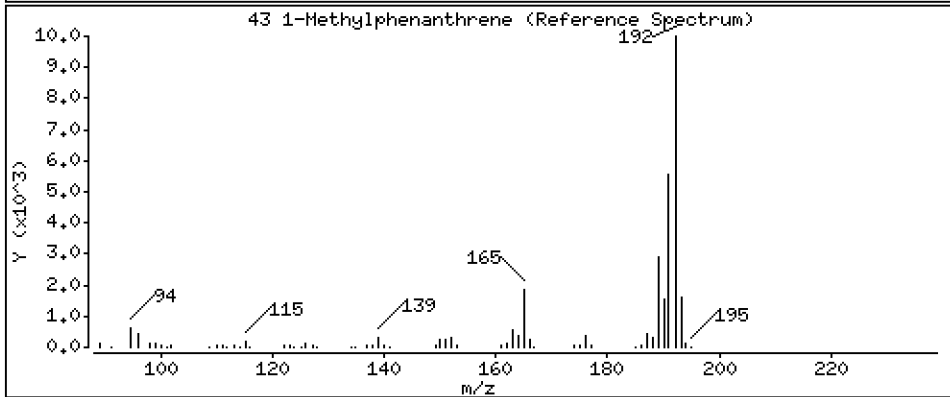
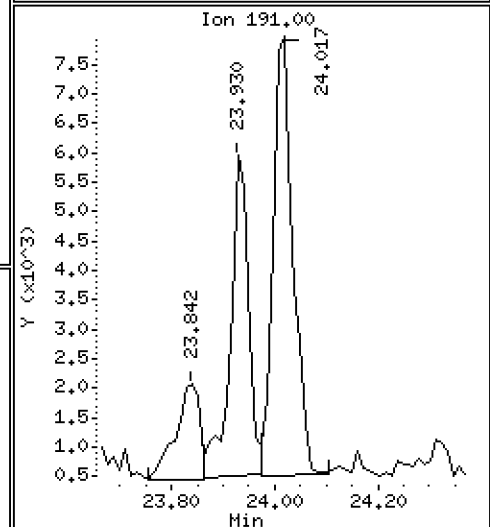
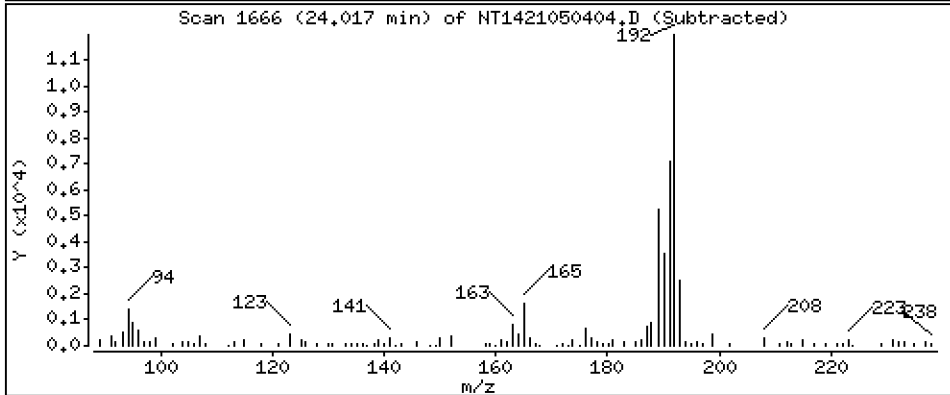
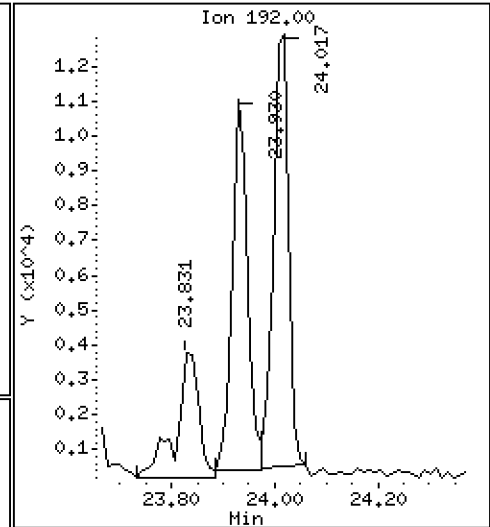
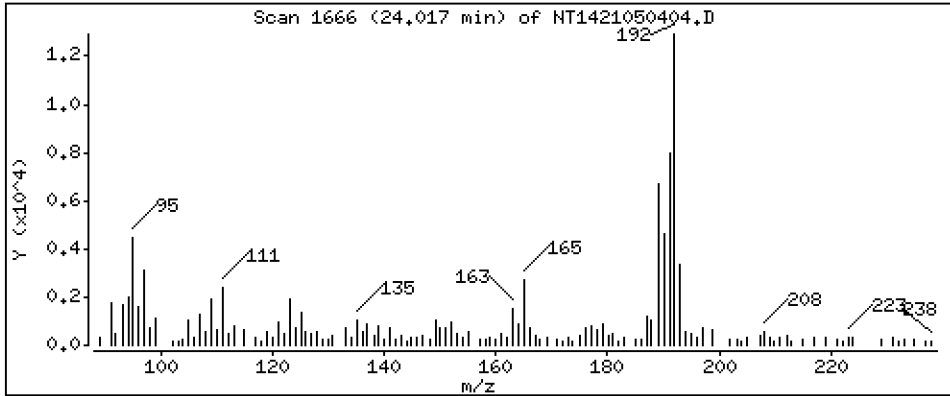
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

43 1-Methylphenanthrene

Concentration: 0,1563 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

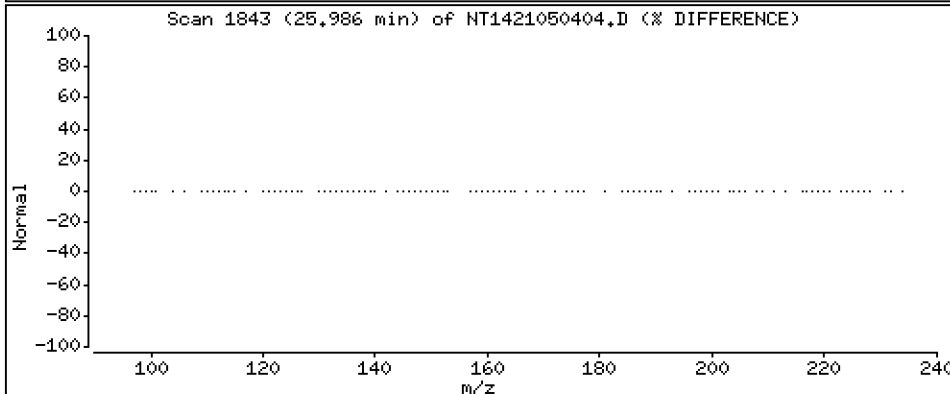
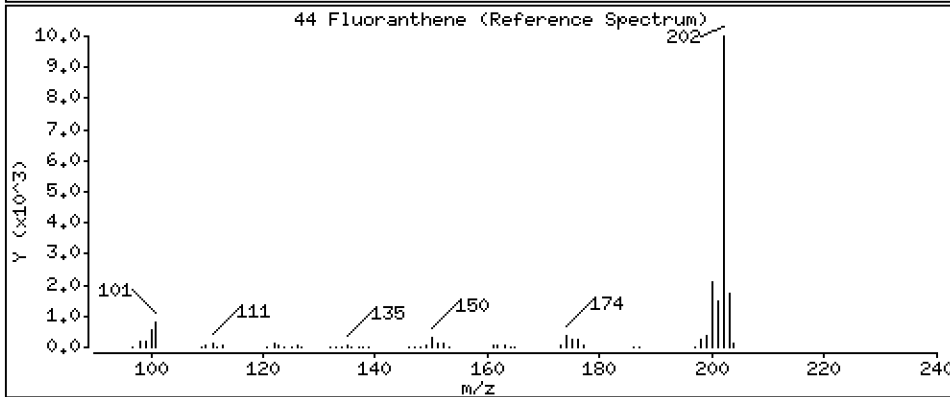
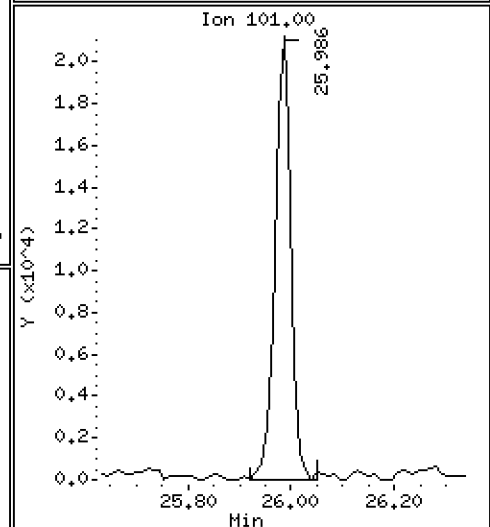
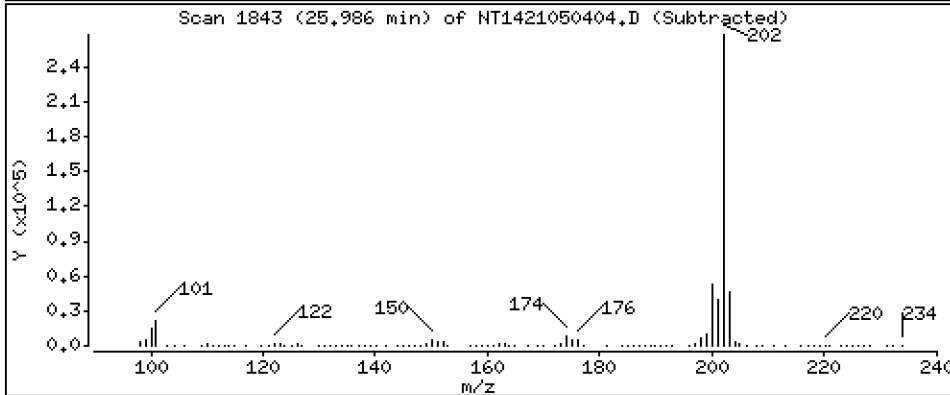
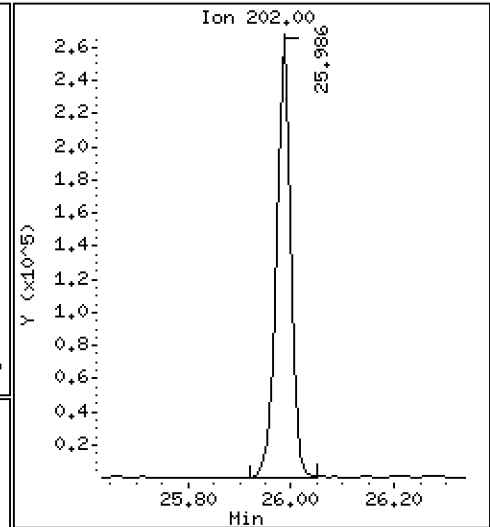
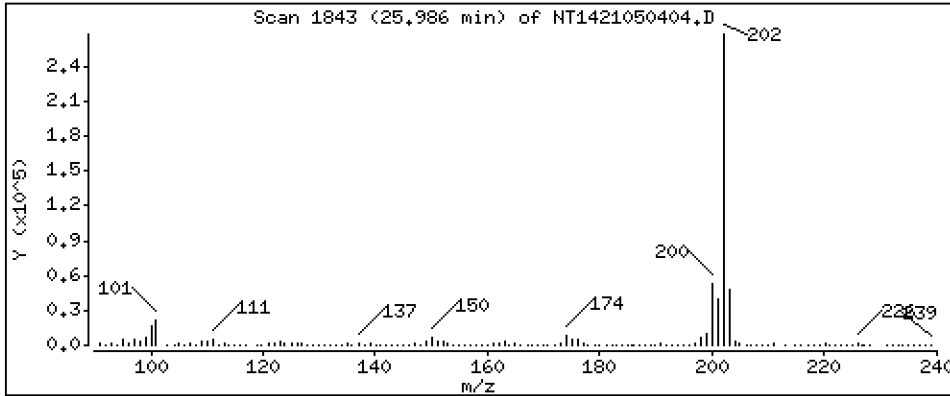
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

44 Fluoranthene

Concentration: 2,166 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

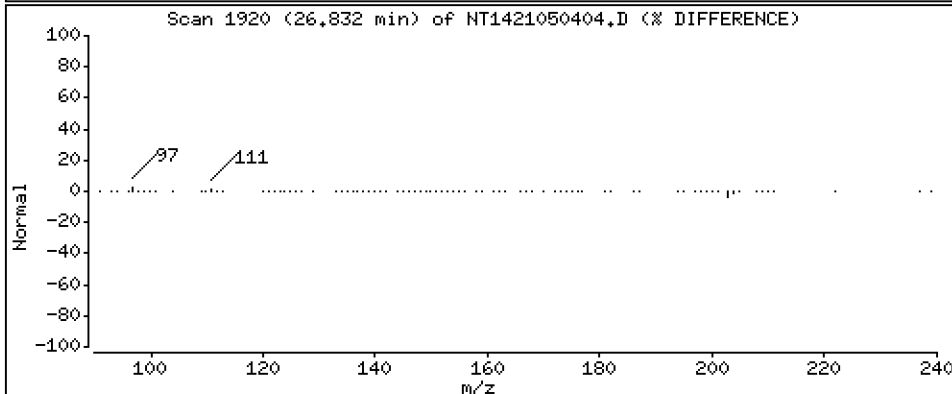
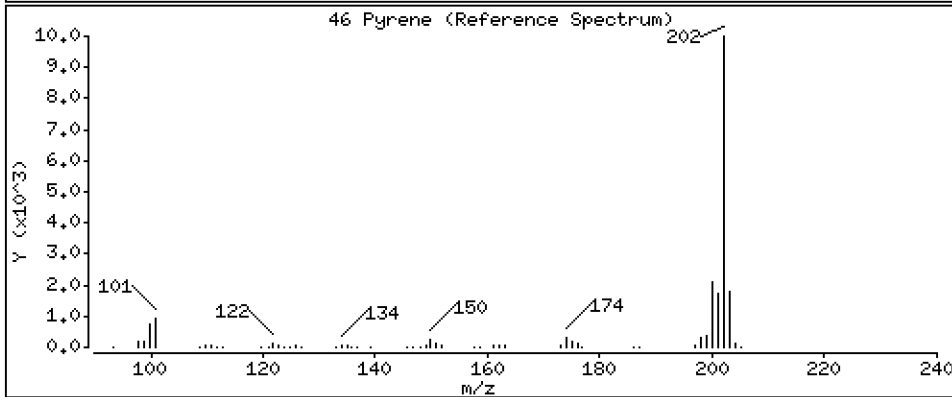
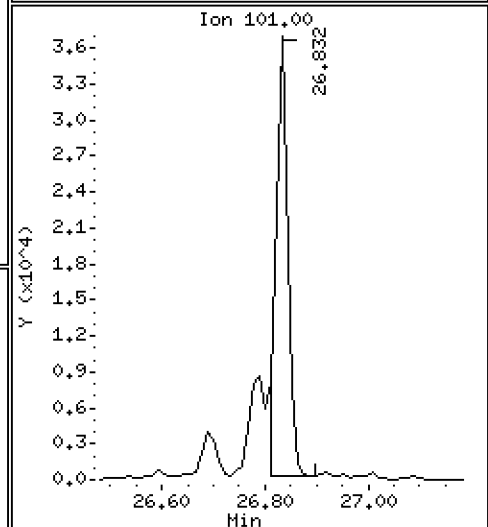
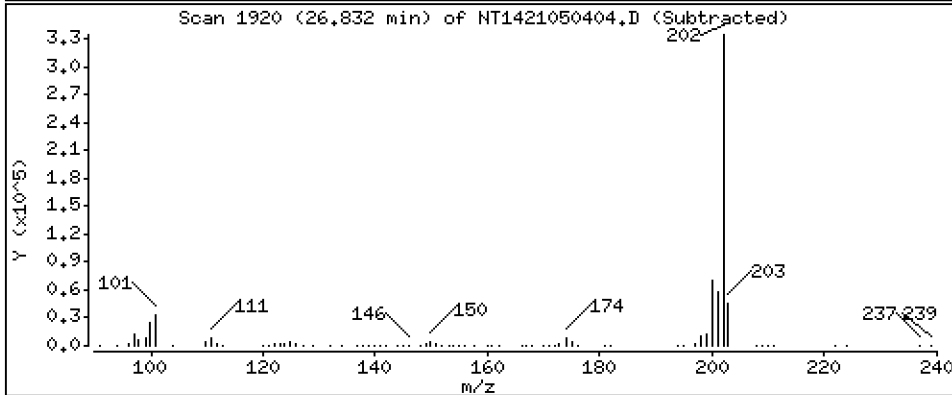
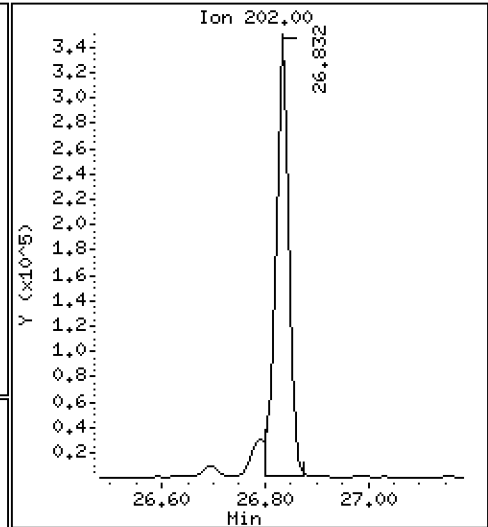
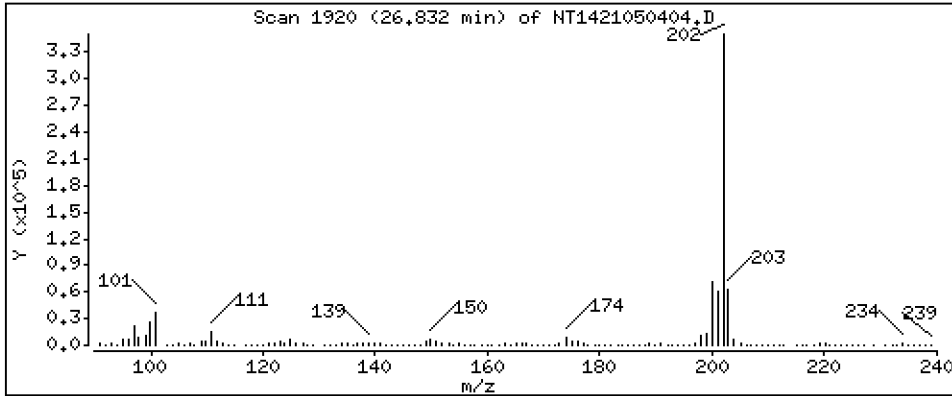
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

46 Pyrene

Concentration: 2,525 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

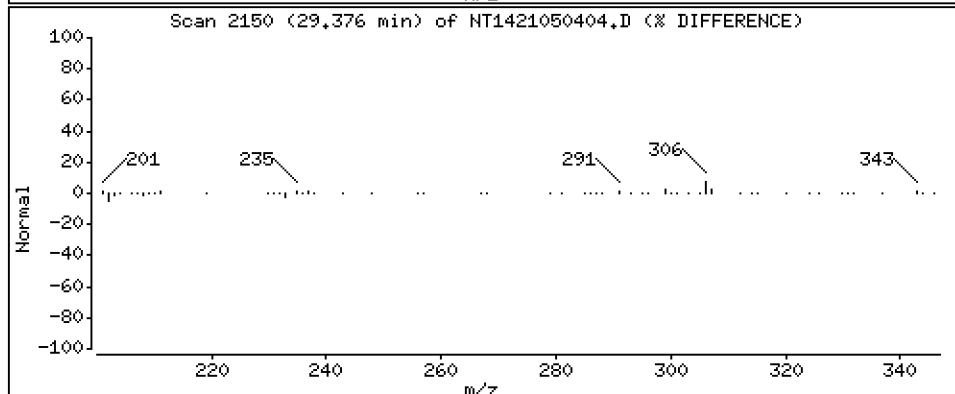
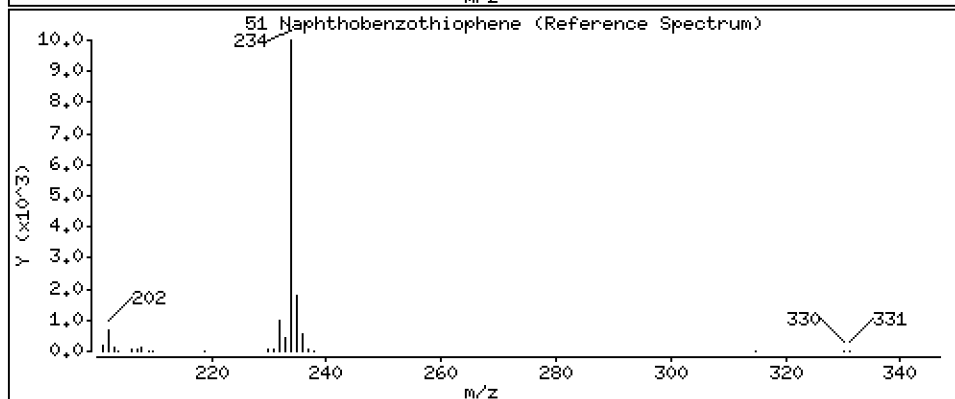
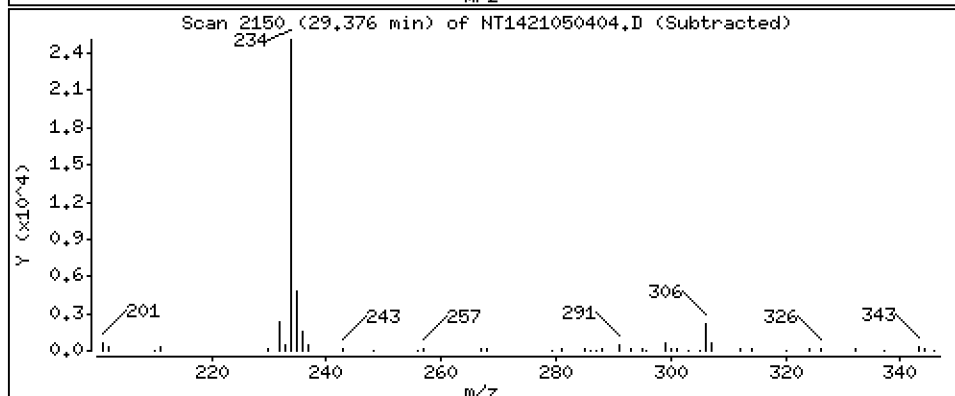
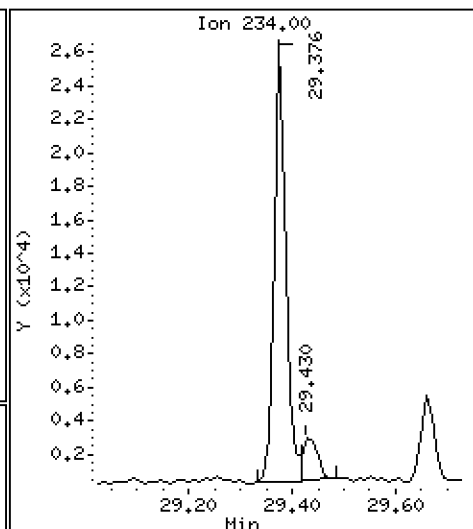
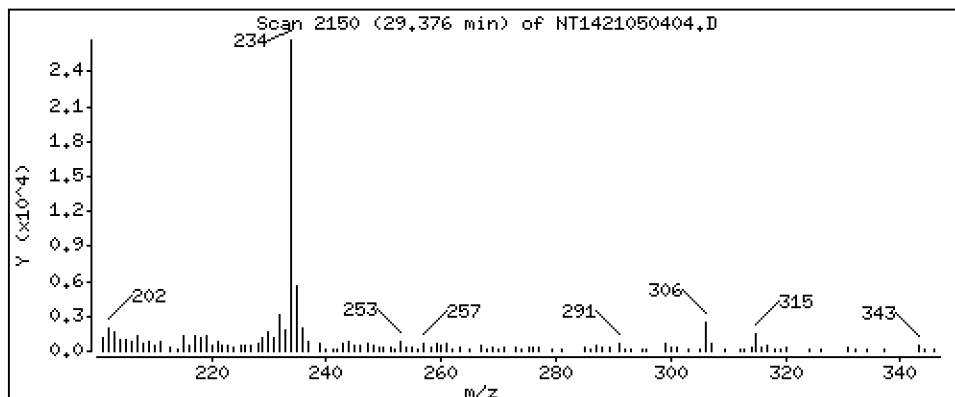
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

51 Naphthobenzothiophene

Concentration: 0,1743 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

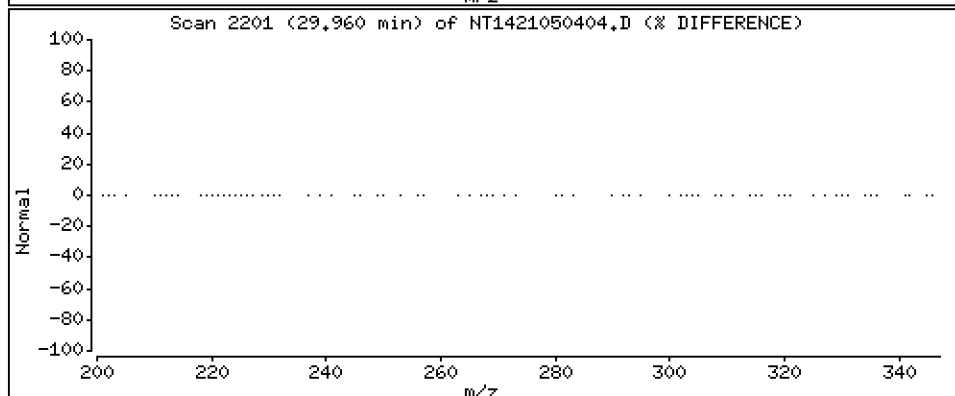
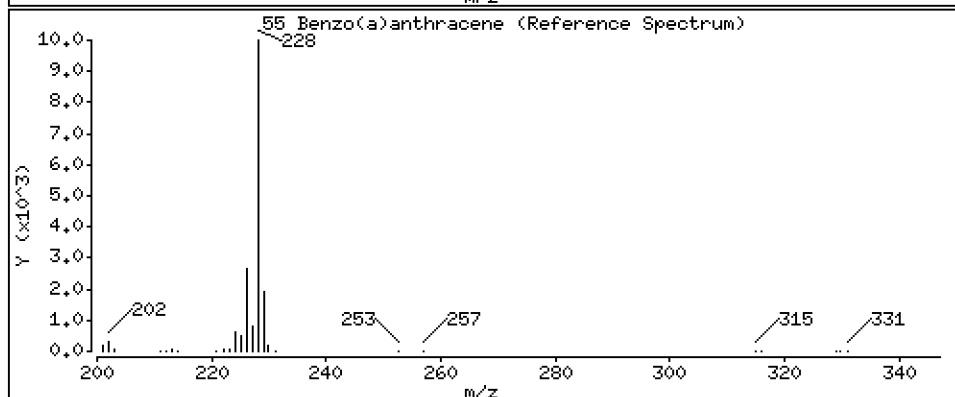
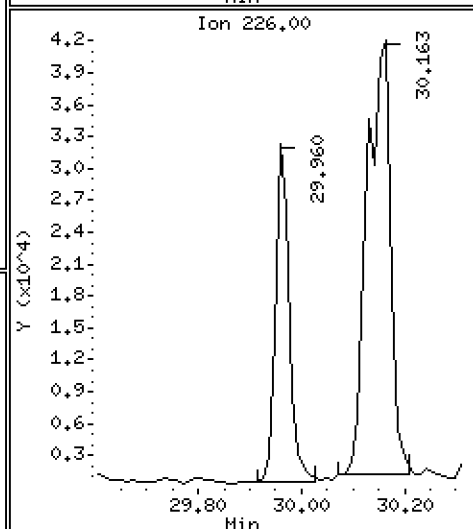
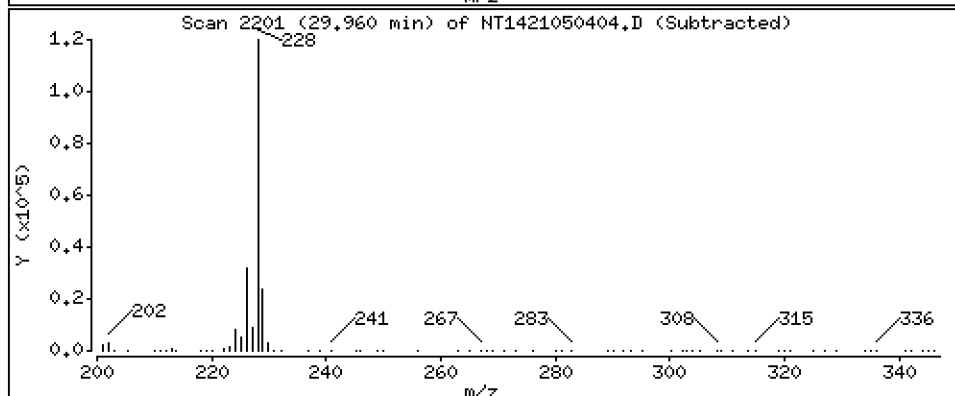
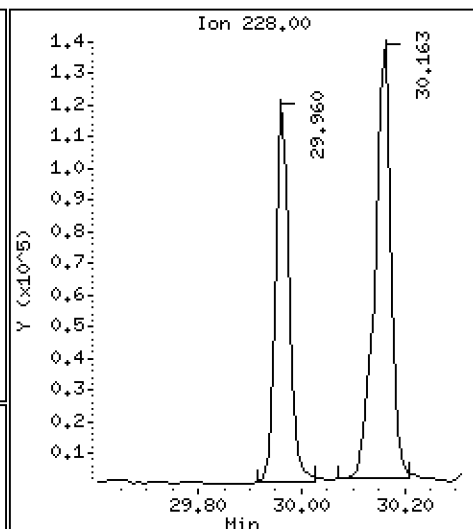
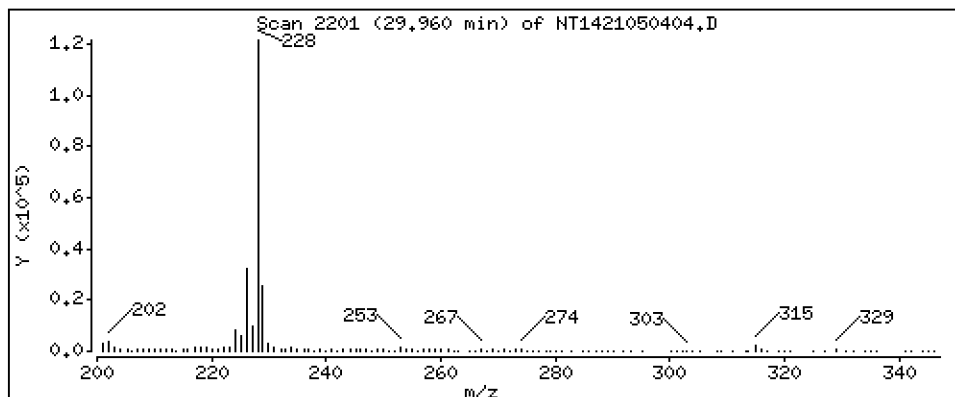
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

55 Benzo(a)anthracene

Concentration: 0,8987 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

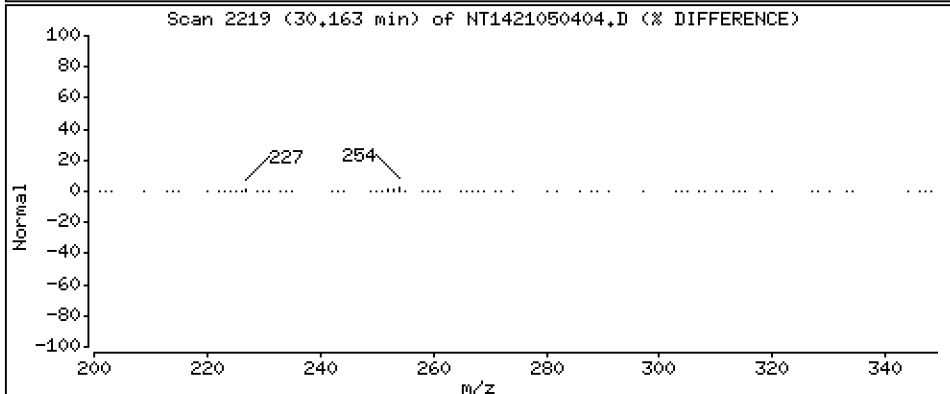
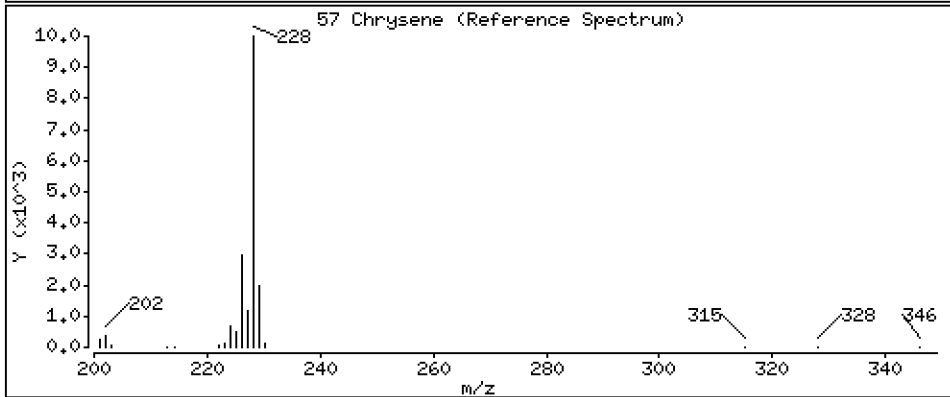
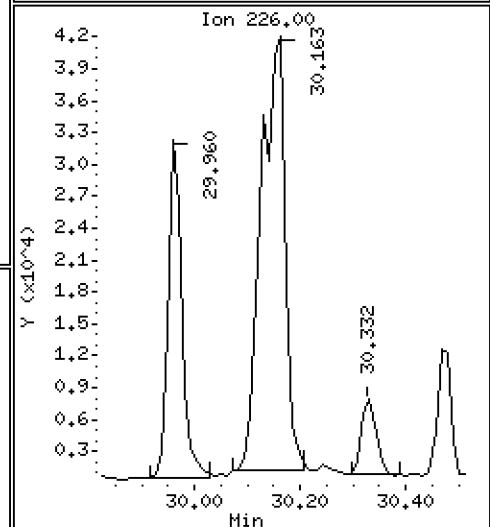
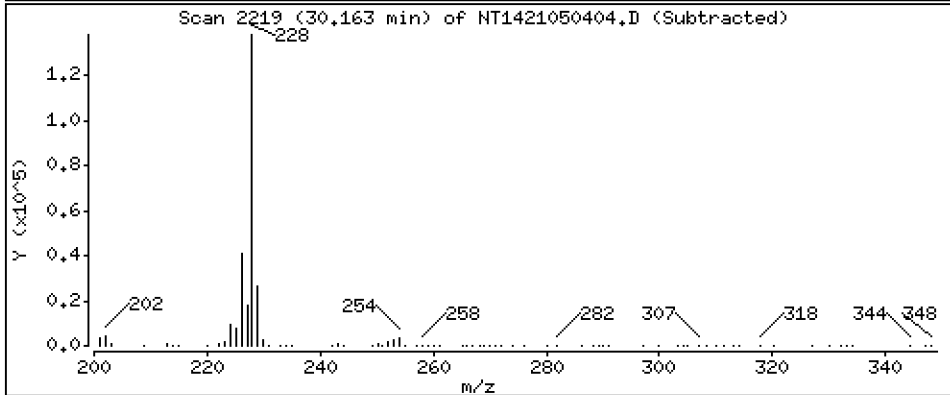
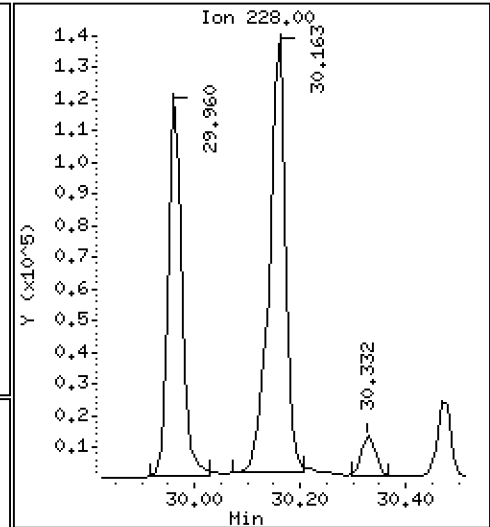
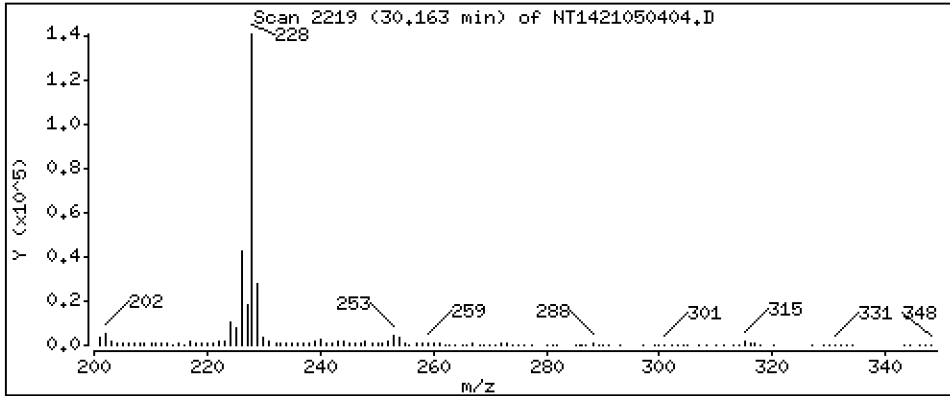
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

57 Chrysene

Concentration: 1,172 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

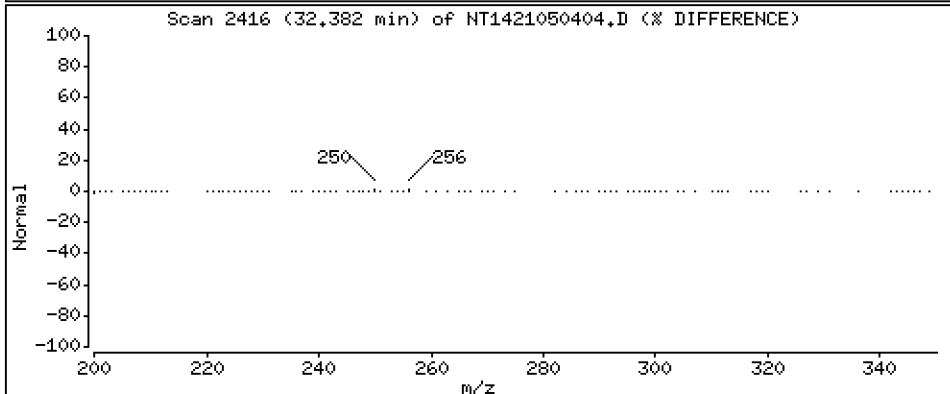
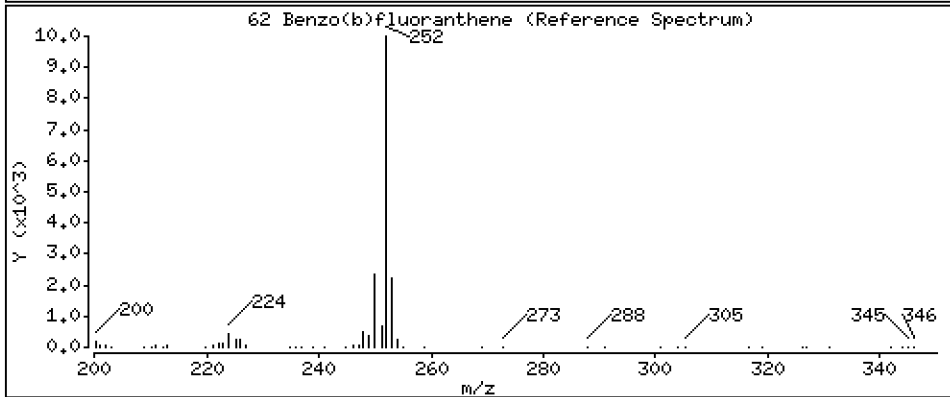
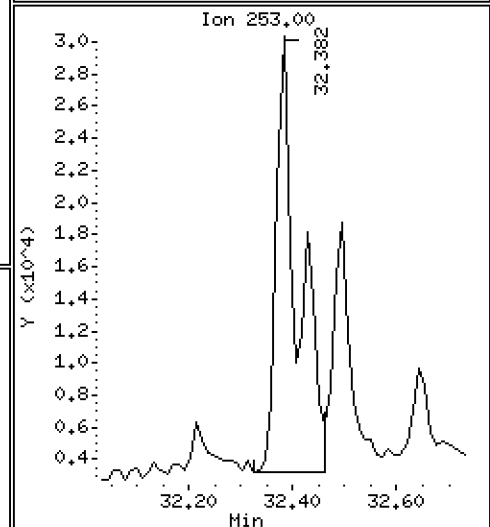
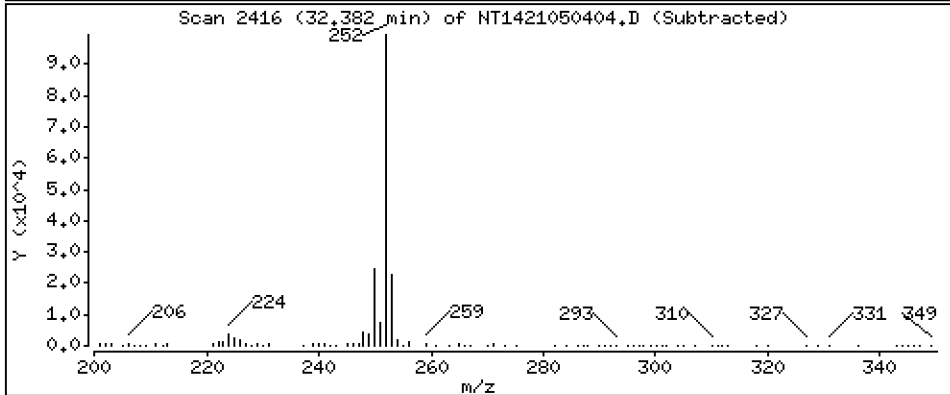
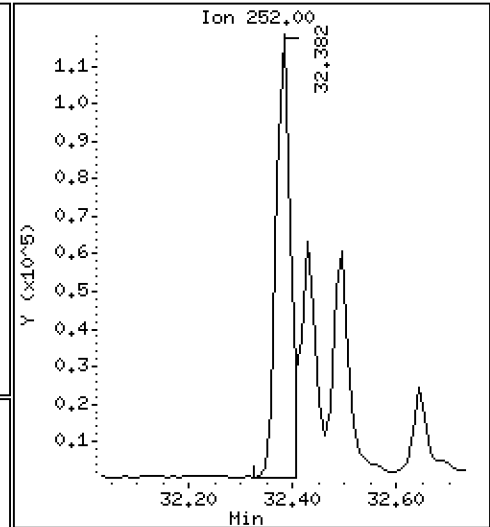
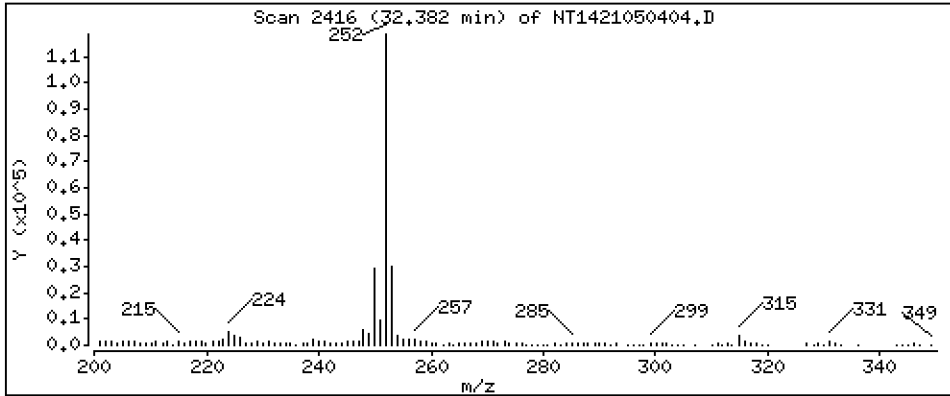
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

62 Benzo(b)fluoranthene

Concentration: 0,9209 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

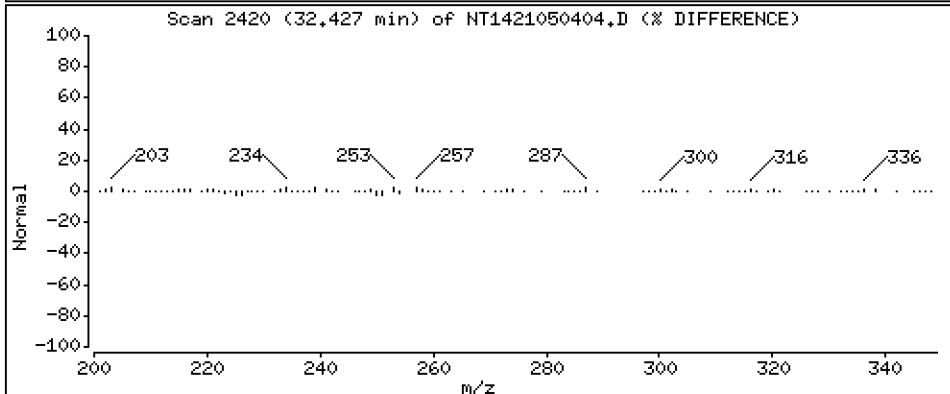
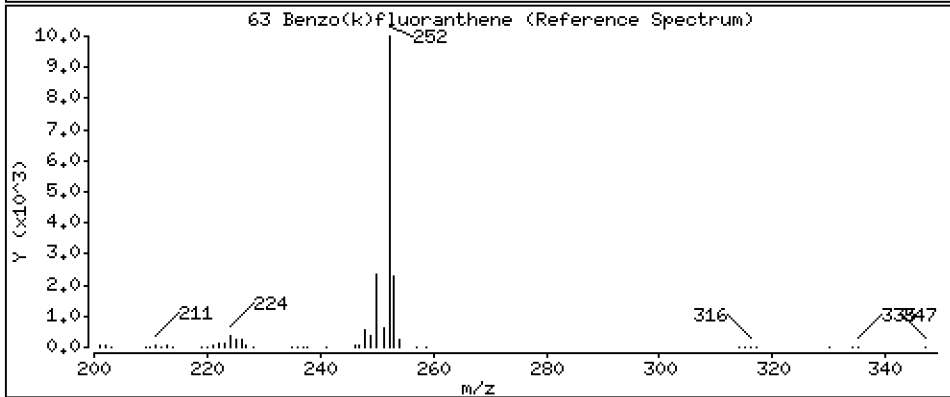
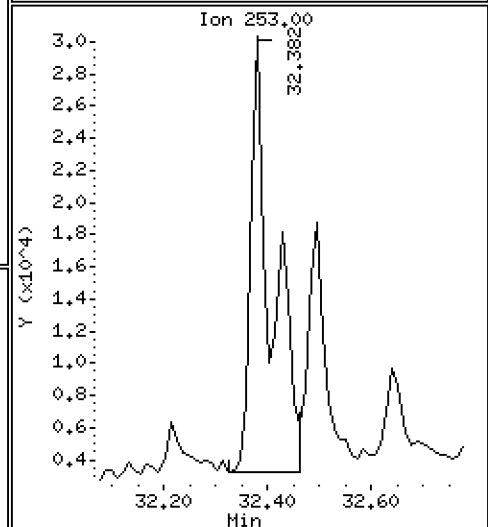
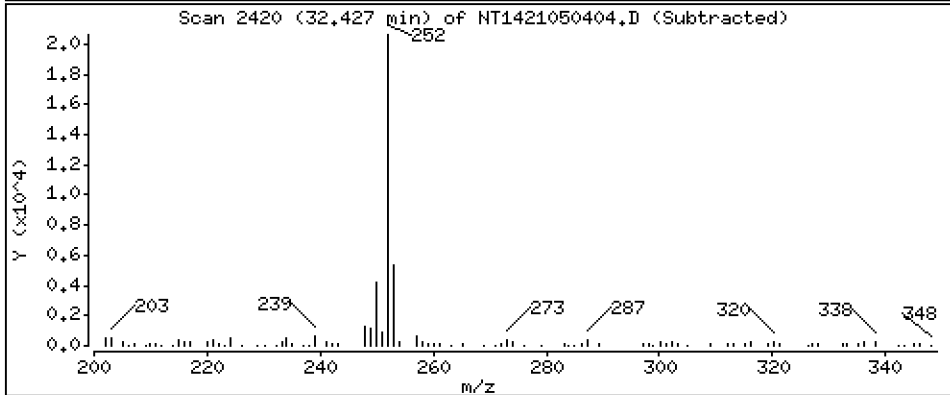
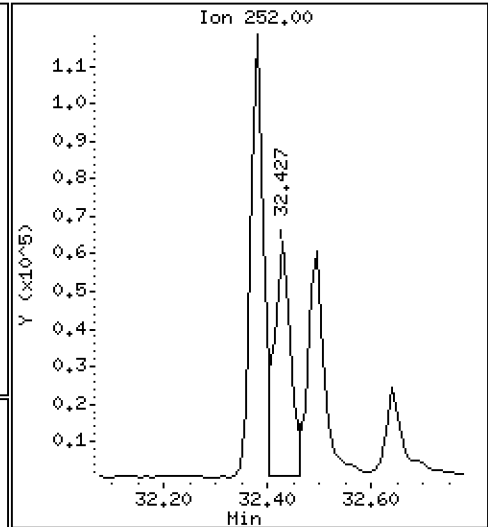
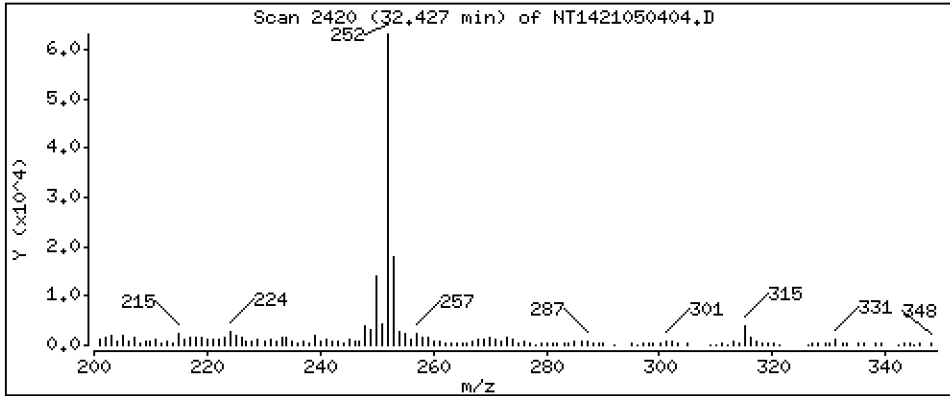
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

63 Benzo(k)fluoranthene

Concentration: 0,4923 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

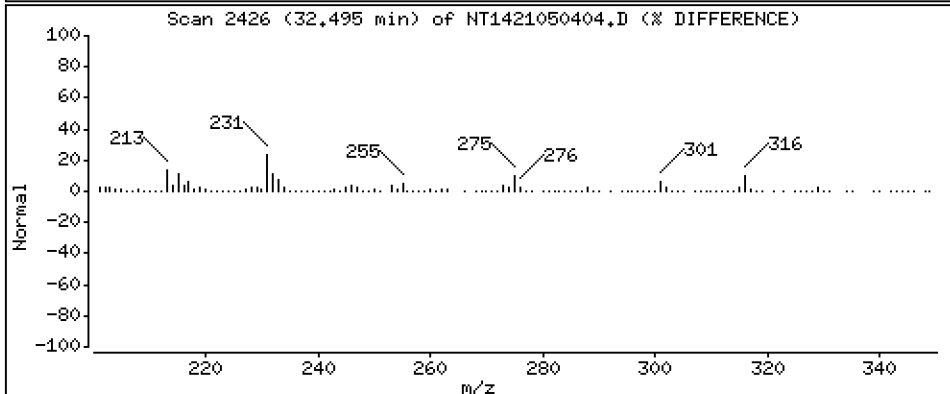
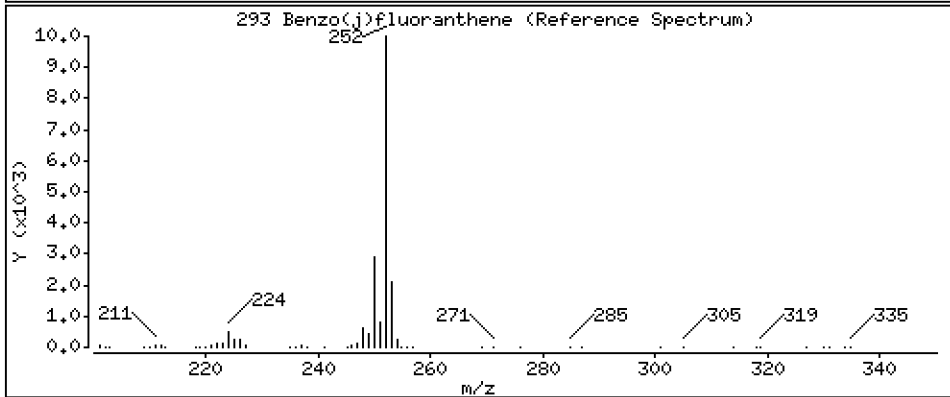
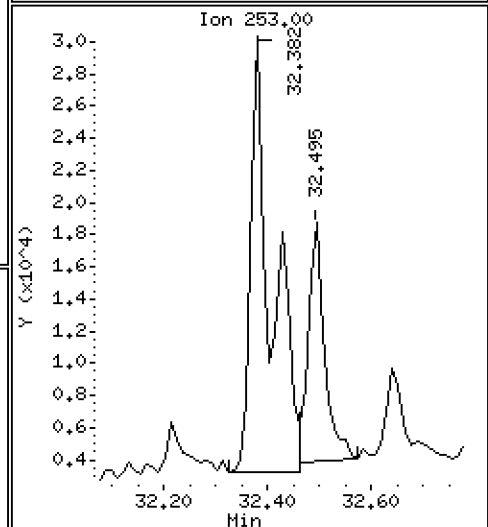
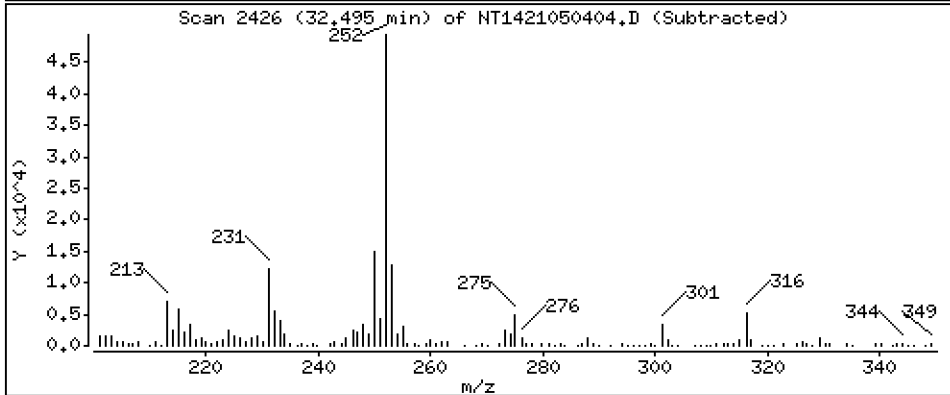
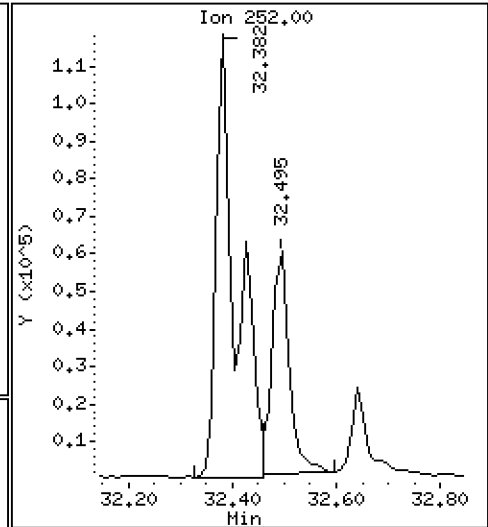
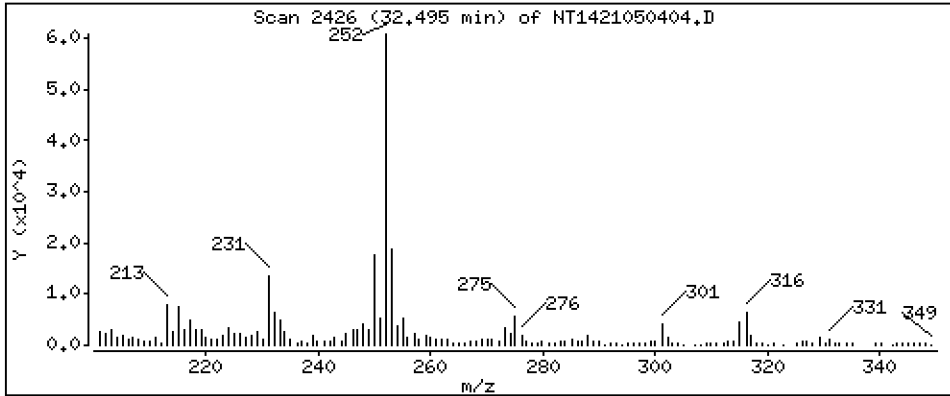
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

293 Benzo(j)fluoranthene

Concentration: 0,5032 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

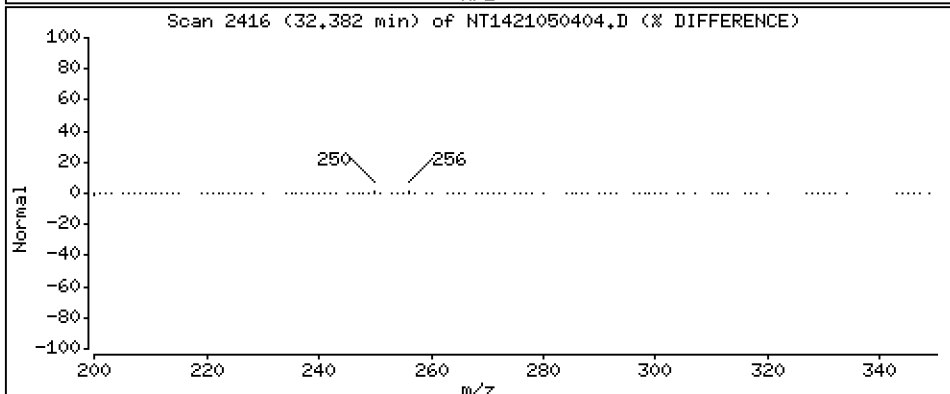
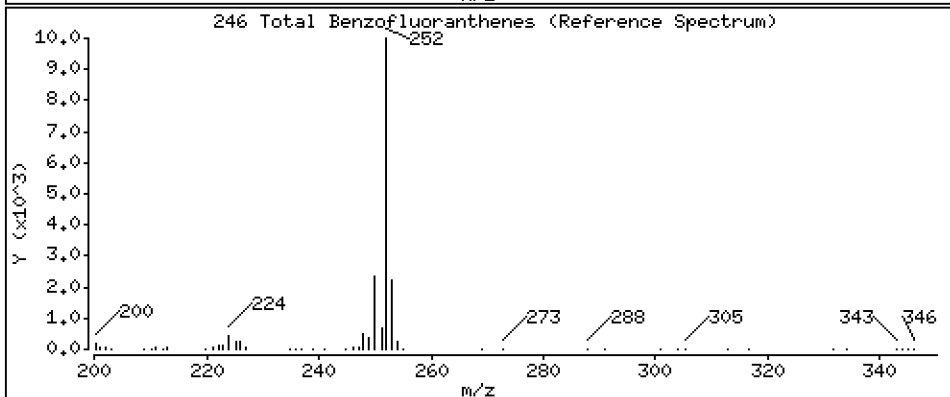
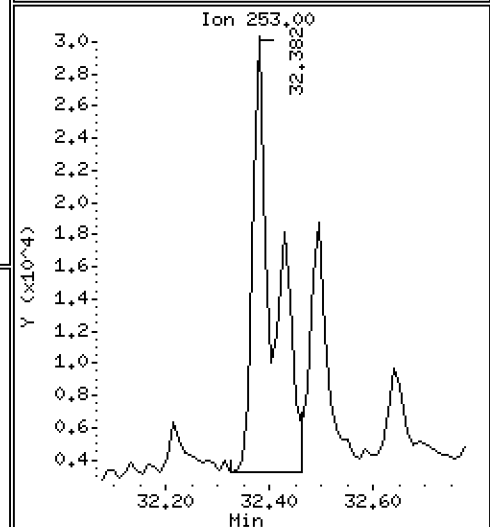
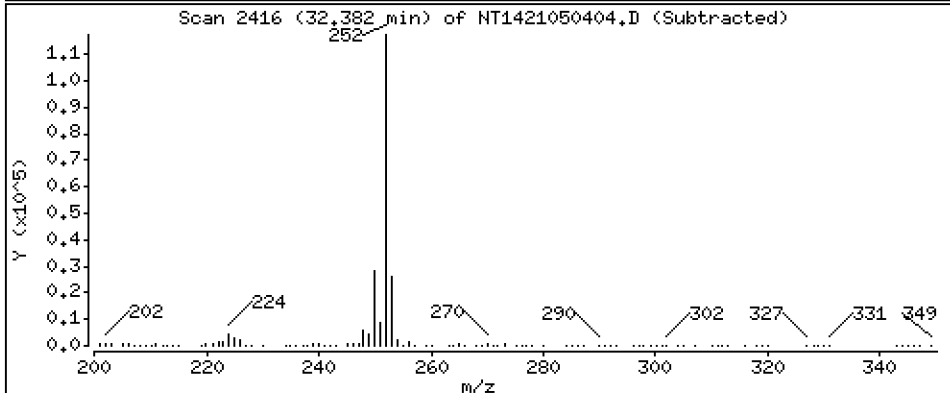
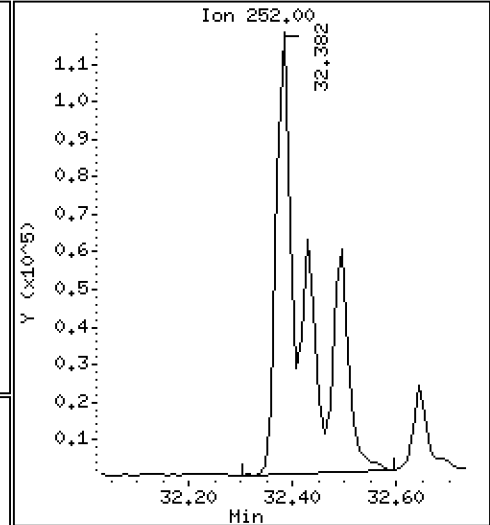
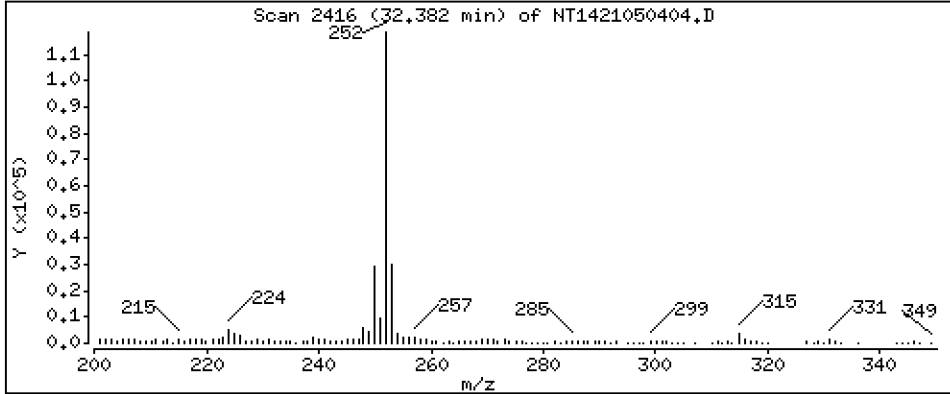
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

246 Total Benzofluoranthenes

Concentration: 1,781 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

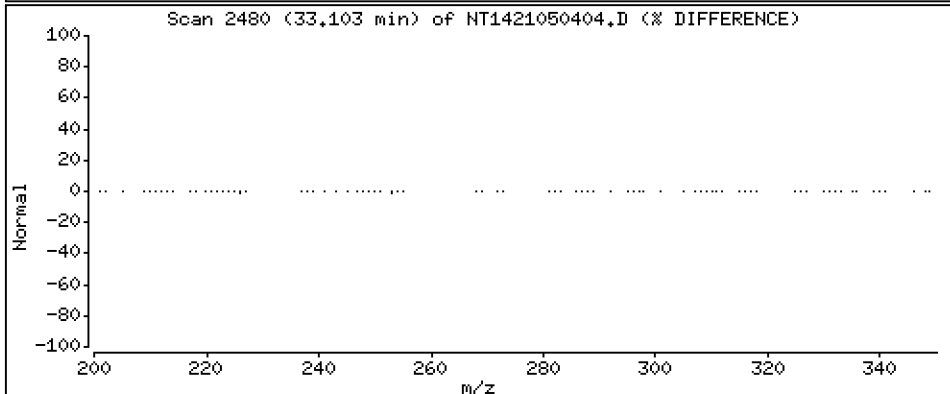
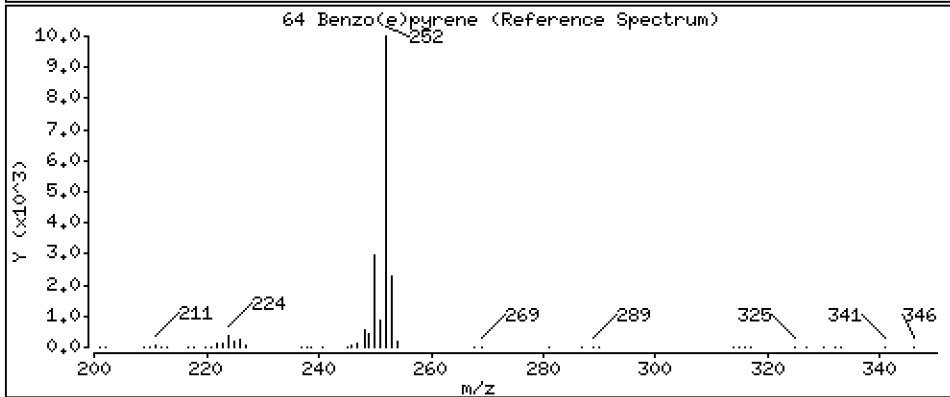
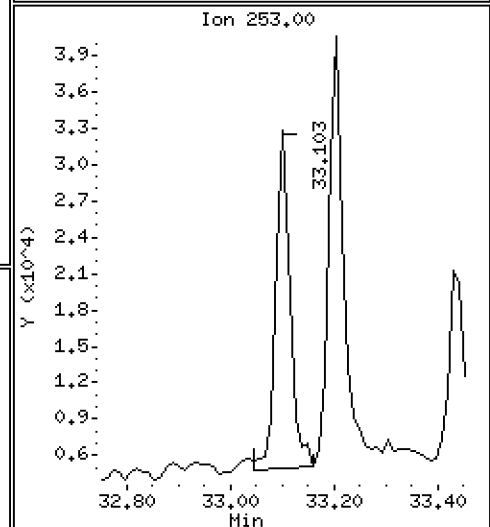
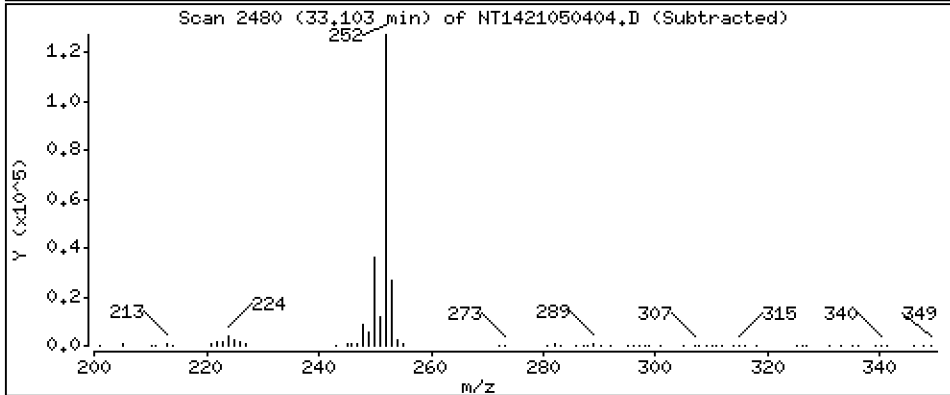
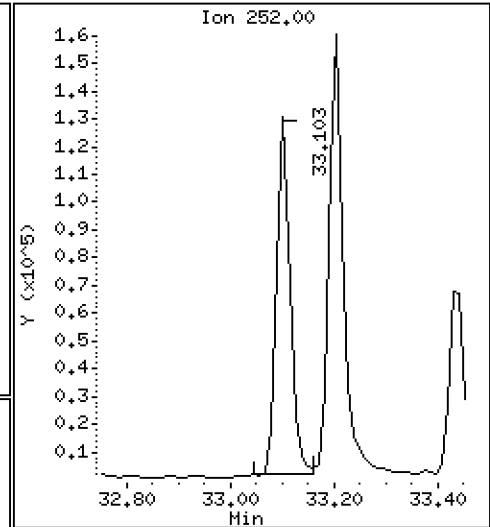
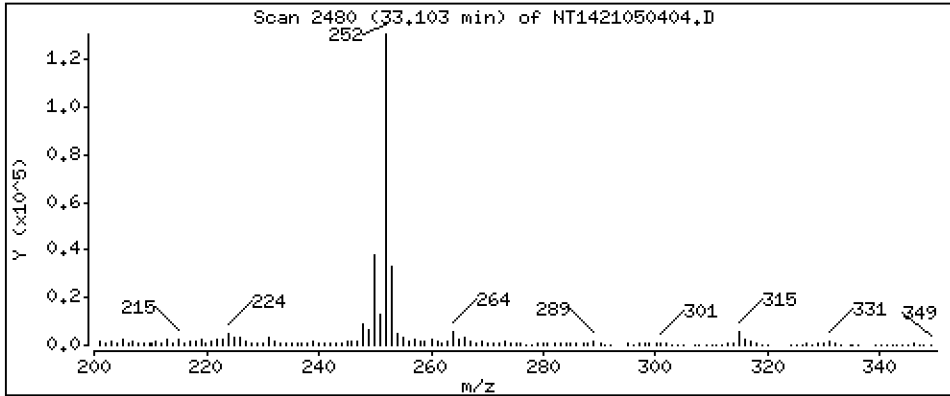
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

64 Benzo(e)pyrene

Concentration: 0,9226 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

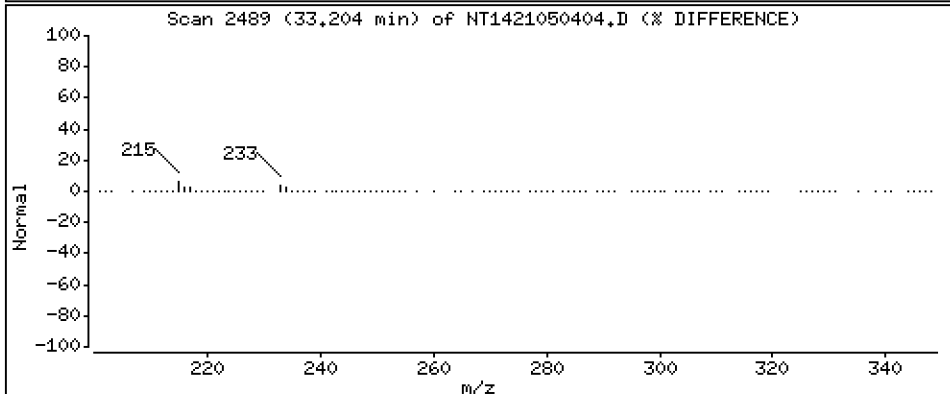
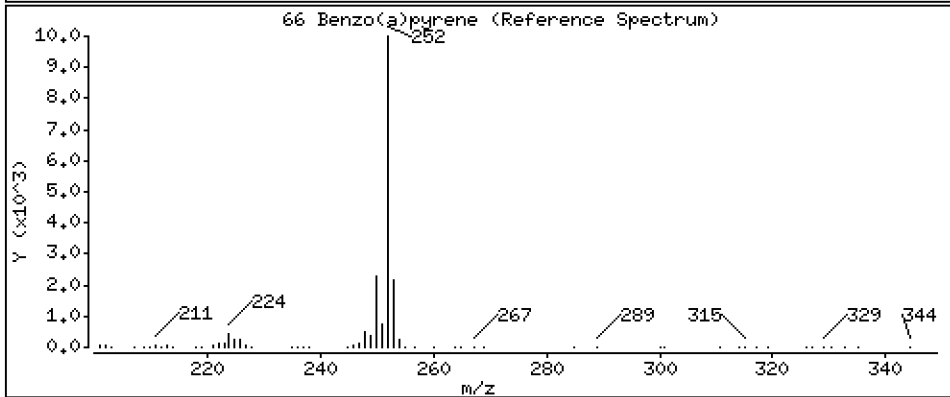
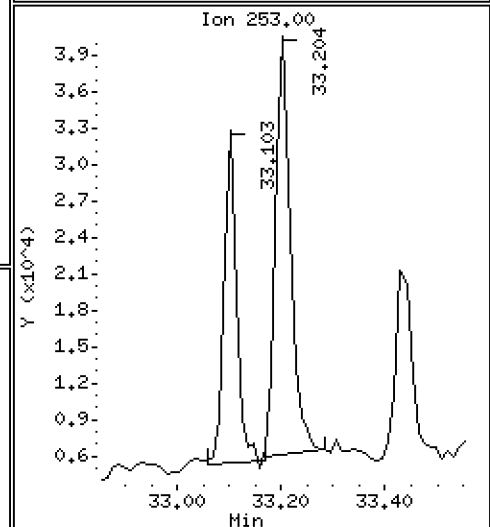
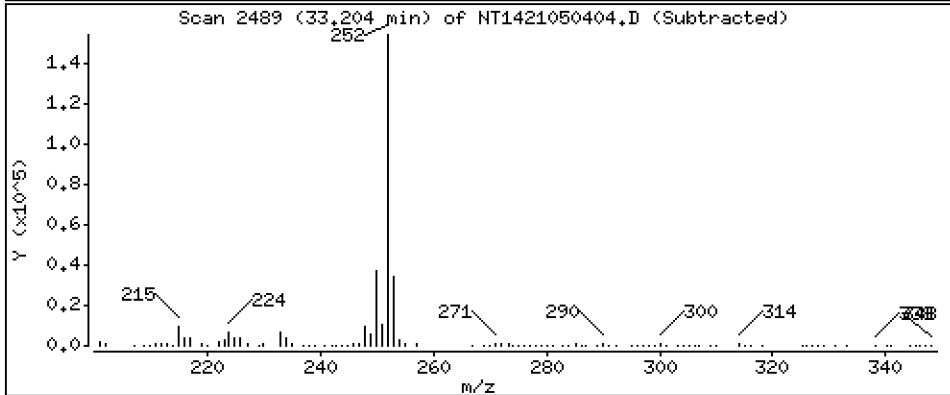
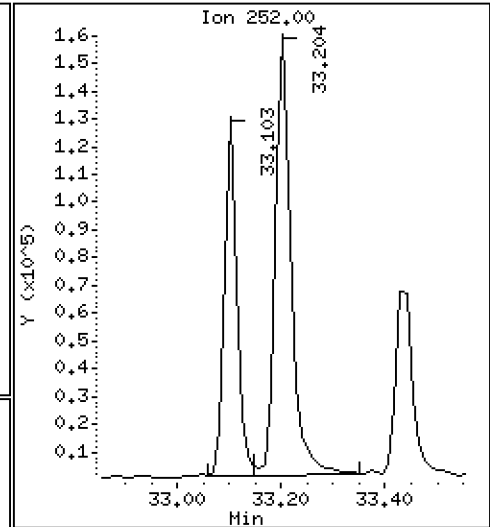
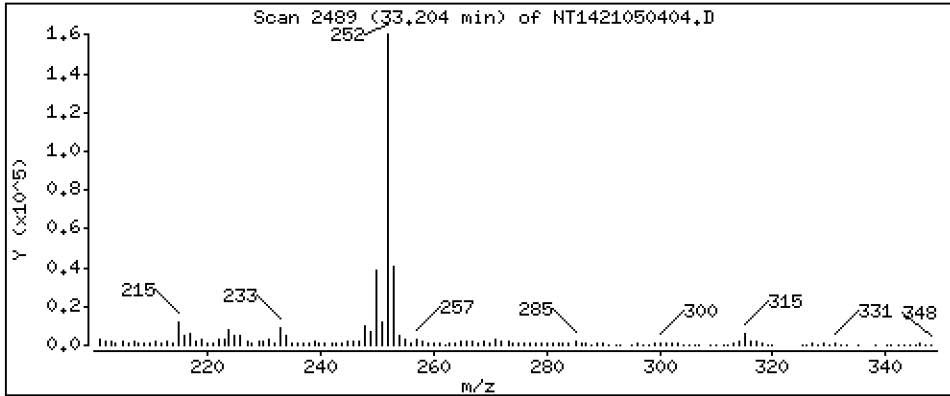
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

66 Benzo(a)pyrene

Concentration: 1,312 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

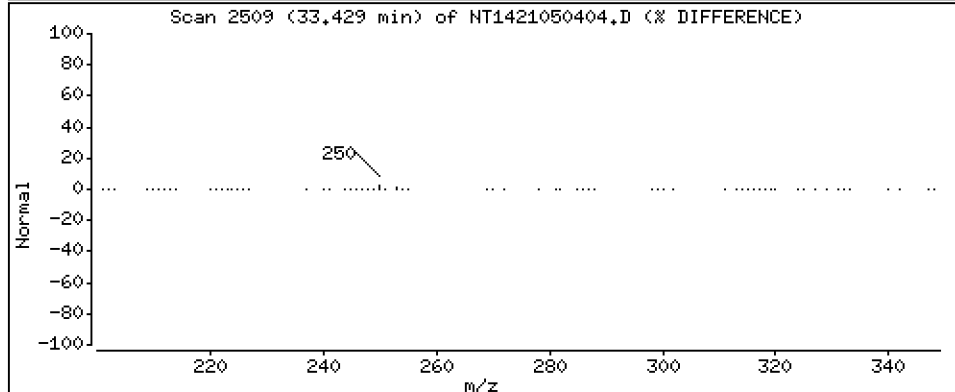
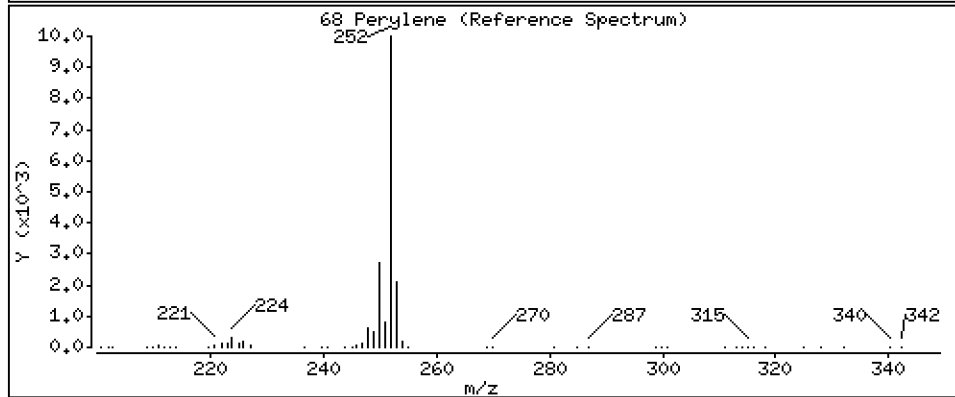
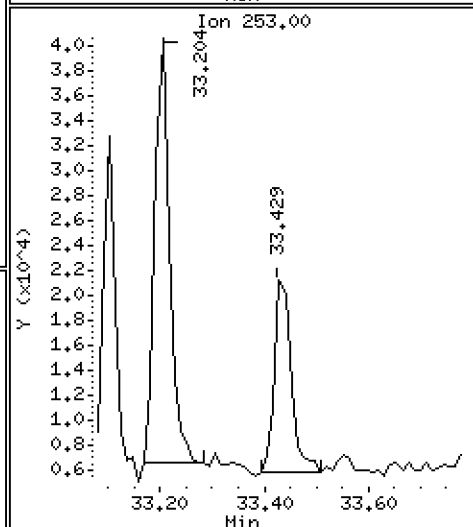
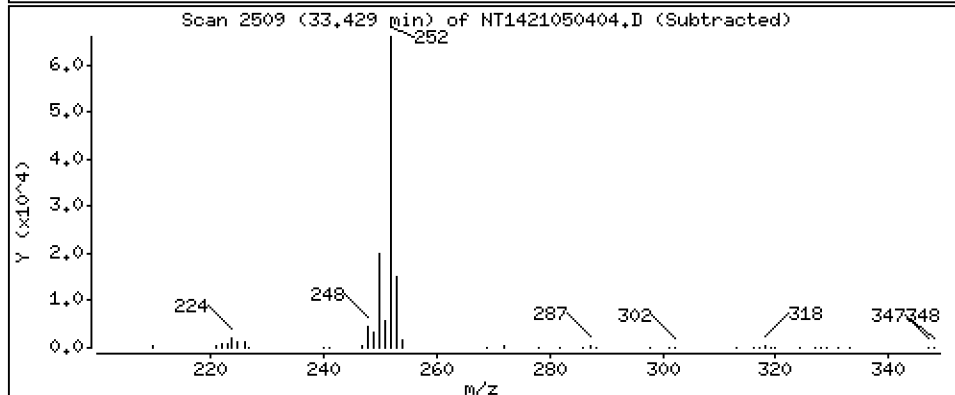
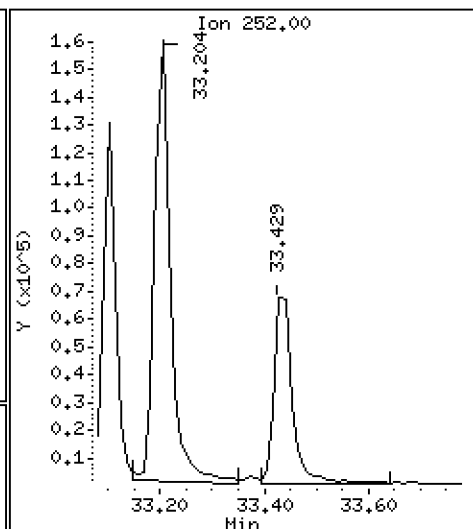
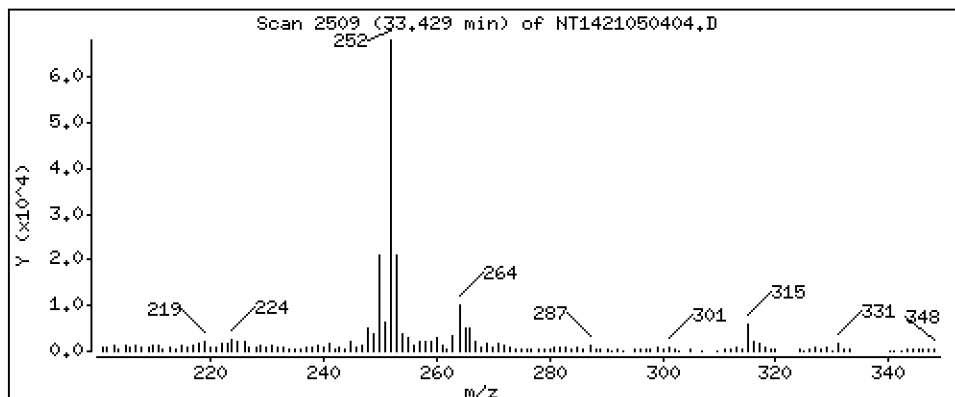
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

68 Perylene

Concentration: 0,6795 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

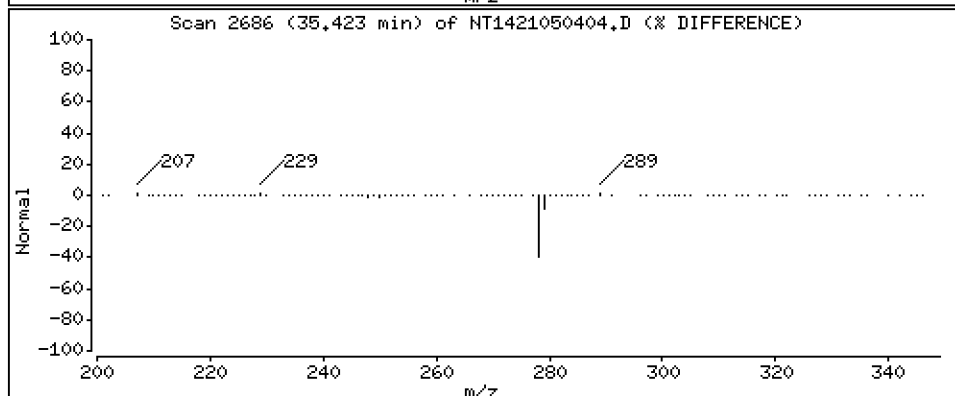
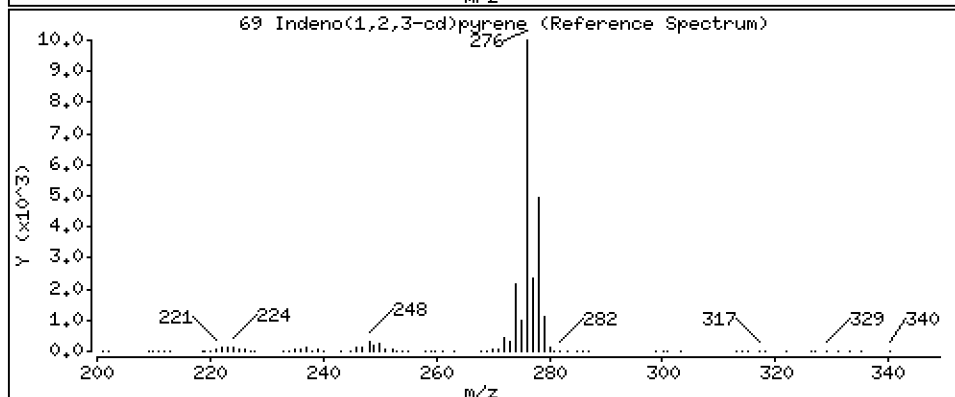
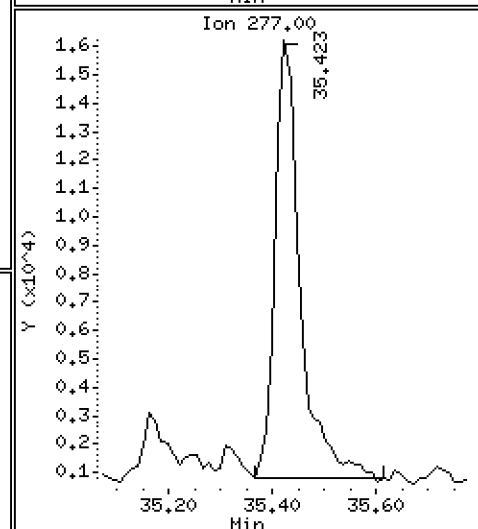
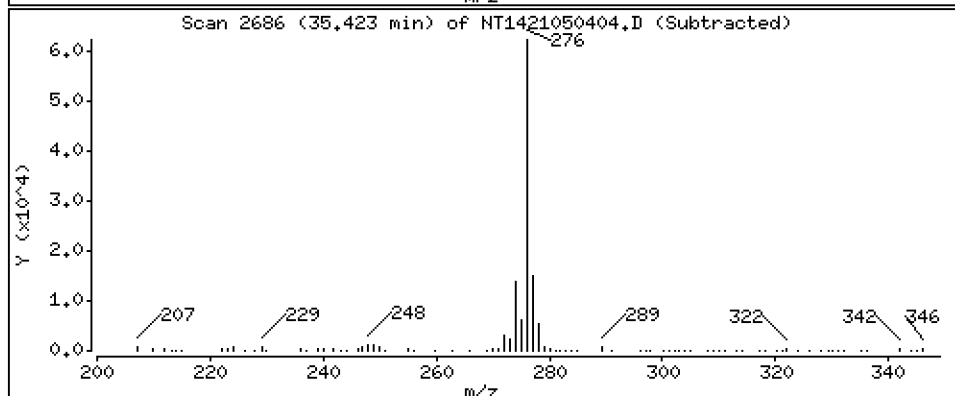
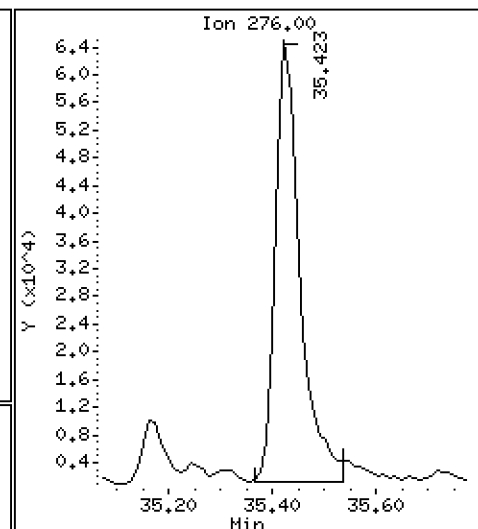
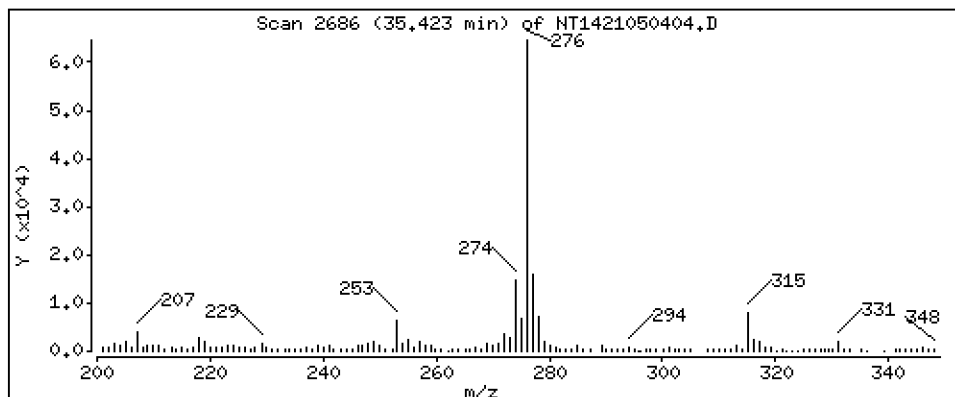
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

69 Indeno(1,2,3-cd)pyrene

Concentration: 0,8271 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

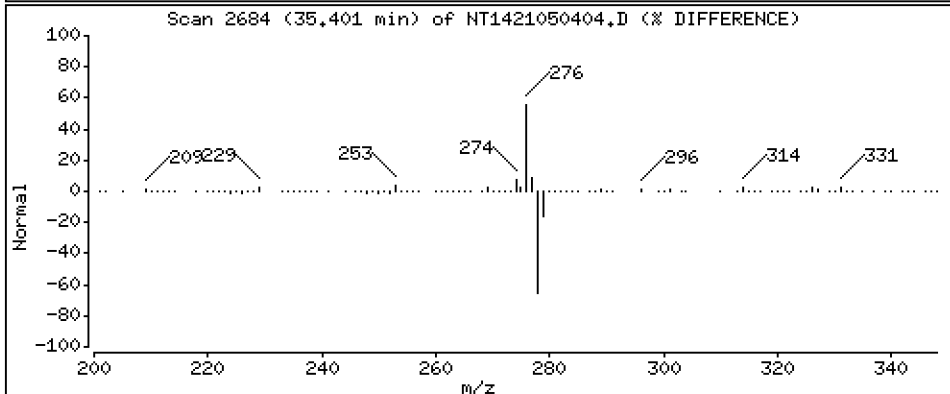
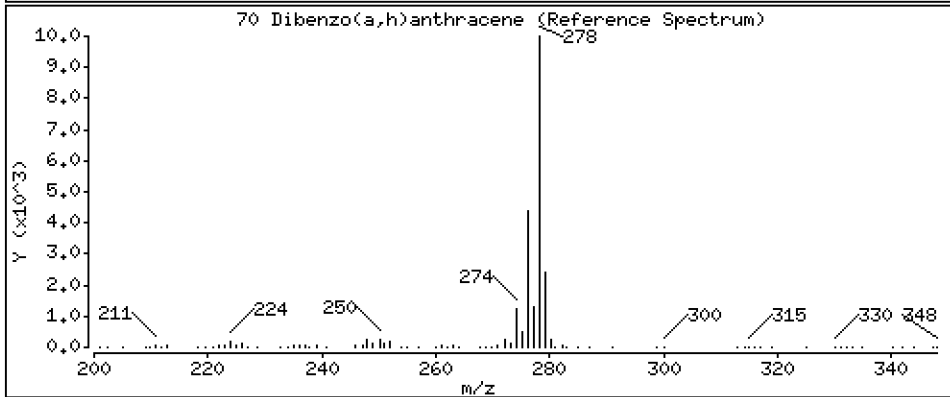
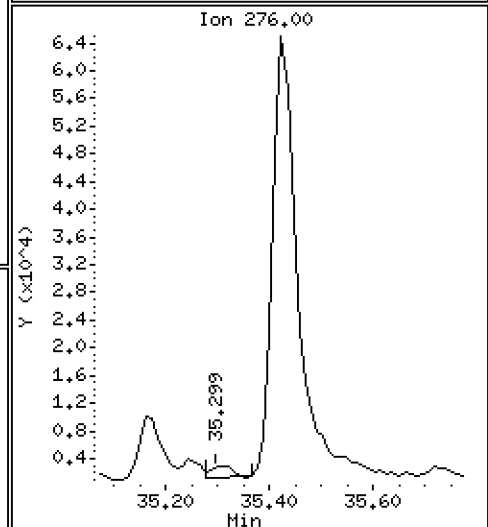
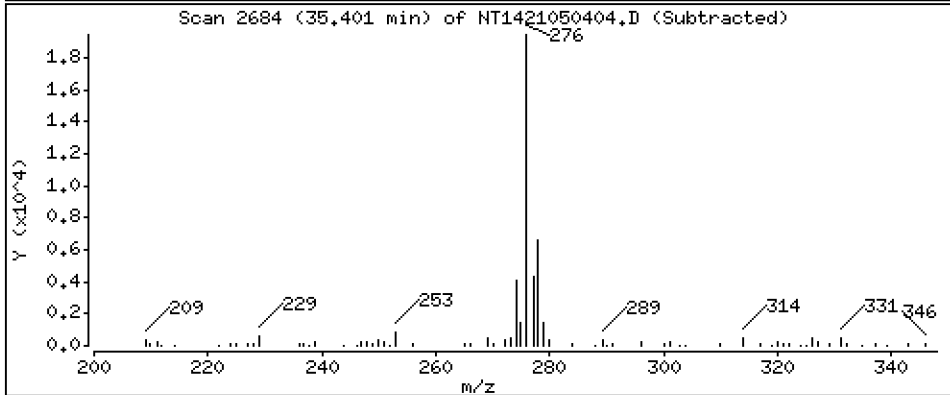
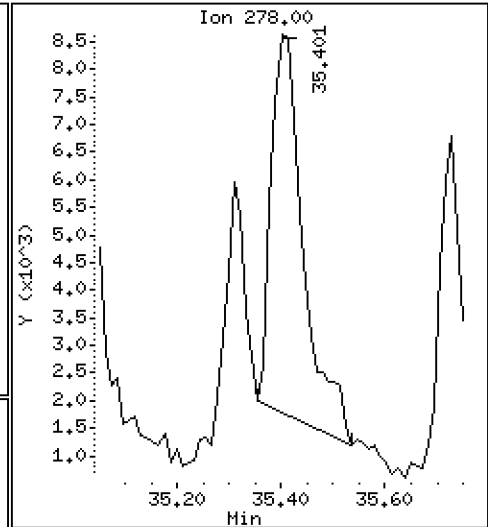
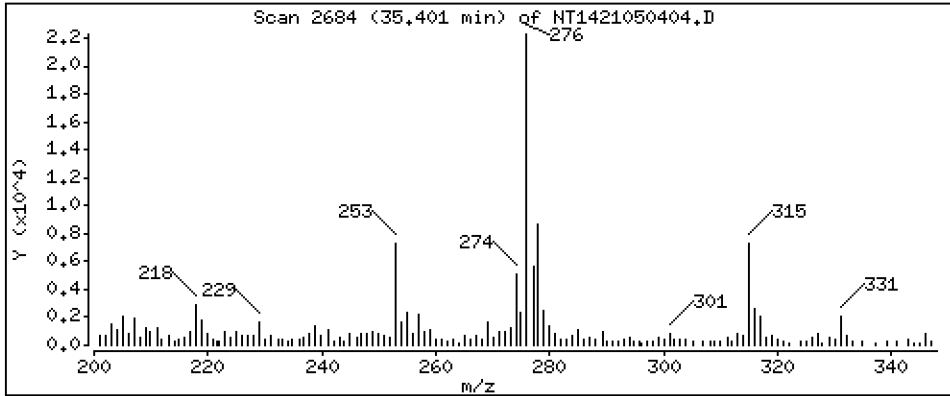
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

70 Dibenzo(a,h)anthracene

Concentration: 0,1366 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

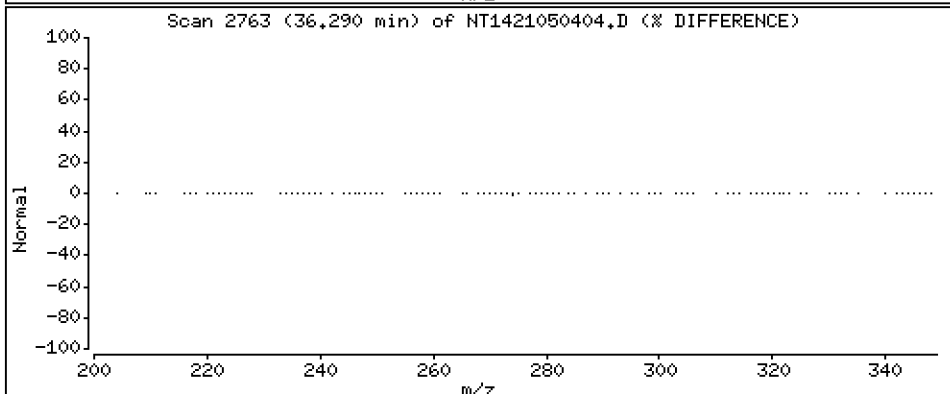
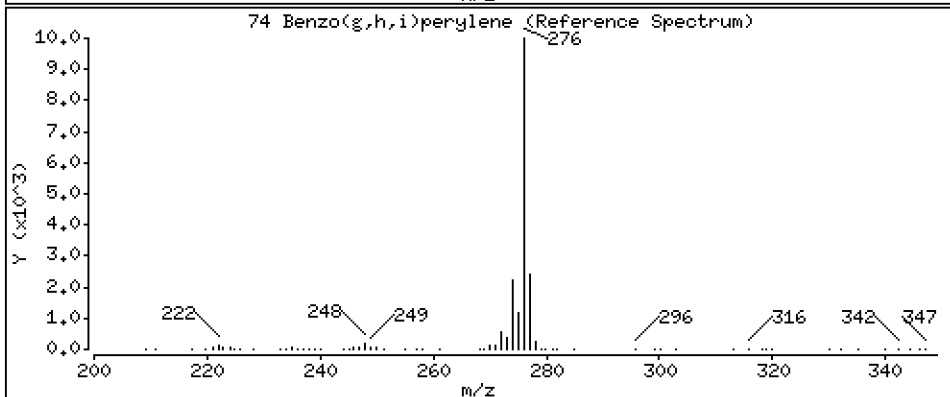
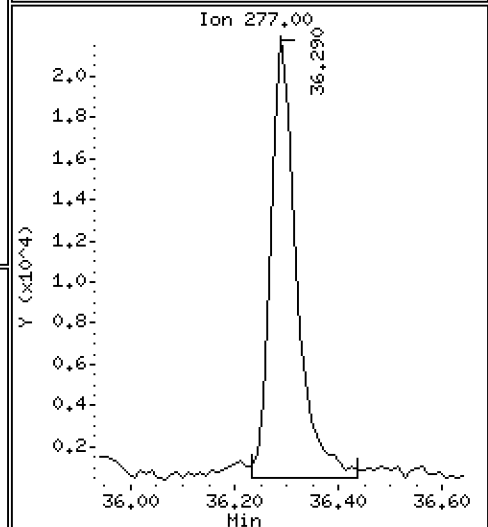
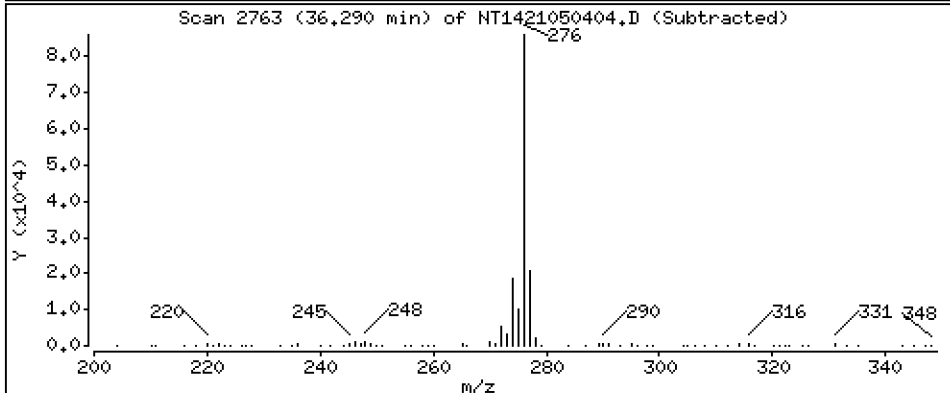
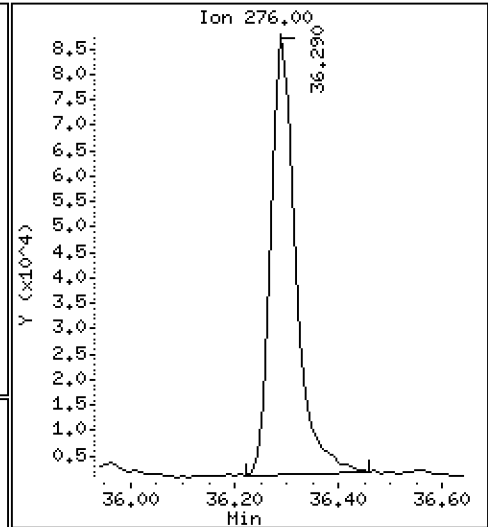
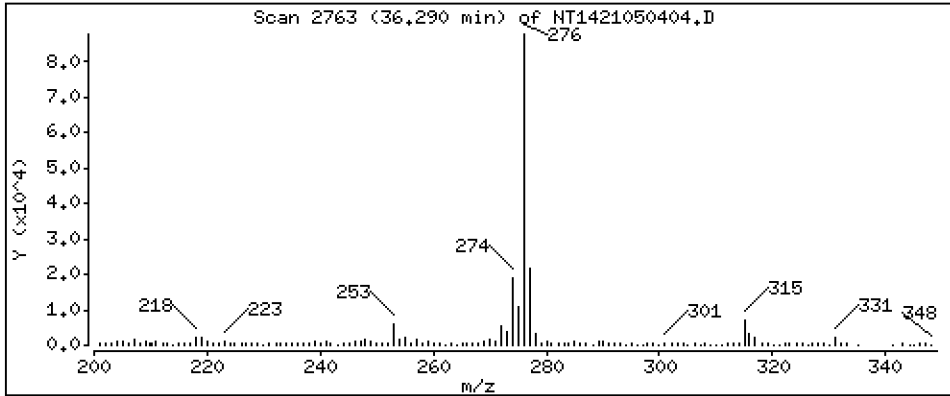
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

74 Benzo(g,h,i)perylene

Concentration: 1,311 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210504.b\NT1421050404.D
 Lab Smp Id: 21D0180-04
 Inj Date : 04-MAY-2021 15:19
 Operator : VTS
 Smp Info : 21D0180-04
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt14.i\20210504.b\ALKYLPNA.m
 Meth Date : 04-May-2021 14:17 van
 Cal Date : 30-APR-2021 13:32
 Als bottle: 4
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-202011

Inst ID: nt14.i

Quant Type: ISTD
 Cal File: NT1421043009.D

Compound Sublist: TARGETS.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
1 trans-Decalin	138		Compound Not Detected.					
2 cis-Decalin	138		Compound Not Detected.					
\$ 6 Naphthalene-d8	136		11.766	11.766	(0.627)	560124	1.88724	1.887 (R)
7 Naphthalene	128		11.836	11.836	(0.631)	84529	0.28000	0.2800
12 Benzo(b)thiophene	134		12.273	12.284	(0.654)	5368	0.02235	0.02235
16 2-Methylnaphthalene	141		13.669	13.669	(0.728)	18548	0.11513	0.1151
17 1-methylnaphthalene	141		14.120	14.120	(0.752)	13821	0.09054	0.09054
18 Biphenyl	154		15.307	15.307	(0.815)	16403	0.07114	0.07114
19 2,6-Dimethylnaphthalene	156		15.383	15.384	(0.820)	5685	0.03583	0.03583 (M)
20 Acenaphthylene	152		16.955	16.955	(0.903)	23346	0.09351	0.09351
\$ 21 Acenaphthene-d10	164		17.241	17.241	(0.918)	310689	2.14386	2.144 (R)
22 Acenaphthene	153		17.351	17.351	(0.924)	32702	0.20380	0.2038
23 Dibenzofuran	168		17.724	17.735	(0.944)	16952	0.06972	0.06972
24 1,6,7-Trimethylnaphthalene	170		17.955	17.955	(0.956)	6516	0.04680	0.04680
* 25 Fluorene-d10	176		18.772	18.772	(1.000)	514283	2.00000	
26 Fluorene	166		18.874	18.874	(1.005)	27152	0.15366	0.1537
30 Dibenzothiophene	184		21.785	21.785	(1.161)	29963	0.13433	0.1343
\$ 35 Phenanthrene-d10	188		22.093	22.093	(0.995)	515200	2.00276	2.003 (R)
36 Phenanthrene	178		22.181	22.181	(0.999)	308072	1.07270	1.073
* 250 Anthracene-d10	188		22.214	22.214	(1.000)	476033	2.00000	
37 Anthracene	178		22.280	22.280	(1.003)	74764	0.28241	0.2824
42 Carbazole	167		23.555	23.555	(1.060)	15279	0.07018	0.07018 (M)
43 1-Methylphenanthrene	192		24.017	24.017	(1.081)	27259	0.15633	0.1563
44 Fluoranthene	202		25.985	25.985	(1.170)	552364	2.16564	2.166
46 Pyrene	202		26.832	26.832	(1.208)	667413	2.52514	2.525 (M)
51 Naphthobenzothiophene	234		29.375	29.375	(1.322)	44898	0.17432	0.1743
55 Benzo(a)anthracene	228		29.960	29.960	(0.907)	222885	0.89874	0.8987
\$ 56 Chrysene-d12	240		30.084	30.084	(0.910)	410691	2.04084	2.041 (R)
57 Chrysene	228		30.163	30.163	(0.913)	303037	1.17161	1.172
62 Benzo(b)fluoranthene	252		32.382	32.382	(0.980)	211626	0.92089	0.9209 (M)
63 Benzo(k)fluoranthene	252		32.427	32.427	(0.981)	137312	0.49230	0.4923 (M)
293 Benzo(j)fluoranthene	252		32.494	32.494	(0.983)	132571	0.50321	0.5032
246 Total Benzofluoranthenes	252		32.382	32.382	(0.980)	450746	1.78146	1.781 (M)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.046	33.046	(1.000)	553821	2.00000	
64 Benzo(e)pyrene	252	33.102	33.102	(1.002)	217629	0.92262	0.9226
66 Benzo(a)pyrene	252	33.204	33.204	(1.005)	316326	1.31242	1.312
\$ 67 Perylene-d12	264	33.373	33.373	(1.010)	458010	2.13492	2.135 (R)
68 Perylene	252	33.429	33.429	(1.012)	153085	0.67949	0.6795
69 Indeno(1,2,3-cd)pyrene	276	35.423	35.423	(1.072)	202723	0.82708	0.8271 (M)
70 Dibenzo(a,h)anthracene	278	35.400	35.400	(1.071)	28523	0.13657	0.1366 (M)
74 Benzo(g,h,i)perylene	276	36.290	36.290	(1.098)	278221	1.31111	1.311 (M)

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 04-MAY-2021
 Lab File ID: NT1421050404.D Calibration Time: 12:52
 Lab Smp Id: 21D0180-04
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210504.b\ALKYLPNA.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	560901	280451	1121802	514283	-8.31
250 Anthracene-d10	511244	255622	1022488	476033	-6.89
251 Benzo(e)pyrene-d1	574536	287268	1149072	553821	-3.61

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.77	18.27	19.27	18.77	-0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	-0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	-0.00

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.

REVIEW SUMMARY FOR FILE - NT1421050404.D

Lab ID: 21D0180-04

nt14.i, 20210504.b\ALKYLPNA.m, 04-MAY-2021 15:19

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

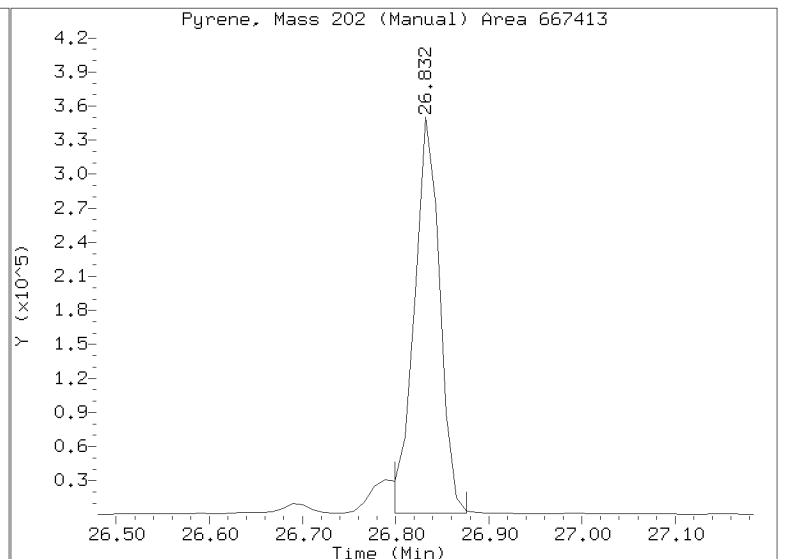
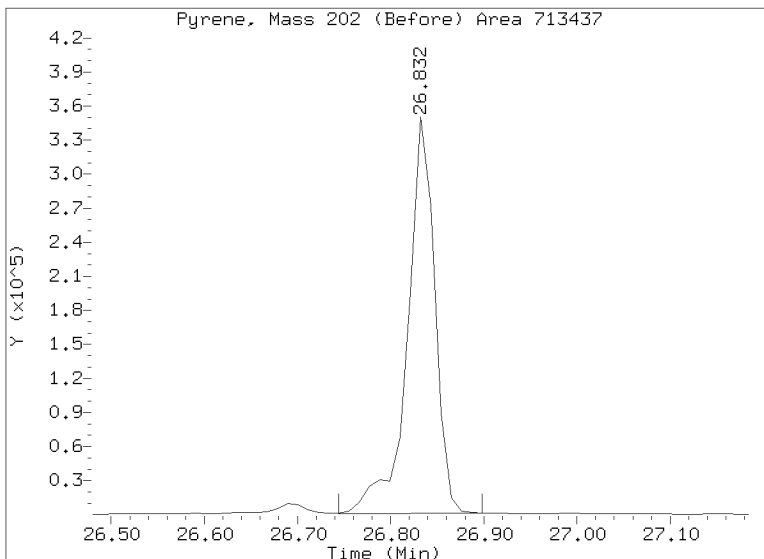
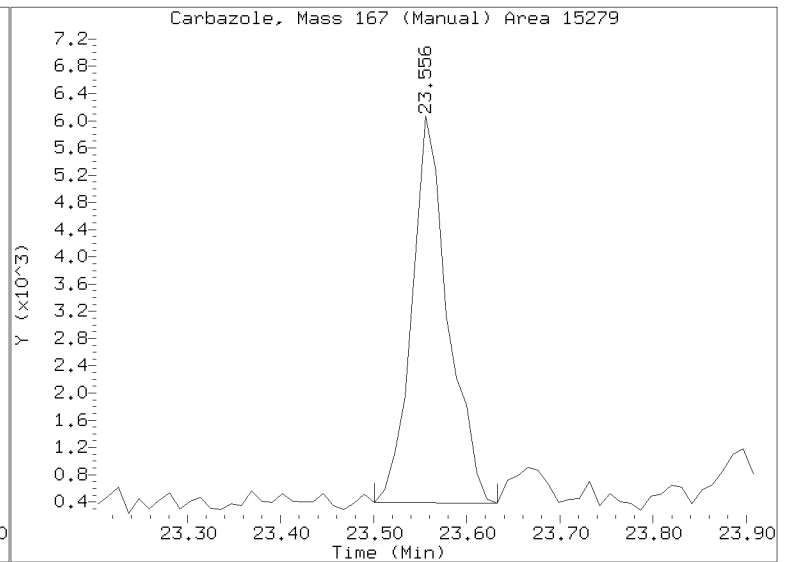
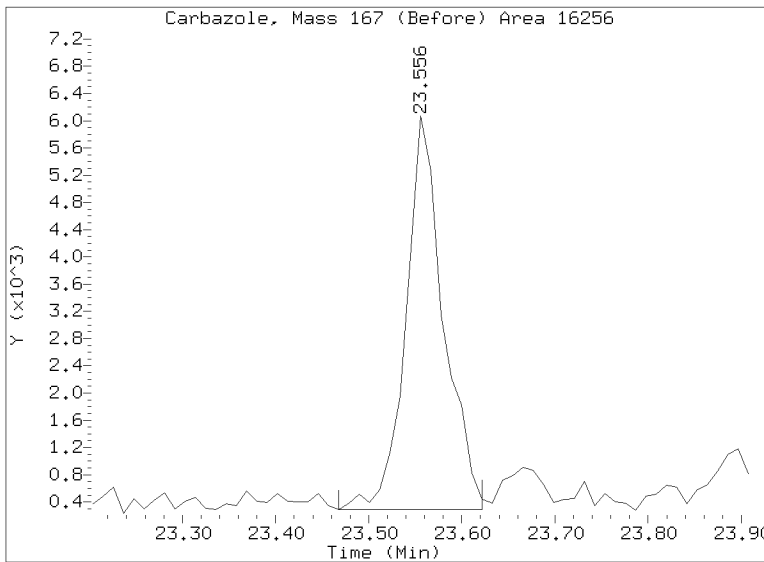
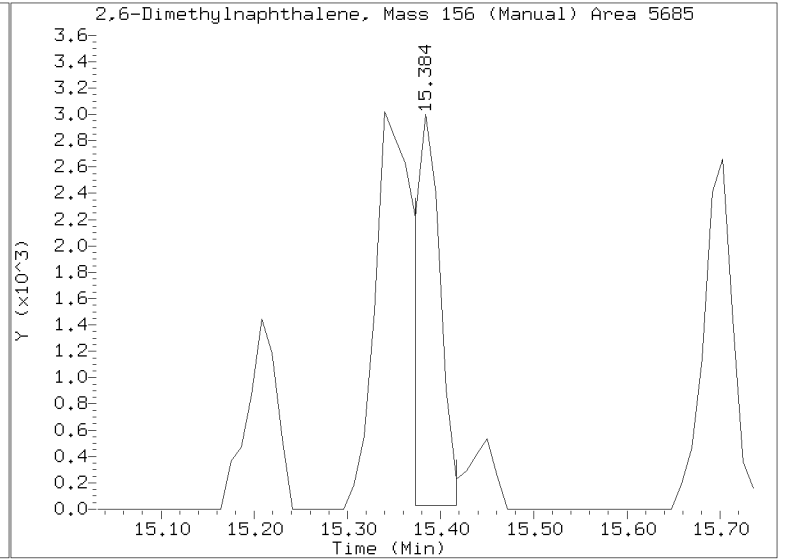
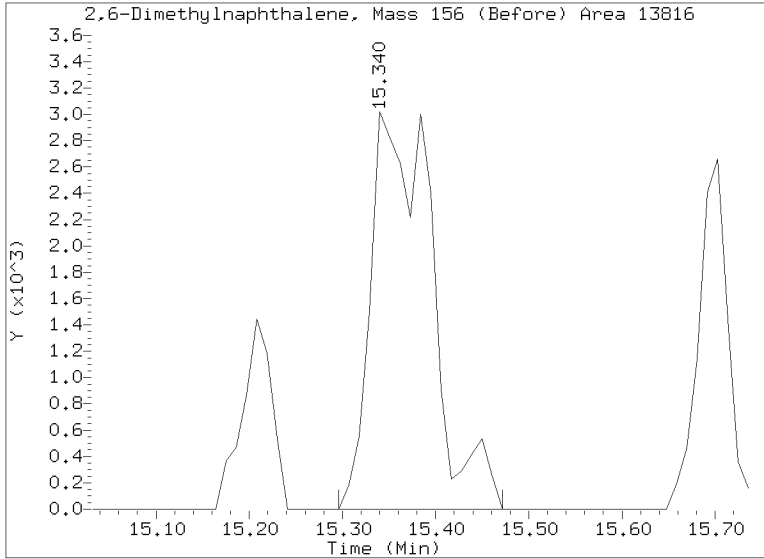
RRT check based on Ccal File: NT1421050402.D

On Column LOD for nt14.i, 20210504.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

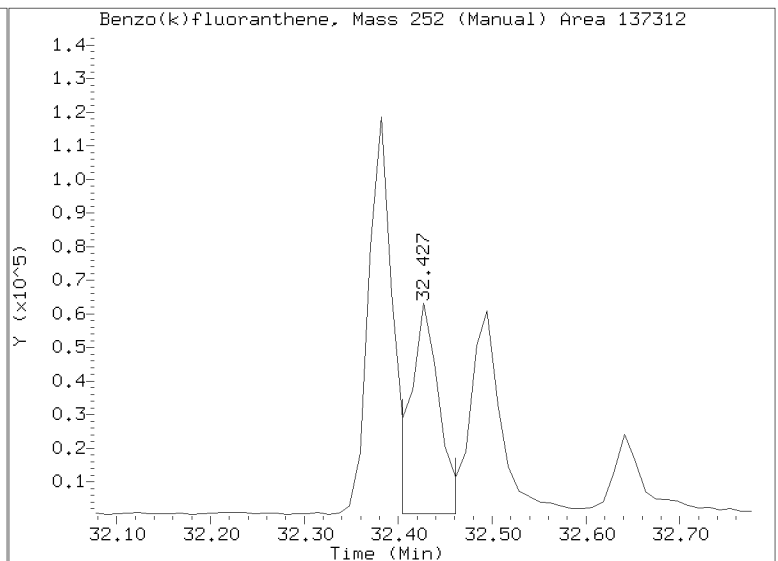
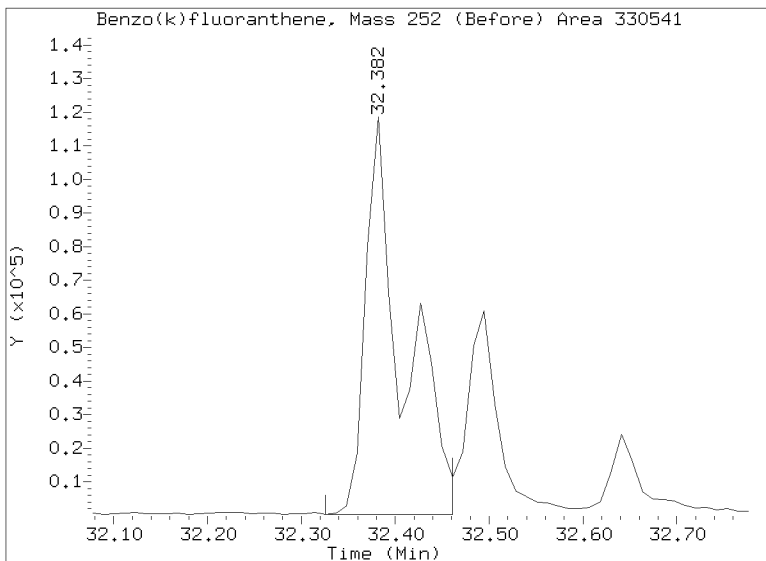
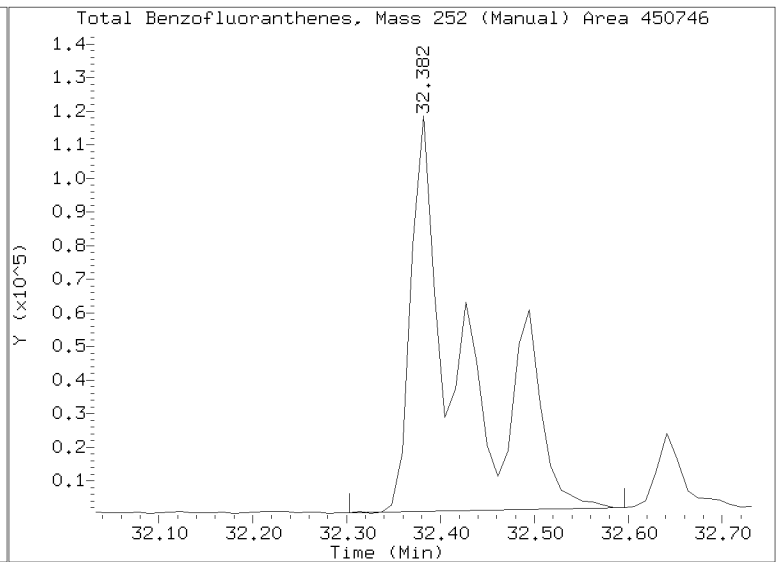
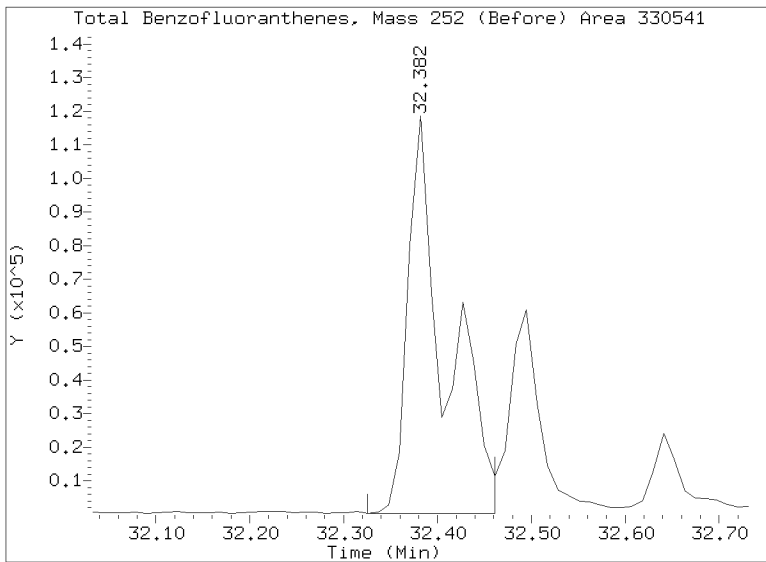
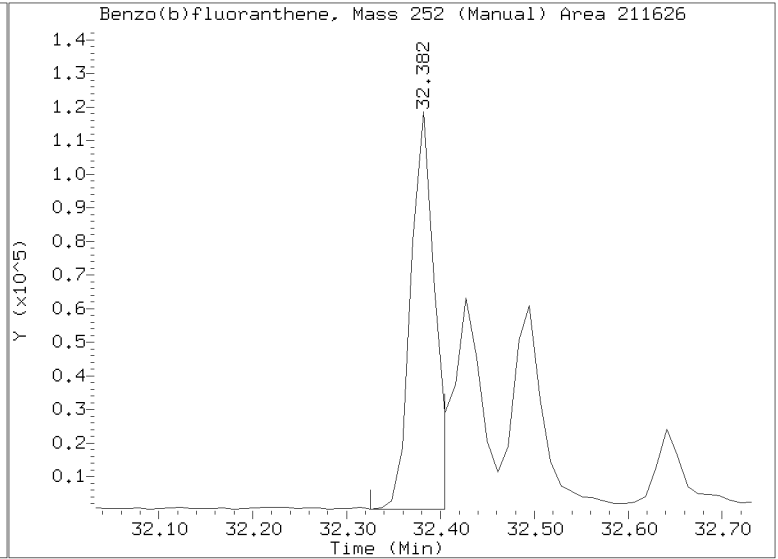
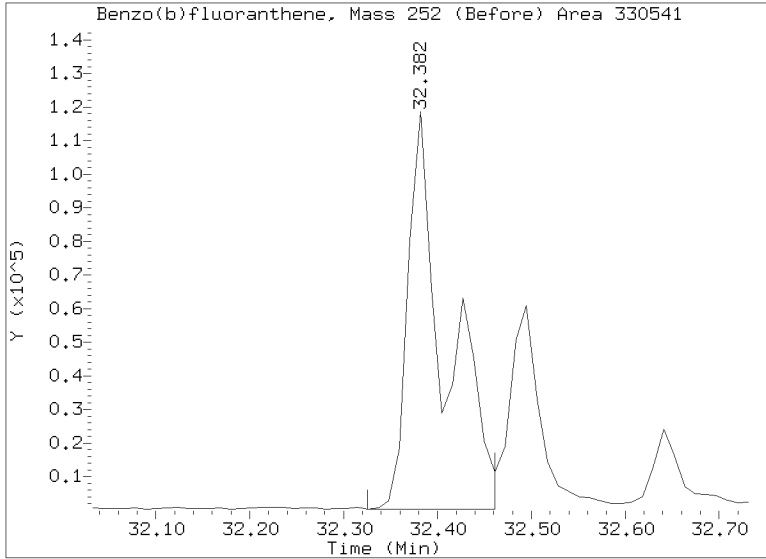
Quant Ion Manual Peak Adjustment Report

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Injection Date: 04-MAY-2021 15:19
Lab ID:21D0180-04 Client ID:
Report Date: 05/05/2021 12:34



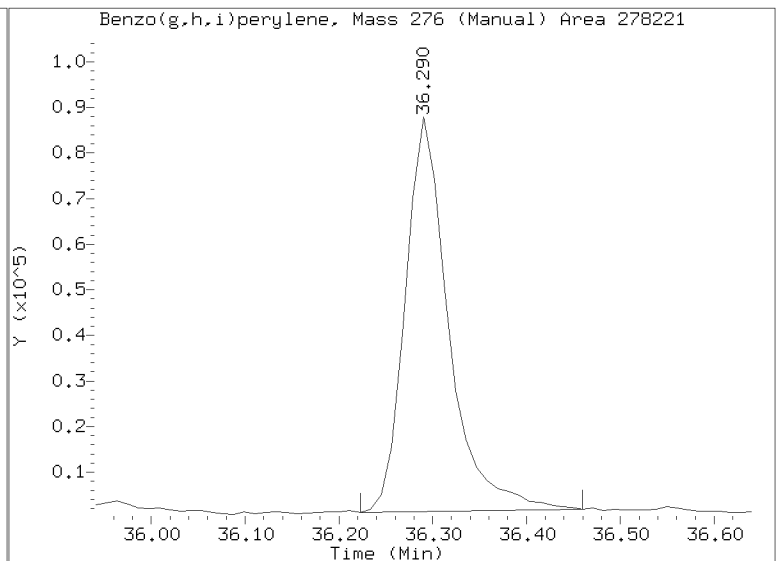
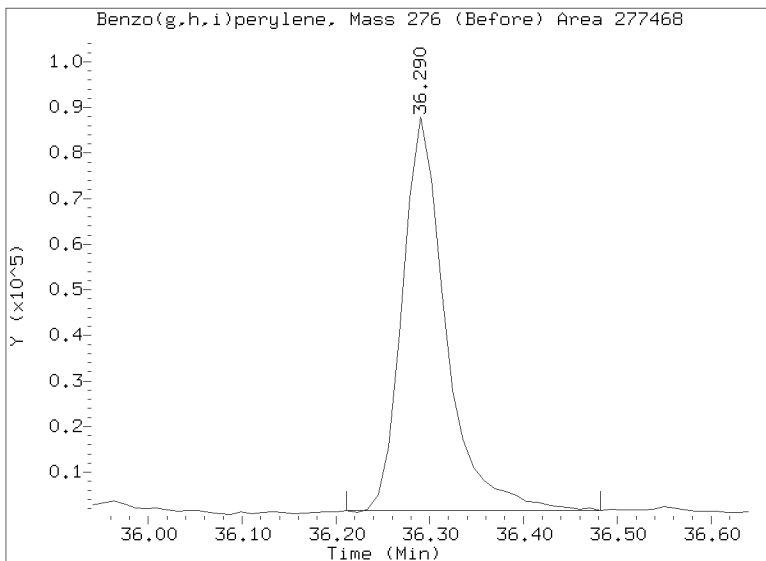
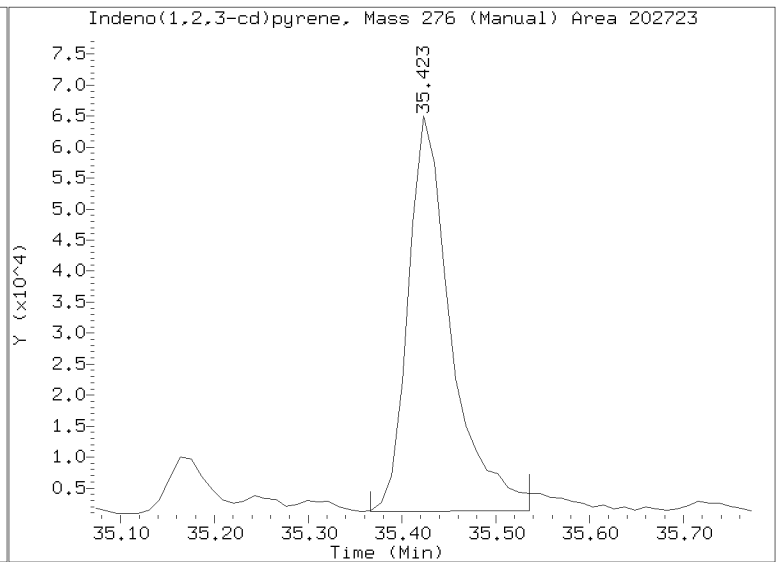
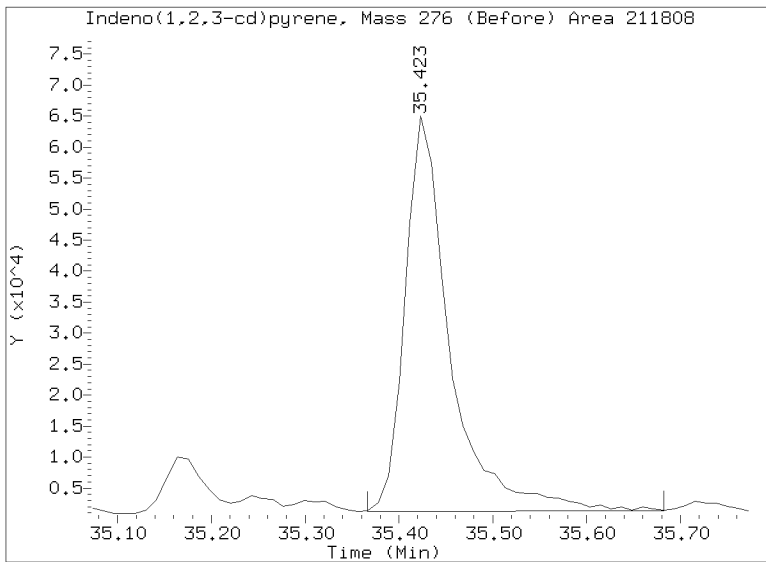
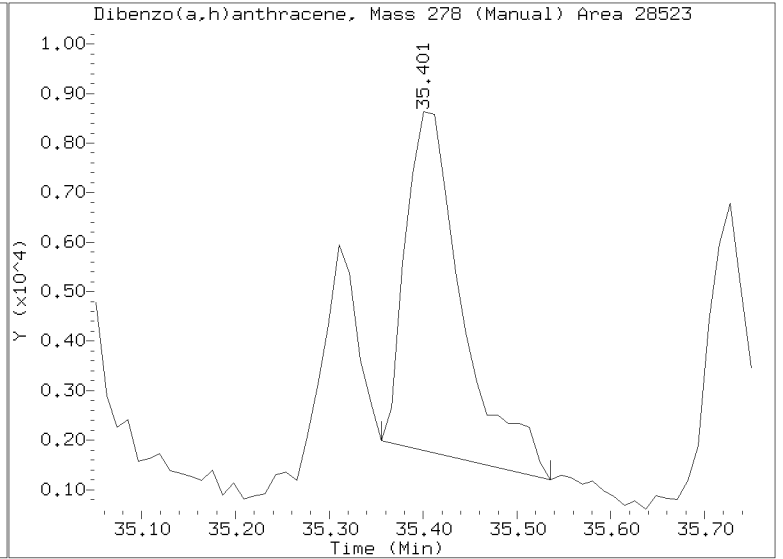
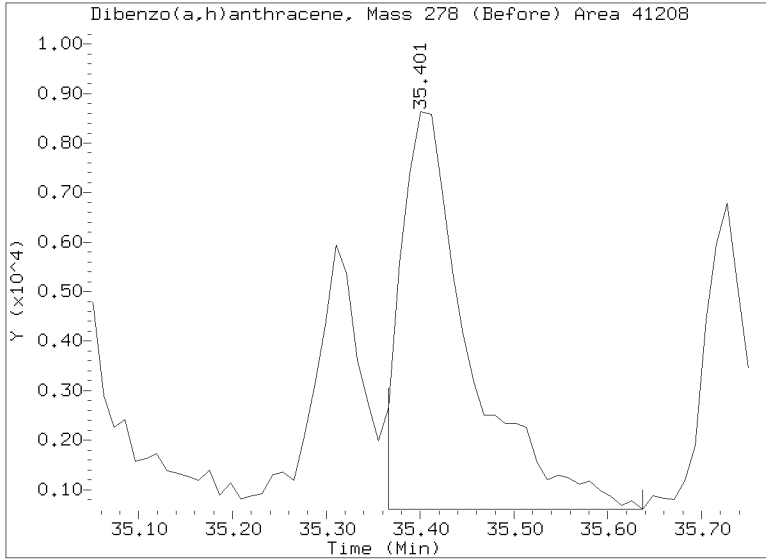
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210504.b/NT1421050404.D
Injection Date: 04-MAY-2021 15:19
Lab ID:21D0180-04 Client ID:
Report Date: 05/05/2021 12:34



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210504.b/NT1421050404.D
Injection Date: 04-MAY-2021 15:19
Lab ID:21D0180-04 Client ID:
Report Date: 05/05/2021 12:34





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Alkyl PAH Ranges

Laboratory: Analytical Resources, Inc.
 Client: Anchor OEA, LLC
 Project: Gasco Siltronic - US Moorings
 Matrix: Sediment Laboratory ID: 21D0180-04 A SDG: 21D0180
 Sampled: 04/14/21 09:22 Prepared: 04/22/21 11:05 File ID: NT1421050404S.D
 % Solids: 35.60 Preparation: EPA 3546 (Microwave) Analyzed: 05/04/21 15:19
 Batch: BJD0507 Sequence: SJE0097 Initial/Final: 28.11 g Wet / 0.5 mL
 Instrument: NT14 Column: ZB-5MS Calibration: EE00019
 Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
C1DEC	C1-Decalins	1	2.5	J	0.5	5.0
C2DEC	C2-Decalins	1	9.8		0.5	5.0
C3DEC	C3-Decalins	1	5.3		0.5	5.0
C4DEC	C4-Decalins	1	5.0	U	0.5	5.0
C1NAPH	C1-Naphthalenes	1	6.2		0.4	5.0
C2NAPH	C2-Naphthalenes	1	9.1		0.4	5.0
C3NAPH	C3-Naphthalenes	1	5.9		0.4	5.0
C4NAPH	C4-Naphthalenes	1	6.1		0.4	5.0
C1FLR	C1-Fluorenes	1	5.8		0.5	5.0
C2FLR	C2-Fluorenes	1	8.3		0.5	5.0
C3FLR	C3-Fluorenes	1	7.2		0.5	5.0
C1DBTPH	C1-Dibenzothiophenes	1	6.2		0.7	5.0
C2DBTPH	C2-Dibenzothiophenes	1	7.9		0.7	5.0
C3DBTPH	C3-Dibenzothiophenes	1	6.6		0.7	5.0
C4DBTPH	C4-Dibenzothiophenes	1	5.0	U	0.7	5.0
C1PHNANT	C1-Phenanthrenes/Anthracenes	1	29.7		0.9	5.0
C2PHNANT	C2-Phenanthrenes/Anthracenes	1	27.4		0.9	5.0
C3PHNANT	C3-Phenanthrenes/Anthracenes	1	9.5		0.9	5.0
C4PHNANT	C4-Phenanthrenes/Anthracenes	1	4.9	J	0.9	5.0
C1FLPYR	C1-Fluoranthenes/Pyrenes	1	51.9		1.0	5.0
C2FLPYR	C2-Fluoranthenes/Pyrenes	1	25.8		1.0	5.0
C3FLPYR	C3-Fluoranthenes/Pyrenes	1	8.4		1.0	5.0
C4FLPYR	C4-Fluoranthenes/Pyrenes	1	16.8		1.0	5.0
C1BAACYR	C1-Benzo(a)anthracenes/Chrysenes	1	35.4		0.7	5.0
C2BAACYR	C2-Benzo(a)anthracenes/Chrysenes	1	15.2		0.7	5.0
C3BAACYR	C3-Benzo(a)anthracenes/Chrysenes	1	10.1		0.7	5.0
C4BAACYR	C4-Benzo(a)anthracenes/Chrysenes	1	4.9	J	0.7	5.0
C1BZTPH	C1-Benzothiophenes	1	2.4	J	0.4	5.0
C2BZTPH	C2-Benzothiophenes	1	2.2	J	0.4	5.0
C3BZTPH	C3-Benzothiophenes	1	5.0	U	0.4	5.0



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Alkyl PAH Ranges

Laboratory: Analytical Resources, Inc.
Client: Anchor OEA, LLC
Project: Gasco Siltronic - US Moorings
Matrix: Sediment Laboratory ID: 21D0180-04 A SDG: 21D0180
Sampled: 04/14/21 09:22 Prepared: 04/22/21 11:05 File ID: NT1421050404S.D
% Solids: 35.60 Preparation: EPA 3546 (Microwave) Analyzed: 05/04/21 15:19
Batch: BJD0507 Sequence: SJE0097 Initial/Final: 28.11 g Wet / 0.5 mL
Instrument: NT14 Column: ZB-5MS Calibration: EE00019
Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
C1NPBTP	C1-Naphthobenzothiophenes	1	9.1		2.5	5.0
C2NPBTP	C2-Naphthobenzothiophenes	1	7.4		2.5	5.0
C3NPBTP	C3-Naphthobenzothiophenes	1	7.3		2.5	5.0
C4NPBTP	C4-Naphthobenzothiophenes	1	5.0	U	2.5	5.0
C1DBA	C1-Dibenzo(a)anthracenes	1	9.8		0.7	5.0
C2DBA	C2-Dibenzo(a)anthracenes	1	1.5	J	0.7	5.0
C3DBA	C3-Dibenzo(a)anthracenes	1	1.2	J	0.7	5.0

Data File: \\target\share\chem3\nt14.1\20210504.B\SIH.B\NT1421050404S.D

Date: 04-May-2021 15:19

Client ID:

Sample Info: 21D0180-04

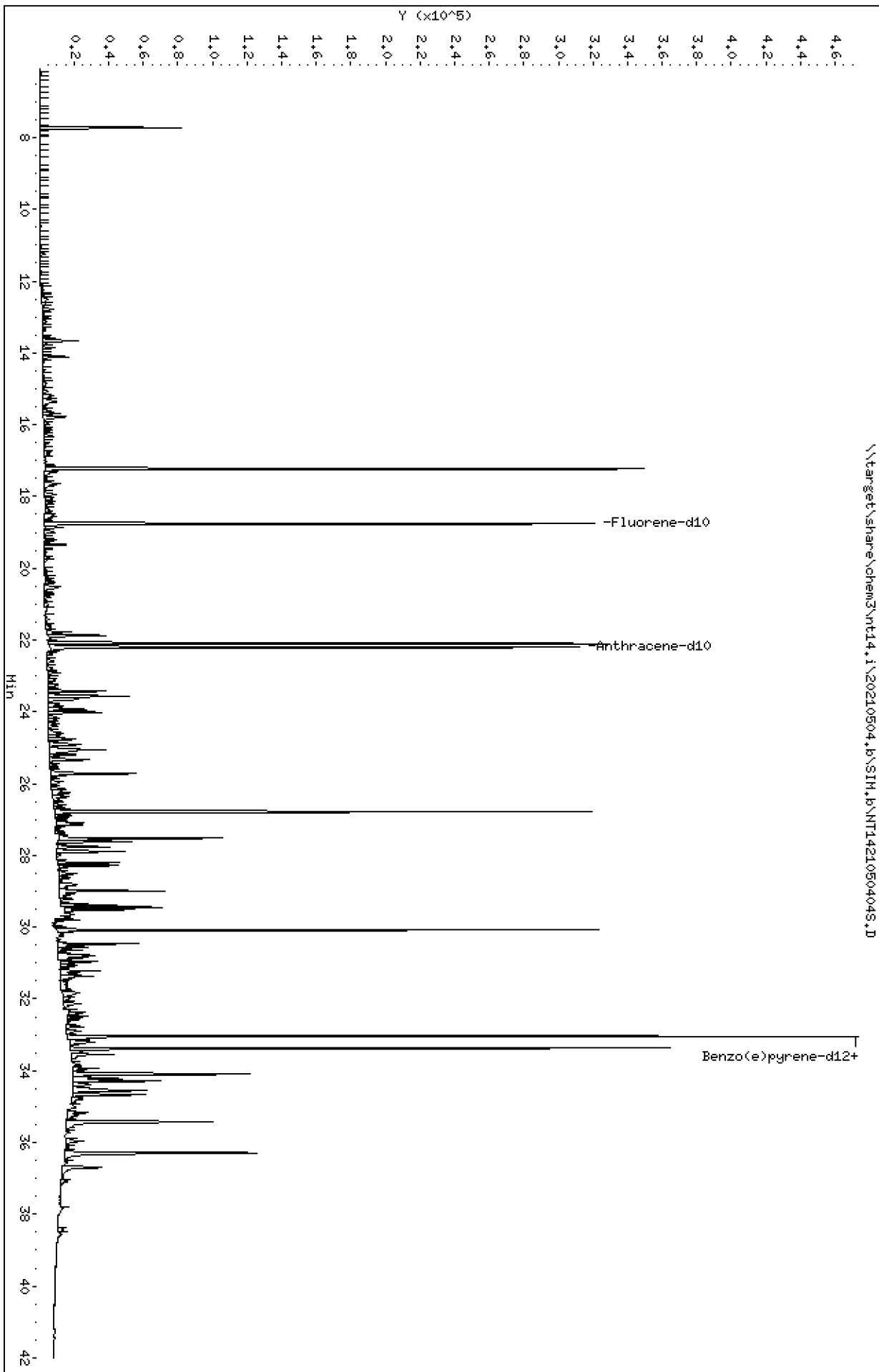
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14.1\20210504.B\SIH.B\NT1421050404S.D



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

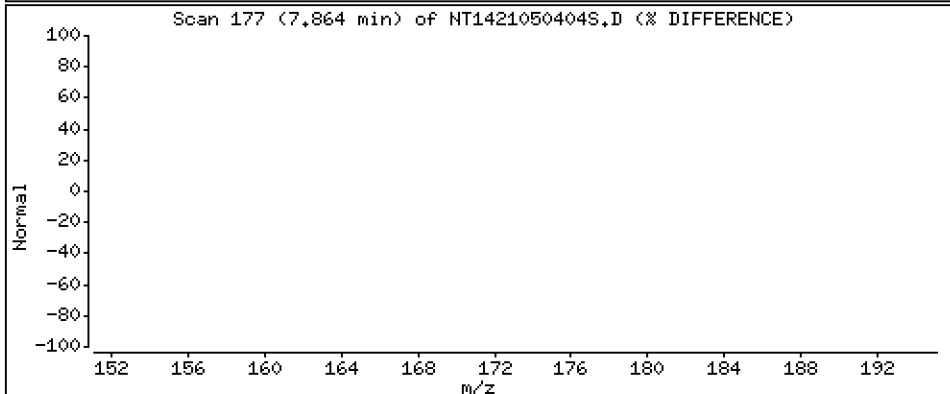
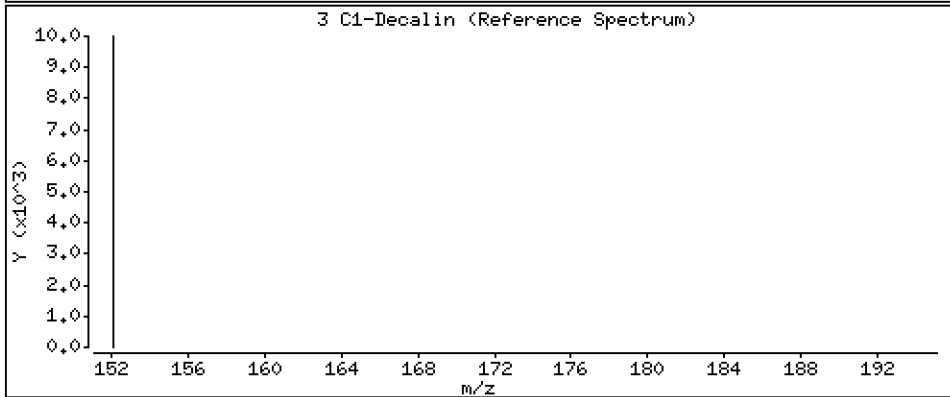
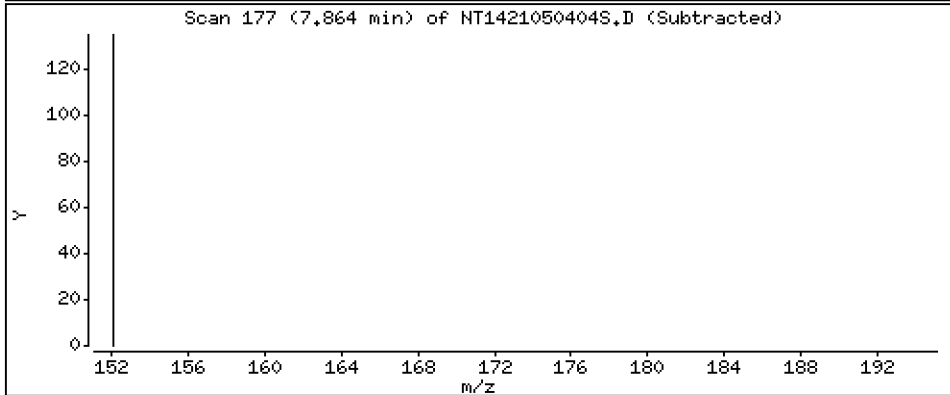
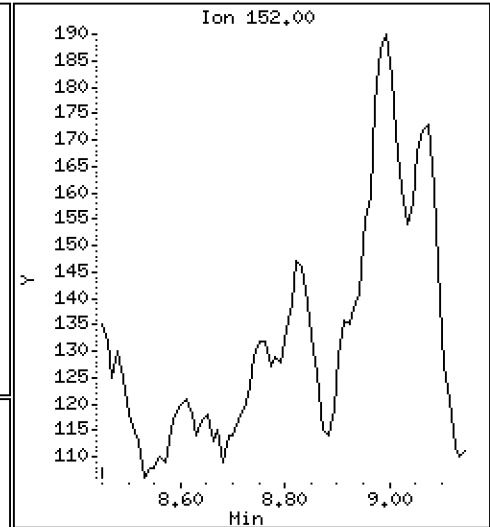
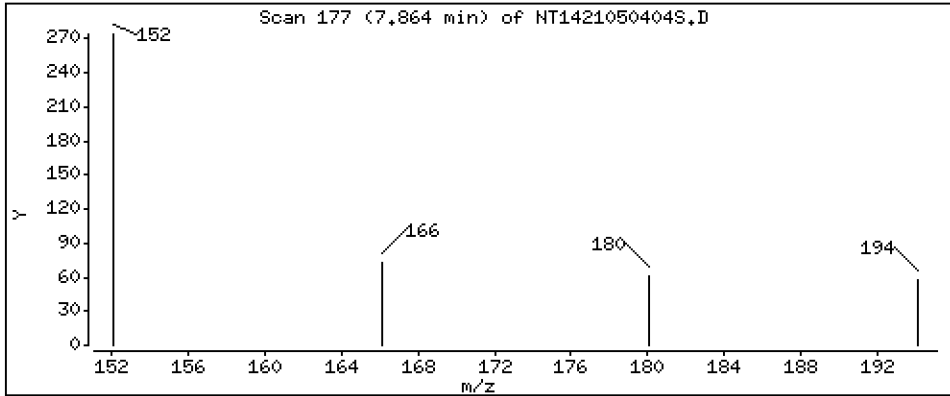
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

3 Cl-Decalin

Concentration: 0,04985 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

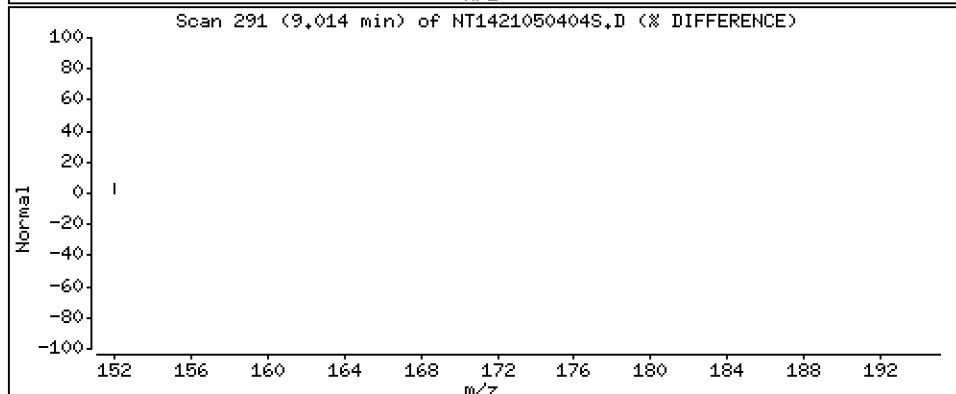
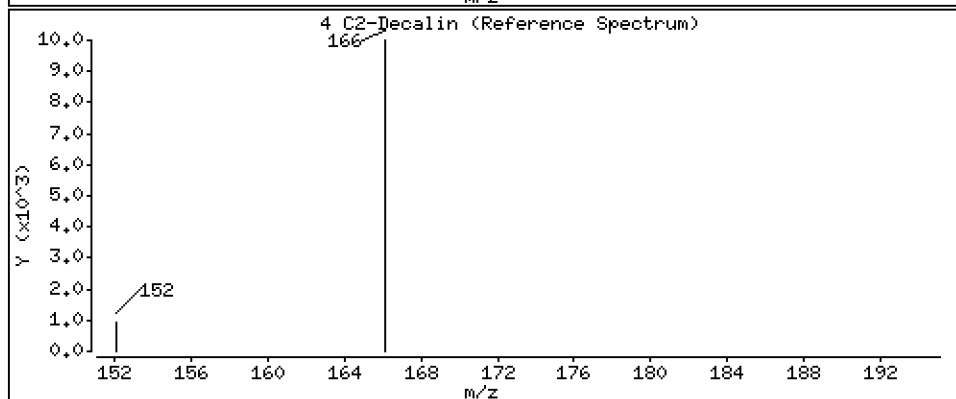
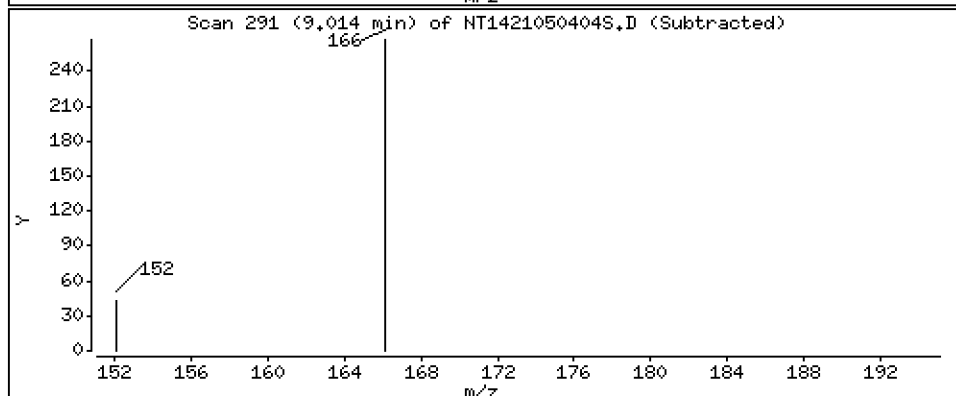
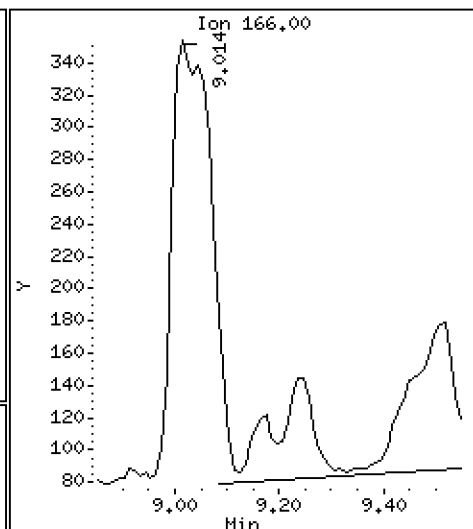
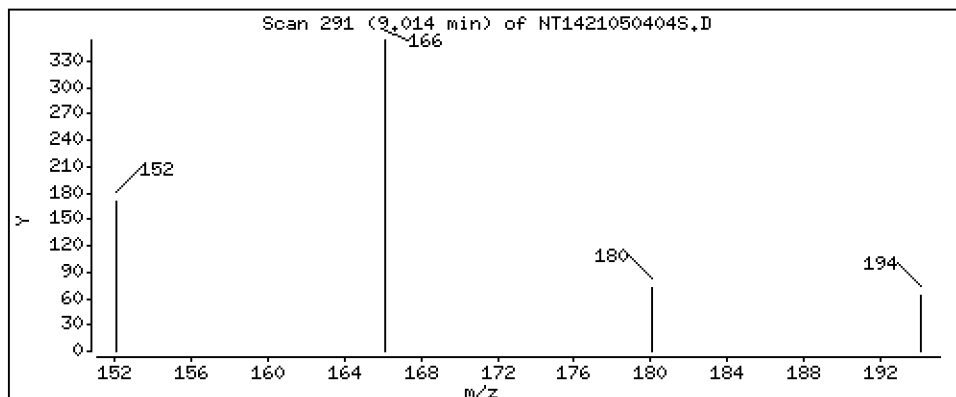
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

4 C2-Decalin

Concentration: 0,1964 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

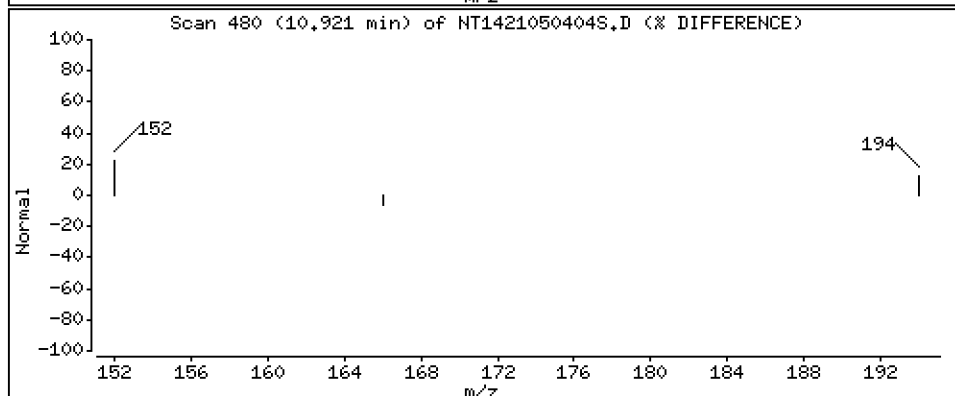
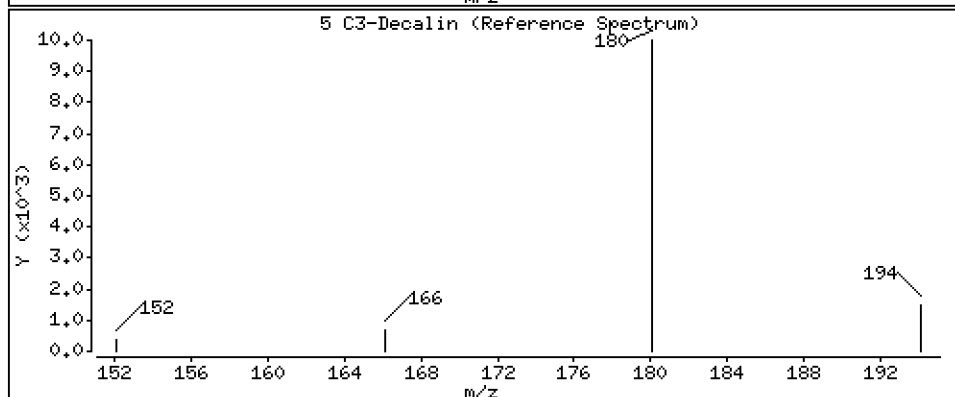
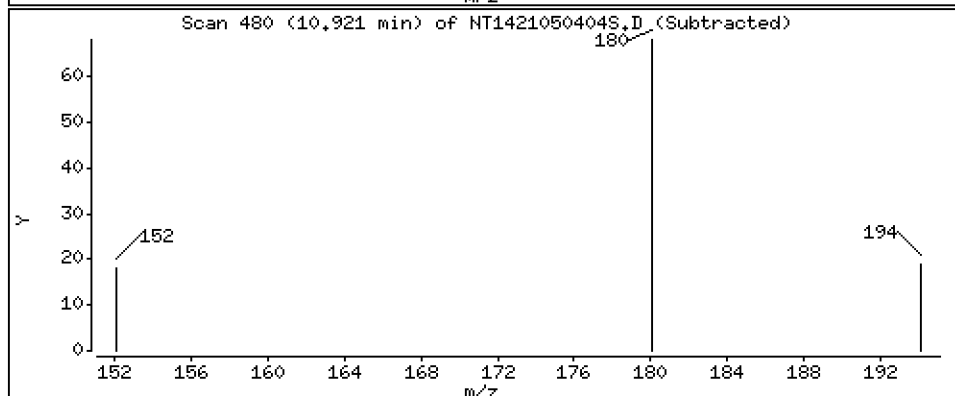
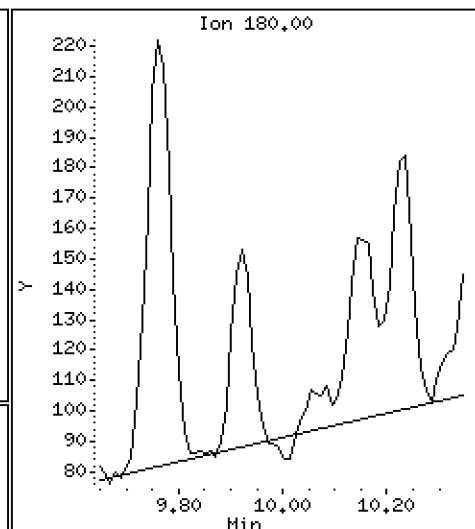
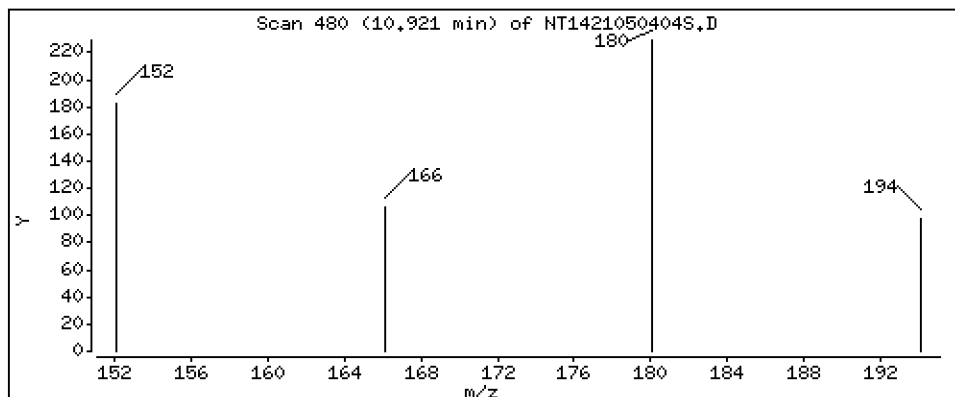
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

5 C3-Decalin

Concentration: 0,1052 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

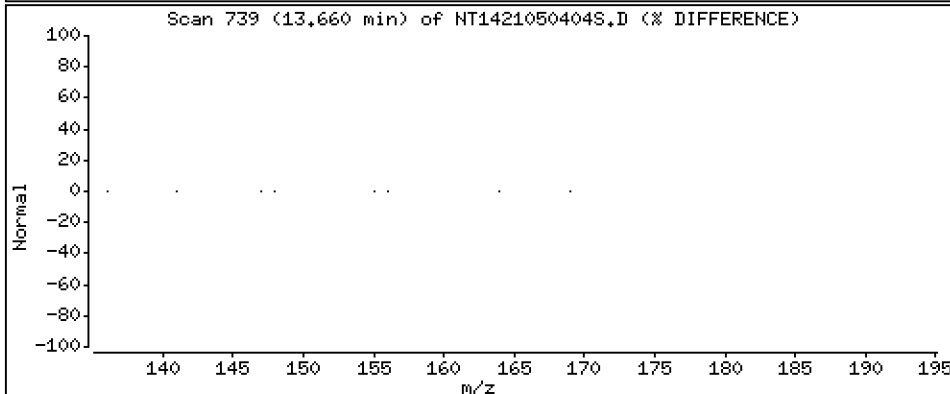
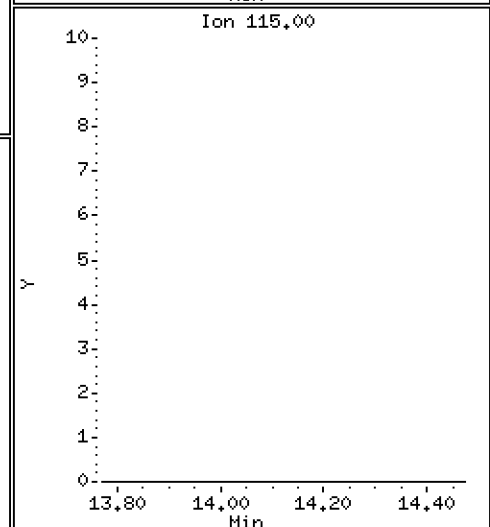
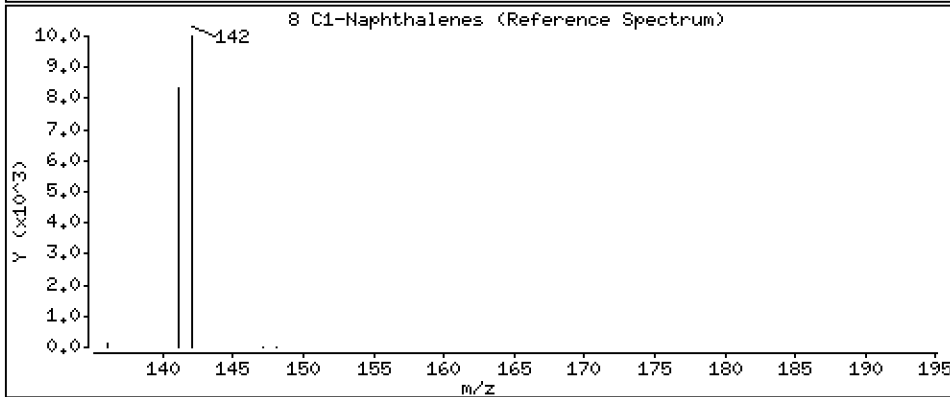
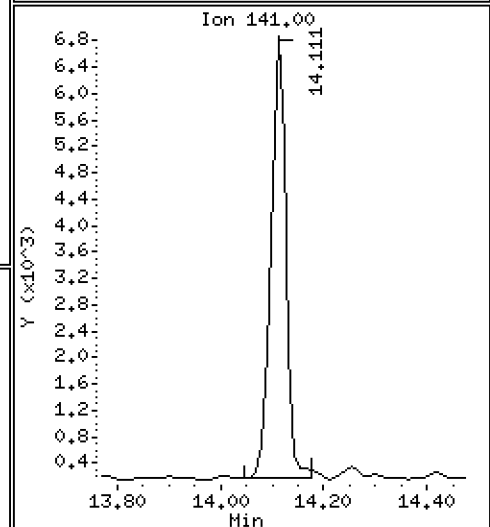
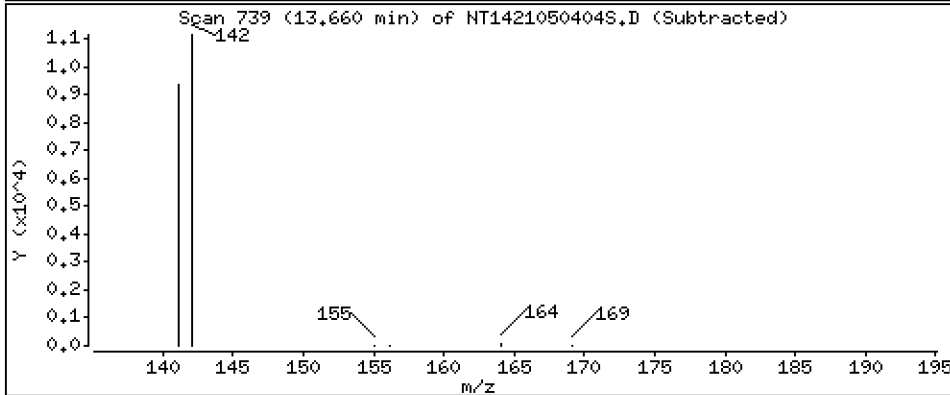
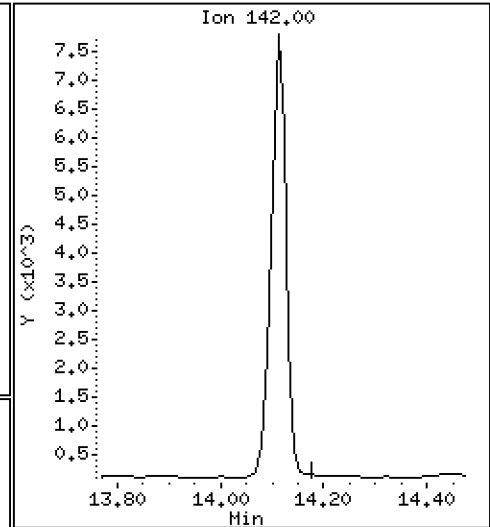
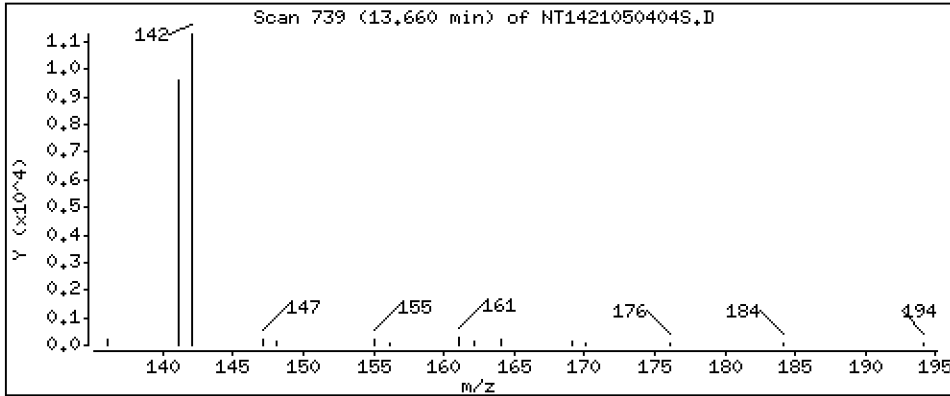
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

8 C1-Naphthalenes

Concentration: 0,1243 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

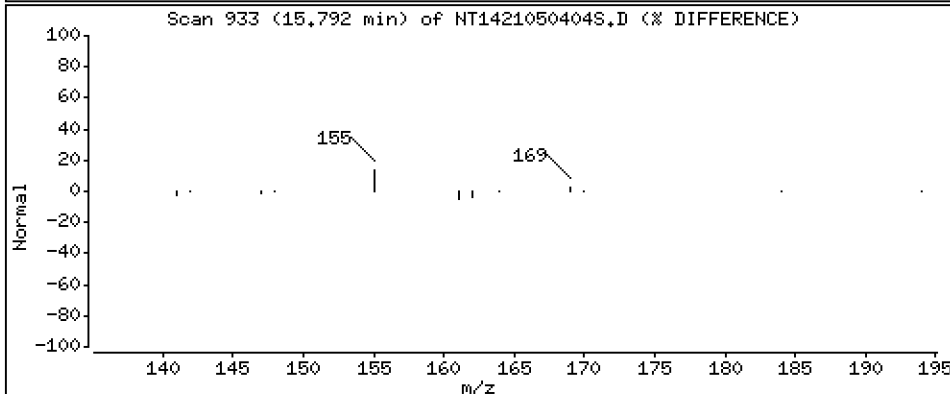
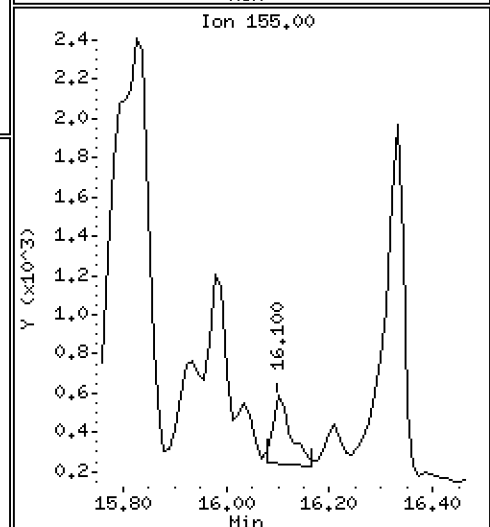
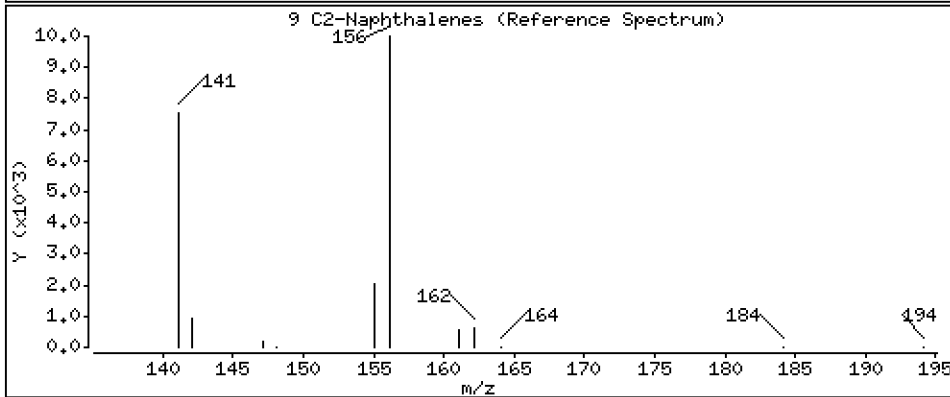
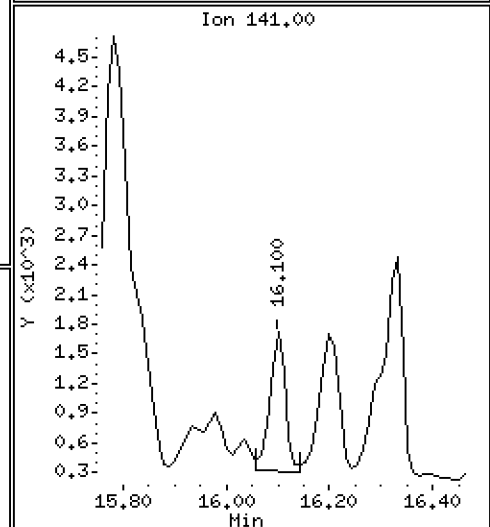
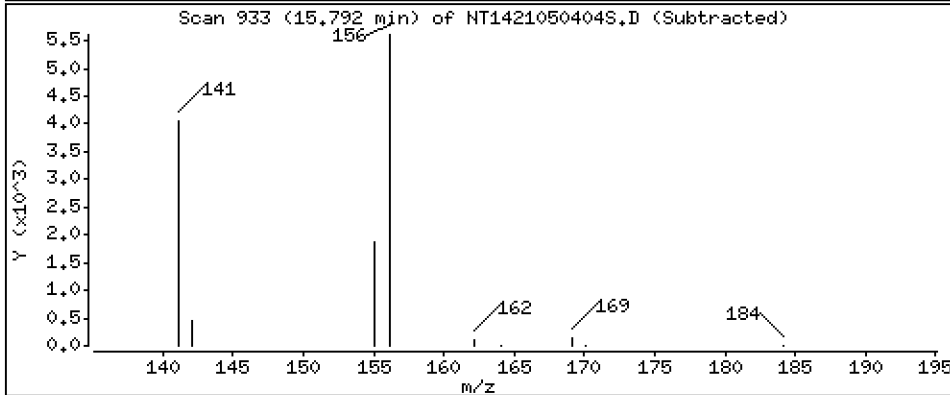
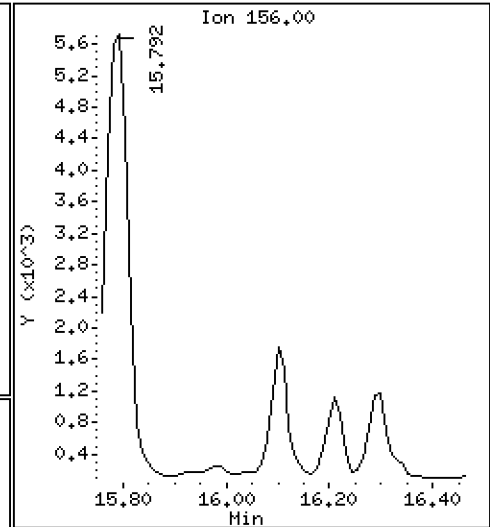
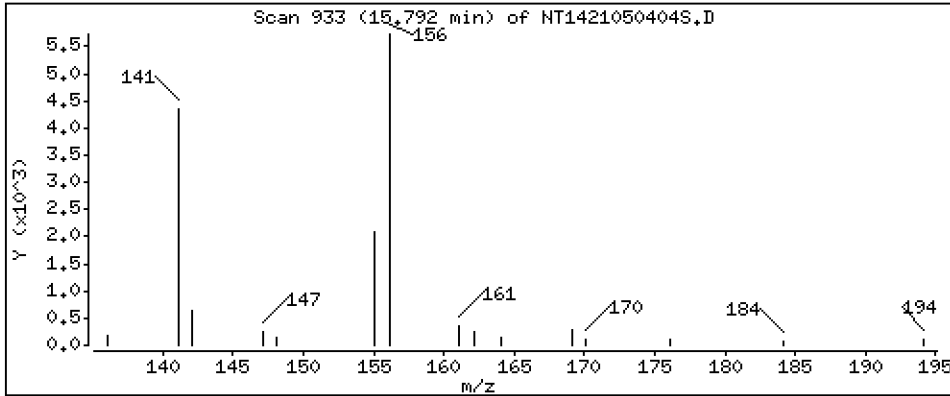
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

9 C2-Naphthalenes

Concentration: 0.1820 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

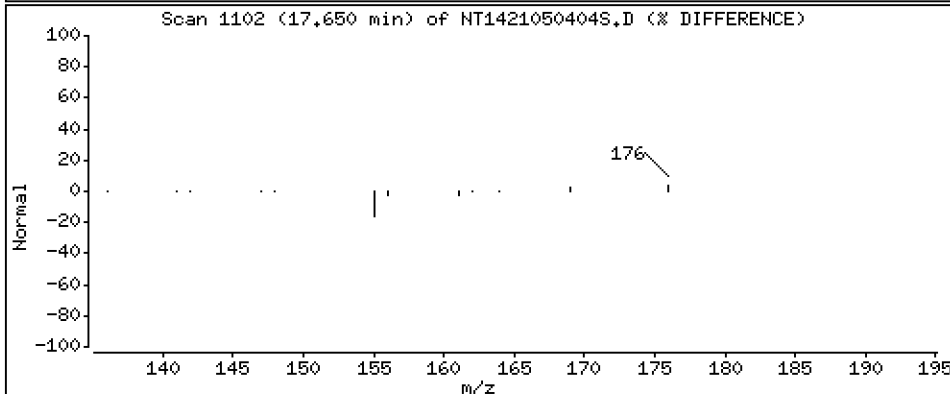
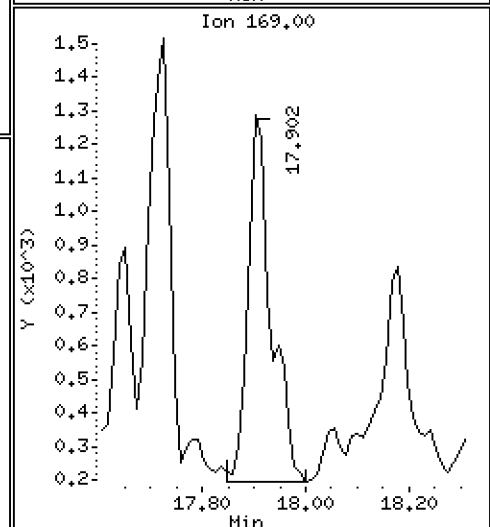
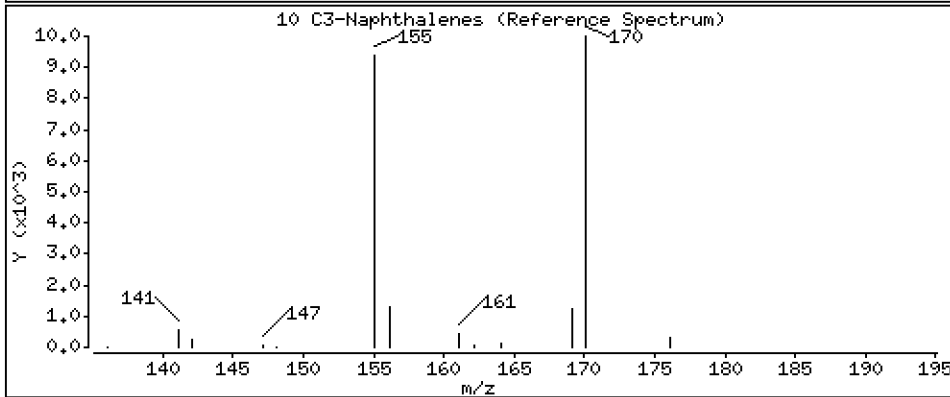
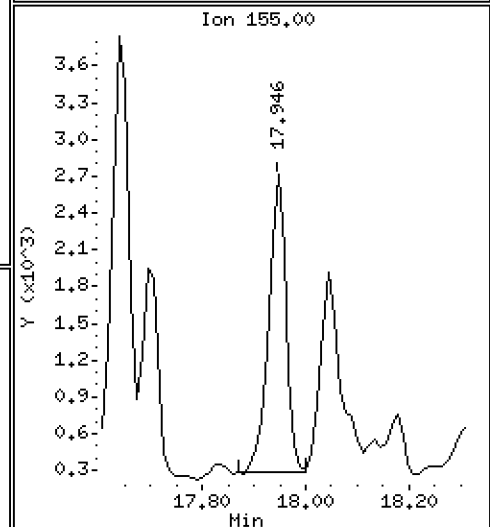
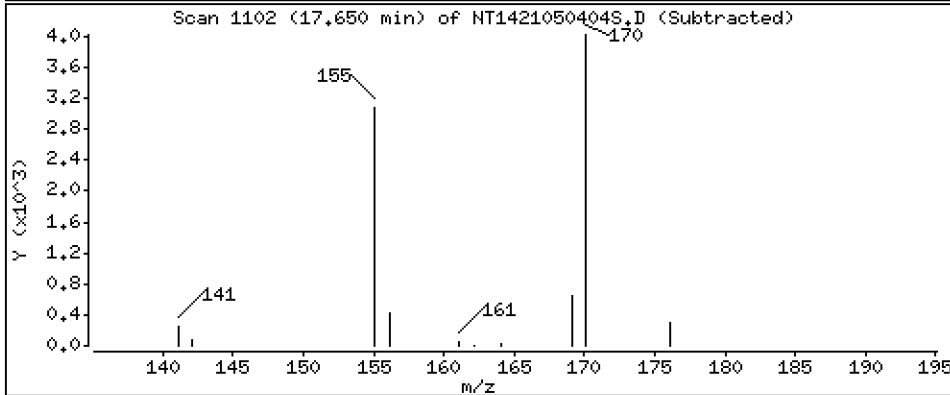
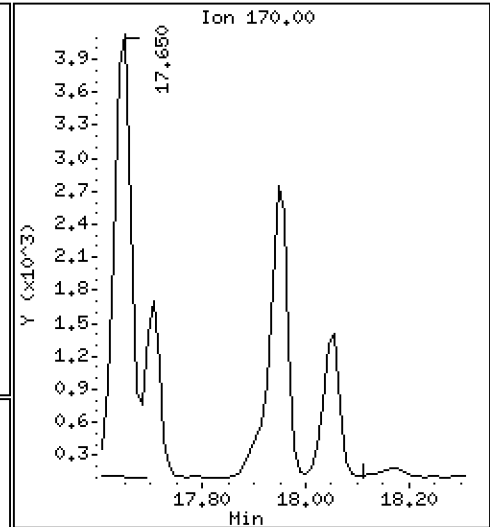
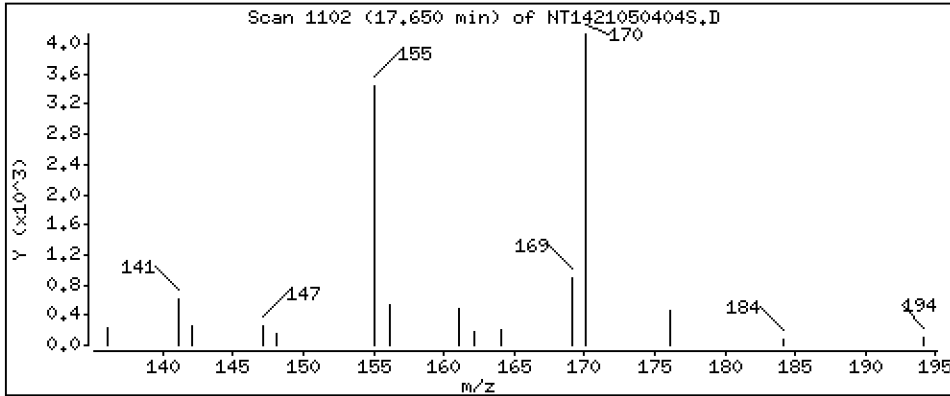
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

10 C3-Naphthalenes

Concentration: 0.1187 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

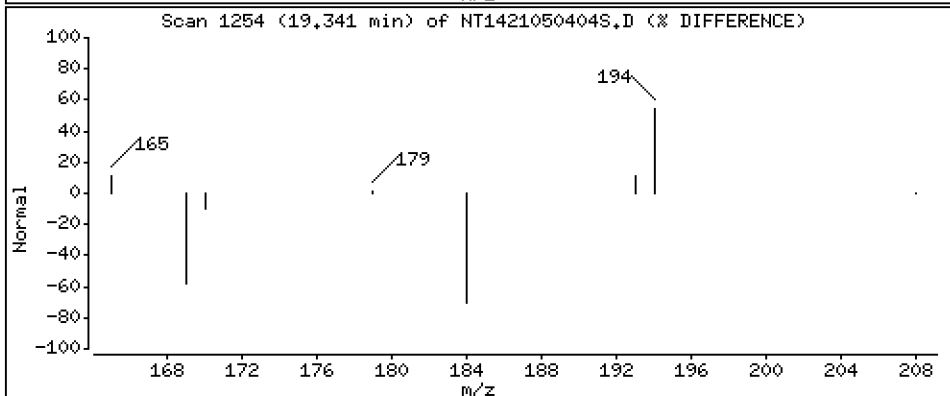
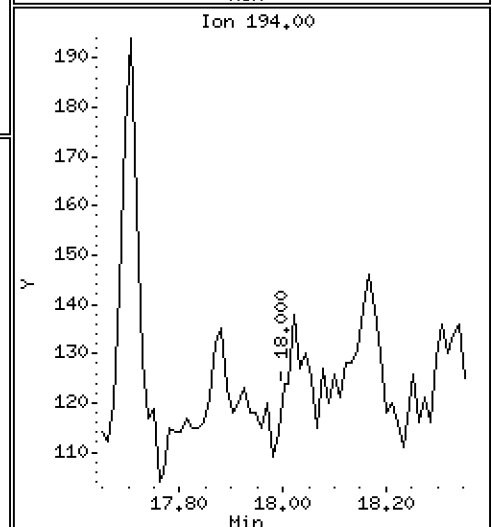
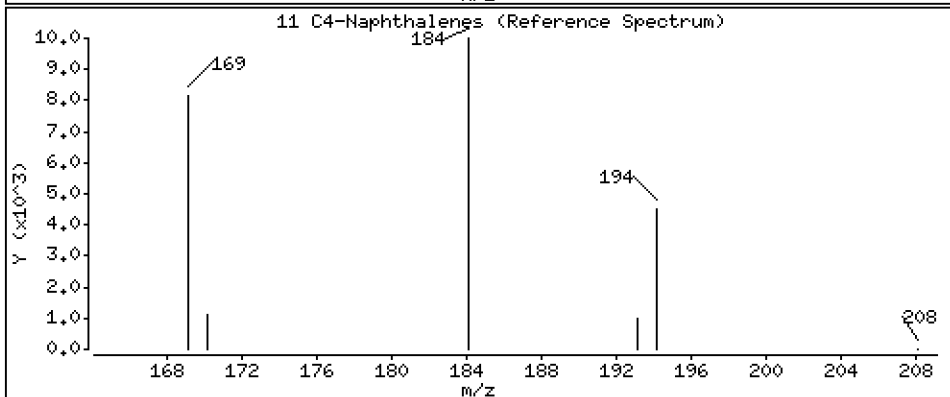
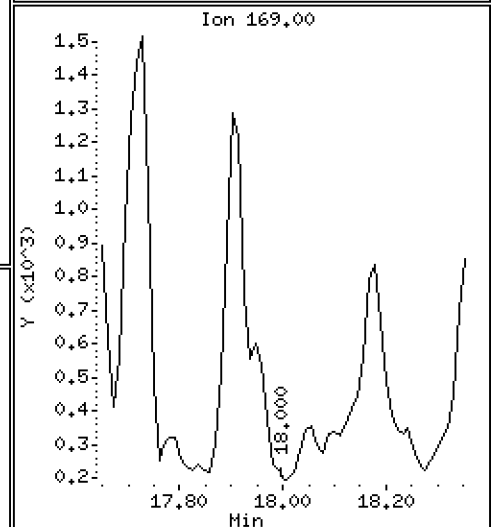
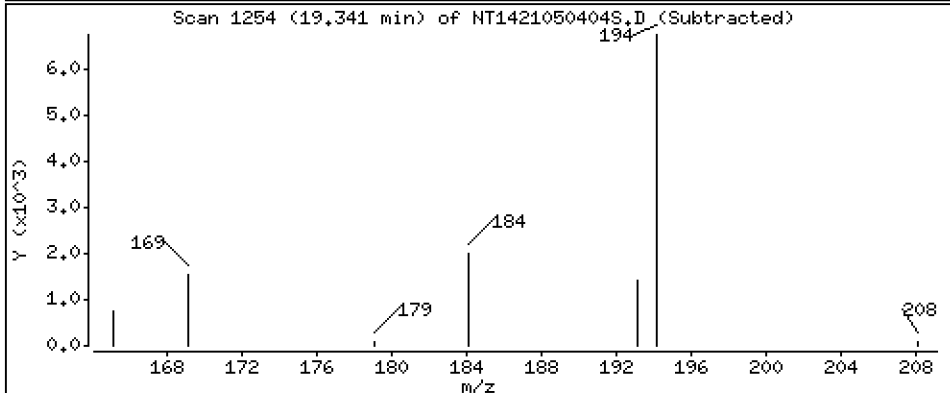
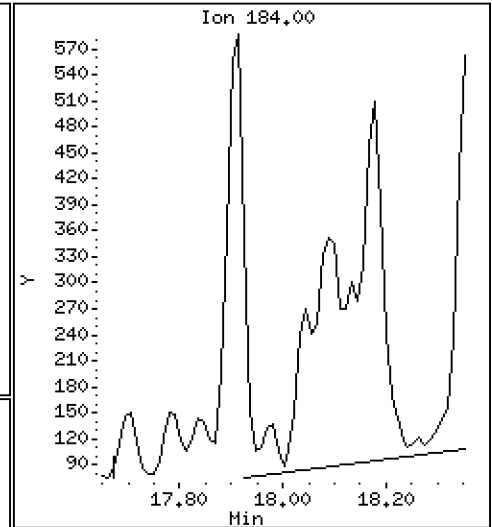
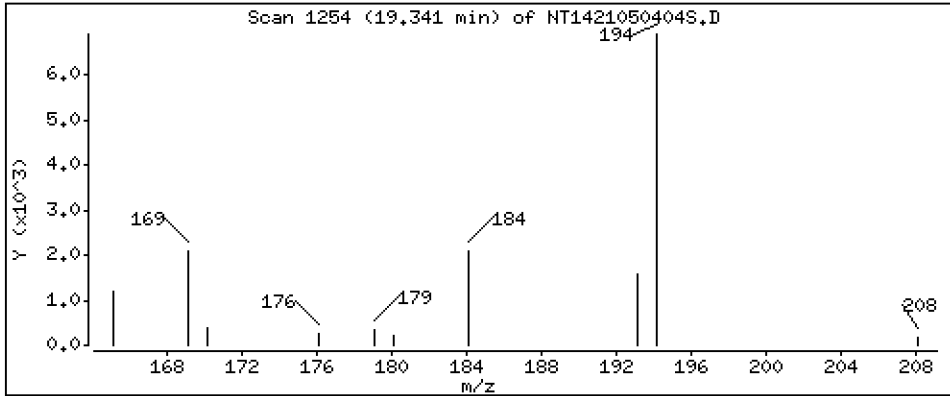
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

11 C4-Naphthalenes

Concentration: 0.1218 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

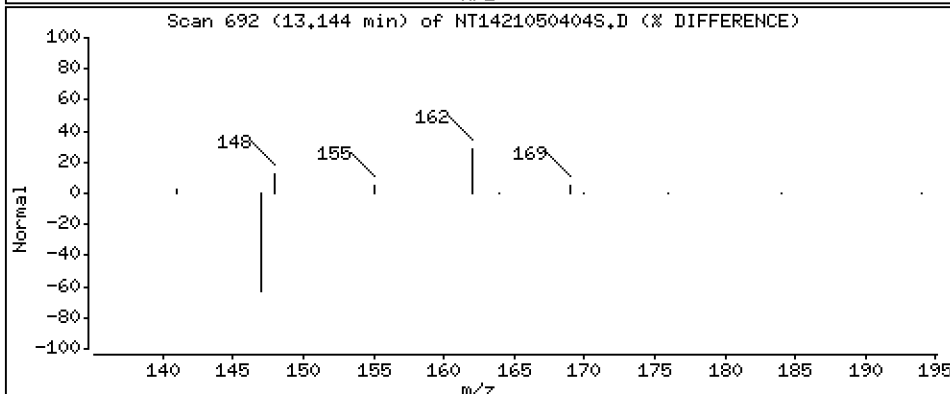
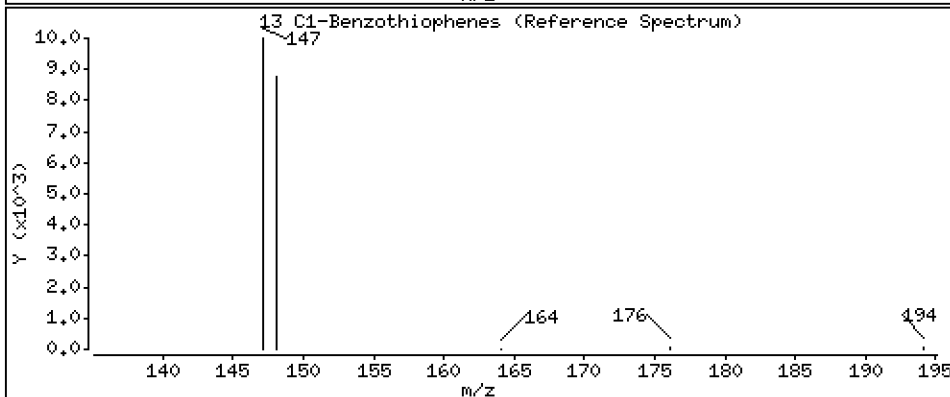
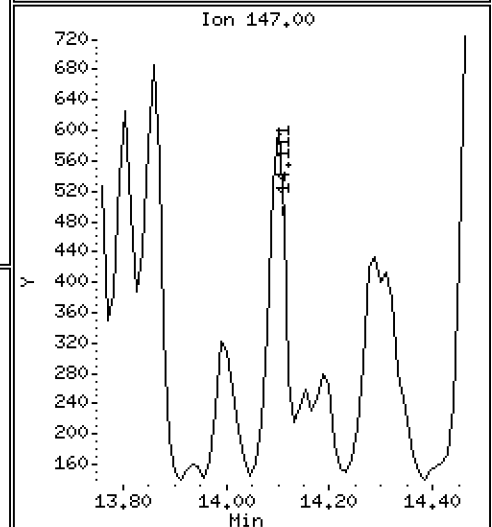
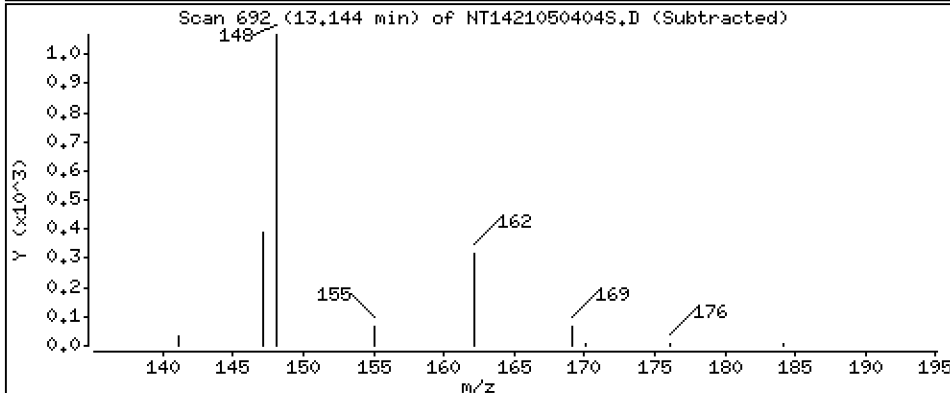
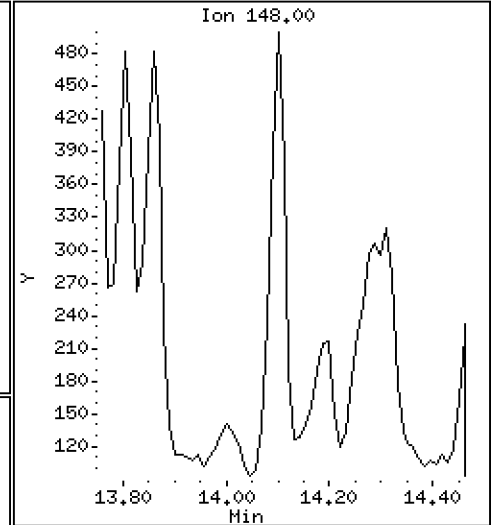
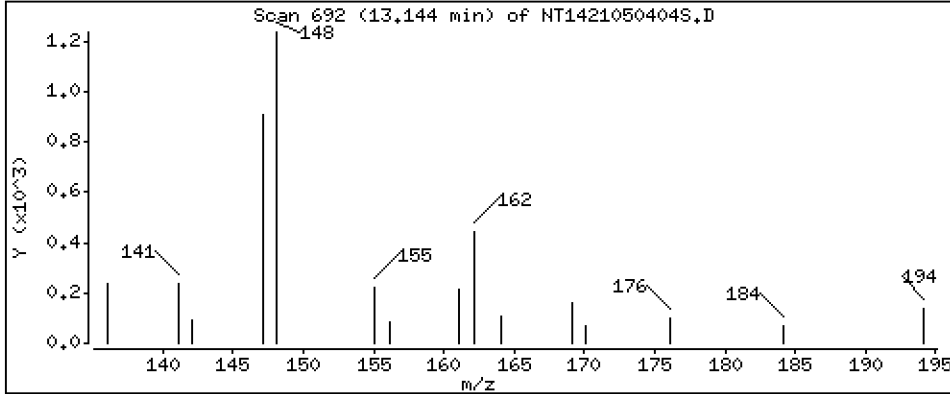
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

13 C1-Benzothiophenes

Concentration: 0,04842 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

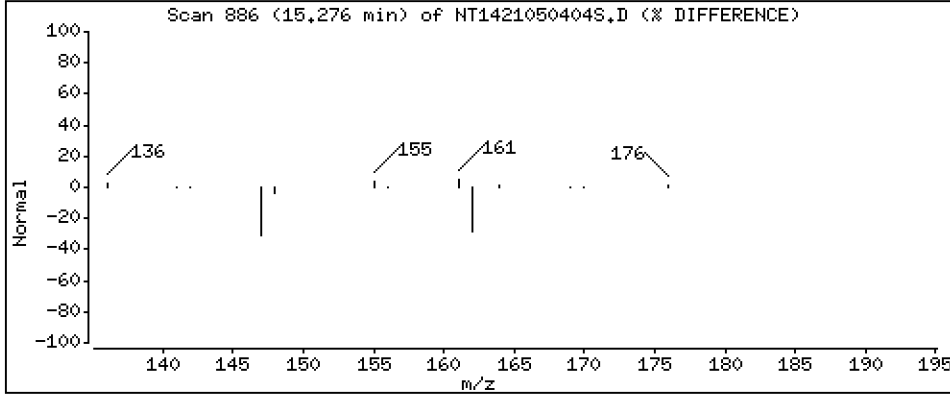
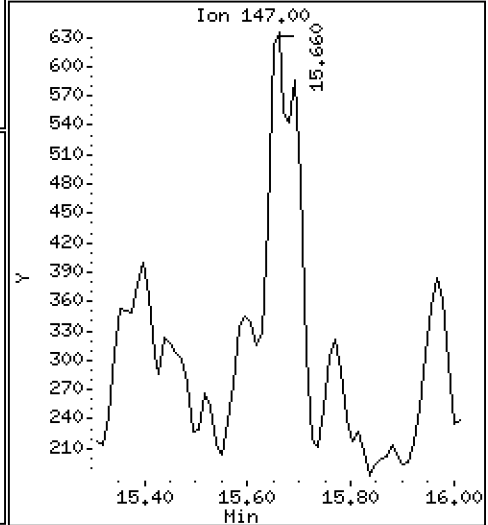
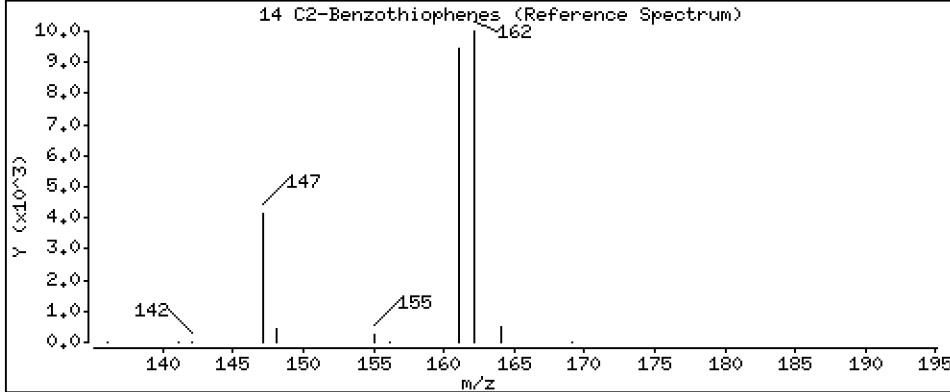
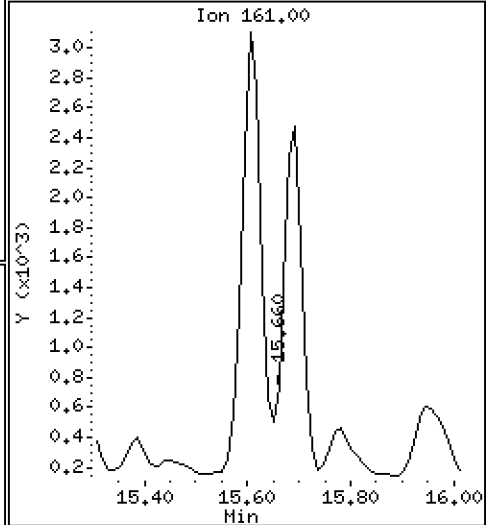
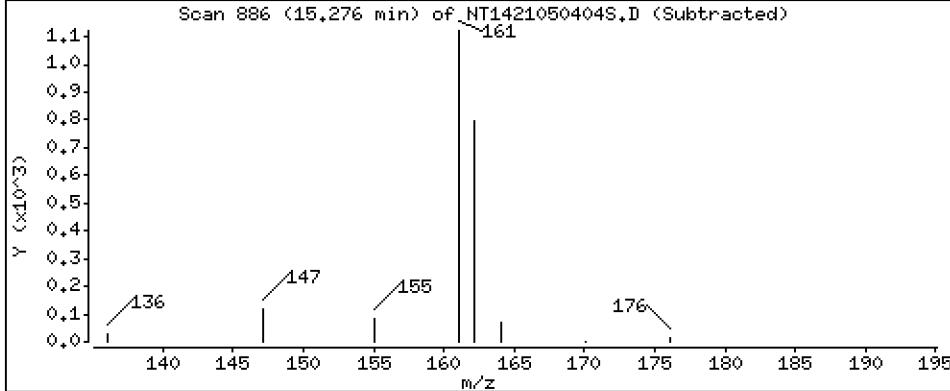
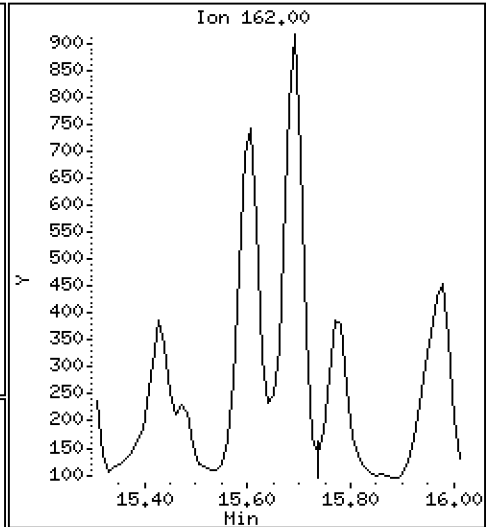
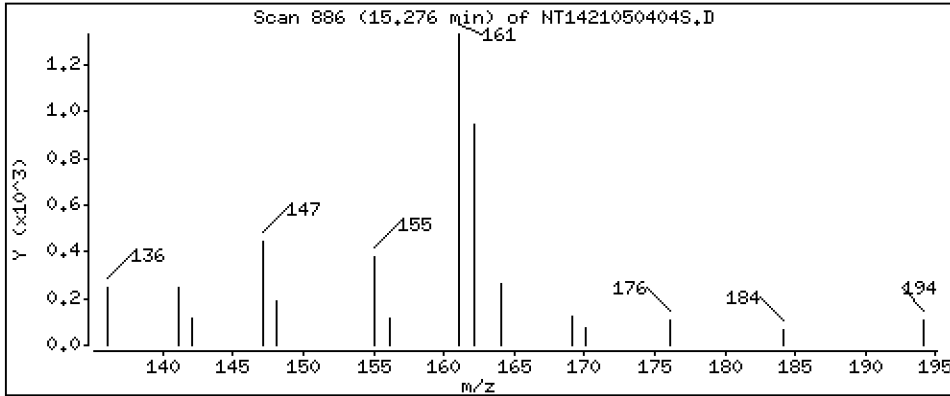
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

14 C2-Benzothiophenes

Concentration: 0,04359 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

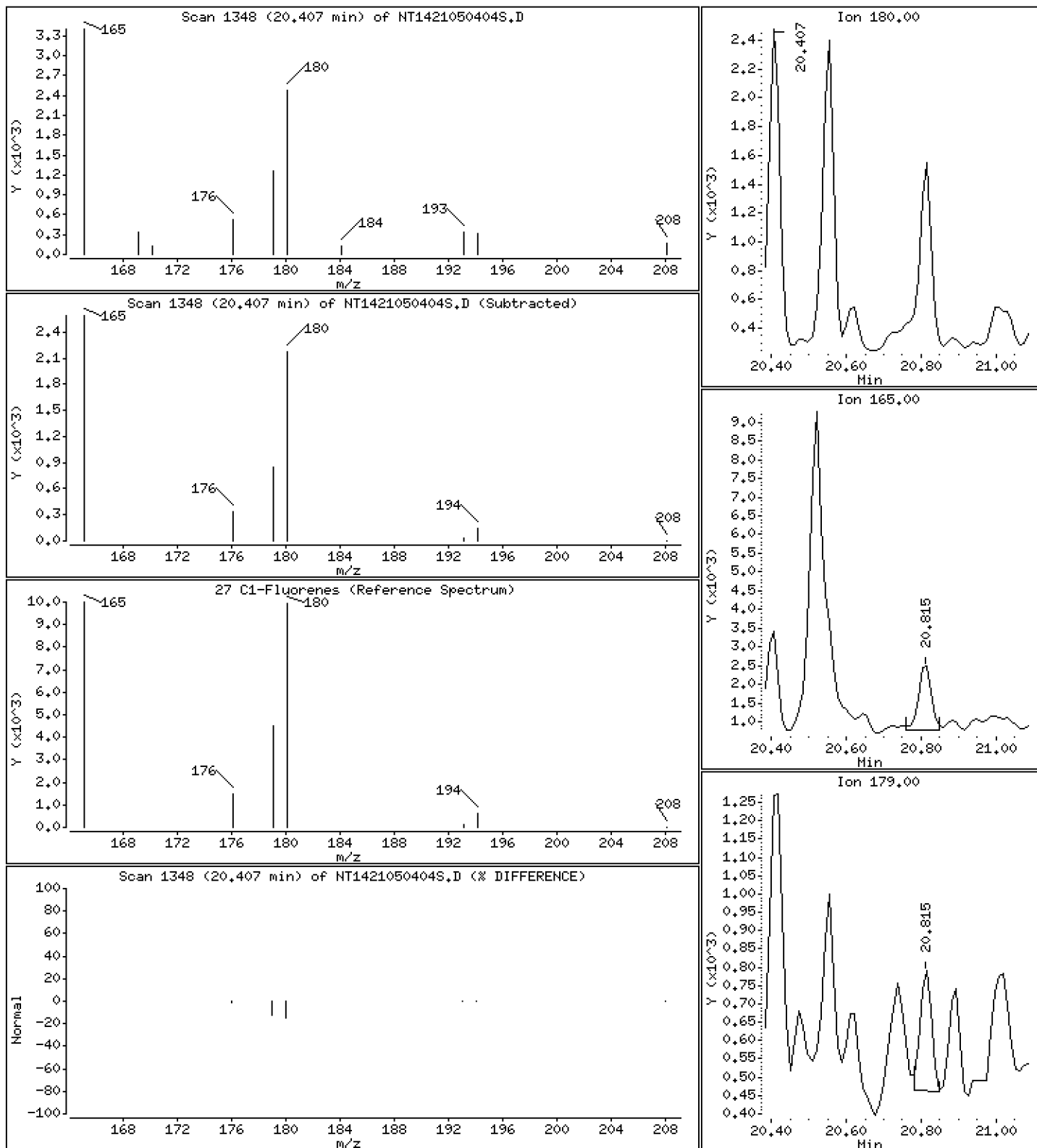
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

27 C1-Fluorenes

Concentration: 0.1157 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

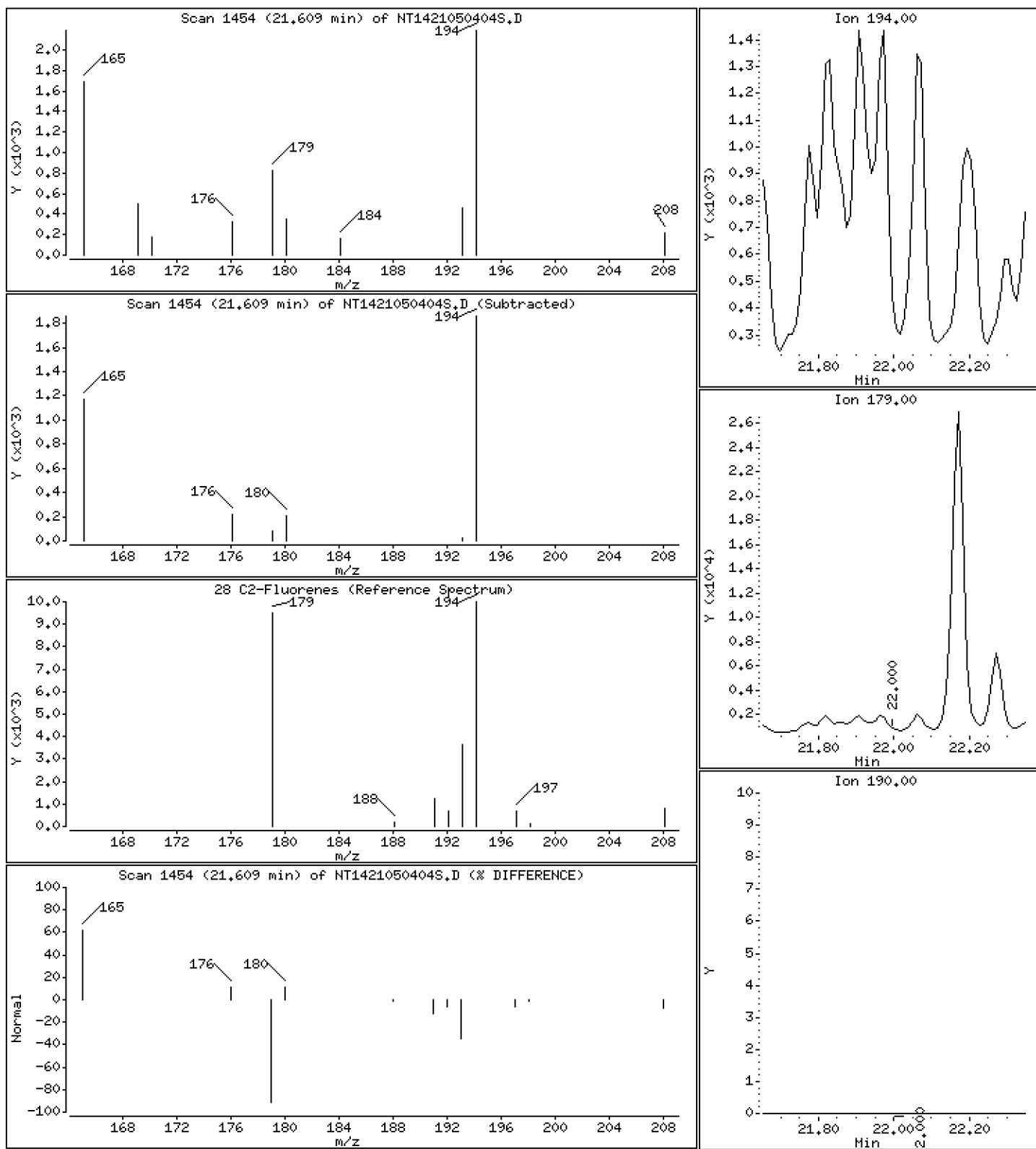
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

28 C2-Fluorenes

Concentration: 0.1663 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

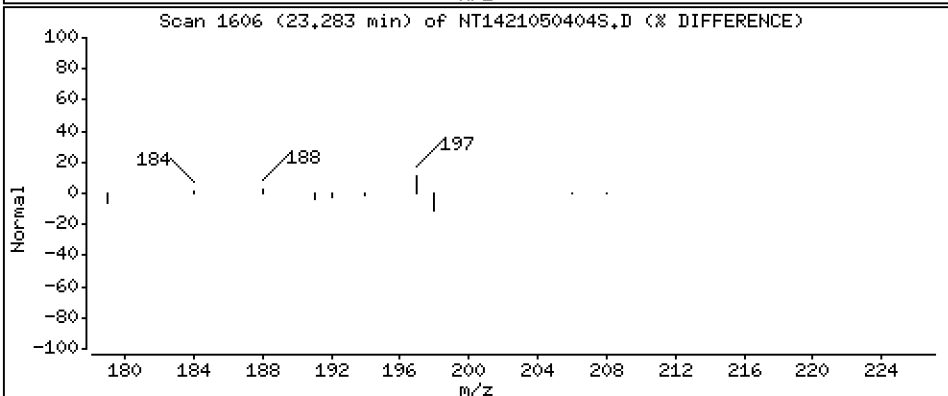
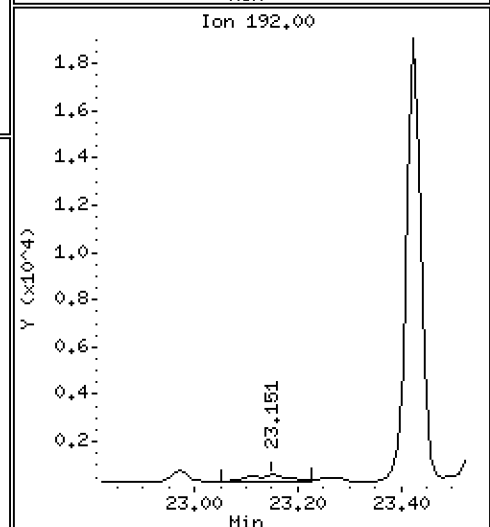
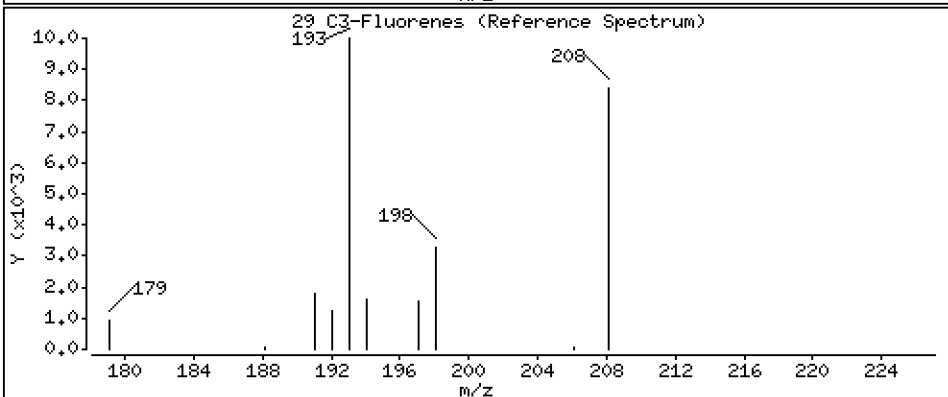
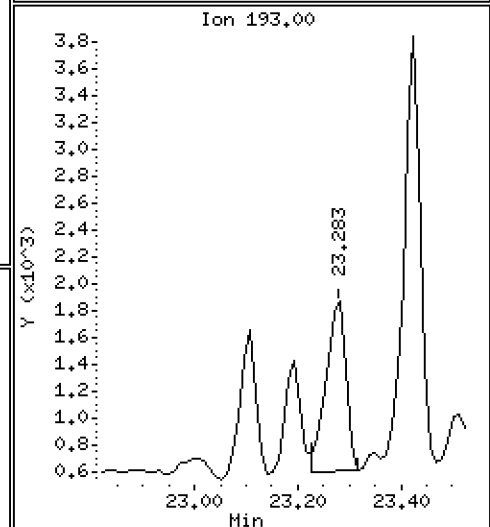
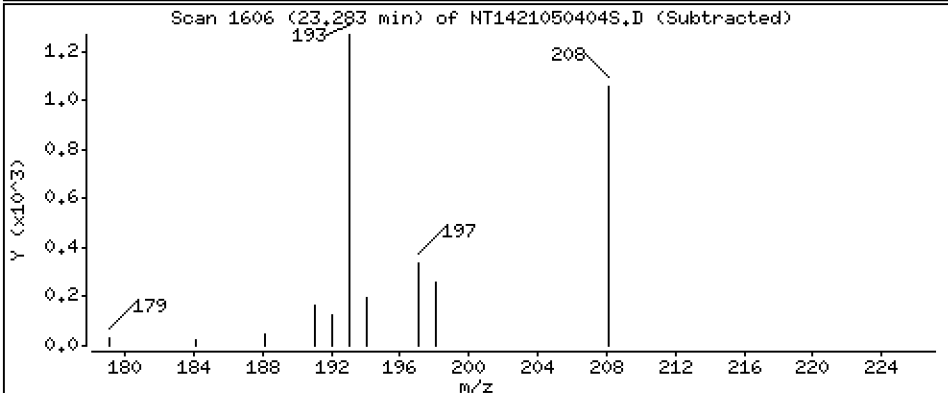
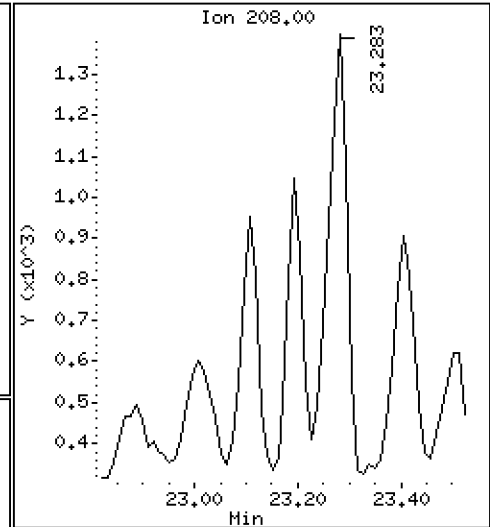
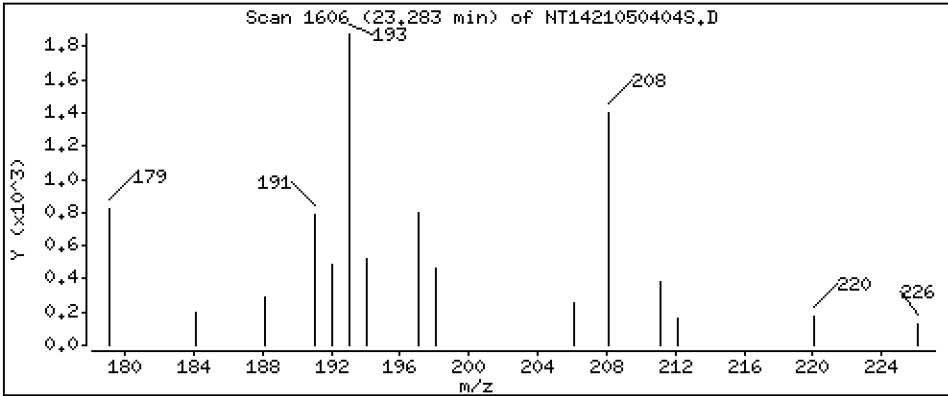
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

29 C3-Fluorenes

Concentration: 0,1435 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

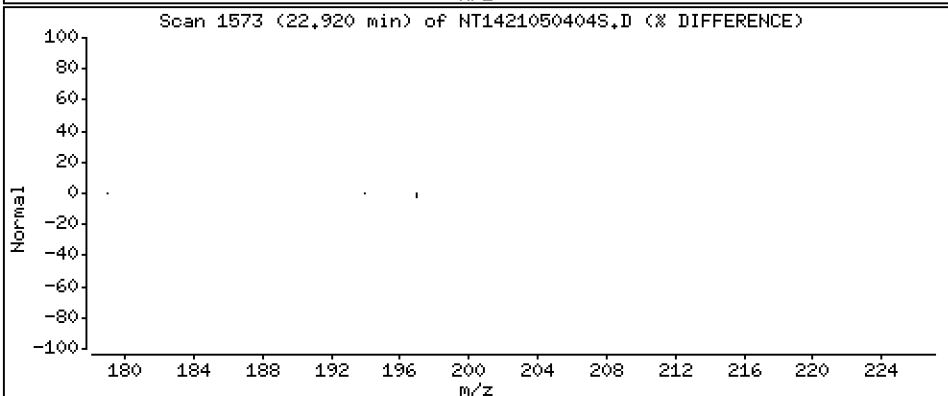
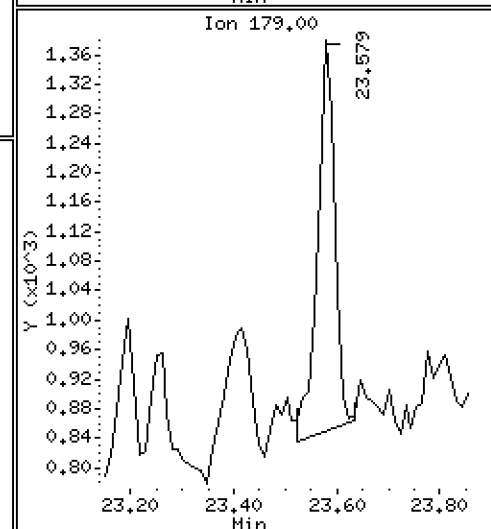
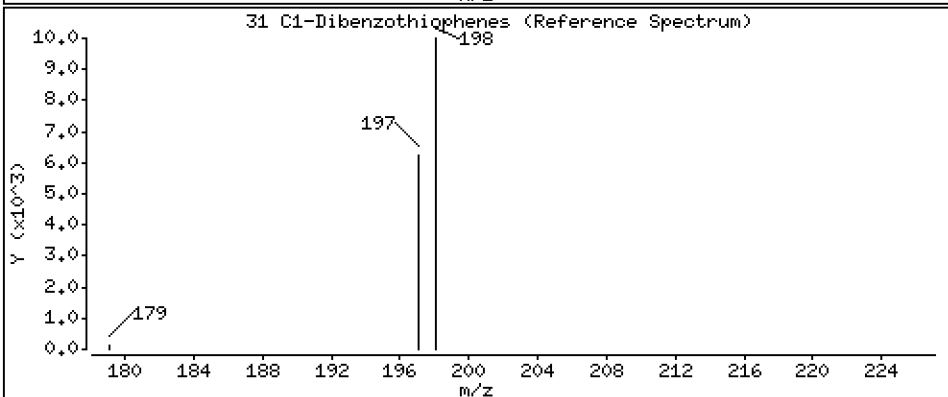
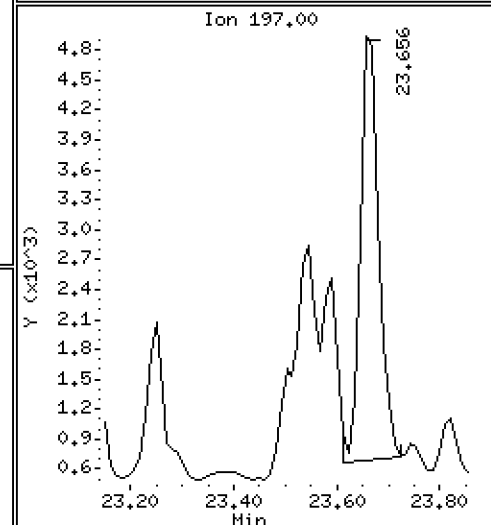
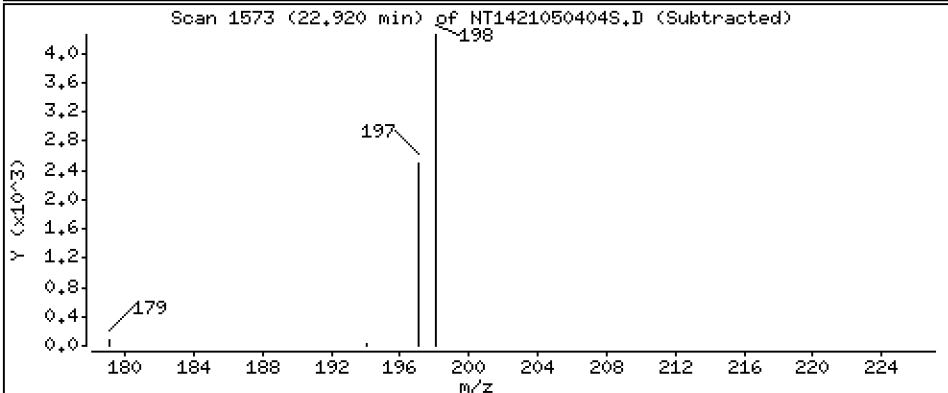
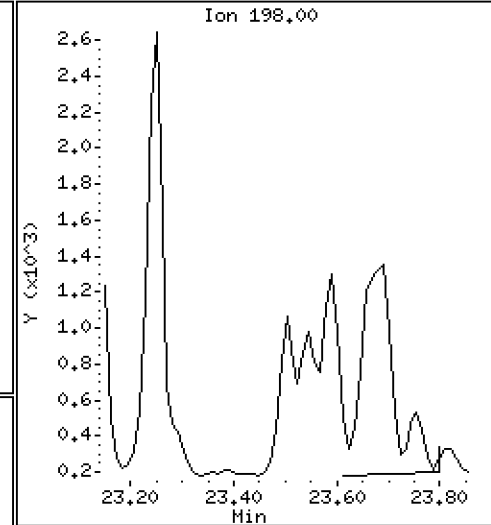
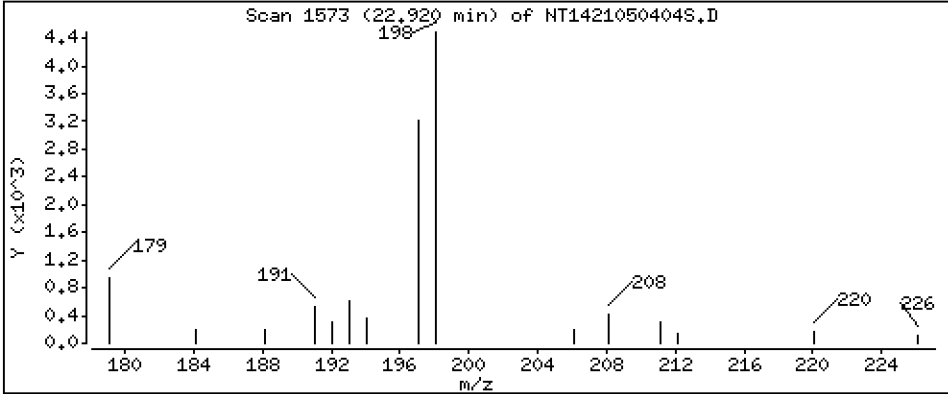
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

Concentration: 0,1250 ug/mL

31 C1-Dibenzothiophenes



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

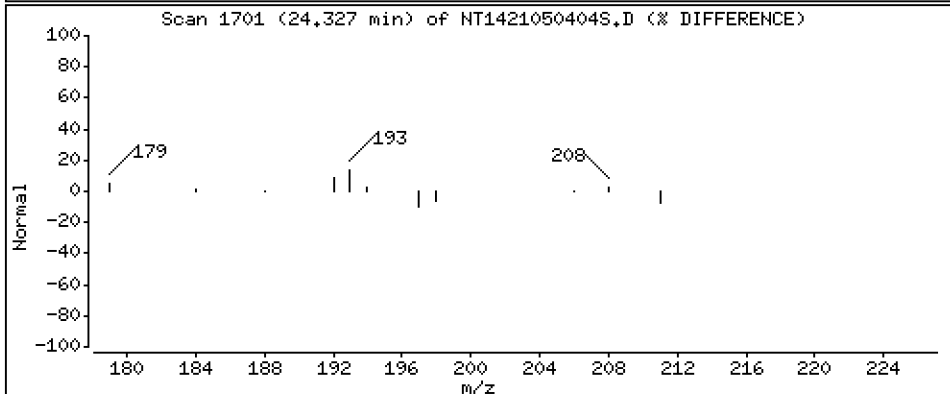
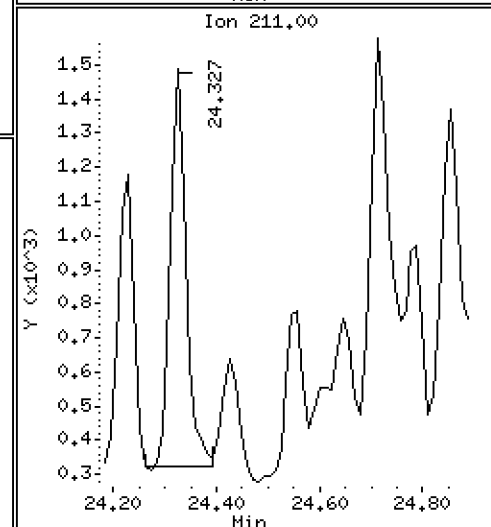
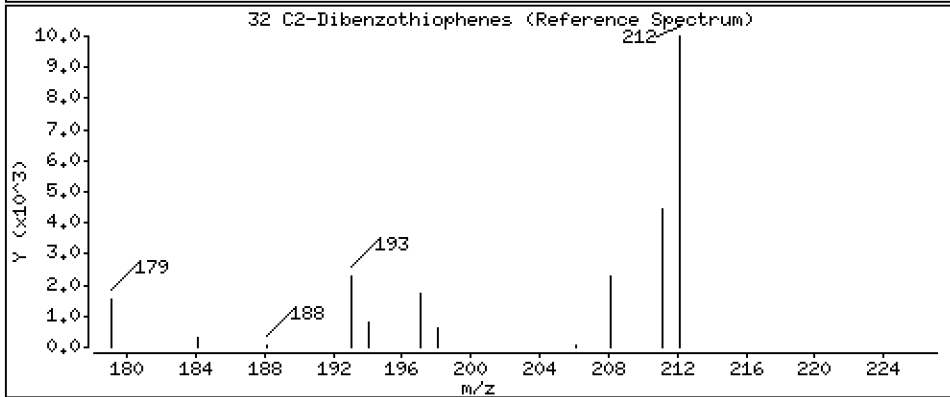
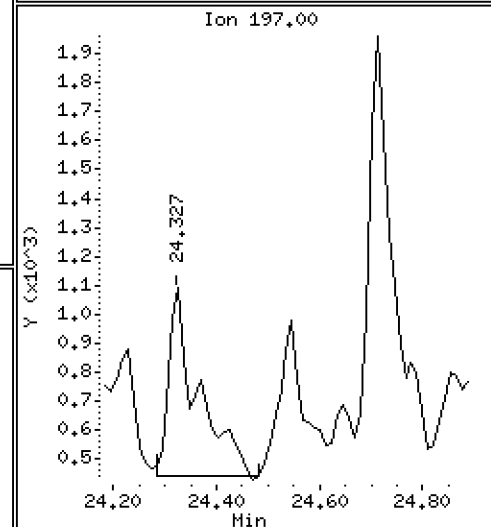
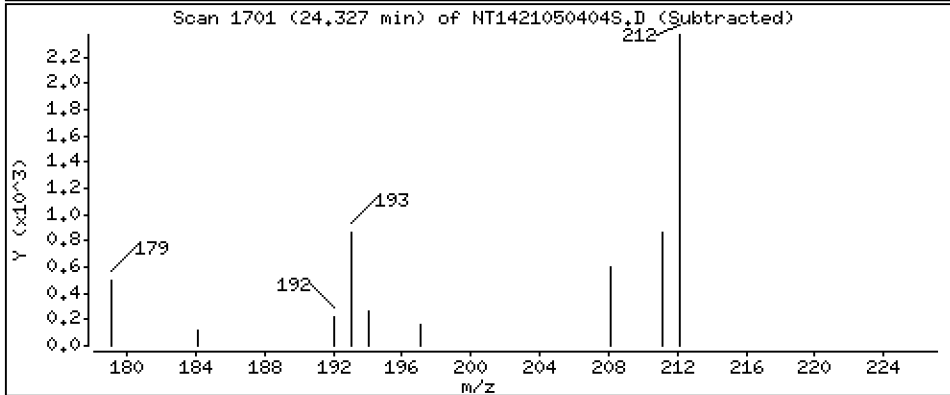
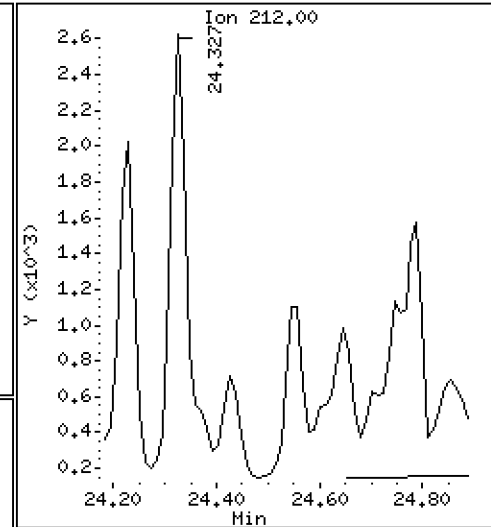
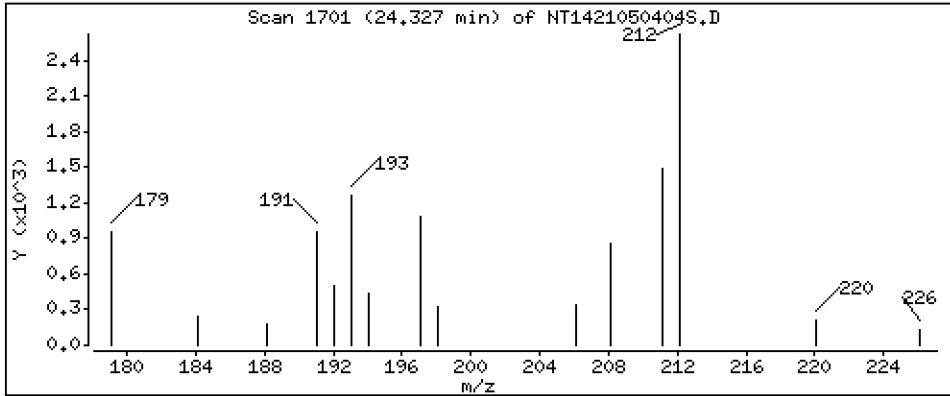
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

32 C2-Dibenzothiophenes

Concentration: 0,1576 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

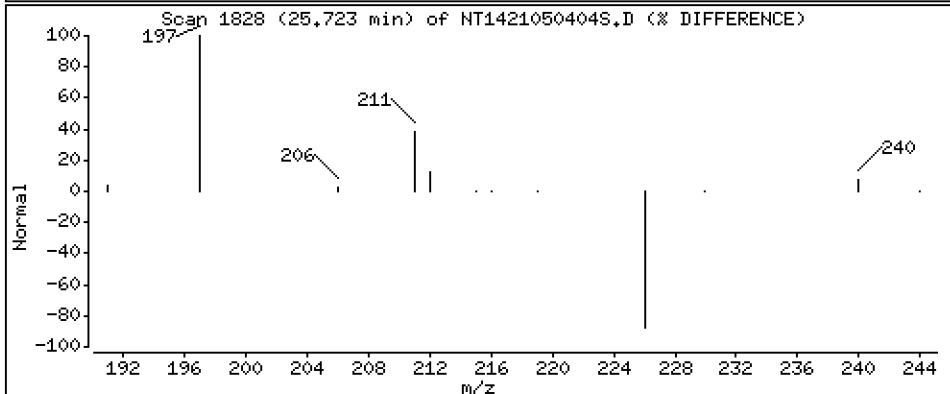
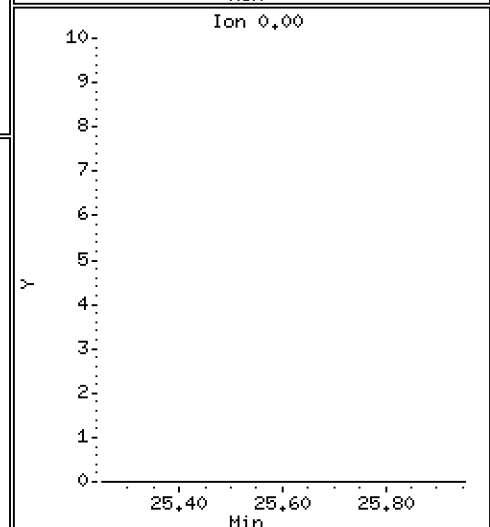
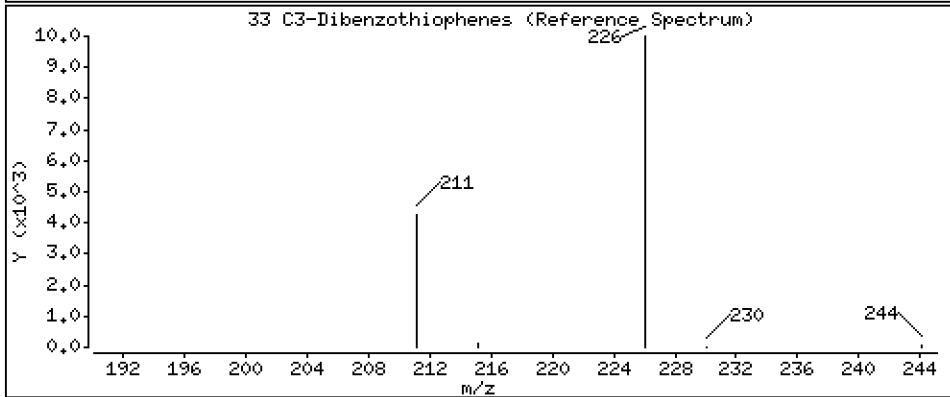
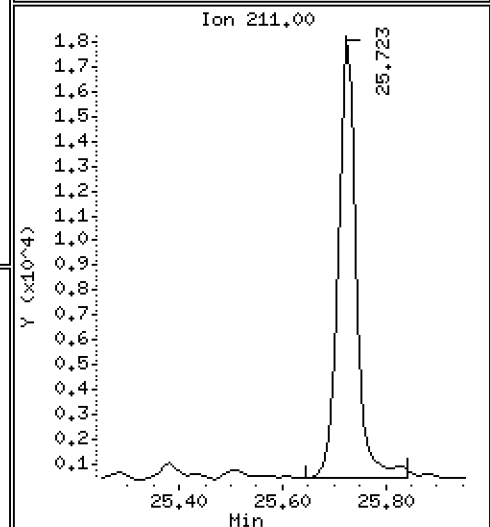
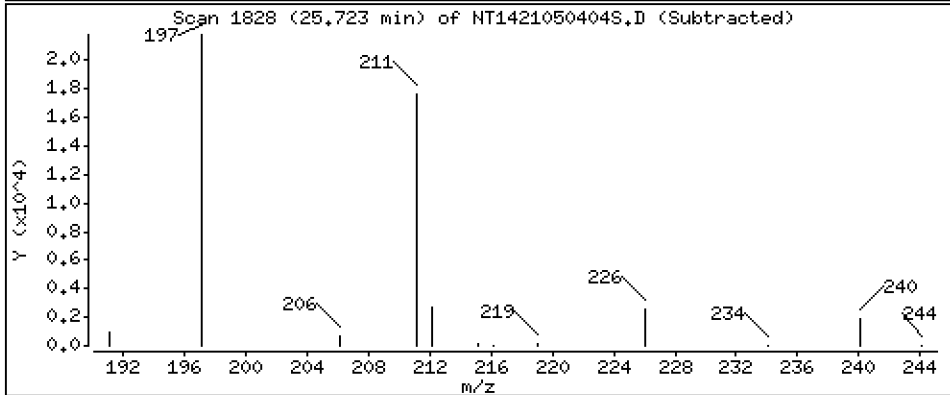
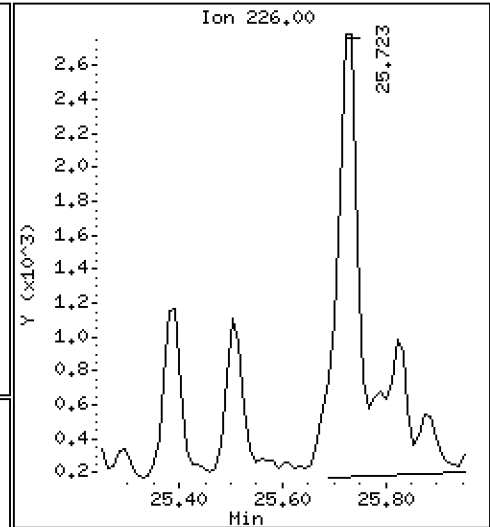
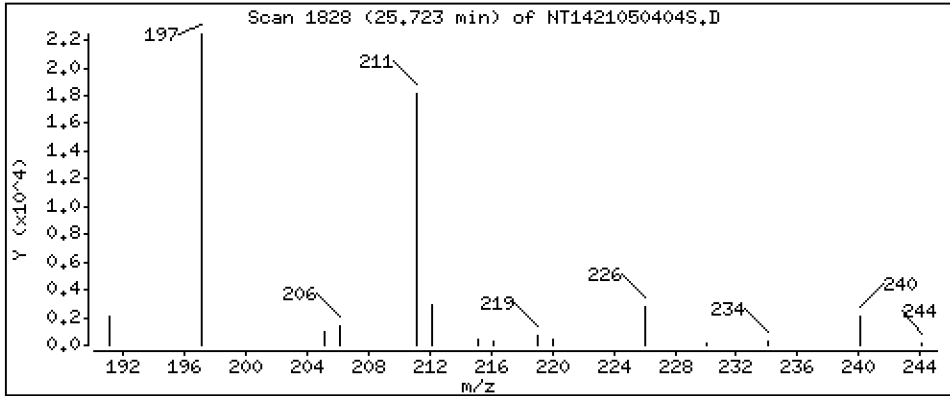
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

33 C3-Dibenzothiophenes

Concentration: 0,1313 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

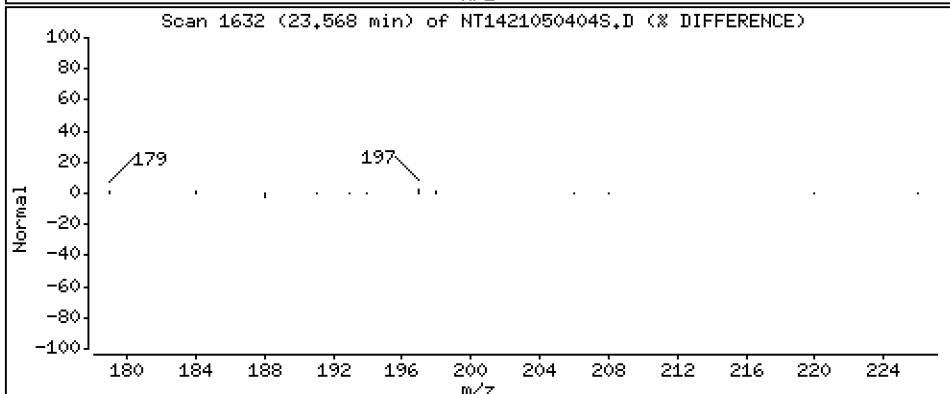
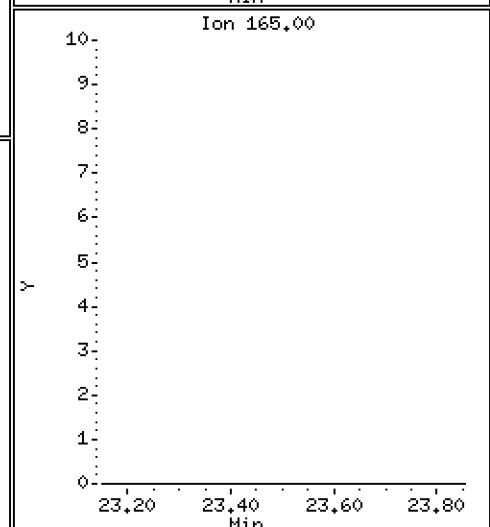
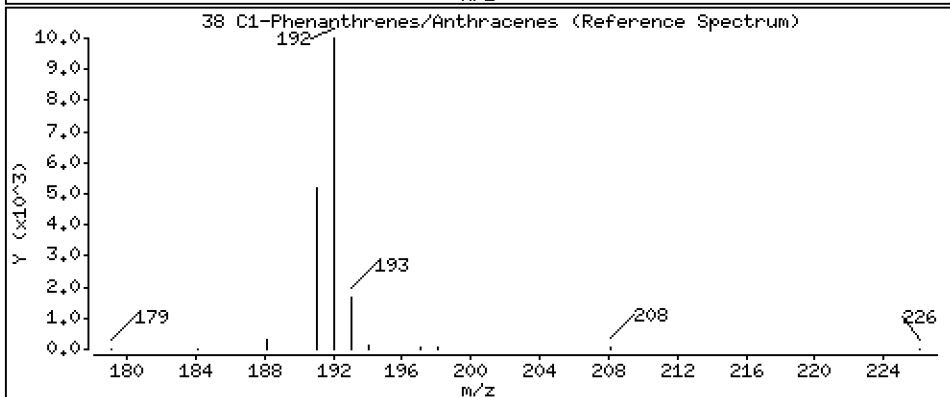
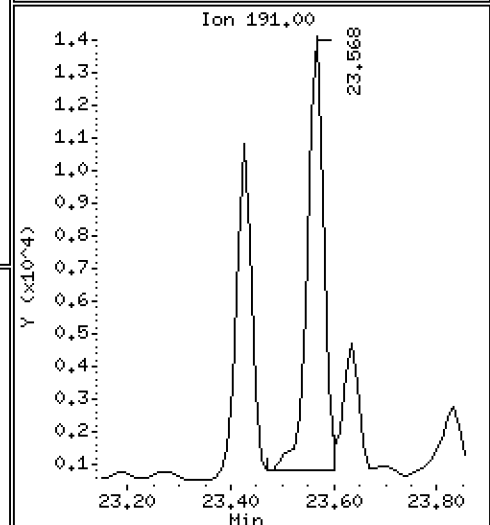
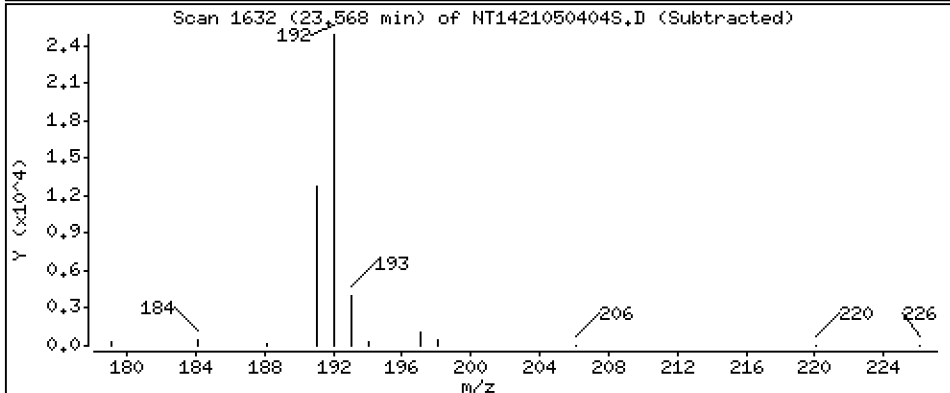
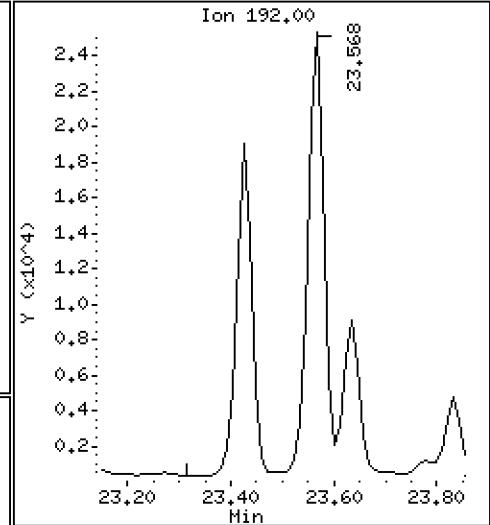
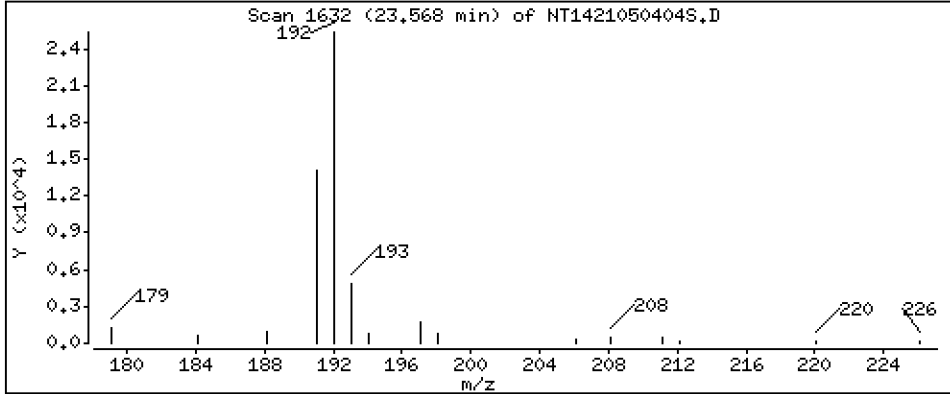
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

38 C1-Phenanthrenes/Anthracenes

Concentration: 0,5944 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

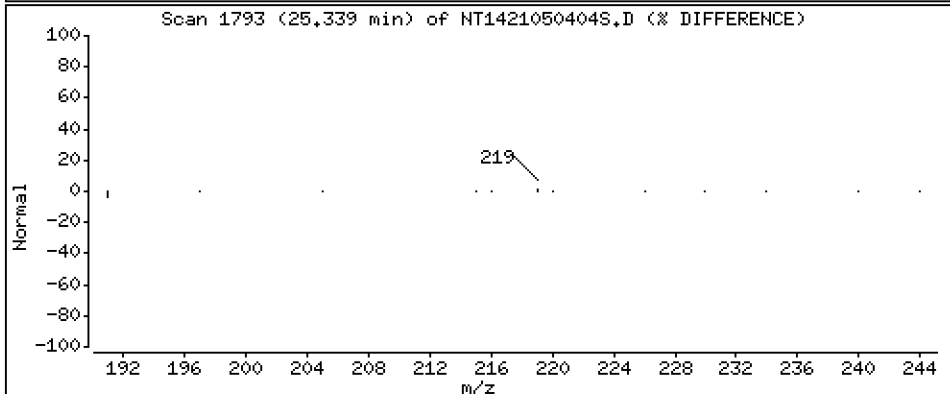
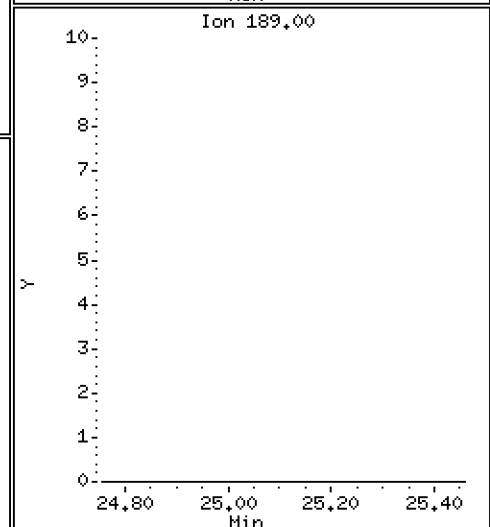
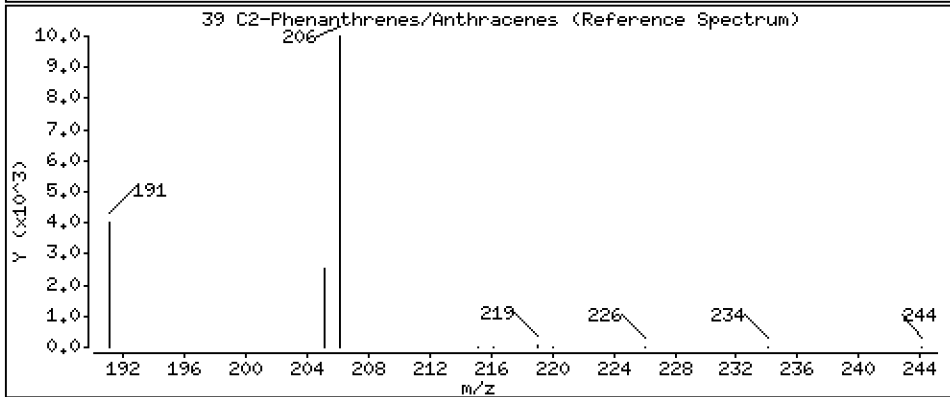
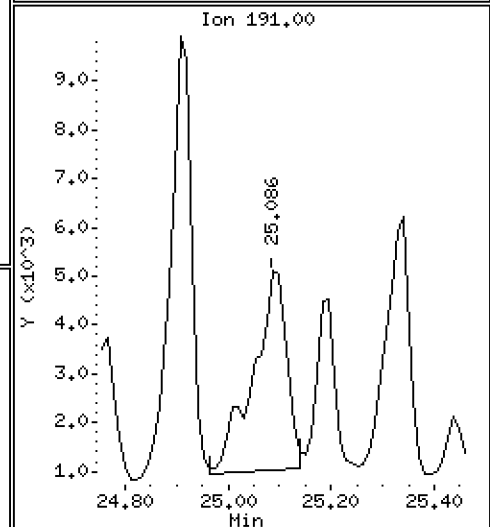
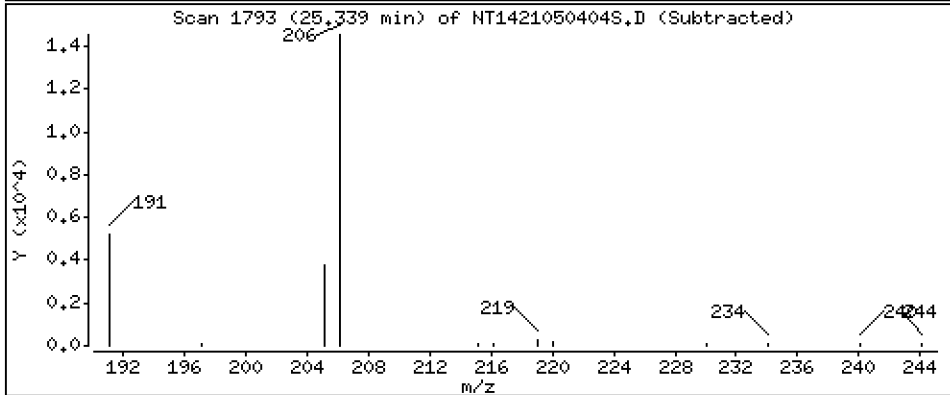
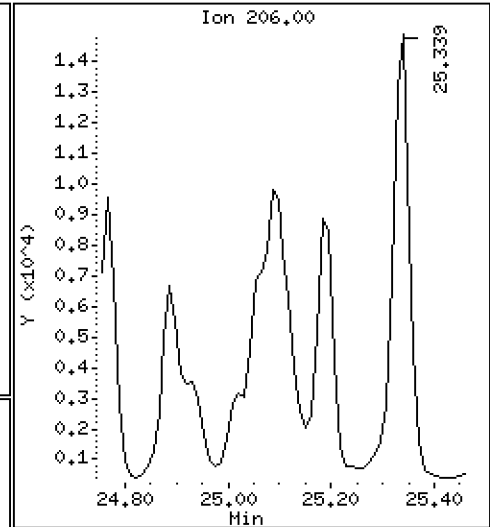
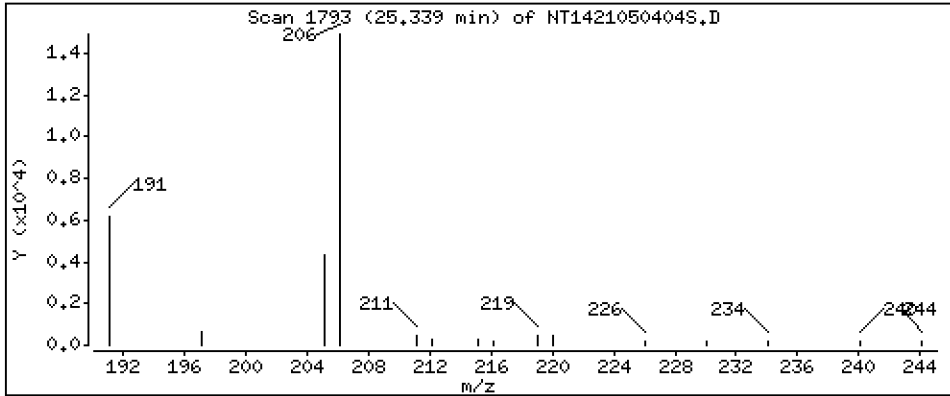
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

39 C2-Phenanthrenes/Anthracenes

Concentration: 0,5488 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

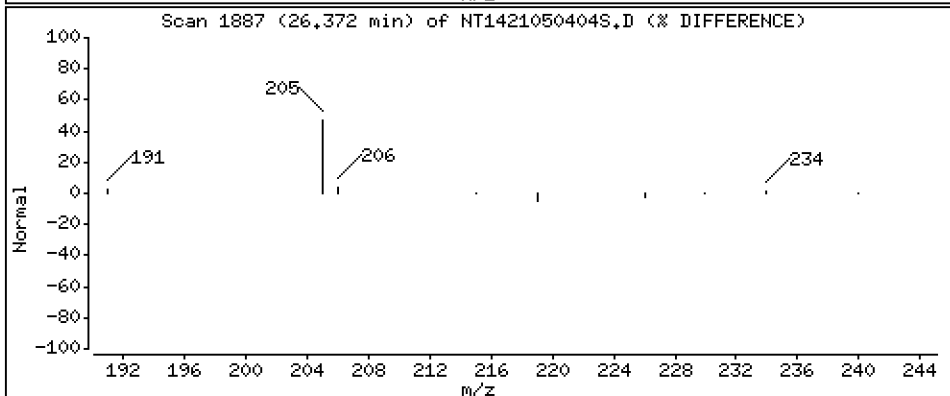
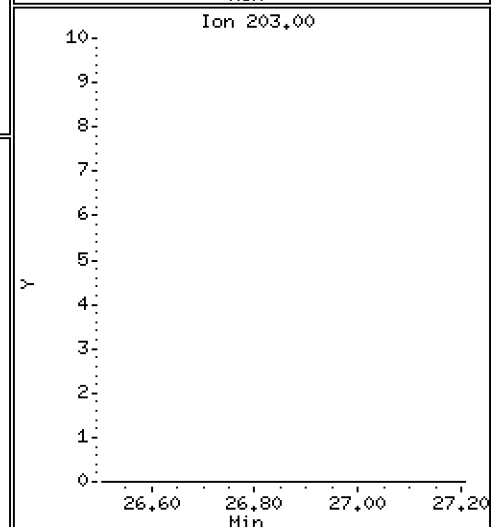
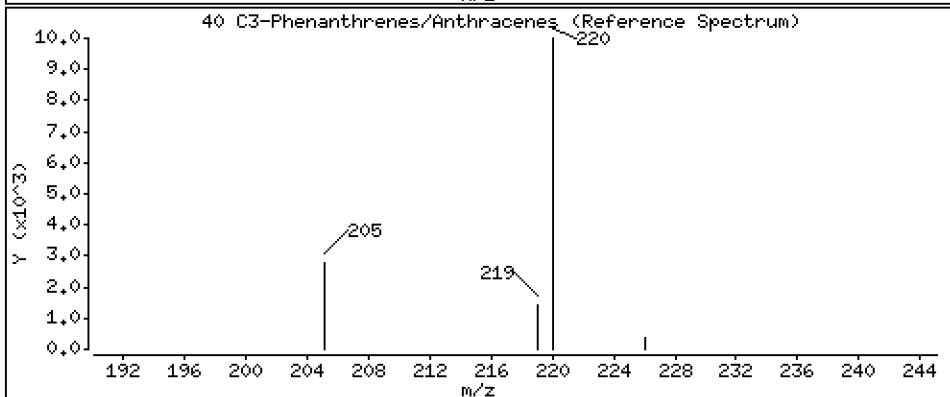
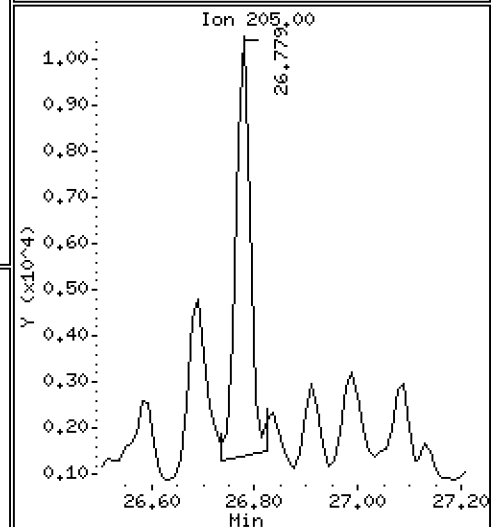
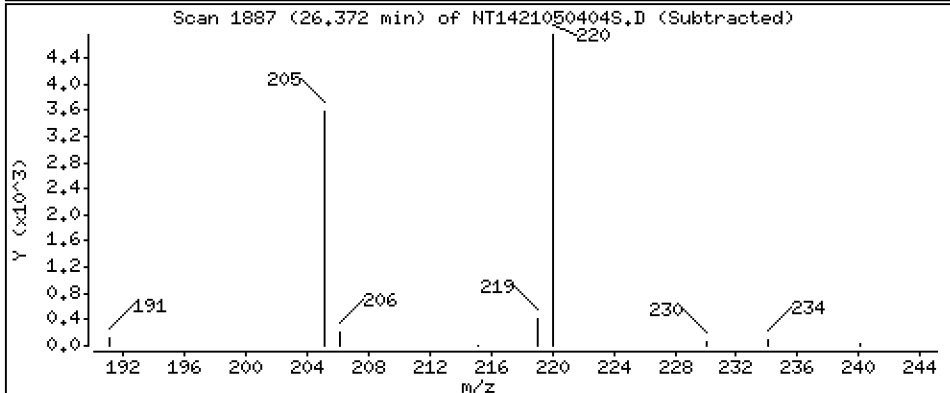
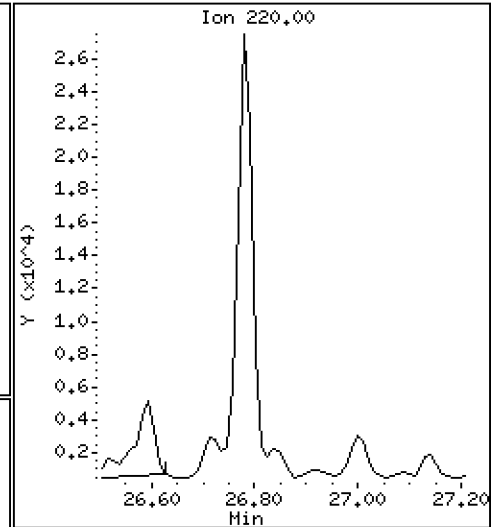
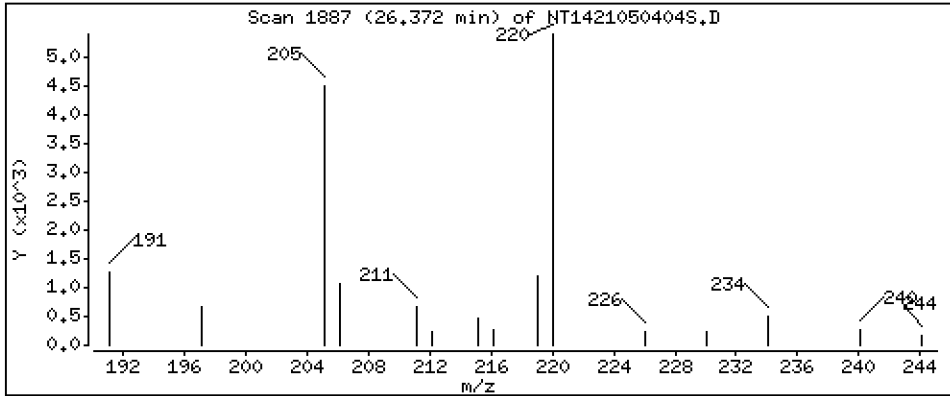
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

40 C3-Phenanthrenes/Anthracenes

Concentration: 0.1896 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

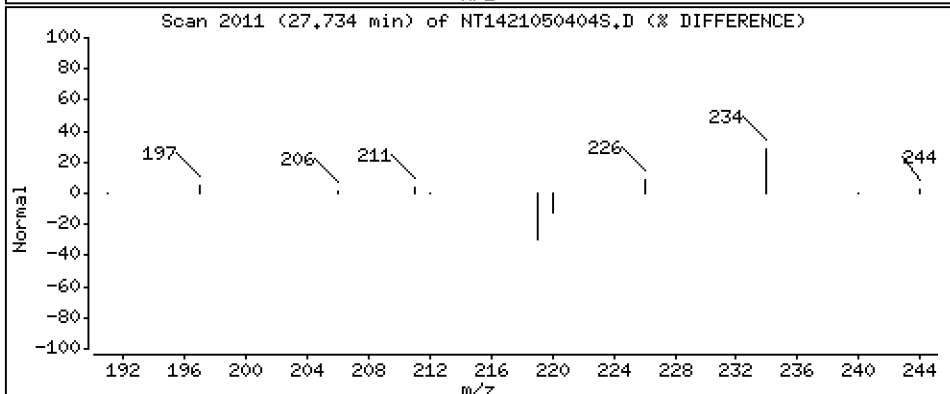
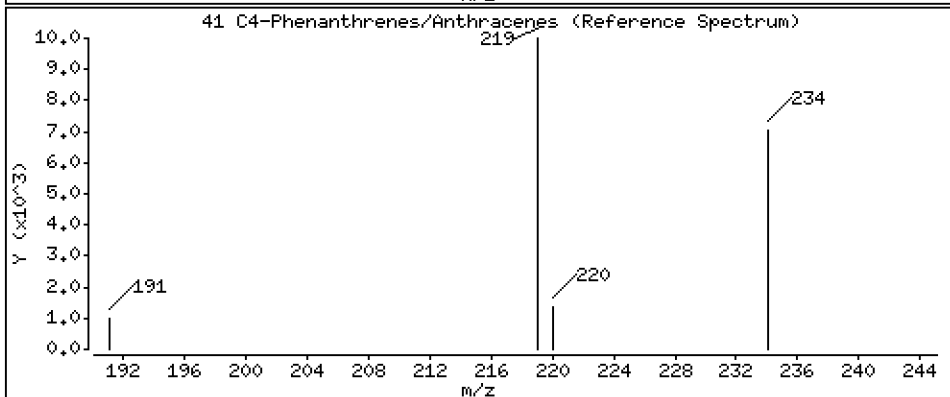
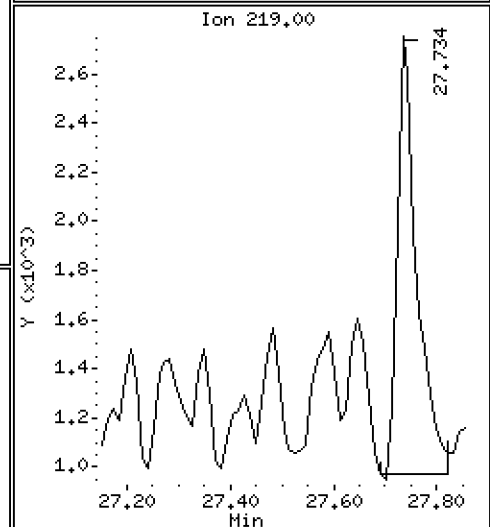
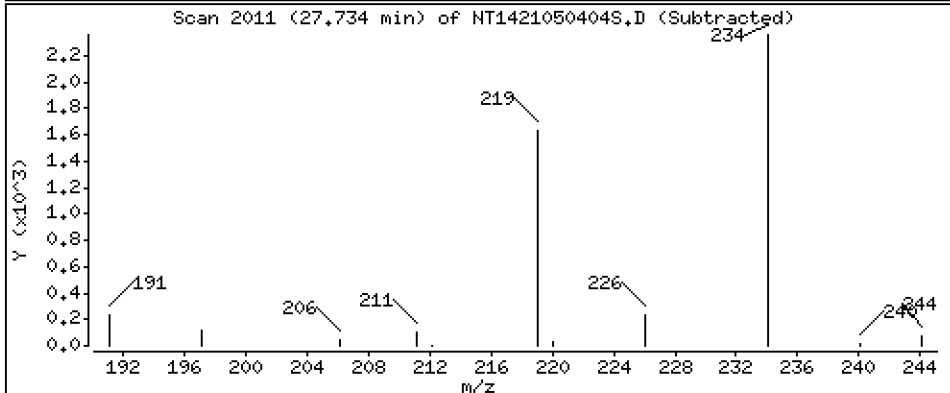
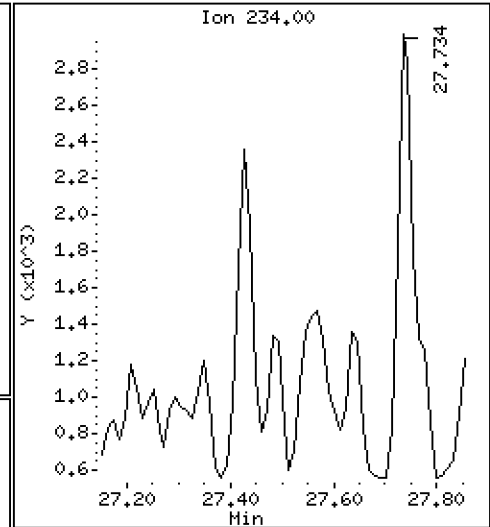
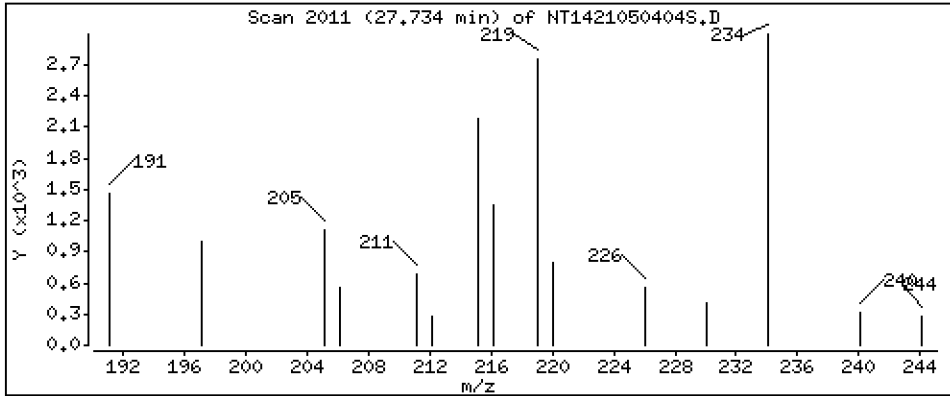
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

41 C4-Phenanthrenes/Anthracenes

Concentration: 0,09736 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

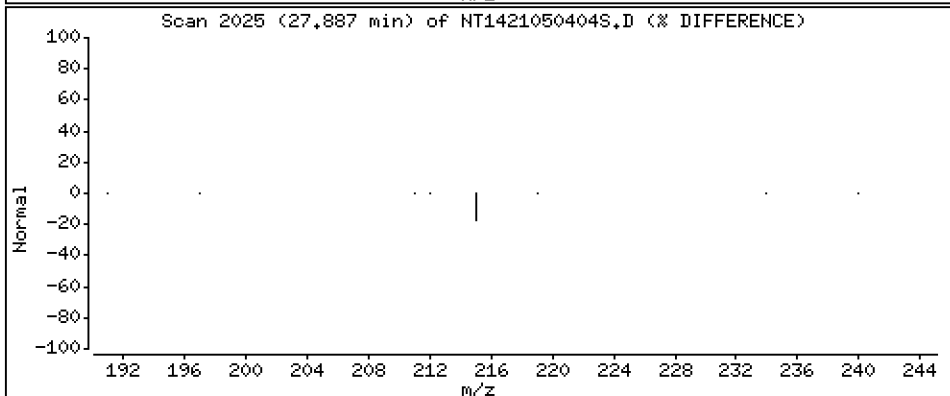
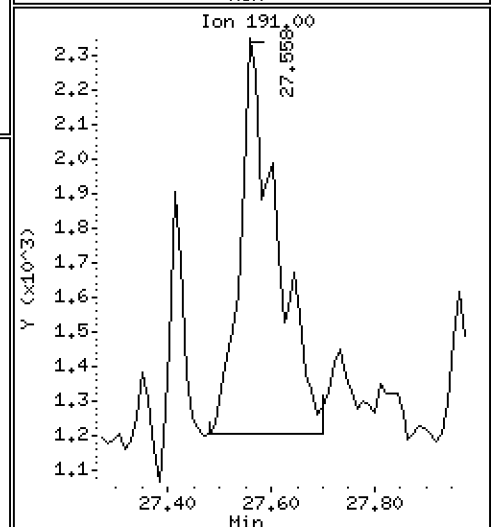
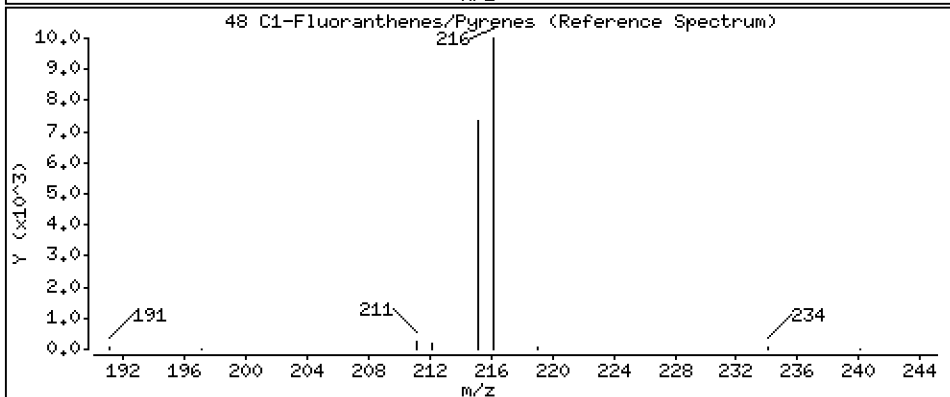
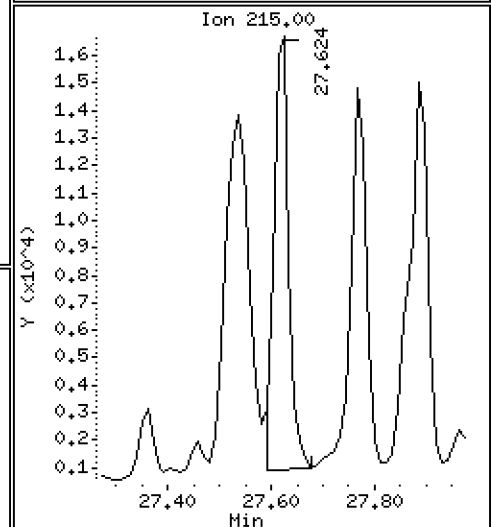
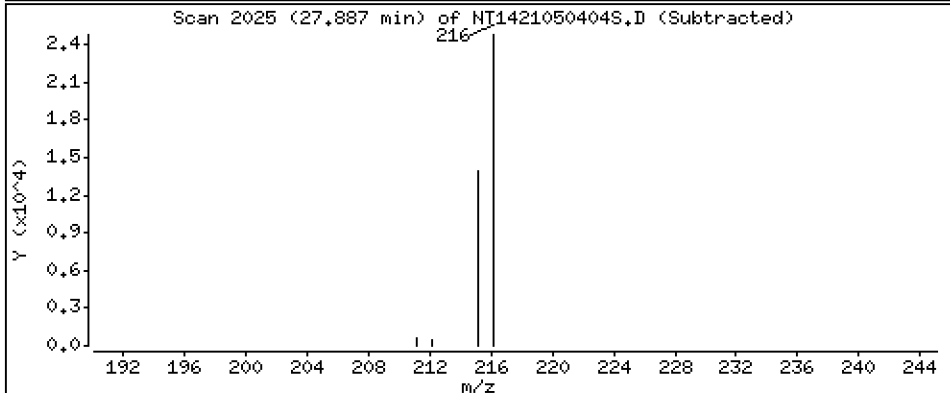
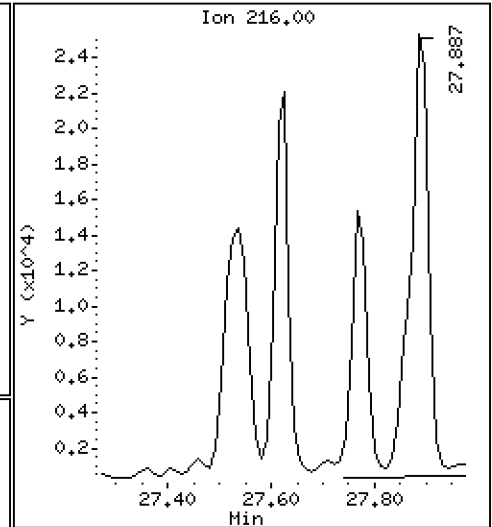
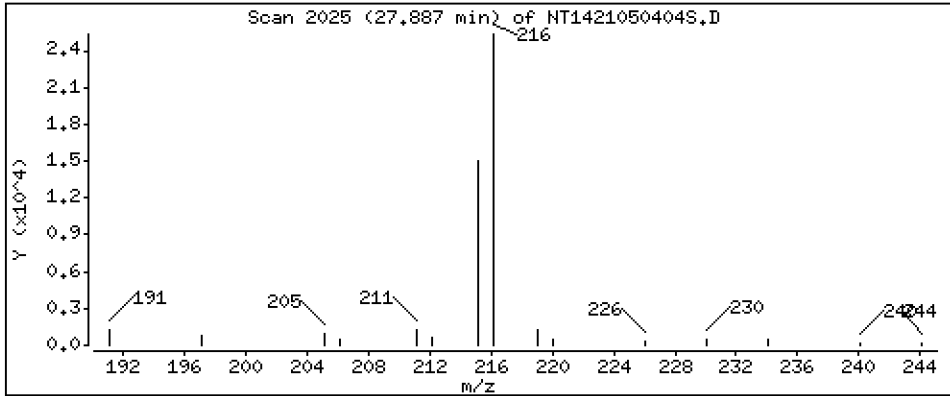
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

48 C1-Fluoranthenes/Pyrenes

Concentration: 1,039 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

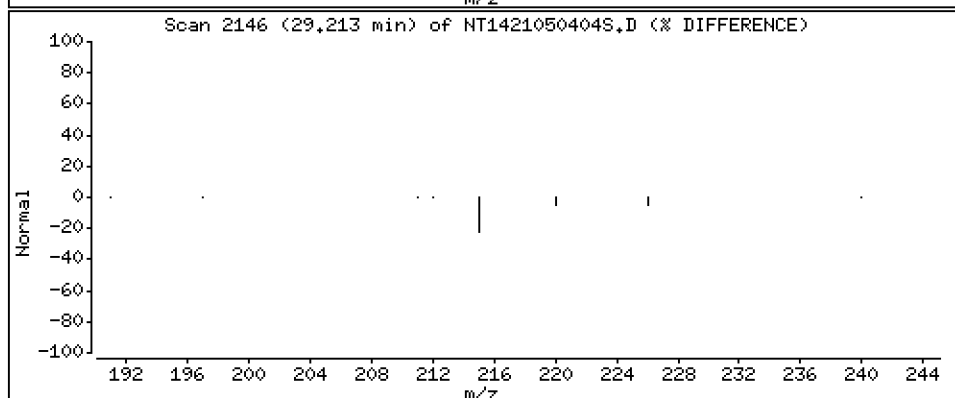
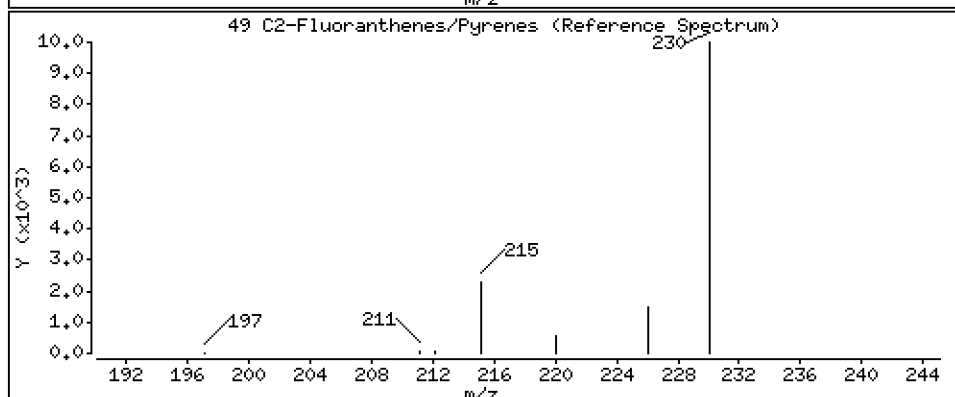
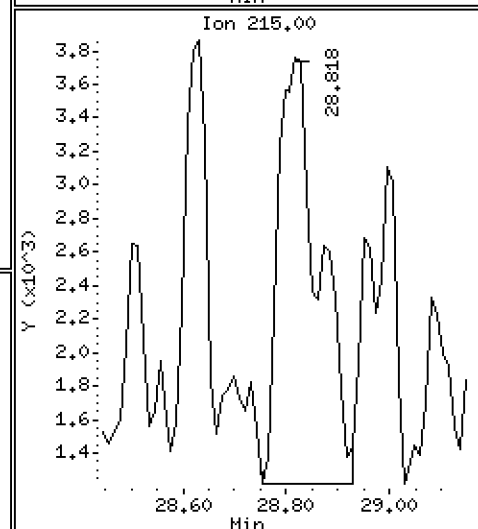
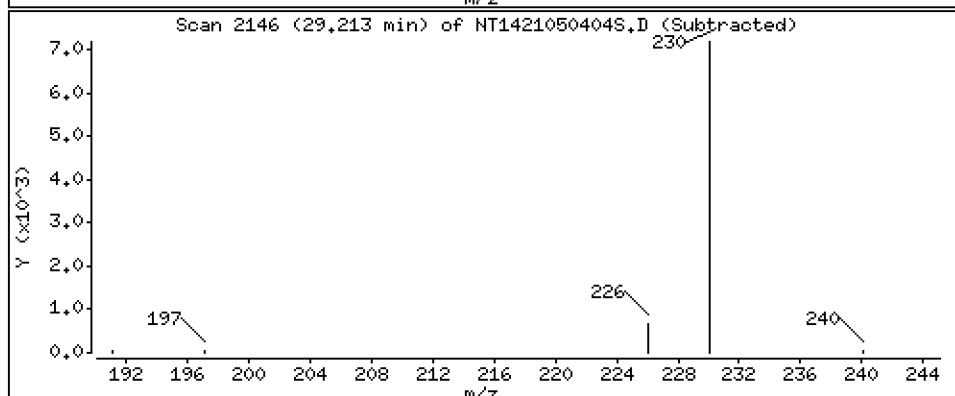
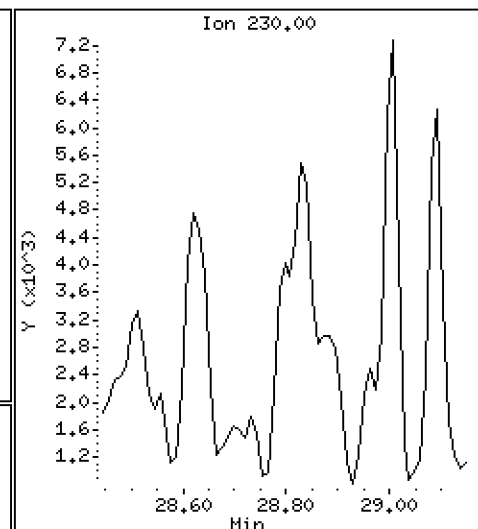
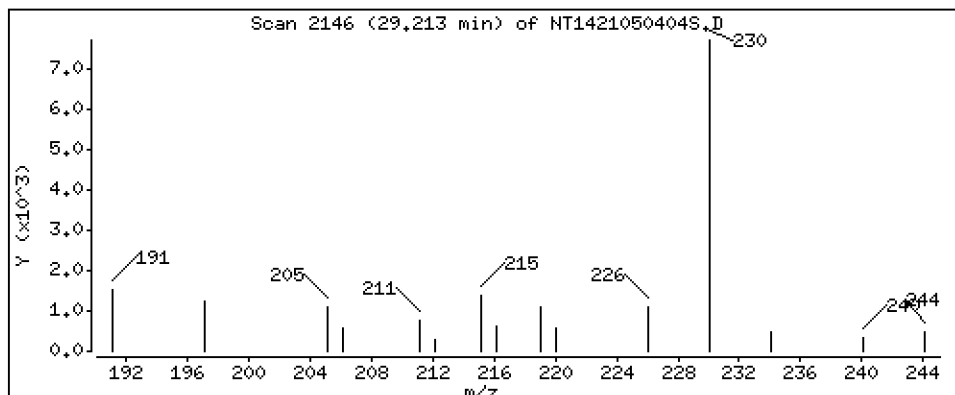
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

49 C2-Fluoranthenes/Pyrenes

Concentration: 0,5157 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

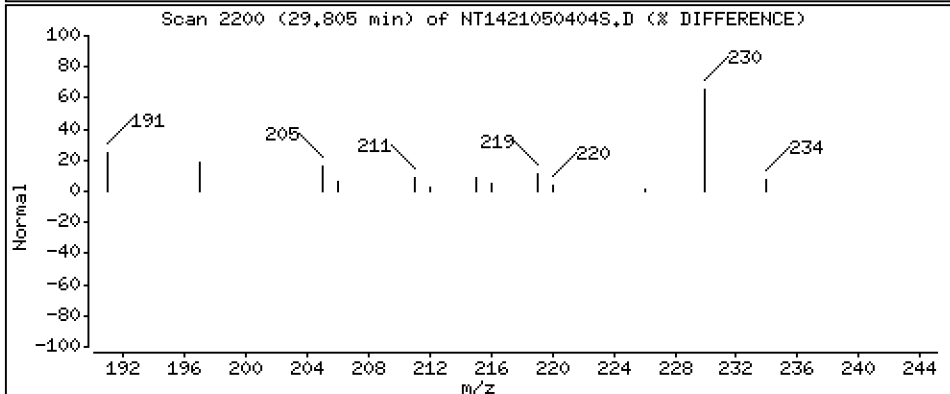
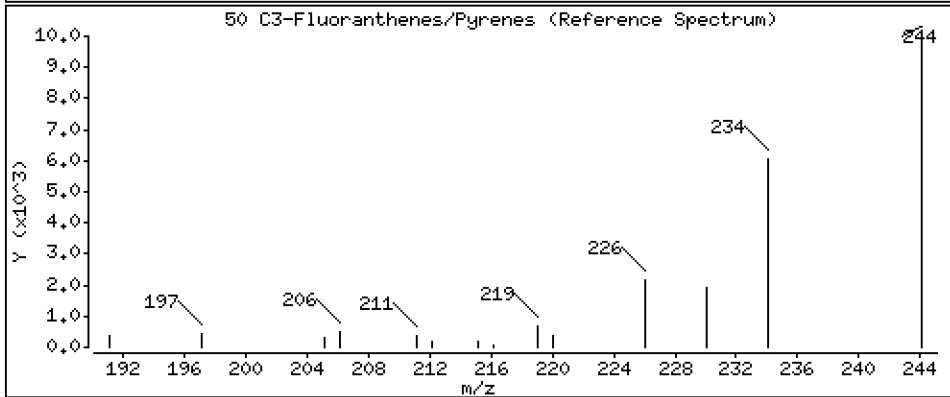
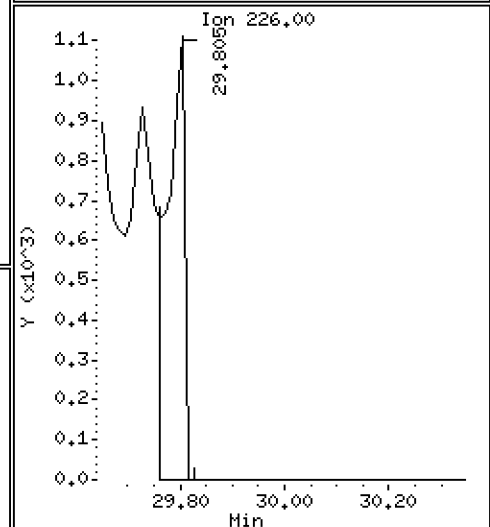
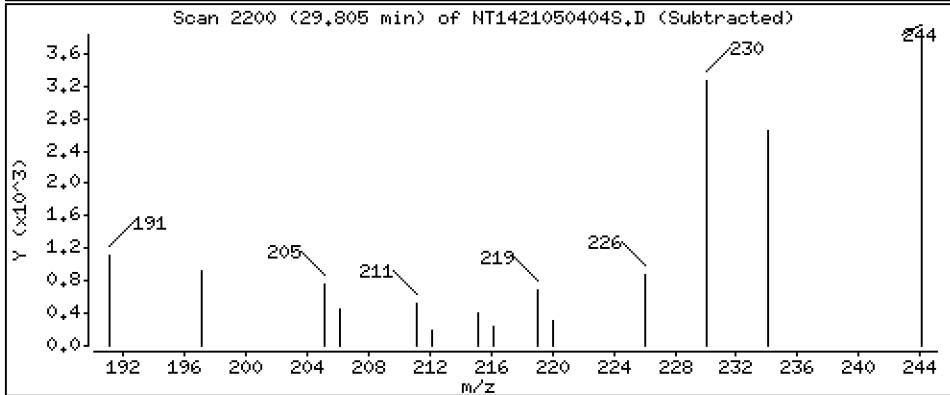
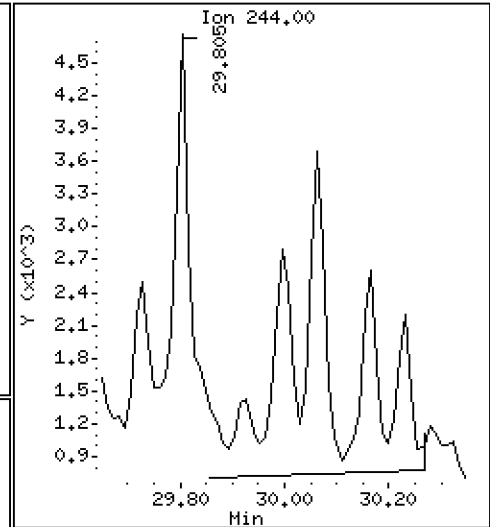
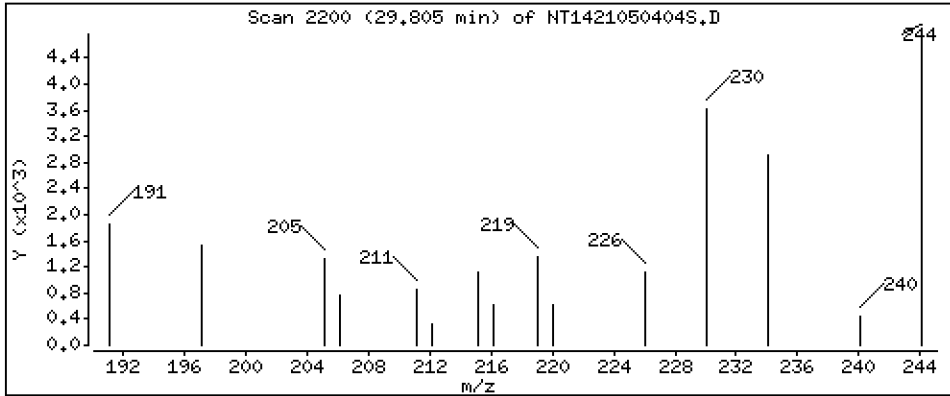
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

50 C3-Fluoranthenes/Pyrenes

Concentration: 0,1675 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

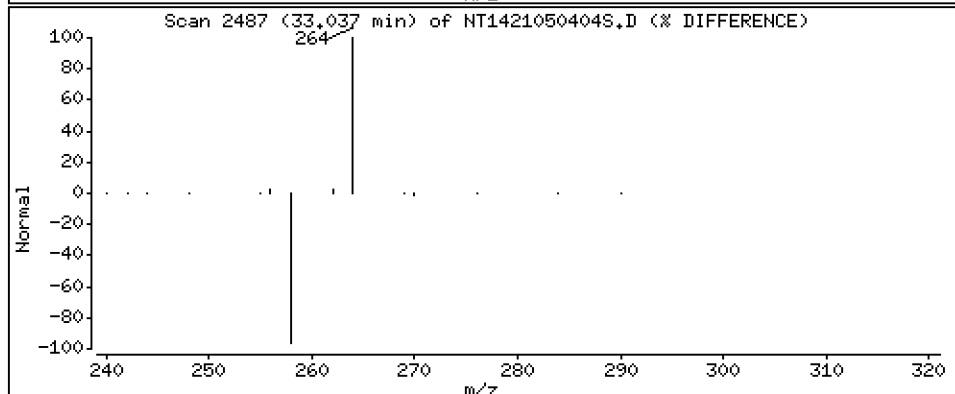
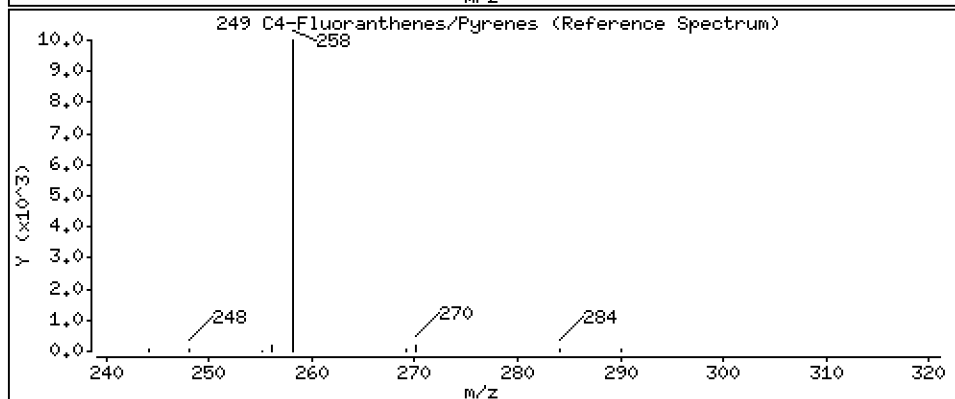
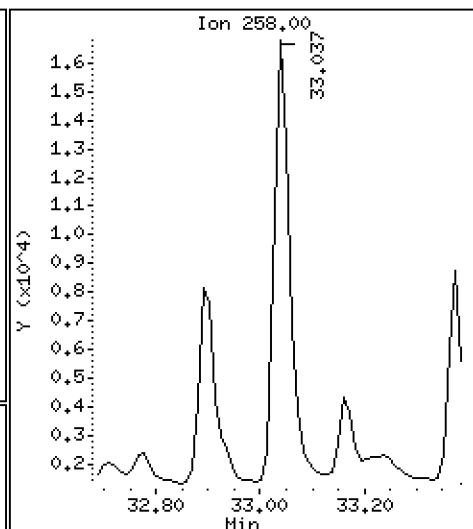
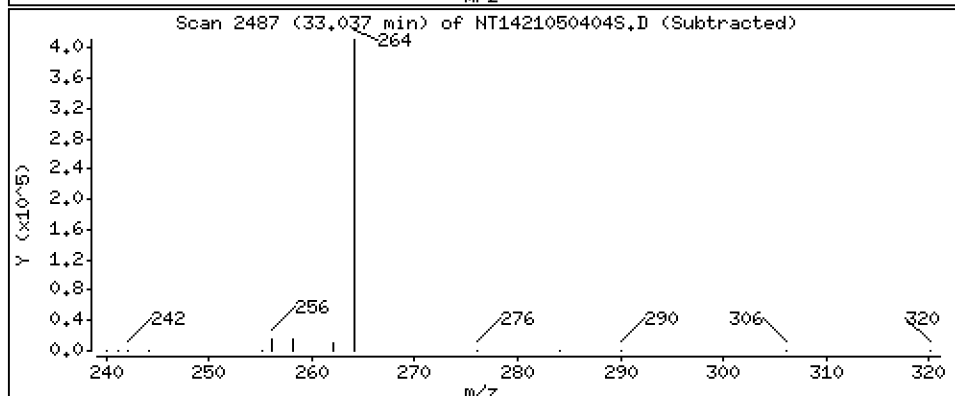
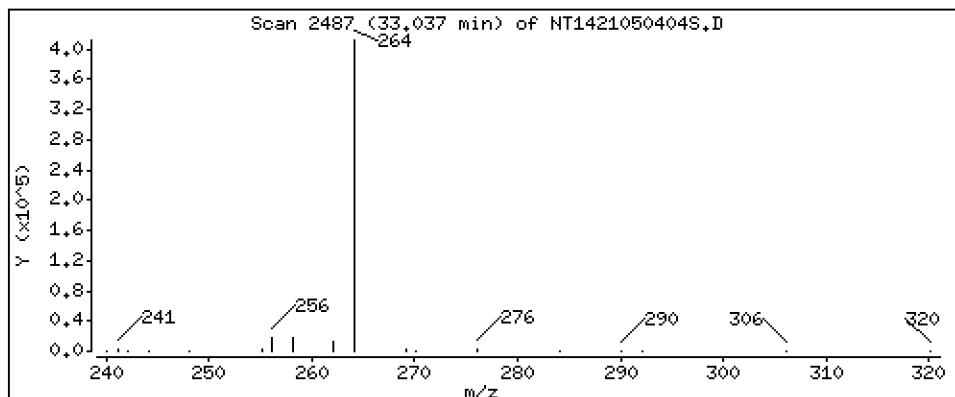
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

249 C4-Fluoranthenes/Pyrenes

Concentration: 0,3369 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

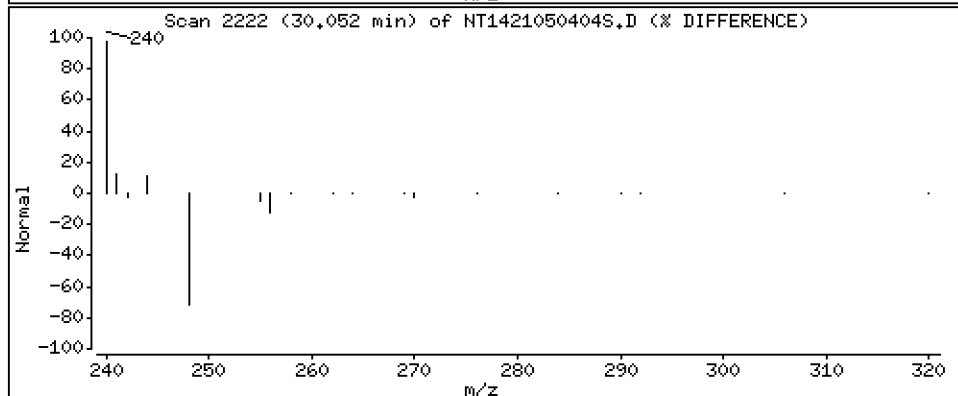
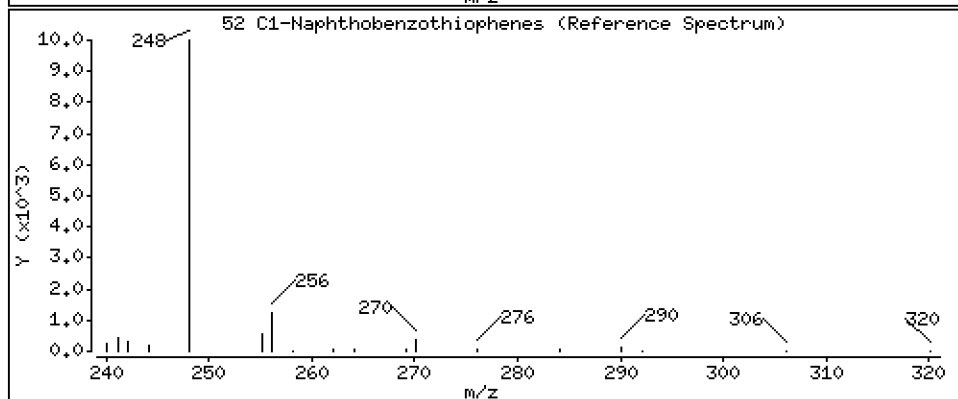
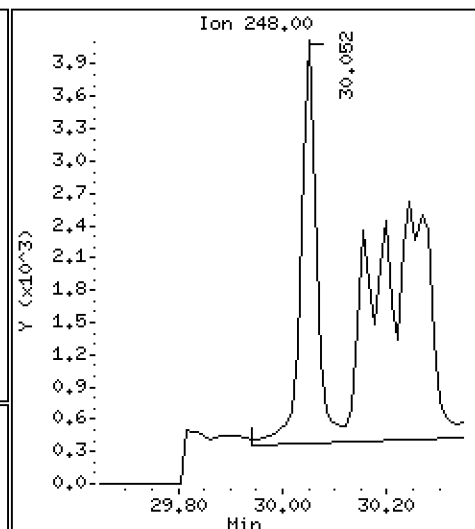
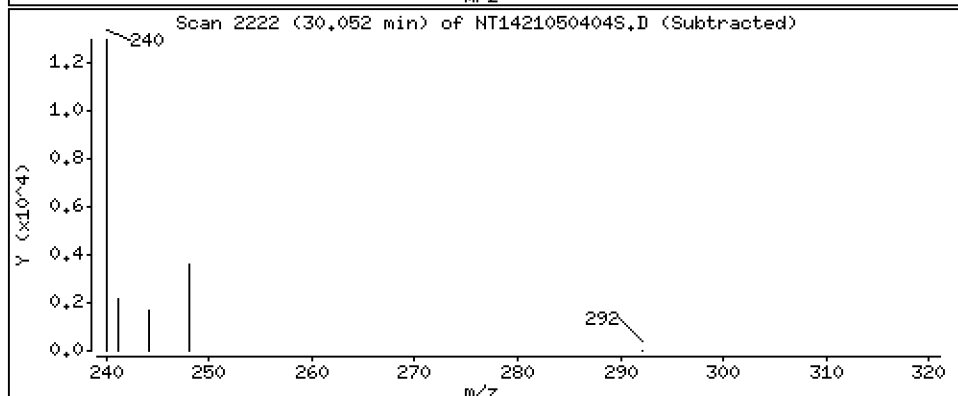
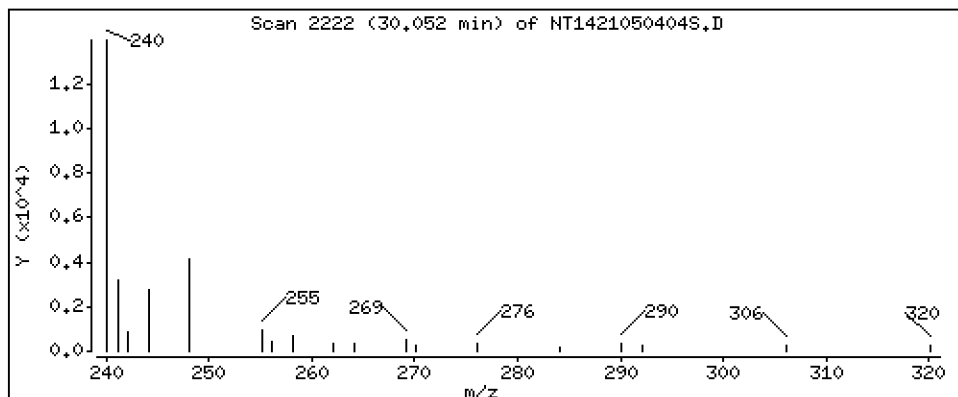
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

52 C1-Naphthobenzothiophenes

Concentration: 0,1831 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

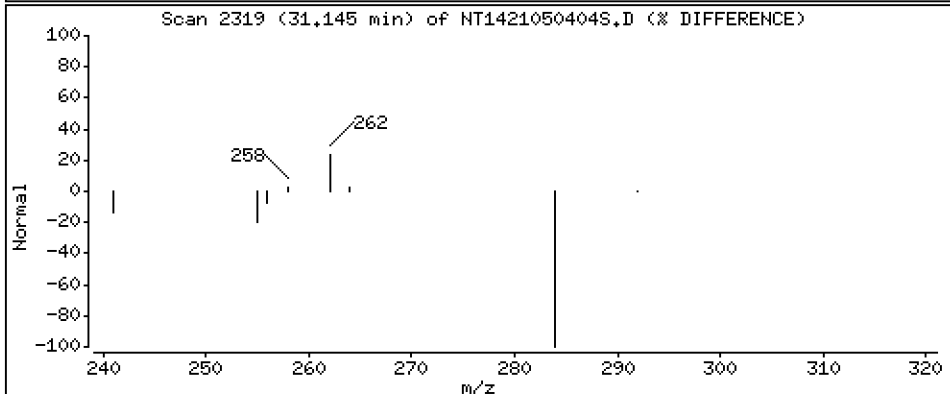
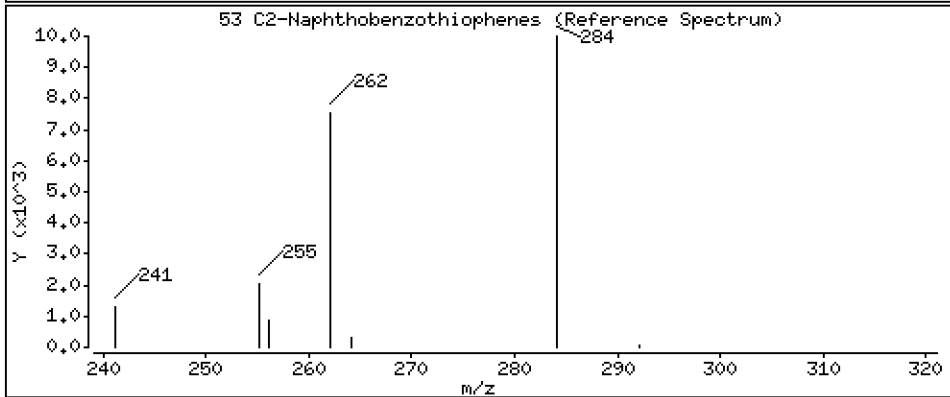
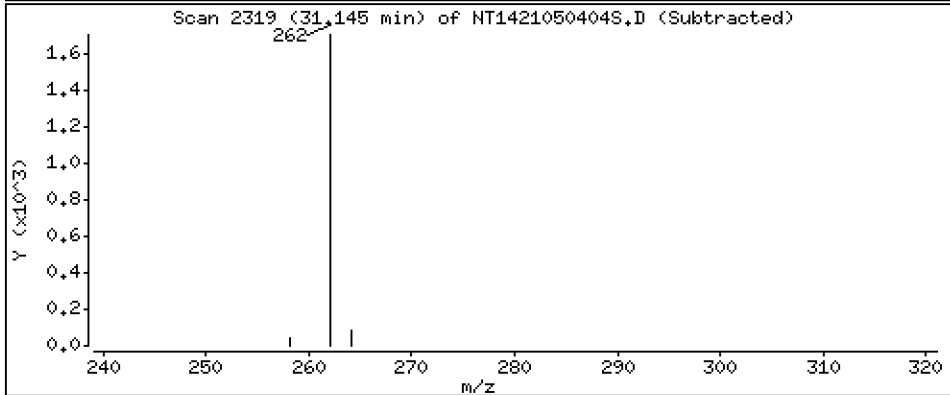
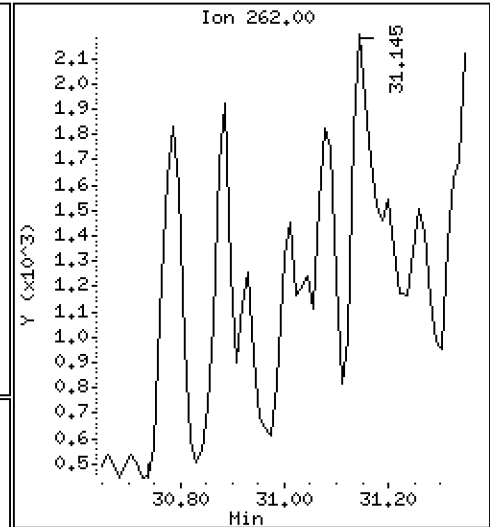
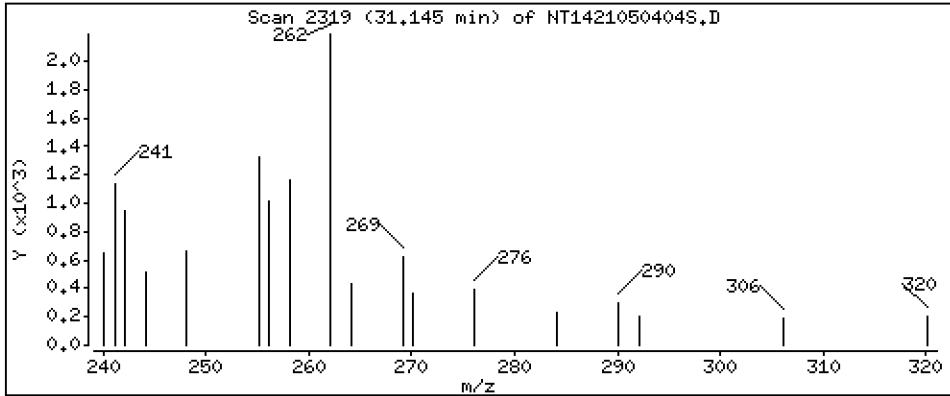
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

53 C2-Naphthobenzothiophenes

Concentration: 0,1488 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

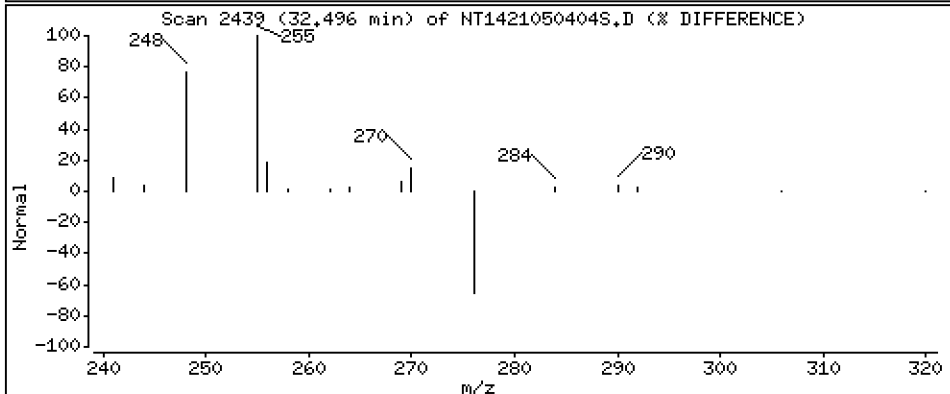
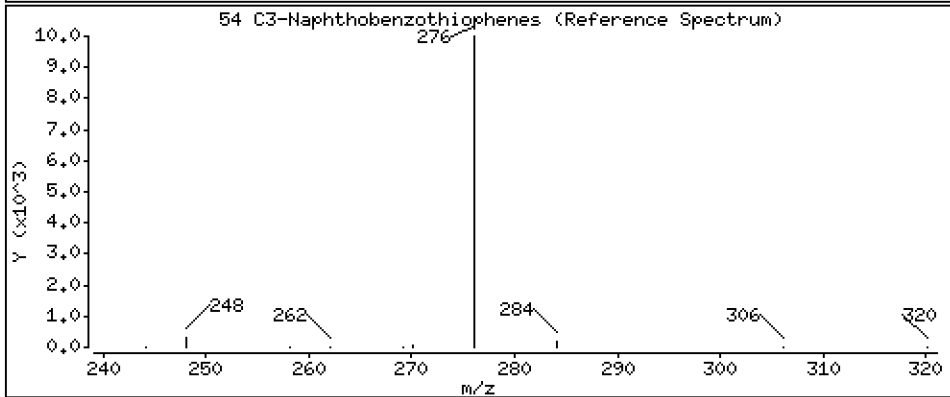
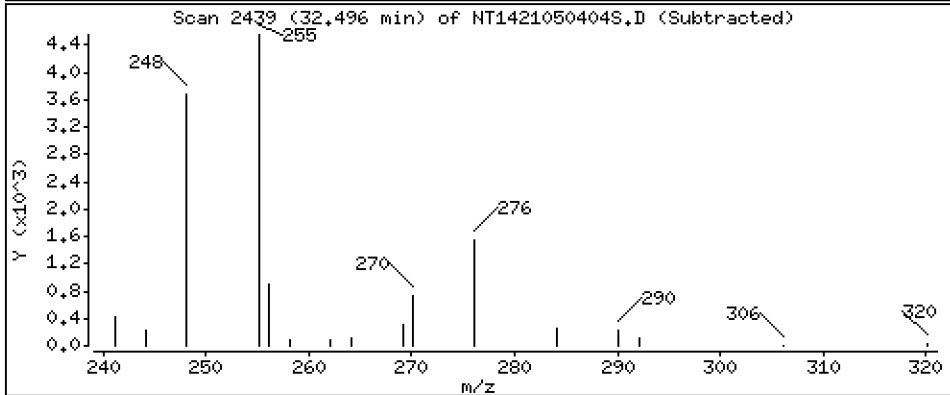
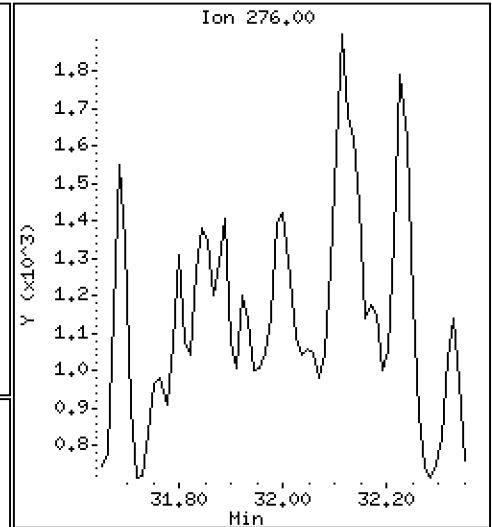
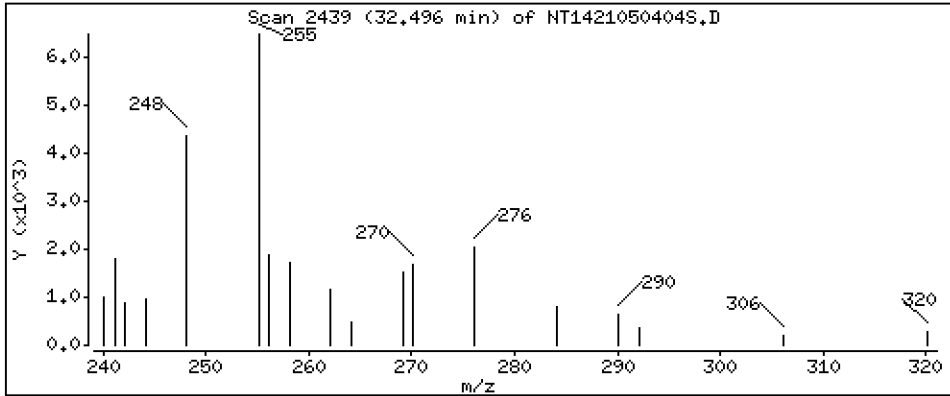
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

54 C3-Naphthobenzothiophenes

Concentration: 0,1468 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

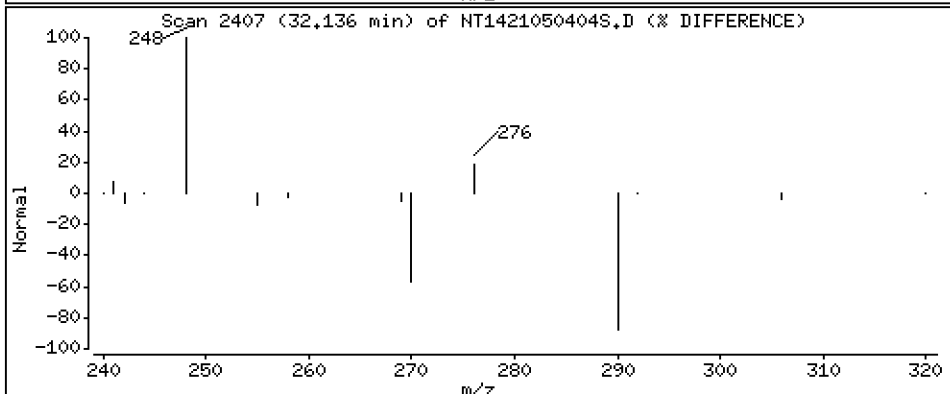
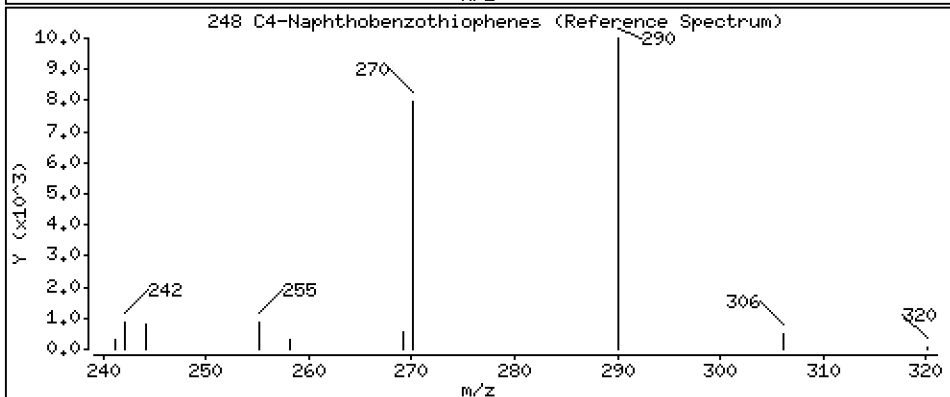
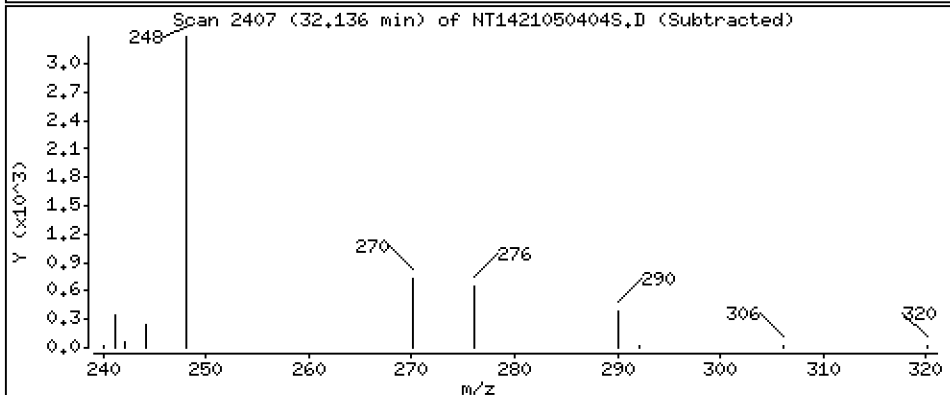
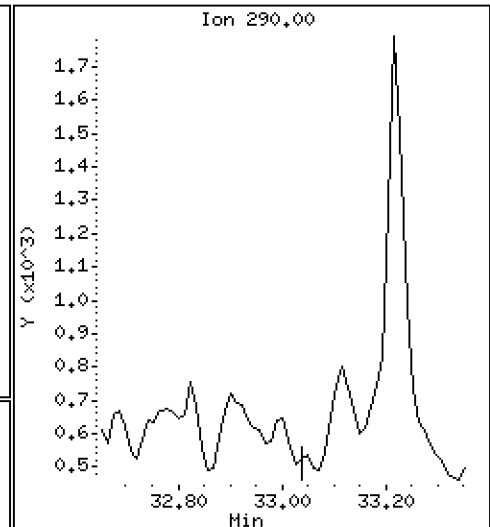
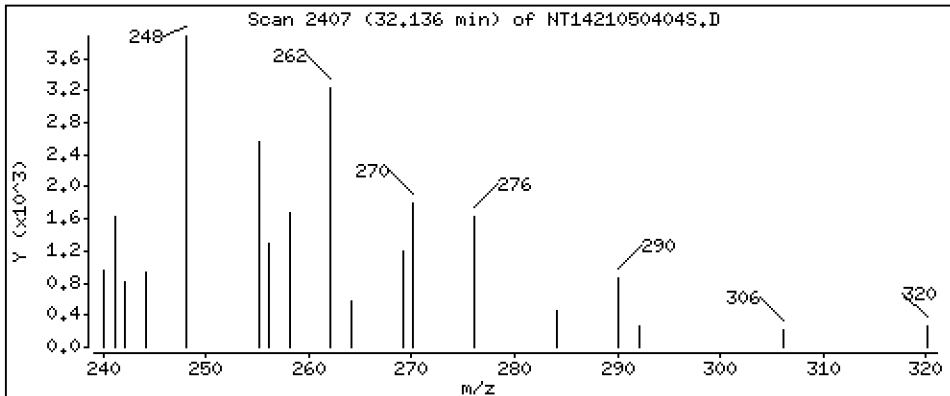
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

248 C4-Naphthobenzothiophenes

Concentration: 0,04363 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

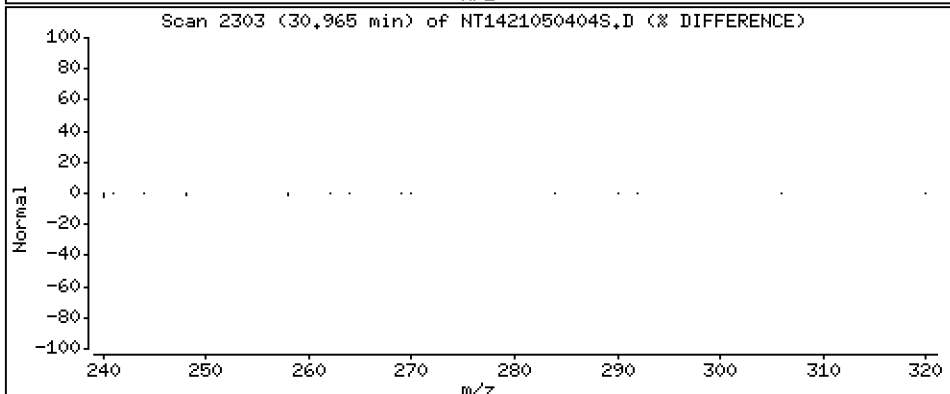
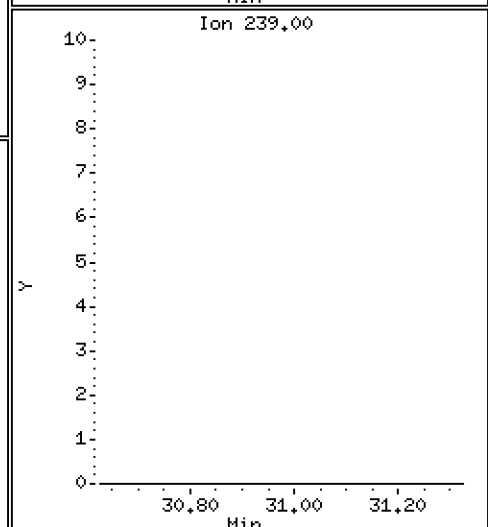
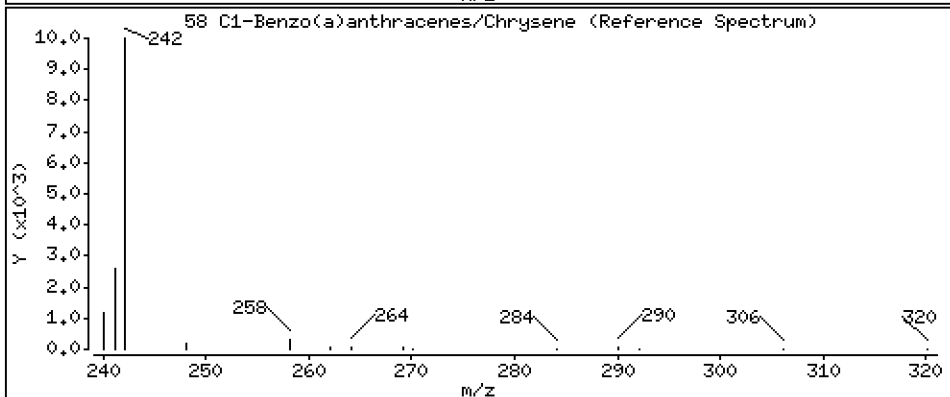
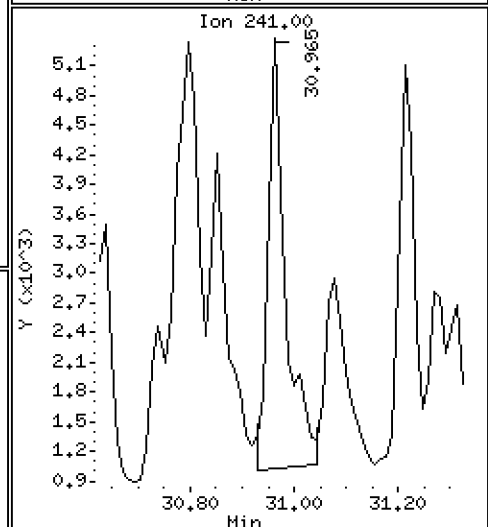
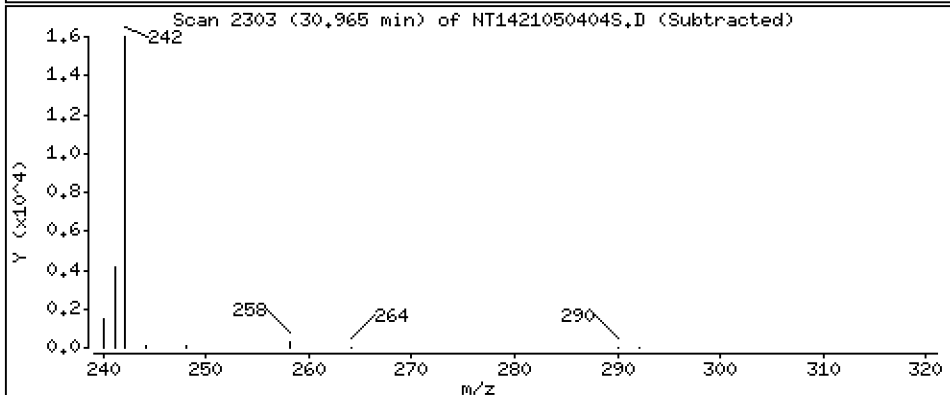
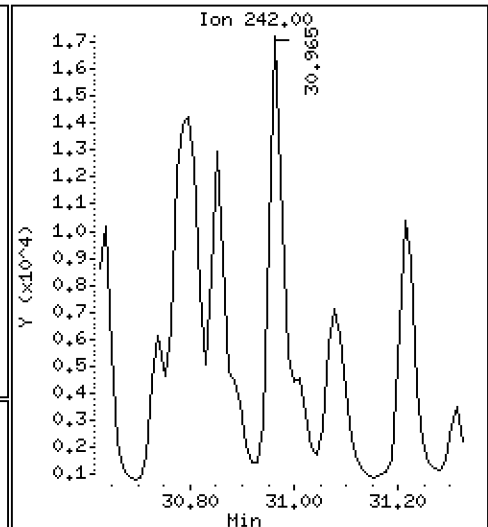
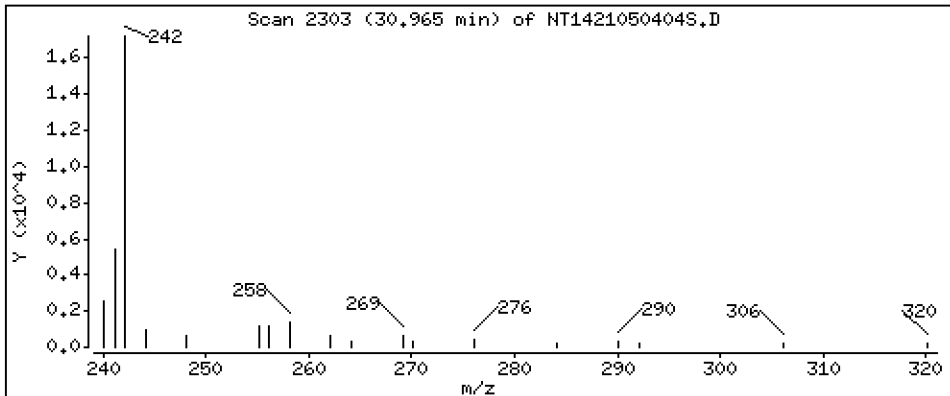
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

58 C1-Benzo(a)anthracenes/Chrysene

Concentration: 0,7093 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

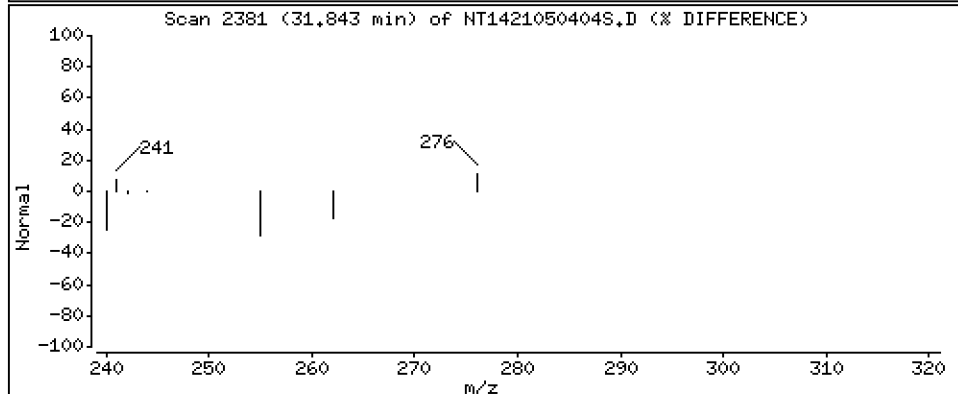
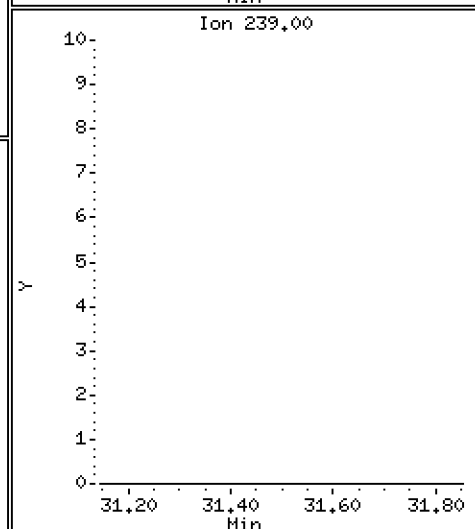
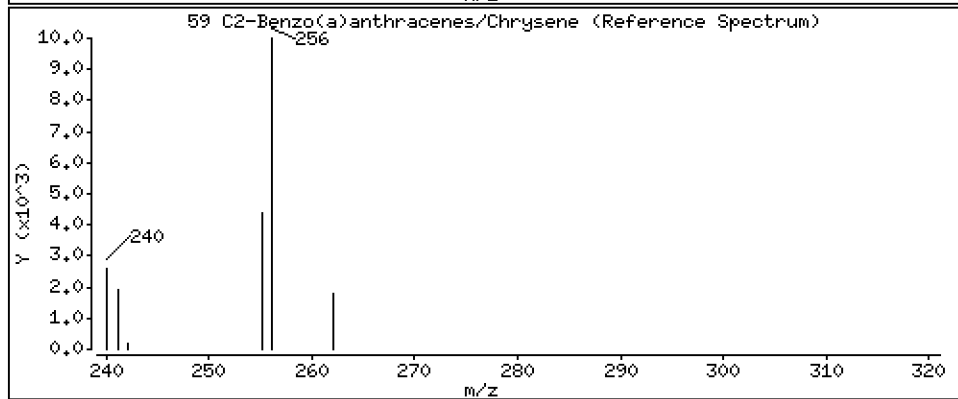
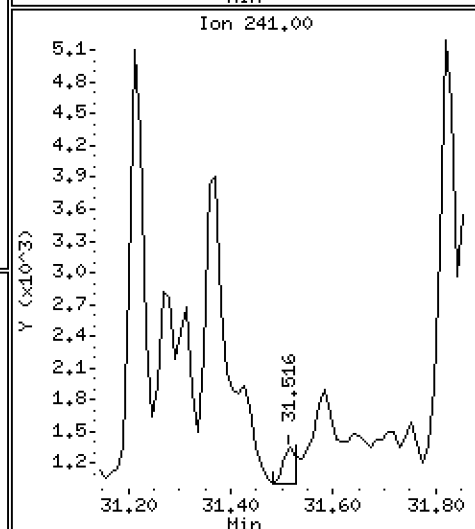
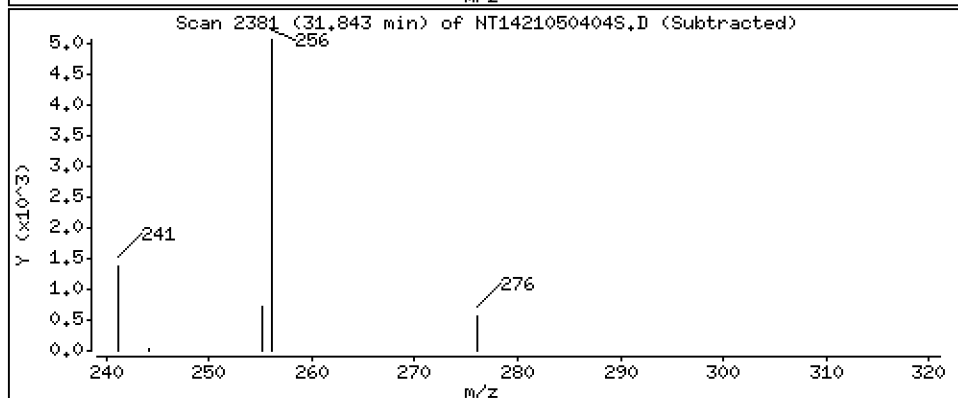
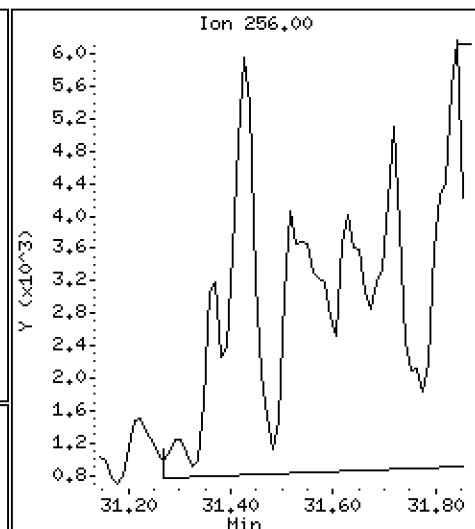
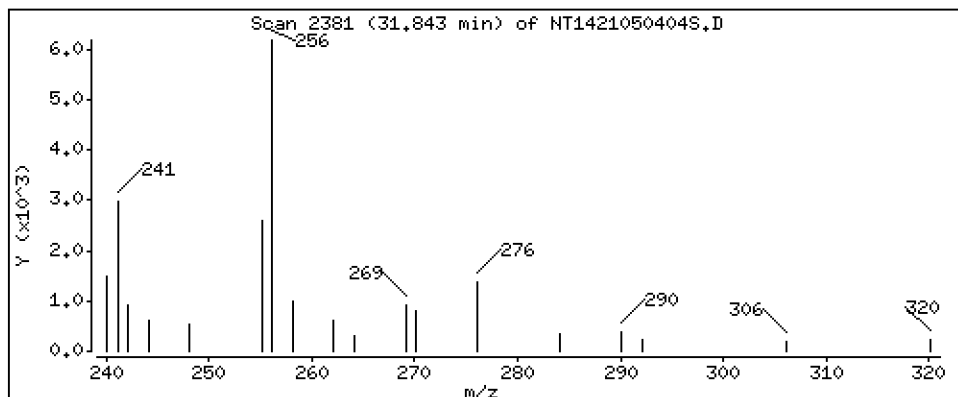
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

59 C2-Benzo(a)anthracenes/Chrysene

Concentration: 0,3046 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

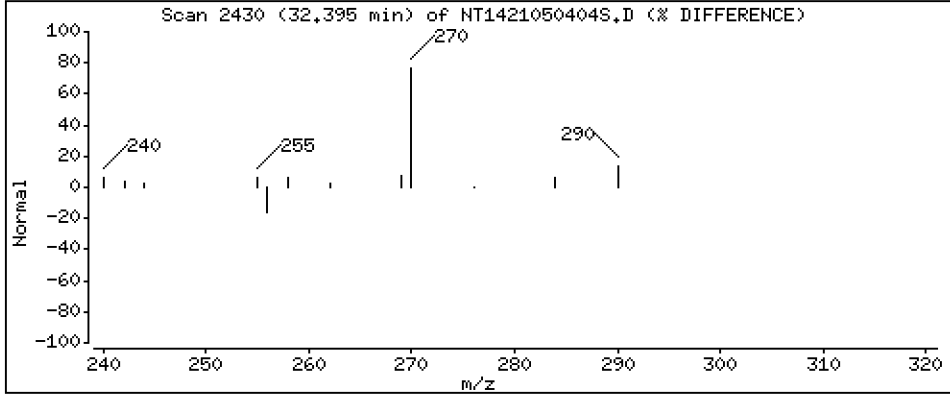
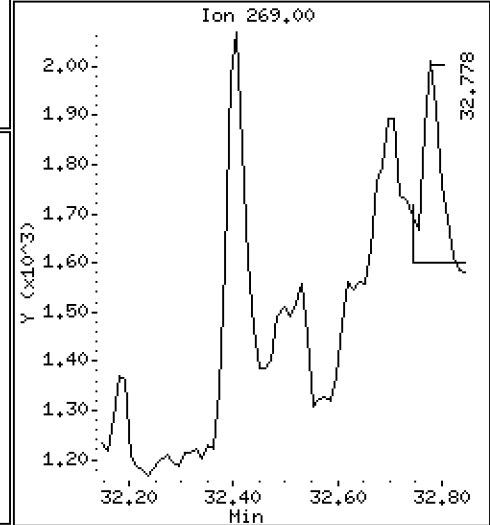
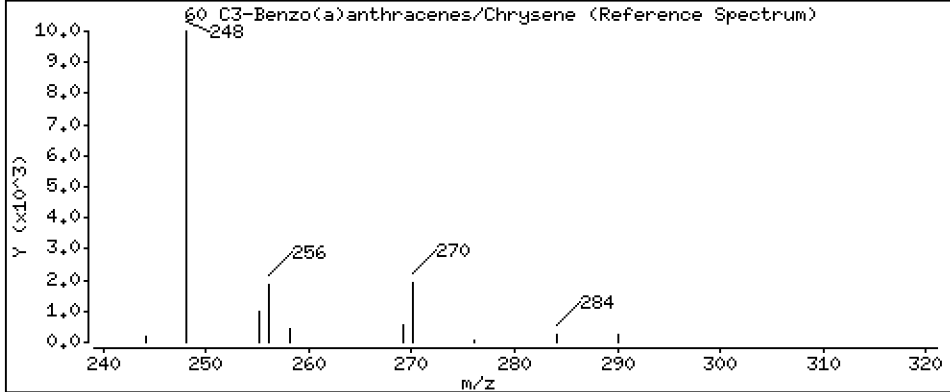
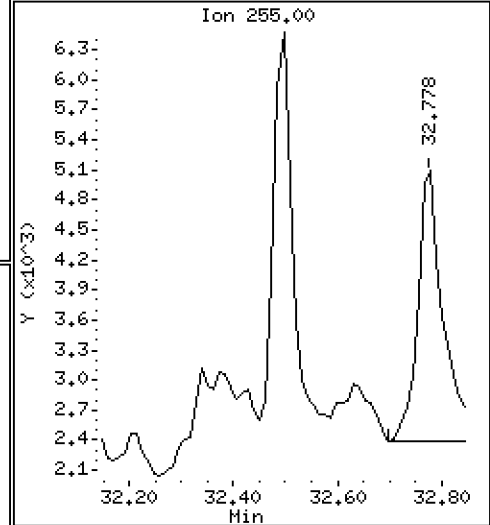
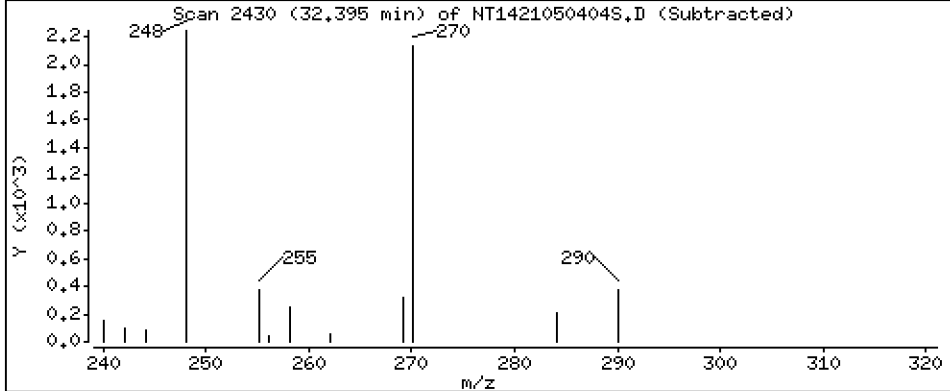
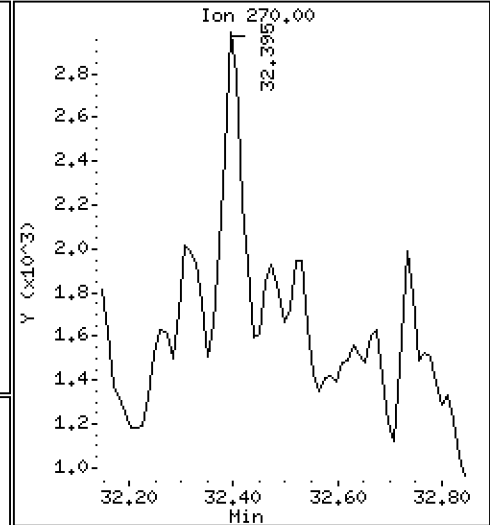
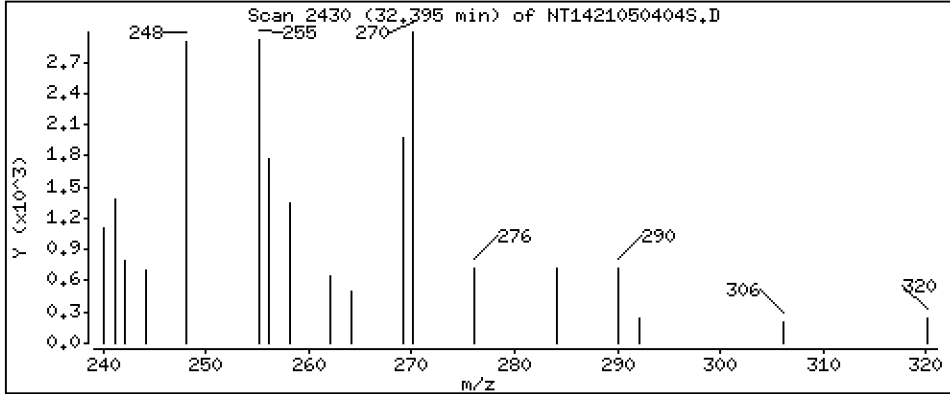
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

60 C3-Benzo(a)anthracenes/Chrysene

Concentration: 0,2012 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

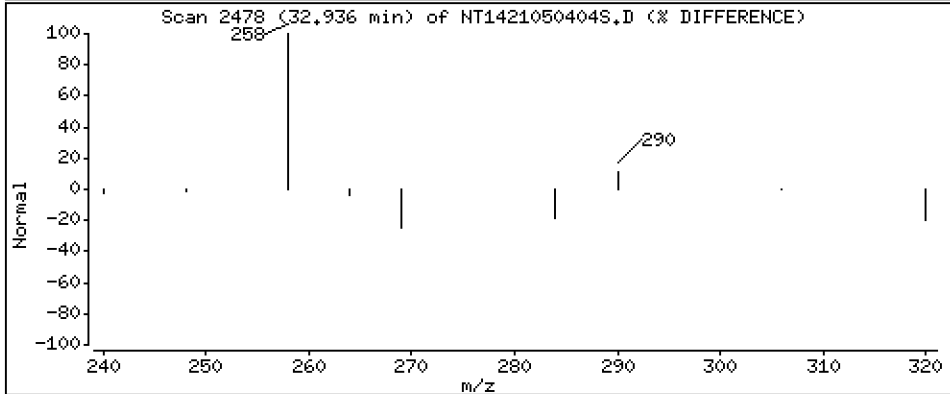
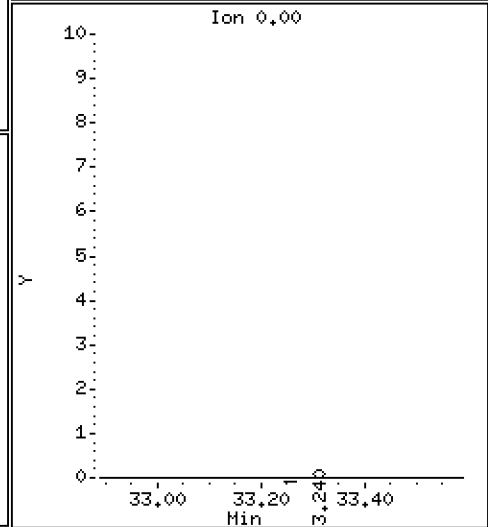
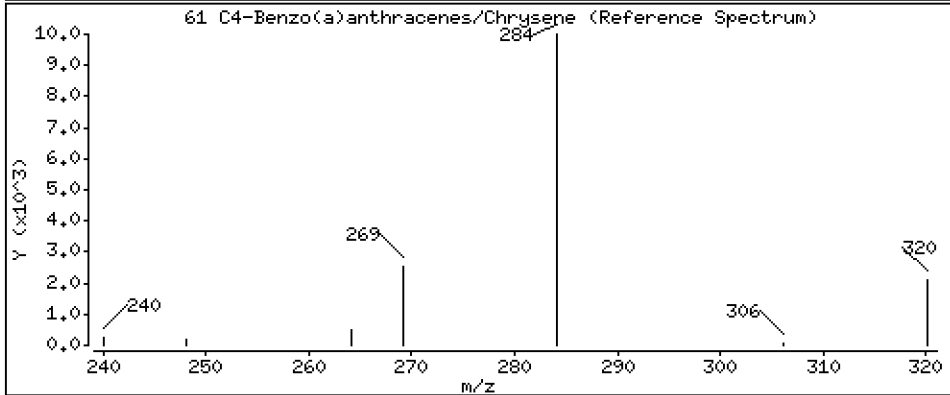
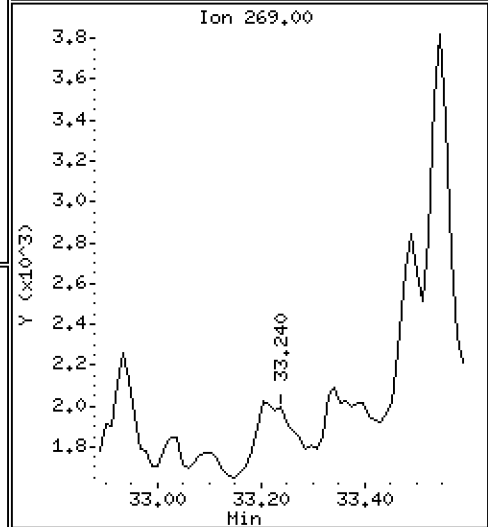
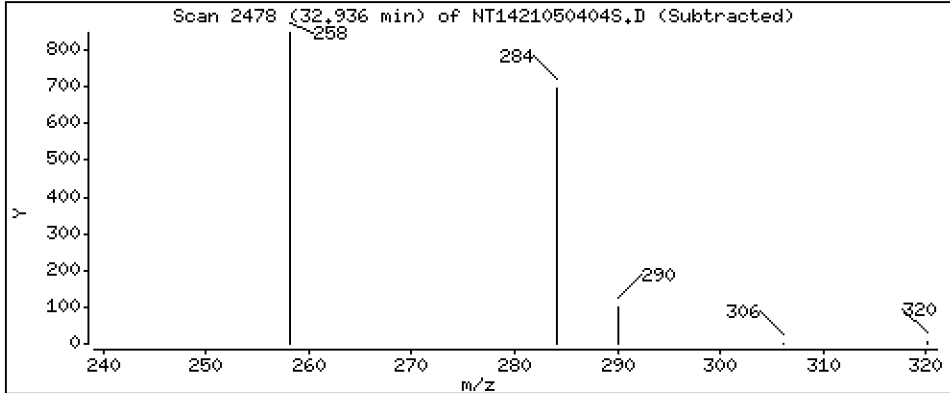
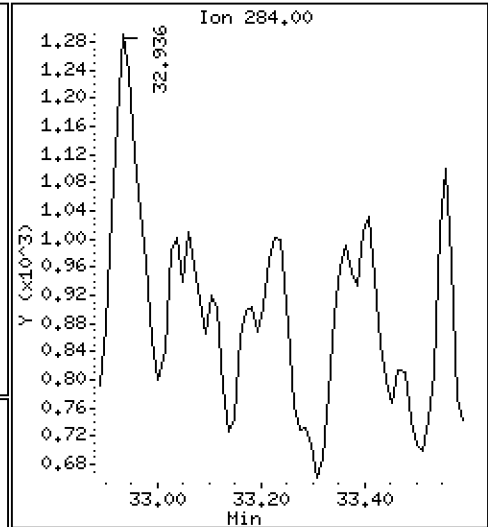
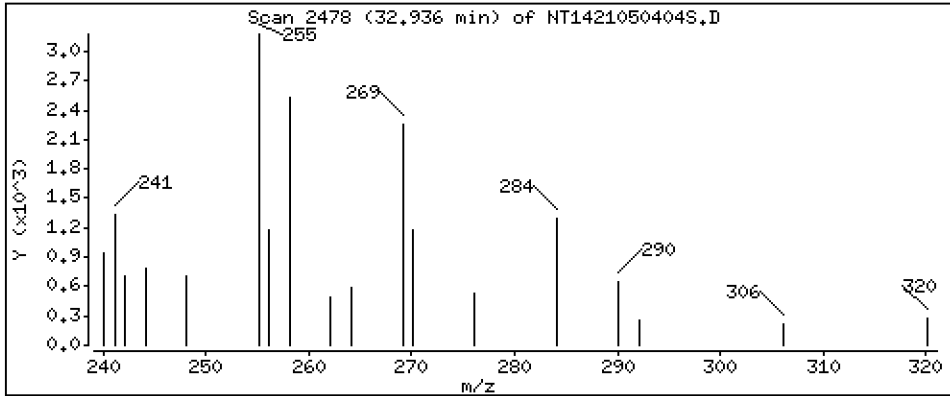
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

61 C4-Benzo(a)anthracenes/Chrysene

Concentration: 0.09803 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

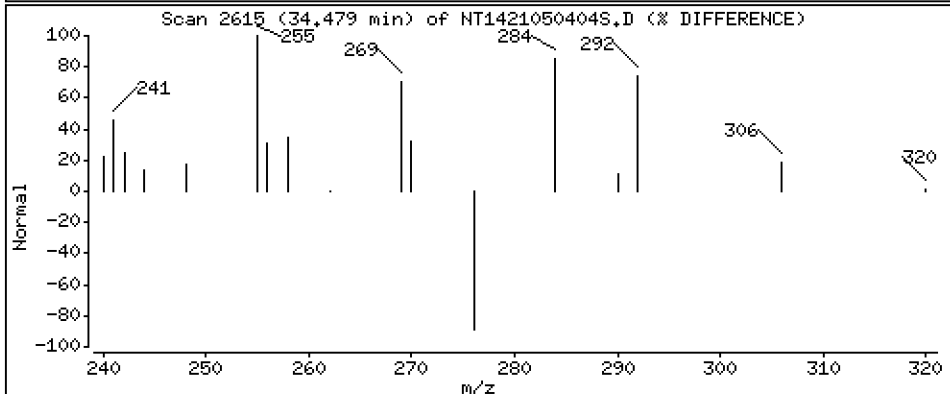
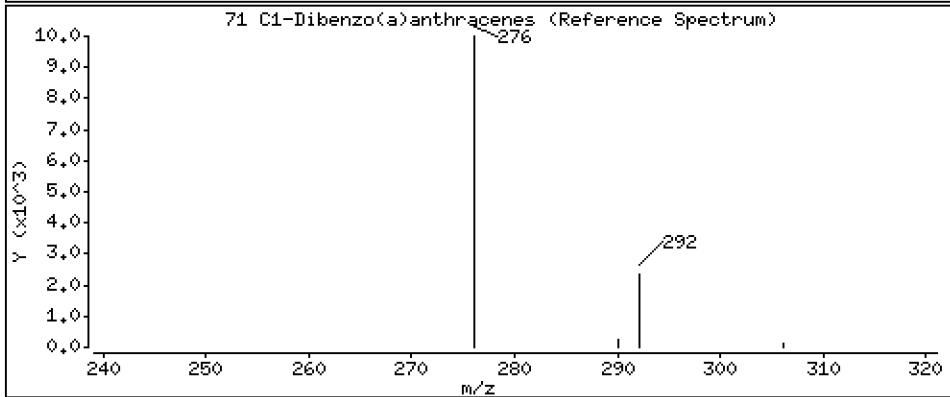
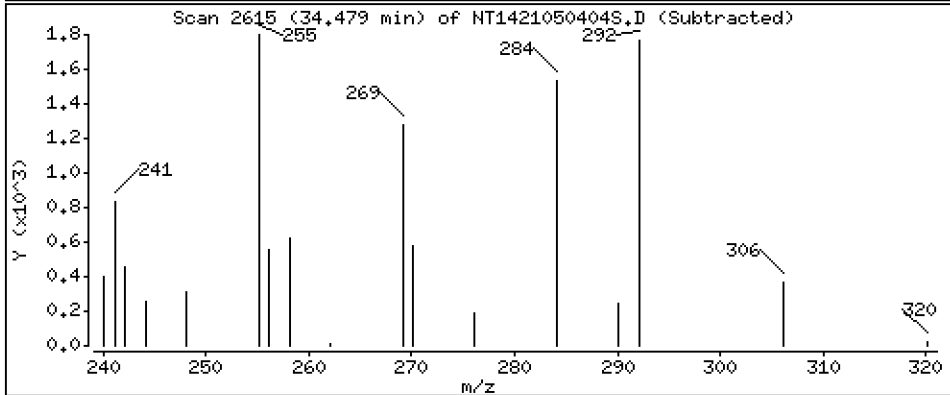
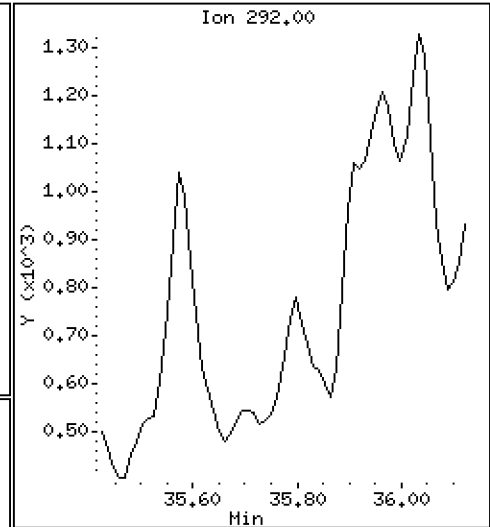
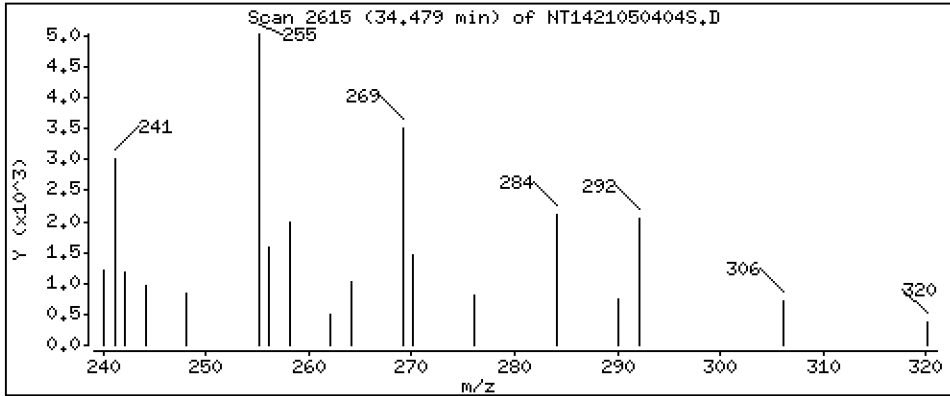
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

71 C1-Dibenzo(a)anthracenes

Concentration: 0,1969 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

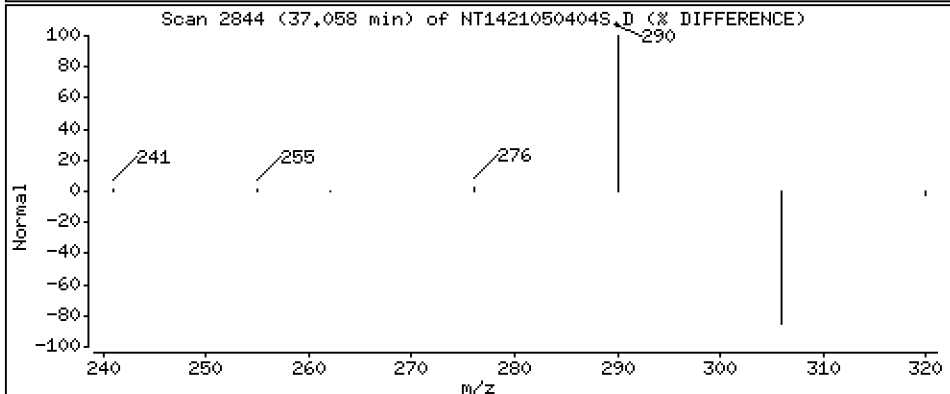
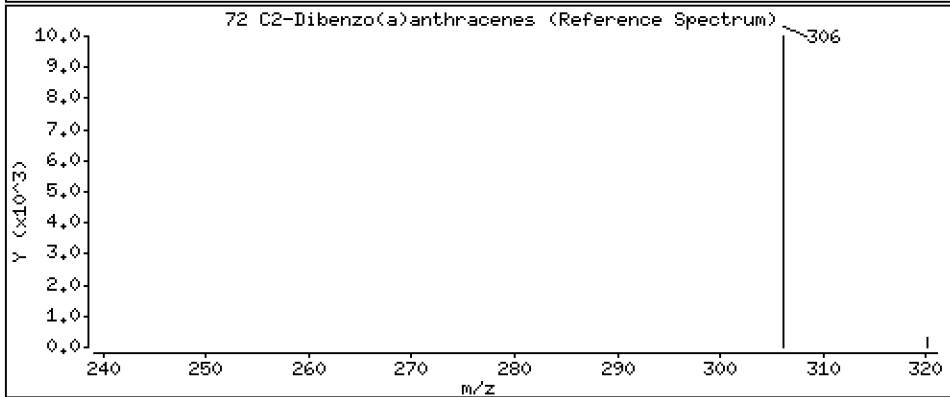
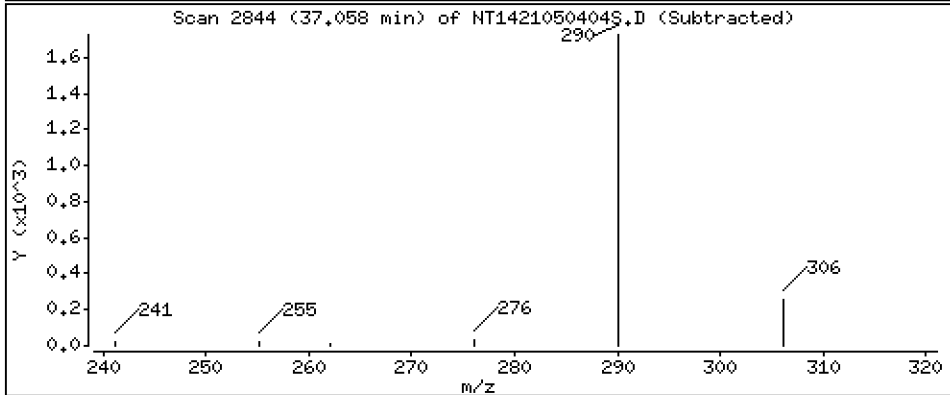
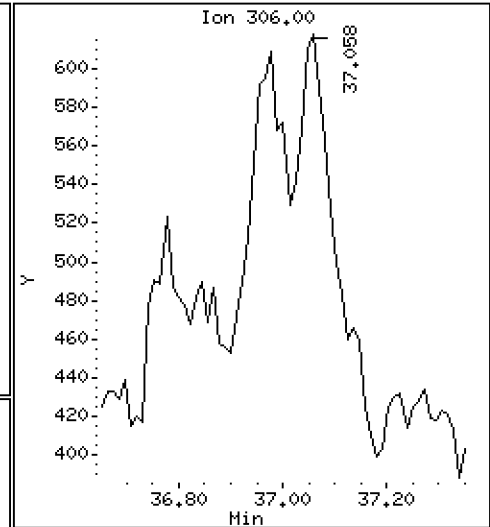
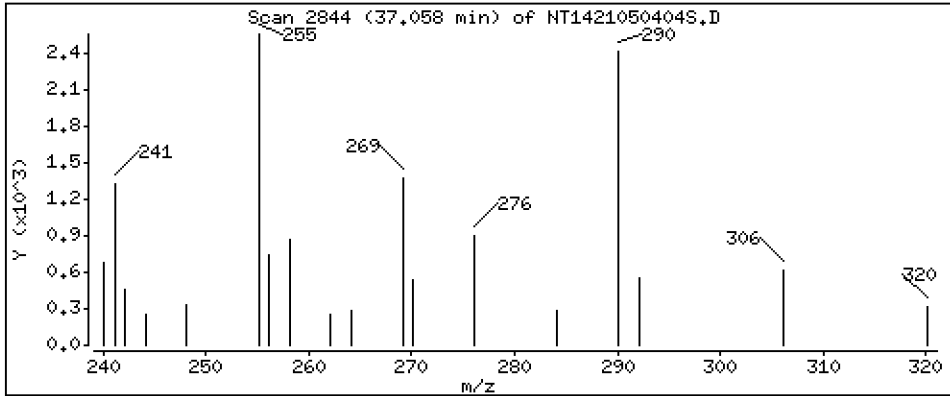
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

72 C2-Dibenzo(a)anthracenes

Concentration: 0,02968 ug/mL



Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

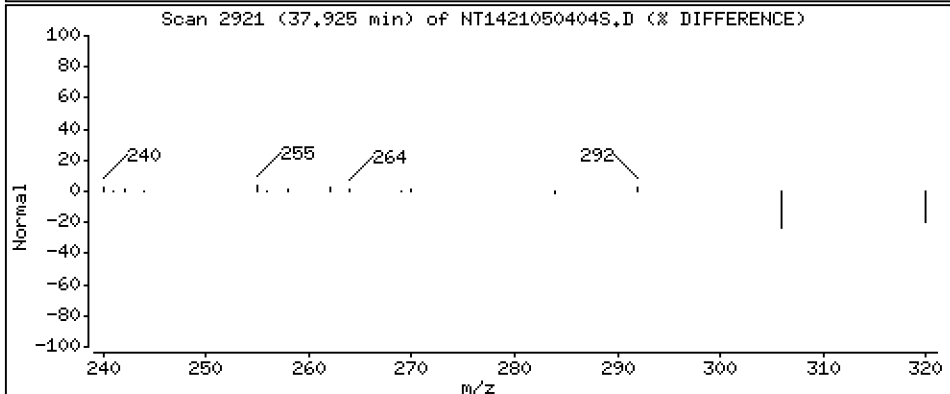
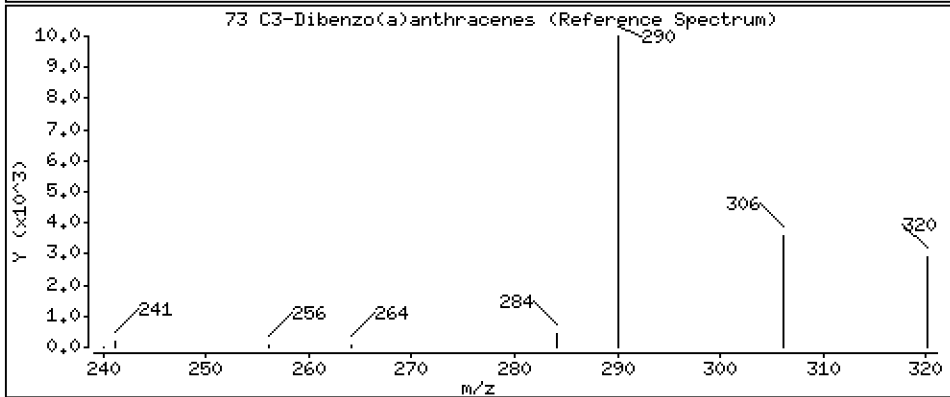
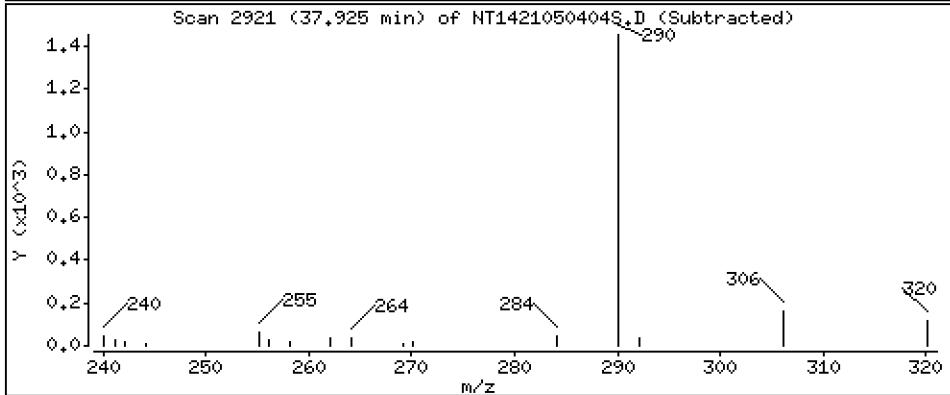
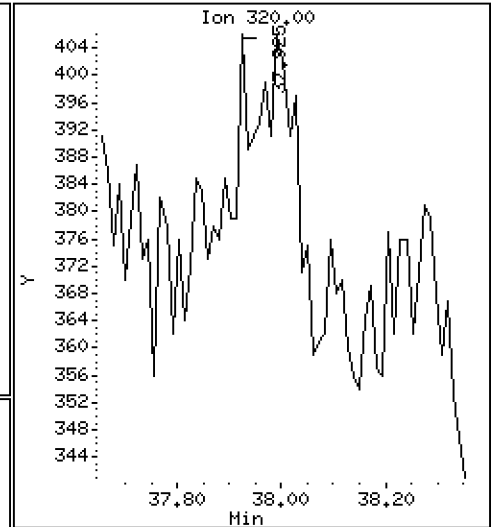
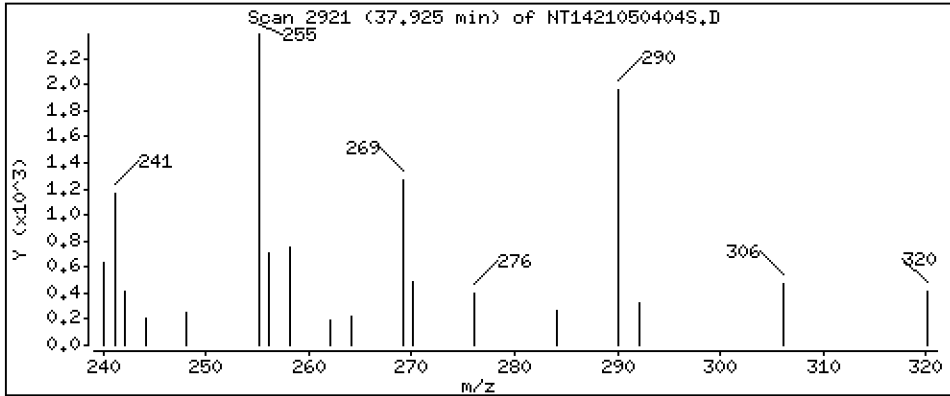
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

73 C3-Dibenzo(a)anthracenes

Concentration: 0,02419 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210504.b\SIM.b\NT1421050404S.D
Lab Smp Id: 21D0180-04
Inj Date : 04-MAY-2021 15:19
Operator : VTS
Smp Info : 21D0180-04
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210504.b\SIM.b\ALKYLRANGES.m
Meth Date : 07-May-2021 16:19 yev
Cal Date : 01-MAY-2021 01:56
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE
Target Version: 4.14
Processing Host: ORGDATA102

Inst ID: nt14.i

Quant Type: ISTD
Cal File: NT1421043024S.D

Compound Sublist: ALKYLRANGES.sub

Compounds	QUANT	SIG	CONCENTRATIONS					
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)
3 C1-Decalin	152		7.864	8.800	(0.419)	1554	0.04985	0.04985 (M)
4 C2-Decalin	166		9.014	9.200	(0.480)	6124	0.19644	0.1964 (M)
5 C3-Decalin	180		10.920	10.000	(0.582)	3281	0.10525	0.1052 (M)
247 C4-Decalin	194		Compound Not Detected.					
8 C1-Naphthalenes	142		13.660	14.121	(0.728)	44240	0.12432	0.1243 (M)
9 C2-Naphthalenes	156		15.792	16.111	(0.842)	64754	0.18197	0.1820 (M)
10 C3-Naphthalenes	170		17.649	17.957	(0.941)	42250	0.11873	0.1187 (M)
11 C4-Naphthalenes	184		19.340	18.000	(1.031)	43339	0.12179	0.1218 (M)
13 C1-Benzothiophenes	148		13.143	14.110	(0.701)	13709	0.04842	0.04842 (M)
14 C2-Benzothiophenes	162		15.275	15.660	(0.814)	12342	0.04359	0.04359 (M)
15 C3-Benzothiophenes	176		Compound Not Detected.					
27 C1-Fluorenes	180		20.406	20.735	(1.088)	24093	0.11567	0.1157 (M)
* 25 Fluorene-d10	176		18.762	18.762	(1.000)	606225	2.00000	
28 C2-Fluorenes	194		21.608	22.000	(1.152)	34647	0.16634	0.1663 (M)
29 C3-Fluorenes	208		23.282	23.172	(1.241)	29886	0.14348	0.1435 (M)
31 C1-Dibenzothiophenes	198		22.919	23.500	(1.222)	32861	0.12498	0.1250 (M)
32 C2-Dibenzothiophenes	212		24.327	24.535	(1.297)	41448	0.15764	0.1576 (M)
33 C3-Dibenzothiophenes	226		25.723	25.600	(1.371)	34536	0.13135	0.1313 (M)
34 C4-Dibenzothiophenes	240		Compound Not Detected.					
38 C1-Phenanthrenes/Anthracenes	192		23.568	23.500	(1.061)	185674	0.59440	0.5944 (M)
* 250 Anthracene-d10	188		22.205	22.205	(1.000)	561691	2.00000	
39 C2-Phenanthrenes/Anthracenes	206		25.338	25.107	(1.141)	171438	0.54882	0.5488 (M)
40 C3-Phenanthrenes/Anthracenes	220		26.372	26.856	(1.188)	59228	0.18961	0.1896 (M)
41 C4-Phenanthrenes/Anthracenes	234		27.733	27.500	(1.249)	30413	0.09736	0.09736 (M)
48 C1-Fluoranthenes/Pyrenes	216		27.887	27.624	(1.256)	312717	1.03909	1.039 (M)
49 C2-Fluoranthenes/Pyrenes	230		29.212	28.800	(1.316)	155215	0.51574	0.5157 (M)
50 C3-Fluoranthenes/Pyrenes	244		29.804	29.995	(1.342)	50395	0.16745	0.1675 (M)
249 C4-Fluoranthenes/Pyrenes	258		33.036	33.037	(1.488)	101380	0.33686	0.3369 (M)
52 C1-Naphthobenzothiophenes	248		30.052	30.000	(1.353)	55650	0.18311	0.1831 (M)
53 C2-Naphthobenzothiophenes	262		31.144	31.000	(1.403)	45228	0.14882	0.1488 (M)
54 C3-Naphthobenzothiophenes	276		32.496	32.000	(1.463)	44618	0.14681	0.1468 (M)
248 C4-Naphthobenzothiophenes	290		32.135	33.000	(1.447)	13261	0.04363	0.04363 (M)
58 C1-Benzo(a)anthracenes/Chrysen	242		30.964	30.975	(0.937)	233089	0.70931	0.7093 (M)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
59 C2-Benzo(a)anthracenes/Chrysen	256	31.843	31.500	(0.964)	100088	0.30458	0.3046 (M)
60 C3-Benzo(a)anthracenes/Chrysen	270	32.394	32.500	(0.981)	66122	0.20122	0.2012 (M)
61 C4-Benzo(a)anthracenes/Chrysen	284	32.935	33.239	(0.997)	32214	0.09803	0.09803 (M)
71 C1-Dibenzo(a)anthracenes	292	34.478	35.773	(1.044)	92040	0.19690	0.1969 (M)
* 251 Benzo(e)pyrene-d12	264	33.036	33.037	(1.000)	703623	2.00000	
72 C2-Dibenzo(a)anthracenes	306	37.057	37.000	(1.122)	13875	0.02968	0.02968 (M)
73 C3-Dibenzo(a)anthracenes	320	37.925	38.000	(1.148)	11307	0.02419	0.02419 (M)

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i
 Lab File ID: NT1421050404S.D
 Lab Smp Id: 21D0180-04
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210504.b\SIM.b\ALKYLRANGES.m
 Misc Info:

Calibration Date: 04-MAY-2021
 Calibration Time: 12:52
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

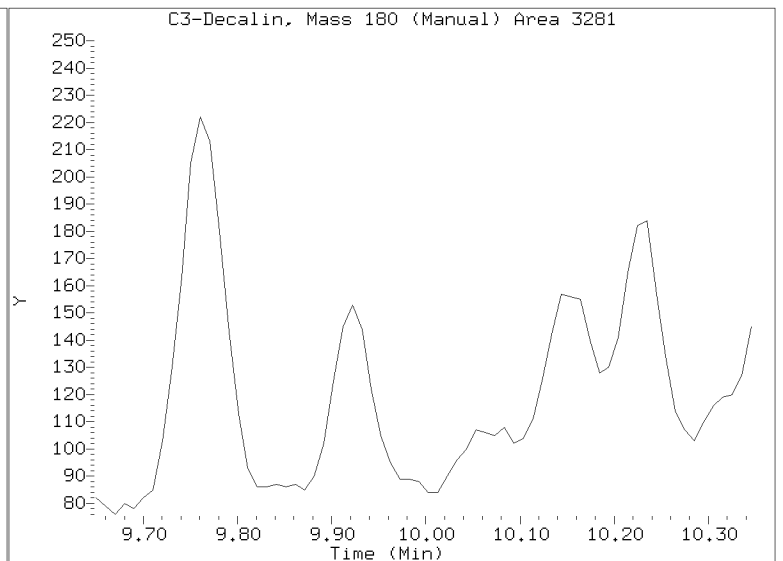
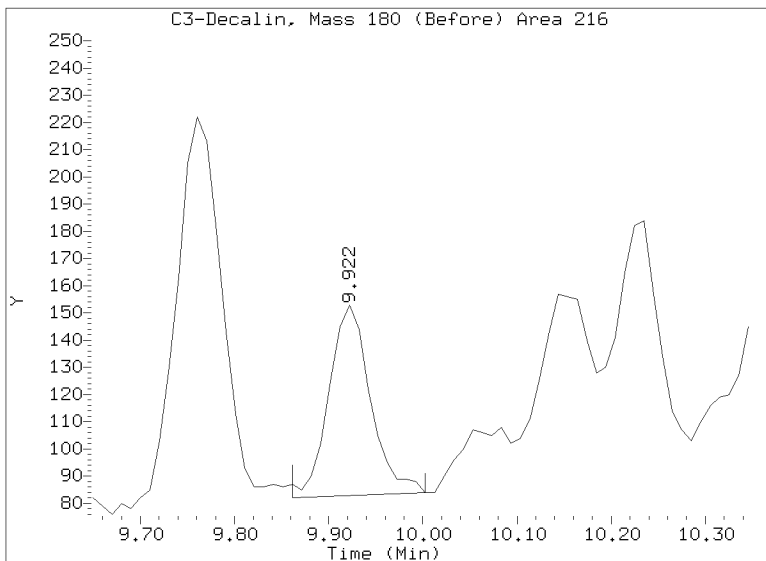
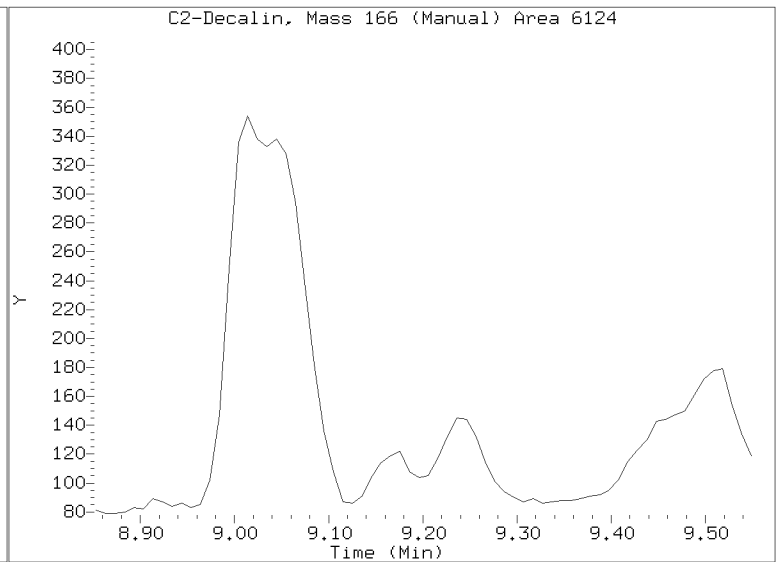
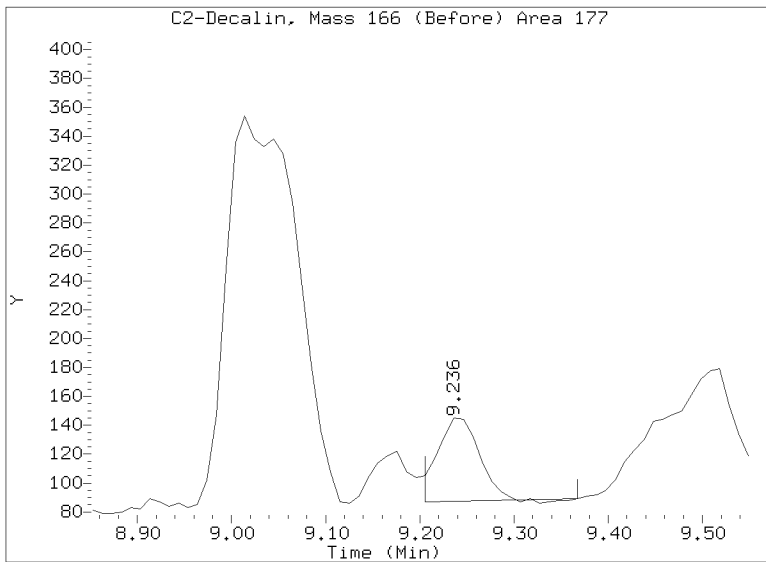
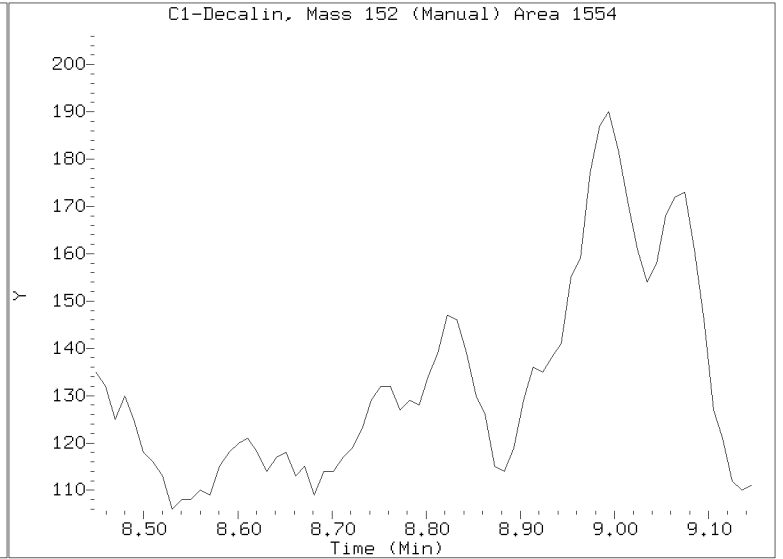
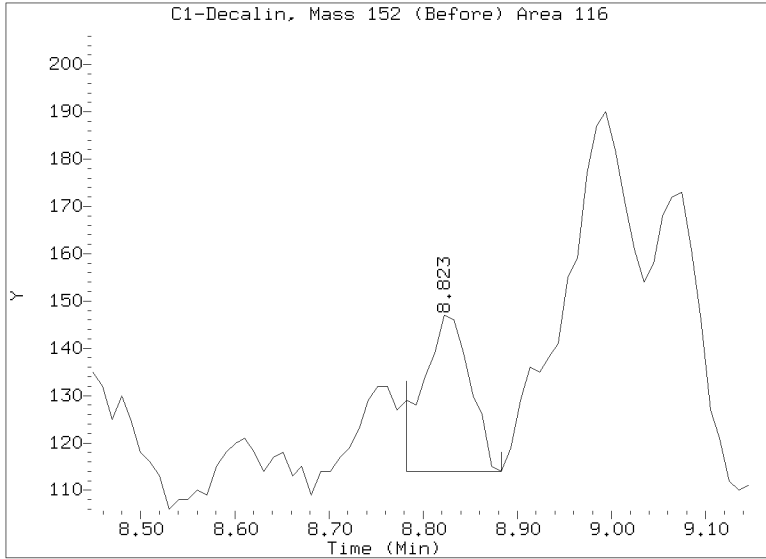
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	660770	330385	1321540	606225	-8.25
250 Anthracene-d10	604254	302127	1208508	561691	-7.04
251 Benzo(e)pyrene-d1	721275	360638	1442550	703623	-2.45

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.76	18.26	19.26	18.76	-0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	-0.00
251 Benzo(e)pyrene-d1	33.04	32.54	33.54	33.04	-0.00

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.

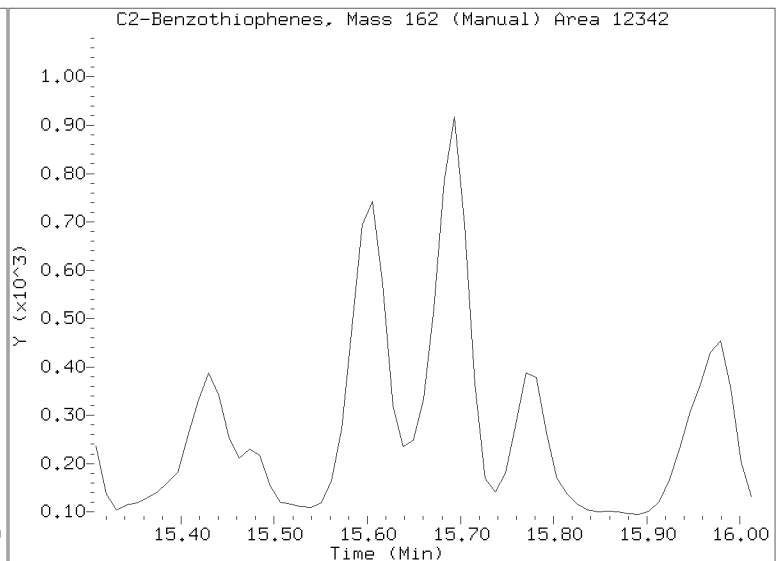
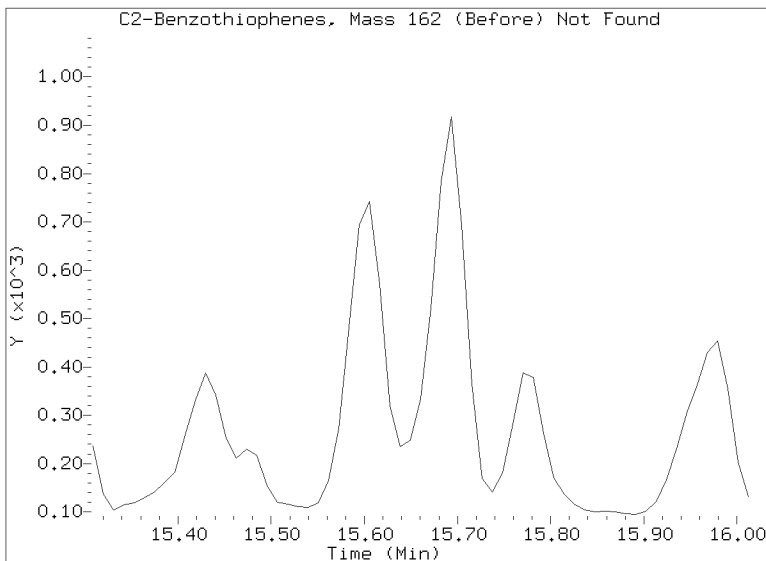
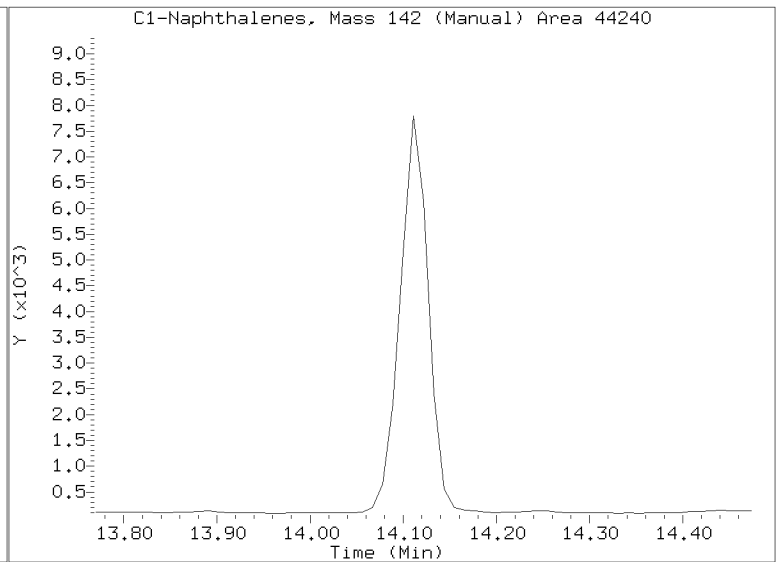
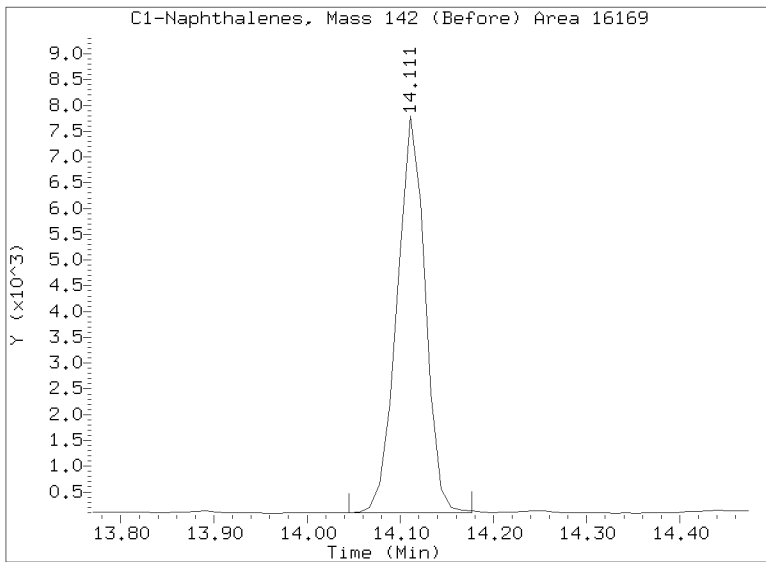
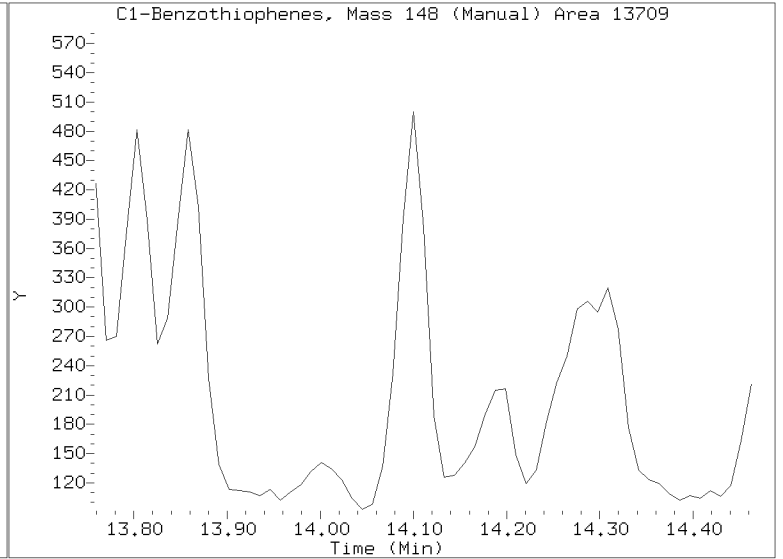
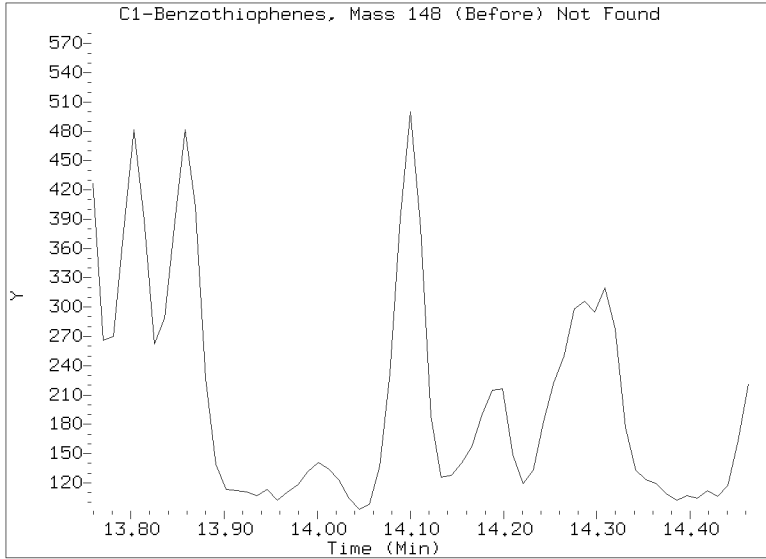
Quant Ion Manual Peak Adjustment Report

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Injection Date: 04-MAY-2021 15:19
Lab ID:21D0180-04 Client ID:
Report Date: 05/07/2021 16:19



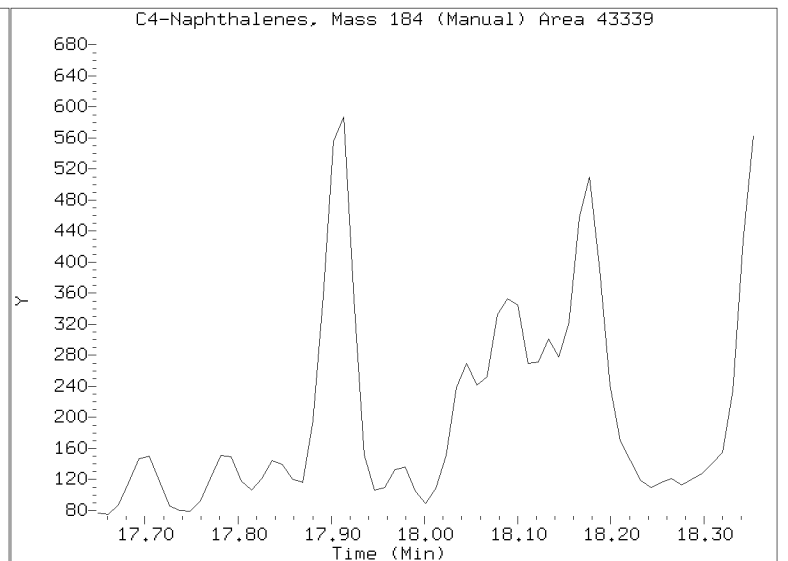
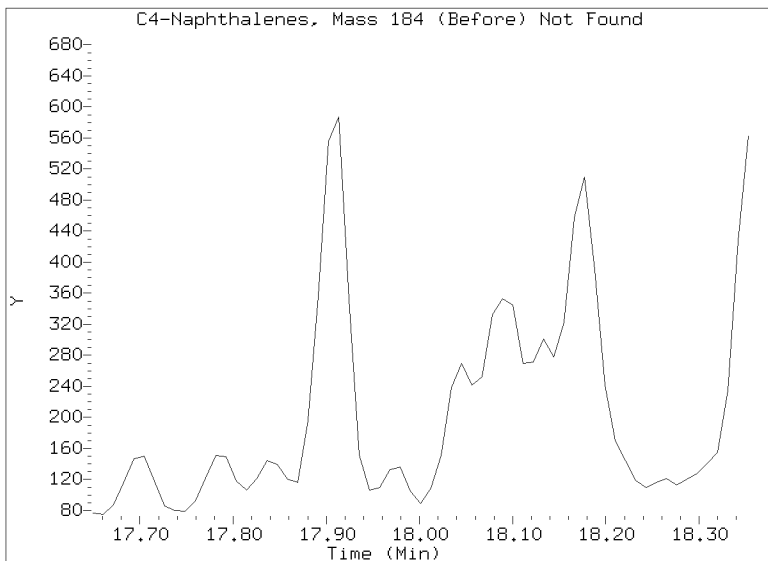
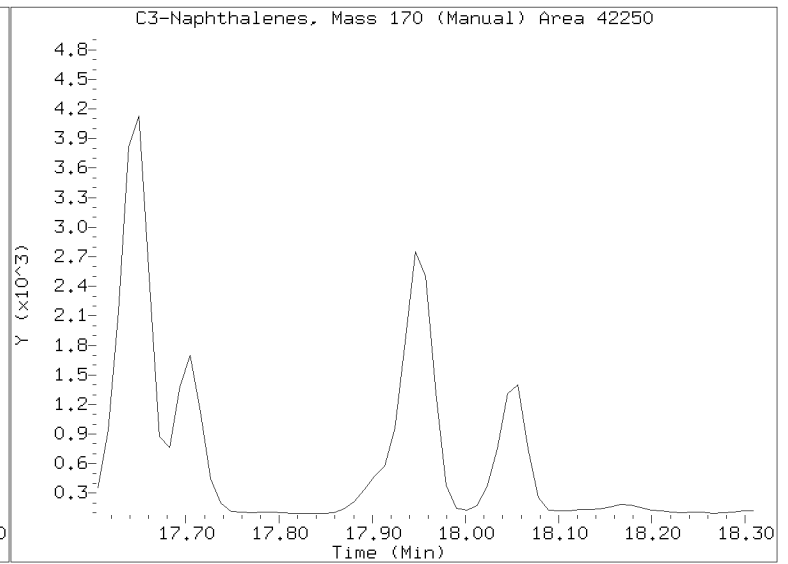
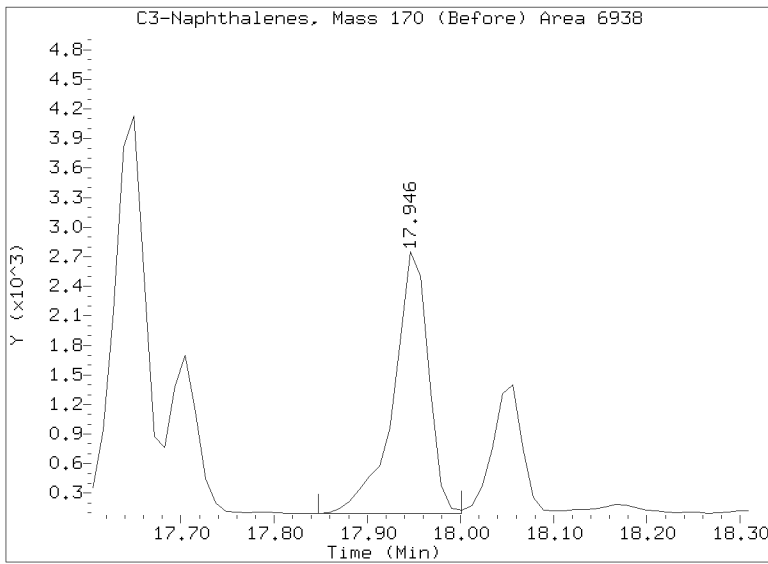
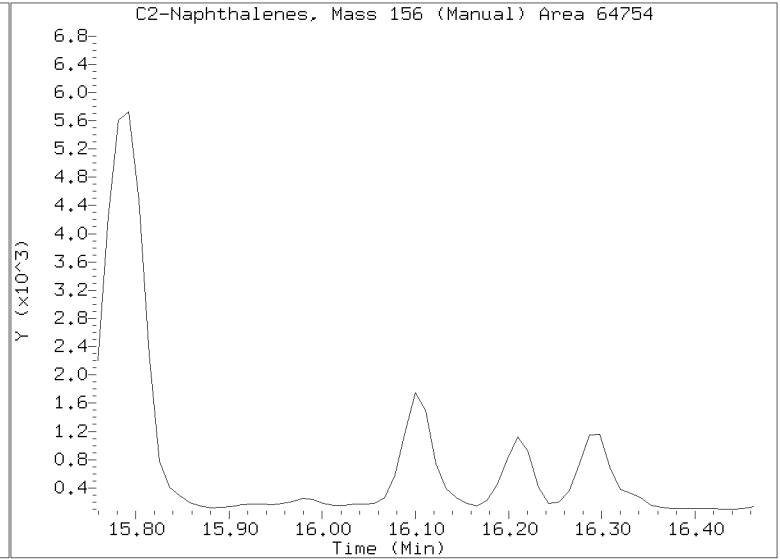
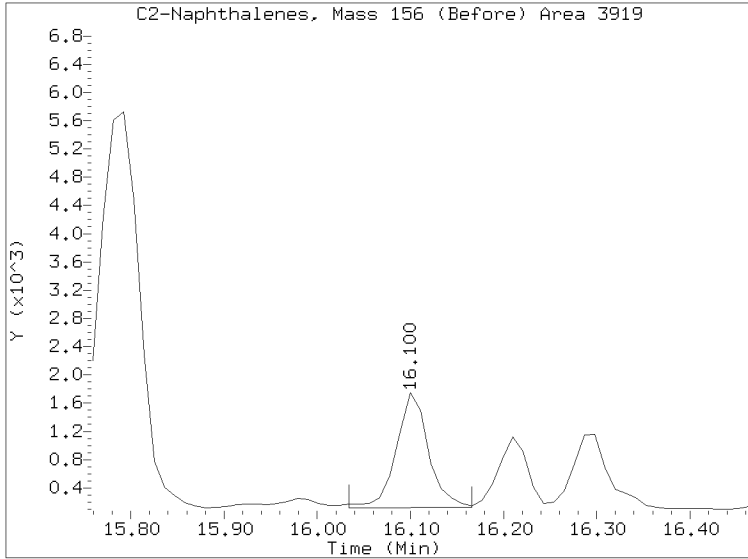
Quant Ion Manual Peak Adjustment Report

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Injection Date: 04-MAY-2021 15:19
Lab ID:21D0180-04 Client ID:
Report Date: 05/07/2021 16:19



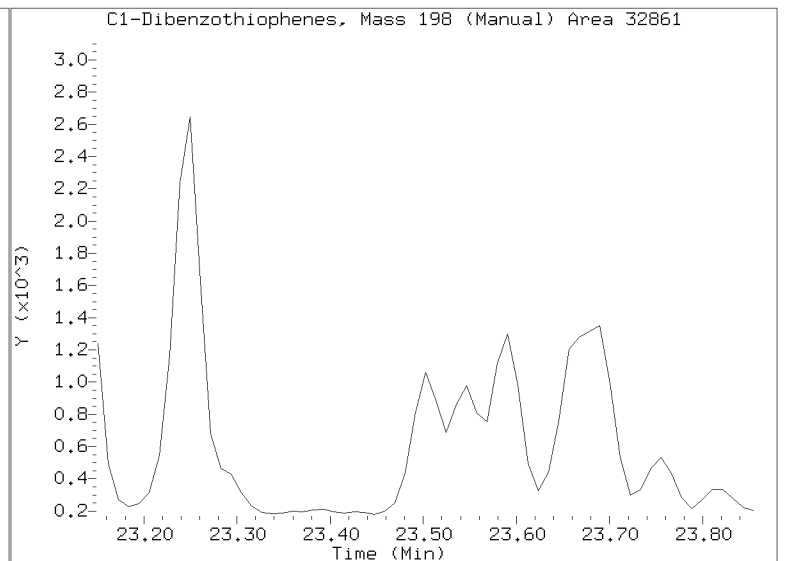
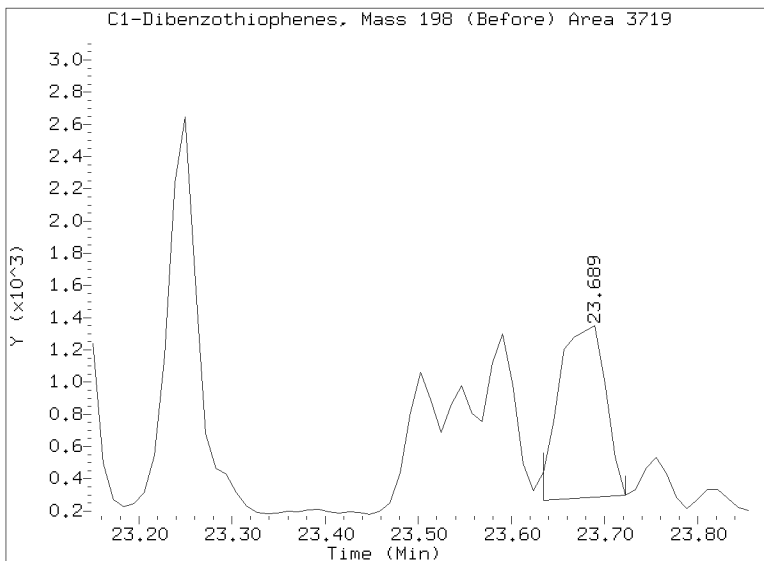
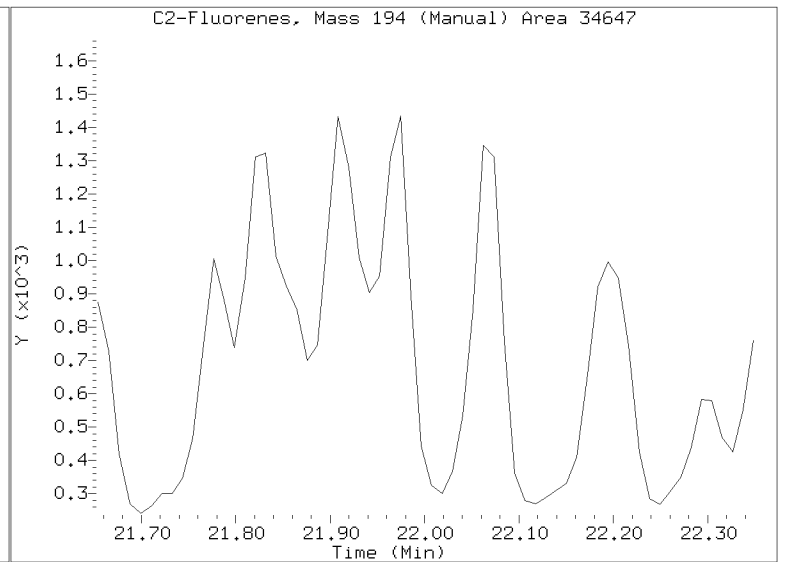
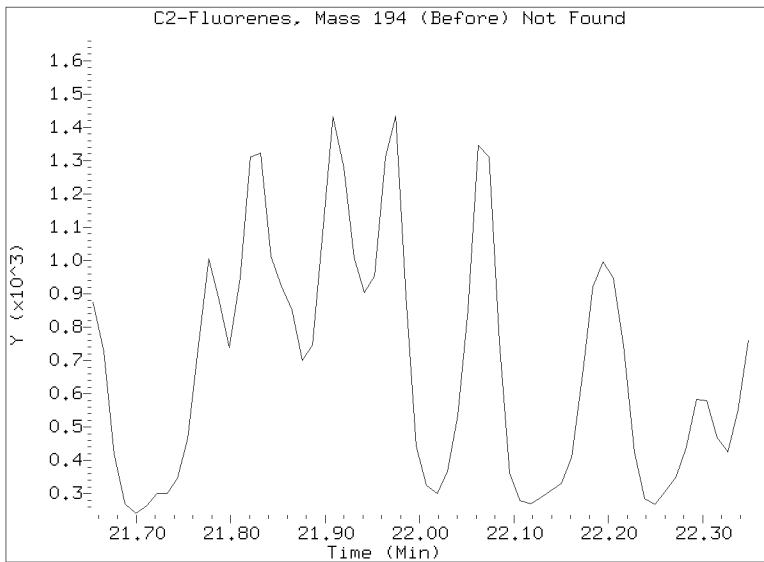
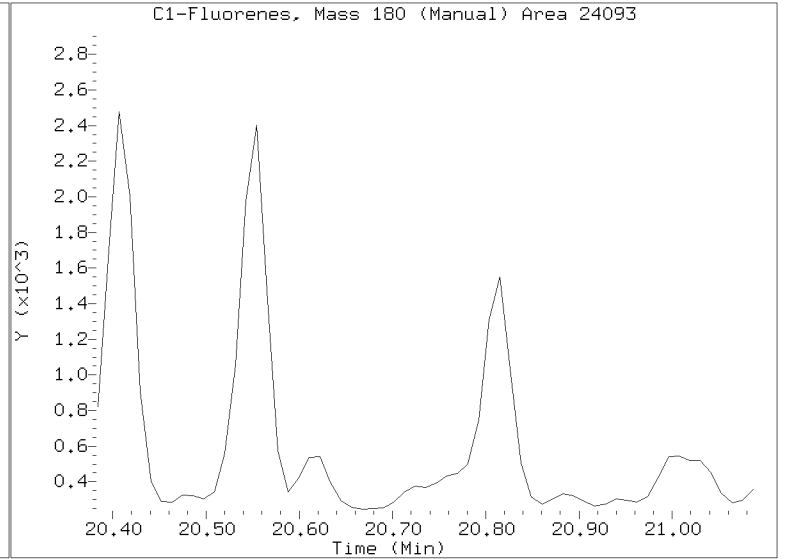
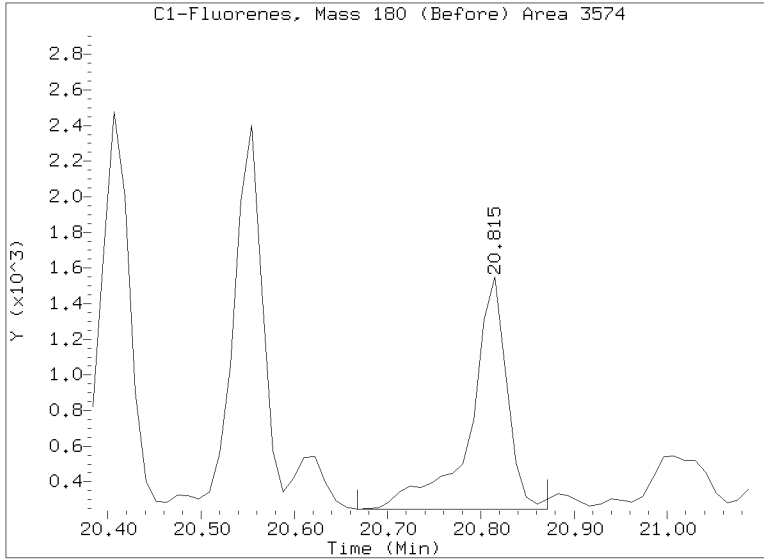
Quant Ion Manual Peak Adjustment Report

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Injection Date: 04-MAY-2021 15:19
Lab ID:21D0180-04 Client ID:
Report Date: 05/07/2021 16:19



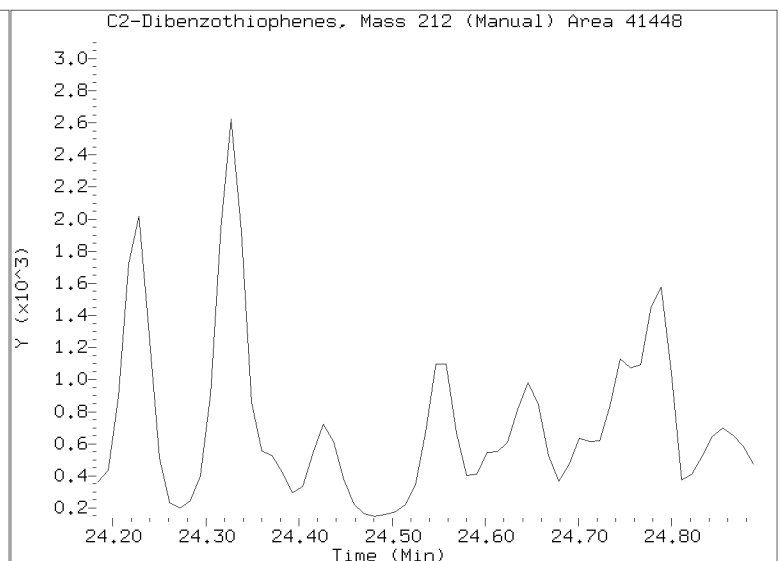
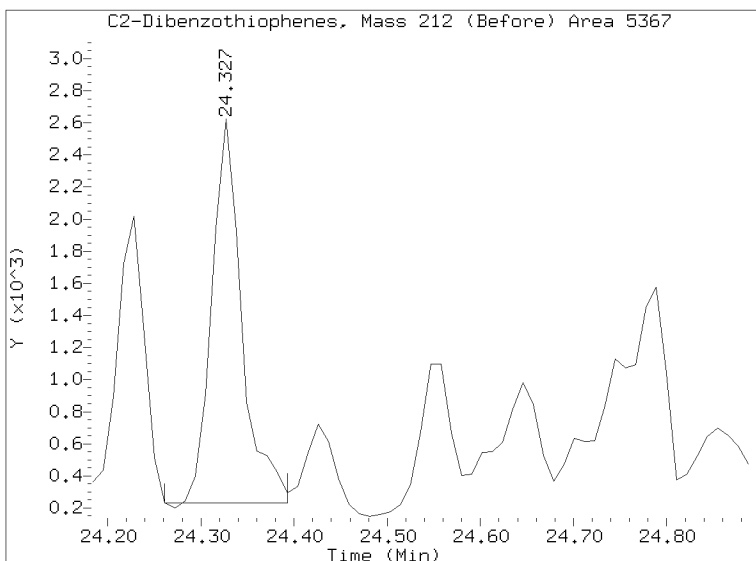
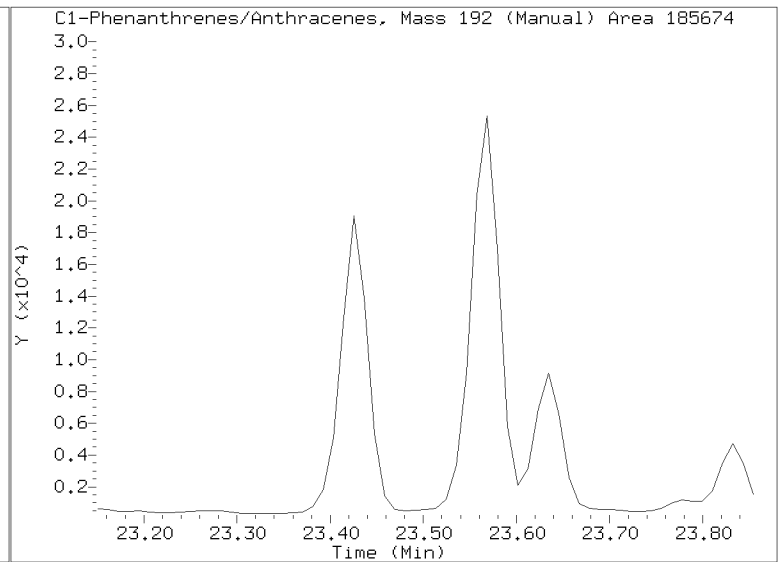
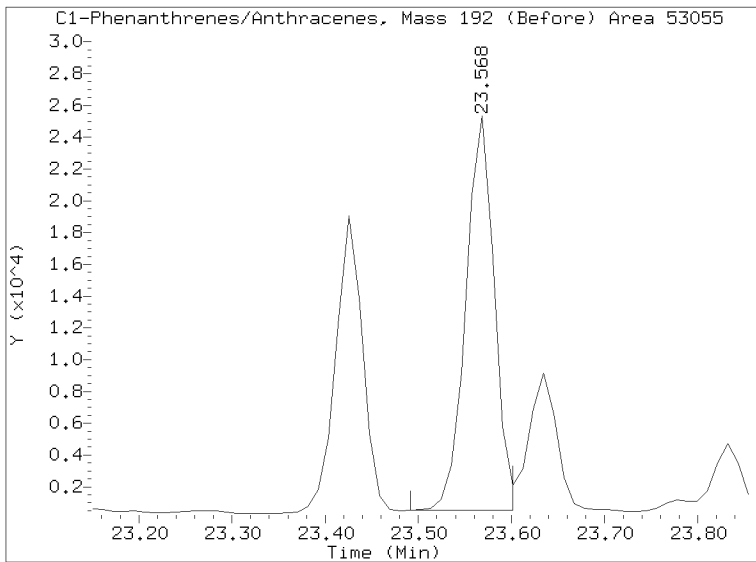
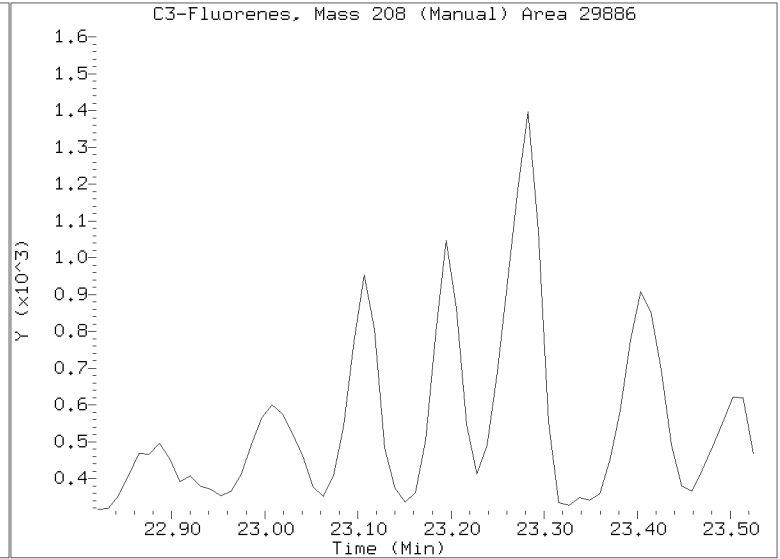
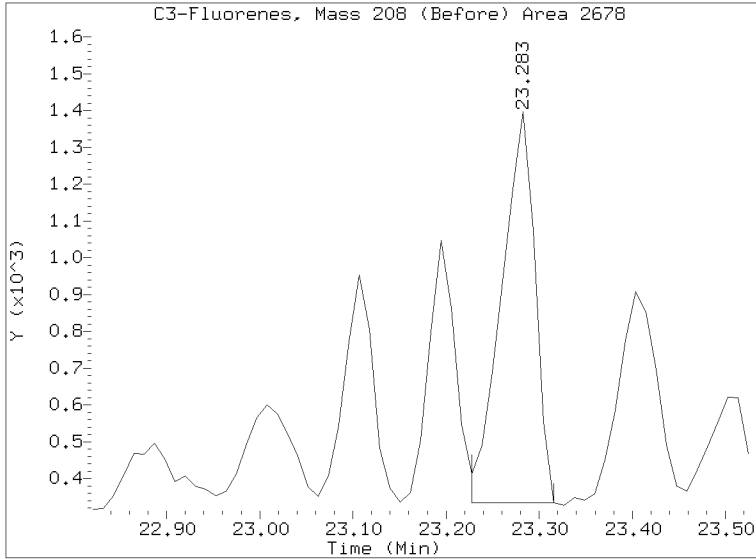
Quant Ion Manual Peak Adjustment Report

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Lab ID:21D0180-04 Client ID:
Report Date: 05/07/2021 16:19



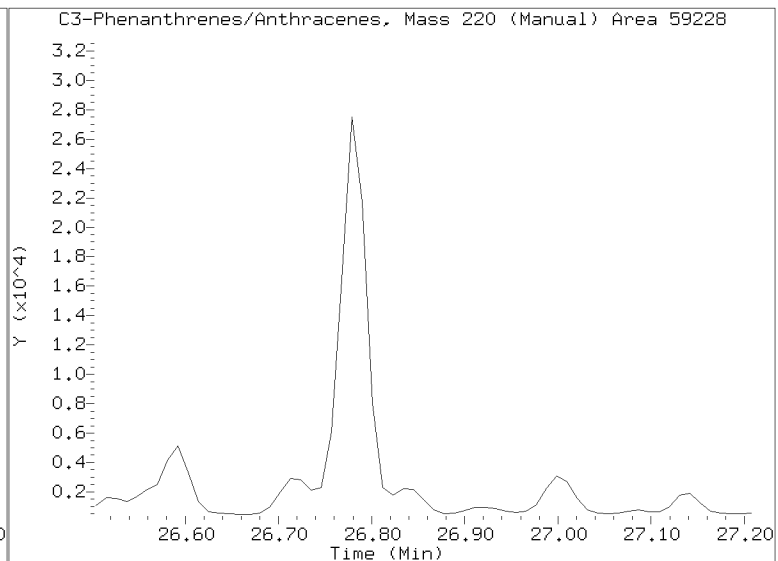
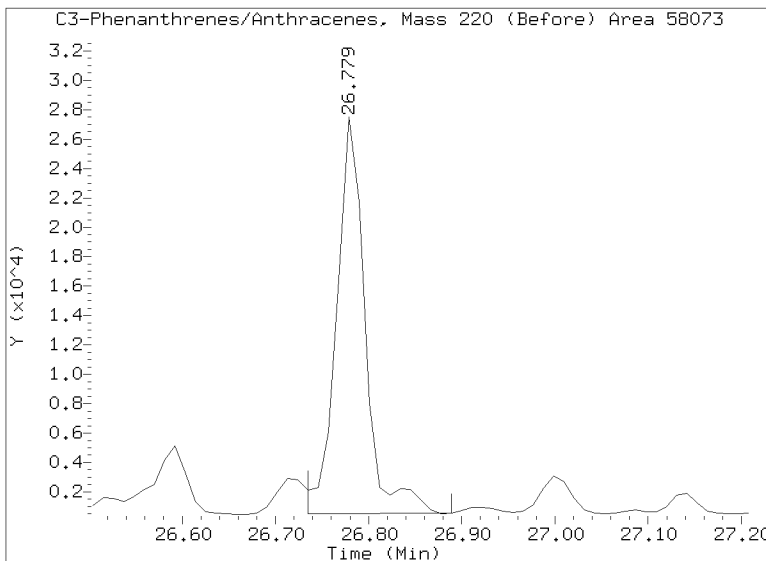
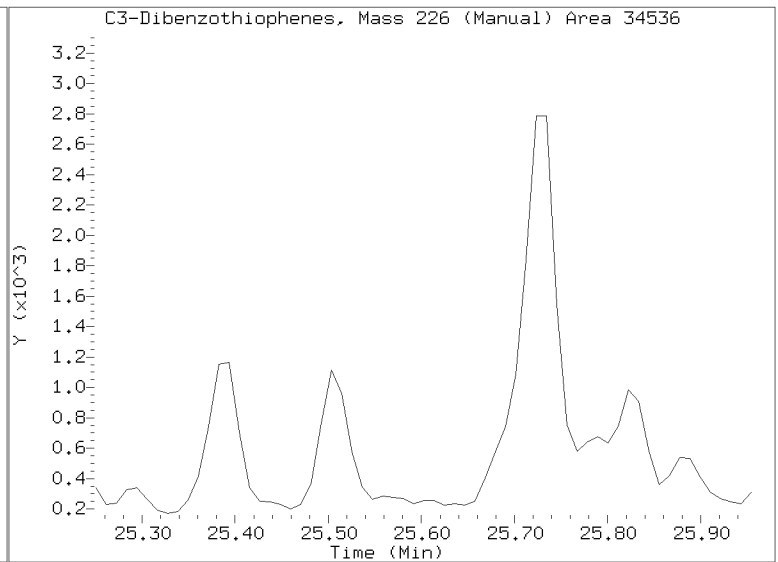
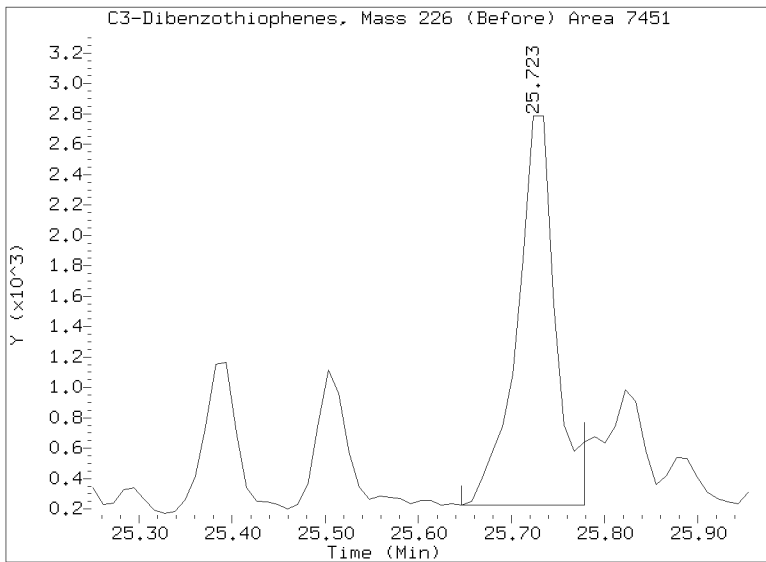
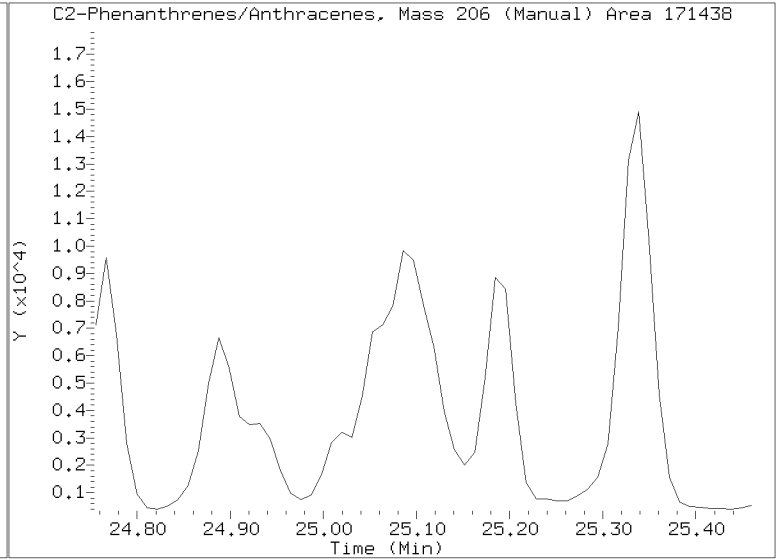
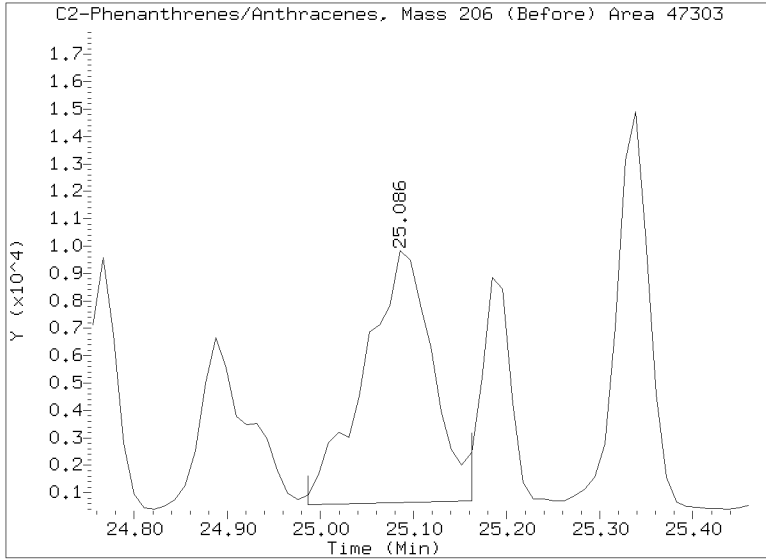
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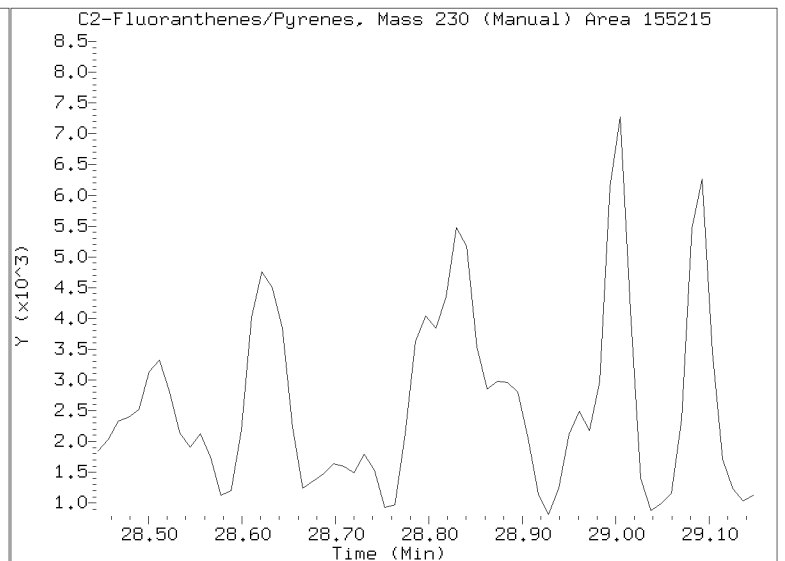
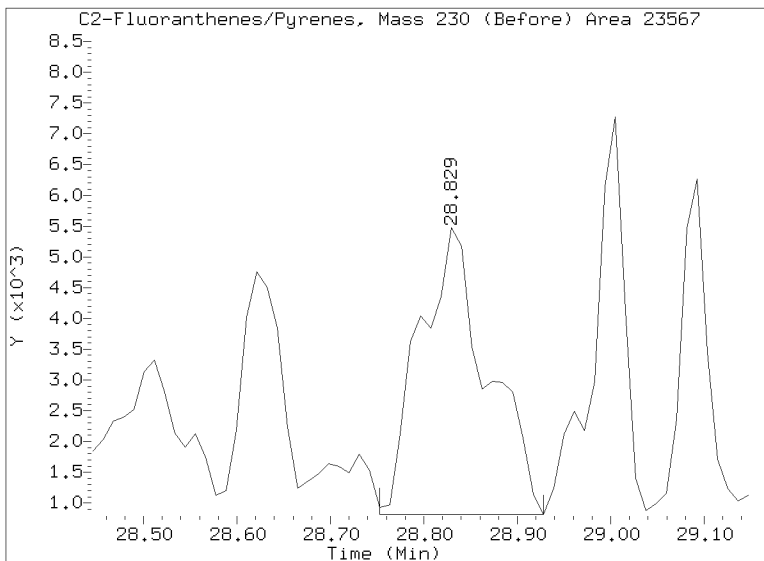
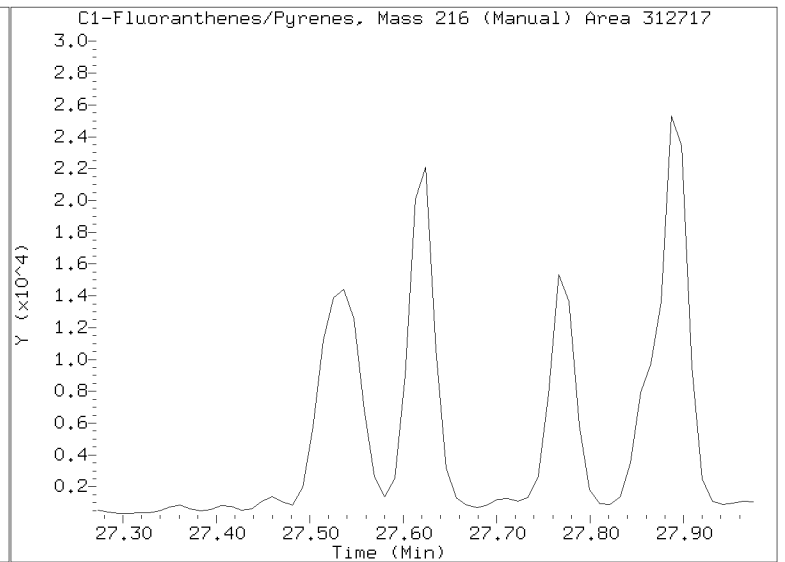
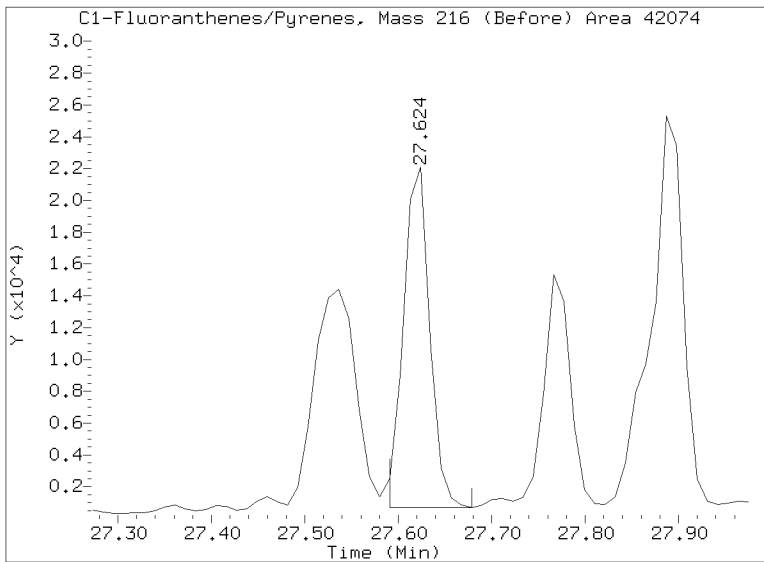
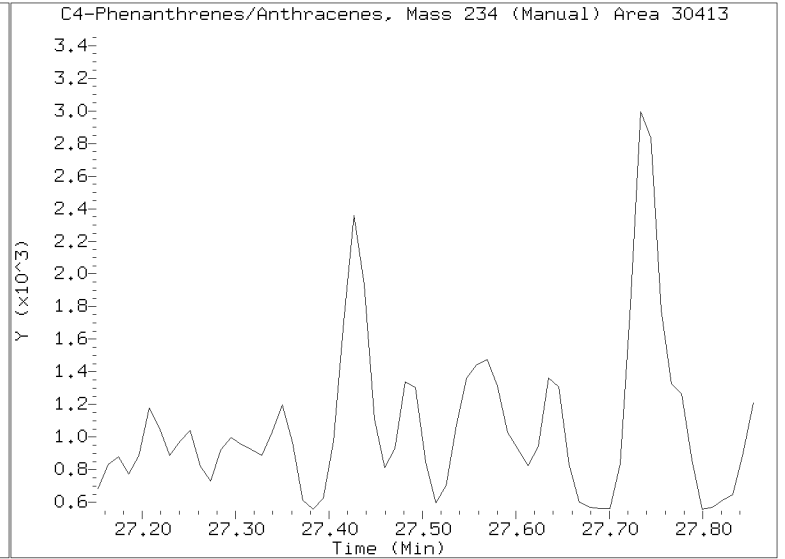
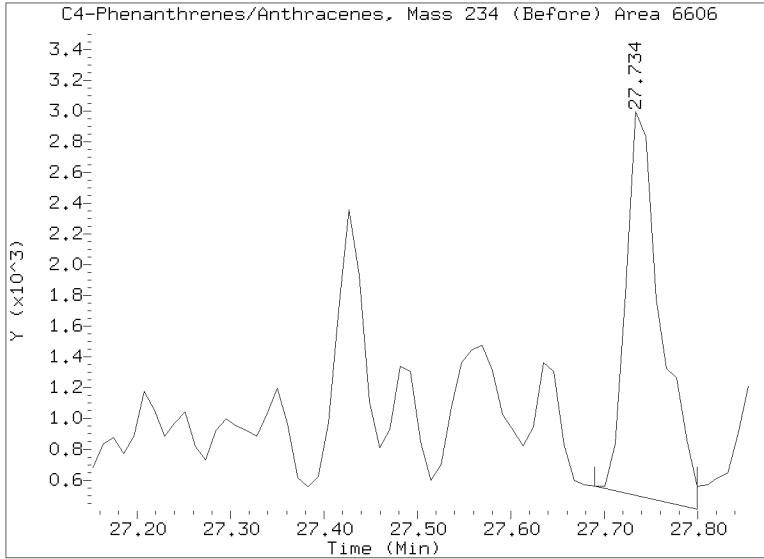
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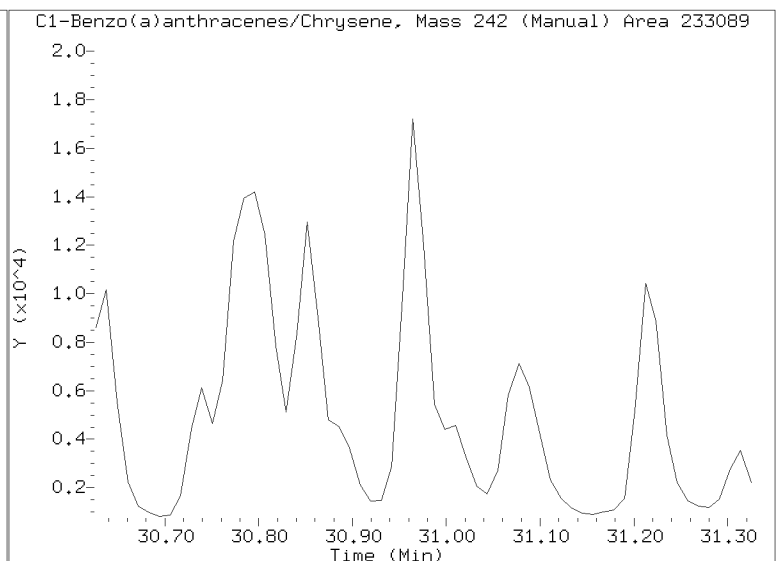
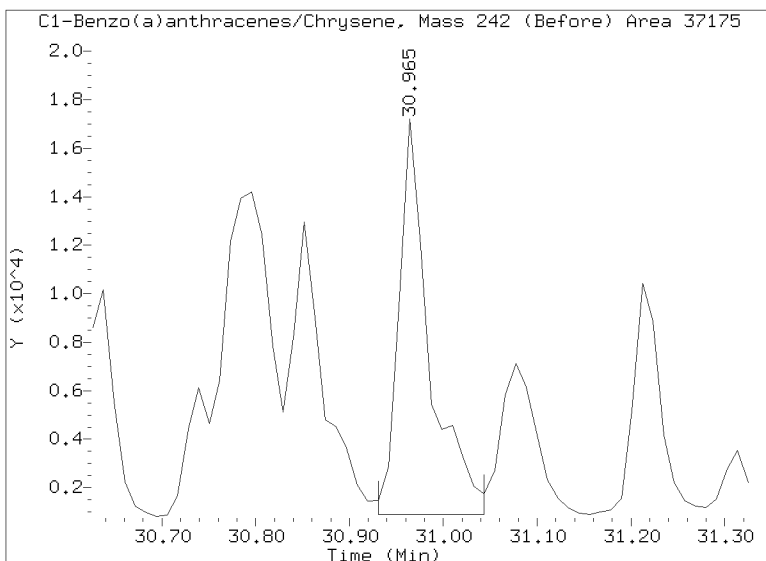
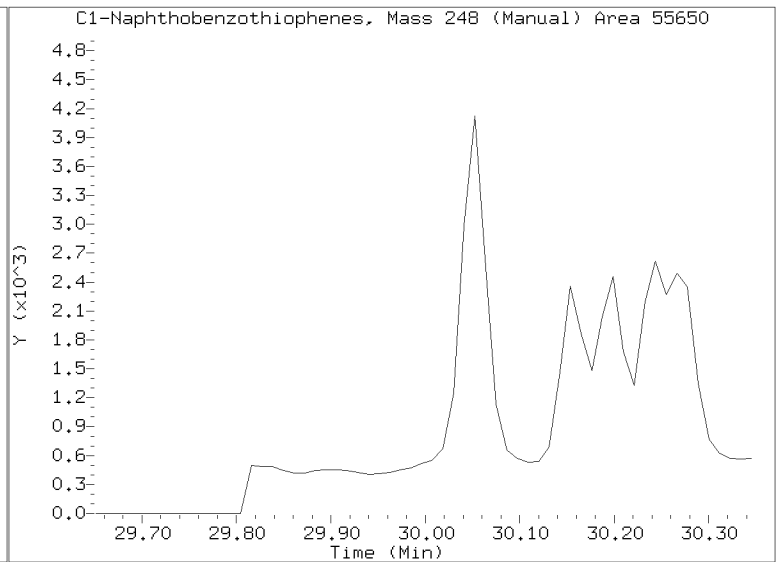
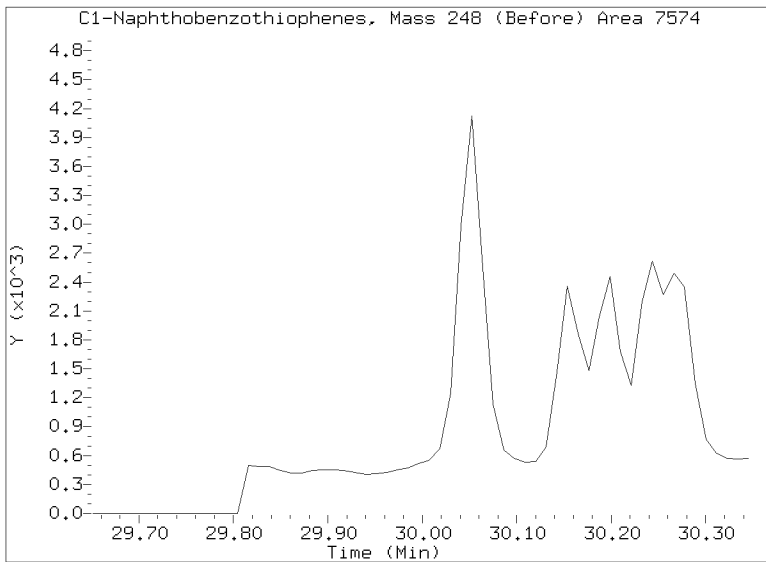
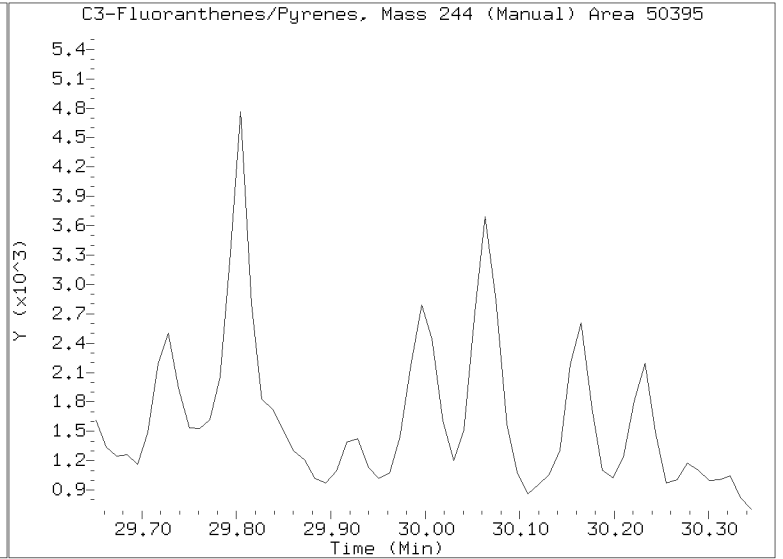
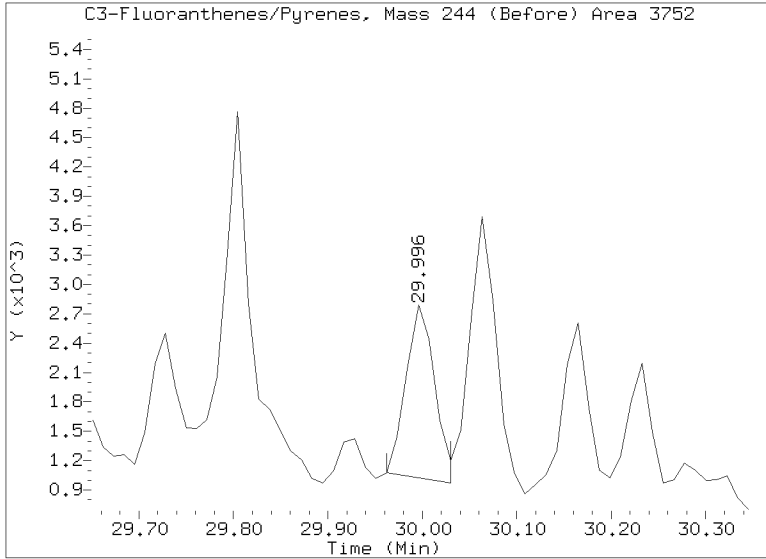
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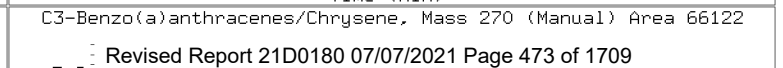
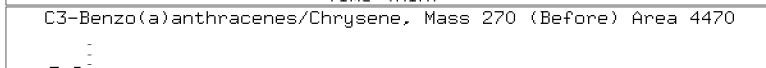
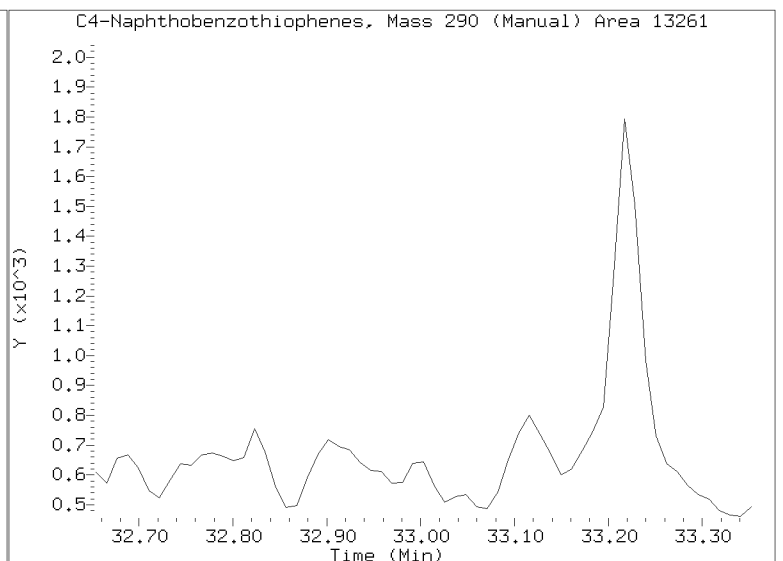
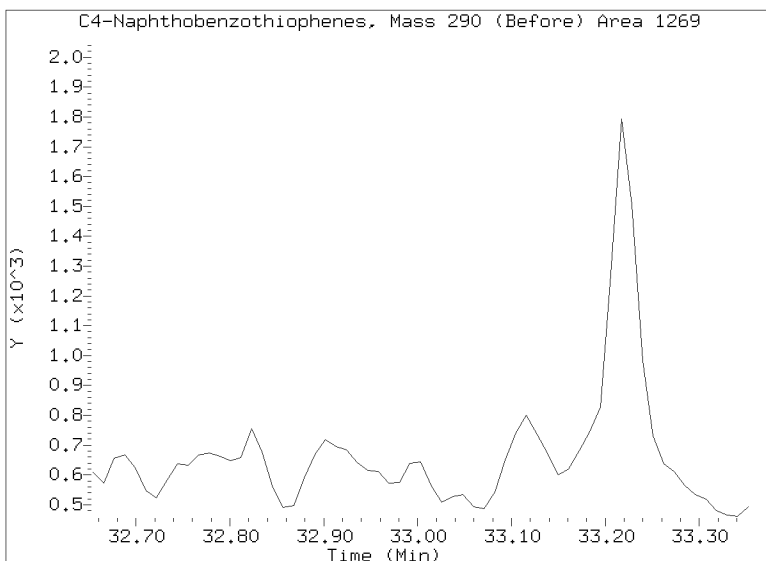
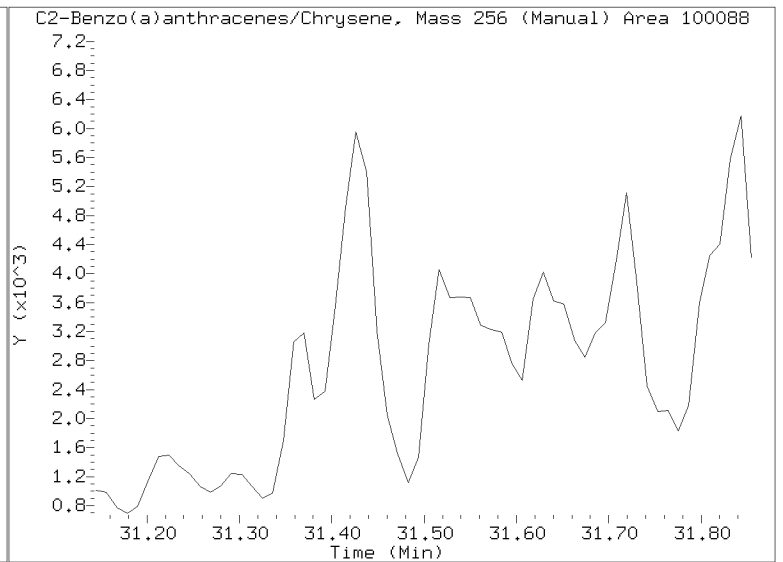
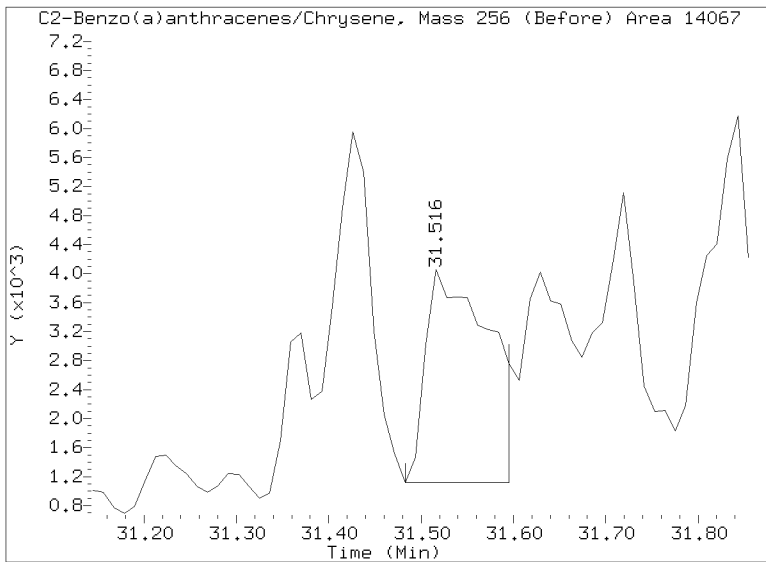
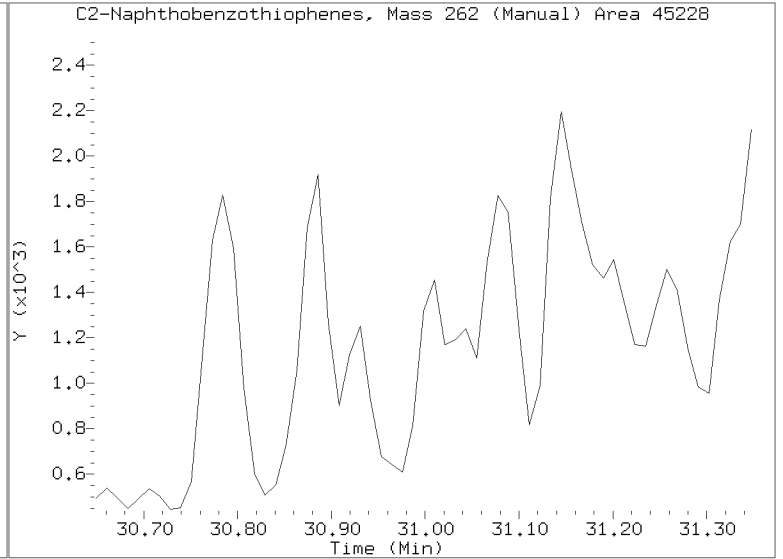
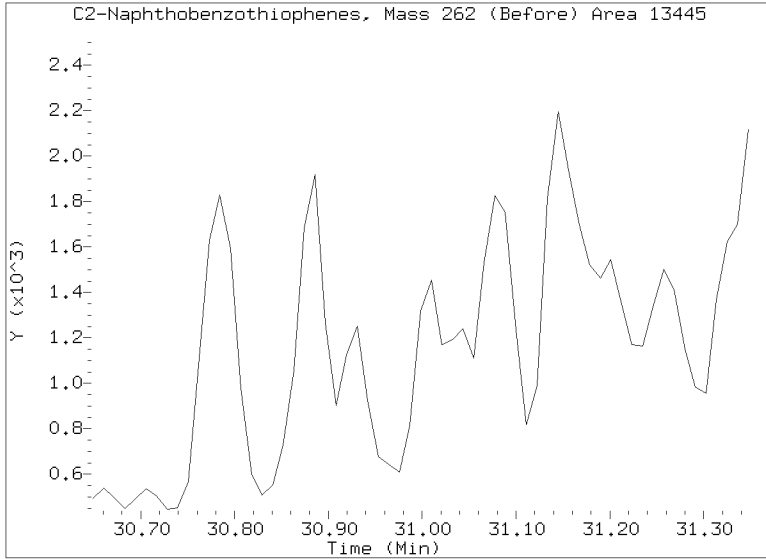
Quant Ion Manual Peak Adjustment Report

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Quant Ion Manual Peak Adjustment Report

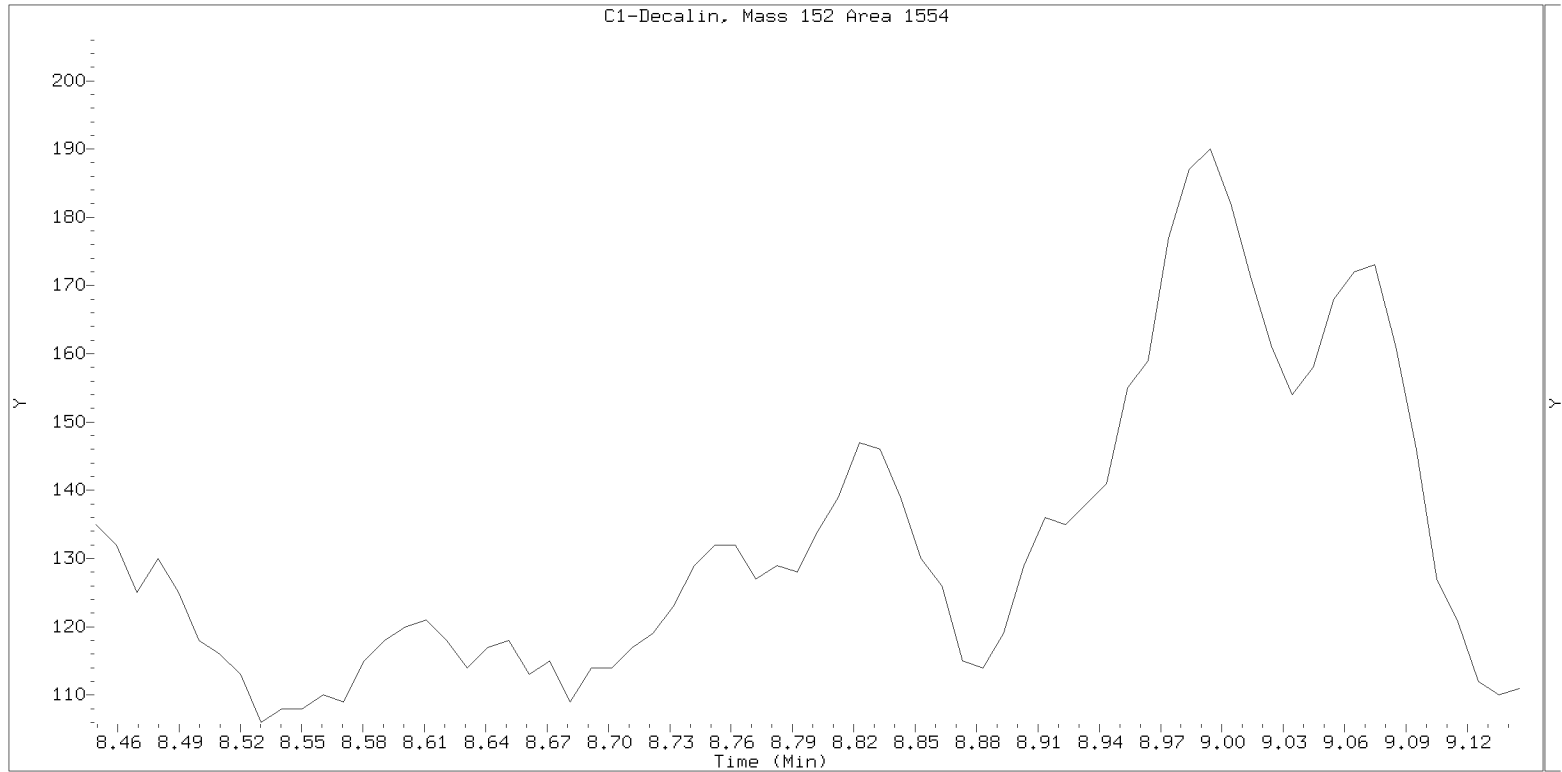
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

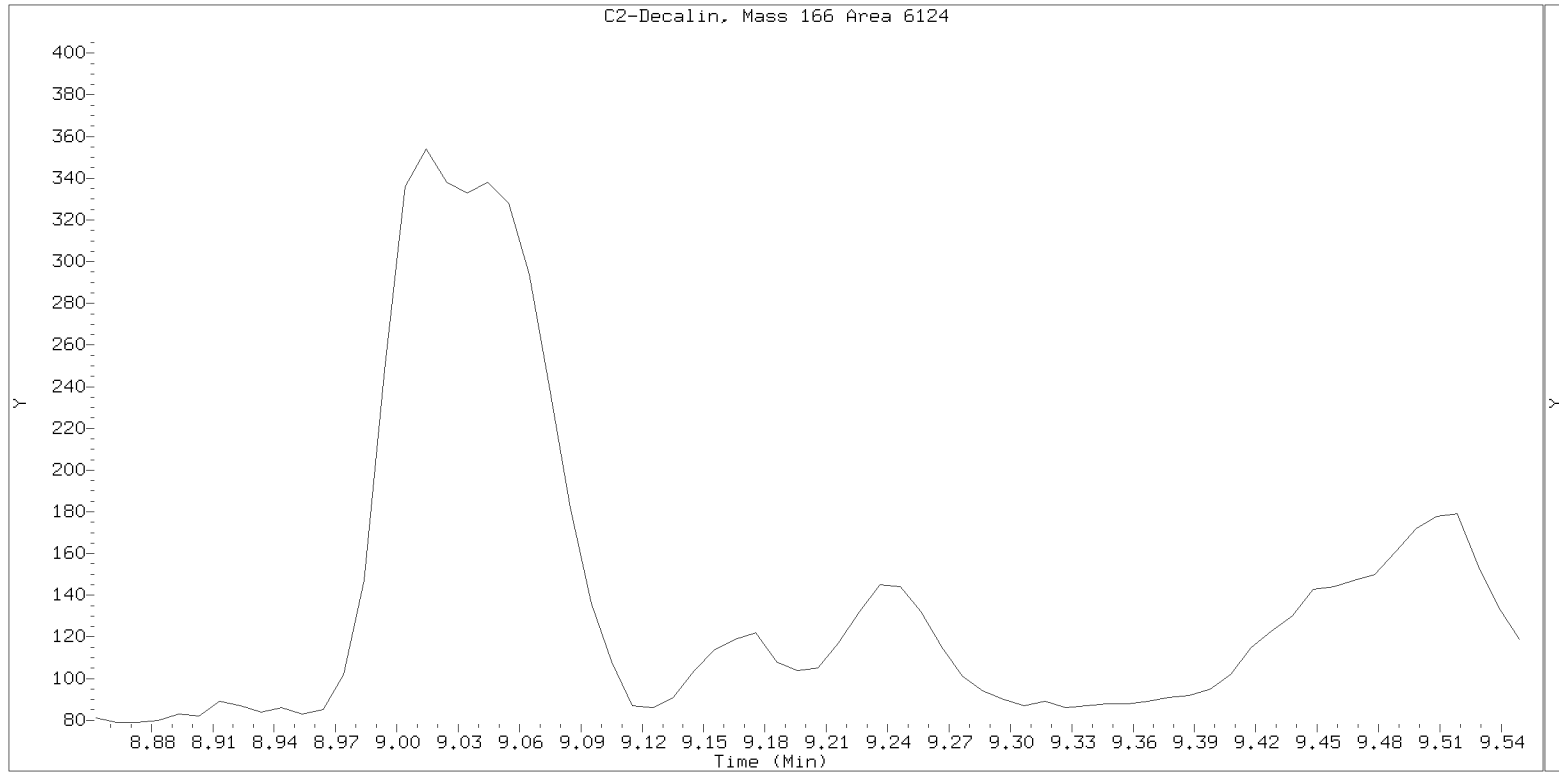
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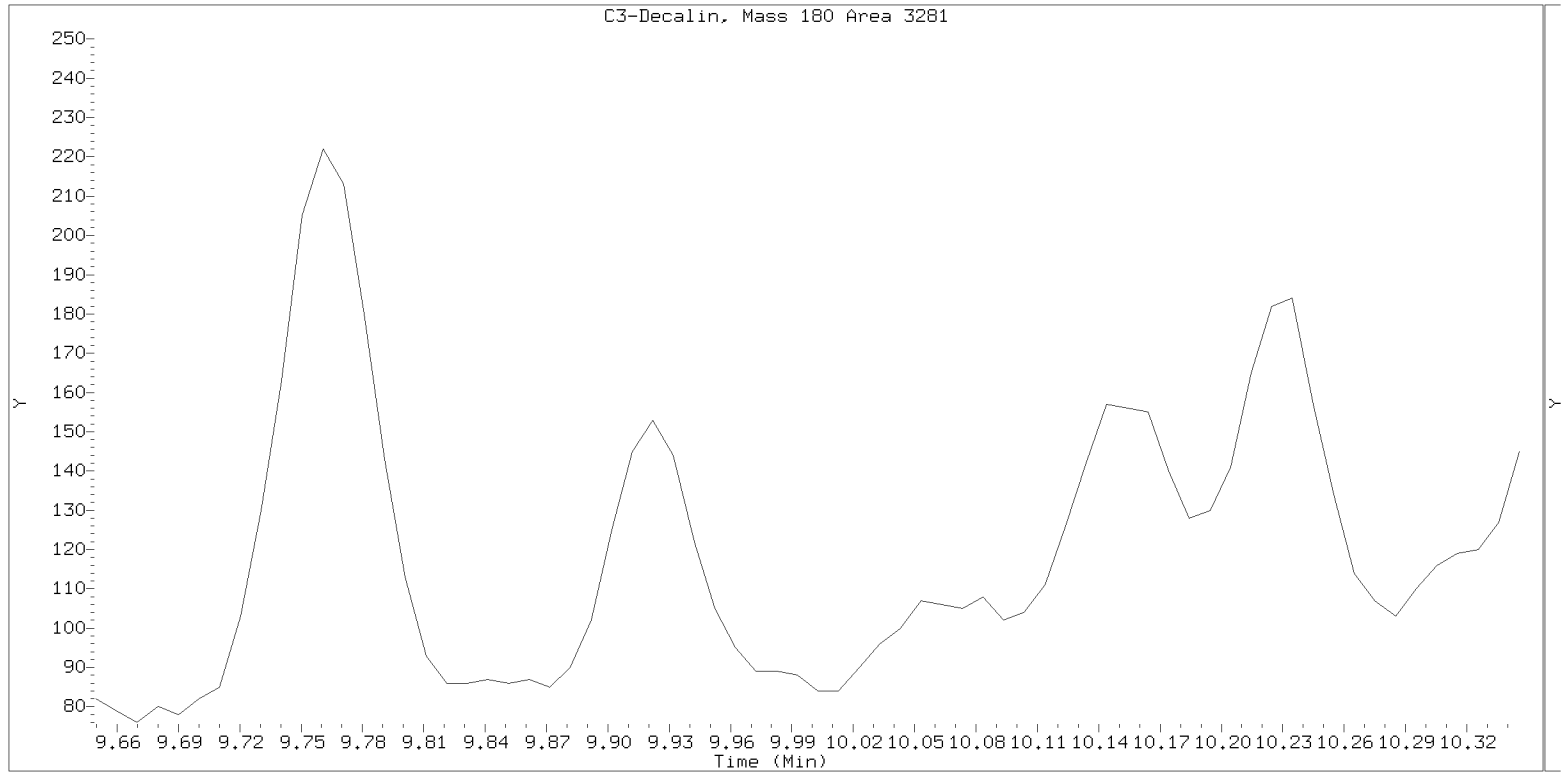
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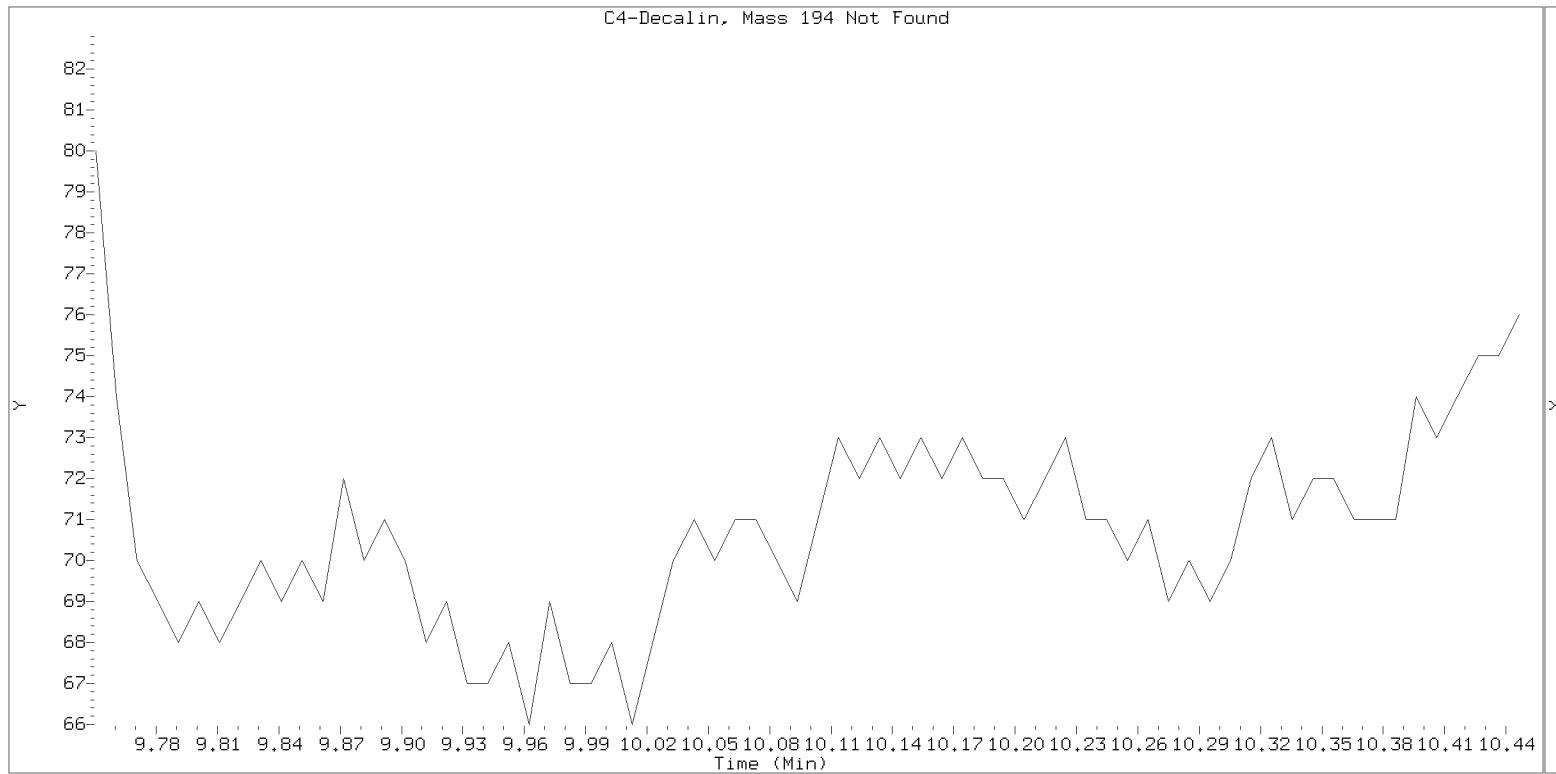
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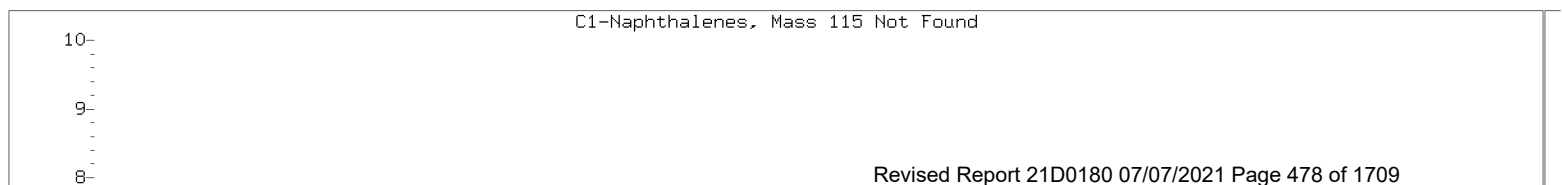
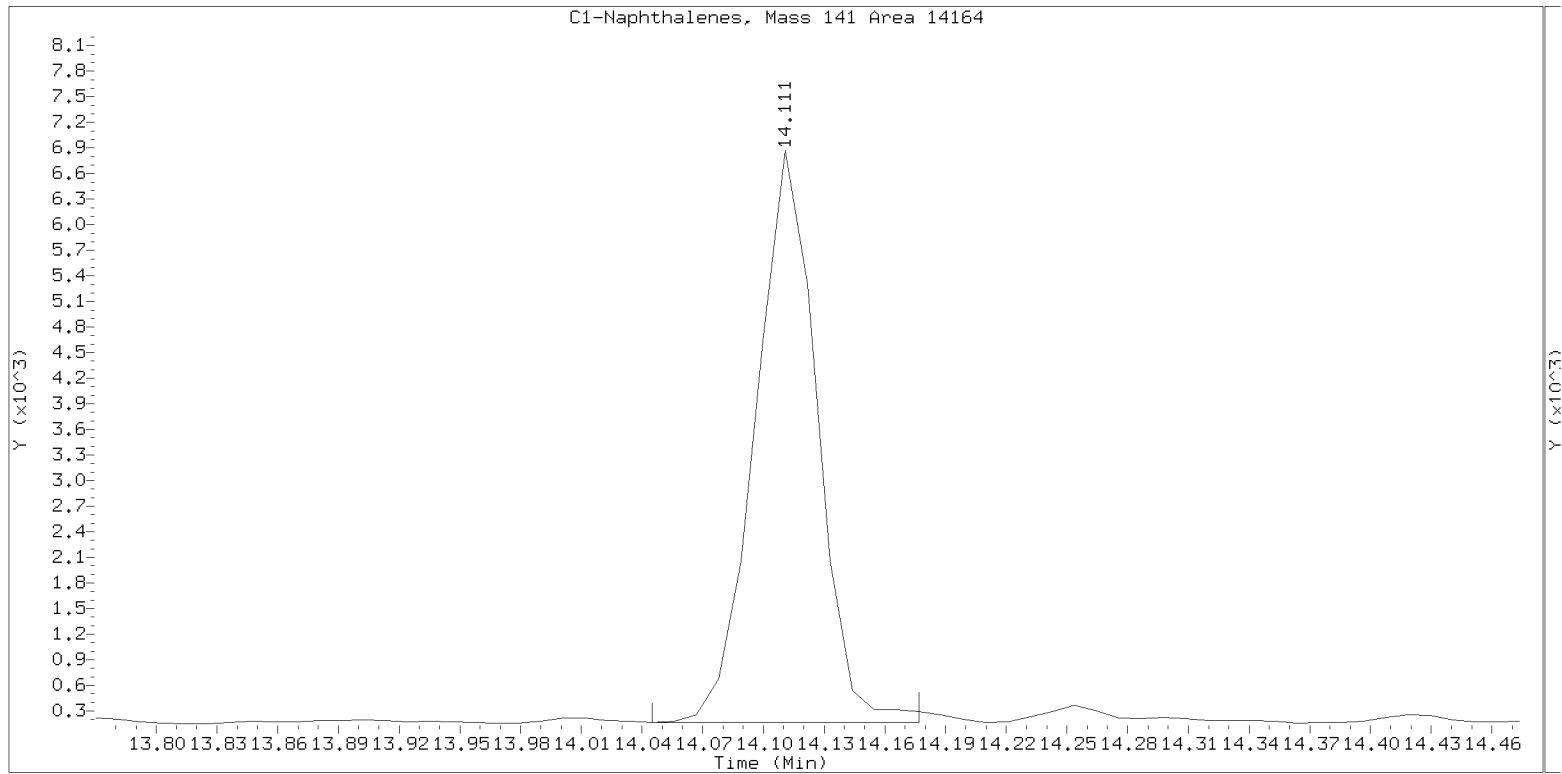
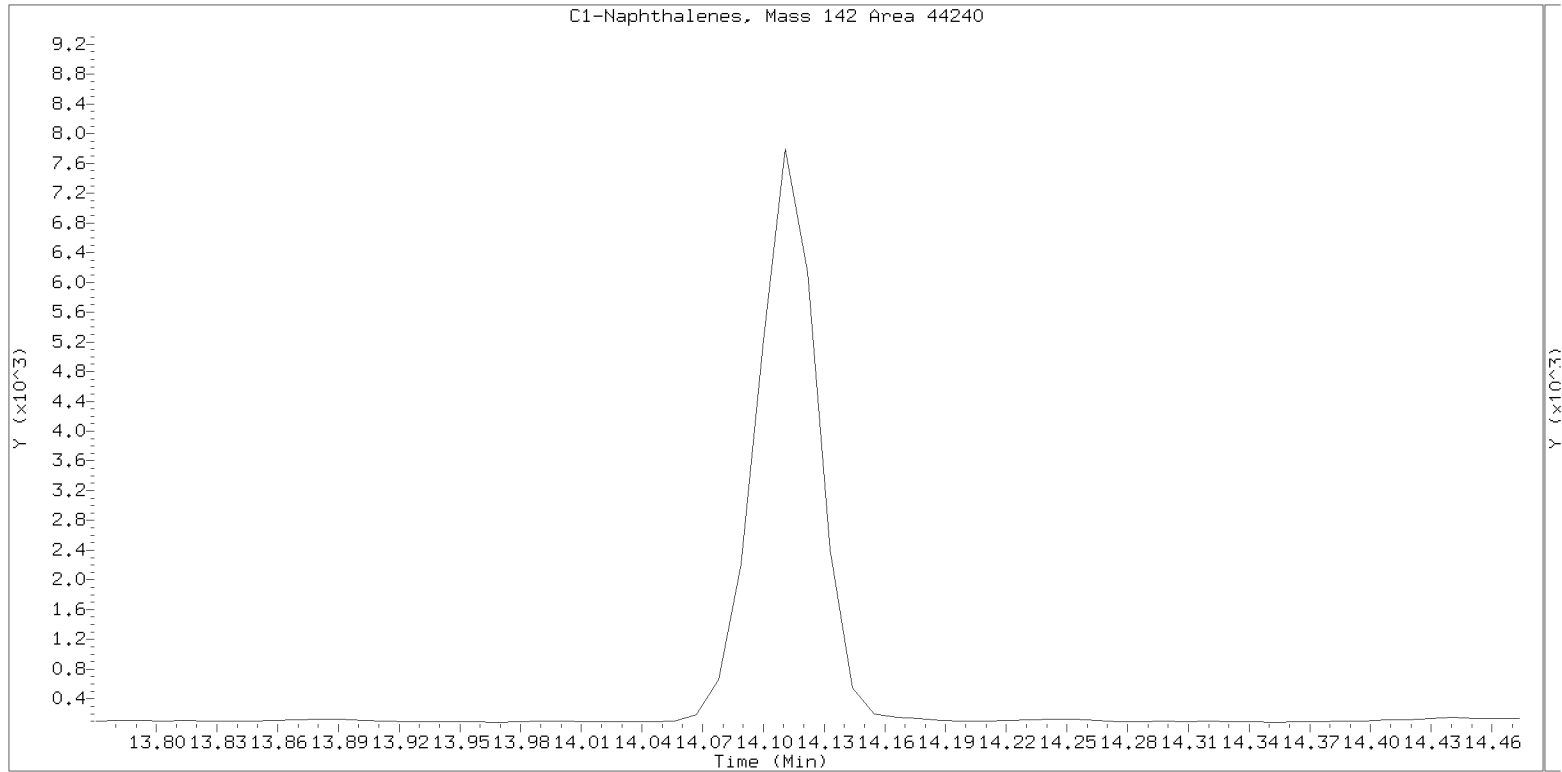
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

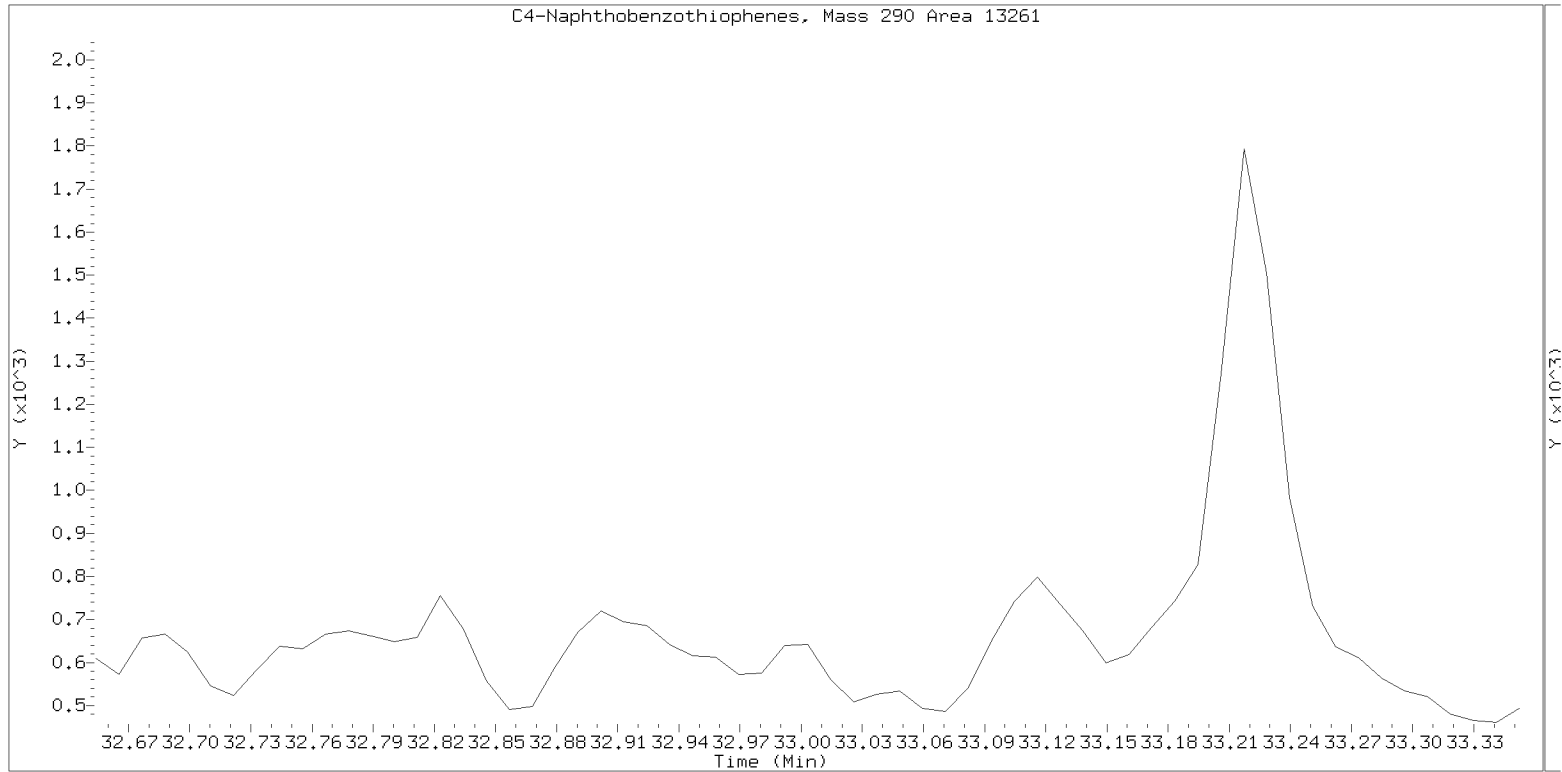
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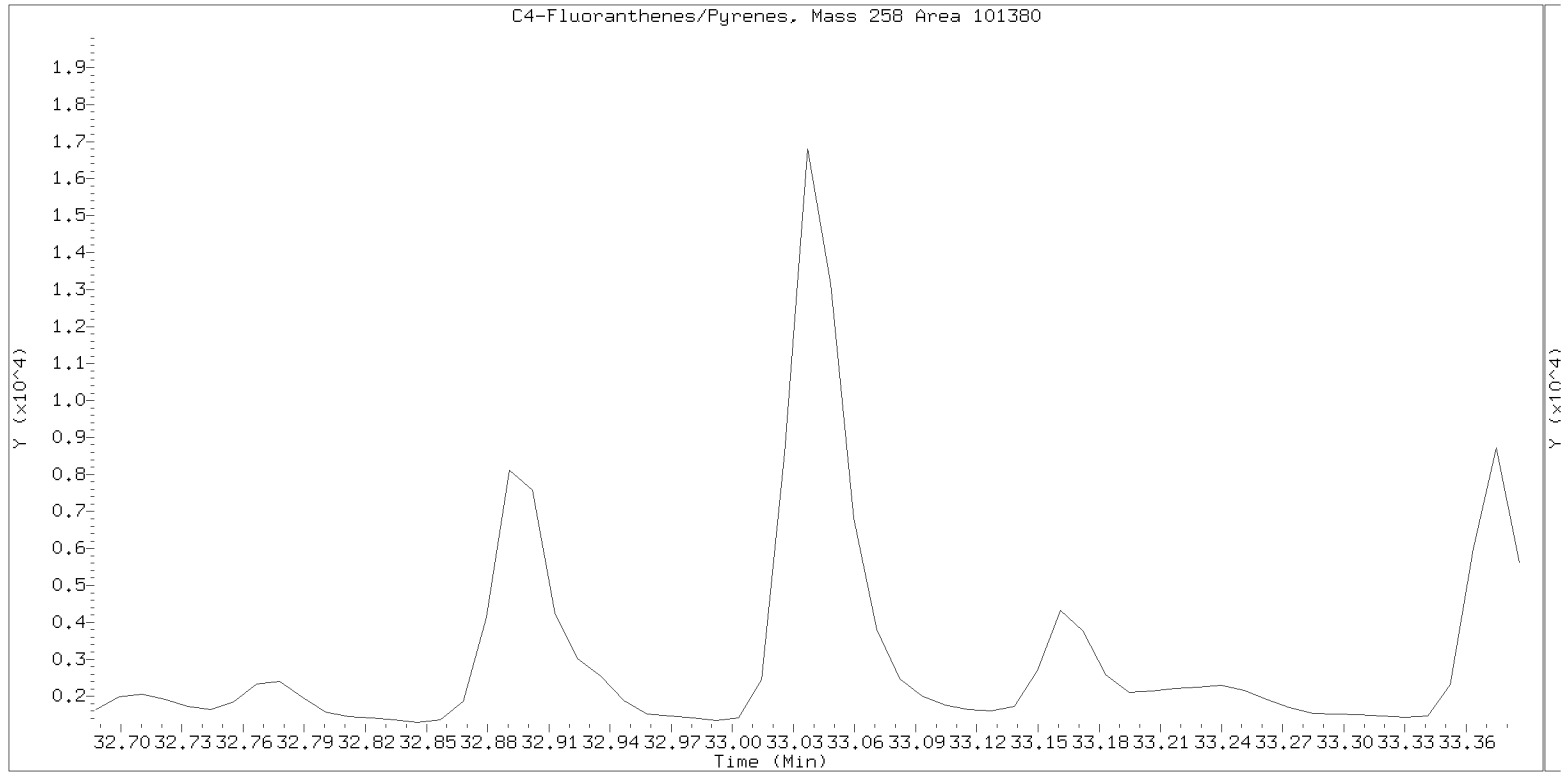
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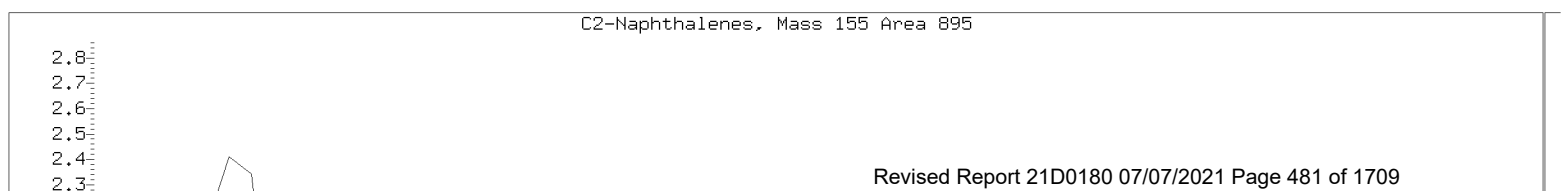
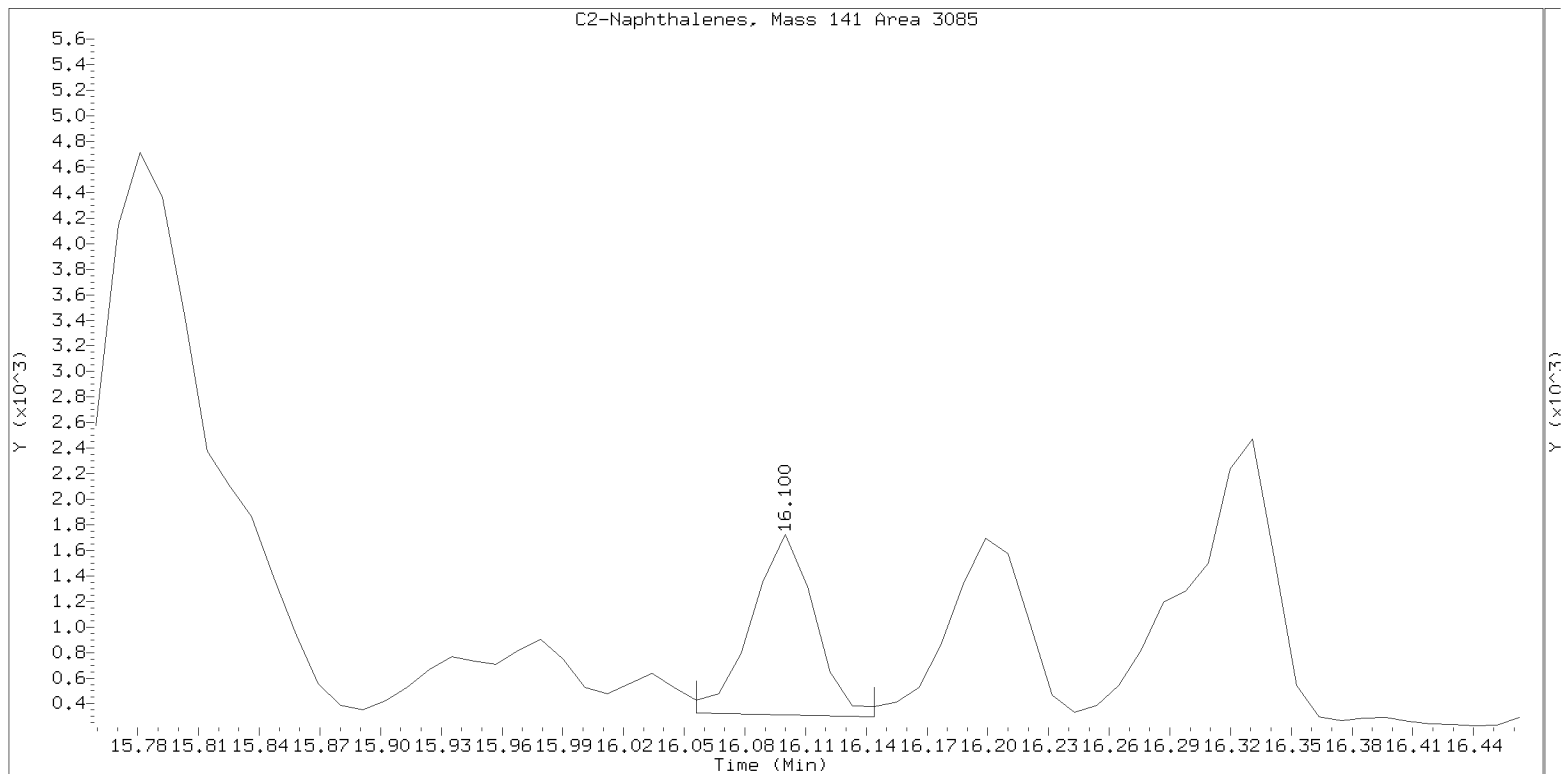
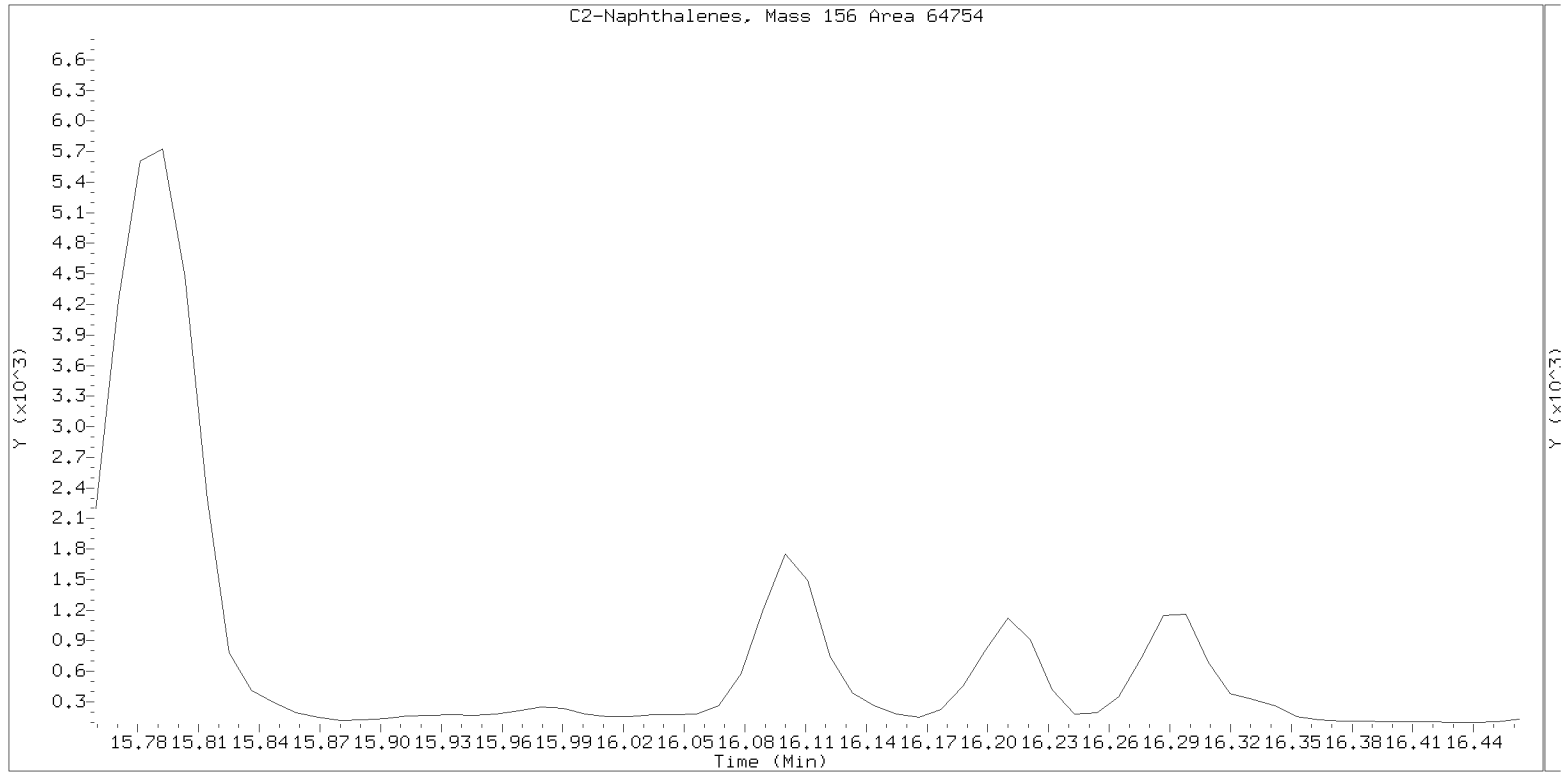
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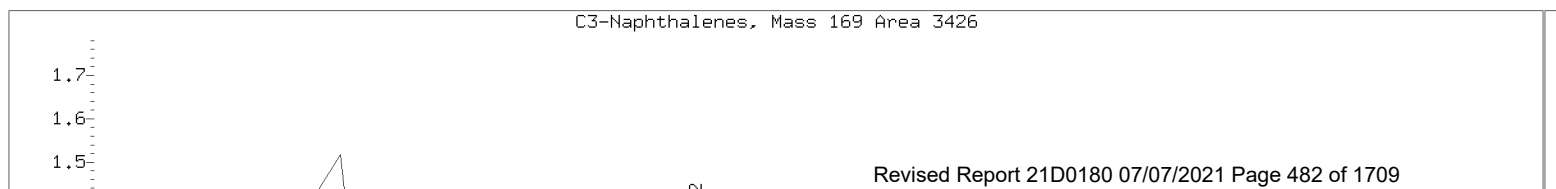
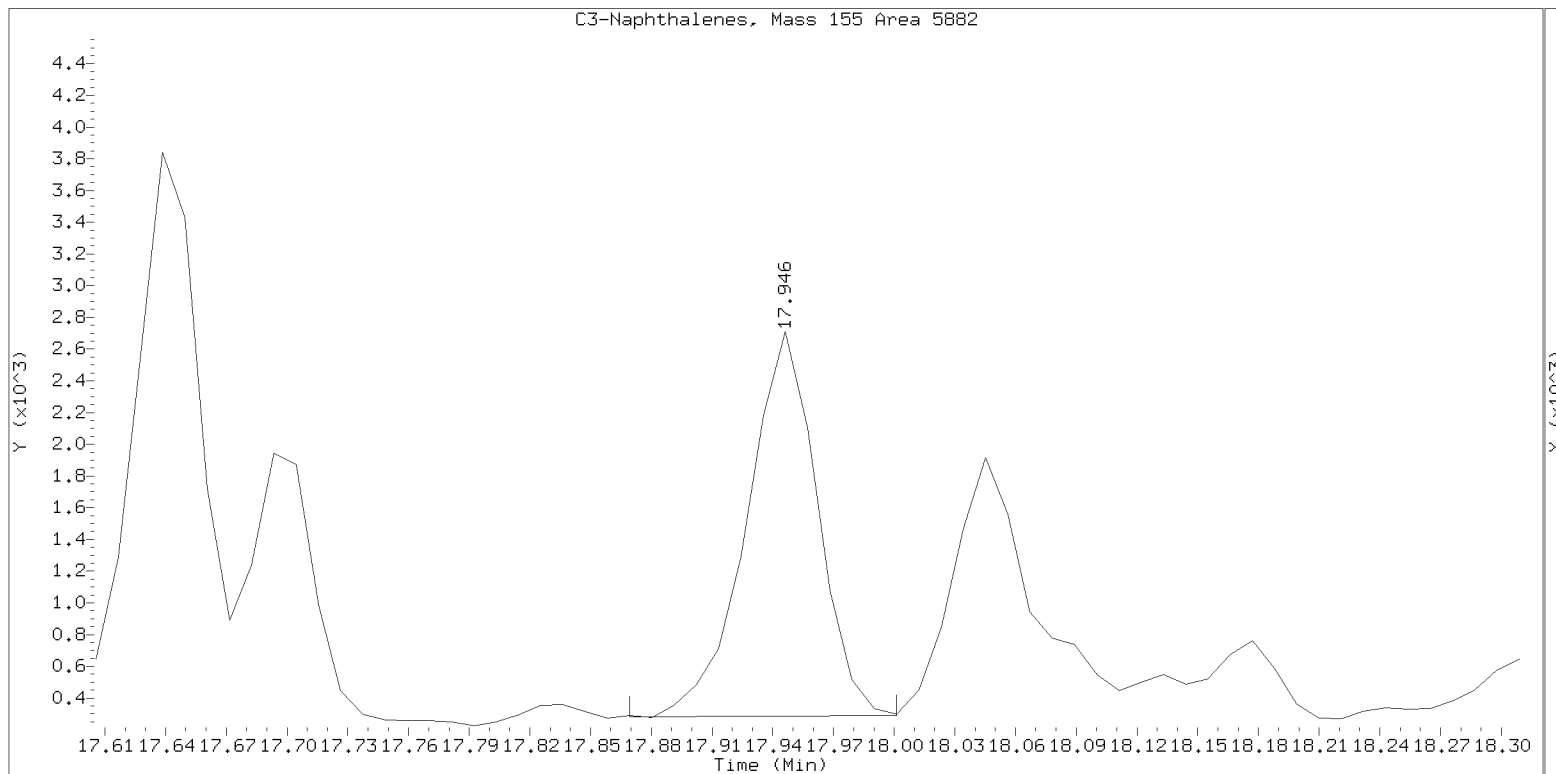
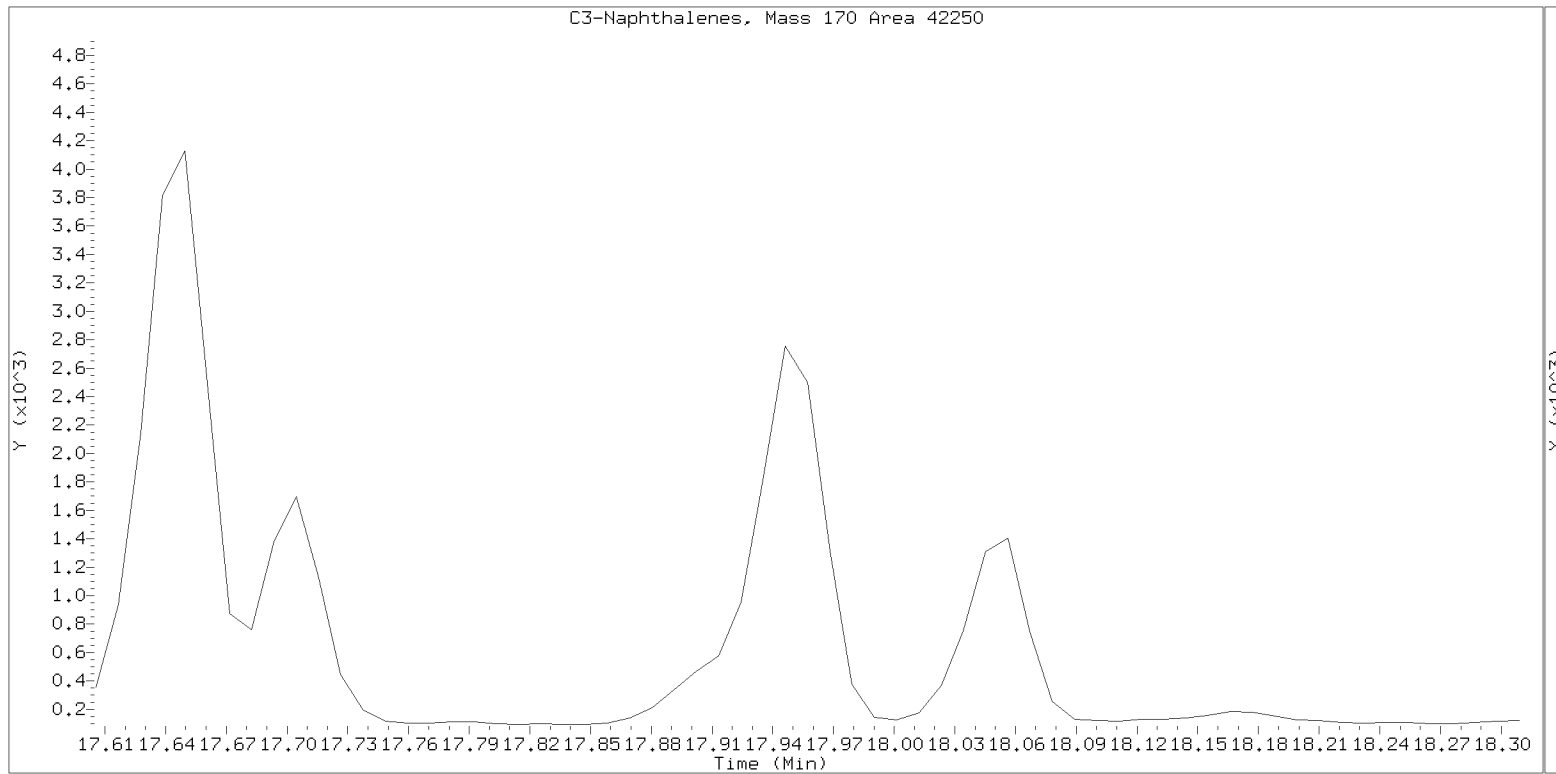
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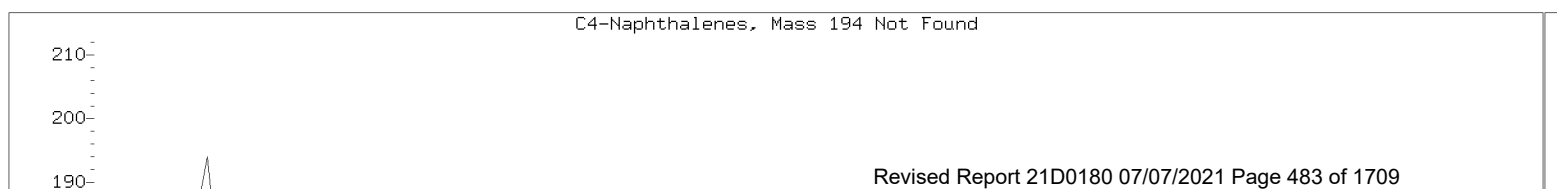
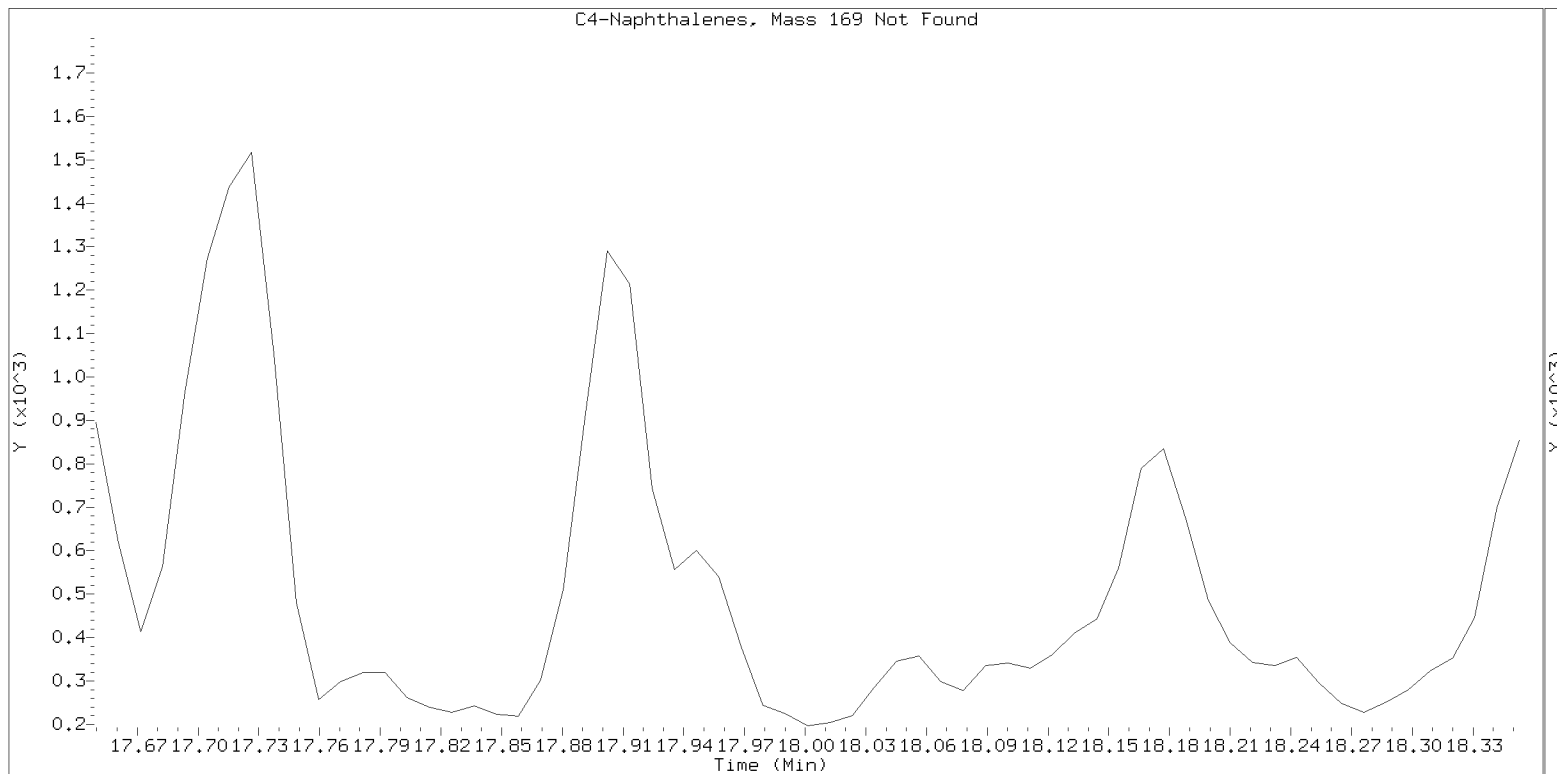
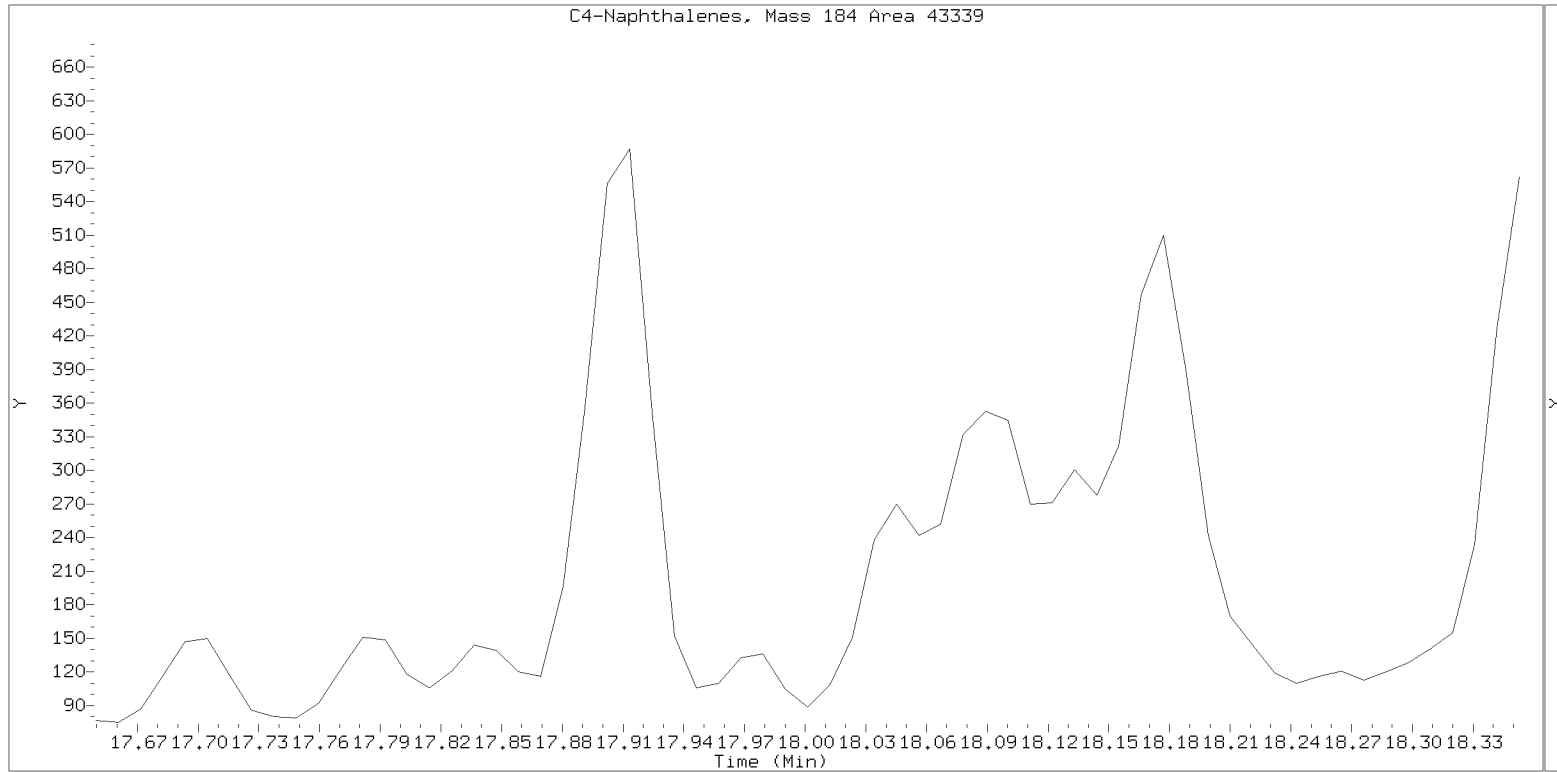
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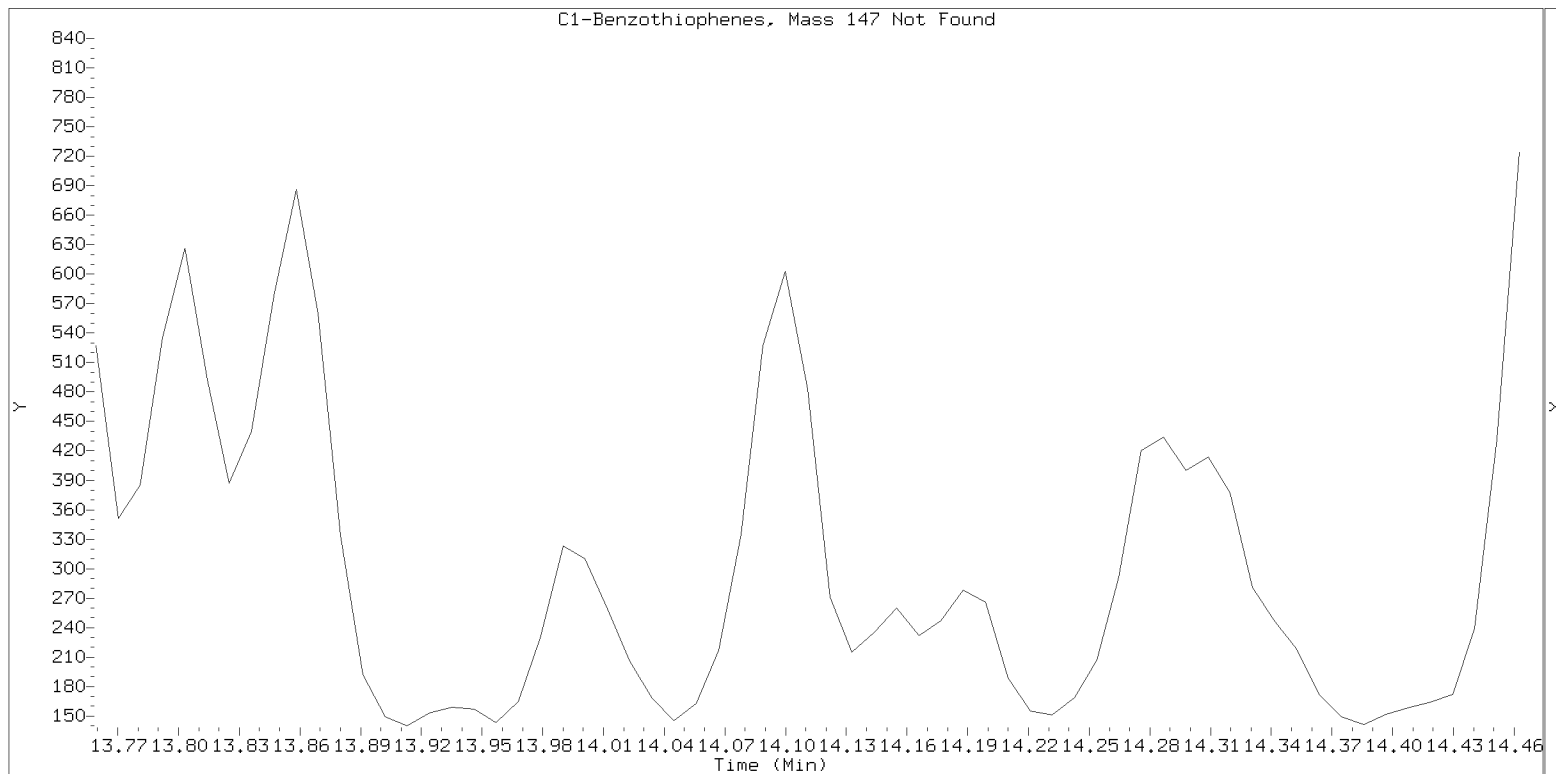
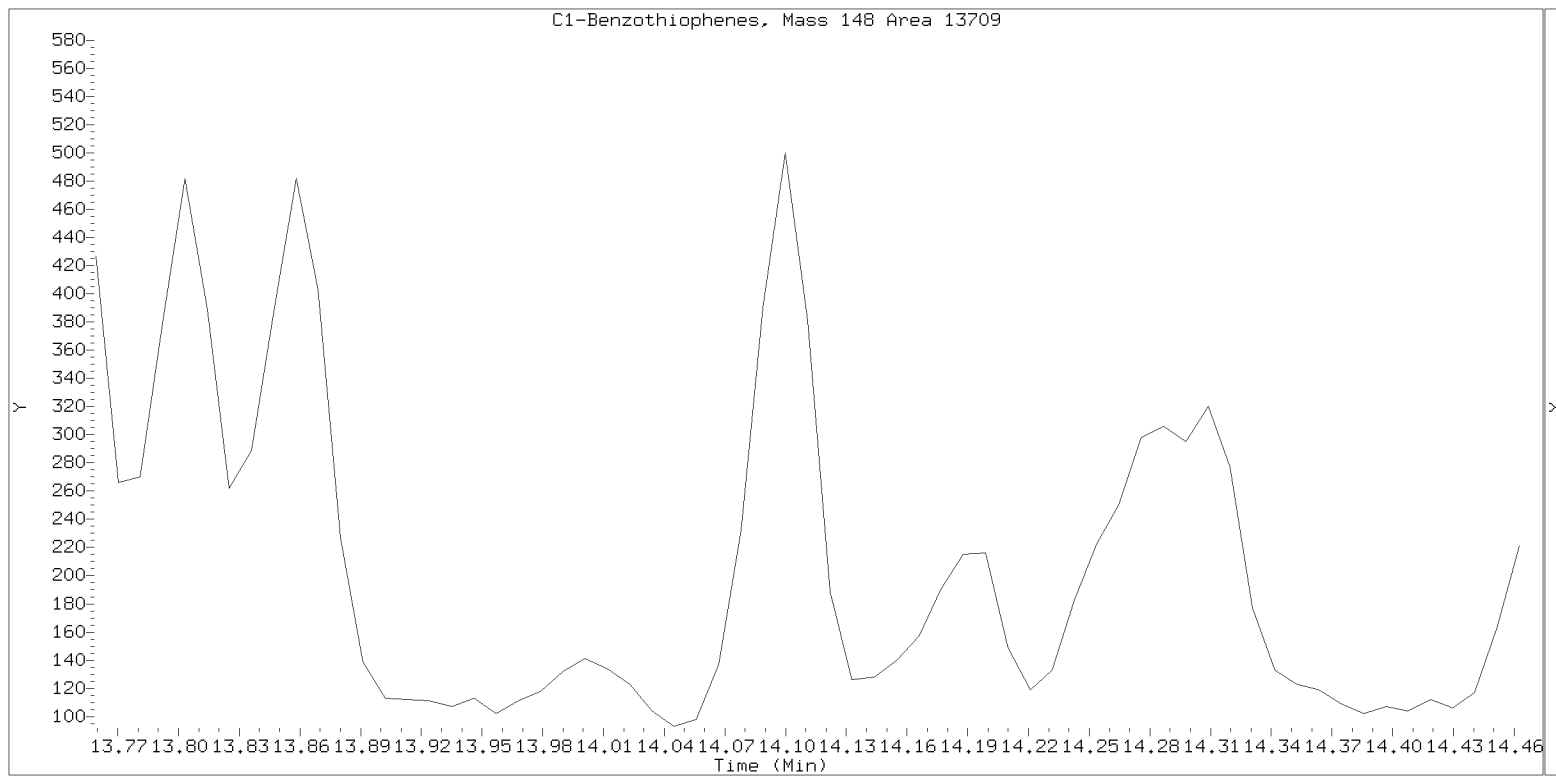
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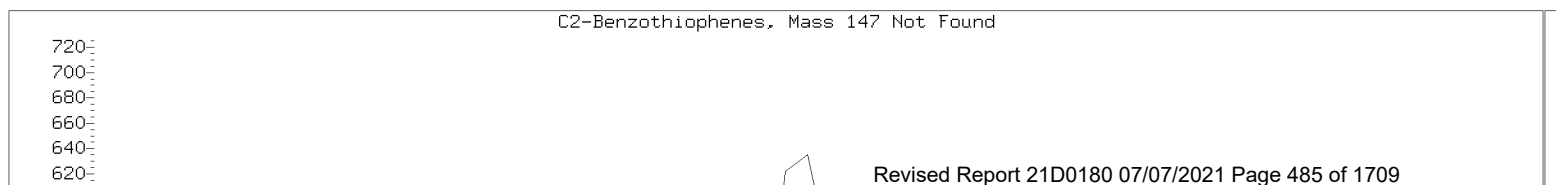
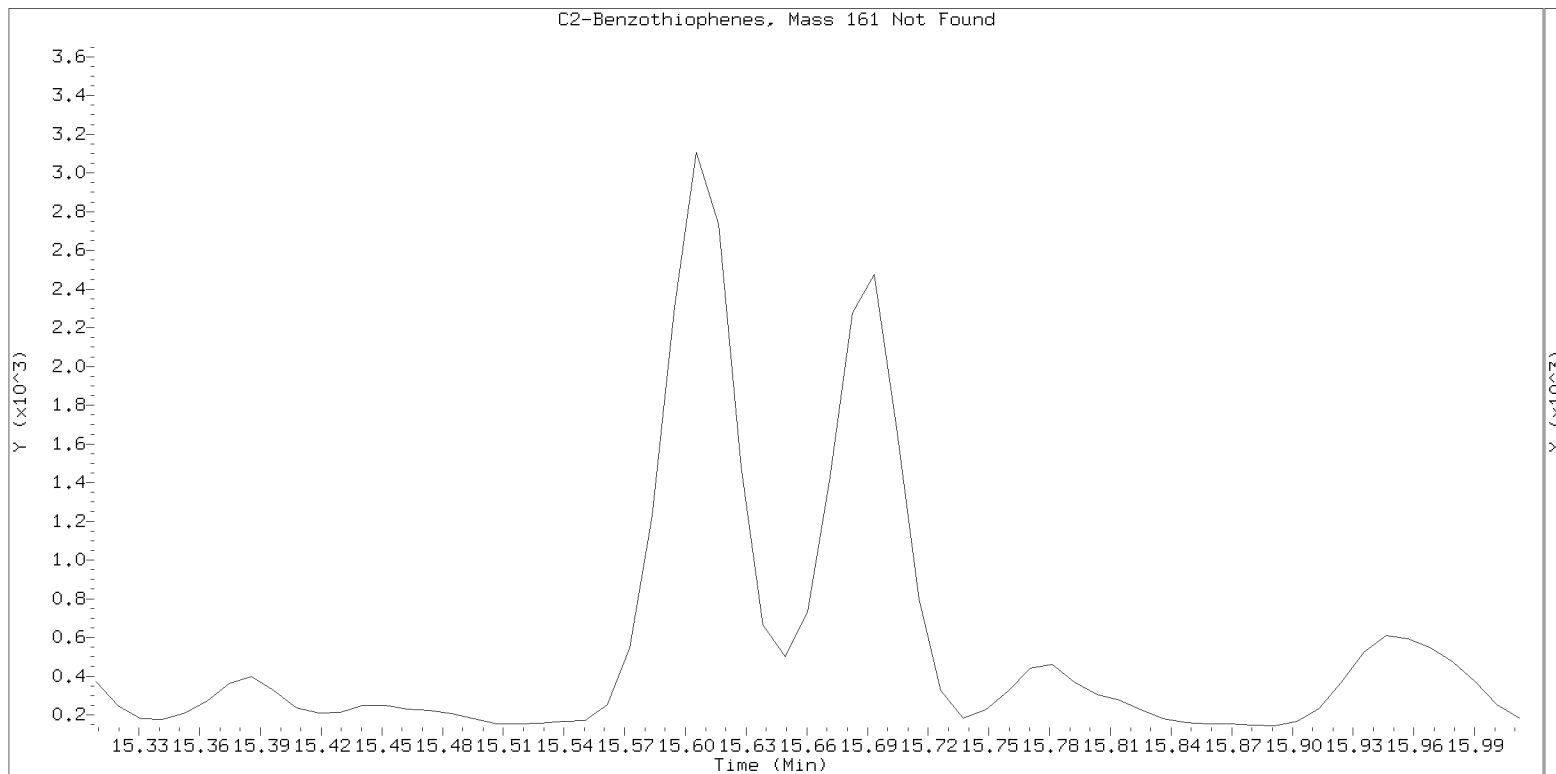
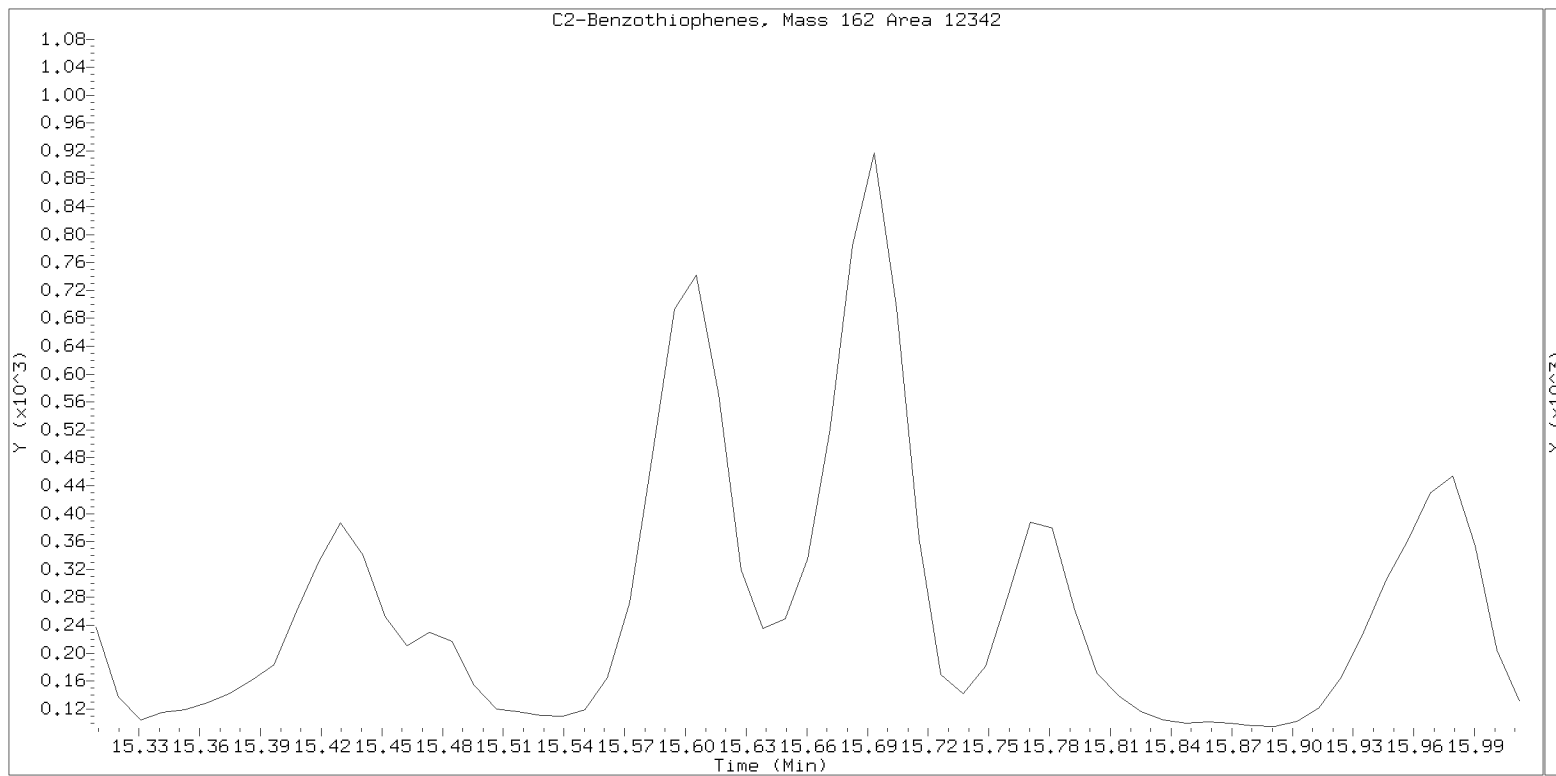
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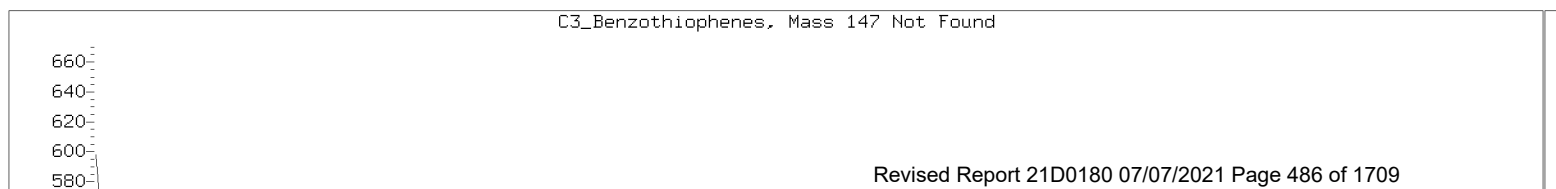
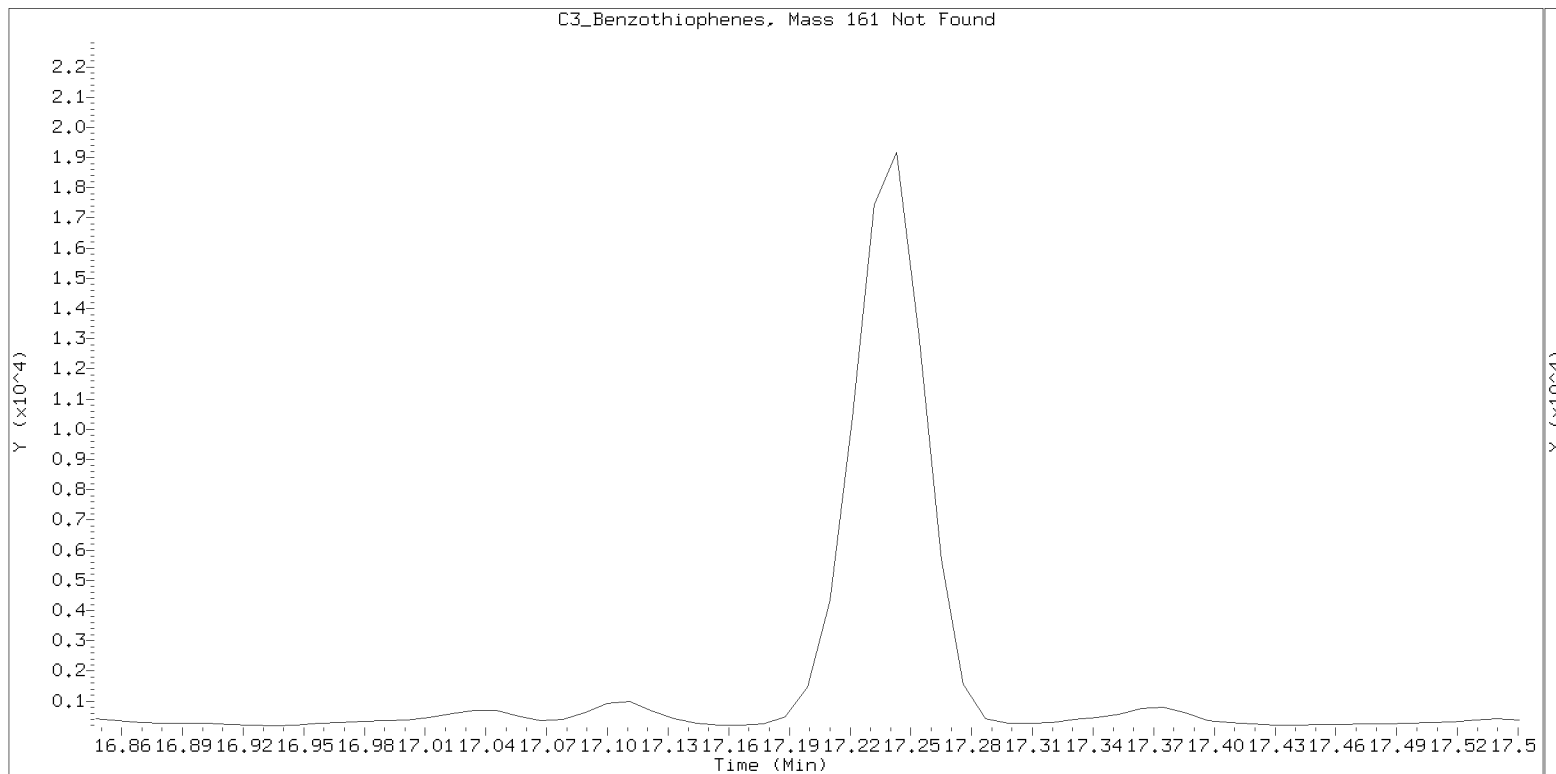
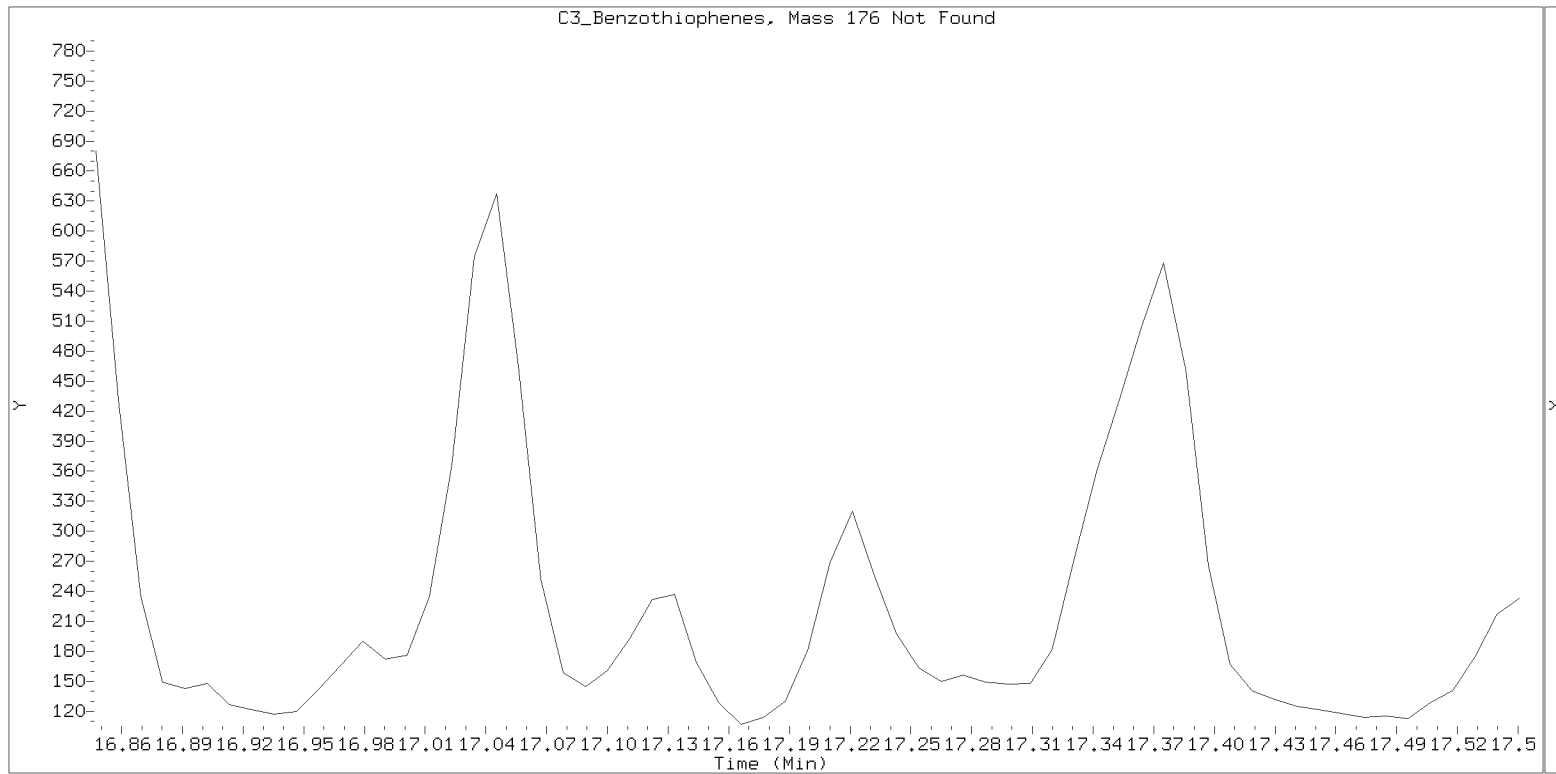
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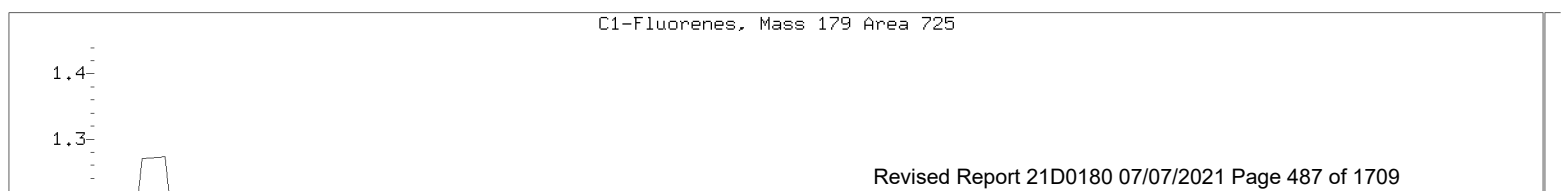
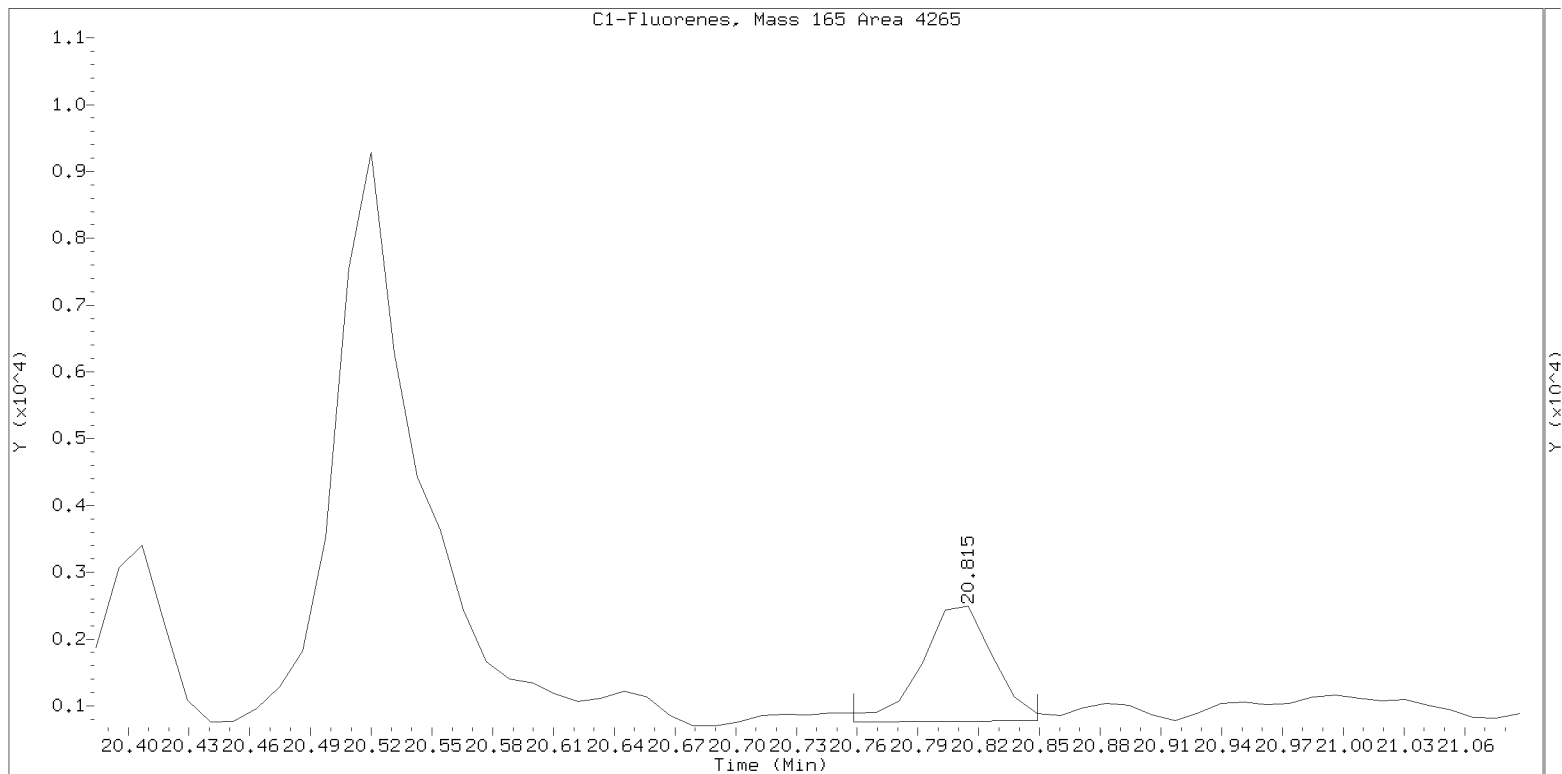
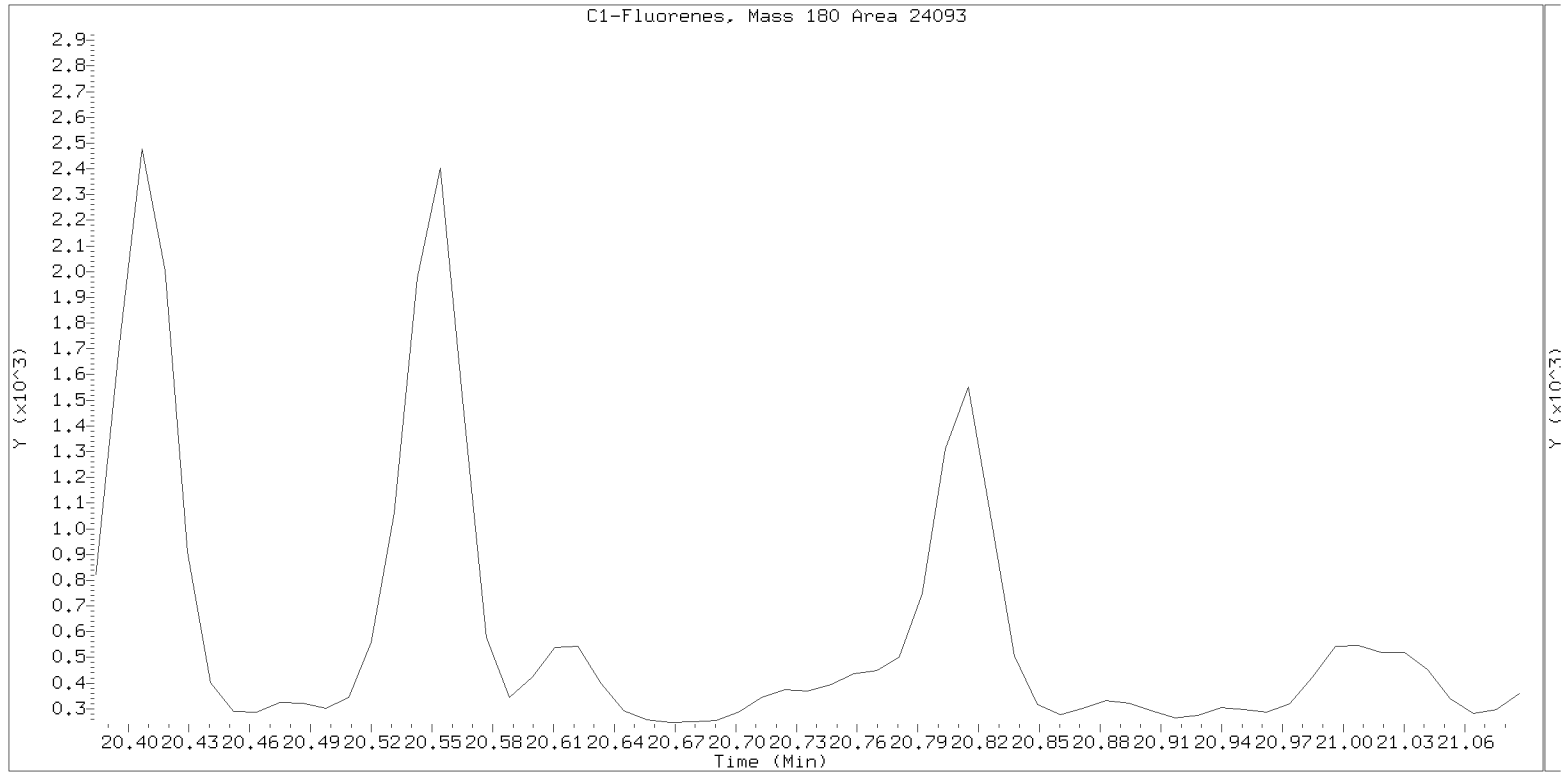
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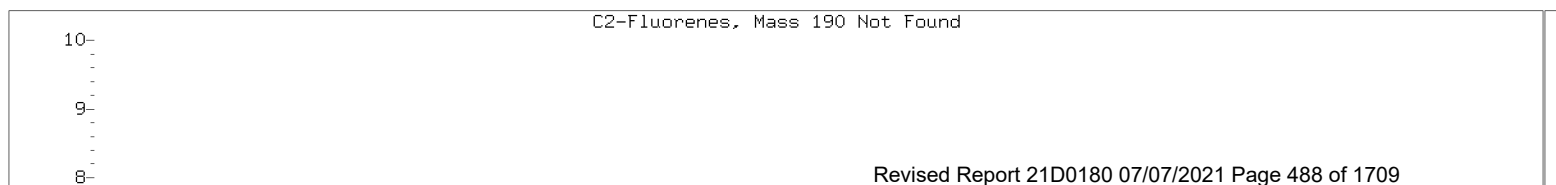
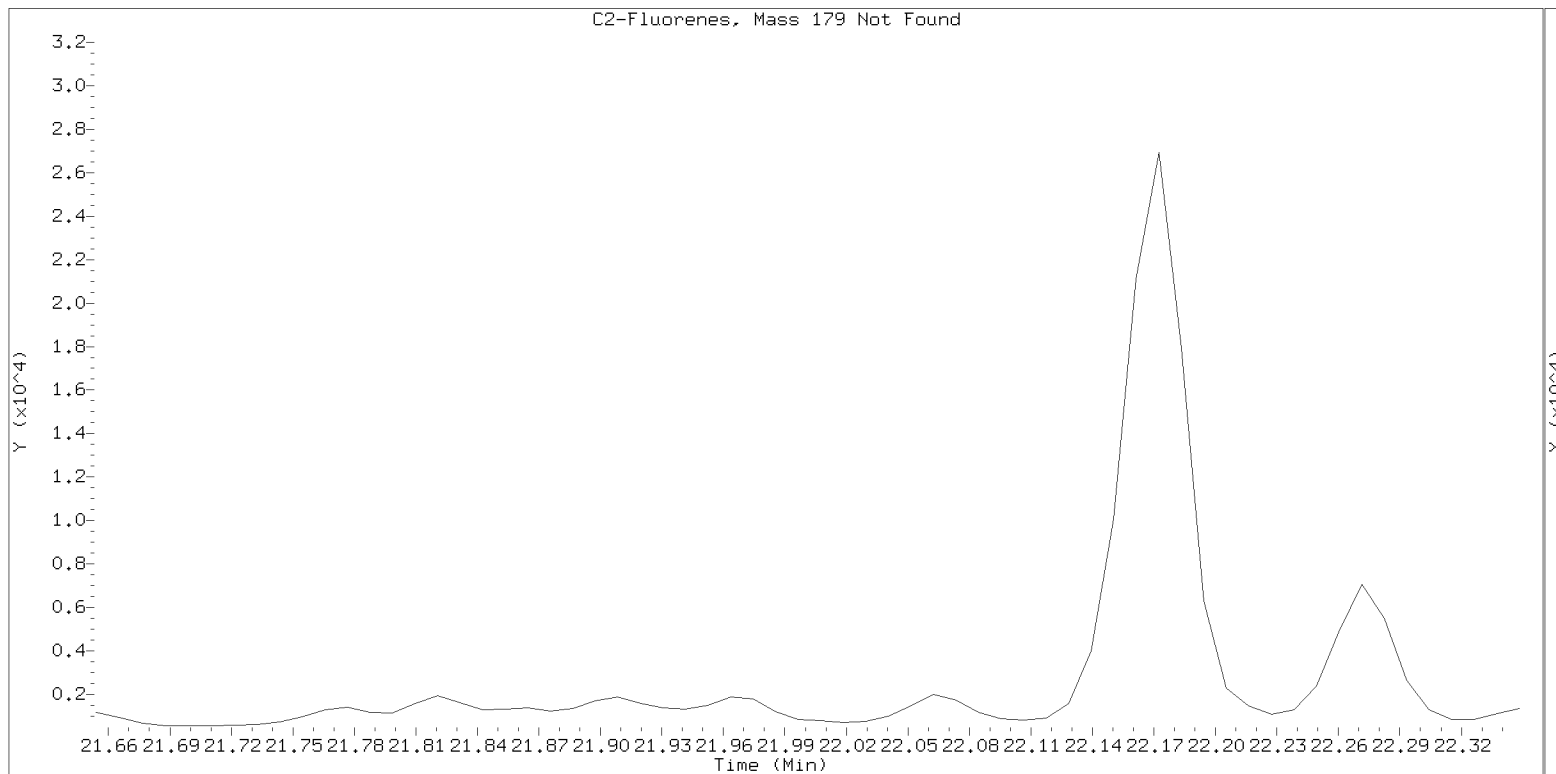
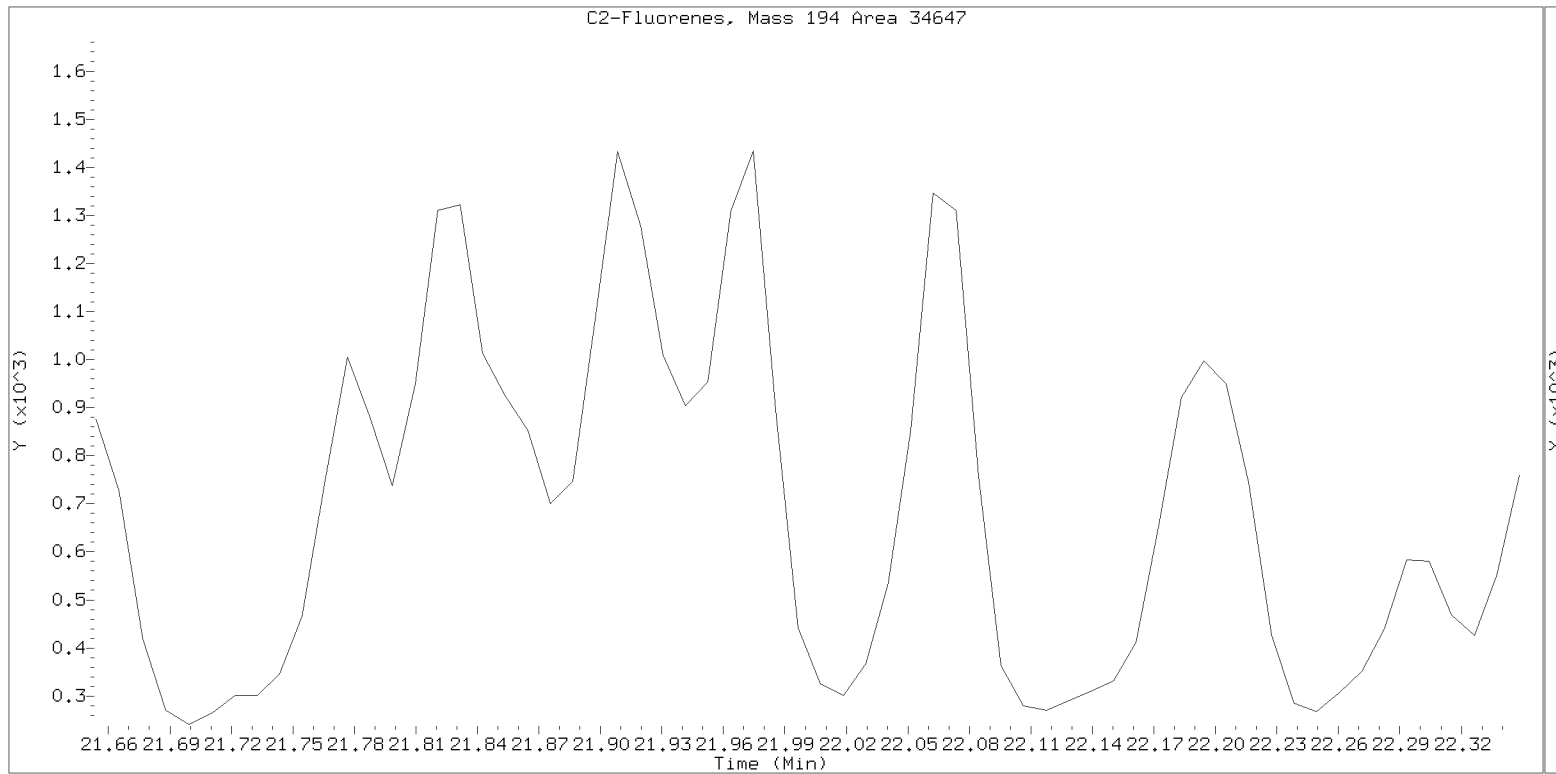
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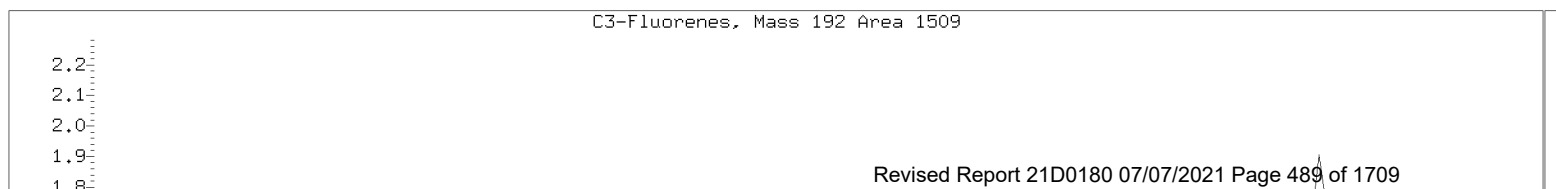
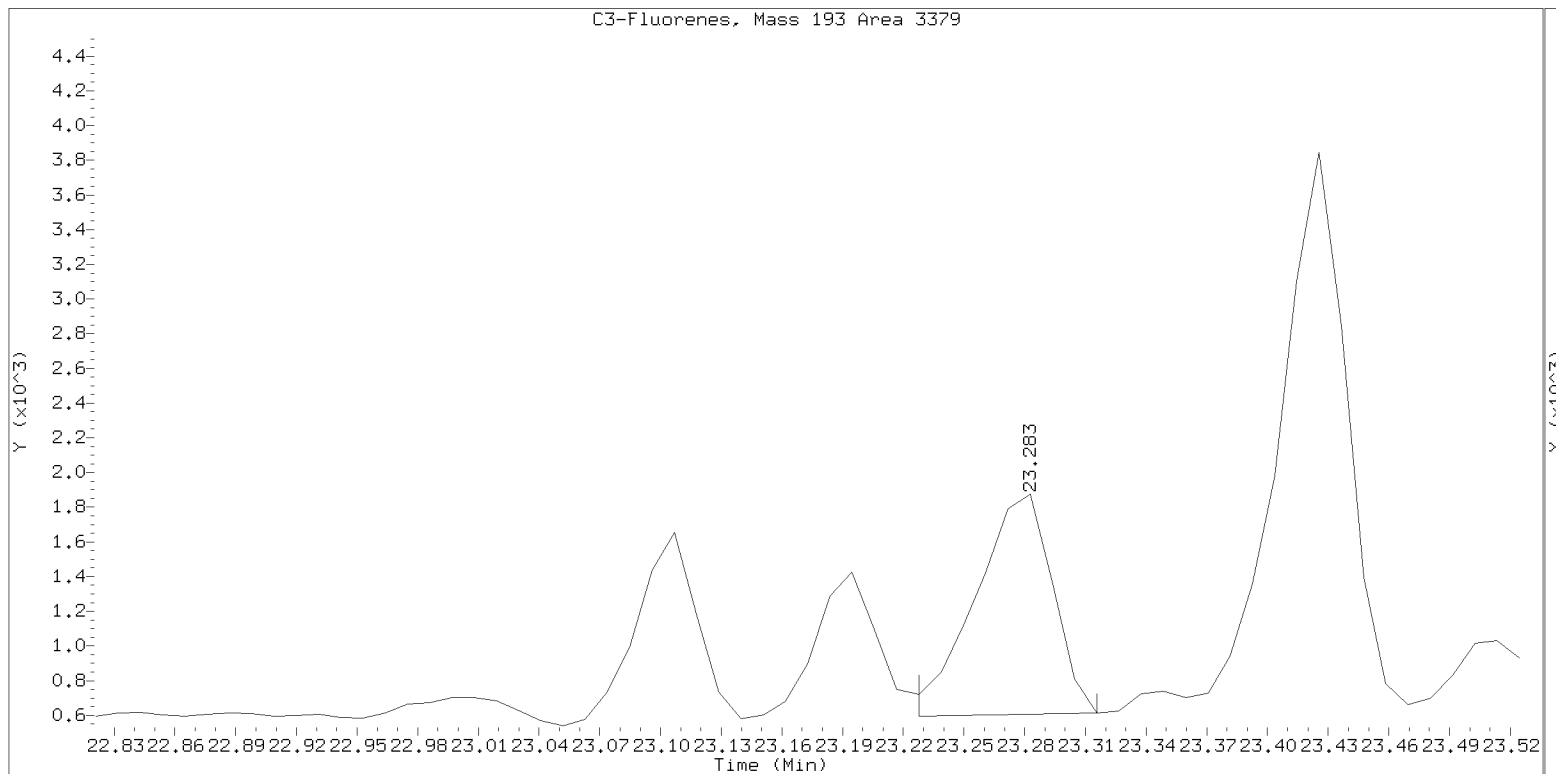
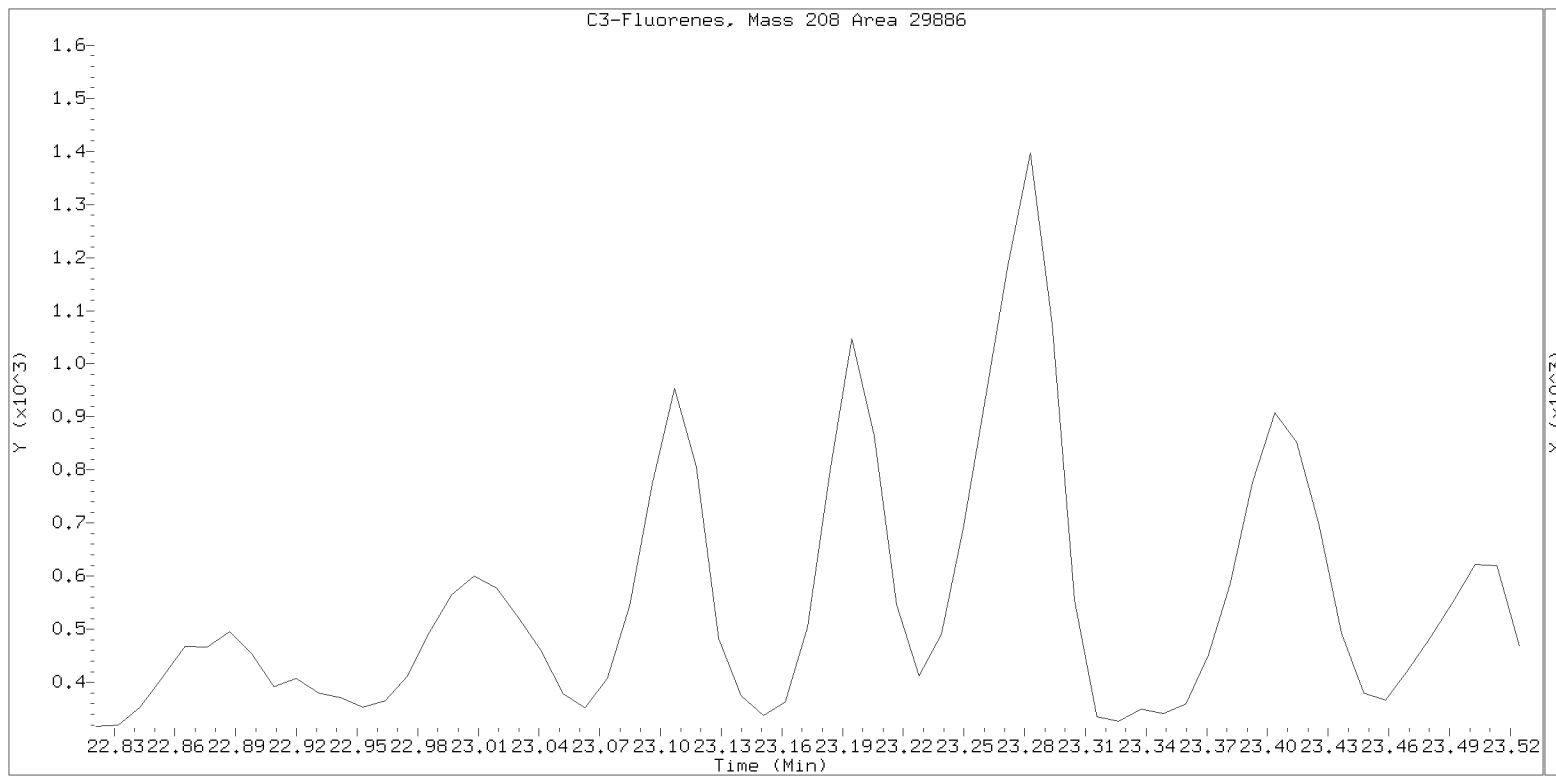
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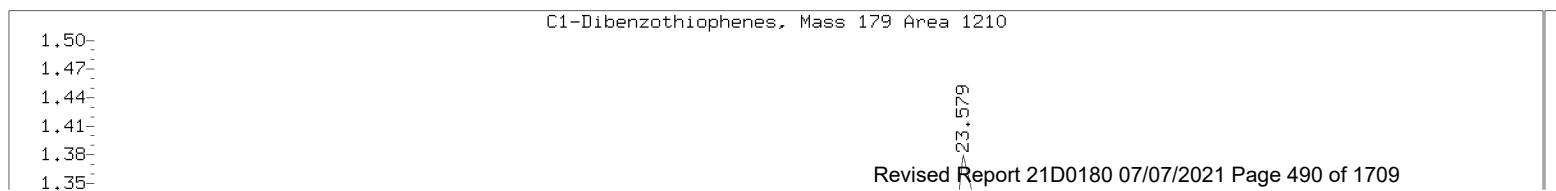
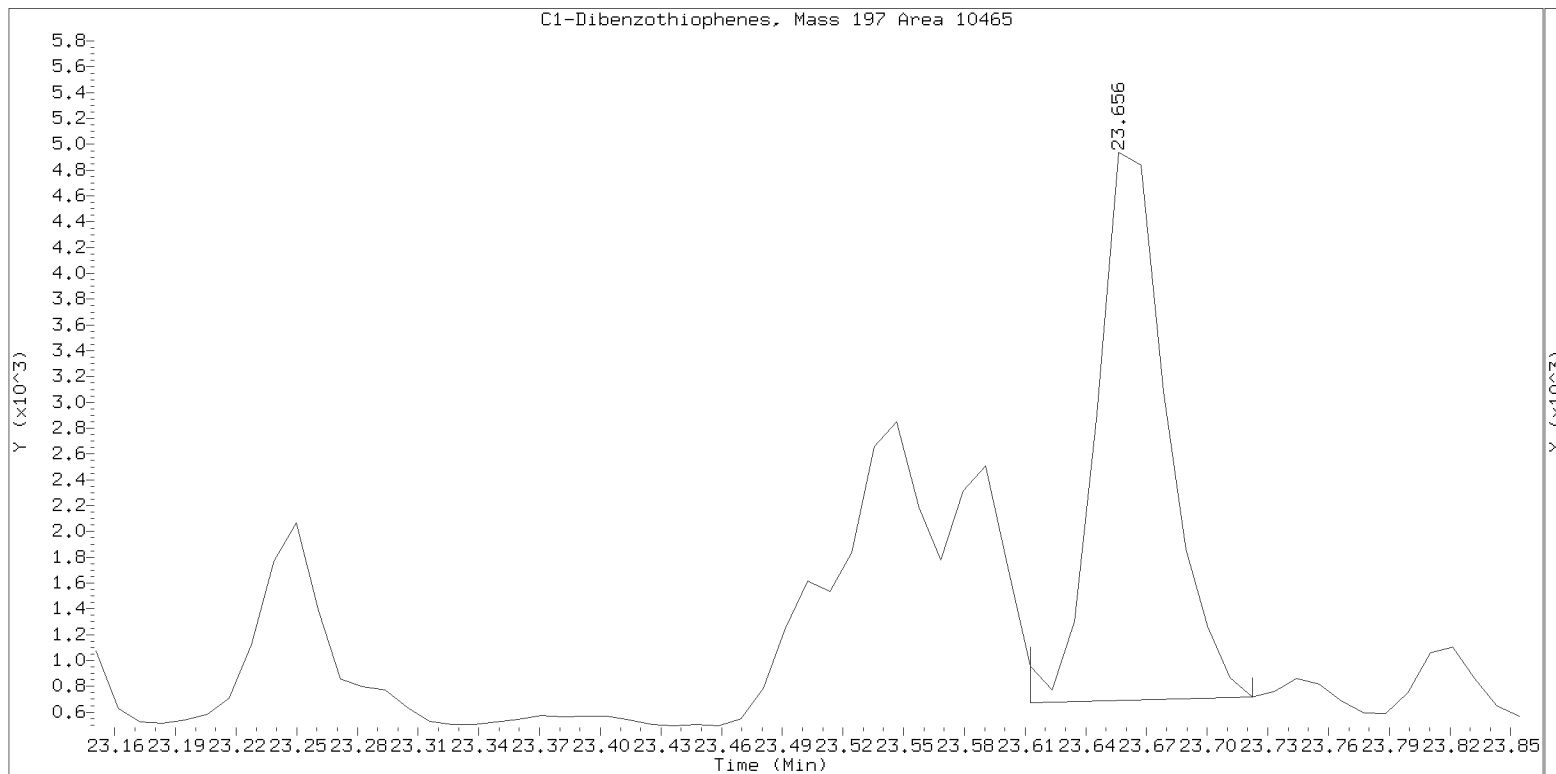
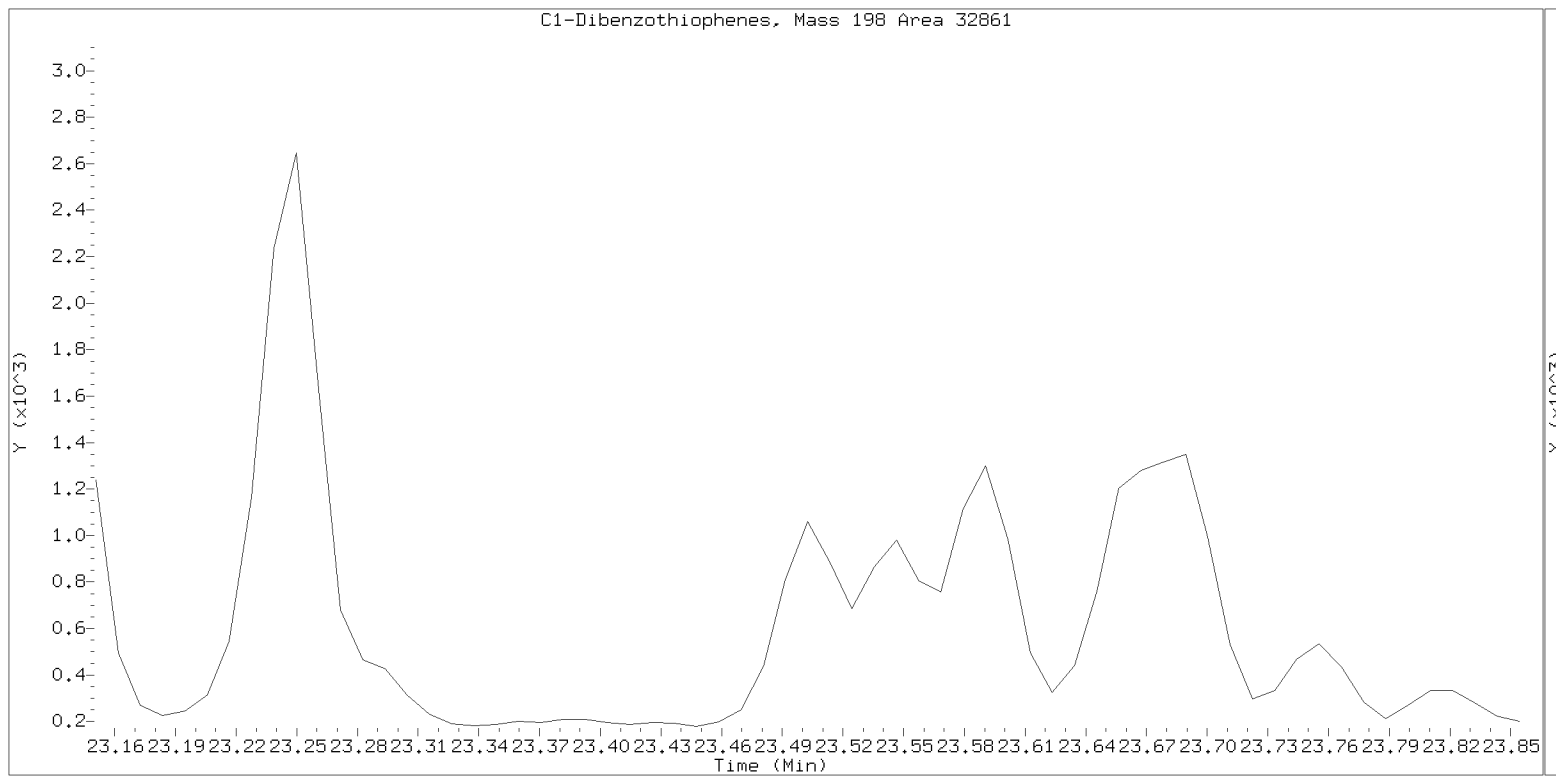
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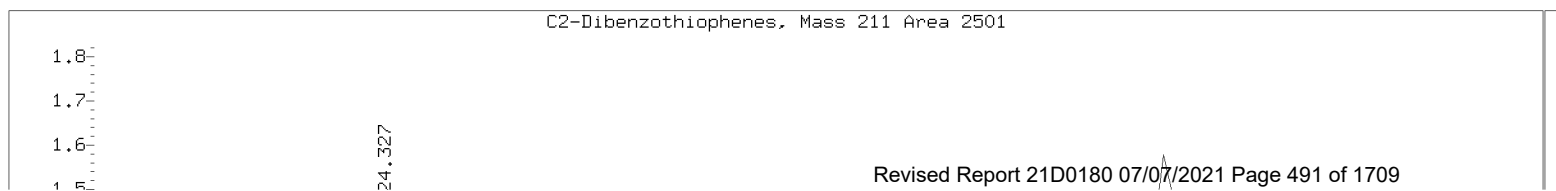
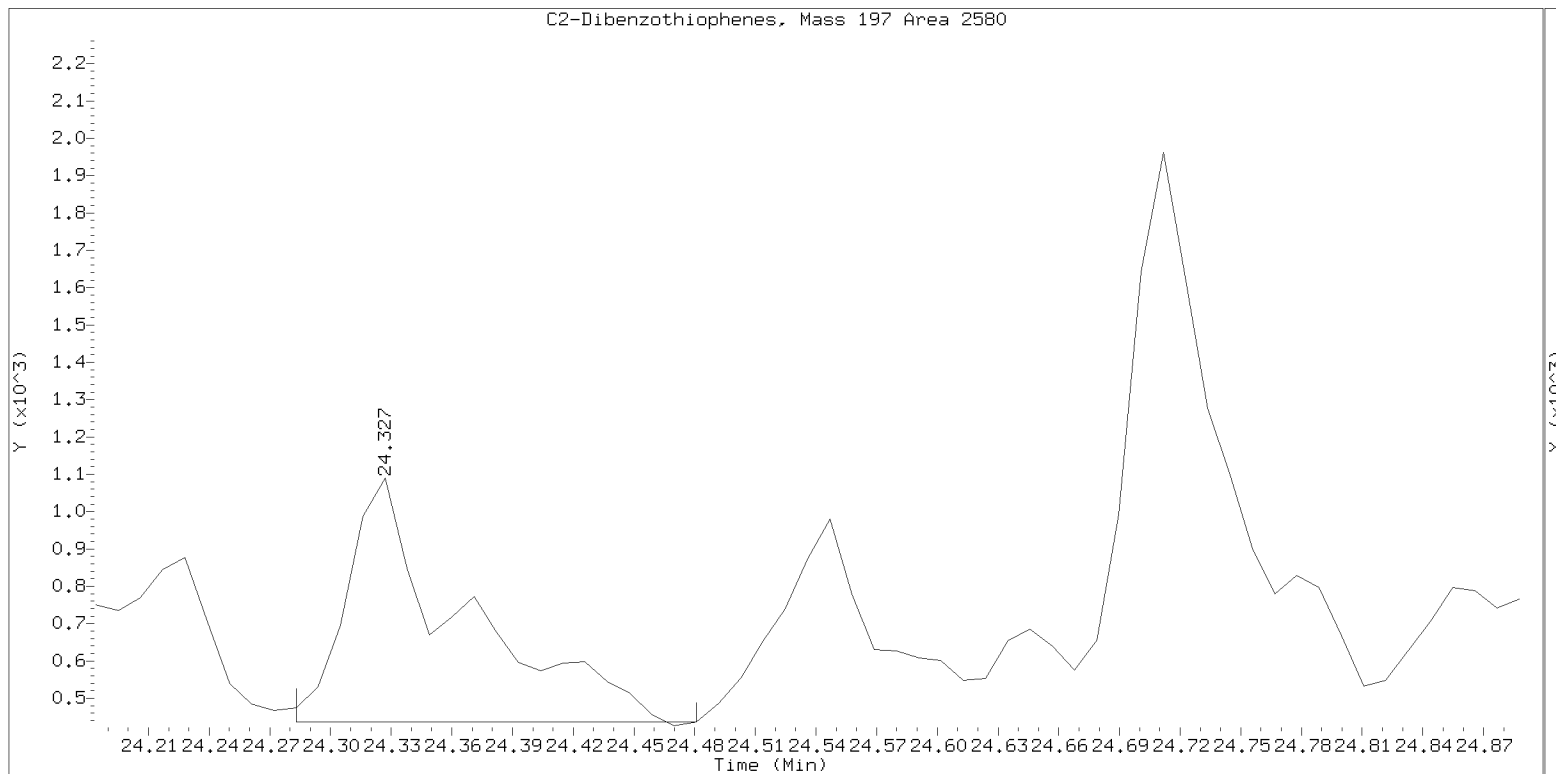
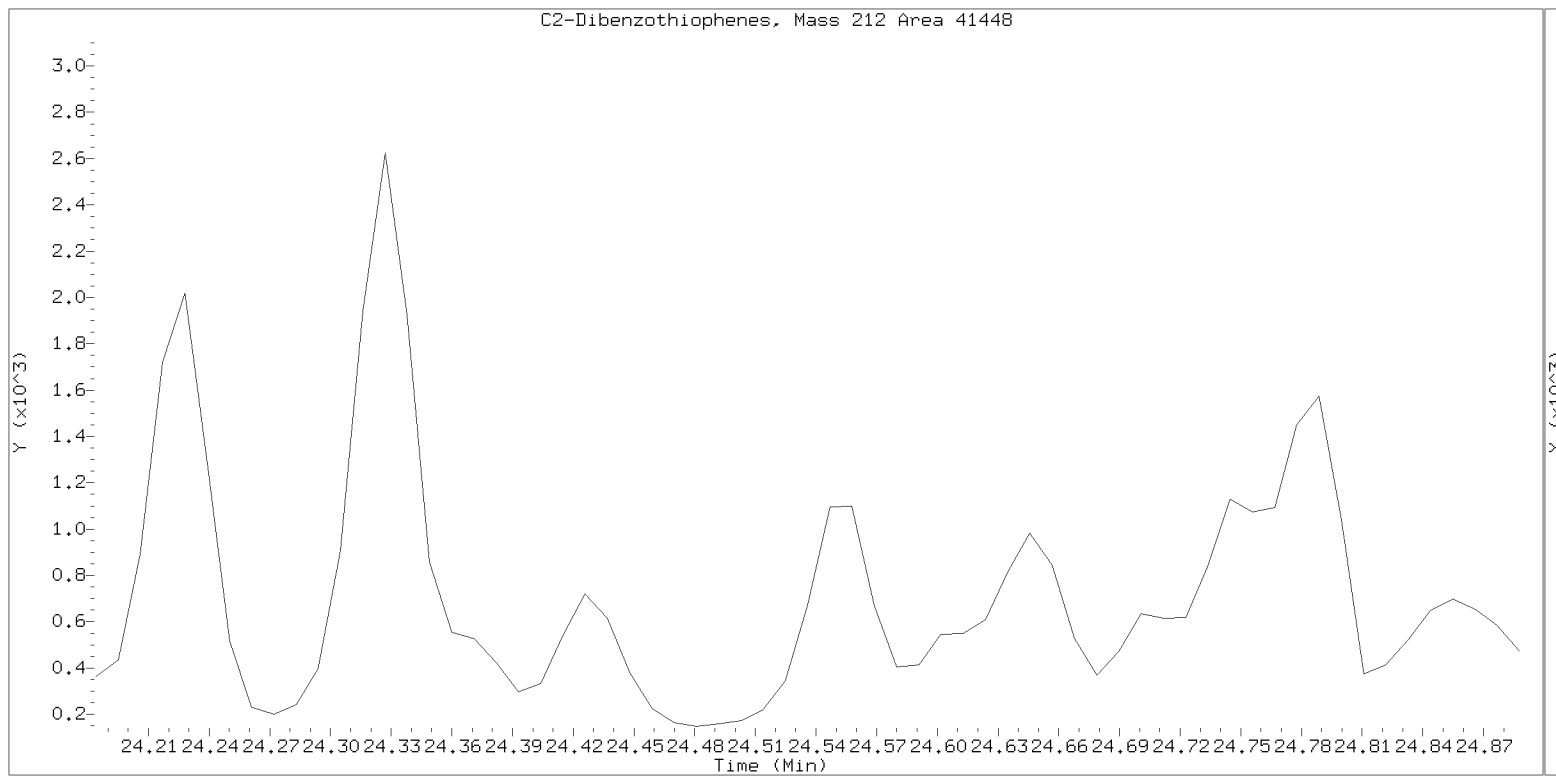
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

Lab ID: 21D0180-04

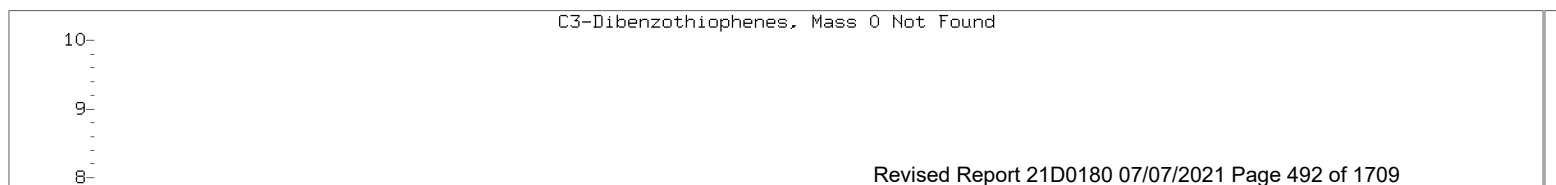
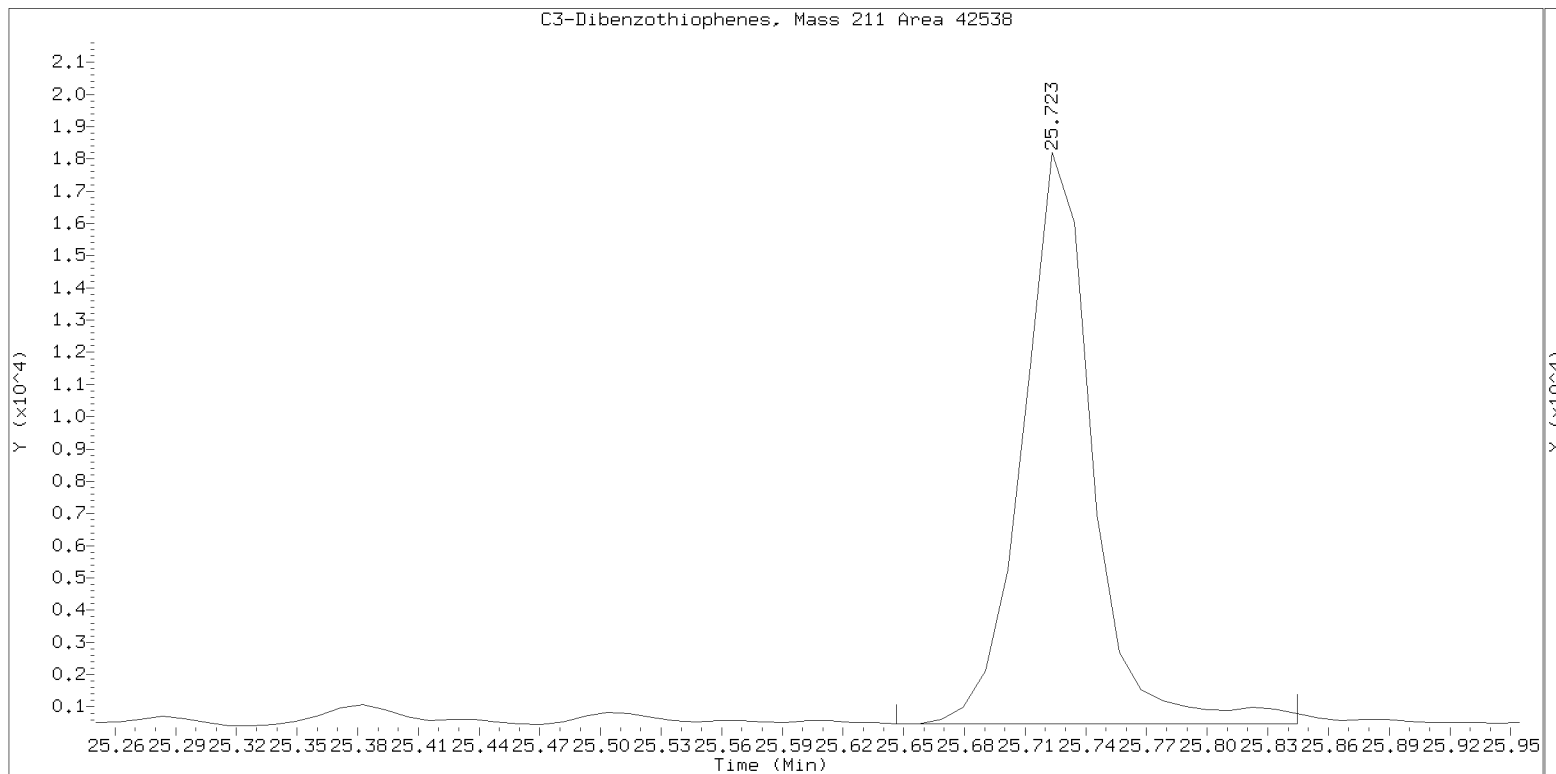
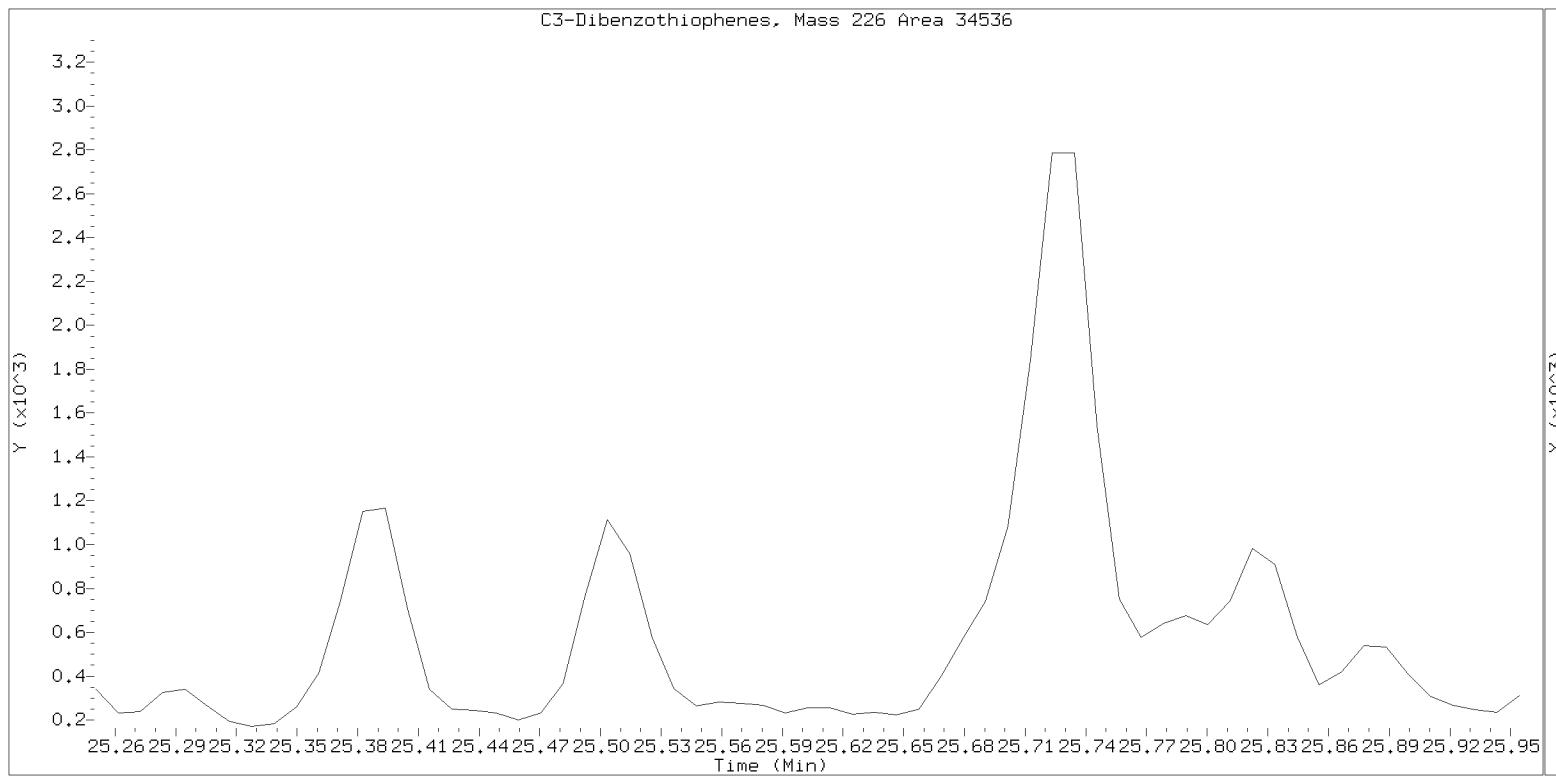
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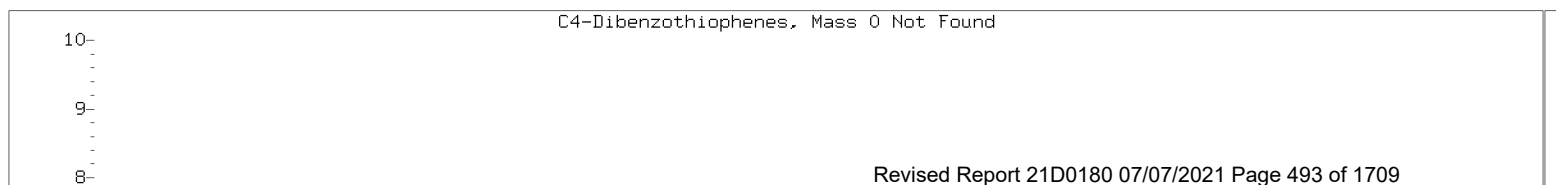
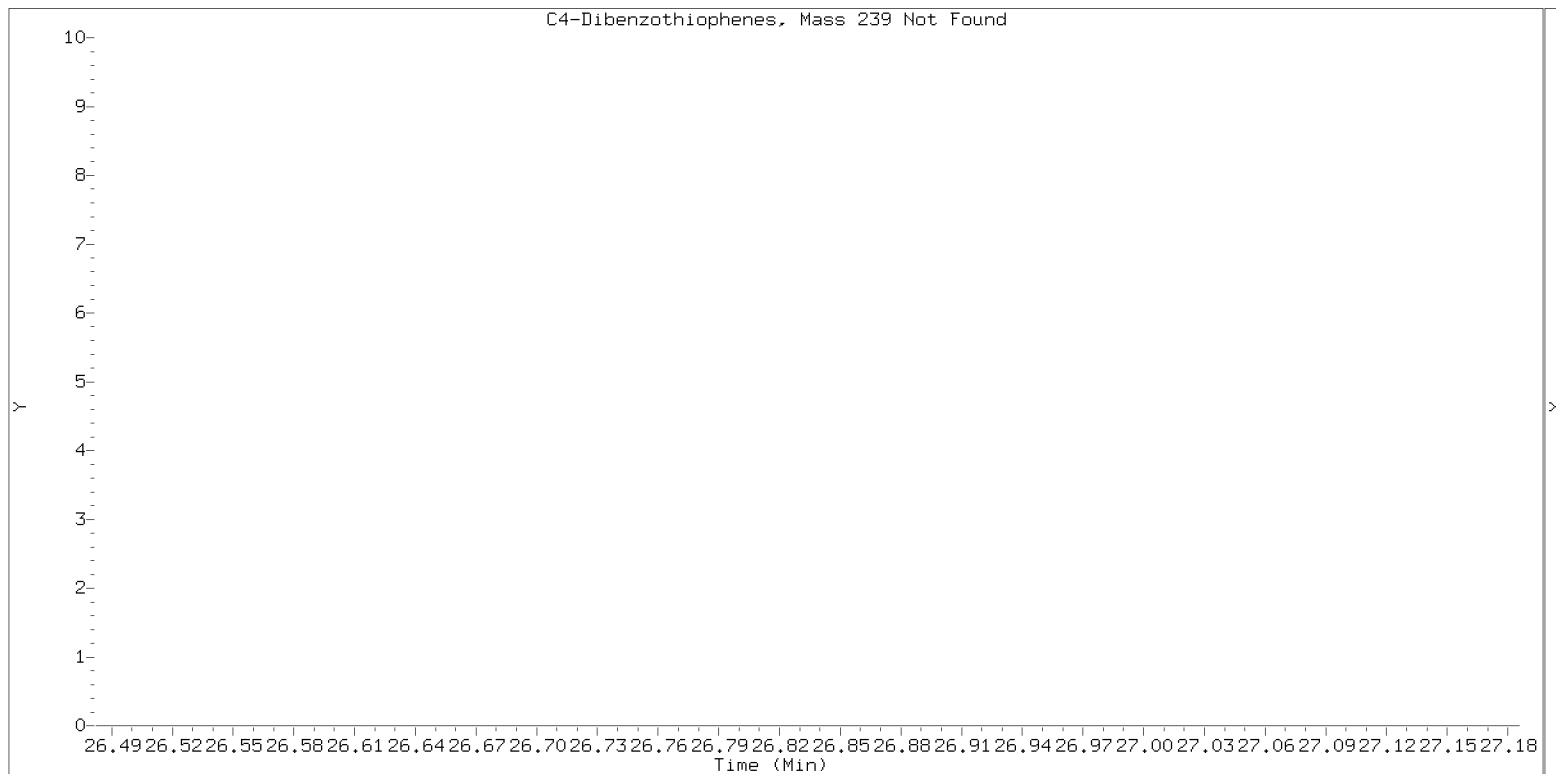
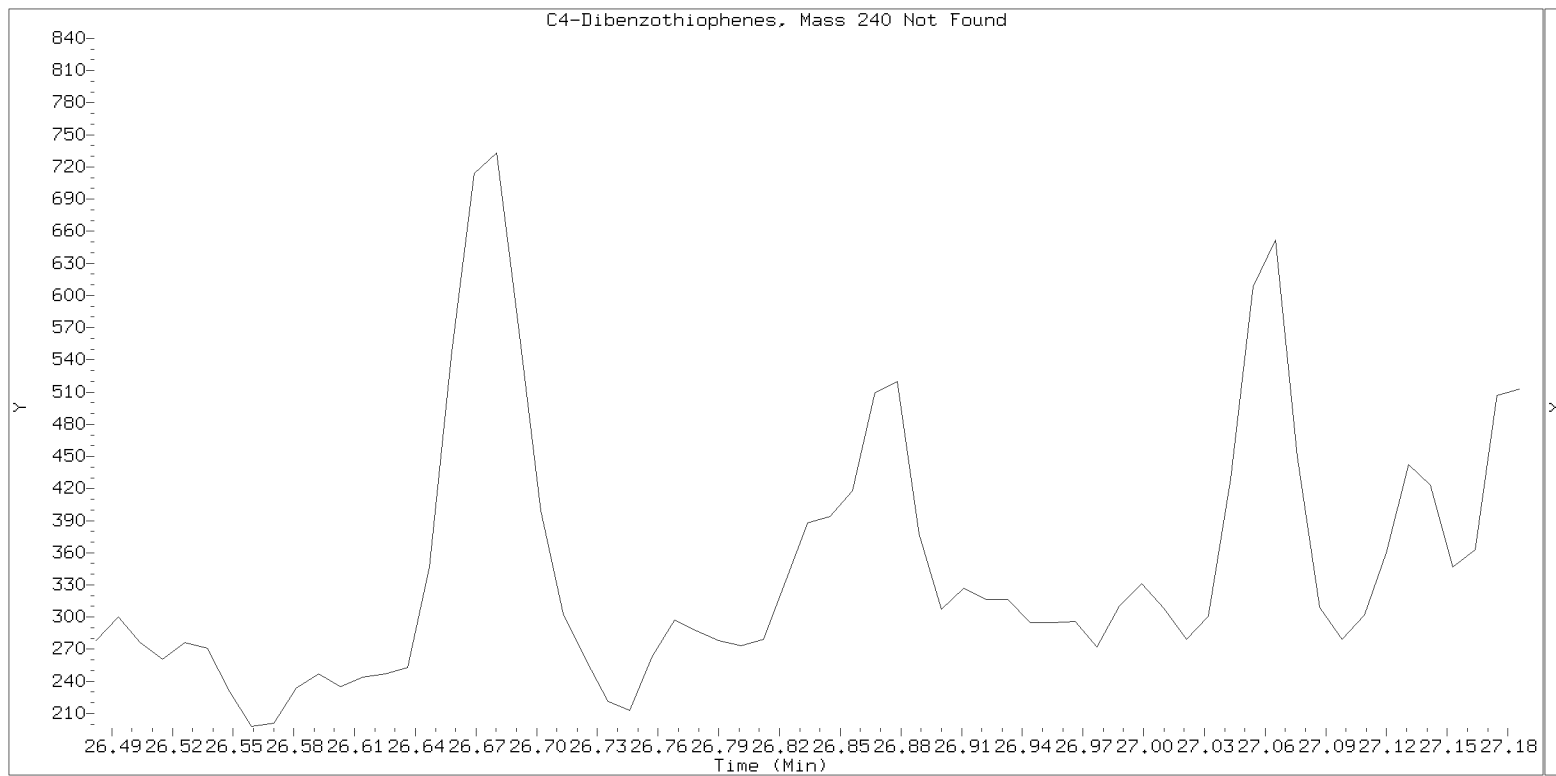
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Lab ID: 21D0180-04

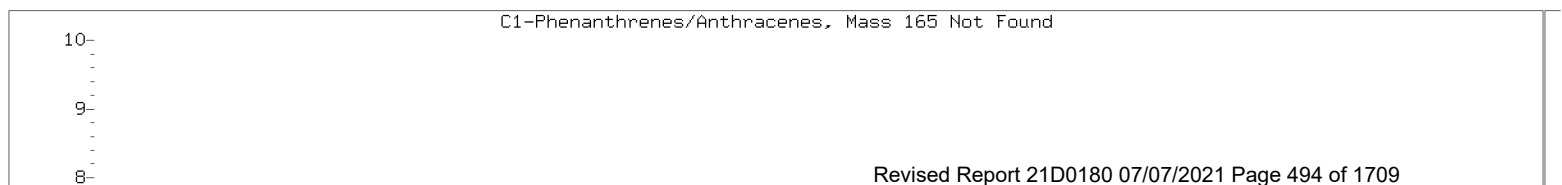
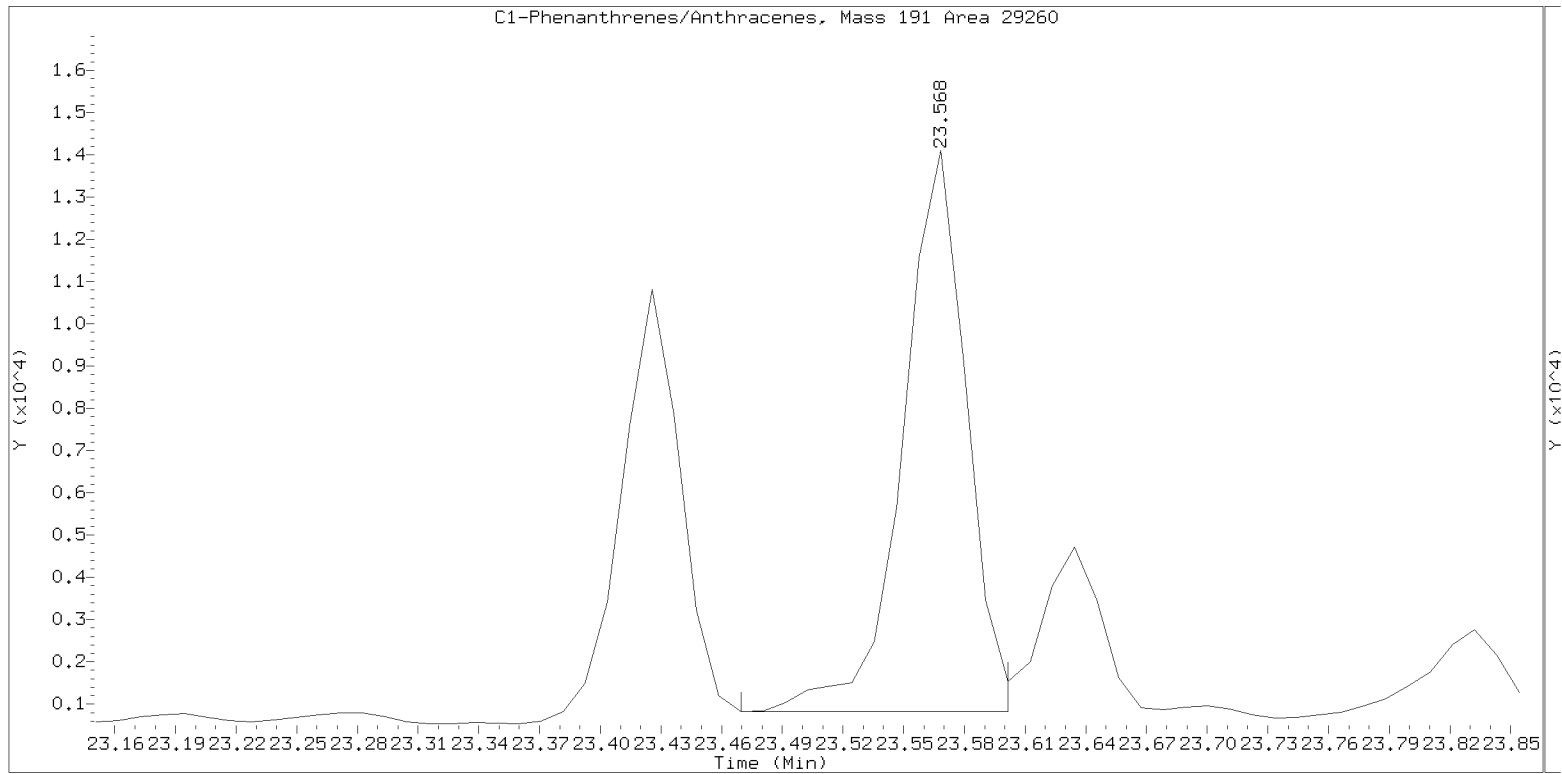
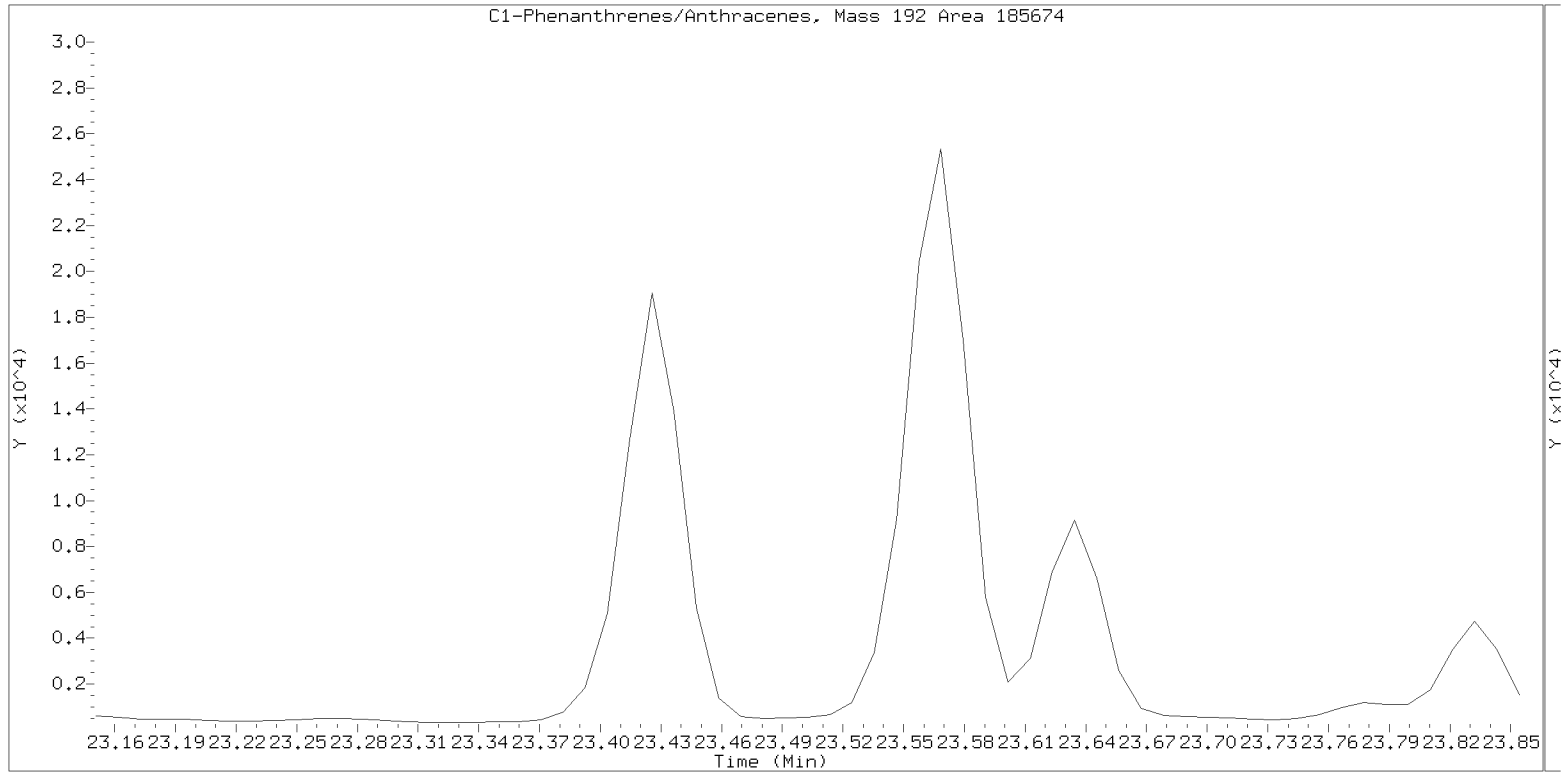
nt14.i, SIM.b\ALKYLRANGES.m, 04-MAY-2021 15:19



SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

Lab ID: 21D0180-04

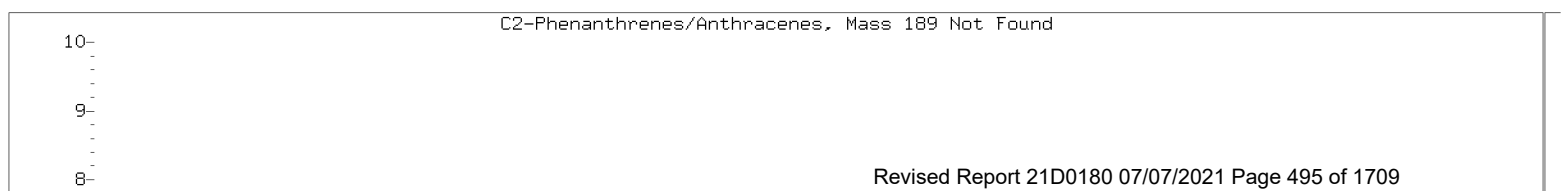
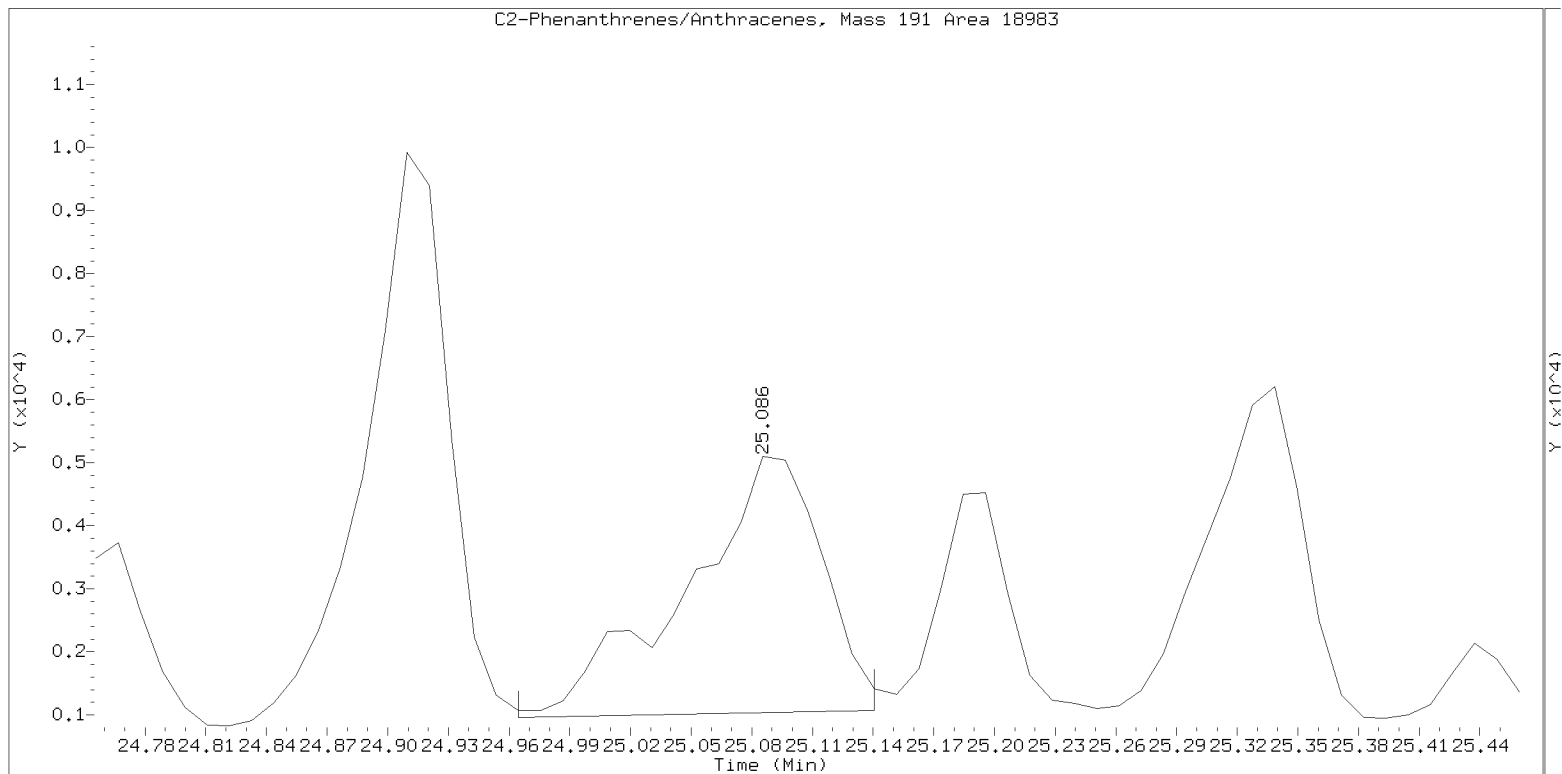
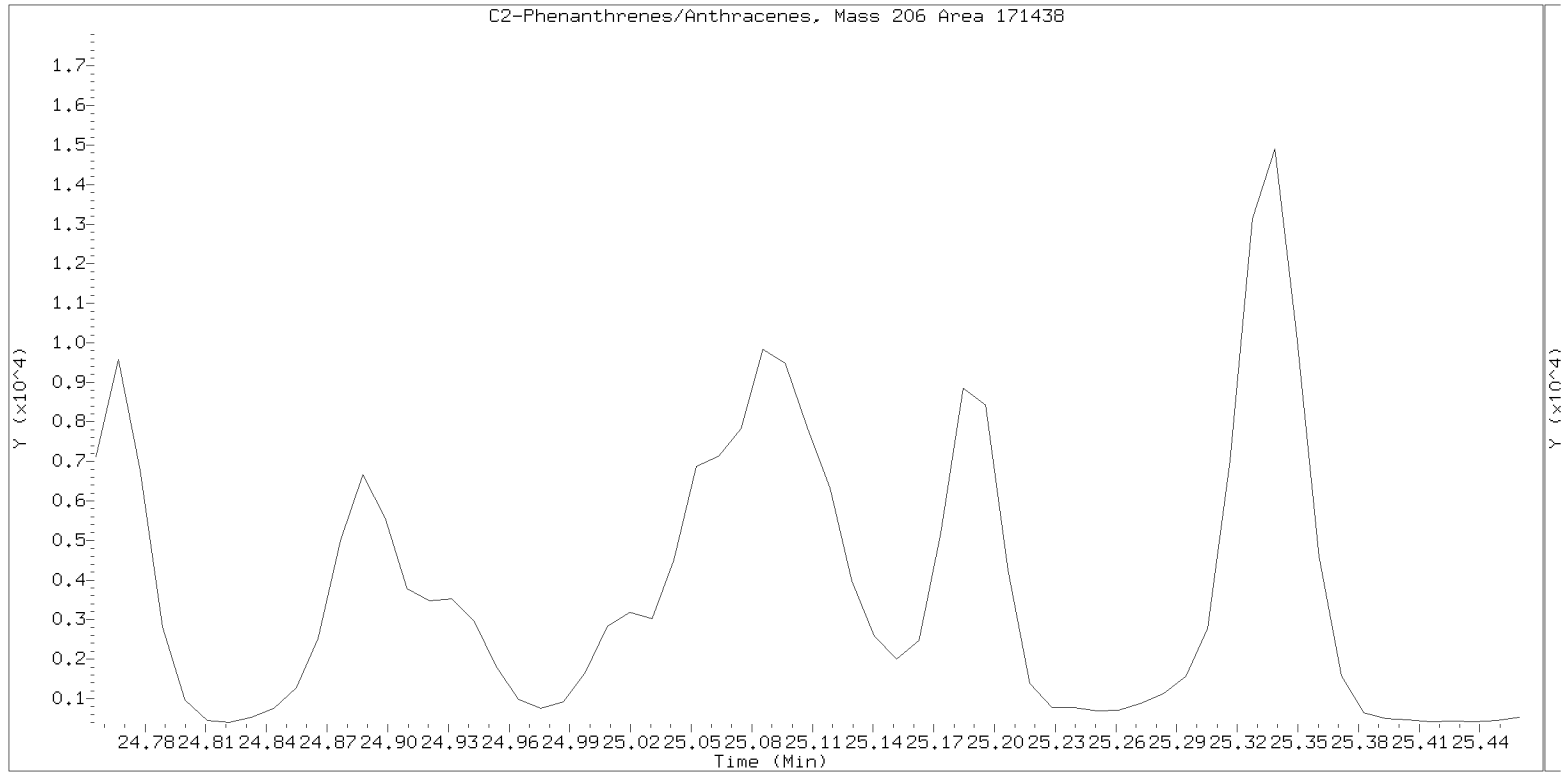
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

Lab ID: 21D0180-04

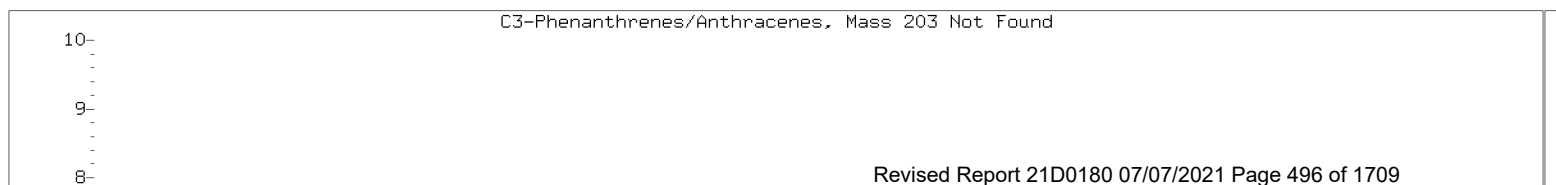
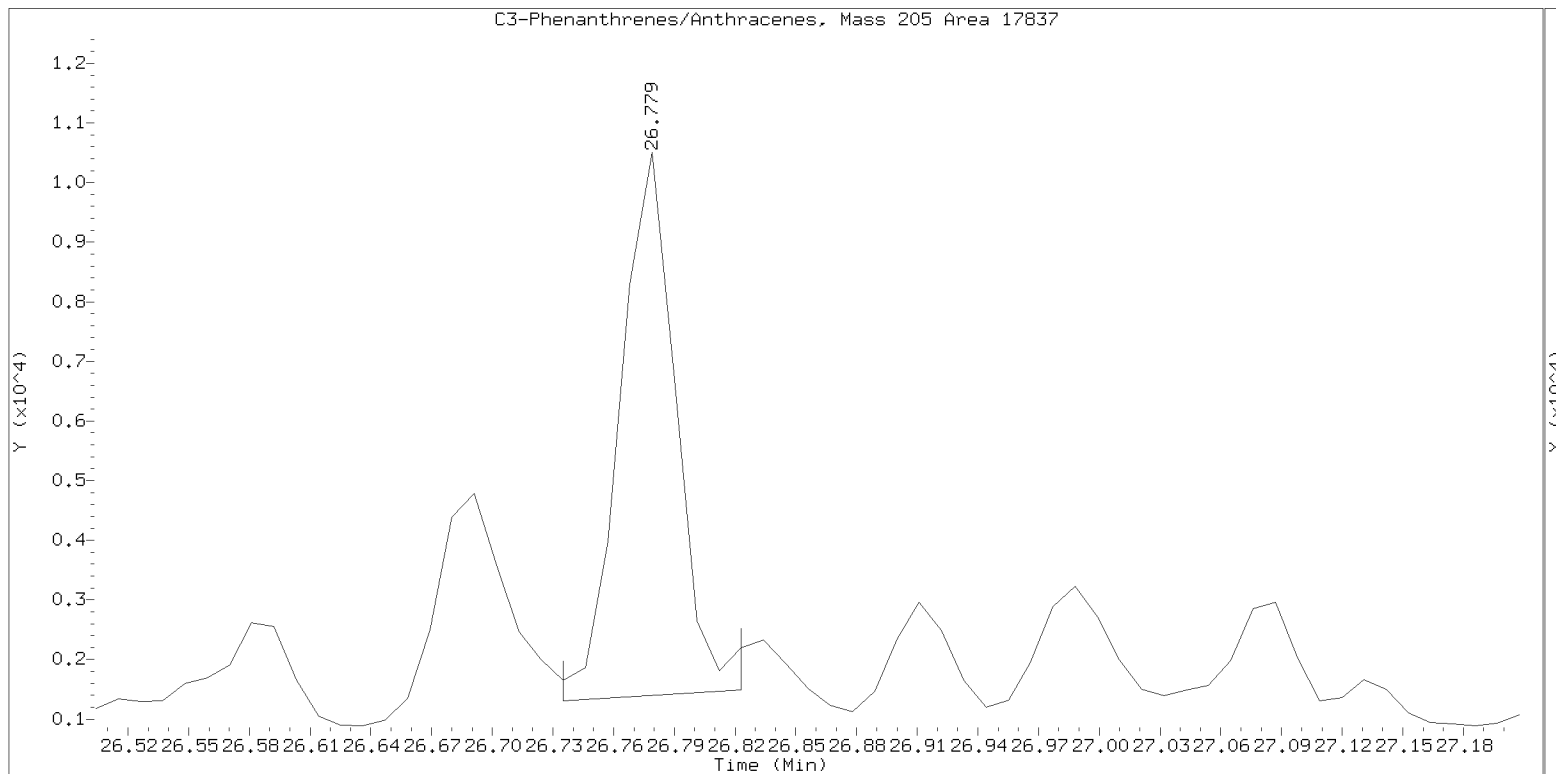
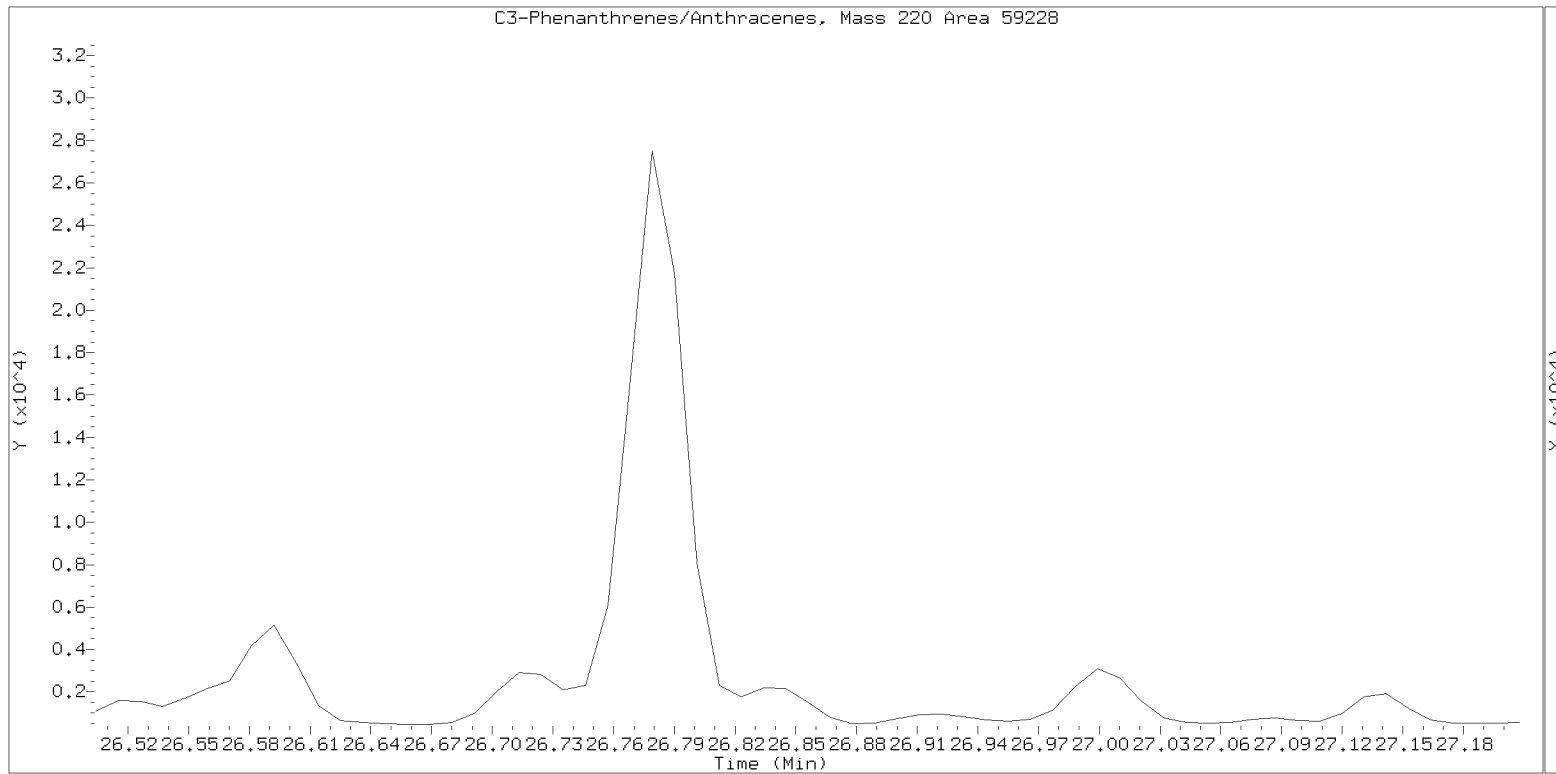
nt14.i, SIM.b\ALKYLRANGES.m, 04-MAY-2021 15:19



SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

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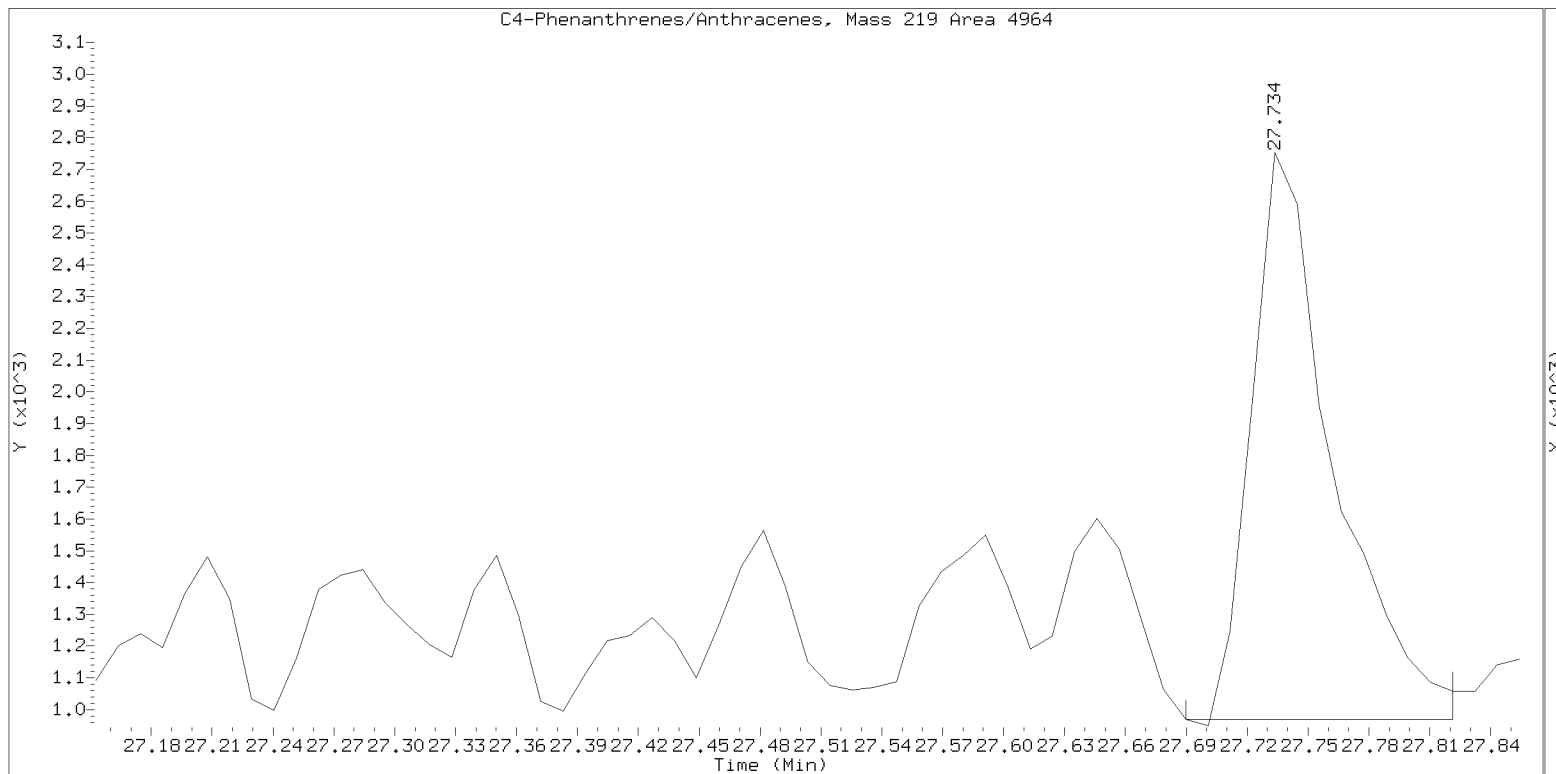
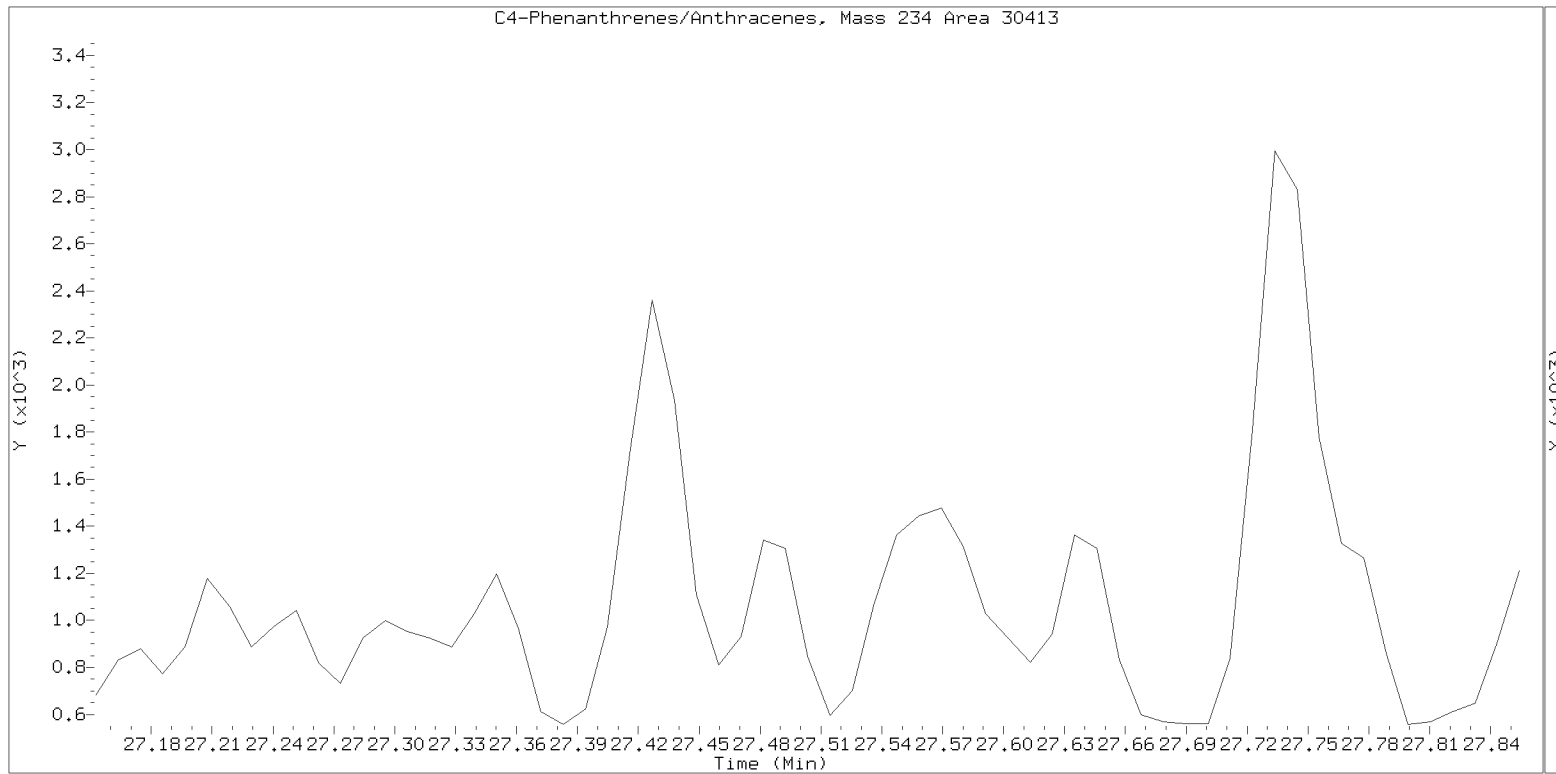
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

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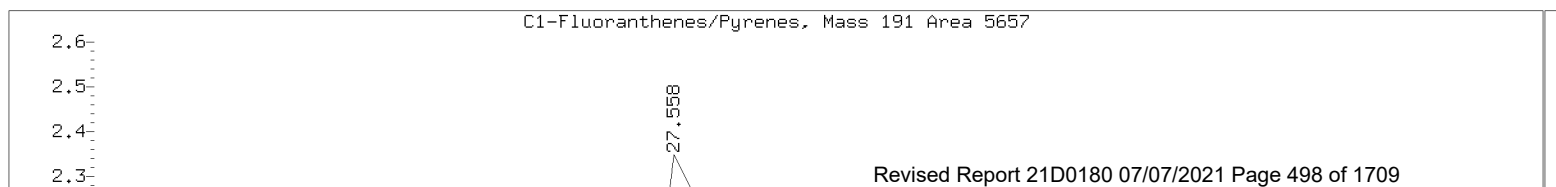
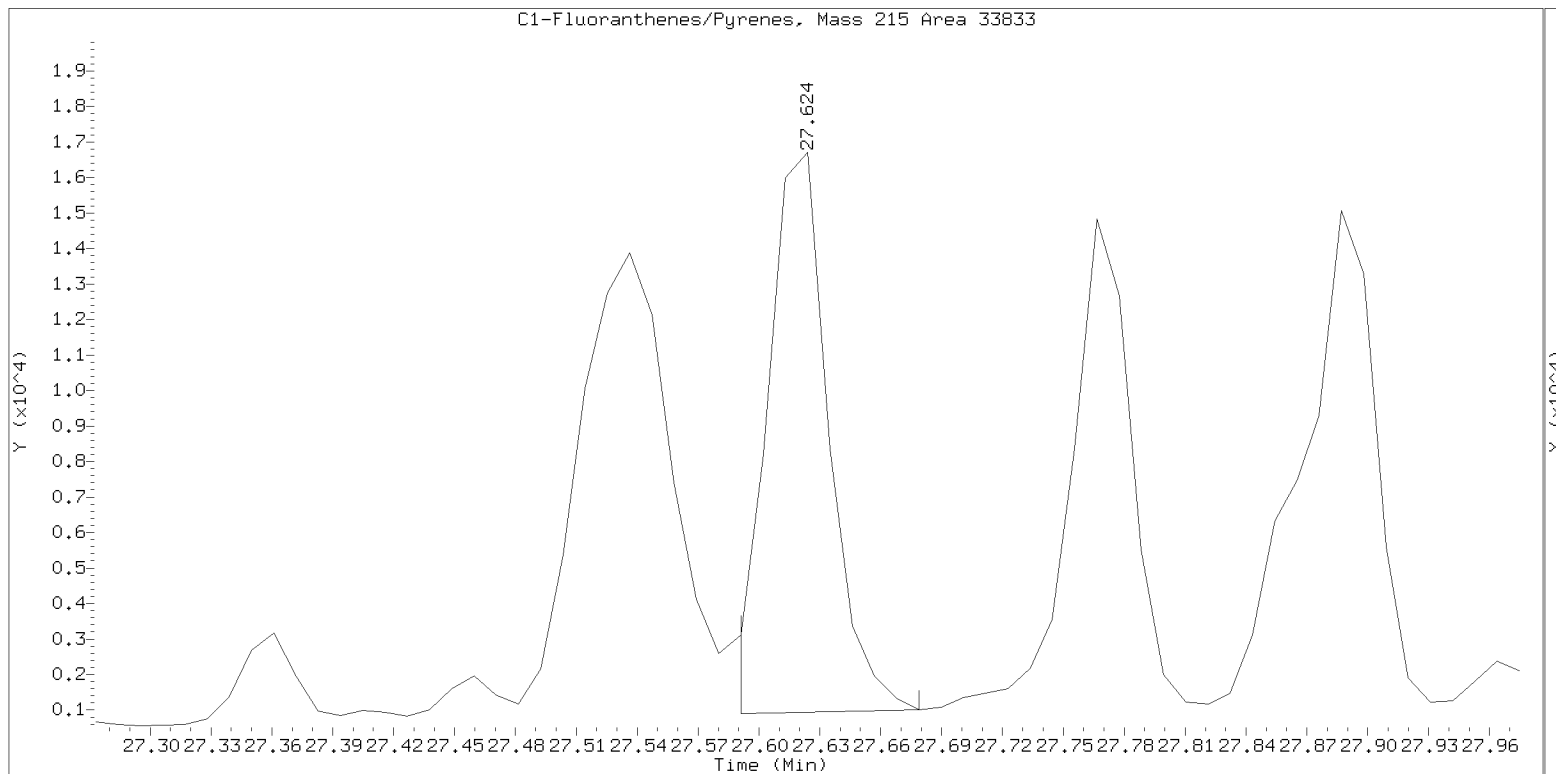
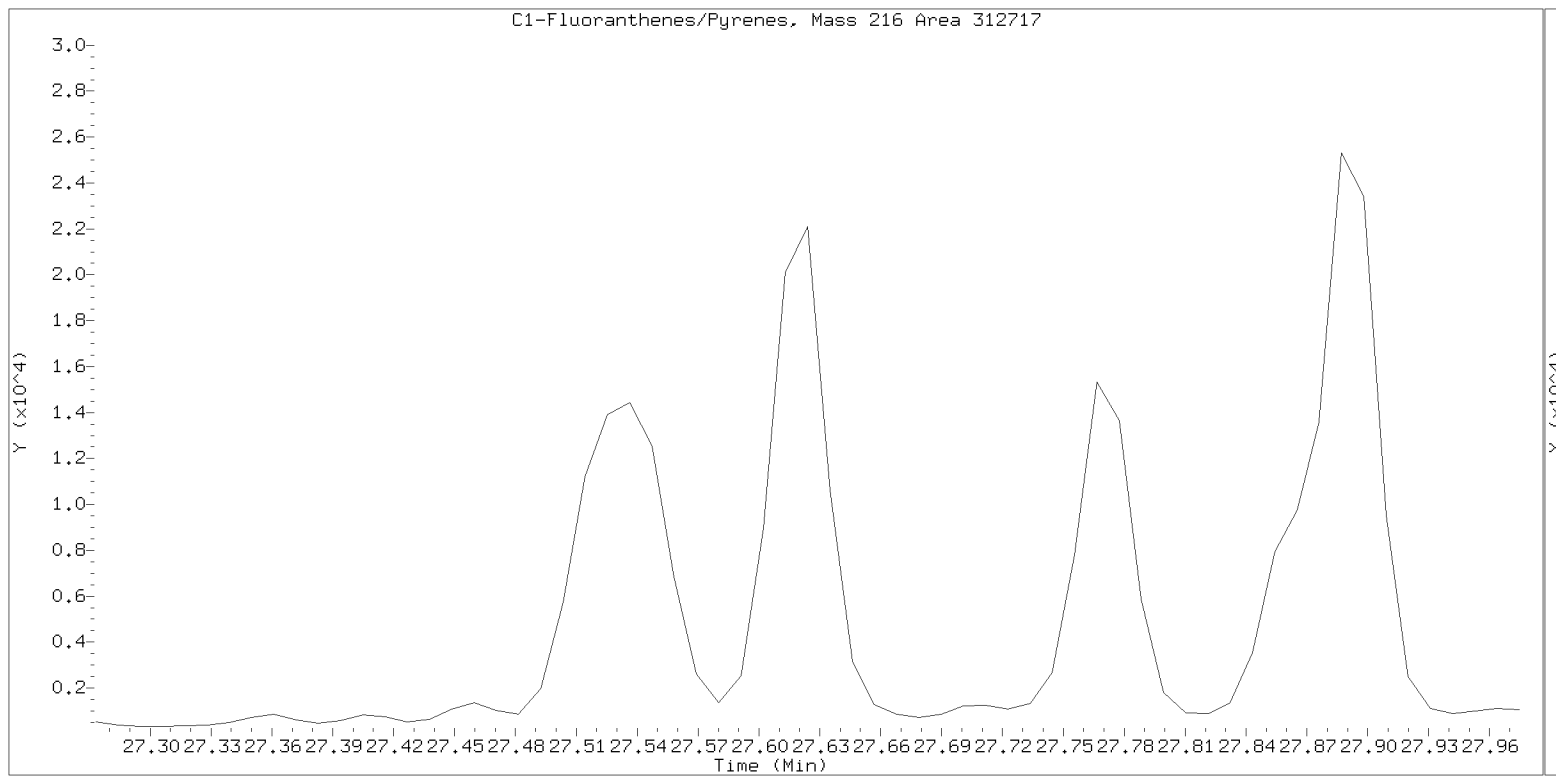
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

Lab ID: 21D0180-04

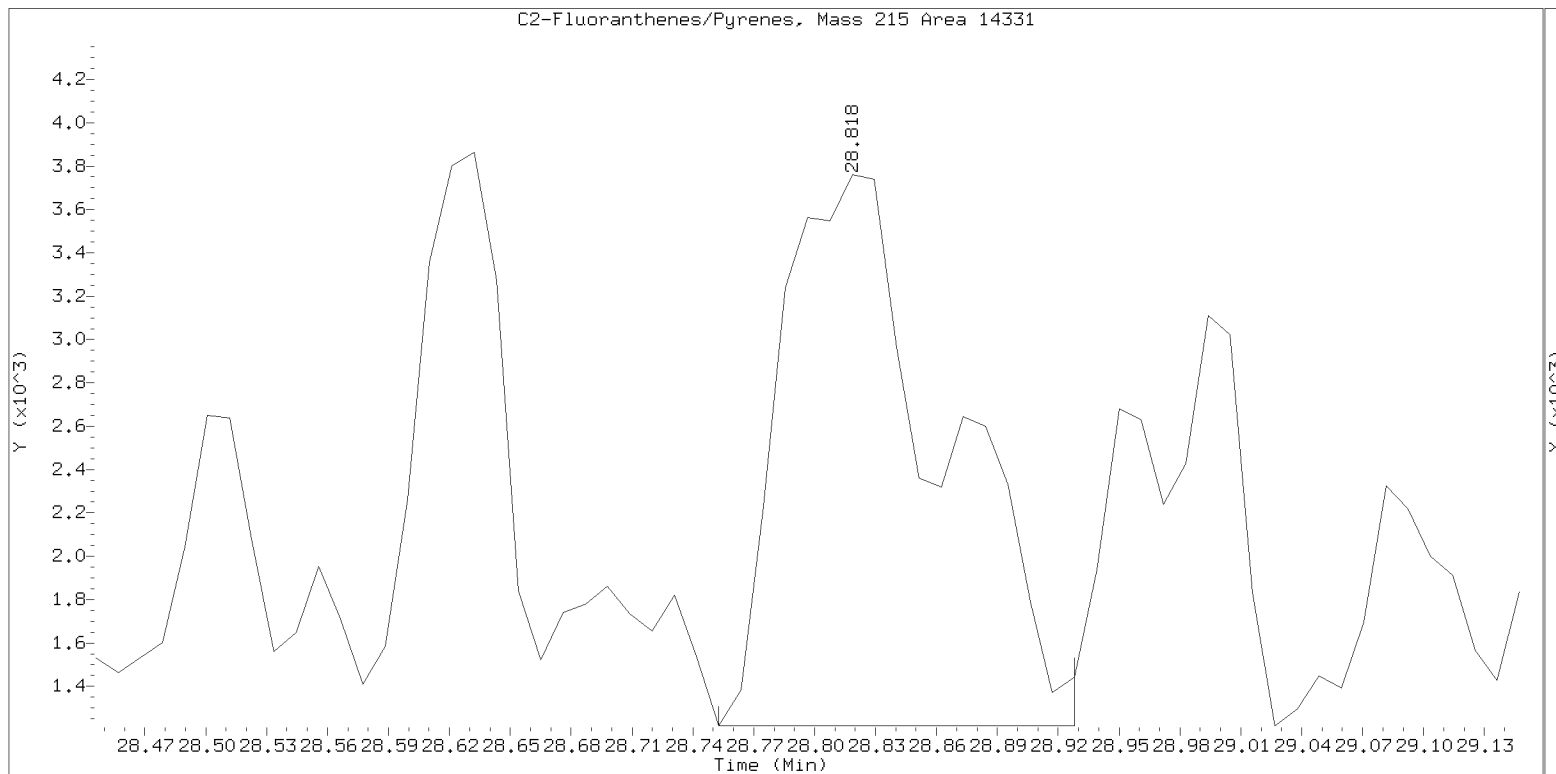
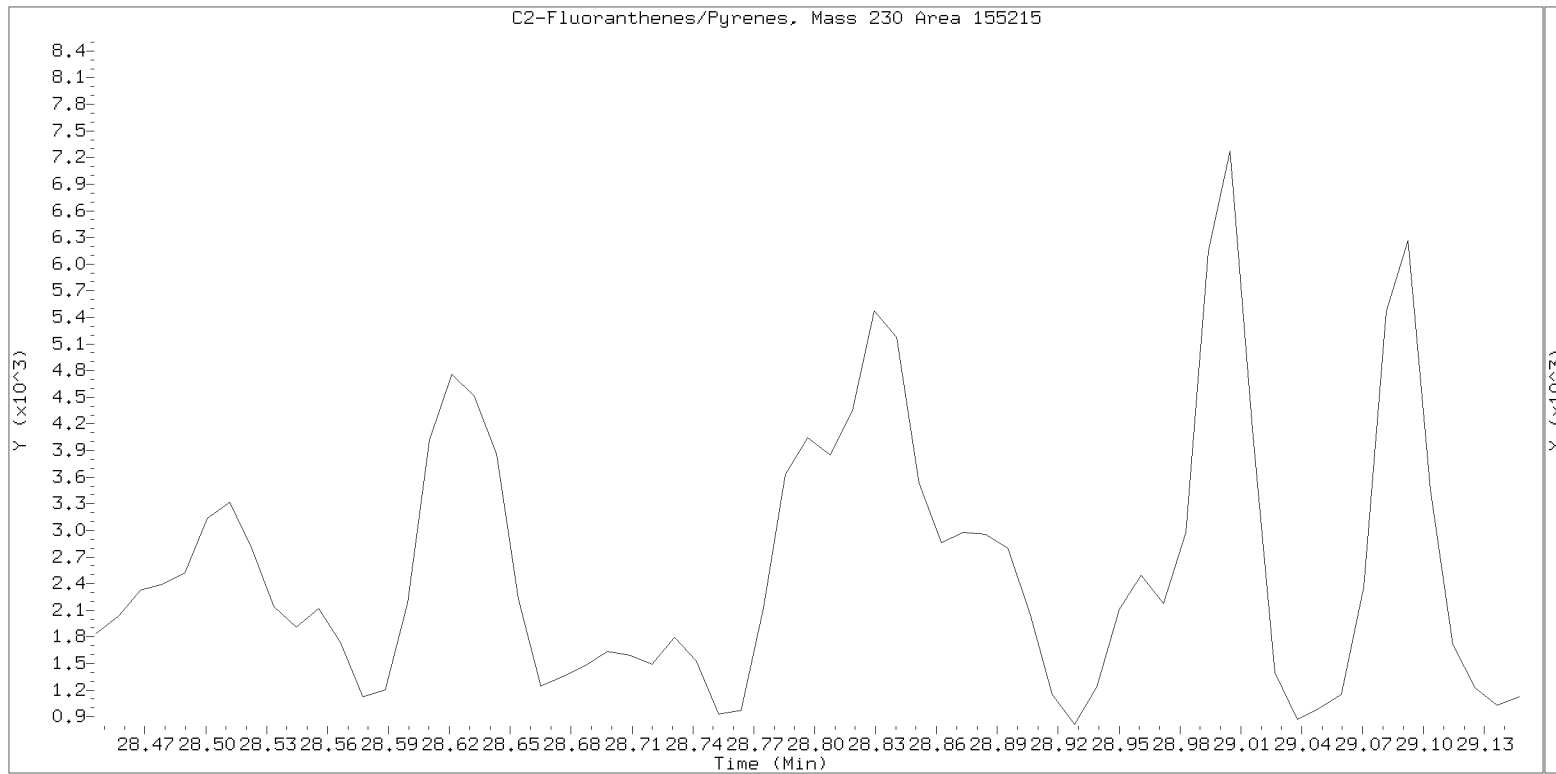
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

Lab ID: 21D0180-04

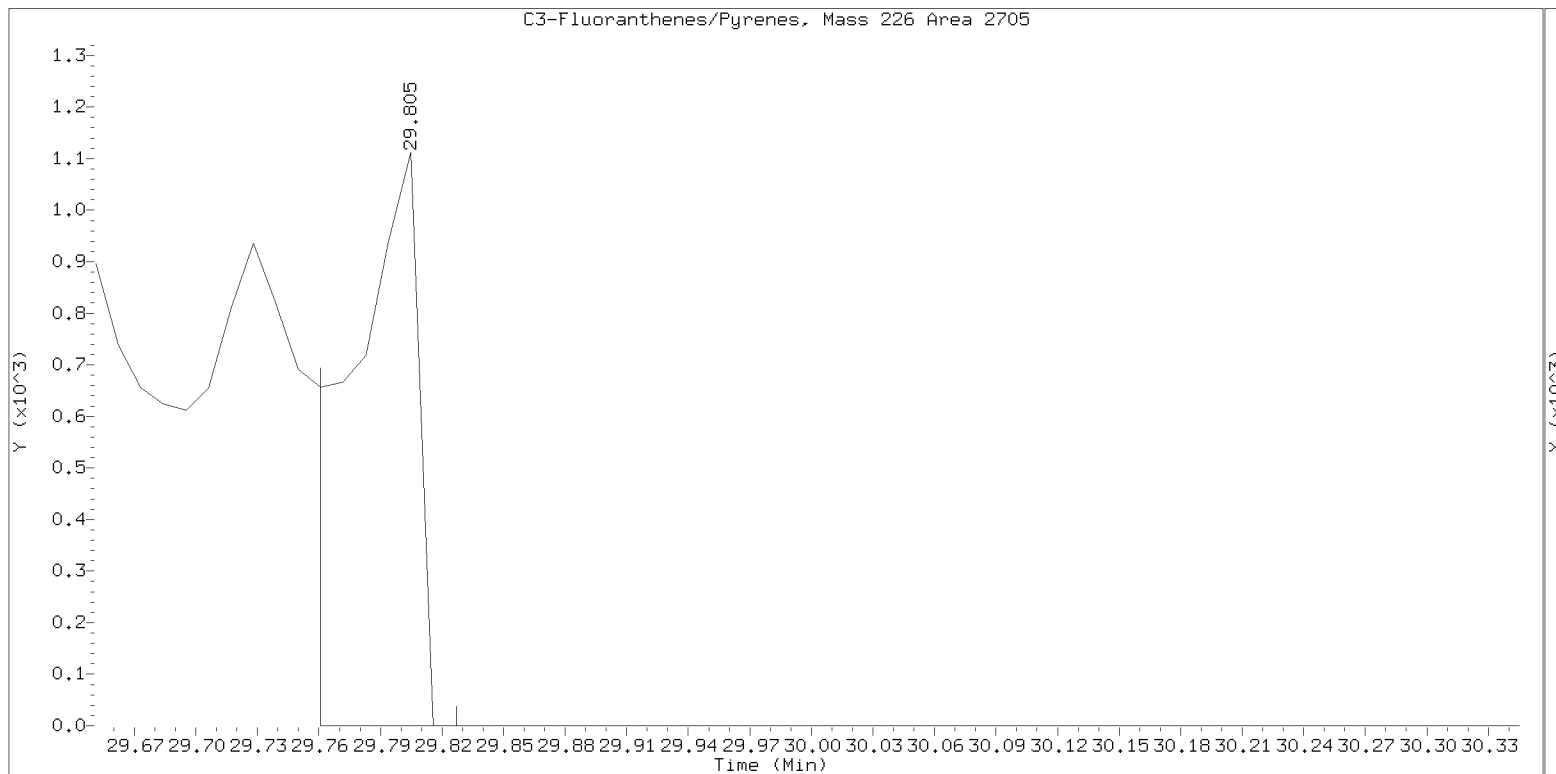
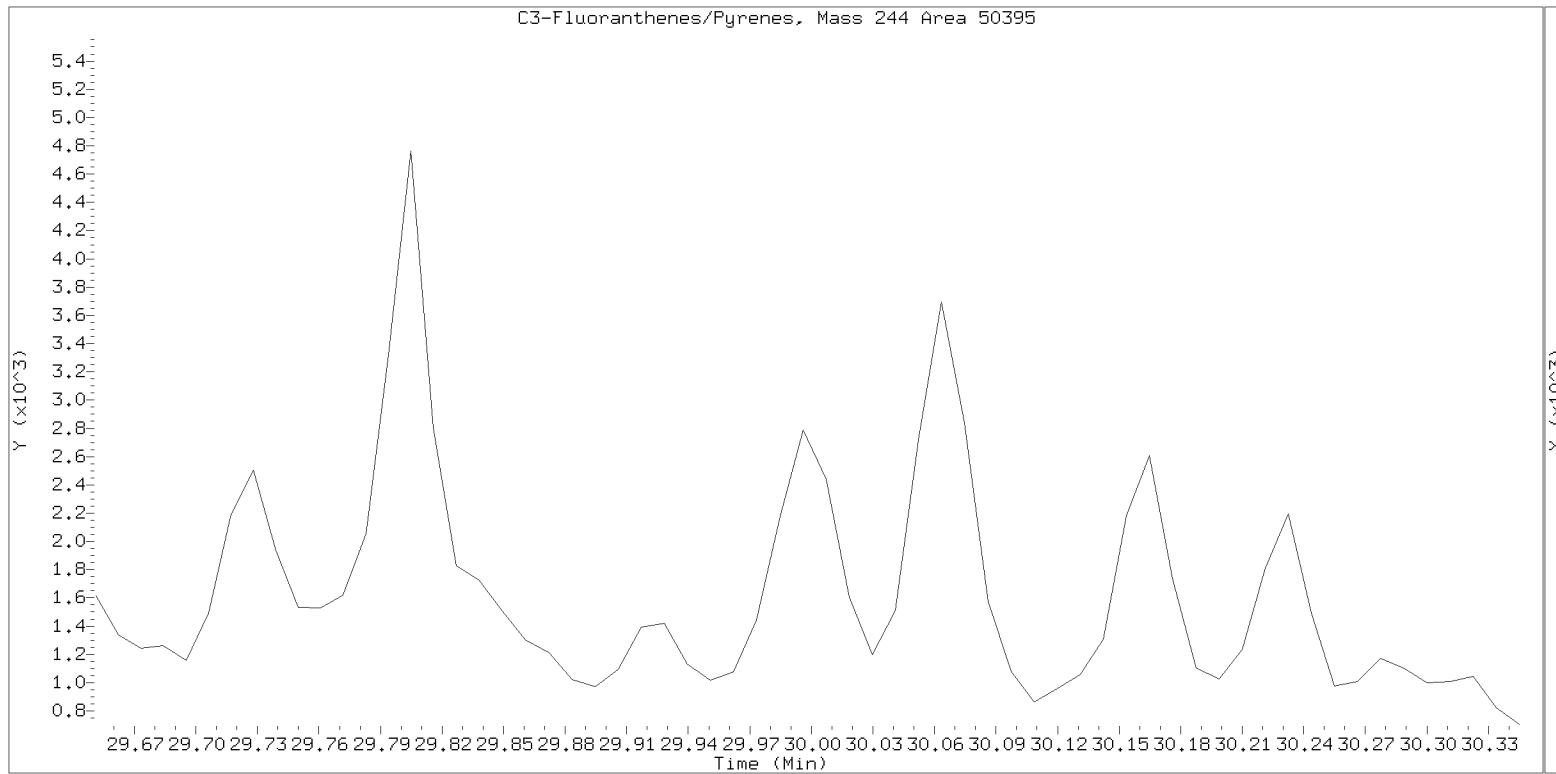
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

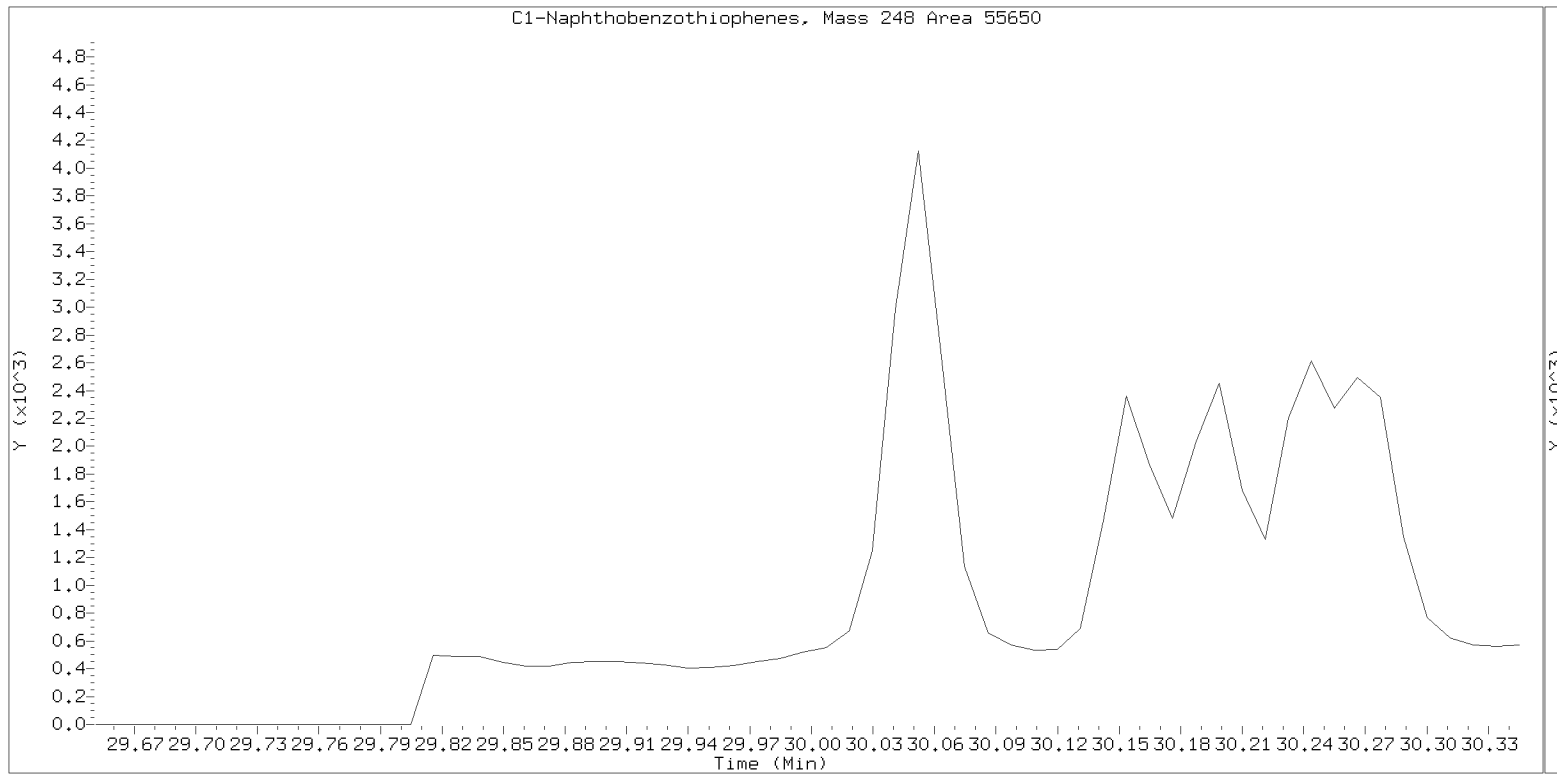
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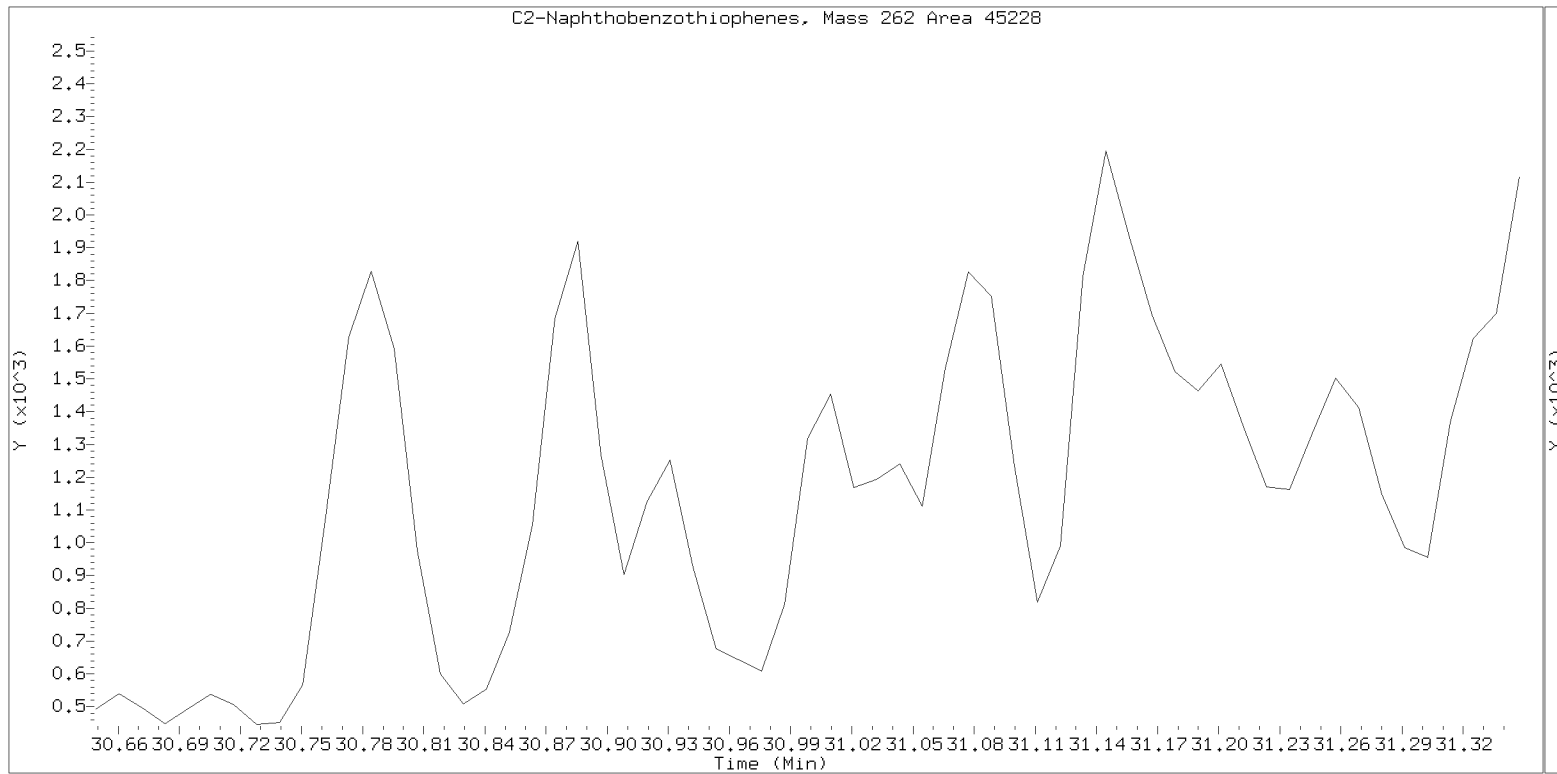
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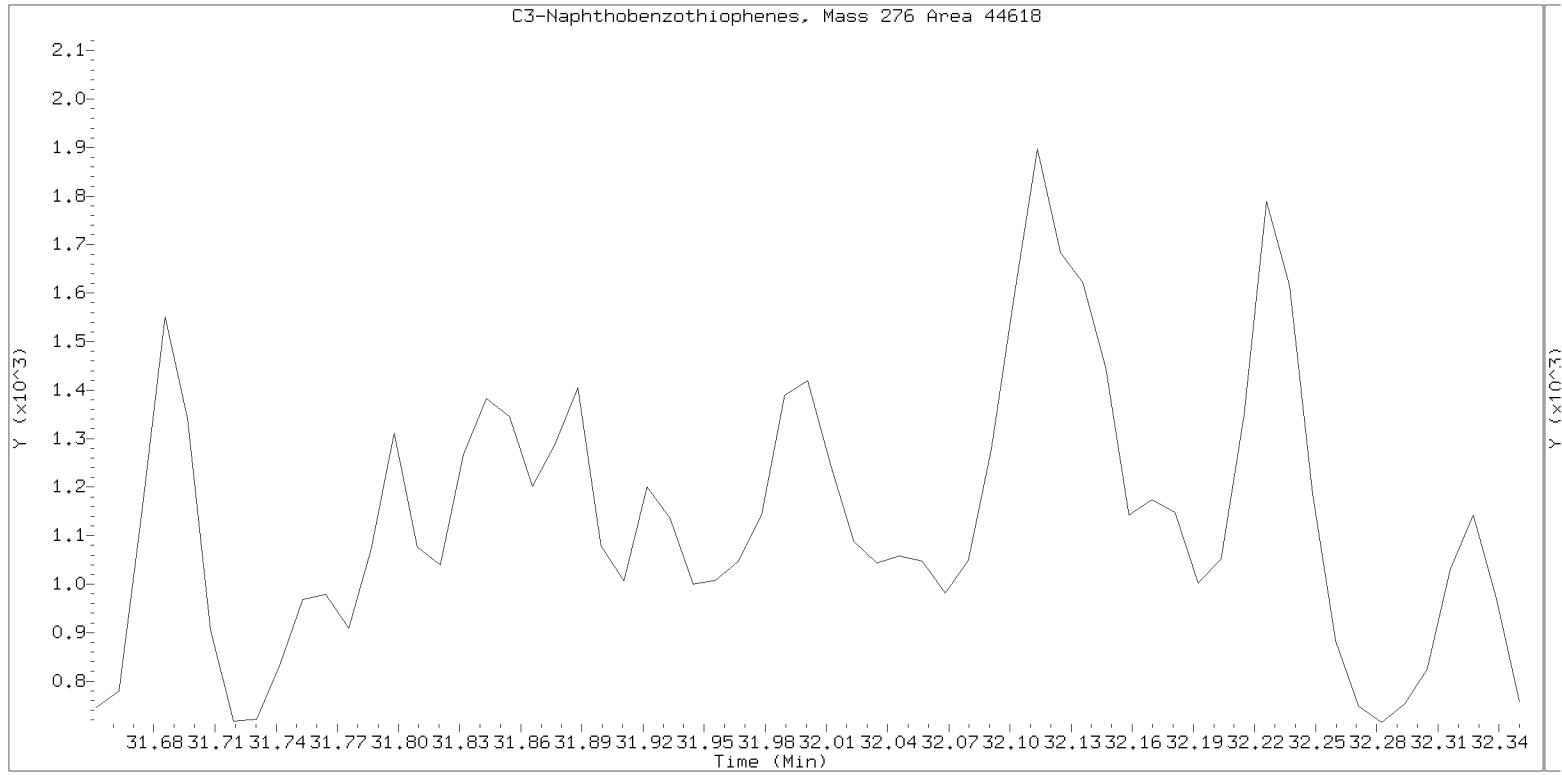
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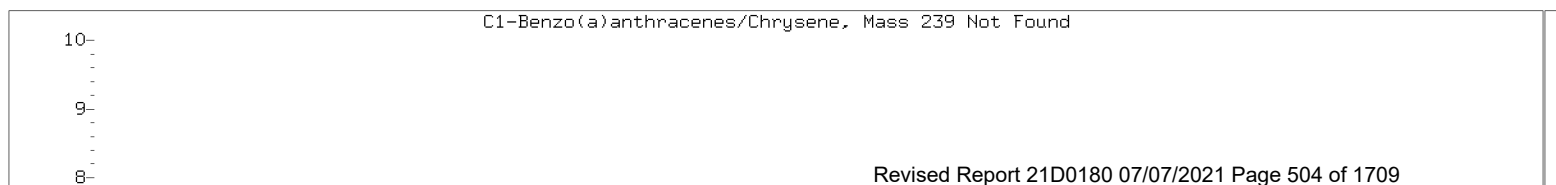
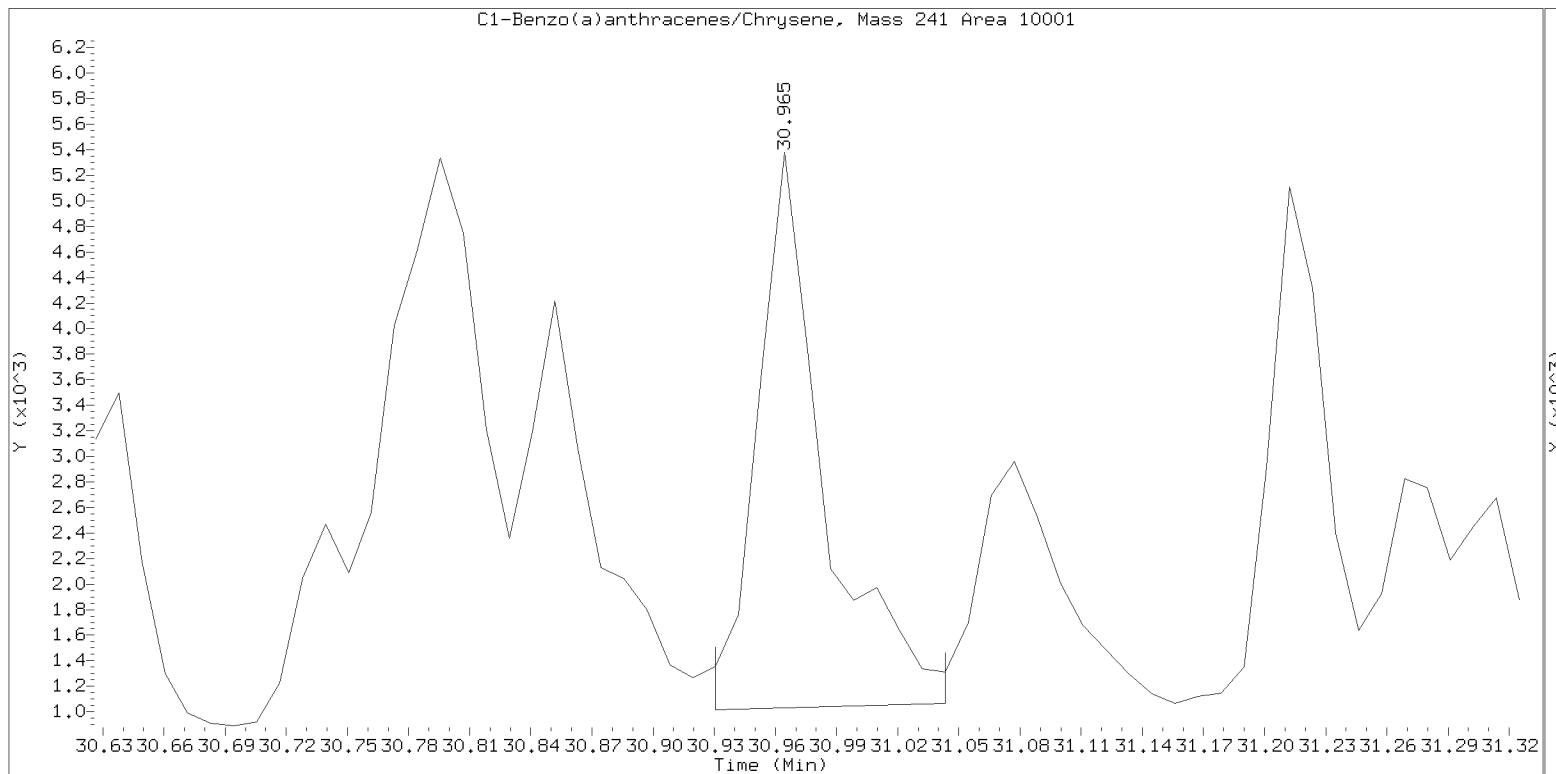
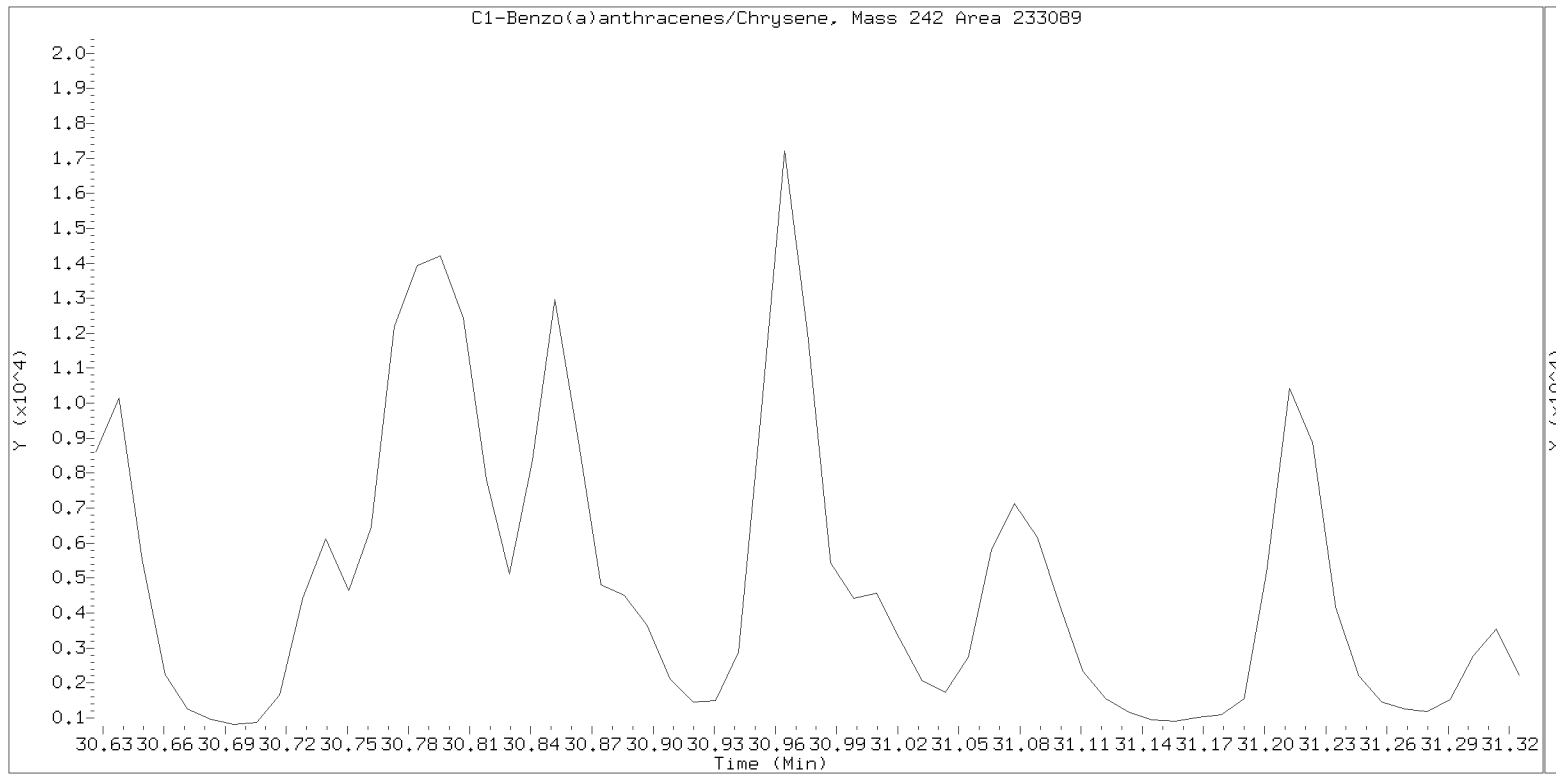
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

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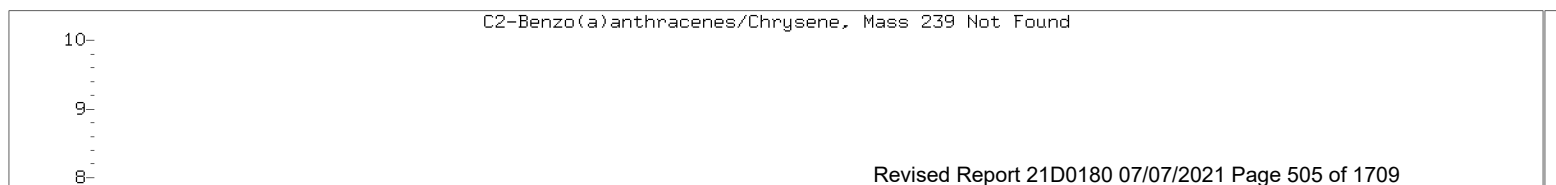
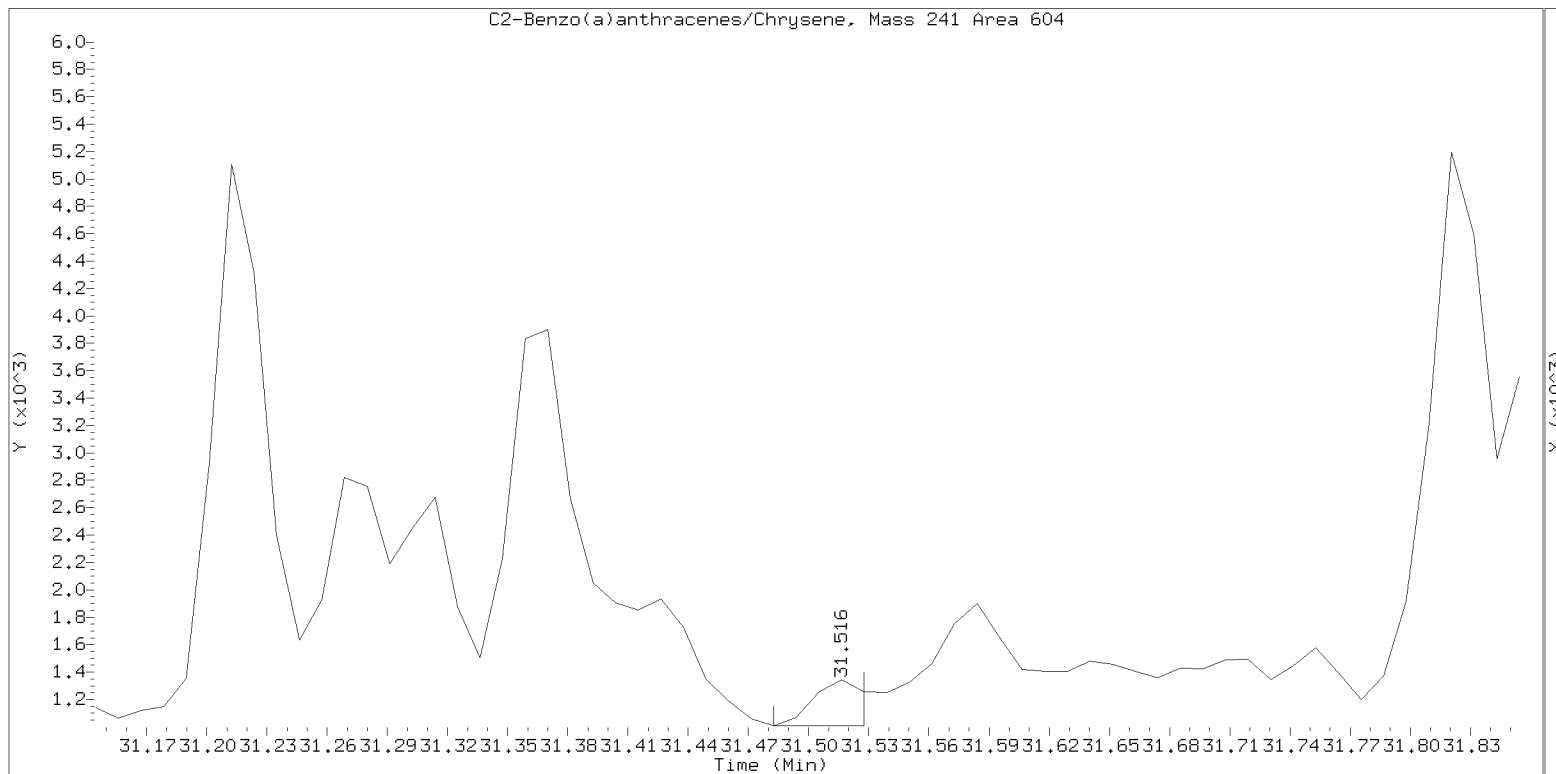
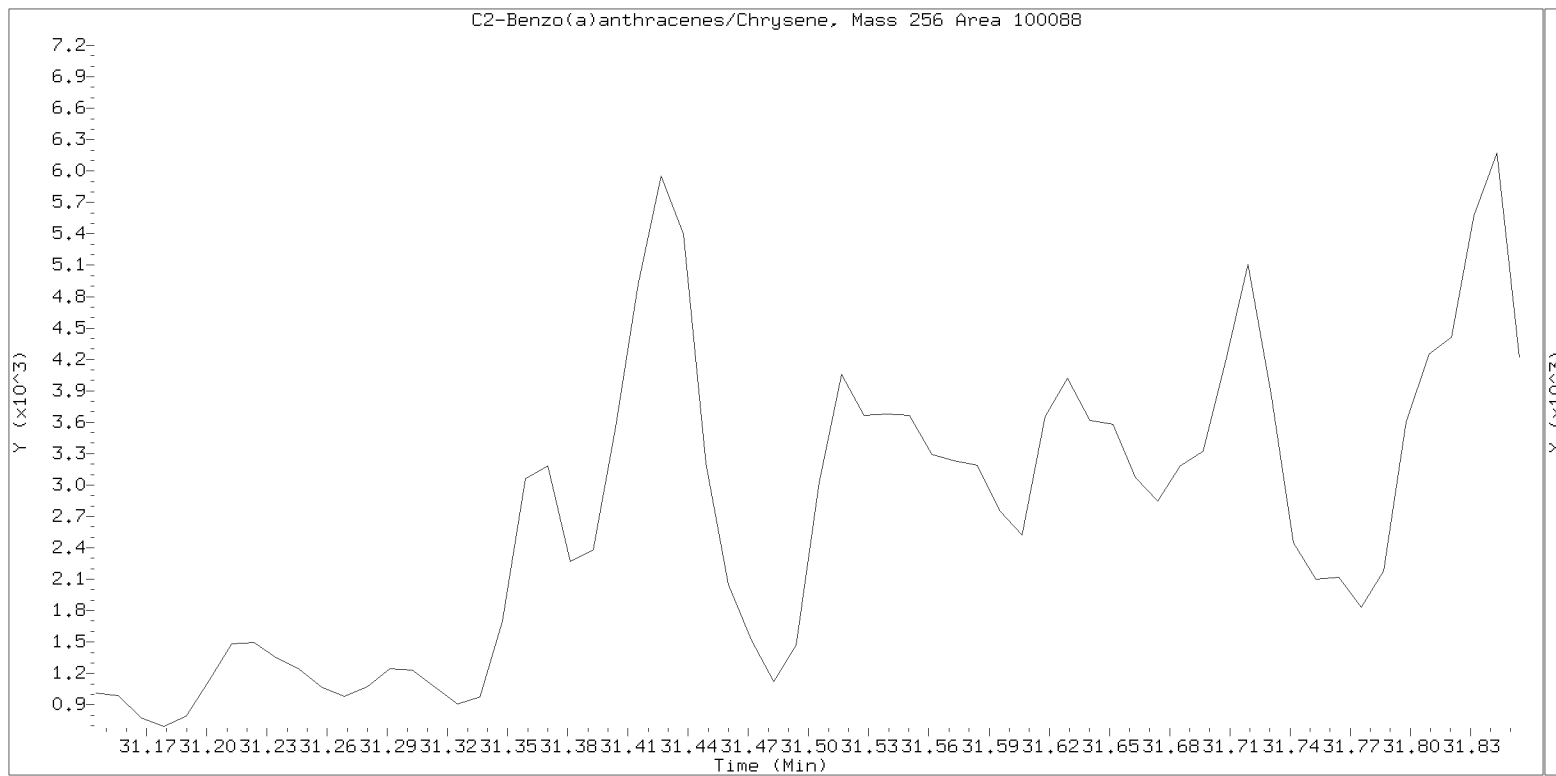
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

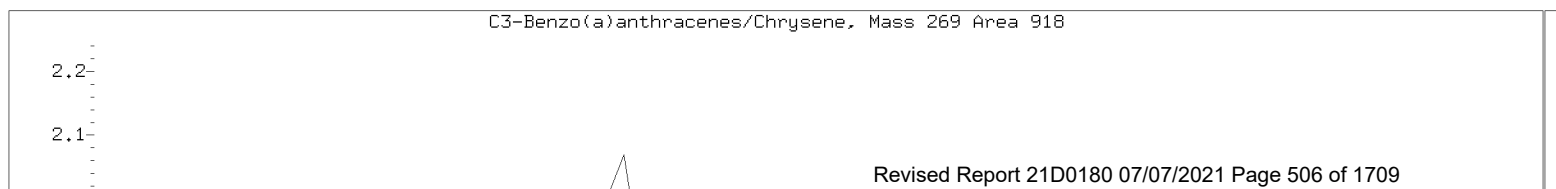
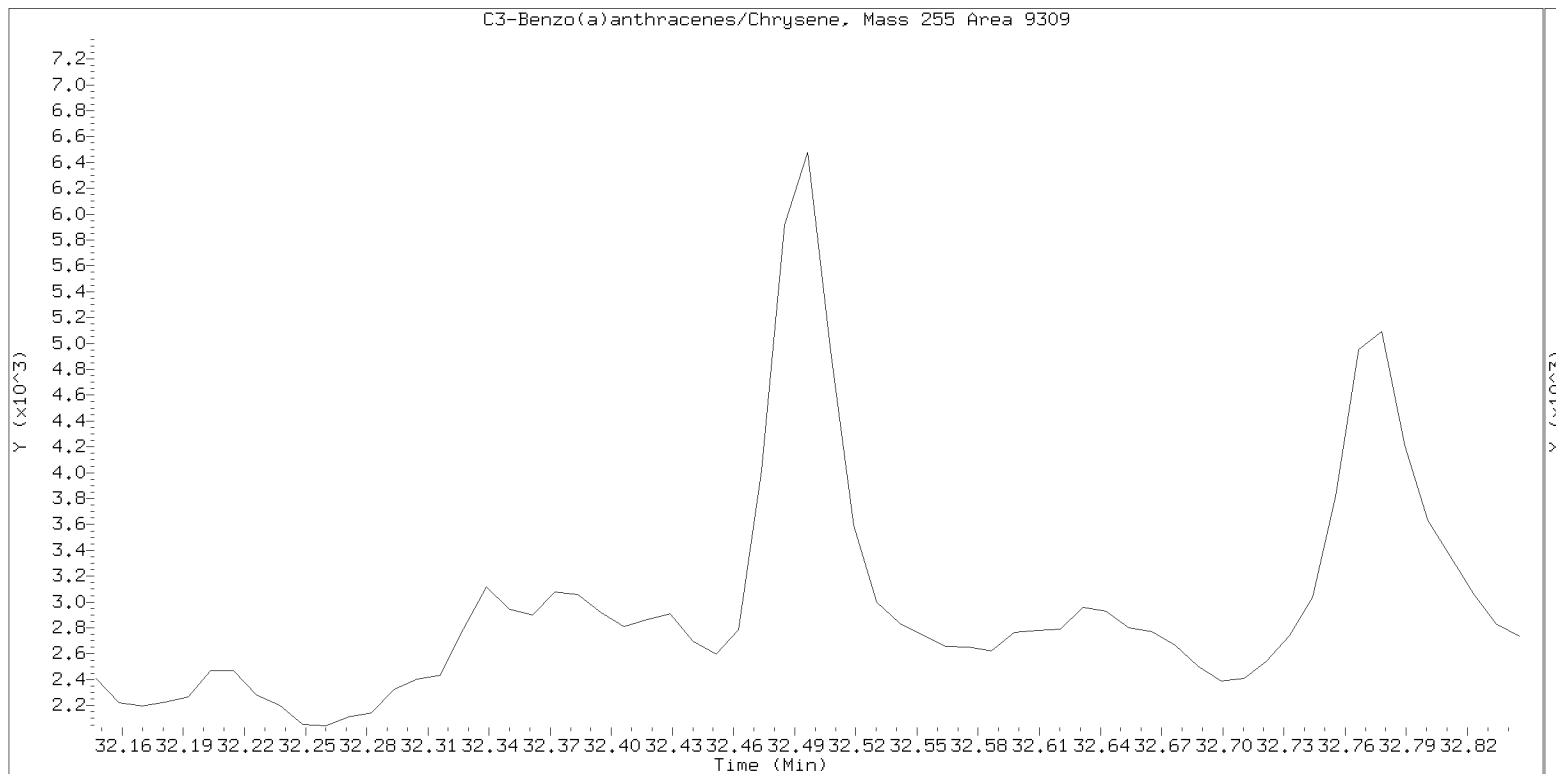
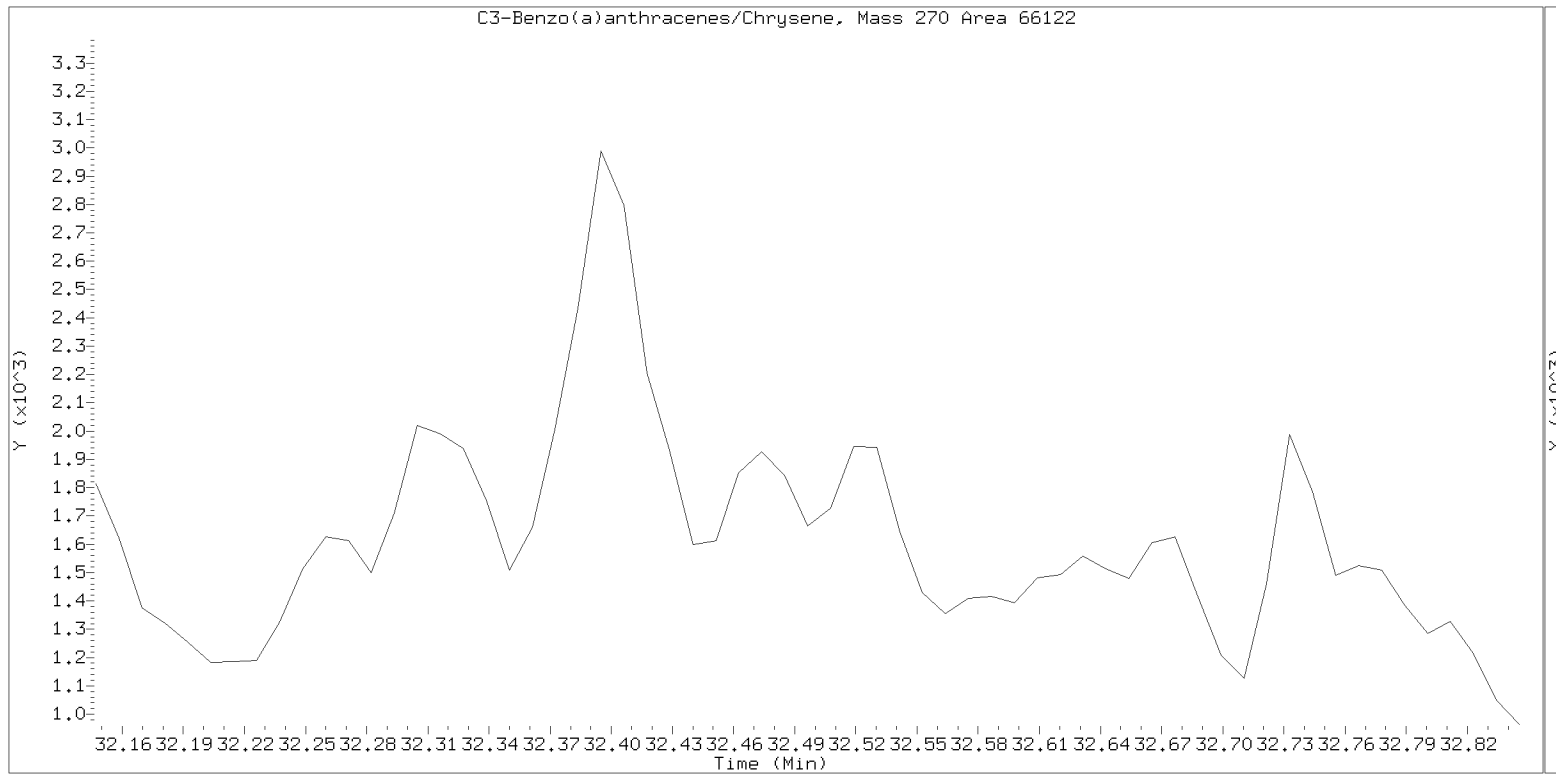
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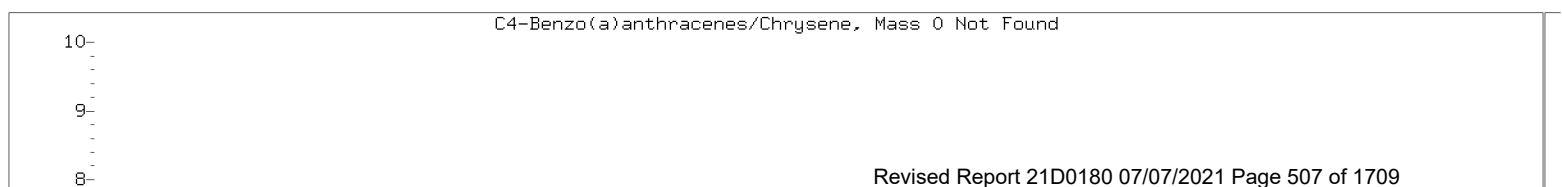
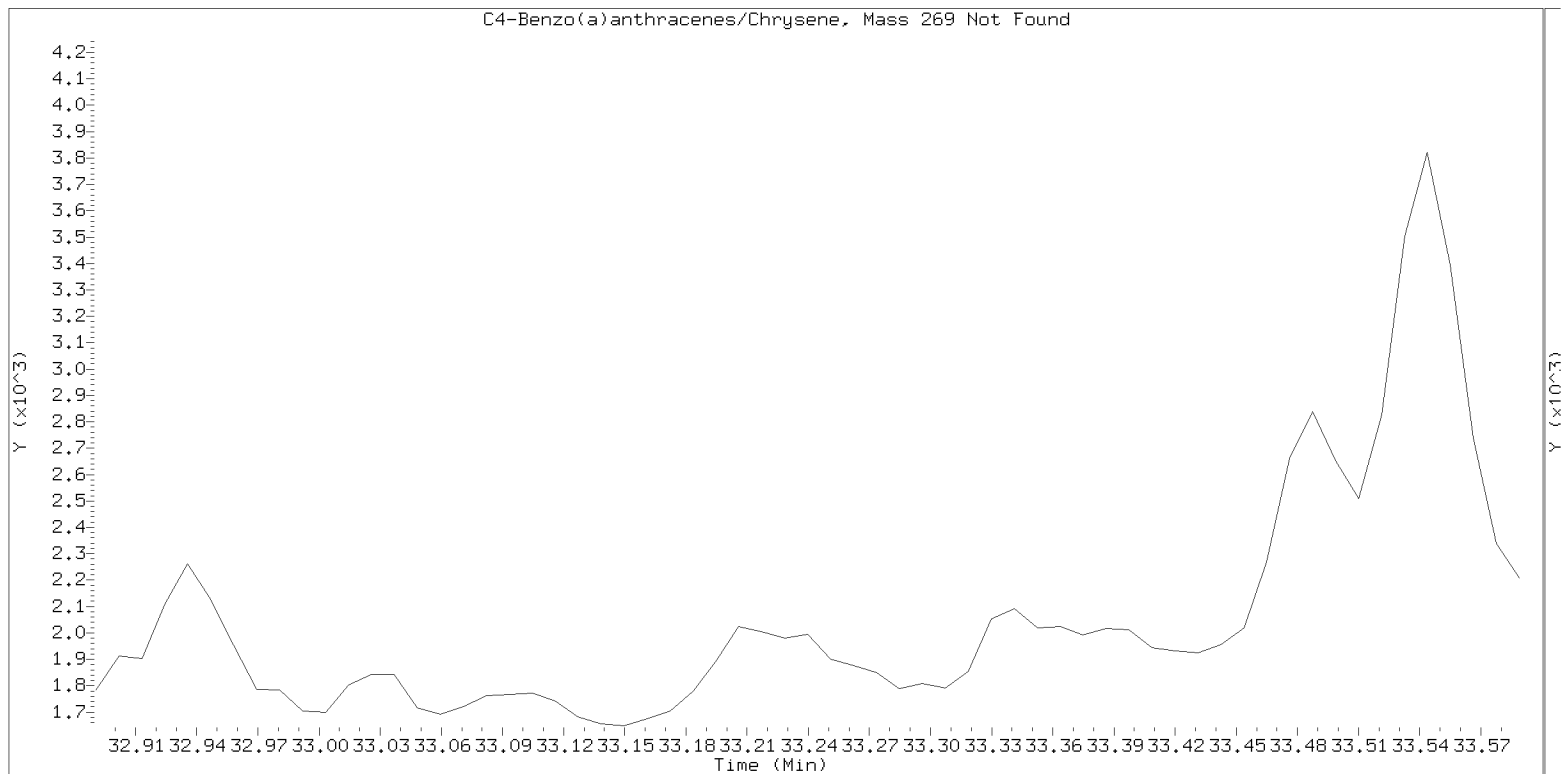
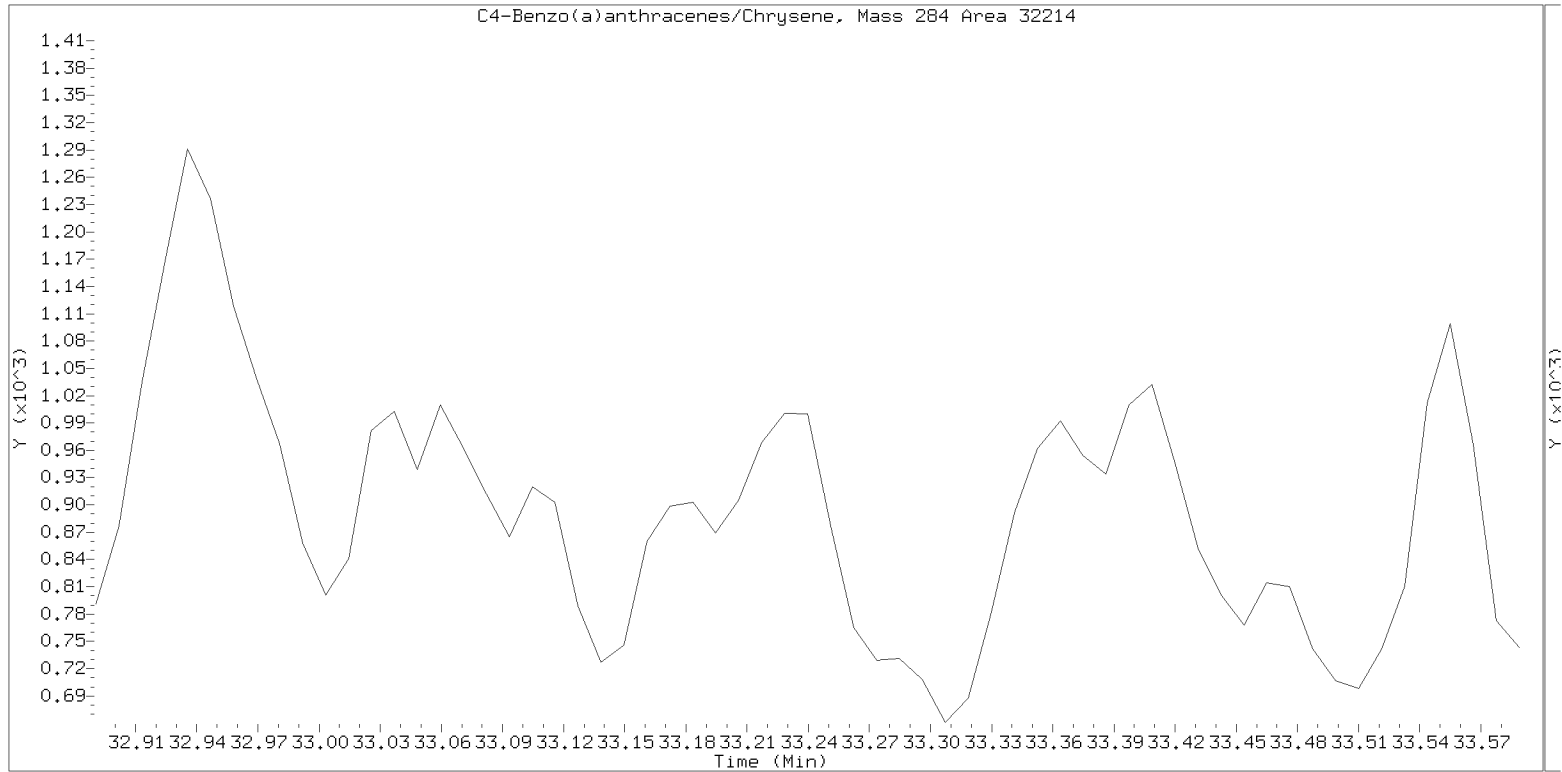
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

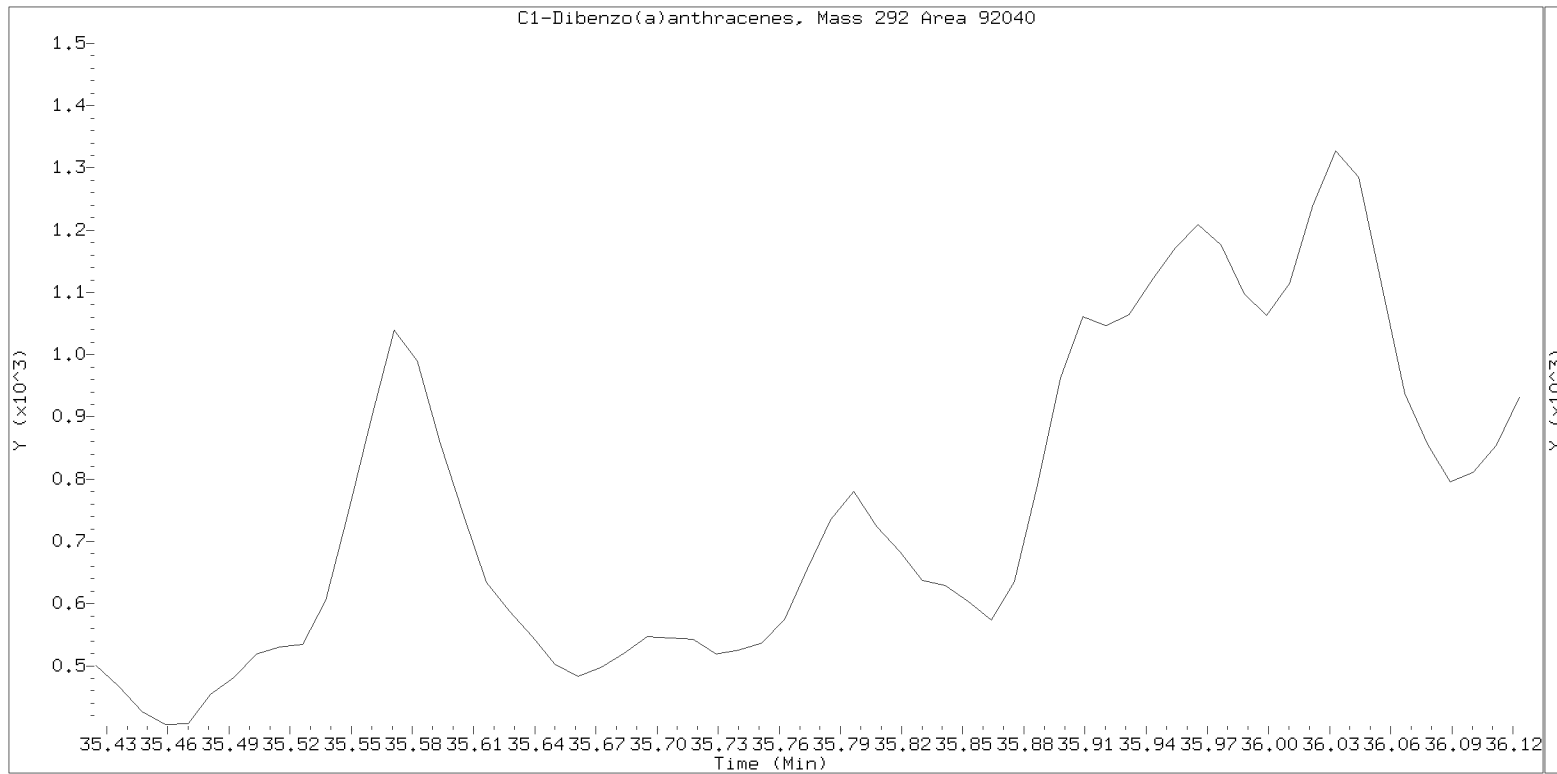
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nt14.i, SIM.b\ALKYLRANGES.m, 04-MAY-2021 15:19



SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

Lab ID: 21D0180-04

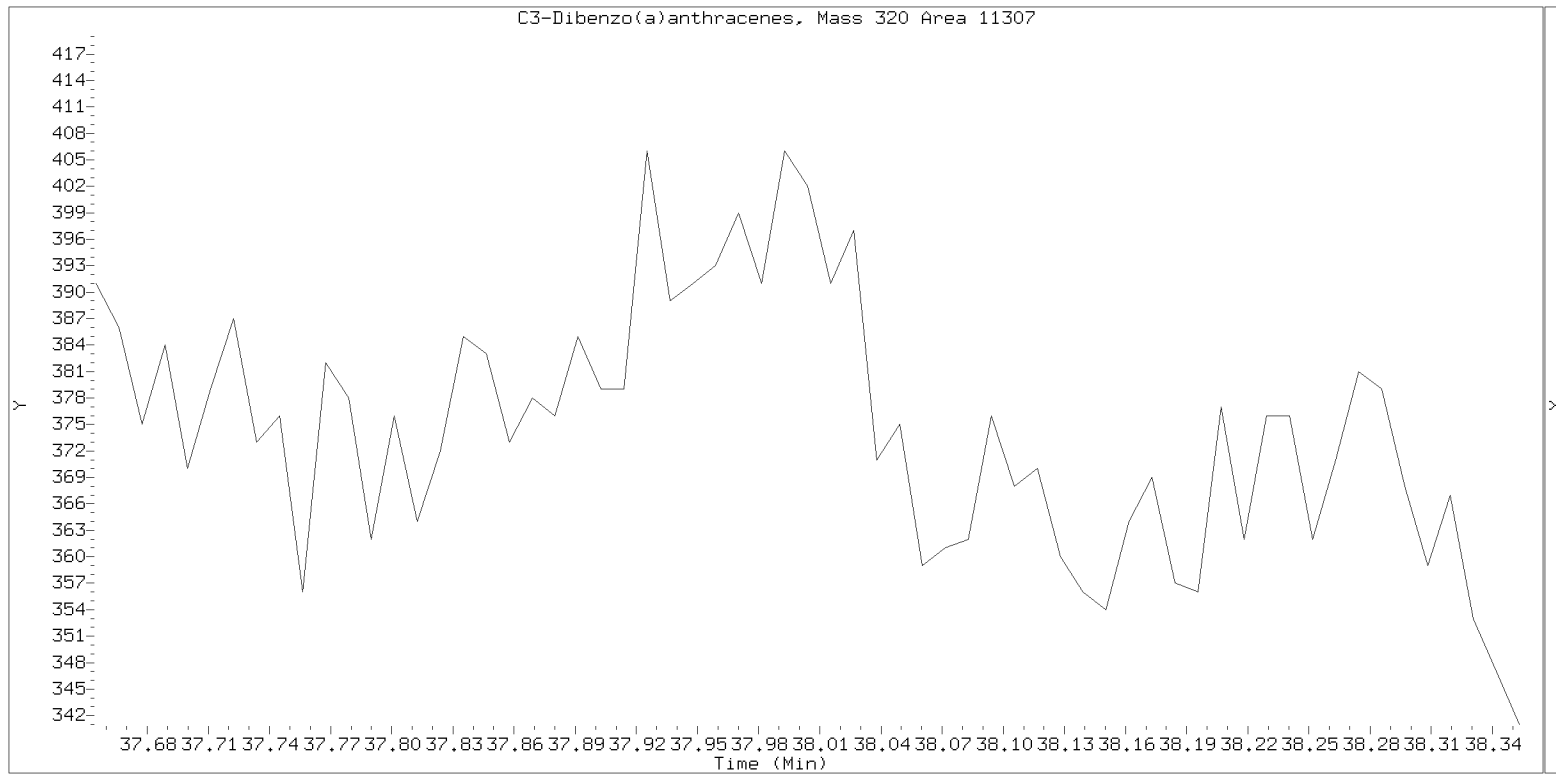
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

Lab ID: 21D0180-04

nt14.i, SIM.b\ALKYLRANGES.m, 04-MAY-2021 15:19





PREPARATION BATCH SUMMARY

Laboratory:

SDG:

Client:

Project:

Batch:

Batch Matrix:

Preparation:

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS

PREPARATION BATCH SUMMARY

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21D0180
 Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings
 Batch: BJD0507 Batch Matrix: Solid Preparation: EPA 3546 (Microwave)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
USMPDI-010SG-210414	21D0180-01	NT1421043063S.D	04/22/21 11:05	
USMPDI-010SG-210414	21D0180-01	NT1421043063.D	04/22/21 11:05	
USMPDI-015SG-210414	21D0180-02	NT1421043064S.D	04/22/21 11:05	
USMPDI-015SG-210414	21D0180-02	NT1421043064.D	04/22/21 11:05	
USMPDI-019SG-210414	21D0180-03	NT1421043065S.D	04/22/21 11:05	
USMPDI-019SG-210414	21D0180-03	NT1421043065.D	04/22/21 11:05	
USMPDI-029SG-210414	21D0180-04	NT1421050404S.D	04/22/21 11:05	
USMPDI-029SG-210414	21D0180-04	NT1421050404.D	04/22/21 11:05	
Blank	BJD0507-BLK1	NT1421043053.D	04/22/21 11:05	
Blank	BJD0507-BLK2	NT1421043053S.D	04/22/21 11:05	
LCS	BJD0507-BS1	NT1421043054.D	04/22/21 11:05	



Batch: BJD0507

Prepared using: EPA 3546 (Microwave)

8270E-SIM Alkyl PAH (Parents) Dual Scan in Solid (Version:)

8270E-SIM Alkyl PAH (Range) Dual Scan in Solid

Matrix: Solid

Date Prepared: 4/22/21

Balance ID: B146462614

Set Up By: CTO 4/21/21

Analysis: 8270E-SIM Alkyl PAH (Parents) Dual Scan

Lab Number & Container	% Solids	Initial (g)		(REQ) Opt	(REQ) Opt	(REQ) Silica Gel C/U (1:1)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 10 (Wet)	Actual	GPC C/U (1:1)	Sulfur C/U (1:1) Y/N (Transfer Rinse)				
21D0179-01 A	47.7	(20.98)	26.99	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	
21D0179-02 A	45.2	(22.15)	22.21	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	
21D0179-03 A	41.3	(24.20)	24.25	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	
21D0179-04 A	42.6	(23.49)	23.54	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	
21D0179-05 A	38.3	(26.13)	26.17	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	
21D0179-06 A	37.8	(26.47)	26.48	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	
21D0180-01 A	46.6	(21.45)	21.51	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	
21D0180-02 A	45.5	(21.98)	21.98	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	
21D0180-03 A	46.6	(21.46)	21.46	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	
21D0180-04 A	35.6	(28.09)	28.11	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	

Analysis: 8270E-SIM Alkyl PAH (Range) Dual Scan

Lab Number & Container	% Solids	Initial (g)		(REQ) Opt	(REQ) Opt	(REQ) Silica Gel C/U (1:1)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 10 (Wet)	Actual	GPC C/U (1:1)	Sulfur C/U (1:1) Y/N (Transfer Rinse)				
21D0179-01 A	47.7	(20.98)	26.99	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	
21D0179-02 A	45.2	(22.15)	22.21	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	
21D0179-03 A	41.3	(24.20)	24.25	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	
21D0179-04 A	42.6	(23.49)	23.54	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	
21D0179-05 A	38.3	(26.13)	26.17	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	
21D0179-06 A	37.8	(26.47)	26.48	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	
21D0180-01 A	46.6	(21.45)	21.51	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	
21D0180-02 A	45.5	(21.98)	21.98	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	
21D0180-03 A	46.6	(21.46)	21.46	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	
21D0180-04 A	35.6	(28.09)	28.11	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	

Batch QC

Lab Number	% Solids	Initial (g)		(REQ) Opt	(REQ) Opt	(REQ) Silica Gel C/U (1:1)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
		Target Dry: 10 (Wet)	Actual	GPC C/U (1:1)	Sulfur C/U (1:1) Y/N (Transfer Rinse)				
BJD0507-BLK1	100.0	(10.00)	10.00	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	
BJD0507-BS1	100.0	(10.00)	10.00	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	
BJD0507-MS1	42.6	(23.49)	23.49	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	Use 21D0179-04
BJD0507-MSD1	42.6	(23.49)	23.49	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	Use 21D0179-04

4/22/21
Client ID verified By

Date

DM 4-28-21
Preparation Reviewed By

Date

4/22/21 11:45
Extraction Date and Time



Prep Steps	Reagents Used	Surrogates & Spike Standards Used	
Microwave ① 2 3 4/22/21 Analyst/Date	Station/Reagent Microwave Analyst: <u>CT</u> Date: <u>4/22/21</u>	Type Surr T 1010873 Exp: 11/24/2021 100µL	
	Standard ID 1:1 Methylene Chloride/Acetone J443915	Vol uL 15µg/mL	Analyst CT
	Witness J443349	Analyst CT	Witness J443349
Pre-GPC KD 100°C (No Exchange) ① 2 3 ④ 5 6 4/23/21 Analyst/Date	Station/Reagent Methylene Chloride J443349	Type Spike 15 1010207 Exp: 10/03/2021 100µL	
	Standard ID Anhydrous Sodium Sulfate J443764	Vol uL 15/75µg/mL	Analyst CT
	Witness Pre-Deactivated Glass Wool J444483	Analyst CT	Witness J444483
Pre GPC Turbo Vap 1 2 3 ④ 4/23/21 Analyst/Date	Pre GPC KD Analyst: <u>MB</u> Date: <u>4/23/21</u>	Type Spike 42 1010896 Exp: 09/01/2021 100µL	
	Station/Reagent Methylene Chloride J0003349	Vol uL 15µg/mL	Analyst CT
	Standard ID Hexane J0001940	Analyst CT	Witness J0001940
Post-GPC KD 80°C Hexane Exchange 2 x 20 mL 100°C ① ② 3 ④ 5 6 4/27/21 Analyst/Date	Station/Reagent Methylene Chloride J443349	Type Surr T 1010873 Exp: 11/24/2021 100µL	
	Standard ID GPC Calibration File 5/1 04/21/21 J443349 5/1 04/22/21 J443349	Vol uL 15µg/mL	Analyst CT
	Witness GPC Analyst: <u>SH</u> Date: <u>4/23/21</u>	Analyst CT	Witness J443349
Pre-Cleanup Turbo Vap 1 2 3 ④ 4-28-21 Analyst/Date	Post GPC KD Analyst: <u>MB</u> Date: <u>4/27/21</u>	Type Spike 42 1010896 Exp: 09/01/2021 100µL	
	Station/Reagent Hexane J0001940	Vol uL 15µg/mL	Analyst CT
	Standard ID Methylene Chloride J0003349	Analyst CT	Witness J0001940
Post-Cleanup Turbo Vap 1 ② 3 4 4-28-21 Analyst/Date	Vialing Analyst: <u>DM</u> Date: <u>4-28-21</u>	Type Spike 42 1010896 Exp: 09/01/2021 100µL	
	Station/Reagent Silica Gel (SPE) darts J0003771	Vol uL 15µg/mL	Analyst DM
	Standard ID Methylene Chloride J0003349	Analyst DM	Witness J0003771
Vialing 4-28-21 Analyst/Date	Hexane J0003533	Tetrabutylammonium hydrogensulfate (TBAS)	
	Sodium Sulfite	Sodium Sulfite	

(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.

If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator in the Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).

① See notes

gpc1



Batch: BJD0507

Prepared using: EPA 3546 (Microwave)

8270E-SIM Alkyl PAH (Parents) Dual Scan in Solid (Version:)
8270E-SIM Alkyl PAH (Range) Dual Scan in Solid

Prep Instructions	
<p>SPECIAL INSTRUCTIONS:</p> <ol style="list-style-type: none">1. Weigh into beakers dry with Sodium Sulfate.2. Transfer to microwave vessel.3. Add DCM ONLY to the vessels (until solvent is 3 inches above soil layer after homogenization).4. Add surr/spike.5. Microwave on appropriate power setting determined by # of samples.6. After microwave-re-homogenize while hot then let cool 10-15 min in Refrigerator 05. Re-homogenize while cool.7. Decant DCM into Erlenmeyer flask with a funnel containing pre-deactivated glasswool.8. Rinse with DCM9. Microwave a 2nd time using 1:1 DCM/ACE.10. Let cool and decant the solvent then empty the soil into the funnel and rinse with DCM.11. If GPC is Req add 10mL Hexane and KD to 5mL at 100°C (NO EXCHANGE)12. If GPC is NOT Req = KD to 5mL at 100°C. Exchange to Hexane (2X with 10mL) to 5mL at 100°C.13. TurboVap.14. Sulfur clean = Hexane transfer rinse.15. Silica Clean-up REQ.16. TurboVap17. Vial in DCM. <p>A. Need Total Solids Y <input checked="" type="checkbox"/> N</p> <p>B. Archive/Freeze <input checked="" type="checkbox"/> Y/ N</p>	



Extraction Parameter: SM ALK'L Extraction Batch BJD0527

Total Solids Batch: BJD0427 Work Order(s): 21D0180

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)=	
<input checked="" type="checkbox"/> Standing Water Decanted (Not shared)= <u>φ1, φ2, φ3, φ4</u>	<u>MJ 04/16/21</u>
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input checked="" type="checkbox"/> Oily, obvious fuel/sulfur odors= <u>Sulfur odor = φ1, φ2, φ3, φ4</u>	<u>MJ 04/16/21</u>
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input type="checkbox"/> Previously Frozen =	
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y (N)	<u>MJ 04/16/21</u>
<input checked="" type="checkbox"/> Multiple Jars Y (N)	<u>MJ 04/16/21</u>
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	



Extraction Parameter: TPH LLSIM (SIM ALKYL) Extraction Batch BJD0507

Total Solids Batch: BJD0425 Work Order(s): 21D0179

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)=	
<input checked="" type="checkbox"/> Standing Water Decanted (Not shared)= <u>φ1, φ2, φ3, φ4, φ5, φ6.</u>	<u>M φ4/16/21</u>
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input checked="" type="checkbox"/> Oily, obvious fuel/sulfur odors= <u>sulfur odor = φ1, φ2, φ3, φ4, φ5, φ6.</u>	<u>M φ4/16/21</u>
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input type="checkbox"/> Previously Frozen =	
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input checked="" type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<u>BK, BS and all samples were not filtered before GCPC</u>	<u>SH φ4/23/21</u>
<input checked="" type="checkbox"/> Share Samples Y/(N)	<u>M φ4/16/21</u>
<input checked="" type="checkbox"/> Multiple Jars Y/(N)	<u>M φ4/16/21</u>
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	

Batch: BJD0507

Batch Comment: **NONE**

Project: Gasco Siltronic - US Moorings

Project Comments: <G> MS/MSD per 20 samples, please batch with other work orders, SM2540 Needed </G>

Work Order:21D0179

Work Order Comments: <G> MS/MSD per 20 samples, please batch with other work orders, SM2540 Needed </G>

Sample: 21D0179-01

Sample Comments: **NONE**

Sample: 21D0179-02

Sample Comments: **NONE**

Sample: 21D0179-03

Sample Comments: **NONE**

Sample: 21D0179-04

Sample Comments: MS/MSD

Sample: 21D0179-05

Sample Comments: **NONE**

Sample: 21D0179-06

Sample Comments: **NONE**

Work Order:21D0180

Work Order Comments: <G> MS/MSD per 20 samples, please batch with other work orders, SM2540 Needed </G>

Sample: 21D0180-01

Sample Comments: **NONE**

Sample: 21D0180-02

Sample Comments: **NONE**

Sample: 21D0180-03

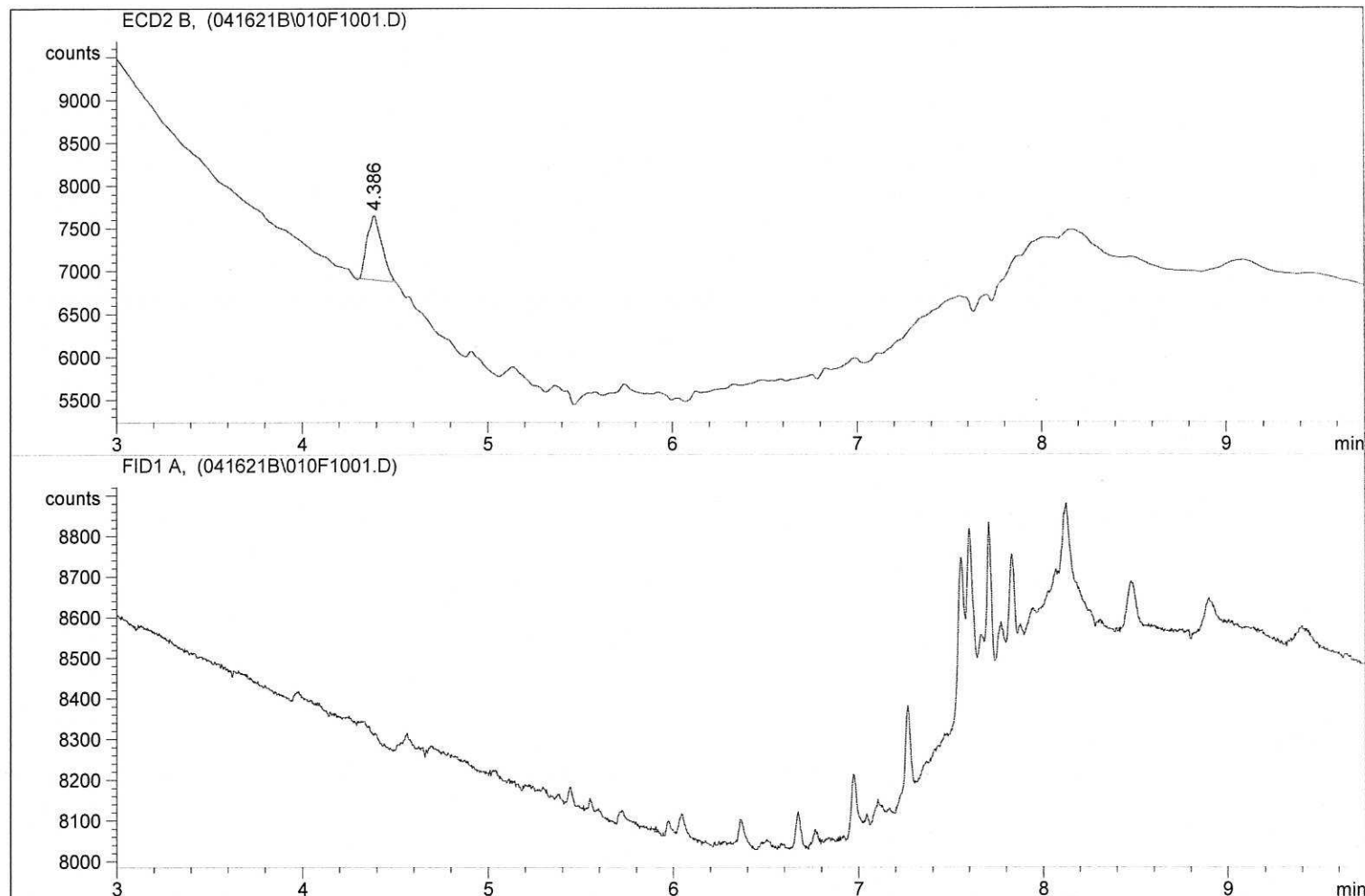
Sample Comments: **NONE**

Sample: 21D0180-04

Sample Comments: **NONE**

=====
Injection Date : 4/16/2021 5:51:20 PM Seq. Line : 10
Sample Name : 21D0180 01 Location : Vial 10
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl

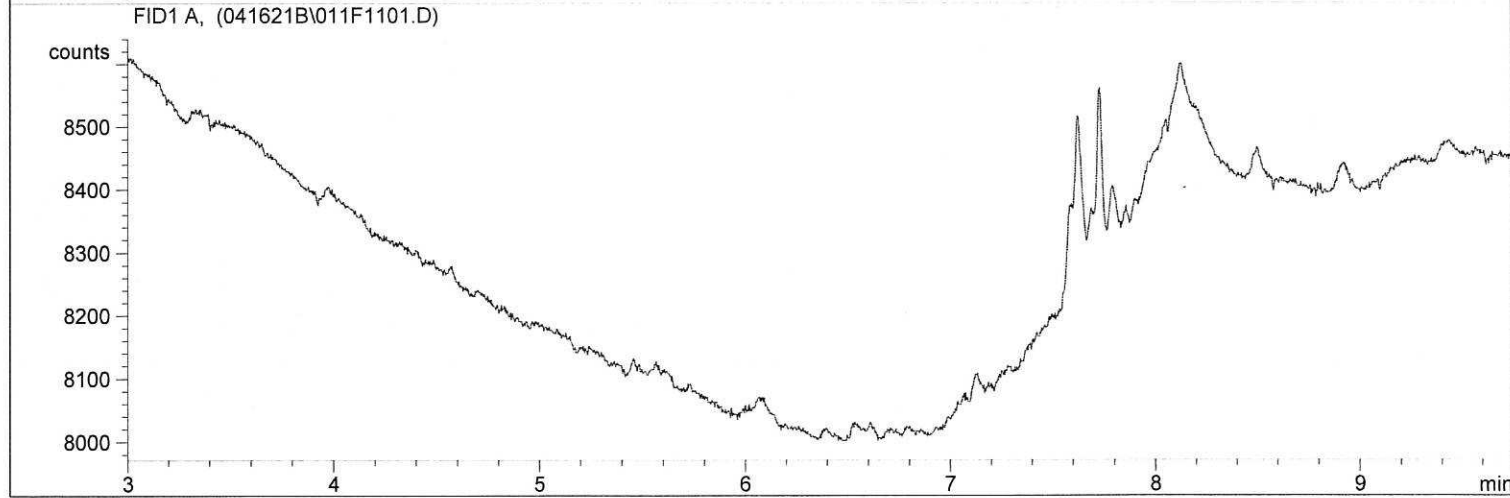
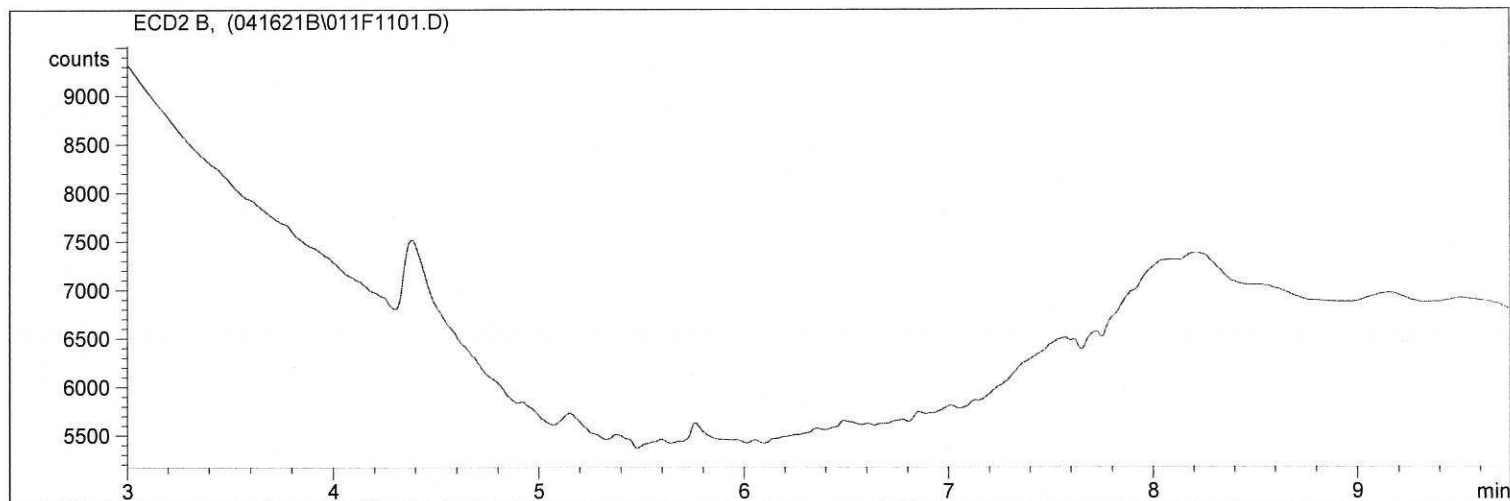
Sequence File : C:\HPCHEM\1\SEQUENCE\0401621B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 2/4/2021 10:37:36 AM by DXP
SCREEN METHOD
=====



*** End of Report ***

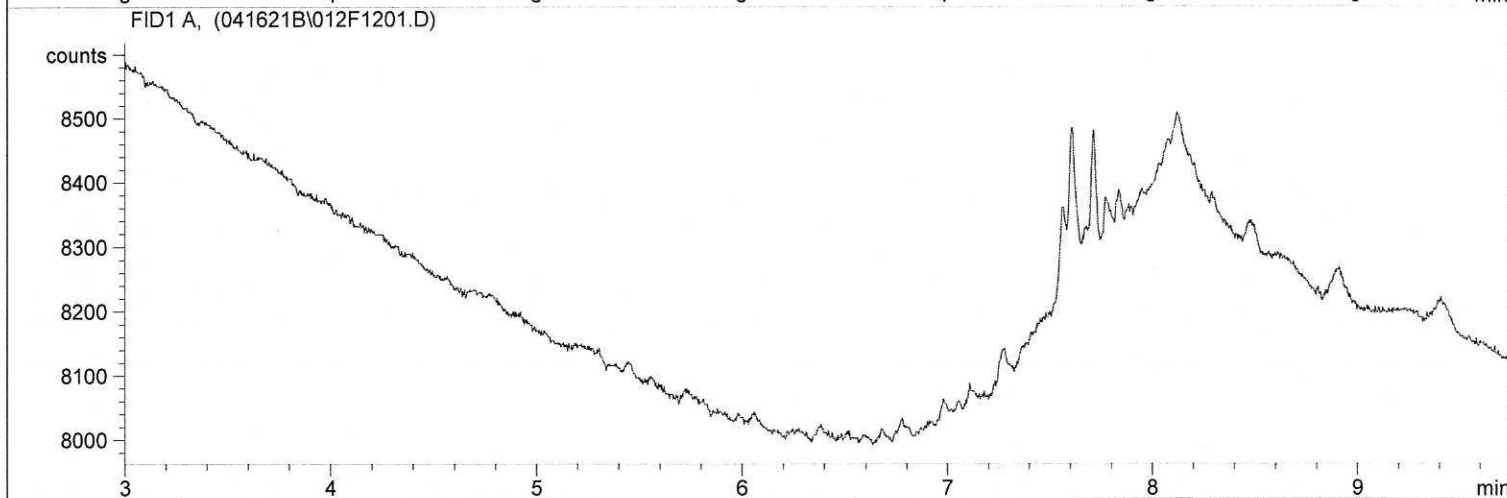
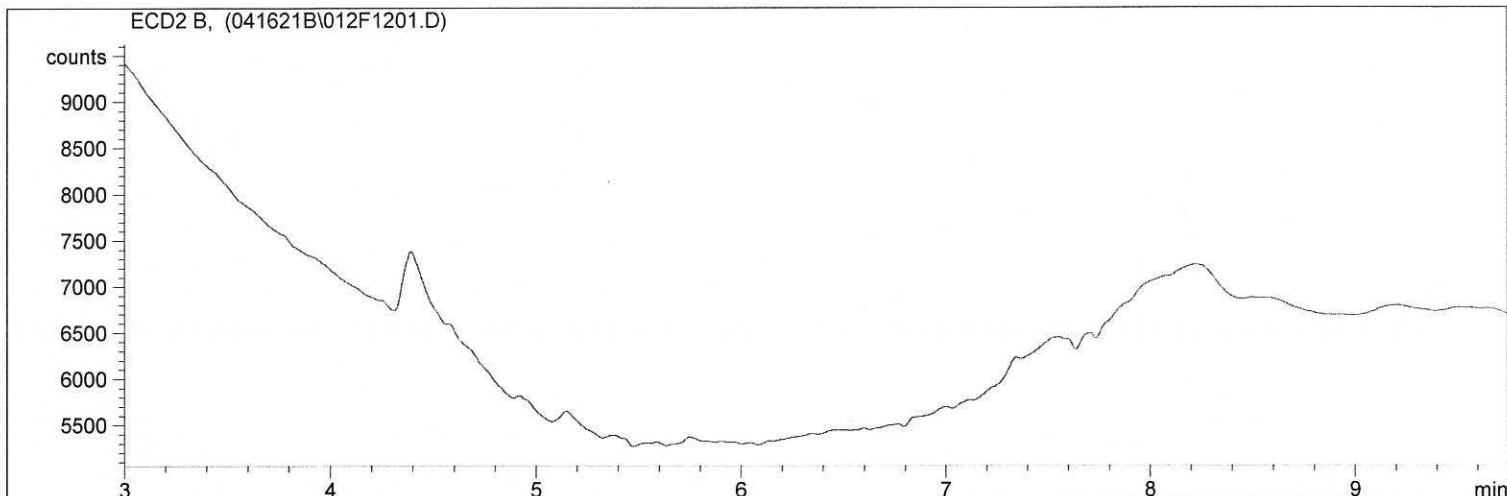
=====
Injection Date : 4/16/2021 6:05:33 PM Seq. Line : 11
Sample Name : 21D0180 02 Location : Vial 11
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\0401621B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 2/4/2021 10:37:36 AM by DXP
SCREEN METHOD
=====



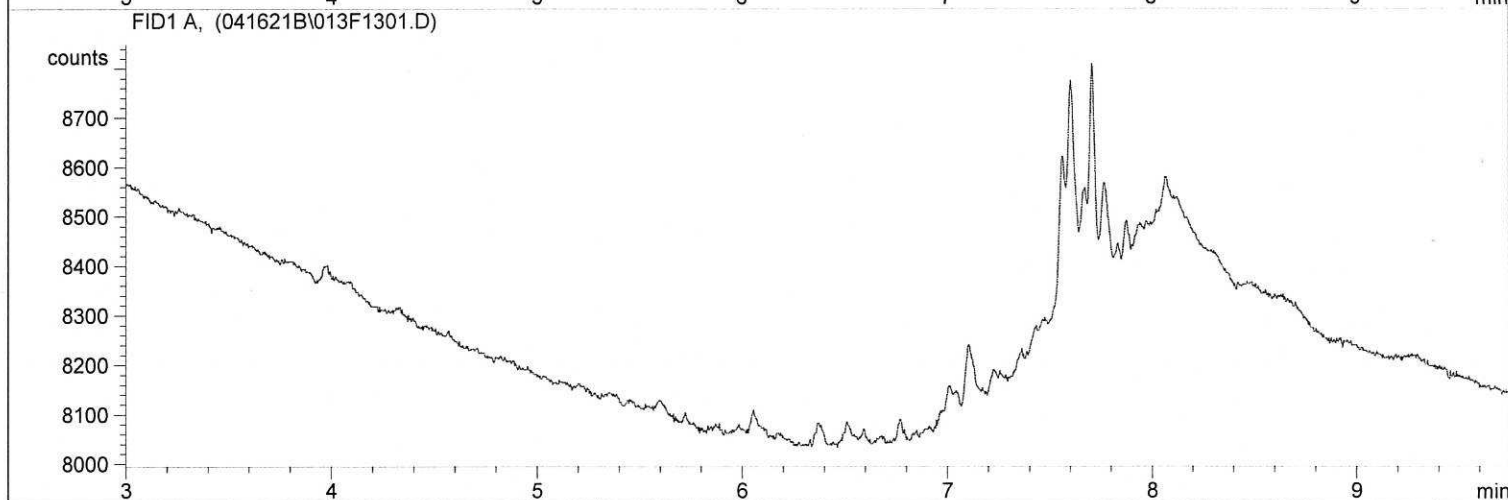
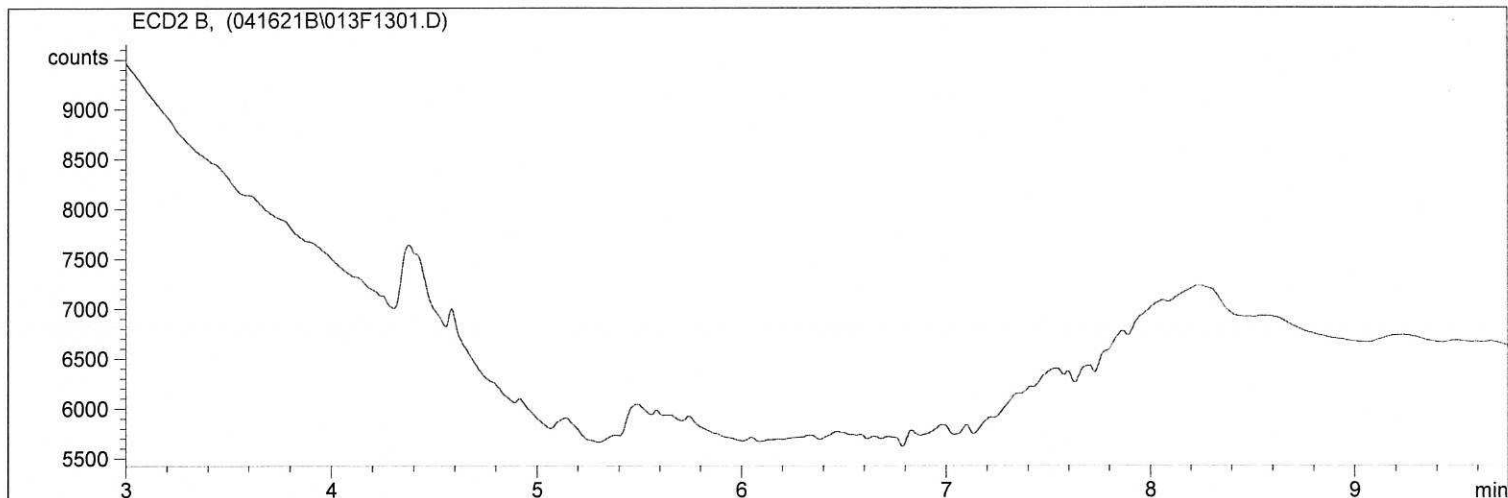
*** End of Report ***

=====
Injection Date : 4/16/2021 6:19:19 PM Seq. Line : 12
Sample Name : 21D0180 03 Location : Vial 12
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl
Sequence File : C:\HPCHEM\1\SEQUENCE\0401621B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 2/4/2021 10:37:36 AM by DXP
SCREEN METHOD
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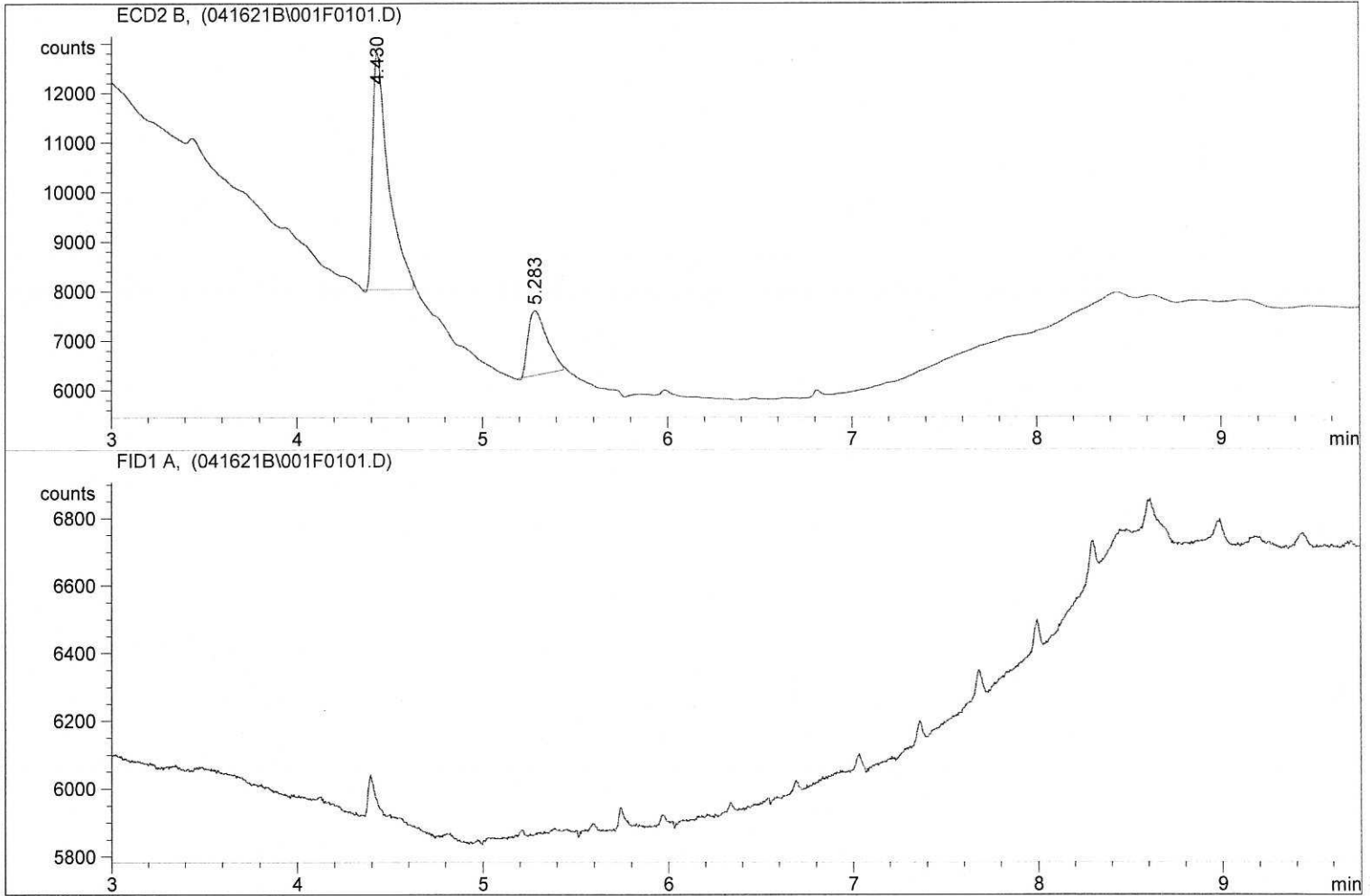
*** End of Report ***

=====
Injection Date : 4/16/2021 6:33:41 PM Seq. Line : 13
Sample Name : 21D0180 04 Location : Vial 13
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl
Sequence File : C:\HPCHEM\1\SEQUENCE\0401621B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 2/4/2021 10:37:36 AM by DXP
SCREEN METHOD
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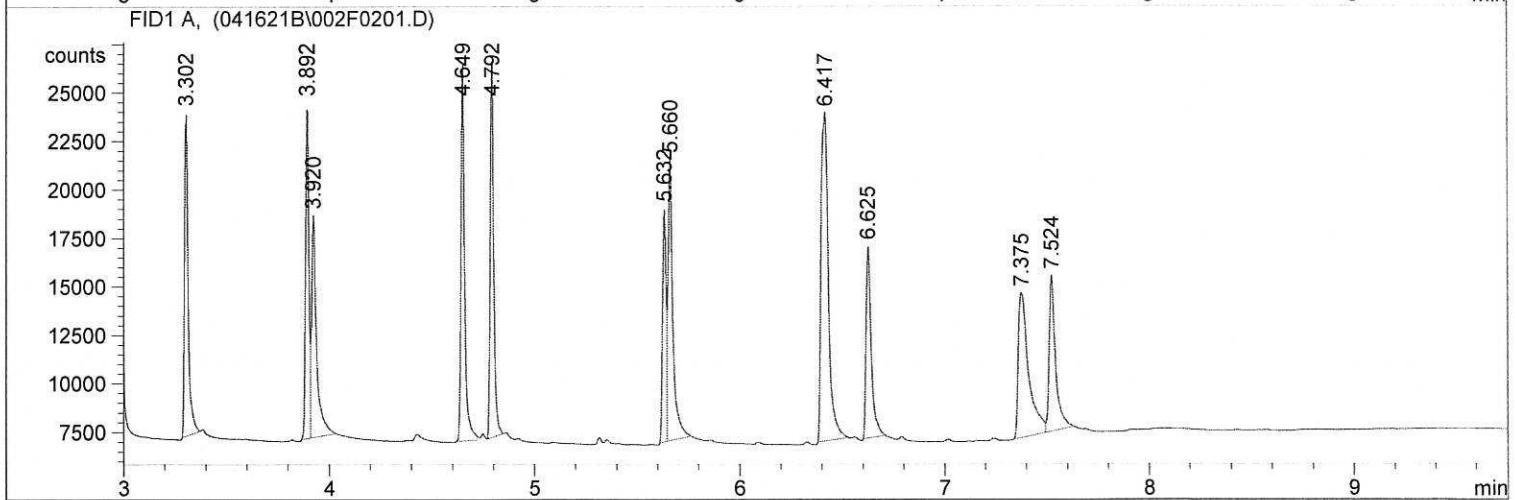
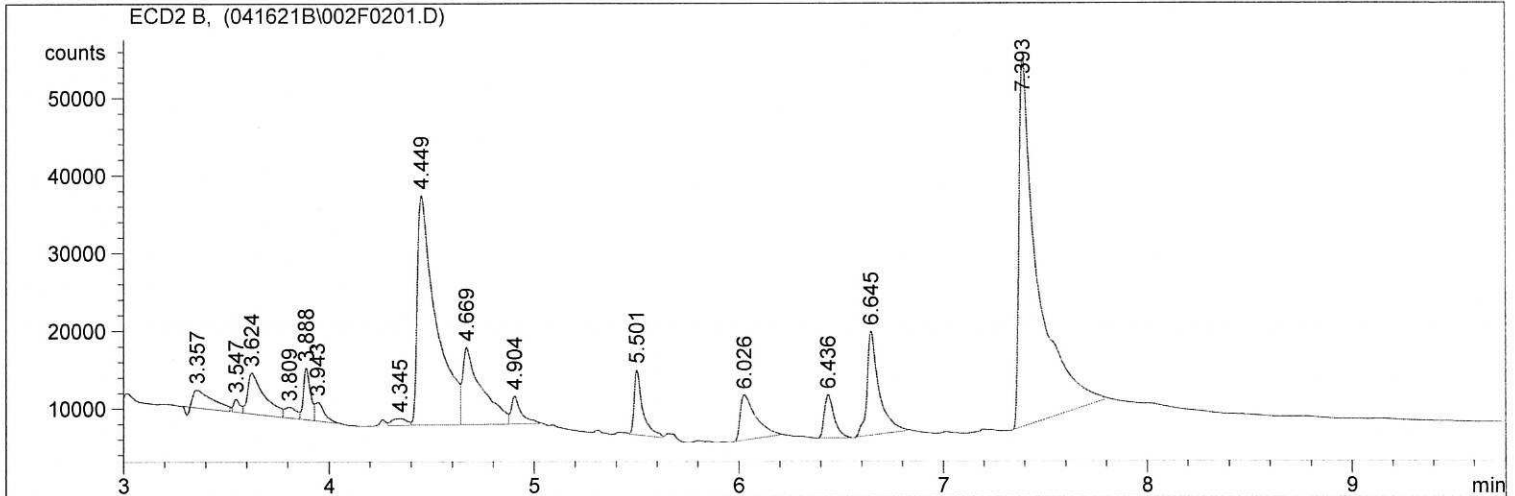
*** End of Report ***

=====
Injection Date : 4/16/2021 3:45:06 PM Seq. Line : 1
Sample Name : DCM RINSE Location : Vial 1
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl
Sequence File : C:\HPCHEM\1\SEQUENCE\0401621B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 2/4/2021 10:37:36 AM by DXP
SCREEN METHOD
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*** End of Report ***

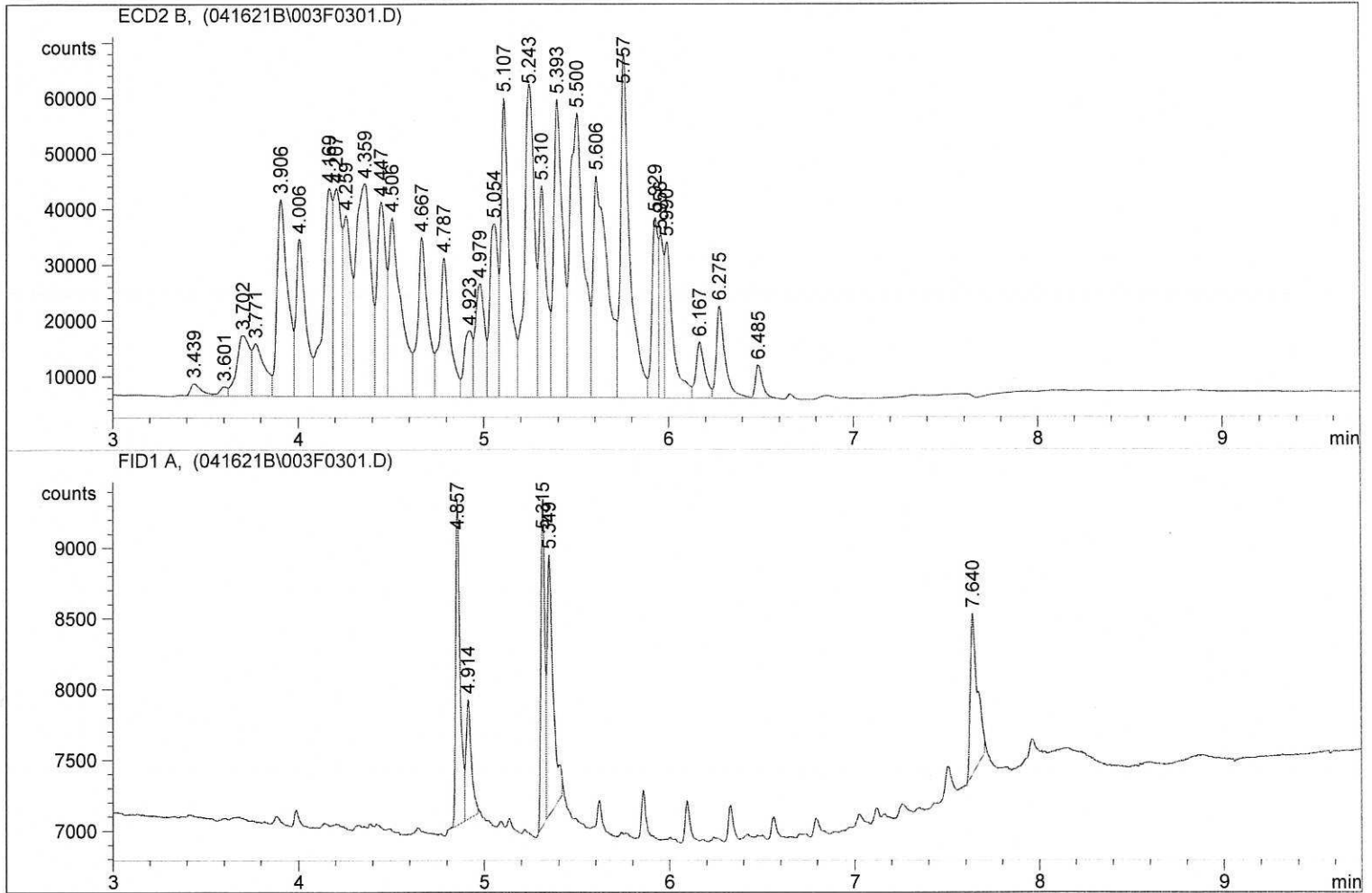
=====
Injection Date : 4/16/2021 3:59:02 PM Seq. Line : 2
Sample Name : PNA STD 10PPM Location : Vial 2
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl
Sequence File : C:\HPCHEM\1\SEQUENCE\0401621B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 2/4/2021 10:37:36 AM by DXP
SCREEN METHOD
=====



*** End of Report ***

=====
Injection Date : 4/16/2021 4:13:10 PM Seq. Line : 3
Sample Name : AR1660 1PPM Location : Vial 3
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl

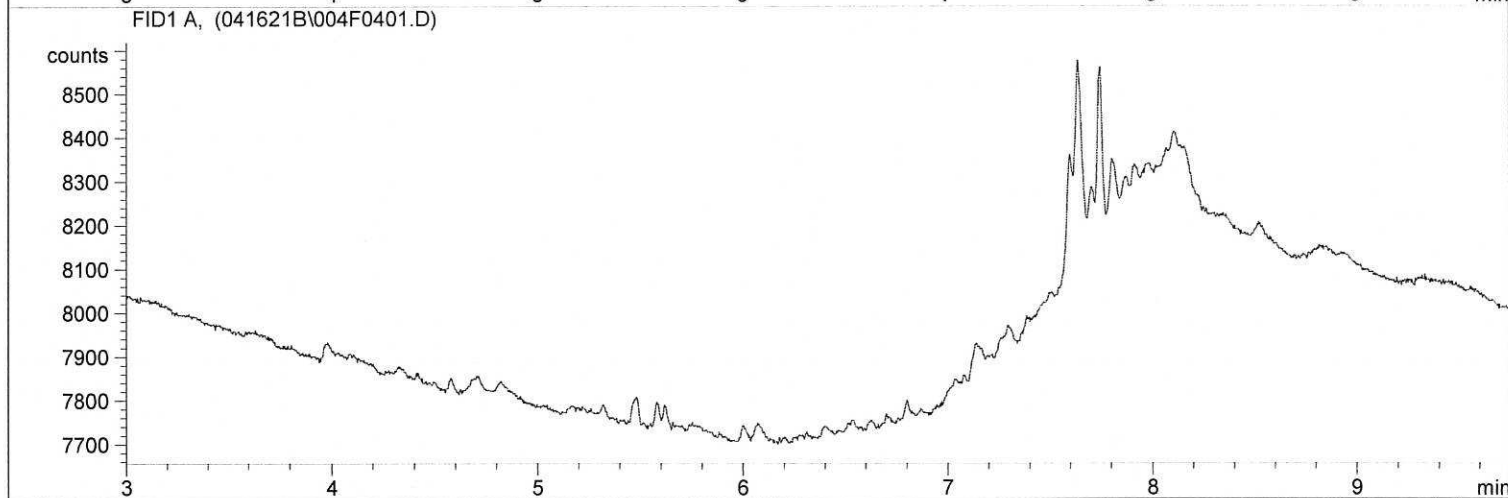
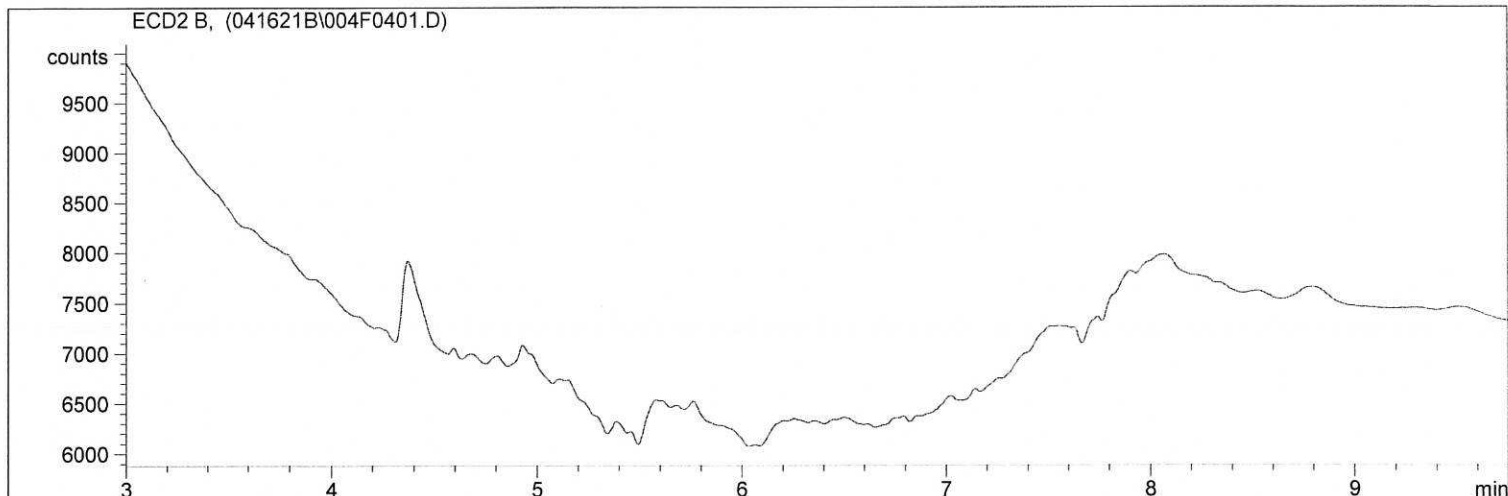
Sequence File : C:\HPCHEM\1\SEQUENCE\0401621B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 2/4/2021 10:37:36 AM by DXP
SCREEN METHOD
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*** End of Report ***

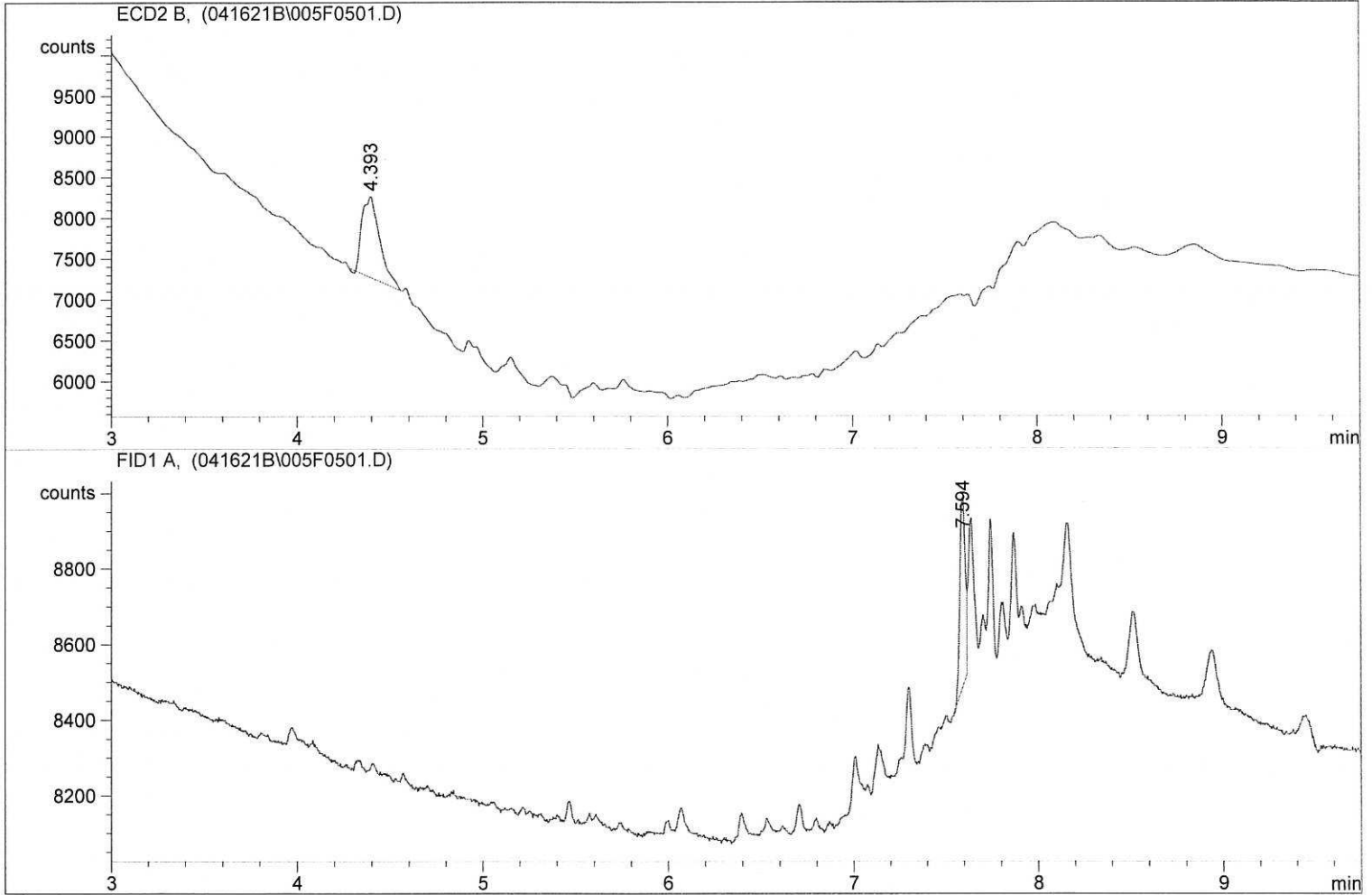
=====
Injection Date : 4/16/2021 4:26:57 PM Seq. Line : 4
Sample Name : 21D0179 01 Location : Vial 4
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\0401621B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 2/4/2021 10:37:36 AM by DXP
SCREEN METHOD
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*** End of Report ***

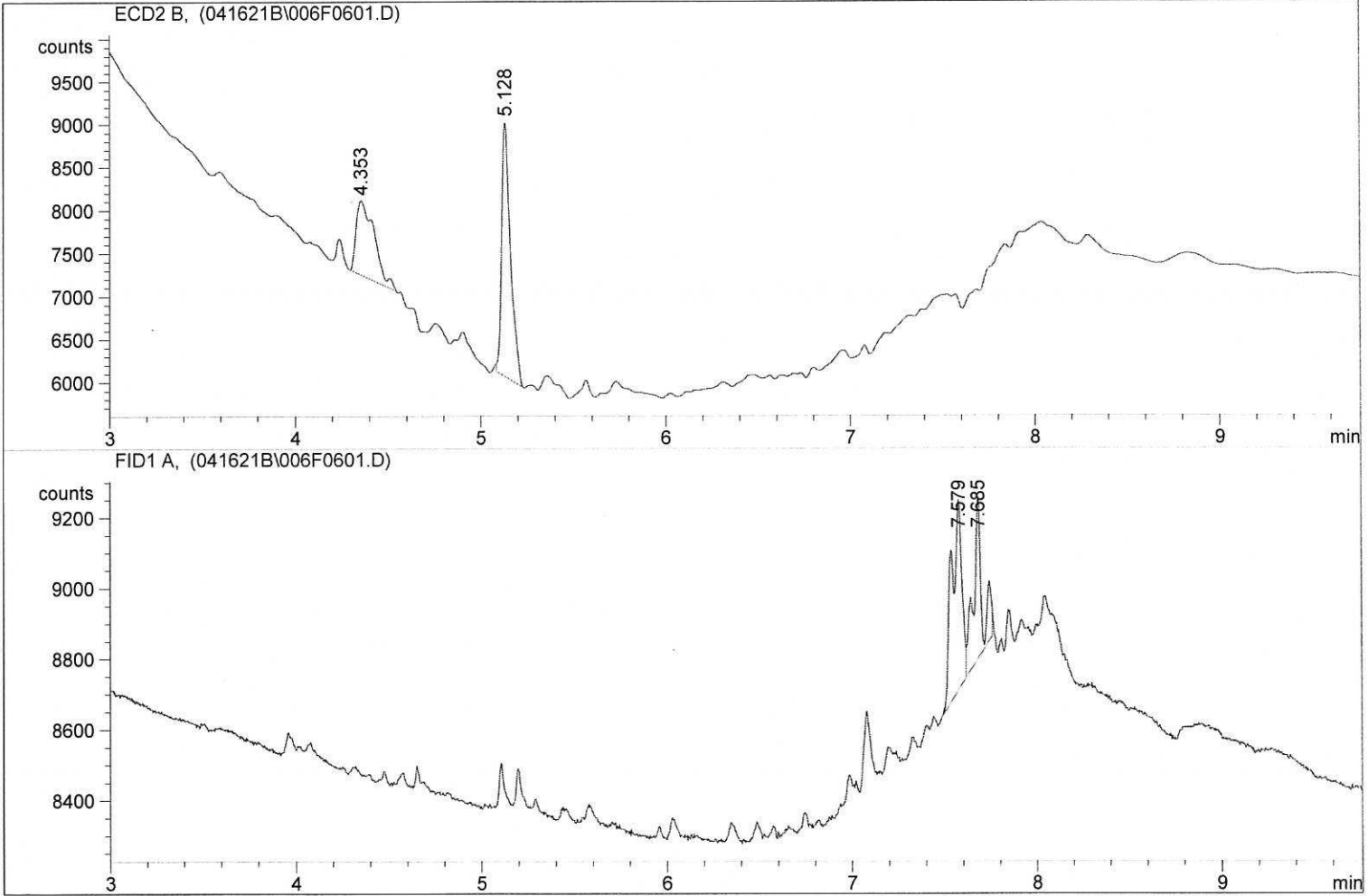
=====
Injection Date : 4/16/2021 4:41:13 PM Seq. Line : 5
Sample Name : 21D0179 02 Location : Vial 5
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl
Sequence File : C:\HPCHEM\1\SEQUENCE\0401621B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 2/4/2021 10:37:36 AM by DXP
SCREEN METHOD
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*** End of Report ***

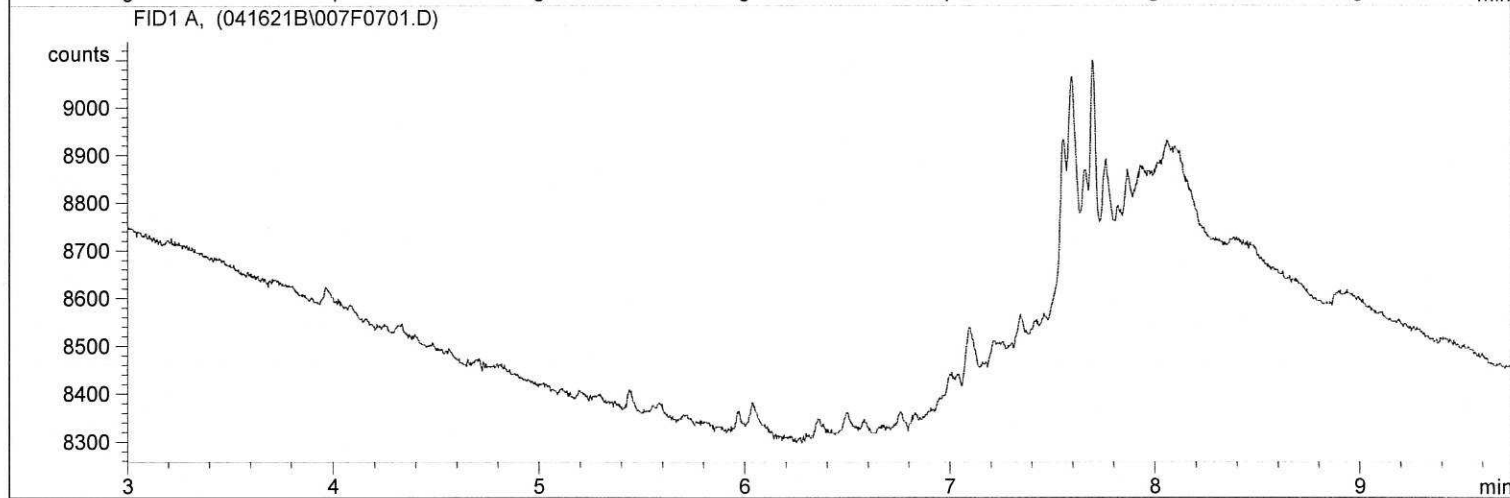
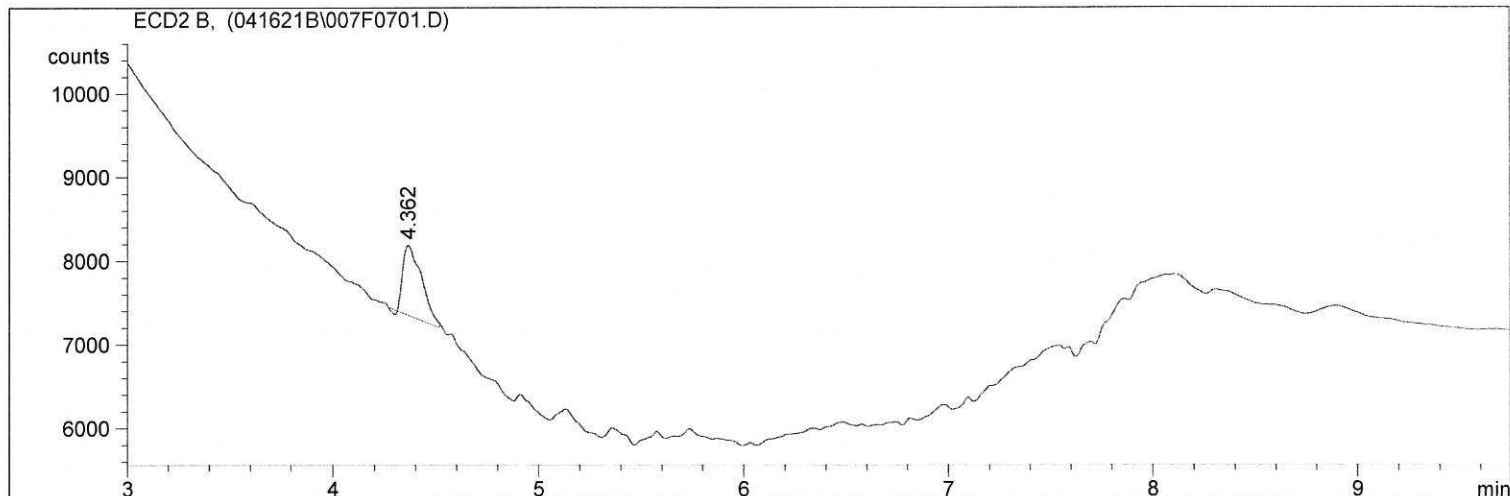
=====
Injection Date : 4/16/2021 4:55:00 PM Seq. Line : 6
Sample Name : 21D0179 03 Location : Vial 6
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\0401621B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 2/4/2021 10:37:36 AM by DXP
SCREEN METHOD
=====



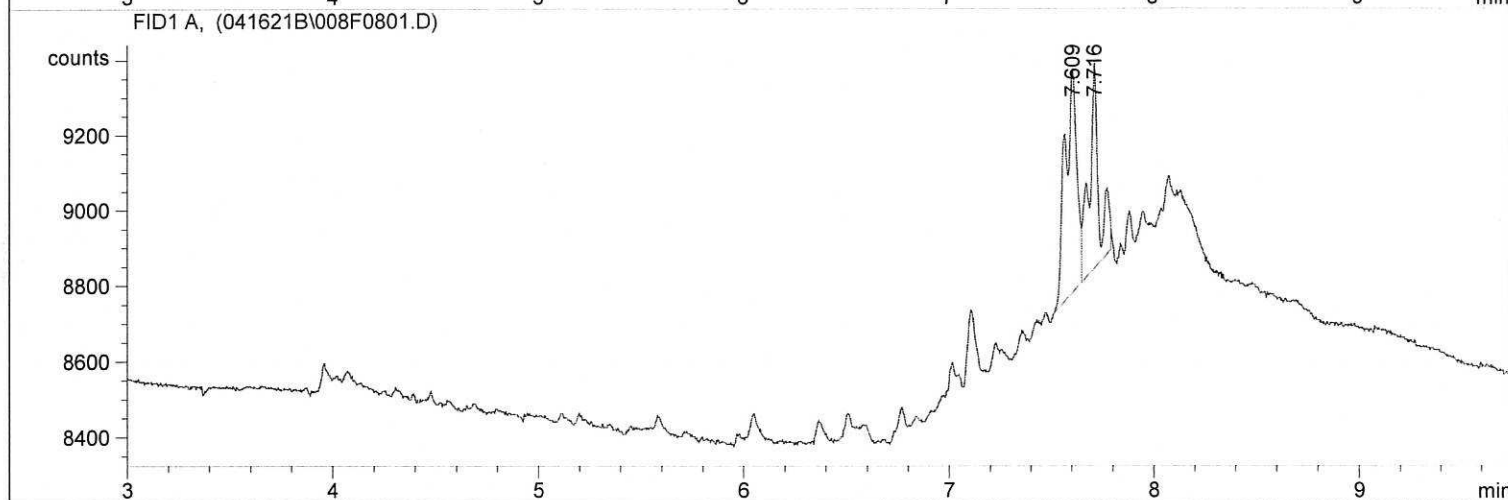
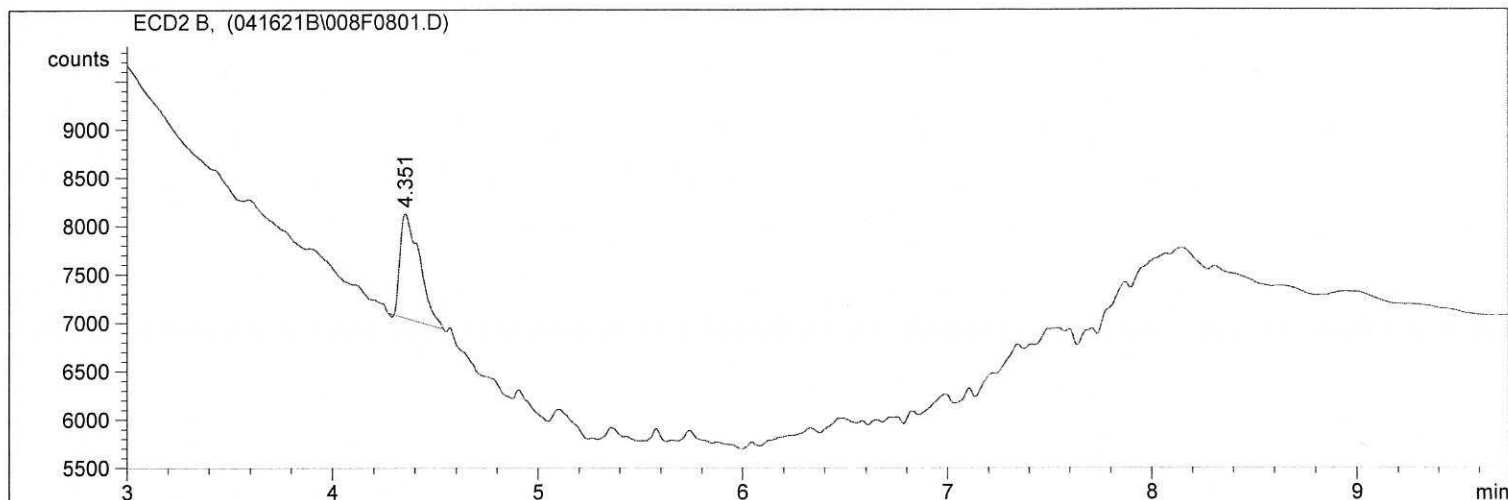
*** End of Report ***

=====
Injection Date : 4/16/2021 5:09:18 PM Seq. Line : 7
Sample Name : 21D0179 04 Location : Vial 7
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl
Sequence File : C:\HPCHEM\1\SEQUENCE\0401621B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 2/4/2021 10:37:36 AM by DXP
SCREEN METHOD
=====



*** End of Report ***

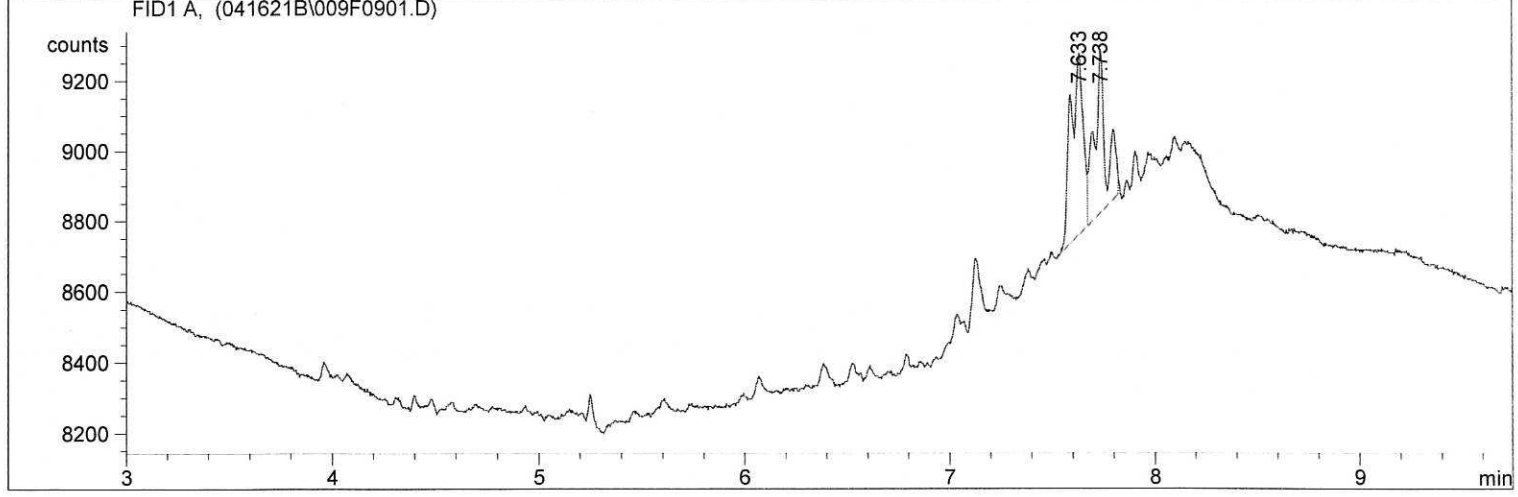
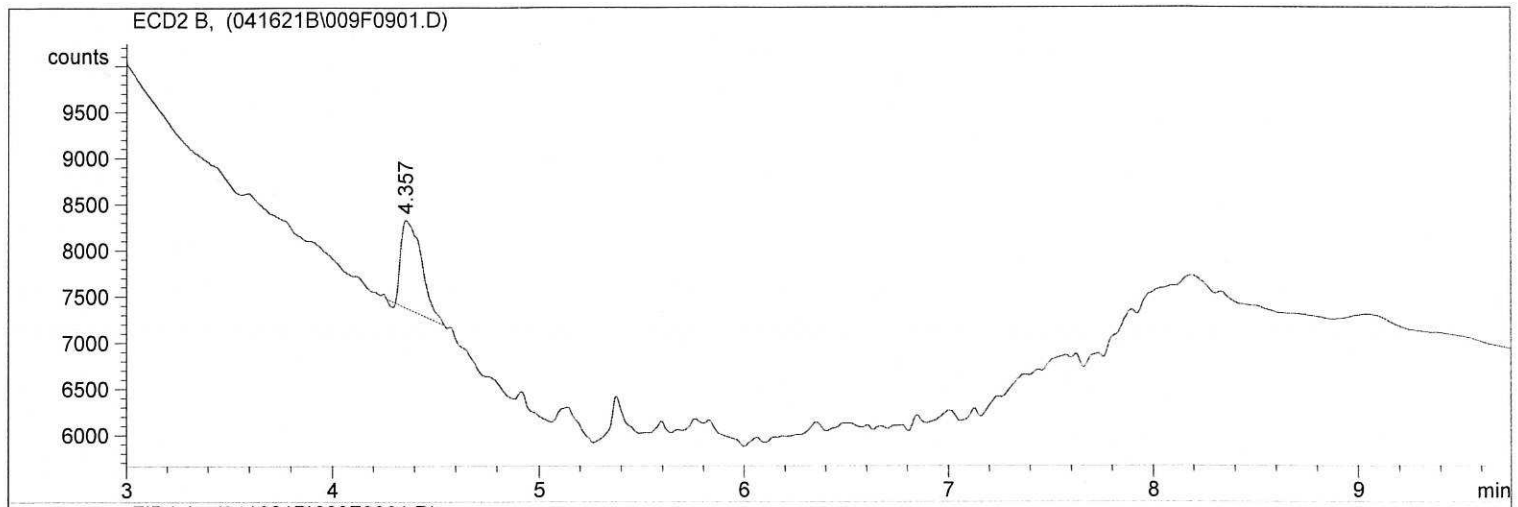
=====
Injection Date : 4/16/2021 5:23:05 PM Seq. Line : 8
Sample Name : 21D0179 05 Location : Vial 8
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl
Sequence File : C:\HPCHEM\1\SEQUENCE\0401621B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 2/4/2021 10:37:36 AM by DXP
SCREEN METHOD
=====



*** End of Report ***

=====
Injection Date : 4/16/2021 5:37:29 PM Seq. Line : 9
Sample Name : 21D0179 06 Location : Vial 9
Acq. Operator : YL Inj : 1
 Inj Volume : 1 µl

Sequence File : C:\HPCHEM\1\SEQUENCE\0401621B.S
Method : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed : 2/4/2021 10:37:36 AM by DXP
SCREEN METHOD
=====

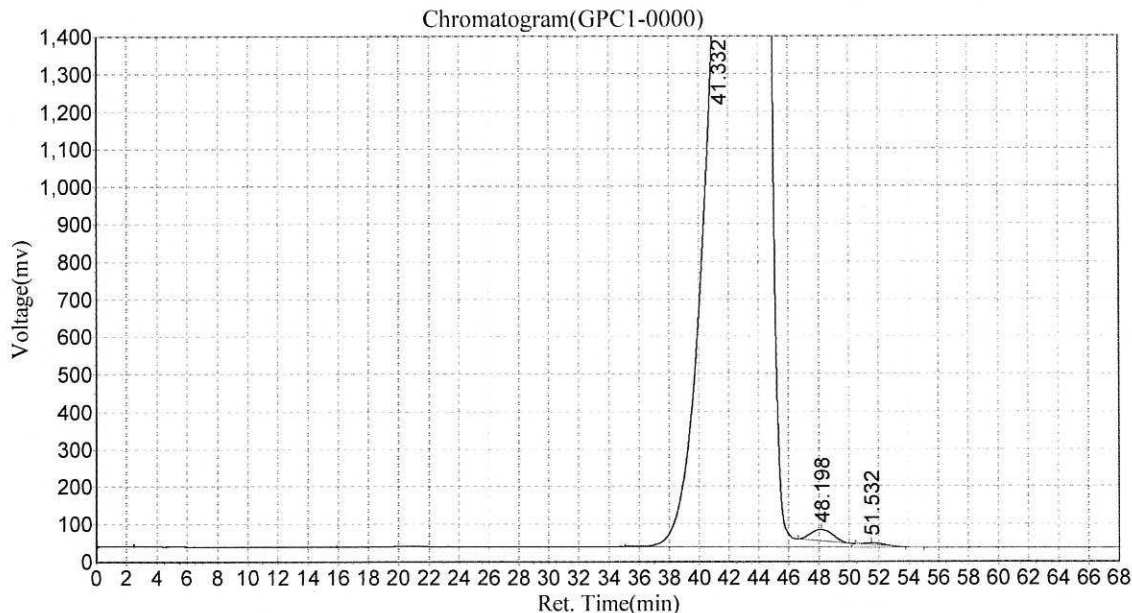


*** End of Report ***

BJD0507 21D0179/180 PNA

Date:2021-04-23,1:22:08 PM
 Data File:c:\n2000\data\gpc1\042321\GPC1-0000
 Method File:C:\N2000\GPC1_InHouse.mtd

Analyst£°SH
 Date/Time2021-04-23,1:22:08 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		41.332	1386887.375	305875872.000	98.8054
2		48.198	31210.396	3158132.000	1.0202
3		51.532	5372.111	539915.063	0.1744
Total			1423469.882	309573919.063	100.000

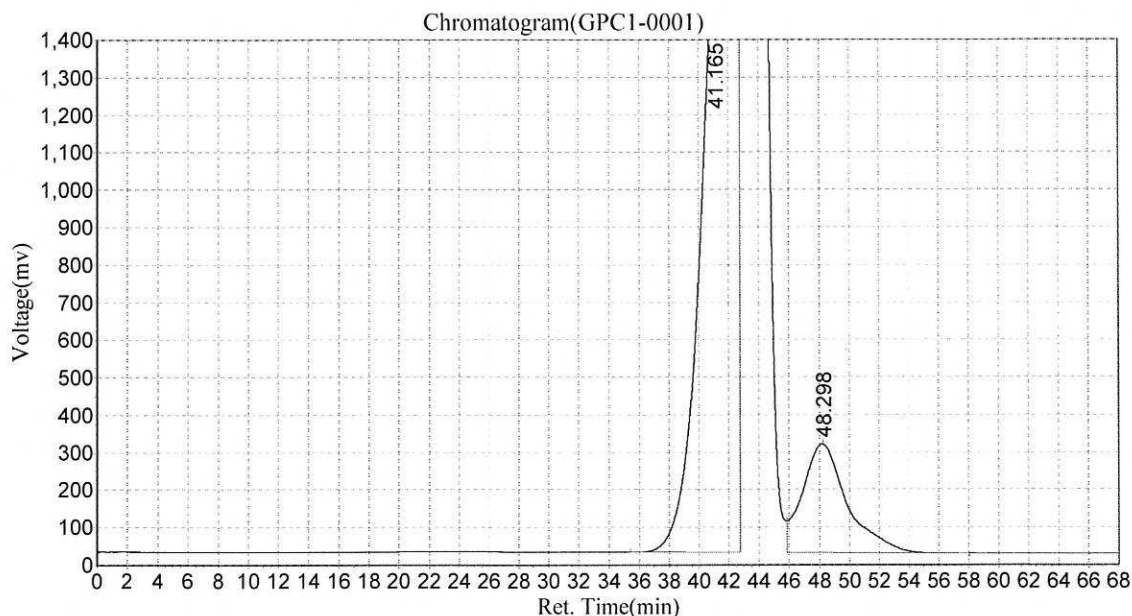
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	28.000	0.010	0.00E+000	0.00E+000	0.0000
2	Collect Pest	33.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump Pest	56.000	0.010	0.00E+000	0.00E+000	0.0000
4	Dump BAN	60.000	0.010	0.00E+000	0.00E+000	0.0000

BJD0507 21D0179/180 PNA

Date:2021-04-23,2:31:51 PM
 Data File:c:\n2000\data\gpc1\042321\GPC1-0001
 Method File:C:\N2000\GPC1_InHouse.mtd

Analyst:ESH
 Date/Time:2021-04-23,2:31:52 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		41.165	1393056.625	251172784.000	80.6150
2		48.298	290987.531	60398200.000	19.3851
Total			1684044.156	311570984.000	100.000

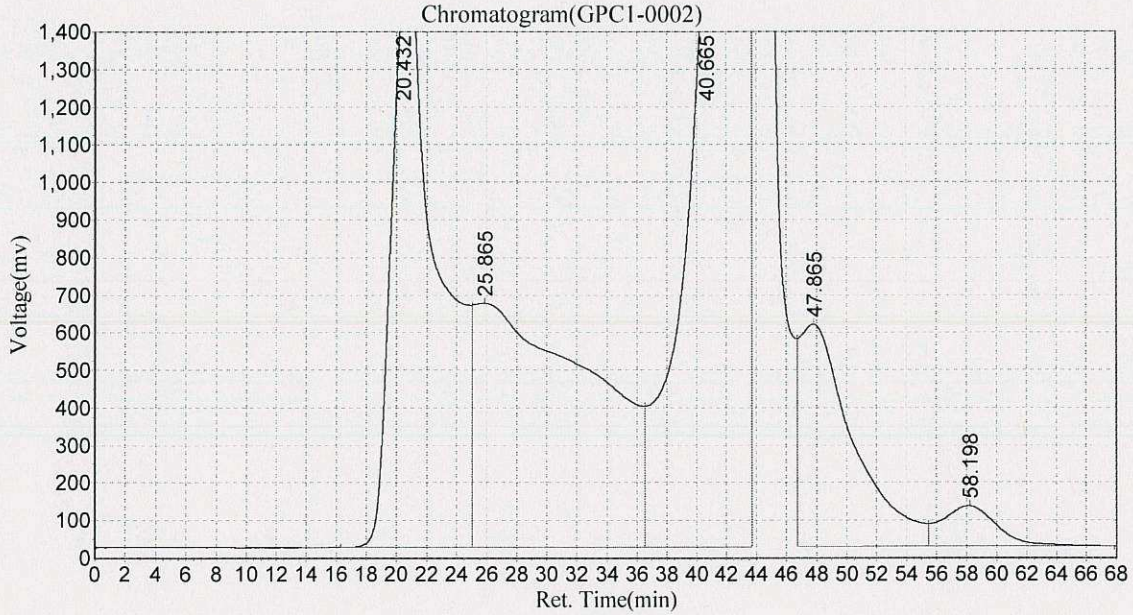
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	28.000	0.010	0.00E+000	0.00E+000	0.0000
2	Collect Pest	33.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump Pest	56.000	0.010	0.00E+000	0.00E+000	0.0000
4	Dump BAN	60.000	0.010	0.00E+000	0.00E+000	0.0000

BJD0507 21D0179/180 PNA

Date:2021-04-23,3:41:33 PM
 Data File:c:\n2000\data\gpc1\042321\GPC1-0002
 Method File:C:\N2000\GPC1_InHouse.mtd

AnalystE°SH
 Date/Time2021-04-23,3:41:33 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		20.432	1397339.750	328582784.000	25.5213
2		25.865	650259.063	354628896.000	27.5443
3		40.665	1396264.875	429132608.000	33.3311
4		47.865	592909.438	147492608.000	11.4559
5		58.198	107743.500	27648134.000	2.1475
Total			4144516.625	1287485030.000	100.000

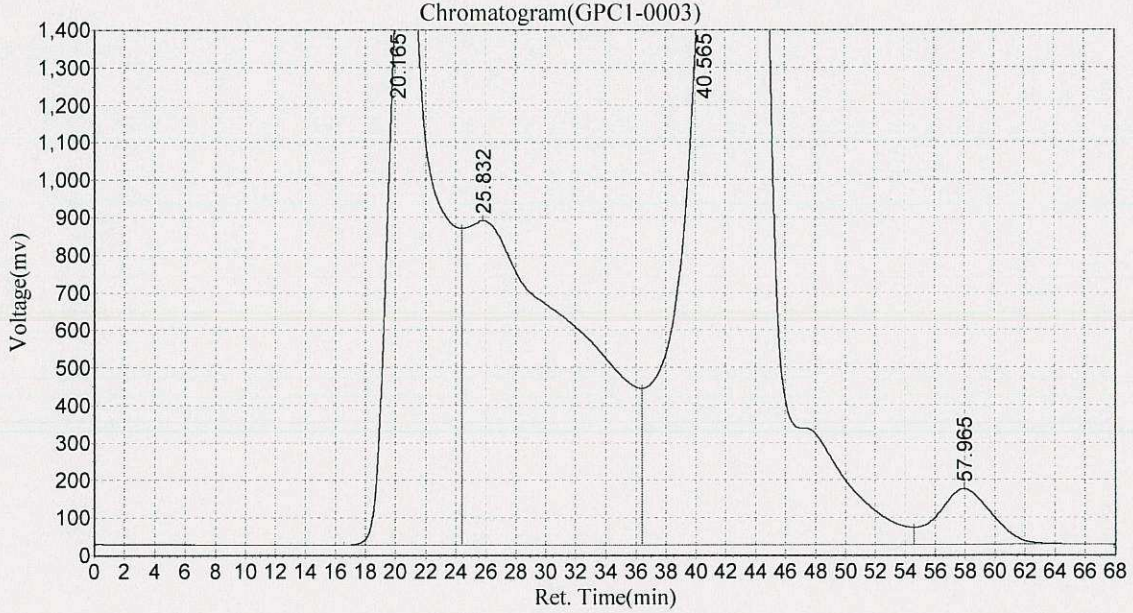
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	28.000	0.010	0.00E+000	0.00E+000	0.0000
2	Collect Pest	33.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump Pest	56.000	0.010	0.00E+000	0.00E+000	0.0000
4	Dump BAN	60.000	0.010	0.00E+000	0.00E+000	0.0000

BJD0507 21D0179/180 PNA

Date:2021-04-23,4:51:17 PM
Data File:c:\n2000\data\gpc1\042321\GPC1-0003
Method File:C:\N2000\GPC1_InHouse.mtd

Analyst£°SH
Date/Time2021-04-23,4:51:17 PM



Results

Table with 6 columns: Peak No., Peak ID, Ret Time, Height, Area, Conc. It lists 4 peaks and a total row.

Ingredient Table

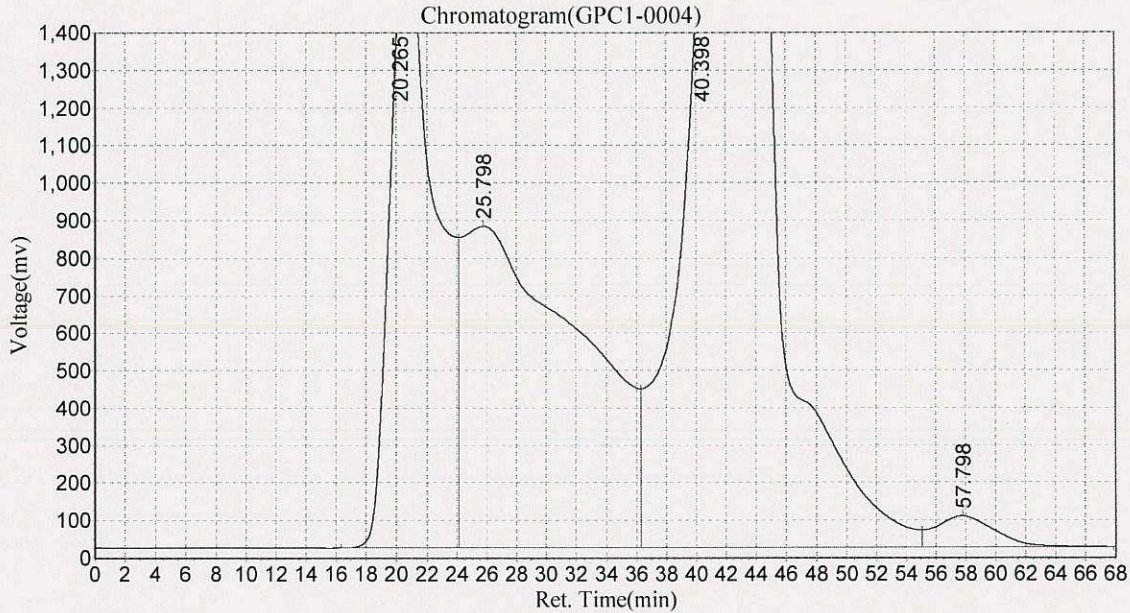
Table with 7 columns: No, Peak ID, Ret Time, Peak Width, Factor1, Factor2, ISTD Wt. It lists 4 ingredients.

-03

BJD0507 21D0179/180 PNA

Date:2021-04-23,6:00:58 PM
 Data File:c:\n2000\data\gpc1\042321\GPC1-0004
 Method File:C:\N2000\GPC1_InHouse.mtd

Analyst:SH
 Date/Time:2021-04-23,6:00:59 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		20.265	1399100.625	334763680.000	21.4040
2		25.798	858413.563	473923456.000	30.3015
3		40.398	1398550.875	732255232.000	46.8186
4		57.798	83258.844	23083556.000	1.4759
Total			3739323.906	1564025924.000	100.000

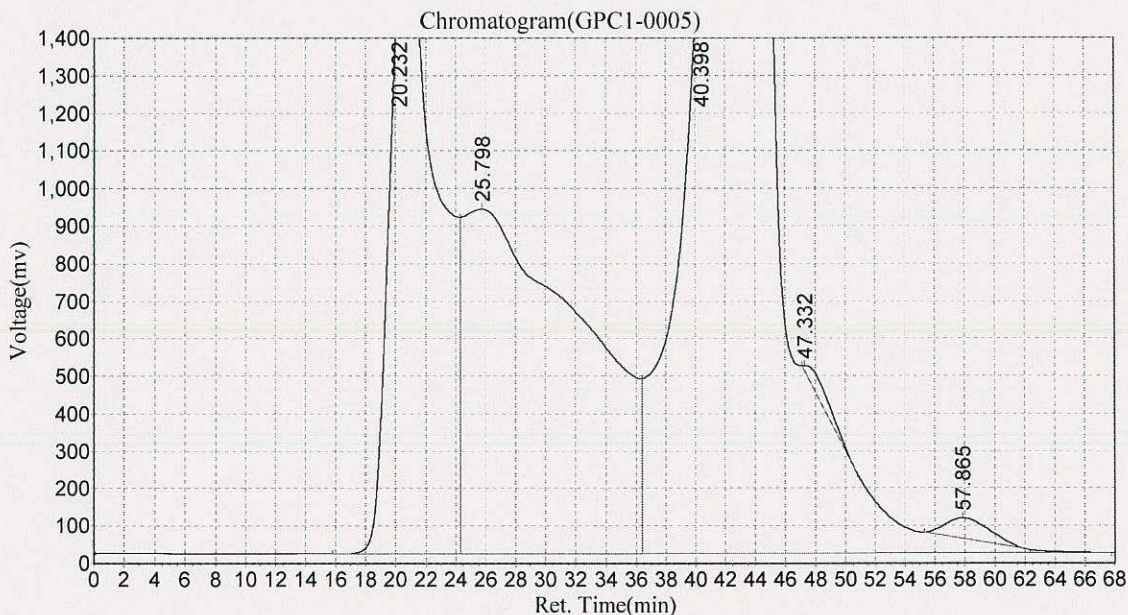
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	28.000	0.010	0.00E+000	0.00E+000	0.0000
2	Collect Pest	33.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump Pest	56.000	0.010	0.00E+000	0.00E+000	0.0000
4	Dump BAN	60.000	0.010	0.00E+000	0.00E+000	0.0000

BJD0507 21D0179/180 PNA

Date:2021-04-23,7:10:42 PM
 Data File:c:\n2000\data\gpc1\042321\GPC1-0005
 Method File:C:\N2000\GPC1_InHouse.mtd

Analyst:ESH
 Date/Time:2021-04-23,7:10:42 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		20.232	1400322.625	356659488.000	23.8636
2		25.798	920604.125	510461056.000	34.1543
3		40.398	1399538.500	610710080.000	40.8619
4		47.332	15861.909	5512438.000	0.3688
5		57.865	54543.566	11229325.000	0.7513
Total			3790870.726	1494572387.000	100.000

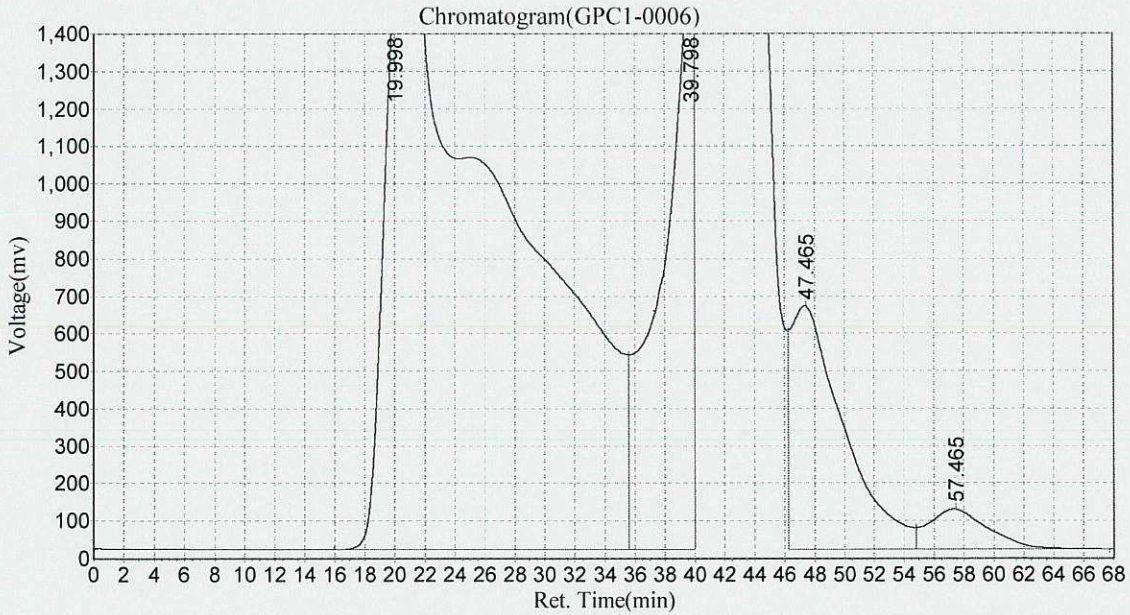
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	28.000	0.010	0.00E+000	0.00E+000	0.0000
2	Collect Pest	33.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump Pest	56.000	0.010	0.00E+000	0.00E+000	0.0000
4	Dump BAN	60.000	0.010	0.00E+000	0.00E+000	0.0000

BJD0507 21D0179/180 PNA

Date:2021-04-23,8:20:23 PM
 Data File:c:\n2000\data\gpc1\042321\GPC1-0006
 Method File:C:\N2000\GPC1_InHouse.mtd

Analyst:ESH
 Date/Time:2021-04-23,8:20:24 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		19.998	1402144.625	941053568.000	69.5922
2		39.798	1401850.625	222159712.000	16.4290
3		47.465	649642.875	159618944.000	11.8040
4		57.465	106612.414	29406852.000	2.1747
Total			3560250.539	1352239076.000	100.000

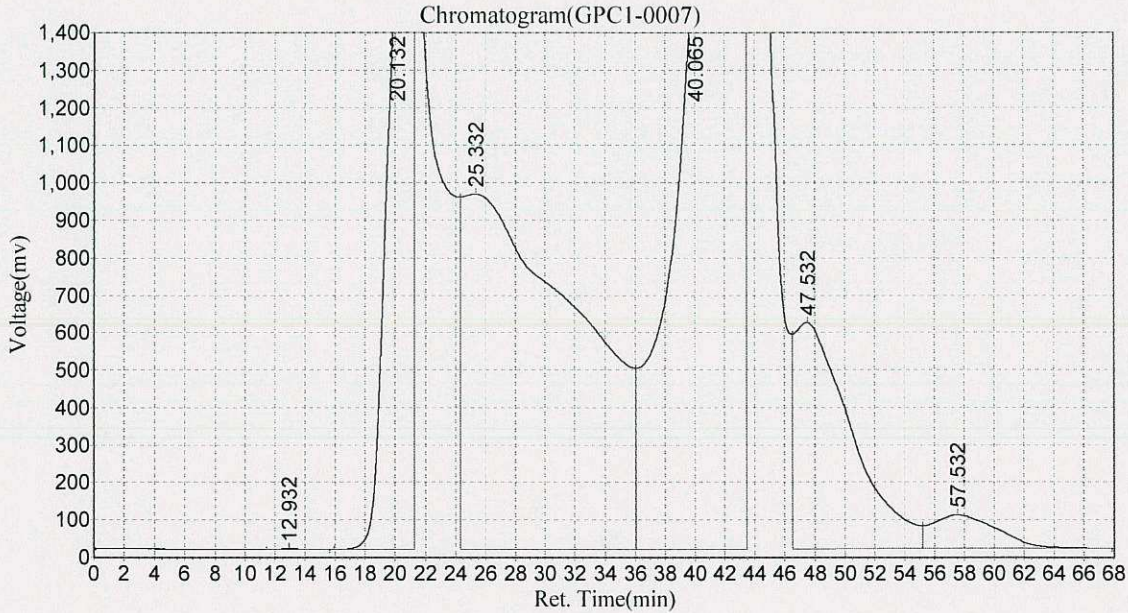
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	28.000	0.010	0.00E+000	0.00E+000	0.0000
2	Collect Pest	33.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump Pest	56.000	0.010	0.00E+000	0.00E+000	0.0000
4	Dump BAN	60.000	0.010	0.00E+000	0.00E+000	0.0000

BJD0507 21D0179/180 PNA

Date:2021-04-23,9:30:06 PM
 Data File:c:\n2000\data\gpc1\042321\GPC1-0007
 Method File:C:\N2000\GPC1_InHouse.mtd

AnalystE°SH
 Date/Time2021-04-23,9:30:07 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		12.932	1204.500	117146.797	0.0087
2		20.132	1403929.750	178858368.000	13.2269
3		25.332	948530.563	507476832.000	37.5289
4		40.065	1403170.250	478543200.000	35.3892
5		47.532	605101.750	159748384.000	11.8137
6		57.532	89938.711	27487152.000	2.0327
Total			4451875.523	1352231082.797	100.000

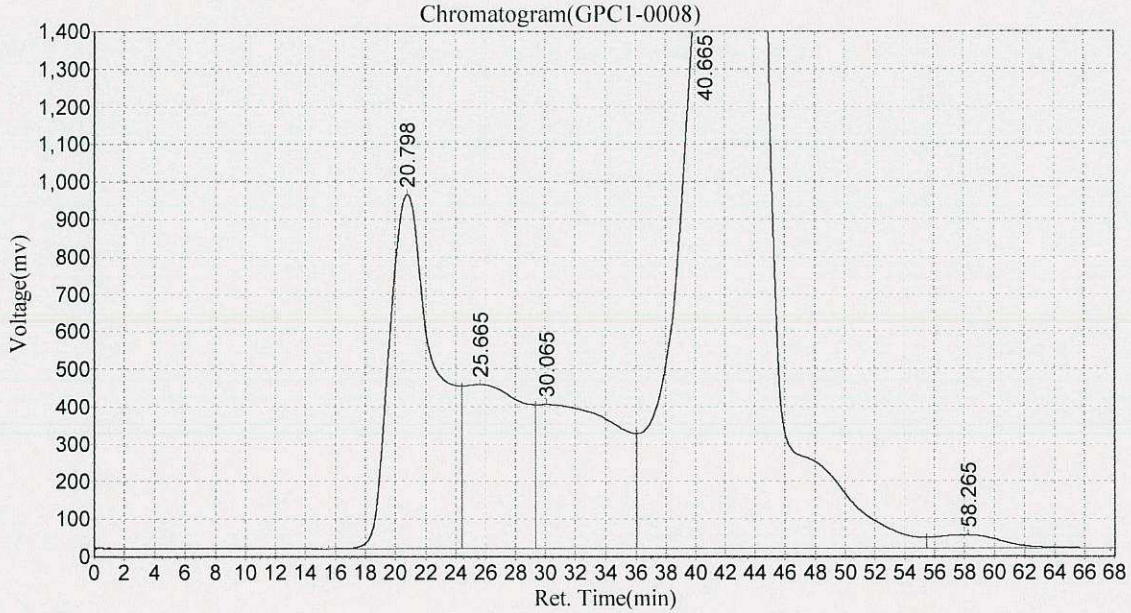
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	28.000	0.010	0.00E+000	0.00E+000	0.0000
2	Collect Pest	33.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump Pest	56.000	0.010	0.00E+000	0.00E+000	0.0000
4	Dump BAN	60.000	0.010	0.00E+000	0.00E+000	0.0000

BJD0507 21D0179/180 PNA

Date:2021-04-23,10:39:49 PM
Data File:c:\n2000\data\gpc1\042321\GPC1-0008
Method File:C:\N2000\GPC1_InHouse.mtd

Analyst:ESH
Date/Time:2021-04-23,10:39:49 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		20.798	946073.750	202038416.000	17.3375
2		25.665	438140.813	123626488.000	10.6087
3		30.065	385308.500	144848352.000	12.4298
4		40.665	1404280.875	683888448.000	58.6864
5		58.265	35528.766	10925096.000	0.9375
Total			3209332.703	1165326800.000	100.000

Ingredient Table

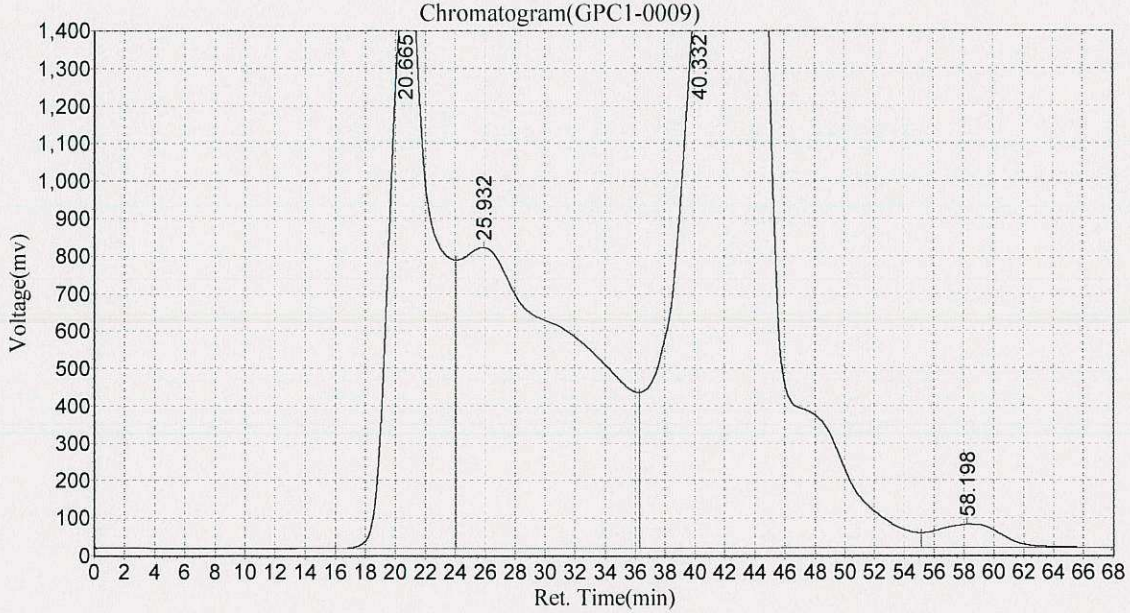
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	28.000	0.010	0.00E+000	0.00E+000	0.0000
2	Collect Pest	33.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump Pest	56.000	0.010	0.00E+000	0.00E+000	0.0000
4	Dump BAN	60.000	0.010	0.00E+000	0.00E+000	0.0000

- Φ 6

BJD0507 21D0179/180 PNA

Date:2021-04-23,11:49:31 PM
 Data File:c:\n2000\data\gpc1\042321\GPC1-0009
 Method File:C:\N2000\GPC1_InHouse.mtd

Analyst£°SH
 Date/Time2021-04-23,11:49:32 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		20.665	1405455.000	313517536.000	20.6285
2		25.932	802941.375	454136736.000	29.8807
3		40.332	1404847.875	732549568.000	48.1994
4		58.198	62777.387	19626880.000	1.2914
Total			3676021.637	1519830720.000	100.000

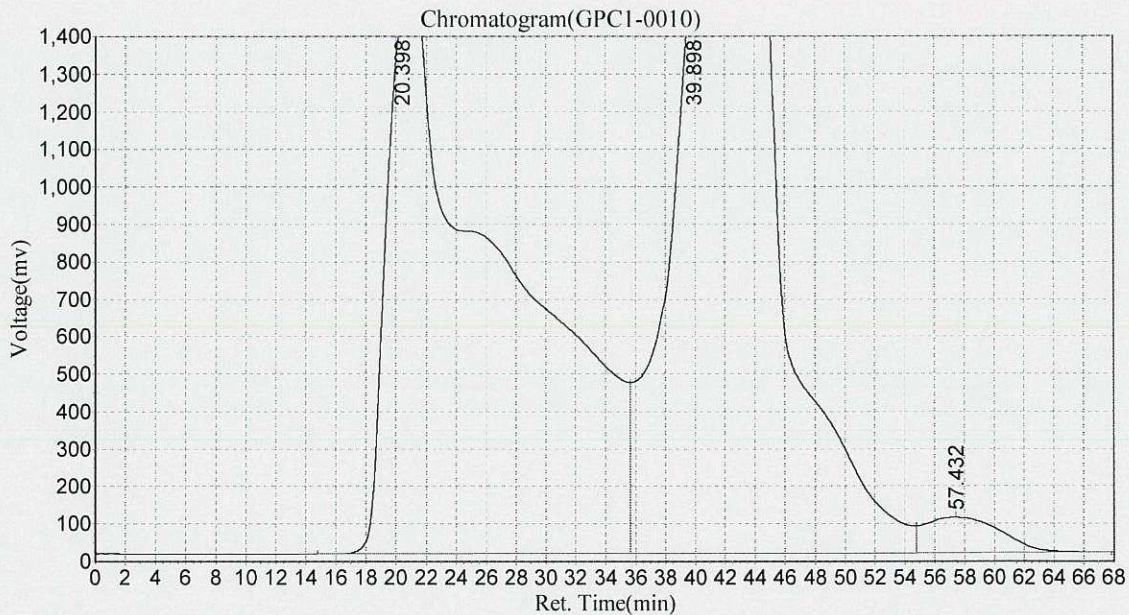
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	28.000	0.010	0.00E+000	0.00E+000	0.0000
2	Collect Pest	33.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump Pest	56.000	0.010	0.00E+000	0.00E+000	0.0000
4	Dump BAN	60.000	0.010	0.00E+000	0.00E+000	0.0000

BJD0507 21D0179/180 PNA

Date:2021-04-24,12:59:12 AM
 Data File:c:\n2000\data\gpc1\042321\GPC1-0010
 Method File:C:\N2000\GPC1_InHouse.mtd

Analyst:ESH
 Date/Time:2021-04-24,12:59:13 AM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		20.398	1405679.375	824428608.000	49.0344
2		39.898	1404451.250	823355584.000	48.9706
3		57.432	94026.984	33543676.000	1.9951
Total			2904157.609	1681327868.000	100.000

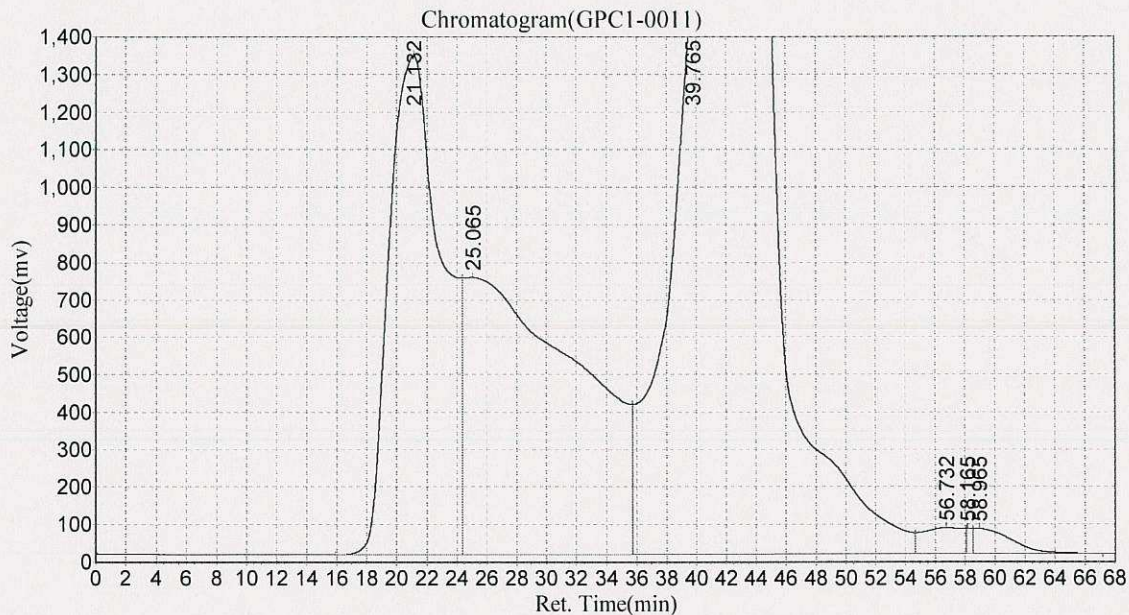
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	28.000	0.010	0.00E+000	0.00E+000	0.0000
2	Collect Pest	33.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump Pest	56.000	0.010	0.00E+000	0.00E+000	0.0000
4	Dump BAN	60.000	0.010	0.00E+000	0.00E+000	0.0000

- 02
BJD0507 21D0179/180 PNA

Date:2021-04-24,2:08:55 AM
 Data File:c:\n2000\data\gpc1\042321\GPC1-0011
 Method File:C:\N2000\GPC1_InHouse.mtd

Analyst£°SH
 Date/Time2021-04-24,2:08:55 AM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		21.132	1329095.125	326393984.000	21.5042
2		25.065	739392.625	392742848.000	25.8755
3		39.765	1404921.000	772060288.000	50.8665
4		56.732	68452.836	13198238.000	0.8696
5		58.165	67258.211	1868510.500	0.1231
6		58.965	66876.313	11553959.000	0.7612
Total			3675996.109	1517817827.500	100.000

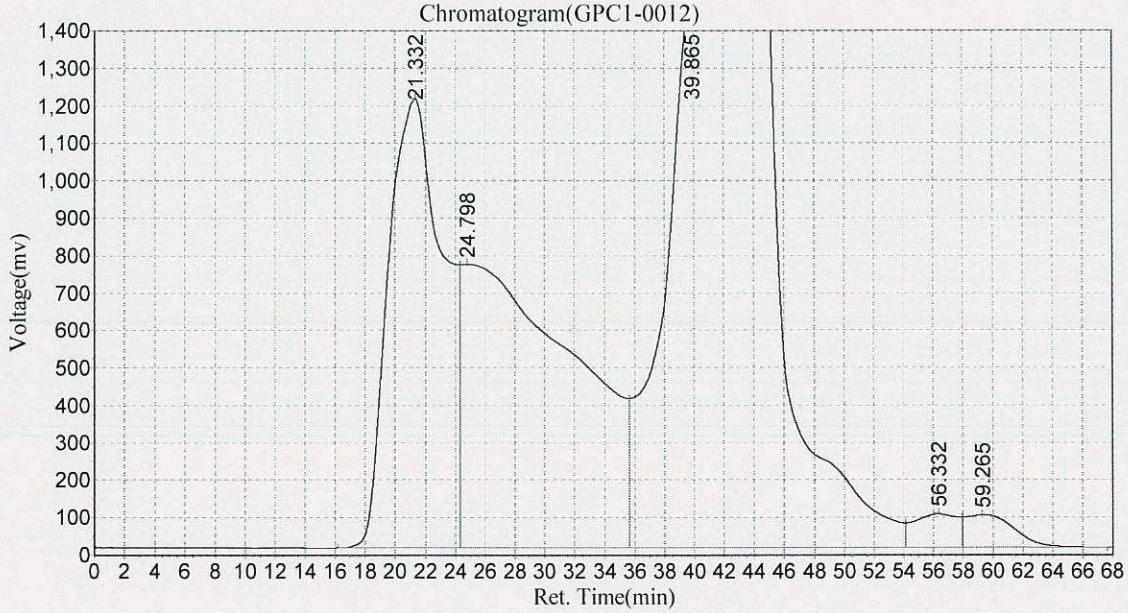
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	28.000	0.010	0.00E+000	0.00E+000	0.0000
2	Collect Pest	33.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump Pest	56.000	0.010	0.00E+000	0.00E+000	0.0000
4	Dump BAN	60.000	0.010	0.00E+000	0.00E+000	0.0000

BJD0507 21D0179/180 PNA

Date:2021-04-24,3:18:36 AM
 Data File:c:\n2000\data\gpc1\042321\GPC1-0012
 Method File:C:\N2000\GPC1_InHouse.mtd

Analyst:£°SH
 Date/Time:2021-04-24,3:18:37 AM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		21.332	1200018.250	305370912.000	20.1568
2		24.798	758073.125	398497472.000	26.3038
3		39.865	1406064.375	773223424.000	51.0386
4		56.332	89301.031	18324792.000	1.2096
5		59.265	86924.164	19562088.000	1.2912
Total			3540380.945	1514978688.000	100.000

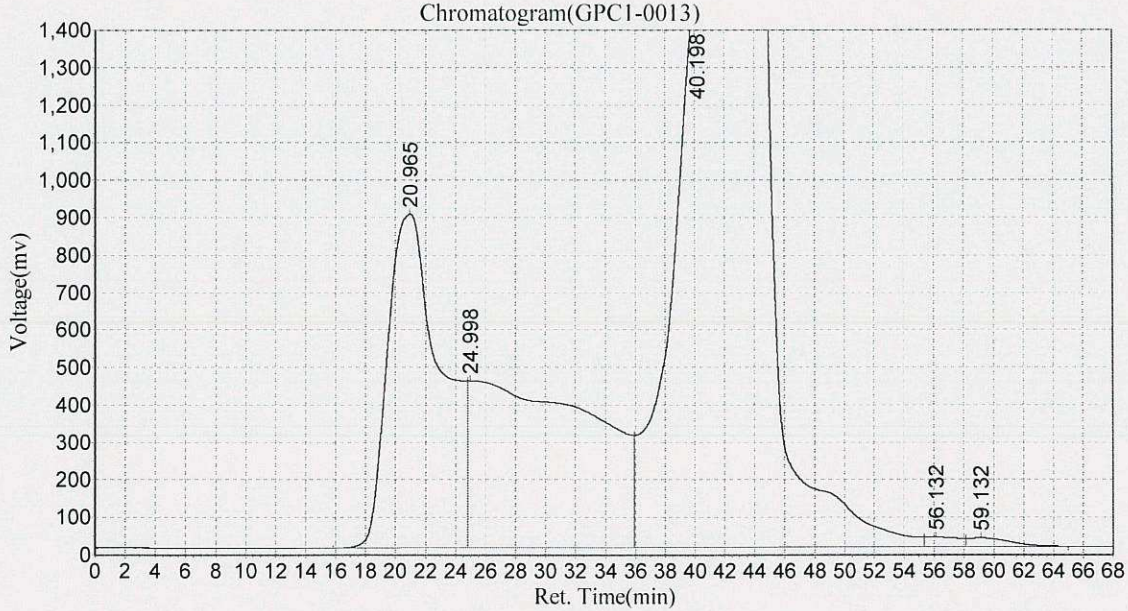
Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	28.000	0.010	0.00E+000	0.00E+000	0.0000
2	Collect Pest	33.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump Pest	56.000	0.010	0.00E+000	0.00E+000	0.0000
4	Dump BAN	60.000	0.010	0.00E+000	0.00E+000	0.0000

-04
BJD0507 21D0179/180 PNA

Date: 2021-04-24 4:28:20 AM
 Data File: c:\n2000\data\gpc1\042321\GPC1-0013
 Method File: C:\N2000\GPC1_InHouse.mtd

Analyst: E°SH
 Date/Time: 2021-04-24, 4:28:20 AM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		20.965	891070.875	220069920.000	18.9795
2		24.998	445858.656	255602320.000	22.0439
3		40.198	1405299.750	675420672.000	58.2503
4		56.132	24876.615	3996811.000	0.3447
5		59.132	23309.791	4425573.000	0.3817
Total			2790415.688	1159515296.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	28.000	0.010	0.00E+000	0.00E+000	0.0000
2	Collect Pest	33.000	0.010	0.00E+000	0.00E+000	0.0000
3	Dump Pest	56.000	0.010	0.00E+000	0.00E+000	0.0000
4	Dump BAN	60.000	0.010	0.00E+000	0.00E+000	0.0000



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor QEA, LLC

Project: Gasco Siltronic - US Moorings

Cleanup Batch: CJD0310

Cleanup Type: GPC

Cleanup Method: EPA 3640A GPC Cleanup 1:1

Analysis: EPA 8270E-SIM

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
USMPDI-029SG-210414	21D0180-04	NT1421050404S.D	04/28/2021	
USMPDI-010SG-210414	21D0180-01	NT1421043063.D	04/28/2021	
USMPDI-029SG-210414	21D0180-04	NT1421050404.D	04/28/2021	
USMPDI-019SG-210414	21D0180-03	NT1421043065S.D	04/28/2021	
USMPDI-019SG-210414	21D0180-03	NT1421043065.D	04/28/2021	
USMPDI-015SG-210414	21D0180-02	NT1421043064S.D	04/28/2021	
USMPDI-010SG-210414	21D0180-01	NT1421043063S.D	04/28/2021	
Blank	BJD0507-BLK1	NT1421043053.D	04/28/2021	
Blank	BJD0507-BLK2	NT1421043053S.D	04/28/2021	
LCS	BJD0507-BS1	NT1421043054.D	04/28/2021	
USMPDI-015SG-210414	21D0180-02	NT1421043064.D	04/28/2021	



CLEANUP BENCH SHEET

CJD0310

Matrix: Solid

Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1

Printed: 4/28/2021 11:44:56AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
21D0180-04	A	USMPDI-029SG-210414	A 04	0.5	0.5	270E-SIM Alkyl PAH (Range) Dual Sc	4/28/2021	DDM	
21D0180-04	A	USMPDI-029SG-210414	A 04	0.5	0.5	70E-SIM Alkyl PAH (Parents) Dual Sc	4/28/2021	DDM	
21D0180-02	A	USMPDI-015SG-210414	A 04	0.5	0.5	70E-SIM Alkyl PAH (Parents) Dual Sc	4/28/2021	DDM	
21D0180-02	A	USMPDI-015SG-210414	A 04	0.5	0.5	270E-SIM Alkyl PAH (Range) Dual Sc	4/28/2021	DDM	
21D0180-03	A	USMPDI-019SG-210414	A 03	0.5	0.5	70E-SIM Alkyl PAH (Parents) Dual Sc	4/28/2021	DDM	
21D0180-03	A	USMPDI-019SG-210414	A 03	0.5	0.5	270E-SIM Alkyl PAH (Range) Dual Sc	4/28/2021	DDM	
21D0179-04	A	USMPDI-036SG-210413	A 03	0.5	0.5	70E-SIM Alkyl PAH (Parents) Dual Sc	4/28/2021	DDM	
21D0179-04	A	USMPDI-036SG-210413	A 03	0.5	0.5	270E-SIM Alkyl PAH (Range) Dual Sc	4/28/2021	DDM	
21D0179-05	A	USMPDI-037SG-210413	A 03	0.5	0.5	70E-SIM Alkyl PAH (Parents) Dual Sc	4/28/2021	DDM	
21D0179-05	A	USMPDI-037SG-210413	A 03	0.5	0.5	270E-SIM Alkyl PAH (Range) Dual Sc	4/28/2021	DDM	
21D0179-06	A	USMPDI-1037SG-210413	A 03	0.5	0.5	70E-SIM Alkyl PAH (Parents) Dual Sc	4/28/2021	DDM	
21D0179-06	A	USMPDI-1037SG-210413	A 03	0.5	0.5	270E-SIM Alkyl PAH (Range) Dual Sc	4/28/2021	DDM	
21D0180-01	A	USMPDI-010SG-210414	A 04	0.5	0.5	70E-SIM Alkyl PAH (Parents) Dual Sc	4/28/2021	DDM	
21D0180-01	A	USMPDI-010SG-210414	A 04	0.5	0.5	270E-SIM Alkyl PAH (Range) Dual Sc	4/28/2021	DDM	
21D0179-01	A	USMPDI-008SG-210413	A 03	0.5	0.5	70E-SIM Alkyl PAH (Parents) Dual Sc	4/28/2021	DDM	
21D0179-01	A	USMPDI-008SG-210413	A 03	0.5	0.5	270E-SIM Alkyl PAH (Range) Dual Sc	4/28/2021	DDM	
21D0179-02	A	USMPDI-016SG-210413	A 03	0.5	0.5	70E-SIM Alkyl PAH (Parents) Dual Sc	4/28/2021	DDM	
21D0179-02	A	USMPDI-016SG-210413	A 03	0.5	0.5	270E-SIM Alkyl PAH (Range) Dual Sc	4/28/2021	DDM	
21D0179-03	A	USMPDI-024SG-210413	A 03	0.5	0.5	70E-SIM Alkyl PAH (Parents) Dual Sc	4/28/2021	DDM	
21D0179-03	A	USMPDI-024SG-210413	A 03	0.5	0.5	270E-SIM Alkyl PAH (Range) Dual Sc	4/28/2021	DDM	
BJD0507-MSD2	-	Matrix Spike Dup	-	0.5	0.5	-	4/28/2021	DDM	
BJD0507-MSD1	-	Matrix Spike Dup	-	0.5	0.5	-	4/28/2021	DDM	



CLEANUP BENCH SHEET

CJD0310

Matrix: Solid

Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1

Printed: 4/28/2021 11:44:56AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (uL)	Final (uL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
BJD0507-MS1	-	Matrix Spike	-	0.5	0.5	-	4/28/2021	DDM	
BJD0507-MS2	-	Matrix Spike	-	0.5	0.5	-	4/28/2021	DDM	
BJD0507-BS1	-	LCS	-	0.5	0.5	-	4/28/2021	DDM	
BJD0507-BS2	-	LCS	-	0.5	0.5	-	4/28/2021	DDM	
BJD0507-BLK1	-	Blank	-	0.5	0.5	-	4/28/2021	DDM	
BJD0507-BLK2	-	Blank	-	0.5	0.5	-	4/28/2021	DDM	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor QEA, LLC

Project: Gasco Siltronic - US Moorings

Cleanup Batch: CJD0311

Cleanup Type: Silica Gel

Cleanup Method: EPA 3630C Silica Gel Cleanup

Analysis: EPA 8270E-SIM

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
USMPDI-015SG-210414	21D0180-02	NT1421043064S.D	04/28/2021	
Blank	BJD0507-BLK2	NT1421043053S.D	04/28/2021	
Blank	BJD0507-BLK1	NT1421043053.D	04/28/2021	
USMPDI-029SG-210414	21D0180-04	NT1421050404S.D	04/28/2021	
USMPDI-029SG-210414	21D0180-04	NT1421050404.D	04/28/2021	
LCS	BJD0507-BS1	NT1421043054.D	04/28/2021	
USMPDI-019SG-210414	21D0180-03	NT1421043065.D	04/28/2021	
USMPDI-015SG-210414	21D0180-02	NT1421043064.D	04/28/2021	
USMPDI-010SG-210414	21D0180-01	NT1421043063S.D	04/28/2021	
USMPDI-010SG-210414	21D0180-01	NT1421043063.D	04/28/2021	
USMPDI-019SG-210414	21D0180-03	NT1421043065S.D	04/28/2021	



CLEANUP BENCH SHEET

CJD0311

Matrix: Solid

Cleanup using: Organics - EPA 3630C Silica Gel Cleanup

Printed: 4/28/2021 11:46:17AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
21D0180-04	A	USMPDI-029SG-210414	A 04	0.5	0.5	270E-SIM Alkyl PAH (Range) Dual Sc	4/28/2021	DDM	
21D0180-04	A	USMPDI-029SG-210414	A 04	0.5	0.5	70E-SIM Alkyl PAH (Parents) Dual Sc	4/28/2021	DDM	
21D0180-02	A	USMPDI-015SG-210414	A 04	0.5	0.5	70E-SIM Alkyl PAH (Parents) Dual Sc	4/28/2021	DDM	
21D0180-02	A	USMPDI-015SG-210414	A 04	0.5	0.5	270E-SIM Alkyl PAH (Range) Dual Sc	4/28/2021	DDM	
21D0180-03	A	USMPDI-019SG-210414	A 03	0.5	0.5	70E-SIM Alkyl PAH (Parents) Dual Sc	4/28/2021	DDM	
21D0180-03	A	USMPDI-019SG-210414	A 03	0.5	0.5	270E-SIM Alkyl PAH (Range) Dual Sc	4/28/2021	DDM	
21D0179-04	A	USMPDI-036SG-210413	A 03	0.5	0.5	70E-SIM Alkyl PAH (Parents) Dual Sc	4/28/2021	DDM	
21D0179-04	A	USMPDI-036SG-210413	A 03	0.5	0.5	270E-SIM Alkyl PAH (Range) Dual Sc	4/28/2021	DDM	
21D0179-05	A	USMPDI-037SG-210413	A 03	0.5	0.5	70E-SIM Alkyl PAH (Parents) Dual Sc	4/28/2021	DDM	
21D0179-05	A	USMPDI-037SG-210413	A 03	0.5	0.5	270E-SIM Alkyl PAH (Range) Dual Sc	4/28/2021	DDM	
21D0179-06	A	USMPDI-1037SG-210413	A 03	0.5	0.5	70E-SIM Alkyl PAH (Parents) Dual Sc	4/28/2021	DDM	
21D0179-06	A	USMPDI-1037SG-210413	A 03	0.5	0.5	270E-SIM Alkyl PAH (Range) Dual Sc	4/28/2021	DDM	
21D0180-01	A	USMPDI-010SG-210414	A 04	0.5	0.5	70E-SIM Alkyl PAH (Parents) Dual Sc	4/28/2021	DDM	
21D0180-01	A	USMPDI-010SG-210414	A 04	0.5	0.5	270E-SIM Alkyl PAH (Range) Dual Sc	4/28/2021	DDM	
21D0179-01	A	USMPDI-008SG-210413	A 03	0.5	0.5	70E-SIM Alkyl PAH (Parents) Dual Sc	4/28/2021	DDM	
21D0179-01	A	USMPDI-008SG-210413	A 03	0.5	0.5	270E-SIM Alkyl PAH (Range) Dual Sc	4/28/2021	DDM	
21D0179-02	A	USMPDI-016SG-210413	A 03	0.5	0.5	70E-SIM Alkyl PAH (Parents) Dual Sc	4/28/2021	DDM	
21D0179-02	A	USMPDI-016SG-210413	A 03	0.5	0.5	270E-SIM Alkyl PAH (Range) Dual Sc	4/28/2021	DDM	
21D0179-03	A	USMPDI-024SG-210413	A 03	0.5	0.5	70E-SIM Alkyl PAH (Parents) Dual Sc	4/28/2021	DDM	
21D0179-03	A	USMPDI-024SG-210413	A 03	0.5	0.5	270E-SIM Alkyl PAH (Range) Dual Sc	4/28/2021	DDM	
BJD0507-MSD2	-	Matrix Spike Dup	-	0.5	0.5	-	4/28/2021	DDM	
BJD0507-MSD1	-	Matrix Spike Dup	-	0.5	0.5	-	4/28/2021	DDM	



CLEANUP BENCH SHEET

CJD0311

Matrix: Solid

Cleanup using: Organics - EPA 3630C Silica Gel Cleanup

Printed: 4/28/2021 11:46:17AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
BJD0507-MS1	-	Matrix Spike	-	0.5	0.5	-	4/28/2021	DDM	
BJD0507-MS2	-	Matrix Spike	-	0.5	0.5	-	4/28/2021	DDM	
BJD0507-BS1	-	LCS	-	0.5	0.5	-	4/28/2021	DDM	
BJD0507-BS2	-	LCS	-	0.5	0.5	-	4/28/2021	DDM	
BJD0507-BLK1	-	Blank	-	0.5	0.5	-	4/28/2021	DDM	
BJD0507-BLK2	-	Blank	-	0.5	0.5	-	4/28/2021	DDM	



Form I
METHOD BLANK DATA SHEET
EPA 8270E-SIM

Blank

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>21D0180</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic - US Moorings</u>
Matrix:	<u>Solid</u>	Laboratory ID:	<u>BJD0479-BLK1</u>
Sampled:	<u>N/A</u>	Prepared:	<u>04/21/21 16:33</u>
Solids:		Preparation:	<u>EPA 3546 (Microwave) Low</u>
Batch:	<u>BJD0479</u>	Sequence:	<u>SJD0344</u>
Instrument:	<u>NT11</u>	Column:	<u>RXi-17Sil-MS</u>
		Cleanups:	<u>Silica Gel, Sulfur</u>
		File ID:	<u>NT1121042404.D</u>
		Analyzed:	<u>04/24/21 11:18</u>
		Initial/Final:	<u>10 g / 0.5 mL</u>
		Calibration:	<u>DH00073</u>

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
91-20-3	Naphthalene	1	0.60	U	0.44	0.60
91-57-6	2-Methylnaphthalene	1	0.50	U	0.13	0.50
208-96-8	Acenaphthylene	1	0.50	U	0.06	0.50
83-32-9	Acenaphthene	1	0.50	U	0.09	0.50
86-73-7	Fluorene	1	0.50	U	0.07	0.50
85-01-8	Phenanthrene	1	0.50	U	0.11	0.50
120-12-7	Anthracene	1	0.50	U	0.07	0.50
206-44-0	Fluoranthene	1	0.17	J	0.08	0.50
129-00-0	Pyrene	1	0.13	J	0.09	0.50
56-55-3	Benzo(a)anthracene	1	0.50	U	0.07	0.50
218-01-9	Chrysene	1	0.17	J	0.07	0.50
205-99-2	Benzo(b)fluoranthene	1	0.50	U	0.07	0.50
207-08-9	Benzo(k)fluoranthene	1	0.50	U	0.10	0.50
205-82-3	Benzo(j)fluoranthene	1	0.50	U	0.10	0.50
50-32-8	Benzo(a)pyrene	1	0.50	U	0.09	0.50
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.50	U	0.09	0.50
53-70-3	Dibenzo(a,h)anthracene	1	0.50	U	0.11	0.50
191-24-2	Benzo(g,h,i)perylene	1	0.50	U	0.09	0.50

Data File: \\target\share\chem3\nt11,1\20210424,6\NT1121042404.D

Date : 24-APR-2021 11:18

Client ID:

Sample Info: BJD0479-BLK1

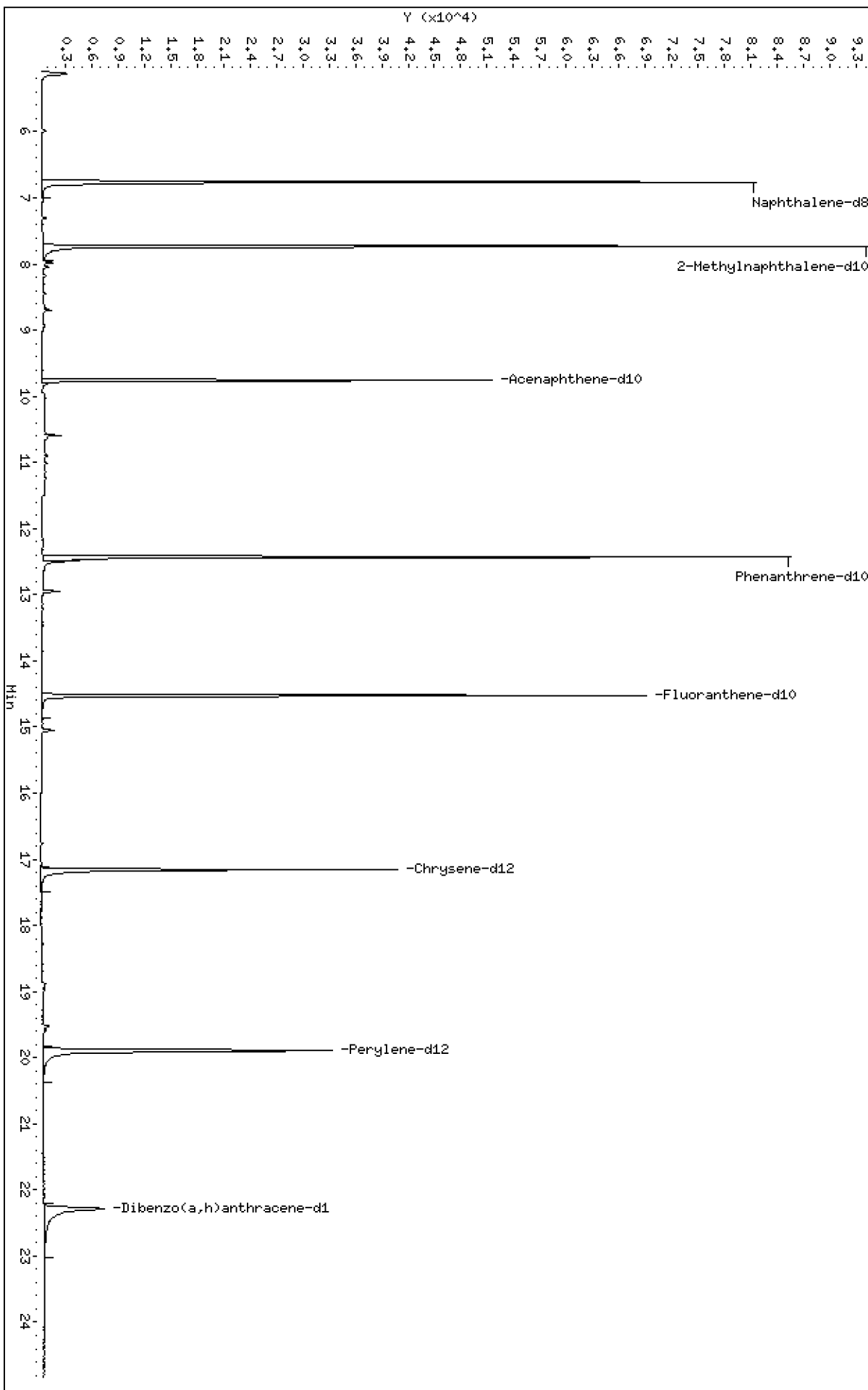
Instrument: nt11,1

Operator: VTS

Column diameter: 0.25

Column phase: Rxi-17S11 MS

\\target\share\chem3\nt11,1\20210424,6\NT1121042404.D



Date : 24-APR-2021 11:18

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BLK1

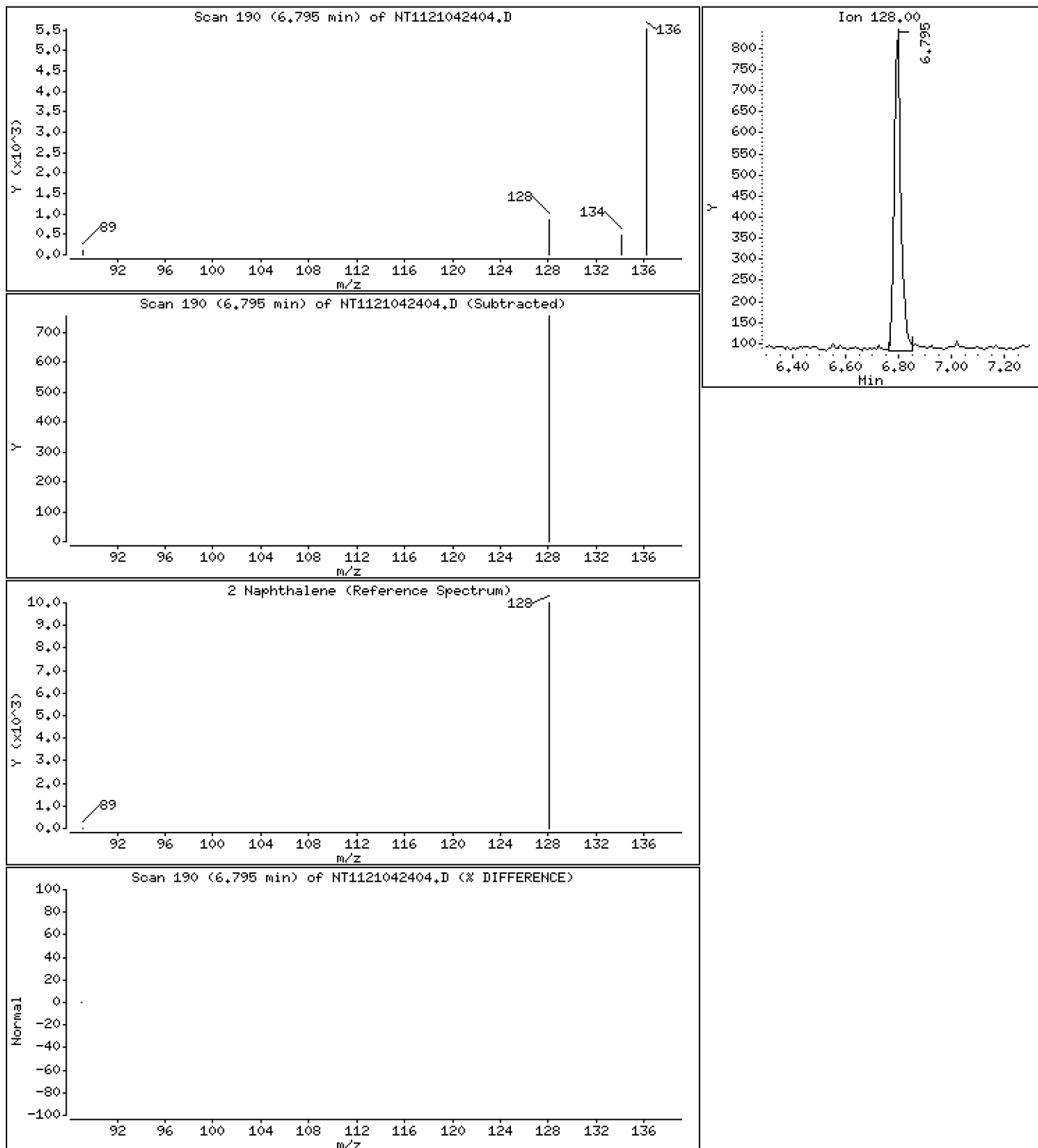
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 1,82 ng/mL



Date : 24-APR-2021 11:18

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BLK1

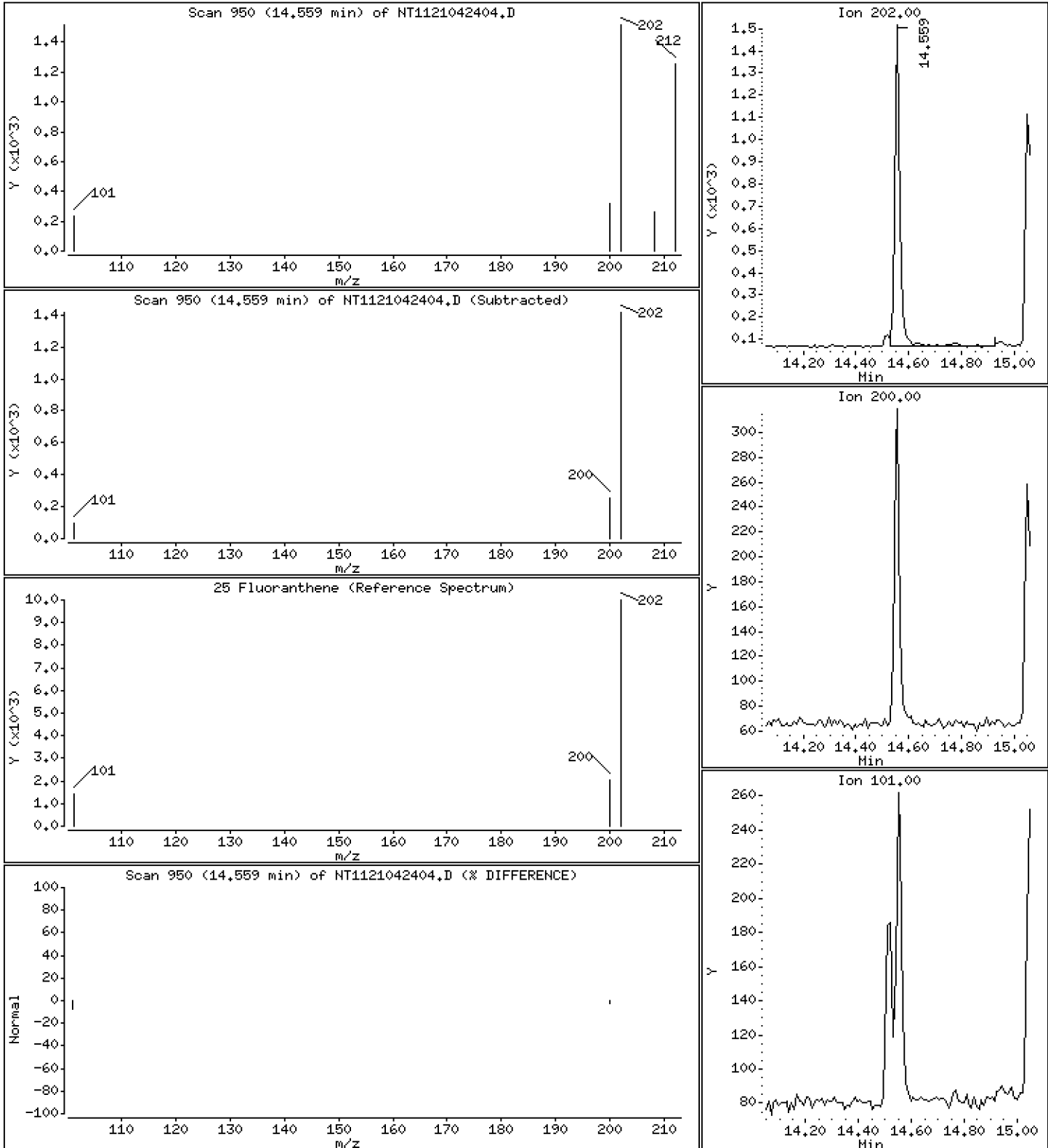
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

25 Fluoranthene

Concentration: 3,46 ng/mL



Date : 24-APR-2021 11:18

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BLK1

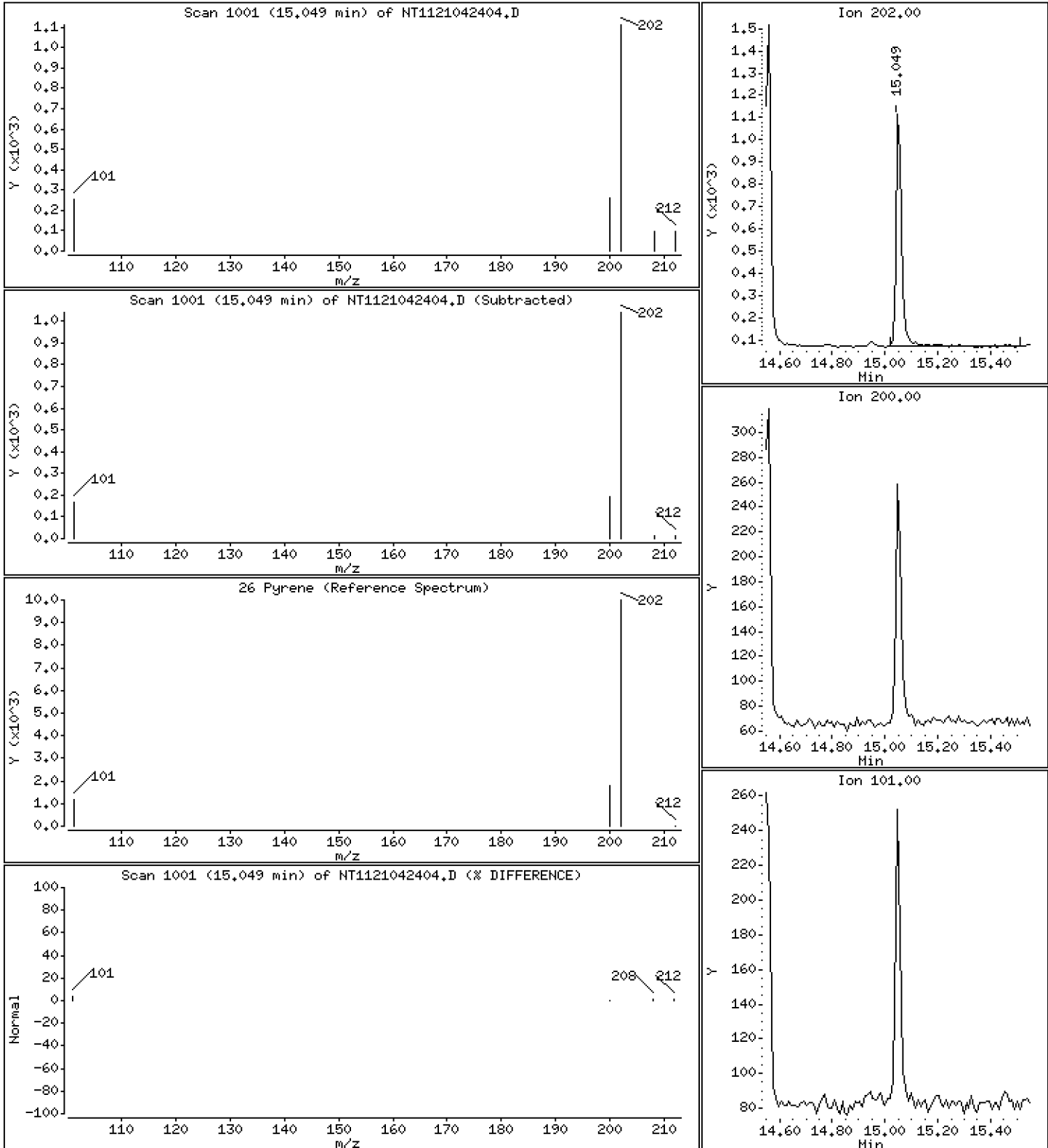
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

Concentration: 2,61 ng/mL

26 Pyrene



Date : 24-APR-2021 11:18

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BLK1

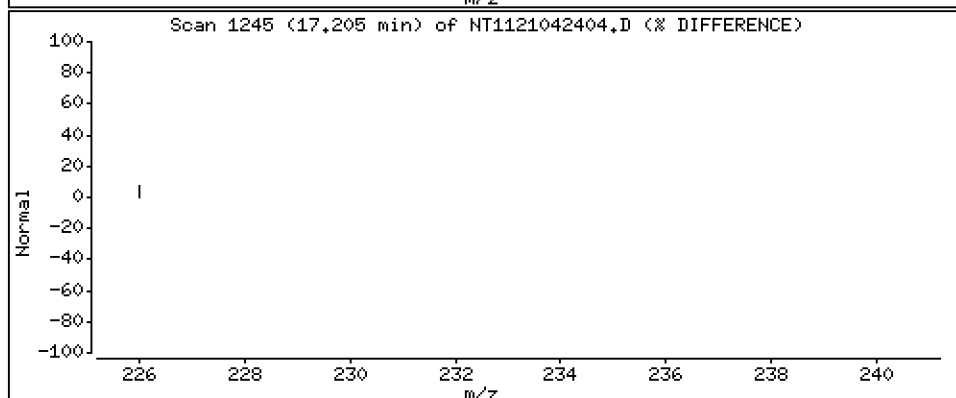
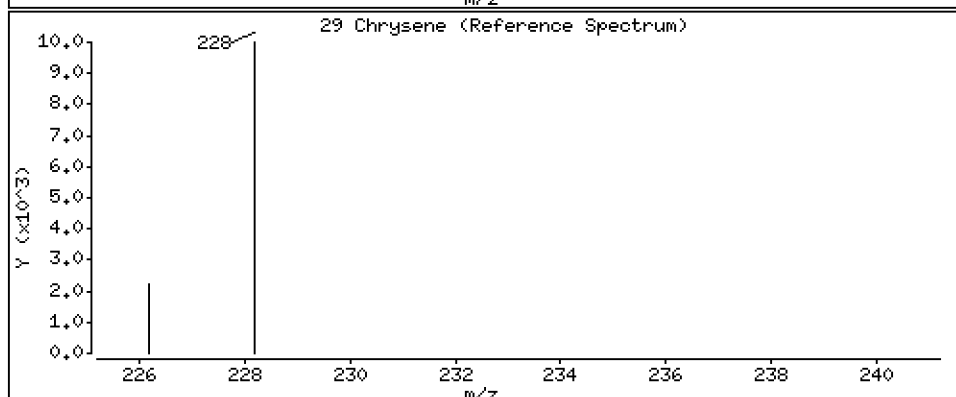
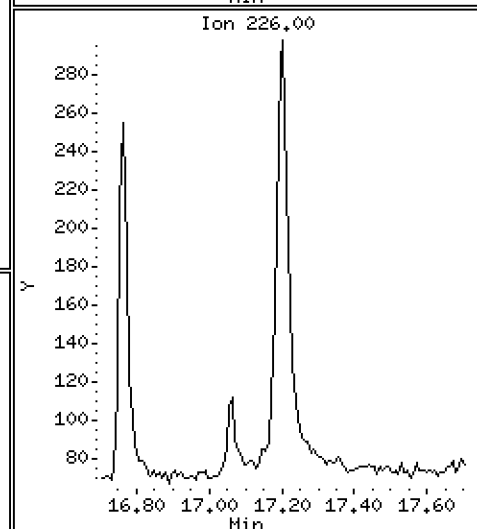
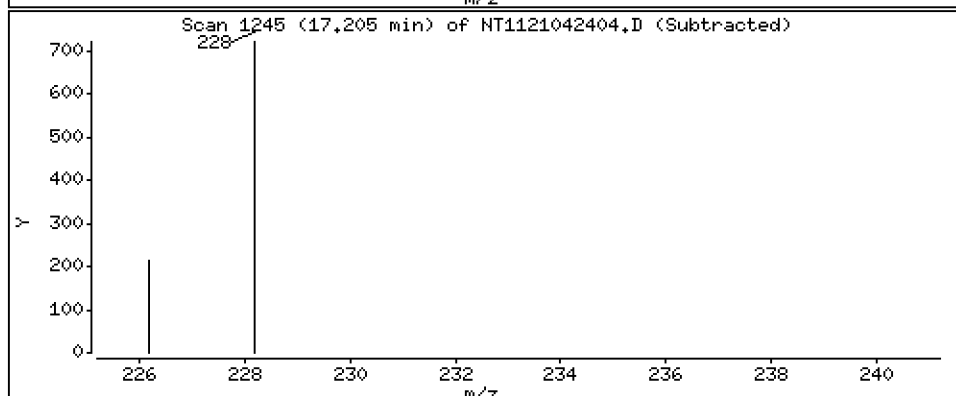
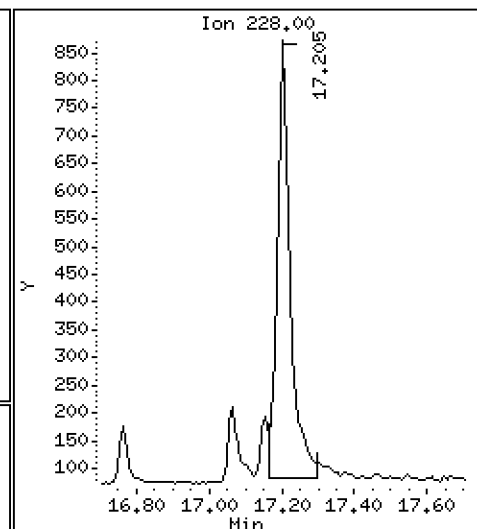
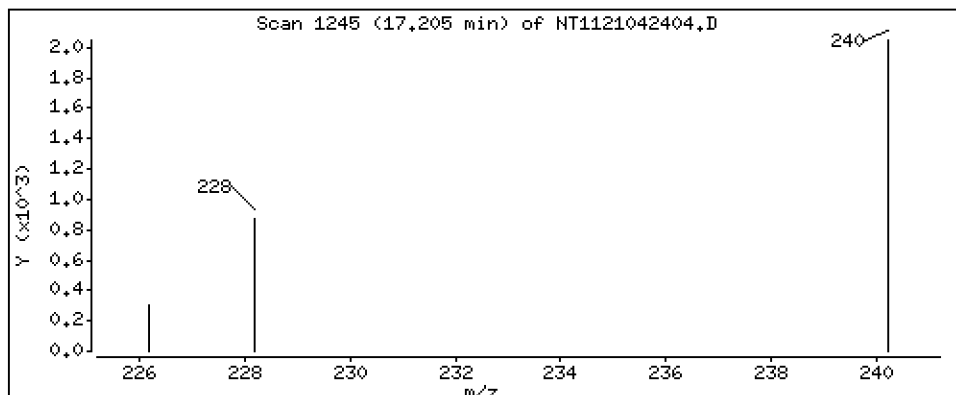
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

29 Chrysene

Concentration: 3,49 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20210424.b\NT1121042404.D
 Lab Smp Id: BJD0479-BLK1
 Inj Date : 24-APR-2021 11:18 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : BJD0479-BLK1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20210424.b\lowsim.m
 Meth Date : 24-Apr-2021 10:50 van Quant Type: ISTD
 Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
 Als bottle: 4
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PAH.sub
 Target Version: 4.14
 Processing Host: VANS-202011

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136	====	6.758	6.768	(1.000)	126302	200.000	
2 Naphthalene	128		6.795	6.795	(1.005)	1337	1.82317	1.82 (M)
3 Benzo(b)thiophene	134		Compound Not Detected.					
\$ 4 2-Methylnaphthalene-d10	152		7.728	7.738	(1.143)	69771	137.385	137
5 2-Methylnaphthalene	142		Compound Not Detected.					
6 1-Methylnaphthalene	142		Compound Not Detected.					
7 2-Chloronaphthalene	162		Compound Not Detected.					
8 Biphenyl	154		Compound Not Detected.					
9 2,6-Dimethylnaphthalene	156		Compound Not Detected.					
10 Acenaphthylene	152		Compound Not Detected.					
* 11 Acenaphthene-d10	164		9.761	9.761	(1.000)	64954	200.000	
12 Acenaphthene	153		Compound Not Detected.					
13 Dibenzofuran	168		Compound Not Detected.					
14 2,3,5-Trimethylnaphthalene	170		Compound Not Detected.					
16 Fluorene	166		Compound Not Detected.					
17 Dibenzothiophene	184		Compound Not Detected.					
* 18 Phenanthrene-d10	188		12.428	12.428	(1.000)	94766	200.000	
19 Phenanthrene	178		Compound Not Detected.					
21 Anthracene	178		Compound Not Detected.					
22 Carbazole	167		Compound Not Detected.					
23 1-Methylphenanthrene	192		Compound Not Detected.					
\$ 24 Fluoranthene-d10	212		14.520	14.520	(1.168)	78563	158.125	158
25 Fluoranthene	202		14.558	14.558	(1.171)	2141	3.46409	3.46
26 Pyrene	202		15.048	15.048	(1.211)	1655	2.61012	2.61
27 Benzo(a)anthracene	228		Compound Not Detected.					
* 28 Chrysene-d12	240		17.155	17.155	(1.000)	67946	200.000	
29 Chrysene	228		17.205	17.205	(1.003)	1959	3.48575	3.49 (M)
30 Benzo(b)fluoranthene	252		Compound Not Detected.					
31 Benzo(k)fluoranthene	252		Compound Not Detected.					
32 Benzo(j)fluoranthene	252		Compound Not Detected.					
34 Benzo(e)pyrene	252		Compound Not Detected.					
35 Benzo(a)pyrene	252		Compound Not Detected.					
* 36 Perylene-d12	264		19.893	19.893	(1.000)	74191	200.000	
37 Perylene	252		Compound Not Detected.					

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS					(ng/mL)	(ng/mL)	
=====	=====		=====	=====	=====	=====	=====	
\$ 38 Dibenzo(a,h)anthracene-d14	292		22.283	22.283	(1.120)	41195	143.025	143
39 Dibenzo(a,h)anthracene	278					Compound Not Detected.		
40 Indeno(1,2,3-cd)pyrene	276					Compound Not Detected.		
41 Benzo(g,h,i)perylene	276					Compound Not Detected.		

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 24-APR-2021
 Lab File ID: NT1121042404.D Calibration Time: 10:14
 Lab Smp Id: BJD0479-BLK1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20210424.b\lowsim.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	134531	67266	269062	126302	-6.12
11 Acenaphthene-d10	76981	38491	153962	64954	-15.62
18 Phenanthrene-d10	116022	58011	232044	94766	-18.32
28 Chrysene-d12	83386	41693	166772	67946	-18.52
36 Perylene-d12	98043	49022	196086	74191	-24.33

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.77	6.27	7.27	6.76	-0.14
11 Acenaphthene-d10	9.76	9.26	10.26	9.76	-0.00
18 Phenanthrene-d10	12.43	11.93	12.93	12.43	-0.00
28 Chrysene-d12	17.16	16.66	17.66	17.16	-0.00
36 Perylene-d12	19.89	19.39	20.39	19.89	-0.00

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.

REVIEW SUMMARY FOR FILE - NT1121042404.D

Lab ID: BJD0479-BLK1
nt11.i, 20210424.b\lowsim.m, 24-APR-2021 11:18

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
-----	-----	-----	-------	----------

NONE

RRT check based on Ccal File: NT1121042402.D

On Column LOD for nt11.i, 20210424.b\lowsim.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

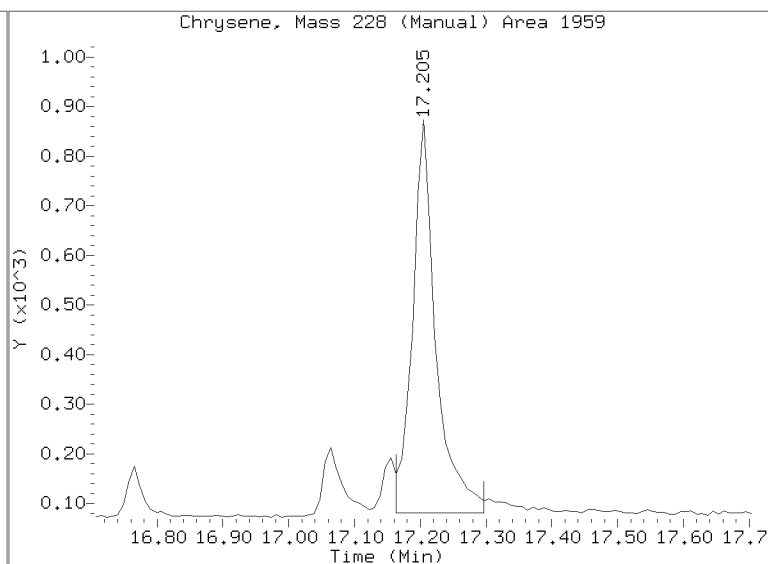
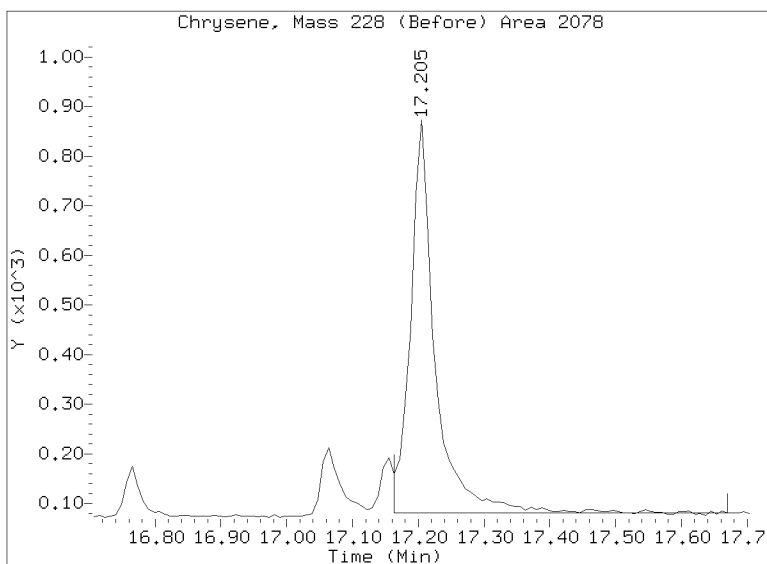
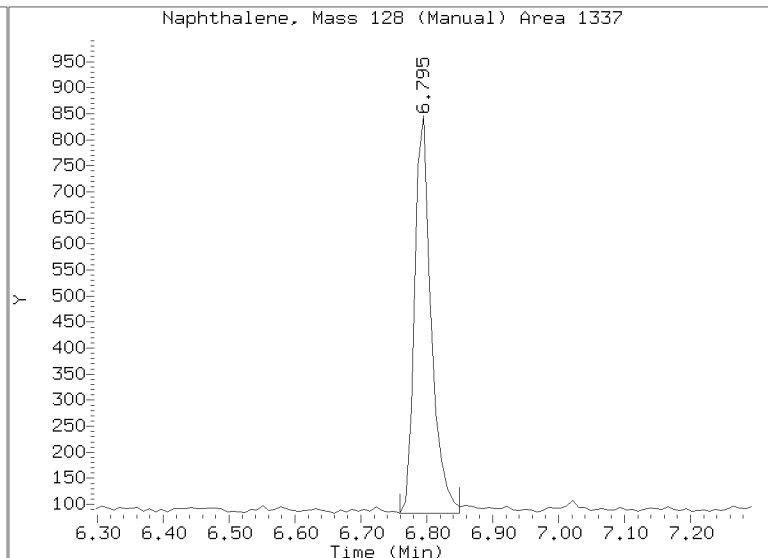
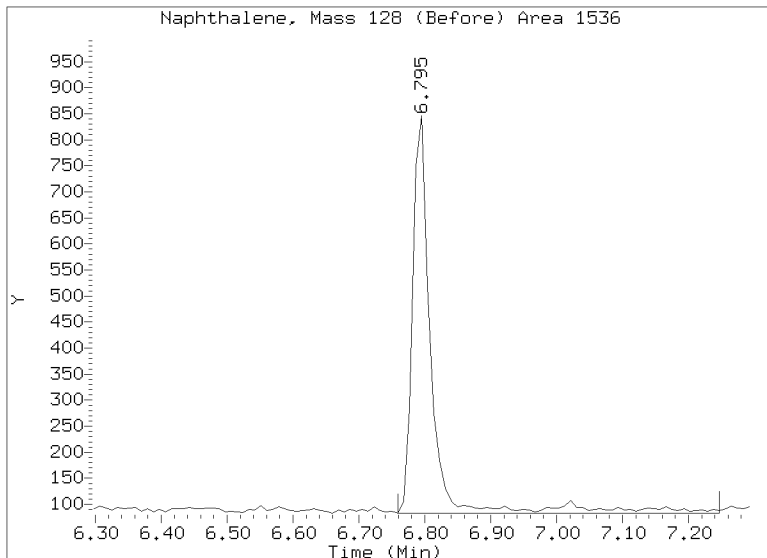
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20210424.b/NT1121042404.D

Injection Date: 24-APR-2021 11:18

Lab ID:BJD0479-BLK1 Client ID:

Report Date: 04/27/2021 14:15





Form I
METHOD BLANK DATA SHEET
EPA 8270E-SIM

Blank

Laboratory: Analytical Resources, Inc. SDG: 21D0180
 Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings
 Matrix: Solid Laboratory ID: BJD0507-BLK1 File ID: NT1421043053.D
 Sampled: N/A Prepared: 04/22/21 11:05 Analyzed: 05/02/21 01:11
 Solids: Preparation: EPA 3546 (Microwave) Initial/Final: 10 g / 0.5 mL
 Batch: BJD0507 Sequence: SJE0004 Calibration: EE00001
 Instrument: NT14 Column: ZB-5MS Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
493-02-7	trans-Decalin	1	5.0	U	0.03	5.0
493-01-6	cis-Decalin	1	5.0	U	0.5	5.0
91-20-3	Naphthalene	1	5.0	U	0.4	5.0
90-12-0	1-Methylnaphthalene	1	5.0	U	0.4	5.0
91-57-6	2-Methylnaphthalene	1	5.0	U	0.4	5.0
92-52-4	Biphenyl	1	5.0	U	0.3	5.0
581-42-0	2,6-Dimethylnaphthalene	1	5.0	U	0.4	5.0
208-96-8	Acenaphthylene	1	5.0	U	0.3	5.0
83-32-9	Acenaphthene	1	5.0	U	0.5	5.0
132-64-9	Dibenzofuran	1	5.0	U	0.4	5.0
2245-38-7	2,3,5-Trimethylnaphthalene	1	5.0	U	0.4	5.0
86-73-7	Fluorene	1	5.0	U	0.5	5.0
95-15-8	Benzo(b)thiophene	1	5.0	U	0.4	5.0
85-01-8	Phenanthrene	1	5.0	U	0.9	5.0
120-12-7	Anthracene	1	5.0	U	0.05	5.0
86-74-8	Carbazole	1	5.0	U	0.7	5.0
832-69-9	1-Methylphenanthrene	1	5.0	U	0.5	5.0
206-44-0	Fluoranthene	1	5.0	U	1.4	5.0
132-65-0	Dibenzothiophene	1	5.0	U	0.7	5.0
129-00-0	Pyrene	1	5.0	U	1.0	5.0
56-55-3	Benzo(a)anthracene	1	5.0	U	1.4	5.0
218-01-9	Chrysene	1	5.0	U	0.7	5.0
205-99-2	Benzo(b)fluoranthene	1	5.0	U	0.8	5.0
205-82-3	Benzo(j)fluoranthene	1	5.0	U	0.7	5.0
207-08-9	Benzo(k)fluoranthene	1	5.0	U	0.8	5.0
197-97-2	Benzo(c)pyrene	1	5.0	U	0.6	5.0
50-32-8	Benzo(a)pyrene	1	5.0	U	1.0	5.0
193-39-5	Indeno(1,2,3-cd)pyrene	1	5.0	U	0.4	5.0
53-70-3	Dibenzo(a,h)anthracene	1	5.0	U	0.7	5.0
191-24-2	Benzo(g,h,i)perylene	1	5.0	U	0.5	5.0
1985-5-0	Perylene	1	5.0	U	0.4	5.0
239-35-0	Benzo(b)naphtho(2,1-d)thiophene	1	5.0	U	5.0	5.0

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
Naphthalene-d8	150.00	93.2	62.1	30 - 160	
Acenaphthene-d10	150.00	106	70.8	30 - 160	



Form I
METHOD BLANK DATA SHEET
EPA 8270E-SIM

Blank

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>21D0180</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic - US Moorings</u>
Matrix:	<u>Solid</u>	Laboratory ID:	<u>BJD0507-BLK1</u>
Sampled:	<u>N/A</u>	Prepared:	<u>04/22/21 11:05</u>
Solids:		Preparation:	<u>EPA 3546 (Microwave)</u>
Batch:	<u>BJD0507</u>	Sequence:	<u>SJE0004</u>
Instrument:	<u>NT14</u>	Column:	<u>ZB-5MS</u>
		Cleanups:	<u>GPC, Silica Gel</u>
		File ID:	<u>NT1421043053.D</u>
		Analyzed:	<u>05/02/21 01:11</u>
		Initial/Final:	<u>10 g / 0.5 mL</u>
		Calibration:	<u>EE00001</u>

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
Phenanthrene-d10	150.00	104	69.6	30 - 160	
Chrysene-d12	150.00	111	74.1	30 - 160	
Perylene-d12	150.00	114	76.0	30 - 160	

Data File: \\target\share\chem3\nt14.1\20210430D.B\NT1421043053.D

Date : 02-MAY-2021 01:11

Client ID:

Sample Info: BJD0507-BLK1

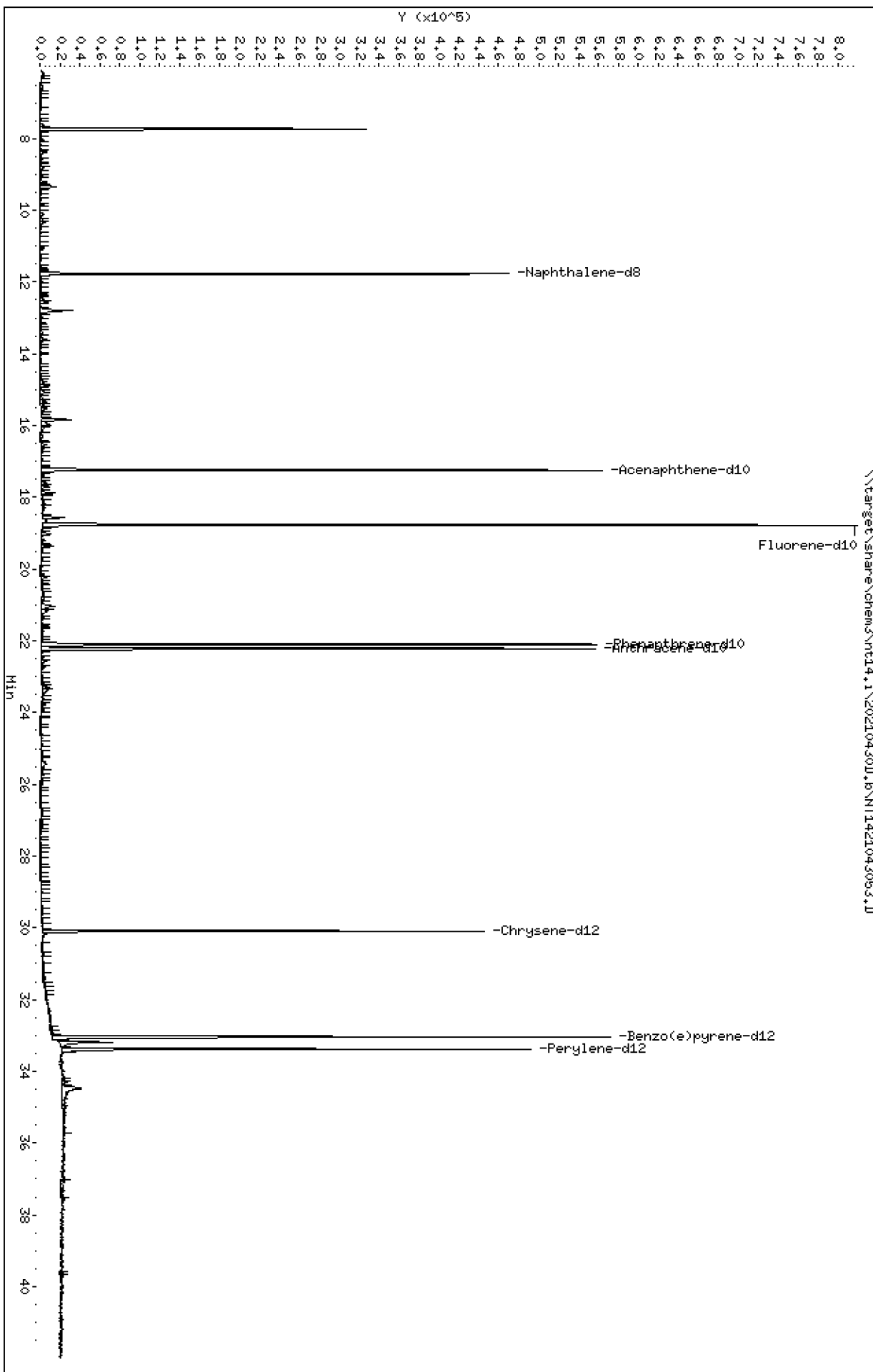
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430D.b\NT1421043053.D
 Lab Smp Id: BJD0507-BLK1
 Inj Date : 02-MAY-2021 01:11
 Operator : VTS
 Smp Info : BJD0507-BLK1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
 Meth Date : 04-May-2021 08:25 van
 Cal Date : 30-APR-2021 13:32
 Als bottle: 34
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-202011

Inst ID: nt14.i

Quant Type: ISTD
 Cal File: NT1421043009.D

Compound Sublist: TARGETS.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
1 trans-Decalin	138							
2 cis-Decalin	138							
\$ 6 Naphthalene-d8	136		11.766	11.776	(0.627)	631921	1.86414	1.864 (R)
7 Naphthalene	128							
12 Benzo(b)thiophene	134							
16 2-Methylnaphthalene	141							
17 1-methylnaphthalene	141							
18 Biphenyl	154							
19 2,6-Dimethylnaphthalene	156							
20 Acenaphthylene	152							
\$ 21 Acenaphthene-d10	164		17.241	17.241	(0.918)	351468	2.12339	2.123 (R)
22 Acenaphthene	153							
23 Dibenzofuran	168							
24 1,6,7-Trimethylnaphthalene	170							
* 25 Fluorene-d10	176		18.772	18.772	(1.000)	587393	2.00000	
26 Fluorene	166							
30 Dibenzothiophene	184							
\$ 35 Phenanthrene-d10	188		22.093	22.104	(0.995)	575639	2.08809	2.088 (R)
36 Phenanthrene	178							
* 250 Anthracene-d10	188		22.214	22.214	(1.000)	510143	2.00000	
37 Anthracene	178							
42 Carbazole	167							
43 1-Methylphenanthrene	192							
44 Fluoranthene	202							
46 Pyrene	202							
51 Naphthobenzothiophene	234							
55 Benzo(a)anthracene	228							
\$ 56 Chrysene-d12	240		30.084	30.084	(0.910)	428431	2.22416	2.224 (R)
57 Chrysene	228							
62 Benzo(b)fluoranthene	252							
63 Benzo(k)fluoranthene	252							
293 Benzo(j)fluoranthene	252							
246 Total Benzofluoranthenes	252							

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264		33.046	33.046	(1.000)	530125	2.00000	
64 Benzo(e)pyrene	252		Compound Not Detected.					
66 Benzo(a)pyrene	252		Compound Not Detected.					
\$ 67 Perylene-d12	264		33.384	33.373	(1.010)	468849	2.27963	2.280 (RM)
68 Perylene	252		Compound Not Detected.					
69 Indeno(1,2,3-cd)pyrene	276		Compound Not Detected.					
70 Dibenzo(a,h)anthracene	278		Compound Not Detected.					
74 Benzo(g,h,i)perylene	276		Compound Not Detected.					

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 01-MAY-2021
 Lab File ID: NT1421043053.D Calibration Time: 23:35
 Lab Smp Id: BJD0507-BLK1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	504442	252221	1008884	587393	16.44
250 Anthracene-d10	459103	229552	918206	510143	11.12
251 Benzo(e)pyrene-d1	516794	258397	1033588	530125	2.58

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.77	18.27	19.27	18.77	-0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	-0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	-0.00

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.

REVIEW SUMMARY FOR FILE - NT1421043053.D

Lab ID: BJD0507-BLK1
nt14.i, 20210430D.b\ALKYLPNA.m, 02-MAY-2021 01:11

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
-----	-----	-----	-------	----------

NONE

RRT check based on Ccal File: NT1421043051ICV.D

On Column LOD for nt14.i, 20210430D.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

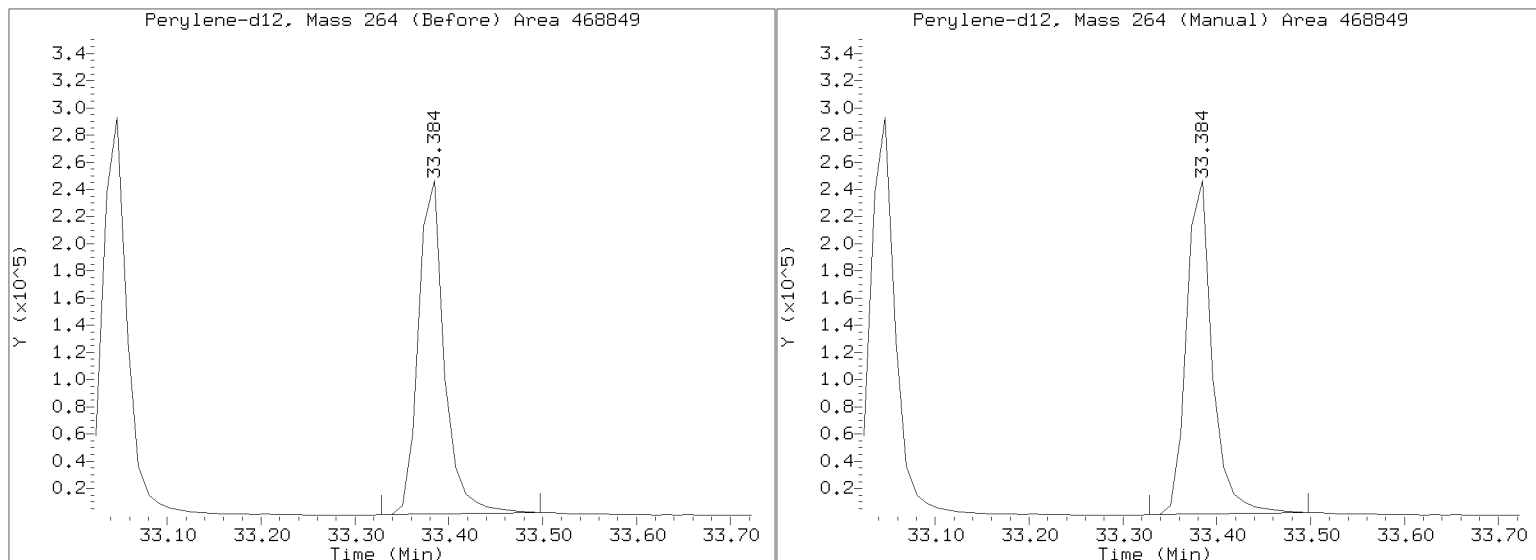
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043053.D

Injection Date: 02-MAY-2021 01:11

Lab ID:BJD0507-BLK1 Client ID:

Report Date: 05/04/2021 13:20





Form I
METHOD BLANK DATA SHEET
EPA 8270E-SIM

Blank

Laboratory: Analytical Resources, Inc. SDG: 21D0180
 Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings
 Matrix: Solid Laboratory ID: BJD0507-BLK2 File ID: NT1421043053S.D
 Sampled: N/A Prepared: 04/22/21 11:05 Analyzed: 05/02/21 01:11
 Solids: Preparation: EPA 3546 (Microwave) Initial/Final: 10 g / 0.5 mL
 Batch: BJD0507 Sequence: SJE0095 Calibration: EE00019
 Instrument: NT14 Column: ZB-5MS Cleanups: GPC, Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
C1DEC	C1-Decalins	1	5.0	U	0.5	5.0
C2DEC	C2-Decalins	1	5.0	U	0.5	5.0
C3DEC	C3-Decalins	1	5.0	U	0.5	5.0
C4DEC	C4-Decalins	1	5.0	U	0.5	5.0
C1NAPH	C1-Naphthalenes	1	5.0	U	0.4	5.0
C2NAPH	C2-Naphthalenes	1	5.0	U	0.4	5.0
C3NAPH	C3-Naphthalenes	1	5.0	U	0.4	5.0
C4NAPH	C4-Naphthalenes	1	5.0	U	0.4	5.0
C1FLR	C1-Fluorenes	1	5.0	U	0.5	5.0
C2FLR	C2-Fluorenes	1	5.0	U	0.5	5.0
C3FLR	C3-Fluorenes	1	5.0	U	0.5	5.0
C1DBTPH	C1-Dibenzothiophenes	1	5.0	U	0.7	5.0
C2DBTPH	C2-Dibenzothiophenes	1	5.0	U	0.7	5.0
C3DBTPH	C3-Dibenzothiophenes	1	5.0	U	0.7	5.0
C4DBTPH	C4-Dibenzothiophenes	1	5.0	U	0.7	5.0
C1PHNANT	C1-Phenanthrenes/Anthracenes	1	5.0	U	0.9	5.0
C2PHNANT	C2-Phenanthrenes/Anthracenes	1	5.0	U	0.9	5.0
C3PHNANT	C3-Phenanthrenes/Anthracenes	1	5.0	U	0.9	5.0
C4PHNANT	C4-Phenanthrenes/Anthracenes	1	5.0	U	0.9	5.0
C1FLPYR	C1-Fluoranthenes/Pyrenes	1	5.0	U	1.0	5.0
C2FLPYR	C2-Fluoranthenes/Pyrenes	1	5.0	U	1.0	5.0
C3FLPYR	C3-Fluoranthenes/Pyrenes	1	5.0	U	1.0	5.0
C4FLPYR	C4-Fluoranthenes/Pyrenes	1	5.0	U	1.0	5.0
C1BAACYR	C1-Benzo(a)anthracenes/Chrysenes	1	5.0	U	0.7	5.0
C2BAACYR	C2-Benzo(a)anthracenes/Chrysenes	1	5.0	U	0.7	5.0
C3BAACYR	C3-Benzo(a)anthracenes/Chrysenes	1	5.0	U	0.7	5.0
C4BAACYR	C4-Benzo(a)anthracenes/Chrysenes	1	5.0	U	0.7	5.0
C1BZTPH	C1-Benzothiophenes	1	5.0	U	0.4	5.0
C2BZTPH	C2-Benzothiophenes	1	5.0	U	0.4	5.0
C3BZTPH	C3-Benzothiophenes	1	5.0	U	0.4	5.0
C1NPBTP	C1-Naphthobenzothiophenes	1	5.0	U	2.5	5.0
C2NPBTP	C2-Naphthobenzothiophenes	1	5.0	U	2.5	5.0
C3NPBTP	C3-Naphthobenzothiophenes	1	5.0	U	2.5	5.0
C4NPBTP	C4-Naphthobenzothiophenes	1	5.0	U	2.5	5.0
C1DBA	C1-Dibenzo(a)anthracenes	1	5.0	U	0.7	5.0
C2DBA	C2-Dibenzo(a)anthracenes	1	5.0	U	0.7	5.0



Form I
METHOD BLANK DATA SHEET
EPA 8270E-SIM

Blank

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>21D0180</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic - US Moorings</u>
Matrix:	<u>Solid</u>	Laboratory ID:	<u>BJD0507-BLK2</u>
Sampled:	<u>N/A</u>	Prepared:	<u>04/22/21 11:05</u>
Solids:		Preparation:	<u>EPA 3546 (Microwave)</u>
Batch:	<u>BJD0507</u>	Sequence:	<u>SJE0095</u>
Instrument:	<u>NT14</u>	Column:	<u>ZB-5MS</u>
		Cleanups:	<u>GPC, Silica Gel</u>
		File ID:	<u>NT1421043053S.D</u>
		Analyzed:	<u>05/02/21 01:11</u>
		Initial/Final:	<u>10 g / 0.5 mL</u>
		Calibration:	<u>EE00019</u>

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
C3DBA	C3-Dibenzo(a)anthracenes	1	5.0	U	0.7	5.0

Data File: \\target\share\chem3\nt14.1\20210430.1\SIH.B\NT1421043053S.D

Date : 02-May-2021 01:11

Client ID:

Sample Info: BJD0507-BLK1

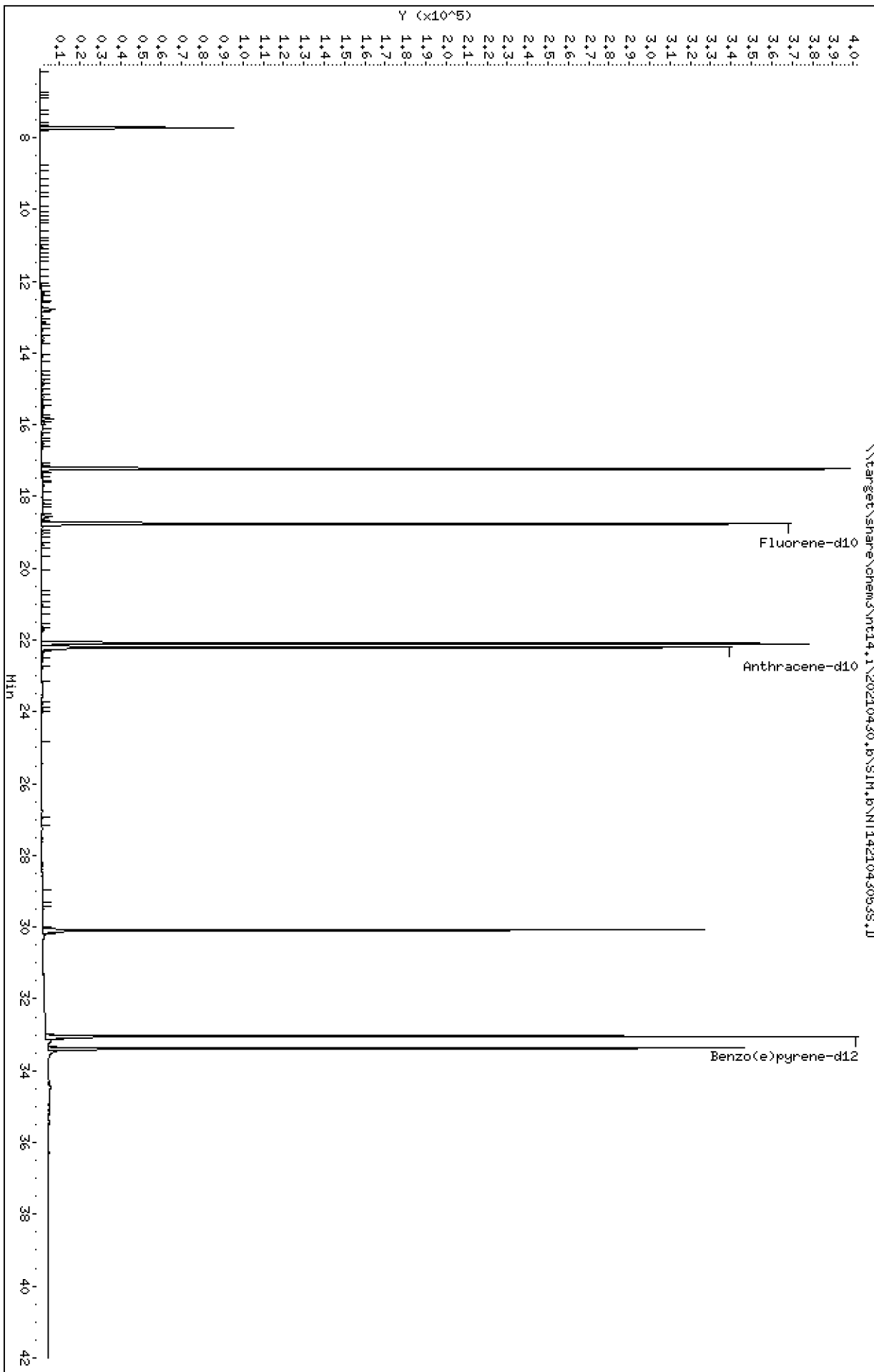
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT1421043053S.D
 Lab Smp Id: BJD0507-BLK1
 Inj Date : 02-MAY-2021 01:11
 Operator : VTS
 Smp Info : BJD0507-BLK1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt14.i\20210430.b\SIM.b\ALKYLRANGES.m
 Meth Date : 07-May-2021 11:15 yev
 Cal Date : 01-MAY-2021 01:56
 Als bottle: 34
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: ORGDATA102

Inst ID: nt14.i

Quant Type: ISTD
 Cal File: NT1421043024S.D

Compound Sublist: ALKYLRANGES.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
3 C1-Decalin	152							
4 C2-Decalin	166							
5 C3-Decalin	180							
247 C4-Decalin	194							
8 C1-Naphthalenes	142							
9 C2-Naphthalenes	156							
10 C3-Naphthalenes	170							
11 C4-Naphthalenes	184							
13 C1-Benzothiophenes	148							
14 C2-Benzothiophenes	162							
15 C3-Benzothiophenes	176							
27 C1-Fluorenes	180							
* 25 Fluorene-d10	176		18.762	18.774	(1.000)	682587	2.00000	
28 C2-Fluorenes	194							
29 C3-Fluorenes	208							
31 C1-Dibenzothiophenes	198							
32 C2-Dibenzothiophenes	212							
33 C3-Dibenzothiophenes	226							
34 C4-Dibenzothiophenes	240							
38 C1-Phenanthrenes/Anthracenes	192							
* 250 Anthracene-d10	188		22.205	22.216	(1.000)	602752	2.00000	
39 C2-Phenanthrenes/Anthracenes	206							
40 C3-Phenanthrenes/Anthracenes	220							
41 C4-Phenanthrenes/Anthracenes	234							
48 C1-Fluoranthenes/Pyrenes	216							
49 C2-Fluoranthenes/Pyrenes	230							
50 C3-Fluoranthenes/Pyrenes	244							
249 C4-Fluoranthenes/Pyrenes	258							
52 C1-Naphthobenzothiophenes	248							
53 C2-Naphthobenzothiophenes	262							
54 C3-Naphthobenzothiophenes	276							
248 C4-Naphthobenzothiophenes	290							
58 C1-Benzo(a)anthracenes/Chrysen	242							

Compounds	QUANT MASS	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
59 C2-Benzo(a)anthracenes/Chrysen	256					Compound Not Detected.		
60 C3-Benzo(a)anthracenes/Chrysen	270					Compound Not Detected.		
61 C4-Benzo(a)anthracenes/Chrysen	284					Compound Not Detected.		
71 C1-Dibenzo(a)anthracenes	292					Compound Not Detected.		
* 251 Benzo(e)pyrene-d12	264		33.036	33.037	(1.000)	662179	2.00000	
72 C2-Dibenzo(a)anthracenes	306					Compound Not Detected.		
73 C3-Dibenzo(a)anthracenes	320					Compound Not Detected.		

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i
 Lab File ID: NT1421043053S.D
 Lab Smp Id: BJD0507-BLK1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\ALKYLRANGES.m
 Misc Info:

Calibration Date: 01-MAY-2021
 Calibration Time: 01:56
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

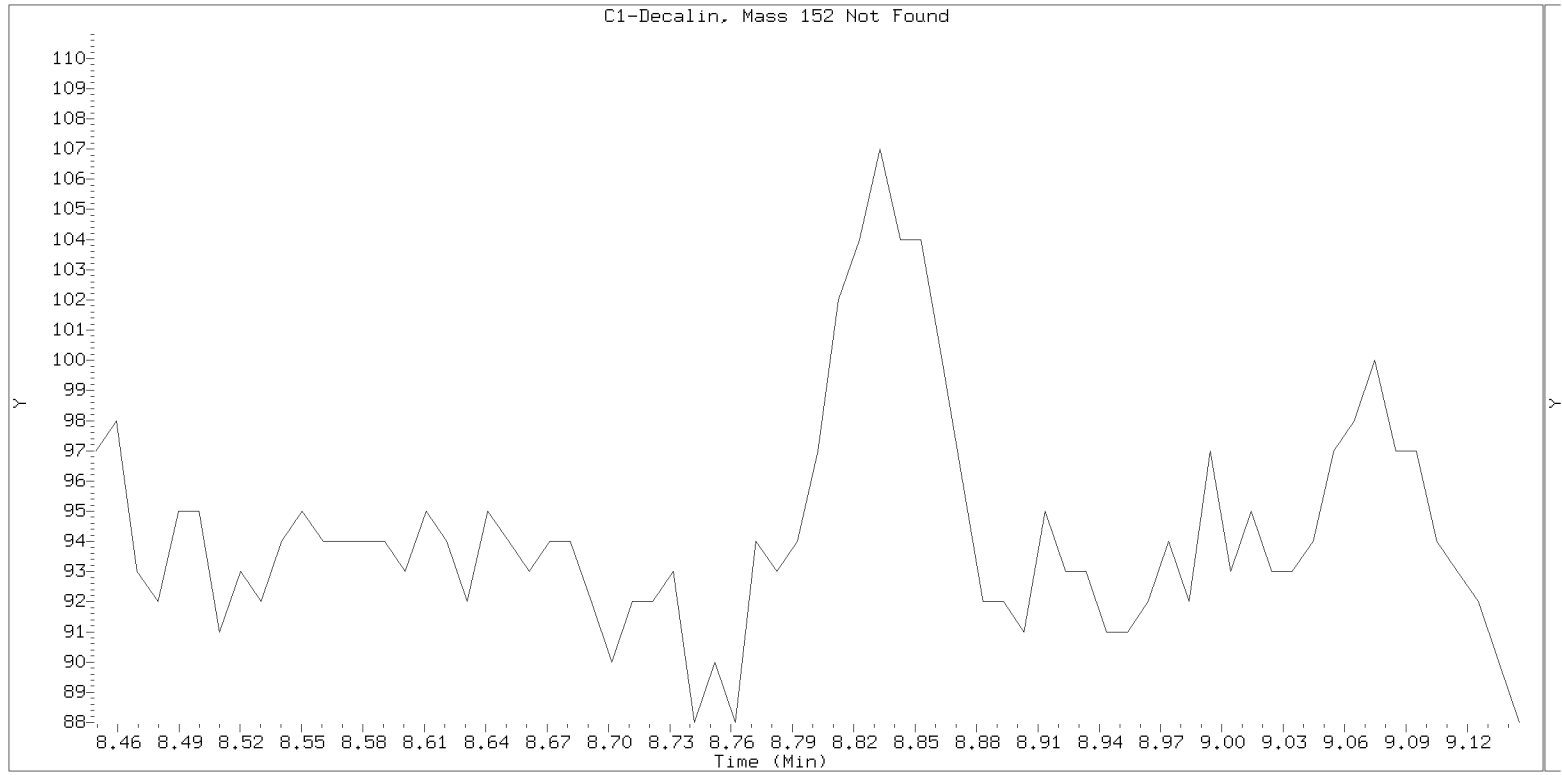
COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	615800	307900	1231600	682587	10.85
250 Anthracene-d10	563384	281692	1126768	602752	6.99
251 Benzo(e)pyrene-d1	606671	303336	1213342	662179	9.15

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.77	18.27	19.27	18.76	-0.06
250 Anthracene-d10	22.22	21.72	22.72	22.21	-0.05
251 Benzo(e)pyrene-d1	33.04	32.54	33.54	33.04	-0.00

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.

Lab ID: BJD0507-BLK1

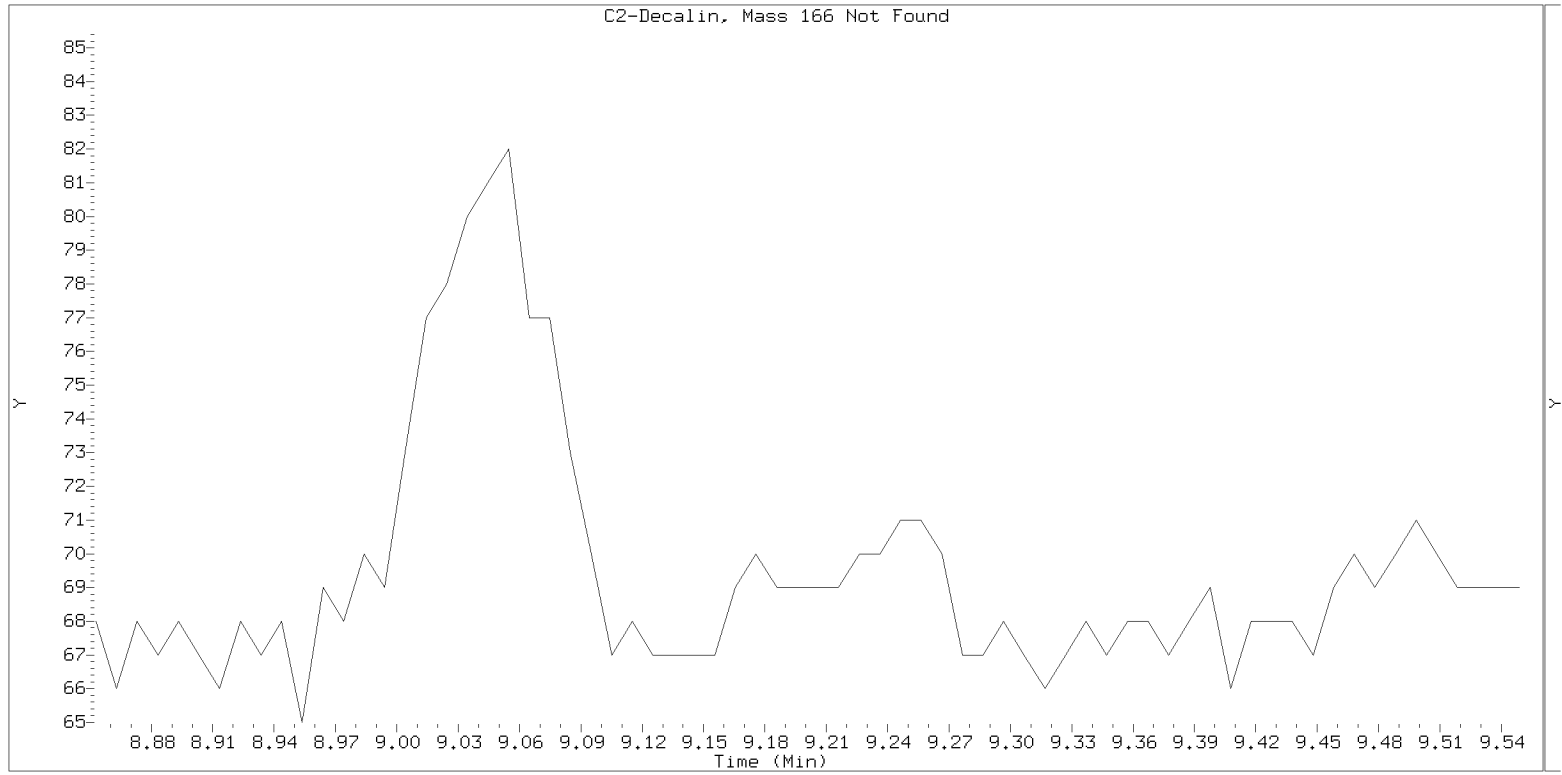
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

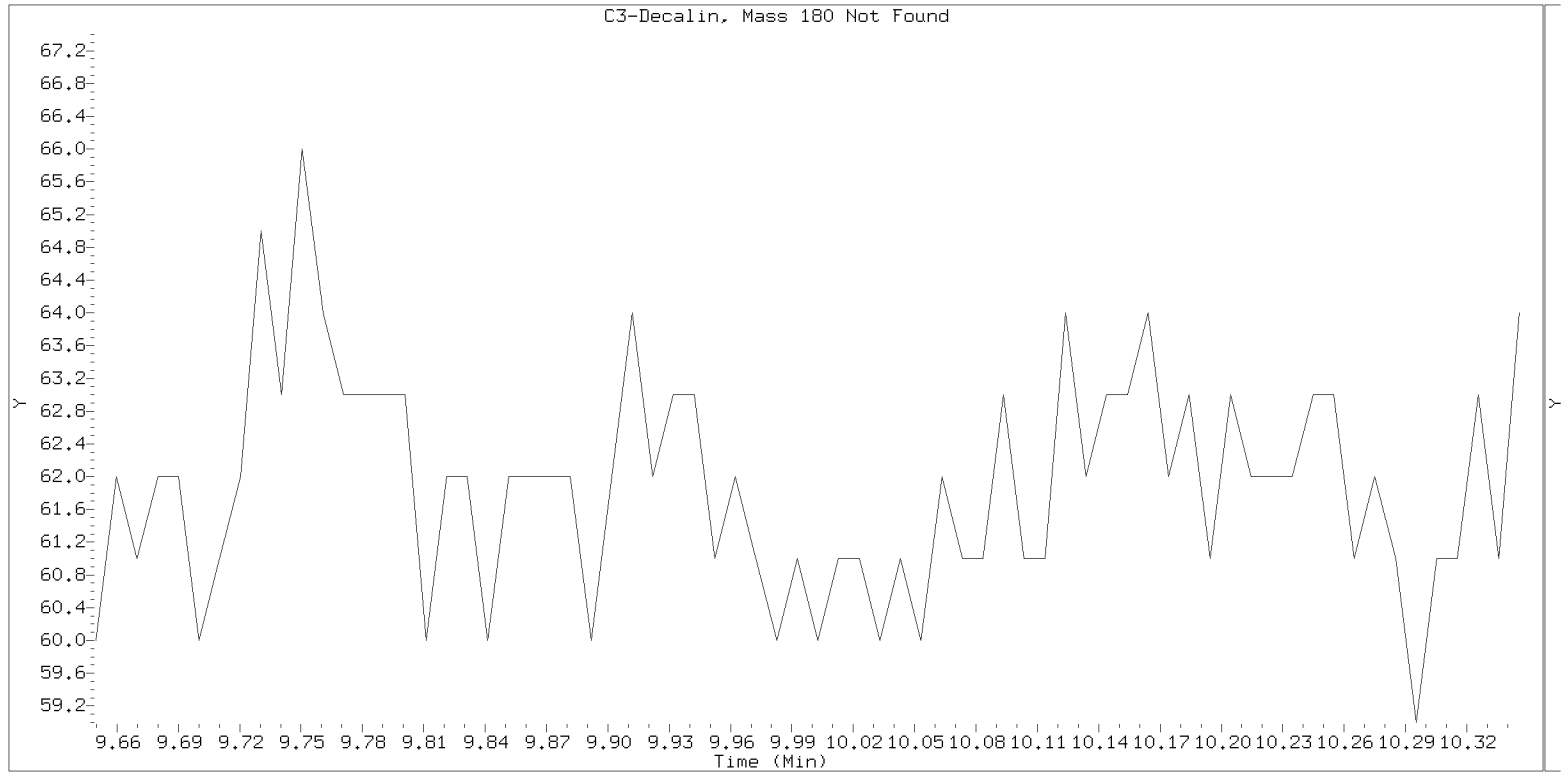
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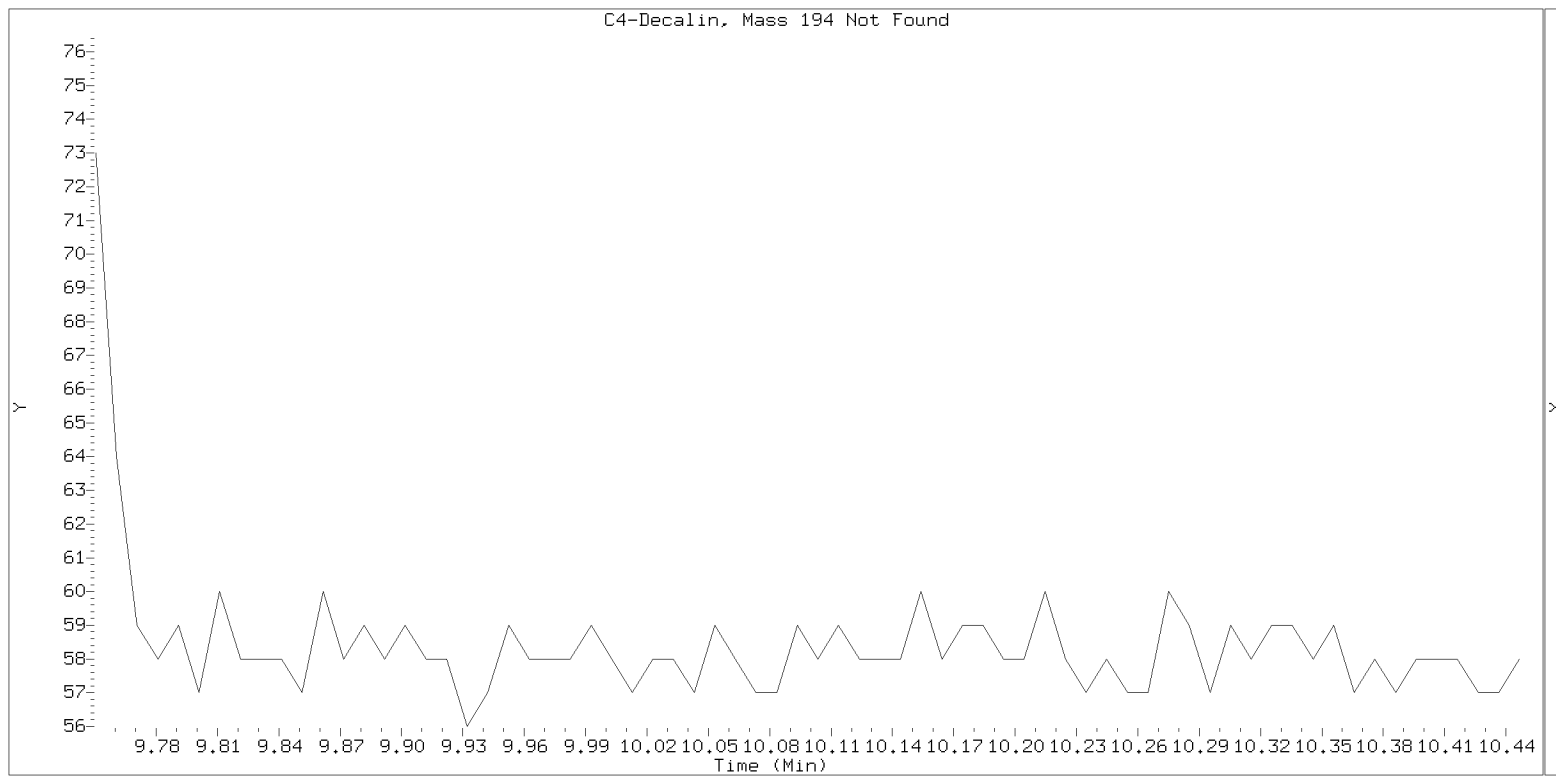
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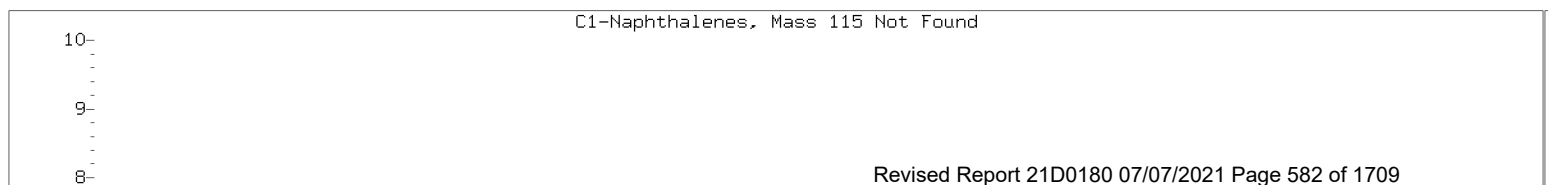
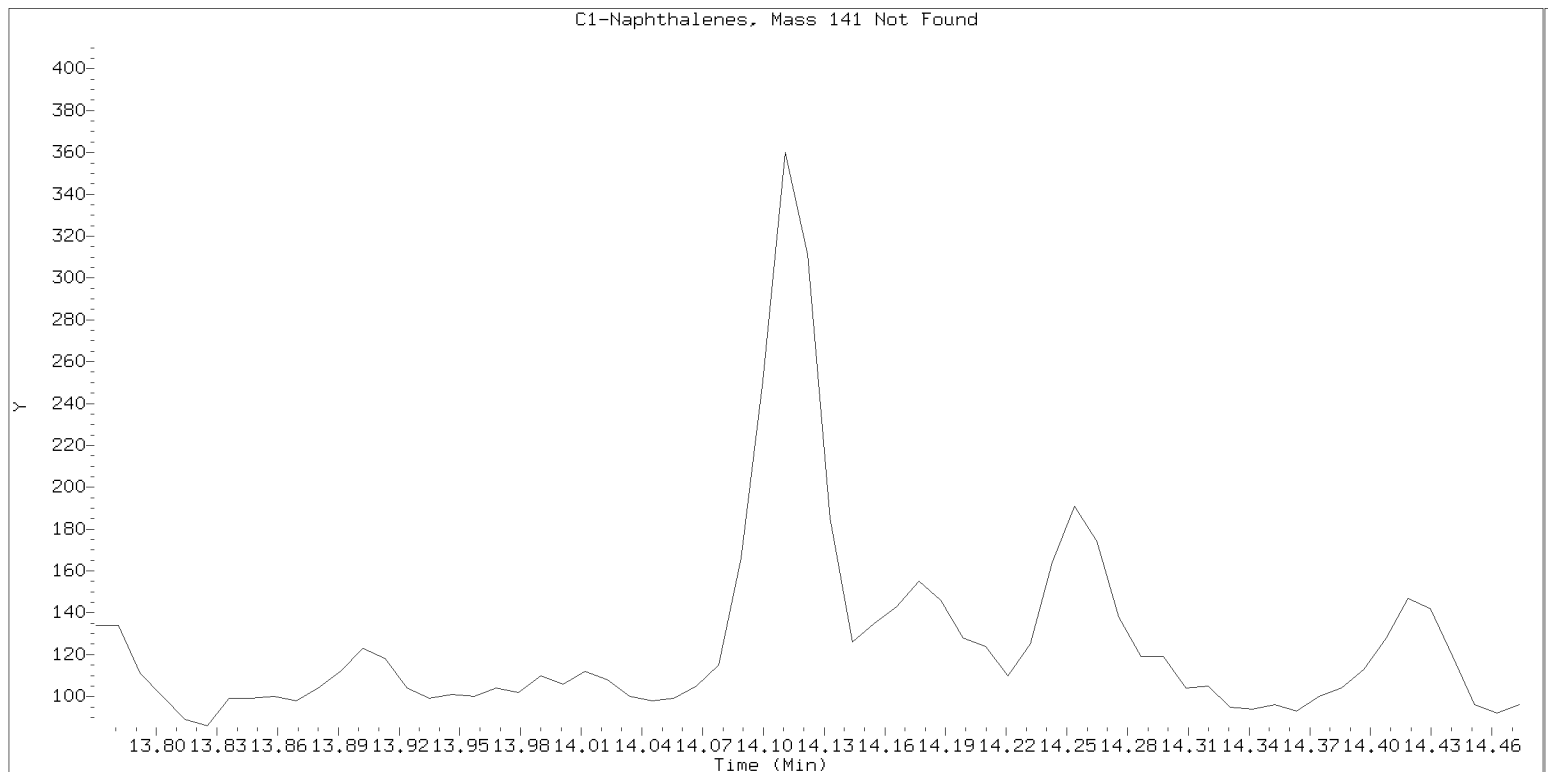
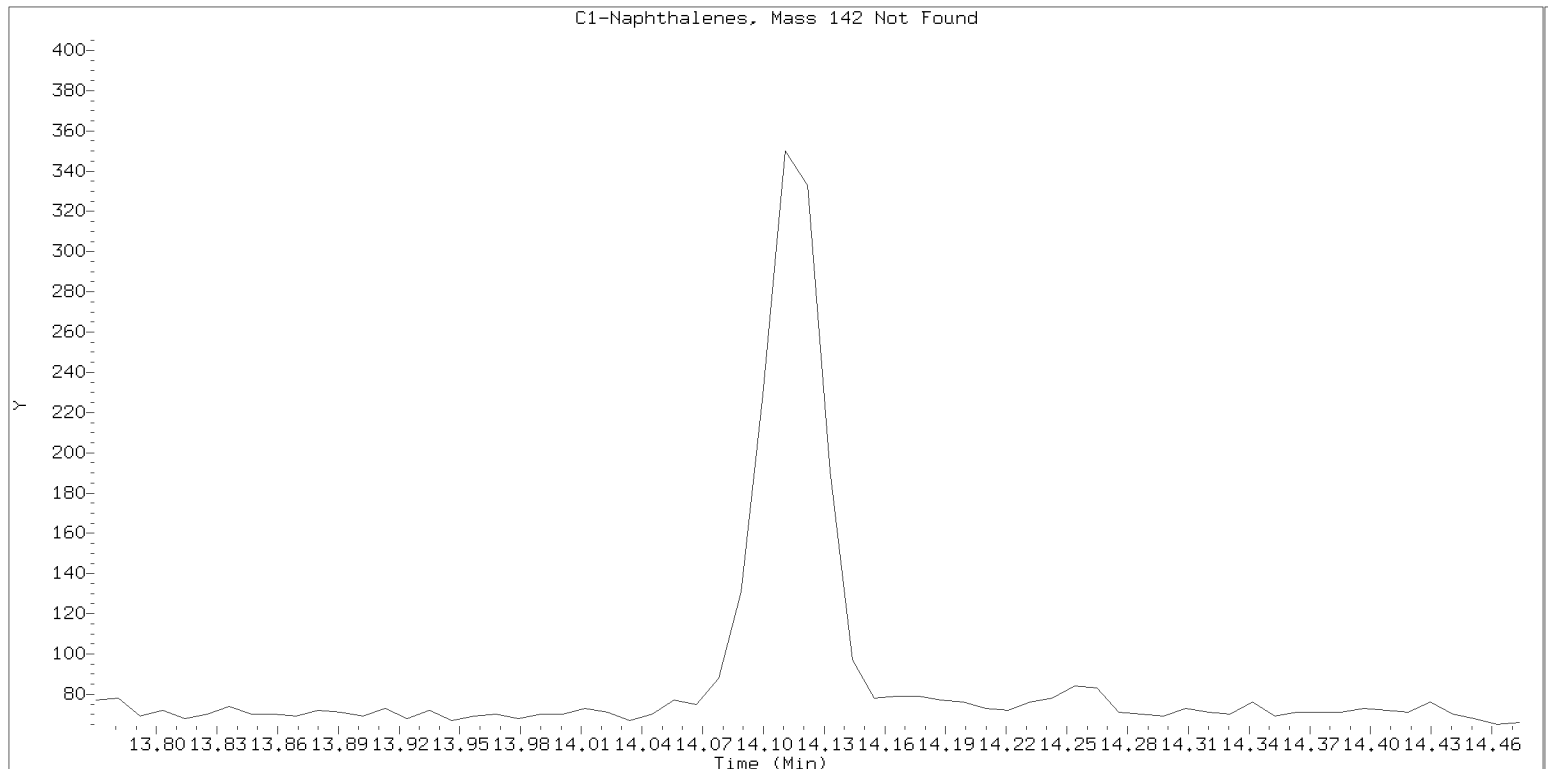
SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

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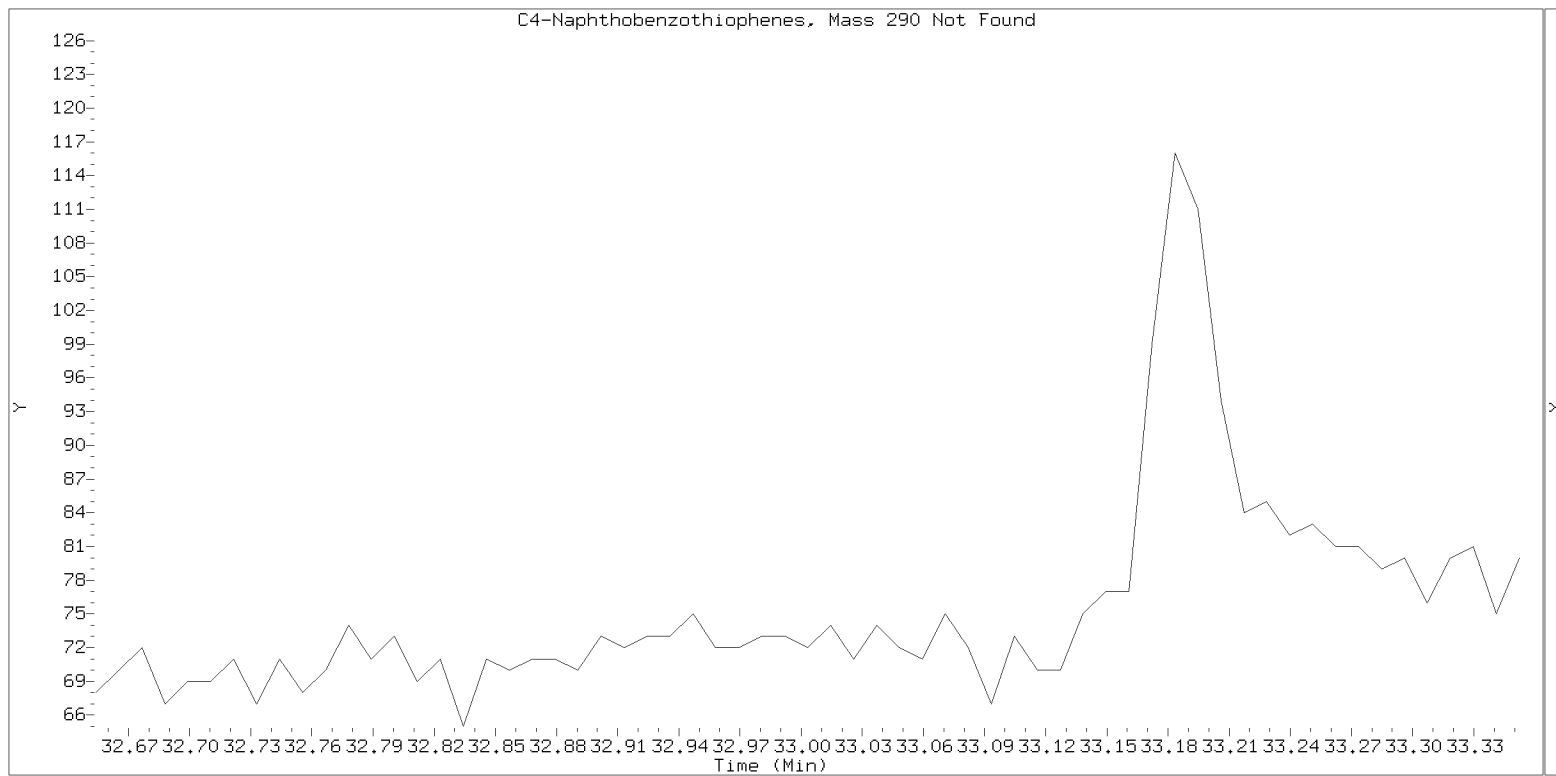


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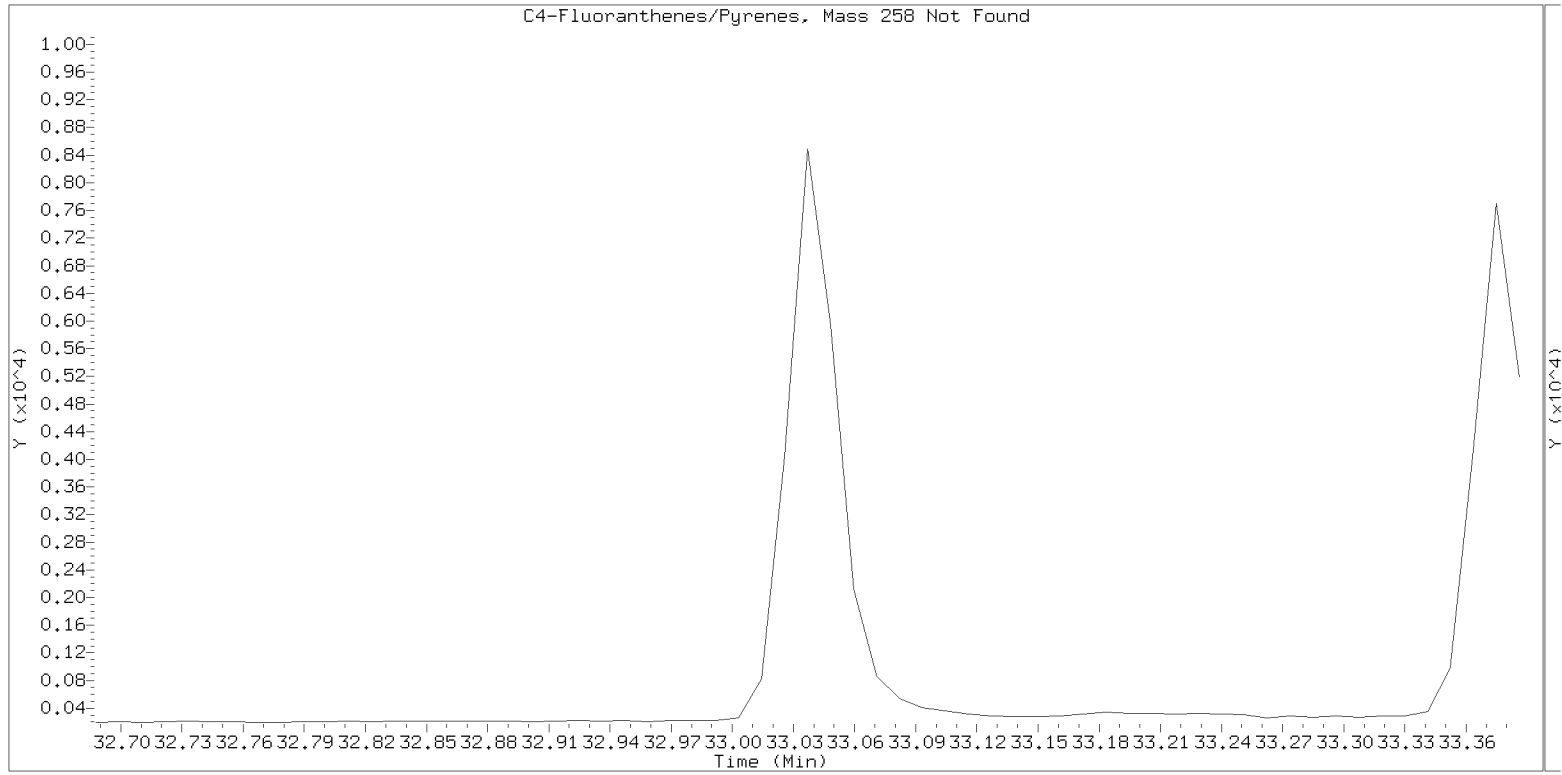
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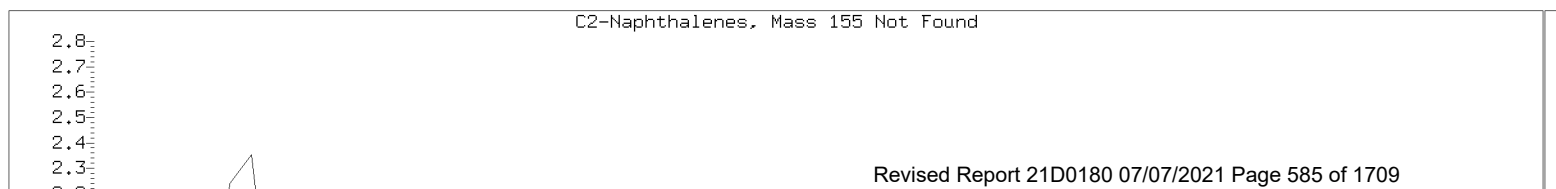
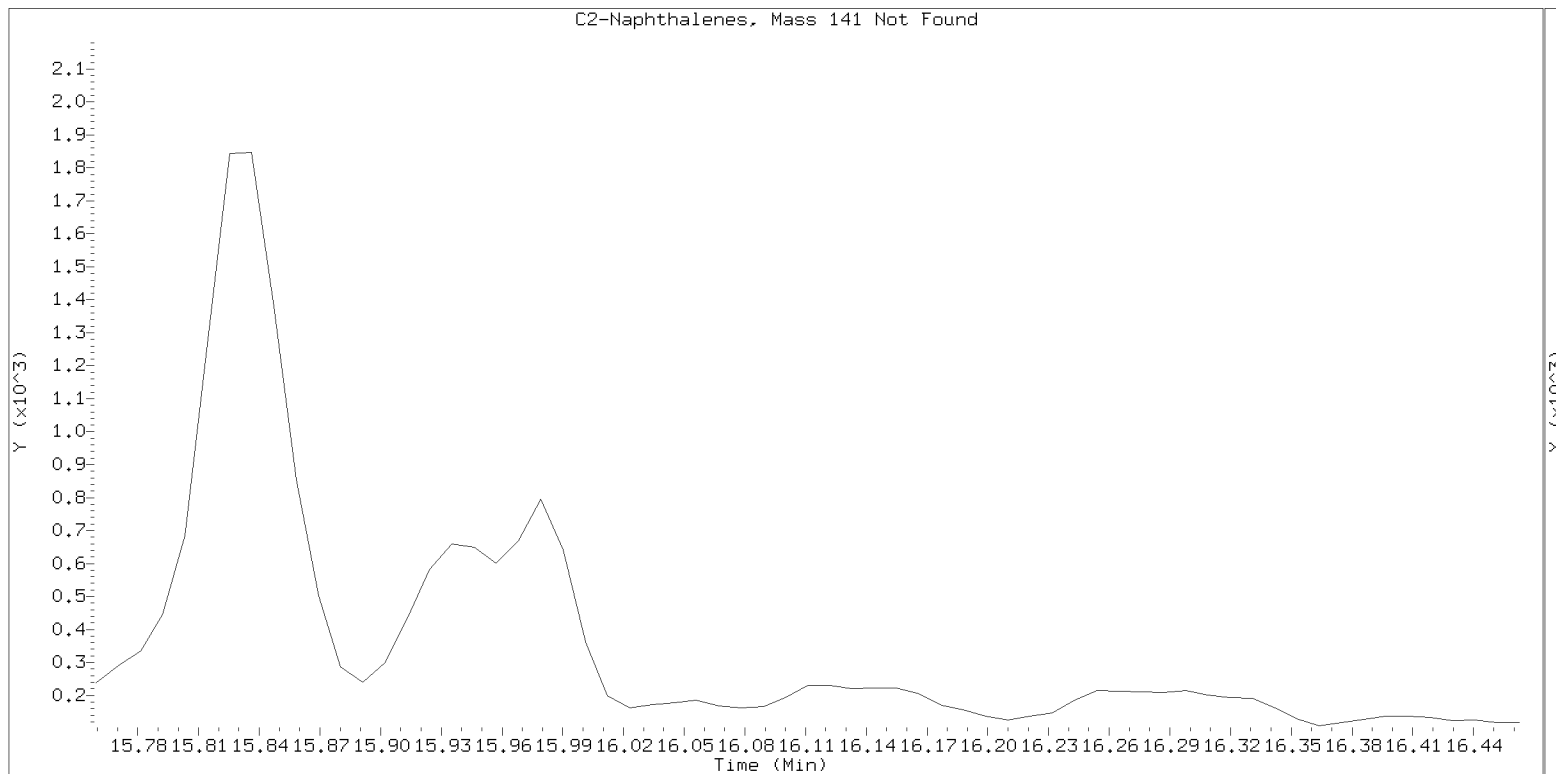
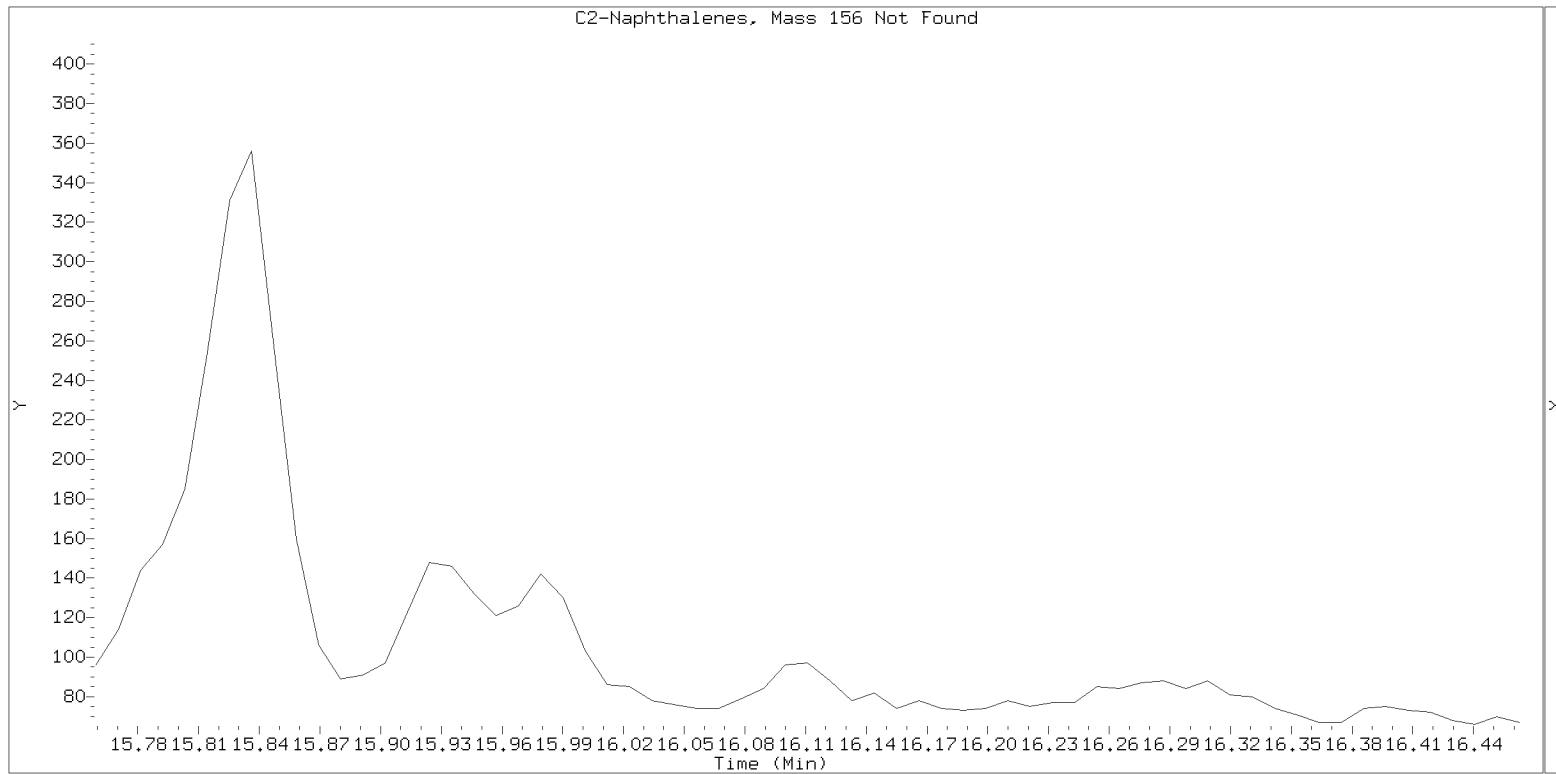
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Lab ID: BJD0507-BLK1

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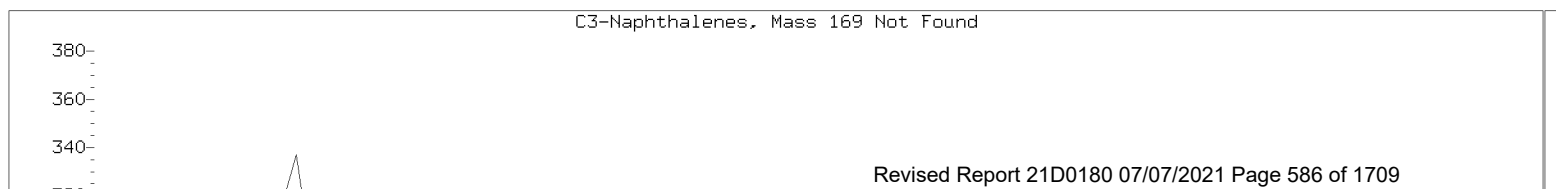
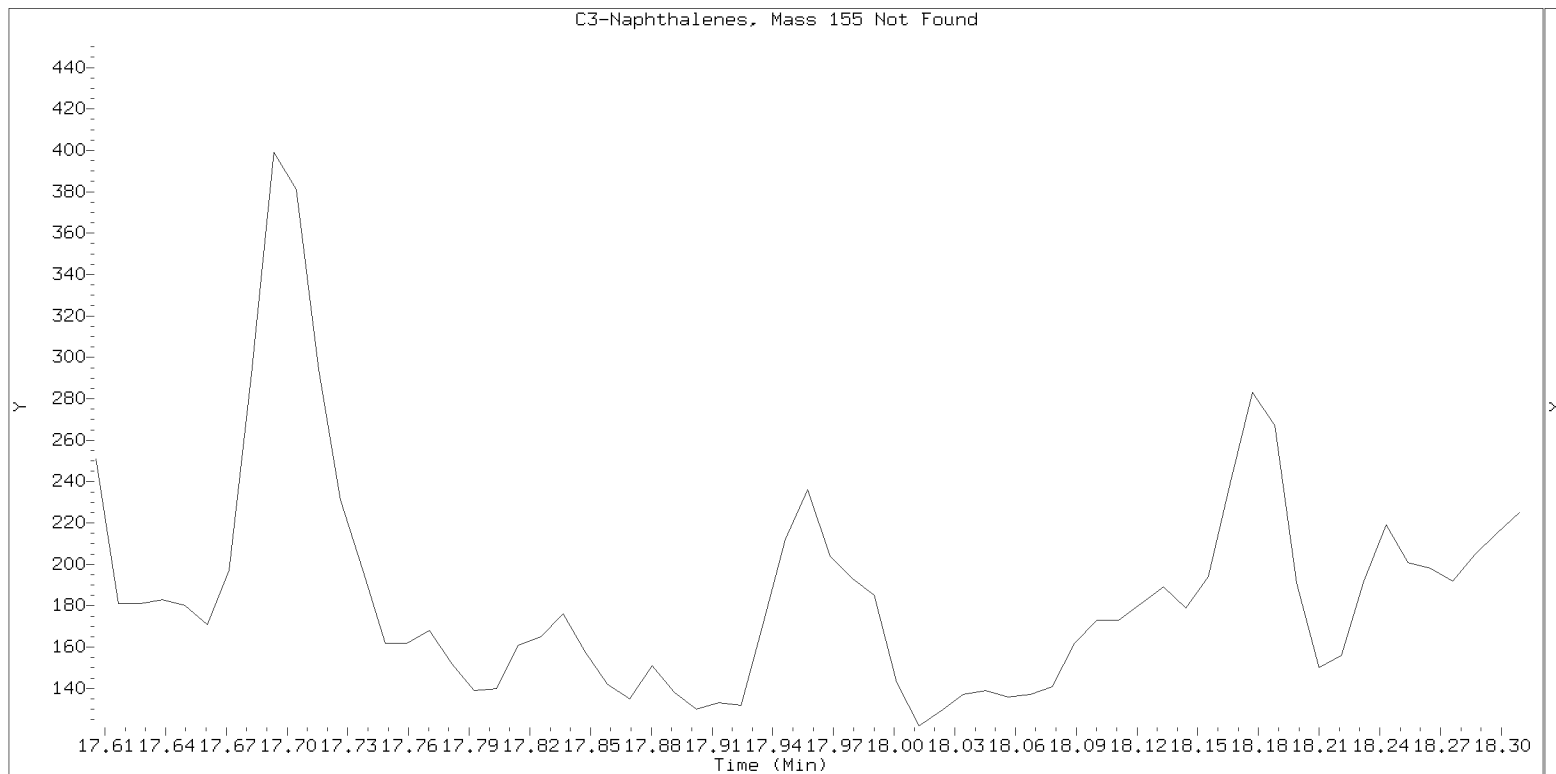
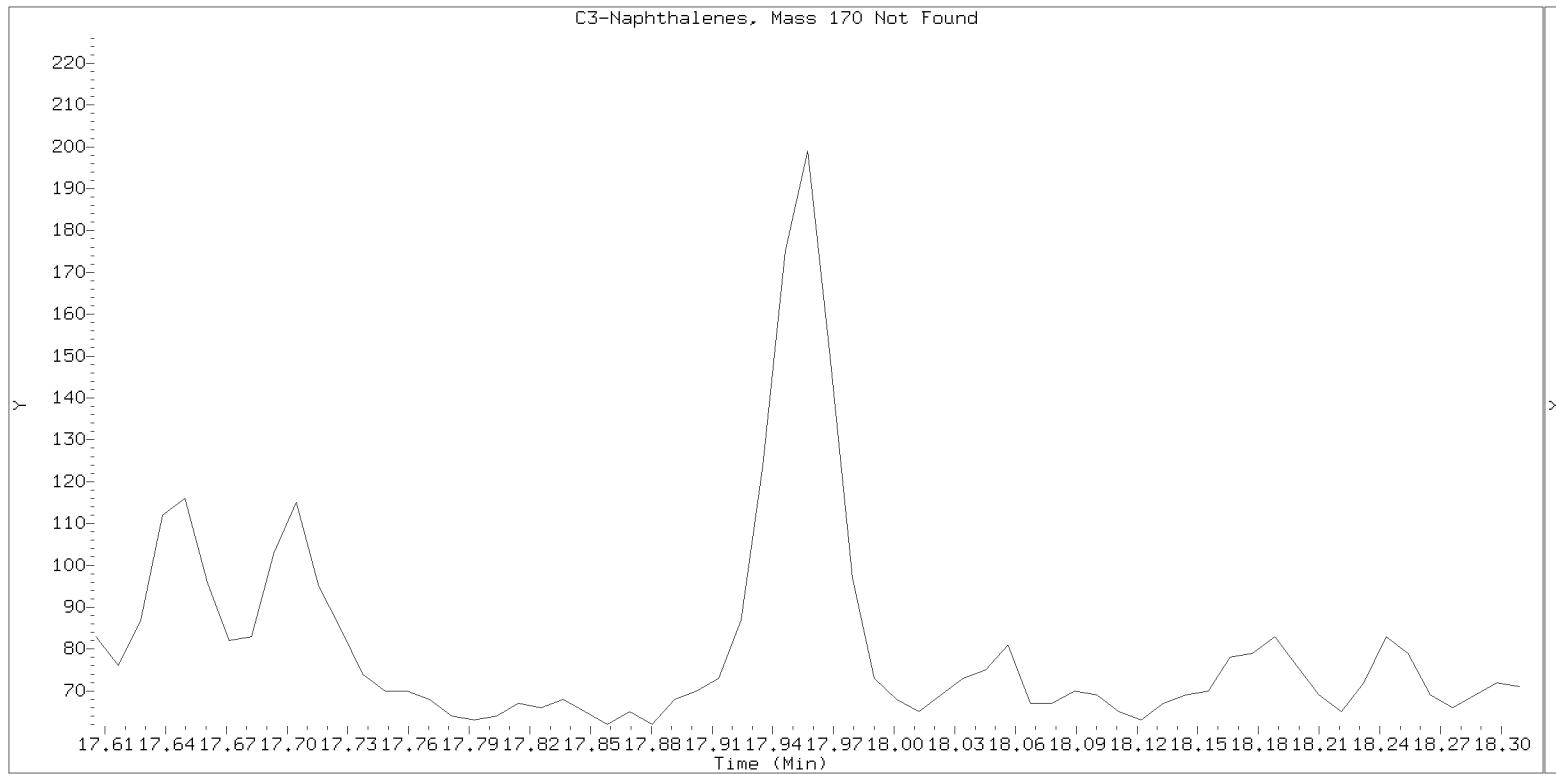


Lab ID: BJD0507-BLK1
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

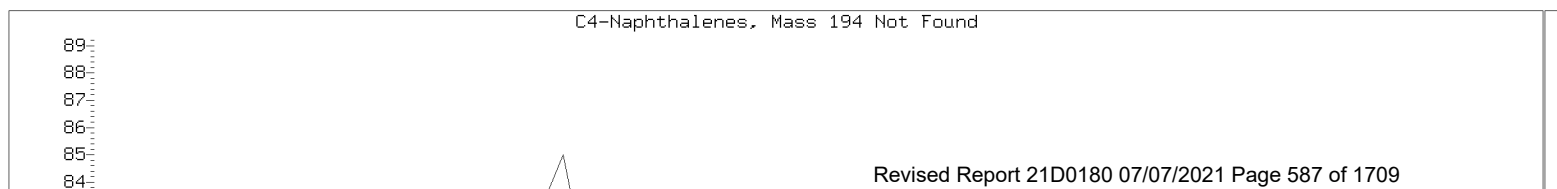
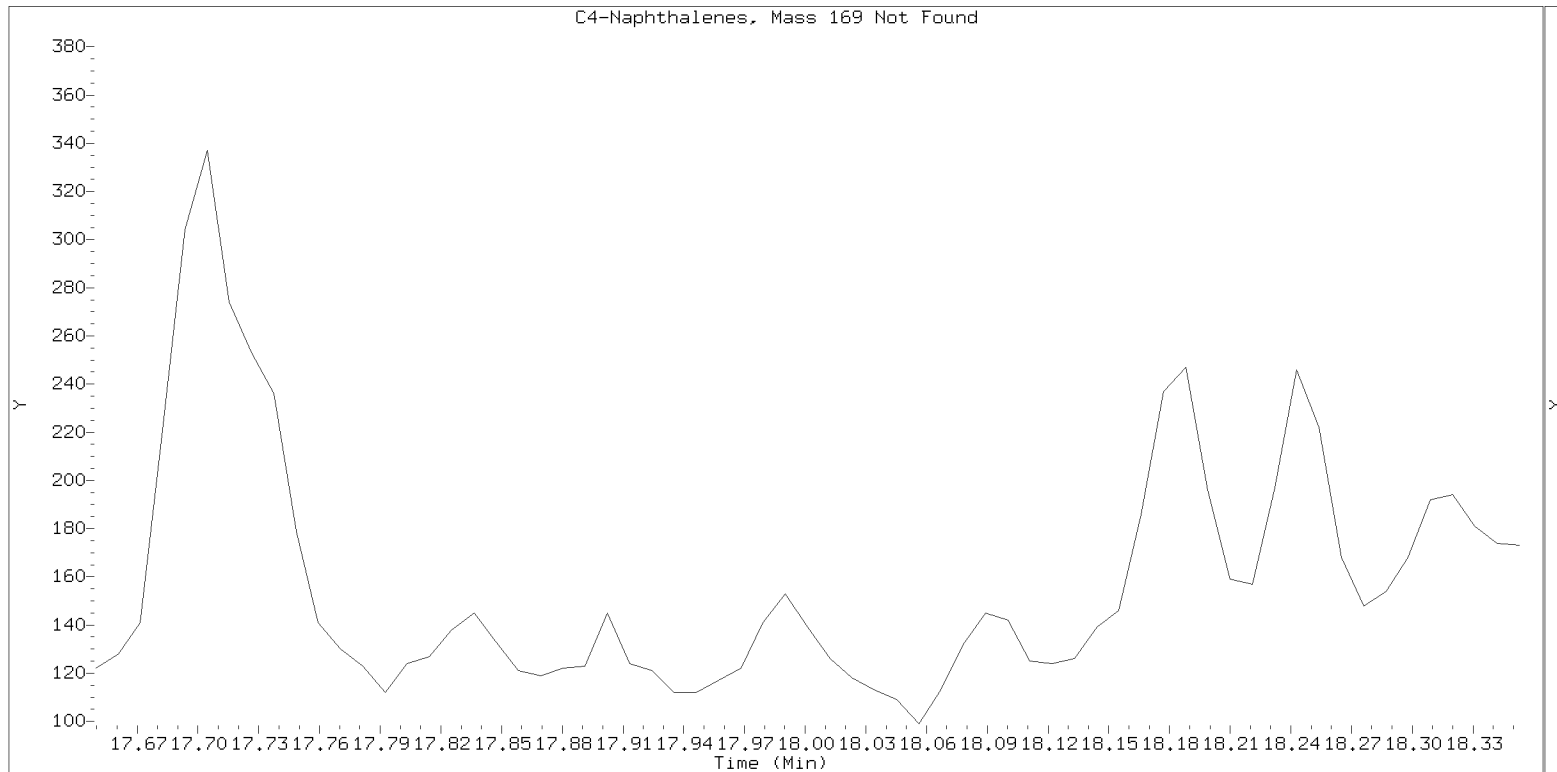
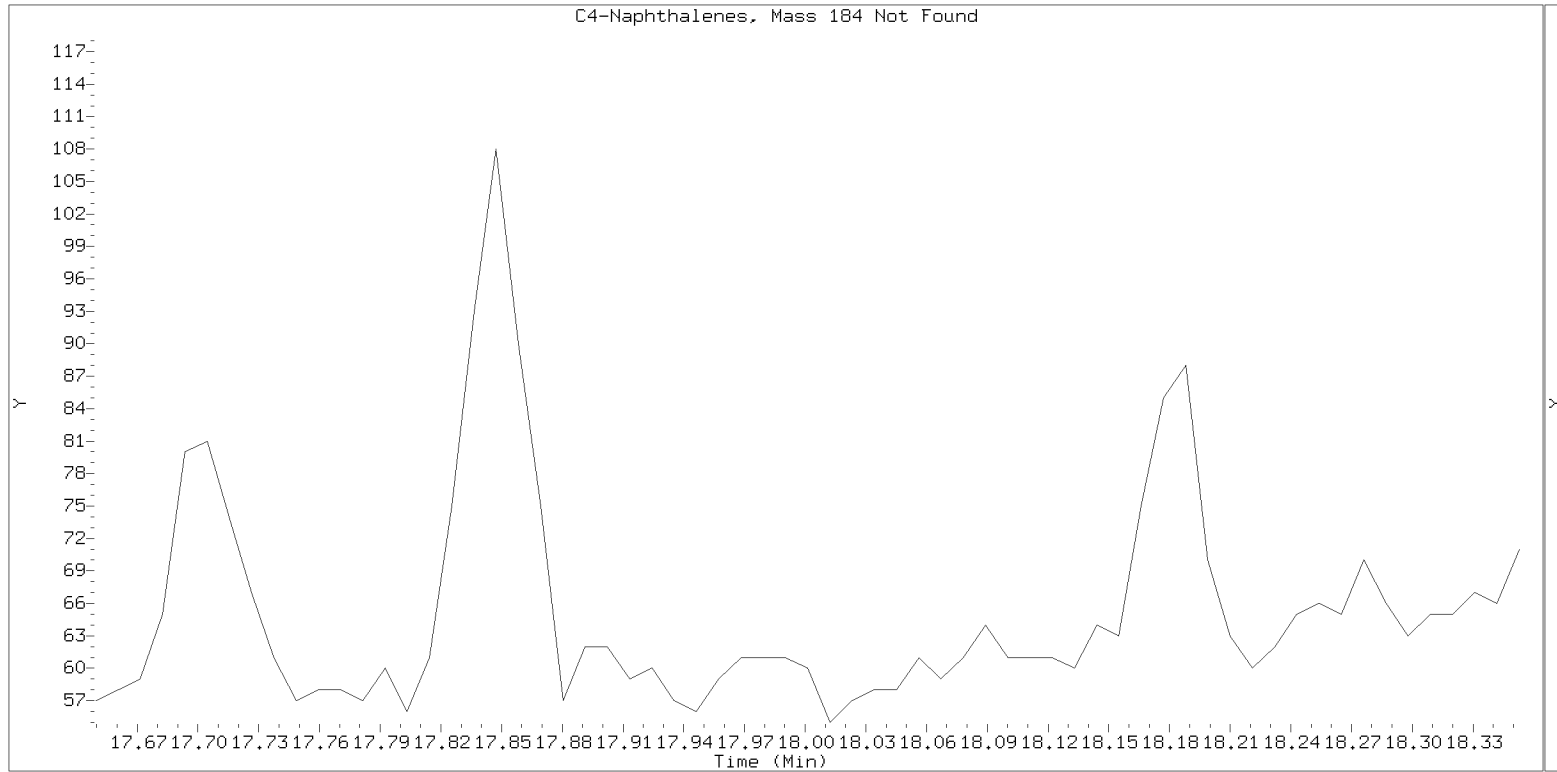
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

Lab ID: BJD0507-BLK1

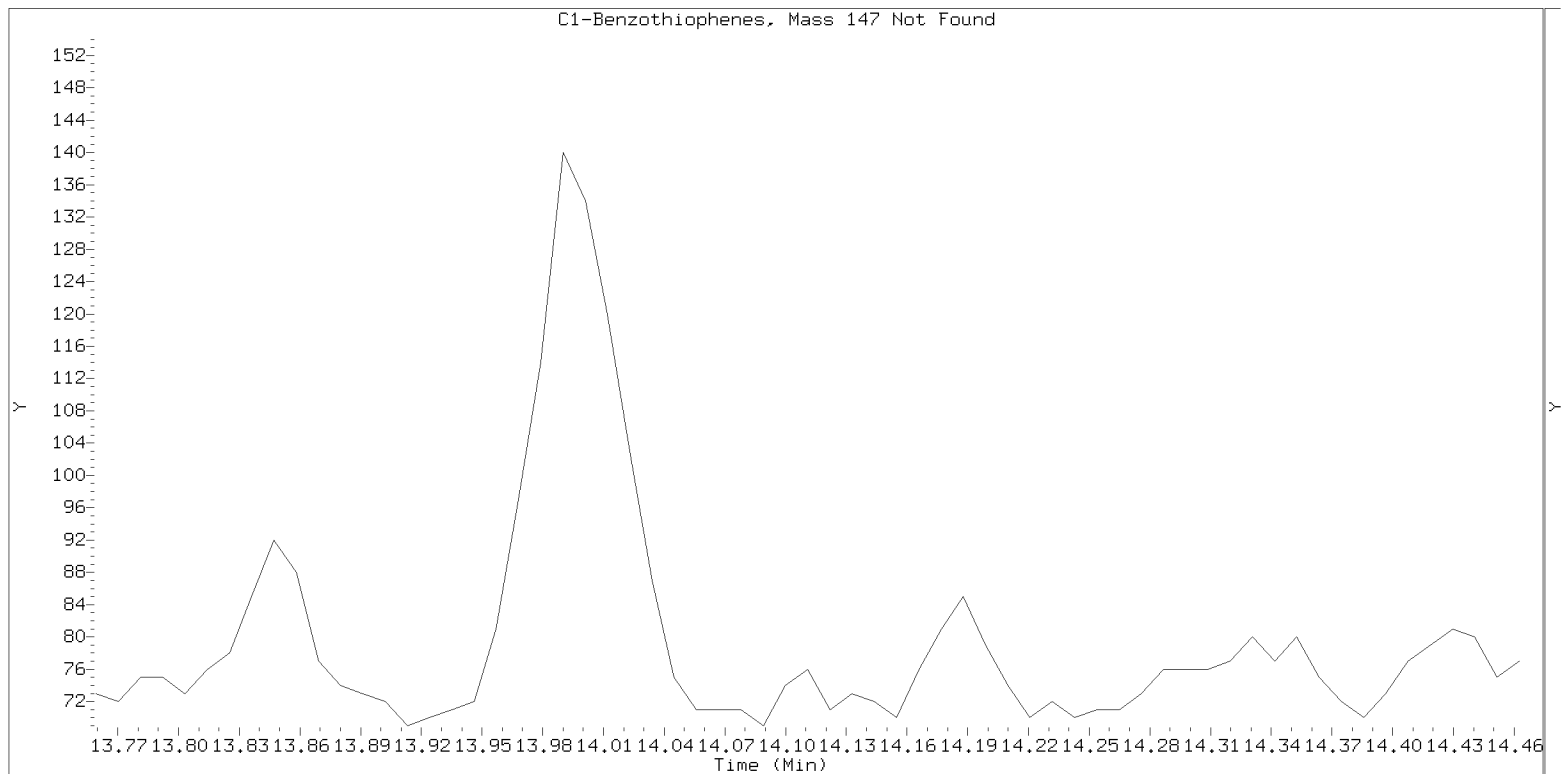
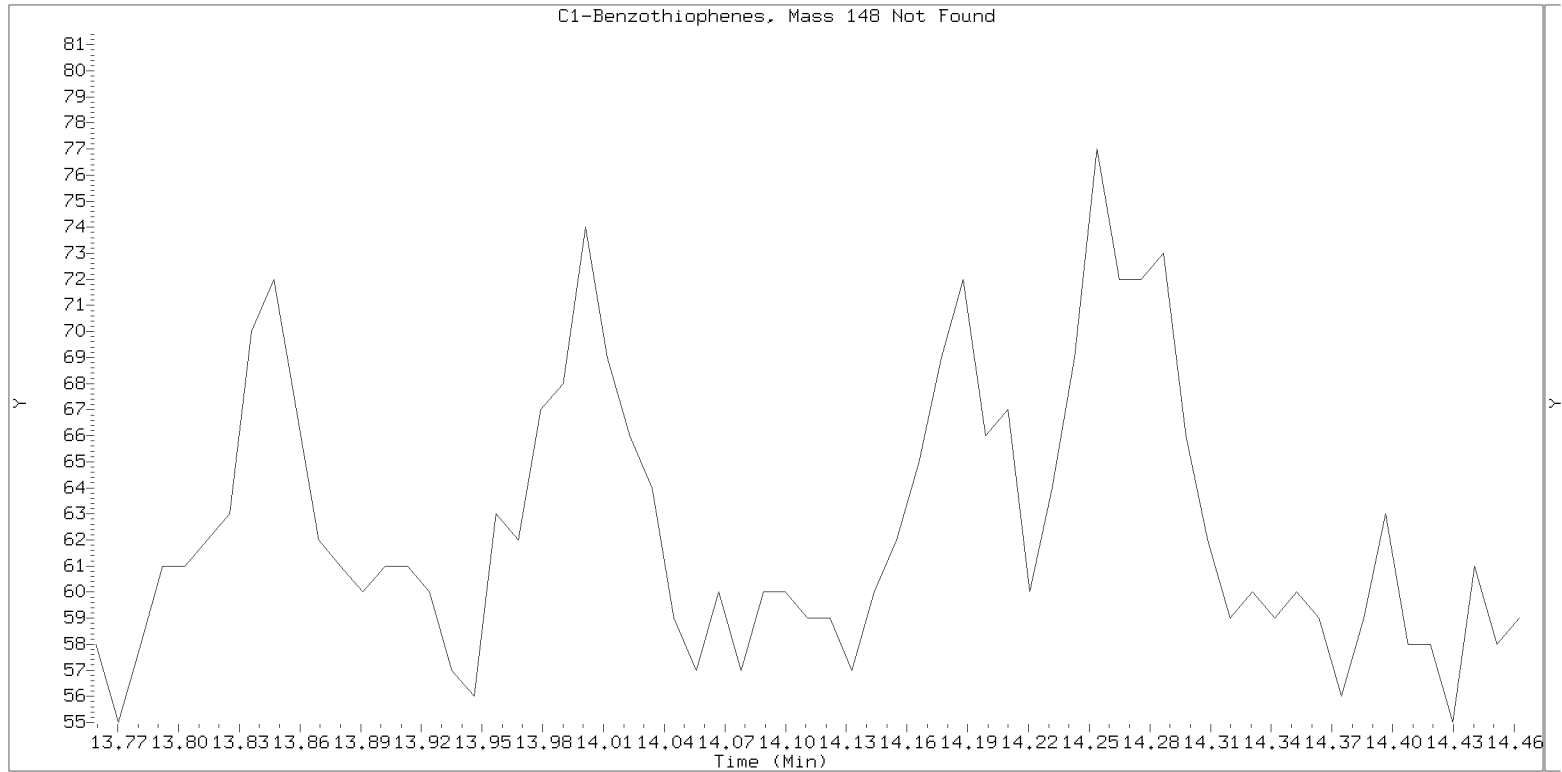
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

Lab ID: BJD0507-BLK1

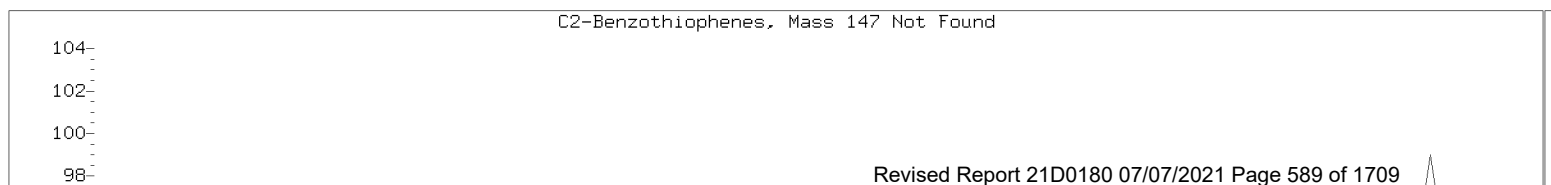
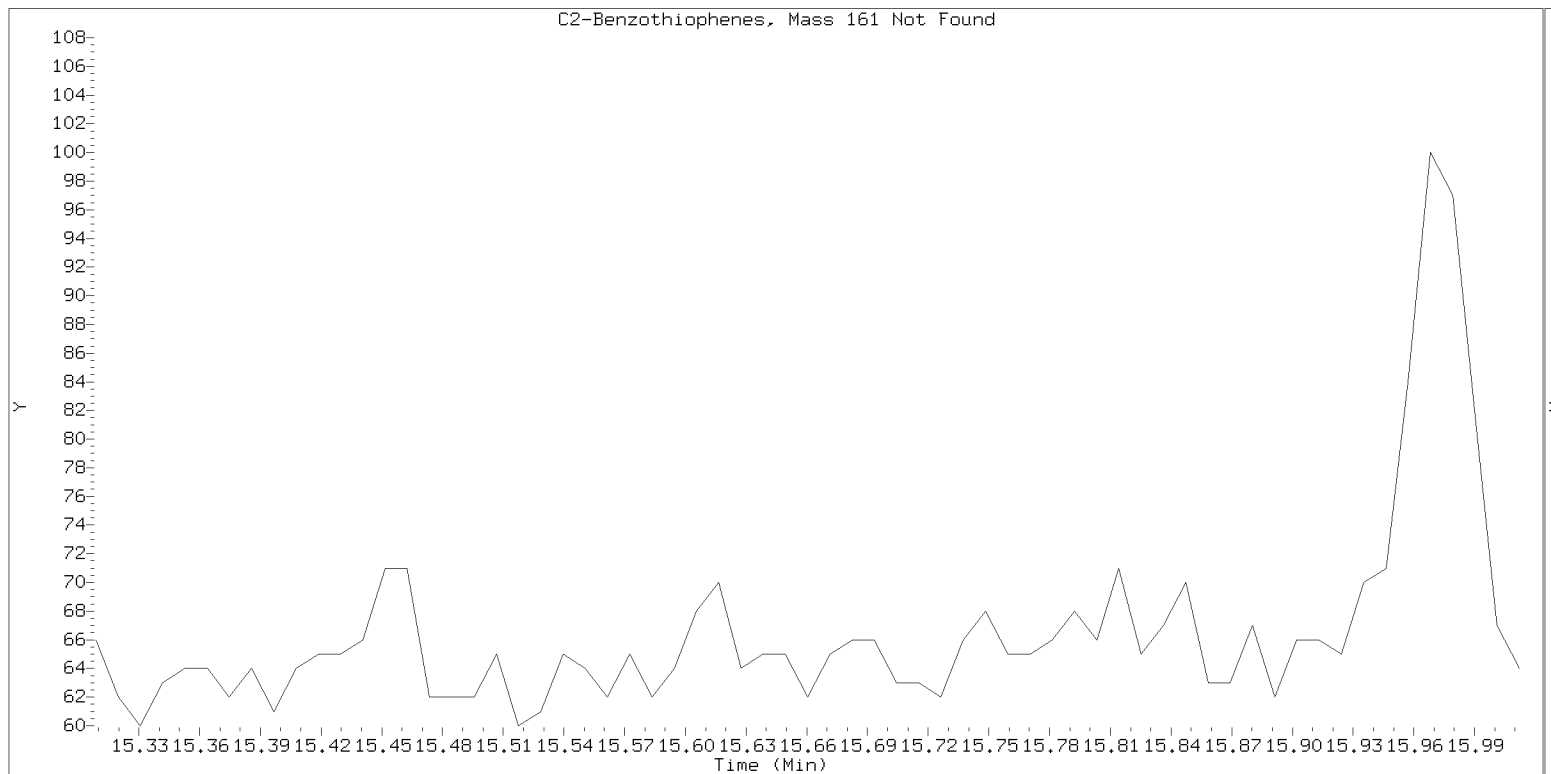
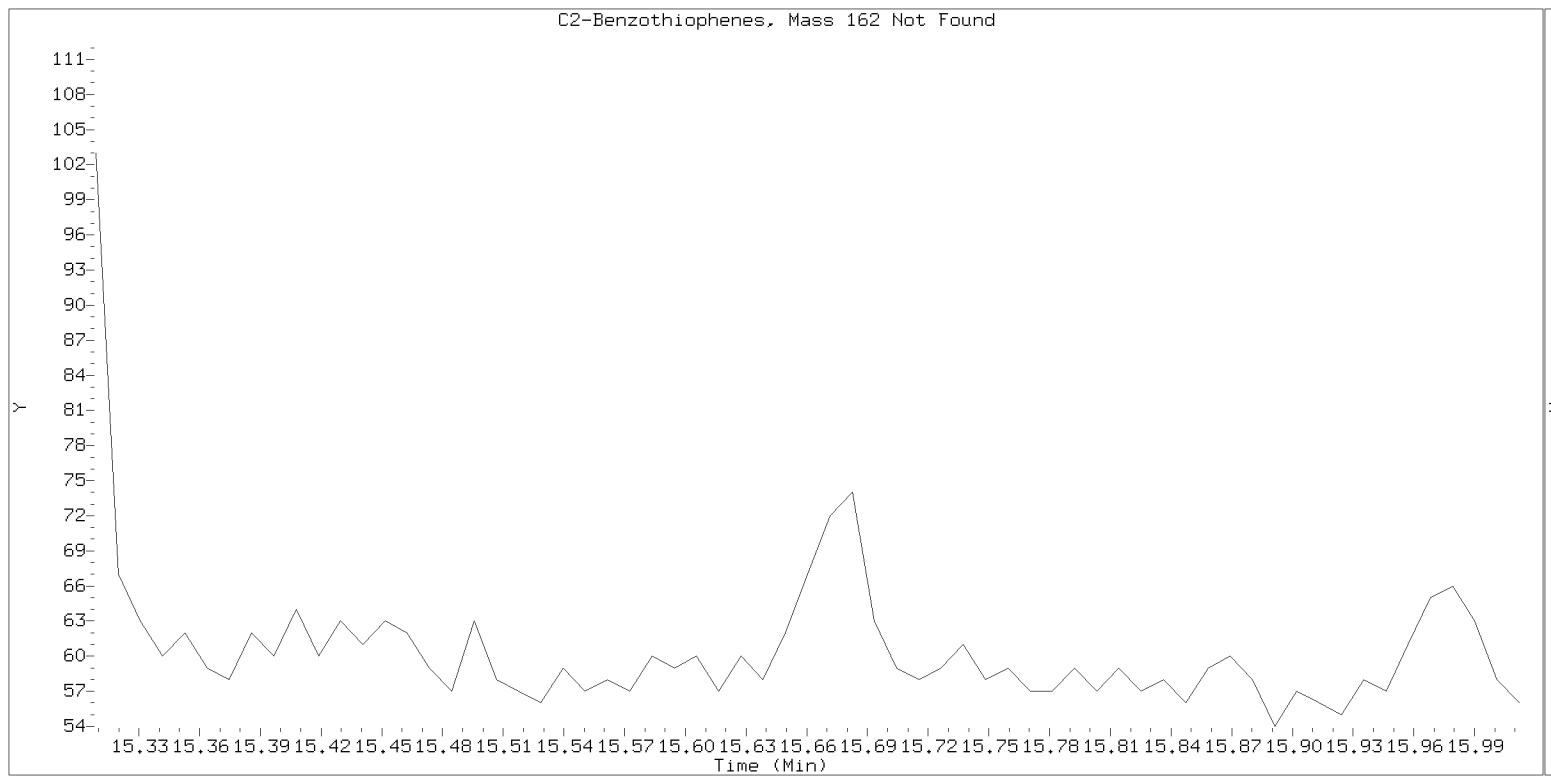
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

Lab ID: BJD0507-BLK1

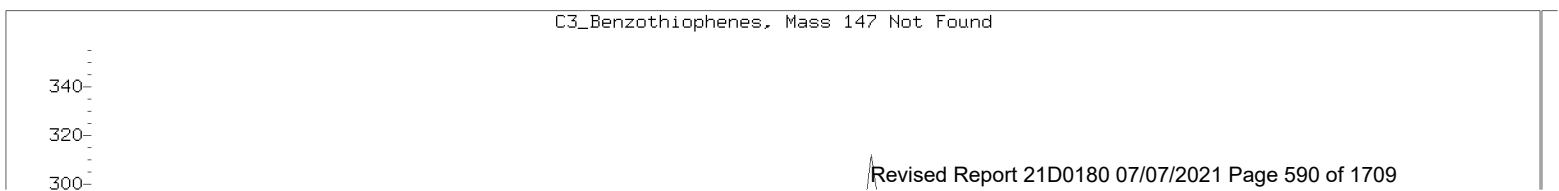
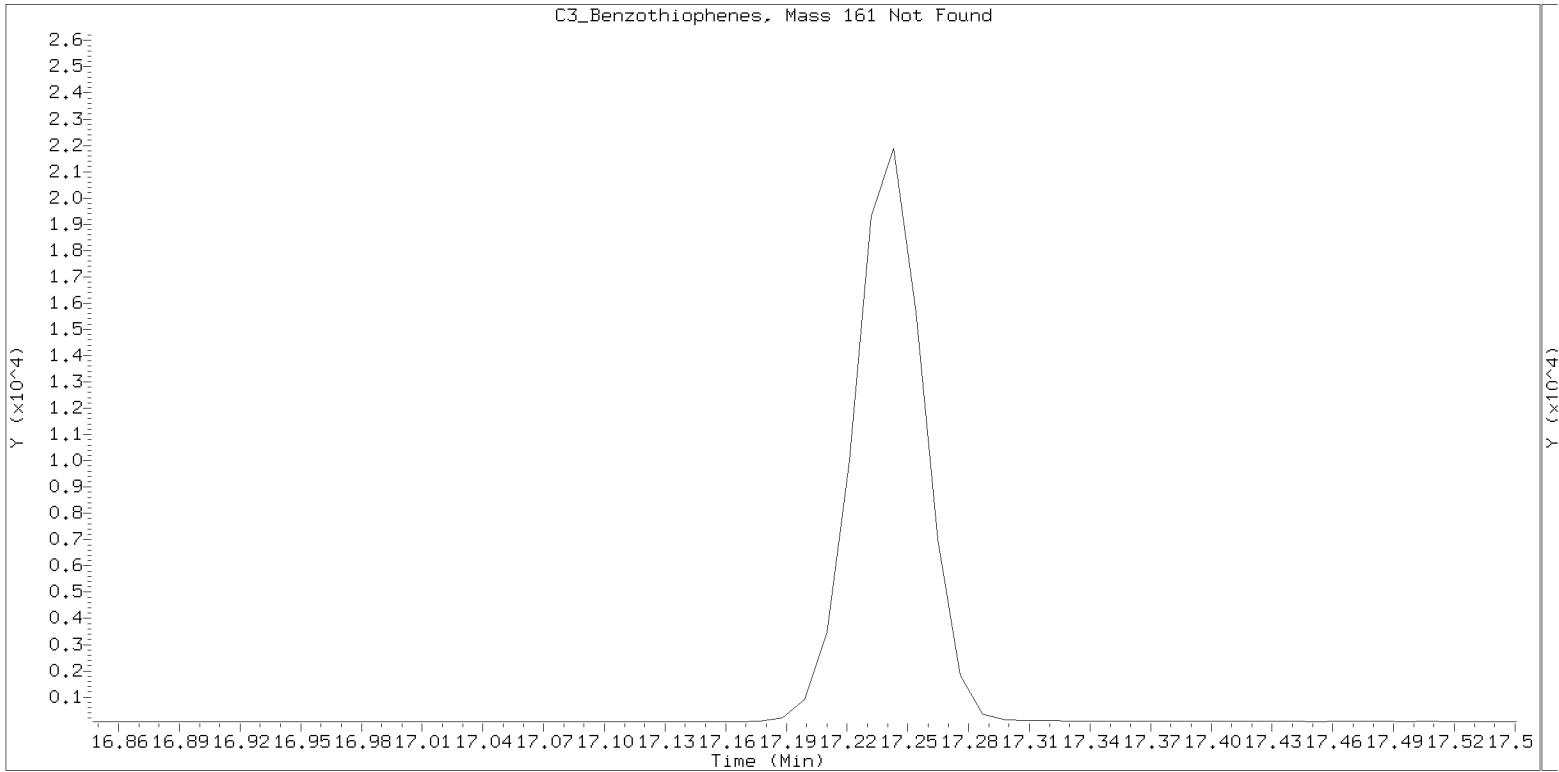
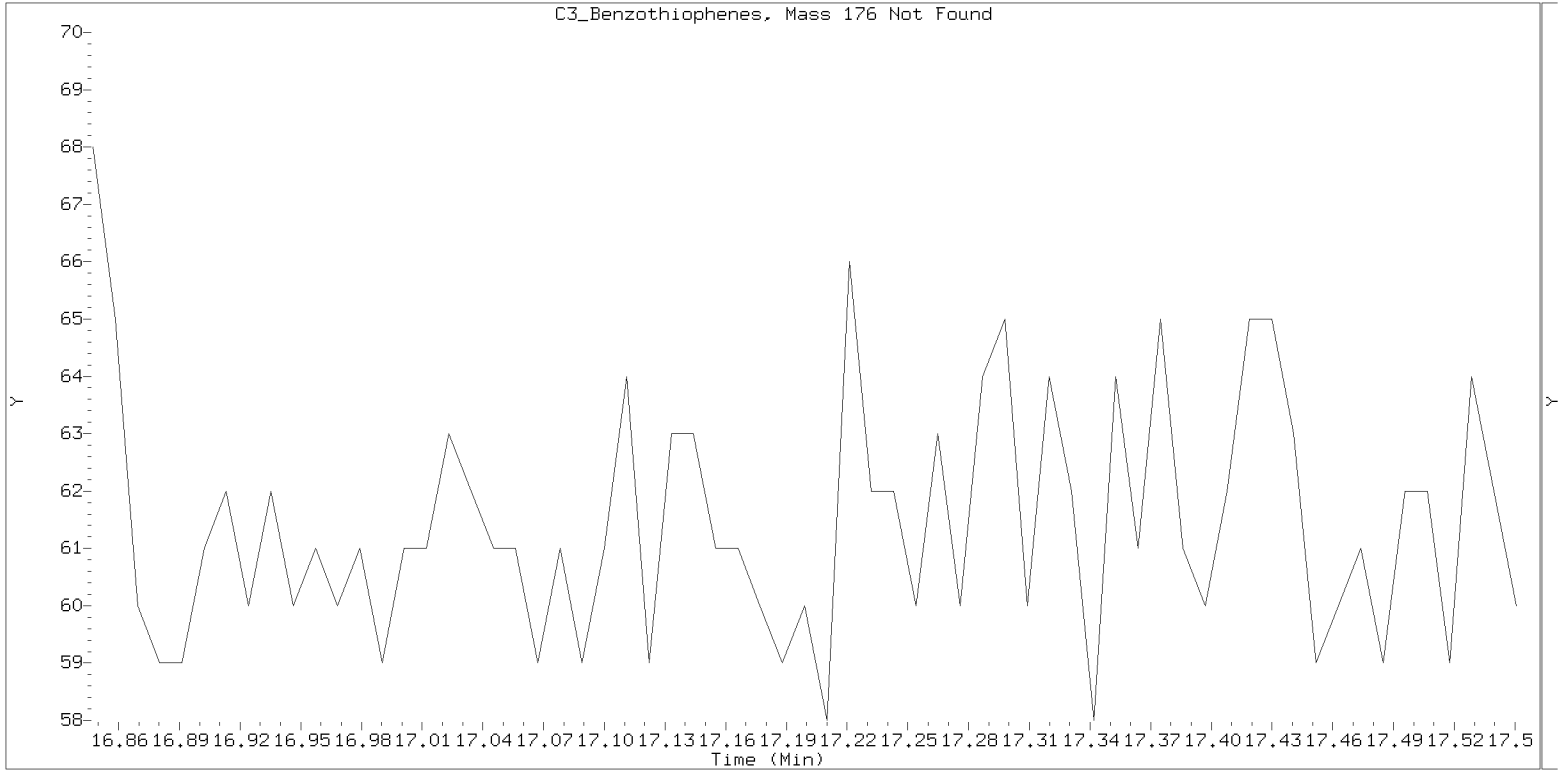
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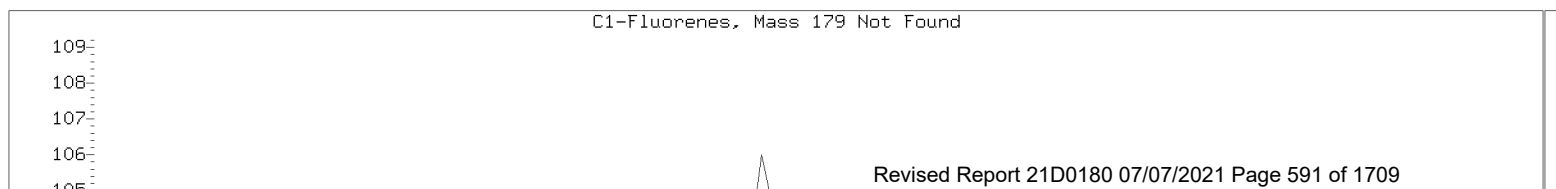
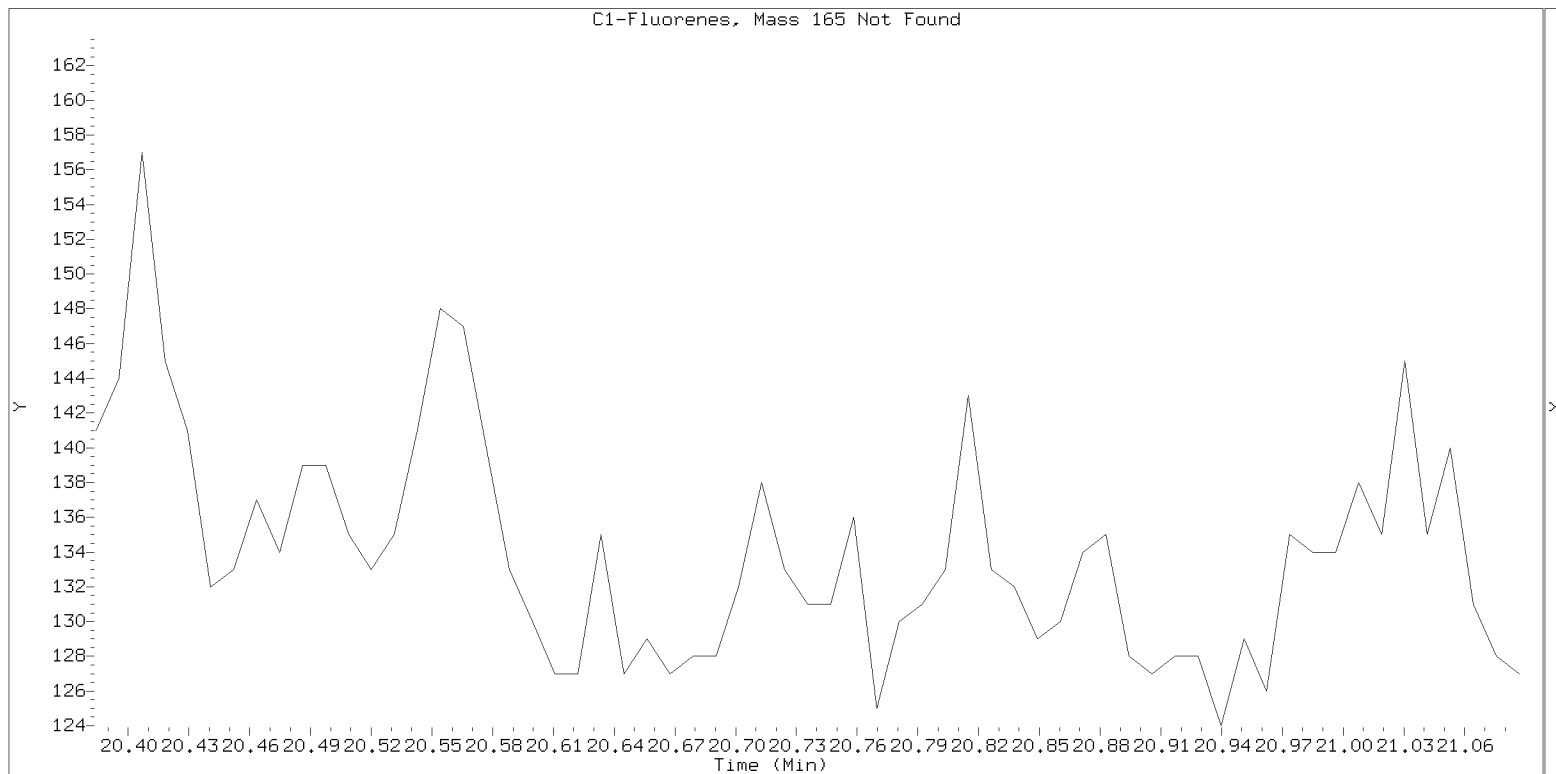
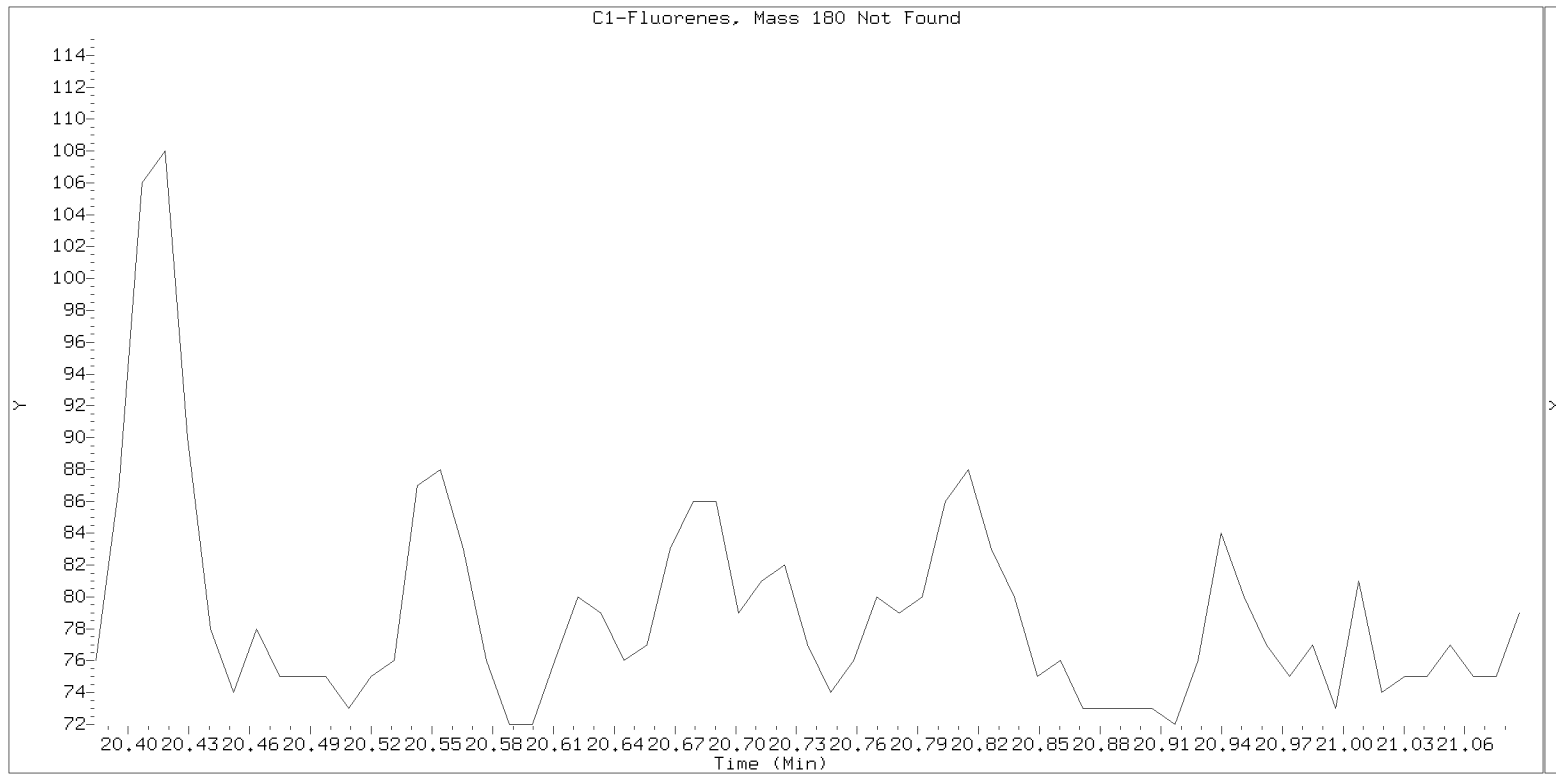
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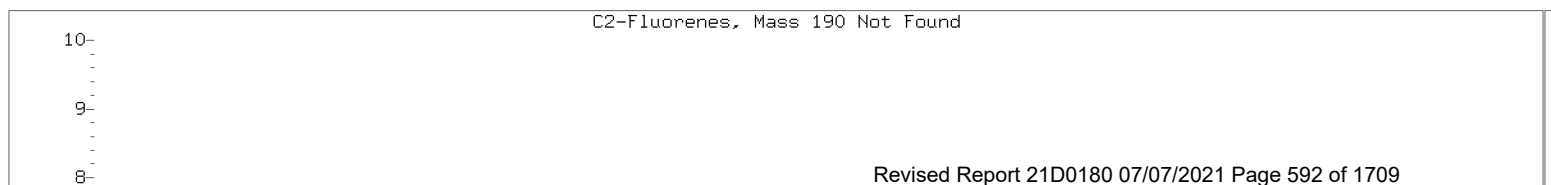
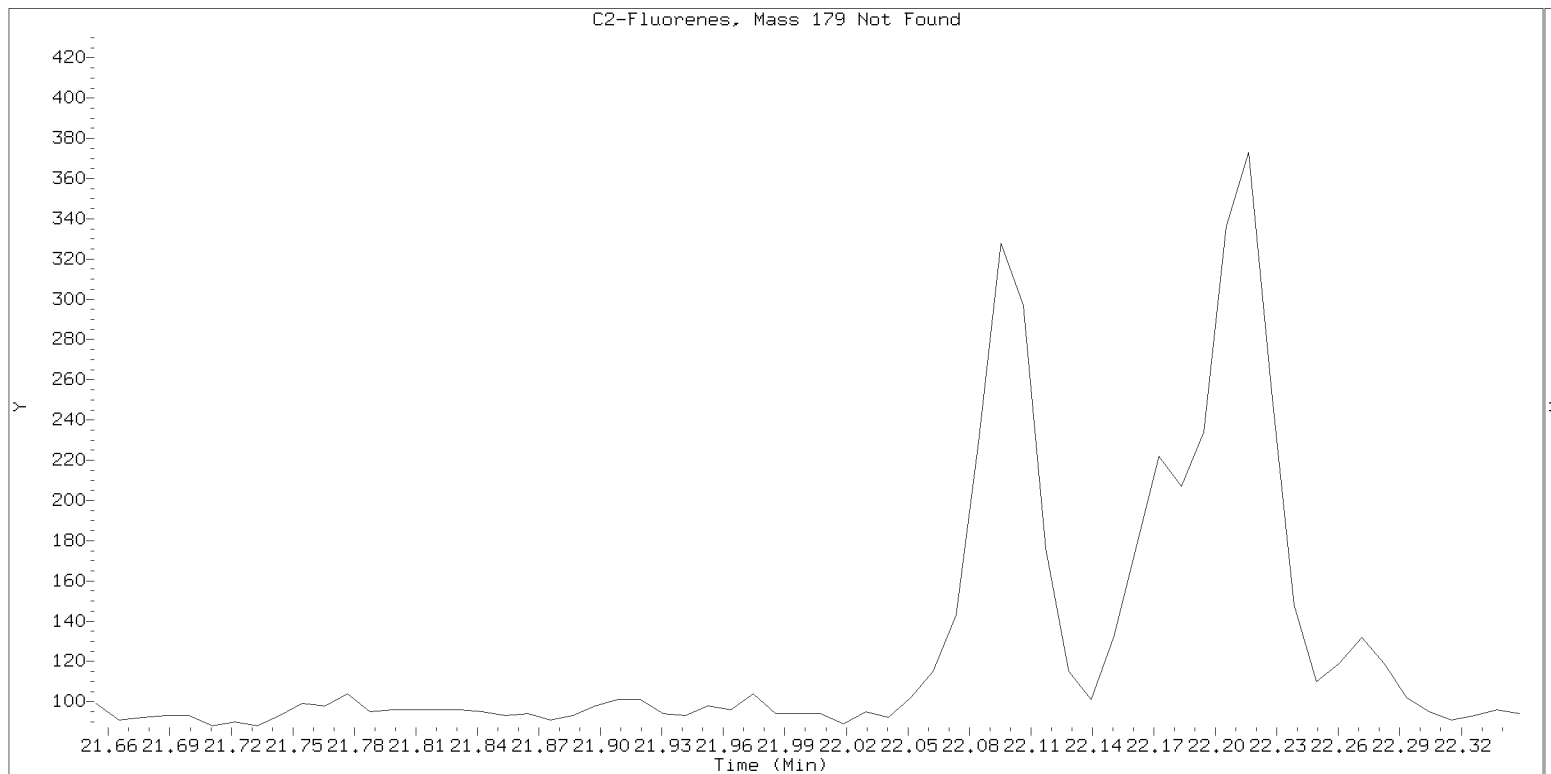
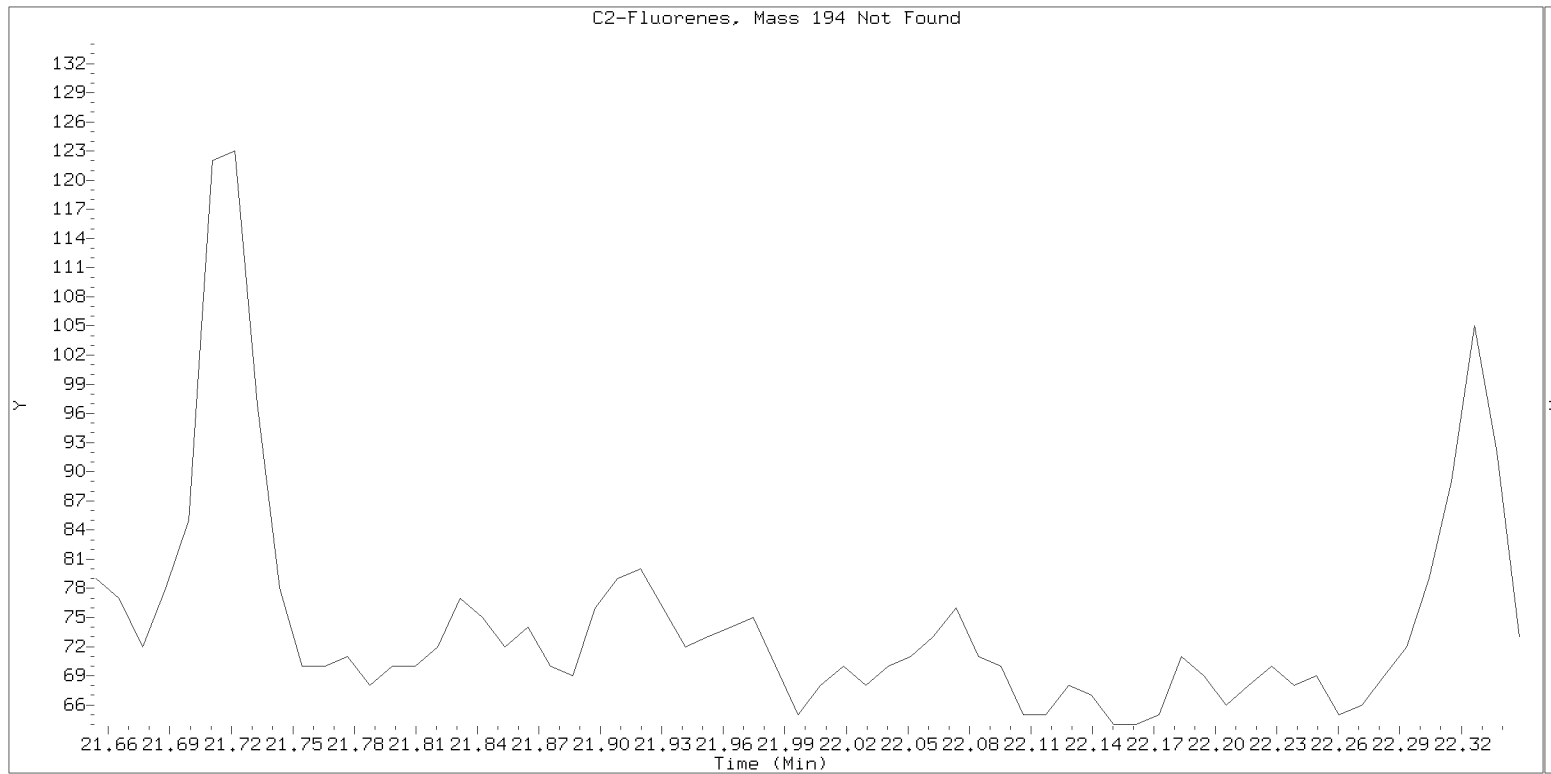
SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

Lab ID: BJD0507-BLK1

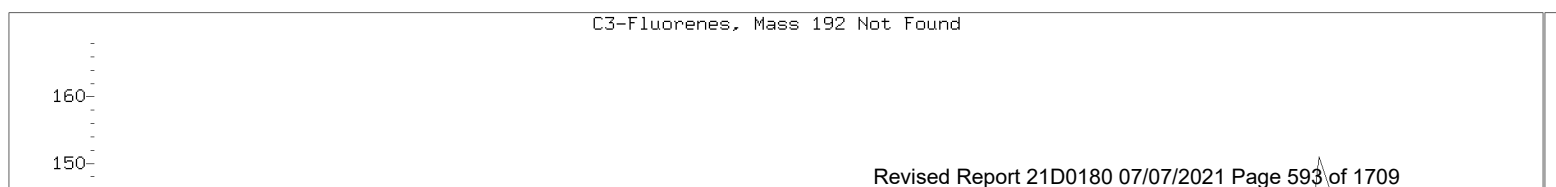
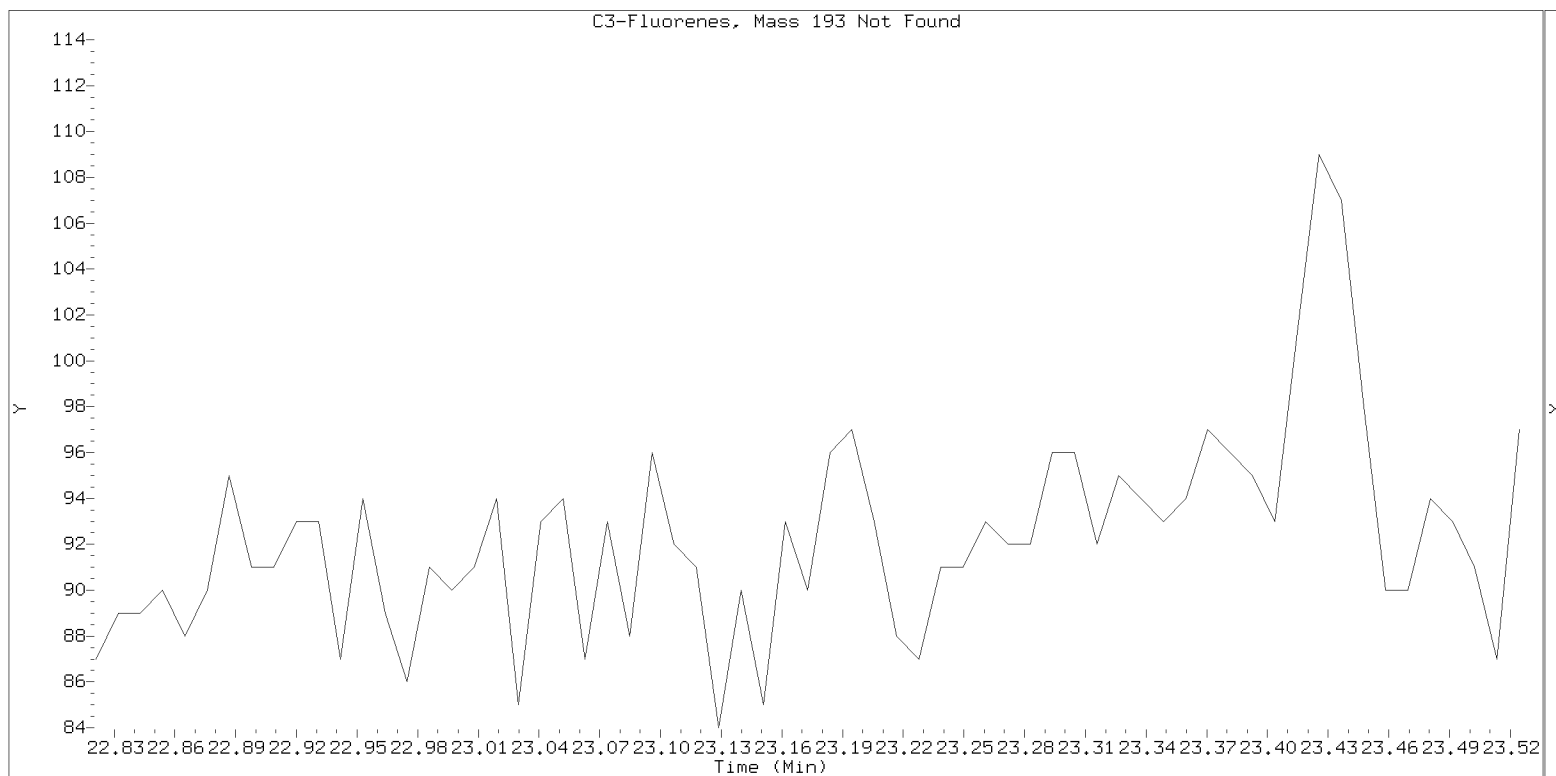
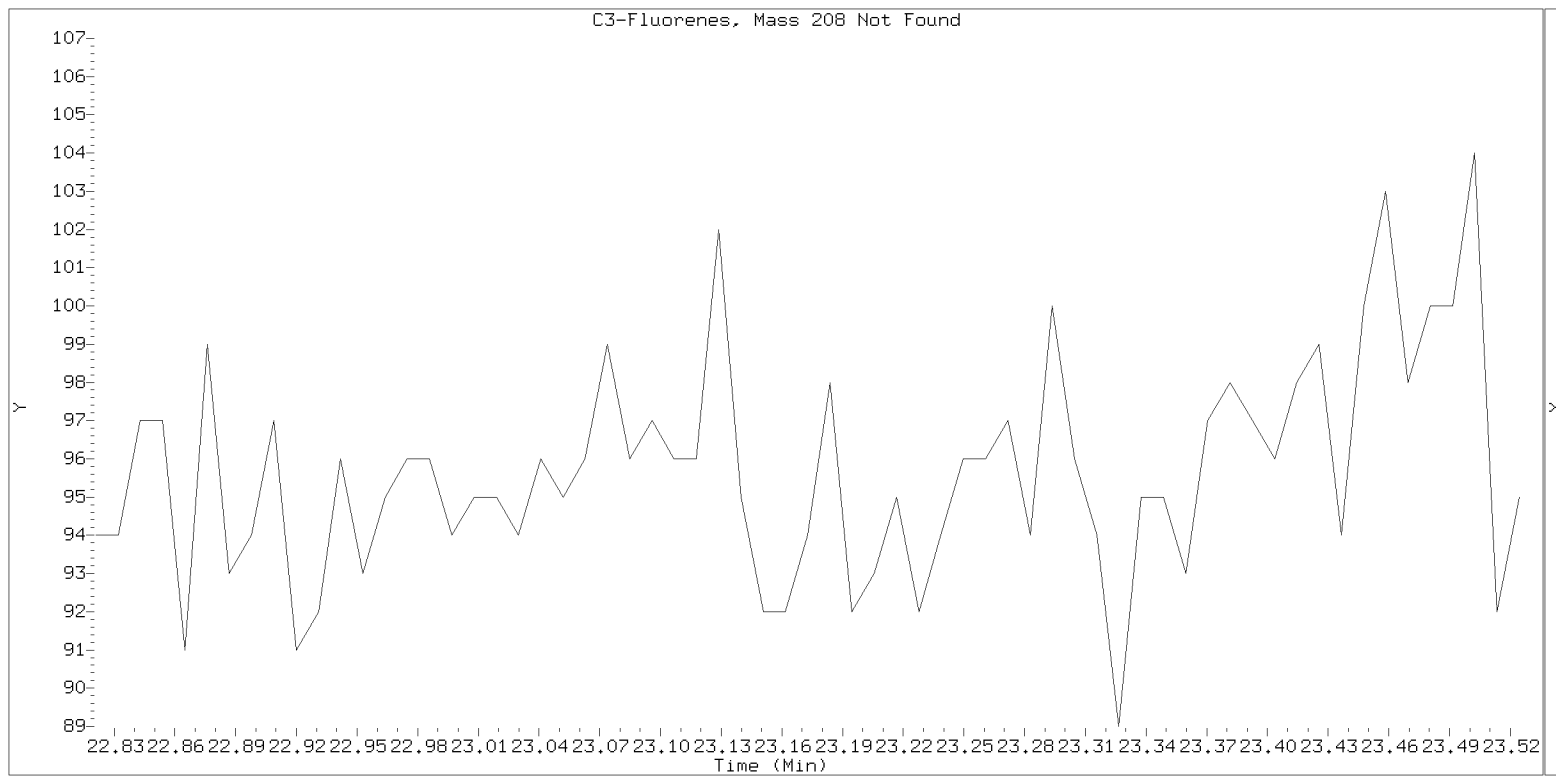
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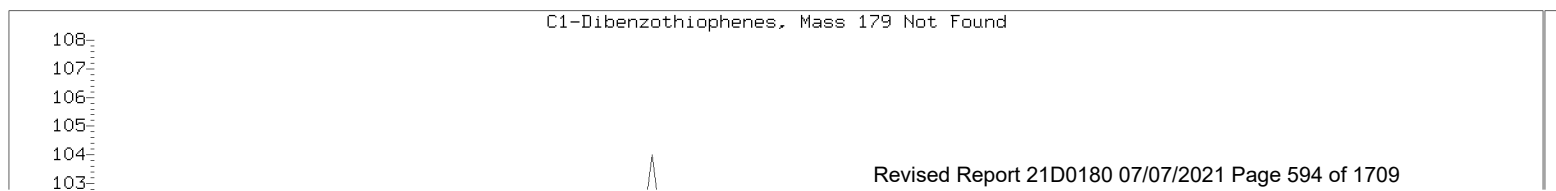
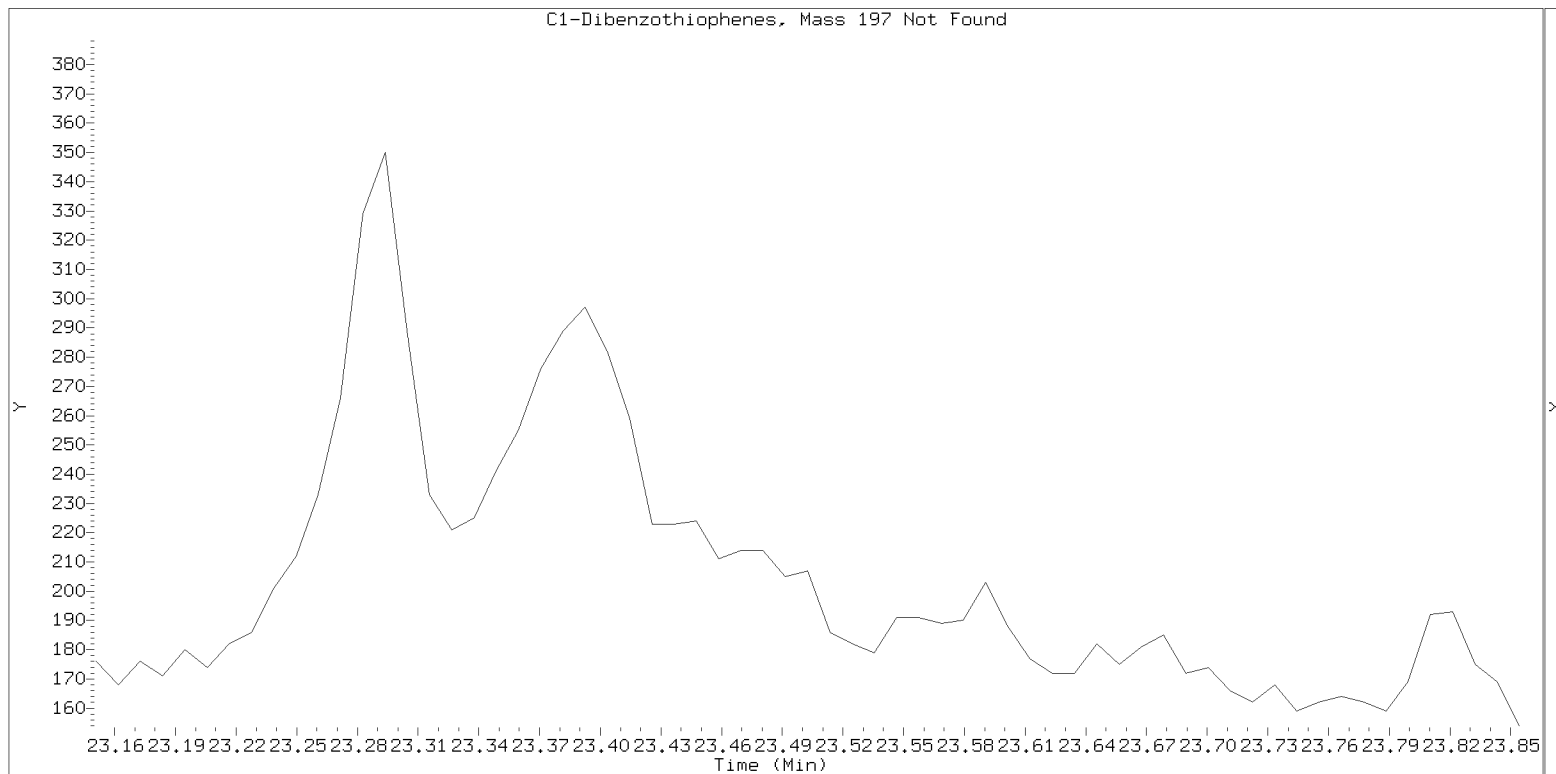
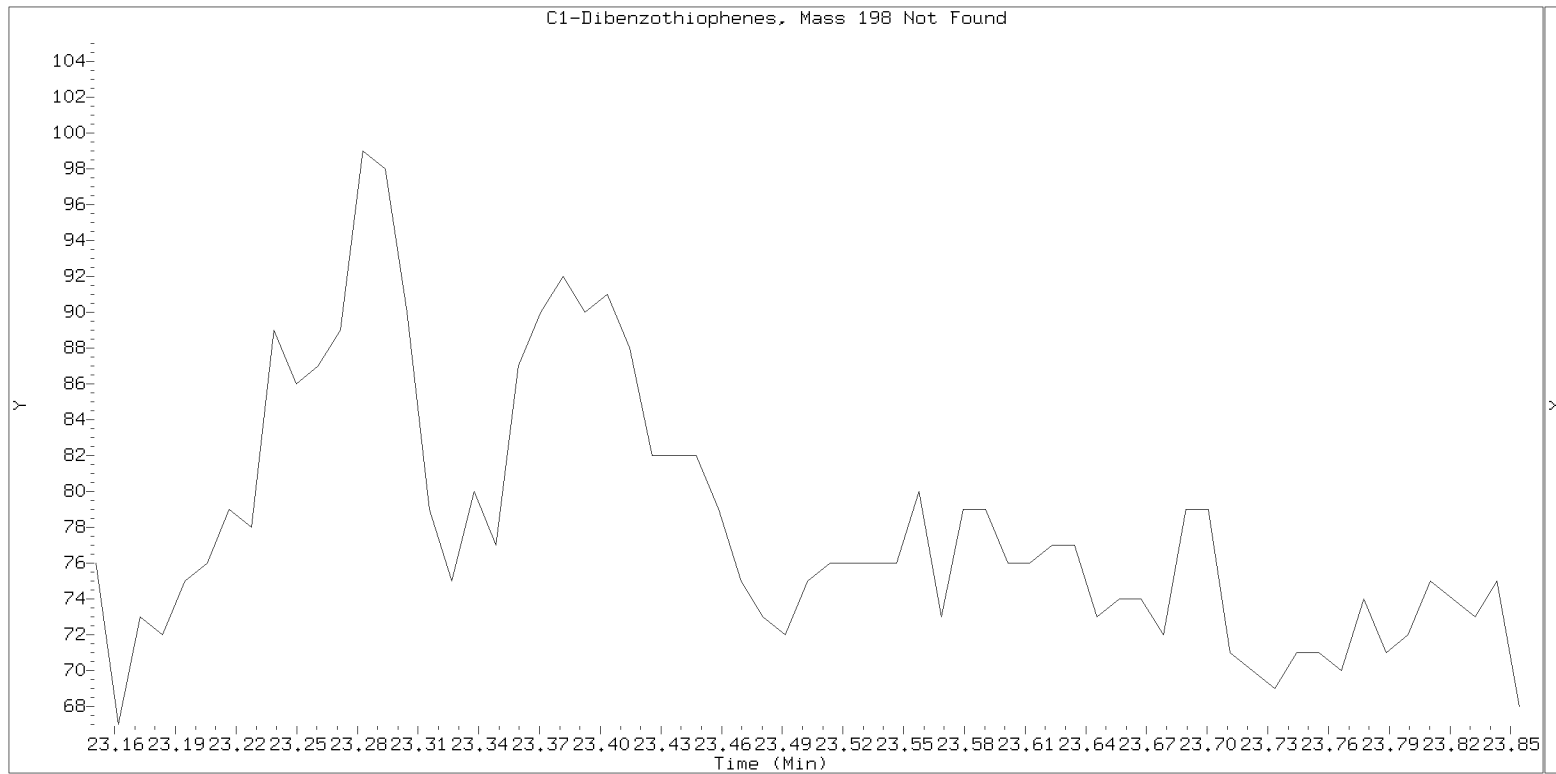
Lab ID: BJD0507-BLK1
nt14.i, SIM.b\ALKYLRANGES.m, 02-MAY-2021 01:11



Lab ID: BJD0507-BLK1
nt14.i, SIM.b\ALKYLRANGES.m, 02-MAY-2021 01:11

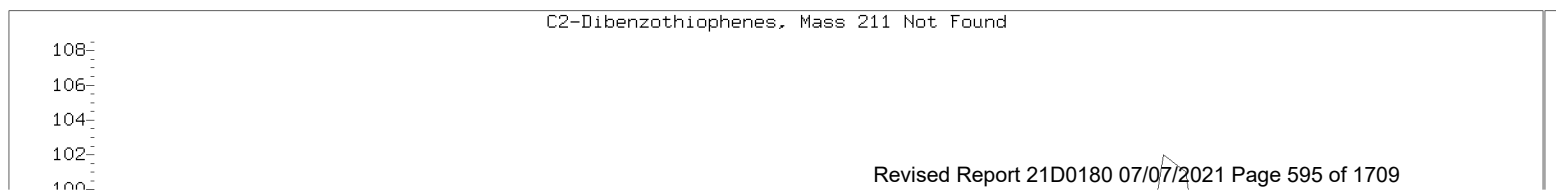
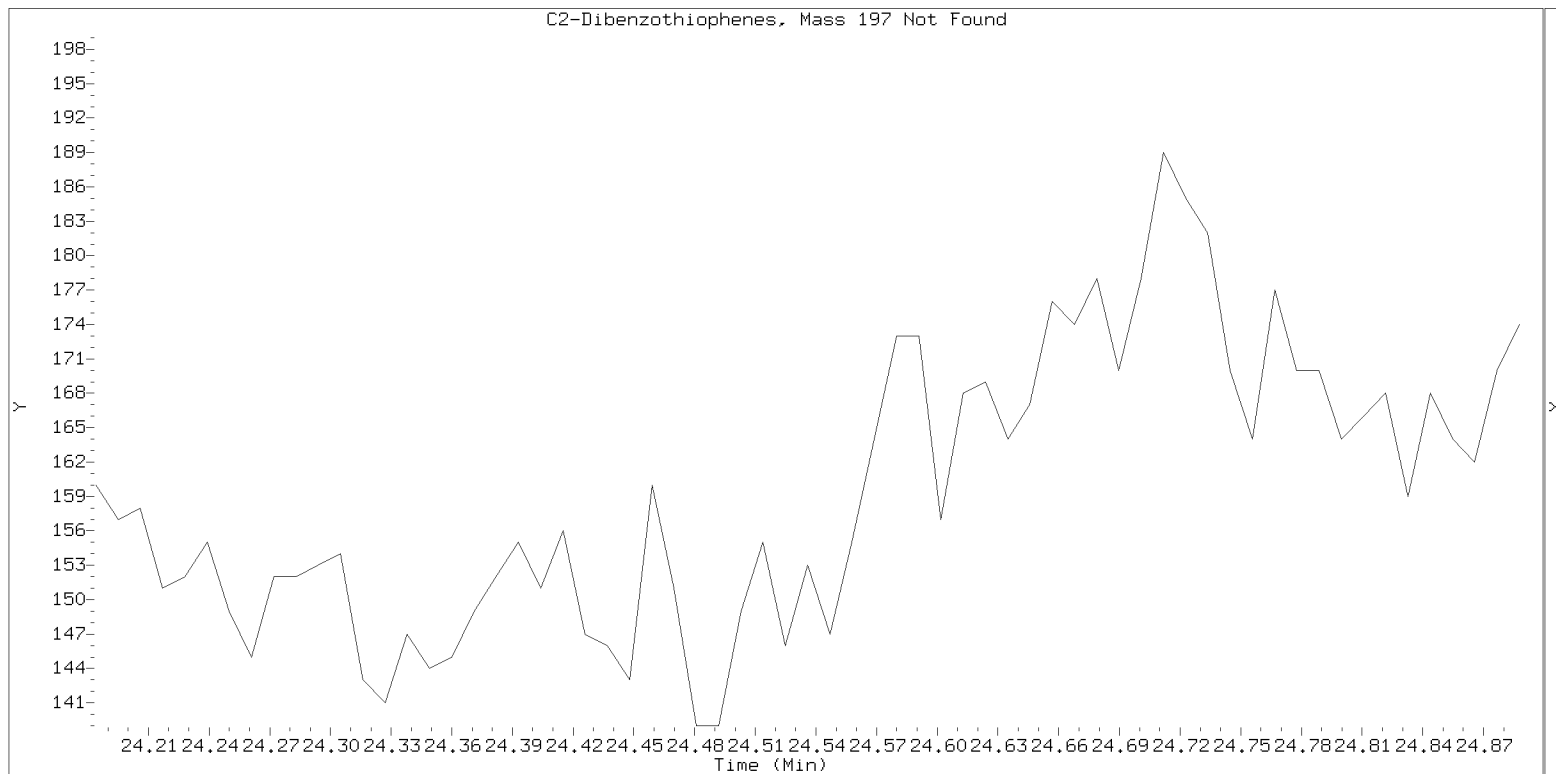
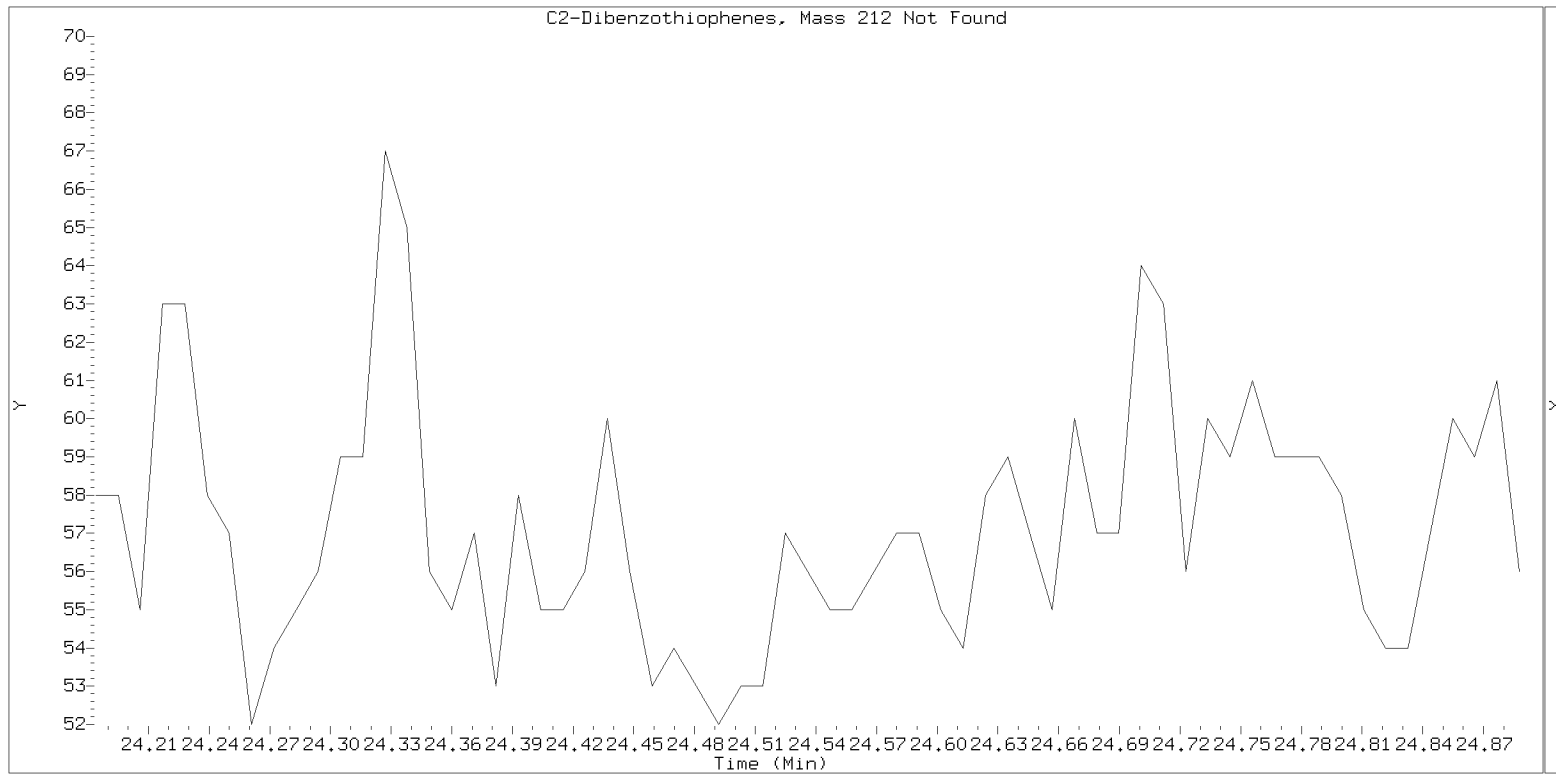


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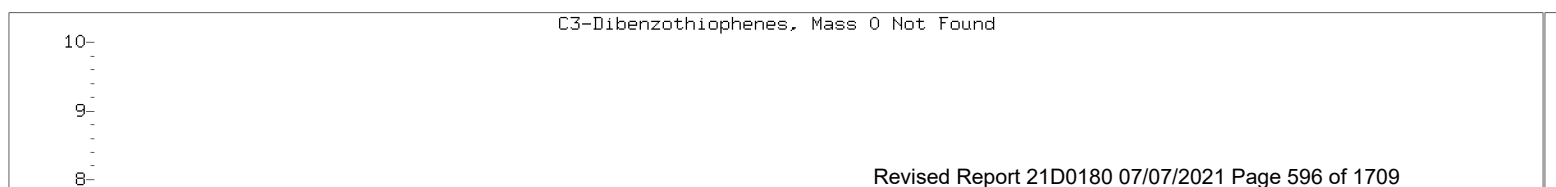
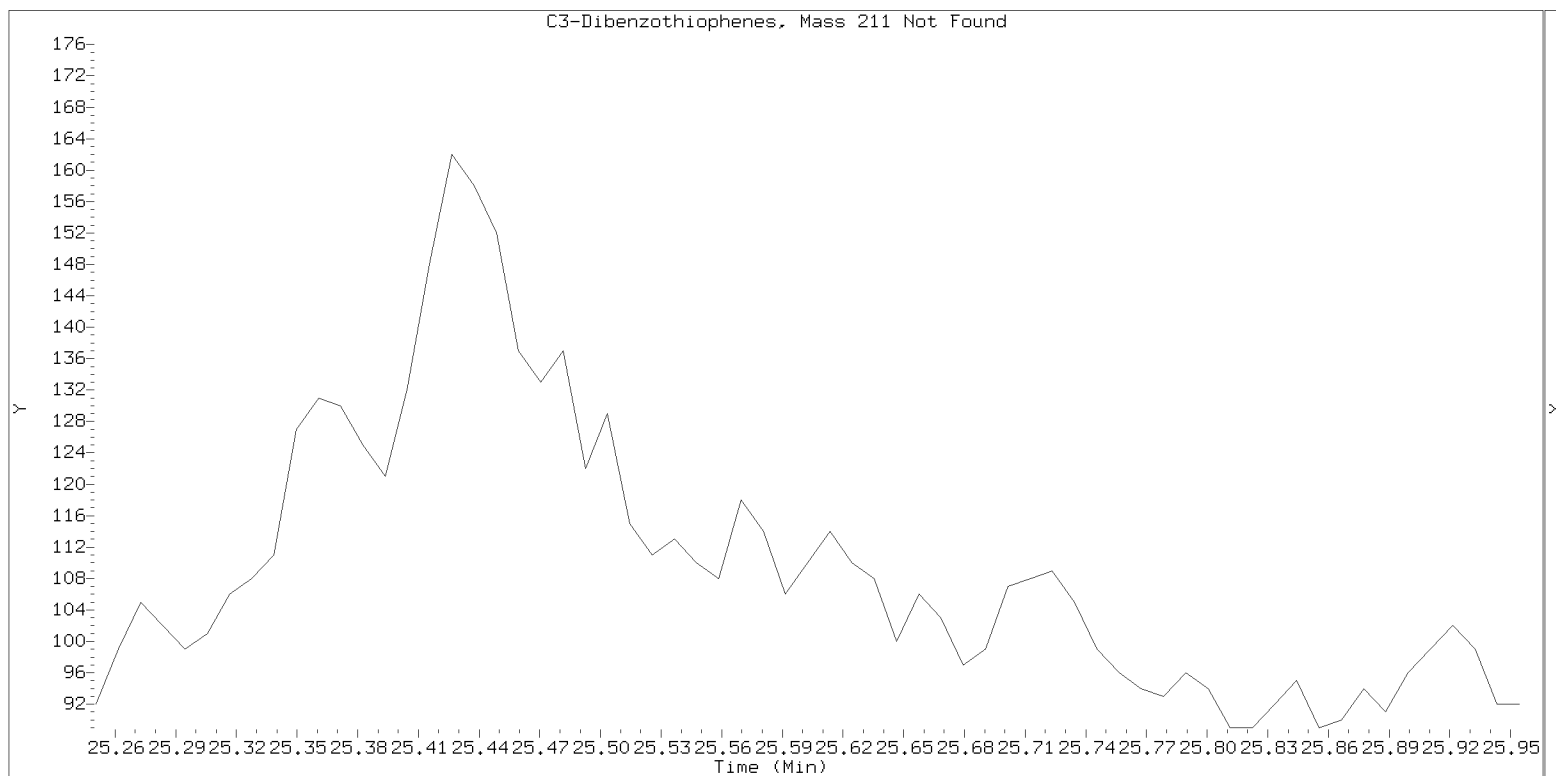
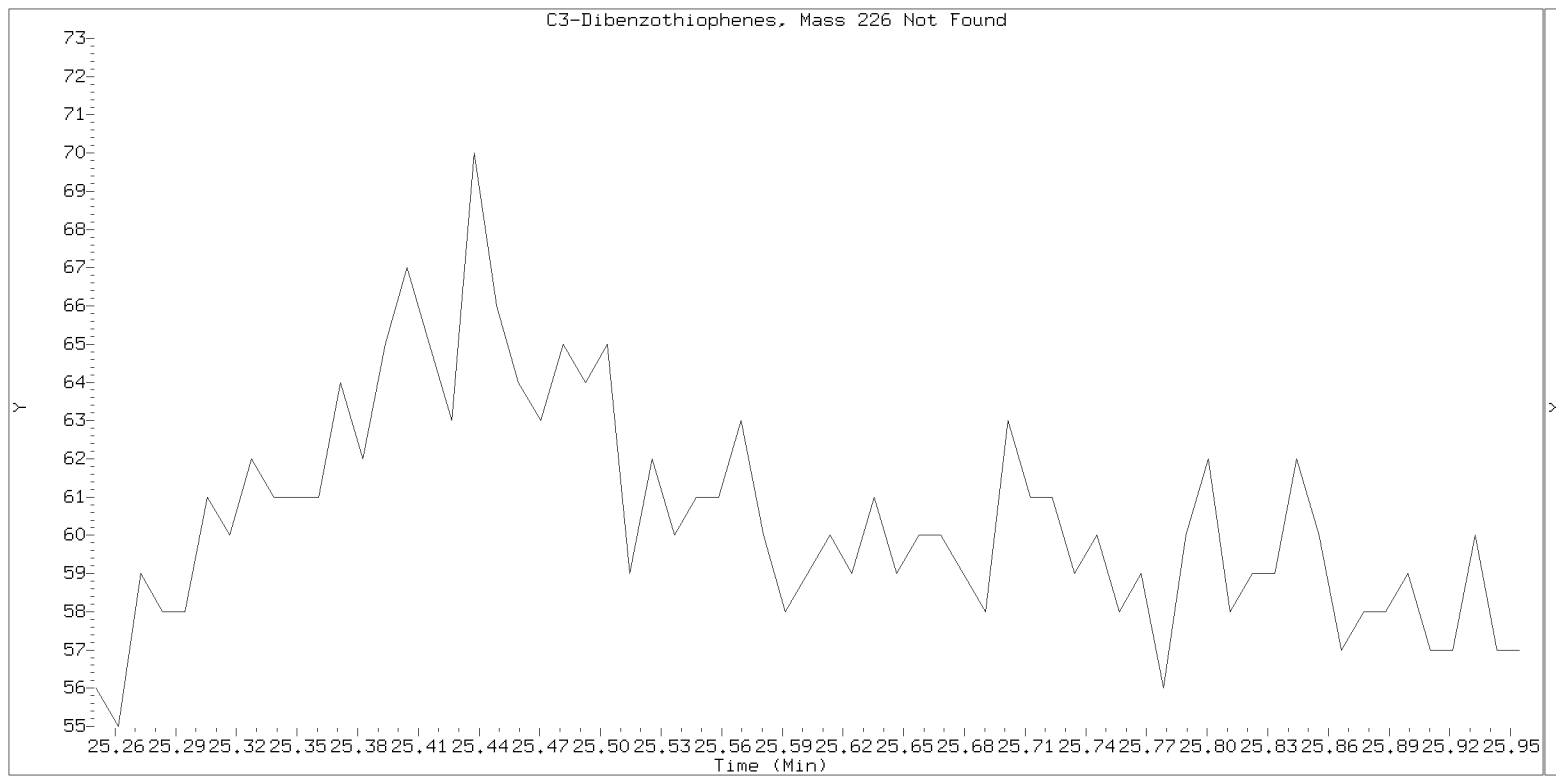
SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

Lab ID: BJD0507-BLK1
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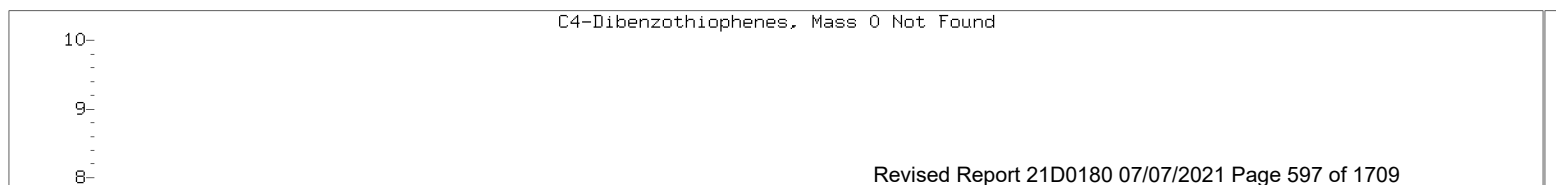
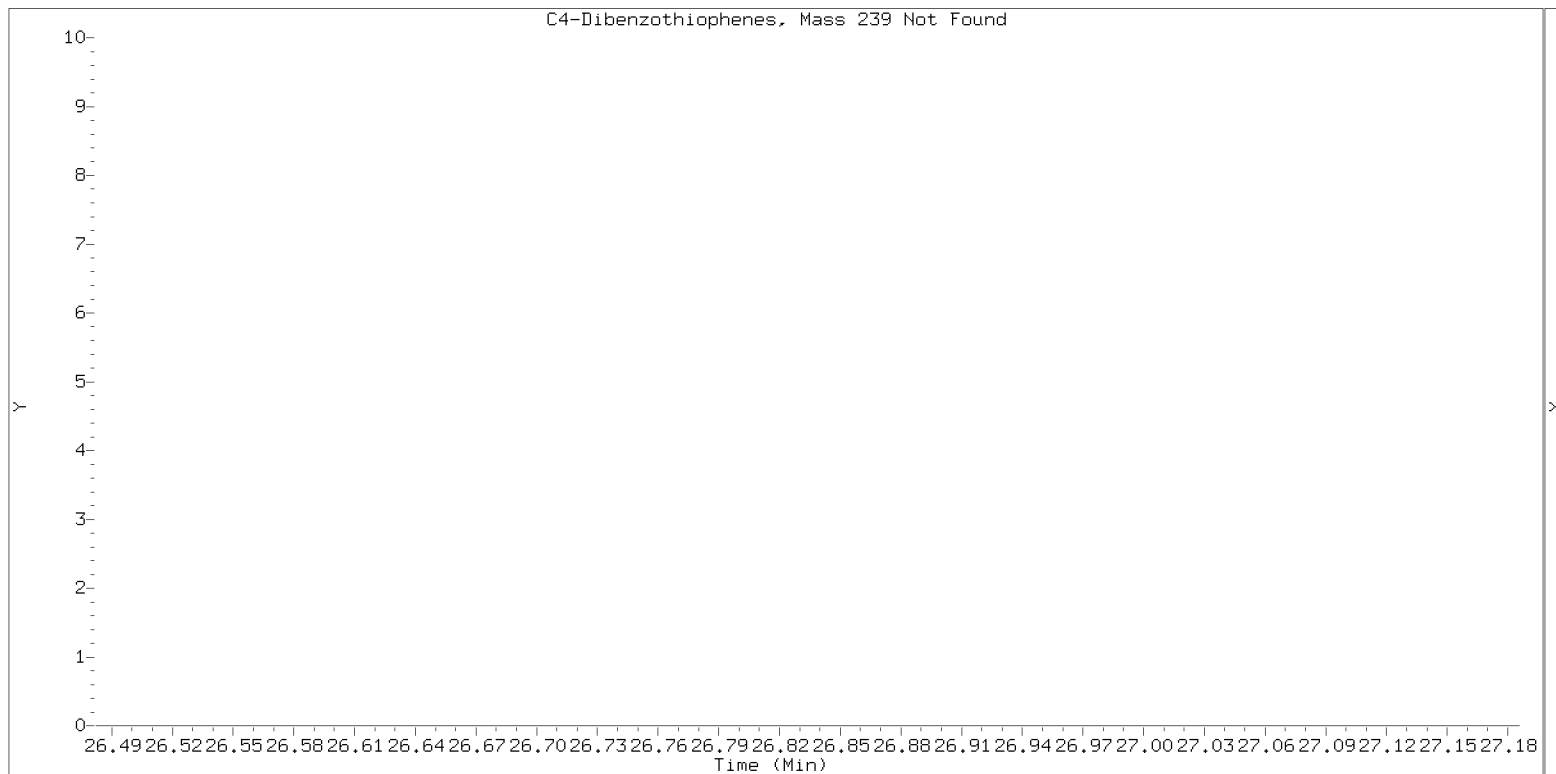
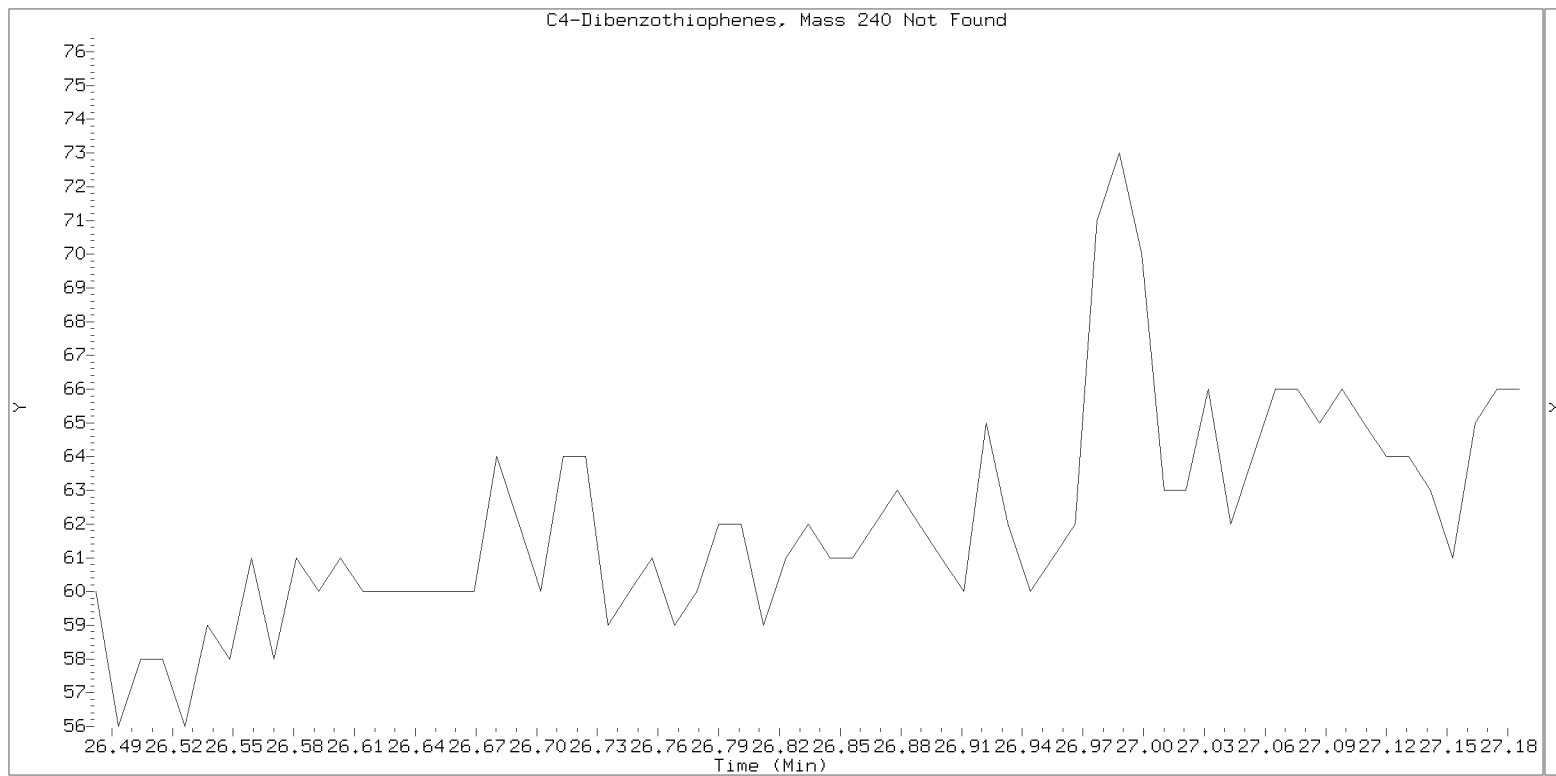
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Lab ID: BJD0507-BLK1
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SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

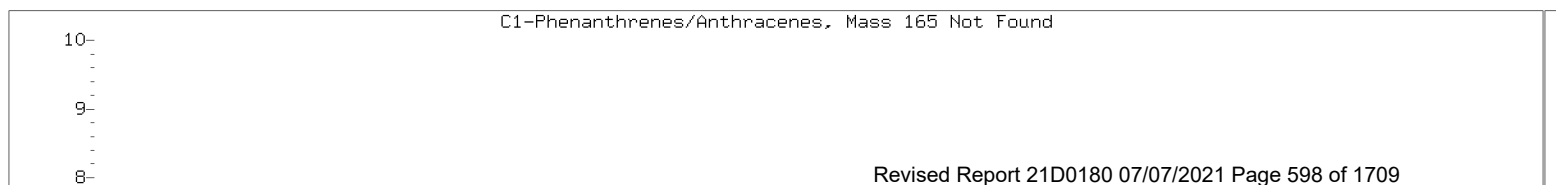
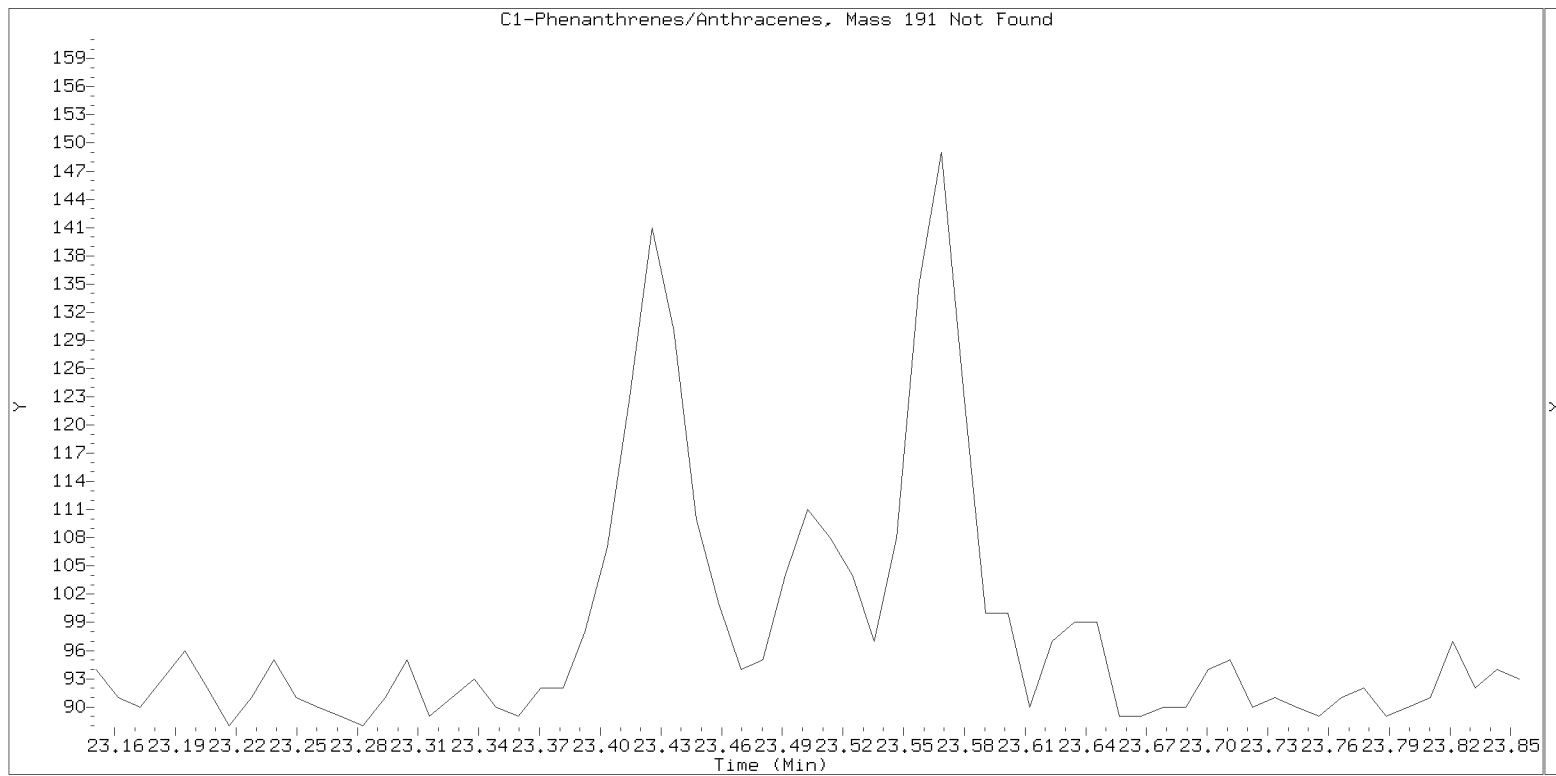
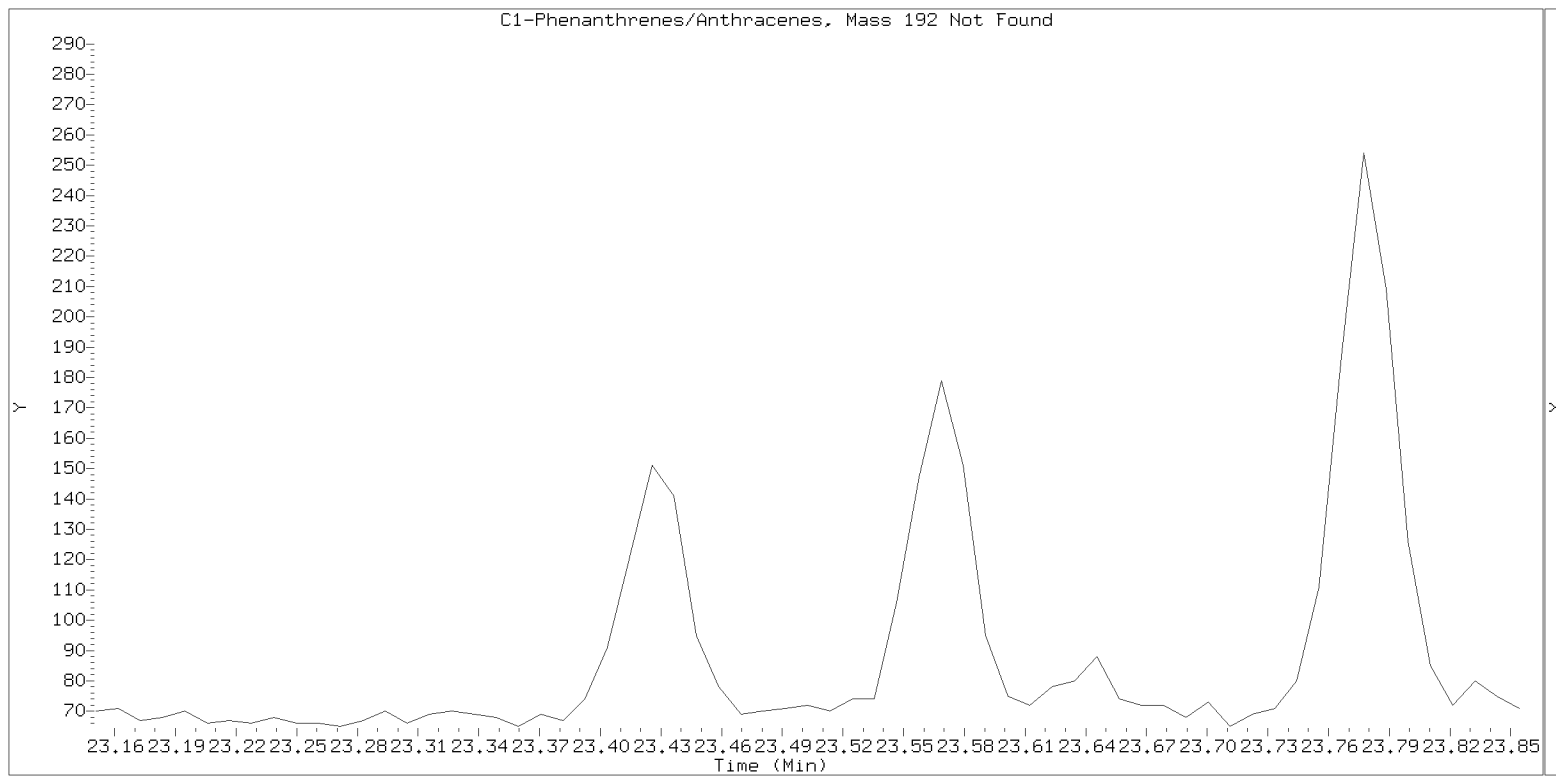
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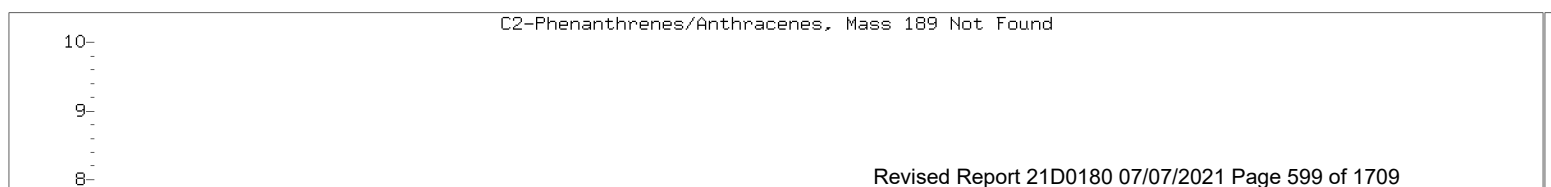
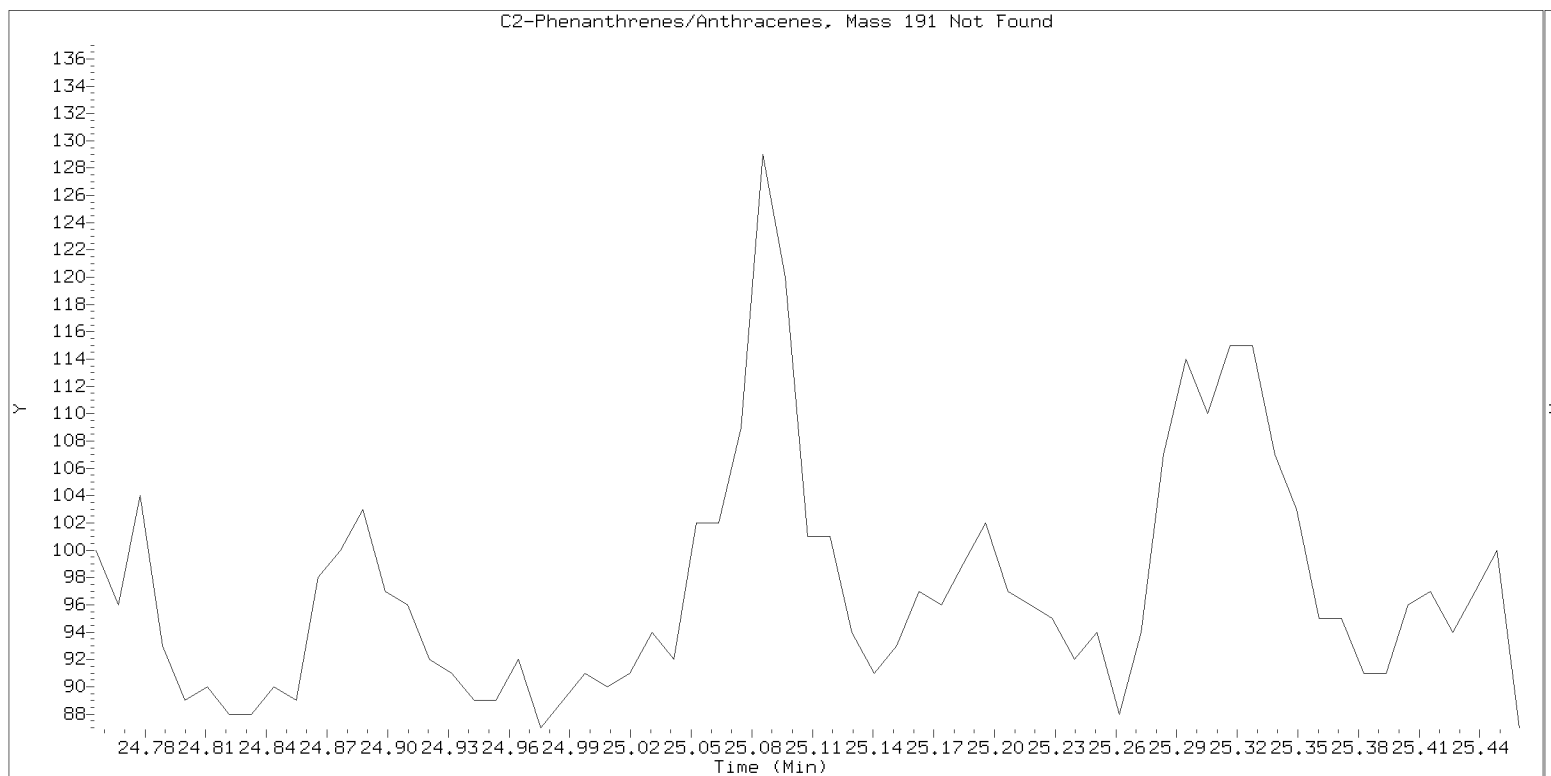
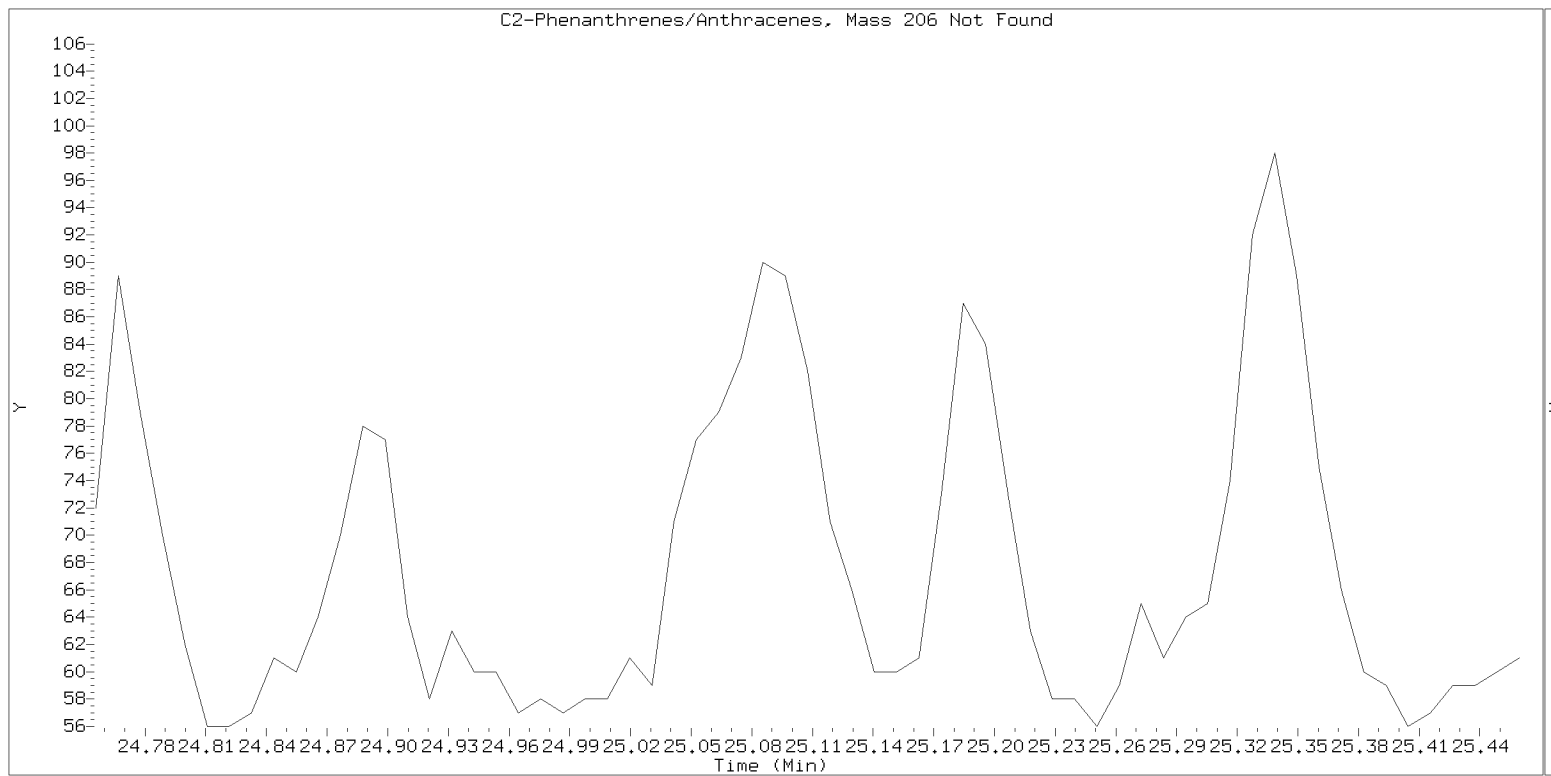
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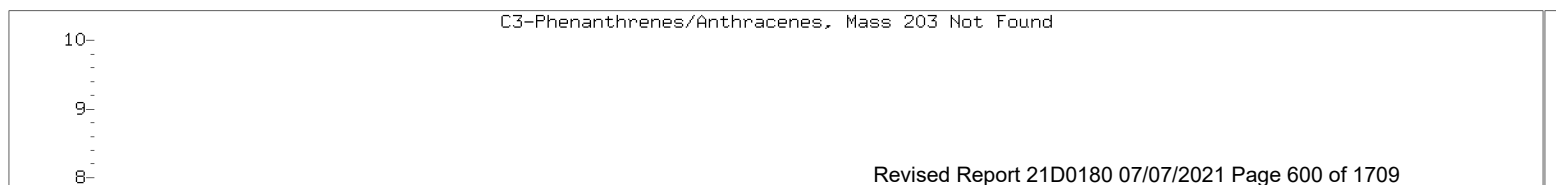
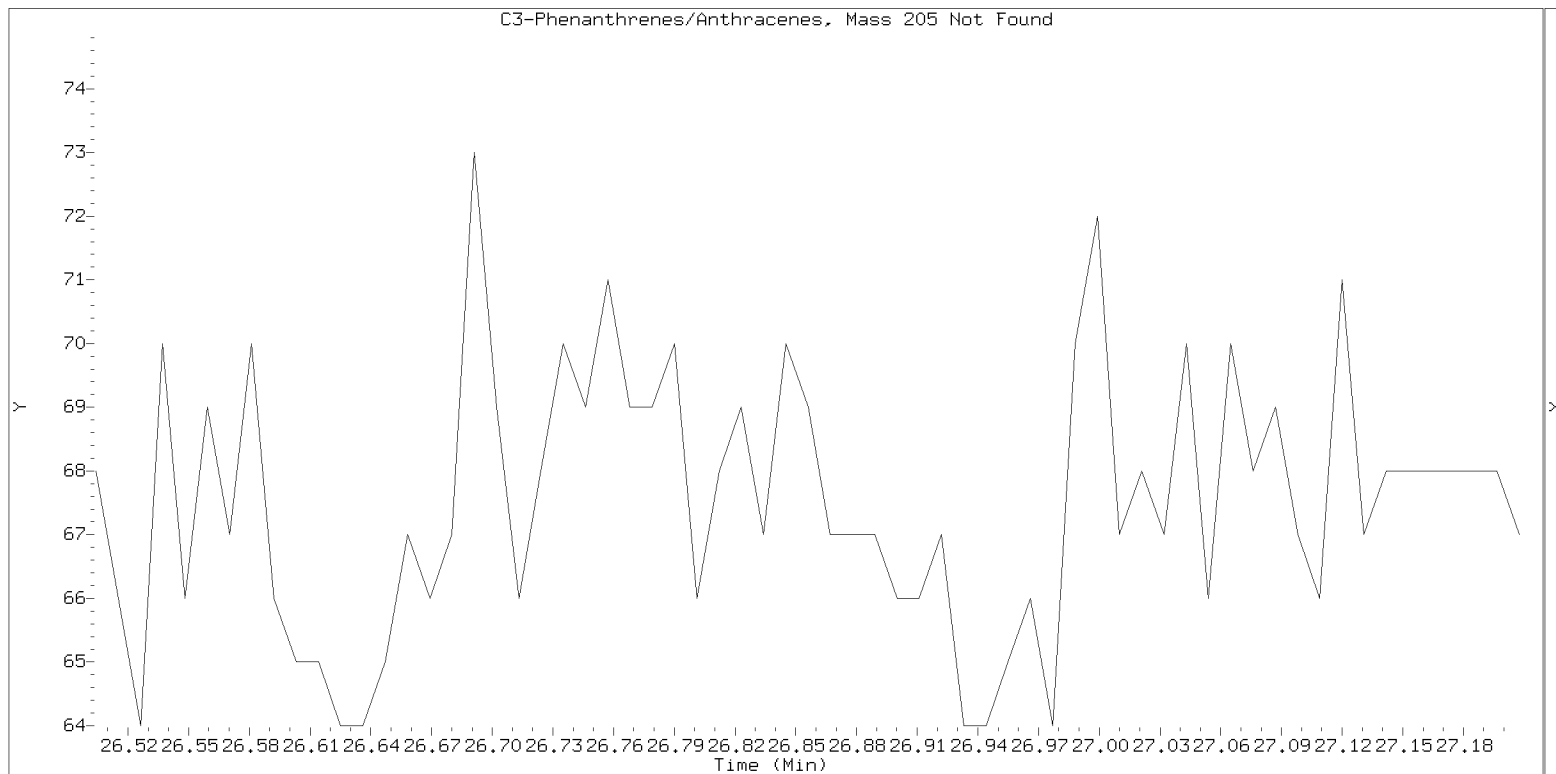
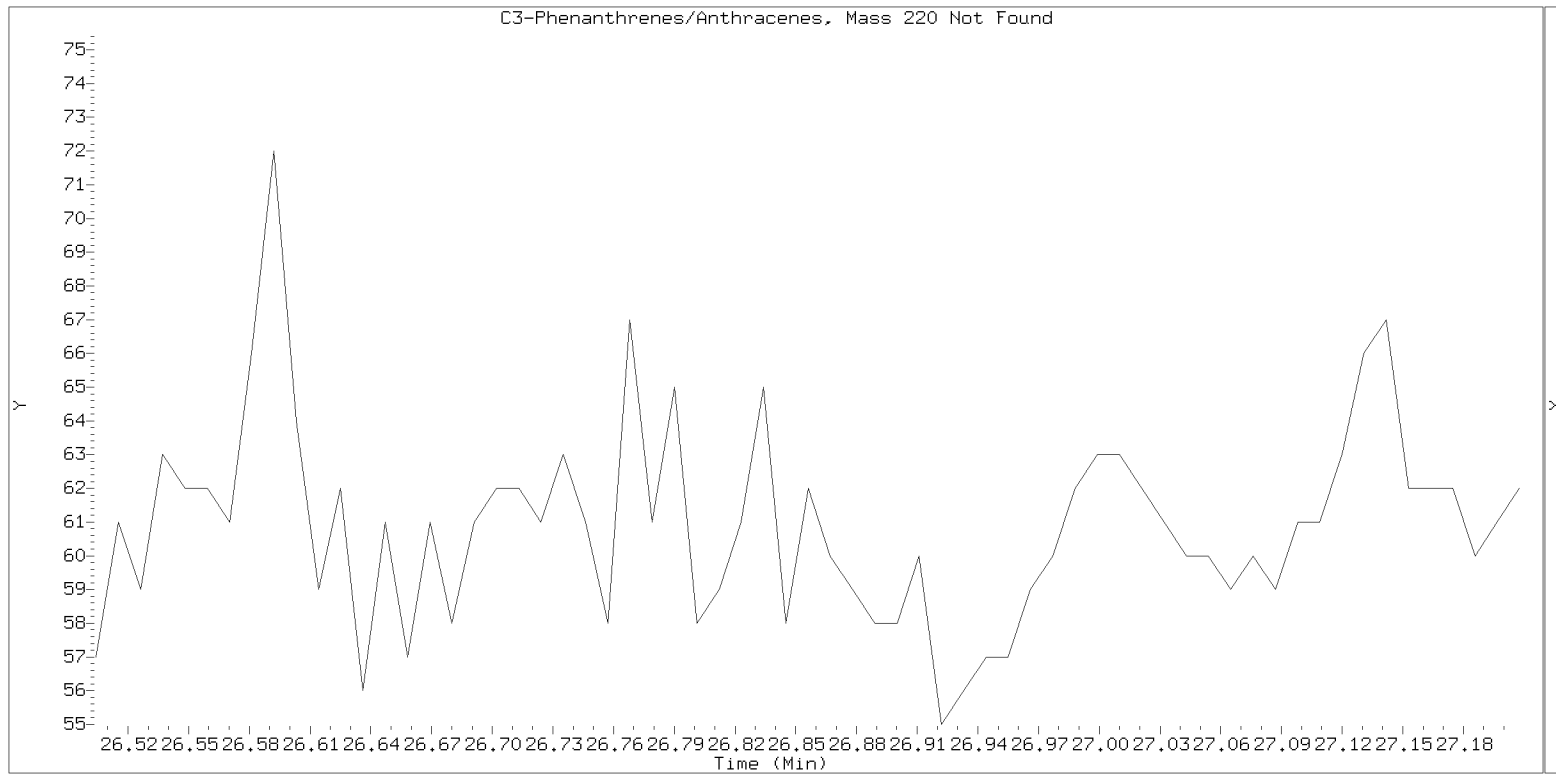
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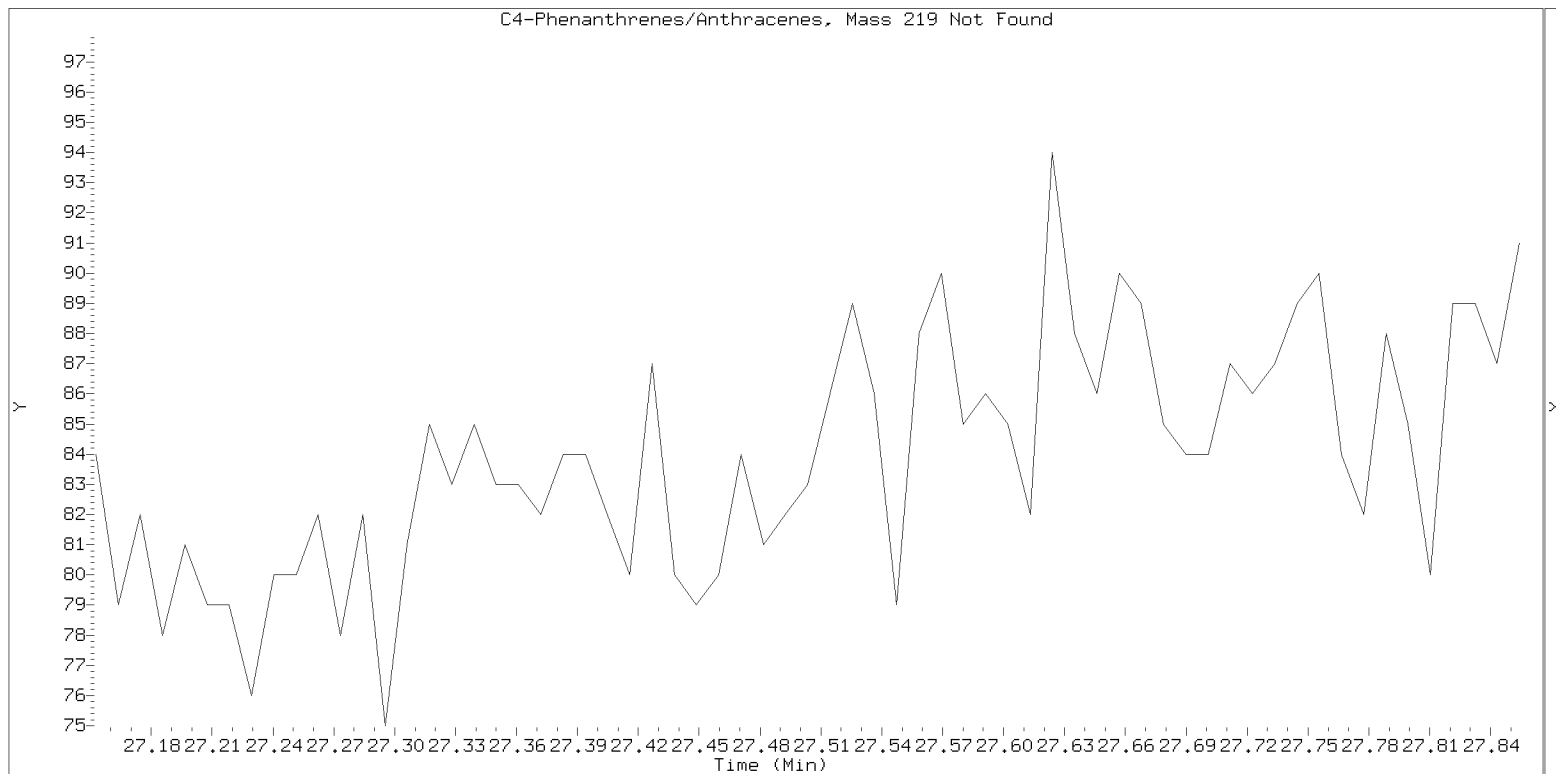
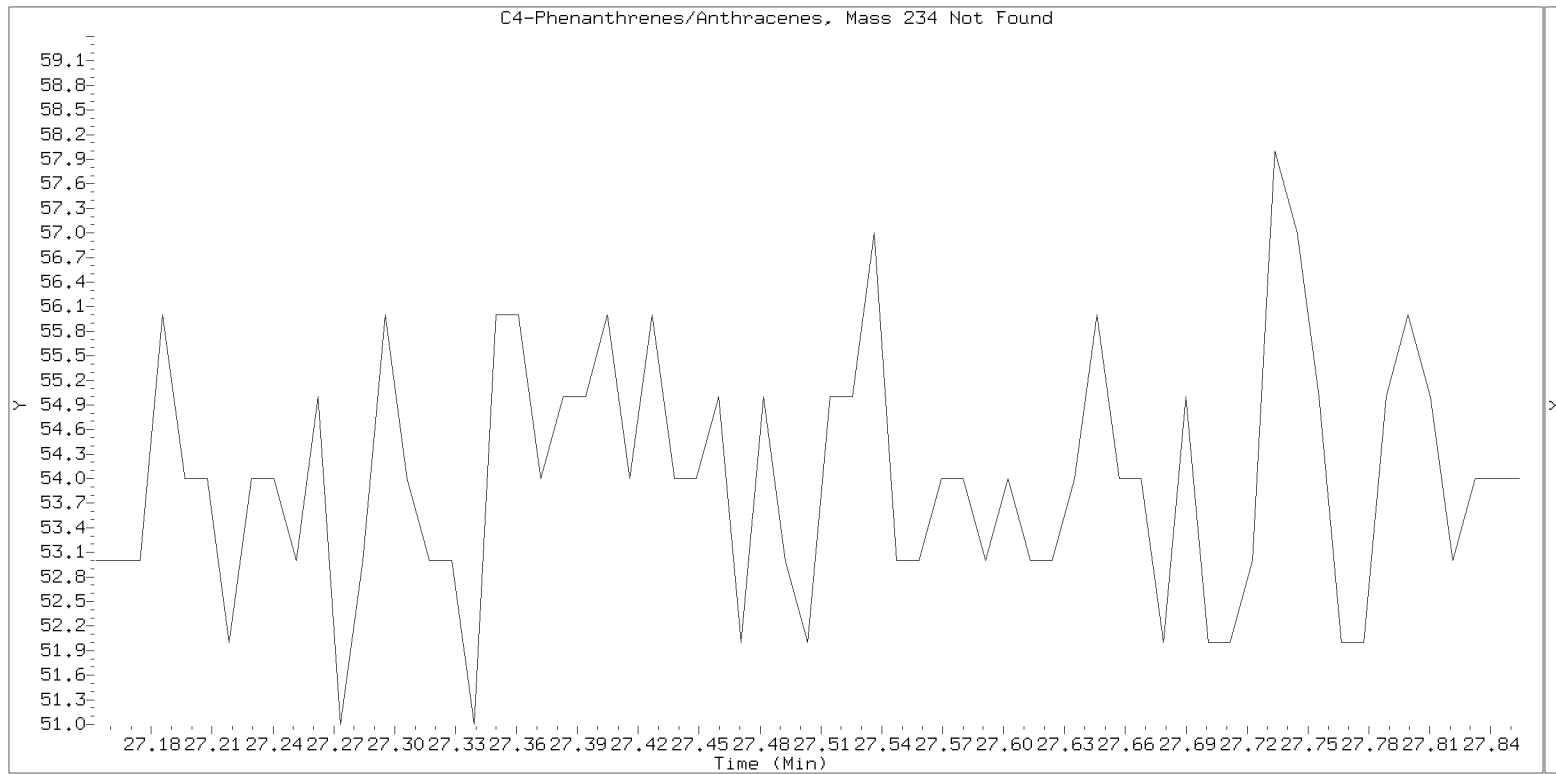


SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

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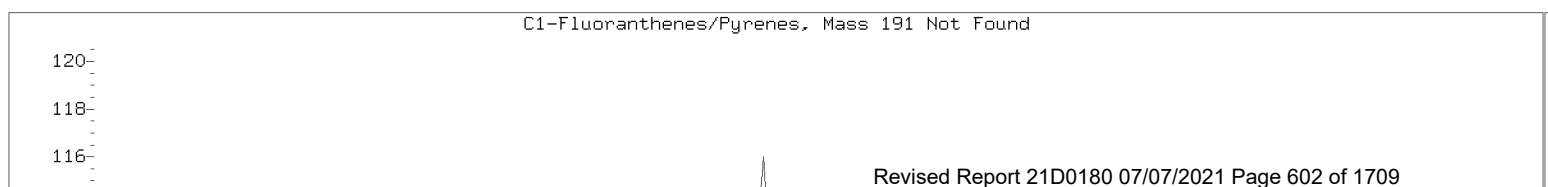
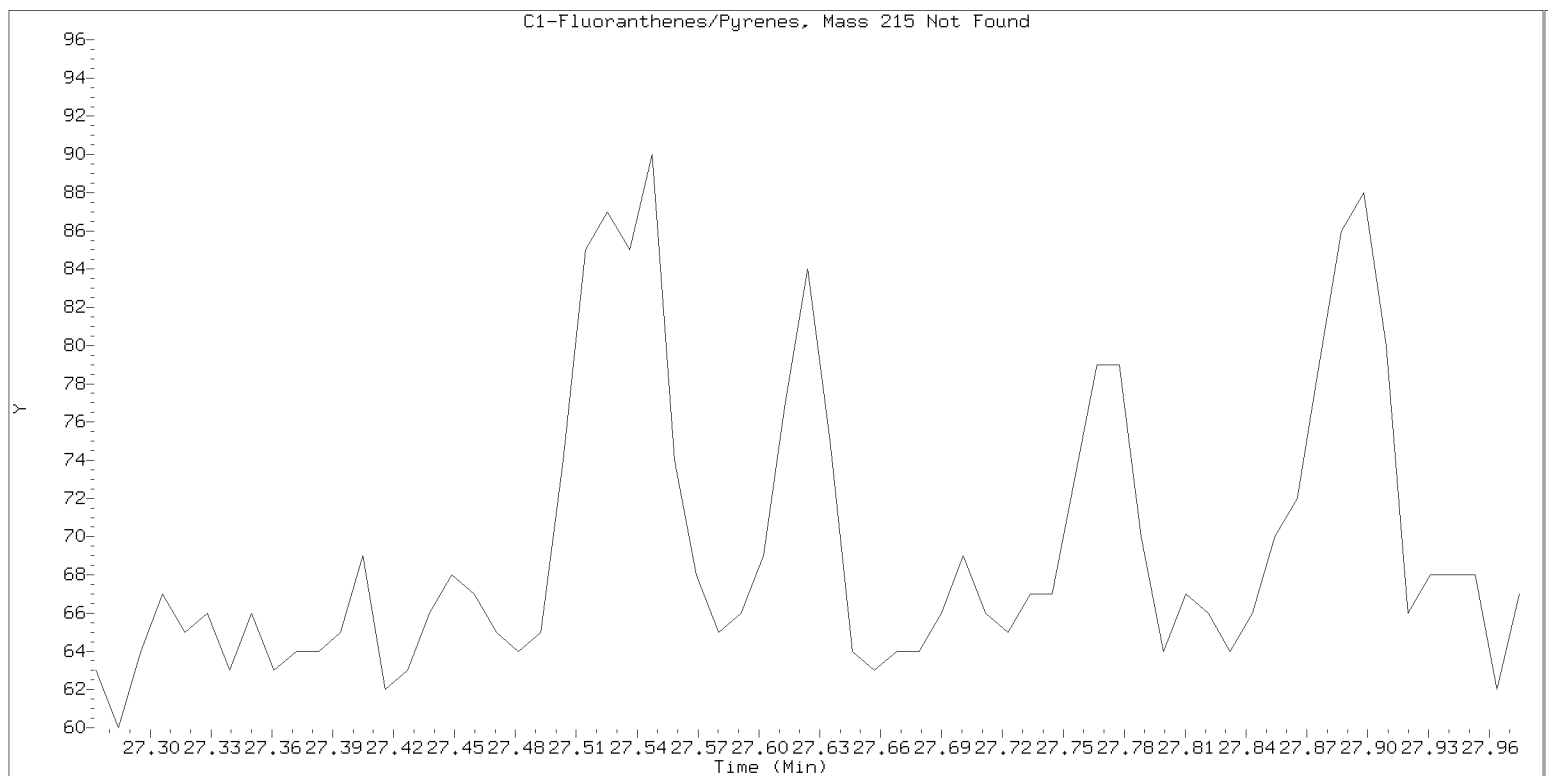
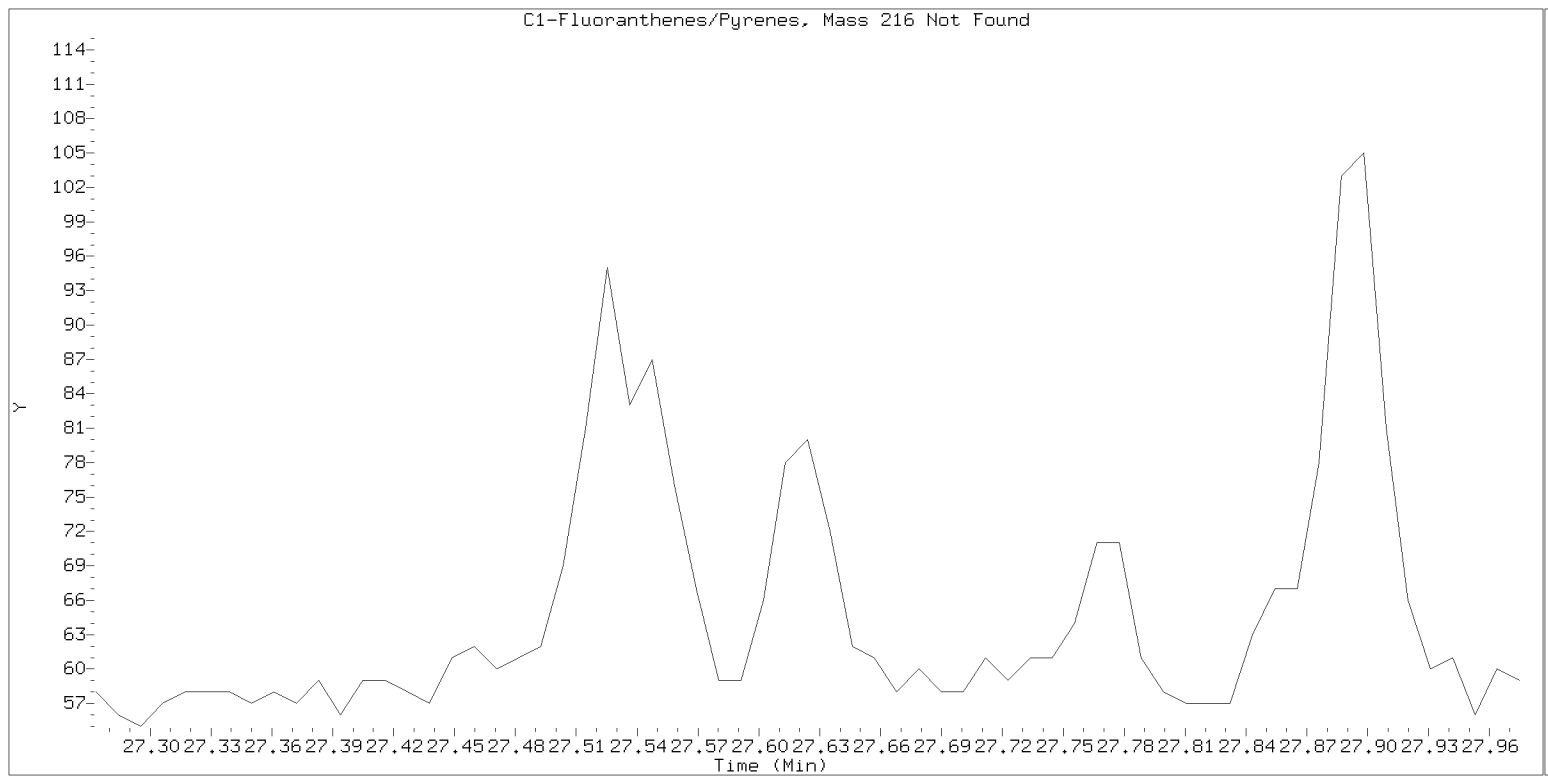


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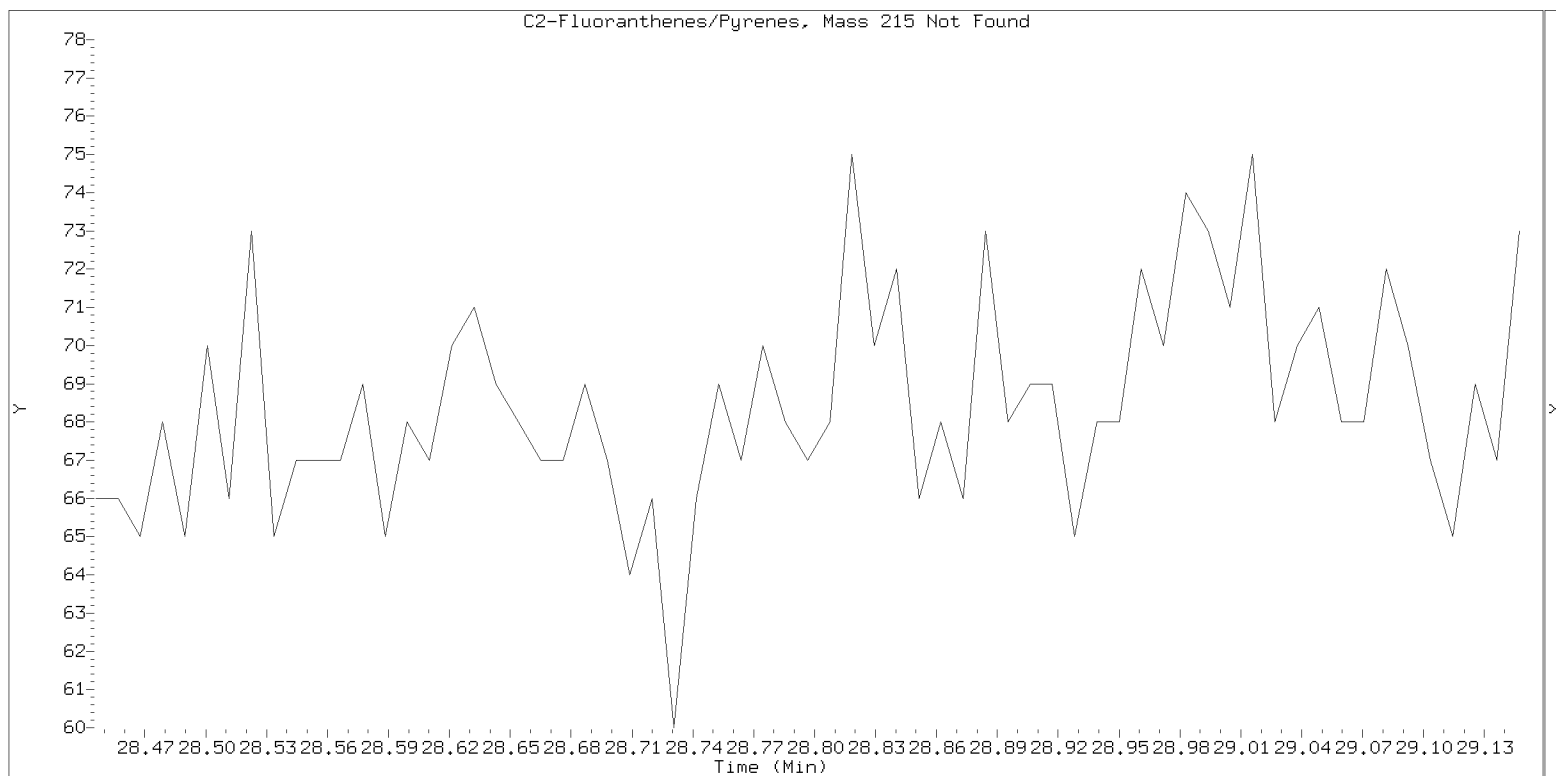
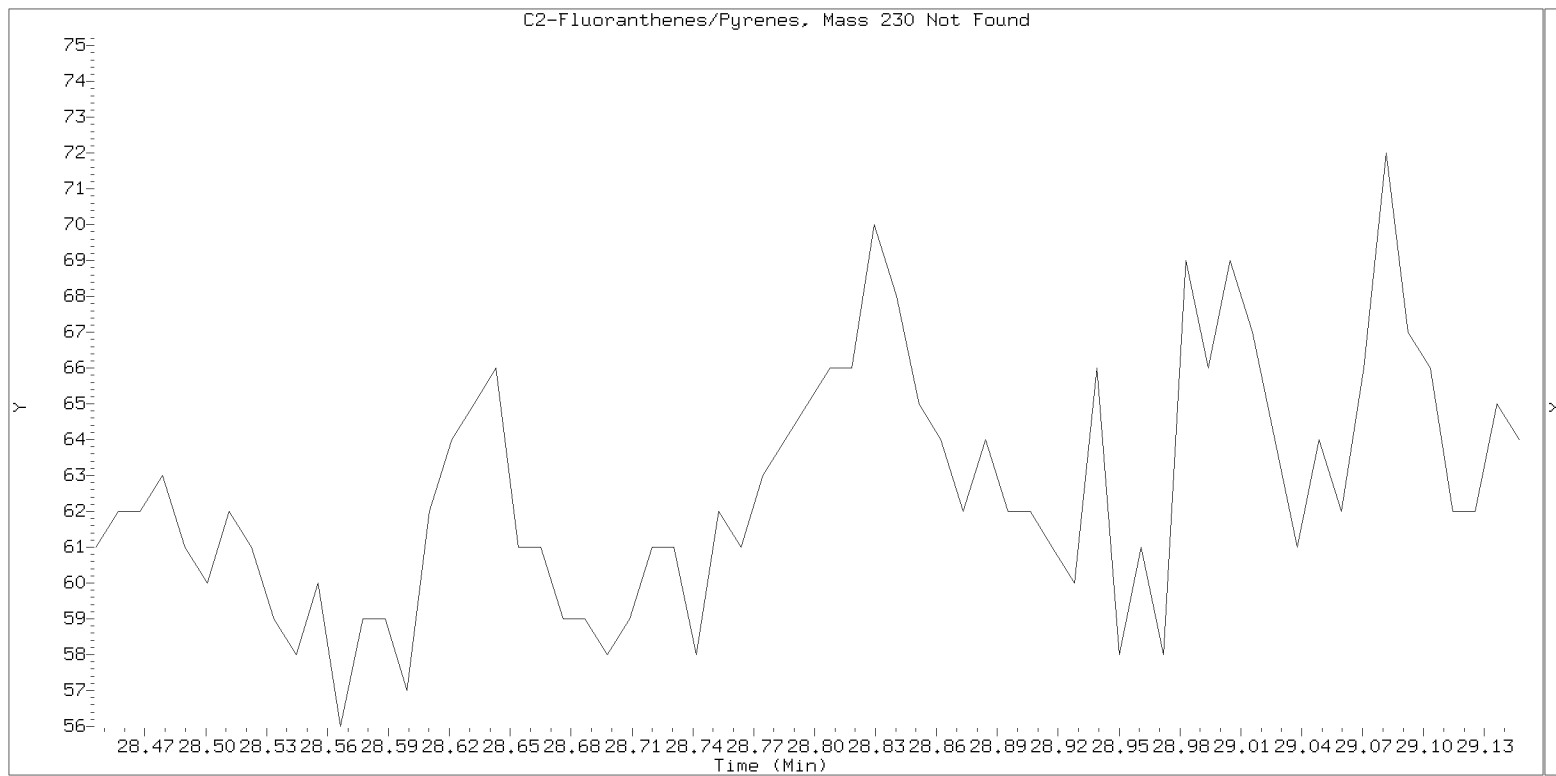


SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

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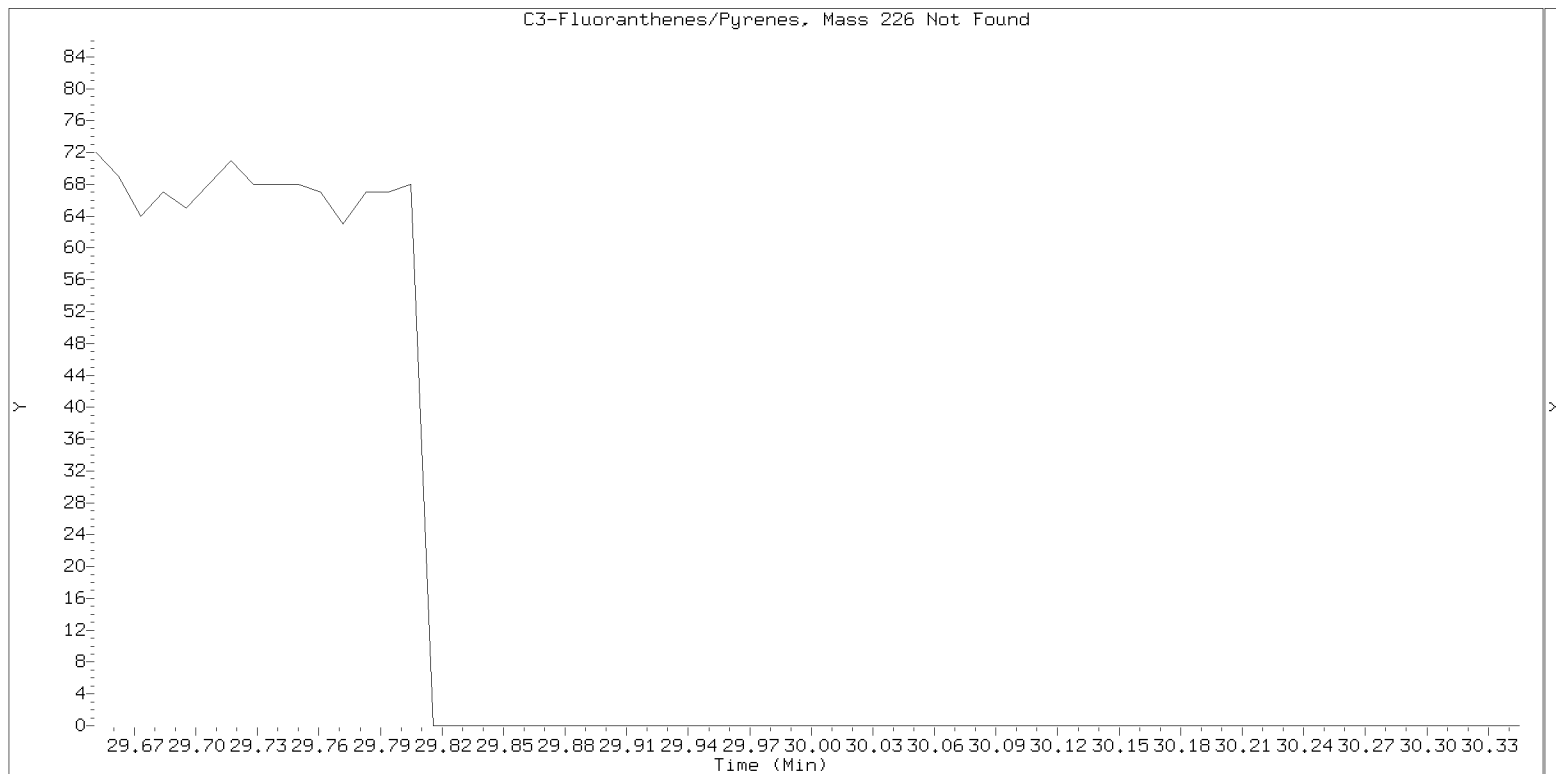
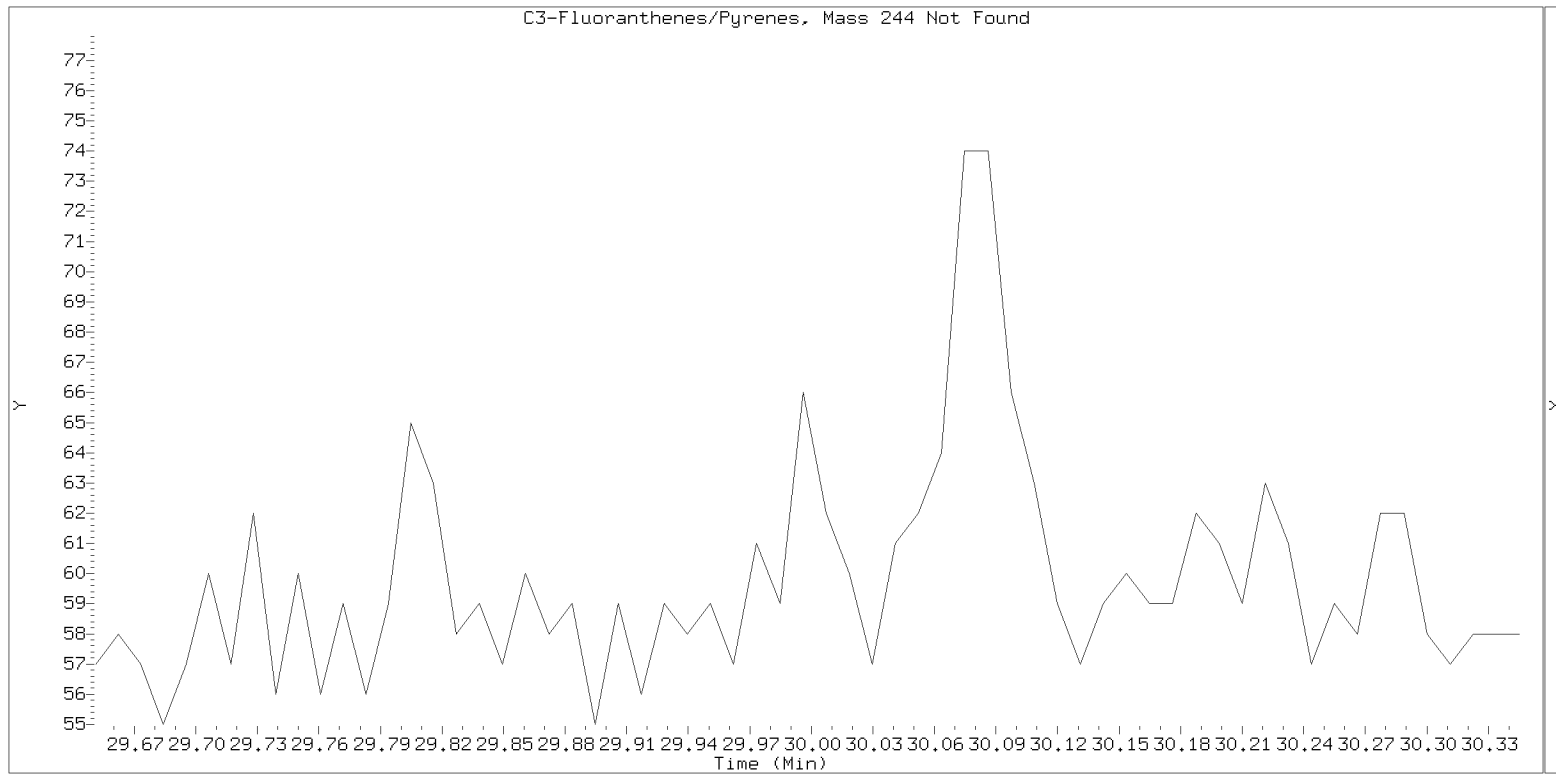
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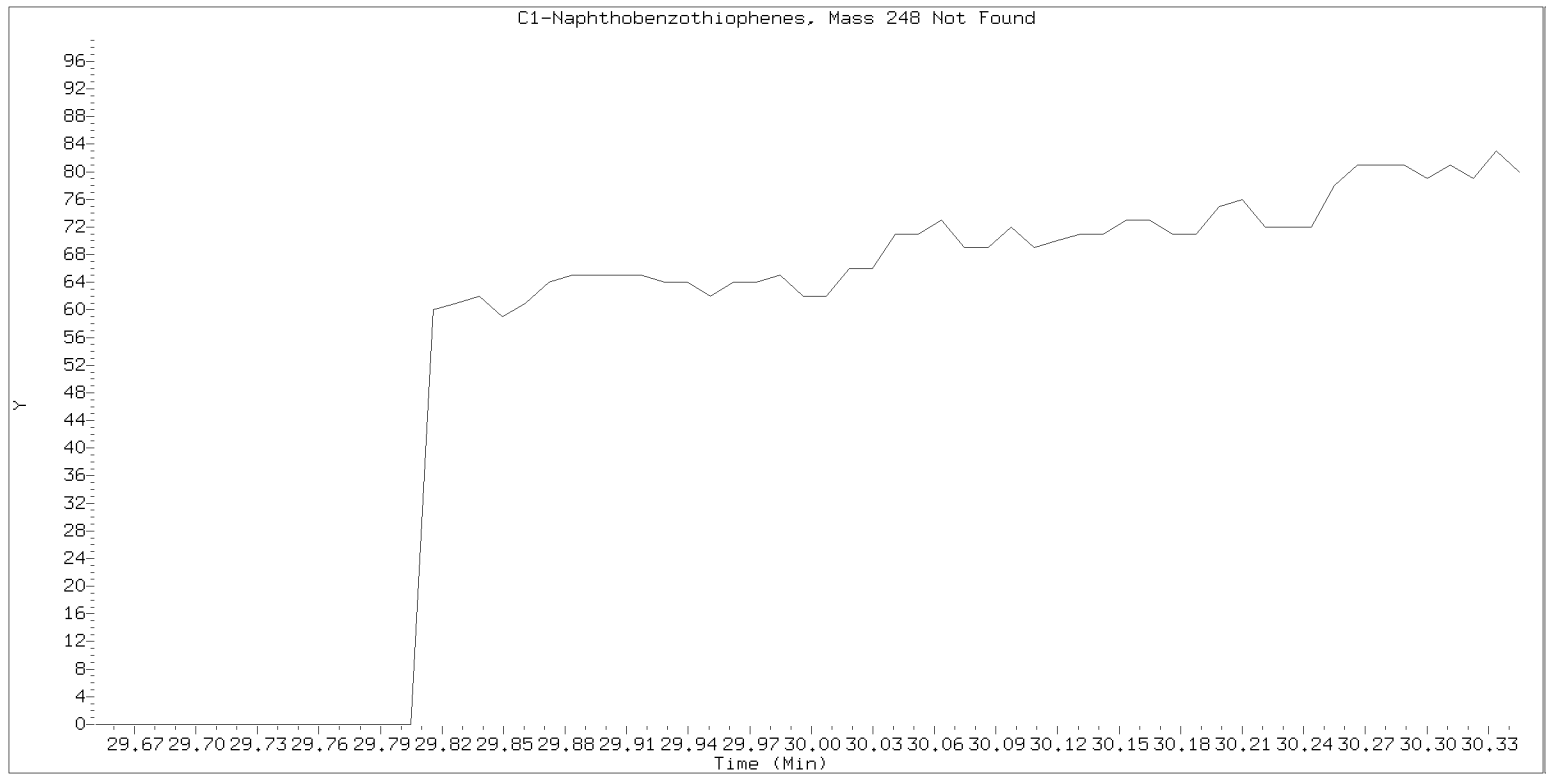
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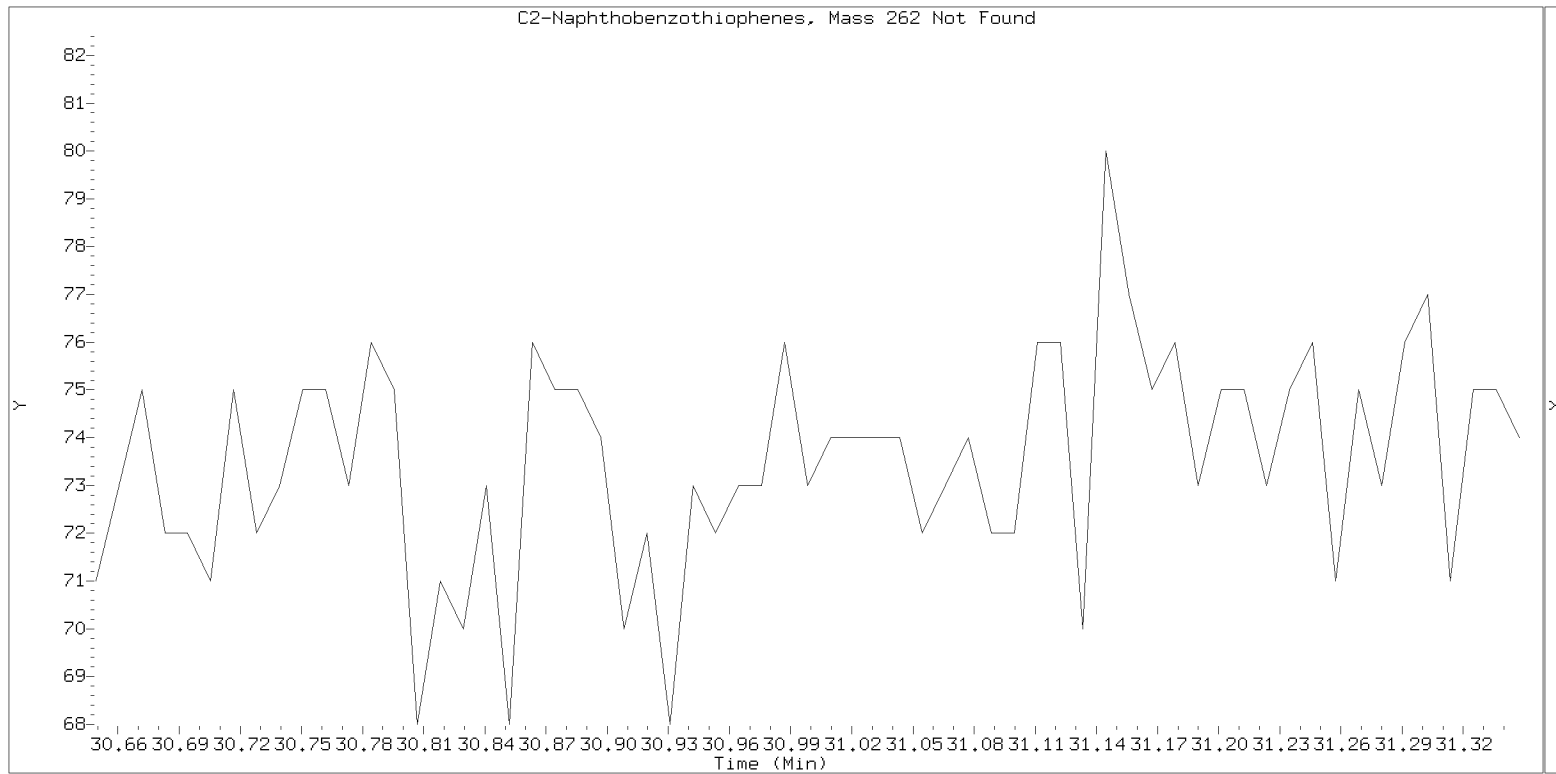
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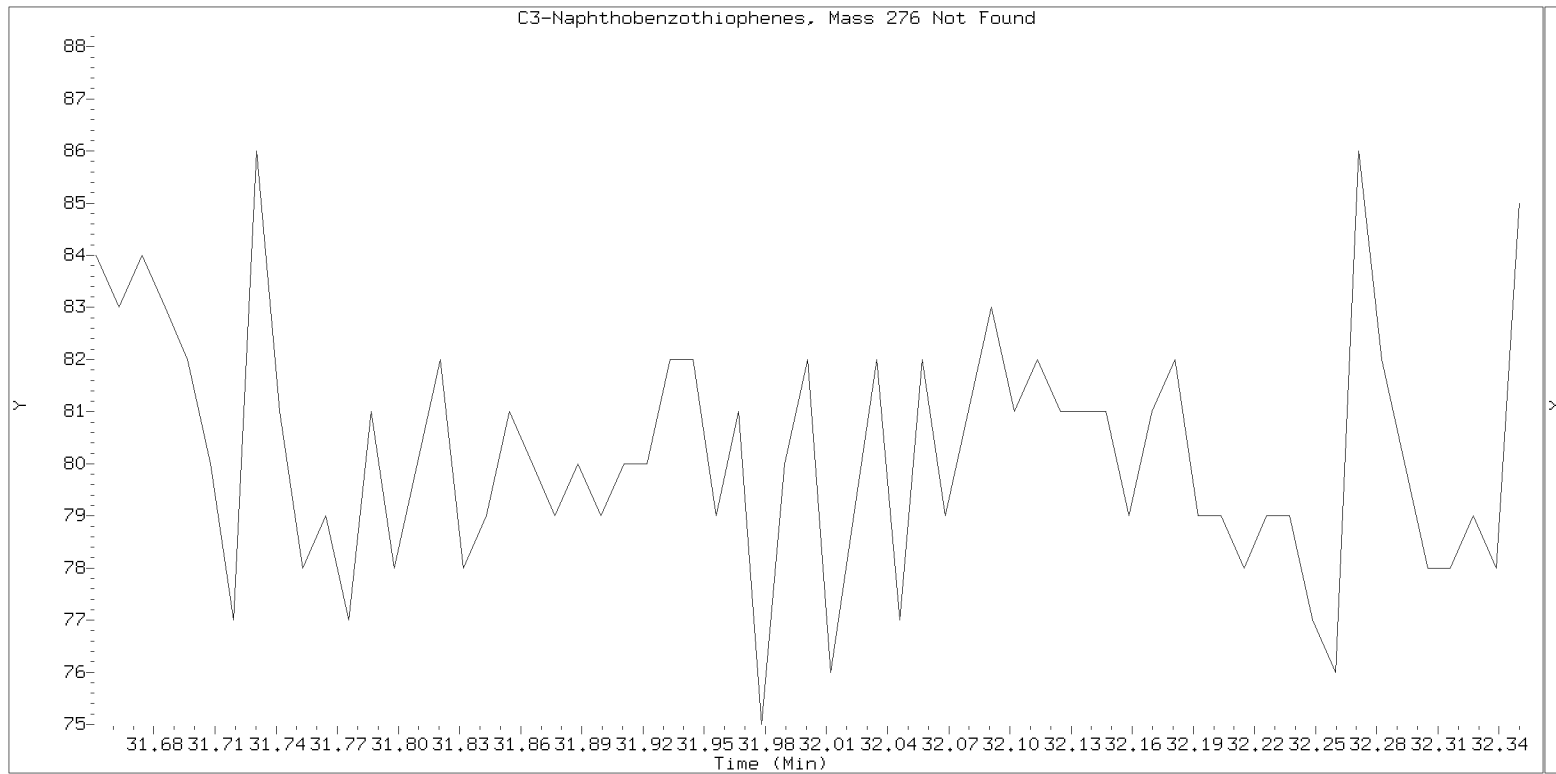
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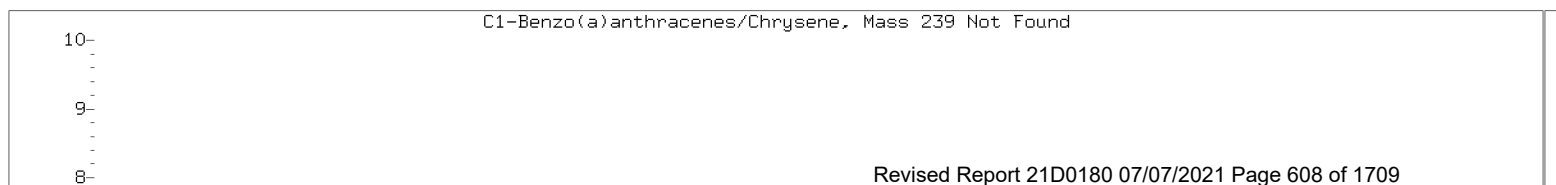
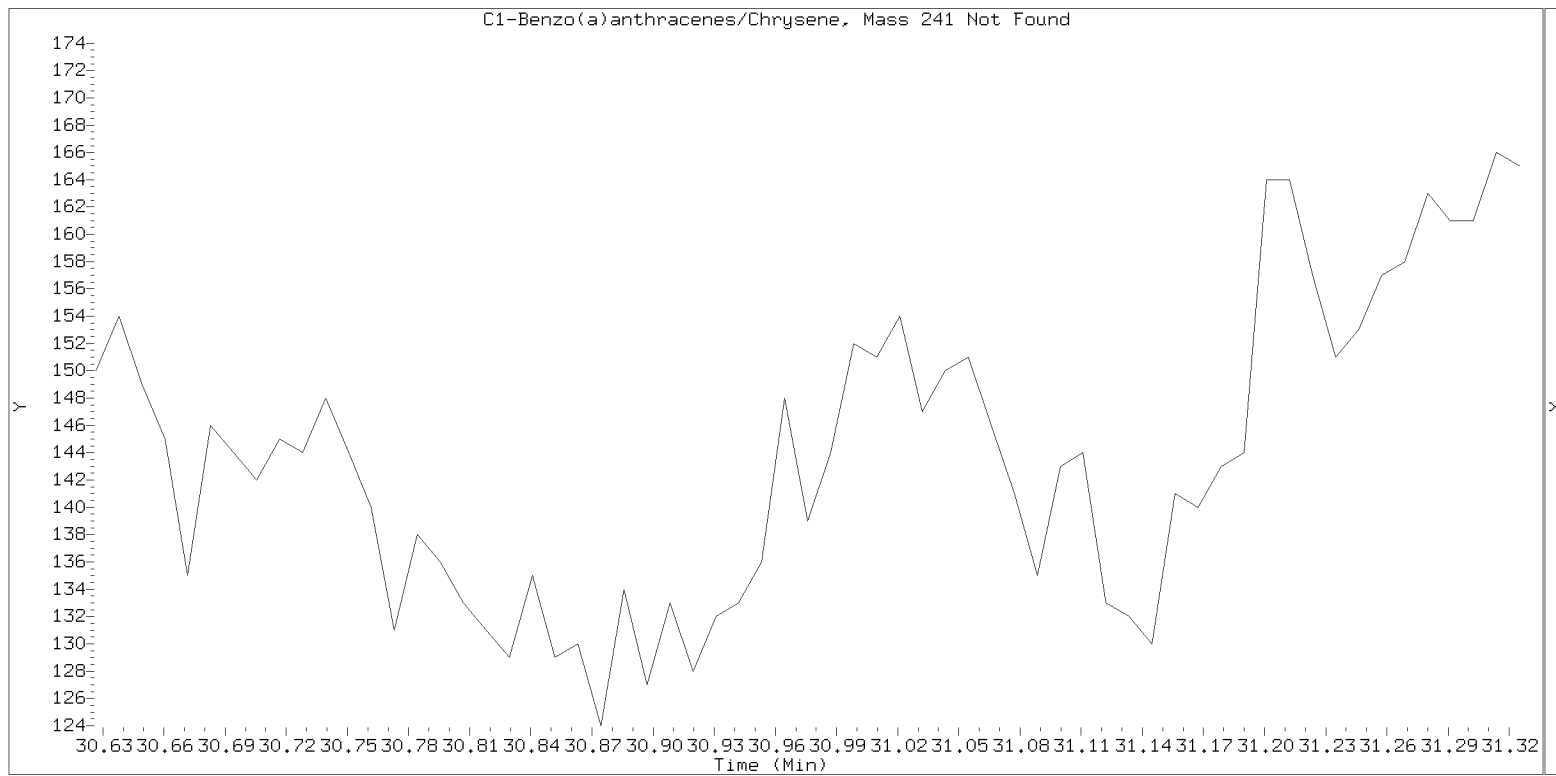
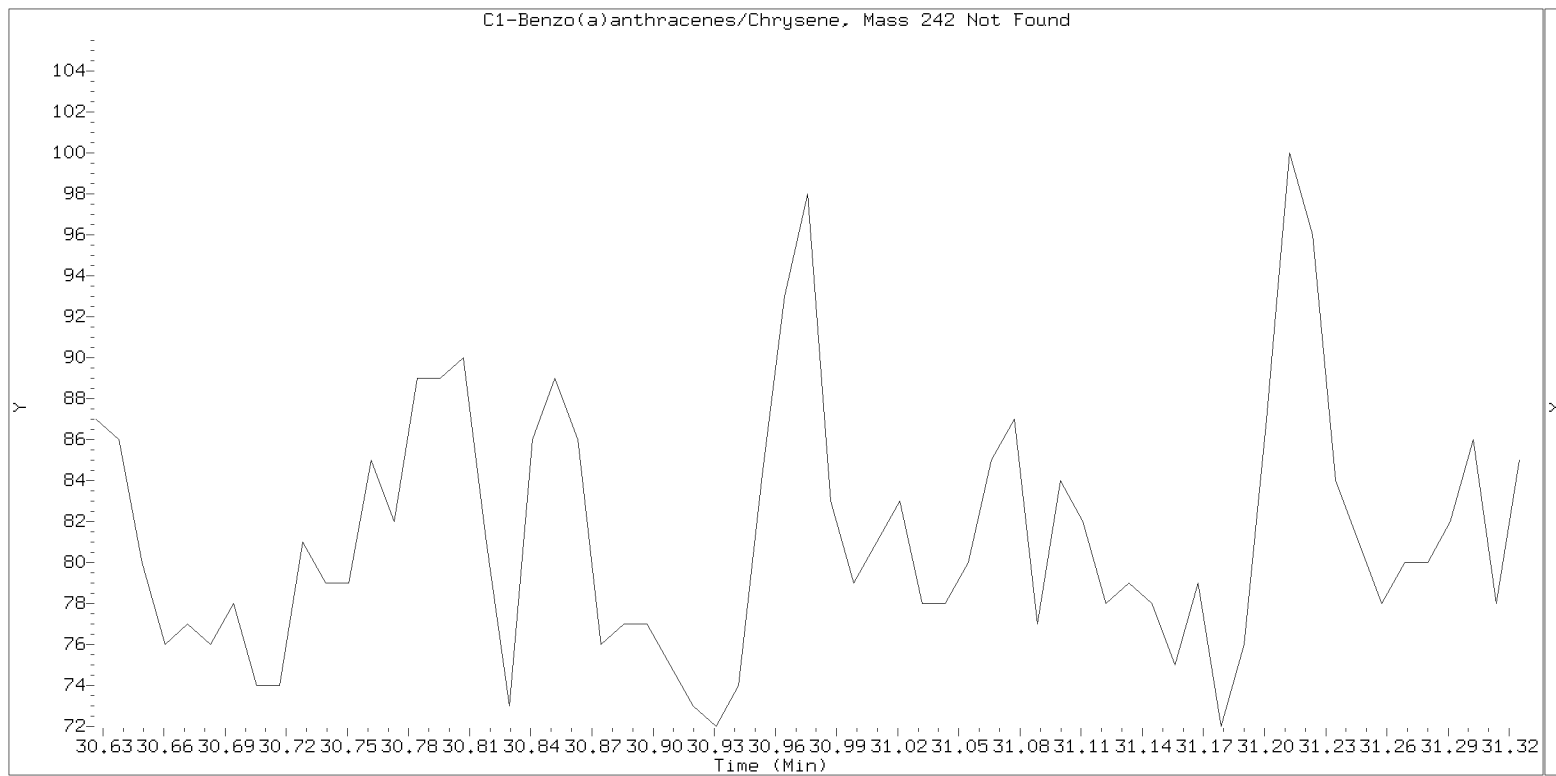
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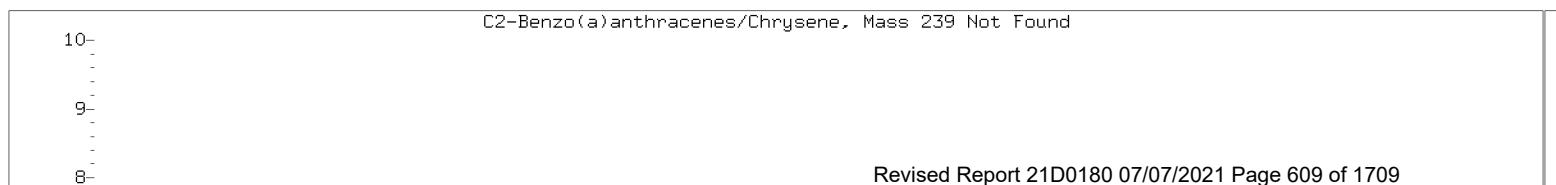
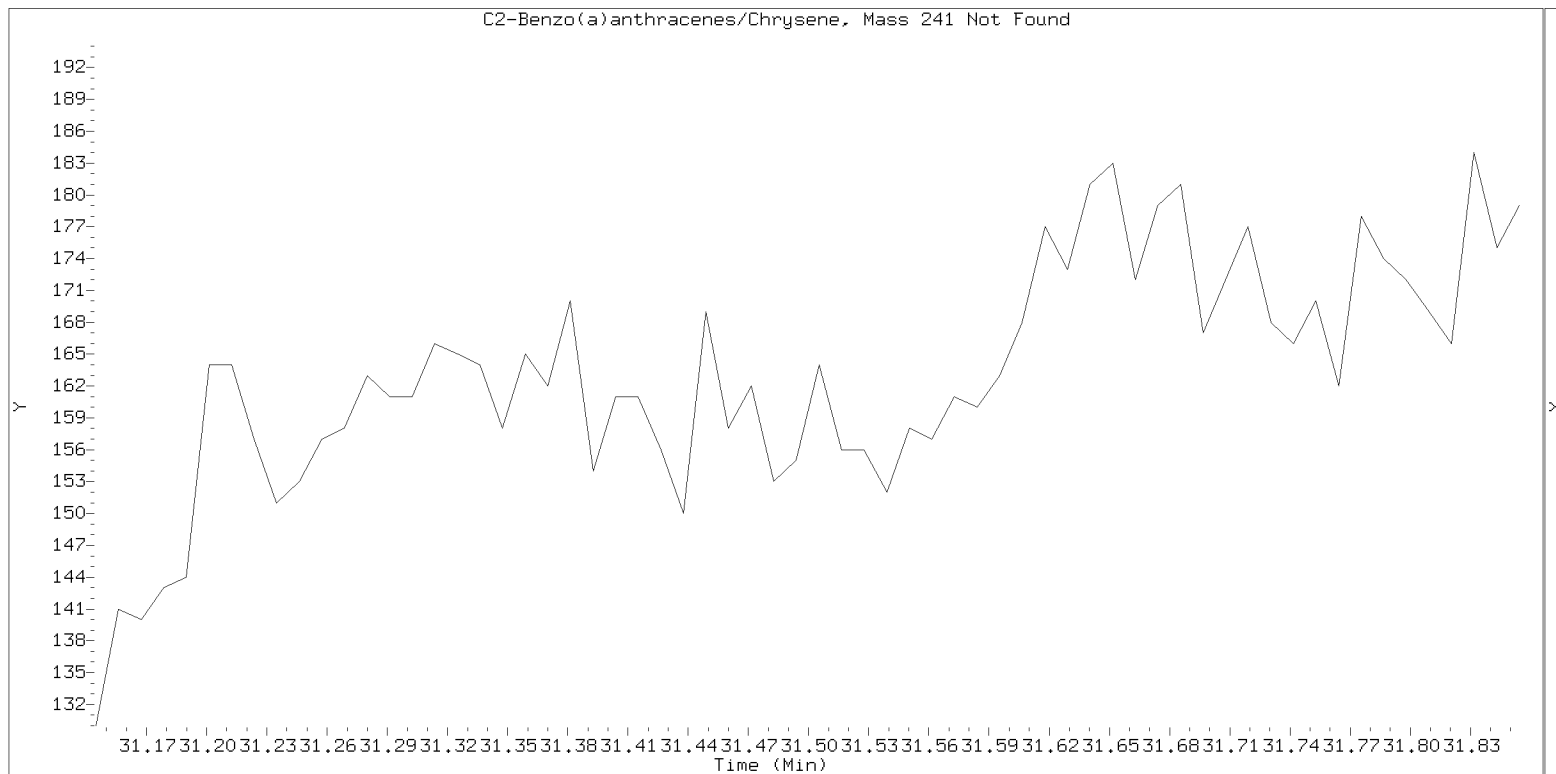
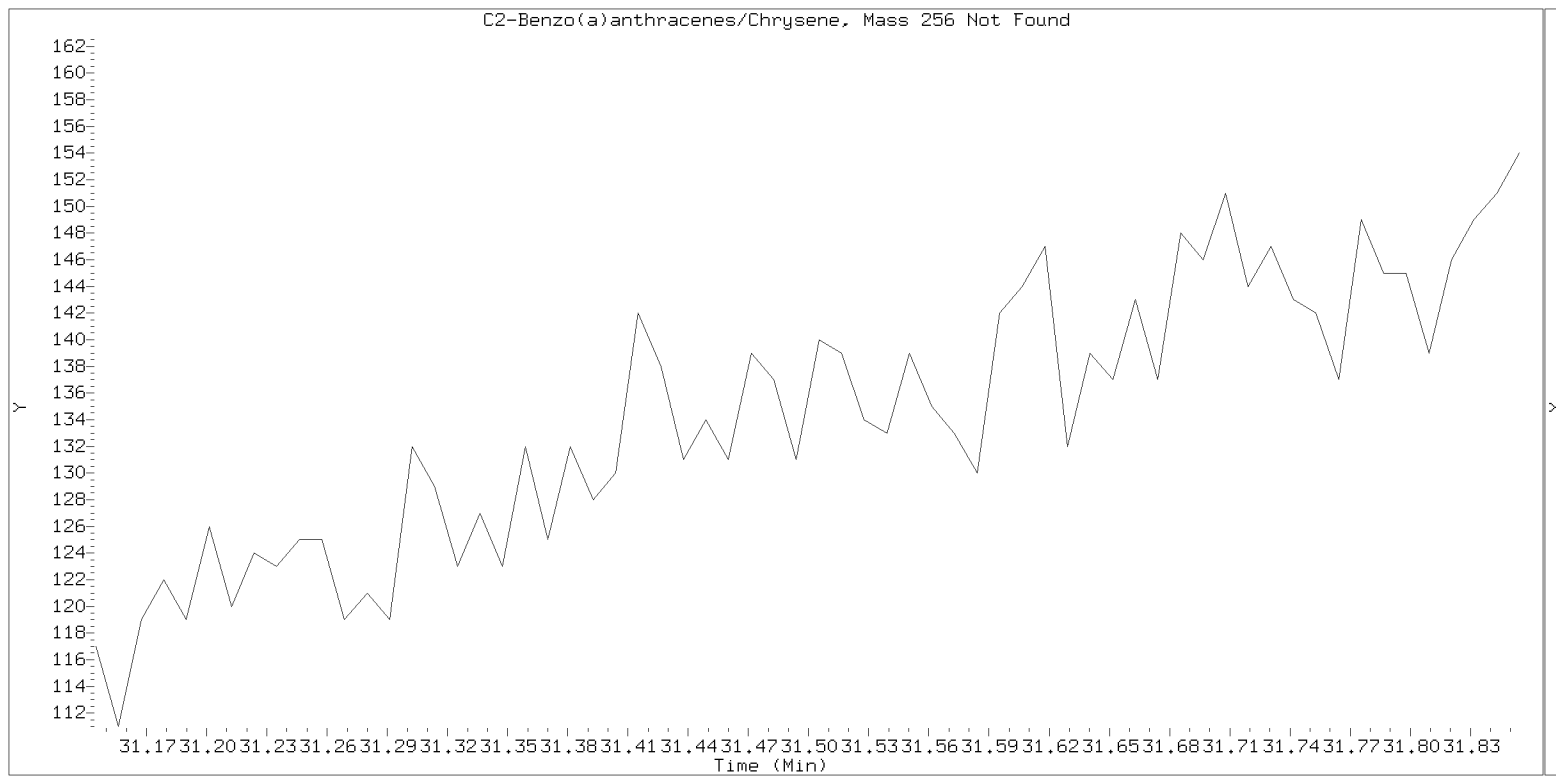
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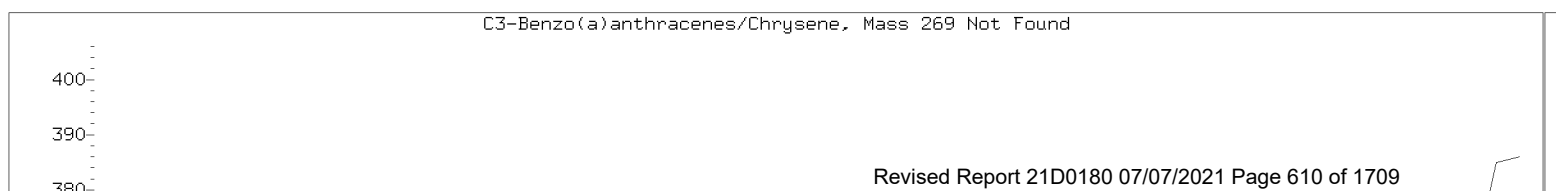
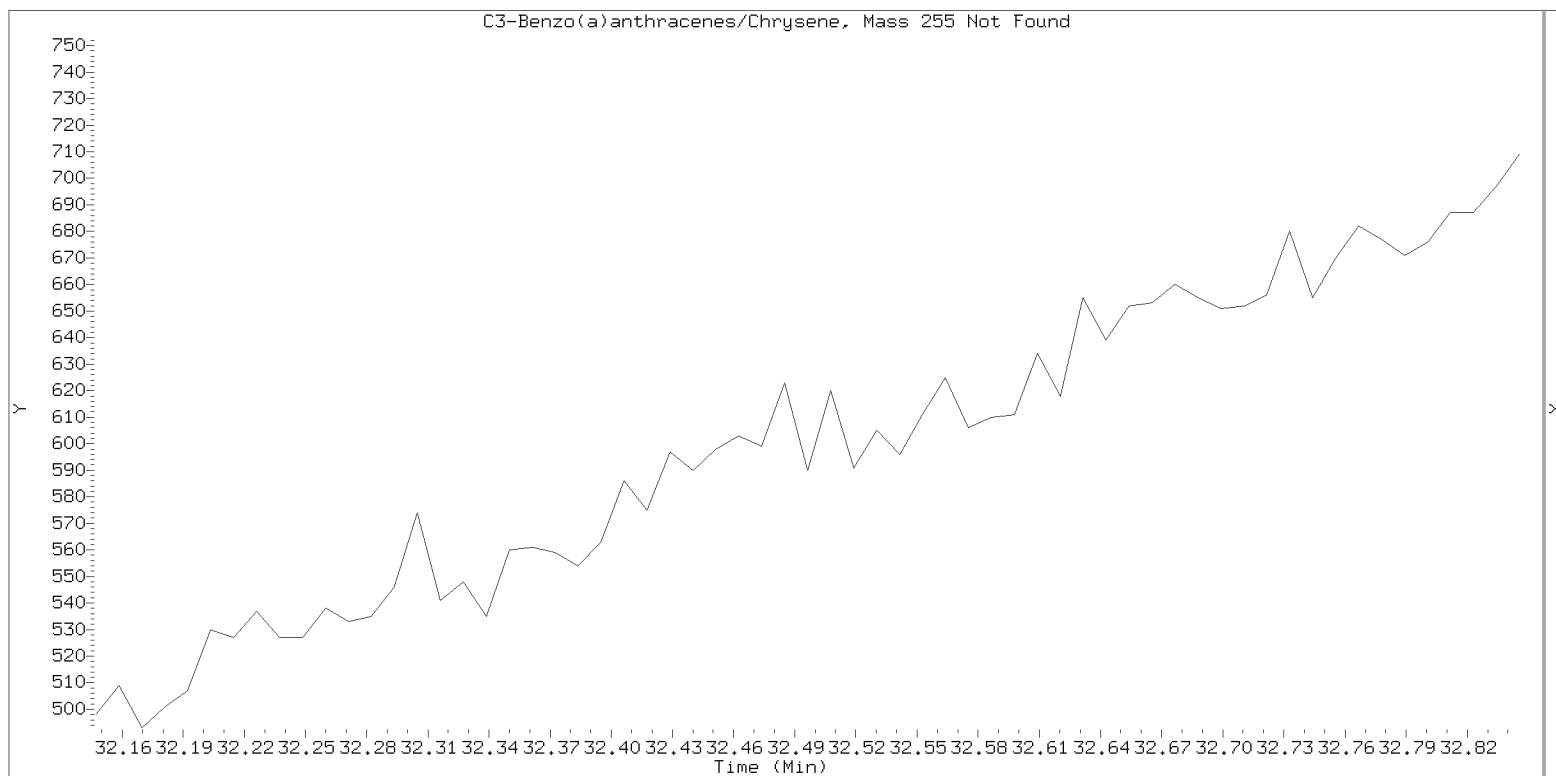
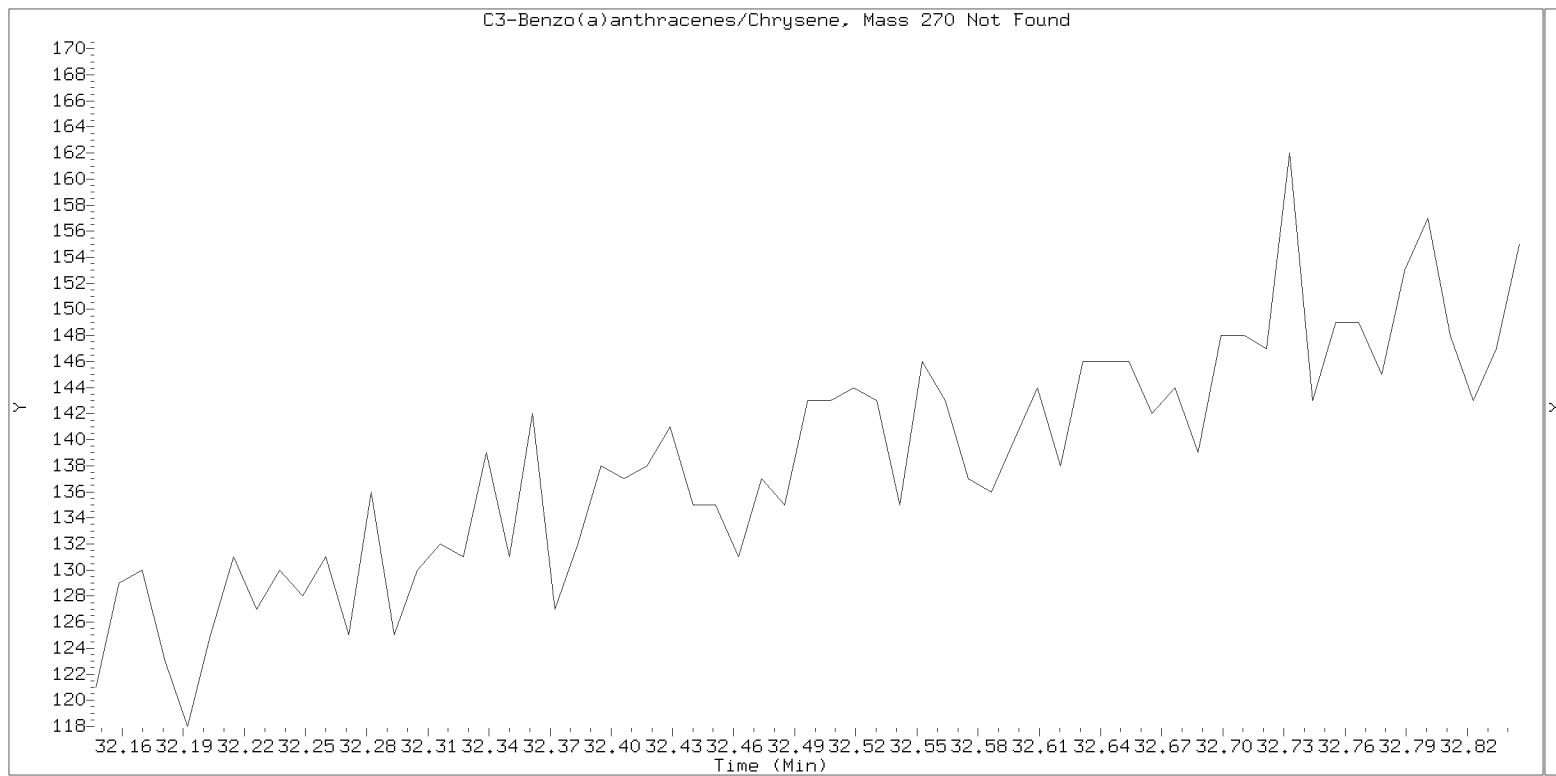
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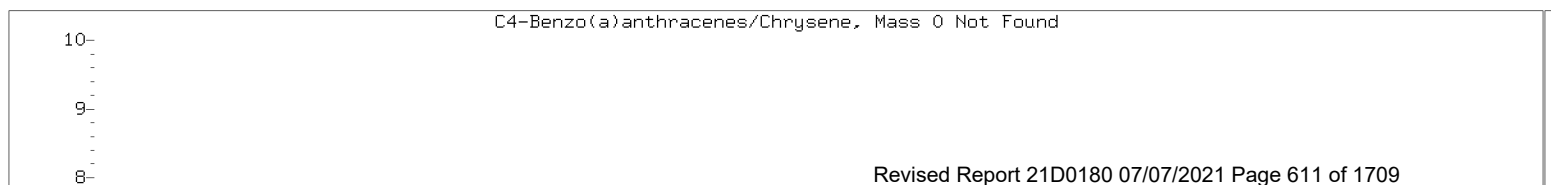
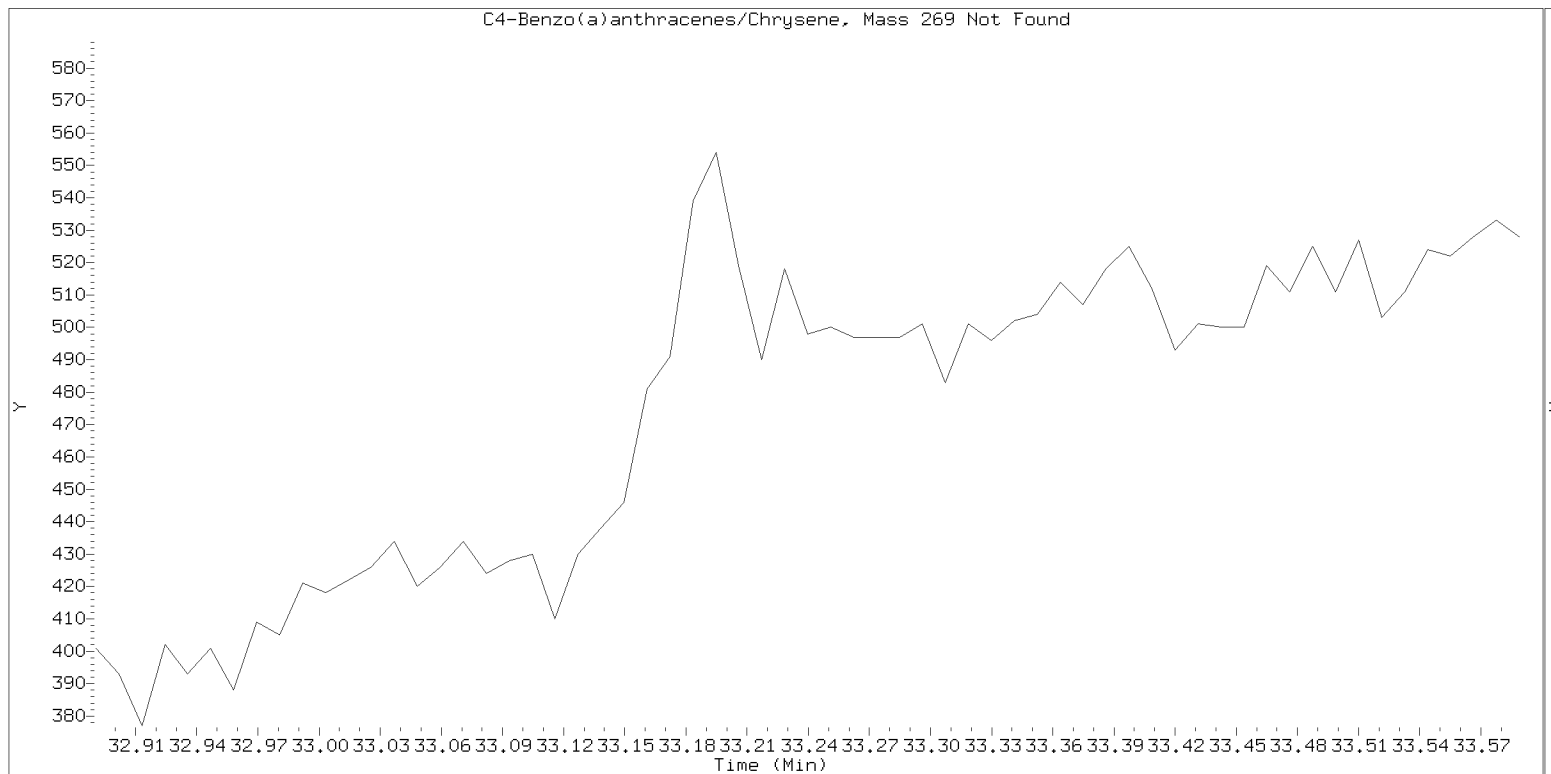
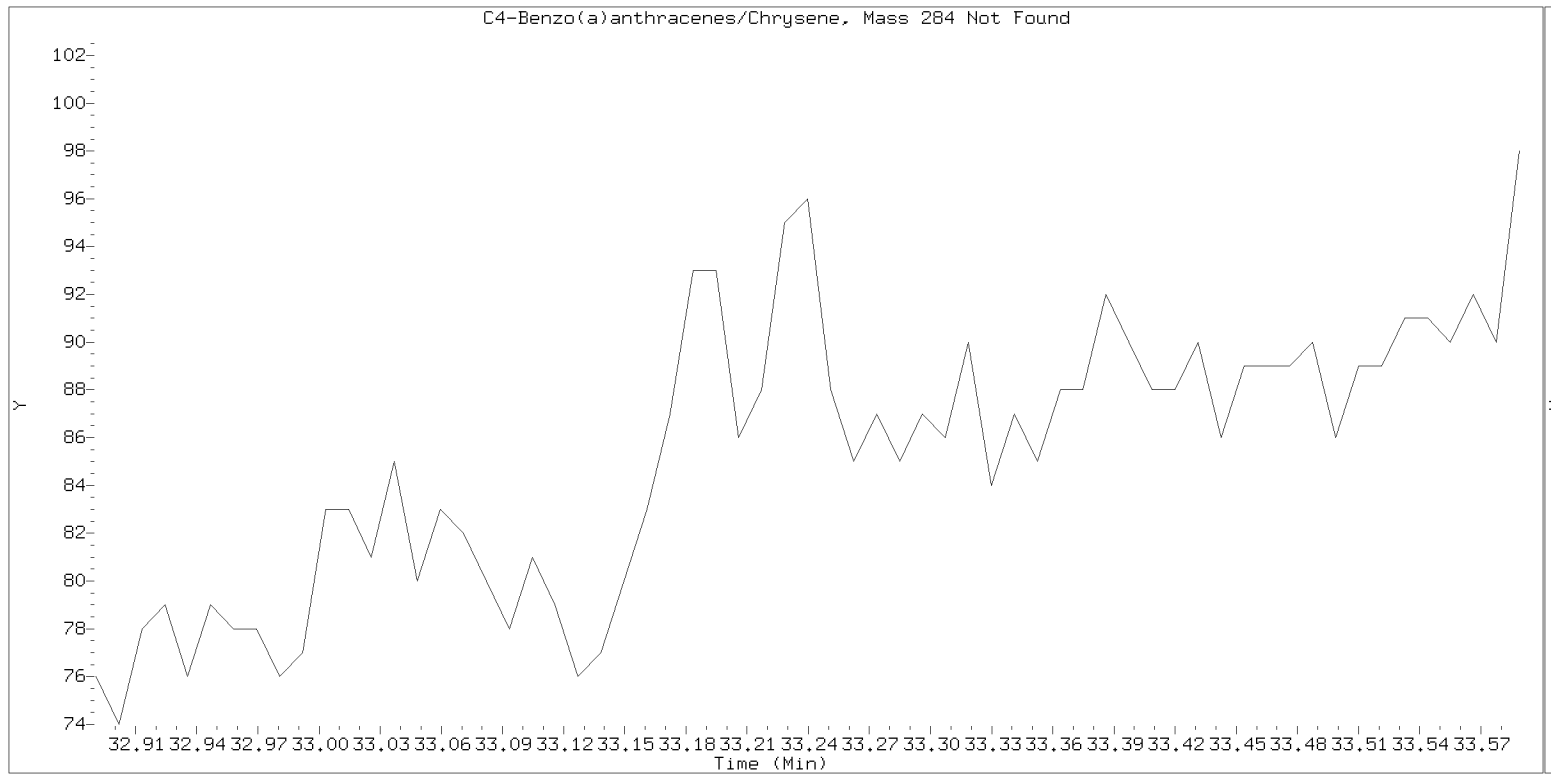
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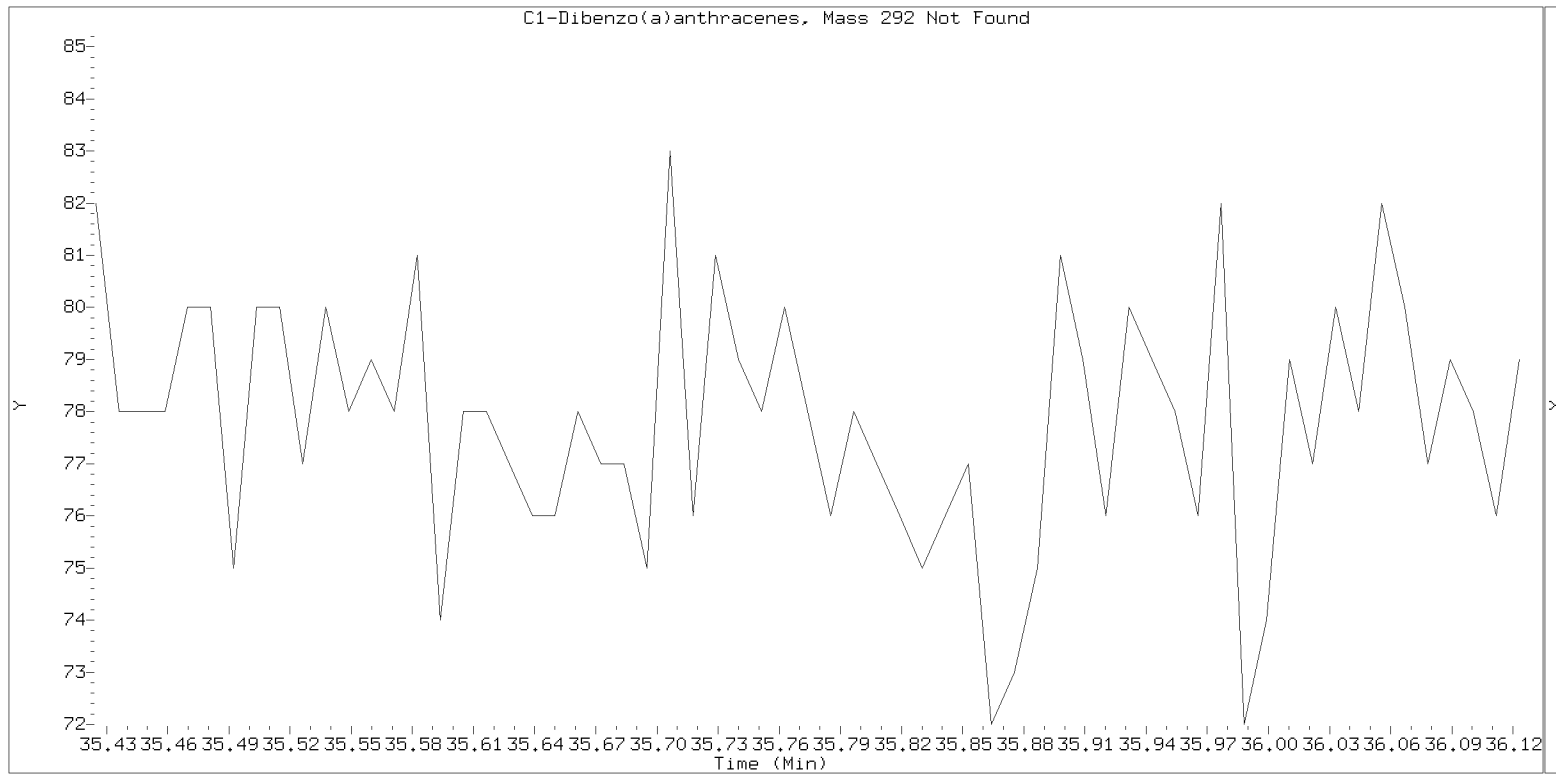
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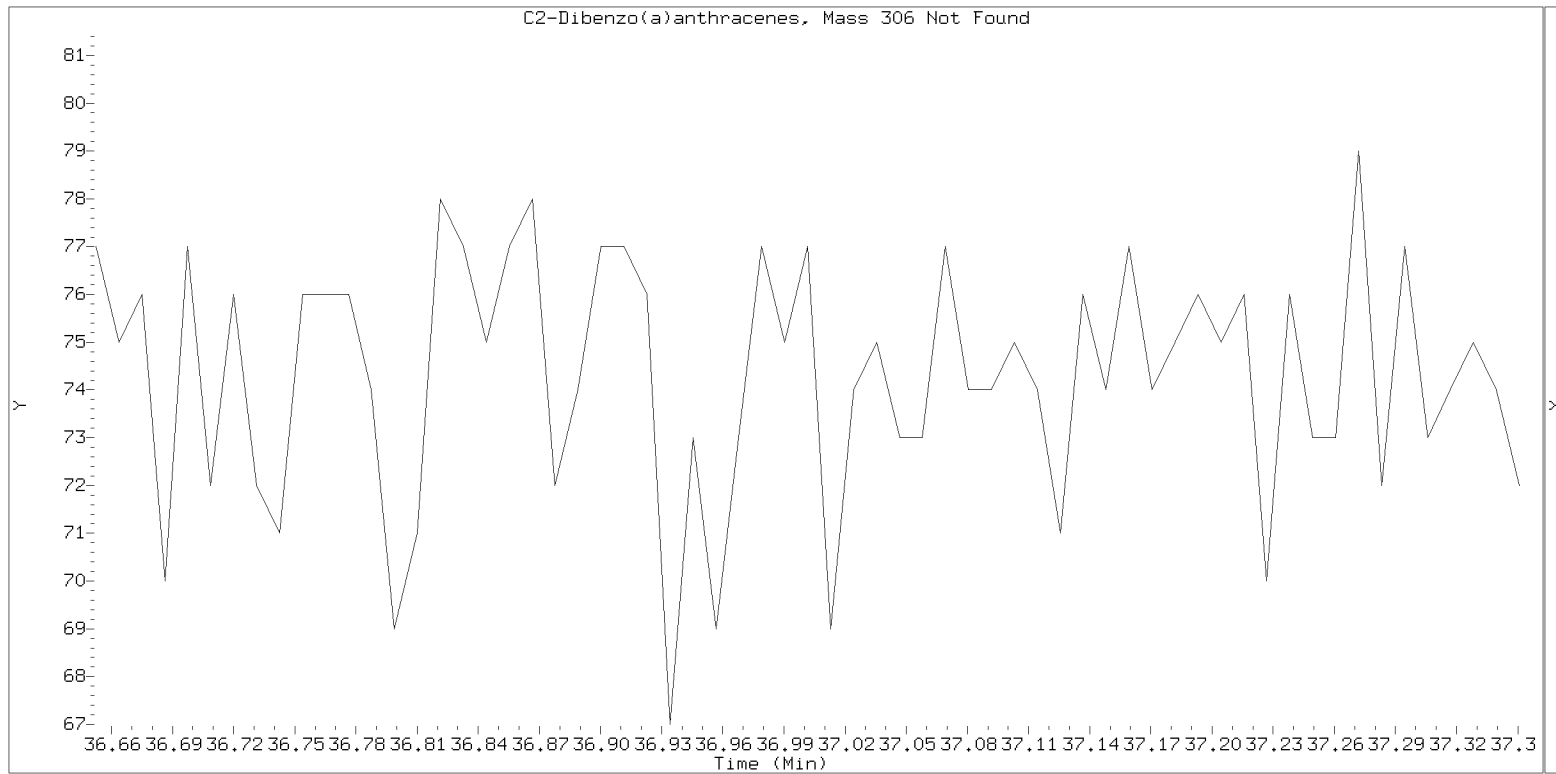
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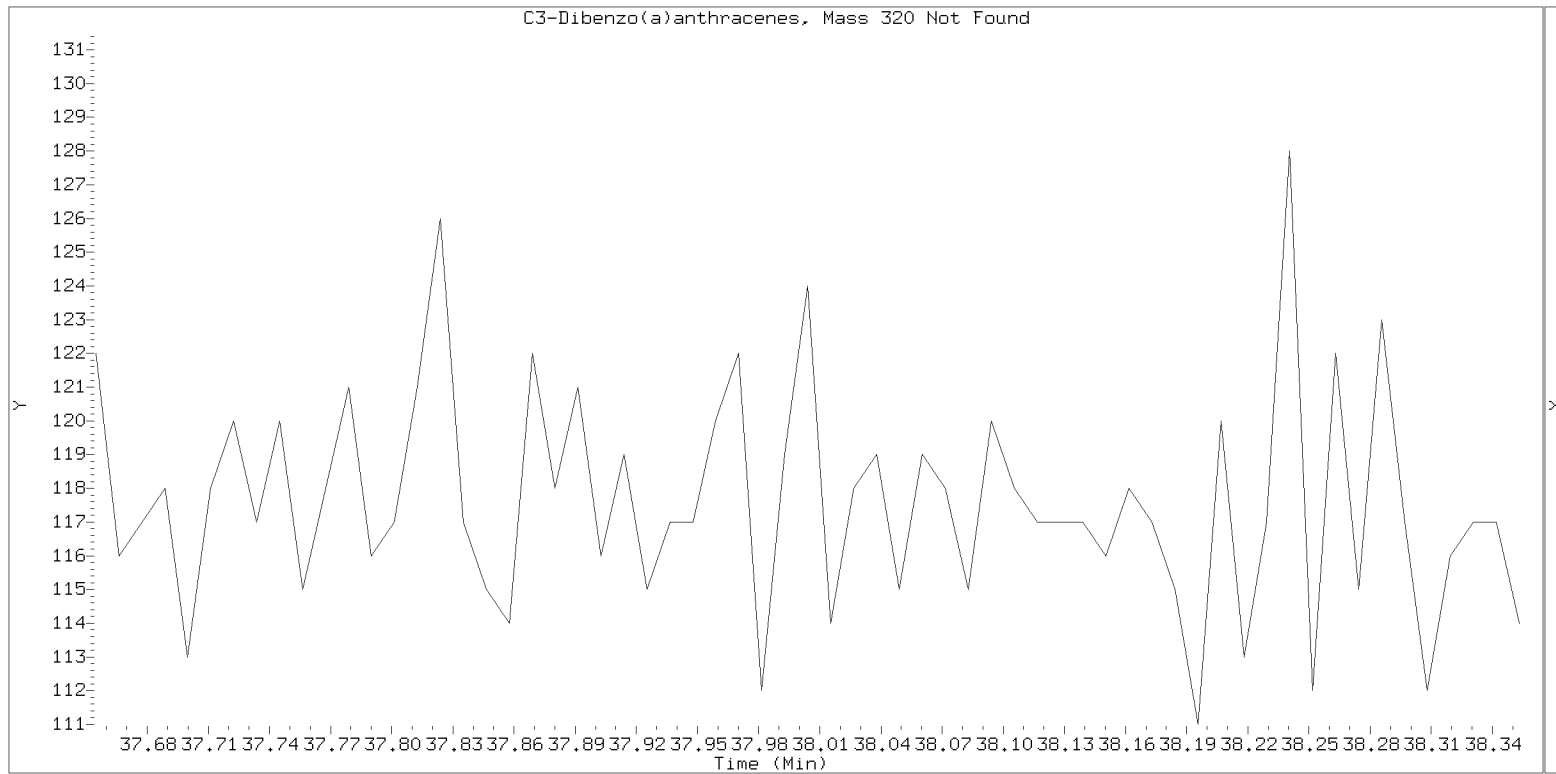
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nt14.i, SIM.b\ALKYLRANGES.m, 02-MAY-2021 01:11





LCS / LCS DUPLICATE RECOVERY
EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21D0180
 Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings
 Matrix: Solid Analyzed: 04/24/21 11:51
 Batch: BJD0479 Laboratory ID: BJD0479-BS1
 Preparation: EPA 3546 (Microwave) Low Level Sequence Name: LCS
 Initial/Final: 10 g / 0.5 mL

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Naphthalene	15.0	5.70		38.0	30 - 160
2-Methylnaphthalene	15.0	5.93		39.5	30 - 160
Acenaphthylene	15.0	5.05	Q	33.7	30 - 160
Acenaphthene	15.0	5.33	Q	35.5	30 - 160
Fluorene	15.0	5.86		39.1	30 - 160
Phenanthrene	15.0	6.73		44.9	30 - 160
Anthracene	15.0	6.31		42.1	30 - 160
Fluoranthene	15.0	7.37		49.2	30 - 160
Pyrene	15.0	7.39		49.3	30 - 160
Benzo(a)anthracene	15.0	7.35		49.0	30 - 160
Chrysene	15.0	7.75		51.6	30 - 160
Benzo(b)fluoranthene	15.0	6.30		42.0	30 - 160
Benzo(k)fluoranthene	15.0	7.88		52.5	30 - 160
Benzo(j)fluoranthene	15.0	8.83		58.8	30 - 160
Benzo(a)pyrene	15.0	6.66		44.4	30 - 160
Indeno(1,2,3-cd)pyrene	15.0	7.60		50.7	30 - 160
Dibenzo(a,h)anthracene	15.0	7.22		48.1	30 - 160
Benzo(g,h,i)perylene	15.0	7.72		51.5	30 - 160

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt11.1\20210424.6\NT1121042405.D

Date : 24-APR-2021 11:51

Client ID:

Sample Info: BJD0479-BS1

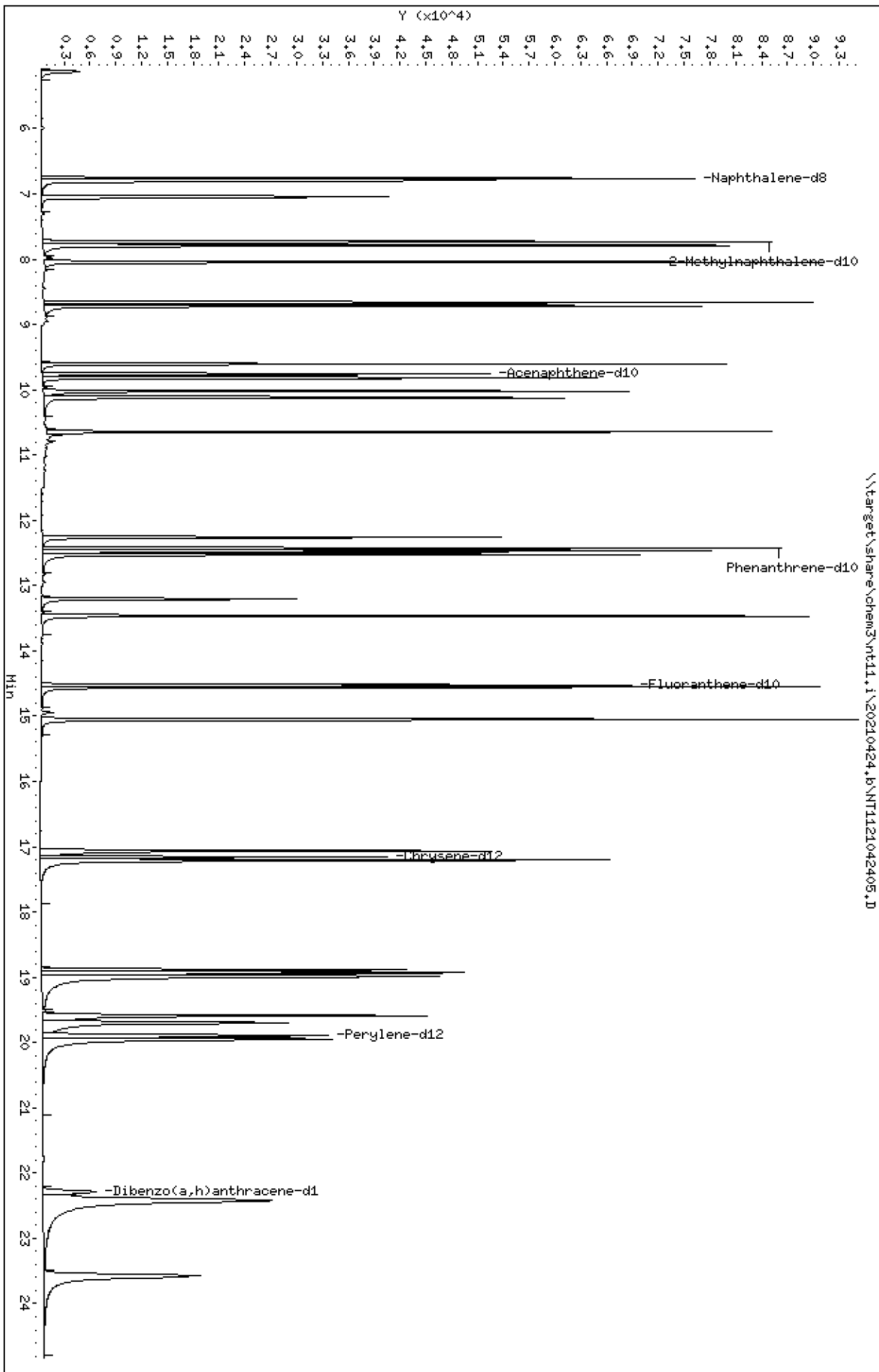
Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

Column phase: Rxi-17S11 MS

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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

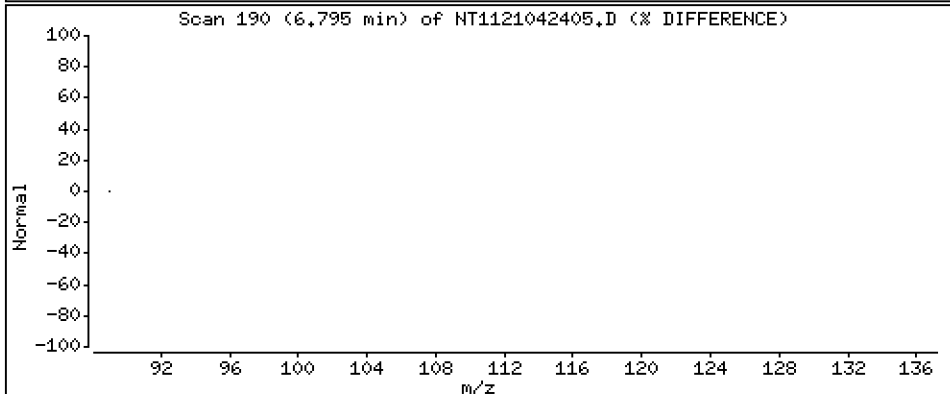
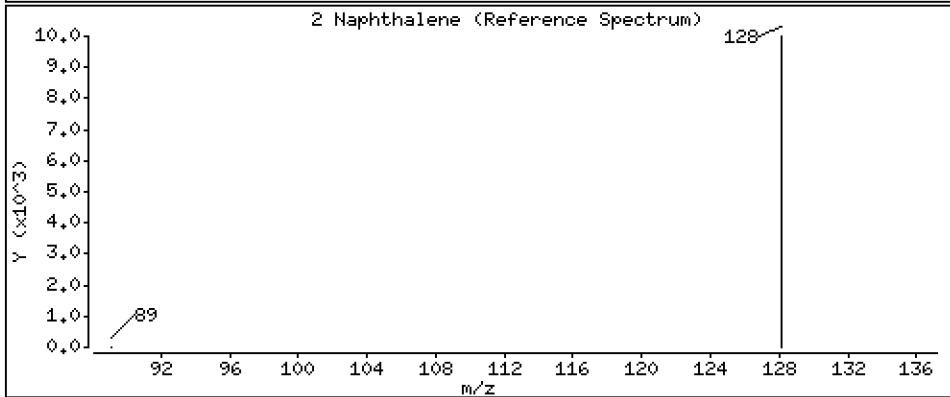
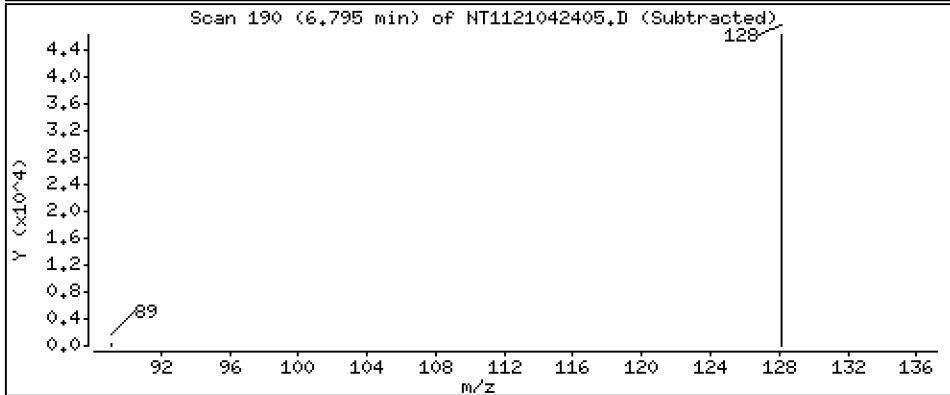
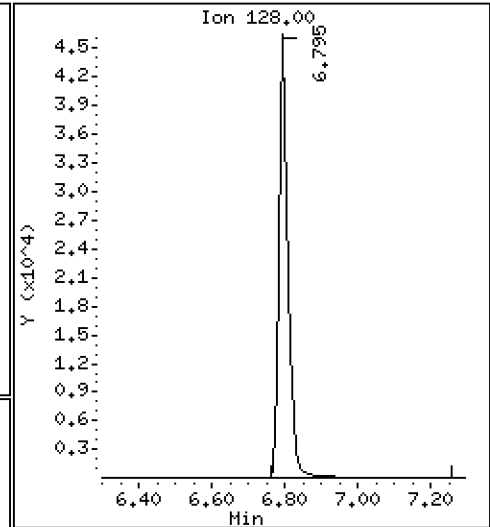
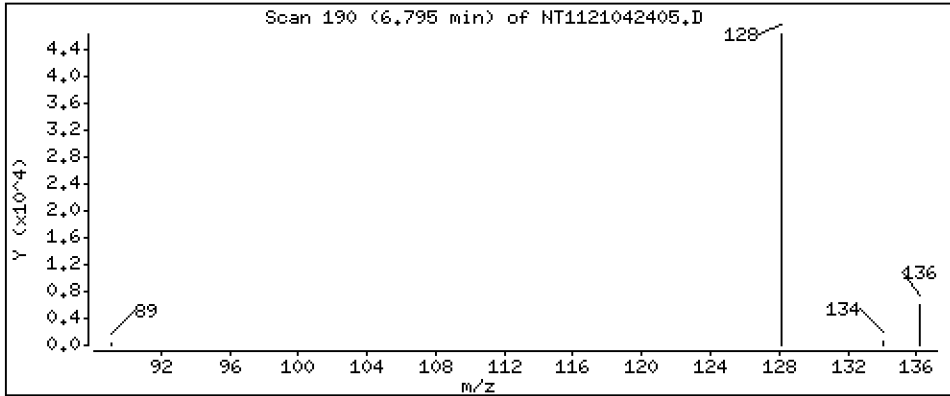
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 114 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

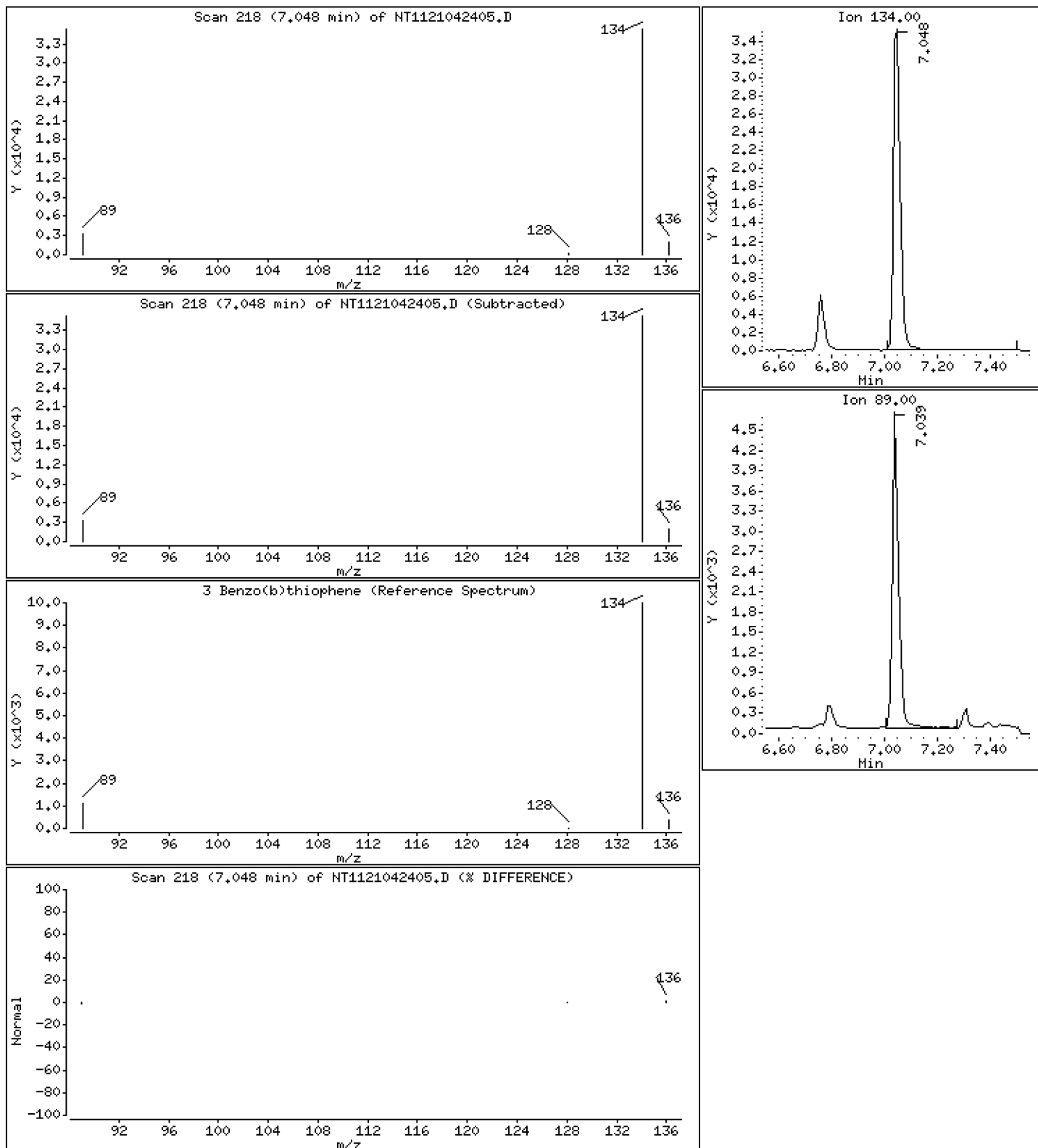
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

3 Benzo(b)thiophene

Concentration: 113 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

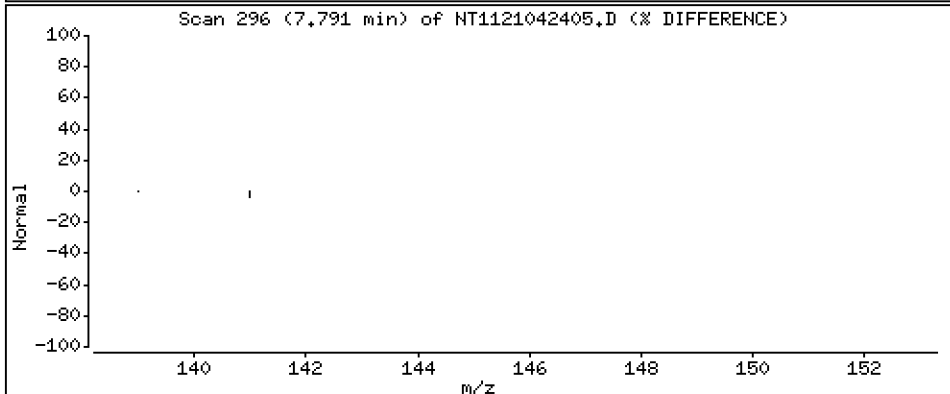
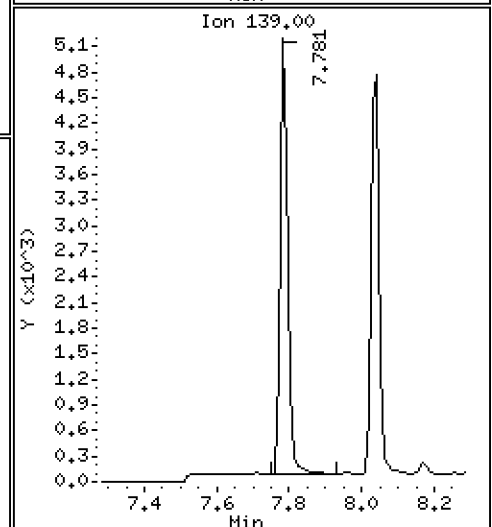
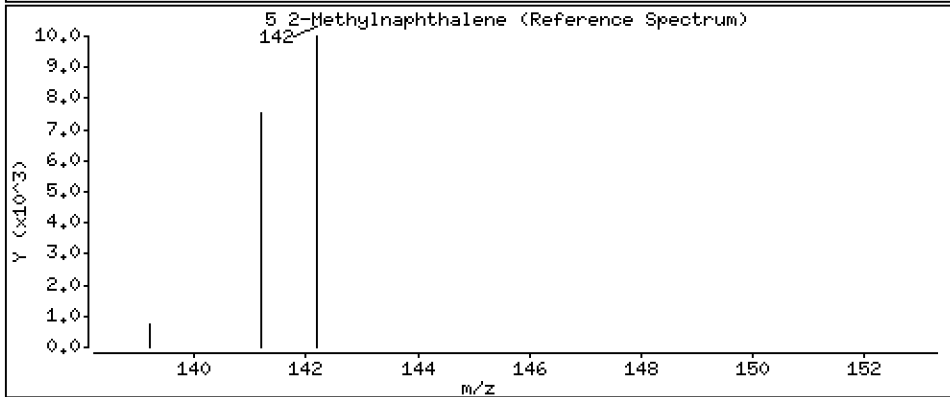
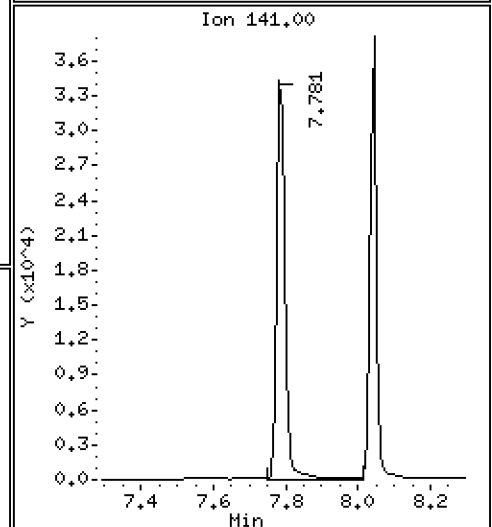
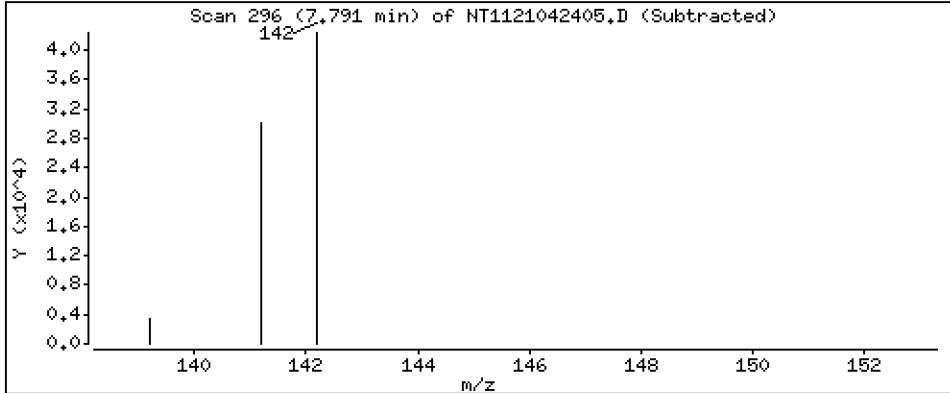
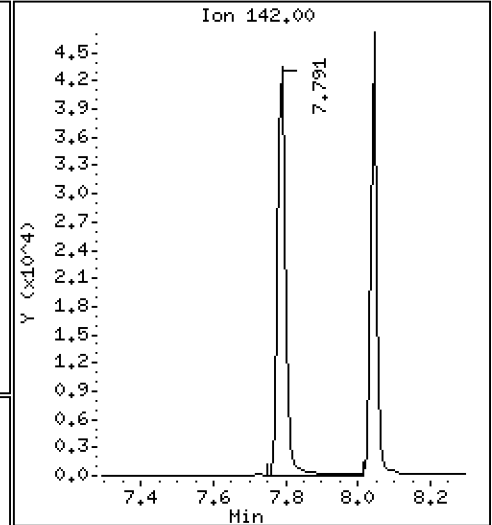
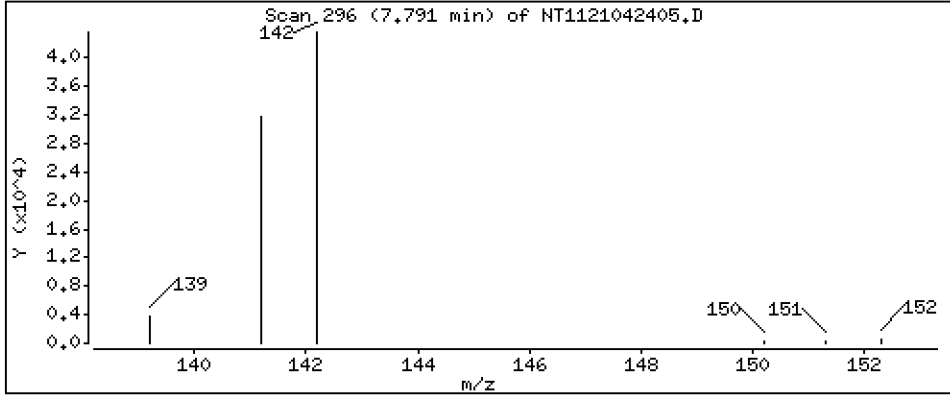
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

5-2-Methylnaphthalene

Concentration: 119 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

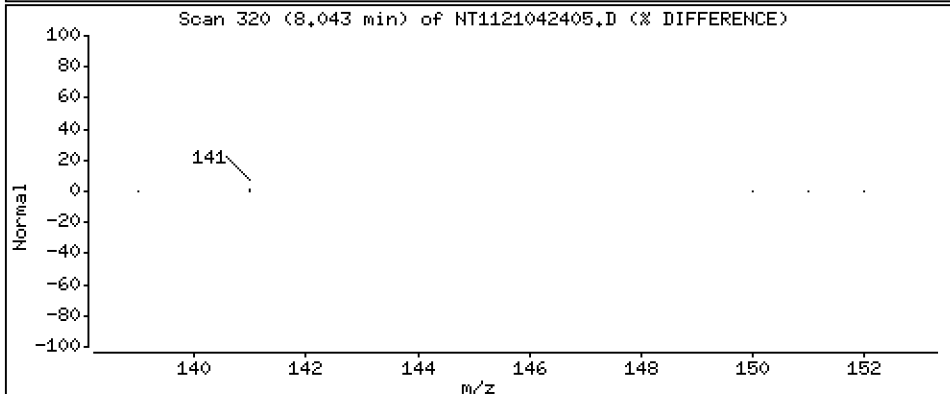
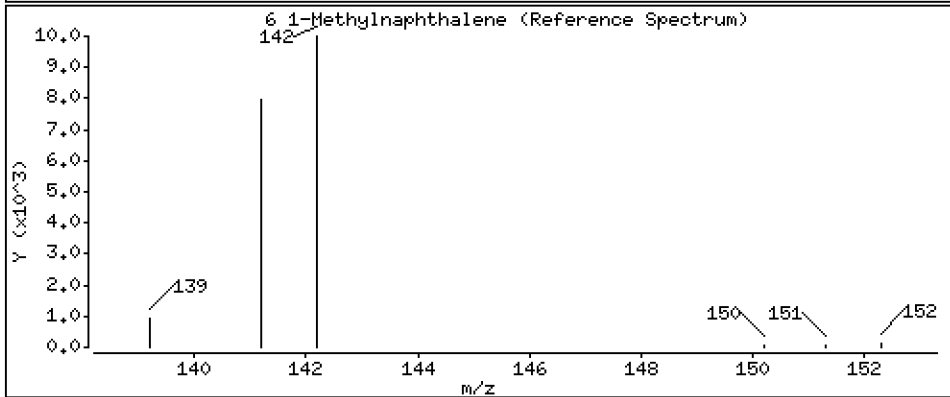
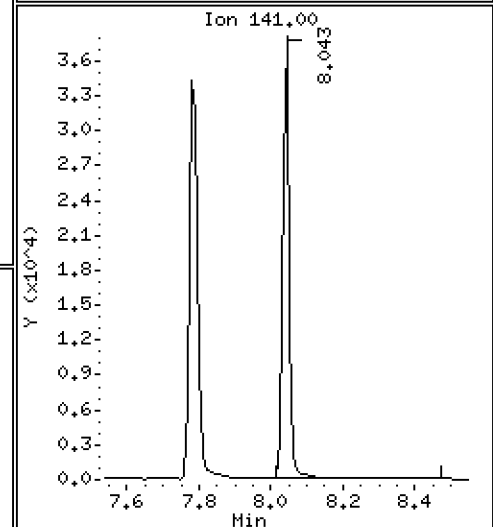
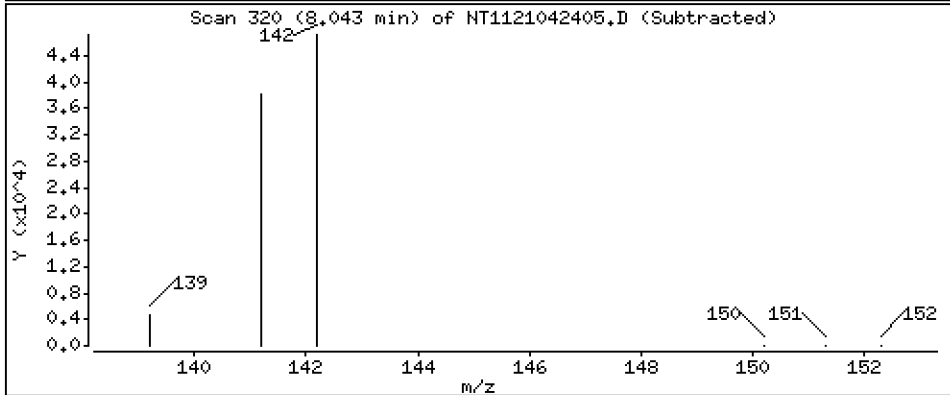
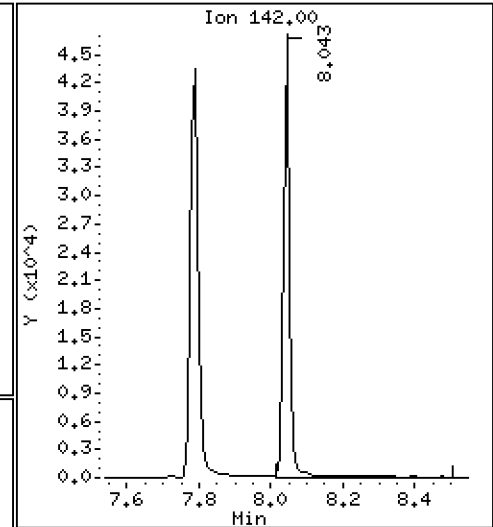
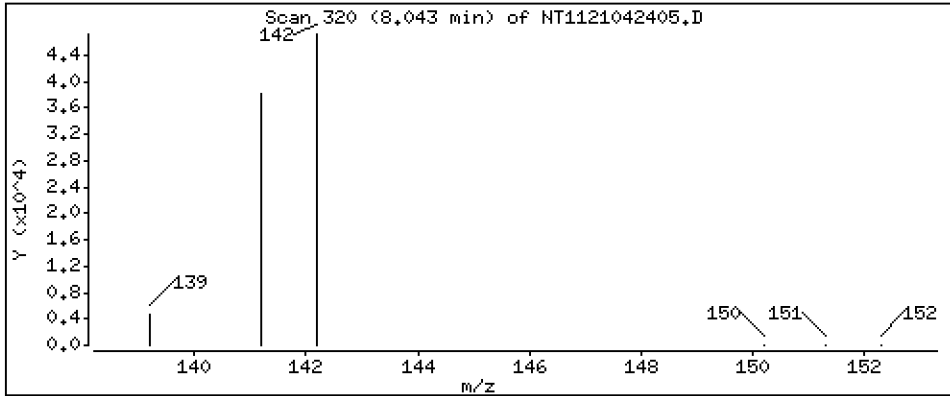
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

6-1-Methylnaphthalene

Concentration: 125 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

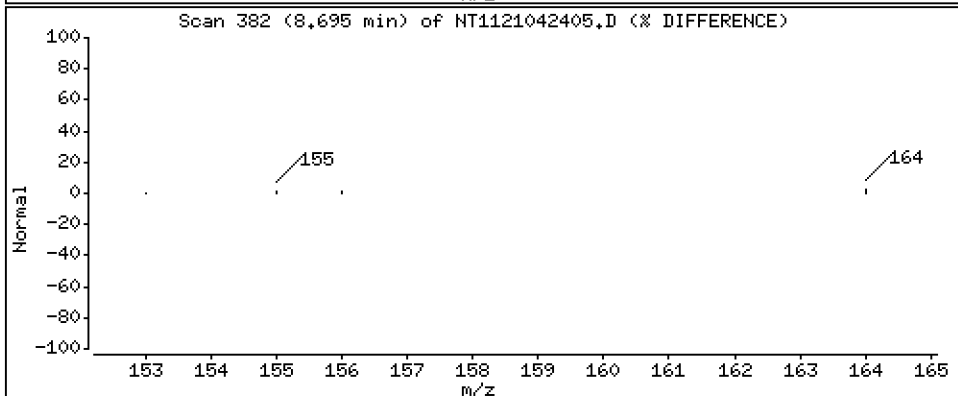
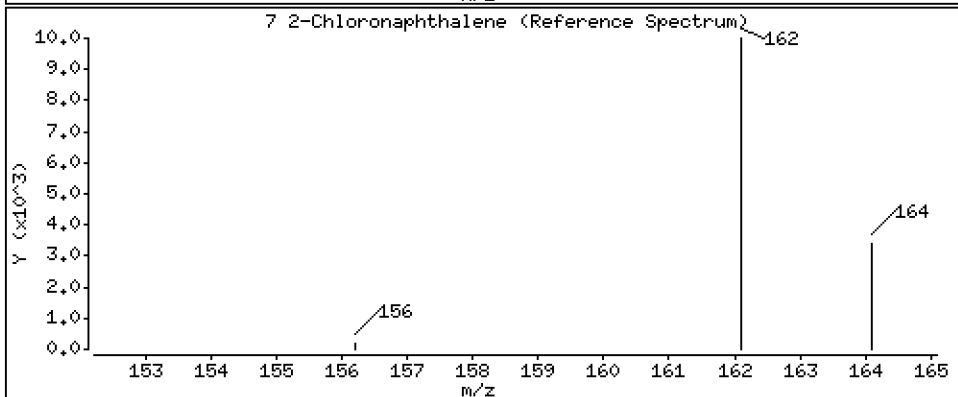
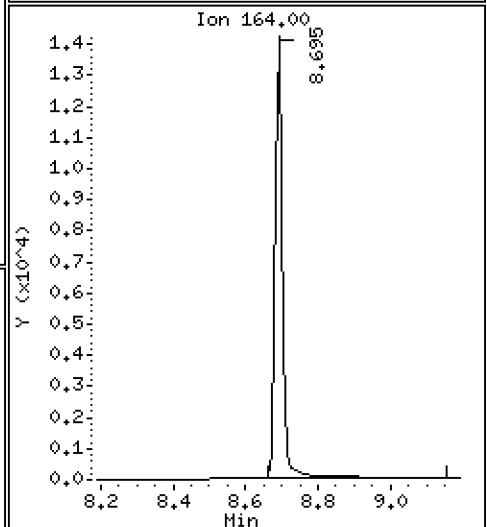
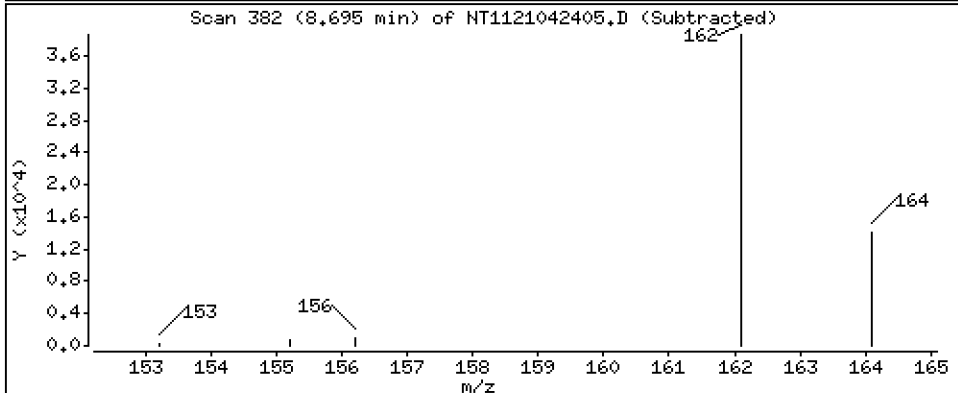
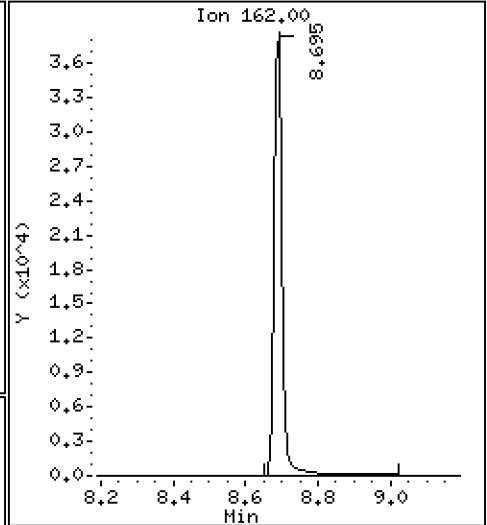
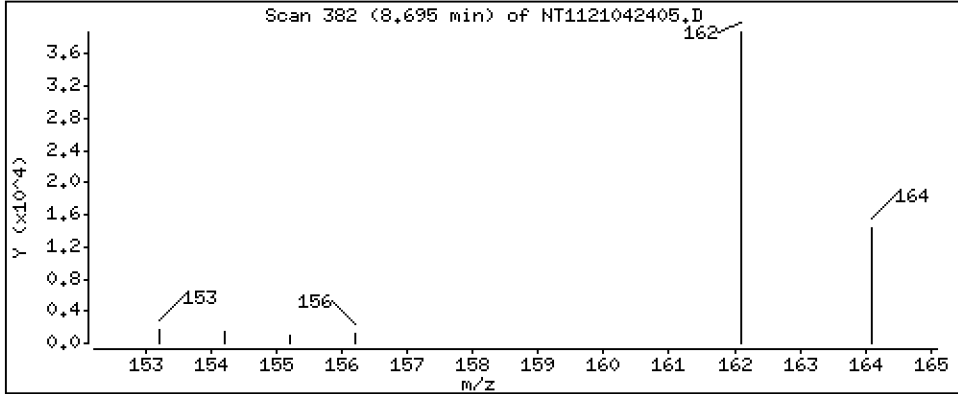
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

7 2-Chloronaphthalene

Concentration: 109 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

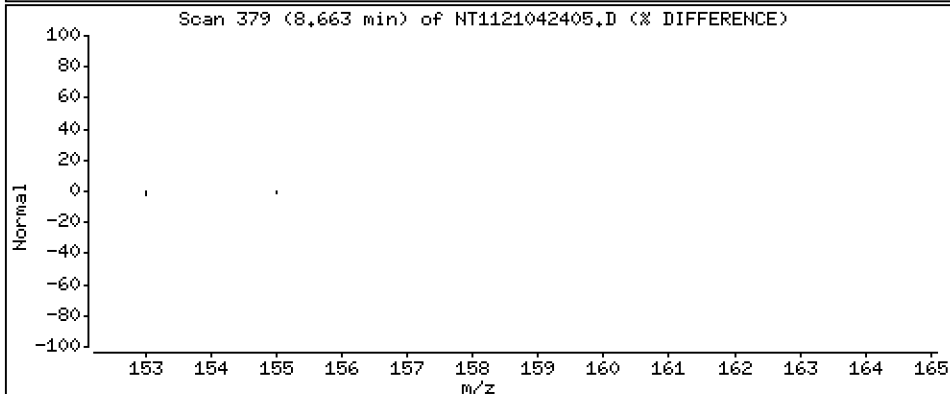
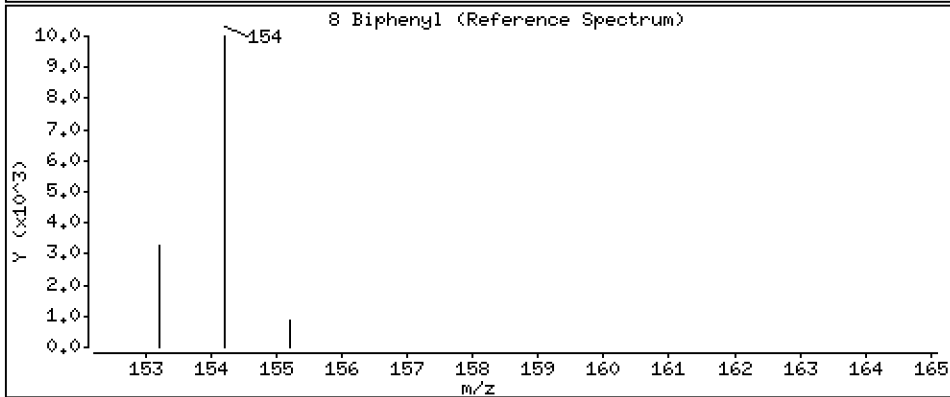
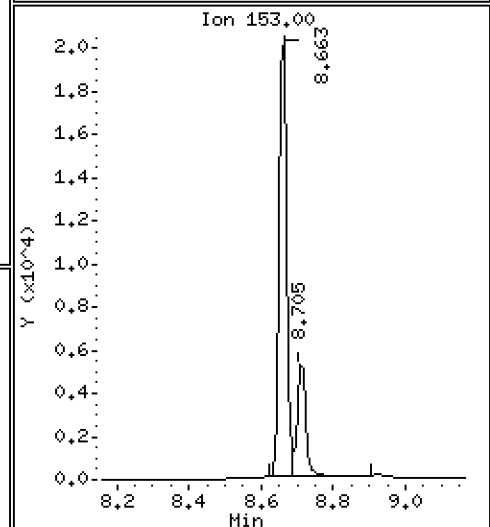
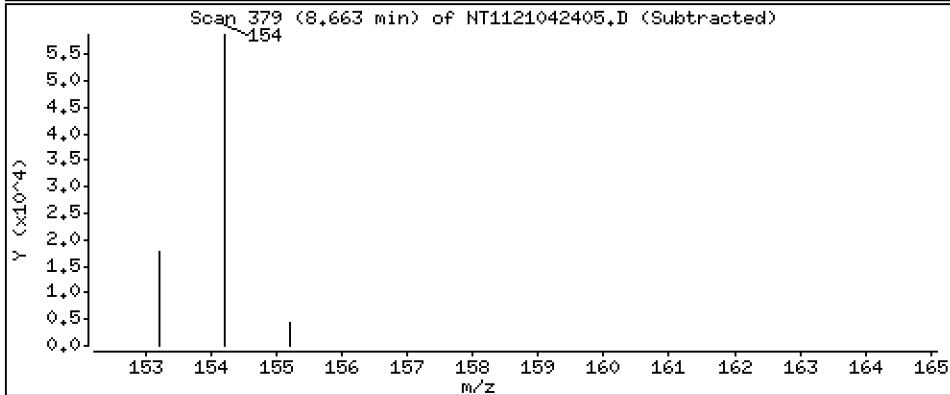
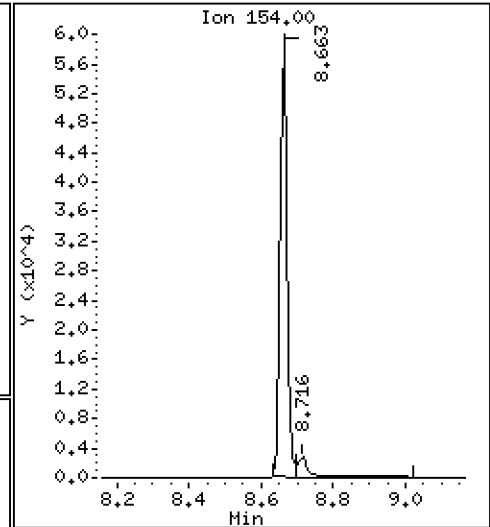
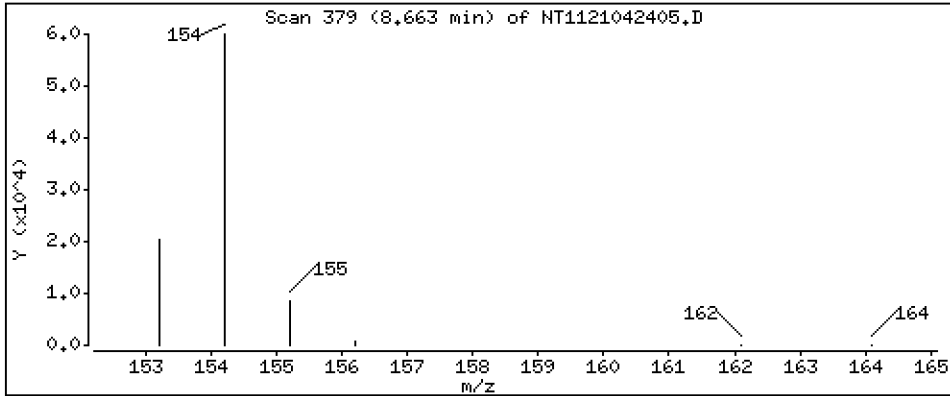
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

8 Biphenyl

Concentration: 105 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

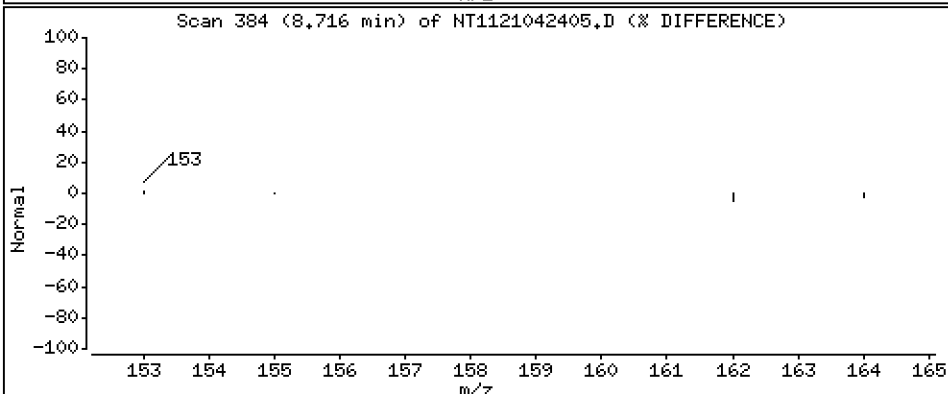
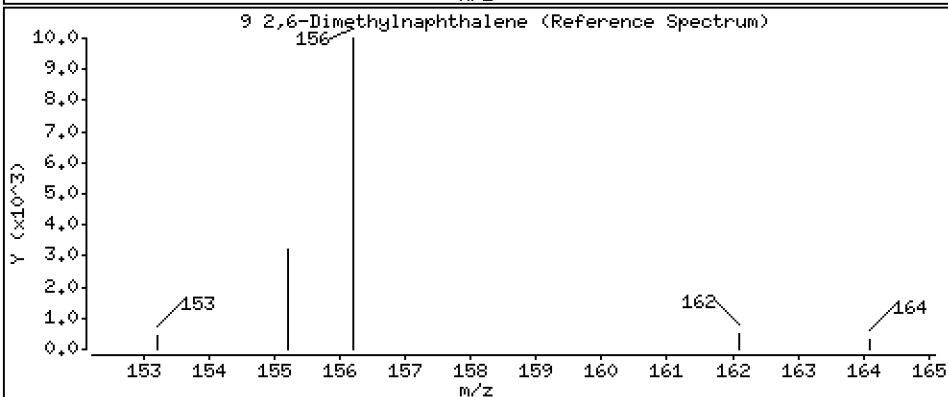
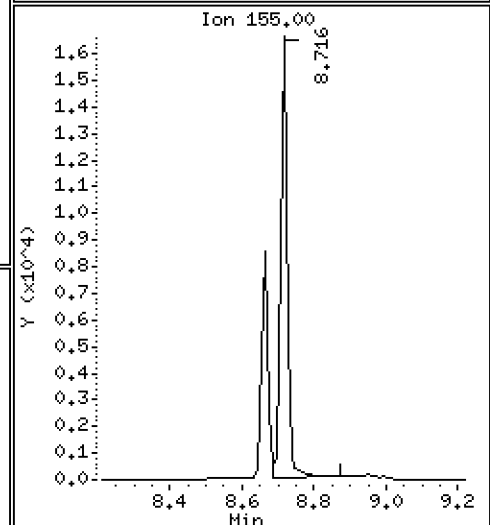
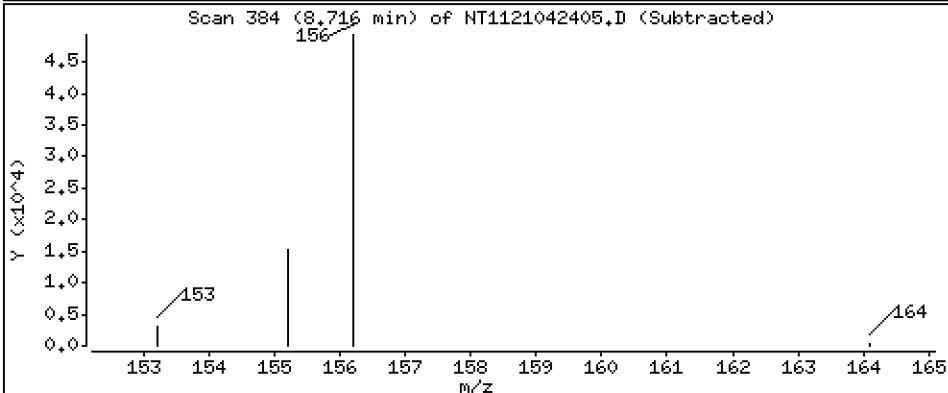
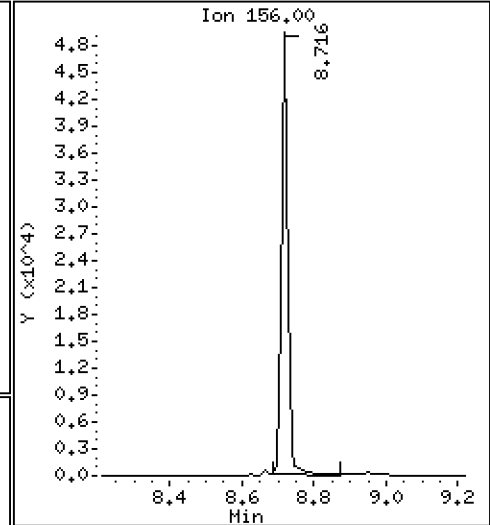
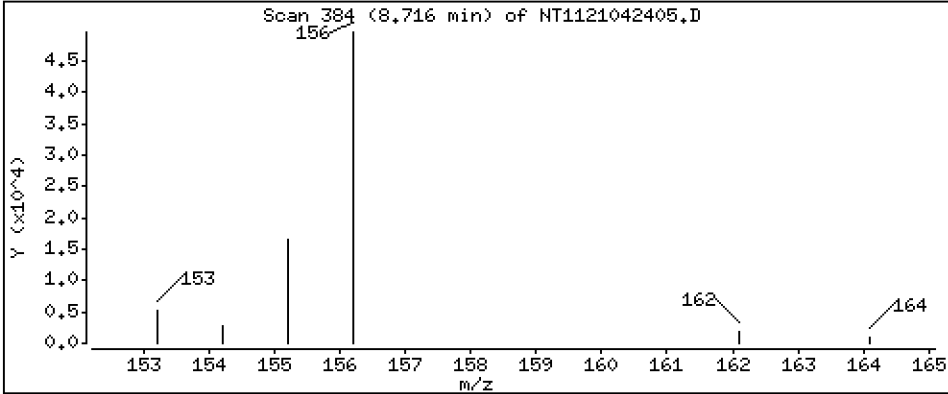
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

9,2,6-Dimethylnaphthalene

Concentration: 108 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

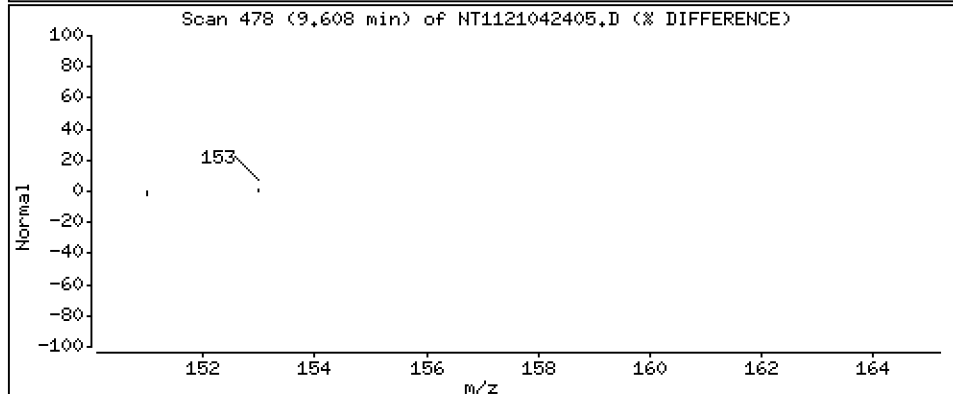
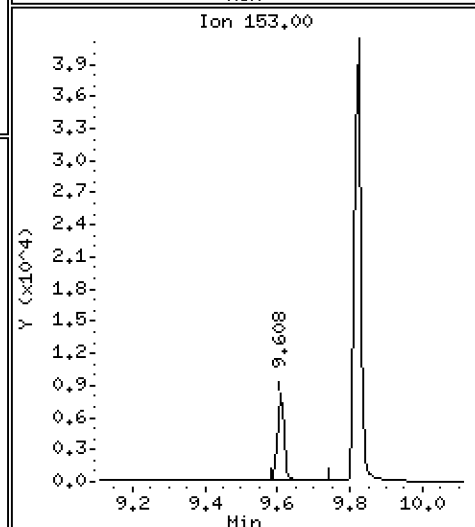
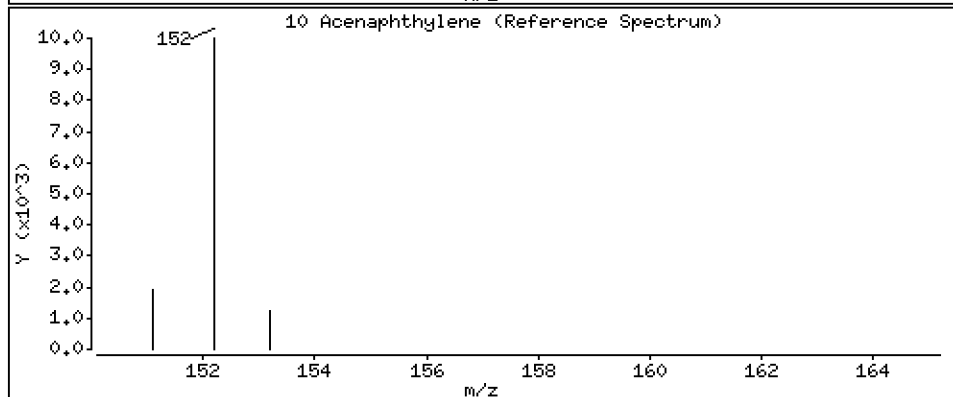
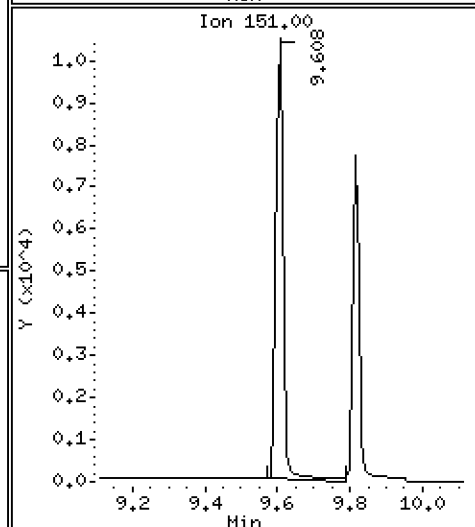
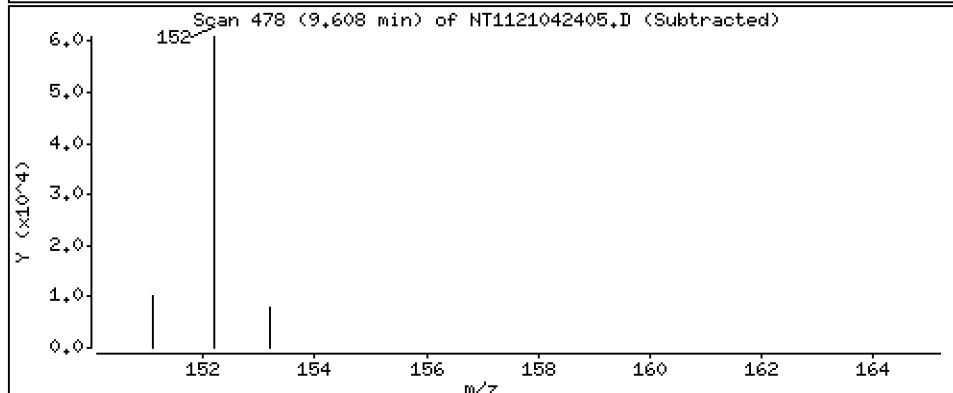
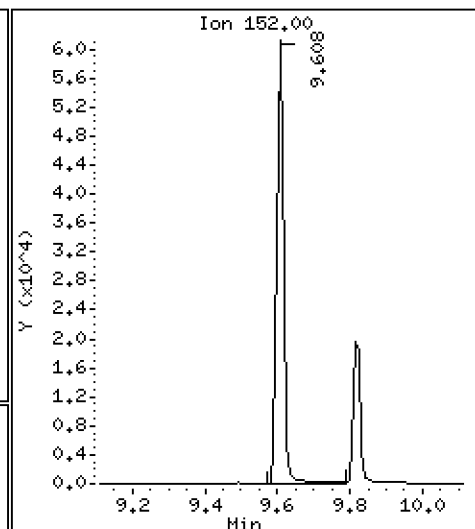
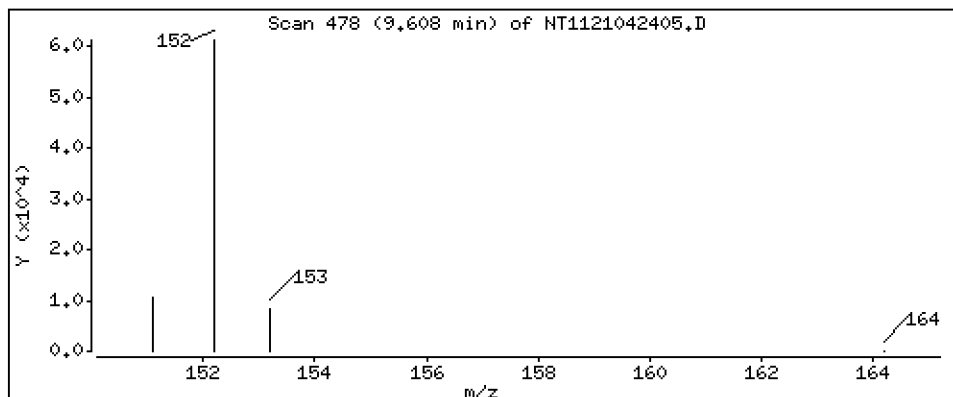
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

10 Acenaphthylene

Concentration: 101 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

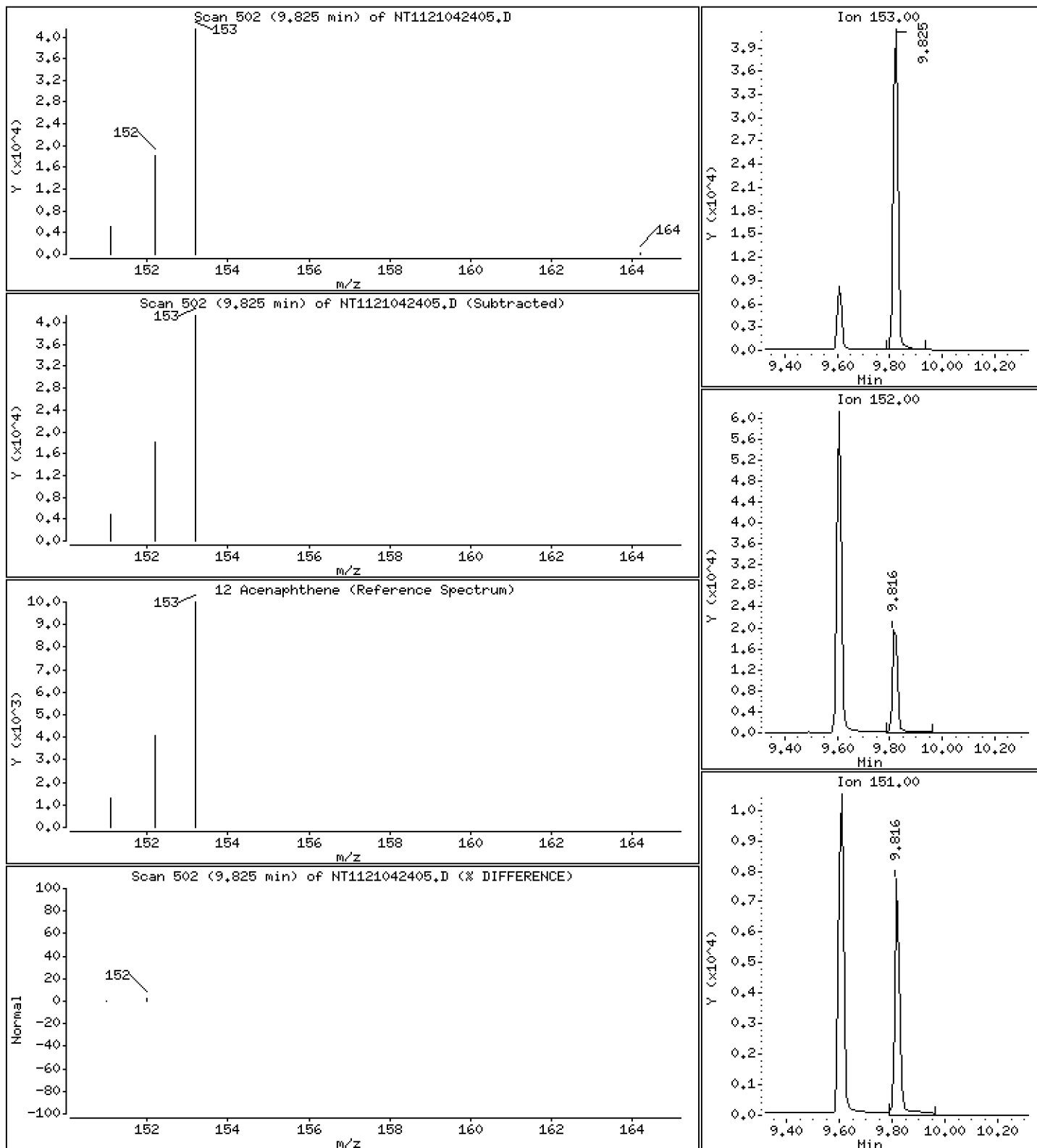
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

12 Acenaphthene

Concentration: 107 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

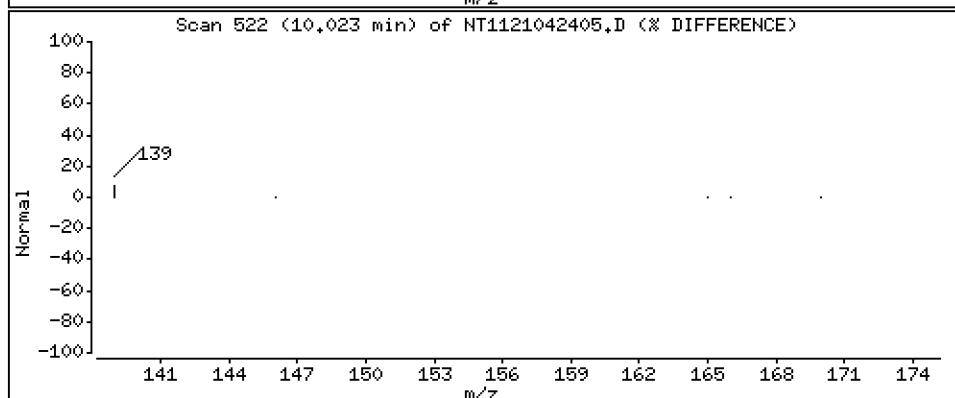
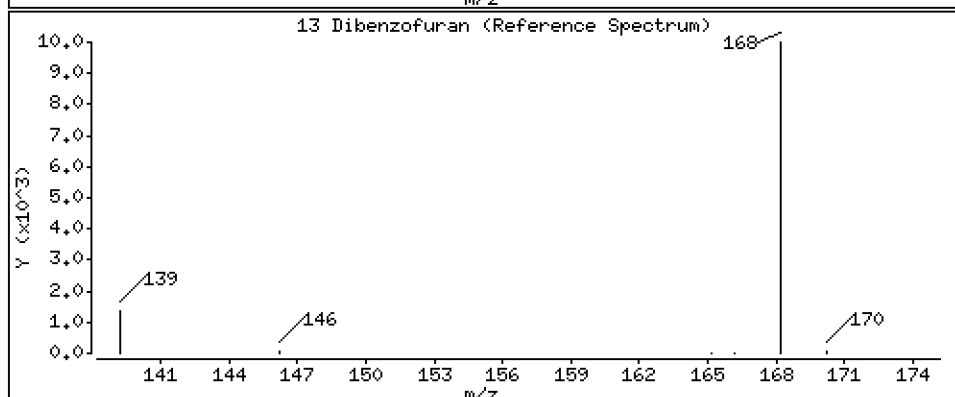
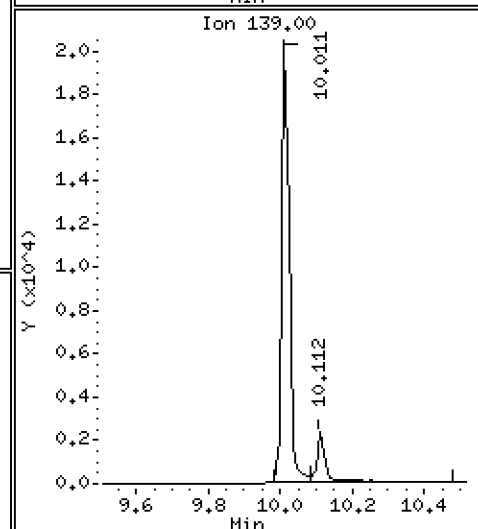
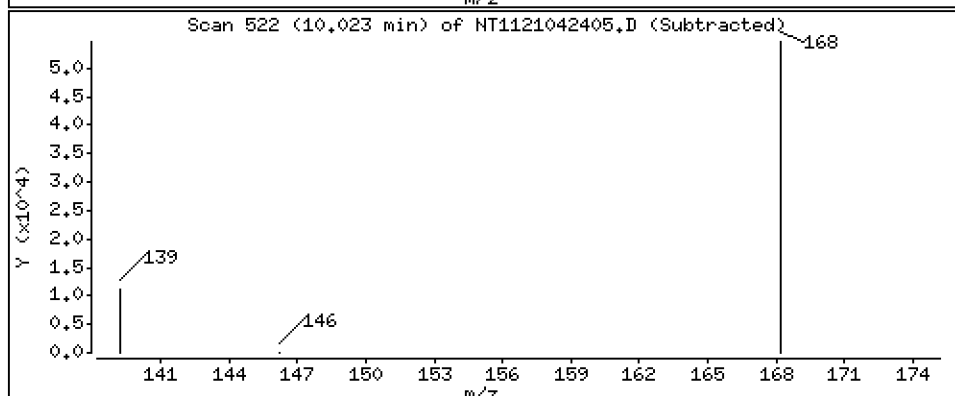
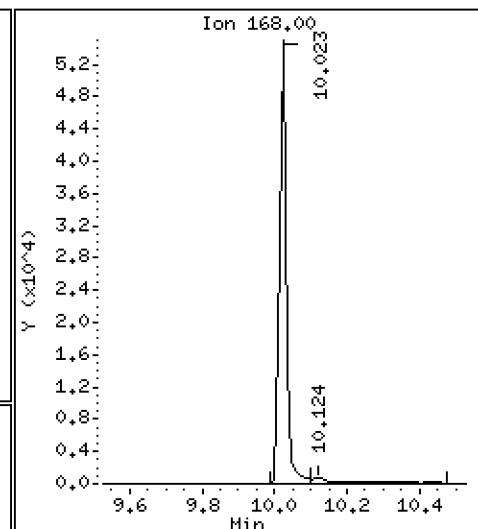
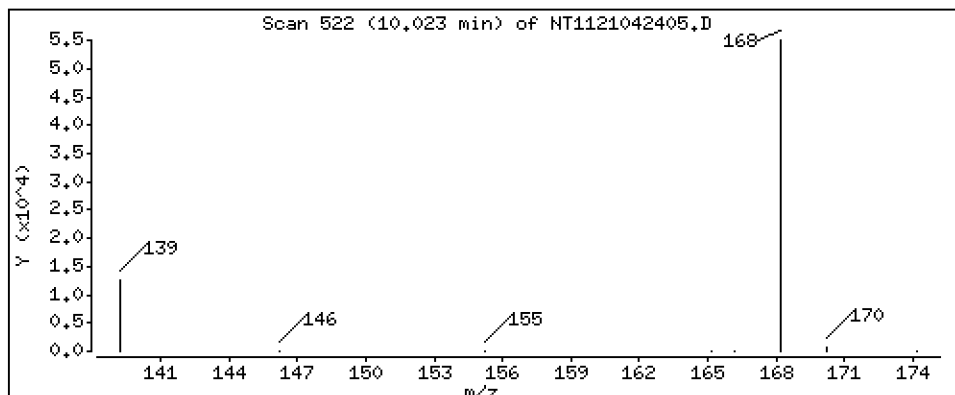
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

13 Dibenzofuran

Concentration: 107 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

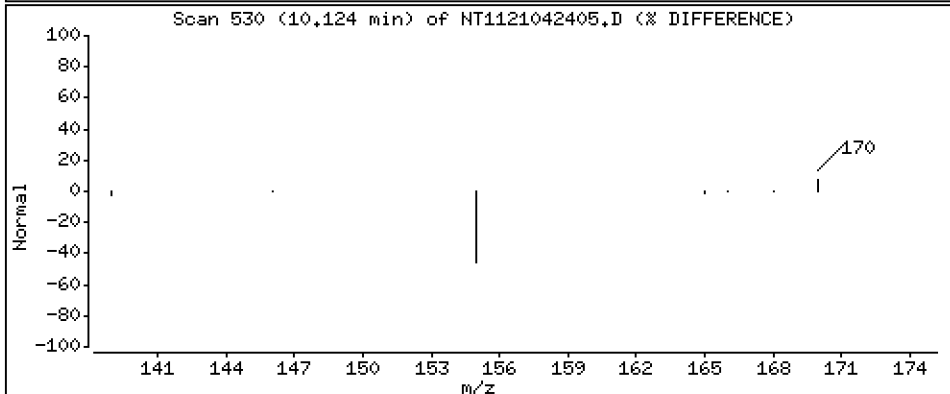
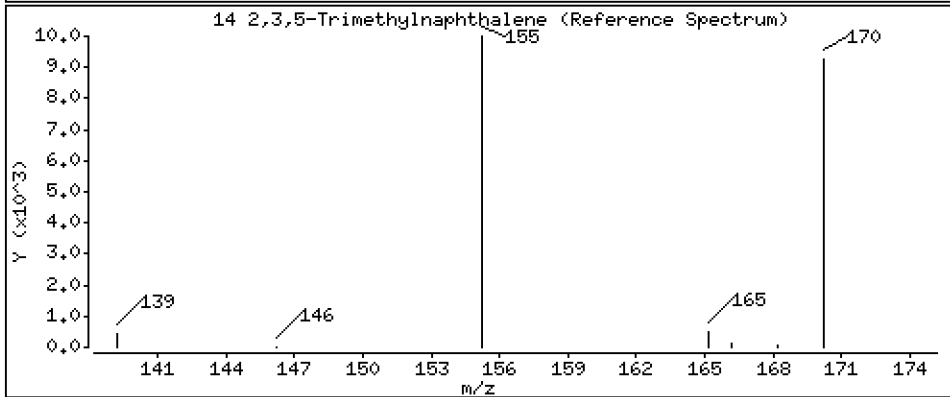
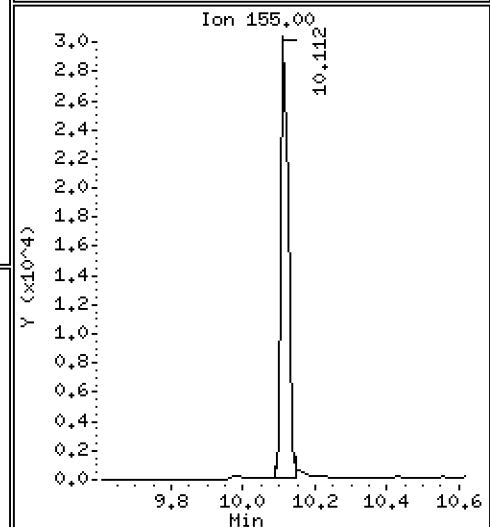
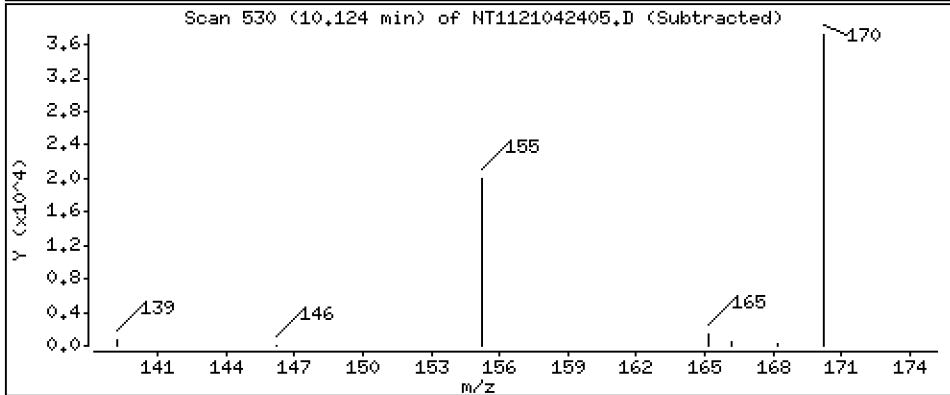
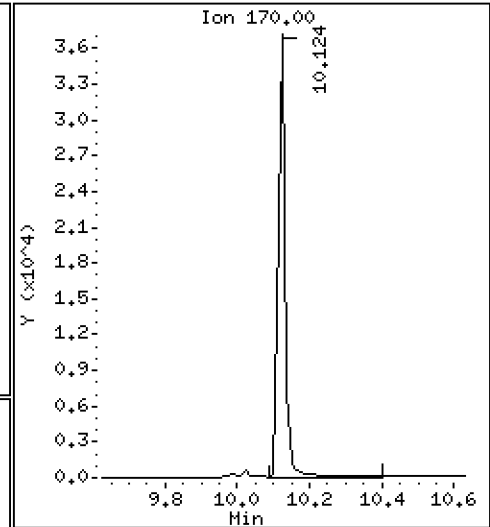
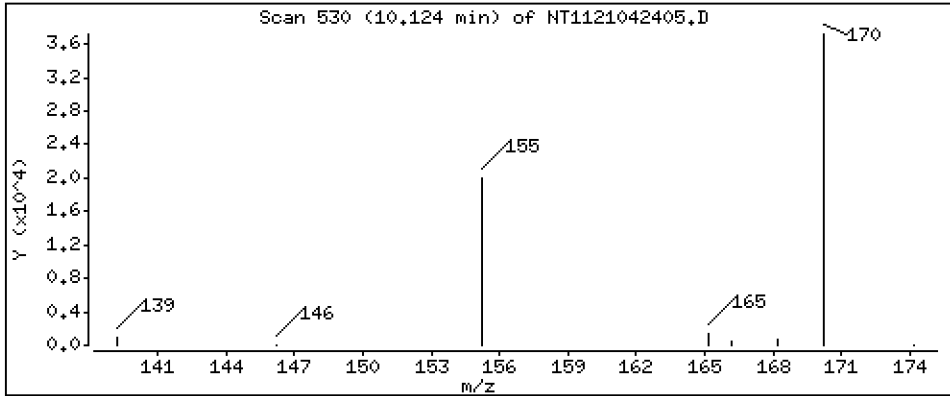
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

14 2,3,5-Trimethylnaphthalene

Concentration: 116 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

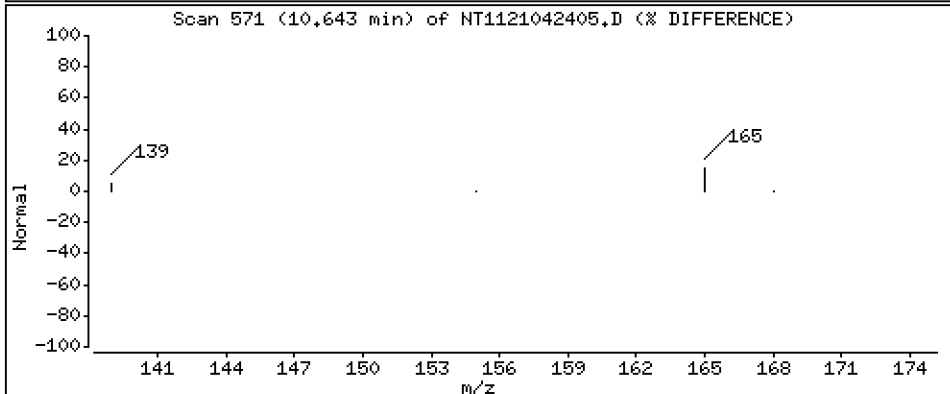
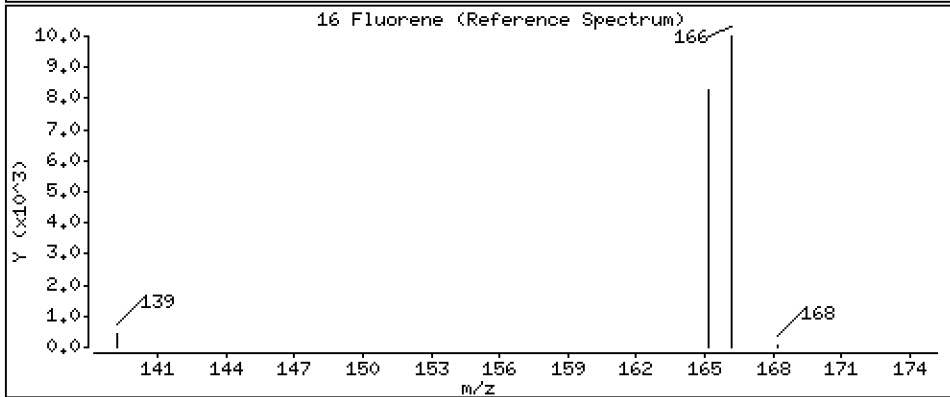
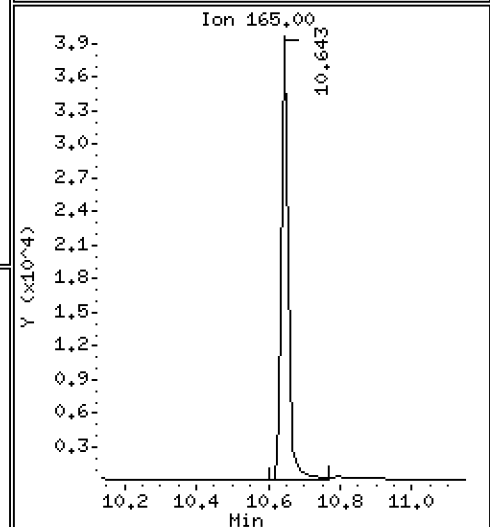
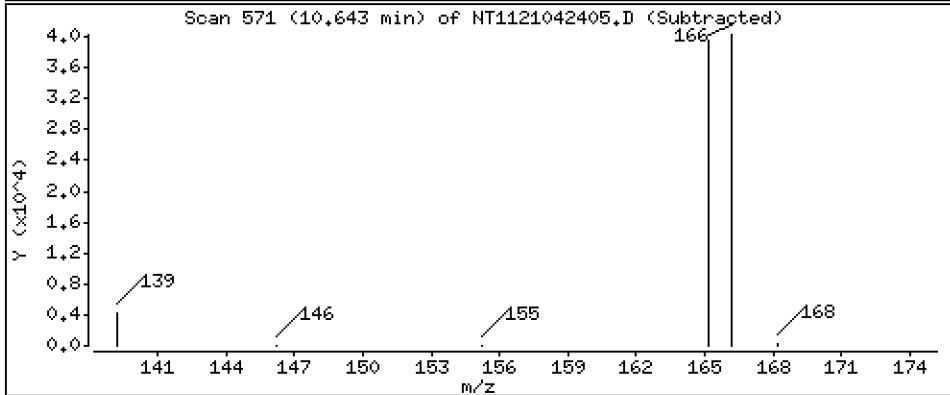
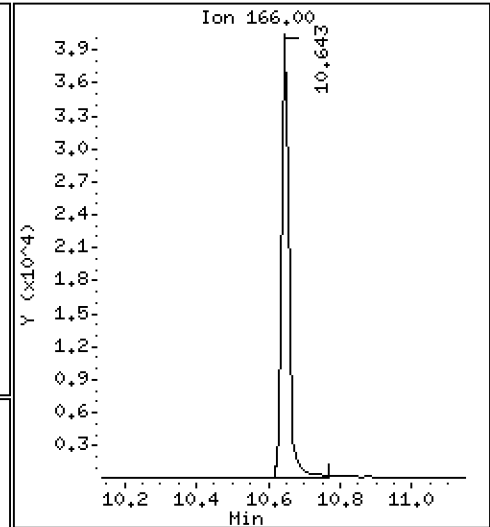
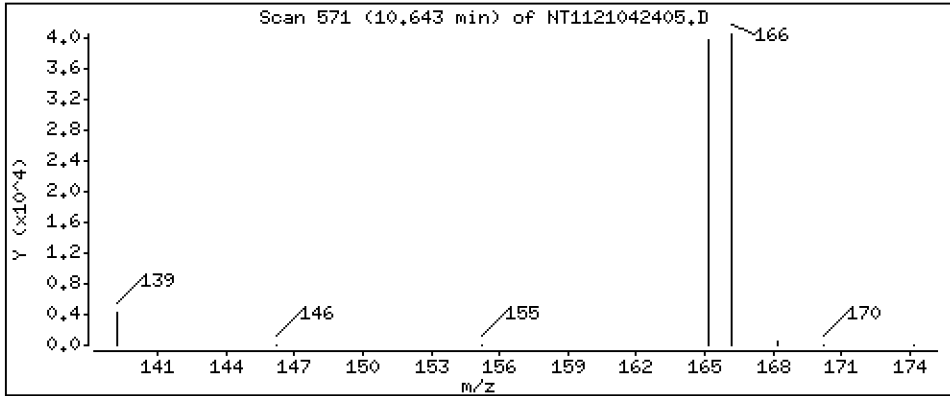
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 Fluorene

Concentration: 117 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

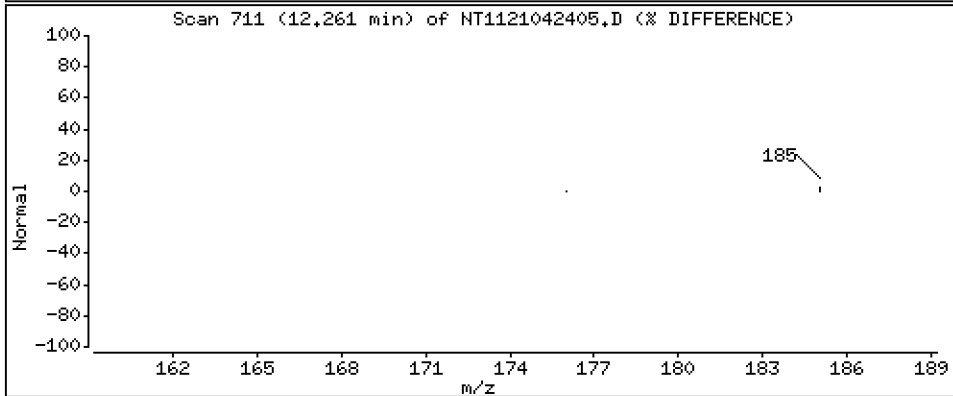
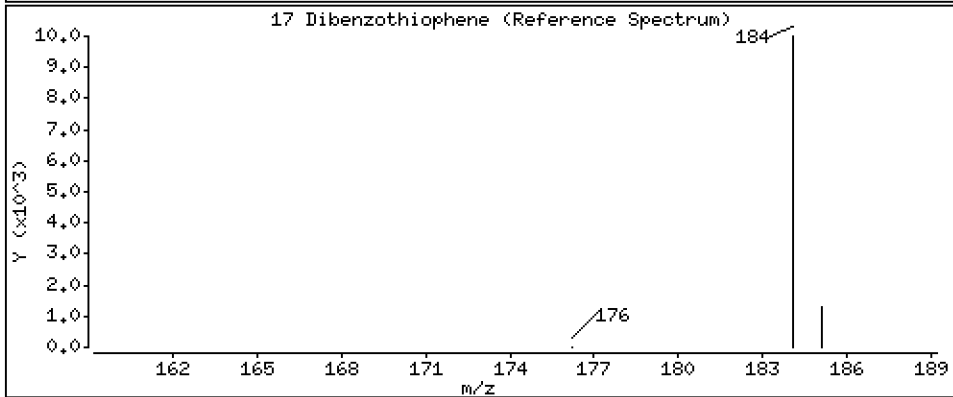
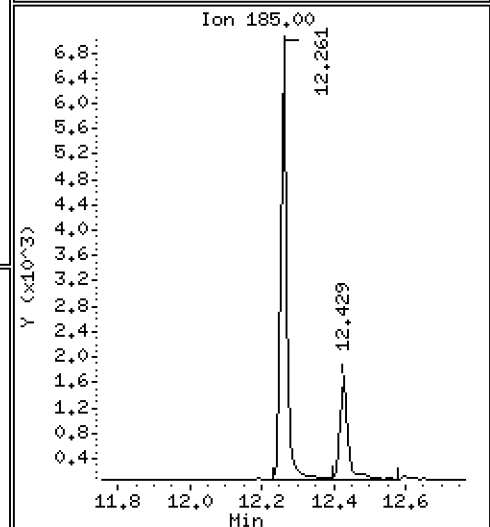
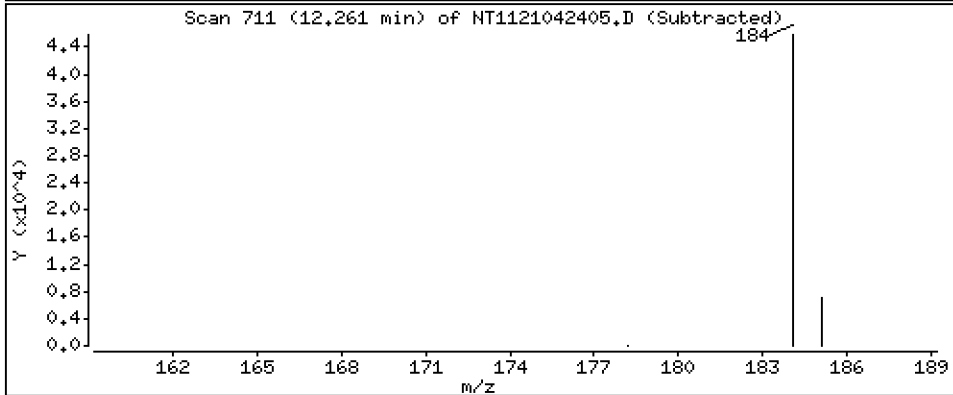
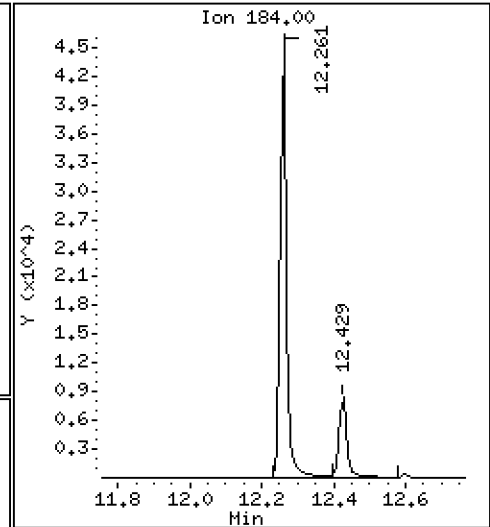
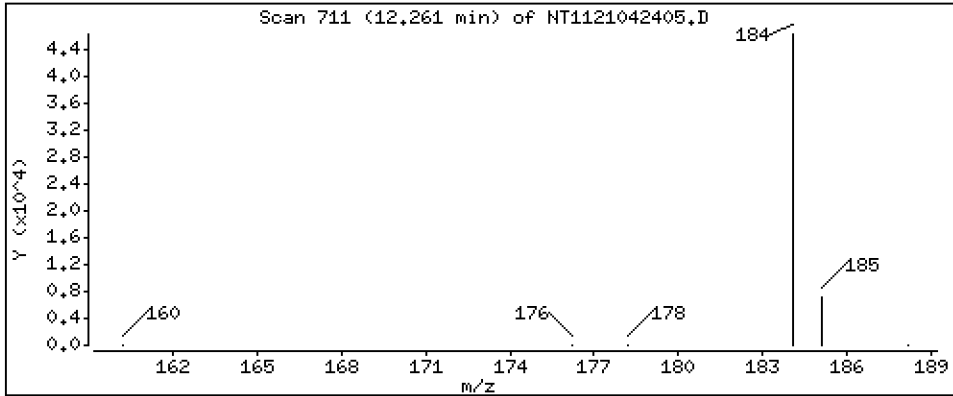
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

Concentration: 118 ng/mL

17 Dibenzothiophene



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

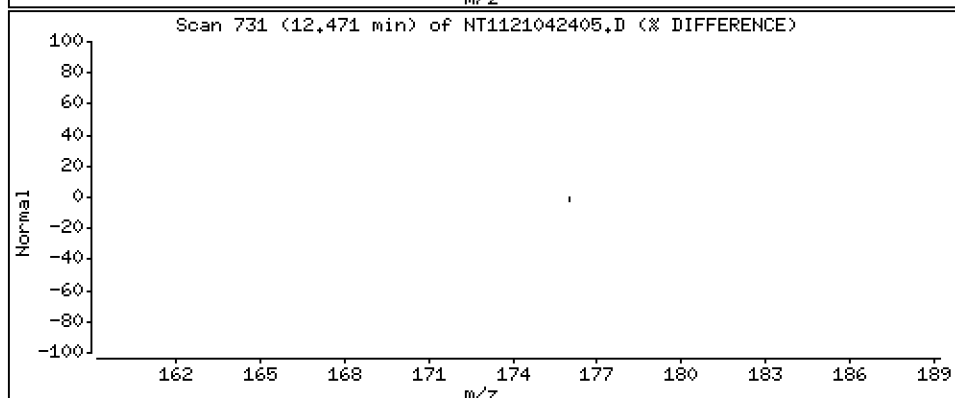
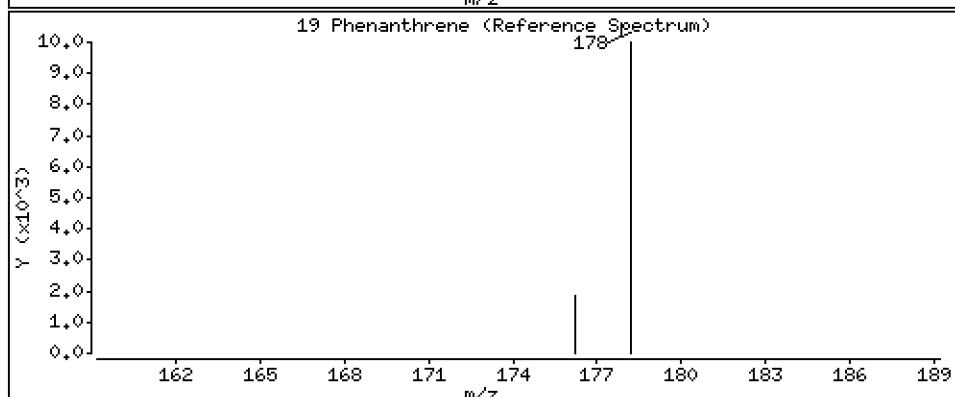
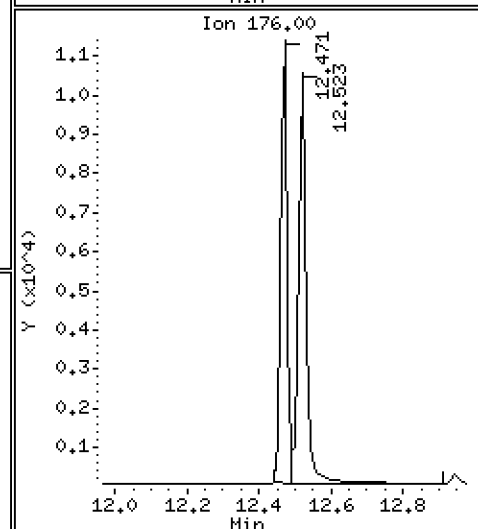
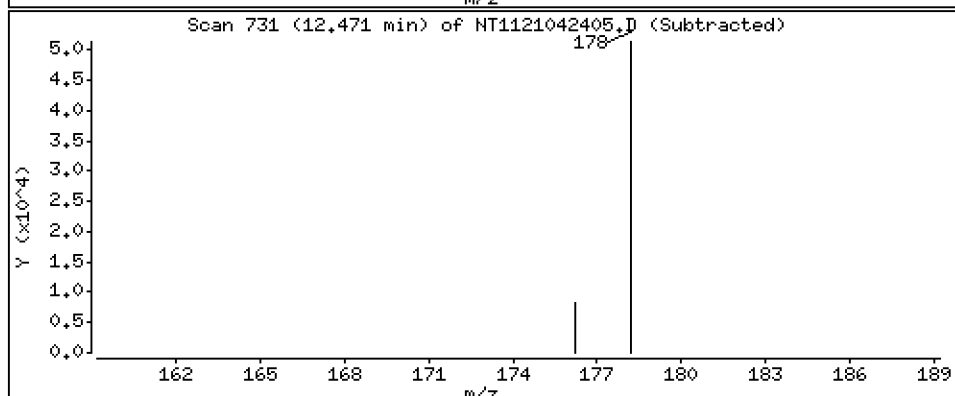
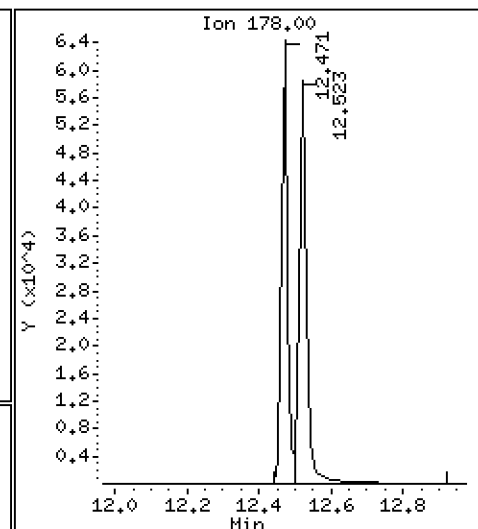
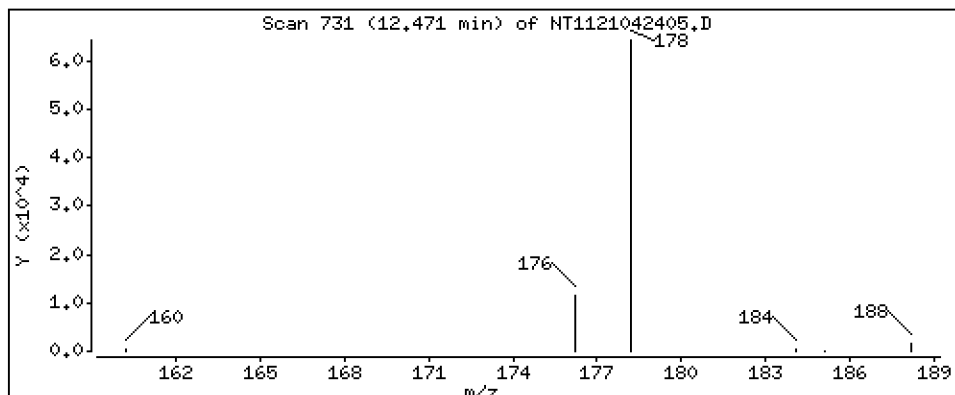
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

19 Phenanthrene

Concentration: 135 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

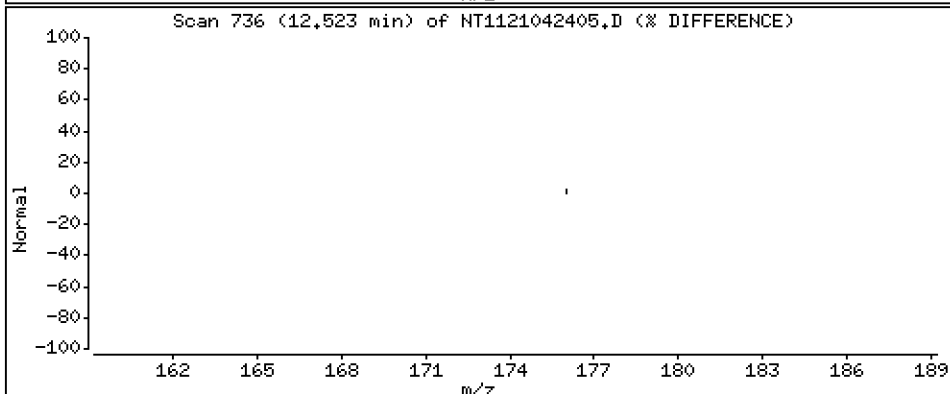
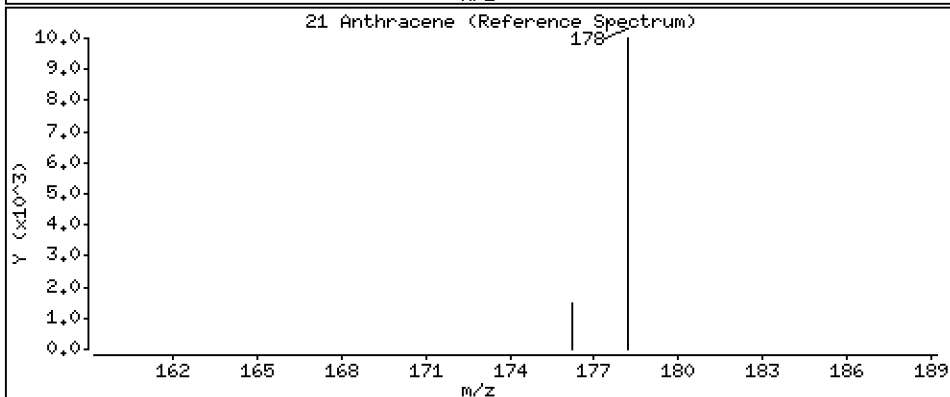
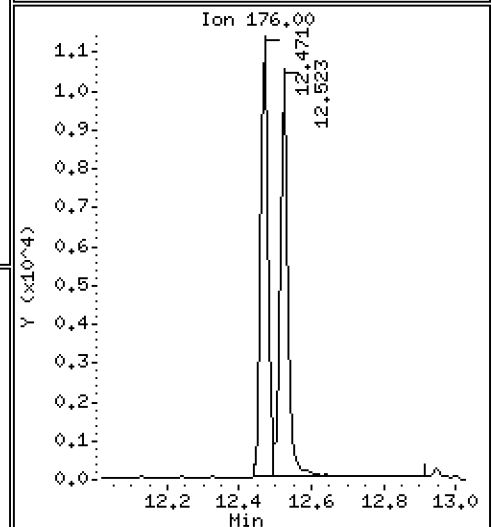
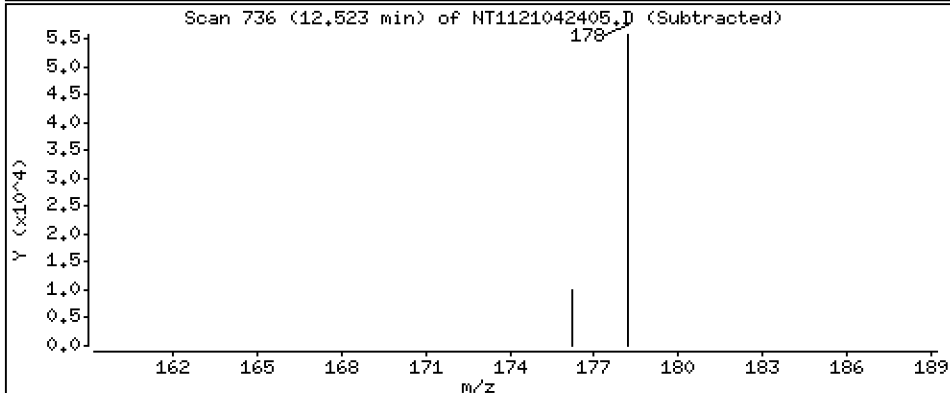
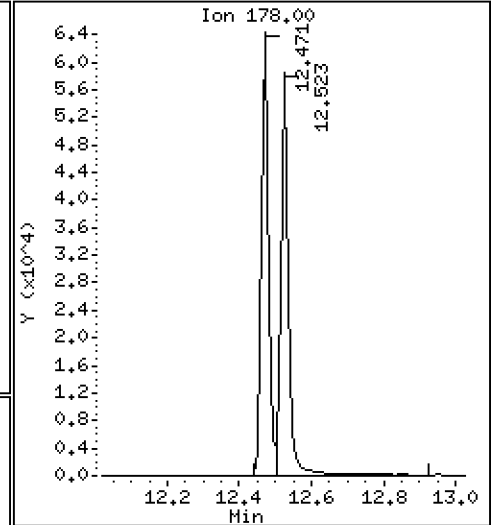
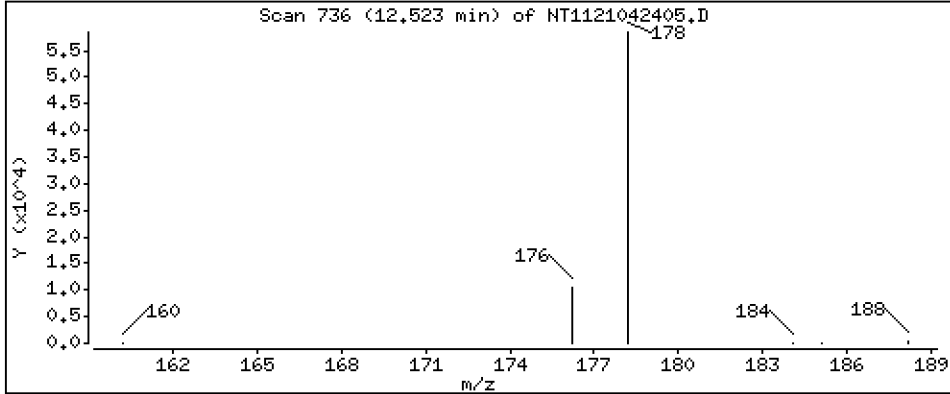
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

21 Anthracene

Concentration: 126 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

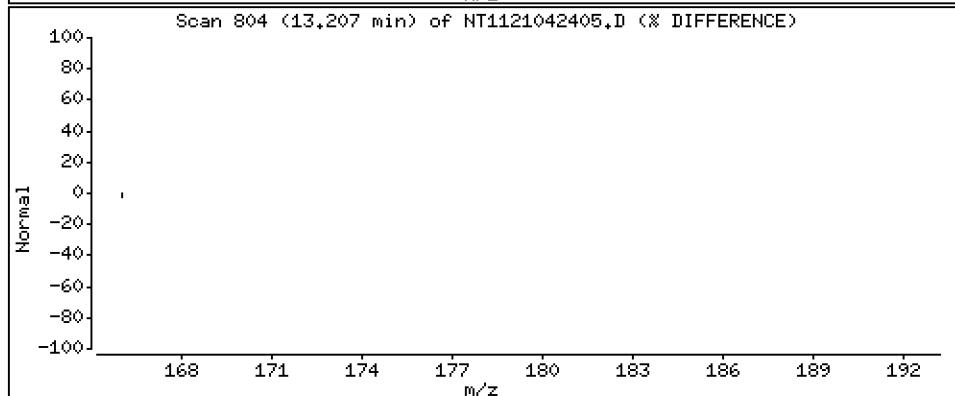
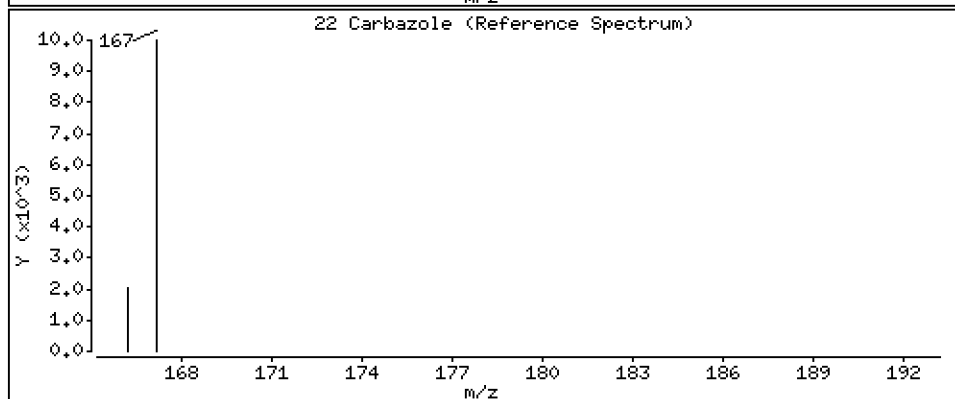
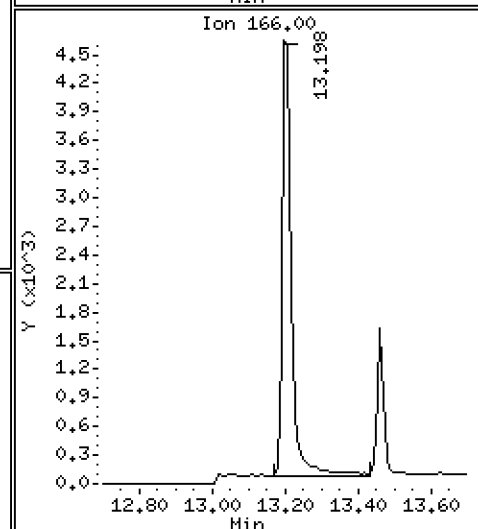
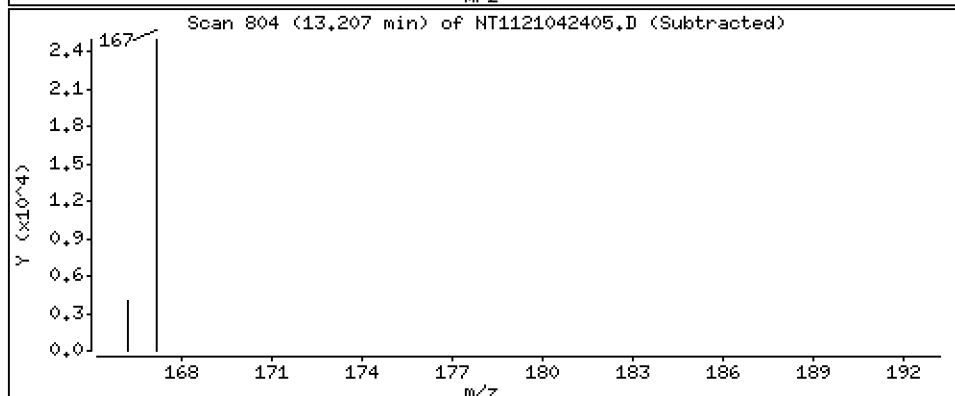
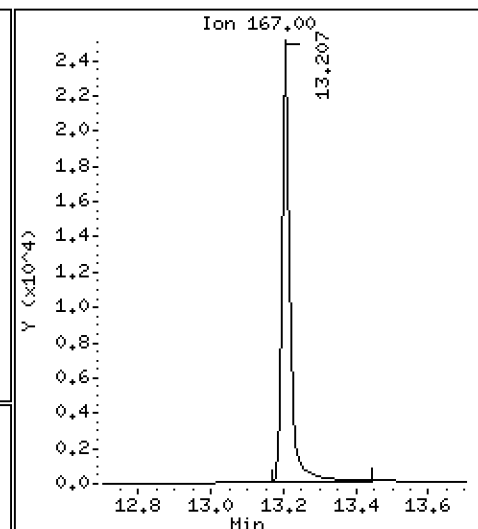
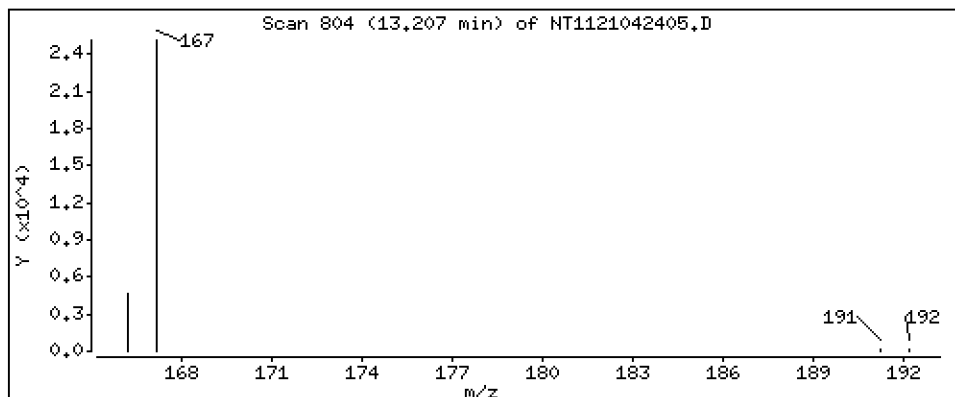
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Carbazole

Concentration: 57,5 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

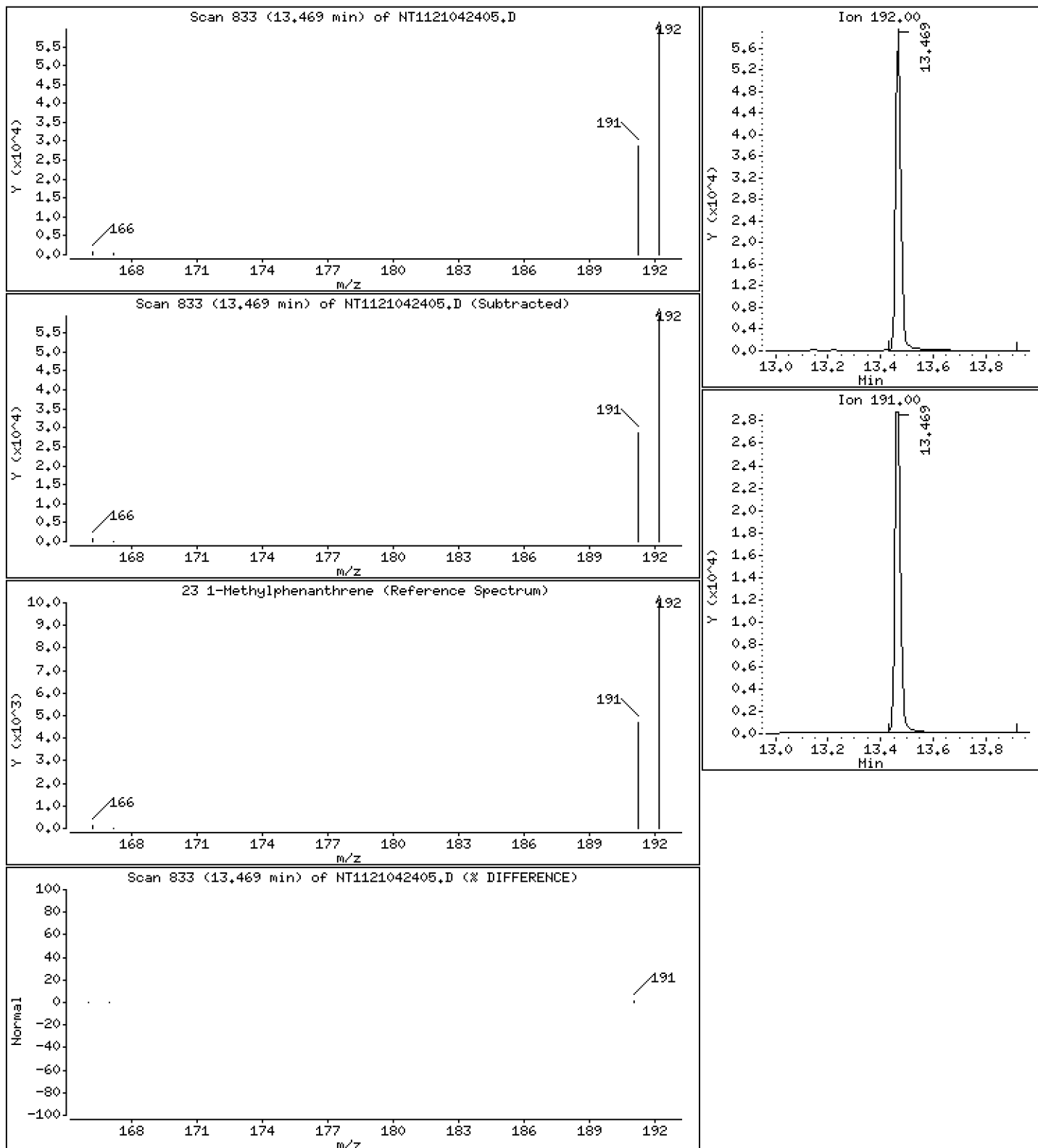
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 1-Methylphenanthrene

Concentration: 141 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

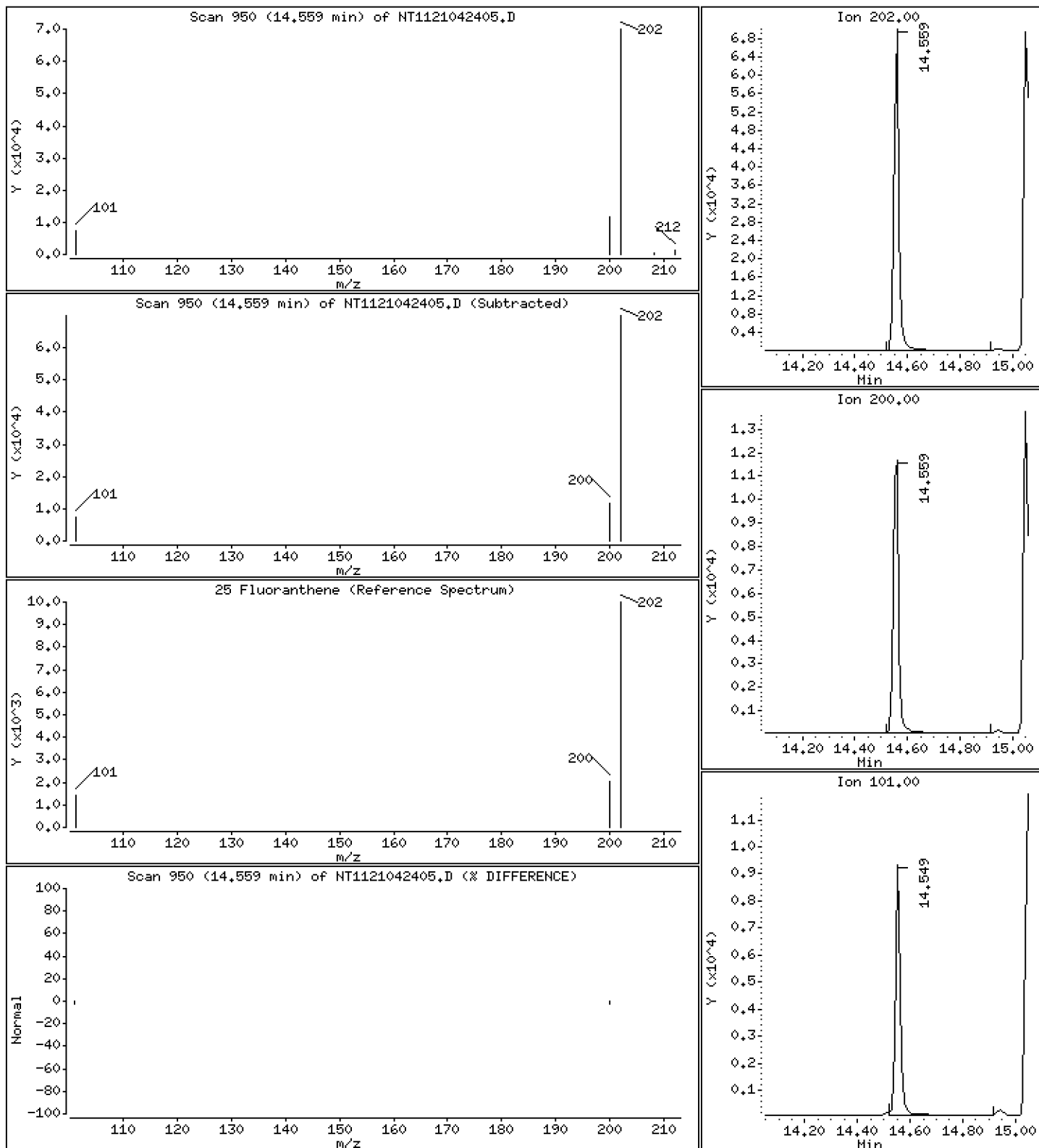
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

25 Fluoranthene

Concentration: 147 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

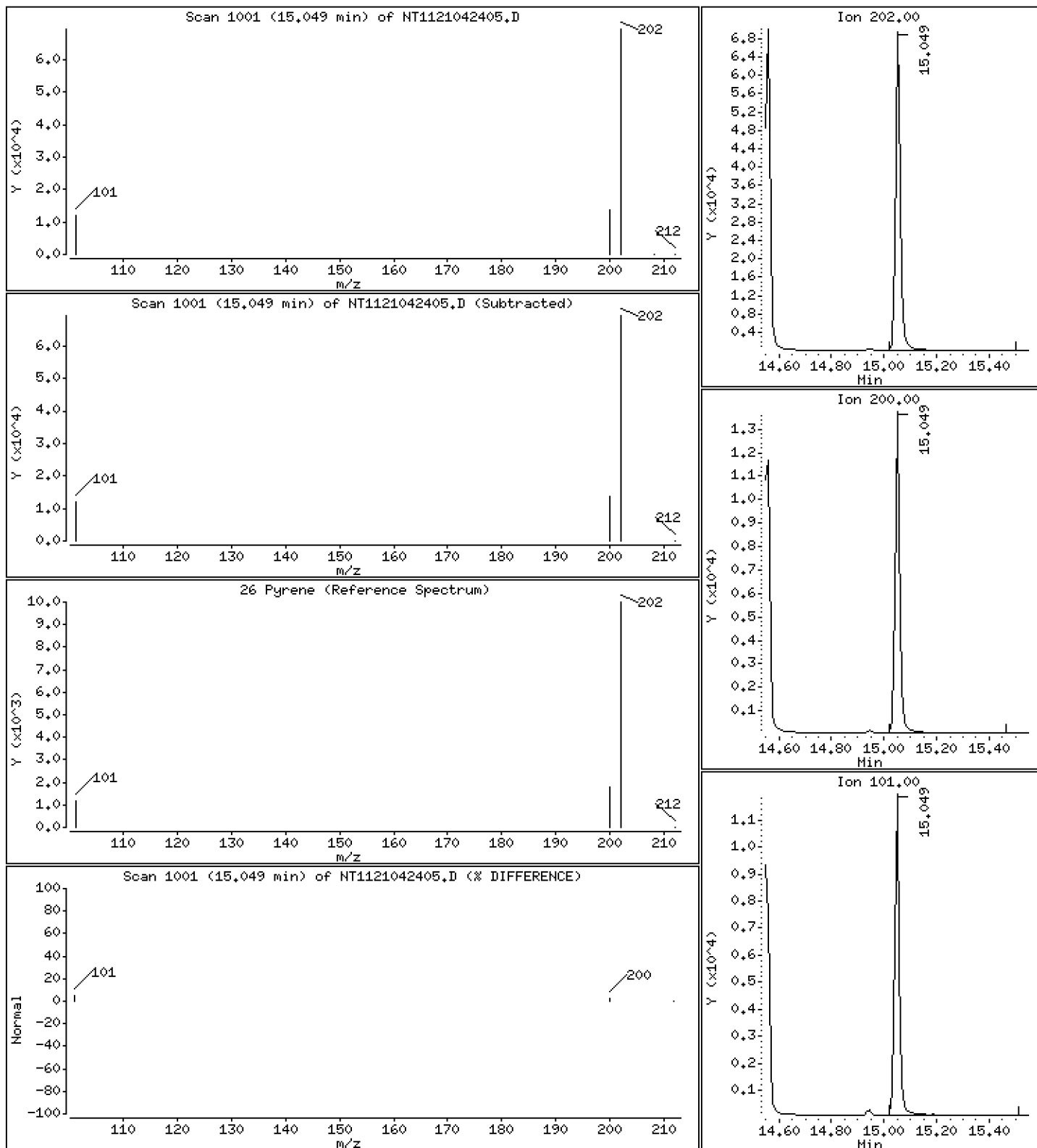
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Pyrene

Concentration: 148 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

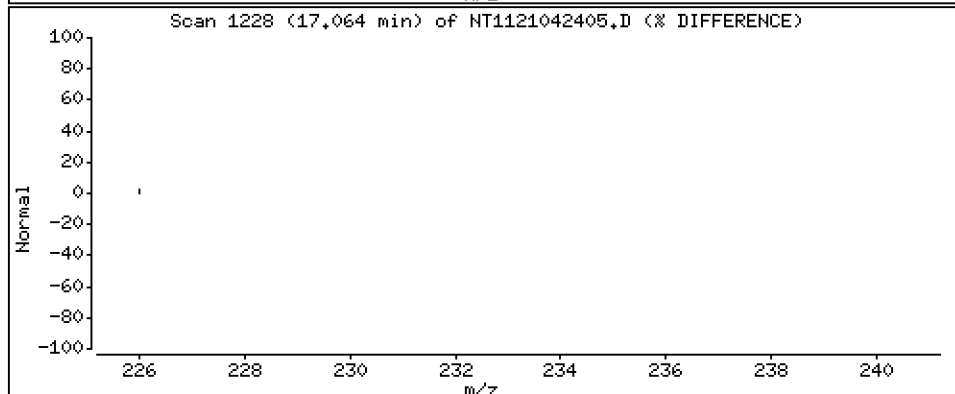
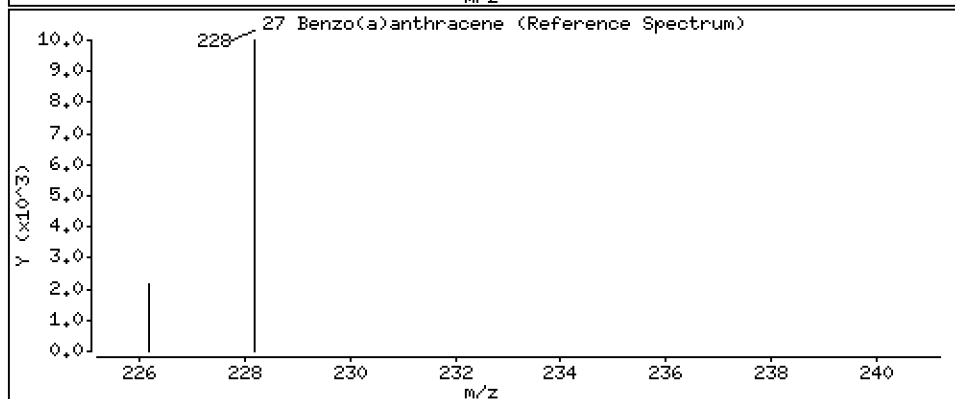
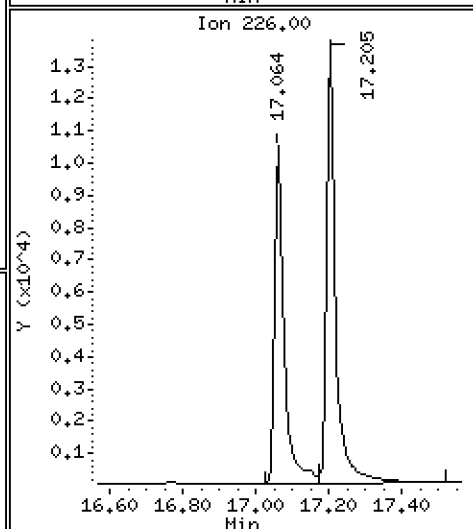
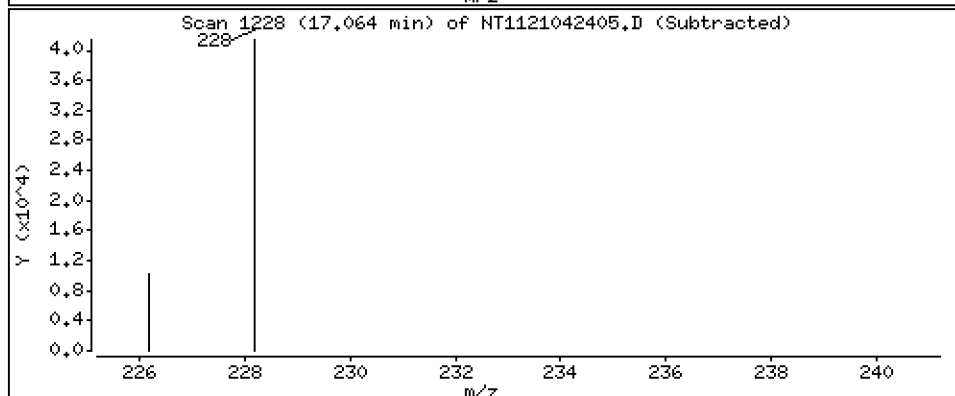
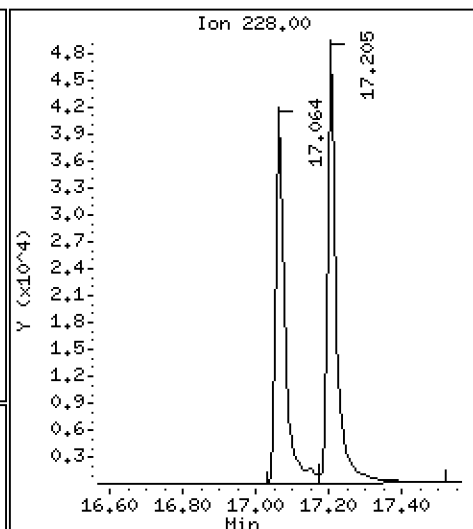
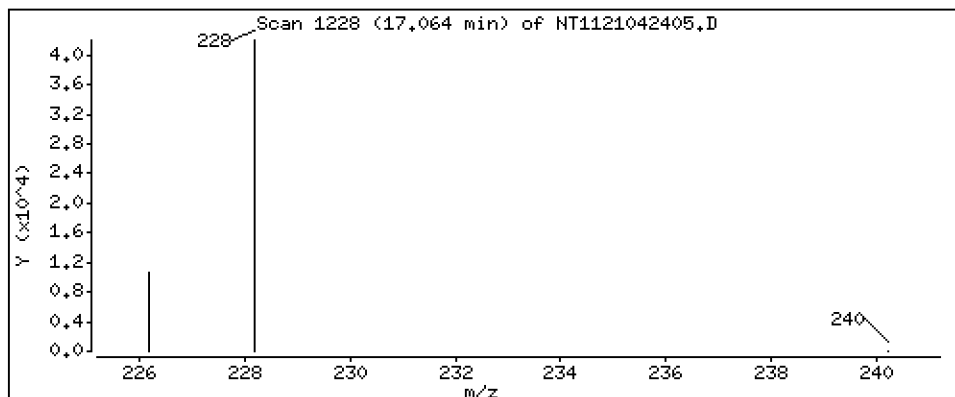
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

27 Benzo(a)anthracene

Concentration: 147 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

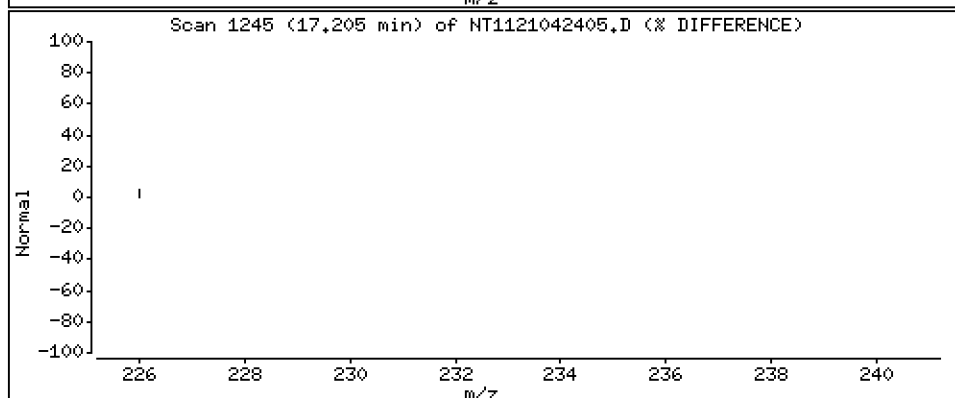
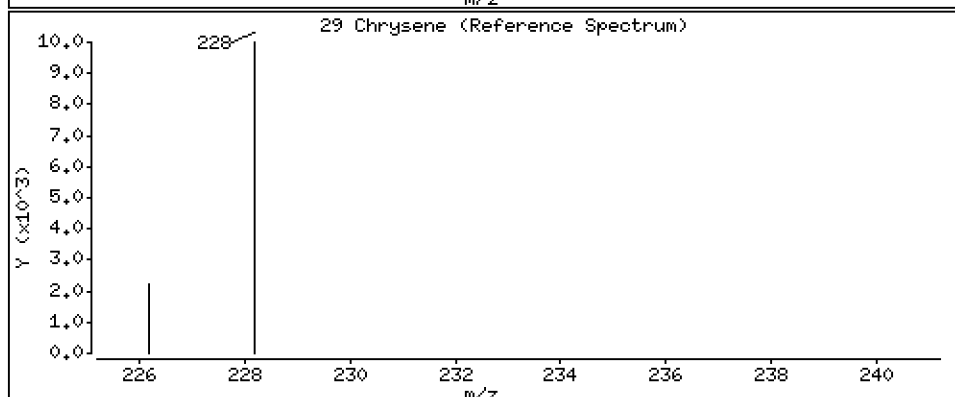
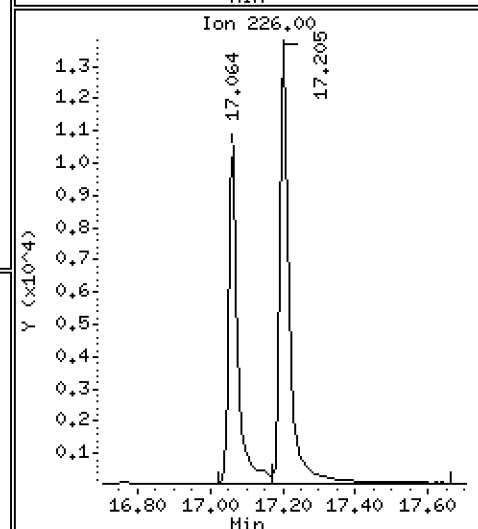
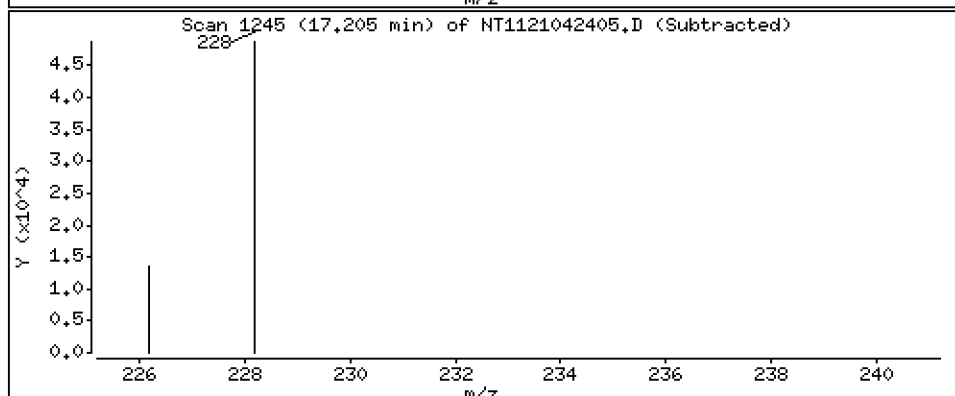
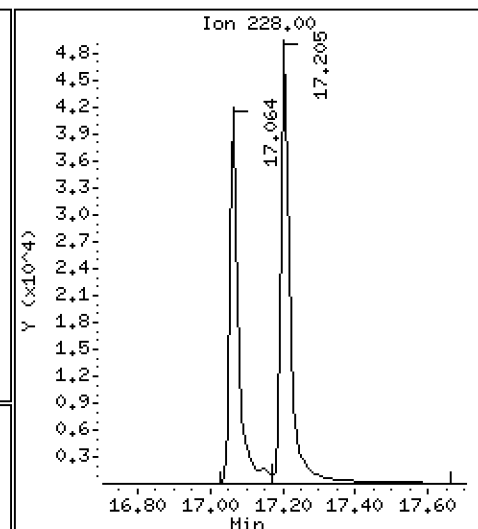
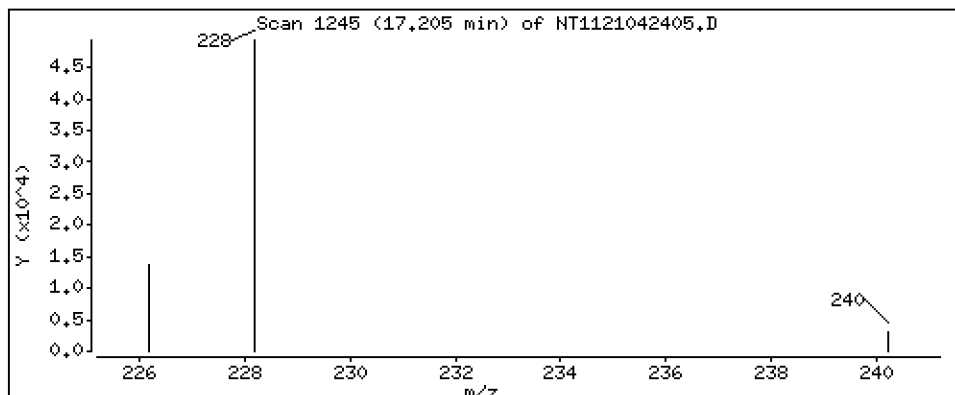
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

29 Chrysene

Concentration: 155 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

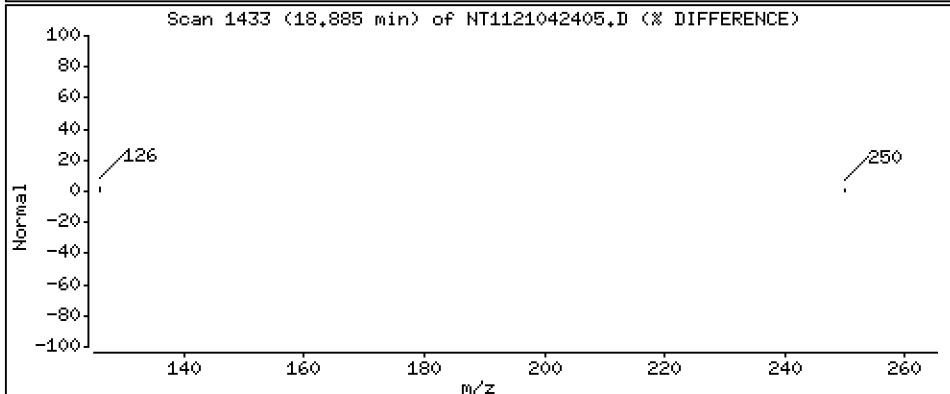
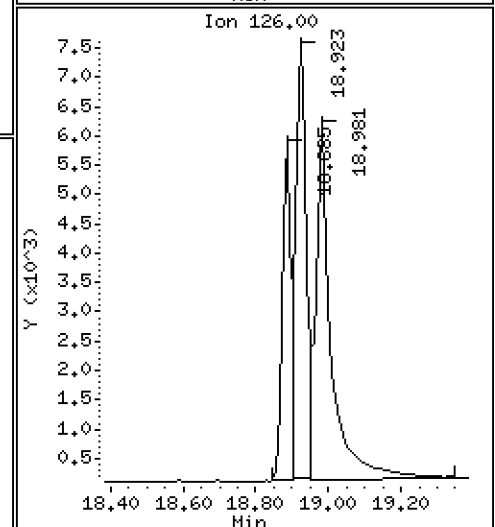
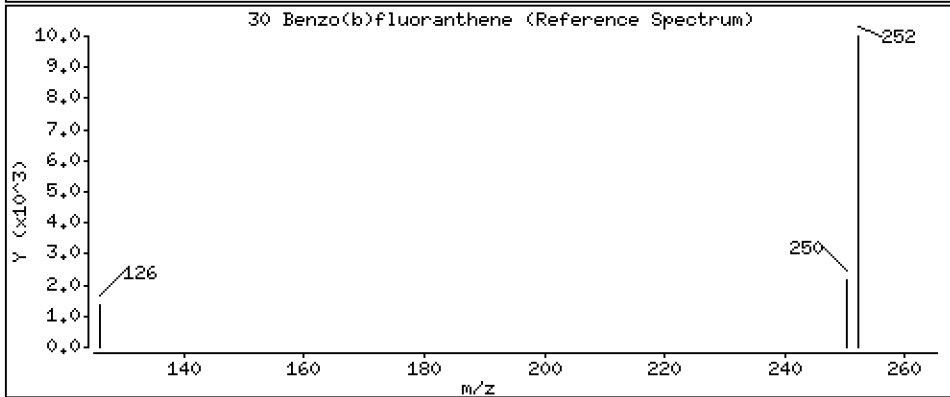
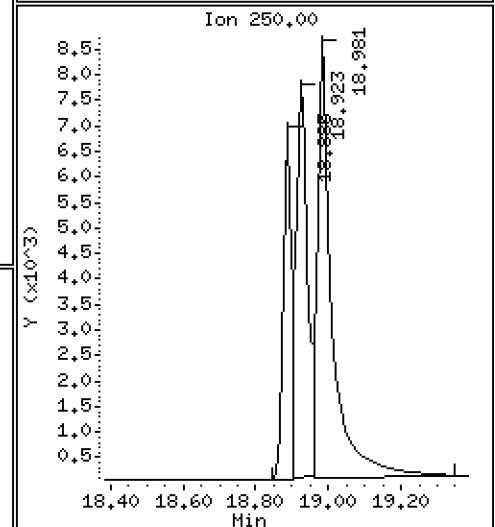
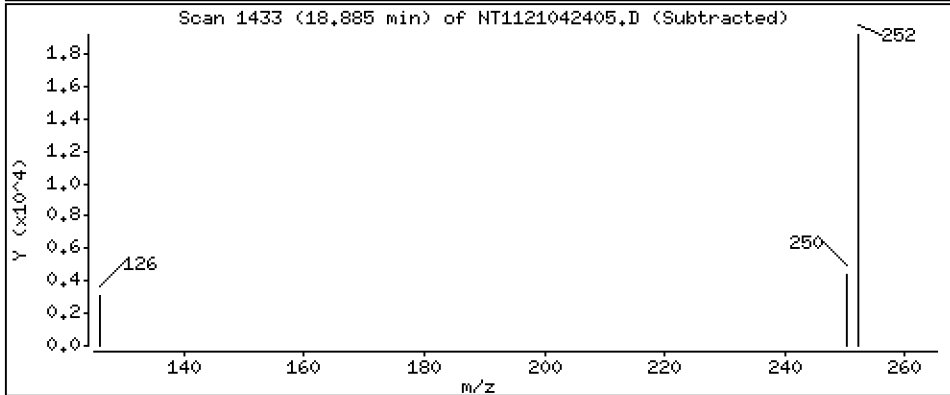
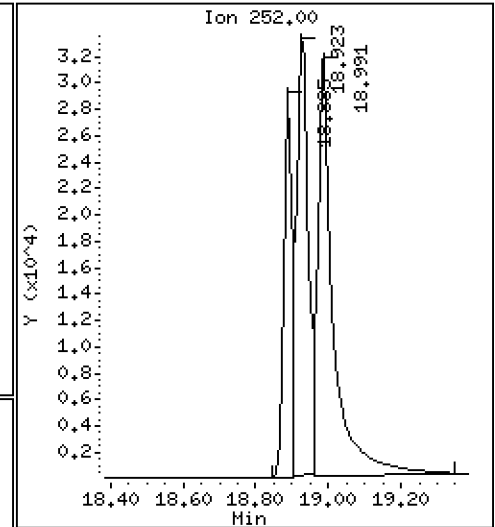
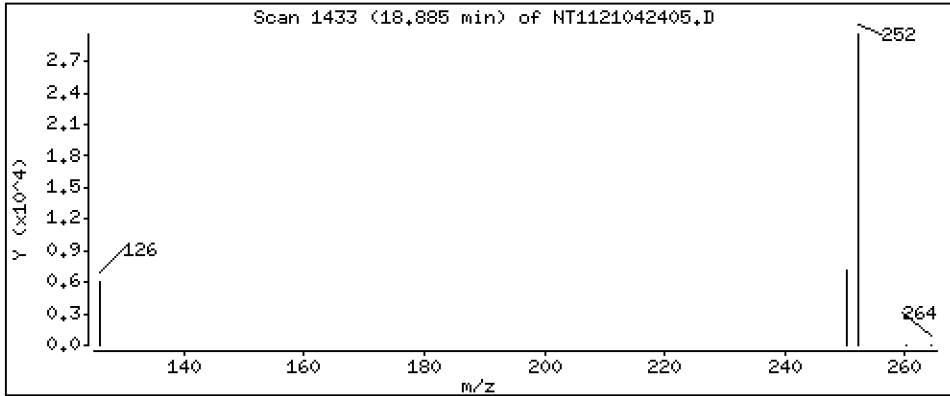
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Benzo(b)fluoranthene

Concentration: 126 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

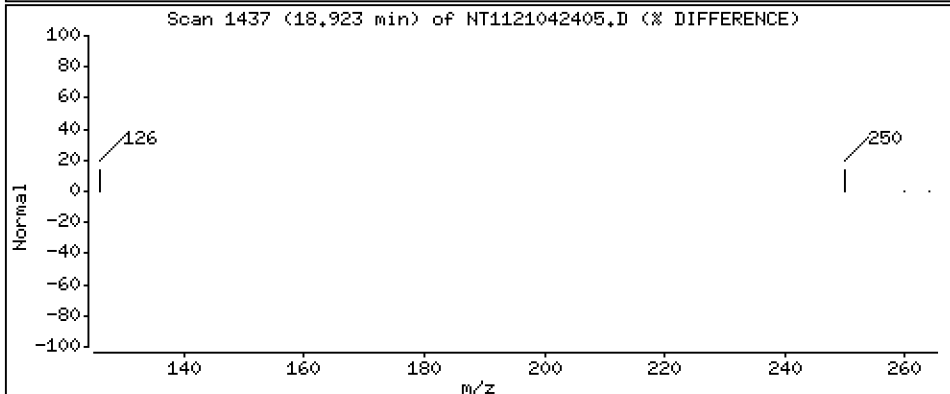
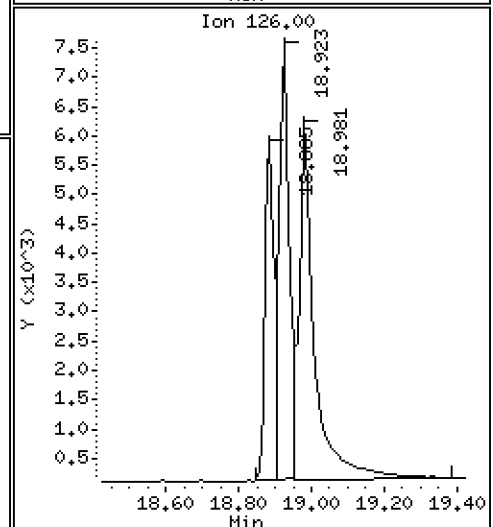
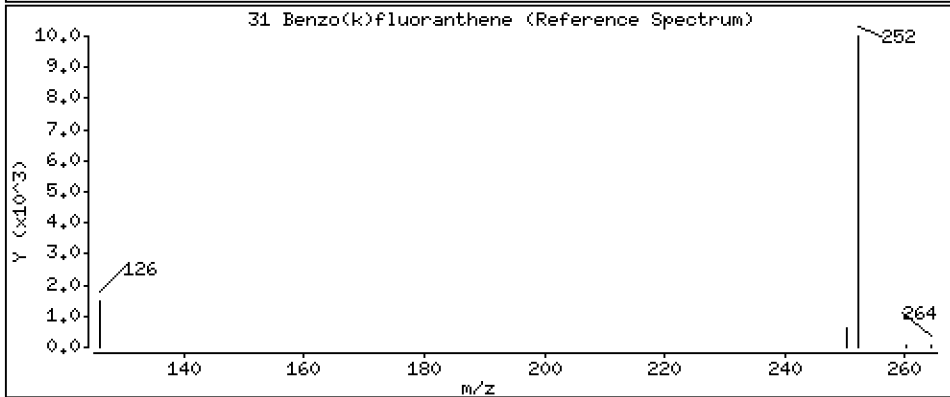
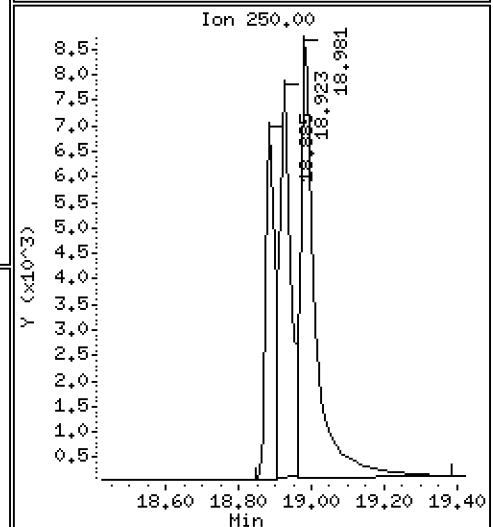
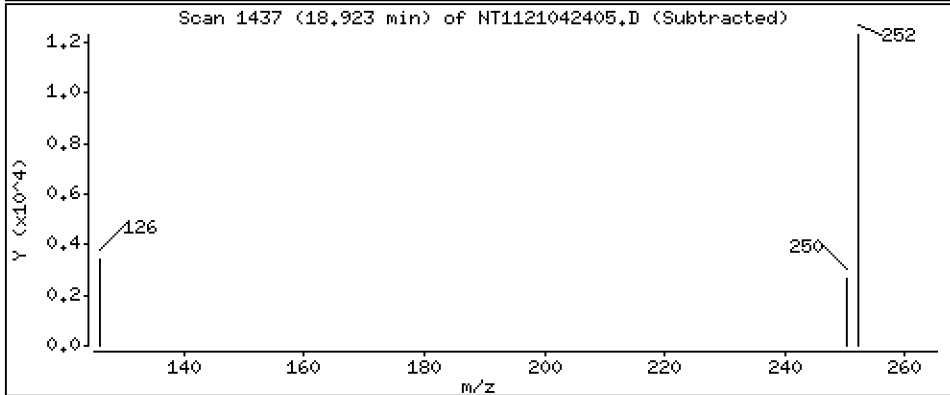
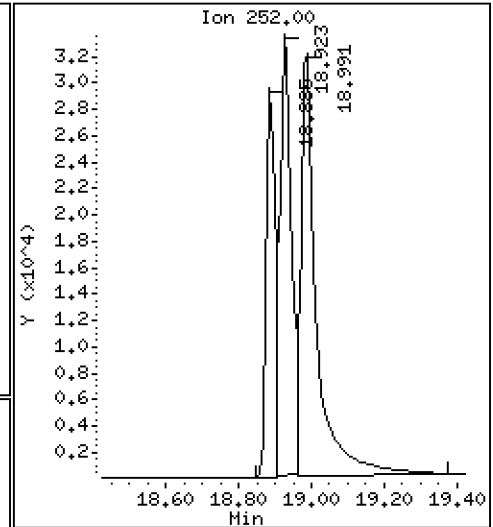
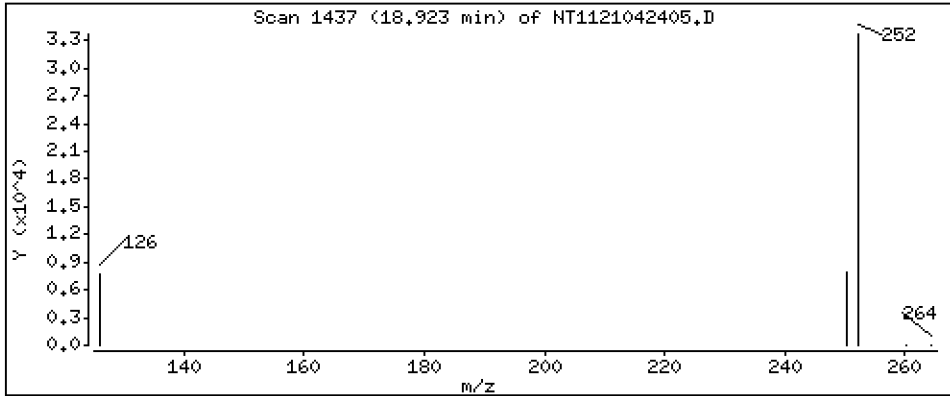
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

31 Benzo(k)fluoranthene

Concentration: 158 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

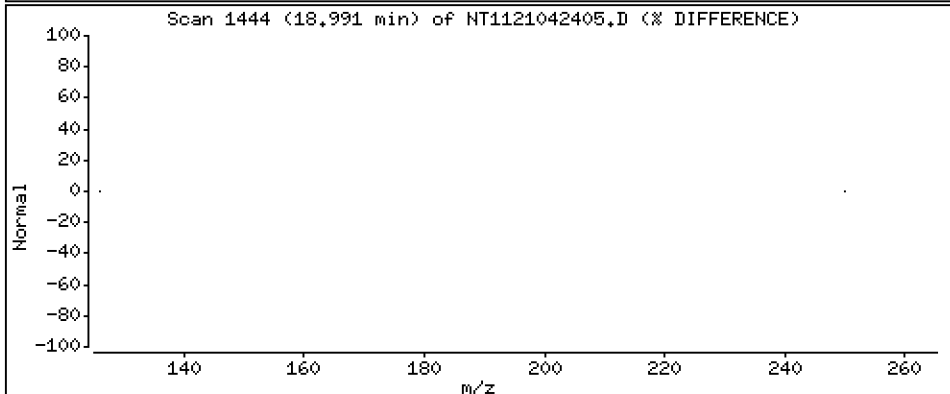
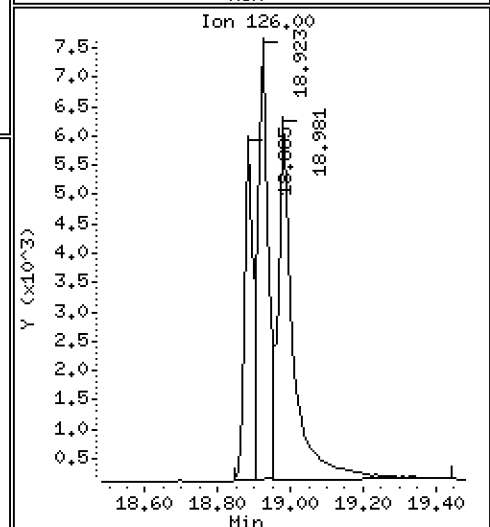
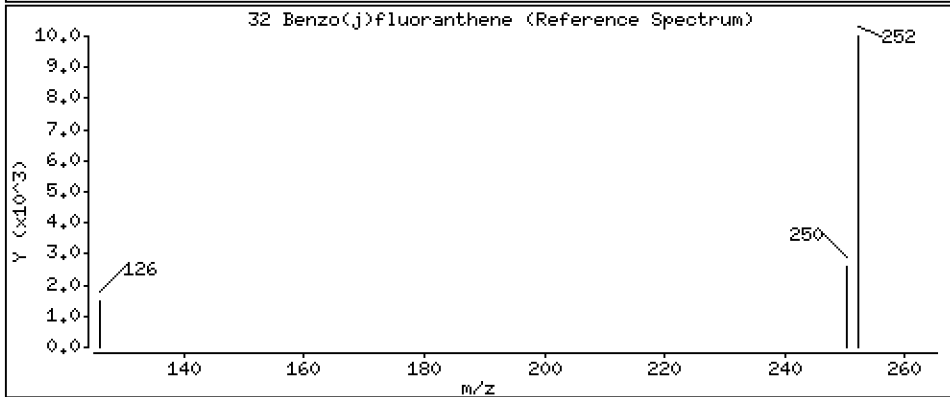
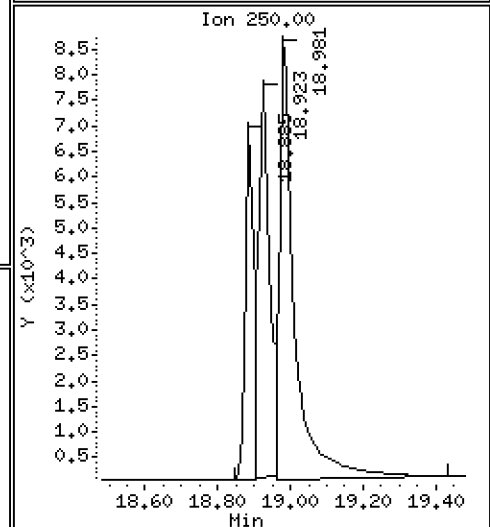
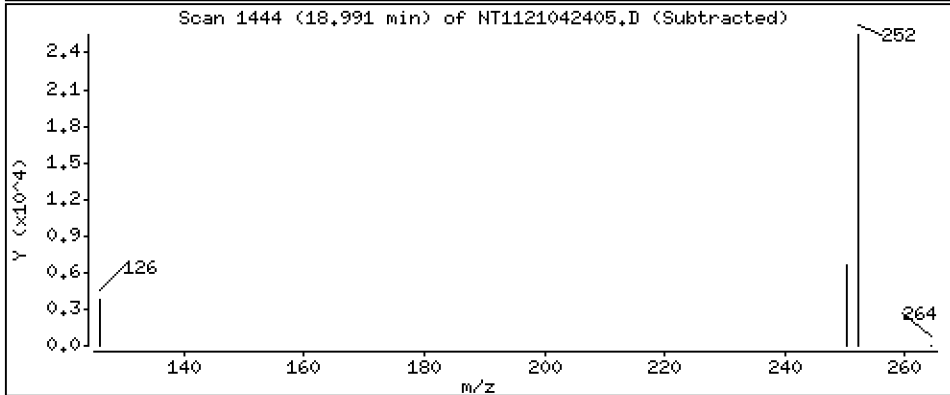
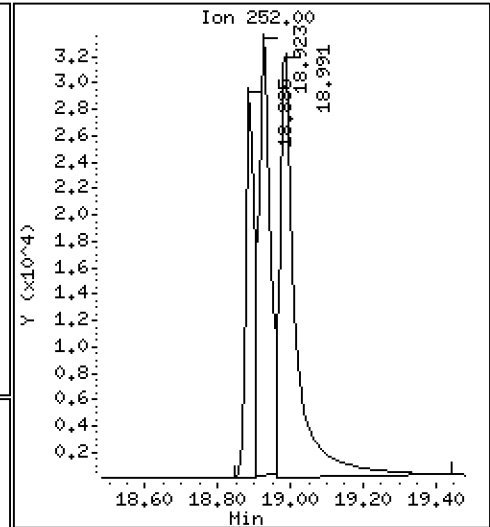
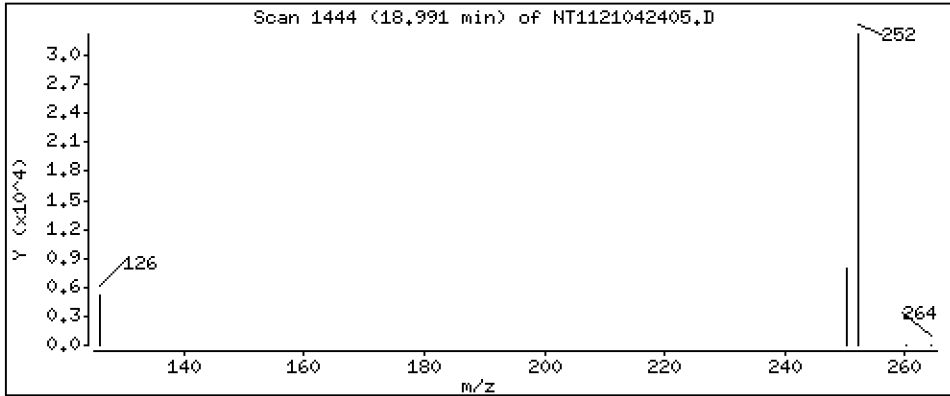
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

32 Benzo(j)fluoranthene

Concentration: 177 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

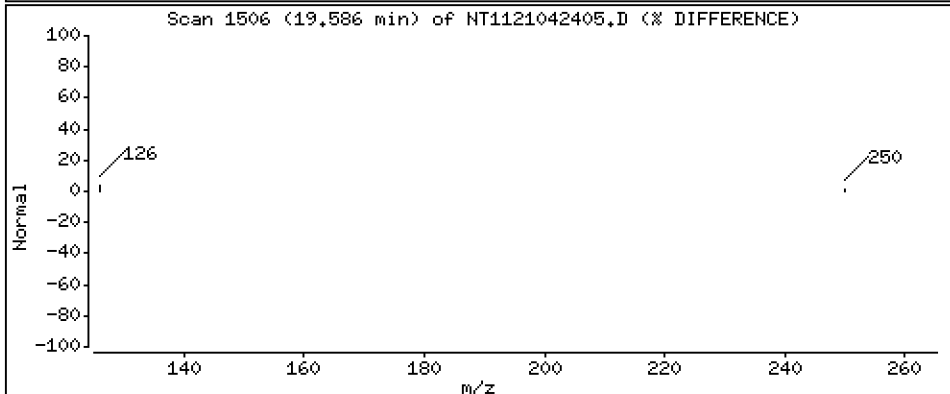
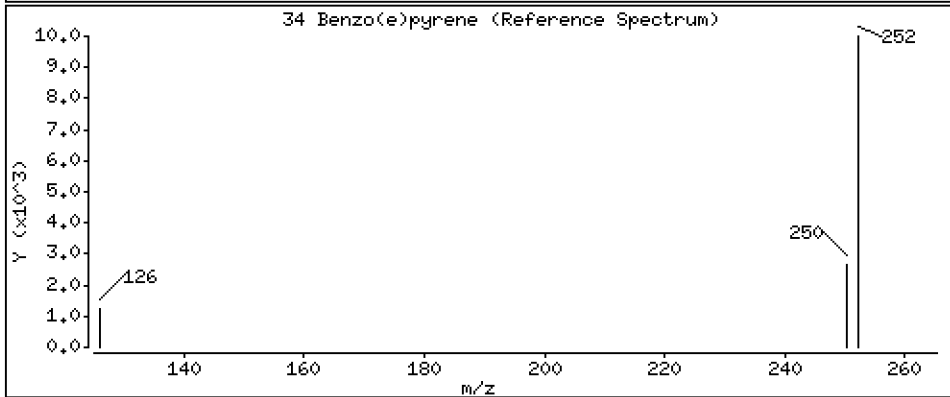
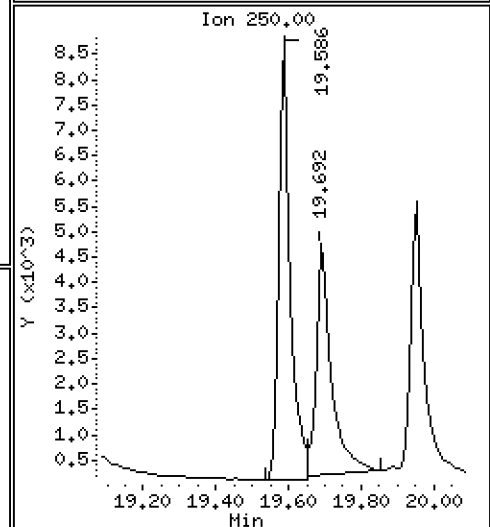
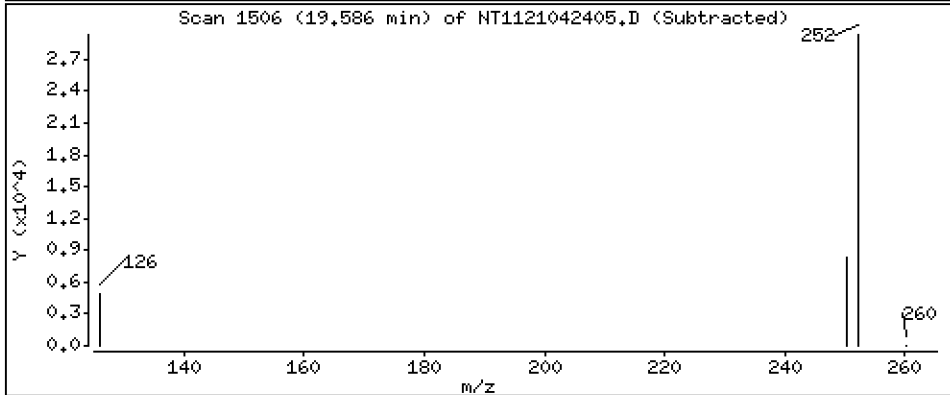
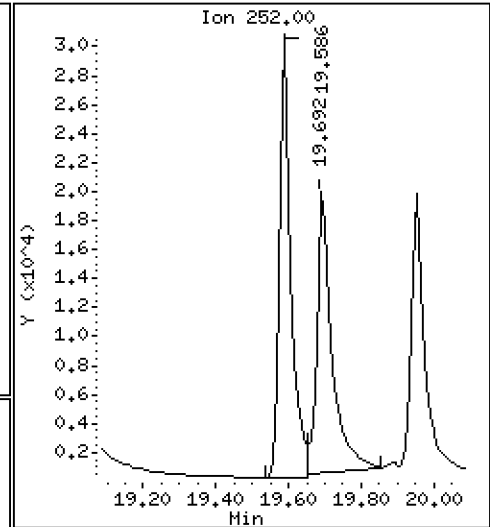
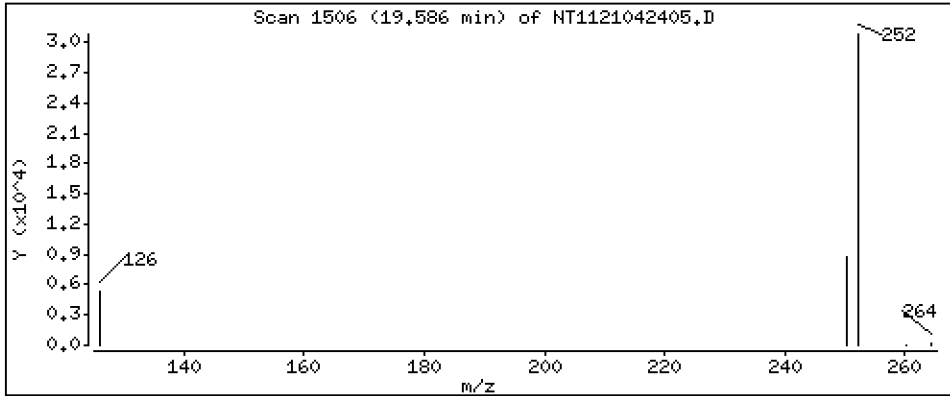
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

34 Benzo(e)pyrene

Concentration: 150 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

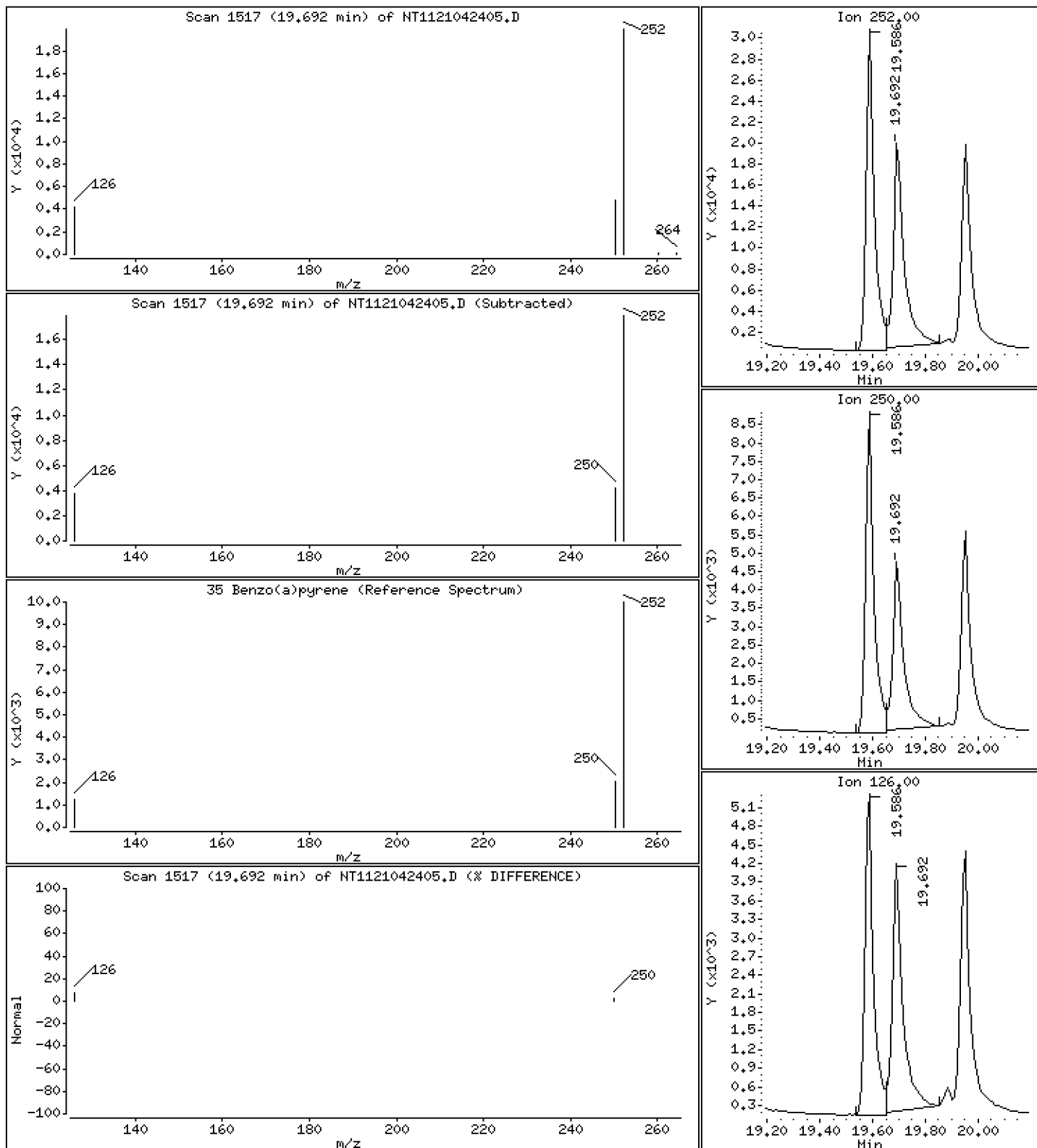
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

35 Benzo(a)pyrene

Concentration: 133 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

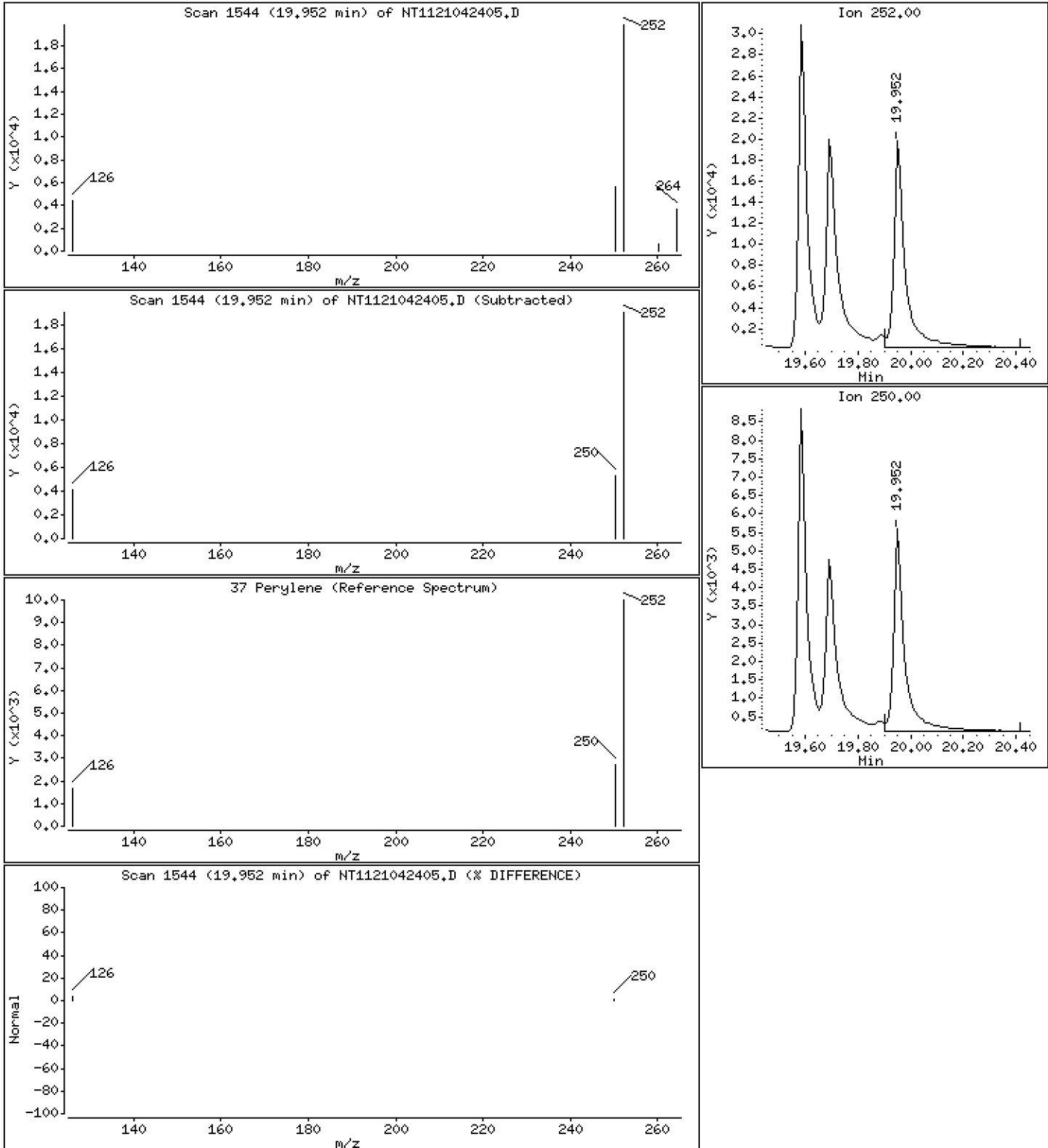
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

37 Perylene

Concentration: 123 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

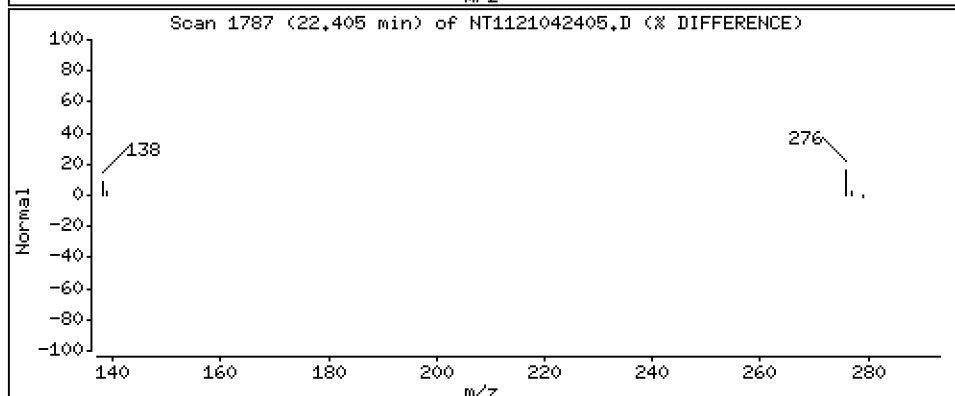
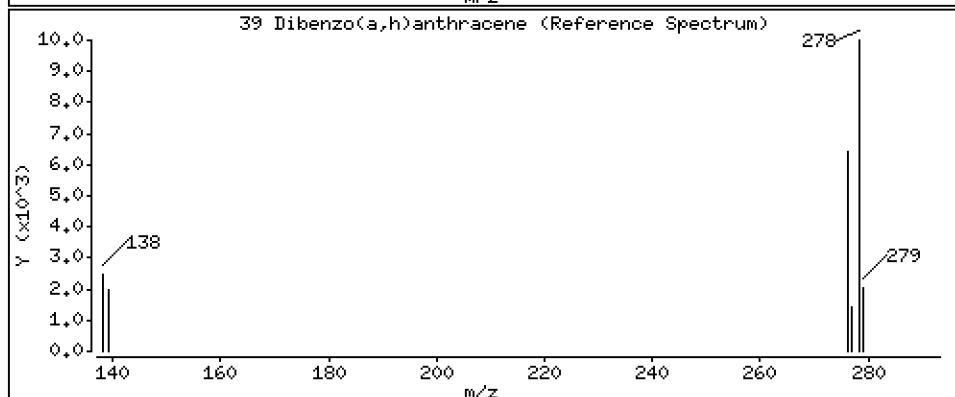
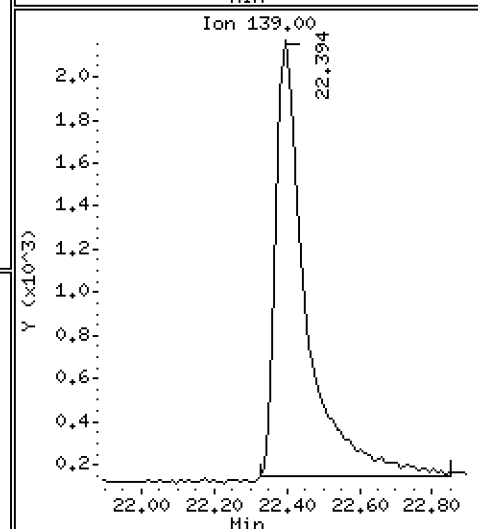
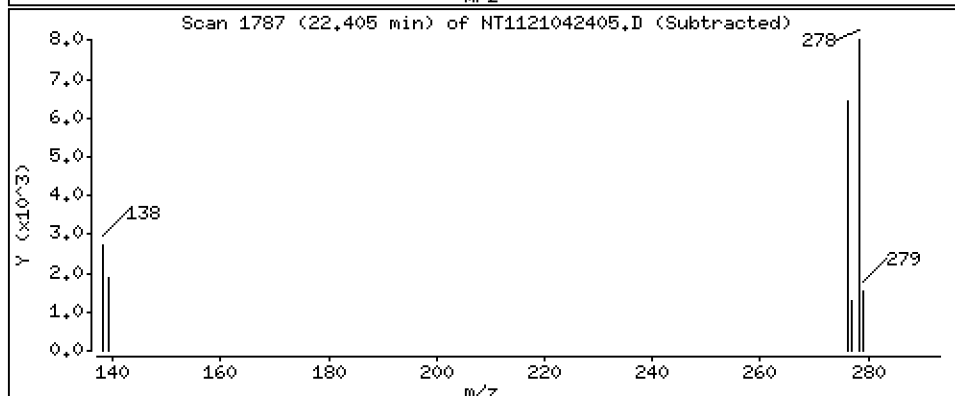
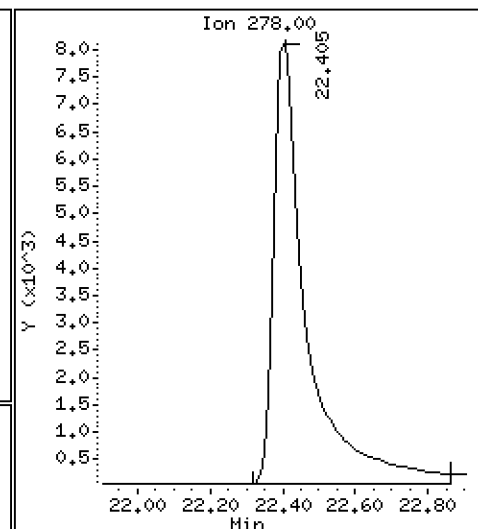
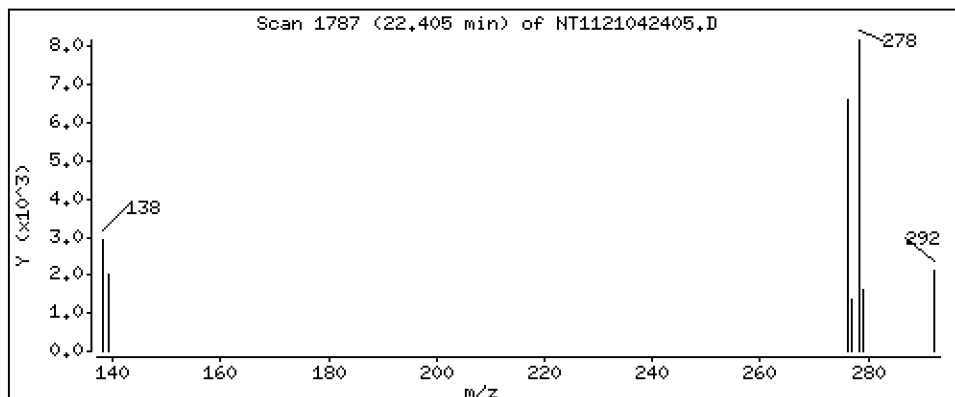
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

39 Dibenzo(a,h)anthracene

Concentration: 144 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

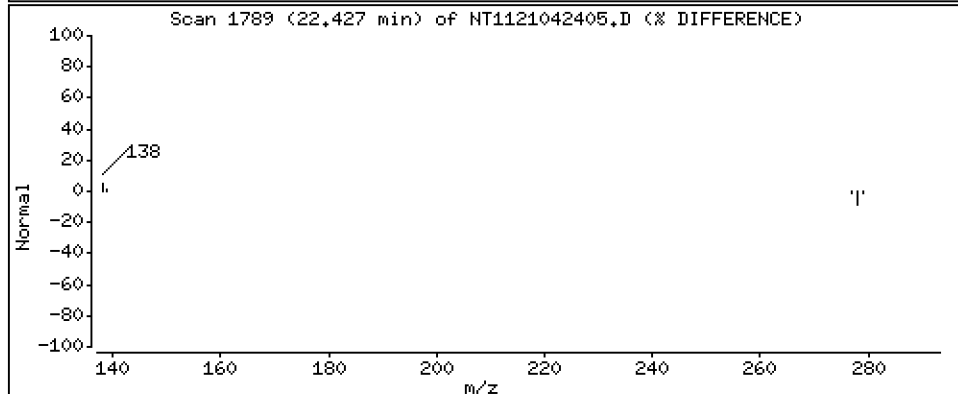
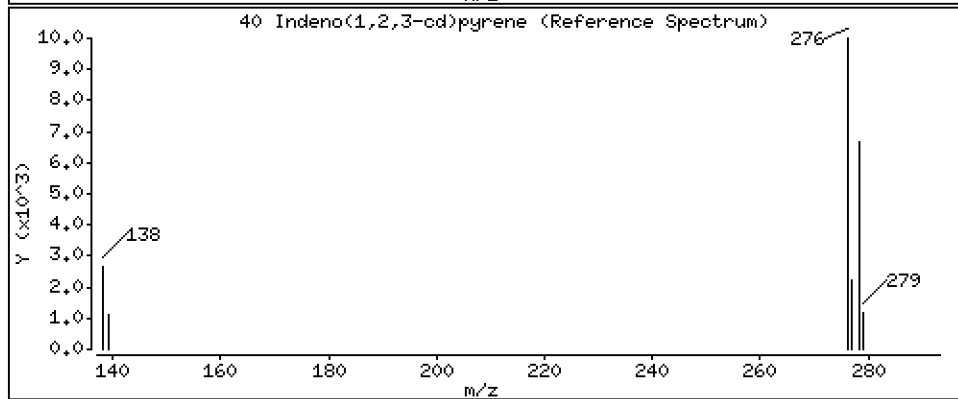
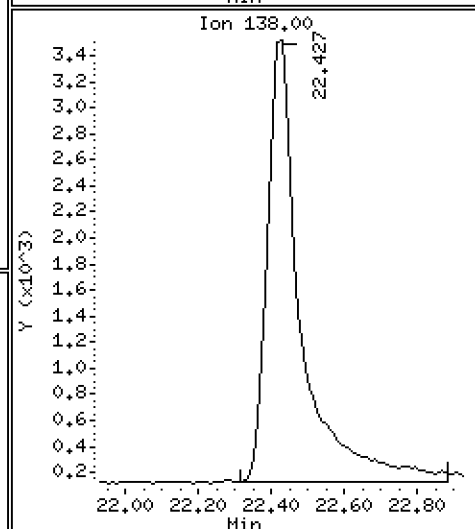
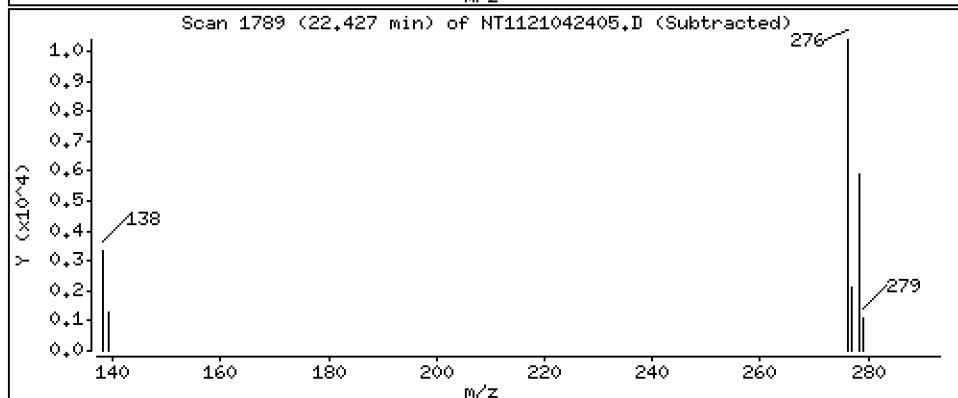
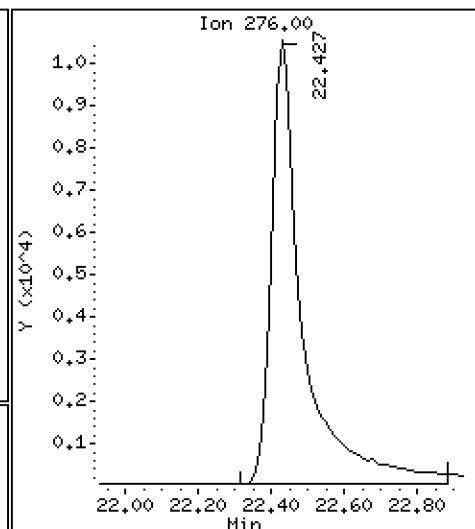
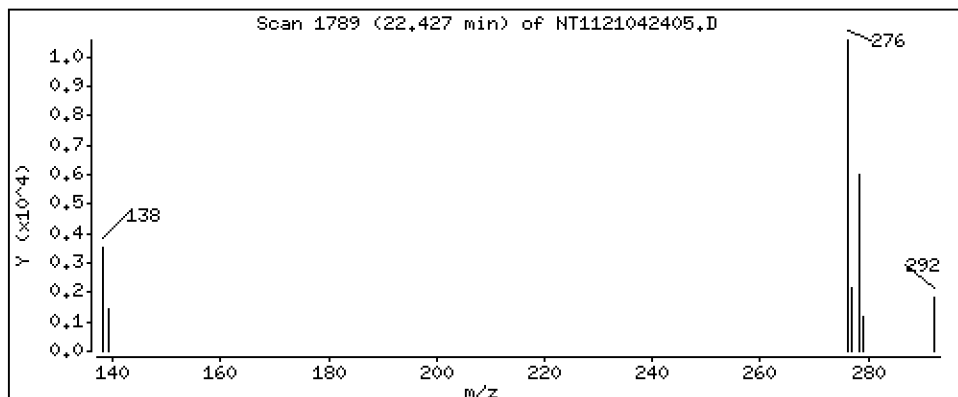
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

40 Indeno(1,2,3-cd)pyrene

Concentration: 152 ng/mL



Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

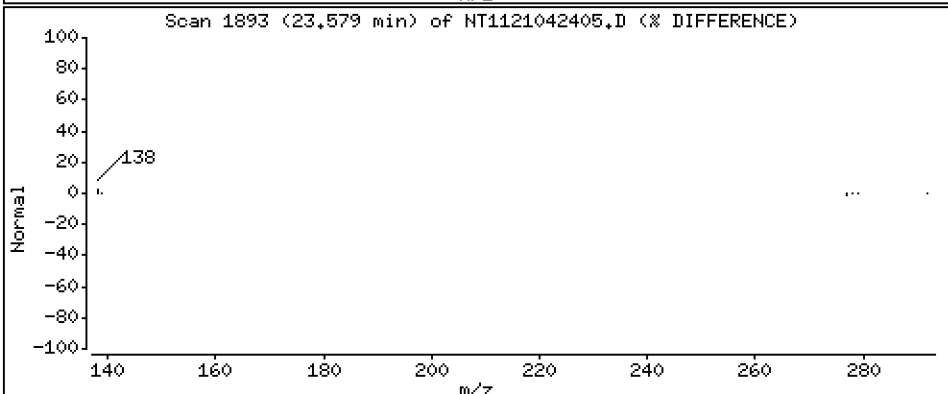
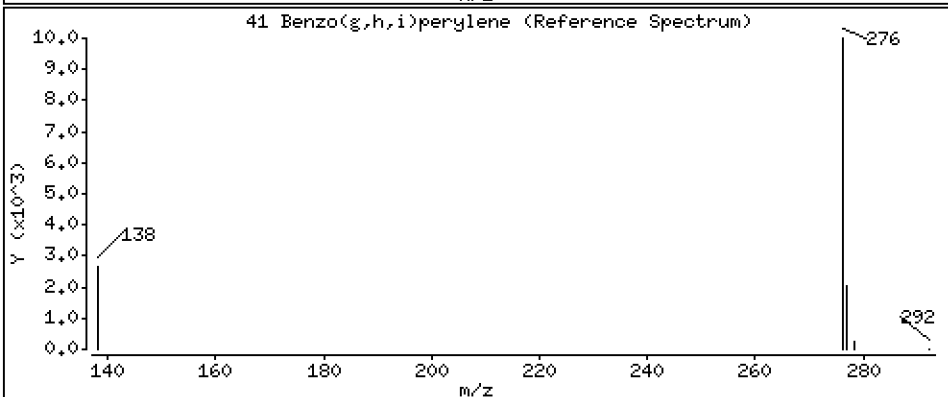
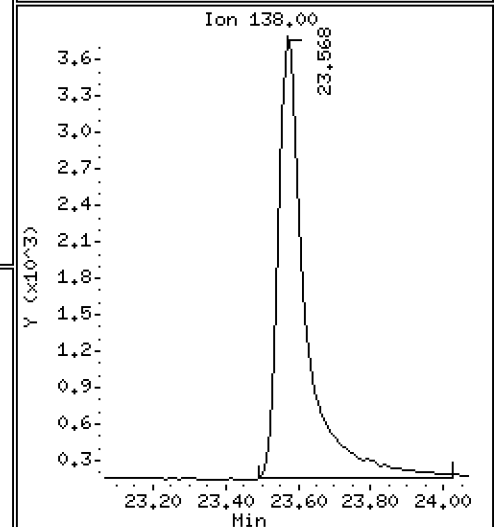
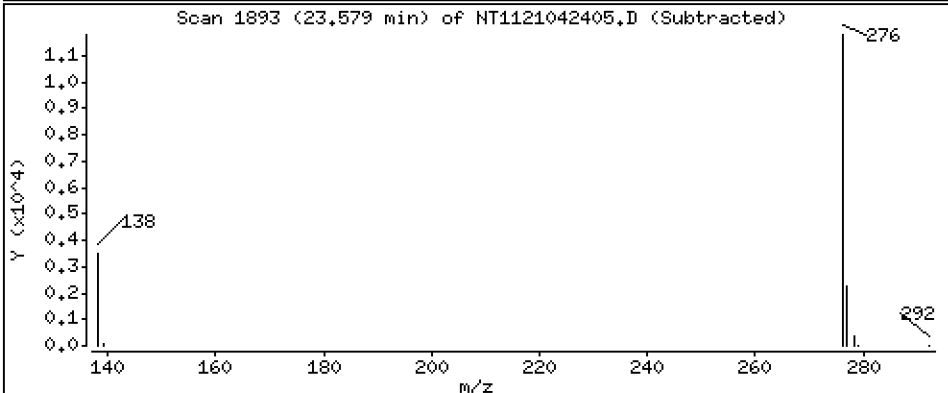
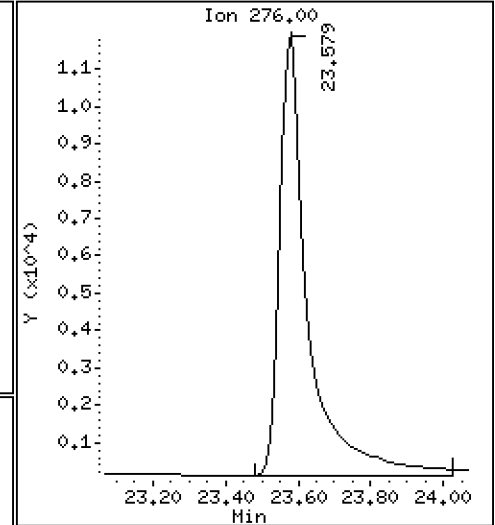
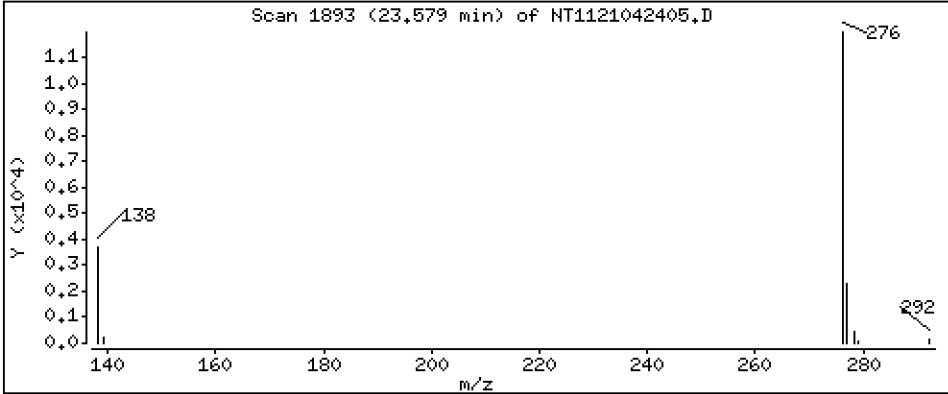
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

41 Benzo(g,h,i)perylene

Concentration: 154 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20210424.b\NT1121042405.D
 Lab Smp Id: BJD0479-BS1
 Inj Date : 24-APR-2021 11:51 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : BJD0479-BS1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20210424.b\lowsim.m
 Meth Date : 24-Apr-2021 10:50 van Quant Type: ISTD
 Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
 Als bottle: 5
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PAH.sub
 Target Version: 4.14
 Processing Host: VANS-202011

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		6.759	6.768	(1.000)	121416	200.000	
2 Naphthalene	128		6.795	6.795	(1.005)	80433	114.094	114
3 Benzo(b)thiophene	134		7.048	7.048	(1.043)	62868	113.039	113
\$ 4 2-Methylnaphthalene-d10	152		7.728	7.738	(1.143)	63150	129.352	129
5 2-Methylnaphthalene	142		7.791	7.791	(1.153)	67379	118.560	119
6 1-Methylnaphthalene	142		8.043	8.043	(1.190)	65982	124.898	125
7 2-Chloronaphthalene	162		8.694	8.694	(0.891)	61254	108.506	109
8 Biphenyl	154		8.663	8.663	(0.888)	78737	104.753	105
9 2,6-Dimethylnaphthalene	156		8.715	8.715	(0.893)	60124	107.808	108
10 Acenaphthylene	152		9.607	9.607	(0.984)	75078	100.953	101
* 11 Acenaphthene-d10	164		9.761	9.761	(1.000)	64822	200.000	
12 Acenaphthene	153		9.824	9.824	(1.006)	52432	106.599	107
13 Dibenzofuran	168		10.023	10.023	(1.027)	70185	106.896	107
14 2,3,5-Trimethylnaphthalene	170		10.124	10.124	(1.037)	46940	116.235	116
16 Fluorene	166		10.642	10.642	(1.090)	59300	117.250	117
17 Dibenzothiophene	184		12.260	12.260	(0.986)	64655	118.052	118
* 18 Phenanthrene-d10	188		12.428	12.428	(1.000)	98925	200.000	
19 Phenanthrene	178		12.470	12.470	(1.003)	87103	134.599	135
21 Anthracene	178		12.523	12.523	(1.008)	81657	126.288	126
22 Carbazole	167		13.206	13.206	(1.063)	39594	57.4662	57.5
23 1-Methylphenanthrene	192		13.468	13.469	(1.084)	80534	140.884	141
\$ 24 Fluoranthene-d10	212		14.520	14.520	(1.168)	79619	153.513	154
25 Fluoranthene	202		14.558	14.558	(1.171)	95156	147.488	147
26 Pyrene	202		15.048	15.048	(1.211)	97845	147.825	148
27 Benzo(a)anthracene	228		17.064	17.064	(0.995)	72423	146.923	147
* 28 Chrysene-d12	240		17.155	17.155	(1.000)	67104	200.000	
29 Chrysene	228		17.205	17.205	(1.003)	85981	154.910	155
30 Benzo(b)fluoranthene	252		18.884	18.885	(0.949)	51145	126.027	126
31 Benzo(k)fluoranthene	252		18.923	18.923	(0.951)	84030	157.581	158
32 Benzo(j)fluoranthene	252		18.990	18.981	(0.955)	101712	176.501	177
34 Benzo(e)pyrene	252		19.586	19.586	(0.985)	69017	150.178	150
35 Benzo(a)pyrene	252		19.692	19.692	(0.990)	56468	133.225	133
* 36 Perylene-d12	264		19.893	19.893	(1.000)	74558	200.000	

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
37 Perylene	252		19.951	19.951	(1.003)	59172	122.534	123
\$ 38 Dibenzo(a,h)anthracene-d14	292		22.283	22.283	(1.120)	43887	151.500	152
39 Dibenzo(a,h)anthracene	278		22.405	22.405	(1.126)	50131	144.352	144
40 Indeno(1,2,3-cd)pyrene	276		22.427	22.427	(1.127)	62551	151.969	152
41 Benzo(g,h,i)perylene	276		23.579	23.568	(1.185)	63535	154.381	154

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 24-APR-2021
 Lab File ID: NT1121042405.D Calibration Time: 10:14
 Lab Smp Id: BJD0479-BS1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20210424.b\lowsim.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	134531	67266	269062	121416	-9.75
11 Acenaphthene-d10	76981	38491	153962	64822	-15.79
18 Phenanthrene-d10	116022	58011	232044	98925	-14.74
28 Chrysene-d12	83386	41693	166772	67104	-19.53
36 Perylene-d12	98043	49022	196086	74558	-23.95

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.77	6.27	7.27	6.76	-0.13
11 Acenaphthene-d10	9.76	9.26	10.26	9.76	-0.00
18 Phenanthrene-d10	12.43	11.93	12.93	12.43	-0.00
28 Chrysene-d12	17.16	16.66	17.66	17.16	-0.00
36 Perylene-d12	19.89	19.39	20.39	19.89	-0.00

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.

REVIEW SUMMARY FOR FILE - NT1121042405.D

Lab ID: BJD0479-BS1
nt11.i, 20210424.b\lowsim.m, 24-APR-2021 11:51

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1121042402.D

On Column LOD for nt11.i, 20210424.b\lowsim.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *



LCS / LCS DUPLICATE RECOVERY
EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor QEA, LLC

Project: Gasco Siltronic - US Moorings

Matrix: Solid

Analyzed: 05/02/21 02:00

Batch: BJD0507

Laboratory ID: BJD0507-BS1

Preparation: EPA 3546 (Microwave)

Sequence Name: LCS

Initial/Final: 10 g / 0.5 mL

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
trans-Decalin	150	82.3		54.8	30 - 160
cis-Decalin	150	86.8		57.9	30 - 160
Naphthalene	150	98.0		65.3	37 - 120
1-Methylnaphthalene	150	102		68.3	30 - 160
2-Methylnaphthalene	150	102		67.9	37 - 120
Biphenyl	150	103		68.8	30 - 160
2,6-Dimethylnaphthalene	150	107		71.5	30 - 160
Acenaphthylene	150	114	Q	76.1	35 - 120
Acenaphthene	150	116		77.2	39 - 120
Dibenzofuran	150	111		73.8	39 - 120
2,3,5-Trimethylnaphthalene	150	121	Q	80.6	30 - 160
Fluorene	150	118		78.6	42 - 120
Benzo(b)thiophene	150	98.1		65.4	30 - 160
Phenanthrene	150	106		70.6	47 - 120
Anthracene	150	105		69.9	41 - 120
Carbazole	150	121		80.5	30 - 160
1-Methylphenanthrene	150	125		83.1	30 - 160
Fluoranthene	150	123		81.9	52 - 120
Dibenzothiophene	150	119		79.5	30 - 160
Pyrene	150	123		82.1	47 - 120
Benzo(a)anthracene	150	112		74.5	47 - 120
Chrysene	150	116		77.4	51 - 120
Benzo(b)fluoranthene	150	118		78.6	35 - 127
Benzo(j)fluoranthene	150	126		84.0	40 - 120
Benzo(k)fluoranthene	150	114		75.7	37 - 129
Benzo(e)pyrene	150	122		81.3	30 - 160
Benzo(a)pyrene	150	113		75.2	44 - 120
Indeno(1,2,3-cd)pyrene	150	119		79.5	41 - 120
Dibenzo(a,h)anthracene	150	116		77.5	42 - 120
Benzo(g,h,i)perylene	150	133		88.5	37 - 120
Perylene	150	122		81.5	30 - 160
Benzo(b)naphtho(2,1-d)thiophene	150	98.6		65.7	30 - 160

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt14.1\20210430D.6\NT1421043054.D

Date: 02-MAY-2021 02:00

Client ID:

Sample Info: BJD0507-BS1

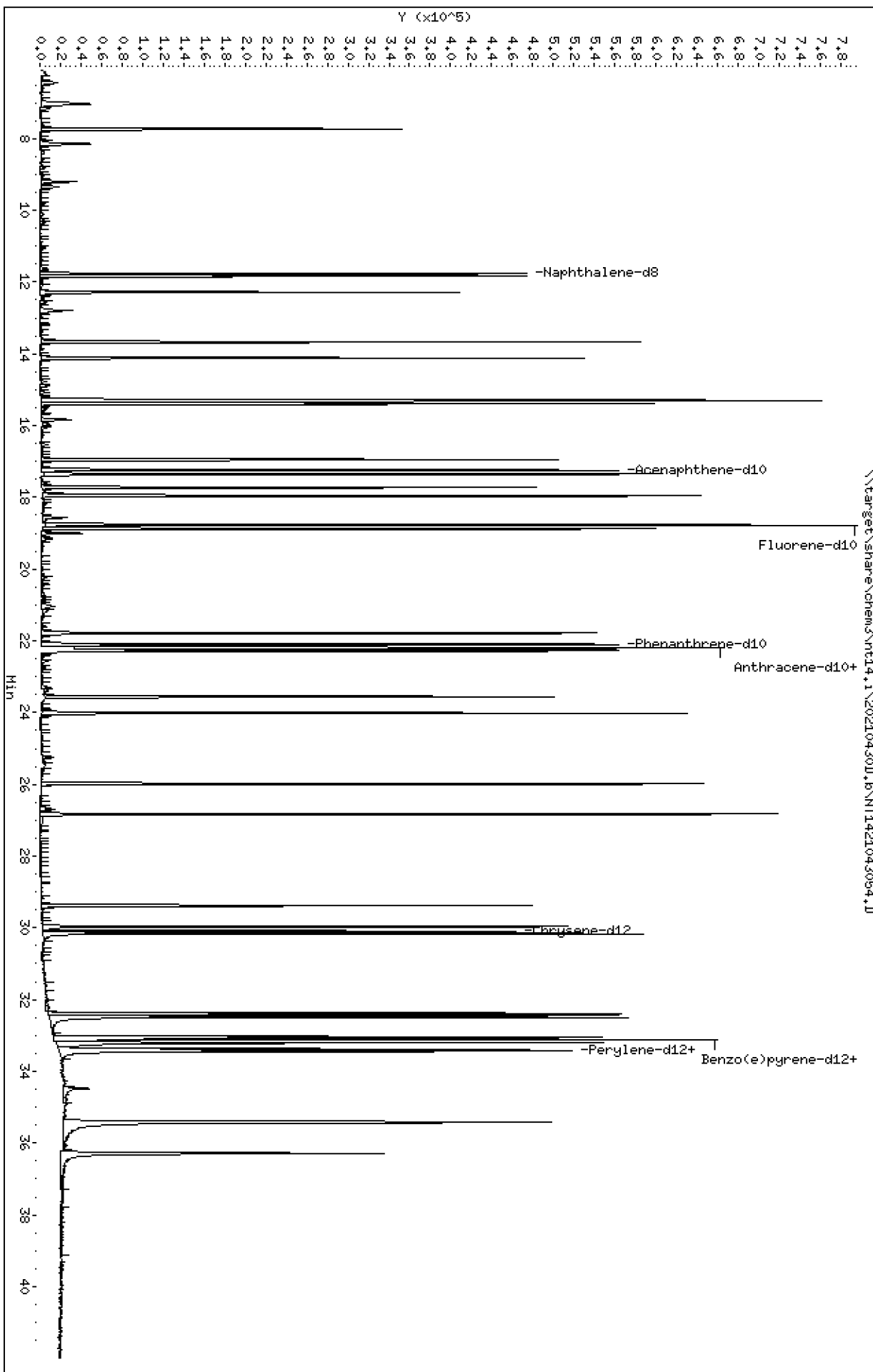
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

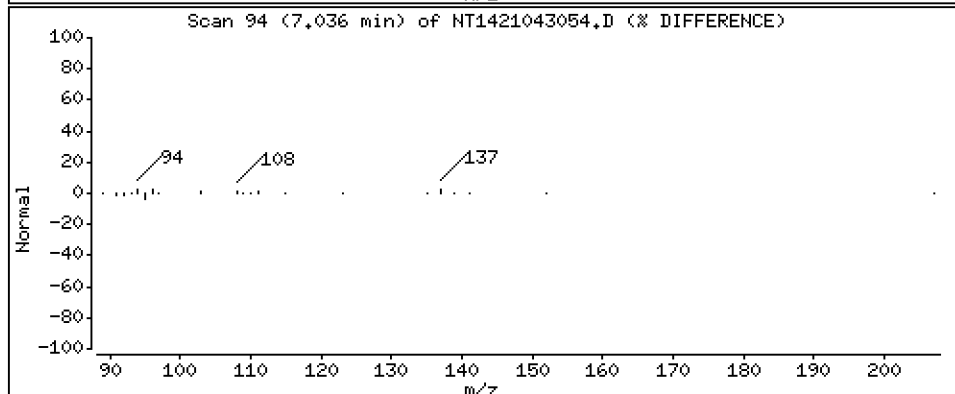
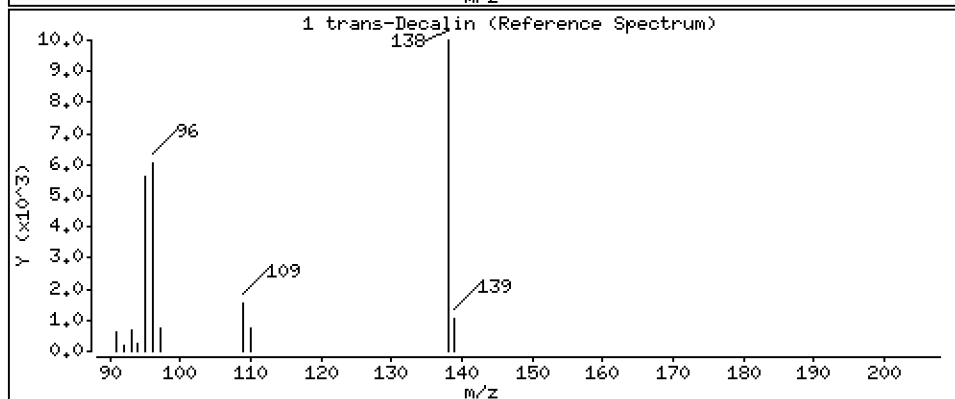
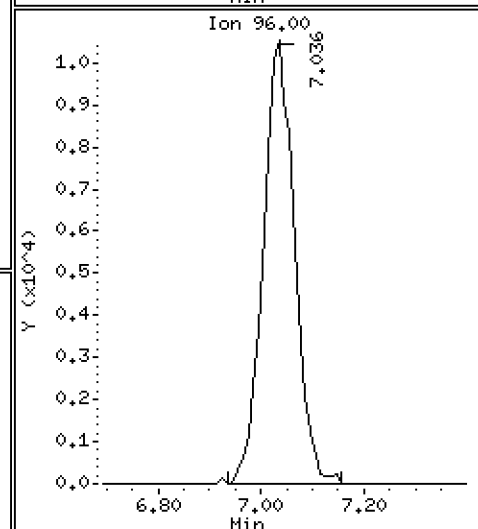
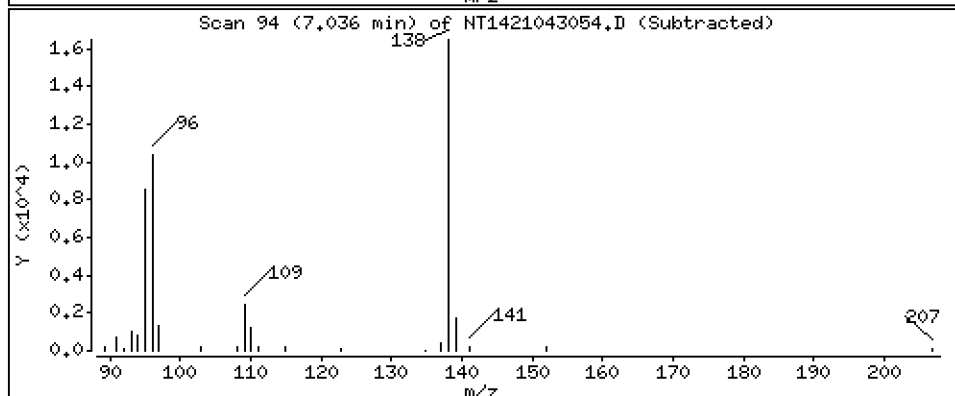
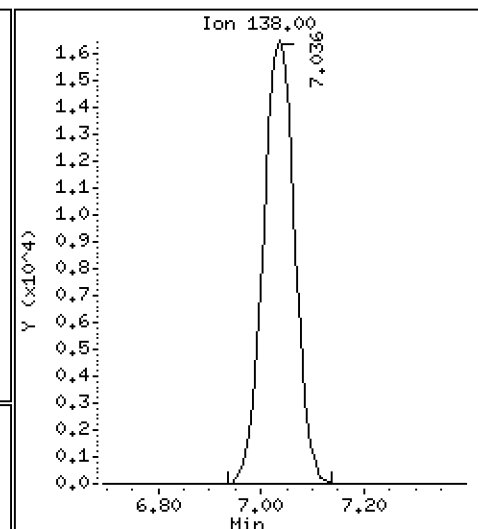
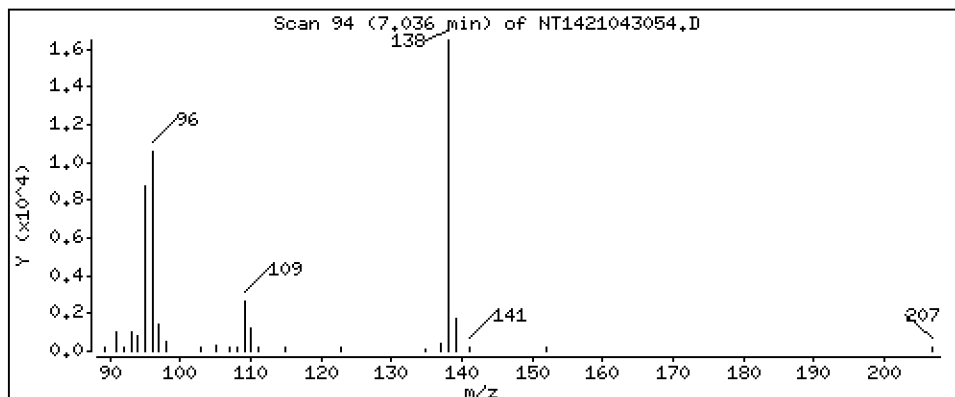
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

1 trans-Decalin

Concentration: 1.645 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

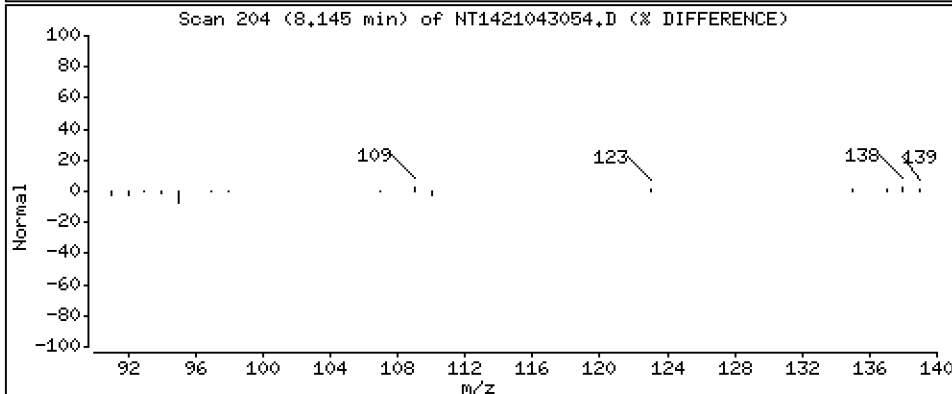
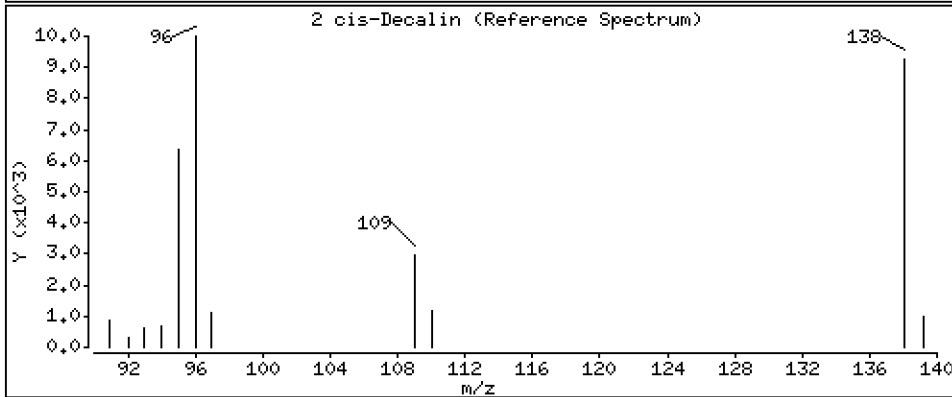
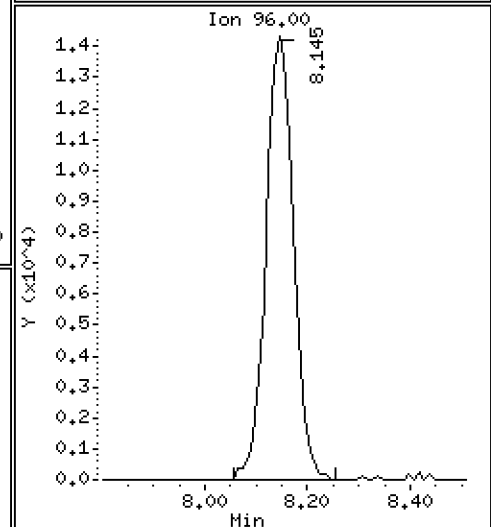
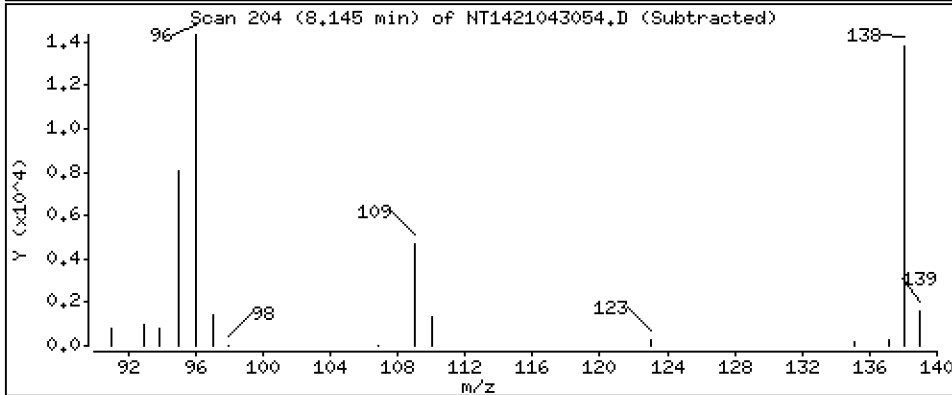
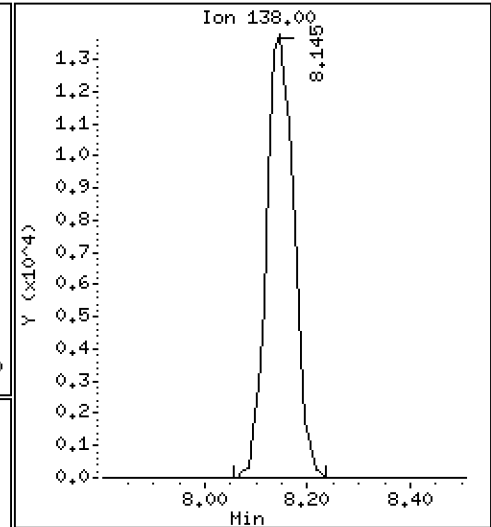
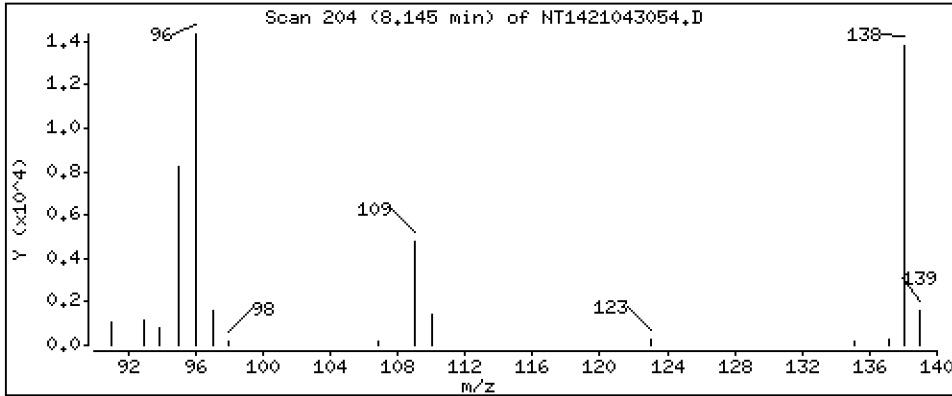
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

2 cis-Decalin

Concentration: 1.737 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

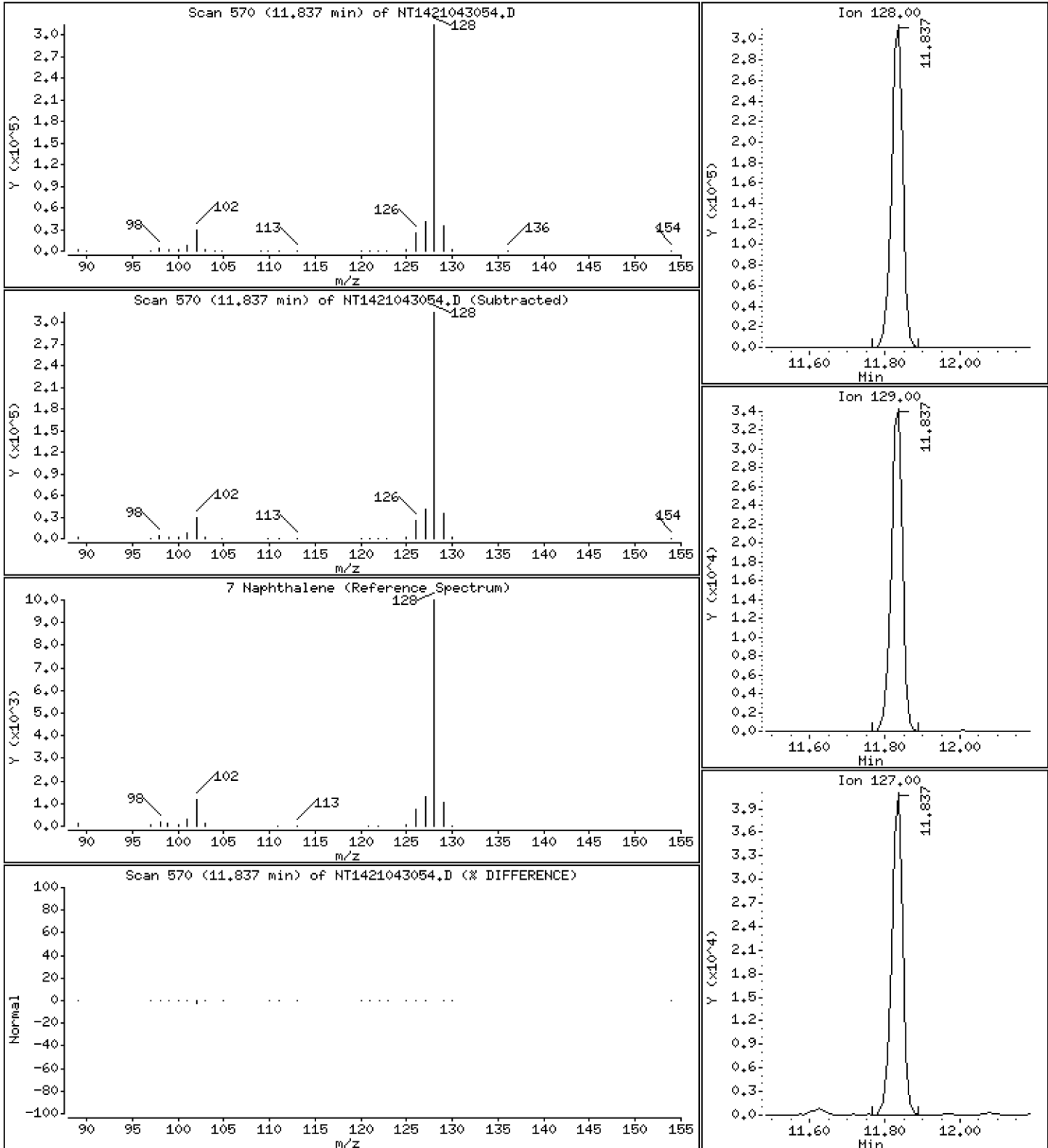
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

7 Naphthalene

Concentration: 1.960 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

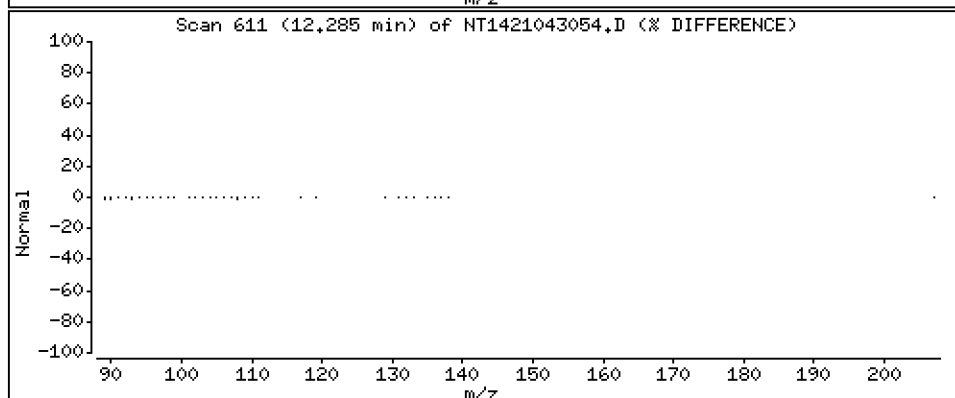
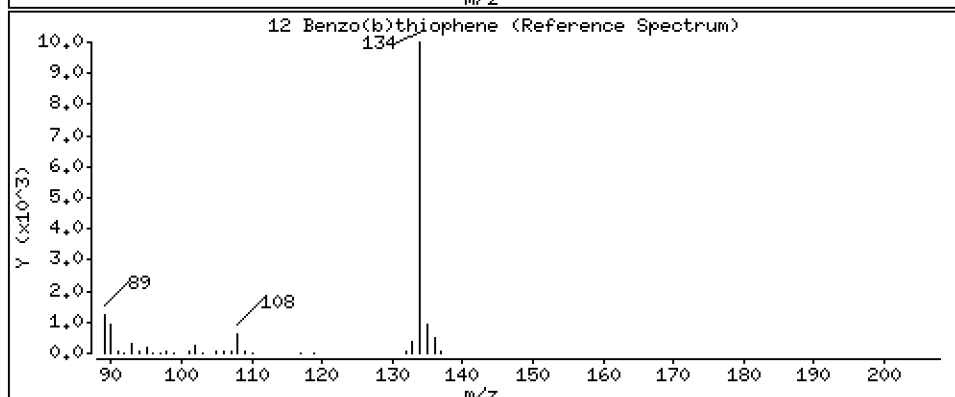
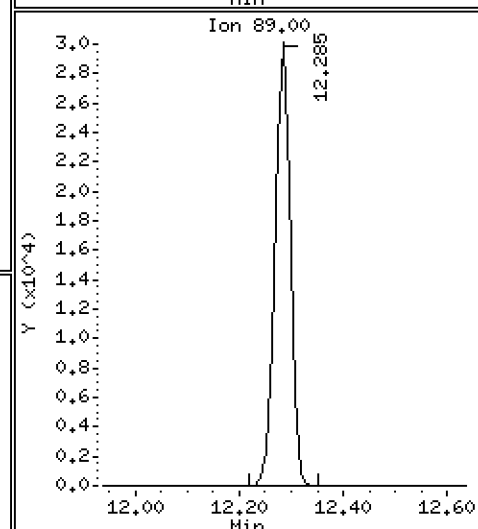
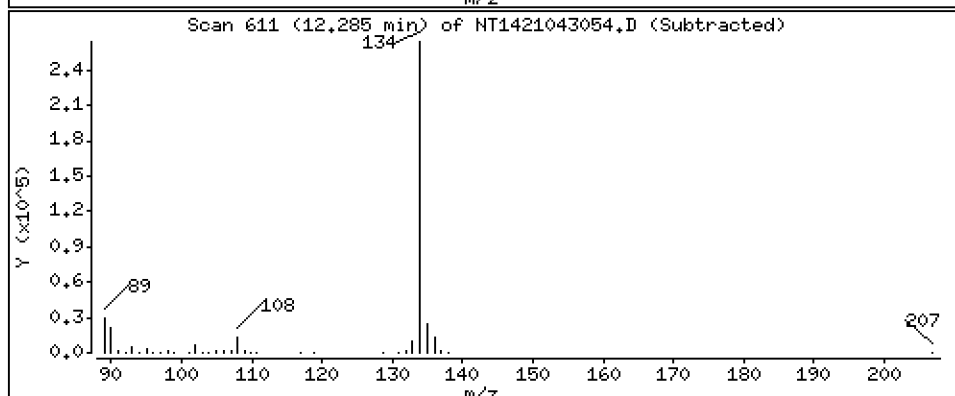
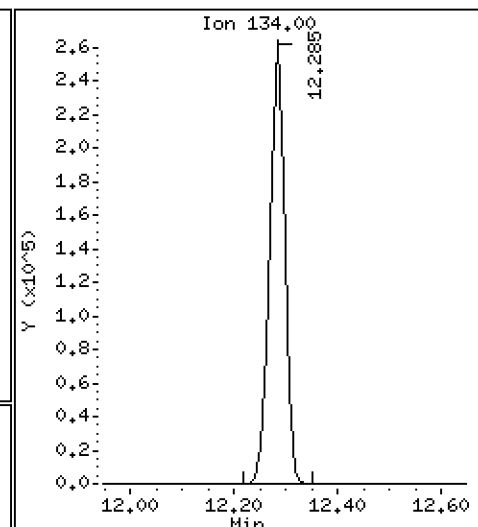
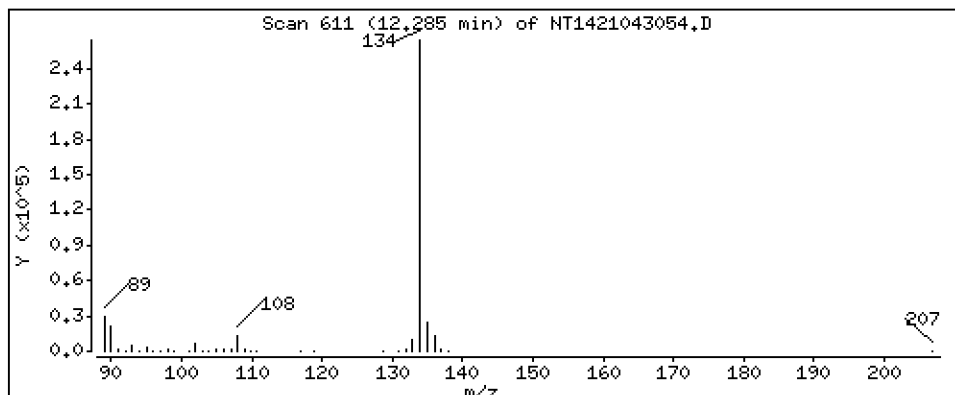
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

12 Benzo(b)thiophene

Concentration: 1,962 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

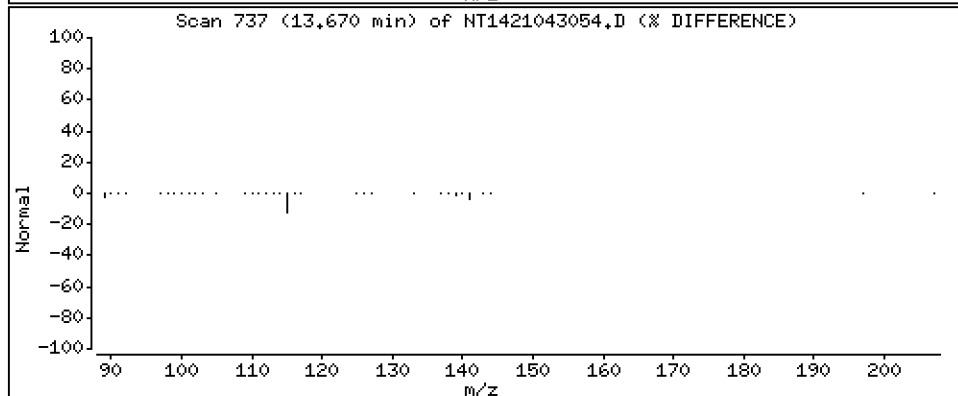
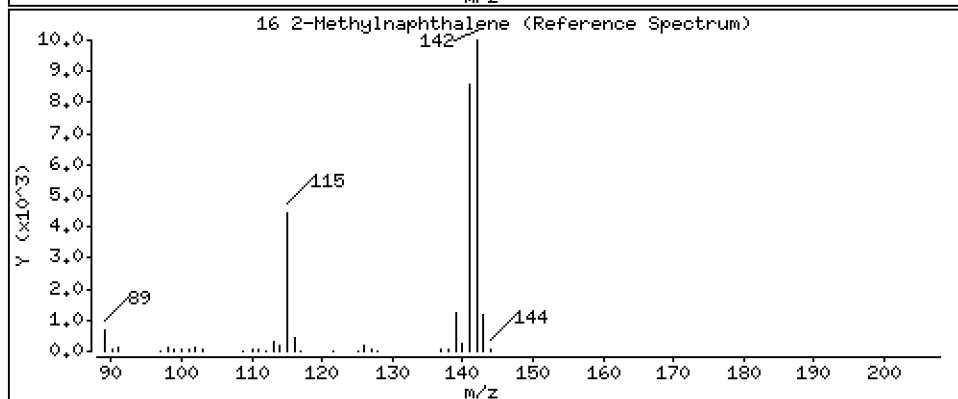
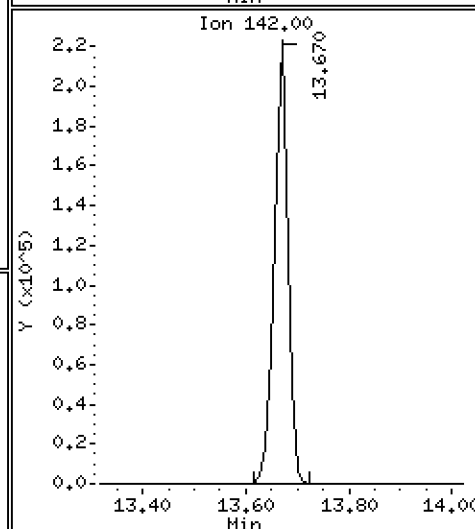
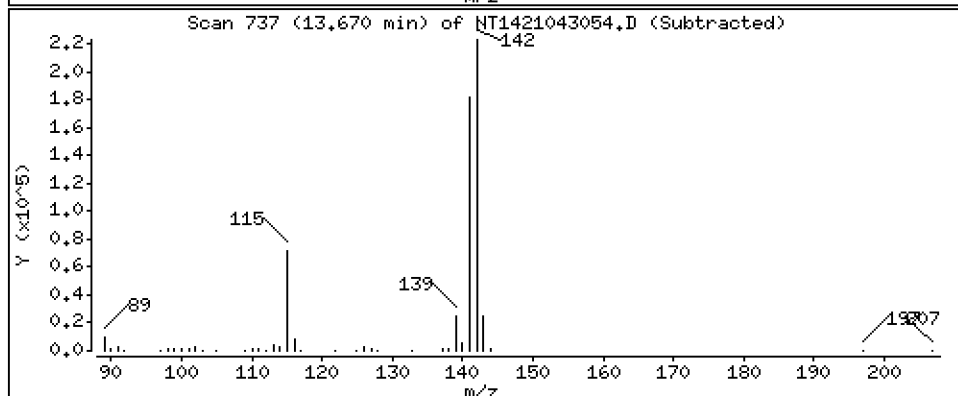
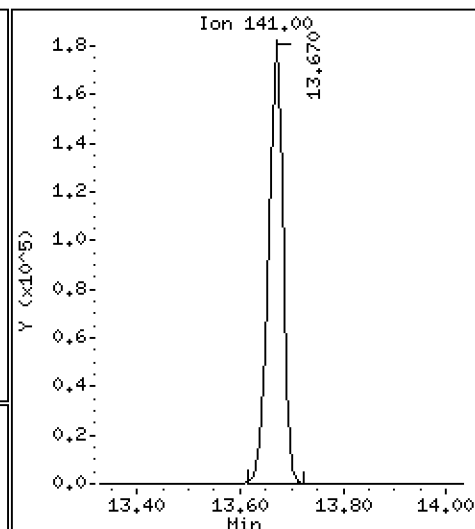
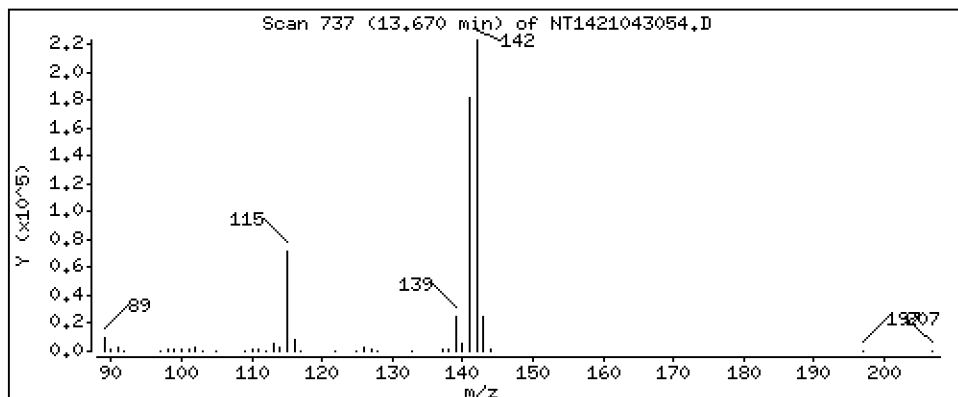
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 2-Methylnaphthalene

Concentration: 2,036 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

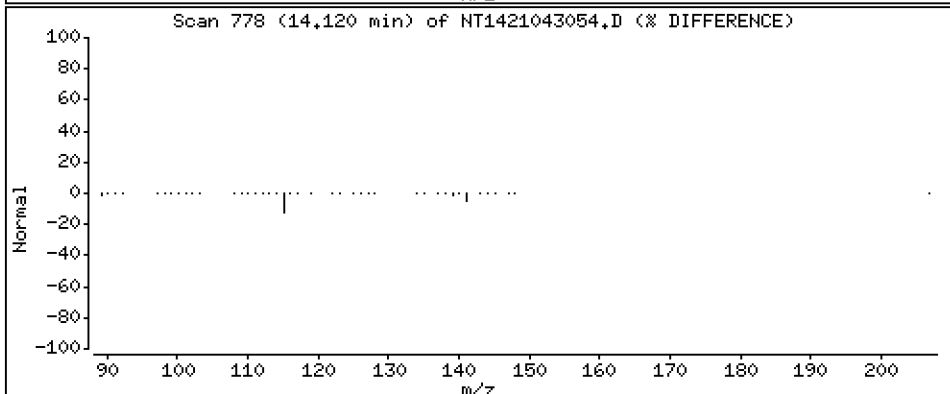
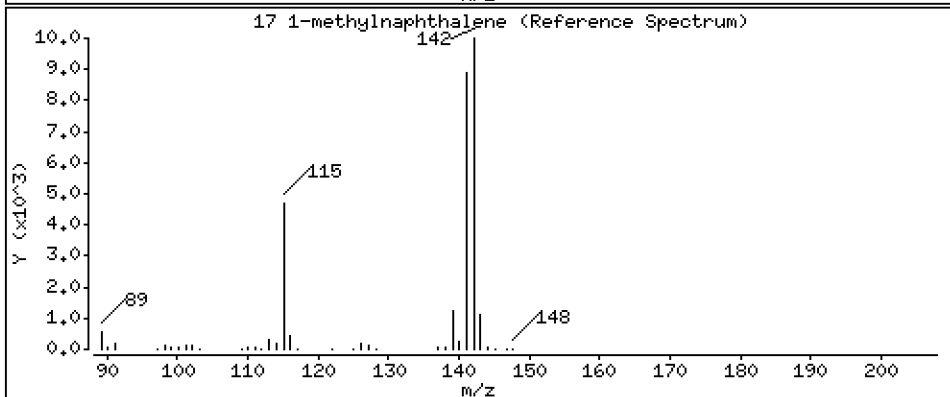
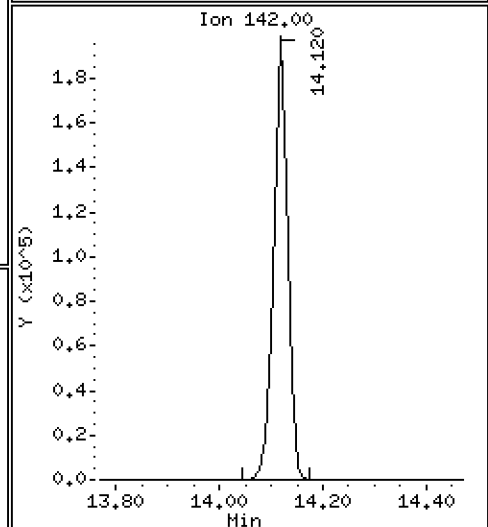
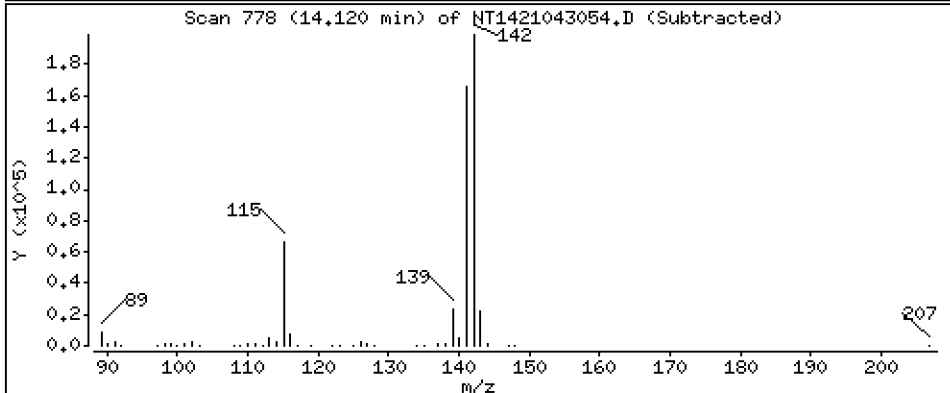
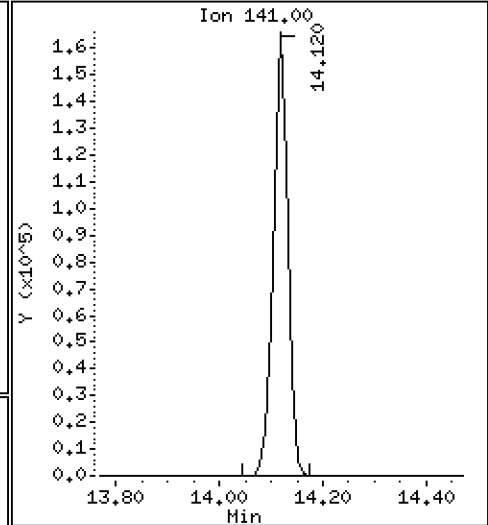
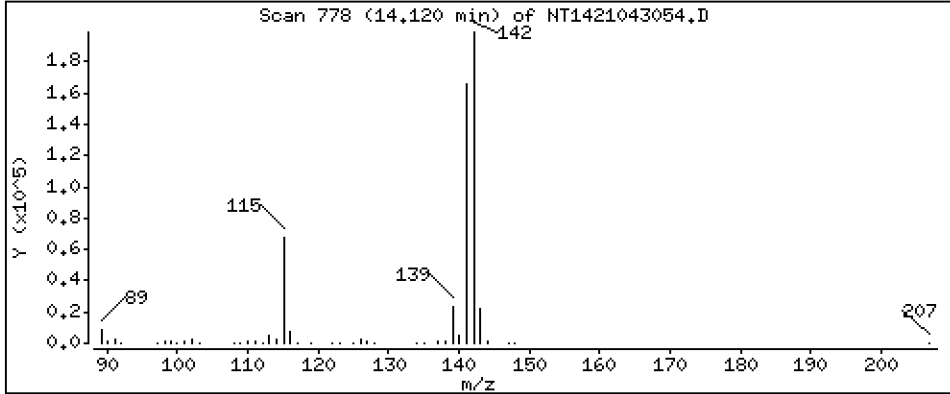
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 1-methylnaphthalene

Concentration: 2,048 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

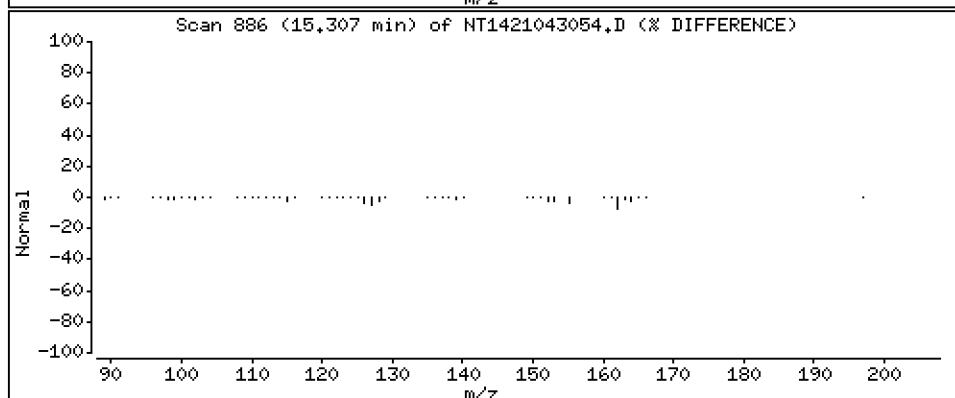
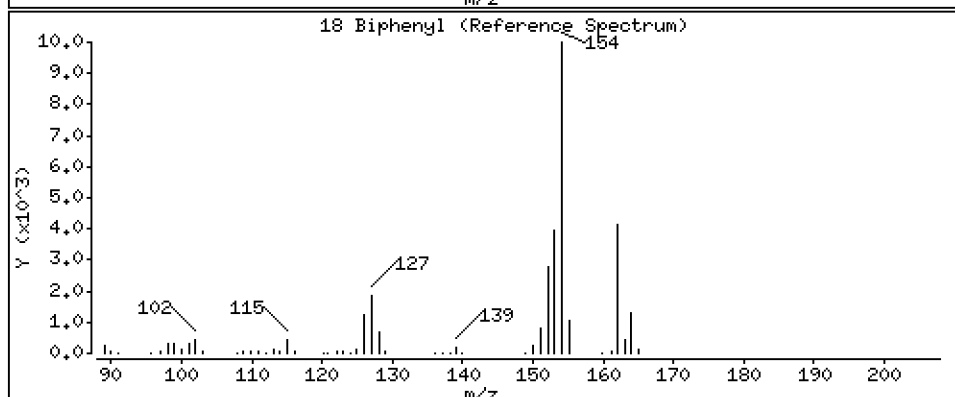
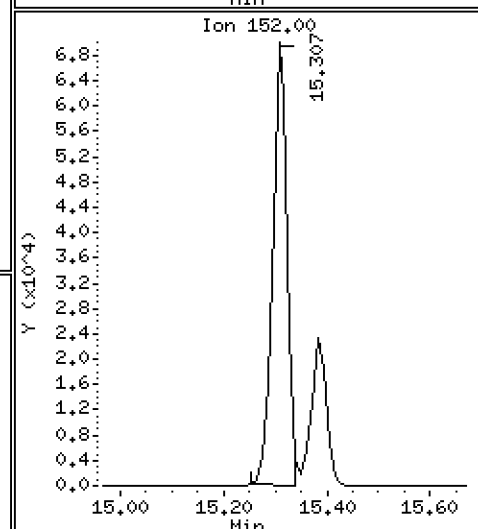
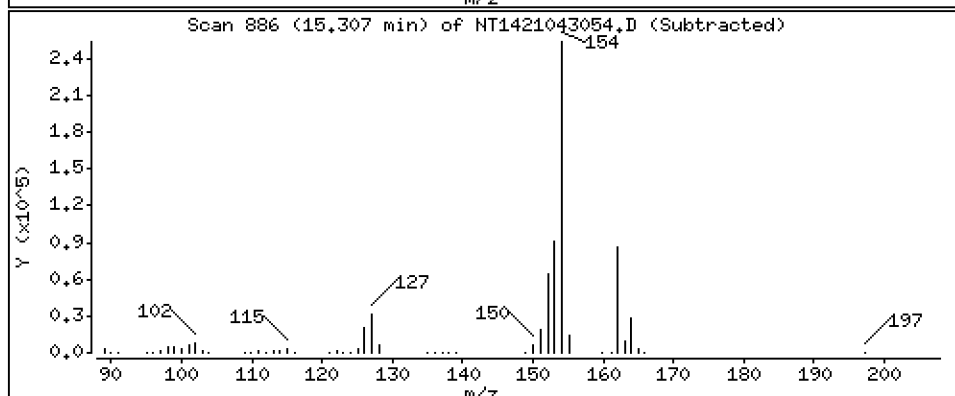
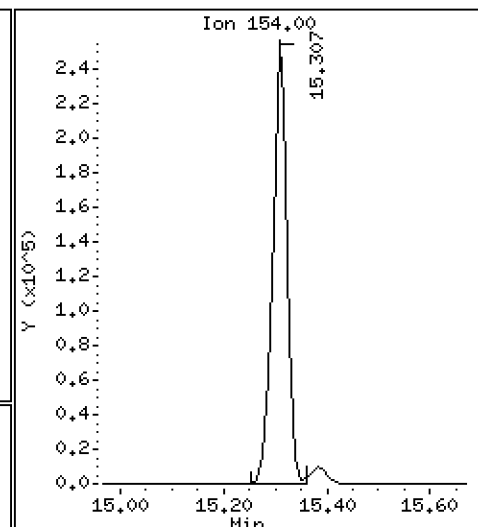
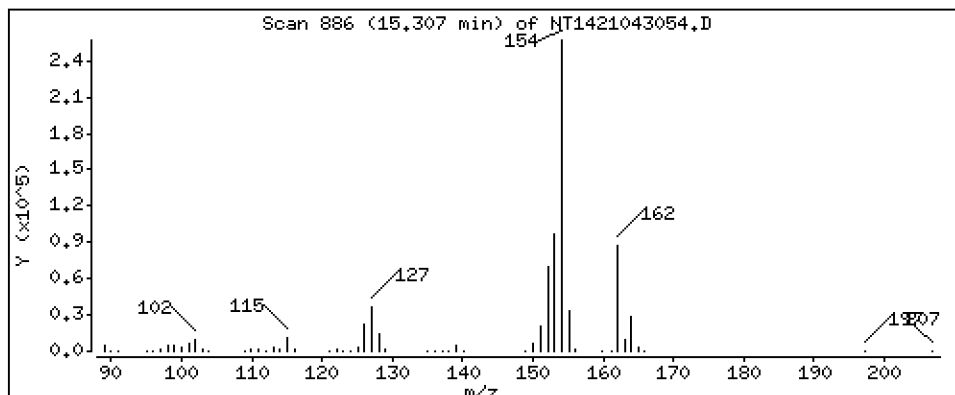
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

18 Biphenyl

Concentration: 2,065 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

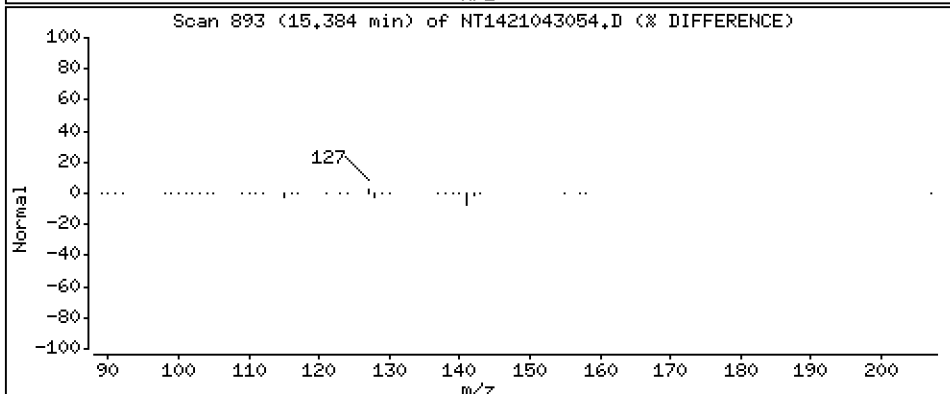
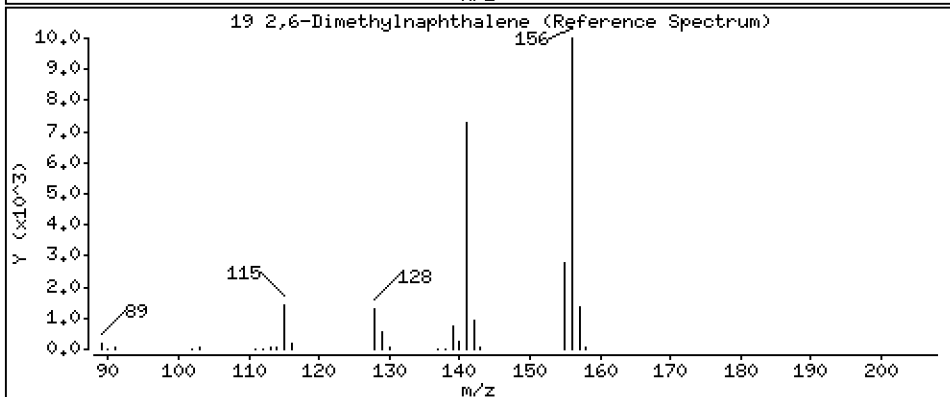
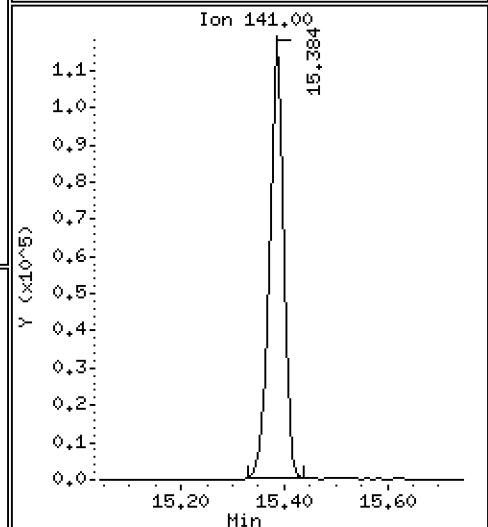
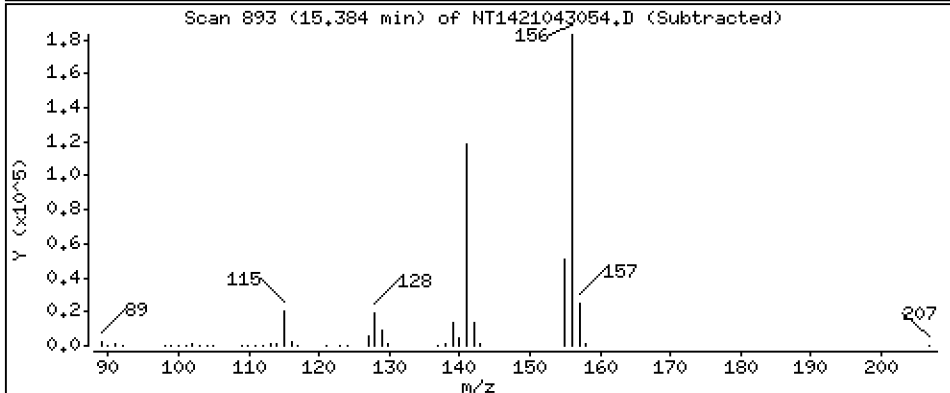
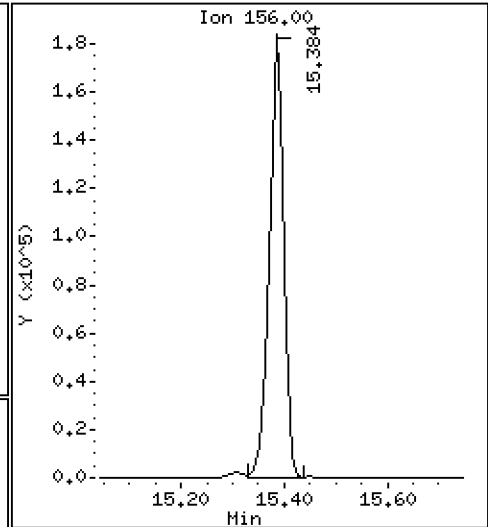
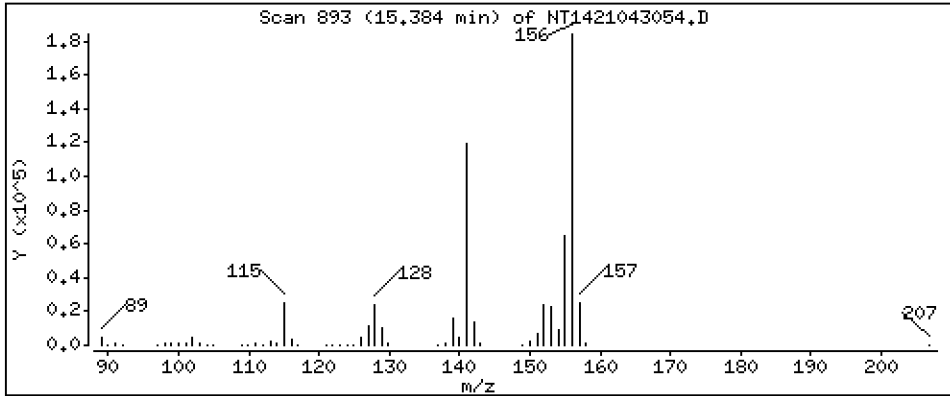
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 2,6-Dimethylnaphthalene

Concentration: 2,146 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

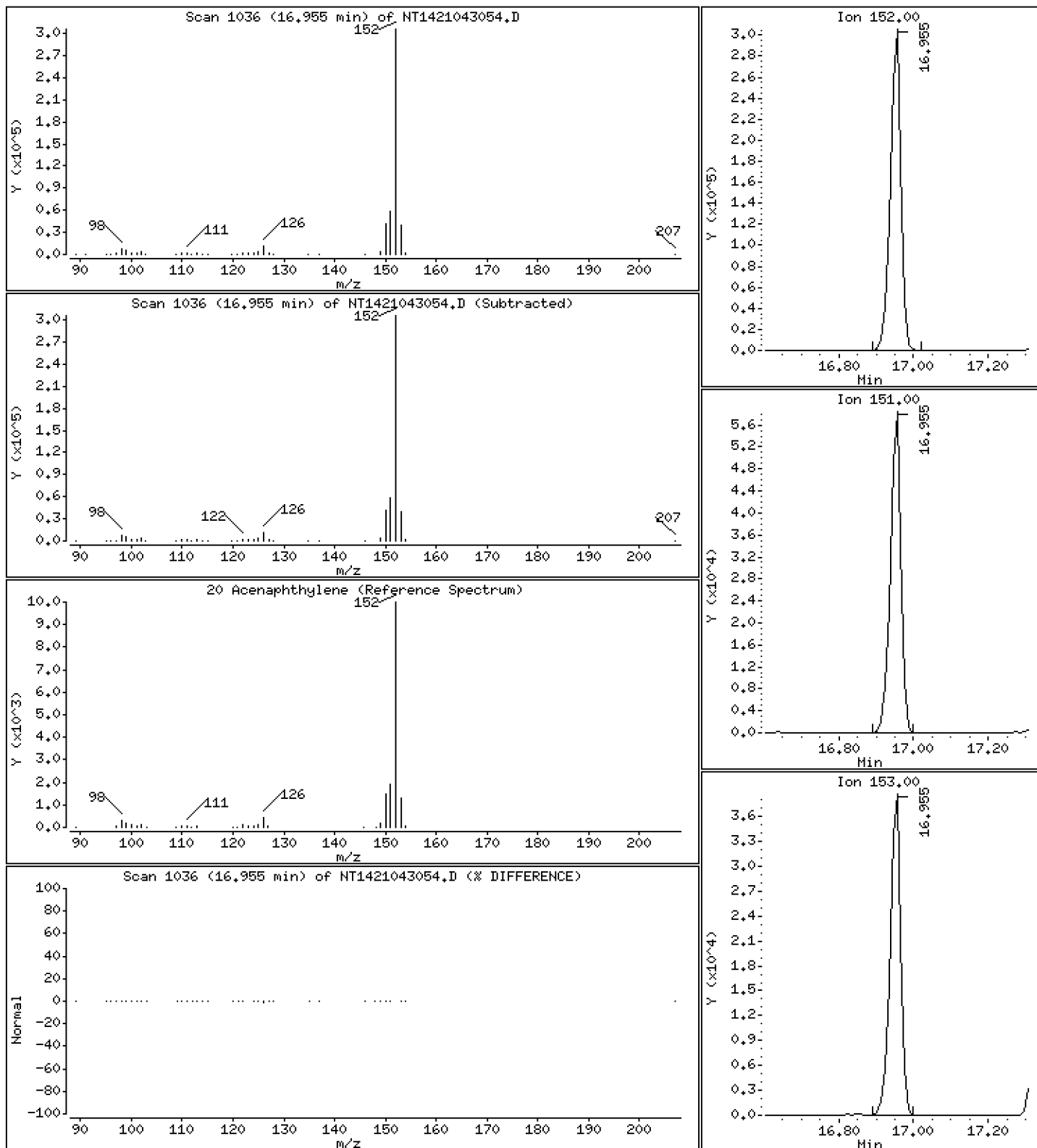
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

20 Acenaphthylene

Concentration: 2,284 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

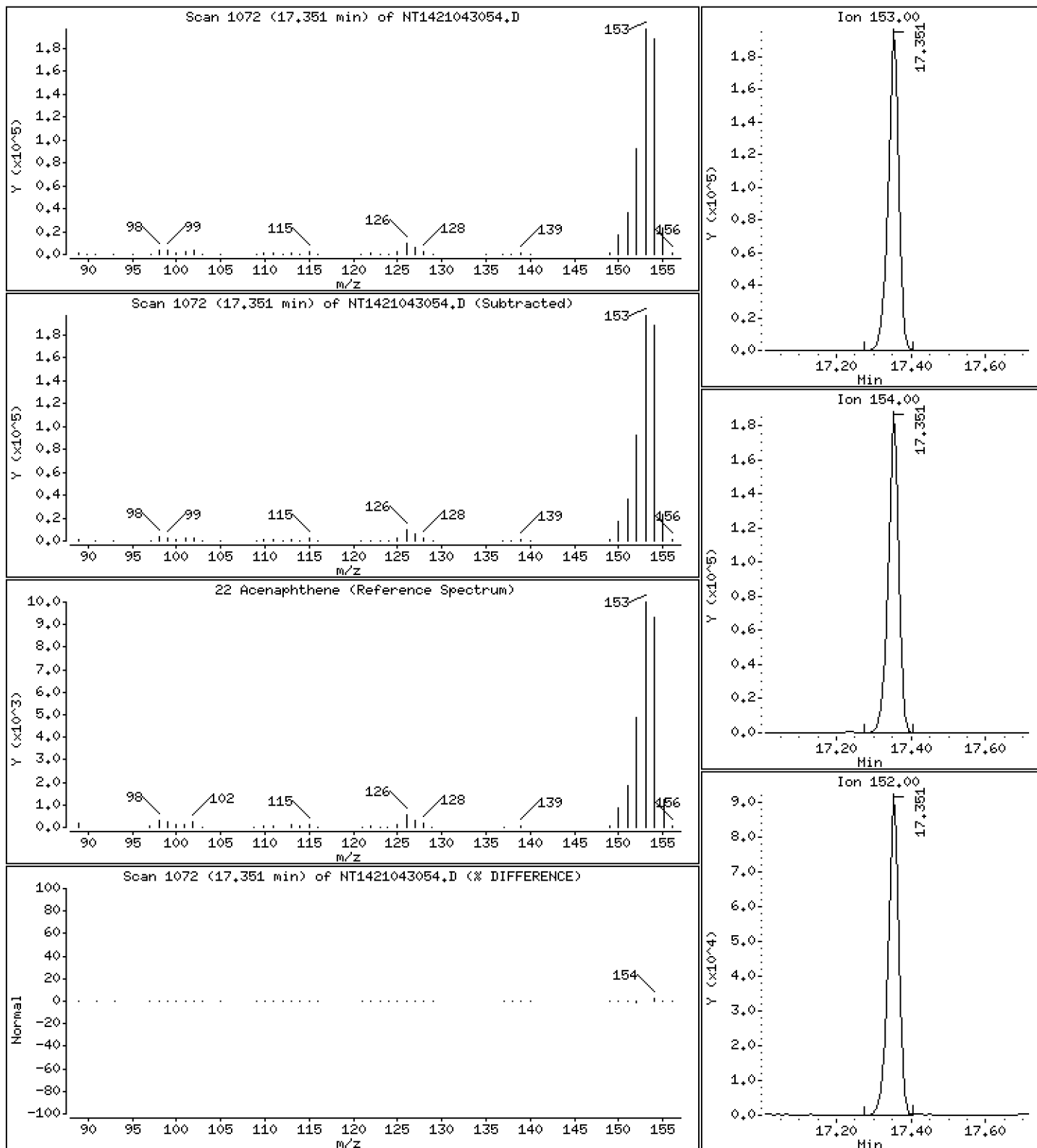
Operator: VTS

Column phase: Rxi-17Si1 MS

Column diameter: 0,25

22 Acenaphthene

Concentration: 2,315 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

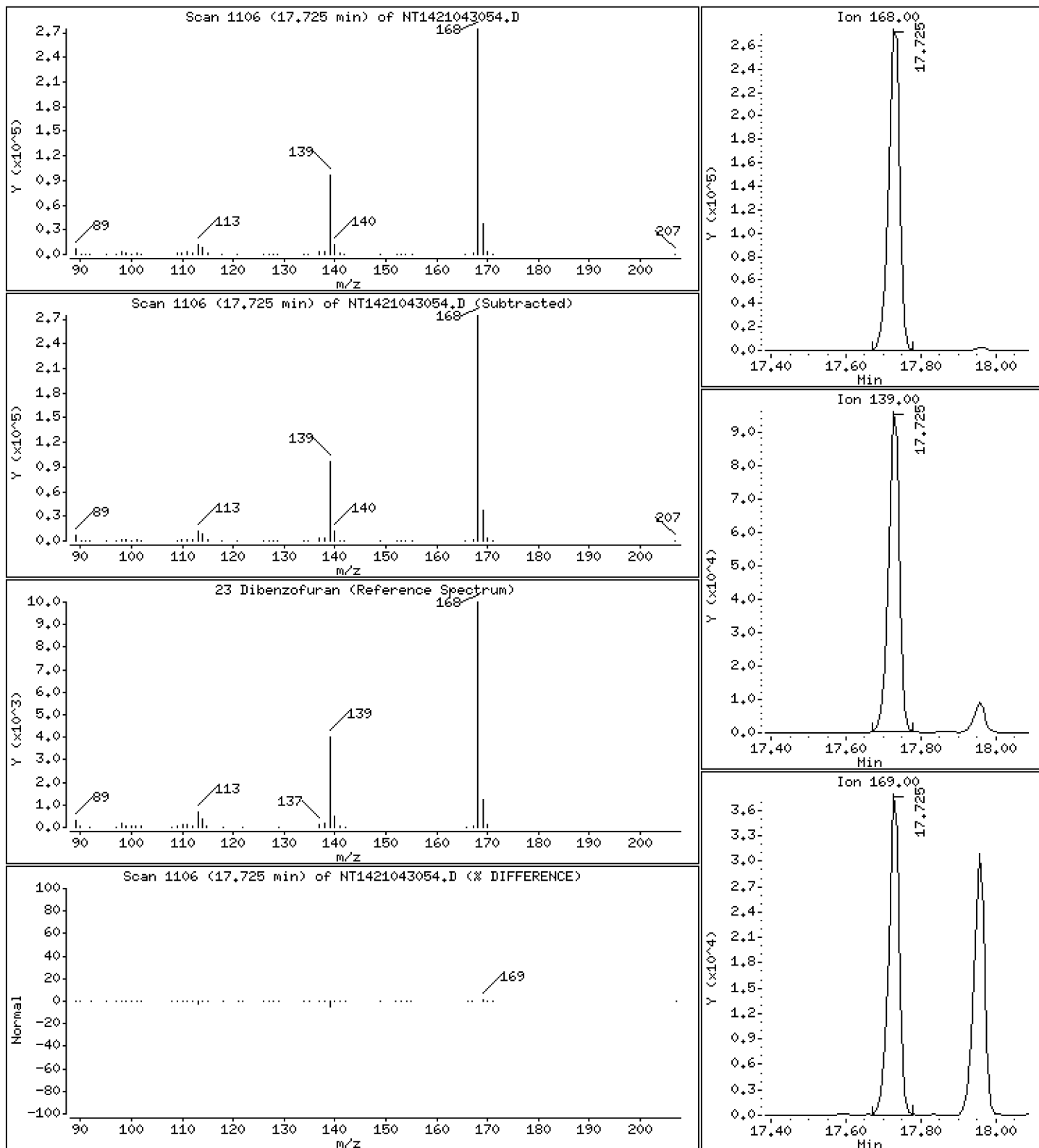
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 Dibenzofuran

Concentration: 2,213 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

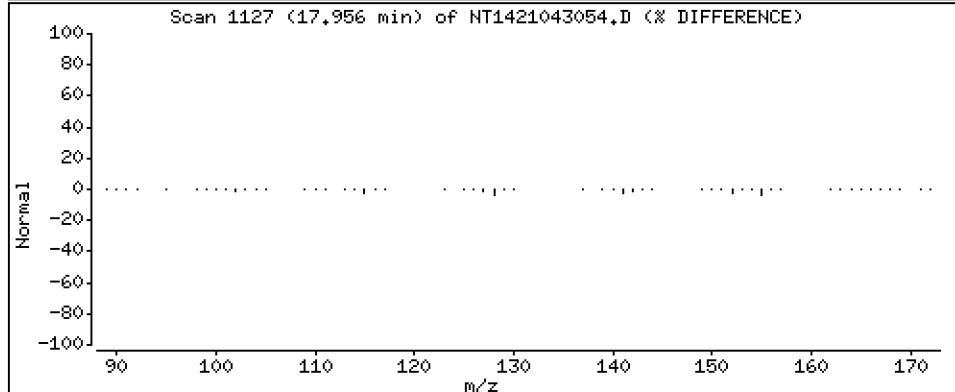
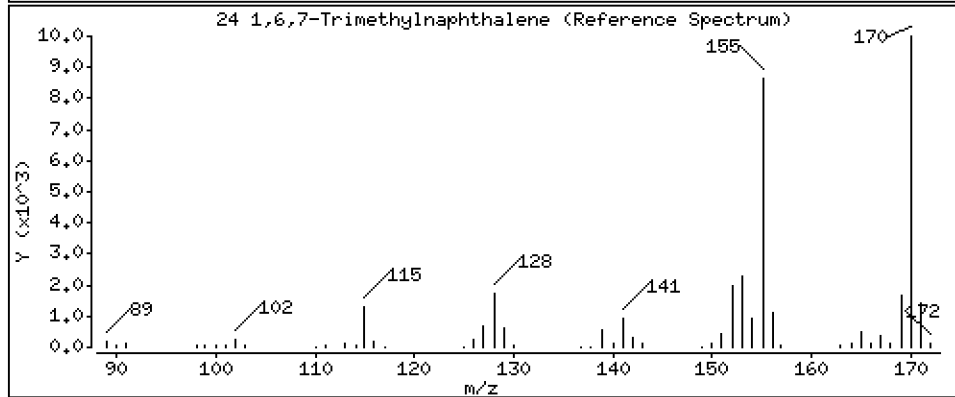
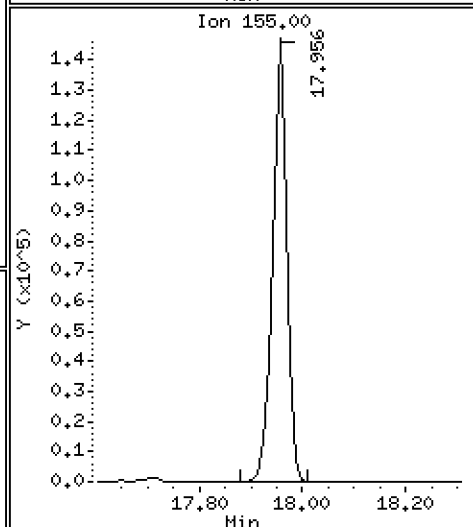
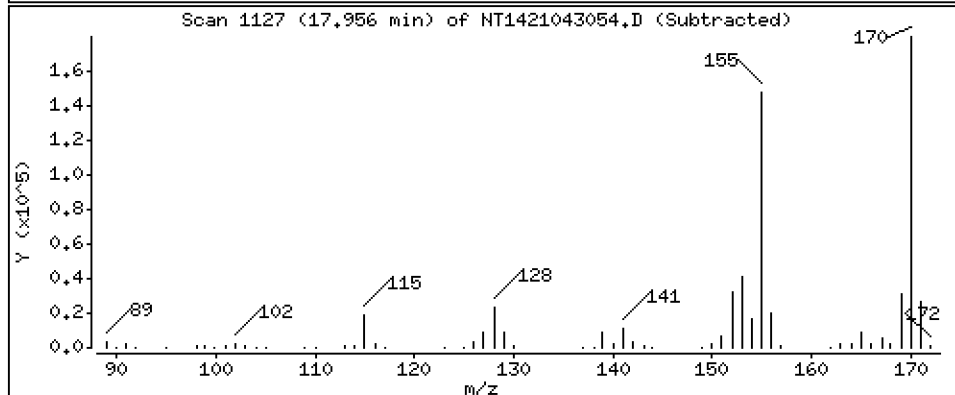
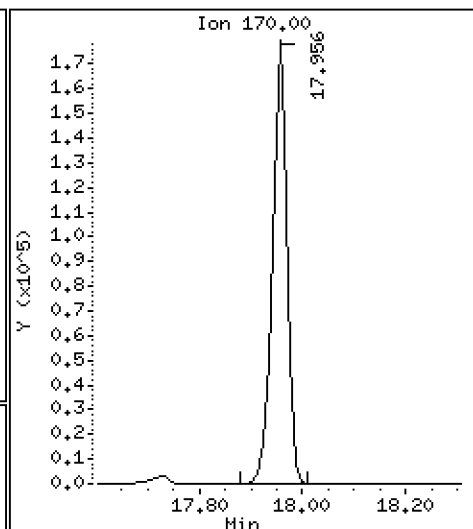
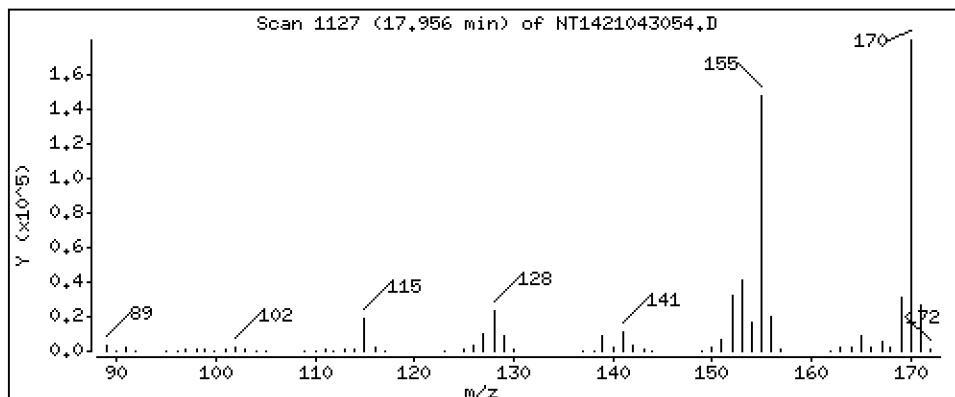
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

24 1,6,7-Trimethylnaphthalene

Concentration: 2.419 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

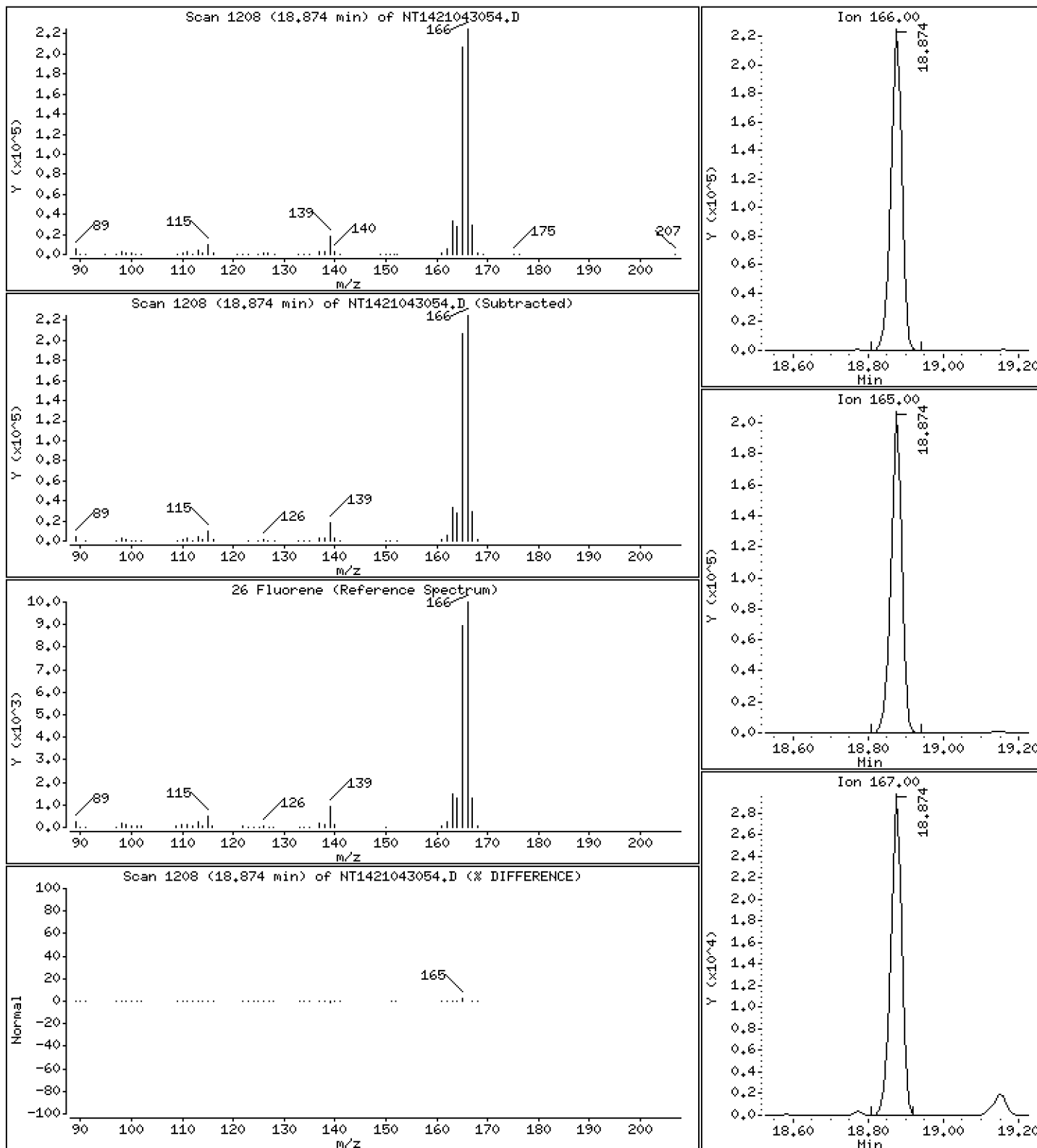
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Fluorene

Concentration: 2,357 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

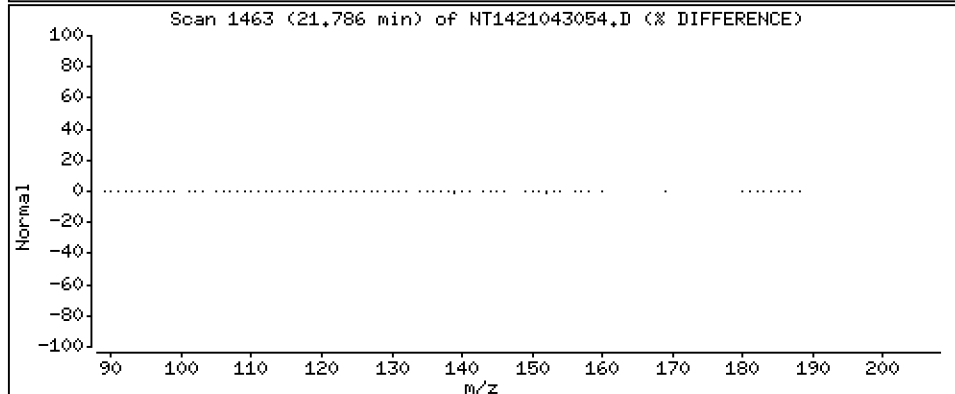
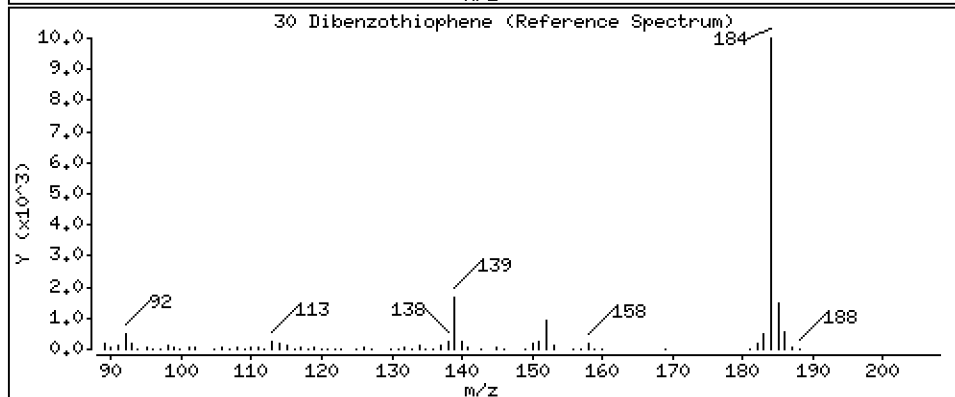
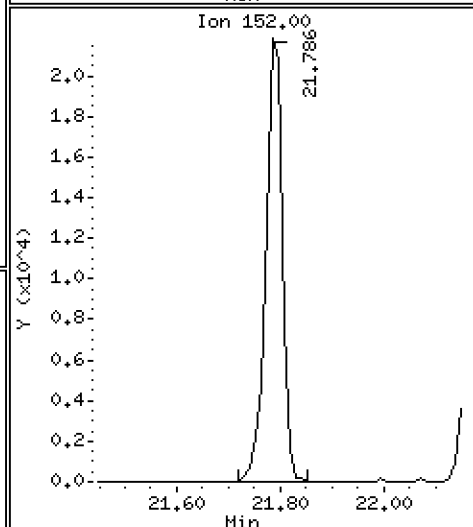
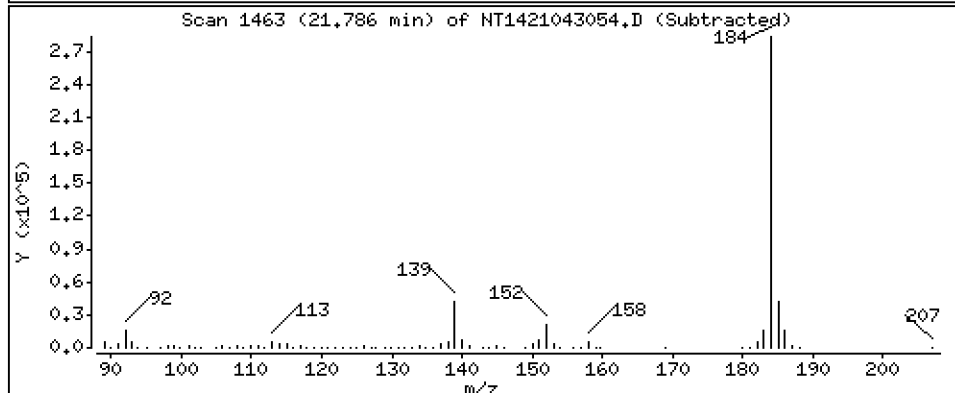
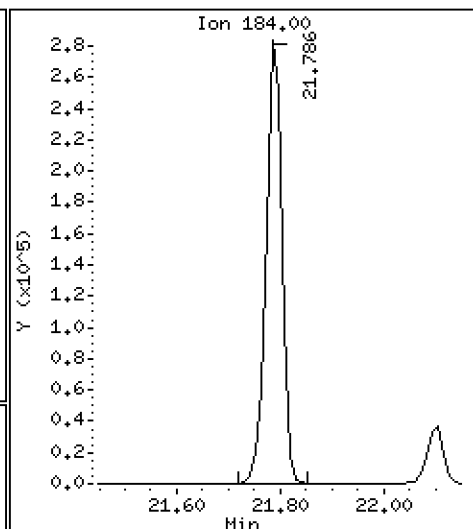
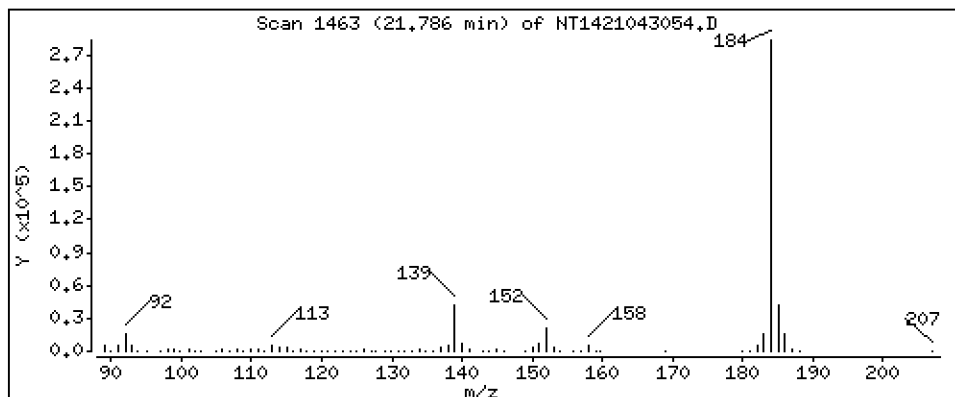
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Dibenzothiophene

Concentration: 2,386 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

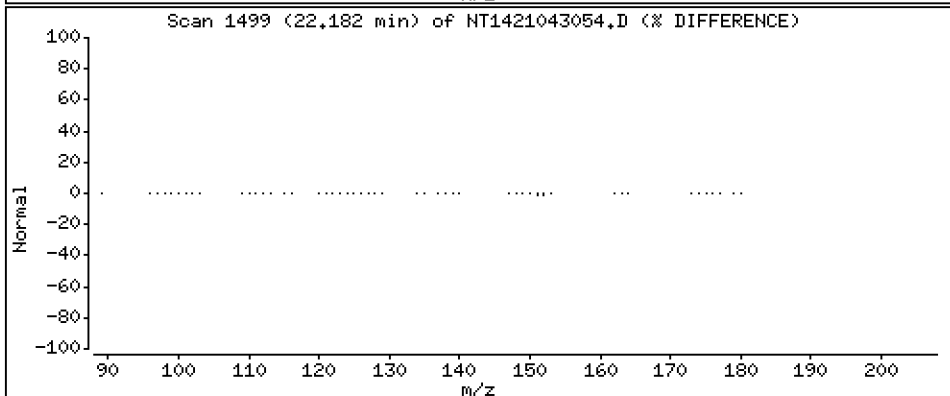
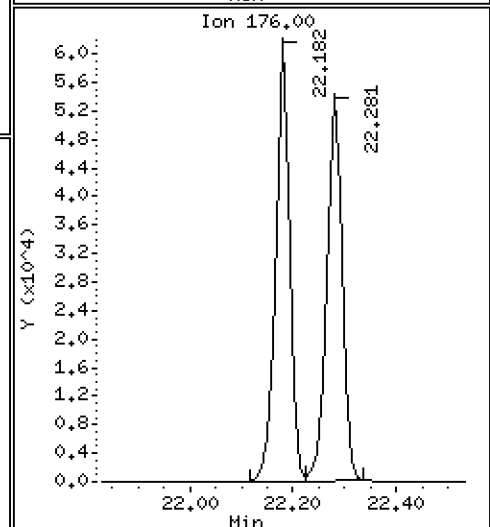
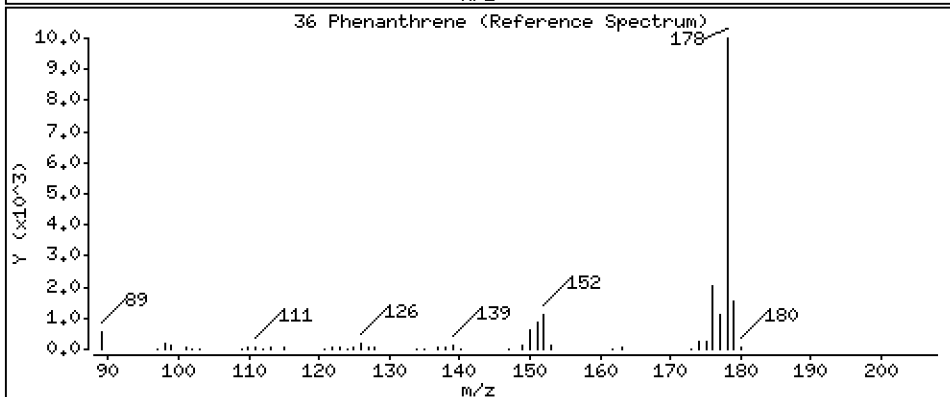
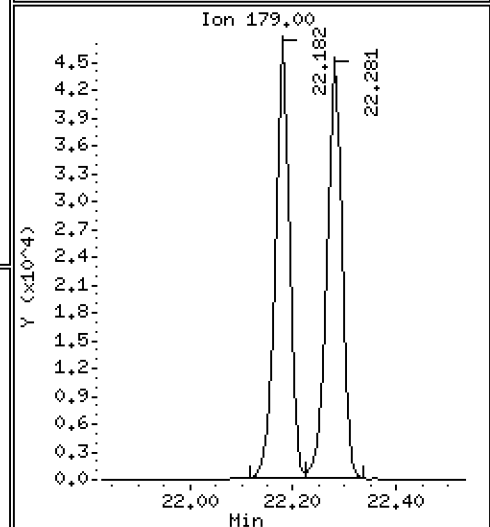
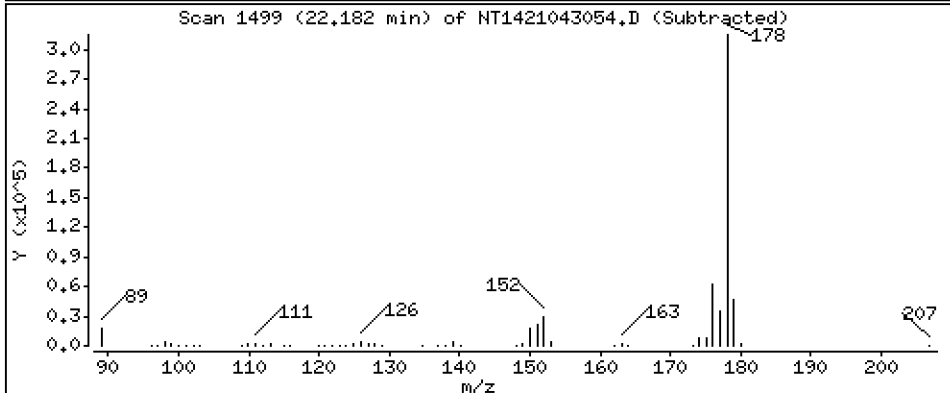
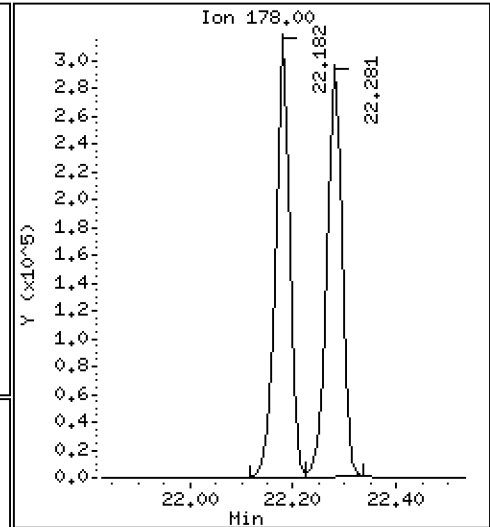
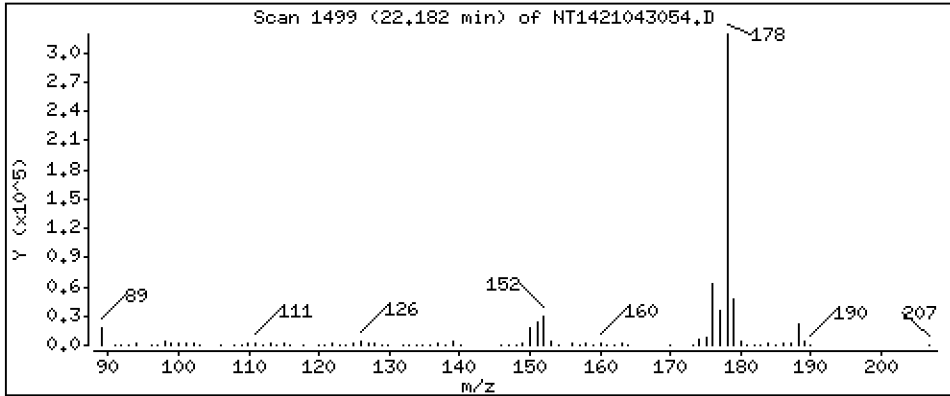
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

36 Phenanthrene

Concentration: 2,119 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

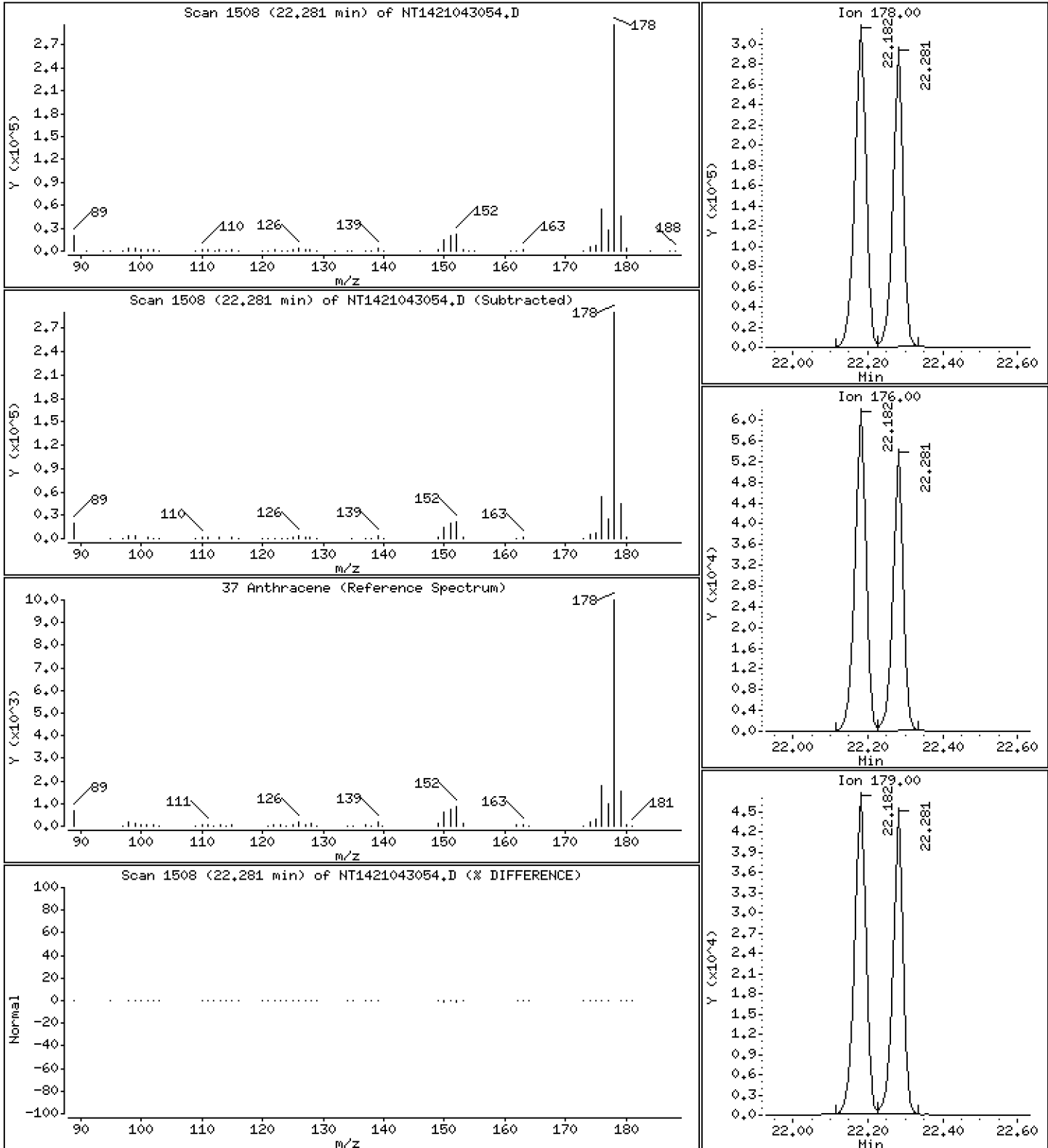
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

37 Anthracene

Concentration: 2.098 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

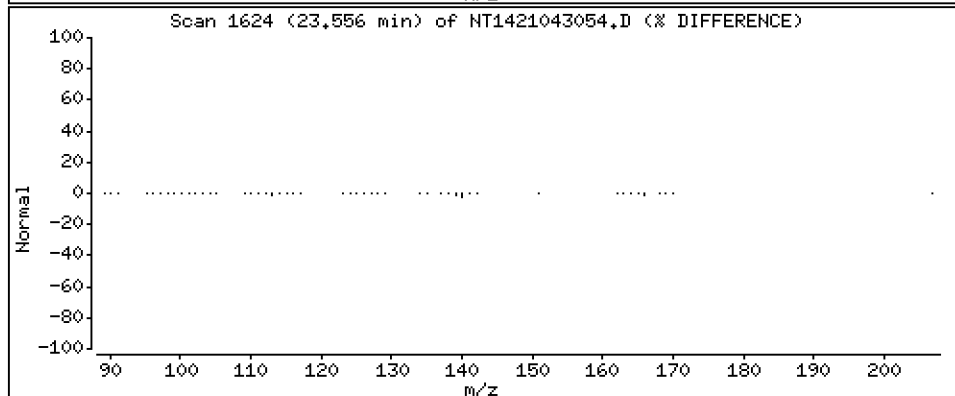
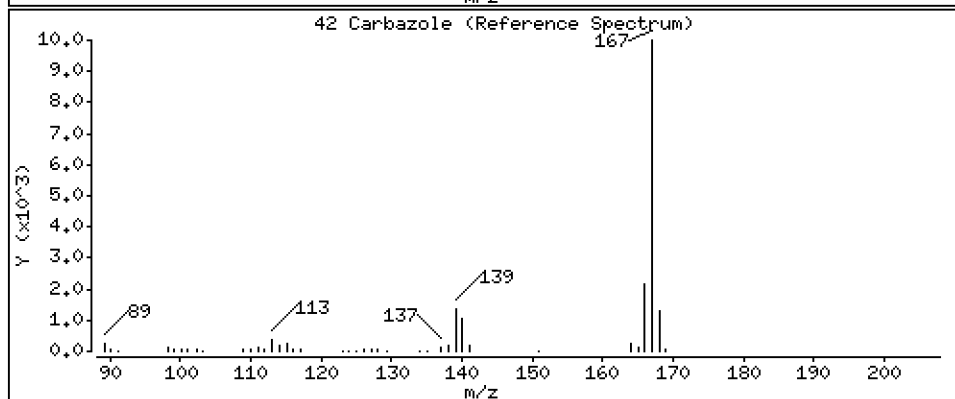
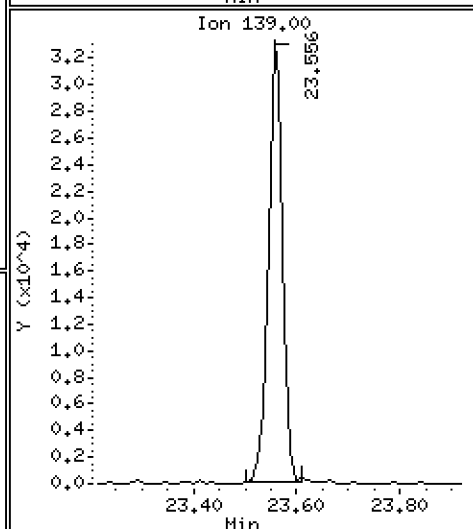
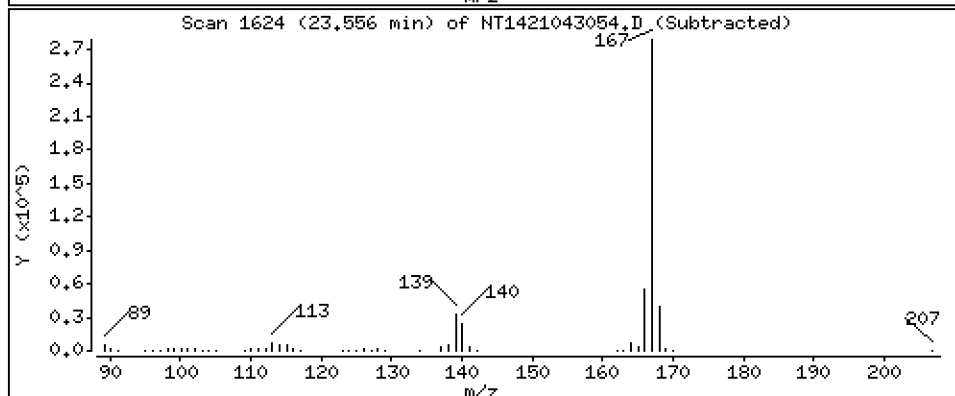
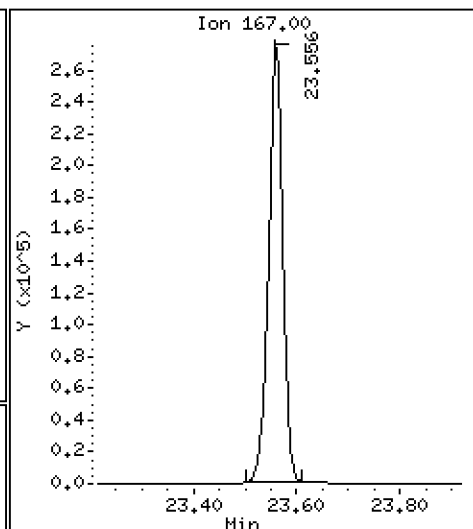
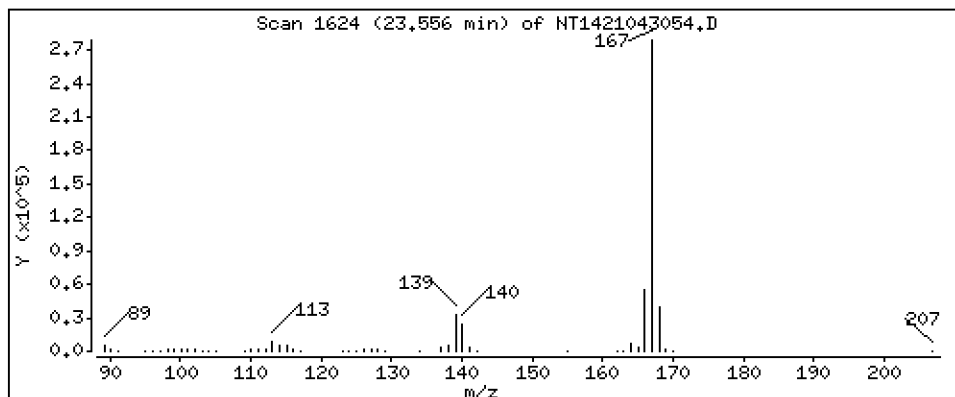
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

42 Carbazole

Concentration: 2,414 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

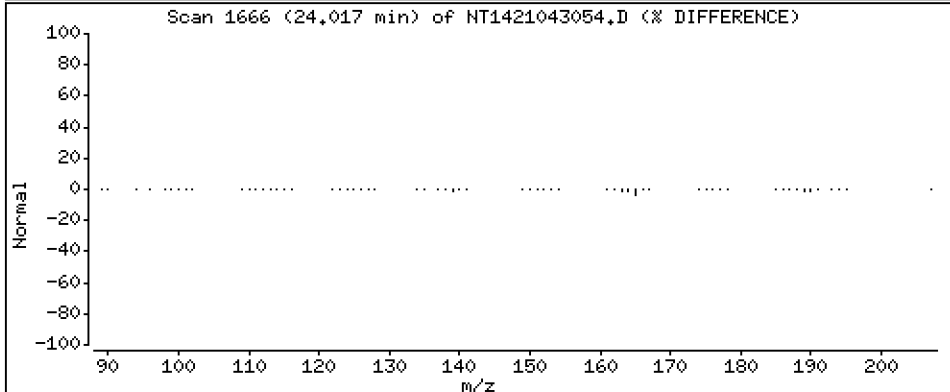
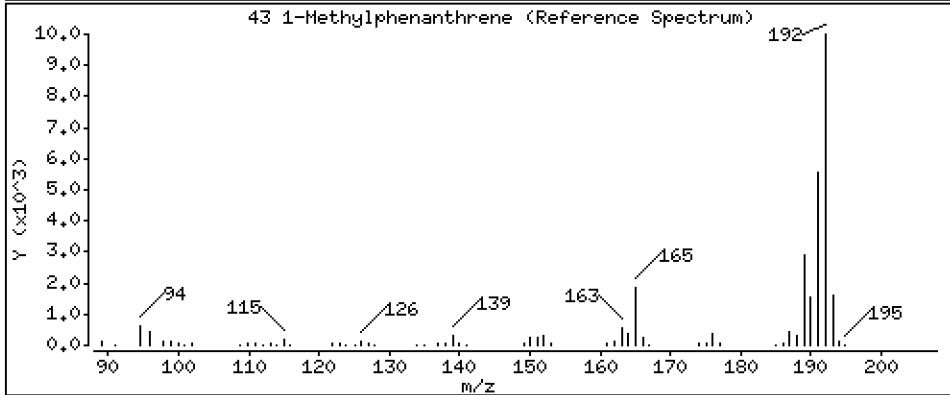
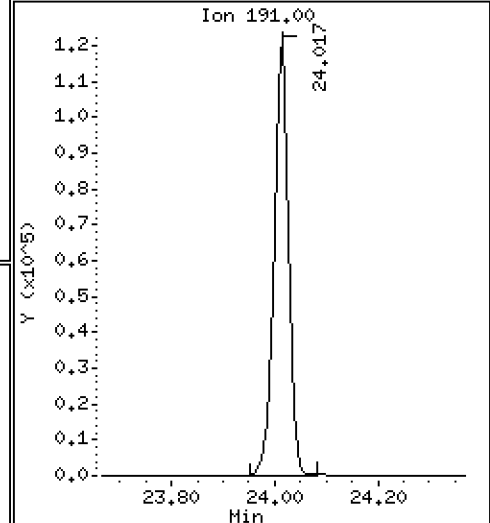
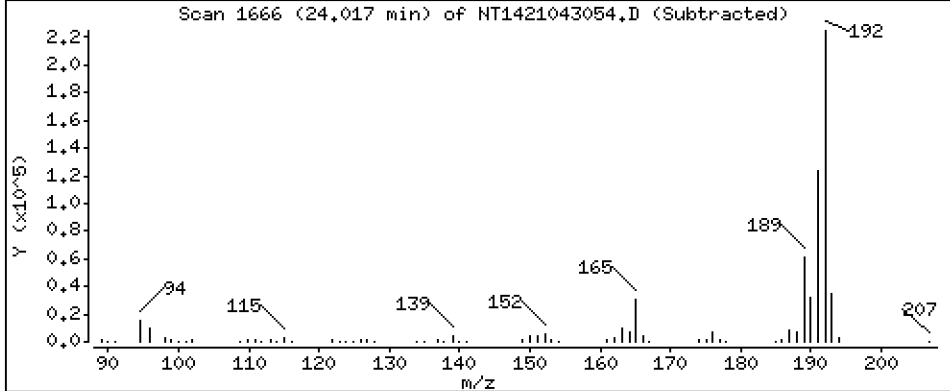
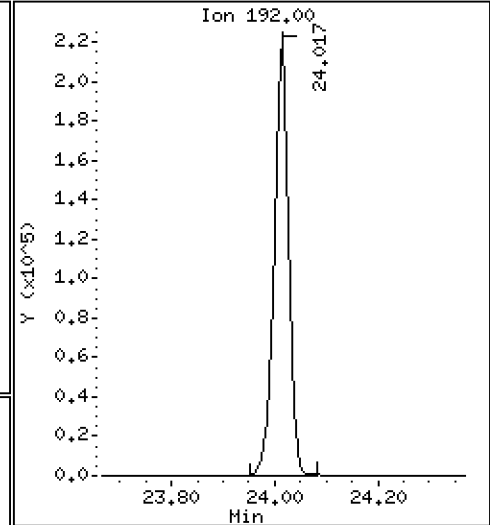
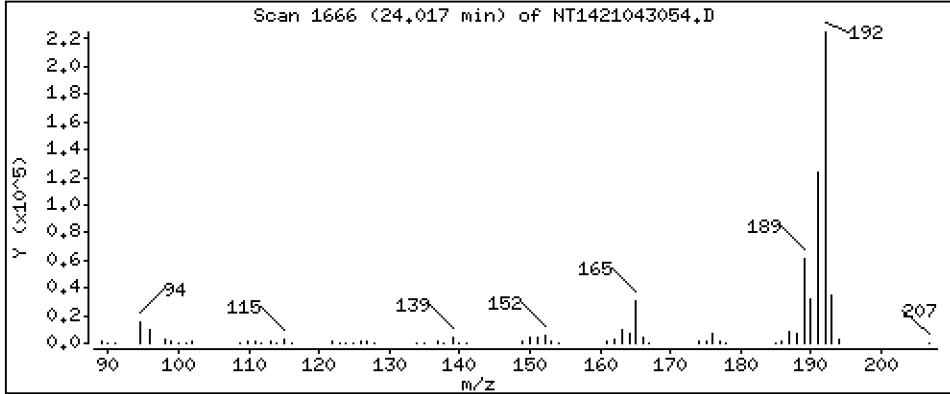
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

43 1-Methylphenanthrene

Concentration: 2,494 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

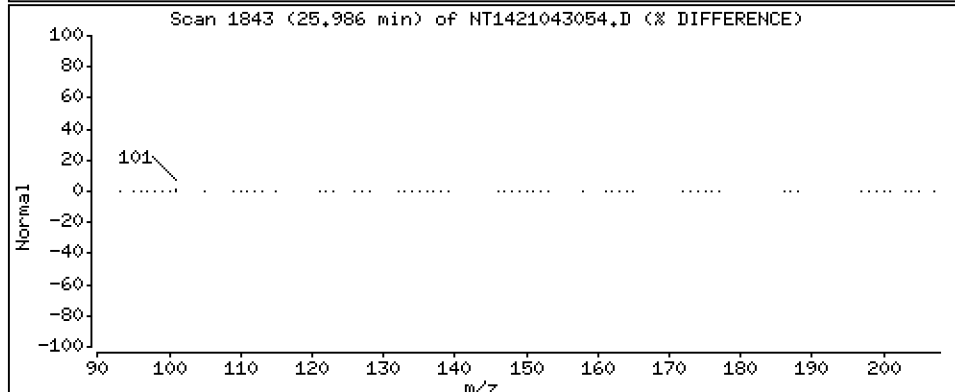
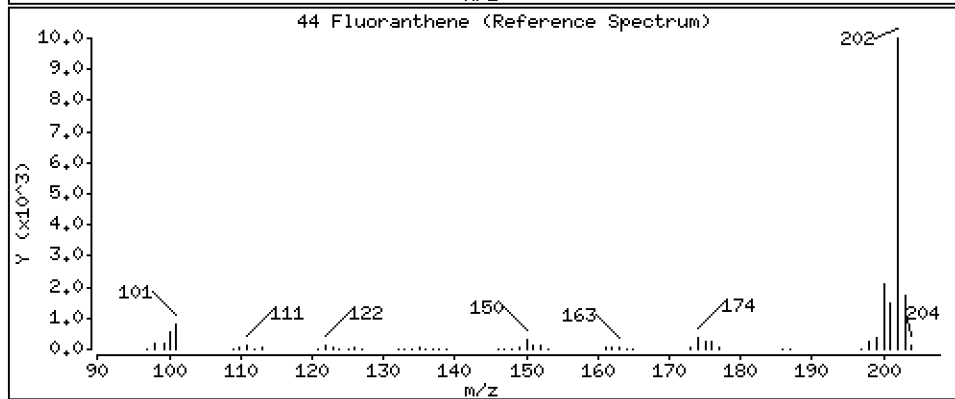
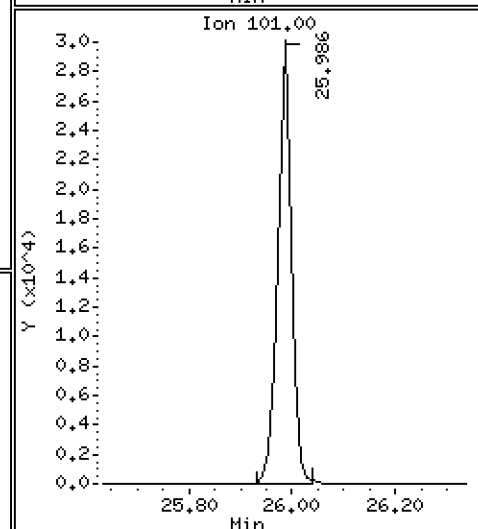
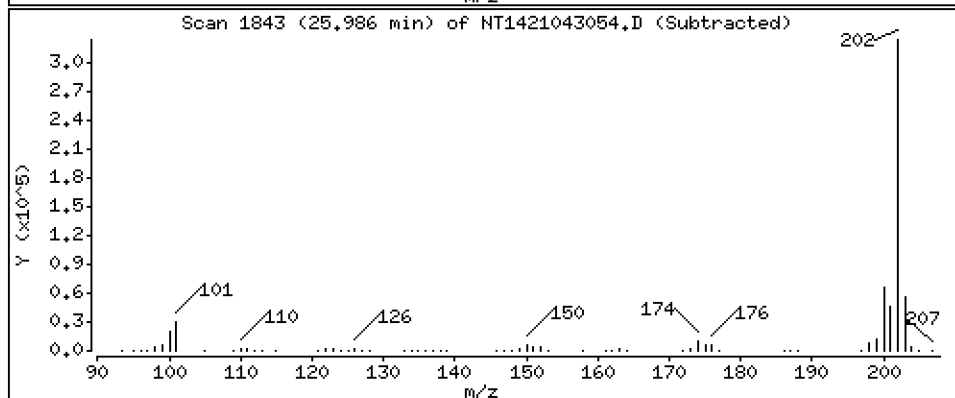
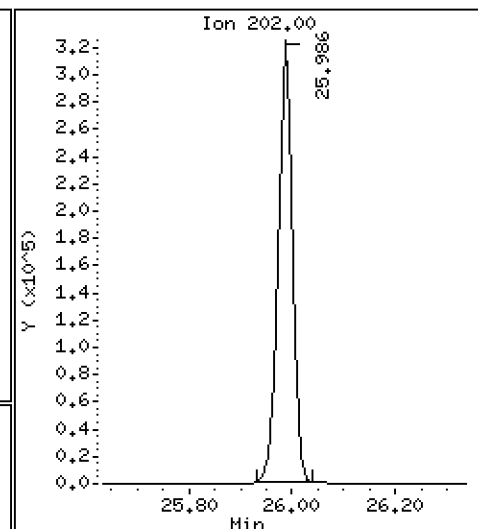
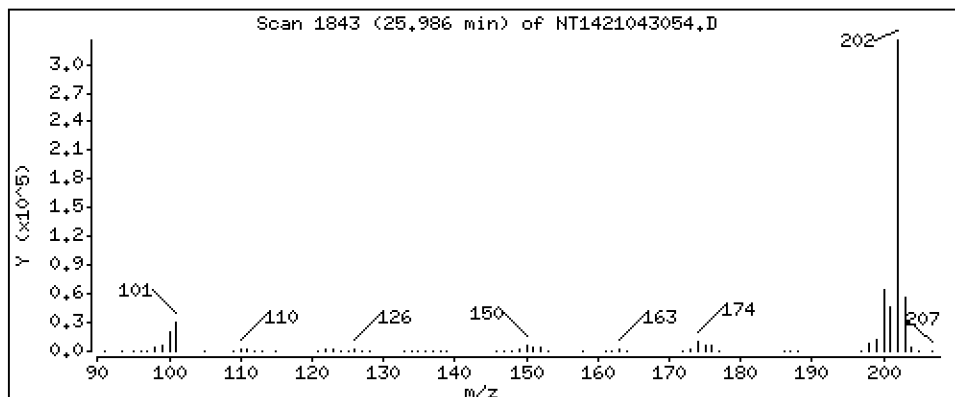
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

44 Fluoranthene

Concentration: 2,457 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

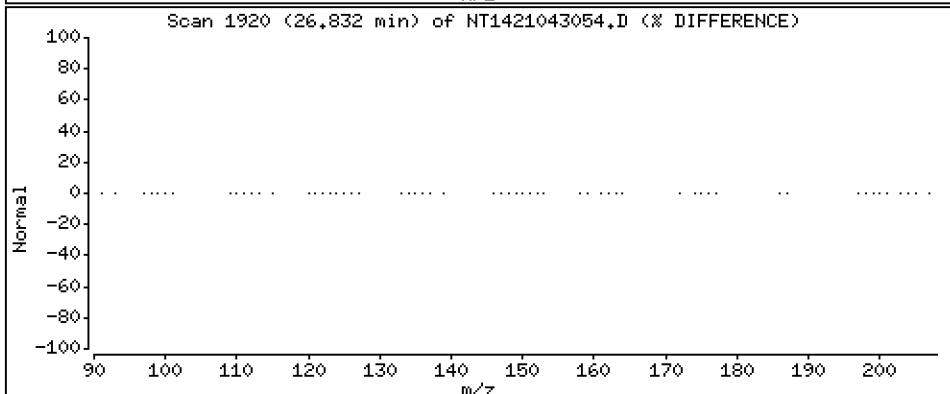
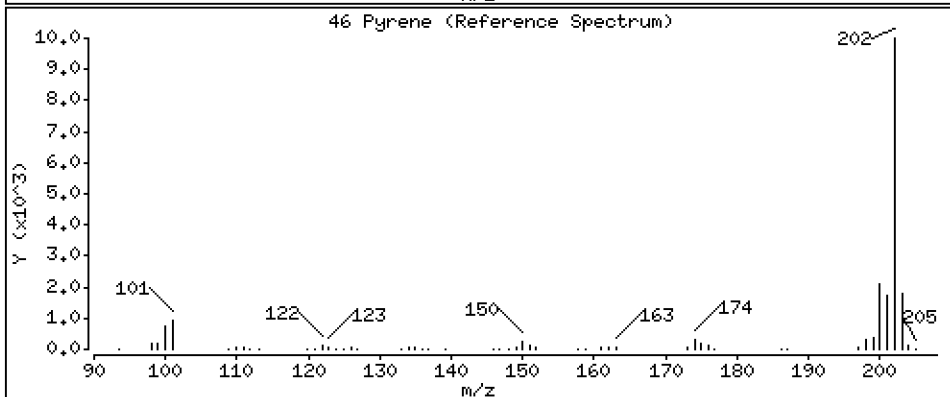
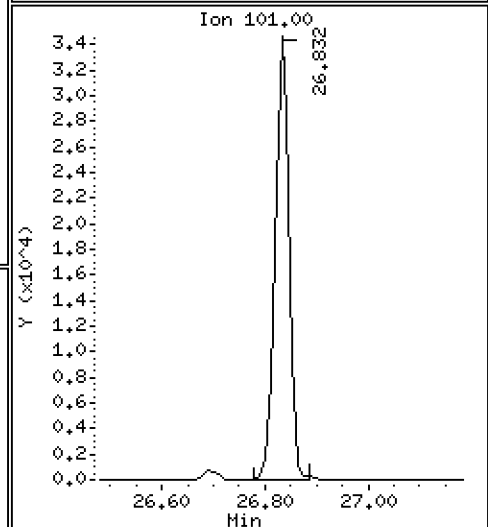
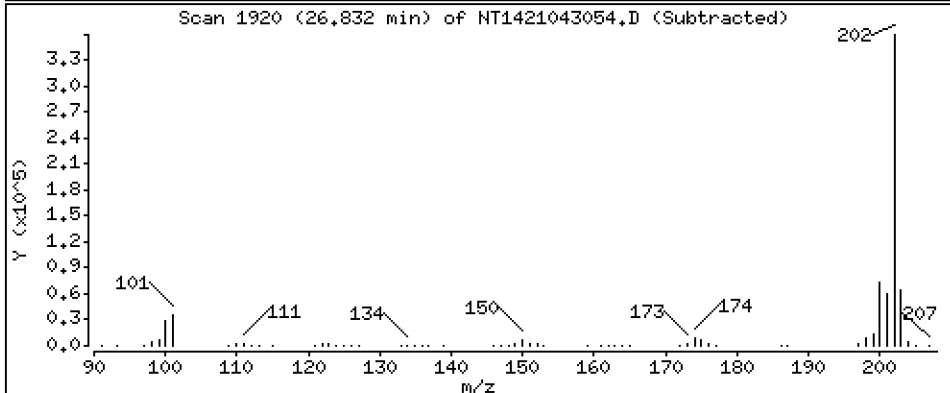
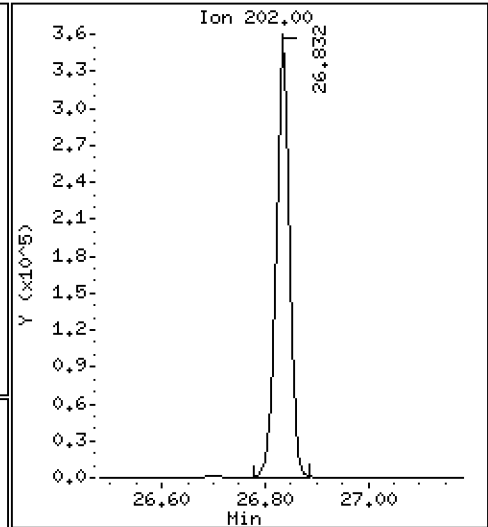
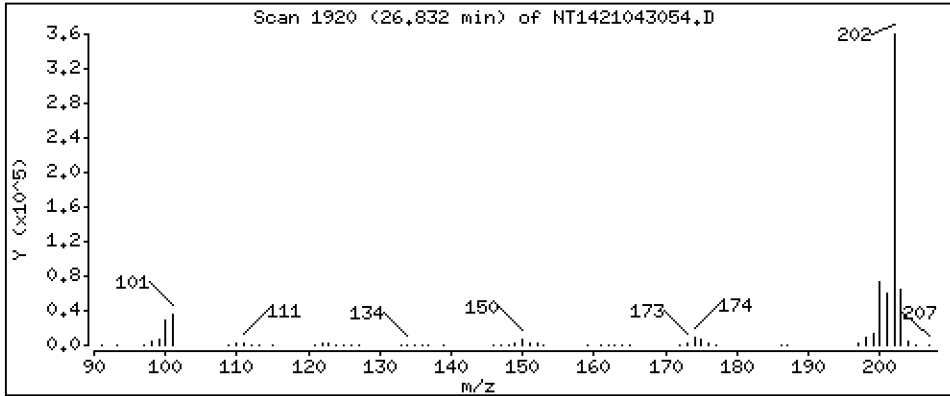
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

46 Pyrene

Concentration: 2,464 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

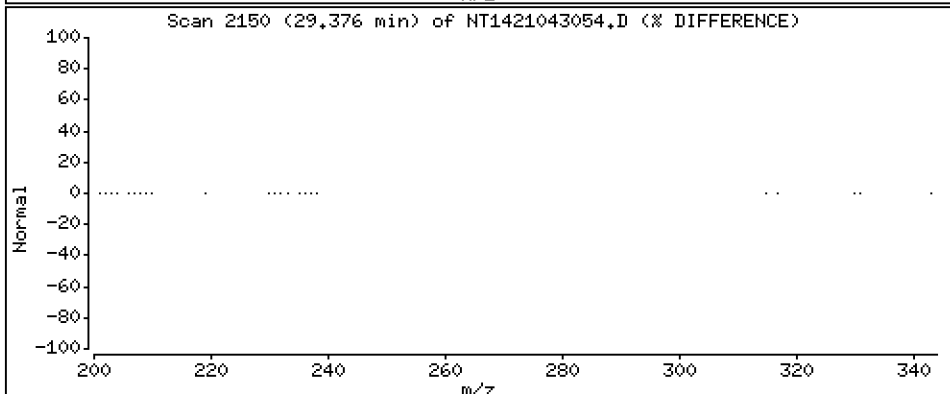
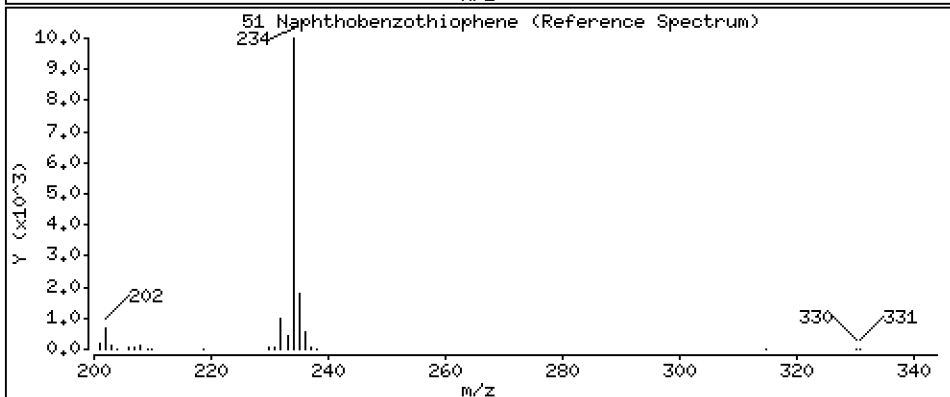
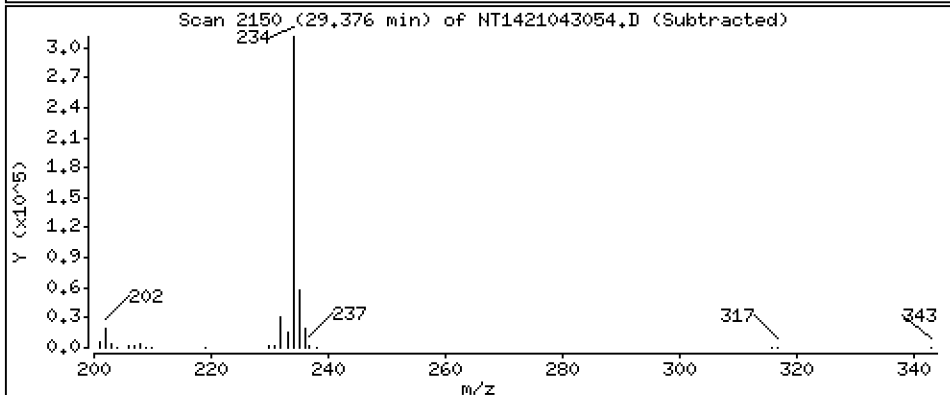
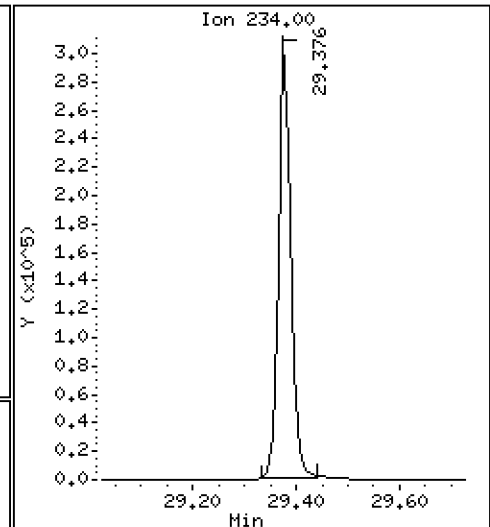
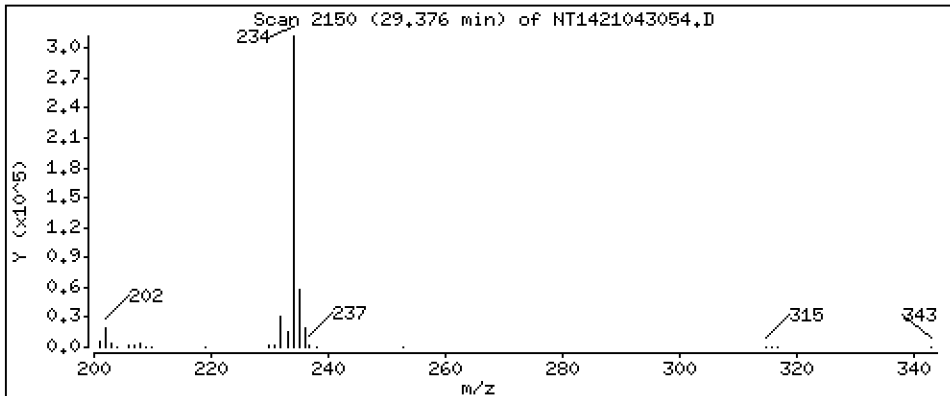
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

51 Naphthobenzothiophene

Concentration: 1,971 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

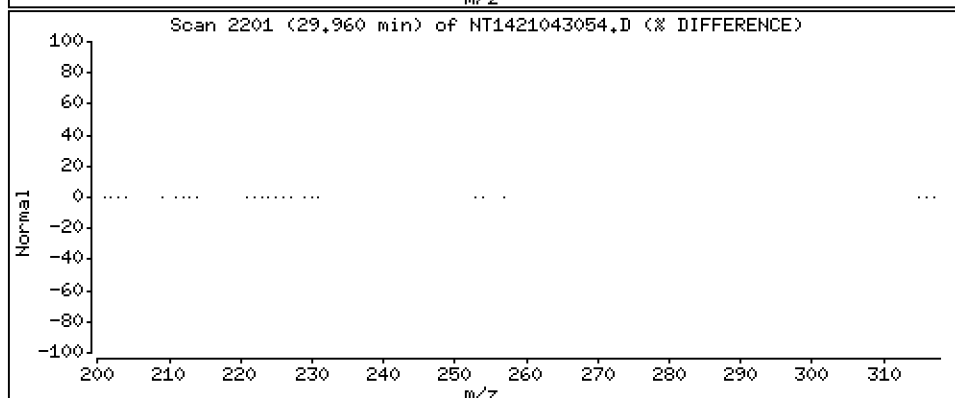
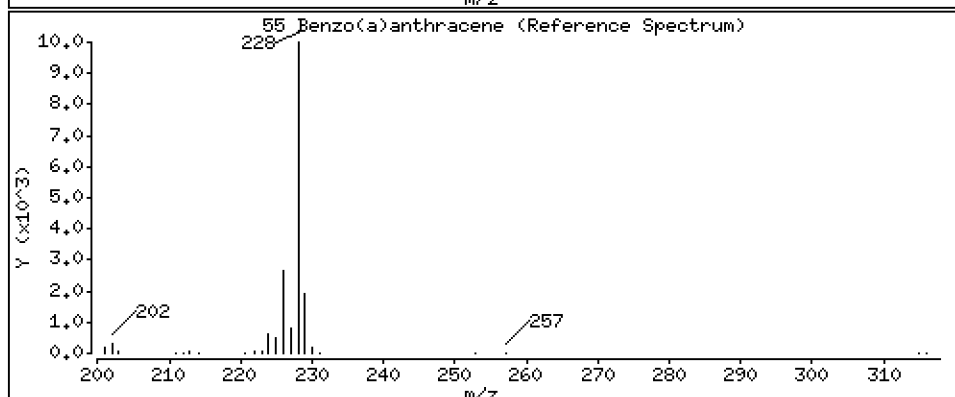
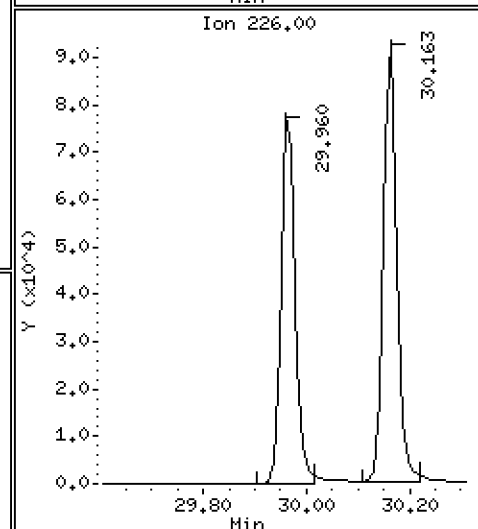
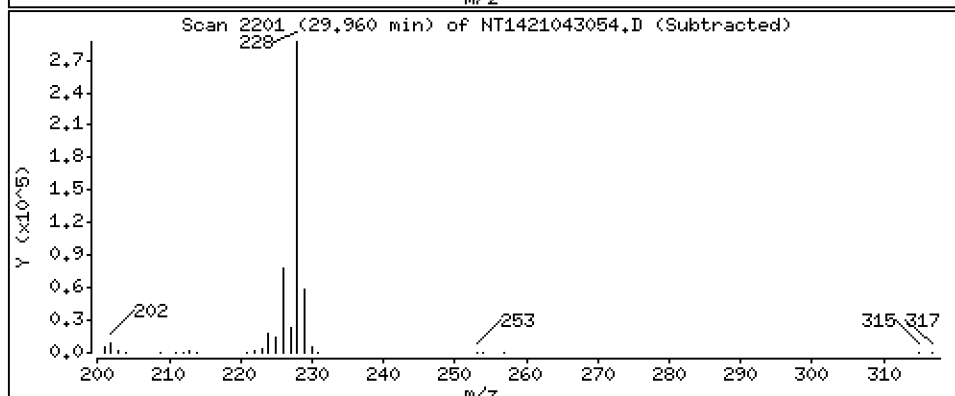
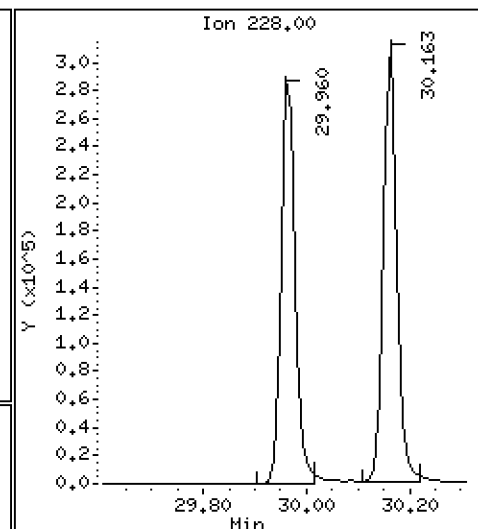
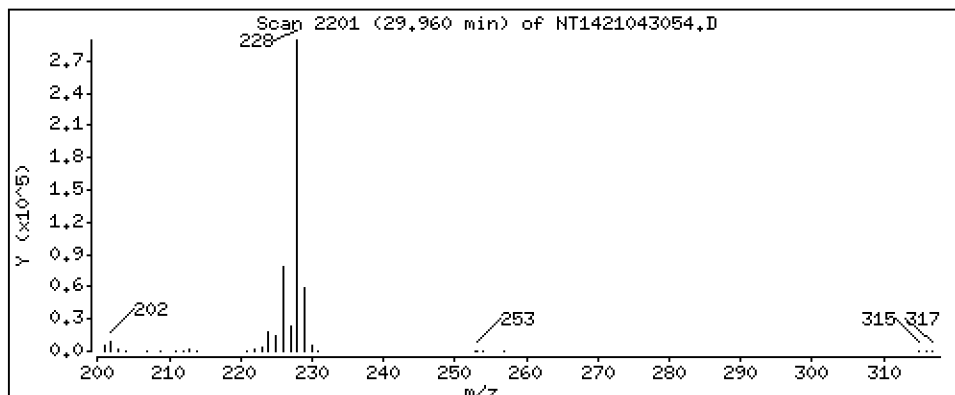
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

55 Benzo(a)anthracene

Concentration: 2,236 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

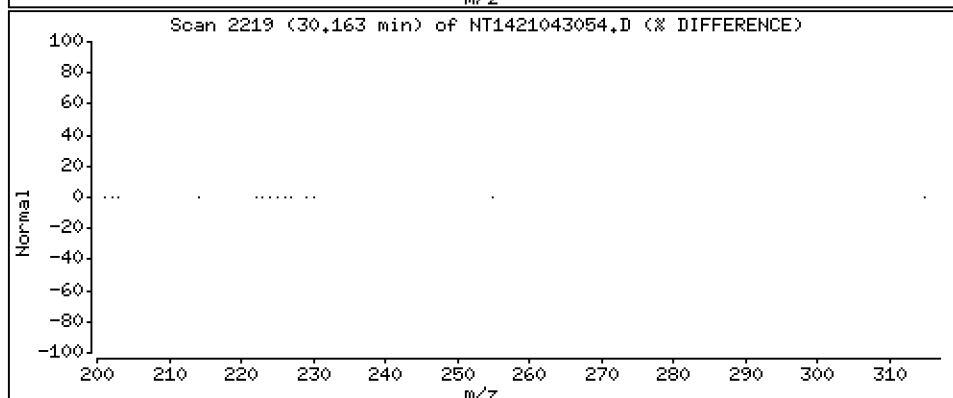
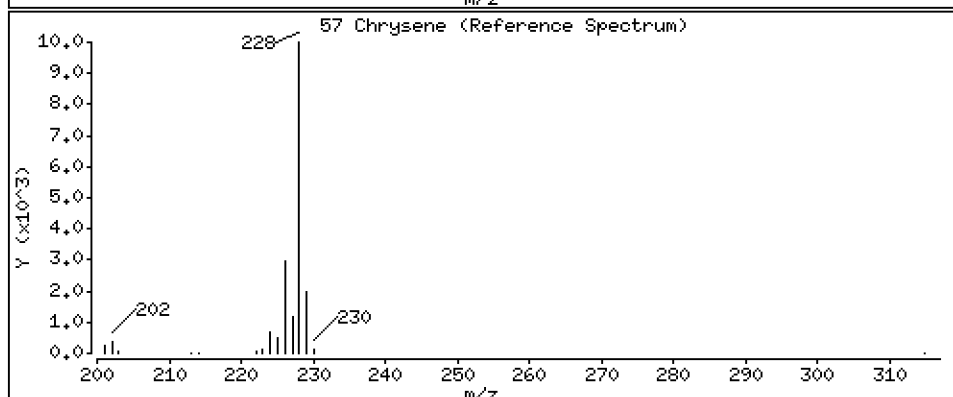
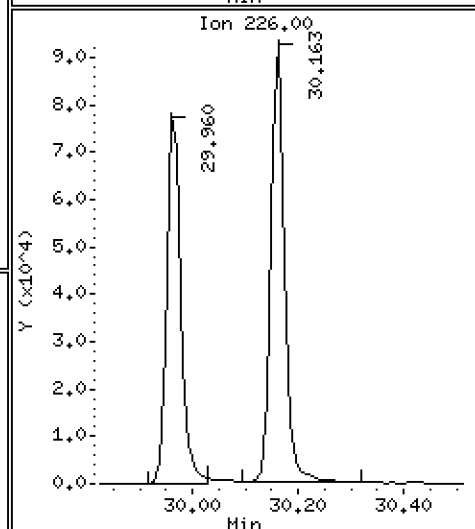
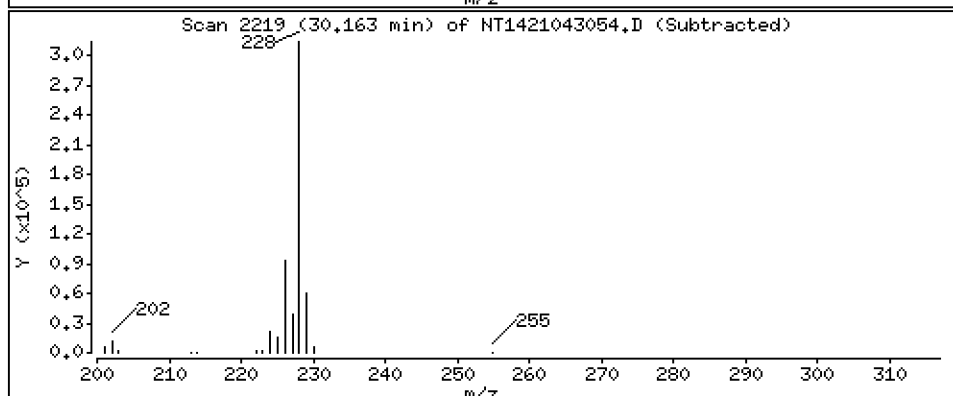
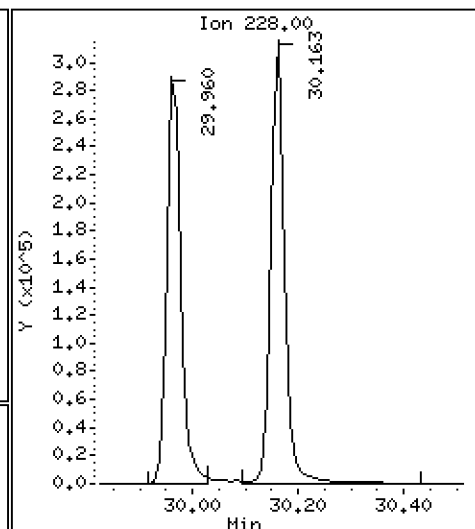
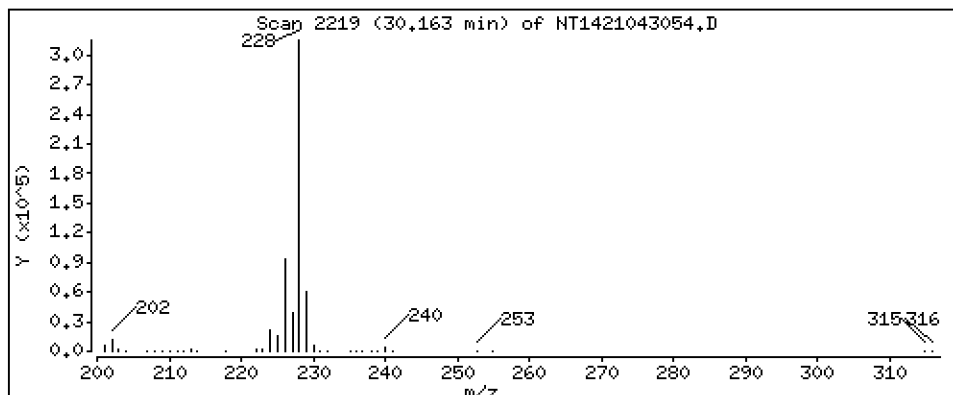
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

57 Chrysene

Concentration: 2,321 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

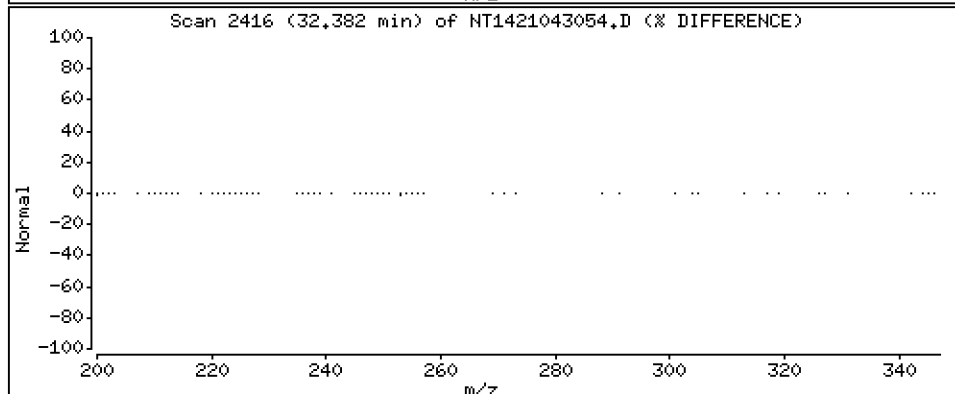
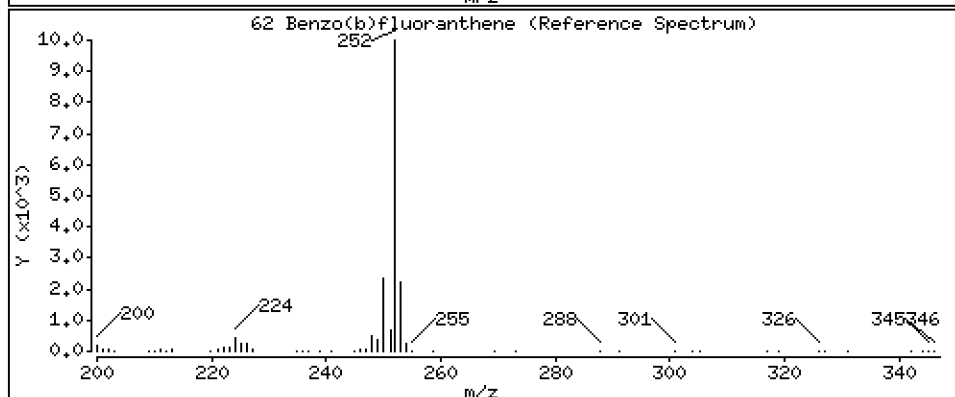
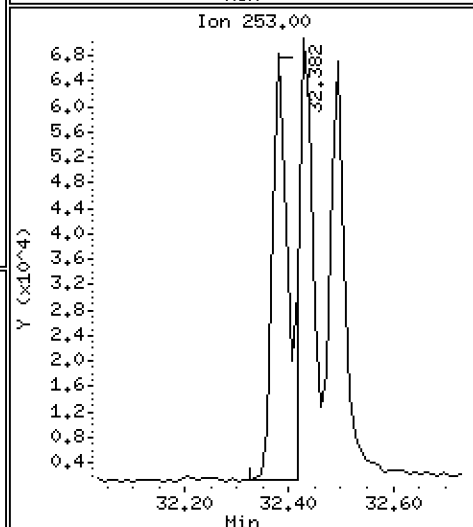
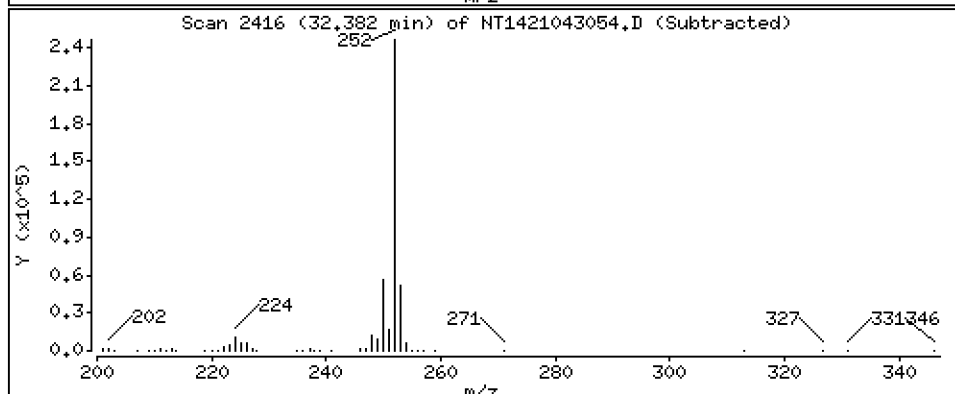
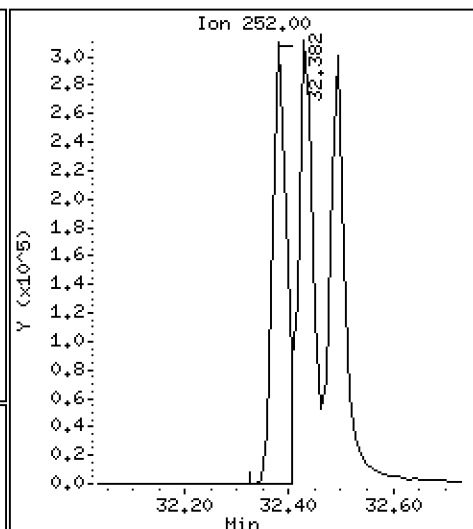
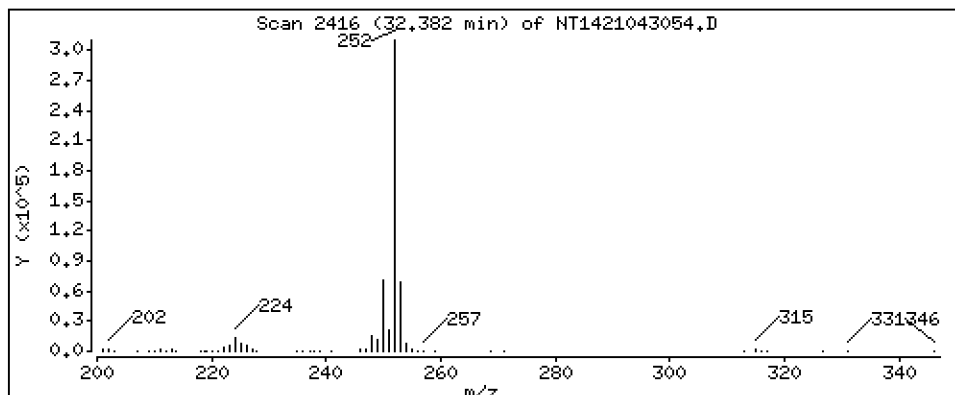
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

62 Benzo(b)fluoranthene

Concentration: 2,359 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

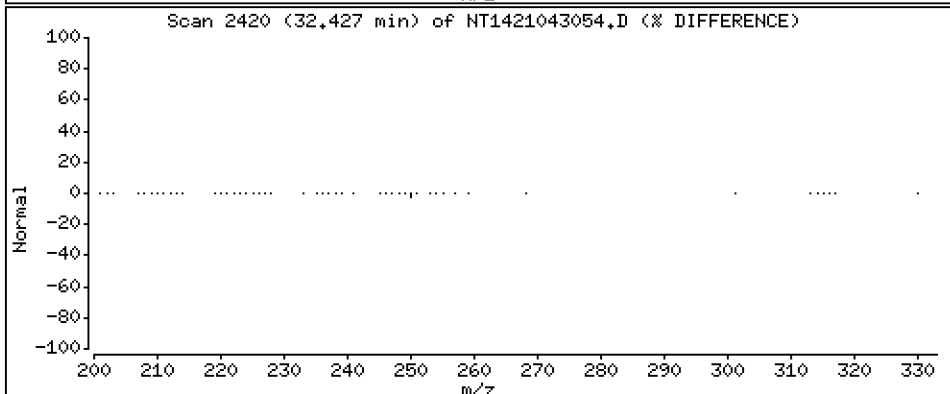
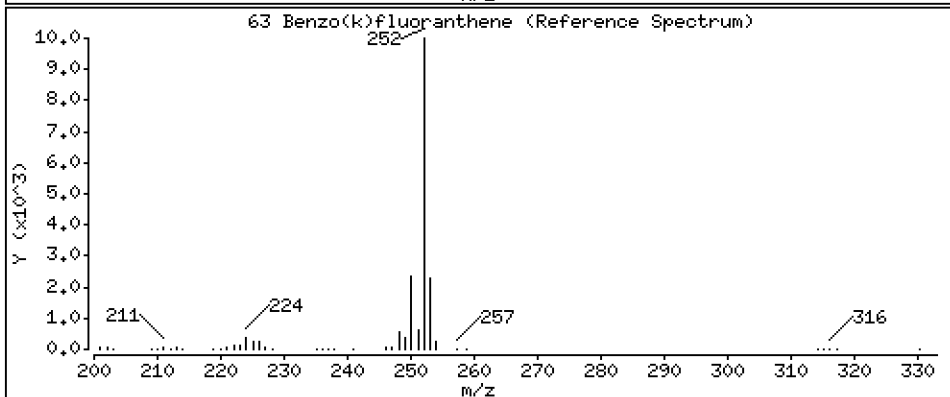
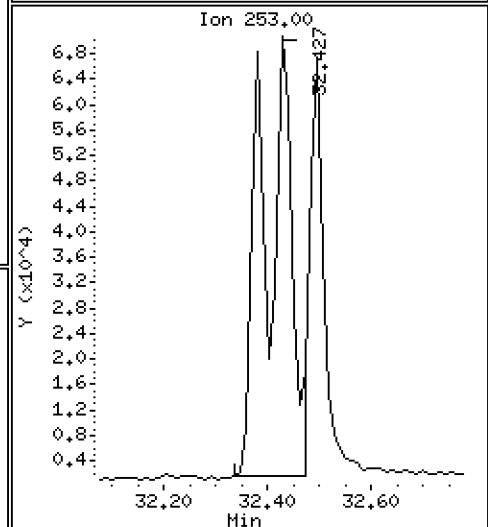
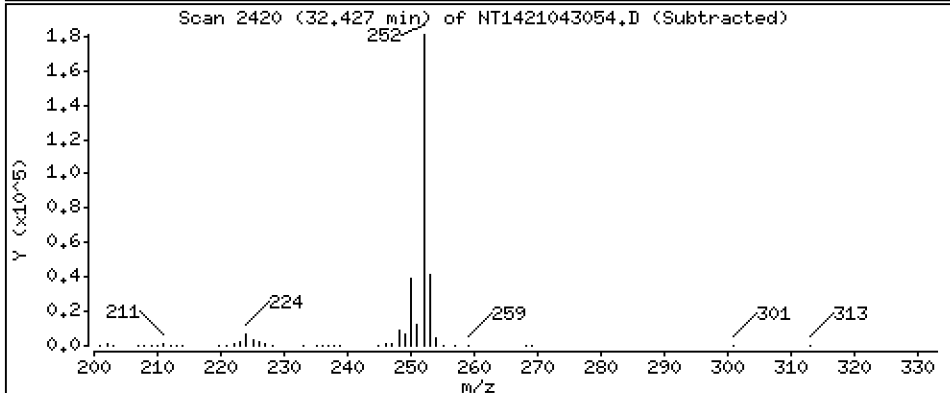
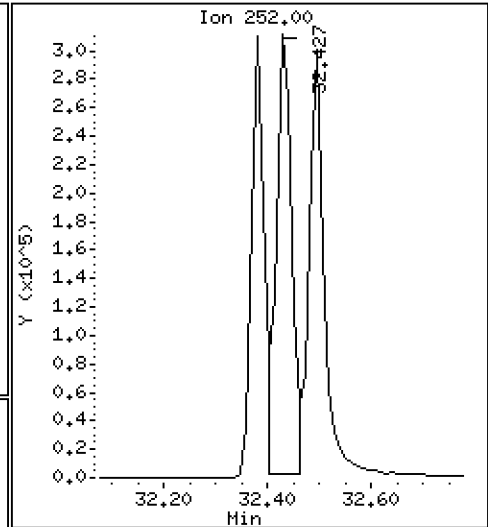
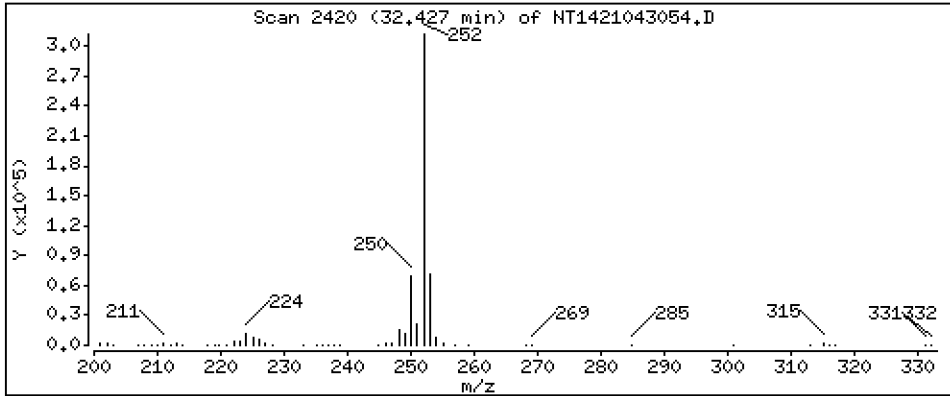
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

63 Benzo(k)fluoranthene

Concentration: 2,271 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

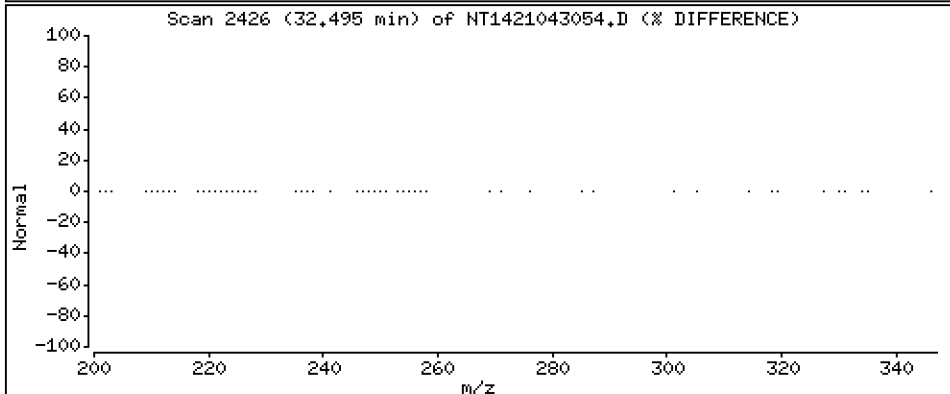
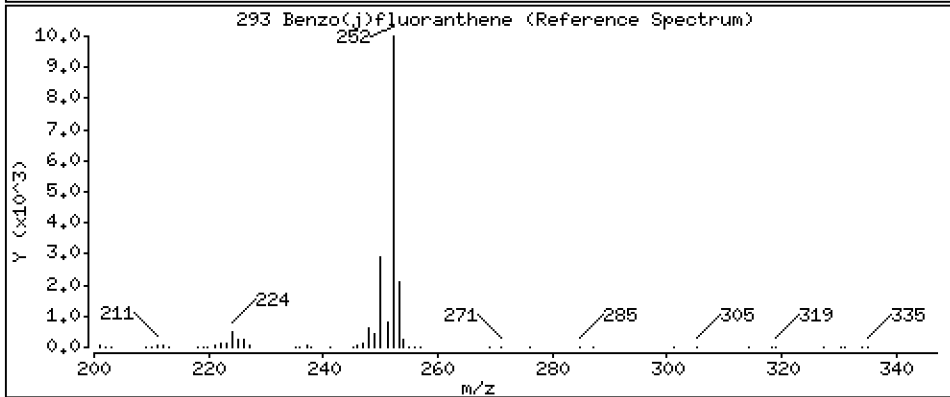
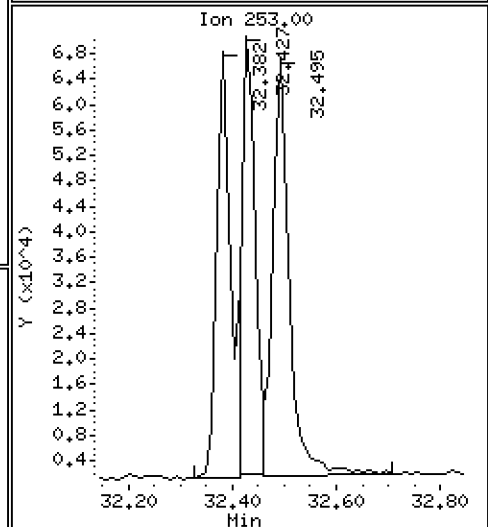
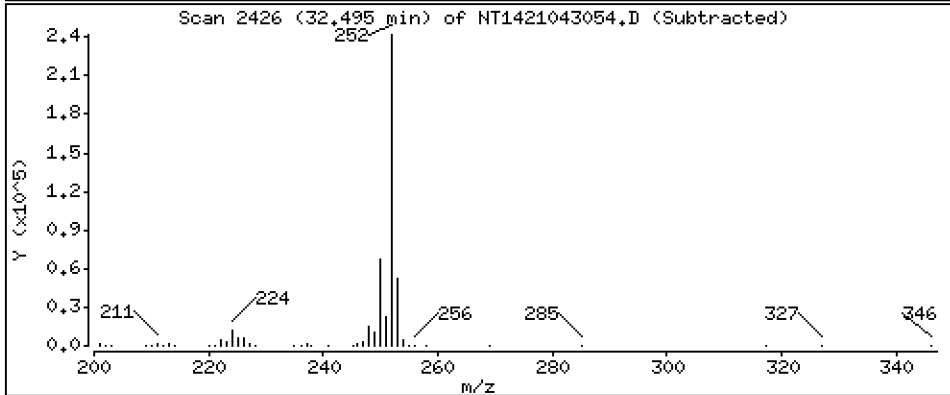
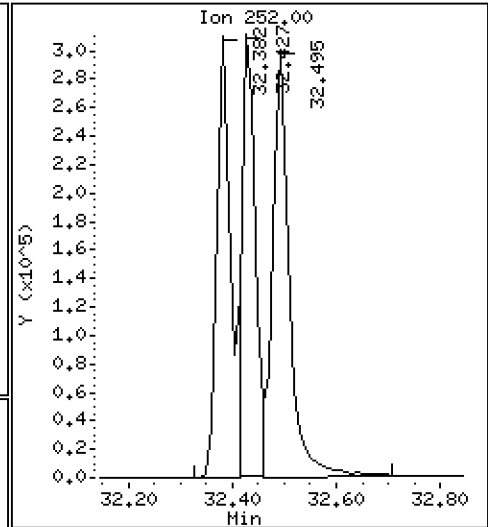
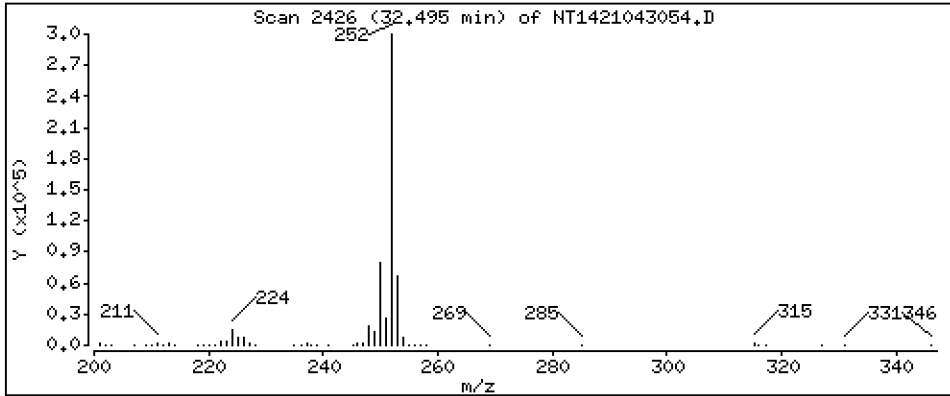
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

293 Benzo(j)fluoranthene

Concentration: 2,519 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

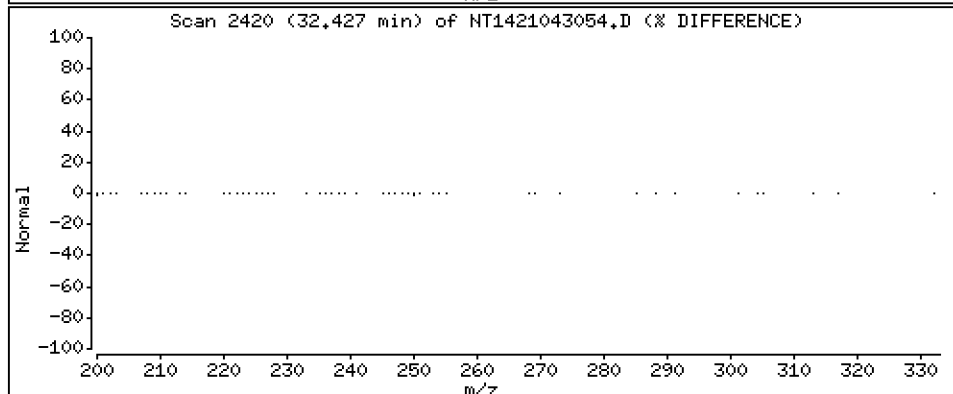
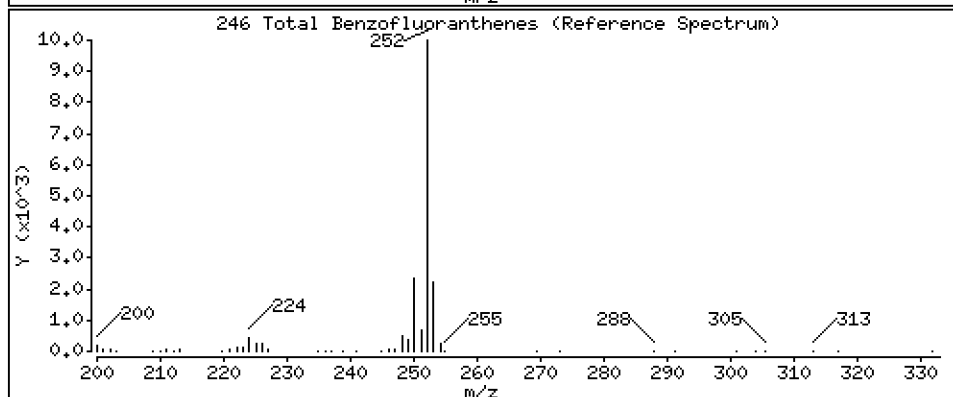
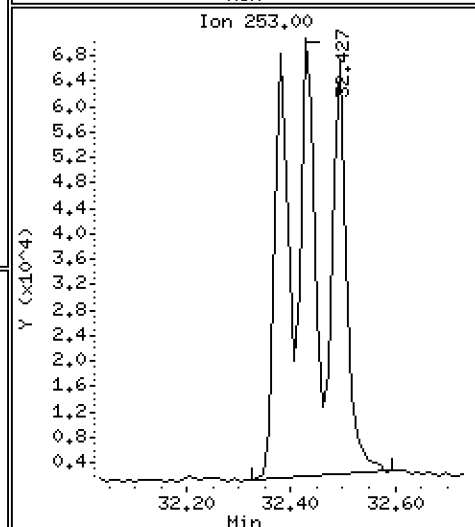
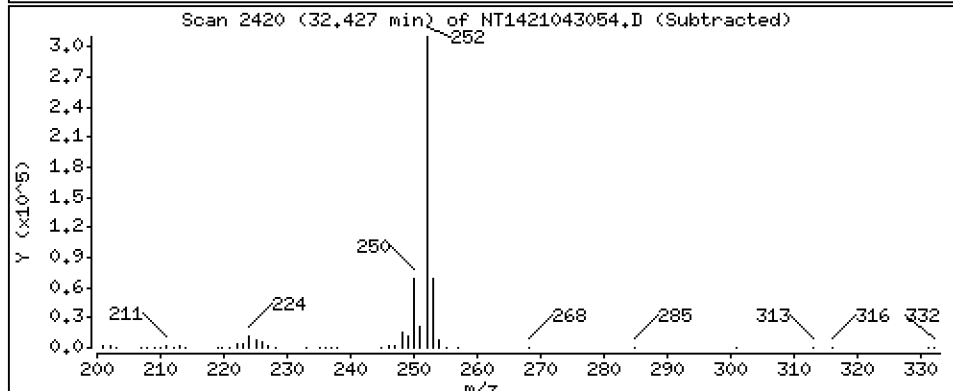
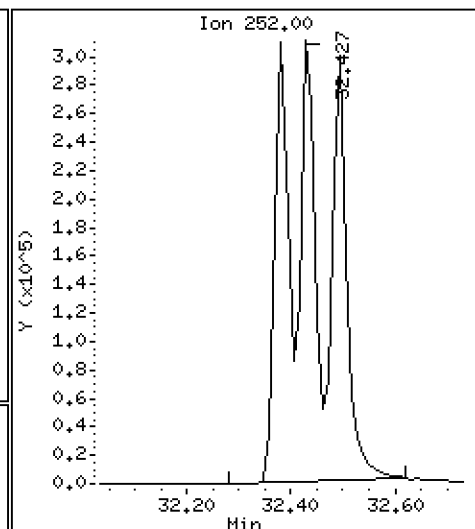
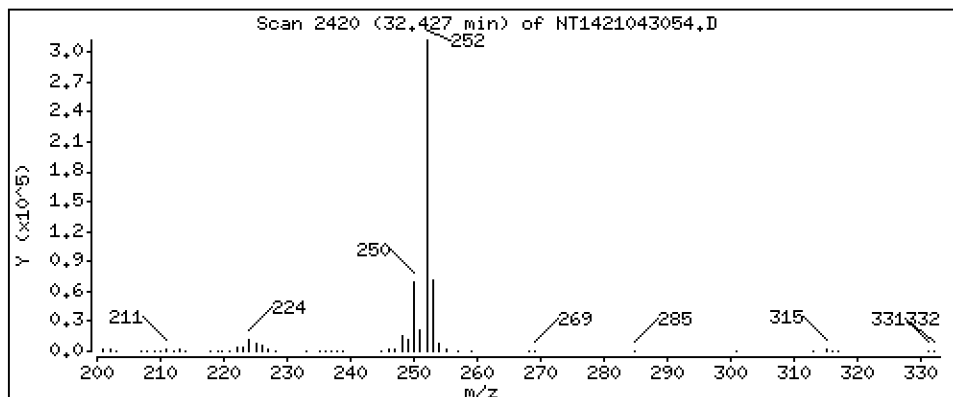
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

246 Total Benzofluoranthenes

Concentration: 6,761 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

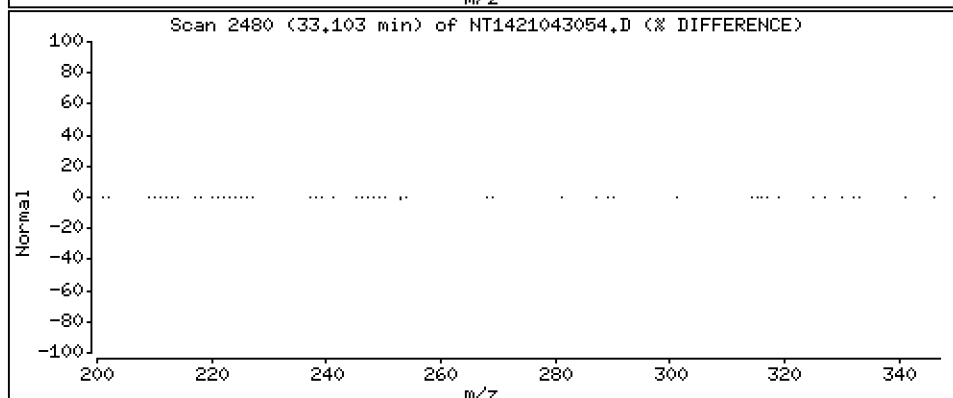
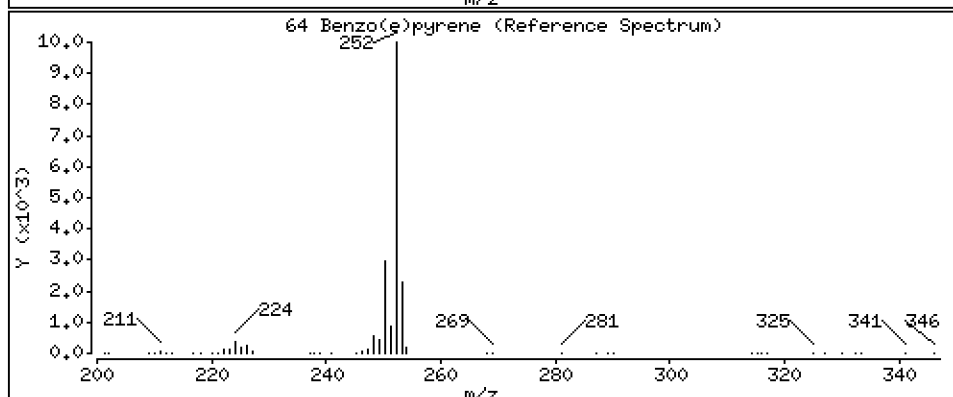
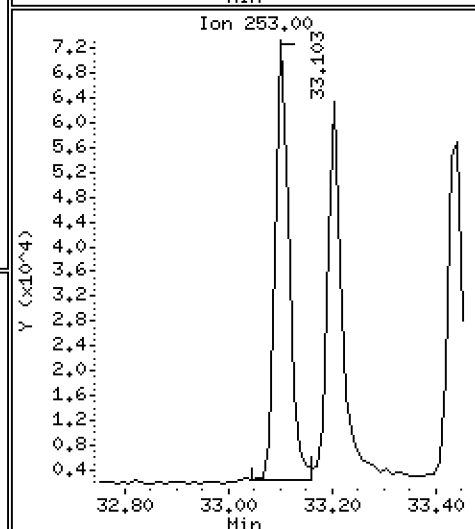
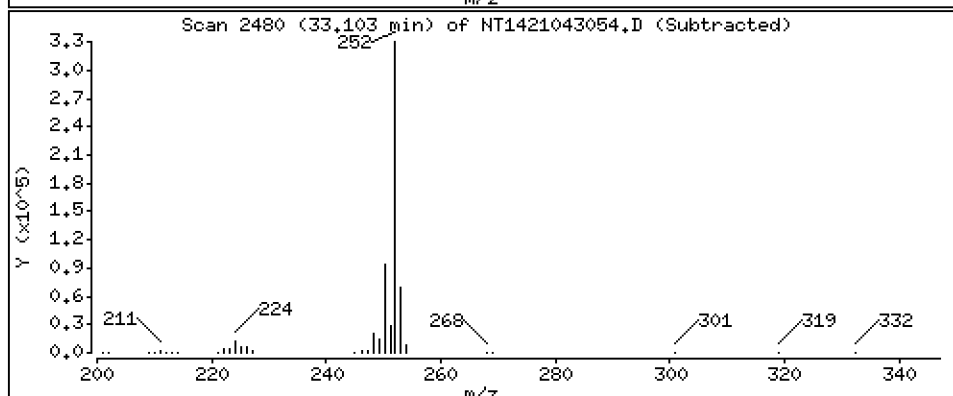
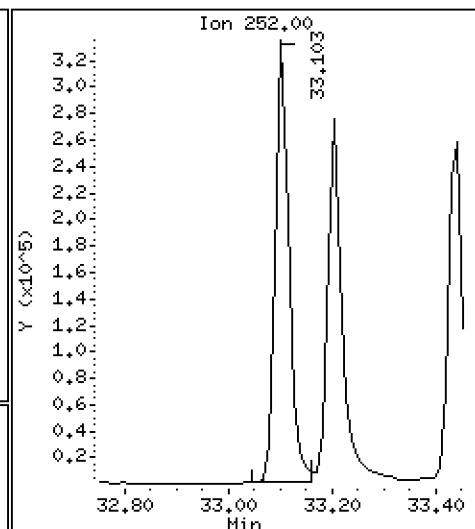
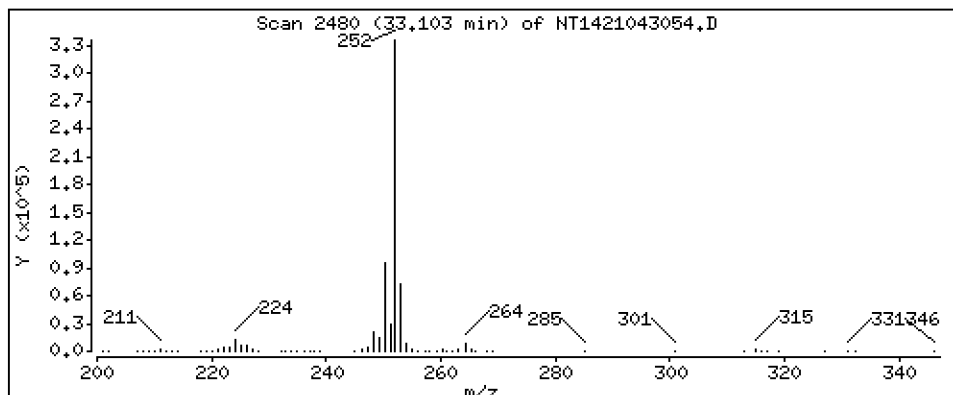
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

64 Benzo(e)pyrene

Concentration: 2,440 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

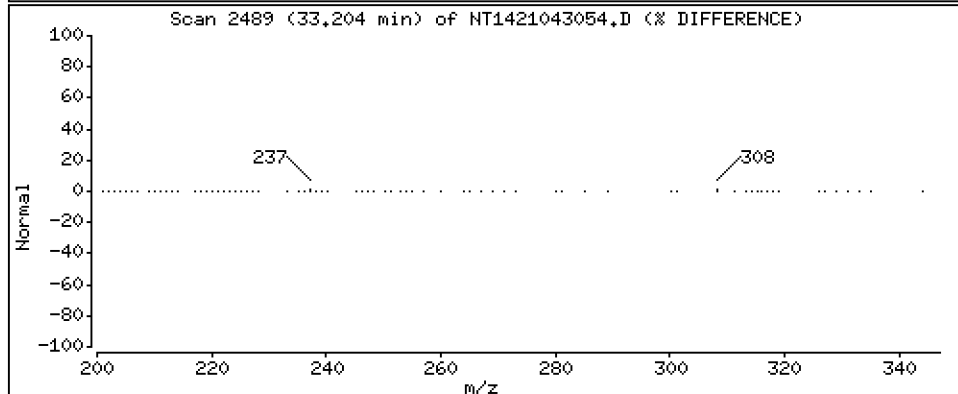
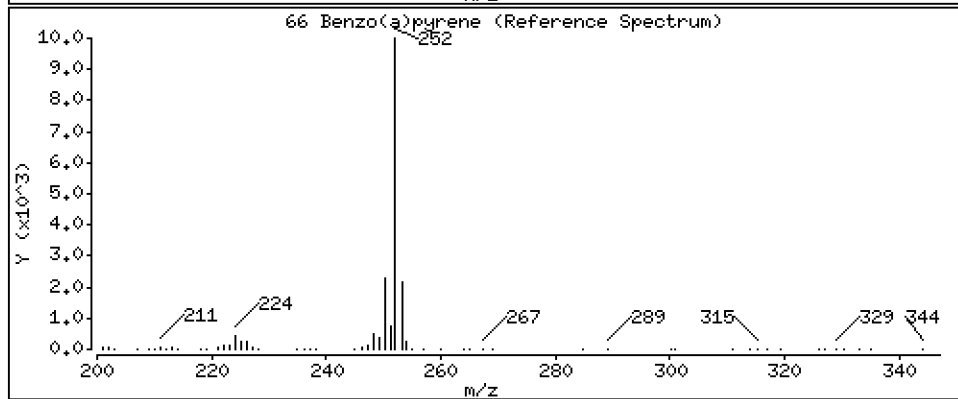
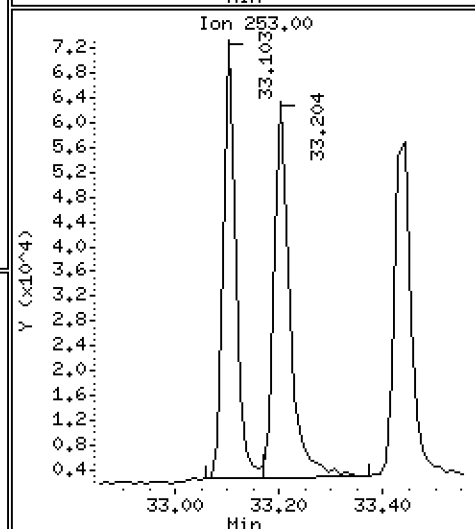
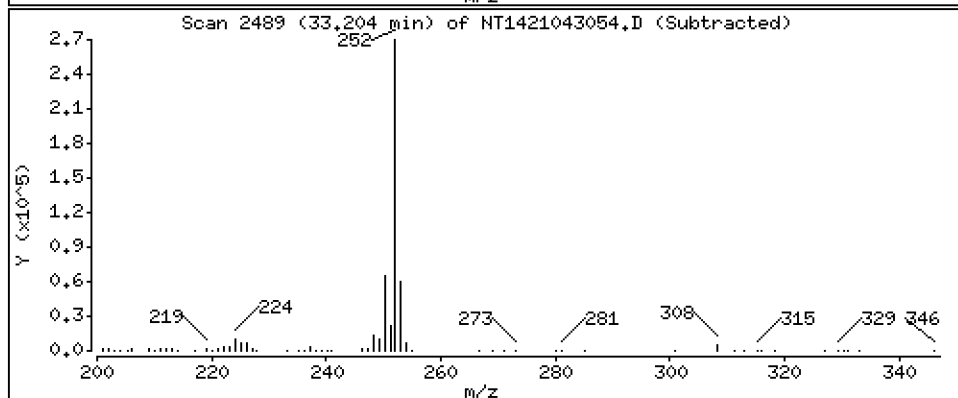
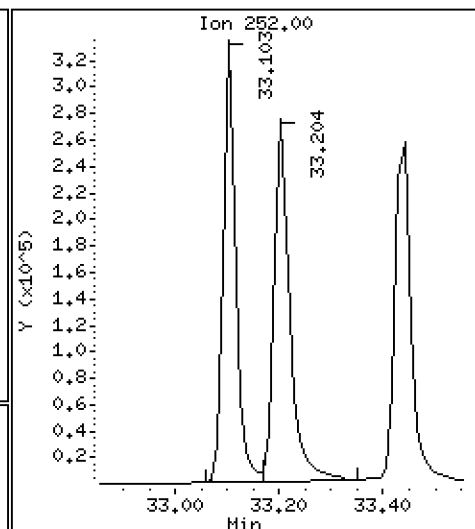
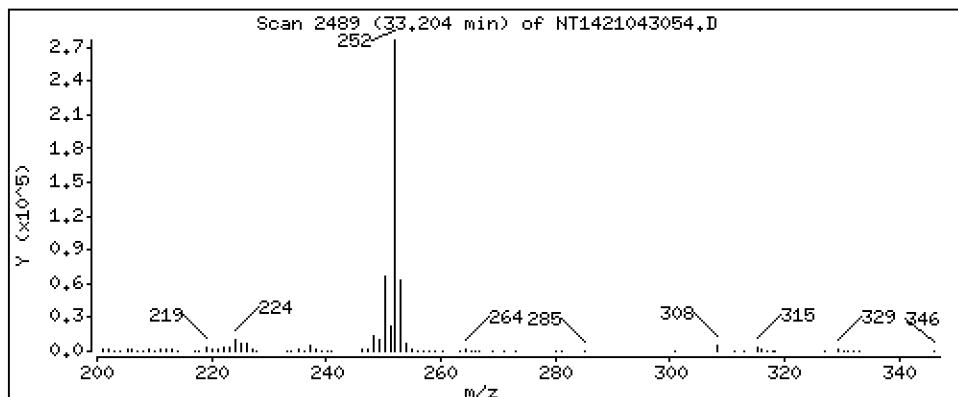
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

66 Benzo(a)pyrene

Concentration: 2,257 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

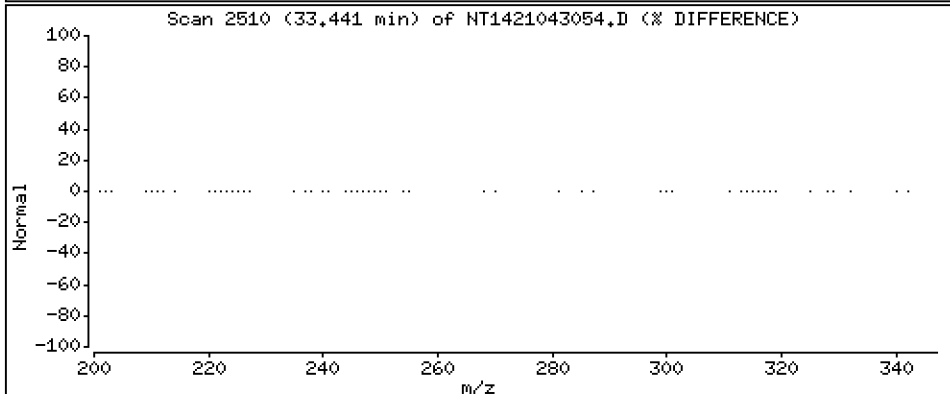
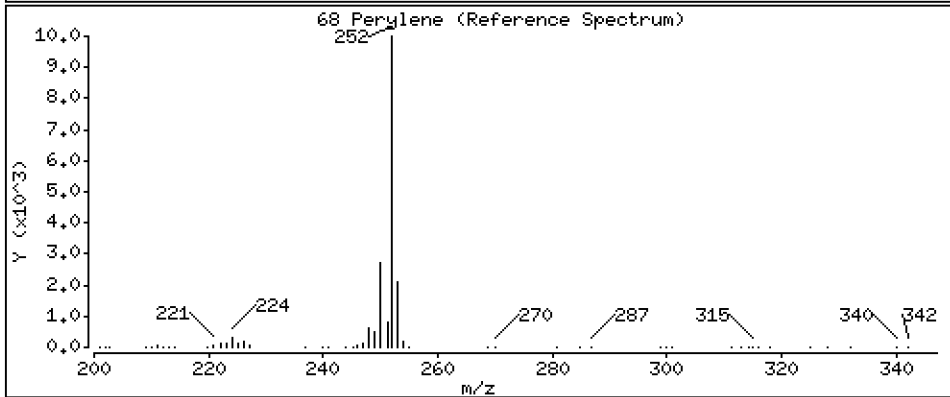
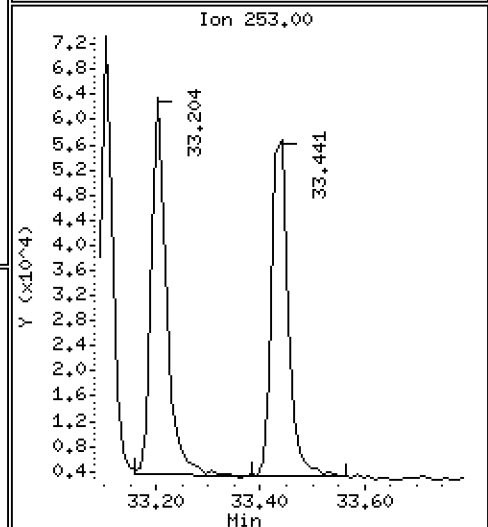
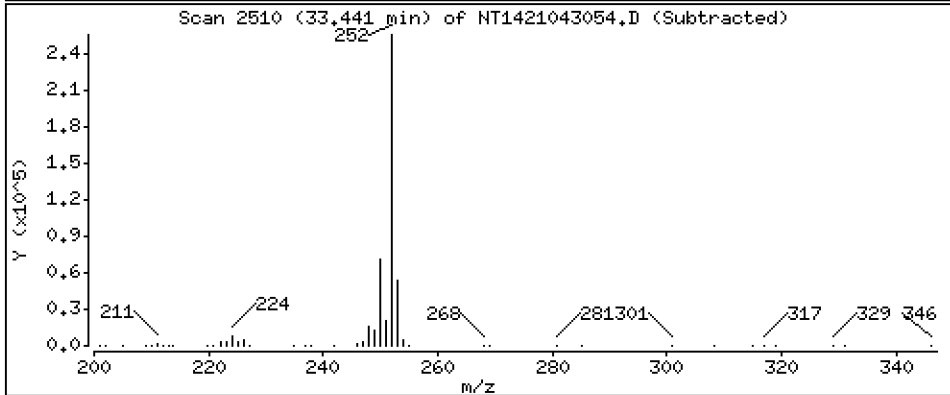
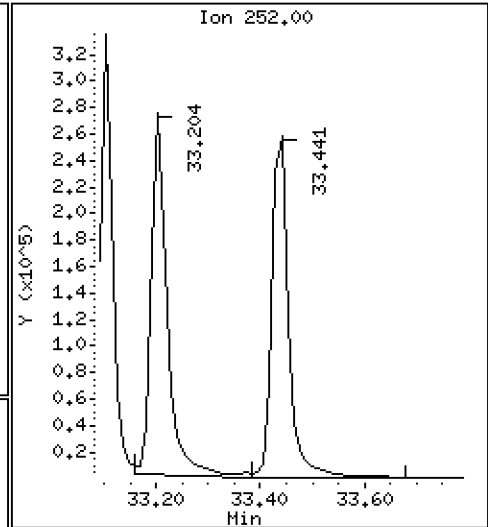
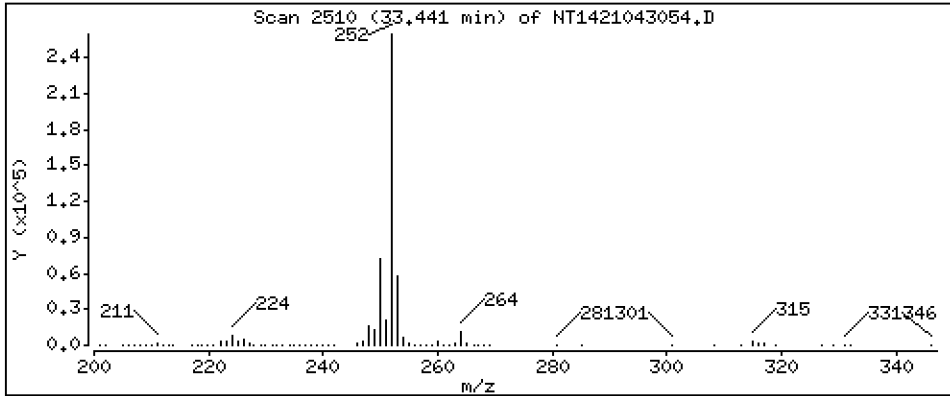
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

68 Perylene

Concentration: 2,445 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

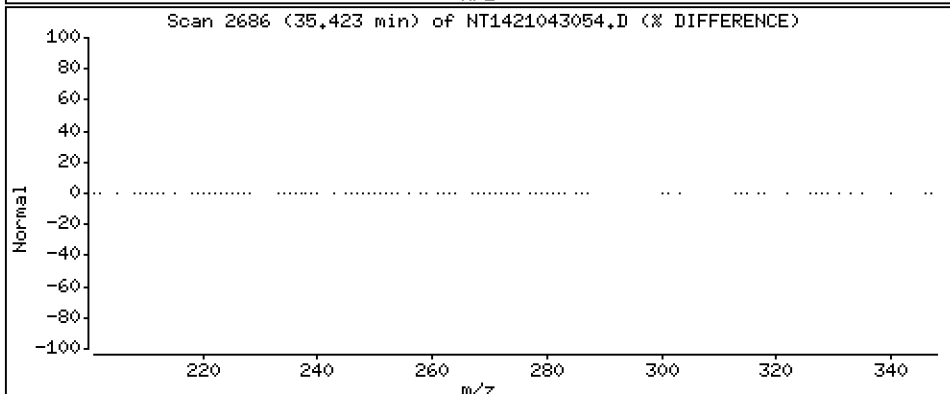
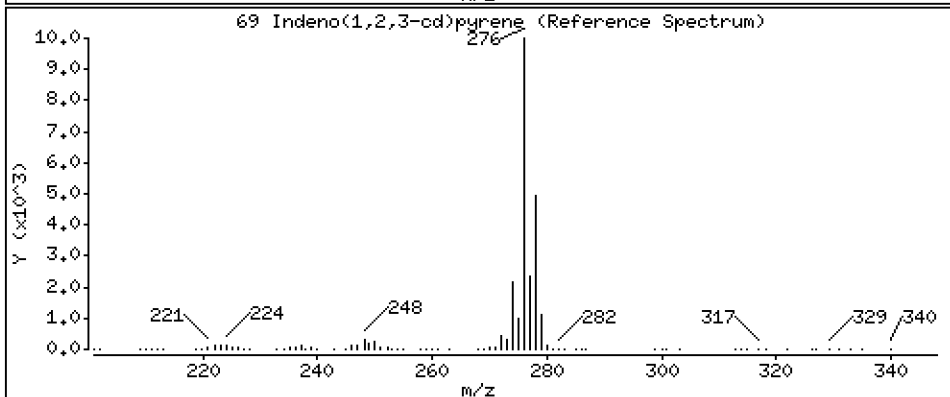
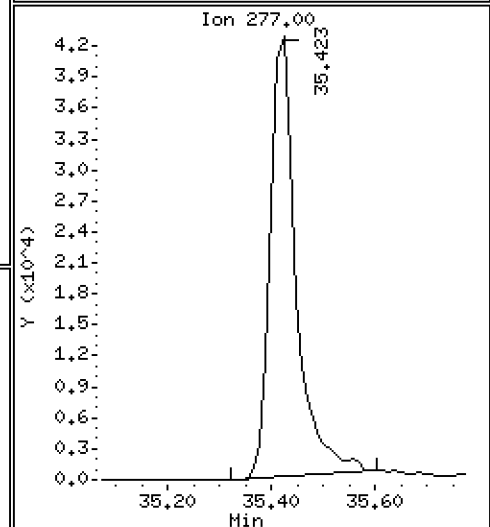
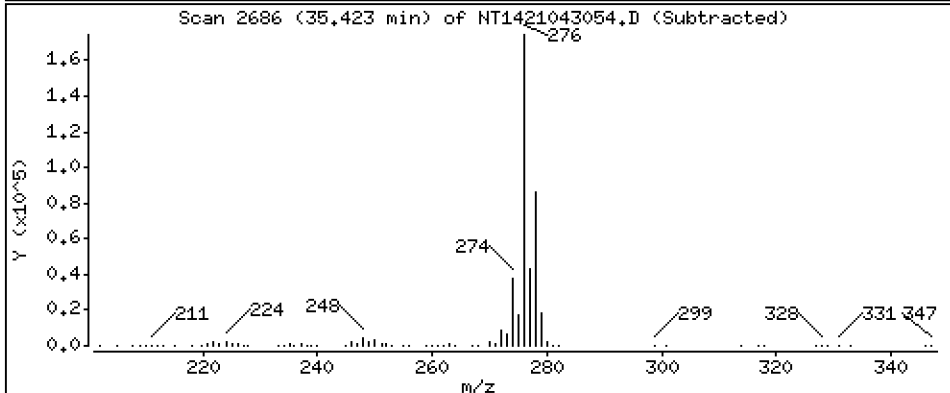
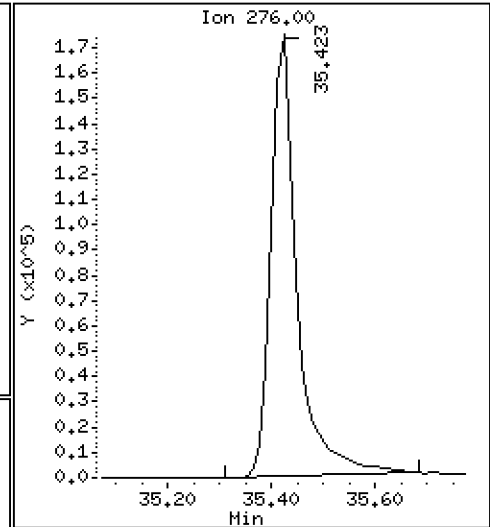
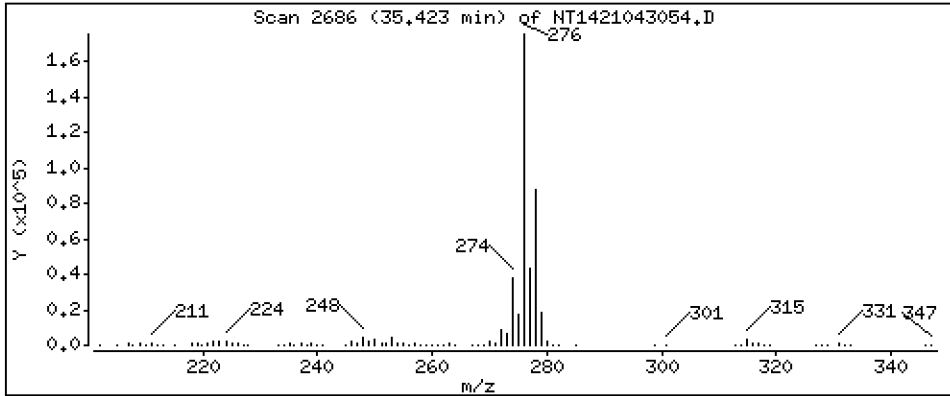
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

69 Indeno(1,2,3-cd)pyrene

Concentration: 2,385 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

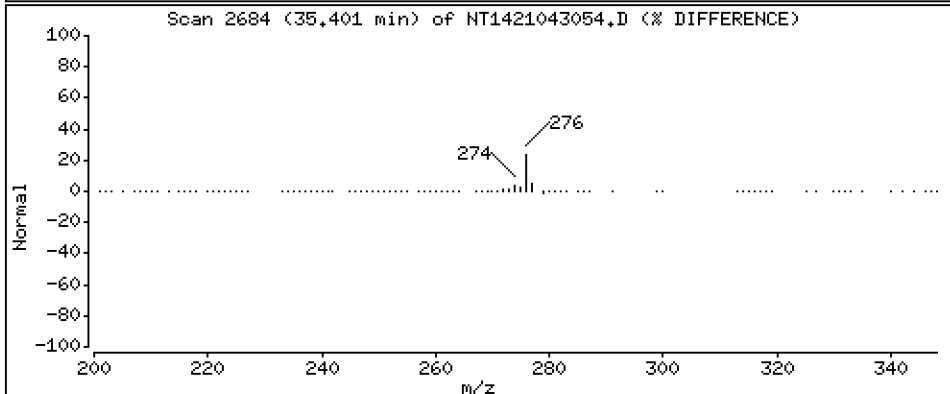
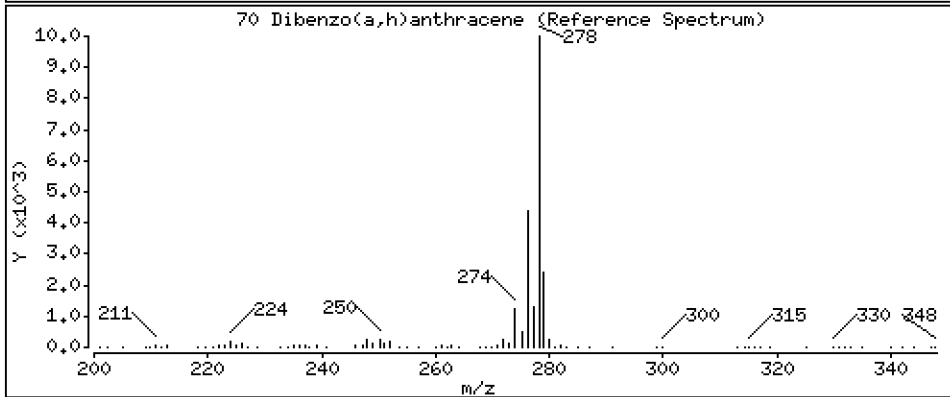
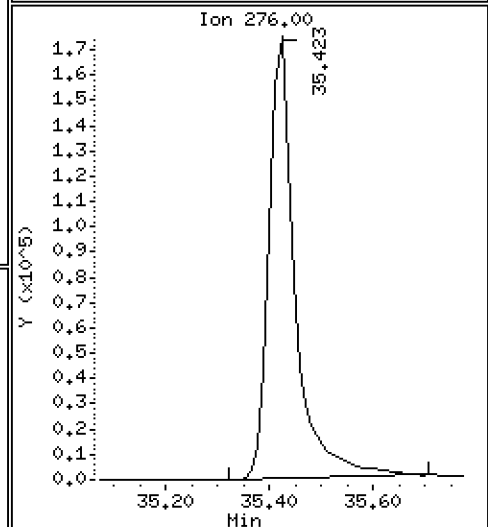
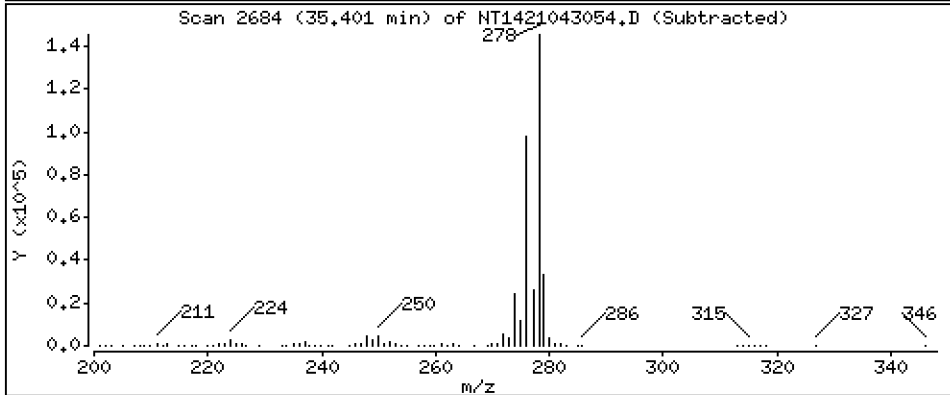
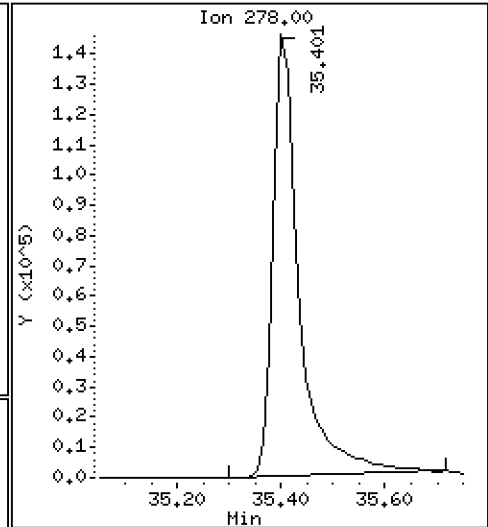
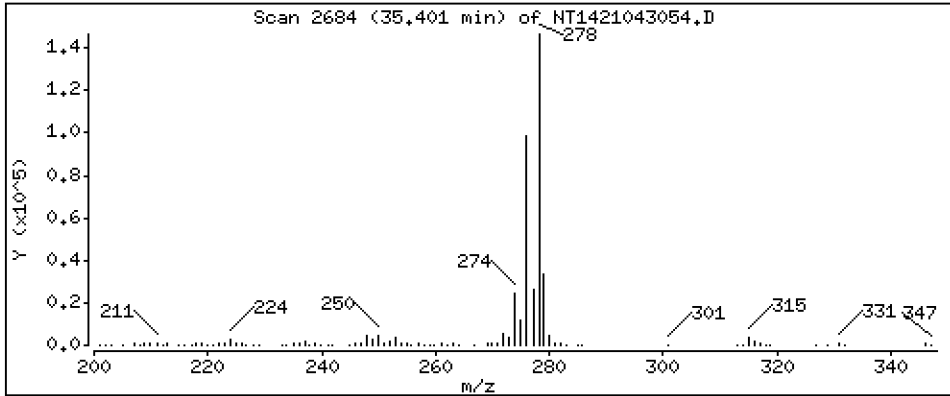
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

70 Dibenzo(a,h)anthracene

Concentration: 2,324 ug/mL



Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

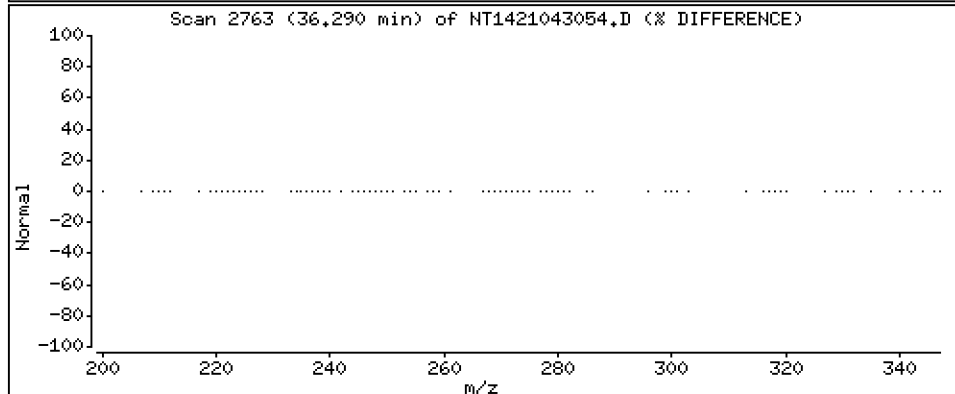
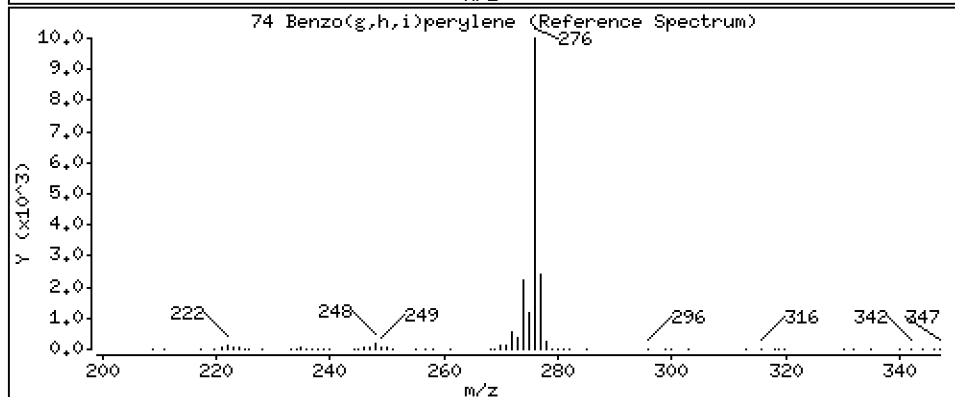
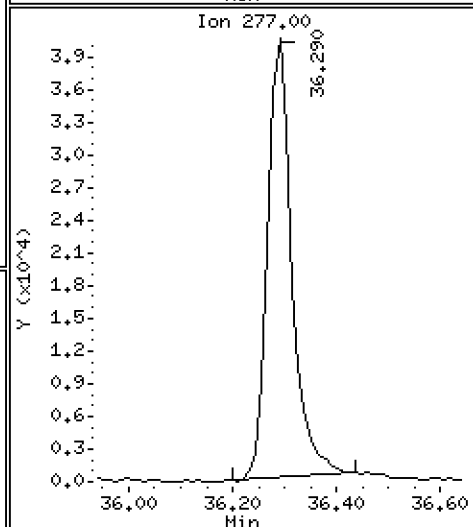
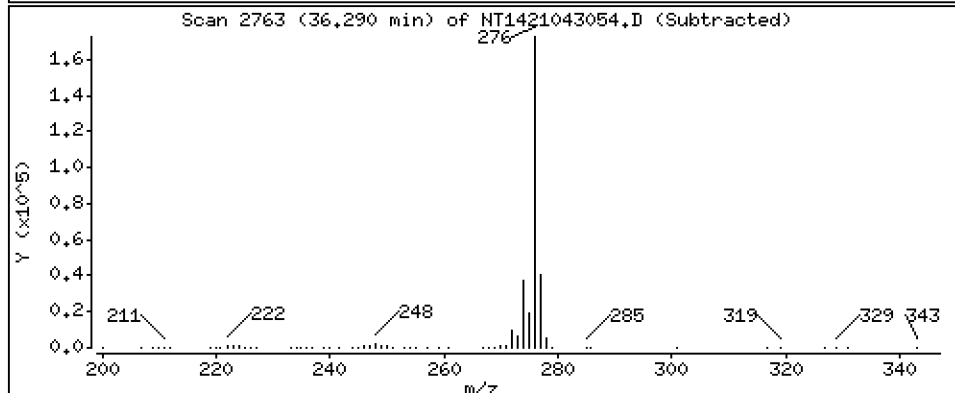
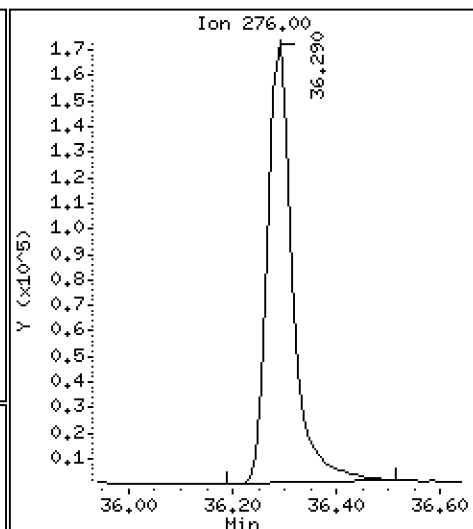
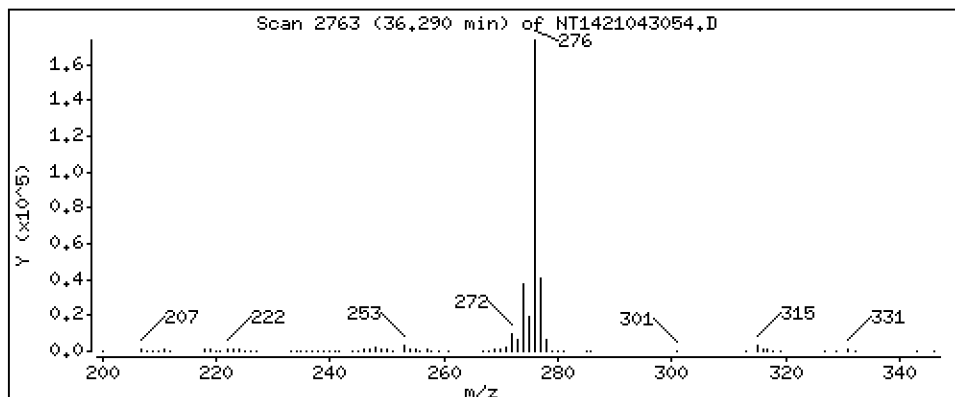
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

74 Benzo(g,h,i)perylene

Concentration: 2,655 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430D.b\NT1421043054.D
 Lab Smp Id: BJD0507-BS1
 Inj Date : 02-MAY-2021 02:00
 Operator : VTS
 Smp Info : BJD0507-BS1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
 Meth Date : 04-May-2021 08:25 van
 Cal Date : 30-APR-2021 13:32
 Als bottle: 35
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-202011

Inst ID: nt14.i

Quant Type: ISTD
 Cal File: NT1421043009.D

Compound Sublist: TARGETS.sub

Compounds	QUANT	SIG	CONCENTRATIONS					
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)
1 trans-Decalin	138		7.035	7.045	(0.375)	70627	1.64538	1.645
2 cis-Decalin	138		8.145	8.155	(0.434)	51460	1.73658	1.737
\$ 6 Naphthalene-d8	136		11.766	11.776	(0.627)	653241	1.96435	1.964 (R)
7 Naphthalene	128		11.836	11.836	(0.631)	663018	1.96012	1.960
12 Benzo(b)thiophene	134		12.284	12.295	(0.654)	527882	1.96158	1.962
16 2-Methylnaphthalene	141		13.669	13.680	(0.728)	367513	2.03601	2.036
17 1-methylnaphthalene	141		14.120	14.120	(0.752)	350276	2.04803	2.048
18 Biphenyl	154		15.307	15.318	(0.815)	533555	2.06537	2.065
19 2,6-Dimethylnaphthalene	156		15.383	15.394	(0.820)	381504	2.14614	2.146
20 Acenaphthylene	152		16.955	16.955	(0.903)	638910	2.28391	2.284
\$ 21 Acenaphthene-d10	164		17.241	17.241	(0.918)	351900	2.16716	2.167 (R)
22 Acenaphthene	153		17.351	17.362	(0.924)	416211	2.31502	2.315
23 Dibenzofuran	168		17.724	17.735	(0.944)	602893	2.21303	2.213
24 1,6,7-Trimethylnaphthalene	170		17.955	17.955	(0.956)	377355	2.41882	2.419
* 25 Fluorene-d10	176		18.772	18.772	(1.000)	576235	2.00000	
26 Fluorene	166		18.874	18.874	(1.005)	466590	2.35667	2.357
30 Dibenzothiophene	184		21.785	21.796	(1.161)	596240	2.38566	2.386
\$ 35 Phenanthrene-d10	188		22.104	22.104	(0.995)	572390	2.06996	2.070 (R)
36 Phenanthrene	178		22.181	22.181	(0.999)	654067	2.11868	2.119
* 250 Anthracene-d10	188		22.214	22.214	(1.000)	511706	2.00000	
37 Anthracene	178		22.280	22.280	(1.003)	597046	2.09802	2.098
42 Carbazole	167		23.555	23.566	(1.060)	577776	2.41371	2.414
43 1-Methylphenanthrene	192		24.017	24.017	(1.081)	467397	2.49360	2.494
44 Fluoranthene	202		25.985	25.985	(1.170)	673662	2.45708	2.457
46 Pyrene	202		26.832	26.832	(1.208)	700046	2.46396	2.464
51 Naphthobenzothiophene	234		29.375	29.375	(1.322)	545841	1.97148	1.971
55 Benzo(a)anthracene	228		29.960	29.960	(0.907)	555512	2.23605	2.236
\$ 56 Chrysene-d12	240		30.084	30.084	(0.910)	441702	2.23609	2.236 (R)
57 Chrysene	228		30.163	30.163	(0.913)	589177	2.32059	2.321
62 Benzo(b)fluoranthene	252		32.381	32.382	(0.980)	544614	2.35886	2.359 (M)
63 Benzo(k)fluoranthene	252		32.427	32.427	(0.981)	638321	2.27118	2.271 (M)
293 Benzo(j)fluoranthene	252		32.494	32.494	(0.983)	651294	2.51852	2.519
246 Total Benzofluoranthenes	252		32.427	32.382	(0.981)	1712159	6.76082	6.761 (M)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.046	33.046	(1.000)	543631	2.00000	
64 Benzo(e)pyrene	252	33.102	33.102	(1.002)	564990	2.44012	2.440
66 Benzo(a)pyrene	252	33.204	33.204	(1.005)	536968	2.25657	2.257
\$ 67 Perylene-d12	264	33.384	33.373	(1.010)	481120	2.28114	2.281 (RM)
68 Perylene	252	33.440	33.440	(1.012)	540643	2.44471	2.445
69 Indeno(1,2,3-cd)pyrene	276	35.423	35.423	(1.072)	587575	2.38547	2.385 (M)
70 Dibenzo(a,h)anthracene	278	35.400	35.400	(1.071)	494281	2.32445	2.324 (M)
74 Benzo(g,h,i)perylene	276	36.290	36.290	(1.098)	552978	2.65474	2.655 (M)

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 01-MAY-2021
 Lab File ID: NT1421043054.D Calibration Time: 23:35
 Lab Smp Id: BJD0507-BS1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	504442	252221	1008884	576235	14.23
250 Anthracene-d10	459103	229552	918206	511706	11.46
251 Benzo(e)pyrene-d1	516794	258397	1033588	543631	5.19

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.77	18.27	19.27	18.77	-0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	-0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	-0.00

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.

REVIEW SUMMARY FOR FILE - NT1421043054.D

Lab ID: BJD0507-BS1
nt14.i, 20210430D.b\ALKYLPNA.m, 02-MAY-2021 02:00

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

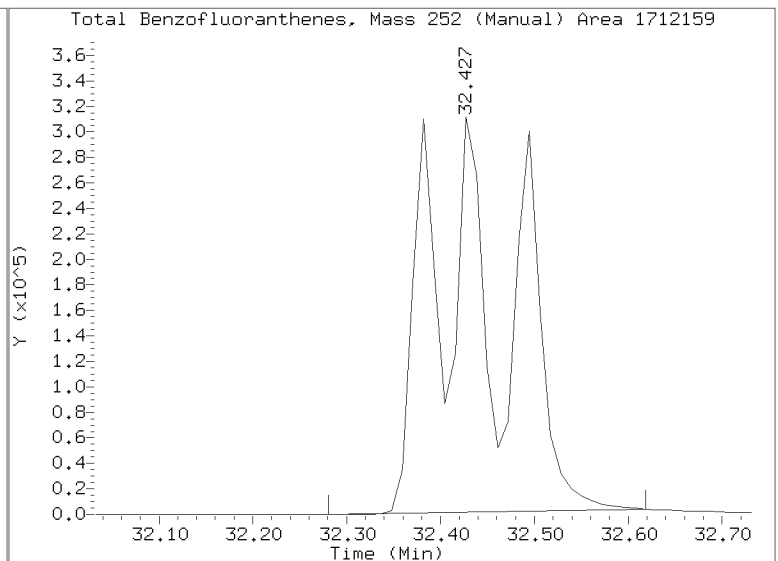
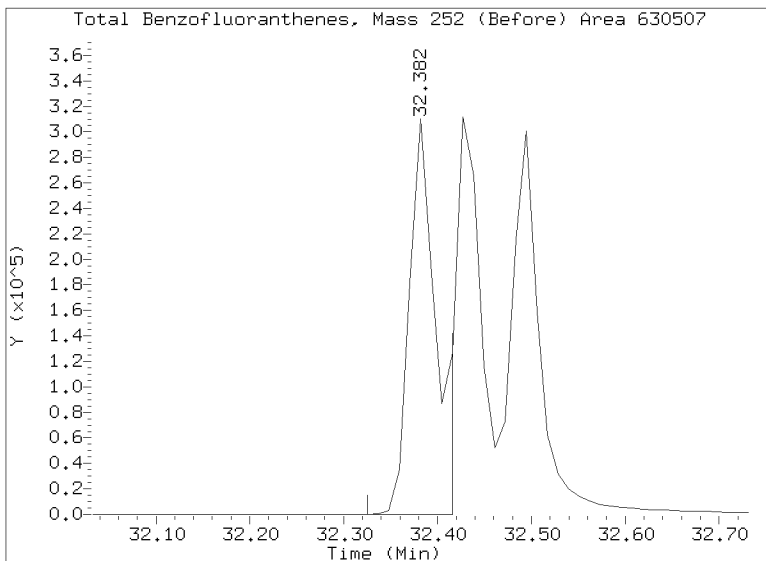
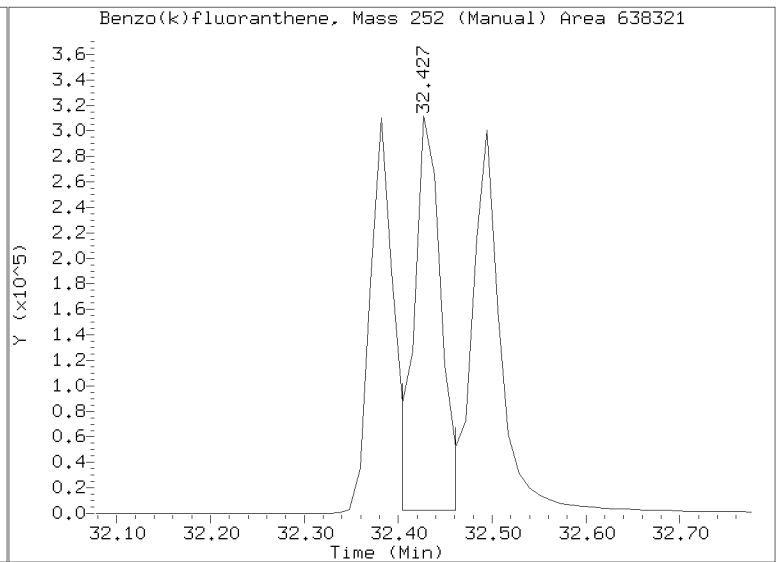
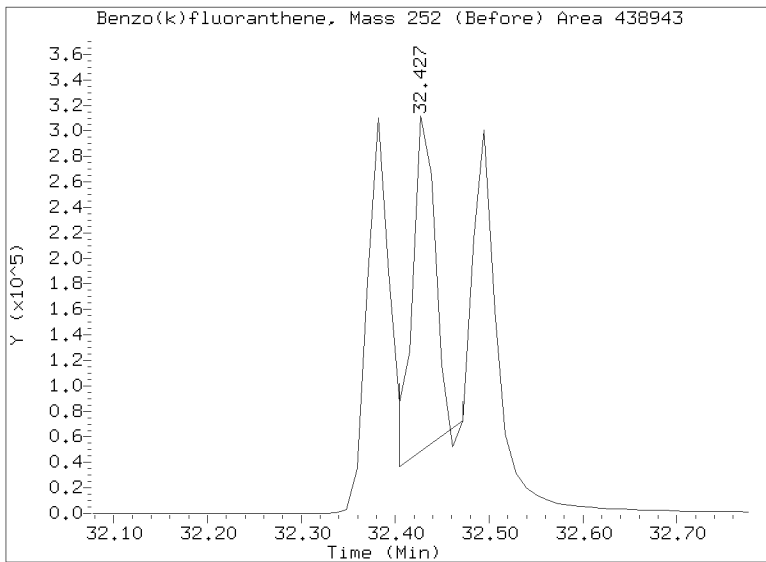
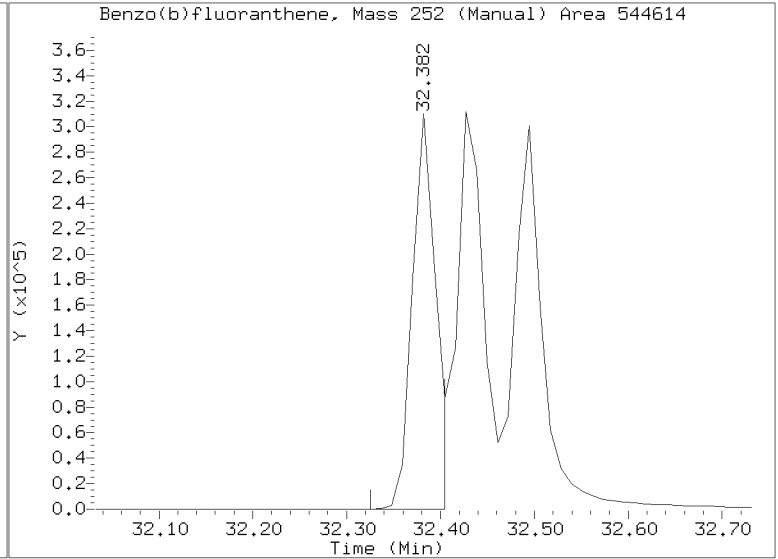
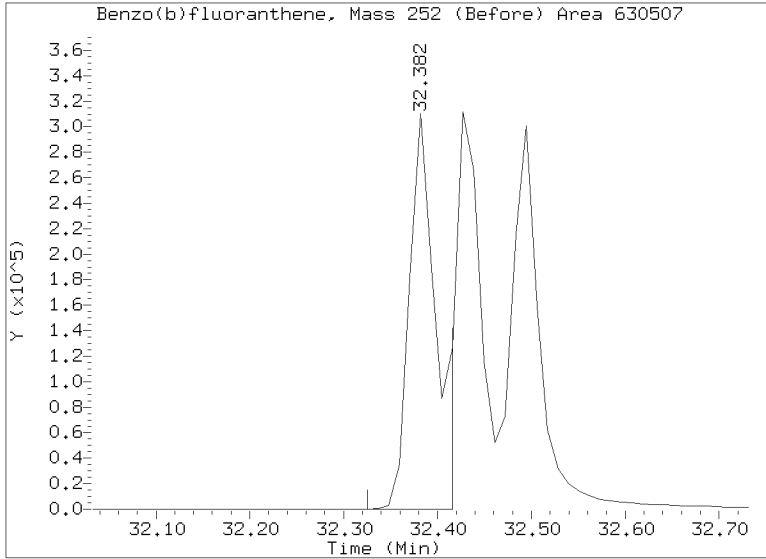
RRT check based on Ccal File: NT1421043051ICV.D

On Column LOD for nt14.i, 20210430D.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

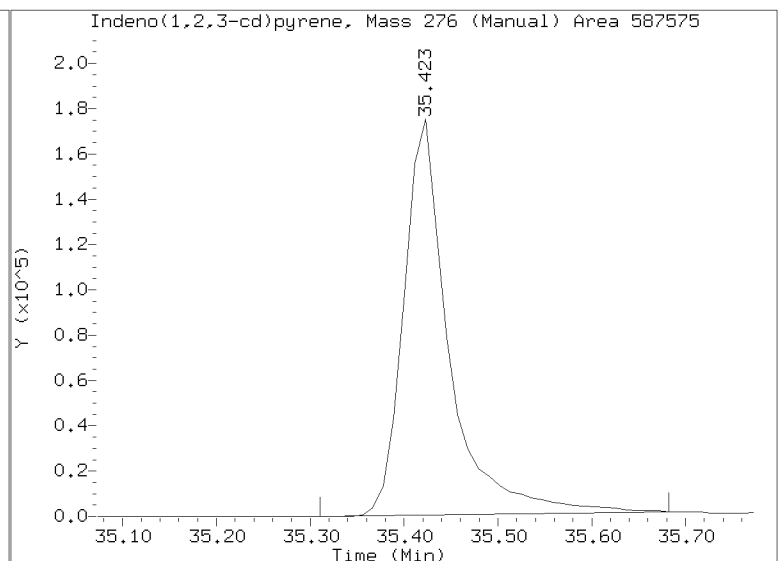
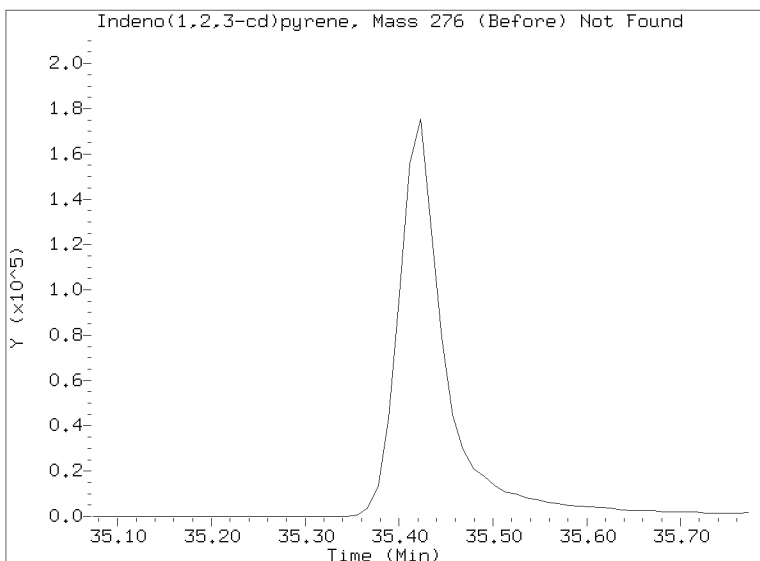
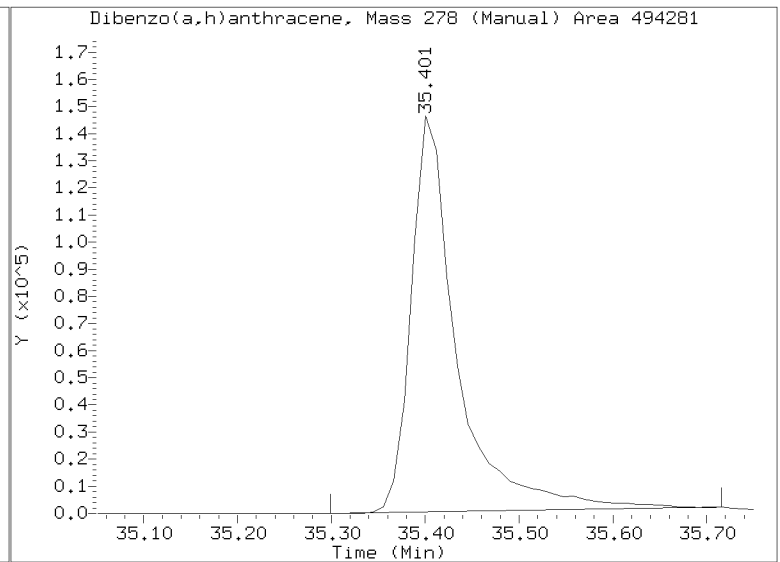
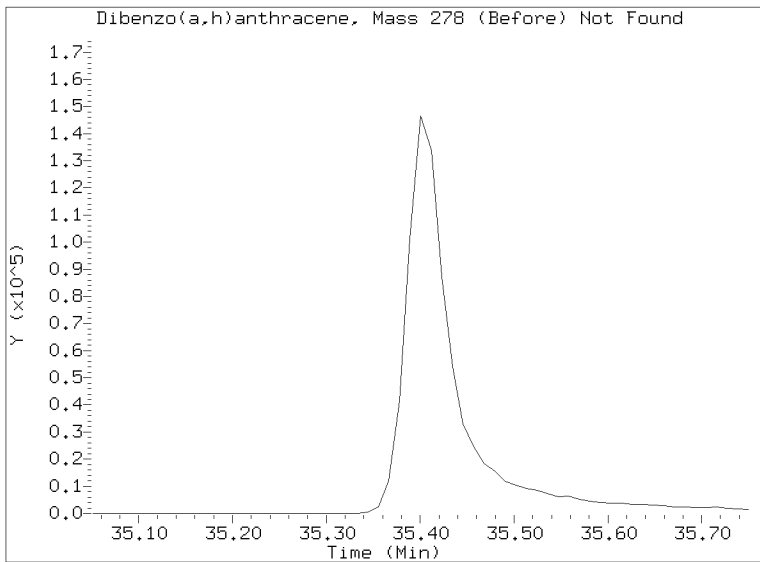
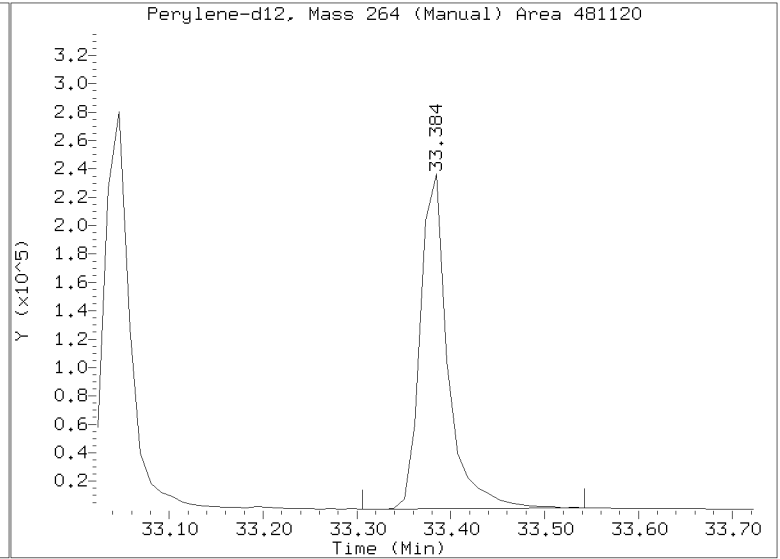
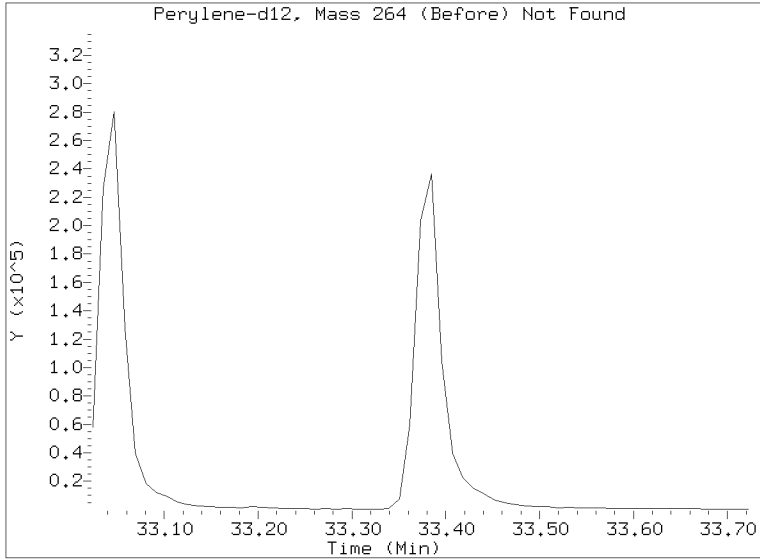
Quant Ion Manual Peak Adjustment Report

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Injection Date: 02-MAY-2021 02:00
Lab ID:BJD0507-BS1 Client ID:
Report Date: 05/04/2021 13:20



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043054.D
Injection Date: 02-MAY-2021 02:00
Lab ID:BJD0507-BS1 Client ID:
Report Date: 05/04/2021 13:20



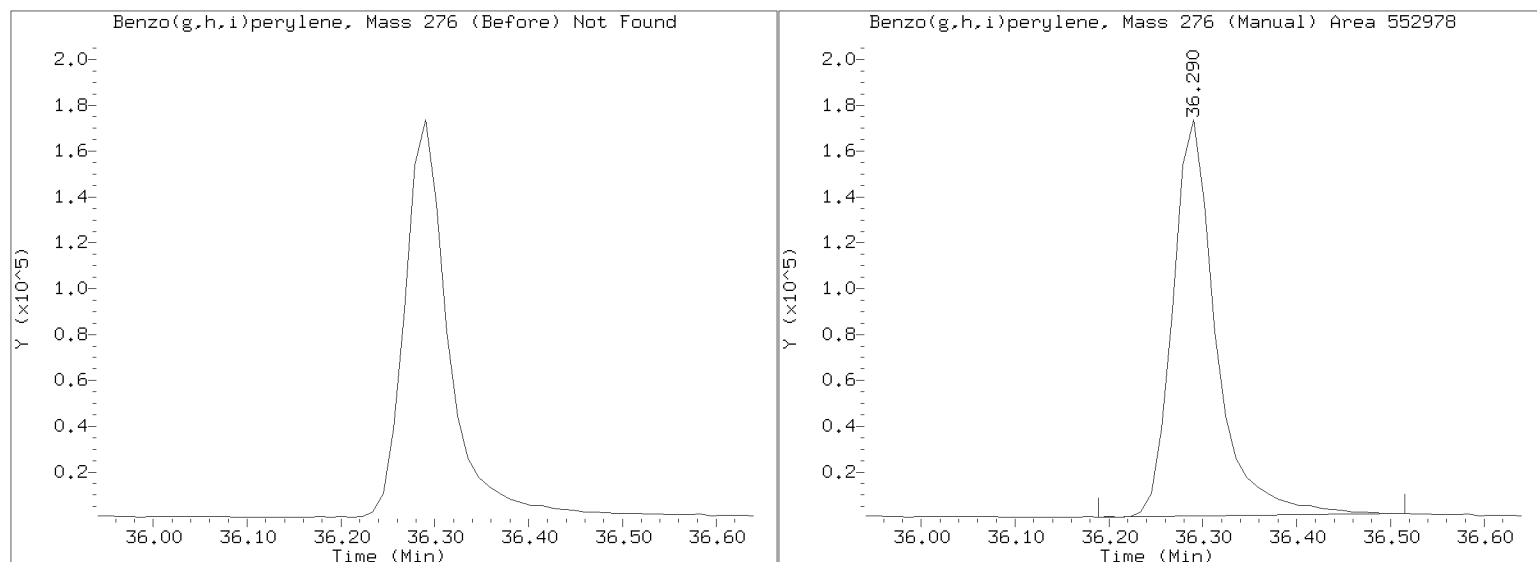
Quant Ion Manual Peak Adjustment Report

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Injection Date: 02-MAY-2021 02:00

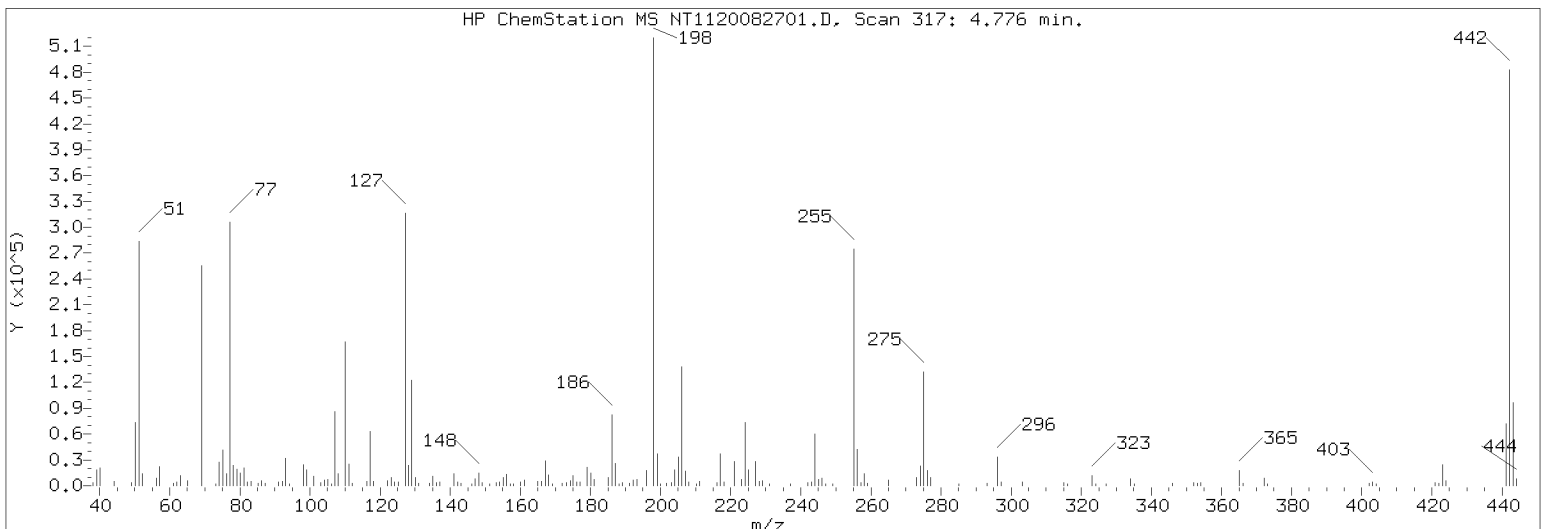
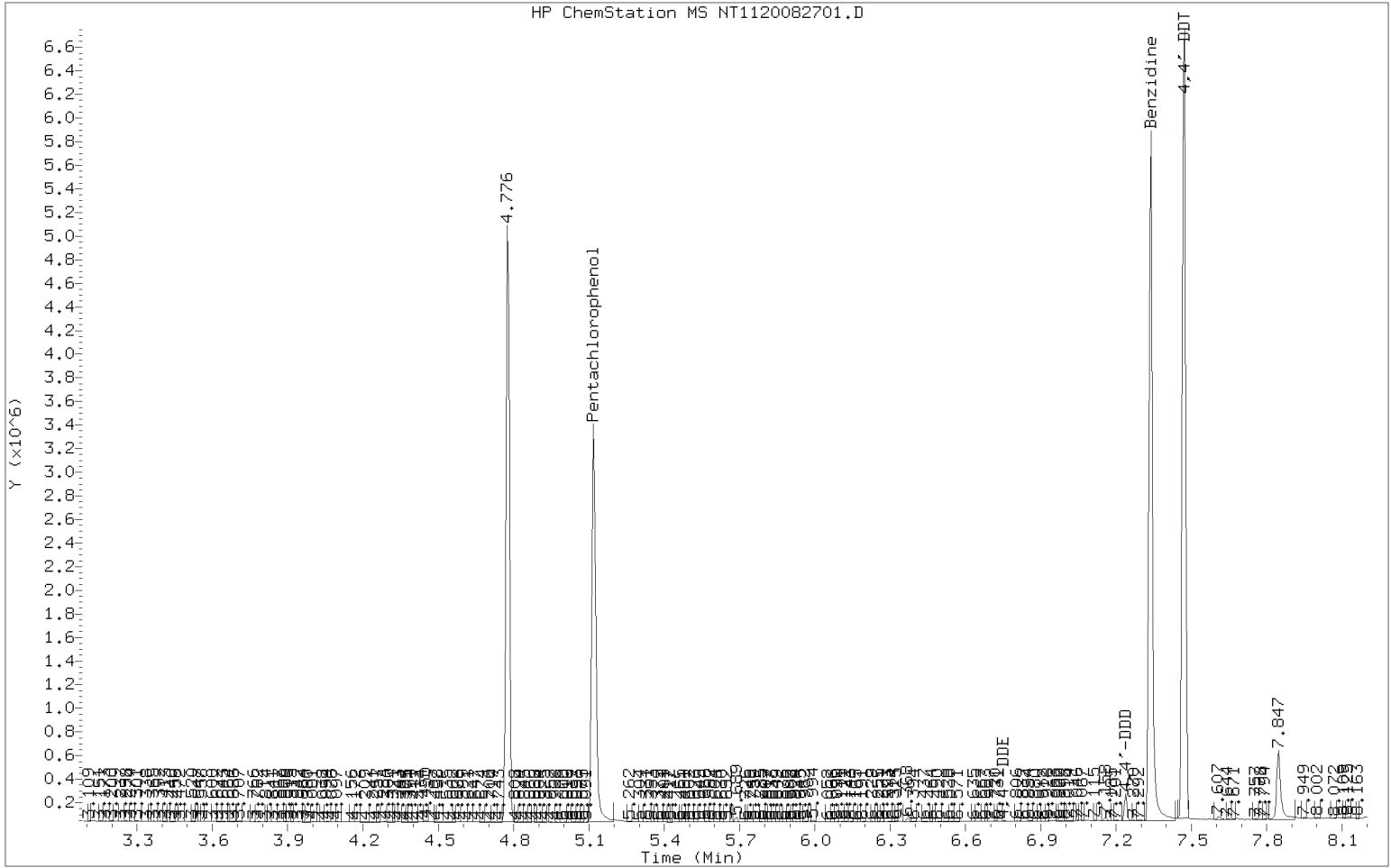
Lab ID:BJD0507-BS1 Client ID:

Report Date: 05/04/2021 13:20

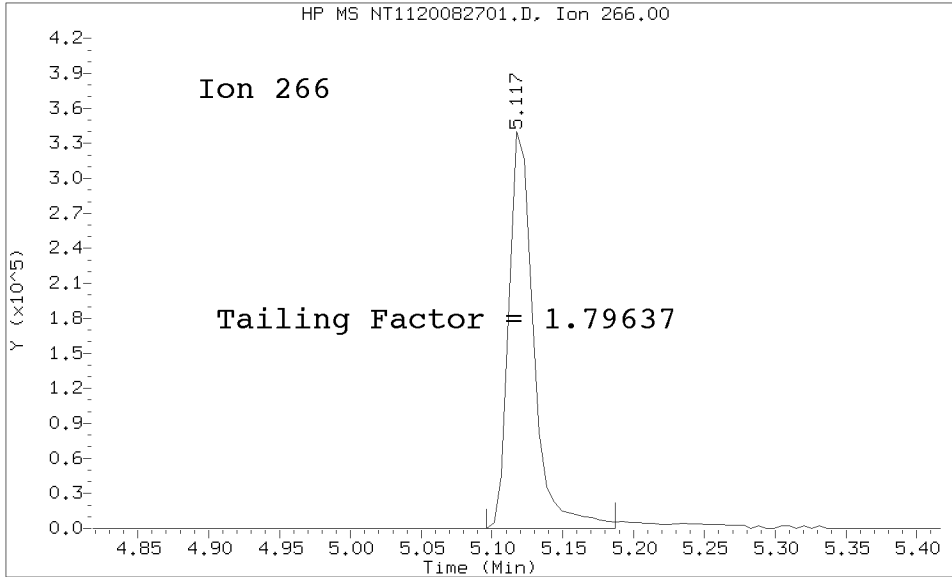


DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20200827.b/NT1120082701.D/NT1120082701.D
Method Used: \20200827.b\DFTPP8270E.m Inst: nt11
Injection Date: 27-AUG-2020 12:20 Operator: VTS
Sample Info: SIH0304-TUN1 SIH0304-TUN1
Report Date: 08/28/2020 09:13



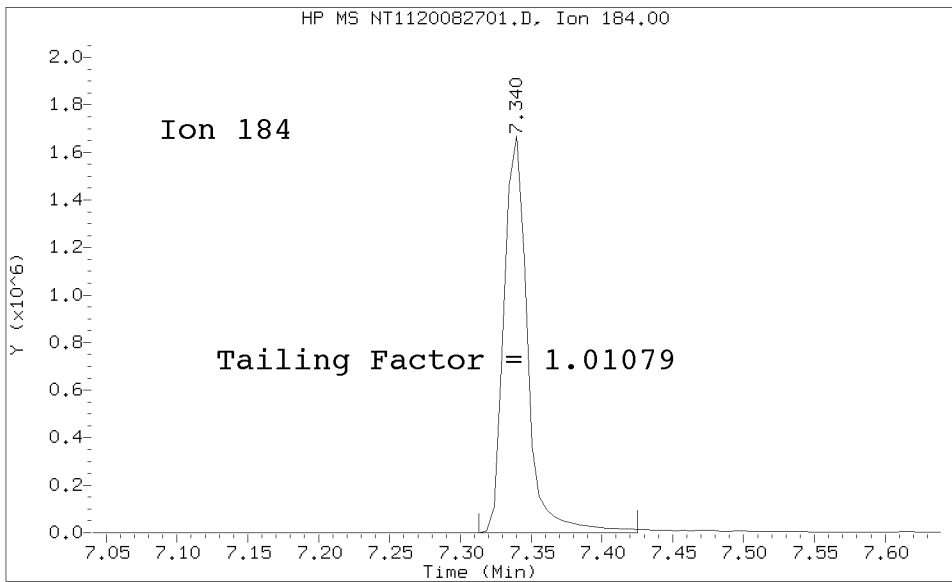
Datafile Analyzed: /20200827.b/NT1120082701.D/NT1120082701.D
Method Used: \20200827.b\DFTPP8270E.m\sw846ddt.m Inst: nt11
Injection Date: 27-AUG-2020 12:20 Operator: JZ
Sample Info: SIH0304-TUN1
Report Date: 08/28/2020 09:13



Pentachlorophenol

=====
Exp. RT = 5.123
Found RT = 5.117

Tail Factor = 1.796 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 7.345
Found RT = 7.340

Tail Factor = 1.011 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.7963738	2.000	PASS
Benzidine	1.0107875	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	998892			N/A
4,4-DDE	1889	0.2	20.0	PASS
4,4-DDD	41313	4.0	20.0	PASS
4,4-DDD + DDE	43202	4.1	20.0	PASS

Tuning Sample, nt11.i/20200827.b/NT1120082701.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	48.14
70	Less than 2.00% of mass 69	0.00 (0.00)
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.19
365	1.00 - 100.00% of mass 198	3.42
441	Less than 150.00% of mass 443	14.99 (75.09)
442	Less than 200.00% of mass 198	98.16
443	15.00 - 24.00% of mass 442	19.96 (20.34)

Data File: NT1120082701.D
 Spectrum: Avg. Scans 316-318 (4.78), Background Scan 312
 Location of Maximum: 198.00
 Number of points: 174

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	1941	117.00	50320	181.00	6022	256.00	34600
39.00	15485	118.00	4195	185.00	8139	257.00	2333
49.00	2696	122.00	4235	186.00	66480	258.00	12282
50.00	58784	123.00	7120	187.00	19448	259.00	1560
51.00	232000	124.00	3163	188.00	863	265.00	5119
52.00	11752	125.00	3394	189.00	3482	273.00	7663
56.00	7248	127.00	261888	191.00	1743	274.00	19792
57.00	17960	128.00	19768	192.00	5434	275.00	108560
61.00	2132	129.00	98776	193.00	5882	276.00	14774
62.00	3434	130.00	8462	196.00	14144	277.00	8657
63.00	9639	131.00	1030	198.00	427584	285.00	827
65.00	4977	134.00	2918	199.00	30744	293.00	1754
69.00	205824	135.00	8793	200.00	1923	296.00	28640
73.00	741	136.00	2894	201.00	1926	297.00	3772
74.00	21400	137.00	4091	203.00	3001	303.00	3540
75.00	33352	141.00	11851	204.00	15126	315.00	2477
76.00	11950	142.00	4210	205.00	25776	316.00	1506
77.00	251584	143.00	2814	206.00	113792	323.00	10571
78.00	17936	146.00	1656	207.00	14203	324.00	1453
79.00	14518	147.00	6952	208.00	3651	327.00	1524
80.00	11761	148.00	12680	210.00	739	334.00	6431
81.00	17192	149.00	2872	211.00	4346	335.00	1429
82.00	3943	151.00	833	216.00	2822	346.00	2166
83.00	4206	153.00	3641	217.00	28896	352.00	3275
85.00	2620	154.00	3375	218.00	3980	353.00	1910
86.00	4622	155.00	7357	221.00	23072	354.00	2621
87.00	1664	156.00	10070	222.00	1872	365.00	14621
91.00	3958	157.00	1498	223.00	6518	366.00	2204
92.00	4127	158.00	1417	224.00	61440	372.00	6406
93.00	24808	160.00	3642	225.00	14926	373.00	1390
94.00	1588	161.00	5920	227.00	23088	383.00	671
98.00	18864	165.00	4518	228.00	3791	402.00	2025
99.00	16217	166.00	3866	229.00	4874	403.00	3639
101.00	9486	167.00	23472	231.00	1648	404.00	703
103.00	2079	168.00	11061	235.00	745	421.00	3401
104.00	5375	169.00	1468	237.00	1492	422.00	2551
105.00	5151	172.00	887	242.00	2576	423.00	23288
106.00	1478	173.00	2891	243.00	3821	424.00	4186
107.00	70976	174.00	5335	244.00	48984	441.00	64096
108.00	10848	175.00	9807	245.00	6111	442.00	419712
110.00	135360	176.00	3189	246.00	7978	443.00	85360
111.00	20792	177.00	3727	247.00	704	444.00	7482
112.00	919	179.00	17984	249.00	1459		
116.00	4001	180.00	11984	255.00	224128		



**MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270E-SIM**

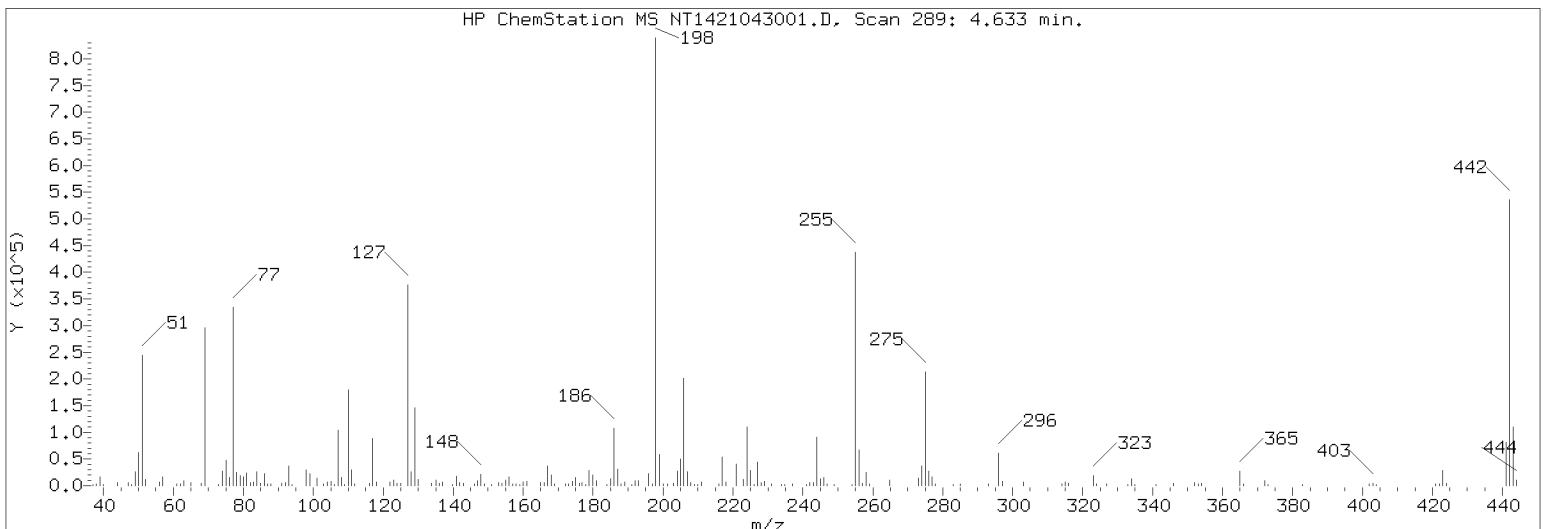
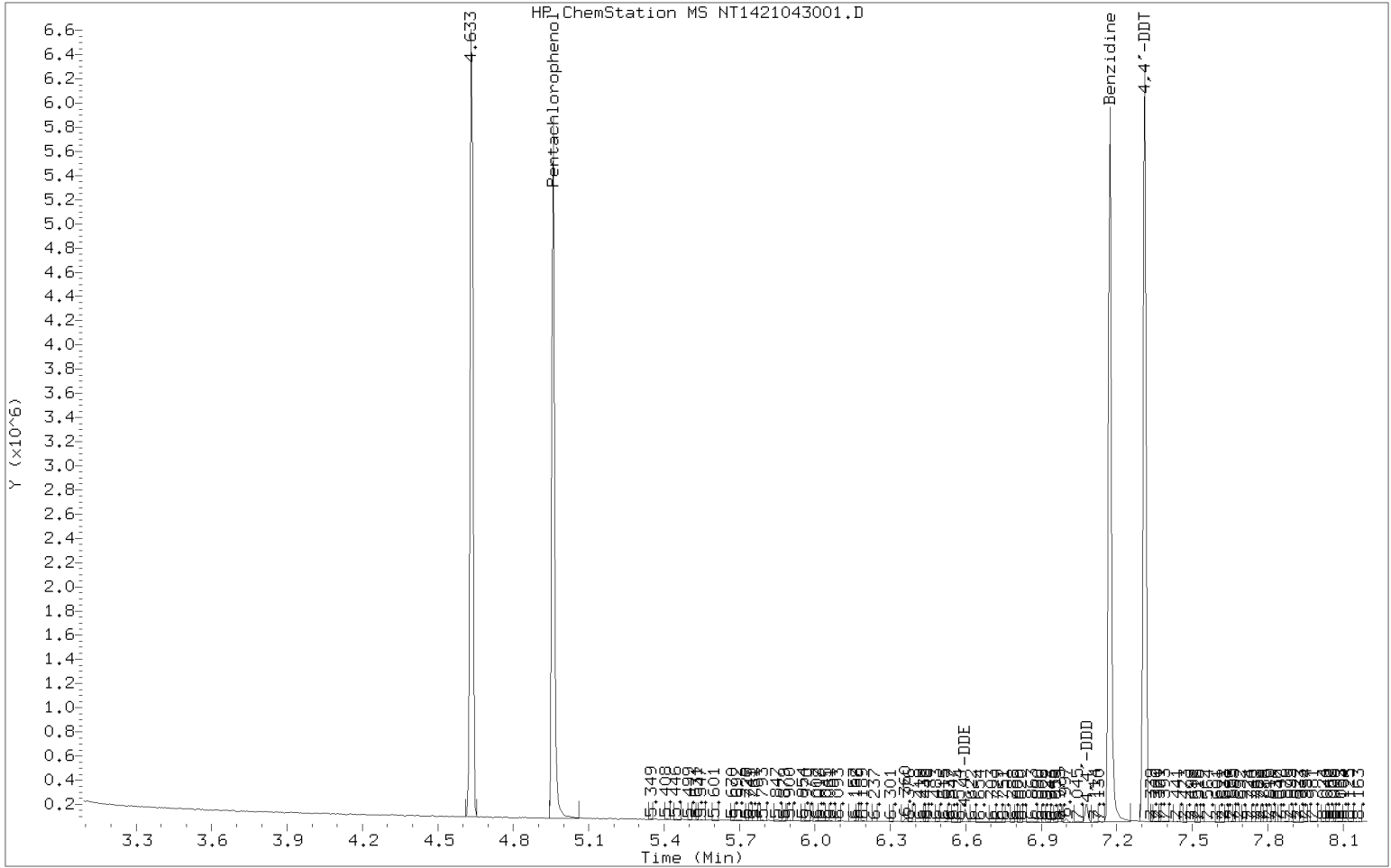
Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>21D0180</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic - US Moorings</u>
Lab File ID:	<u>NT1421043001.D</u>	Injection Date:	<u>04/30/21</u>
Instrument ID:	<u>NT14</u>	Injection Time:	<u>07:42</u>
Sequence:	<u>SJD0305</u>	Lab Sample ID:	<u>SJD0305-TUN1</u>

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
68	Less than 2% of 69	1.49	PASS
69	Less than 100% of 198	35.4	PASS
70	Less than 2% of 69	0	PASS
197	Less than 2% of 198	0.392	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.79	PASS
365	1 - 100% of 198	3.67	PASS
441	Less than 150% of 443	73.7	PASS
442	1 - 200% of 198	76.4	PASS
443	15 - 24% of 442	19.9	PASS
4,4'-DDD	Less than 20% of 4,4'-DDT		
4,4'-DDE	Less than 20% of 4,4'-DDT		
4,4'-DDT	Base peak, 100% relative abundance		

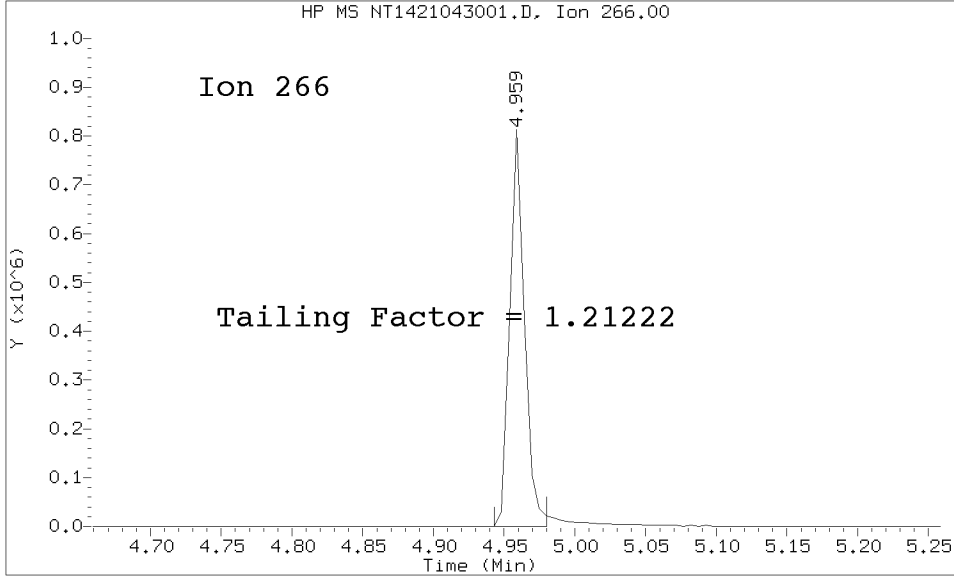
Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SJD0305-TUN1	NT1421043001.D	04/30/2021	7:42
Cal Standard	SJD0305-CAL5	NT1421043002.D	04/30/2021	7:56
Cal Standard	SJD0305-CAL7	NT1421043003.D	04/30/2021	8:43
Cal Standard	SJD0305-CAL6	NT1421043005.D	04/30/2021	10:19
Cal Standard	SJD0305-CAL2	NT1421043006.D	04/30/2021	11:07
Cal Standard	SJD0305-CAL4	NT1421043007.D	04/30/2021	11:55
Cal Standard	SJD0305-CAL3	NT1421043008.D	04/30/2021	12:43
Cal Standard	SJD0305-CAL1	NT1421043009.D	04/30/2021	13:32
Secondary Cal Check	SJD0305-SCV1	NT1421043010.D	04/30/2021	14:41
Initial Cal Blank	SJD0305-ICB1	NT1421043011.D	04/30/2021	15:29

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20210430.b/NT1421043001.D/NT1421043001.D
Method Used: \20210430.b\DFTPP8270E.m Inst: nt14
Injection Date: 30-APR-2021 07:42 Operator: VTS
Sample Info: SJD0305-TUN1 SJD0305-TUN1
Report Date: 05/01/2021 09:19



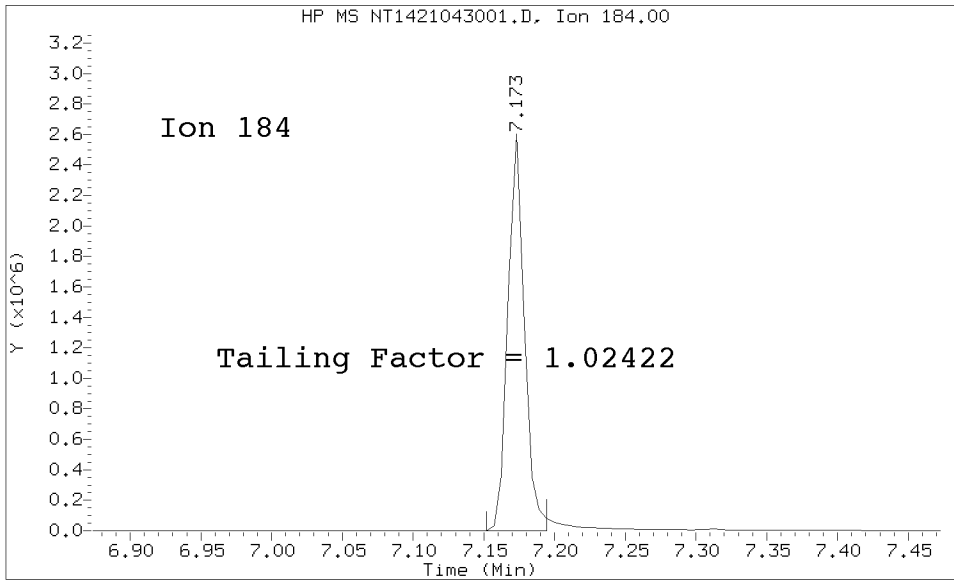
Datafile Analyzed: /20210430.b/NT1421043001.D/NT1421043001.D
Method Used: \20210430.b\DFTPP8270E.m\sw846ddt.m Inst: nt14
Injection Date: 30-APR-2021 07:42 Operator: JZ
Sample Info: SJD0305-TUN1
Report Date: 05/01/2021 09:19



Pentachlorophenol

=====
Exp. RT = 4.900
Found RT = 4.959

Tail Factor = 1.212 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 7.114
Found RT = 7.173

Tail Factor = 1.024 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.2122241	2.000	PASS
Benzidine	1.0242165	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1038588			N/A
4,4-DDE	14738	1.4	20.0	PASS
4,4-DDD	33747	3.1	20.0	PASS
4,4-DDD + DDE	48485	4.5	20.0	PASS

Tuning Sample, nt14.i/20210430.b/NT1421043001.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.53 (1.49)
69	Mass 69 relative abundance	35.45
70	Less than 2.00% of mass 69	0.00 (0.00)
197	Less than 2.00% of mass 198	0.39
199	5.00 - 9.00% of mass 198	6.79
365	1.00 - 100.00% of mass 198	3.67
441	Less than 150.00% of mass 443	11.21 (73.74)
442	Less than 200.00% of mass 198	76.36
443	15.00 - 24.00% of mass 442	15.20 (19.91)

Data File: NT1421043001.D
 Spectrum: Avg. Scans 288-290 (4.63), Background Scan 284
 Location of Maximum: 198.00
 Number of points: 195

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	2307	117.00	64224	186.00	79176	257.00	2873
38.00	1830	118.00	4688	187.00	23080	258.00	19488
39.00	13134	122.00	4775	188.00	1825	259.00	2625
40.00	233	123.00	7561	189.00	5004	265.00	7710
47.00	375	124.00	3436	191.00	1578	273.00	10495
50.00	46288	125.00	3193	192.00	6850	274.00	27888
51.00	173248	127.00	273024	193.00	7431	275.00	158080
52.00	9018	128.00	20160	196.00	16480	276.00	21120
56.00	5264	129.00	104904	197.00	2428	277.00	13058
57.00	12144	130.00	9057	198.00	618880	278.00	1985
61.00	1175	134.00	2970	199.00	42008	283.00	679
62.00	2696	135.00	8307	200.00	2535	285.00	2051
63.00	7970	136.00	2593	201.00	2065	293.00	2424
65.00	4088	137.00	4775	203.00	3878	296.00	47472
68.00	3274	140.00	673	204.00	20656	297.00	6386
69.00	219392	141.00	13472	205.00	37136	303.00	4653
73.00	771	142.00	4294	206.00	149440	314.00	1930
74.00	20872	143.00	2219	207.00	19336	315.00	5268
75.00	34640	146.00	2025	208.00	4570	316.00	2553
76.00	11486	147.00	6393	209.00	683	321.00	692
77.00	245888	148.00	15704	210.00	1839	323.00	15144
78.00	17552	149.00	3399	211.00	5848	324.00	2307
79.00	14928	151.00	851	216.00	2548	327.00	2437
80.00	12053	153.00	4256	217.00	40440	328.00	823
81.00	17736	154.00	3418	218.00	5055	333.00	1386
82.00	4592	155.00	8190	221.00	31424	334.00	10030
83.00	4982	156.00	11993	222.00	3423	335.00	2126
85.00	3705	157.00	1035	223.00	8830	341.00	1445
86.00	3968	158.00	1779	224.00	82552	346.00	3529
87.00	1821	159.00	1518	225.00	20728	352.00	3927
88.00	1052	160.00	4437	226.00	1789	353.00	2529
91.00	3845	161.00	6138	227.00	32848	354.00	3631
92.00	4275	165.00	4964	228.00	4338	365.00	22720
93.00	27984	166.00	4331	229.00	7036	366.00	2657
94.00	830	167.00	27584	231.00	2550	372.00	7576
98.00	20864	168.00	15655	234.00	1752	373.00	1628
99.00	17616	169.00	2066	235.00	1972	383.00	1853
101.00	10467	172.00	2038	237.00	2335	402.00	2788
103.00	2694	173.00	3160	241.00	1773	403.00	3626
104.00	5772	174.00	6117	242.00	4477	404.00	1482
105.00	5608	175.00	11419	243.00	4863	421.00	3059
106.00	882	176.00	2467	244.00	67984	422.00	2988
107.00	76520	177.00	4558	245.00	9224	423.00	24400
108.00	11732	178.00	721	246.00	12110	424.00	4104
109.00	835	179.00	21768	247.00	2181	441.00	69376
110.00	130600	180.00	14376	249.00	1945	442.00	472576
111.00	20592	181.00	7245	254.00	1631	443.00	94080
112.00	1824	184.00	832	255.00	328512	444.00	8551
116.00	3803	185.00	9659	256.00	49696		

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INITIAL CALIBRATION DATA
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0180
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	DH00073	Instrument:	NT11
Calibration Date:	08/27/2020	Column (1):	RXi-17Sil-MS

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RRF		RRF		RRF		RRF		RRF		RRF
Naphthalene	10	1.436211	50	1.140602	100	1.176612	250	1.108506	500	1.081749	1000	1.023801
2-Methylnaphthalene	10	1.118463	50	0.8860822	100	0.9369899	250	0.908896	500	0.8964616	1000	0.8699377
1-Methylnaphthalene	10	1.042292	50	0.8243846	100	0.8708223	250	0.8406331	500	0.8348889	1000	0.8082524
2-Chloronaphthalene	10	2.169147	50	1.709673	100	1.794016	250	1.62895	500	1.626173	1000	1.522603
Biphenyl	10	2.712628	50	2.380983	100	2.391495	250	2.235824	500	2.202866	1000	1.99081
2,6-Dimethylnaphthalene	10	1.929792	50	1.709496	100	1.736313	250	1.690928	500	1.684392	1000	1.573215
Acenaphthylene	10	2.837807	50	2.223674	100	2.351087	250	2.207633	500	2.146163	1000	2.001012
Acenaphthene	10	1.863154	50	1.4703	100	1.553486	250	1.437326	500	1.429369	1000	1.351866
Dibenzofuran	10	2.498391	50	1.995771	100	2.100929	250	1.929448	500	1.889105	1000	1.741038
2,3,5-Trimethylnaphthalene	10	1.370534	50	1.189296	100	1.24903	250	1.253067	500	1.231134	1000	1.182858
Fluorene	10	1.901351	50	1.480397	100	1.586904	250	1.504697	500	1.489606	1000	1.399744
Dibenzothiophene	10	1.247639	50	1.123066	100	1.135218	250	1.079528	500	1.062019	1000	0.9961231
Phenanthrene	10	1.593573	50	1.281601	100	1.375353	250	1.238113	500	1.234543	1000	1.126768
Anthracene	10	1.570432	50	1.309791	100	1.400254	250	1.214609	500	1.205156	1000	1.143193
Carbazole	10	1.661949	50	1.28917	100	1.397778	250	1.393815	500	1.351465	1000	1.26363
Fluoranthene	10	1.535263	50	1.266105	100	1.395483	250	1.234146	500	1.234924	1000	1.160363
Pyrene	10	1.64443	50	1.292746	100	1.417594	250	1.259735	500	1.244652	1000	1.169937
1-Methylphenanthrene	10	1.25849	50	1.161627	100	1.196388	250	1.124893	500	1.124238	1000	1.068486
Benzo(a)anthracene	10	1.75386	50	1.294745	100	1.450329	250	1.442863	500	1.467704	1000	1.405416
Chrysene	10	2.056788	50	1.568253	100	1.72338	250	1.519434	500	1.583246	1000	1.474463
Benzo(b)fluoranthene	10	1.295128	50	0.8496249	100	0.9703341	250	1.117513	500	1.157442	1000	1.141683
Benzo(k)fluoranthene	10	1.69006	50	1.29795	100	1.48756	250	1.272792	500	1.455517	1000	1.378715
Benzo(j)fluoranthene	10	1.875606	50	1.639741	100	1.693121	250	1.346015	500	1.430246	1000	1.290254
Benzo(a)fluoranthene, Total	30	1.620265	150	1.262439	300	1.383671	750	1.24544	1500	1.347735	3000	1.270217
Benzo(e)pyrene	10	1.413219	50	1.155633	100	1.202659	250	1.173412	500	1.254506	1000	1.197245
Benzo(a)pyrene	10	1.322294	50	0.9846312	100	1.104004	250	1.0865	500	1.179849	1000	1.144591
Perylene	10	1.522625	50	1.25785	100	1.284251	250	1.197871	500	1.283412	1000	1.226211
Indeno(1,2,3-cd)pyrene	10	1.243012	50	0.8857491	100	0.9977913	250	1.101241	500	1.188138	1000	1.208773



INITIAL CALIBRATION DATA
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0180
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	DH00073	Instrument:	NT11
Calibration Date:	08/27/2020	Column (1):	RXi-17Sil-MS

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Naphthalene	1.161247	12.4			RSD (15)	
2-Methylnaphthalene	0.9361384	9.8			RSD (15)	
1-Methylnaphthalene	0.8702122	10.0			RSD (15)	
2-Chloronaphthalene	1.74176	13.1			RSD (15)	
Biphenyl	2.319101	10.4			RSD (15)	
2,6-Dimethylnaphthalene	1.720689	6.8			RSD (15)	
Acenaphthylene	2.294563	12.6			RSD (15)	
Acenaphthene	1.517583	12.0			RSD (15)	
Dibenzofuran	2.02578	12.9			RSD (15)	
2,3,5-Trimethylnaphthalene	1.245987	5.4			RSD (15)	
Fluorene	1.56045	11.4			RSD (15)	
Dibenzothiophene	1.107265	7.7			RSD (15)	
Phenanthrene	1.308325	12.3			RSD (15)	
Anthracene	1.307239	12.0			RSD (15)	
Carbazole	1.392968	10.2			RSD (15)	
Fluoranthene	1.304381	10.5			RSD (15)	
Pyrene	1.338182	12.7			RSD (15)	
1-Methylphenanthrene	1.155687	5.7			RSD (15)	
Benzo(a)anthracene	1.469153	10.4			RSD (15)	
Chrysene	1.654261	13.0			RSD (15)	
Benzo(b)fluoranthene	1.088621	14.4			RSD (15)	
Benzo(k)fluoranthene	1.430432	10.7			RSD (15)	
Benzo(j)fluoranthene	1.54583	14.7			RSD (15)	
Benzofluoranthenes, Total	1.354961	10.4			RSD (15)	
Benzo(e)pyrene	1.232779	7.7			RSD (15)	
Benzo(a)pyrene	1.136978	9.9			RSD (15)	
Perylene	1.29537	9.0			RSD (15)	
Indeno(1,2,3-cd)pyrene	1.104117	12.6			RSD (15)	
Dibenzo(a,h)anthracene	0.8775199	15.1		0.9992	QCOD (0.99)	
Benzo(g,h,i)perylene	1.103964	10.9			RSD (15)	
Benzo(b)thiophene	0.9161247	6.1			RSD (15)	



INITIAL CALIBRATION DATA
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0180
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	DH00073	Instrument:	NT11
Calibration Date:	08/27/2020	Column (1):	RXi-17Sil-MS

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
2-Methylnaphthalene-d10	0.8041846	6.2			RSD (15)	
Dibenzo[a,h]anthracene-d14	0.7035414	18.4		0.9989	QCOD (0.99)	
Fluoranthene-d10	1.048562	6.2			RSD (15)	



ANALYSIS SEQUENCE

SIH0304

Instrument: NT11 Element Column ID: I005862
Calibration ID: DH00073 Tune File: 190904.U
EM Voltage: 1247

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SIH0304-TUN1	DFTPP	QC		1	I007631		
SIH0304-CAL4	PAH 250	QC		2	I004578	I002616	
SIH0304-CAL6	PAH 1000	QC		3	I004580	I002616	
SIH0304-CAL1	PAH 10	QC		4	I004575	I002616	
SIH0304-CAL5	PAH 500	QC		5	I004579	I002616	
SIH0304-CAL2	PAH 50	QC		6	I004576	I002616	
SIH0304-CAL3	PAH 100	QC		7	I004577	I002616	
SIH0304-SCV1	PAH 250 SCV	QC		8	I004581	I002616	
SIH0304-ICB1	Initial Cal Blank	QC		9	I007632	I002616	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20200827.b

Time	Filename	LabID	ClientId	DF													
1	1220	NT1120082701.D	SIH0304-TUN1		1	NO	ISTDS	FOUND									
2	1235	NT1120082702.D	SIH0304-CAL4		1		6.81	215332		9.81	102217	12.48	170387	17.21	116138	19.98	139038
3	1307	NT1120082703.D	SIH0304-CAL6		1		6.81	211963		9.81	104596	12.48	173851	17.21	118274	19.98	139375
4	1338	NT1120082704.D	SIH0304-CAL1		1		6.80	218979		9.81	96342	12.48	152977	17.21	94808	19.98	108221
5	1408	NT1120082705.D	SIH0304-CAL5		1		6.80	205773		9.81	98118	12.48	160808	17.21	104617	19.98	121661
6	1438	NT1120082706.D	SIH0304-CAL2		1		6.80	206491		9.81	90319	12.48	134229	17.21	84619	19.98	93566
7	1508	NT1120082707.D	SIH0304-CAL3		1		6.80	198254		9.81	88696	12.48	133333	17.21	84043	19.98	92362
8	1538	NT1120082708.D	SIH0304-SCV1		1		6.80	202035		9.81	90189	12.48	142829	17.22	104063	19.98	119273
9	1609	NT1120082709.D	SIH0304-ICB1		1		6.80	216694		9.81	94656	12.48	145070	17.22	97049	19.98	107633

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20200827.b

Instrument: nt11.i Date: 27-AUG-2020

Time	Filename	LabID	DF	Manually Integrated Compounds
1220	NT1120082701.D	SIH0304-TUN1	1	NO MANUAL INTEGRATION
1235	NT1120082702.D	SIH0304-CAL4	1	NO MANUAL INTEGRATION
1307	NT1120082703.D	SIH0304-CAL6	1	NO MANUAL INTEGRATION
1338	NT1120082704.D	SIH0304-CAL1	1	Dibenzo(a,h)anthracene-d14,
1408	NT1120082705.D	SIH0304-CAL5	1	NO MANUAL INTEGRATION
1438	NT1120082706.D	SIH0304-CAL2	1	NO MANUAL INTEGRATION
1508	NT1120082707.D	SIH0304-CAL3	1	NO MANUAL INTEGRATION
1538	NT1120082708.D	SIH0304-SCV1	1	NO MANUAL INTEGRATION
1609	NT1120082709.D	SIH0304-ICB1	1	NO MANUAL INTEGRATION

Security Status Report

Date: 28-Aug-2020 09:31

NT1120082701.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082702.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082703.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082704.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082705.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082706.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082707.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082708.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082709.D	Data Locked	van, 28-Aug-2020 09:31

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-AUG-2020 12:35
 End Cal Date : 27-AUG-2020 15:08
 Quant Method : ISTD
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
 Last Edit : 28-Aug-2020 06:57 van

Calibration File Names:

- Level 1: \\target\share\chem3\nt11.i\20200827.b\NT1120082704.D
- Level 2: \\target\share\chem3\nt11.i\20200827.b\NT1120082706.D
- Level 3: \\target\share\chem3\nt11.i\20200827.b\NT1120082707.D
- Level 4: \\target\share\chem3\nt11.i\20200827.b\NT1120082702.D
- Level 5: \\target\share\chem3\nt11.i\20200827.b\NT1120082705.D
- Level 6: \\target\share\chem3\nt11.i\20200827.b\NT1120082703.D

Compound	Concentrations						Curve	Coefficients			%RSD or R ²
	10.0000 Level 1	50.0000 Level 2	100.0000 Level 3	250.0000 Level 4	500.0000 Level 5	1000.0000 Level 6		b	m1	m2	
2 Naphthalene	1.43621	1.14060	1.17661	1.10851	1.08175	1.02380	AVRG	1.16125			12.43511
3 Benzo(b)thiophene	1.01982	0.89891	0.92051	0.90965	0.89317	0.85470	AVRG	0.91612			6.06011
5 2-Methylnaphthalene	1.11846	0.88608	0.93699	0.90890	0.89646	0.86994	AVRG	0.93614			9.84242
6 1-Methylnaphthalene	1.04229	0.82438	0.87082	0.84063	0.83489	0.80825	AVRG	0.87021			9.97489
7 2-Chloronaphthalene	2.16915	1.70967	1.79402	1.62895	1.62617	1.52260	AVRG	1.74176			13.10572
8 Biphenyl	2.71263	2.38098	2.39149	2.23582	2.20287	1.99081	AVRG	2.31910			10.42321
9 2,6-Dimethylnaphthalene	1.92979	1.70950	1.73631	1.69093	1.68439	1.57322	AVRG	1.72069			6.77971
10 Acenaphthylene	2.83781	2.22367	2.35109	2.20763	2.14616	2.00101	AVRG	2.29456			12.61731
12 Acenaphthene	1.86315	1.47030	1.55349	1.43733	1.42937	1.35187	AVRG	1.51758			11.95682
13 Dibenzofuran	2.49839	1.99577	2.10093	1.92945	1.88910	1.74104	AVRG	2.02578			12.85253
14 2,3,5-Trimethylnaphthalene	1.37053	1.18930	1.24903	1.25307	1.23113	1.18286	AVRG	1.24599			5.44230
16 Fluorene	1.90135	1.48040	1.58690	1.50470	1.48961	1.39974	AVRG	1.56045			11.36570
17 Dibenzothiophene	1.24764	1.12307	1.13522	1.07953	1.06202	0.99612	AVRG	1.10727			7.65313
19 Phenanthrene	1.59357	1.28160	1.37535	1.23811	1.23454	1.12677	AVRG	1.30833			12.32026

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-AUG-2020 12:35
 End Cal Date : 27-AUG-2020 15:08
 Quant Method : ISTD
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
 Last Edit : 28-Aug-2020 06:57 van

Compound	10.0000	50.0000	100.0000	250.0000	500.0000	1000.0000	Curve	Coefficients			%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	or R ²
21 Anthracene	1.57043	1.30979	1.40025	1.21461	1.20516	1.14319	AVRG		1.30724		12.03906
22 Carbazole	1.66195	1.28917	1.39778	1.39382	1.35147	1.26363	AVRG		1.39297		10.23339
23 1-Methylphenanthrene	1.25849	1.16163	1.19639	1.12489	1.12424	1.06849	AVRG		1.15569		5.71372
25 Fluoranthene	1.53526	1.26610	1.39548	1.23415	1.23492	1.16036	AVRG		1.30438		10.48767
26 Pyrene	1.64443	1.29275	1.41759	1.25973	1.24465	1.16994	AVRG		1.33818		12.74184
27 Benzo(a)anthracene	1.75386	1.29474	1.45033	1.44286	1.46770	1.40542	AVRG		1.46915		10.39375
29 Chrysene	2.05679	1.56825	1.72338	1.51943	1.58325	1.47446	AVRG		1.65426		12.95809
30 Benzo(b)fluoranthene	1.29513	0.84962	0.97033	1.11751	1.15744	1.14168	AVRG		1.08862		14.35727
31 Benzo(k)fluoranthene	1.69006	1.29795	1.48756	1.27279	1.45552	1.37871	AVRG		1.43043		10.66547
32 Benzo(j)fluoranthene	1.87561	1.63974	1.69312	1.34601	1.43025	1.29025	AVRG		1.54583		14.69110
34 Benzo(e)pyrene	1.41322	1.15563	1.20266	1.17341	1.25451	1.19724	AVRG		1.23278		7.66778
35 Benzo(a)pyrene	1.32229	0.98463	1.10400	1.08650	1.17985	1.14459	AVRG		1.13698		9.87912
37 Perylene	1.52262	1.25785	1.28425	1.19787	1.28341	1.22621	AVRG		1.29537		8.97678
39 Dibenzo(a,h)anthracene	4871	15562	35961	160223	299103	707781	QUAD	0.000e+000	1.08730	-0.02060	0.99951
40 Indeno(1,2,3-cd)pyrene	1.24301	0.88575	0.99779	1.10124	1.18814	1.20877	AVRG		1.10412		12.56950
41 Benzo(g,h,i)perylene	1.32082	0.95834	1.07523	1.04934	1.12164	1.09842	AVRG		1.10396		10.89886
=====											
\$ 4 2-Methylnaphthalene-d10	0.90292	0.78649	0.79196	0.79138	0.78992	0.76243	AVRG		0.80418		6.17291
\$ 15 Fluorene-d10	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
\$ 20 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
\$ 24 Fluoranthene-d10	1.15599	1.05095	1.07921	1.02859	1.01017	0.96647	AVRG		1.04856		6.19505
\$ 33 Benzo(e)pyrene-d12	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-AUG-2020 12:35
 End Cal Date : 27-AUG-2020 15:08
 Quant Method : ISTD
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
 Last Edit : 28-Aug-2020 06:57 van

Compound	10.0000	50.0000	100.0000	250.0000	500.0000	1000.0000	Curve	Coefficients			%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
\$ 38 Dibenzo(a,h)anthracene-d14	3390	12845	27361	136475	248647	592614	QUAD	0.000e+000	1.30503	-0.03082	0.99933

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-AUG-2020 12:35
End Cal Date : 27-AUG-2020 15:08
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Last Edit : 28-Aug-2020 06:57 van

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Batch File: \\target\share\chem3\nt11.i\20200827.b
Inst ID: nt11.i

ID: RT01 RT02 RT03 RT04 RT05
FILENAME: NT1120082702 NT1120082704 NT1120082705 NT1120082706 NT1120082707
INJ. DATE: 27-AUG-2020 27-AUG-2020 27-AUG-2020 27-AUG-2020 27-AUG-2020
INJ. TIME: 12:35 13:38 14:08 14:38 15:08

Table with 10 columns: Compound, RT01, RT02, RT03, RT04, RT05, EXPEC RT, RT WINDOW, AVG RT, STD DEV. Rows include various chemical compounds like Naphthalene, Acenaphthene, and Fluorene with their respective retention times and standard deviations.

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: _____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Batch File: \\target\share\chem3\nt11.i\20200827.b
Inst ID: nt11.i

Compound	RT01	RT02	RT03	RT04	RT05	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 18 Phenanthrene-d10	12.482	12.482	12.482	12.482	12.482	12.482	12.282-12.682	12.482	0.000
19 Phenanthrene	12.524	12.524	12.514	12.514	12.524	12.524	12.324-12.724	12.520	0.006
\$ 20 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	14.341	14.141-14.541	+++++	+++++
21 Anthracene	12.577	12.577	12.577	12.577	12.577	12.577	12.377-12.777	12.577	0.000
22 Carbazole	13.253	13.253	13.253	13.253	13.253	13.253	13.053-13.453	13.253	0.000
23 1-Methylphenanthrene	13.515	13.515	13.515	13.515	13.515	13.515	13.315-13.715	13.515	0.000
\$ 24 Fluoranthene-d10	14.579	14.579	14.579	14.579	14.579	14.579	14.379-14.779	14.579	0.000
25 Fluoranthene	14.608	14.608	14.608	14.608	14.608	14.608	14.408-14.808	14.608	0.000
26 Pyrene	15.107	15.107	15.107	15.107	15.107	15.107	14.907-15.307	15.107	0.000
27 Benzo(a)anthracene	17.123	17.123	17.123	17.123	17.123	17.123	16.923-17.323	17.123	0.000
* 28 Chrysene-d12	17.214	17.214	17.214	17.214	17.214	17.214	17.014-17.414	17.214	0.000
29 Chrysene	17.264	17.264	17.264	17.264	17.264	17.264	17.064-17.464	17.264	0.000
30 Benzo(b)fluoranthene	18.963	18.963	18.963	18.963	18.963	18.963	18.763-19.163	18.963	0.000
31 Benzo(k)fluoranthene	19.001	19.001	19.001	19.001	19.001	19.001	18.801-19.201	19.001	0.000
32 Benzo(j)fluoranthene	19.059	19.059	19.059	19.059	19.059	19.059	18.859-19.259	19.059	0.000
\$ 33 Benzo(e)pyrene-d12	+++++	+++++	+++++	+++++	+++++	22.353	22.153-22.553	+++++	+++++
34 Benzo(e)pyrene	19.674	19.674	19.674	19.674	19.674	19.674	19.474-19.874	19.674	0.000
35 Benzo(a)pyrene	19.779	19.779	19.779	19.779	19.779	19.779	19.579-19.979	19.779	0.000
* 36 Perylene-d12	19.981	19.981	19.981	19.981	19.981	19.981	19.781-20.181	19.981	0.000
37 Perylene	20.049	20.048	20.048	20.048	20.048	20.048	19.848-20.248	20.048	0.000
\$ 38 Dibenzo(a,h)anthracene	22.419	22.418	22.418	22.418	22.418	22.418	22.218-22.618	22.418	0.000
39 Dibenzo(a,h)anthracene	22.529	22.540	22.540	22.529	22.540	22.540	22.340-22.740	22.536	0.006

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
 Batch File: \\target\share\chem3\nt11.i\20200827.b
 Inst ID: nt11.i

Compound	RT01	RT02	RT03	RT04	RT05	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 Indeno(1,2,3-cd)pyrene	22.562	22.562	22.562	22.562	22.562	22.562	22.362-22.762	22.562	0.000
41 Benzo(g,h,i)perylene	23.725	23.725	23.725	23.725	23.725	23.725	23.525-23.925	23.725	0.000

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt11.i\20200827.b\LOWSIM.m
Batch File: \\target\share\chem3\nt11.i\20200827.b
Inst ID: nt11.i

ID: RT01
FILENAME: NT1120082703
INJ.DATE: 27-AUG-2020
INJ.TIME: 13:07

Compound	RT01	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 1 Naphthalene-d8	6.813	6.804	6.604-7.004	6.813	0.000
2 Naphthalene	6.840	6.840	6.640-7.040	6.840	0.000
3 Benzo(b)thiophene	7.094	7.093	6.893-7.293	7.094	0.000
\$ 4 2-Methylnaphthalene-d1	7.781	7.781	7.581-7.981	7.781	0.000
5 2-Methylnaphthalene	7.833	7.833	7.633-8.033	7.833	0.000
6 1-Methylnaphthalene	8.086	8.085	7.885-8.285	8.086	0.000
7 2-Chloronaphthalene	8.737	8.737	8.537-8.937	8.737	0.000
8 Biphenyl	8.705	8.705	8.505-8.905	8.705	0.000
9 2,6-Dimethylnaphthalen	8.758	8.758	8.558-8.958	8.758	0.000
10 Acenaphthylene	9.654	9.654	9.454-9.854	9.654	0.000
* 11 Acenaphthene-d10	9.807	9.807	9.607-10.007	9.807	0.000
12 Acenaphthene	9.871	9.871	9.671-10.071	9.871	0.000
13 Dibenzofuran	10.075	10.075	9.875-10.275	10.075	0.000
14 2,3,5-Trimethylnaphtha	10.176	10.176	9.976-10.376	10.176	0.000
\$ 15 Fluorene-d10	+++++	16.449	16.249-16.649	+++++	+++++
16 Fluorene	10.694	10.694	10.494-10.894	10.694	0.000
17 Dibenzothiophene	12.314	12.304	12.104-12.504	12.314	0.000
* 18 Phenanthrene-d10	12.482	12.482	12.282-12.682	12.482	0.000
19 Phenanthrene	12.524	12.524	12.324-12.724	12.524	0.000
\$ 20 Anthracene-d10	+++++	14.341	14.141-14.541	+++++	+++++

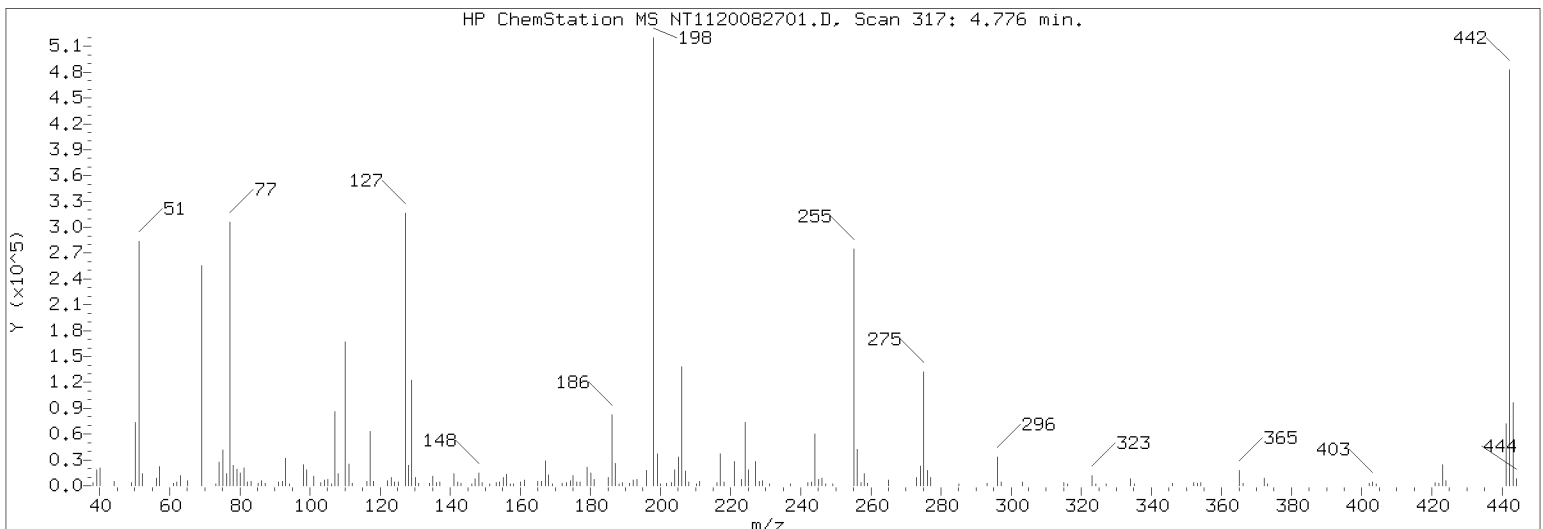
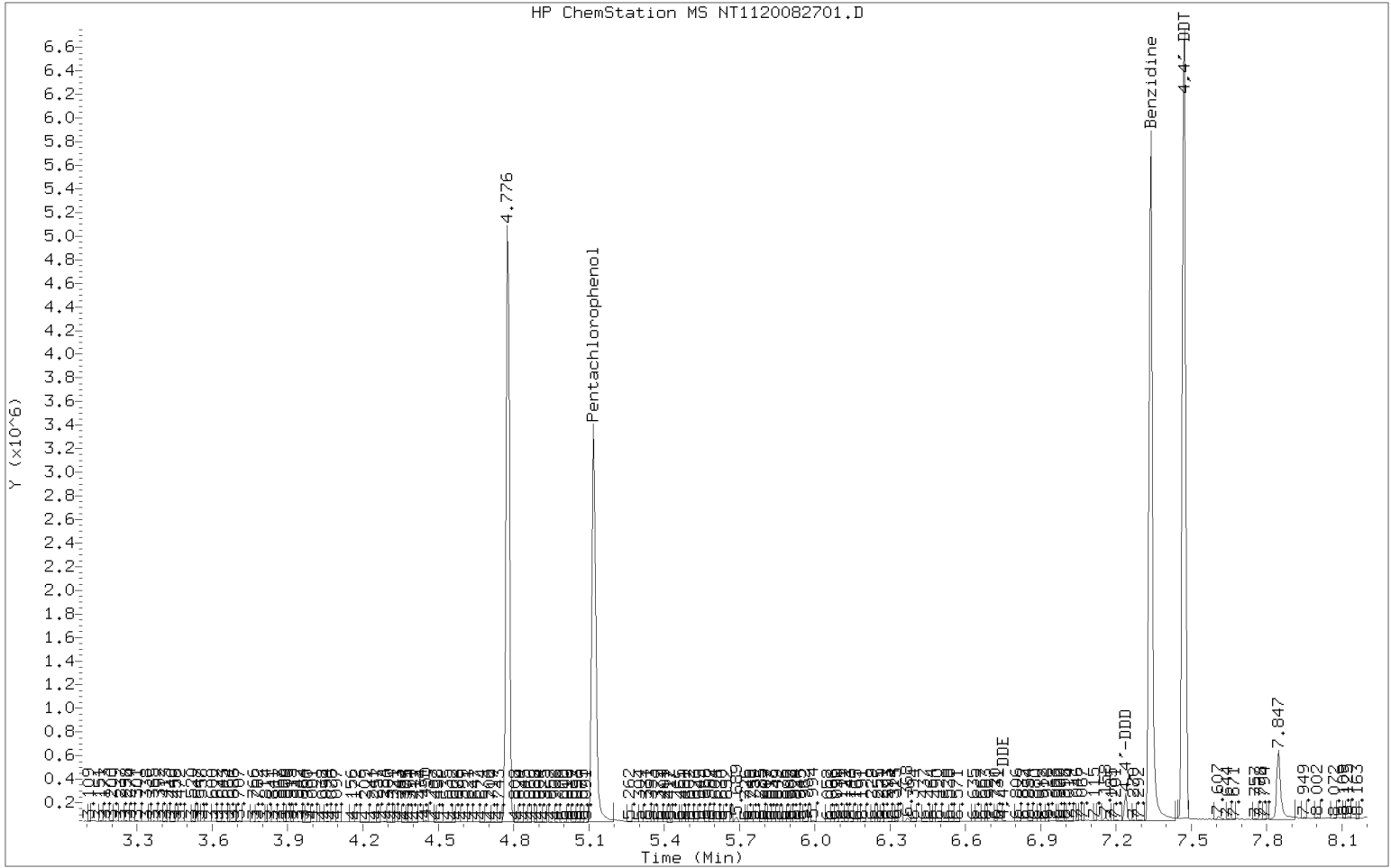
ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt11.i\20200827.b\LOWSIM.m
Batch File: \\target\share\chem3\nt11.i\20200827.b
Inst ID: nt11.i

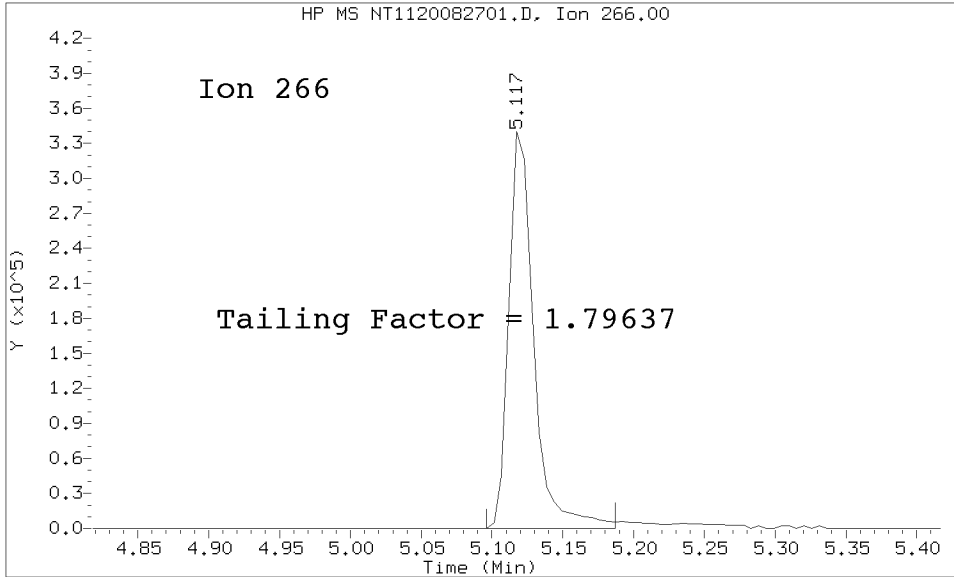
Compound	RT01	EXPEC RT	RT WINDOW	AVG RT	STD DEV
21 Anthracene	12.577	12.577	12.377-12.777	12.577	0.000
22 Carbazole	13.253	13.253	13.053-13.453	13.253	0.000
23 1-Methylphenanthrene	13.524	13.515	13.315-13.715	13.524	0.000
\$ 24 Fluoranthene-d10	14.579	14.579	14.379-14.779	14.579	0.000
25 Fluoranthene	14.608	14.608	14.408-14.808	14.608	0.000
26 Pyrene	15.107	15.107	14.907-15.307	15.107	0.000
27 Benzo(a)anthracene	17.123	17.123	16.923-17.323	17.123	0.000
* 28 Chrysene-d12	17.214	17.214	17.014-17.414	17.214	0.000
29 Chrysene	17.264	17.264	17.064-17.464	17.264	0.000
30 Benzo(b)fluoranthene	18.963	18.963	18.763-19.163	18.963	0.000
31 Benzo(k)fluoranthene	19.001	19.001	18.801-19.201	19.001	0.000
32 Benzo(j)fluoranthene	19.059	19.059	18.859-19.259	19.059	0.000
\$ 33 Benzo(e)pyrene-d12	+++++	22.353	22.153-22.553	+++++	+++++
34 Benzo(e)pyrene	19.674	19.674	19.474-19.874	19.674	0.000
35 Benzo(a)pyrene	19.779	19.779	19.579-19.979	19.779	0.000
* 36 Perylene-d12	19.981	19.981	19.781-20.181	19.981	0.000
37 Perylene	20.049	20.048	19.848-20.248	20.049	0.000
\$ 38 Dibenzo(a,h)anthracene	22.418	22.418	22.218-22.618	22.418	0.000
39 Dibenzo(a,h)anthracene	22.540	22.540	22.340-22.740	22.540	0.000
40 Indeno(1,2,3-cd)pyrene	22.562	22.562	22.362-22.762	22.562	0.000
41 Benzo(g,h,i)perylene	23.725	23.725	23.525-23.925	23.725	0.000

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20200827.b/NT1120082701.D/NT1120082701.D
Method Used: \20200827.b\DFTPP8270E.m Inst: nt11
Injection Date: 27-AUG-2020 12:20 Operator: VTS
Sample Info: SIH0304-TUN1 SIH0304-TUN1
Report Date: 08/28/2020 09:13



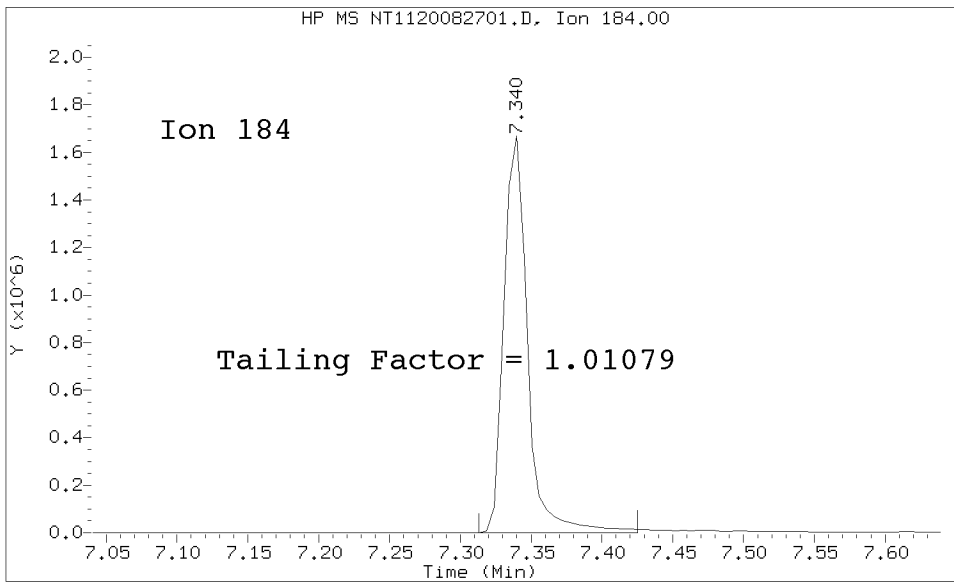
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Method Used: \20200827.b\DFTPP8270E.m\sw846ddt.m Inst: nt11
Injection Date: 27-AUG-2020 12:20 Operator: JZ
Sample Info: SIH0304-TUN1
Report Date: 08/28/2020 09:13



Pentachlorophenol

=====
Exp. RT = 5.123
Found RT = 5.117

Tail Factor = 1.796 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 7.345
Found RT = 7.340

Tail Factor = 1.011 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.7963738	2.000	PASS
Benzidine	1.0107875	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	998892			N/A
4,4-DDE	1889	0.2	20.0	PASS
4,4-DDD	41313	4.0	20.0	PASS
4,4-DDD + DDE	43202	4.1	20.0	PASS

Tuning Sample, nt11.i/20200827.b/NT1120082701.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	48.14
70	Less than 2.00% of mass 69	0.00 (0.00)
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.19
365	1.00 - 100.00% of mass 198	3.42
441	Less than 150.00% of mass 443	14.99 (75.09)
442	Less than 200.00% of mass 198	98.16
443	15.00 - 24.00% of mass 442	19.96 (20.34)

Data File: NT1120082701.D
 Spectrum: Avg. Scans 316-318 (4.78), Background Scan 312
 Location of Maximum: 198.00
 Number of points: 174

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	1941	117.00	50320	181.00	6022	256.00	34600
39.00	15485	118.00	4195	185.00	8139	257.00	2333
49.00	2696	122.00	4235	186.00	66480	258.00	12282
50.00	58784	123.00	7120	187.00	19448	259.00	1560
51.00	232000	124.00	3163	188.00	863	265.00	5119
52.00	11752	125.00	3394	189.00	3482	273.00	7663
56.00	7248	127.00	261888	191.00	1743	274.00	19792
57.00	17960	128.00	19768	192.00	5434	275.00	108560
61.00	2132	129.00	98776	193.00	5882	276.00	14774
62.00	3434	130.00	8462	196.00	14144	277.00	8657
63.00	9639	131.00	1030	198.00	427584	285.00	827
65.00	4977	134.00	2918	199.00	30744	293.00	1754
69.00	205824	135.00	8793	200.00	1923	296.00	28640
73.00	741	136.00	2894	201.00	1926	297.00	3772
74.00	21400	137.00	4091	203.00	3001	303.00	3540
75.00	33352	141.00	11851	204.00	15126	315.00	2477
76.00	11950	142.00	4210	205.00	25776	316.00	1506
77.00	251584	143.00	2814	206.00	113792	323.00	10571
78.00	17936	146.00	1656	207.00	14203	324.00	1453
79.00	14518	147.00	6952	208.00	3651	327.00	1524
80.00	11761	148.00	12680	210.00	739	334.00	6431
81.00	17192	149.00	2872	211.00	4346	335.00	1429
82.00	3943	151.00	833	216.00	2822	346.00	2166
83.00	4206	153.00	3641	217.00	28896	352.00	3275
85.00	2620	154.00	3375	218.00	3980	353.00	1910
86.00	4622	155.00	7357	221.00	23072	354.00	2621
87.00	1664	156.00	10070	222.00	1872	365.00	14621
91.00	3958	157.00	1498	223.00	6518	366.00	2204
92.00	4127	158.00	1417	224.00	61440	372.00	6406
93.00	24808	160.00	3642	225.00	14926	373.00	1390
94.00	1588	161.00	5920	227.00	23088	383.00	671
98.00	18864	165.00	4518	228.00	3791	402.00	2025
99.00	16217	166.00	3866	229.00	4874	403.00	3639
101.00	9486	167.00	23472	231.00	1648	404.00	703
103.00	2079	168.00	11061	235.00	745	421.00	3401
104.00	5375	169.00	1468	237.00	1492	422.00	2551
105.00	5151	172.00	887	242.00	2576	423.00	23288
106.00	1478	173.00	2891	243.00	3821	424.00	4186
107.00	70976	174.00	5335	244.00	48984	441.00	64096
108.00	10848	175.00	9807	245.00	6111	442.00	419712
110.00	135360	176.00	3189	246.00	7978	443.00	85360
111.00	20792	177.00	3727	247.00	704	444.00	7482
112.00	919	179.00	17984	249.00	1459		
116.00	4001	180.00	11984	255.00	224128		

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Date : 27-AUG-2020 12:35

Client ID:

Sample Info: SIH0304-CAL4

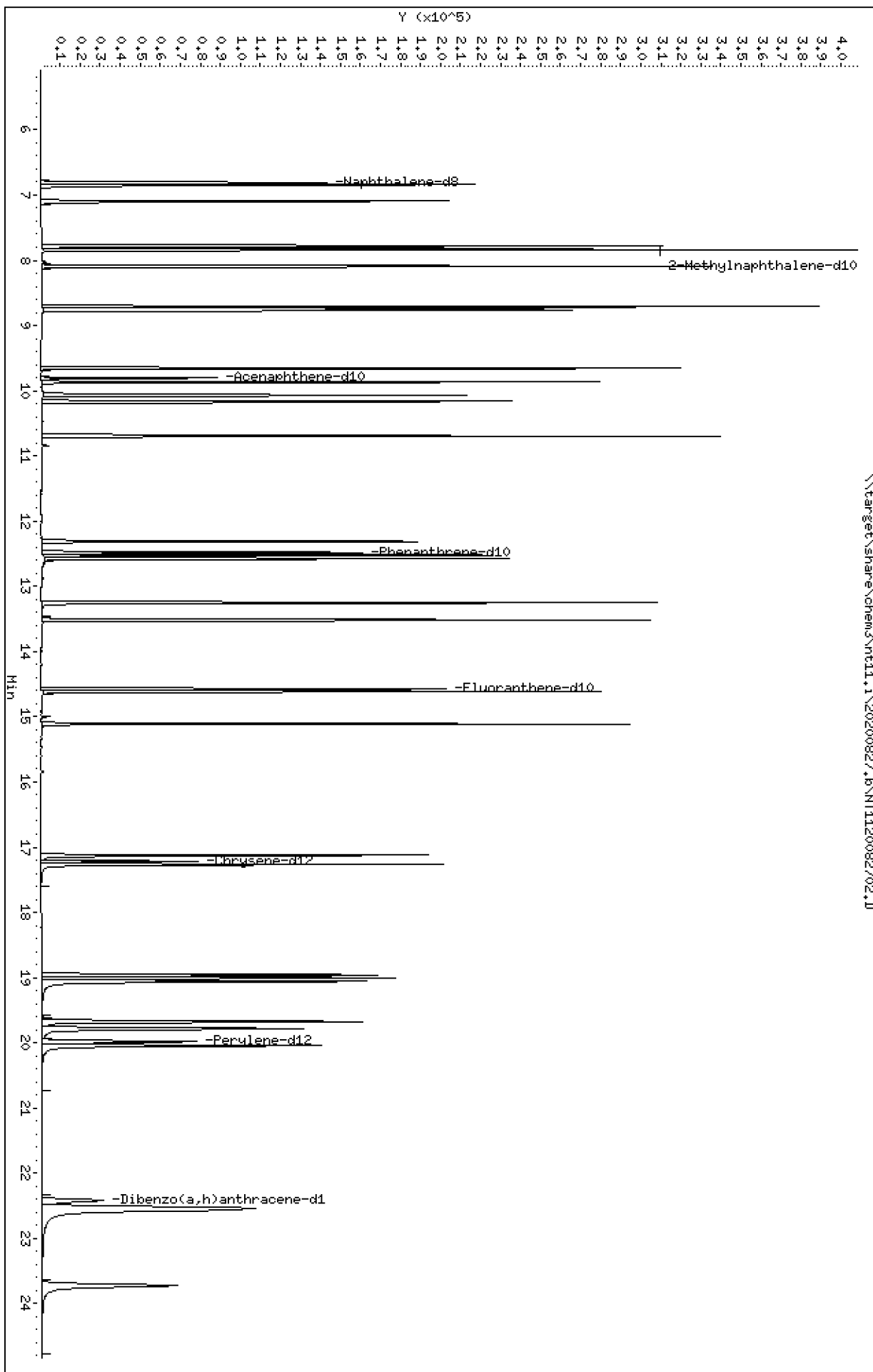
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

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ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20200827.b\NT1120082702.D
 Lab Smp Id: SIH0304-CAL4
 Inj Date : 27-AUG-2020 12:35 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : SIH0304-CAL4
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
 Meth Date : 28-Aug-2020 07:11 van Quant Type: ISTD
 Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
 Als bottle: 2 Calibration Sample, Level: 4
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PAH.sub
 Target Version: 4.14
 Processing Host: VANS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 1 Naphthalene-d8	136		6.813	6.804	(1.000)	215332	200.000	
2 Naphthalene	128		6.840	6.840	(1.004)	298371	250.000	239
3 Benzo(b)thiophene	134		7.093	7.093	(1.041)	244845	250.000	248
\$ 4 2-Methylnaphthalene-d10	152		7.780	7.780	(1.142)	213012	250.000	246
5 2-Methylnaphthalene	142		7.833	7.833	(1.150)	244643	250.000	243
6 1-Methylnaphthalene	142		8.085	8.085	(1.187)	226269	250.000	242
7 2-Chloronaphthalene	162		8.736	8.736	(0.891)	208133	250.000	234
8 Biphenyl	154		8.705	8.705	(0.888)	285674	250.000	241
9 2,6-Dimethylnaphthalene	156		8.757	8.757	(0.893)	216052	250.000	246
10 Acenaphthylene	152		9.653	9.653	(0.984)	282072	250.000	241
* 11 Acenaphthene-d10	164		9.807	9.807	(1.000)	102217	200.000	
12 Acenaphthene	153		9.870	9.870	(1.006)	183649	250.000	237
13 Dibenzofuran	168		10.074	10.074	(1.027)	246528	250.000	238
14 2,3,5-Trimethylnaphthalene	170		10.175	10.175	(1.038)	160106	250.000	251
16 Fluorene	166		10.694	10.694	(1.090)	192257	250.000	241
17 Dibenzothiophene	184		12.314	12.303	(0.987)	229922	250.000	244
* 18 Phenanthrene-d10	188		12.482	12.482	(1.000)	170387	200.000	
19 Phenanthrene	178		12.524	12.524	(1.003)	263698	250.000	237
21 Anthracene	178		12.576	12.576	(1.008)	258692	250.000	232
22 Carbazole	167		13.253	13.252	(1.062)	296860	250.000	250
23 1-Methylphenanthrene	192		13.515	13.514	(1.083)	239584	250.000	243
\$ 24 Fluoranthene-d10	212		14.578	14.578	(1.168)	219073	250.000	245
25 Fluoranthene	202		14.607	14.607	(1.170)	262853	250.000	237
26 Pyrene	202		15.107	15.107	(1.210)	268303	250.000	235
27 Benzo(a)anthracene	228		17.123	17.122	(0.995)	209464	250.000	246
* 28 Chrysene-d12	240		17.214	17.214	(1.000)	116138	200.000	
29 Chrysene	228		17.264	17.264	(1.003)	220580	250.000	230
30 Benzo(b)fluoranthene	252		18.962	18.962	(0.949)	194221	250.000	257
31 Benzo(k)fluoranthene	252		19.001	19.001	(0.951)	221208	250.000	222
32 Benzo(j)fluoranthene	252		19.058	19.058	(0.954)	233934	250.000	218
34 Benzo(e)pyrene	252		19.673	19.673	(0.985)	203936	250.000	238
35 Benzo(a)pyrene	252		19.779	19.779	(0.990)	188831	250.000	239
* 36 Perylene-d12	264		19.981	19.981	(1.000)	139038	200.000	

Compounds	QUANT SIG		AMOUNTS					
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
=====	=====		=====	=====	=====	=====	=====	=====
37 Perylene	252		20.048	20.048	(1.003)	208187	250.000	231
\$ 38 Dibenzo(a,h)anthracene-d14	292		22.418	22.418	(1.122)	136475	250.000	250
39 Dibenzo(a,h)anthracene	278		22.529	22.540	(1.128)	160223	250.000	245
40 Indeno(1,2,3-cd)pyrene	276		22.562	22.562	(1.129)	191393	250.000	249
41 Benzo(g,h,i)perylene	276		23.725	23.725	(1.187)	182373	250.000	238

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 27-AUG-2020
 Lab File ID: NT1120082702.D Calibration Time: 12:35
 Lab Smp Id: SIH0304-CAL4
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	215332	107666	430664	215332	0.00
11 Acenaphthene-d10	102217	51109	204434	102217	0.00
18 Phenanthrene-d10	170387	85194	340774	170387	0.00
28 Chrysene-d12	116138	58069	232276	116138	0.00
36 Perylene-d12	139038	69519	278076	139038	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.81	6.31	7.31	6.81	0.00
11 Acenaphthene-d10	9.81	9.31	10.31	9.81	0.00
18 Phenanthrene-d10	12.48	11.98	12.98	12.48	0.00
28 Chrysene-d12	17.21	16.71	17.71	17.21	0.00
36 Perylene-d12	19.98	19.48	20.48	19.98	0.00

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.

REVIEW SUMMARY FOR FILE - NT1120082702.D

Lab ID: SIH0304-CAL4

nt11.i, 20200827.b\lowsim.m, 27-AUG-2020 12:35

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1120082704.D

On Column LOD for nt11.i, 20200827.b\lowsim.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000

Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000

Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.1\20200827.6\NT1120082703.D

Date : 27-AUG-2020 13:07

Client ID:

Sample Info: SIH0304-CAL6

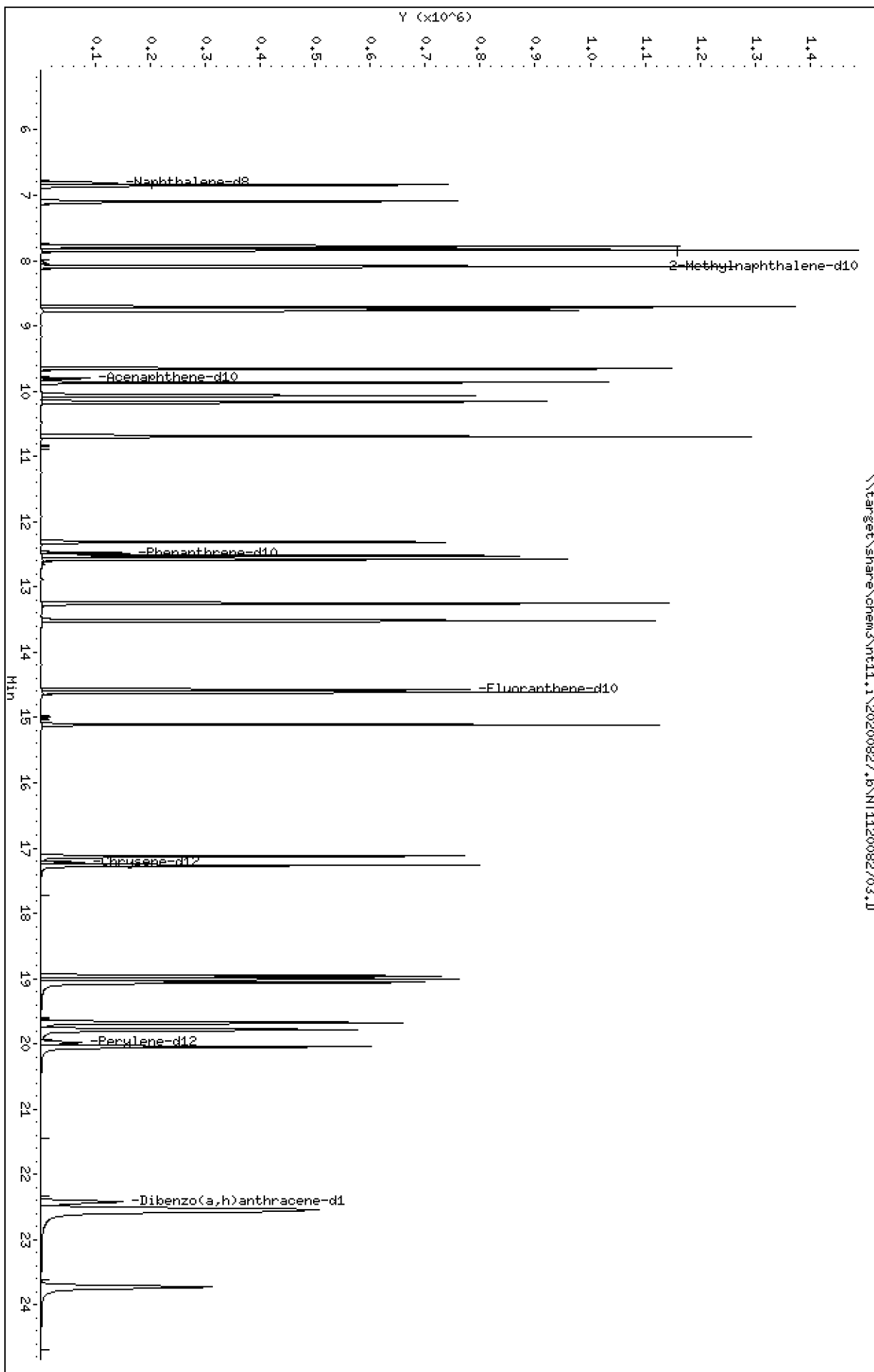
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

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ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20200827.b\NT1120082703.D
 Lab Smp Id: SIH0304-CAL6
 Inj Date : 27-AUG-2020 13:07 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : SIH0304-CAL6
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20200827.b\LOWSIM.m
 Meth Date : 28-Aug-2020 07:11 van Quant Type: ISTD
 Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
 Als bottle: 1 Calibration Sample, Level: 6
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PAH.sub
 Target Version: 4.14
 Processing Host: VANS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ng/mL)	(ng/mL)
* 1 Naphthalene-d8	136		6.813	6.804	(1.000)	211963	200.000	
2 Naphthalene	128		6.840	6.840	(1.004)	1085040	1000.00	882
3 Benzo(b)thiophene	134		7.093	7.093	(1.041)	905823	1000.00	933
\$ 4 2-Methylnaphthalene-d10	152		7.780	7.780	(1.142)	808033	1000.00	948
5 2-Methylnaphthalene	142		7.833	7.833	(1.150)	921973	1000.00	929
6 1-Methylnaphthalene	142		8.085	8.085	(1.187)	856598	1000.00	929
7 2-Chloronaphthalene	162		8.736	8.736	(0.891)	796291	1000.00	874
8 Biphenyl	154		8.705	8.705	(0.888)	1041154	1000.00	858
9 2,6-Dimethylnaphthalene	156		8.757	8.757	(0.893)	822760	1000.00	914
10 Acenaphthylene	152		9.653	9.653	(0.984)	1046489	1000.00	872
* 11 Acenaphthene-d10	164		9.807	9.807	(1.000)	104596	200.000	
12 Acenaphthene	153		9.870	9.870	(1.006)	706999	1000.00	891
13 Dibenzofuran	168		10.074	10.074	(1.027)	910528	1000.00	859
14 2,3,5-Trimethylnaphthalene	170		10.175	10.175	(1.038)	618611	1000.00	949
16 Fluorene	166		10.694	10.694	(1.090)	732038	1000.00	897
17 Dibenzothiophene	184		12.314	12.303	(0.987)	865885	1000.00	900
* 18 Phenanthrene-d10	188		12.482	12.482	(1.000)	173851	200.000	
19 Phenanthrene	178		12.524	12.524	(1.003)	979449	1000.00	861
21 Anthracene	178		12.576	12.576	(1.008)	993726	1000.00	875
22 Carbazole	167		13.252	13.252	(1.062)	1098417	1000.00	907
23 1-Methylphenanthrene	192		13.524	13.514	(1.083)	928787	1000.00	925
\$ 24 Fluoranthene-d10	212		14.578	14.578	(1.168)	840106	1000.00	922
25 Fluoranthene	202		14.607	14.607	(1.170)	1008651	1000.00	890
26 Pyrene	202		15.107	15.107	(1.210)	1016974	1000.00	874
27 Benzo(a)anthracene	228		17.123	17.122	(0.995)	831121	1000.00	957
* 28 Chrysene-d12	240		17.214	17.214	(1.000)	118274	200.000	
29 Chrysene	228		17.264	17.264	(1.003)	871953	1000.00	891
30 Benzo(b)fluoranthene	252		18.962	18.962	(0.949)	795610	1000.00	1050
31 Benzo(k)fluoranthene	252		19.001	19.001	(0.951)	960792	1000.00	964
32 Benzo(j)fluoranthene	252		19.058	19.058	(0.954)	899146	1000.00	835
34 Benzo(e)pyrene	252		19.673	19.673	(0.985)	834330	1000.00	971
35 Benzo(a)pyrene	252		19.779	19.779	(0.990)	797637	1000.00	1010(H)
* 36 Perylene-d12	264		19.981	19.981	(1.000)	139375	200.000	

Compounds	QUANT SIG		AMOUNTS					
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
=====	=====		=====	=====	=====	=====	=====	=====
37 Perylene	252		20.048	20.048	(1.003)	854516	1000.00	947
\$ 38 Dibenzo(a,h)anthracene-d14	292		22.418	22.418	(1.122)	592614	1000.00	998
39 Dibenzo(a,h)anthracene	278		22.540	22.540	(1.128)	707781	1000.00	998
40 Indeno(1,2,3-cd)pyrene	276		22.562	22.562	(1.129)	842364	1000.00	1090
41 Benzo(g,h,i)perylene	276		23.725	23.725	(1.187)	765460	1000.00	995

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 27-AUG-2020
 Lab File ID: NT1120082703.D Calibration Time: 12:35
 Lab Smp Id: SIH0304-CAL6
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20200827.b\LOWSIM.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	215332	107666	430664	211963	-1.56
11 Acenaphthene-d10	102217	51109	204434	104596	2.33
18 Phenanthrene-d10	170387	85194	340774	173851	2.03
28 Chrysene-d12	116138	58069	232276	118274	1.84
36 Perylene-d12	139038	69519	278076	139375	0.24

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.81	6.31	7.31	6.81	-0.00
11 Acenaphthene-d10	9.81	9.31	10.31	9.81	-0.00
18 Phenanthrene-d10	12.48	11.98	12.98	12.48	-0.00
28 Chrysene-d12	17.21	16.71	17.71	17.21	-0.00
36 Perylene-d12	19.98	19.48	20.48	19.98	-0.00

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.

REVIEW SUMMARY FOR FILE - NT1120082703.D

Lab ID: SIH0304-CAL6

nt11.i, 20200827.b\LOWSIM.m, 27-AUG-2020 13:07

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1120082704.D

On Column LOD for nt11.i, 20200827.b\LOWSIM.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000

Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000

Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.1\20200827.6\NT1120082704.D

Date: 27-AUG-2020 13:38

Client ID:

Sample Info: SIH0304-CAL1

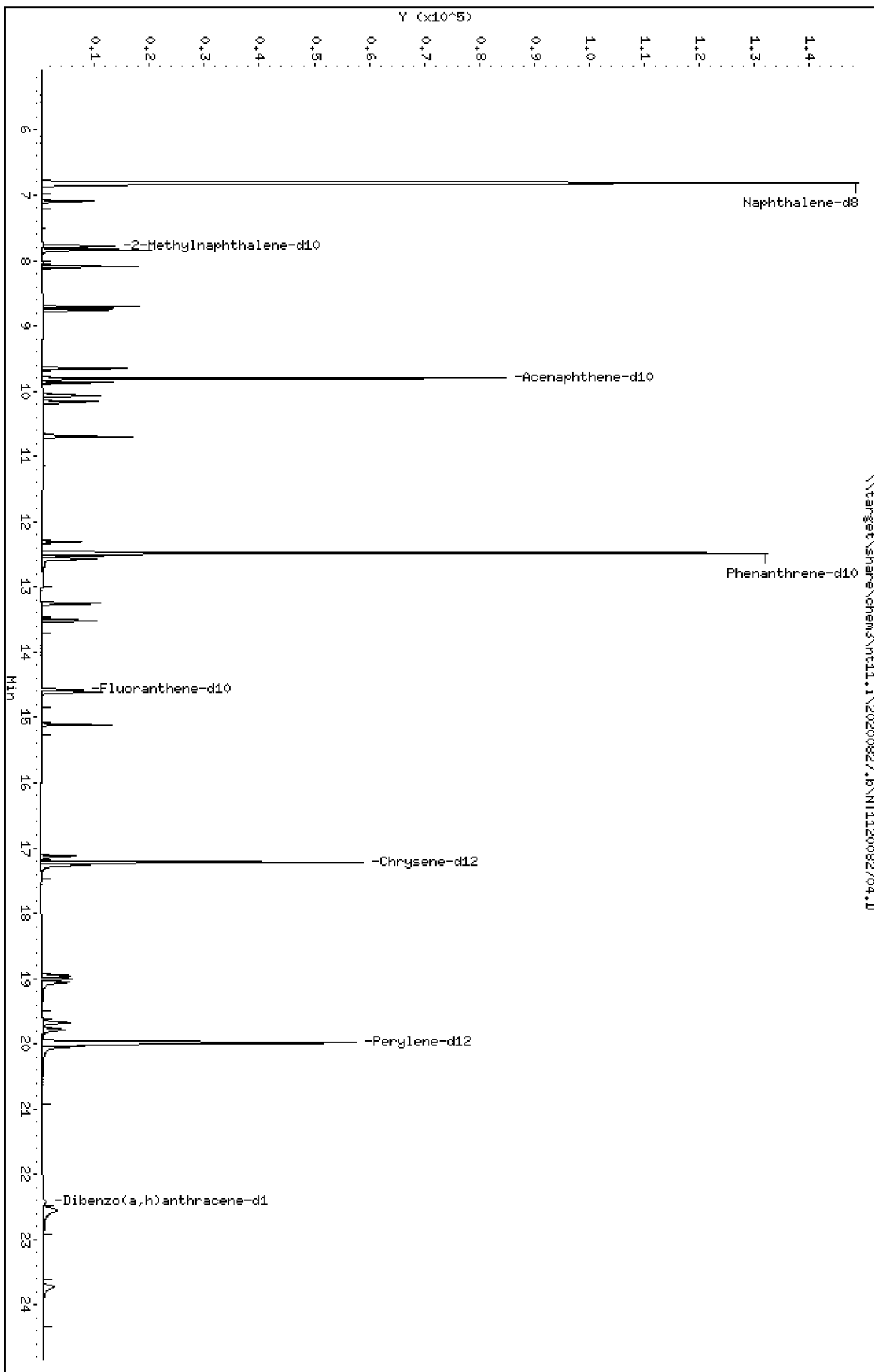
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

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ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20200827.b\NT1120082704.D
 Lab Smp Id: SIH0304-CAL1
 Inj Date : 27-AUG-2020 13:38 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : SIH0304-CAL1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
 Meth Date : 28-Aug-2020 07:11 van Quant Type: ISTD
 Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
 Als bottle: 4 Calibration Sample, Level: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PAH.sub
 Target Version: 4.14
 Processing Host: VANS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 1 Naphthalene-d8	136		6.804	6.804	(1.000)	218979	200.000	
2 Naphthalene	128		6.840	6.840	(1.005)	15725	10.0000	12.4
3 Benzo(b)thiophene	134		7.093	7.093	(1.043)	11166	10.0000	11.1
\$ 4 2-Methylnaphthalene-d10	152		7.780	7.780	(1.144)	9886	10.0000	11.2
5 2-Methylnaphthalene	142		7.833	7.833	(1.151)	12246	10.0000	11.9
6 1-Methylnaphthalene	142		8.085	8.085	(1.188)	11412	10.0000	12.0
7 2-Chloronaphthalene	162		8.736	8.736	(0.891)	10449	10.0000	12.5
8 Biphenyl	154		8.705	8.705	(0.888)	13067	10.0000	11.7
9 2,6-Dimethylnaphthalene	156		8.757	8.757	(0.893)	9296	10.0000	11.2
10 Acenaphthylene	152		9.653	9.653	(0.984)	13670	10.0000	12.4
* 11 Acenaphthene-d10	164		9.807	9.807	(1.000)	96342	200.000	
12 Acenaphthene	153		9.870	9.870	(1.006)	8975	10.0000	12.3
13 Dibenzofuran	168		10.074	10.074	(1.027)	12035	10.0000	12.3
14 2,3,5-Trimethylnaphthalene	170		10.175	10.175	(1.038)	6602	10.0000	11.0
16 Fluorene	166		10.694	10.694	(1.090)	9159	10.0000	12.2
17 Dibenzothiophene	184		12.303	12.303	(0.986)	9543	10.0000	11.3
* 18 Phenanthrene-d10	188		12.482	12.482	(1.000)	152977	200.000	
19 Phenanthrene	178		12.524	12.524	(1.003)	12189	10.0000	12.2
21 Anthracene	178		12.576	12.576	(1.008)	12012	10.0000	12.0
22 Carbazole	167		13.252	13.252	(1.062)	12712	10.0000	11.9
23 1-Methylphenanthrene	192		13.514	13.514	(1.083)	9626	10.0000	10.9
\$ 24 Fluoranthene-d10	212		14.578	14.578	(1.168)	8842	10.0000	11.0
25 Fluoranthene	202		14.607	14.607	(1.170)	11743	10.0000	11.8
26 Pyrene	202		15.107	15.107	(1.210)	12578	10.0000	12.3
27 Benzo(a)anthracene	228		17.122	17.122	(0.995)	8314	10.0000	11.9
* 28 Chrysene-d12	240		17.214	17.214	(1.000)	94808	200.000	
29 Chrysene	228		17.264	17.264	(1.003)	9750	10.0000	12.4
30 Benzo(b)fluoranthene	252		18.962	18.962	(0.949)	7008	10.0000	11.9
31 Benzo(k)fluoranthene	252		19.001	19.001	(0.951)	9145	10.0000	11.8
32 Benzo(j)fluoranthene	252		19.058	19.058	(0.954)	10149	10.0000	12.1
34 Benzo(e)pyrene	252		19.673	19.673	(0.985)	7647	10.0000	11.5
35 Benzo(a)pyrene	252		19.779	19.779	(0.990)	7155	10.0000	11.6
* 36 Perylene-d12	264		19.981	19.981	(1.000)	108221	200.000	

Compounds	QUANT SIG		AMOUNTS					
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
=====	=====		=====	=====	=====	=====	=====	=====
37 Perylene	252		20.048	20.048	(1.003)	8239	10.0000	11.8
\$ 38 Dibenzo(a,h)anthracene-d14	292		22.418	22.418	(1.122)	3390	10.0000	8.17 (M)
39 Dibenzo(a,h)anthracene	278		22.540	22.540	(1.128)	4871	10.0000	9.78
40 Indeno(1,2,3-cd)pyrene	276		22.562	22.562	(1.129)	6726	10.0000	11.3
41 Benzo(g,h,i)perylene	276		23.725	23.725	(1.187)	7147	10.0000	12.0

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 27-AUG-2020
 Lab File ID: NT1120082704.D Calibration Time: 12:35
 Lab Smp Id: SIH0304-CAL1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	215332	107666	430664	218979	1.69
11 Acenaphthene-d10	102217	51109	204434	96342	-5.75
18 Phenanthrene-d10	170387	85194	340774	152977	-10.22
28 Chrysene-d12	116138	58069	232276	94808	-18.37
36 Perylene-d12	139038	69519	278076	108221	-22.16

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.81	6.31	7.31	6.80	-0.13
11 Acenaphthene-d10	9.81	9.31	10.31	9.81	-0.00
18 Phenanthrene-d10	12.48	11.98	12.98	12.48	-0.00
28 Chrysene-d12	17.21	16.71	17.71	17.21	-0.00
36 Perylene-d12	19.98	19.48	20.48	19.98	-0.00

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.

REVIEW SUMMARY FOR FILE - NT1120082704.D

Lab ID: SIH0304-CAL1

nt11.i, 20200827.b\lowsim.m, 27-AUG-2020 13:38

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1120082704.D

On Column LOD for nt11.i, 20200827.b\lowsim.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000

Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000

Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

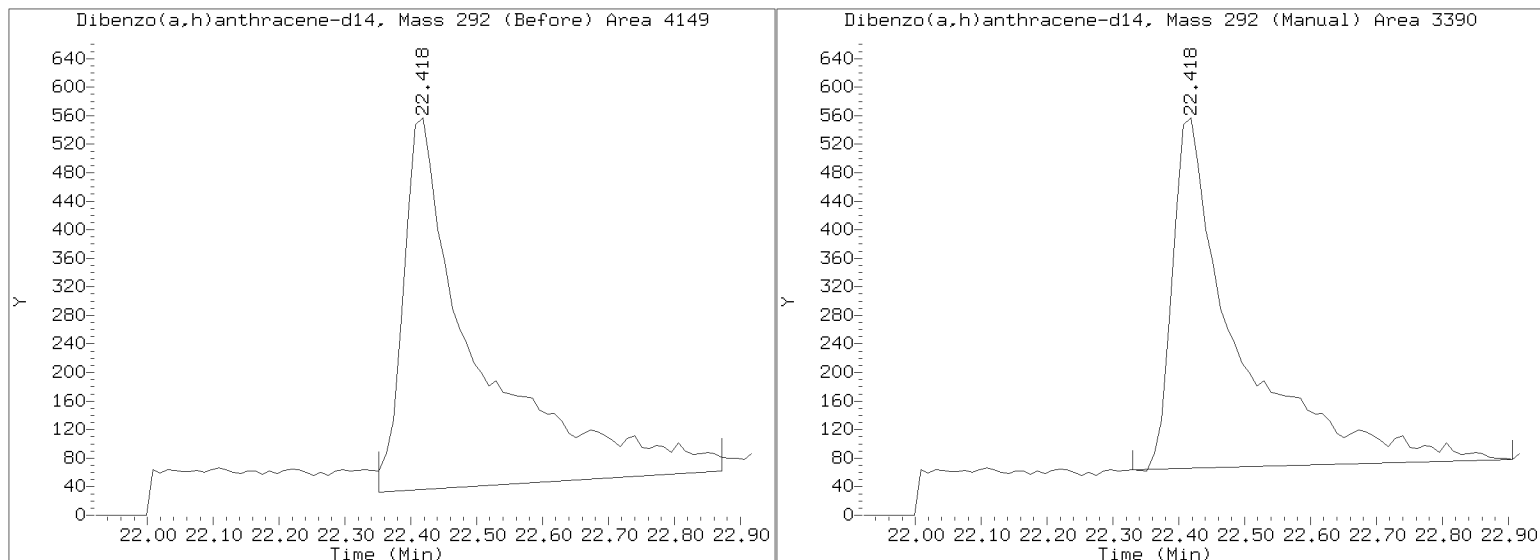
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20200827.b/NT1120082704.D

Injection Date: 27-AUG-2020 13:38

Lab ID:SIH0304-CAL1 Client ID:

Report Date: 08/28/2020 09:10



Data File: \\target\share\chem3\nt11.1\20200827.6\NT1120082705.D

Date : 27-AUG-2020 14:08

Client ID:

Sample Info: SIH0304-CALS

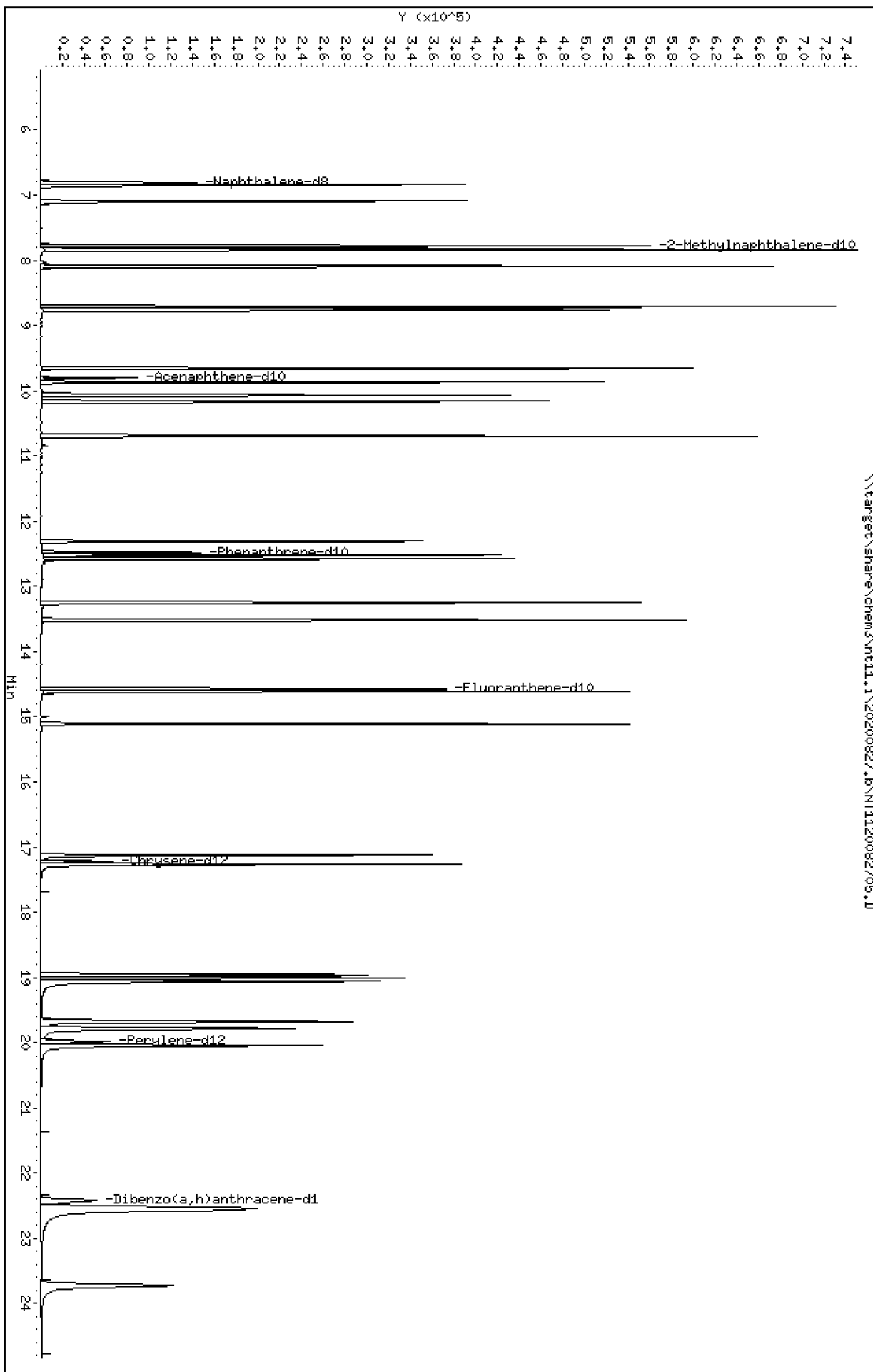
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

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ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20200827.b\NT1120082705.D
 Lab Smp Id: SIH0304-CAL5
 Inj Date : 27-AUG-2020 14:08 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : SIH0304-CAL5
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
 Meth Date : 28-Aug-2020 07:11 van Quant Type: ISTD
 Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
 Als bottle: 5 Calibration Sample, Level: 5
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PAH.sub
 Target Version: 4.14
 Processing Host: VANS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 1 Naphthalene-d8	136		6.804	6.804	(1.000)	205773	200.000	
2 Naphthalene	128		6.840	6.840	(1.005)	556487	500.000	466
3 Benzo(b)thiophene	134		7.093	7.093	(1.043)	459474	500.000	487
\$ 4 2-Methylnaphthalene-d10	152		7.780	7.780	(1.144)	406362	500.000	491
5 2-Methylnaphthalene	142		7.833	7.833	(1.151)	461169	500.000	479
6 1-Methylnaphthalene	142		8.085	8.085	(1.188)	429494	500.000	480
7 2-Chloronaphthalene	162		8.736	8.736	(0.891)	398892	500.000	467
8 Biphenyl	154		8.705	8.705	(0.888)	540352	500.000	475
9 2,6-Dimethylnaphthalene	156		8.757	8.757	(0.893)	413173	500.000	489
10 Acenaphthylene	152		9.653	9.653	(0.984)	526443	500.000	468
* 11 Acenaphthene-d10	164		9.807	9.807	(1.000)	98118	200.000	
12 Acenaphthene	153		9.870	9.870	(1.006)	350617	500.000	471
13 Dibenzofuran	168		10.074	10.074	(1.027)	463388	500.000	466
14 2,3,5-Trimethylnaphthalene	170		10.175	10.175	(1.038)	301991	500.000	494
16 Fluorene	166		10.694	10.694	(1.090)	365393	500.000	477
17 Dibenzothiophene	184		12.303	12.303	(0.986)	426953	500.000	480
* 18 Phenanthrene-d10	188		12.482	12.482	(1.000)	160808	200.000	
19 Phenanthrene	178		12.513	12.524	(1.003)	496311	500.000	472
21 Anthracene	178		12.576	12.576	(1.008)	484497	500.000	461
22 Carbazole	167		13.252	13.252	(1.062)	543316	500.000	485
23 1-Methylphenanthrene	192		13.515	13.514	(1.083)	451966	500.000	486
\$ 24 Fluoranthene-d10	212		14.578	14.578	(1.168)	406108	500.000	482
25 Fluoranthene	202		14.607	14.607	(1.170)	496464	500.000	473
26 Pyrene	202		15.107	15.107	(1.210)	500375	500.000	465
27 Benzo(a)anthracene	228		17.123	17.122	(0.995)	383867	500.000	500
* 28 Chrysene-d12	240		17.214	17.214	(1.000)	104617	200.000	
29 Chrysene	228		17.264	17.264	(1.003)	414086	500.000	479
30 Benzo(b)fluoranthene	252		18.962	18.962	(0.949)	352039	500.000	532
31 Benzo(k)fluoranthene	252		19.001	19.001	(0.951)	442699	500.000	509
32 Benzo(j)fluoranthene	252		19.058	19.058	(0.954)	435013	500.000	463
34 Benzo(e)pyrene	252		19.673	19.673	(0.985)	381561	500.000	509
35 Benzo(a)pyrene	252		19.779	19.779	(0.990)	358854	500.000	519
* 36 Perylene-d12	264		19.981	19.981	(1.000)	121661	200.000	

Compounds	QUANT SIG		AMOUNTS					
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
=====	=====		=====	=====	=====	=====	=====	=====
37 Perylene	252		20.048	20.048	(1.003)	390353	500.000	495
\$ 38 Dibenzo(a,h)anthracene-d14	292		22.418	22.418	(1.122)	248647	500.000	508
39 Dibenzo(a,h)anthracene	278		22.540	22.540	(1.128)	299103	500.000	510
40 Indeno(1,2,3-cd)pyrene	276		22.562	22.562	(1.129)	361375	500.000	538
41 Benzo(g,h,i)perylene	276		23.725	23.725	(1.187)	341150	500.000	508

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 27-AUG-2020
 Lab File ID: NT1120082705.D Calibration Time: 12:35
 Lab Smp Id: SIH0304-CAL5
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	215332	107666	430664	205773	-4.44
11 Acenaphthene-d10	102217	51109	204434	98118	-4.01
18 Phenanthrene-d10	170387	85194	340774	160808	-5.62
28 Chrysene-d12	116138	58069	232276	104617	-9.92
36 Perylene-d12	139038	69519	278076	121661	-12.50

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.81	6.31	7.31	6.80	-0.13
11 Acenaphthene-d10	9.81	9.31	10.31	9.81	-0.00
18 Phenanthrene-d10	12.48	11.98	12.98	12.48	-0.00
28 Chrysene-d12	17.21	16.71	17.71	17.21	-0.00
36 Perylene-d12	19.98	19.48	20.48	19.98	-0.00

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.

REVIEW SUMMARY FOR FILE - NT1120082705.D

Lab ID: SIH0304-CAL5

nt11.i, 20200827.b\lowsim.m, 27-AUG-2020 14:08

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1120082704.D

On Column LOD for nt11.i, 20200827.b\lowsim.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000

Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000

Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.1\20200827.6\NT1120082706.D

Date: 27-AUG-2020 14:38

Client ID:

Sample Info: SIH0304-CAL2

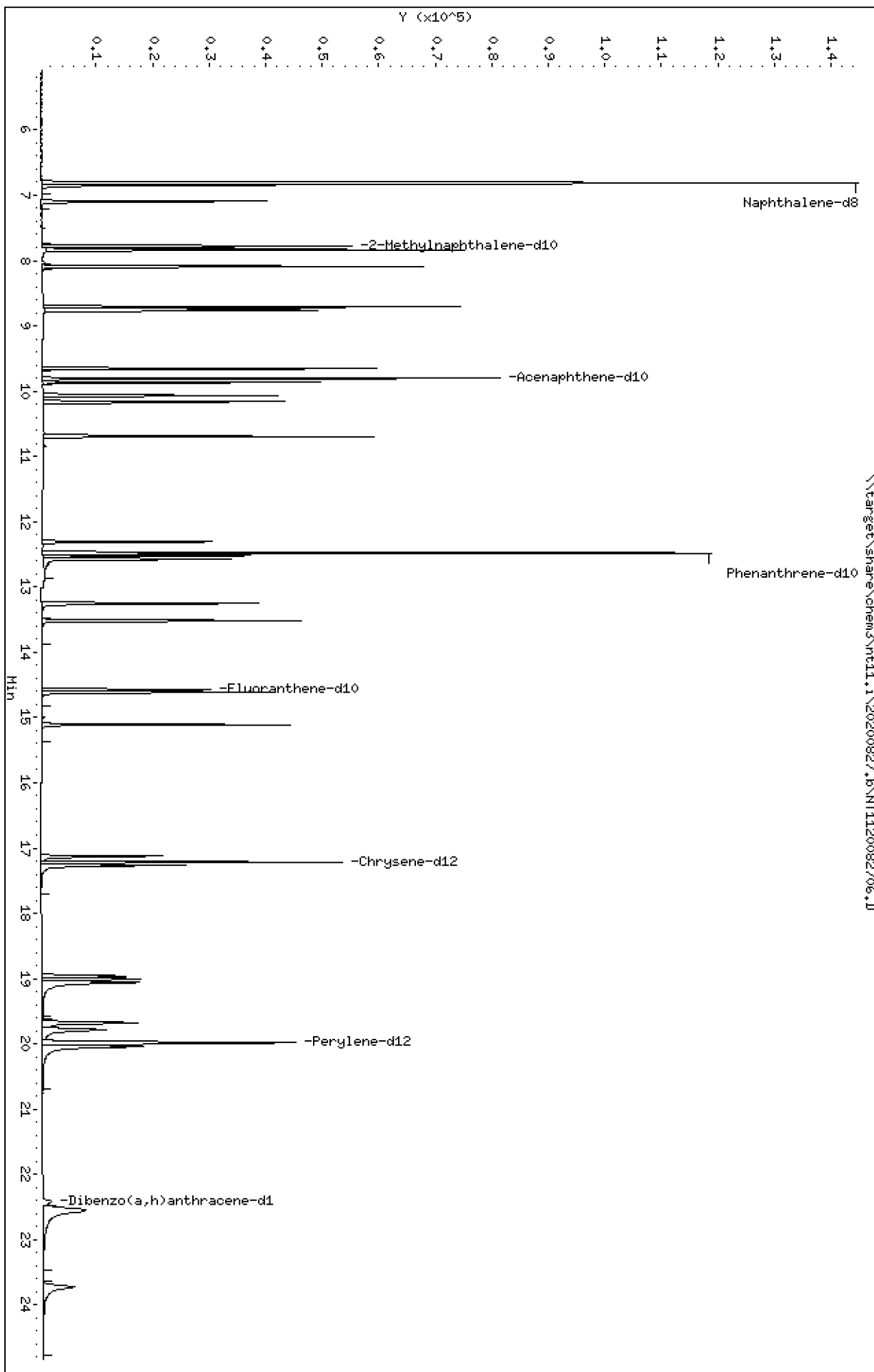
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

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ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20200827.b\NT1120082706.D
 Lab Smp Id: SIH0304-CAL2
 Inj Date : 27-AUG-2020 14:38 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : SIH0304-CAL2
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
 Meth Date : 28-Aug-2020 07:11 van Quant Type: ISTD
 Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
 Als bottle: 6 Calibration Sample, Level: 2
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PAH.sub
 Target Version: 4.14
 Processing Host: VANS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 1 Naphthalene-d8	136		6.804	6.804	(1.000)	206491	200.000	
2 Naphthalene	128		6.840	6.840	(1.005)	58881	50.0000	49.1
3 Benzo(b)thiophene	134		7.093	7.093	(1.043)	46404	50.0000	49.1
\$ 4 2-Methylnaphthalene-d10	152		7.780	7.780	(1.144)	40601	50.0000	48.9
5 2-Methylnaphthalene	142		7.833	7.833	(1.151)	45742	50.0000	47.3
6 1-Methylnaphthalene	142		8.085	8.085	(1.188)	42557	50.0000	47.4
7 2-Chloronaphthalene	162		8.736	8.736	(0.891)	38604	50.0000	49.1
8 Biphenyl	154		8.705	8.705	(0.888)	53762	50.0000	51.3
9 2,6-Dimethylnaphthalene	156		8.757	8.757	(0.893)	38600	50.0000	49.7
10 Acenaphthylene	152		9.653	9.653	(0.984)	50210	50.0000	48.5
* 11 Acenaphthene-d10	164		9.807	9.807	(1.000)	90319	200.000	
12 Acenaphthene	153		9.870	9.870	(1.006)	33199	50.0000	48.4
13 Dibenzofuran	168		10.074	10.074	(1.027)	45064	50.0000	49.3
14 2,3,5-Trimethylnaphthalene	170		10.175	10.175	(1.038)	26854	50.0000	47.7
16 Fluorene	166		10.694	10.694	(1.090)	33427	50.0000	47.4
17 Dibenzothiophene	184		12.303	12.303	(0.986)	37687	50.0000	50.7
* 18 Phenanthrene-d10	188		12.482	12.482	(1.000)	134229	200.000	
19 Phenanthrene	178		12.513	12.524	(1.003)	43007	50.0000	49.0
21 Anthracene	178		12.576	12.576	(1.008)	43953	50.0000	50.1
22 Carbazole	167		13.252	13.252	(1.062)	43261	50.0000	46.3
23 1-Methylphenanthrene	192		13.514	13.514	(1.083)	38981	50.0000	50.3
\$ 24 Fluoranthene-d10	212		14.578	14.578	(1.168)	35267	50.0000	50.1
25 Fluoranthene	202		14.607	14.607	(1.170)	42487	50.0000	48.5
26 Pyrene	202		15.107	15.107	(1.210)	43381	50.0000	48.3
27 Benzo(a)anthracene	228		17.123	17.122	(0.995)	27390	50.0000	44.1
* 28 Chrysene-d12	240		17.214	17.214	(1.000)	84619	200.000	
29 Chrysene	228		17.264	17.264	(1.003)	33176	50.0000	47.4
30 Benzo(b)fluoranthene	252		18.962	18.962	(0.949)	19874	50.0000	39.0
31 Benzo(k)fluoranthene	252		19.001	19.001	(0.951)	30361	50.0000	45.4
32 Benzo(j)fluoranthene	252		19.058	19.058	(0.954)	38356	50.0000	53.0
34 Benzo(e)pyrene	252		19.673	19.673	(0.985)	27032	50.0000	46.9
35 Benzo(a)pyrene	252		19.779	19.779	(0.990)	23032	50.0000	43.3
* 36 Perylene-d12	264		19.981	19.981	(1.000)	93566	200.000	

Compounds	QUANT SIG		AMOUNTS					
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
=====	=====		=====	=====	=====	=====	=====	=====
37 Perylene	252		20.048	20.048	(1.003)	29423	50.0000	48.6
\$ 38 Dibenzo(a,h)anthracene-d14	292		22.418	22.418	(1.122)	12845	50.0000	35.7
39 Dibenzo(a,h)anthracene	278		22.529	22.540	(1.128)	15562	50.0000	36.1
40 Indeno(1,2,3-cd)pyrene	276		22.562	22.562	(1.129)	20719	50.0000	40.1
41 Benzo(g,h,i)perylene	276		23.725	23.725	(1.187)	22417	50.0000	43.4

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 27-AUG-2020
 Lab File ID: NT1120082706.D Calibration Time: 12:35
 Lab Smp Id: SIH0304-CAL2
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	215332	107666	430664	206491	-4.11
11 Acenaphthene-d10	102217	51109	204434	90319	-11.64
18 Phenanthrene-d10	170387	85194	340774	134229	-21.22
28 Chrysene-d12	116138	58069	232276	84619	-27.14
36 Perylene-d12	139038	69519	278076	93566	-32.70

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.81	6.31	7.31	6.80	-0.13
11 Acenaphthene-d10	9.81	9.31	10.31	9.81	-0.00
18 Phenanthrene-d10	12.48	11.98	12.98	12.48	-0.00
28 Chrysene-d12	17.21	16.71	17.71	17.21	-0.00
36 Perylene-d12	19.98	19.48	20.48	19.98	-0.00

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.

REVIEW SUMMARY FOR FILE - NT1120082706.D

Lab ID: SIH0304-CAL2

nt11.i, 20200827.b\lowsim.m, 27-AUG-2020 14:38

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1120082704.D

On Column LOD for nt11.i, 20200827.b\lowsim.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000

Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000

Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.1\20200827.6\NT1120082707.D

Date : 27-AUG-2020 15:08

Client ID:

Sample Info: SIH0304-CAL3

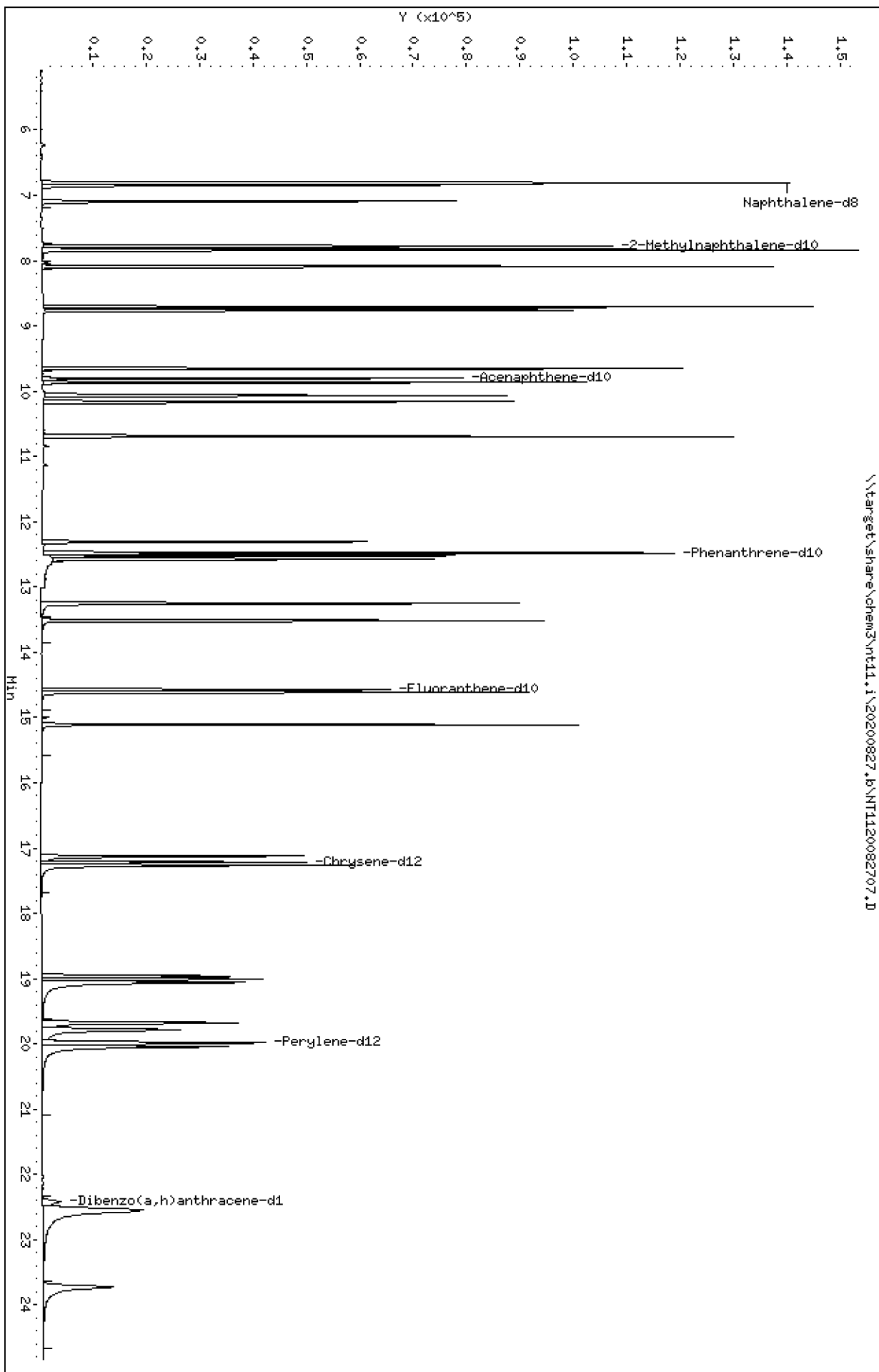
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt11.1\20200827.6\NT1120082707.D



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20200827.b\NT1120082707.D
 Lab Smp Id: SIH0304-CAL3
 Inj Date : 27-AUG-2020 15:08 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : SIH0304-CAL3
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
 Meth Date : 28-Aug-2020 07:11 van Quant Type: ISTD
 Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
 Als bottle: 7 Calibration Sample, Level: 3
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PAH.sub
 Target Version: 4.14
 Processing Host: VANS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 1 Naphthalene-d8	136		6.804	6.804	(1.000)	198254	200.000	
2 Naphthalene	128		6.840	6.840	(1.005)	116634	100.000	101
3 Benzo(b)thiophene	134		7.093	7.093	(1.043)	91247	100.000	100
\$ 4 2-Methylnaphthalene-d10	152		7.780	7.780	(1.144)	78505	100.000	98.5
5 2-Methylnaphthalene	142		7.833	7.833	(1.151)	92881	100.000	100
6 1-Methylnaphthalene	142		8.085	8.085	(1.188)	86322	100.000	100
7 2-Chloronaphthalene	162		8.736	8.736	(0.891)	79561	100.000	103
8 Biphenyl	154		8.705	8.705	(0.888)	106058	100.000	103
9 2,6-Dimethylnaphthalene	156		8.757	8.757	(0.893)	77002	100.000	101
10 Acenaphthylene	152		9.653	9.653	(0.984)	104266	100.000	102
* 11 Acenaphthene-d10	164		9.807	9.807	(1.000)	88696	200.000	
12 Acenaphthene	153		9.870	9.870	(1.006)	68894	100.000	102
13 Dibenzofuran	168		10.074	10.074	(1.027)	93172	100.000	104
14 2,3,5-Trimethylnaphthalene	170		10.163	10.175	(1.036)	55392	100.000	100
16 Fluorene	166		10.693	10.694	(1.090)	70376	100.000	102
17 Dibenzothiophene	184		12.303	12.303	(0.986)	75681	100.000	103
* 18 Phenanthrene-d10	188		12.482	12.482	(1.000)	133333	200.000	
19 Phenanthrene	178		12.524	12.524	(1.003)	91690	100.000	105
21 Anthracene	178		12.576	12.576	(1.008)	93350	100.000	107
22 Carbazole	167		13.252	13.252	(1.062)	93185	100.000	100
23 1-Methylphenanthrene	192		13.514	13.514	(1.083)	79759	100.000	104
\$ 24 Fluoranthene-d10	212		14.578	14.578	(1.168)	71947	100.000	103
25 Fluoranthene	202		14.607	14.607	(1.170)	93032	100.000	107
26 Pyrene	202		15.107	15.107	(1.210)	94506	100.000	106
27 Benzo(a)anthracene	228		17.122	17.122	(0.995)	60945	100.000	98.7
* 28 Chrysene-d12	240		17.214	17.214	(1.000)	84043	200.000	
29 Chrysene	228		17.264	17.264	(1.003)	72419	100.000	104
30 Benzo(b)fluoranthene	252		18.962	18.962	(0.949)	44811	100.000	89.1
31 Benzo(k)fluoranthene	252		19.001	19.001	(0.951)	68697	100.000	104
32 Benzo(j)fluoranthene	252		19.058	19.058	(0.954)	78190	100.000	110
34 Benzo(e)pyrene	252		19.673	19.673	(0.985)	55540	100.000	97.6
35 Benzo(a)pyrene	252		19.779	19.779	(0.990)	50984	100.000	97.1
* 36 Perylene-d12	264		19.981	19.981	(1.000)	92362	200.000	

Compounds	QUANT SIG		AMOUNTS					
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
=====	=====		=====	=====	=====	=====	=====	=====
37 Perylene	252		20.048	20.048	(1.003)	59308	100.000	99.1
\$ 38 Dibenzo(a,h)anthracene-d14	292		22.418	22.418	(1.122)	27361	100.000	76.8
39 Dibenzo(a,h)anthracene	278		22.540	22.540	(1.128)	35961	100.000	84.0
40 Indeno(1,2,3-cd)pyrene	276		22.562	22.562	(1.129)	46079	100.000	90.4
41 Benzo(g,h,i)perylene	276		23.725	23.725	(1.187)	49655	100.000	97.4

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 27-AUG-2020
 Lab File ID: NT1120082707.D Calibration Time: 12:35
 Lab Smp Id: SIH0304-CAL3
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	215332	107666	430664	198254	-7.93
11 Acenaphthene-d10	102217	51109	204434	88696	-13.23
18 Phenanthrene-d10	170387	85194	340774	133333	-21.75
28 Chrysene-d12	116138	58069	232276	84043	-27.64
36 Perylene-d12	139038	69519	278076	92362	-33.57

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.81	6.31	7.31	6.80	-0.13
11 Acenaphthene-d10	9.81	9.31	10.31	9.81	-0.00
18 Phenanthrene-d10	12.48	11.98	12.98	12.48	-0.00
28 Chrysene-d12	17.21	16.71	17.71	17.21	-0.00
36 Perylene-d12	19.98	19.48	20.48	19.98	-0.00

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.

REVIEW SUMMARY FOR FILE - NT1120082707.D

Lab ID: SIH0304-CAL3

nt11.i, 20200827.b\lowsim.m, 27-AUG-2020 15:08

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
-----	-----	-----	-------	----------

NONE

RRT check based on Ccal File: NT1120082704.D

On Column LOD for nt11.i, 20200827.b\lowsim.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000

Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000

Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.1\20200827.6\NT1120082708.D

Date: 27-AUG-2020 15:38

Client ID:

Sample Info: SIH0304-SCV1

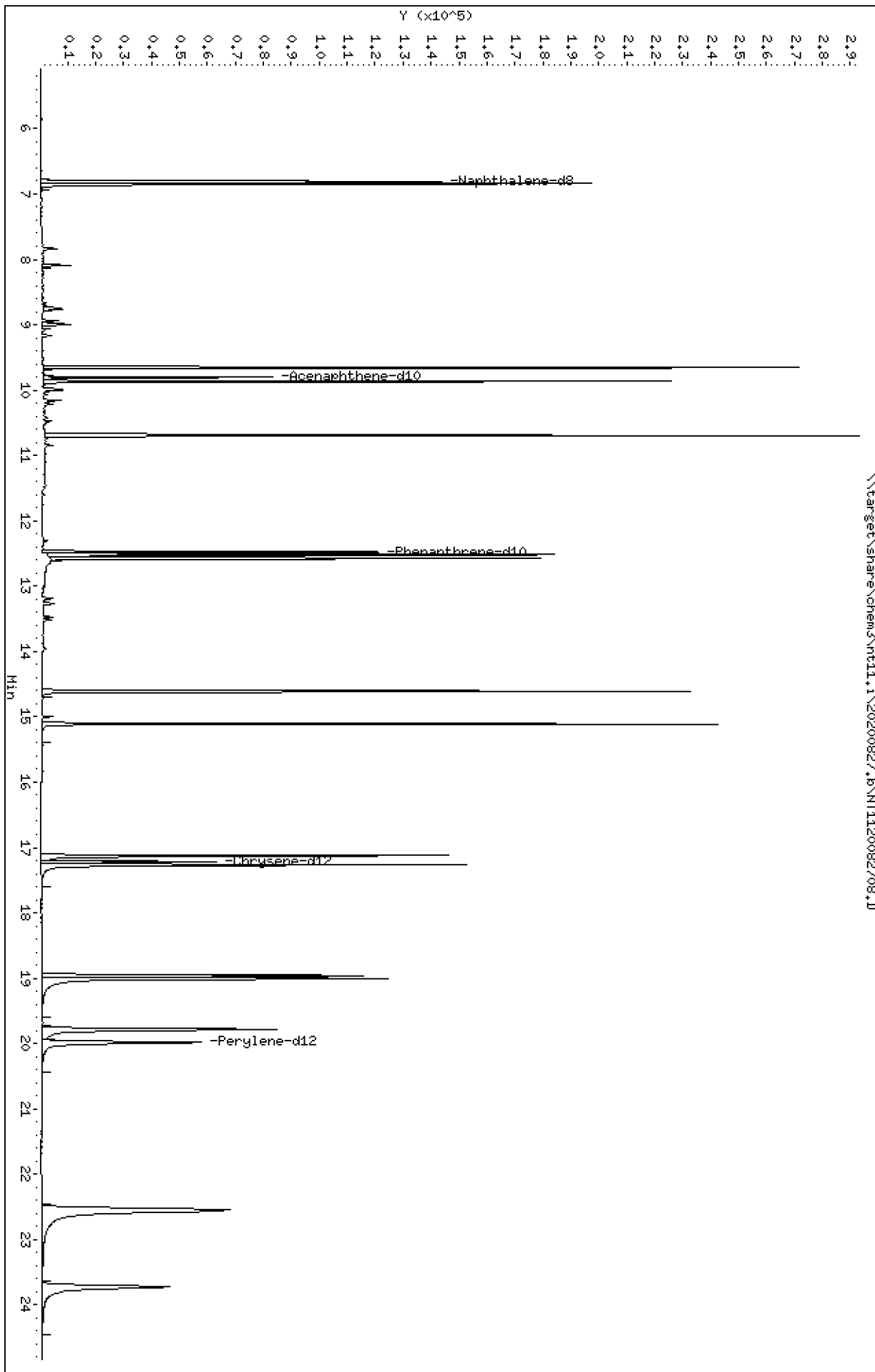
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

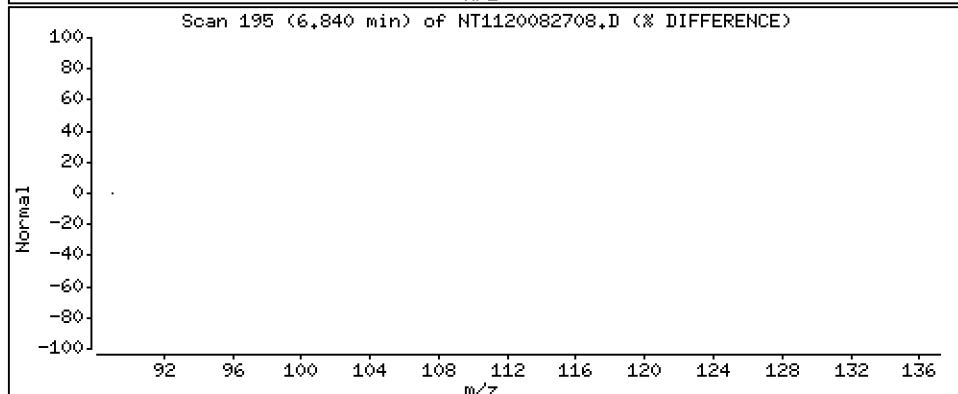
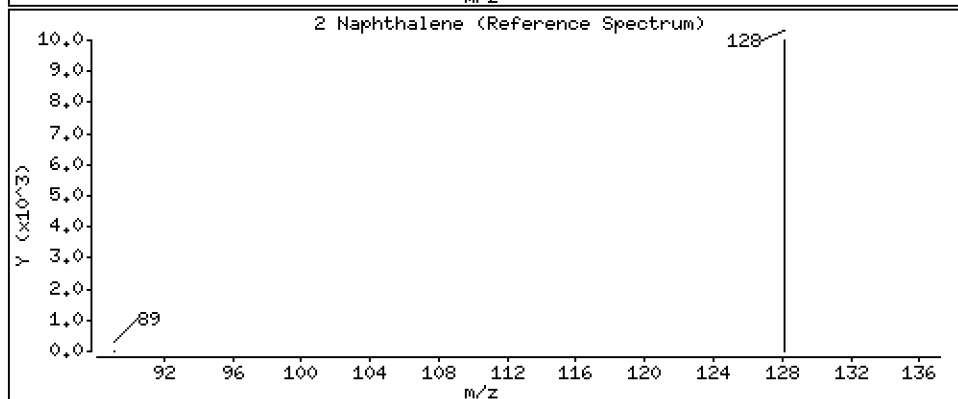
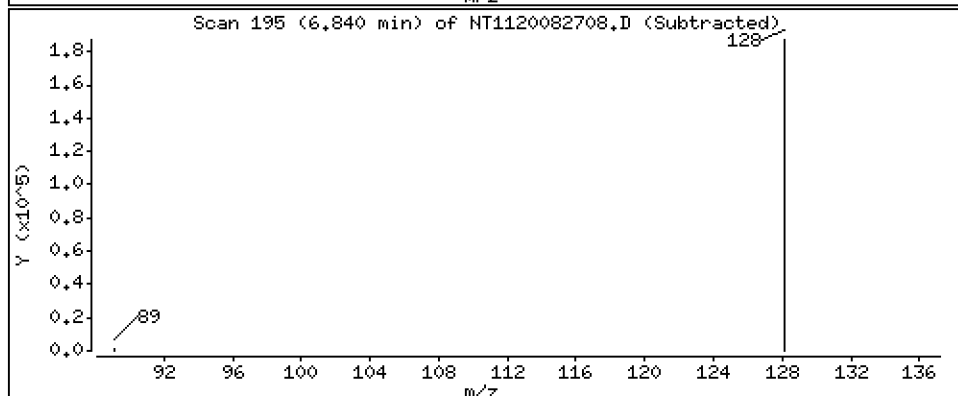
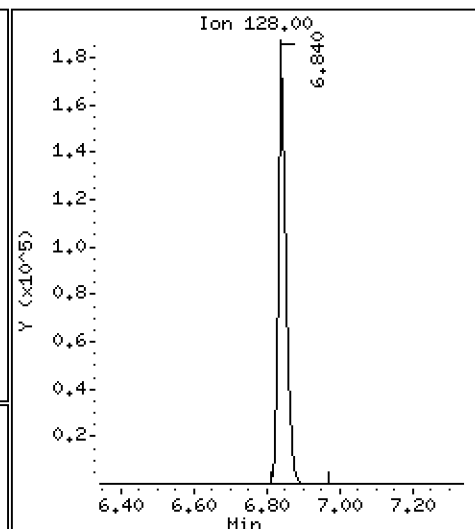
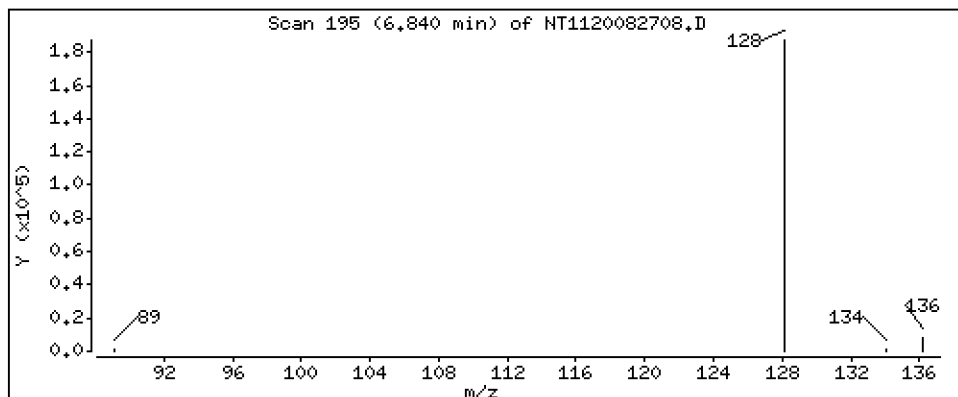
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 224 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

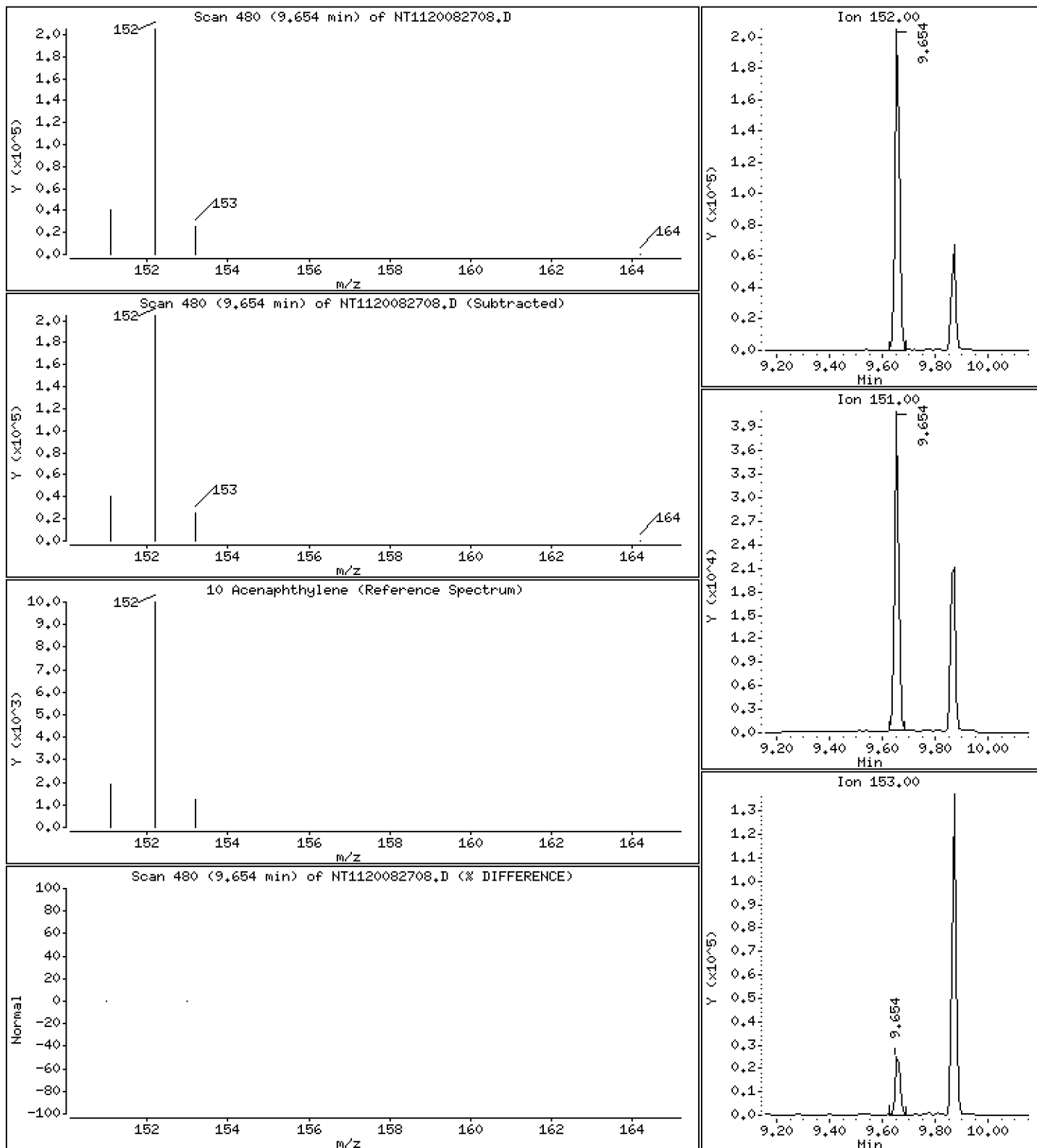
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

10 Acenaphthylene

Concentration: 233 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

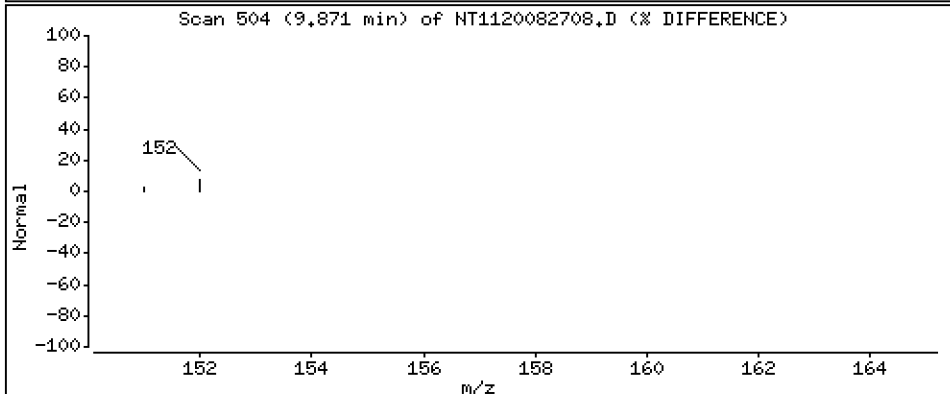
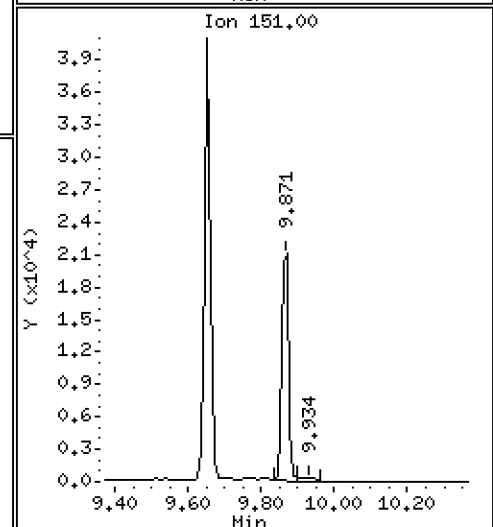
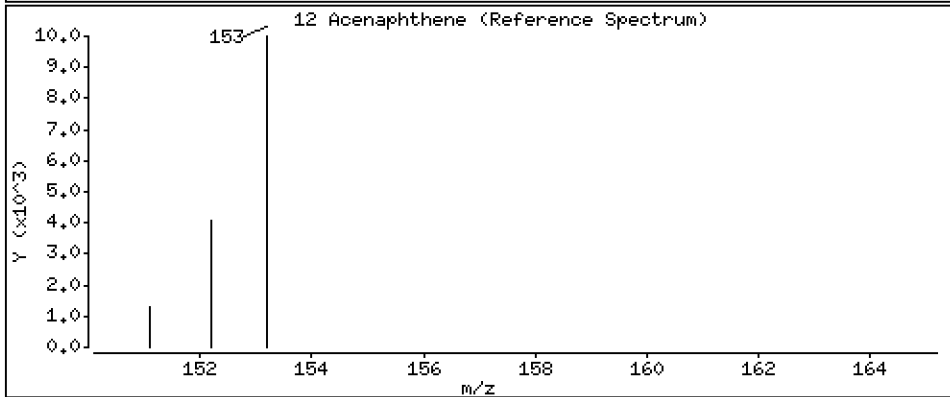
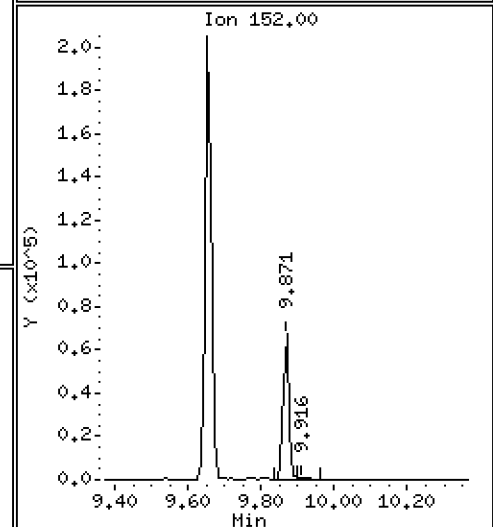
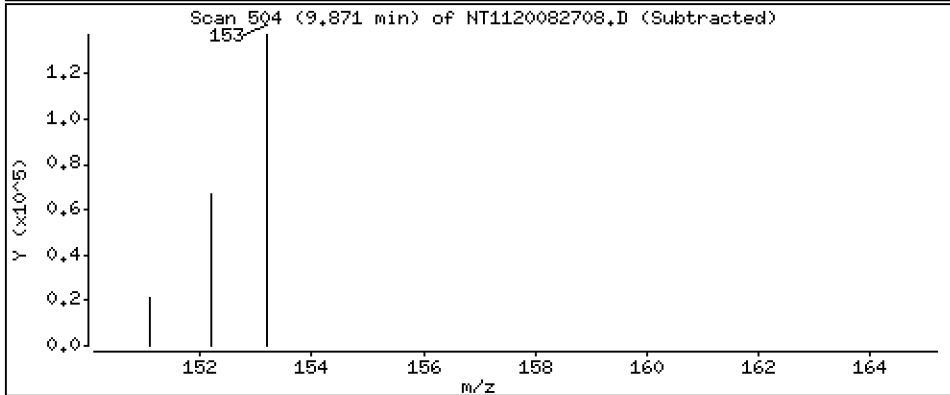
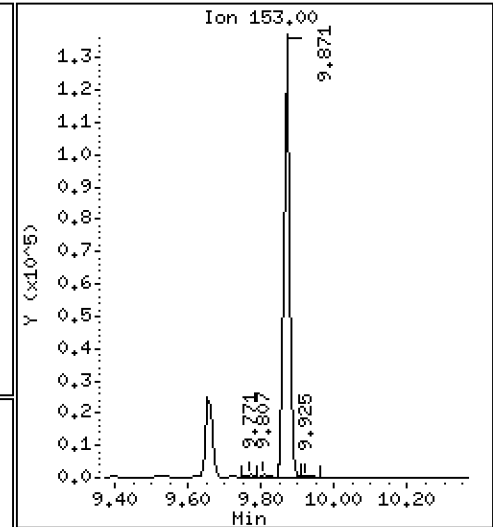
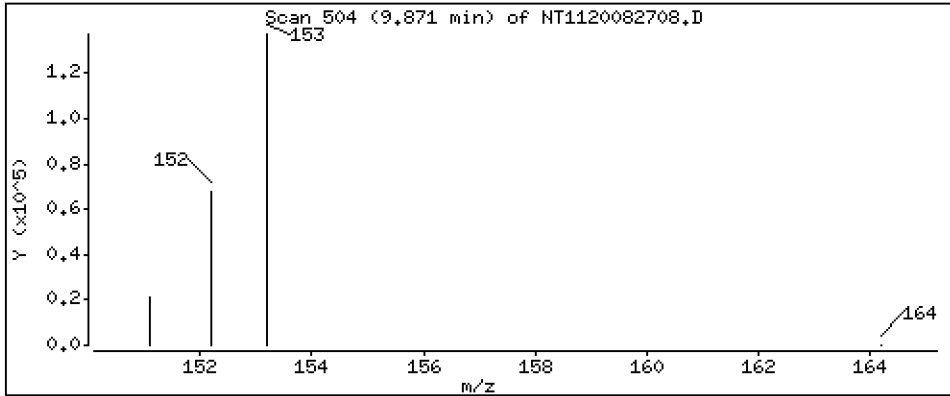
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

12 Acenaphthene

Concentration: 222 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

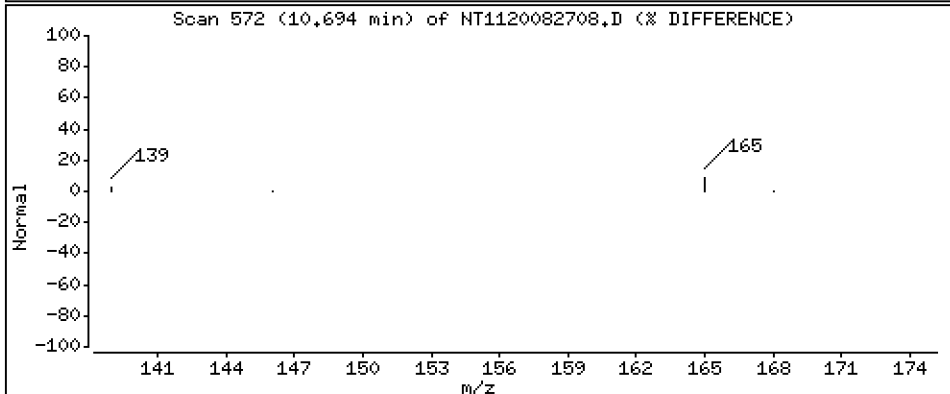
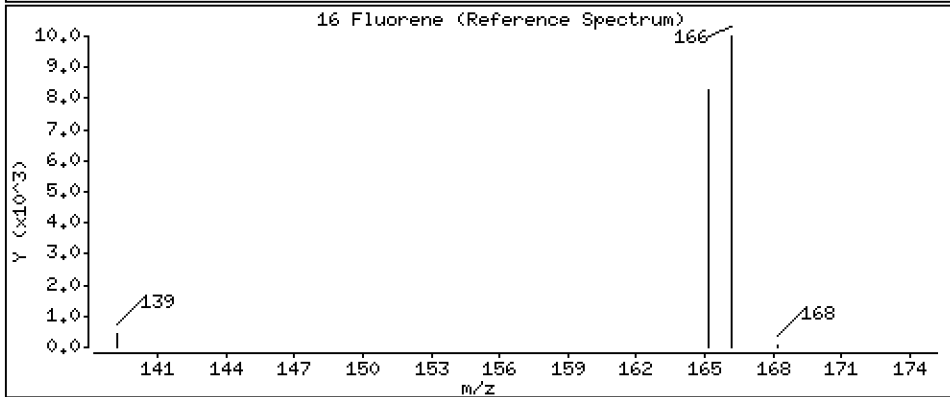
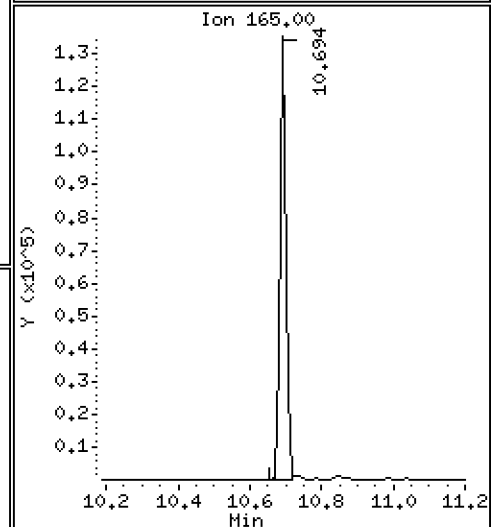
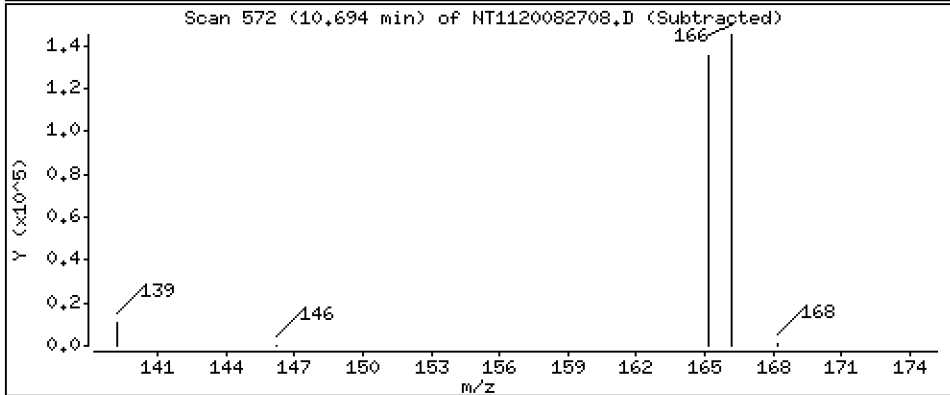
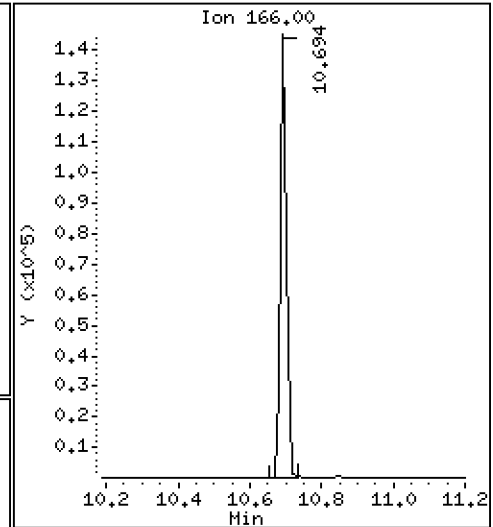
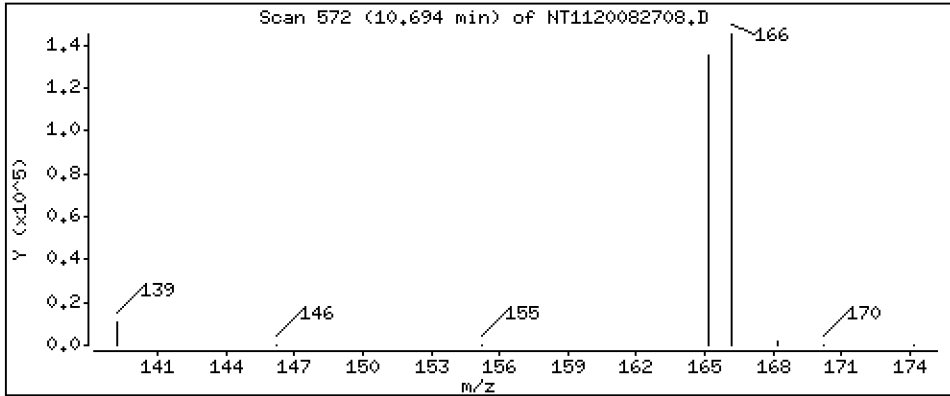
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 Fluorene

Concentration: 233 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

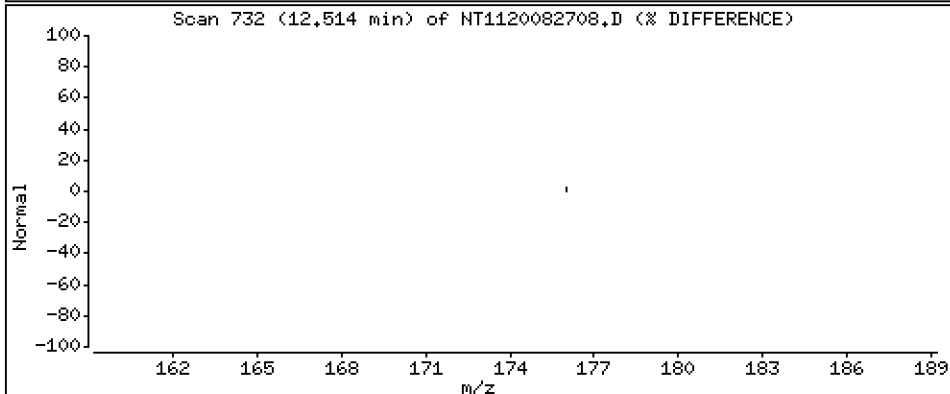
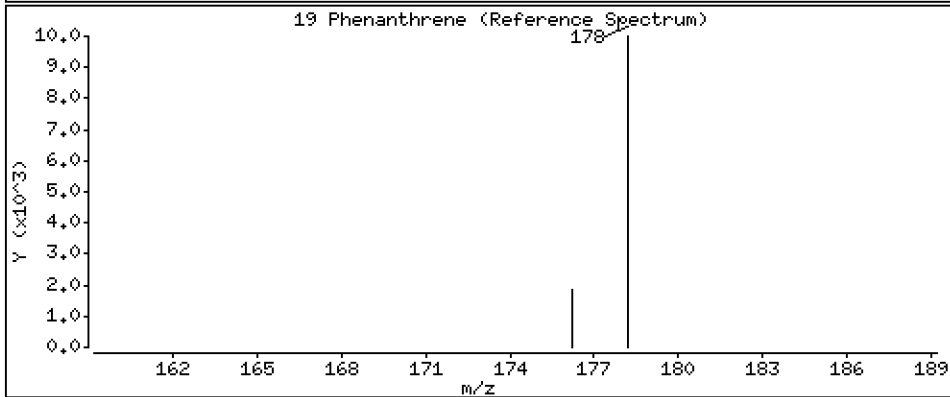
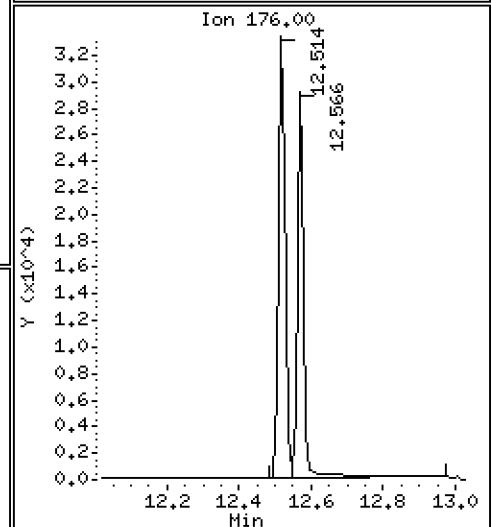
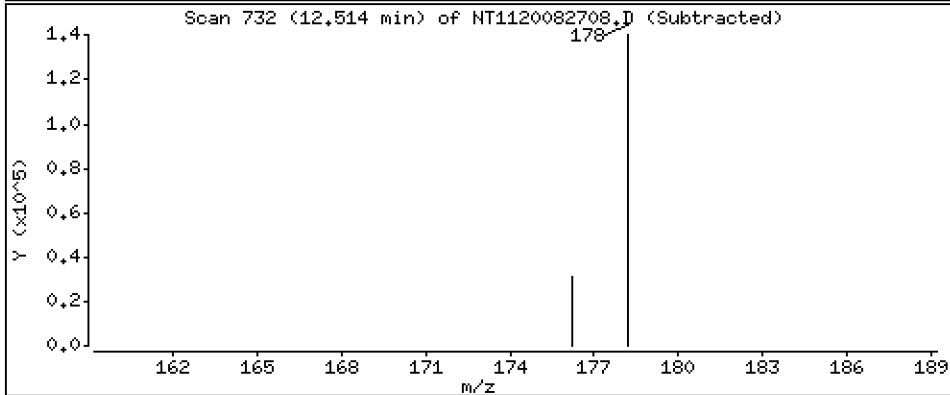
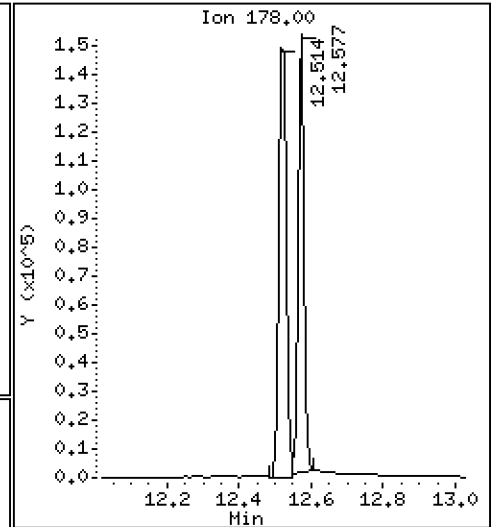
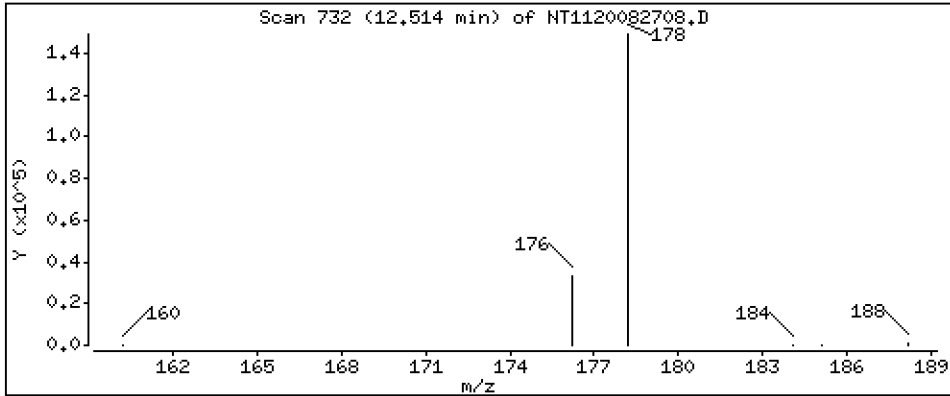
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 Phenanthrene

Concentration: 233 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

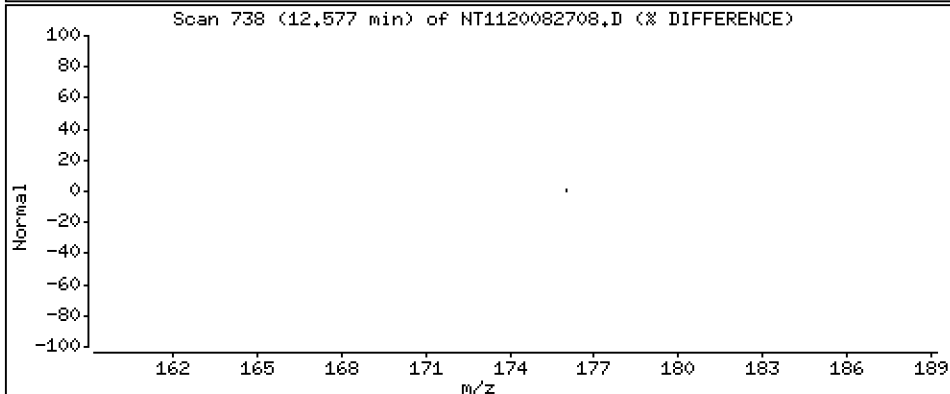
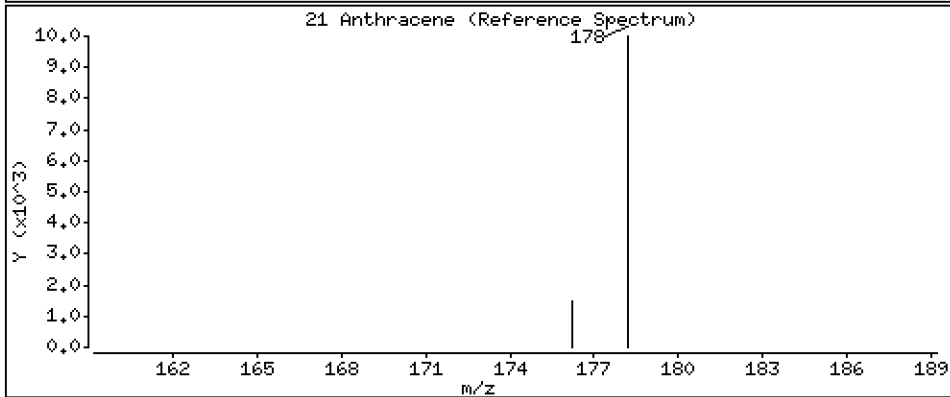
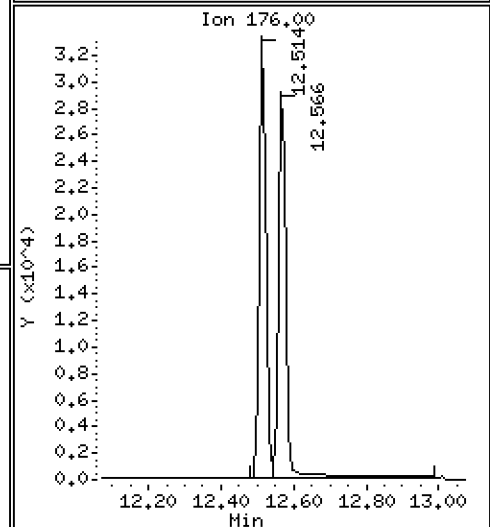
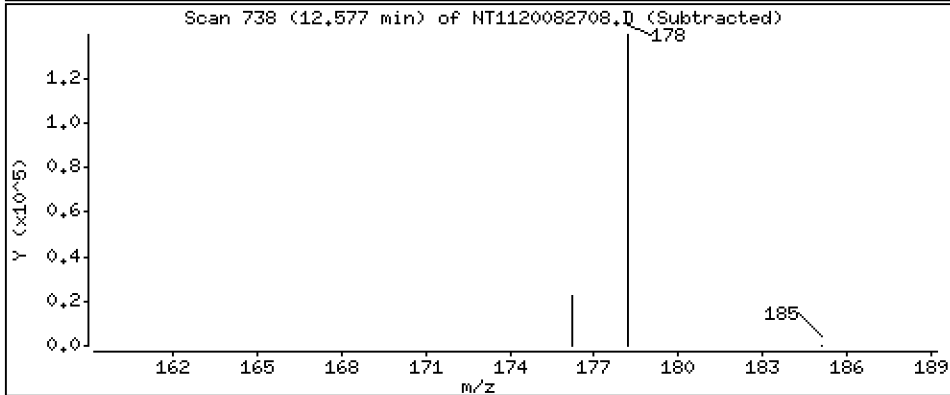
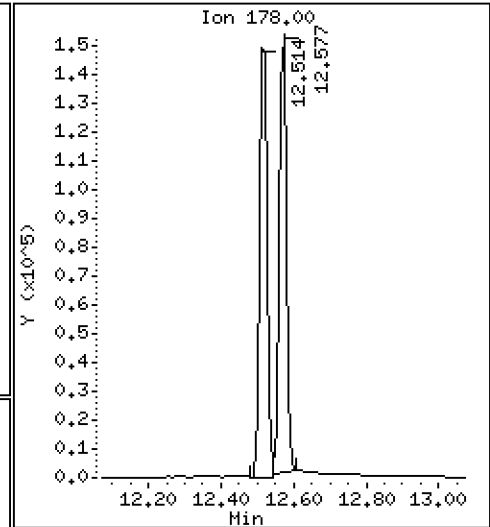
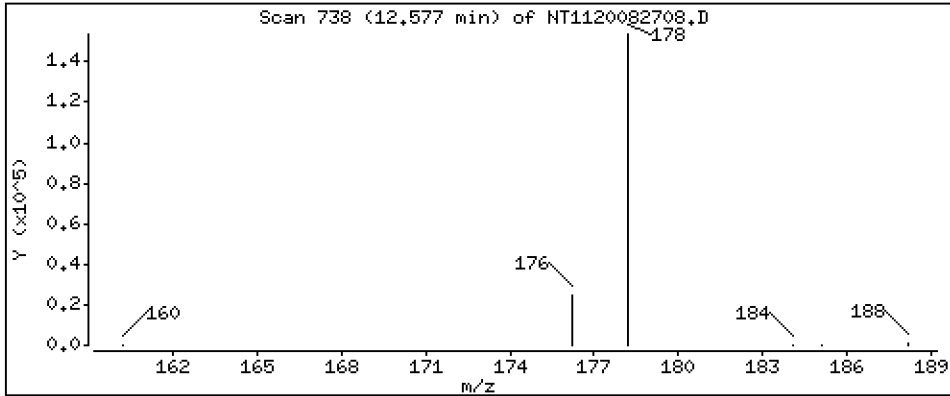
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

21 Anthracene

Concentration: 223 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

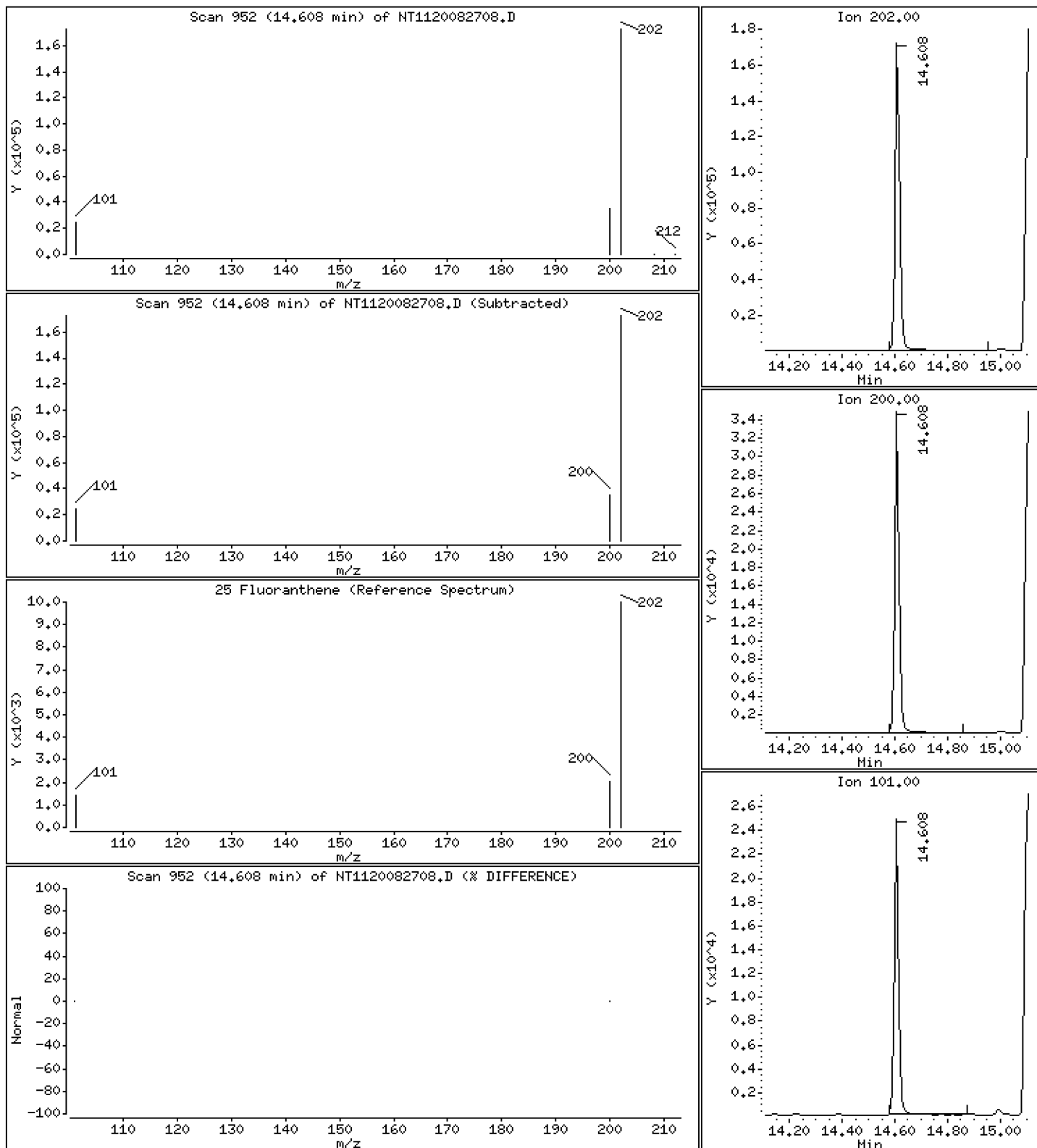
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

25 Fluoranthene

Concentration: 236 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

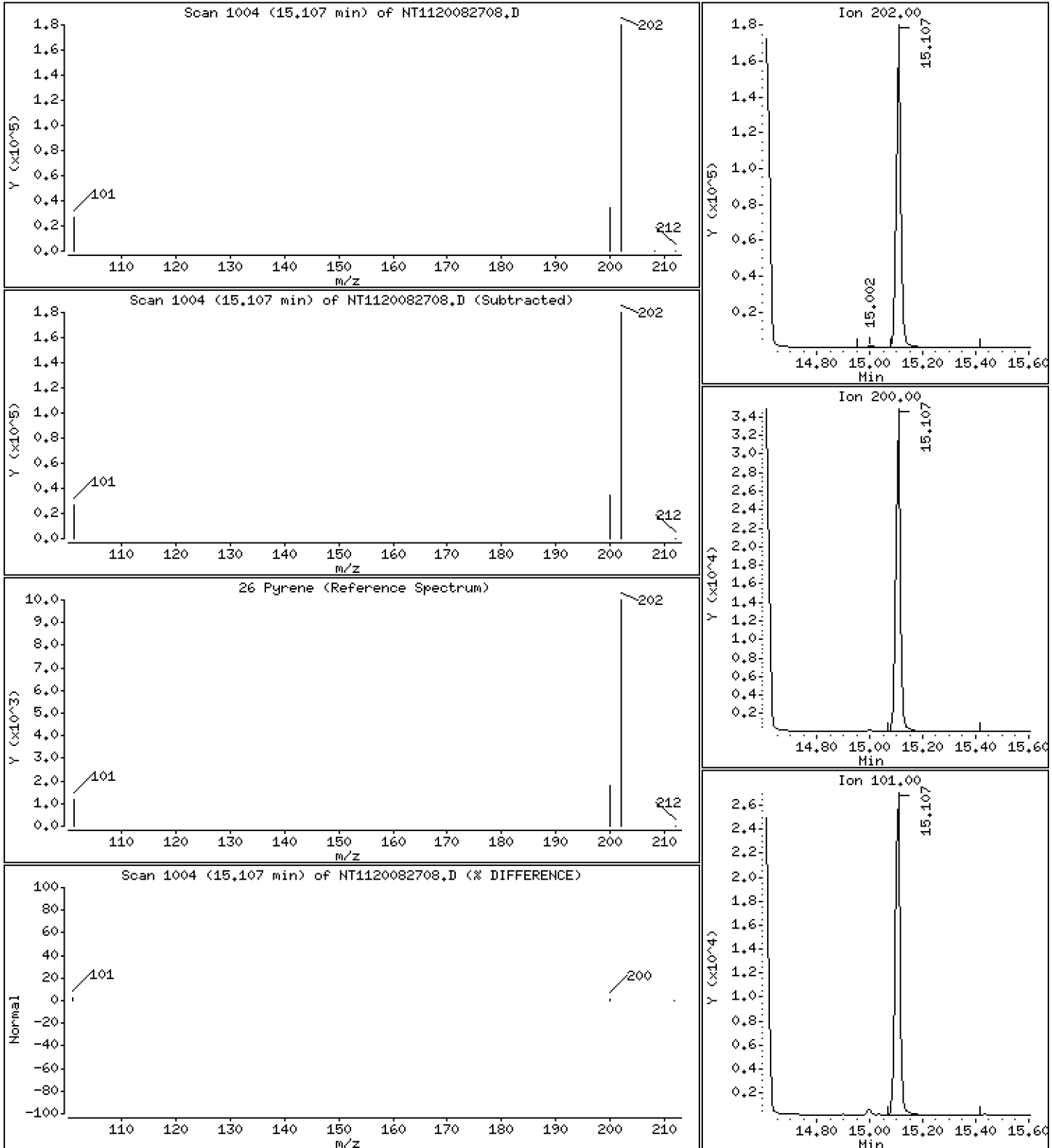
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Pyrene

Concentration: 235 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

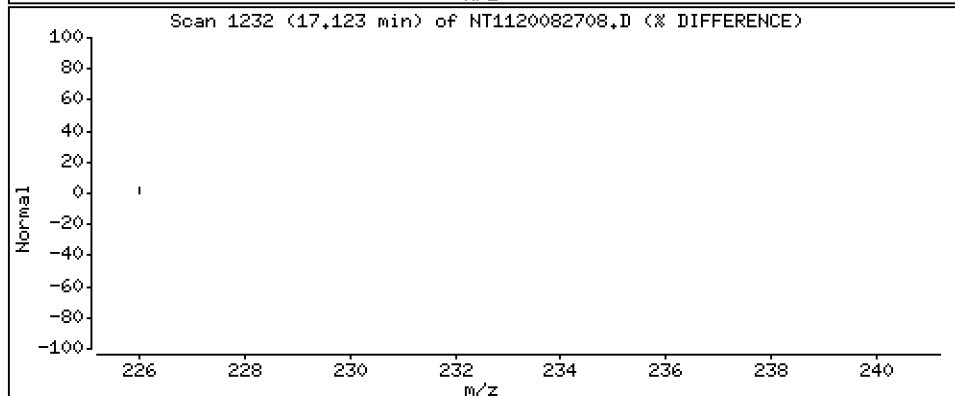
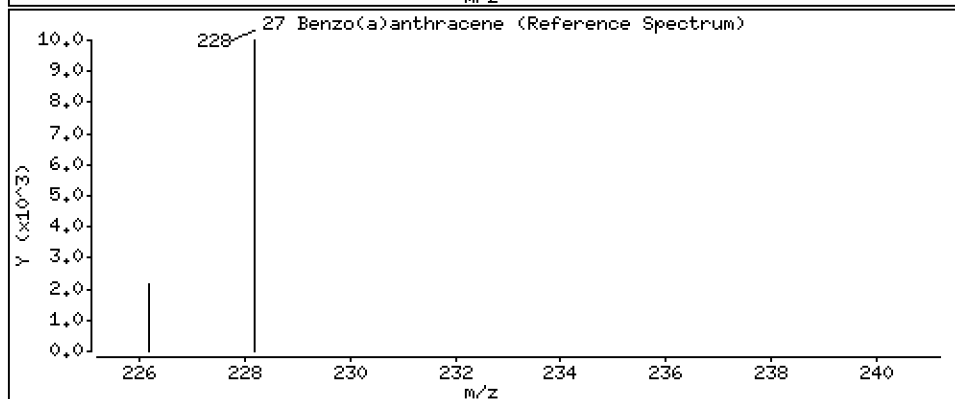
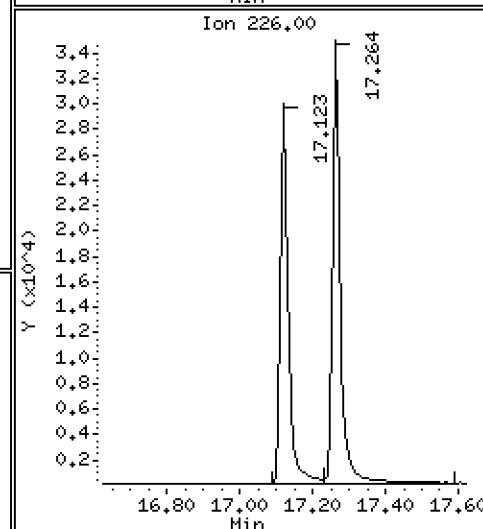
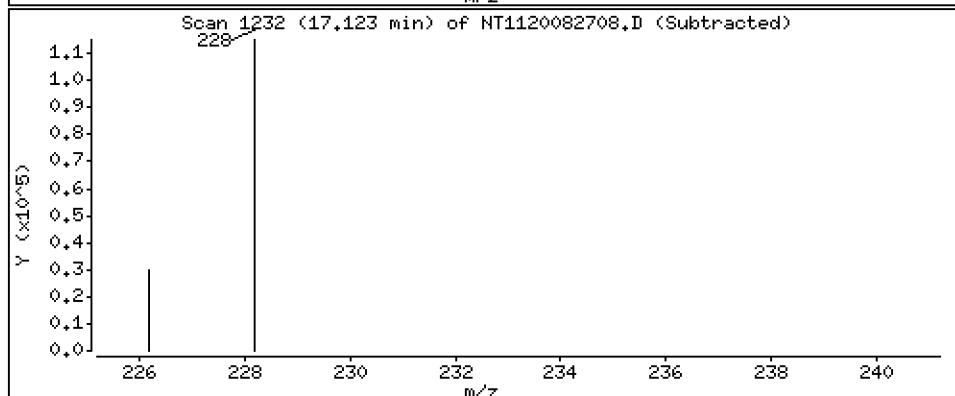
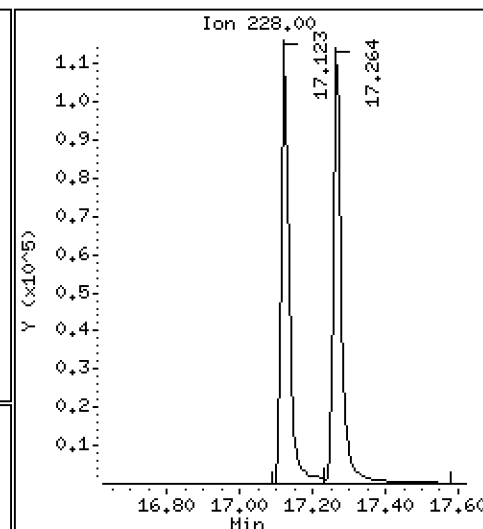
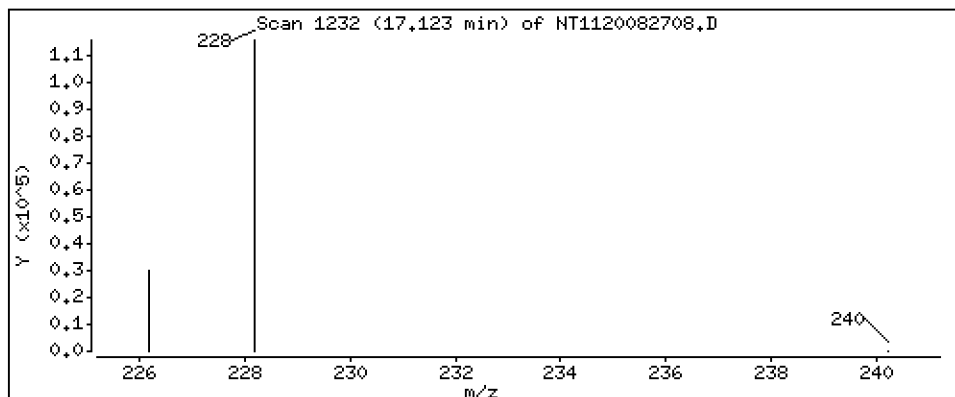
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

27 Benzo(a)anthracene

Concentration: 223 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

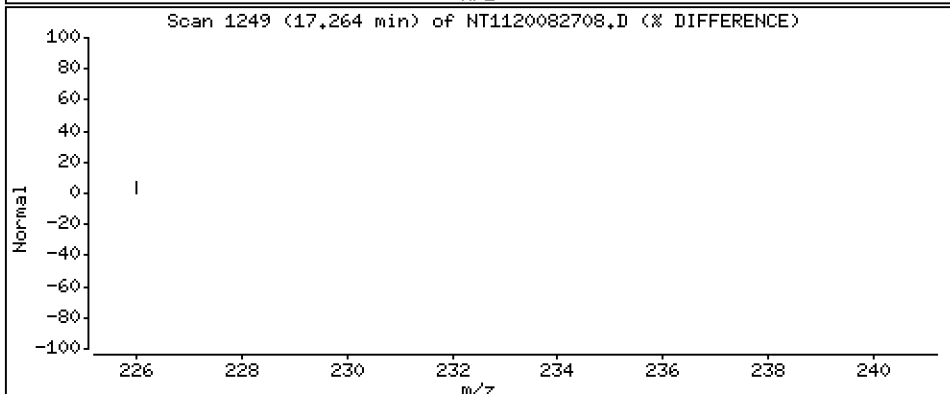
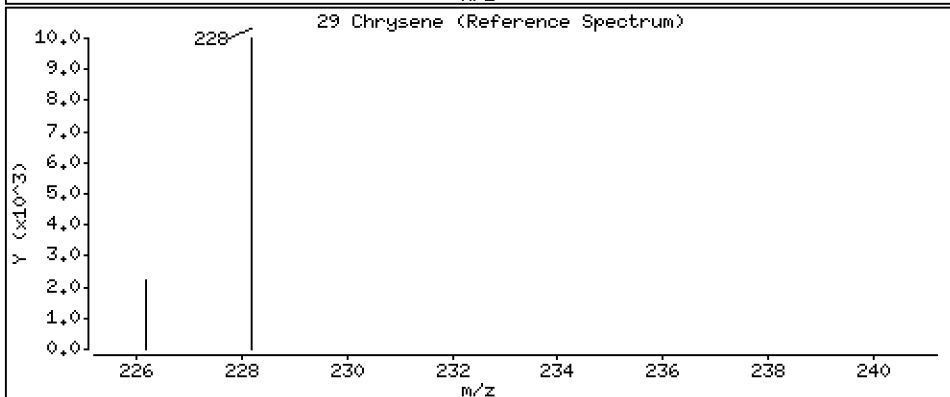
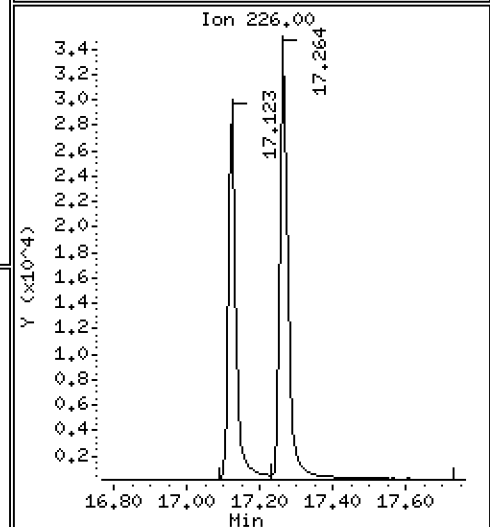
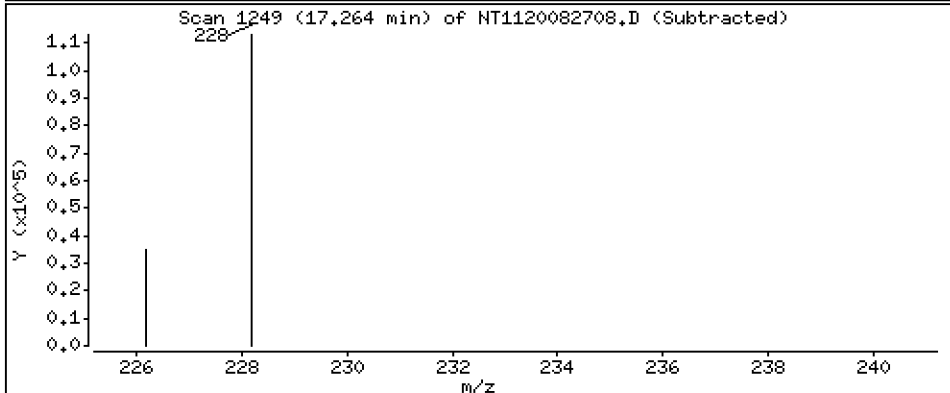
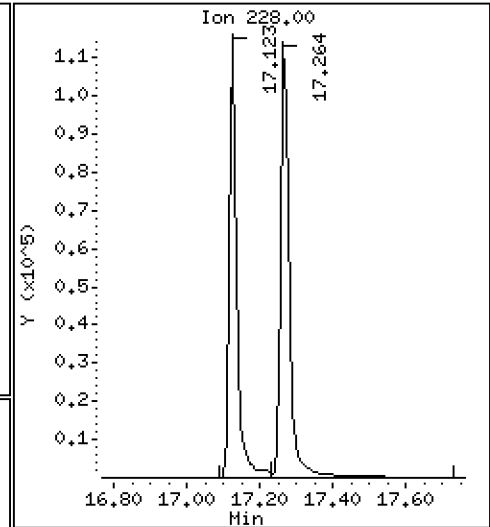
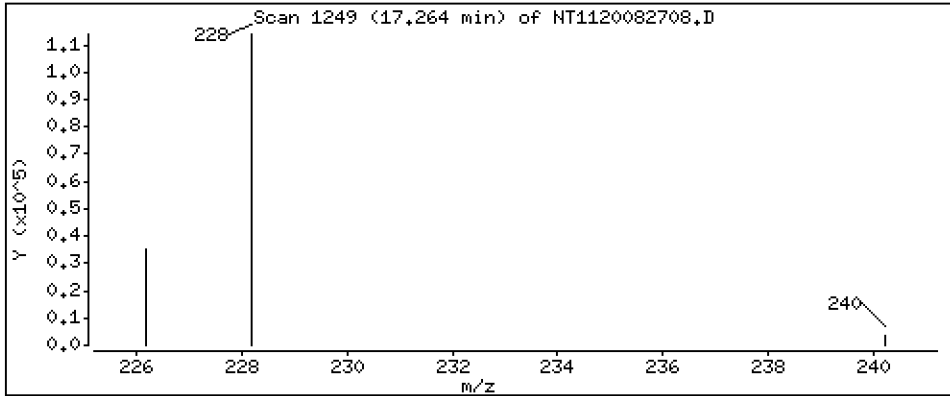
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

29 Chrysene

Concentration: 215 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

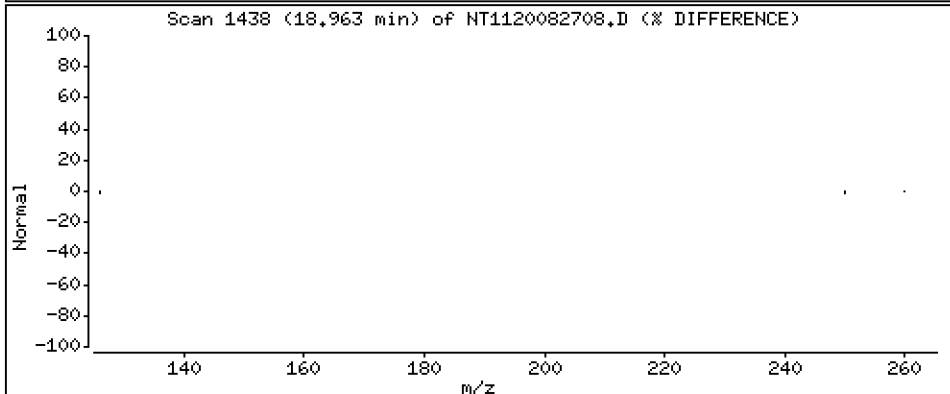
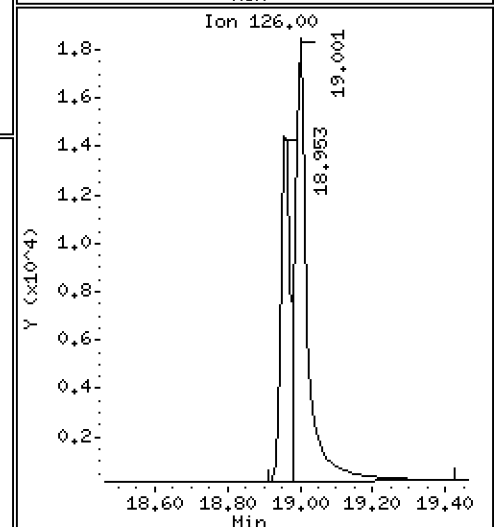
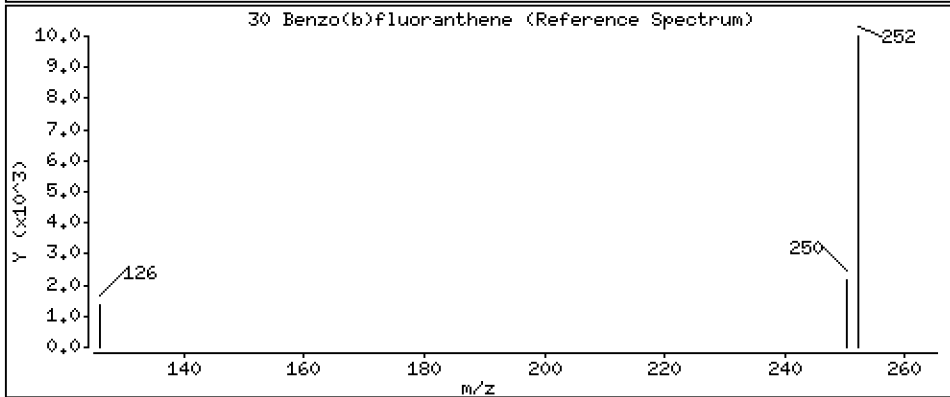
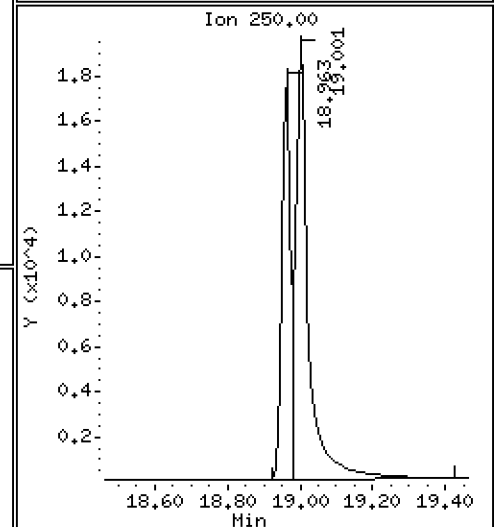
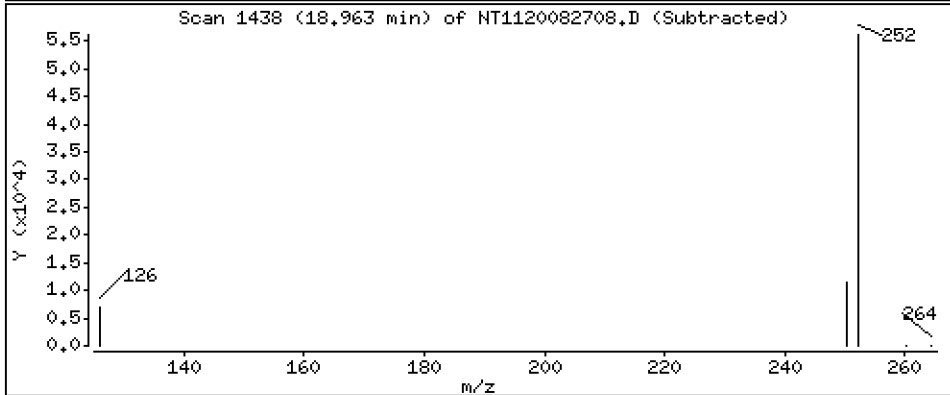
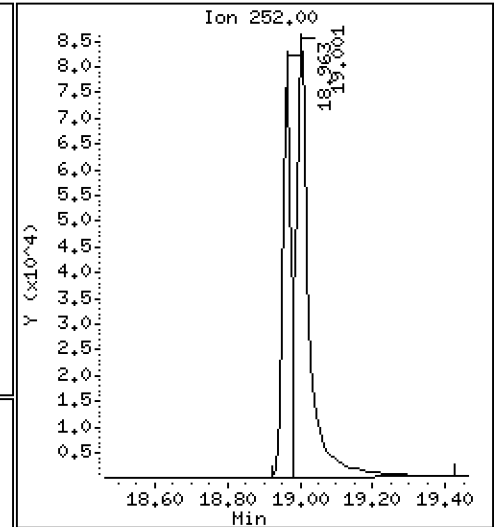
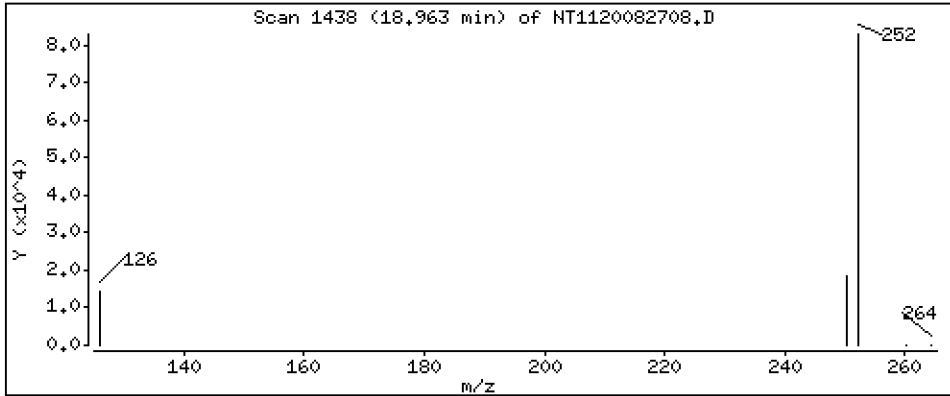
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Benzo(b)fluoranthene

Concentration: 212 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

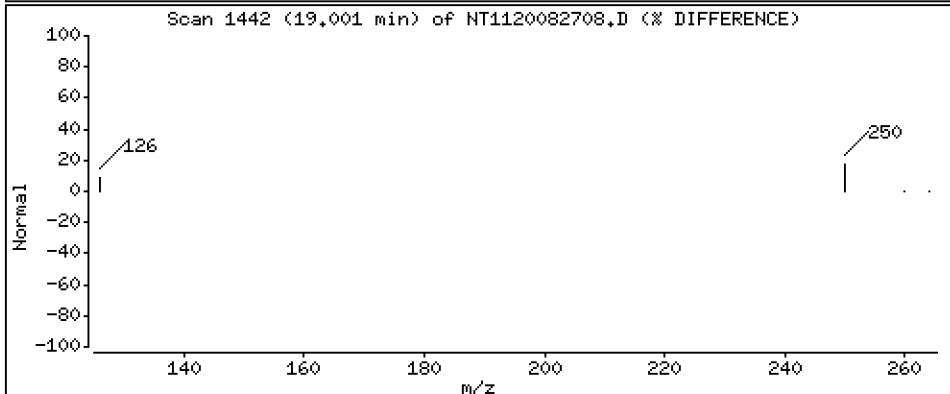
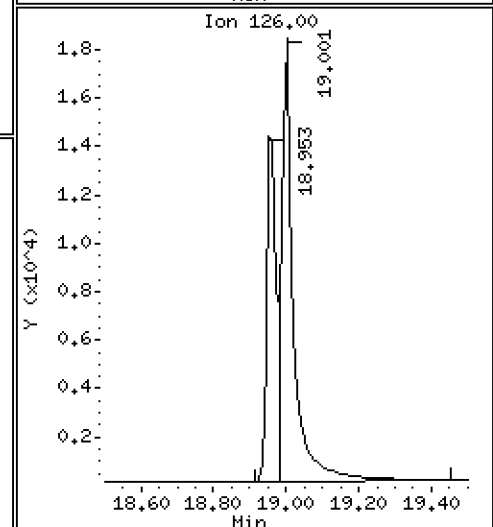
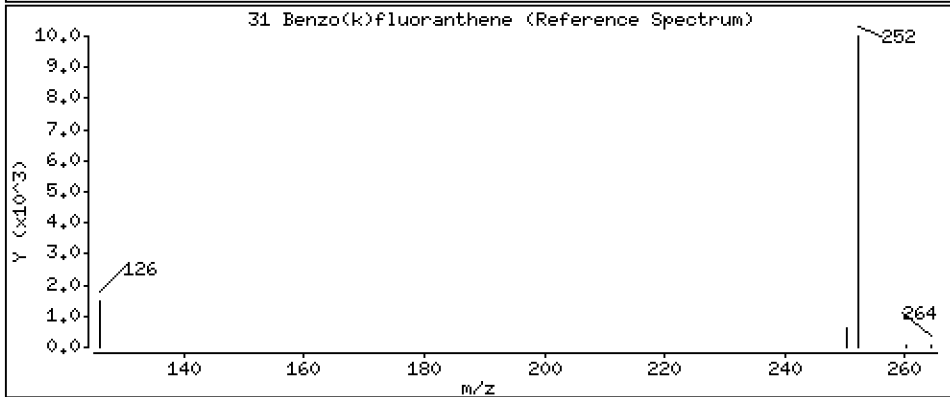
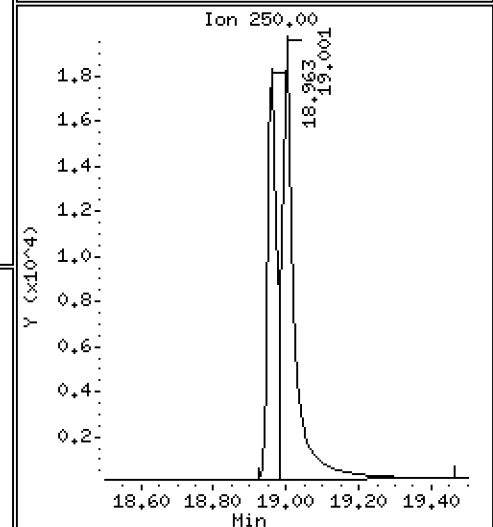
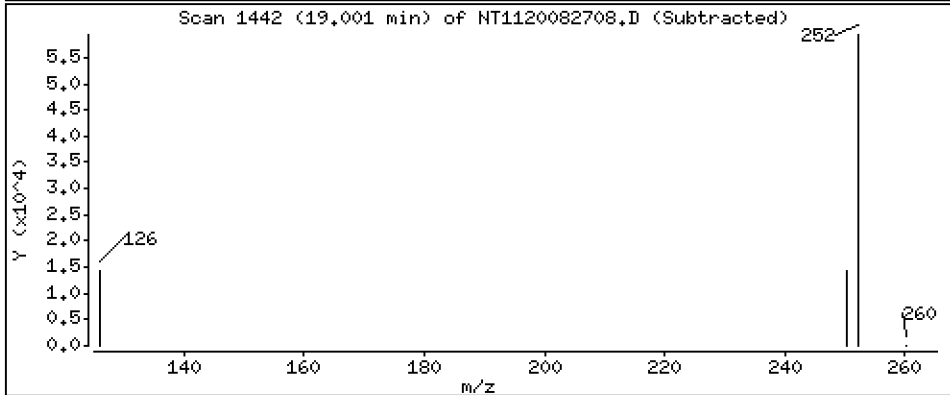
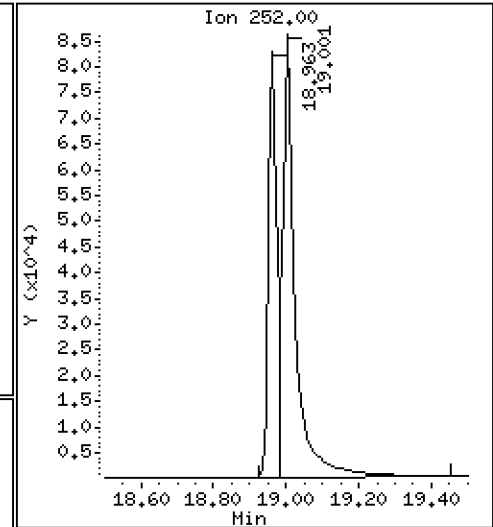
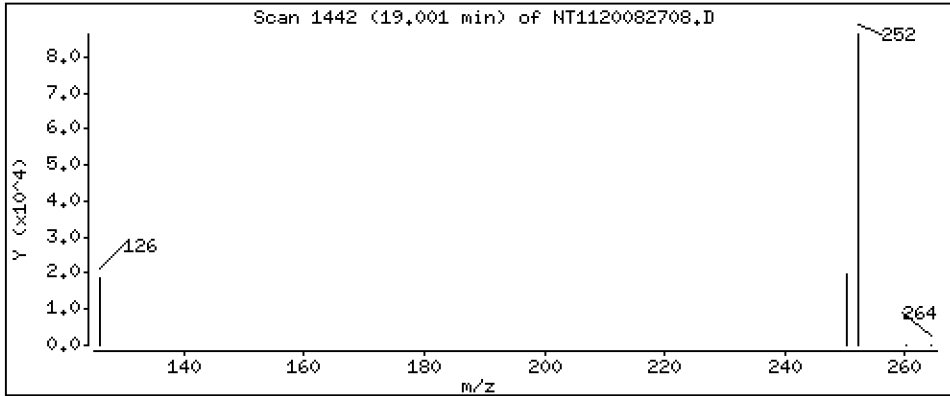
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

31 Benzo(k)fluoranthene

Concentration: 260 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

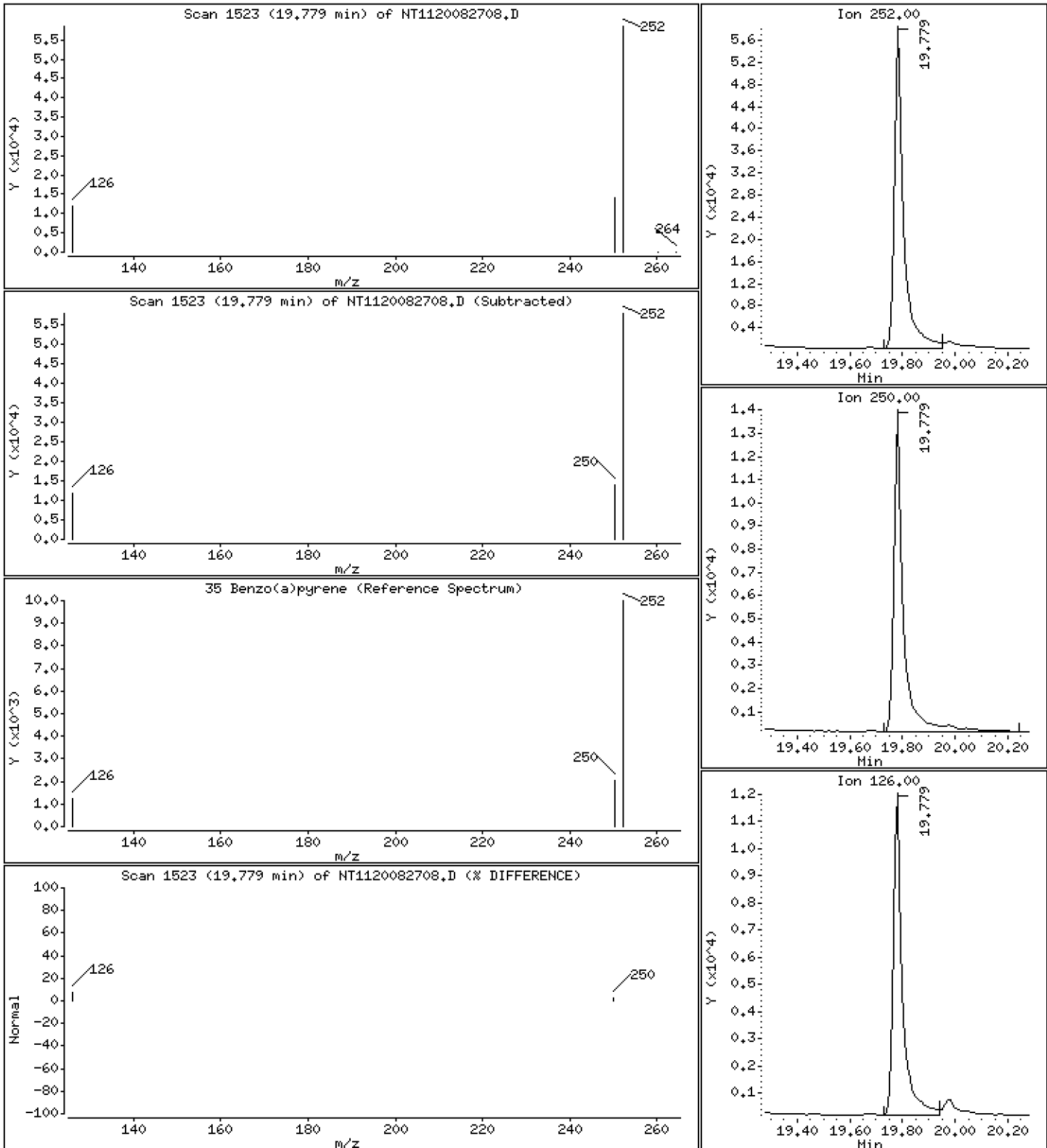
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

35 Benzo(a)pyrene

Concentration: 213 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

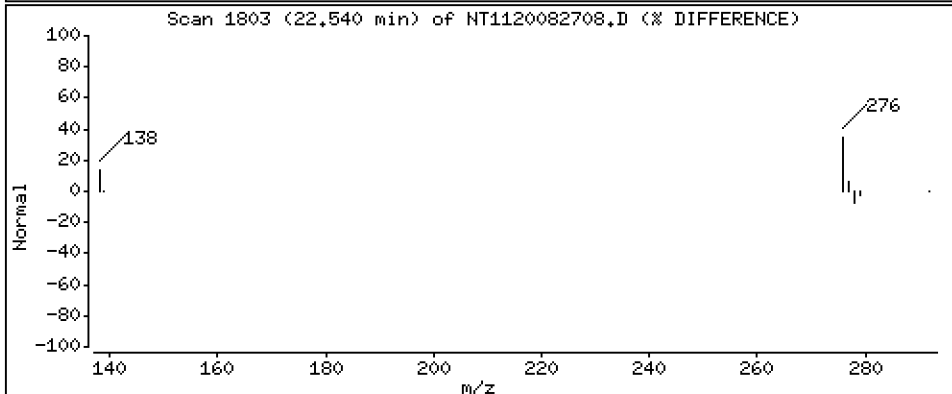
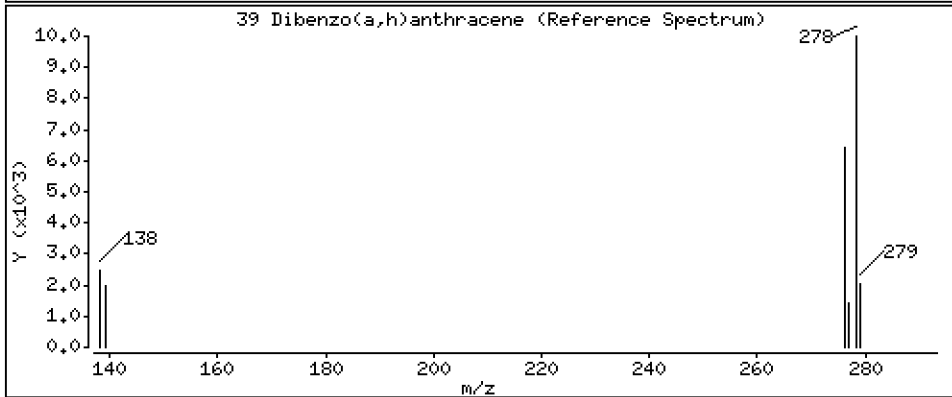
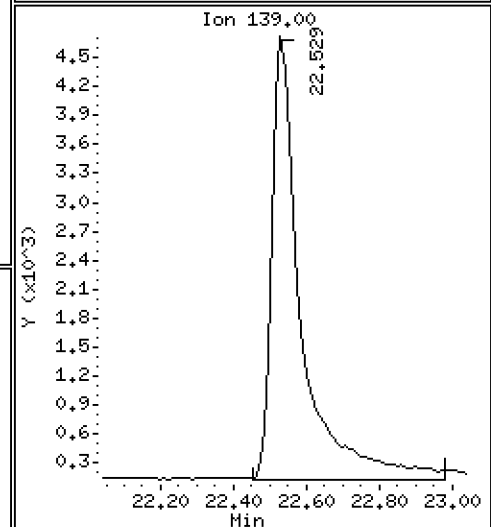
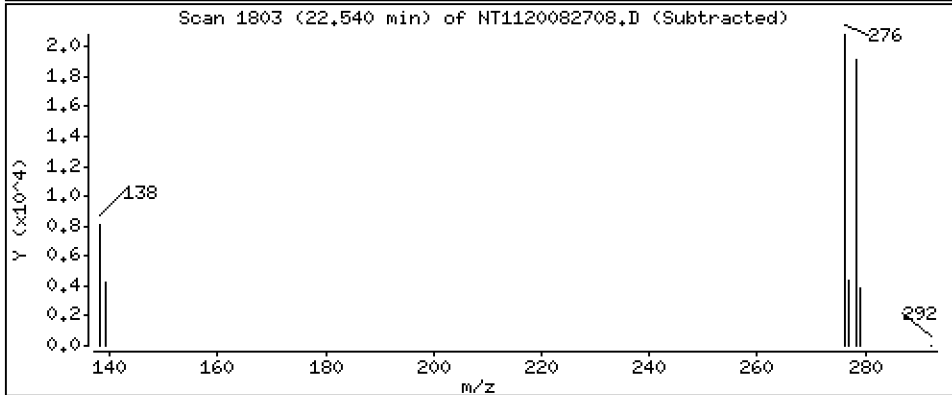
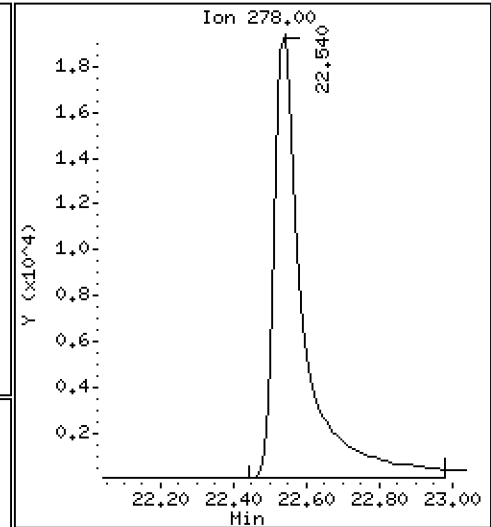
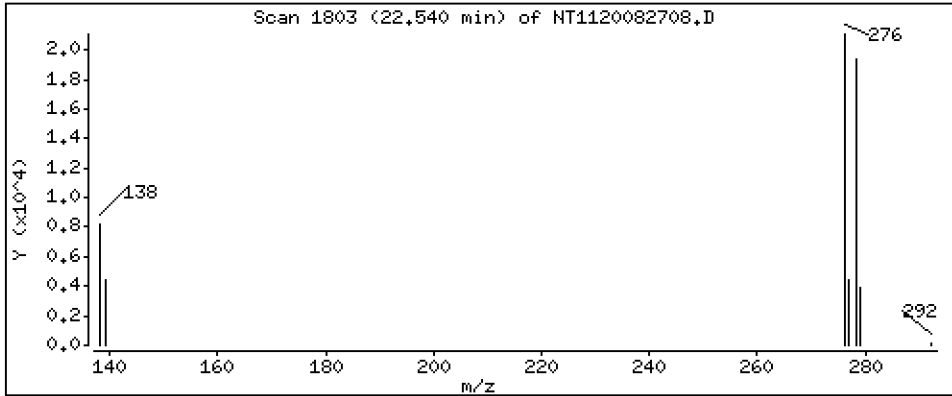
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

39 Dibenzo(a,h)anthracene

Concentration: 192 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

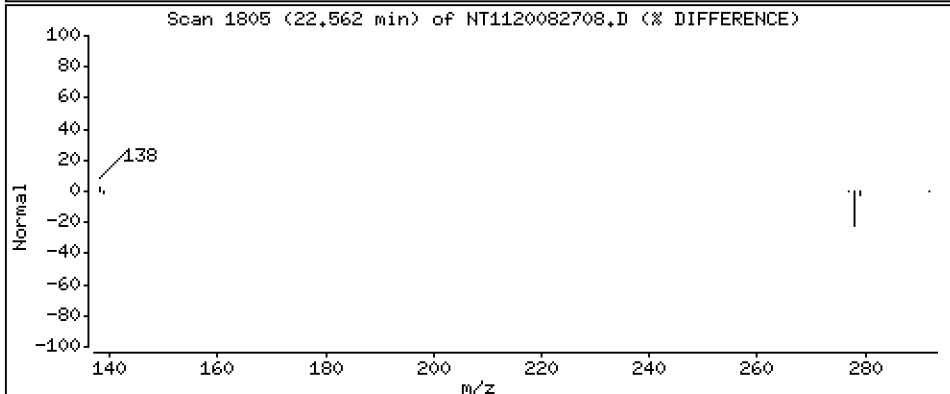
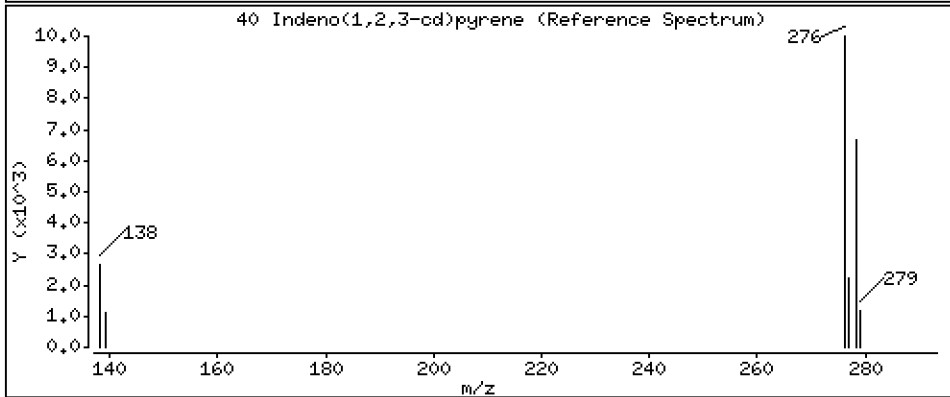
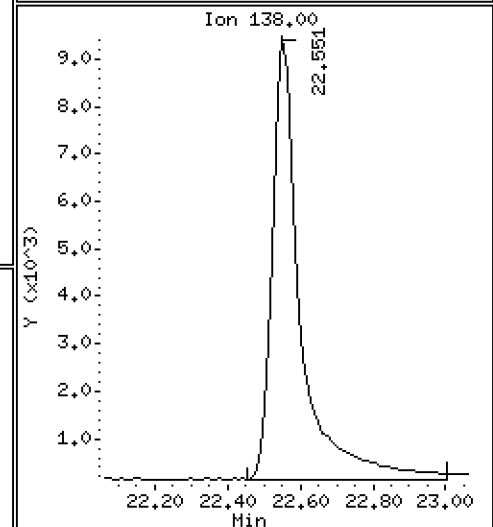
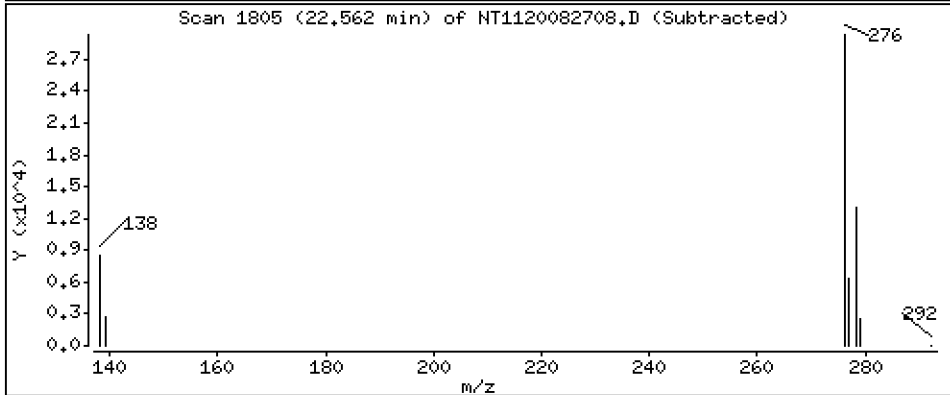
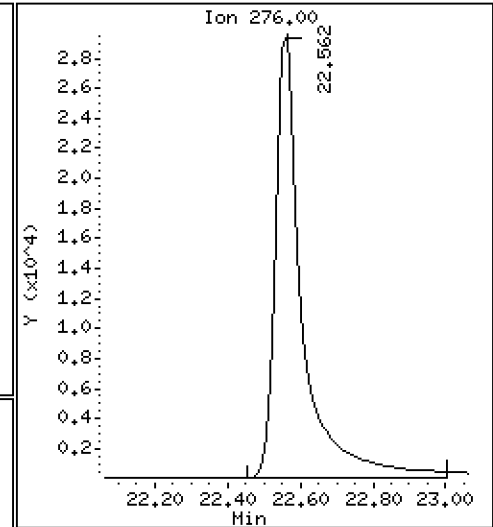
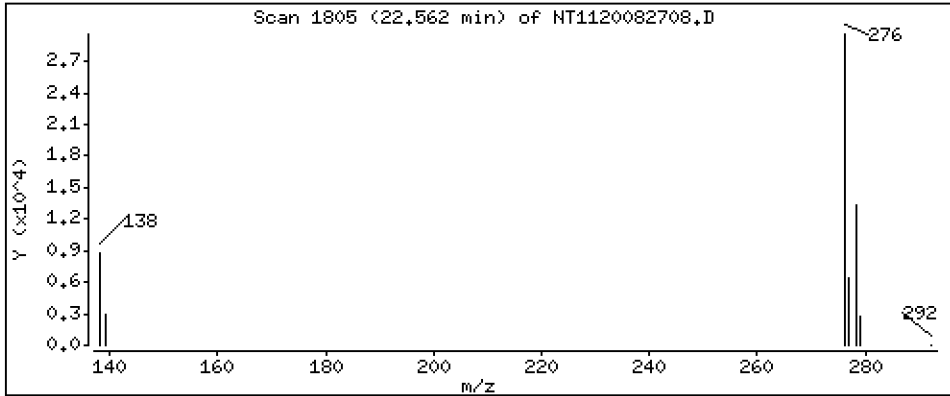
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

40 Indeno(1,2,3-cd)pyrene

Concentration: 227 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

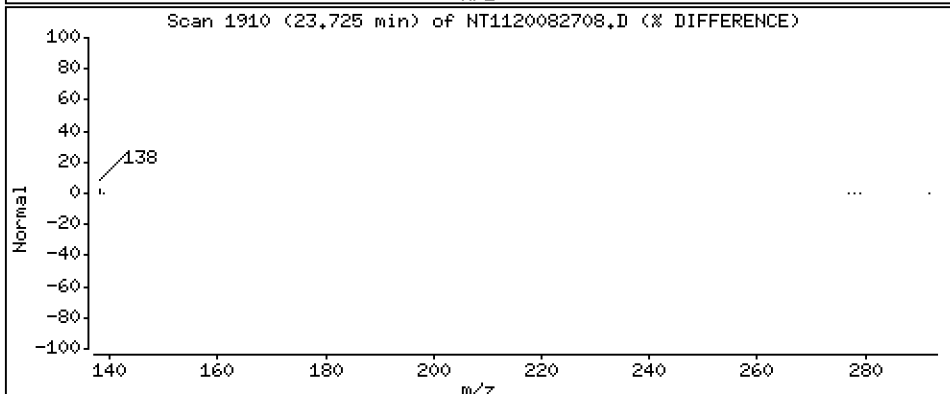
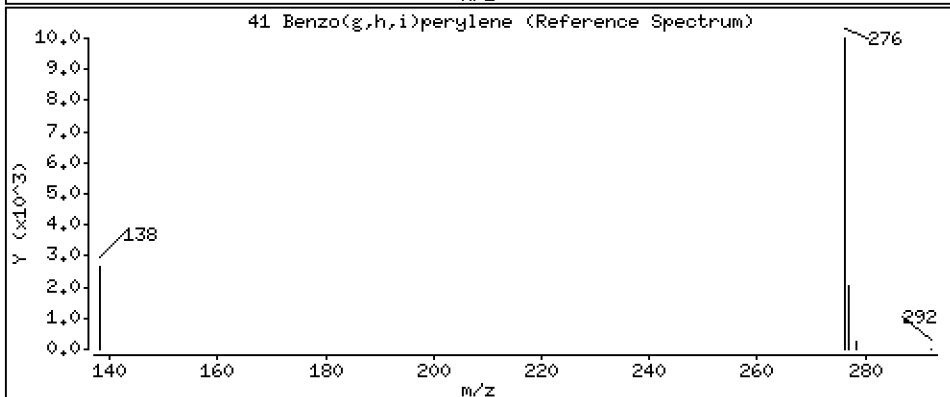
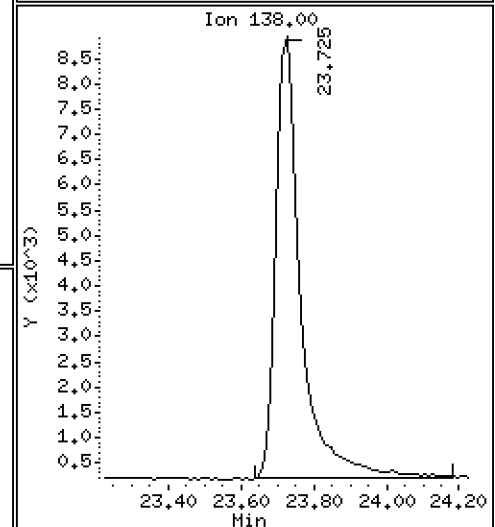
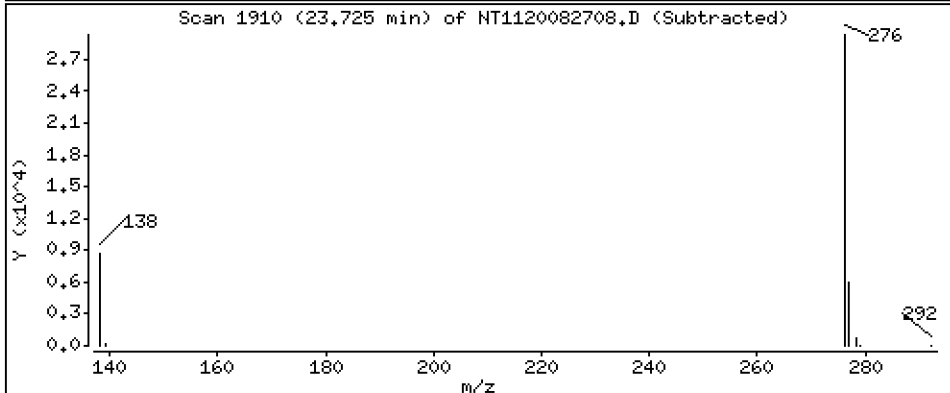
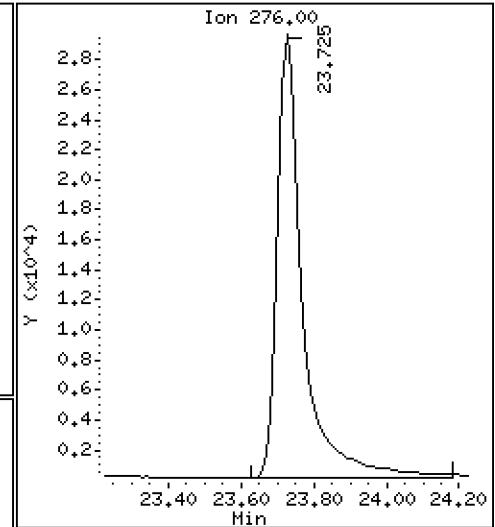
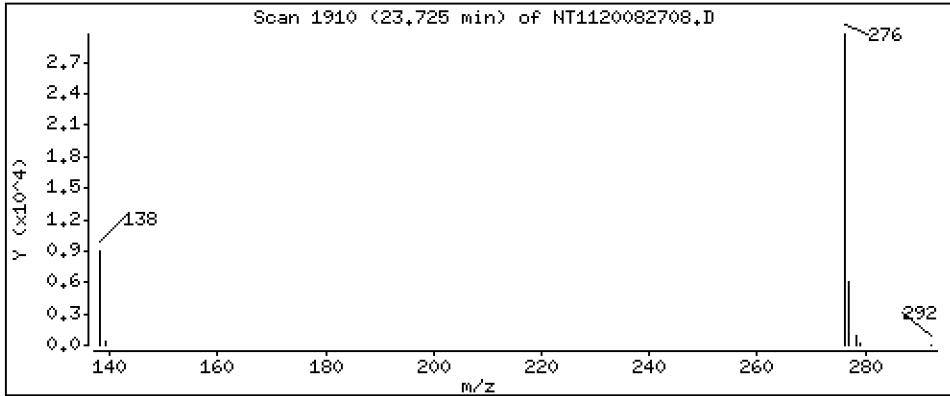
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

41 Benzo(g,h,i)perylene

Concentration: 214 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D
 Lab Smp Id: SIH0304-SCV1
 Inj Date : 27-AUG-2020 15:38 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : SIH0304-SCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
 Meth Date : 28-Aug-2020 07:11 van Quant Type: ISTD
 Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
 Als bottle: 8
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PAH.sub
 Target Version: 4.14
 Processing Host: VANS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		6.804	6.804	(1.000)	202035	200.000	
2 Naphthalene	128		6.840	6.840	(1.005)	263329	224.480	224
3 Benzo(b)thiophene	134		Compound Not Detected.					
\$ 4 2-Methylnaphthalene-d10	152		Compound Not Detected.					
5 2-Methylnaphthalene	142		Compound Not Detected.					
6 1-Methylnaphthalene	142		Compound Not Detected.					
7 2-Chloronaphthalene	162		Compound Not Detected.					
8 Biphenyl	154		Compound Not Detected.					
9 2,6-Dimethylnaphthalene	156		Compound Not Detected.					
10 Acenaphthylene	152		9.653	9.653	(0.984)	241360	233.261	233
* 11 Acenaphthene-d10	164		9.807	9.807	(1.000)	90189	200.000	
12 Acenaphthene	153		9.870	9.870	(1.006)	151880	221.934	222
13 Dibenzofuran	168		Compound Not Detected.					
14 2,3,5-Trimethylnaphthalene	170		Compound Not Detected.					
16 Fluorene	166		10.694	10.694	(1.090)	164299	233.486	233
17 Dibenzothiophene	184		Compound Not Detected.					
* 18 Phenanthrene-d10	188		12.482	12.482	(1.000)	142829	200.000	
19 Phenanthrene	178		12.513	12.524	(1.003)	217246	232.514	233
21 Anthracene	178		12.576	12.576	(1.008)	207807	222.597	223
22 Carbazole	167		Compound Not Detected.					
23 1-Methylphenanthrene	192		Compound Not Detected.					
\$ 24 Fluoranthene-d10	212		Compound Not Detected.					
25 Fluoranthene	202		14.607	14.607	(1.170)	220035	236.211	236
26 Pyrene	202		15.107	15.107	(1.210)	224689	235.115	235
27 Benzo(a)anthracene	228		17.123	17.122	(0.994)	170476	223.013	223
* 28 Chrysene-d12	240		17.222	17.214	(1.000)	104063	200.000	
29 Chrysene	228		17.264	17.264	(1.002)	185336	215.323	215
30 Benzo(b)fluoranthene	252		18.962	18.962	(0.949)	137886	212.389	212
31 Benzo(k)fluoranthene	252		19.001	19.001	(0.951)	222044	260.291	260
32 Benzo(j)fluoranthene	252		Compound Not Detected.					
34 Benzo(e)pyrene	252		Compound Not Detected.					
35 Benzo(a)pyrene	252		19.779	19.779	(0.990)	144487	213.091	213
* 36 Perylene-d12	264		19.981	19.981	(1.000)	119273	200.000	
37 Perylene	252		Compound Not Detected.					

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
						ON-COLUMN (ng/mL)	FINAL (ng/mL)	
=====	=====	=====	=====	=====	=====	=====	=====	
\$ 38 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.						
39 Dibenzo(a,h)anthracene	278	22.540	22.540	(1.128)	107076	191.902	192	
40 Indeno(1,2,3-cd)pyrene	276	22.562	22.562	(1.129)	149356	226.827	227	
41 Benzo(g,h,i)perylene	276	23.725	23.725	(1.187)	141191	214.457	214	

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 27-AUG-2020
 Lab File ID: NT1120082708.D Calibration Time: 12:35
 Lab Smp Id: SIH0304-SCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	215332	107666	430664	202035	-6.18
11 Acenaphthene-d10	102217	51109	204434	90189	-11.77
18 Phenanthrene-d10	170387	85194	340774	142829	-16.17
28 Chrysene-d12	116138	58069	232276	104063	-10.40
36 Perylene-d12	139038	69519	278076	119273	-14.22

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.81	6.31	7.31	6.80	-0.13
11 Acenaphthene-d10	9.81	9.31	10.31	9.81	-0.00
18 Phenanthrene-d10	12.48	11.98	12.98	12.48	-0.00
28 Chrysene-d12	17.21	16.71	17.71	17.22	0.05
36 Perylene-d12	19.98	19.48	20.48	19.98	-0.00

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.

REVIEW SUMMARY FOR FILE - NT1120082708.D

Lab ID: SIH0304-SCV1

nt11.i, 20200827.b\lowsim.m, 27-AUG-2020 15:38

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1120082704.D

On Column LOD for nt11.i, 20200827.b\lowsim.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000

Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000

Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.1\20200827.6\NT1120082709.D

Date : 27-AUG-2020 16:09

Client ID:

Sample Info: SIH0304-ICB1

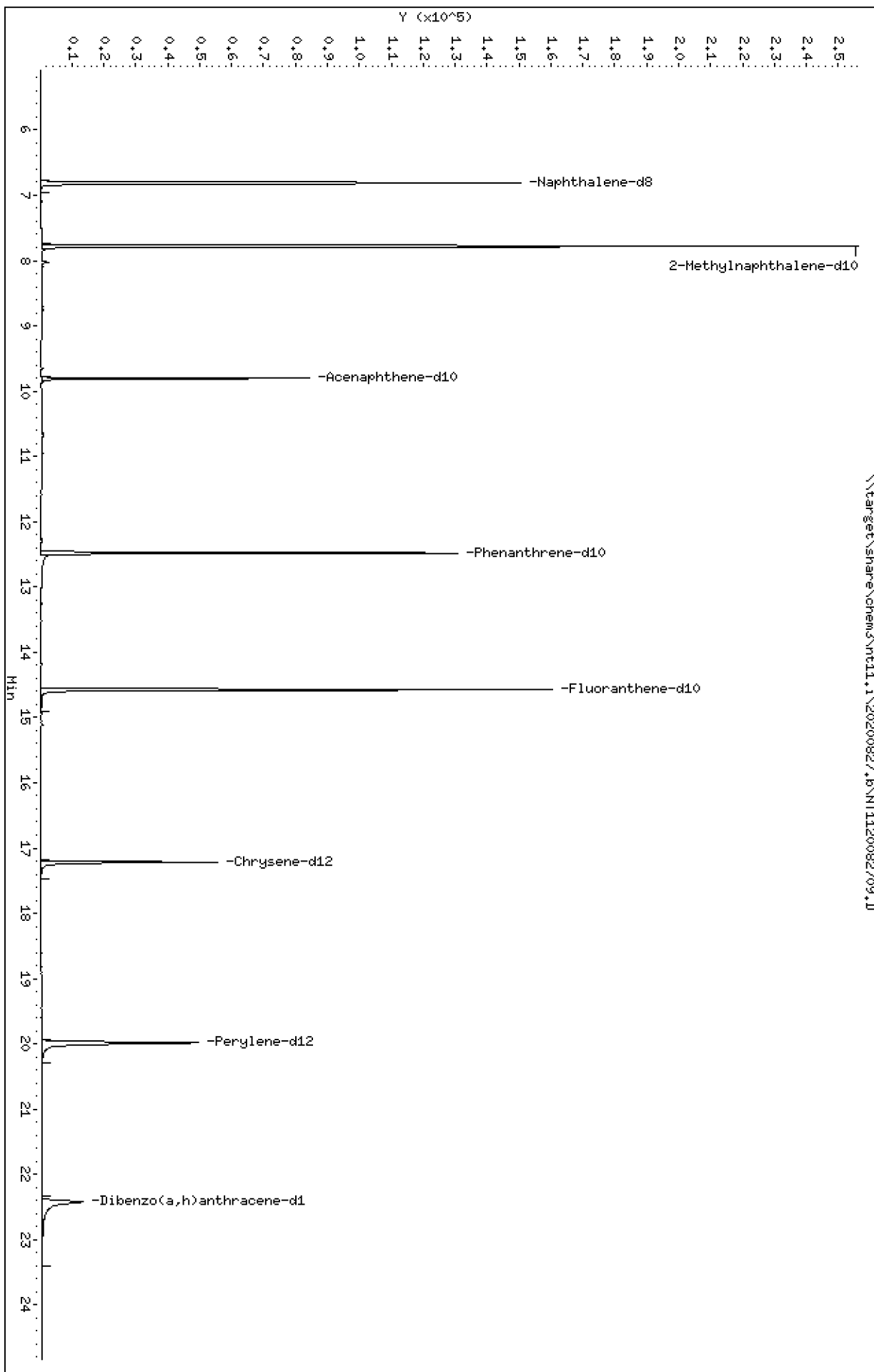
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

Page 1



ARI Labs, Inc.

LOW LEVEL PNAS BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20200827.b\NT1120082709.D
 Lab Smp Id: SIH0304-ICB1
 Inj Date : 27-AUG-2020 16:09 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : SIH0304-ICB1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
 Meth Date : 28-Aug-2020 07:11 van Quant Type: ISTD
 Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
 Als bottle: 9
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PAH.sub
 Target Version: 4.14
 Processing Host: VANS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		6.804	6.804	(1.000)	216694	200.000	
2 Naphthalene	128		Compound Not Detected.					
3 Benzo(b)thiophene	134		Compound Not Detected.					
\$ 4 2-Methylnaphthalene-d10	152		7.780	7.780	(1.144)	189652	217.663	218
5 2-Methylnaphthalene	142		Compound Not Detected.					
6 1-Methylnaphthalene	142		Compound Not Detected.					
7 2-Chloronaphthalene	162		Compound Not Detected.					
8 Biphenyl	154		Compound Not Detected.					
9 2,6-Dimethylnaphthalene	156		Compound Not Detected.					
10 Acenaphthylene	152		Compound Not Detected.					
* 11 Acenaphthene-d10	164		9.807	9.807	(1.000)	94656	200.000	
12 Acenaphthene	153		Compound Not Detected.					
13 Dibenzofuran	168		Compound Not Detected.					
14 2,3,5-Trimethylnaphthalene	170		Compound Not Detected.					
16 Fluorene	166		Compound Not Detected.					
17 Dibenzothiophene	184		Compound Not Detected.					
* 18 Phenanthrene-d10	188		12.482	12.482	(1.000)	145070	200.000	
19 Phenanthrene	178		Compound Not Detected.					
21 Anthracene	178		Compound Not Detected.					
22 Carbazole	167		Compound Not Detected.					
23 1-Methylphenanthrene	192		Compound Not Detected.					
\$ 24 Fluoranthene-d10	212		14.578	14.578	(1.168)	176038	231.454	231
25 Fluoranthene	202		Compound Not Detected.					
26 Pyrene	202		Compound Not Detected.					
27 Benzo(a)anthracene	228		Compound Not Detected.					
* 28 Chrysene-d12	240		17.222	17.214	(1.000)	97049	200.000	
29 Chrysene	228		Compound Not Detected.					
30 Benzo(b)fluoranthene	252		Compound Not Detected.					
31 Benzo(k)fluoranthene	252		Compound Not Detected.					
32 Benzo(j)fluoranthene	252		Compound Not Detected.					
34 Benzo(e)pyrene	252		Compound Not Detected.					
35 Benzo(a)pyrene	252		Compound Not Detected.					
* 36 Perylene-d12	264		19.981	19.981	(1.000)	107633	200.000	
37 Perylene	252		Compound Not Detected.					

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS					(ng/mL)	(ng/mL)	
=====	=====		=====	=====	=====	=====	=====	
\$ 38 Dibenzo(a,h)anthracene-d14	292		22.418	22.418	(1.122)	74753	178.300	178
39 Dibenzo(a,h)anthracene	278					Compound Not Detected.		
40 Indeno(1,2,3-cd)pyrene	276					Compound Not Detected.		
41 Benzo(g,h,i)perylene	276					Compound Not Detected.		

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 27-AUG-2020
 Lab File ID: NT1120082709.D Calibration Time: 12:35
 Lab Smp Id: SIH0304-ICB1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	215332	107666	430664	216694	0.63
11 Acenaphthene-d10	102217	51109	204434	94656	-7.40
18 Phenanthrene-d10	170387	85194	340774	145070	-14.86
28 Chrysene-d12	116138	58069	232276	97049	-16.44
36 Perylene-d12	139038	69519	278076	107633	-22.59

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.81	6.31	7.31	6.80	-0.13
11 Acenaphthene-d10	9.81	9.31	10.31	9.81	-0.00
18 Phenanthrene-d10	12.48	11.98	12.98	12.48	-0.00
28 Chrysene-d12	17.21	16.71	17.71	17.22	0.05
36 Perylene-d12	19.98	19.48	20.48	19.98	-0.00

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.

REVIEW SUMMARY FOR FILE - NT1120082709.D

Lab ID: SIH0304-ICB1

nt11.i, 20200827.b\lowsim.m, 27-AUG-2020 16:09

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1120082704.D

On Column LOD for nt11.i, 20200827.b\lowsim.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000

Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000

Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *



INITIAL CALIBRATION DATA EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0180
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	EE00001	Instrument:	NT14
Calibration Date:	04/30/2021	Column (1):	ZB-5MS
Comments:	SIM ALKYL PAH ICAL-PARENTS		

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RRF		RRF		RRF		RRF		RRF		RRF
trans-Decalin	0.1	0.1527458	0.25	0.1508311	0.5	0.1603419	1	0.1418652	2.5	0.1624275	5	0.1367075
cis-Decalin	0.1	9.882306E-02	0.25	9.514728E-02	0.5	0.1235441	1	9.852396E-02	2.5	0.115741	5	9.344628E-02
Naphthalene	0.1	1.129158	0.25	1.110678	0.5	1.338165	1	1.13126	2.5	1.312073	5	1.081266
1-Methylnaphthalene	0.1	0.5540106	0.25	0.565741	0.5	0.673854	1	0.585315	2.5	0.6790437	5	0.5412482
2-Methylnaphthalene	0.1	0.579087	0.25	0.59784	0.5	0.6976312	1	0.6177659	2.5	0.7228723	5	0.5774304
Biphenyl	0.1	0.8689059	0.25	0.8348537	0.5	1.032126	1	0.8740036	2.5	1.017332	5	0.8150594
2,6-Dimethylnaphthalene	0.1	0.5632025	0.25	0.5596817	0.5	0.7042282	1	0.6012667	2.5	0.7257359	5	0.5745002
Acenaphthylene	0.1	0.8011742	0.25	0.8448438	0.5	1.016647	1	0.9153076	2.5	1.195812	5	0.9811533
Acenaphthene	0.1	0.5348645	0.25	0.5702001	0.5	0.679346	1	0.6158454	2.5	0.744017	5	0.6014947
Dibenzofuran	0.1	0.8655595	0.25	0.8787451	0.5	1.034455	1	0.9195884	2.5	1.114038	5	0.8845477
2,3,5-Trimethylnaphthalene	0.1	0.4625156	0.25	0.4682477	0.5	0.5775969	1	0.5170029	2.5	0.6707346	5	0.5356526
Fluorene	0.1	0.6315272	0.25	0.6218754	0.5	0.74264	1	0.662359	2.5	0.8098883	5	0.658176
Benzo(b)thiophene	0.1	0.8811476	0.25	0.8740841	0.5	1.065209	1	0.9006302	2.5	1.059069	5	0.8655137
Phenanthrene	0.1	1.231526	0.25	1.187681	0.5	1.172277	1	1.24267	2.5	1.229097	5	1.18905
Anthracene	0.1	0.9928926	0.25	1.085149	0.5	1.095513	1	1.127942	2.5	1.157057	5	1.152161
Carbazole	0.1	0.6069552	0.25	0.7045514	0.5	0.719393	1	0.8326313	2.5	0.9575968	5	0.9628192
1-Methylphenanthrene	0.1	0.6104537	0.25	0.6528313	0.5	0.7035586	1	0.7427383	2.5	0.796288	5	0.8088276
Fluoranthene	0.1	0.9786531	0.25	0.9371755	0.5	0.9375246	1	1.075681	2.5	1.150061	5	1.17396
Dibenzothiophene	0.1	0.7546642	0.25	0.7930753	0.5	0.925795	1	0.8302316	2.5	1.04606	5	0.8471042
Pyrene	0.1	0.9630021	0.25	0.966914	0.5	1.000393	1	1.11307	2.5	1.182144	5	1.241269
Benzo(a)anthracene	0.1	0.562294	0.25	0.6778681	0.5	0.7259448	1	0.8109875	2.5	0.9627567	5	0.9492783
Chrysene	0.1	0.7943908	0.25	0.8615273	0.5	0.9381651	1	0.9212196	2.5	0.9857692	5	1.000426
Benzo(b)fluoranthene	0.1	0.5308324	0.25	0.6087004	0.5	0.6191073	1	0.695794	2.5	0.9059779	5	0.881615
Benzo(j)fluoranthene	0.1	0.8531192	0.25	0.7996164	0.5	0.8759881	1	1.047484	2.5	1.029944	5	1.090356
Benzo(k)fluoranthene	0.1	0.6872416	0.25	0.773181	0.5	0.8150068	1	0.8807561	2.5	1.051061	5	1.088732
Benzo(a)fluoranthene, Total	0.3	0.6471505	0.75	0.7283685	1.5	0.7121592	3	0.8279762	7.5	0.9459479	15	0.9702882
Benzo(e)pyrene	0.1	0.7498052	0.25	0.7755446	0.5	0.7781863	1	0.8271542	2.5	0.8997073	5	0.9313504



INITIAL CALIBRATION DATA
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0180
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	EE00001	Instrument:	NT14
Calibration Date:	04/30/2021	Column (1):	ZB-5MS
Comments:	SIM ALKYL PAH ICAL-PARENTS		

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RRF		RRF		RRF		RRF		RRF		RRF
Benzo(a)pyrene	0.1	0.5480314	0.25	0.5557879	0.5	0.6654072	1	0.7231544	2.5	0.8813632	5	0.9020022
Indeno(1,2,3-cd)pyrene	0.1	0.5437167	0.25	0.6400912	0.5	0.6587507	1	0.748201	2.5	0.9270778	5	0.952037
Dibenzo(a,h)anthracene	0.1	0.4046863	0.25	0.4750094	0.5	0.5279621	1	0.5896445	2.5	0.8345512	5	0.8179153
Benzo(g,h,i)perylene	0.1	0.6004075	0.25	0.8167425	0.5	0.7211619	1	0.7012883	2.5	0.8269543	5	0.8301412
Perylene	0.1	0.7091748	0.25	0.7359847	0.5	0.707023	1	0.7637468	2.5	0.8994571	5	0.9033379
Benzo(b)naphtho(2,1-d)thiophene	0.1	0.8293234	0.25	0.9264172	0.5	1.051839	1	1.24978	2.5	1.106562	5	1.175099
Naphthalene-d8	0.1	1.114502	0.25	1.071479	0.5	1.29126	1	1.123919	2.5	1.305963	5	1.059941
Acenaphthene-d10	0.1	0.5288919	0.25	0.5155261	0.5	0.6123474	1	0.5423731	2.5	0.6666629	5	0.5301955
Phenanthrene-d10	0.1	1.116935	0.25	1.022565	0.5	1.0544	1	1.110704	2.5	1.096999	5	1.085478
Chrysene-d12	0.1	0.5576796	0.25	0.6403815	0.5	0.7026469	1	0.7612398	2.5	0.7932334	5	0.8089519
Perylene-d12	0.1	0.5015881	0.25	0.5811868	0.5	0.629992	1	0.6787897	2.5	0.7772829	5	0.8084413



INITIAL CALIBRATION DATA
EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21D0180
 Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings
 Calibration: EE00001 Instrument: NT14
 Calibration Date: 04/30/2021 Column (1): ZB-5MS
 Comments: SIM ALKYL PAH ICAL-PARENTS

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RRF		RRF		RRF		RRF		RRF		RRF
trans-Decalin	10	0.1379559										
cis-Decalin	10	9.472697E-02										
Naphthalene	10	1.115481										
1-Methylnaphthalene	10	0.5560783										
2-Methylnaphthalene	10	0.5928986										
Biphenyl	10	0.8341153										
2,6-Dimethylnaphthalene	10	0.5902394										
Acenaphthylene	10	1.041621										
Acenaphthene	10	0.6222852										
Dibenzofuran	10	0.9218858										
2,3,5-Trimethylnaphthalene	10	0.5585615										
Fluorene	10	0.6837465										
Benzo(b)thiophene	10	0.8925578										
Phenanthrene	10	1.19395										
Anthracene	10	1.175137										
Carbazole	10	1.019265										
1-Methylphenanthrene	10	0.8135303										
Fluoranthene	10	1.248132										
Dibenzothiophene	10	0.8751902										
Pyrene	10	1.306408										
Benzo(a)anthracene	10	1.066691										
Chrysene	10	1.036908										
Benzo(b)fluoranthene	10	1.001889										
Benzo(j)fluoranthene	10	0.9631976										
Benzo(k)fluoranthene	10	1.198838										
Benzo(a)fluoranthenes, Total	30	1.040081										
Benzo(e)pyrene	10	1.001095										



INITIAL CALIBRATION DATA EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0180
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	EE00001	Instrument:	NT14
Calibration Date:	04/30/2021	Column (1):	ZB-5MS
Comments:	SIM ALKYL PAH ICAL-PARENTS		

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RRF		RRF		RRF		RRF		RRF		RRF
Benzo(a)pyrene	10	0.9203169										
Indeno(1,2,3-cd)pyrene	10	1.051524										
Dibenzo(a,h)anthracene	10	0.9350092										
Benzo(g,h,i)perylene	10	0.8675536										
Perylene	10	0.9764414										
Benzo(b)naphtho(2,1-d)thiophene	10	1.235939										
Naphthalene-d8	10	1.112424										
Acenaphthene-d10	10	0.5490843										
Phenanthrene-d10	10	1.078409										
Chrysene-d12	10	0.8228924										
Perylene-d12	10	0.8520311										



INITIAL CALIBRATION DATA
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0180
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	EE00001	Instrument:	NT14
Calibration Date:	04/30/2021	Column (1):	ZB-5MS
Comments:	SIM ALKYL PAH ICAL-PARENTS		

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
trans-Decalin	0.1489821	7.0			RSD (15)	
cis-Decalin	0.1028504	11.5			RSD (15)	
Naphthalene	1.174012	8.9			RSD (15)	
1-Methylnaphthalene	0.593613	9.8			RSD (15)	
2-Methylnaphthalene	0.6265036	9.4			RSD (15)	
Biphenyl	0.896628	10.0			RSD (15)	
2,6-Dimethylnaphthalene	0.6169792	11.1			RSD (15)	
Acenaphthylene	0.970937	13.7			RSD (15)	
Acenaphthene	0.6240076	11.1			RSD (15)	
Dibenzofuran	0.9455456	9.9			RSD (15)	
2,3,5-Trimethylnaphthalene	0.5414731	13.2			RSD (15)	
Fluorene	0.6871732	9.8			RSD (15)	
Benzo(b)thiophene	0.9340302	9.5			RSD (15)	
Phenanthrene	1.206607	2.3			RSD (15)	
Anthracene	1.112265	5.6			RSD (15)	
Carbazole	0.8290303	18.9		0.9996	QCOD (0.99)	
1-Methylphenanthrene	0.732604	11.0			RSD (15)	
Fluoranthene	1.071598	11.6			RSD (15)	
Dibenzothiophene	0.8674458	11.1			RSD (15)	
Pyrene	1.110457	12.5			RSD (15)	
Benzo(a)anthracene	0.8222601	21.8		0.9995	QCOD (0.99)	
Chrysene	0.934058	9.0			RSD (15)	
Benzo(b)fluoranthene	0.7491309	24.0		0.9991	QCOD (0.99)	
Benzo(j)fluoranthene	0.9513865	11.6			RSD (15)	
Benzo(k)fluoranthene	0.9278309	20.2		0.9996	QCOD (0.99)	
Benzo(a)fluoranthenes, Total	0.8388531	17.8		0.9997	QCOD (0.99)	
Benzo(e)pyrene	0.8518347	11.0			RSD (15)	
Benzo(a)pyrene	0.7422947	21.7		0.9993	QCOD (0.99)	
Indeno(1,2,3-cd)pyrene	0.7887712	24.0		0.9994	QCOD (0.99)	
Dibenzo(a,h)anthracene	0.6549683	31.3		0.9986	QCOD (0.99)	



INITIAL CALIBRATION DATA
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0180
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	EE00001	Instrument:	NT14
Calibration Date:	04/30/2021	Column (1):	ZB-5MS
Comments:	SIM ALKYL PAH ICAL-PARENTS		

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Benzo(g,h,i)perylene	0.7663214	12.4			RSD (15)	
Perylene	0.8135951	13.5			RSD (15)	
Benzo(b)naphtho(2,1-d)thiophene	1.082137	14.6			RSD (15)	
Naphthalene-d8	1.154213	8.8			RSD (15)	
Acenaphthene-d10	0.563583	9.8			RSD (15)	
Phenanthrene-d10	1.080784	3.1			RSD (15)	
Chrysene-d12	0.7267179	13.6			RSD (15)	
Perylene-d12	0.6899017	18.6		0.9997	QCOD (0.99)	



ANALYSIS SEQUENCE

SJD0305

Instrument: NT14 Element Column ID: J008815
Calibration ID: EE00001 Tune File: 200104.U
EM Voltage: 2000

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SJD0305-TUN1	MS Tune	QC		1	I007631		
SJD0305-CAL5	PAH 2.5	QC		2	J004700	J004384	
SJD0305-CAL7	PAH 10.0	QC		3	J004701	J004384	
SJD0305-CAL6	PAH 5.0	QC		4	J004702	J004384	
SJD0305-CAL2	PAH 0.25	QC		5	J004705	J004384	
SJD0305-CAL4	PAH 1.0	QC		6	J004703	J004384	
SJD0305-CAL3	PAH 0.5	QC		7	J004704	J004384	
SJD0305-CAL1	PAH 0.1	QC		8	J004706	J004384	
SJD0305-SCV1	Secondary Cal Check	QC		9	J004707	J004384	
SJD0305-ICB1	Initial Cal Blank	QC		10	J004708	J004384	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210430.b

Time	Filename	LabID	ClientId	DF					
1	0742	NT1421043001.D	SJD0305-TUN1		1	NO	ISTDS	FOUND	
2	0756	NT1421043002.D	SJD0305-CAL5		1	18.78	420456	22.22	381033
						33.05			370998
3	0843	NT1421043003.D	SJD0305-CAL7		1	18.78	463680	22.22	358366
						33.05			363264
4	0931	NT1421043004.D	SJD0305-CAL1		1	18.78	393678	22.22	335095
						33.05			358059
5	1019	NT1421043005.D	SJD0305-CAL6		1	18.78	459220	22.22	341294
						33.05			348573
6	1107	NT1421043006.D	SJD0305-CAL2		1	18.77	514907	22.22	378499
						33.05			385845
7	1155	NT1421043007.D	SJD0305-CAL4		1	18.78	445719	22.22	328813
						33.05			341443
8	1243	NT1421043008.D	SJD0305-CAL3		1	18.78	369261	22.22	315516
						33.05			324493
9	1332	NT1421043009.D	SJD0305-CAL1		1	18.78	472157	22.22	325856
						33.05			333740
10	1441	NT1421043010.D	SJD0305-SCV1		1	18.78	351020	22.23	309177
						33.05			328565
11	1529	NT1421043011.D	SJD0305-ICB1		1	18.77	376278	22.23	322067
						33.05			328767

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210430.b

Instrument: nt14.i Date: 30-APR-2021

Time	Filename	LabID	DF	Manually Integrated Compounds
0742	NT1421043001.D	SJD0305-TUN1	1	NO MANUAL INTEGRATION
0756	NT1421043002.D	SJD0305-CAL5	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Perylene, Total Benzofluoranthenes,
0843	NT1421043003.D	SJD0305-CAL7	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
0931	NT1421043004.D	SJD0305-CAL1	1	Carbazole, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(g,h,i)perylene, Perylene, Total Benzofluoranthene
1019	NT1421043005.D	SJD0305-CAL6	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes, Perylene-d12,
1107	NT1421043006.D	SJD0305-CAL2	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Benzo(j)fluoranthene,
1155	NT1421043007.D	SJD0305-CAL4	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Perylene, Total Benzofluoranthenes,
1243	NT1421043008.D	SJD0305-CAL3	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
1332	NT1421043009.D	SJD0305-CAL1	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
1441	NT1421043010.D	SJD0305-SCV1	1	Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Benzo(g,h,i)perylene, Perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene, Chrysene-d12, Perylene-d12,
1529	NT1421043011.D	SJD0305-ICB1	1	Chrysene-d12, Perylene-d12,

Security Status Report

Date: 01-May-2021 09:39

NT1421043001.D	Data Locked	van, 01-May-2021 09:39
NT1421043002.D	Data Locked	van, 01-May-2021 09:39
NT1421043003.D	Data Locked	van, 01-May-2021 09:39
NT1421043004.D	Data Locked	van, 01-May-2021 09:39
NT1421043005.D	Data Locked	van, 01-May-2021 09:39
NT1421043006.D	Data Locked	van, 01-May-2021 09:39
NT1421043007.D	Data Locked	van, 01-May-2021 09:39
NT1421043008.D	Data Locked	van, 01-May-2021 09:39
NT1421043009.D	Data Locked	van, 01-May-2021 09:39
NT1421043010.D	Data Locked	van, 01-May-2021 09:39
NT1421043011.D	Data Locked	van, 01-May-2021 09:39

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-APR-2021 07:56
 End Cal Date : 30-APR-2021 13:32
 Quant Method : ISTD
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Last Edit : 01-May-2021 07:34 van

Calibration File Names:

- Level 1: \\target\share\chem3\nt14.i\20210430.b\NT1421043009.D
- Level 2: \\target\share\chem3\nt14.i\20210430.b\NT1421043006.D
- Level 3: \\target\share\chem3\nt14.i\20210430.b\NT1421043008.D
- Level 4: \\target\share\chem3\nt14.i\20210430.b\NT1421043007.D
- Level 5: \\target\share\chem3\nt14.i\20210430.b\NT1421043002.D
- Level 6: \\target\share\chem3\nt14.i\20210430.b\NT1421043005.D
- Level 7: \\target\share\chem3\nt14.i\20210430.b\NT1421043003.D

Compound	0.1000000	0.2500000	0.5000000	1.0000	2.5000	5.0000	Curve	Coefficients			%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	10.0000										
	Level 7										
1 trans-Decalin	0.15275 0.13796	0.15083	0.16034	0.14187	0.16243	0.13671	AVRG		0.14898		6.98791
2 cis-Decalin	0.09882 0.09473	0.09515	0.12354	0.09852	0.11574	0.09345	AVRG		0.10285		11.52544
3 C1-Decalin	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000 <-
4 C2-Decalin	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000 <-

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-APR-2021 07:56
 End Cal Date : 30-APR-2021 13:32
 Quant Method : ISTD
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Last Edit : 01-May-2021 07:34 van

Compound	0.1000000	0.2500000	0.5000000	1.0000	2.5000	5.0000	Curve	b	Coefficients		%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	or R ²
	10.0000										
	Level 7										
5 C3-Decalin	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000<-
247 C4-Decalin	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000<-
7 Naphthalene	1.12916	1.11068	1.33816	1.13126	1.31207	1.08127					
	1.11548						AVRG		1.17401		8.92579
8 C1-Naphthalenes	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000<-
9 C2-Naphthalenes	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000<-
10 C3-Naphthalenes	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000<-
11 C4-Naphthalenes	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000<-

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-APR-2021 07:56
 End Cal Date : 30-APR-2021 13:32
 Quant Method : ISTD
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Last Edit : 01-May-2021 07:34 van

Compound	0.1000000	0.2500000	0.5000000	1.0000	2.5000	5.0000	Curve	Coefficients			%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	or R ²
	10.0000										
	Level 7										
12 Benzo(b)thiophene	0.88115	0.87408	1.06521	0.90063	1.05907	0.86551					
	0.89256						AVRG		0.93403		9.45177
13 C1-Benzothiophenes	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000 <-
14 C2-Benzothiophenes	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000 <-
15 C3-Benzothiophenes	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000 <-
16 2-Methylnaphthalene	0.57909	0.59784	0.69763	0.61777	0.72287	0.57743					
	0.59290						AVRG		0.62650		9.44971
17 1-methylnaphthalene	0.55401	0.56574	0.67385	0.58531	0.67904	0.54125					
	0.55608						AVRG		0.59361		9.79919
18 Biphenyl	0.86891	0.83485	1.03213	0.87400	1.01733	0.81506					
	0.83412						AVRG		0.89663		10.03625

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-APR-2021 07:56
 End Cal Date : 30-APR-2021 13:32
 Quant Method : ISTD
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Last Edit : 01-May-2021 07:34 van

Compound	0.1000000	0.2500000	0.5000000	1.0000	2.5000	5.0000	Curve	Coefficients			%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	or R ²
	10.0000										
	Level 7										
19 2,6-Dimethylnaphthalene	0.56320	0.55968	0.70423	0.60127	0.72574	0.57450					
	0.59024						AVRG		0.61698		11.14739
20 Acenaphthylene	0.80117	0.84484	1.01665	0.91531	1.19581	0.98115					
	1.04162						AVRG		0.97094		13.66182
22 Acenaphthene	0.53486	0.57020	0.67935	0.61585	0.74402	0.60149					
	0.62229						AVRG		0.62401		11.11870
23 Dibenzofuran	0.86556	0.87875	1.03446	0.91959	1.11404	0.88455					
	0.92189						AVRG		0.94555		9.85595
24 1,6,7-Trimethylnaphthalene	0.46252	0.46825	0.57760	0.51700	0.67073	0.53565					
	0.55856						AVRG		0.54147		13.17474
26 Fluorene	0.63153	0.62188	0.74264	0.66236	0.80989	0.65818					
	0.68375						AVRG		0.68717		9.75555
27 C1-Fluorenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-APR-2021 07:56
 End Cal Date : 30-APR-2021 13:32
 Quant Method : ISTD
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Last Edit : 01-May-2021 07:34 van

Compound	0.1000000	0.2500000	0.5000000	1.0000	2.5000	5.0000	Curve	Coefficients			%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	or R ²
	10.0000										
	Level 7										
28 C2-Fluorenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000<-
29 C3-Fluorenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000<-
30 Dibenzothiophene	0.75466	0.79308	0.92580	0.83023	1.04606	0.84710					
	0.87519						AVRG	0.86745			11.07909
31 C1-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000<-
32 C2-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000<-
33 C3-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000<-
34 C4-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000<-

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-APR-2021 07:56
 End Cal Date : 30-APR-2021 13:32
 Quant Method : ISTD
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Last Edit : 01-May-2021 07:34 van

Compound	0.1000000	0.2500000	0.5000000	1.0000	2.5000	5.0000	Curve	Coefficients			%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	or R ²
	10.0000										
	Level 7										
36 Phenanthrene	1.23153	1.18768	1.17228	1.24267	1.22910	1.18905					
	1.19395						AVRG	1.20661			2.25259
37 Anthracene	0.99289	1.08515	1.09551	1.12794	1.15706	1.15216					
	1.17514						AVRG	1.11226			5.57401
38 C1-Phenanthrenes/Anthracenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000 <-
39 C2-Phenanthrenes/Anthracenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000 <-
40 C3-Phenanthrenes/Anthracenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000 <-
41 C4-Phenanthrenes/Anthracenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000 <-
42 Carbazole	9889	33334	56745	136890	456095	821511					
	1826349						QUAD	0.000e+000	1.09394	-0.02222	0.99980

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-APR-2021 07:56
 End Cal Date : 30-APR-2021 13:32
 Quant Method : ISTD
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Last Edit : 01-May-2021 07:34 van

Compound	0.1000000	0.2500000	0.5000000	1.0000	2.5000	5.0000	Curve	Coefficients			%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	or R ²
	10.0000										
	Level 7										
43 1-Methylphenanthrene	0.61045 0.81353	0.65283	0.70356	0.74274	0.79629	0.80883	AVRG		0.73260		10.95480
44 Fluoranthene	0.97865 1.24813	0.93718	0.93752	1.07568	1.15006	1.17396	AVRG		1.07160		11.58675
45 Pyrene-d10	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000 <-
46 Pyrene	0.96300 1.30641	0.96691	1.00039	1.11307	1.18214	1.24127	AVRG		1.11046		12.47356
47 Retene	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000 <-
48 C1-Fluoranthenes/Pyrenes	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000 <-
49 C2-Fluoranthenes/Pyrenes	+++++ +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000 <-

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-APR-2021 07:56
 End Cal Date : 30-APR-2021 13:32
 Quant Method : ISTD
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Last Edit : 01-May-2021 07:34 van

Compound	0.1000000	0.2500000	0.5000000	1.0000	2.5000	5.0000	Curve	Coefficients			%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	or R^2
	10.0000										
	Level 7										
50 C3-Fluoranthenes/Pyrenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000<-
249 C4-Fluoranthenes/Pyrenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000<-
51 Naphthobenzothiophene	0.82932	0.92642	1.05184	1.24978	1.10656	1.17510					
	1.23594						AVRG	1.08214			14.61512
52 C1-Naphthobenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000<-
53 C2-Naphthobenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000<-
54 C3-Naphthobenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000<-
248 C4-Naphthobenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000<-

ARI Labs, Inc.

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 Last Edit : 01-May-2021 07:34 van

Compound	0.1000000	0.2500000	0.5000000	1.0000	2.5000	5.0000	Curve	Coefficients			%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	or R ²
	10.0000										
	Level 7										
55 Benzo(a)anthracene	9383	32694	58891	138453	446476	827232					
	1937453						QUAD	0.000e+000	1.13118	-0.03627	0.99965
57 Chrysene	0.79439	0.86153	0.93817	0.92122	0.98577	1.00043					
	1.03691						AVRG		0.93406		9.02168
58 C1-Benzo(a)anthracenes/Chryse	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000 <-
59 C2-Benzo(a)anthracenes/Chryse	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000 <-
60 C3-Benzo(a)anthracenes/Chryse	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000 <-
61 C4-Benzo(a)anthracenes/Chryse	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000 <-
62 Benzo(b)fluoranthene	8858	29358	50224	118787	420145	768268					
	1819751						QUAD	0.000e+000	1.22204	-0.04466	0.99931

ARI Labs, Inc.

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 Integrator : HP RTE
 Method file : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Last Edit : 01-May-2021 07:34 van

Compound	0.1000000	0.2500000	0.5000000	1.0000	2.5000	5.0000	Curve	Coefficients			%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	or R^2
293 Benzo(j)fluoranthene	0.85312	0.79962	0.87599	1.04748	1.02994	1.09036					
	0.96320						AVRG	0.95139			11.61242
63 Benzo(k)fluoranthene	11468	37291	66116	150364	487427	948756					
	2177474						QUAD	0.000e+000	0.99968	-0.02771	0.99979
64 Benzo(e)pyrene	0.74981	0.77554	0.77819	0.82715	0.89971	0.93135					
	1.00109						AVRG	0.85183			11.04961
246 Total Benzofluoranthenes	32397	105389	173318	424060	1316043	2536622					
	5667360						QUAD	0.000e+000	1.10177	-0.00903	0.99983
65 Benzo(a)pyrene-d12	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000 <-
66 Benzo(a)pyrene	9145	26806	53980	123458	408730	786034					
	1671590						QUAD	0.000e+000	1.15794	-0.01584	0.99967
68 Perylene	0.70917	0.73598	0.70702	0.76375	0.89946	0.90334					
	0.97644						AVRG	0.81360			13.53089

ARI Labs, Inc.

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Compound	0.1000000	0.2500000	0.5000000	1.0000	2.5000	5.0000	Curve	Coefficients			%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	or R^2
	10.0000										
	Level 7										
69 Indeno(1,2,3-cd)pyrene	9073	30872	53440	127734	429930	829636					
	1909904						QUAD	0.000e+000	1.14317	-0.03668	0.99967
70 Dibenzo(a,h)anthracene	6753	22910	42830	100665	387021	712758					
	1698276						QUAD	0.000e+000	1.32868	-0.05546	0.99909
71 C1-Dibenzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000 <-
72 C2-Dibenzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000 <-
73 C3-Dibenzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000 <-
74 Benzo(g,h,i)perylene	0.60041	0.81674	0.72116	0.70129	0.82695	0.83014					
	0.86755						AVRG	0.76632			12.41812
253 n-Octane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000			0.000e+000 <-

ARI Labs, Inc.

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Compound	0.1000000	0.2500000	0.5000000	1.0000	2.5000	5.0000	Curve	b	Coefficients		%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	or R^2
	10.0000										
	Level 7										
254 n-Nonane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000		0.000e+000	<-
262 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000		0.000e+000	<-
255 n-Undecane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000		0.000e+000	<-
256 n-Dodecane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000		0.000e+000	<-
257 n-Tridecane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000		0.000e+000	<-
258 n-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000		0.000e+000	<-
259 n-Pentadecane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000		0.000e+000	<-

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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 Last Edit : 01-May-2021 07:34 van

Compound	0.1000000	0.2500000	0.5000000	1.0000	2.5000	5.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	10.0000										
	Level 7										
263 n-Hexadecane	++++	++++	++++	++++	++++	++++					
	++++						AVRG	0.000e+000		0.000e+000 <-	
264 n-Heptadecane	++++	++++	++++	++++	++++	++++					
	++++						AVRG	0.000e+000		0.000e+000 <-	
265 n-Octadecane	++++	++++	++++	++++	++++	++++					
	++++						AVRG	0.000e+000		0.000e+000 <-	
266 Pristane	++++	++++	++++	++++	++++	++++					
	++++						AVRG	0.000e+000		0.000e+000 <-	
288 n-Nonadecane	++++	++++	++++	++++	++++	++++					
	++++						AVRG	0.000e+000		0.000e+000 <-	
289 Phytane	++++	++++	++++	++++	++++	++++					
	++++						AVRG	0.000e+000		0.000e+000 <-	
267 n-Eicosane	++++	++++	++++	++++	++++	++++					
	++++						AVRG	0.000e+000		0.000e+000 <-	

ARI Labs, Inc.

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 Last Edit : 01-May-2021 07:34 van

Compound	0.1000000	0.2500000	0.5000000	1.0000	2.5000	5.0000	Curve	b	Coefficients		%RSD
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	or R^2
	10.0000										
	Level 7										
268 n-Heneicosane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000		0.000e+000	<-
270 n-Docosane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000		0.000e+000	<-
271 n-Tricosane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000		0.000e+000	<-
272 n-Tetracosane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000		0.000e+000	<-
273 n-Pentacosane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000		0.000e+000	<-
274 n-Hexacosane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000		0.000e+000	<-
275 n-Heptacosane	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG	0.000e+000		0.000e+000	<-

ARI Labs, Inc.

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Compound	0.1000000	0.2500000	0.5000000	1.0000	2.5000	5.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	10.0000										
	Level 7										
276 n-Octacosane	++++	++++	++++	++++	++++	++++					
	++++						AVRG	0.000e+000	0.000e+000	<-	
291 n-Nonacosane	++++	++++	++++	++++	++++	++++					
	++++						AVRG	0.000e+000	0.000e+000	<-	
278 n-Triacontane	++++	++++	++++	++++	++++	++++					
	++++						AVRG	0.000e+000	0.000e+000	<-	
279 n-Hentriacontane	++++	++++	++++	++++	++++	++++					
	++++						AVRG	0.000e+000	0.000e+000	<-	
280 n-Dotriacontane	++++	++++	++++	++++	++++	++++					
	++++						AVRG	0.000e+000	0.000e+000	<-	
281 n-Tritriacontane	++++	++++	++++	++++	++++	++++					
	++++						AVRG	0.000e+000	0.000e+000	<-	
282 n-Tetratriacontane	++++	++++	++++	++++	++++	++++					
	++++						AVRG	0.000e+000	0.000e+000	<-	

ARI Labs, Inc.

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 Last Edit : 01-May-2021 07:34 van

Compound	0.1000000	0.2500000	0.5000000	1.0000	2.5000	5.0000	Curve	b	Coefficients		%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			m1	m2	
	10.0000										
	Level 7										
283 n-Pentatriacontane	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000<-
284 n-Hexatriacontane	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000<-
285 n-Heptatriacontane	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000<-
286 n-Octatriacontane	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000<-
292 n-Nonatriacontane	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000<-
287 n-Tetracontane	++++	++++	++++	++++	++++	++++					
	++++						AVRG		0.000e+000		0.000e+000<-
\$ 6 Naphthalene-d8	1.11450	1.07148	1.29126	1.12392	1.30596	1.05994					
	1.11242						AVRG		1.15421		8.79172

ARI Labs, Inc.

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 Last Edit : 01-May-2021 07:34 van

Compound	0.1000000	0.2500000	0.5000000	1.0000	2.5000	5.0000	Curve	Coefficients			%RSD or R ²
	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		b	m1	m2	
	10.0000										
	Level 7										
\$ 21 Acenaphthene-d10	0.52889	0.51553	0.61235	0.54237	0.66666	0.53020					
	0.54908						AVRG		0.56358		9.79686
\$ 35 Phenanthrene-d10	1.11694	1.02257	1.05440	1.11070	1.09700	1.08548					
	1.07841						AVRG		1.08078		3.06366
\$ 56 Chrysene-d12	0.55768	0.64038	0.70265	0.76124	0.79323	0.80895					
	0.82289						AVRG		0.72672		13.55664
\$ 67 Perylene-d12	8370	28031	51107	115884	360463	704502					
	1547561						QUAD	0.000e+000	1.31926	-0.03447	0.99984

ARI Labs, Inc.

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Last Edit : 01-May-2021 07:34 van

Curve	Formula	Units
Averaged	Amt = Rsp/ml	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Batch File: \\target\share\chem3\nt14.i\20210430.b
Inst ID: nt14.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	NT1421043002	NT1421043003	NT1421043005	NT1421043006	NT1421043007	NT1421043008	NT1421043009
INJ. DATE:	30-APR-2021	30-APR-2021	30-APR-2021	30-APR-2021	30-APR-2021	30-APR-2021	30-APR-2021
INJ. TIME:	07:56	08:43	10:19	11:07	11:55	12:43	13:32

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 trans-Decalin	7.046	7.046	7.046	7.056	7.046	7.036	7.035	7.035	4.035-10.035	7.044	0.007
2 cis-Decalin	8.145	8.155	8.155	8.165	8.155	8.155	8.165	8.165	5.165-11.165	8.157	0.007
3 C1-Decalin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.800	5.800-11.800	+++++	+++++
4 C2-Decalin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.200	6.200-12.200	+++++	+++++
5 C3-Decalin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.000	7.000-13.000	+++++	+++++
247 C4-Decalin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.100	7.100-13.100	+++++	+++++
6 Naphthalene-d8	11.776	11.776	11.776	11.776	11.776	11.776	11.776	11.776	8.776-14.776	11.776	0.000
7 Naphthalene	11.837	11.847	11.847	11.837	11.837	11.847	11.847	11.847	8.847-14.847	11.842	0.005
8 C1-Naphthalenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.000	11.000-17.000	+++++	+++++
9 C2-Naphthalenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.000	13.000-19.000	+++++	+++++
10 C3-Naphthalenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.000	15.000-21.000	+++++	+++++
11 C4-Naphthalenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.500	15.500-21.500	+++++	+++++
12 Benzo(b)thiophene	12.296	12.296	12.296	12.296	12.296	12.296	12.296	12.296	9.296-15.296	12.296	0.000
13 C1-Benzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.200	11.200-17.200	+++++	+++++
14 C2-Benzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.800	12.800-18.800	+++++	+++++
15 C3-Benzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.200	14.200-20.200	+++++	+++++
16 2-Methylnaphthalene	13.680	13.681	13.680	13.681	13.681	13.680	13.680	13.680	10.680-16.680	13.680	0.000

Reviewer 1 _____ Date: _____
Reviewer 2 _____ Date: _____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Batch File: \\target\share\chem3\nt14.i\20210430.b
Inst ID: nt14.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
17 1-methylnaphthalene	14.131	14.131	14.131	14.131	14.131	14.131	14.131	14.131	11.131-17.131	14.131	0.000
18 Biphenyl	15.318	15.318	15.318	15.318	15.318	15.318	15.318	15.318	12.318-18.318	15.318	0.000
19 2,6-Dimethylnaphthalen	15.395	15.395	15.395	15.395	15.395	15.395	15.395	15.395	12.395-18.395	15.395	0.000
20 Acenaphthylene	16.955	16.967	16.966	16.956	16.956	16.955	16.955	16.955	13.955-19.955	16.959	0.005
\$ 21 Acenaphthene-d10	17.241	17.252	17.252	17.241	17.241	17.241	17.241	17.241	14.241-20.241	17.244	0.005
22 Acenaphthene	17.362	17.362	17.362	17.362	17.362	17.362	17.362	17.362	14.362-20.362	17.362	0.000
23 Dibenzofuran	17.736	17.736	17.736	17.736	17.736	17.736	17.736	17.736	14.736-20.736	17.736	0.000
24 1,6,7-Trimethylnaphtha	17.966	17.967	17.966	17.967	17.967	17.966	17.966	17.966	14.966-20.966	17.966	0.000
* 25 Fluorene-d10	18.782	18.782	18.782	18.771	18.782	18.782	18.782	18.782	15.782-21.782	18.780	0.004
26 Fluorene	18.884	18.884	18.884	18.884	18.884	18.884	18.884	18.884	15.884-21.884	18.884	0.000
27 C1-Fluorenes	++++	++++	++++	++++	++++	++++	++++	21.000	18.000-24.000	++++	++++
28 C2-Fluorenes	++++	++++	++++	++++	++++	++++	++++	21.200	18.200-24.200	++++	++++
29 C3-Fluorenes	++++	++++	++++	++++	++++	++++	++++	23.000	20.000-26.000	++++	++++
30 Dibenzothiophene	21.795	21.795	21.795	21.795	21.795	21.795	21.795	21.795	18.795-24.795	21.795	0.000
31 C1-Dibenzothiophenes	++++	++++	++++	++++	++++	++++	++++	23.500	20.500-26.500	++++	++++
32 C2-Dibenzothiophenes	++++	++++	++++	++++	++++	++++	++++	24.500	21.500-27.500	++++	++++
33 C3-Dibenzothiophenes	++++	++++	++++	++++	++++	++++	++++	25.600	22.600-28.600	++++	++++
34 C4-Dibenzothiophenes	++++	++++	++++	++++	++++	++++	++++	27.000	24.000-30.000	++++	++++
\$ 35 Phenanthrene-d10	22.103	22.103	22.103	22.103	22.103	22.103	22.103	22.103	19.103-25.103	22.103	0.000
* 250 Anthracene-d10	22.224	22.224	22.224	22.224	22.224	22.224	22.224	22.224	19.224-25.224	22.224	0.000
36 Phenanthrene	22.191	22.191	22.191	22.180	22.180	22.191	22.191	22.191	19.191-25.191	22.188	0.005
37 Anthracene	22.290	22.290	22.290	22.290	22.290	22.290	22.290	22.290	19.290-25.290	22.290	0.000

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Batch File: \\target\share\chem3\nt14.i\20210430.b
Inst ID: nt14.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
38 C1-Phenanthrenes/Anthr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.800	20.800-26.800	+++++	+++++
39 C2-Phenanthrenes/Anthr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.000	22.000-28.000	+++++	+++++
40 C3-Phenanthrenes/Anthr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.000	24.000-30.000	+++++	+++++
41 C4-Phenanthrenes/Anthr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	28.000	25.000-31.000	+++++	+++++
42 Carbazole	23.565	23.565	23.565	23.565	23.565	23.565	23.565	23.565	20.565-26.565	23.565	0.000
43 1-Methylphenanthrene	24.016	24.027	24.016	24.016	24.016	24.016	24.016	24.016	21.016-27.016	24.017	0.004
44 Fluoranthene	25.995	25.995	25.995	25.995	25.995	25.995	25.995	25.995	22.995-28.995	25.995	0.000
45 Pyrene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.628	15.628-21.628	+++++	+++++
46 Pyrene	26.842	26.842	26.841	26.842	26.842	26.842	26.842	26.842	23.842-29.842	26.842	0.000
47 Retene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.769	14.769-20.769	+++++	+++++
48 C1-Fluoranthenes/Pyren	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.900	24.900-30.900	+++++	+++++
49 C2-Fluoranthenes/Pyren	+++++	+++++	+++++	+++++	+++++	+++++	+++++	29.000	26.000-32.000	+++++	+++++
50 C3-Fluoranthenes/Pyren	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.000	27.000-33.000	+++++	+++++
249 C4-Fluoranthenes/Pyren	+++++	+++++	+++++	+++++	+++++	+++++	+++++	33.000	30.000-36.000	+++++	+++++
51 Naphthobenzothiophene	29.385	29.385	29.385	29.385	29.385	29.385	29.385	29.385	26.385-32.385	29.385	0.000
52 C1-Naphthobenzothiophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	32.500	29.500-35.500	+++++	+++++
53 C2-Naphthobenzothiophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	33.500	30.500-36.500	+++++	+++++
54 C3-Naphthobenzothiophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	35.000	32.000-38.000	+++++	+++++
248 C4-Naphthobenzothiophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	36.000	33.000-39.000	+++++	+++++
55 Benzo(a)anthracene	29.964	29.976	29.975	29.964	29.964	29.964	29.964	29.964	26.964-32.964	29.967	0.005
56 Chrysene-d12	30.088	30.099	30.088	30.088	30.088	30.088	30.088	30.088	27.088-33.088	30.090	0.004
57 Chrysene	30.167	30.167	30.167	30.167	30.167	30.167	30.167	30.167	27.167-33.167	30.167	0.000
58 C1-Benzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	31.000	28.000-34.000	+++++	+++++
59 C2-Benzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	31.800	28.800-34.800	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Batch File: \\target\share\chem3\nt14.i\20210430.b
Inst ID: nt14.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
60 C3-Benzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	33.000	30.000-36.000	+++++	+++++
61 C4-Benzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	33.200	30.200-36.200	+++++	+++++
62 Benzo(b)fluoranthene	32.386	32.386	32.386	32.386	32.386	32.386	32.386	32.386	29.386-35.386	32.386	0.000
293 Benzo(j)fluoranthene	32.498	32.498	32.498	32.498	32.498	32.498	32.498	32.498	29.498-35.498	32.498	0.000
63 Benzo(k)fluoranthene	32.431	32.442	32.431	32.431	32.431	32.431	32.431	32.431	29.431-35.431	32.432	0.004
* 251 Benzo(e)pyrene-d12	33.050	33.050	33.050	33.050	33.050	33.050	33.050	33.050	30.050-36.050	33.050	0.000
64 Benzo(e)pyrene	33.107	33.107	33.106	33.107	33.107	33.107	33.107	33.107	30.107-36.107	33.107	0.000
246 Total Benzofluoranthen	32.386	32.386	32.498	32.431	32.431	32.498	32.498	32.498	29.498-35.498	32.447	0.052
65 Benzo(a)pyrene-d12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.348	22.348-28.348	+++++	+++++
66 Benzo(a)pyrene	33.208	33.208	33.208	33.208	33.208	33.208	33.208	33.208	30.208-36.208	33.208	0.000
67 Perylene-d12	33.388	33.388	33.388	33.388	33.377	33.388	33.388	33.388	30.388-36.388	33.387	0.004
68 Perylene	33.444	33.445	33.444	33.445	33.433	33.433	33.433	33.433	30.433-36.433	33.440	0.006
69 Indeno(1,2,3-cd)pyrene	35.427	35.427	35.427	35.427	35.416	35.427	35.415	35.415	32.415-38.415	35.424	0.005
70 Dibenzo(a,h)anthracene	35.415	35.416	35.415	35.404	35.404	35.404	35.404	35.404	32.404-38.404	35.409	0.006
71 C1-Dibenzo(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	36.000	33.000-39.000	+++++	+++++
72 C2-Dibenzo(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	37.000	34.000-40.000	+++++	+++++
73 C3-Dibenzo(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	38.000	35.000-41.000	+++++	+++++
74 Benzo(g,h,i)perylene	36.294	36.305	36.294	36.294	36.294	36.294	36.294	36.294	33.294-39.294	36.296	0.004
253 n-Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.322	2.322-8.322	+++++	+++++
254 n-Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.986	3.986-9.986	+++++	+++++
262 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.446	5.446-11.446	+++++	+++++
255 n-Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.869	6.869-12.869	+++++	+++++
256 n-Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.131	8.131-14.131	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Batch File: \\target\share\chem3\nt14.i\20210430.b
Inst ID: nt14.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
257 n-Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.527	9.527-15.527	+++++	+++++
258 n-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.495	10.495-16.495	+++++	+++++
259 n-Pentadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.559	11.559-17.559	+++++	+++++
263 n-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.570	12.570-18.570	+++++	+++++
264 n-Heptadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.533	13.533-19.533	+++++	+++++
265 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.453	14.453-20.453	+++++	+++++
266 Pristane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.608	13.608-19.608	+++++	+++++
288 n-Nonadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.282	15.282-21.282	+++++	+++++
289 Phytane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.517	14.517-20.517	+++++	+++++
267 n-Eicosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.090	16.090-22.090	+++++	+++++
268 n-Heneicosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.962	16.962-22.962	+++++	+++++
270 n-Docosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.529	17.529-23.529	+++++	+++++
271 n-Tricosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.133	18.133-24.133	+++++	+++++
272 n-Tetracosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.839	18.839-24.839	+++++	+++++
273 n-Pentacosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.245	19.245-25.245	+++++	+++++
274 n-Hexacosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.251	20.251-26.251	+++++	+++++
275 n-Heptacosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.764	20.764-26.764	+++++	+++++
276 n-Octacosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.128	21.128-27.128	+++++	+++++
291 n-Nonacosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.626	21.626-27.626	+++++	+++++
278 n-Triacontane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.075	22.075-28.075	+++++	+++++
279 n-Hentriacontane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.519	22.519-28.519	+++++	+++++
280 n-Dotriacontane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.952	22.952-28.952	+++++	+++++
281 n-Tritriacontane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.364	23.364-29.364	+++++	+++++
282 n-Tetratriacontane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.829	23.829-29.829	+++++	+++++

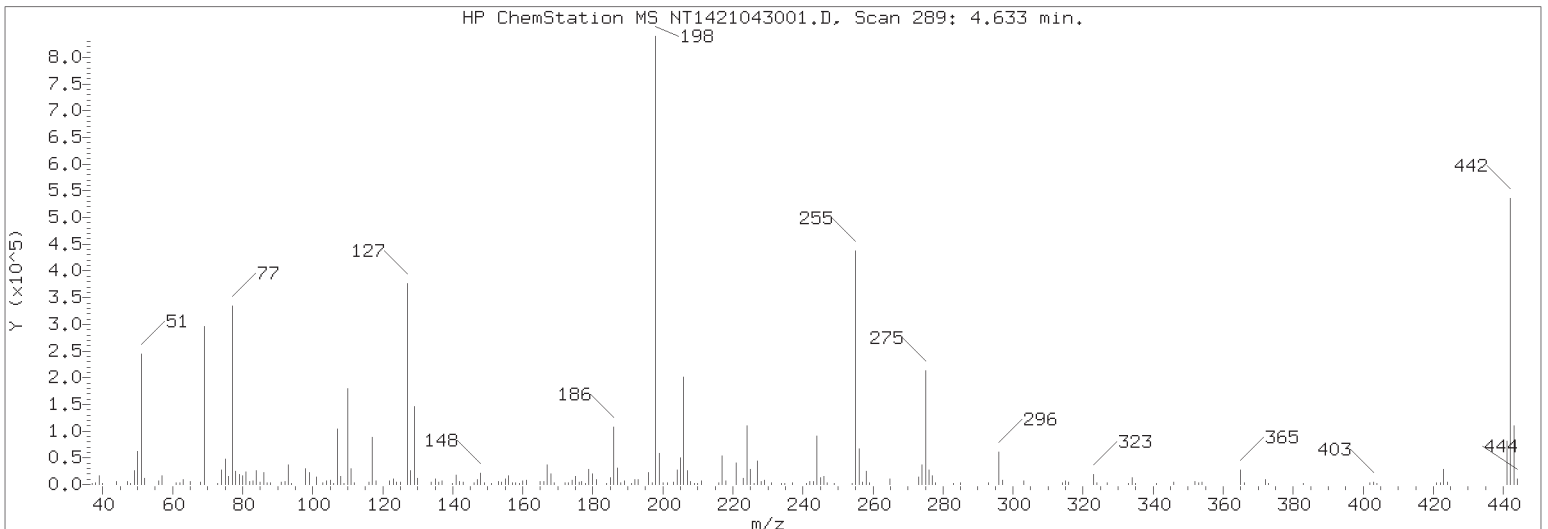
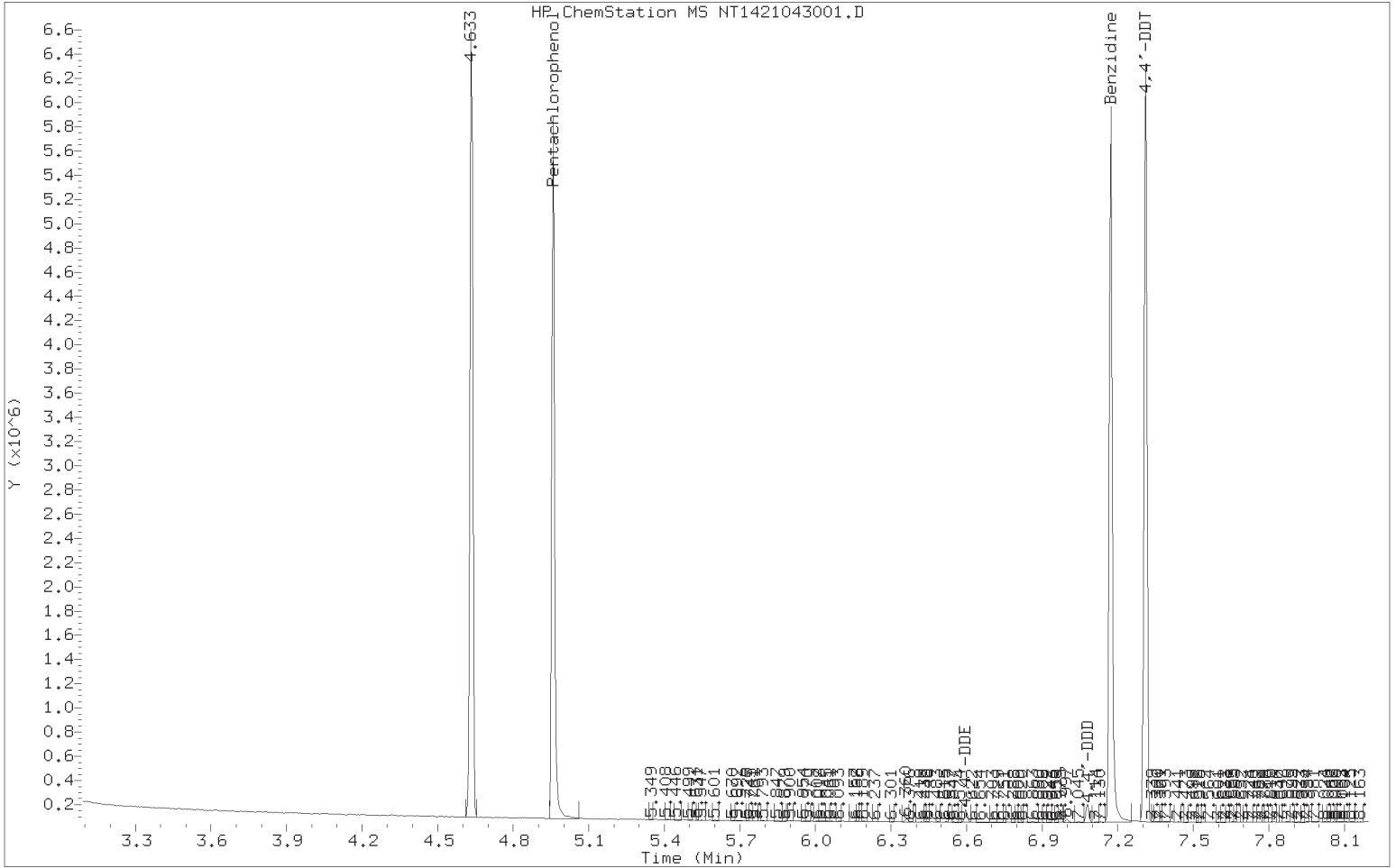
ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Batch File: \\target\share\chem3\nt14.i\20210430.b
 Inst ID: nt14.i

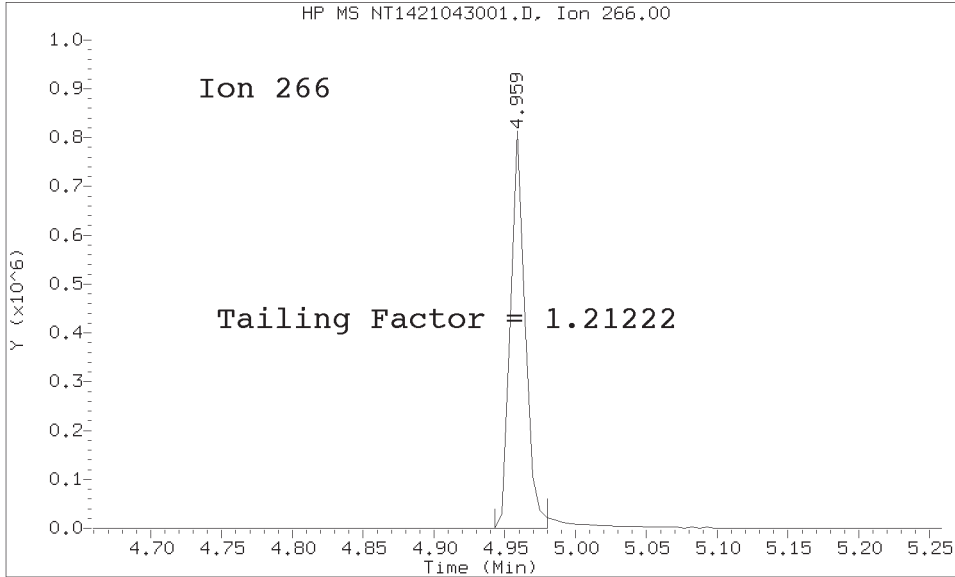
Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
283 n-Pentatriacontane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.370	24.370-30.370	+++++	+++++
284 n-Hexatriacontane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.936	24.936-30.936	+++++	+++++
285 n-Heptatriacontane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	28.578	25.578-31.578	+++++	+++++
286 n-Octatriacontane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	29.295	26.295-32.295	+++++	+++++
292 n-Nonatriacontane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.135	27.135-33.135	+++++	+++++
287 n-Tetracontane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	31.103	28.103-34.103	+++++	+++++

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20210430.b/NT1421043001.D/NT1421043001.D
Method Used: \20210430.b\DFTPP8270E.m Inst: nt14
Injection Date: 30-APR-2021 07:42 Operator: VTS
Sample Info: SJD0305-TUN1 SJD0305-TUN1
Report Date: 05/01/2021 09:19



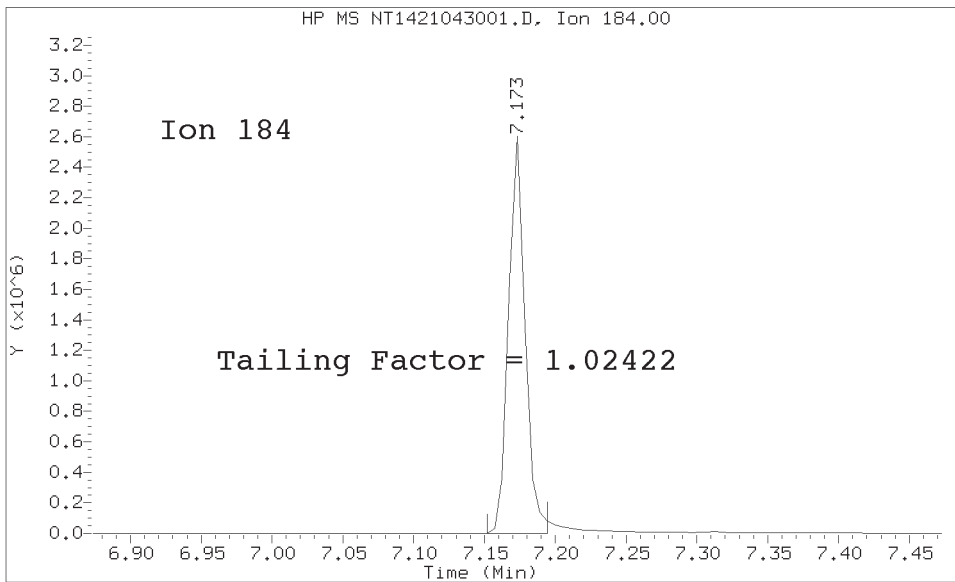
Datafile Analyzed: /20210430.b/NT1421043001.D/NT1421043001.D
Method Used: \20210430.b\DFTPP8270E.m\sw846ddt.m Inst: nt14
Injection Date: 30-APR-2021 07:42 Operator: JZ
Sample Info: SJD0305-TUN1
Report Date: 05/01/2021 09:19



Pentachlorophenol

=====
Exp. RT = 4.900
Found RT = 4.959

Tail Factor = 1.212 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 7.114
Found RT = 7.173

Tail Factor = 1.024 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.2122241	2.000	PASS
Benzidine	1.0242165	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1038588			N/A
4,4-DDE	14738	1.4	20.0	PASS
4,4-DDD	33747	3.1	20.0	PASS
4,4-DDD + DDE	48485	4.5	20.0	PASS

Tuning Sample, nt14.i/20210430.b/NT1421043001.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.53 (1.49)
69	Mass 69 relative abundance	35.45
70	Less than 2.00% of mass 69	0.00 (0.00)
197	Less than 2.00% of mass 198	0.39
199	5.00 - 9.00% of mass 198	6.79
365	1.00 - 100.00% of mass 198	3.67
441	Less than 150.00% of mass 443	11.21 (73.74)
442	Less than 200.00% of mass 198	76.36
443	15.00 - 24.00% of mass 442	15.20 (19.91)

Data File: NT1421043001.D
Spectrum: Avg. Scans 288-290 (4.63), Background Scan 284
Location of Maximum: 198.00
Number of points: 195

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	2307	117.00	64224	186.00	79176	257.00	2873
38.00	1830	118.00	4688	187.00	23080	258.00	19488
39.00	13134	122.00	4775	188.00	1825	259.00	2625
40.00	233	123.00	7561	189.00	5004	265.00	7710
47.00	375	124.00	3436	191.00	1578	273.00	10495
50.00	46288	125.00	3193	192.00	6850	274.00	27888
51.00	173248	127.00	273024	193.00	7431	275.00	158080
52.00	9018	128.00	20160	196.00	16480	276.00	21120
56.00	5264	129.00	104904	197.00	2428	277.00	13058
57.00	12144	130.00	9057	198.00	618880	278.00	1985
61.00	1175	134.00	2970	199.00	42008	283.00	679
62.00	2696	135.00	8307	200.00	2535	285.00	2051
63.00	7970	136.00	2593	201.00	2065	293.00	2424
65.00	4088	137.00	4775	203.00	3878	296.00	47472
68.00	3274	140.00	673	204.00	20656	297.00	6386
69.00	219392	141.00	13472	205.00	37136	303.00	4653
73.00	771	142.00	4294	206.00	149440	314.00	1930
74.00	20872	143.00	2219	207.00	19336	315.00	5268
75.00	34640	146.00	2025	208.00	4570	316.00	2553
76.00	11486	147.00	6393	209.00	683	321.00	692
77.00	245888	148.00	15704	210.00	1839	323.00	15144
78.00	17552	149.00	3399	211.00	5848	324.00	2307
79.00	14928	151.00	851	216.00	2548	327.00	2437
80.00	12053	153.00	4256	217.00	40440	328.00	823
81.00	17736	154.00	3418	218.00	5055	333.00	1386
82.00	4592	155.00	8190	221.00	31424	334.00	10030
83.00	4982	156.00	11993	222.00	3423	335.00	2126
85.00	3705	157.00	1035	223.00	8830	341.00	1445
86.00	3968	158.00	1779	224.00	82552	346.00	3529
87.00	1821	159.00	1518	225.00	20728	352.00	3927
88.00	1052	160.00	4437	226.00	1789	353.00	2529
91.00	3845	161.00	6138	227.00	32848	354.00	3631
92.00	4275	165.00	4964	228.00	4338	365.00	22720
93.00	27984	166.00	4331	229.00	7036	366.00	2657
94.00	830	167.00	27584	231.00	2550	372.00	7576
98.00	20864	168.00	15655	234.00	1752	373.00	1628
99.00	17616	169.00	2066	235.00	1972	383.00	1853
101.00	10467	172.00	2038	237.00	2335	402.00	2788
103.00	2694	173.00	3160	241.00	1773	403.00	3626
104.00	5772	174.00	6117	242.00	4477	404.00	1482
105.00	5608	175.00	11419	243.00	4863	421.00	3059
106.00	882	176.00	2467	244.00	67984	422.00	2988
107.00	76520	177.00	4558	245.00	9224	423.00	24400
108.00	11732	178.00	721	246.00	12110	424.00	4104
109.00	835	179.00	21768	247.00	2181	441.00	69376
110.00	130600	180.00	14376	249.00	1945	442.00	472576
111.00	20592	181.00	7245	254.00	1631	443.00	94080
112.00	1824	184.00	832	255.00	328512	444.00	8551
116.00	3803	185.00	9659	256.00	49696		

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Data File: \\target\share\chem3\nt14,1\20210430,6\NT1421043002.D

Date: 30-APR-2021 07:56

Client ID:

Sample Info: SJD0305-CALS

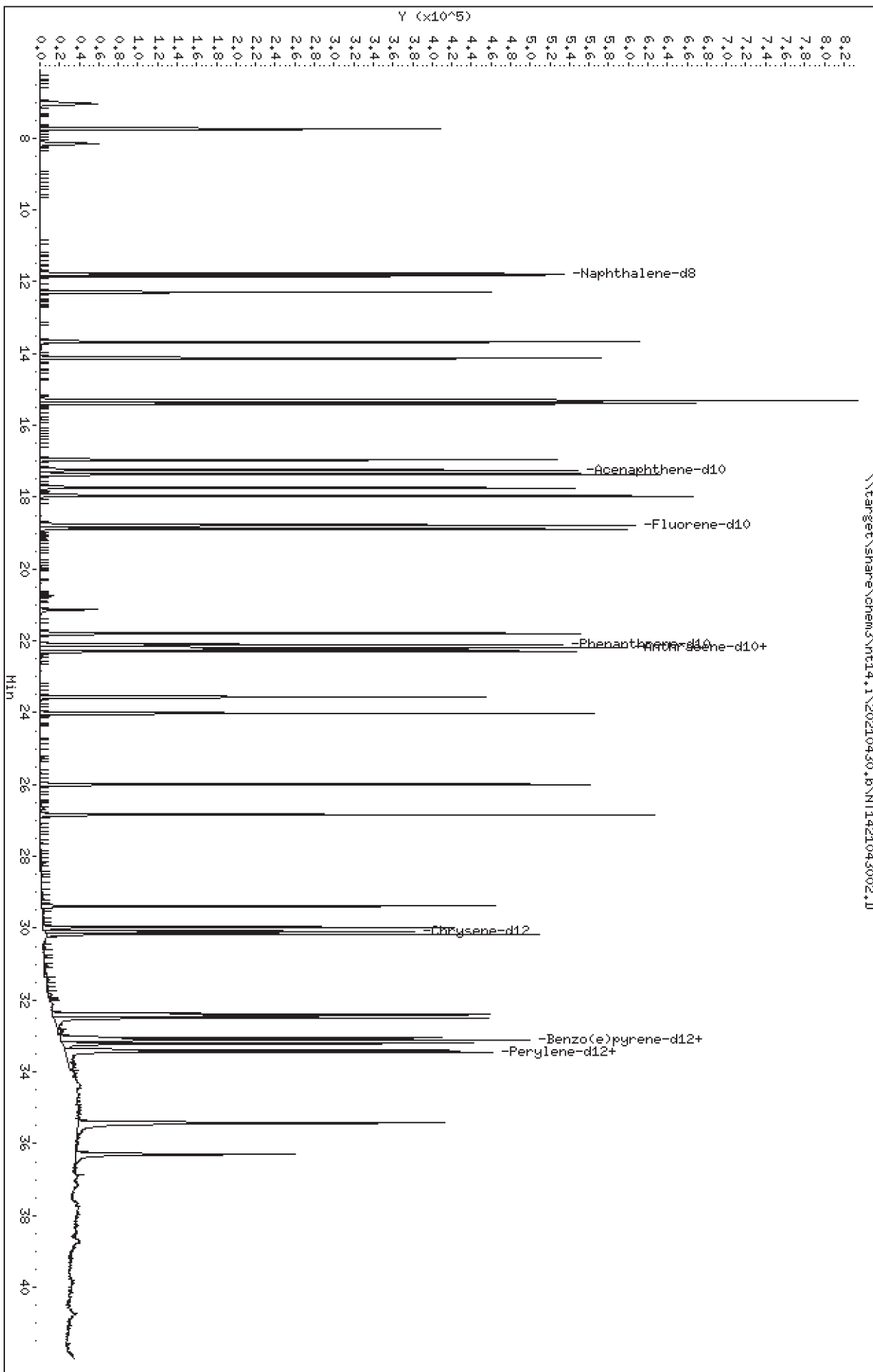
Column Phase: Rxi-17S11 MS

Instrument: nt14,1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14,1\20210430,6\NT1421043002.D



ARI Labs, Inc.

Semivolatle Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043002.D
 Lab Smp Id: SJD0305-CAL5
 Inj Date : 30-APR-2021 07:56
 Operator : VTS
 Smp Info : SJD0305-CAL5
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Meth Date : 01-May-2021 07:40 van
 Cal Date : 30-APR-2021 13:32
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-202011

Inst ID: nt14.i
 Quant Type: ISTD
 Cal File: NT1421043009.D
 Calibration Sample, Level: 5
 Compound Sublist: TARGETS.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 trans-Decalin	138		7.045	7.035	(0.375)	85367	2.50000	2.726
2 cis-Decalin	138		8.144	8.165	(0.434)	60830	2.50000	2.813
\$ 6 Naphthalene-d8	136		11.776	11.776	(0.627)	686375	2.50000	2.829
7 Naphthalene	128		11.836	11.846	(0.630)	689586	2.50000	2.794
12 Benzo(b)thiophene	134		12.295	12.295	(0.655)	556615	2.50000	2.835
16 2-Methylnaphthalene	141		13.680	13.680	(0.728)	379920	2.50000	2.885
17 1-methylnaphthalene	141		14.131	14.131	(0.752)	356885	2.50000	2.860
18 Biphenyl	154		15.317	15.317	(0.816)	534679	2.50000	2.837
19 2,6-Dimethylnaphthalene	156		15.394	15.394	(0.820)	381425	2.50000	2.941
20 Acenaphthylene	152		16.955	16.955	(0.903)	628483	2.50000	3.079
\$ 21 Acenaphthene-d10	164		17.241	17.241	(0.918)	350378	2.50000	2.957
22 Acenaphthene	153		17.361	17.361	(0.924)	391033	2.50000	2.981
23 Dibenzofuran	168		17.735	17.735	(0.944)	585505	2.50000	2.945
24 1,6,7-Trimethylnaphthalene	170		17.966	17.966	(0.957)	352518	2.50000	3.097
* 25 Fluorene-d10	176		18.781	18.781	(1.000)	420456	2.00000	
26 Fluorene	166		18.883	18.883	(1.005)	425653	2.50000	2.946
30 Dibenzothiophene	184		21.794	21.794	(1.160)	549778	2.50000	3.015
\$ 35 Phenanthrene-d10	188		22.102	22.102	(0.995)	522491	2.50000	2.538
36 Phenanthrene	178		22.190	22.190	(0.999)	585408	2.50000	2.547
* 250 Anthracene-d10	188		22.223	22.223	(1.000)	381033	2.00000	
37 Anthracene	178		22.289	22.289	(1.003)	551096	2.50000	2.601
42 Carbazole	167		23.564	23.565	(1.060)	456095	2.50000	2.555
43 1-Methylphenanthrene	192		24.015	24.015	(1.081)	379265	2.50000	2.717
44 Fluoranthene	202		25.994	25.994	(1.170)	547764	2.50000	2.683
46 Pyrene	202		26.841	26.841	(1.208)	563045	2.50000	2.661
51 Naphthobenzothiophene	234		29.384	29.384	(1.322)	527046	2.50000	2.556
55 Benzo(a)anthracene	228		29.964	29.964	(0.907)	446476	2.50000	2.618
\$ 56 Chrysene-d12	240		30.087	30.087	(0.910)	367860	2.50000	2.729
57 Chrysene	228		30.166	30.166	(0.913)	457148	2.50000	2.638
62 Benzo(b)fluoranthene	252		32.385	32.386	(0.980)	420145	2.50000	2.653 (M)
63 Benzo(k)fluoranthene	252		32.430	32.430	(0.981)	487427	2.50000	2.531 (M)
293 Benzo(j)fluoranthene	252		32.498	32.498	(0.983)	477634	2.50000	2.706
246 Total Benzofluoranthenes	252		32.385	32.497	(0.980)	1316043	7.50000	7.589 (M)

Compounds	QUANT SIG						AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	
* 251 Benzo(e)pyrene-d12	264	33.050	33.050	(1.000)	370998	2.00000		
64 Benzo(e)pyrene	252	33.106	33.106	(1.002)	417237	2.50000	2.640	
66 Benzo(a)pyrene	252	33.207	33.208	(1.005)	408730	2.50000	2.513	
\$ 67 Perylene-d12	264	33.388	33.388	(1.010)	360463	2.50000	2.499	
68 Perylene	252	33.444	33.433	(1.012)	417121	2.50000	2.764 (M)	
69 Indeno(1,2,3-cd)pyrene	276	35.426	35.415	(1.072)	429930	2.50000	2.551 (M)	
70 Dibenzo(a,h)anthracene	278	35.415	35.404	(1.072)	387021	2.50000	2.651	
74 Benzo(g,h,i)perylene	276	36.293	36.293	(1.098)	383498	2.50000	2.698	

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 30-APR-2021
 Lab File ID: NT1421043002.D Calibration Time: 07:56
 Lab Smp Id: SJD0305-CAL5
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	420456	210228	840912	420456	0.00
250 Anthracene-d10	381033	190517	762066	381033	0.00
251 Benzo(e)pyrene-d1	370998	185499	741996	370998	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.78	18.28	19.28	18.78	0.00
250 Anthracene-d10	22.22	21.72	22.72	22.22	0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	0.00

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.

REVIEW SUMMARY FOR FILE - NT1421043002.D

Lab ID: SJD0305-CAL5

nt14.i, 20210430.b\ALKYLPNA.m, 30-APR-2021 07:56

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1421043009.D

On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

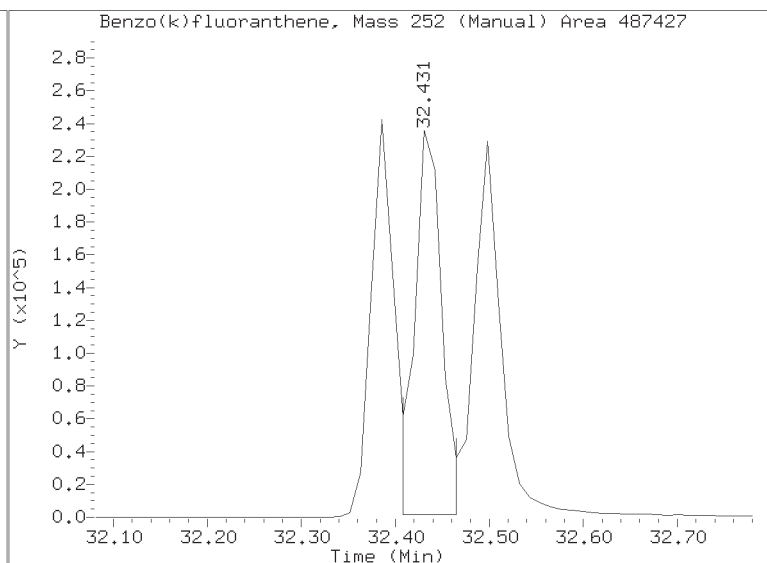
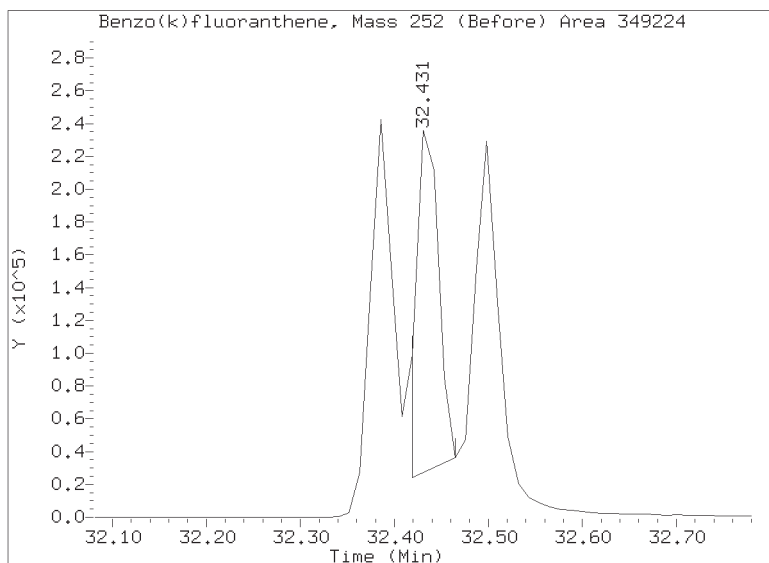
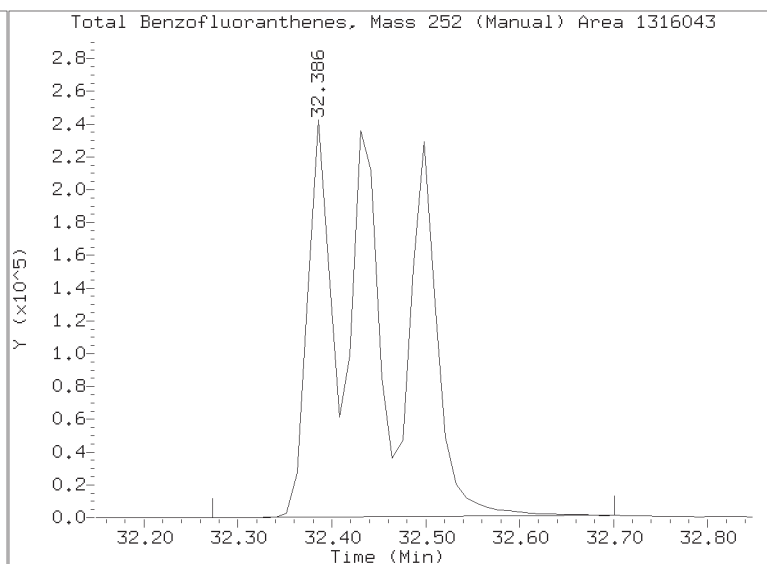
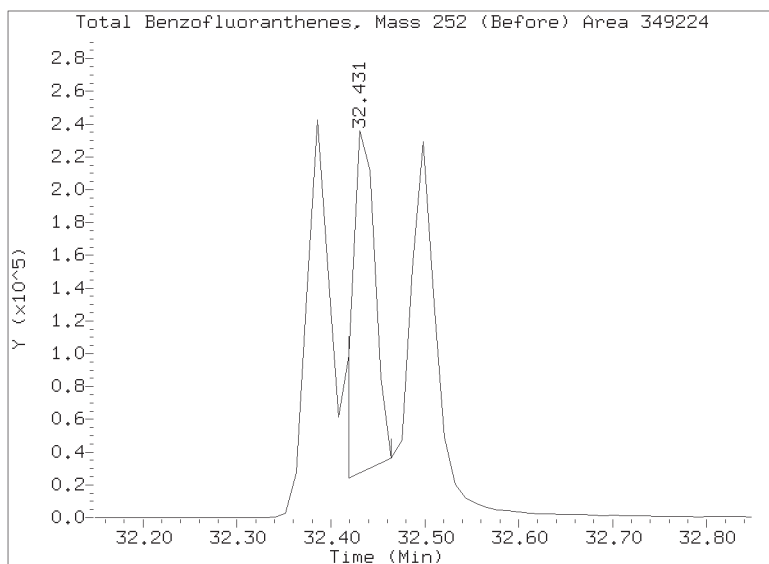
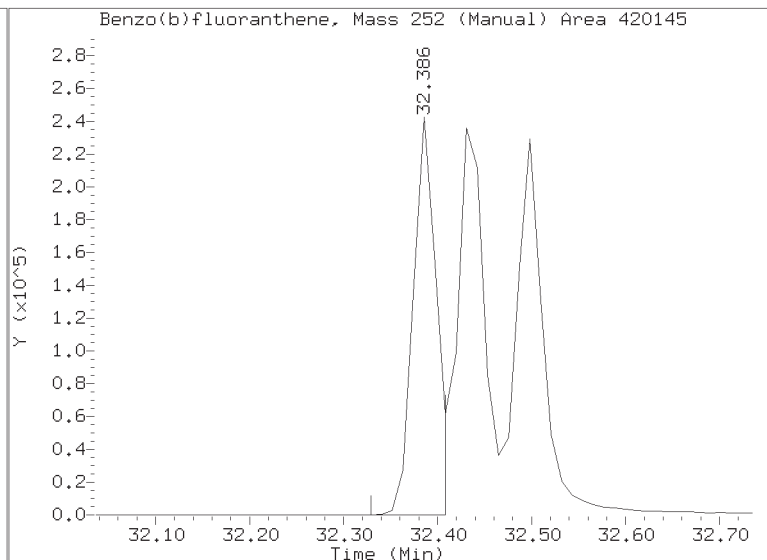
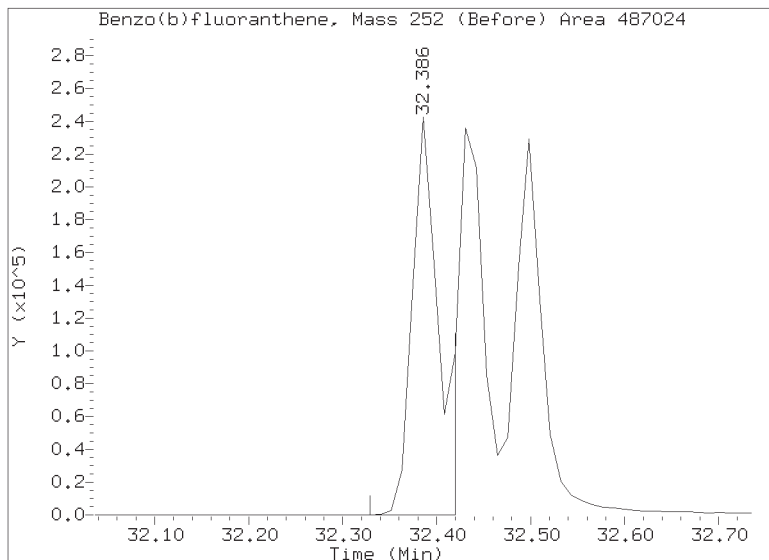
Quant Ion Manual Peak Adjustment Report

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Injection Date: 30-APR-2021 07:56

Lab ID: SJD0305-CAL5 Client ID:

Report Date: 05/01/2021 09:18



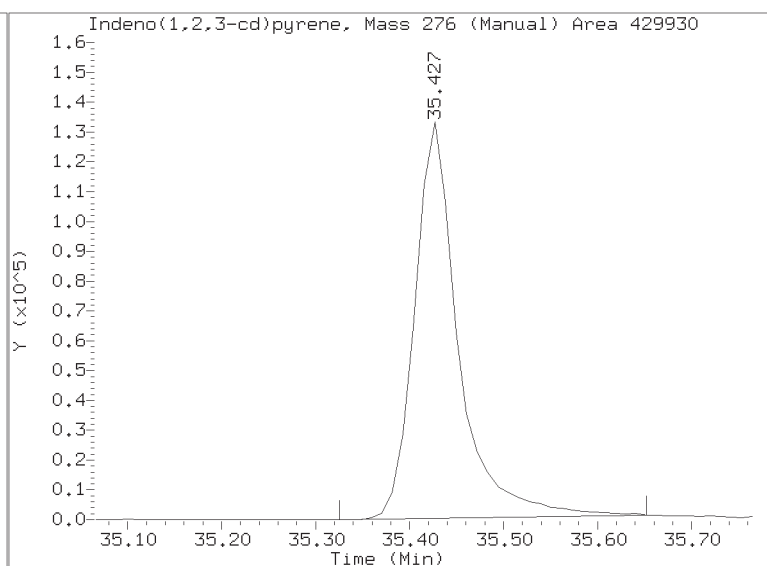
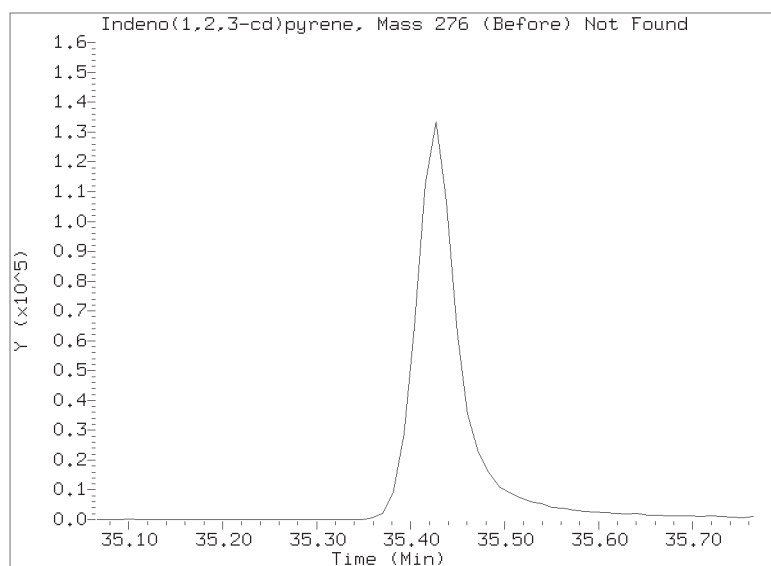
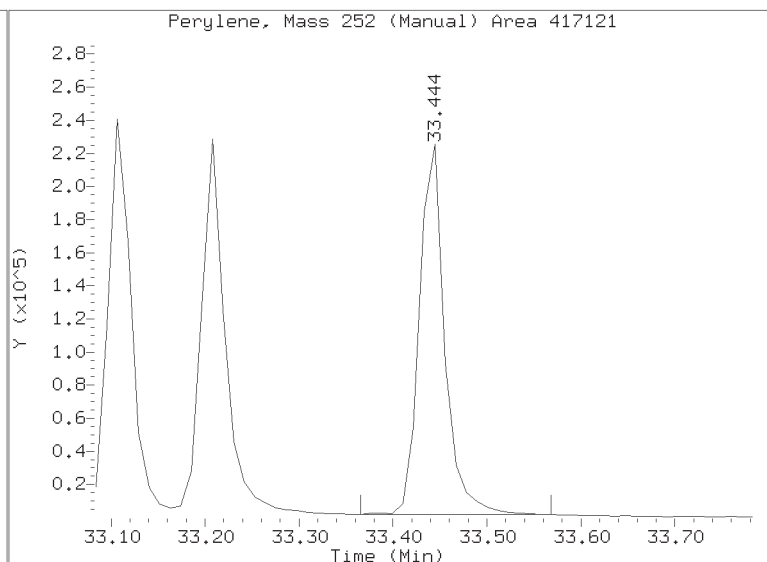
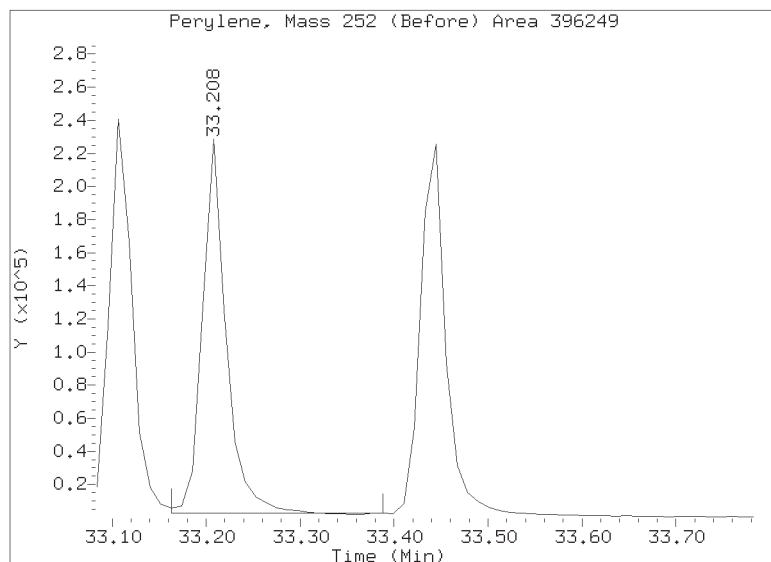
Quant Ion Manual Peak Adjustment Report

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Injection Date: 30-APR-2021 07:56

Lab ID: SJD0305-CAL5 Client ID:

Report Date: 05/01/2021 09:18



Data File: \\target\share\chem3\nt14,1\20210430,1\NT1421043003.D

Date: 30-APR-2021 08:43

Client ID:

Sample Info: SJD0305-0AL7

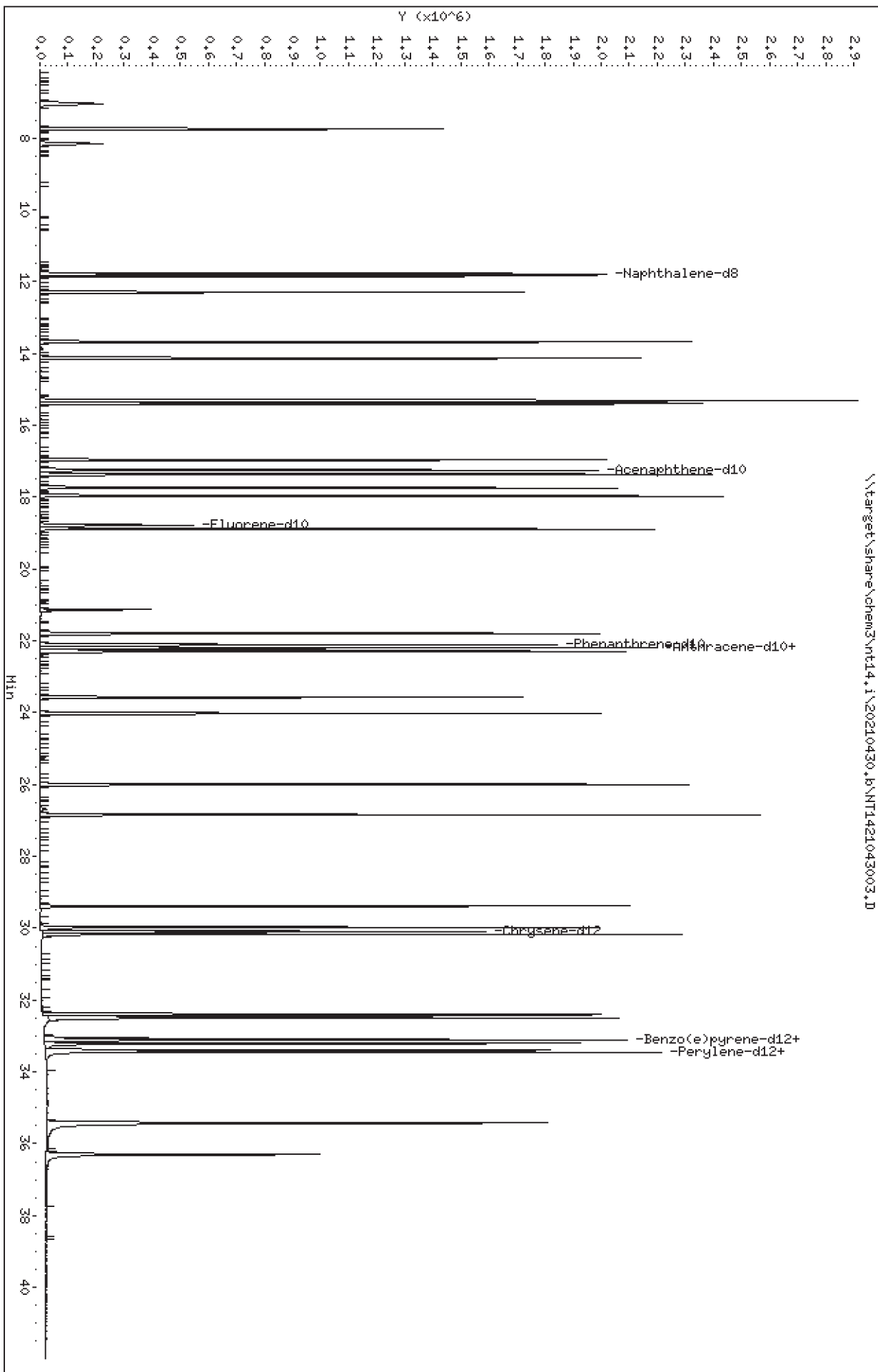
Column Phase: Rxi-17S11 MS

Instrument: nt14,1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14,1\20210430,1\NT1421043003.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043003.D
 Lab Smp Id: SJD0305-CAL7
 Inj Date : 30-APR-2021 08:43
 Operator : VTS
 Smp Info : SJD0305-CAL7
 Misc Info :
 Comment : lul Injection
 Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Meth Date : 01-May-2021 07:40 van
 Cal Date : 30-APR-2021 13:32
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-202011

Inst ID: nt14.i
 Quant Type: ISTD
 Cal File: NT1421043009.D
 Calibration Sample, Level: 7
 Compound Sublist: TARGETS.sub

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 trans-Decalin	138	7.045	7.035	(0.375)	319837	10.0000	9.260
2 cis-Decalin	138	8.155	8.165	(0.434)	219615	10.0000	9.210
\$ 6 Naphthalene-d8	136	11.776	11.776	(0.627)	2579043	10.0000	9.638
7 Naphthalene	128	11.846	11.846	(0.631)	2586130	10.0000	9.501
12 Benzo(b)thiophene	134	12.295	12.295	(0.655)	2069306	10.0000	9.556
16 2-Methylnaphthalene	141	13.680	13.680	(0.728)	1374576	10.0000	9.464
17 1-methylnaphthalene	141	14.131	14.131	(0.752)	1289212	10.0000	9.368
18 Biphenyl	154	15.318	15.317	(0.816)	1933813	10.0000	9.303
19 2,6-Dimethylnaphthalene	156	15.394	15.394	(0.820)	1368411	10.0000	9.567
20 Acenaphthylene	152	16.966	16.955	(0.903)	2414895	10.0000	10.73
\$ 21 Acenaphthene-d10	164	17.252	17.241	(0.919)	1272997	10.0000	9.743
22 Acenaphthene	153	17.362	17.361	(0.924)	1442706	10.0000	9.972
23 Dibenzofuran	168	17.735	17.735	(0.944)	2137300	10.0000	9.750
24 1,6,7-Trimethylnaphthalene	170	17.966	17.966	(0.957)	1294969	10.0000	10.32
* 25 Fluorene-d10	176	18.781	18.781	(1.000)	463680	2.00000	
26 Fluorene	166	18.883	18.883	(1.005)	1585198	10.0000	9.950
30 Dibenzothiophene	184	21.795	21.794	(1.160)	2029041	10.0000	10.09
\$ 35 Phenanthrene-d10	188	22.102	22.102	(0.995)	1932325	10.0000	9.978
36 Phenanthrene	178	22.190	22.190	(0.999)	2139356	10.0000	9.895
* 250 Anthracene-d10	188	22.223	22.223	(1.000)	358366	2.00000	
37 Anthracene	178	22.289	22.289	(1.003)	2105646	10.0000	10.57
42 Carbazole	167	23.565	23.565	(1.060)	1826349	10.0000	9.996
43 1-Methylphenanthrene	192	24.026	24.015	(1.081)	1457708	10.0000	11.10
44 Fluoranthene	202	25.994	25.994	(1.170)	2236441	10.0000	11.65
46 Pyrene	202	26.841	26.841	(1.208)	2340861	10.0000	11.76
51 Naphthobenzothiophene	234	29.384	29.384	(1.322)	2214593	10.0000	11.42
55 Benzo(a)anthracene	228	29.975	29.964	(0.907)	1937453	10.0000	10.00
\$ 56 Chrysene-d12	240	30.099	30.087	(0.911)	1494636	10.0000	11.32
57 Chrysene	228	30.166	30.166	(0.913)	1883357	10.0000	11.10
62 Benzo(b)fluoranthene	252	32.385	32.386	(0.980)	1819751	10.0000	10.00 (M)
63 Benzo(k)fluoranthene	252	32.442	32.430	(0.982)	2177474	10.0000	9.993 (M)
293 Benzo(j)fluoranthene	252	32.498	32.498	(0.983)	1749475	10.0000	10.12 (M)
246 Total Benzofluoranthenes	252	32.385	32.497	(0.980)	5667360	30.0000	29.98 (M)

Compounds	QUANT SIG						AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	
* 251 Benzo(e)pyrene-d12	264	33.050	33.050	(1.000)	363264	2.00000		
64 Benzo(e)pyrene	252	33.106	33.106	(1.002)	1818308	10.0000	11.75	
66 Benzo(a)pyrene	252	33.208	33.208	(1.005)	1671590	10.0000	9.986	
\$ 67 Perylene-d12	264	33.388	33.388	(1.010)	1547561	10.0000	9.989	
68 Perylene	252	33.444	33.433	(1.012)	1773530	10.0000	12.00 (M)	
69 Indeno(1,2,3-cd)pyrene	276	35.426	35.415	(1.072)	1909904	10.0000	9.993 (M)	
70 Dibenzo(a,h)anthracene	278	35.415	35.404	(1.072)	1698276	10.0000	9.999 (M)	
74 Benzo(g,h,i)perylene	276	36.305	36.293	(1.098)	1575755	10.0000	11.32 (M)	

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 30-APR-2021
 Lab File ID: NT1421043003.D Calibration Time: 07:56
 Lab Smp Id: SJD0305-CAL7
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	420456	210228	840912	463680	10.28
250 Anthracene-d10	381033	190517	762066	358366	-5.95
251 Benzo(e)pyrene-d1	370998	185499	741996	363264	-2.08

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.78	18.28	19.28	18.78	0.00
250 Anthracene-d10	22.22	21.72	22.72	22.22	0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	0.00

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.

REVIEW SUMMARY FOR FILE - NT1421043003.D

Lab ID: SJD0305-CAL7

nt14.i, 20210430.b\ALKYLPNA.m, 30-APR-2021 08:43

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1421043009.D

On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

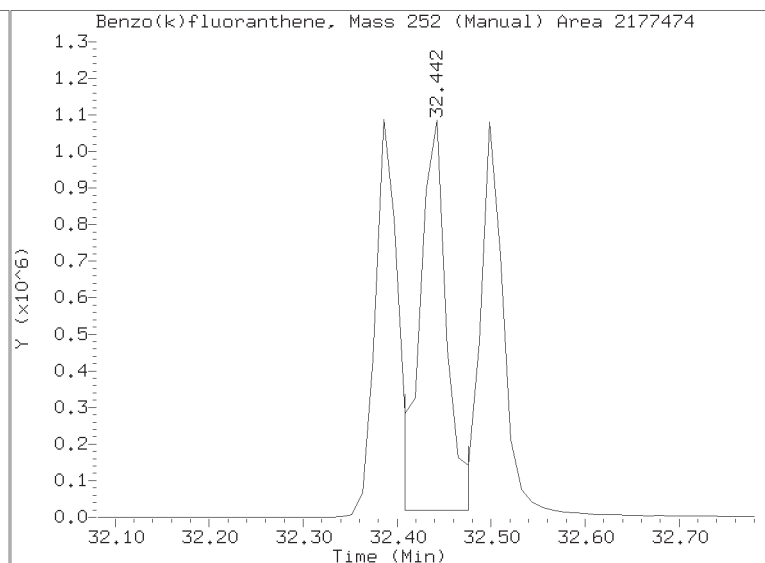
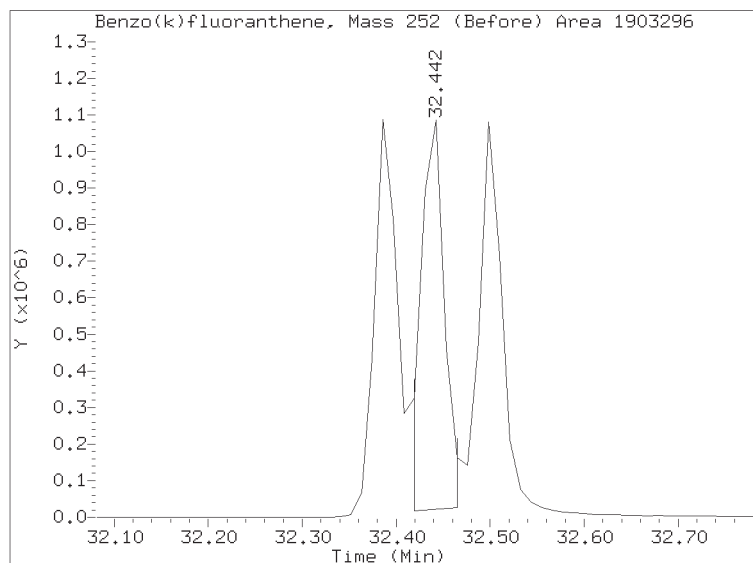
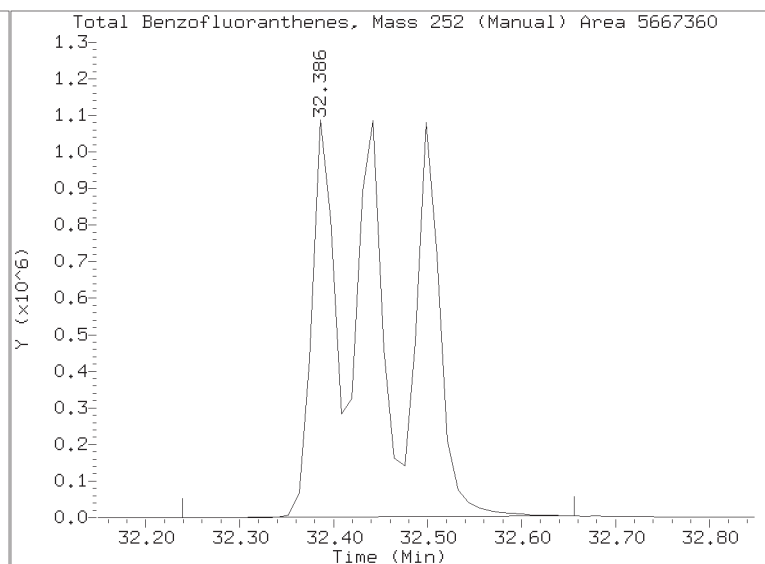
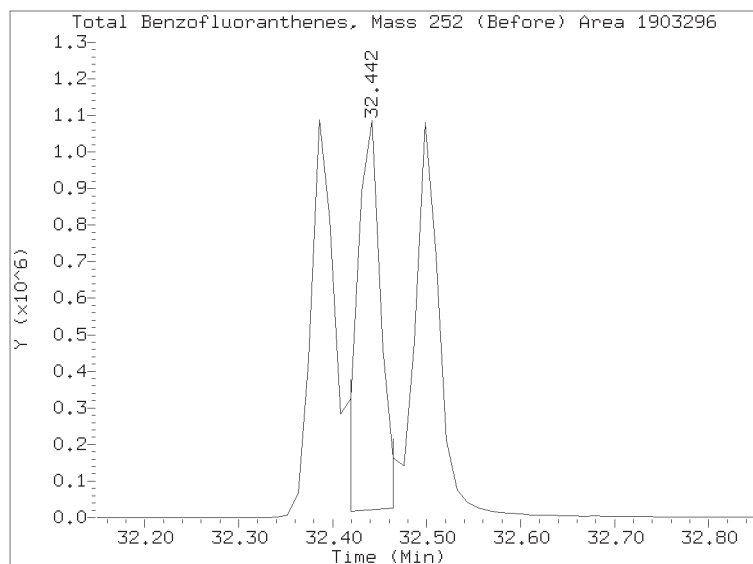
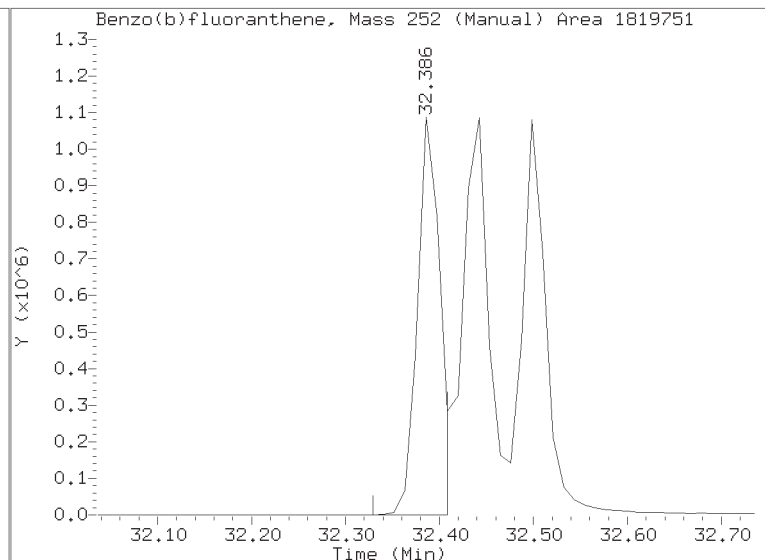
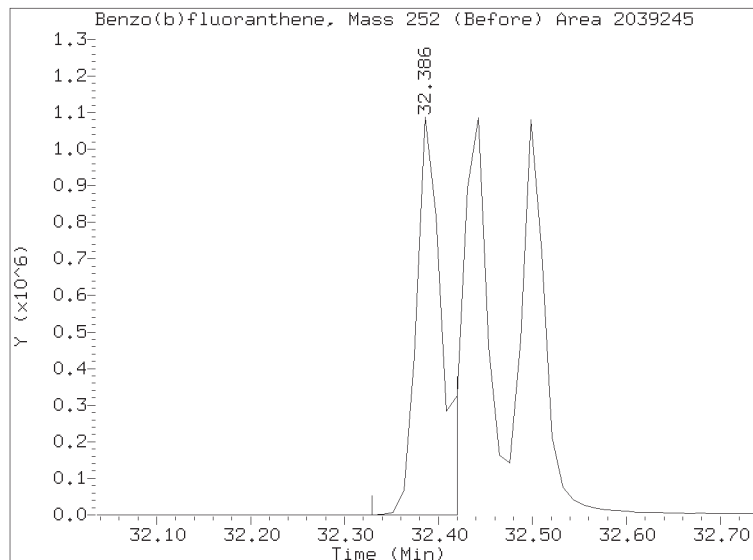
Quant Ion Manual Peak Adjustment Report

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Injection Date: 30-APR-2021 08:43

Lab ID: SJD0305-CAL7 Client ID:

Report Date: 05/01/2021 09:18



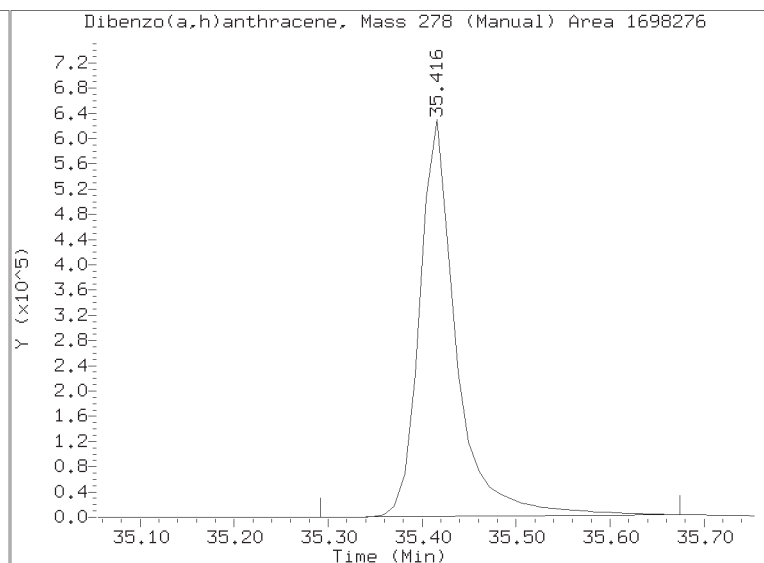
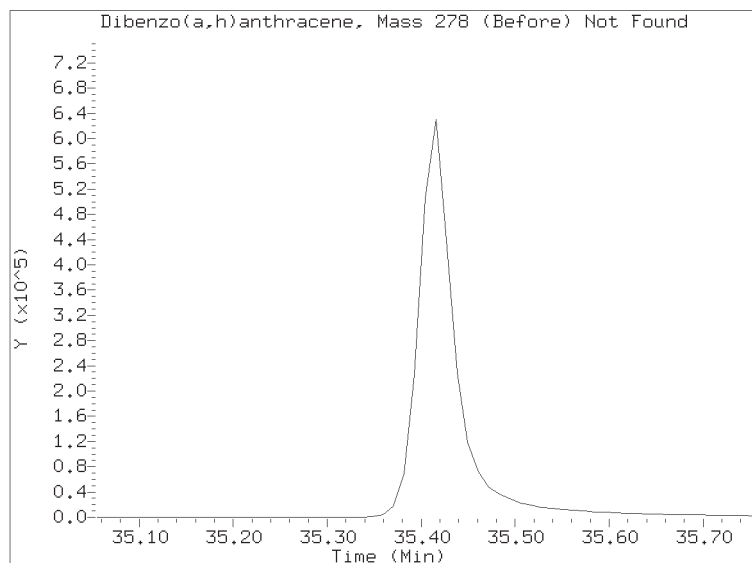
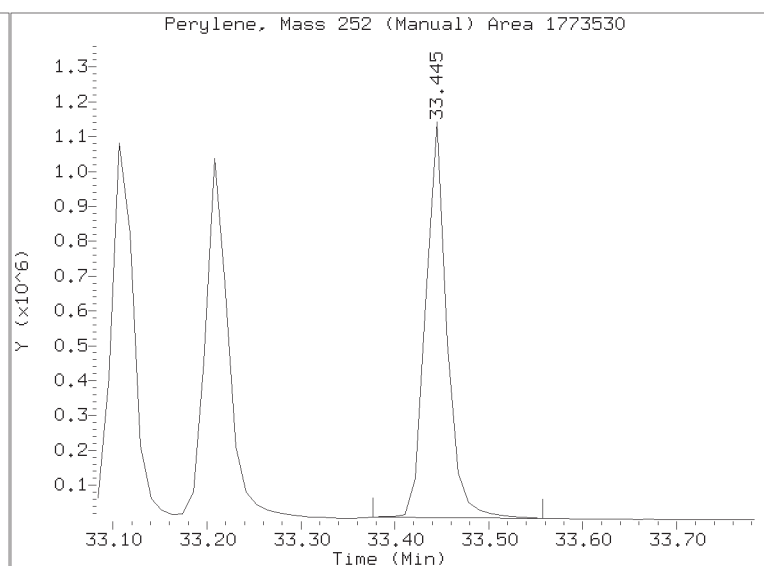
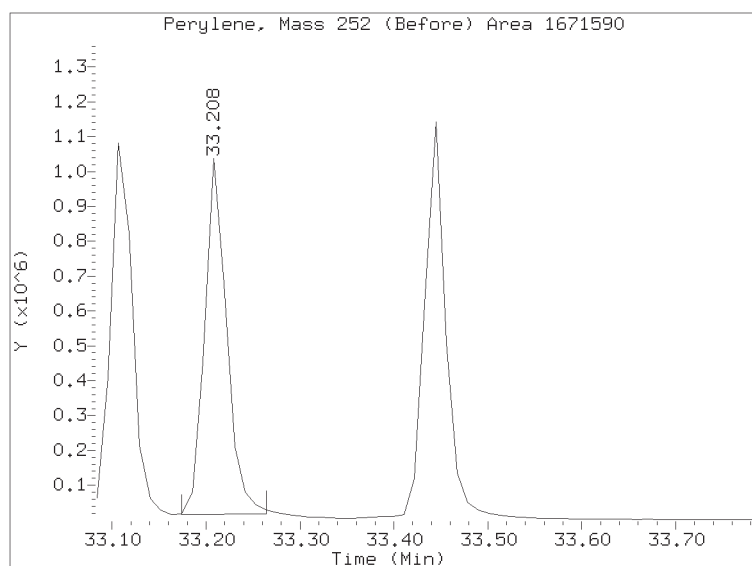
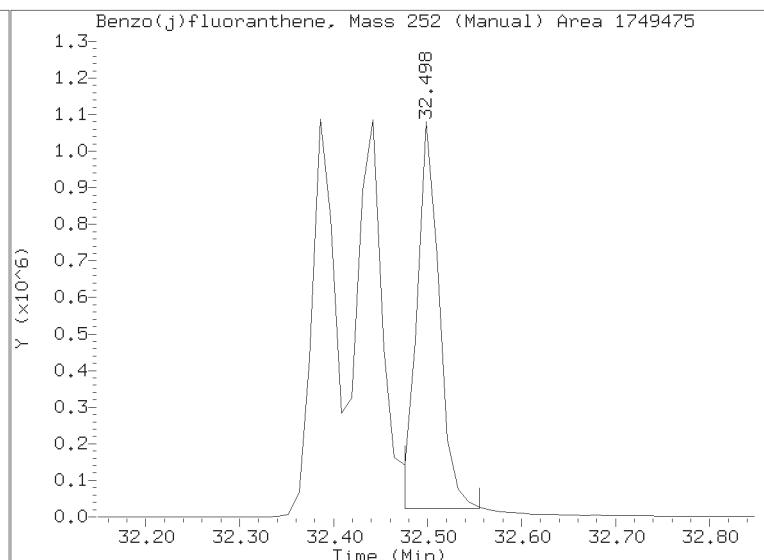
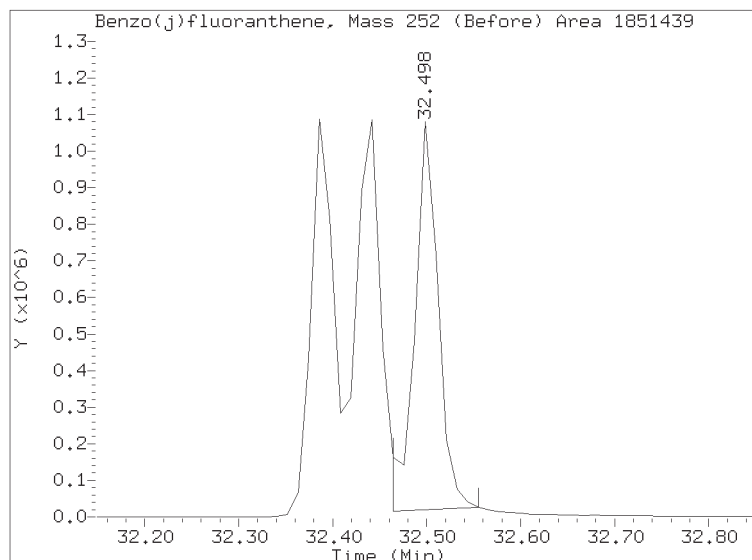
Quant Ion Manual Peak Adjustment Report

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Injection Date: 30-APR-2021 08:43

Lab ID: SJD0305-CAL7 Client ID:

Report Date: 05/01/2021 09:18



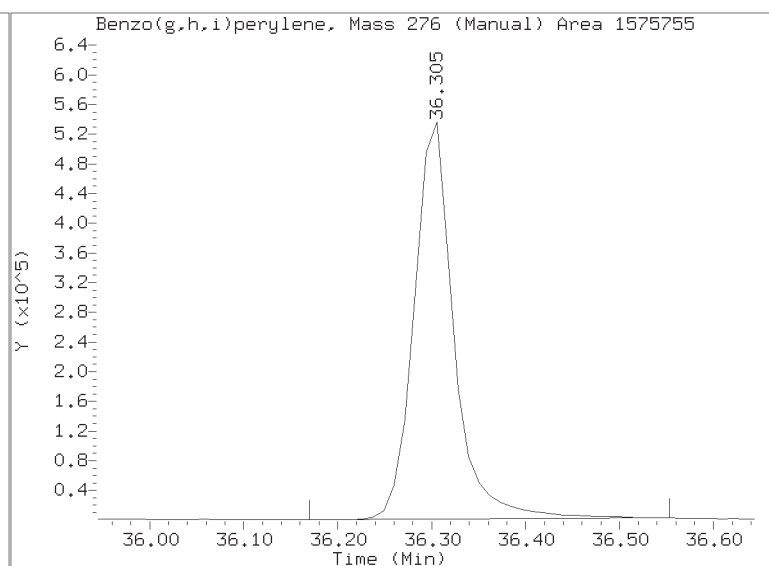
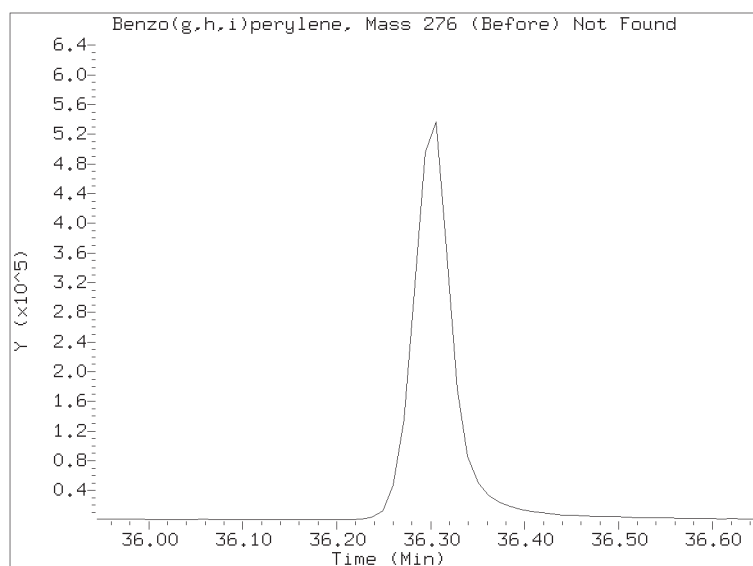
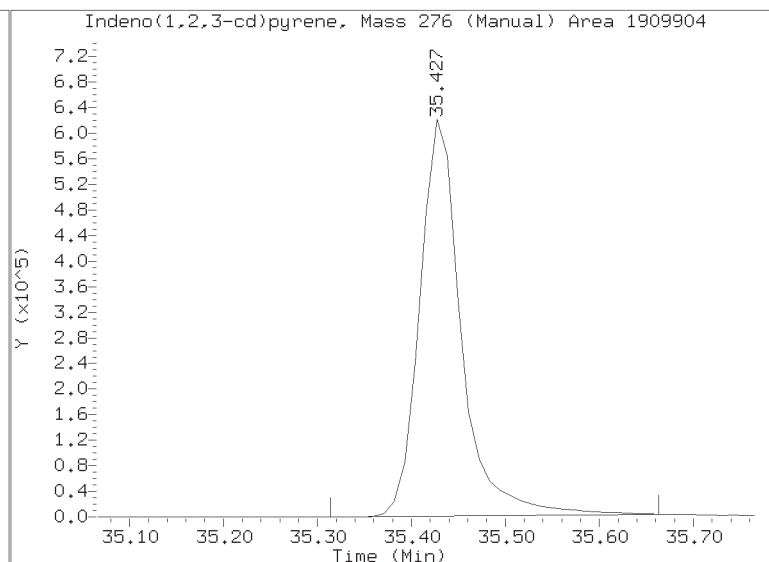
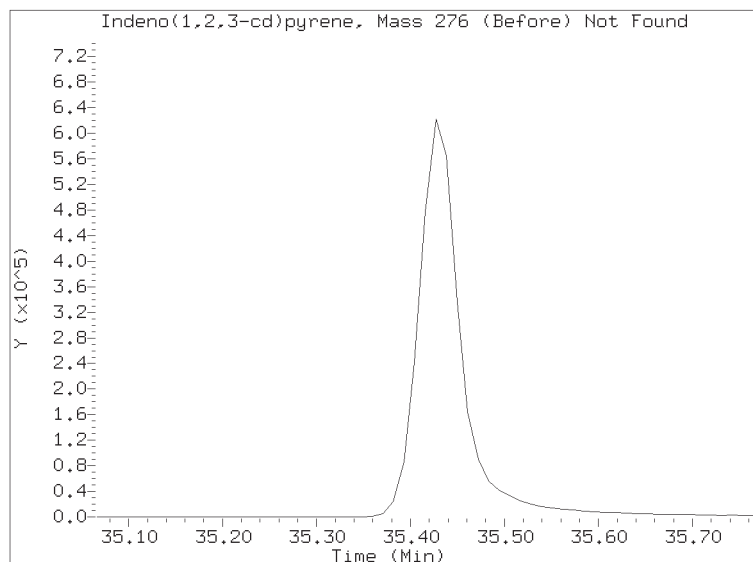
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043003.D

Injection Date: 30-APR-2021 08:43

Lab ID: SJD0305-CAL7 Client ID:

Report Date: 05/01/2021 09:18



Data File: \\target\share\chem3\nt14.1\20210430.6\NT1421043005.D

Date : 30-APR-2021 10:19

Client ID:

Sample Info: SJD0305-CAL6

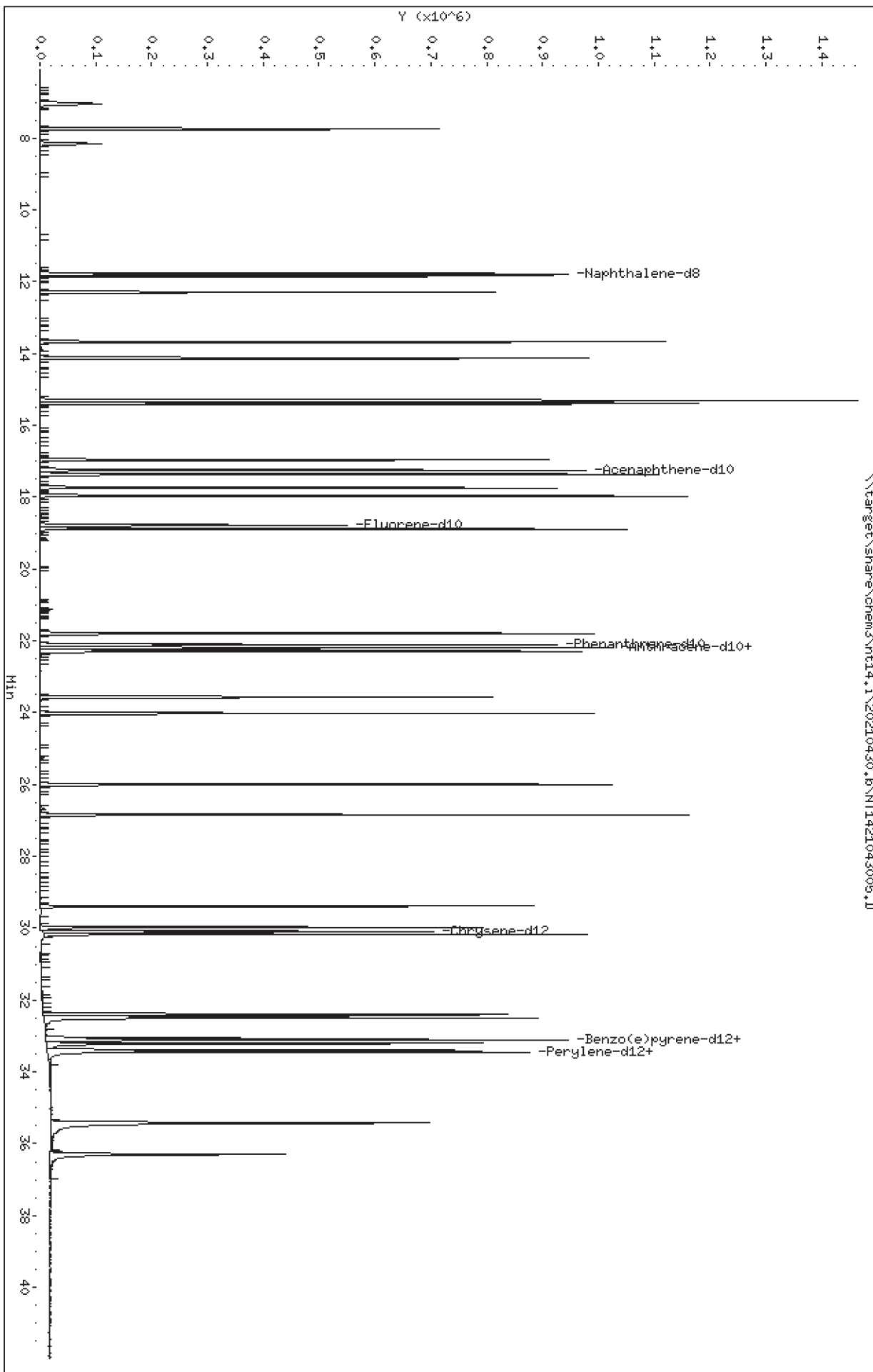
Column Phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14.1\20210430.6\NT1421043005.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043005.D
 Lab Smp Id: SJD0305-CAL6
 Inj Date : 30-APR-2021 10:19
 Operator : VTS
 Smp Info : SJD0305-CAL6
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Meth Date : 01-May-2021 07:40 van
 Cal Date : 30-APR-2021 13:32
 Als bottle: 5
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-202011

Inst ID: nt14.i
 Quant Type: ISTD
 Cal File: NT1421043009.D
 Calibration Sample, Level: 6
 Compound Sublist: TARGETS.sub

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 trans-Decalin	138	7.045	7.035	(0.375)	156947	5.00000	4.588
2 cis-Decalin	138	8.155	8.165	(0.434)	107281	5.00000	4.543
\$ 6 Naphthalene-d8	136	11.776	11.776	(0.627)	1216865	5.00000	4.592
7 Naphthalene	128	11.846	11.846	(0.631)	1241347	5.00000	4.605
12 Benzo(b)thiophene	134	12.295	12.295	(0.655)	993653	5.00000	4.633
16 2-Methylnaphthalene	141	13.680	13.680	(0.728)	662919	5.00000	4.608
17 1-methylnaphthalene	141	14.130	14.131	(0.752)	621380	5.00000	4.559
18 Biphenyl	154	15.317	15.317	(0.816)	935729	5.00000	4.545
19 2,6-Dimethylnaphthalene	156	15.394	15.394	(0.820)	659555	5.00000	4.656
20 Acenaphthylene	152	16.966	16.955	(0.903)	1126413	5.00000	5.053
\$ 21 Acenaphthene-d10	164	17.252	17.241	(0.919)	608691	5.00000	4.704
22 Acenaphthene	153	17.361	17.361	(0.924)	690546	5.00000	4.820
23 Dibenzofuran	168	17.735	17.735	(0.944)	1015505	5.00000	4.677
24 1,6,7-Trimethylnaphthalene	170	17.966	17.966	(0.957)	614956	5.00000	4.946
* 25 Fluorene-d10	176	18.781	18.781	(1.000)	459220	2.00000	
26 Fluorene	166	18.883	18.883	(1.005)	755619	5.00000	4.789
30 Dibenzothiophene	184	21.794	21.794	(1.160)	972518	5.00000	4.883
\$ 35 Phenanthrene-d10	188	22.102	22.102	(0.995)	926168	5.00000	5.022
36 Phenanthrene	178	22.190	22.190	(0.999)	1014539	5.00000	4.927
* 250 Anthracene-d10	188	22.223	22.223	(1.000)	341294	2.00000	
37 Anthracene	178	22.289	22.289	(1.003)	983064	5.00000	5.179
42 Carbazole	167	23.564	23.565	(1.060)	821511	5.00000	5.009
43 1-Methylphenanthrene	192	24.015	24.015	(1.081)	690120	5.00000	5.520
44 Fluoranthene	202	25.994	25.994	(1.170)	1001664	5.00000	5.478
46 Pyrene	202	26.841	26.841	(1.208)	1059094	5.00000	5.589
51 Naphthobenzothiophene	234	29.384	29.384	(1.322)	1002636	5.00000	5.430
55 Benzo(a)anthracene	228	29.975	29.964	(0.907)	827232	5.00000	4.960
\$ 56 Chrysene-d12	240	30.087	30.087	(0.910)	704947	5.00000	5.566
57 Chrysene	228	30.166	30.166	(0.913)	871804	5.00000	5.355
62 Benzo(b)fluoranthene	252	32.385	32.386	(0.980)	768268	5.00000	4.953 (M)
63 Benzo(k)fluoranthene	252	32.430	32.430	(0.981)	948756	5.00000	5.031 (M)
293 Benzo(j)fluoranthene	252	32.498	32.498	(0.983)	950172	5.00000	5.730
246 Total Benzofluoranthenes	252	32.498	32.497	(0.983)	2536622	15.0000	15.08 (M)

Compounds	QUANT SIG		AMOUNTS				CAL-AMT (ug/mL)	ON-COL (ug/mL)
	MASS	RT	EXP RT	REL RT	RESPONSE			
* 251 Benzo(e)pyrene-d12	264	33.050	33.050	(1.000)	348573	2.00000		
64 Benzo(e)pyrene	252	33.106	33.106	(1.002)	811609	5.00000	5.467	
66 Benzo(a)pyrene	252	33.207	33.208	(1.005)	786034	5.00000	5.061	
\$ 67 Perylene-d12	264	33.388	33.388	(1.010)	704502	5.00000	5.051 (M)	
68 Perylene	252	33.444	33.433	(1.012)	787198	5.00000	5.552 (M)	
69 Indeno(1,2,3-cd)pyrene	276	35.426	35.415	(1.072)	829636	5.00000	5.026 (M)	
70 Dibenzo(a,h)anthracene	278	35.415	35.404	(1.072)	712758	5.00000	4.970 (M)	
74 Benzo(g,h,i)perylene	276	36.293	36.293	(1.098)	723412	5.00000	5.416 (M)	

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 30-APR-2021
 Lab File ID: NT1421043005.D Calibration Time: 07:56
 Lab Smp Id: SJD0305-CAL6
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	420456	210228	840912	459220	9.22
250 Anthracene-d10	381033	190517	762066	341294	-10.43
251 Benzo(e)pyrene-d1	370998	185499	741996	348573	-6.04

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.78	18.28	19.28	18.78	-0.00
250 Anthracene-d10	22.22	21.72	22.72	22.22	-0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	-0.00

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.

REVIEW SUMMARY FOR FILE - NT1421043005.D

Lab ID: SJD0305-CAL6

nt14.i, 20210430.b\ALKYLPNA.m, 30-APR-2021 10:19

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT CCV RRT DELTA COMPOUND

NONE

RRT check based on Ccal File: NT1421043009.D

On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

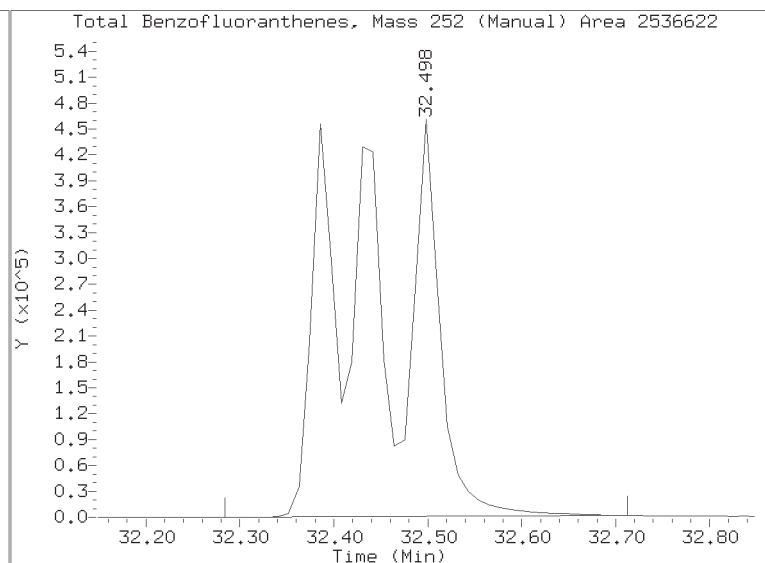
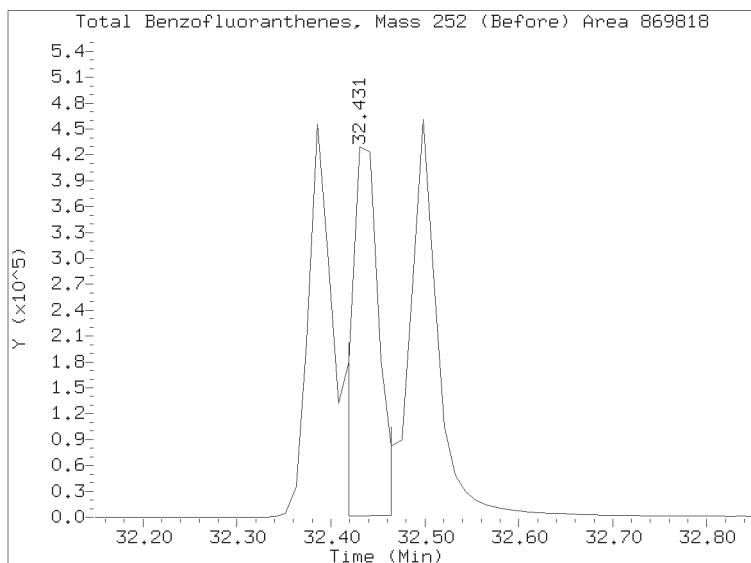
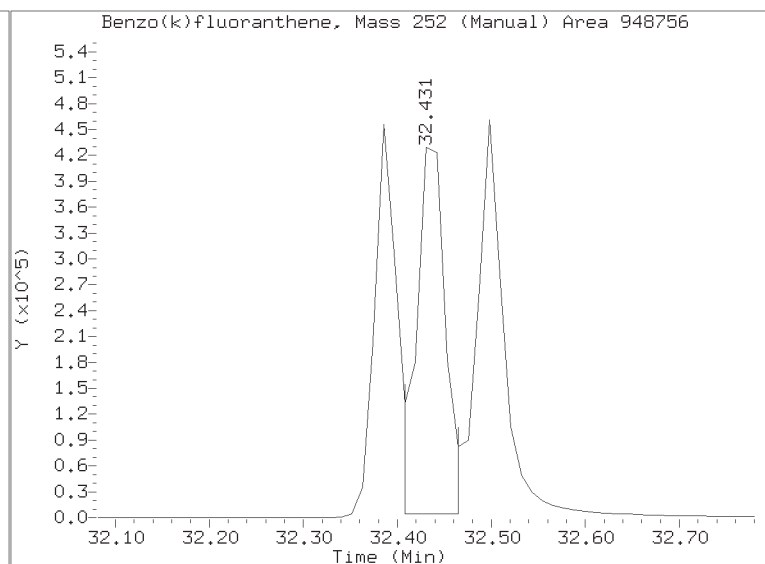
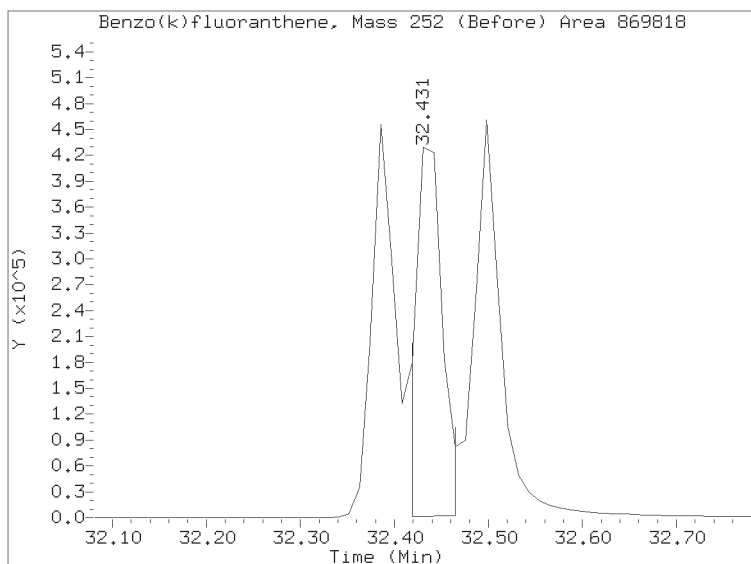
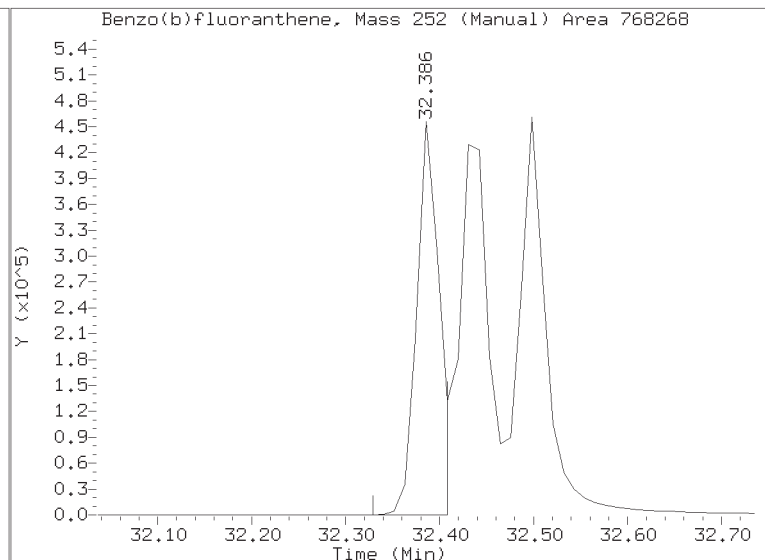
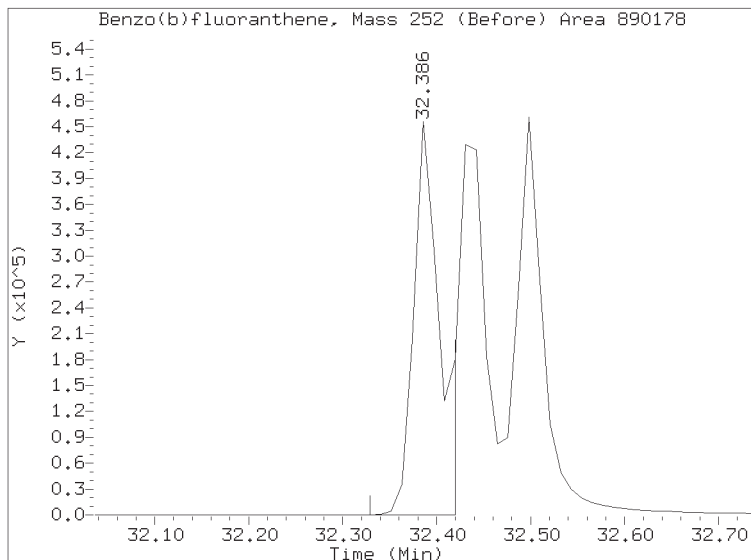
Quant Ion Manual Peak Adjustment Report

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Injection Date: 30-APR-2021 10:19

Lab ID: SJD0305-CAL6 Client ID:

Report Date: 05/01/2021 09:18



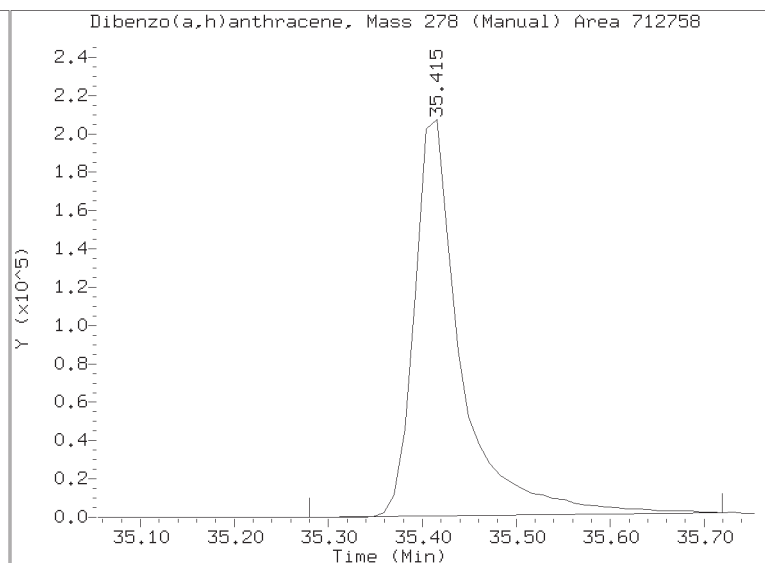
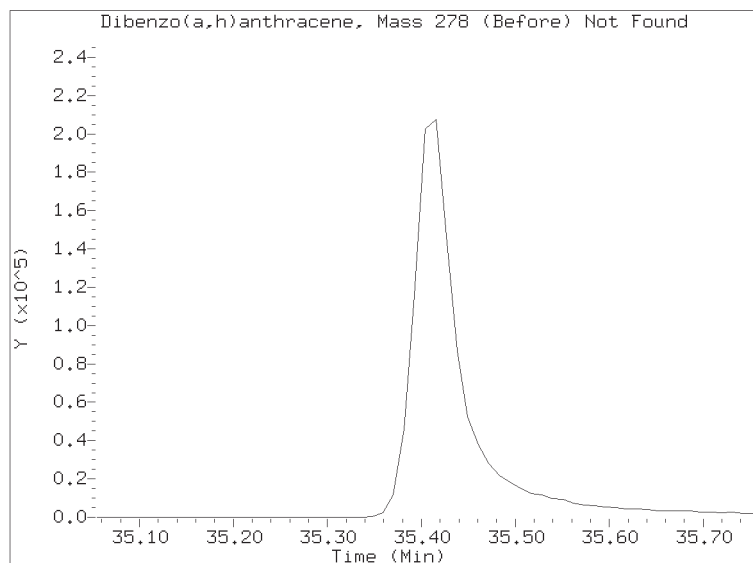
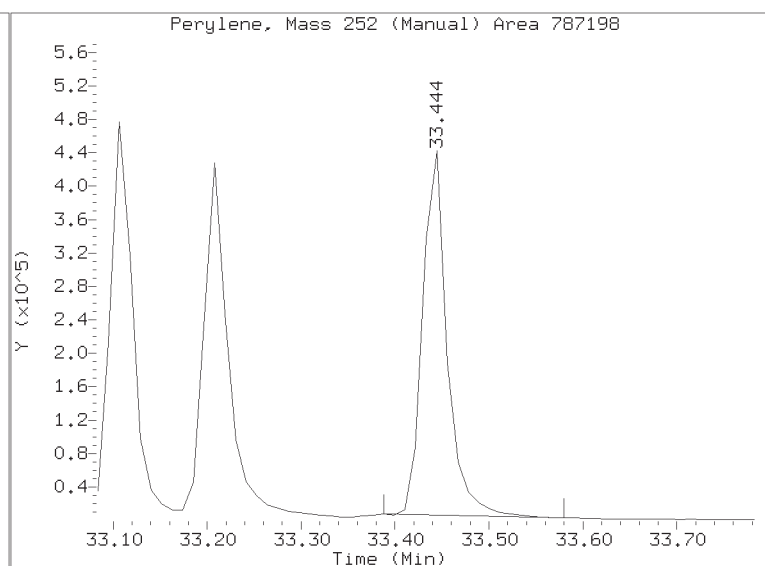
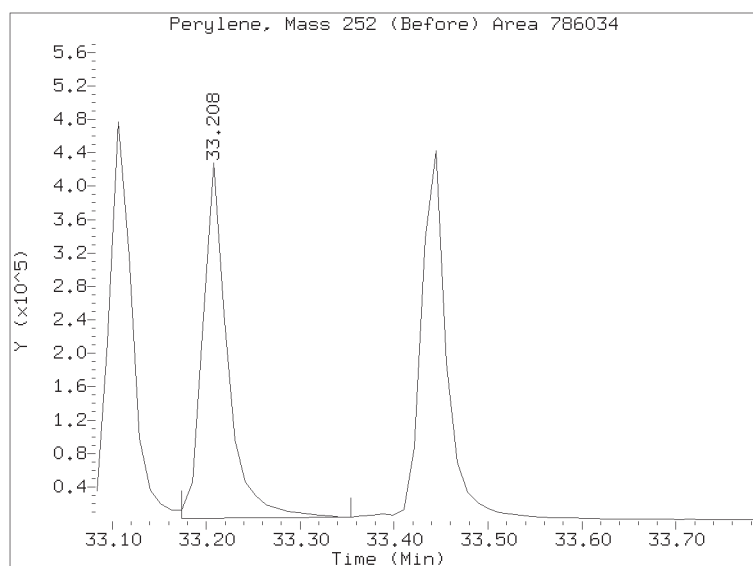
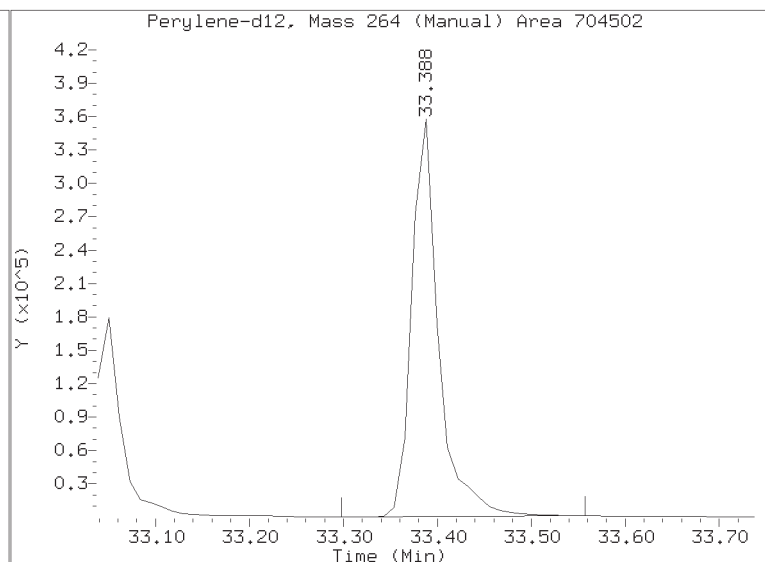
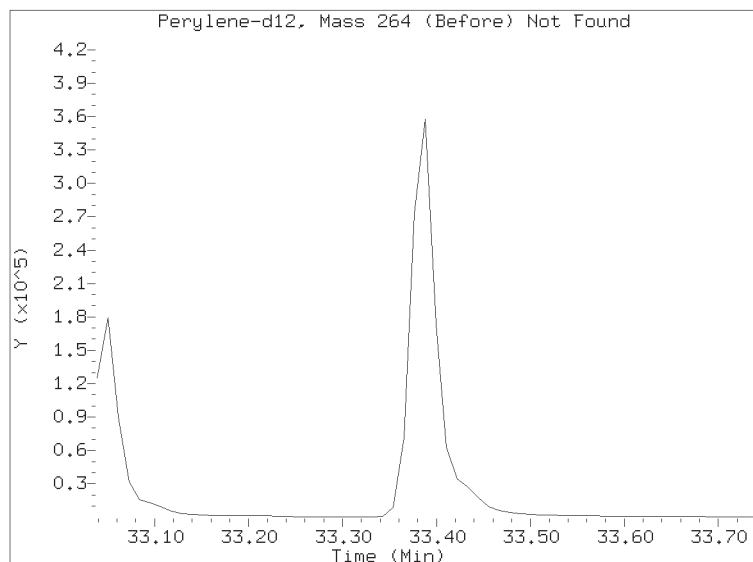
Quant Ion Manual Peak Adjustment Report

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Injection Date: 30-APR-2021 10:19

Lab ID: SJD0305-CAL6 Client ID:

Report Date: 05/01/2021 09:18



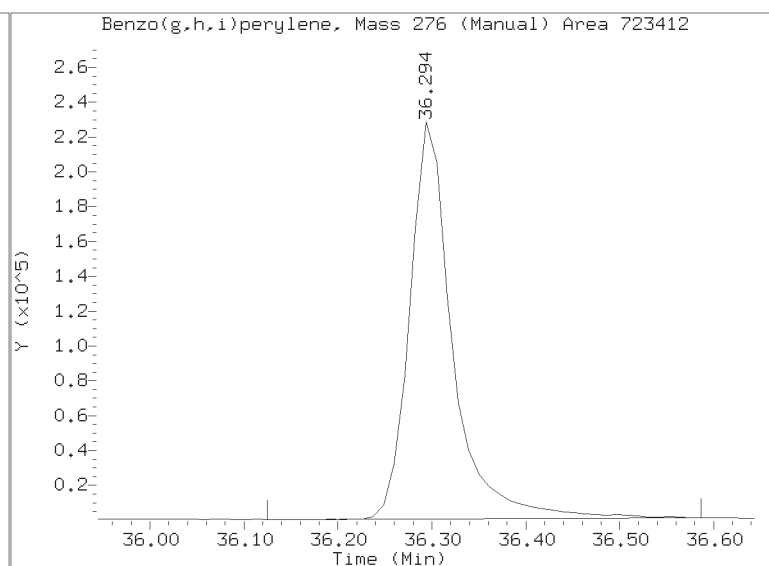
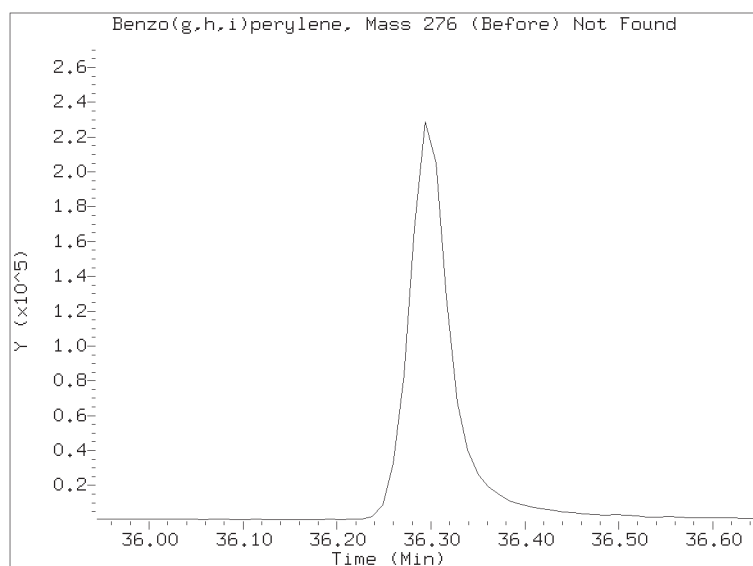
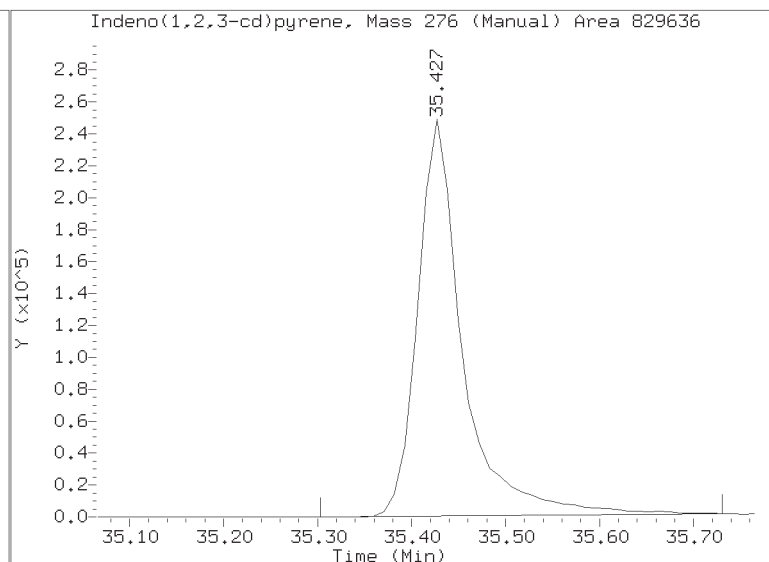
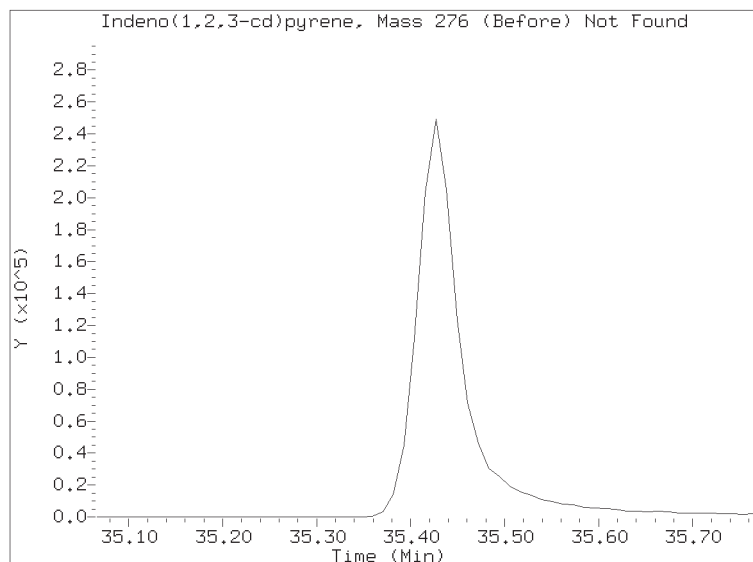
Quant Ion Manual Peak Adjustment Report

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Injection Date: 30-APR-2021 10:19

Lab ID: SJD0305-CAL6 Client ID:

Report Date: 05/01/2021 09:18



Data File: \\target\share\chem3\nt14,1\20210430,6\NT1421043006.D

Date: 30-APR-2021 11:07

Client ID:

Sample Info: SJD0305-CAL2

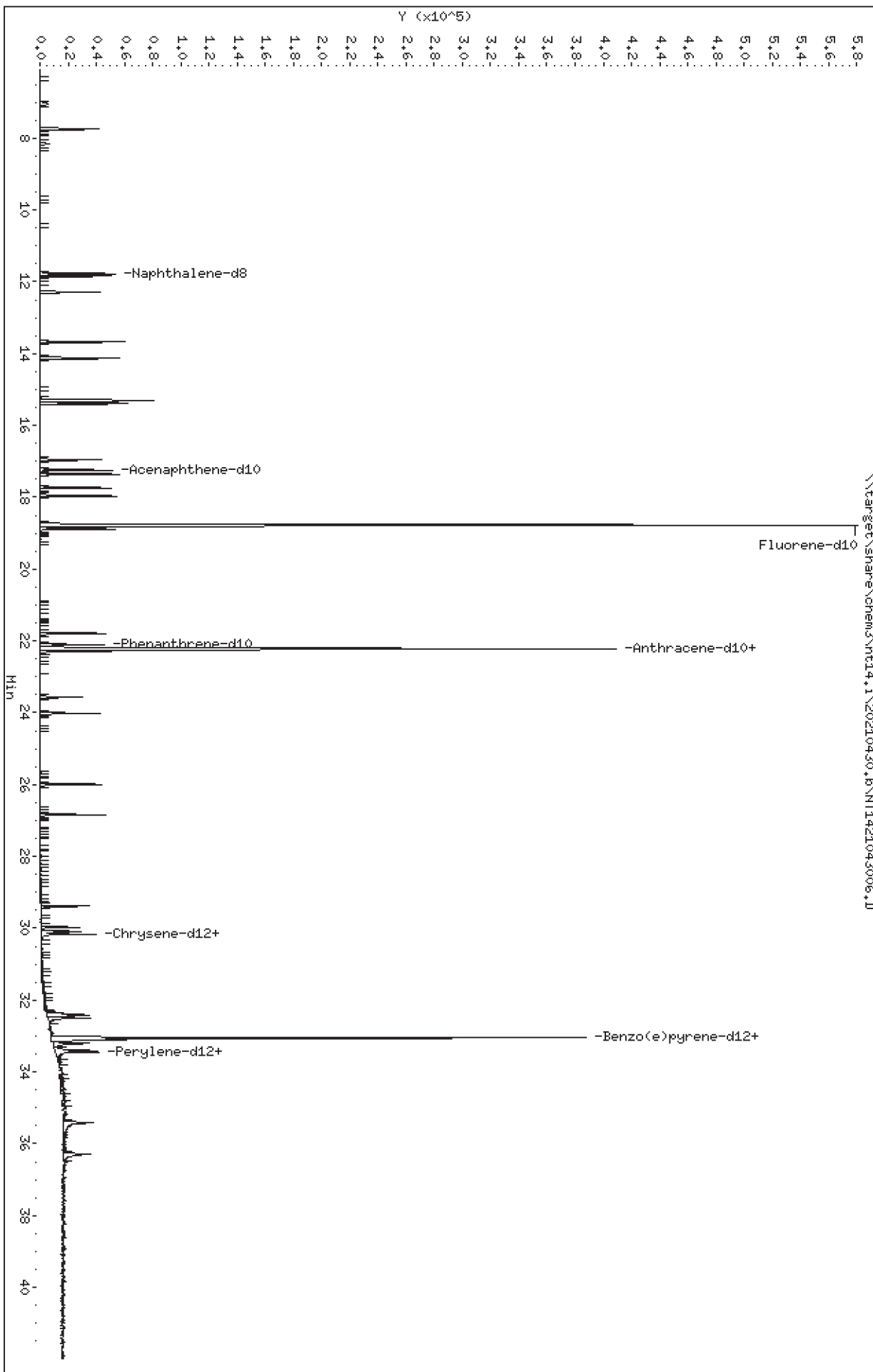
Column Phase: Rxi-17S11 MS

Instrument: nt14,1

Operator: VTS

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043006.D
 Lab Smp Id: SJD0305-CAL2
 Inj Date : 30-APR-2021 11:07
 Operator : VTS
 Smp Info : SJD0305-CAL2
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Meth Date : 01-May-2021 07:40 van
 Cal Date : 30-APR-2021 13:32
 Als bottle: 6
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-202011

Inst ID: nt14.i
 Quant Type: ISTD
 Cal File: NT1421043009.D
 Calibration Sample, Level: 2
 Compound Sublist: TARGETS.sub

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 trans-Decalin	138	7.055	7.035	(0.376)	9708	0.25000	0.2531
2 cis-Decalin	138	8.165	8.165	(0.435)	6124	0.25000	0.2313
\$ 6 Naphthalene-d8	136	11.776	11.776	(0.627)	68964	0.25000	0.2321
7 Naphthalene	128	11.836	11.846	(0.631)	71487	0.25000	0.2365
12 Benzo(b)thiophene	134	12.295	12.295	(0.655)	56259	0.25000	0.2340
16 2-Methylnaphthalene	141	13.680	13.680	(0.729)	38479	0.25000	0.2386
17 1-methylnaphthalene	141	14.131	14.131	(0.753)	36413	0.25000	0.2383
18 Biphenyl	154	15.318	15.317	(0.816)	53734	0.25000	0.2328
19 2,6-Dimethylnaphthalene	156	15.394	15.394	(0.820)	36023	0.25000	0.2268
20 Acenaphthylene	152	16.955	16.955	(0.903)	54377	0.25000	0.2175
\$ 21 Acenaphthene-d10	164	17.241	17.241	(0.919)	33181	0.25000	0.2287
22 Acenaphthene	153	17.362	17.361	(0.925)	36700	0.25000	0.2284
23 Dibenzofuran	168	17.735	17.735	(0.945)	56559	0.25000	0.2323
24 1,6,7-Trimethylnaphthalene	170	17.966	17.966	(0.957)	30138	0.25000	0.2162
* 25 Fluorene-d10	176	18.770	18.781	(1.000)	514907	2.00000	
26 Fluorene	166	18.883	18.883	(1.006)	40026	0.25000	0.2262
30 Dibenzothiophene	184	21.795	21.794	(1.161)	51045	0.25000	0.2286
\$ 35 Phenanthrene-d10	188	22.102	22.102	(0.995)	48380	0.25000	0.2365
36 Phenanthrene	178	22.179	22.190	(0.998)	56192	0.25000	0.2461
* 250 Anthracene-d10	188	22.223	22.223	(1.000)	378499	2.00000	
37 Anthracene	178	22.289	22.289	(1.003)	51341	0.25000	0.2439
42 Carbazole	167	23.565	23.565	(1.060)	33334	0.25000	0.1923
43 1-Methylphenanthrene	192	24.015	24.015	(1.081)	30887	0.25000	0.2228
44 Fluoranthene	202	25.994	25.994	(1.170)	44340	0.25000	0.2186
46 Pyrene	202	26.841	26.841	(1.208)	45747	0.25000	0.2177
51 Naphthobenzothiophene	234	29.384	29.384	(1.322)	43831	0.25000	0.2140
55 Benzo(a)anthracene	228	29.964	29.964	(0.907)	32694	0.25000	0.1912
\$ 56 Chrysene-d12	240	30.088	30.087	(0.910)	30886	0.25000	0.2203
57 Chrysene	228	30.166	30.166	(0.913)	41552	0.25000	0.2306
62 Benzo(b)fluoranthene	252	32.385	32.386	(0.980)	29358	0.25000	0.1854 (M)
63 Benzo(k)fluoranthene	252	32.430	32.430	(0.981)	37291	0.25000	0.1927 (M)
293 Benzo(j)fluoranthene	252	32.498	32.498	(0.983)	38566	0.25000	0.2101 (M)
246 Total Benzofluoranthenes	252	32.430	32.497	(0.981)	105389	0.75000	0.6005 (M)

Compounds	QUANT SIG						AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	
* 251 Benzo(e)pyrene-d12	264	33.050	33.050	(1.000)	385845	2.00000		
64 Benzo(e)pyrene	252	33.106	33.106	(1.002)	37405	0.25000	0.2276	
66 Benzo(a)pyrene	252	33.208	33.208	(1.005)	26806	0.25000	0.1607	
\$ 67 Perylene-d12	264	33.388	33.388	(1.010)	28031	0.25000	0.1913	
68 Perylene	252	33.444	33.433	(1.012)	35497	0.25000	0.2262	
69 Indeno(1,2,3-cd)pyrene	276	35.426	35.415	(1.072)	30872	0.25000	0.1825 (M)	
70 Dibenzo(a,h)anthracene	278	35.404	35.404	(1.071)	22910	0.25000	0.1574 (M)	
74 Benzo(g,h,i)perylene	276	36.294	36.293	(1.098)	39392	0.25000	0.2664 (M)	

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 30-APR-2021
 Lab File ID: NT1421043006.D Calibration Time: 07:56
 Lab Smp Id: SJD0305-CAL2
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	420456	210228	840912	514907	22.46
250 Anthracene-d10	381033	190517	762066	378499	-0.67
251 Benzo(e)pyrene-d1	370998	185499	741996	385845	4.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.78	18.28	19.28	18.77	-0.06
250 Anthracene-d10	22.22	21.72	22.72	22.22	0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	0.00

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.

REVIEW SUMMARY FOR FILE - NT1421043006.D

Lab ID: SJD0305-CAL2

nt14.i, 20210430.b\ALKYLPNA.m, 30-APR-2021 11:07

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

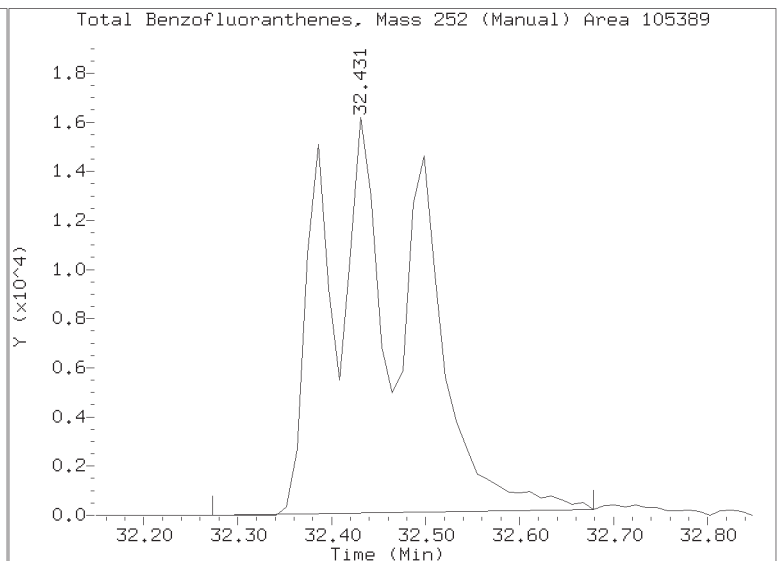
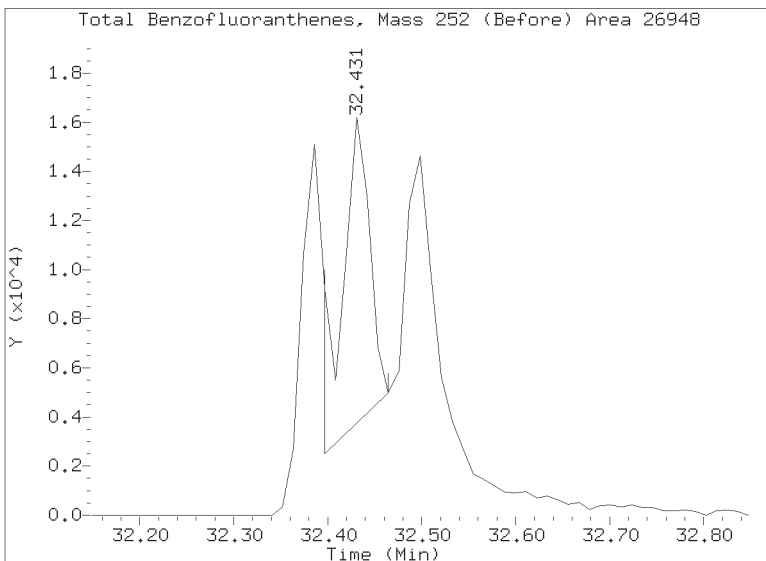
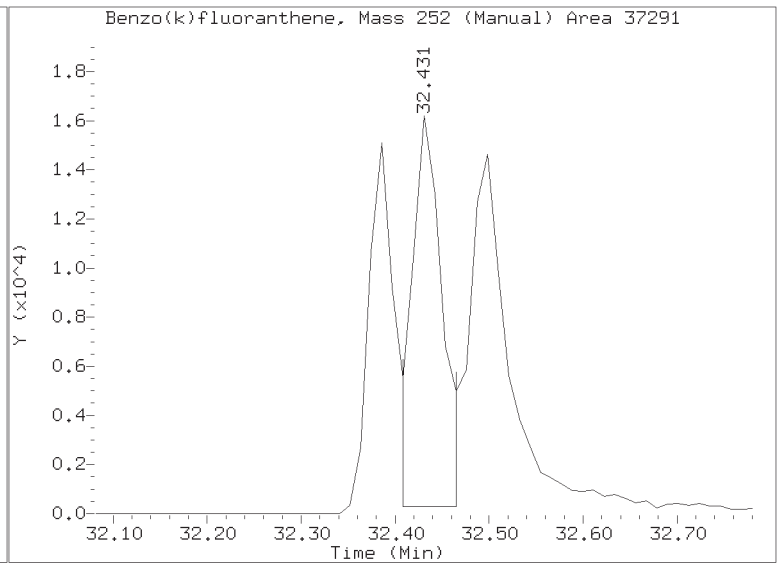
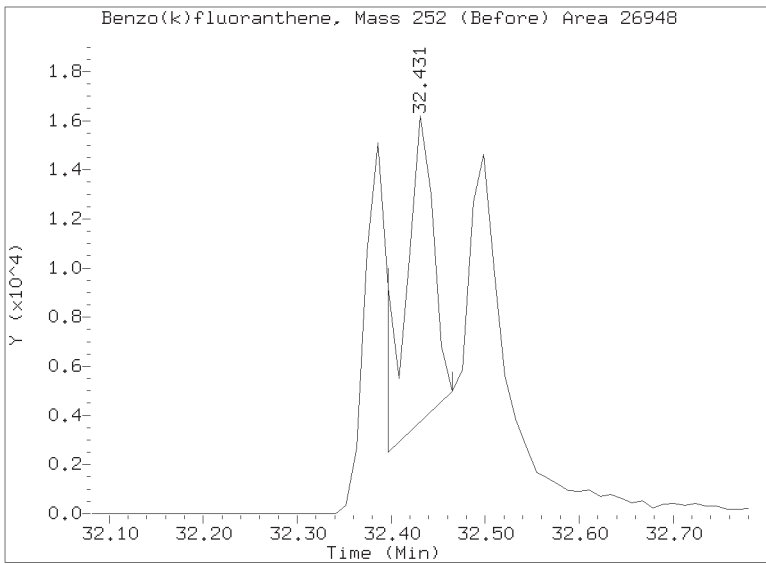
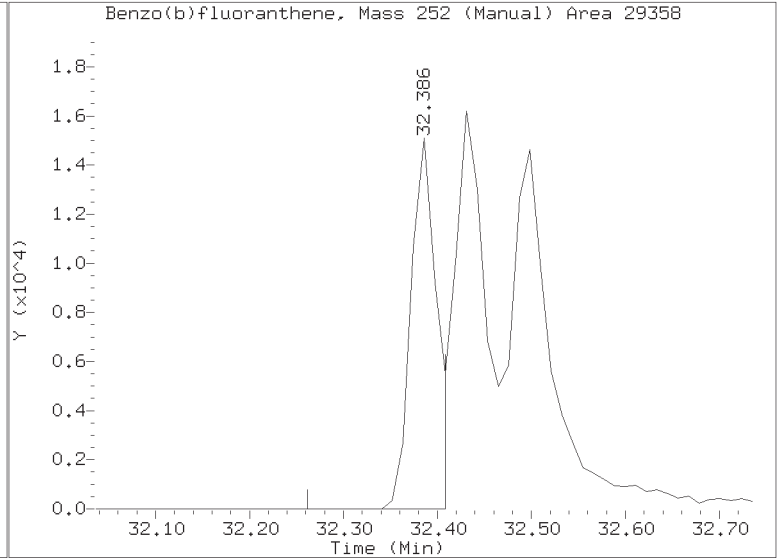
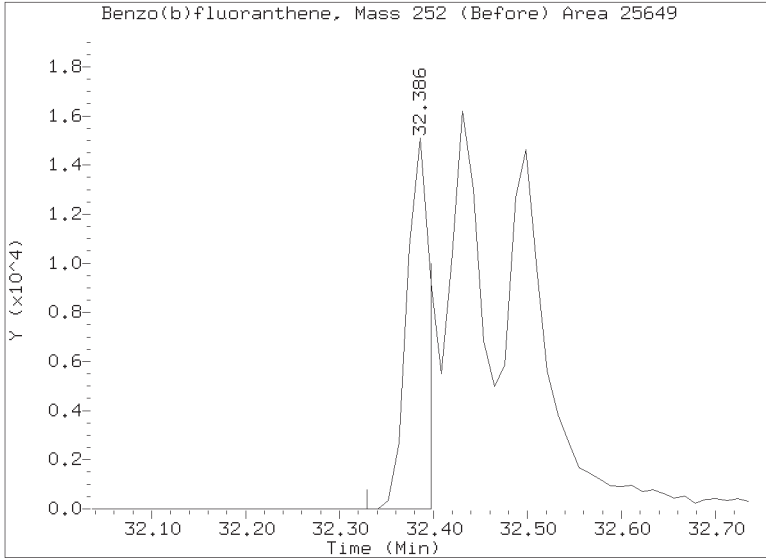
RRT check based on Ccal File: NT1421043009.D

On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043006.D
Injection Date: 30-APR-2021 11:07
Lab ID: SJD0305-CAL2 Client ID:
Report Date: 05/01/2021 09:18



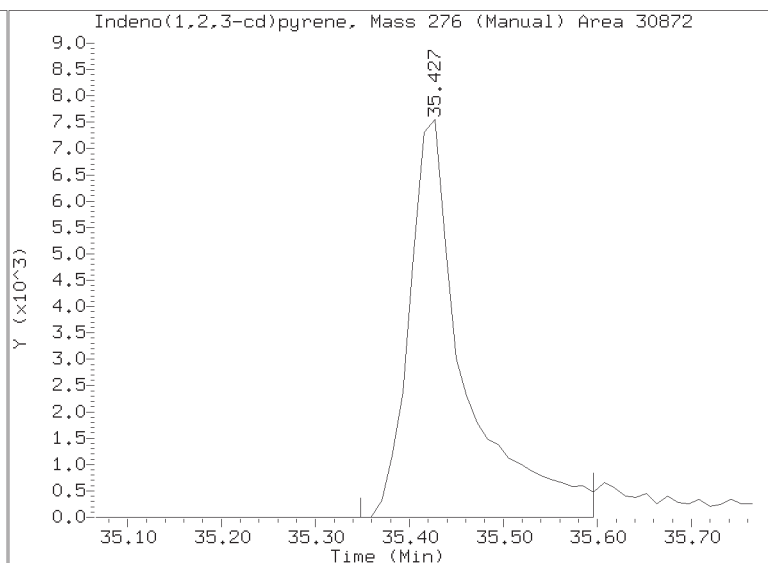
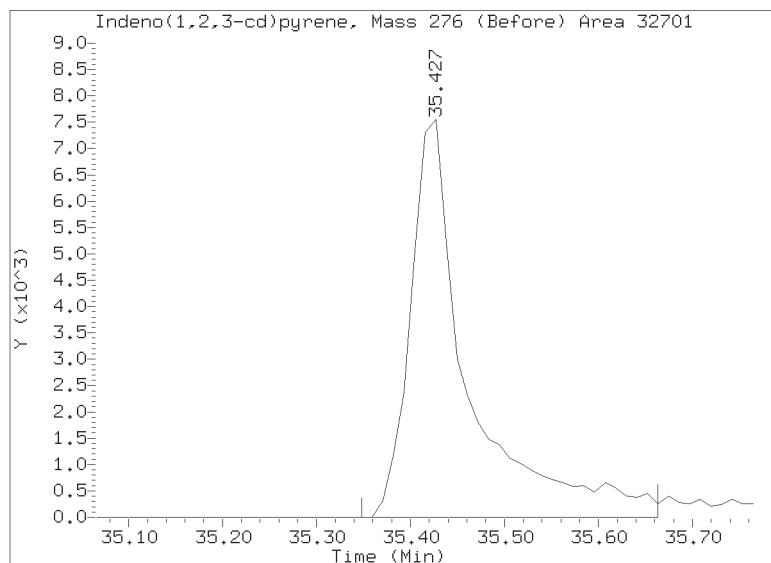
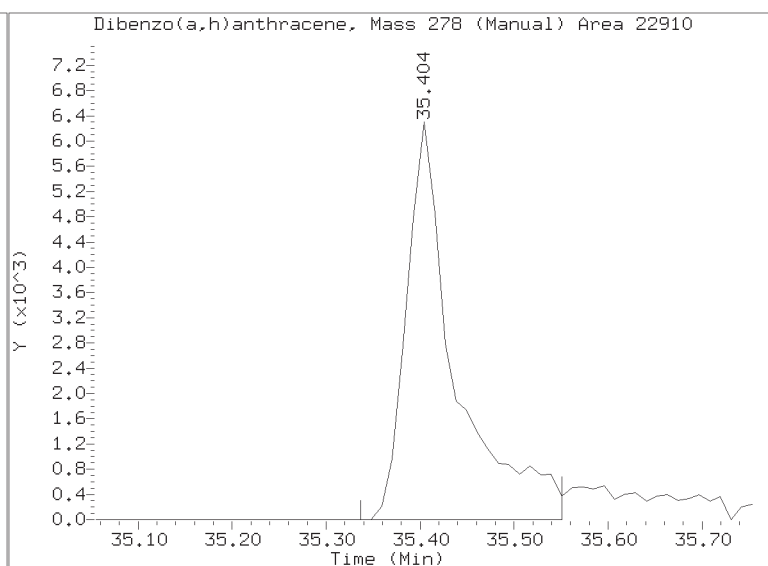
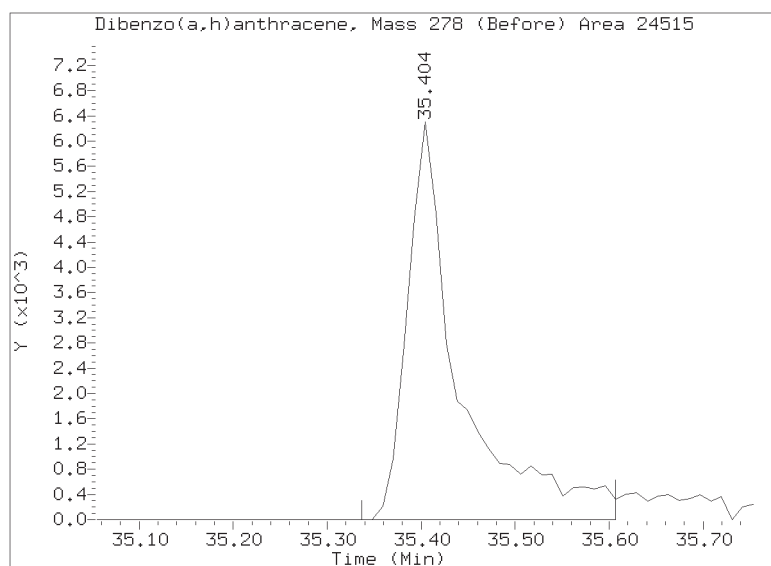
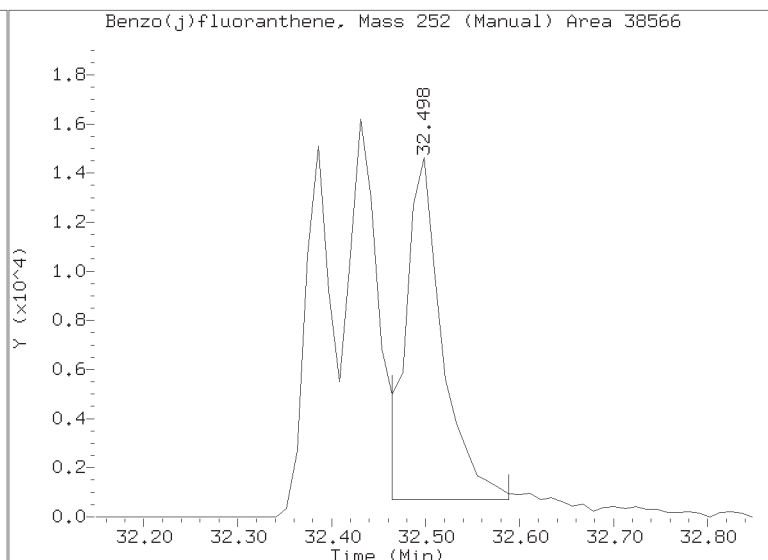
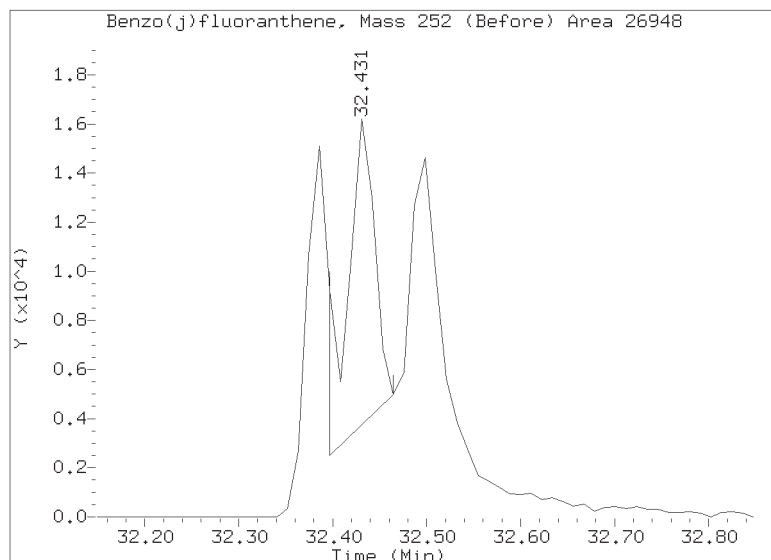
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043006.D

Injection Date: 30-APR-2021 11:07

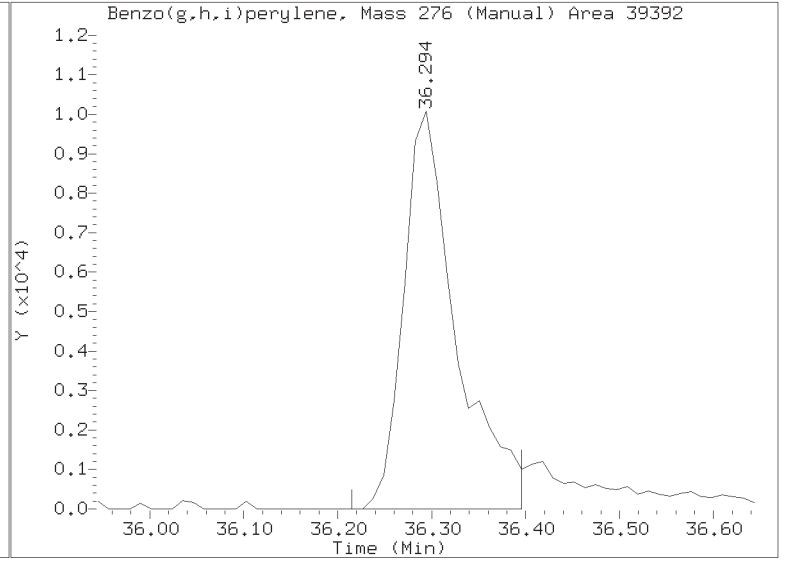
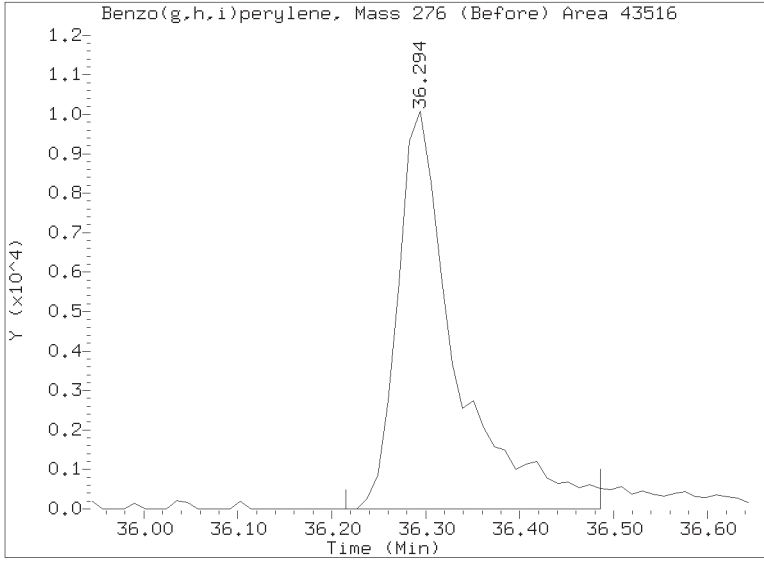
Lab ID: SJD0305-CAL2 Client ID:

Report Date: 05/01/2021 09:18



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043006.D
Injection Date: 30-APR-2021 11:07
Lab ID: SJD0305-CAL2 Client ID:
Report Date: 05/01/2021 09:18



Data File: \\target\share\chem3\nt14,1\20210430,6\NT1421043007.D

Date: 30-APR-2021 11:55

Client ID:

Sample Info: SJD0305-CAL4

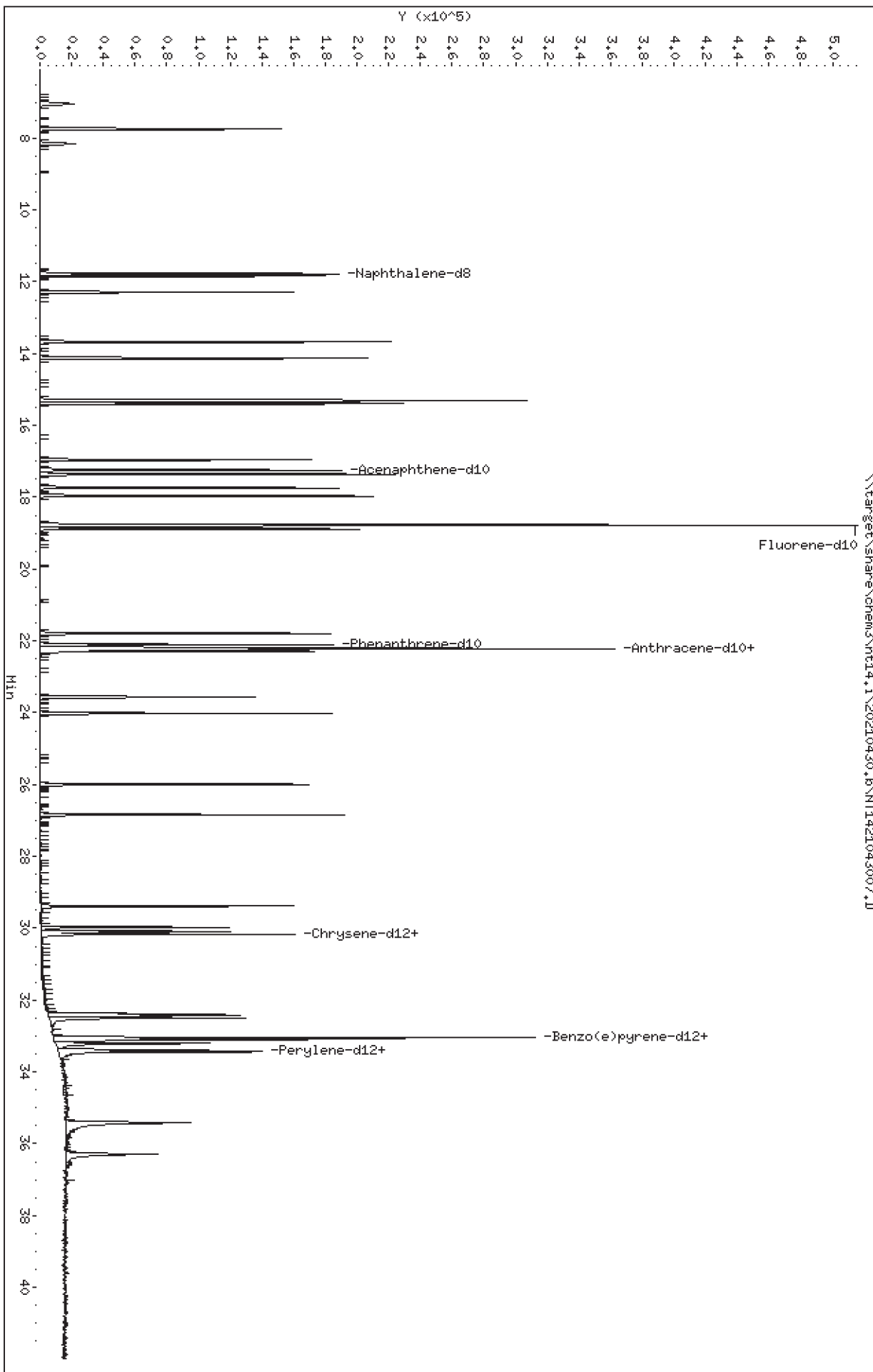
Column phase: Rxi-17S11 MS

Instrument: nt14,1

Operator: VTS

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043007.D
 Lab Smp Id: SJD0305-CAL4
 Inj Date : 30-APR-2021 11:55
 Operator : VTS
 Smp Info : SJD0305-CAL4
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Meth Date : 01-May-2021 07:40 van
 Cal Date : 30-APR-2021 13:32
 Als bottle: 7
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-202011

Inst ID: nt14.i
 Quant Type: ISTD
 Cal File: NT1421043009.D
 Calibration Sample, Level: 4
 Compound Sublist: TARGETS.sub

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 trans-Decalin	138	7.045	7.035	(0.375)	31616	1.00000	0.9522
2 cis-Decalin	138	8.155	8.165	(0.434)	21957	1.00000	0.9579
\$ 6 Naphthalene-d8	136	11.776	11.776	(0.627)	250476	1.00000	0.9738
7 Naphthalene	128	11.836	11.846	(0.630)	252112	1.00000	0.9636
12 Benzo(b)thiophene	134	12.295	12.295	(0.655)	200714	1.00000	0.9642
16 2-Methylnaphthalene	141	13.680	13.680	(0.728)	137675	1.00000	0.9861
17 1-methylnaphthalene	141	14.131	14.131	(0.752)	130443	1.00000	0.9860
18 Biphenyl	154	15.318	15.317	(0.816)	194780	1.00000	0.9748
19 2,6-Dimethylnaphthalene	156	15.394	15.394	(0.820)	133998	1.00000	0.9745
20 Acenaphthylene	152	16.955	16.955	(0.903)	203985	1.00000	0.9427
\$ 21 Acenaphthene-d10	164	17.241	17.241	(0.918)	120873	1.00000	0.9624
22 Acenaphthene	153	17.362	17.361	(0.924)	137247	1.00000	0.9869
23 Dibenzofuran	168	17.735	17.735	(0.944)	204939	1.00000	0.9725
24 1,6,7-Trimethylnaphthalene	170	17.966	17.966	(0.957)	115219	1.00000	0.9548
* 25 Fluorene-d10	176	18.781	18.781	(1.000)	445719	2.00000	
26 Fluorene	166	18.883	18.883	(1.005)	147613	1.00000	0.9639
30 Dibenzothiophene	184	21.795	21.794	(1.160)	185025	1.00000	0.9571
\$ 35 Phenanthrene-d10	188	22.102	22.102	(0.995)	182607	1.00000	1.028
36 Phenanthrene	178	22.179	22.190	(0.998)	204303	1.00000	1.030
* 250 Anthracene-d10	188	22.223	22.223	(1.000)	328813	2.00000	
37 Anthracene	178	22.289	22.289	(1.003)	185441	1.00000	1.014
42 Carbazole	167	23.565	23.565	(1.060)	136890	1.00000	0.9031
43 1-Methylphenanthrene	192	24.015	24.015	(1.081)	122111	1.00000	1.014
44 Fluoranthene	202	25.994	25.994	(1.170)	176849	1.00000	1.004
46 Pyrene	202	26.841	26.841	(1.208)	182996	1.00000	1.002
51 Naphthobenzothiophene	234	29.384	29.384	(1.322)	205472	1.00000	1.155
55 Benzo(a)anthracene	228	29.964	29.964	(0.907)	138453	1.00000	0.9054
\$ 56 Chrysene-d12	240	30.088	30.087	(0.910)	129960	1.00000	1.048
57 Chrysene	228	30.166	30.166	(0.913)	157272	1.00000	0.9863
62 Benzo(b)fluoranthene	252	32.385	32.386	(0.980)	118787	1.00000	0.8395 (M)
63 Benzo(k)fluoranthene	252	32.430	32.430	(0.981)	150364	1.00000	0.8697 (M)
293 Benzo(j)fluoranthene	252	32.498	32.498	(0.983)	178828	1.00000	1.101
246 Total Benzofluoranthenes	252	32.430	32.497	(0.981)	424060	3.00000	2.709 (M)

Compounds	QUANT SIG						AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	
* 251 Benzo(e)pyrene-d12	264	33.050	33.050	(1.000)	341443	2.00000		
64 Benzo(e)pyrene	252	33.106	33.106	(1.002)	141213	1.00000	0.9710	
66 Benzo(a)pyrene	252	33.208	33.208	(1.005)	123458	1.00000	0.8332	
\$ 67 Perylene-d12	264	33.376	33.388	(1.010)	115884	1.00000	0.8876	
68 Perylene	252	33.433	33.433	(1.012)	130388	1.00000	0.9387 (M)	
69 Indeno(1,2,3-cd)pyrene	276	35.415	35.415	(1.072)	127734	1.00000	0.8451 (M)	
70 Dibenzo(a,h)anthracene	278	35.404	35.404	(1.071)	100665	1.00000	0.7738	
74 Benzo(g,h,i)perylene	276	36.294	36.293	(1.098)	119725	1.00000	0.9151	

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 30-APR-2021
 Lab File ID: NT1421043007.D Calibration Time: 07:56
 Lab Smp Id: SJD0305-CAL4
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	420456	210228	840912	445719	6.01
250 Anthracene-d10	381033	190517	762066	328813	-13.70
251 Benzo(e)pyrene-d1	370998	185499	741996	341443	-7.97

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.78	18.28	19.28	18.78	0.00
250 Anthracene-d10	22.22	21.72	22.72	22.22	0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	0.00

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.

REVIEW SUMMARY FOR FILE - NT1421043007.D

Lab ID: SJD0305-CAL4

nt14.i, 20210430.b\ALKYLPNA.m, 30-APR-2021 11:55

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1421043009.D

On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

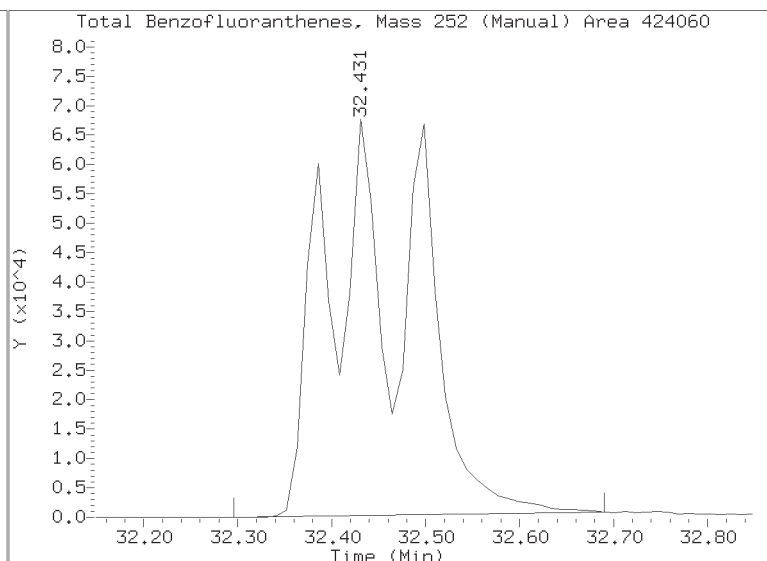
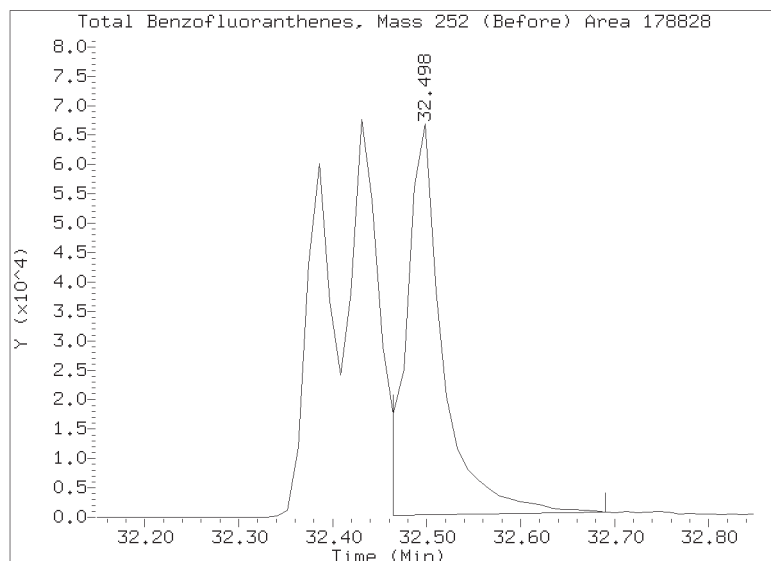
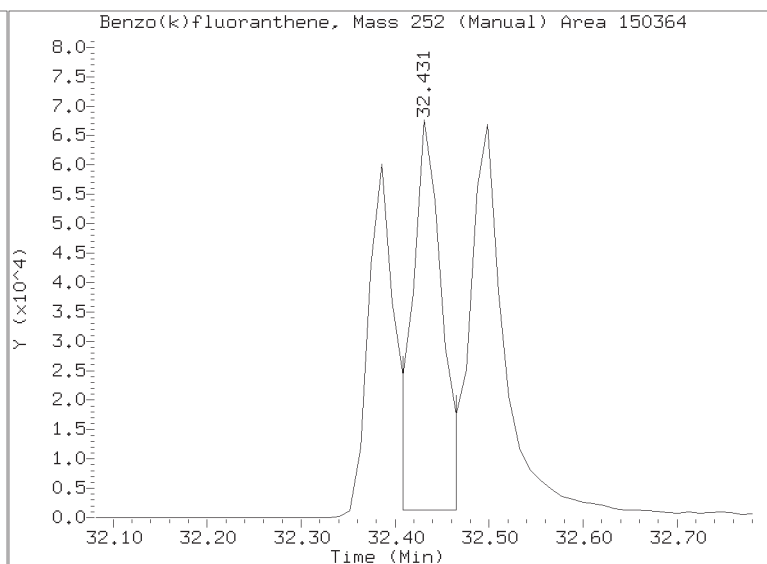
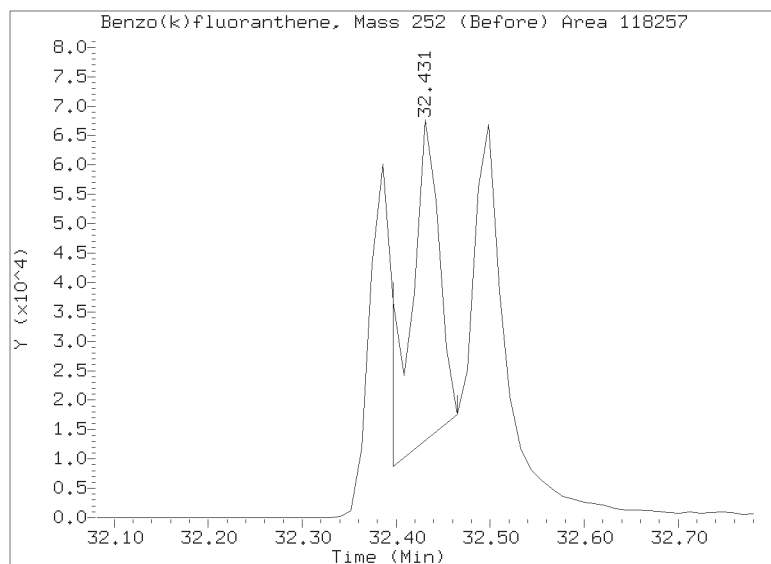
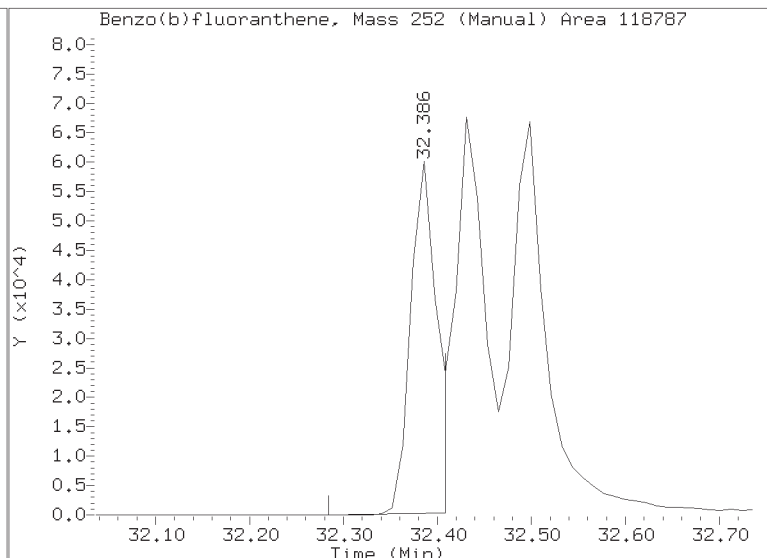
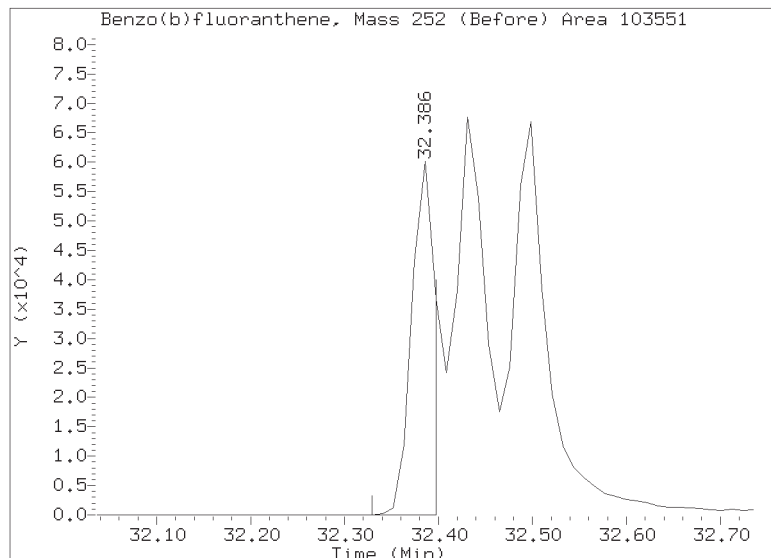
Quant Ion Manual Peak Adjustment Report

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Injection Date: 30-APR-2021 11:55

Lab ID: SJD0305-CAL4 Client ID:

Report Date: 05/01/2021 09:18



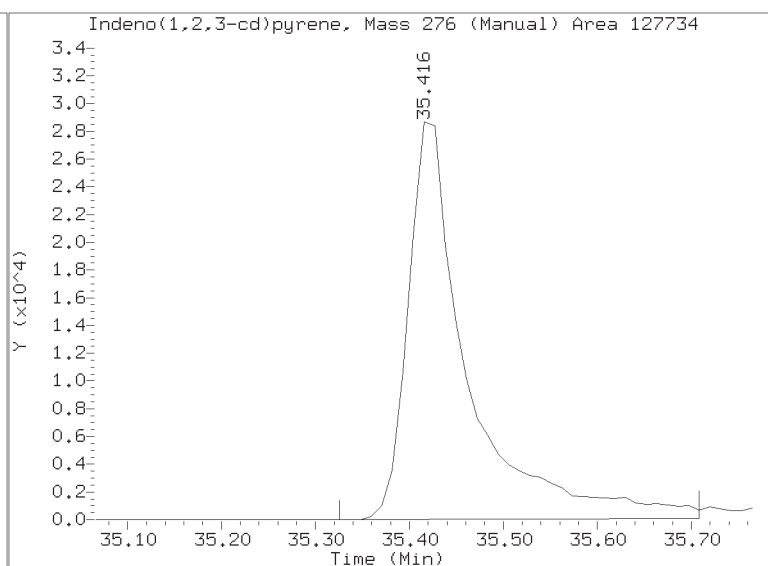
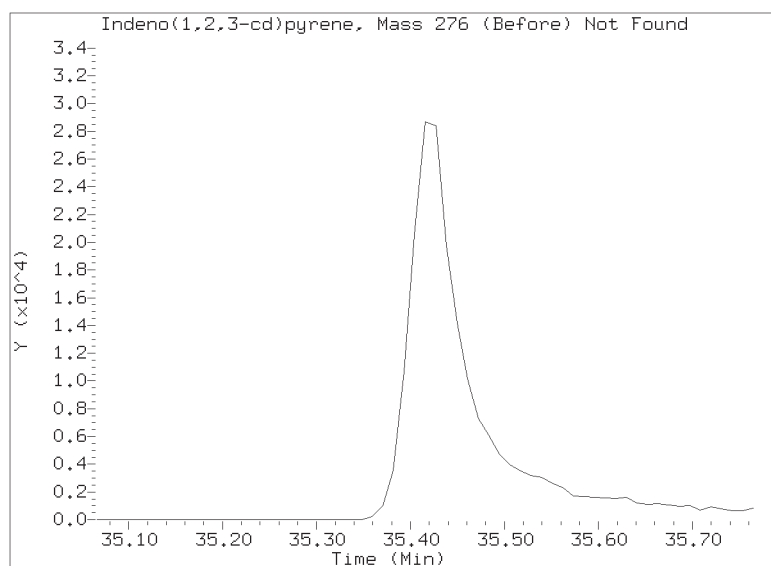
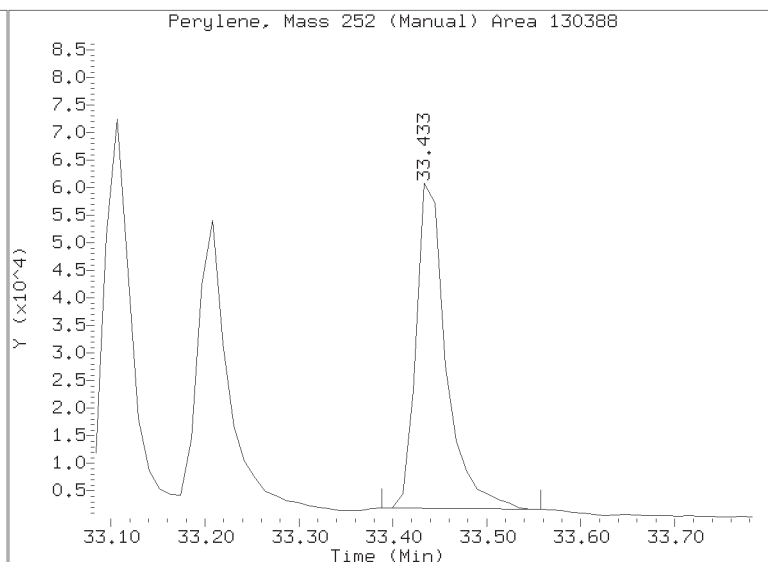
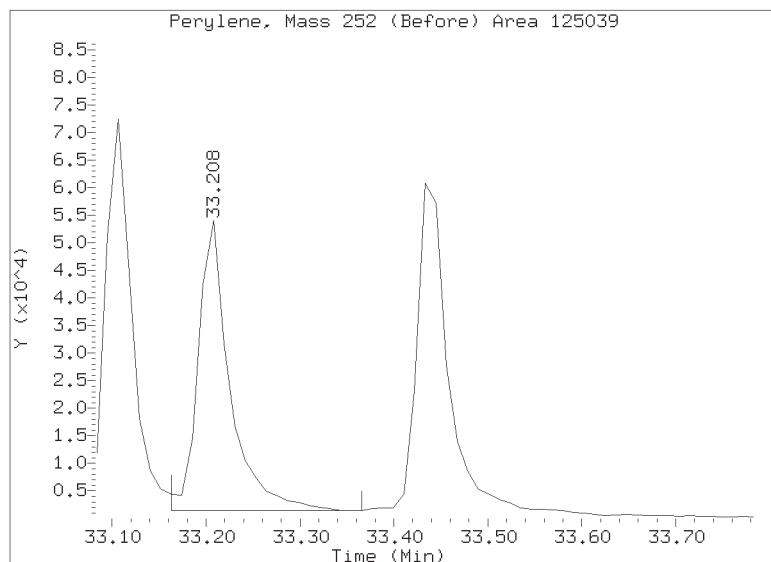
Quant Ion Manual Peak Adjustment Report

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Injection Date: 30-APR-2021 11:55

Lab ID: SJD0305-CAL4 Client ID:

Report Date: 05/01/2021 09:18



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043008.D
 Lab Smp Id: SJD0305-CAL3
 Inj Date : 30-APR-2021 12:43
 Operator : VTS
 Smp Info : SJD0305-CAL3
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Meth Date : 01-May-2021 07:40 van
 Cal Date : 30-APR-2021 13:32
 Als bottle: 8
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-202011

Inst ID: nt14.i
 Quant Type: ISTD
 Cal File: NT1421043009.D
 Calibration Sample, Level: 3
 Compound Sublist: TARGETS.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 trans-Decalin	138		7.035	7.035	(0.375)	14802	0.50000	0.5381
2 cis-Decalin	138		8.155	8.165	(0.434)	11405	0.50000	0.6006
\$ 6 Naphthalene-d8	136		11.776	11.776	(0.627)	119203	0.50000	0.5594
7 Naphthalene	128		11.846	11.846	(0.631)	123533	0.50000	0.5699
12 Benzo(b)thiophene	134		12.295	12.295	(0.655)	98335	0.50000	0.5702
16 2-Methylnaphthalene	141		13.680	13.680	(0.728)	64402	0.50000	0.5568
17 1-methylnaphthalene	141		14.131	14.131	(0.752)	62207	0.50000	0.5676
18 Biphenyl	154		15.317	15.317	(0.816)	95281	0.50000	0.5756
19 2,6-Dimethylnaphthalene	156		15.394	15.394	(0.820)	65011	0.50000	0.5707
20 Acenaphthylene	152		16.955	16.955	(0.903)	93852	0.50000	0.5235
\$ 21 Acenaphthene-d10	164		17.241	17.241	(0.918)	56529	0.50000	0.5433
22 Acenaphthene	153		17.361	17.361	(0.924)	62714	0.50000	0.5443
23 Dibenzofuran	168		17.735	17.735	(0.944)	95496	0.50000	0.5470
24 1,6,7-Trimethylnaphthalene	170		17.966	17.966	(0.957)	53321	0.50000	0.5334
* 25 Fluorene-d10	176		18.781	18.781	(1.000)	369261	2.00000	
26 Fluorene	166		18.883	18.883	(1.005)	68557	0.50000	0.5404
30 Dibenzothiophene	184		21.794	21.794	(1.160)	85465	0.50000	0.5336
\$ 35 Phenanthrene-d10	188		22.102	22.102	(0.995)	83170	0.50000	0.4878
36 Phenanthrene	178		22.190	22.190	(0.999)	92468	0.50000	0.4858
* 250 Anthracene-d10	188		22.223	22.223	(1.000)	315516	2.00000	
37 Anthracene	178		22.289	22.289	(1.003)	86413	0.50000	0.4925
42 Carbazole	167		23.564	23.565	(1.060)	56745	0.50000	0.3920
43 1-Methylphenanthrene	192		24.015	24.015	(1.081)	55496	0.50000	0.4802
44 Fluoranthene	202		25.994	25.994	(1.170)	73951	0.50000	0.4374
46 Pyrene	202		26.841	26.841	(1.208)	78910	0.50000	0.4504
51 Naphthobenzothiophene	234		29.384	29.384	(1.322)	82968	0.50000	0.4860
55 Benzo(a)anthracene	228		29.964	29.964	(0.907)	58891	0.50000	0.4082
\$ 56 Chrysene-d12	240		30.088	30.087	(0.910)	57001	0.50000	0.4834
57 Chrysene	228		30.166	30.166	(0.913)	76107	0.50000	0.5022
62 Benzo(b)fluoranthene	252		32.385	32.386	(0.980)	50224	0.50000	0.3761 (M)
63 Benzo(k)fluoranthene	252		32.430	32.430	(0.981)	66116	0.50000	0.4051 (M)
293 Benzo(j)fluoranthene	252		32.498	32.498	(0.983)	71063	0.50000	0.4604 (M)
246 Total Benzofluoranthenes	252		32.498	32.497	(0.983)	173318	1.50000	1.172 (M)

Compounds	QUANT SIG						AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	
* 251 Benzo(e)pyrene-d12	264	33.050	33.050	(1.000)	324493	2.00000		
64 Benzo(e)pyrene	252	33.106	33.106	(1.002)	63129	0.50000	0.4568	
66 Benzo(a)pyrene	252	33.207	33.208	(1.005)	53980	0.50000	0.3844	
\$ 67 Perylene-d12	264	33.388	33.388	(1.010)	51107	0.50000	0.4139	
68 Perylene	252	33.433	33.433	(1.012)	57356	0.50000	0.4345 (M)	
69 Indeno(1,2,3-cd)pyrene	276	35.426	35.415	(1.072)	53440	0.50000	0.3745	
70 Dibenzo(a,h)anthracene	278	35.404	35.404	(1.071)	42830	0.50000	0.3488	
74 Benzo(g,h,i)perylene	276	36.294	36.293	(1.098)	58503	0.50000	0.4705	

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 30-APR-2021
 Lab File ID: NT1421043008.D Calibration Time: 07:56
 Lab Smp Id: SJD0305-CAL3
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	420456	210228	840912	369261	-12.18
250 Anthracene-d10	381033	190517	762066	315516	-17.19
251 Benzo(e)pyrene-d1	370998	185499	741996	324493	-12.54

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.78	18.28	19.28	18.78	0.00
250 Anthracene-d10	22.22	21.72	22.72	22.22	0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	0.00

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.

REVIEW SUMMARY FOR FILE - NT1421043008.D

Lab ID: SJD0305-CAL3

nt14.i, 20210430.b\ALKYLPNA.m, 30-APR-2021 12:43

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1421043009.D

On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

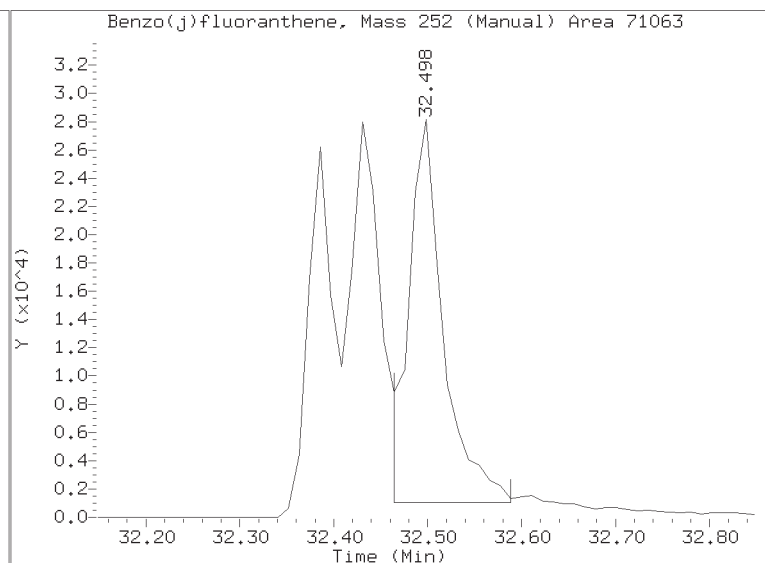
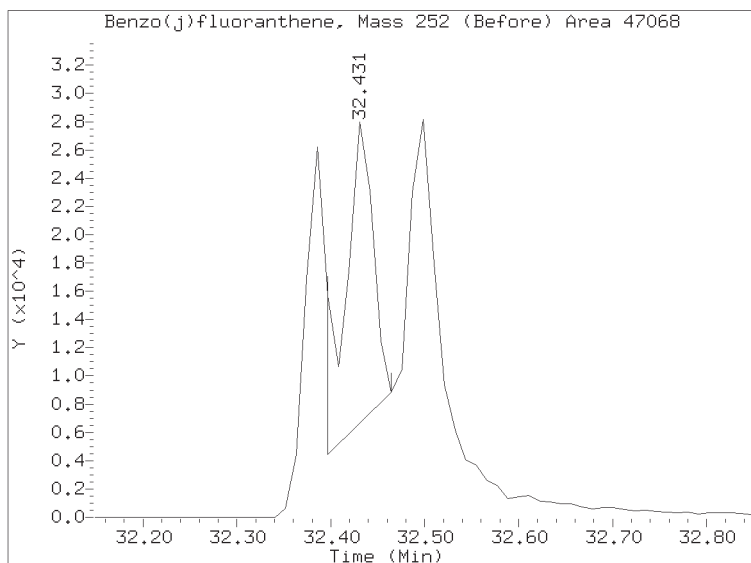
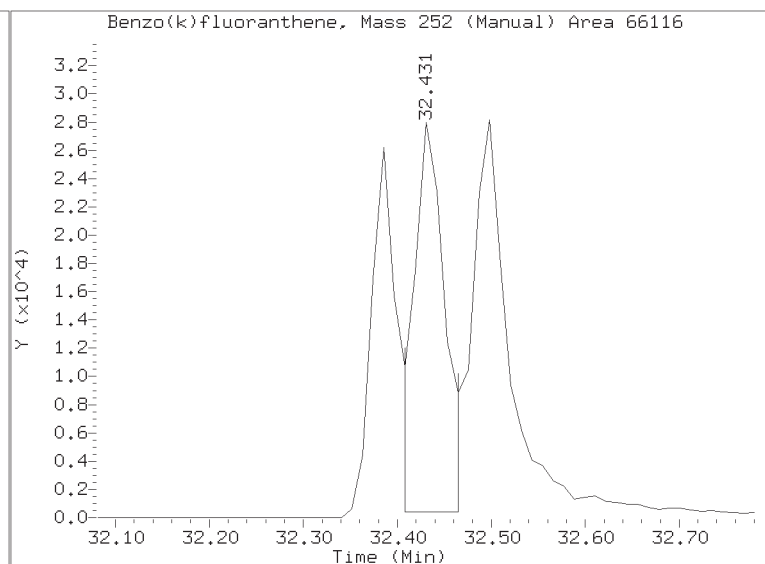
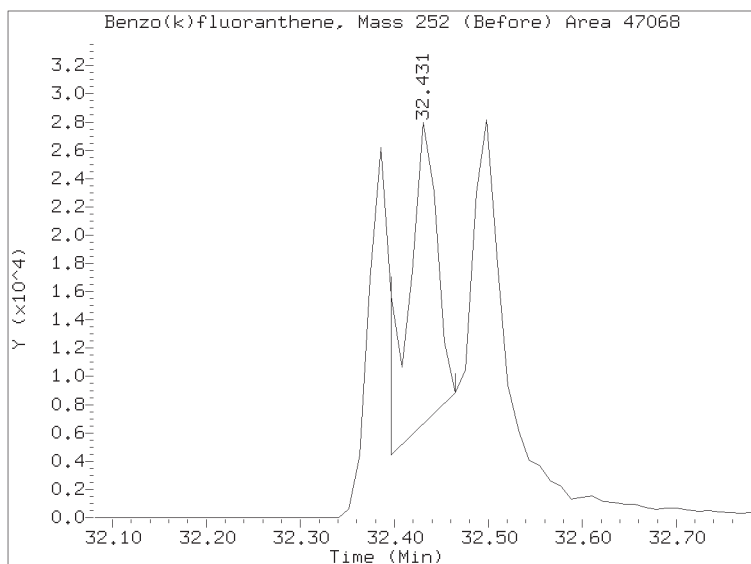
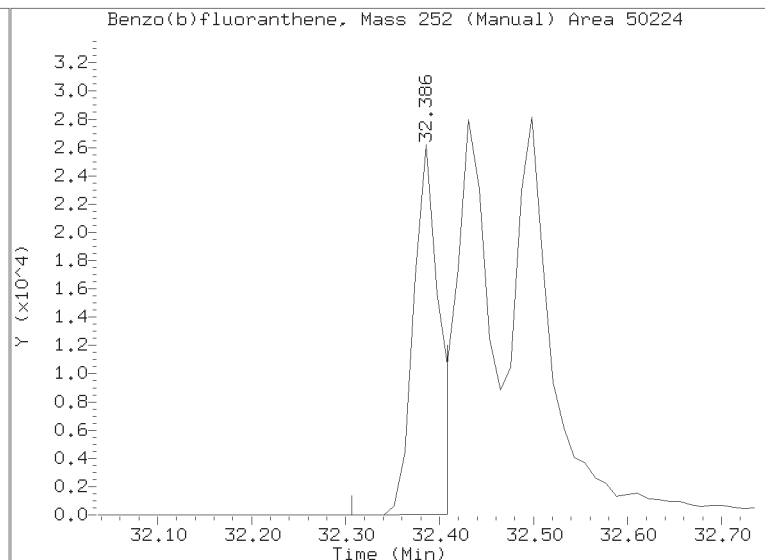
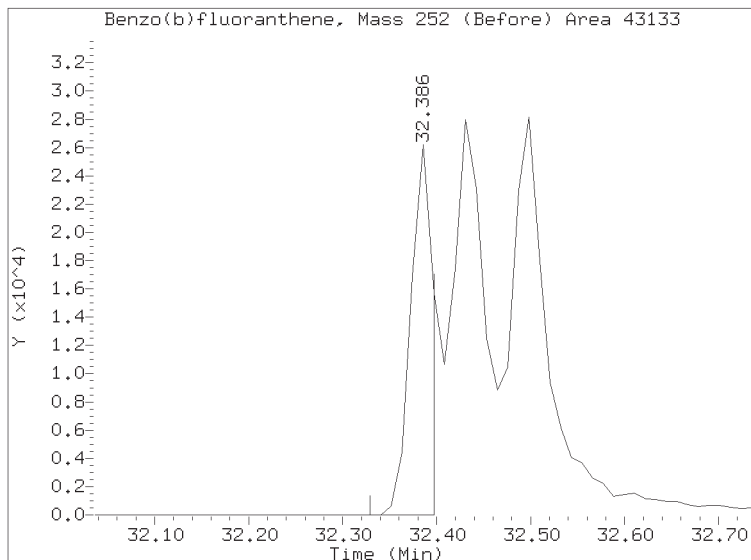
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043008.D

Injection Date: 30-APR-2021 12:43

Lab ID: SJD0305-CAL3 Client ID:

Report Date: 05/01/2021 09:18



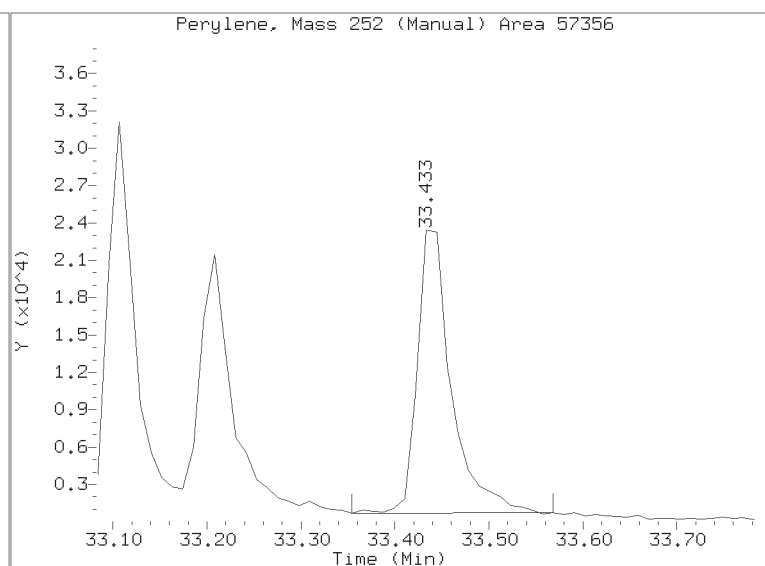
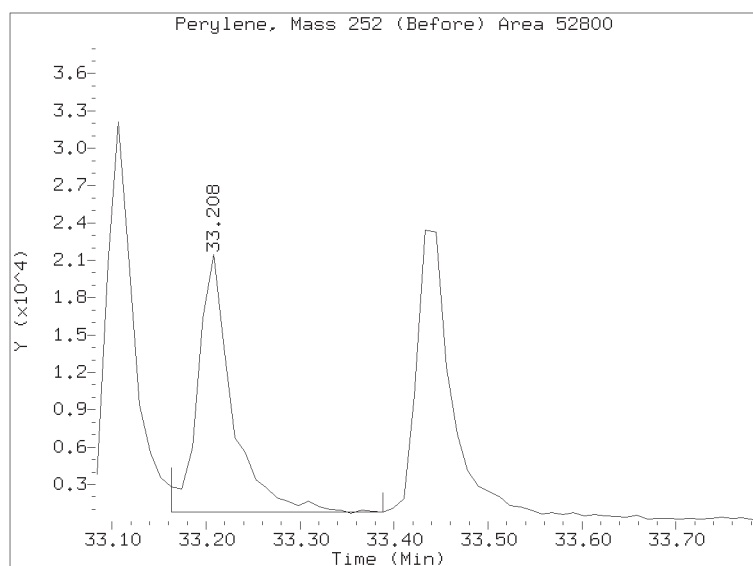
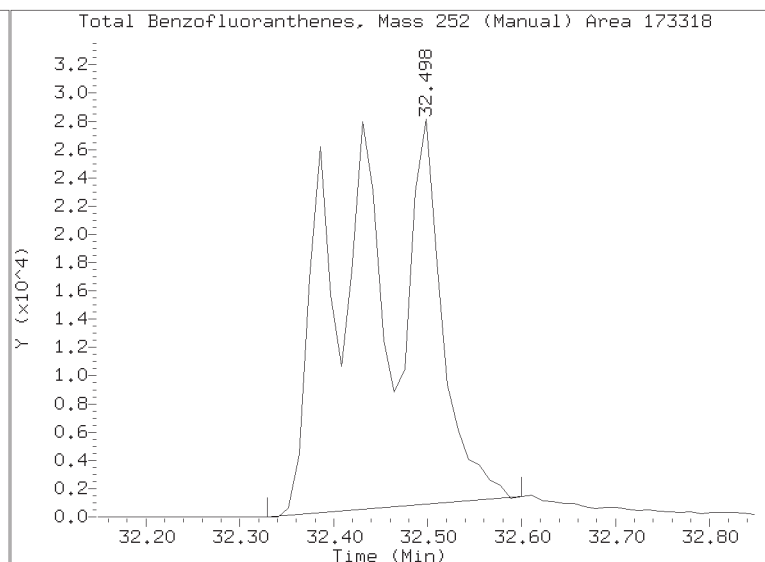
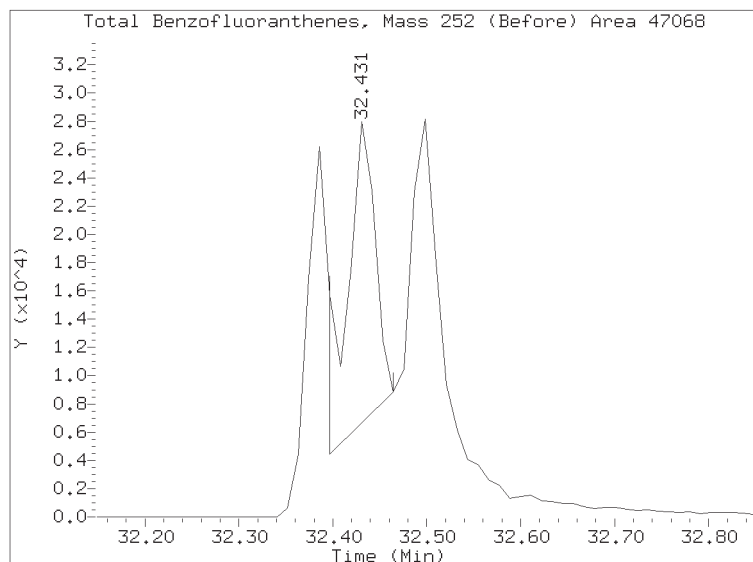
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043008.D

Injection Date: 30-APR-2021 12:43

Lab ID: SJD0305-CAL3 Client ID:

Report Date: 05/01/2021 09:18



Data File: \\target\share\chem3\nt14,1\20210430,6\NT1421043009.D

Date: 30-APR-2021 13:32

Client ID:

Sample Info: SJD0305-04L1

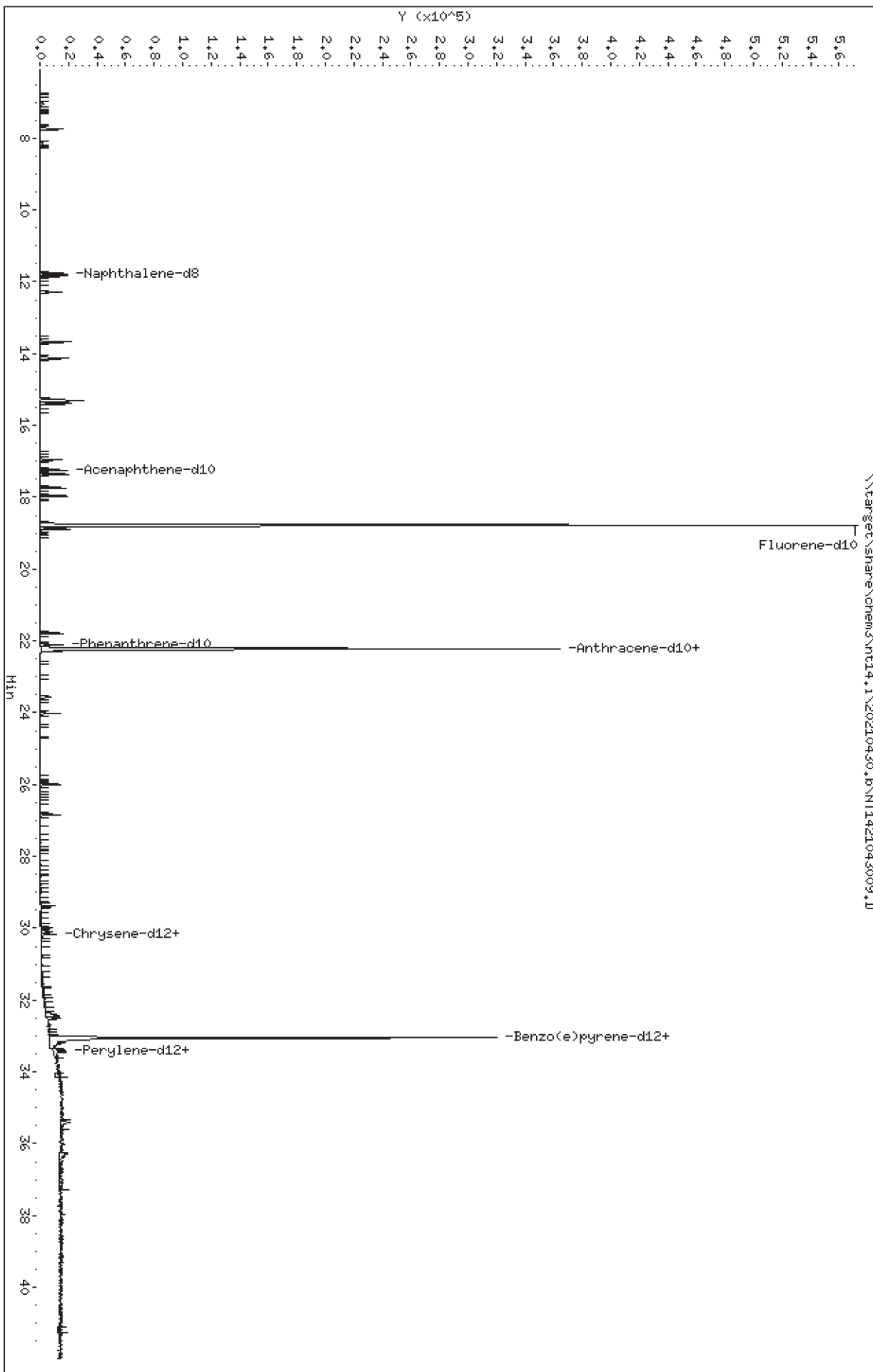
Column Phase: Rxi-17S11 MS

Instrument: nt14,1

Operator: VTS

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043009.D
 Lab Smp Id: SJD0305-CAL1
 Inj Date : 30-APR-2021 13:32
 Operator : VTS
 Smp Info : SJD0305-CAL1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Meth Date : 01-May-2021 07:40 van
 Cal Date : 30-APR-2021 13:32
 Als bottle: 4
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-202011

Inst ID: nt14.i
 Quant Type: ISTD
 Cal File: NT1421043009.D
 Calibration Sample, Level: 1
 Compound Sublist: TARGETS.sub

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 trans-Decalin	138	7.035	7.035	(0.375)	3606	0.10000	0.1025
2 cis-Decalin	138	8.165	8.165	(0.435)	2333	0.10000	0.09608
\$ 6 Naphthalene-d8	136	11.776	11.776	(0.627)	26311	0.10000	0.09656
7 Naphthalene	128	11.846	11.846	(0.631)	26657	0.10000	0.09618
12 Benzo(b)thiophene	134	12.295	12.295	(0.655)	20802	0.10000	0.09434
16 2-Methylnaphthalene	141	13.680	13.680	(0.728)	13671	0.10000	0.09243
17 1-methylnaphthalene	141	14.131	14.131	(0.752)	13079	0.10000	0.09333
18 Biphenyl	154	15.317	15.317	(0.816)	20513	0.10000	0.09691
19 2,6-Dimethylnaphthalene	156	15.394	15.394	(0.820)	13296	0.10000	0.09128
20 Acenaphthylene	152	16.955	16.955	(0.903)	18914	0.10000	0.08252
\$ 21 Acenaphthene-d10	164	17.241	17.241	(0.918)	12486	0.10000	0.09384
22 Acenaphthene	153	17.361	17.361	(0.924)	12627	0.10000	0.08571
23 Dibenzofuran	168	17.735	17.735	(0.944)	20434	0.10000	0.09154
24 1,6,7-Trimethylnaphthalene	170	17.966	17.966	(0.957)	10919	0.10000	0.08542
* 25 Fluorene-d10	176	18.781	18.781	(1.000)	472157	2.00000	
26 Fluorene	166	18.883	18.883	(1.005)	14909	0.10000	0.09190
30 Dibenzothiophene	184	21.794	21.794	(1.160)	17816	0.10000	0.08700
\$ 35 Phenanthrene-d10	188	22.102	22.102	(0.995)	18198	0.10000	0.1033
36 Phenanthrene	178	22.190	22.190	(0.999)	20065	0.10000	0.1021
* 250 Anthracene-d10	188	22.223	22.223	(1.000)	325856	2.00000	
37 Anthracene	178	22.289	22.289	(1.003)	16177	0.10000	0.08927
42 Carbazole	167	23.564	23.565	(1.060)	9889	0.10000	0.06636
43 1-Methylphenanthrene	192	24.015	24.015	(1.081)	9946	0.10000	0.08333
44 Fluoranthene	202	25.994	25.994	(1.170)	15945	0.10000	0.09133
46 Pyrene	202	26.841	26.841	(1.208)	15690	0.10000	0.08672
51 Naphthobenzothiophene	234	29.384	29.384	(1.322)	13512	0.10000	0.07664
55 Benzo(a)anthracene	228	29.964	29.964	(0.907)	9383	0.10000	0.06355
\$ 56 Chrysene-d12	240	30.087	30.087	(0.910)	9306	0.10000	0.07674
57 Chrysene	228	30.166	30.166	(0.913)	13256	0.10000	0.08505
62 Benzo(b)fluoranthene	252	32.385	32.386	(0.980)	8858	0.10000	0.06481 (M)
63 Benzo(k)fluoranthene	252	32.430	32.430	(0.981)	11468	0.10000	0.06864 (M)
293 Benzo(j)fluoranthene	252	32.498	32.498	(0.983)	14236	0.10000	0.08967 (M)
246 Total Benzofluoranthenes	252	32.498	32.497	(0.983)	32397	0.30000	0.2137 (M)

Compounds	QUANT SIG						AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)	
* 251 Benzo(e)pyrene-d12	264	33.050	33.050	(1.000)	333740	2.00000		
64 Benzo(e)pyrene	252	33.106	33.106	(1.002)	12512	0.10000	0.08802	
66 Benzo(a)pyrene	252	33.207	33.208	(1.005)	9145	0.10000	0.06343	
\$ 67 Perylene-d12	264	33.388	33.388	(1.010)	8370	0.10000	0.06613	
68 Perylene	252	33.433	33.433	(1.012)	11834	0.10000	0.08717 (M)	
69 Indeno(1,2,3-cd)pyrene	276	35.415	35.415	(1.072)	9073	0.10000	0.06210	
70 Dibenzo(a,h)anthracene	278	35.404	35.404	(1.071)	6753	0.10000	0.05372	
74 Benzo(g,h,i)perylene	276	36.293	36.293	(1.098)	10019	0.10000	0.07835	

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 30-APR-2021
 Lab File ID: NT1421043009.D Calibration Time: 07:56
 Lab Smp Id: SJD0305-CAL1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	420456	210228	840912	472157	12.30
250 Anthracene-d10	381033	190517	762066	325856	-14.48
251 Benzo(e)pyrene-d1	370998	185499	741996	333740	-10.04

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.78	18.28	19.28	18.78	0.00
250 Anthracene-d10	22.22	21.72	22.72	22.22	0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	0.00

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.

REVIEW SUMMARY FOR FILE - NT1421043009.D

Lab ID: SJD0305-CAL1

nt14.i, 20210430.b\ALKYLPNA.m, 30-APR-2021 13:32

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

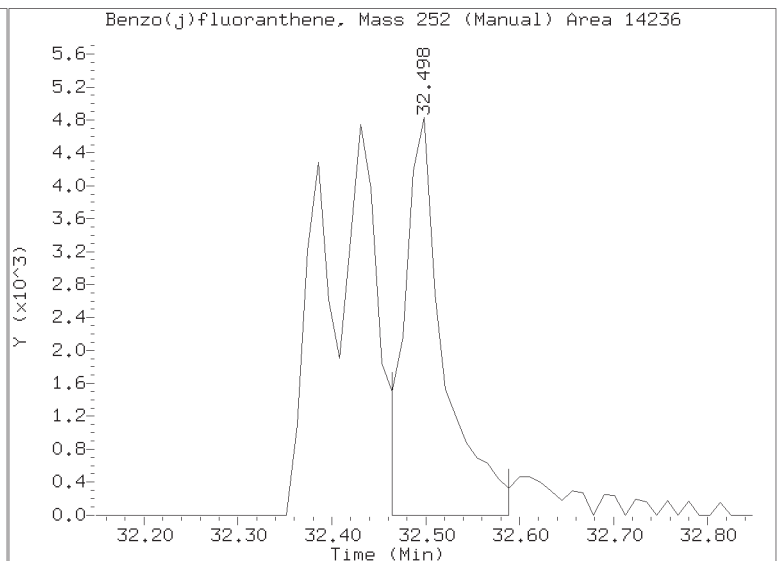
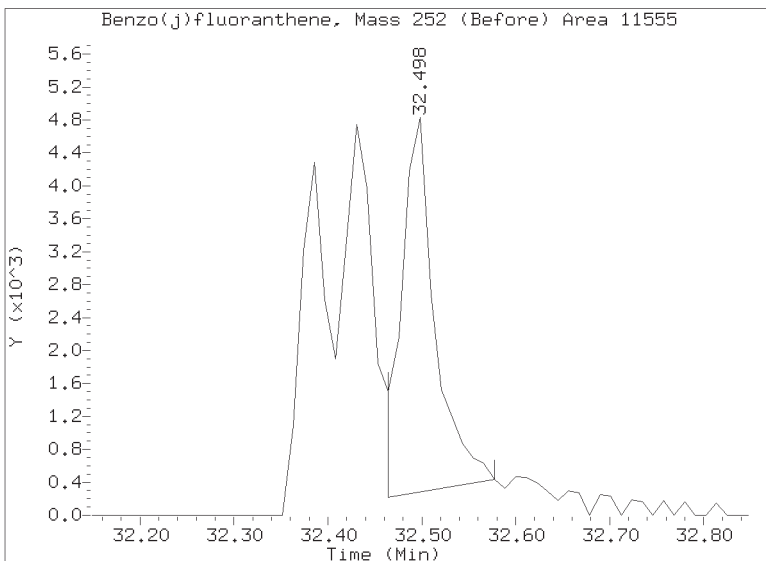
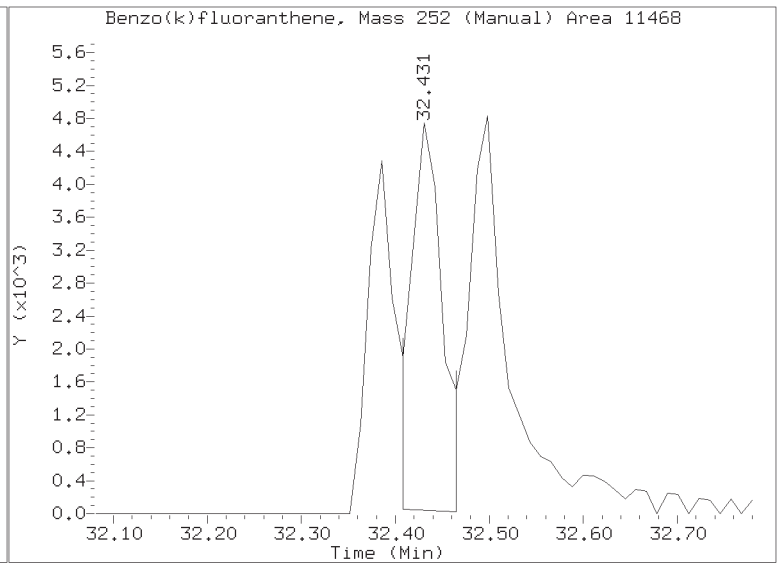
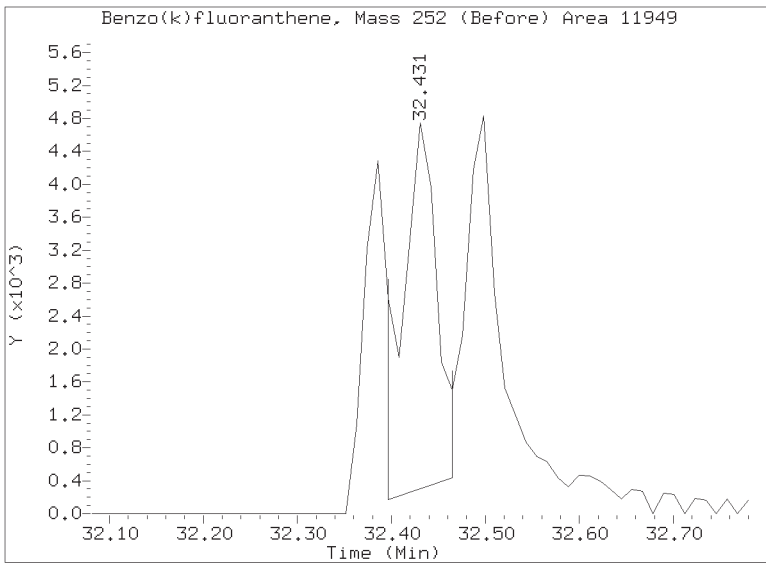
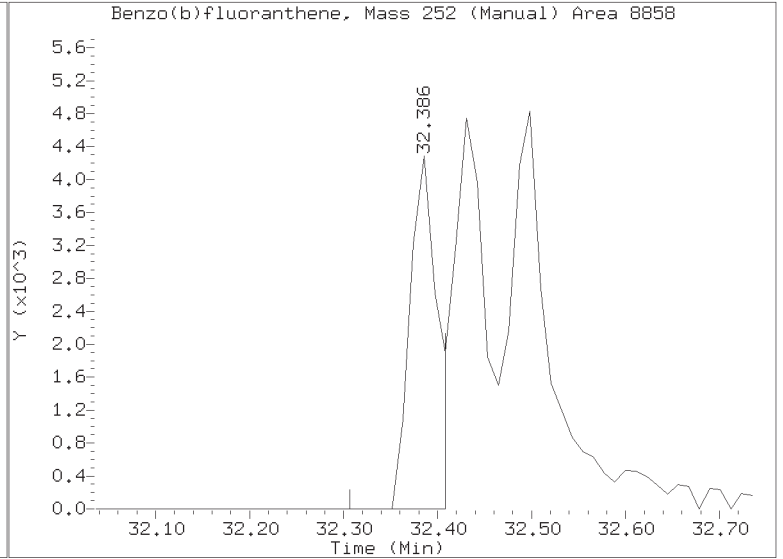
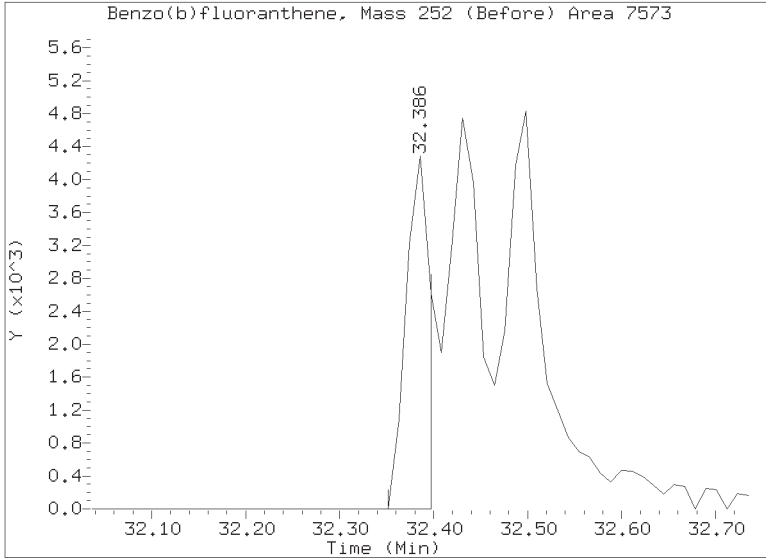
RRT check based on Ccal File: NT1421043009.D

On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043009.D
Injection Date: 30-APR-2021 13:32
Lab ID: SJD0305-CAL1 Client ID:
Report Date: 05/01/2021 09:18



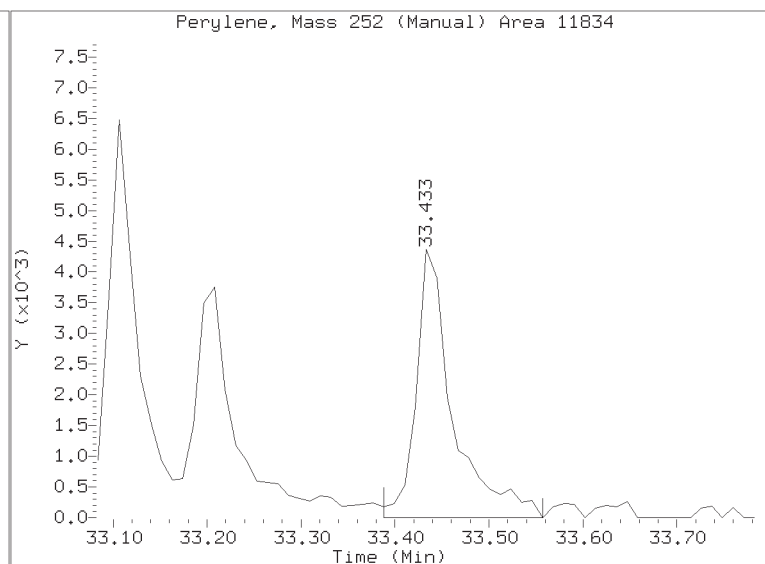
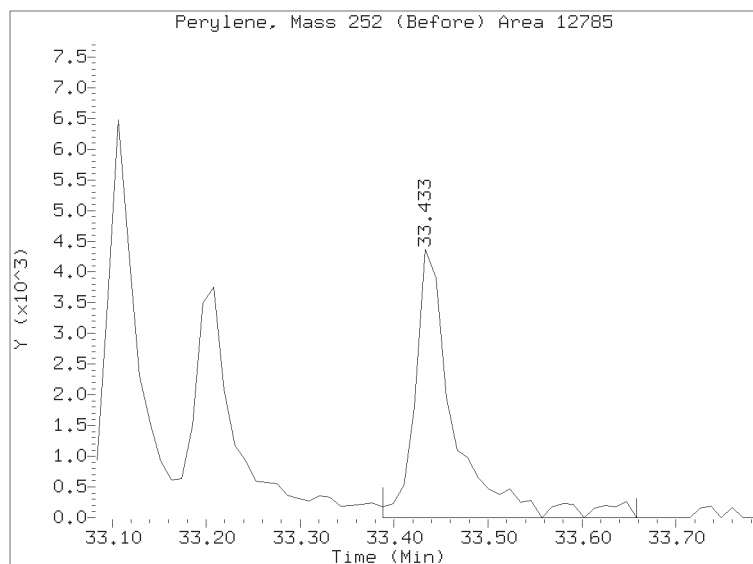
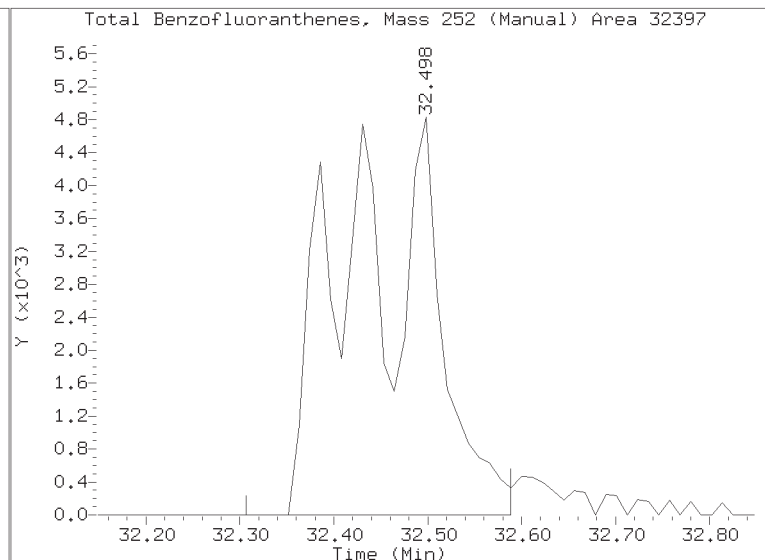
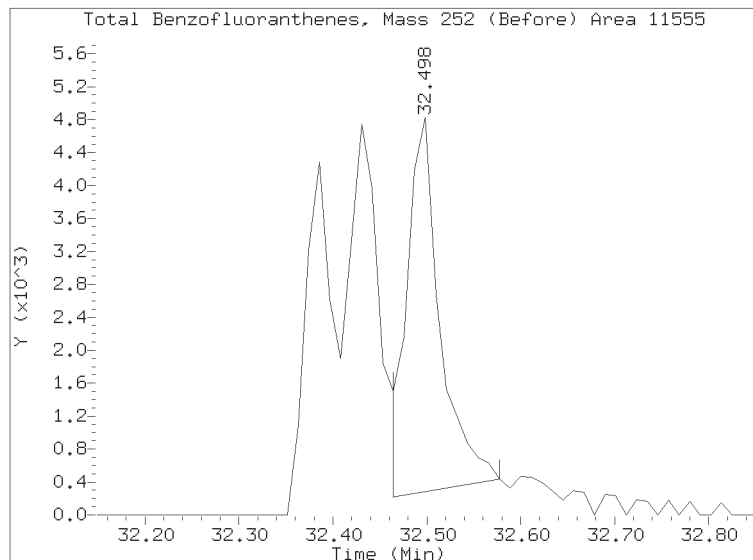
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043009.D

Injection Date: 30-APR-2021 13:32

Lab ID: SJD0305-CAL1 Client ID:

Report Date: 05/01/2021 09:18



Data File: \\target\share\chem3\nt14.1\20210430.6\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Sample Info: SJD0305-SCV1

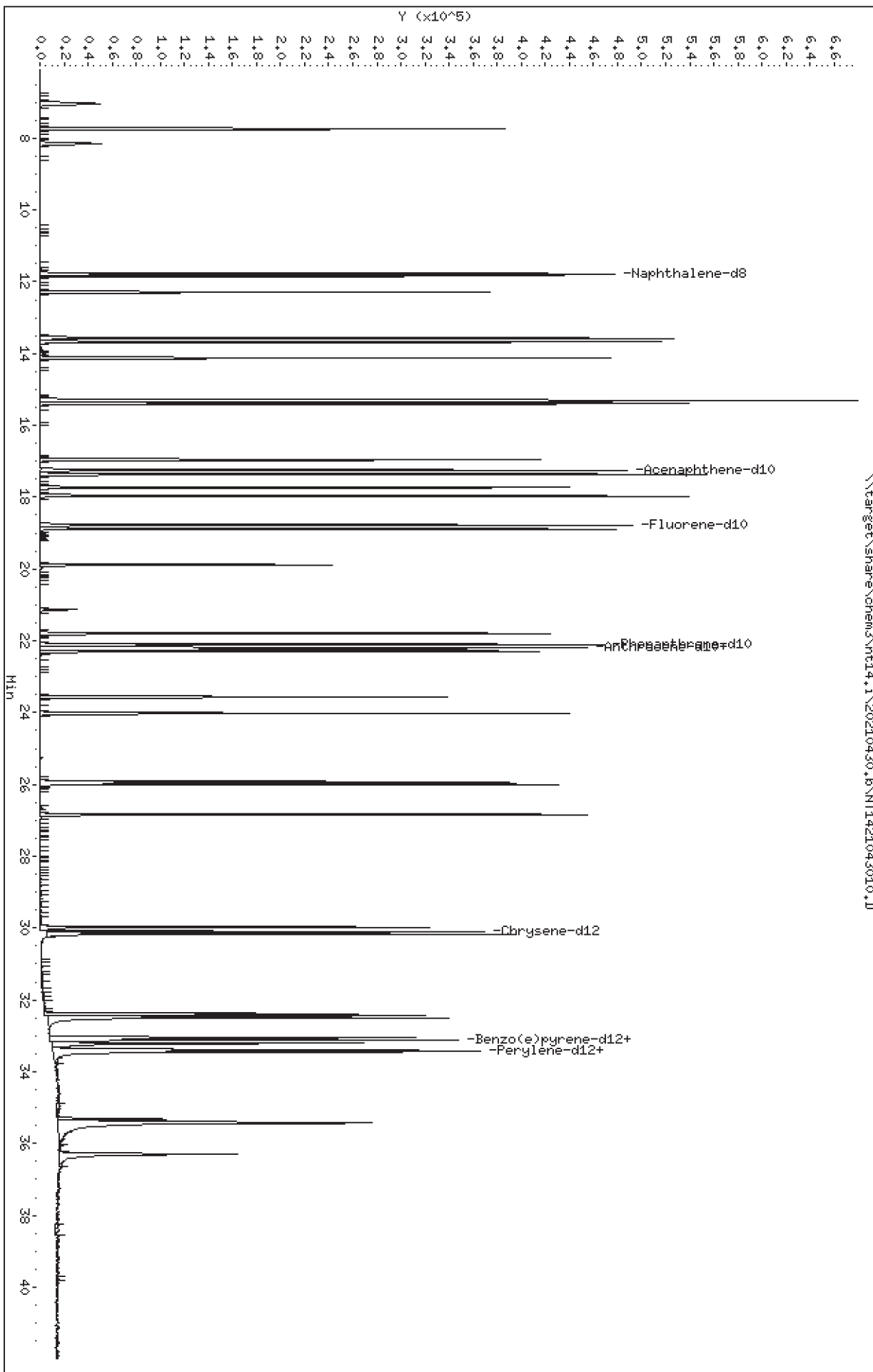
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14.1\20210430.6\NT1421043010.D



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

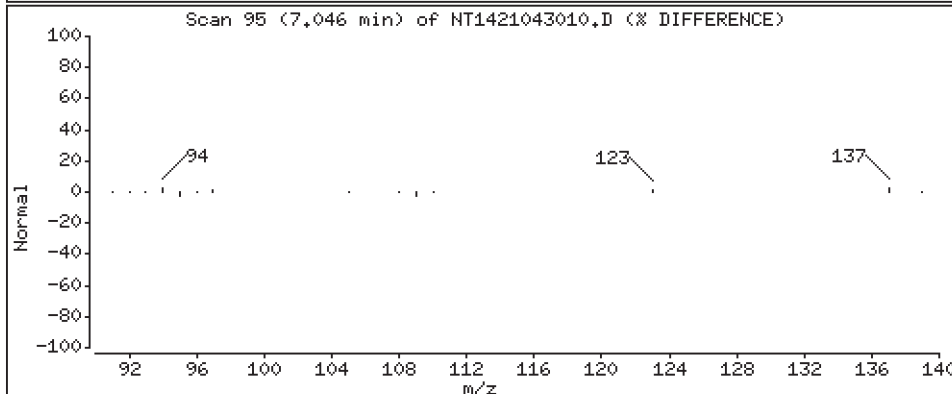
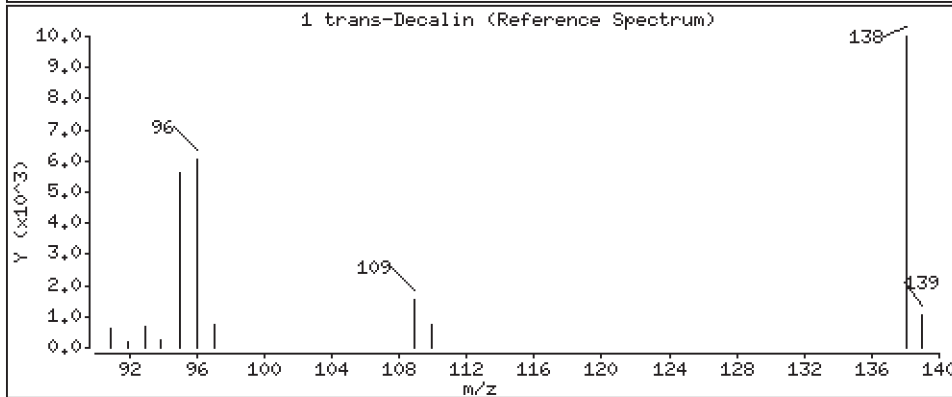
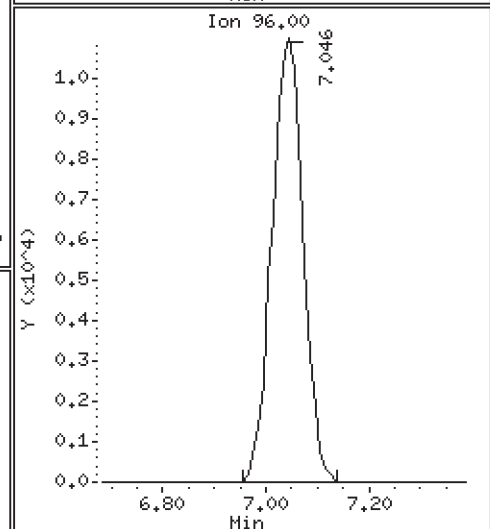
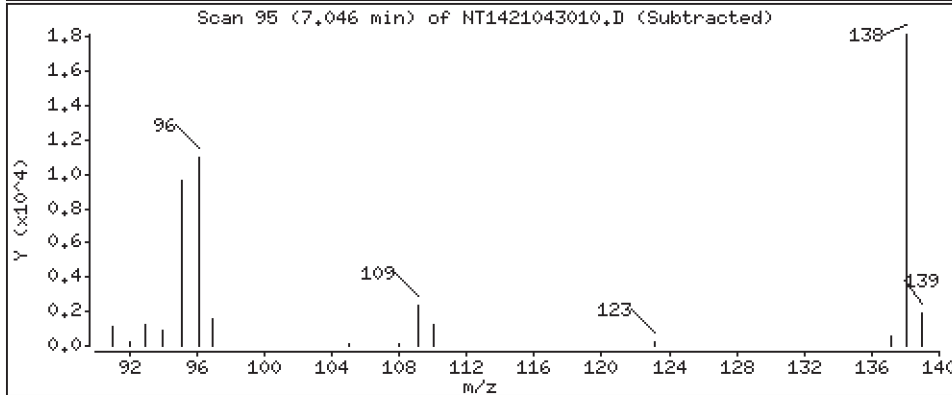
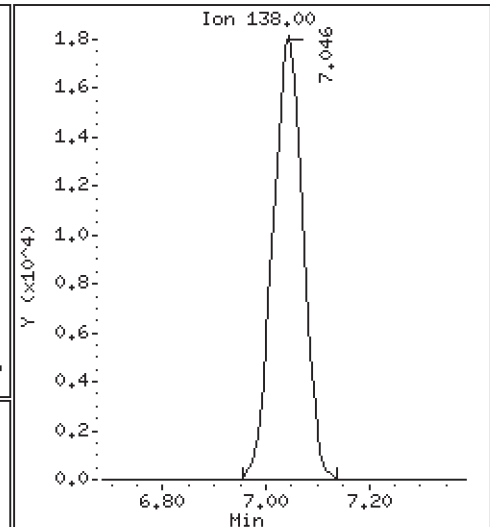
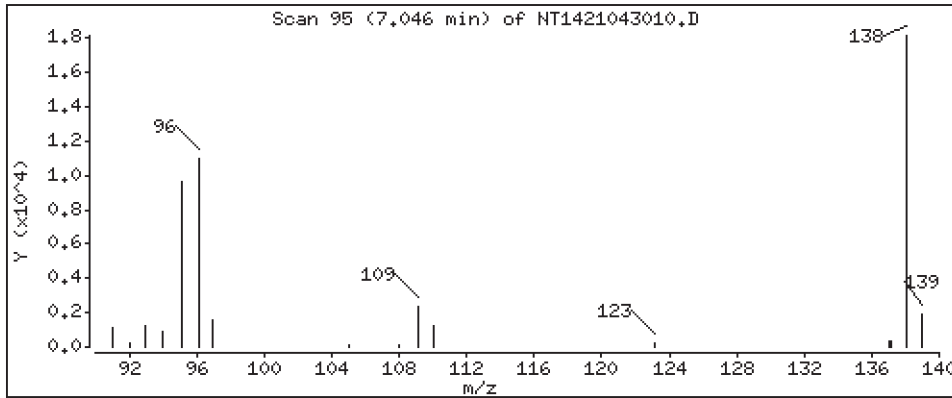
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

1 trans-Decalin

Concentration: 2,843 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

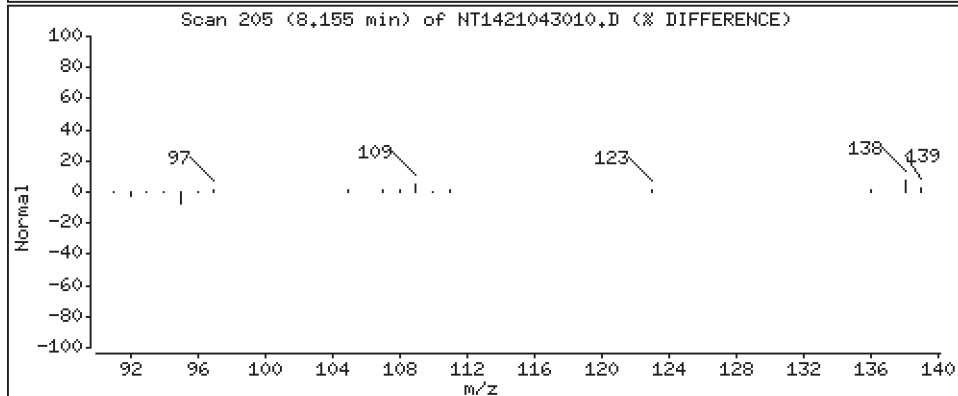
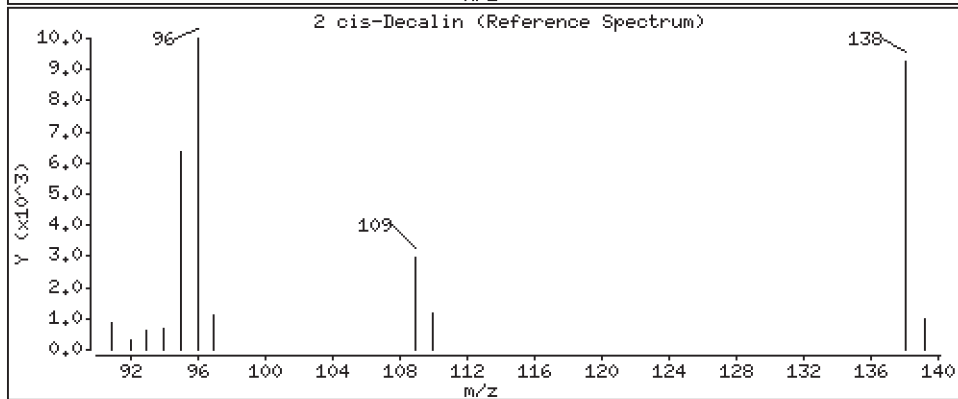
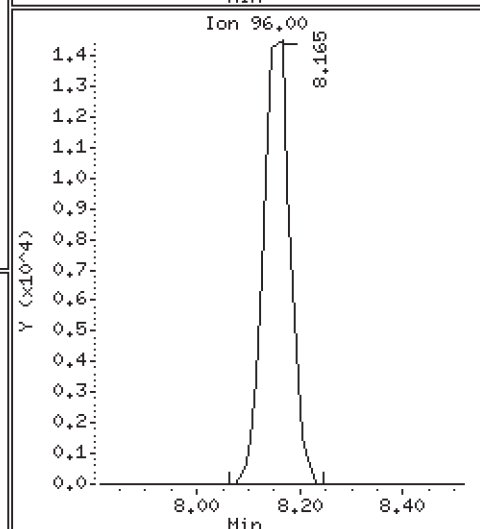
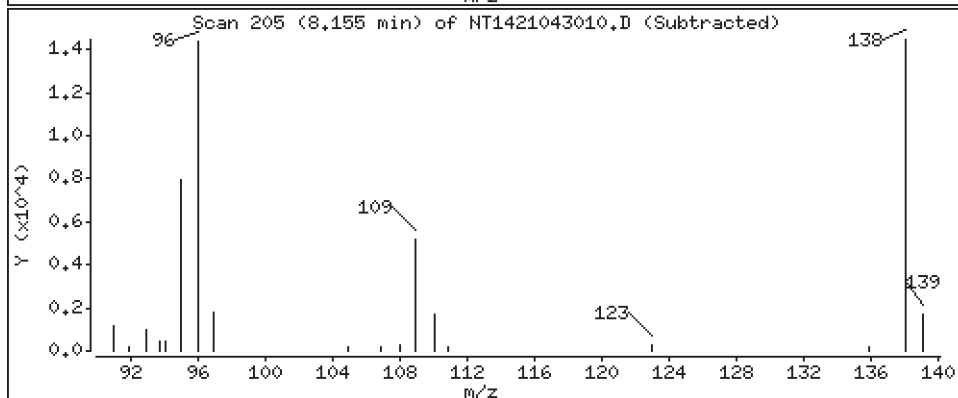
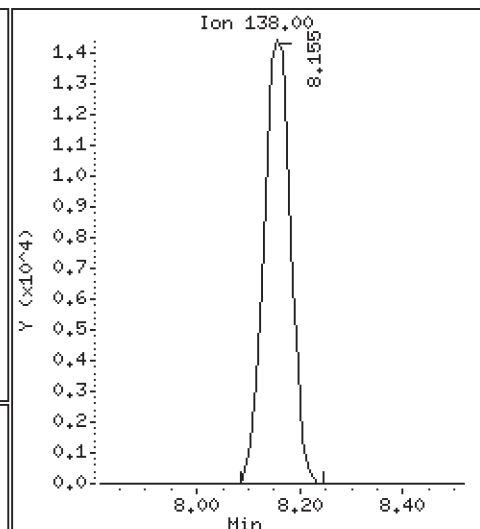
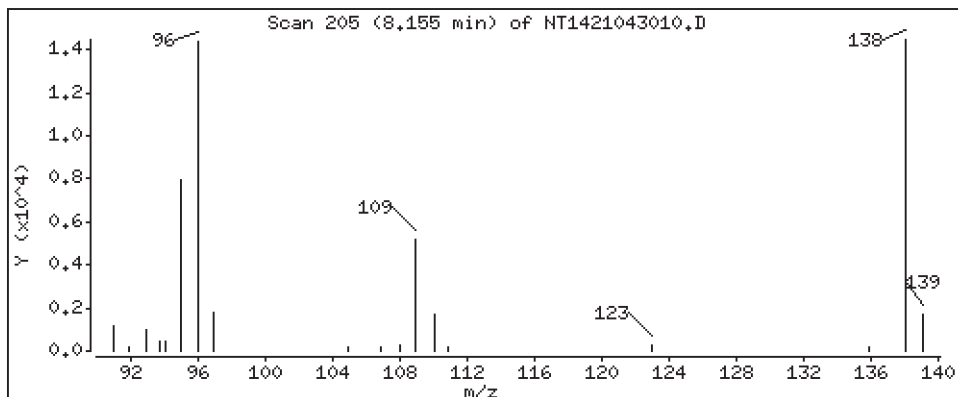
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

2 cis-Decalin

Concentration: 2.910 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

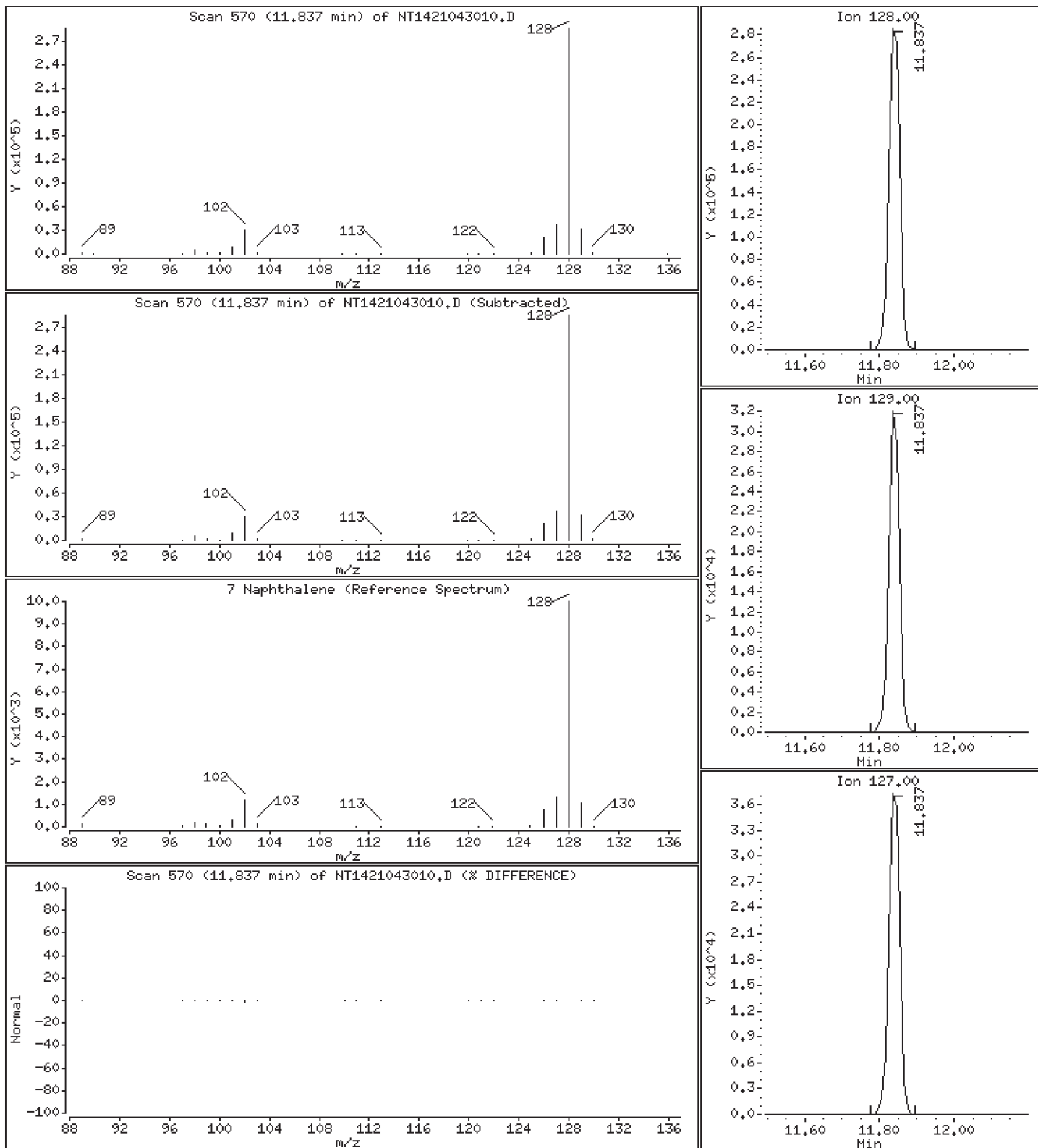
Operator: WTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

7 Naphthalene

Concentration: 2,783 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

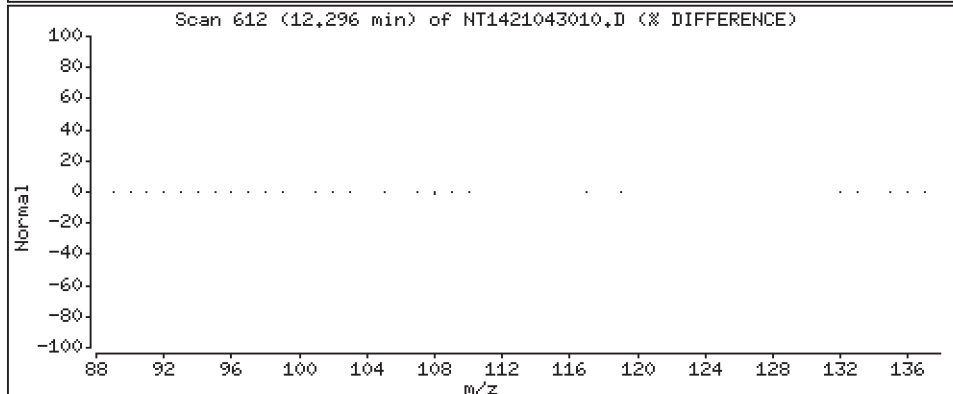
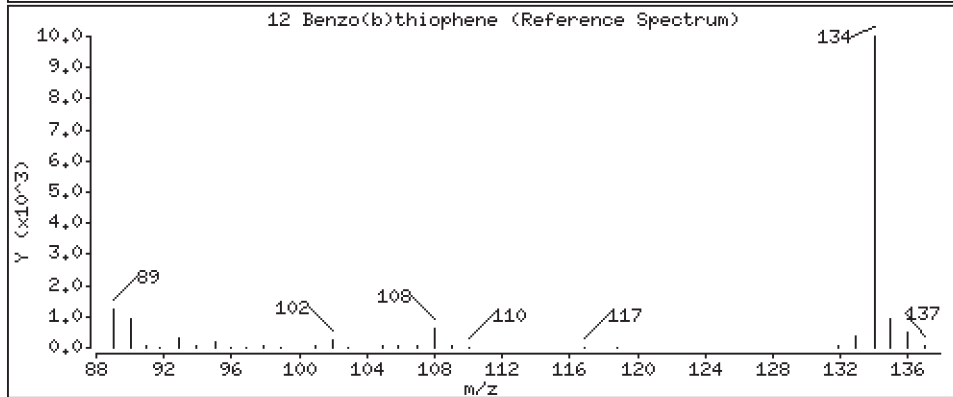
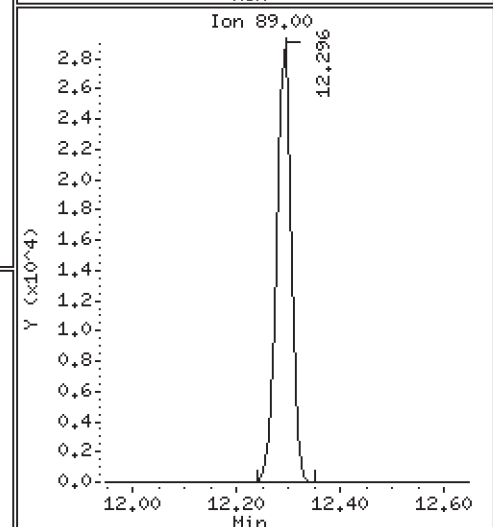
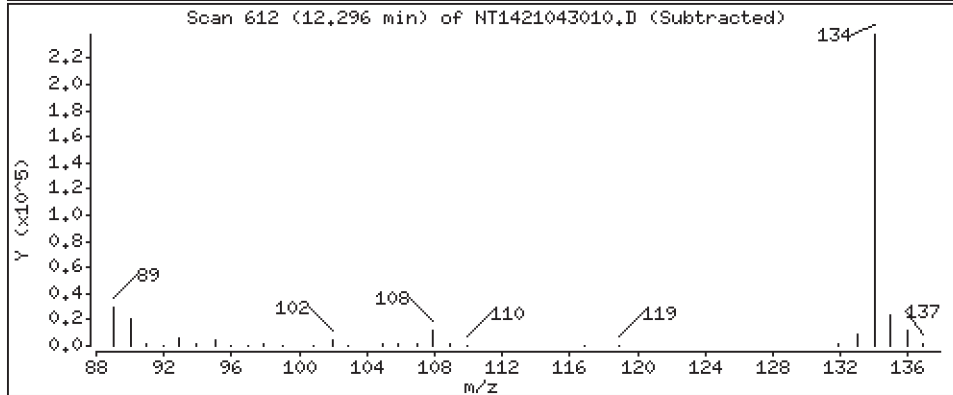
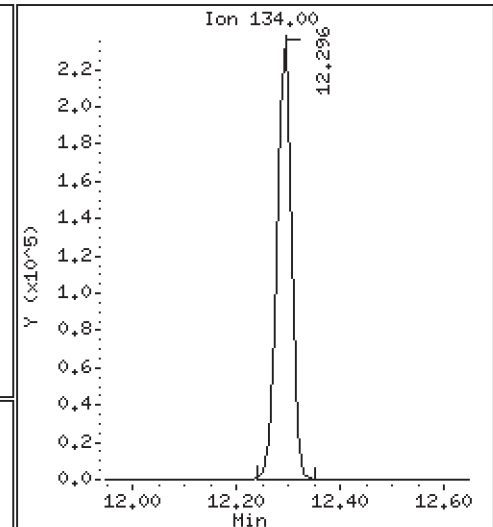
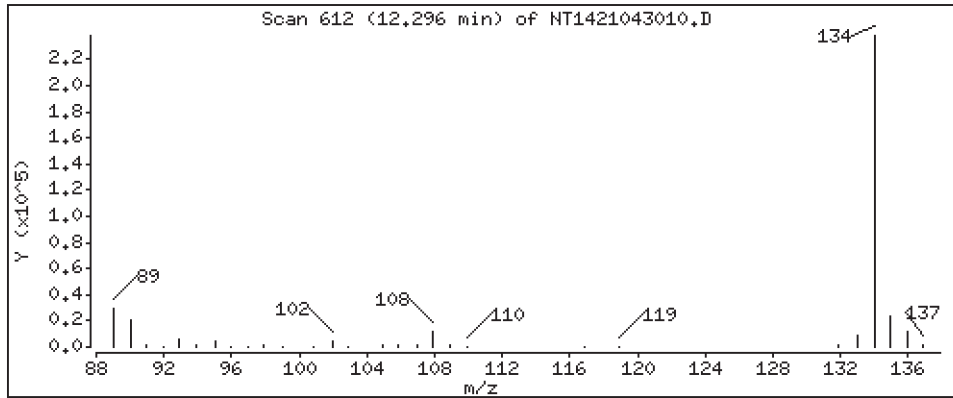
Operator: WTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

12 Benzo(b)thiophene

Concentration: 2,787 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

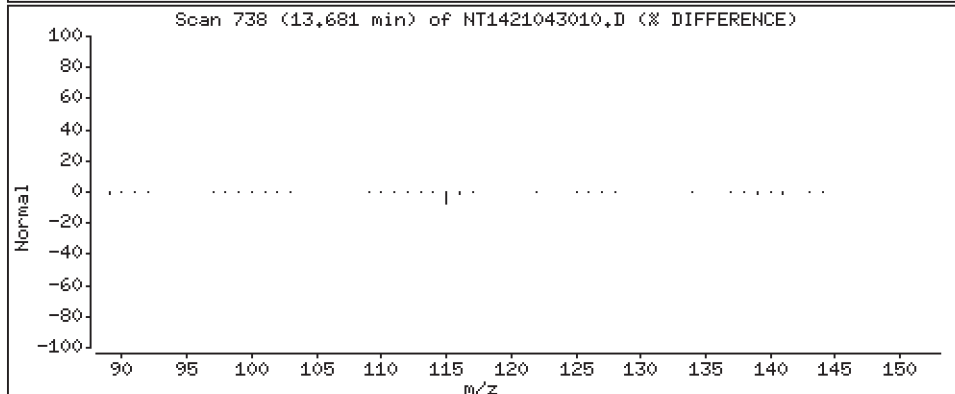
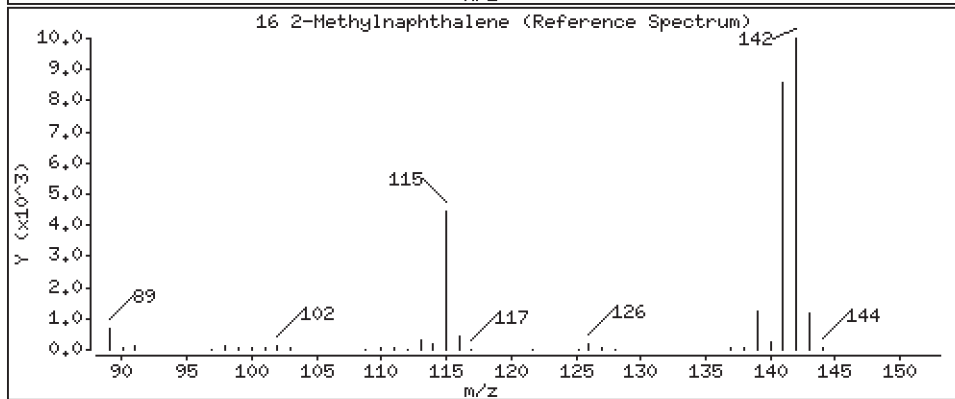
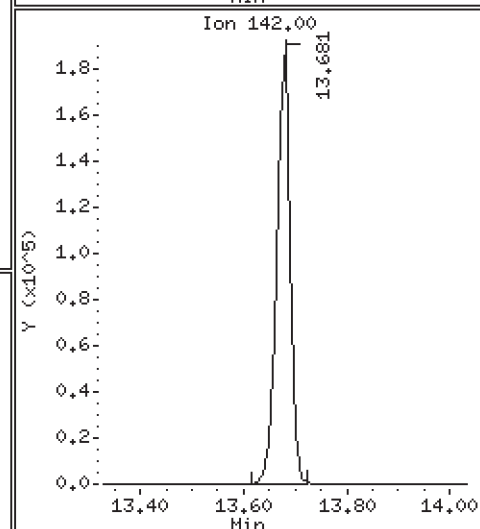
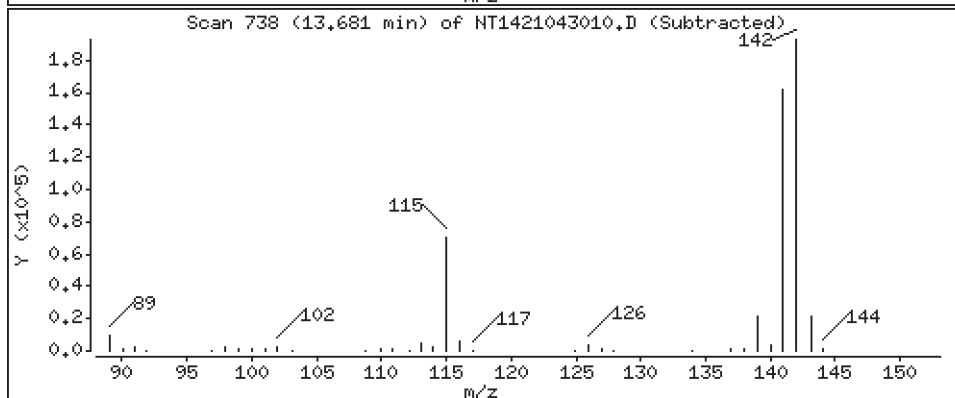
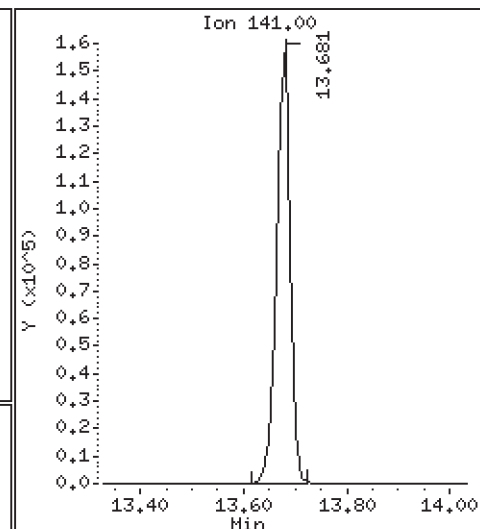
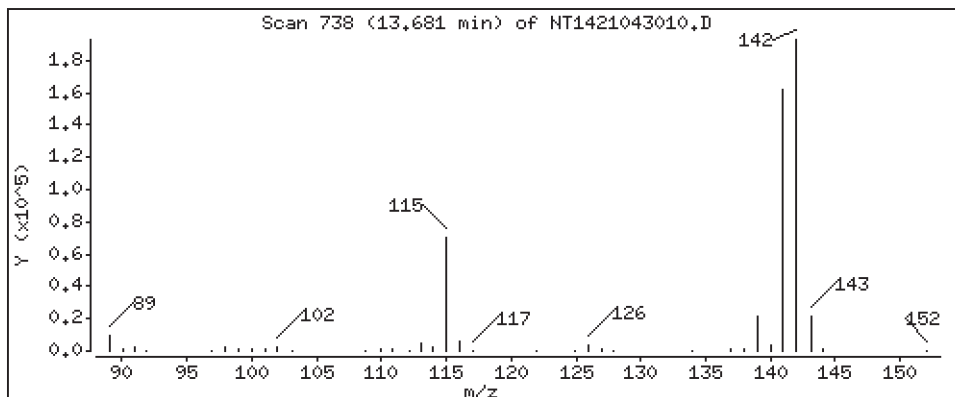
Operator: WTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 2-Methylnaphthalene

Concentration: 2,845 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

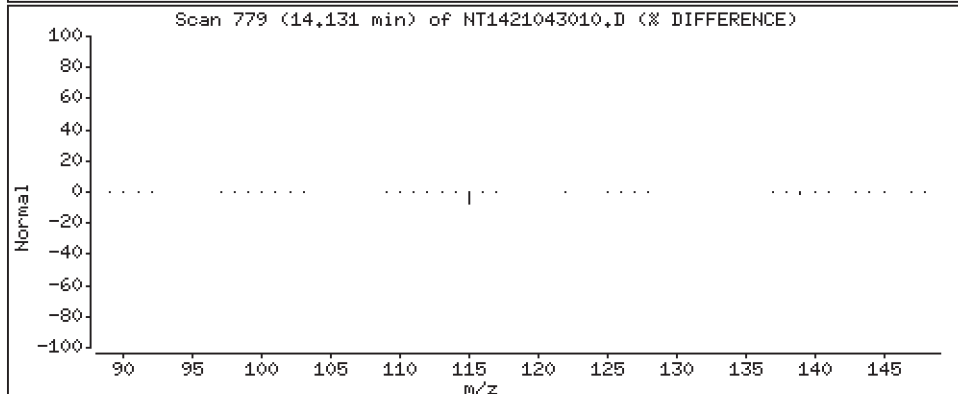
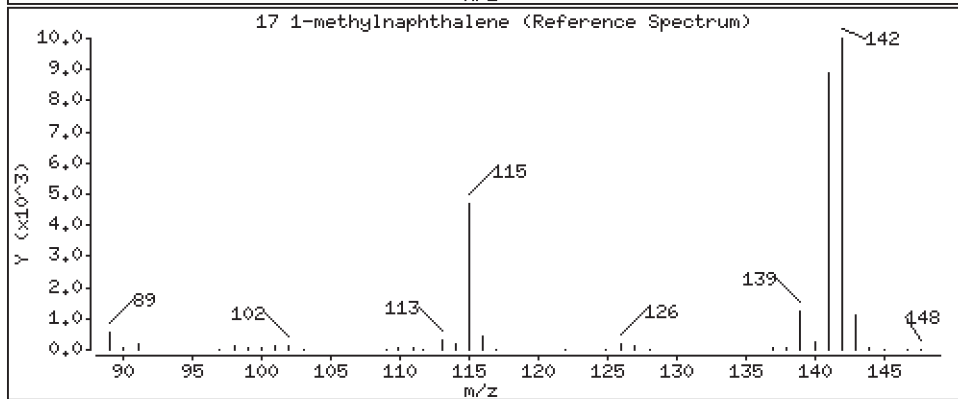
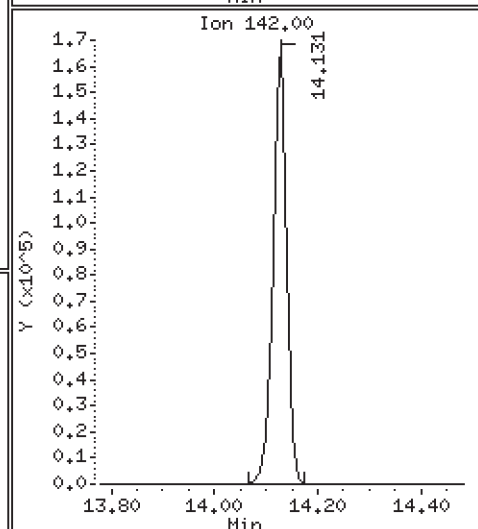
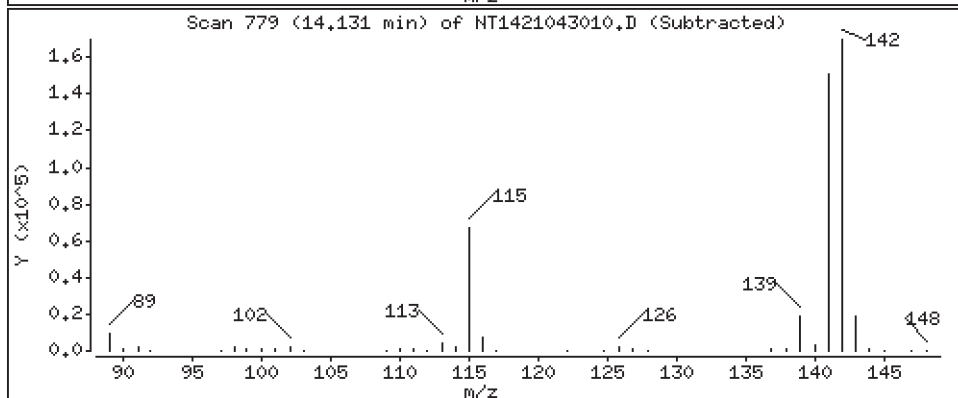
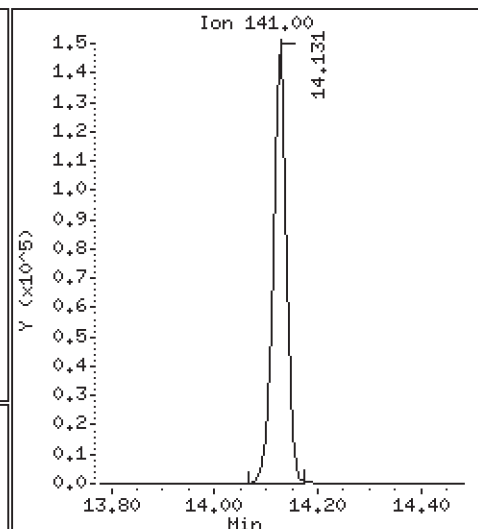
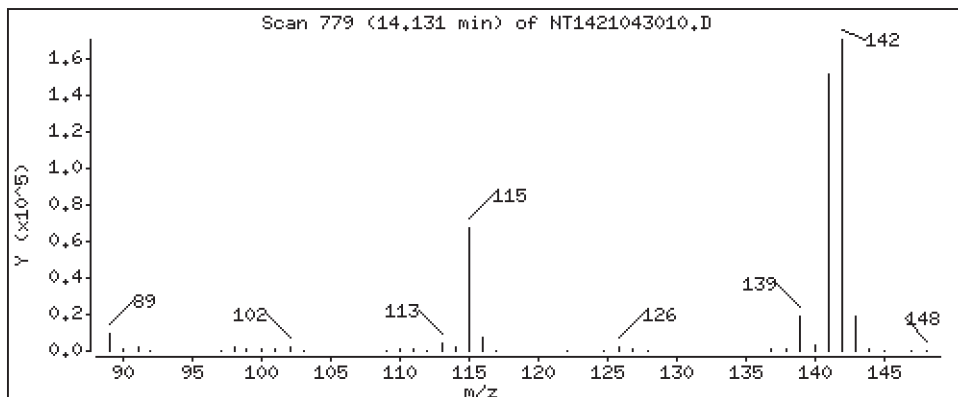
Operator: WTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 1-methylnaphthalene

Concentration: 2,821 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

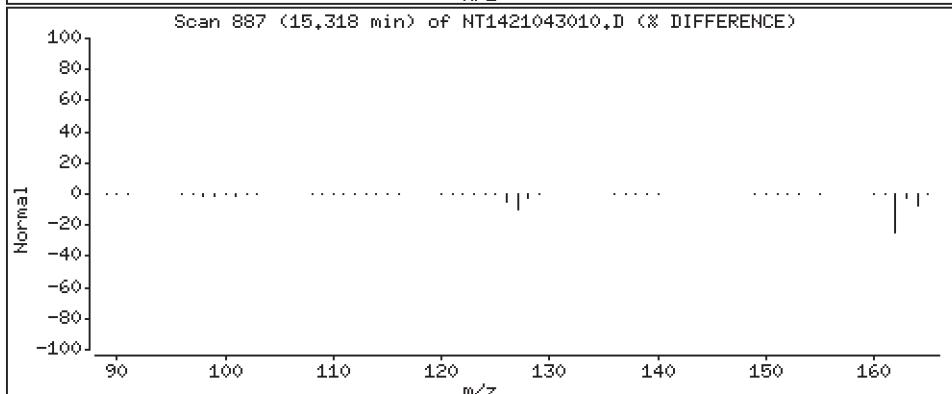
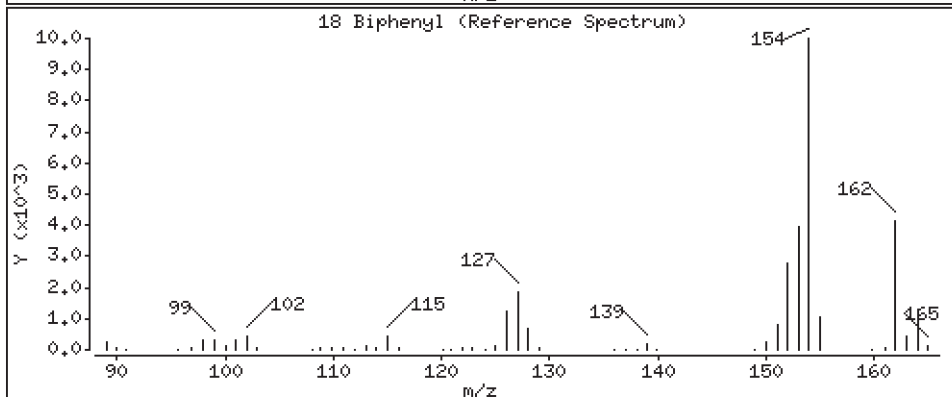
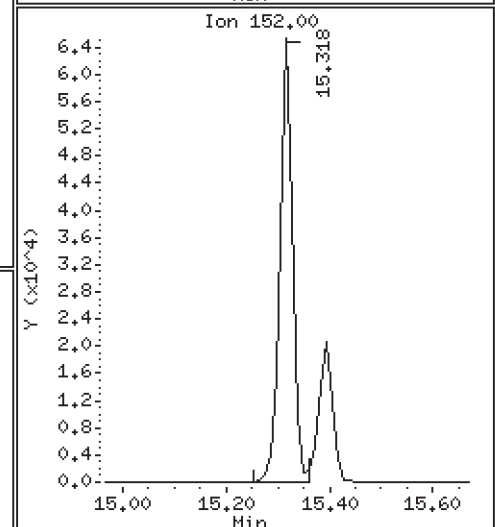
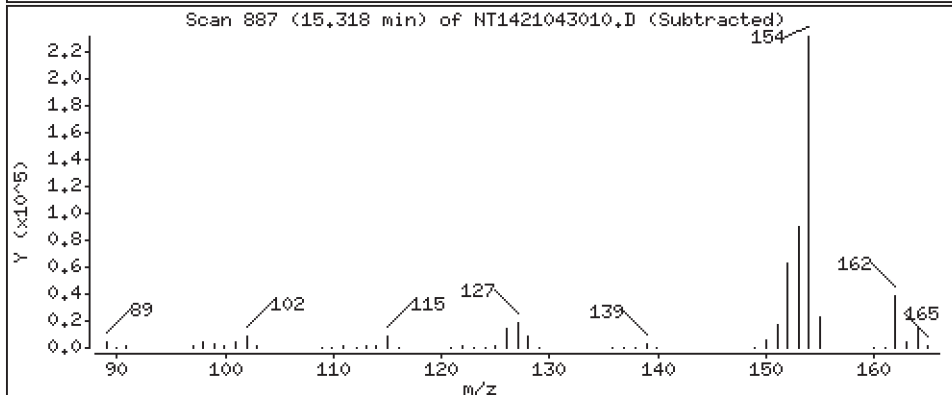
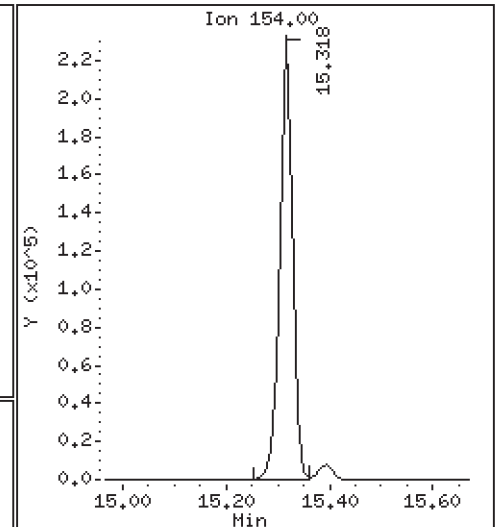
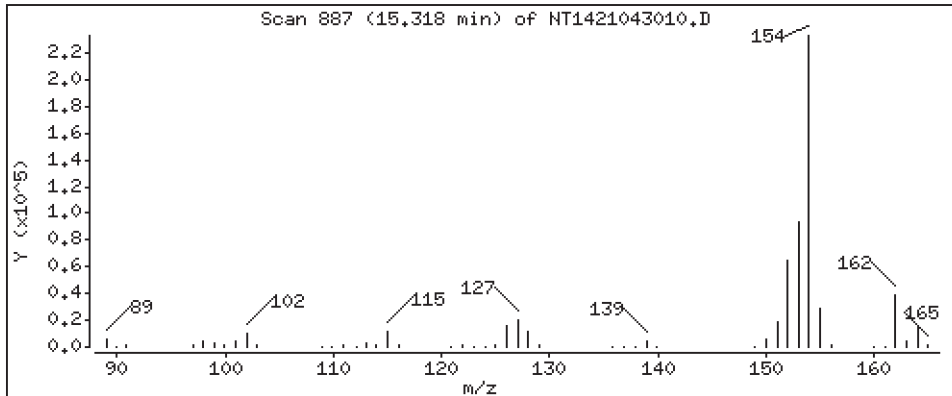
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

18 Biphenyl

Concentration: 2,765 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

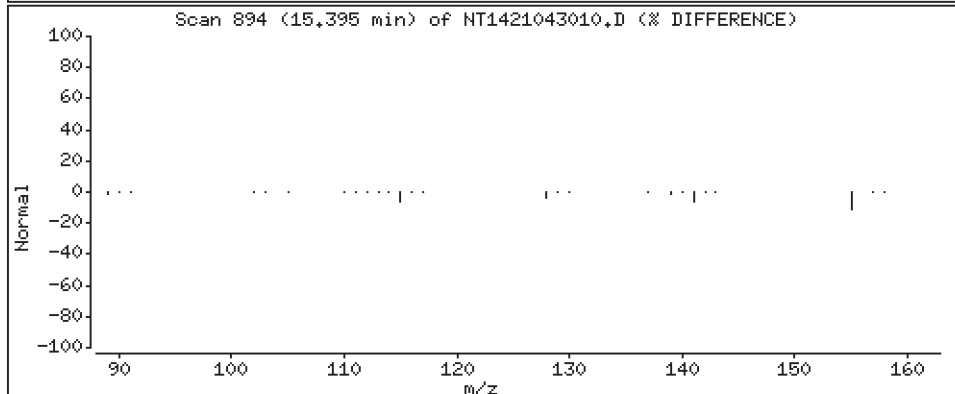
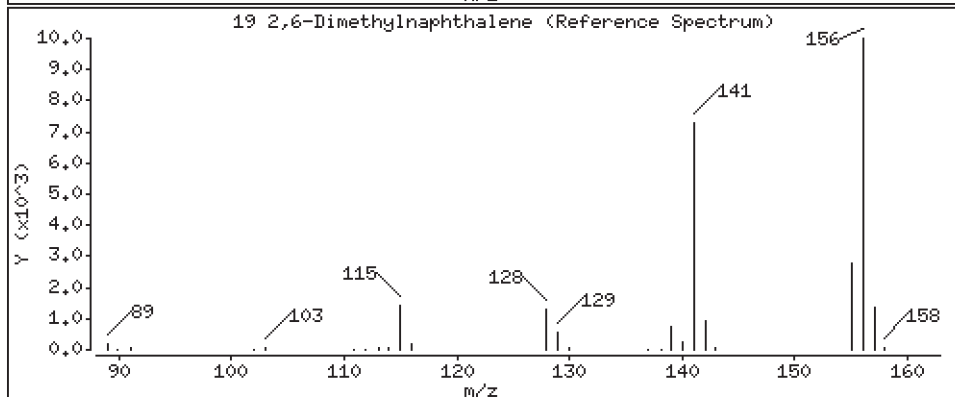
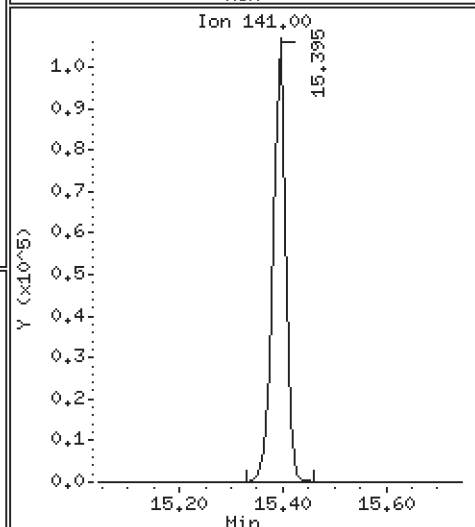
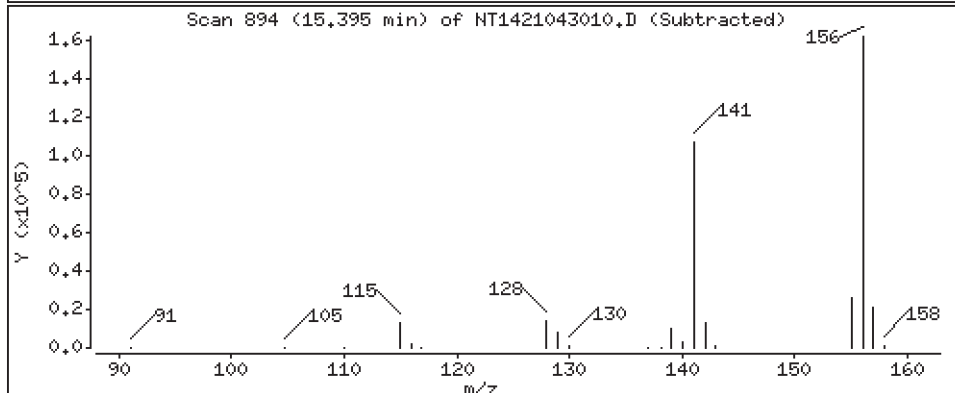
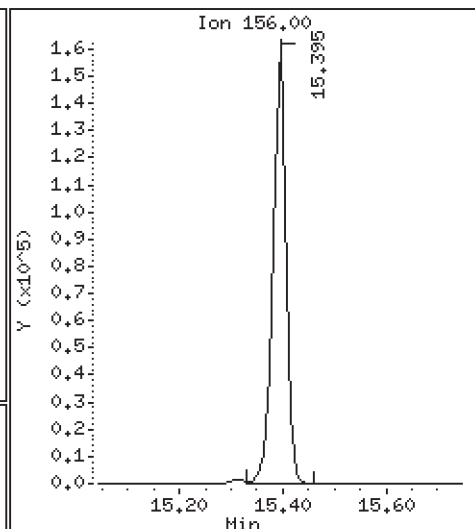
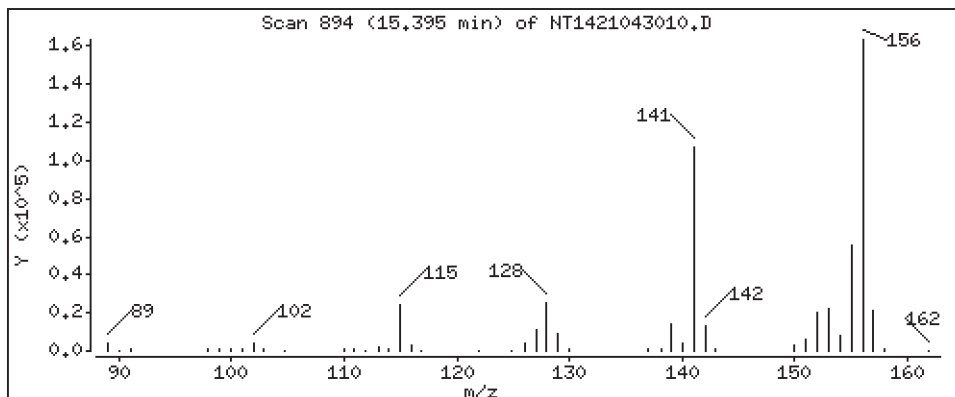
Operator: WTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 2,6-Dimethylnaphthalene

Concentration: 2,822 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

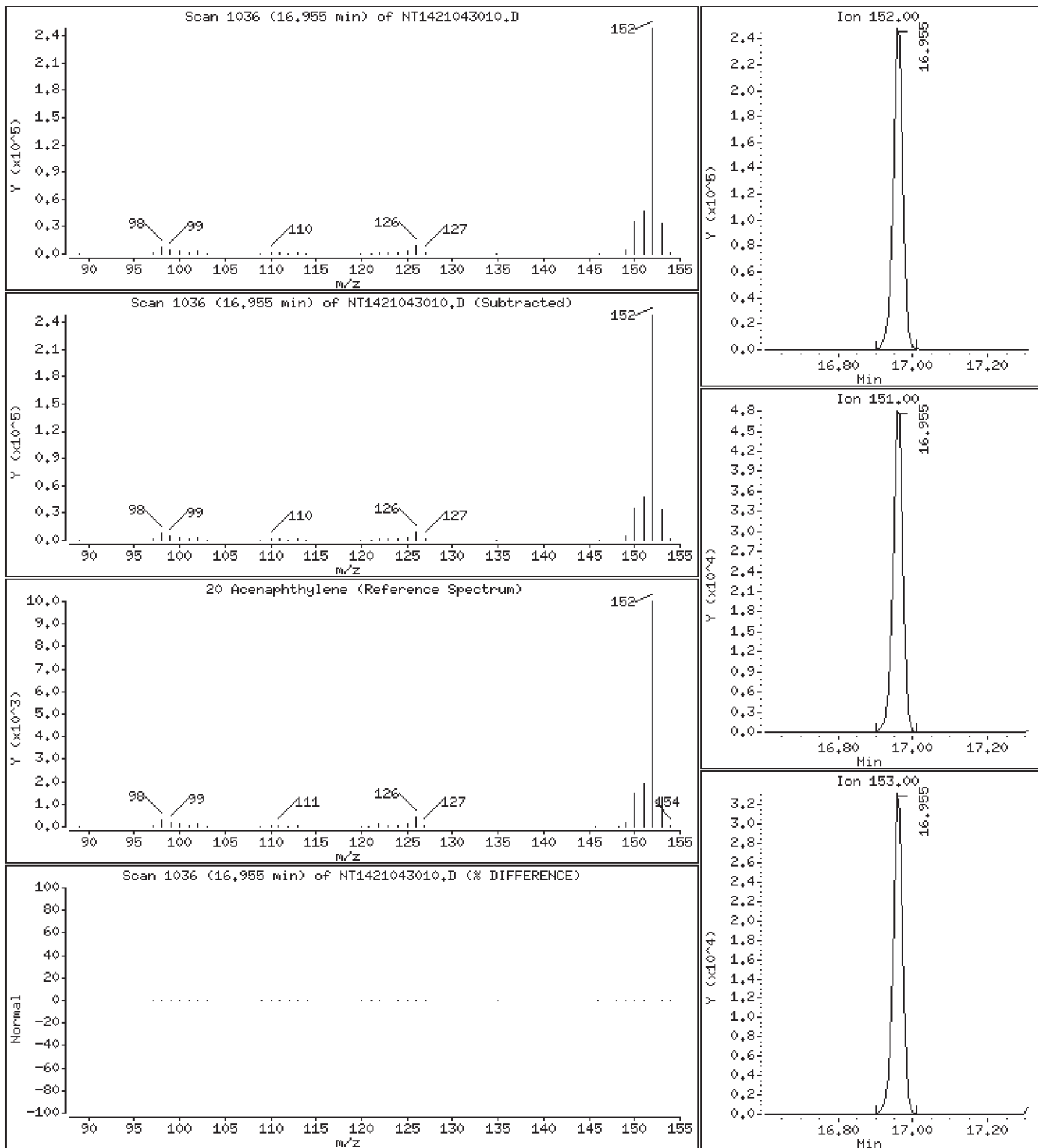
Operator: WTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

20 Acenaphthylene

Concentration: 2,889 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

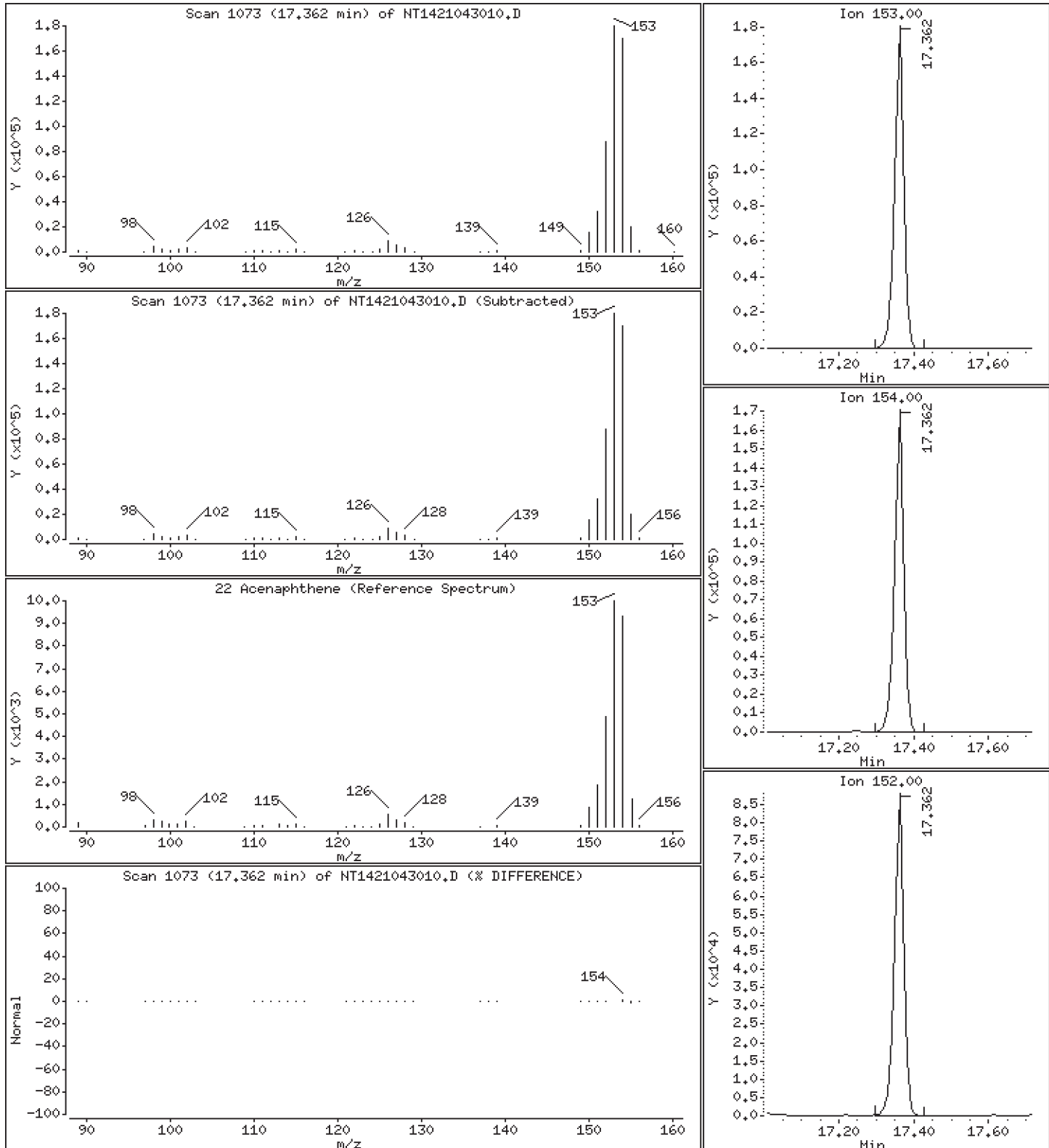
Operator: WTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Acenaphthene

Concentration: 3,010 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

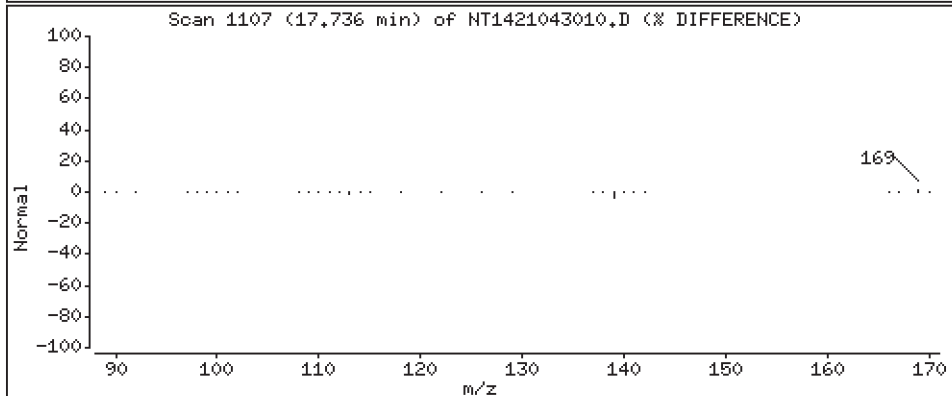
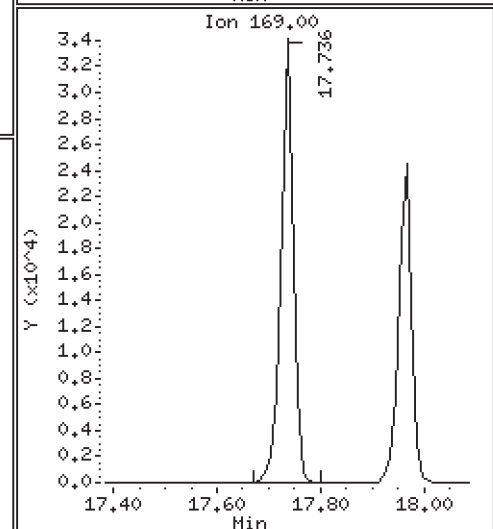
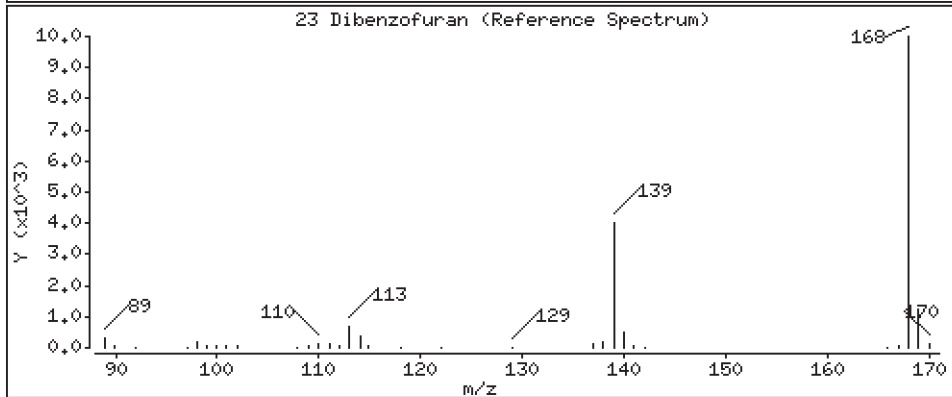
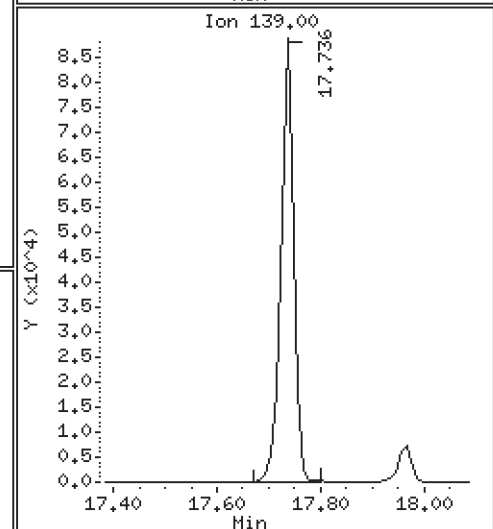
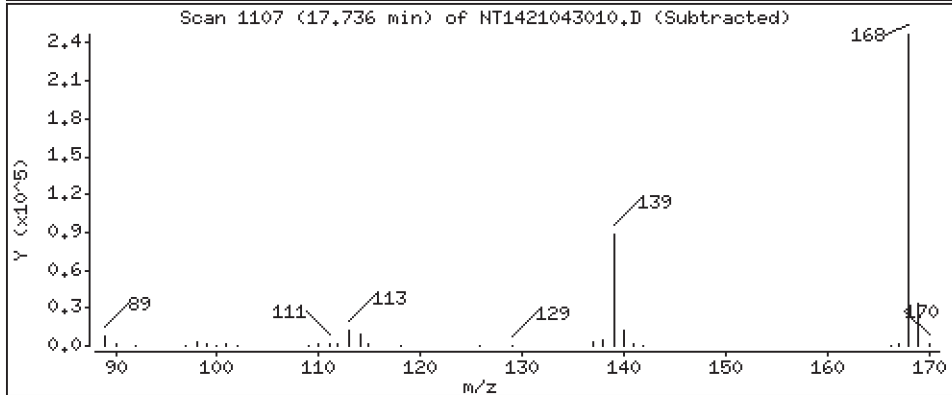
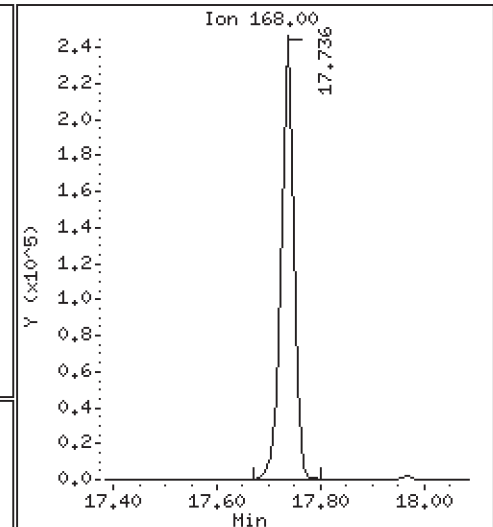
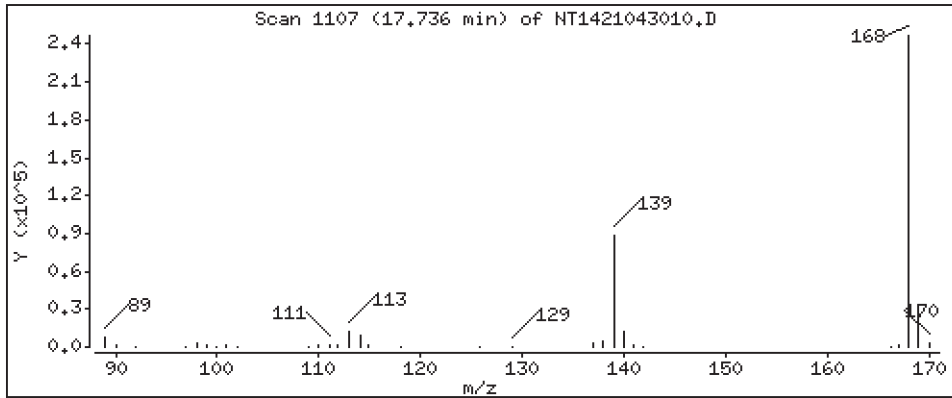
Operator: WTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 Dibenzofuran

Concentration: 2,768 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

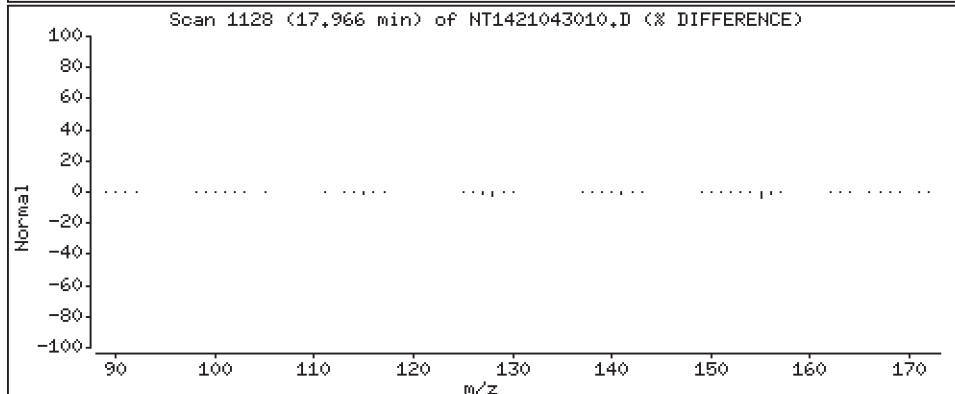
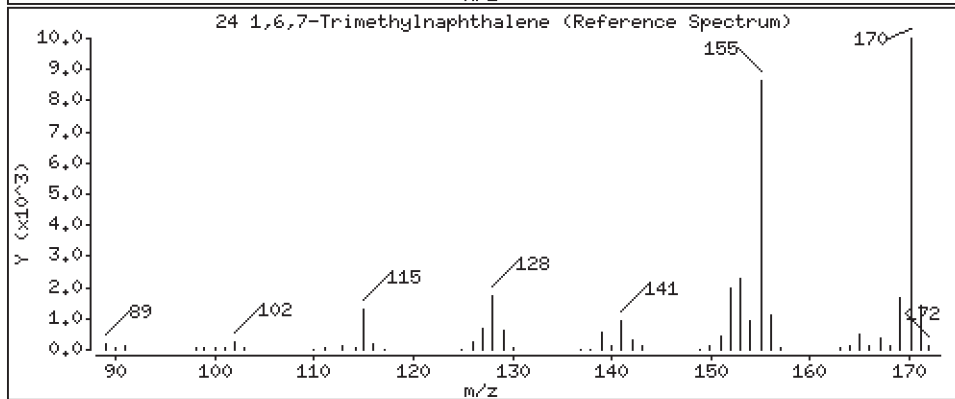
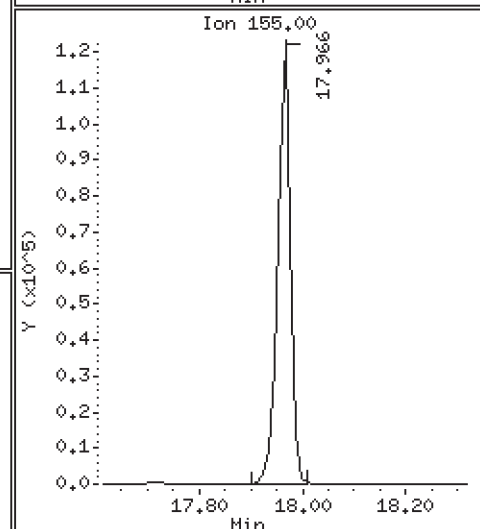
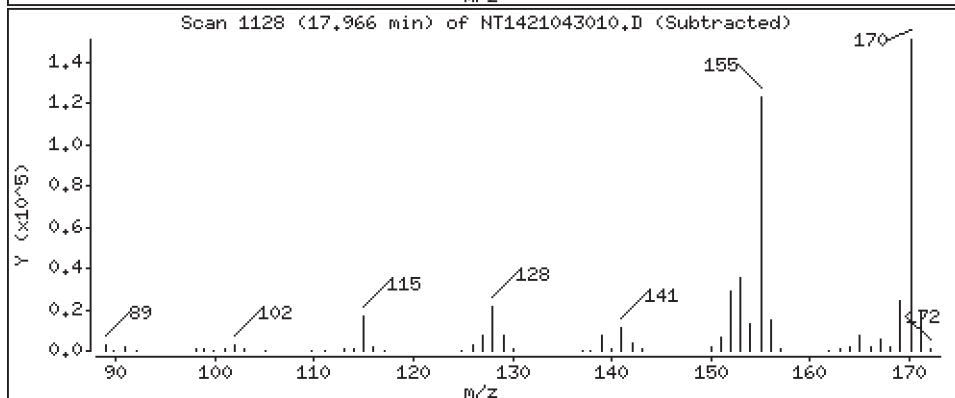
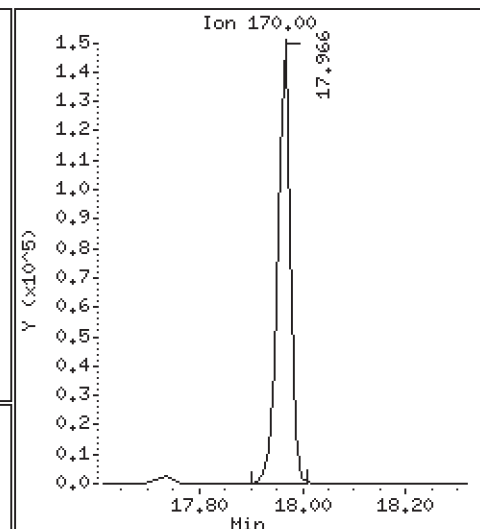
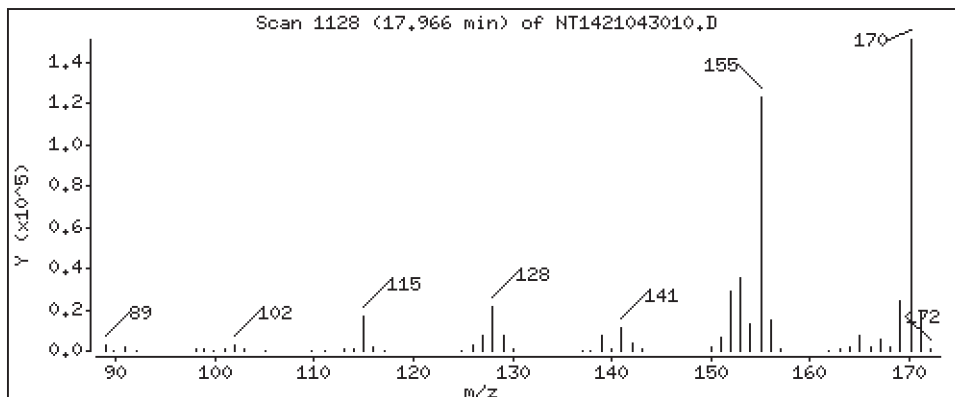
Operator: WTS

Column phase: Rxi-17Si1 MS

Column diameter: 0,25

24 1,6,7-Trimethylnaphthalene

Concentration: 2,923 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

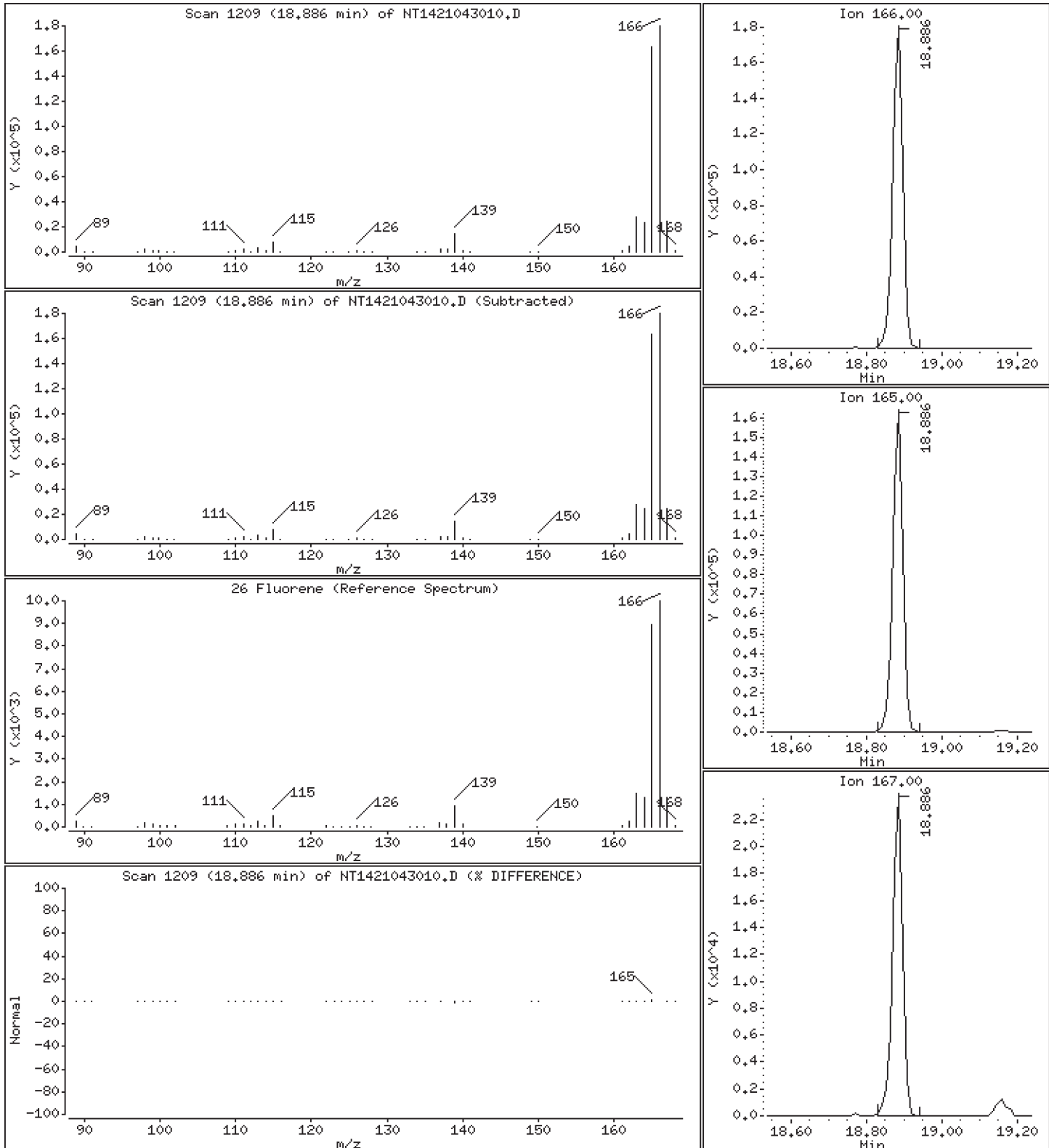
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Fluorene

Concentration: 2,844 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

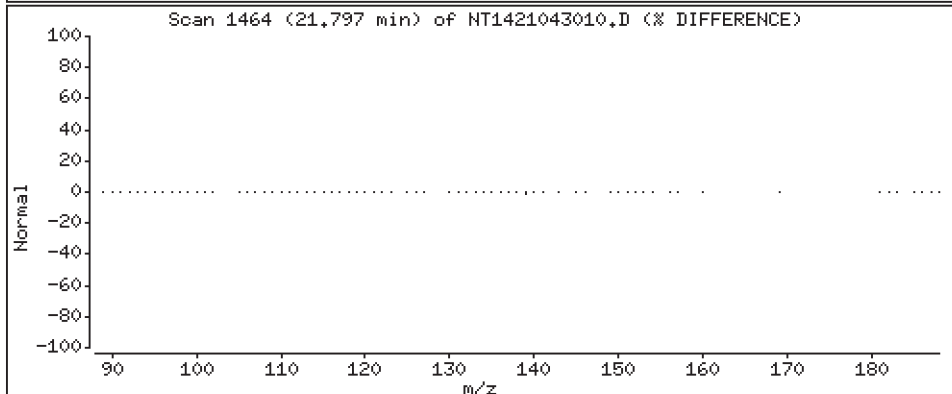
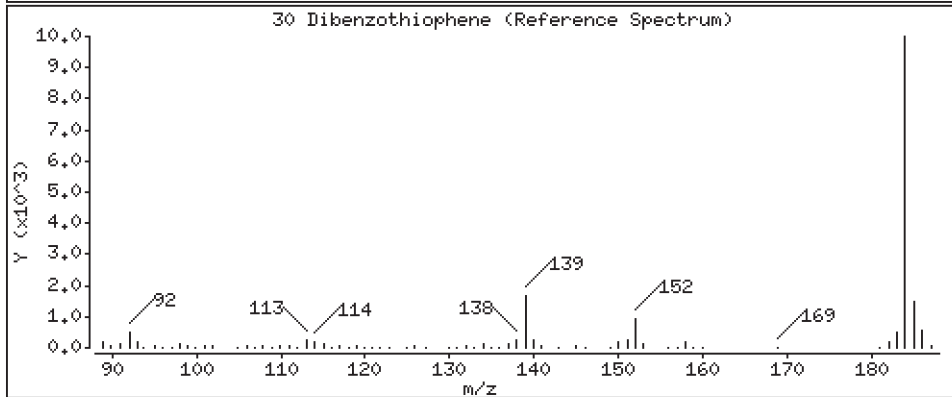
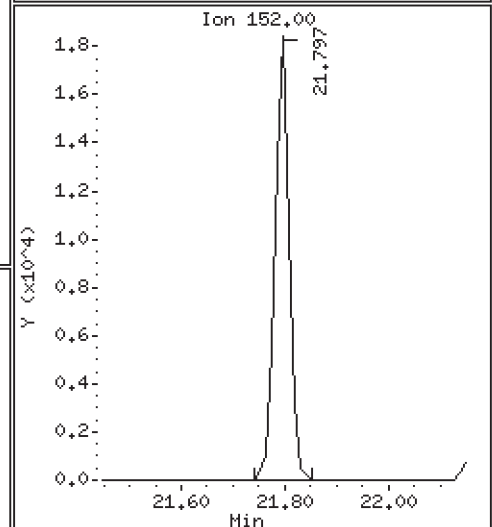
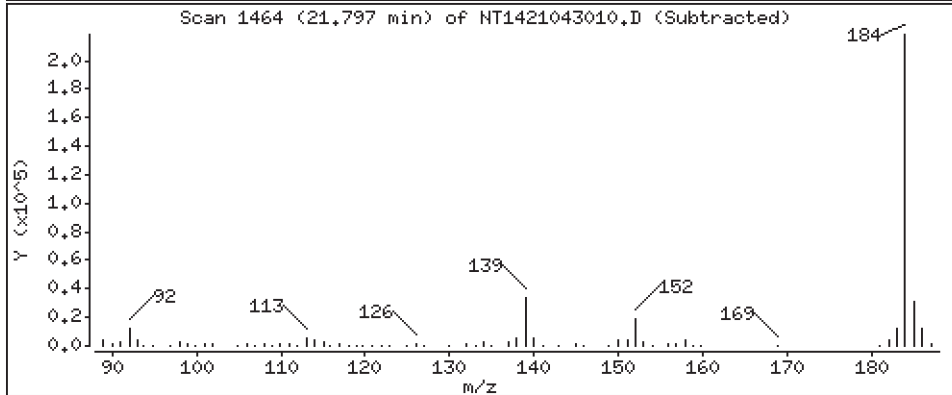
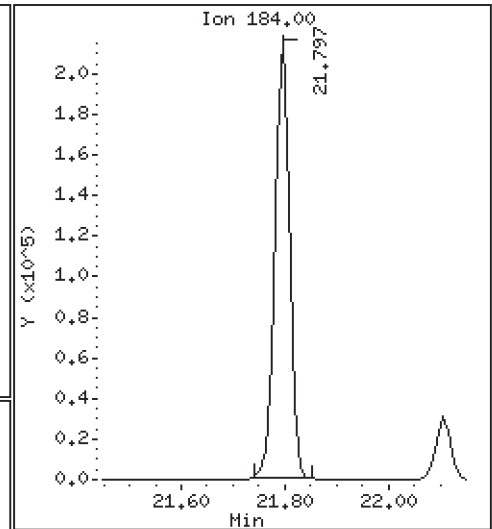
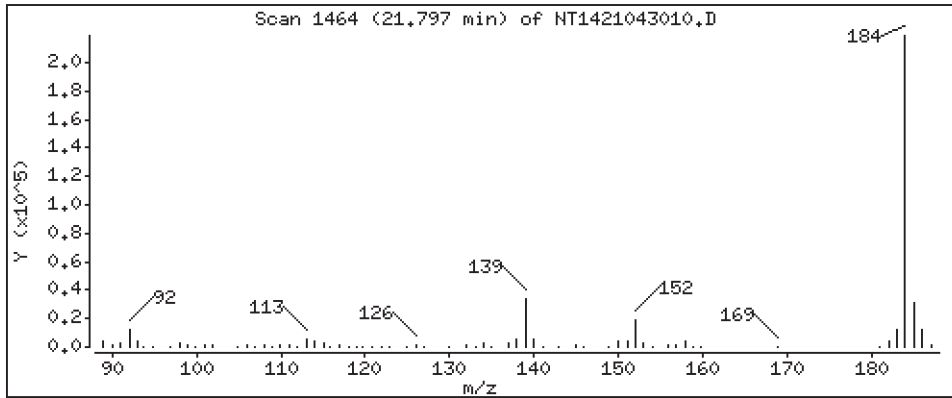
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Dibenzothiophene

Concentration: 2,782 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

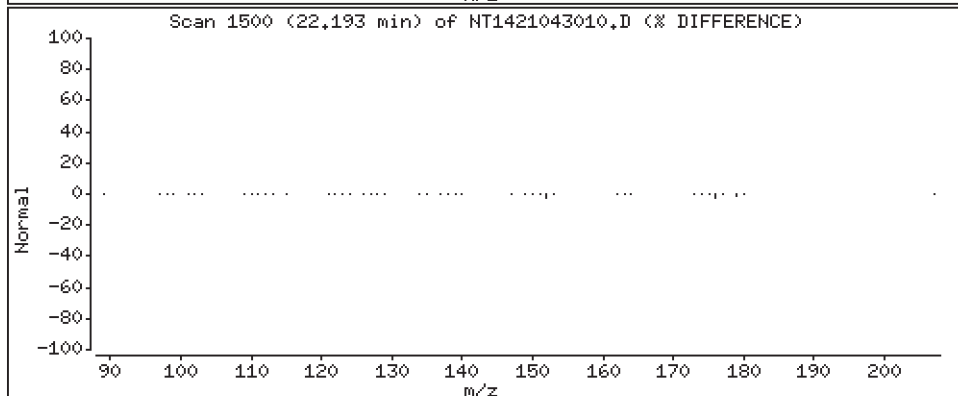
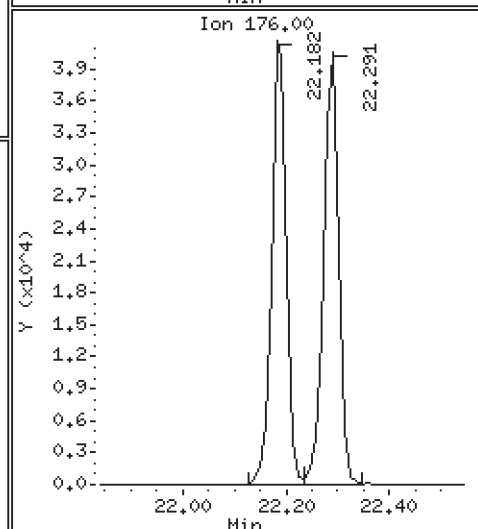
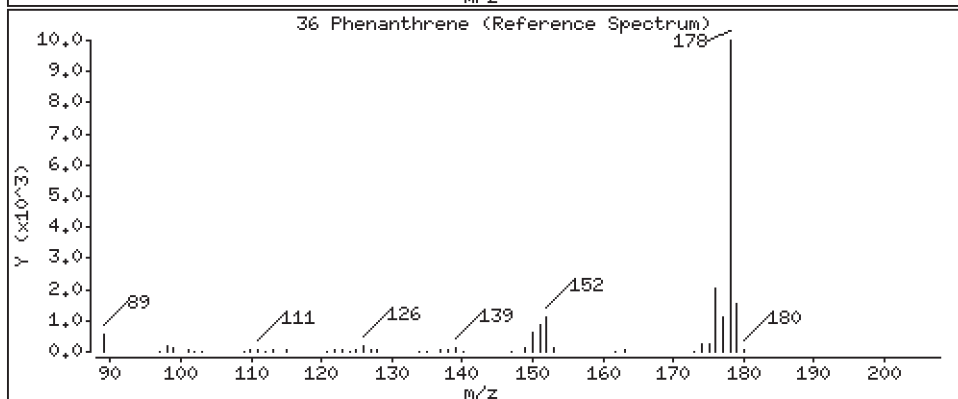
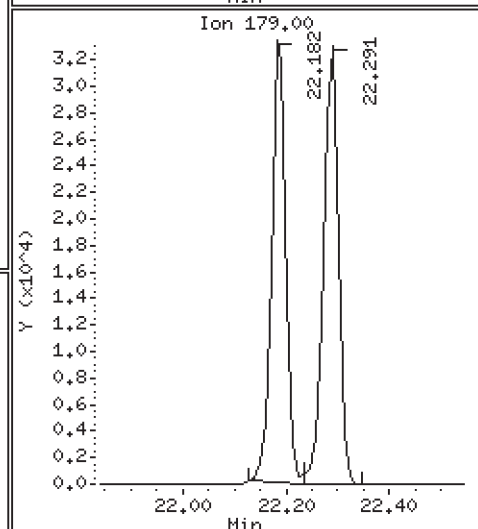
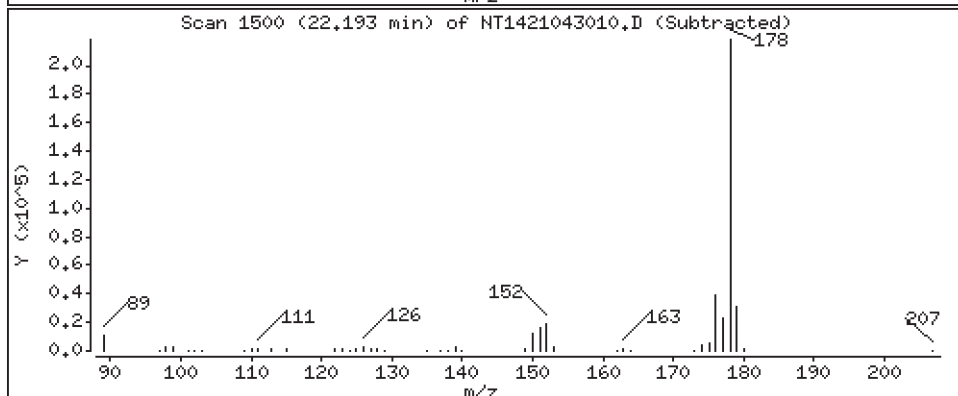
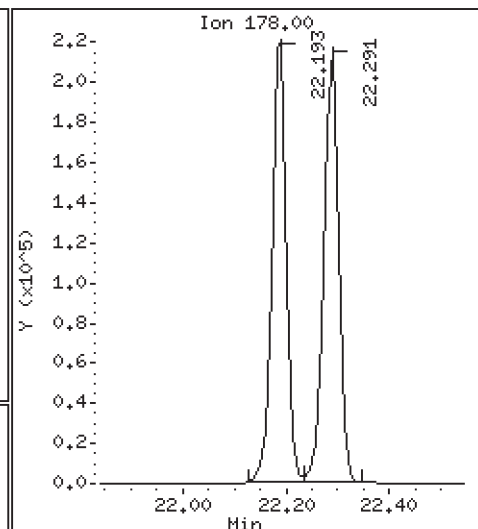
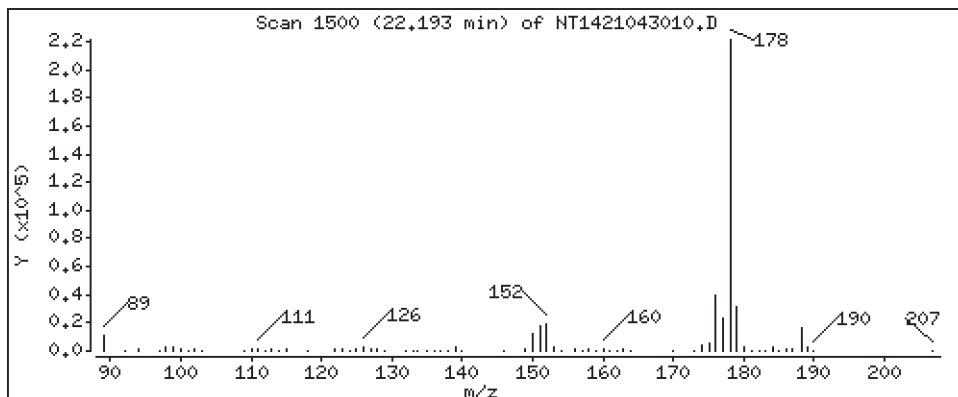
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

36 Phenanthrene

Concentration: 2,468 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

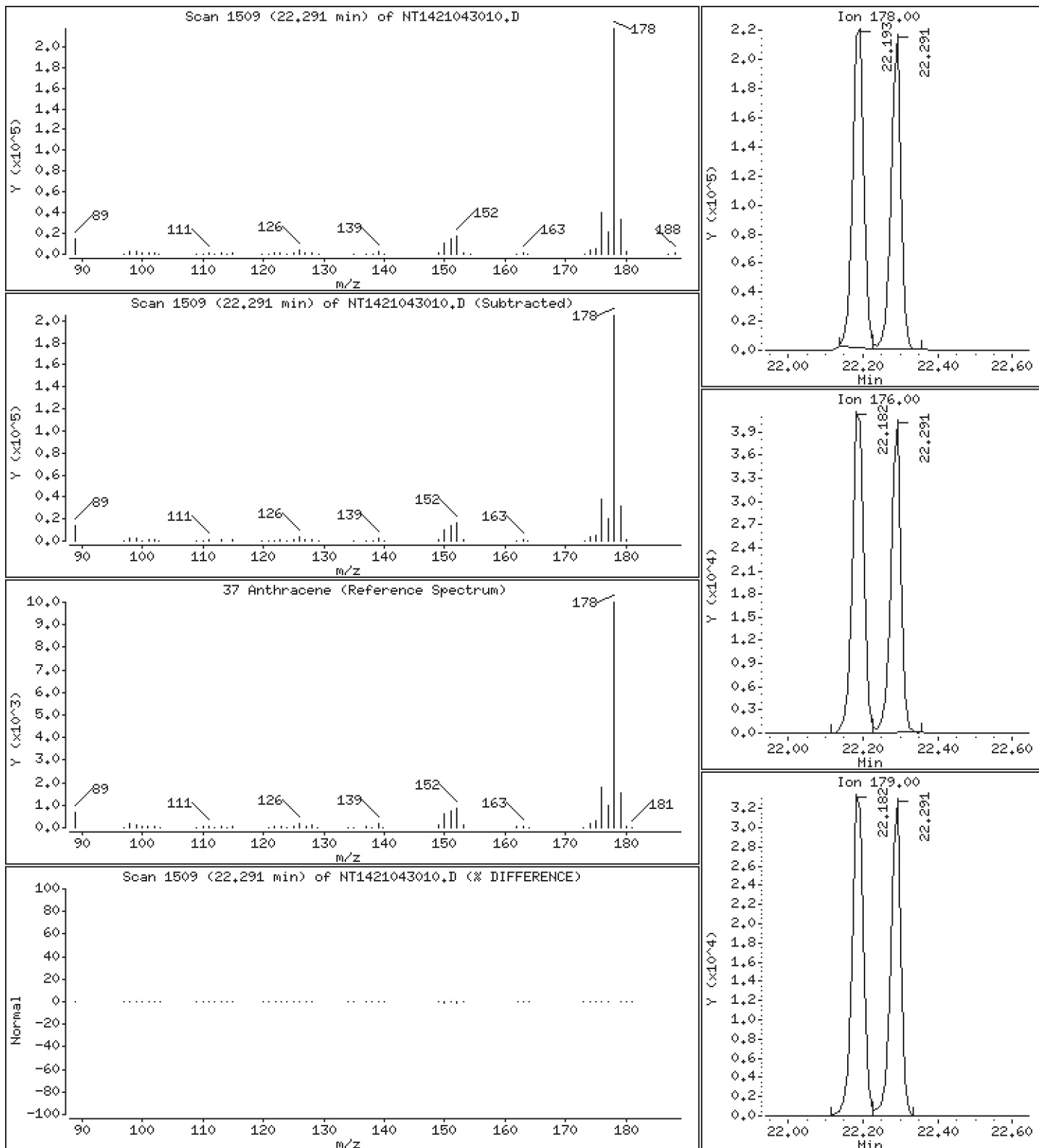
Operator: WTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

37 Anthracene

Concentration: 2,492 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

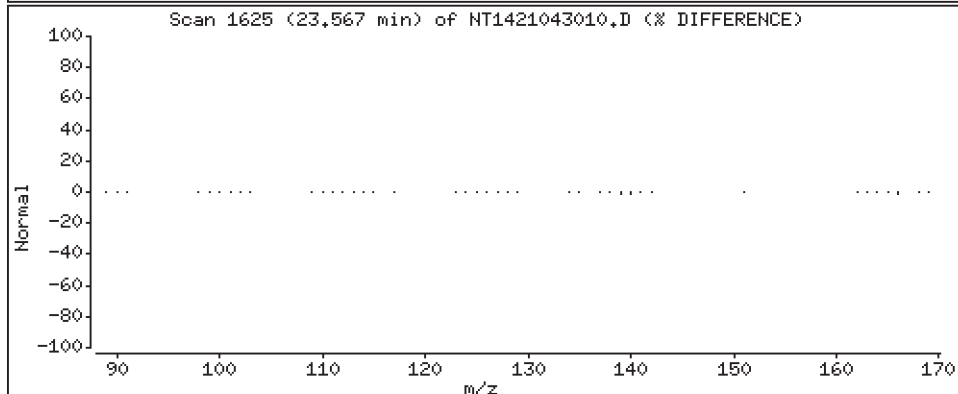
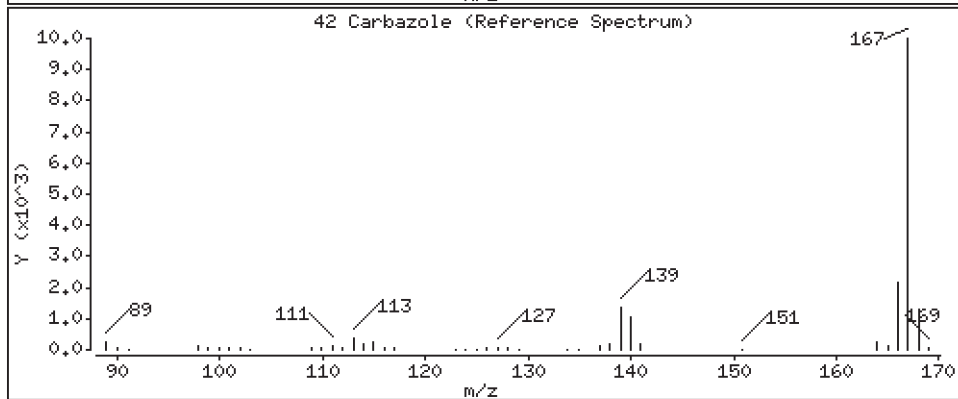
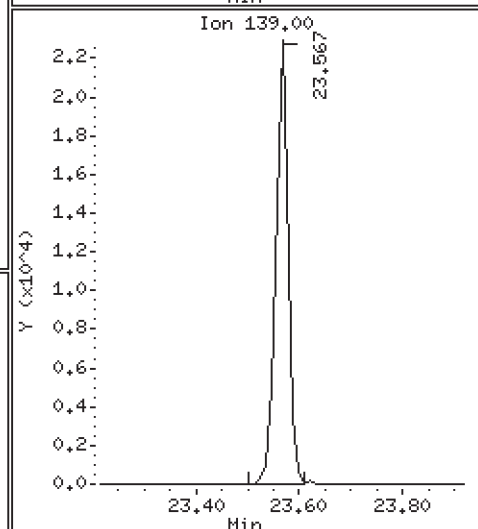
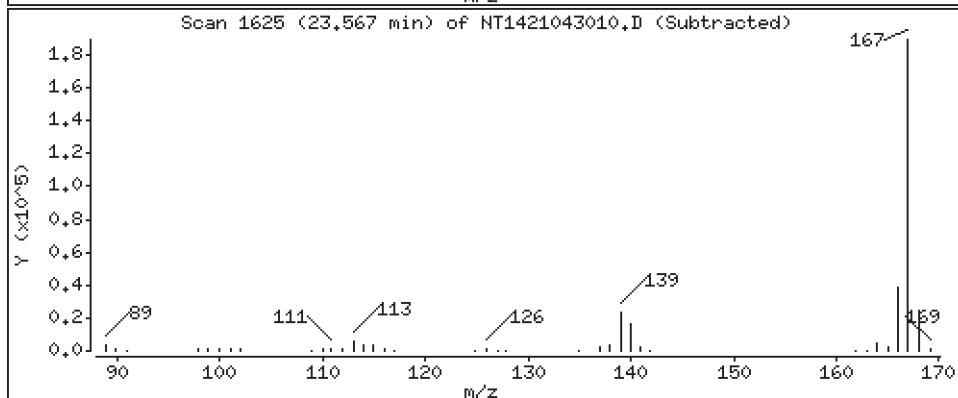
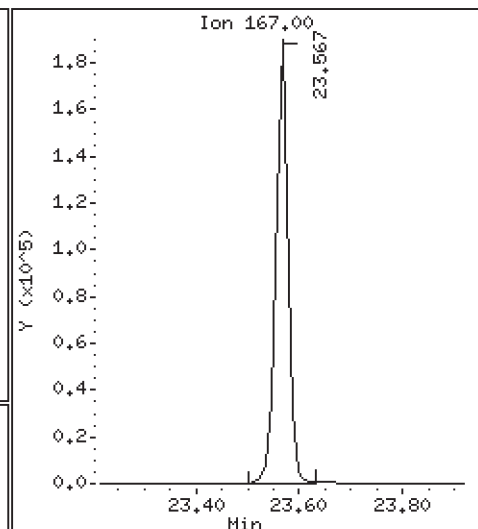
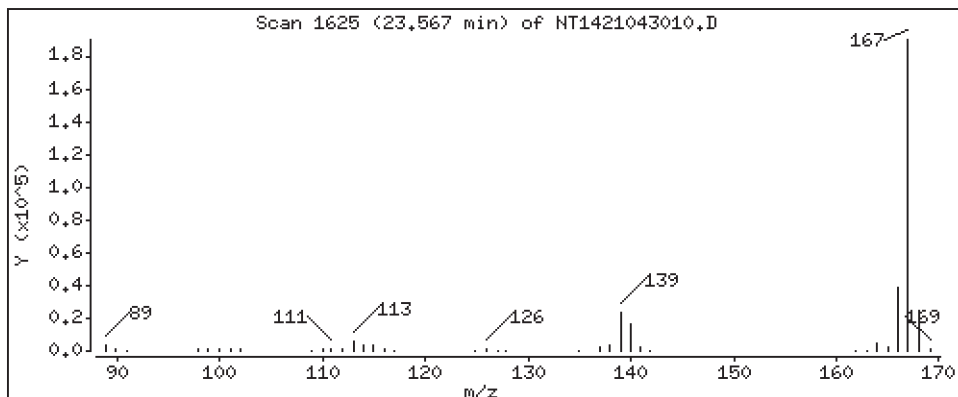
Operator: WTS

Column phase: Rxi-17Si1 MS

Column diameter: 0,25

42 Carbazole

Concentration: 2,343 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

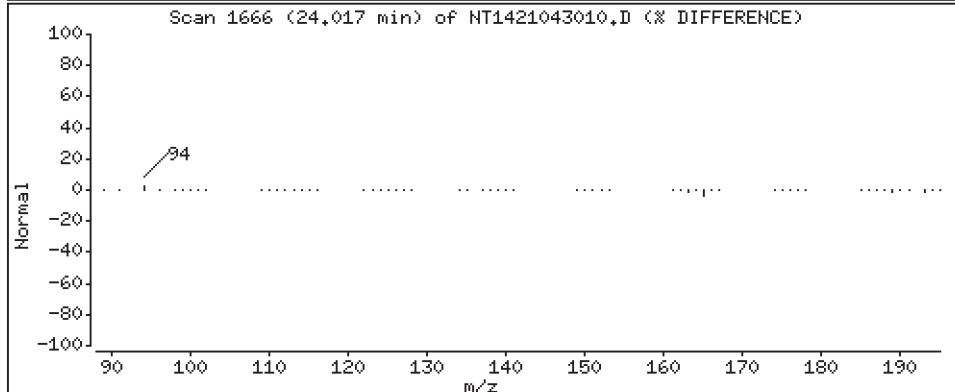
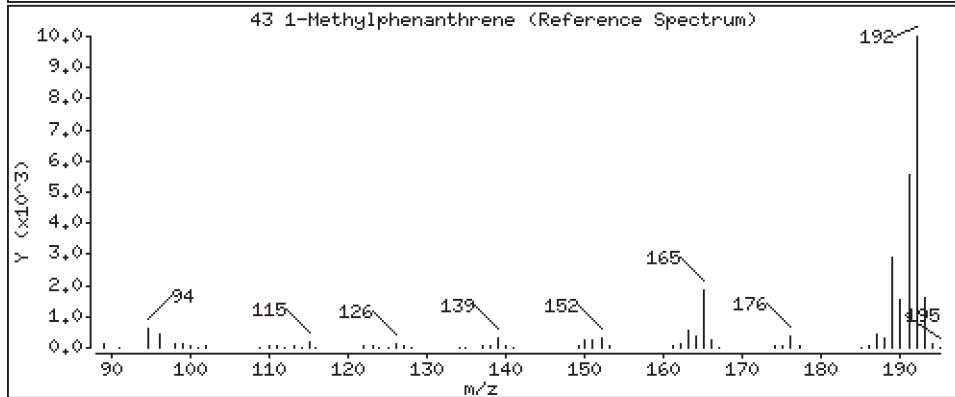
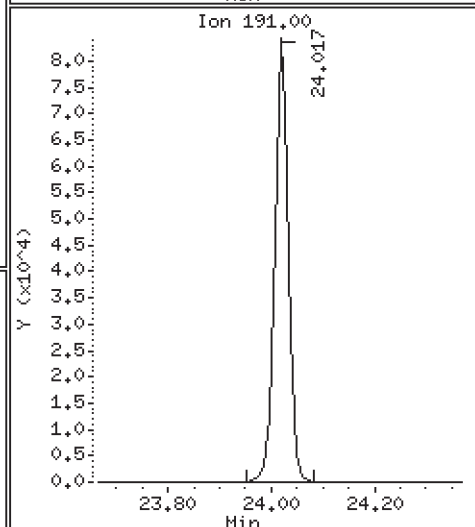
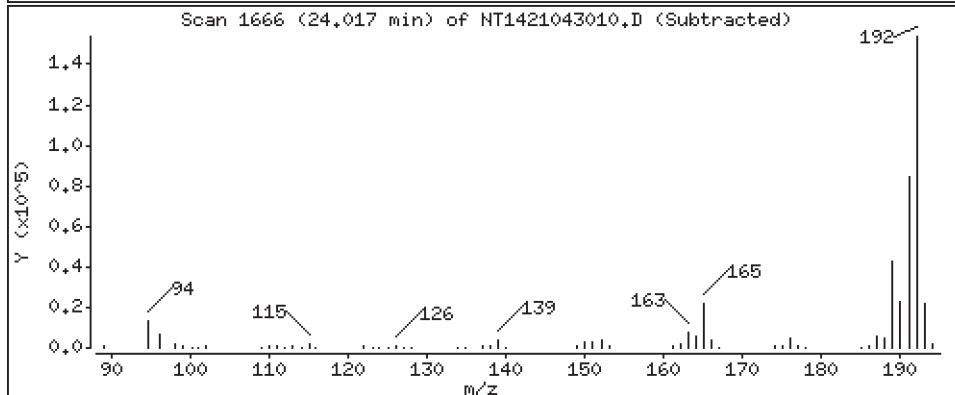
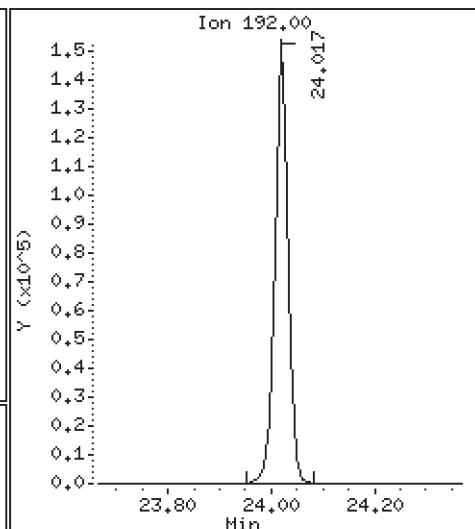
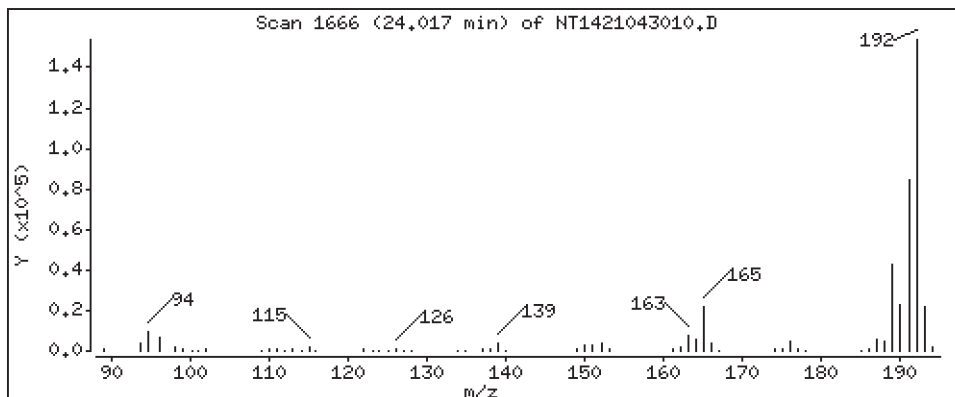
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

43 1-Methylphenanthrene

Concentration: 2,594 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

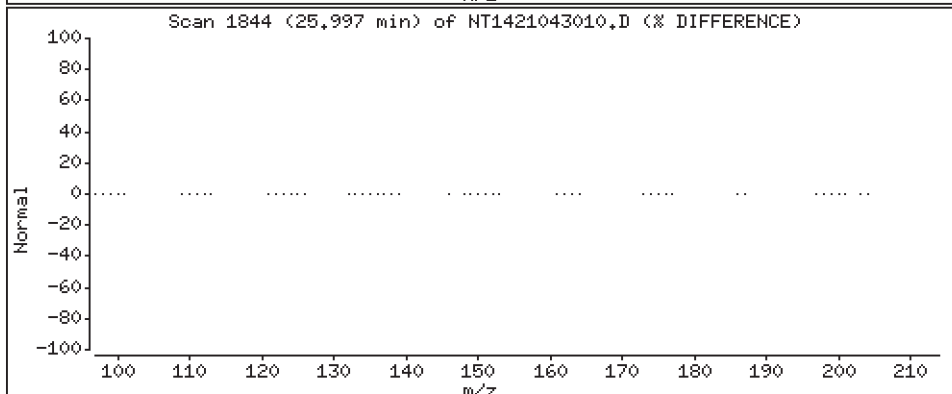
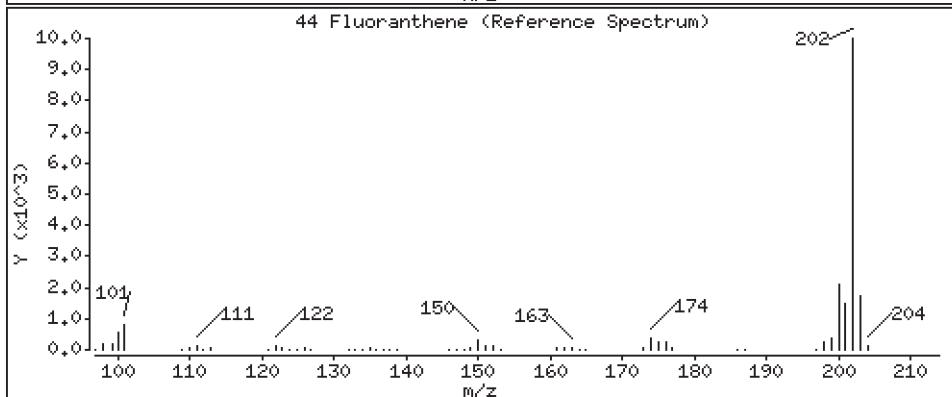
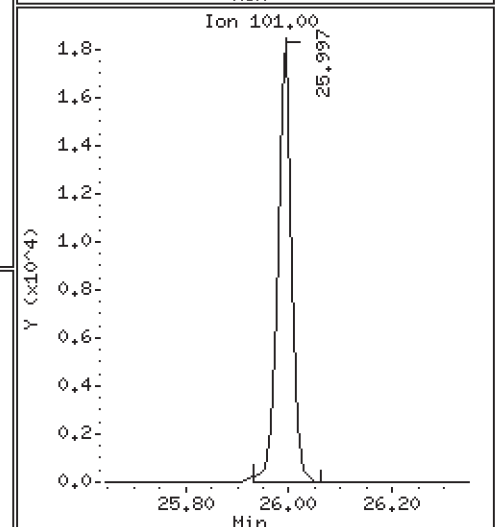
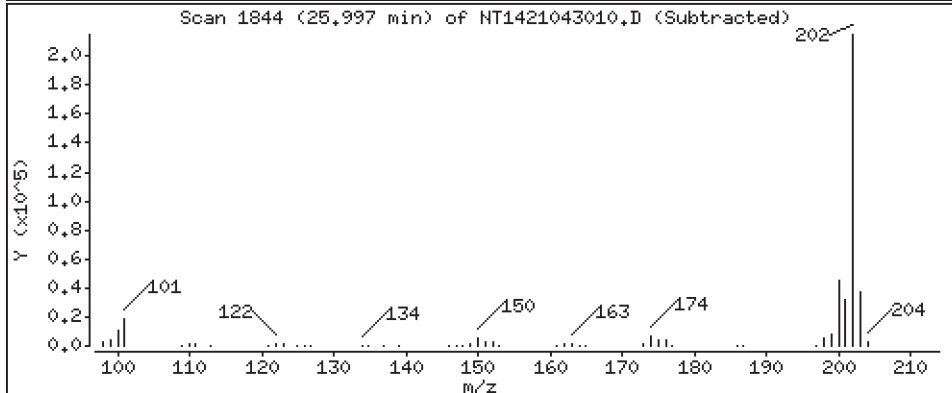
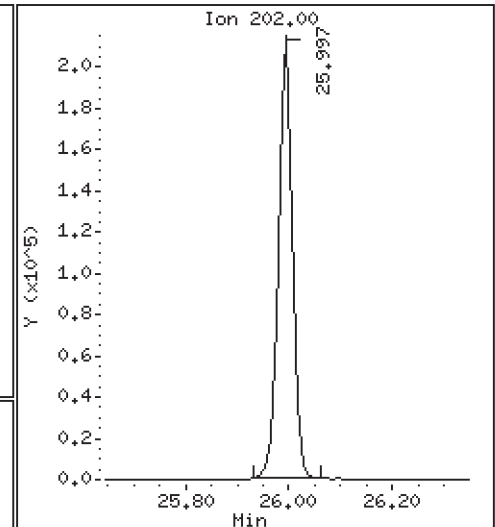
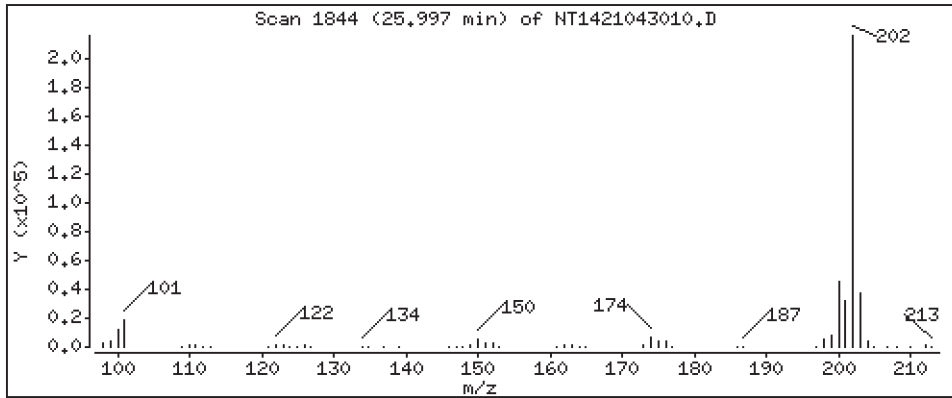
Operator: WTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

44 Fluoranthene

Concentration: 2,634 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

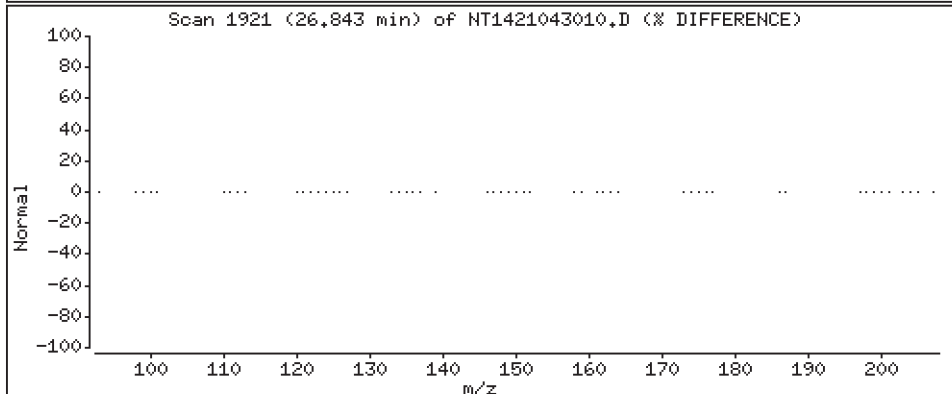
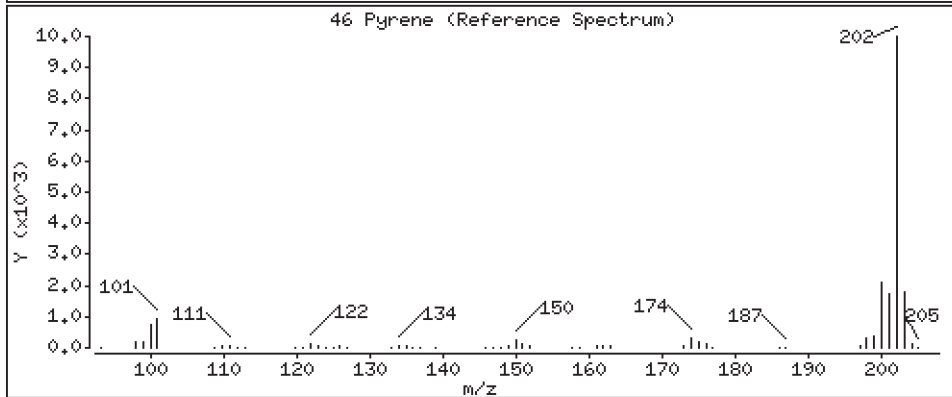
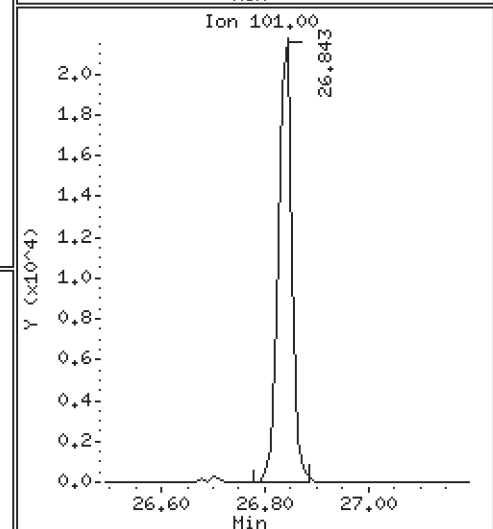
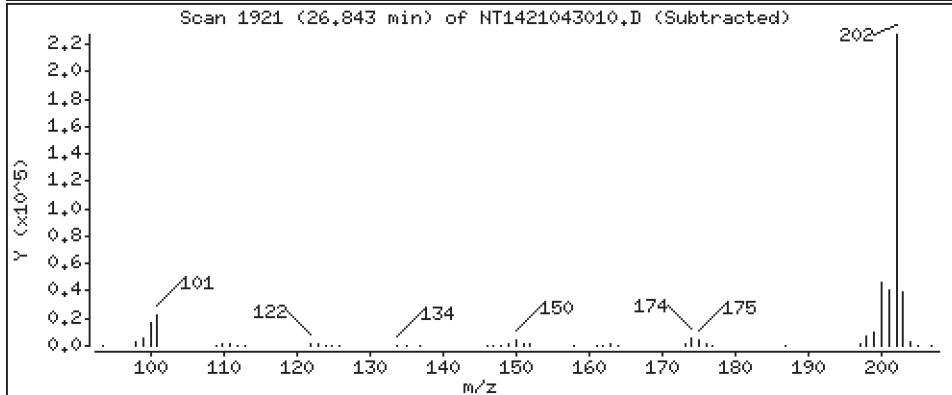
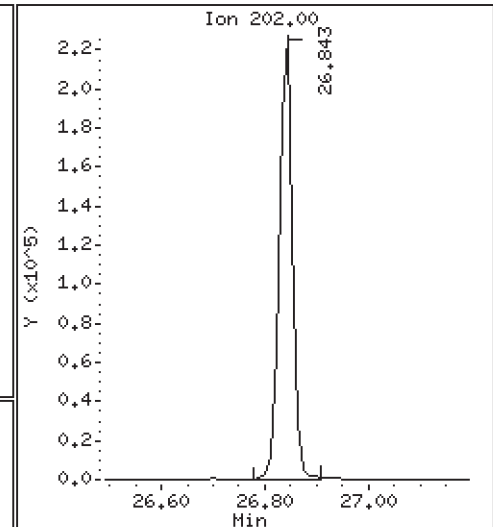
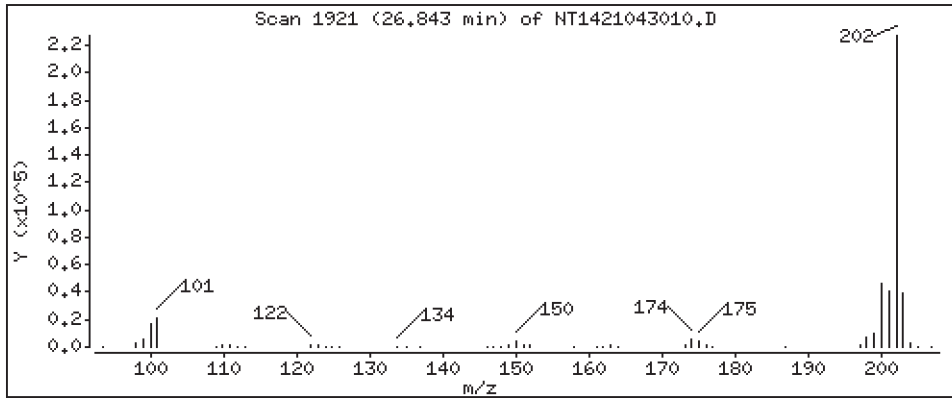
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

46 Pyrene

Concentration: 2,527 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

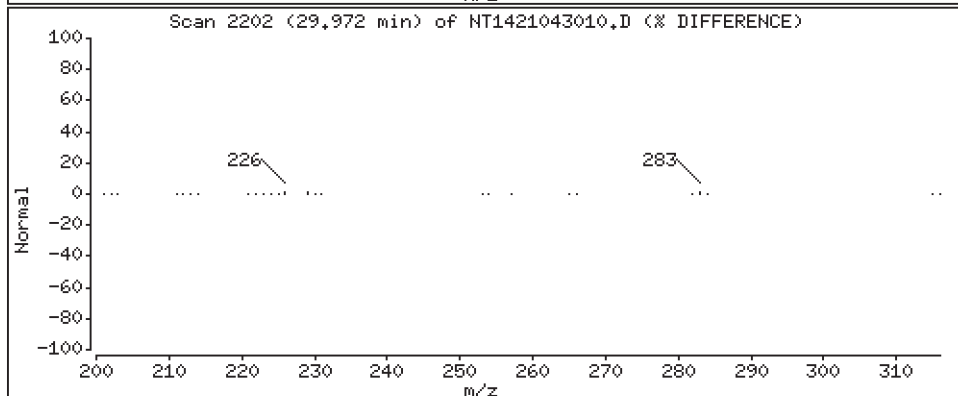
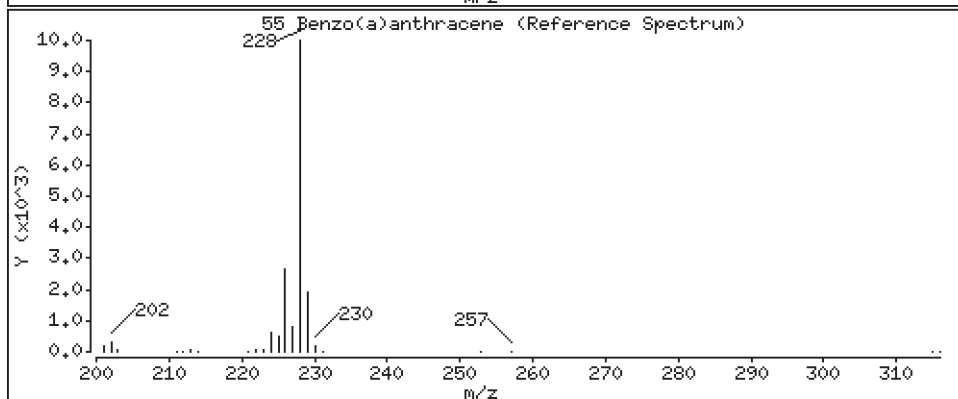
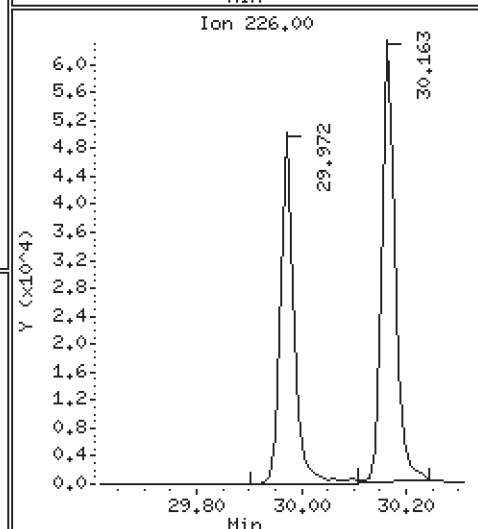
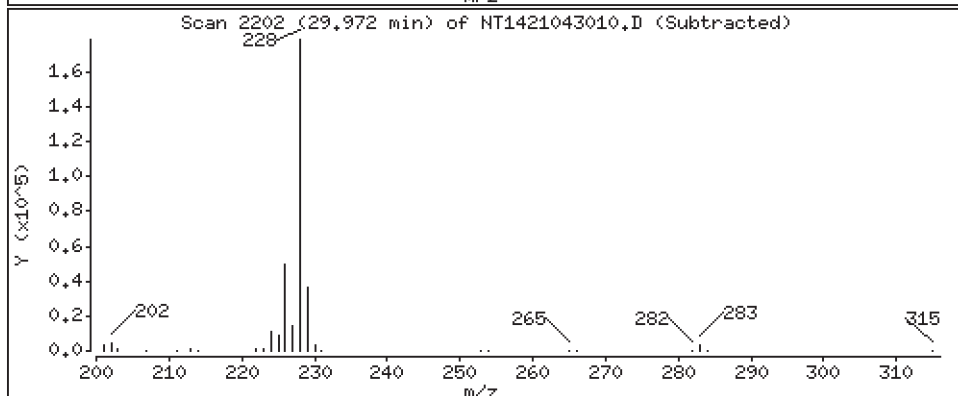
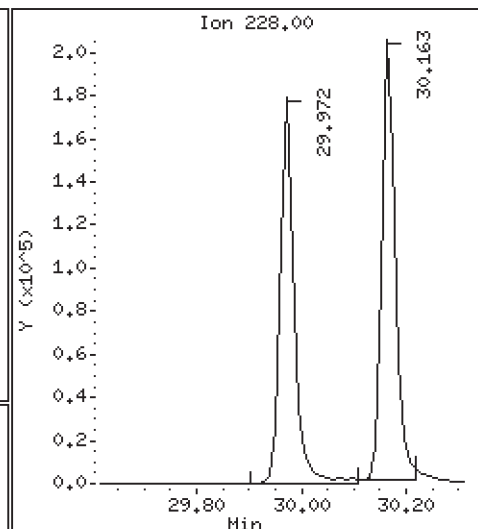
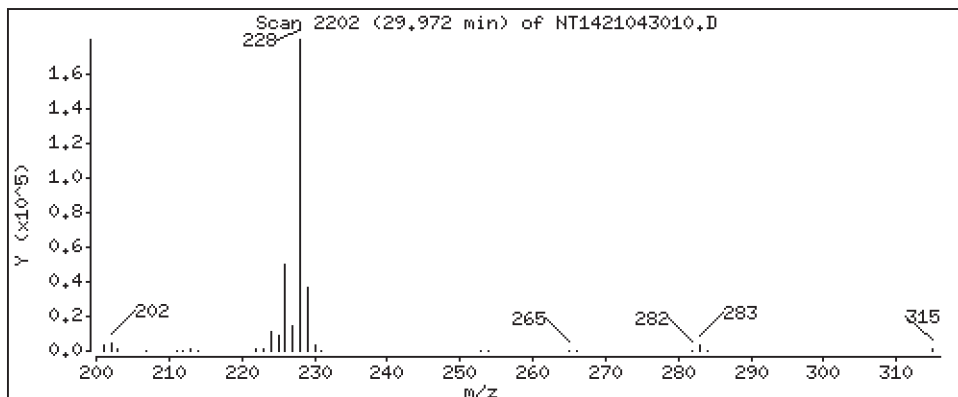
Operator: VTS

Column phase: Rxi-17Si1 MS

Column diameter: 0,25

55 Benzo(a)anthracene

Concentration: 2,278 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

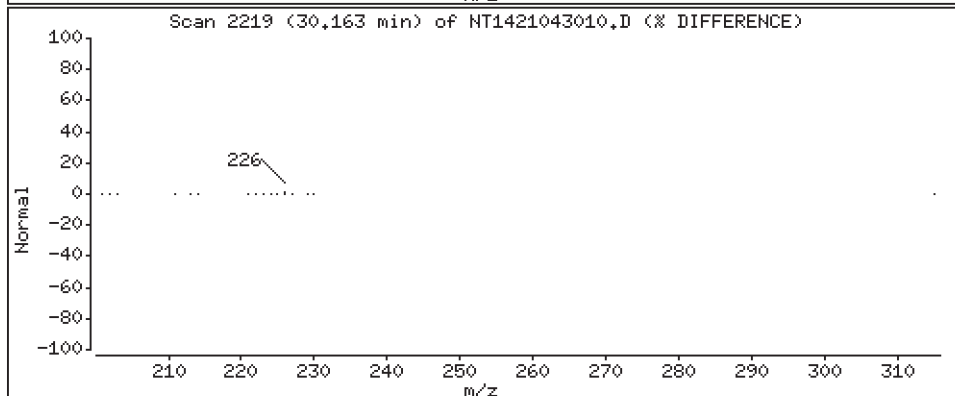
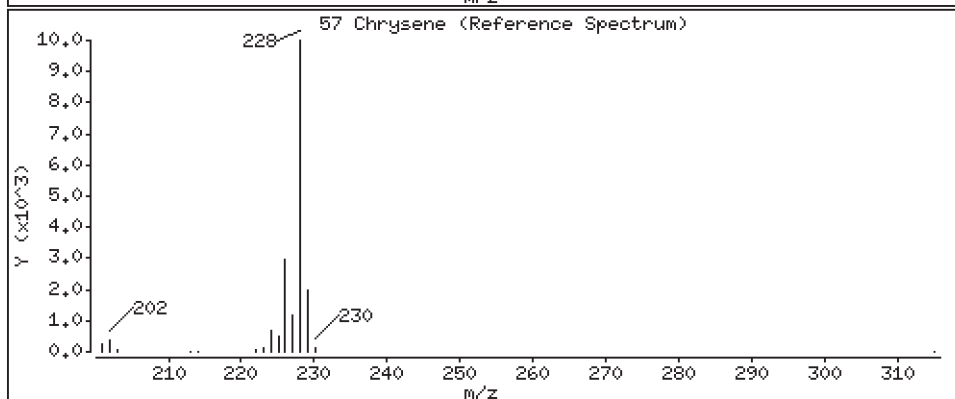
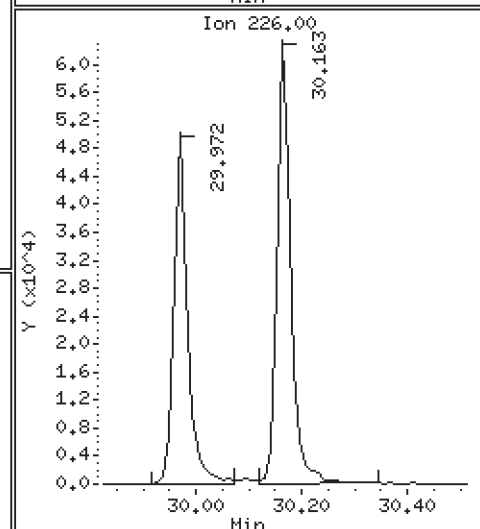
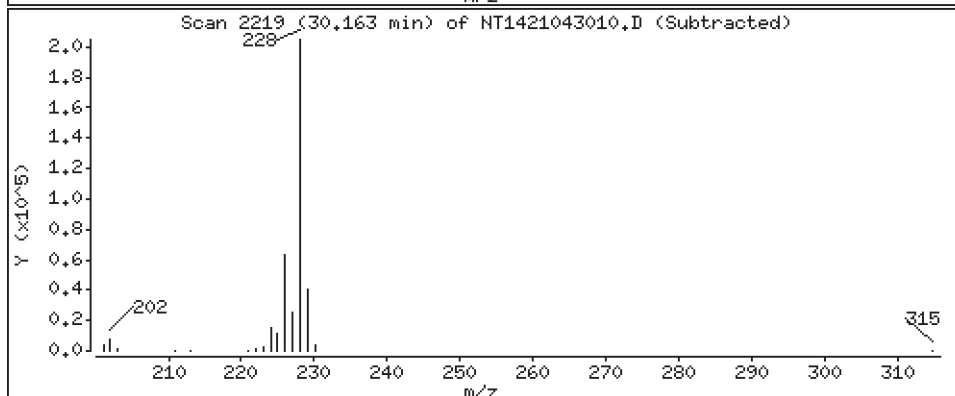
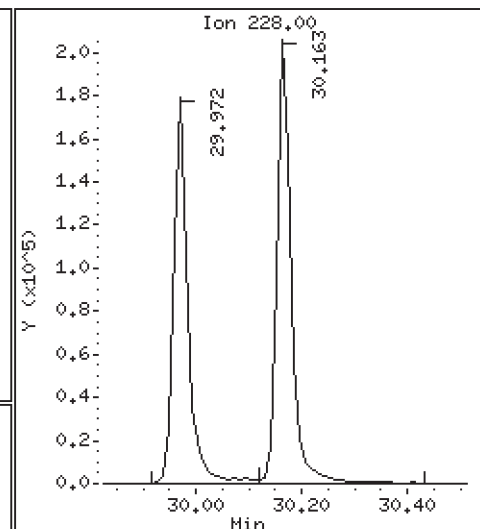
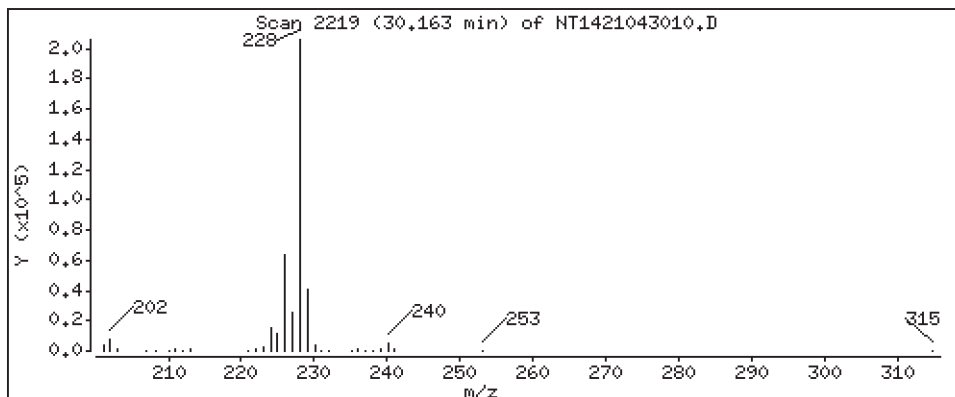
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

57 Chrysene

Concentration: 2,574 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

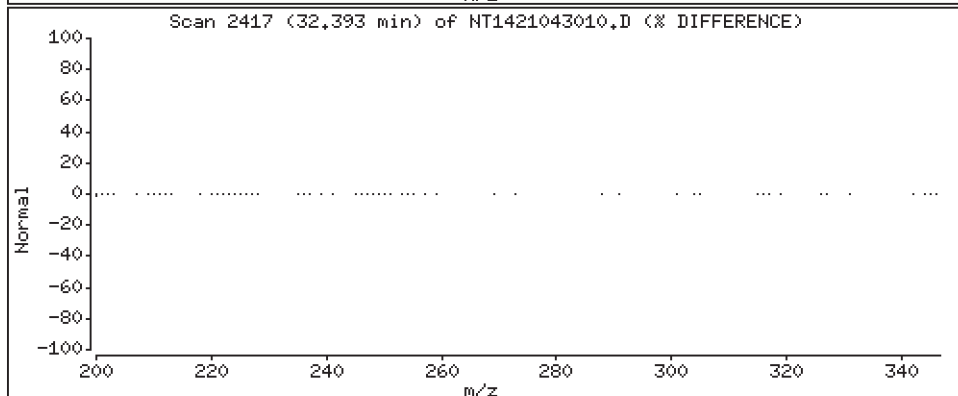
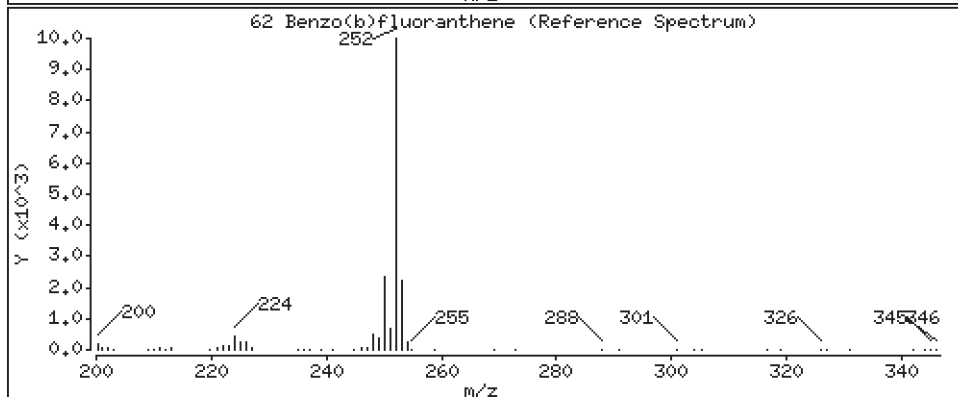
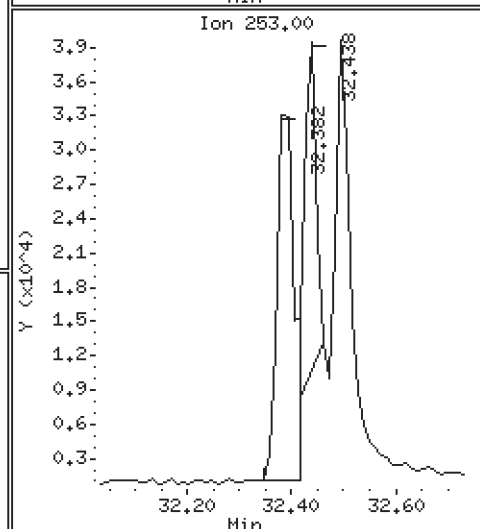
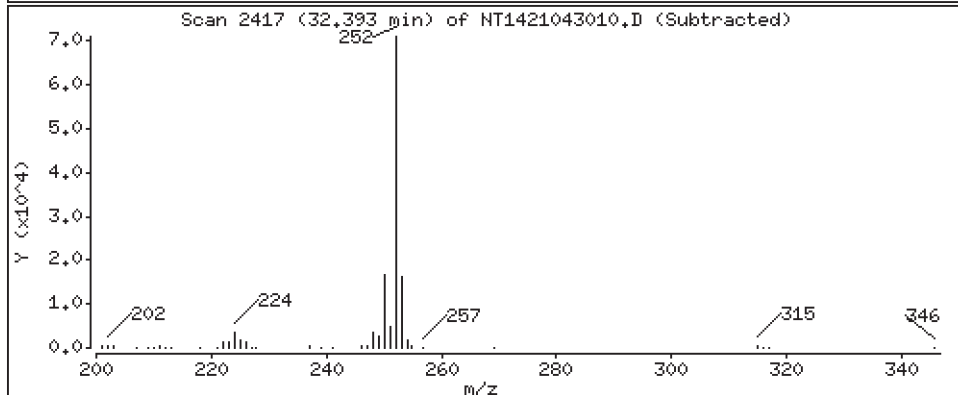
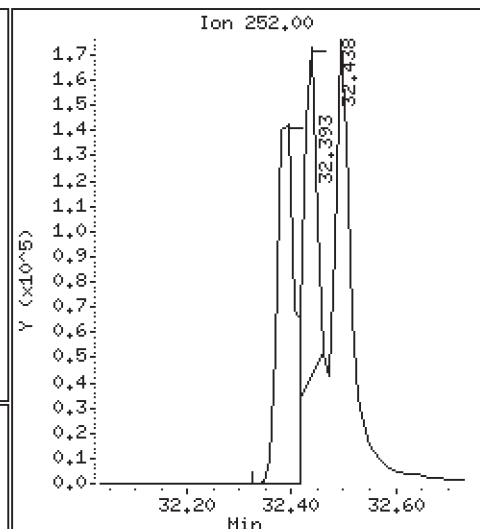
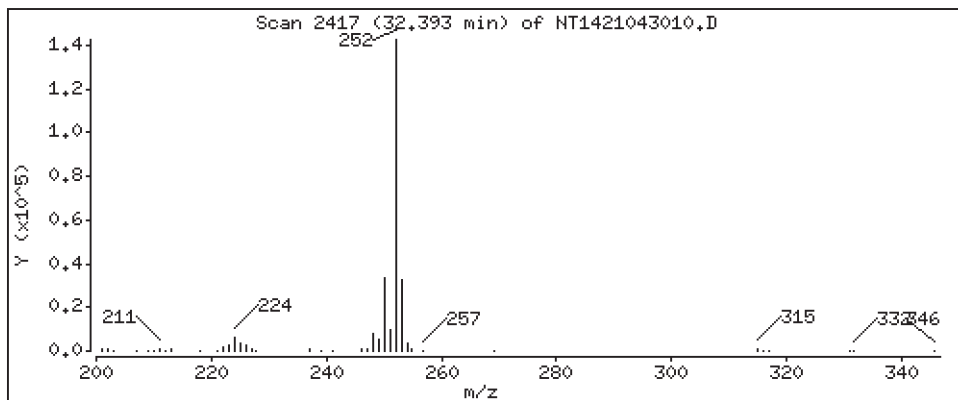
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

62 Benzo(b)fluoranthene

Concentration: 2,326 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

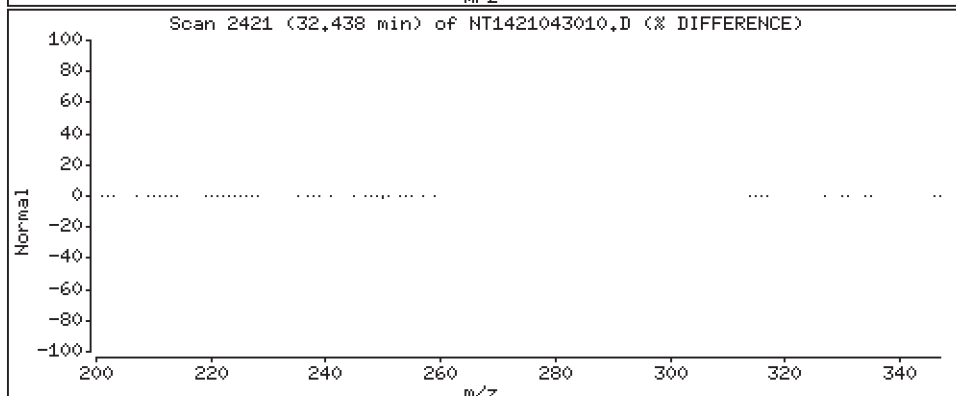
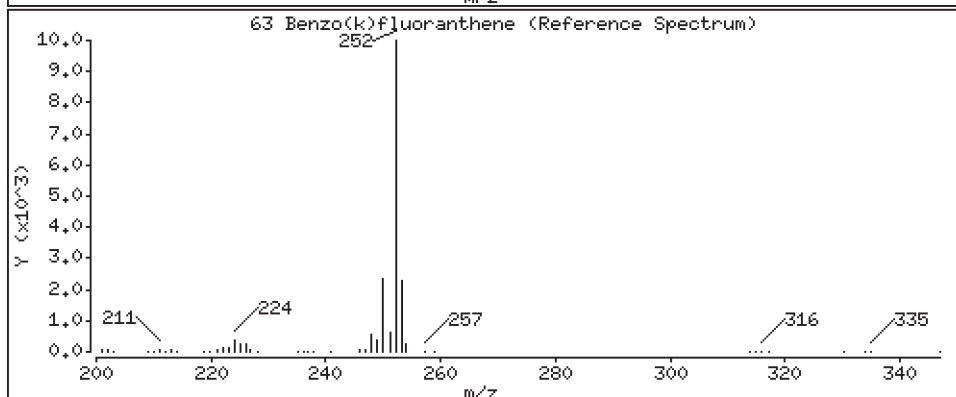
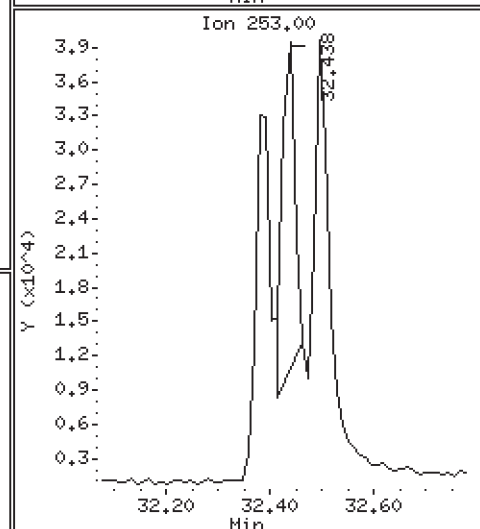
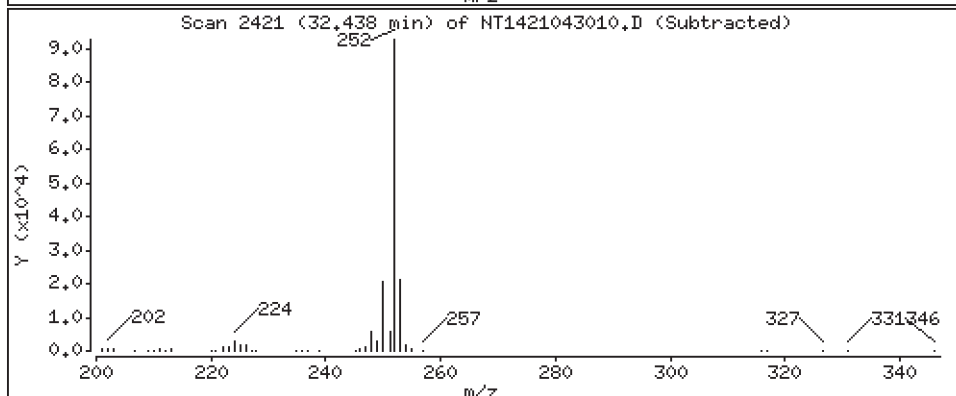
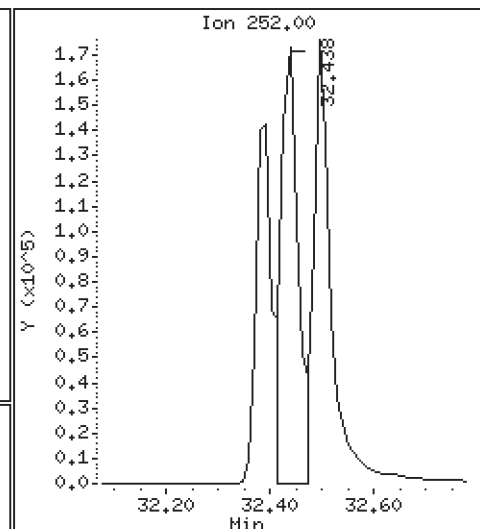
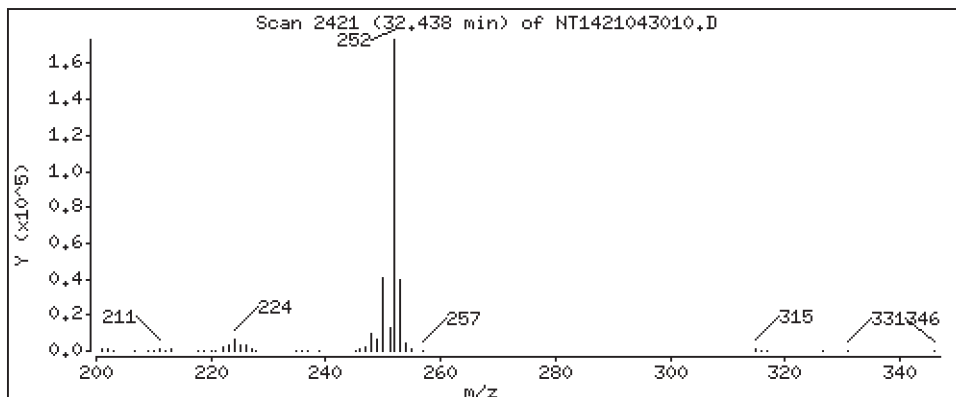
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

63 Benzo(k)fluoranthene

Concentration: 2,304 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

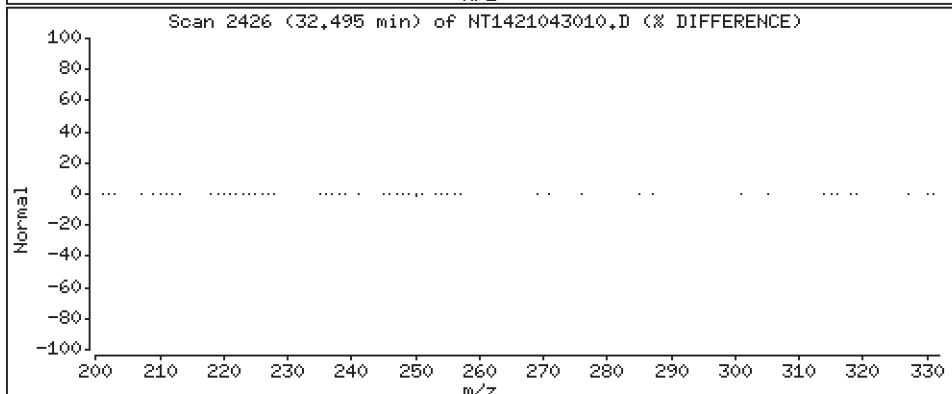
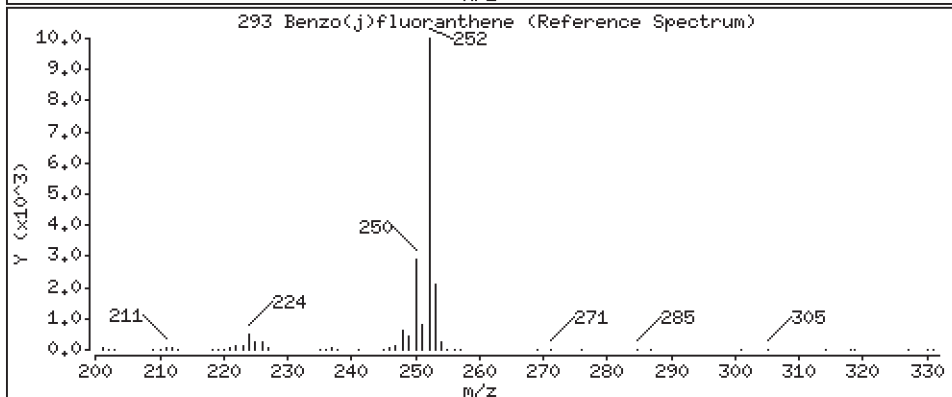
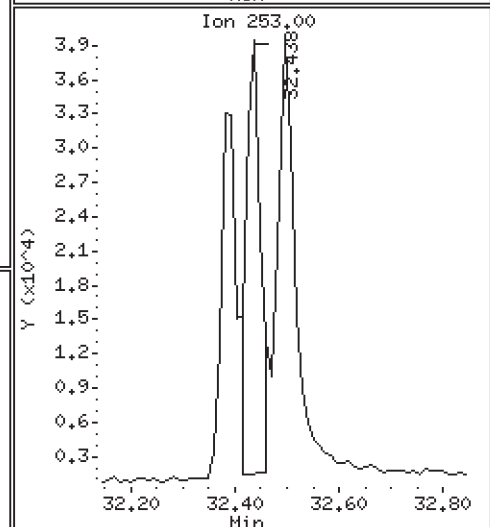
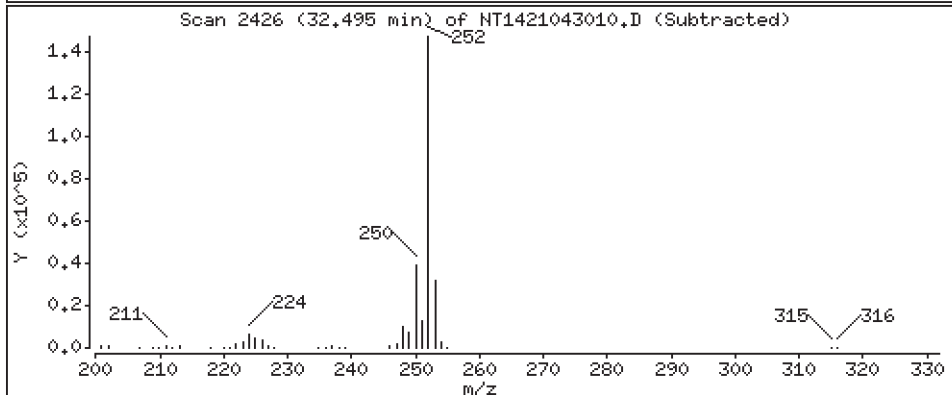
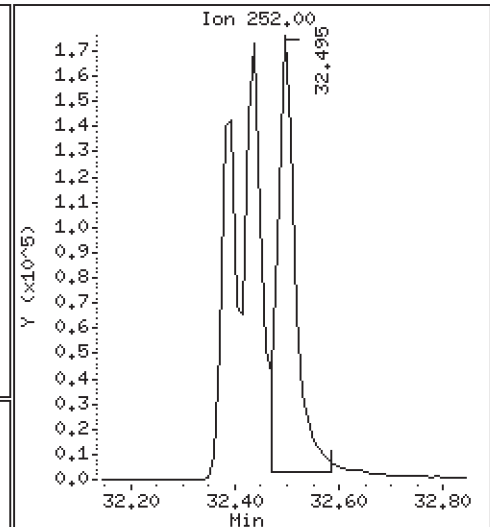
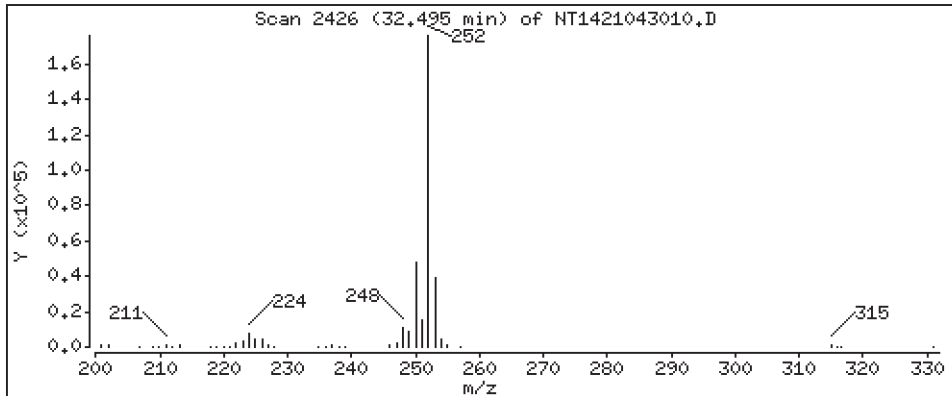
Operator: VTS

Column phase: Rxi-17Si1 MS

Column diameter: 0,25

293 Benzo(j)fluoranthene

Concentration: 2,516 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

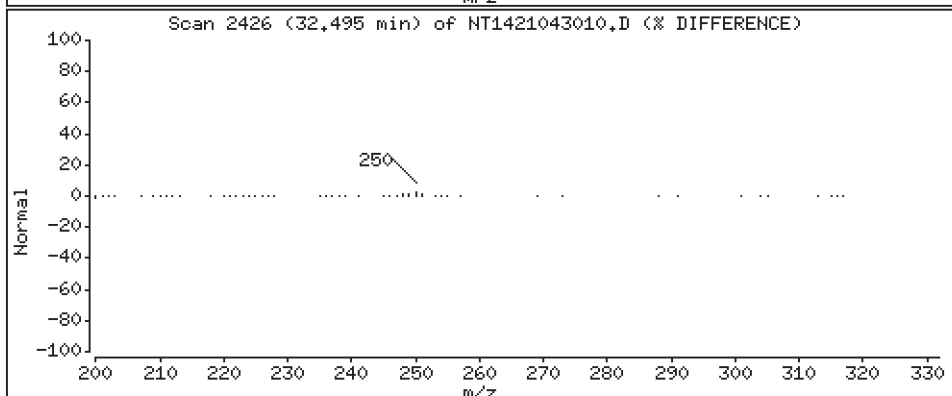
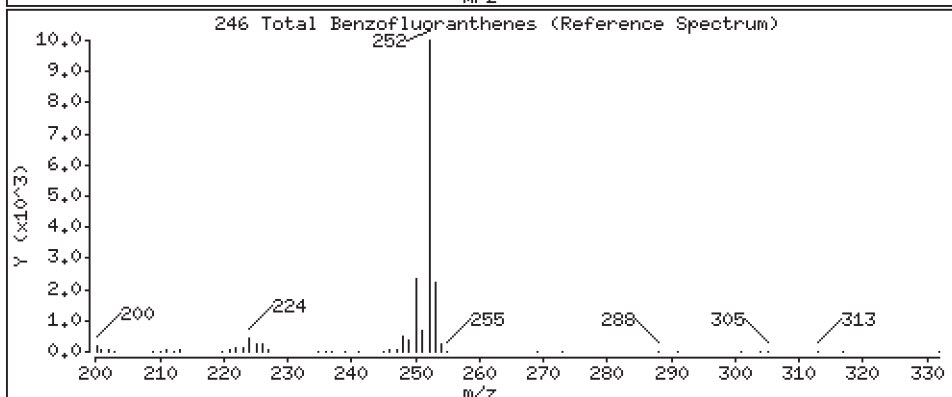
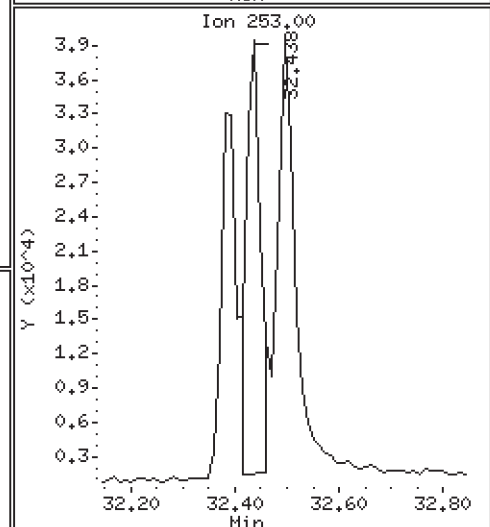
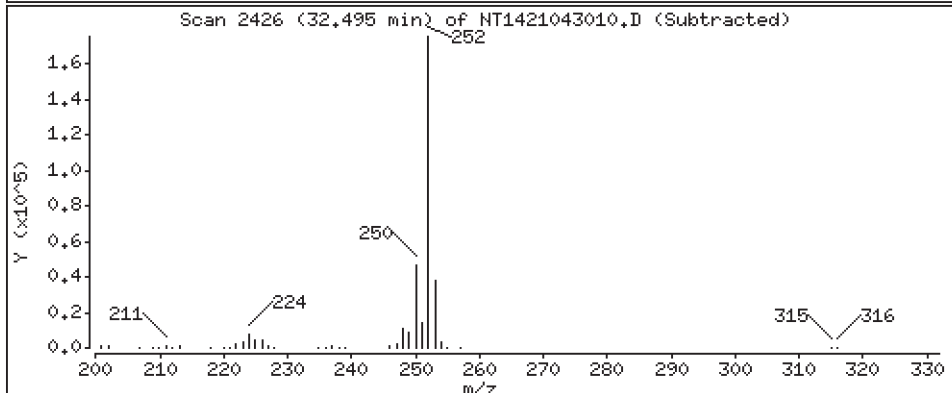
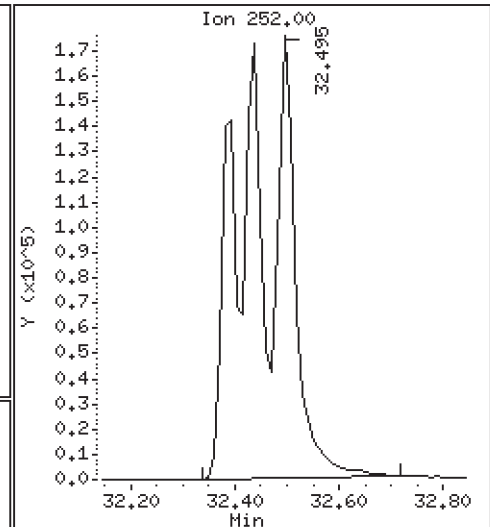
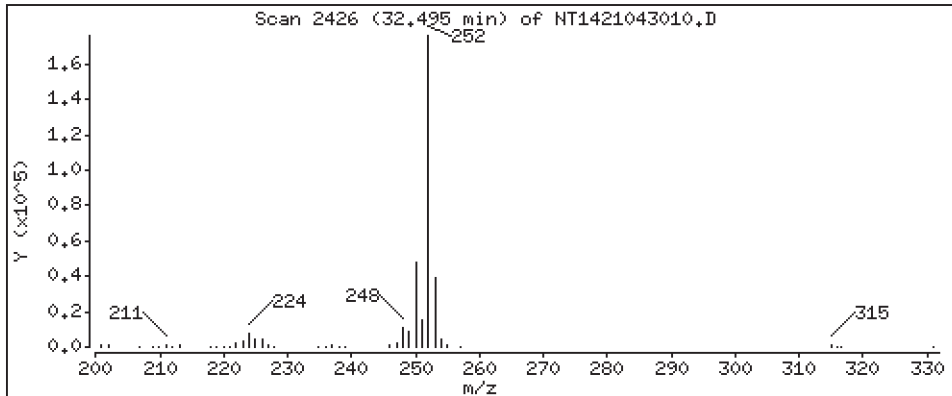
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

246 Total Benzofluoranthenes

Concentration: 6,960 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

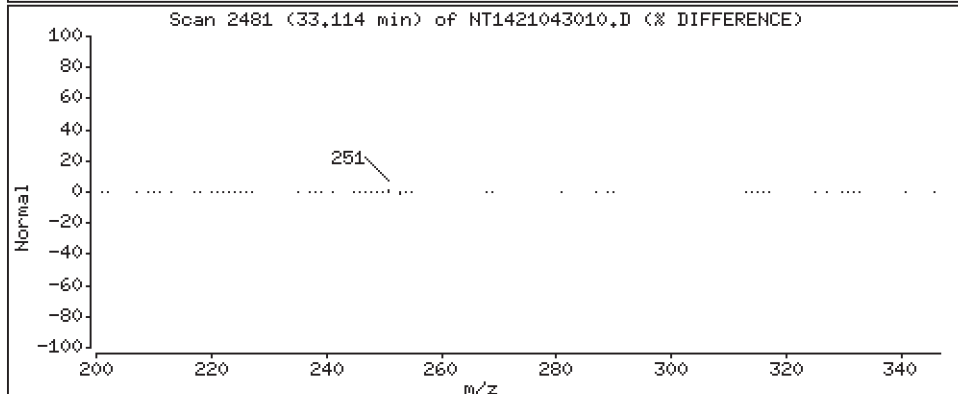
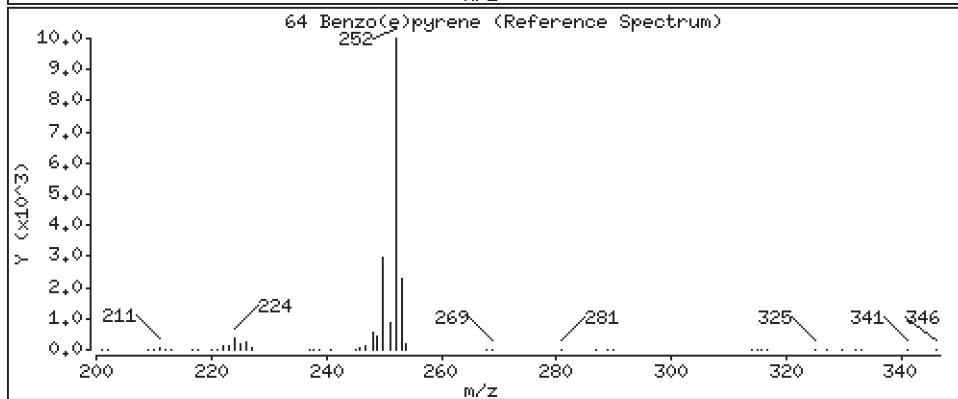
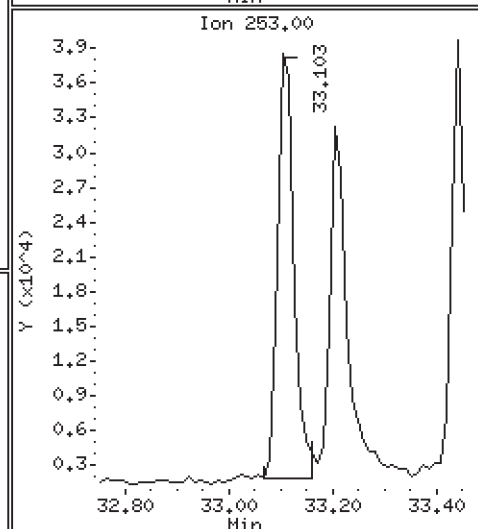
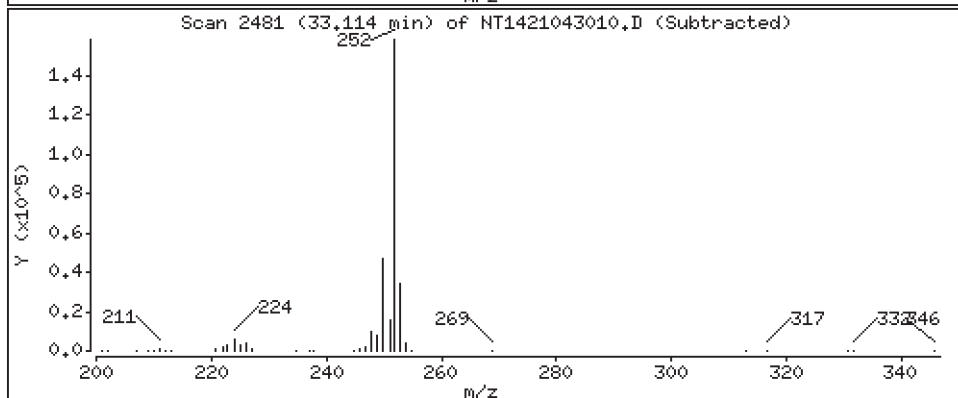
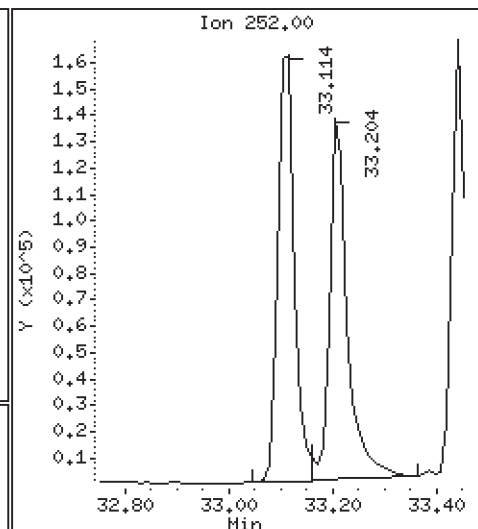
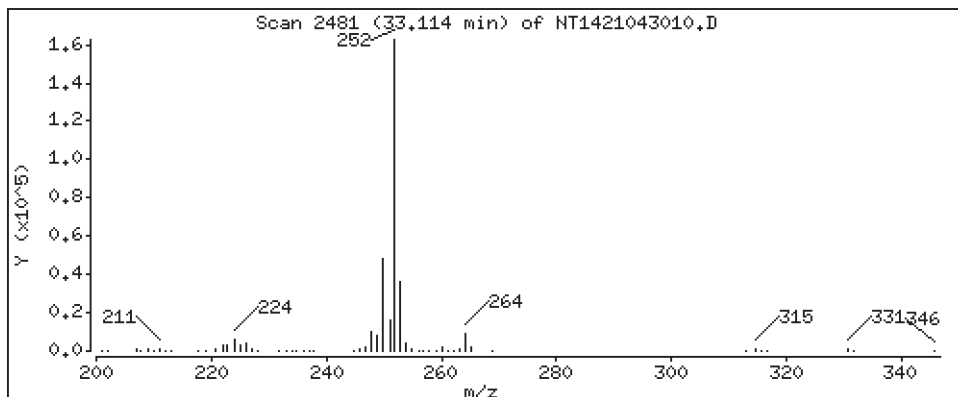
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

64 Benzo(e)pyrene

Concentration: 2,454 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

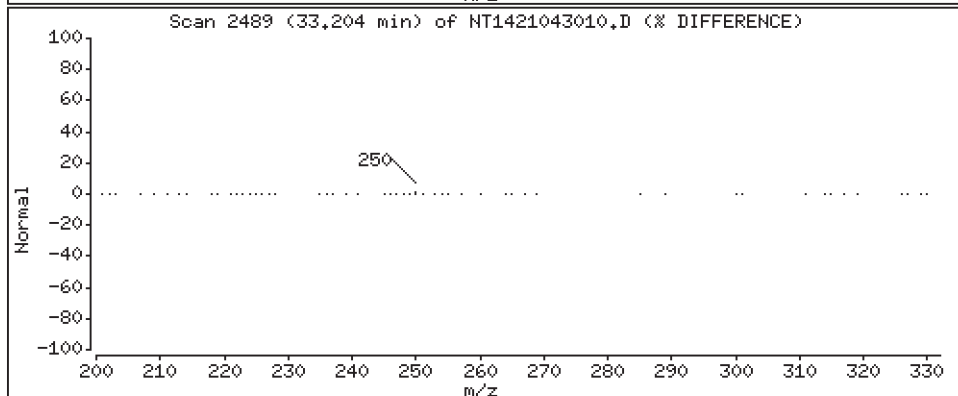
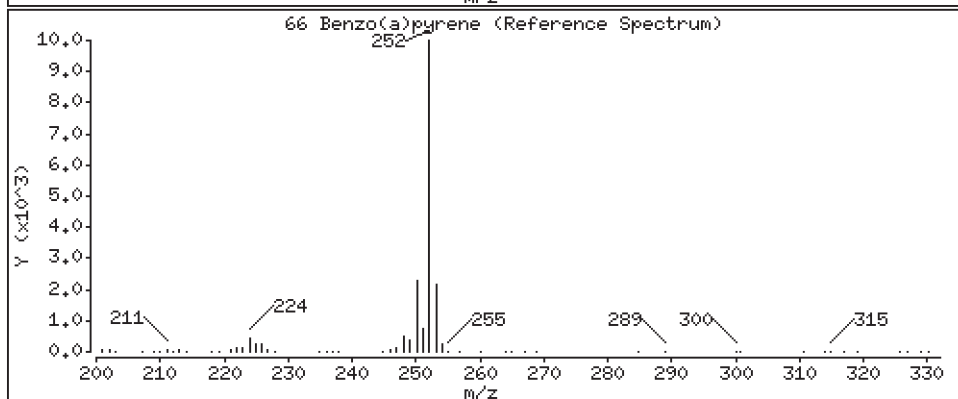
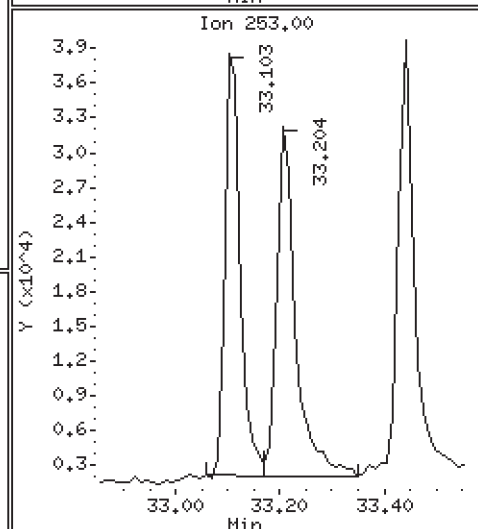
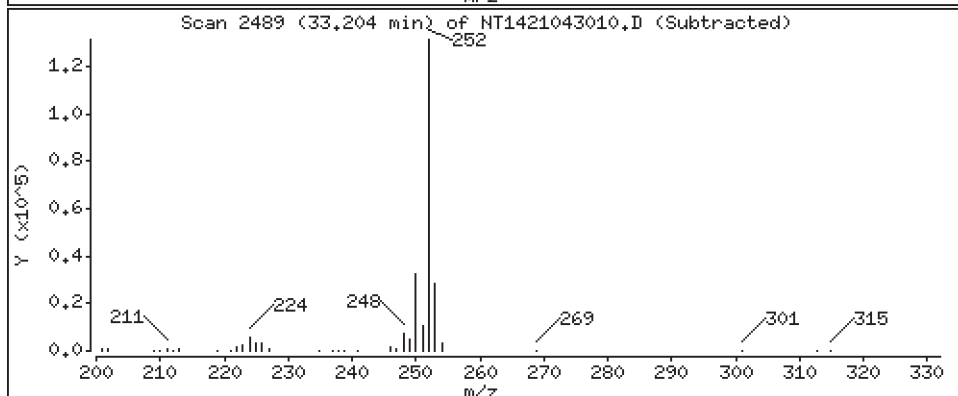
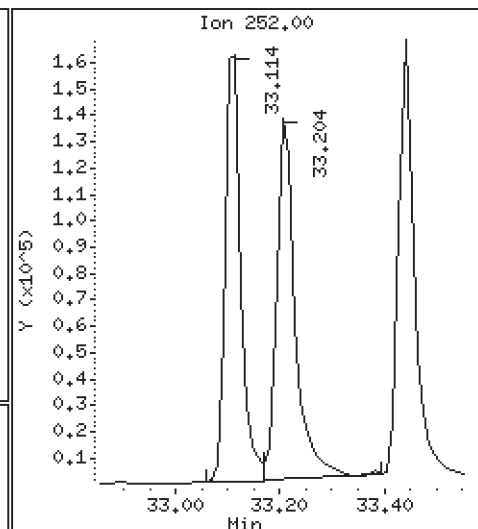
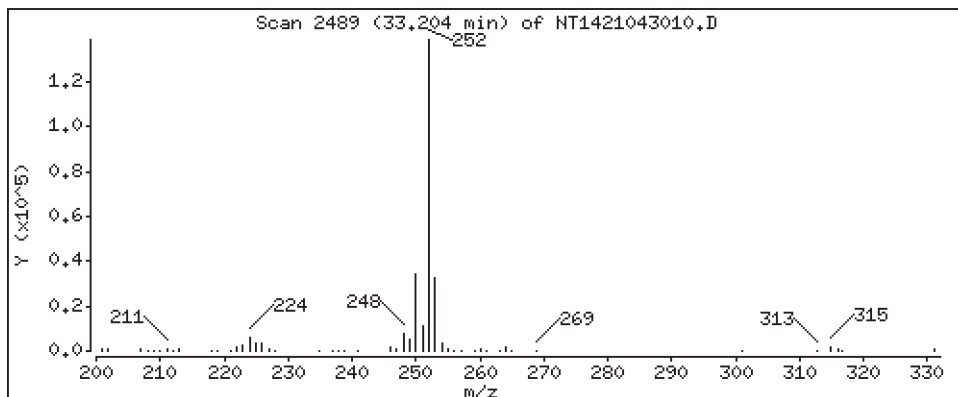
Operator: VTS

Column phase: Rxi-17Si1 MS

Column diameter: 0,25

66 Benzo(a)pyrene

Concentration: 2,211 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

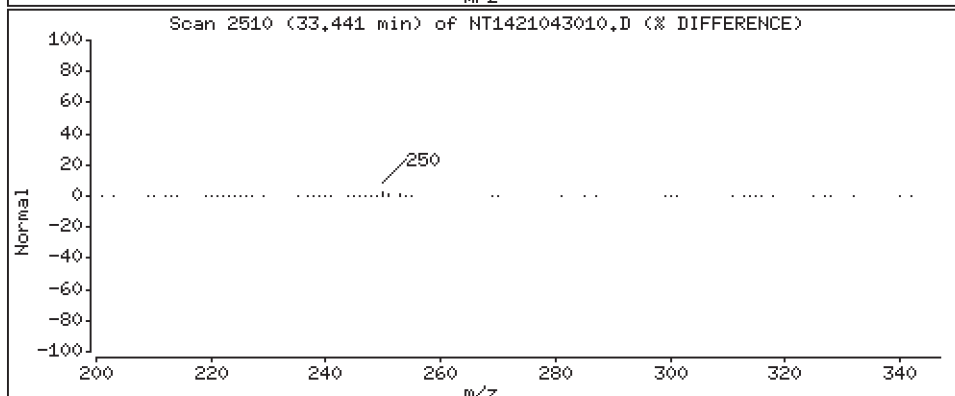
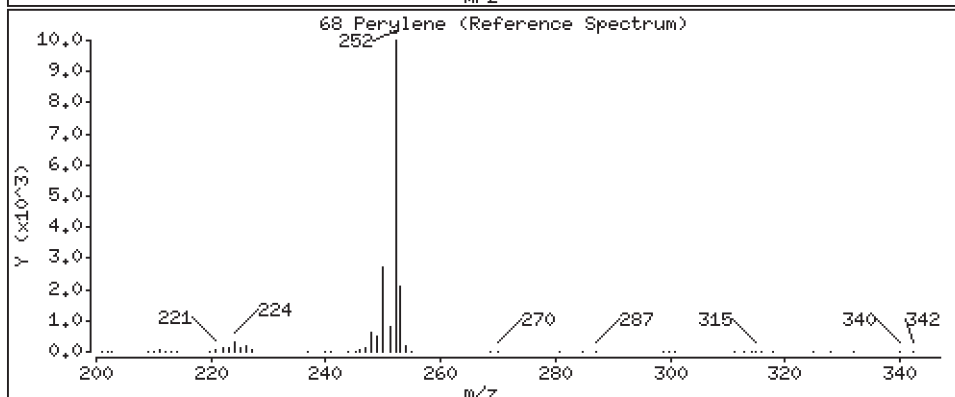
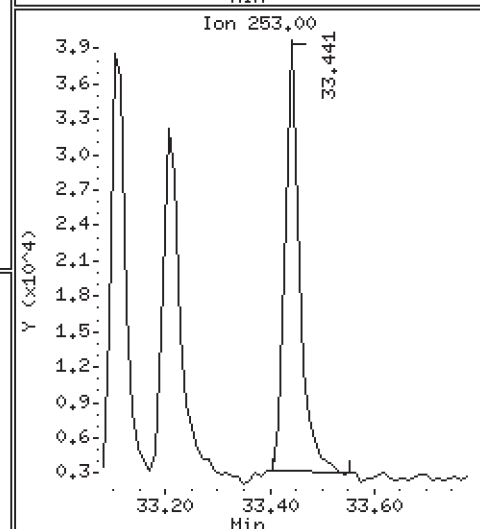
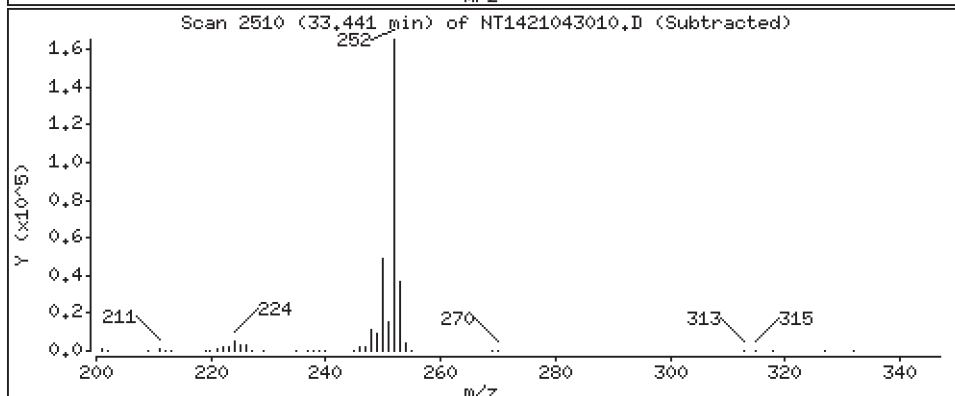
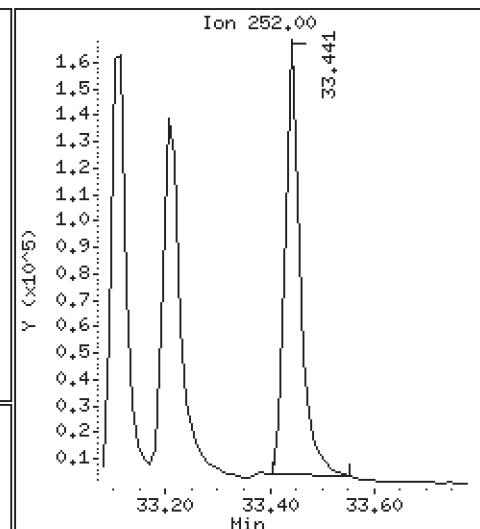
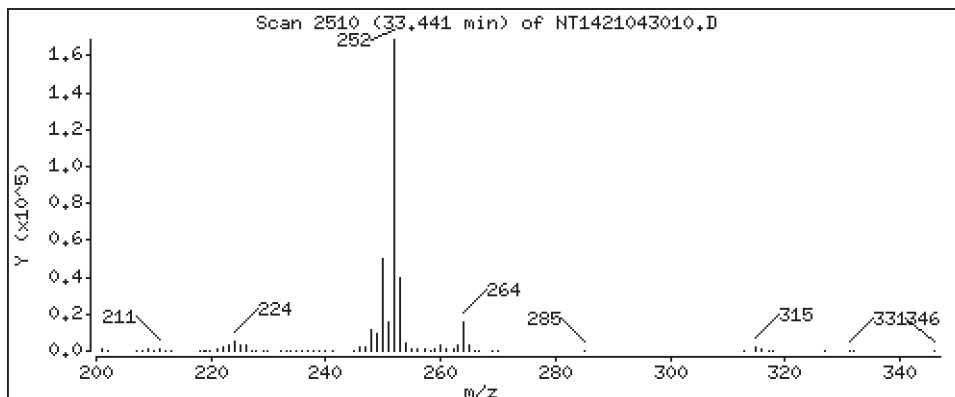
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

68 Perylene

Concentration: 2,415 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

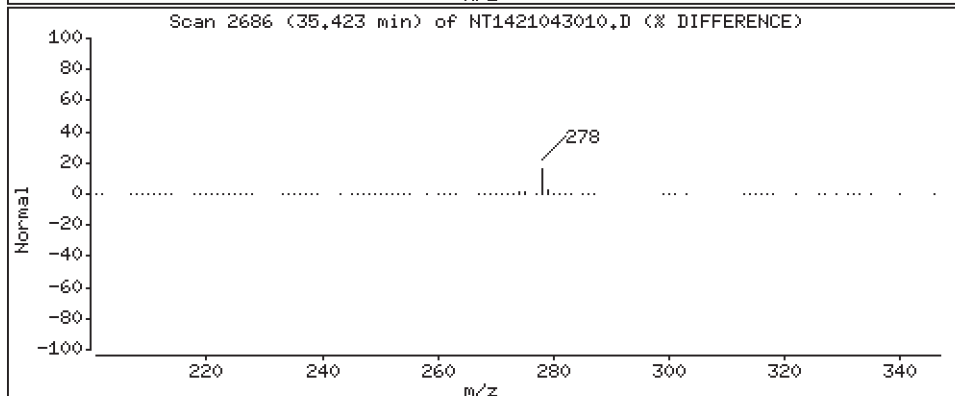
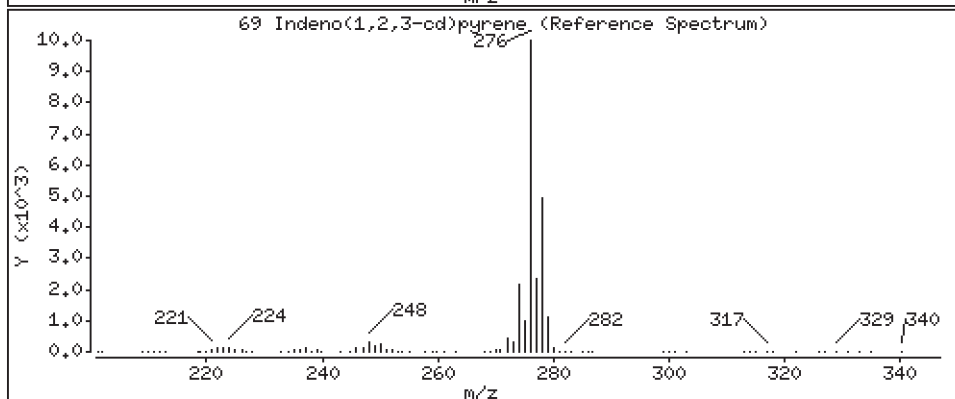
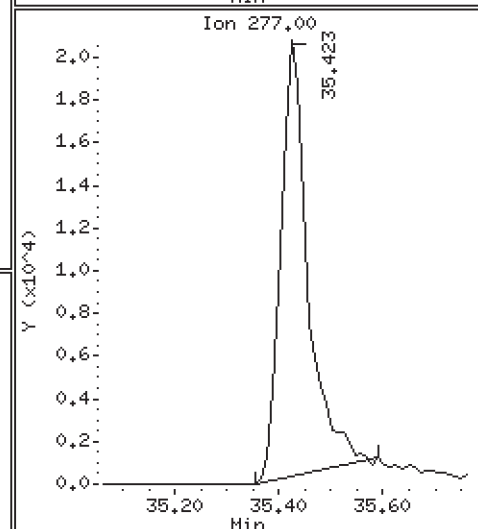
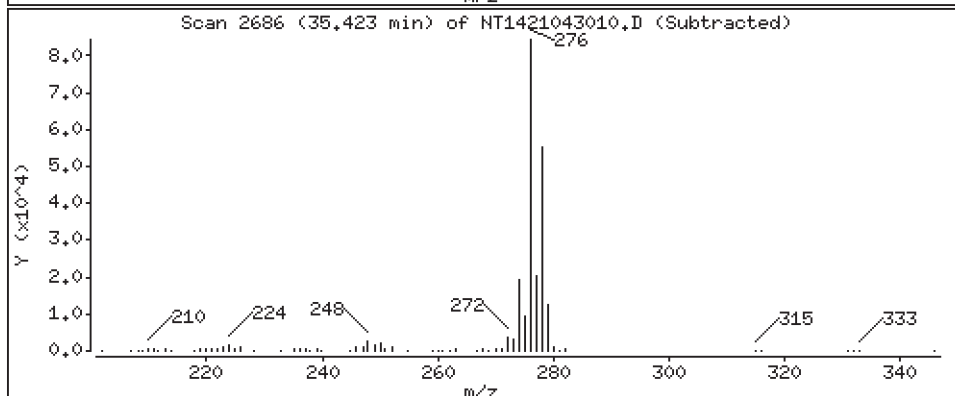
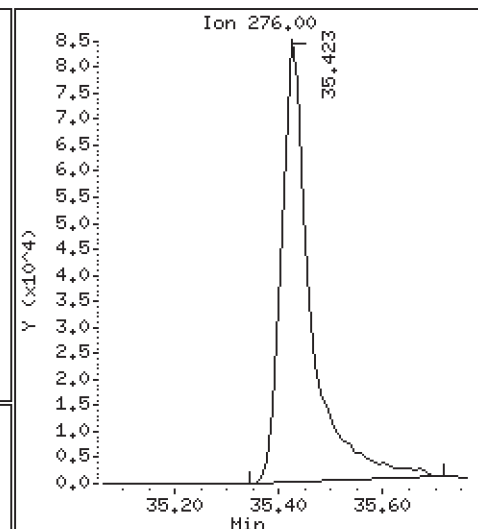
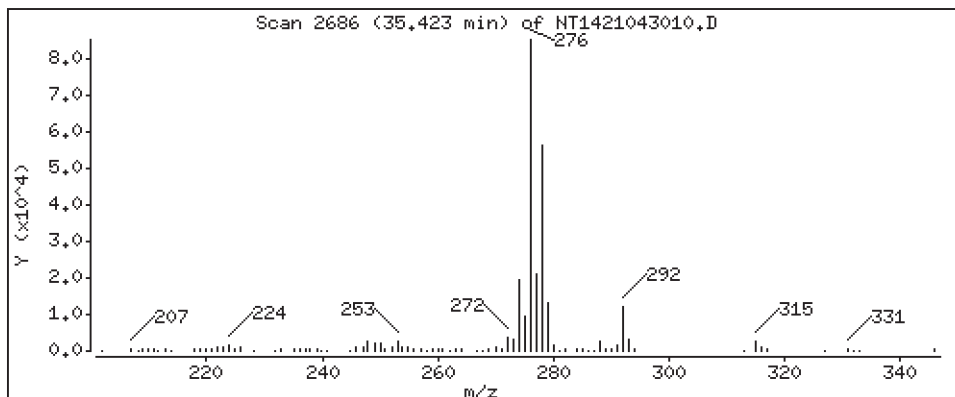
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

69 Indeno(1,2,3-cd)pyrene

Concentration: 2,236 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

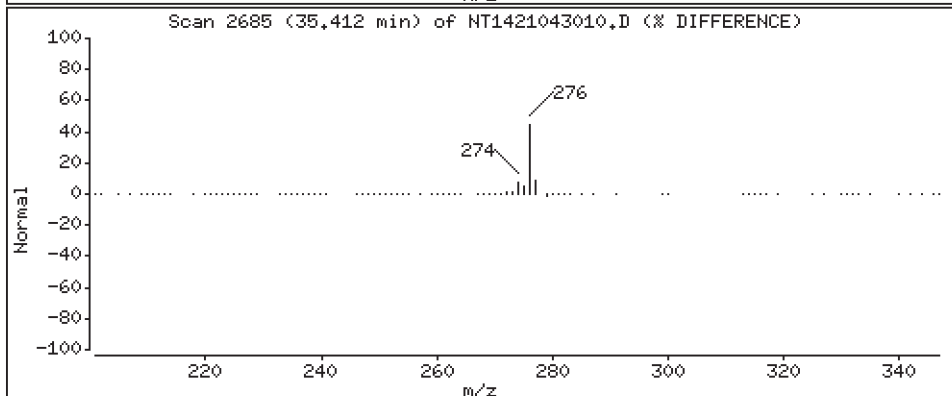
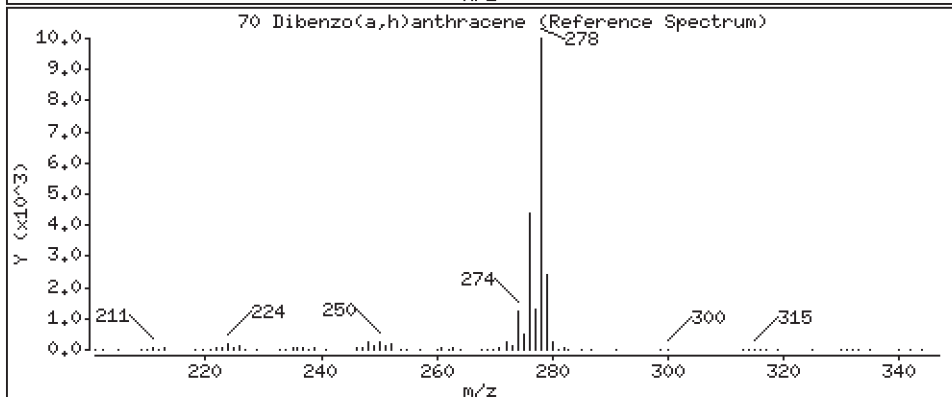
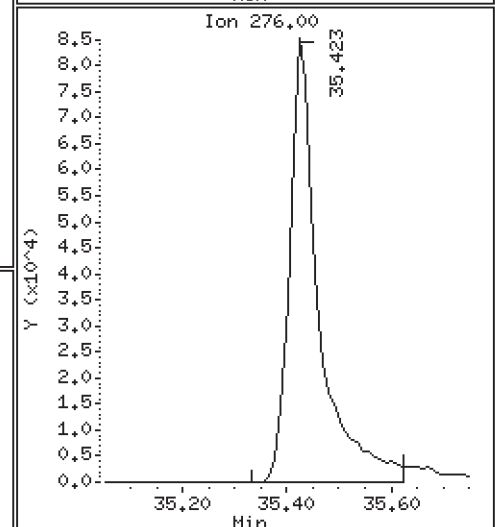
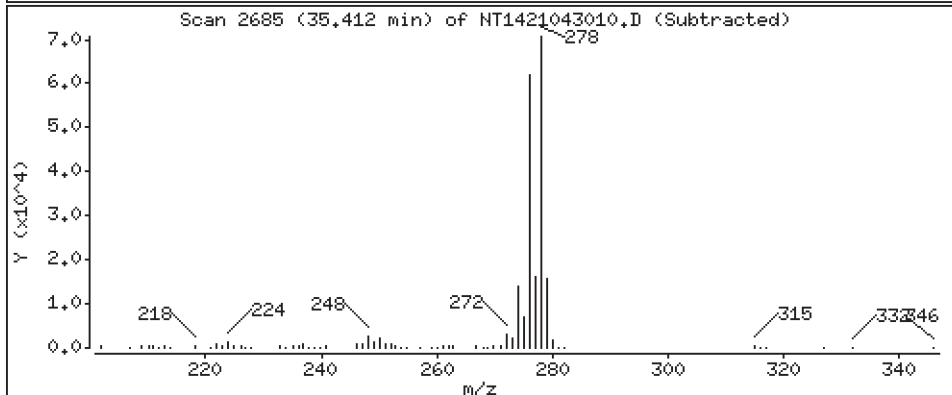
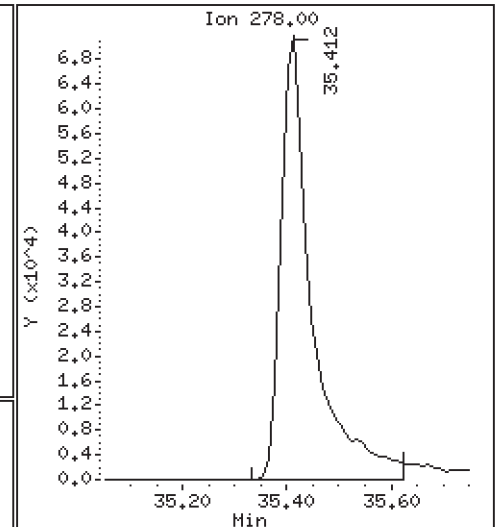
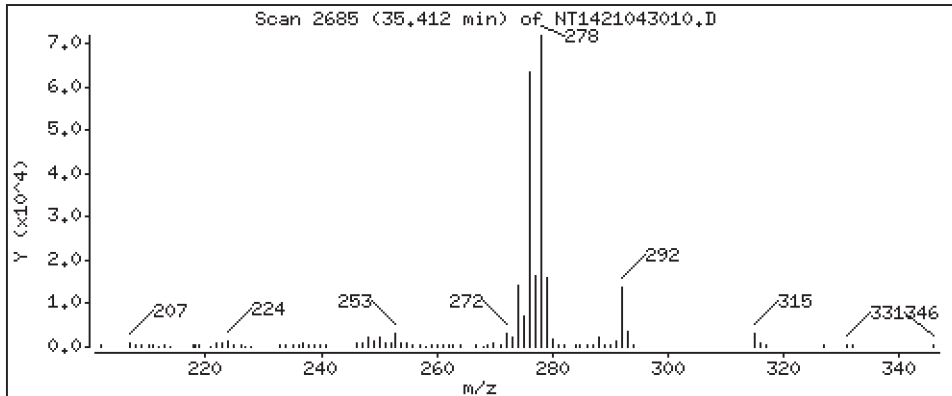
Operator: VTS

Column phase: Rxi-17Si1 MS

Column diameter: 0,25

70 Dibenzo(a,h)anthracene

Concentration: 2,291 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

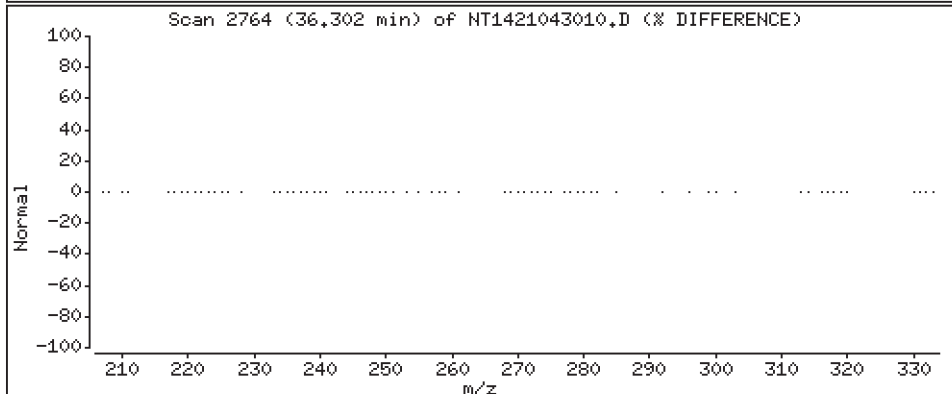
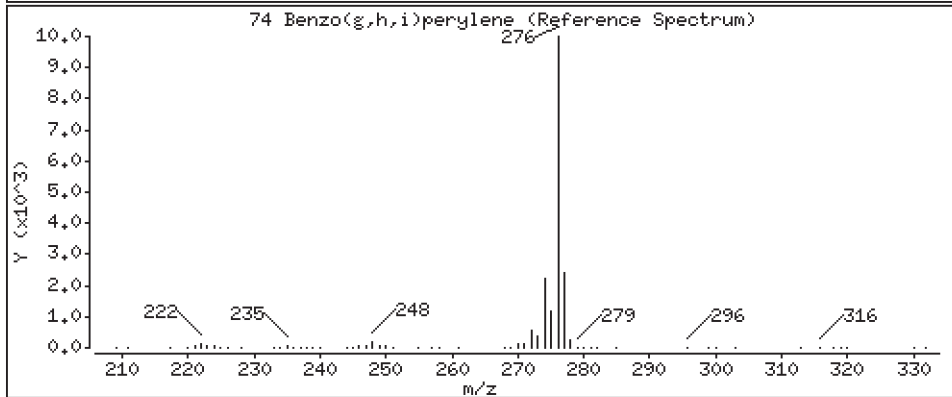
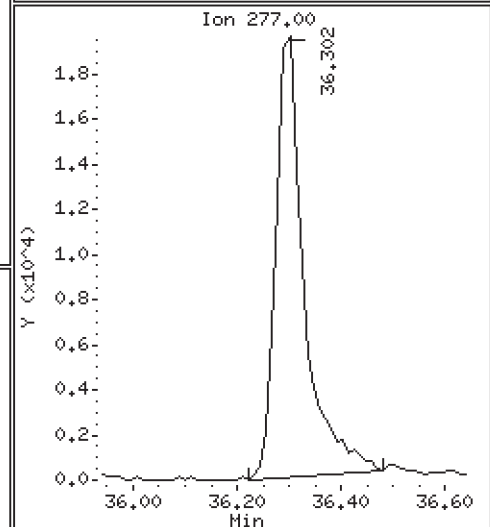
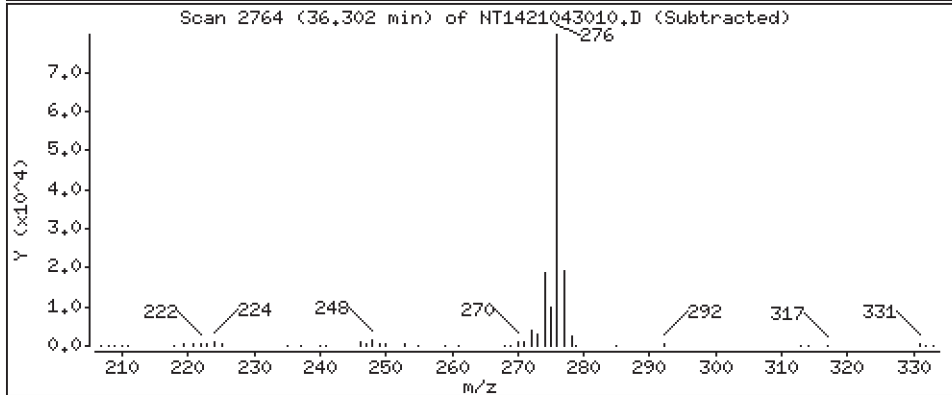
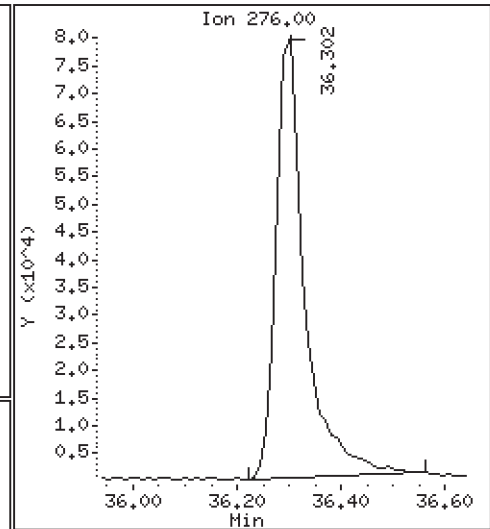
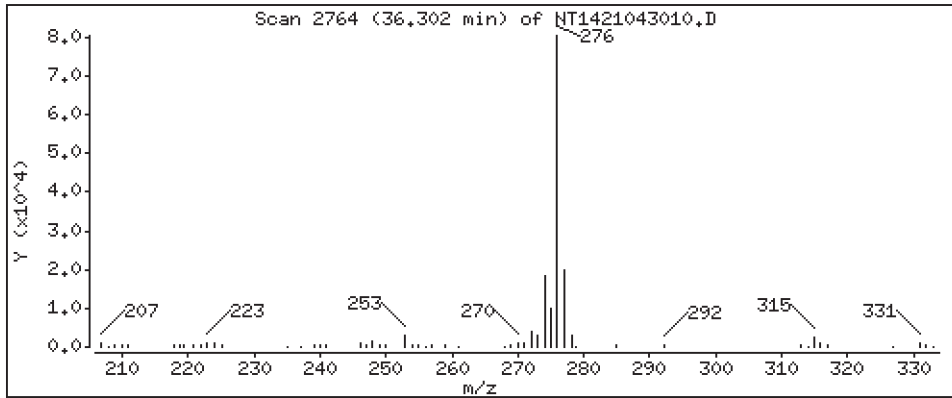
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

74 Benzo(g,h,i)perylene

Concentration: 2,352 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D
 Lab Smp Id: SJD0305-SCV1
 Inj Date : 30-APR-2021 14:41
 Operator : VTS
 Smp Info : SJD0305-SCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Meth Date : 01-May-2021 07:40 van
 Cal Date : 30-APR-2021 13:32
 Als bottle: 9
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-202011

Inst ID: nt14.i
 Quant Type: ISTD
 Cal File: NT1421043009.D
 Compound Sublist: TARGETS.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
							ON-COLUMN (ug/mL)	FINAL (ug/mL)	
1 trans-Decalin	138		7.045	7.035	(0.375)	74342	2.84314	2.843	
2 cis-Decalin	138		8.155	8.165	(0.434)	52523	2.90966	2.910	
\$ 6 Naphthalene-d8	136		11.776	11.776	(0.627)	604964	2.98636	2.986 (R)	
7 Naphthalene	128		11.836	11.846	(0.630)	573337	2.78250	2.783	
12 Benzo(b)thiophene	134		12.295	12.295	(0.655)	456850	2.78683	2.787	
16 2-Methylnaphthalene	141		13.680	13.680	(0.728)	312811	2.84483	2.845	
17 1-methylnaphthalene	141		14.131	14.131	(0.752)	293934	2.82127	2.821	
18 Biphenyl	154		15.317	15.317	(0.815)	435061	2.76462	2.765	
19 2,6-Dimethylnaphthalene	156		15.394	15.394	(0.820)	305582	2.82199	2.822	
20 Acenaphthylene	152		16.955	16.955	(0.903)	492364	2.88930	2.889	
\$ 21 Acenaphthene-d10	164		17.252	17.241	(0.918)	298420	3.01695	3.017 (R)	
22 Acenaphthene	153		17.362	17.361	(0.924)	329675	3.01019	3.010	
23 Dibenzofuran	168		17.735	17.735	(0.944)	459290	2.76760	2.768	
24 1,6,7-Trimethylnaphthalene	170		17.966	17.966	(0.957)	277803	2.92320	2.923	
* 25 Fluorene-d10	176		18.783	18.781	(1.000)	351020	2.00000		
26 Fluorene	166		18.885	18.883	(1.005)	342973	2.84375	2.844	
30 Dibenzothiophene	184		21.796	21.794	(1.160)	423593	2.78230	2.782	
\$ 35 Phenanthrene-d10	188		22.104	22.102	(0.995)	446008	2.66948	2.669 (R)	
36 Phenanthrene	178		22.192	22.190	(0.999)	460265	2.46754	2.468	
* 250 Anthracene-d10	188		22.225	22.223	(1.000)	309177	2.00000		
37 Anthracene	178		22.291	22.289	(1.003)	428535	2.49230	2.492	
42 Carbazole	167		23.566	23.565	(1.060)	338612	2.34287	2.343	
43 1-Methylphenanthrene	192		24.017	24.015	(1.081)	293776	2.59400	2.594	
44 Fluoranthene	202		25.996	25.994	(1.170)	436345	2.63403	2.634	
46 Pyrene	202		26.843	26.841	(1.208)	433716	2.52654	2.527	
51 Naphthobenzothiophene	234		Compound Not Detected.						
55 Benzo(a)anthracene	228		29.971	29.964	(0.907)	342259	2.27793	2.278	
\$ 56 Chrysene-d12	240		30.095	30.087	(0.911)	337659	2.82827	2.828 (RM)	
57 Chrysene	228		30.163	30.166	(0.913)	394981	2.57401	2.574	
62 Benzo(b)fluoranthene	252		32.393	32.386	(0.980)	324344	2.32564	2.326	
63 Benzo(k)fluoranthene	252		32.438	32.430	(0.982)	391530	2.30379	2.304 (M)	
293 Benzo(j)fluoranthene	252		32.494	32.498	(0.983)	393189	2.51567	2.516 (M)	
246 Total Benzofluoranthenes	252		32.494	32.497	(0.983)	1066161	6.96004	6.960 (M)	

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.046	33.050	(1.000)	328565	2.00000	
64 Benzo(e)pyrene	252	33.114	33.106	(1.002)	343391	2.45382	2.454
66 Benzo(a)pyrene	252	33.204	33.208	(1.005)	317871	2.21084	2.211
\$ 67 Perylene-d12	264	33.384	33.388	(1.010)	320102	2.50514	2.505 (RM)
68 Perylene	252	33.440	33.433	(1.012)	322846	2.41544	2.415 (M)
69 Indeno(1,2,3-cd)pyrene	276	35.422	35.415	(1.072)	332125	2.23617	2.236 (M)
70 Dibenzo(a,h)anthracene	278	35.411	35.404	(1.072)	294257	2.29093	2.291
74 Benzo(g,h,i)perylene	276	36.301	36.293	(1.098)	296119	2.35214	2.352 (M)

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 30-APR-2021
 Lab File ID: NT1421043010.D Calibration Time: 07:56
 Lab Smp Id: SJD0305-SCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	420456	210228	840912	351020	-16.51
250 Anthracene-d10	381033	190517	762066	309177	-18.86
251 Benzo(e)pyrene-d1	370998	185499	741996	328565	-11.44

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.78	18.28	19.28	18.78	0.01
250 Anthracene-d10	22.22	21.72	22.72	22.23	0.01
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	-0.01

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.

REVIEW SUMMARY FOR FILE - NT1421043010.D

Lab ID: SJD0305-SCV1

nt14.i, 20210430.b\ALKYLPNA.m, 30-APR-2021 14:41

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1421043009.D

On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

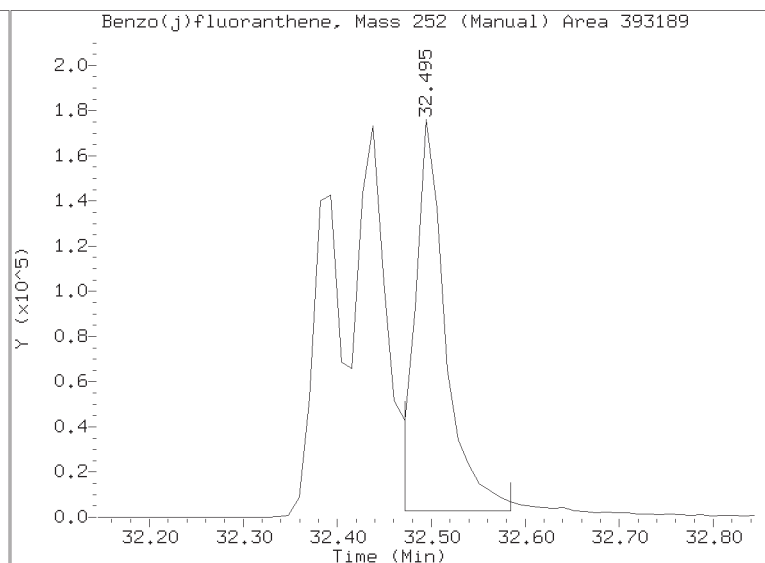
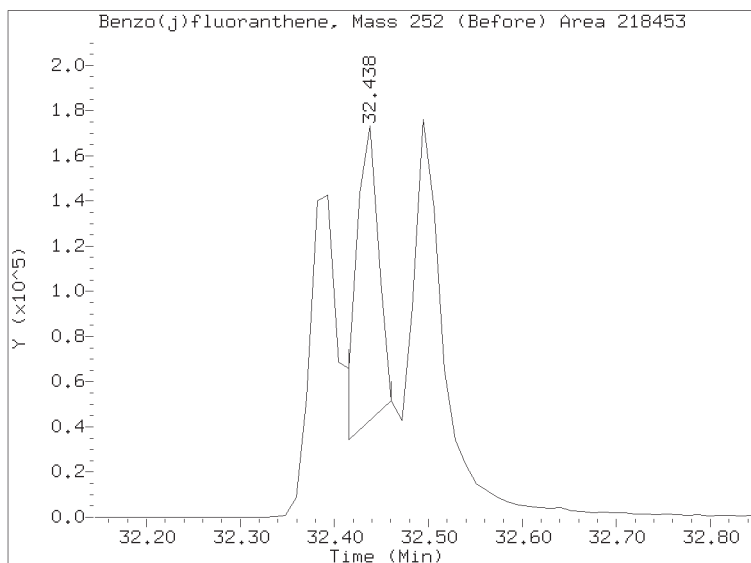
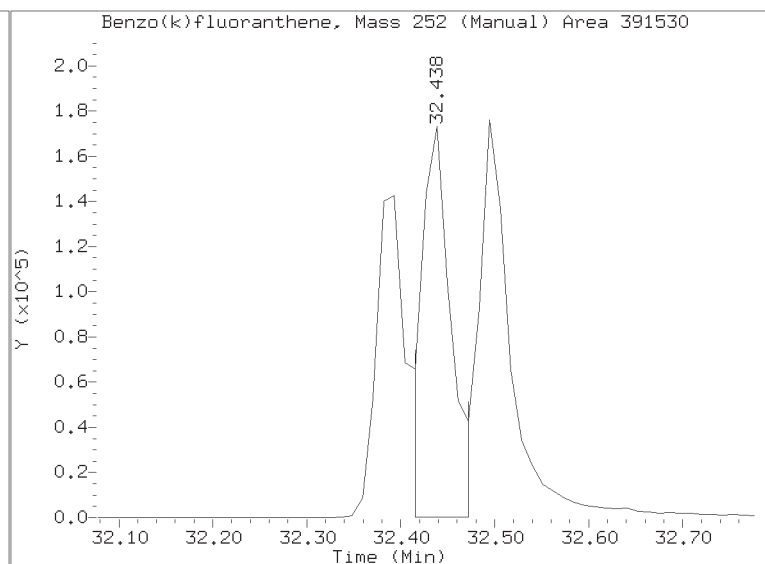
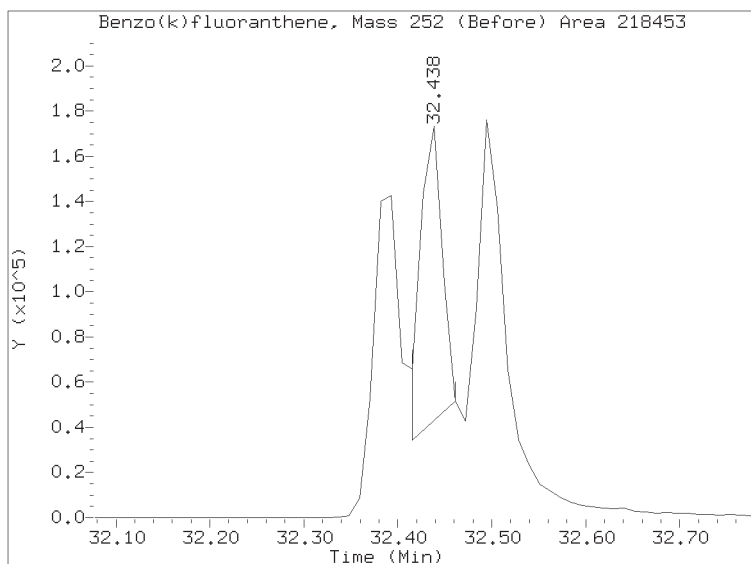
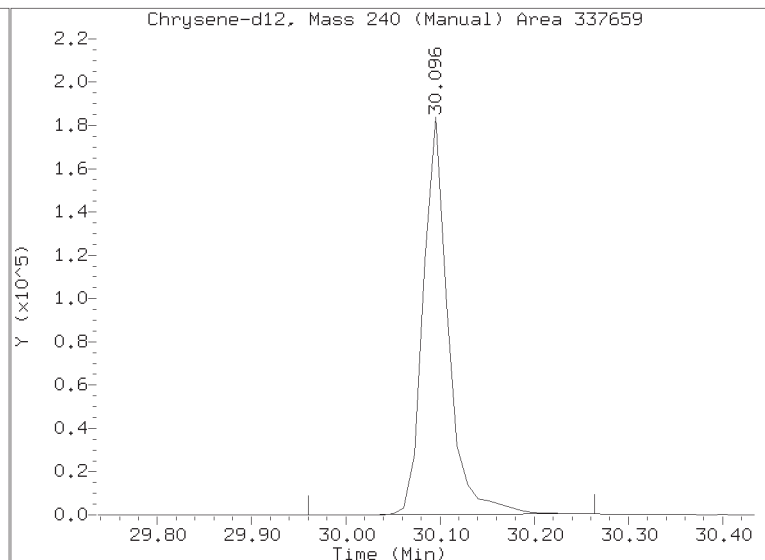
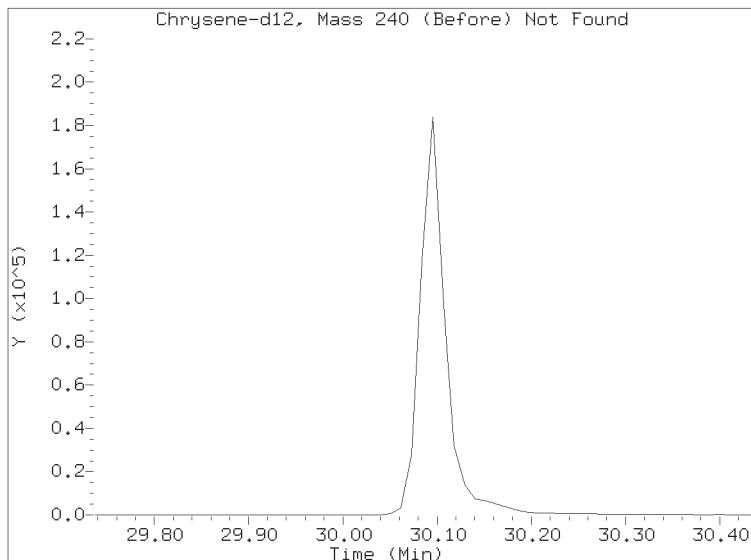
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D

Injection Date: 30-APR-2021 14:41

Lab ID: SJD0305-SCV1 Client ID:

Report Date: 05/01/2021 09:18



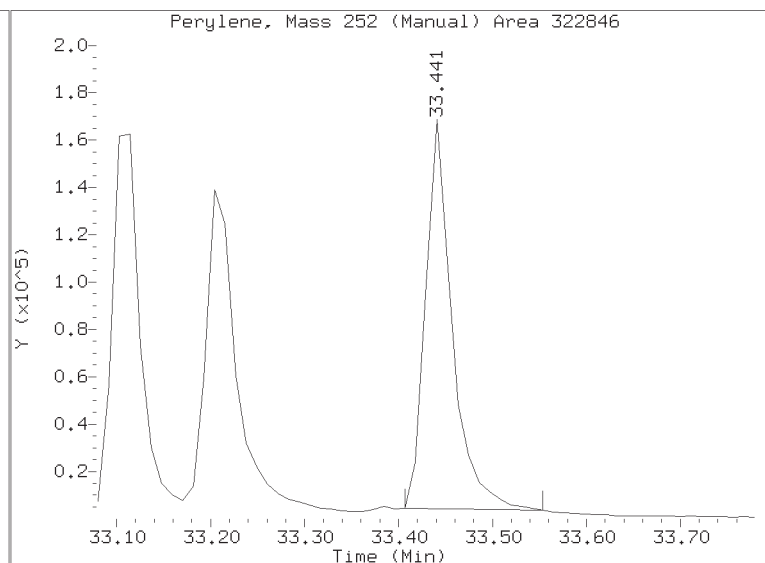
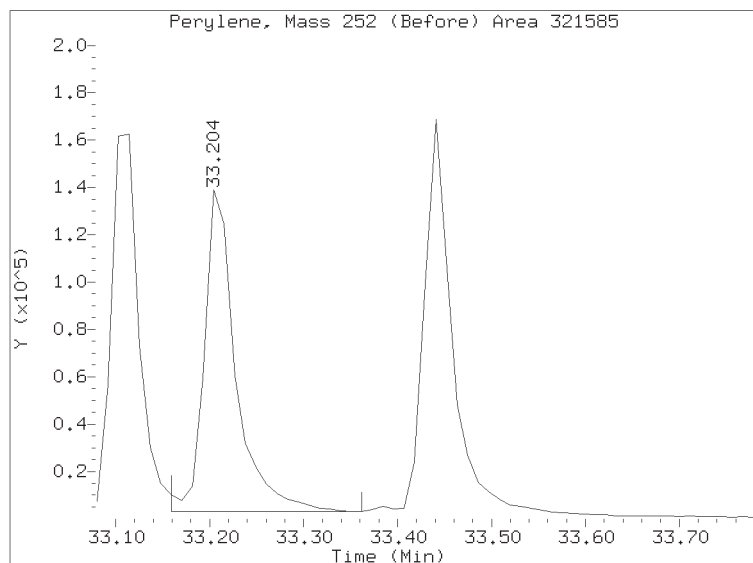
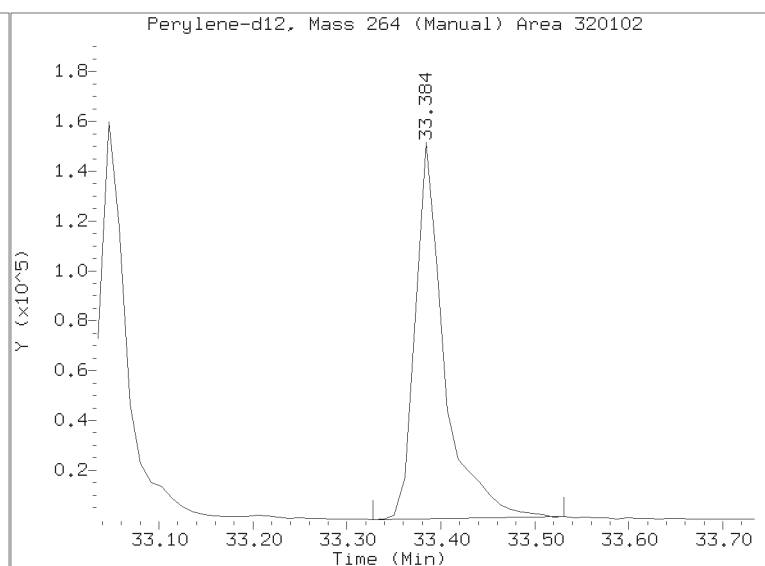
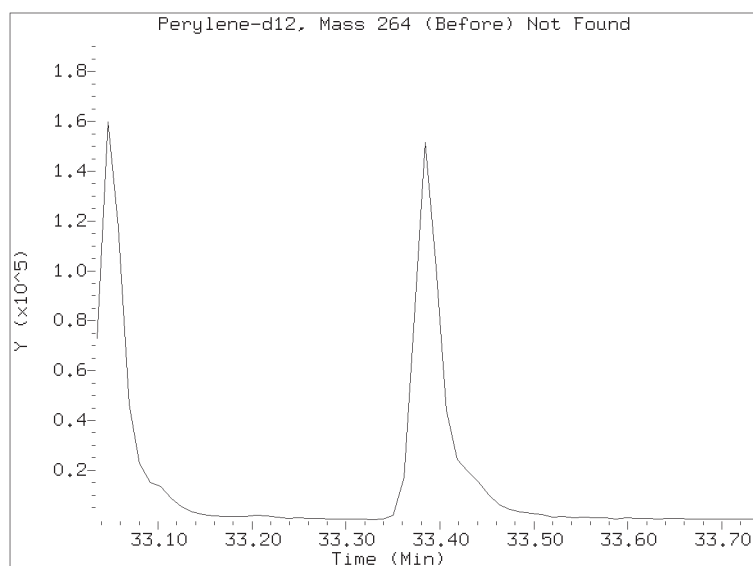
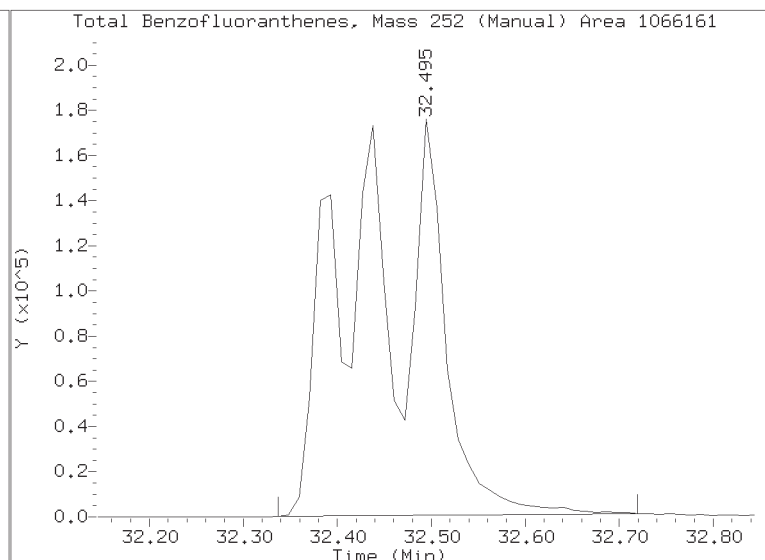
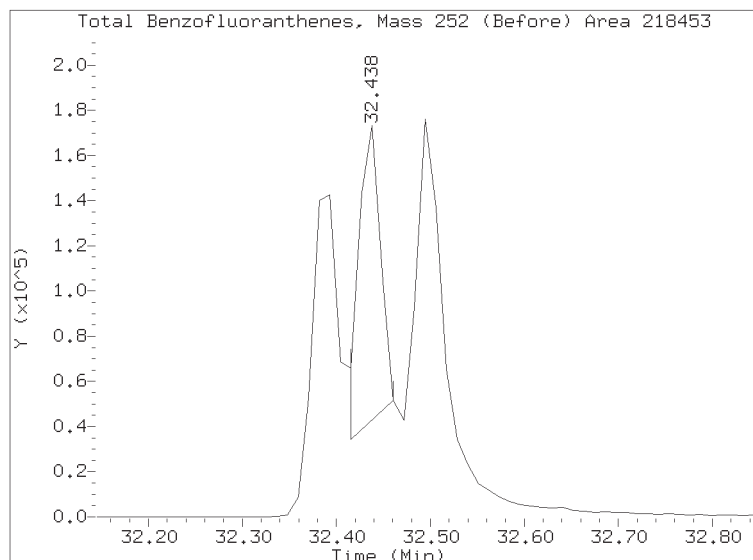
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D

Injection Date: 30-APR-2021 14:41

Lab ID: SJD0305-SCV1 Client ID:

Report Date: 05/01/2021 09:18



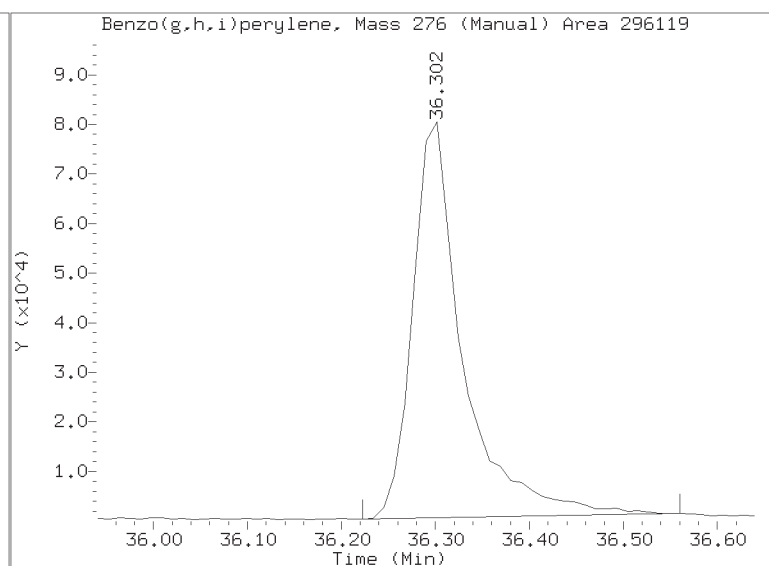
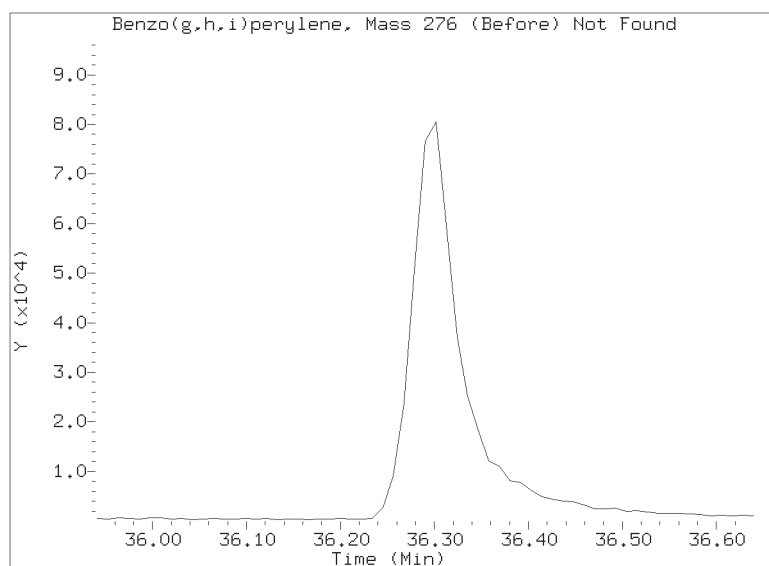
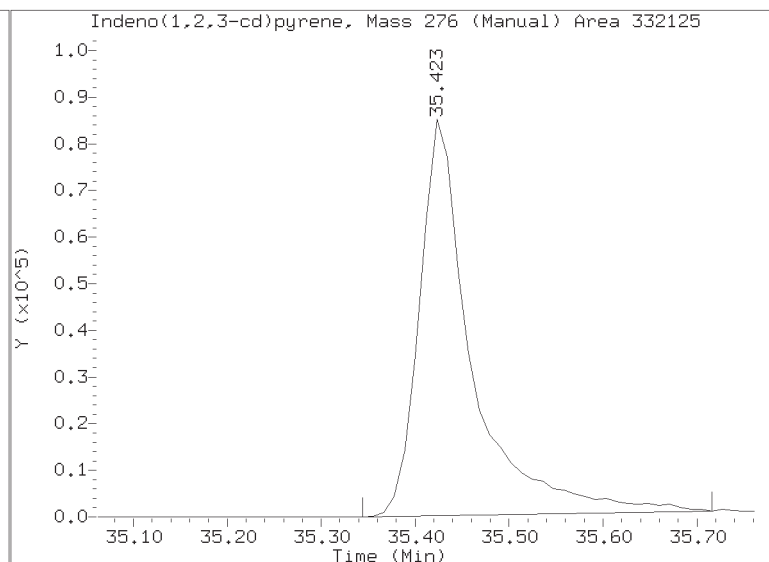
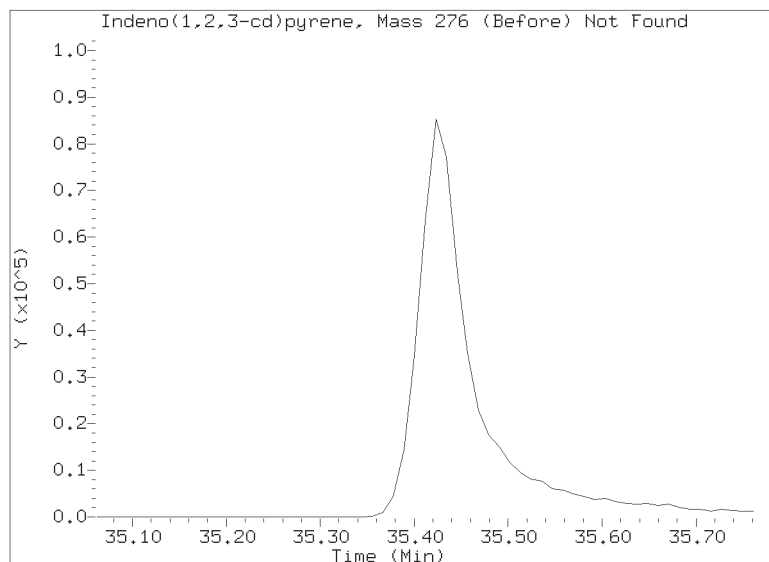
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D

Injection Date: 30-APR-2021 14:41

Lab ID: SJD0305-SCV1 Client ID:

Report Date: 05/01/2021 09:18



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043011.D
 Lab Smp Id: SJD0305-ICB1
 Inj Date : 30-APR-2021 15:29
 Operator : VTS
 Smp Info : SJD0305-ICB1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Meth Date : 01-May-2021 07:40 van
 Cal Date : 30-APR-2021 13:32
 Als bottle: 10
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-202011

Inst ID: nt14.i
 Quant Type: ISTD
 Cal File: NT1421043009.D
 Compound Sublist: TARGETS.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
1 trans-Decalin	138							
2 cis-Decalin	138							
\$ 6 Naphthalene-d8	136		11.776	11.776	(0.627)	649759	2.99218	2.992 (R)
7 Naphthalene	128							
12 Benzo(b)thiophene	134							
16 2-Methylnaphthalene	141							
17 1-methylnaphthalene	141							
18 Biphenyl	154							
19 2,6-Dimethylnaphthalene	156							
20 Acenaphthylene	152							
\$ 21 Acenaphthene-d10	164		17.241	17.241	(0.918)	320325	3.02102	3.021 (R)
22 Acenaphthene	153							
23 Dibenzofuran	168							
24 1,6,7-Trimethylnaphthalene	170							
* 25 Fluorene-d10	176		18.772	18.781	(1.000)	376278	2.00000	
26 Fluorene	166							
30 Dibenzothiophene	184							
\$ 35 Phenanthrene-d10	188		22.104	22.102	(0.995)	487636	2.80182	2.802 (R)
36 Phenanthrene	178							
* 250 Anthracene-d10	188		22.225	22.223	(1.000)	322067	2.00000	
37 Anthracene	178							
42 Carbazole	167							
43 1-Methylphenanthrene	192							
44 Fluoranthene	202							
46 Pyrene	202							
51 Naphthobenzothiophene	234							
55 Benzo(a)anthracene	228							
\$ 56 Chrysene-d12	240		30.095	30.087	(0.911)	346182	2.89788	2.898 (RM)
57 Chrysene	228							
62 Benzo(b)fluoranthene	252							
63 Benzo(k)fluoranthene	252							
293 Benzo(j)fluoranthene	252							
246 Total Benzofluoranthenes	252							

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.046	33.050	(1.000)	328767	2.00000	
64 Benzo(e)pyrene	252	Compound Not Detected.					
66 Benzo(a)pyrene	252	Compound Not Detected.					
\$ 67 Perylene-d12	264	33.384	33.388	(1.010)	291635	2.28628	2.286 (RM)
68 Perylene	252	Compound Not Detected.					
69 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
70 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
74 Benzo(g,h,i)perylene	276	Compound Not Detected.					

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 30-APR-2021
 Lab File ID: NT1421043011.D Calibration Time: 07:56
 Lab Smp Id: SJD0305-ICB1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	420456	210228	840912	376278	-10.51
250 Anthracene-d10	381033	190517	762066	322067	-15.48
251 Benzo(e)pyrene-d1	370998	185499	741996	328767	-11.38

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.78	18.28	19.28	18.77	-0.05
250 Anthracene-d10	22.22	21.72	22.72	22.23	0.01
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	-0.01

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.

REVIEW SUMMARY FOR FILE - NT1421043011.D

Lab ID: SJD0305-ICB1

nt14.i, 20210430.b\ALKYLPNA.m, 30-APR-2021 15:29

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1421043009.D

On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

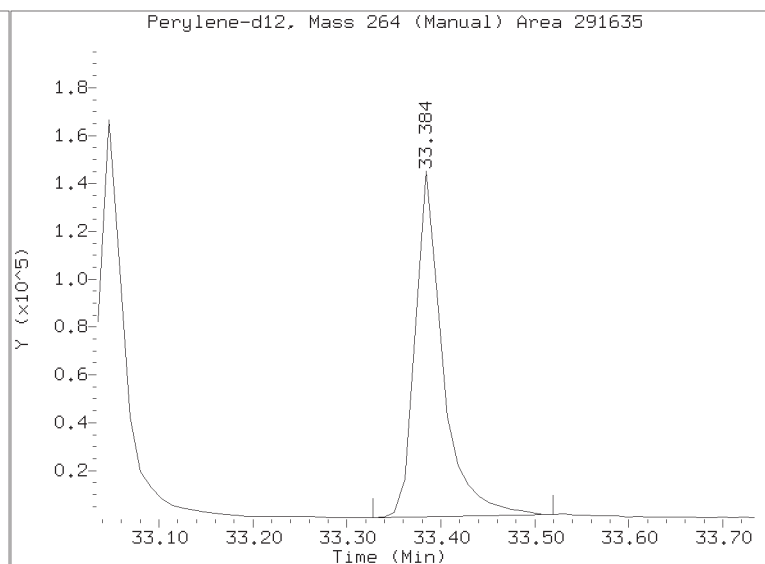
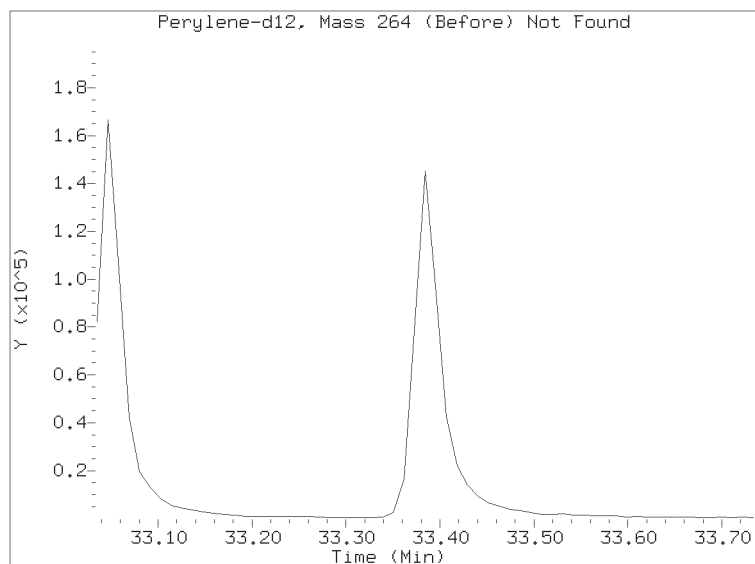
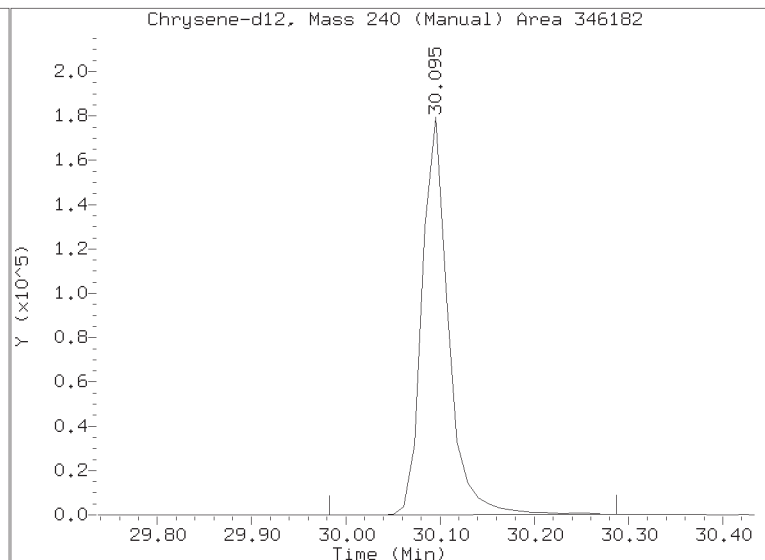
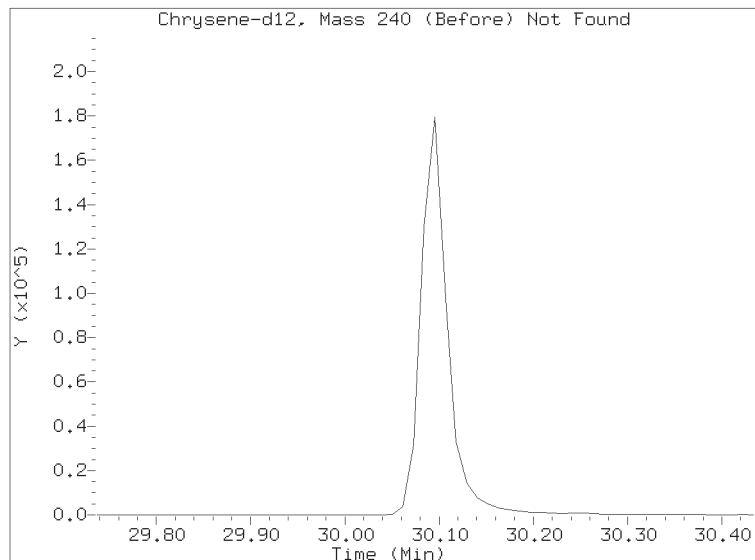
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043011.D

Injection Date: 30-APR-2021 15:29

Lab ID: SJD0305-ICB1 Client ID:

Report Date: 05/01/2021 09:18





SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor QEA, LLC

Project: Gasco Siltronic - US Moorings

Calibration: DH00073

Laboratory ID: SIH0304-SCV1

Sequence: SIH0304

Sequence Name: PAH 250 SCV

Standard ID: I004581

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Naphthalene	250.00	224	-10.2	20.00
Acenaphthylene	250.00	233	-6.7	20.00
Acenaphthene	250.00	222	-11.2	20.00
Fluorene	250.00	233	-6.6	20.00
Phenanthrene	250.00	233	-7.0	20.00
Anthracene	250.00	223	-11.0	20.00
Fluoranthene	250.00	236	-5.5	20.00
Pyrene	250.00	235	-6.0	20.00
Benzo(a)anthracene	250.00	223	-10.8	20.00
Chrysene	250.00	215	-13.9	20.00
Benzo(b)fluoranthene	250.00	212	-15.0	20.00
Benzo(k)fluoranthene	250.00	260	4.1	20.00
Benzofluoranthenes, Total	500.00	473	-5.5	
Benzo(a)pyrene	250.00	213	-14.8	20.00
Indeno(1,2,3-cd)pyrene	250.00	227	-9.3	20.00
Dibenzo(a,h)anthracene	250.00	192	-23.2 *	20.00
Benzo(g,h,i)perylene	250.00	214	-14.2	20.00

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt11.1\20200827.6\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Sample Info: SIH0304-SCV1

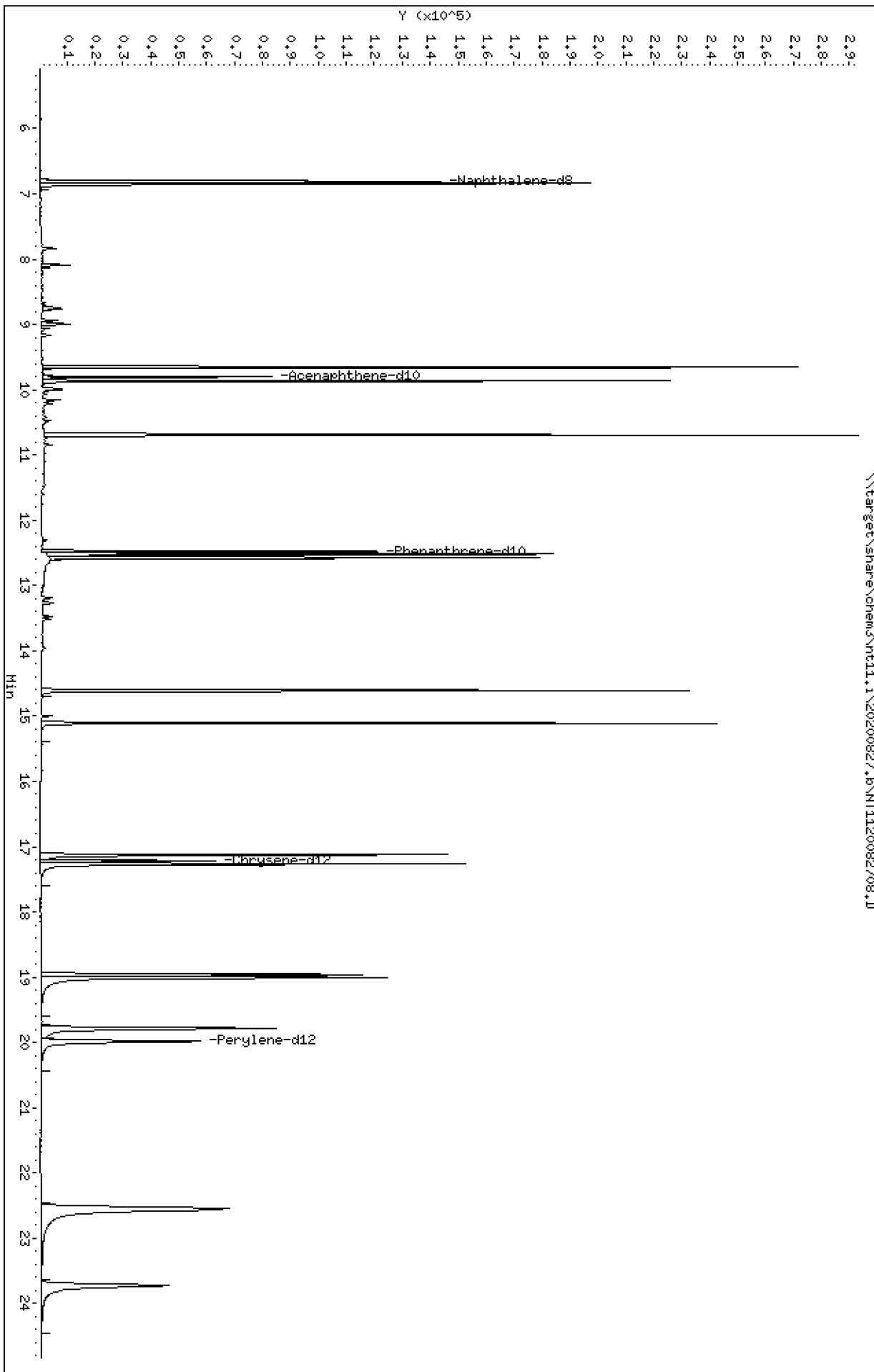
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

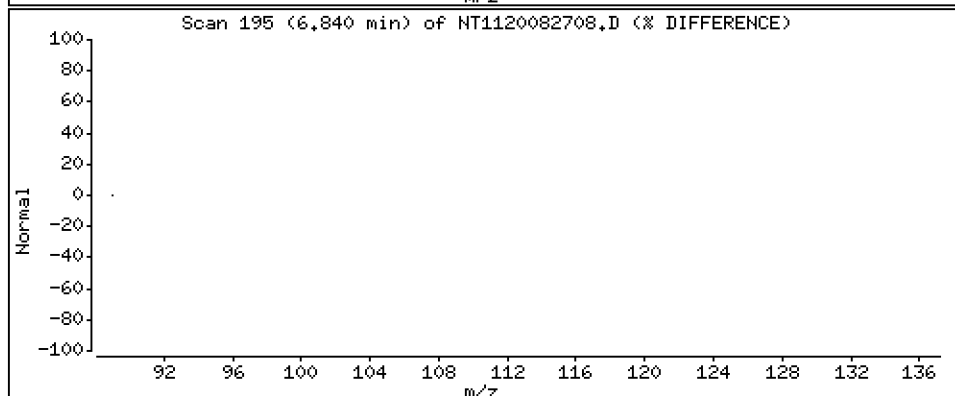
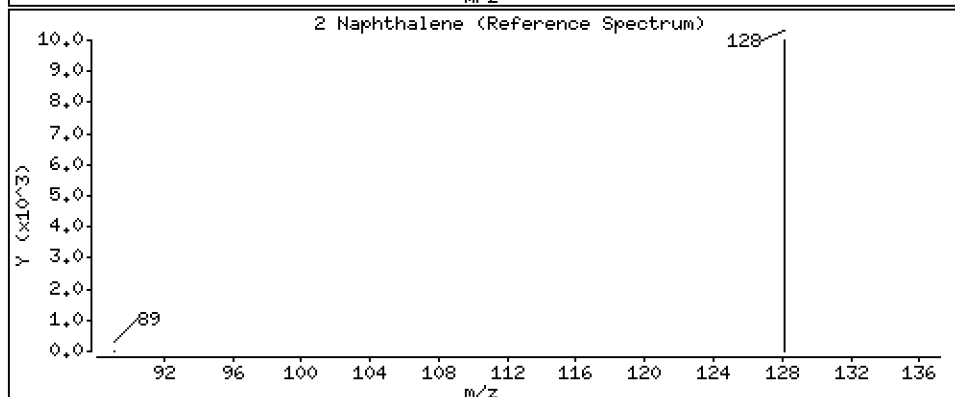
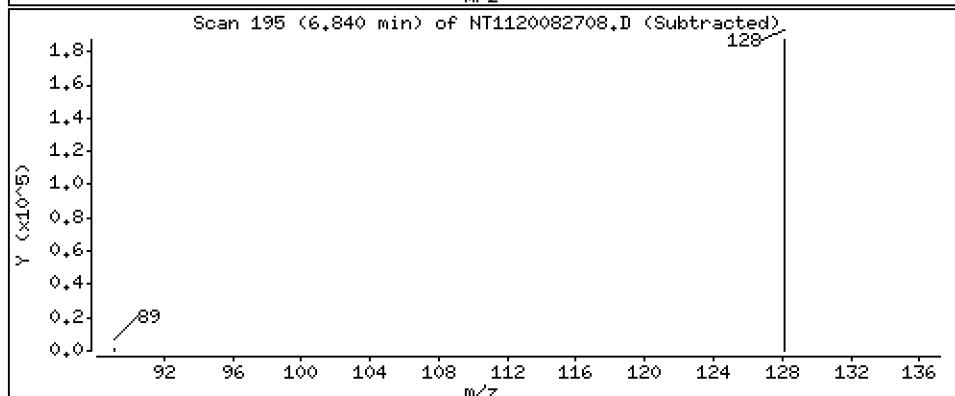
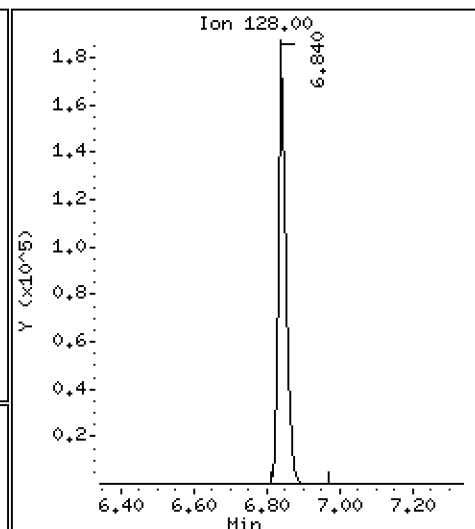
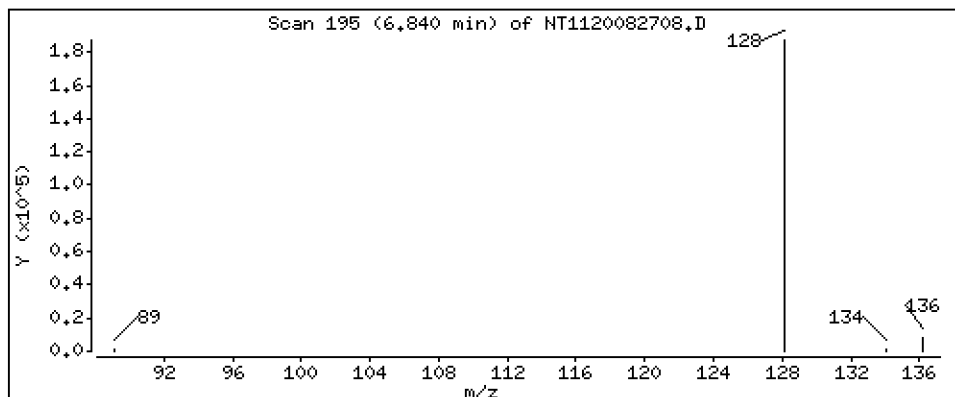
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 224 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

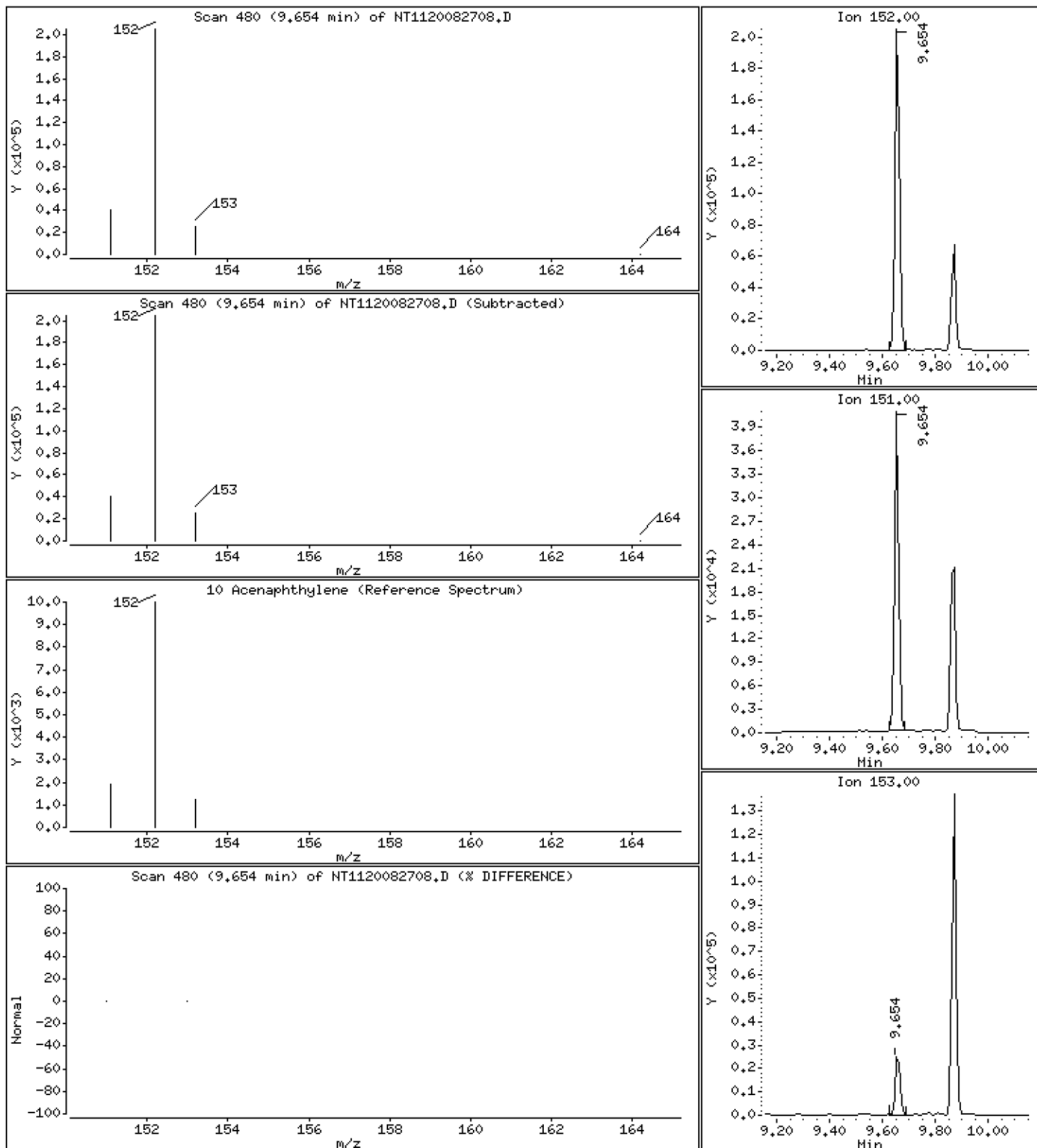
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

10 Acenaphthylene

Concentration: 233 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

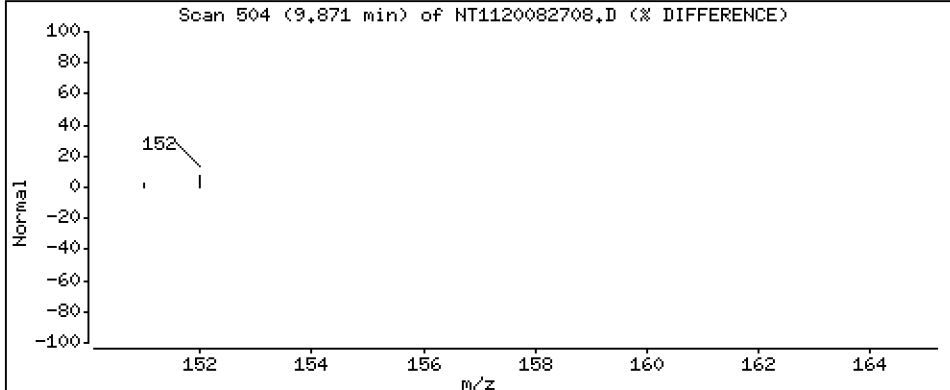
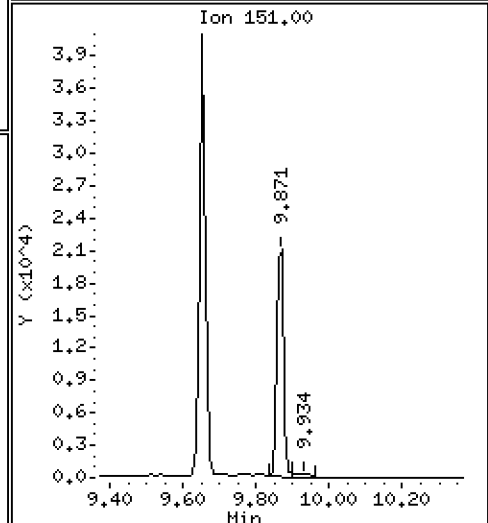
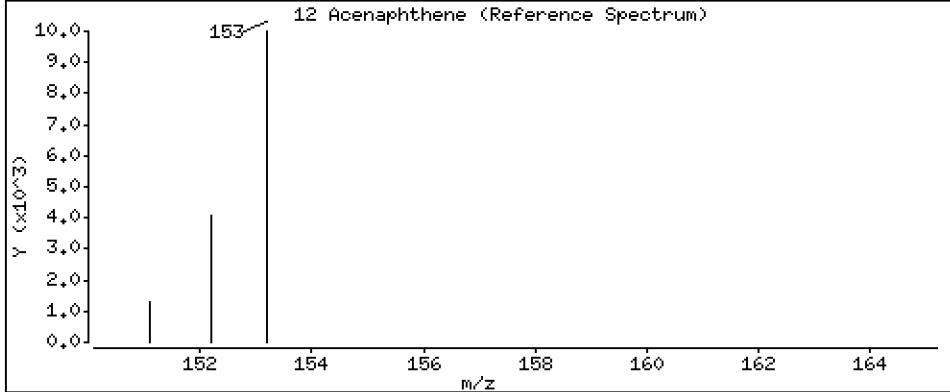
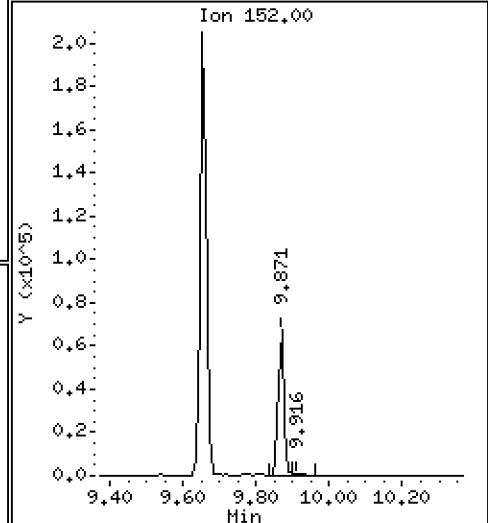
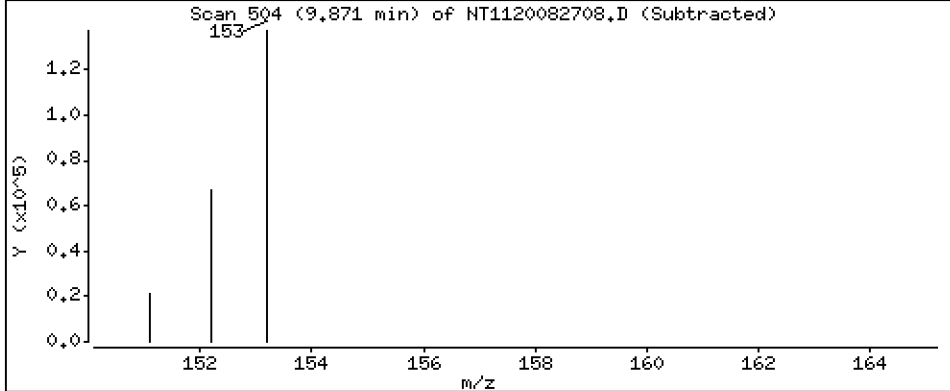
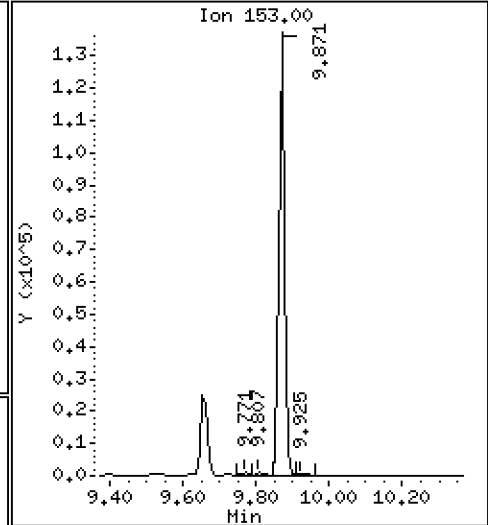
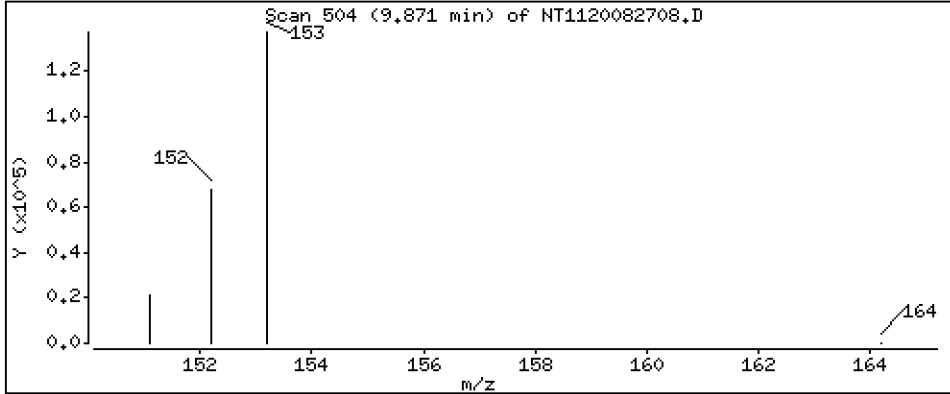
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

12 Acenaphthene

Concentration: 222 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

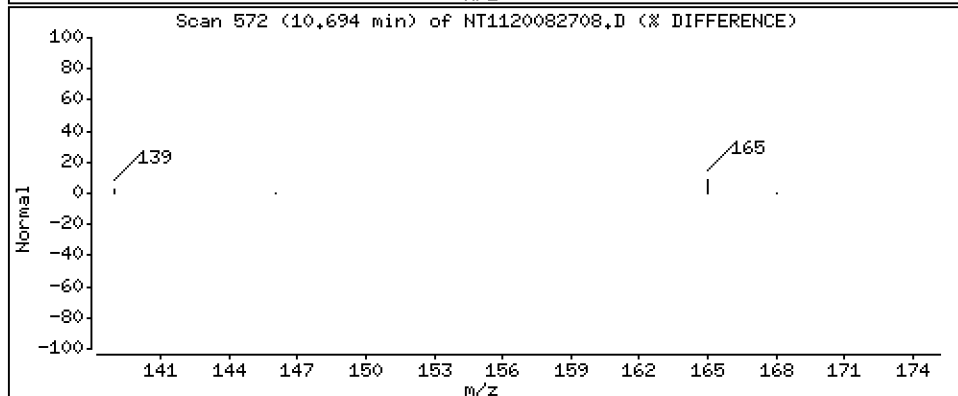
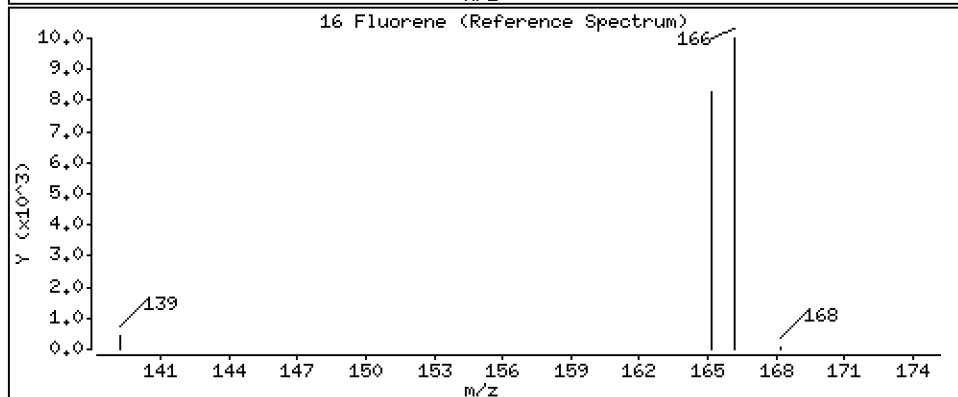
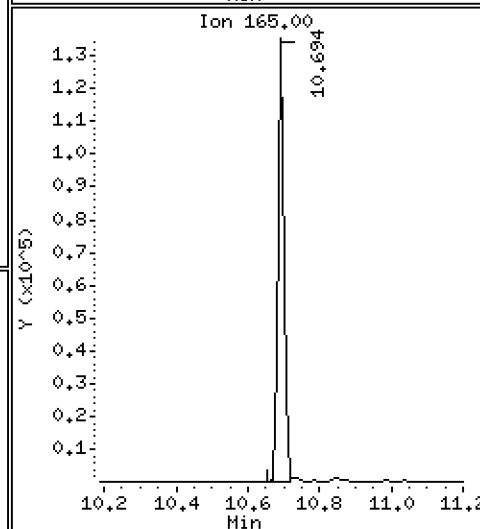
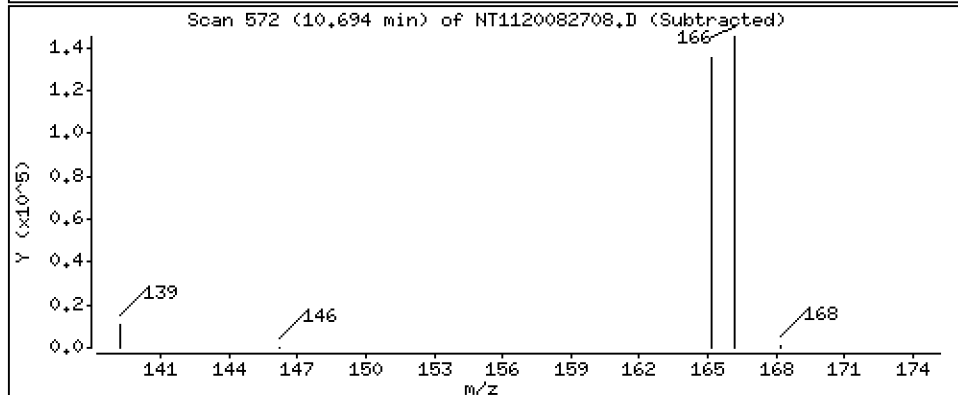
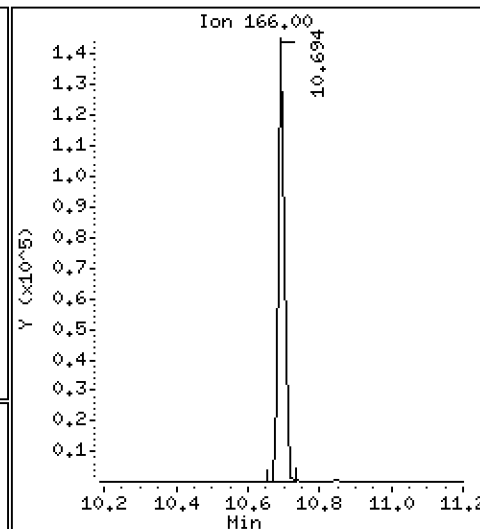
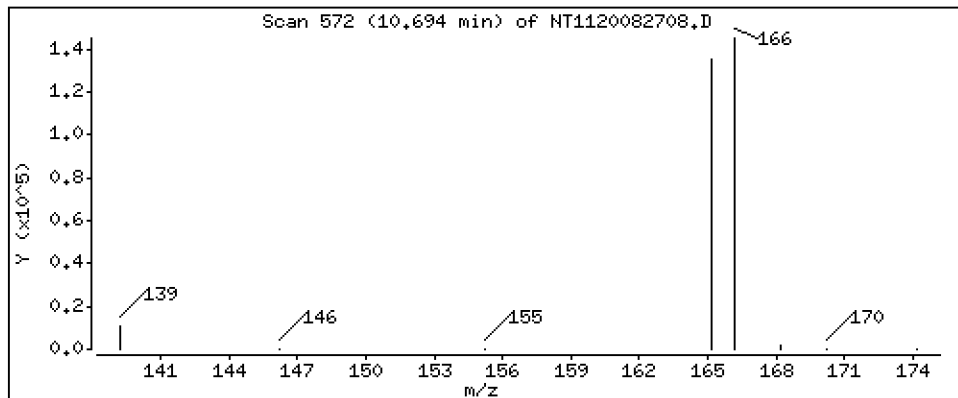
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 Fluorene

Concentration: 233 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

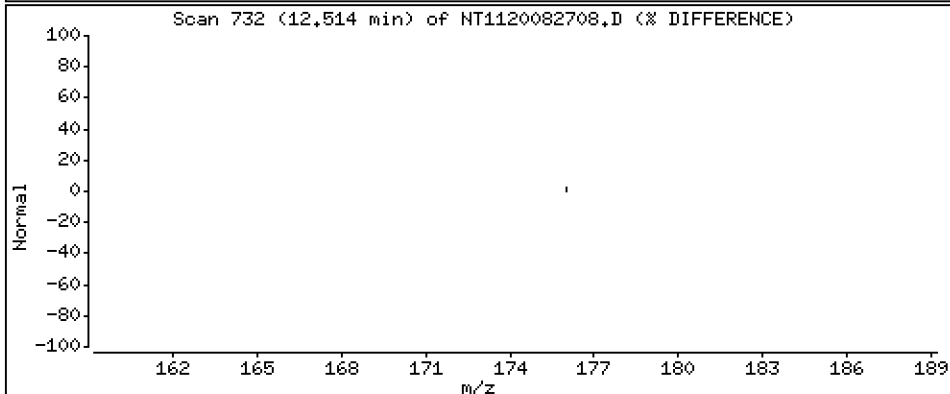
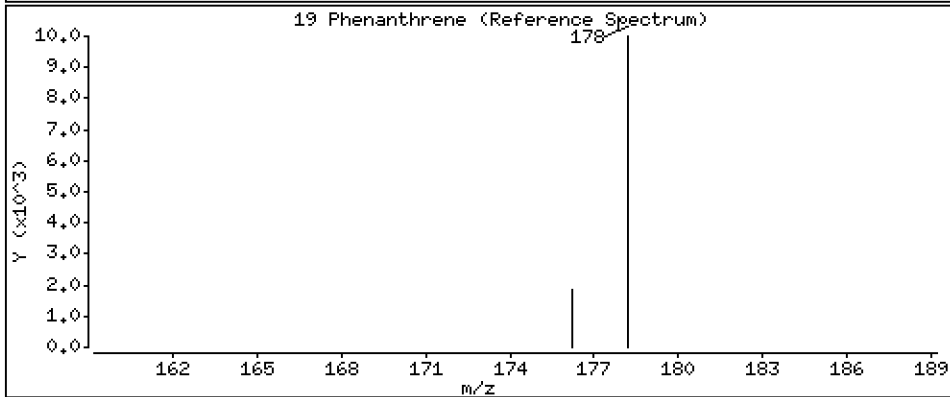
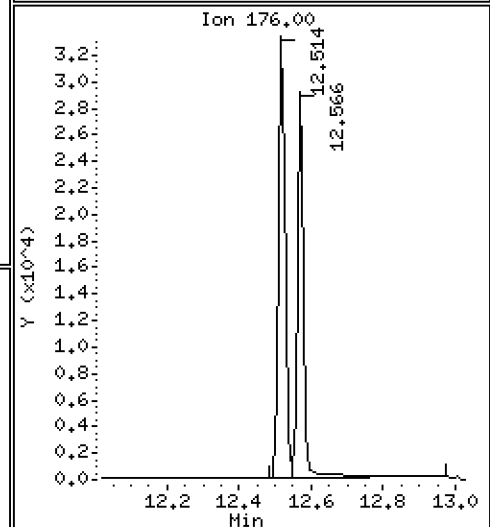
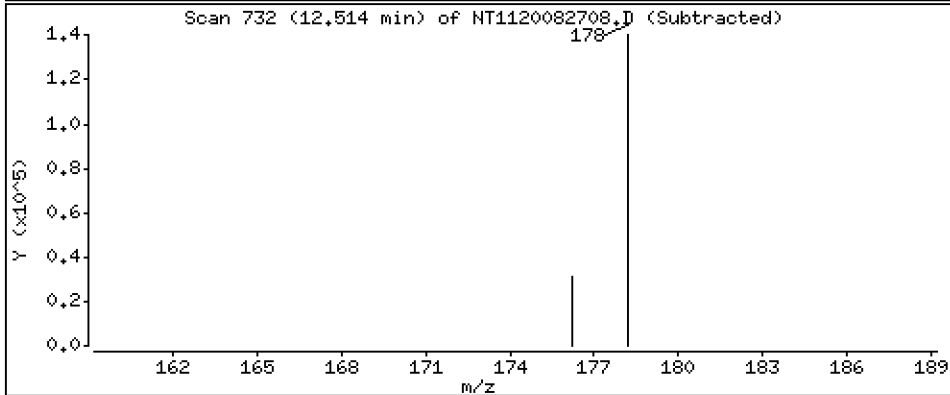
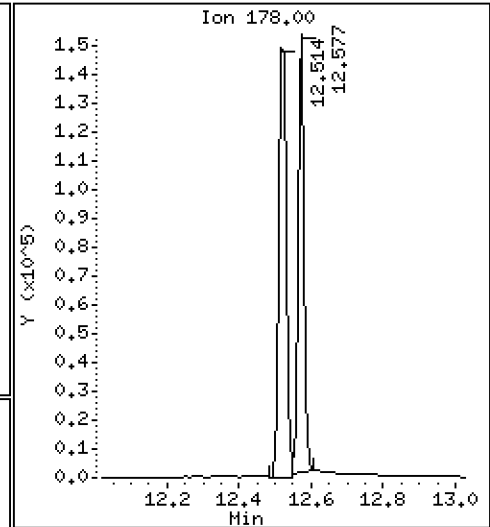
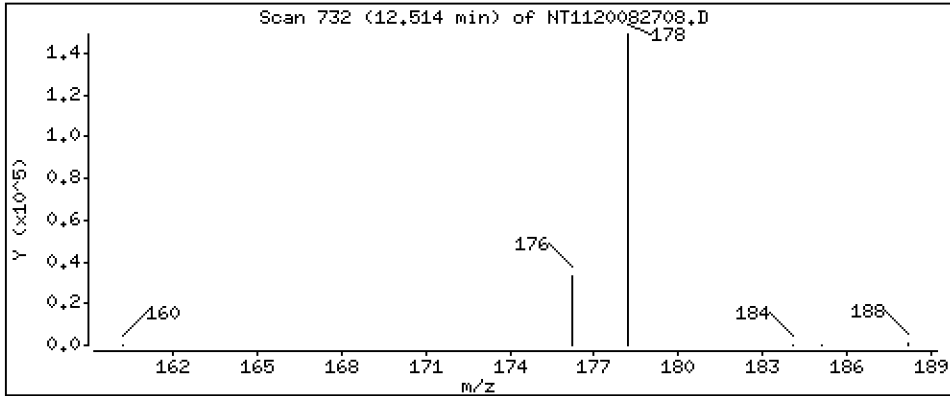
Operator: VTS

Column phase: Rxi-17Si1 MS

Column diameter: 0,25

19 Phenanthrene

Concentration: 233 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

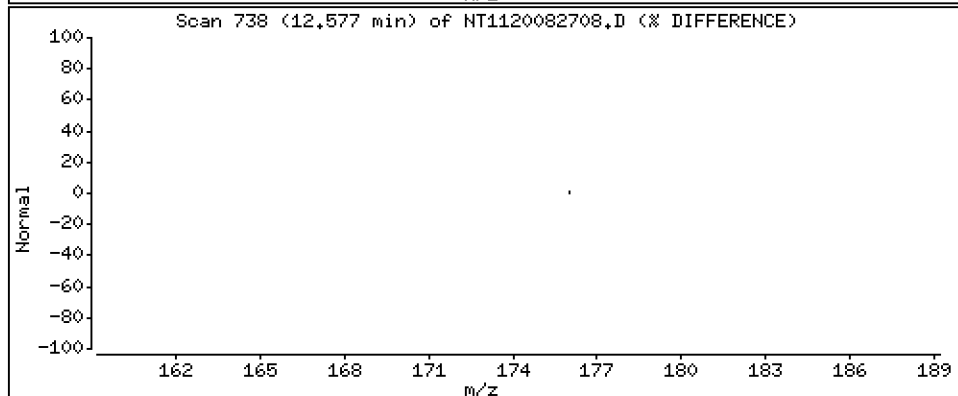
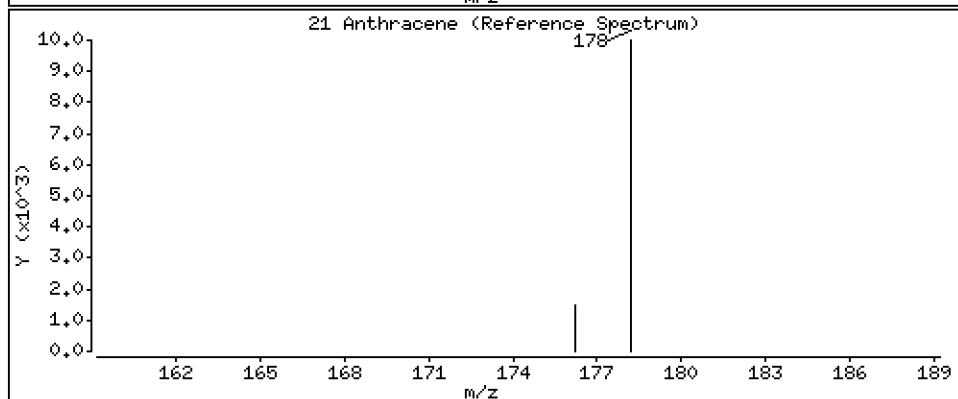
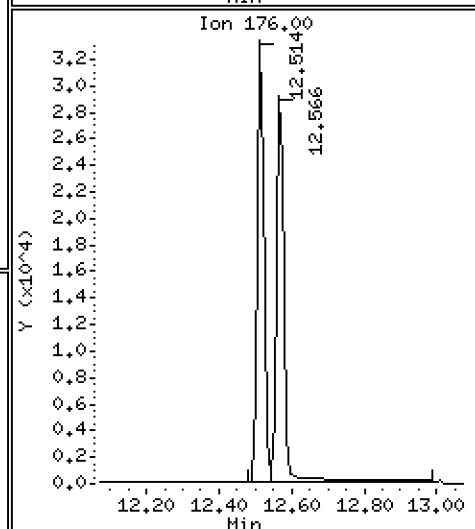
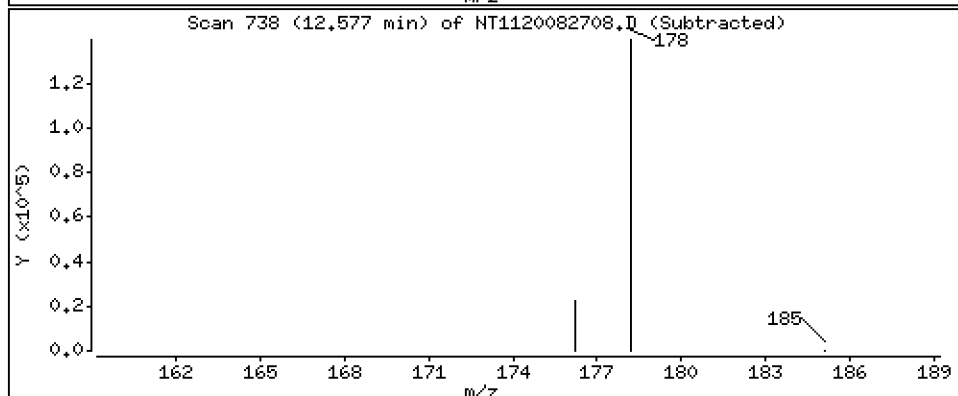
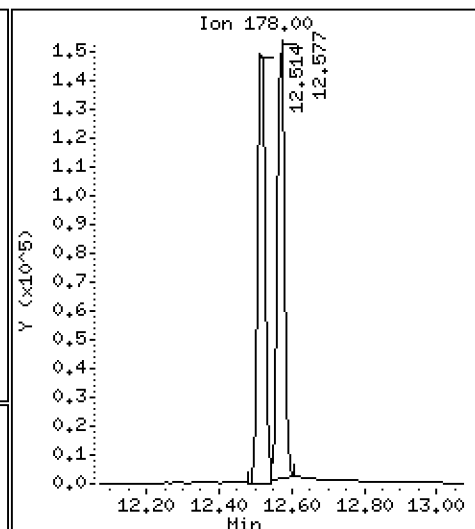
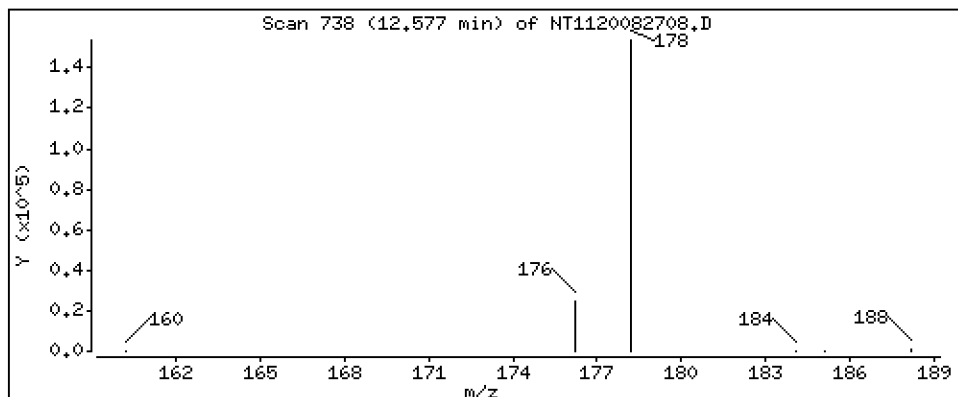
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

21 Anthracene

Concentration: 223 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

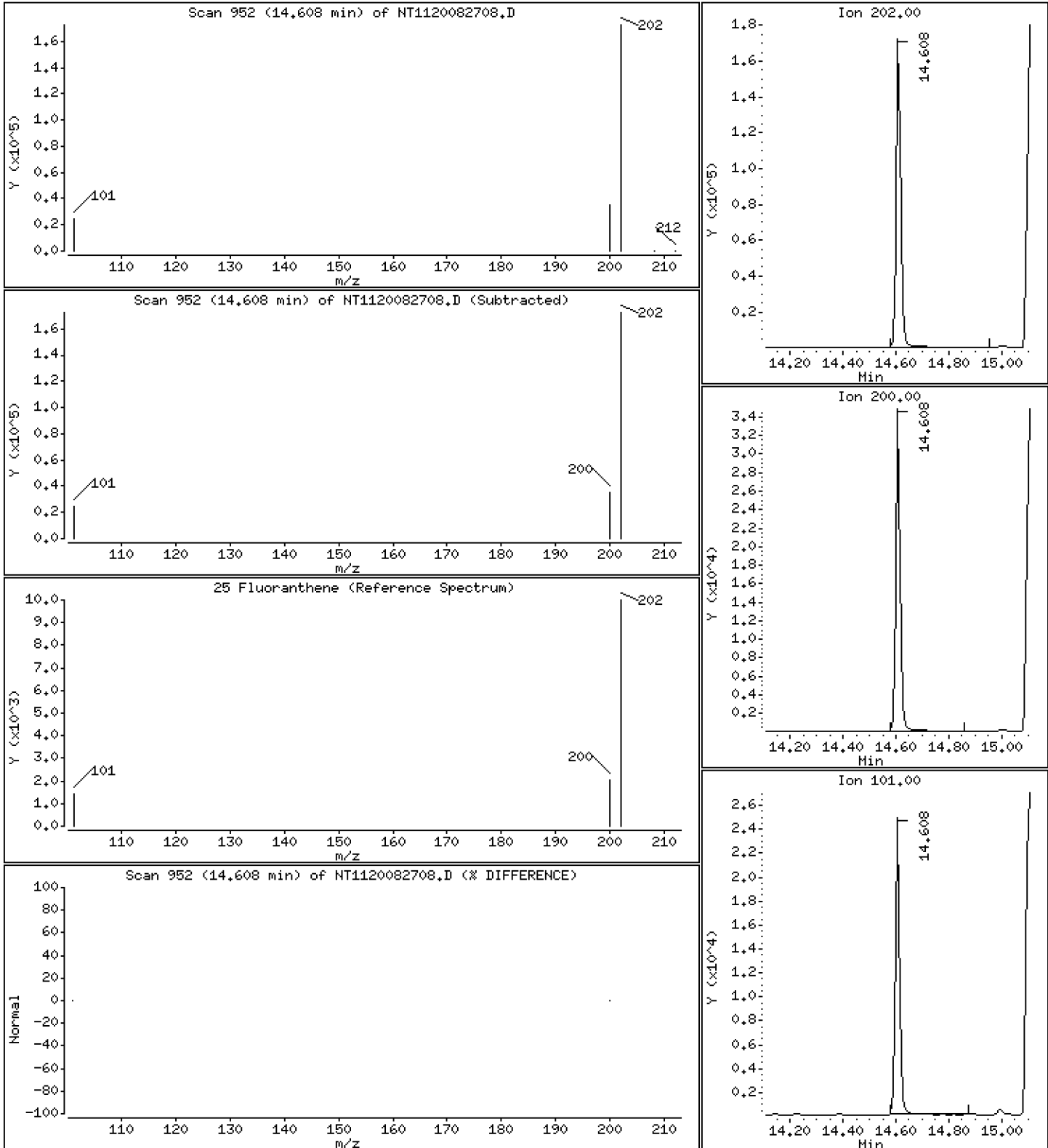
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

25 Fluoranthene

Concentration: 236 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

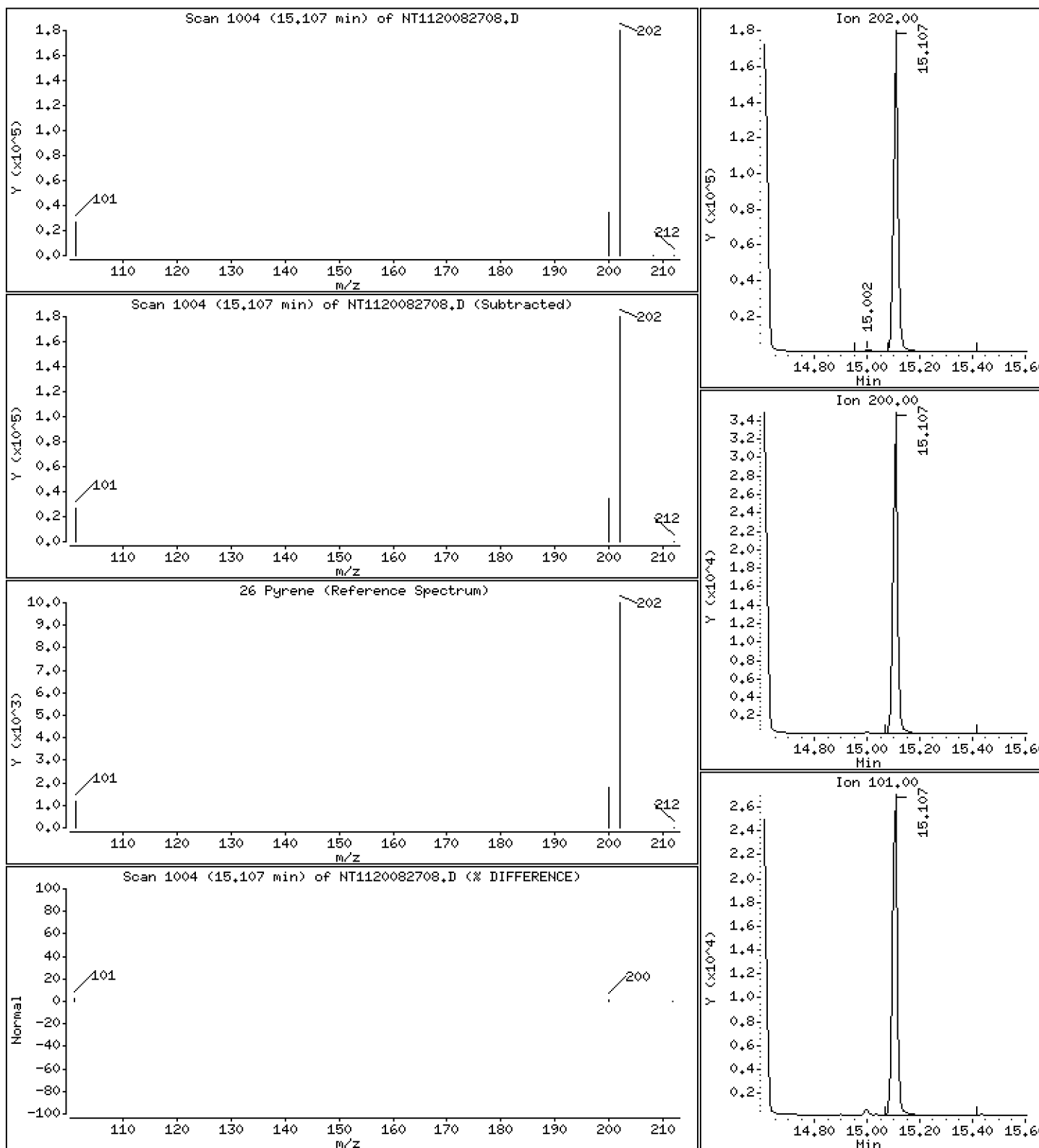
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Pyrene

Concentration: 235 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

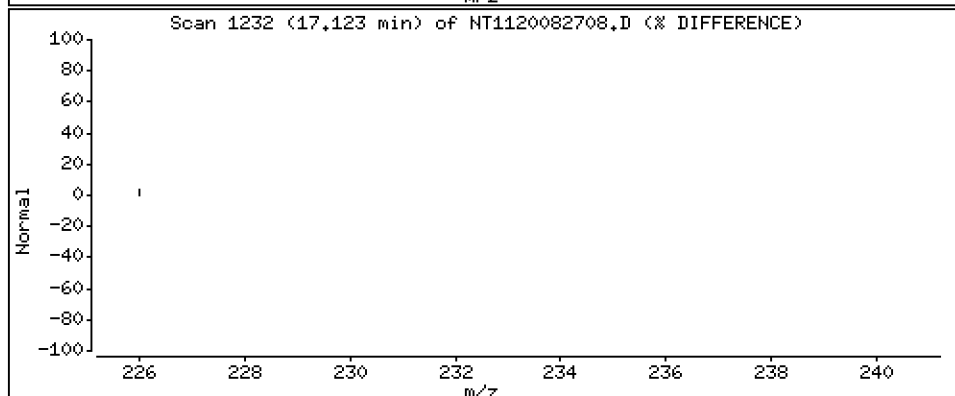
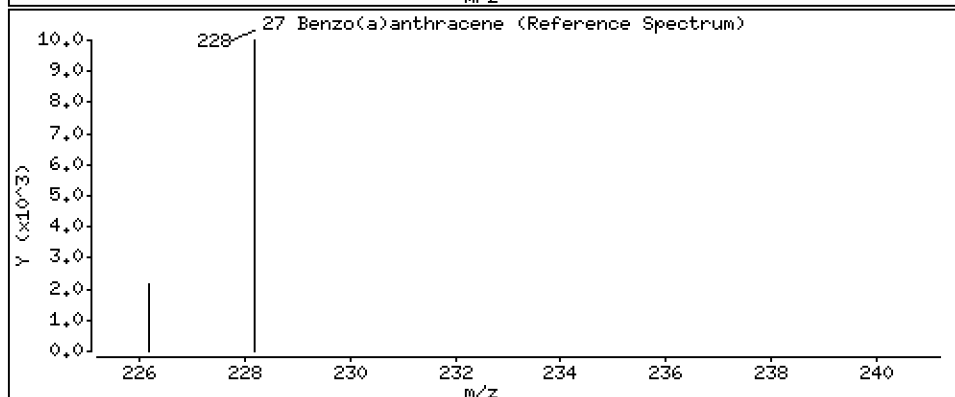
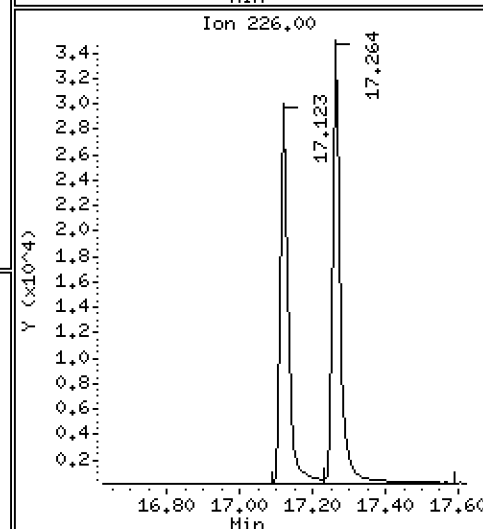
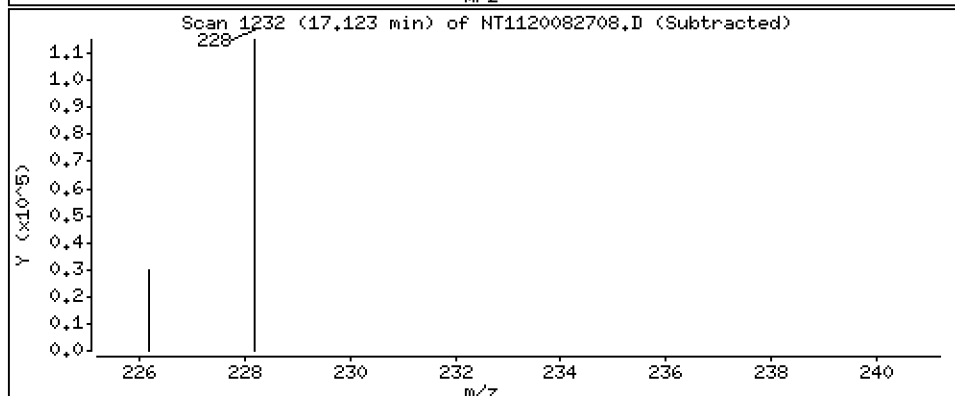
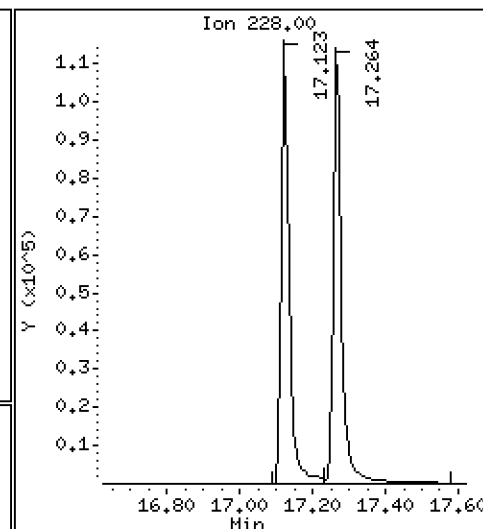
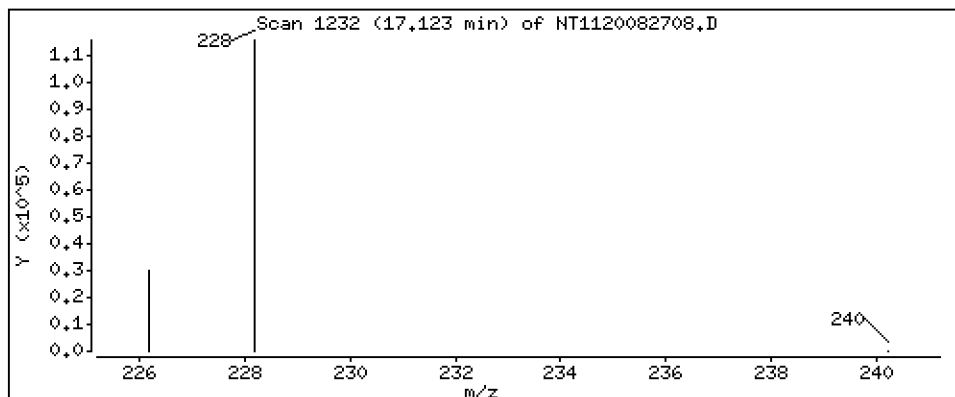
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

27 Benzo(a)anthracene

Concentration: 223 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

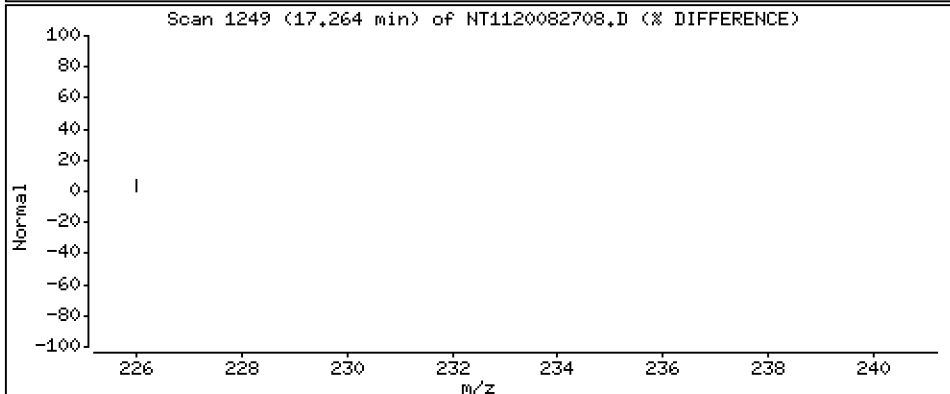
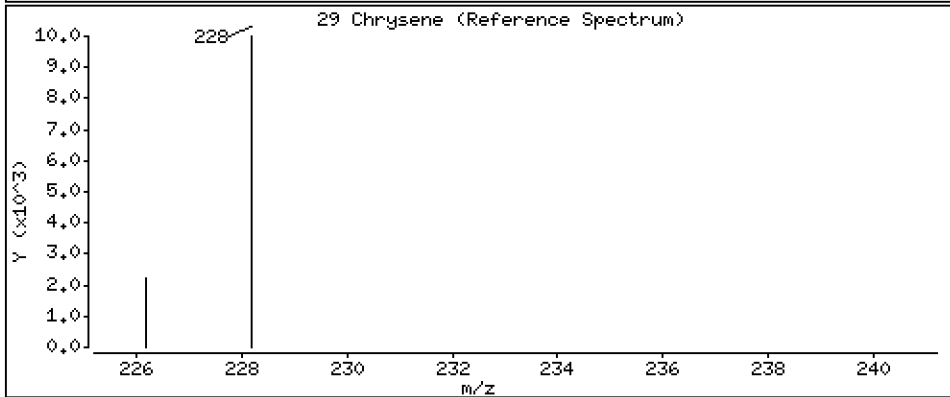
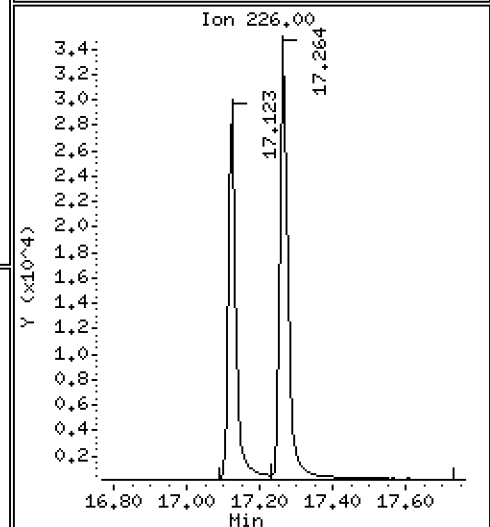
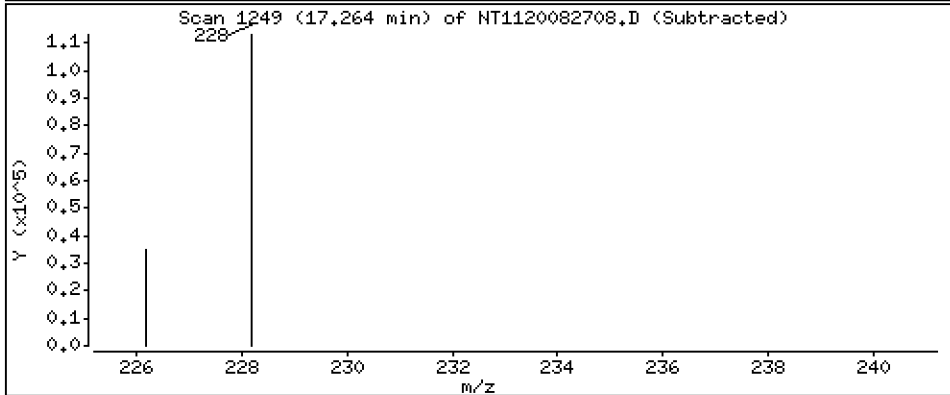
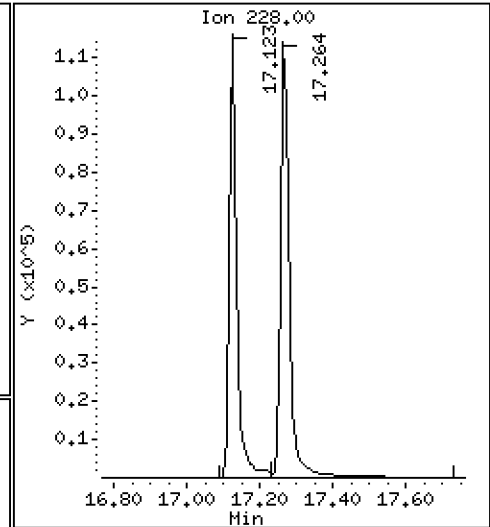
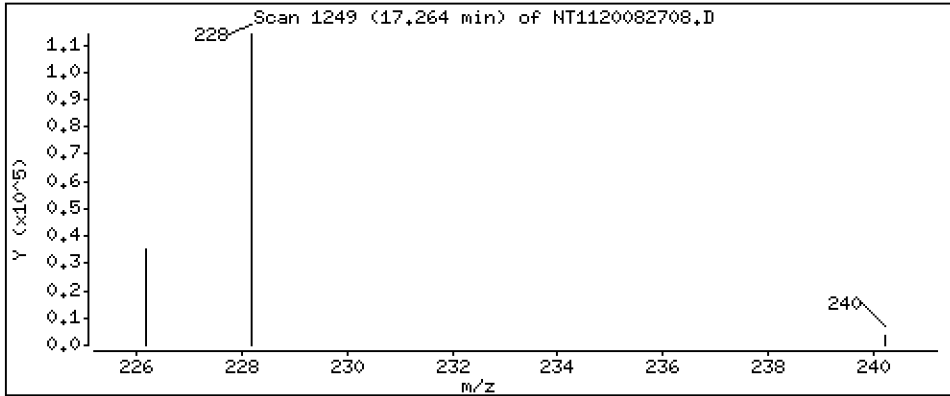
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

29 Chrysene

Concentration: 215 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

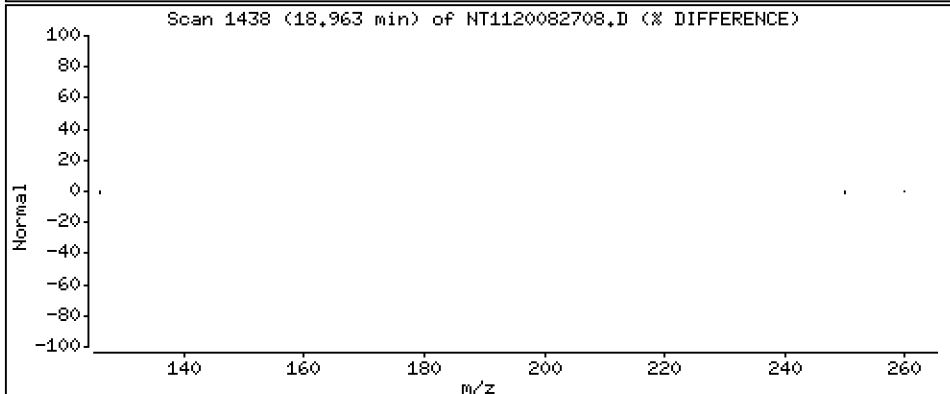
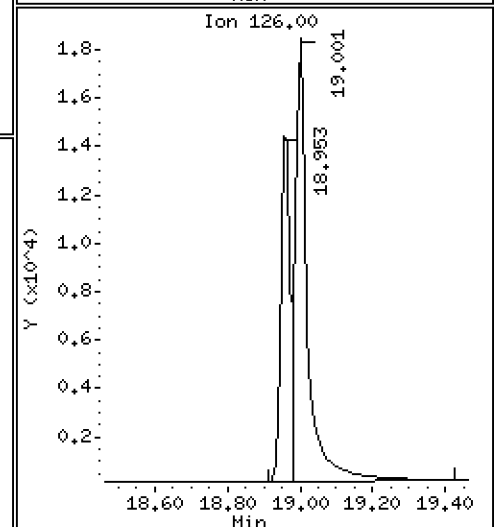
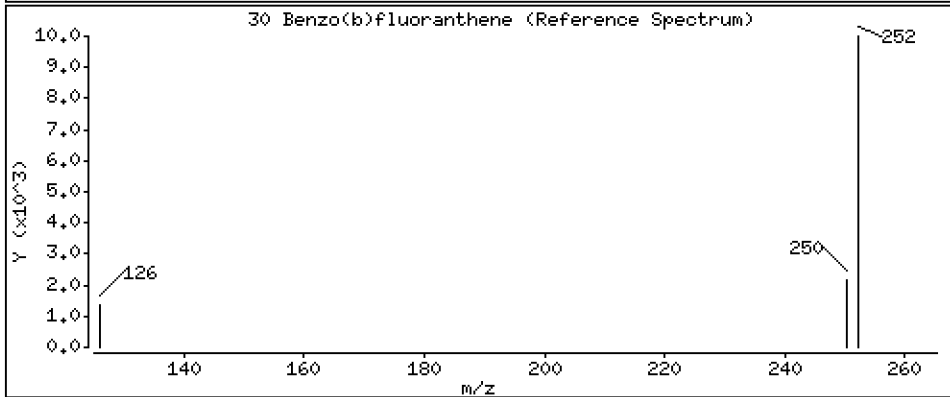
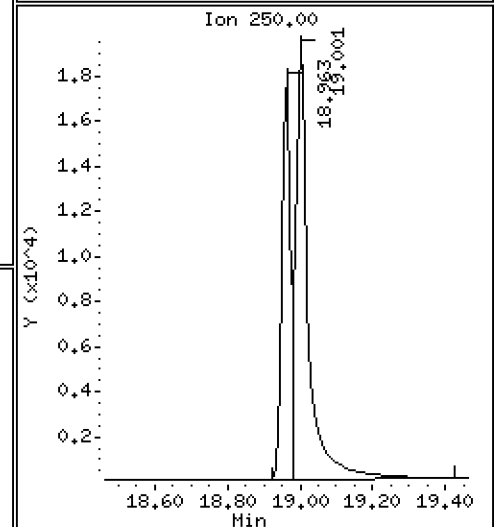
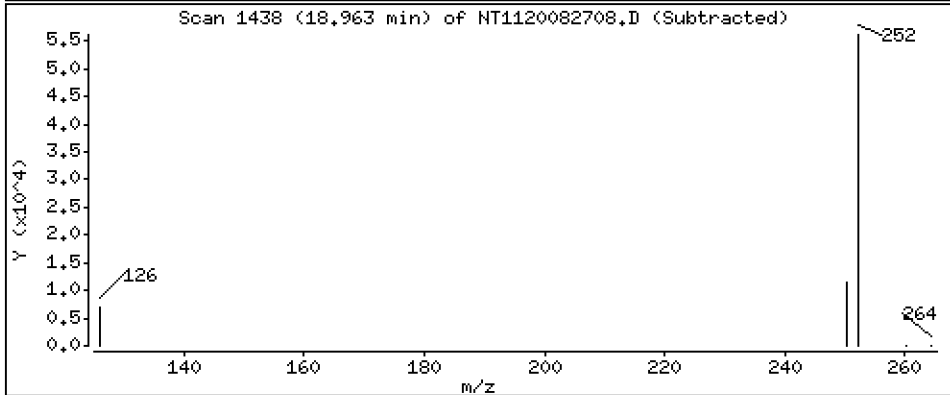
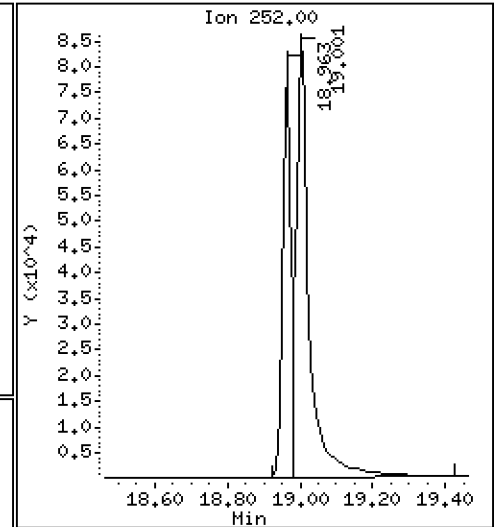
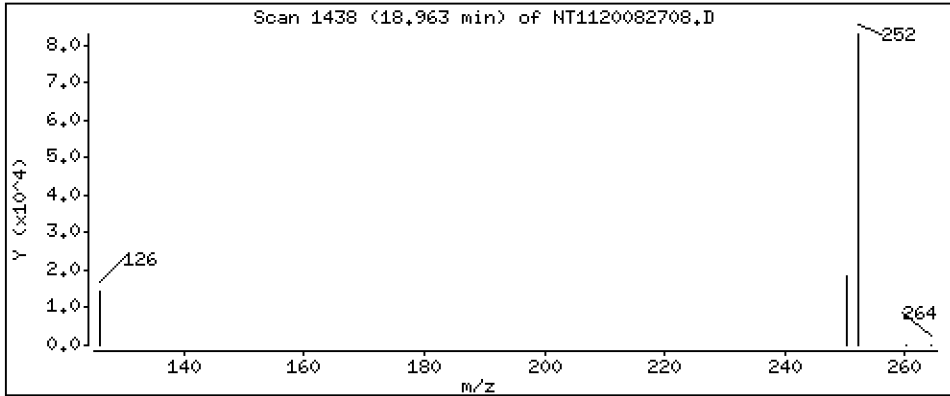
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Benzo(b)fluoranthene

Concentration: 212 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

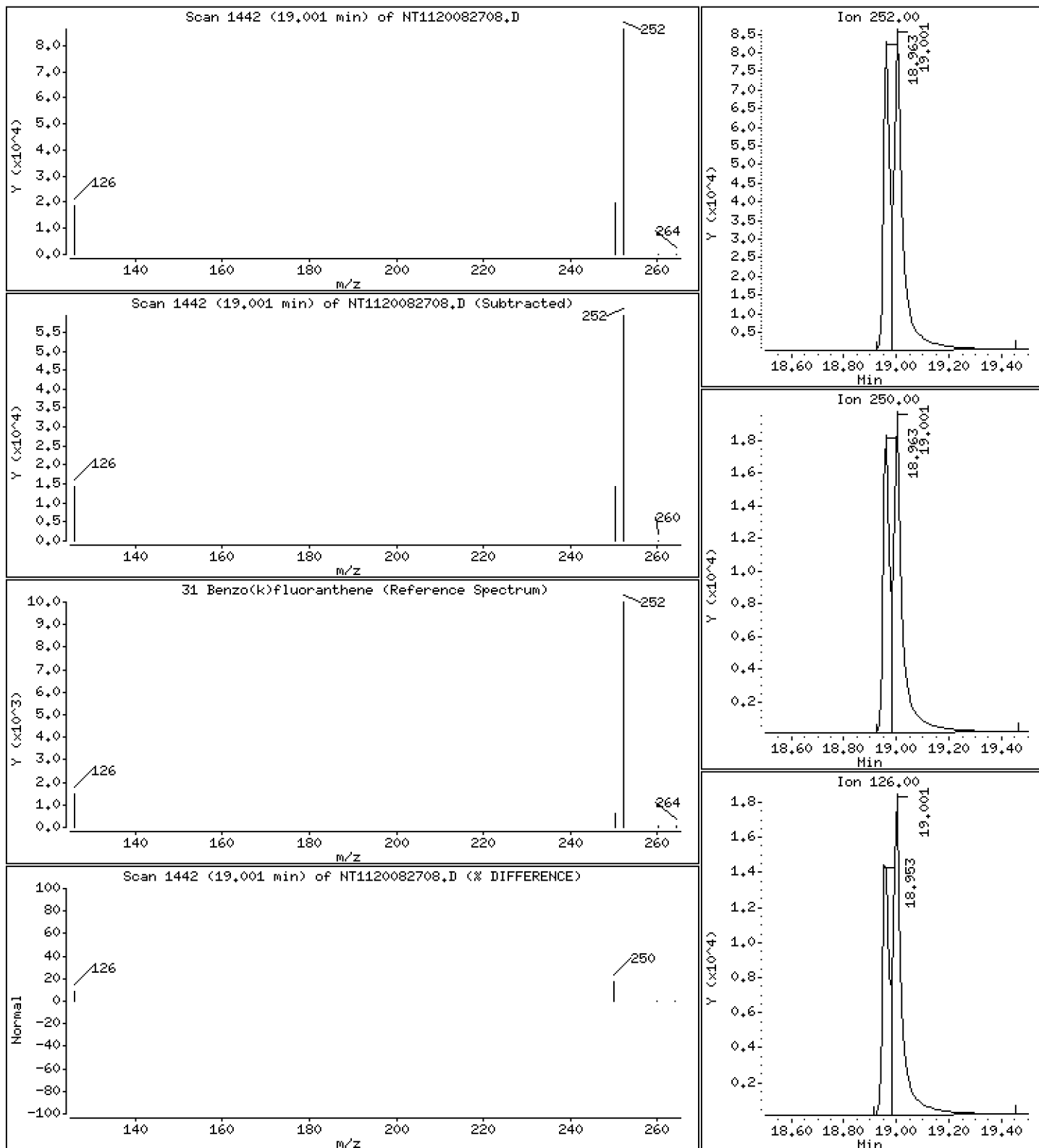
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

31 Benzo(k)fluoranthene

Concentration: 260 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

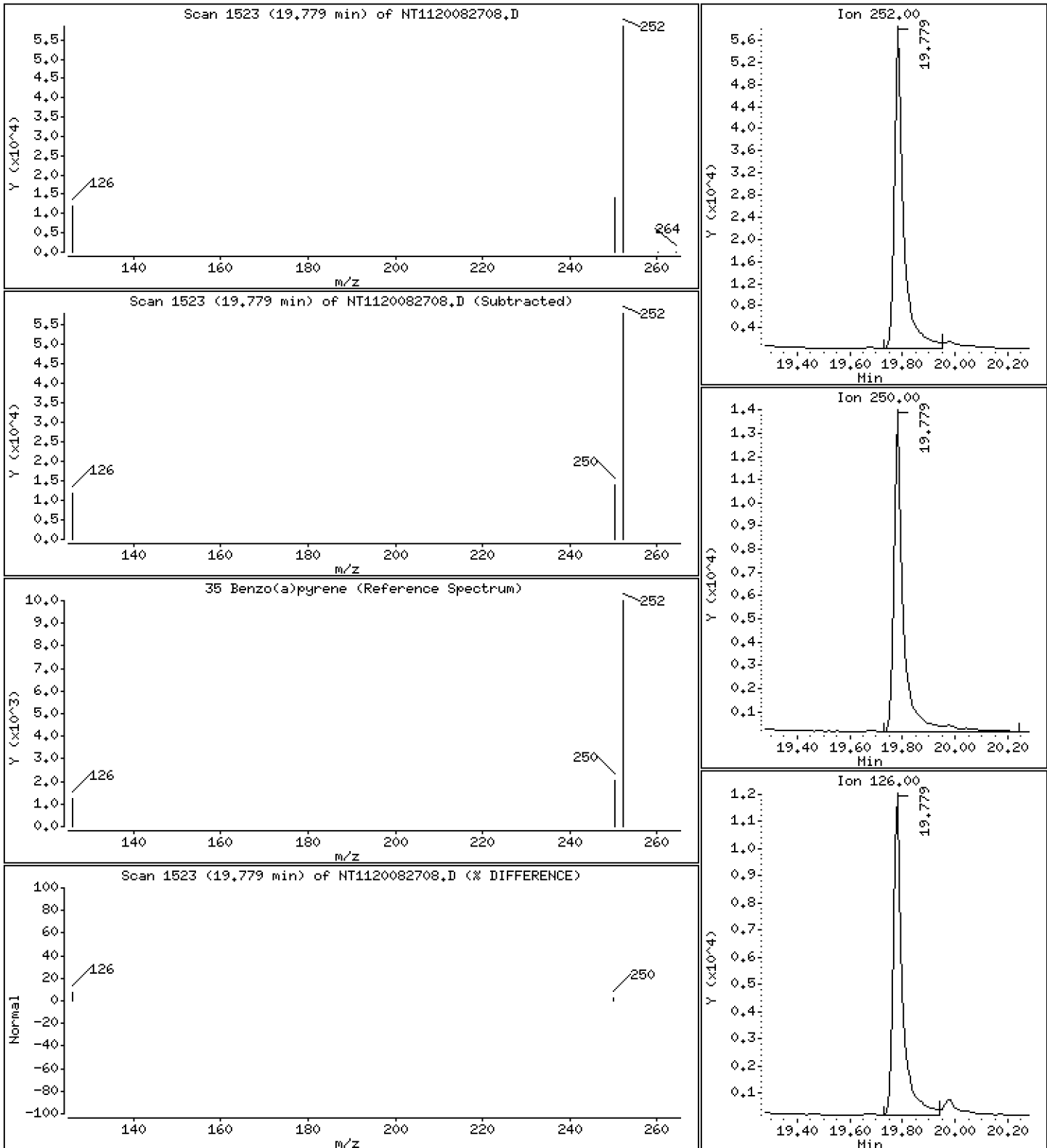
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

35 Benzo(a)pyrene

Concentration: 213 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

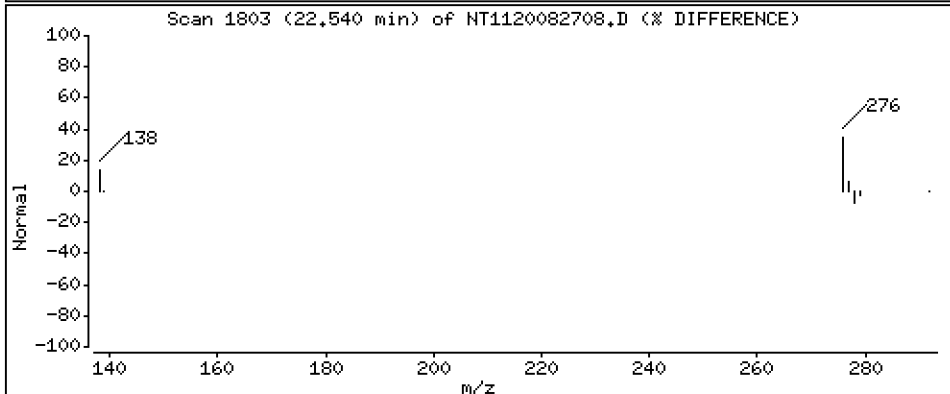
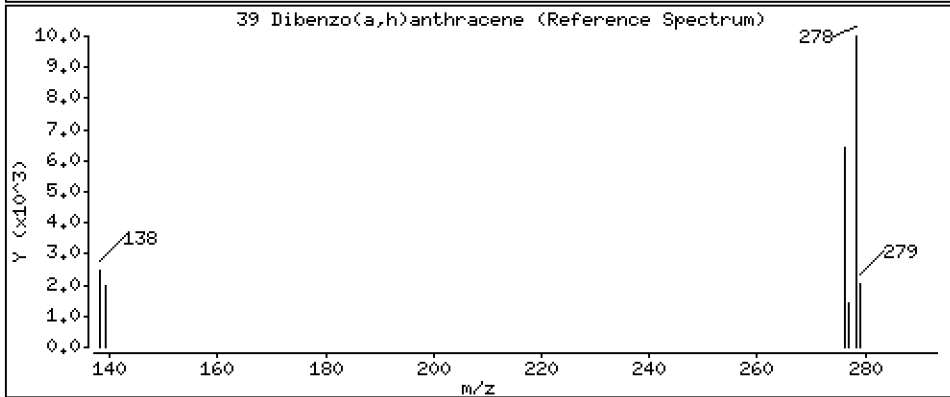
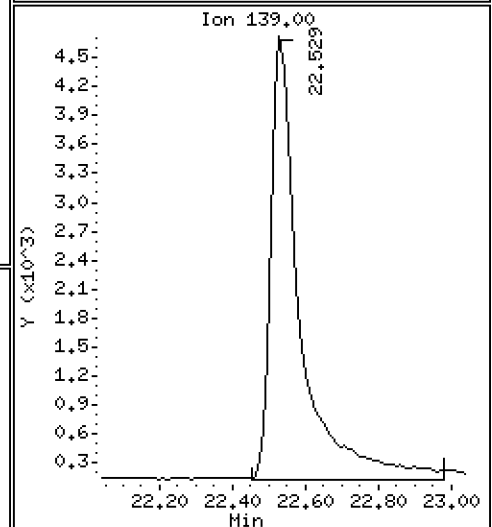
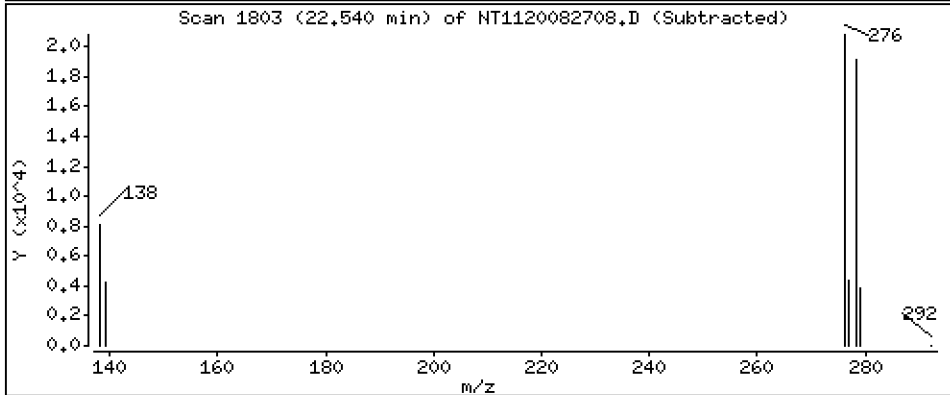
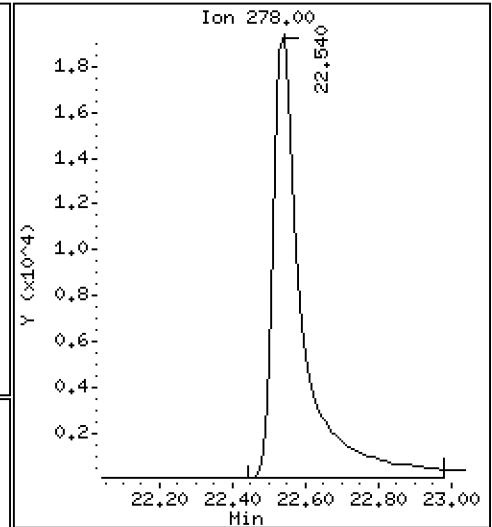
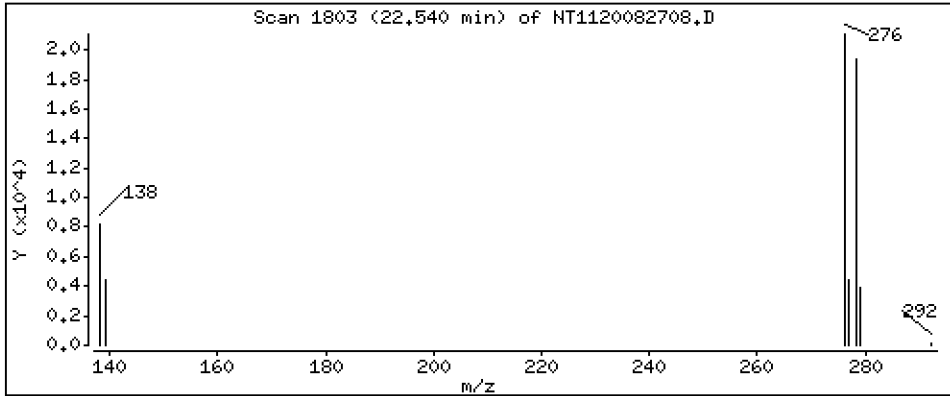
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

39 Dibenzo(a,h)anthracene

Concentration: 192 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

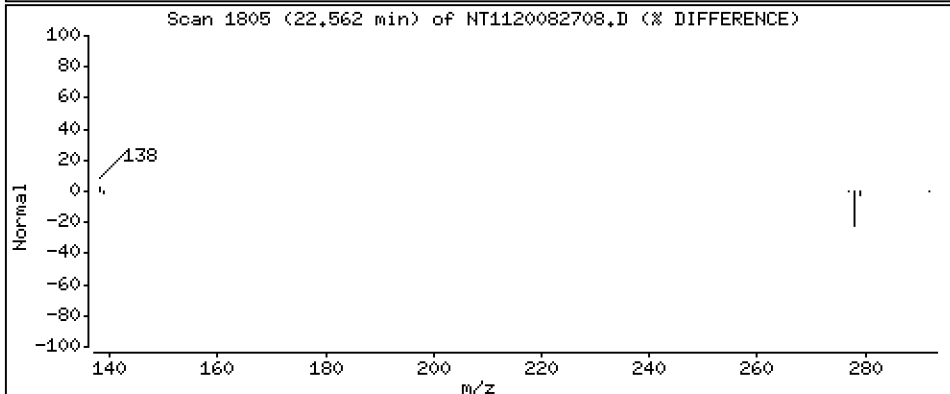
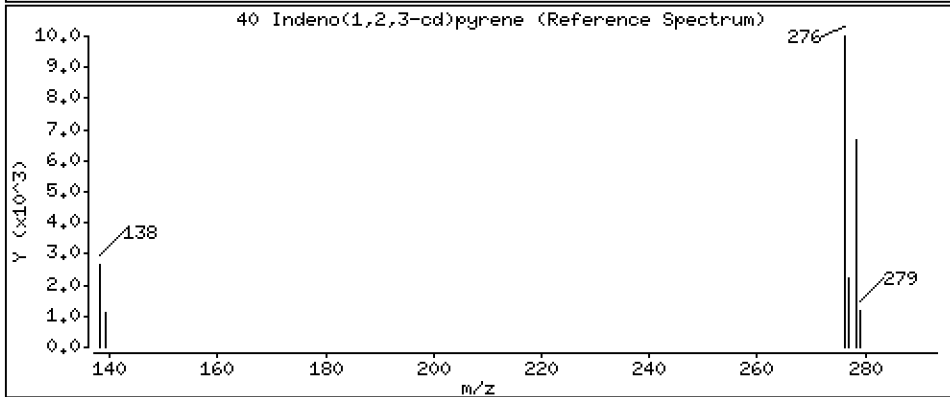
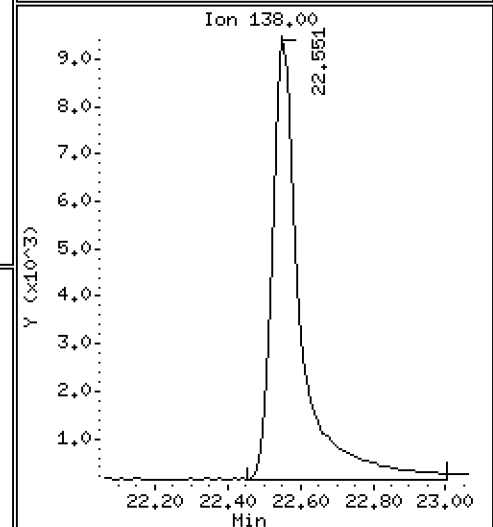
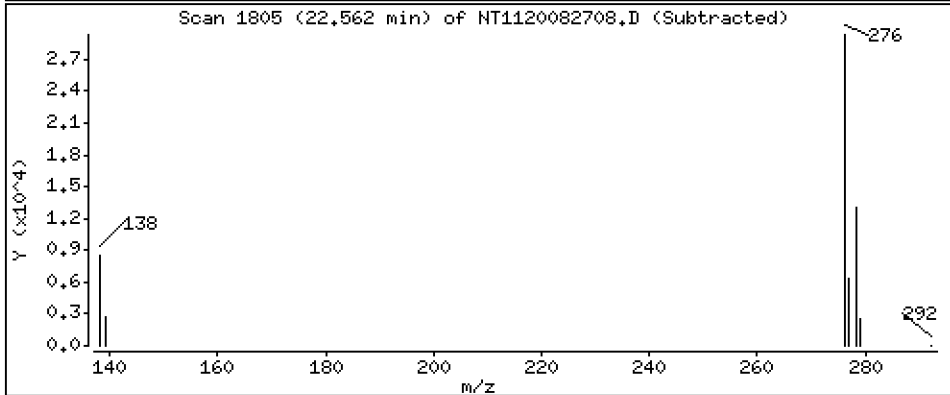
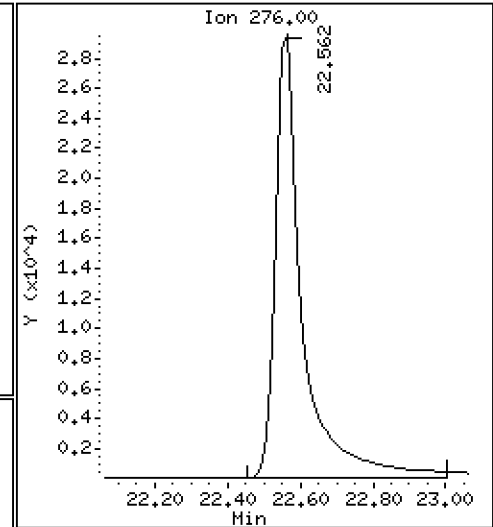
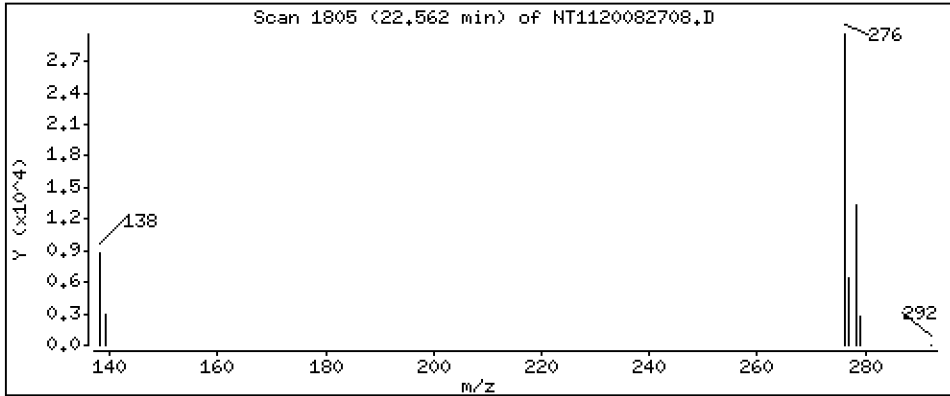
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

40 Indeno(1,2,3-cd)pyrene

Concentration: 227 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

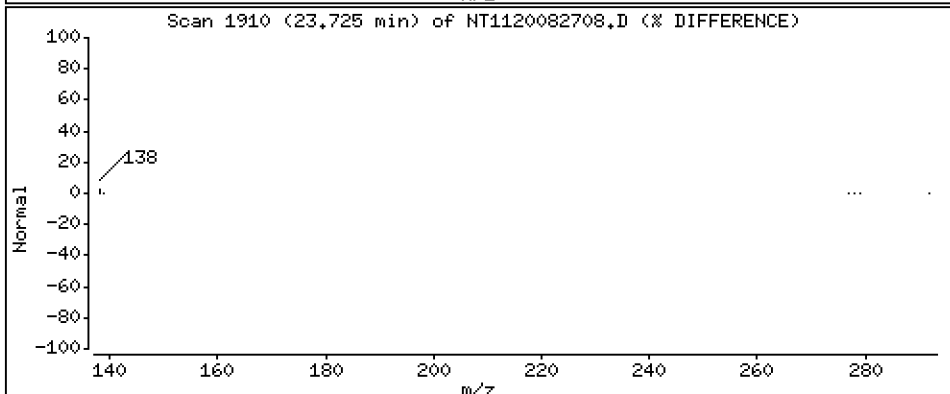
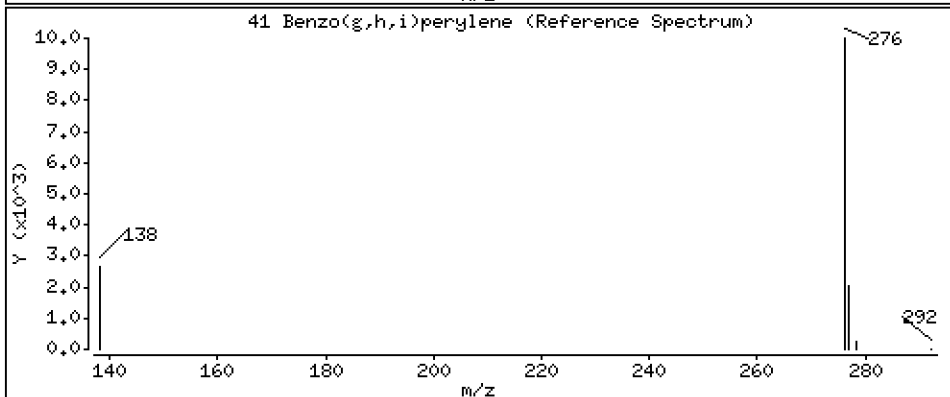
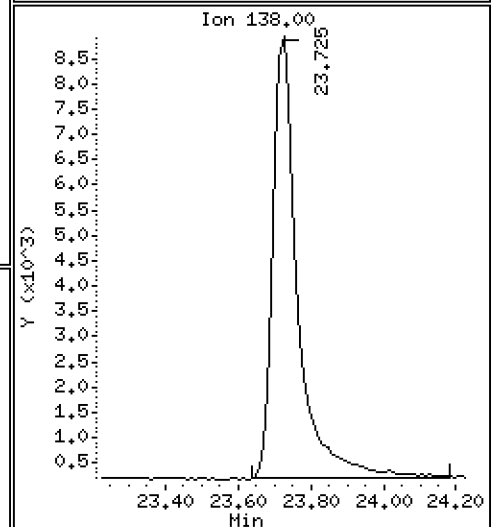
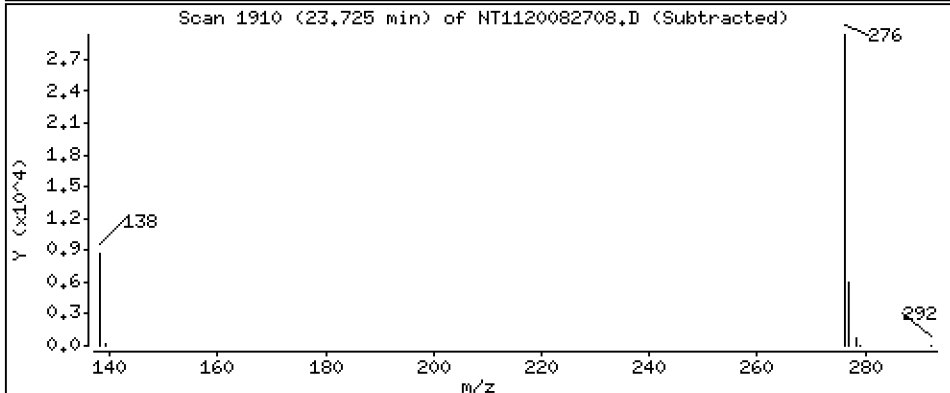
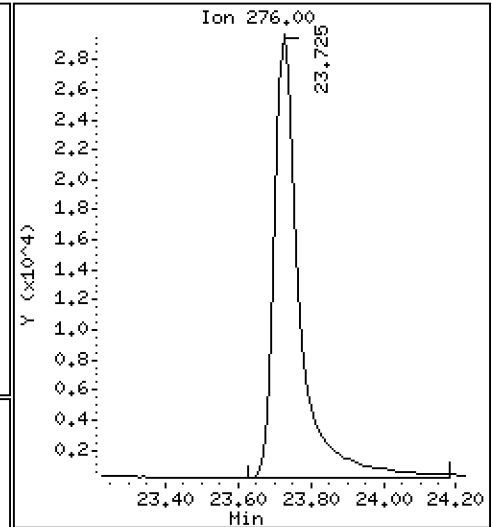
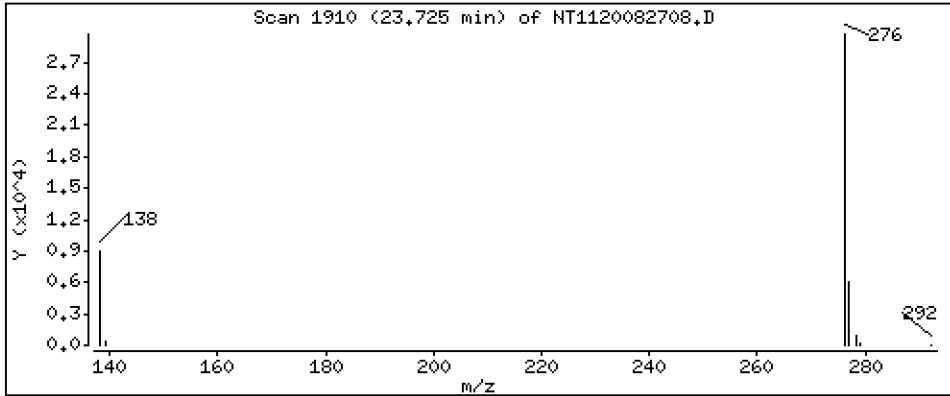
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

41 Benzo(g,h,i)perylene

Concentration: 214 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D
 Lab Smp Id: SIH0304-SCV1
 Inj Date : 27-AUG-2020 15:38 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : SIH0304-SCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
 Meth Date : 28-Aug-2020 07:11 van Quant Type: ISTD
 Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
 Als bottle: 8
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PAH.sub
 Target Version: 4.14
 Processing Host: VANS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136	====	6.804	6.804	(1.000)	202035	200.000	
2 Naphthalene	128		6.840	6.840	(1.005)	263329	224.480	224
3 Benzo(b)thiophene	134		Compound Not Detected.					
\$ 4 2-Methylnaphthalene-d10	152		Compound Not Detected.					
5 2-Methylnaphthalene	142		Compound Not Detected.					
6 1-Methylnaphthalene	142		Compound Not Detected.					
7 2-Chloronaphthalene	162		Compound Not Detected.					
8 Biphenyl	154		Compound Not Detected.					
9 2,6-Dimethylnaphthalene	156		Compound Not Detected.					
10 Acenaphthylene	152		9.653	9.653	(0.984)	241360	233.261	233
* 11 Acenaphthene-d10	164		9.807	9.807	(1.000)	90189	200.000	
12 Acenaphthene	153		9.870	9.870	(1.006)	151880	221.934	222
13 Dibenzofuran	168		Compound Not Detected.					
14 2,3,5-Trimethylnaphthalene	170		Compound Not Detected.					
16 Fluorene	166		10.694	10.694	(1.090)	164299	233.486	233
17 Dibenzothiophene	184		Compound Not Detected.					
* 18 Phenanthrene-d10	188		12.482	12.482	(1.000)	142829	200.000	
19 Phenanthrene	178		12.513	12.524	(1.003)	217246	232.514	233
21 Anthracene	178		12.576	12.576	(1.008)	207807	222.597	223
22 Carbazole	167		Compound Not Detected.					
23 1-Methylphenanthrene	192		Compound Not Detected.					
\$ 24 Fluoranthene-d10	212		Compound Not Detected.					
25 Fluoranthene	202		14.607	14.607	(1.170)	220035	236.211	236
26 Pyrene	202		15.107	15.107	(1.210)	224689	235.115	235
27 Benzo(a)anthracene	228		17.123	17.122	(0.994)	170476	223.013	223
* 28 Chrysene-d12	240		17.222	17.214	(1.000)	104063	200.000	
29 Chrysene	228		17.264	17.264	(1.002)	185336	215.323	215
30 Benzo(b)fluoranthene	252		18.962	18.962	(0.949)	137886	212.389	212
31 Benzo(k)fluoranthene	252		19.001	19.001	(0.951)	222044	260.291	260
32 Benzo(j)fluoranthene	252		Compound Not Detected.					
34 Benzo(e)pyrene	252		Compound Not Detected.					
35 Benzo(a)pyrene	252		19.779	19.779	(0.990)	144487	213.091	213
* 36 Perylene-d12	264		19.981	19.981	(1.000)	119273	200.000	
37 Perylene	252		Compound Not Detected.					

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/mL)	FINAL (ng/mL)
=====	=====	=====	=====	=====	=====	=====	
\$ 38 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.					
39 Dibenzo(a,h)anthracene	278	22.540	22.540	(1.128)	107076	191.902	192
40 Indeno(1,2,3-cd)pyrene	276	22.562	22.562	(1.129)	149356	226.827	227
41 Benzo(g,h,i)perylene	276	23.725	23.725	(1.187)	141191	214.457	214

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 27-AUG-2020
 Lab File ID: NT1120082708.D Calibration Time: 12:35
 Lab Smp Id: SIH0304-SCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	215332	107666	430664	202035	-6.18
11 Acenaphthene-d10	102217	51109	204434	90189	-11.77
18 Phenanthrene-d10	170387	85194	340774	142829	-16.17
28 Chrysene-d12	116138	58069	232276	104063	-10.40
36 Perylene-d12	139038	69519	278076	119273	-14.22

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.81	6.31	7.31	6.80	-0.13
11 Acenaphthene-d10	9.81	9.31	10.31	9.81	-0.00
18 Phenanthrene-d10	12.48	11.98	12.98	12.48	-0.00
28 Chrysene-d12	17.21	16.71	17.71	17.22	0.05
36 Perylene-d12	19.98	19.48	20.48	19.98	-0.00

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.

REVIEW SUMMARY FOR FILE - NT1120082708.D

Lab ID: SIH0304-SCV1

nt11.i, 20200827.b\lowsim.m, 27-AUG-2020 15:38

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1120082704.D

On Column LOD for nt11.i, 20200827.b\lowsim.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000

Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000

Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *



SECOND-SOURCE CALIBRATION VERIFICATION EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor QEA, LLC

Project: Gasco Siltronic - US Moorings

Calibration: EE00001

Laboratory ID: SJD0305-SCV1

Sequence: SJD0305

Sequence Name: Secondary Cal Check

Standard ID: J004707

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
trans-Decalin	2.5000	2.8	13.7	20.00
cis-Decalin	2.5000	2.9	16.4	20.00
Naphthalene	2.5000	2.8	11.3	20.00
1-Methylnaphthalene	2.5000	2.8	12.9	20.00
2-Methylnaphthalene	2.5000	2.8	13.8	20.00
Biphenyl	2.5000	2.8	10.6	20.00
2,6-Dimethylnaphthalene	2.5000	2.8	12.9	20.00
Acenaphthylene	2.5000	2.9	15.6	20.00
Acenaphthene	2.5000	3.0	20.4	20.00
Dibenzofuran	2.5000	2.8	10.7	20.00
2,3,5-Trimethylnaphthalene	2.5000	2.9	16.9	20.00
Fluorene	2.5000	2.8	13.8	20.00
Benzo(b)thiophene	2.5000	2.8	11.5	20.00
Phenanthrene	2.5000	2.5	-1.3	20.00
Anthracene	2.5000	2.5	-0.3	20.00
Carbazole	2.5000	2.3	-6.3	20.00
1-Methylphenanthrene	2.5000	2.6	3.8	20.00
Fluoranthene	2.5000	2.6	5.4	20.00
Dibenzothiophene	2.5000	2.8	11.3	20.00
Pyrene	2.5000	2.5	1.1	20.00
Benzo(a)anthracene	2.5000	2.3	-8.9	20.00
Chrysene	2.5000	2.6	3.0	20.00
Benzo(b)fluoranthene	2.5000	2.3	-7.0	
Benzo(j)fluoranthene	2.5000	2.5	0.6	
Benzo(k)fluoranthene	2.5000	2.3	-7.8	
Benzo(e)pyrene	2.5000	2.5	-1.8	20.00
Benzo(a)pyrene	2.5000	2.2	-11.6	20.00
Indeno(1,2,3-cd)pyrene	2.5000	2.2	-10.6	20.00
Dibenzo(a,h)anthracene	2.5000	2.3	-8.4	20.00
Benzo(g,h,i)perylene	2.5000	2.4	-5.9	20.00
Perylene	2.5000	2.4	-3.4	20.00
Naphthalene-d8	2.5000	2.99	19.5	20.00
Acenaphthene-d10	2.5000	3.02	20.7	20.00
Phenanthrene-d10	2.5000	2.67	6.8	20.00
Chrysene-d12	2.5000	2.83	13.1	20.00



SECOND-SOURCE CALIBRATION VERIFICATION
EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor QEA, LLC

Project: Gasco Siltronic - US Moorings

Calibration: EE00001

Laboratory ID: SJD0305-SCV1

Sequence: SJD0305

Sequence Name: Secondary Cal Check

Standard ID: J004707

Perylene-d12	2.5000	2.51	0.2	20.00
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* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt14.1\20210430.1\NT1421043010.D

Date: 30-APR-2021 14:41

Client ID:

Sample Info: SJD0305-SCV1

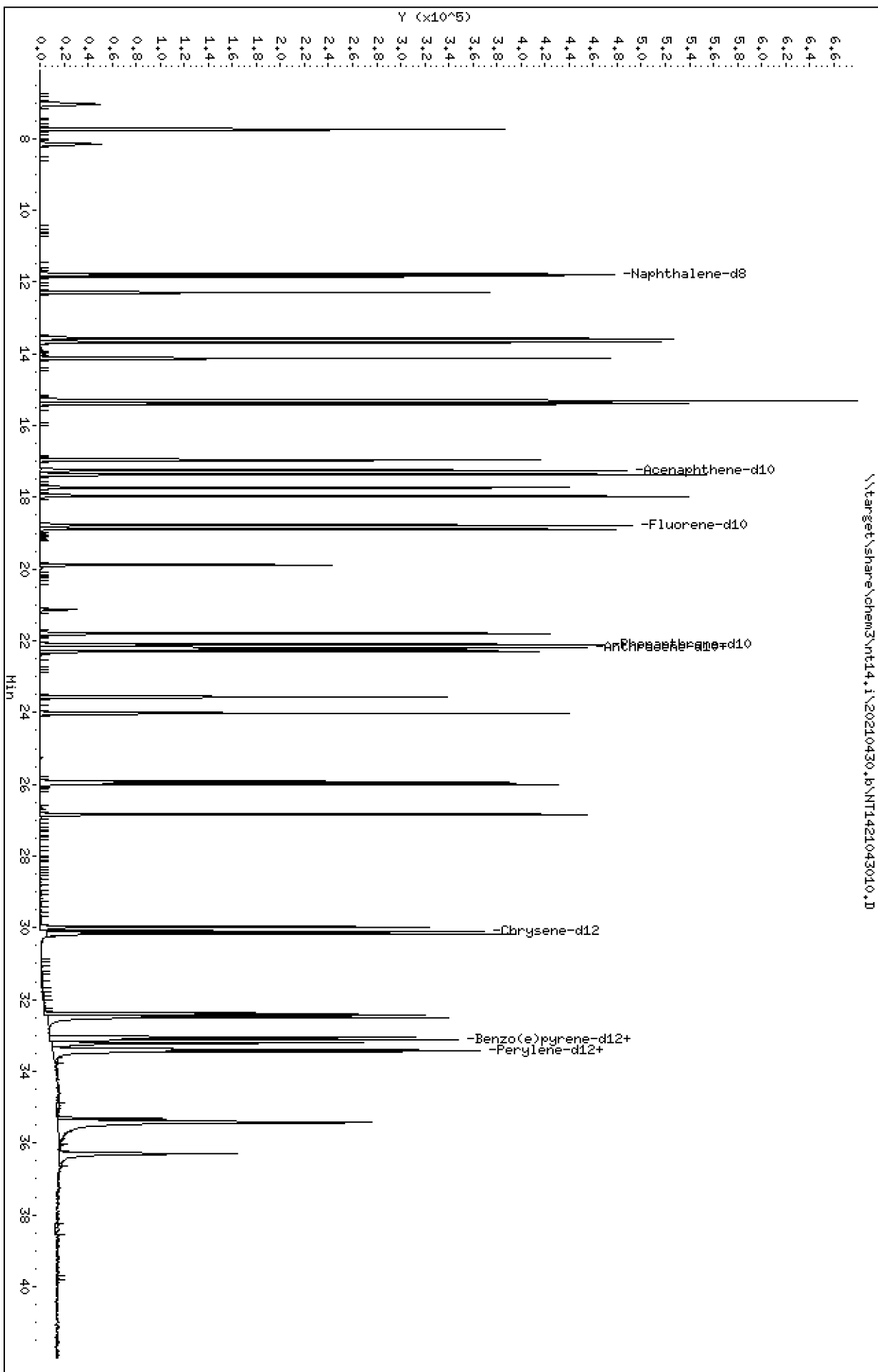
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14.1\20210430.1\NT1421043010.D



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

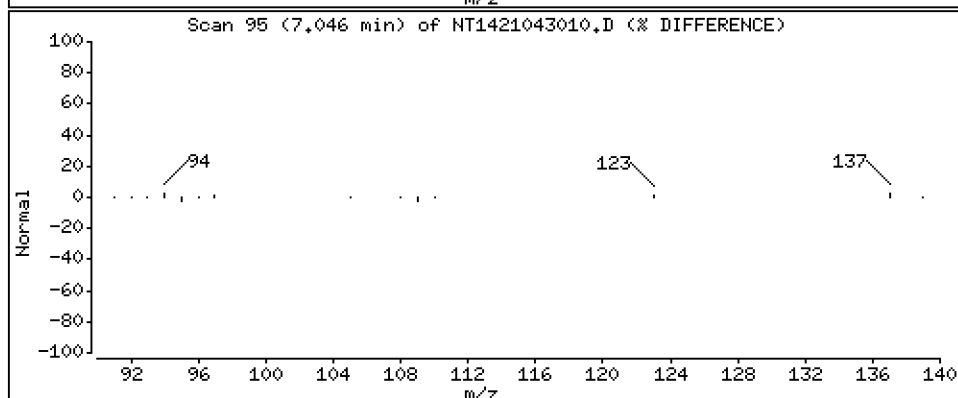
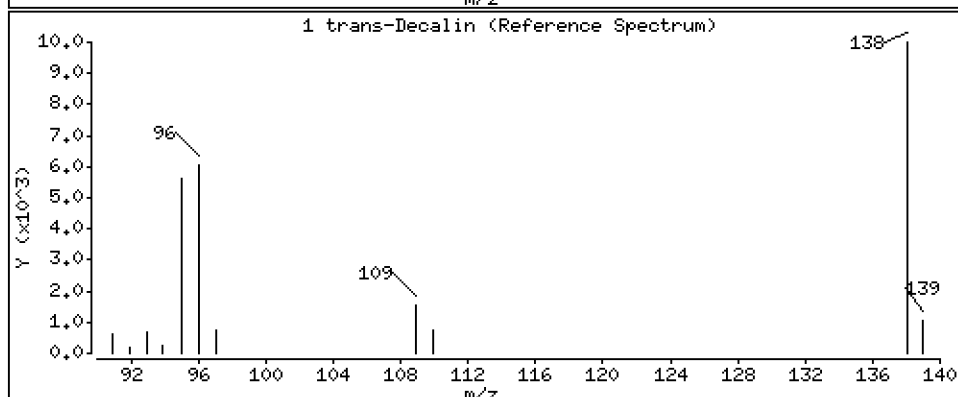
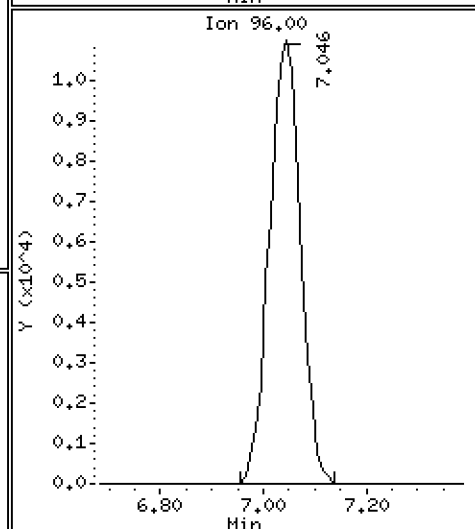
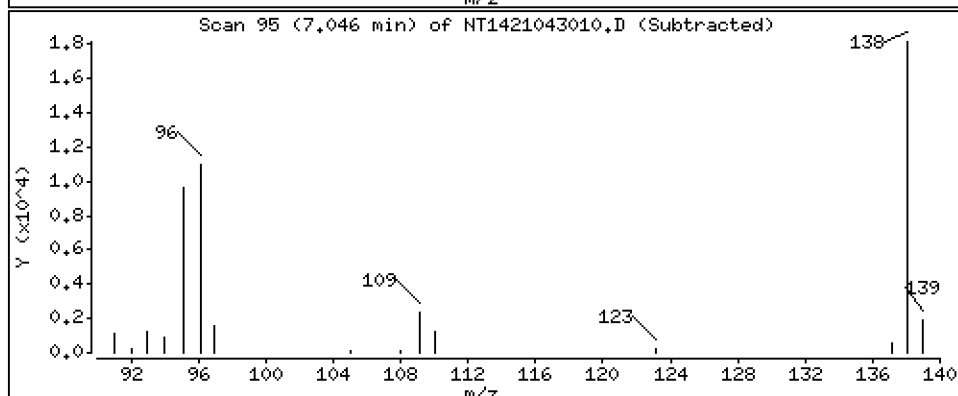
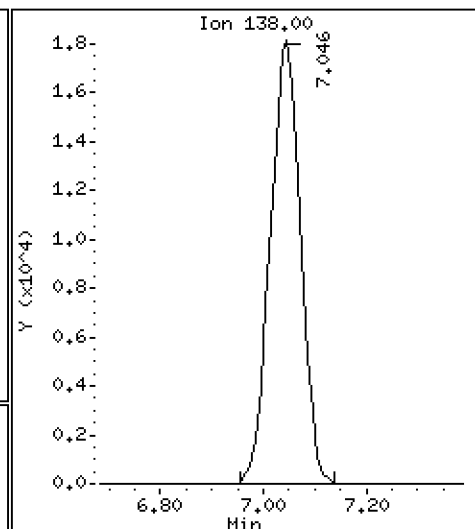
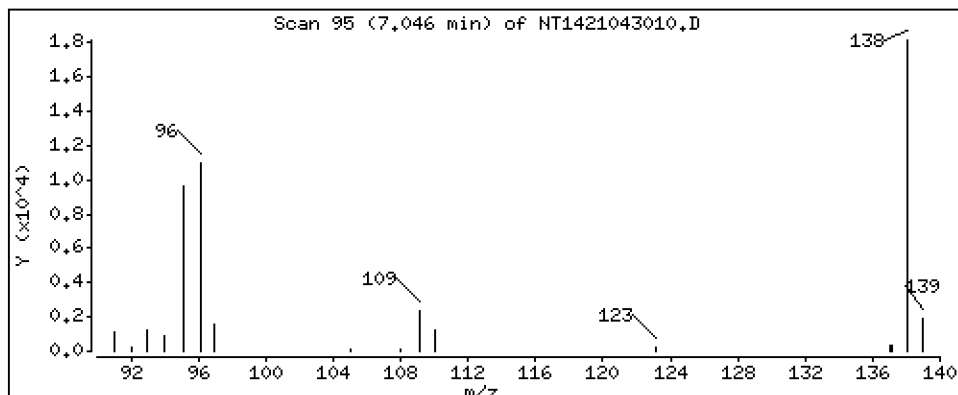
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

1 trans-Decalin

Concentration: 2,843 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

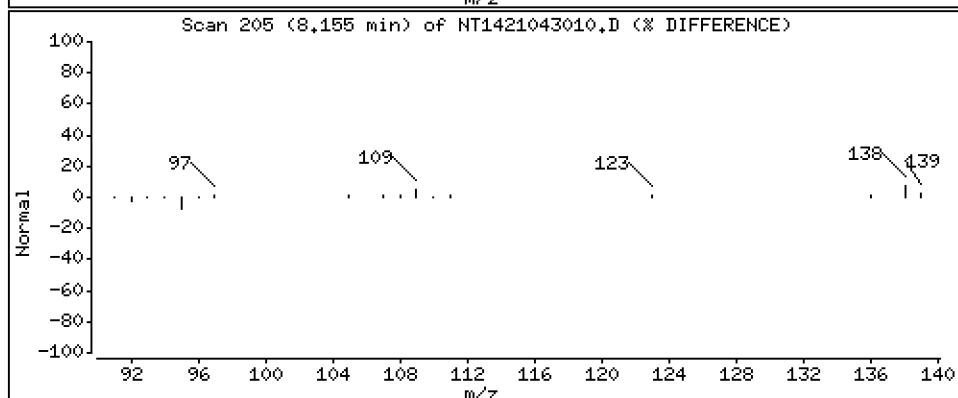
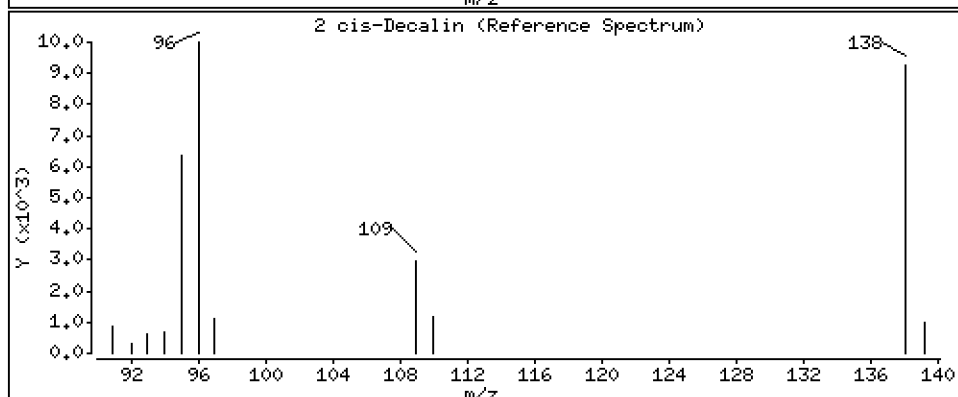
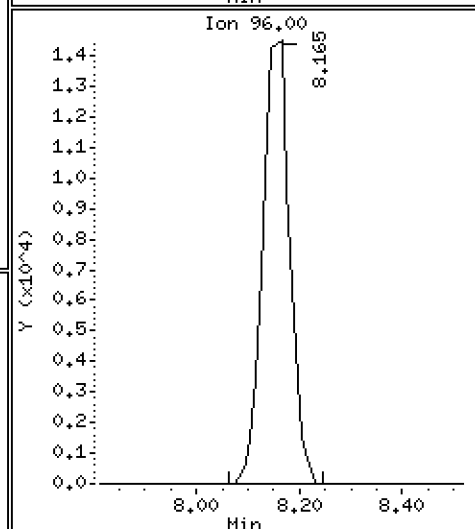
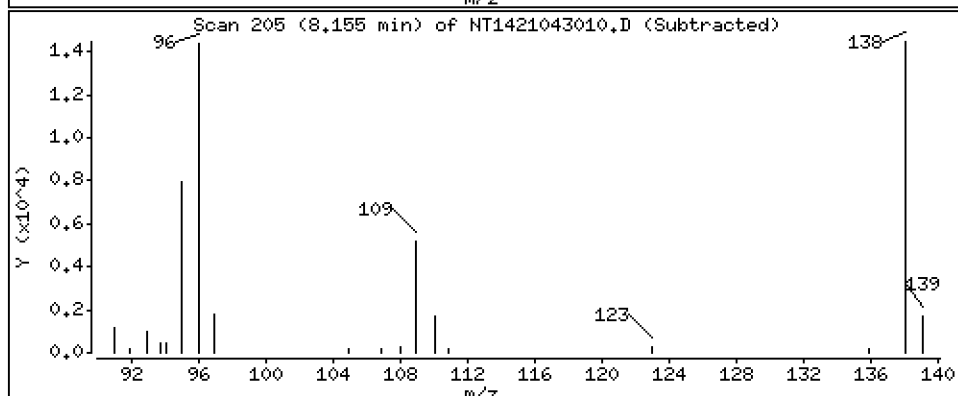
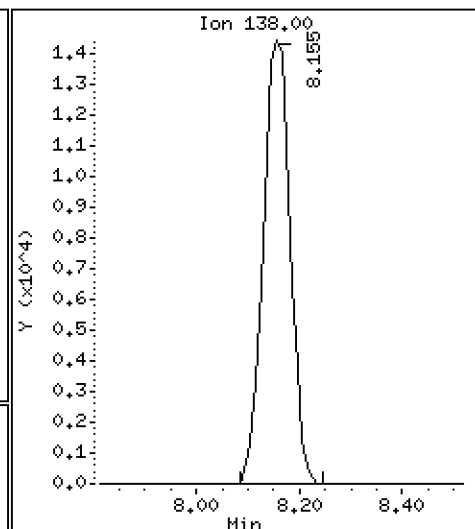
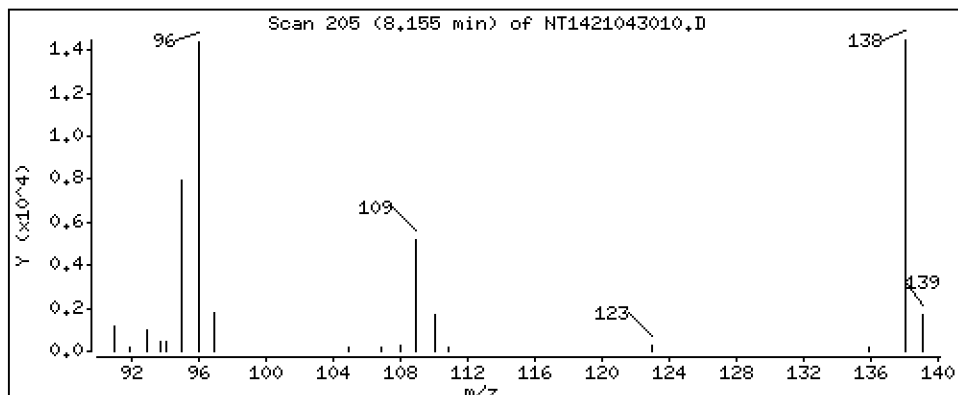
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 cis-Decalin

Concentration: 2,910 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

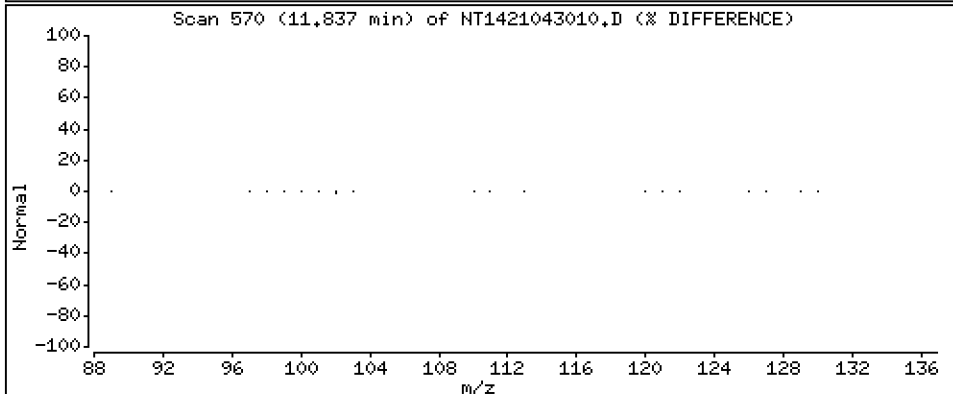
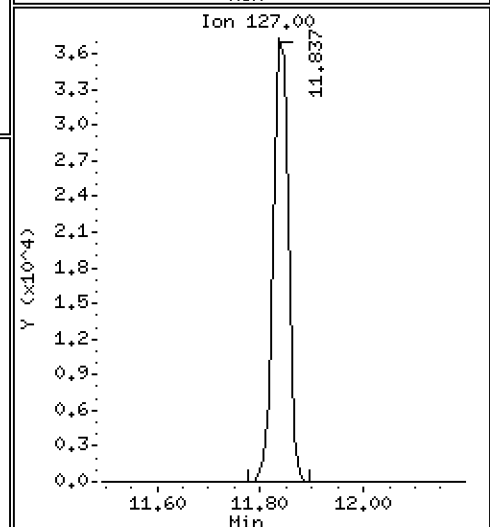
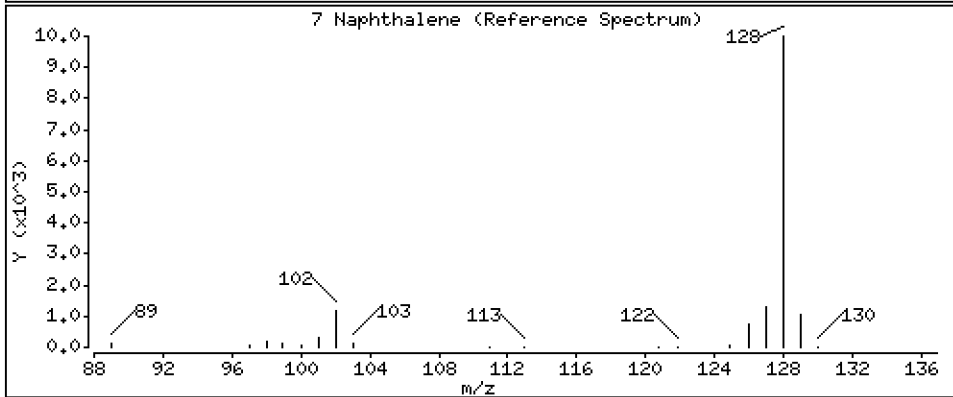
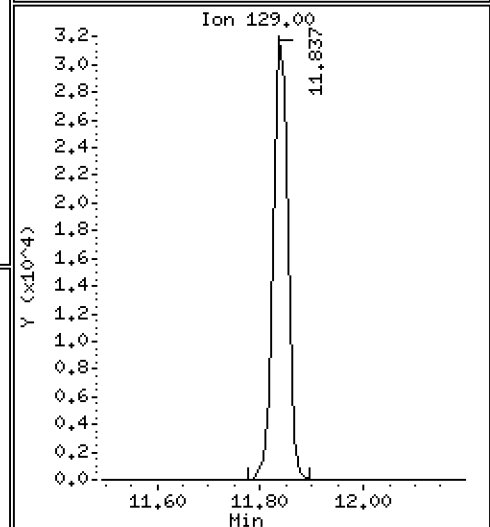
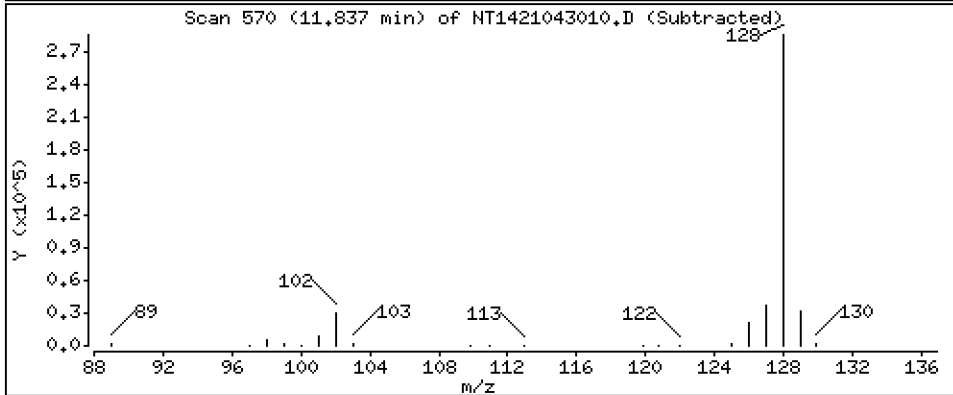
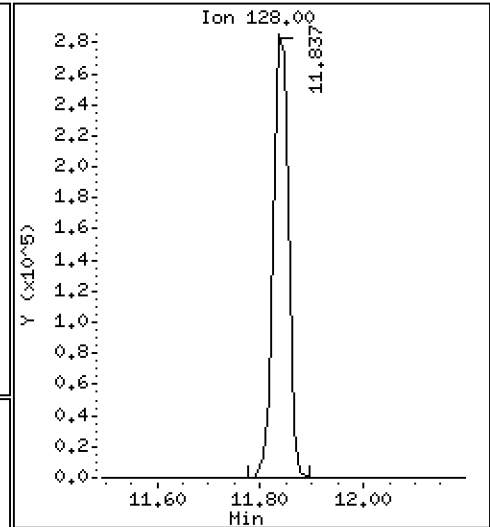
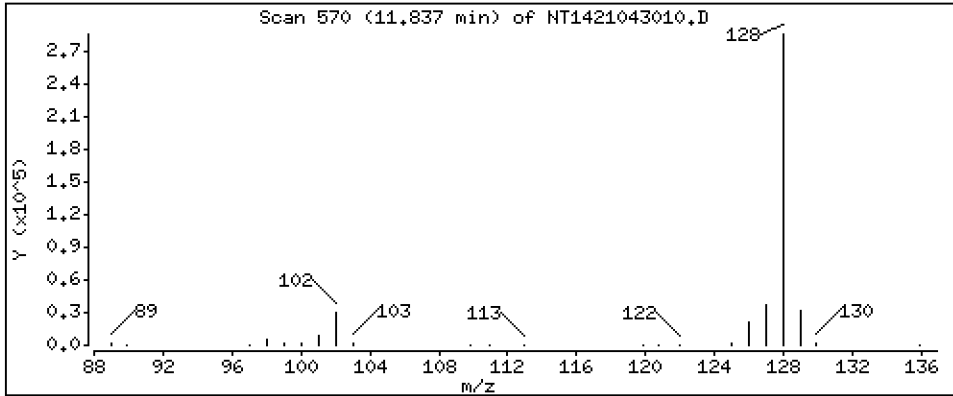
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

7 Naphthalene

Concentration: 2,783 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

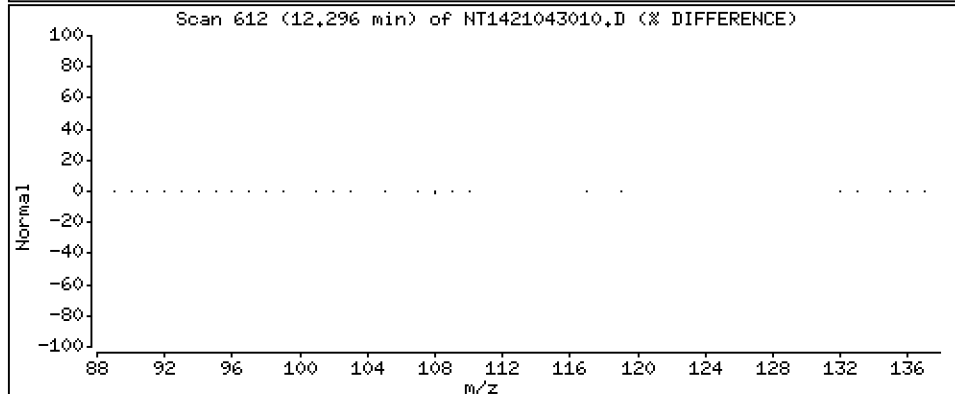
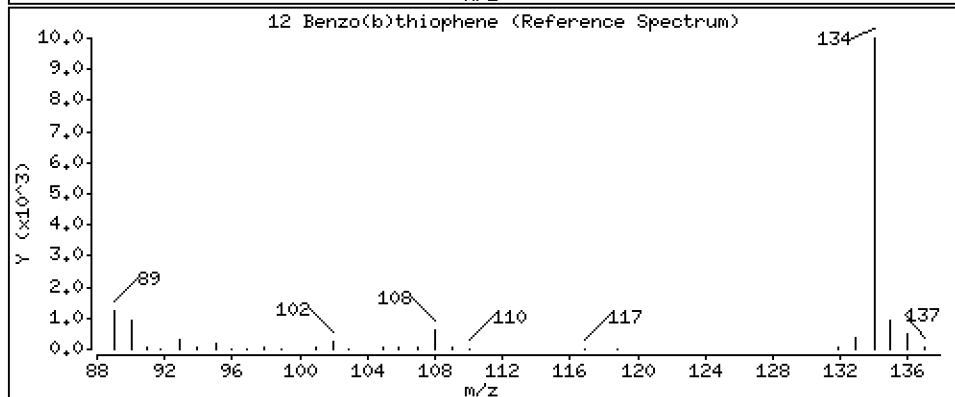
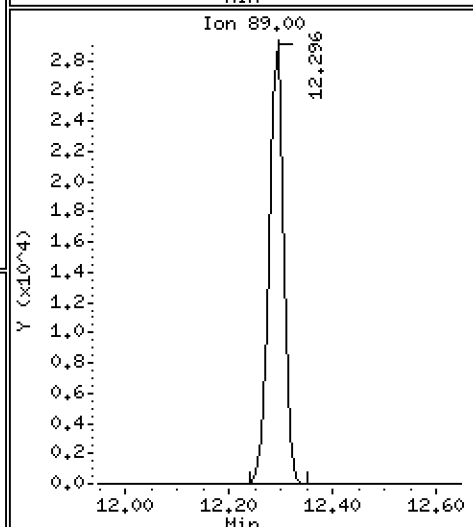
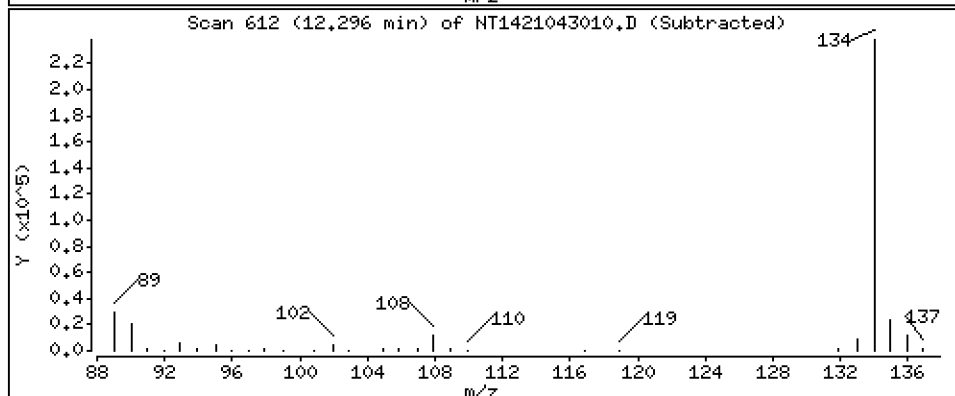
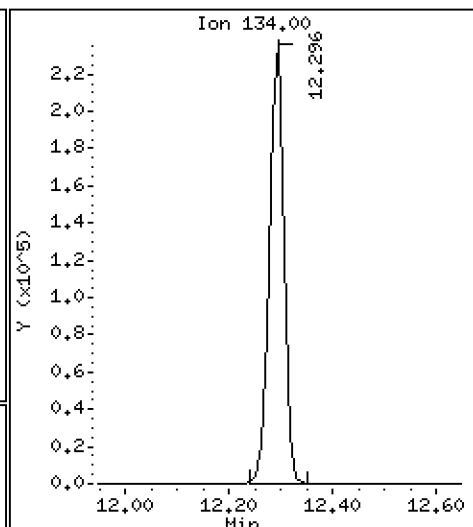
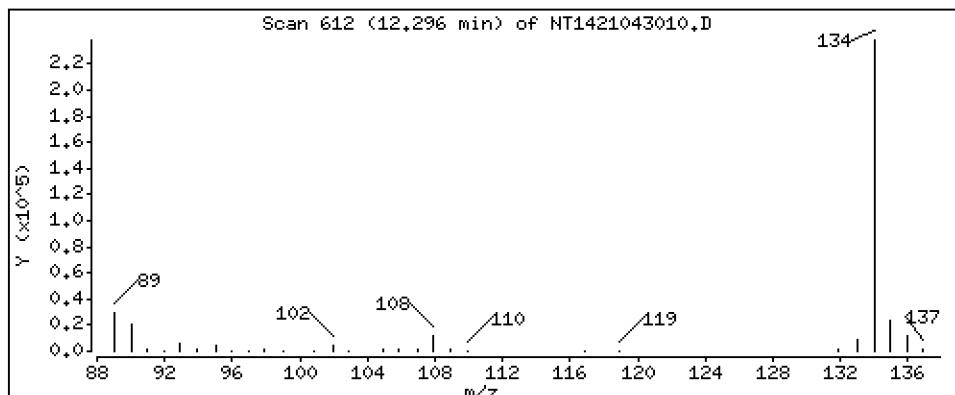
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

12 Benzo(b)thiophene

Concentration: 2,787 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

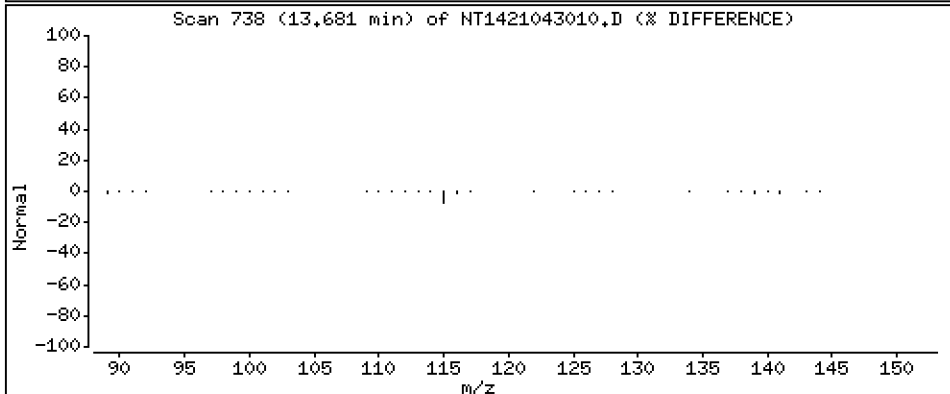
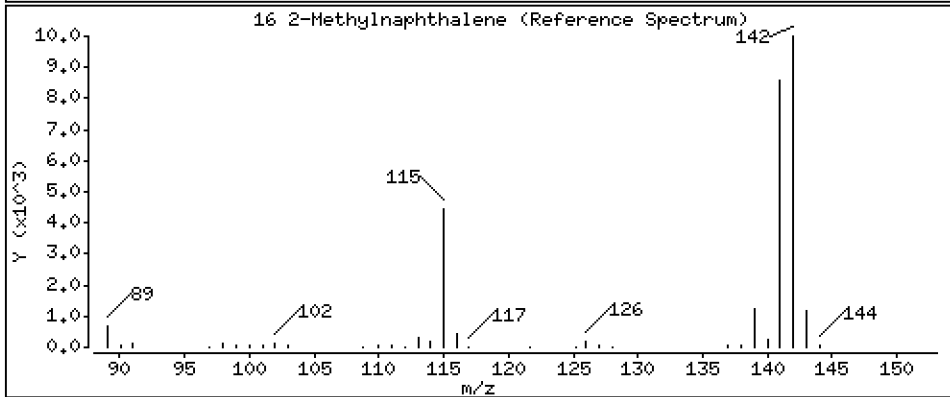
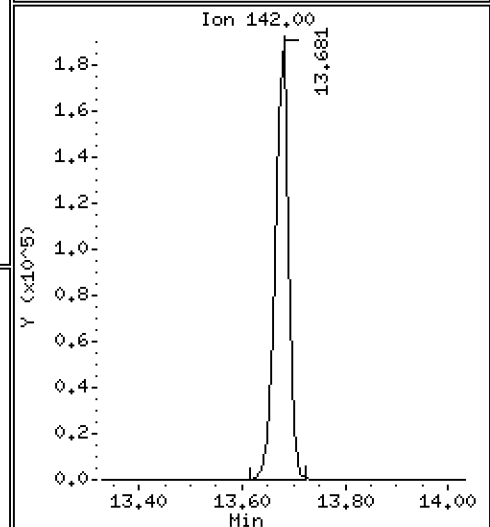
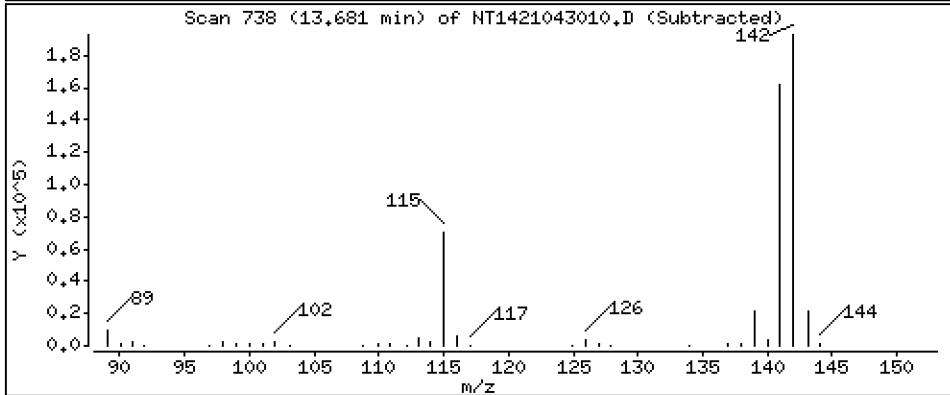
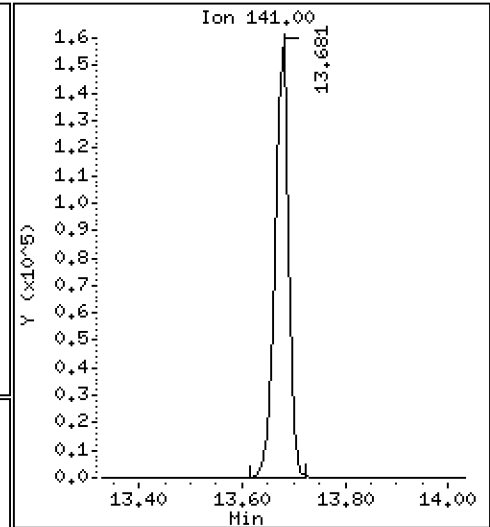
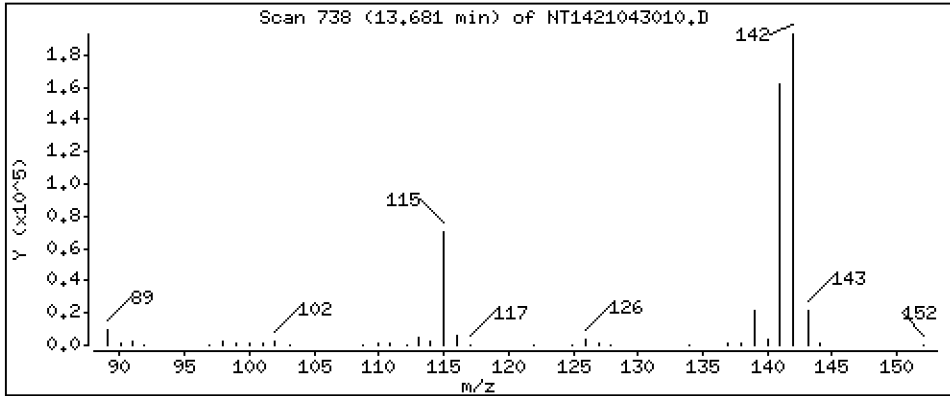
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

16 2-Methylnaphthalene

Concentration: 2,845 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

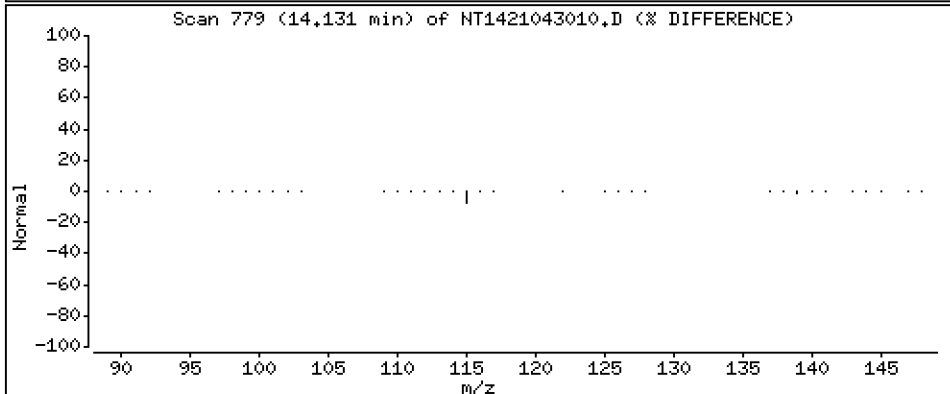
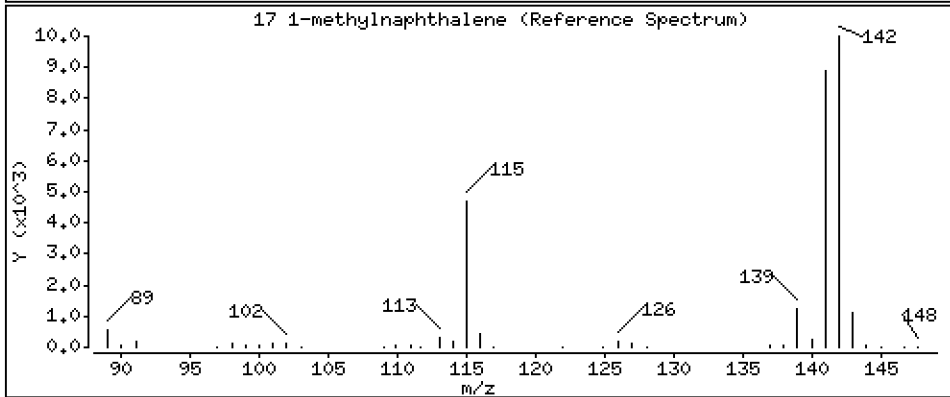
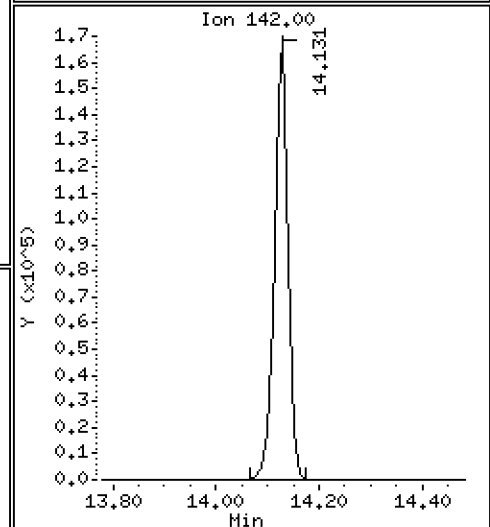
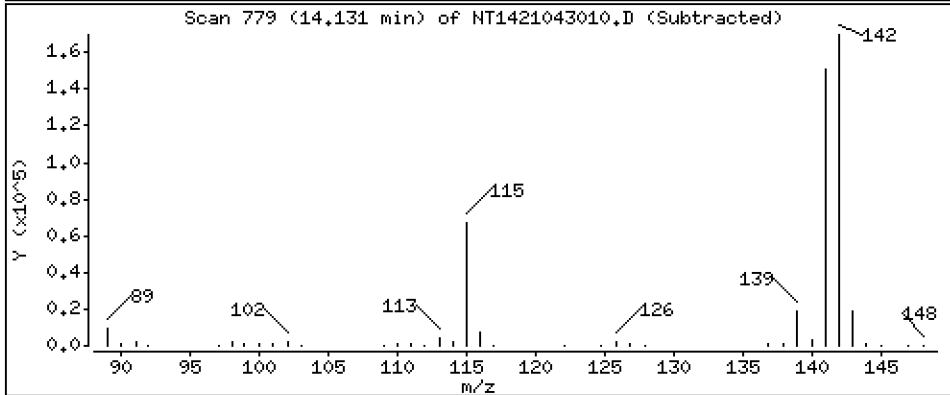
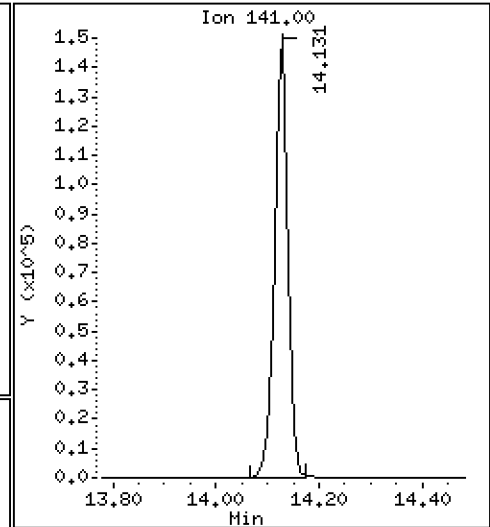
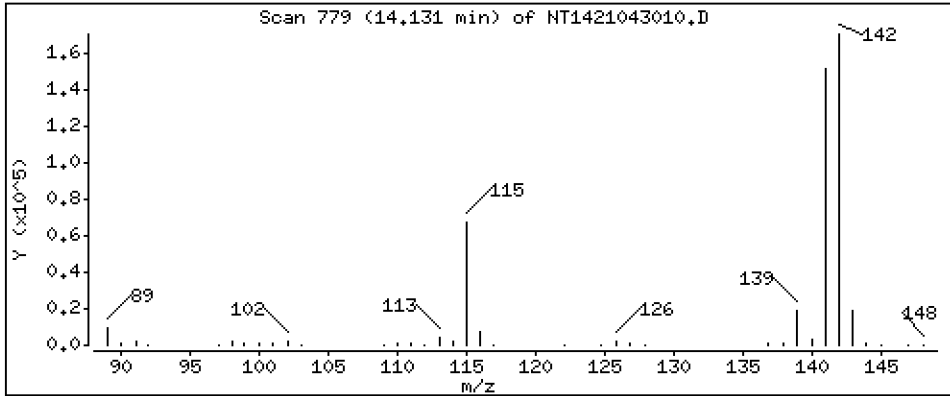
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

17 1-methylnaphthalene

Concentration: 2,821 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

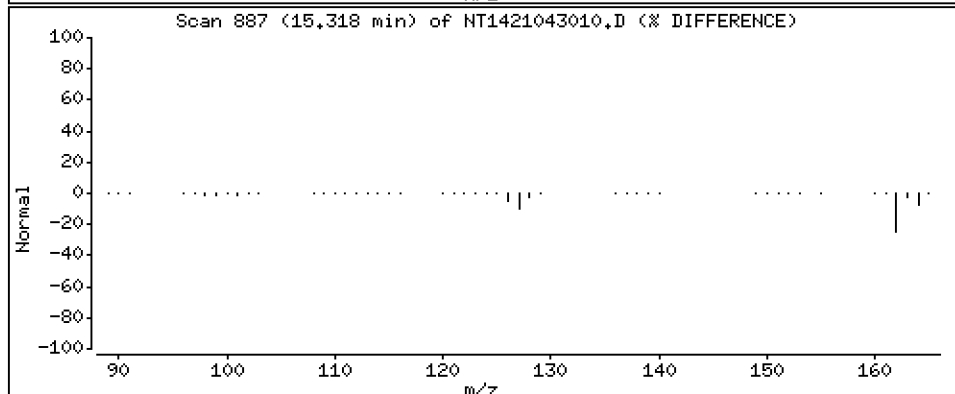
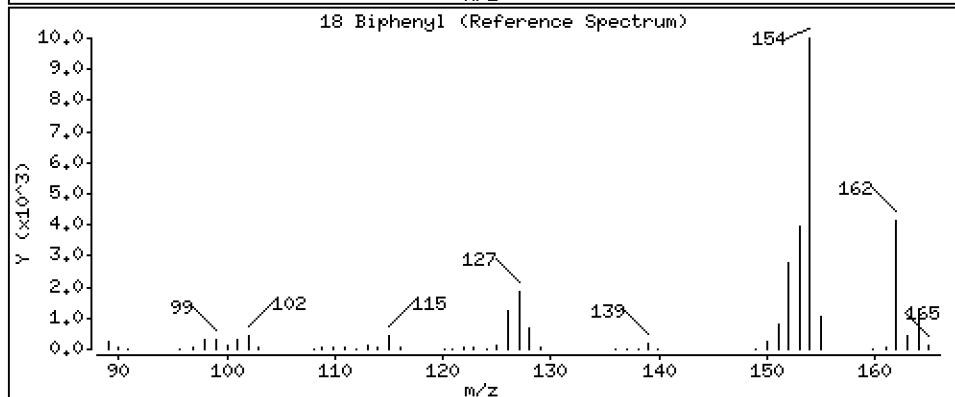
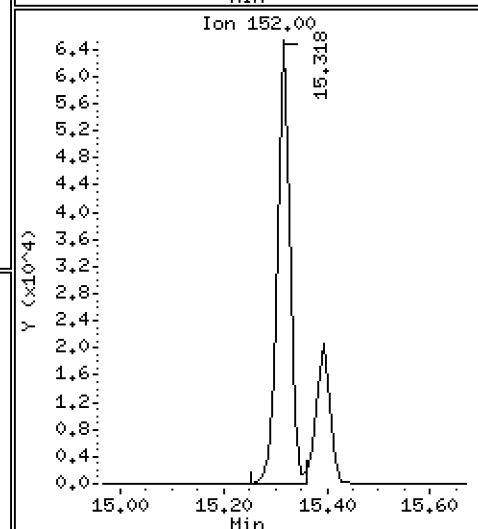
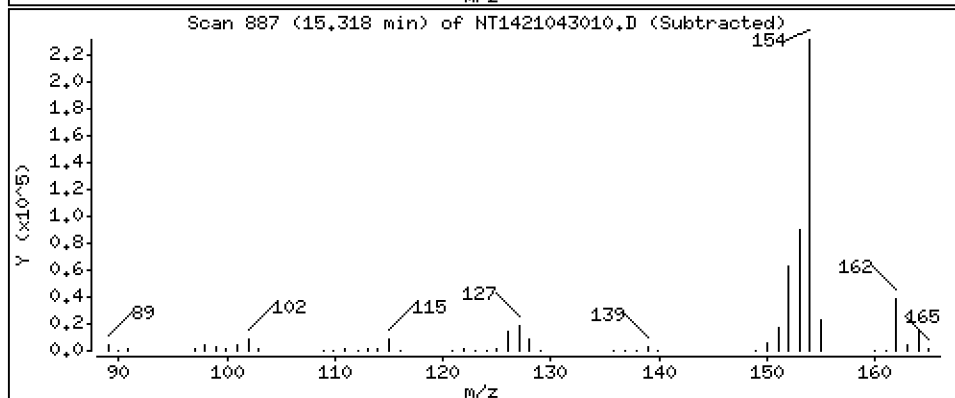
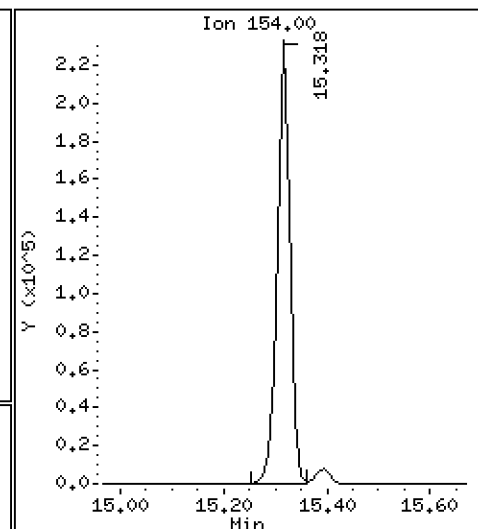
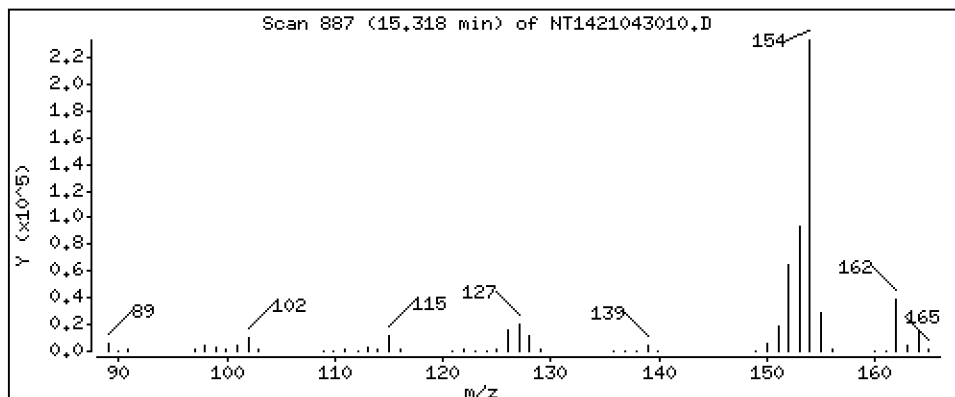
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

18 Biphenyl

Concentration: 2,765 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

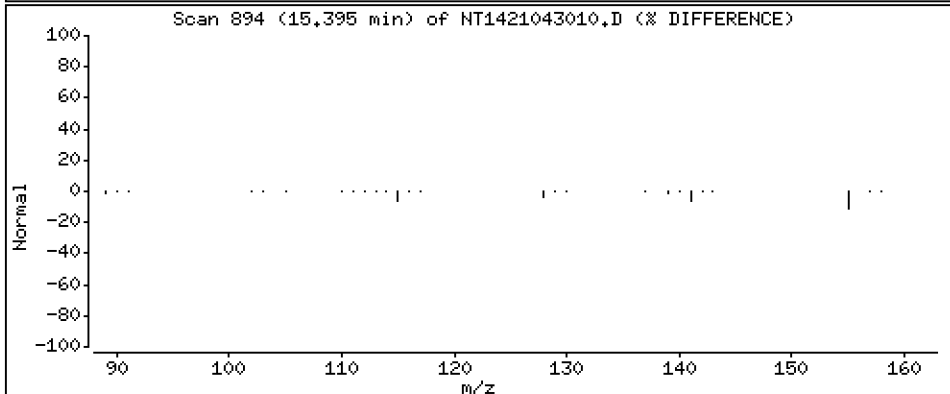
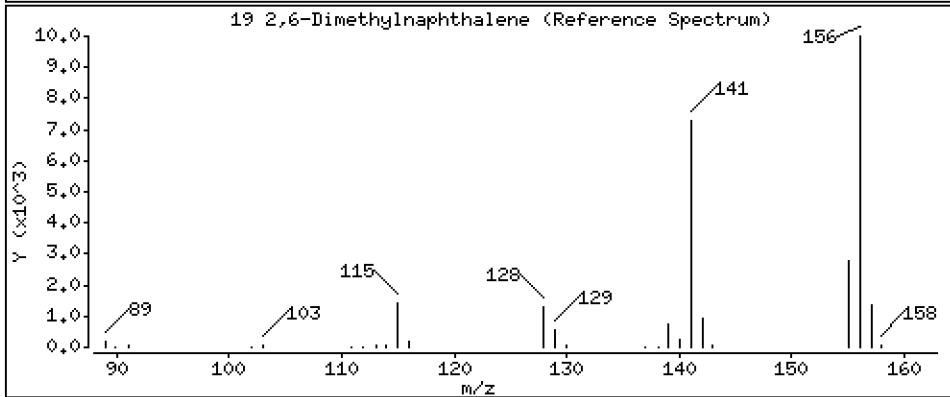
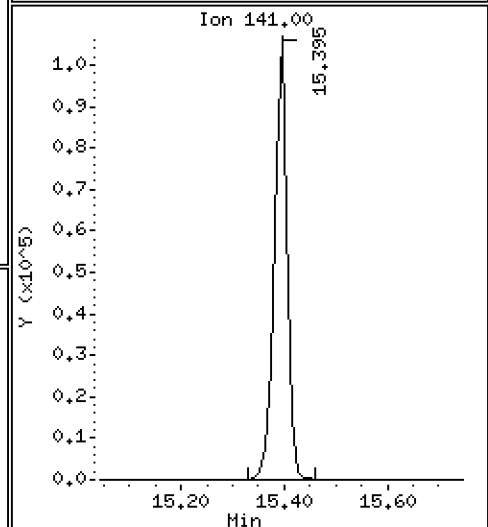
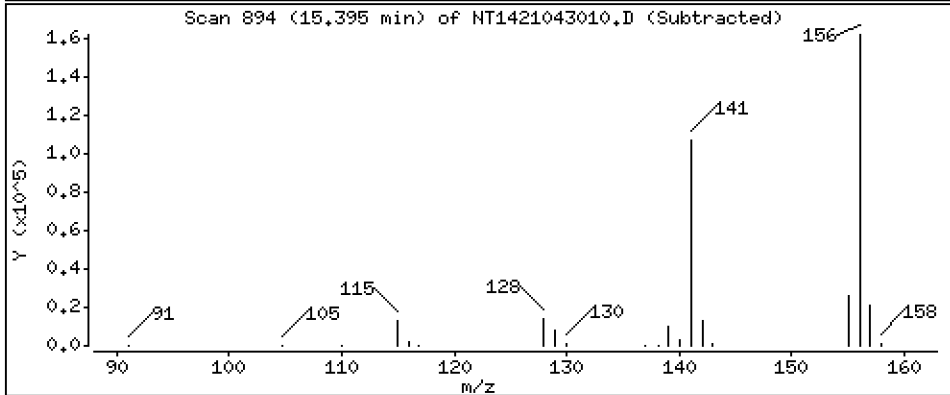
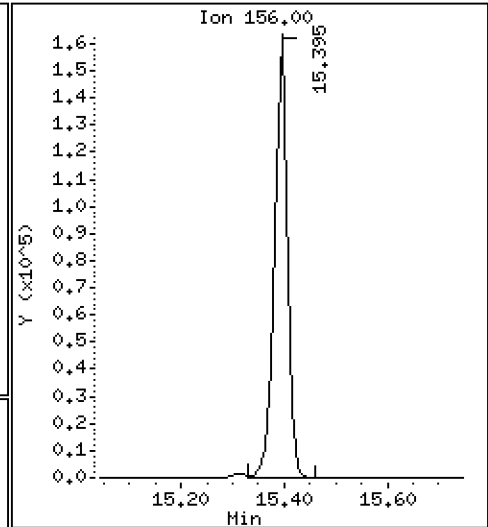
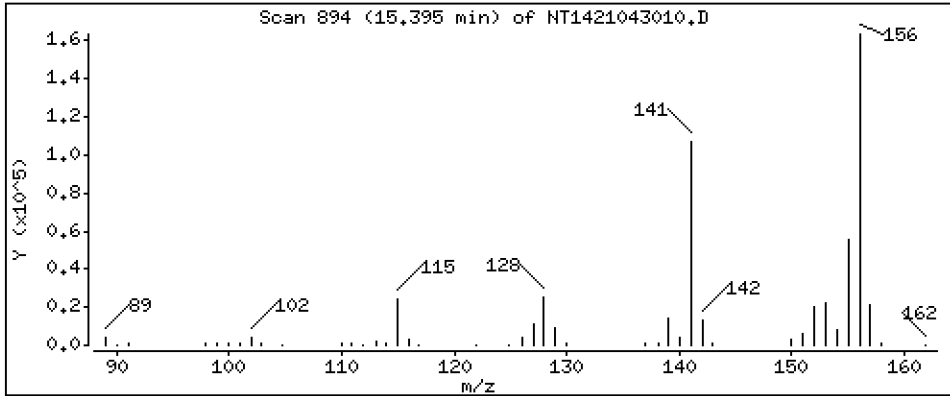
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 2,6-Dimethylnaphthalene

Concentration: 2,822 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

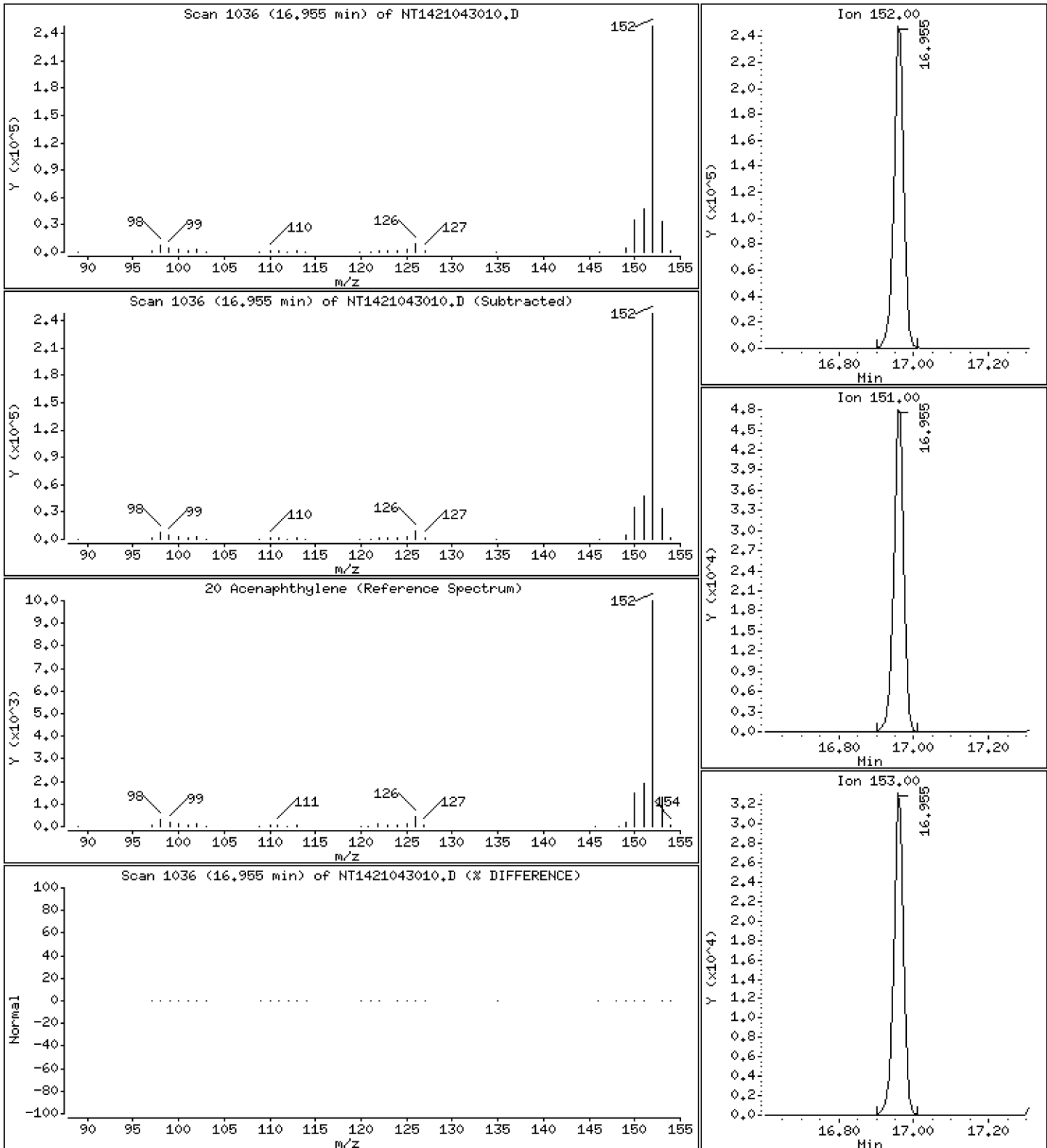
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

20 Acenaphthylene

Concentration: 2,889 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

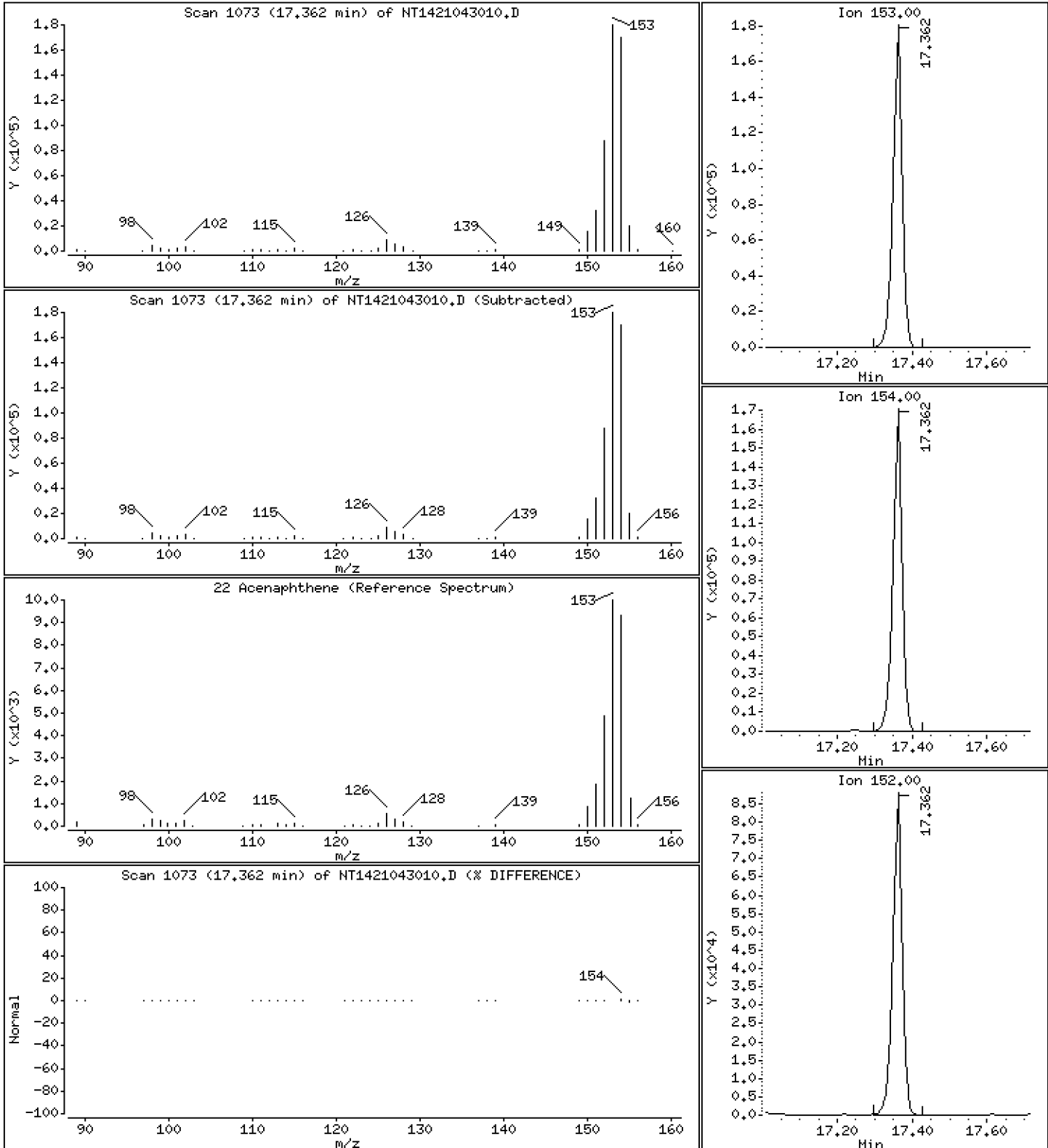
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Acenaphthene

Concentration: 3,010 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

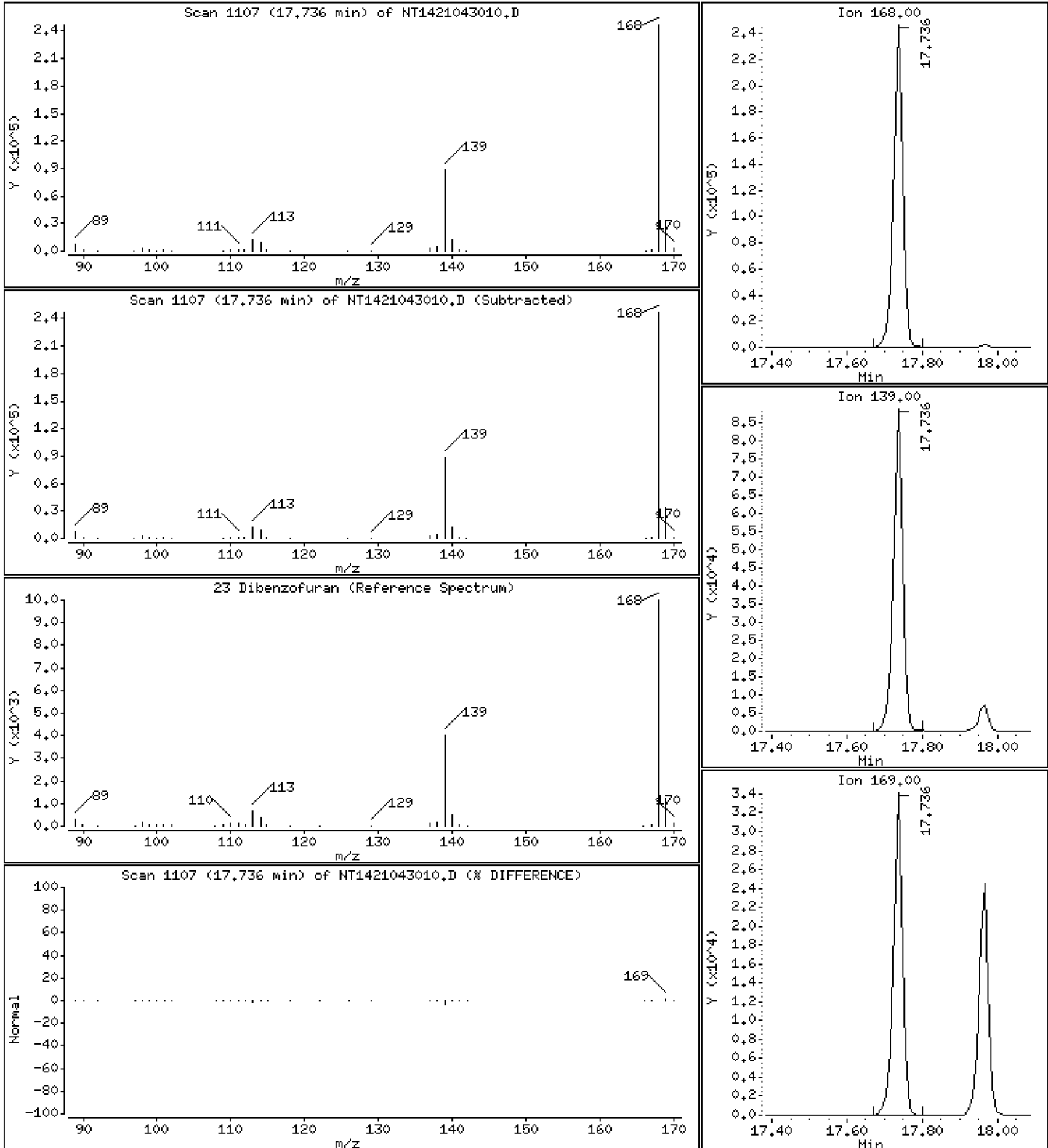
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 Dibenzofuran

Concentration: 2,768 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

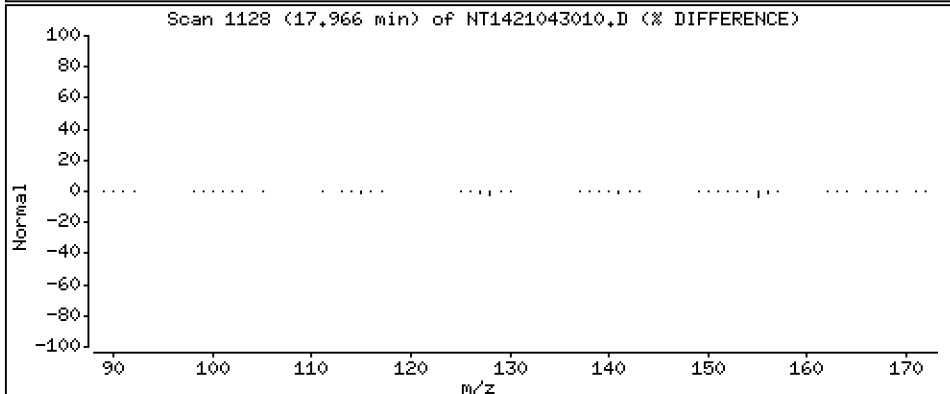
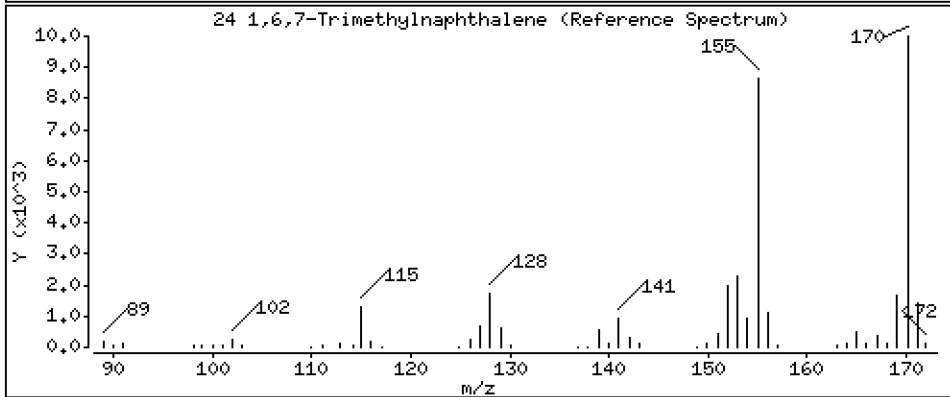
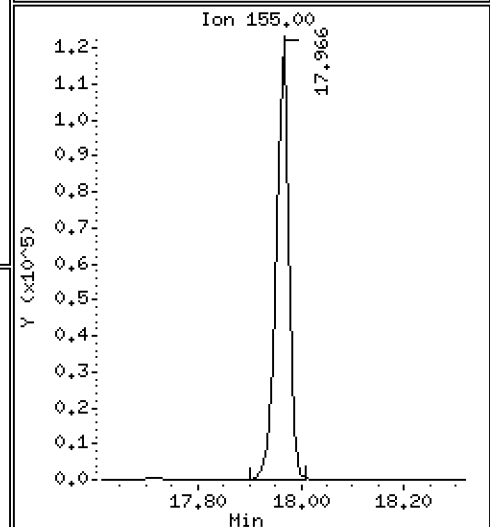
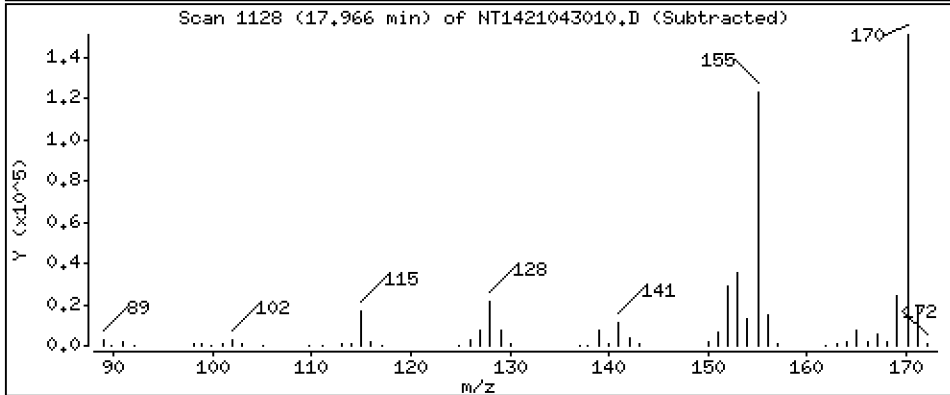
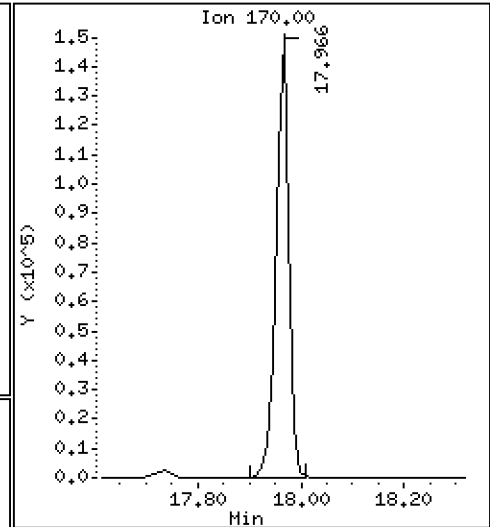
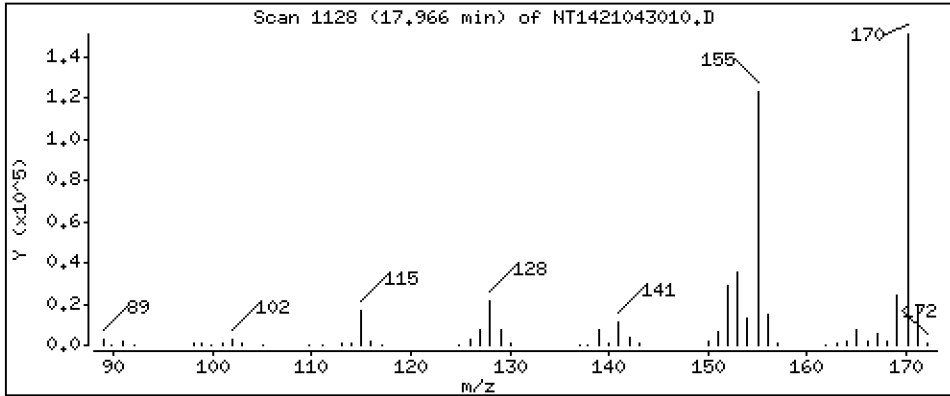
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

24 1,6,7-Trimethylnaphthalene

Concentration: 2,923 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

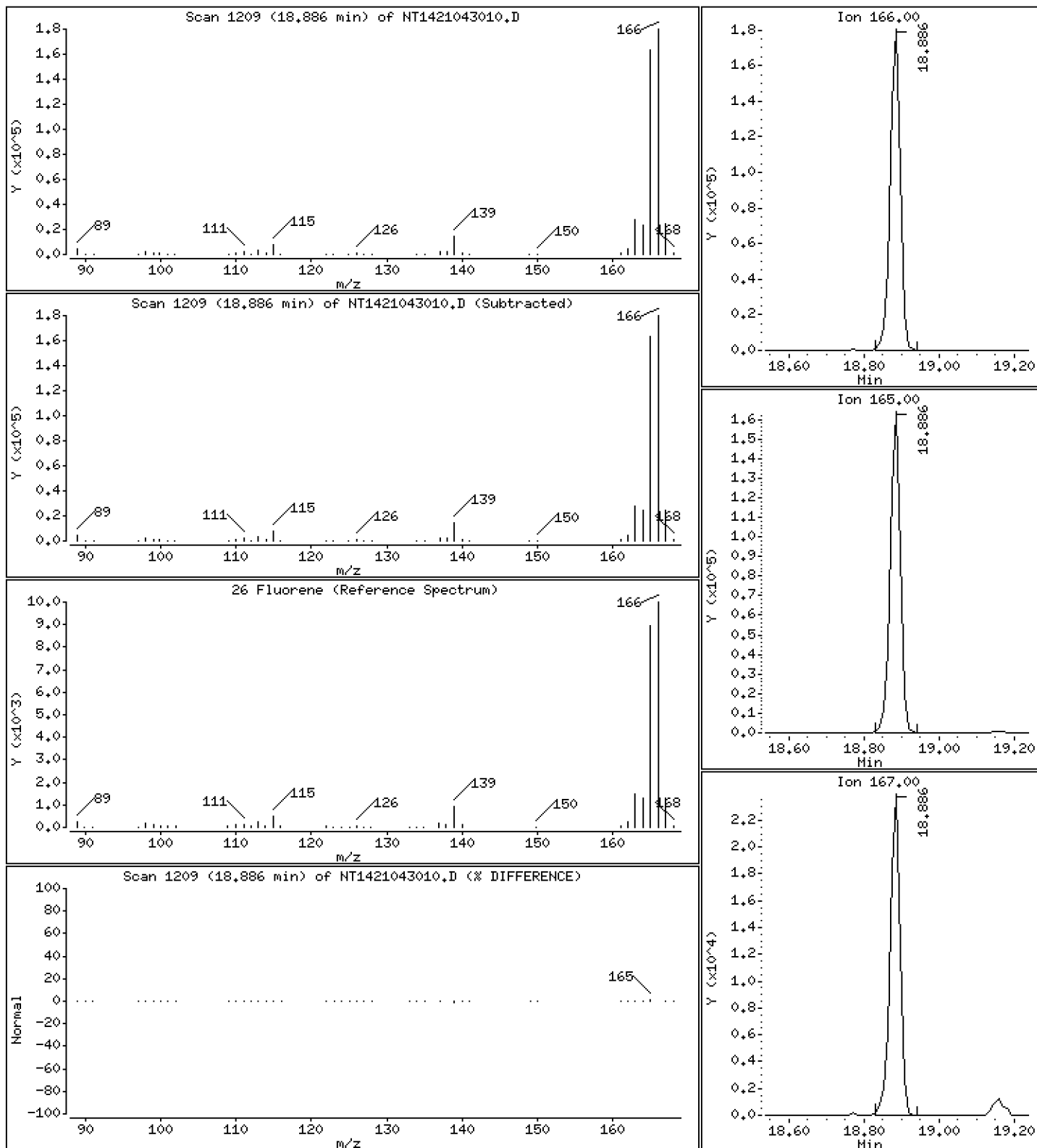
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Fluorene

Concentration: 2,844 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

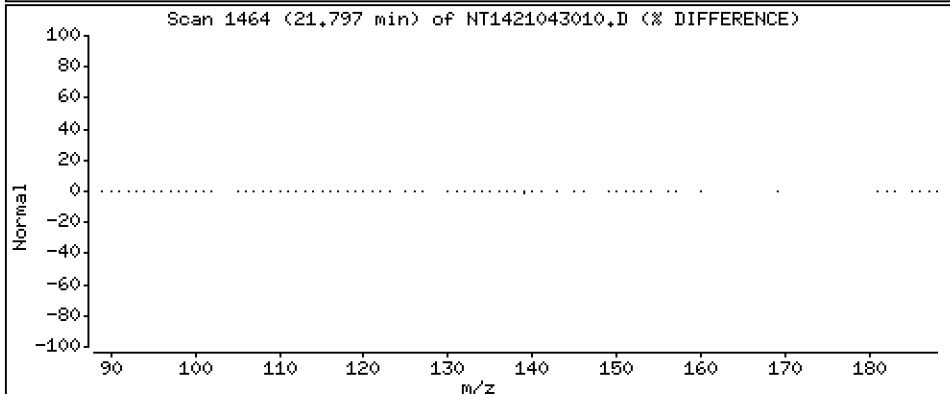
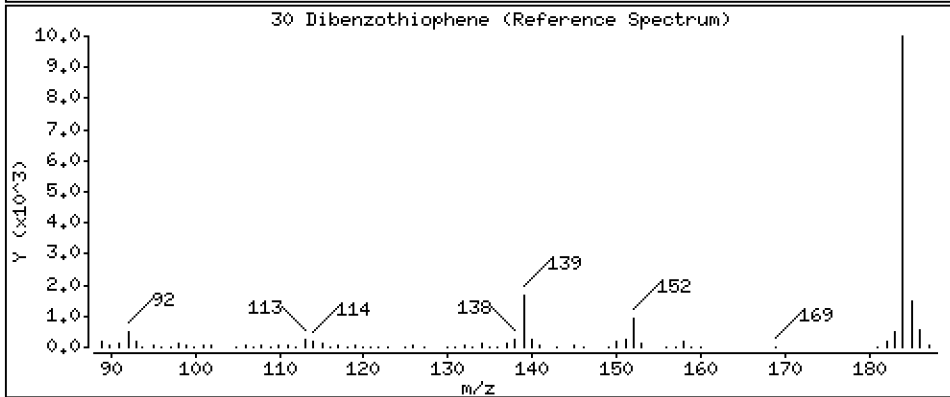
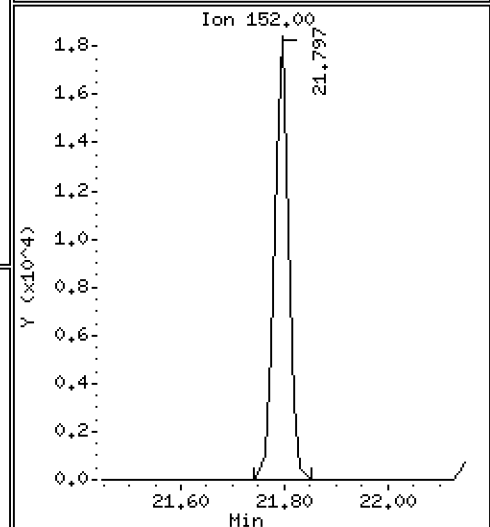
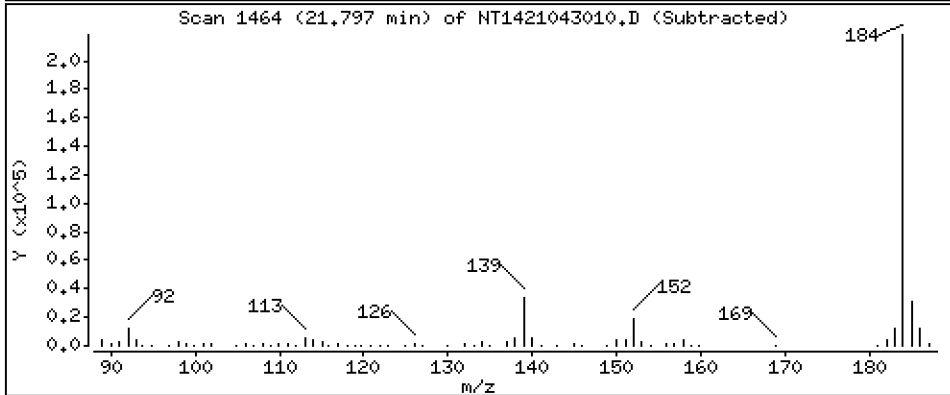
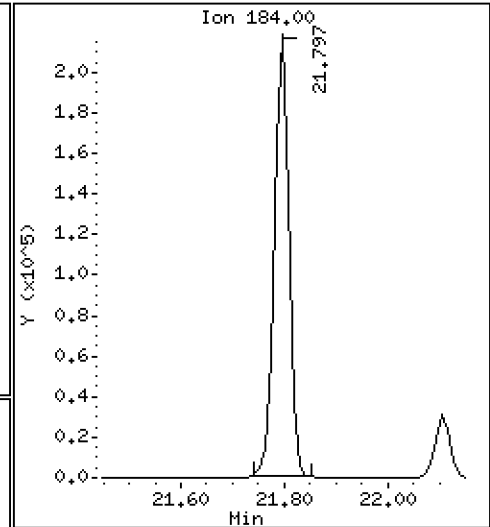
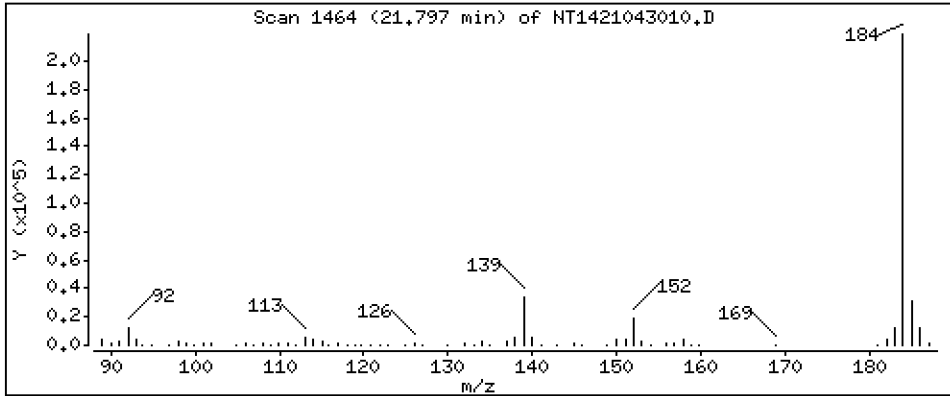
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Dibenzothiophene

Concentration: 2,782 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

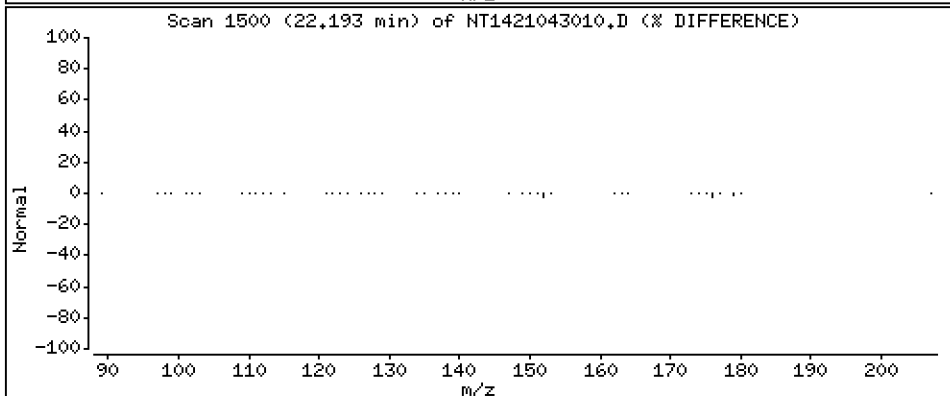
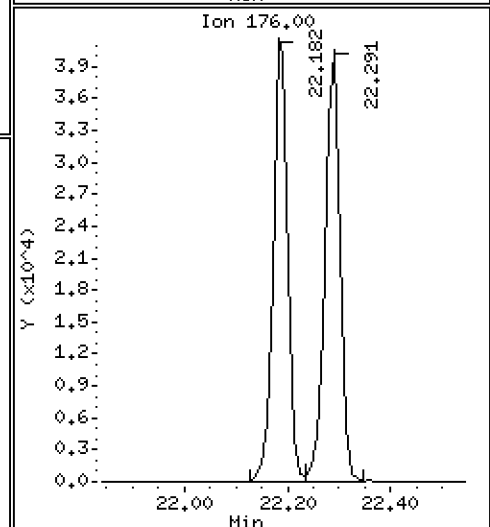
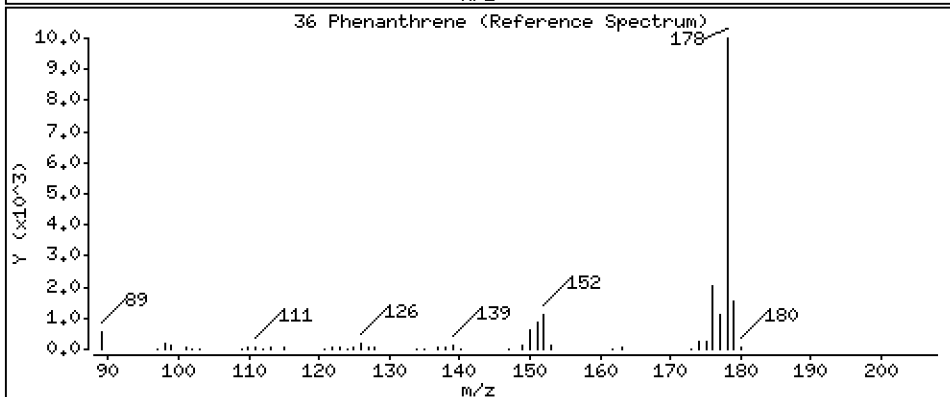
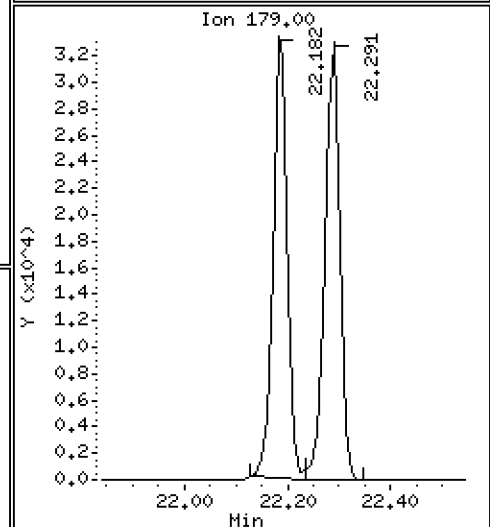
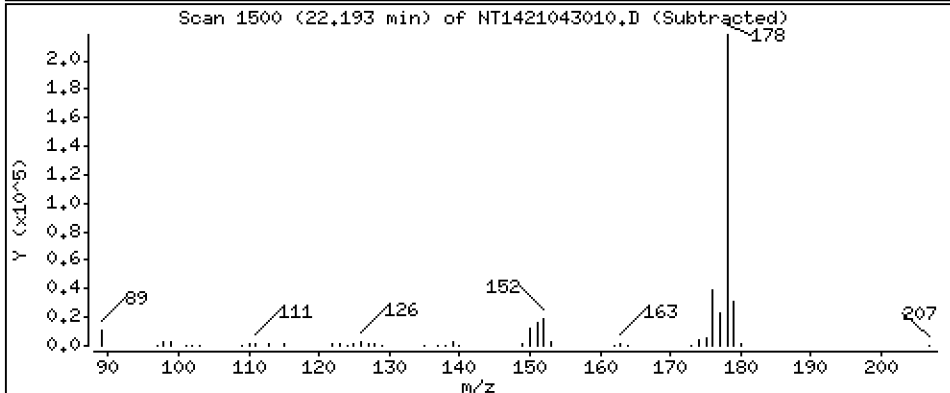
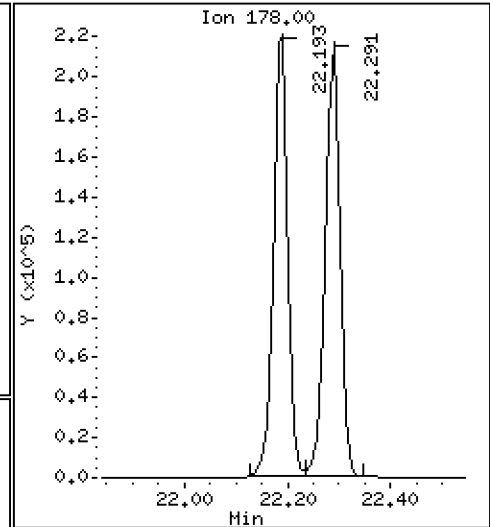
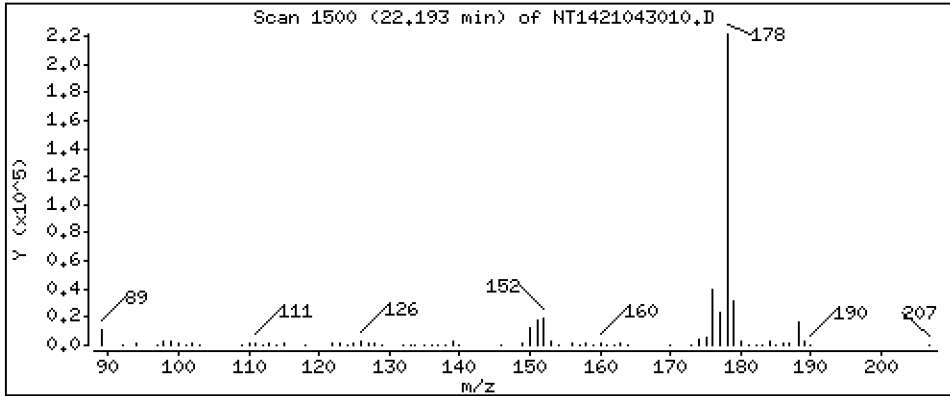
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

36 Phenanthrene

Concentration: 2,468 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

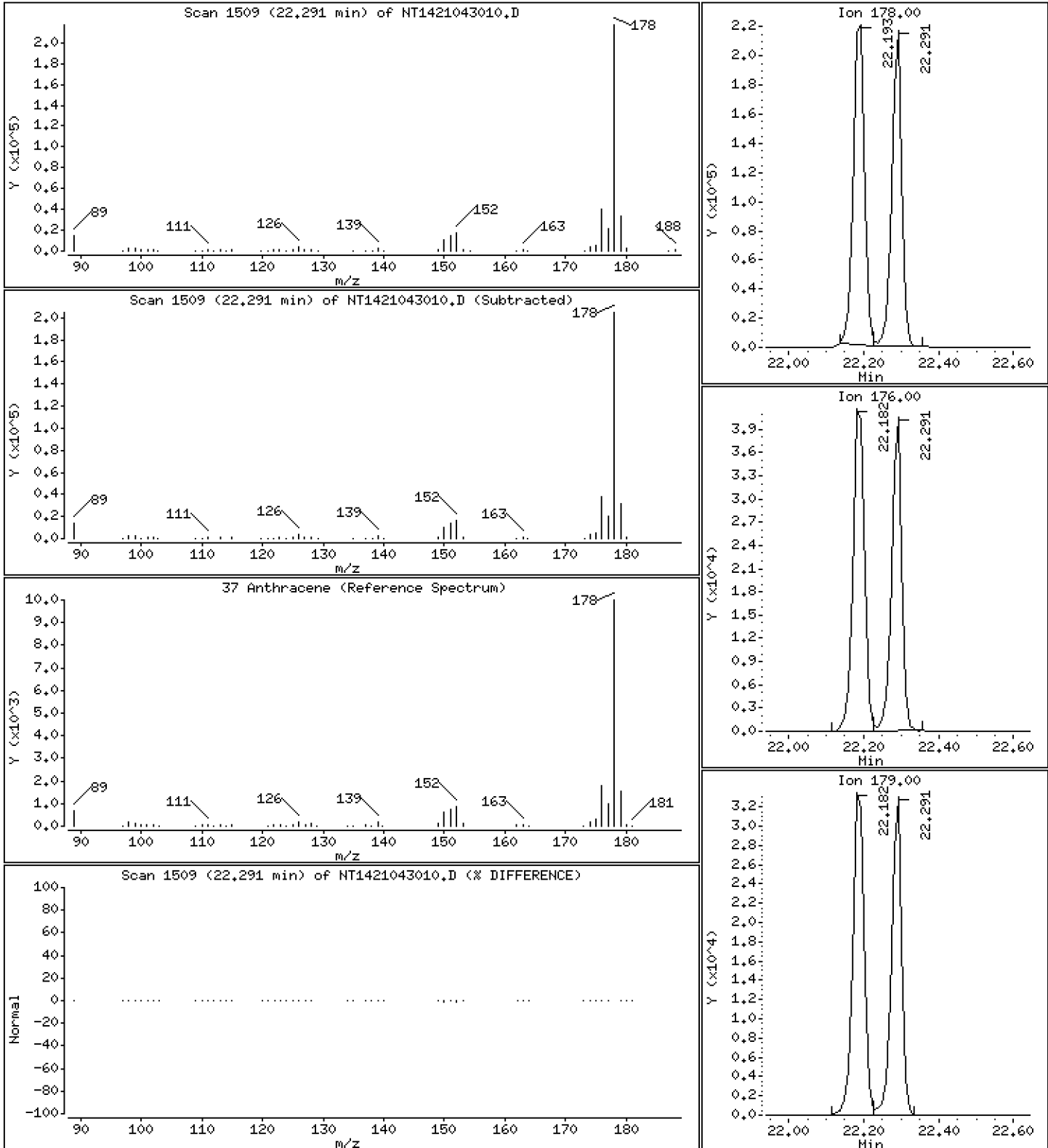
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

37 Anthracene

Concentration: 2,492 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

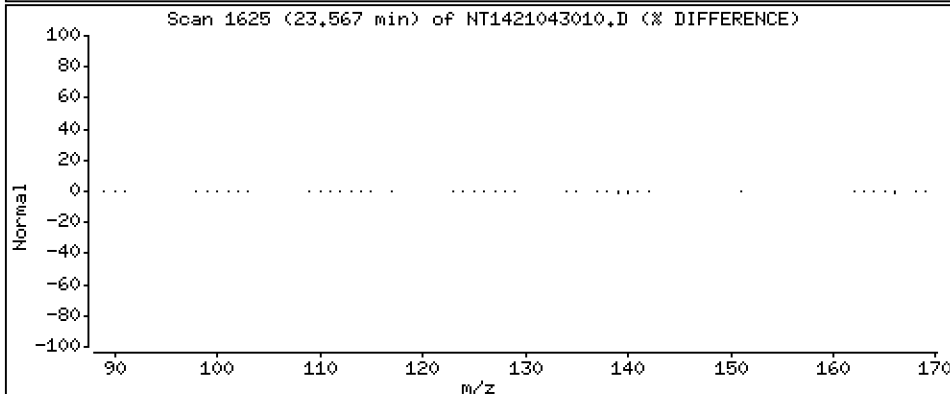
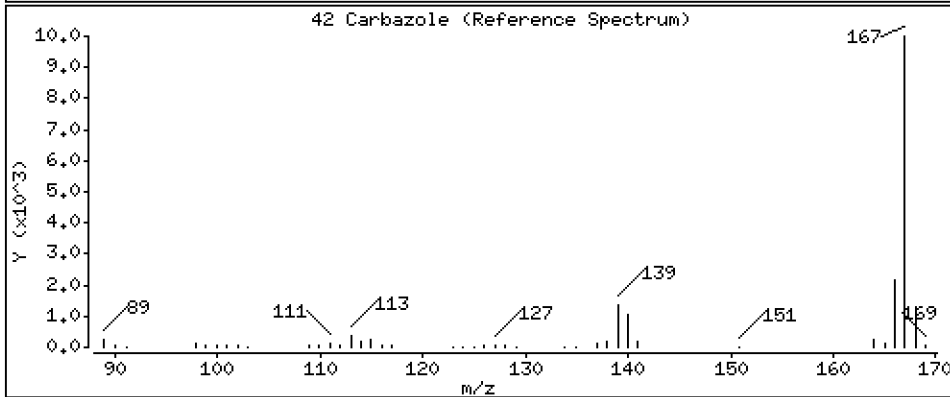
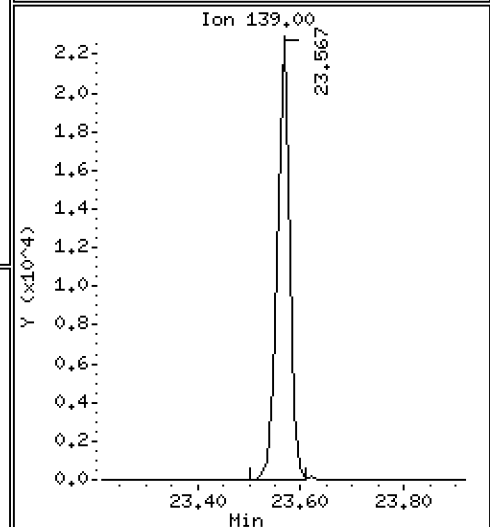
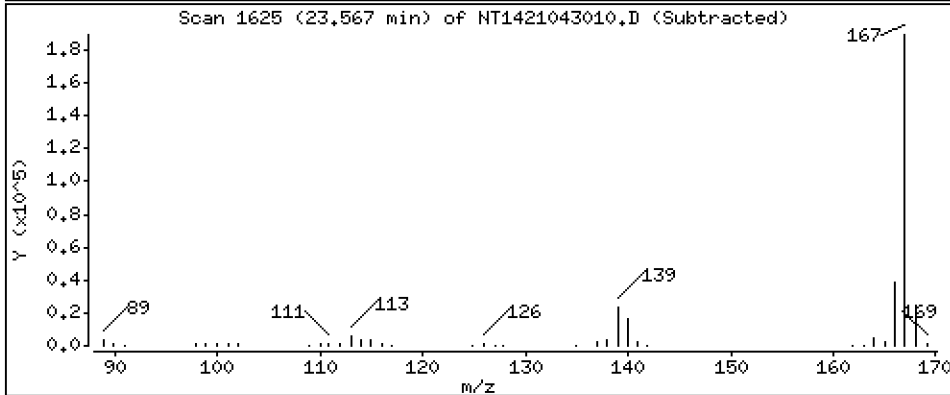
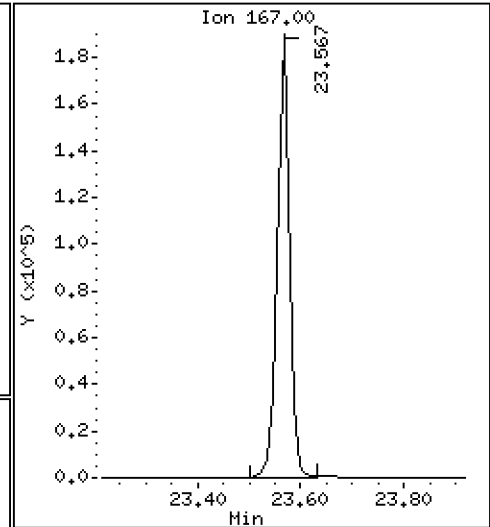
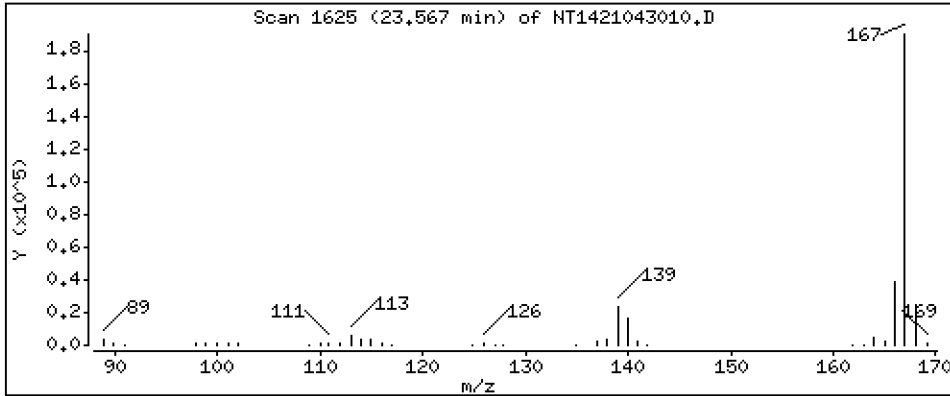
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

42 Carbazole

Concentration: 2,343 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

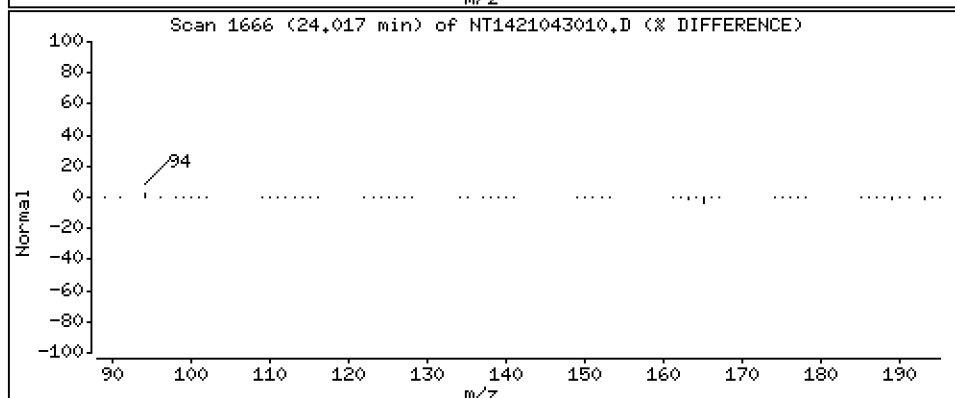
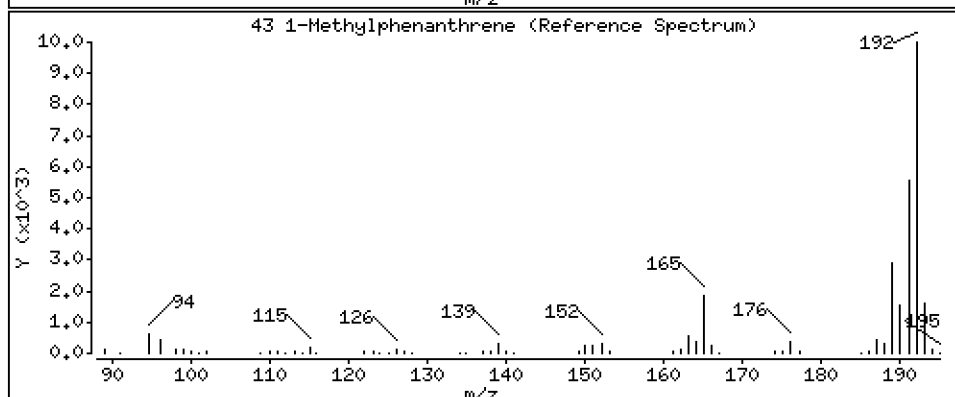
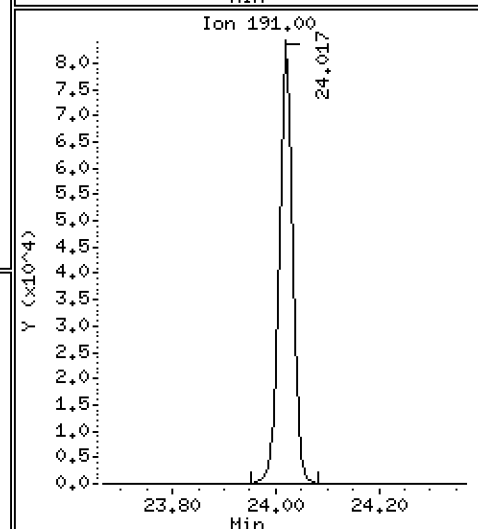
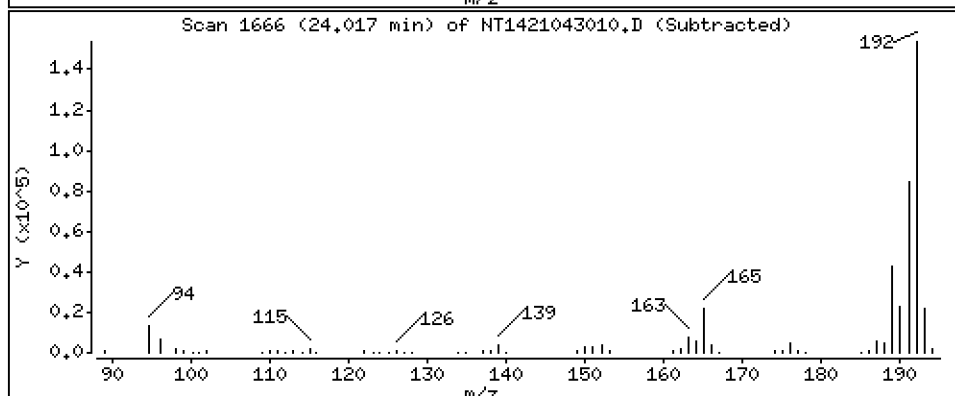
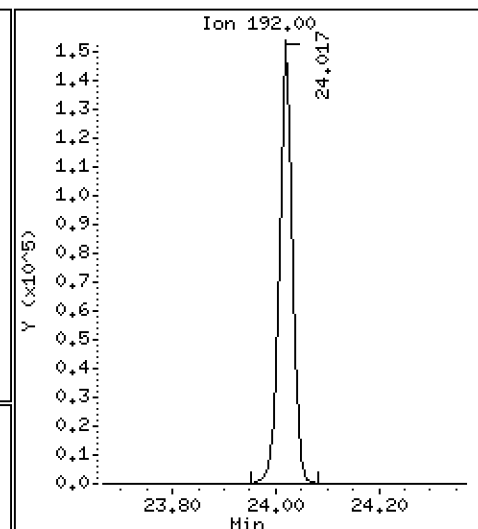
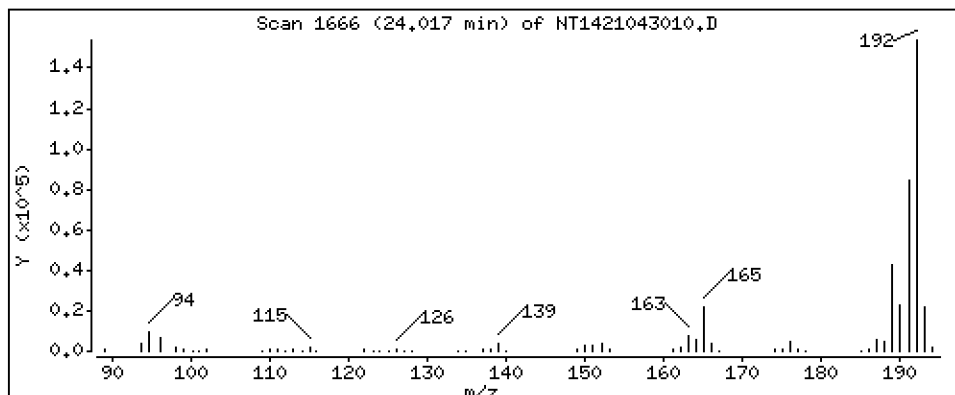
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

43 1-Methylphenanthrene

Concentration: 2,594 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

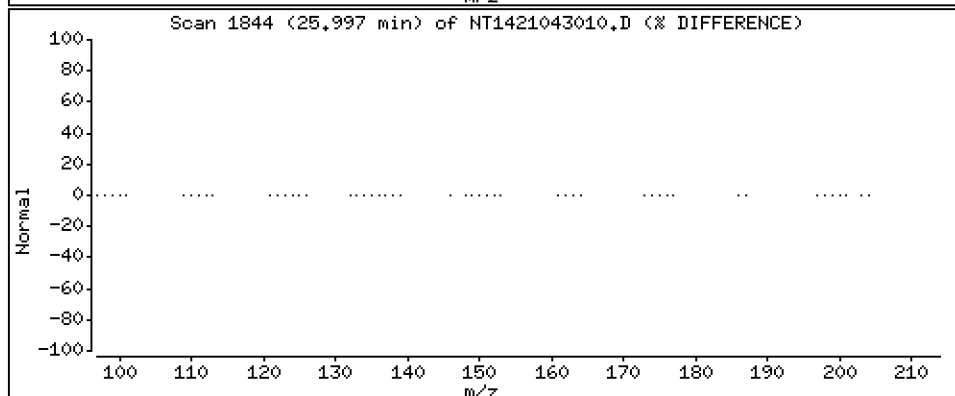
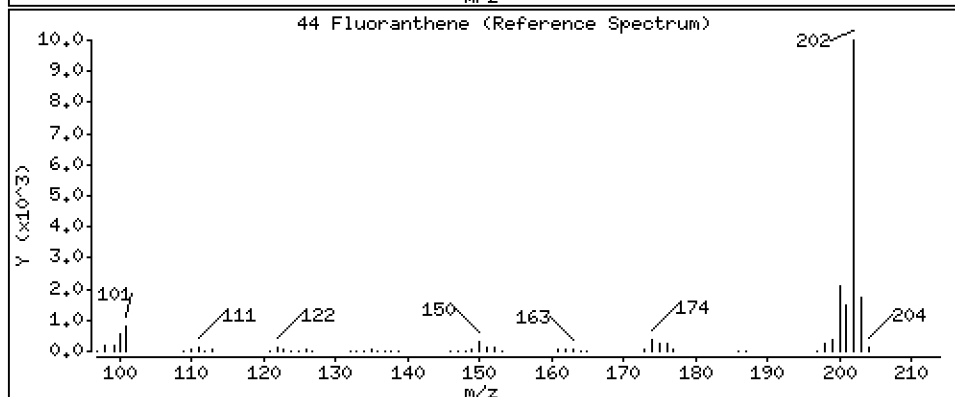
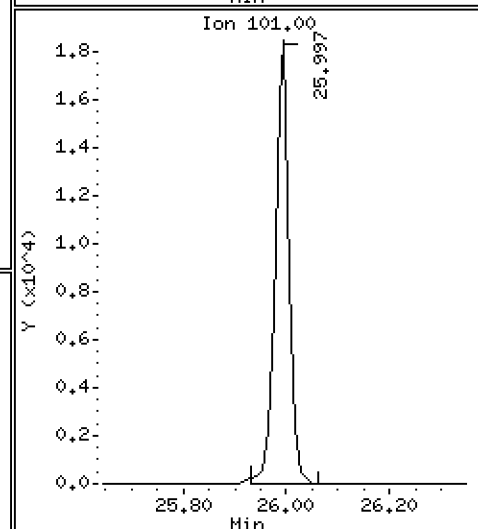
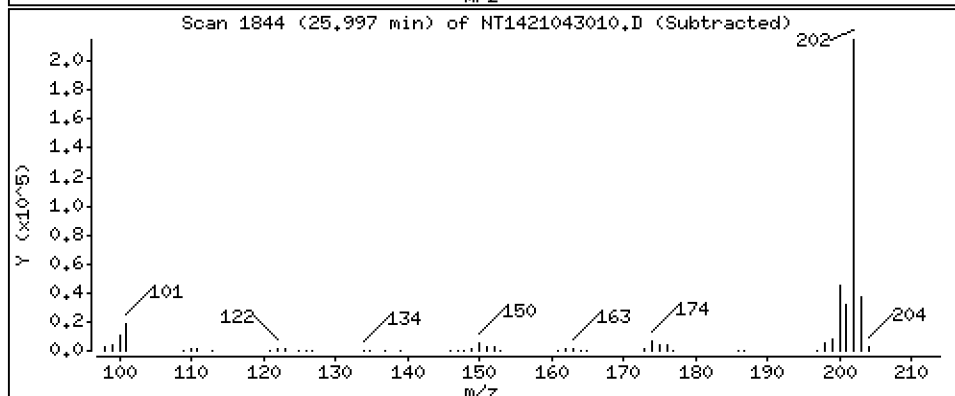
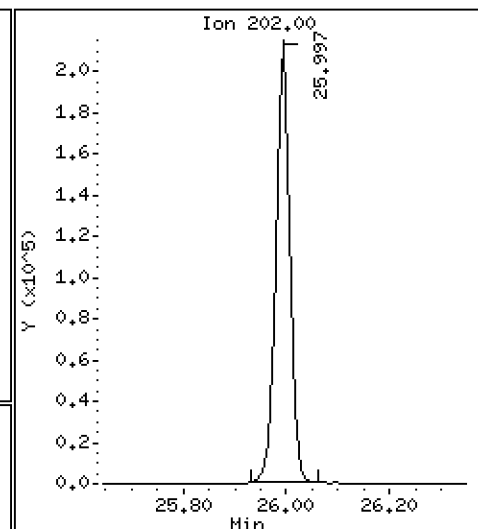
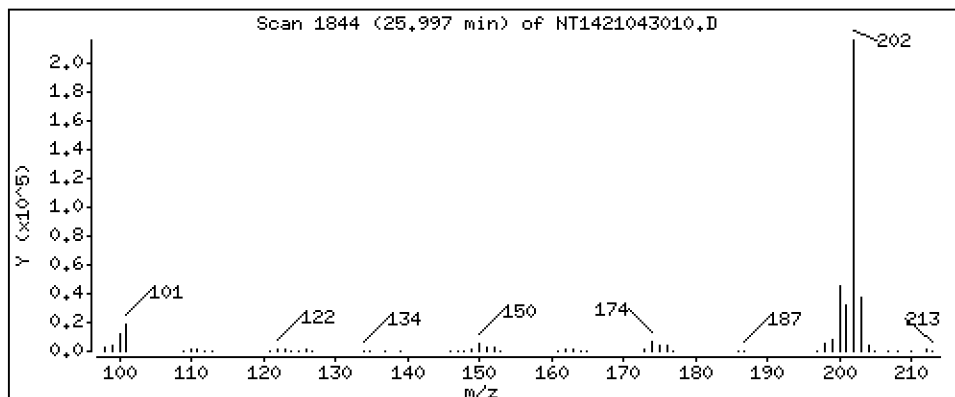
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

44 Fluoranthene

Concentration: 2,634 ug/mL



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Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

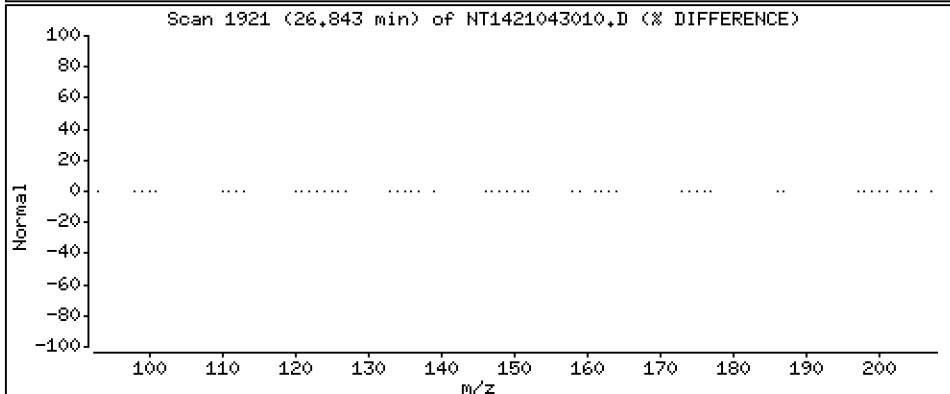
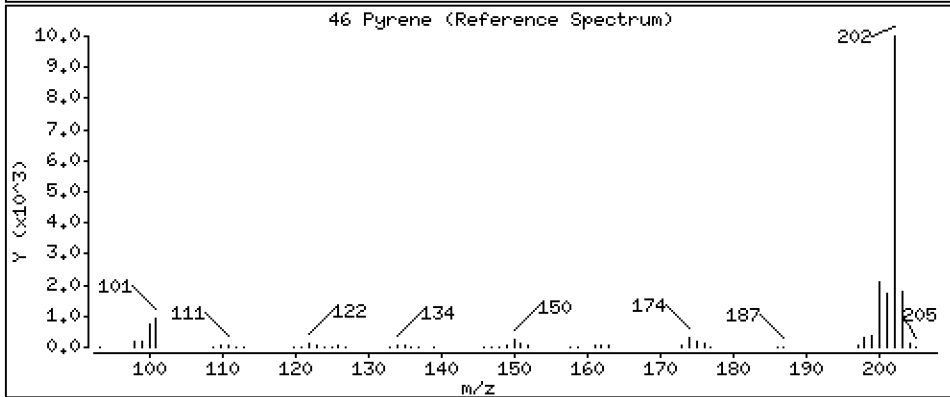
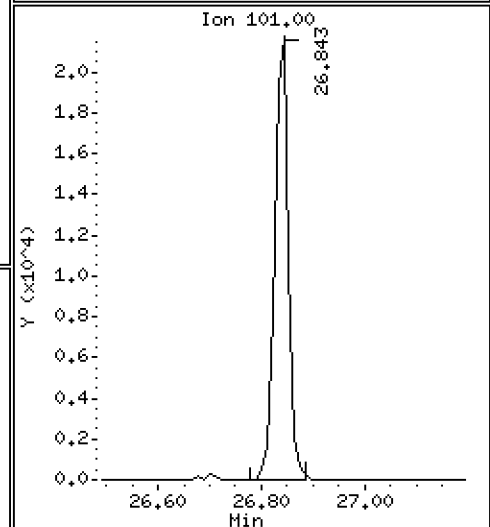
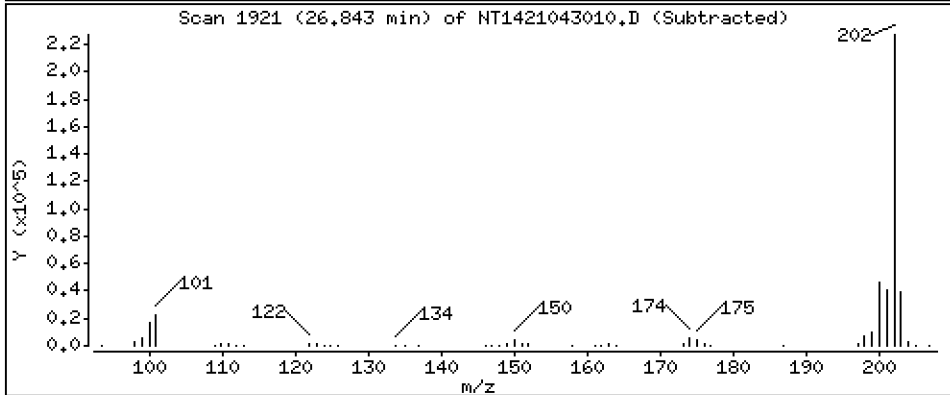
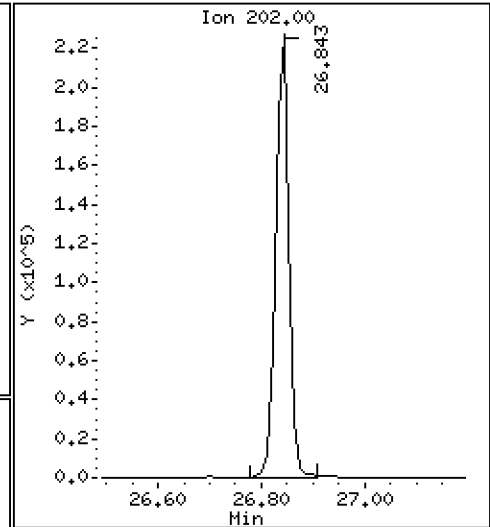
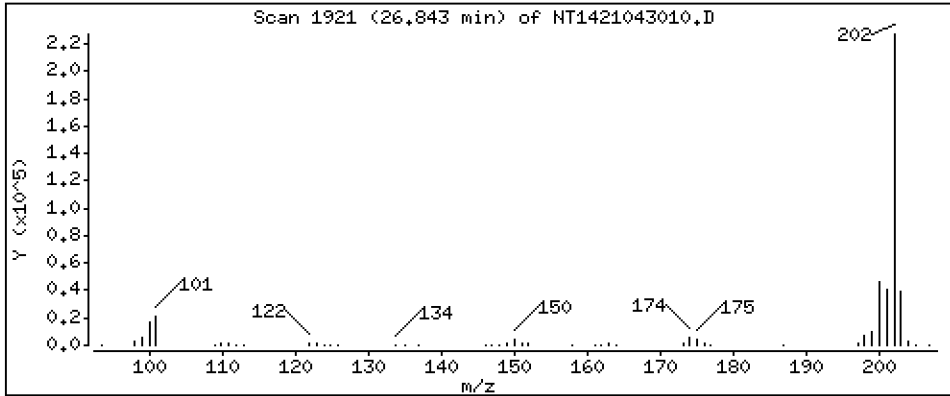
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

46 Pyrene

Concentration: 2,527 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

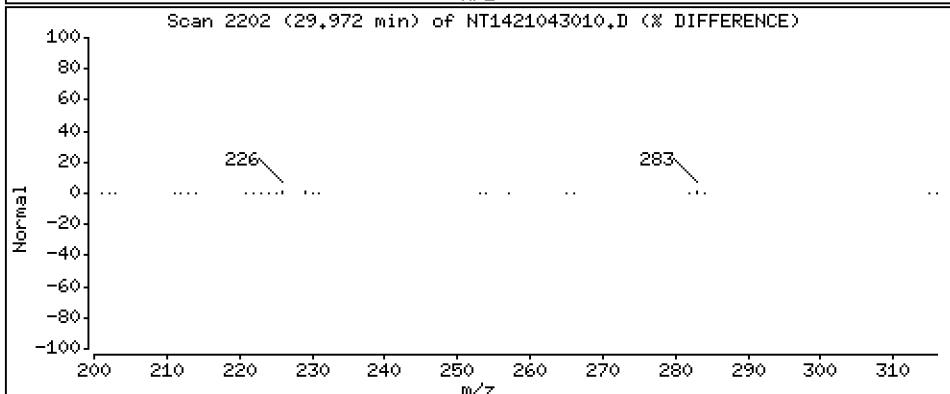
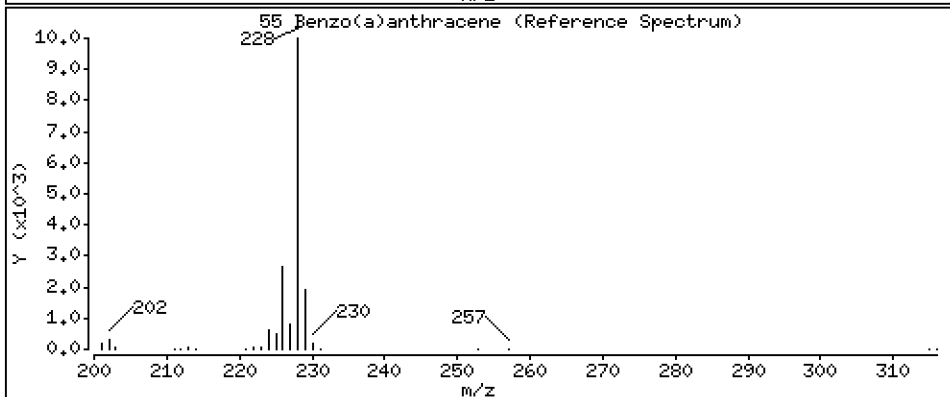
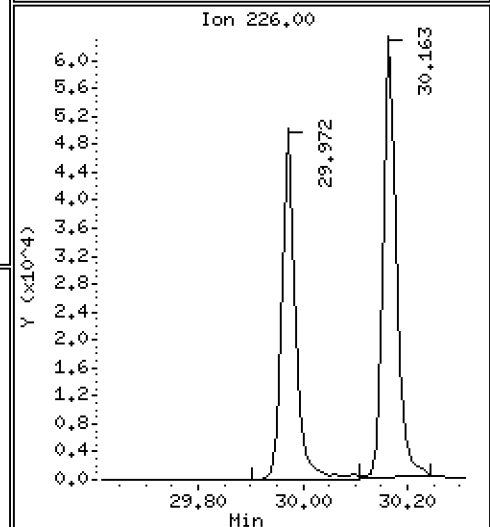
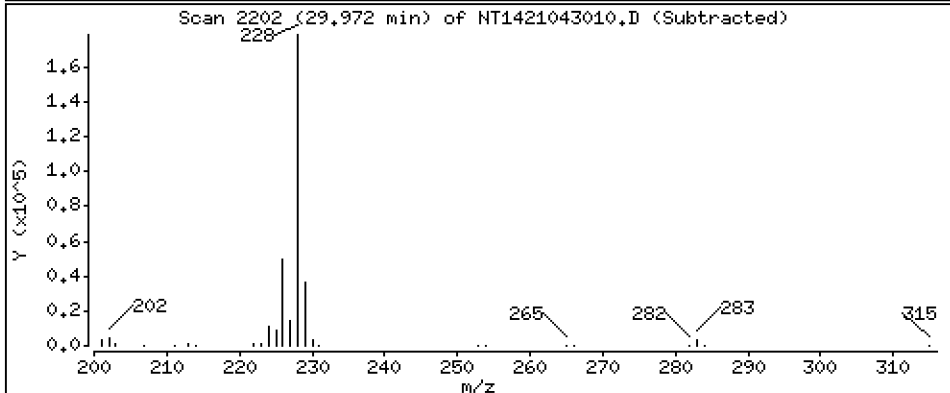
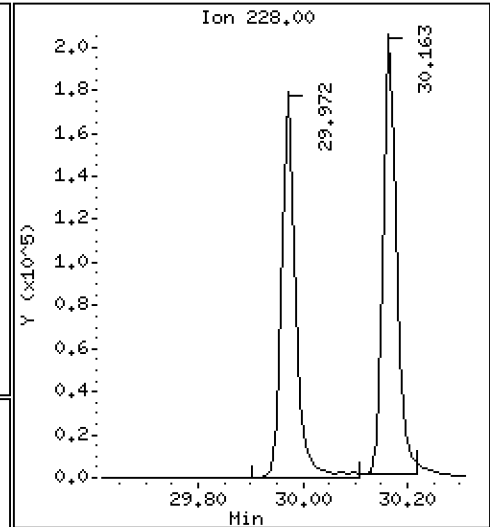
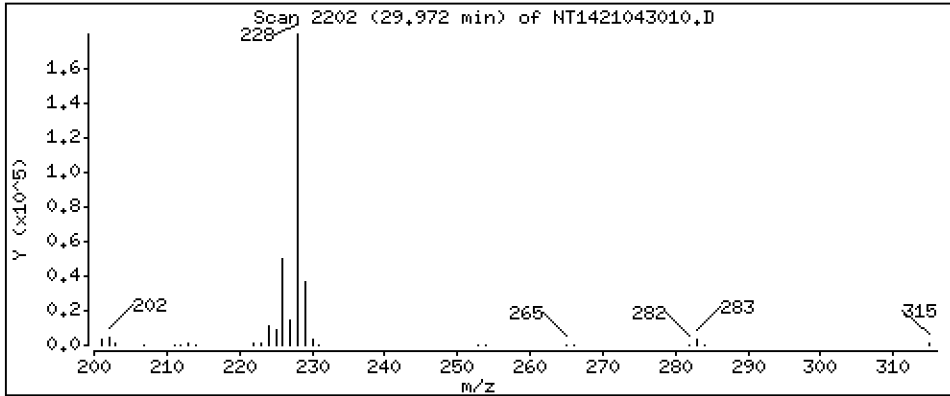
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

55 Benzo(a)anthracene

Concentration: 2,278 ug/mL



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Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

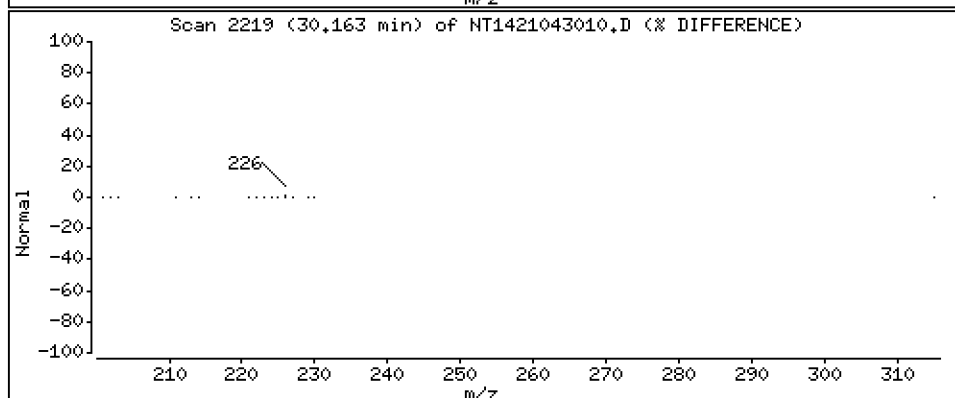
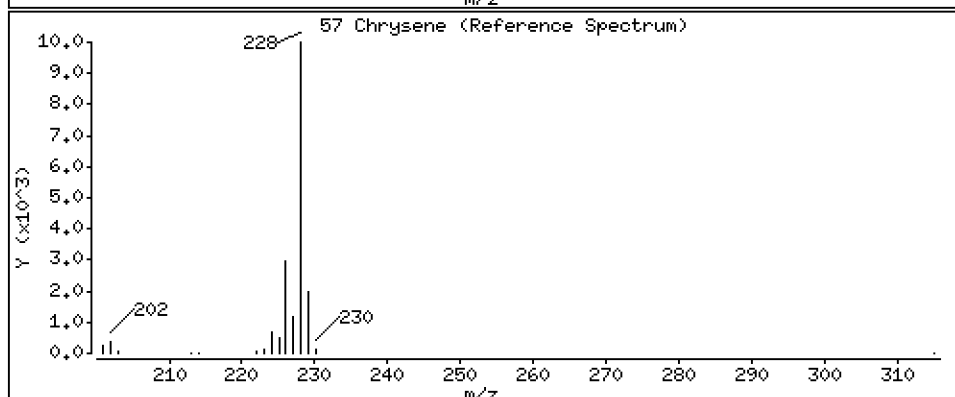
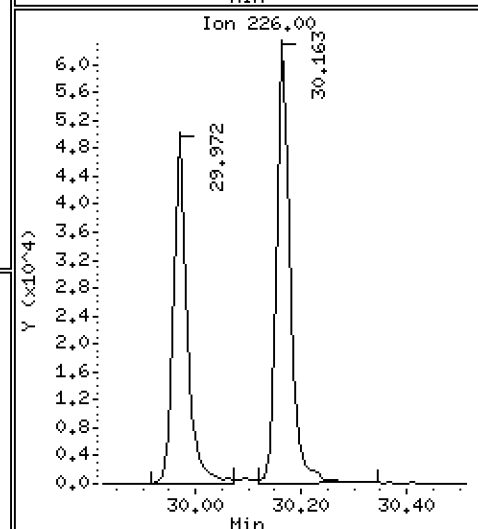
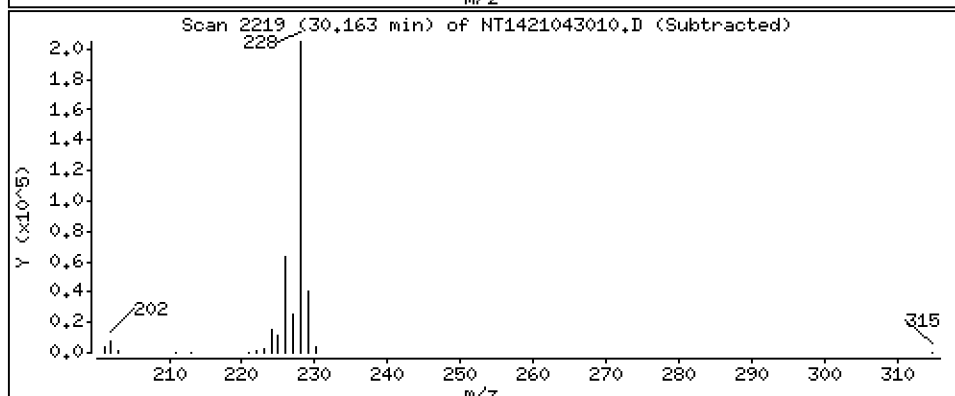
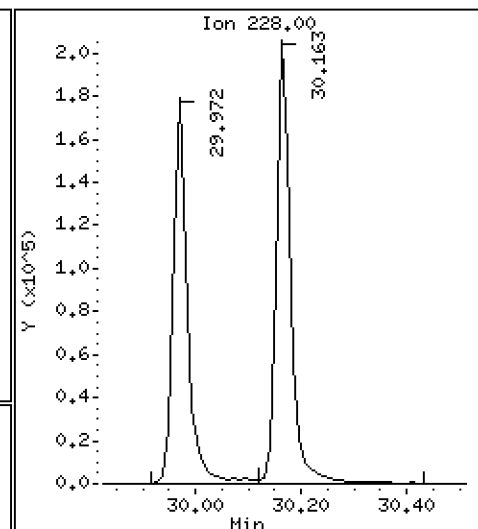
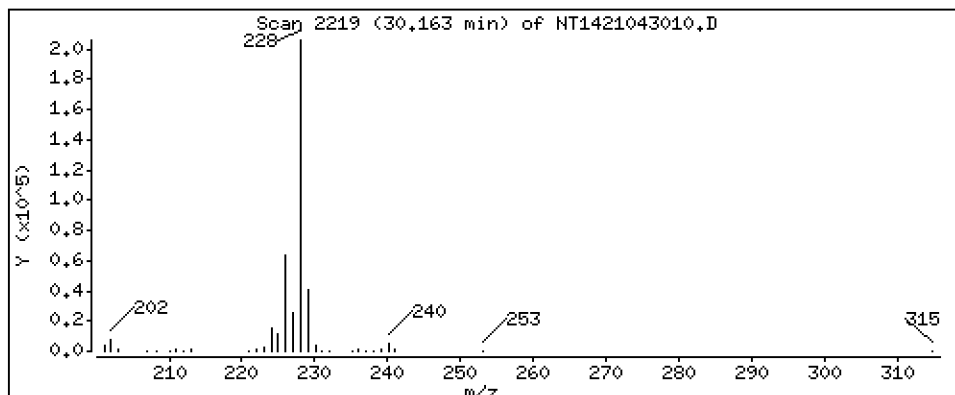
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

57 Chrysene

Concentration: 2,574 ug/mL



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Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

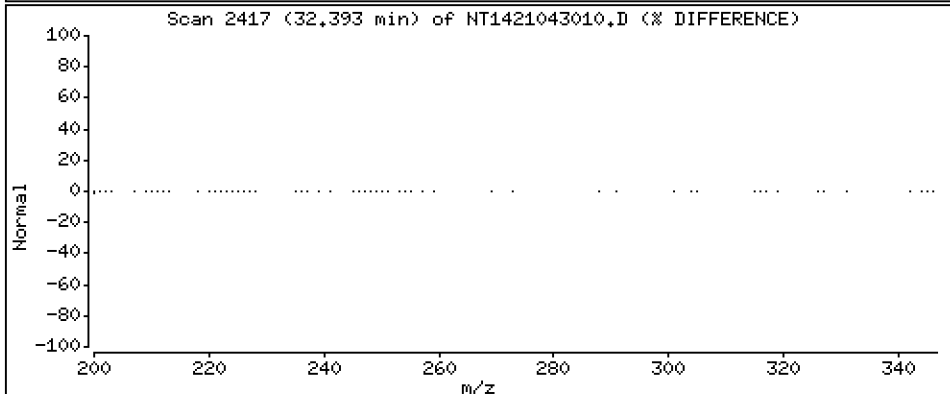
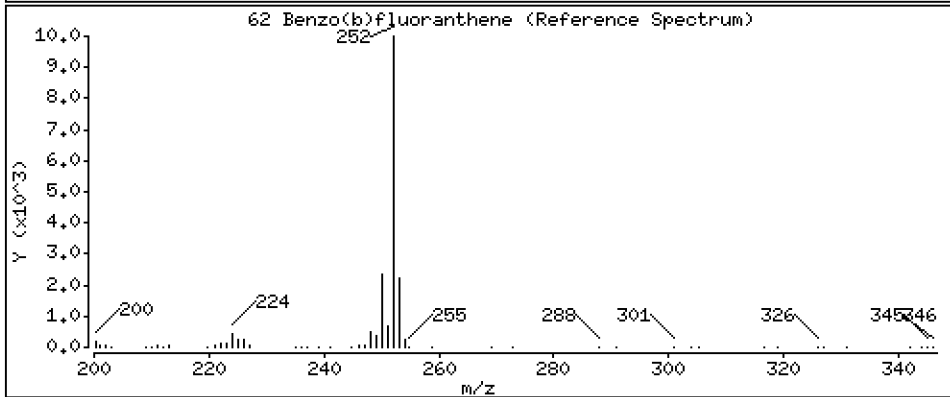
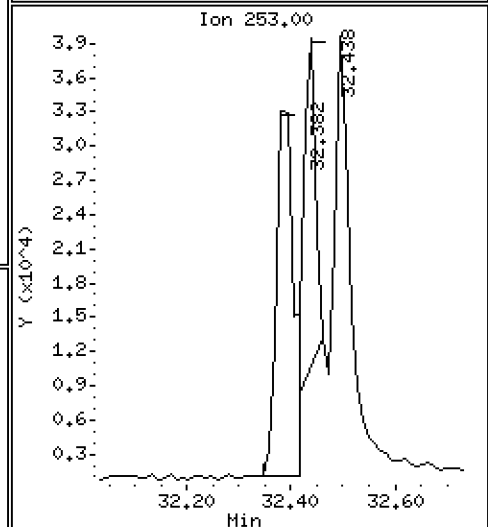
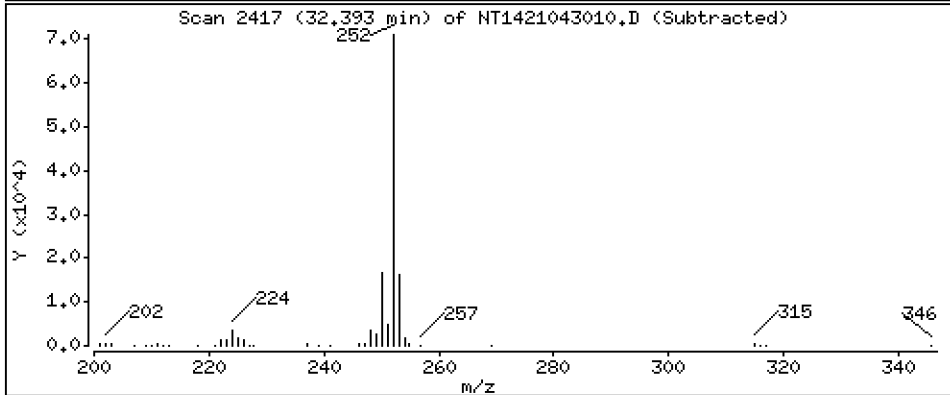
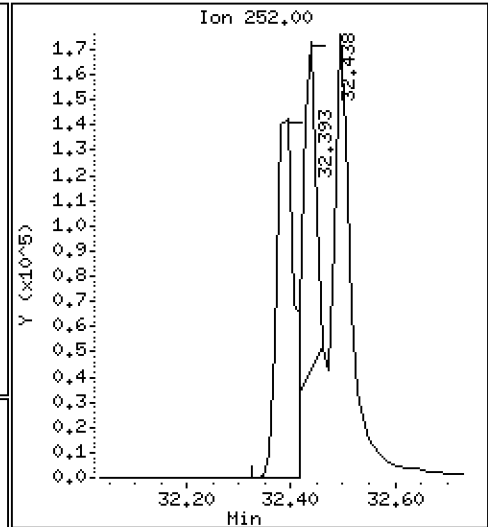
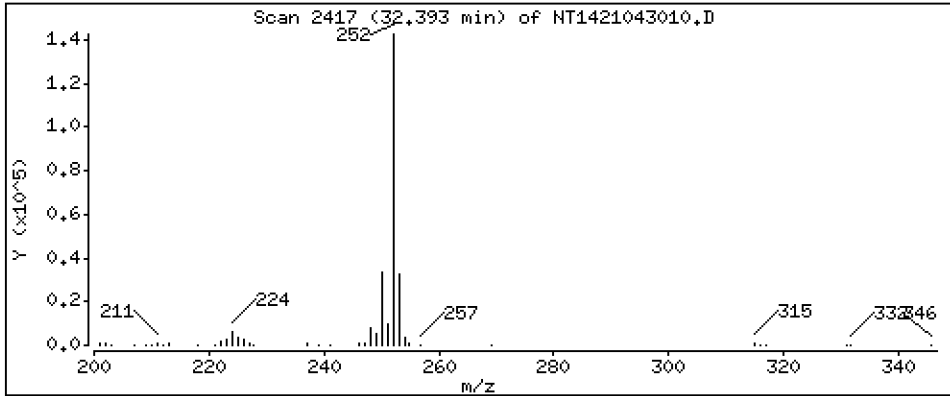
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

62 Benzo(b)fluoranthene

Concentration: 2,326 ug/mL



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Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

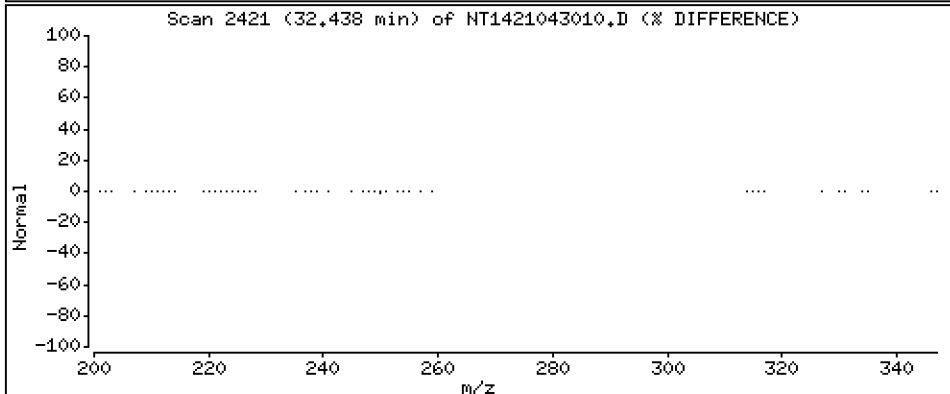
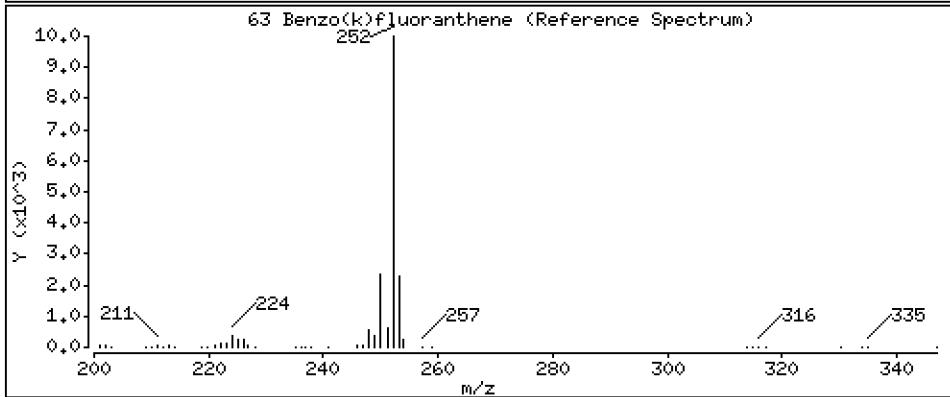
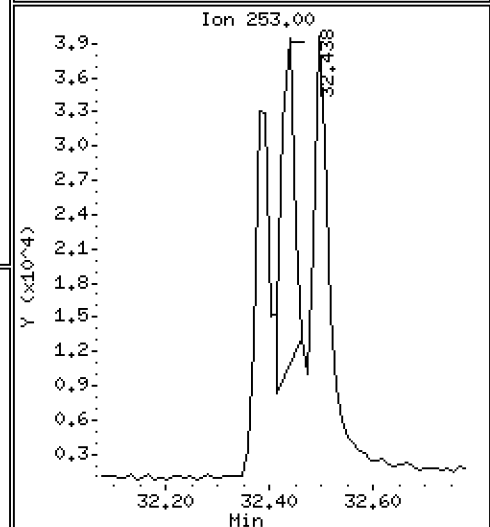
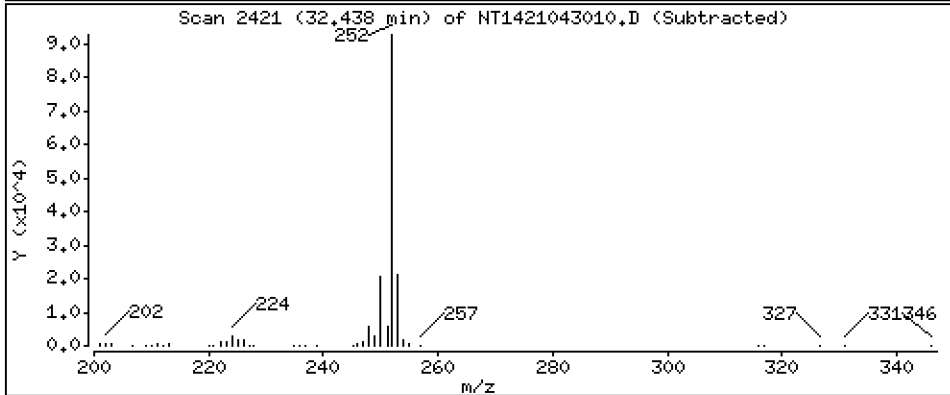
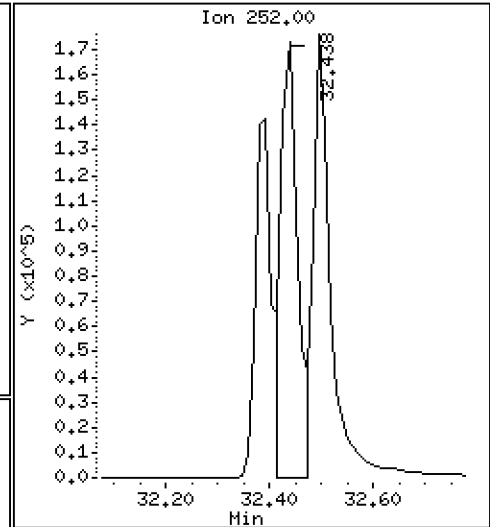
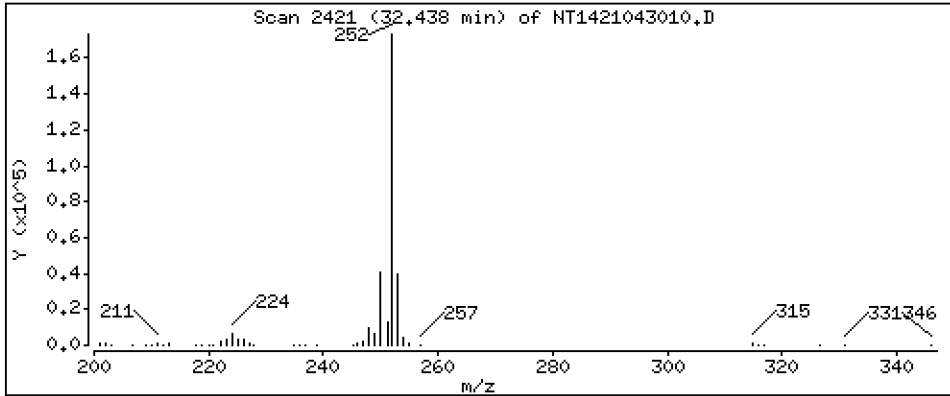
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

63 Benzo(k)fluoranthene

Concentration: 2,304 ug/mL



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Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

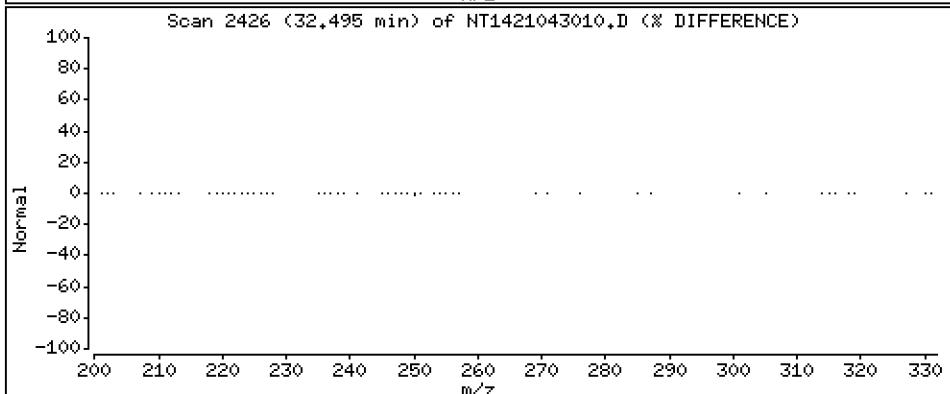
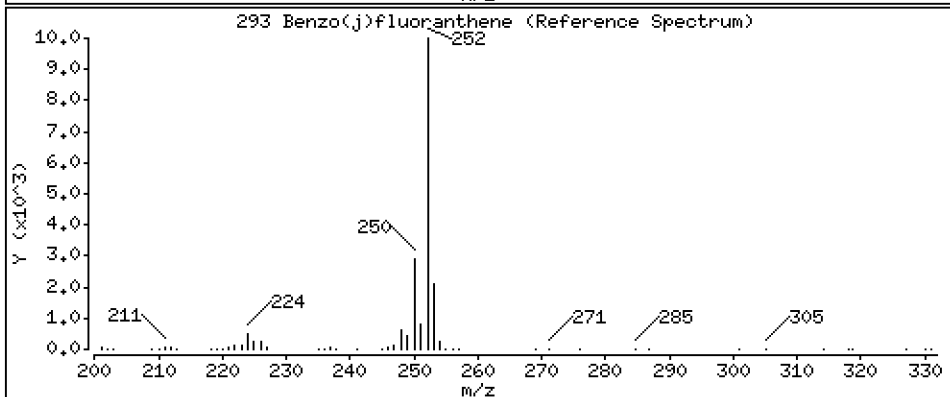
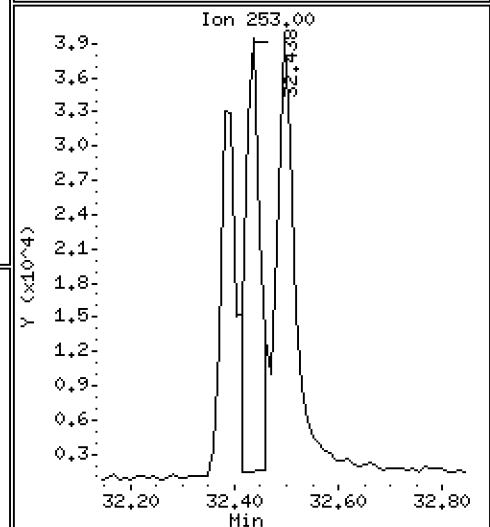
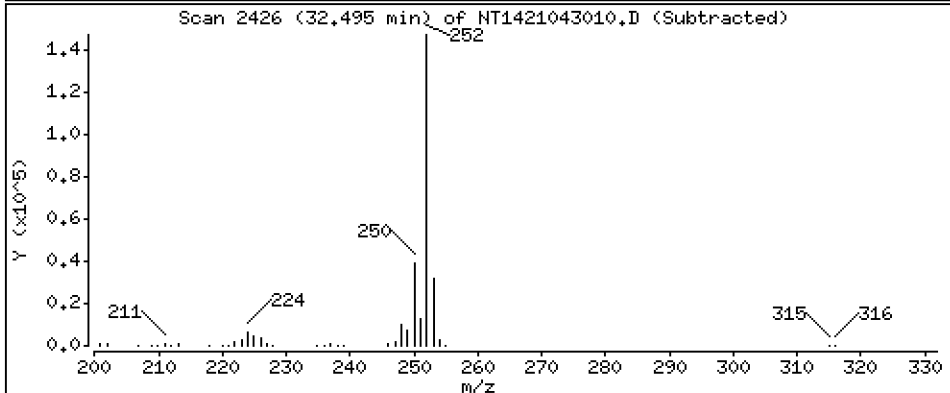
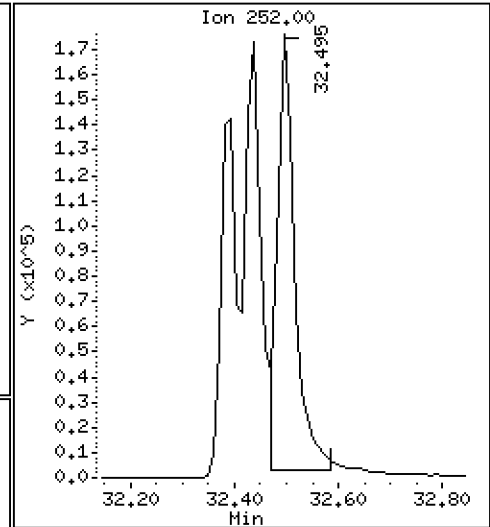
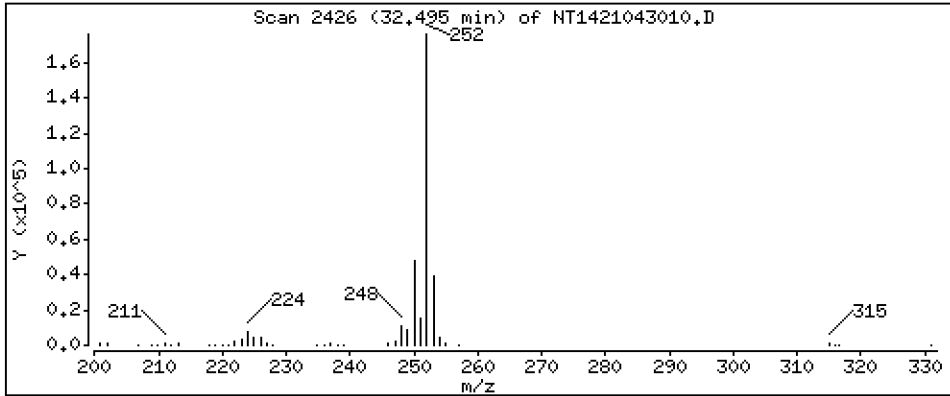
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

293 Benzo(j)fluoranthene

Concentration: 2,516 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

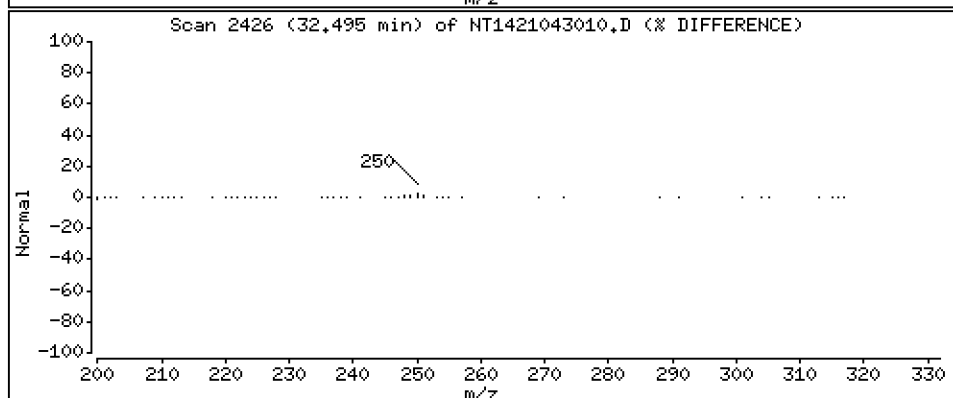
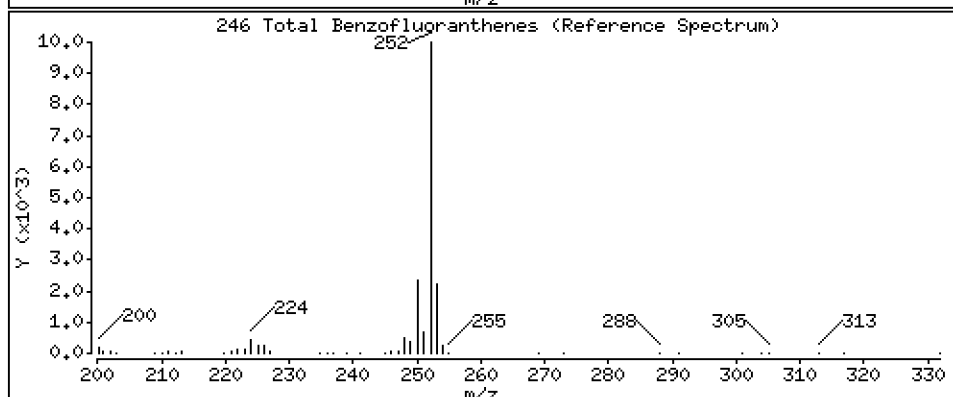
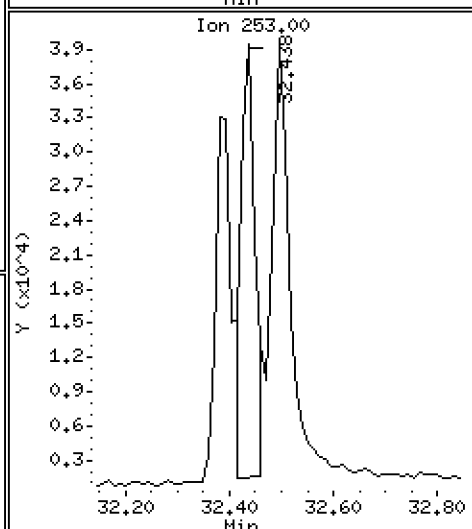
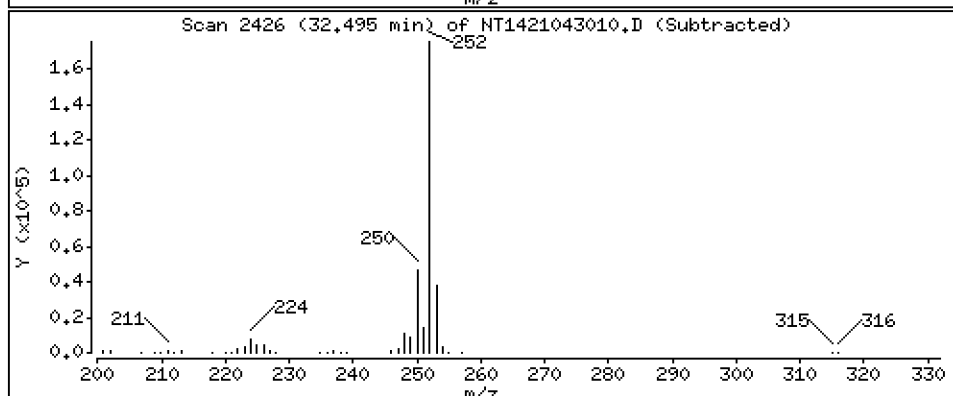
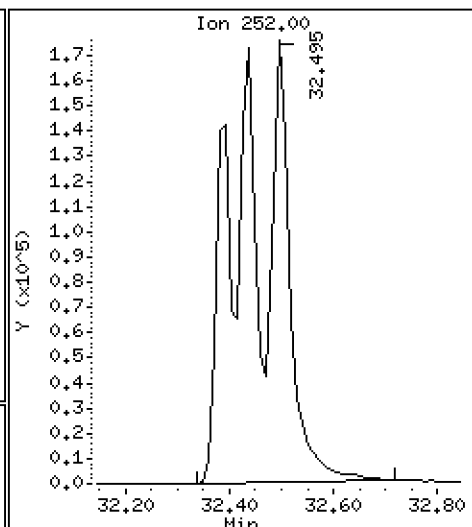
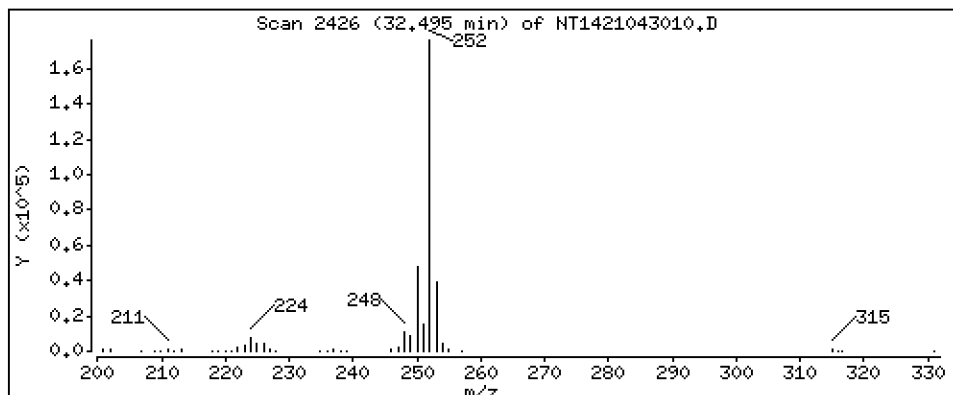
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

246 Total Benzofluoranthenes

Concentration: 6,960 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

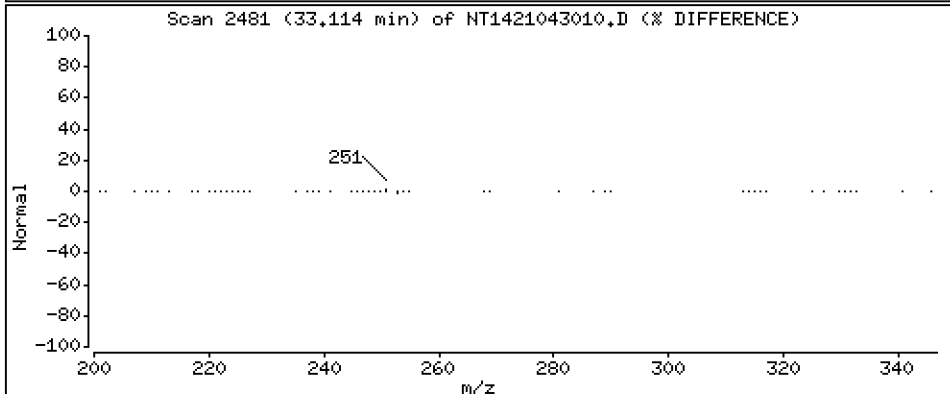
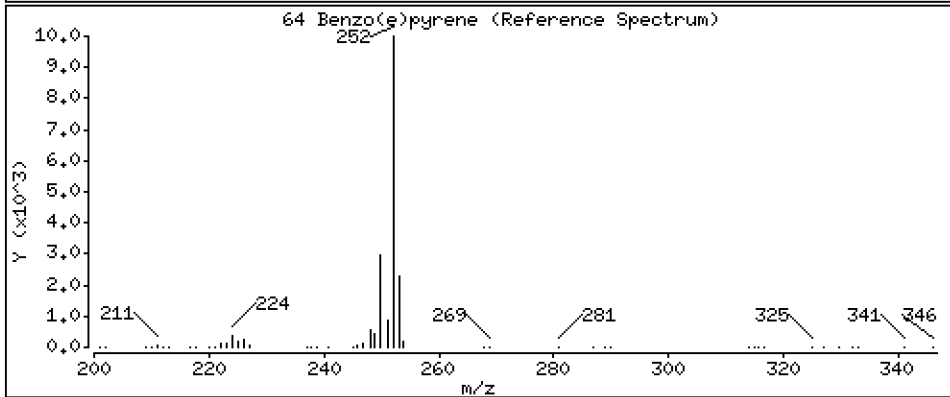
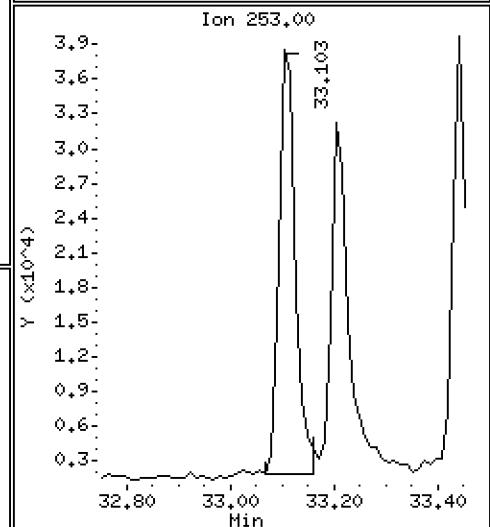
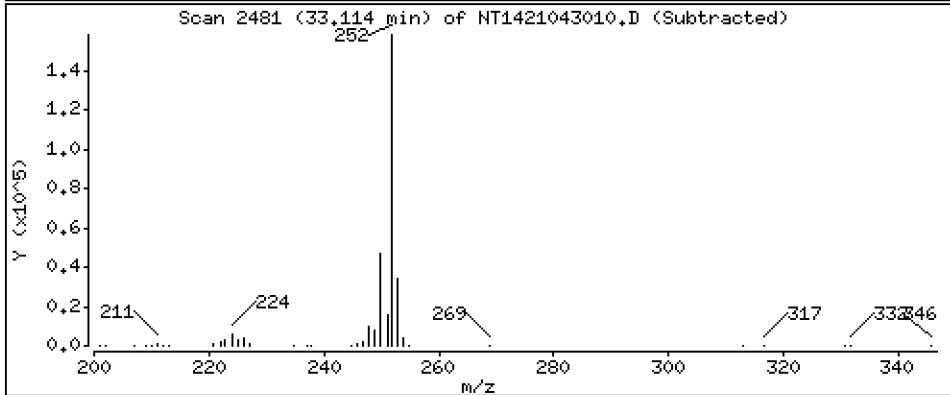
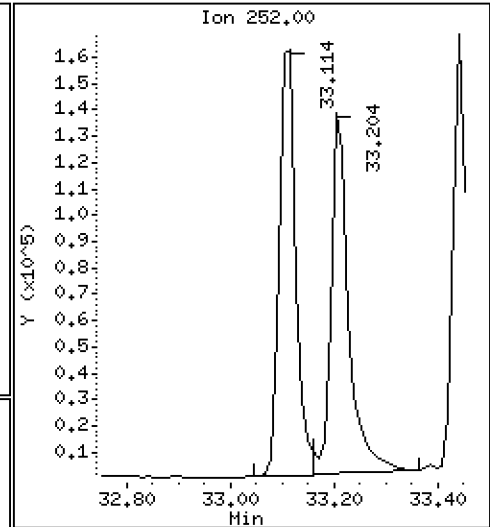
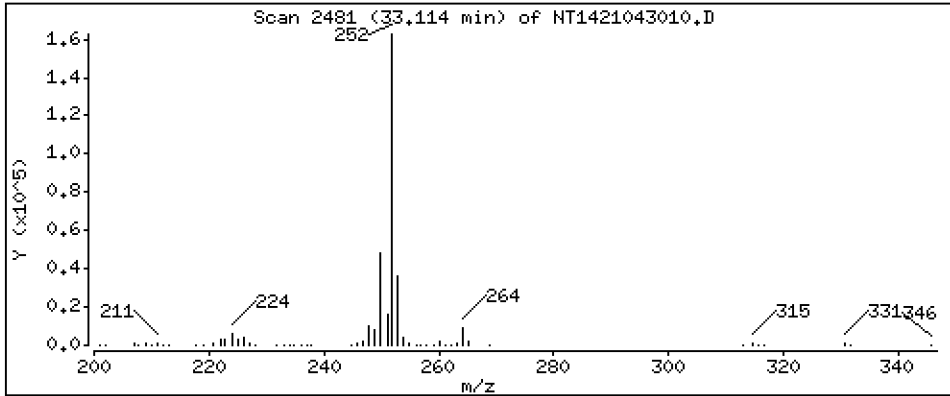
Operator: VTS

Column phase: Rxi-17Si1 MS

Column diameter: 0,25

64 Benzo(e)pyrene

Concentration: 2,454 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

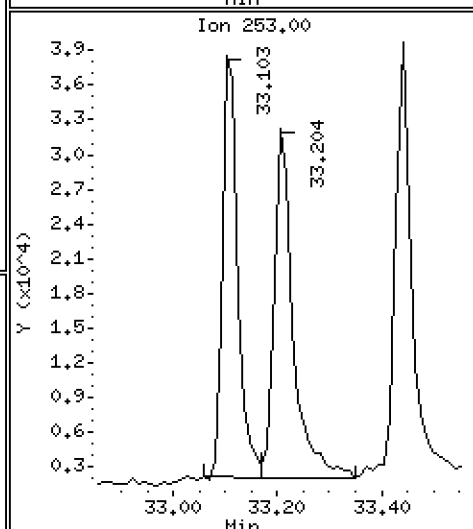
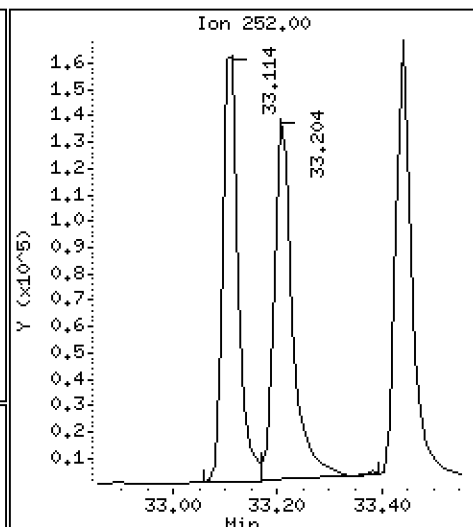
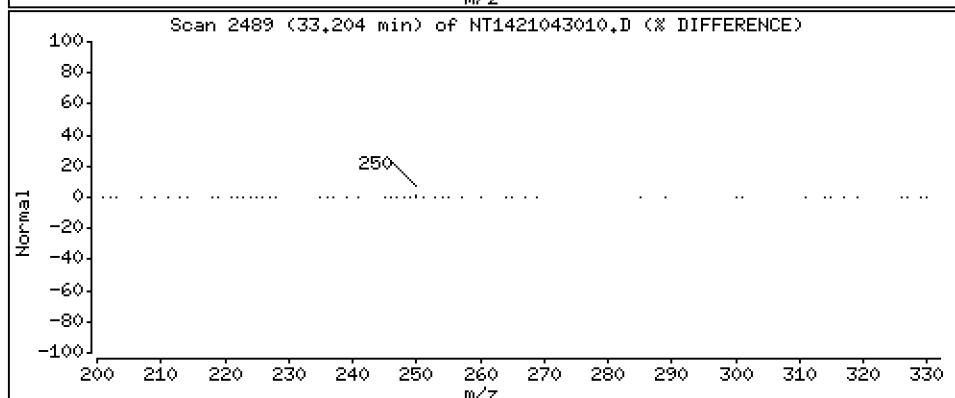
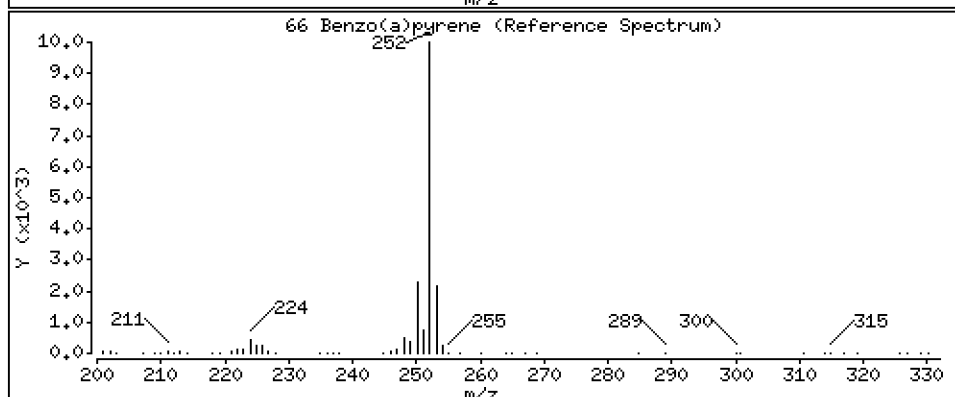
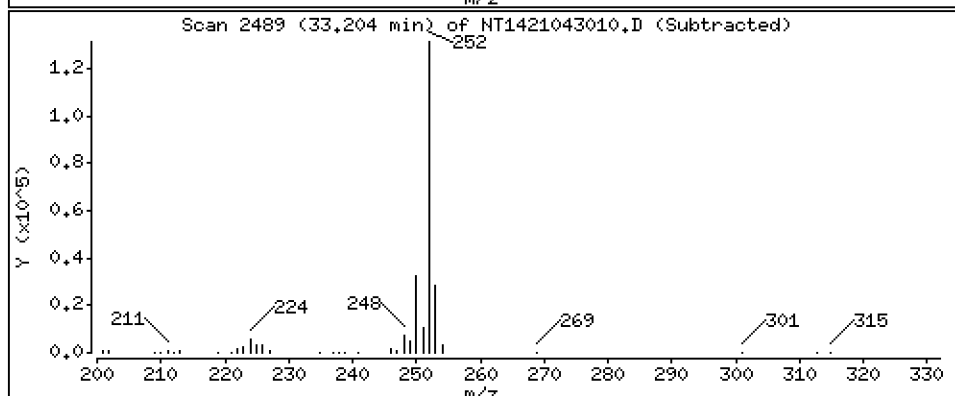
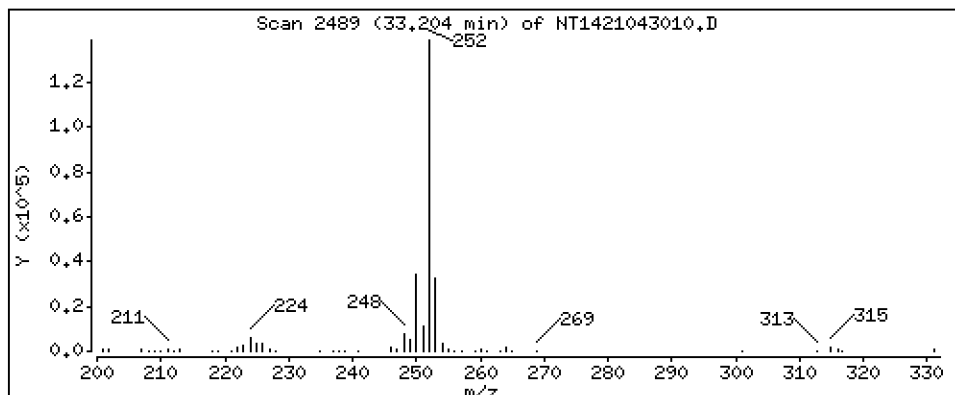
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

66 Benzo(a)pyrene

Concentration: 2,211 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

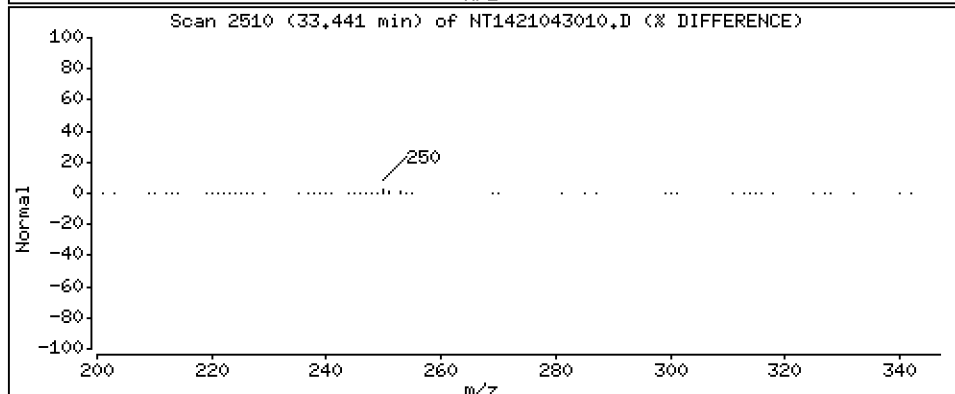
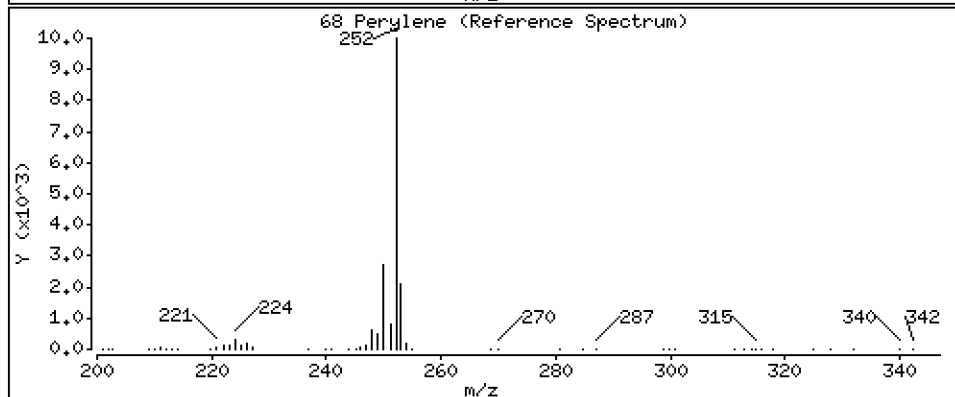
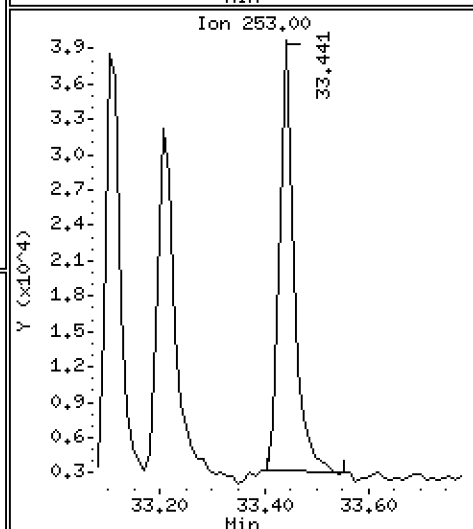
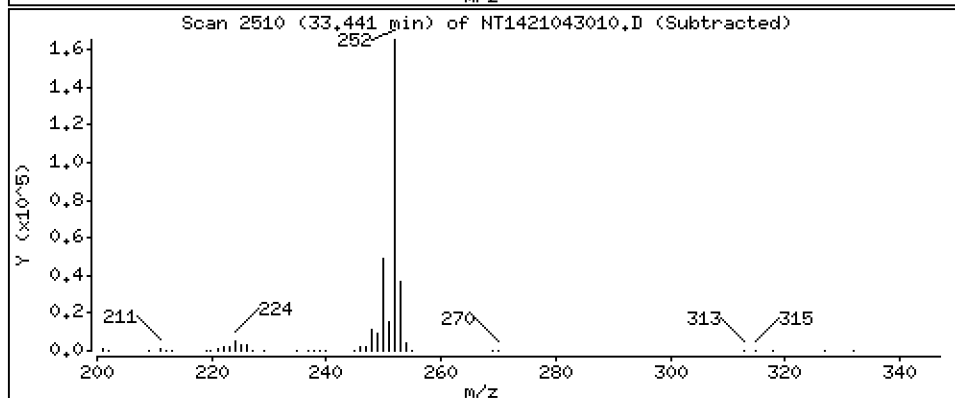
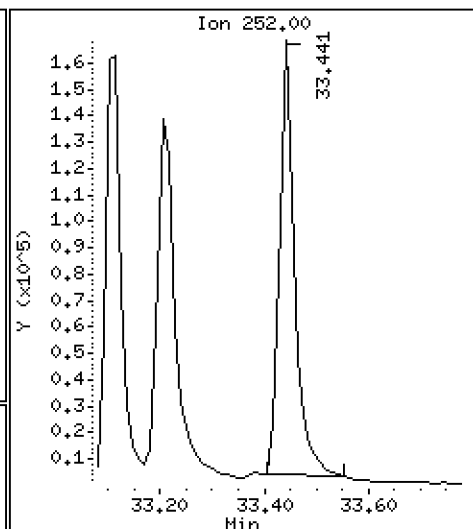
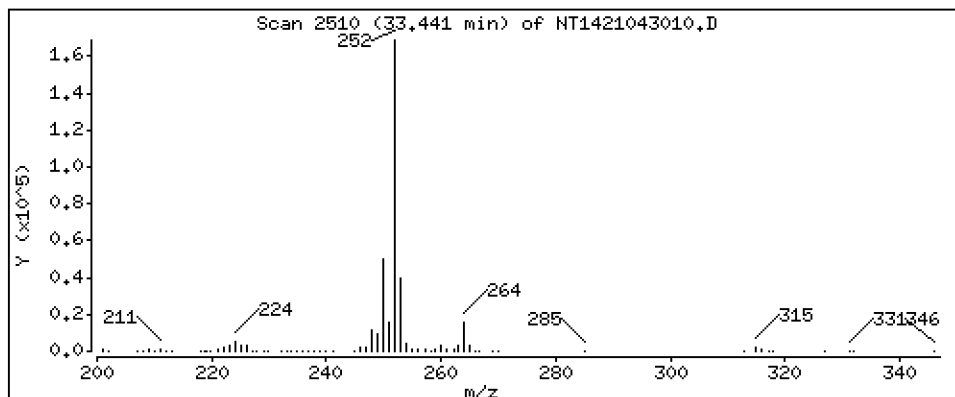
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

68 Perylene

Concentration: 2,415 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

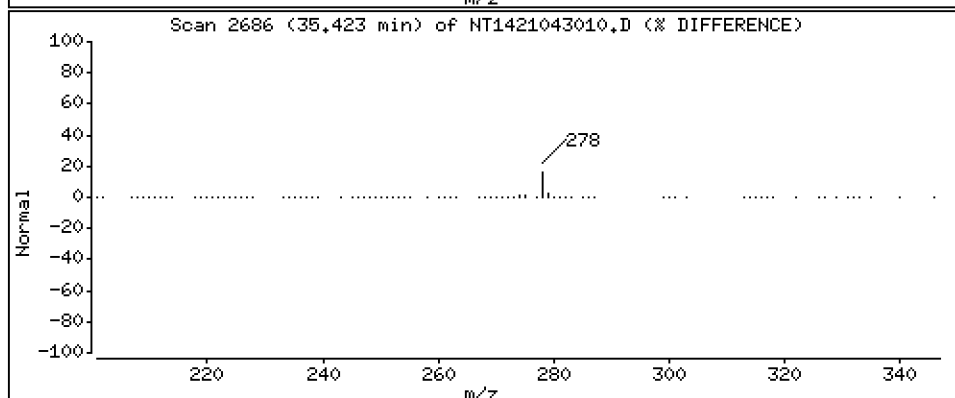
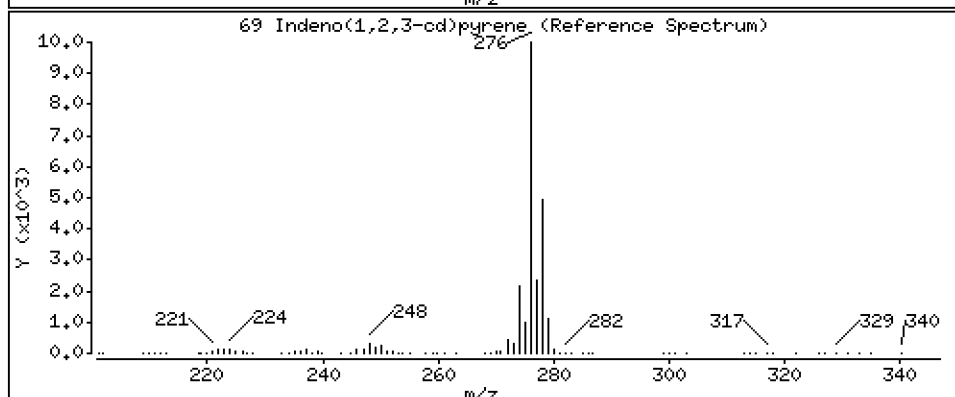
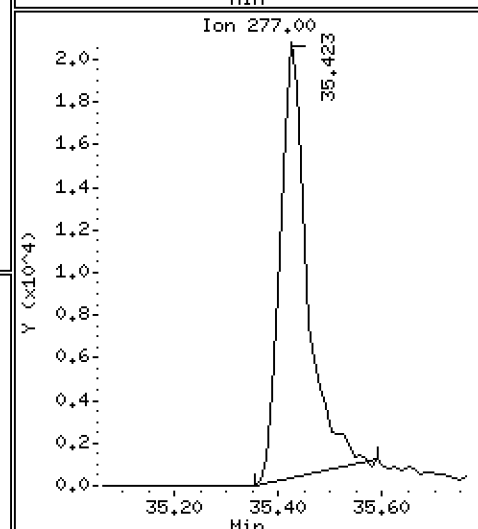
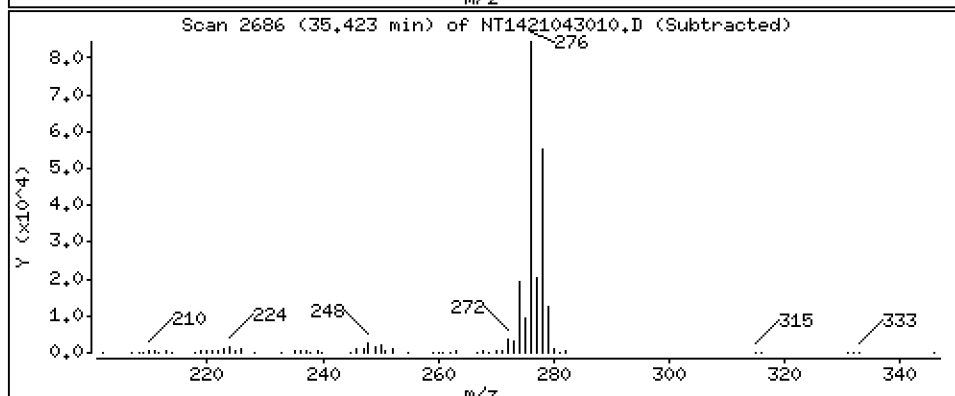
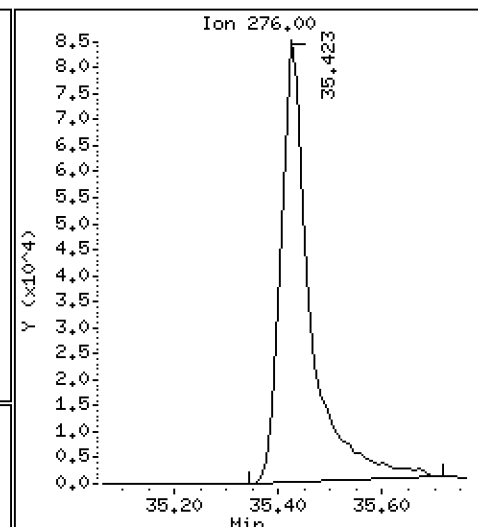
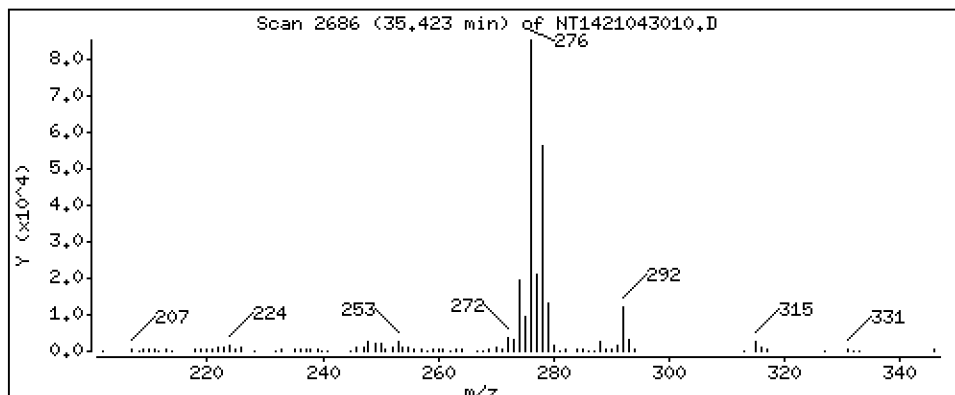
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

69 Indeno(1,2,3-cd)pyrene

Concentration: 2,236 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

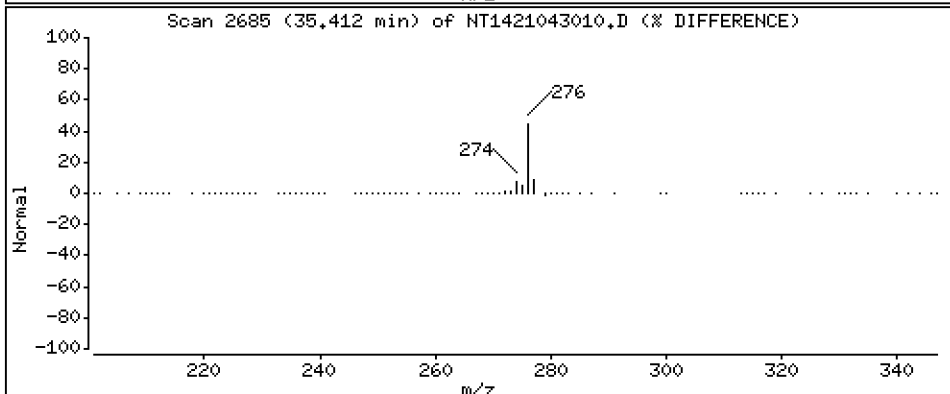
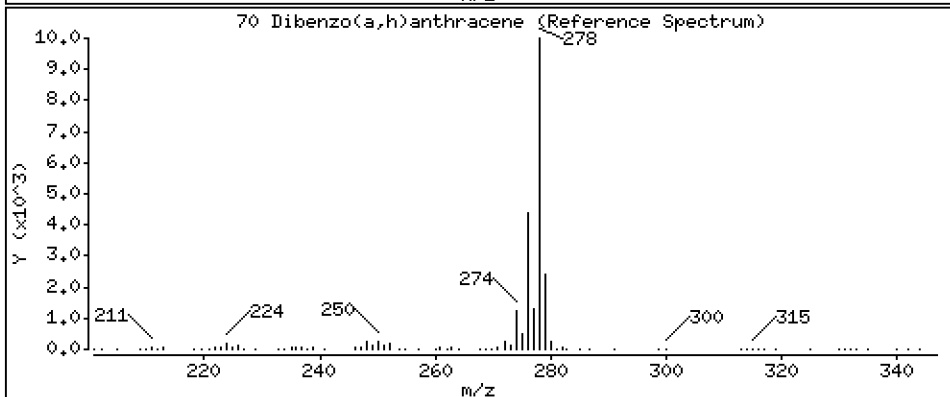
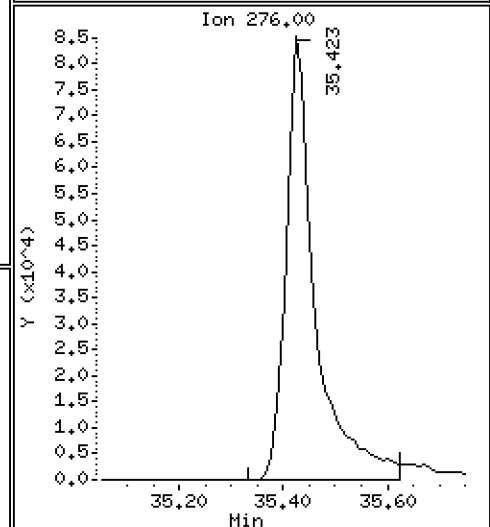
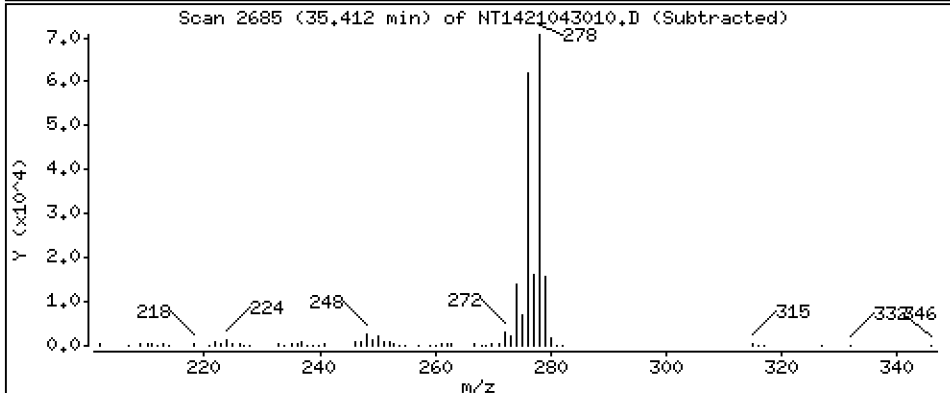
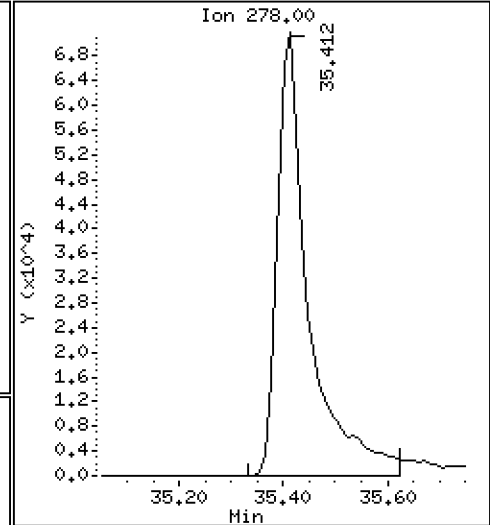
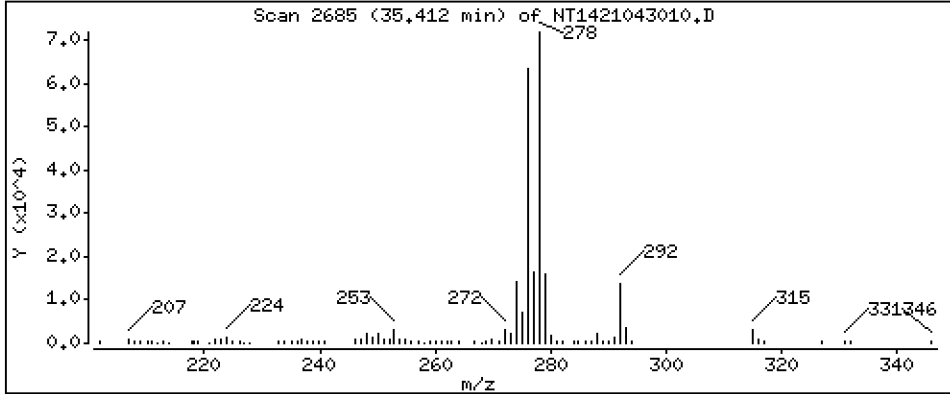
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

70 Dibenzo(a,h)anthracene

Concentration: 2,291 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

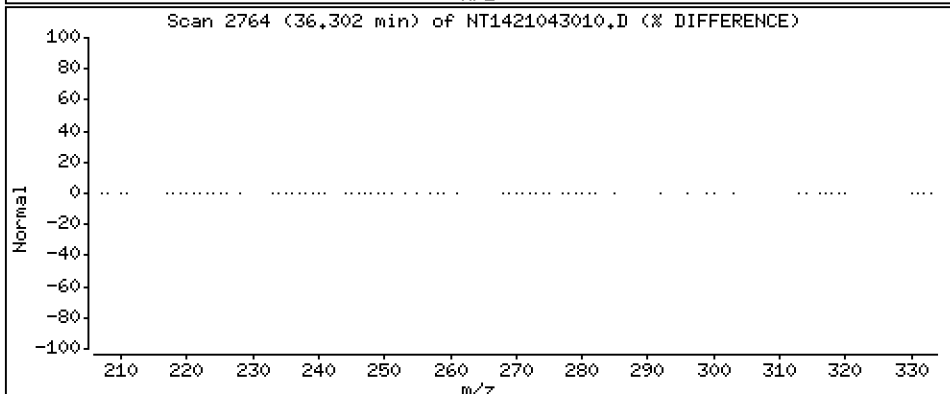
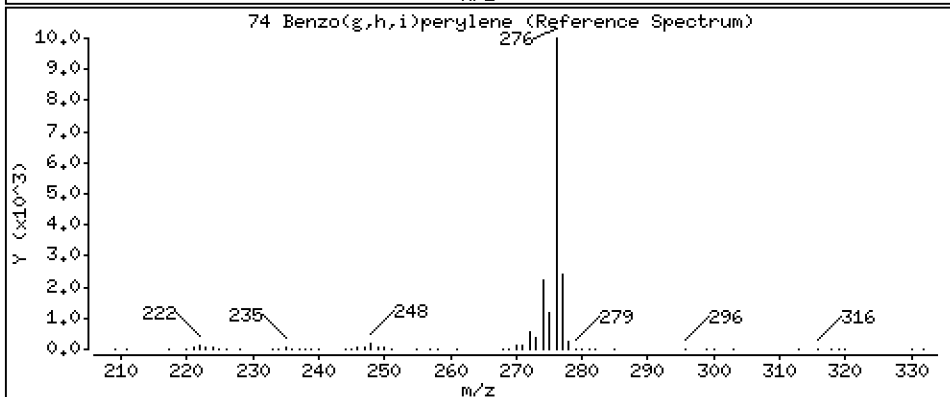
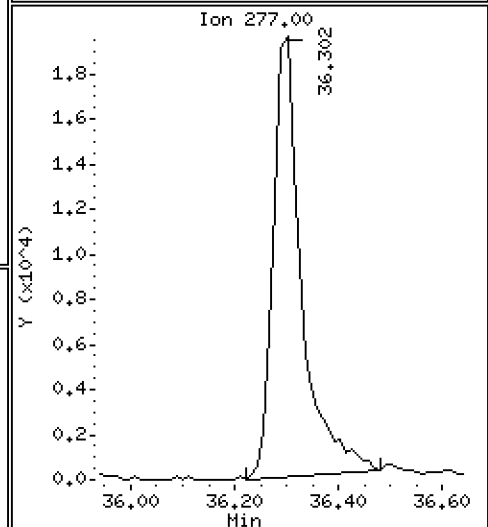
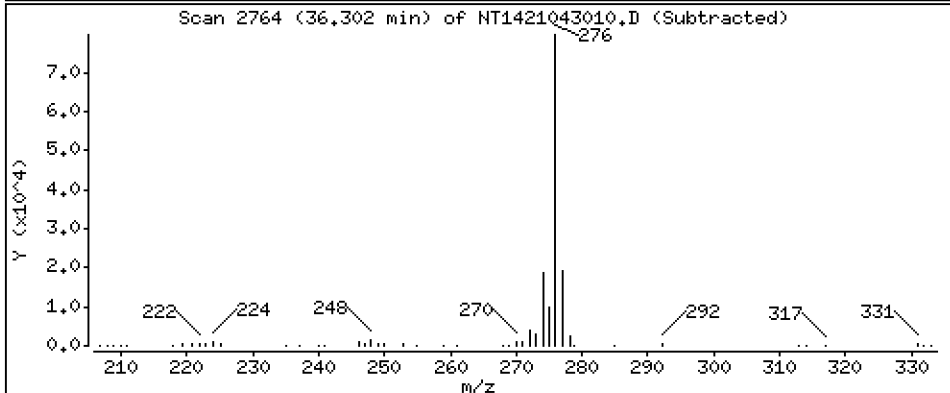
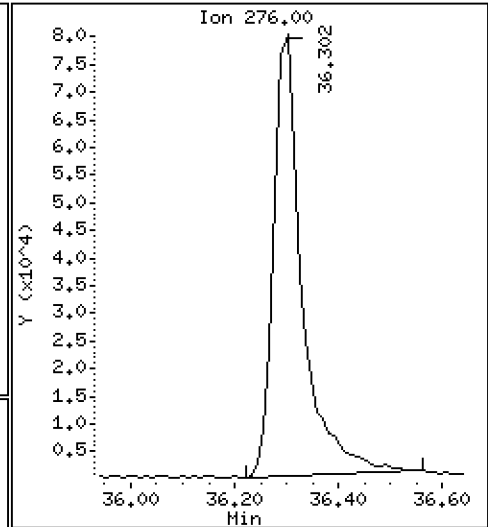
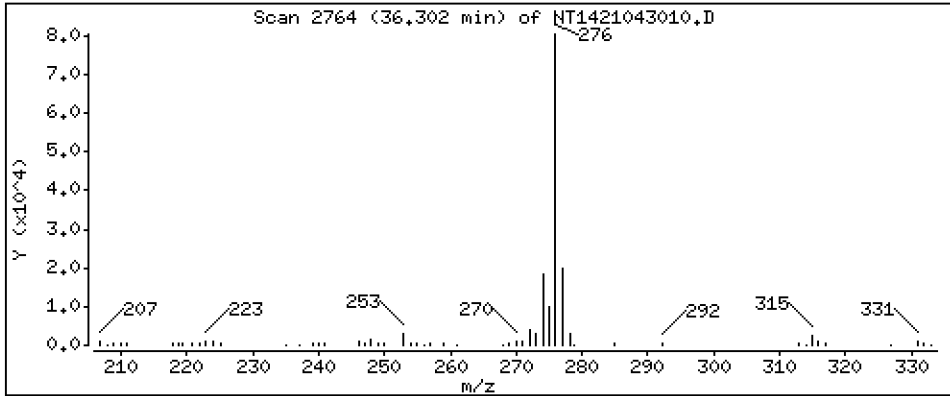
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

74 Benzo(g,h,i)perylene

Concentration: 2,352 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D
 Lab Smp Id: SJD0305-SCV1
 Inj Date : 30-APR-2021 14:41
 Operator : VTS
 Smp Info : SJD0305-SCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Meth Date : 01-May-2021 07:40 van
 Cal Date : 30-APR-2021 13:32
 Als bottle: 9
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-202011

Inst ID: nt14.i
 Quant Type: ISTD
 Cal File: NT1421043009.D
 Compound Sublist: TARGETS.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
							ON-COLUMN (ug/mL)	FINAL (ug/mL)	
1 trans-Decalin	138		7.045	7.035	(0.375)	74342	2.84314	2.843	
2 cis-Decalin	138		8.155	8.165	(0.434)	52523	2.90966	2.910	
\$ 6 Naphthalene-d8	136		11.776	11.776	(0.627)	604964	2.98636	2.986 (R)	
7 Naphthalene	128		11.836	11.846	(0.630)	573337	2.78250	2.783	
12 Benzo(b)thiophene	134		12.295	12.295	(0.655)	456850	2.78683	2.787	
16 2-Methylnaphthalene	141		13.680	13.680	(0.728)	312811	2.84483	2.845	
17 1-methylnaphthalene	141		14.131	14.131	(0.752)	293934	2.82127	2.821	
18 Biphenyl	154		15.317	15.317	(0.815)	435061	2.76462	2.765	
19 2,6-Dimethylnaphthalene	156		15.394	15.394	(0.820)	305582	2.82199	2.822	
20 Acenaphthylene	152		16.955	16.955	(0.903)	492364	2.88930	2.889	
\$ 21 Acenaphthene-d10	164		17.252	17.241	(0.918)	298420	3.01695	3.017 (R)	
22 Acenaphthene	153		17.362	17.361	(0.924)	329675	3.01019	3.010	
23 Dibenzofuran	168		17.735	17.735	(0.944)	459290	2.76760	2.768	
24 1,6,7-Trimethylnaphthalene	170		17.966	17.966	(0.957)	277803	2.92320	2.923	
* 25 Fluorene-d10	176		18.783	18.781	(1.000)	351020	2.00000		
26 Fluorene	166		18.885	18.883	(1.005)	342973	2.84375	2.844	
30 Dibenzothiophene	184		21.796	21.794	(1.160)	423593	2.78230	2.782	
\$ 35 Phenanthrene-d10	188		22.104	22.102	(0.995)	446008	2.66948	2.669 (R)	
36 Phenanthrene	178		22.192	22.190	(0.999)	460265	2.46754	2.468	
* 250 Anthracene-d10	188		22.225	22.223	(1.000)	309177	2.00000		
37 Anthracene	178		22.291	22.289	(1.003)	428535	2.49230	2.492	
42 Carbazole	167		23.566	23.565	(1.060)	338612	2.34287	2.343	
43 1-Methylphenanthrene	192		24.017	24.015	(1.081)	293776	2.59400	2.594	
44 Fluoranthene	202		25.996	25.994	(1.170)	436345	2.63403	2.634	
46 Pyrene	202		26.843	26.841	(1.208)	433716	2.52654	2.527	
51 Naphthobenzothiophene	234		Compound Not Detected.						
55 Benzo(a)anthracene	228		29.971	29.964	(0.907)	342259	2.27793	2.278	
\$ 56 Chrysene-d12	240		30.095	30.087	(0.911)	337659	2.82827	2.828 (RM)	
57 Chrysene	228		30.163	30.166	(0.913)	394981	2.57401	2.574	
62 Benzo(b)fluoranthene	252		32.393	32.386	(0.980)	324344	2.32564	2.326	
63 Benzo(k)fluoranthene	252		32.438	32.430	(0.982)	391530	2.30379	2.304 (M)	
293 Benzo(j)fluoranthene	252		32.494	32.498	(0.983)	393189	2.51567	2.516 (M)	
246 Total Benzofluoranthenes	252		32.494	32.497	(0.983)	1066161	6.96004	6.960 (M)	

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.046	33.050	(1.000)	328565	2.00000	
64 Benzo(e)pyrene	252	33.114	33.106	(1.002)	343391	2.45382	2.454
66 Benzo(a)pyrene	252	33.204	33.208	(1.005)	317871	2.21084	2.211
\$ 67 Perylene-d12	264	33.384	33.388	(1.010)	320102	2.50514	2.505 (RM)
68 Perylene	252	33.440	33.433	(1.012)	322846	2.41544	2.415 (M)
69 Indeno(1,2,3-cd)pyrene	276	35.422	35.415	(1.072)	332125	2.23617	2.236 (M)
70 Dibenzo(a,h)anthracene	278	35.411	35.404	(1.072)	294257	2.29093	2.291
74 Benzo(g,h,i)perylene	276	36.301	36.293	(1.098)	296119	2.35214	2.352 (M)

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 30-APR-2021
 Lab File ID: NT1421043010.D Calibration Time: 07:56
 Lab Smp Id: SJD0305-SCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	420456	210228	840912	351020	-16.51
250 Anthracene-d10	381033	190517	762066	309177	-18.86
251 Benzo(e)pyrene-d1	370998	185499	741996	328565	-11.44

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.78	18.28	19.28	18.78	0.01
250 Anthracene-d10	22.22	21.72	22.72	22.23	0.01
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	-0.01

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.

REVIEW SUMMARY FOR FILE - NT1421043010.D

Lab ID: SJD0305-SCV1

nt14.i, 20210430.b\ALKYLPNA.m, 30-APR-2021 14:41

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

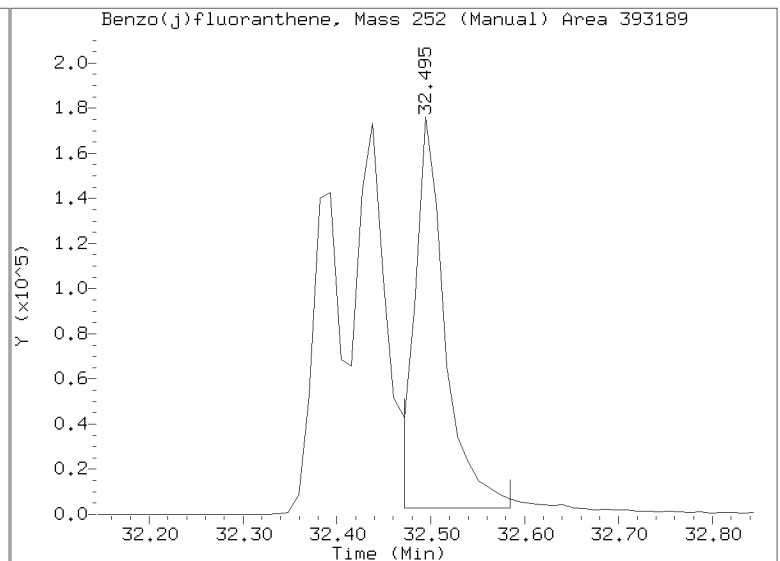
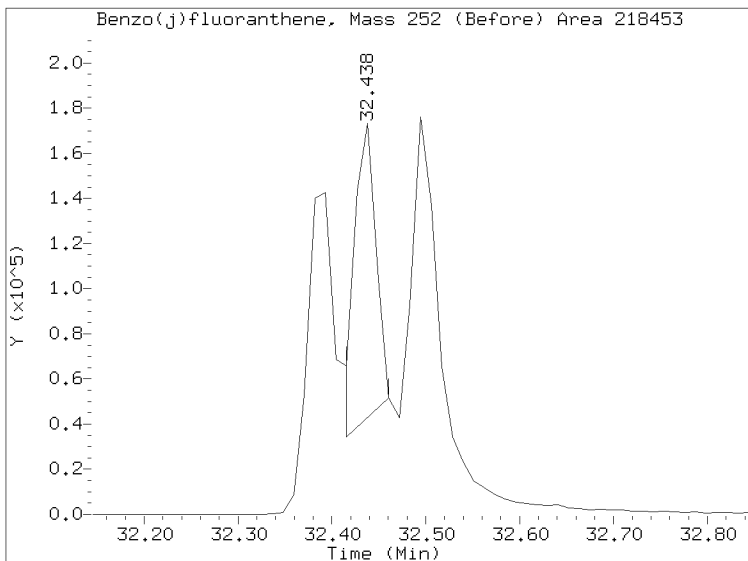
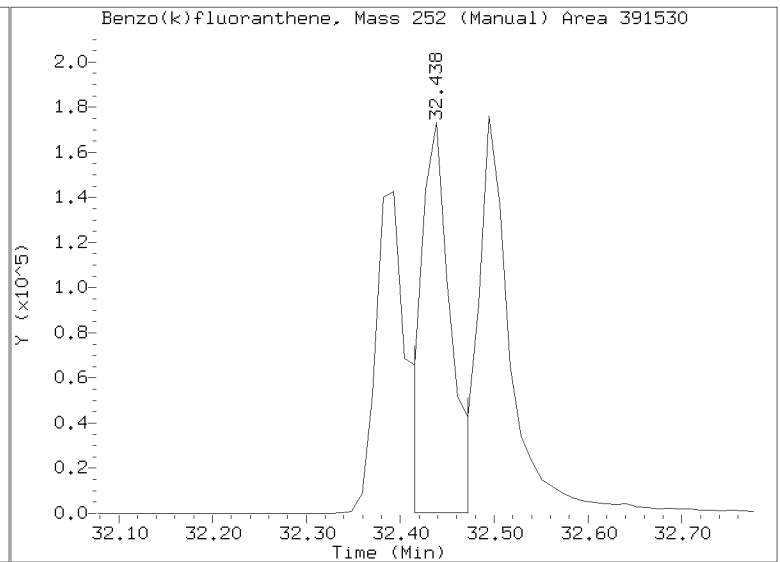
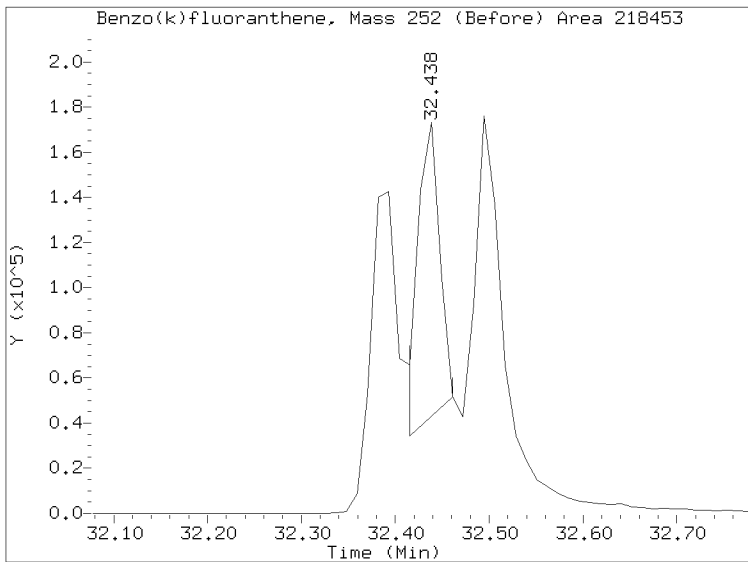
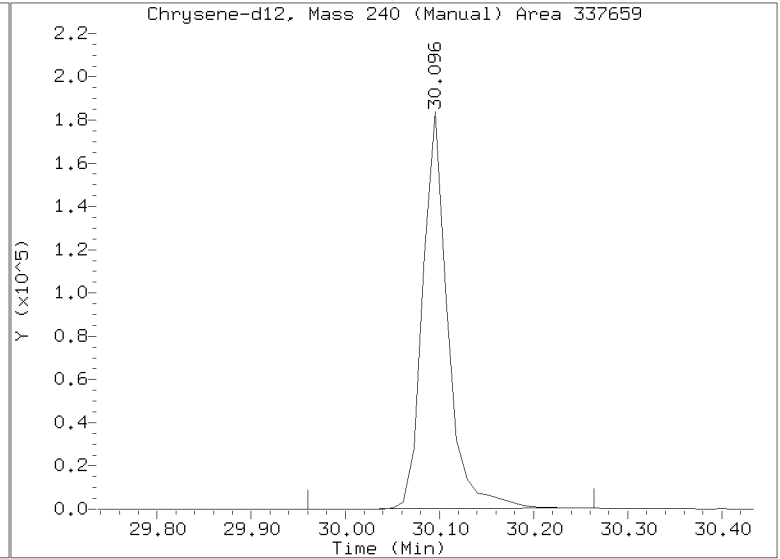
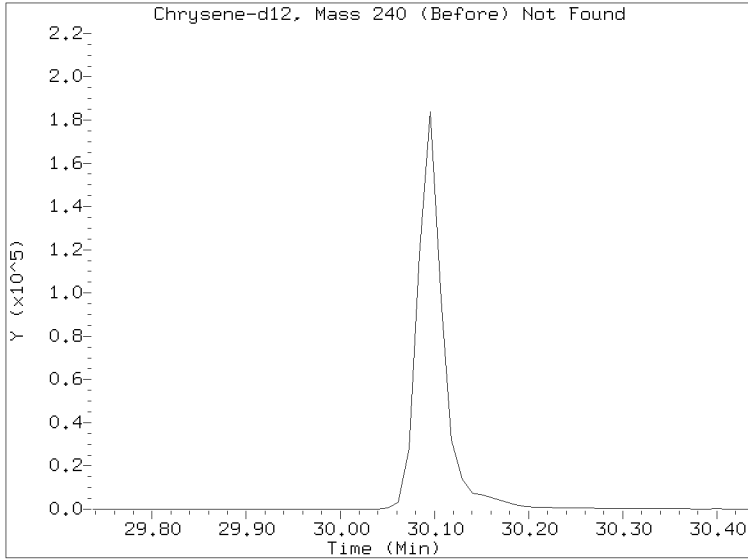
RRT check based on Ccal File: NT1421043009.D

On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

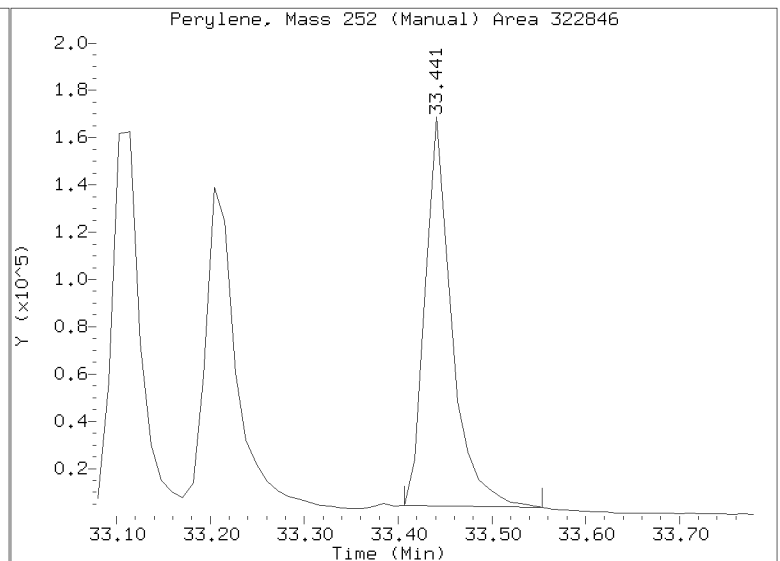
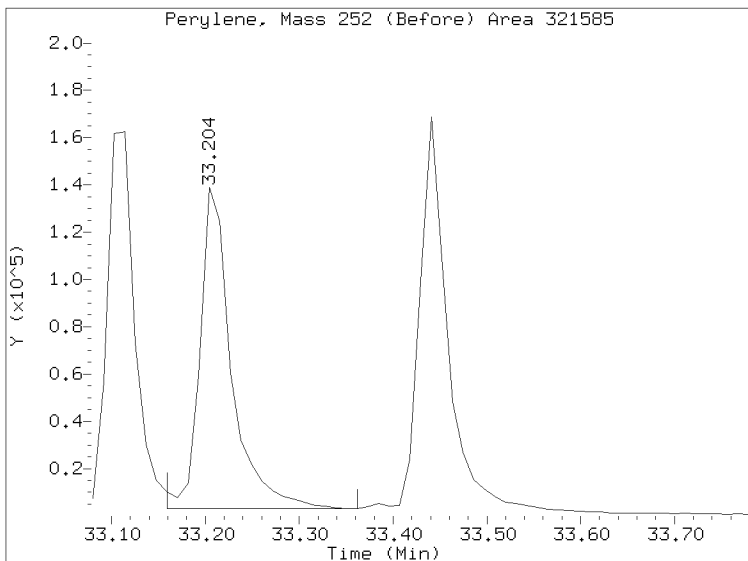
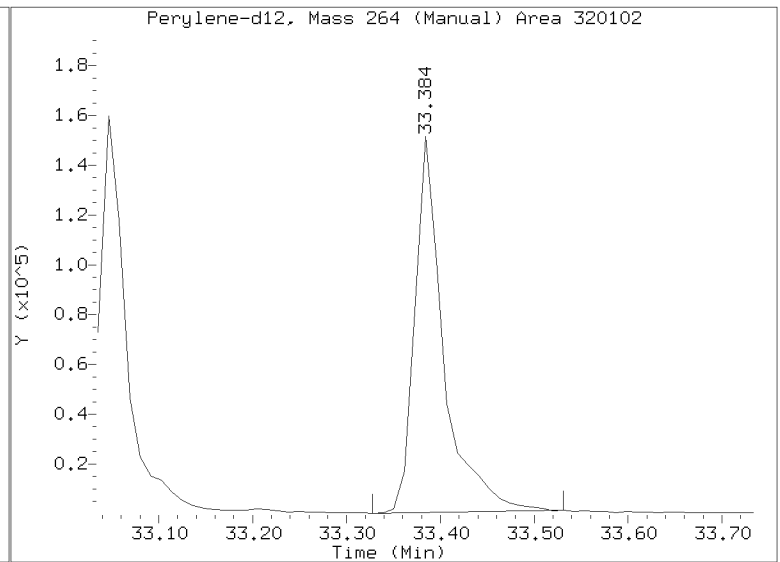
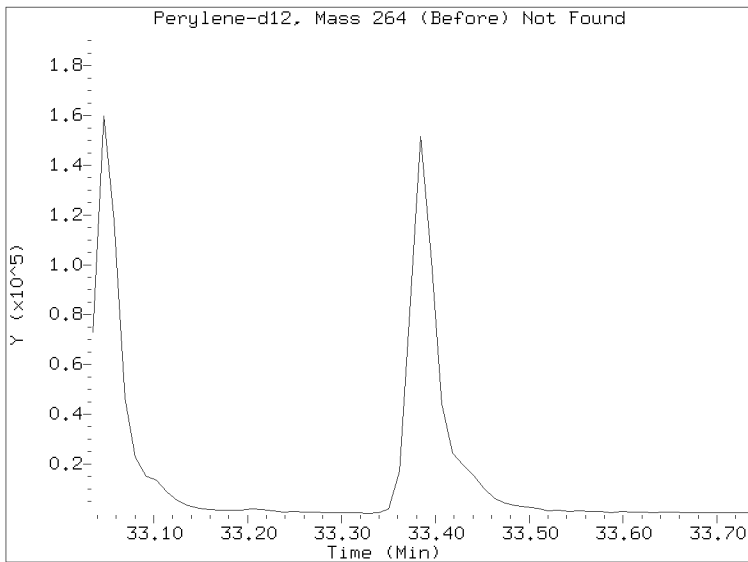
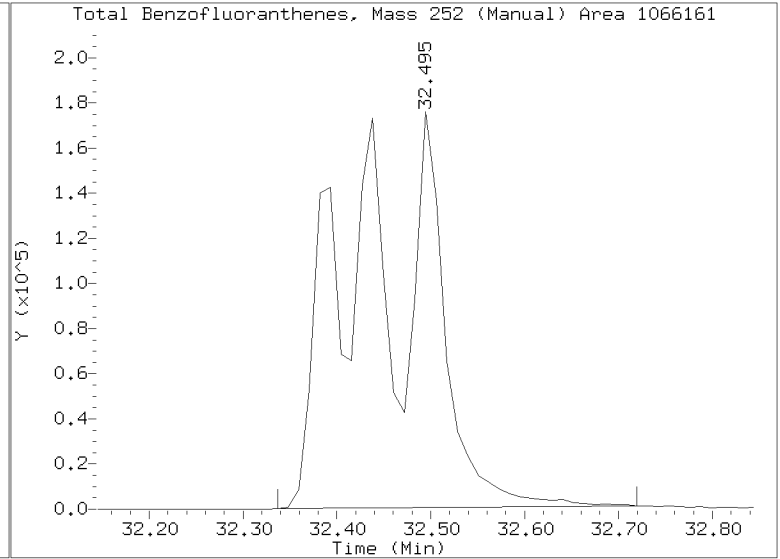
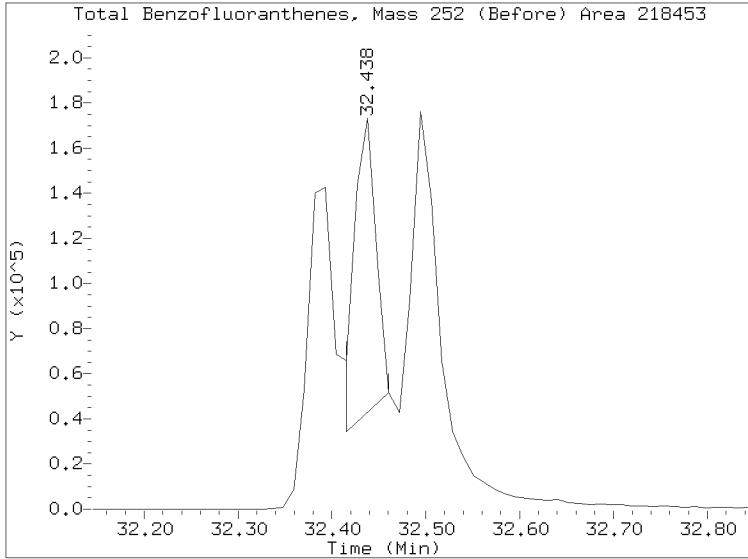
Quant Ion Manual Peak Adjustment Report

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Injection Date: 30-APR-2021 14:41
Lab ID: SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D
Injection Date: 30-APR-2021 14:41
Lab ID: SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18



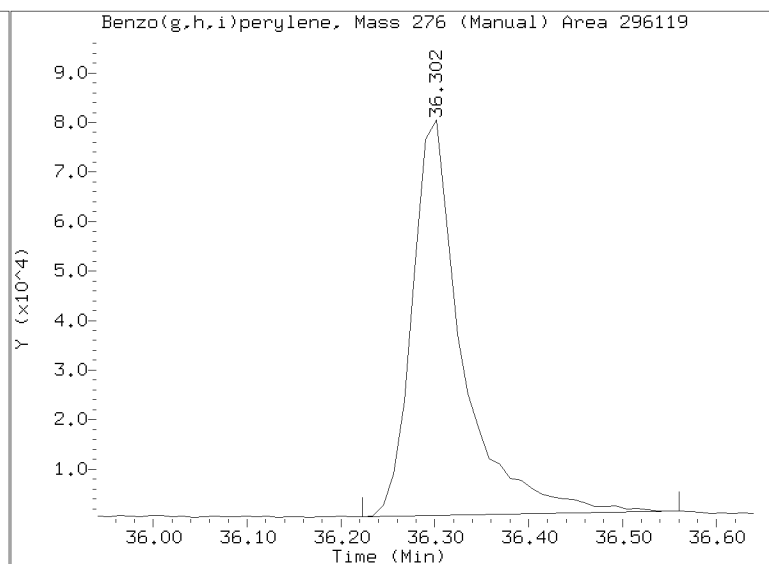
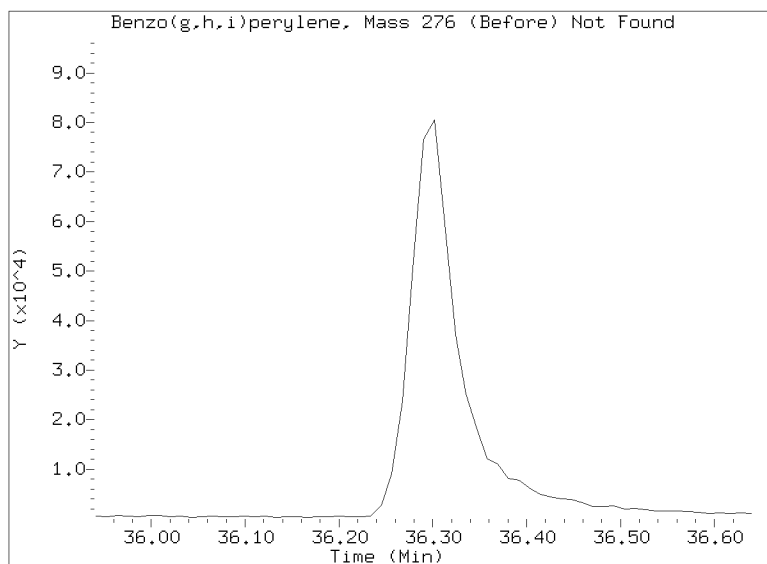
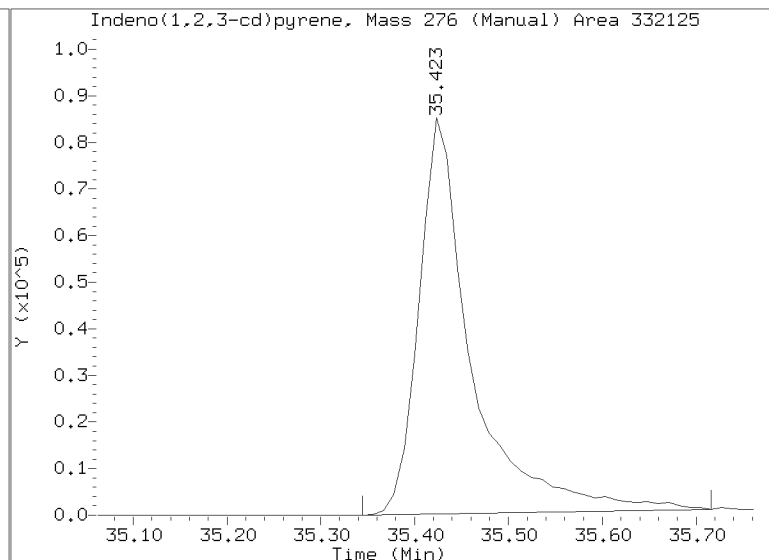
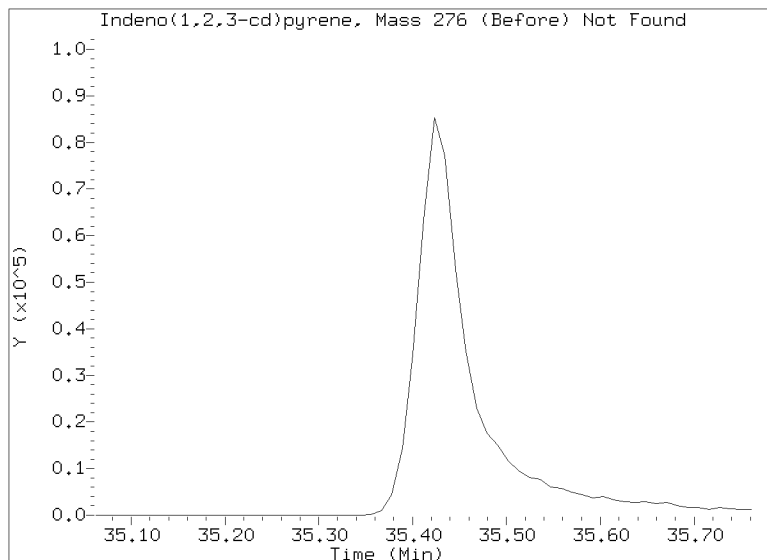
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D

Injection Date: 30-APR-2021 14:41

Lab ID: SJD0305-SCV1 Client ID:

Report Date: 05/01/2021 09:18





SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor QEA, LLC

Project: Gasco Siltronic - US Moorings

Calibration: DH00073

Laboratory ID: SIH0304-SCV1

Sequence: SIH0304

Standard ID: I004581

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Naphthalene	250.00	224	-10.2	20.00
Acenaphthylene	250.00	233	-6.7	20.00
Acenaphthene	250.00	222	-11.2	20.00
Fluorene	250.00	233	-6.6	20.00
Phenanthrene	250.00	233	-7.0	20.00
Anthracene	250.00	223	-11.0	20.00
Fluoranthene	250.00	236	-5.5	20.00
Pyrene	250.00	235	-6.0	20.00
Benzo(a)anthracene	250.00	223	-10.8	20.00
Chrysene	250.00	215	-13.9	20.00
Benzo(b)fluoranthene	250.00	212	-15.0	20.00
Benzo(k)fluoranthene	250.00	260	4.1	20.00
Benzofluoranthenes, Total	500.00	473	-5.5	
Benzo(a)pyrene	250.00	213	-14.8	20.00
Indeno(1,2,3-cd)pyrene	250.00	227	-9.3	20.00
Dibenzo(a,h)anthracene	250.00	192	-23.2 *	20.00
Benzo(g,h,i)perylene	250.00	214	-14.2	20.00

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.1\20200827.6\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Sample Info: SIH0304-SCV1

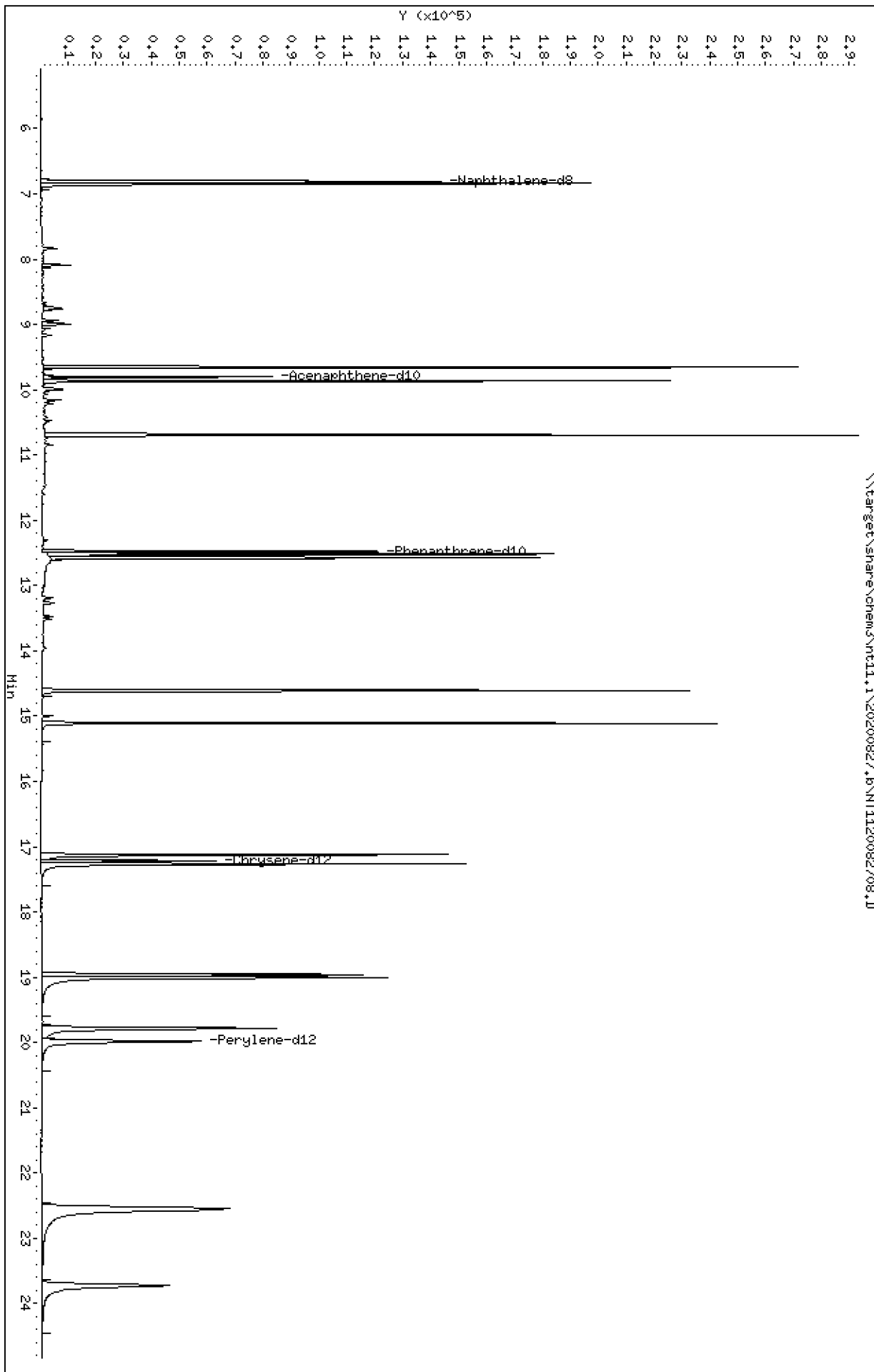
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

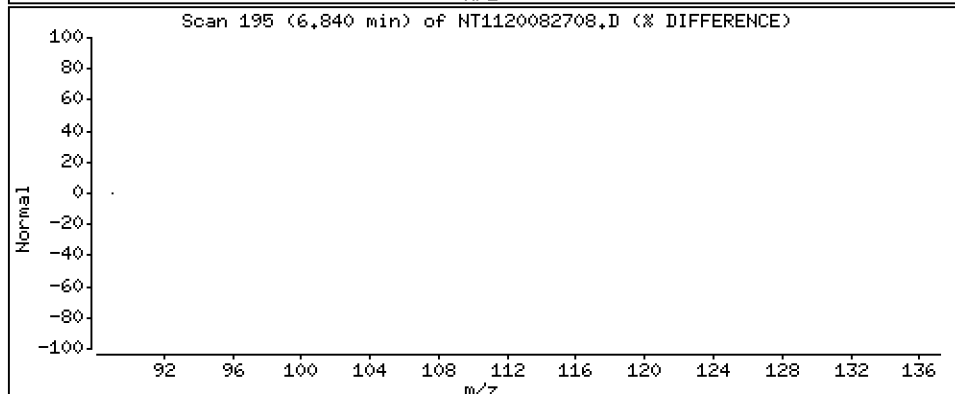
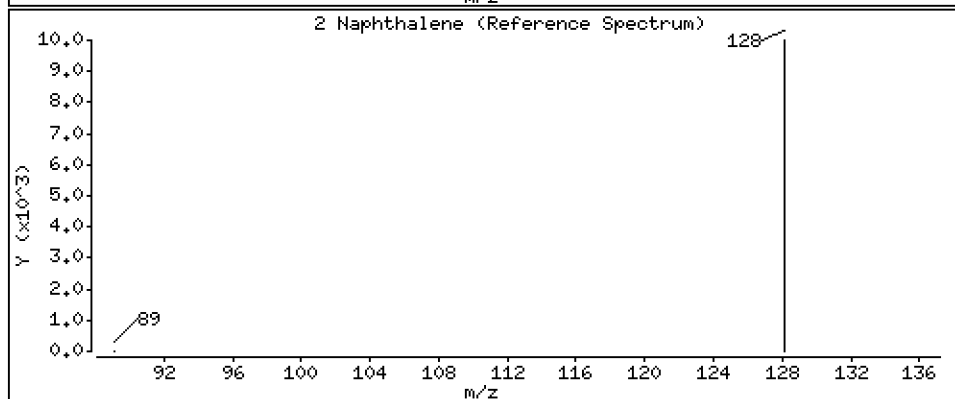
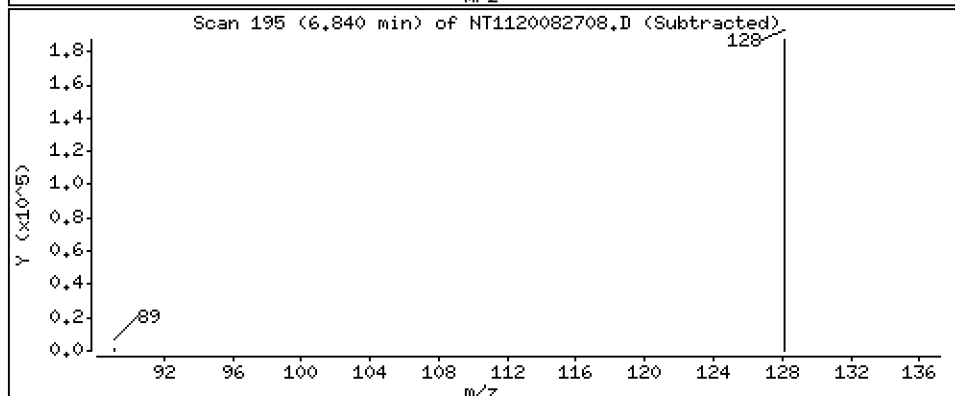
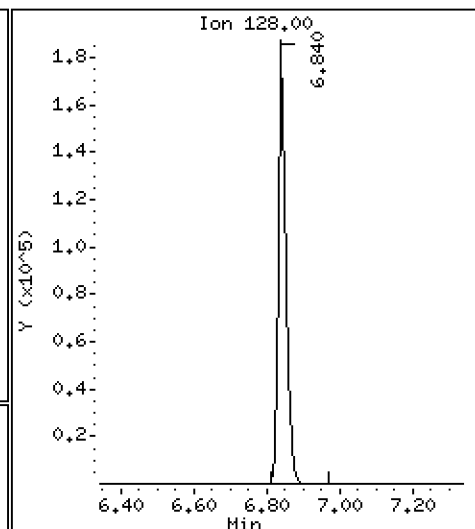
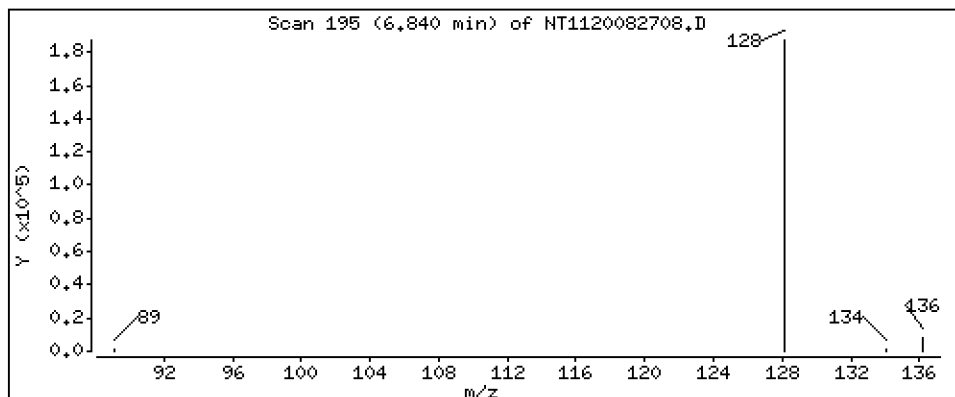
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 224 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

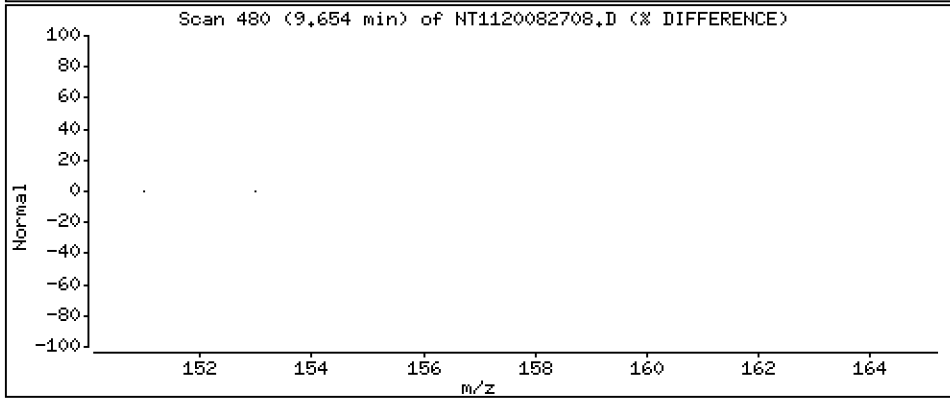
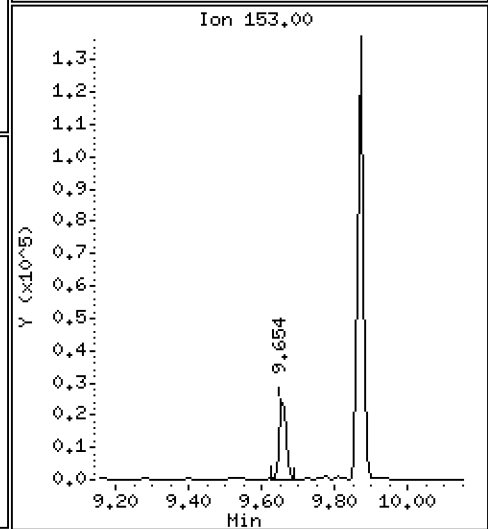
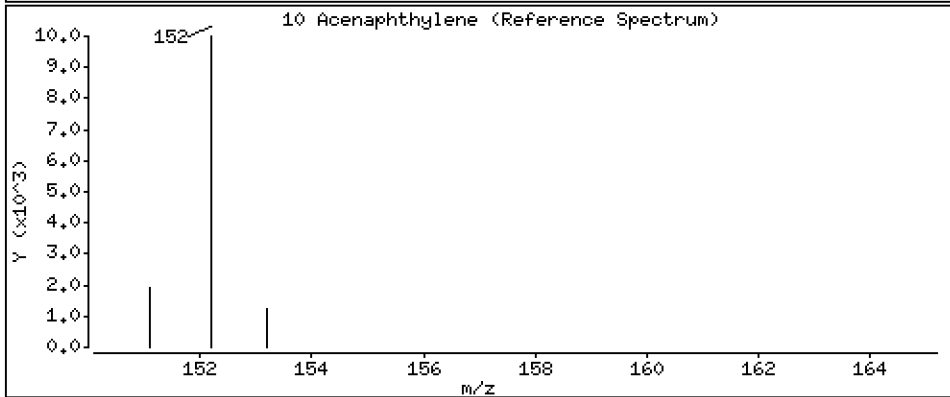
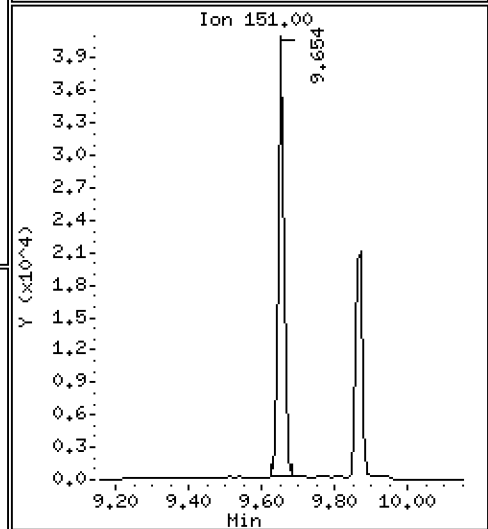
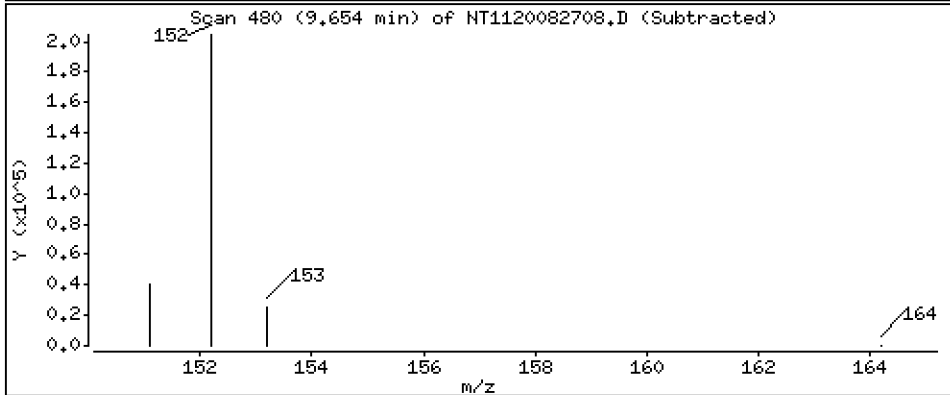
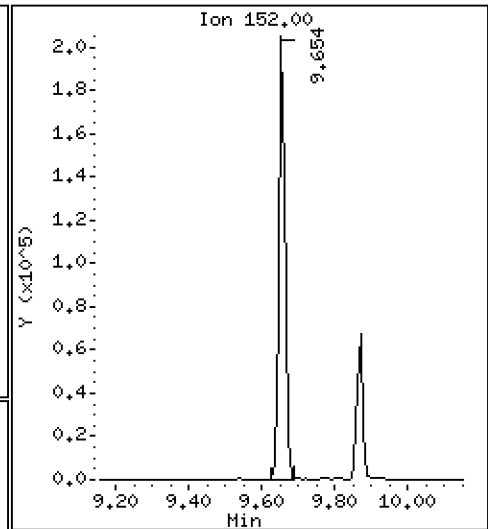
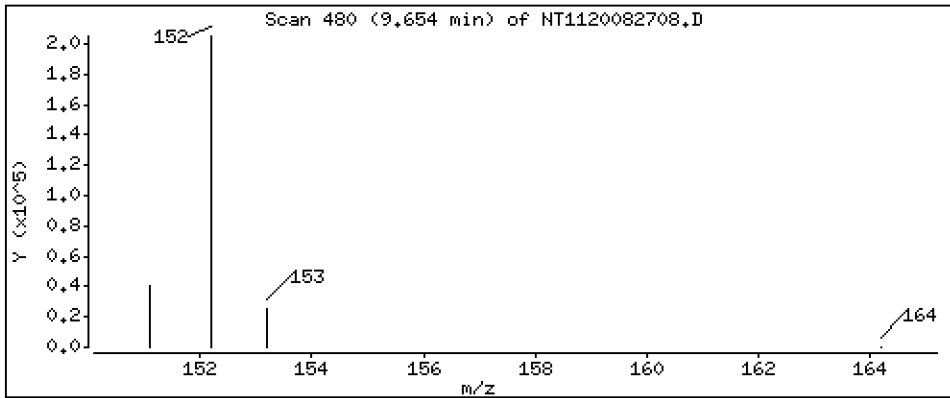
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

10 Acenaphthylene

Concentration: 233 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

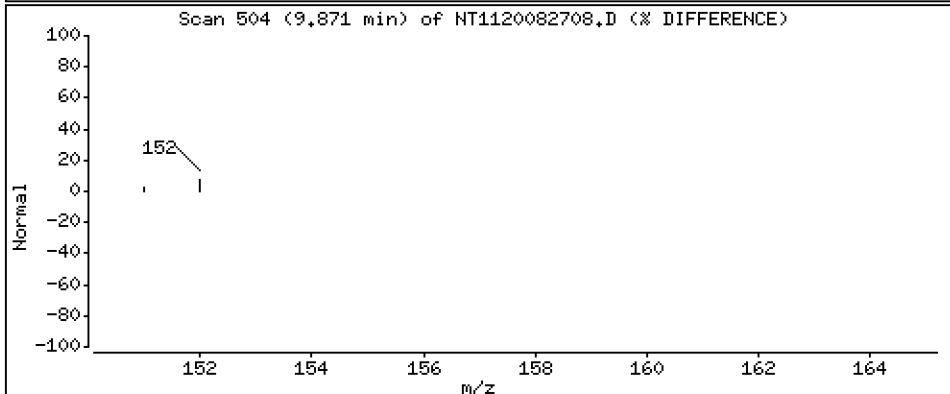
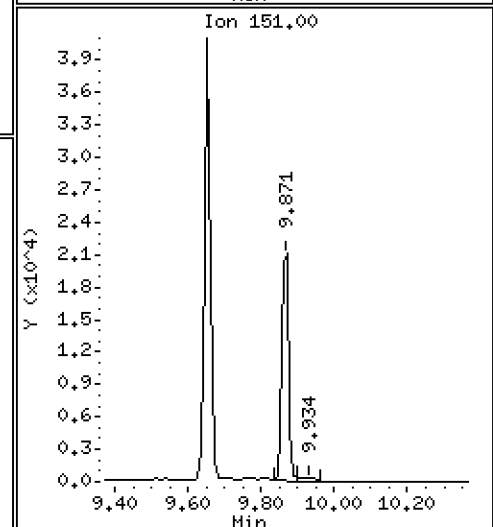
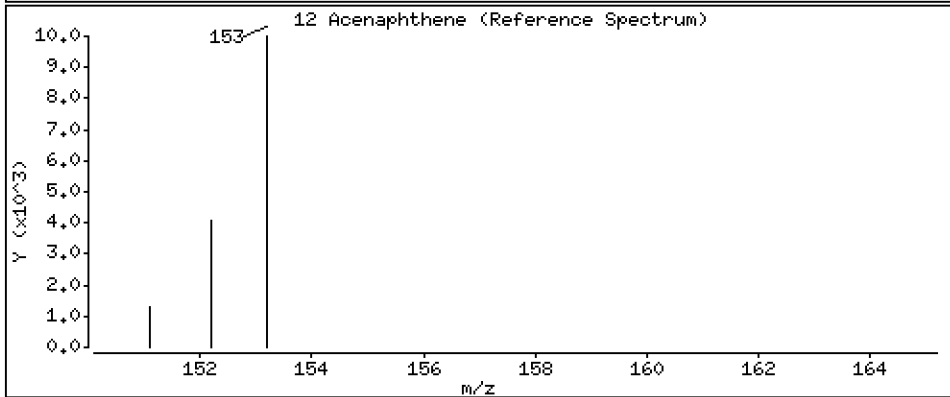
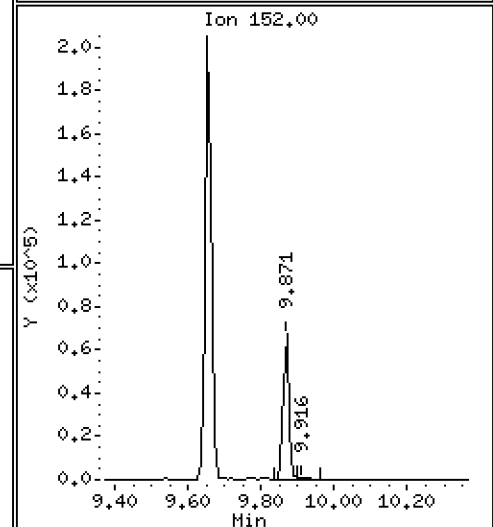
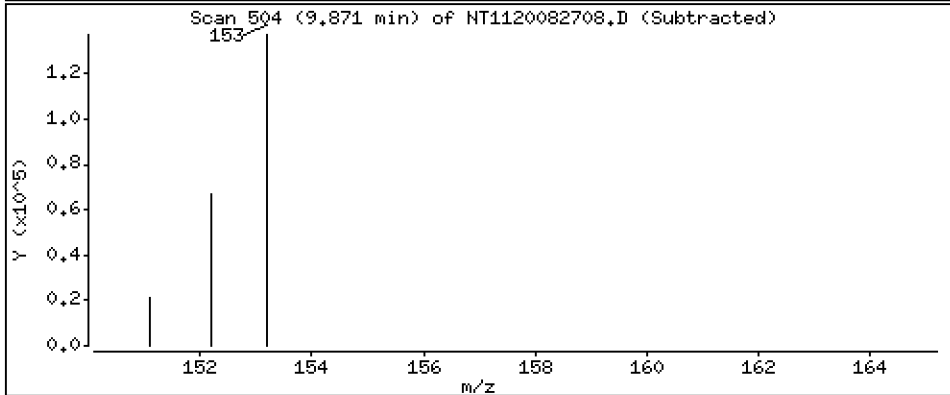
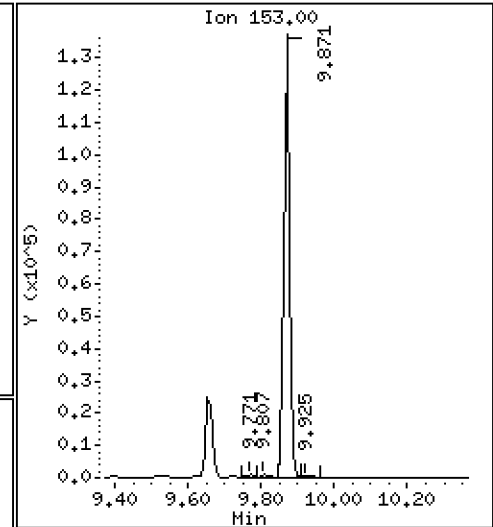
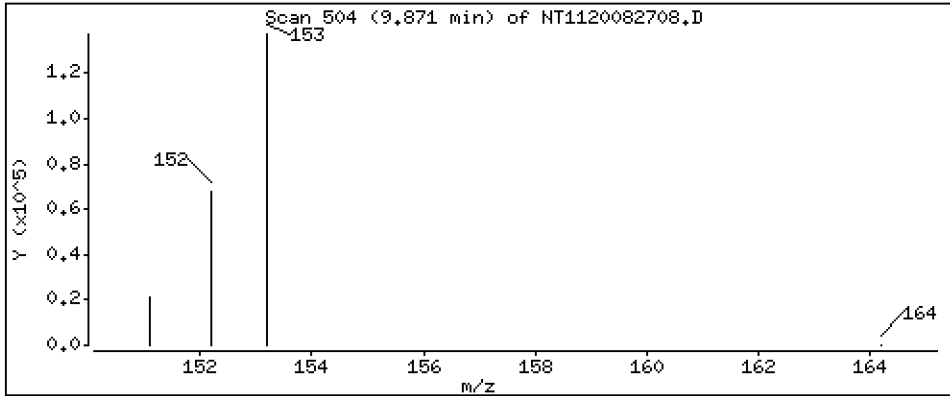
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

12 Acenaphthene

Concentration: 222 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

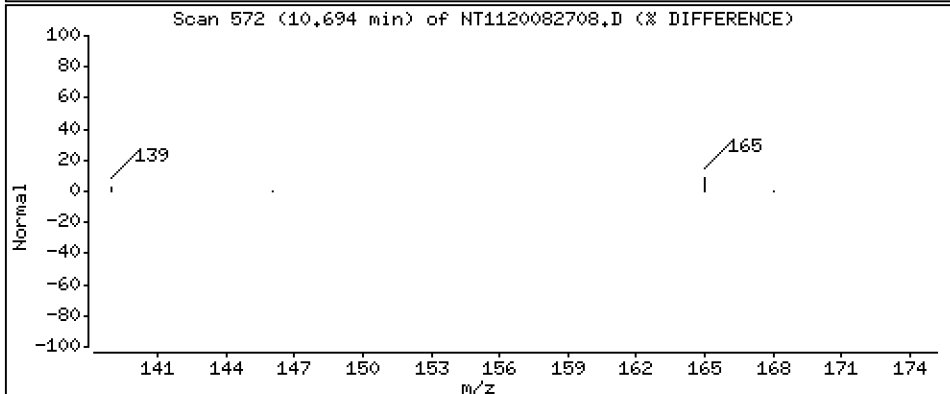
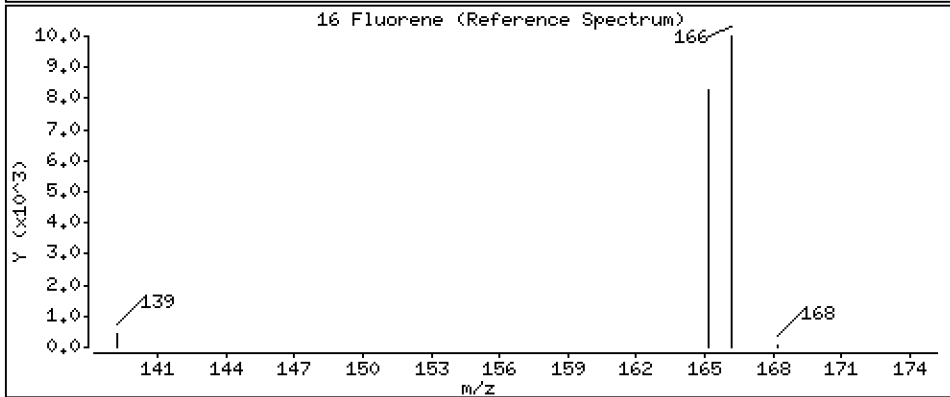
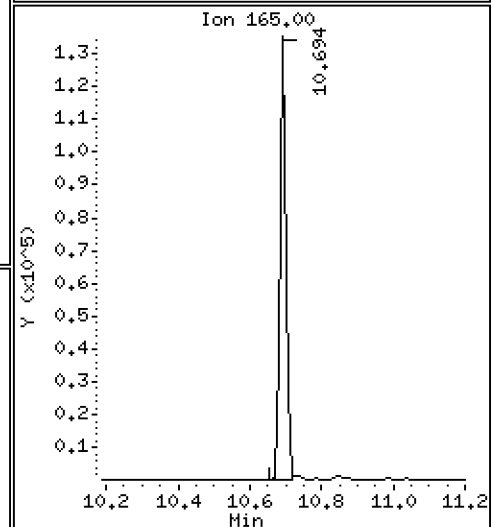
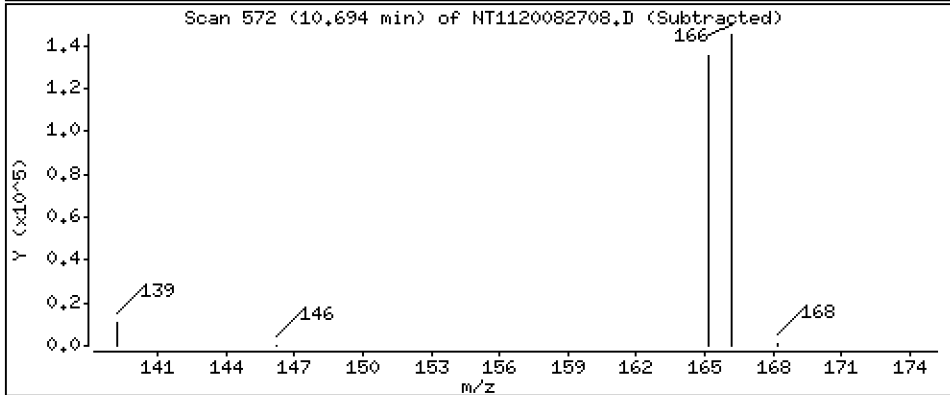
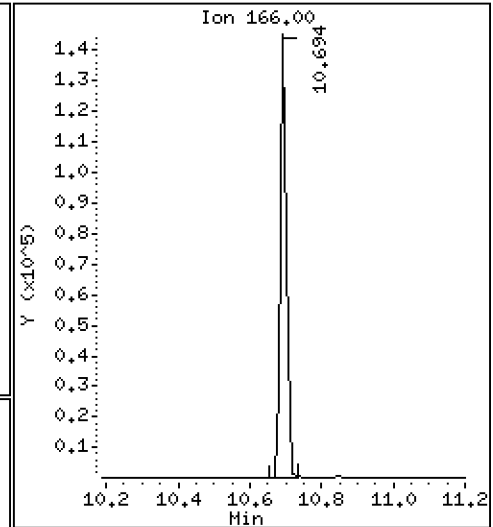
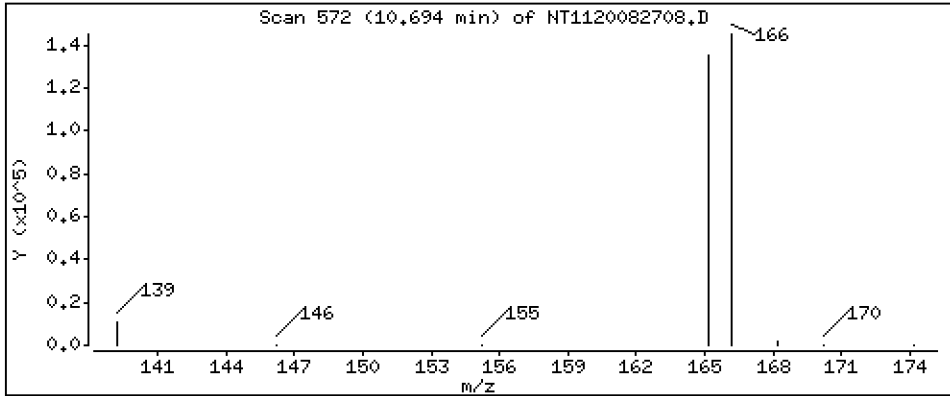
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 Fluorene

Concentration: 233 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

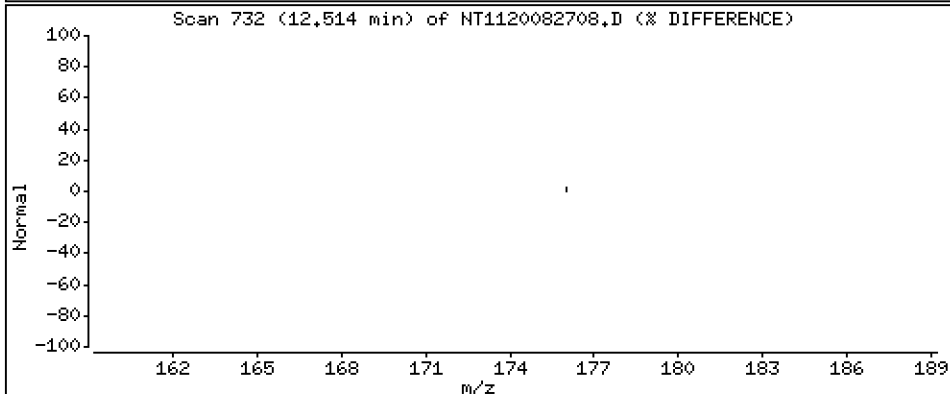
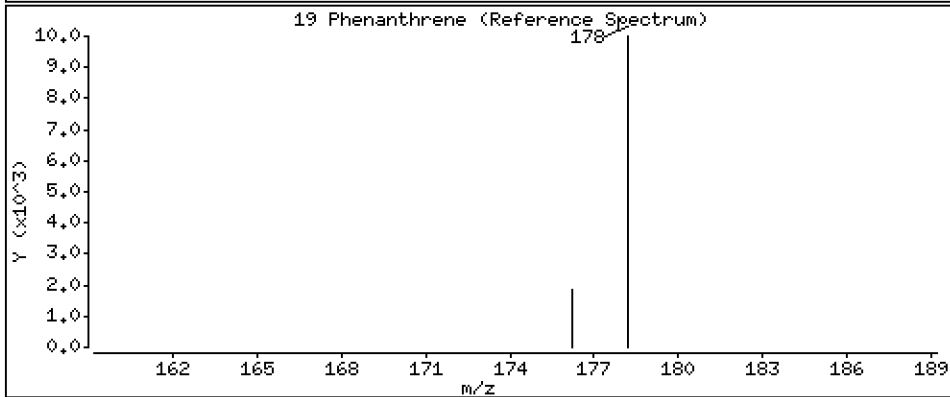
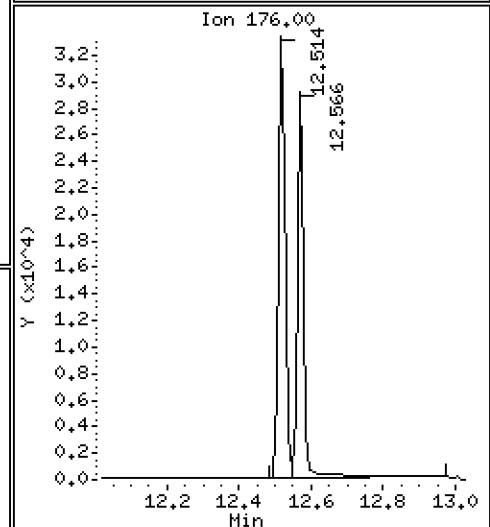
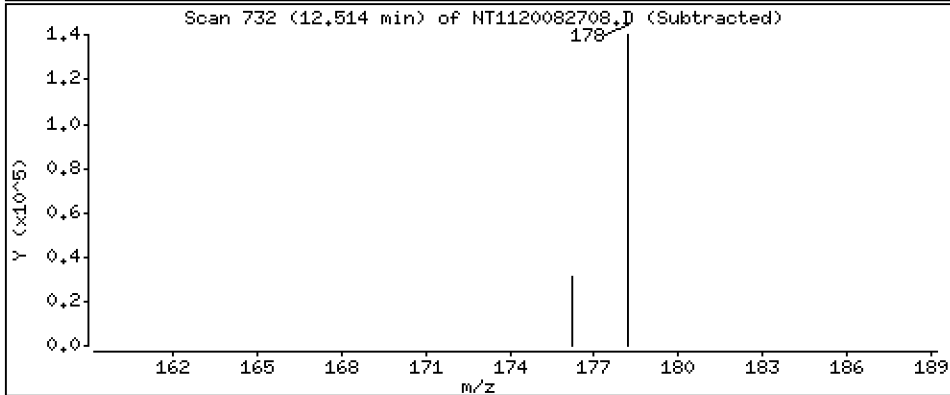
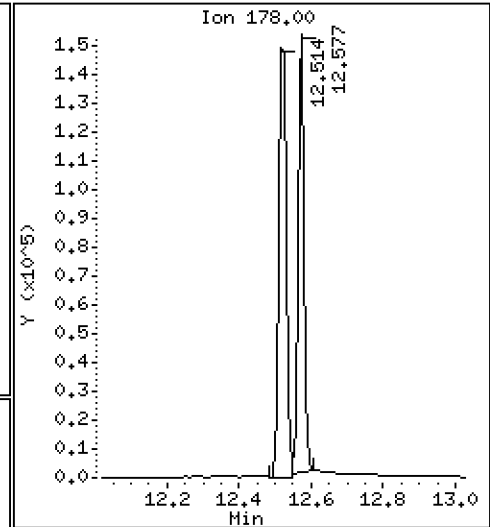
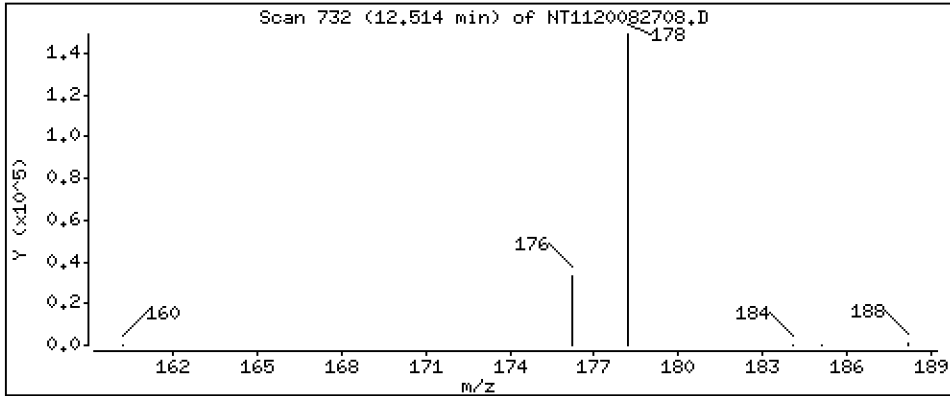
Operator: VTS

Column phase: Rxi-17S11 MS

Column diameter: 0,25

19 Phenanthrene

Concentration: 233 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

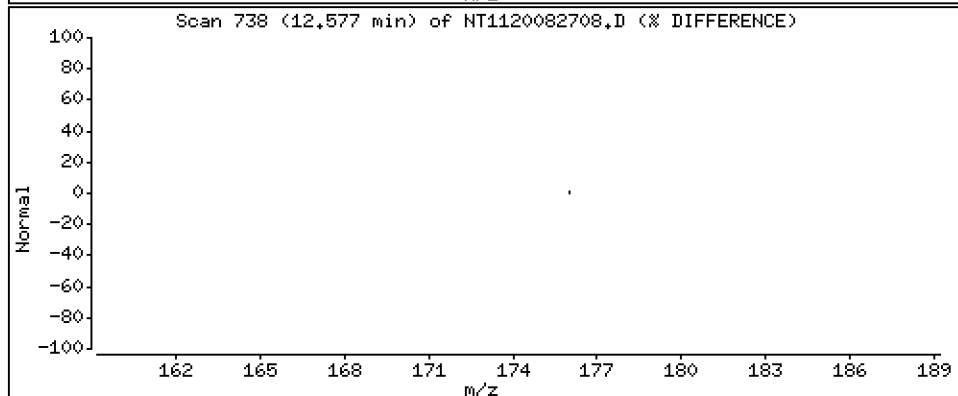
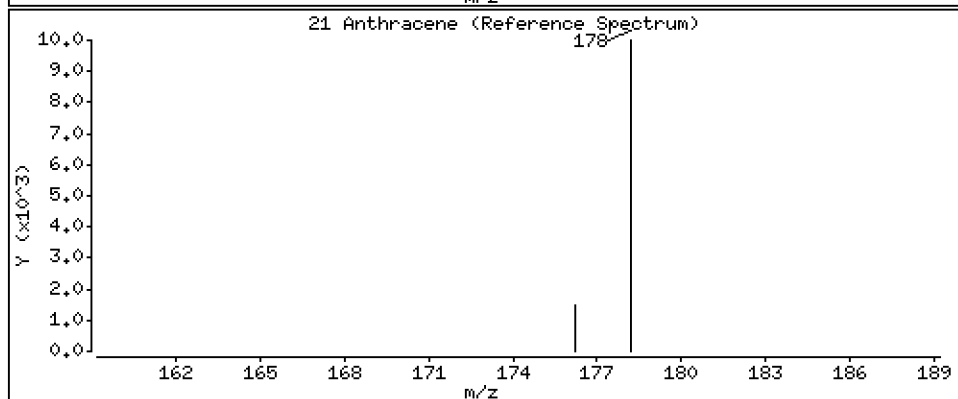
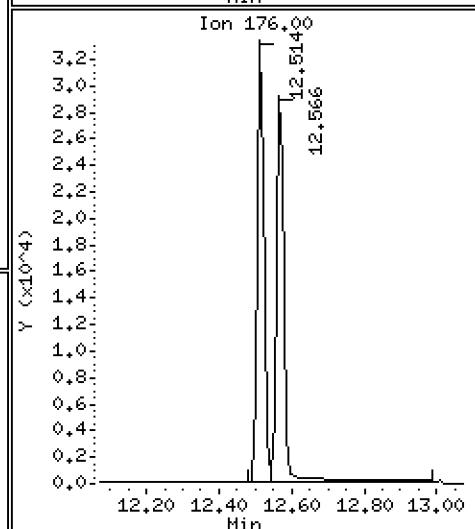
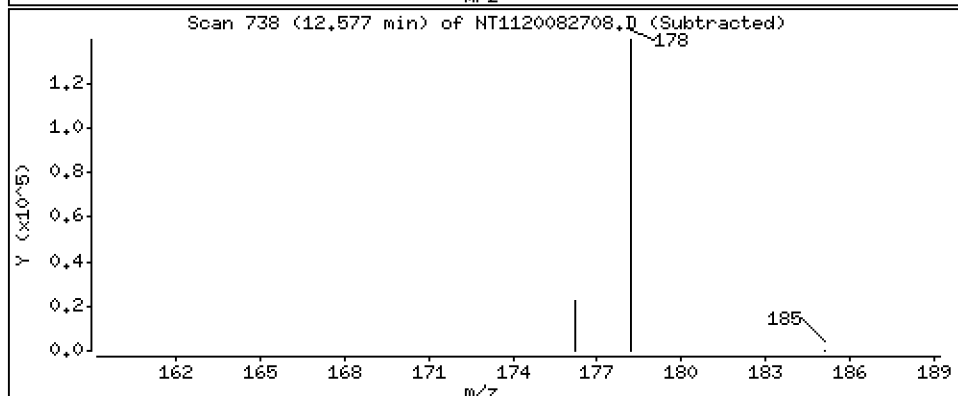
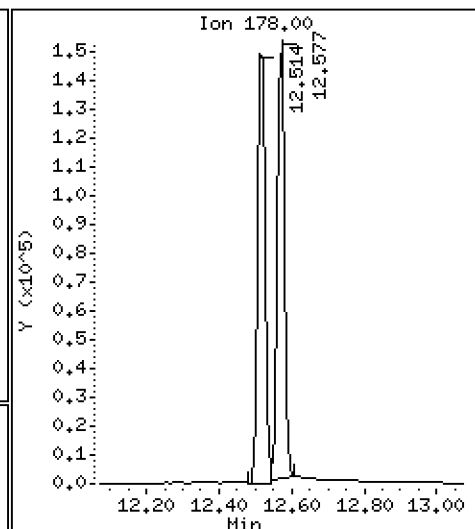
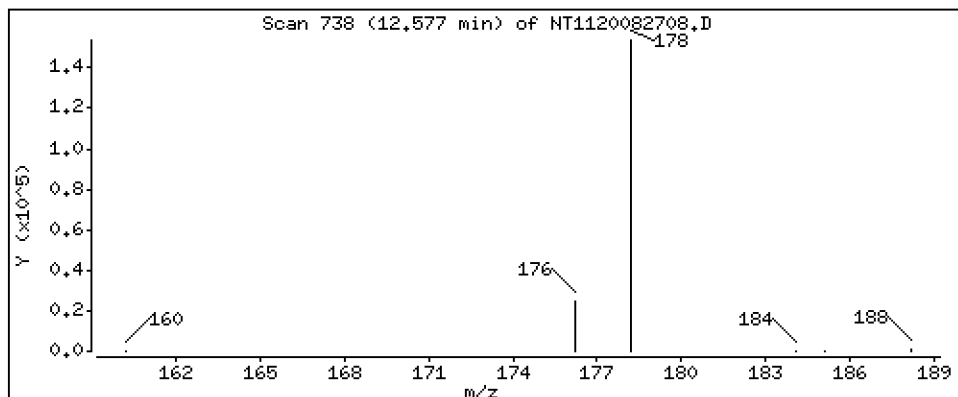
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

21 Anthracene

Concentration: 223 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

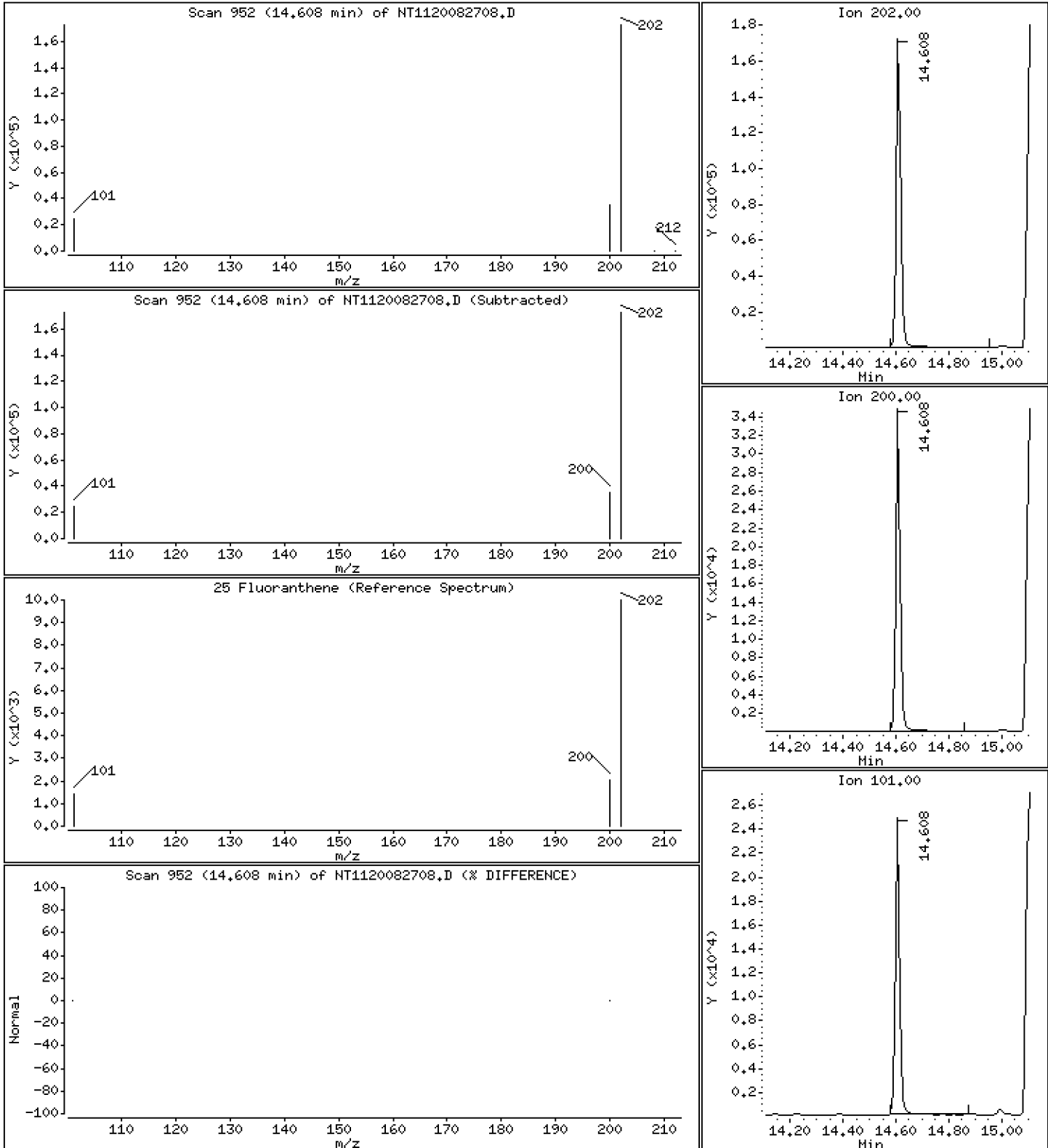
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

25 Fluoranthene

Concentration: 236 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

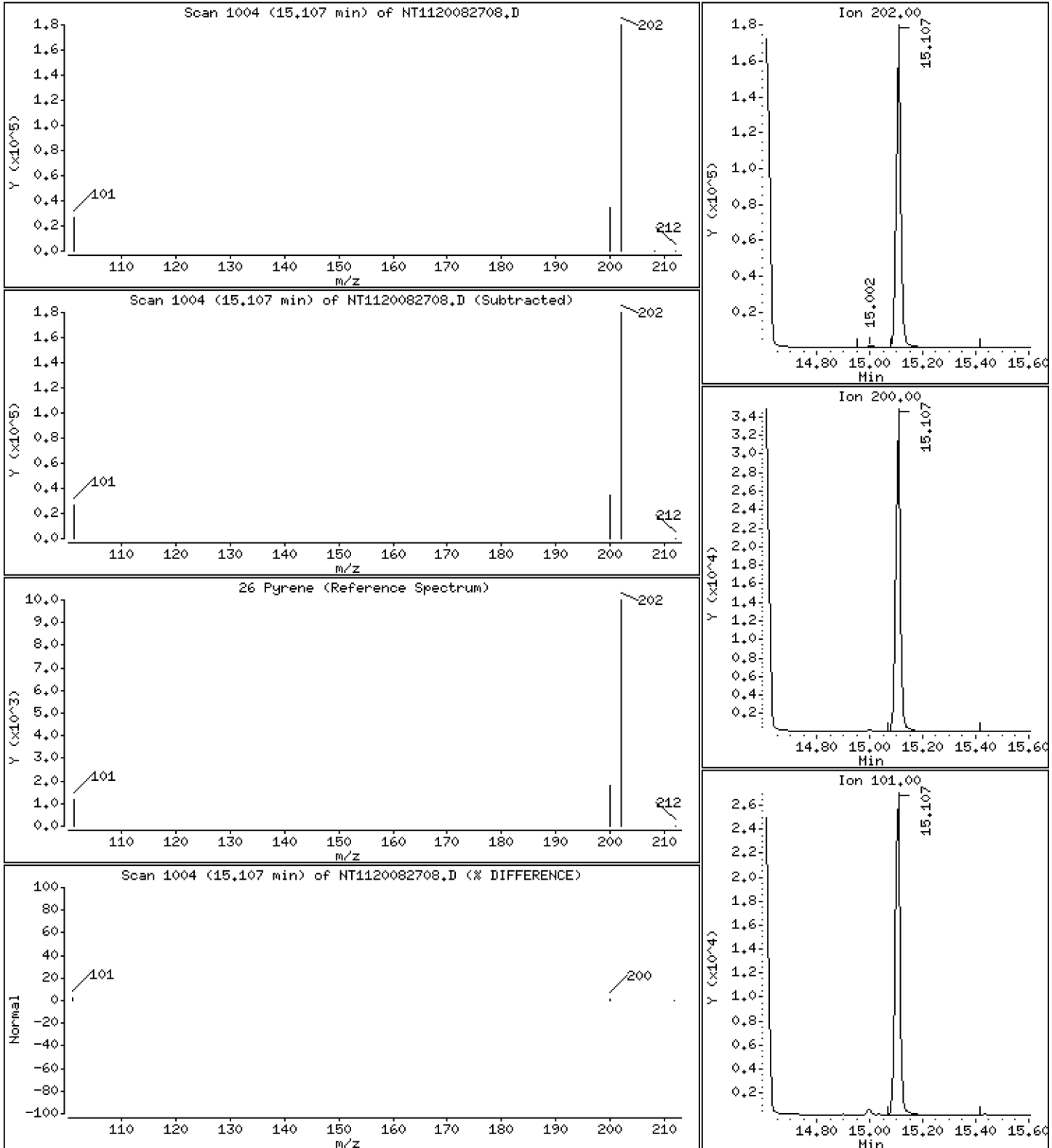
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Pyrene

Concentration: 235 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

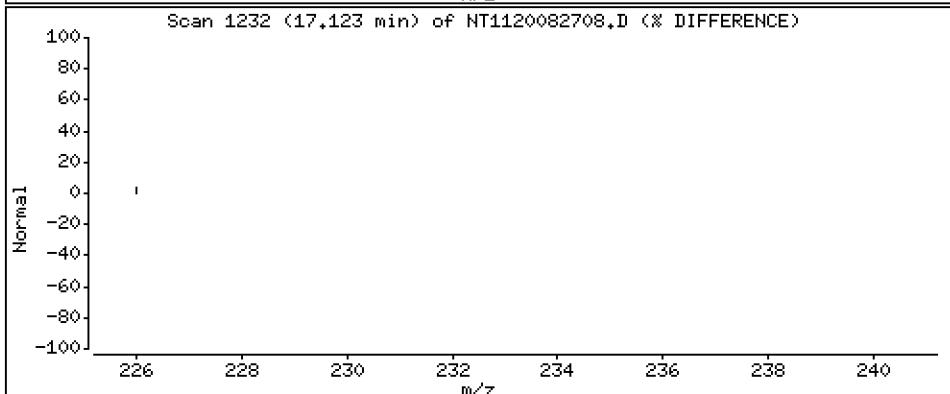
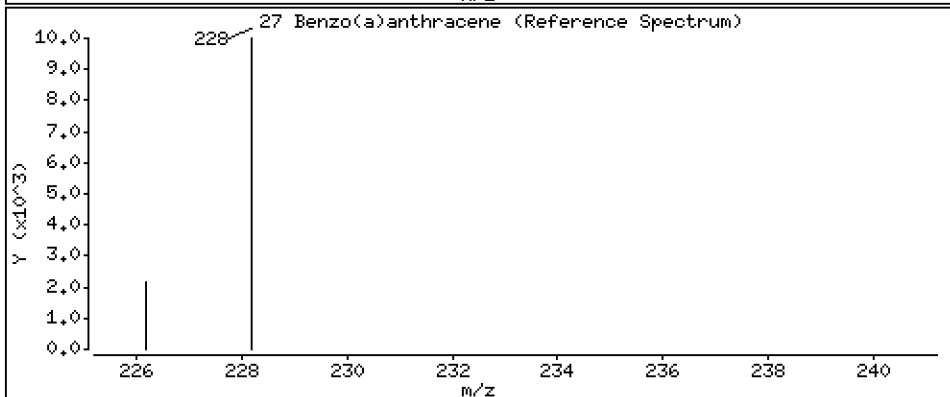
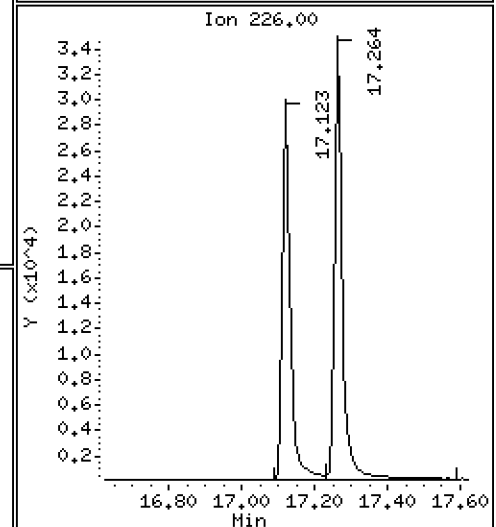
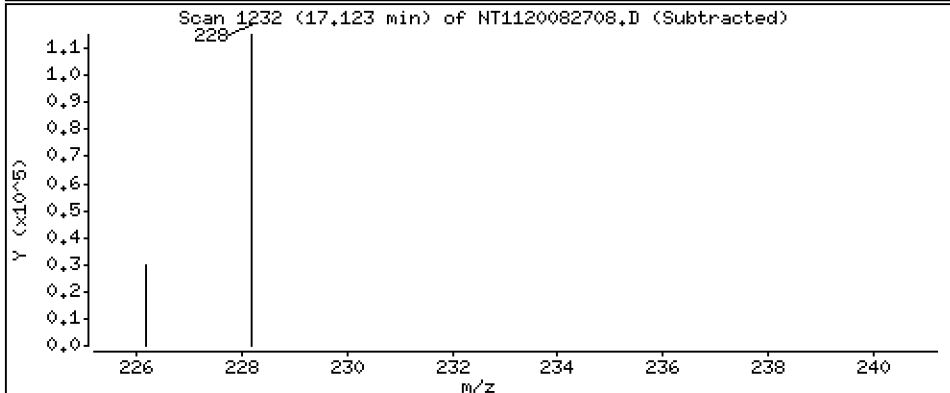
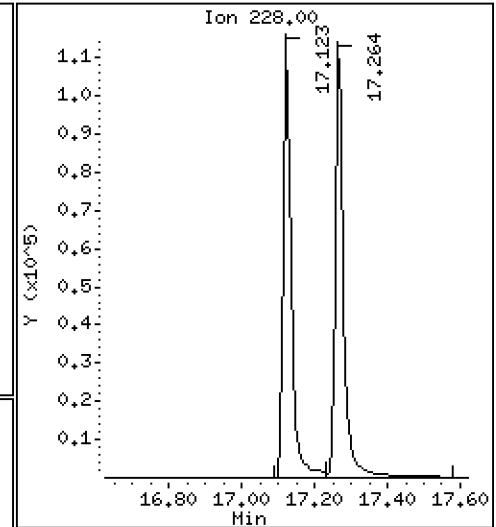
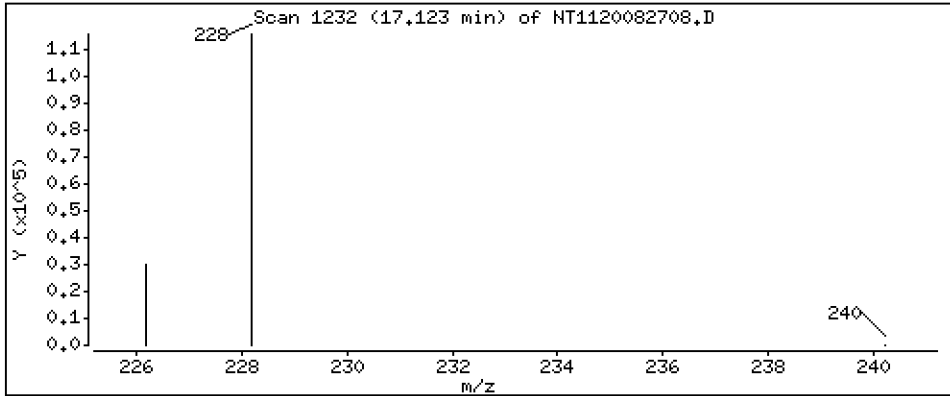
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

27 Benzo(a)anthracene

Concentration: 223 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

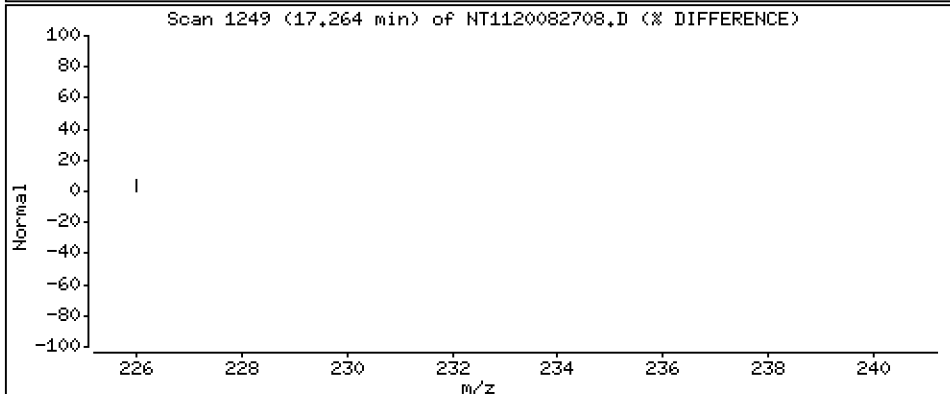
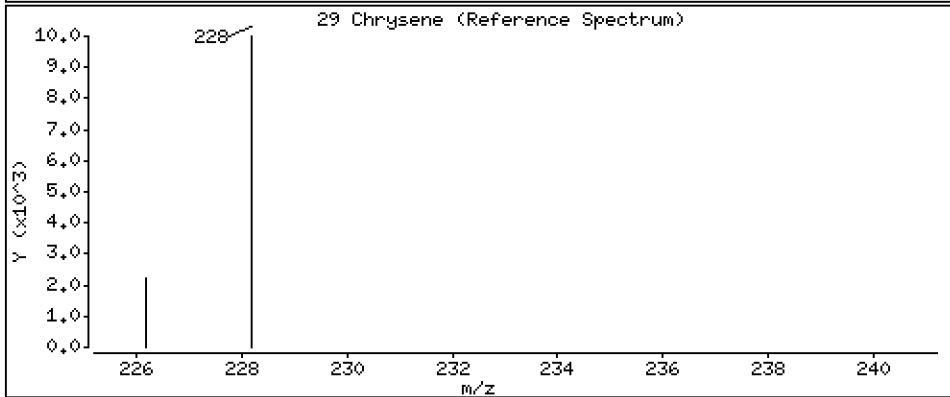
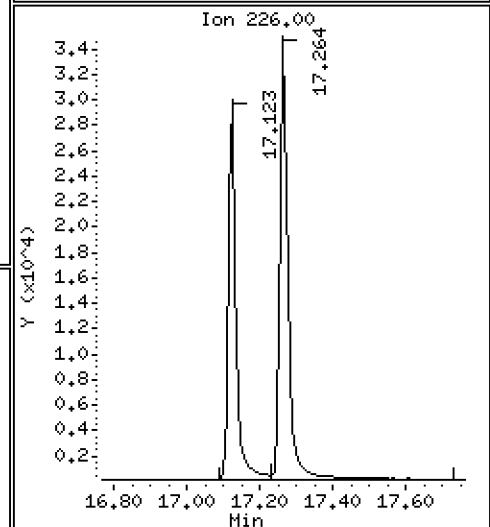
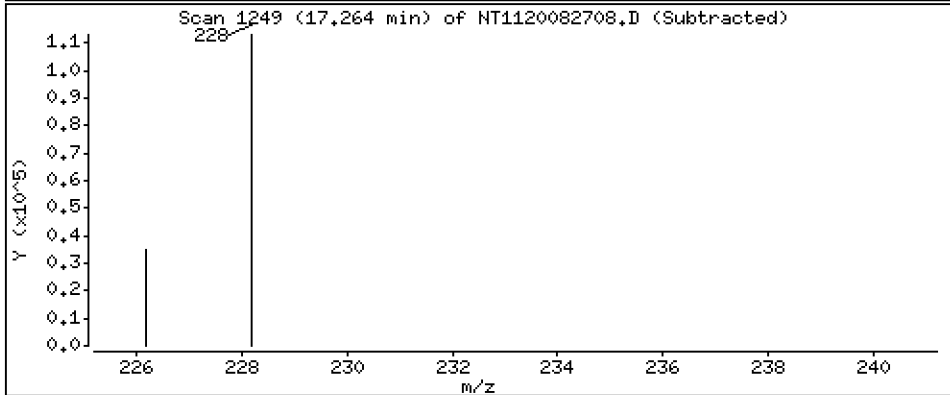
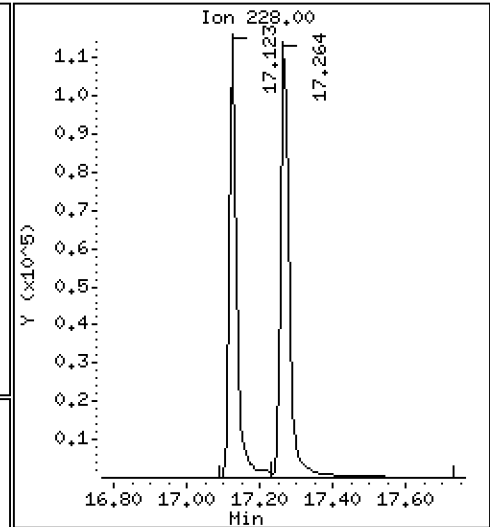
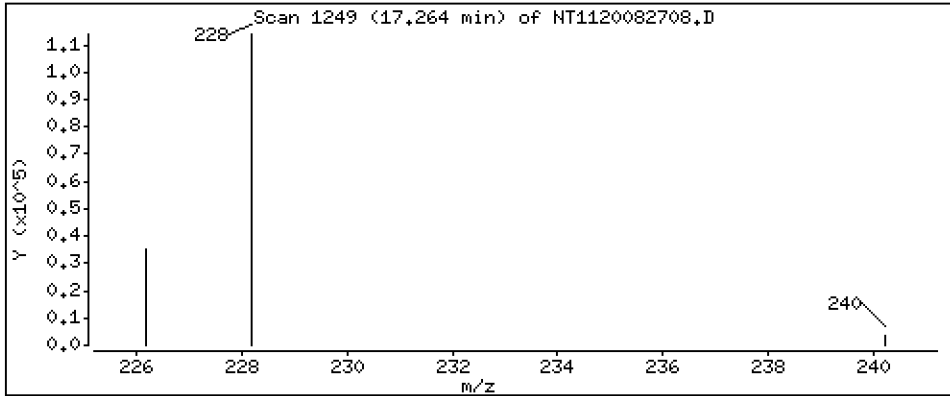
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

29 Chrysene

Concentration: 215 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

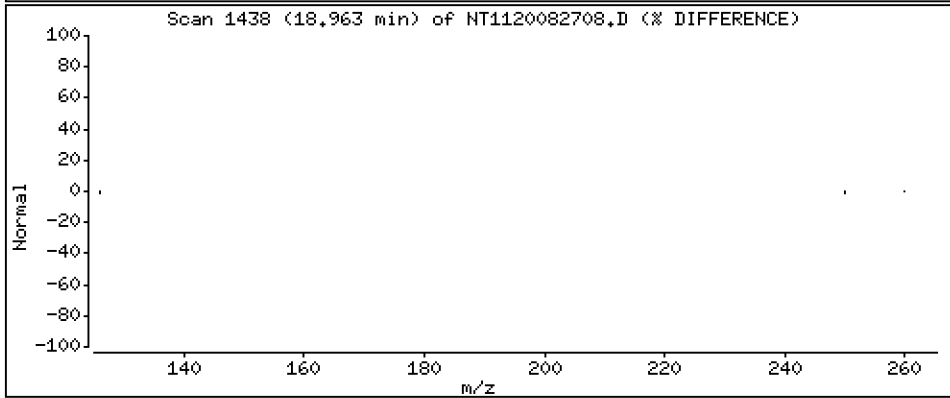
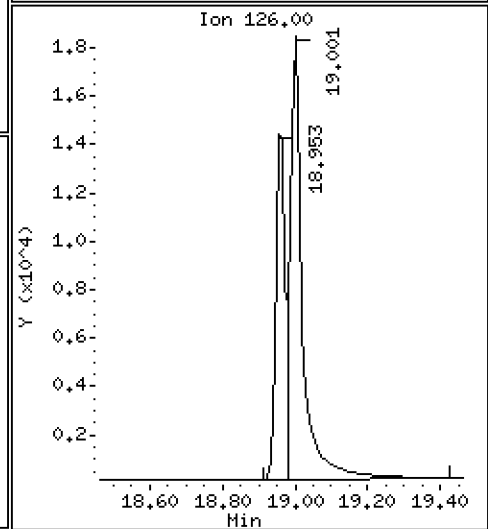
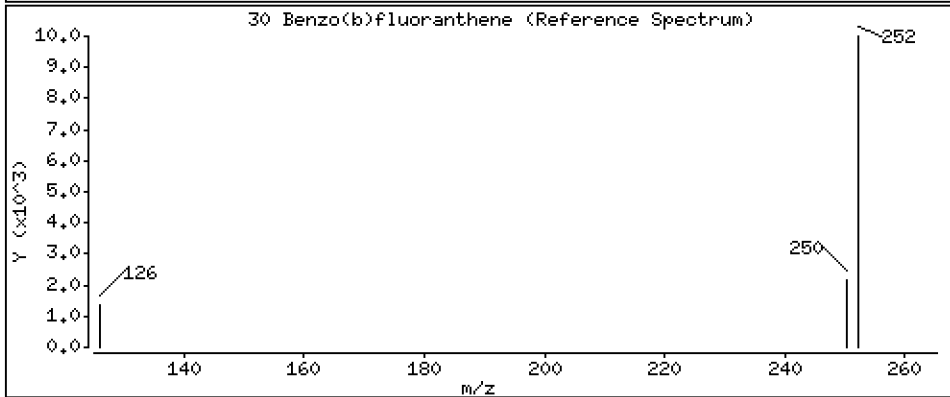
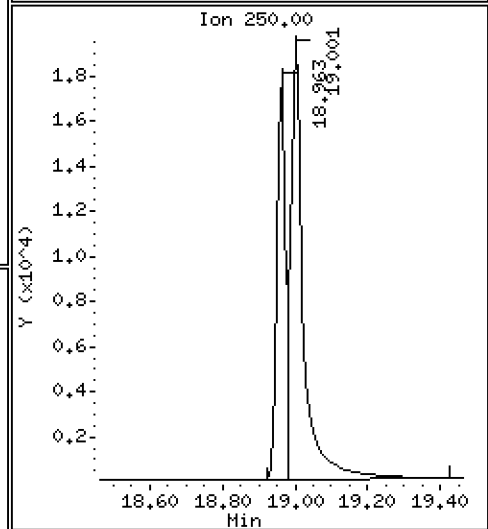
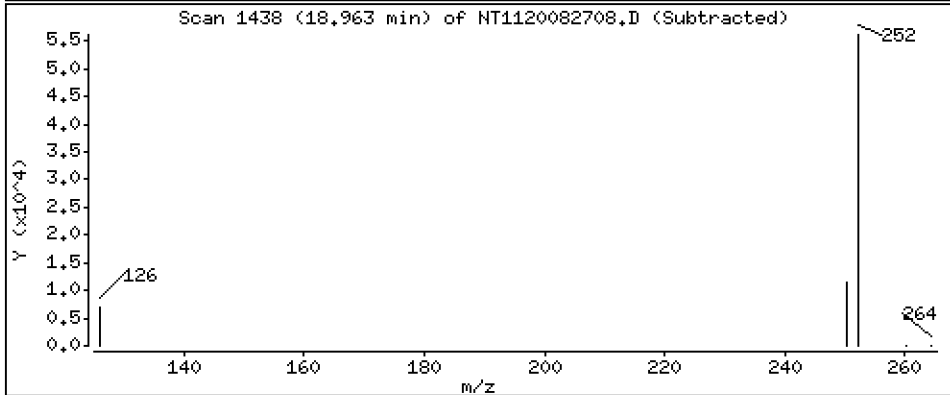
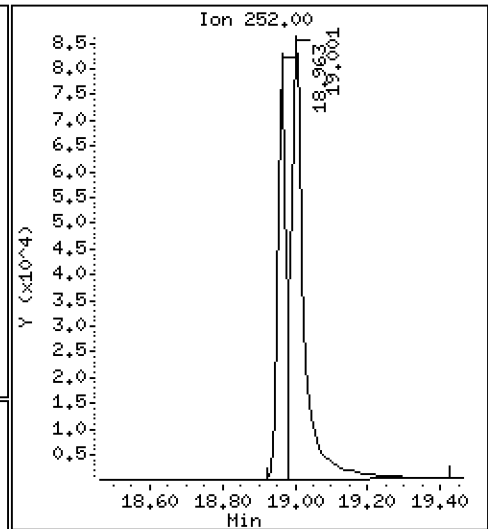
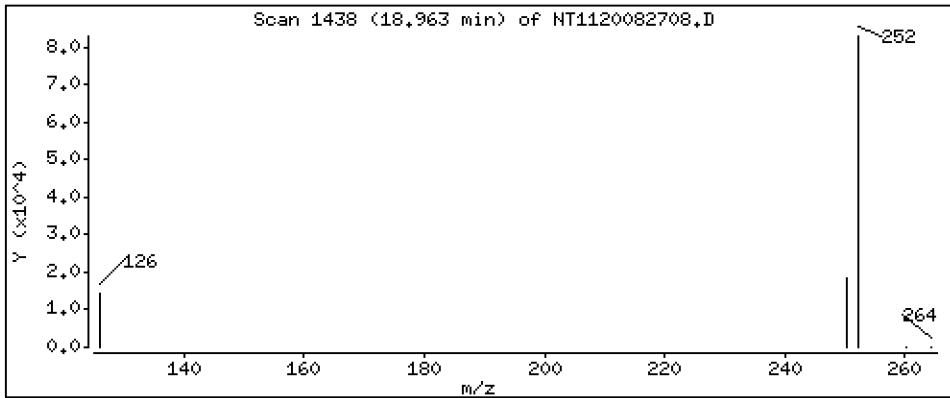
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Benzo(b)fluoranthene

Concentration: 212 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

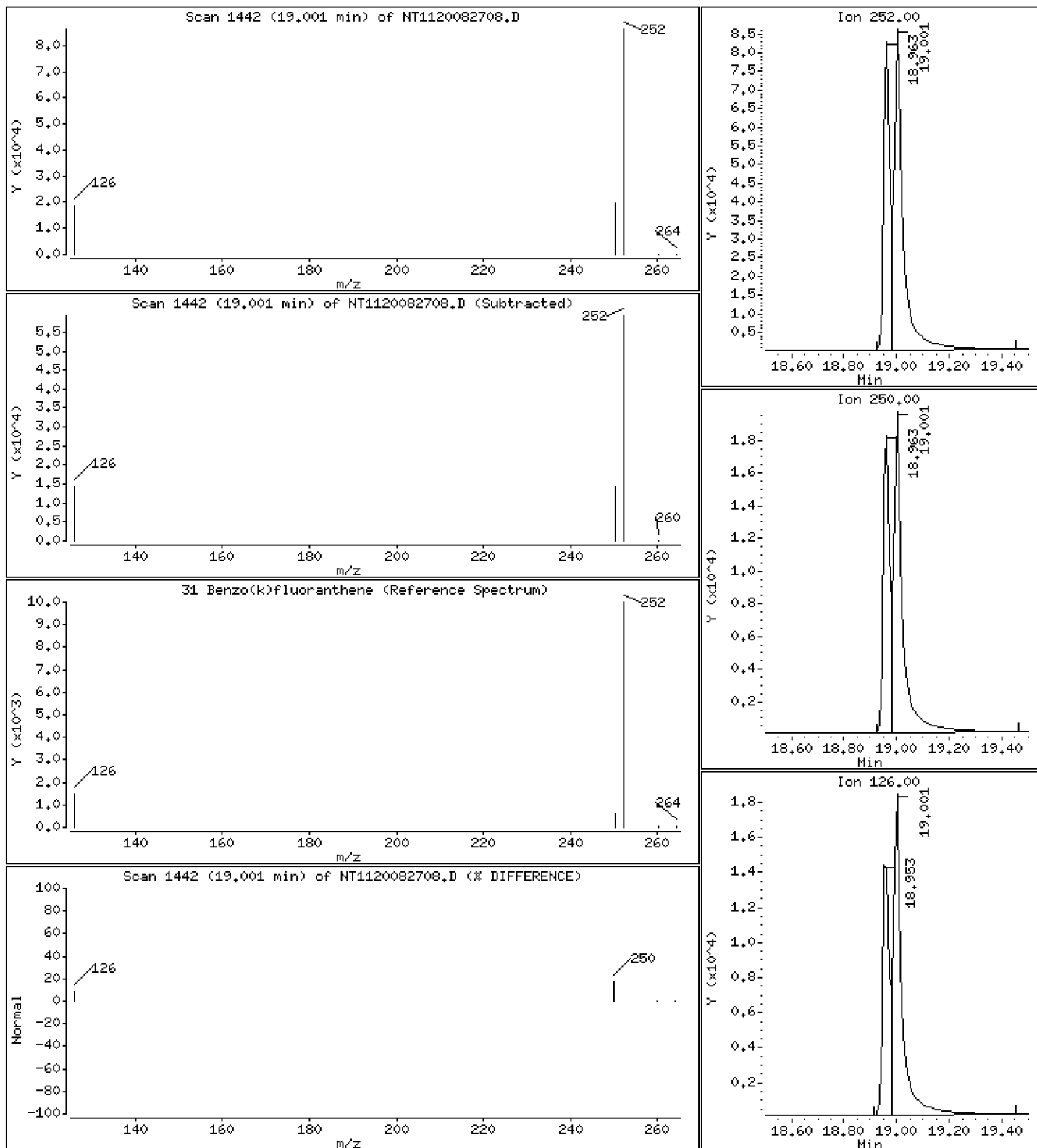
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

31 Benzo(k)fluoranthene

Concentration: 260 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

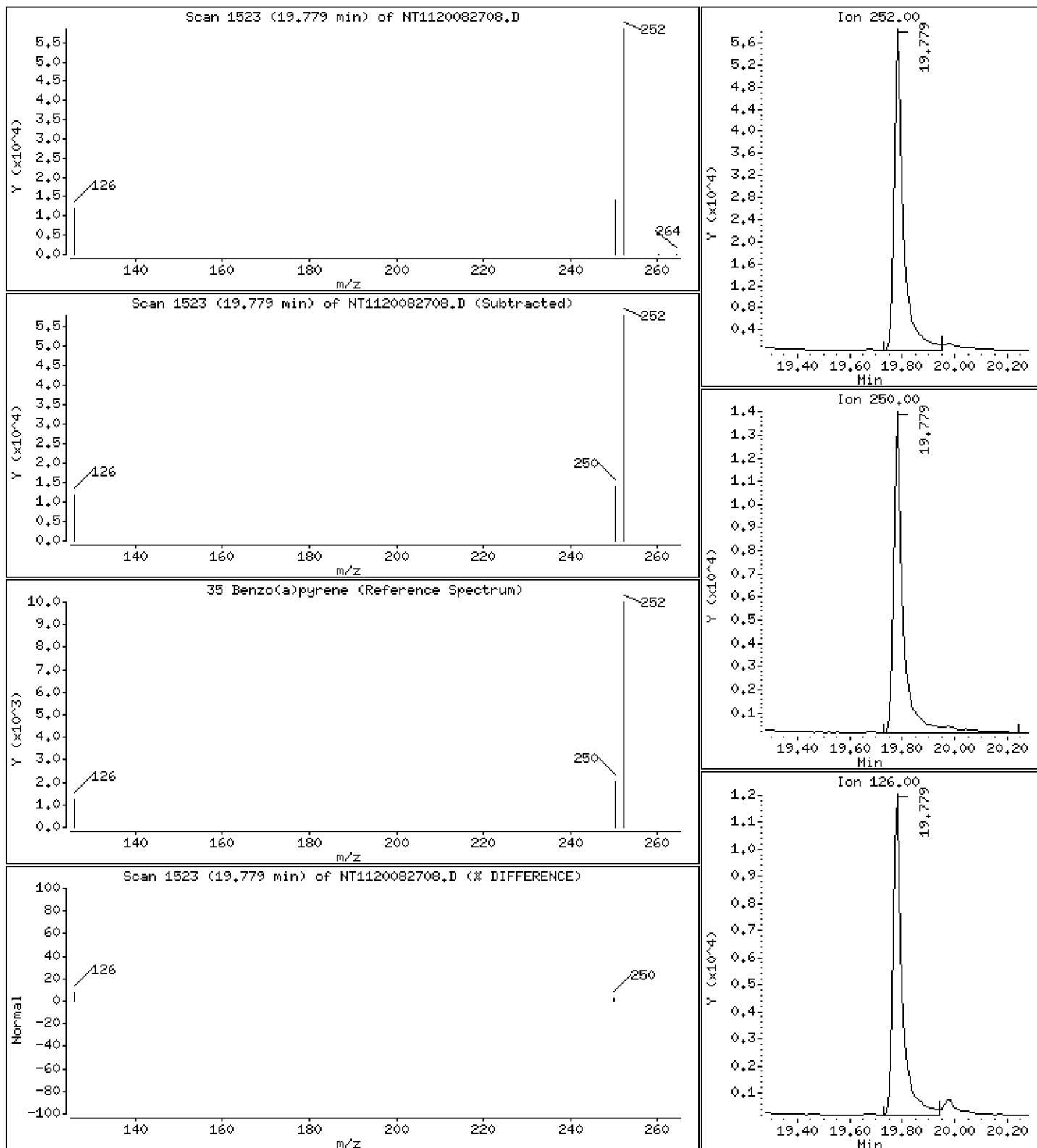
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

35 Benzo(a)pyrene

Concentration: 213 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

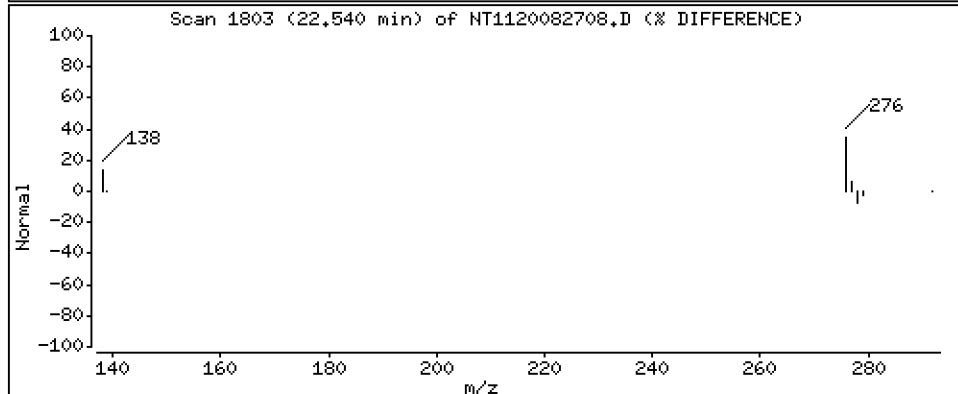
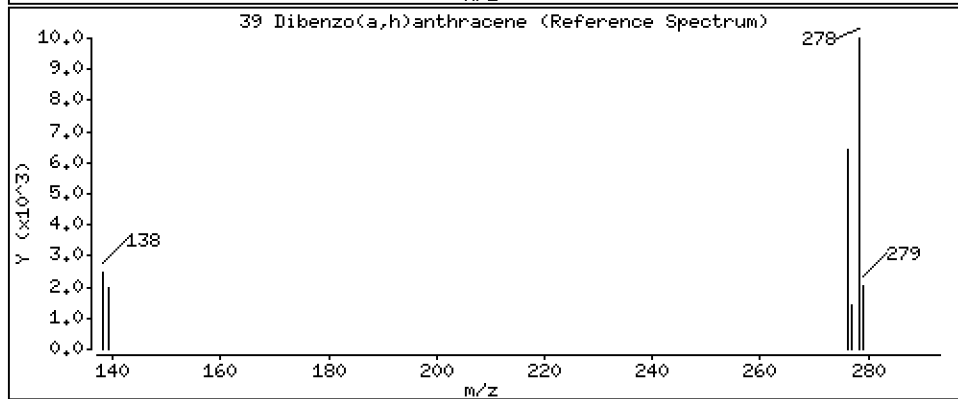
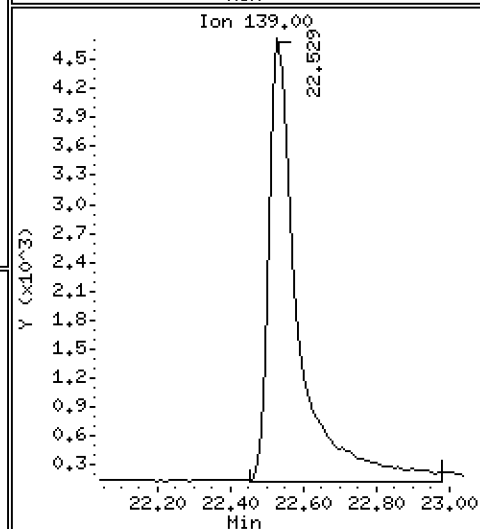
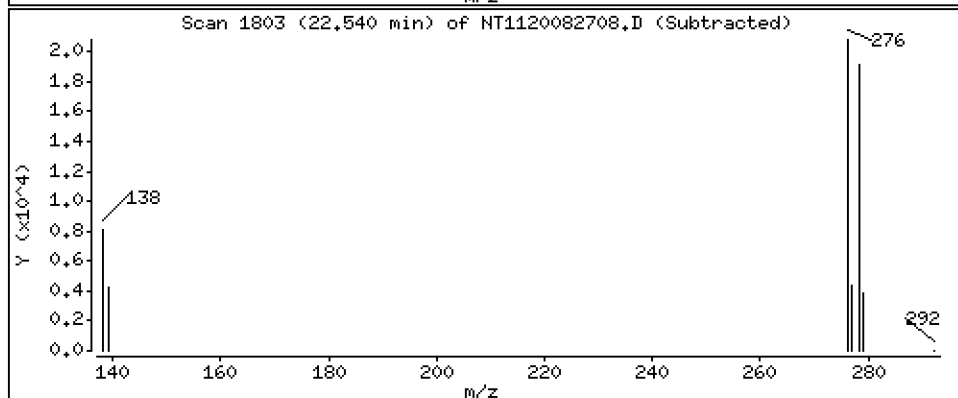
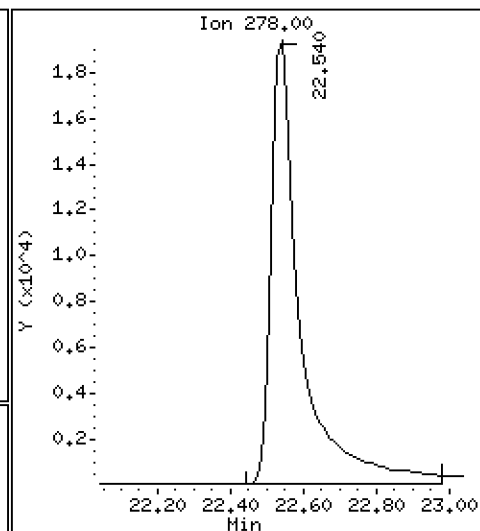
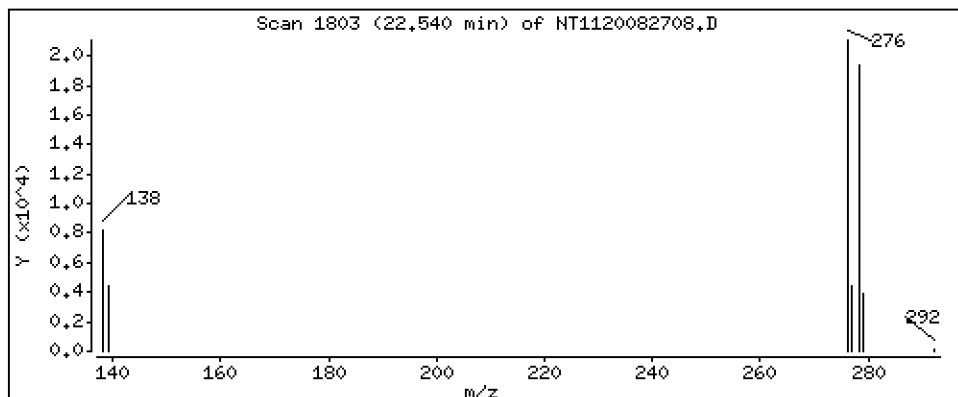
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

39 Dibenzo(a,h)anthracene

Concentration: 192 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

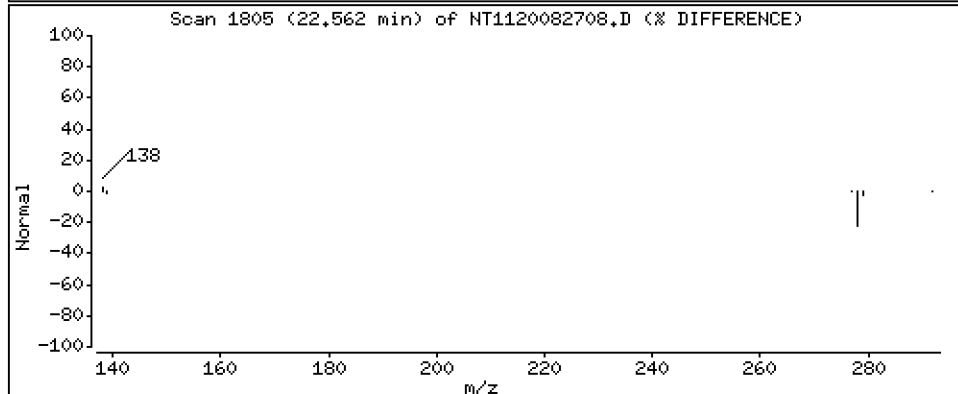
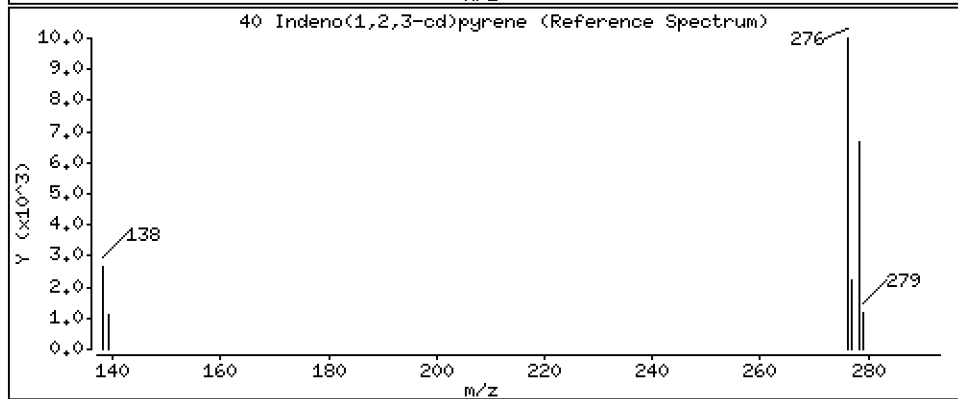
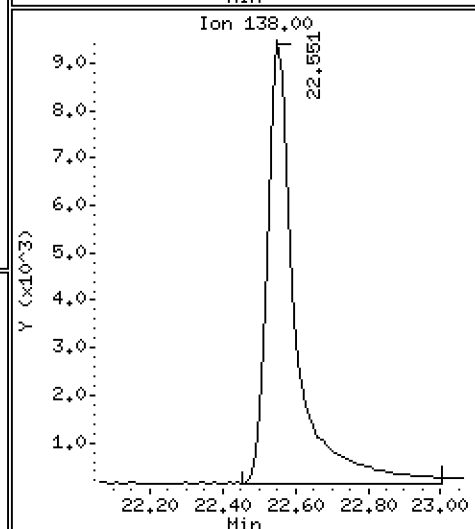
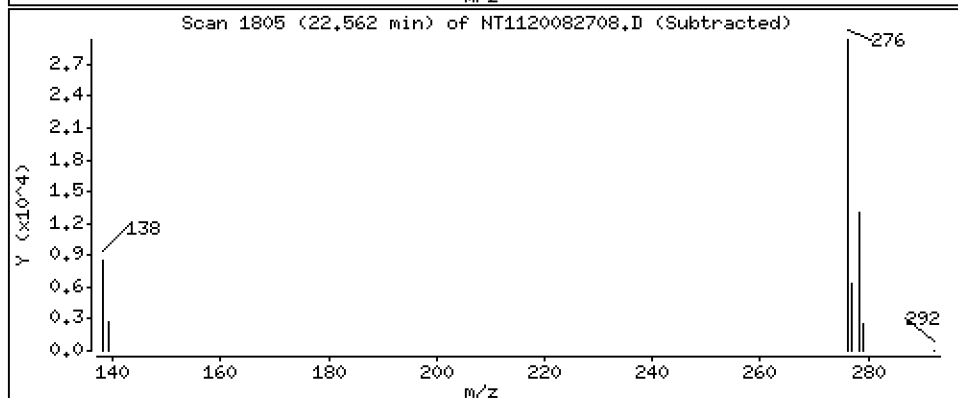
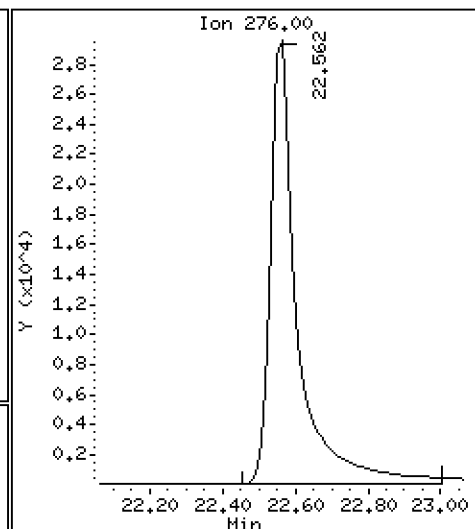
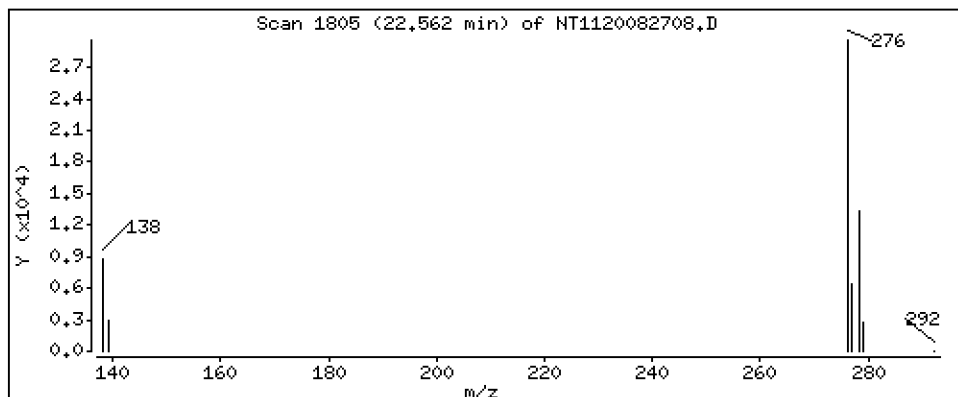
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

40 Indeno(1,2,3-cd)pyrene

Concentration: 227 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

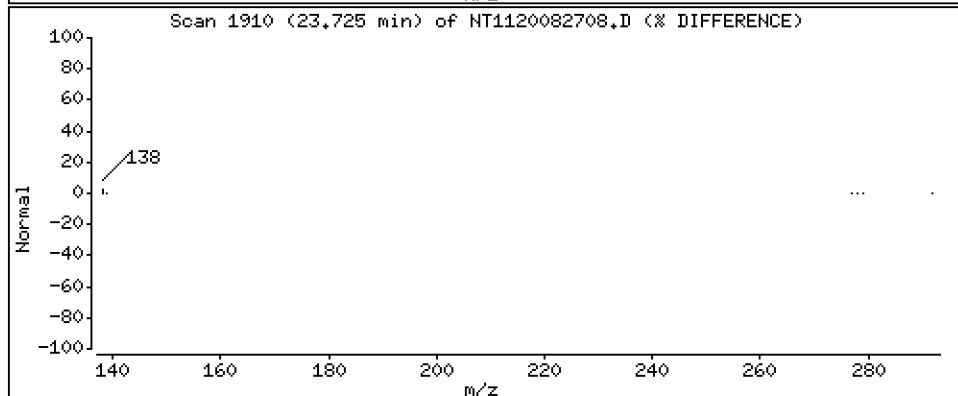
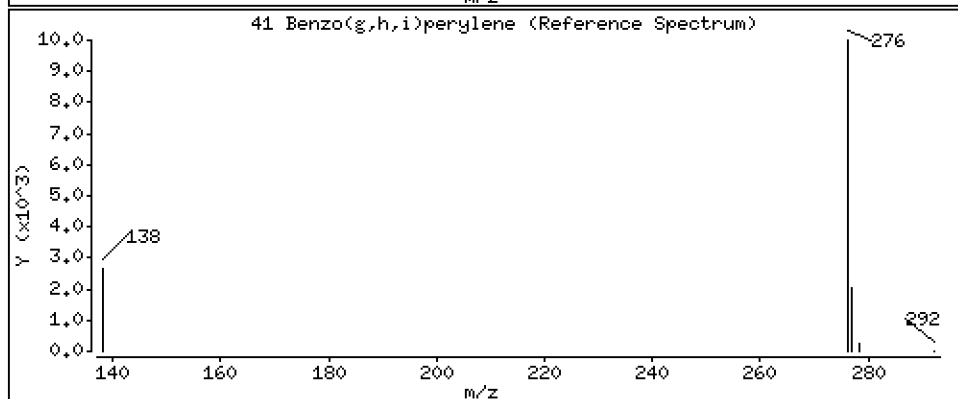
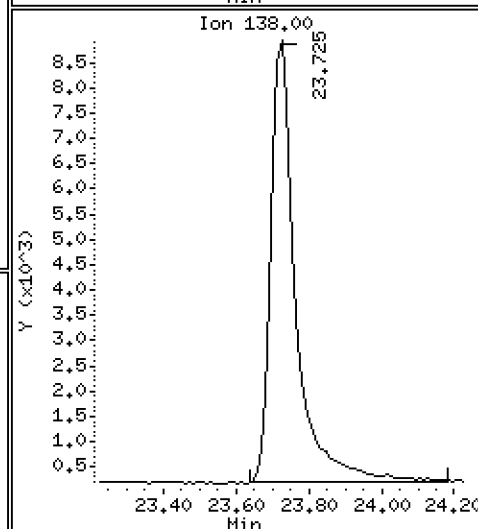
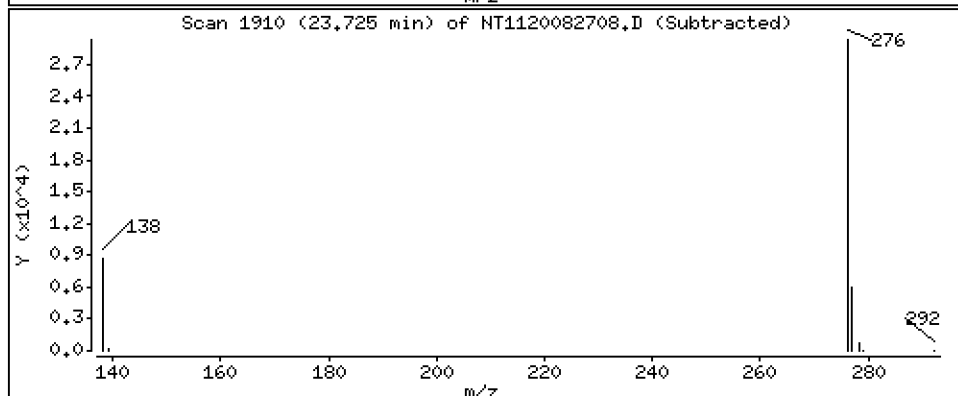
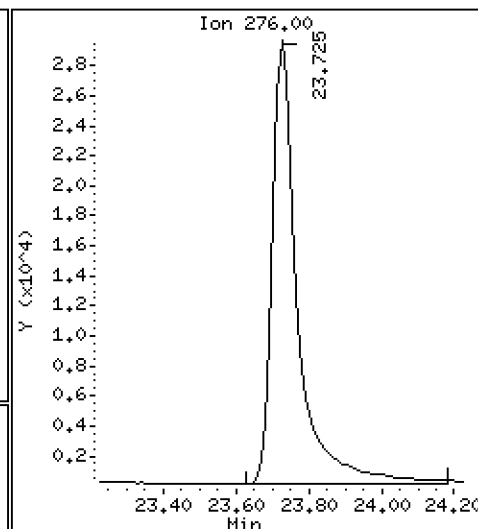
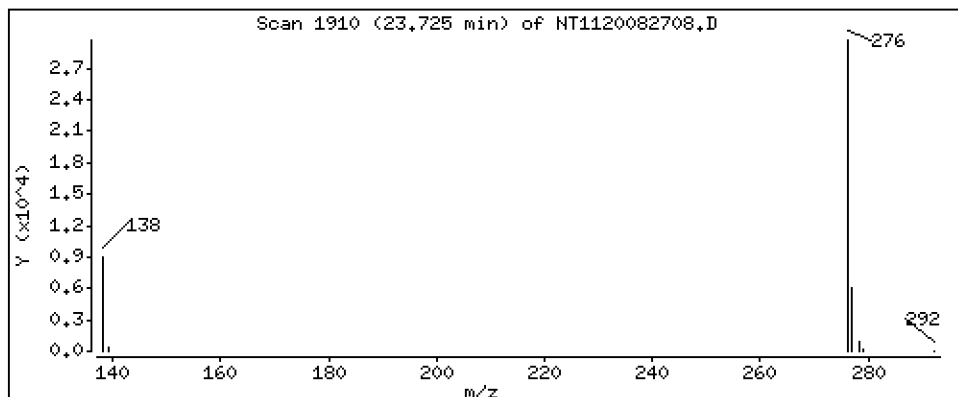
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

41 Benzo(g,h,i)perylene

Concentration: 214 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D
 Lab Smp Id: SIH0304-SCV1
 Inj Date : 27-AUG-2020 15:38 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : SIH0304-SCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
 Meth Date : 28-Aug-2020 07:11 van Quant Type: ISTD
 Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
 Als bottle: 8
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PAH.sub
 Target Version: 4.14
 Processing Host: VANS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		6.804	6.804	(1.000)	202035	200.000	
2 Naphthalene	128		6.840	6.840	(1.005)	263329	224.480	224
3 Benzo(b)thiophene	134		Compound Not Detected.					
\$ 4 2-Methylnaphthalene-d10	152		Compound Not Detected.					
5 2-Methylnaphthalene	142		Compound Not Detected.					
6 1-Methylnaphthalene	142		Compound Not Detected.					
7 2-Chloronaphthalene	162		Compound Not Detected.					
8 Biphenyl	154		Compound Not Detected.					
9 2,6-Dimethylnaphthalene	156		Compound Not Detected.					
10 Acenaphthylene	152		9.653	9.653	(0.984)	241360	233.261	233
* 11 Acenaphthene-d10	164		9.807	9.807	(1.000)	90189	200.000	
12 Acenaphthene	153		9.870	9.870	(1.006)	151880	221.934	222
13 Dibenzofuran	168		Compound Not Detected.					
14 2,3,5-Trimethylnaphthalene	170		Compound Not Detected.					
16 Fluorene	166		10.694	10.694	(1.090)	164299	233.486	233
17 Dibenzothiophene	184		Compound Not Detected.					
* 18 Phenanthrene-d10	188		12.482	12.482	(1.000)	142829	200.000	
19 Phenanthrene	178		12.513	12.524	(1.003)	217246	232.514	233
21 Anthracene	178		12.576	12.576	(1.008)	207807	222.597	223
22 Carbazole	167		Compound Not Detected.					
23 1-Methylphenanthrene	192		Compound Not Detected.					
\$ 24 Fluoranthene-d10	212		Compound Not Detected.					
25 Fluoranthene	202		14.607	14.607	(1.170)	220035	236.211	236
26 Pyrene	202		15.107	15.107	(1.210)	224689	235.115	235
27 Benzo(a)anthracene	228		17.123	17.122	(0.994)	170476	223.013	223
* 28 Chrysene-d12	240		17.222	17.214	(1.000)	104063	200.000	
29 Chrysene	228		17.264	17.264	(1.002)	185336	215.323	215
30 Benzo(b)fluoranthene	252		18.962	18.962	(0.949)	137886	212.389	212
31 Benzo(k)fluoranthene	252		19.001	19.001	(0.951)	222044	260.291	260
32 Benzo(j)fluoranthene	252		Compound Not Detected.					
34 Benzo(e)pyrene	252		Compound Not Detected.					
35 Benzo(a)pyrene	252		19.779	19.779	(0.990)	144487	213.091	213
* 36 Perylene-d12	264		19.981	19.981	(1.000)	119273	200.000	
37 Perylene	252		Compound Not Detected.					

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/mL)	FINAL (ng/mL)
=====	=====	=====	=====	=====	=====	=====	
\$ 38 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.					
39 Dibenzo(a,h)anthracene	278	22.540	22.540	(1.128)	107076	191.902	192
40 Indeno(1,2,3-cd)pyrene	276	22.562	22.562	(1.129)	149356	226.827	227
41 Benzo(g,h,i)perylene	276	23.725	23.725	(1.187)	141191	214.457	214

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 27-AUG-2020
 Lab File ID: NT1120082708.D Calibration Time: 12:35
 Lab Smp Id: SIH0304-SCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	215332	107666	430664	202035	-6.18
11 Acenaphthene-d10	102217	51109	204434	90189	-11.77
18 Phenanthrene-d10	170387	85194	340774	142829	-16.17
28 Chrysene-d12	116138	58069	232276	104063	-10.40
36 Perylene-d12	139038	69519	278076	119273	-14.22

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.81	6.31	7.31	6.80	-0.13
11 Acenaphthene-d10	9.81	9.31	10.31	9.81	-0.00
18 Phenanthrene-d10	12.48	11.98	12.98	12.48	-0.00
28 Chrysene-d12	17.21	16.71	17.71	17.22	0.05
36 Perylene-d12	19.98	19.48	20.48	19.98	-0.00

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.

REVIEW SUMMARY FOR FILE - NT1120082708.D

Lab ID: SIH0304-SCV1

nt11.i, 20200827.b\lowsim.m, 27-AUG-2020 15:38

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1120082704.D

On Column LOD for nt11.i, 20200827.b\lowsim.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000

Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000

Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *



SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor QEA, LLC

Project: Gasco Siltronic - US Moorings

Calibration: EE00001

Laboratory ID: SJD0305-SCV1

Sequence: SJD0305

Standard ID: J004707

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
trans-Decalin	2.5000	2.8	13.7	20.00
cis-Decalin	2.5000	2.9	16.4	20.00
Naphthalene	2.5000	2.8	11.3	20.00
1-Methylnaphthalene	2.5000	2.8	12.9	20.00
2-Methylnaphthalene	2.5000	2.8	13.8	20.00
Biphenyl	2.5000	2.8	10.6	20.00
2,6-Dimethylnaphthalene	2.5000	2.8	12.9	20.00
Acenaphthylene	2.5000	2.9	15.6	20.00
Acenaphthene	2.5000	3.0	20.4	20.00
Dibenzofuran	2.5000	2.8	10.7	20.00
2,3,5-Trimethylnaphthalene	2.5000	2.9	16.9	20.00
Fluorene	2.5000	2.8	13.8	20.00
Benzo(b)thiophene	2.5000	2.8	11.5	20.00
Phenanthrene	2.5000	2.5	-1.3	20.00
Anthracene	2.5000	2.5	-0.3	20.00
Carbazole	2.5000	2.3	-6.3	20.00
1-Methylphenanthrene	2.5000	2.6	3.8	20.00
Fluoranthene	2.5000	2.6	5.4	20.00
Dibenzothiophene	2.5000	2.8	11.3	20.00
Pyrene	2.5000	2.5	1.1	20.00
Benzo(a)anthracene	2.5000	2.3	-8.9	20.00
Chrysene	2.5000	2.6	3.0	20.00
Benzo(b)fluoranthene	2.5000	2.3	-7.0	
Benzo(j)fluoranthene	2.5000	2.5	0.6	
Benzo(k)fluoranthene	2.5000	2.3	-7.8	
Benzo(e)pyrene	2.5000	2.5	-1.8	20.00
Benzo(a)pyrene	2.5000	2.2	-11.6	20.00
Indeno(1,2,3-cd)pyrene	2.5000	2.2	-10.6	20.00
Dibenzo(a,h)anthracene	2.5000	2.3	-8.4	20.00
Benzo(g,h,i)perylene	2.5000	2.4	-5.9	20.00
Perylene	2.5000	2.4	-3.4	20.00
Naphthalene-d8	2.5000	2.99	19.5	20.00



SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor QEA, LLC

Project: Gasco Siltronic - US Moorings

Calibration: EE00001

Laboratory ID: SJD0305-SCV1

Sequence: SJD0305

Standard ID: J004707

Acenaphthene-d10	2.5000	3.02	20.7	20.00
Phenanthrene-d10	2.5000	2.67	6.8	20.00
Chrysene-d12	2.5000	2.83	13.1	20.00
Perylene-d12	2.5000	2.51	0.2	20.00

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.1\20210430.1\NT1421043010.D

Date: 30-APR-2021 14:41

Client ID:

Sample Info: SJD0305-SCW1

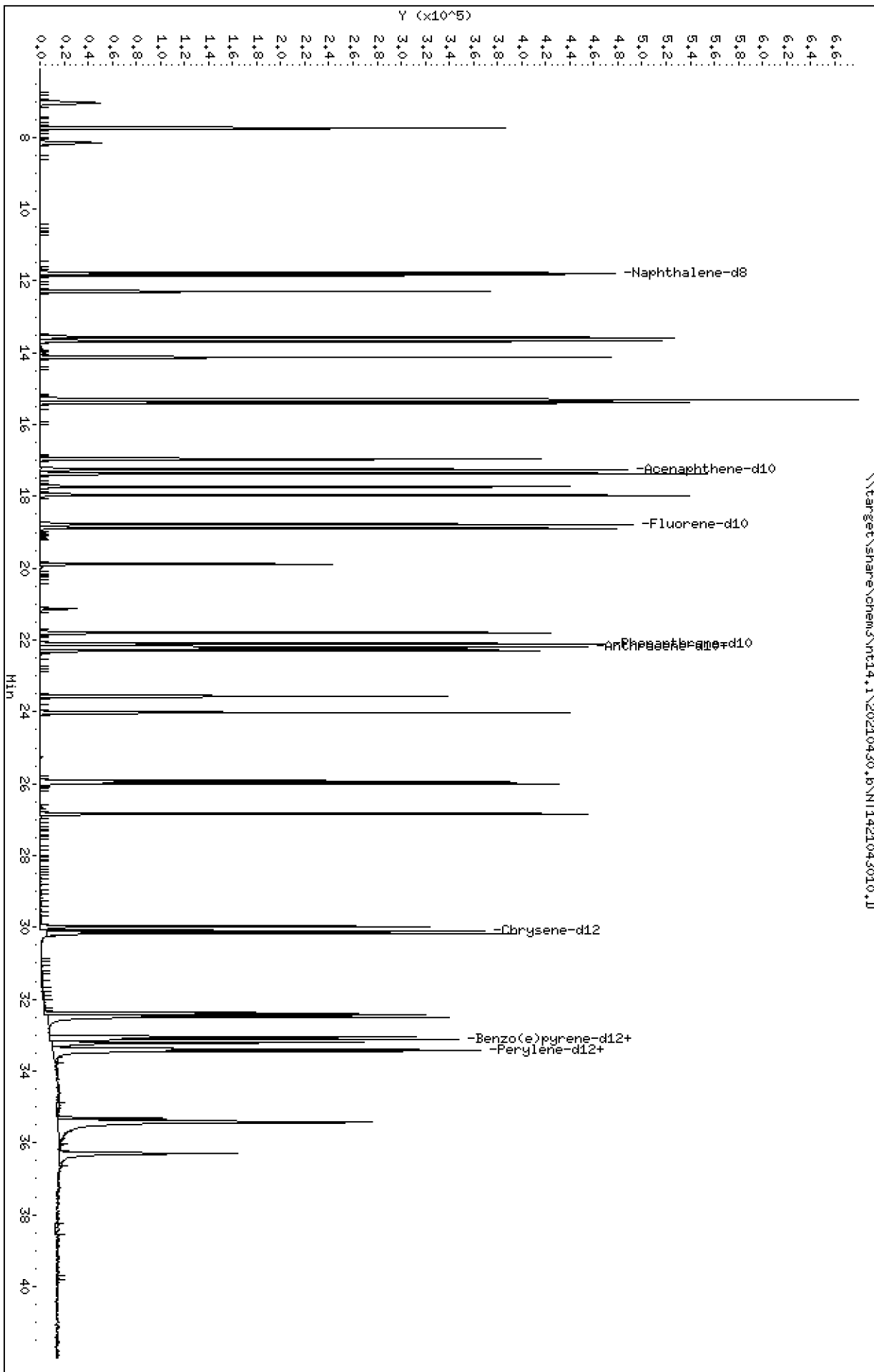
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

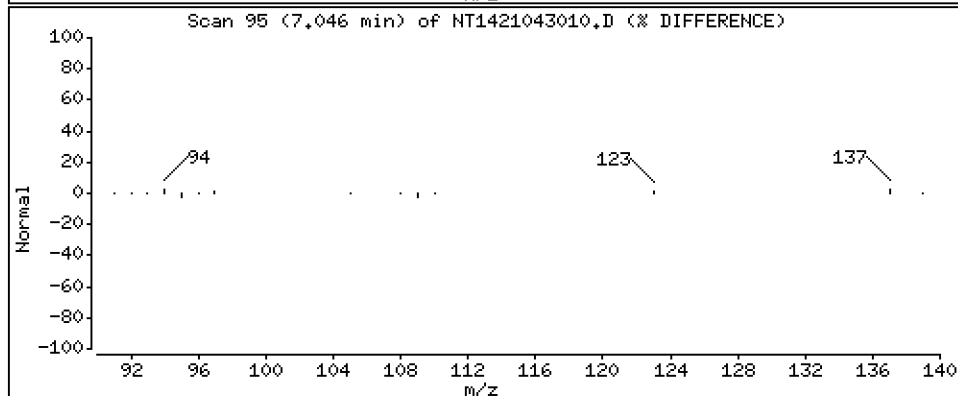
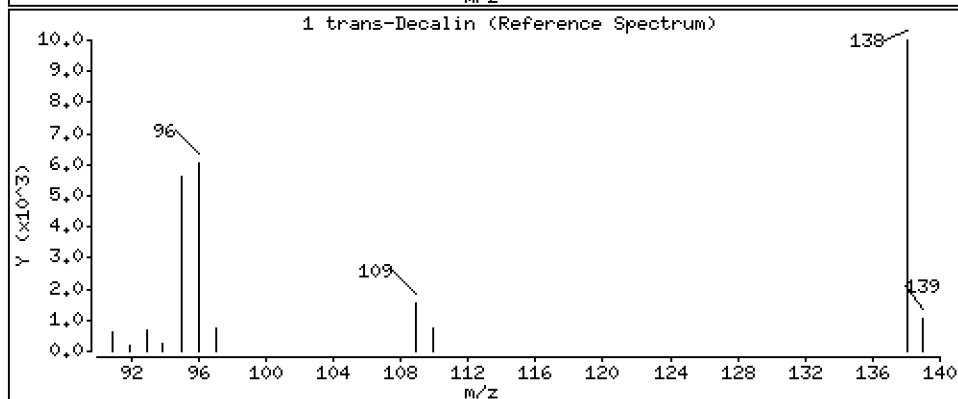
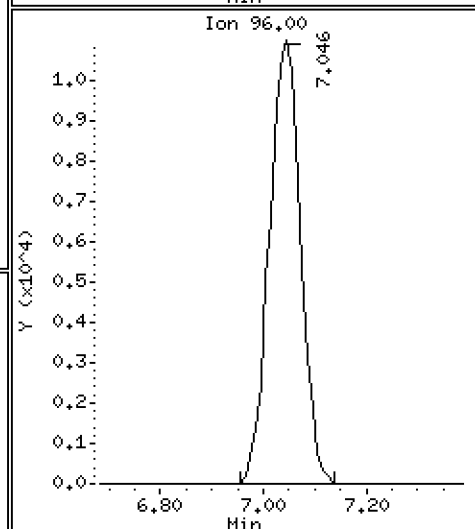
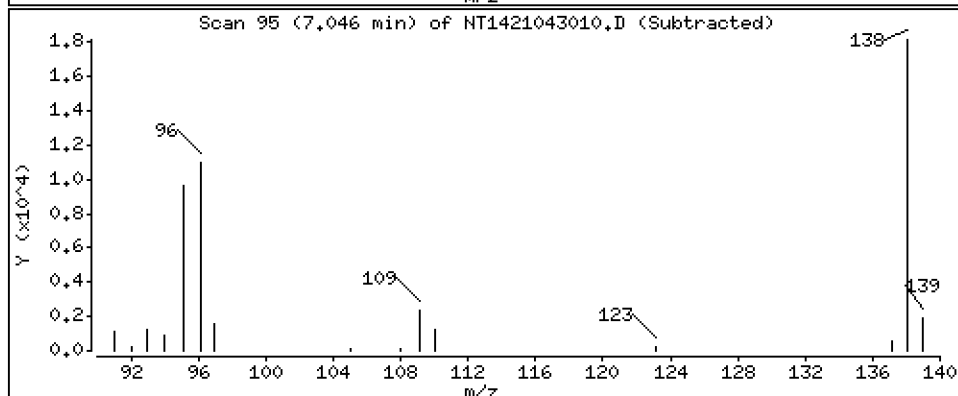
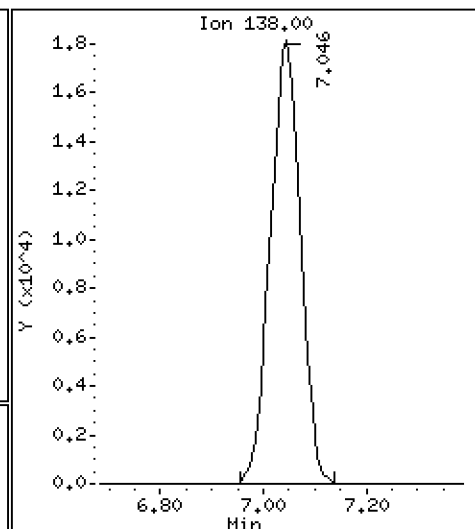
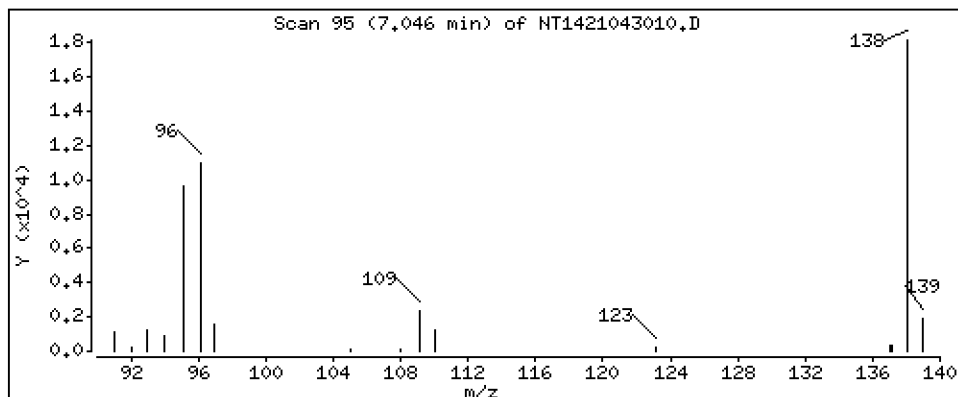
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

1 trans-Decalin

Concentration: 2,843 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

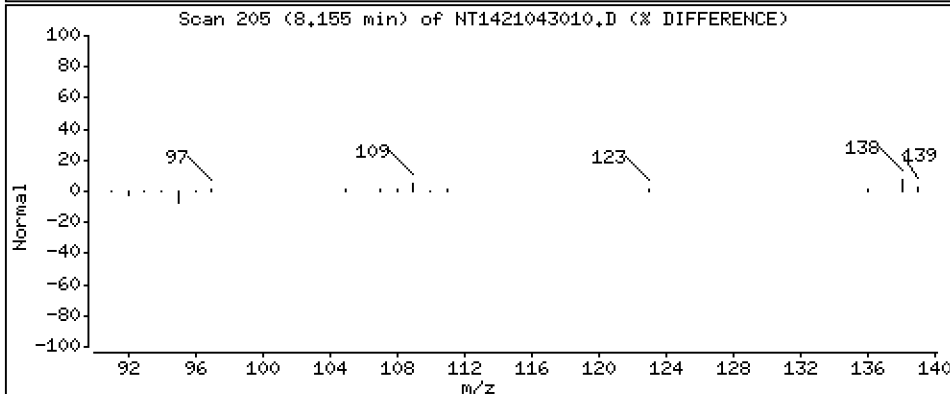
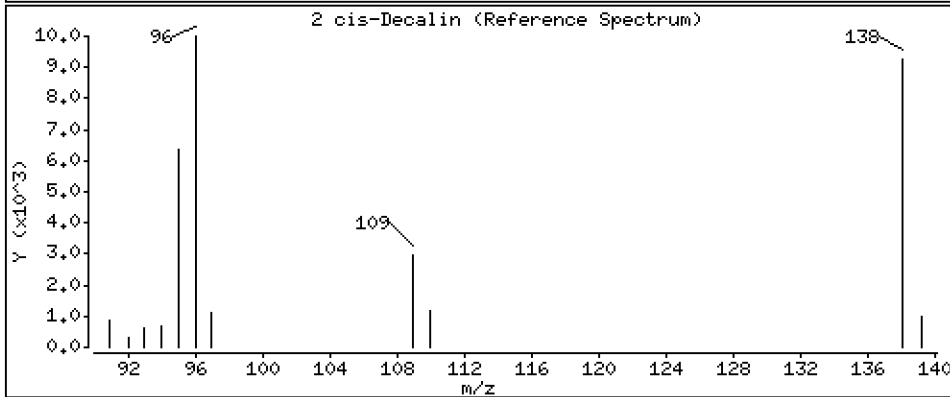
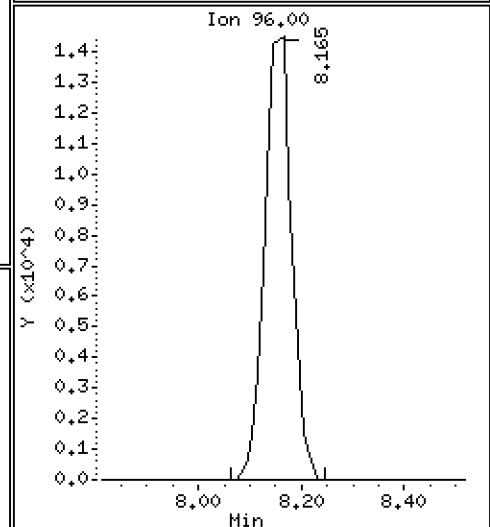
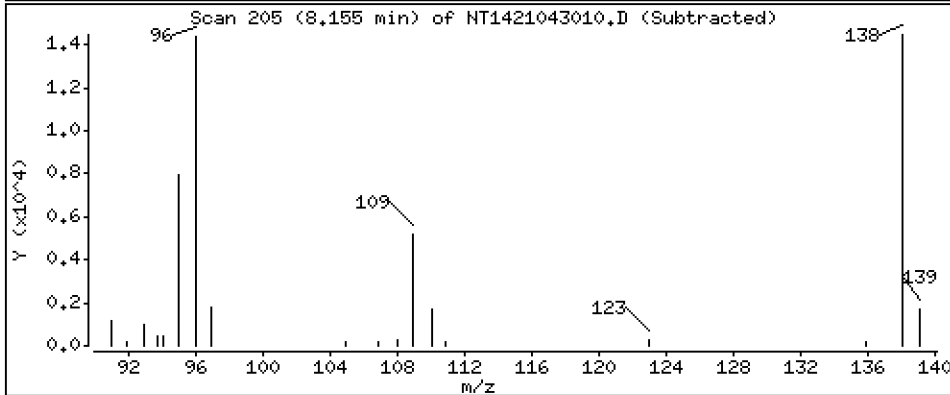
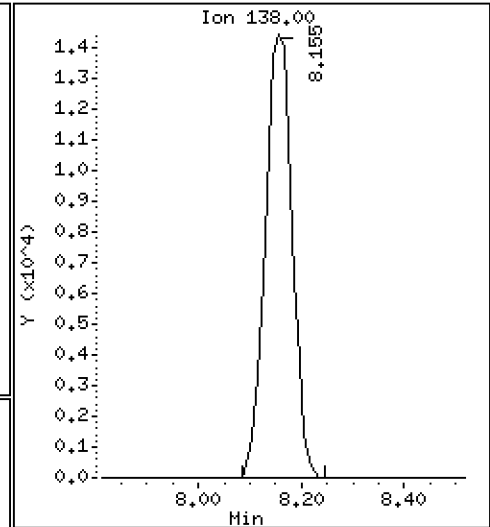
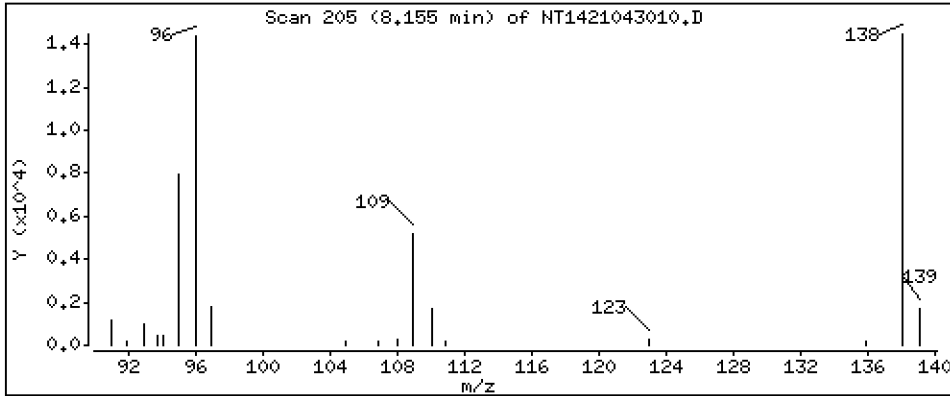
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 cis-Decalin

Concentration: 2,910 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

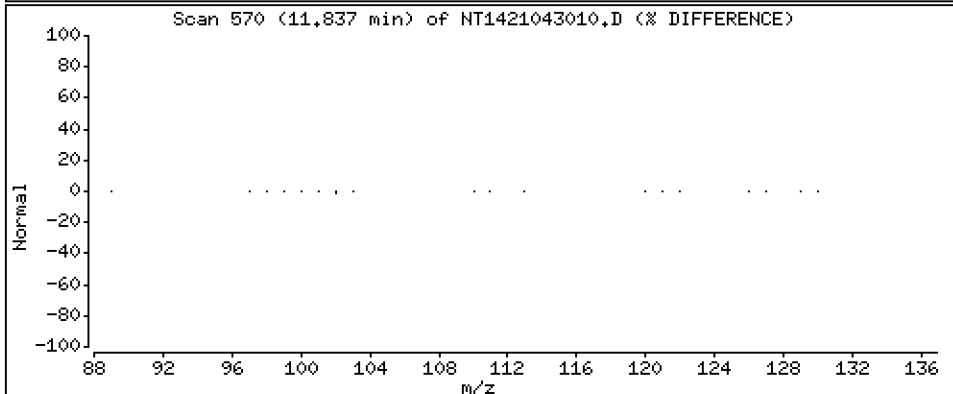
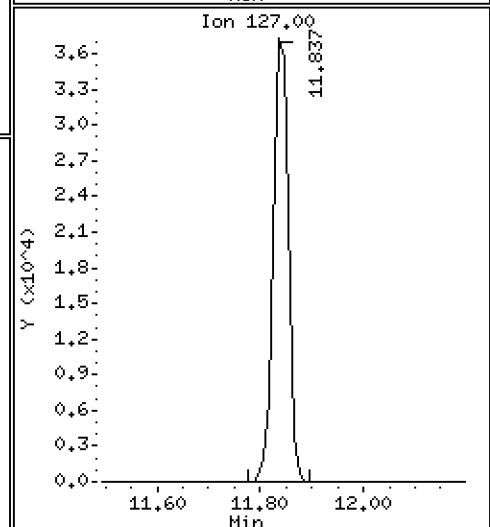
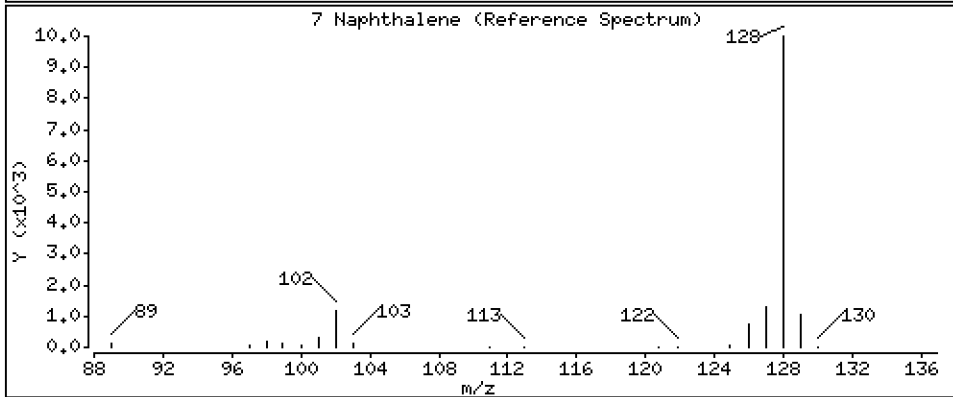
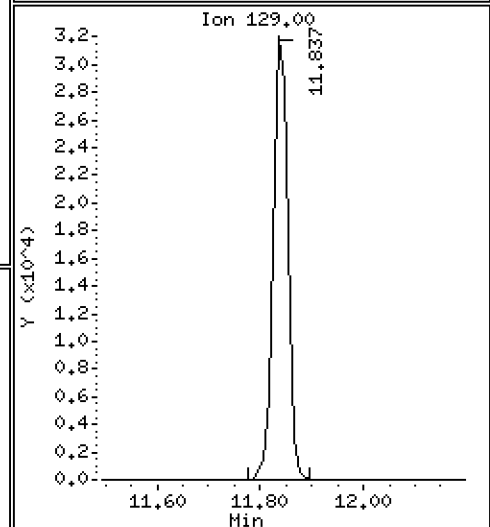
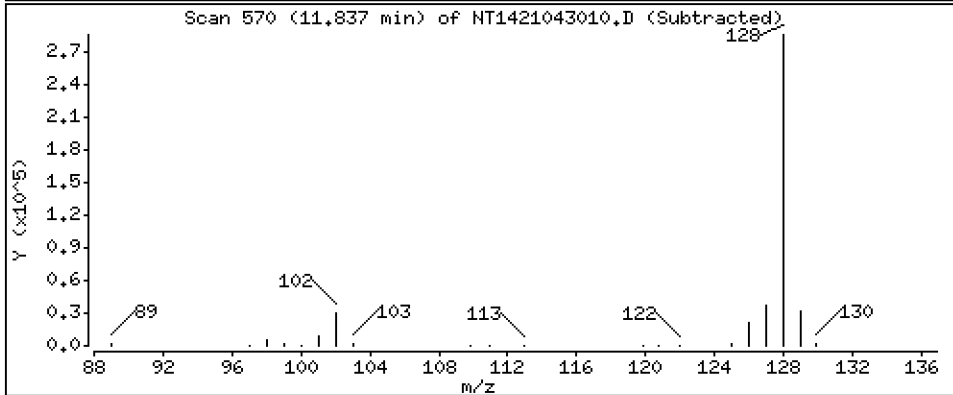
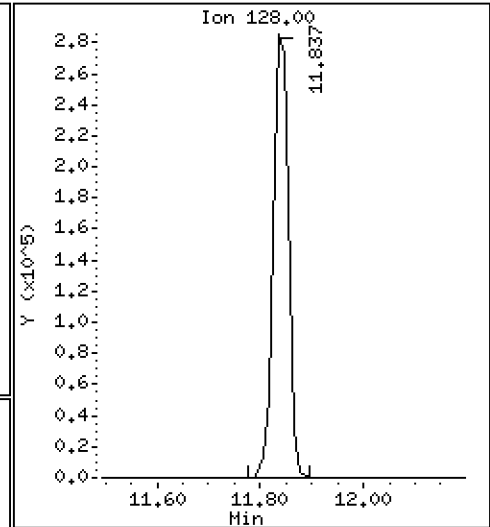
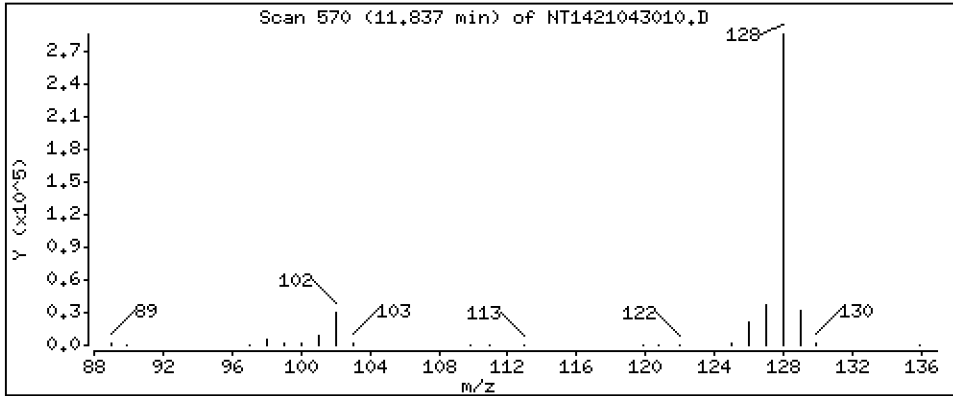
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

7 Naphthalene

Concentration: 2,783 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

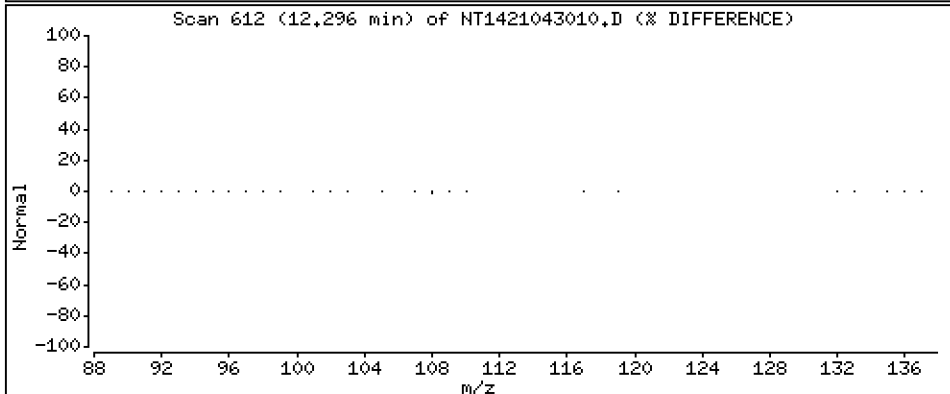
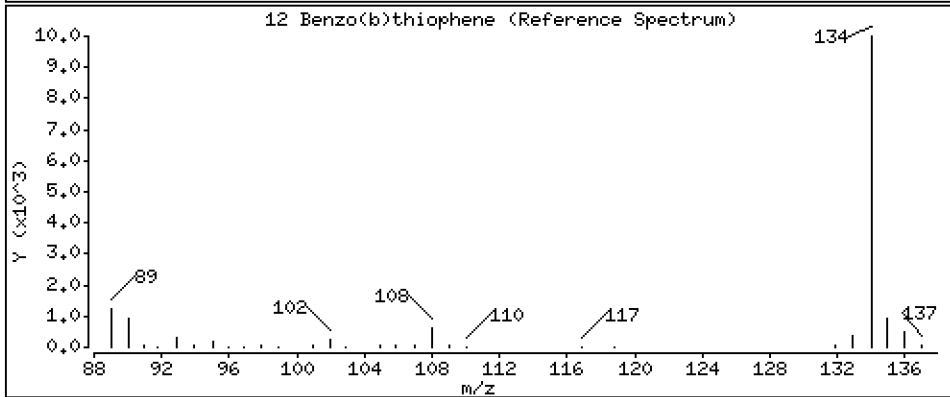
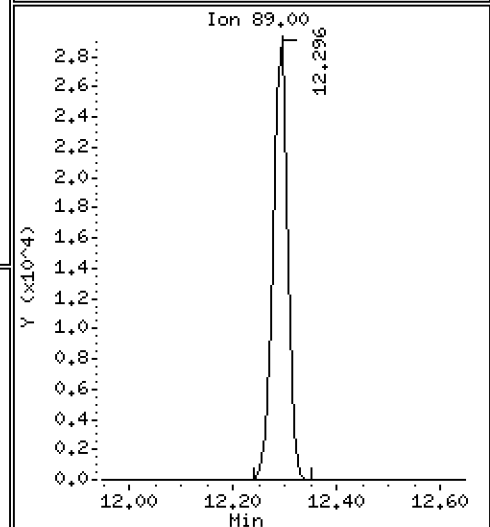
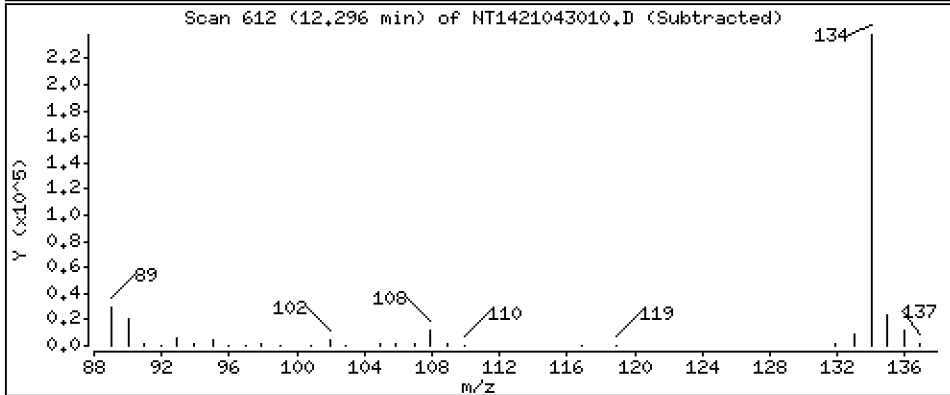
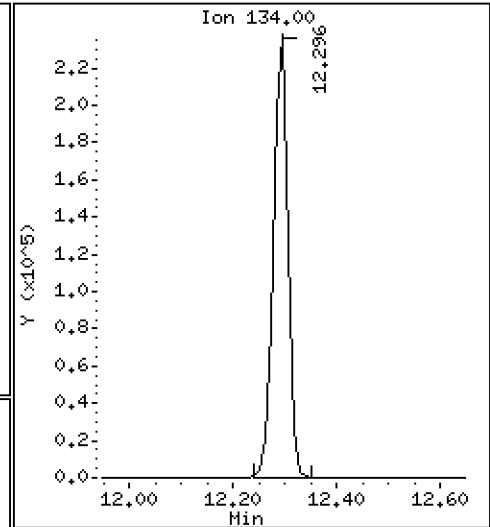
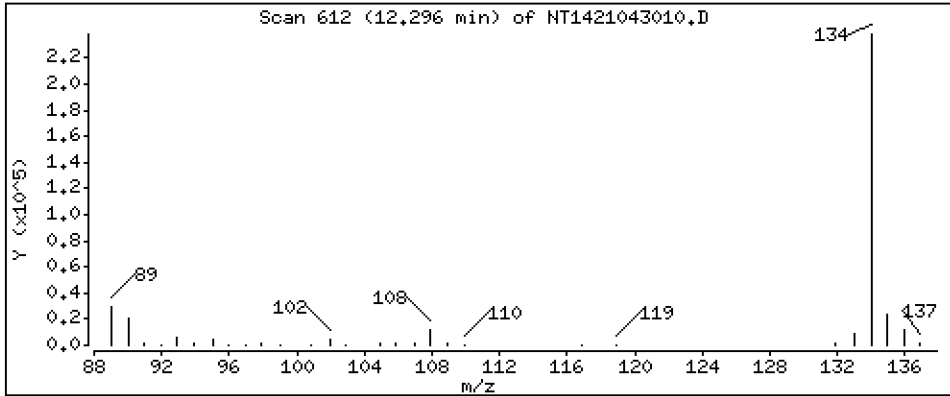
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

12 Benzo(b)thiophene

Concentration: 2,787 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

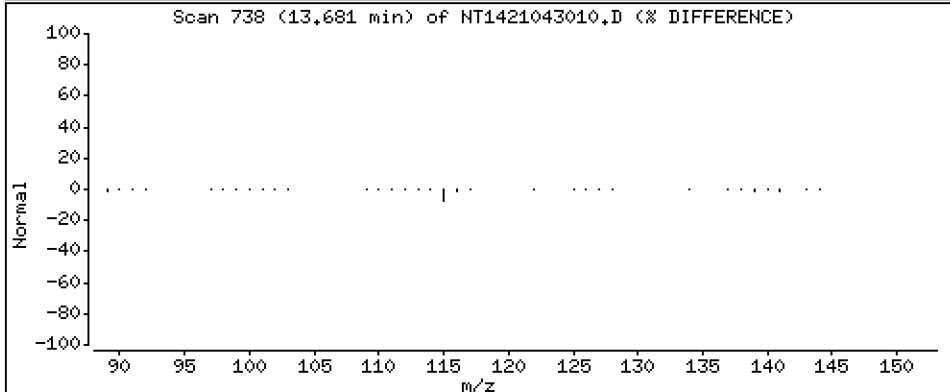
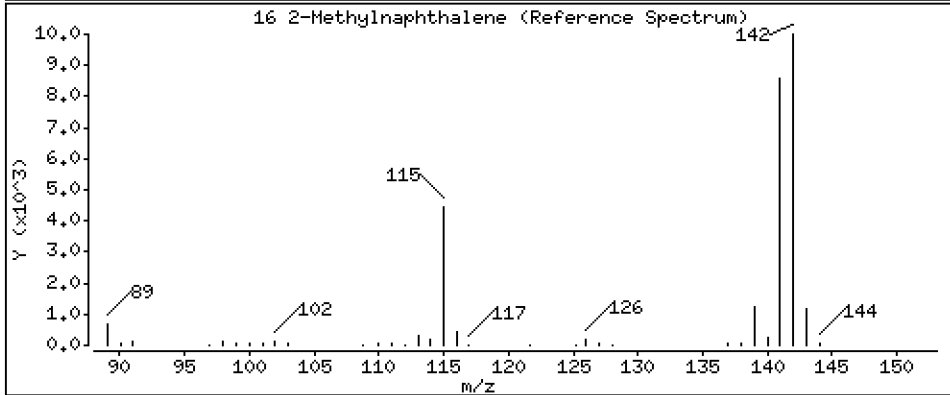
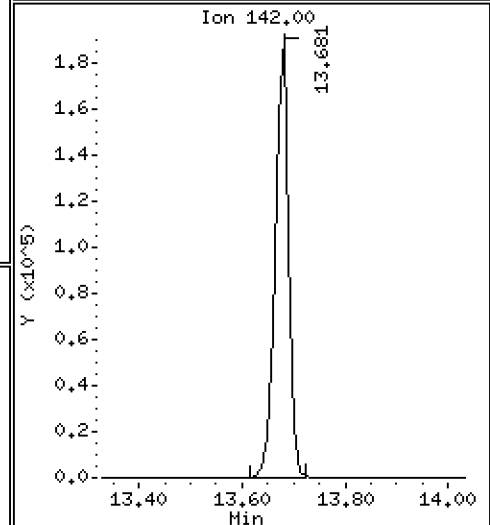
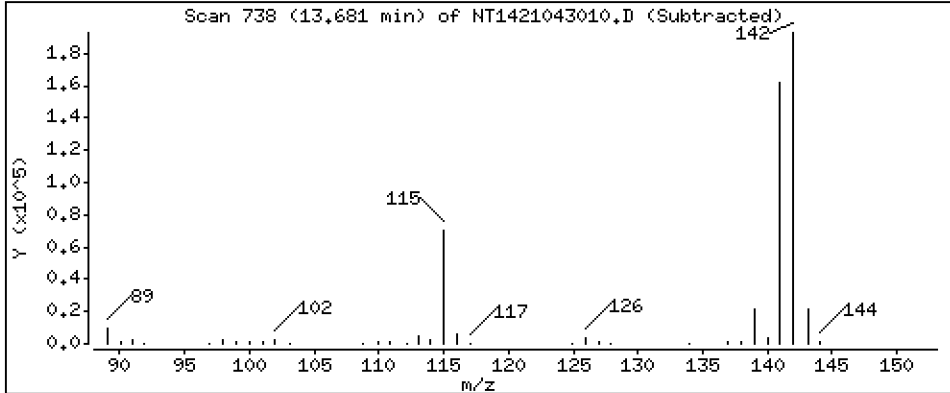
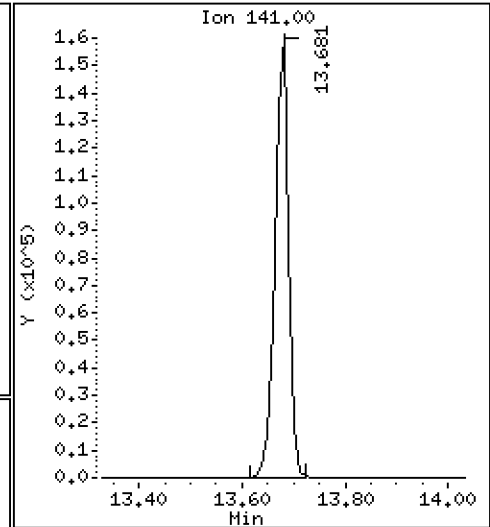
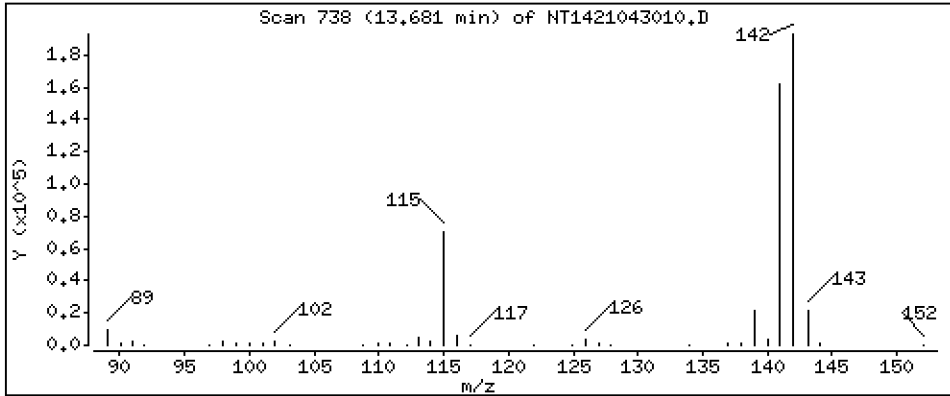
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

16 2-Methylnaphthalene

Concentration: 2,845 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

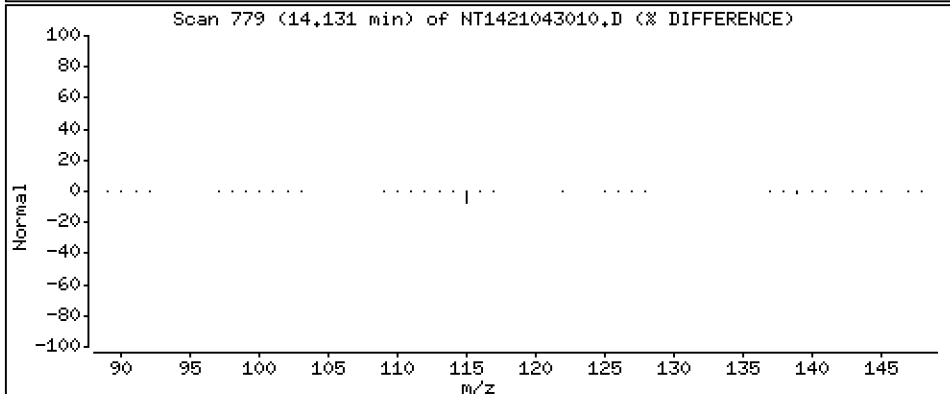
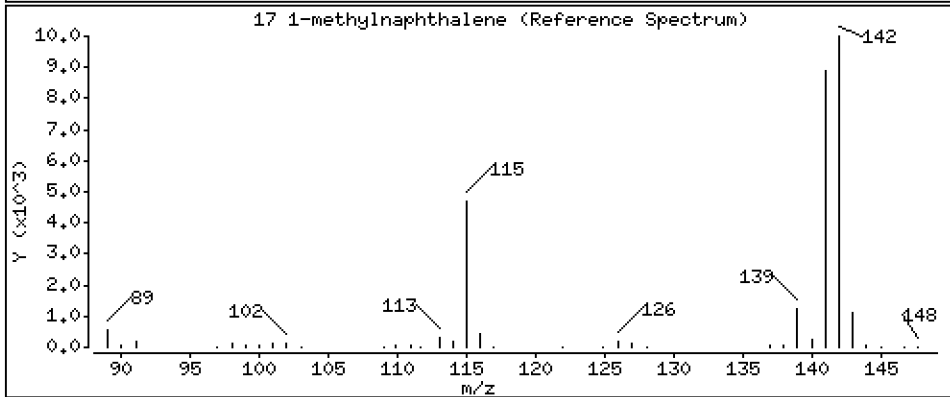
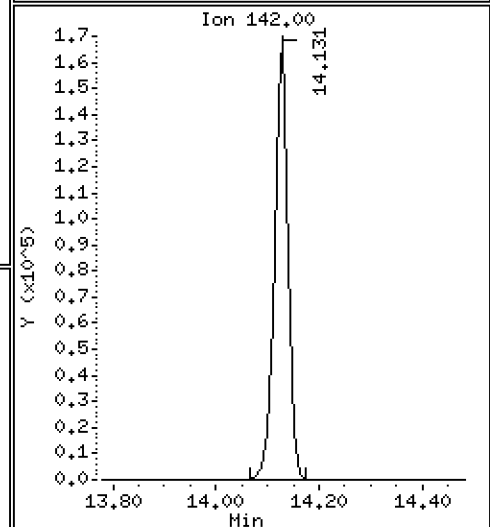
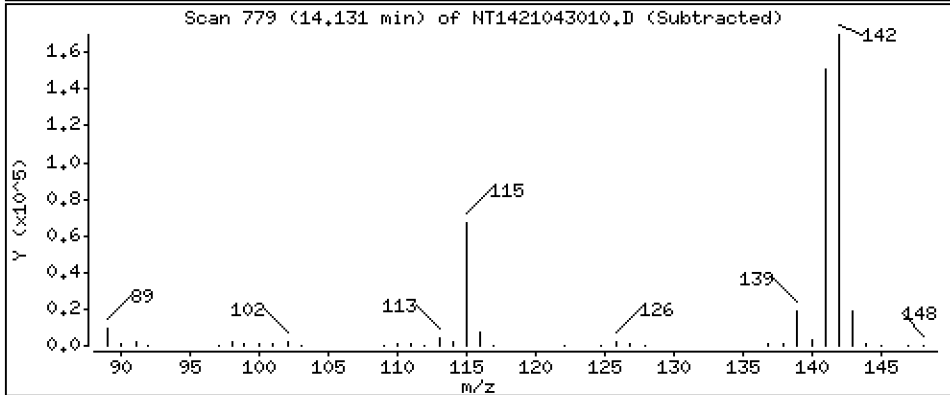
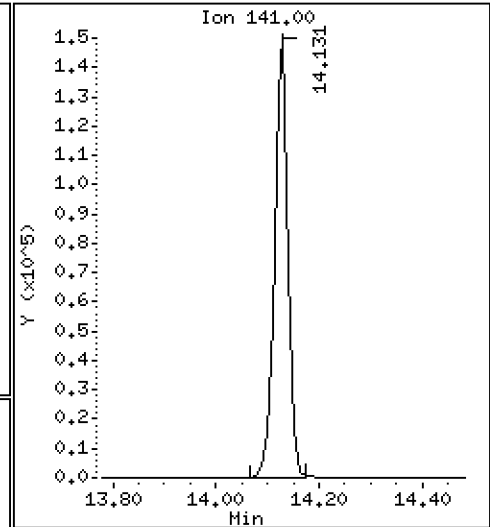
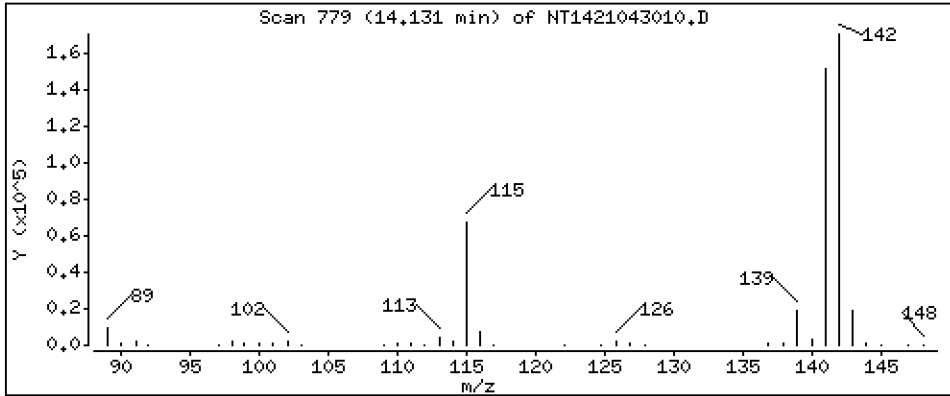
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

17 1-methylnaphthalene

Concentration: 2,821 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

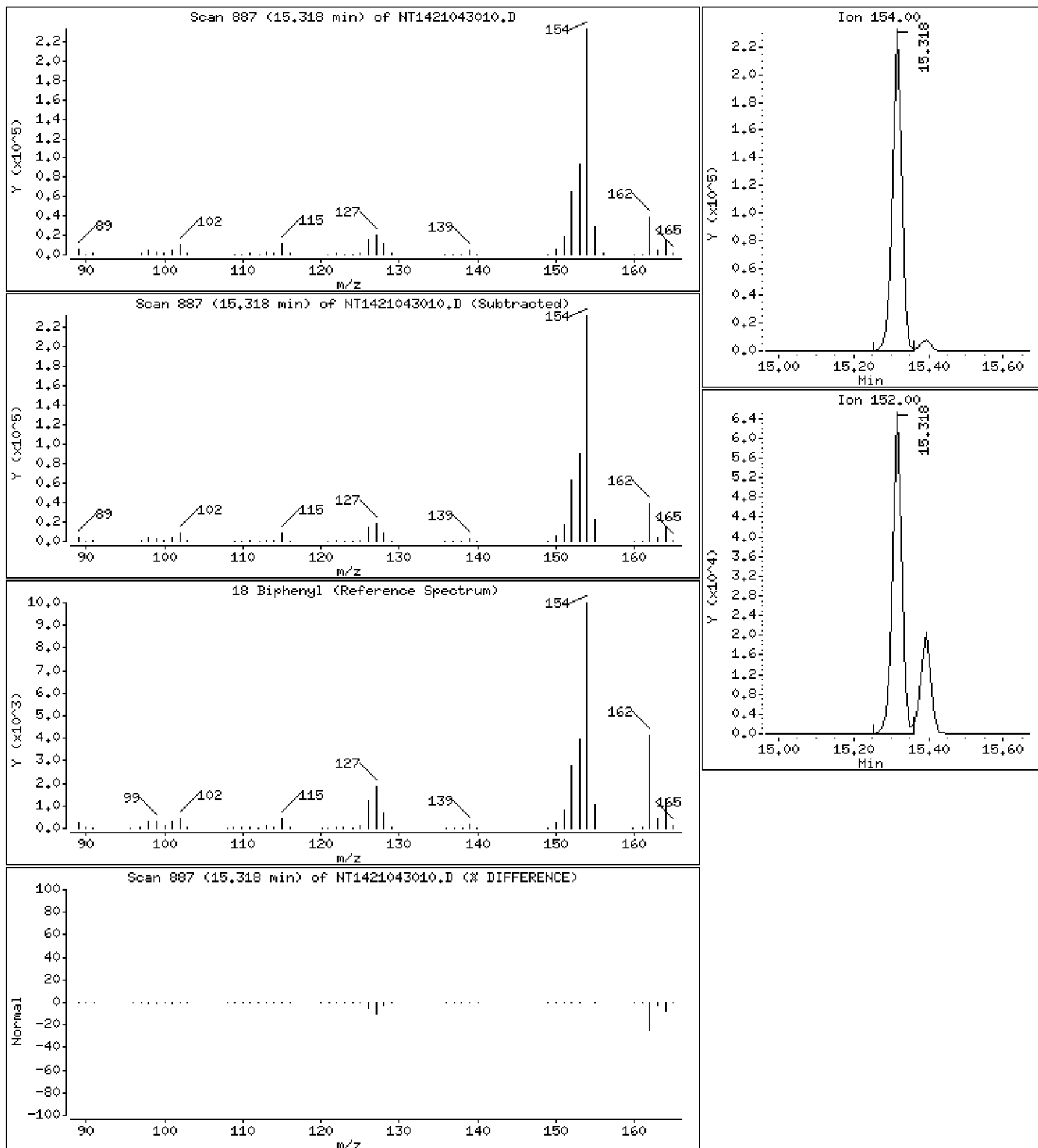
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

18 Biphenyl

Concentration: 2,765 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

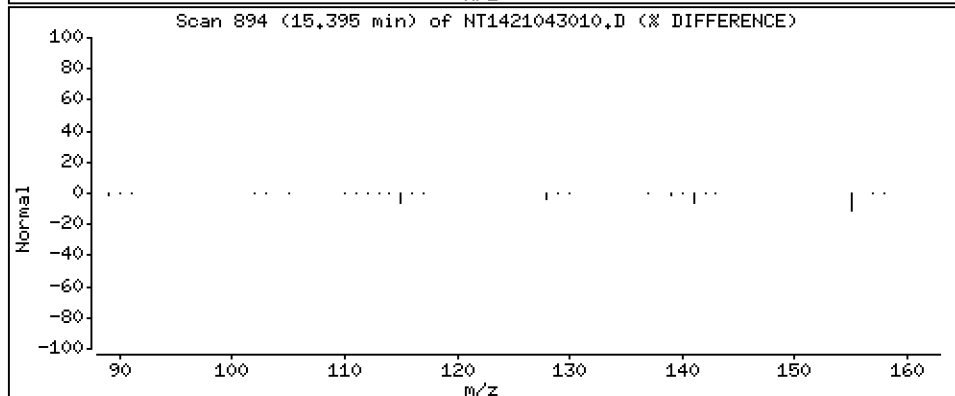
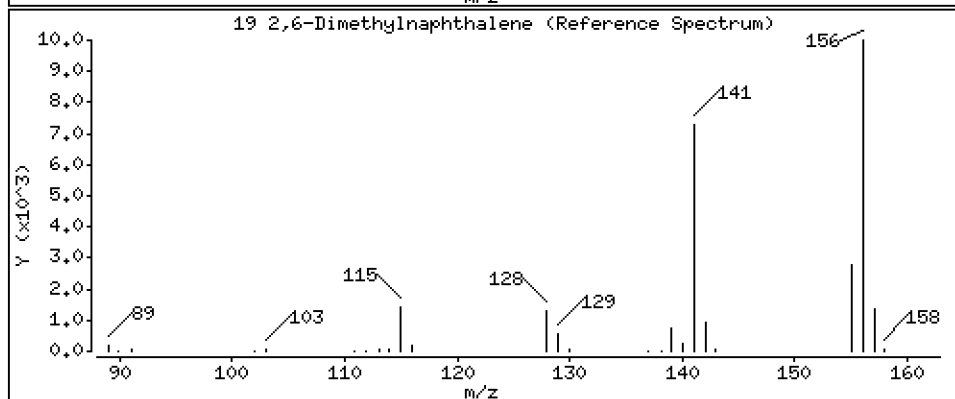
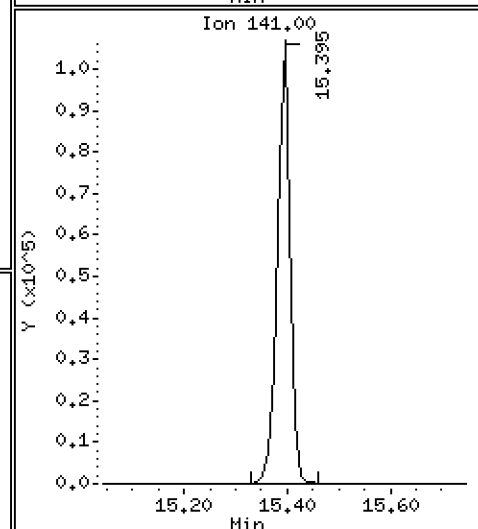
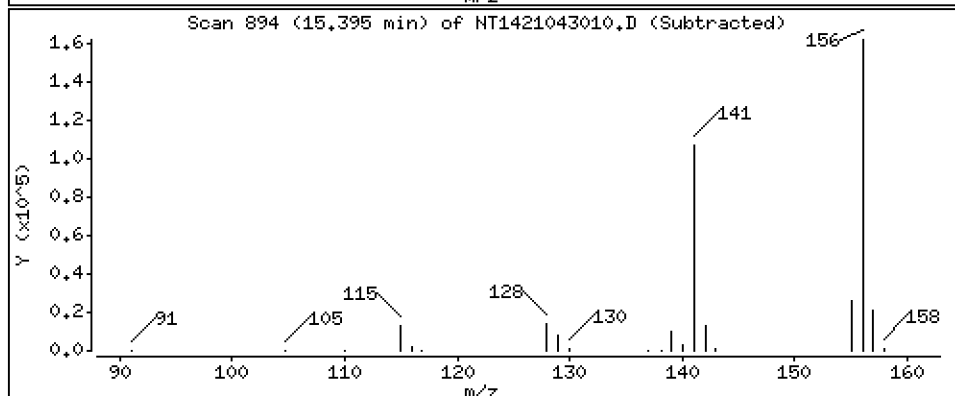
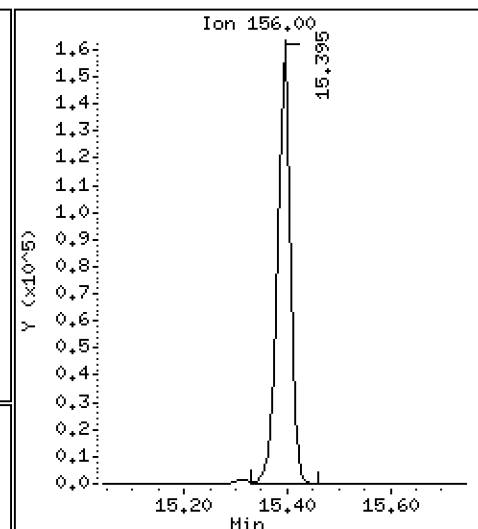
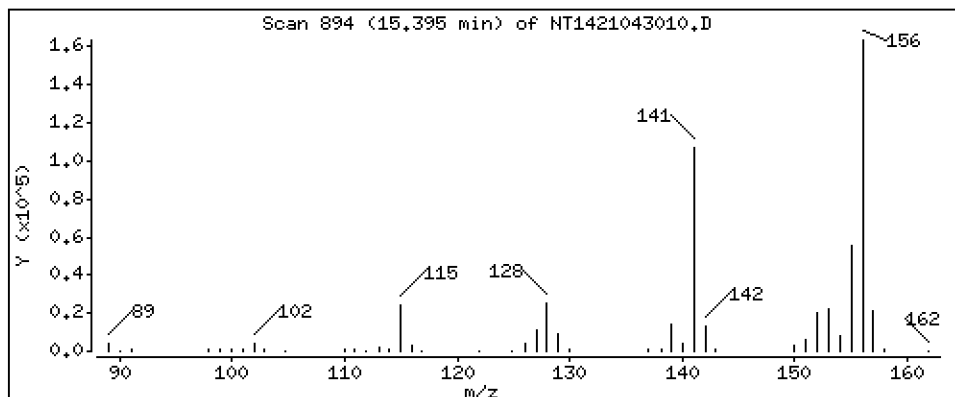
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 2,6-Dimethylnaphthalene

Concentration: 2,822 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

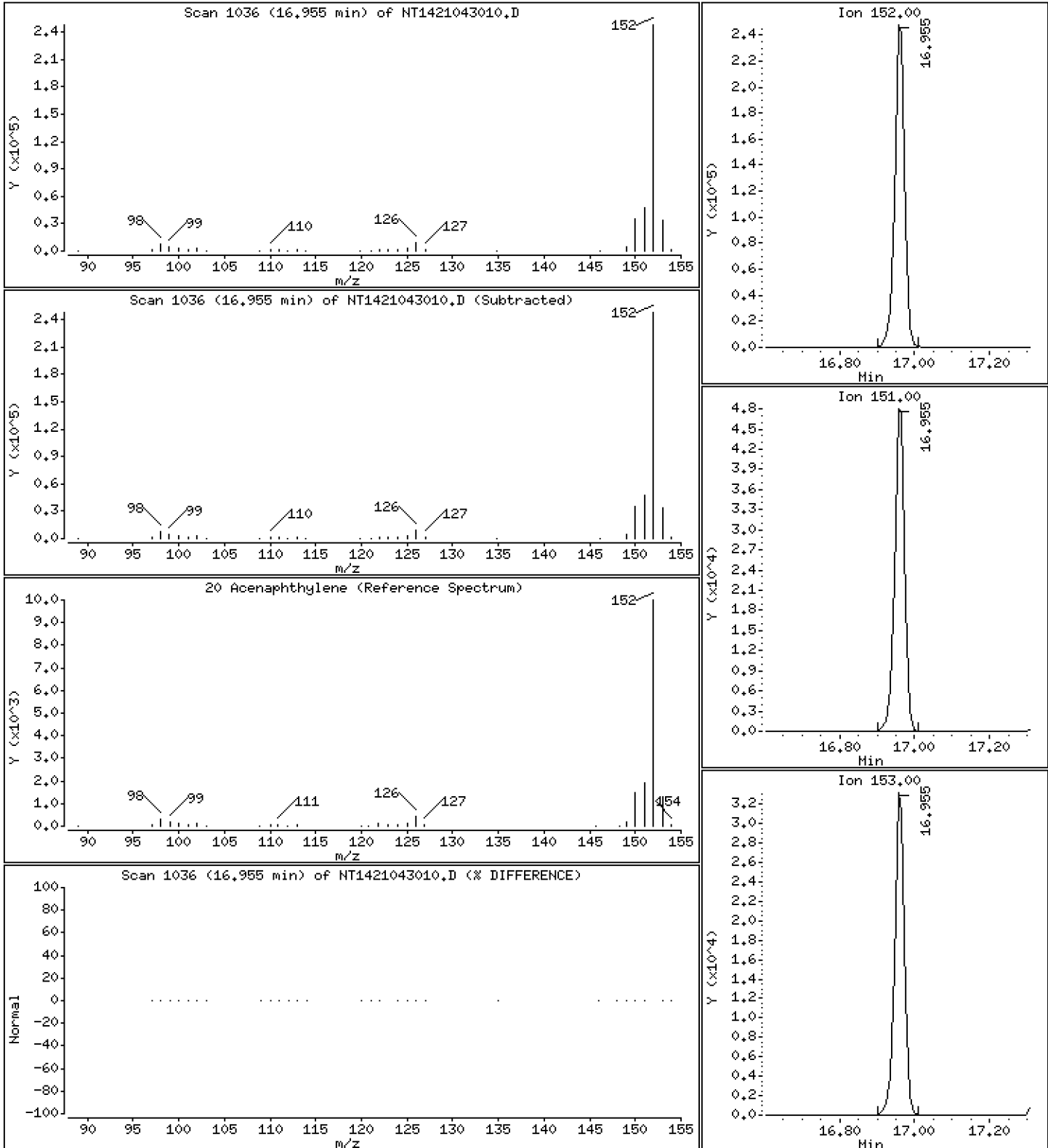
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

20 Acenaphthylene

Concentration: 2,889 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

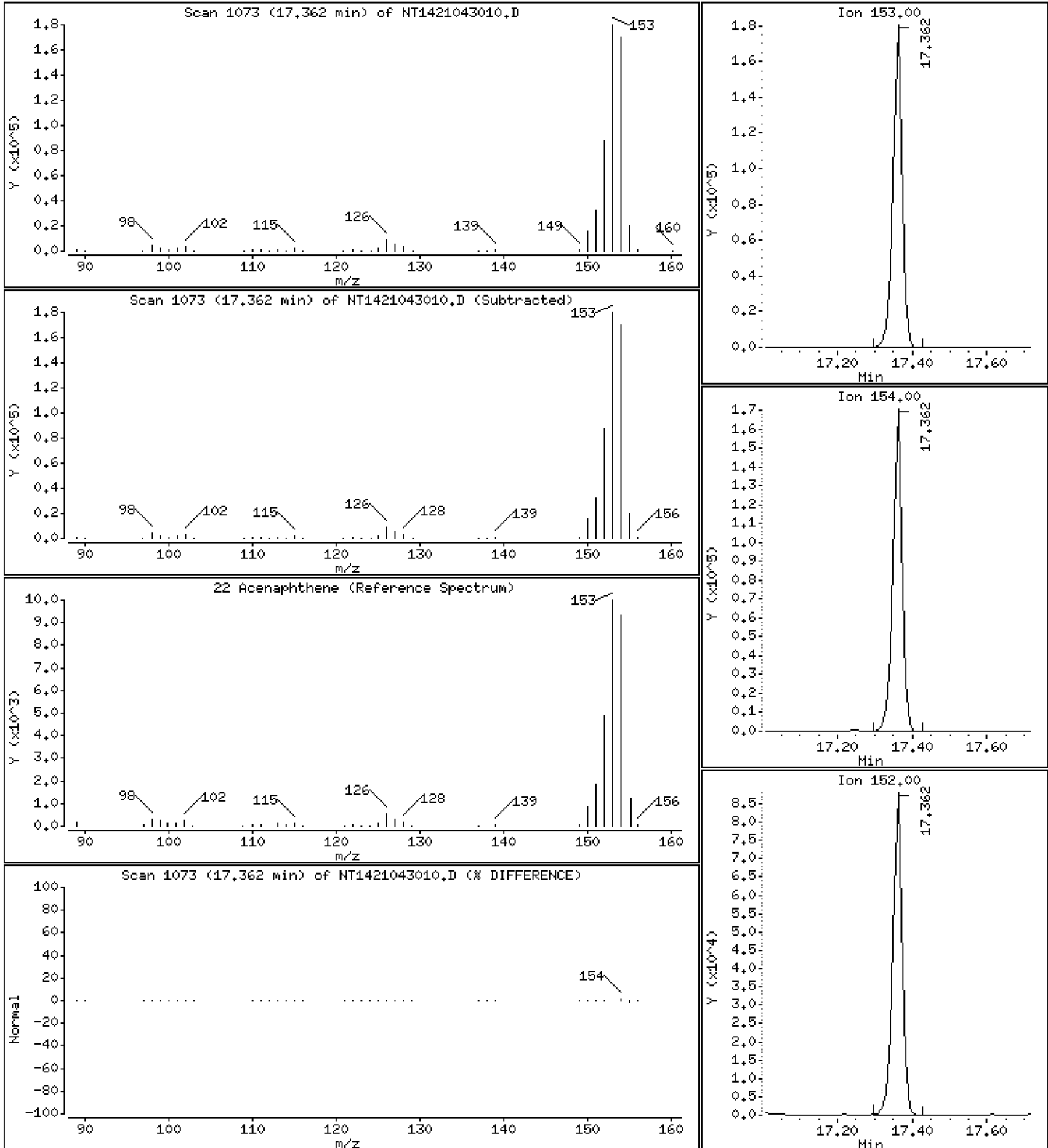
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Acenaphthene

Concentration: 3,010 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

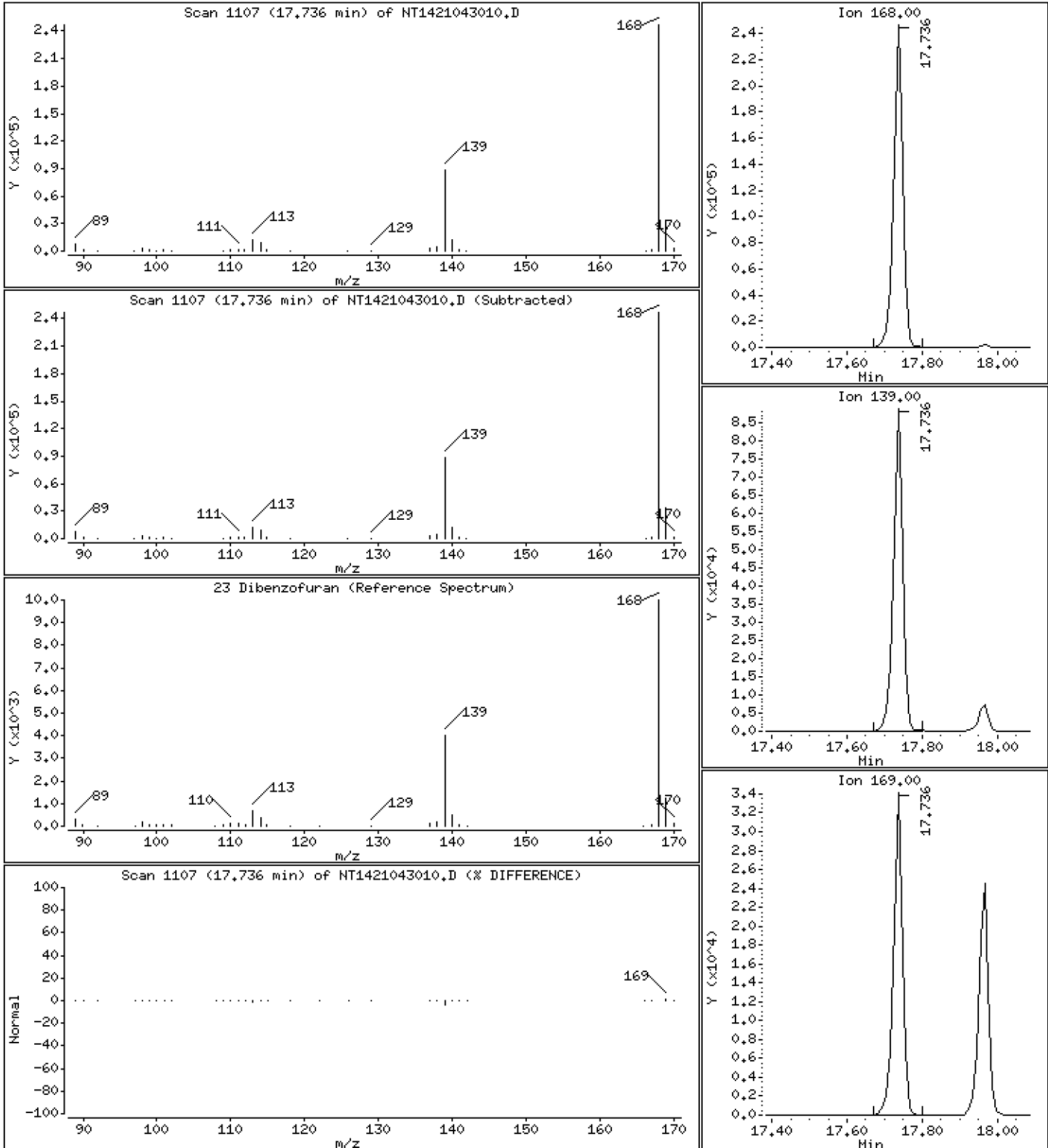
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 Dibenzofuran

Concentration: 2,768 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

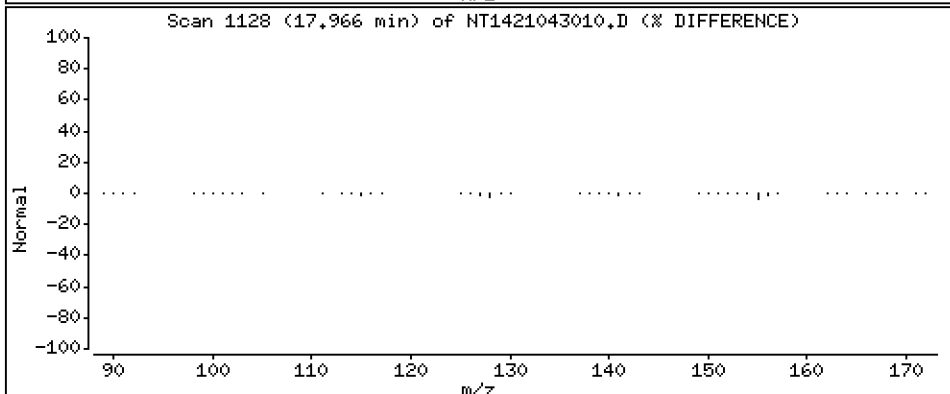
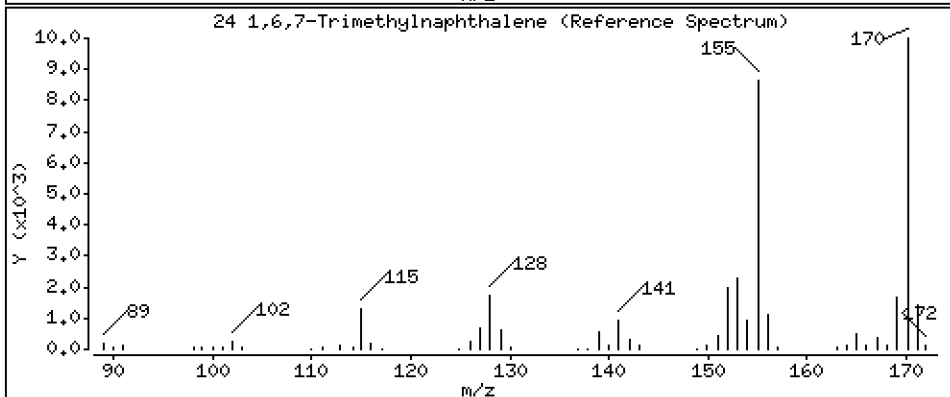
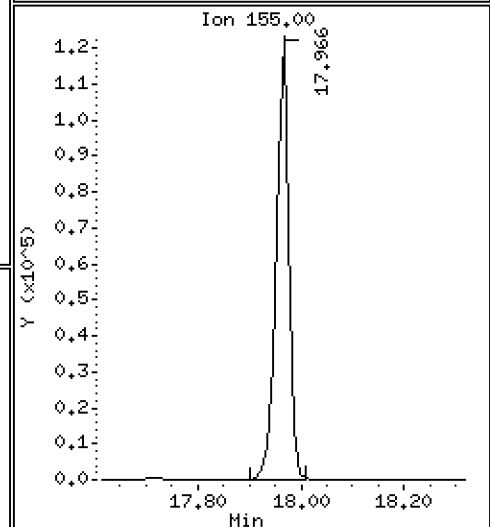
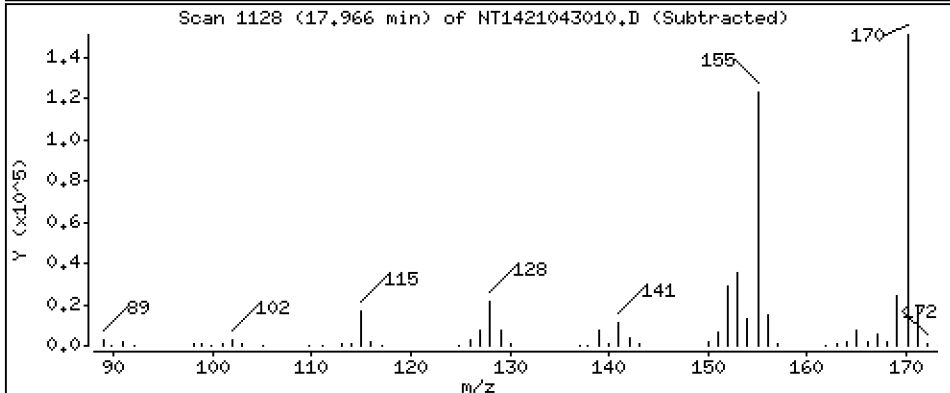
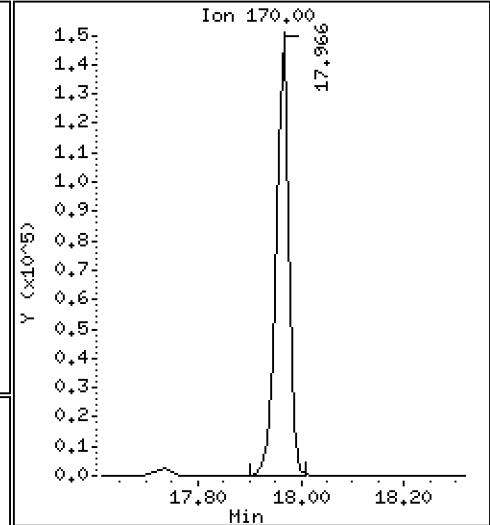
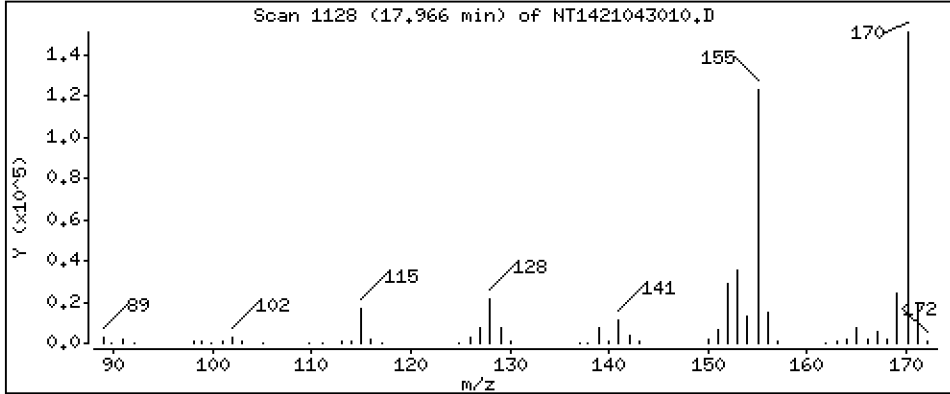
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

24 1,6,7-Trimethylnaphthalene

Concentration: 2,923 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

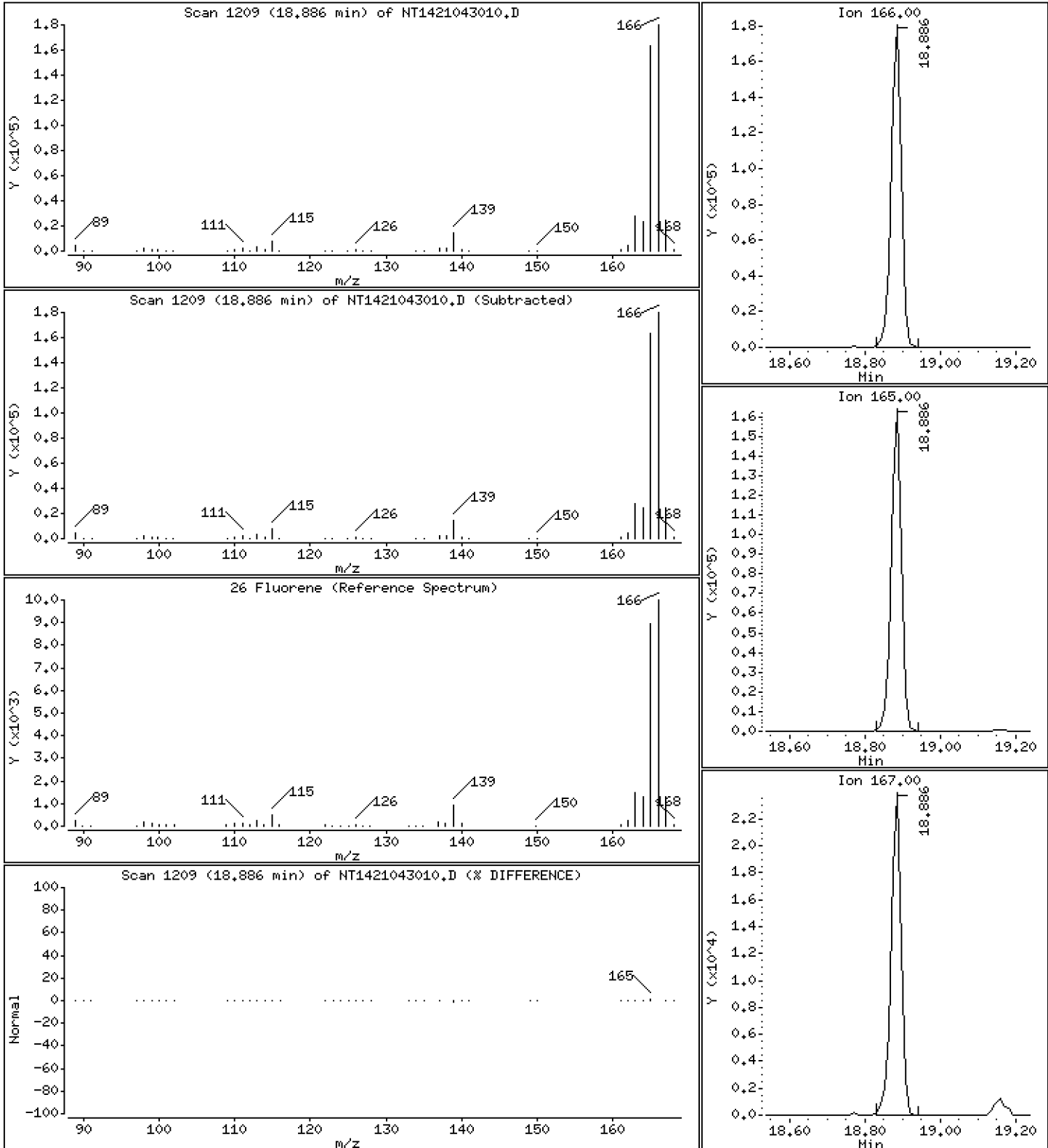
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Fluorene

Concentration: 2,844 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

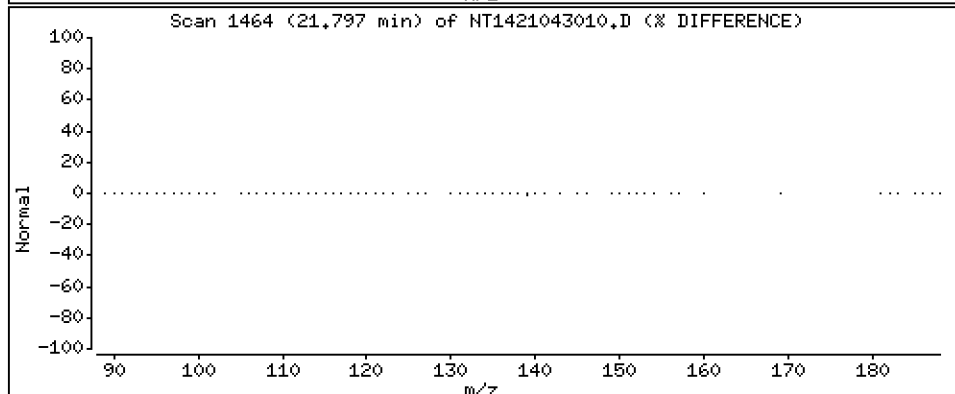
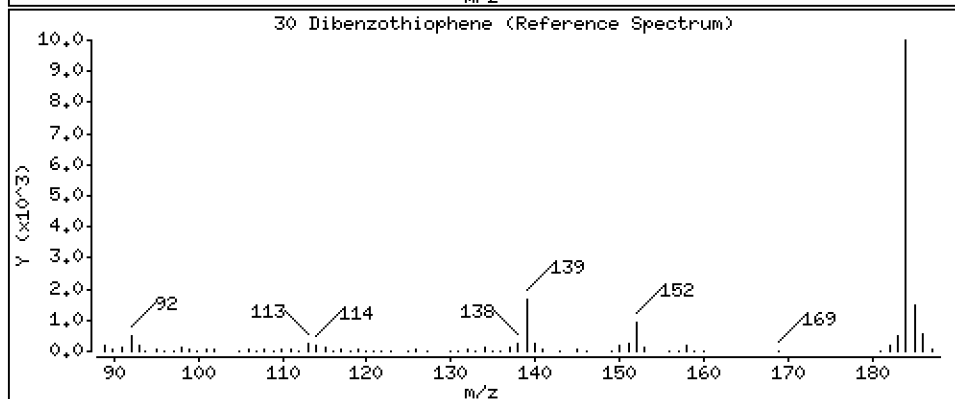
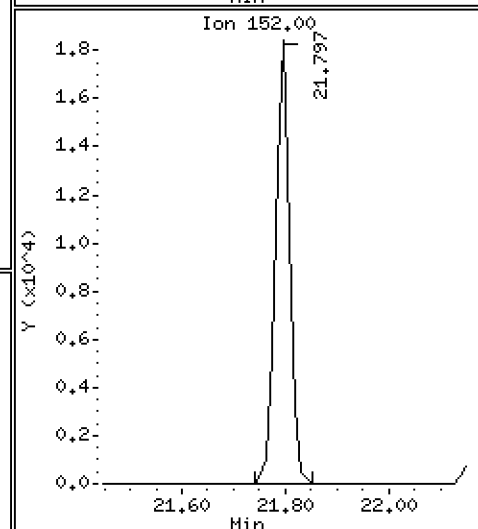
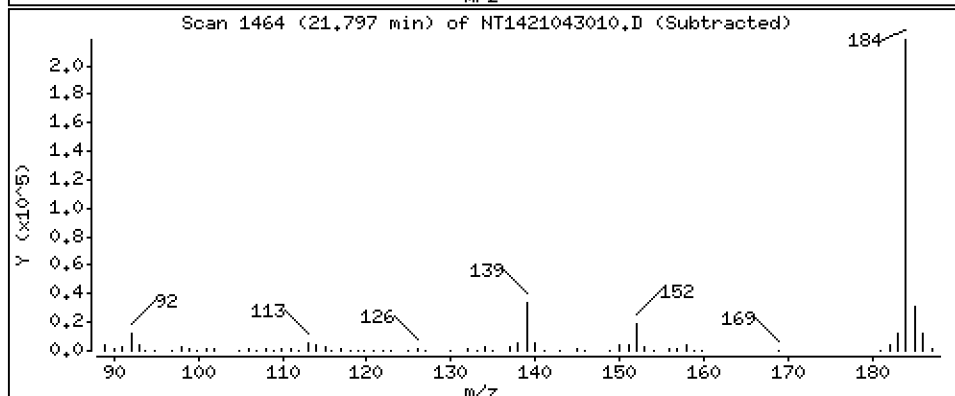
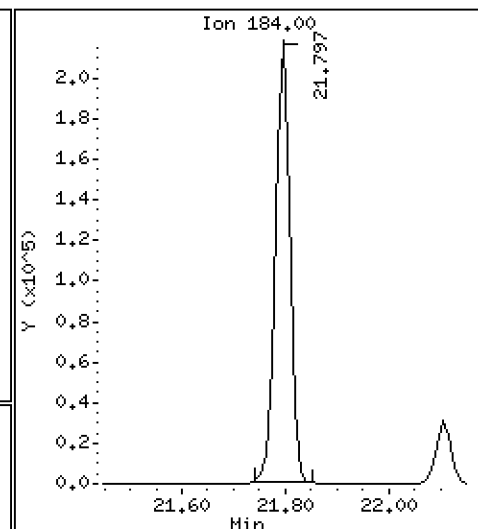
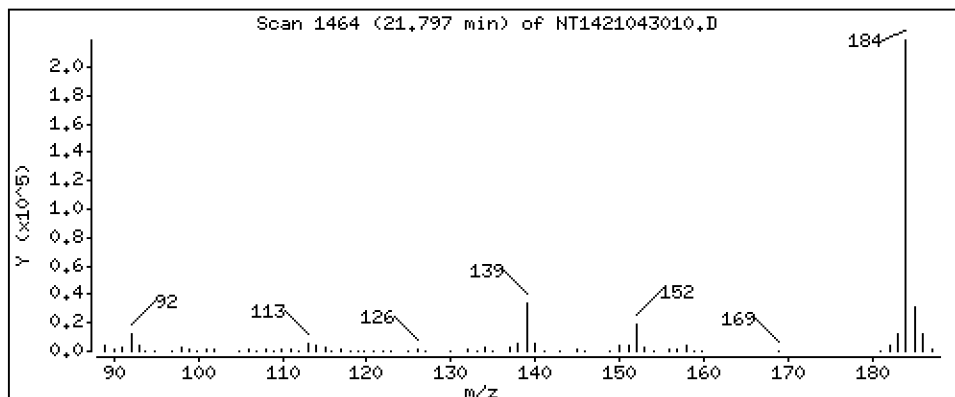
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Dibenzothiophene

Concentration: 2,782 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

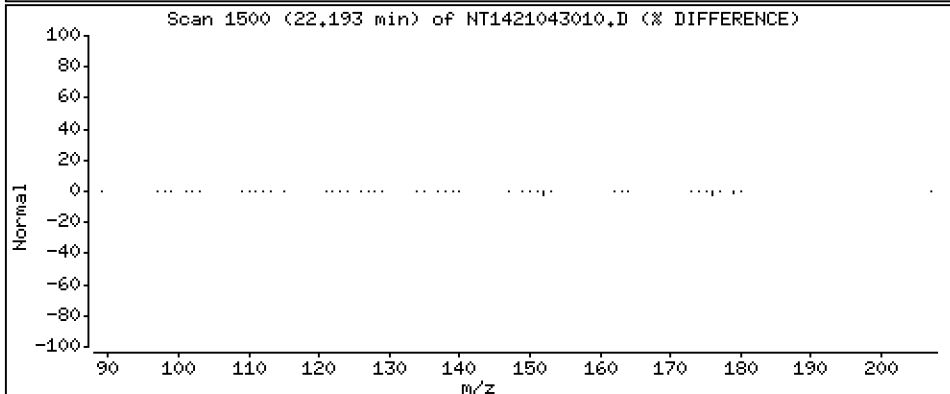
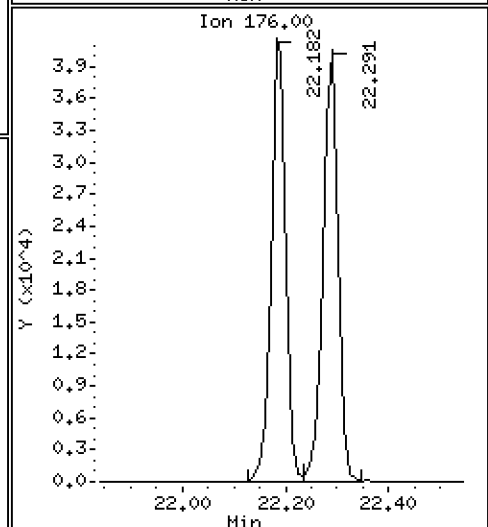
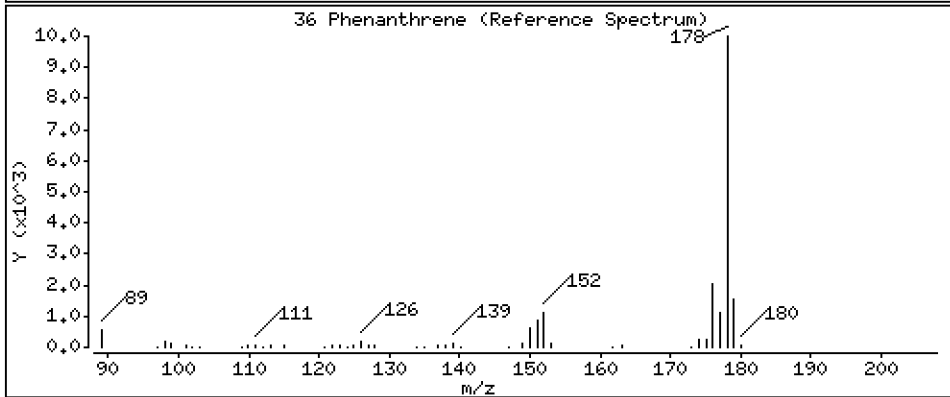
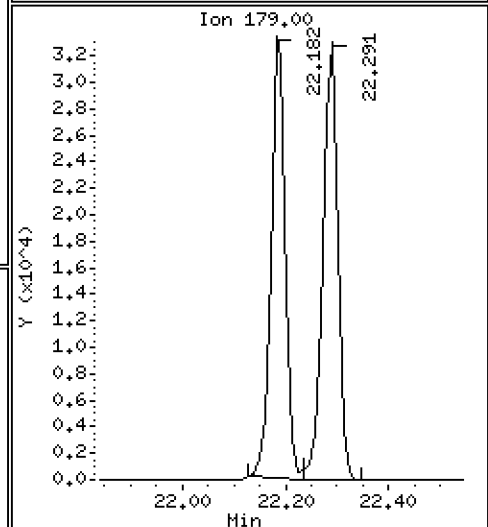
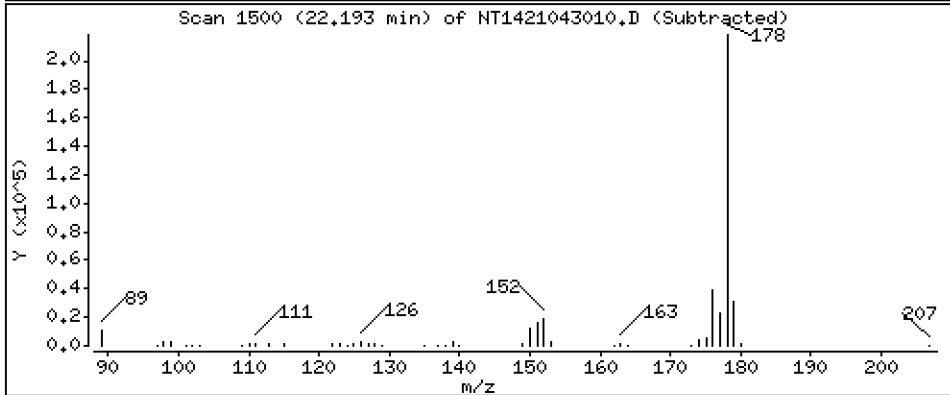
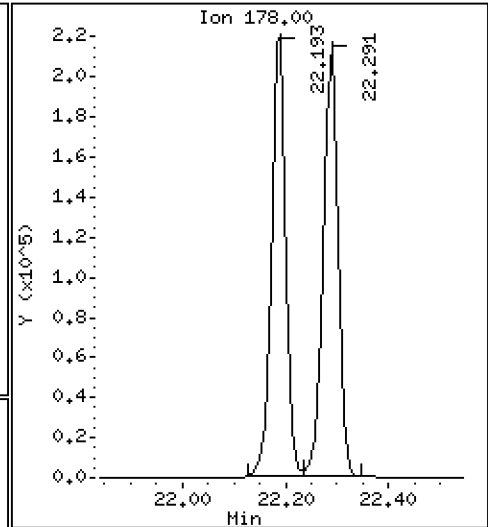
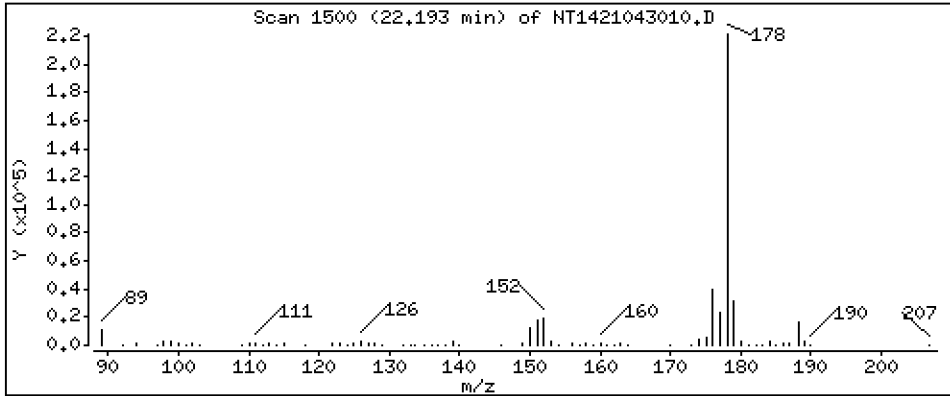
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

36 Phenanthrene

Concentration: 2,468 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

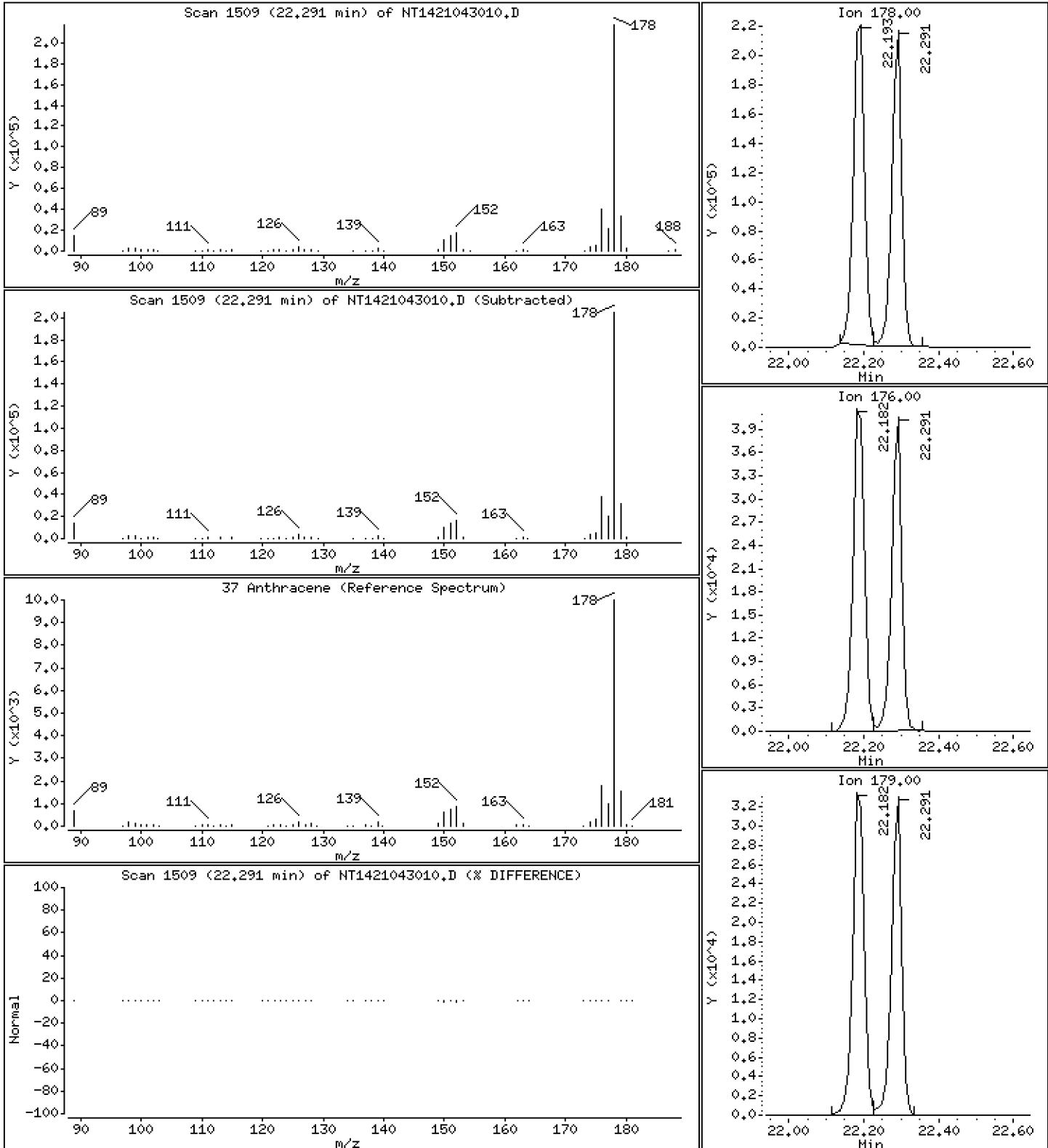
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

37 Anthracene

Concentration: 2,492 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

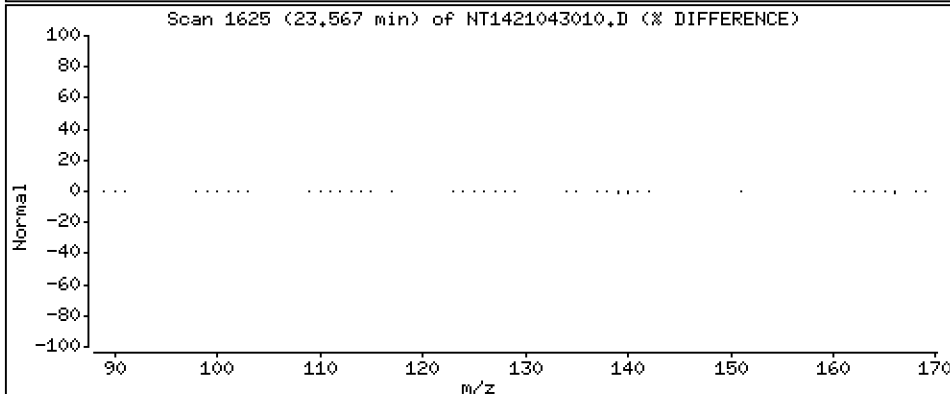
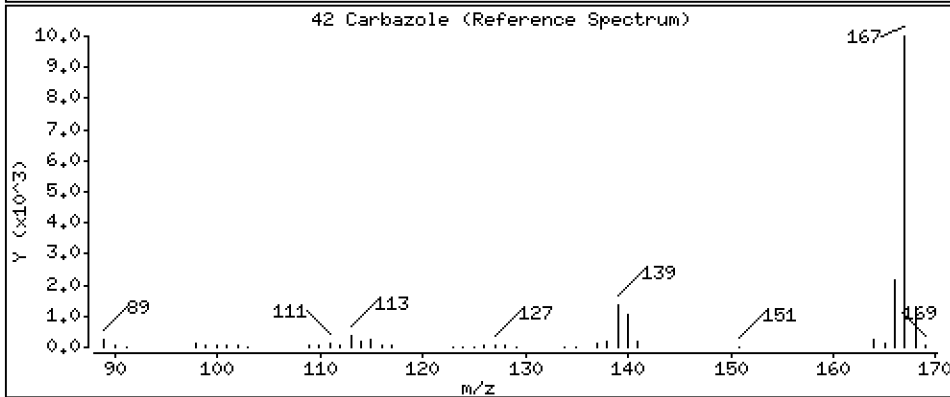
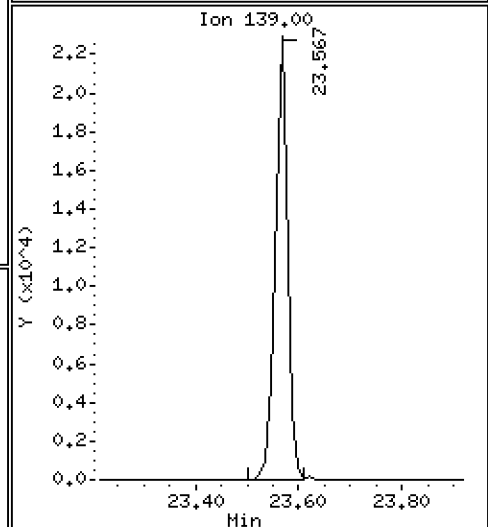
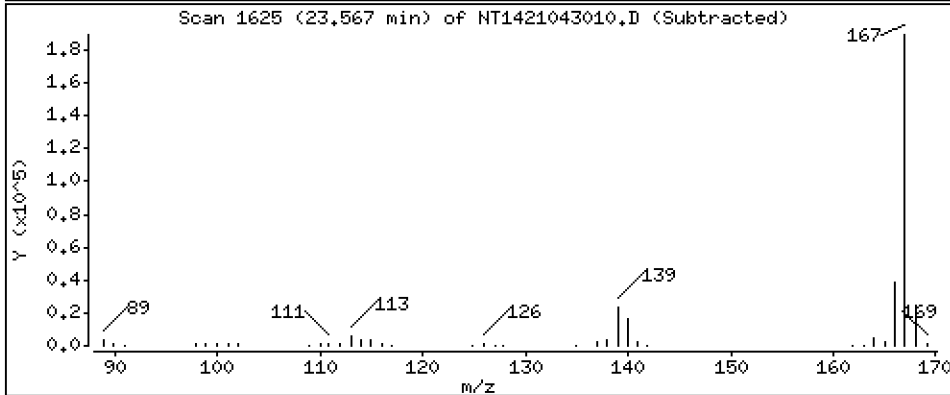
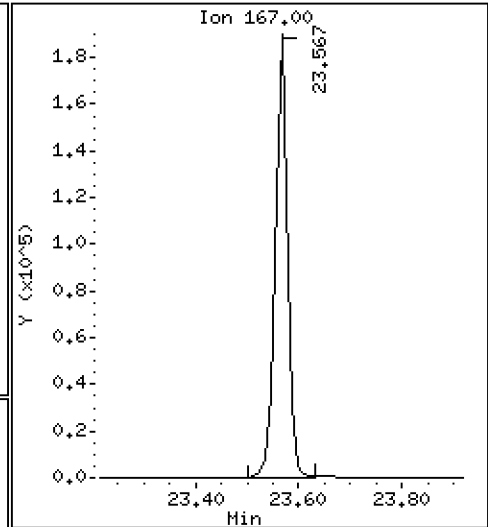
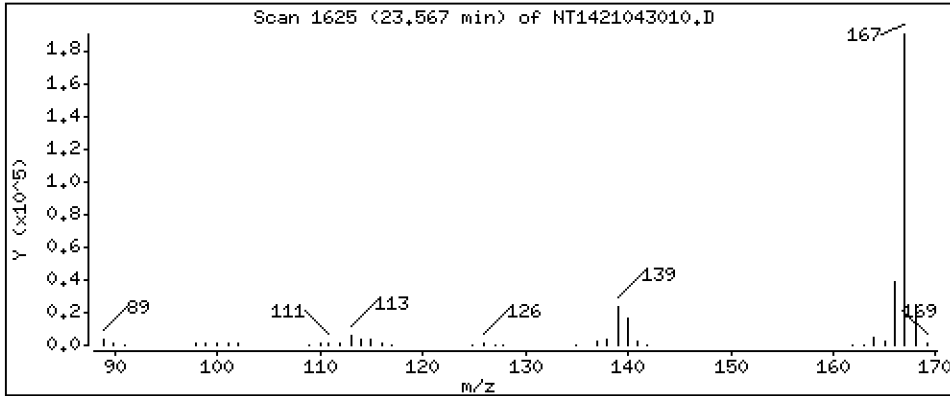
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

42 Carbazole

Concentration: 2,343 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

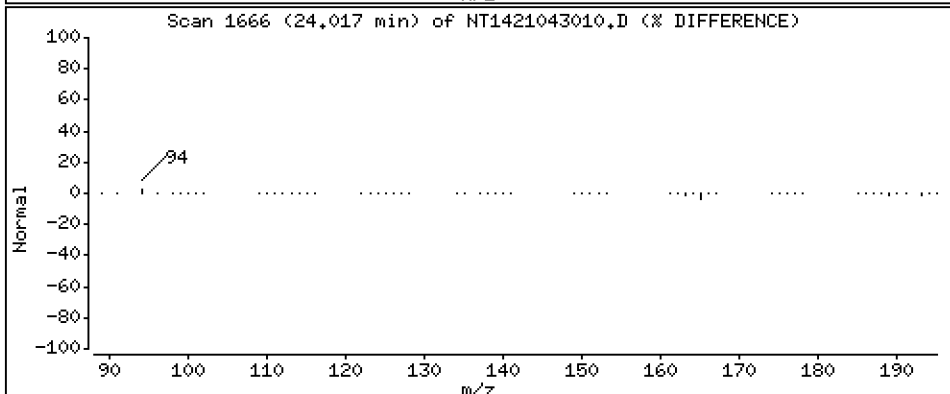
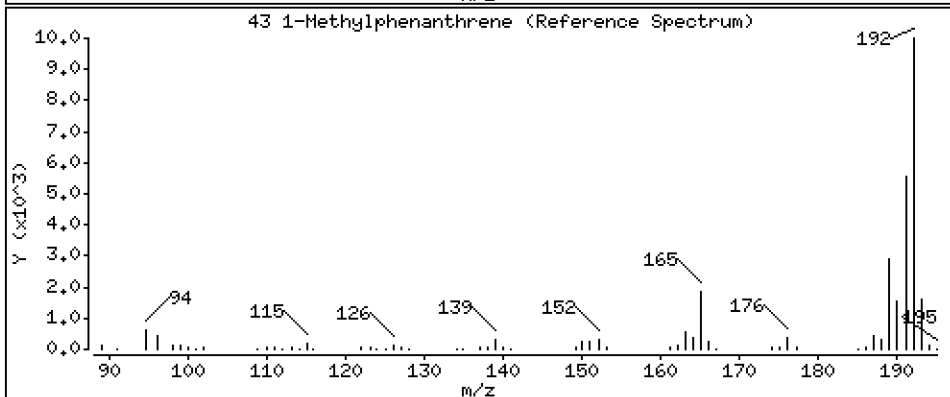
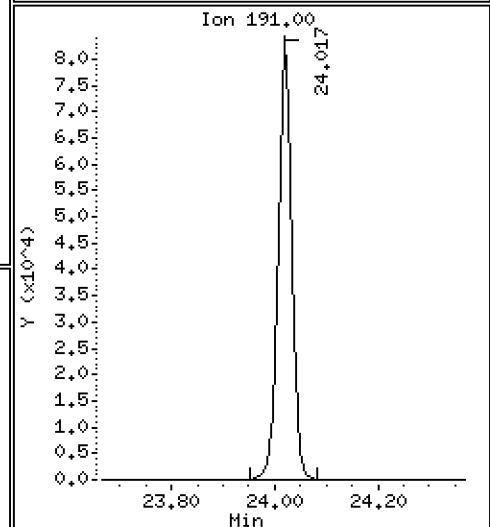
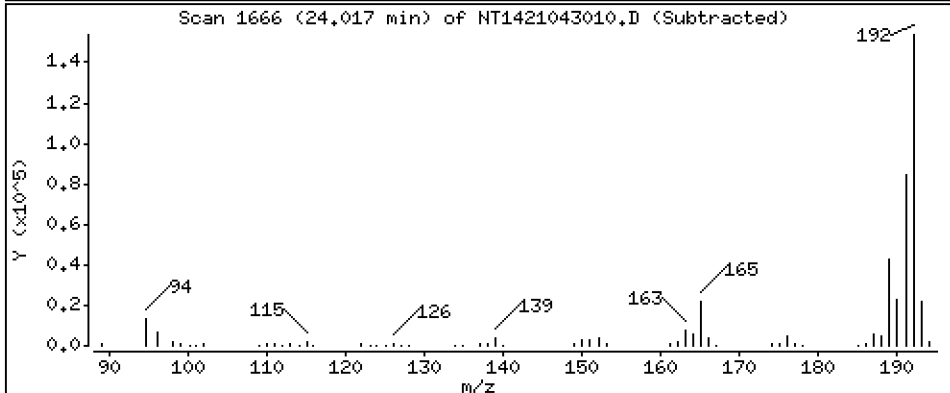
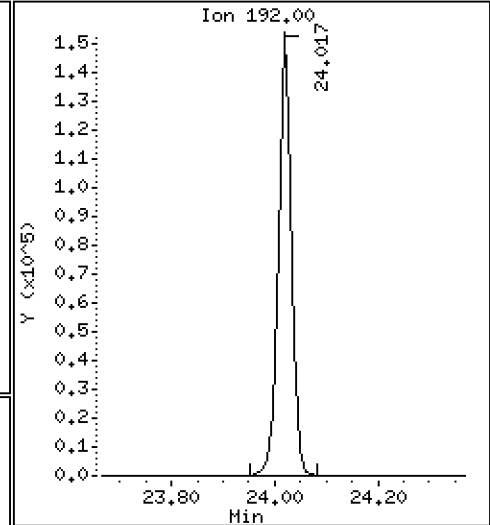
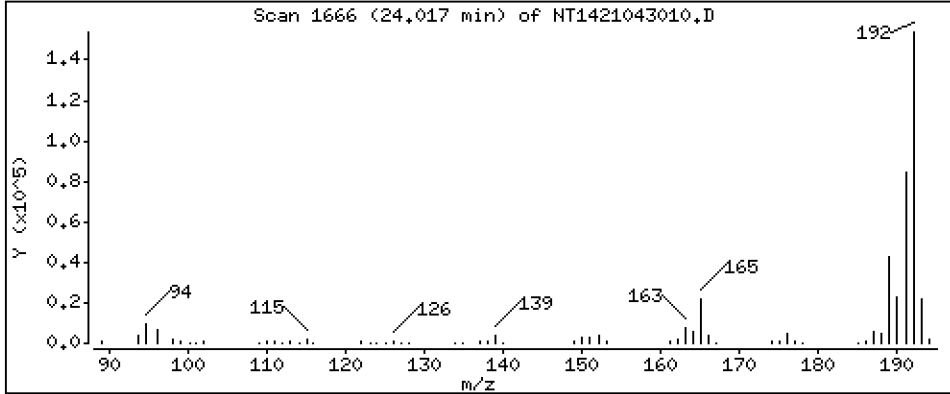
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

43 1-Methylphenanthrene

Concentration: 2,594 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

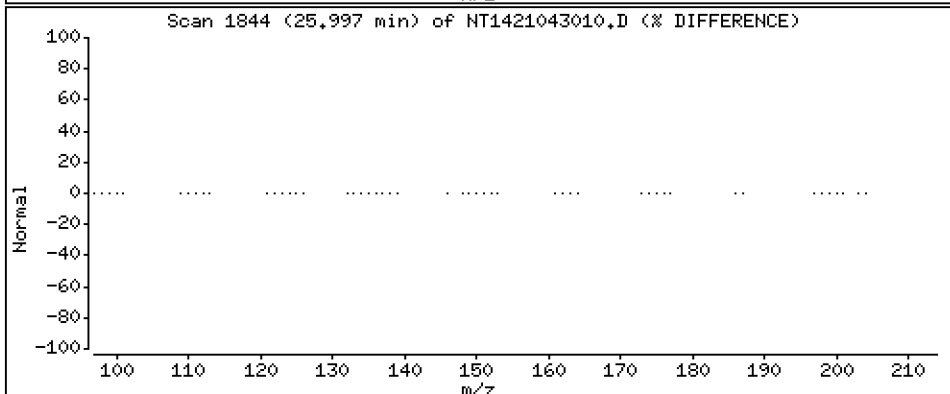
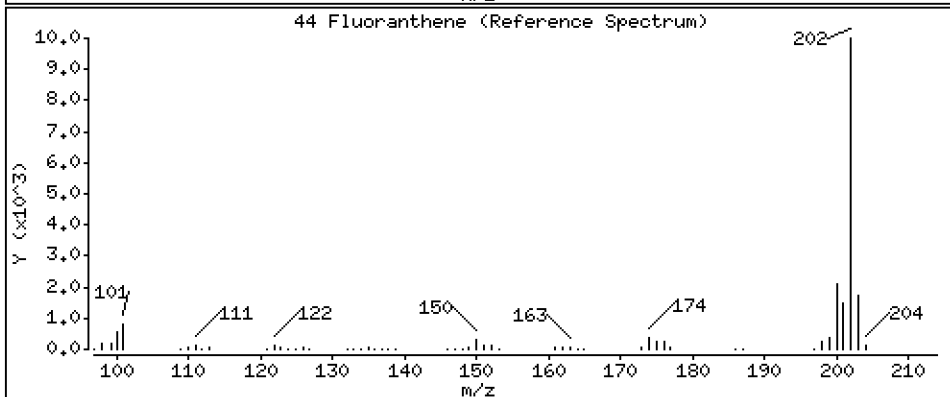
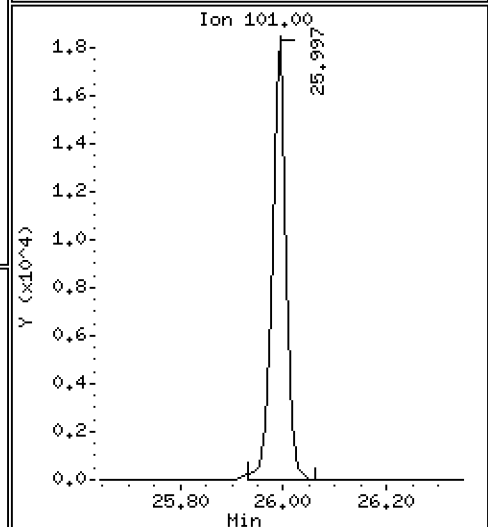
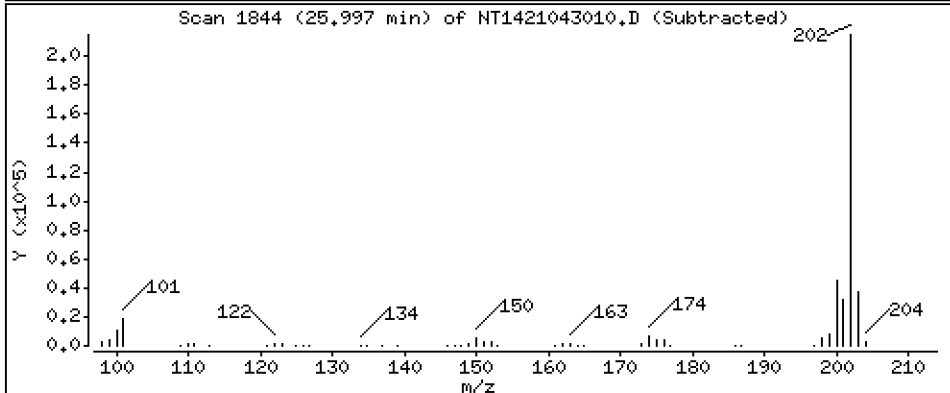
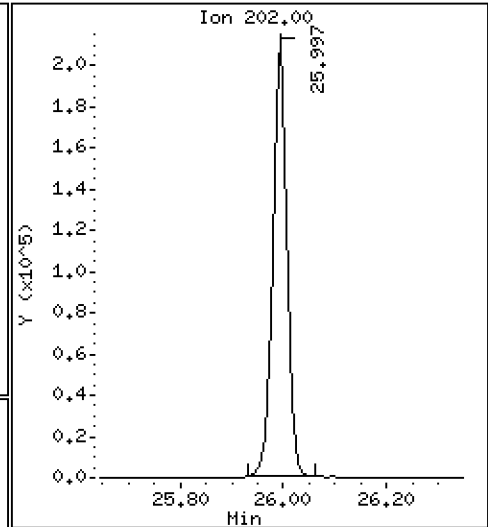
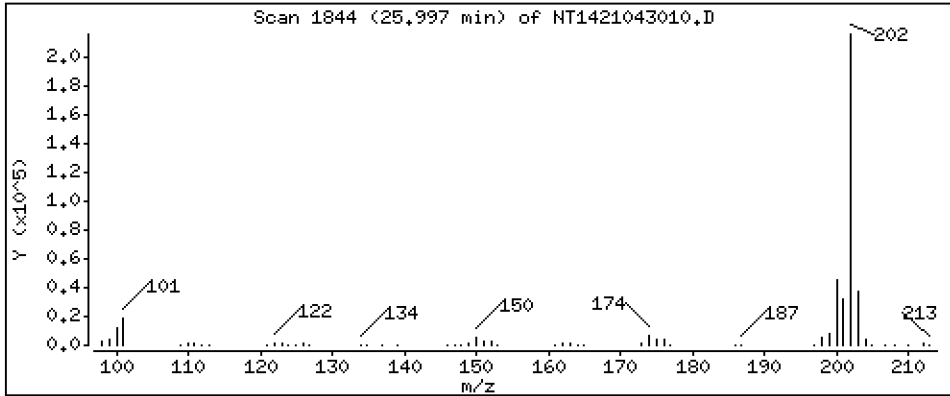
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

44 Fluoranthene

Concentration: 2,634 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

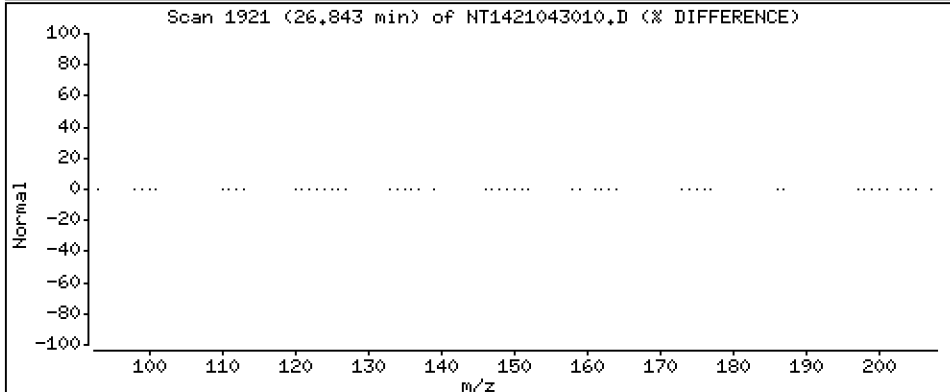
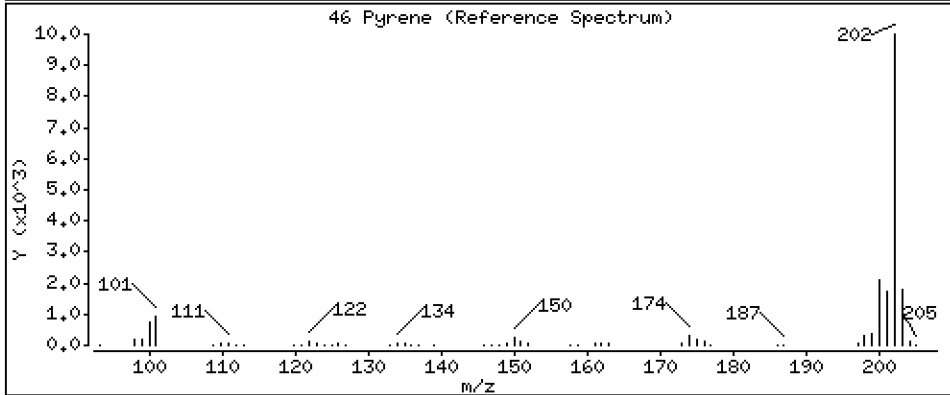
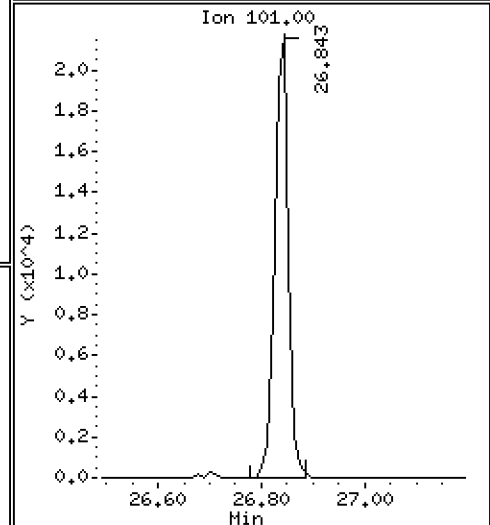
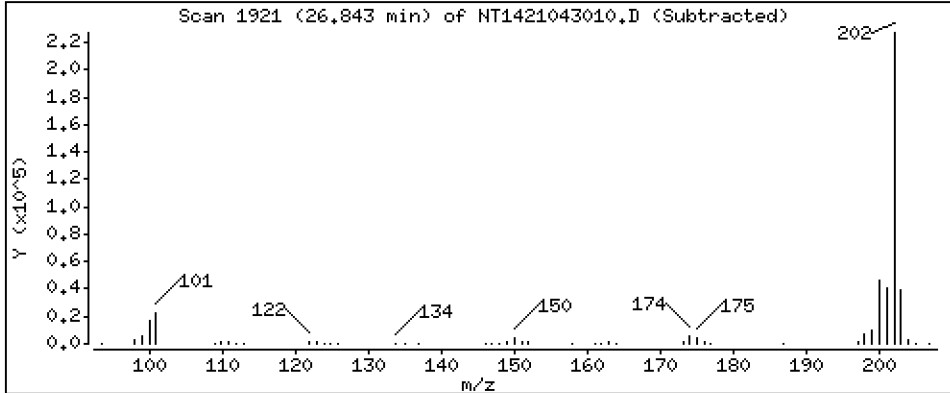
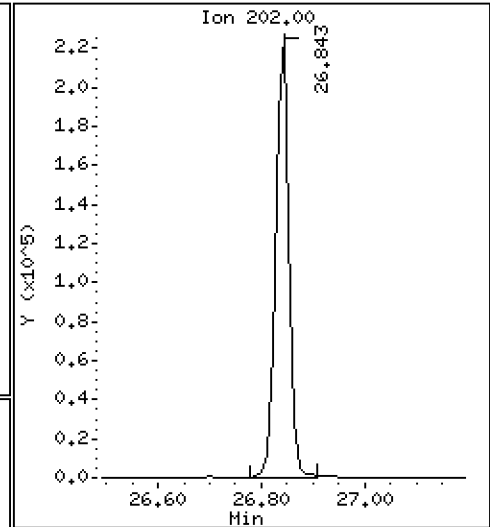
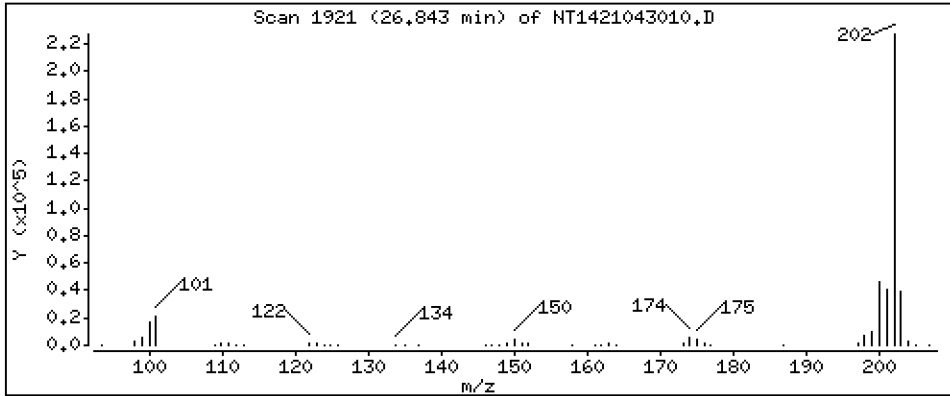
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

46 Pyrene

Concentration: 2,527 ug/mL



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Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

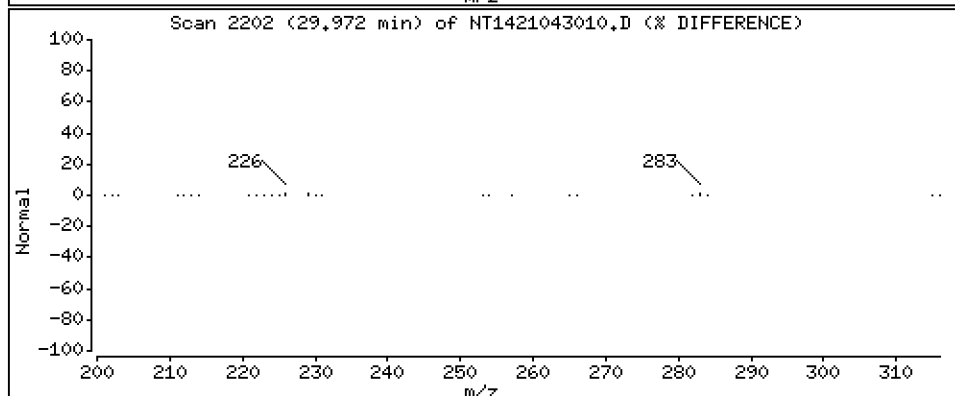
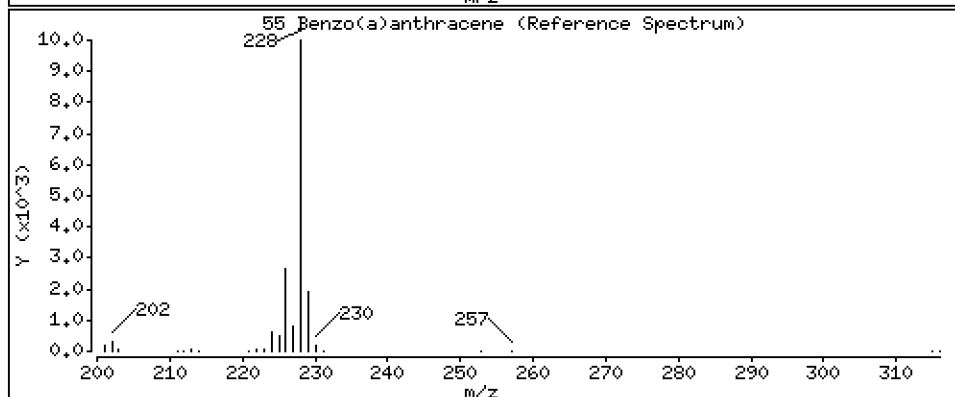
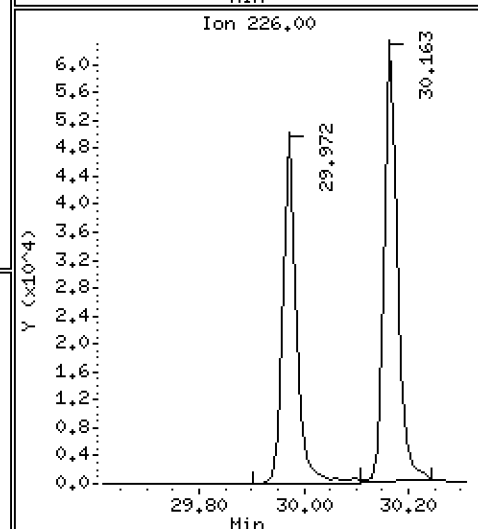
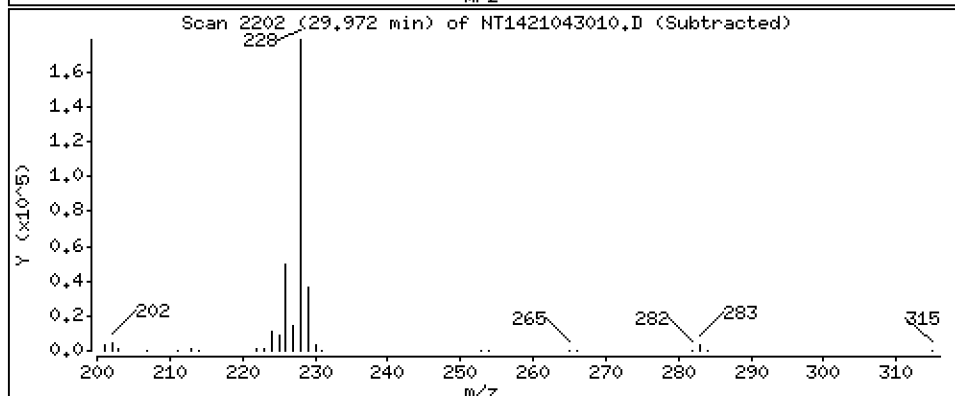
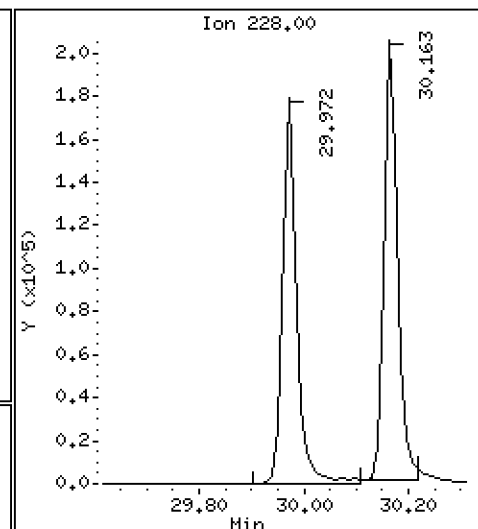
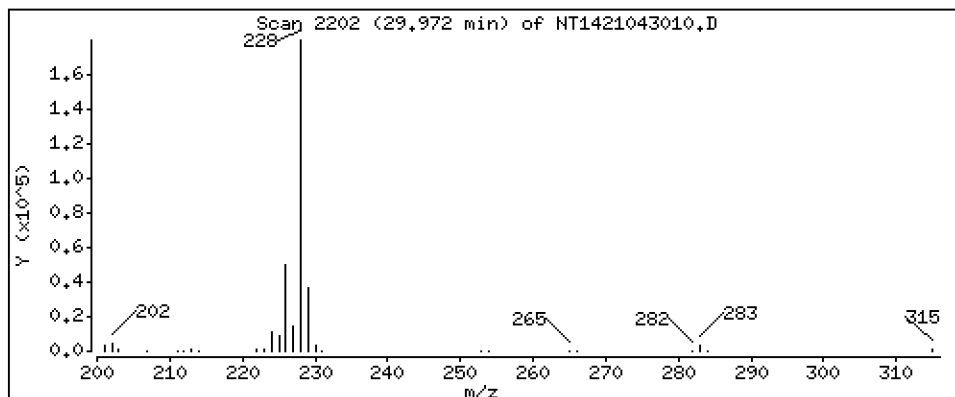
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

55 Benzo(a)anthracene

Concentration: 2,278 ug/mL



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Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

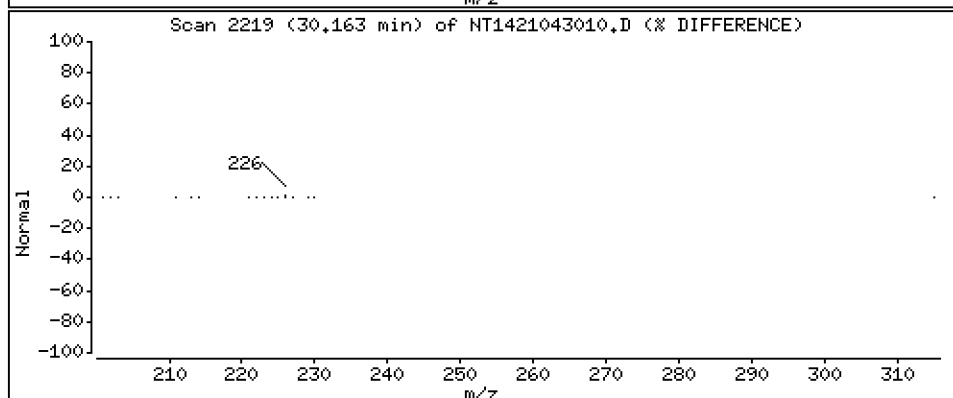
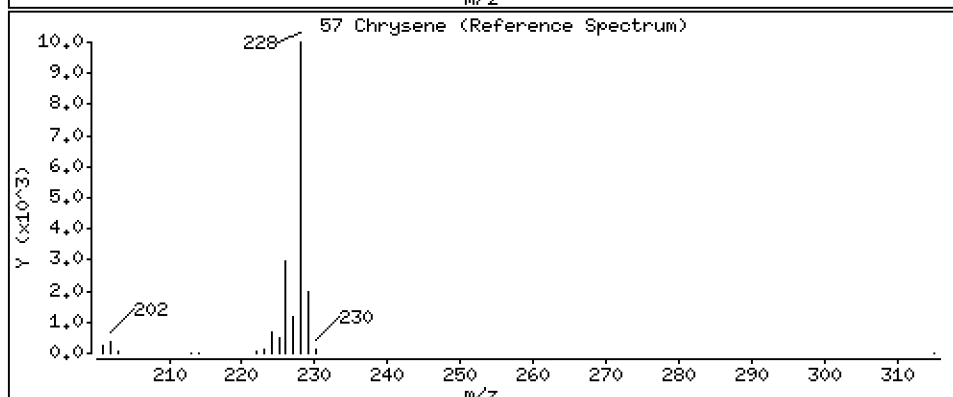
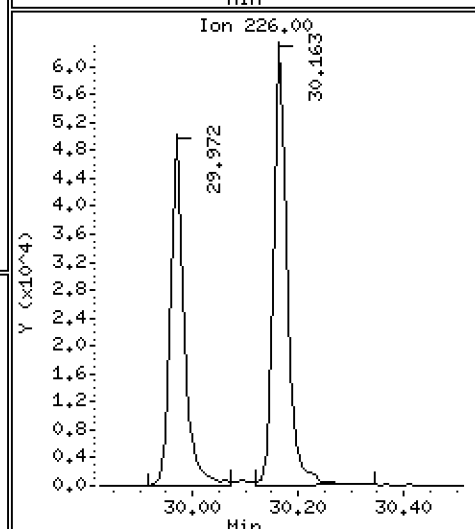
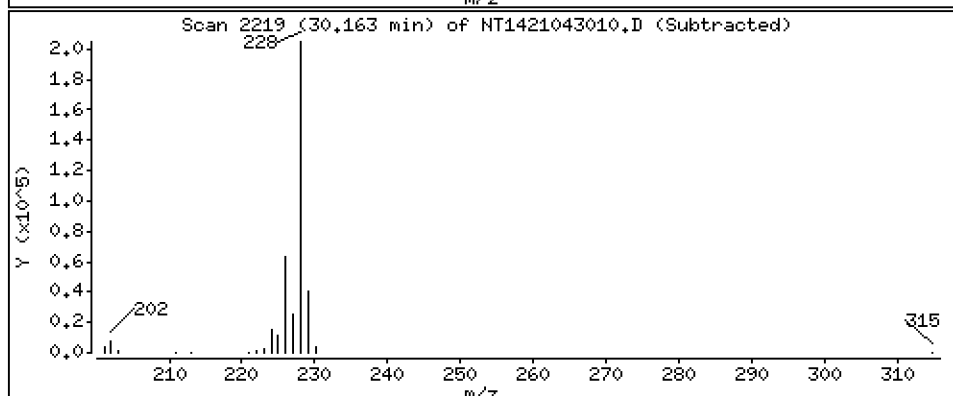
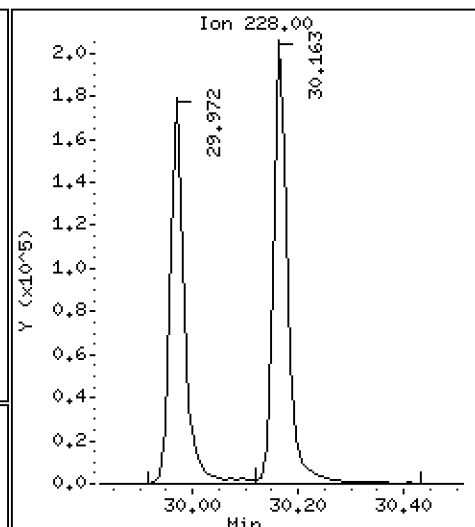
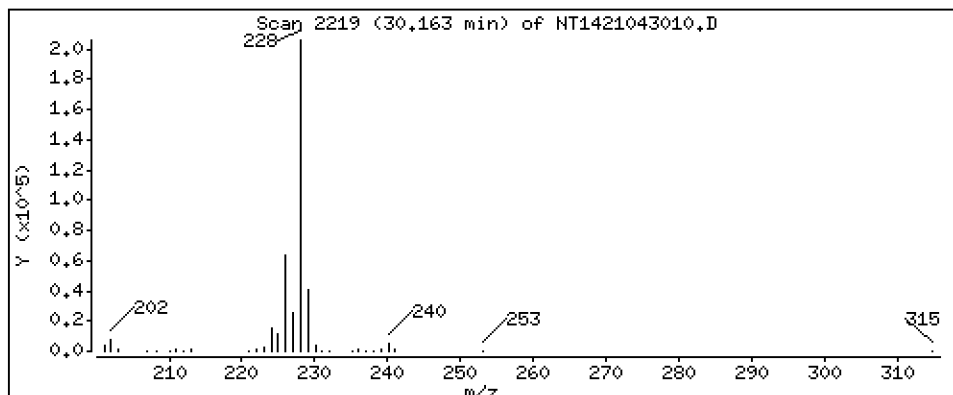
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

57 Chrysene

Concentration: 2,574 ug/mL



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Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

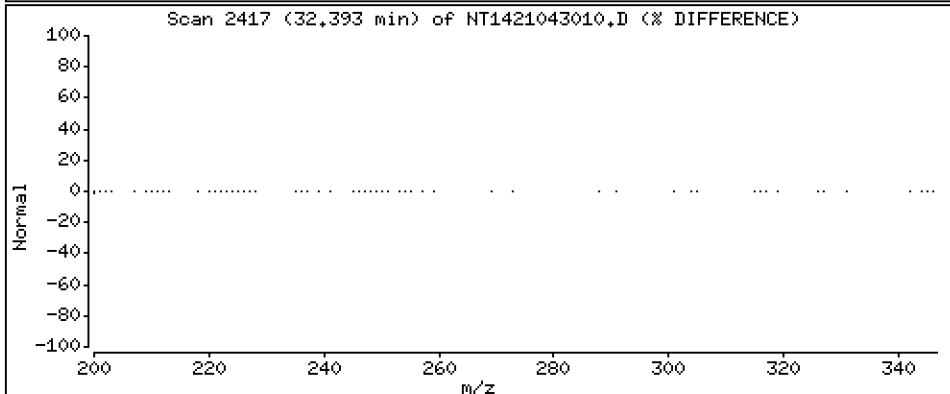
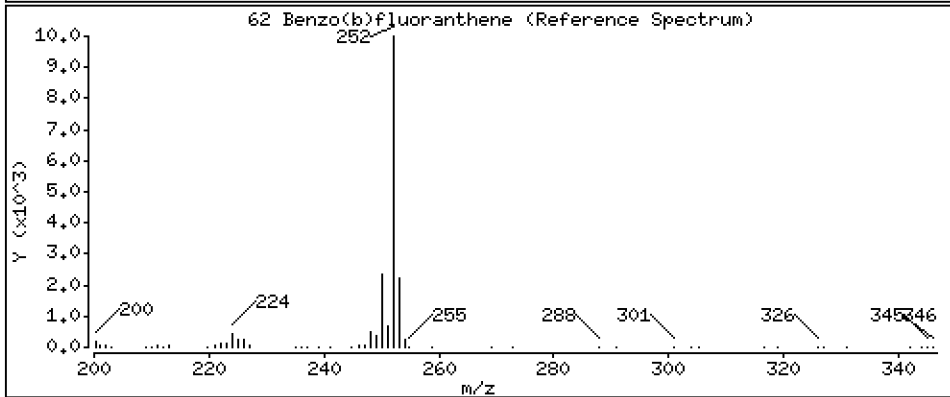
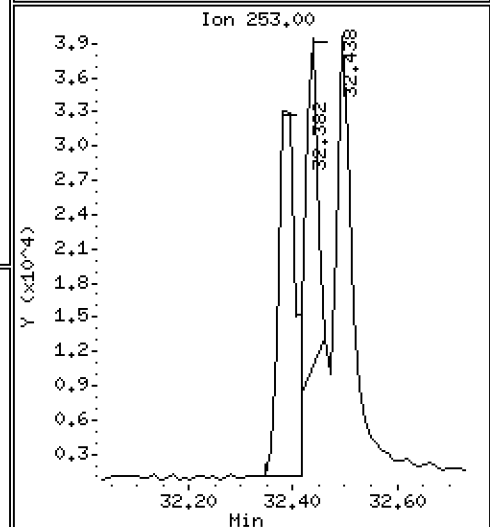
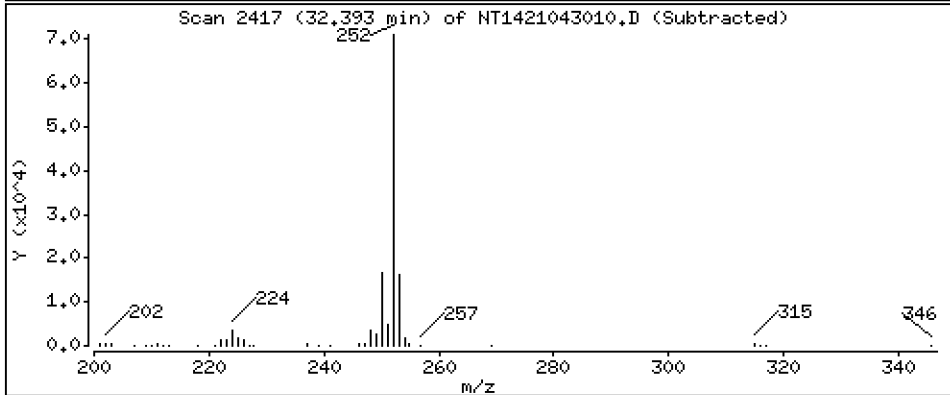
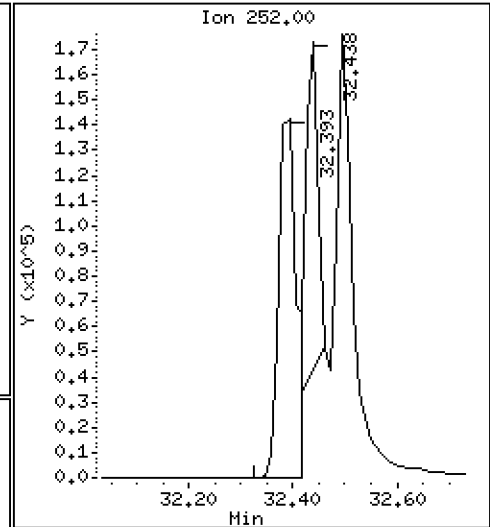
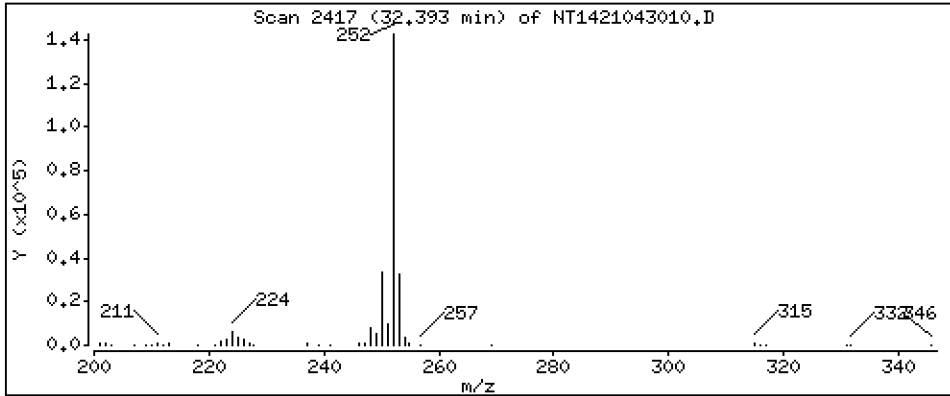
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

62 Benzo(b)fluoranthene

Concentration: 2,326 ug/mL



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Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

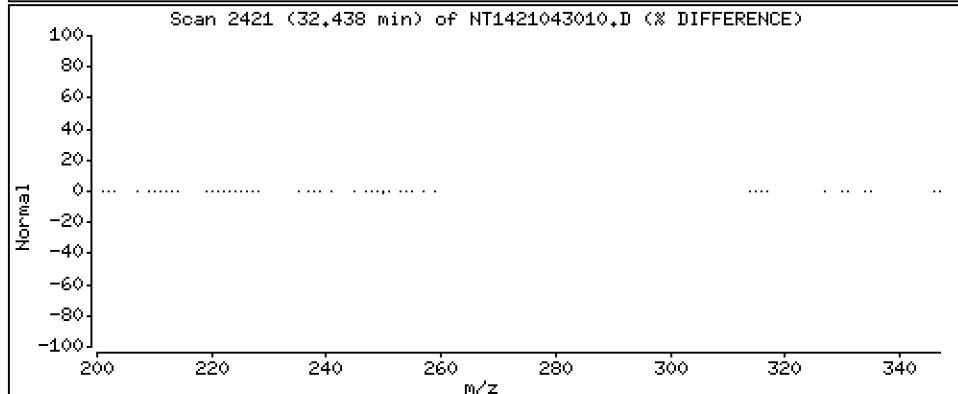
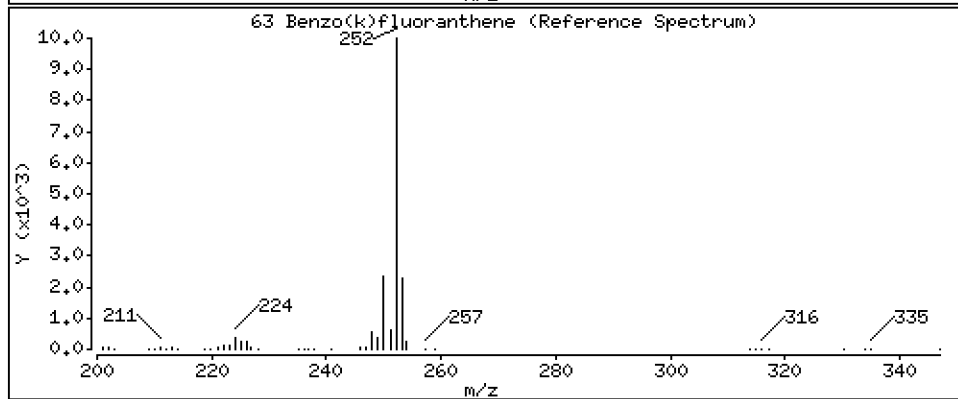
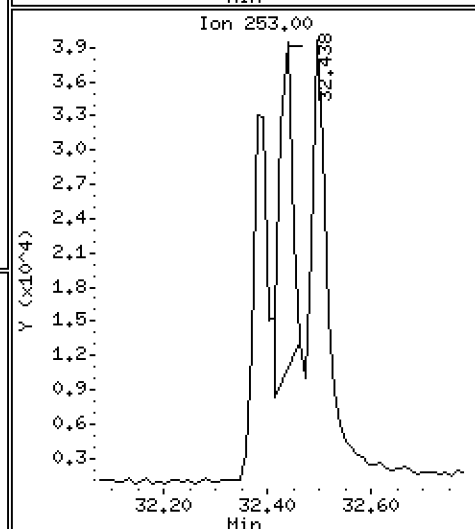
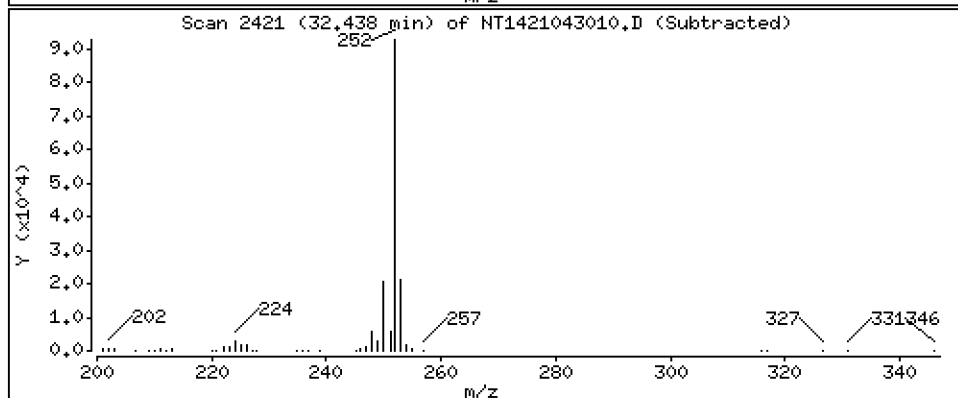
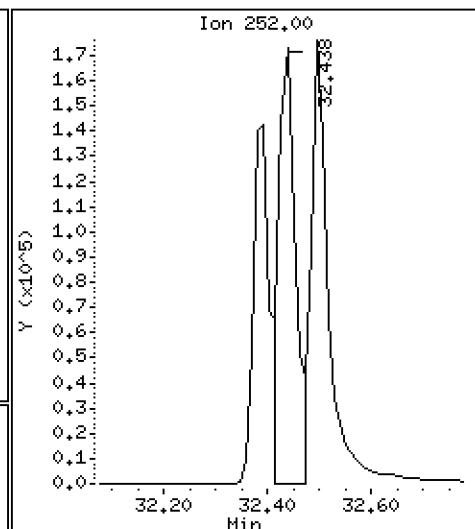
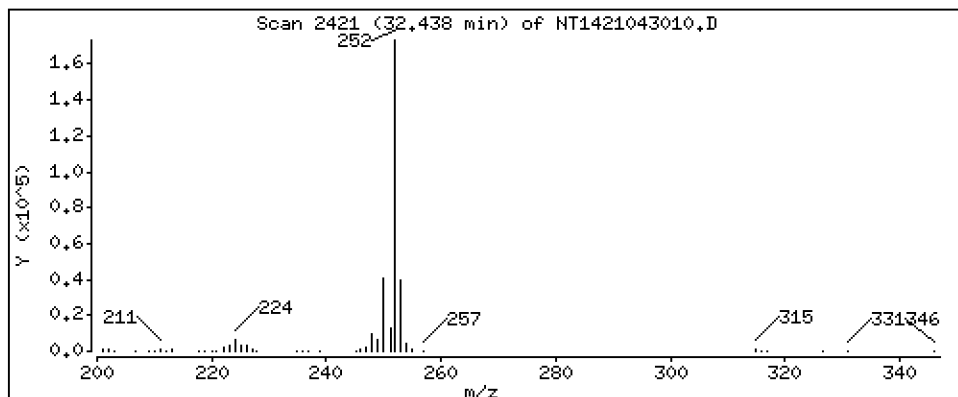
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

63 Benzo(k)fluoranthene

Concentration: 2,304 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

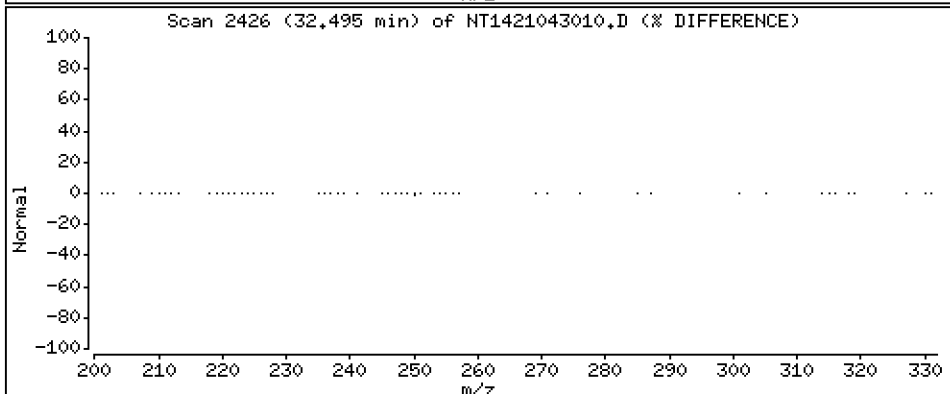
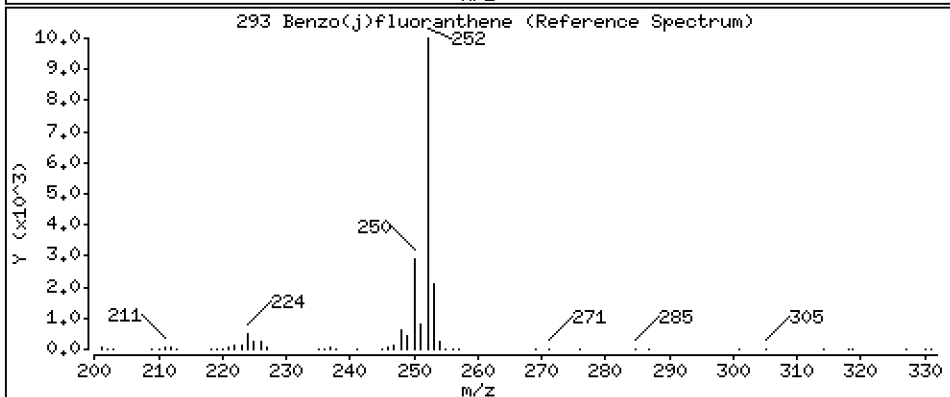
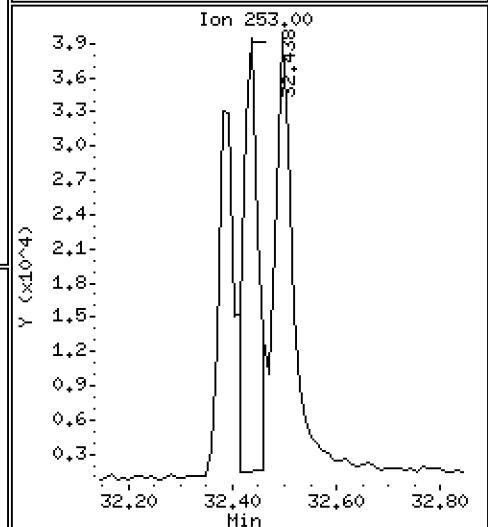
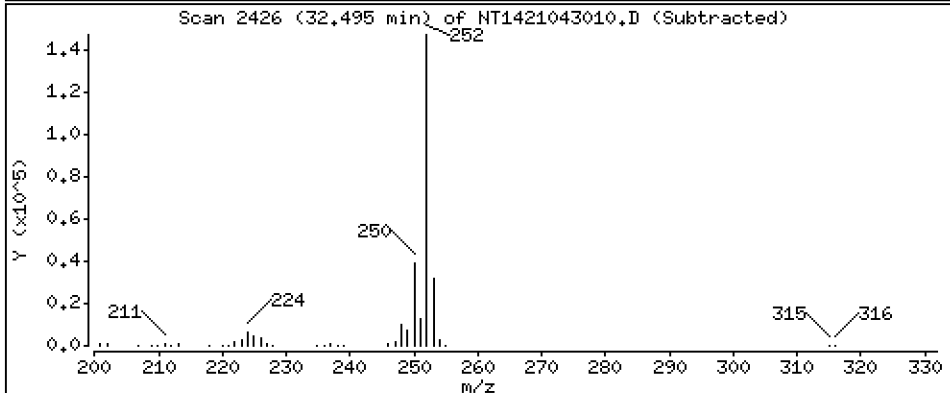
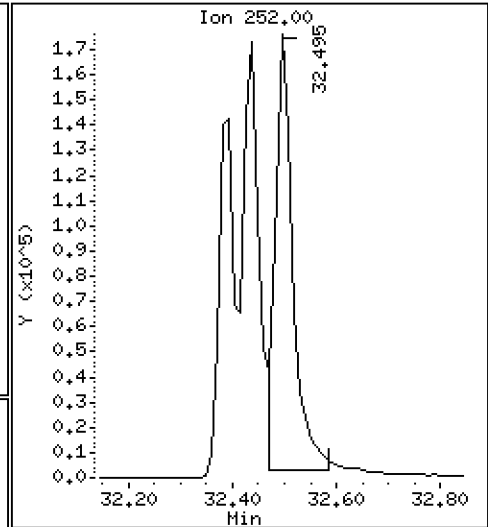
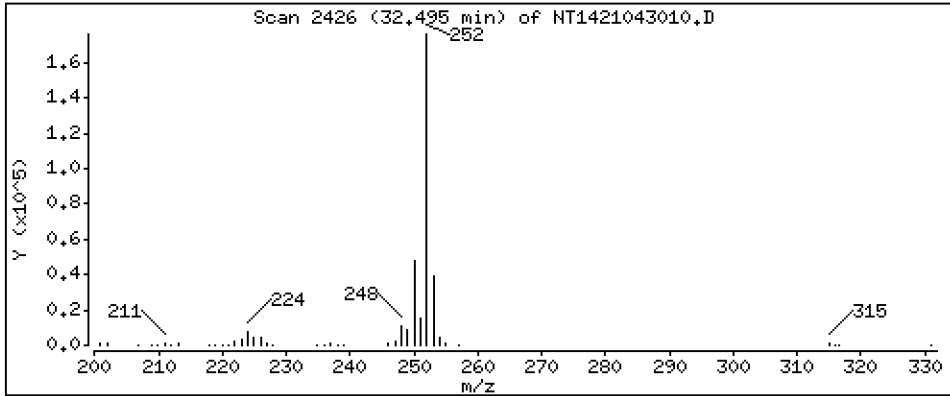
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

293 Benzo(j)fluoranthene

Concentration: 2,516 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

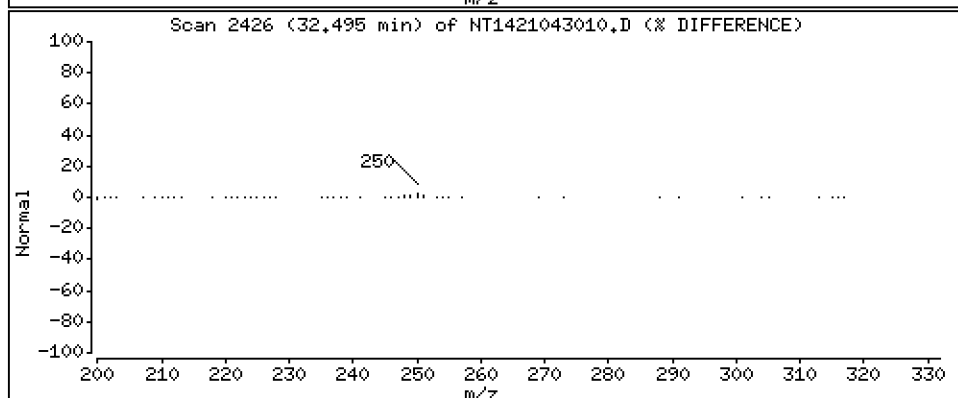
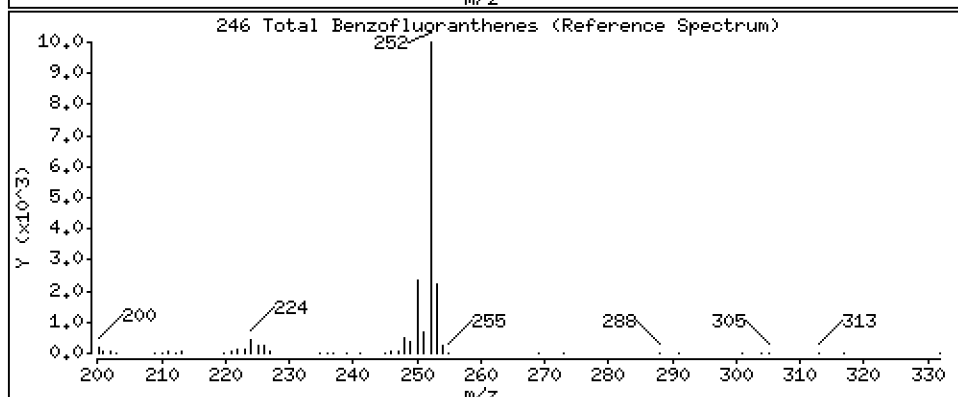
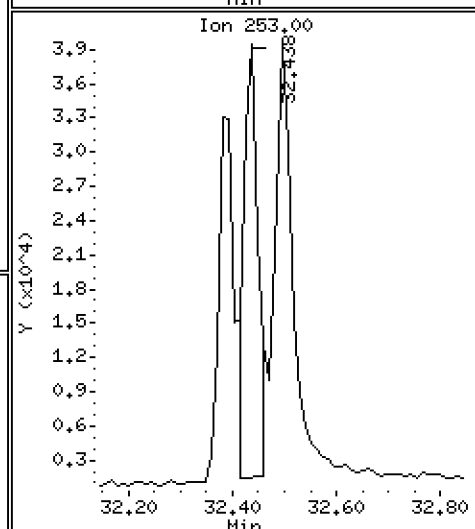
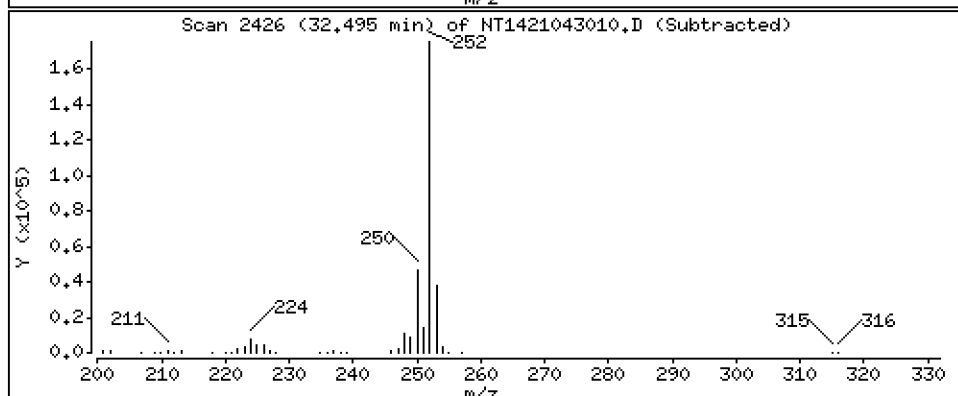
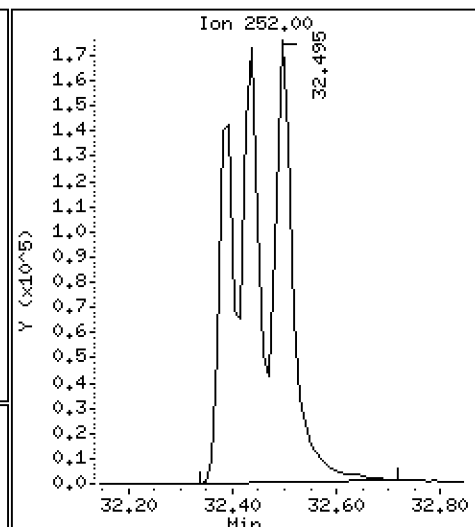
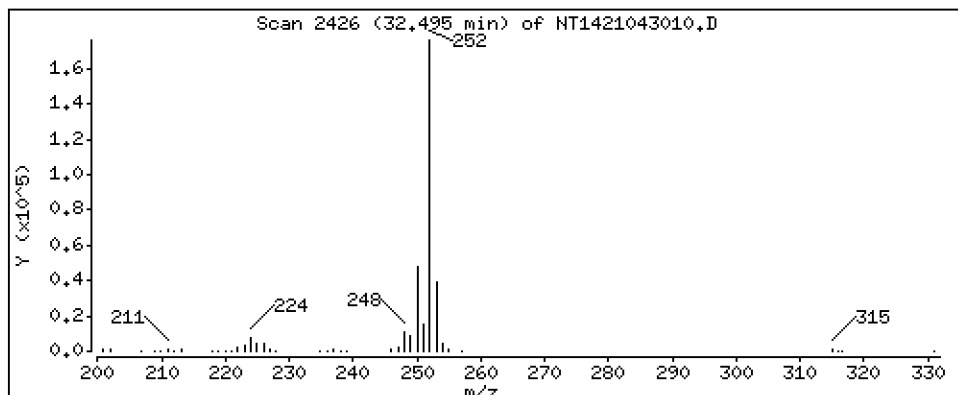
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

246 Total Benzofluoranthenes

Concentration: 6,960 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

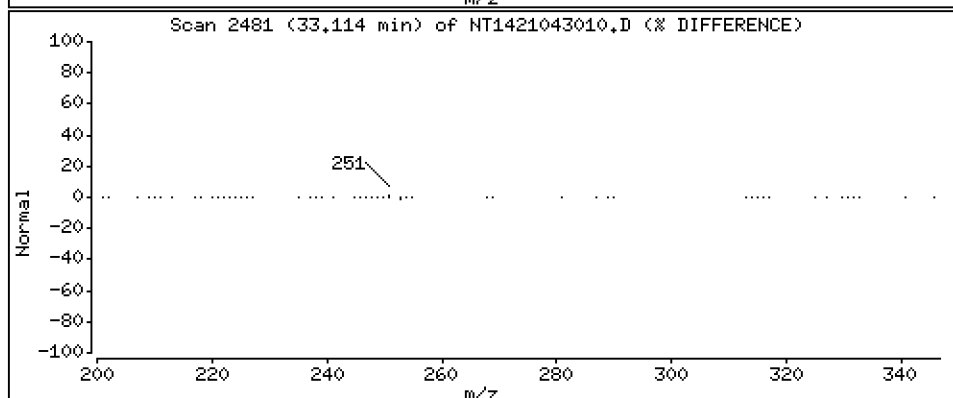
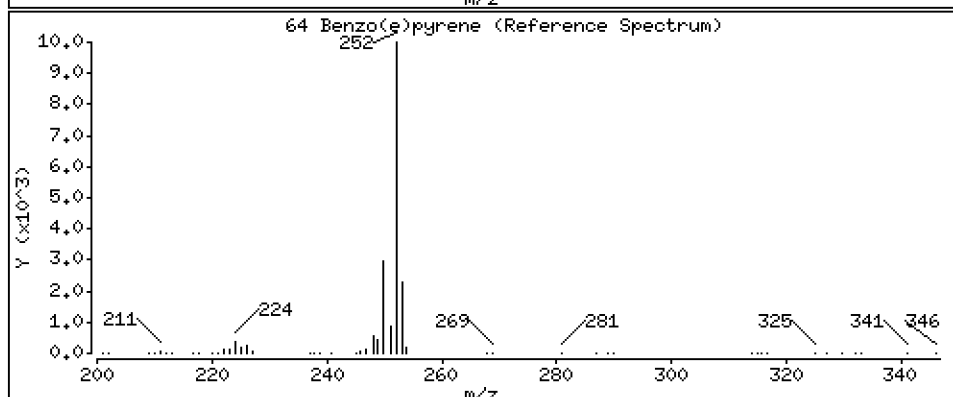
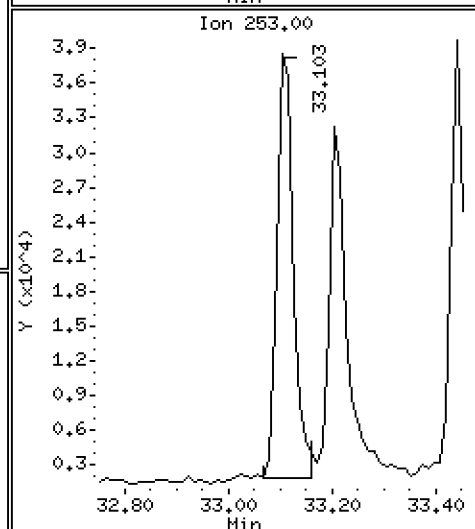
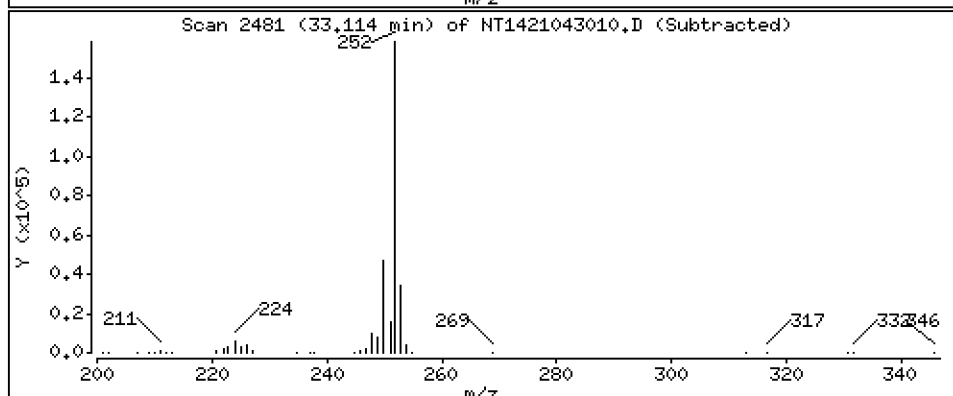
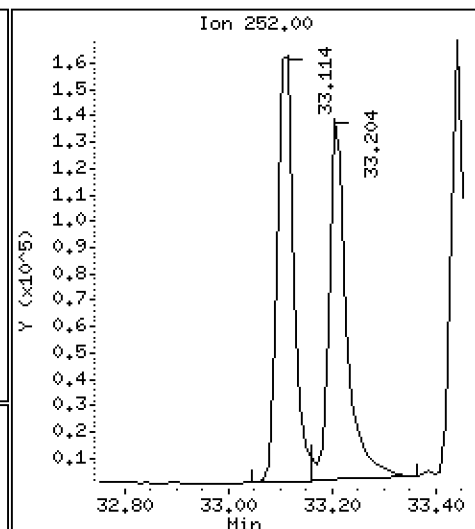
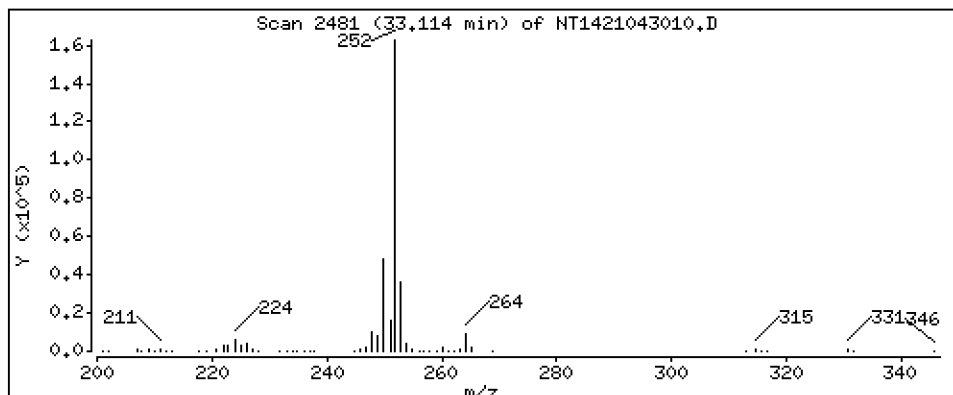
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

64 Benzo(e)pyrene

Concentration: 2,454 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

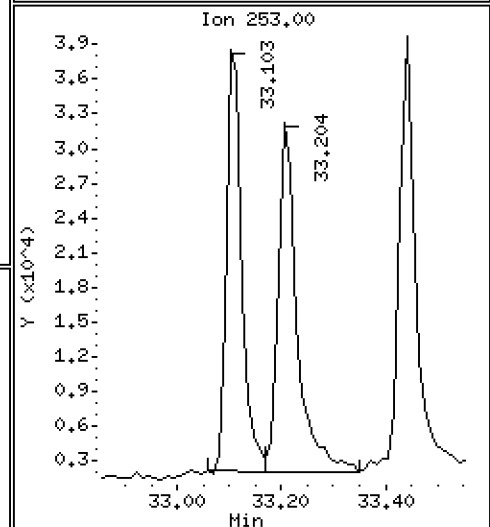
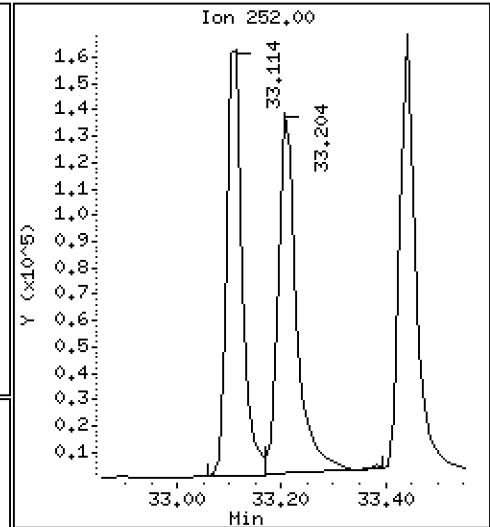
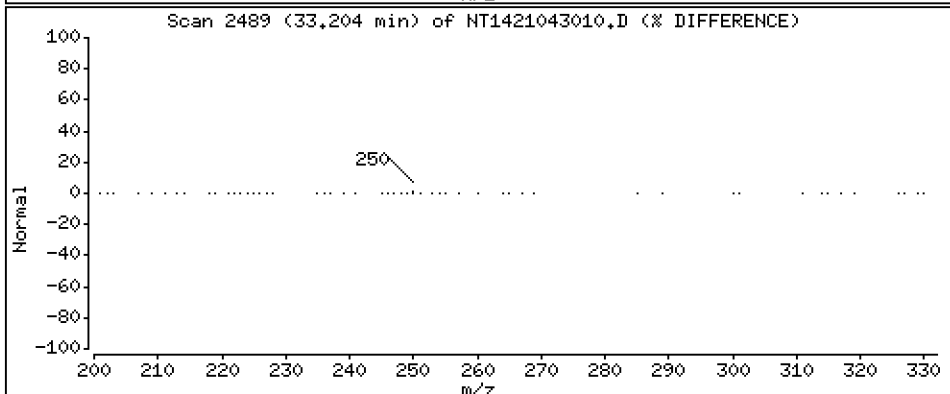
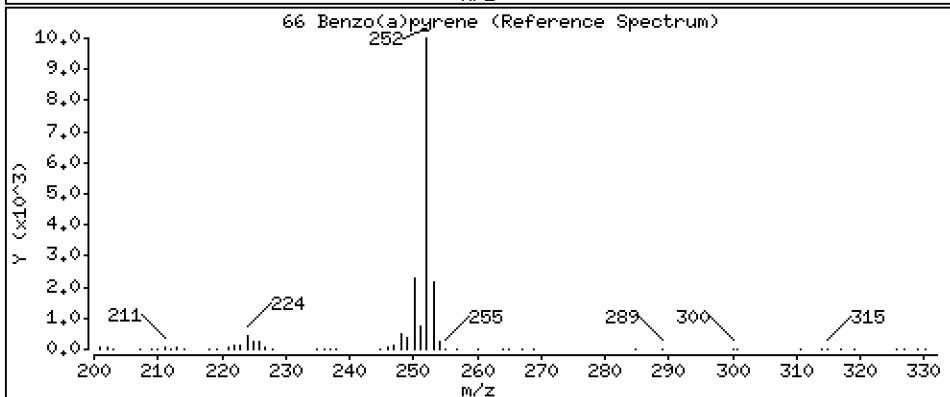
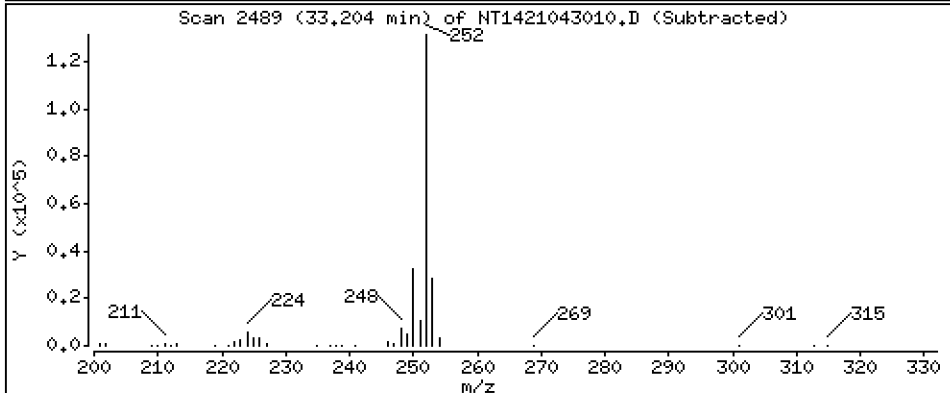
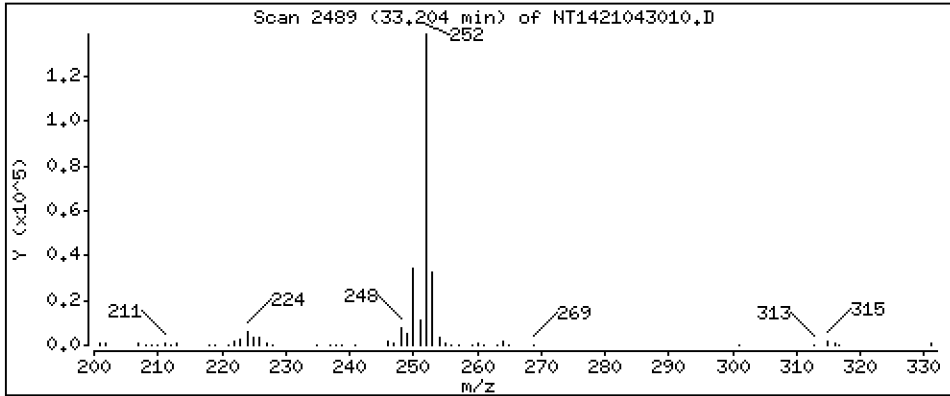
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

66 Benzo(a)pyrene

Concentration: 2,211 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

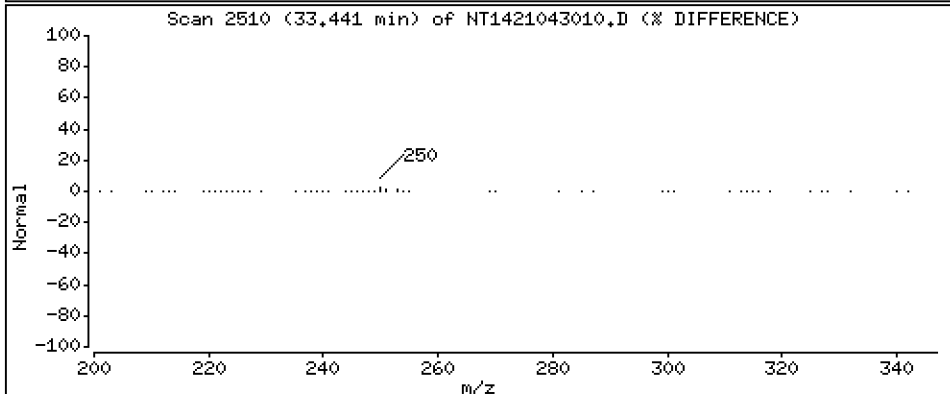
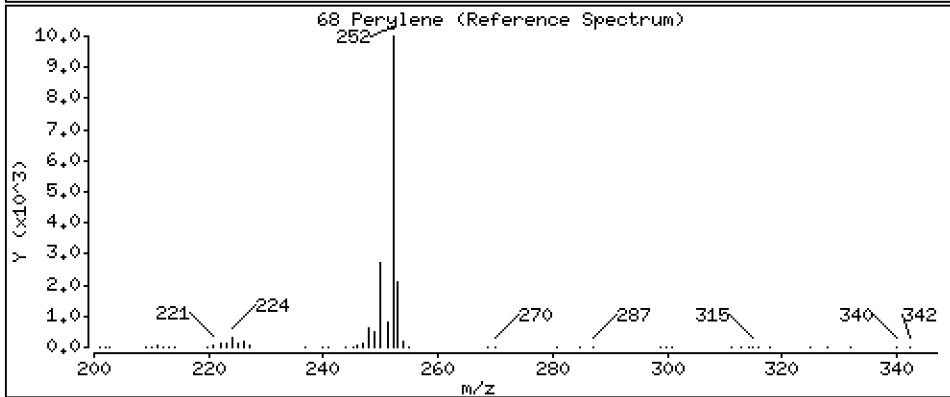
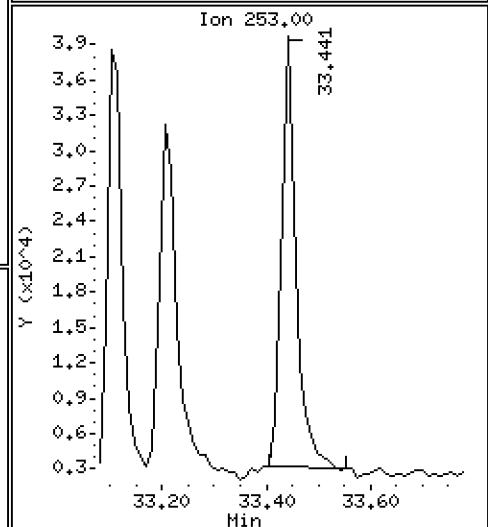
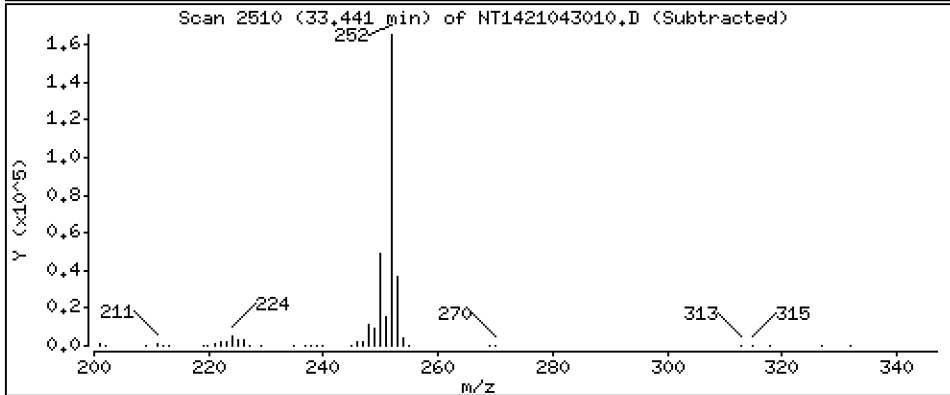
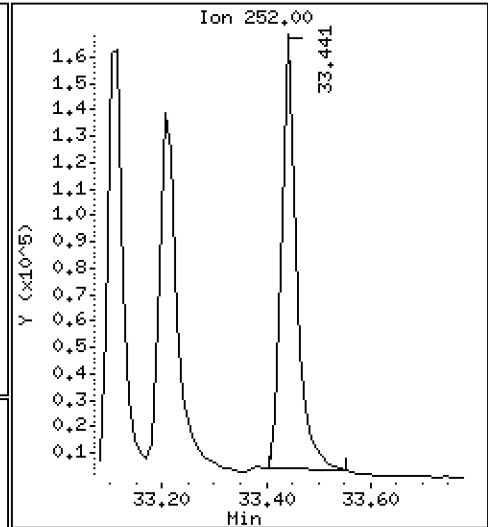
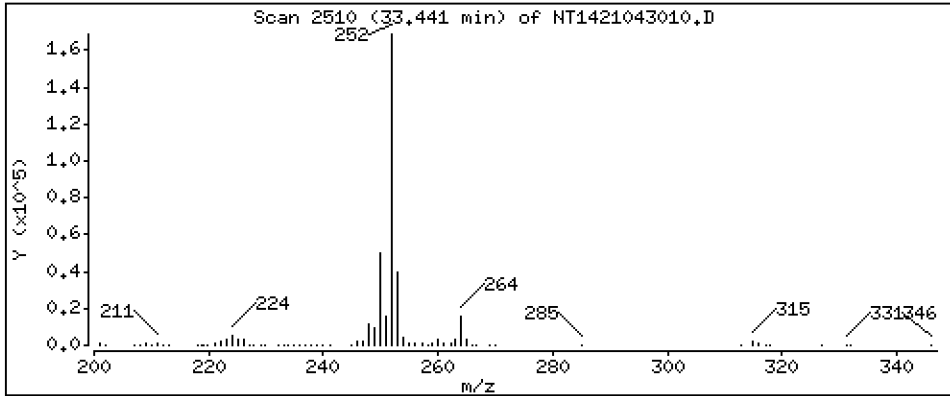
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

68 Perylene

Concentration: 2,415 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

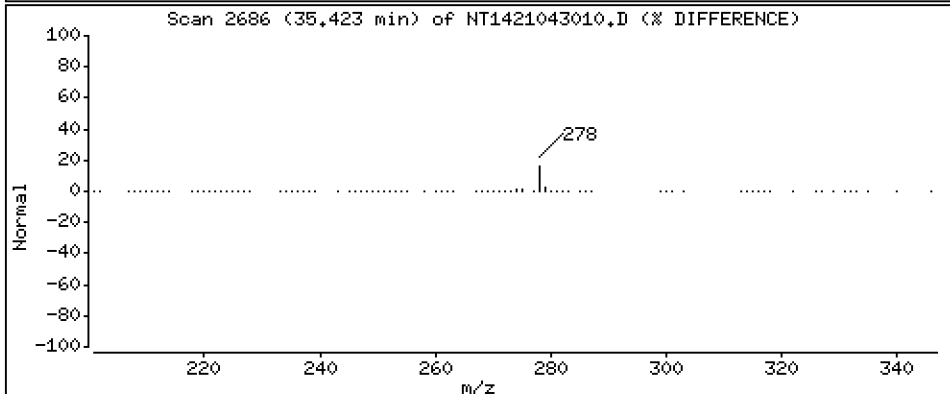
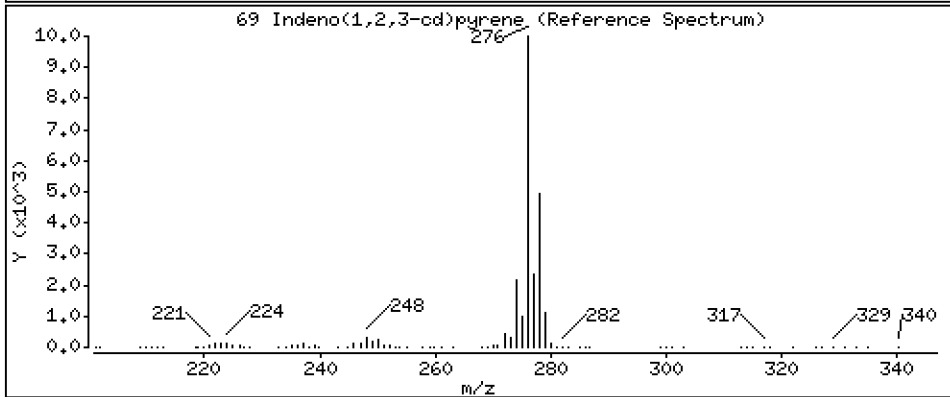
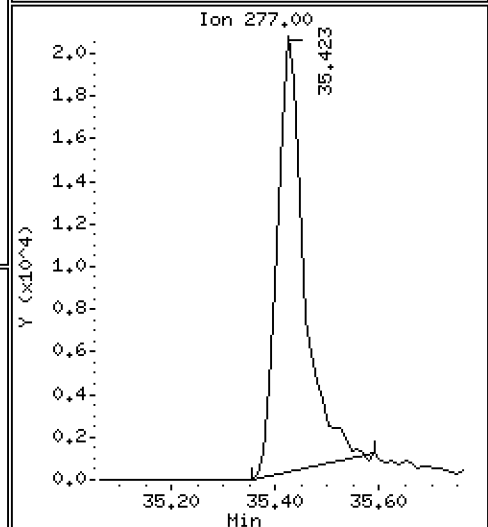
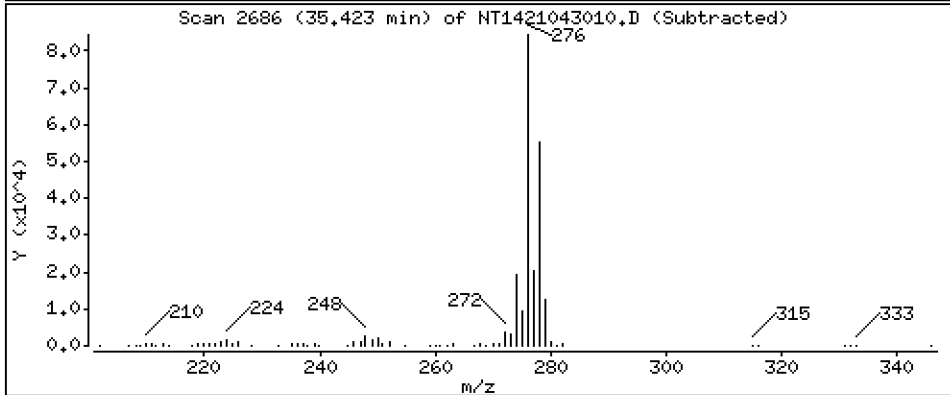
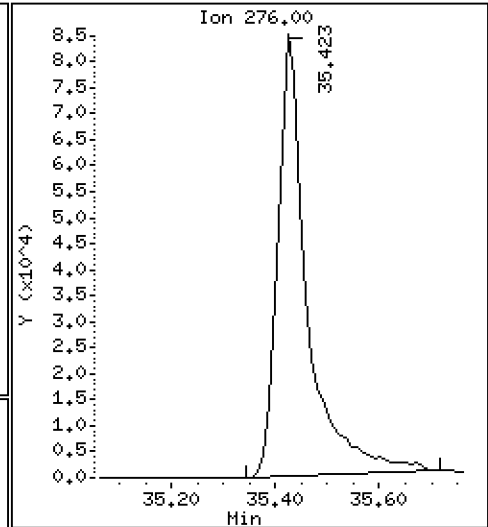
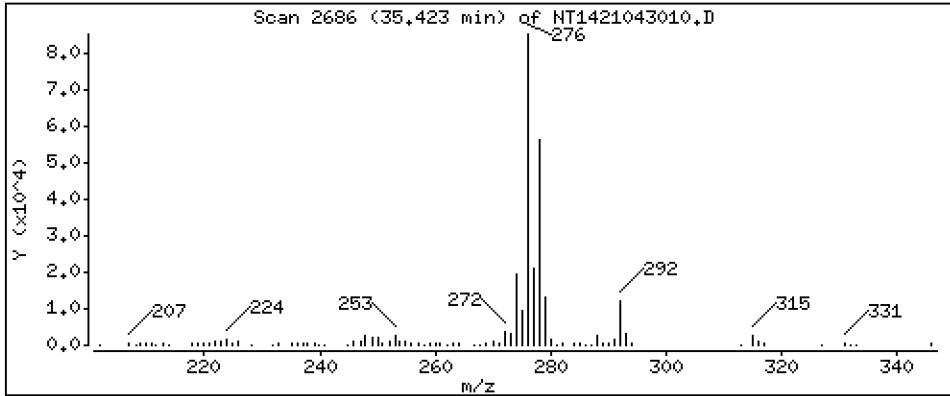
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

69 Indeno(1,2,3-cd)pyrene

Concentration: 2,236 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

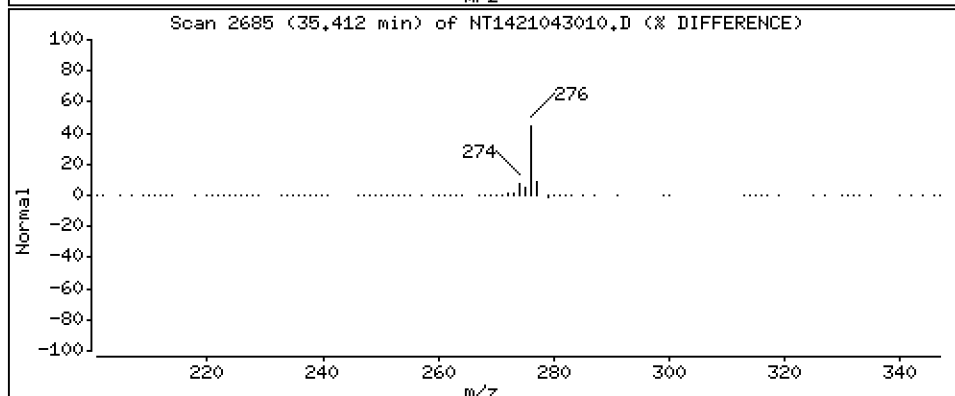
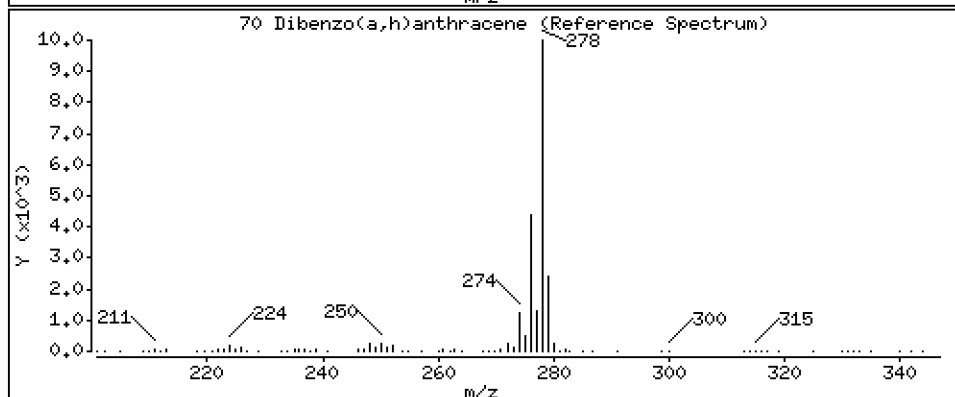
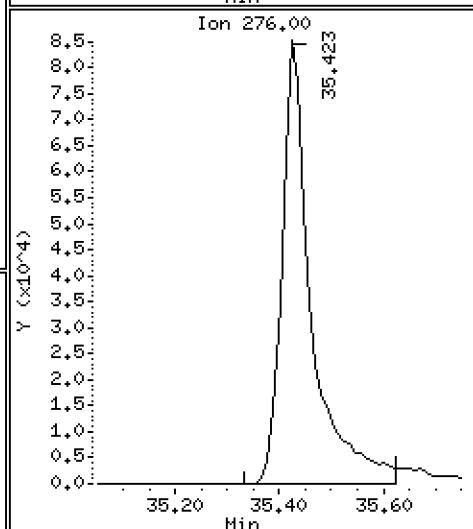
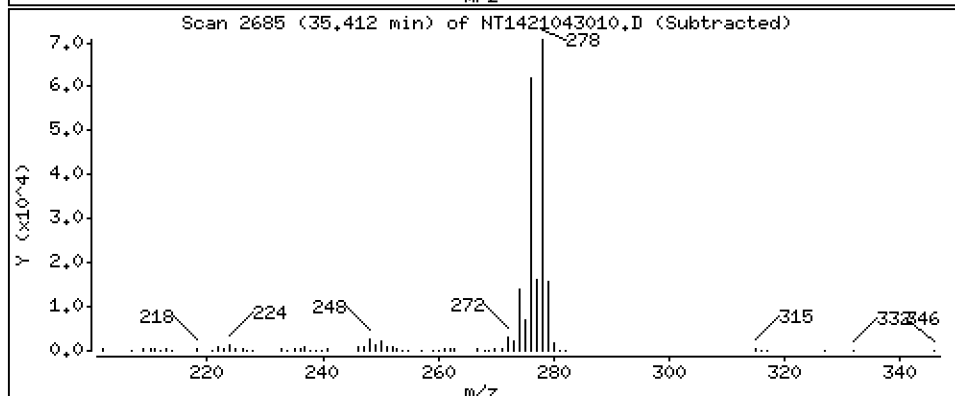
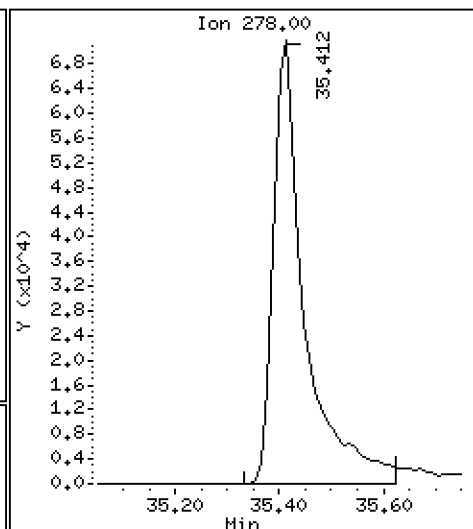
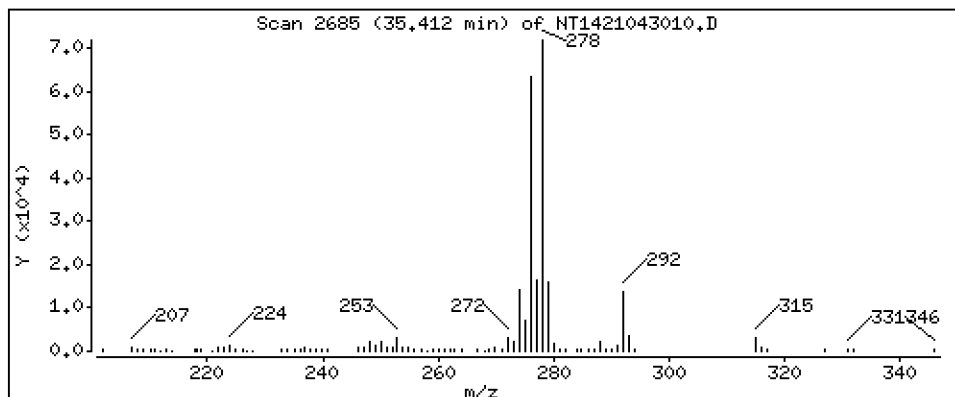
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

70 Dibenzo(a,h)anthracene

Concentration: 2,291 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

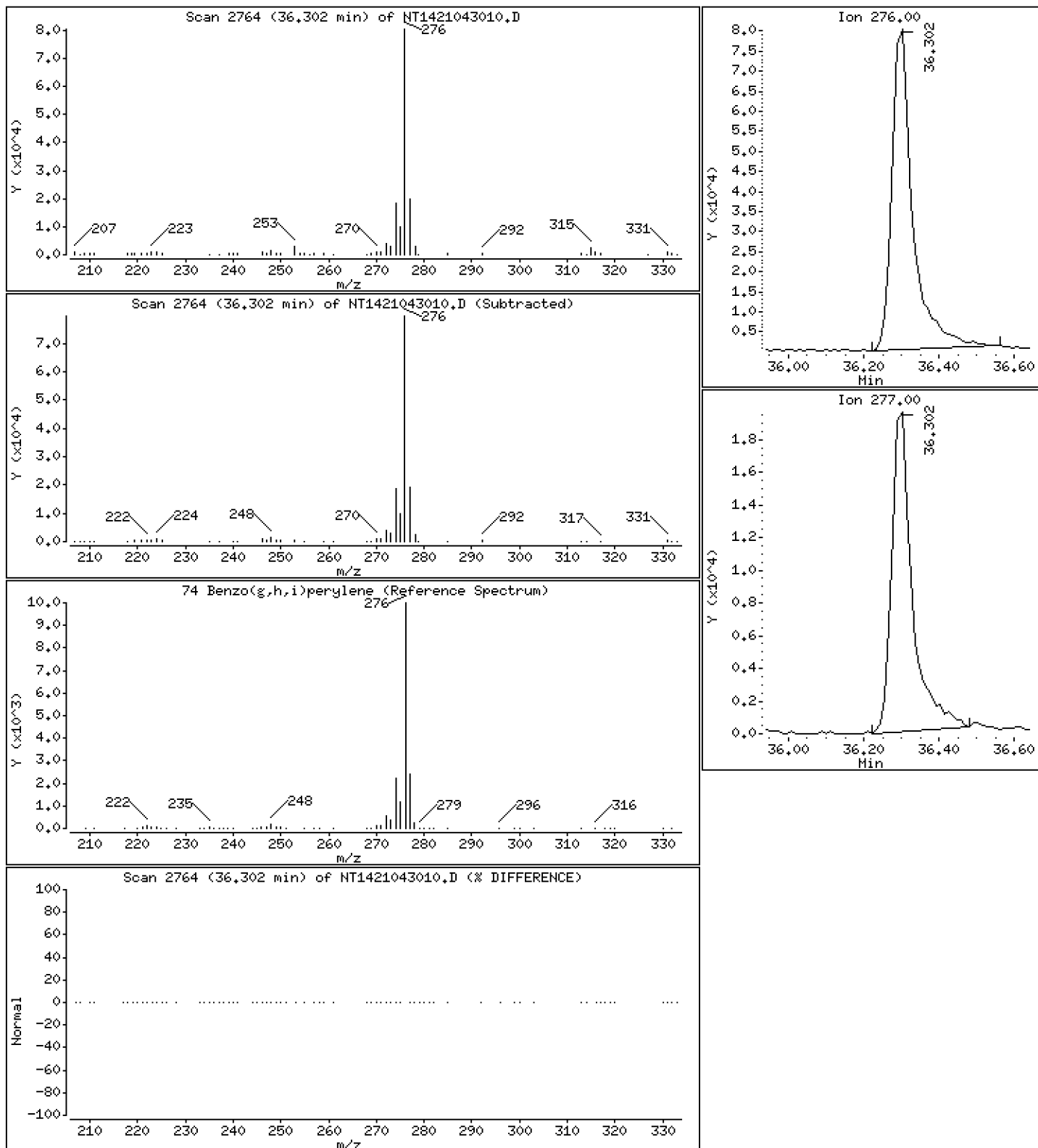
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

74 Benzo(g,h,i)perylene

Concentration: 2,352 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D
 Lab Smp Id: SJD0305-SCV1
 Inj Date : 30-APR-2021 14:41
 Operator : VTS
 Smp Info : SJD0305-SCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Meth Date : 01-May-2021 07:40 van
 Cal Date : 30-APR-2021 13:32
 Als bottle: 9
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-202011

Inst ID: nt14.i
 Quant Type: ISTD
 Cal File: NT1421043009.D
 Compound Sublist: TARGETS.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
							ON-COLUMN (ug/mL)	FINAL (ug/mL)	
1 trans-Decalin	138		7.045	7.035	(0.375)	74342	2.84314	2.843	
2 cis-Decalin	138		8.155	8.165	(0.434)	52523	2.90966	2.910	
\$ 6 Naphthalene-d8	136		11.776	11.776	(0.627)	604964	2.98636	2.986 (R)	
7 Naphthalene	128		11.836	11.846	(0.630)	573337	2.78250	2.783	
12 Benzo(b)thiophene	134		12.295	12.295	(0.655)	456850	2.78683	2.787	
16 2-Methylnaphthalene	141		13.680	13.680	(0.728)	312811	2.84483	2.845	
17 1-methylnaphthalene	141		14.131	14.131	(0.752)	293934	2.82127	2.821	
18 Biphenyl	154		15.317	15.317	(0.815)	435061	2.76462	2.765	
19 2,6-Dimethylnaphthalene	156		15.394	15.394	(0.820)	305582	2.82199	2.822	
20 Acenaphthylene	152		16.955	16.955	(0.903)	492364	2.88930	2.889	
\$ 21 Acenaphthene-d10	164		17.252	17.241	(0.918)	298420	3.01695	3.017 (R)	
22 Acenaphthene	153		17.362	17.361	(0.924)	329675	3.01019	3.010	
23 Dibenzofuran	168		17.735	17.735	(0.944)	459290	2.76760	2.768	
24 1,6,7-Trimethylnaphthalene	170		17.966	17.966	(0.957)	277803	2.92320	2.923	
* 25 Fluorene-d10	176		18.783	18.781	(1.000)	351020	2.00000		
26 Fluorene	166		18.885	18.883	(1.005)	342973	2.84375	2.844	
30 Dibenzothiophene	184		21.796	21.794	(1.160)	423593	2.78230	2.782	
\$ 35 Phenanthrene-d10	188		22.104	22.102	(0.995)	446008	2.66948	2.669 (R)	
36 Phenanthrene	178		22.192	22.190	(0.999)	460265	2.46754	2.468	
* 250 Anthracene-d10	188		22.225	22.223	(1.000)	309177	2.00000		
37 Anthracene	178		22.291	22.289	(1.003)	428535	2.49230	2.492	
42 Carbazole	167		23.566	23.565	(1.060)	338612	2.34287	2.343	
43 1-Methylphenanthrene	192		24.017	24.015	(1.081)	293776	2.59400	2.594	
44 Fluoranthene	202		25.996	25.994	(1.170)	436345	2.63403	2.634	
46 Pyrene	202		26.843	26.841	(1.208)	433716	2.52654	2.527	
51 Naphthobenzothiophene	234		Compound Not Detected.						
55 Benzo(a)anthracene	228		29.971	29.964	(0.907)	342259	2.27793	2.278	
\$ 56 Chrysene-d12	240		30.095	30.087	(0.911)	337659	2.82827	2.828 (RM)	
57 Chrysene	228		30.163	30.166	(0.913)	394981	2.57401	2.574	
62 Benzo(b)fluoranthene	252		32.393	32.386	(0.980)	324344	2.32564	2.326	
63 Benzo(k)fluoranthene	252		32.438	32.430	(0.982)	391530	2.30379	2.304 (M)	
293 Benzo(j)fluoranthene	252		32.494	32.498	(0.983)	393189	2.51567	2.516 (M)	
246 Total Benzofluoranthenes	252		32.494	32.497	(0.983)	1066161	6.96004	6.960 (M)	

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
* 251 Benzo(e)pyrene-d12	264		33.046	33.050	(1.000)	328565	2.00000	
64 Benzo(e)pyrene	252		33.114	33.106	(1.002)	343391	2.45382	2.454
66 Benzo(a)pyrene	252		33.204	33.208	(1.005)	317871	2.21084	2.211
\$ 67 Perylene-d12	264		33.384	33.388	(1.010)	320102	2.50514	2.505 (RM)
68 Perylene	252		33.440	33.433	(1.012)	322846	2.41544	2.415 (M)
69 Indeno(1,2,3-cd)pyrene	276		35.422	35.415	(1.072)	332125	2.23617	2.236 (M)
70 Dibenzo(a,h)anthracene	278		35.411	35.404	(1.072)	294257	2.29093	2.291
74 Benzo(g,h,i)perylene	276		36.301	36.293	(1.098)	296119	2.35214	2.352 (M)

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 30-APR-2021
 Lab File ID: NT1421043010.D Calibration Time: 07:56
 Lab Smp Id: SJD0305-SCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	420456	210228	840912	351020	-16.51
250 Anthracene-d10	381033	190517	762066	309177	-18.86
251 Benzo(e)pyrene-d1	370998	185499	741996	328565	-11.44

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.78	18.28	19.28	18.78	0.01
250 Anthracene-d10	22.22	21.72	22.72	22.23	0.01
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	-0.01

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.

REVIEW SUMMARY FOR FILE - NT1421043010.D

Lab ID: SJD0305-SCV1

nt14.i, 20210430.b\ALKYLPNA.m, 30-APR-2021 14:41

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

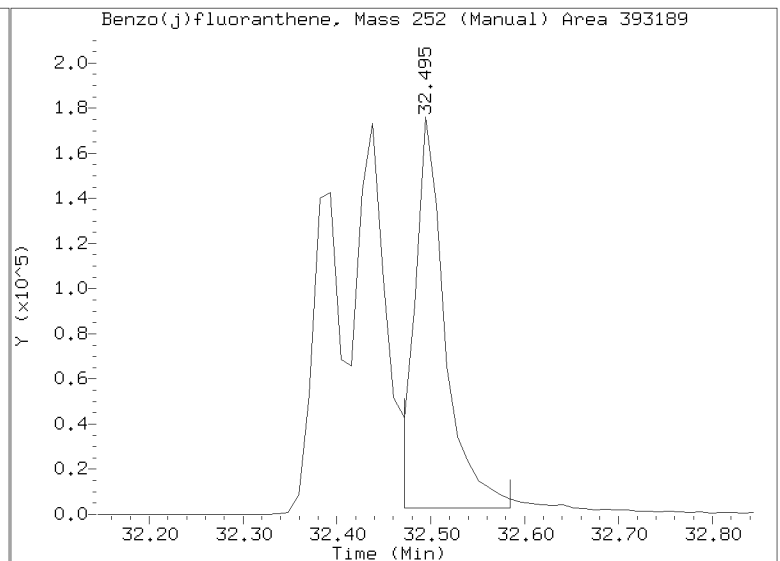
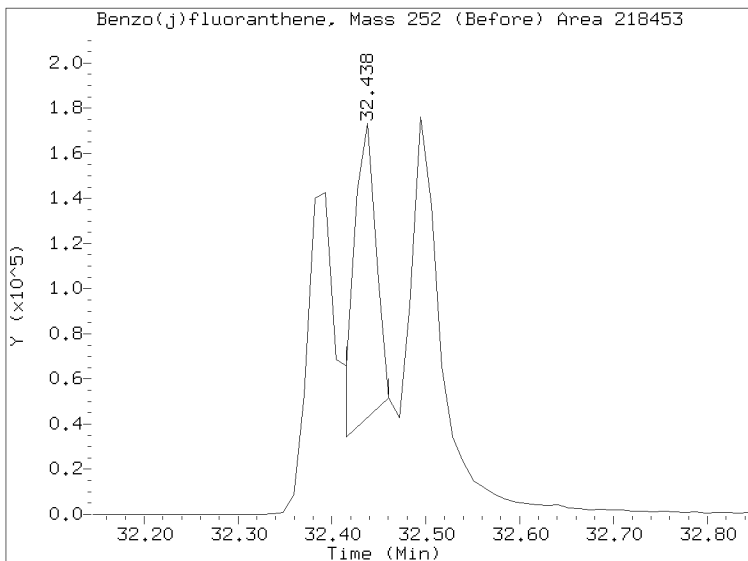
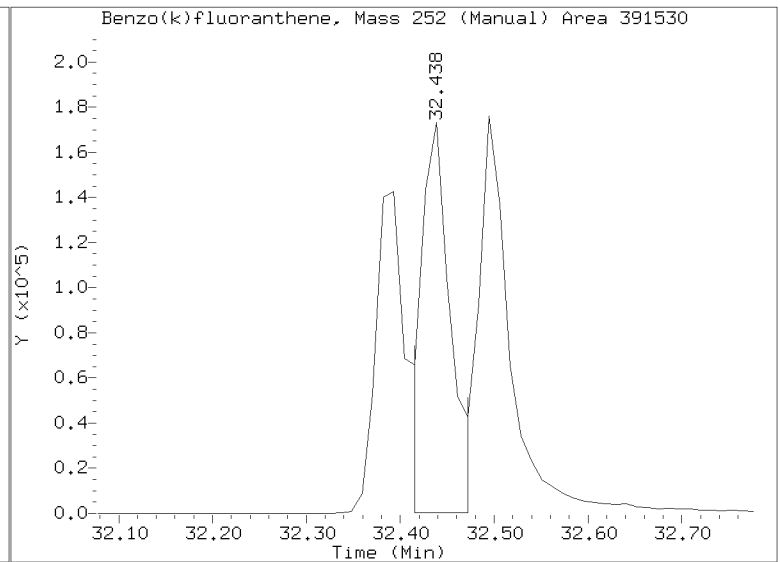
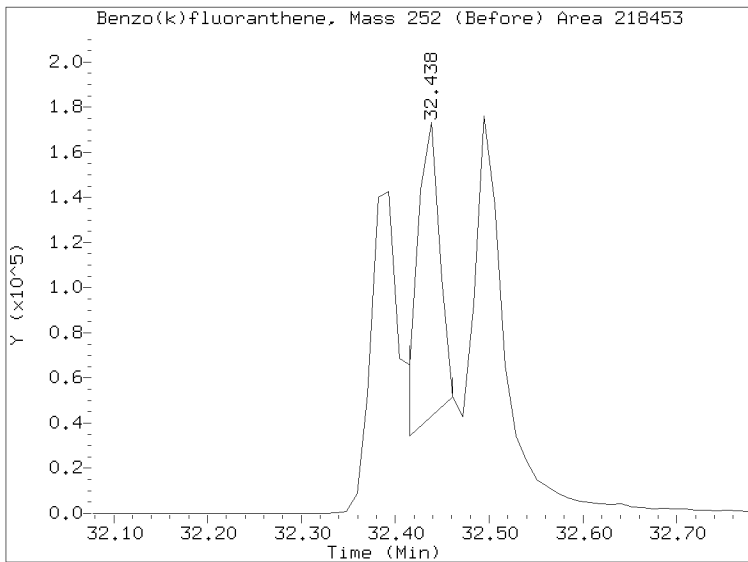
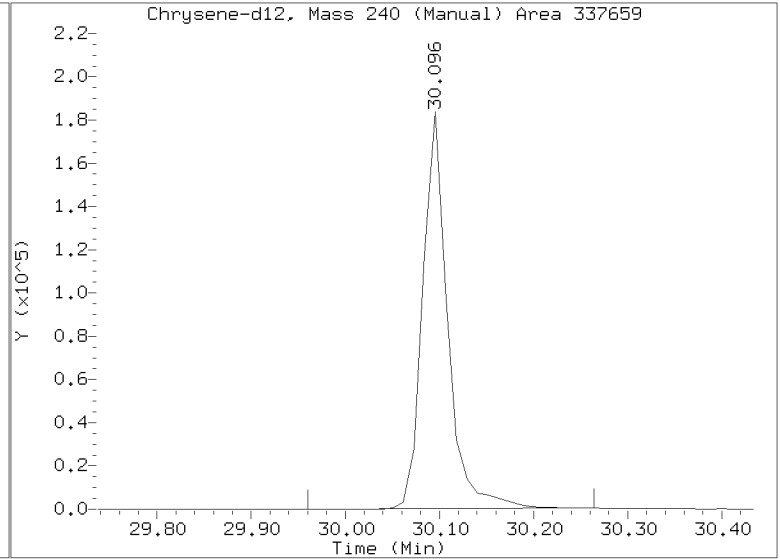
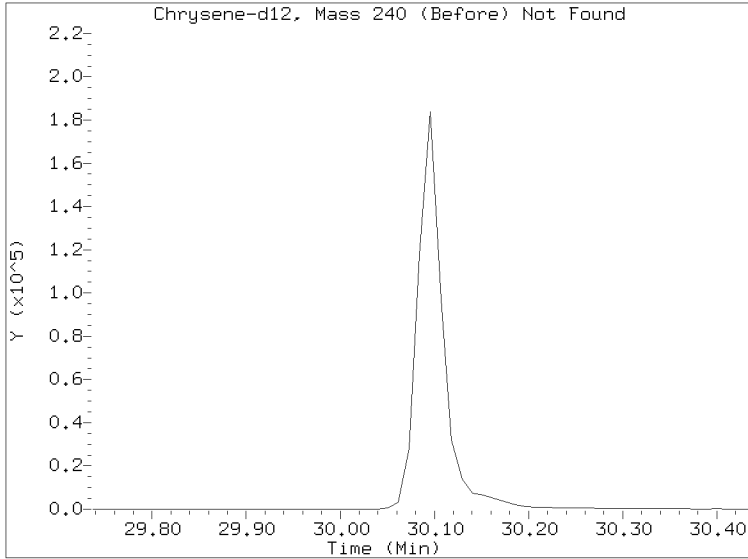
RRT check based on Ccal File: NT1421043009.D

On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

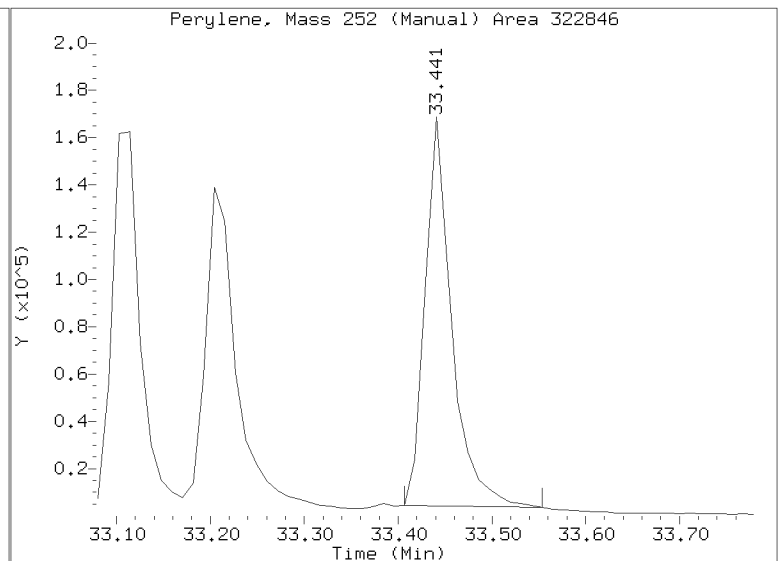
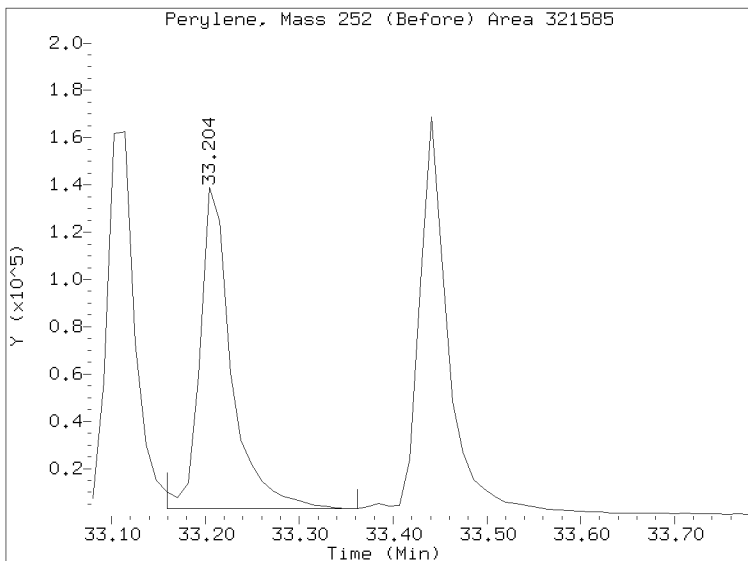
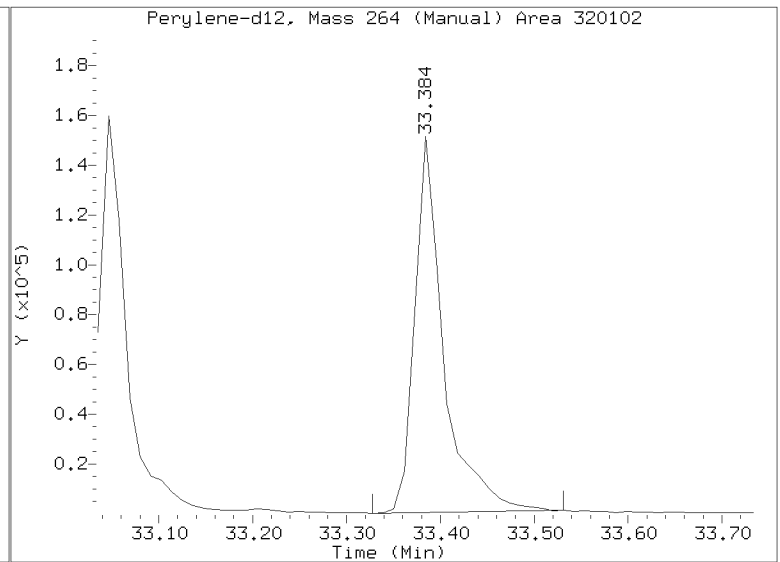
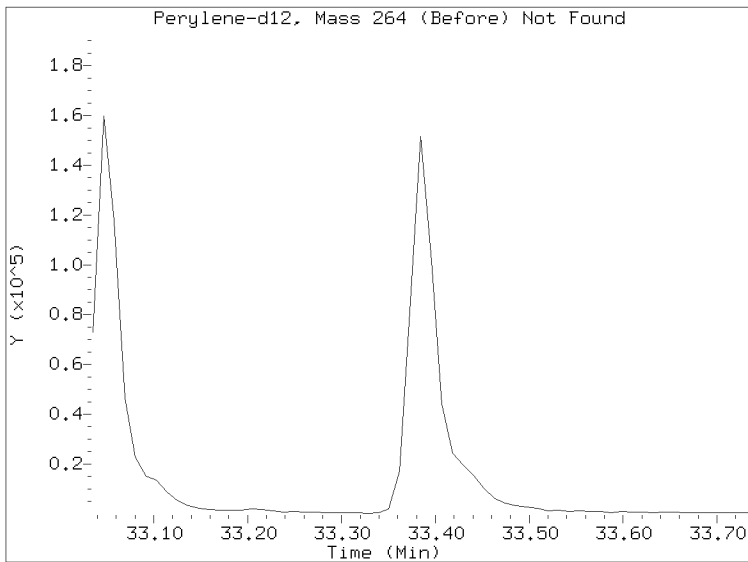
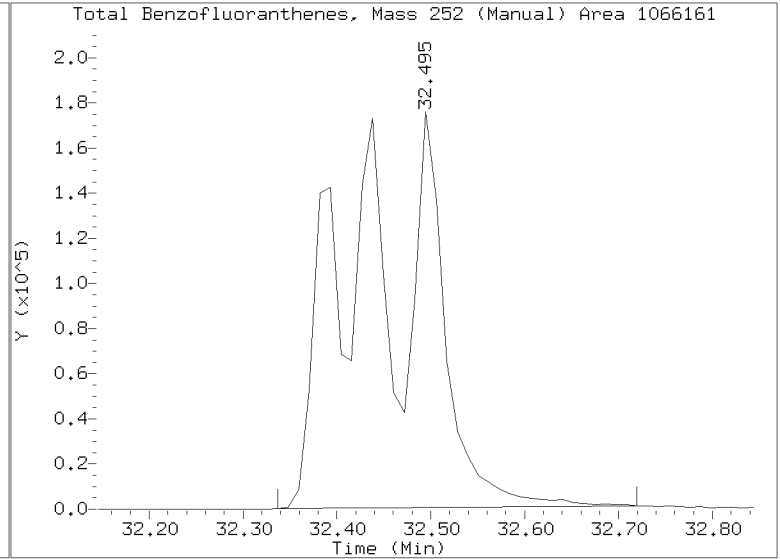
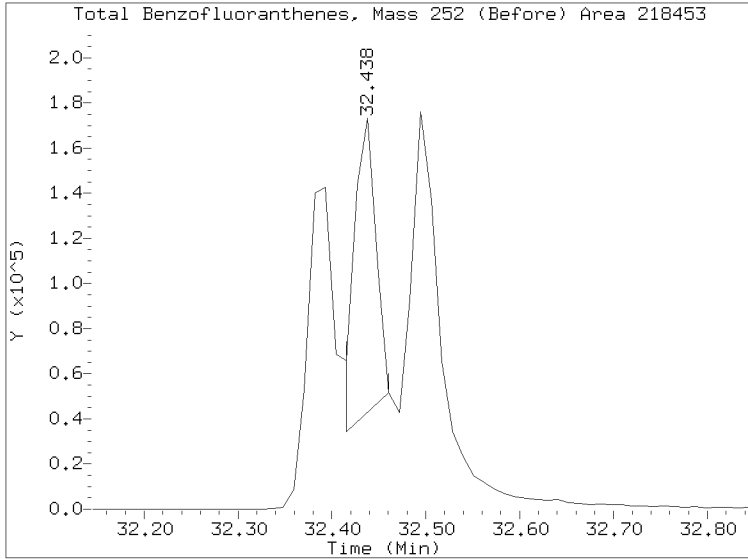
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Injection Date: 30-APR-2021 14:41
Lab ID: SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18



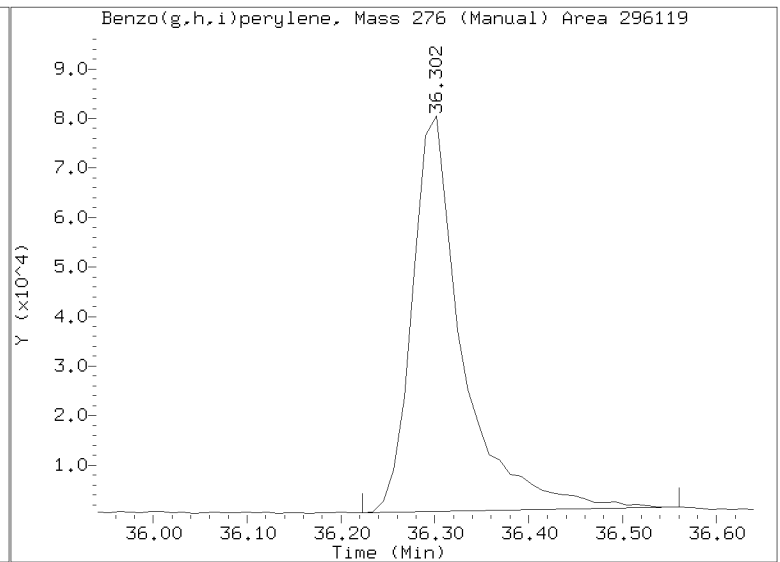
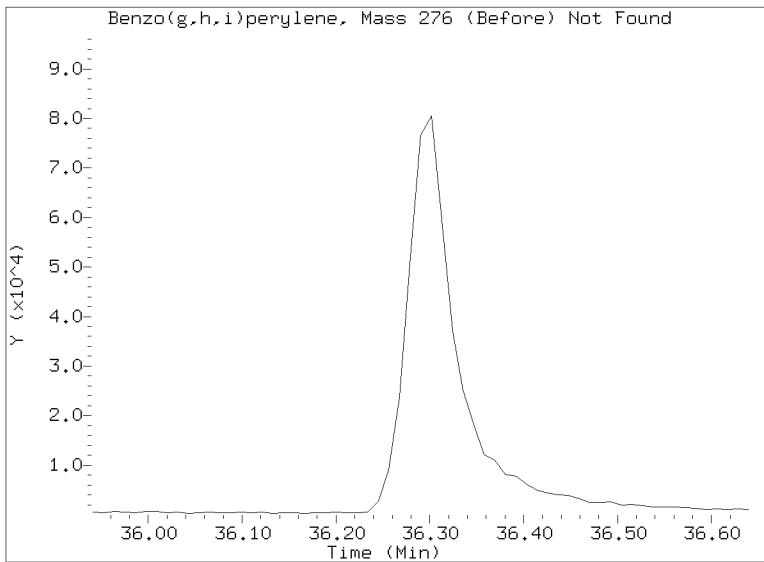
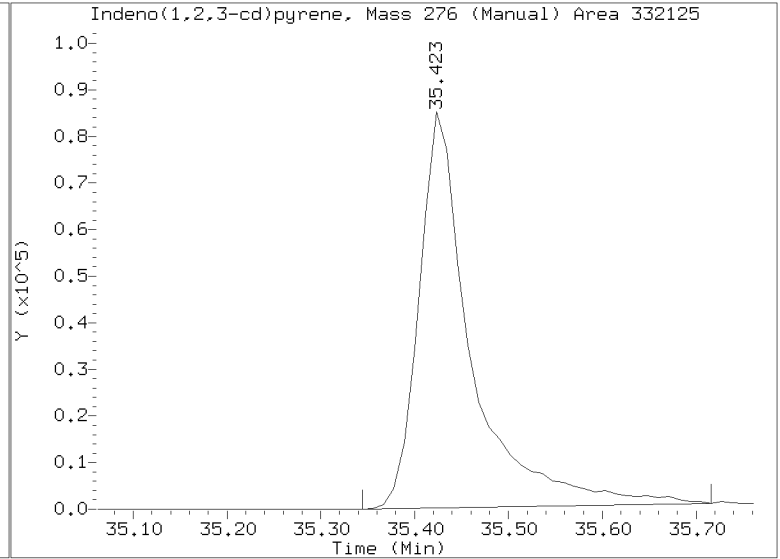
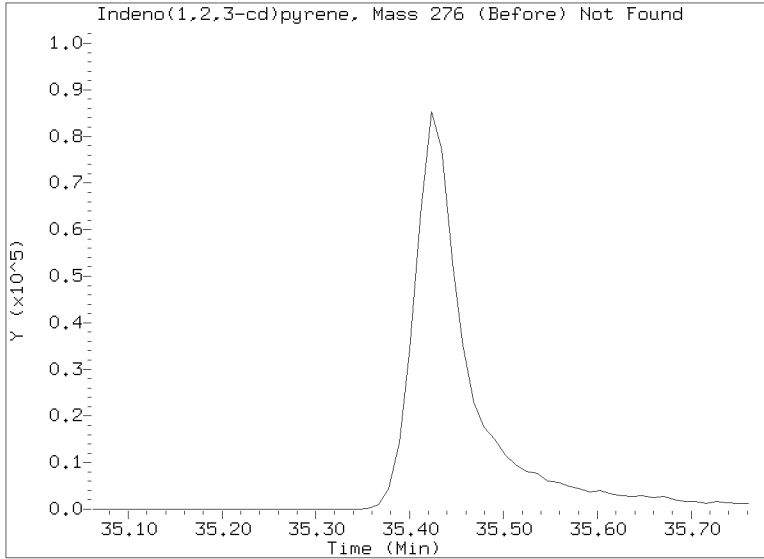
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D
Injection Date: 30-APR-2021 14:41
Lab ID: SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D
Injection Date: 30-APR-2021 14:41
Lab ID: SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18





INITIAL CALIBRATION CHECK EPA 8270E-SIM

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>21D0180</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic - US Moorings</u>
Instrument ID: <u>NT11</u>	Calibration: <u>DH00073</u>
Lab File ID: <u>NT1121042402.D</u>	Calibration Date: <u>08/27/2020</u>
Sequence: <u>SJD0344</u>	Injection Date: <u>04/24/21</u>
Lab Sample ID: <u>SJD0344-ICV1</u>	Injection Time: <u>10:14</u>
Sequence Name: <u>Initial Cal Check</u>	

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Naphthalene	A	250.00	225	1.1612470	1.0468610		-10.0	+/-20
2-Methylnaphthalene	A	250.00	240	0.9361384	0.8988441		-4.0	+/-20
Acenaphthylene	A	250.00	196	2.2945630	1.7967450		-21.6	+/-20 *
Acenaphthene	A	250.00	199	1.5175830	1.2103870		-20.4	+/-20 *
Fluorene	A	250.00	209	1.5604500	1.3064420		-16.4	+/-20
Phenanthrene	A	250.00	218	1.3083250	1.1414460		-12.8	+/-20
Anthracene	A	250.00	225	1.3072390	1.1786660		-10.0	+/-20
Fluoranthene	A	250.00	225	1.3043810	1.1719640		-10.0	+/-20
Pyrene	A	250.00	226	1.3381820	1.2071160		-9.6	+/-20
Benzo(a)anthracene	A	250.00	217	1.4691530	1.2753800		-13.2	+/-20
Chrysene	A	250.00	210	1.6542610	1.3923580		-16.0	+/-20
Benzo(b)fluoranthene	A	250.00	217	1.0886210	0.9470865		-13.2	+/-20
Benzo(k)fluoranthene	A	250.00	227	1.4304320	1.3000420		-9.2	+/-20
Benzo(j)fluoranthene	A	250.00	212	1.5458300	1.3093600		-15.2	+/-20
Benzo(a)pyrene	A	250.00	237	1.1369780	1.0797630		-5.2	+/-20
Indeno(1,2,3-cd)pyrene	A	250.00	251	1.1041170	1.1077670		0.4	+/-20
Dibenzo(a,h)anthracene	A	250.00	249	0.8775199	0.9387310		-0.4	+/-20
Benzo(g,h,i)perylene	A	250.00	241	1.1039640	1.0636310		-3.6	+/-20
2-Methylnaphthalene-d10	A	250.00	243	0.8041846	0.7825527		-2.8	+/-20
Dibenzo[a,h]anthracene-d14	A	250.00	246	0.7035414	0.7730730		-1.6	+/-20
Fluoranthene-d10	A	250.00	211	1.0485620	0.8838737		-15.6	+/-20

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.1\20210424.6\NT1121042402.D

Date: 24-APR-2021 10:14

Client ID:

Sample Info: SJD0344-ICW1

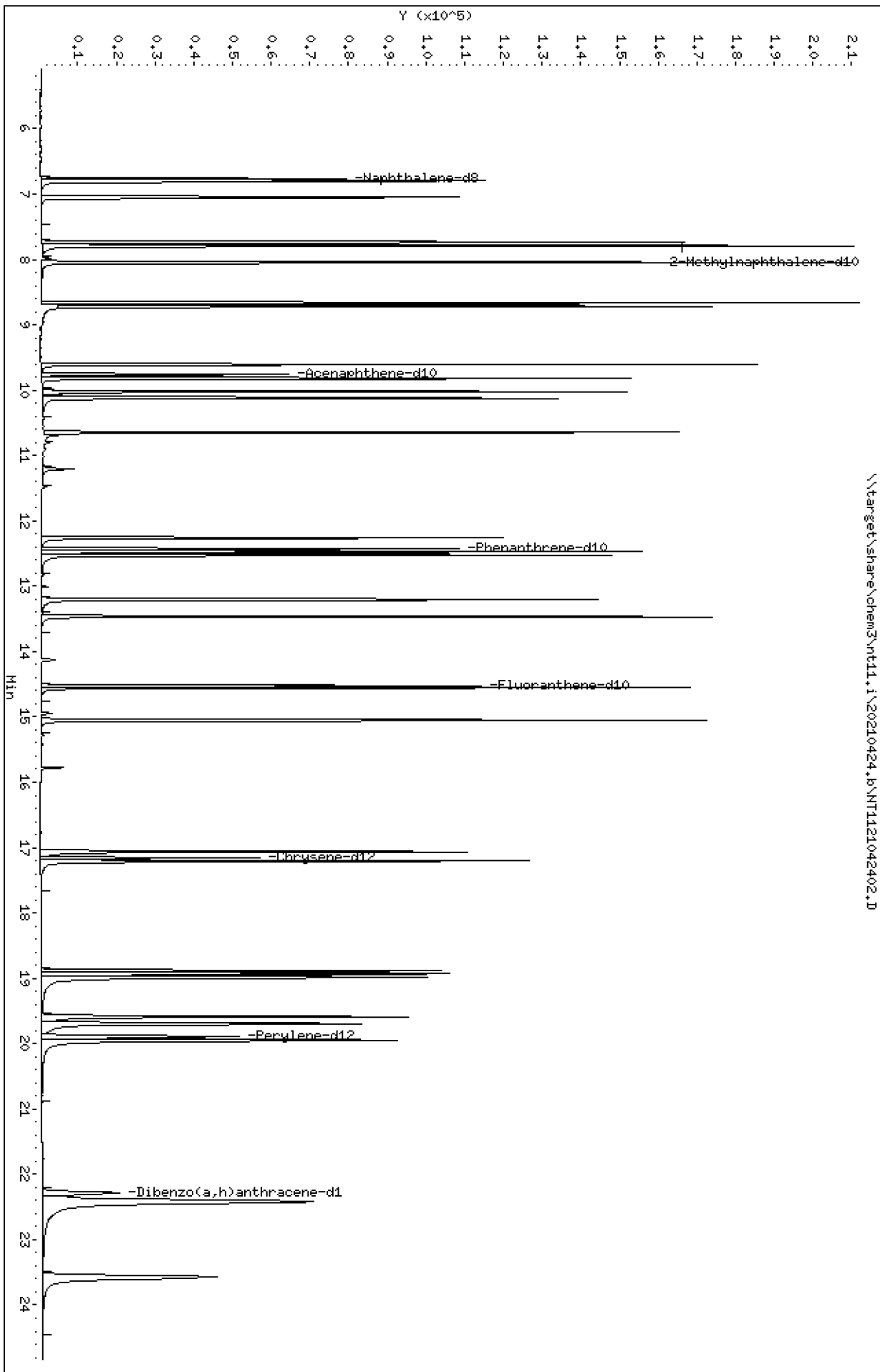
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

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ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20210424.b\NT1121042402.D
 Lab Smp Id: SJD0344-ICV1
 Inj Date : 24-APR-2021 10:14 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : SJD0344-ICV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20210424.b\lowsim.m
 Meth Date : 24-Apr-2021 10:50 van Quant Type: ISTD
 Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
 Als bottle: 2 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PAH.sub
 Target Version: 4.14
 Processing Host: VANS-202011

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 1 Naphthalene-d8	136		6.768	6.768	(1.000)	134531	200.000	
2 Naphthalene	128		6.795	6.795	(1.004)	176044	250.000	225
3 Benzo(b)thiophene	134		7.048	7.048	(1.041)	144675	250.000	235
\$ 4 2-Methylnaphthalene-d10	152		7.738	7.738	(1.143)	131597	250.000	243
5 2-Methylnaphthalene	142		7.791	7.791	(1.151)	151153	250.000	240
6 1-Methylnaphthalene	142		8.043	8.043	(1.188)	145604	250.000	249
7 2-Chloronaphthalene	162		8.694	8.694	(0.891)	135672	250.000	202
8 Biphenyl	154		8.663	8.663	(0.888)	170831	250.000	191
9 2,6-Dimethylnaphthalene	156		8.715	8.715	(0.893)	136060	250.000	205
10 Acenaphthylene	152		9.607	9.607	(0.984)	172894	250.000	196
* 11 Acenaphthene-d10	164		9.761	9.761	(1.000)	76981	200.000	
12 Acenaphthene	153		9.824	9.824	(1.006)	116471	250.000	199
13 Dibenzofuran	168		10.023	10.023	(1.027)	146921	250.000	188
14 2,3,5-Trimethylnaphthalene	170		10.124	10.124	(1.037)	94758	250.000	198
16 Fluorene	166		10.642	10.642	(1.090)	125714	250.000	209
17 Dibenzothiophene	184		12.260	12.260	(0.986)	138244	250.000	215
* 18 Phenanthrene-d10	188		12.428	12.428	(1.000)	116022	200.000	
19 Phenanthrene	178		12.470	12.470	(1.003)	165541	250.000	218
21 Anthracene	178		12.523	12.523	(1.008)	170939	250.000	225
22 Carbazole	167		13.206	13.206	(1.063)	187703	250.000	232
23 1-Methylphenanthrene	192		13.469	13.469	(1.084)	149300	250.000	223
\$ 24 Fluoranthene-d10	212		14.520	14.520	(1.168)	128186	250.000	211
25 Fluoranthene	202		14.558	14.558	(1.171)	169967	250.000	225
26 Pyrene	202		15.048	15.048	(1.211)	175065	250.000	226
27 Benzo(a)anthracene	228		17.064	17.064	(0.995)	132936	250.000	217
* 28 Chrysene-d12	240		17.155	17.155	(1.000)	83386	200.000	
29 Chrysene	228		17.205	17.205	(1.003)	145129	250.000	210
30 Benzo(b)fluoranthene	252		18.885	18.885	(0.949)	116069	250.000	217
31 Benzo(k)fluoranthene	252		18.923	18.923	(0.951)	159325	250.000	227
32 Benzo(j)fluoranthene	252		18.981	18.981	(0.954)	160467	250.000	212
34 Benzo(e)pyrene	252		19.586	19.586	(0.985)	130611	250.000	216
35 Benzo(a)pyrene	252		19.692	19.692	(0.990)	132329	250.000	237
* 36 Perylene-d12	264		19.893	19.893	(1.000)	98043	200.000	

Compounds	QUANT SIG		AMOUNTS					
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
37 Perylene	252		19.951	19.951	(1.003)	140102	250.000	221
\$ 38 Dibenzo(a,h)anthracene-d14	292		22.283	22.283	(1.120)	94743	250.000	246
39 Dibenzo(a,h)anthracene	278		22.405	22.405	(1.126)	115045	250.000	249
40 Indeno(1,2,3-cd)pyrene	276		22.427	22.427	(1.127)	135761	250.000	251
41 Benzo(g,h,i)perylene	276		23.568	23.568	(1.185)	130352	250.000	241

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 23-APR-2021
 Lab File ID: NT1121042402.D Calibration Time: 13:25
 Lab Smp Id: SJD0344-ICV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20210424.b\lowsim.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	124324	62162	248648	134531	8.21
11 Acenaphthene-d10	71130	35565	142260	76981	8.23
18 Phenanthrene-d10	109059	54530	218118	116022	6.38
28 Chrysene-d12	79646	39823	159292	83386	4.70
36 Perylene-d12	94327	47164	188654	98043	3.94

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.77	6.27	7.27	6.77	-0.00
11 Acenaphthene-d10	9.76	9.26	10.26	9.76	-0.00
18 Phenanthrene-d10	12.43	11.93	12.93	12.43	-0.00
28 Chrysene-d12	17.16	16.66	17.66	17.16	-0.00
36 Perylene-d12	19.89	19.39	20.39	19.89	-0.00

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.

REVIEW SUMMARY FOR FILE - NT1121042402.D

Lab ID: SJD0344-ICV1

nt11.i, 20210424.b\lowsim.m, 24-APR-2021 10:14

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check. Ccal file.

On Column LOD for nt11.i, 20210424.b\lowsim.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000

Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000

Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20210424.b

Instrument: nt11.i Date: 24-APR-2021 Method: 20210424.b\lowsim.m

INITIAL CAL: 27-AUG-2020

Compound	%RSD or R ²

NO Q-FLAGS	

ICV CAL: NT1121042402.D 24-APR-2021 10:14

Compound	%D

Acenaphthylene	-21.7
Acenaphthene	-20.2
Dibenzofuran	-24.6
2,3,5-Trimethylnaphthalene	-21.0
Biphenyl	-23.4



INITIAL CALIBRATION CHECK EPA 8270E-SIM

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>21D0180</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic - US Moorings</u>
Instrument ID: <u>NT11</u>	Calibration: <u>DH00073</u>
Lab File ID: <u>NT1121042702.D</u>	Calibration Date: <u>08/27/2020</u>
Sequence: <u>SJD0374</u>	Injection Date: <u>04/27/21</u>
Lab Sample ID: <u>SJD0374-ICV1</u>	Injection Time: <u>12:42</u>
Sequence Name: <u>Initial Cal Check</u>	

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Naphthalene	A	250.00	232	1.1612470	1.0793530		-7.2	+/-20
2-Methylnaphthalene	A	250.00	248	0.9361384	0.9289157		-0.8	+/-20
1-Methylnaphthalene	A	250.00	261	0.8702122	0.9089650		4.4	+/-20
2-Chloronaphthalene	A	250.00	208	1.7417600	1.4476110		-16.8	+/-20
Acenaphthylene	A	250.00	205	2.2945630	1.8790420		-18.0	+/-20
Acenaphthene	A	250.00	208	1.5175830	1.2627880		-16.8	+/-20
Dibenzofuran	A	250.00	196	2.0257800	1.5880660		-21.6	+/-20 *
Fluorene	A	250.00	206	1.5604500	1.2832630		-17.6	+/-20
Phenanthrene	A	250.00	227	1.3083250	1.1882880		-9.2	+/-20
Anthracene	A	250.00	241	1.3072390	1.2595070		-3.6	+/-20
Carbazole	A	250.00	244	1.3929680	1.3580690		-2.4	+/-20
Fluoranthene	A	250.00	231	1.3043810	1.2048890		-7.6	+/-20
Pyrene	A	250.00	235	1.3381820	1.2598390		-6.0	+/-20
Benzo(a)anthracene	A	250.00	239	1.4691530	1.4065430		-4.4	+/-20
Chrysene	A	250.00	224	1.6542610	1.4834930		-10.4	+/-20
Benzo(b)fluoranthene	A	250.00	257	1.0886210	1.1174050		2.8	+/-20
Benzo(k)fluoranthene	A	250.00	223	1.4304320	1.2779150		-10.8	+/-20
Benzo(j)fluoranthene	A	250.00	213	1.5458300	1.3151860		-14.8	+/-20
Benzofluoranthenes, Total	A	750.00	693	1.3549610	1.2368350		-7.6	+/-20
Benzo(a)pyrene	A	250.00	257	1.1369780	1.1680570		2.8	+/-20
Perylene	A	250.00	234	1.2953700	1.2124680		-6.4	+/-20
Indeno(1,2,3-cd)pyrene	A	250.00	297	1.1041170	1.3125700		18.8	+/-20
Dibenzo(a,h)anthracene	A	250.00	297	0.8775199	1.1210480		18.8	+/-20
Benzo(g,h,i)perylene	A	250.00	278	1.1039640	1.2259870		11.2	+/-20
2-Methylnaphthalene-d10	A	250.00	254	0.8041846	0.8172302		1.6	+/-20
Dibenzo[a,h]anthracene-d14	A	250.00	297	0.7035414	0.9369326		18.8	+/-20
Fluoranthene-d10	A	250.00	229	1.0485620	0.9590487		-8.4	+/-20

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.1\20210427.6\NT1121042702.D

Date: 27-APR-2021 12:42

Client ID:

Sample Info: SJD0374-ICW1

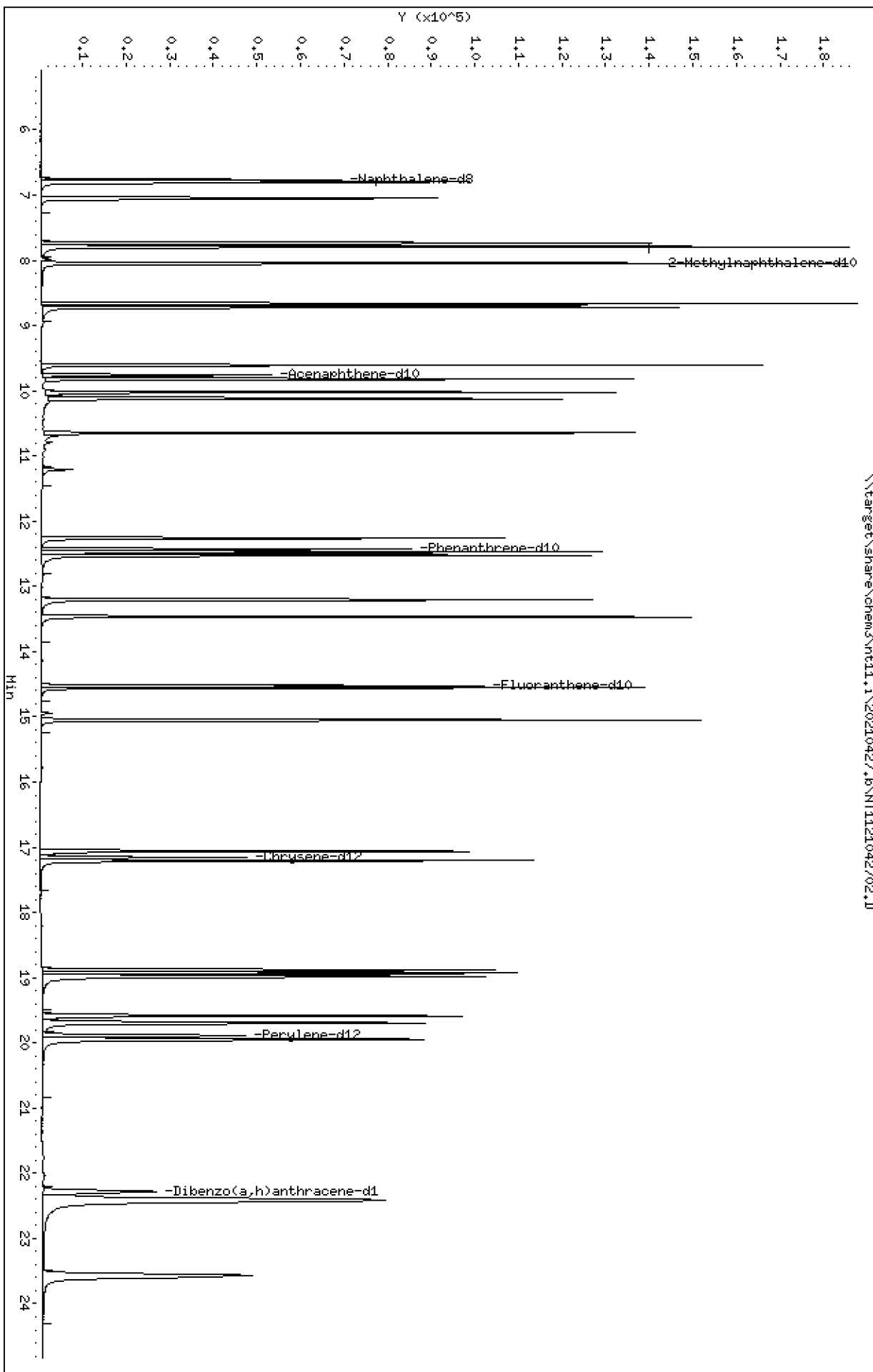
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt11.1\20210427.6\NT1121042702.D



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20210427.b\NT1121042702.D
 Lab Smp Id: SJD0374-ICV1
 Inj Date : 27-APR-2021 12:42 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : SJD0374-ICV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20210427.b\lowsim.m
 Meth Date : 27-Apr-2021 13:08 van Quant Type: ISTD
 Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
 Als bottle: 2 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PAH.sub
 Target Version: 4.14
 Processing Host: VANS-202011

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ng/mL)	(ng/mL)
* 1 Naphthalene-d8	136		6.768	6.768	(1.000)	112036	200.000	
2 Naphthalene	128		6.795	6.795	(1.004)	151158	250.000	232
3 Benzo(b)thiophene	134		7.048	7.048	(1.041)	123940	250.000	242
\$ 4 2-Methylnaphthalene-d10	152		7.738	7.738	(1.143)	114449	250.000	254
5 2-Methylnaphthalene	142		7.791	7.791	(1.151)	130090	250.000	248
6 1-Methylnaphthalene	142		8.043	8.043	(1.188)	127296	250.000	261
7 2-Chloronaphthalene	162		8.694	8.694	(0.891)	116938	250.000	208
8 Biphenyl	154		8.663	8.663	(0.888)	148334	250.000	198
9 2,6-Dimethylnaphthalene	156		8.715	8.715	(0.893)	116011	250.000	209
10 Acenaphthylene	152		9.607	9.607	(0.984)	151789	250.000	205
* 11 Acenaphthene-d10	164		9.761	9.761	(1.000)	64624	200.000	
12 Acenaphthene	153		9.824	9.824	(1.006)	102008	250.000	208
13 Dibenzofuran	168		10.023	10.023	(1.027)	128284	250.000	196
14 2,3,5-Trimethylnaphthalene	170		10.124	10.124	(1.037)	84016	250.000	209
16 Fluorene	166		10.642	10.642	(1.090)	103662	250.000	206
17 Dibenzothiophene	184		12.260	12.260	(0.986)	121870	250.000	228
* 18 Phenanthrene-d10	188		12.428	12.428	(1.000)	96378	200.000	
19 Phenanthrene	178		12.470	12.470	(1.003)	143156	250.000	227
21 Anthracene	178		12.523	12.523	(1.008)	151736	250.000	241
22 Carbazole	167		13.207	13.207	(1.063)	163610	250.000	244
23 1-Methylphenanthrene	192		13.469	13.469	(1.084)	133544	250.000	240
\$ 24 Fluoranthene-d10	212		14.520	14.520	(1.168)	115539	250.000	229
25 Fluoranthene	202		14.558	14.558	(1.171)	145156	250.000	231
26 Pyrene	202		15.048	15.048	(1.211)	151776	250.000	235
27 Benzo(a)anthracene	228		17.064	17.064	(0.995)	120968	250.000	239
* 28 Chrysene-d12	240		17.155	17.155	(1.000)	68803	200.000	
29 Chrysene	228		17.205	17.205	(1.003)	127586	250.000	224
30 Benzo(b)fluoranthene	252		18.885	18.885	(0.949)	121751	250.000	257
31 Benzo(k)fluoranthene	252		18.923	18.923	(0.951)	139240	250.000	223
32 Benzo(j)fluoranthene	252		18.981	18.981	(0.954)	143301	250.000	213
34 Benzo(e)pyrene	252		19.586	19.586	(0.985)	125649	250.000	234
35 Benzo(a)pyrene	252		19.692	19.692	(0.990)	127270	250.000	257
* 36 Perylene-d12	264		19.893	19.893	(1.000)	87167	200.000	

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
37 Perylene	252	19.951	19.951	(1.003)	132109	250.000	234
\$ 38 Dibenzo(a,h)anthracene-d14	292	22.283	22.283	(1.120)	102087	250.000	297
39 Dibenzo(a,h)anthracene	278	22.394	22.394	(1.126)	122148	250.000	297
40 Indeno(1,2,3-cd)pyrene	276	22.427	22.427	(1.127)	143016	250.000	297
41 Benzo(g,h,i)perylene	276	23.568	23.568	(1.185)	133582	250.000	278

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 24-APR-2021
 Lab File ID: NT1121042702.D Calibration Time: 10:14
 Lab Smp Id: SJD0374-ICV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20210427.b\lowsim.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	134531	67266	269062	112036	-16.72
11 Acenaphthene-d10	76981	38491	153962	64624	-16.05
18 Phenanthrene-d10	116022	58011	232044	96378	-16.93
28 Chrysene-d12	83386	41693	166772	68803	-17.49
36 Perylene-d12	98043	49022	196086	87167	-11.09

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.77	6.27	7.27	6.77	0.00
11 Acenaphthene-d10	9.76	9.26	10.26	9.76	0.00
18 Phenanthrene-d10	12.43	11.93	12.93	12.43	0.00
28 Chrysene-d12	17.16	16.66	17.66	17.16	0.00
36 Perylene-d12	19.89	19.39	20.39	19.89	0.00

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.

REVIEW SUMMARY FOR FILE - NT1121042702.D

Lab ID: SJD0374-ICV1

nt11.i, 20210427.b\lowsim.m, 27-APR-2021 12:42

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check. Ccal file.

On Column LOD for nt11.i, 20210427.b\lowsim.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000

Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000

Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20210427.b

Instrument: nt11.i Date: 27-APR-2021 Method: 20210427.b\lowsim.m

INITIAL CAL: 27-AUG-2020

Compound	%RSD or R ²

NO Q-FLAGS	

ICV CAL: NT1121042702.D 27-APR-2021 12:42

Compound	%D

Dibenzofuran	-21.6
Biphenyl	-20.8



INITIAL CALIBRATION CHECK EPA 8270E-SIM

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>21D0180</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic - US Moorings</u>
Instrument ID:	<u>NT14</u>	Calibration:	<u>EE00001</u>
Lab File ID:	<u>NT1421043051ICV.D</u>	Calibration Date:	<u>04/30/2021</u>
Sequence:	<u>SJE0004</u>	Injection Date:	<u>05/01/21</u>
Lab Sample ID:	<u>SJE0004-ICV1</u>	Injection Time:	<u>23:35</u>
Sequence Name:	<u>Initial Cal Check</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
trans-Decalin	A	2.5000	2.6	0.1489821	0.1559299		4.7	+/-20
cis-Decalin	A	2.5000	2.7	0.1028504	0.1128629		9.7	+/-20
Naphthalene	A	2.5000	2.7	1.1740120	1.2713610		8.3	+/-20
1-Methylnaphthalene	A	2.5000	2.8	0.5936130	0.6625586		11.6	+/-20
2-Methylnaphthalene	A	2.5000	2.8	0.6265036	0.6954155		11.0	+/-20
Biphenyl	A	2.5000	2.8	0.8966280	0.9896226		10.4	+/-20
2,6-Dimethylnaphthalene	A	2.5000	2.9	0.6169792	0.7139580		15.7	+/-20
Acenaphthylene	A	2.5000	3.1	0.9709370	1.1929300		22.9	+/-20 *
Acenaphthene	A	2.5000	2.9	0.6240076	0.7235131		16.0	+/-20
Dibenzofuran	A	2.5000	2.8	0.9455456	1.0702570		13.2	+/-20
2,3,5-Trimethylnaphthalene	A	2.5000	3.0	0.5414731	0.6535855		20.7	+/-20 *
Fluorene	A	2.5000	2.9	0.6871732	0.7981096		16.2	+/-20
Benzo(b)thiophene	A	2.5000	2.7	0.9340302	1.0163830		8.8	+/-20
Phenanthrene	A	2.5000	2.5	1.2066070	1.2044630		-0.2	+/-20
Anthracene	A	2.5000	2.6	1.1122650	1.1540750		3.8	+/-20
Carbazole	A	2.5000	2.7	0.8290303	1.0114890		7.8	+/-20
1-Methylphenanthrene	A	2.5000	2.8	0.7326040	0.8269761		12.9	+/-20
Fluoranthene	A	2.5000	2.8	1.0715980	1.2187440		13.7	+/-20
Dibenzothiophene	A	2.5000	3.0	0.8674458	1.0367970		19.5	+/-20
Pyrene	A	2.5000	2.9	1.1104570	1.2665710		14.0	+/-20
Benzo(a)anthracene	A	2.5000	2.6	0.8222601	0.9551922		3.9	+/-20
Chrysene	A	2.5000	2.5	0.9340580	0.9324969		-0.2	+/-20
Benzo(b)fluoranthene	A	2.5000	2.8	0.7491309	0.9759649		14.0	+/-20
Benzo(j)fluoranthene	A	2.5000	2.4	0.9513865	0.9220897		-3.1	+/-20
Benzo(k)fluoranthene	A	2.5000	2.6	0.9278309	1.0684950		2.8	+/-20
Benzo(e)pyrene	A	2.5000	2.8	0.8518347	0.9399273		10.4	+/-20
Benzo(a)pyrene	A	2.5000	2.5	0.7422947	0.8801991		0.4	+/-20
Indeno(1,2,3-cd)pyrene	A	2.5000	2.8	0.7887712	1.0212500		12.0	+/-20
Dibenzo(a,h)anthracene	A	2.5000	2.8	0.6549683	0.8917410		13.0	+/-20
Benzo(g,h,i)perylene	A	2.5000	3.0	0.7663214	0.9228760		20.4	+/-20
Perylene	A	2.5000	2.9	0.8135951	0.9339567		14.8	+/-20

* Values outside of QC limits



INITIAL CALIBRATION CHECK

EPA 8270E-SIM

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>21D0180</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic - US Moorings</u>
Instrument ID: <u>NT14</u>	Calibration: <u>EE00001</u>
Lab File ID: <u>NT1421043051ICV.D</u>	Calibration Date: <u>04/30/2021</u>
Sequence: <u>SJE0004</u>	Injection Date: <u>05/01/21</u>
Lab Sample ID: <u>SJE0004-ICV1</u>	Injection Time: <u>23:35</u>
Sequence Name: <u>Initial Cal Check</u>	

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Benzo(b)naphtho(2,1-d)thiophene	A	2.5000	2.8	1.0821370	1.2150300		12.3	+/-20
Naphthalene-d8	A	2.5000	2.74	1.1542130	1.2637900		9.5	+/-20
Acenaphthene-d10	A	2.5000	2.87	0.5635830	0.6475369		14.9	+/-20
Phenanthrene-d10	A	2.5000	2.53	1.0807840	1.0922710		1.1	+/-20
Chrysene-d12	A	2.5000	2.66	0.7267179	0.7722814		6.3	+/-20
Perylene-d12	A	2.5000	2.66	0.6899017	0.8292883		6.4	+/-20

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.1\20210430D.B\NT1421043051ICV.D

Date: 01-MAY-2021 23:35

Client ID:

Sample Info: SJE0004-ICV1

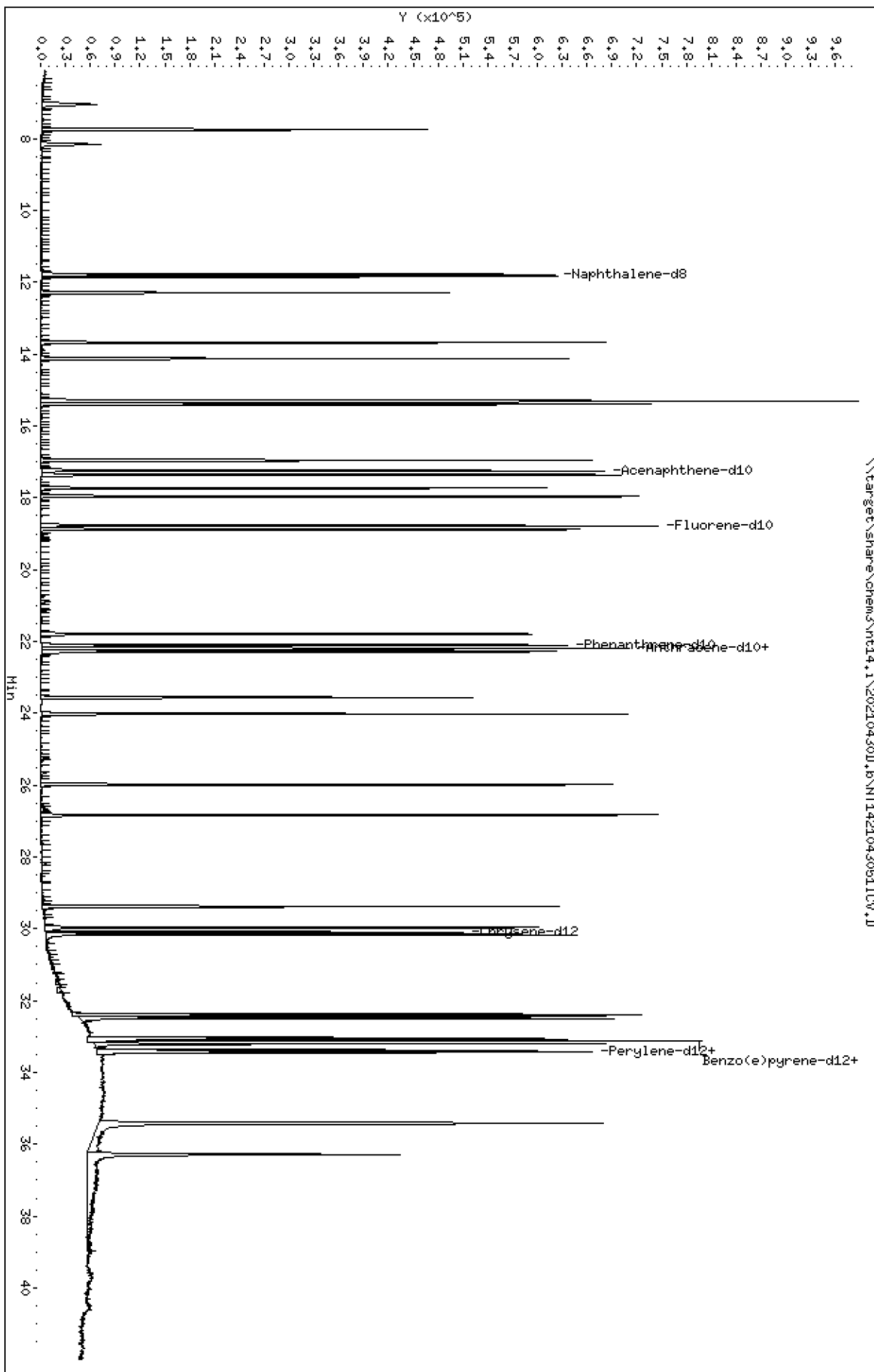
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430D.b\NT1421043051ICV.D
 Lab Smp Id: SJE0004-ICV1
 Inj Date : 01-MAY-2021 23:35
 Operator : VTS
 Smp Info : SJE0004-ICV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
 Meth Date : 04-May-2021 08:25 van
 Cal Date : 30-APR-2021 13:32
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-202011

Inst ID: nt14.i

Quant Type: ISTD
 Cal File: NT1421043009.D
 Continuing Calibration Sample

Compound Sublist: TARGETS.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 trans-Decalin	138		7.045	7.045	(0.375)	98322	2.50000	2.617
2 cis-Decalin	138		8.155	8.155	(0.434)	71166	2.50000	2.743
\$ 6 Naphthalene-d8	136		11.776	11.776	(0.627)	796886	2.50000	2.737
7 Naphthalene	128		11.836	11.836	(0.631)	801660	2.50000	2.707
12 Benzo(b)thiophene	134		12.295	12.295	(0.655)	640883	2.50000	2.720
16 2-Methylnaphthalene	141		13.680	13.680	(0.729)	438496	2.50000	2.775
17 1-methylnaphthalene	141		14.120	14.120	(0.752)	417778	2.50000	2.790
18 Biphenyl	154		15.318	15.318	(0.816)	624009	2.50000	2.759
19 2,6-Dimethylnaphthalene	156		15.394	15.394	(0.820)	450188	2.50000	2.893
20 Acenaphthylene	152		16.955	16.955	(0.903)	752205	2.50000	3.072
\$ 21 Acenaphthene-d10	164		17.241	17.241	(0.918)	408306	2.50000	2.872
22 Acenaphthene	153		17.362	17.362	(0.925)	456213	2.50000	2.899
23 Dibenzofuran	168		17.735	17.735	(0.945)	674853	2.50000	2.830
24 1,6,7-Trimethylnaphthalene	170		17.955	17.955	(0.956)	412120	2.50000	3.018
* 25 Fluorene-d10	176		18.772	18.772	(1.000)	504442	2.00000	
26 Fluorene	166		18.874	18.874	(1.005)	503250	2.50000	2.904
30 Dibenzothiophene	184		21.796	21.796	(1.161)	653755	2.50000	2.988
\$ 35 Phenanthrene-d10	188		22.104	22.104	(0.995)	626831	2.50000	2.527
36 Phenanthrene	178		22.181	22.181	(0.999)	691216	2.50000	2.496
* 250 Anthracene-d10	188		22.214	22.214	(1.000)	459103	2.00000	
37 Anthracene	178		22.280	22.280	(1.003)	662299	2.50000	2.594
42 Carbazole	167		23.566	23.566	(1.061)	580472	2.50000	2.695
43 1-Methylphenanthrene	192		24.017	24.017	(1.081)	474584	2.50000	2.822
44 Fluoranthene	202		25.985	25.985	(1.170)	699411	2.50000	2.843
46 Pyrene	202		26.832	26.832	(1.208)	726858	2.50000	2.851
51 Naphthobenzothiophene	234		29.375	29.375	(1.322)	697280	2.50000	2.807
55 Benzo(a)anthracene	228		29.960	29.960	(0.907)	617047	2.50000	2.598
\$ 56 Chrysene-d12	240		30.084	30.084	(0.910)	498888	2.50000	2.657
57 Chrysene	228		30.163	30.163	(0.913)	602386	2.50000	2.496
62 Benzo(b)fluoranthene	252		32.382	32.382	(0.980)	630466	2.50000	2.849 (M)
63 Benzo(k)fluoranthene	252		32.427	32.427	(0.981)	690240	2.50000	2.571 (M)
293 Benzo(j)fluoranthene	252		32.494	32.494	(0.983)	595663	2.50000	2.423
246 Total Benzofluoranthenes	252		32.382	32.382	(0.980)	1865489	7.50000	7.719 (M)

Compounds	QUANT SIG		AMOUNTS				CAL-AMT	ON-COL
	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)	
* 251 Benzo(e)pyrene-d12	264	33.046	33.046	(1.000)	516794	2.00000		
64 Benzo(e)pyrene	252	33.102	33.102	(1.002)	607186	2.50000	2.759	
66 Benzo(a)pyrene	252	33.204	33.204	(1.005)	568602	2.50000	2.510	
\$ 67 Perylene-d12	264	33.373	33.373	(1.010)	535714	2.50000	2.661	
68 Perylene	252	33.440	33.440	(1.012)	603329	2.50000	2.870	
69 Indeno(1,2,3-cd)pyrene	276	35.423	35.423	(1.072)	659720	2.50000	2.799 (M)	
70 Dibenzo(a,h)anthracene	278	35.400	35.400	(1.071)	576058	2.50000	2.824 (M)	
74 Benzo(g,h,i)perylene	276	36.290	36.290	(1.098)	596171	2.50000	3.011 (M)	

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i
 Lab File ID: NT1421043051ICV.D
 Lab Smp Id: SJE0004-ICV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
 Misc Info:

Calibration Date: 01-MAY-2021
 Calibration Time: 13:10
 Level:
 Sample Type:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	470584	235292	941168	504442	7.19
250 Anthracene-d10	406977	203489	813954	459103	12.81
251 Benzo(e)pyrene-d1	456524	228262	913048	516794	13.20

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.77	18.27	19.27	18.77	0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	0.00

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.

REVIEW SUMMARY FOR FILE - NT1421043051ICV.D

Lab ID: SJE0004-ICV1

nt14.i, 20210430D.b\ALKYLPNA.m, 01-MAY-2021 23:35

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

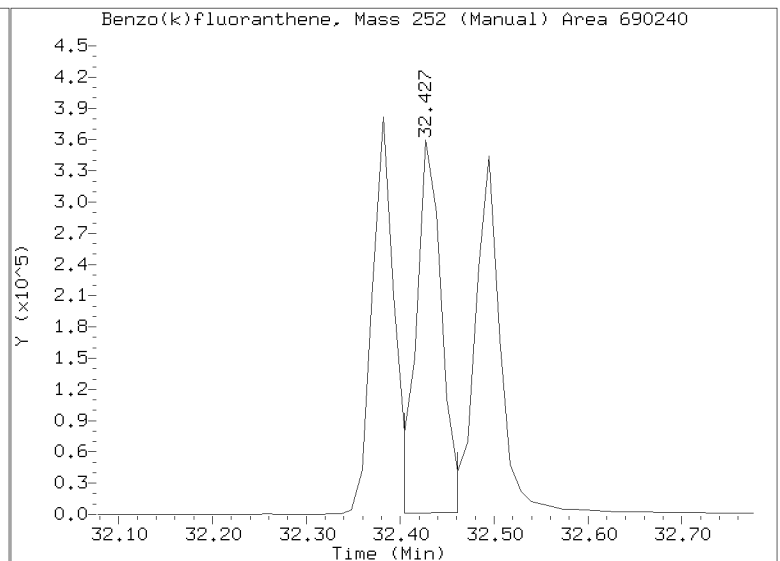
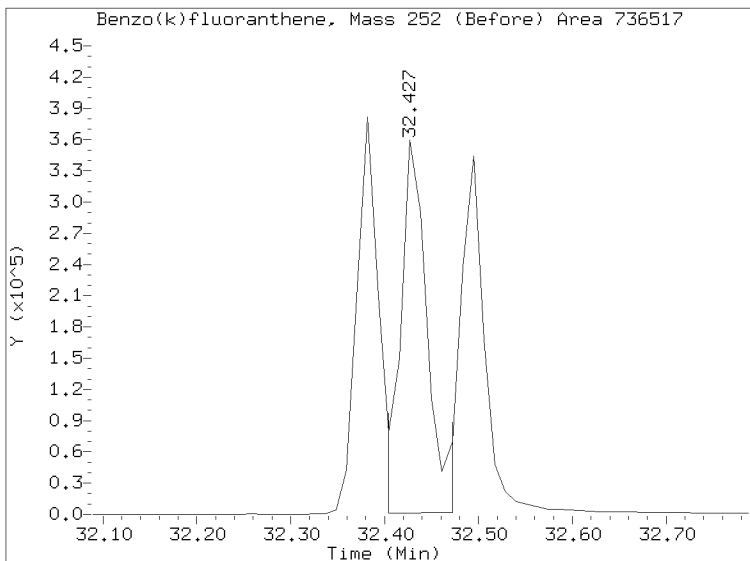
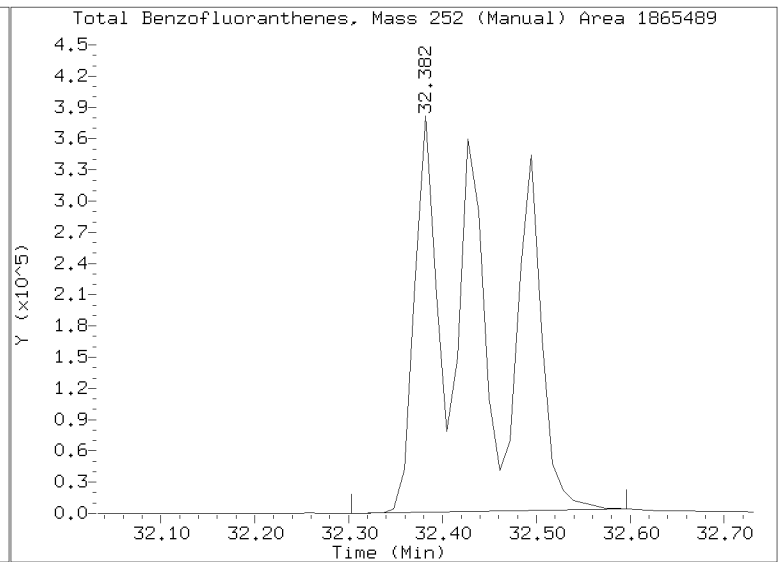
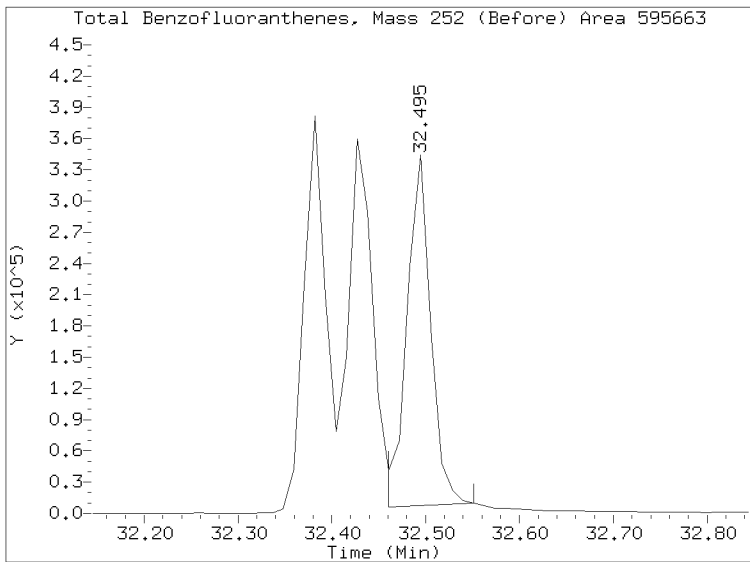
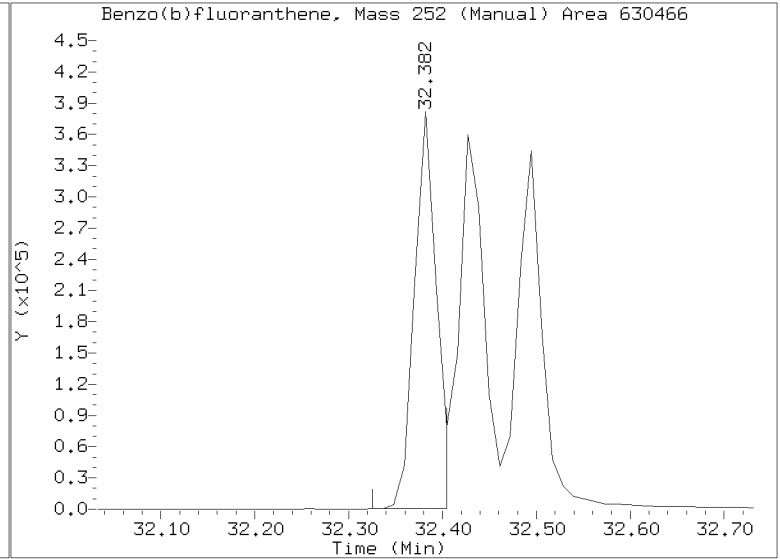
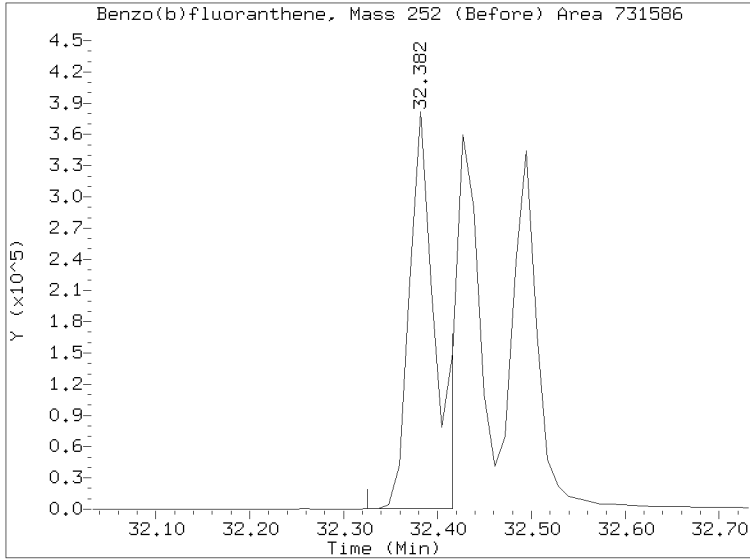
No RRT check. Ccal file.

On Column LOD for nt14.i, 20210430D.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

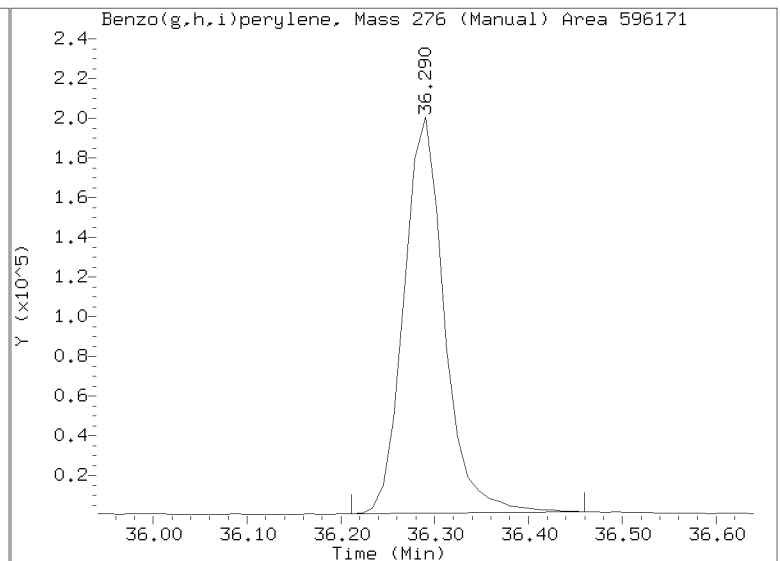
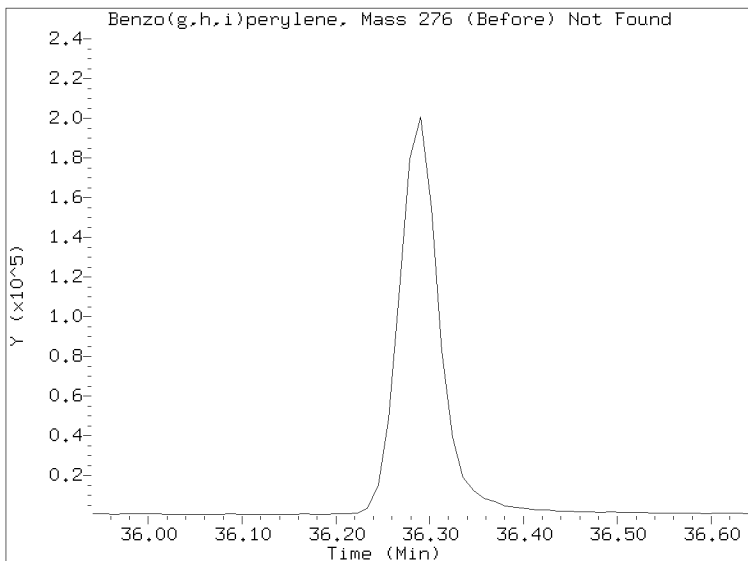
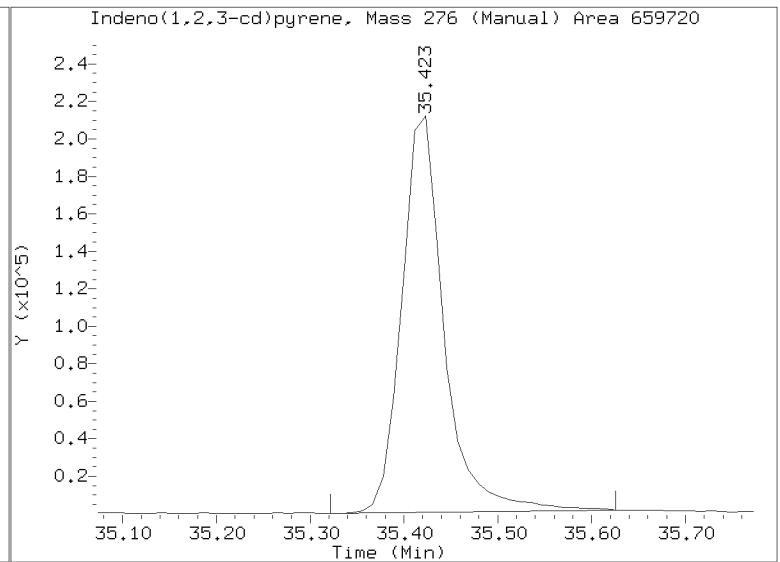
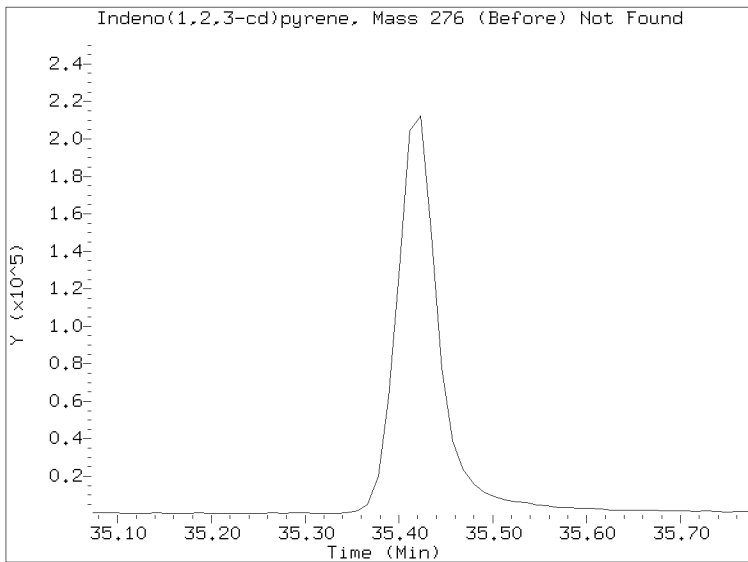
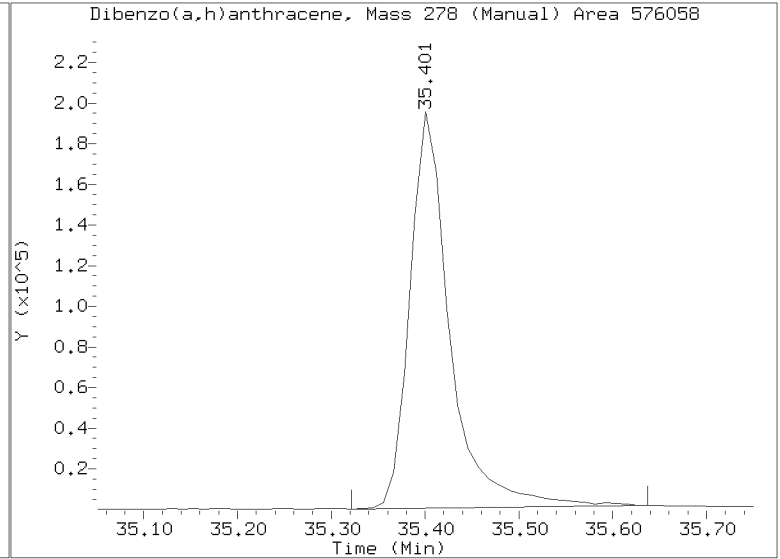
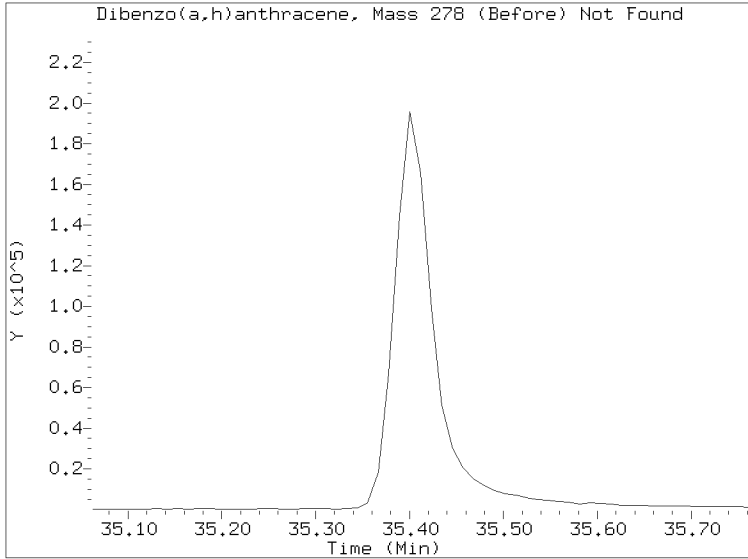
Quant Ion Manual Peak Adjustment Report

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Lab ID: SJE0004-ICV1 Client ID:
Report Date: 05/04/2021 13:20



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043051ICV.D
Injection Date: 01-MAY-2021 23:35
Lab ID: SJE0004-ICV1 Client ID:
Report Date: 05/04/2021 13:20



Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210430D.b

Instrument: nt14.i Date: 01-MAY-2021 Method: 20210430D.b\ALKYLPNA.m

INITIAL CAL: 30-APR-2021

Compound	%RSD or R ²

NO Q-FLAGS	

ICV CAL: NT1421043051ICV.D 01-MAY-2021 23:35

Compound	%D

Acenaphthylene	22.9
1,6,7-Trimethylnaphthalene	20.7



INITIAL CALIBRATION CHECK EPA 8270E-SIM

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>21D0180</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic - US Moorings</u>
Instrument ID:	<u>NT14</u>	Calibration:	<u>EE00001</u>
Lab File ID:	<u>NT1421050402.D</u>	Calibration Date:	<u>04/30/2021</u>
Sequence:	<u>SJE0028</u>	Injection Date:	<u>05/04/21</u>
Lab Sample ID:	<u>SJE0028-ICV1</u>	Injection Time:	<u>12:52</u>
Sequence Name:	<u>Initial Cal Check</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
trans-Decalin	A	2.5000	2.82	0.1489821	0.1678984		12.7	+/-20
cis-Decalin	A	2.5000	2.89	0.1028504	0.1189258		15.6	+/-20
Naphthalene	A	2.5000	2.84	1.1740120	1.3348740		13.7	+/-20
1-Methylnaphthalene	A	2.5000	2.87	0.5936130	0.6804039		14.6	+/-20
2-Methylnaphthalene	A	2.5000	2.88	0.6265036	0.7227643		15.4	+/-20
Biphenyl	A	2.5000	2.87	0.8966280	1.0275900		14.6	+/-20
2,6-Dimethylnaphthalene	A	2.5000	2.95	0.6169792	0.7289871		18.2	+/-20
Acenaphthylene	A	2.5000	3.15	0.9709370	1.2223180		25.9	+/-20 *
Acenaphthene	A	2.5000	3.00	0.6240076	0.7495540		20.1	+/-20
Dibenzofuran	A	2.5000	2.92	0.9455456	1.1042250		16.8	+/-20
2,3,5-Trimethylnaphthalene	A	2.5000	3.10	0.5414731	0.6707522		23.9	+/-20 *
Fluorene	A	2.5000	2.99	0.6871732	0.8204571		19.4	+/-20
Benzo(b)thiophene	A	2.5000	2.86	0.9340302	1.0668580		14.2	+/-20
Phenanthrene	A	2.5000	2.52	1.2066070	1.2178800		0.9	+/-20
Anthracene	A	2.5000	2.57	1.1122650	1.1429580		2.8	+/-20
Carbazole	A	2.5000	2.66	0.8290303	0.9966685		6.3	+/-20
1-Methylphenanthrene	A	2.5000	2.86	0.7326040	0.8387431		14.5	+/-20
Fluoranthene	A	2.5000	2.87	1.0715980	1.2285880		14.6	+/-20
Dibenzothiophene	A	2.5000	3.02	0.8674458	1.0491830		21.0	+/-20 *
Pyrene	A	2.5000	2.93	1.1104570	1.2990960		17.0	+/-20
Benzo(a)anthracene	A	2.5000	2.58	0.8222601	0.9490566		3.3	+/-20
Chrysene	A	2.5000	2.51	0.9340580	0.9388320		0.5	+/-20
Benzo(b)fluoranthene	A	2.5000	2.73	0.7491309	0.9322946		9.1	+/-20
Benzo(j)fluoranthene	A	2.5000	2.65	0.9513865	1.0072060		5.9	+/-20
Benzo(k)fluoranthene	A	2.5000	2.55	0.9278309	1.0593620		2.0	+/-20
Benzo(a)fluoranthene, Total	A	7.5000	7.73	0.8388531	0.9638832		3.1	+/-20
Benzo(e)pyrene	A	2.5000	2.74	0.8518347	0.9346561		9.7	+/-20
Benzo(a)pyrene	A	2.5000	2.55	0.7422947	0.8935545		1.9	+/-20
Indeno(1,2,3-cd)pyrene	A	2.5000	2.67	0.7887712	0.9728936		6.9	+/-20
Dibenzo(a,h)anthracene	A	2.5000	2.65	0.6549683	0.8337260		6.0	+/-20
Benzo(g,h,i)perylene	A	2.5000	2.95	0.7663214	0.9054806		18.2	+/-20

* Values outside of QC limits



INITIAL CALIBRATION CHECK

EPA 8270E-SIM

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>21D0180</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic - US Moorings</u>
Instrument ID: <u>NT14</u>	Calibration: <u>EE00001</u>
Lab File ID: <u>NT1421050402.D</u>	Calibration Date: <u>04/30/2021</u>
Sequence: <u>SJE0028</u>	Injection Date: <u>05/04/21</u>
Lab Sample ID: <u>SJE0028-ICV1</u>	Injection Time: <u>12:52</u>
Sequence Name: <u>Initial Cal Check</u>	

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Perylene	A	2.5000	2.75	0.8135951	0.8942855		9.9	+/-20
Benzo(b)naphtho(2,1-d)thiophene	A	2.5000	2.86	1.0821370	1.2387310		14.5	+/-20
Naphthalene-d8	A	2.5000	2.86	1.1542130	1.3199450		14.4	
Acenaphthene-d10	A	2.5000	2.95	0.5635830	0.6660241		18.2	
Phenanthrene-d10	A	2.5000	2.56	1.0807840	1.1048450		2.2	
Chrysene-d12	A	2.5000	2.70	0.7267179	0.7847557		8.0	
Perylene-d12	A	2.5000	2.56	0.6899017	0.7981815		2.6	

* Values outside of QC limits

Data File: \\target\share\chem3\nt14,1\20210504,b\NT1421050402.D

Date: 04-May-2021 12:52

Client ID:

Sample Info: SJE0028-ICW1

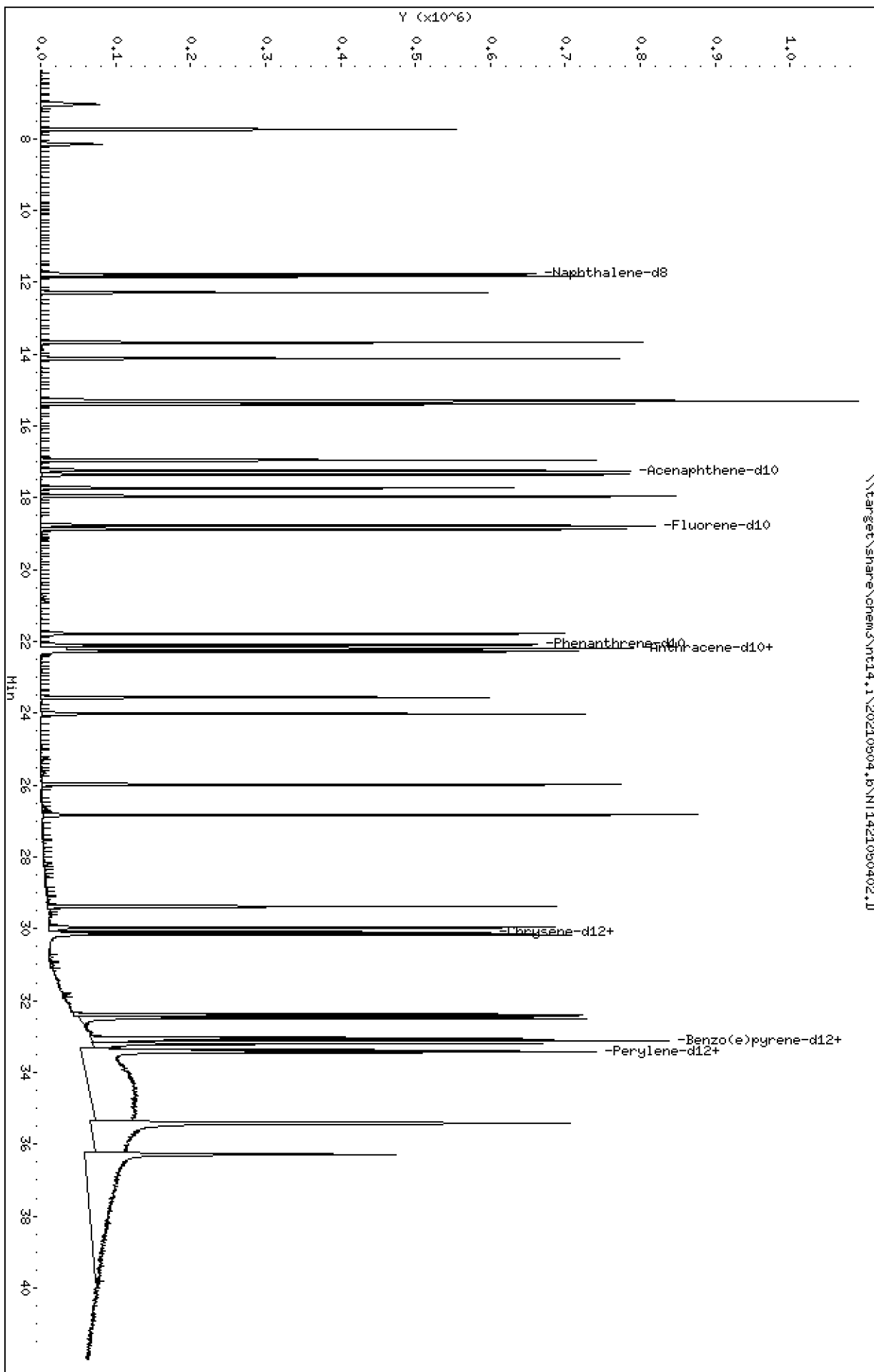
Column phase: Rxi-17S11 MS

Instrument: nt14,1

Operator: VTS

Column diameter: 0.25

Page 1



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210504.b\NT1421050402.D
 Lab Smp Id: SJE0028-ICV1
 Inj Date : 04-MAY-2021 12:52
 Operator : VTS
 Smp Info : SJE0028-ICV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt14.i\20210504.b\ALKYLPNA.m
 Meth Date : 04-May-2021 14:17 van
 Cal Date : 30-APR-2021 13:32
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-202011

Inst ID: nt14.i
 Quant Type: ISTD
 Cal File: NT1421043009.D
 Continuing Calibration Sample
 Compound Sublist: TARGETS.sub

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 trans-Decalin	138	7.035	7.035	(0.375)	117718	2.50000	2.817
2 cis-Decalin	138	8.155	8.155	(0.434)	83382	2.50000	2.891
\$ 6 Naphthalene-d8	136	11.766	11.766	(0.627)	925448	2.50000	2.859
7 Naphthalene	128	11.836	11.836	(0.631)	935915	2.50000	2.843
12 Benzo(b)thiophene	134	12.284	12.284	(0.654)	748002	2.50000	2.856
16 2-Methylnaphthalene	141	13.669	13.669	(0.728)	506749	2.50000	2.884
17 1-methylnaphthalene	141	14.120	14.120	(0.752)	477049	2.50000	2.866
18 Biphenyl	154	15.307	15.307	(0.815)	720470	2.50000	2.865
19 2,6-Dimethylnaphthalene	156	15.384	15.384	(0.820)	511112	2.50000	2.954
20 Acenaphthylene	152	16.955	16.955	(0.903)	856999	2.50000	3.147
\$ 21 Acenaphthene-d10	164	17.241	17.241	(0.918)	466967	2.50000	2.954
22 Acenaphthene	153	17.351	17.351	(0.924)	525532	2.50000	3.003
23 Dibenzofuran	168	17.735	17.735	(0.945)	774201	2.50000	2.920
24 1,6,7-Trimethylnaphthalene	170	17.955	17.955	(0.956)	470282	2.50000	3.097
* 25 Fluorene-d10	176	18.772	18.772	(1.000)	560901	2.00000	
26 Fluorene	166	18.874	18.874	(1.005)	575244	2.50000	2.985
30 Dibenzothiophene	184	21.785	21.785	(1.161)	735610	2.50000	3.024
\$ 35 Phenanthrene-d10	188	22.093	22.093	(0.995)	706057	2.50000	2.556
36 Phenanthrene	178	22.181	22.181	(0.999)	778292	2.50000	2.523
* 250 Anthracene-d10	188	22.214	22.214	(1.000)	511244	2.00000	
37 Anthracene	178	22.280	22.280	(1.003)	730413	2.50000	2.569
42 Carbazole	167	23.555	23.555	(1.060)	636926	2.50000	2.657
43 1-Methylphenanthrene	192	24.017	24.017	(1.081)	536003	2.50000	2.862
44 Fluoranthene	202	25.985	25.985	(1.170)	785135	2.50000	2.866
46 Pyrene	202	26.832	26.832	(1.208)	830194	2.50000	2.925
51 Naphthobenzothiophene	234	29.375	29.375	(1.322)	791617	2.50000	2.862
55 Benzo(a)anthracene	228	29.960	29.960	(0.907)	681584	2.50000	2.582
\$ 56 Chrysene-d12	240	30.084	30.084	(0.910)	563588	2.50000	2.700
57 Chrysene	228	30.163	30.163	(0.913)	674241	2.50000	2.513
62 Benzo(b)fluoranthene	252	32.382	32.382	(0.980)	669546	2.50000	2.727 (M)
63 Benzo(k)fluoranthene	252	32.427	32.427	(0.981)	760802	2.50000	2.550 (M)
293 Benzo(j)fluoranthene	252	32.494	32.494	(0.983)	723345	2.50000	2.647 (M)
246 Total Benzofluoranthenes	252	32.382	32.382	(0.980)	2076696	7.50000	7.729 (M)

Compounds	QUANT SIG						AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
* 251 Benzo(e)pyrene-d12	264		33.046	33.046	(1.000)	574536	2.00000	
64 Benzo(e)pyrene	252		33.102	33.102	(1.002)	671242	2.50000	2.743
66 Benzo(a)pyrene	252		33.204	33.204	(1.005)	641724	2.50000	2.547
\$ 67 Perylene-d12	264		33.373	33.373	(1.010)	573230	2.50000	2.564 (M)
68 Perylene	252		33.429	33.429	(1.012)	642249	2.50000	2.748 (M)
69 Indeno(1,2,3-cd)pyrene	276		35.423	35.423	(1.072)	698703	2.50000	2.672 (M)
70 Dibenzo(a,h)anthracene	278		35.400	35.400	(1.071)	598757	2.50000	2.649 (M)
74 Benzo(g,h,i)perylene	276		36.290	36.290	(1.098)	650289	2.50000	2.954 (M)

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 30-APR-2021
 Lab File ID: NT1421050402.D Calibration Time: 07:56
 Lab Smp Id: SJE0028-ICV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210504.b\ALKYLPNA.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	560901	280451	1121802	560901	0.00
250 Anthracene-d10	511244	255622	1022488	511244	0.00
251 Benzo(e)pyrene-d1	574536	287268	1149072	574536	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.77	18.27	19.27	18.77	0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	0.00

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.

REVIEW SUMMARY FOR FILE - NT1421050402.D

Lab ID: SJE0028-ICV1

nt14.i, 20210504.b\ALKYLPNA.m, 04-MAY-2021 12:52

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
-----	-----	-----	-------	----------

NONE

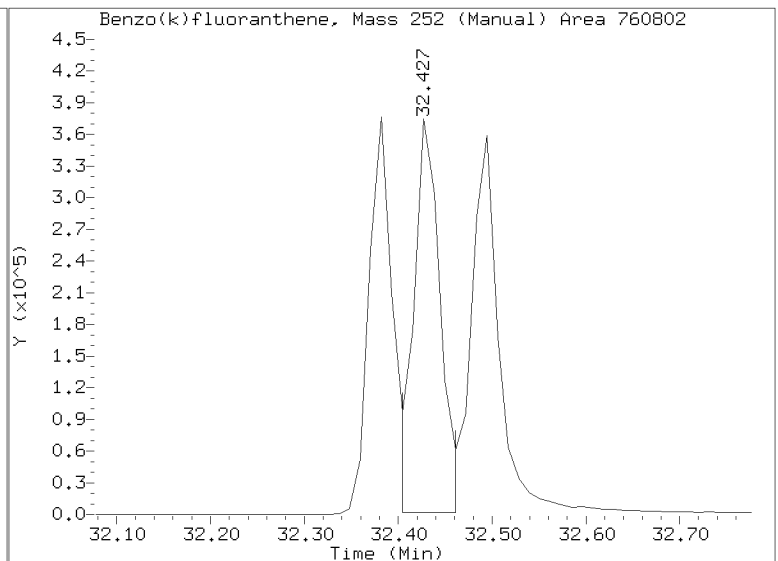
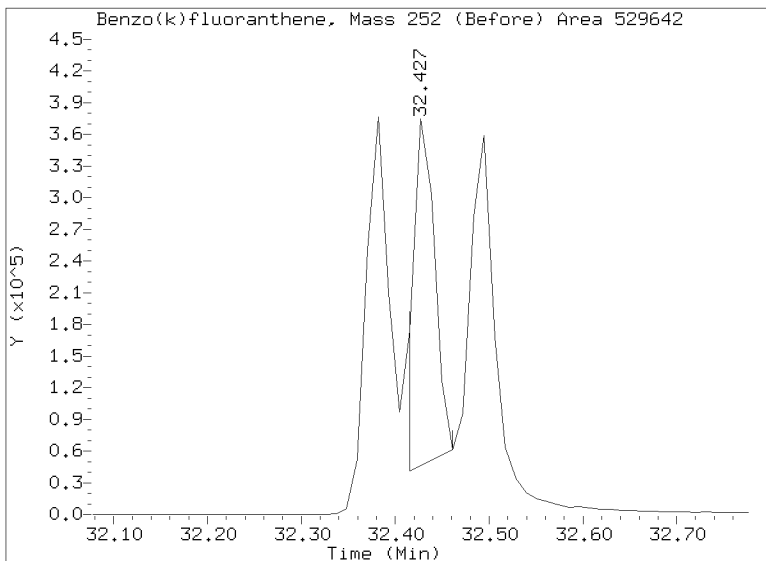
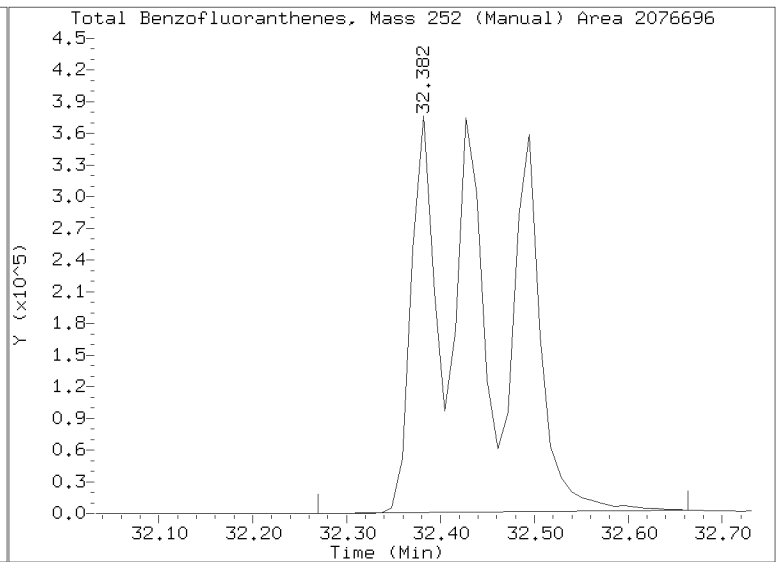
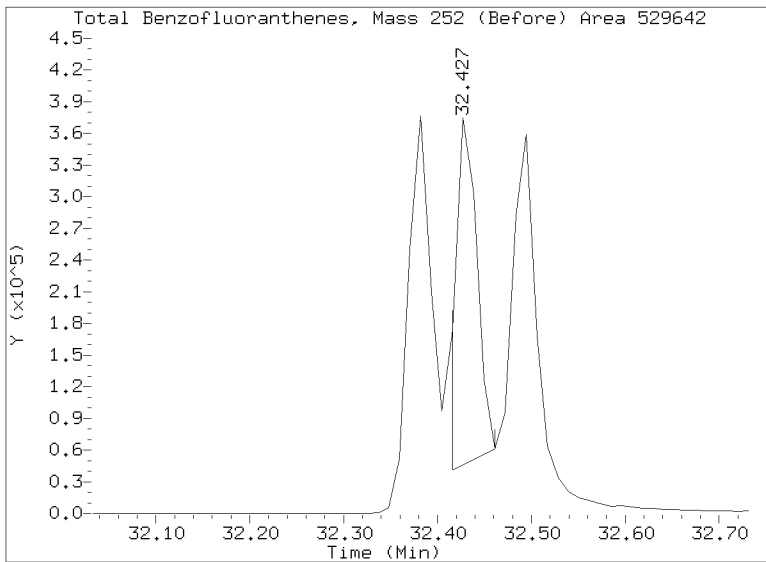
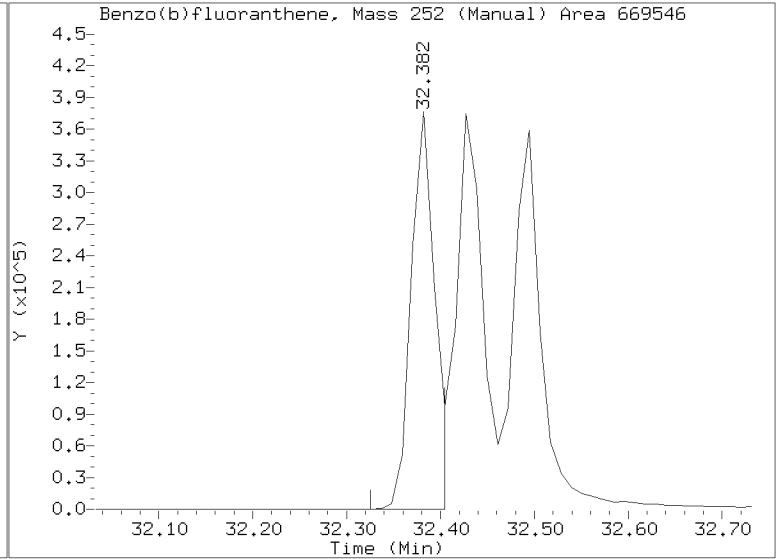
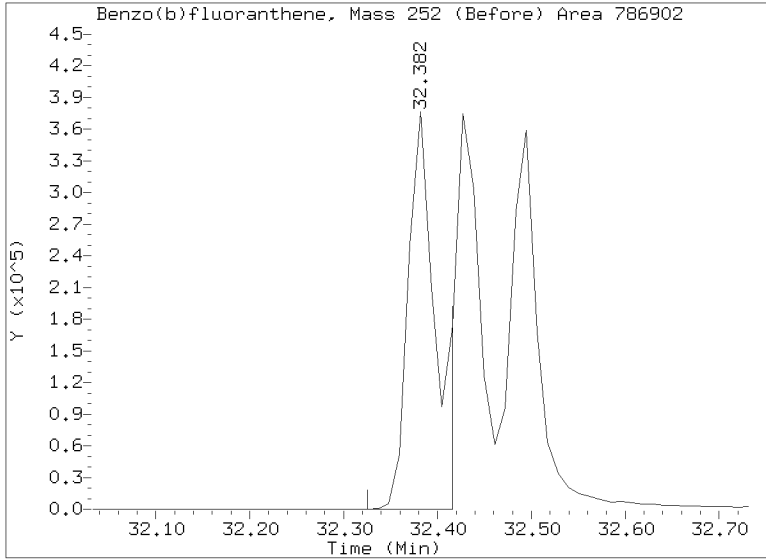
No RRT check. Ccal file.

On Column LOD for nt14.i, 20210504.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

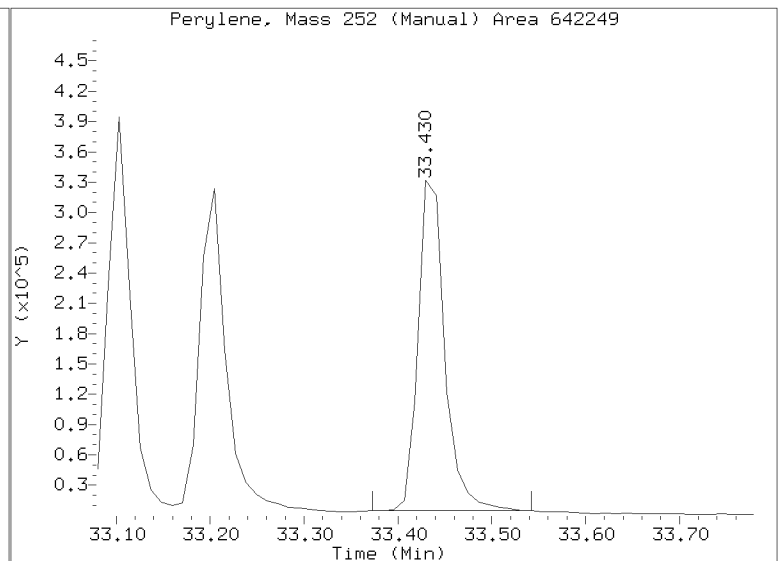
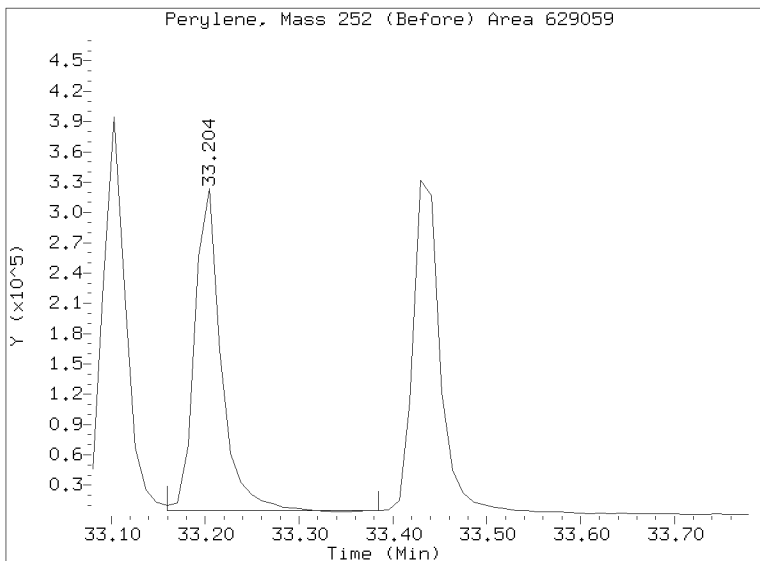
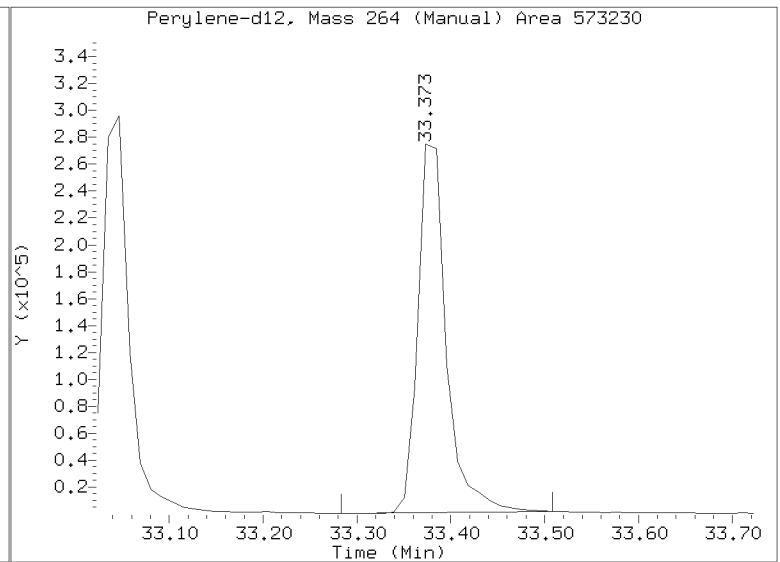
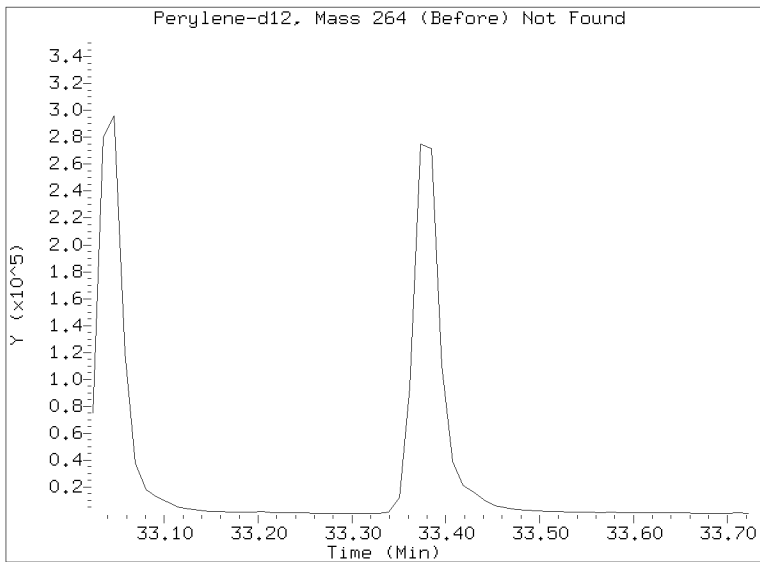
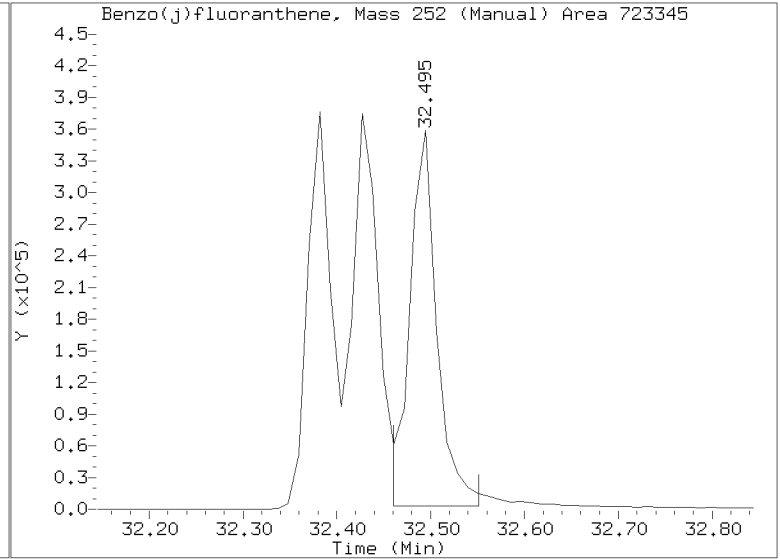
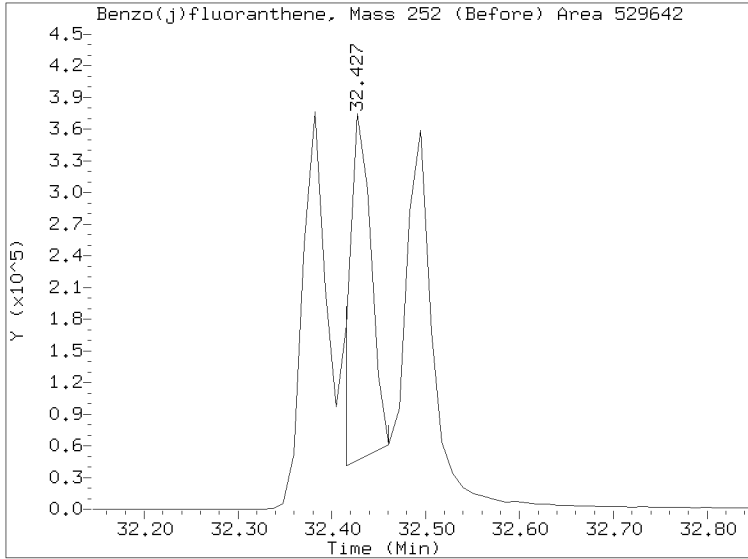
Quant Ion Manual Peak Adjustment Report

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Injection Date: 04-MAY-2021 12:52
Lab ID: SJE0028-ICV1 Client ID:
Report Date: 05/05/2021 12:34



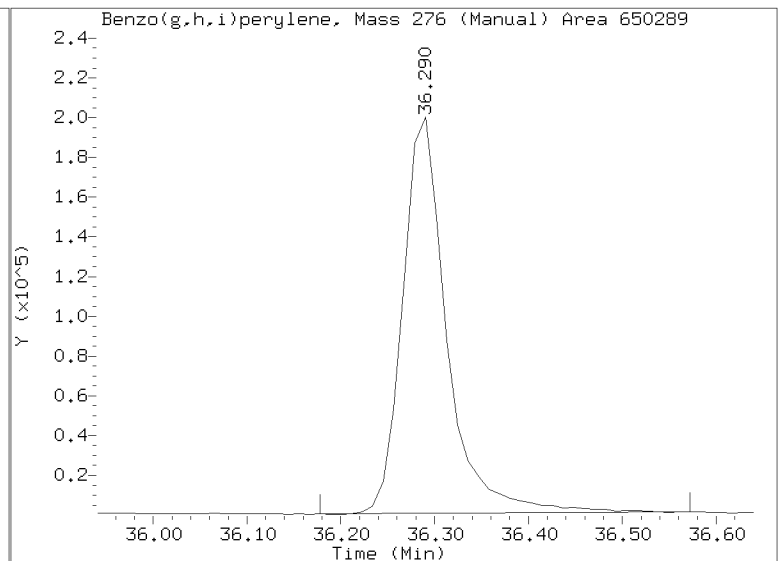
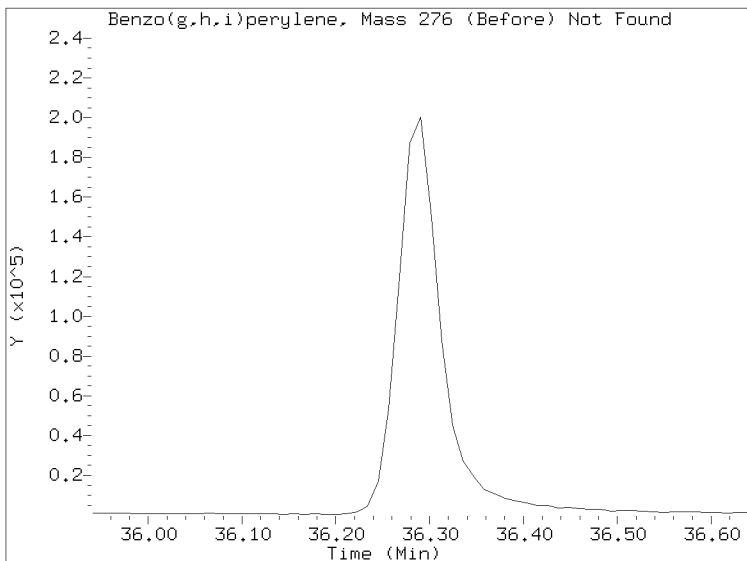
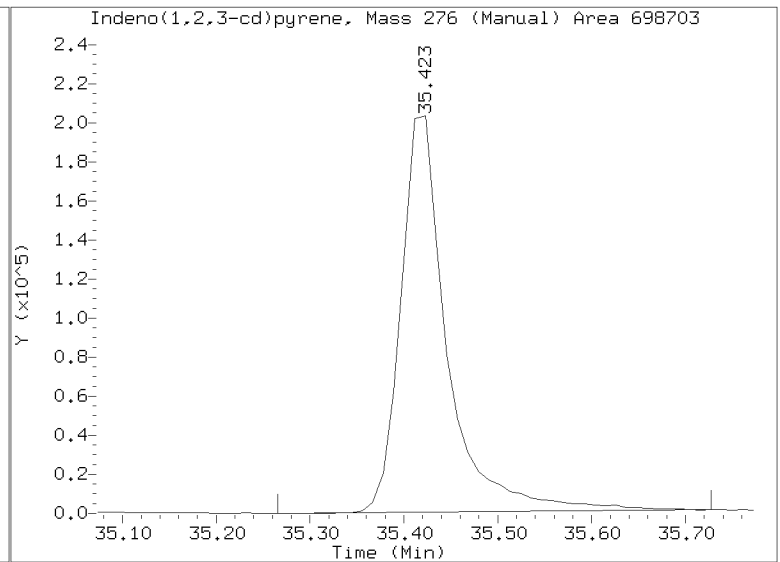
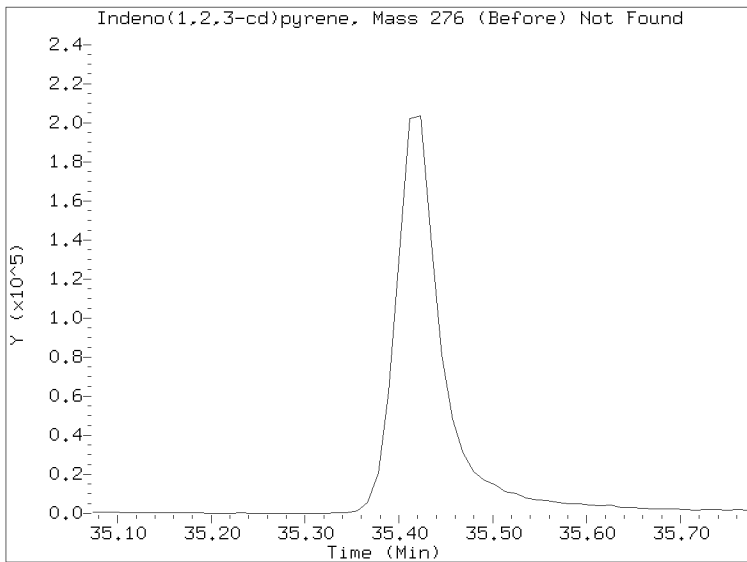
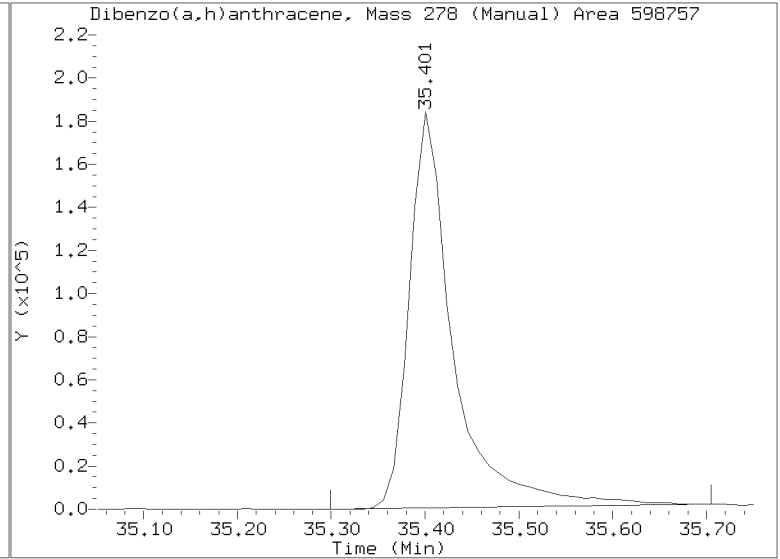
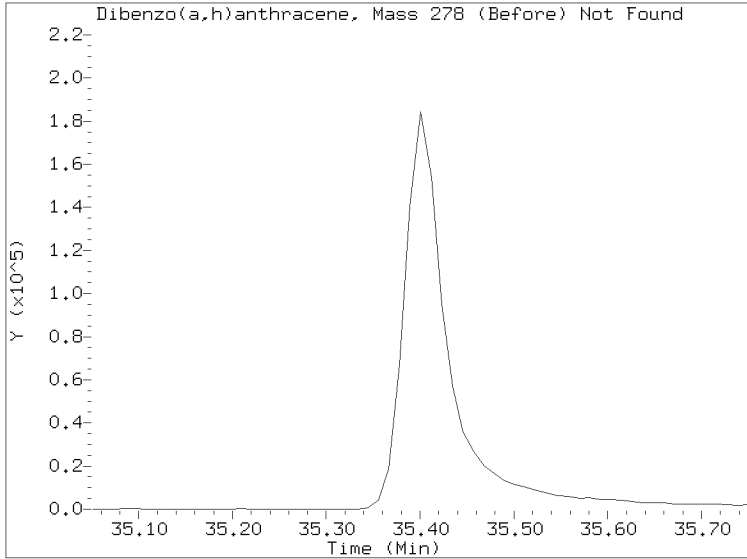
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210504.b/NT1421050402.D
Injection Date: 04-MAY-2021 12:52
Lab ID:SJE0028-ICV1 Client ID:
Report Date: 05/05/2021 12:34



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210504.b/NT1421050402.D
Injection Date: 04-MAY-2021 12:52
Lab ID: SJE0028-ICV1 Client ID:
Report Date: 05/05/2021 12:34



Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210504.b

Instrument: nt14.i Date: 04-MAY-2021 Method: 20210504.b\ALKYLPNA.m

INITIAL CAL: 30-APR-2021

Compound	%RSD or R ²

NO Q-FLAGS	

ICV CAL: NT1421050402.D 04-MAY-2021 12:52

Compound	%D

Acenaphthylene	25.9
Dibenzothiophene	21.0
1,6,7-Trimethylnaphthalene	23.9



**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM**

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>21D0180</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic - US Moorings</u>
Instrument ID:	<u>NT11</u>	Calibration:	<u>DH00073</u>
Lab File ID:	<u>NT1120082708.D</u>	Calibration Date:	<u>08/27/2020</u>
Sequence:	<u>SIH0304</u>	Injection Date:	<u>08/27/20</u>
Lab Sample ID:	<u>SIH0304-SCV1</u>	Injection Time:	<u>15:38</u>
Sequence Name:	<u>PAH 250 SCV</u>		

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Naphthalene	A	250.00	224	1.1612470	1.0427060		-10.2	+/-20
Acenaphthylene	A	250.00	233	2.2945630	2.1409260		-6.7	+/-20
Acenaphthene	A	250.00	222	1.5175830	1.3472150		-11.2	+/-20
Fluorene	A	250.00	233	1.5604500	1.4573750		-6.6	+/-20
Phenanthrene	A	250.00	233	1.3083250	1.2168170		-7.0	+/-20
Anthracene	A	250.00	223	1.3072390	1.1639480		-11.0	+/-20
Fluoranthene	A	250.00	236	1.3043810	1.2324390		-5.5	+/-20
Pyrene	A	250.00	235	1.3381820	1.2585060		-6.0	+/-20
Benzo(a)anthracene	A	250.00	223	1.4691530	1.3105600		-10.8	+/-20
Chrysene	A	250.00	215	1.6542610	1.4247980		-13.9	+/-20
Benzo(b)fluoranthene	A	250.00	212	1.0886210	0.9248430		-15.0	+/-20
Benzo(k)fluoranthene	A	250.00	260	1.4304320	1.4893160		4.1	+/-20
Benzofluoranthenes, Total	A	500.00	473	1.3549610	1.2070800		-5.5	
Benzo(a)pyrene	A	250.00	213	1.1369780	0.9691179		-14.8	+/-20
Indeno(1,2,3-cd)pyrene	A	250.00	227	1.1041170	1.0017760		-9.3	+/-20
Dibenzo(a,h)anthracene	A	250.00	192	0.8775199	0.7181910		-23.2	+/-20 *
Benzo(g,h,i)perylene	A	250.00	214	1.1039640	0.9470106		-14.2	+/-20

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.1\20200827.6\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Sample Info: SIH0304-SCW1

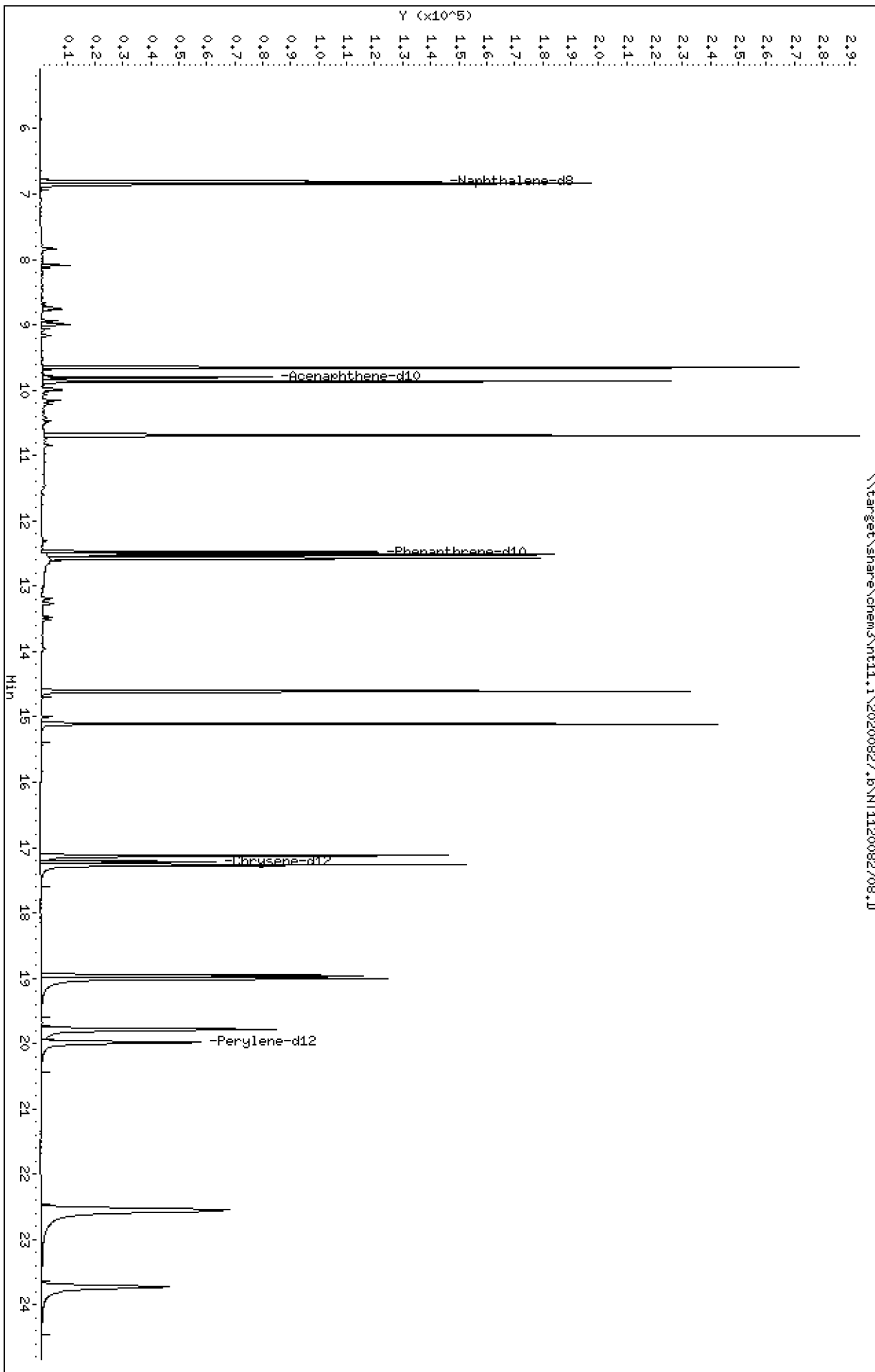
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

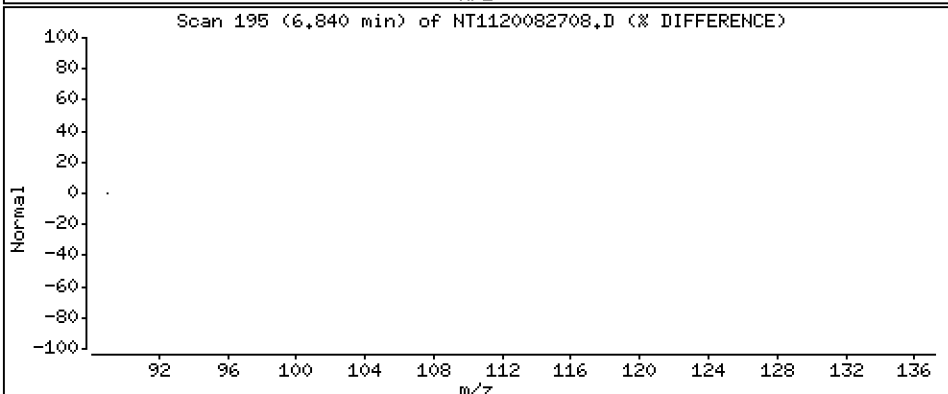
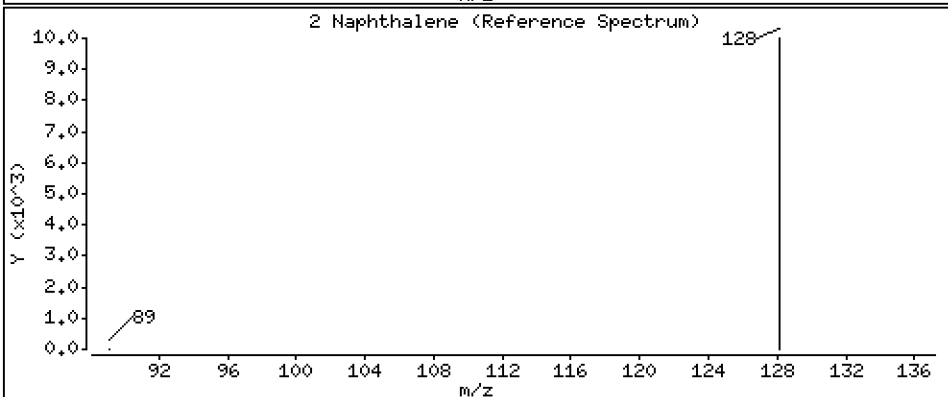
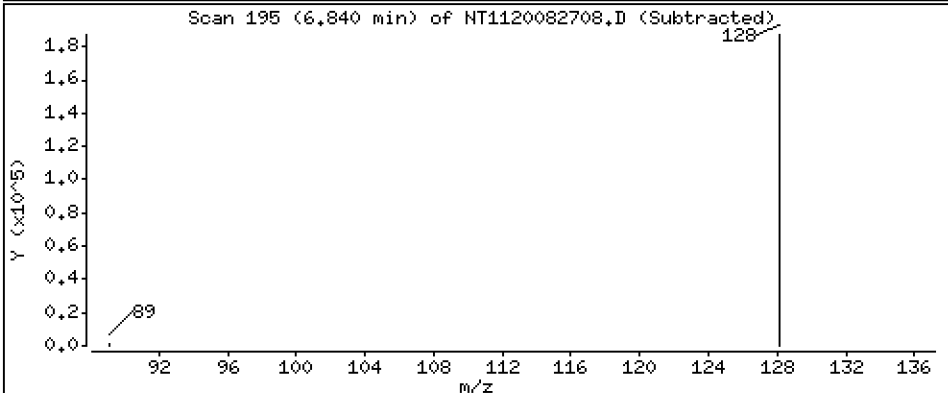
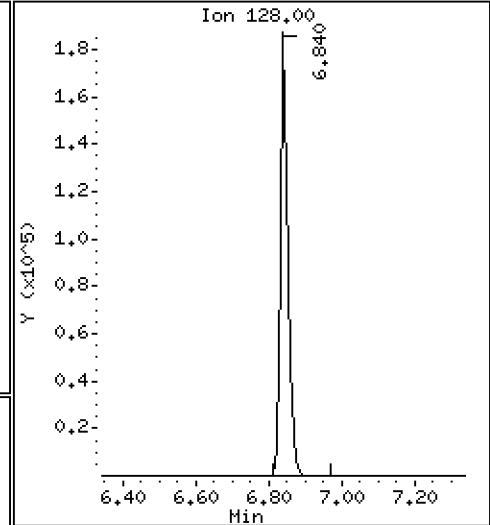
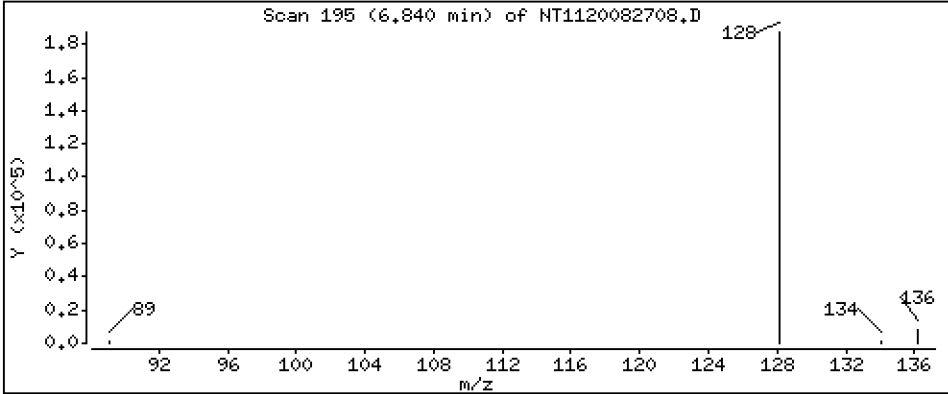
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 224 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

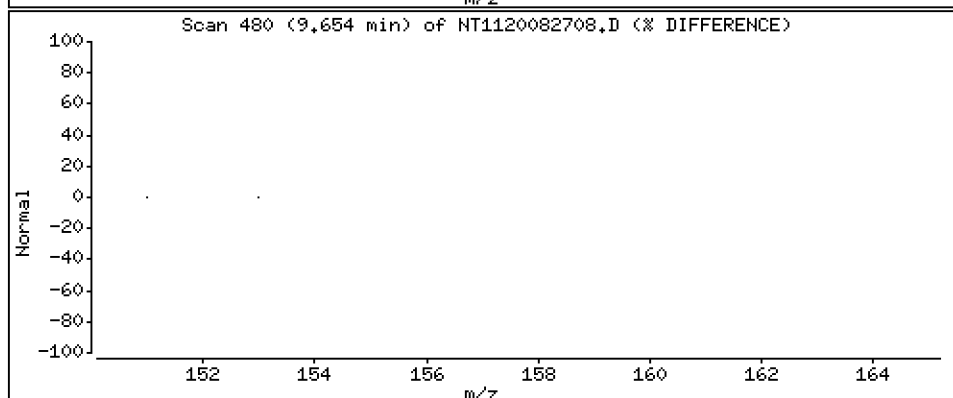
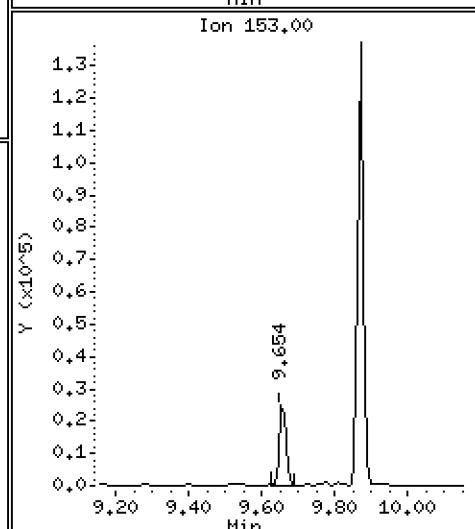
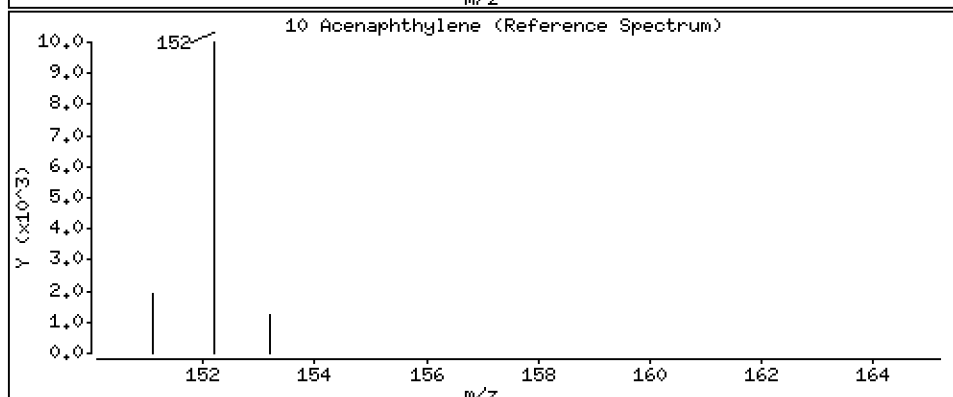
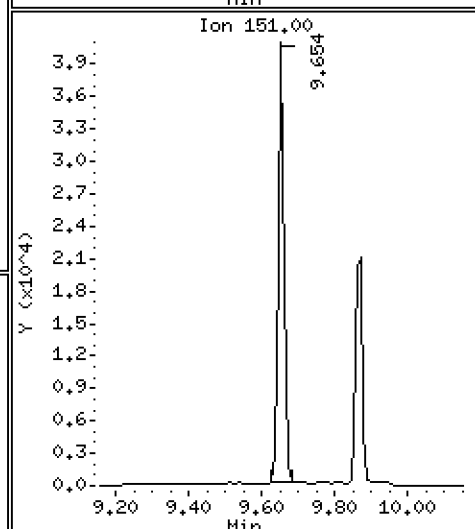
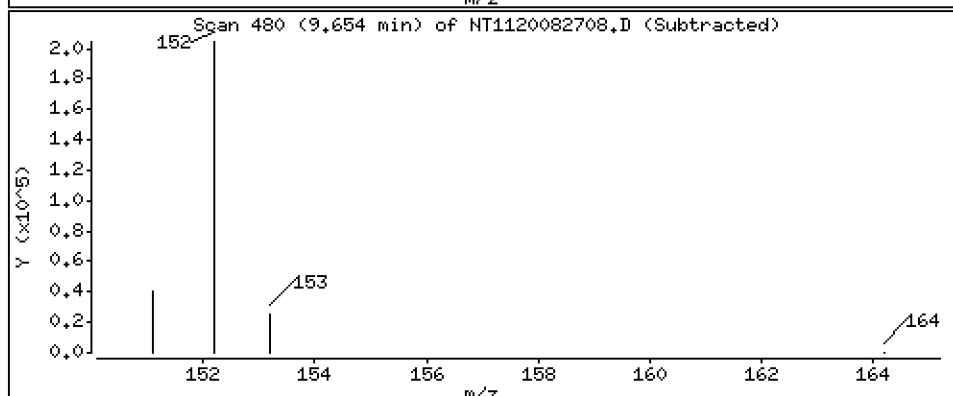
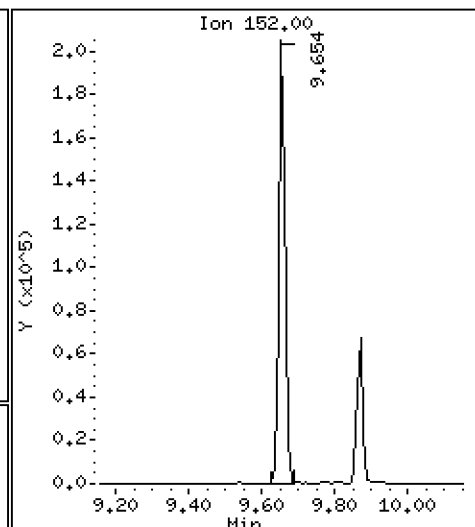
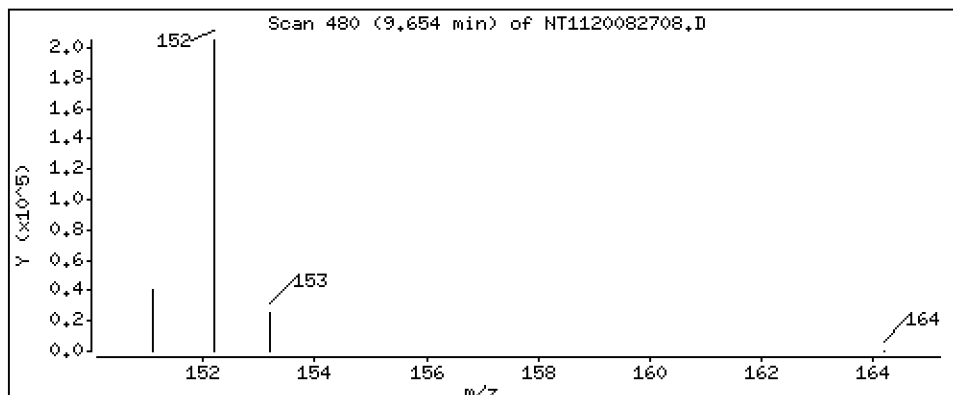
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

10 Acenaphthylene

Concentration: 233 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

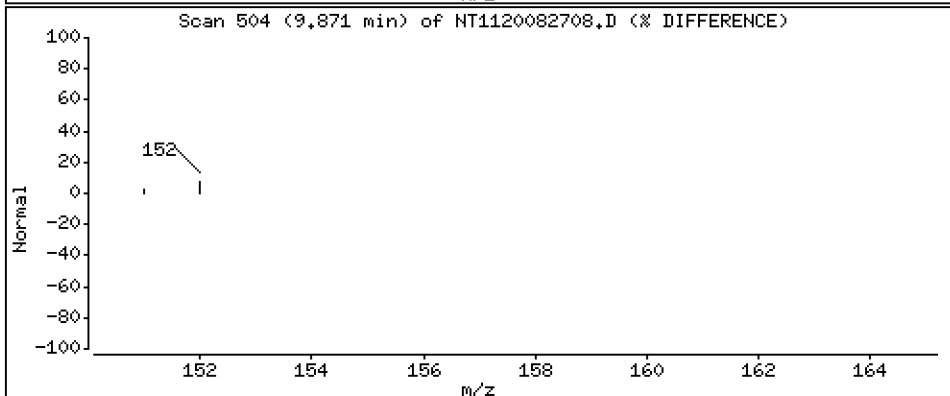
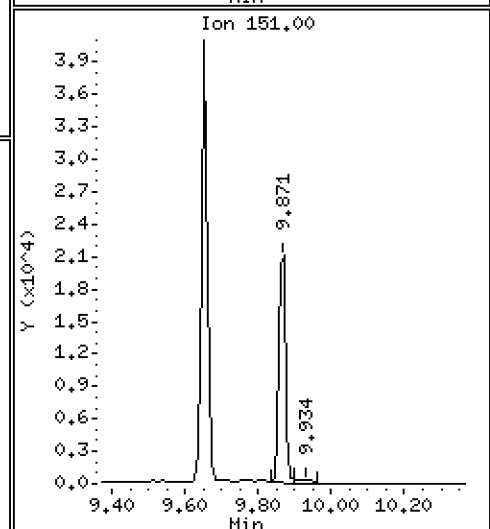
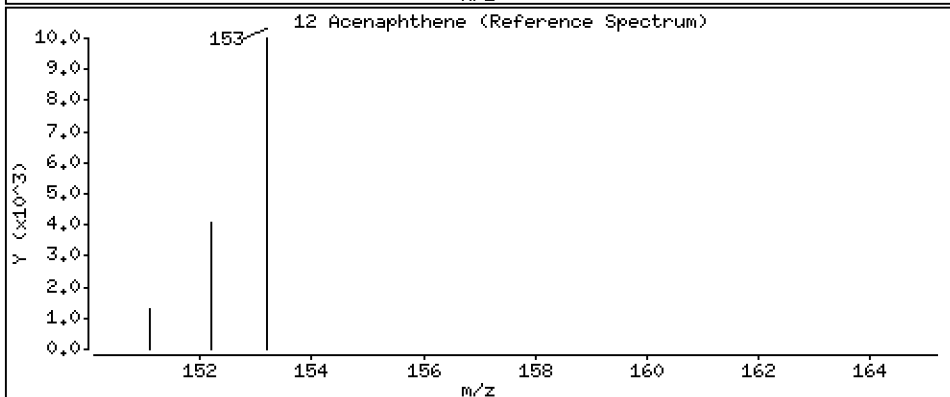
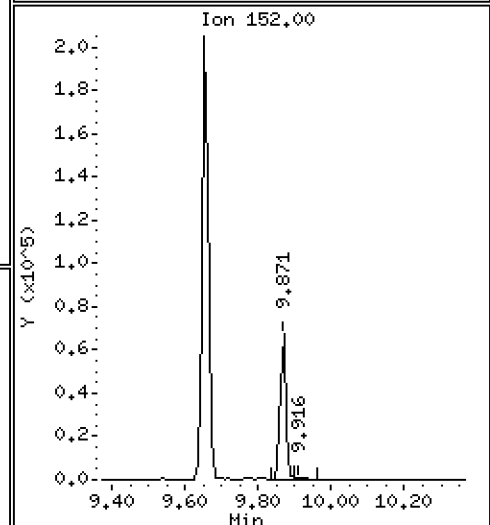
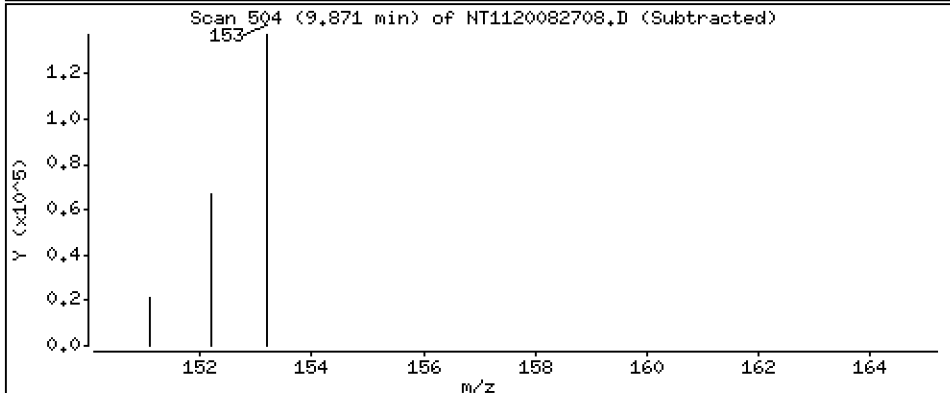
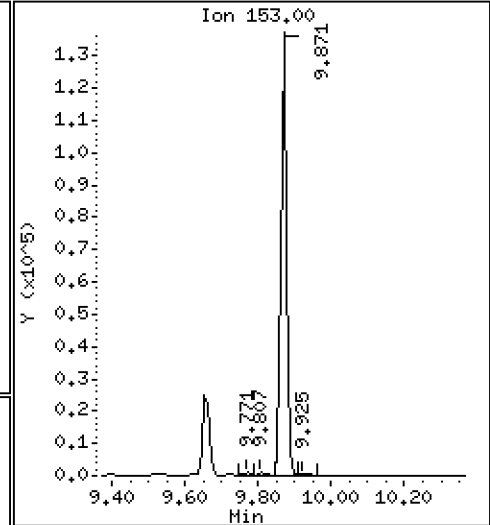
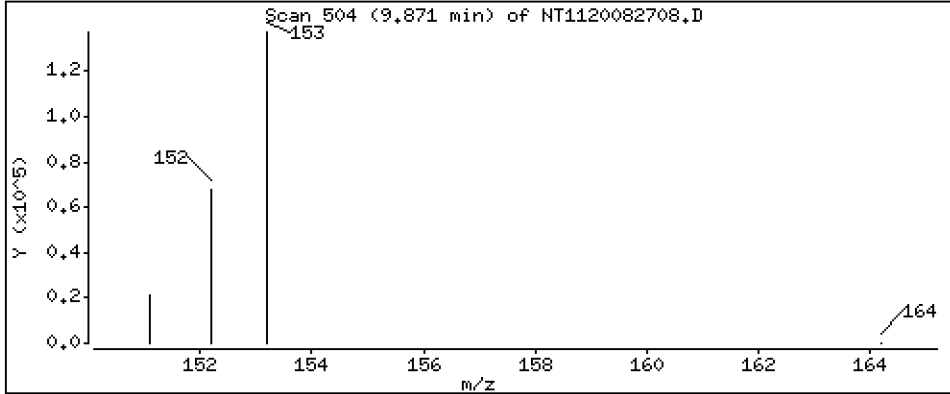
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

12 Acenaphthene

Concentration: 222 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

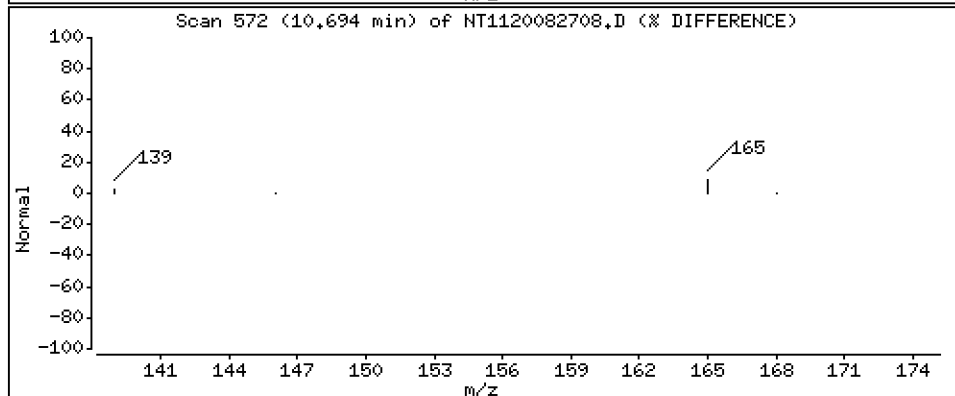
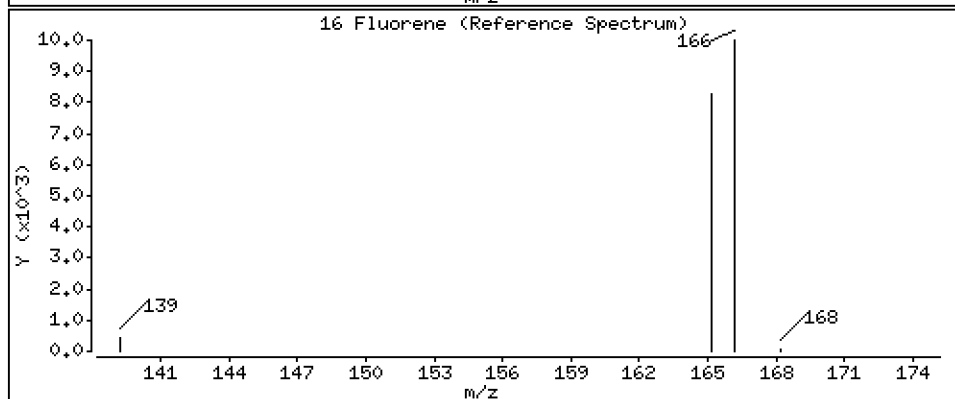
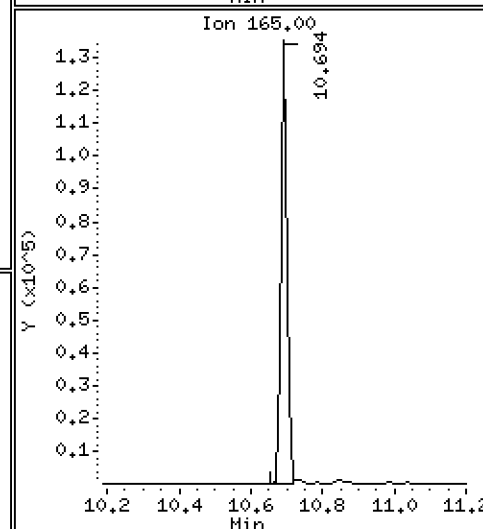
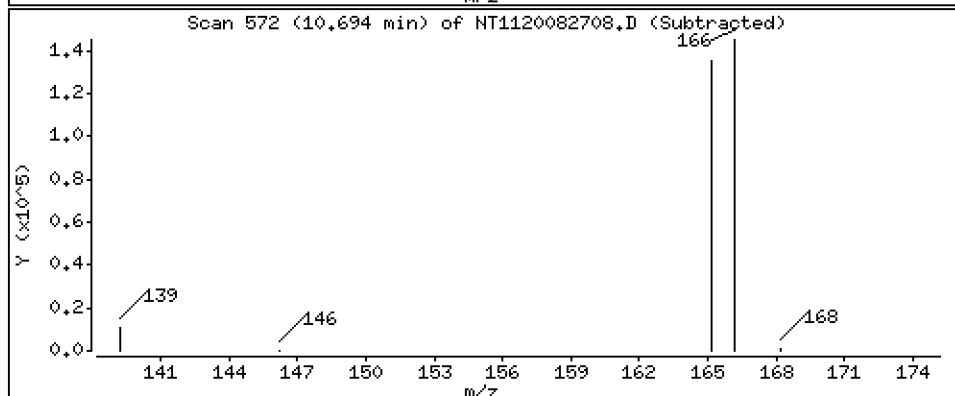
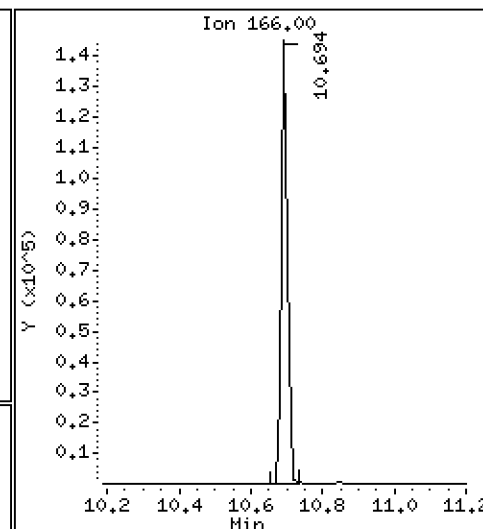
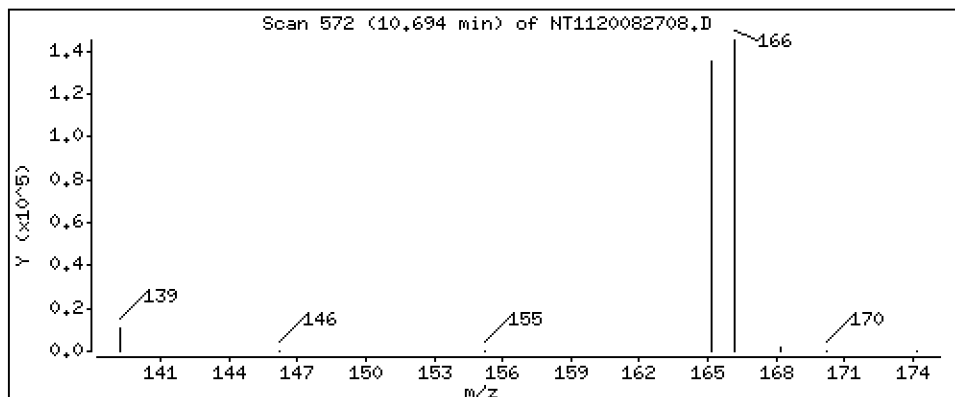
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 Fluorene

Concentration: 233 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

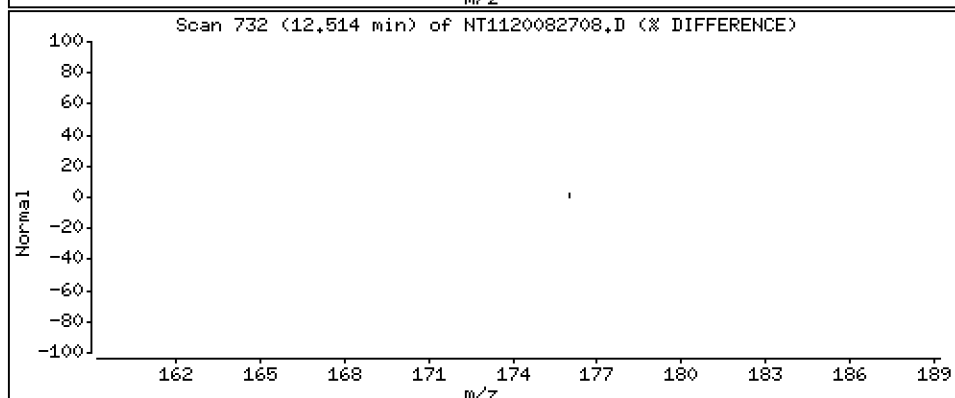
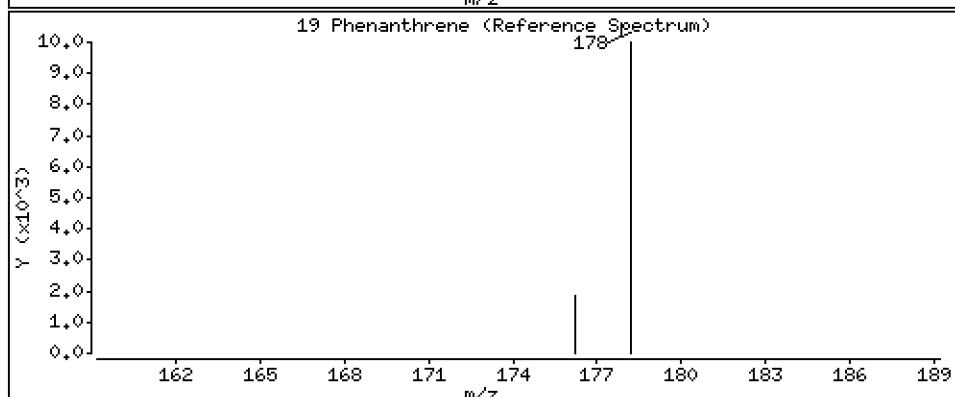
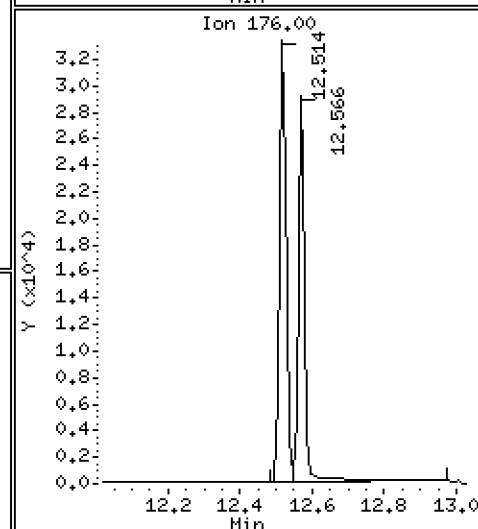
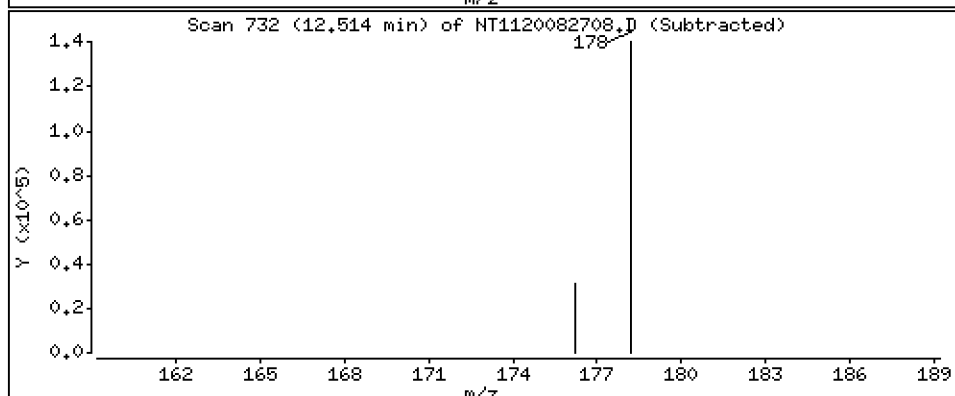
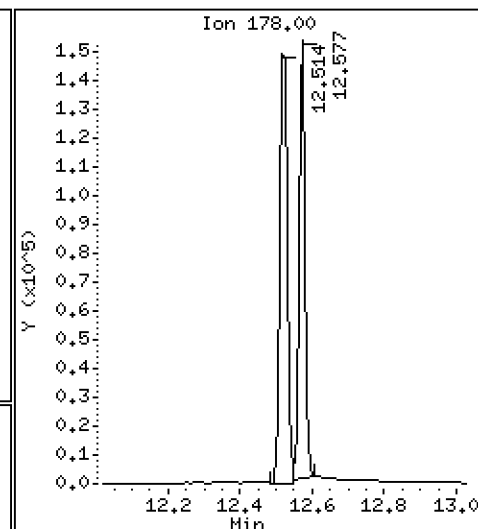
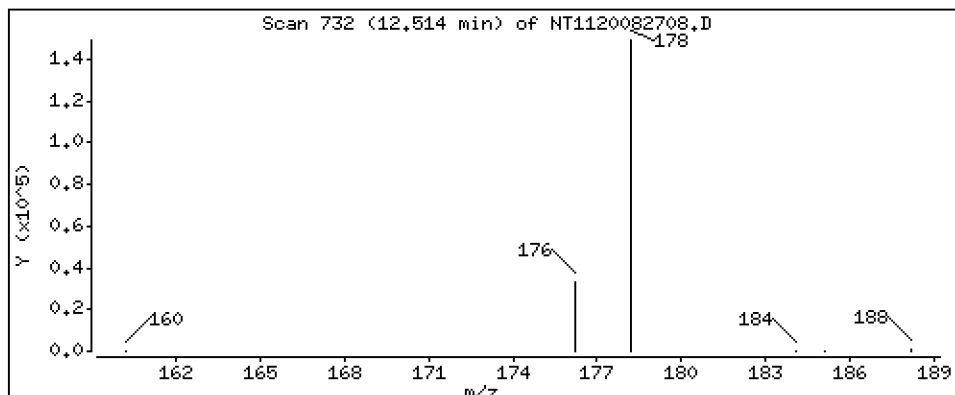
Operator: VTS

Column phase: Rxi-17Si1 MS

Column diameter: 0,25

19 Phenanthrene

Concentration: 233 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

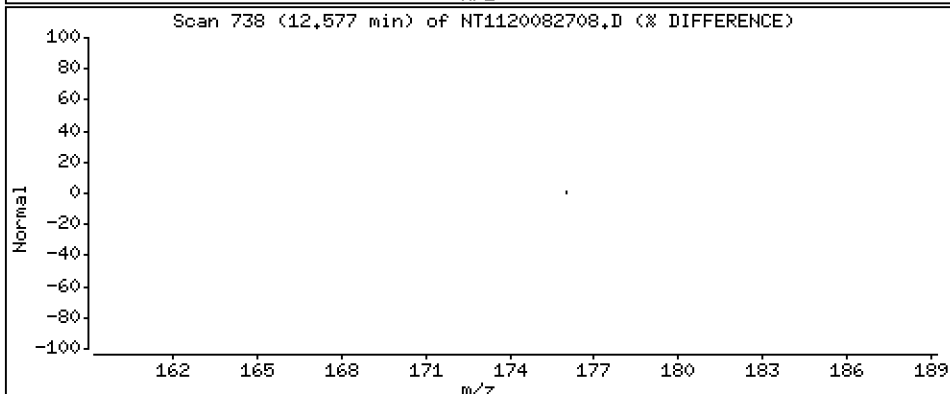
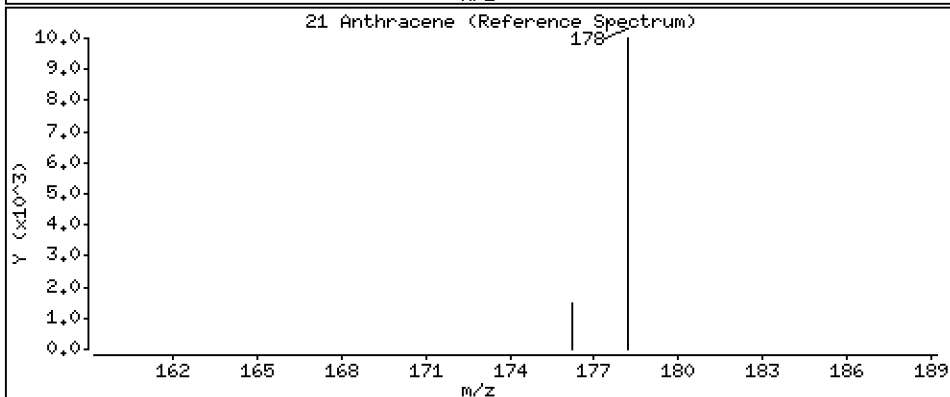
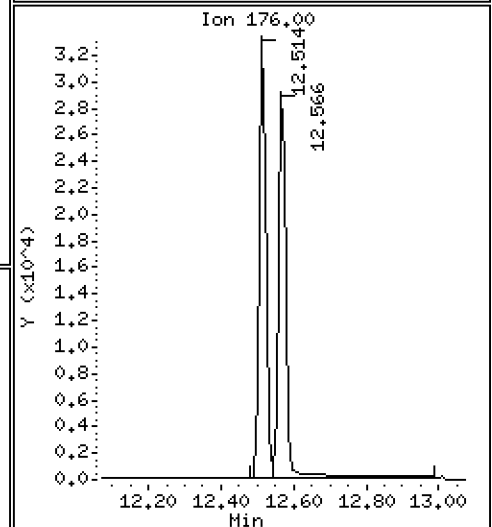
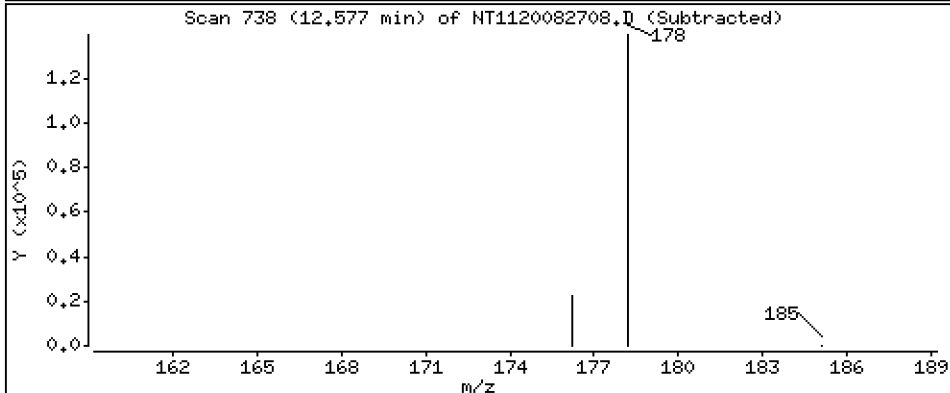
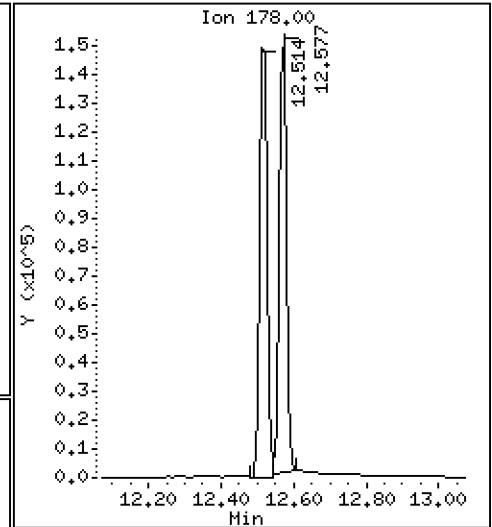
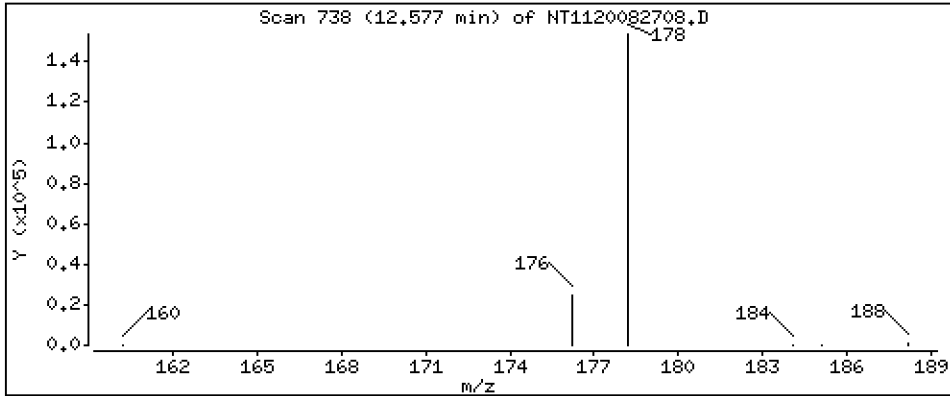
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

21 Anthracene

Concentration: 223 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

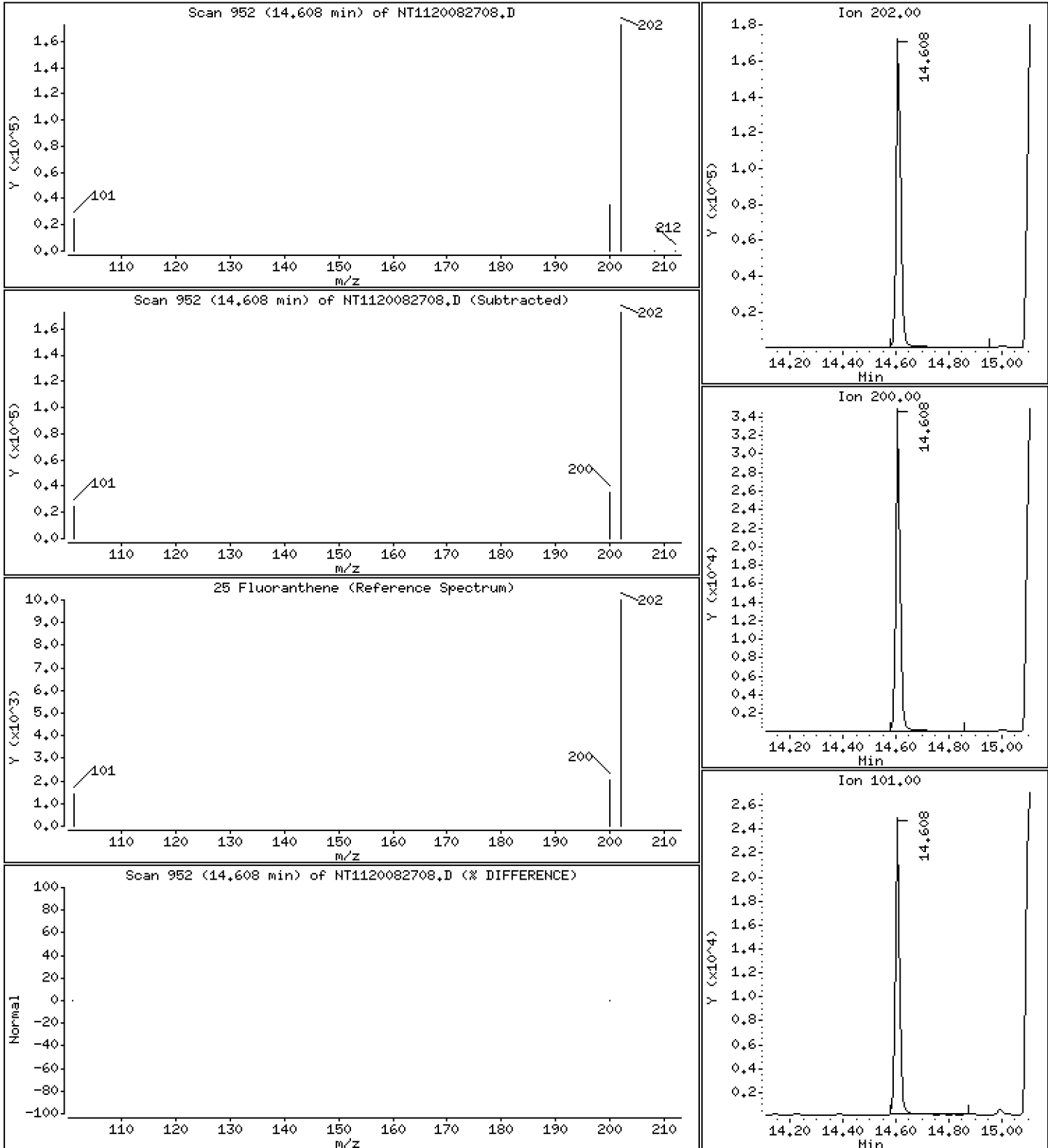
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

25 Fluoranthene

Concentration: 236 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

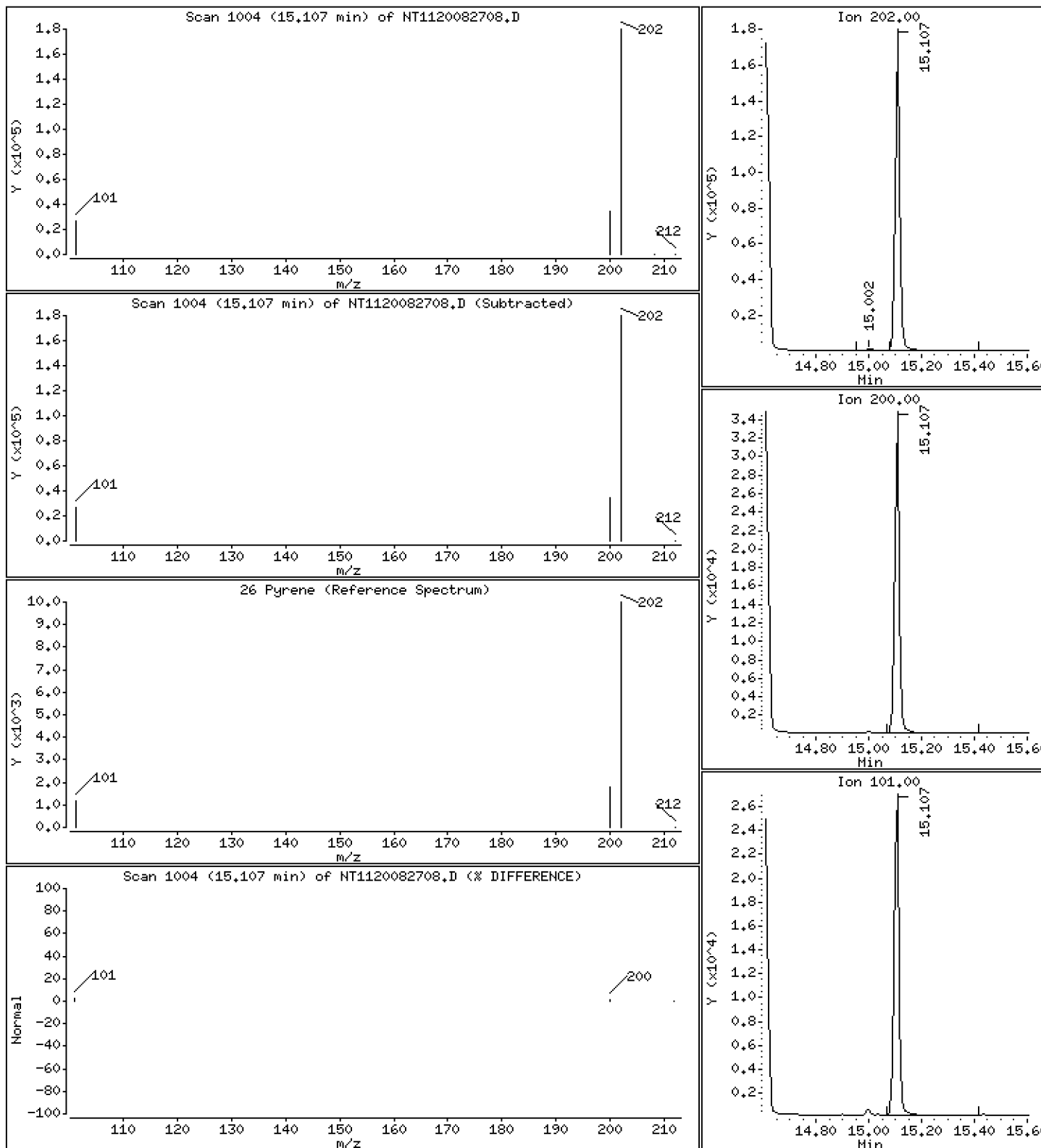
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Pyrene

Concentration: 235 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

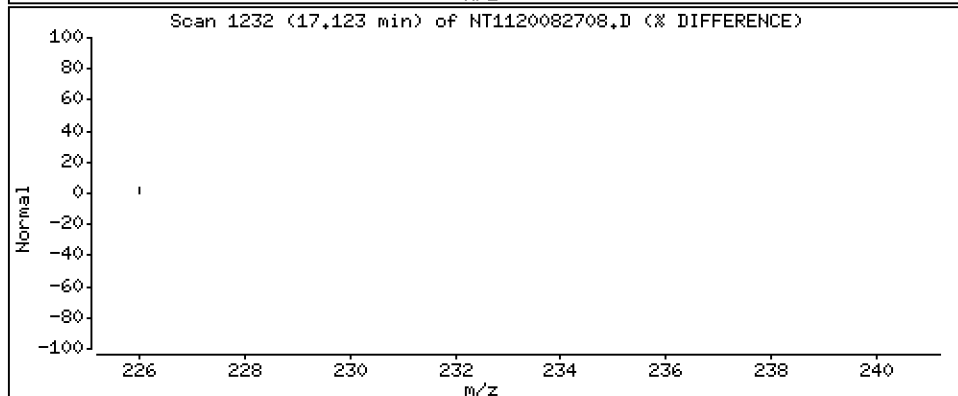
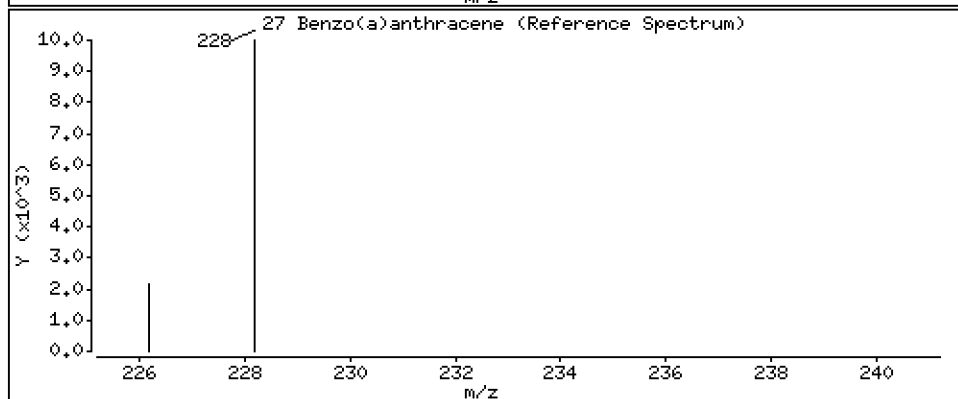
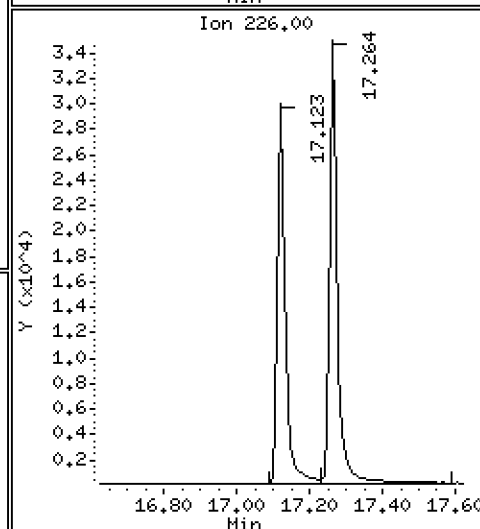
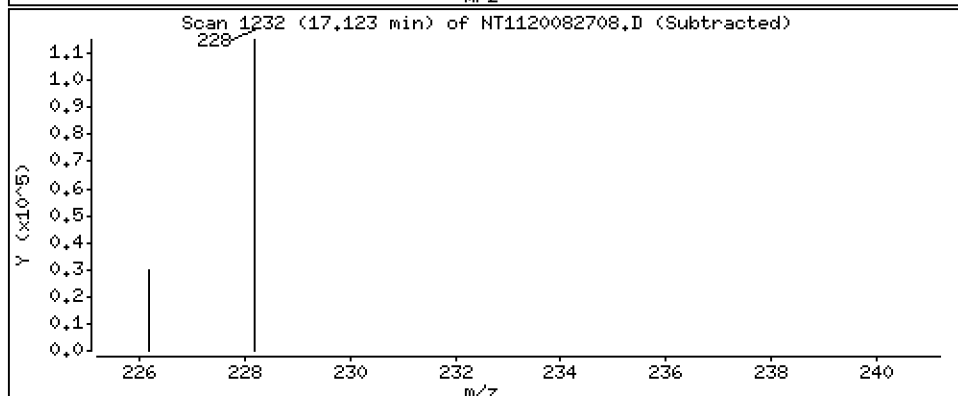
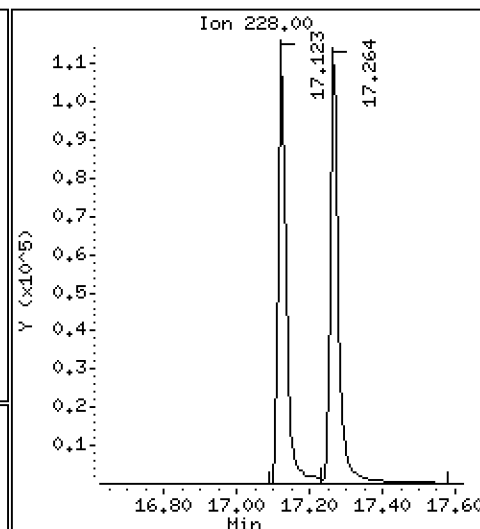
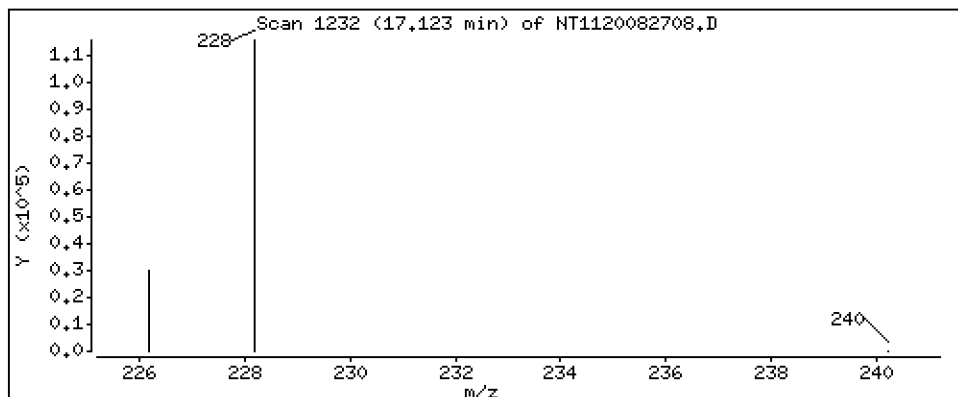
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

27 Benzo(a)anthracene

Concentration: 223 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

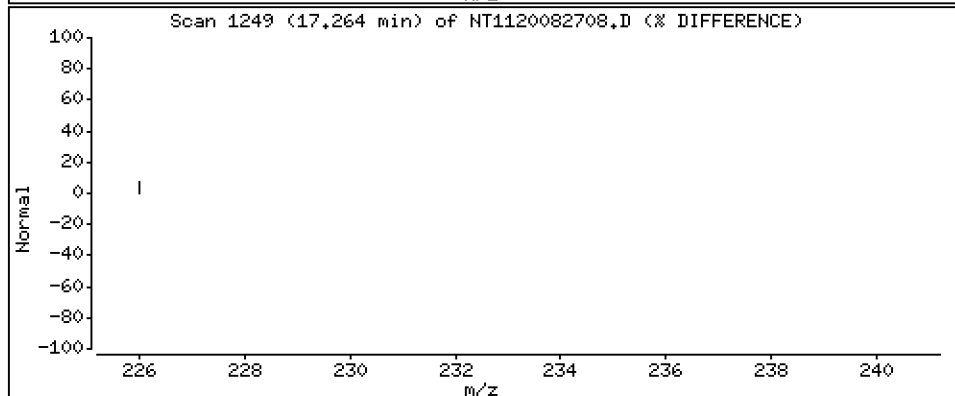
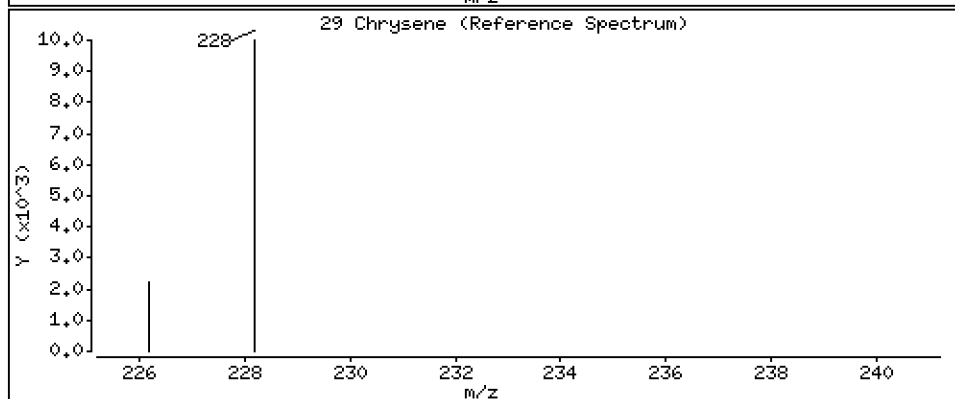
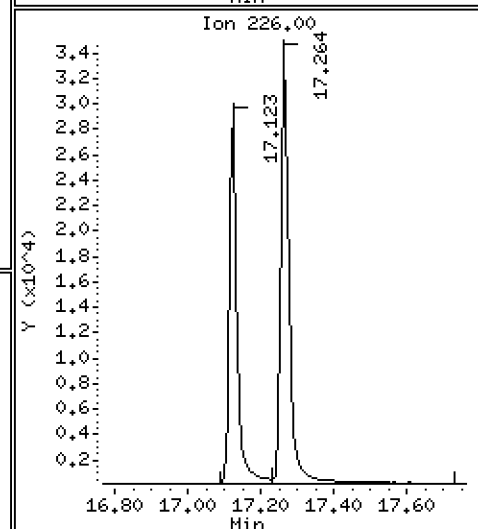
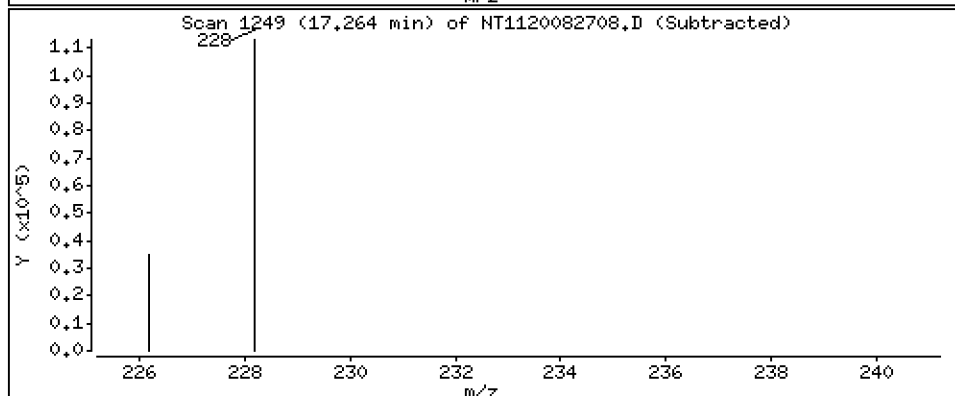
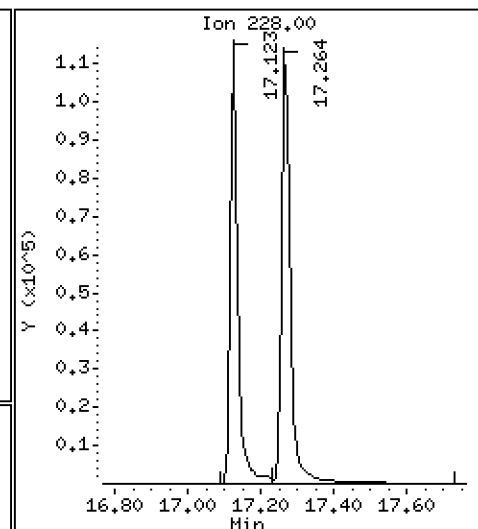
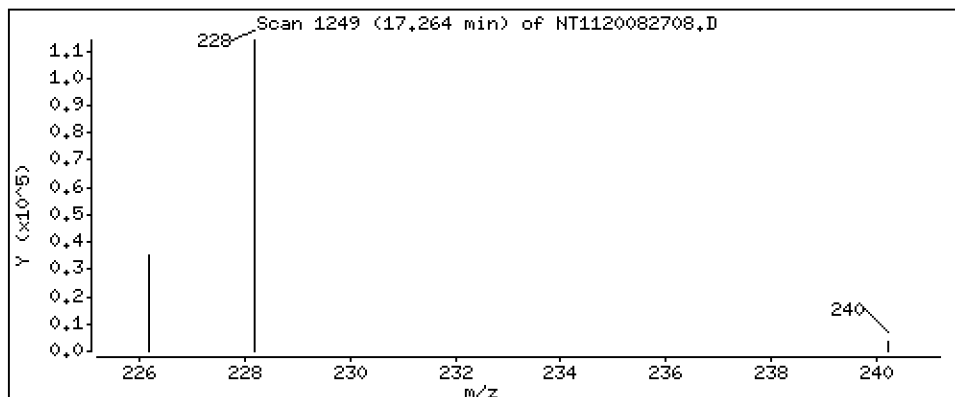
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

29 Chrysene

Concentration: 215 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

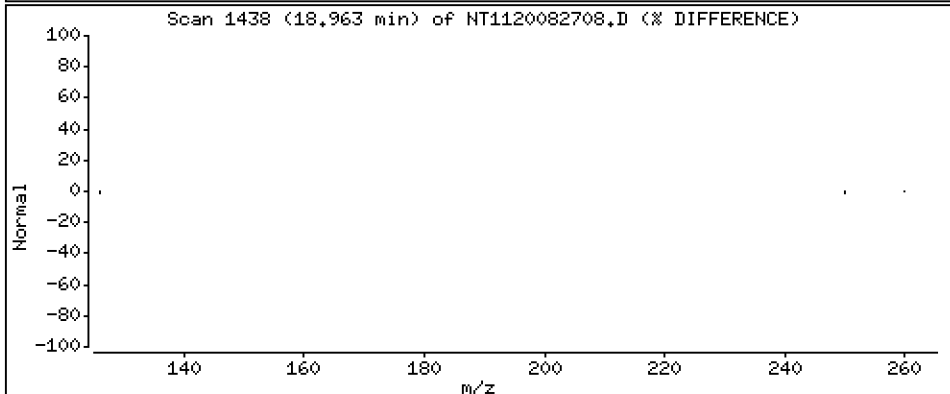
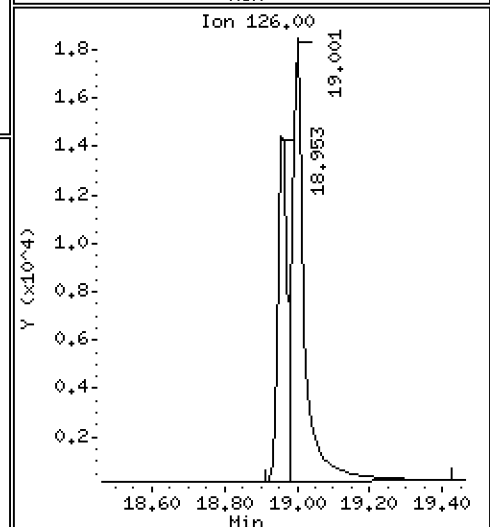
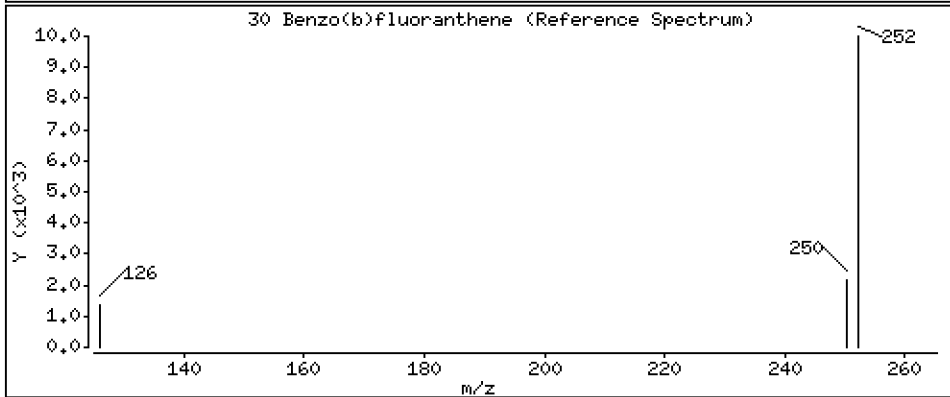
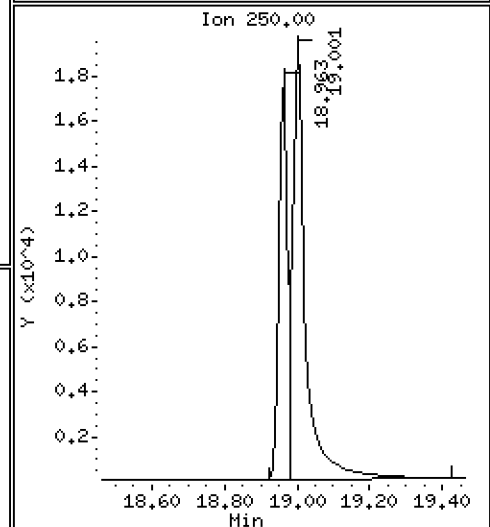
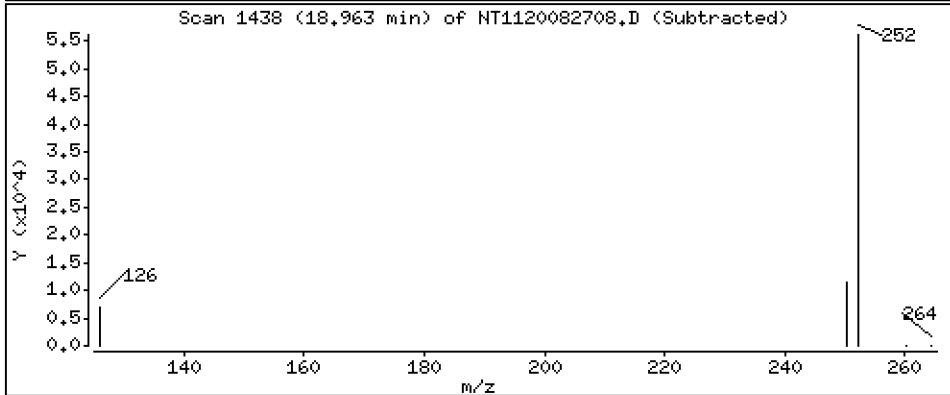
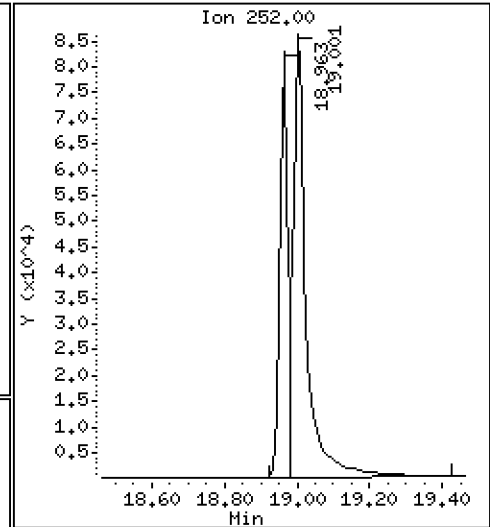
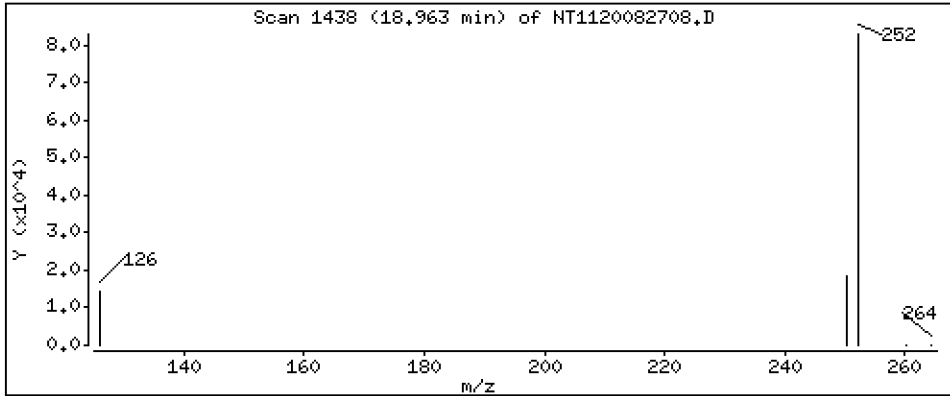
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Benzo(b)fluoranthene

Concentration: 212 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

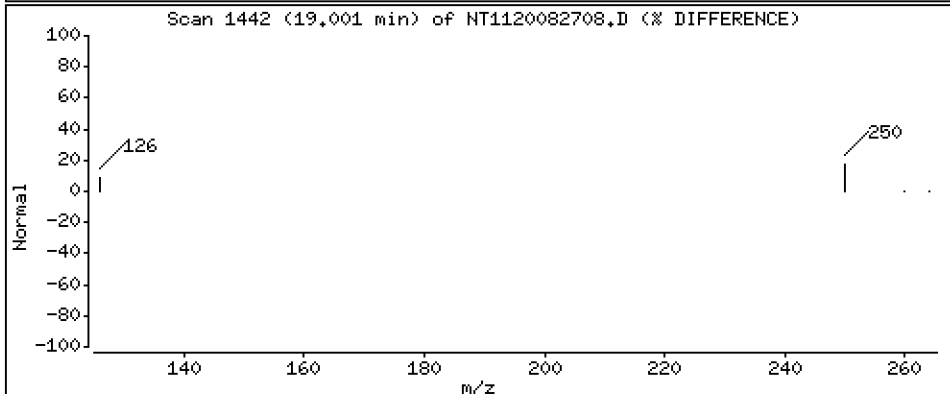
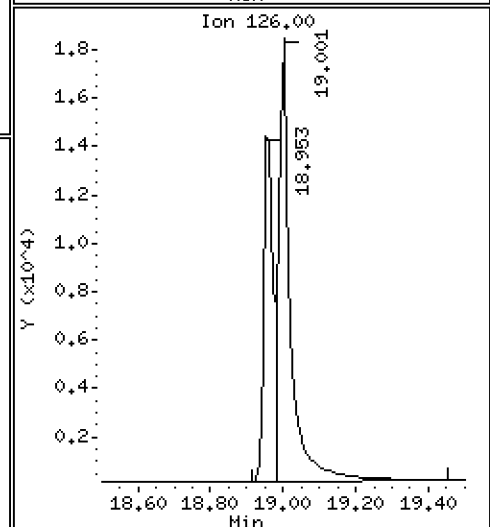
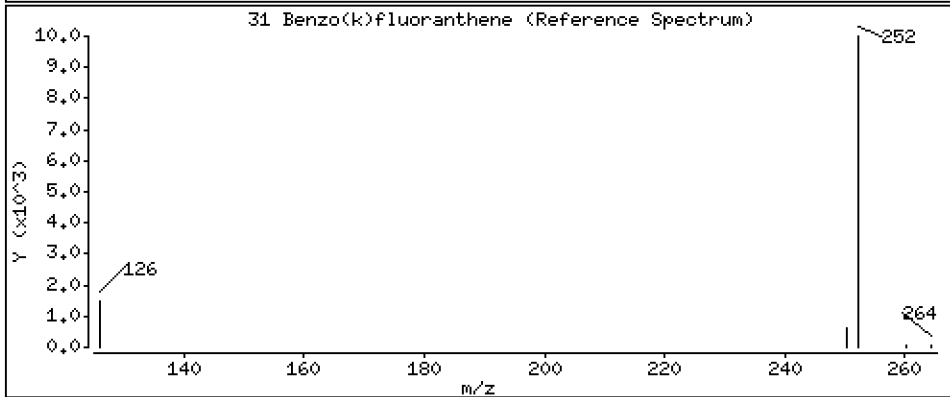
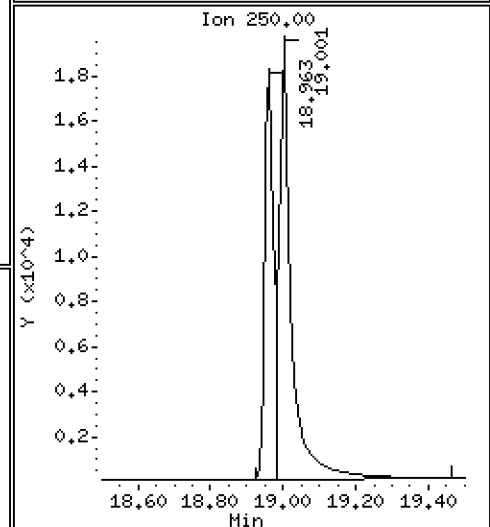
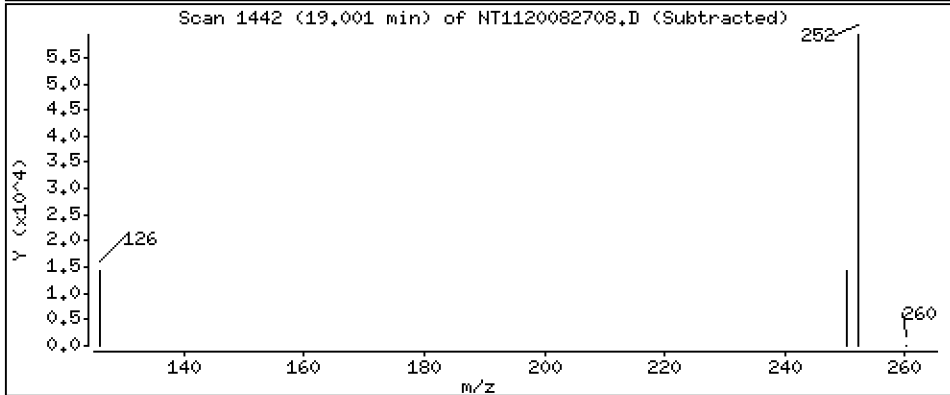
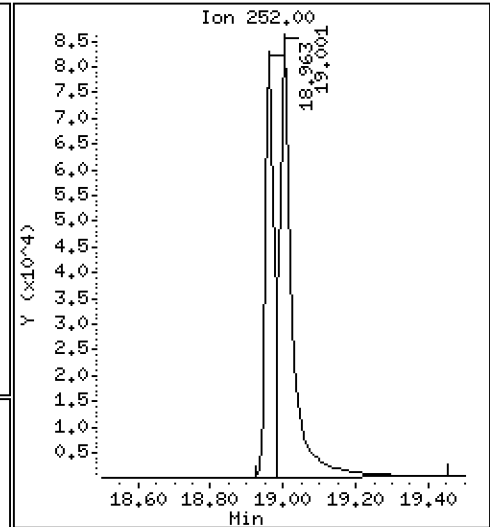
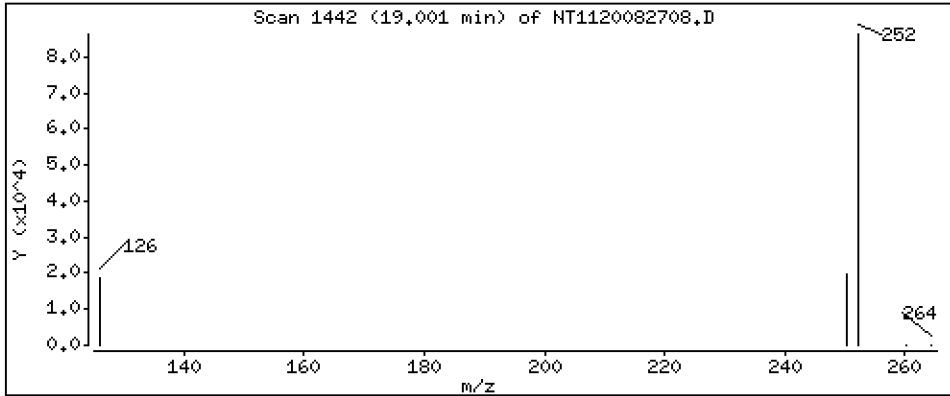
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

31 Benzo(k)fluoranthene

Concentration: 260 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

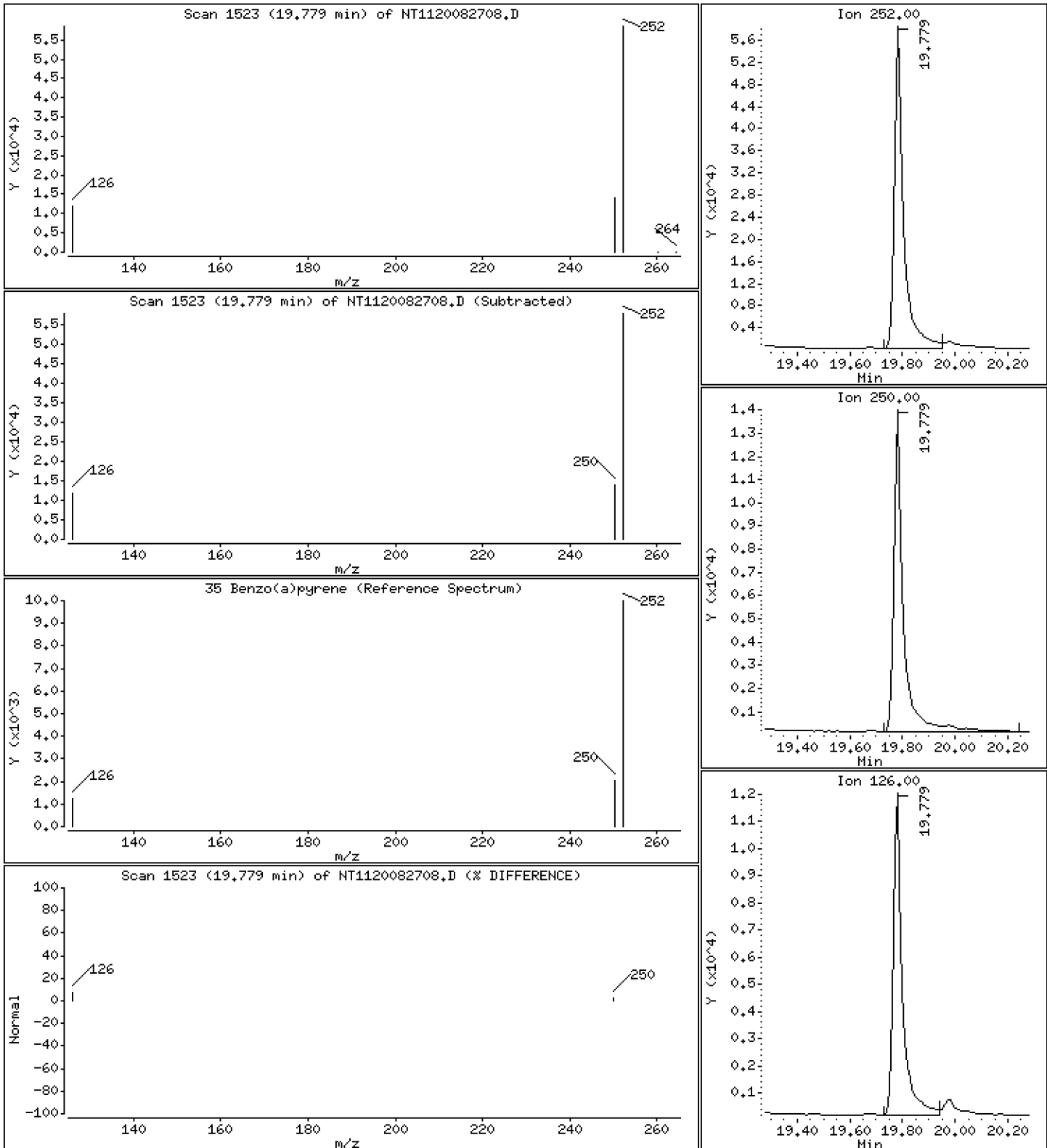
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

35 Benzo(a)pyrene

Concentration: 213 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

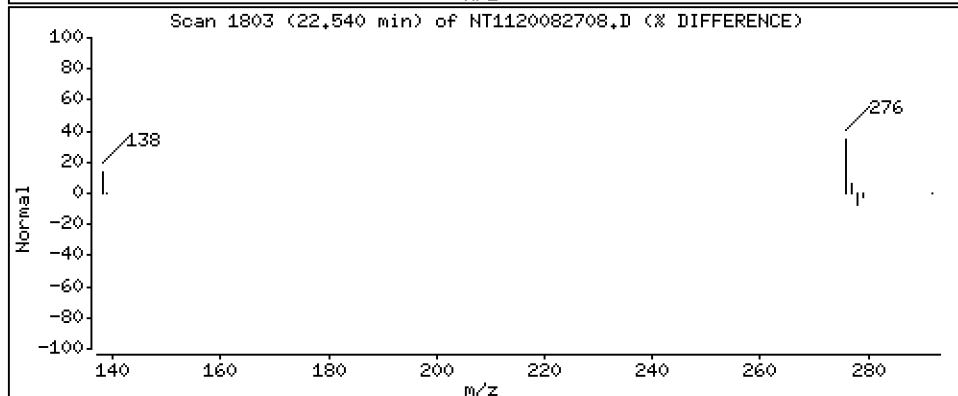
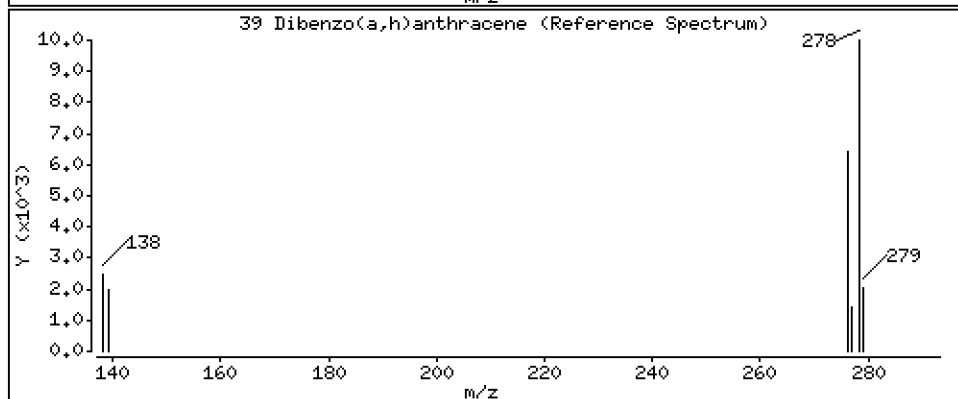
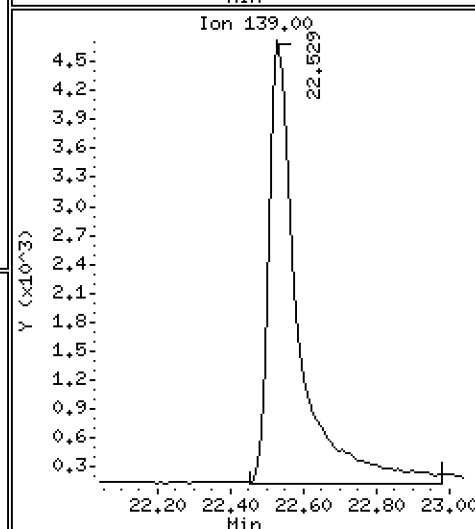
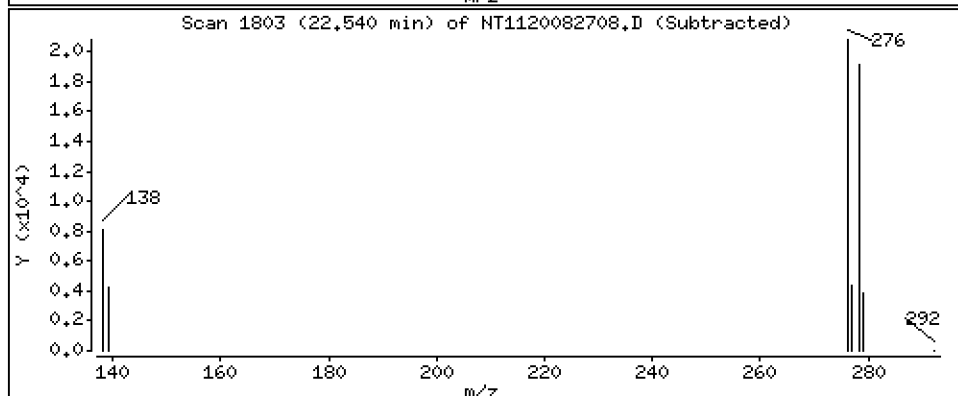
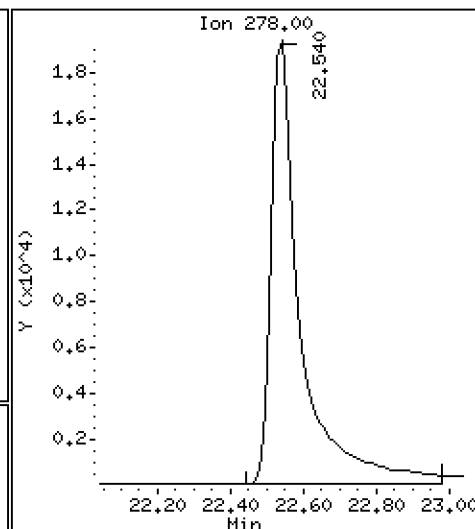
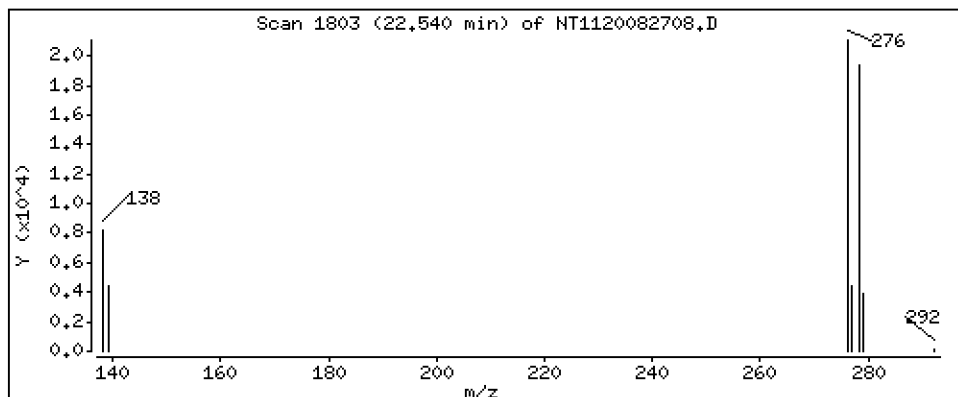
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

39 Dibenzo(a,h)anthracene

Concentration: 192 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

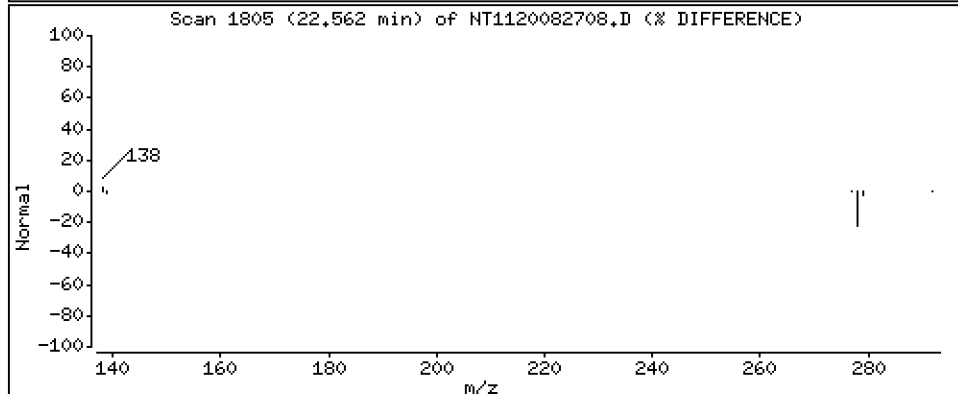
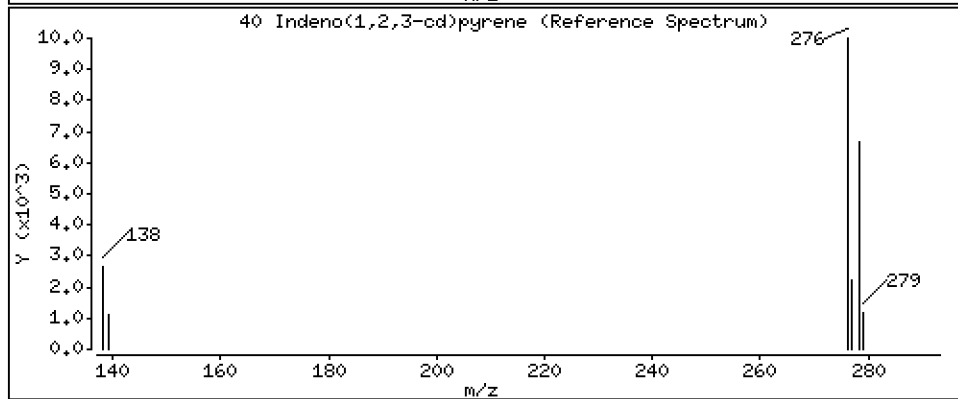
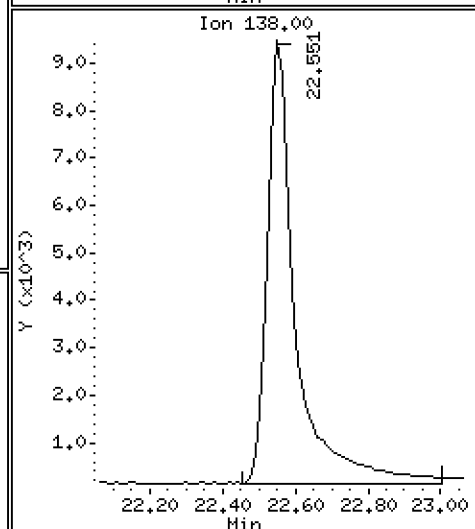
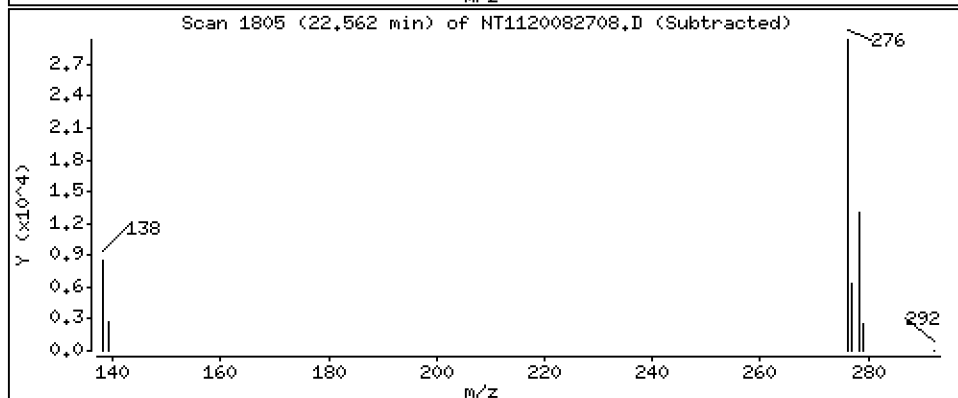
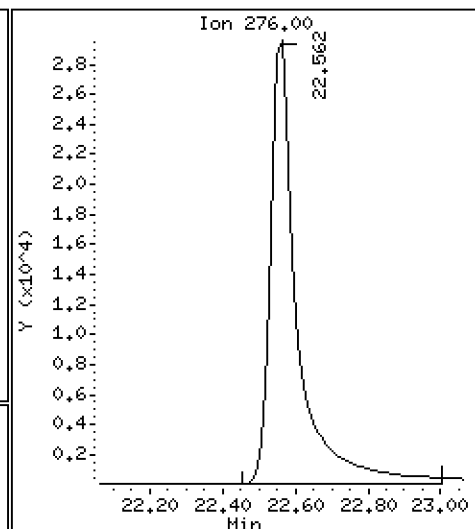
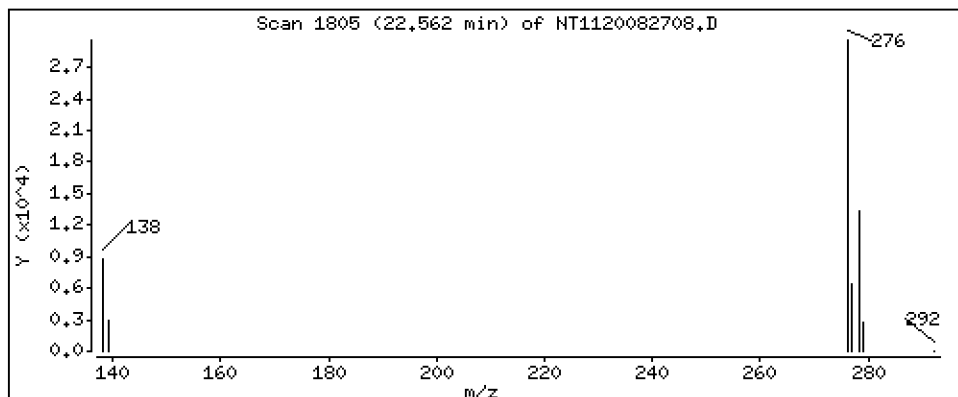
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

40 Indeno(1,2,3-cd)pyrene

Concentration: 227 ng/mL



Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

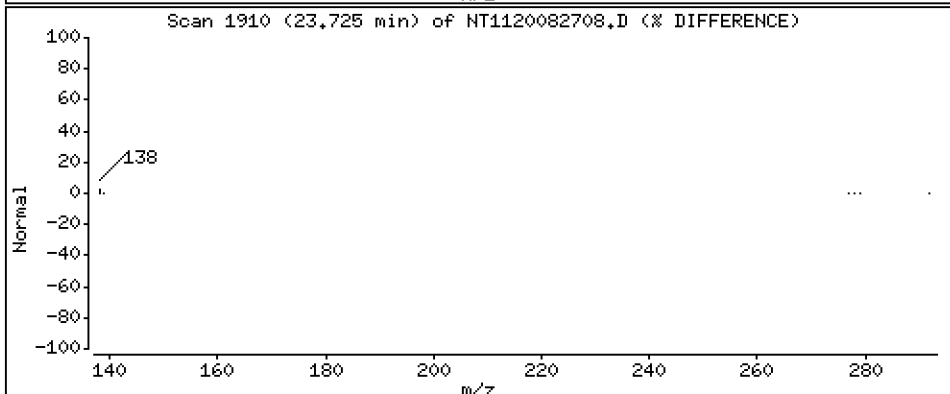
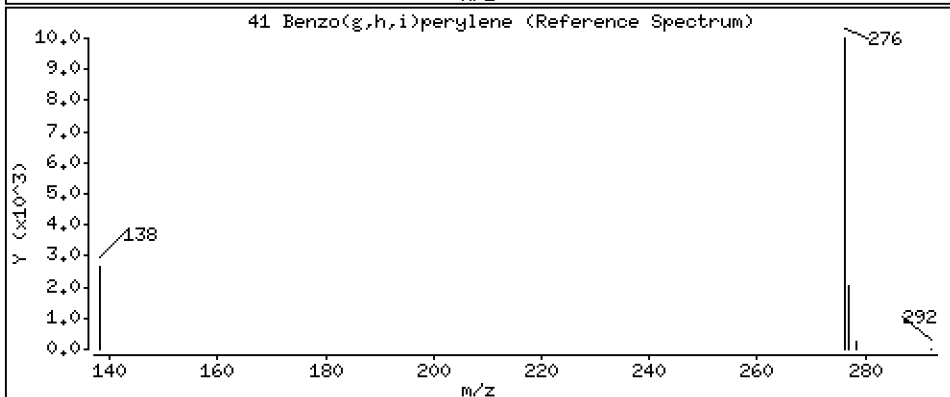
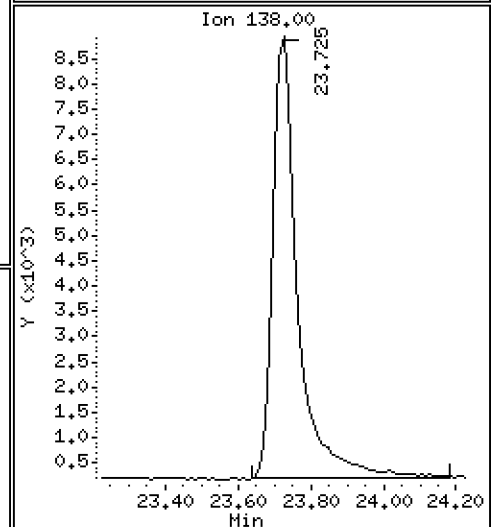
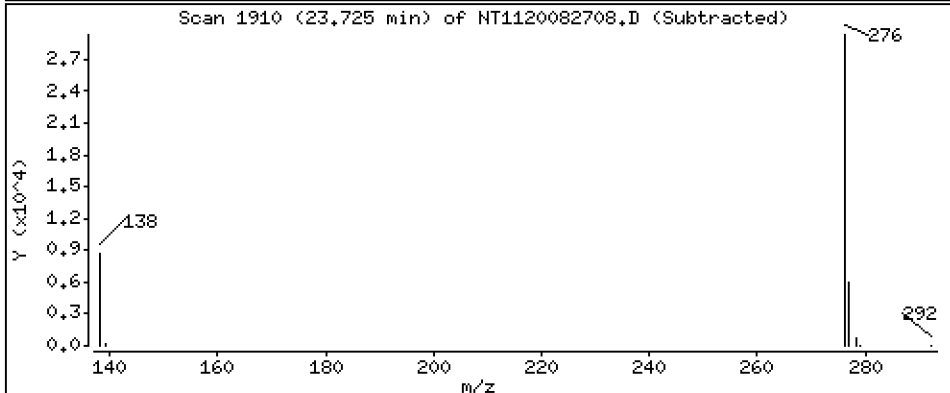
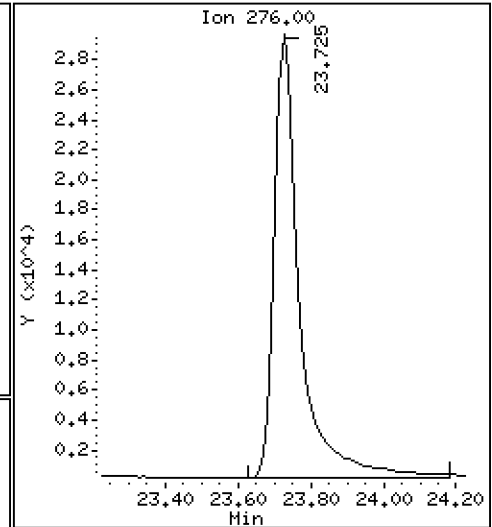
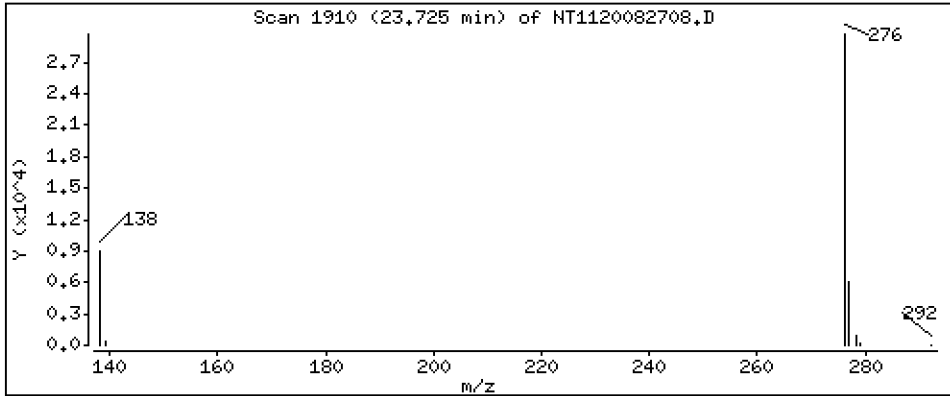
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

41 Benzo(g,h,i)perylene

Concentration: 214 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D
 Lab Smp Id: SIH0304-SCV1
 Inj Date : 27-AUG-2020 15:38 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : SIH0304-SCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
 Meth Date : 28-Aug-2020 07:11 van Quant Type: ISTD
 Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
 Als bottle: 8
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PAH.sub
 Target Version: 4.14
 Processing Host: VANS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		6.804	6.804	(1.000)	202035	200.000	
2 Naphthalene	128		6.840	6.840	(1.005)	263329	224.480	224
3 Benzo(b)thiophene	134		Compound Not Detected.					
\$ 4 2-Methylnaphthalene-d10	152		Compound Not Detected.					
5 2-Methylnaphthalene	142		Compound Not Detected.					
6 1-Methylnaphthalene	142		Compound Not Detected.					
7 2-Chloronaphthalene	162		Compound Not Detected.					
8 Biphenyl	154		Compound Not Detected.					
9 2,6-Dimethylnaphthalene	156		Compound Not Detected.					
10 Acenaphthylene	152		9.653	9.653	(0.984)	241360	233.261	233
* 11 Acenaphthene-d10	164		9.807	9.807	(1.000)	90189	200.000	
12 Acenaphthene	153		9.870	9.870	(1.006)	151880	221.934	222
13 Dibenzofuran	168		Compound Not Detected.					
14 2,3,5-Trimethylnaphthalene	170		Compound Not Detected.					
16 Fluorene	166		10.694	10.694	(1.090)	164299	233.486	233
17 Dibenzothiophene	184		Compound Not Detected.					
* 18 Phenanthrene-d10	188		12.482	12.482	(1.000)	142829	200.000	
19 Phenanthrene	178		12.513	12.524	(1.003)	217246	232.514	233
21 Anthracene	178		12.576	12.576	(1.008)	207807	222.597	223
22 Carbazole	167		Compound Not Detected.					
23 1-Methylphenanthrene	192		Compound Not Detected.					
\$ 24 Fluoranthene-d10	212		Compound Not Detected.					
25 Fluoranthene	202		14.607	14.607	(1.170)	220035	236.211	236
26 Pyrene	202		15.107	15.107	(1.210)	224689	235.115	235
27 Benzo(a)anthracene	228		17.123	17.122	(0.994)	170476	223.013	223
* 28 Chrysene-d12	240		17.222	17.214	(1.000)	104063	200.000	
29 Chrysene	228		17.264	17.264	(1.002)	185336	215.323	215
30 Benzo(b)fluoranthene	252		18.962	18.962	(0.949)	137886	212.389	212
31 Benzo(k)fluoranthene	252		19.001	19.001	(0.951)	222044	260.291	260
32 Benzo(j)fluoranthene	252		Compound Not Detected.					
34 Benzo(e)pyrene	252		Compound Not Detected.					
35 Benzo(a)pyrene	252		19.779	19.779	(0.990)	144487	213.091	213
* 36 Perylene-d12	264		19.981	19.981	(1.000)	119273	200.000	
37 Perylene	252		Compound Not Detected.					

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/mL)	FINAL (ng/mL)
=====	=====	=====	=====	=====	=====	=====	
\$ 38 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.					
39 Dibenzo(a,h)anthracene	278	22.540	22.540	(1.128)	107076	191.902	192
40 Indeno(1,2,3-cd)pyrene	276	22.562	22.562	(1.129)	149356	226.827	227
41 Benzo(g,h,i)perylene	276	23.725	23.725	(1.187)	141191	214.457	214

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 27-AUG-2020
 Lab File ID: NT1120082708.D Calibration Time: 12:35
 Lab Smp Id: SIH0304-SCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	215332	107666	430664	202035	-6.18
11 Acenaphthene-d10	102217	51109	204434	90189	-11.77
18 Phenanthrene-d10	170387	85194	340774	142829	-16.17
28 Chrysene-d12	116138	58069	232276	104063	-10.40
36 Perylene-d12	139038	69519	278076	119273	-14.22

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.81	6.31	7.31	6.80	-0.13
11 Acenaphthene-d10	9.81	9.31	10.31	9.81	-0.00
18 Phenanthrene-d10	12.48	11.98	12.98	12.48	-0.00
28 Chrysene-d12	17.21	16.71	17.71	17.22	0.05
36 Perylene-d12	19.98	19.48	20.48	19.98	-0.00

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.

REVIEW SUMMARY FOR FILE - NT1120082708.D

Lab ID: SIH0304-SCV1

nt11.i, 20200827.b\lowsim.m, 27-AUG-2020 15:38

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1120082704.D

On Column LOD for nt11.i, 20200827.b\lowsim.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000

Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000

Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *



**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM**

Laboratory: Analytical Resources, Inc. SDG: 21D0180
Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings
Instrument ID: NT14 Calibration: EE00001
Lab File ID: NT1421043010.D Calibration Date: 04/30/2021
Sequence: SJD0305 Injection Date: 04/30/21
Lab Sample ID: SJD0305-SCV1 Injection Time: 14:41
Sequence Name: Secondary Cal Check

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
trans-Decalin	A	2.5000	2.8	0.1489821	0.1694308		13.7	+/-20
cis-Decalin	A	2.5000	2.9	0.1028504	0.1197037		16.4	+/-20
Naphthalene	A	2.5000	2.8	1.1740120	1.3066770		11.3	+/-20
1-Methylnaphthalene	A	2.5000	2.8	0.5936130	0.6698969		12.9	+/-20
2-Methylnaphthalene	A	2.5000	2.8	0.6265036	0.7129189		13.8	+/-20
Biphenyl	A	2.5000	2.8	0.8966280	0.9915355		10.6	+/-20
2,6-Dimethylnaphthalene	A	2.5000	2.8	0.6169792	0.6964435		12.9	+/-20
Acenaphthylene	A	2.5000	2.9	0.9709370	1.1221330		15.6	+/-20
Acenaphthene	A	2.5000	3.0	0.6240076	0.7513532		20.4	+/-20
Dibenzofuran	A	2.5000	2.8	0.9455456	1.0467550		10.7	+/-20
2,3,5-Trimethylnaphthalene	A	2.5000	2.9	0.5414731	0.6331332		16.9	+/-20
Fluorene	A	2.5000	2.8	0.6871732	0.7816603		13.8	+/-20
Benzo(b)thiophene	A	2.5000	2.8	0.9340302	1.0411940		11.5	+/-20
Phenanthrene	A	2.5000	2.5	1.2066070	1.1909420		-1.3	+/-20
Anthracene	A	2.5000	2.5	1.1122650	1.1088410		-0.3	+/-20
Carbazole	A	2.5000	2.3	0.8290303	0.8761635		-6.3	+/-20
1-Methylphenanthrene	A	2.5000	2.6	0.7326040	0.7601497		3.8	+/-20
Fluoranthene	A	2.5000	2.6	1.0715980	1.1290490		5.4	+/-20
Dibenzothiophene	A	2.5000	2.8	0.8674458	0.9653991		11.3	+/-20
Pyrene	A	2.5000	2.5	1.1104570	1.1222460		1.1	+/-20
Benzo(a)anthracene	A	2.5000	2.3	0.8222601	0.8333426		-8.9	+/-20
Chrysene	A	2.5000	2.6	0.9340580	0.9617117		3.0	+/-20
Benzo(b)fluoranthene	A	2.5000	2.3	0.7491309	0.7897226		-7.0	+/-20
Benzo(j)fluoranthene	A	2.5000	2.5	0.9513865	0.9573485		0.6	+/-20
Benzo(k)fluoranthene	A	2.5000	2.3	0.9278309	0.9533091		-7.8	+/-20
Benzo(e)pyrene	A	2.5000	2.5	0.8518347	0.8360988		-1.8	+/-20
Benzo(a)pyrene	A	2.5000	2.2	0.7422947	0.7739619		-11.6	+/-20
Indeno(1,2,3-cd)pyrene	A	2.5000	2.2	0.7887712	0.8086680		-10.6	+/-20
Dibenzo(a,h)anthracene	A	2.5000	2.3	0.6549683	0.7164658		-8.4	+/-20
Benzo(g,h,i)perylene	A	2.5000	2.4	0.7663214	0.7209995		-5.9	+/-20
Perylene	A	2.5000	2.4	0.8135951	0.7860752		-3.4	+/-20
Naphthalene-d8	A	2.5000	2.99	1.1542130	1.3787570		19.5	+/-20
Acenaphthene-d10	A	2.5000	3.02	0.5635830	0.6801208		20.7	+/-20
Phenanthrene-d10	A	2.5000	2.67	1.0807840	1.1540520		6.8	+/-20

* Values outside of QC limits



**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM**

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>21D0180</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic - US Moorings</u>
Instrument ID:	<u>NT14</u>	Calibration:	<u>EE00001</u>
Lab File ID:	<u>NT1421043010.D</u>	Calibration Date:	<u>04/30/2021</u>
Sequence:	<u>SJD0305</u>	Injection Date:	<u>04/30/21</u>
Lab Sample ID:	<u>SJD0305-SCV1</u>	Injection Time:	<u>14:41</u>
Sequence Name:	<u>Secondary Cal Check</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Chrysene-d12	A	2.5000	2.83	0.7267179	0.8221423		13.1	+/-20
Perylene-d12	A	2.5000	2.51	0.6899017	0.7793940		0.2	+/-20

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.1\20210430.1\NT1421043010.D

Date: 30-APR-2021 14:41

Client ID:

Sample Info: SJD0305-SCW1

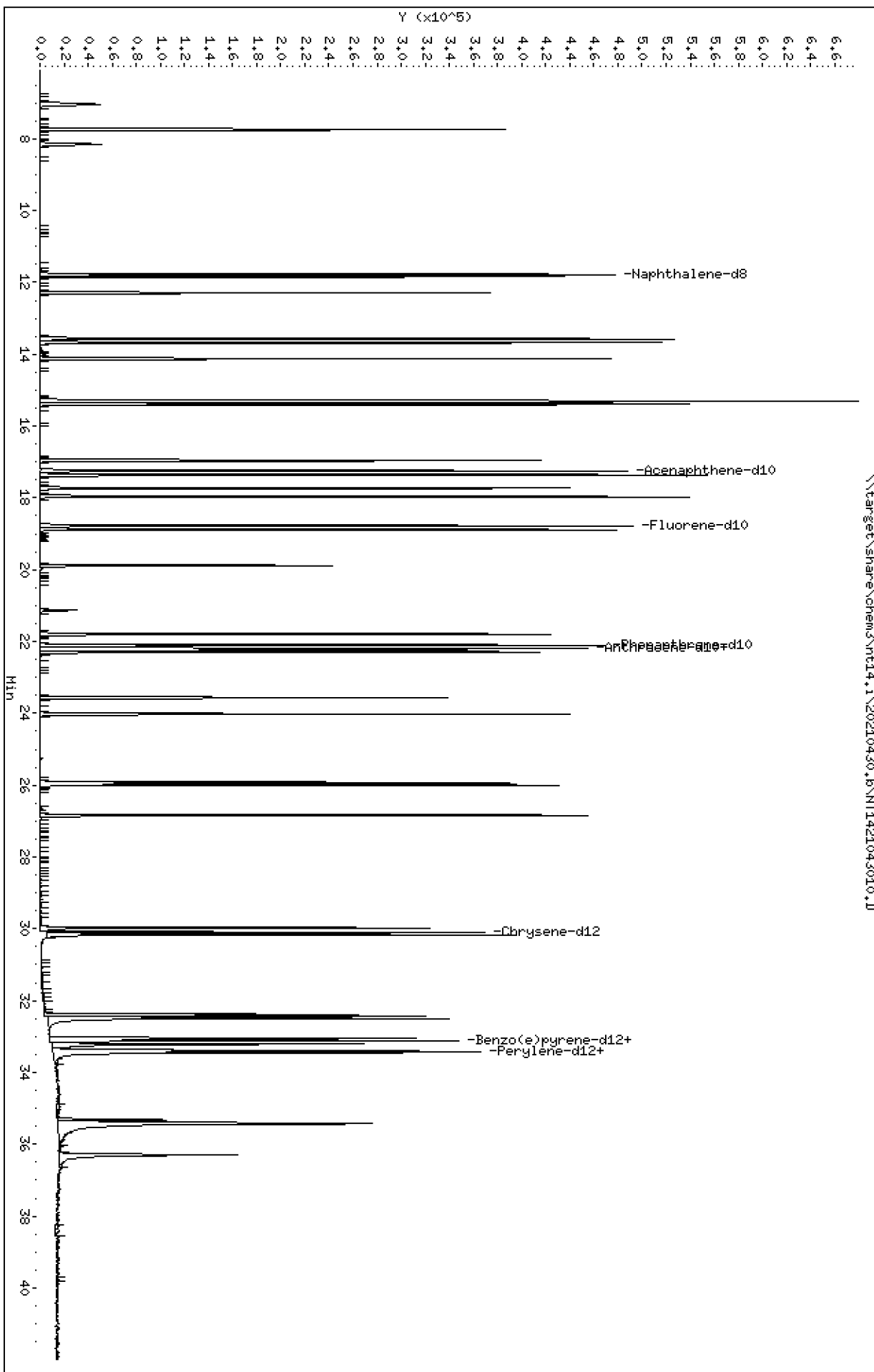
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14.1\20210430.1\NT1421043010.D



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

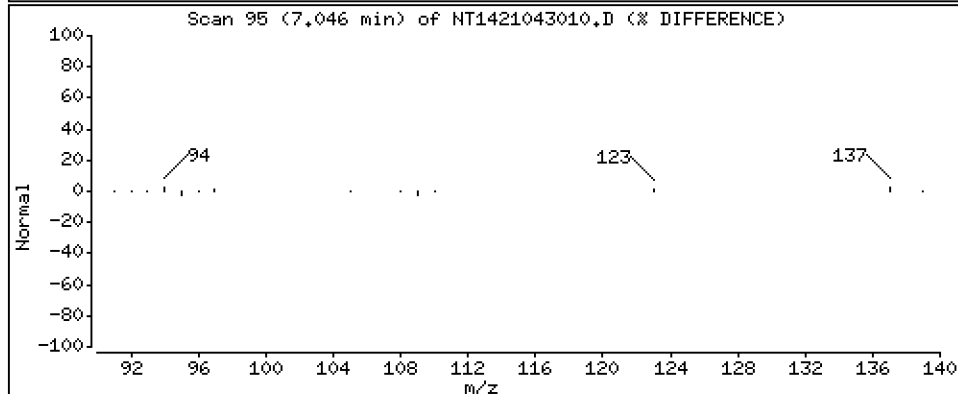
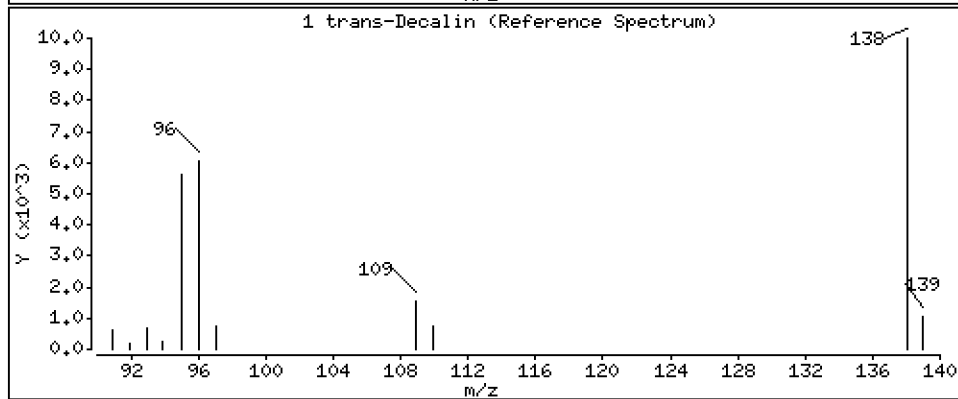
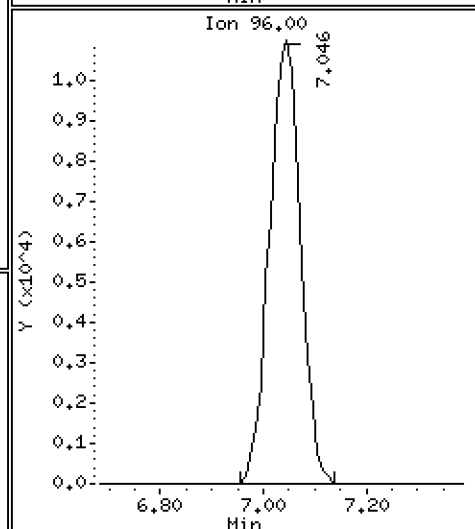
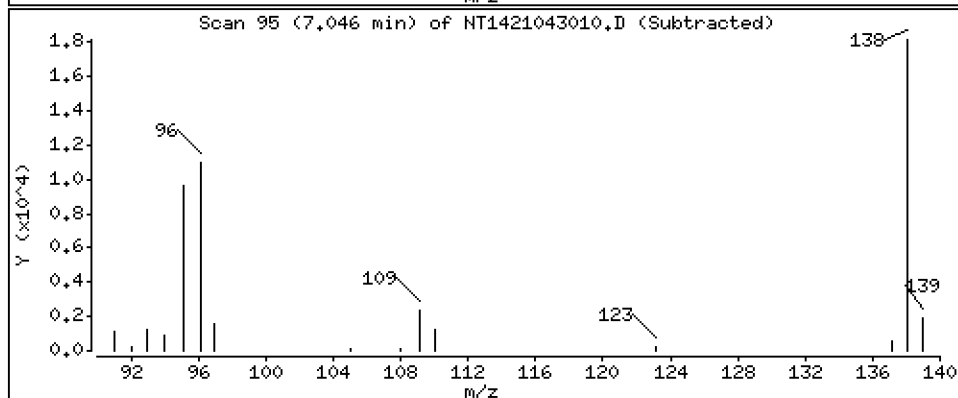
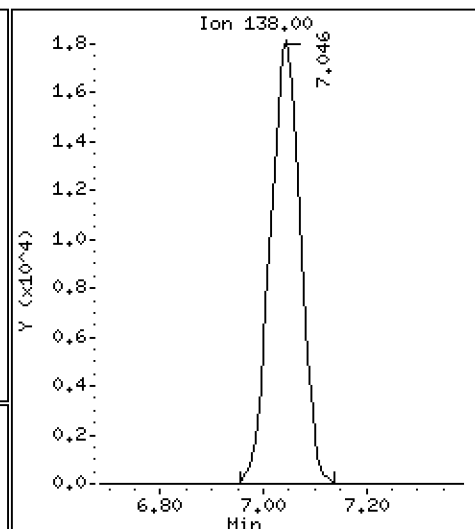
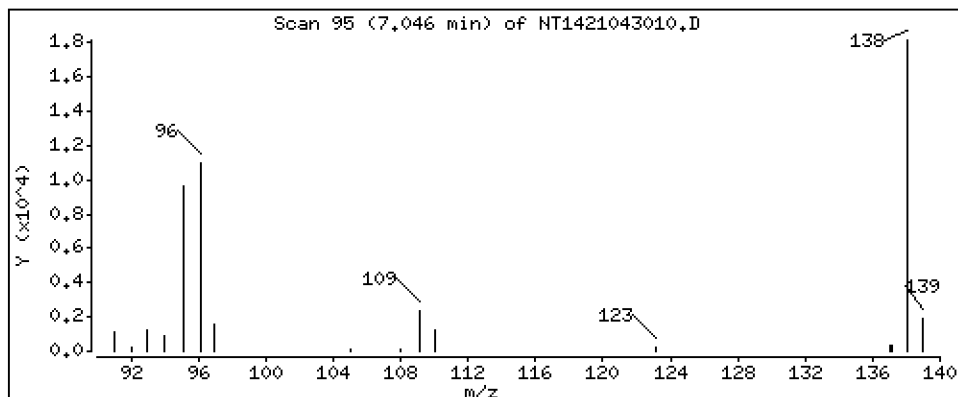
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

1 trans-Decalin

Concentration: 2,843 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

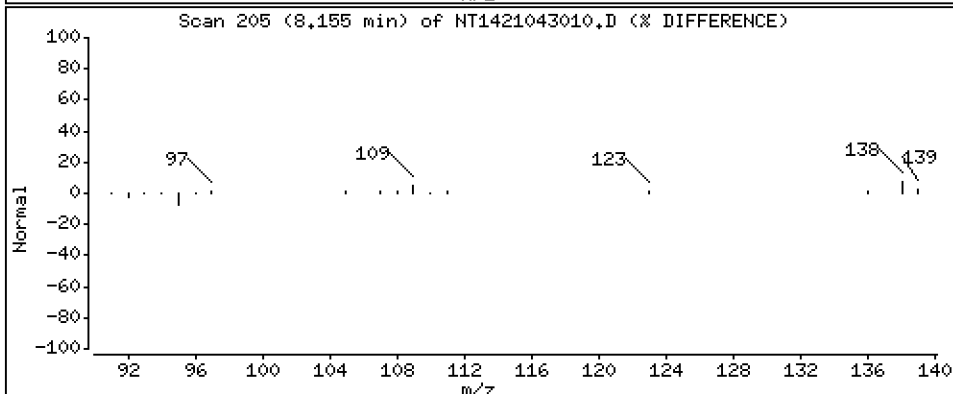
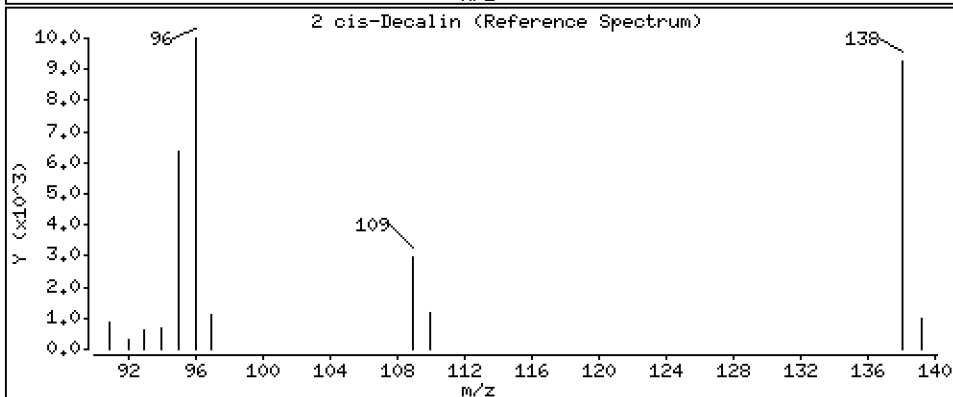
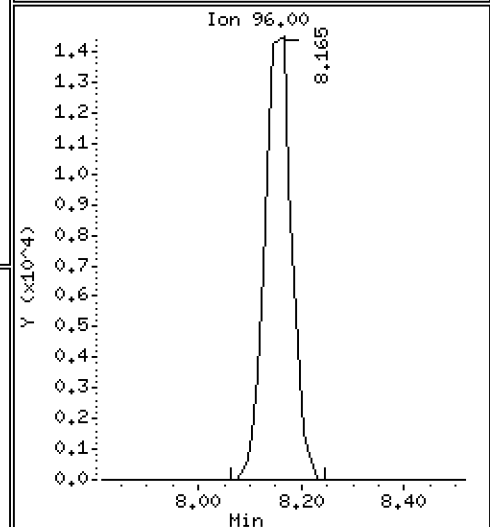
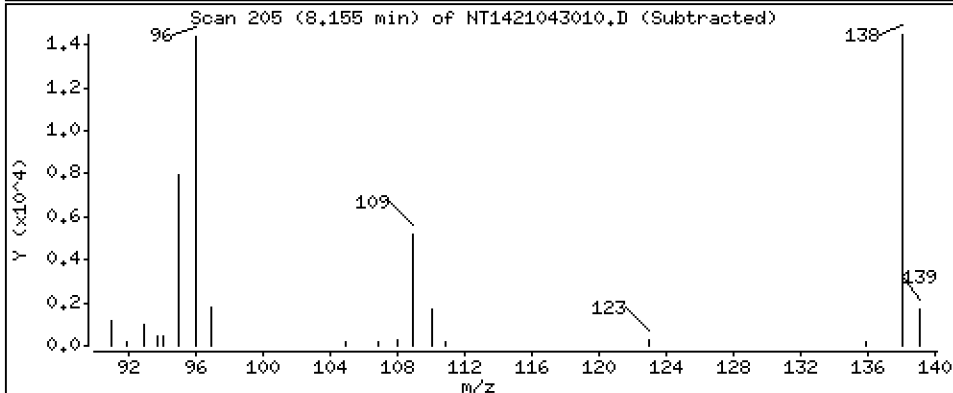
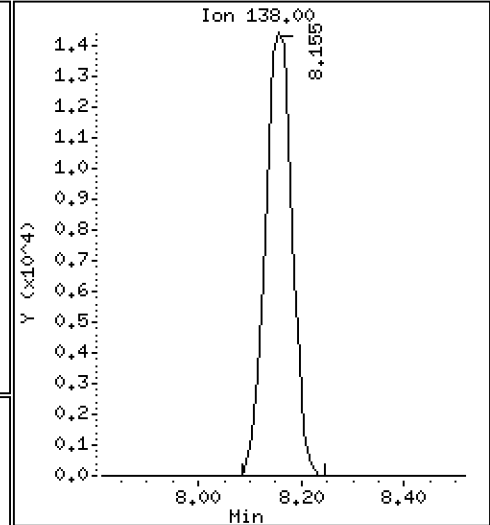
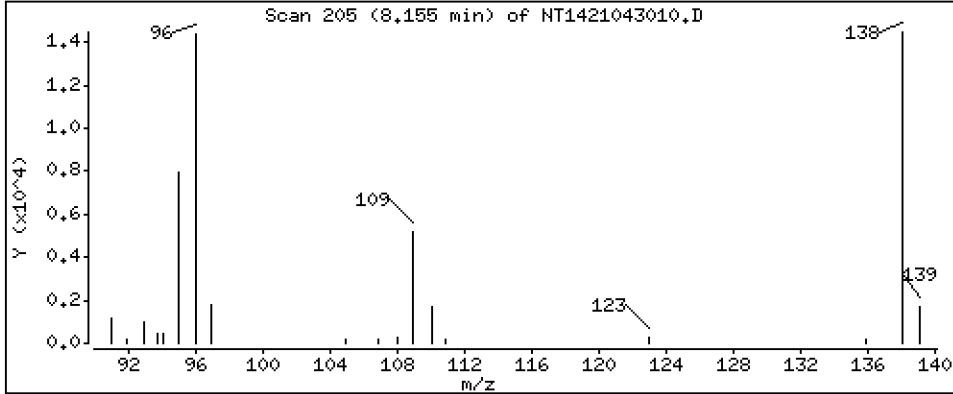
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 cis-Decalin

Concentration: 2,910 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

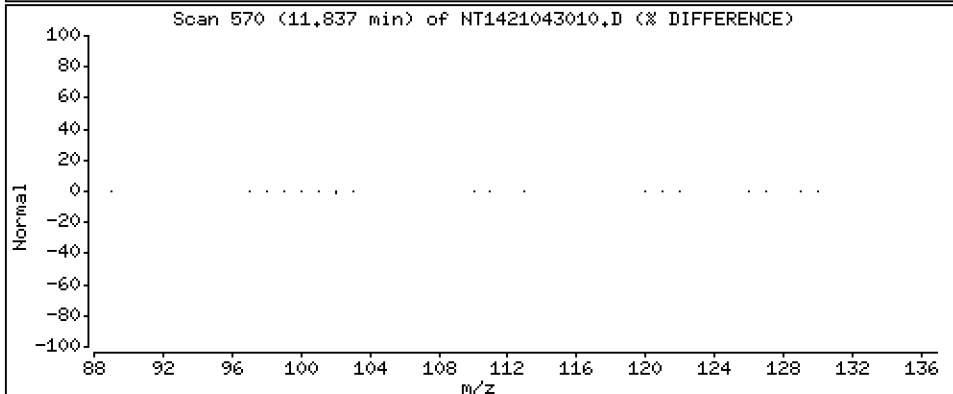
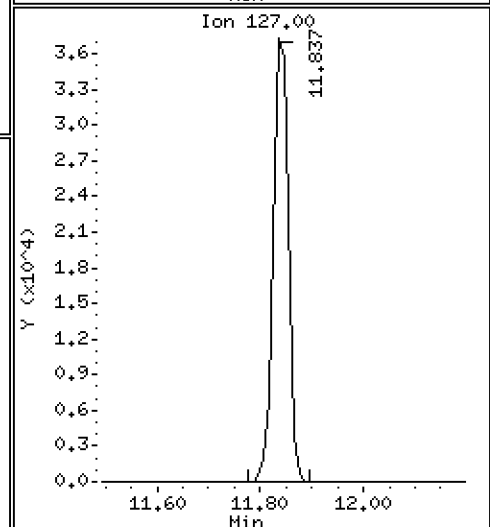
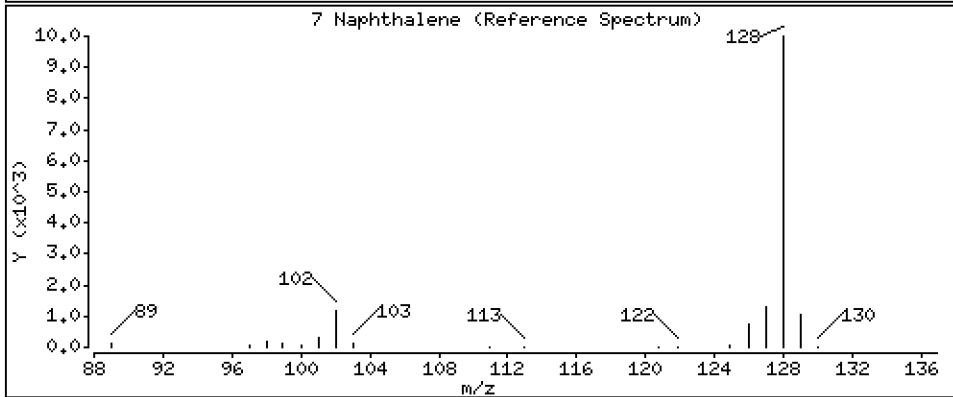
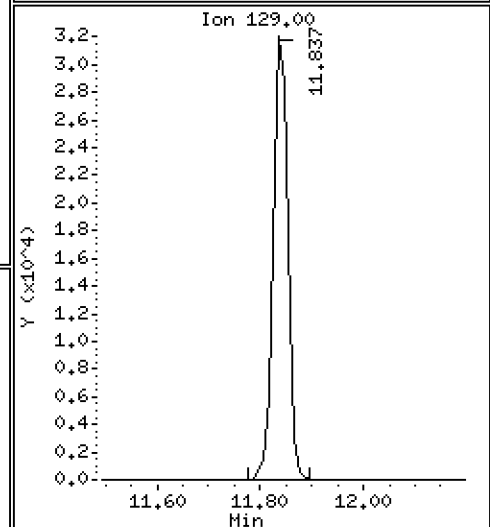
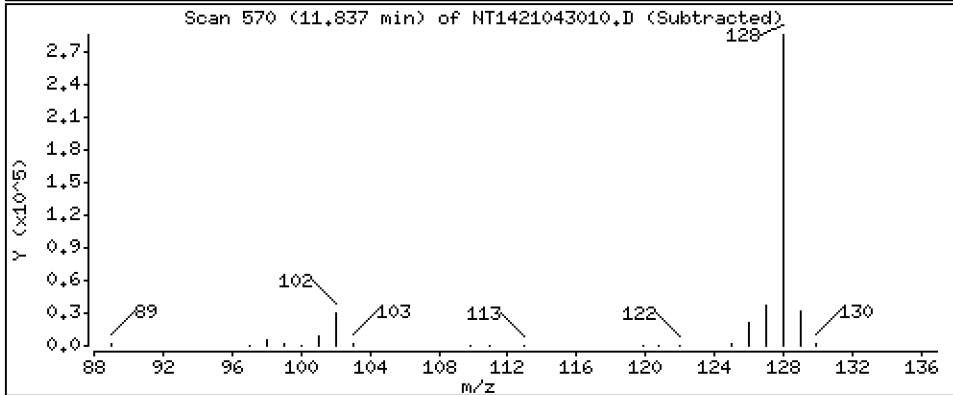
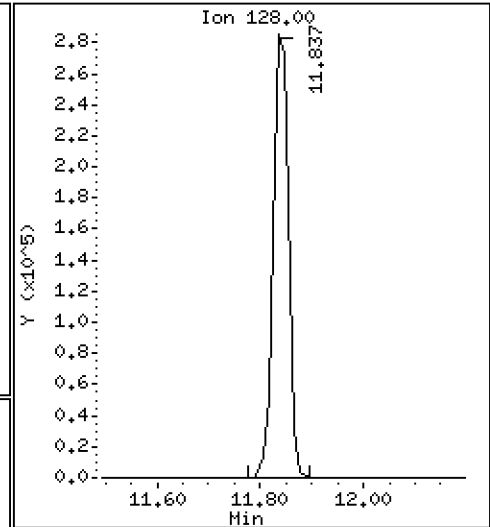
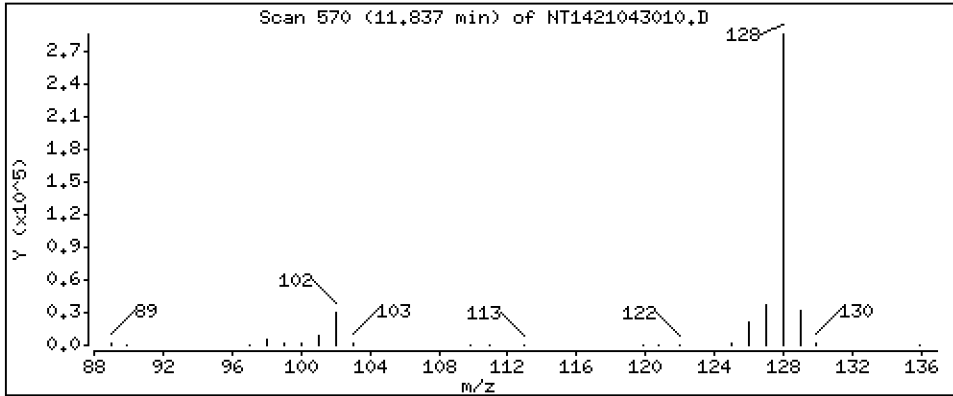
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

7 Naphthalene

Concentration: 2,783 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

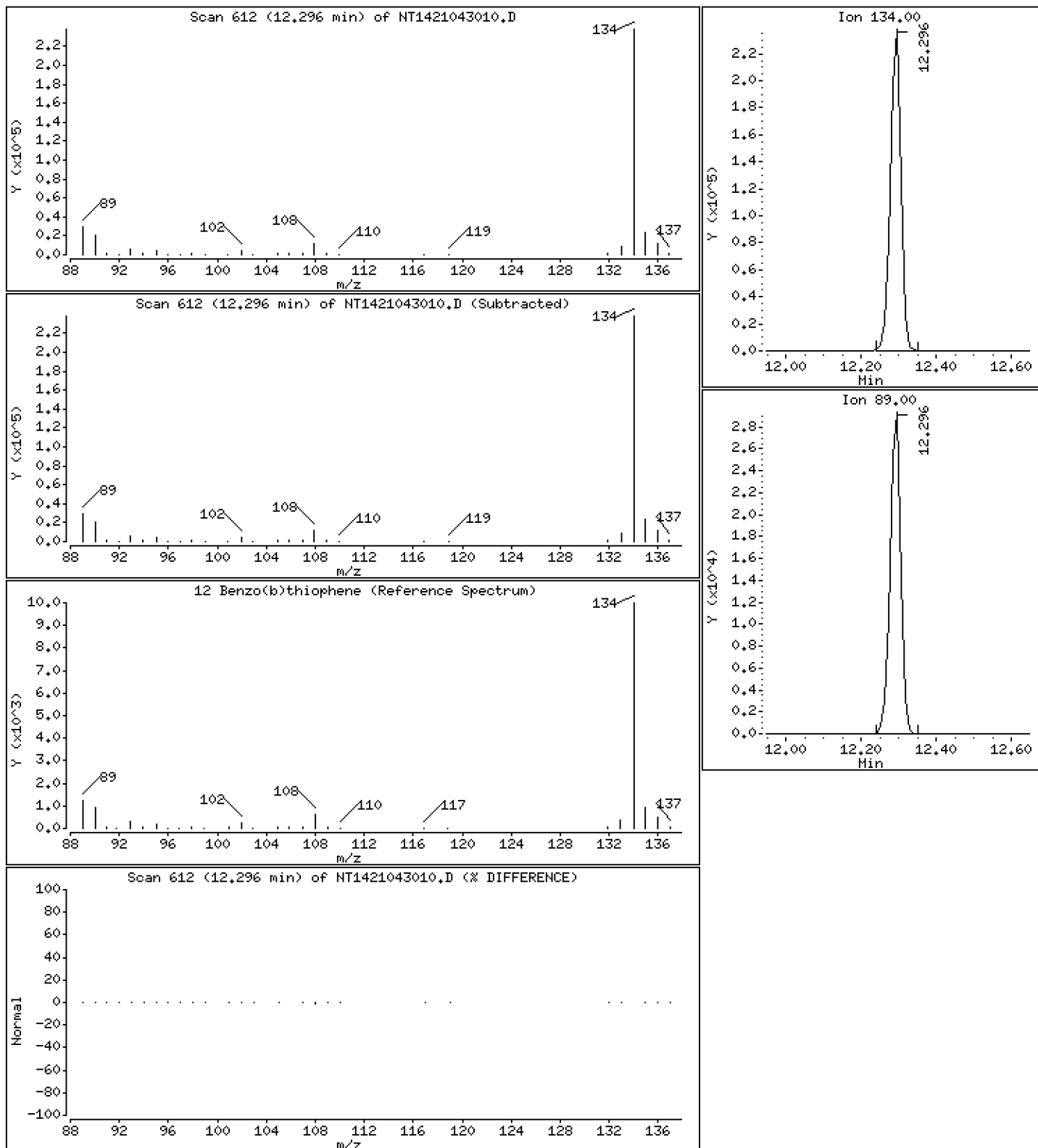
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

12 Benzo(b)thiophene

Concentration: 2,787 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

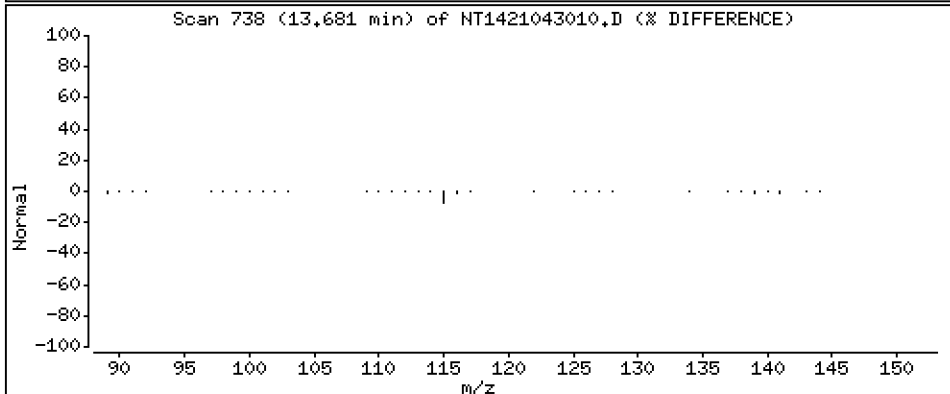
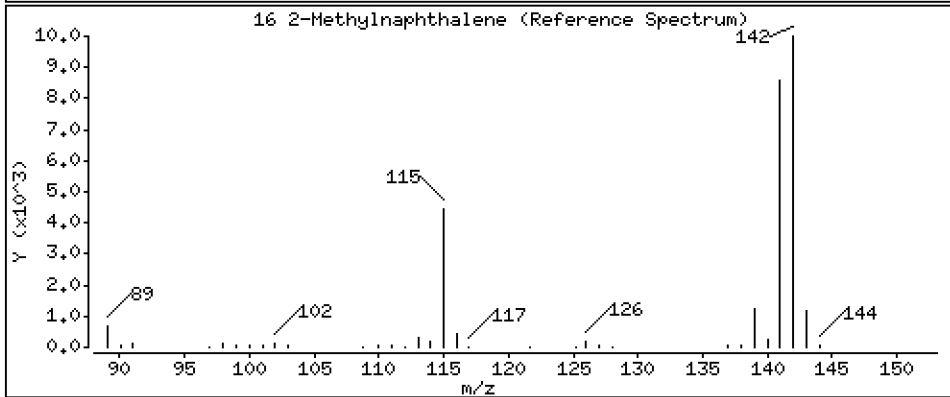
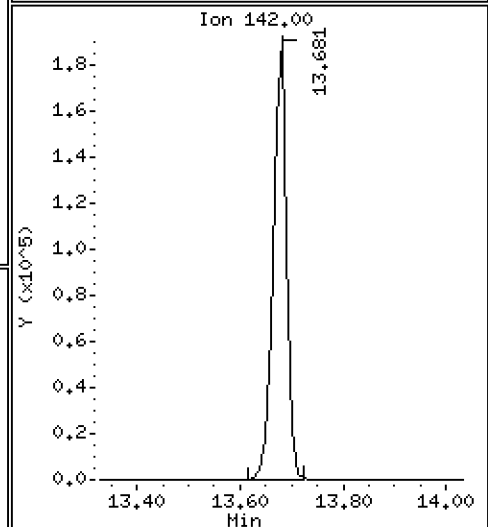
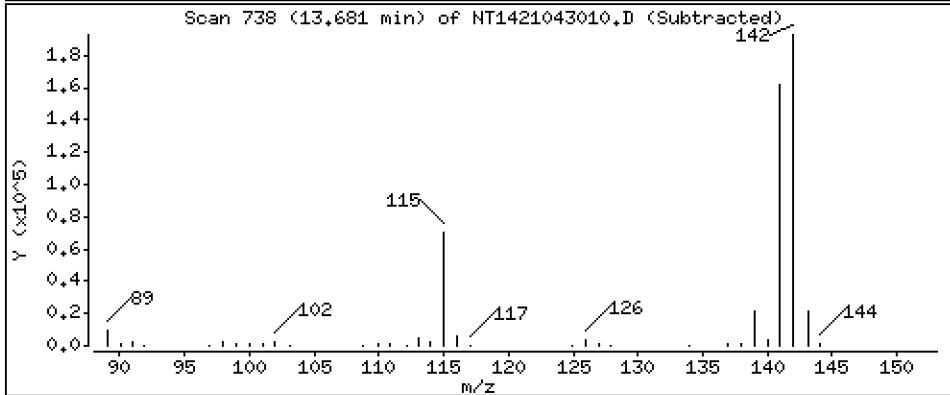
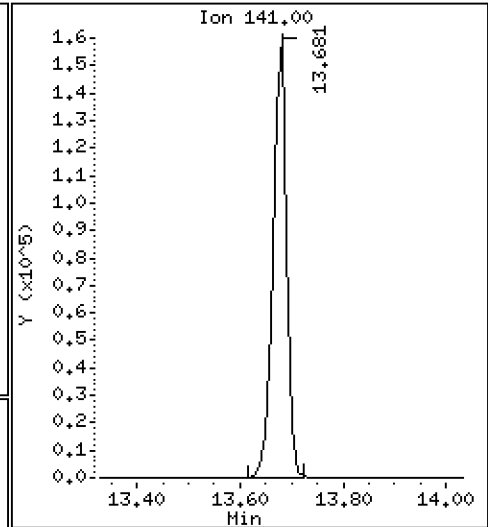
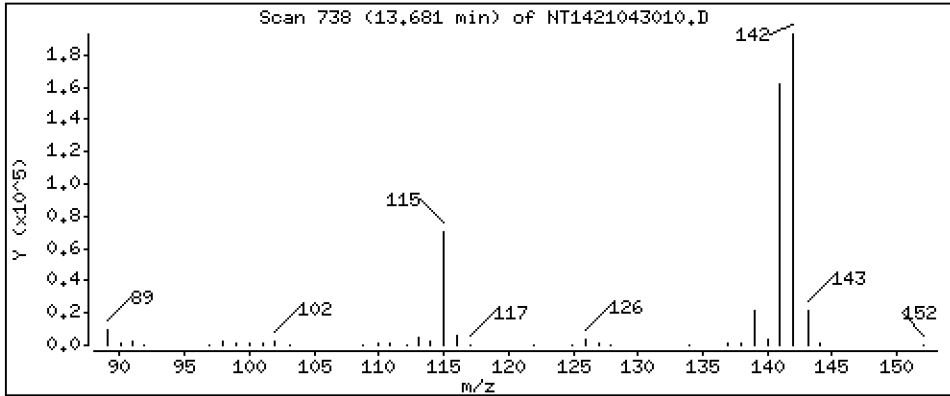
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

16 2-Methylnaphthalene

Concentration: 2,845 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

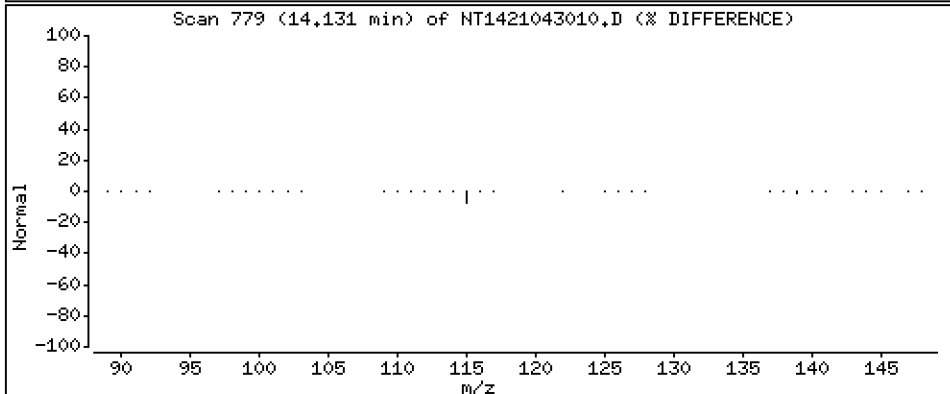
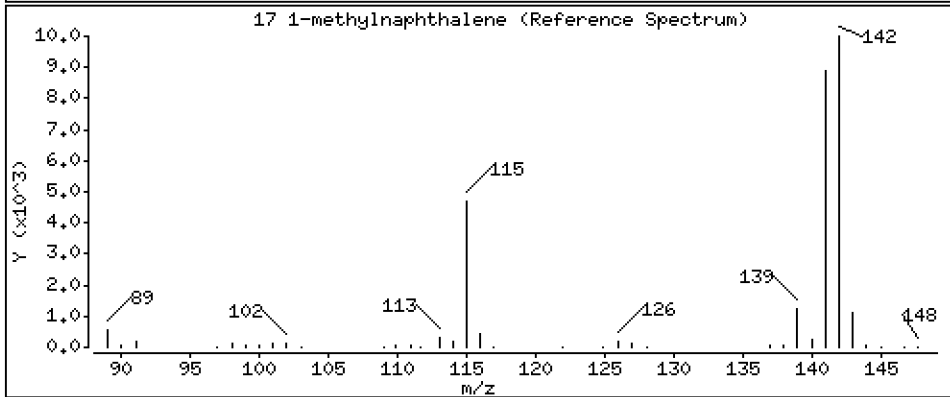
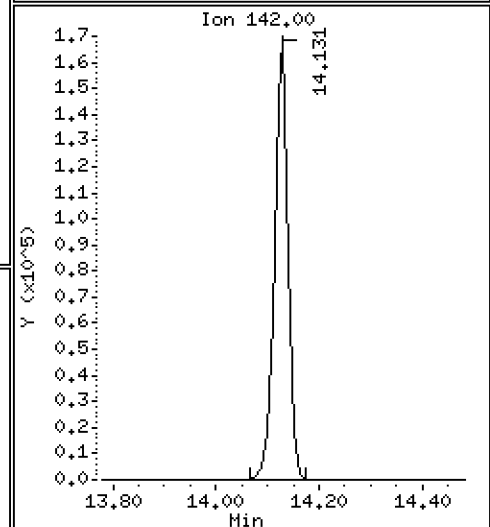
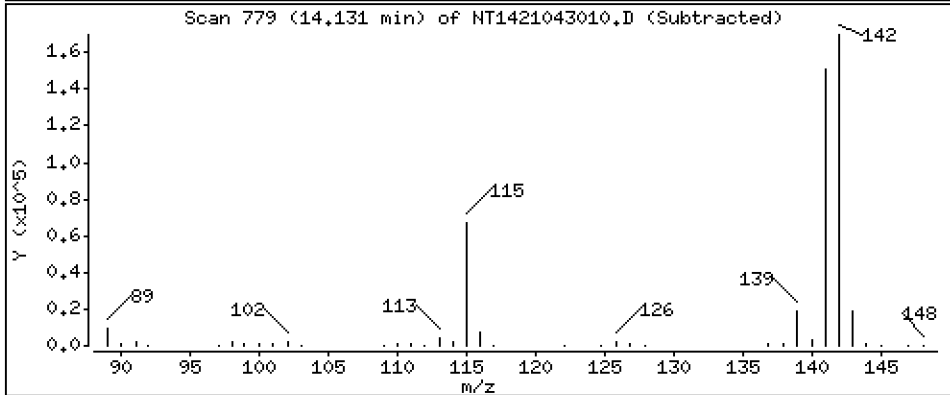
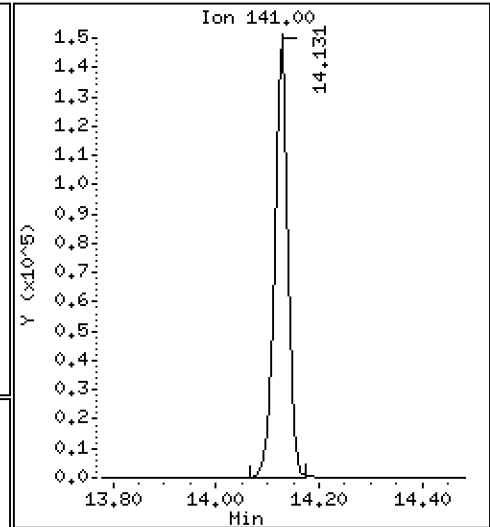
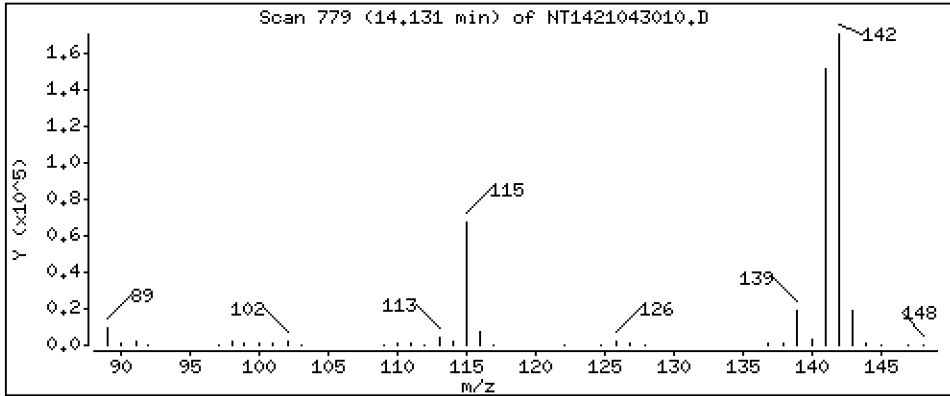
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 1-methylnaphthalene

Concentration: 2,821 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

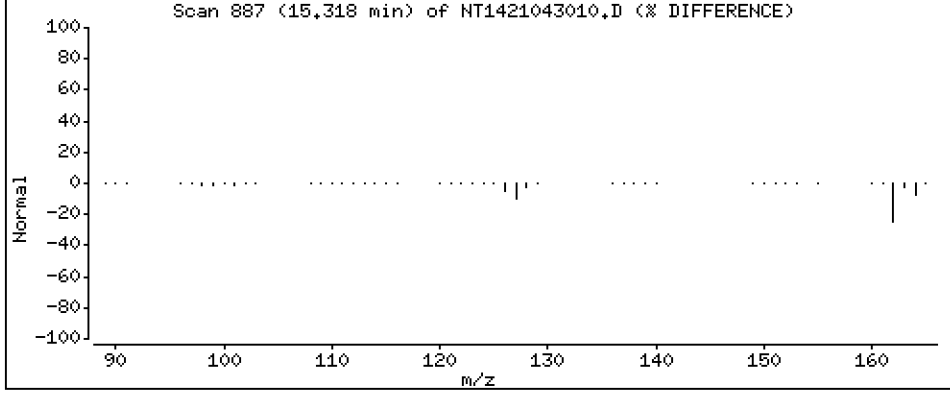
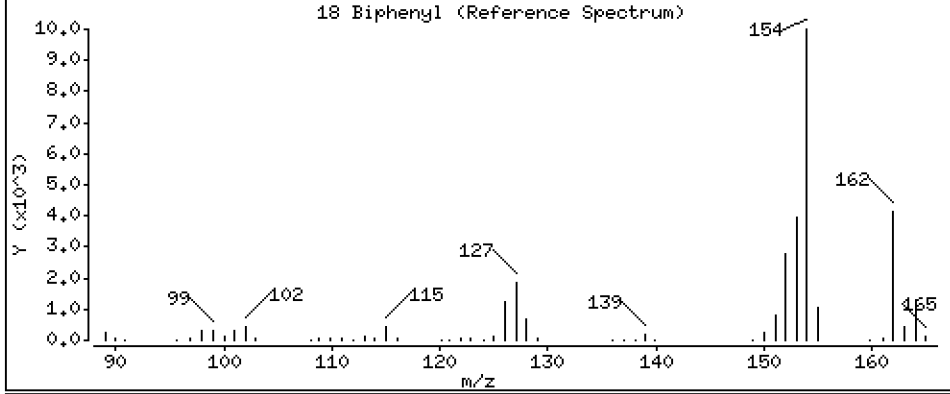
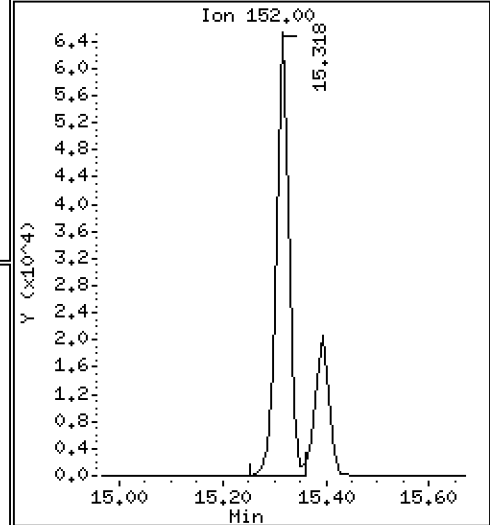
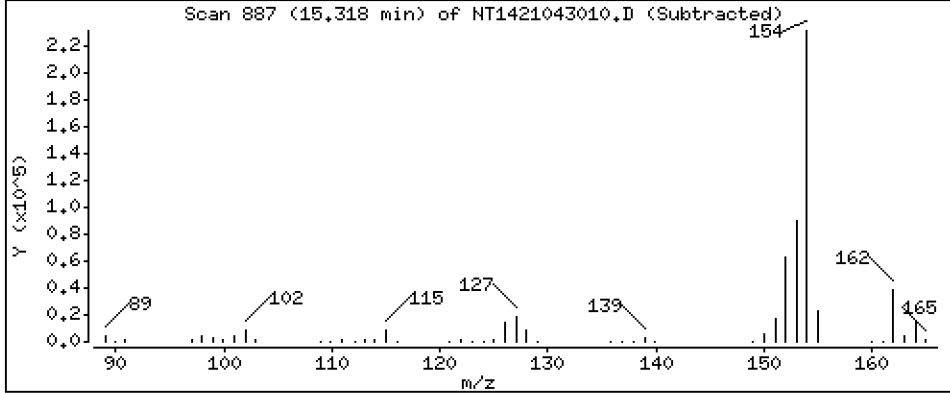
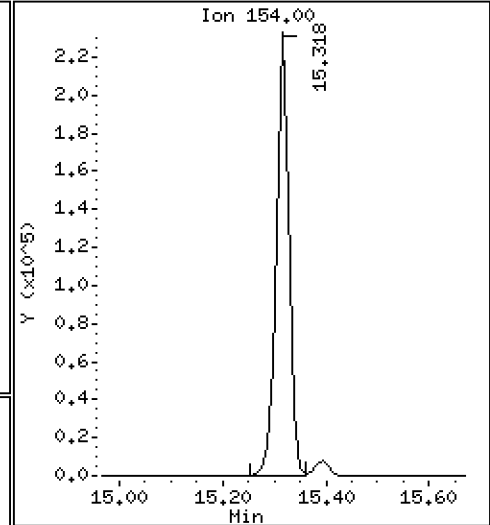
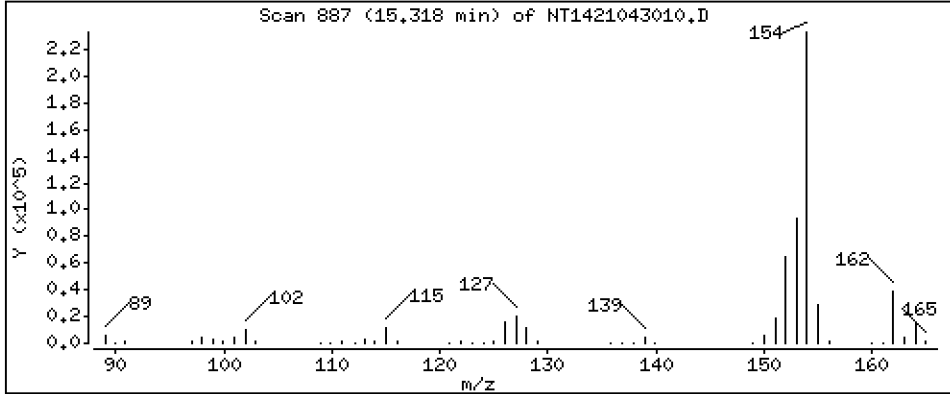
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

Concentration: 2,765 ug/mL

18 Biphenyl



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

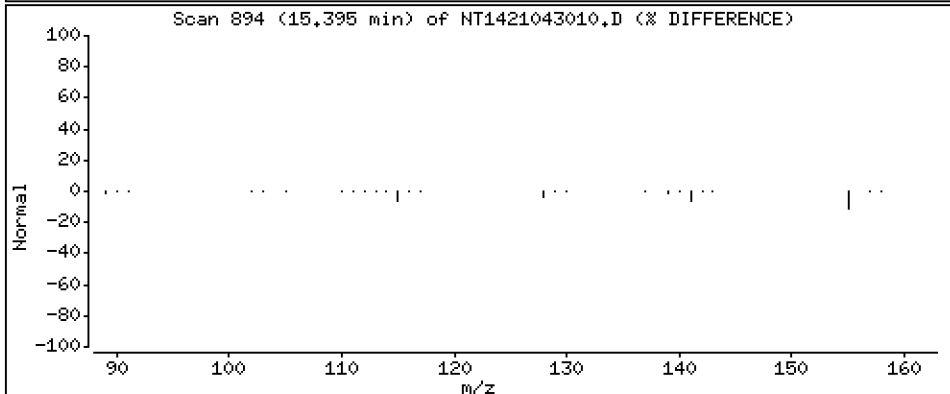
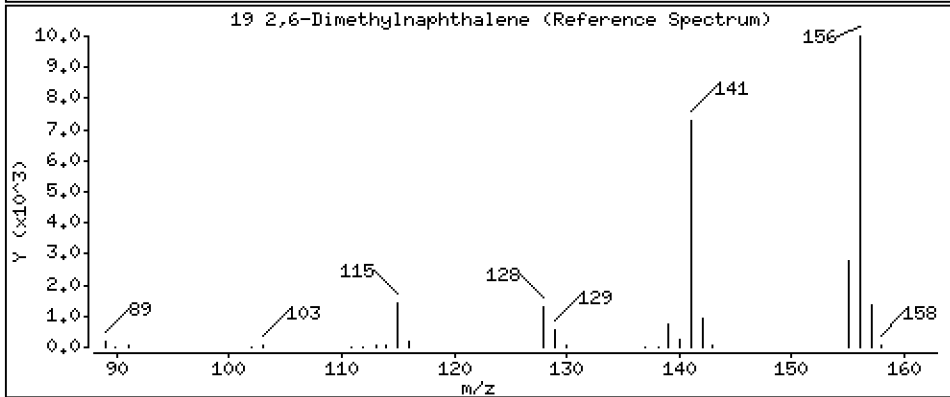
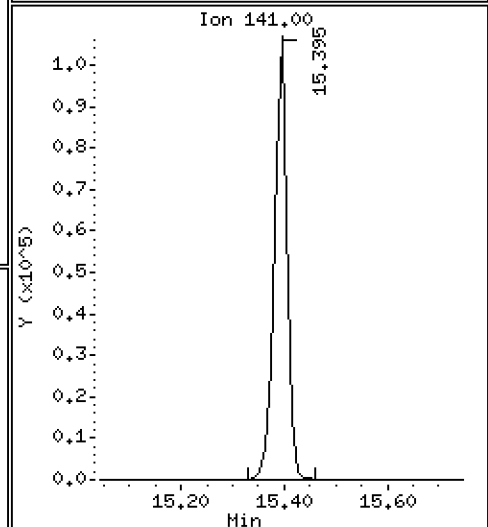
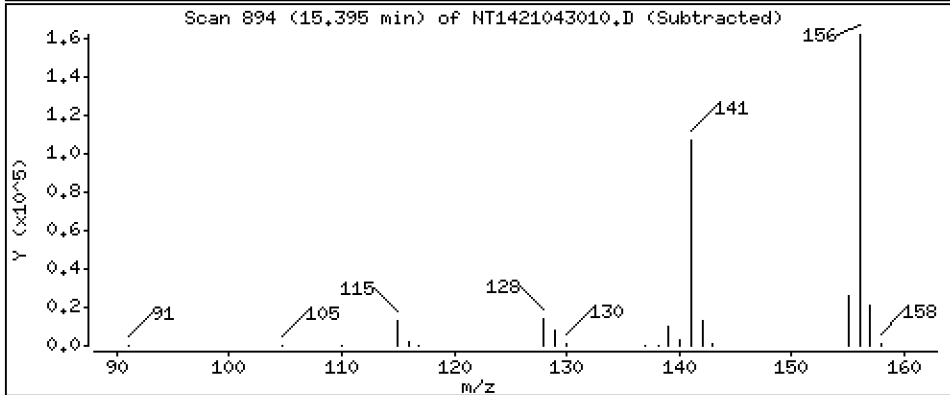
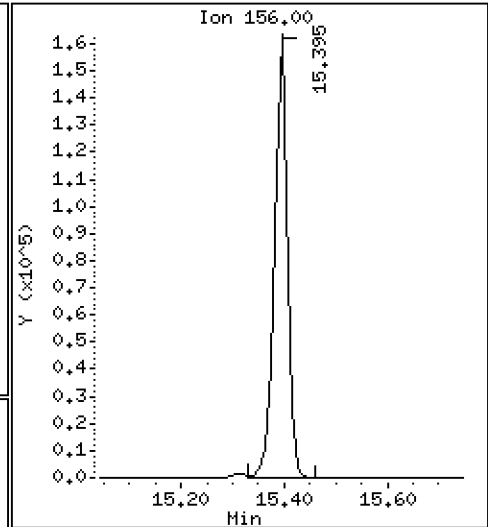
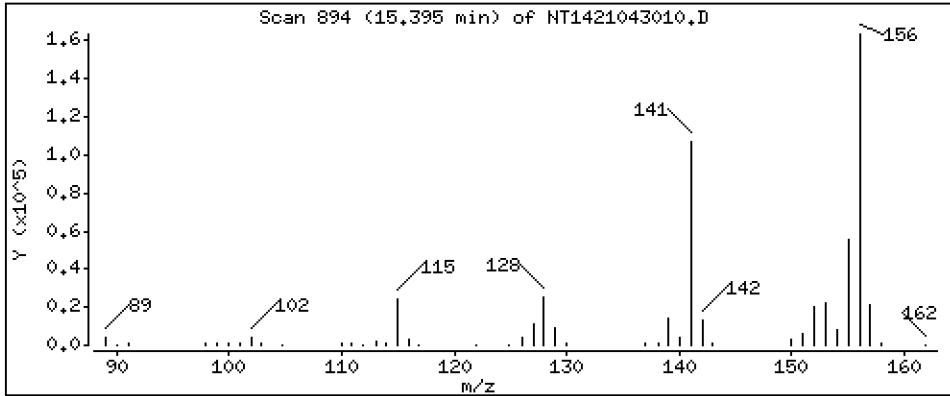
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 2,6-Dimethylnaphthalene

Concentration: 2,822 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

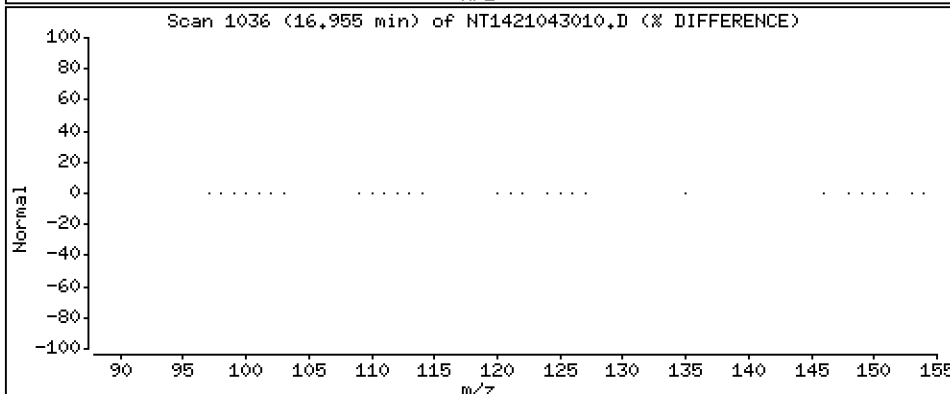
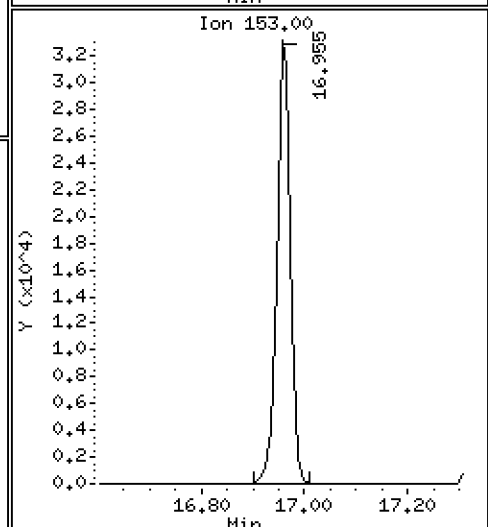
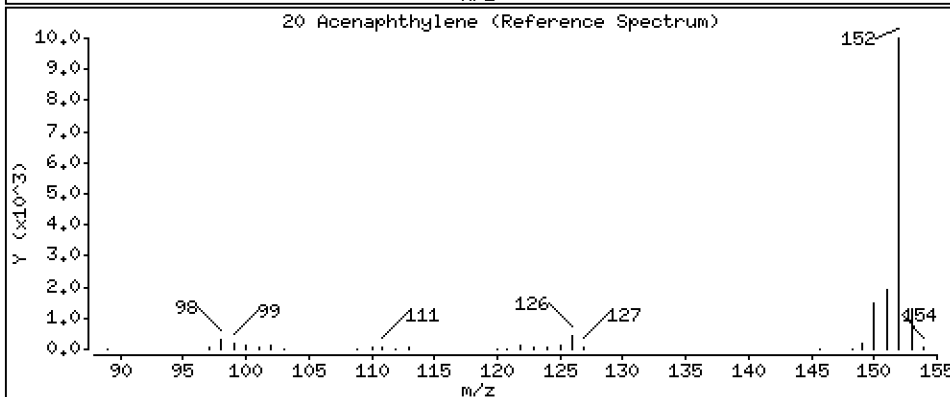
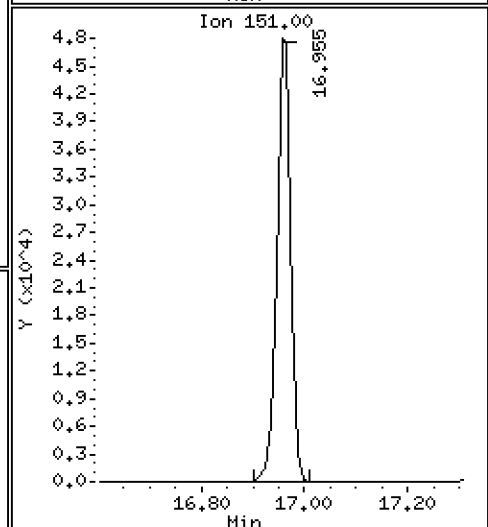
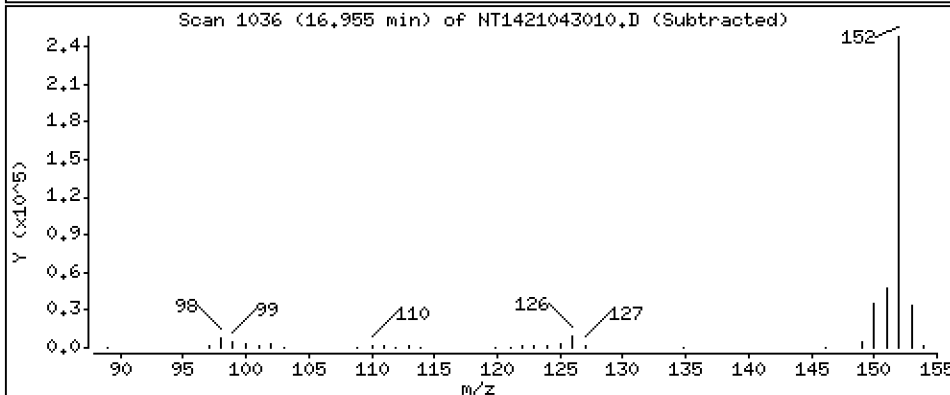
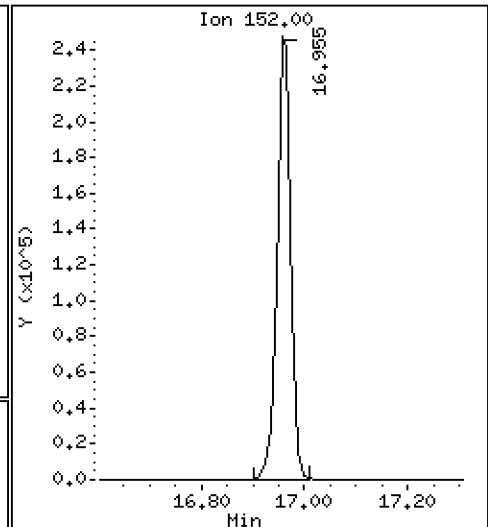
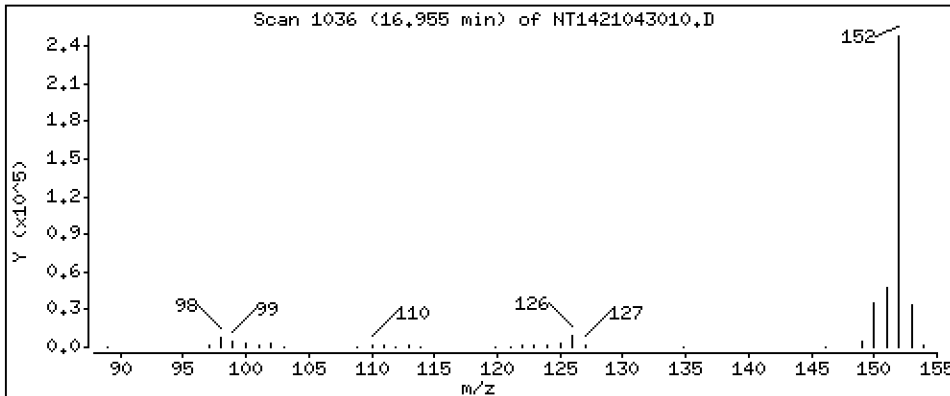
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

20 Acenaphthylene

Concentration: 2,889 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

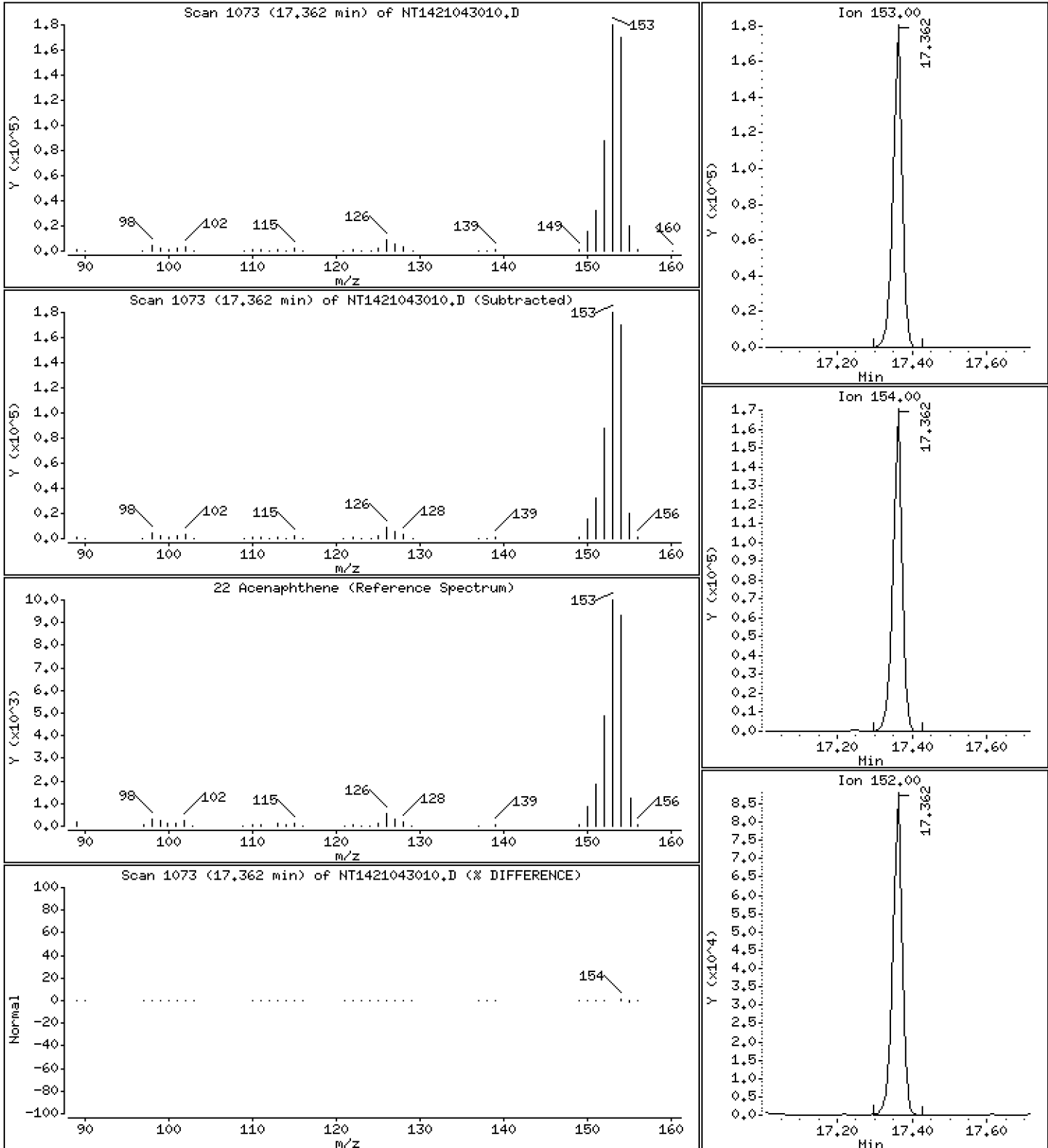
Operator: VTS

Column phase: Rxi-17Si1 MS

Column diameter: 0,25

22 Acenaphthene

Concentration: 3,010 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

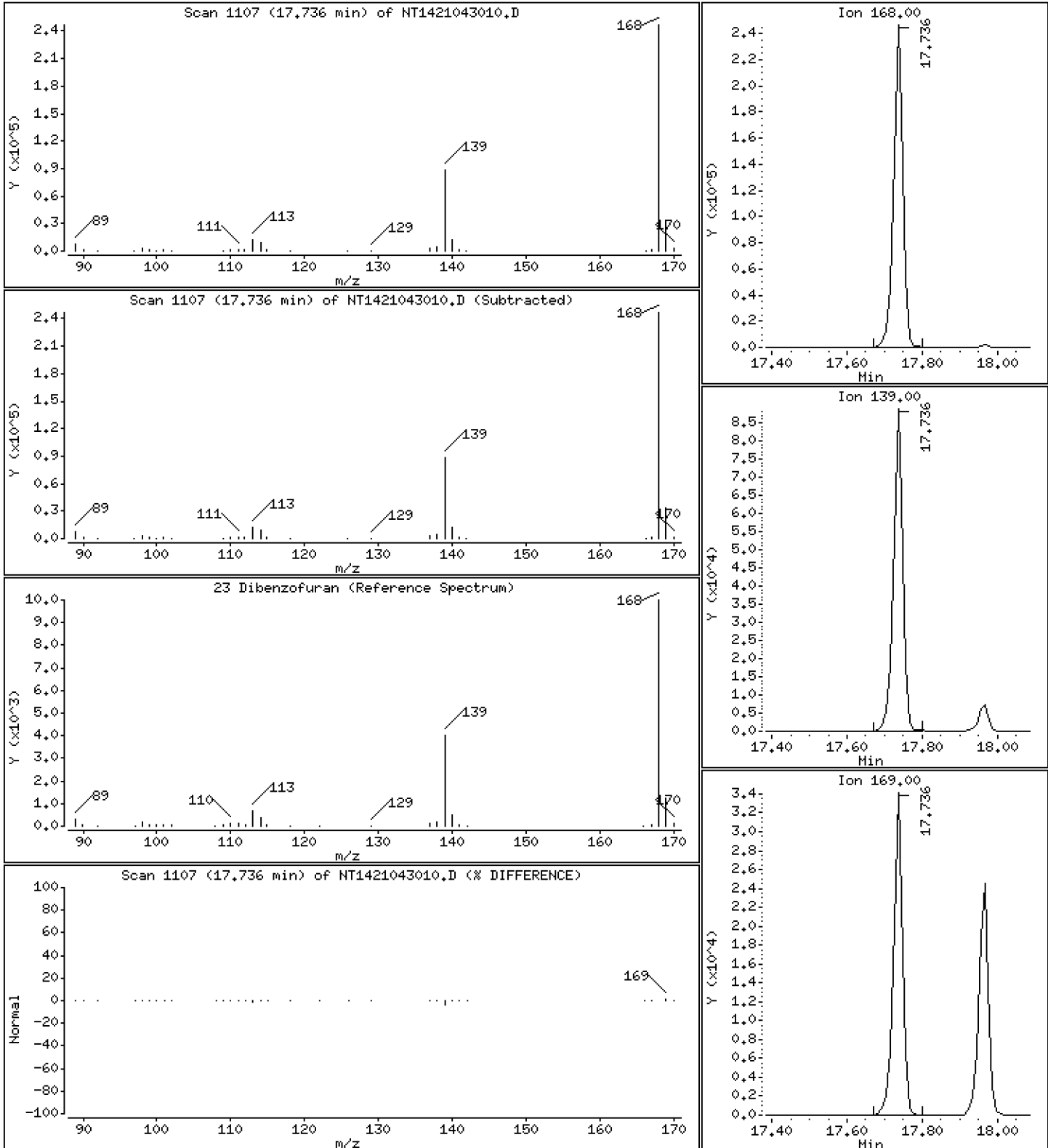
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 Dibenzofuran

Concentration: 2,768 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

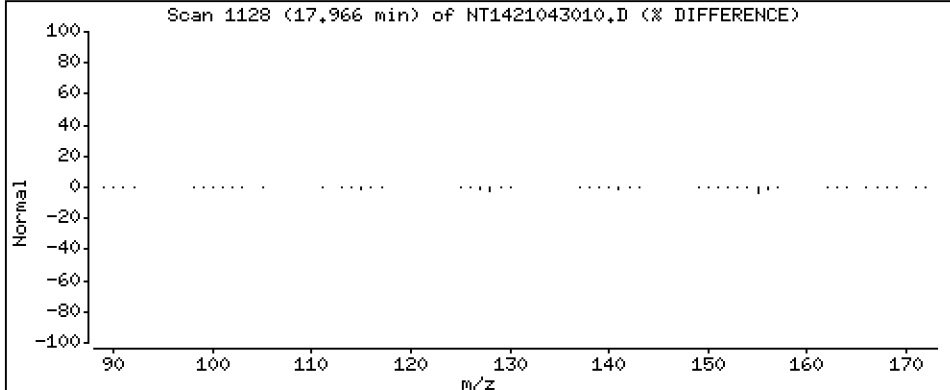
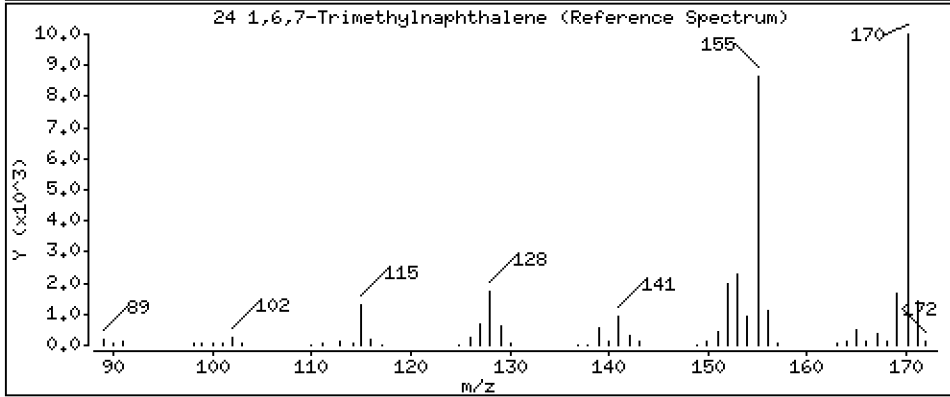
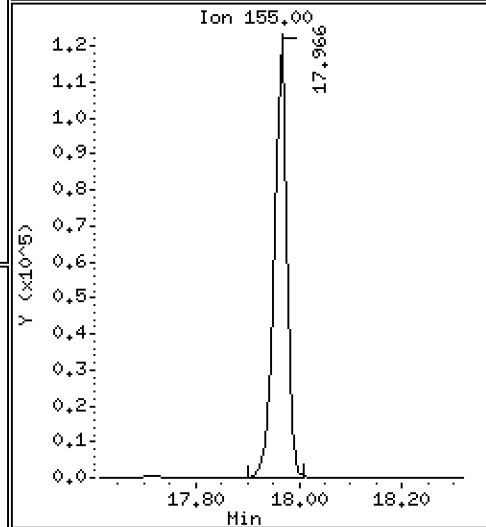
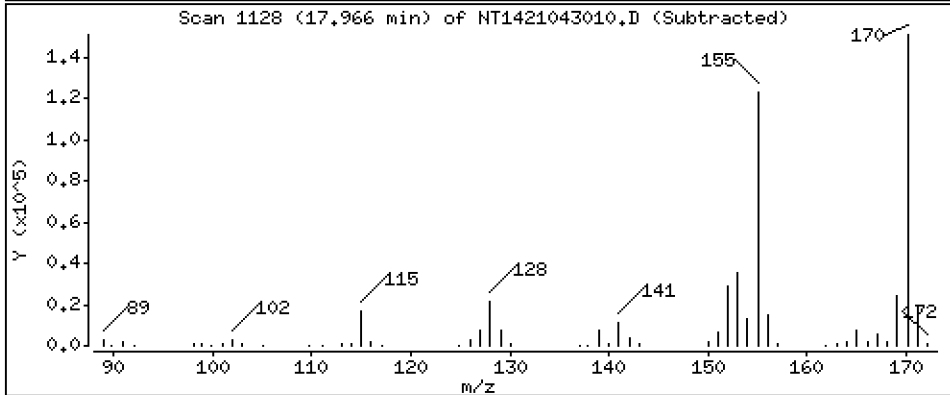
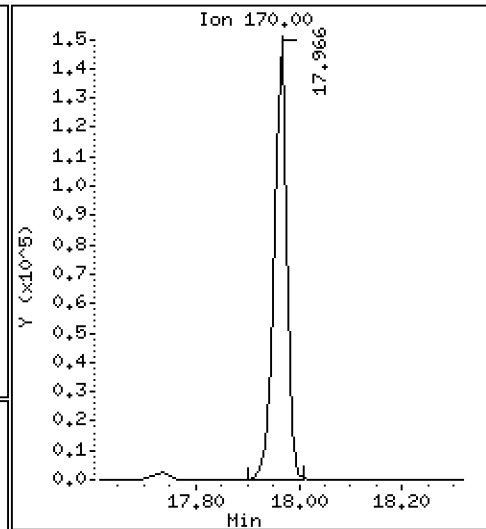
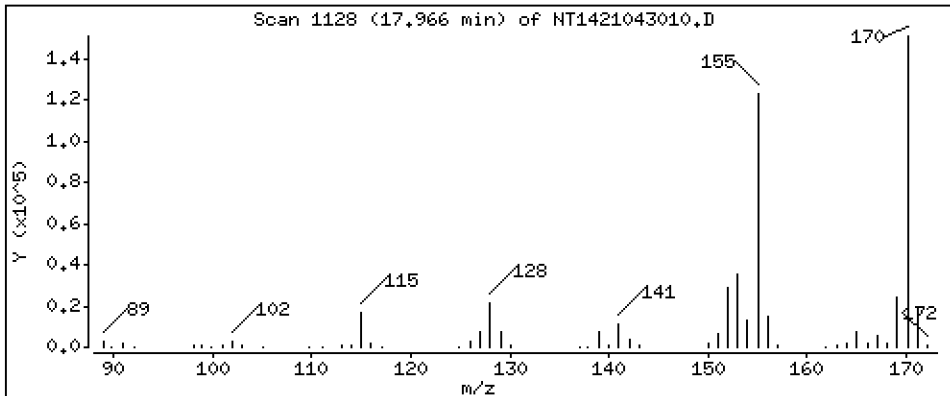
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

24 1,6,7-Trimethylnaphthalene

Concentration: 2,923 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

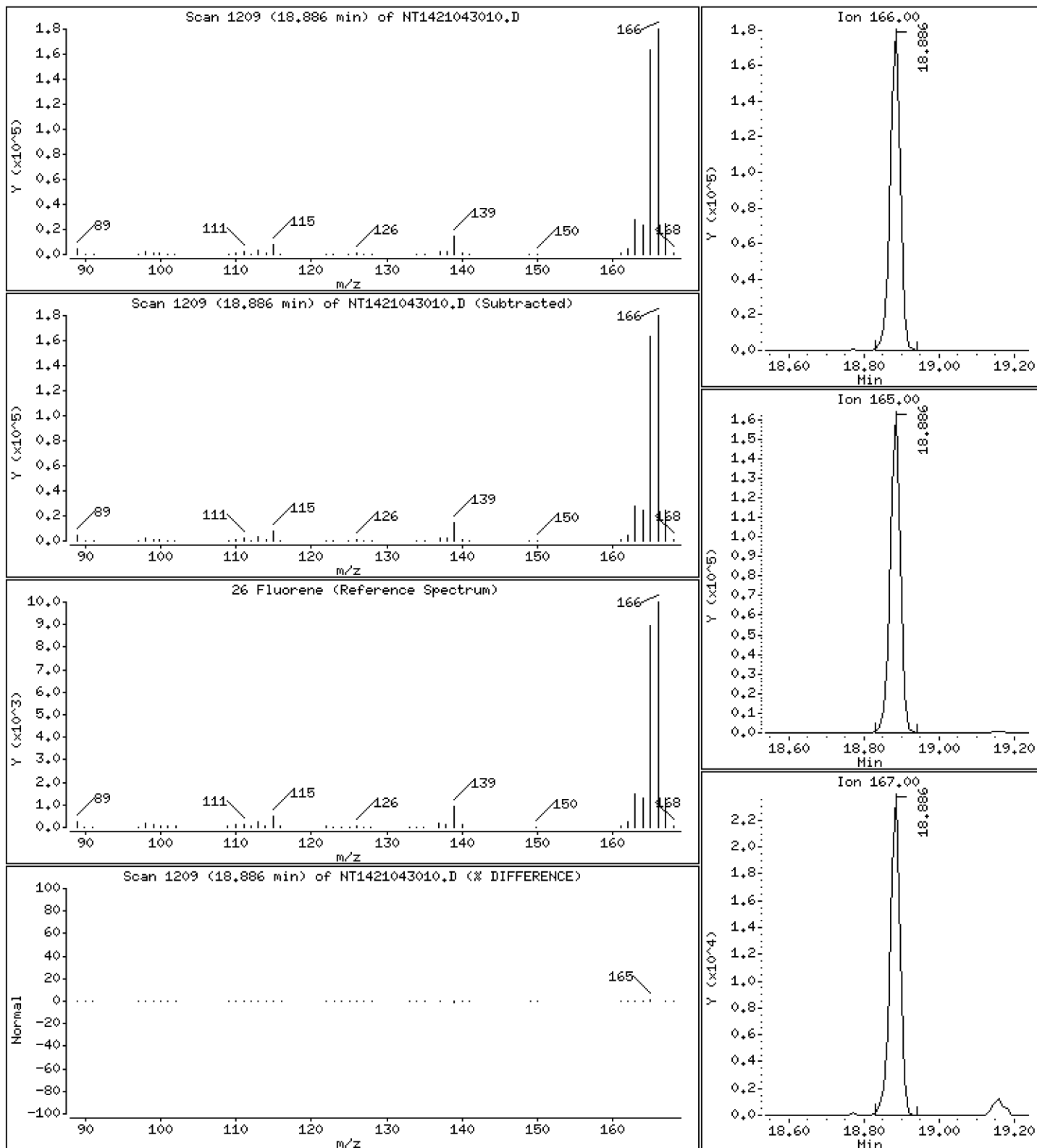
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Fluorene

Concentration: 2,844 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

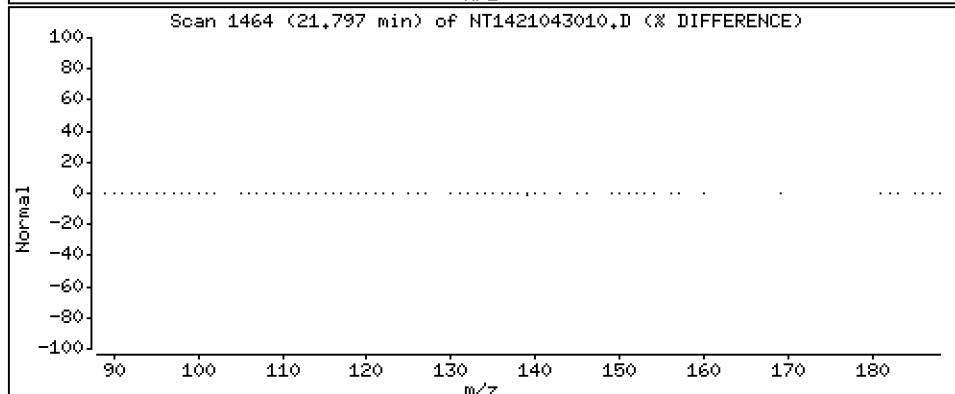
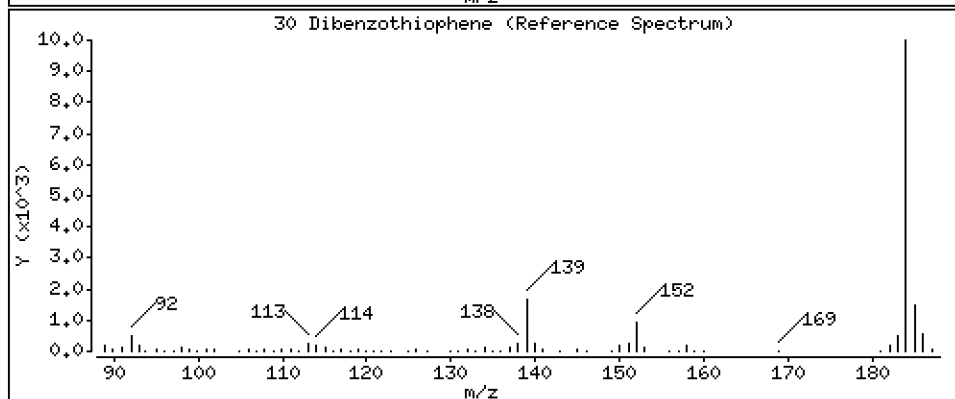
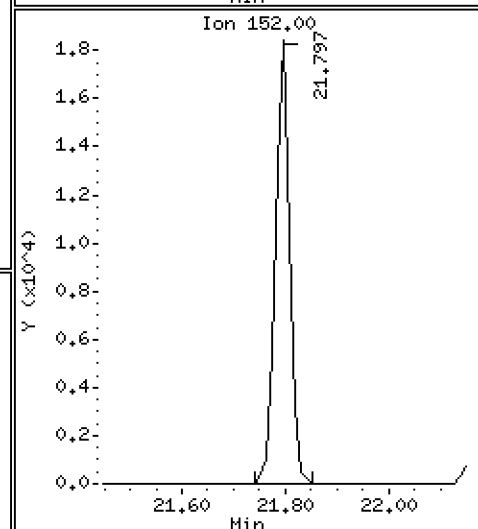
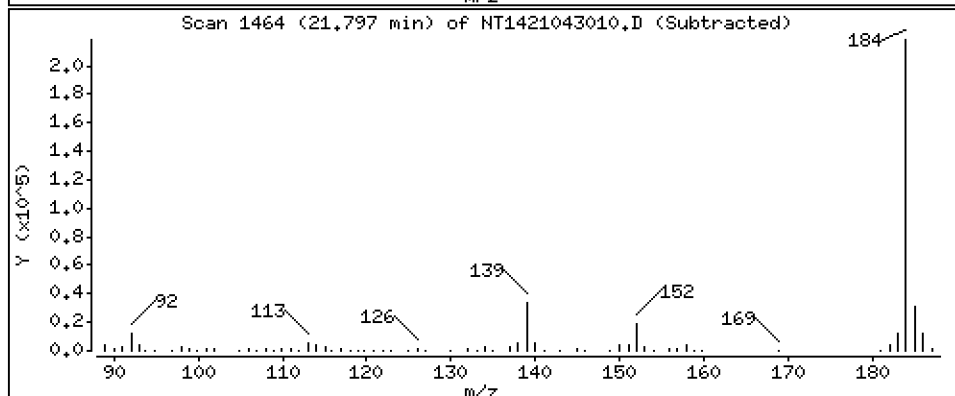
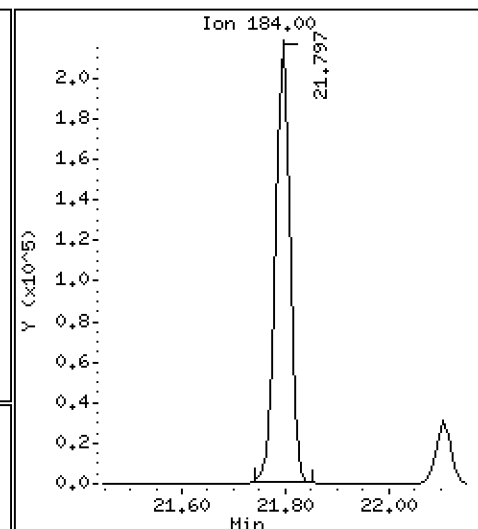
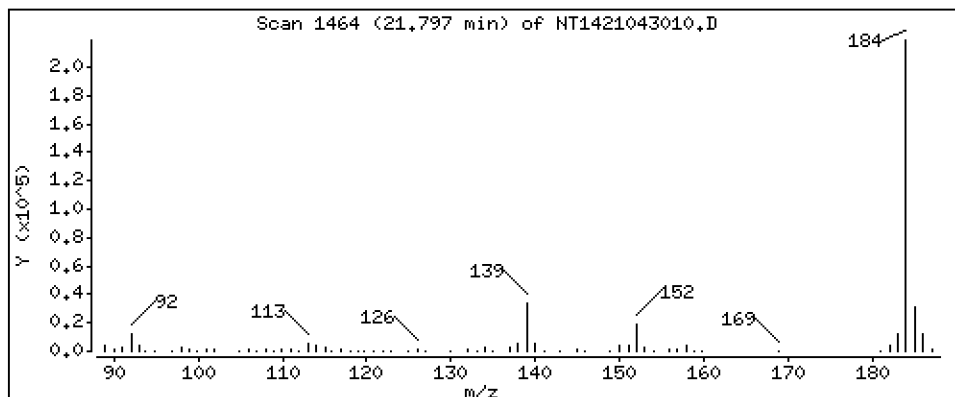
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Dibenzothiophene

Concentration: 2,782 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

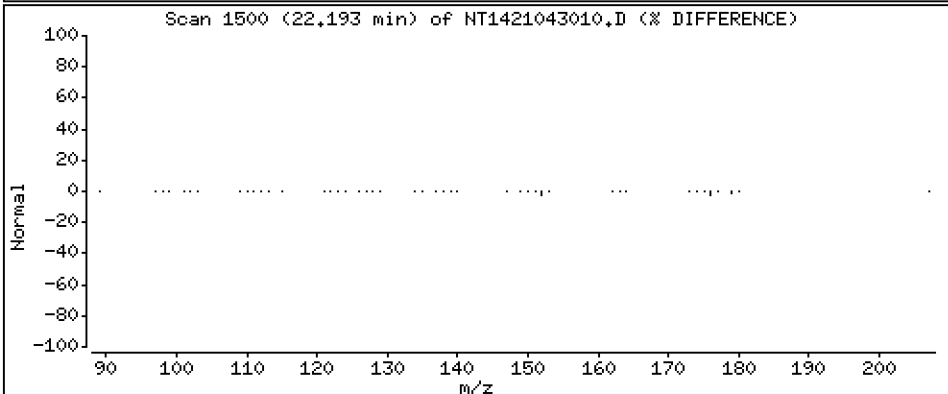
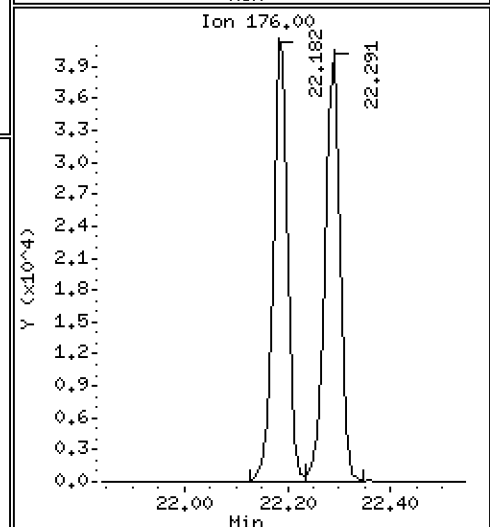
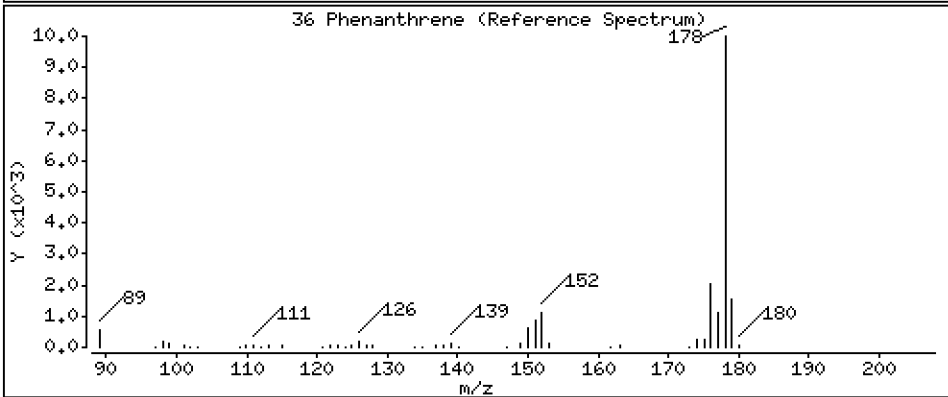
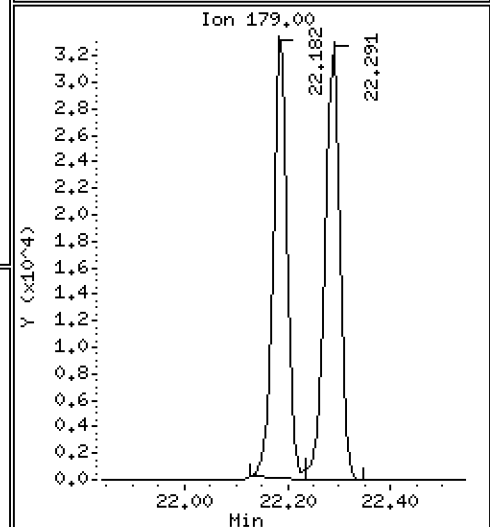
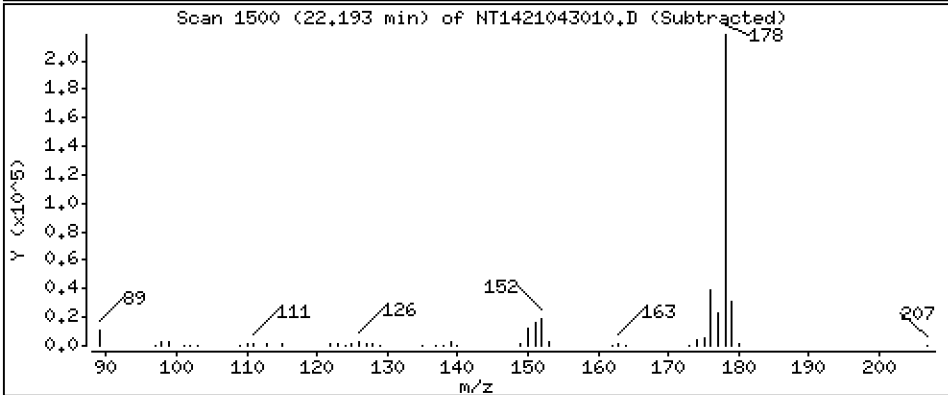
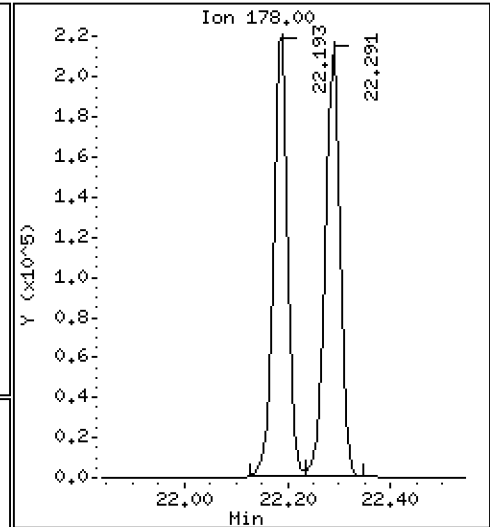
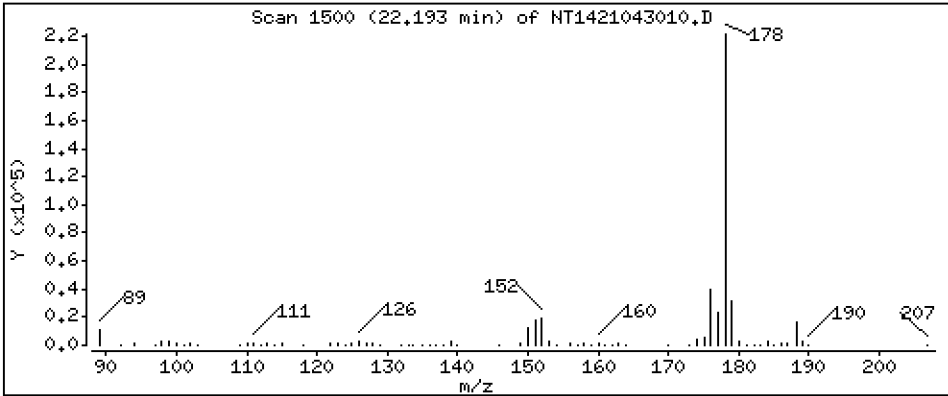
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

36 Phenanthrene

Concentration: 2,468 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

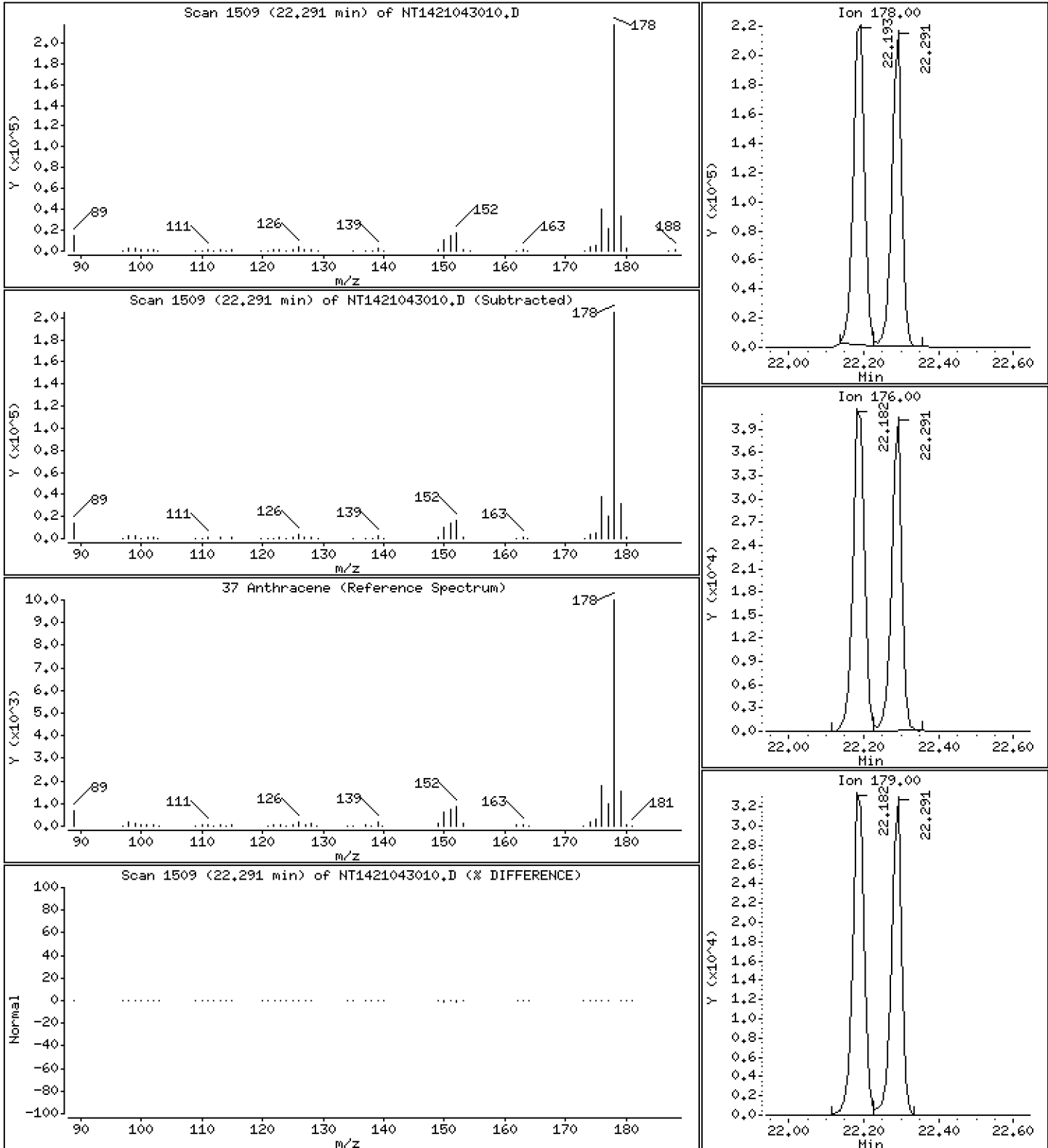
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

37 Anthracene

Concentration: 2,492 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

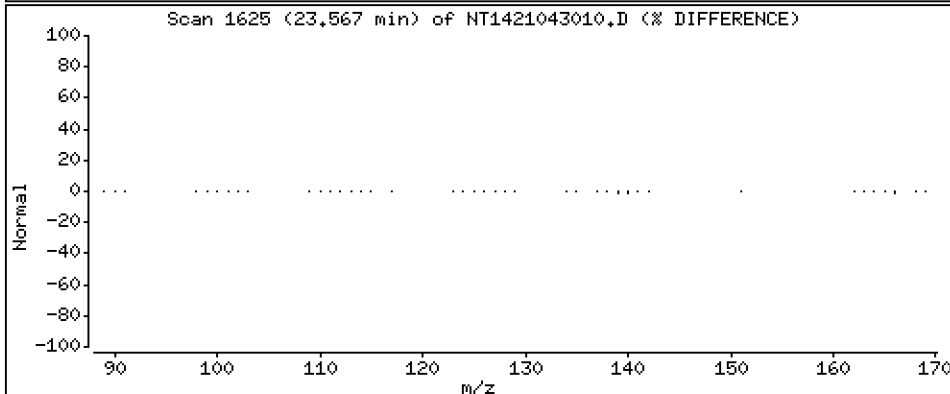
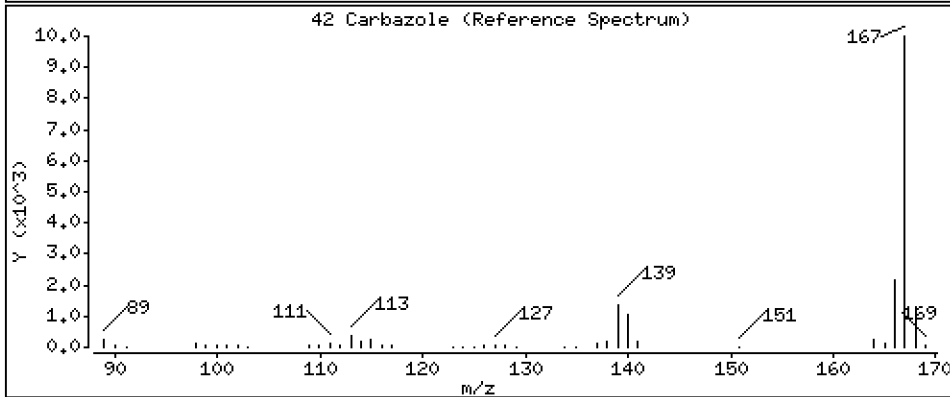
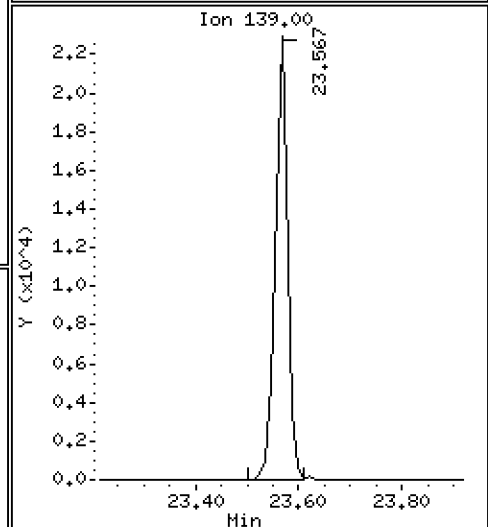
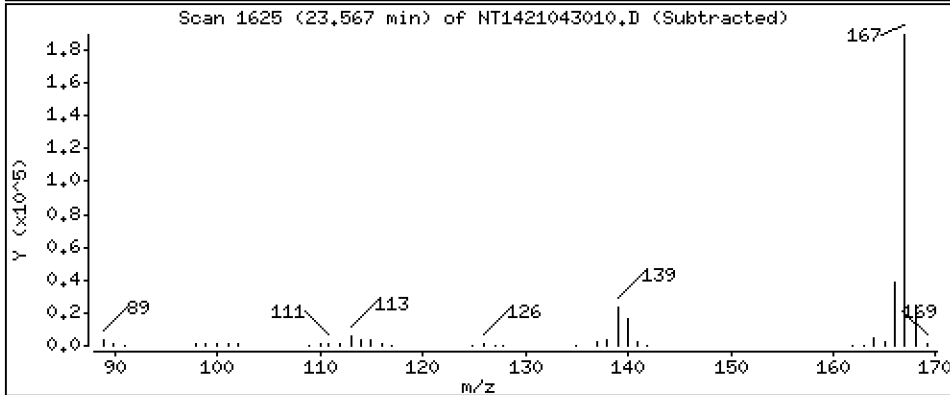
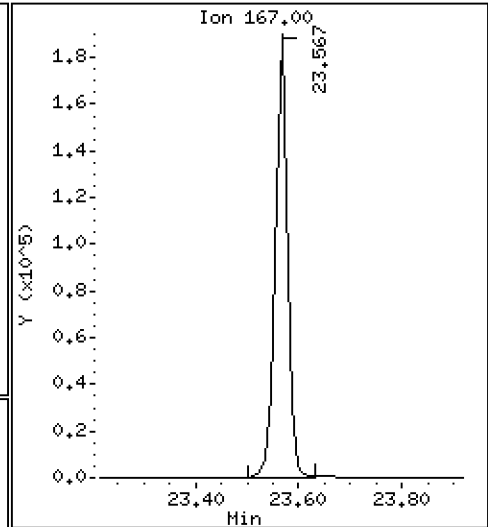
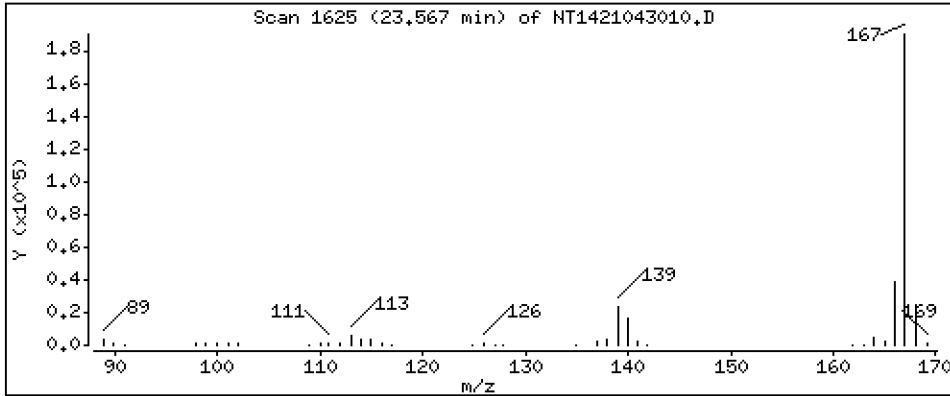
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

42 Carbazole

Concentration: 2,343 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

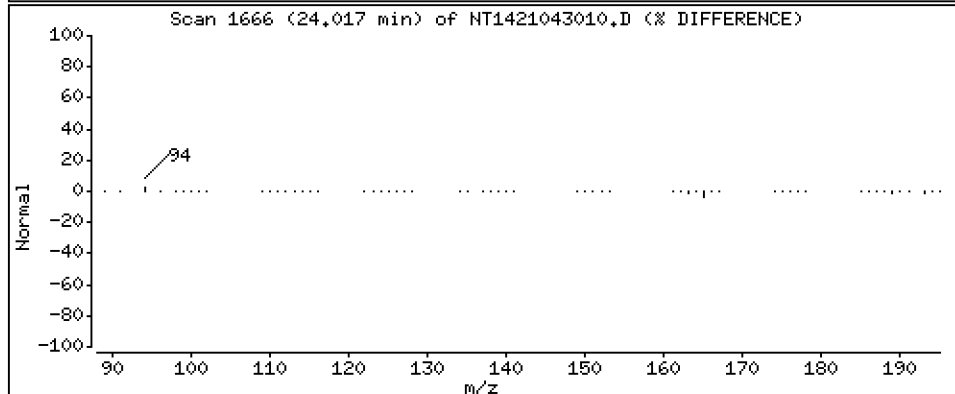
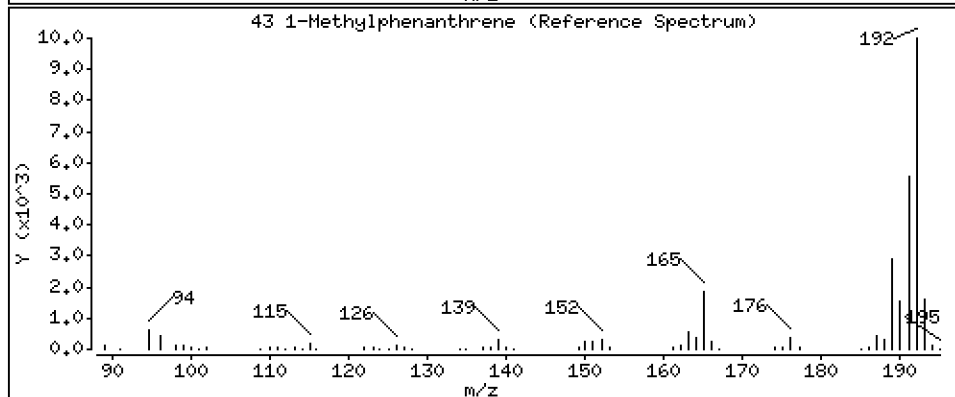
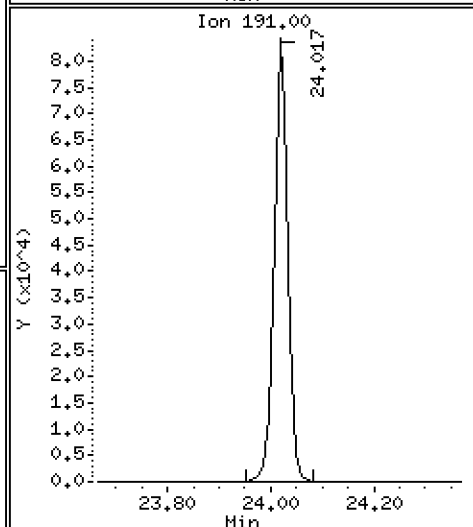
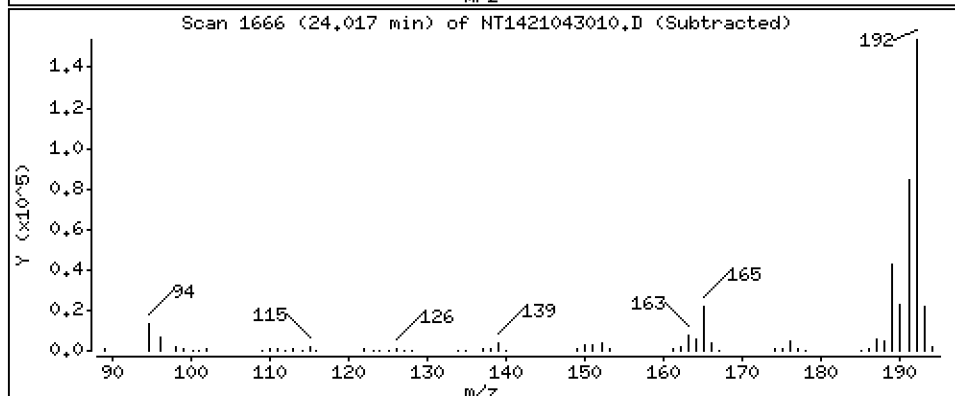
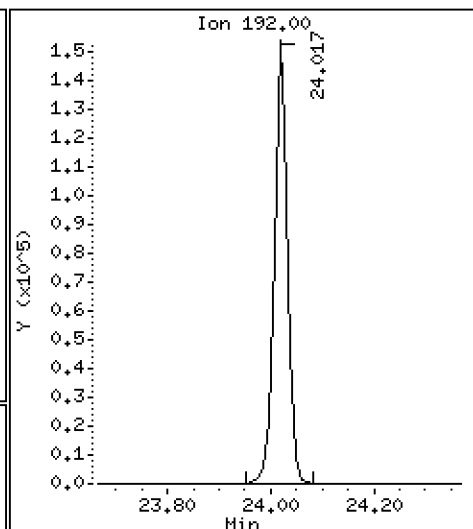
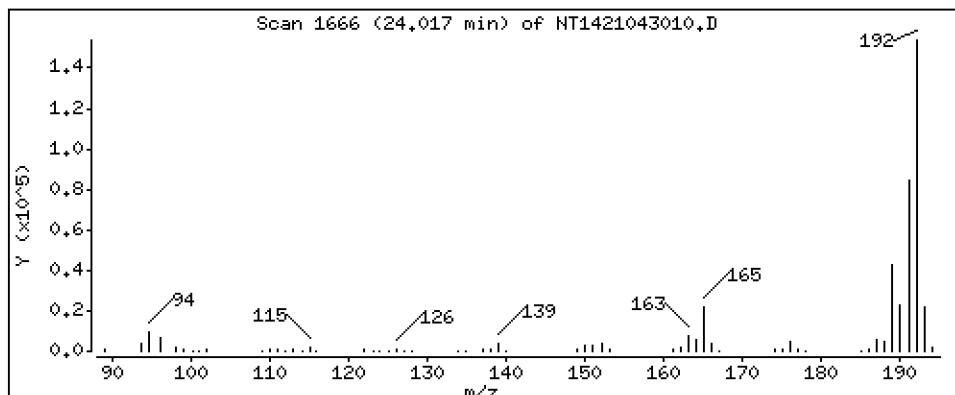
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

43 1-Methylphenanthrene

Concentration: 2,594 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

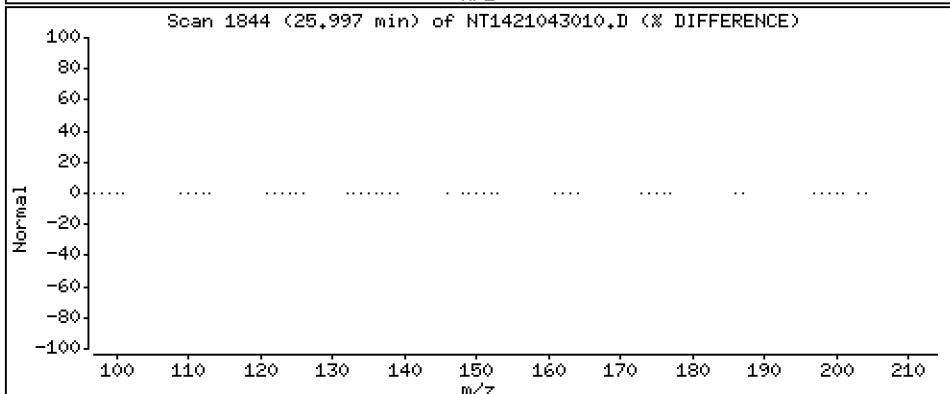
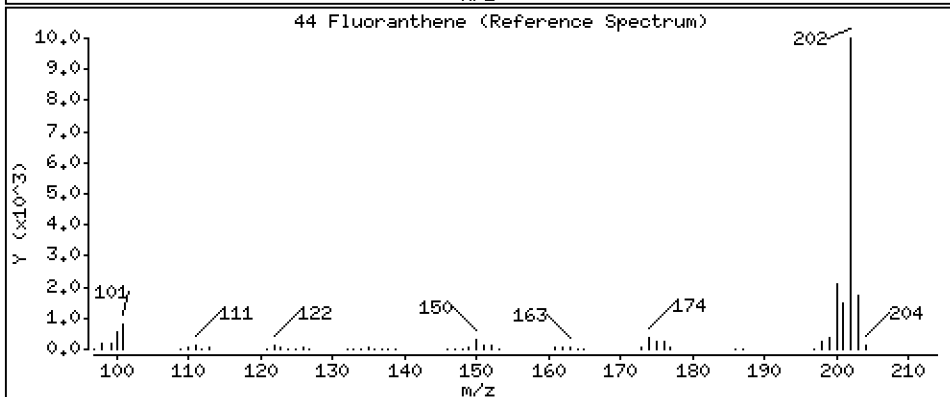
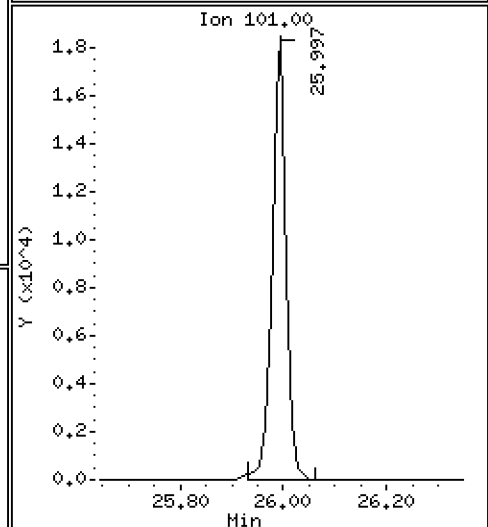
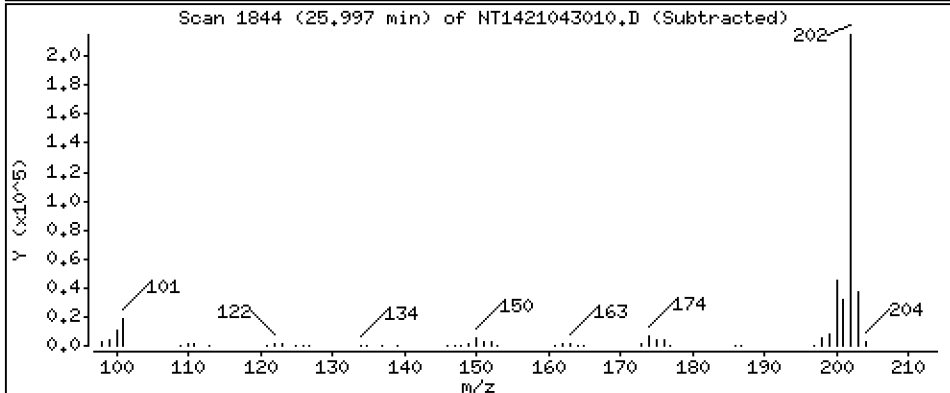
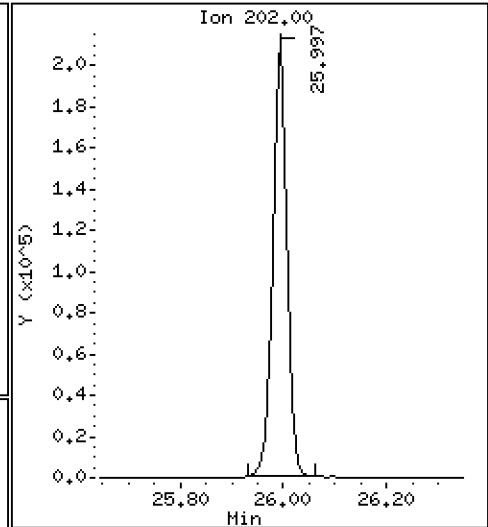
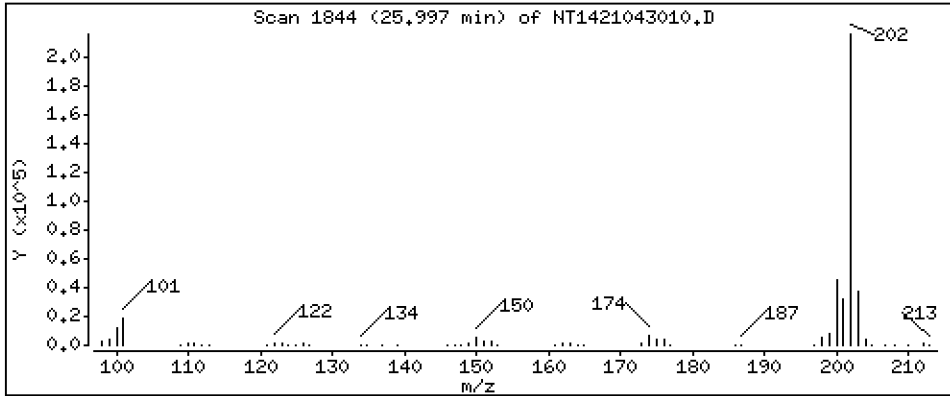
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

44 Fluoranthene

Concentration: 2,634 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

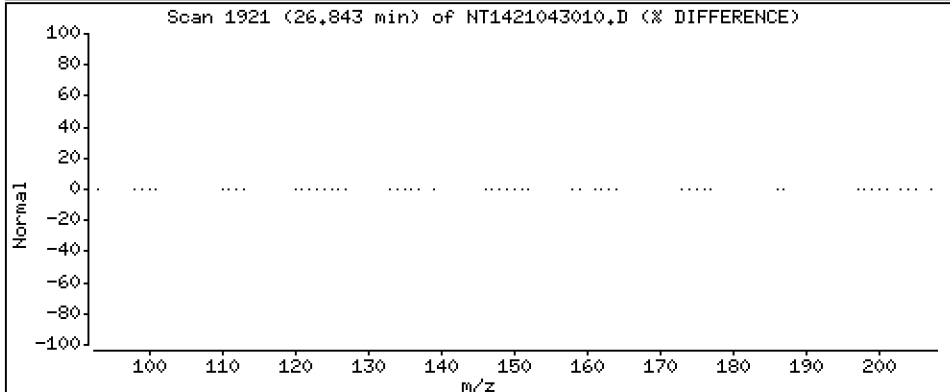
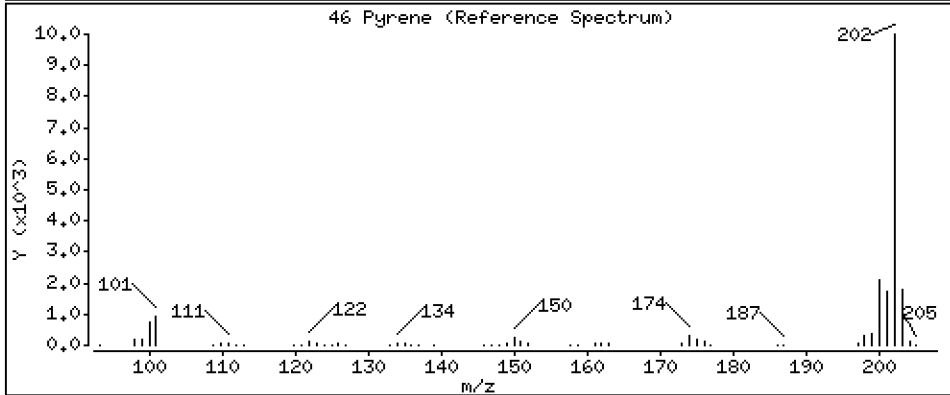
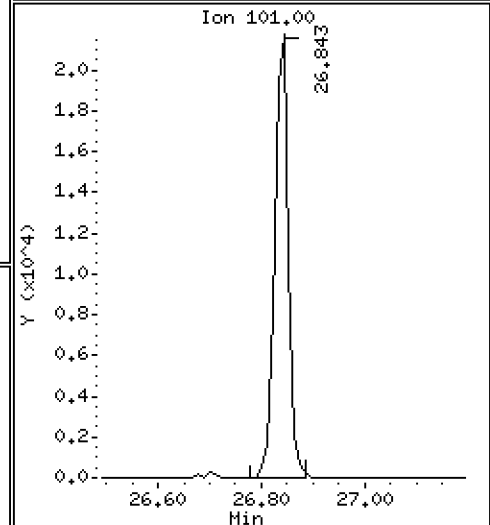
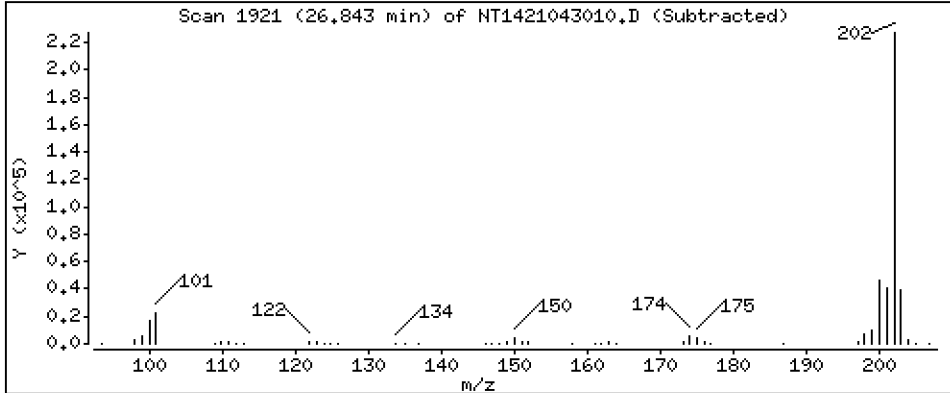
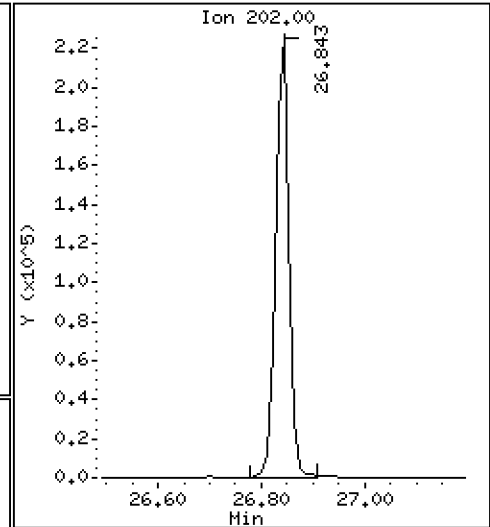
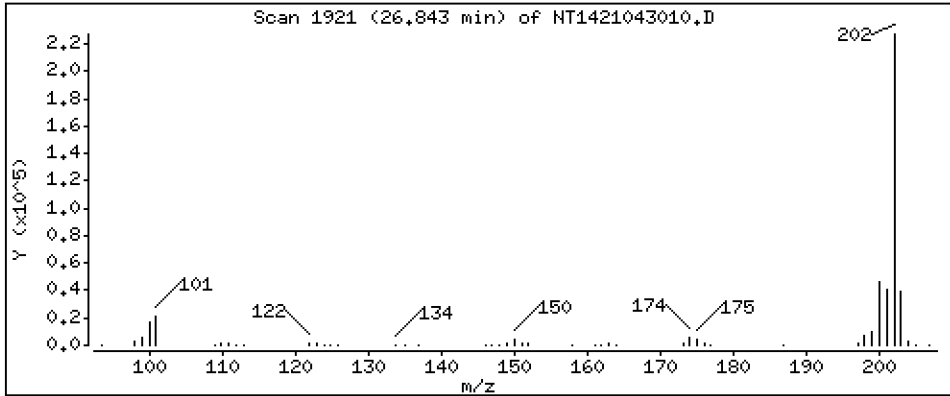
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

46 Pyrene

Concentration: 2,527 ug/mL



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Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

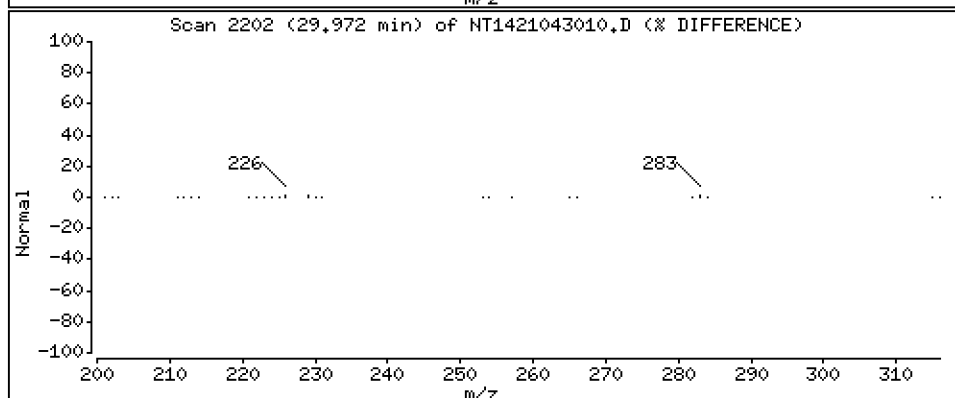
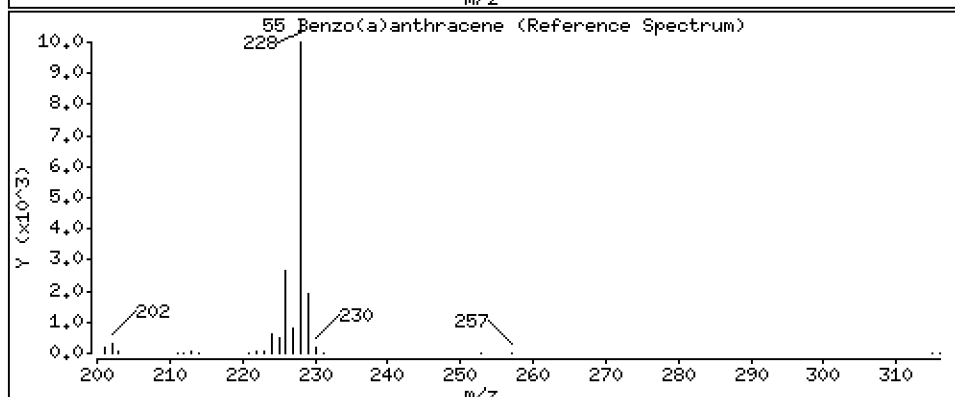
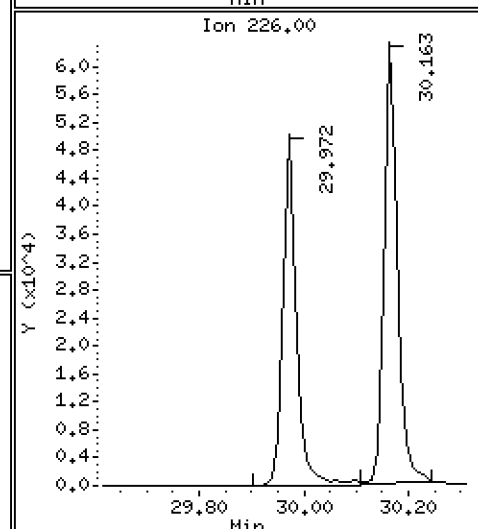
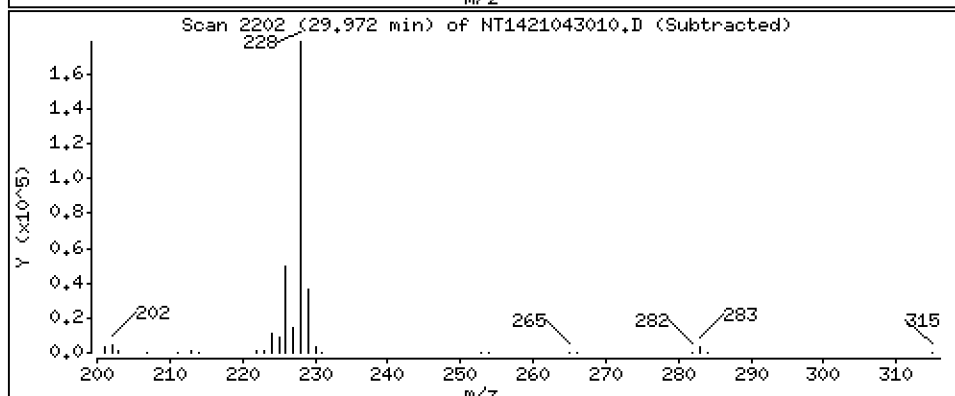
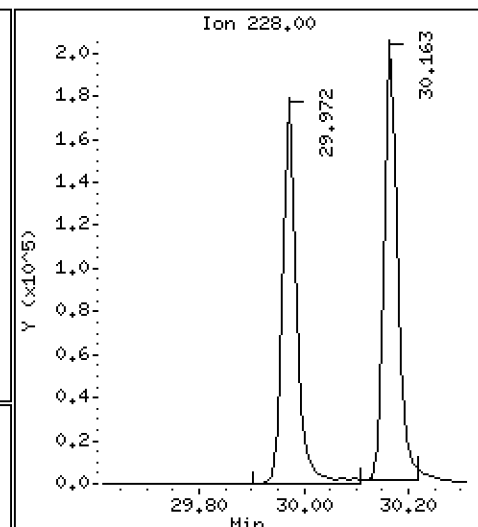
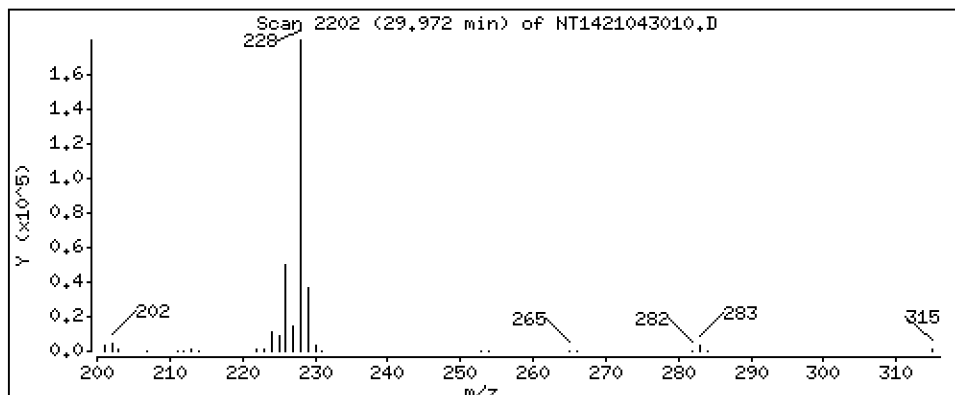
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

55 Benzo(a)anthracene

Concentration: 2,278 ug/mL



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Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

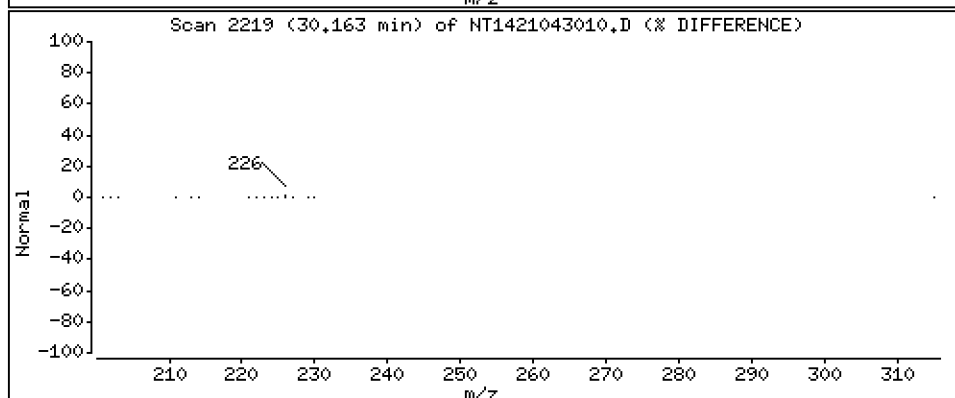
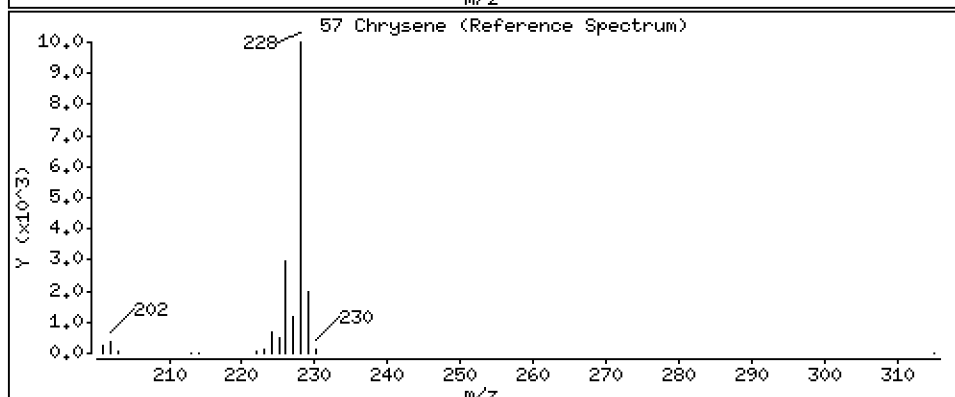
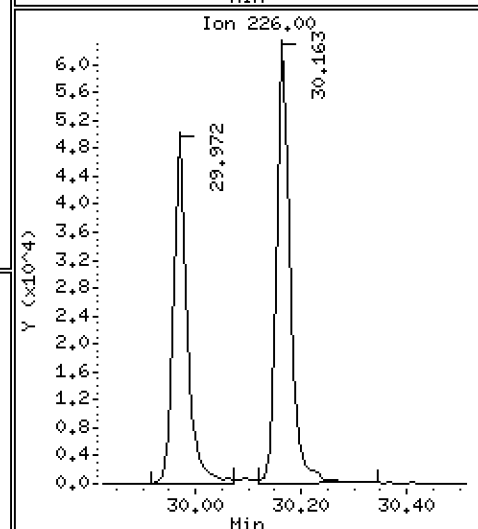
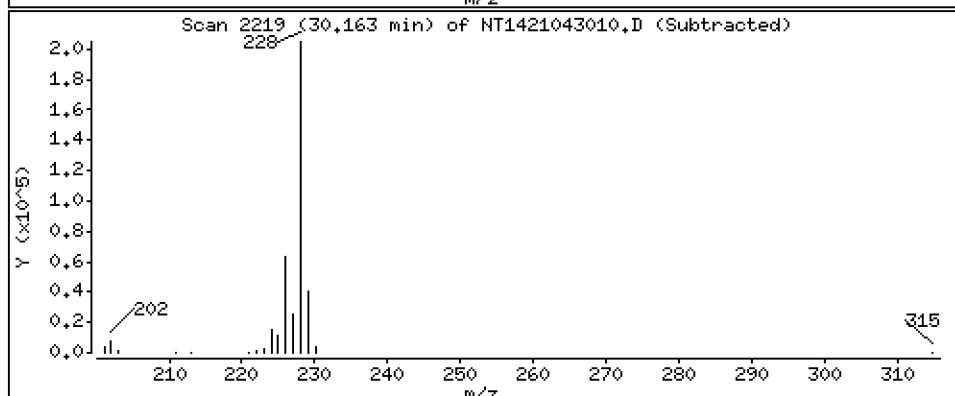
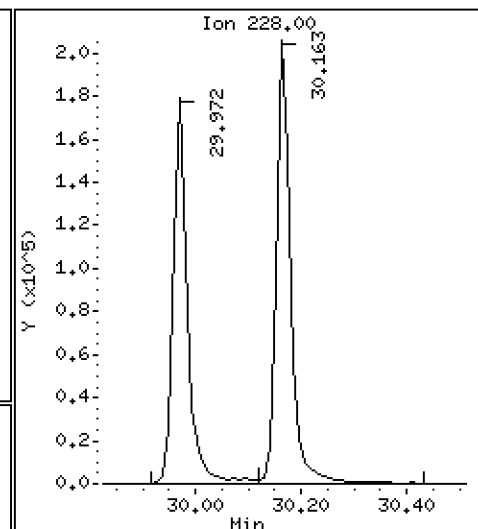
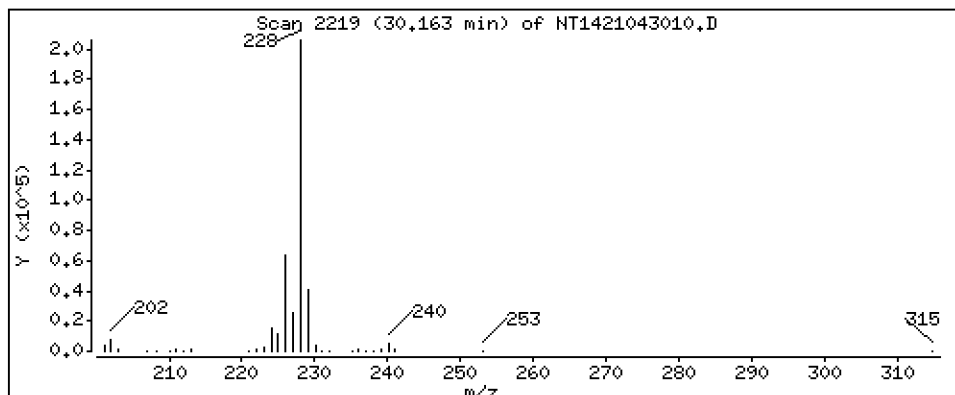
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

57 Chrysene

Concentration: 2,574 ug/mL



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Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

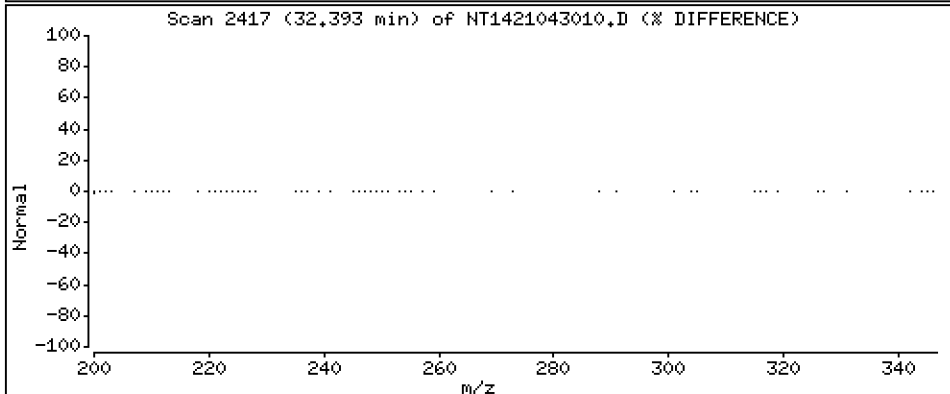
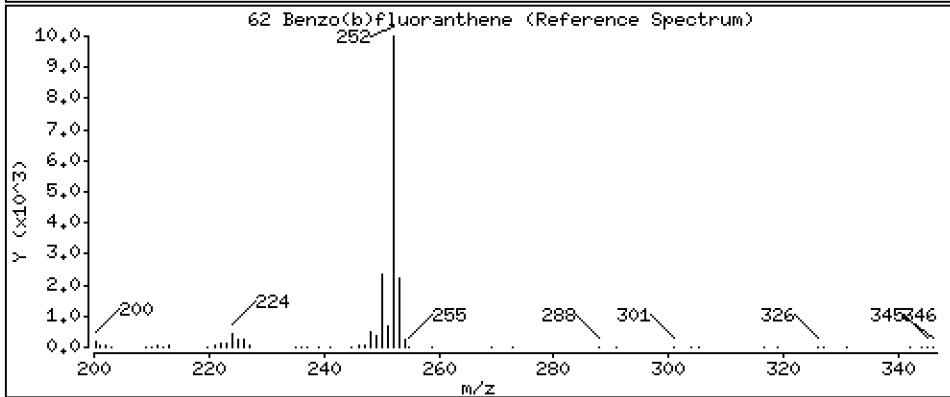
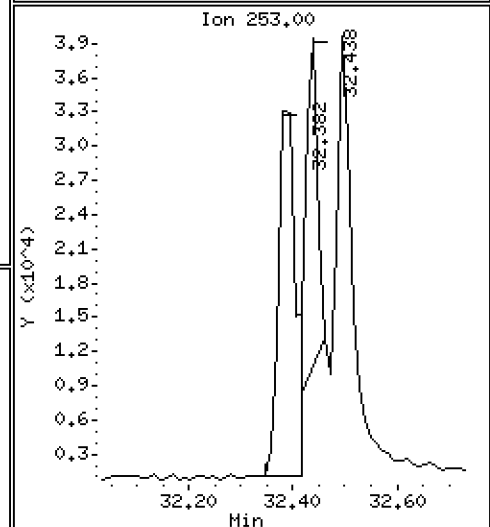
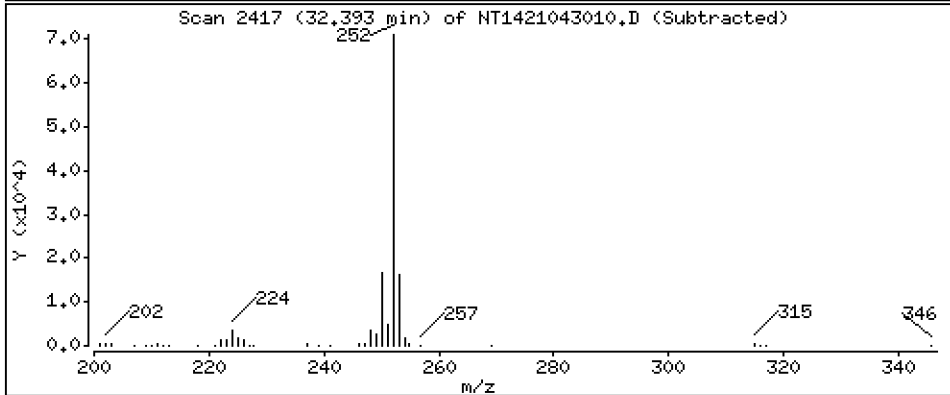
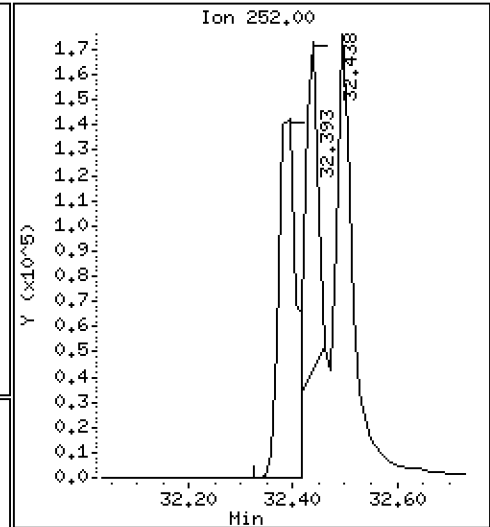
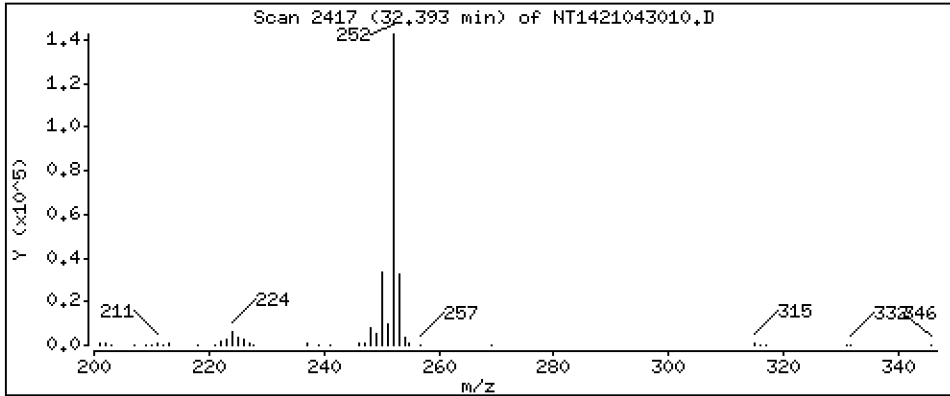
Operator: VTS

Column phase: Rxi-17Si1 MS

Column diameter: 0,25

62 Benzo(b)fluoranthene

Concentration: 2,326 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

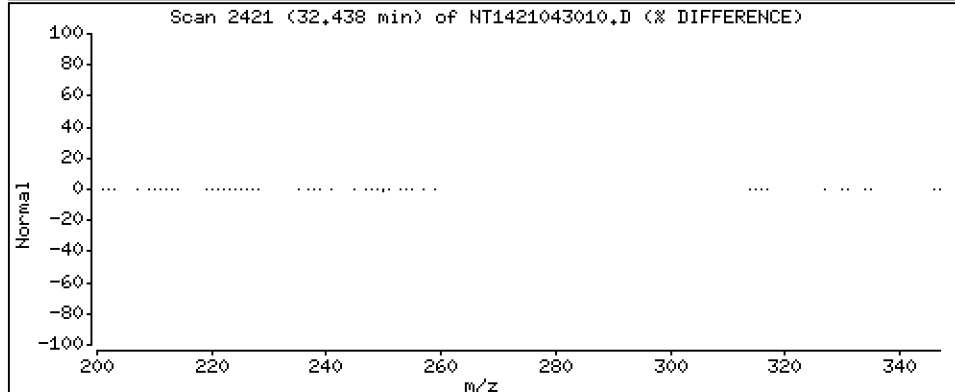
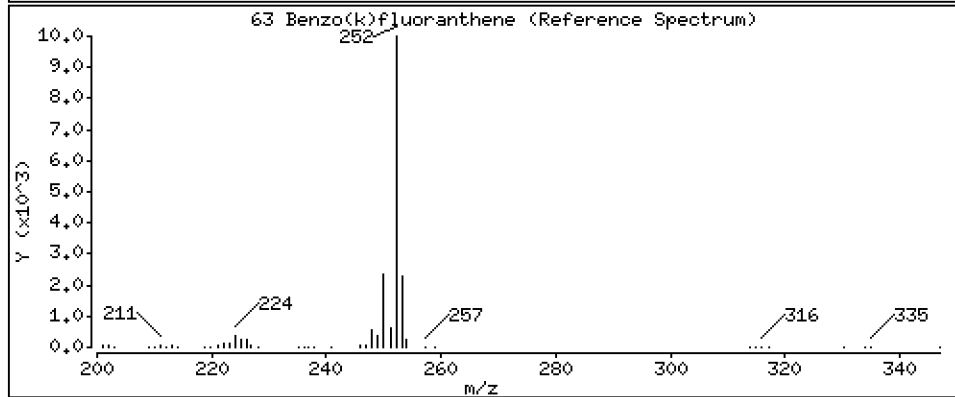
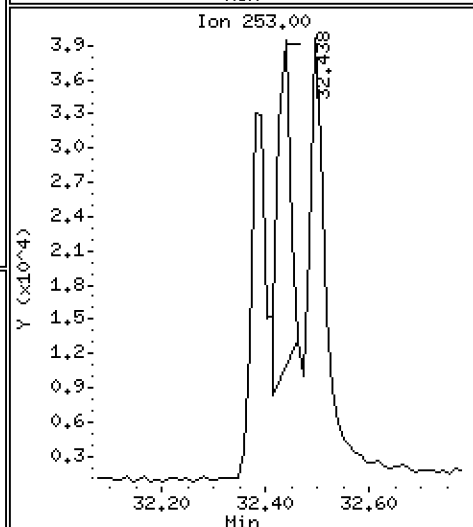
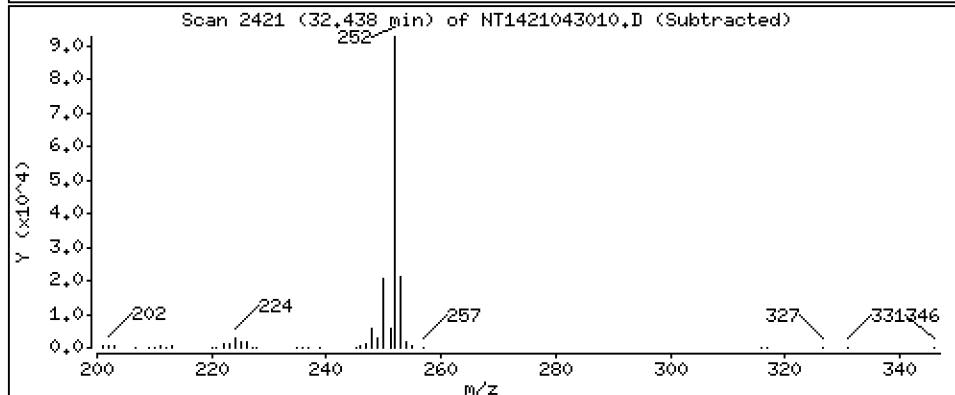
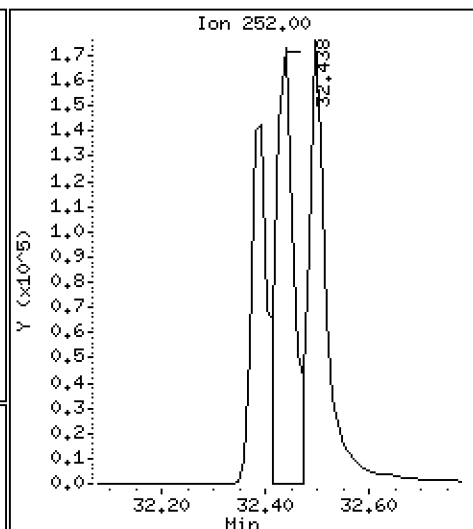
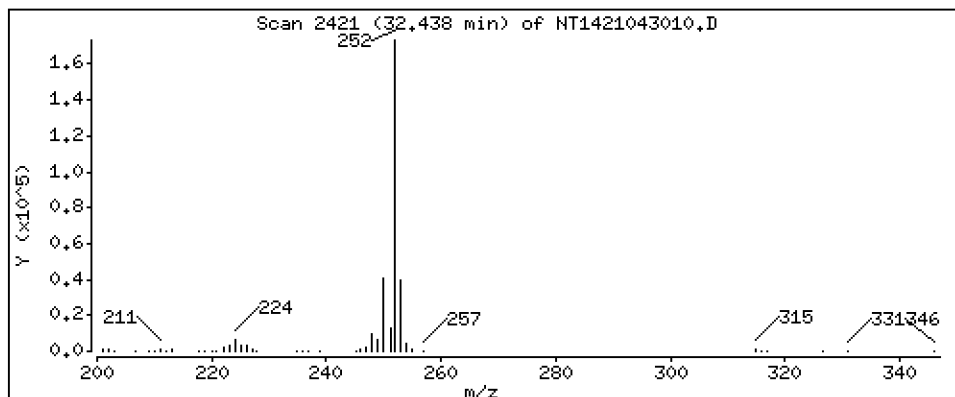
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

63 Benzo(k)fluoranthene

Concentration: 2,304 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

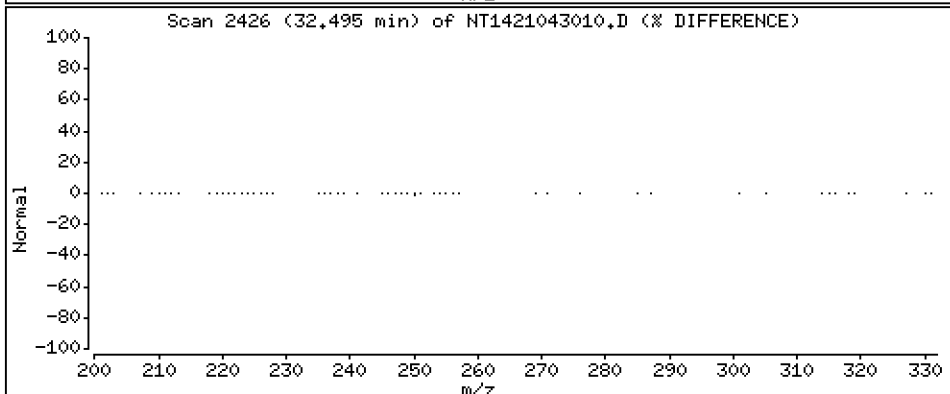
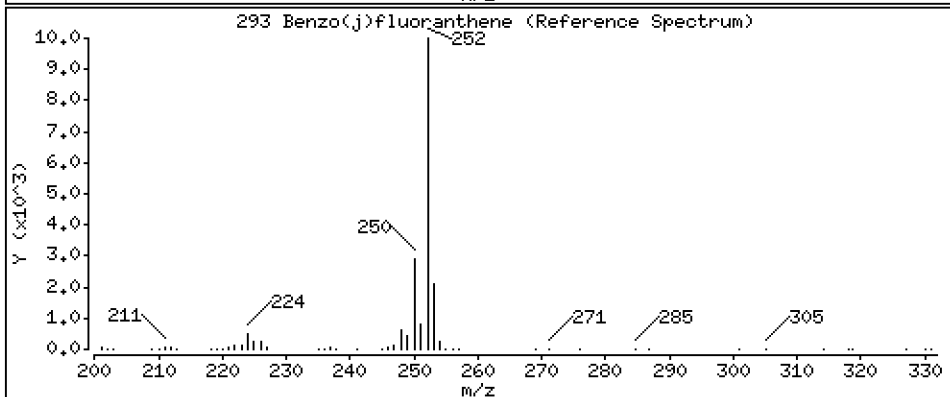
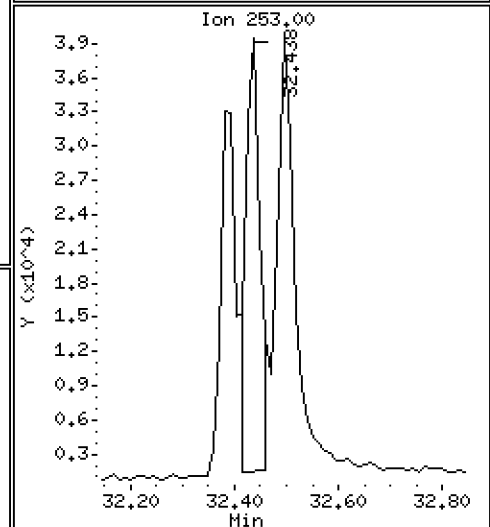
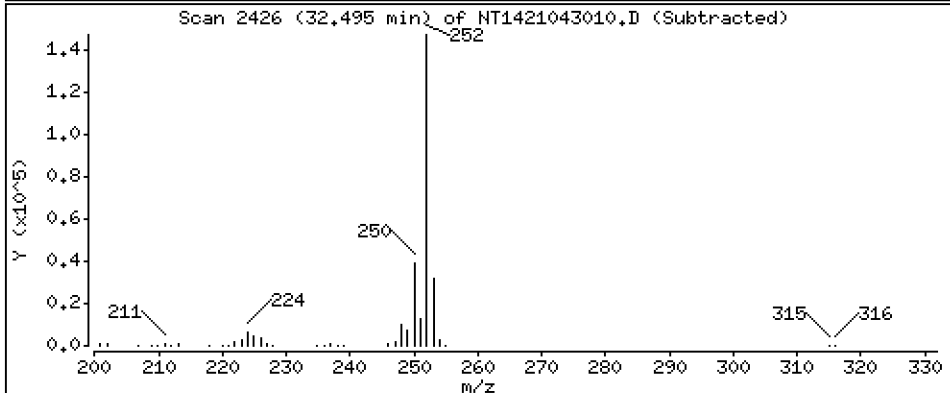
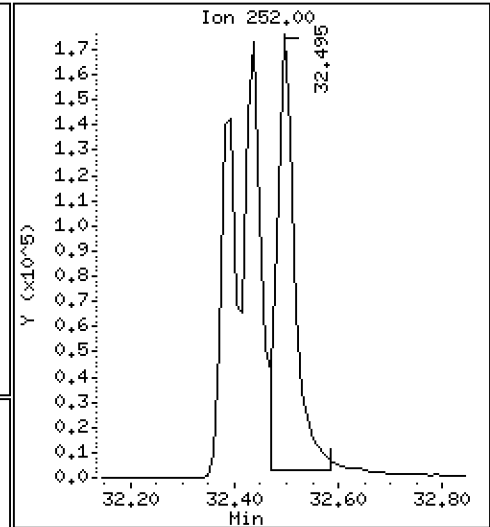
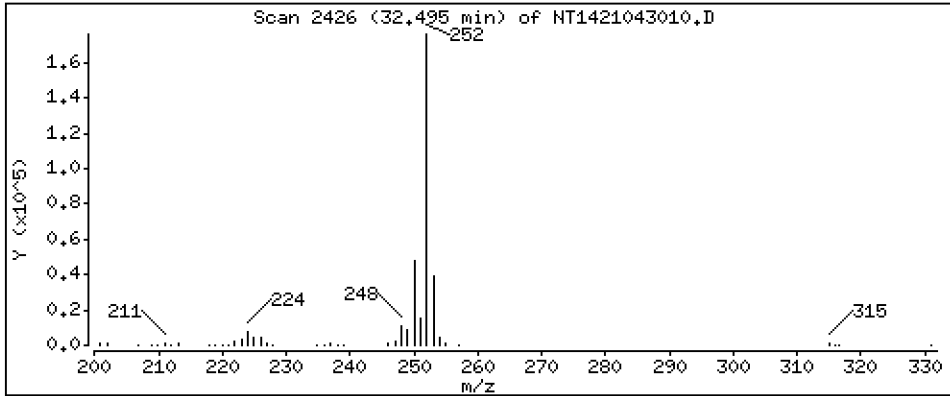
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

293 Benzo(j)fluoranthene

Concentration: 2,516 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

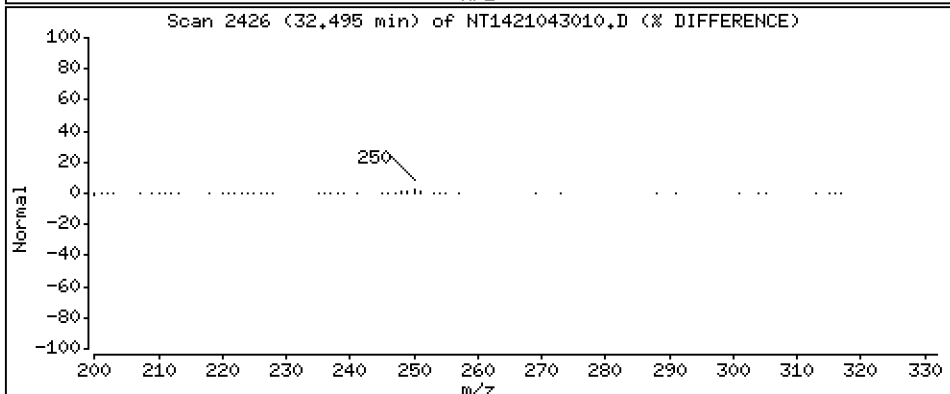
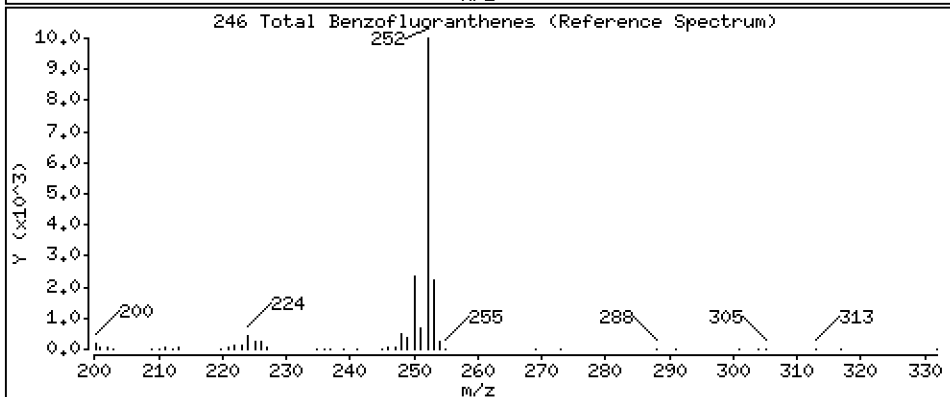
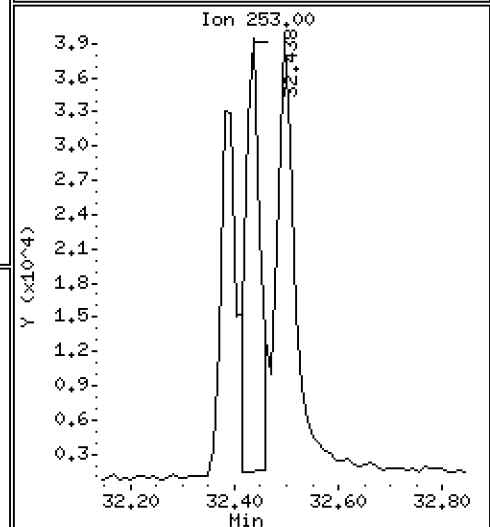
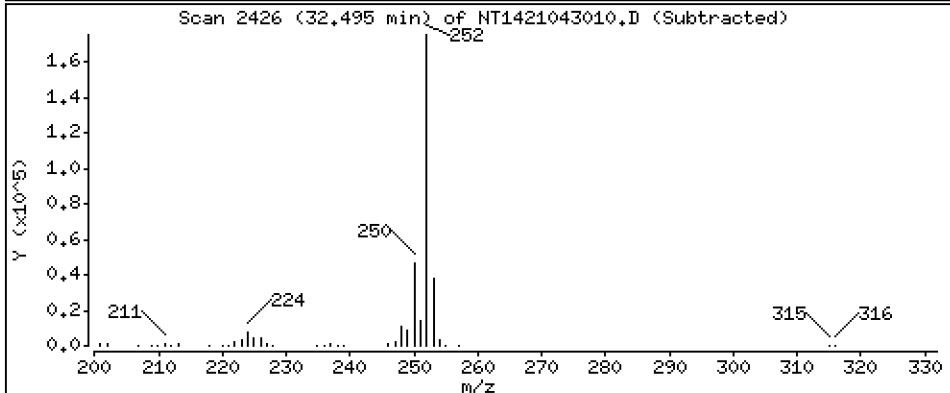
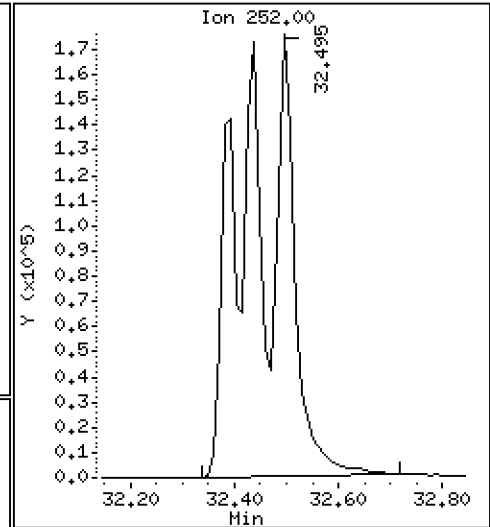
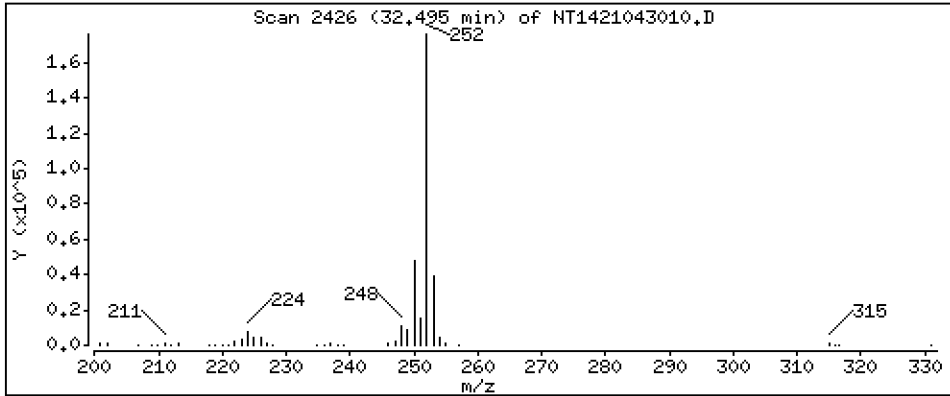
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

246 Total Benzofluoranthenes

Concentration: 6,960 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

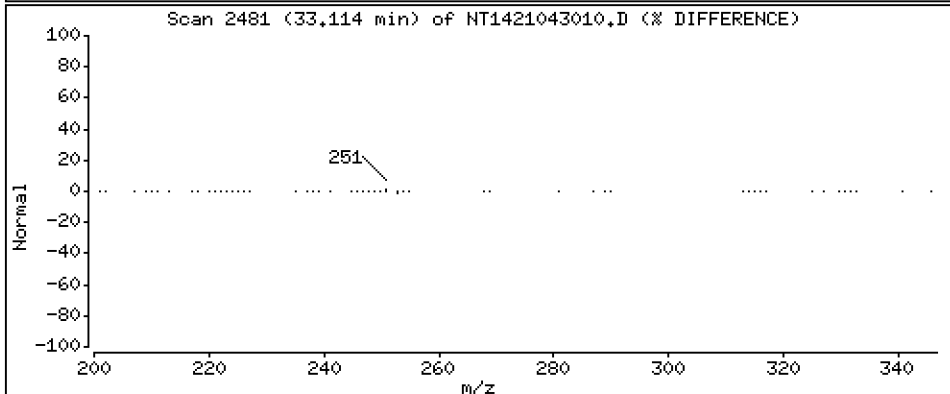
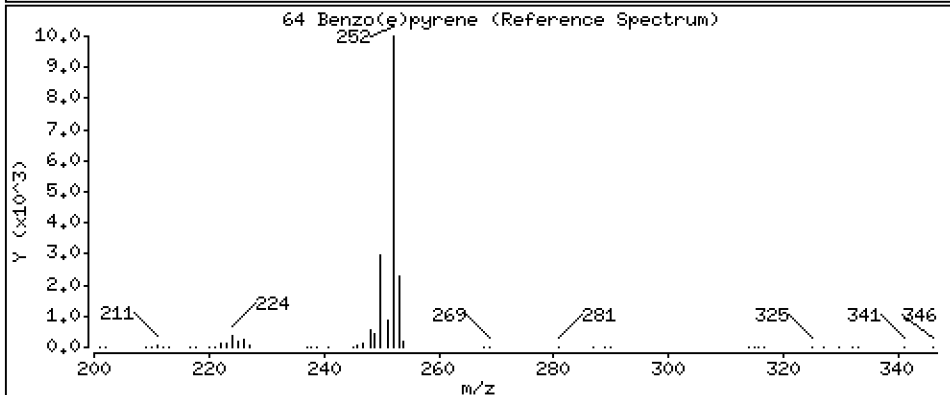
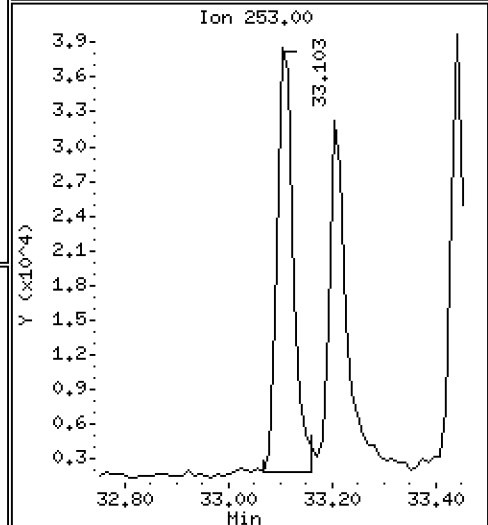
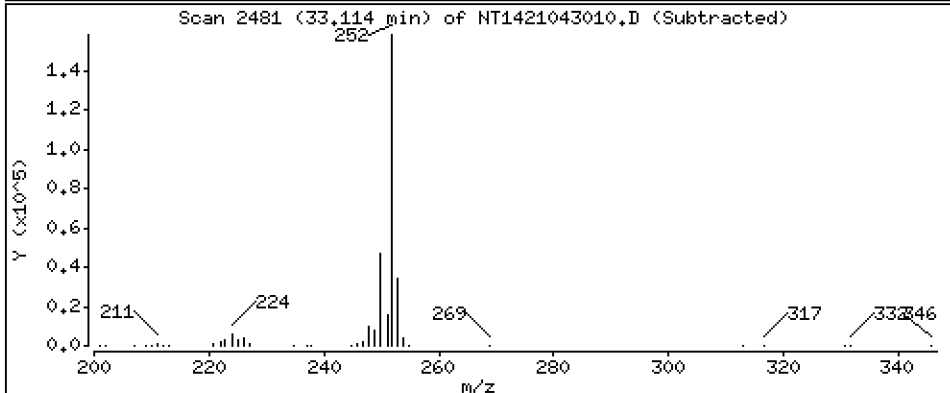
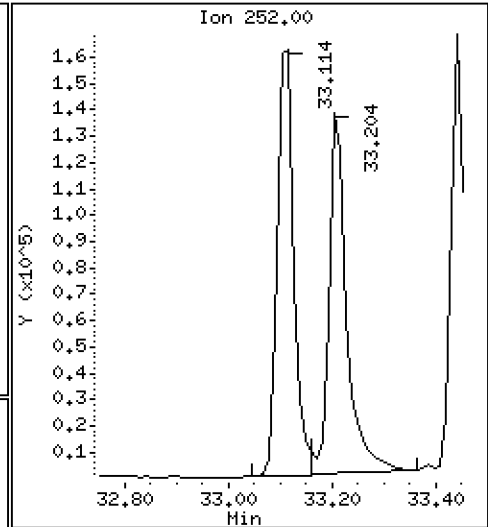
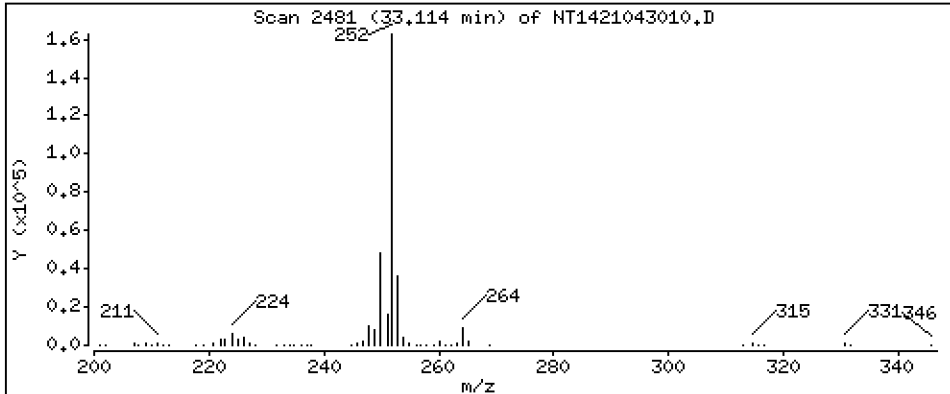
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

64 Benzo(e)pyrene

Concentration: 2,454 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

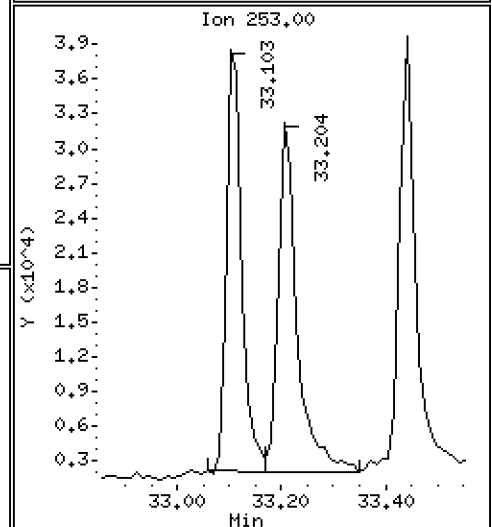
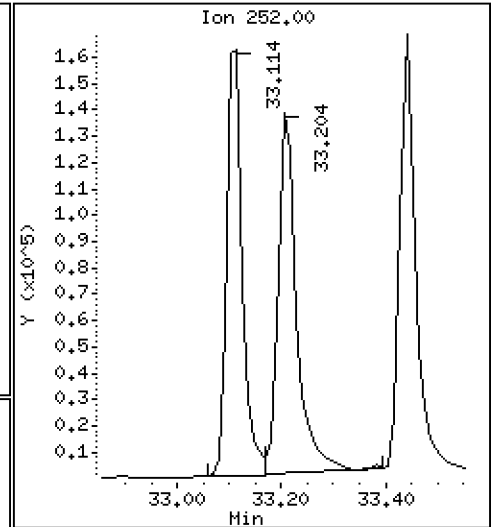
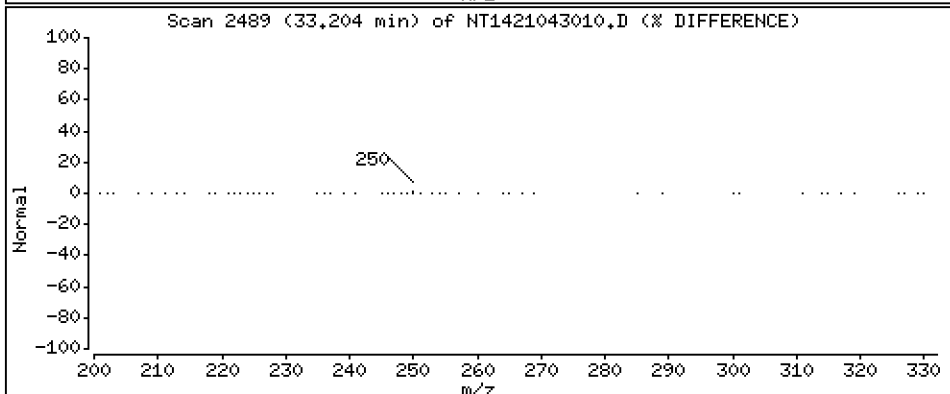
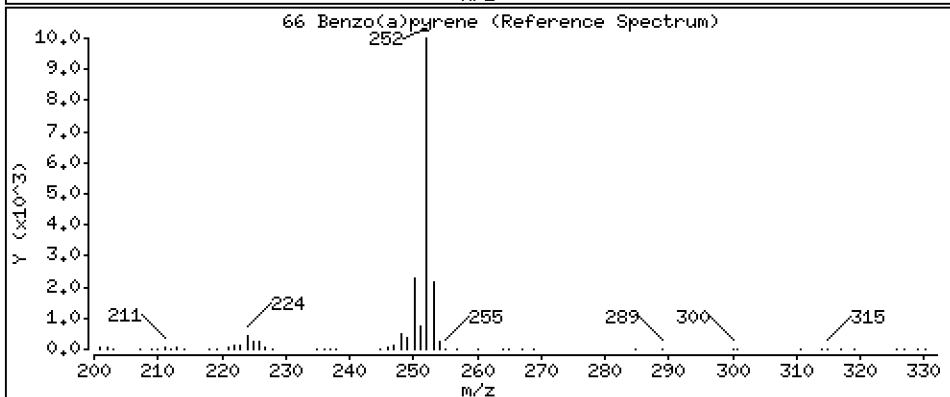
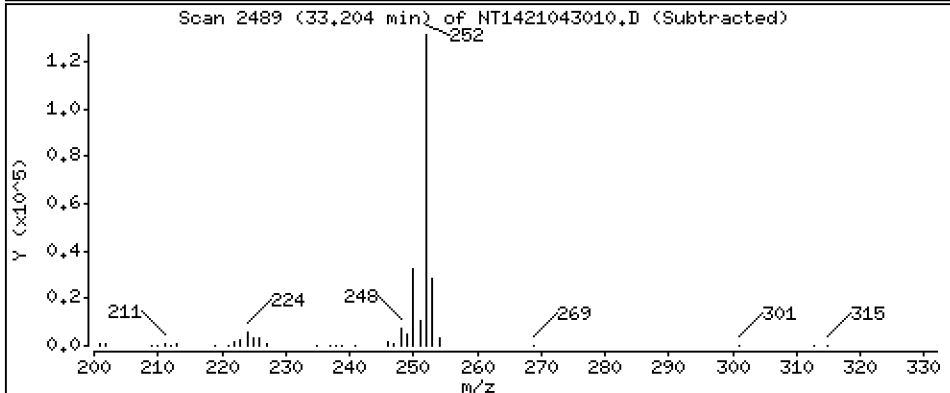
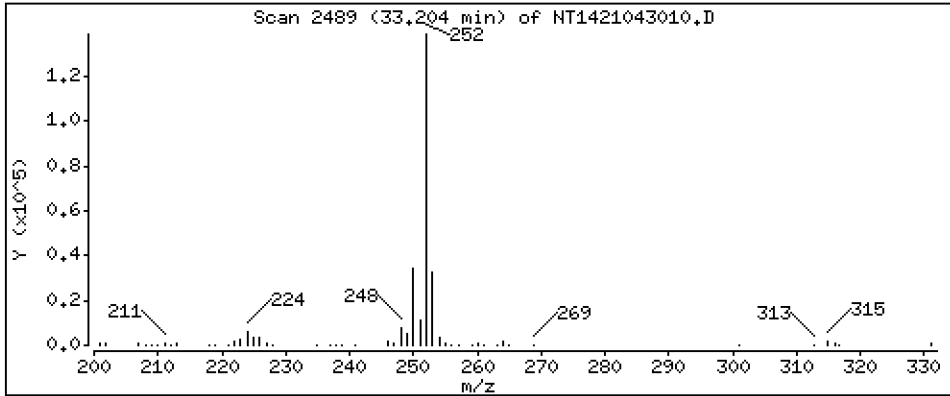
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

66 Benzo(a)pyrene

Concentration: 2,211 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

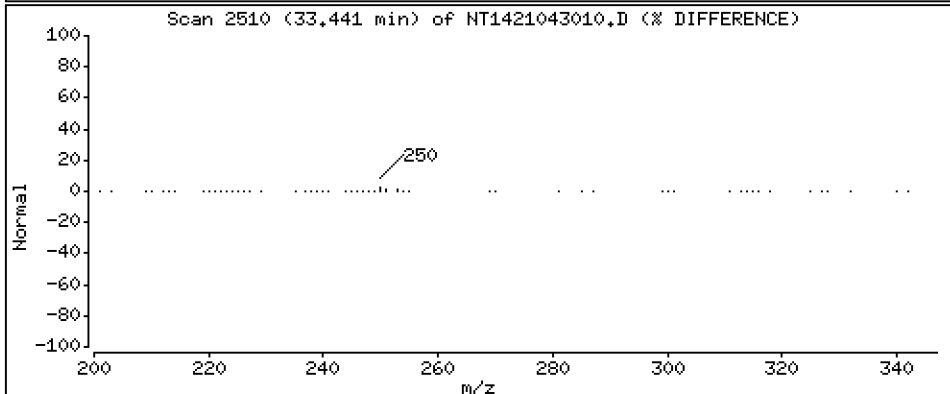
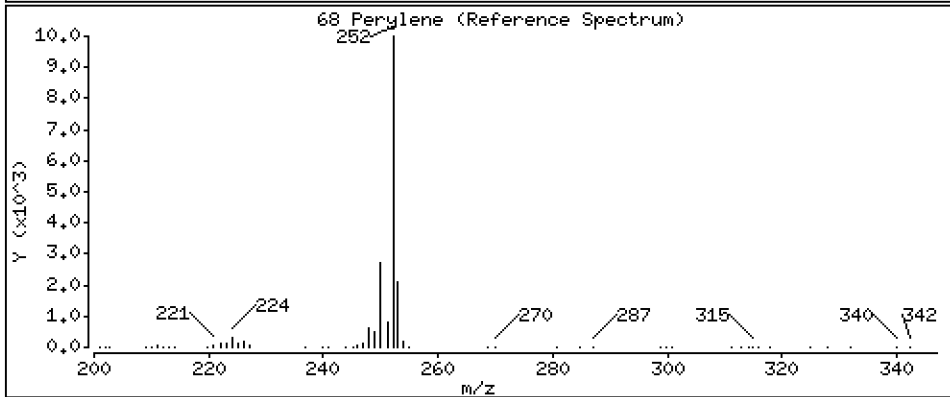
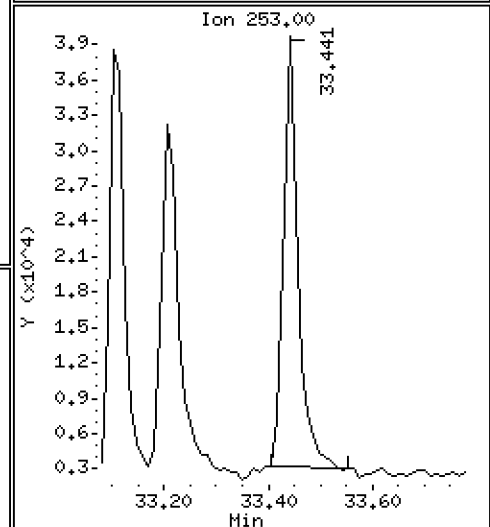
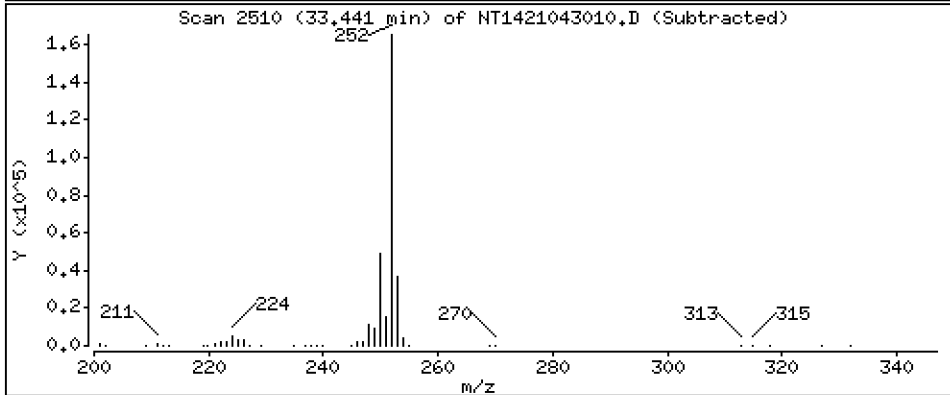
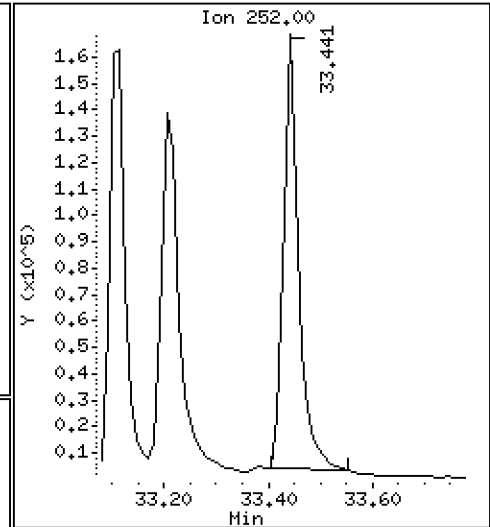
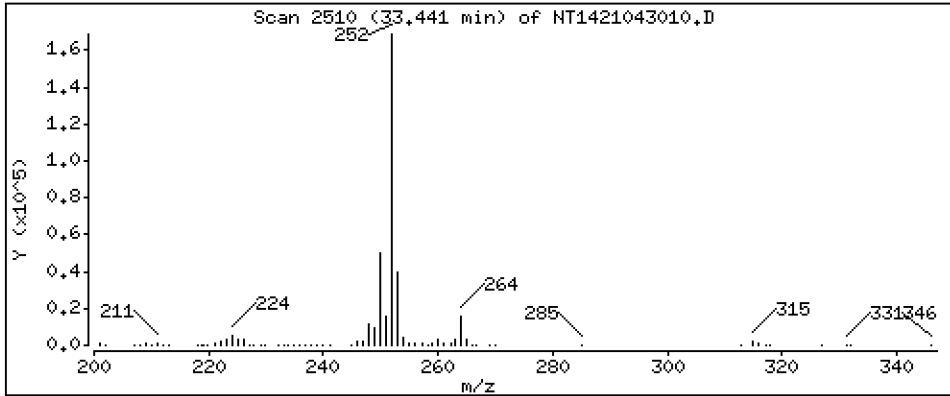
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

68 Perylene

Concentration: 2,415 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

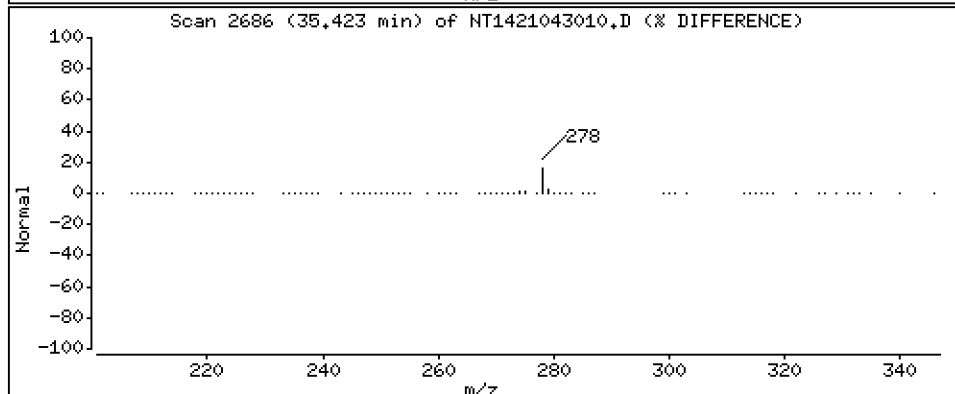
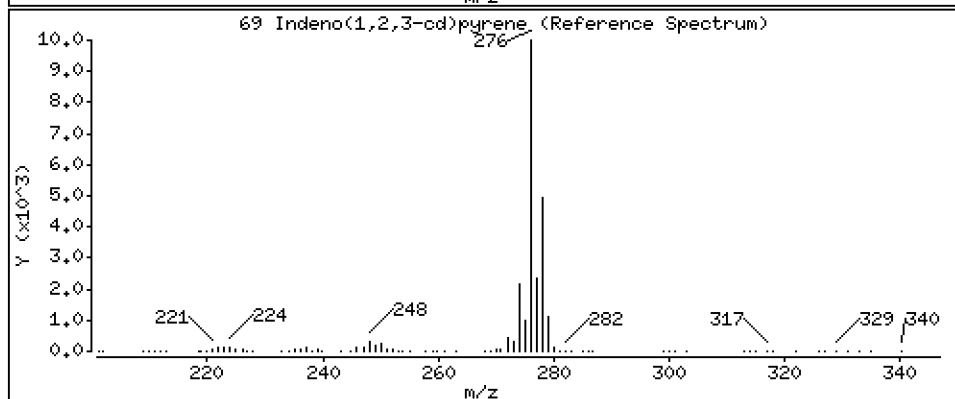
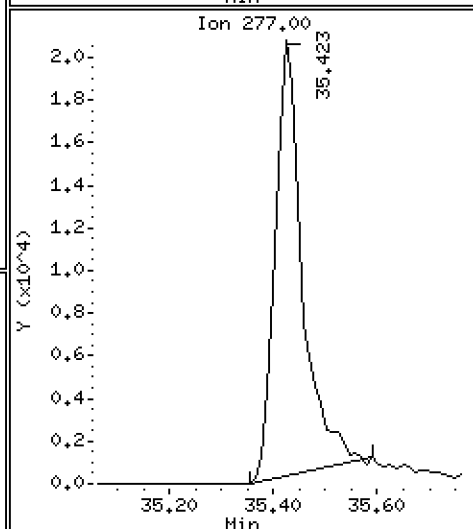
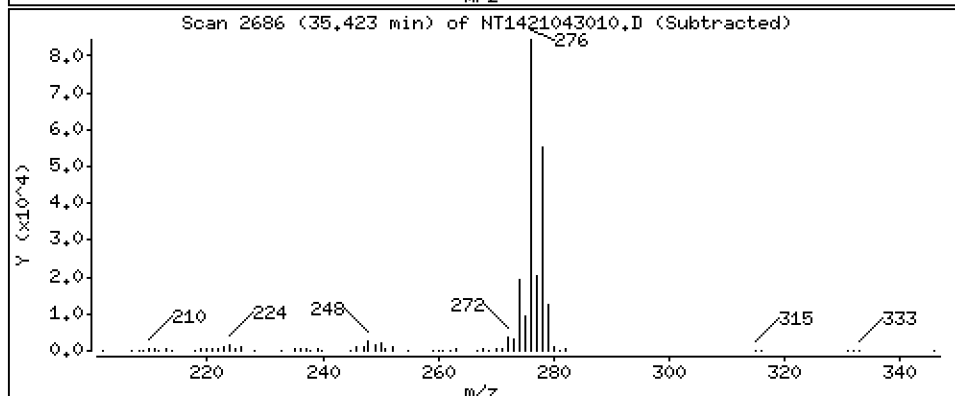
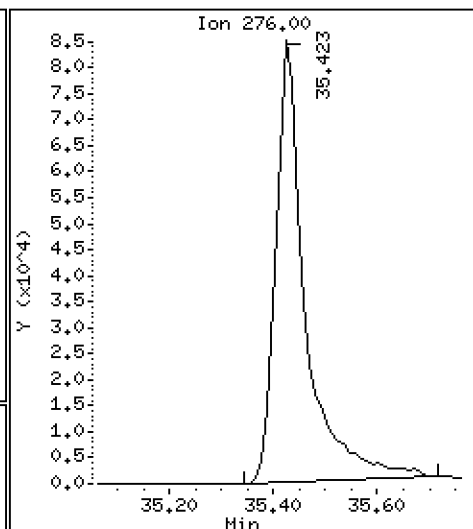
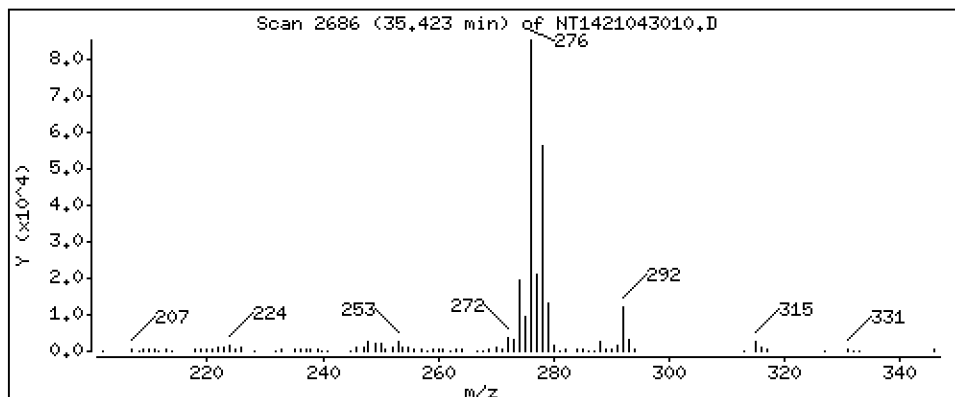
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

69 Indeno(1,2,3-cd)pyrene

Concentration: 2,236 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

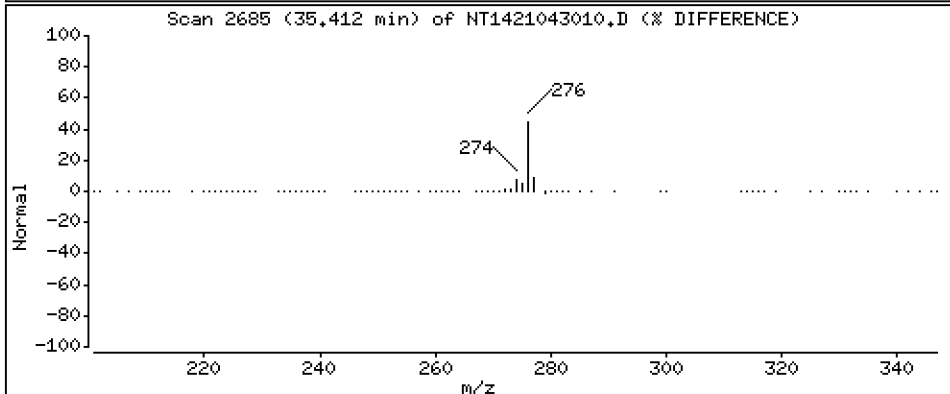
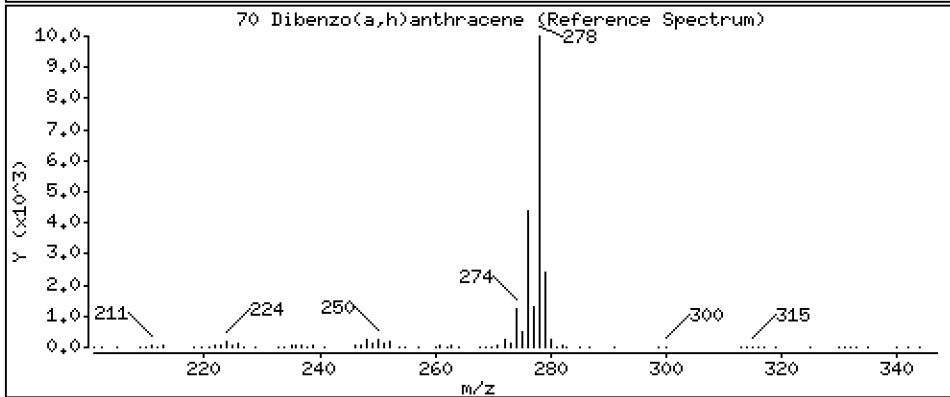
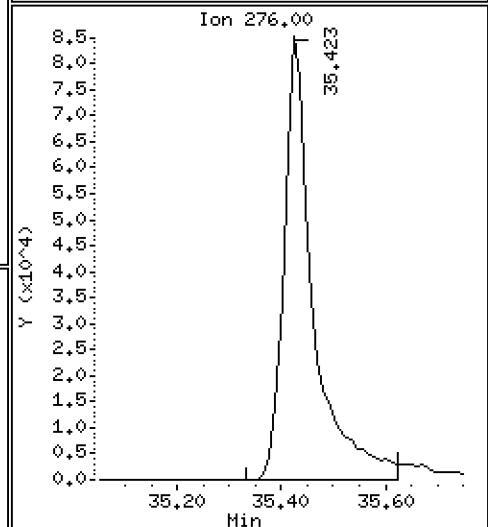
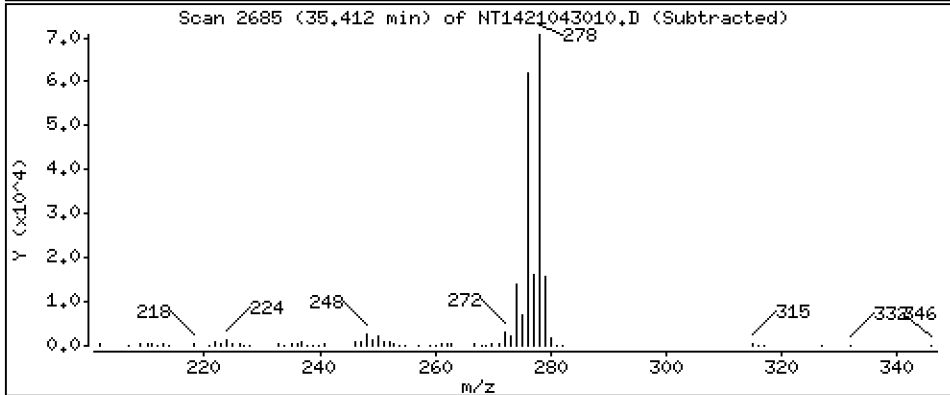
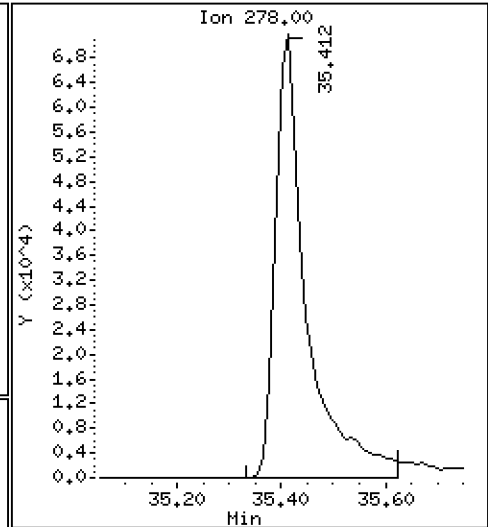
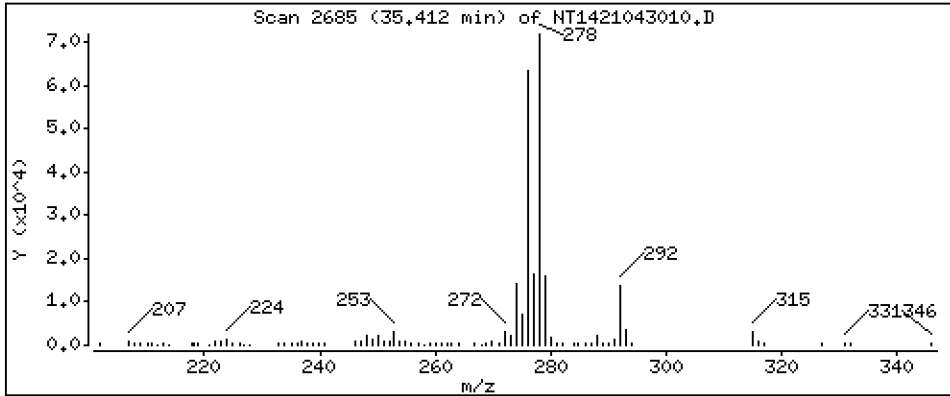
Operator: VTS

Column phase: Rxi-17Si1 MS

Column diameter: 0,25

70 Dibenzo(a,h)anthracene

Concentration: 2,291 ug/mL



Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

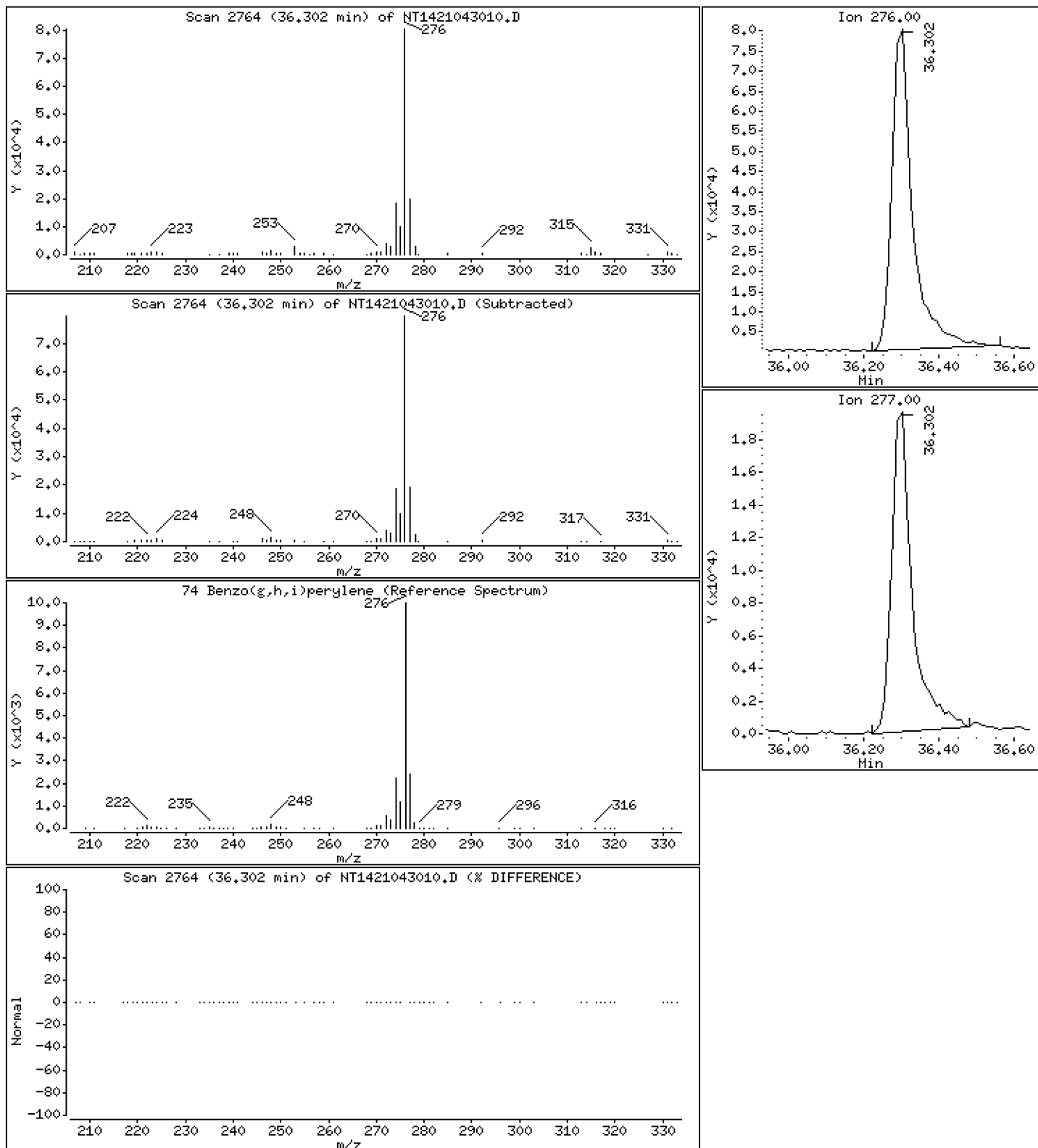
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

74 Benzo(g,h,i)perylene

Concentration: 2,352 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D
 Lab Smp Id: SJD0305-SCV1
 Inj Date : 30-APR-2021 14:41
 Operator : VTS
 Smp Info : SJD0305-SCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Meth Date : 01-May-2021 07:40 van
 Cal Date : 30-APR-2021 13:32
 Als bottle: 9
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-202011

Inst ID: nt14.i
 Quant Type: ISTD
 Cal File: NT1421043009.D
 Compound Sublist: TARGETS.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
							ON-COLUMN (ug/mL)	FINAL (ug/mL)	
1 trans-Decalin	138		7.045	7.035	(0.375)	74342	2.84314	2.843	
2 cis-Decalin	138		8.155	8.165	(0.434)	52523	2.90966	2.910	
\$ 6 Naphthalene-d8	136		11.776	11.776	(0.627)	604964	2.98636	2.986 (R)	
7 Naphthalene	128		11.836	11.846	(0.630)	573337	2.78250	2.783	
12 Benzo(b)thiophene	134		12.295	12.295	(0.655)	456850	2.78683	2.787	
16 2-Methylnaphthalene	141		13.680	13.680	(0.728)	312811	2.84483	2.845	
17 1-methylnaphthalene	141		14.131	14.131	(0.752)	293934	2.82127	2.821	
18 Biphenyl	154		15.317	15.317	(0.815)	435061	2.76462	2.765	
19 2,6-Dimethylnaphthalene	156		15.394	15.394	(0.820)	305582	2.82199	2.822	
20 Acenaphthylene	152		16.955	16.955	(0.903)	492364	2.88930	2.889	
\$ 21 Acenaphthene-d10	164		17.252	17.241	(0.918)	298420	3.01695	3.017 (R)	
22 Acenaphthene	153		17.362	17.361	(0.924)	329675	3.01019	3.010	
23 Dibenzofuran	168		17.735	17.735	(0.944)	459290	2.76760	2.768	
24 1,6,7-Trimethylnaphthalene	170		17.966	17.966	(0.957)	277803	2.92320	2.923	
* 25 Fluorene-d10	176		18.783	18.781	(1.000)	351020	2.00000		
26 Fluorene	166		18.885	18.883	(1.005)	342973	2.84375	2.844	
30 Dibenzothiophene	184		21.796	21.794	(1.160)	423593	2.78230	2.782	
\$ 35 Phenanthrene-d10	188		22.104	22.102	(0.995)	446008	2.66948	2.669 (R)	
36 Phenanthrene	178		22.192	22.190	(0.999)	460265	2.46754	2.468	
* 250 Anthracene-d10	188		22.225	22.223	(1.000)	309177	2.00000		
37 Anthracene	178		22.291	22.289	(1.003)	428535	2.49230	2.492	
42 Carbazole	167		23.566	23.565	(1.060)	338612	2.34287	2.343	
43 1-Methylphenanthrene	192		24.017	24.015	(1.081)	293776	2.59400	2.594	
44 Fluoranthene	202		25.996	25.994	(1.170)	436345	2.63403	2.634	
46 Pyrene	202		26.843	26.841	(1.208)	433716	2.52654	2.527	
51 Naphthobenzothiophene	234		Compound Not Detected.						
55 Benzo(a)anthracene	228		29.971	29.964	(0.907)	342259	2.27793	2.278	
\$ 56 Chrysene-d12	240		30.095	30.087	(0.911)	337659	2.82827	2.828 (RM)	
57 Chrysene	228		30.163	30.166	(0.913)	394981	2.57401	2.574	
62 Benzo(b)fluoranthene	252		32.393	32.386	(0.980)	324344	2.32564	2.326	
63 Benzo(k)fluoranthene	252		32.438	32.430	(0.982)	391530	2.30379	2.304 (M)	
293 Benzo(j)fluoranthene	252		32.494	32.498	(0.983)	393189	2.51567	2.516 (M)	
246 Total Benzofluoranthenes	252		32.494	32.497	(0.983)	1066161	6.96004	6.960 (M)	

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.046	33.050	(1.000)	328565	2.00000	
64 Benzo(e)pyrene	252	33.114	33.106	(1.002)	343391	2.45382	2.454
66 Benzo(a)pyrene	252	33.204	33.208	(1.005)	317871	2.21084	2.211
\$ 67 Perylene-d12	264	33.384	33.388	(1.010)	320102	2.50514	2.505 (RM)
68 Perylene	252	33.440	33.433	(1.012)	322846	2.41544	2.415 (M)
69 Indeno(1,2,3-cd)pyrene	276	35.422	35.415	(1.072)	332125	2.23617	2.236 (M)
70 Dibenzo(a,h)anthracene	278	35.411	35.404	(1.072)	294257	2.29093	2.291
74 Benzo(g,h,i)perylene	276	36.301	36.293	(1.098)	296119	2.35214	2.352 (M)

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 30-APR-2021
 Lab File ID: NT1421043010.D Calibration Time: 07:56
 Lab Smp Id: SJD0305-SCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	420456	210228	840912	351020	-16.51
250 Anthracene-d10	381033	190517	762066	309177	-18.86
251 Benzo(e)pyrene-d1	370998	185499	741996	328565	-11.44

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.78	18.28	19.28	18.78	0.01
250 Anthracene-d10	22.22	21.72	22.72	22.23	0.01
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	-0.01

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.

REVIEW SUMMARY FOR FILE - NT1421043010.D

Lab ID: SJD0305-SCV1

nt14.i, 20210430.b\ALKYLPNA.m, 30-APR-2021 14:41

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

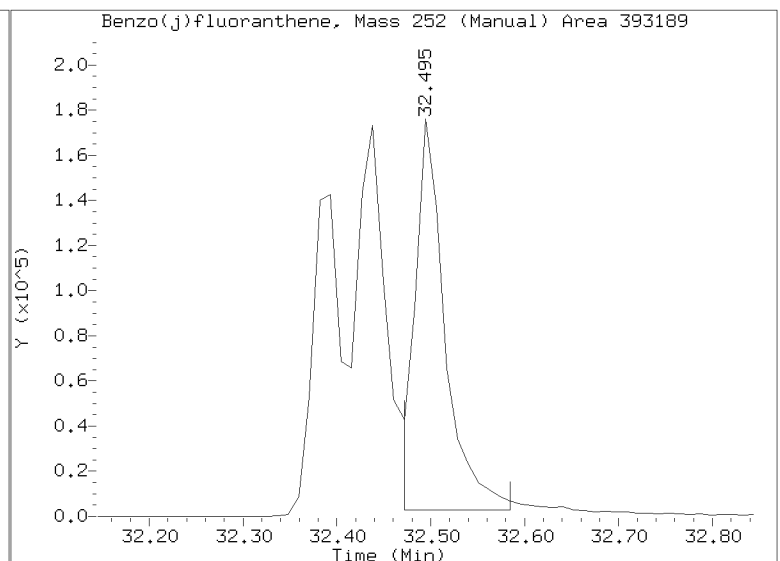
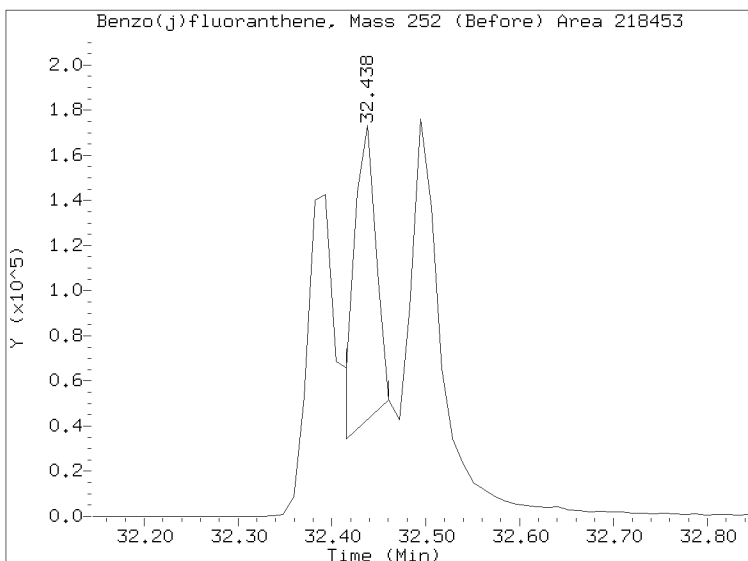
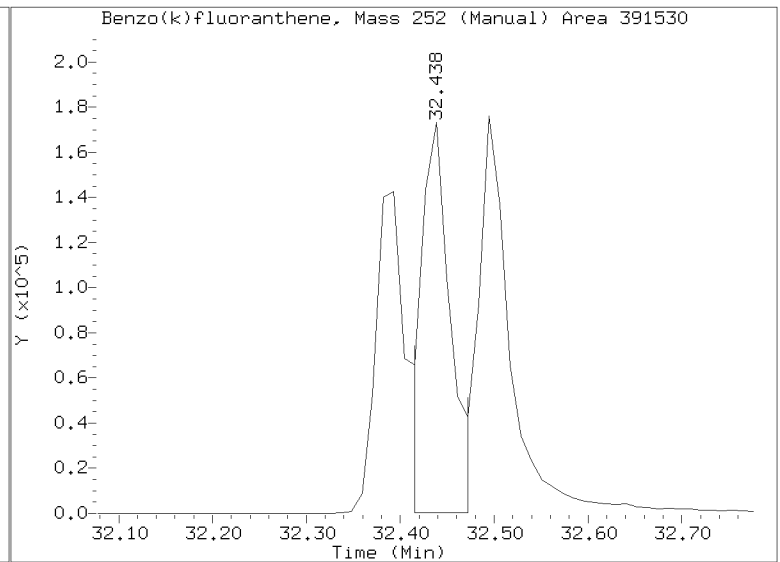
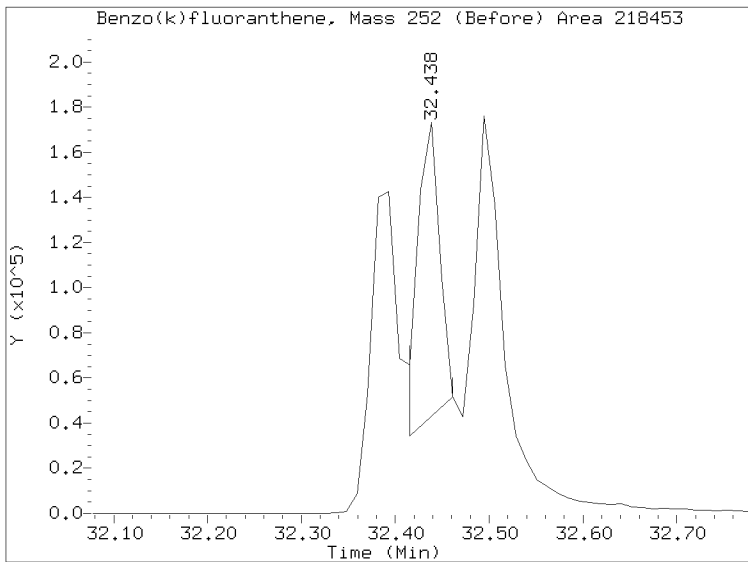
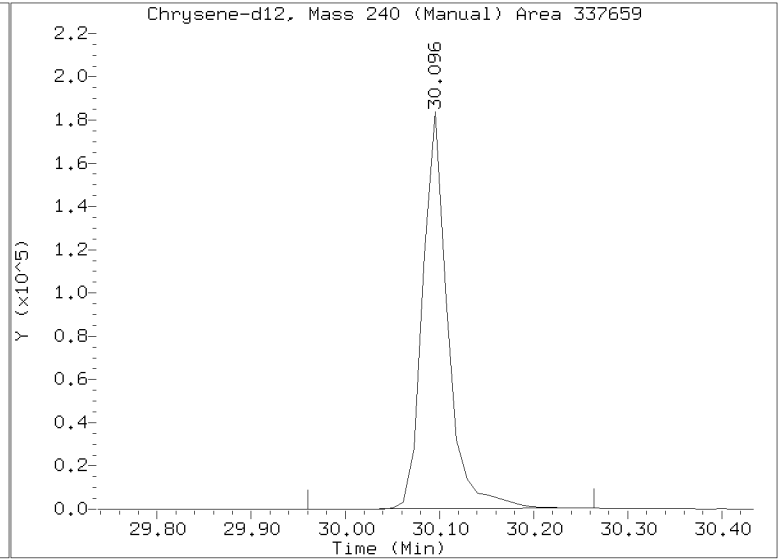
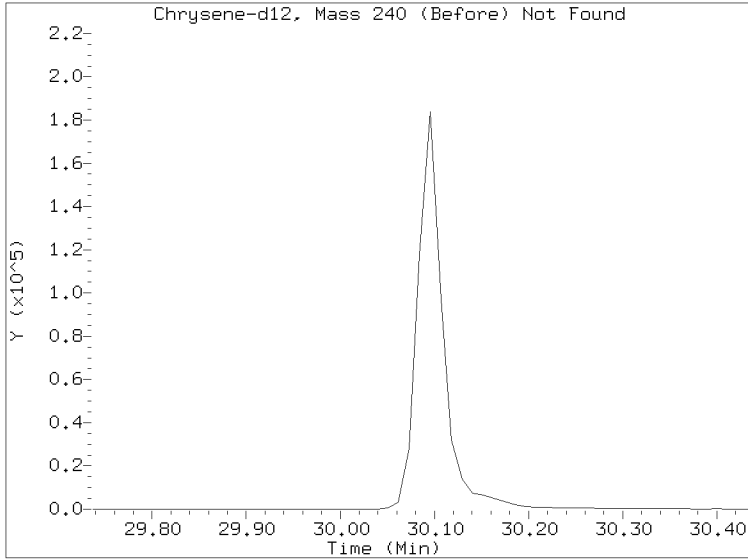
RRT check based on Ccal File: NT1421043009.D

On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

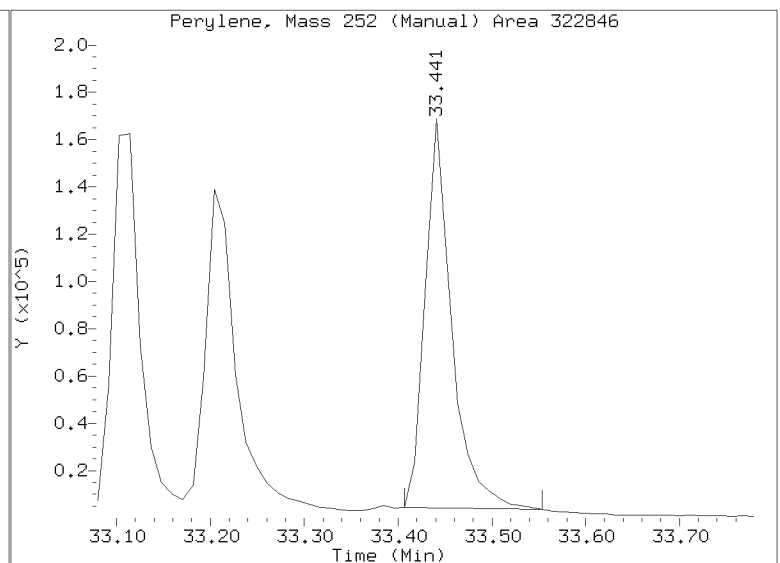
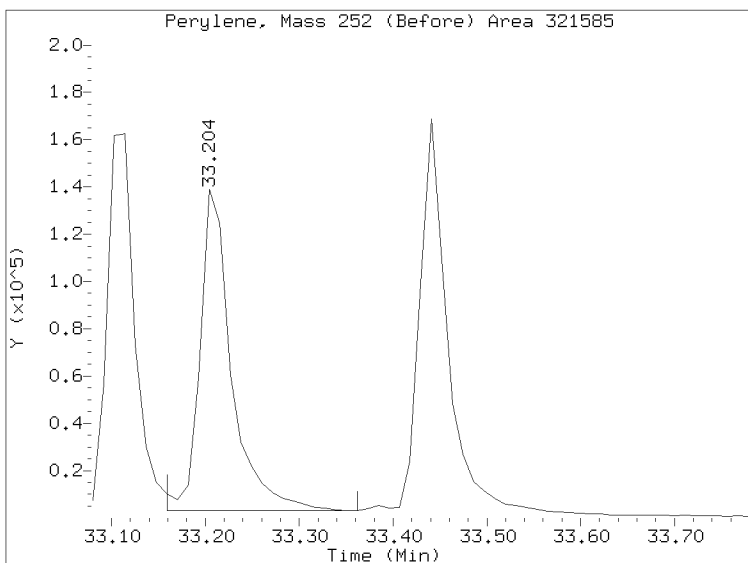
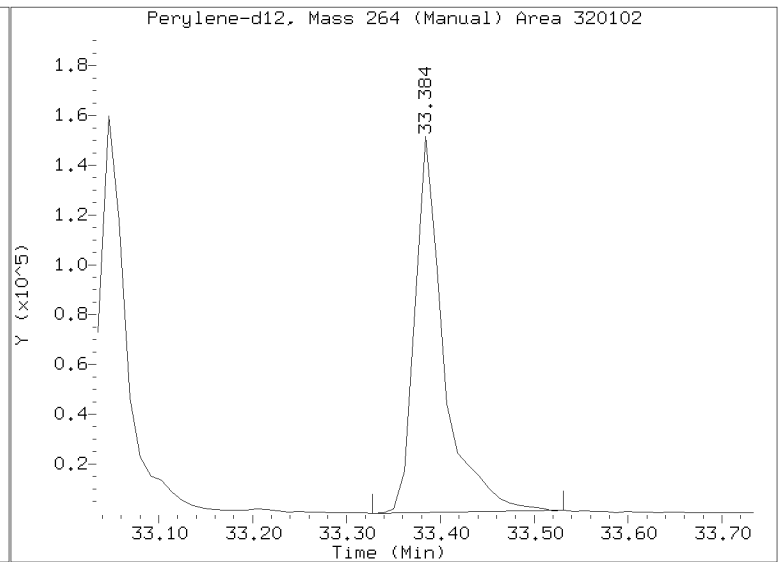
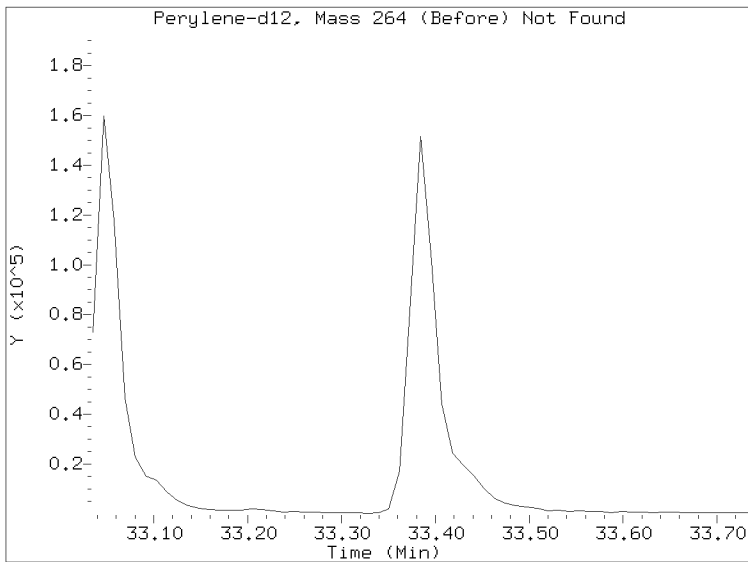
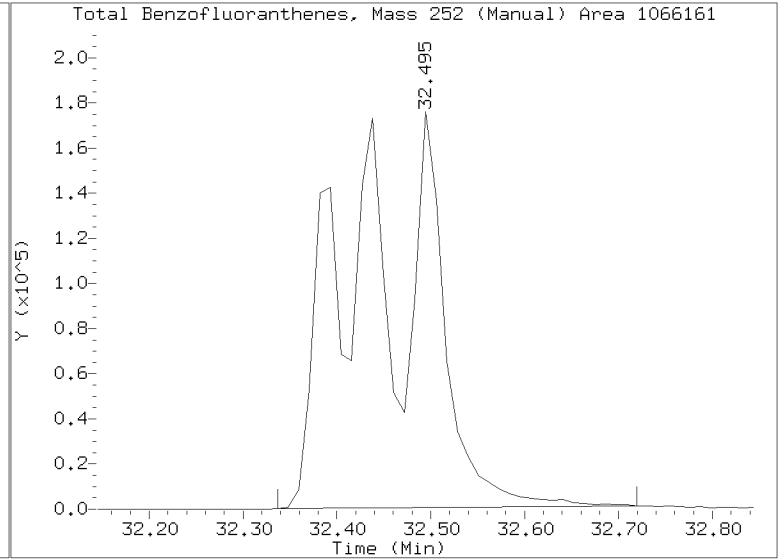
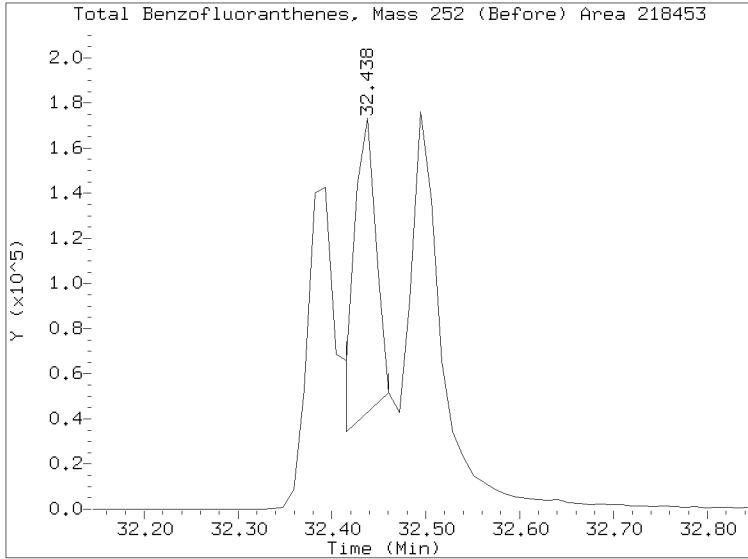
Quant Ion Manual Peak Adjustment Report

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Injection Date: 30-APR-2021 14:41
Lab ID: SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D
Injection Date: 30-APR-2021 14:41
Lab ID: SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18



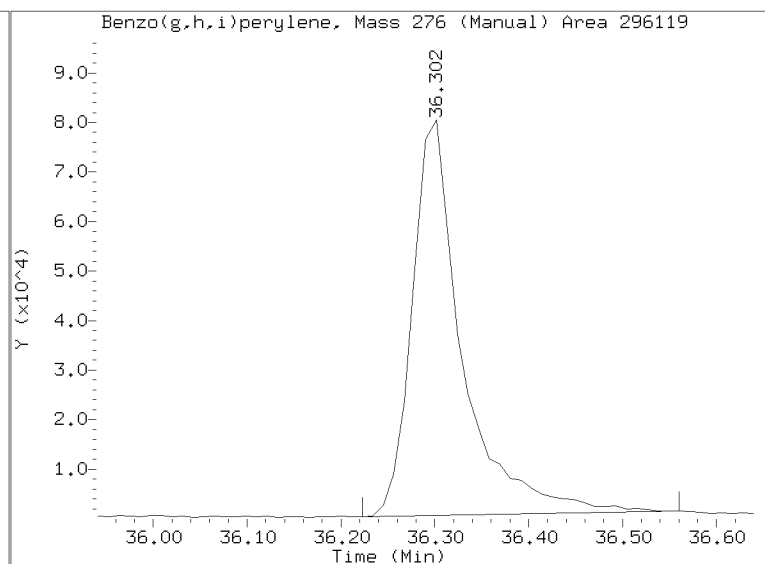
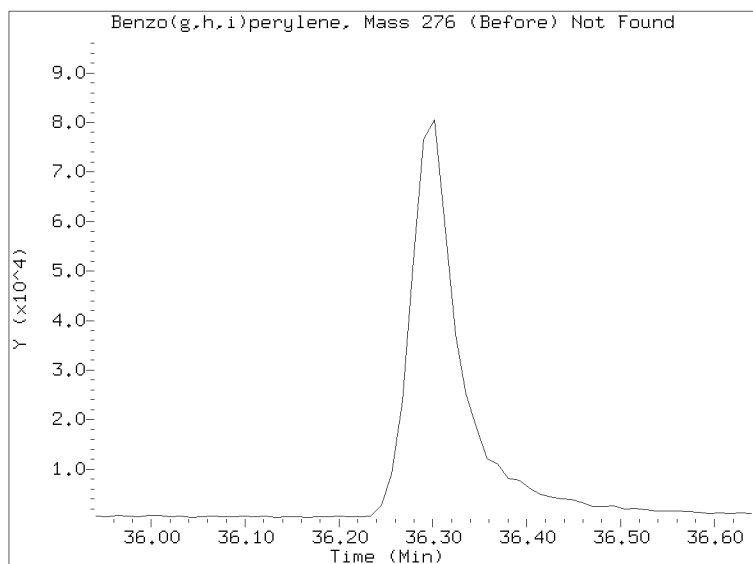
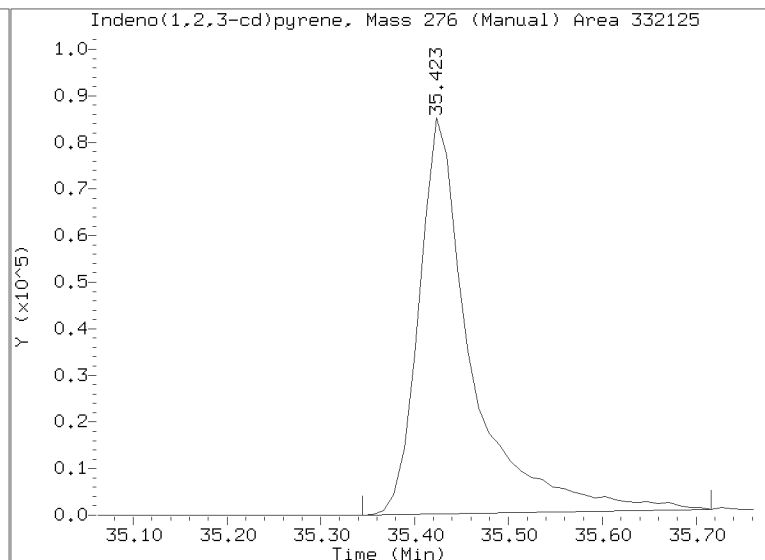
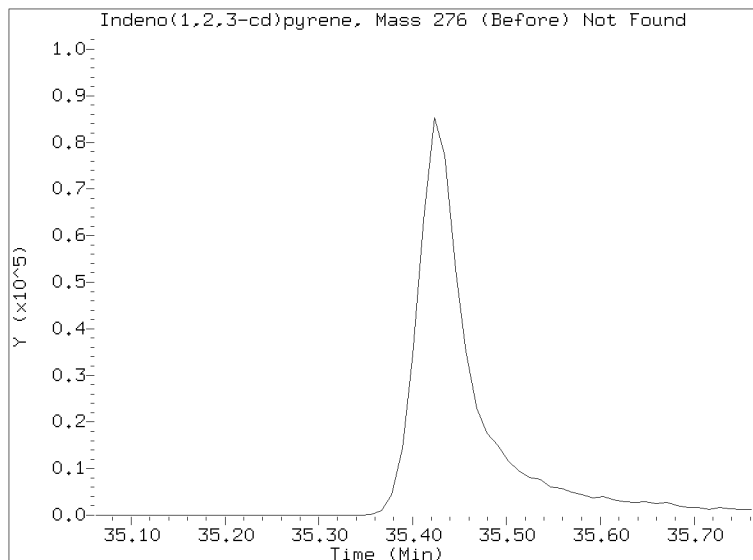
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D

Injection Date: 30-APR-2021 14:41

Lab ID: SJD0305-SCV1 Client ID:

Report Date: 05/01/2021 09:18





CONTINUING CALIBRATION CHECK EPA 8270E-SIM

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>21D0180</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic - US Moorings</u>
Instrument ID: <u>NT11</u>	Calibration: <u>DH00073</u>
Lab File ID: <u>NT1121042418.D</u>	Calibration Date: <u>08/27/2020</u>
Sequence: <u>SJD0344</u>	Injection Date: <u>04/24/21</u>
Lab Sample ID: <u>SJD0344-CCV1</u>	Injection Time: <u>18:49</u>
Sequence Name: <u>Calibration Check</u>	

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Naphthalene	A	250.00	224	1.1612470	1.0402180		-10.4	+/-50
2-Methylnaphthalene	A	250.00	235	0.9361384	0.8807144		-5.9	+/-50
Acenaphthylene	A	250.00	194	2.2945630	1.7809820		-22.4	+/-50
Acenaphthene	A	250.00	197	1.5175830	1.1933830		-21.4	+/-50
Fluorene	A	250.00	196	1.5604500	1.2230670		-21.6	+/-50
Phenanthrene	A	250.00	215	1.3083250	1.1271240		-13.9	+/-50
Anthracene	A	250.00	226	1.3072390	1.1815080		-9.6	+/-50
Fluoranthene	A	250.00	229	1.3043810	1.1943210		-8.4	+/-50
Pyrene	A	250.00	229	1.3381820	1.2231400		-8.6	+/-50
Benzo(a)anthracene	A	250.00	216	1.4691530	1.2716940		-13.4	+/-50
Chrysene	A	250.00	204	1.6542610	1.3530840		-18.2	+/-50
Benzo(b)fluoranthene	A	250.00	247	1.0886210	1.0773040		-1.0	+/-50
Benzo(k)fluoranthene	A	250.00	211	1.4304320	1.2044650		-15.8	+/-50
Benzo(j)fluoranthene	A	250.00	186	1.5458300	1.1530420		-25.4	+/-50
Benzo(a)pyrene	A	250.00	241	1.1369780	1.0938470		-3.8	+/-50
Indeno(1,2,3-cd)pyrene	A	250.00	270	1.1041170	1.1935840		8.1	+/-50
Dibenzo(a,h)anthracene	A	250.00	273	0.8775199	1.0298410		9.2	+/-50
Benzo(g,h,i)perylene	A	250.00	242	1.1039640	1.0706940		-3.0	+/-50
2-Methylnaphthalene-d10	A	250.00	239	0.8041846	0.7680178		-4.5	+/-50
Dibenzo[a,h]anthracene-d14	A	250.00	273	0.7035414	0.8570089		9.0	+/-50
Fluoranthene-d10	A	250.00	215	1.0485620	0.9008127		-14.1	+/-50

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.1\20210424.6\NT1121042418.D

Date: 24-APR-2021 18:49

Client ID:

Sample Info: SJD0344-CCW1

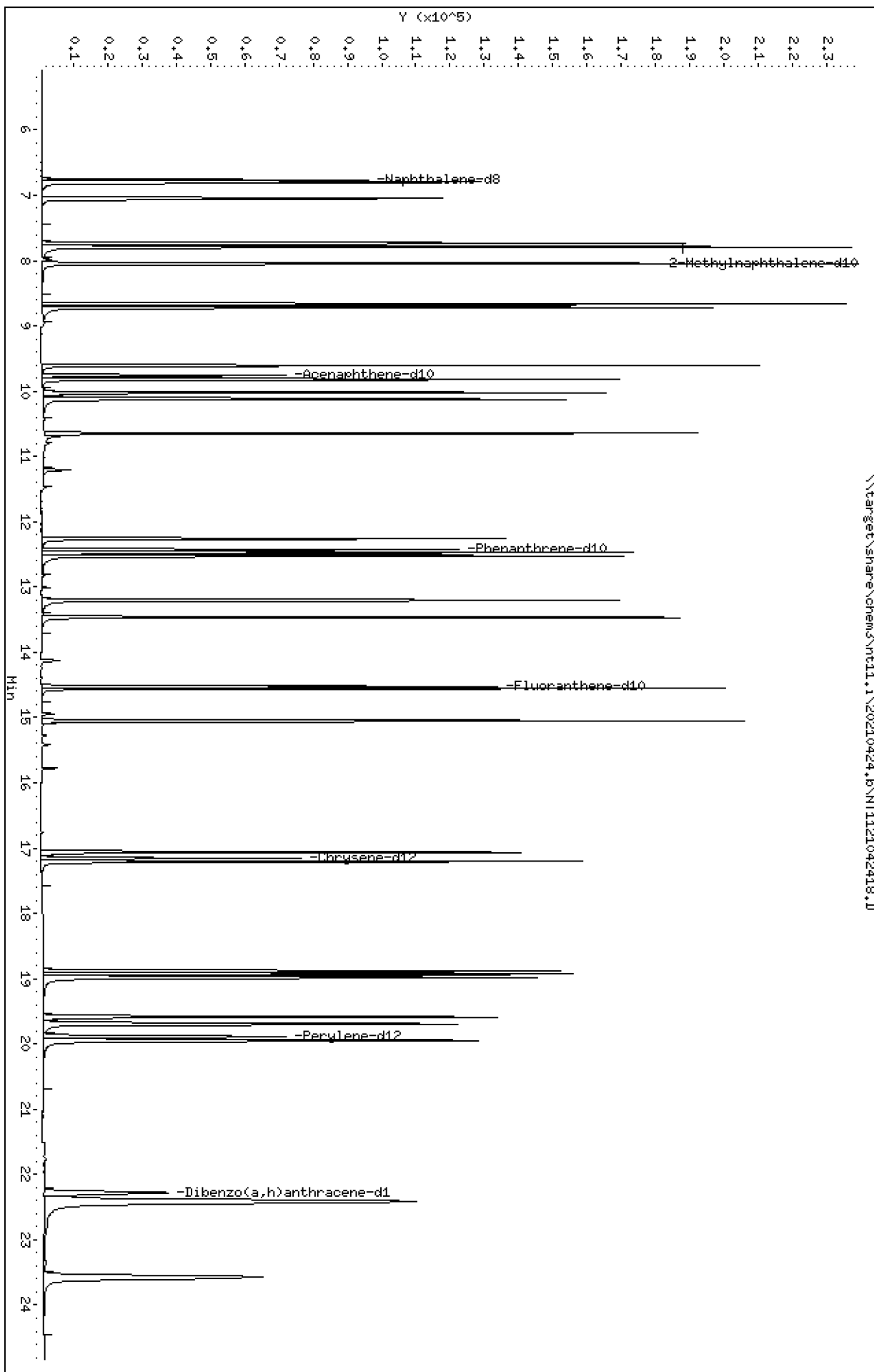
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

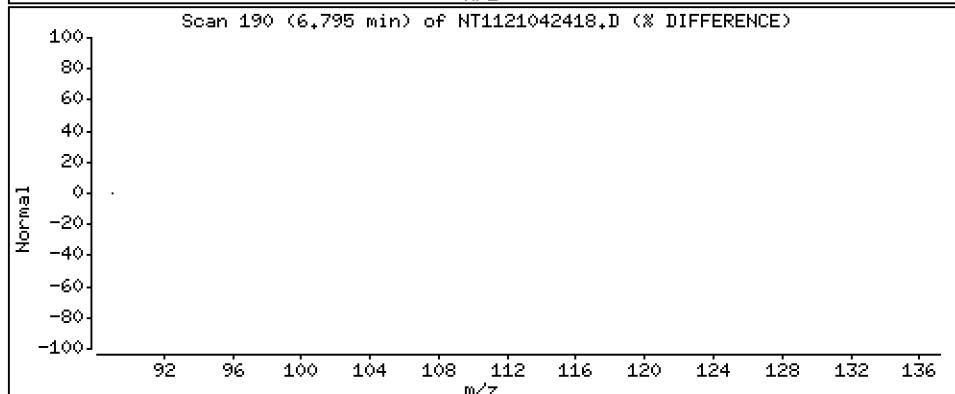
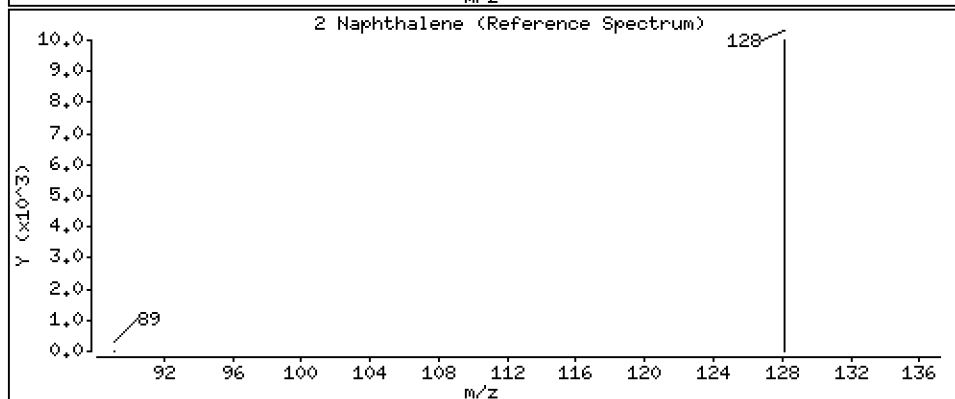
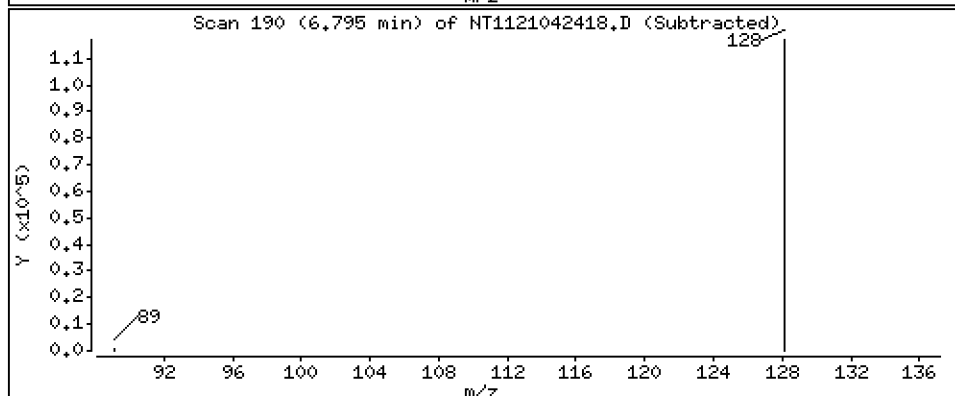
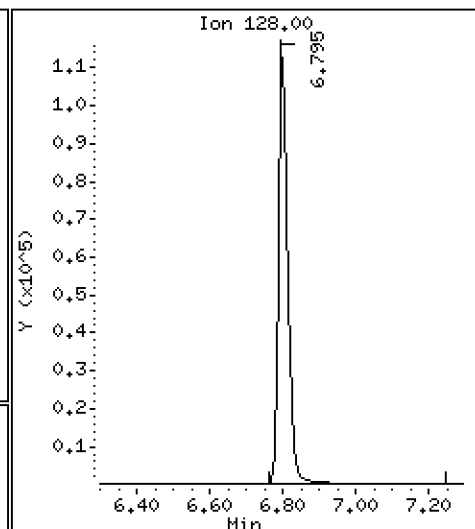
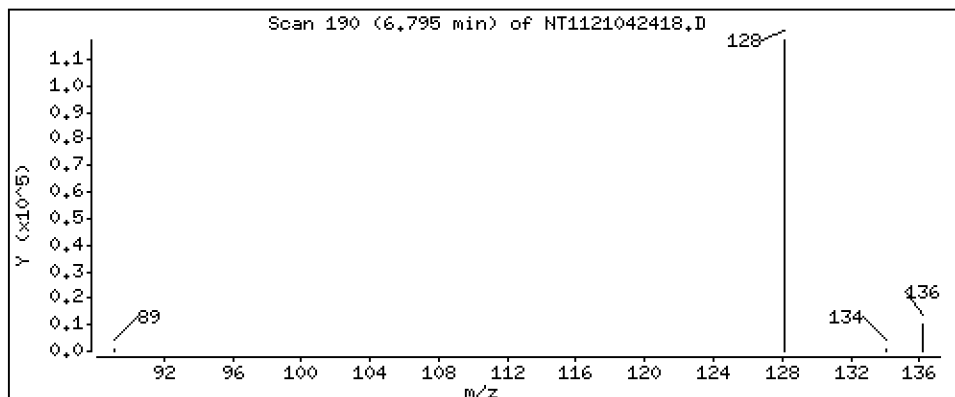
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 224 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

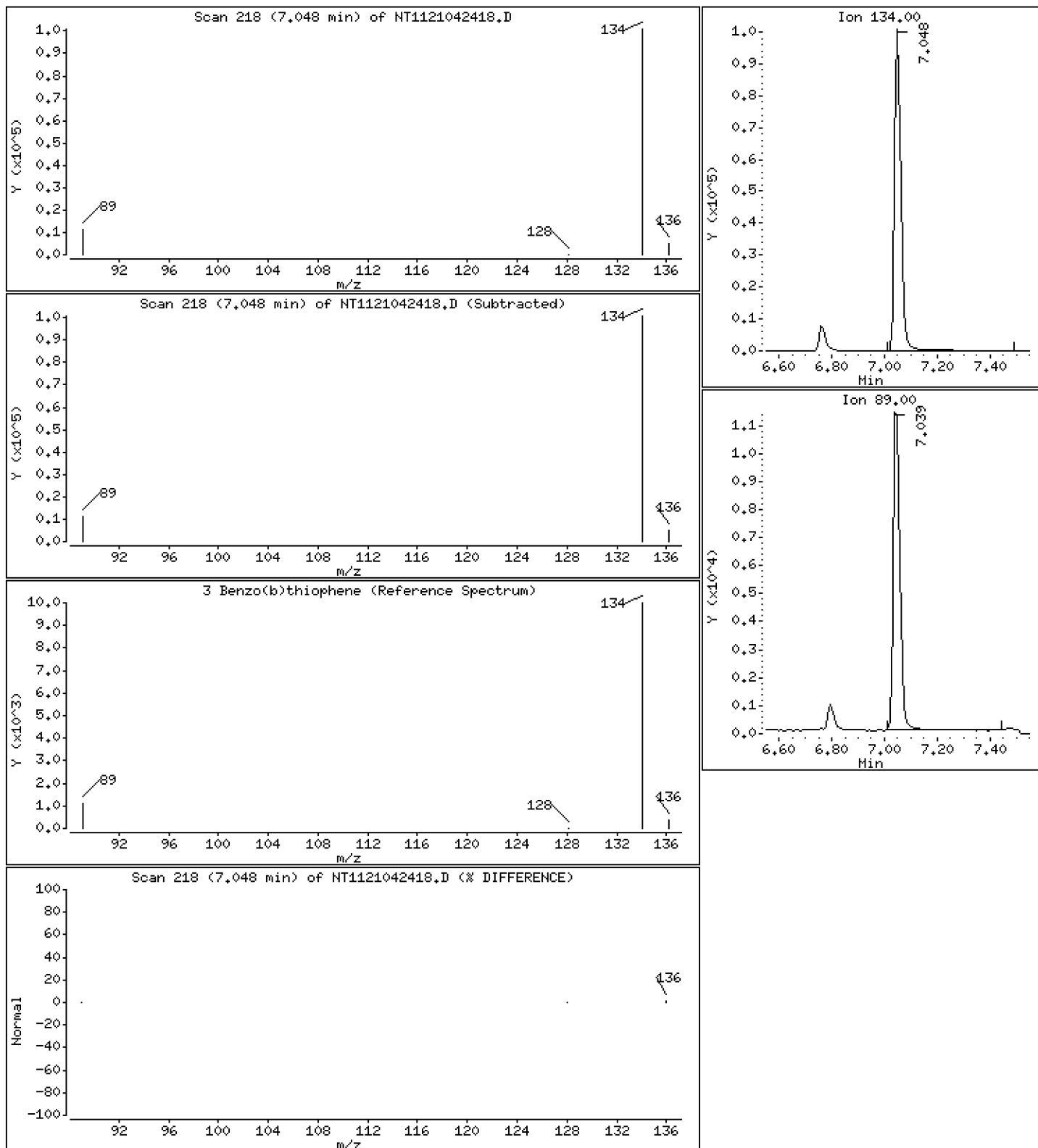
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

3 Benzo(b)thiophene

Concentration: 230 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

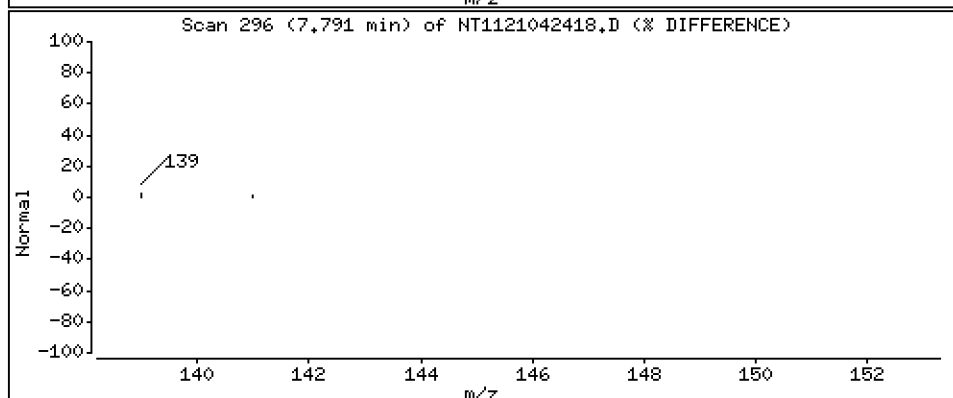
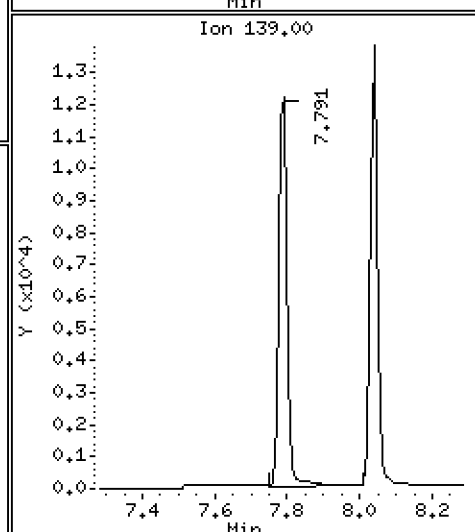
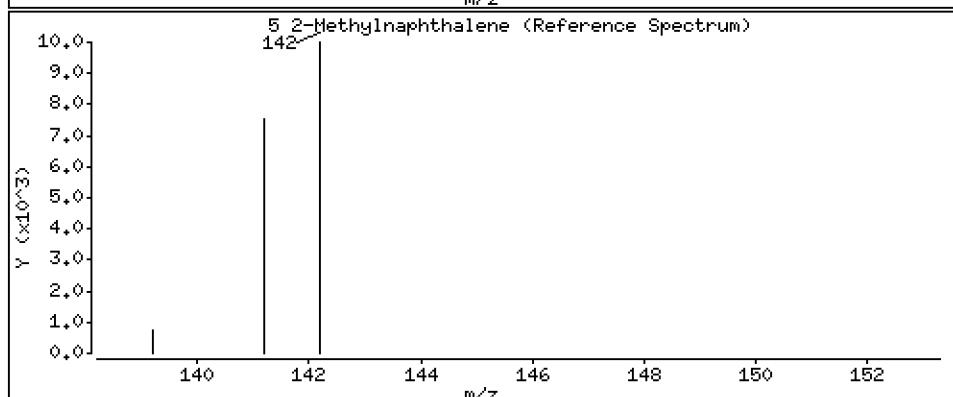
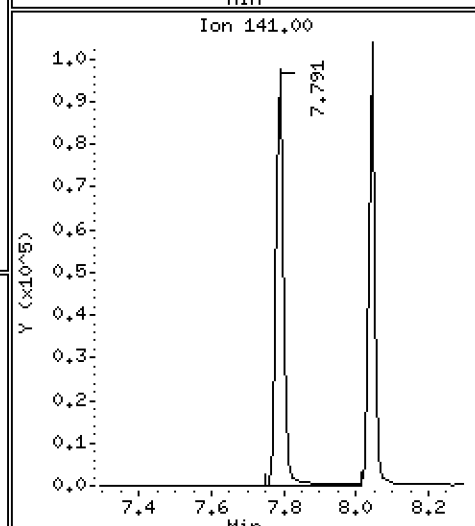
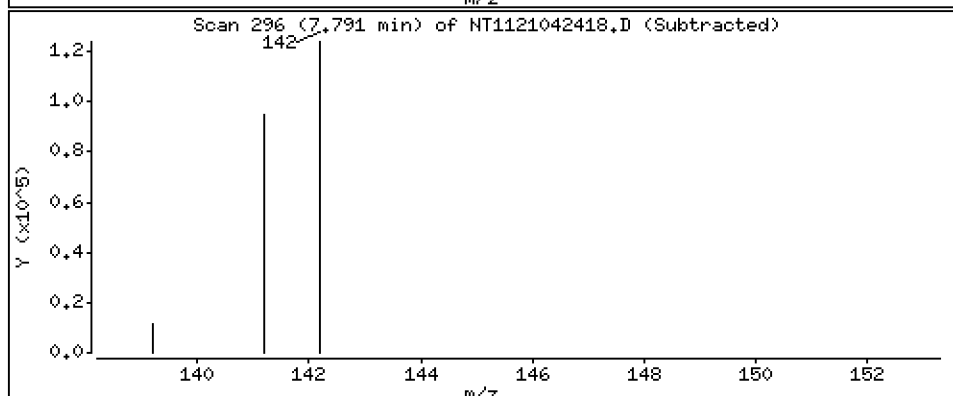
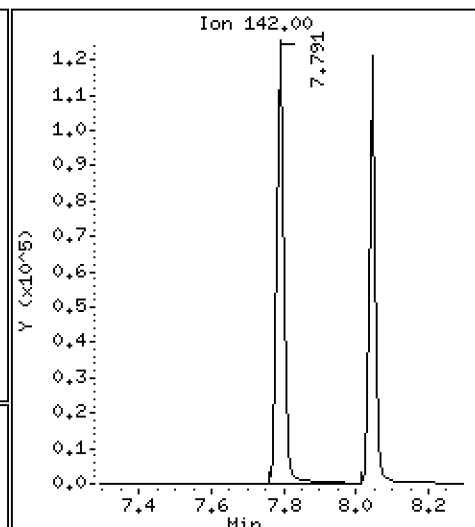
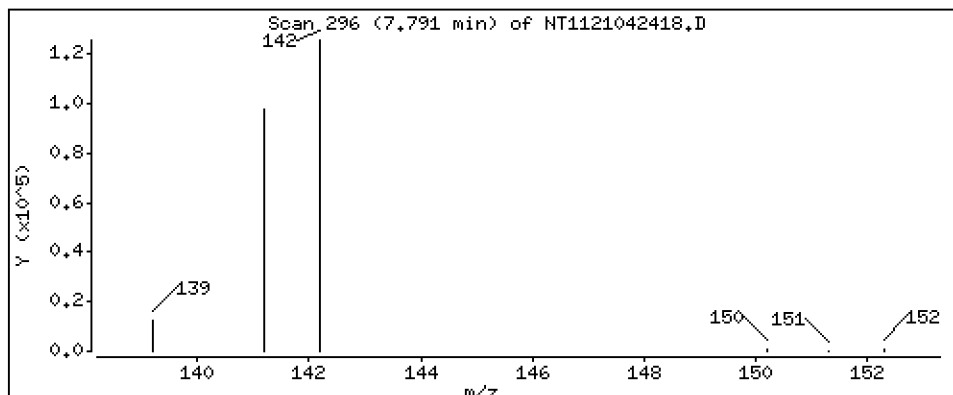
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

5-2-Methylnaphthalene

Concentration: 235 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

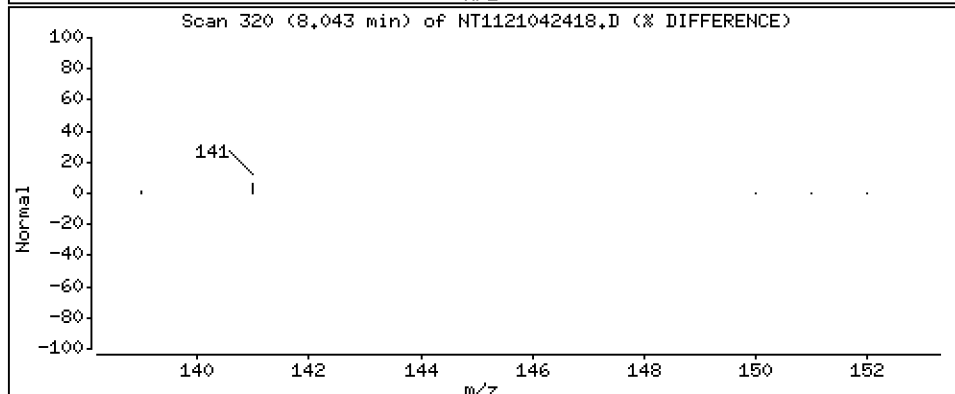
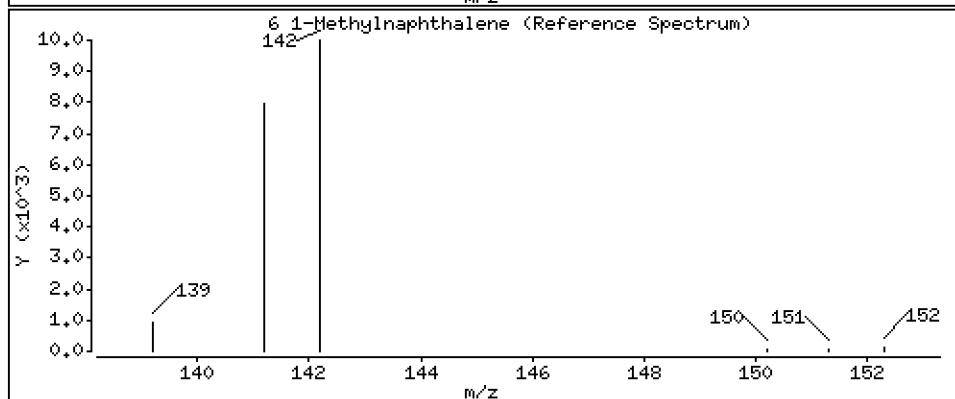
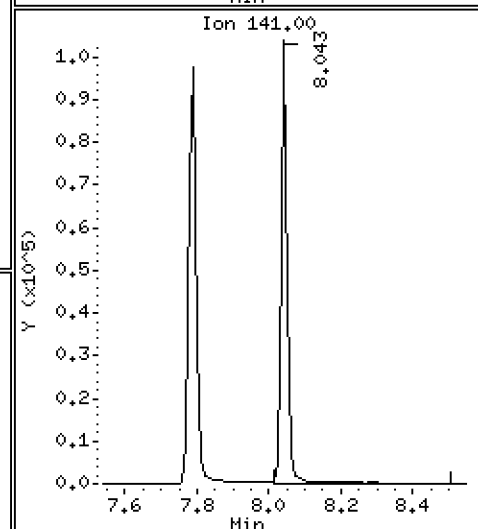
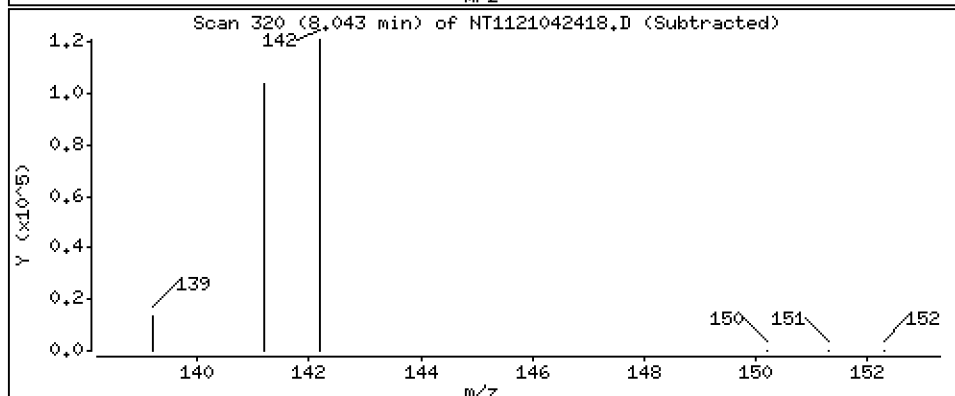
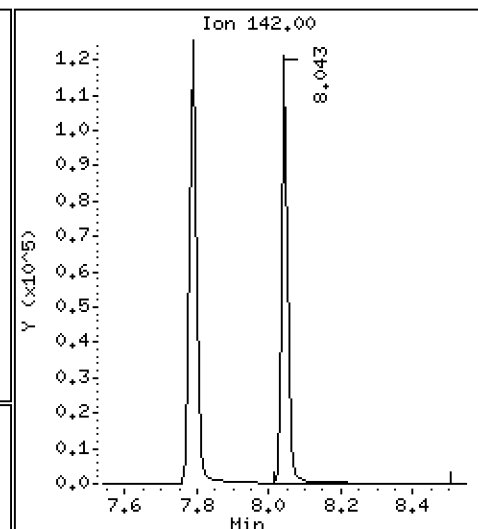
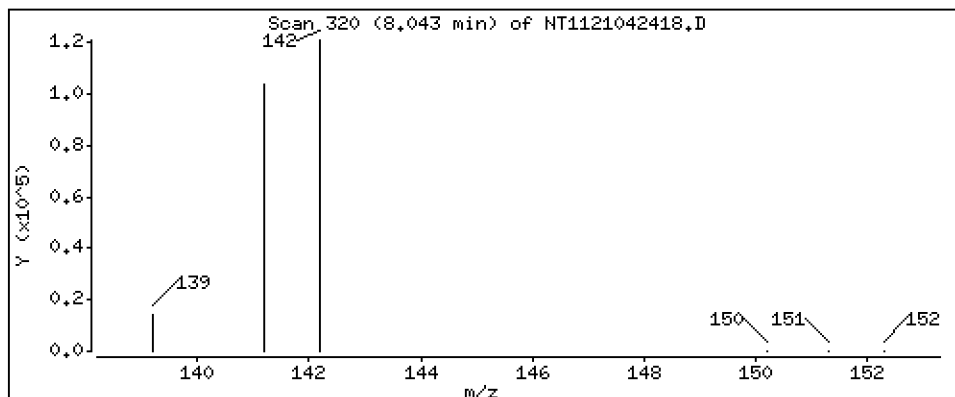
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

6 1-Methylnaphthalene

Concentration: 246 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

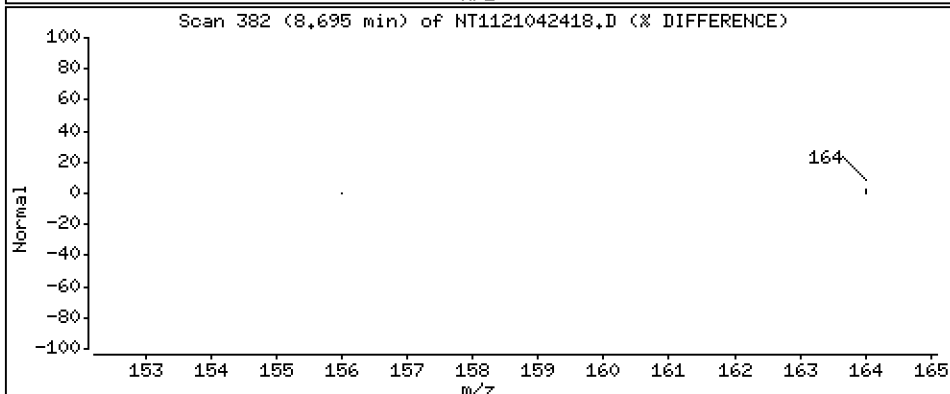
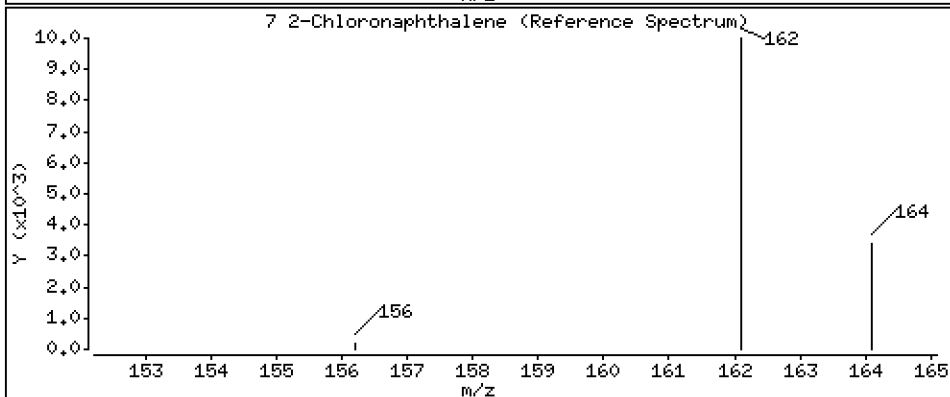
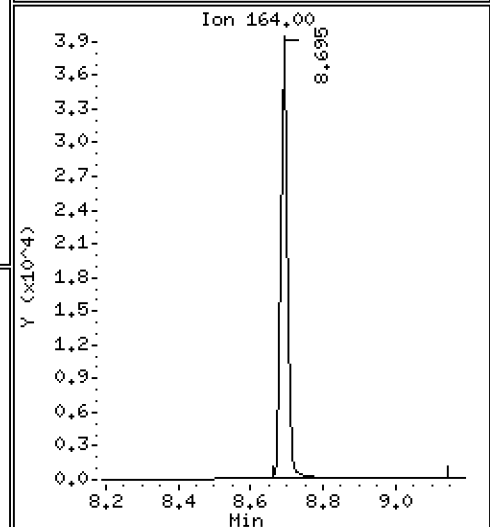
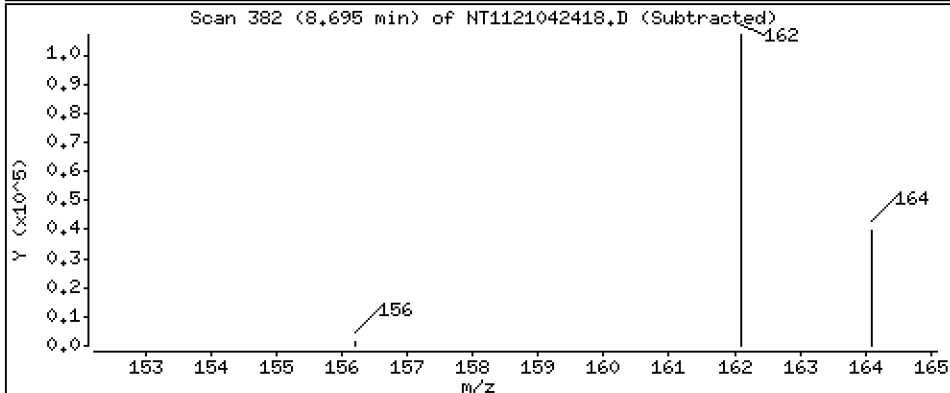
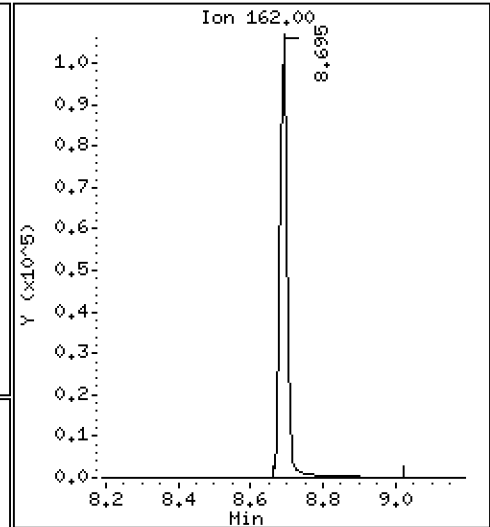
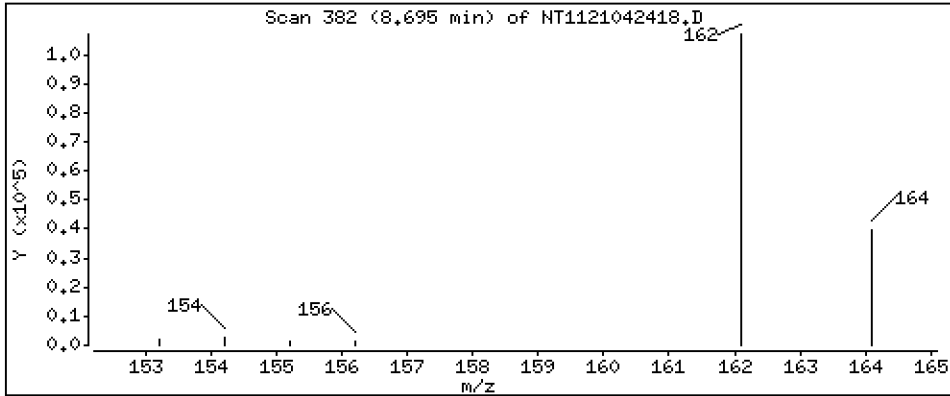
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

7 2-Chloronaphthalene

Concentration: 196 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

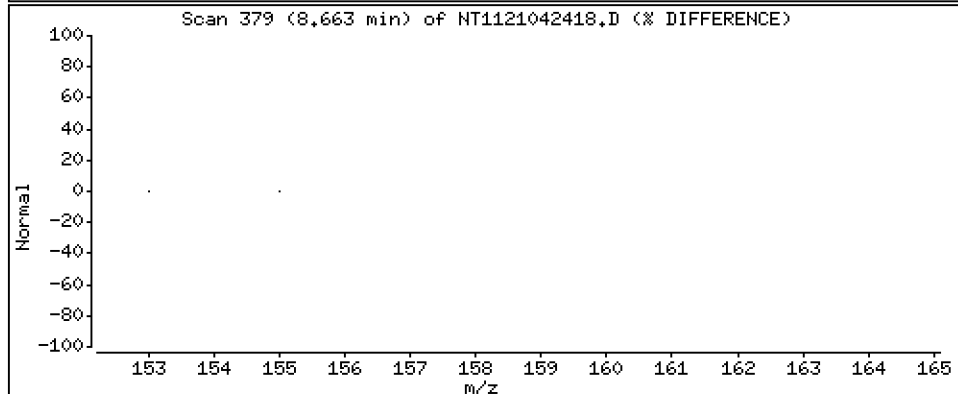
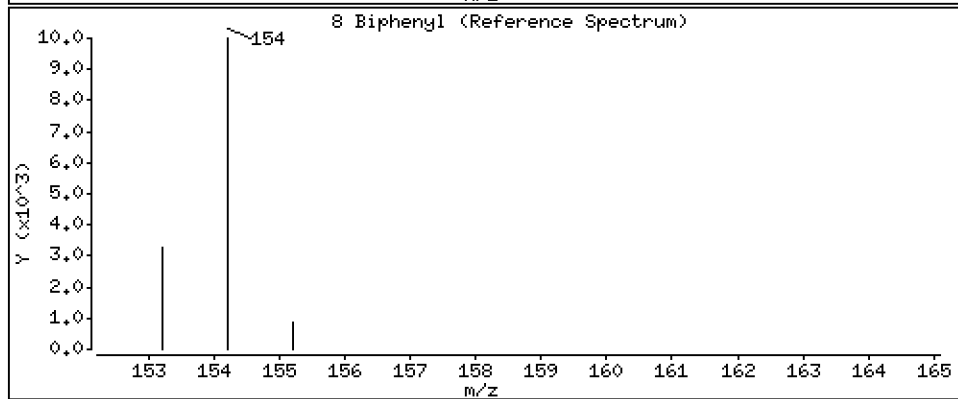
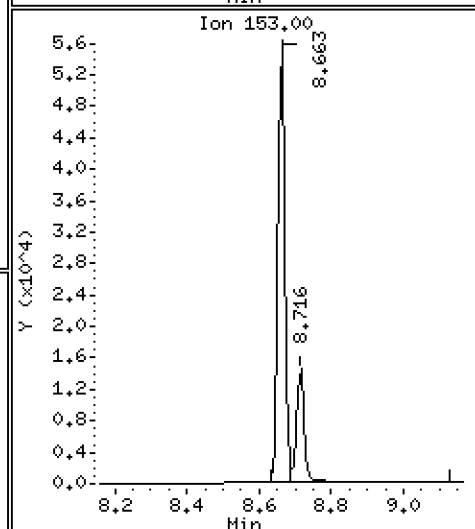
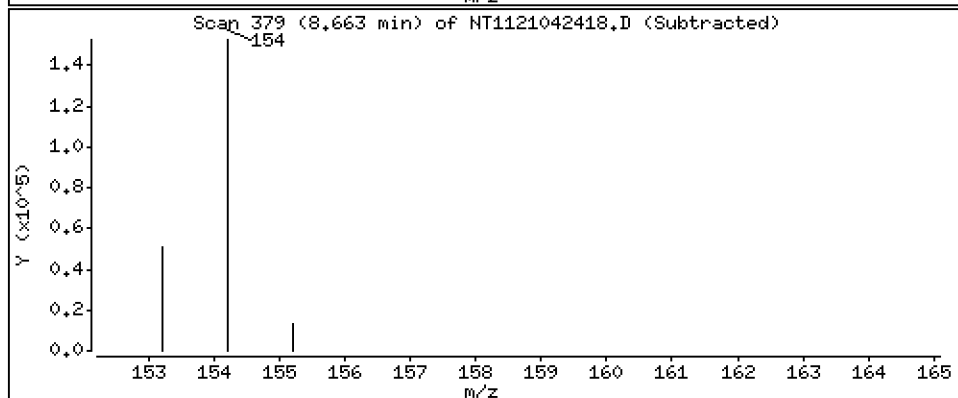
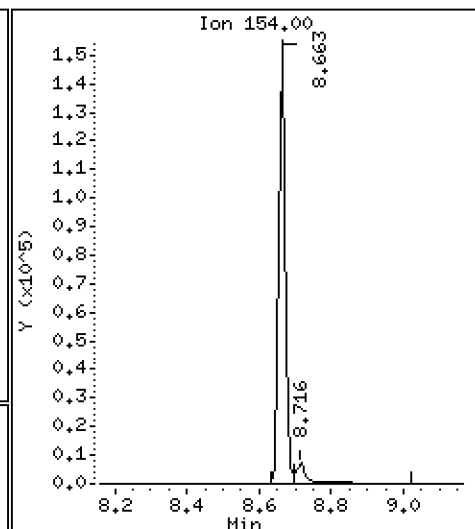
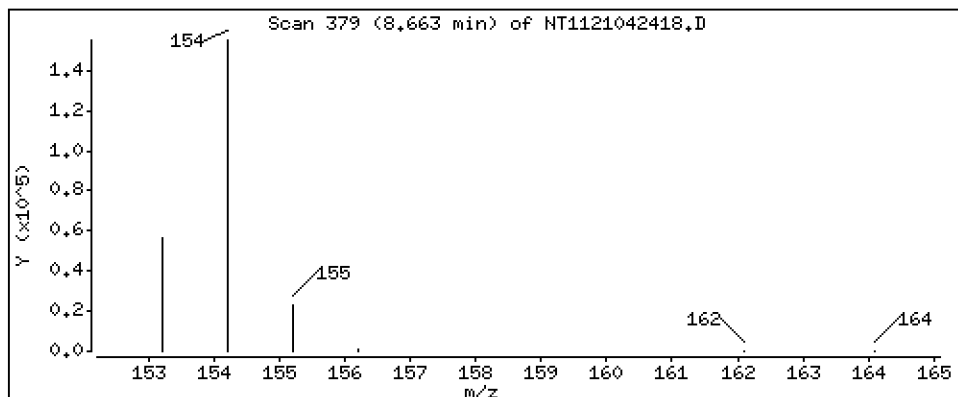
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

8 Biphenyl

Concentration: 187 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

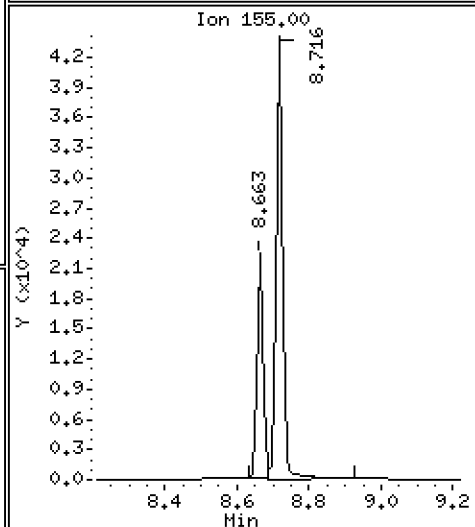
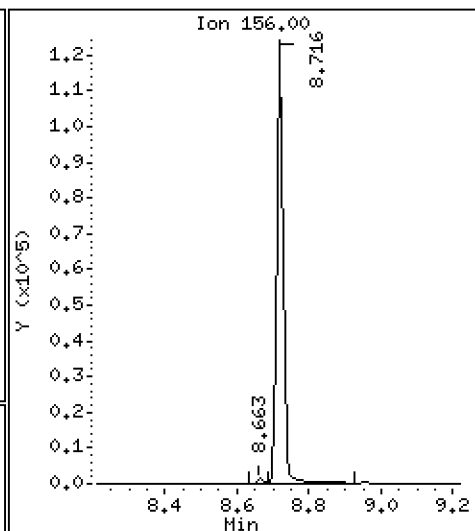
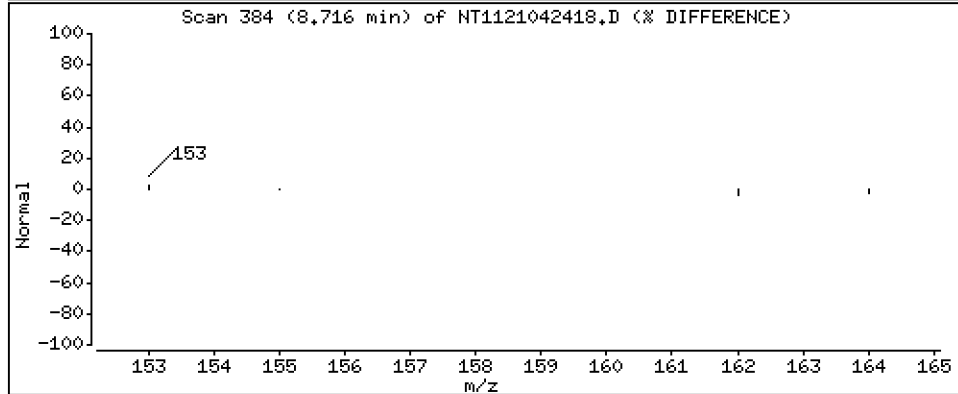
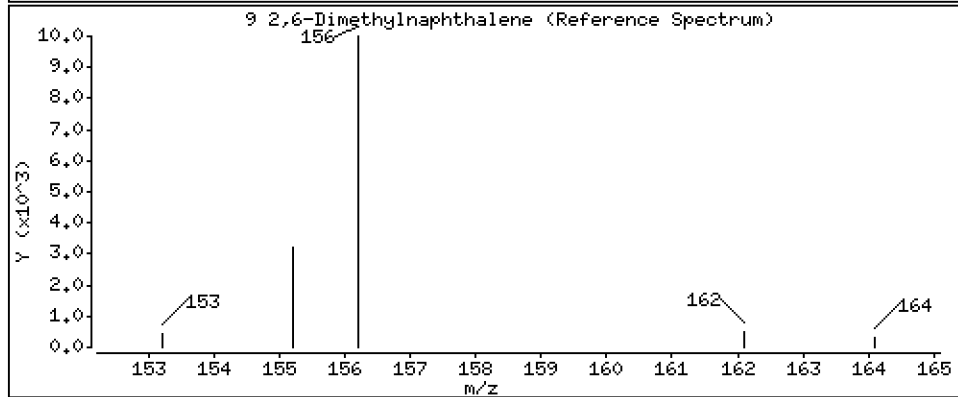
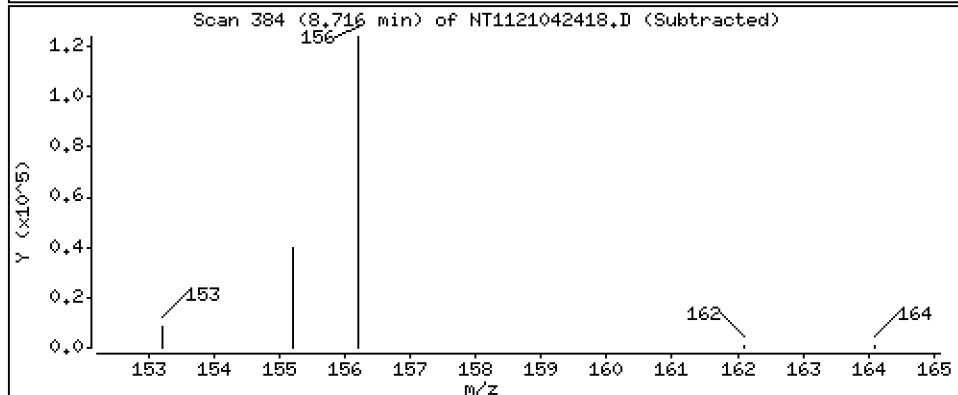
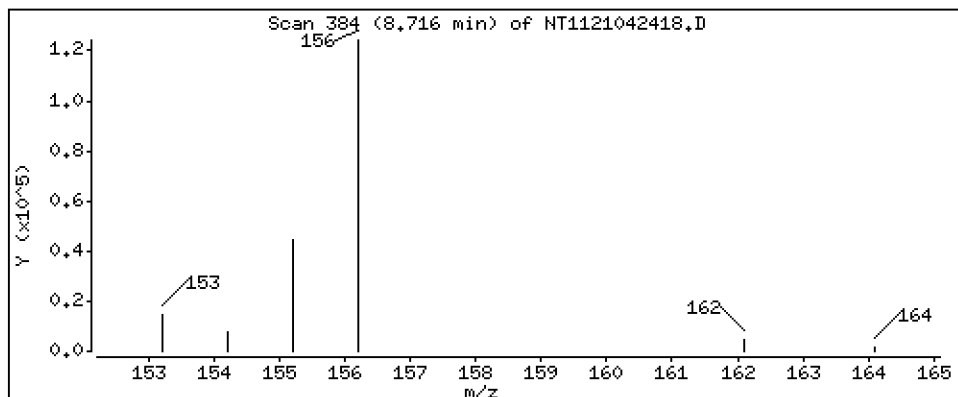
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

9,2,6-Dimethylnaphthalene

Concentration: 202 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

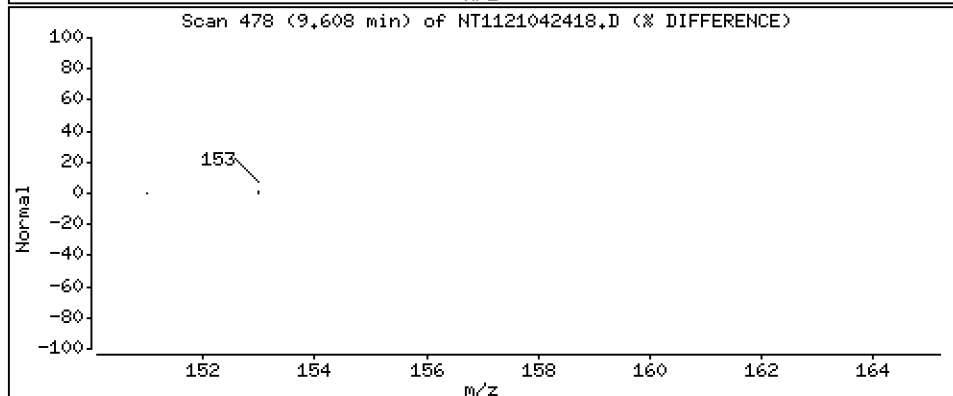
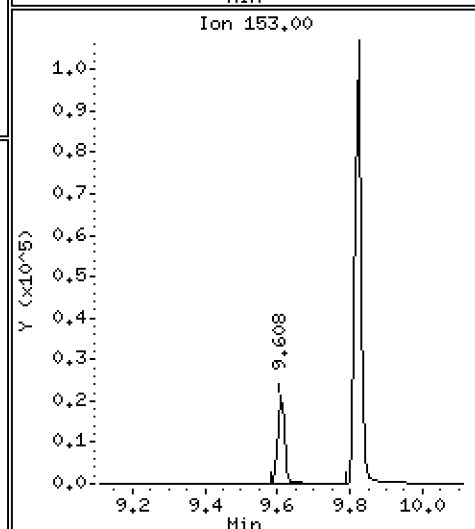
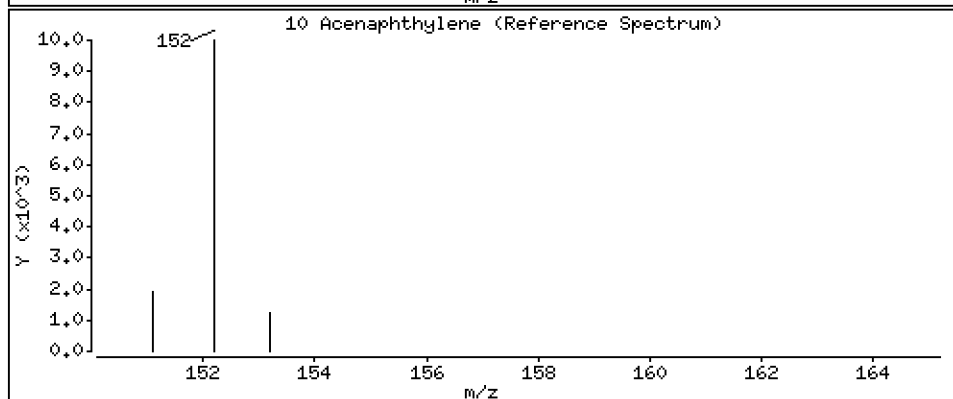
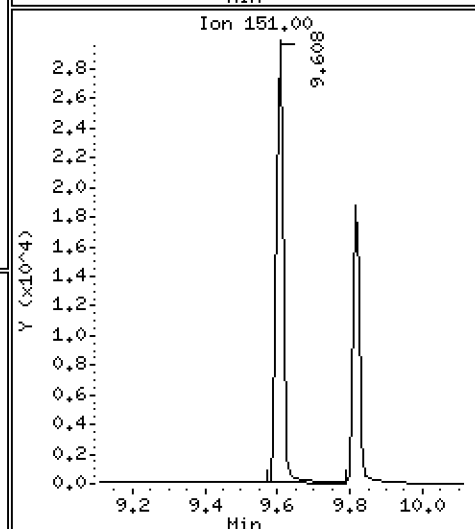
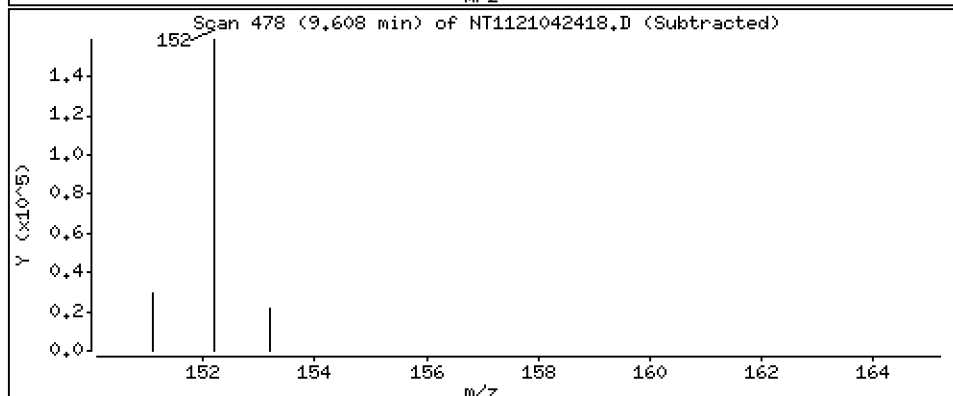
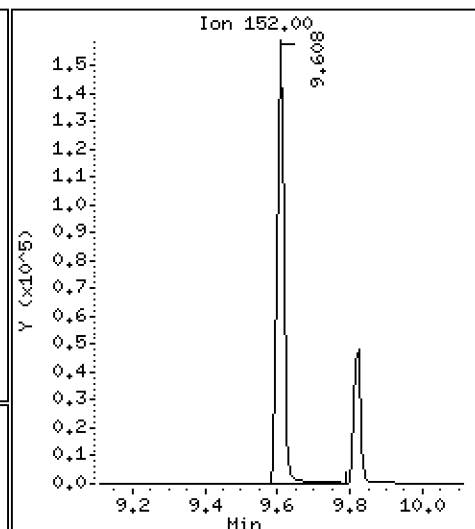
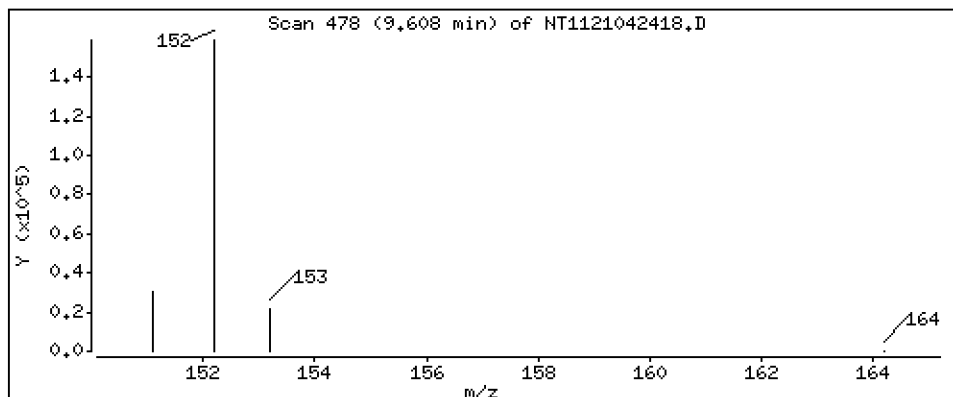
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

10 Acenaphthylene

Concentration: 194 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

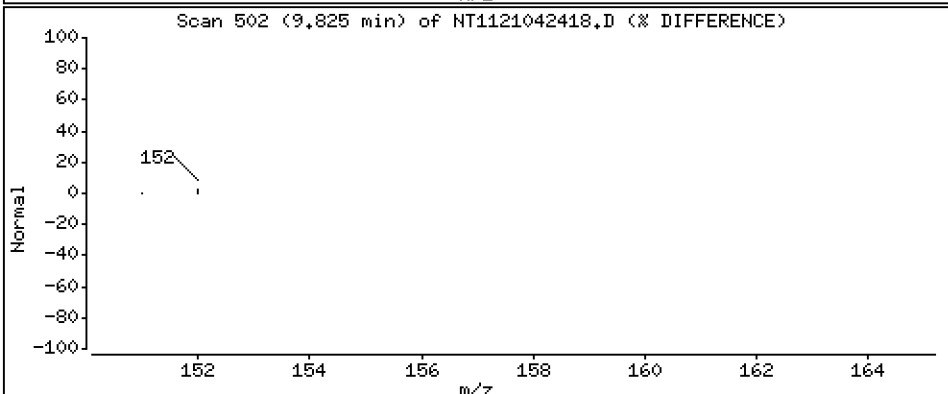
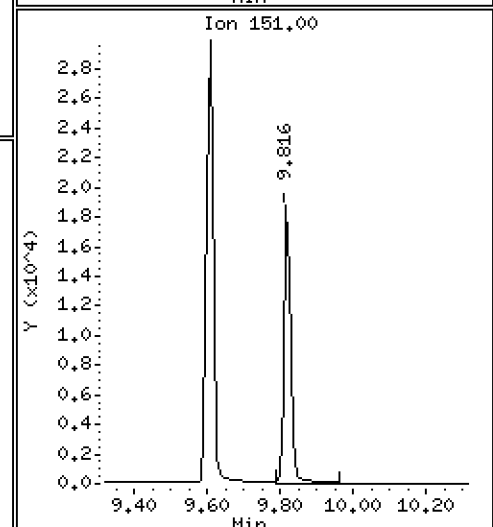
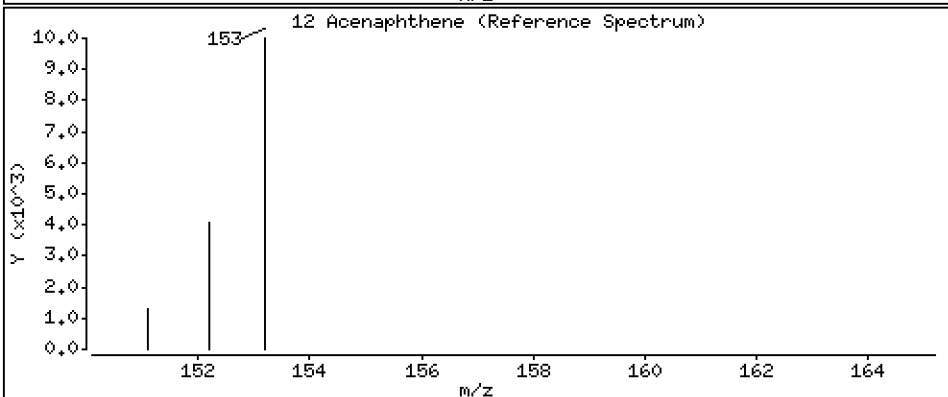
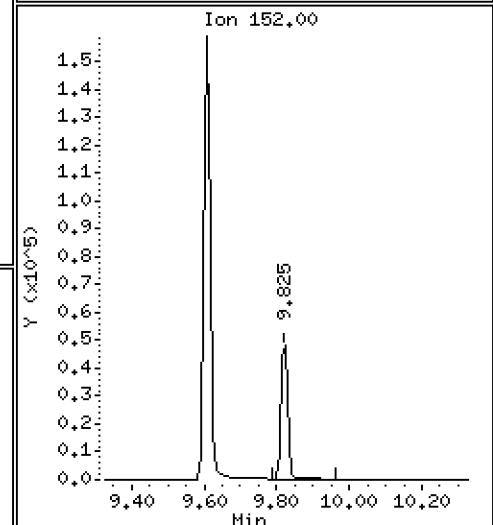
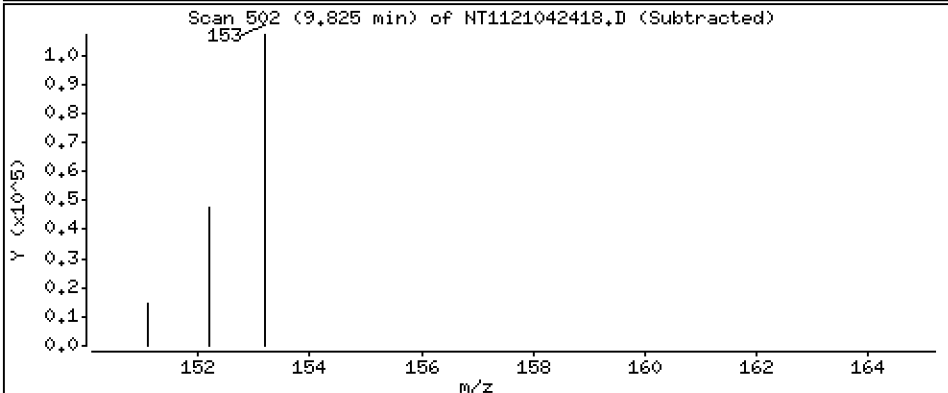
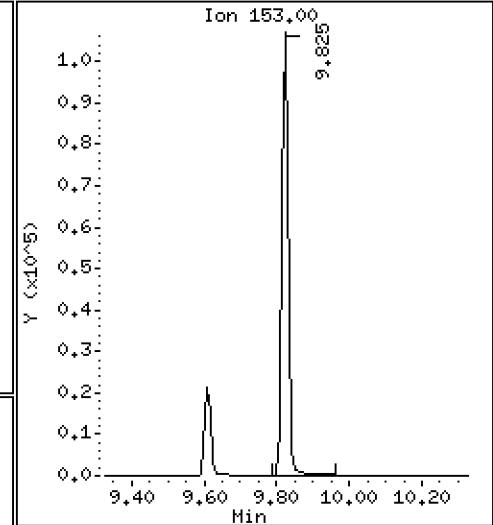
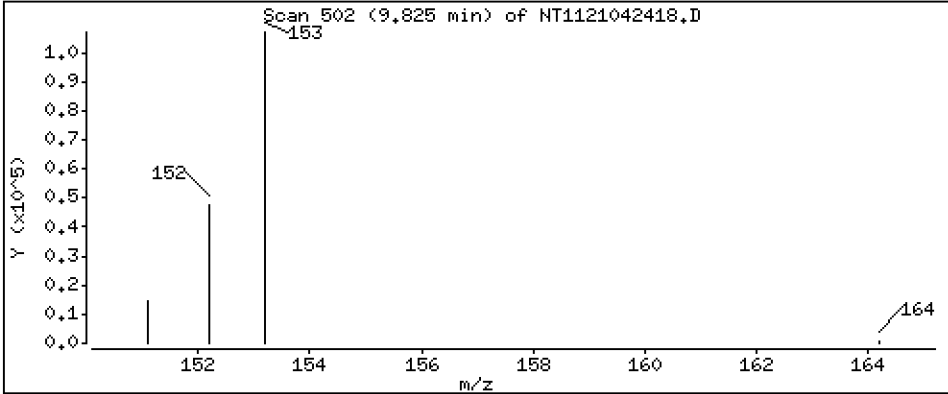
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

Concentration: 197 ng/mL

12 Acenaphthene



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

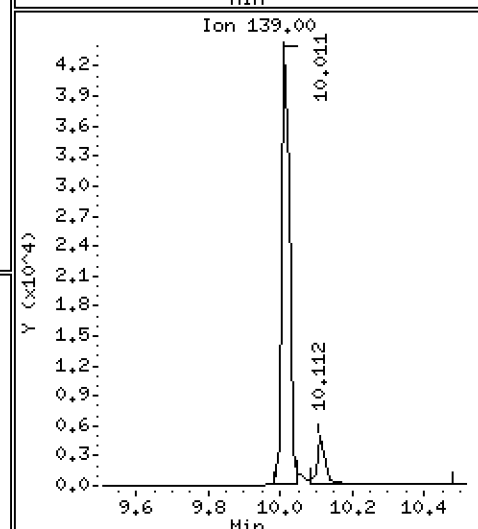
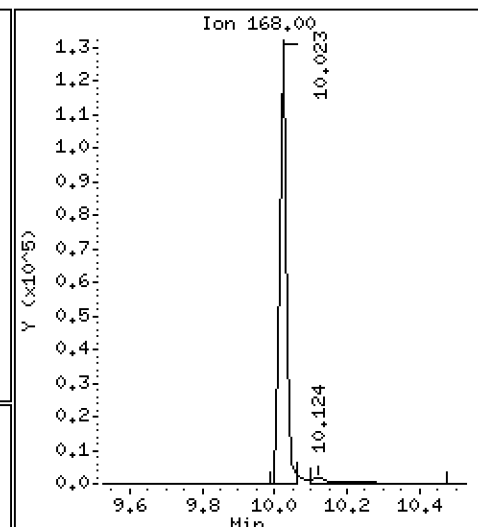
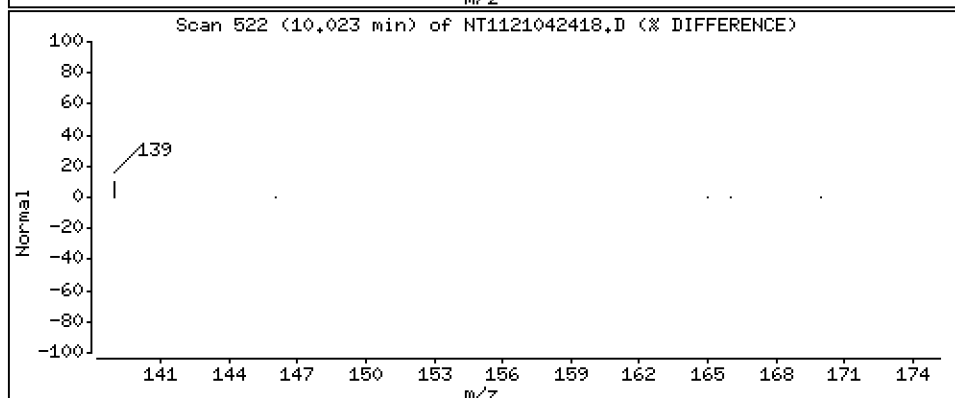
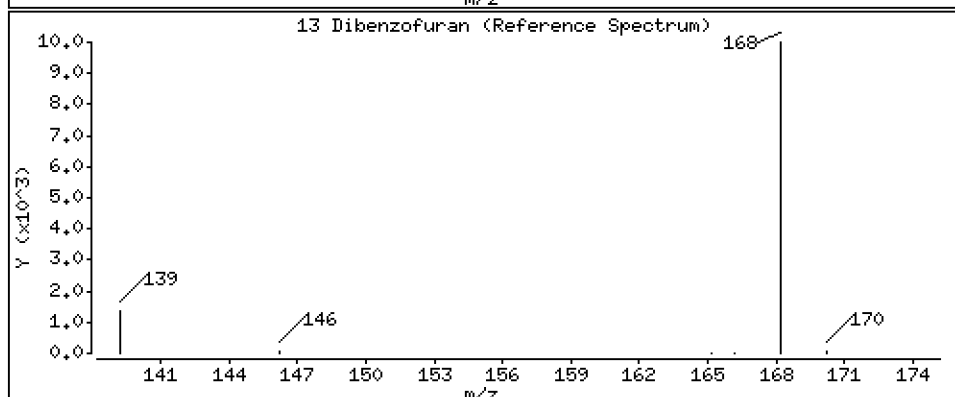
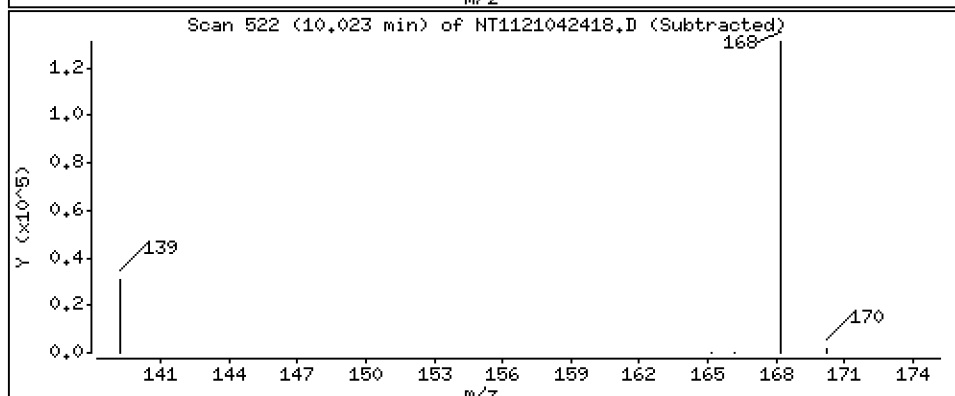
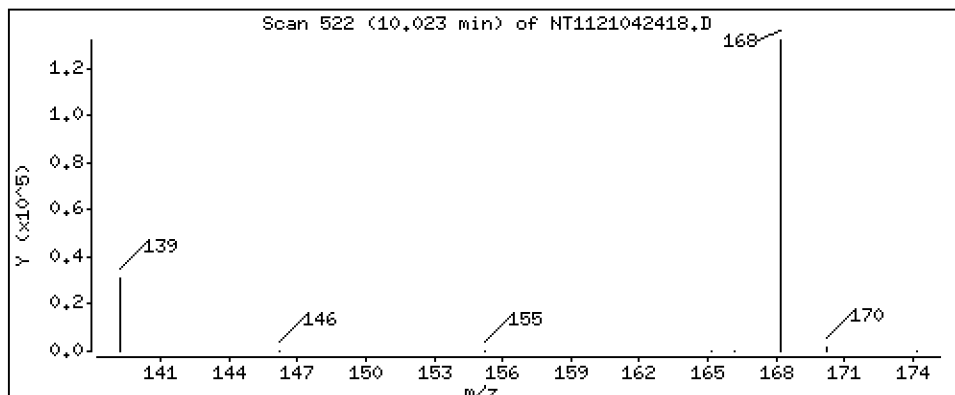
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

13 Dibenzofuran

Concentration: 184 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

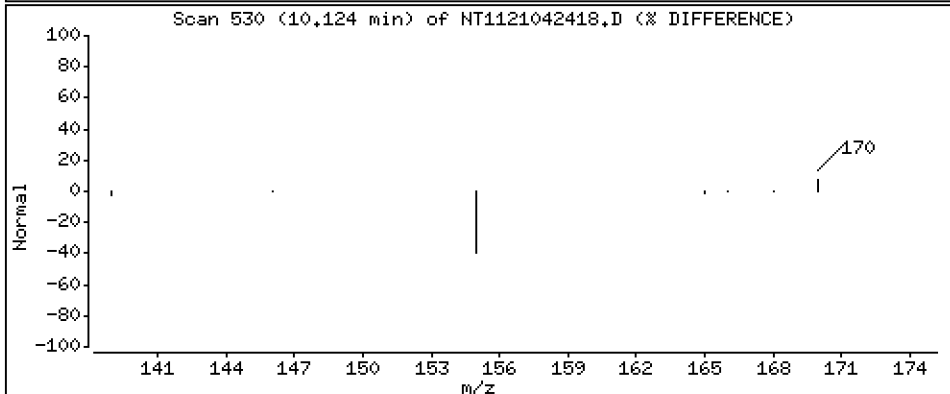
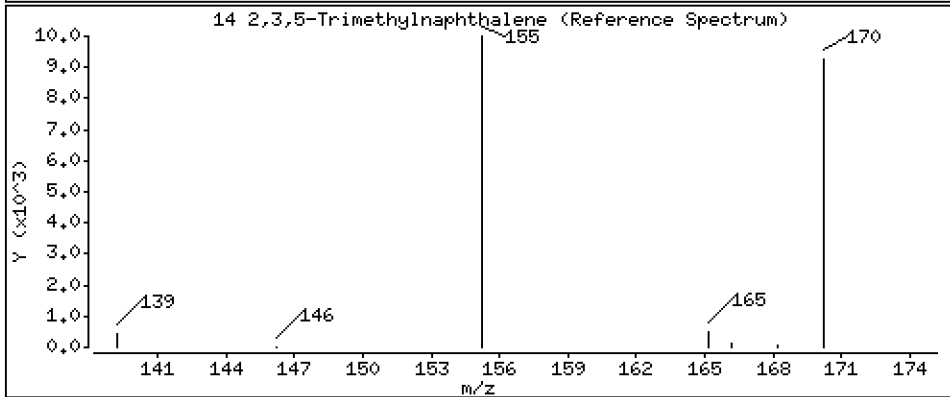
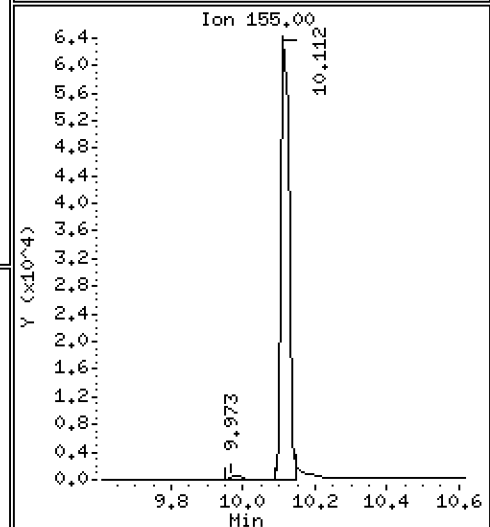
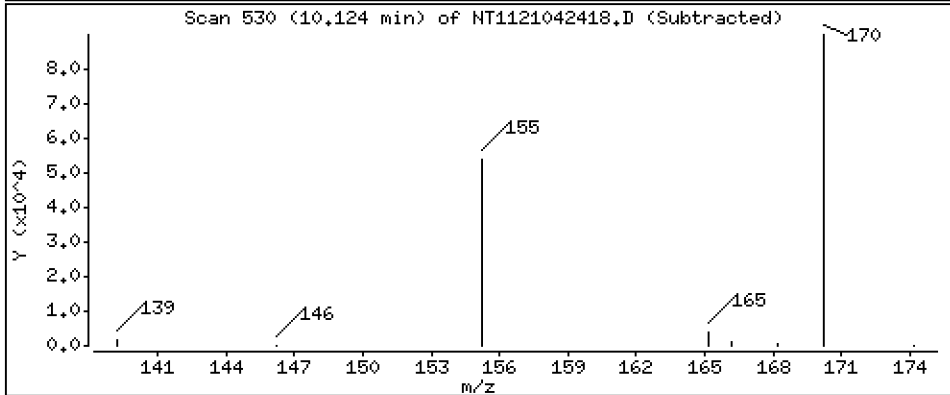
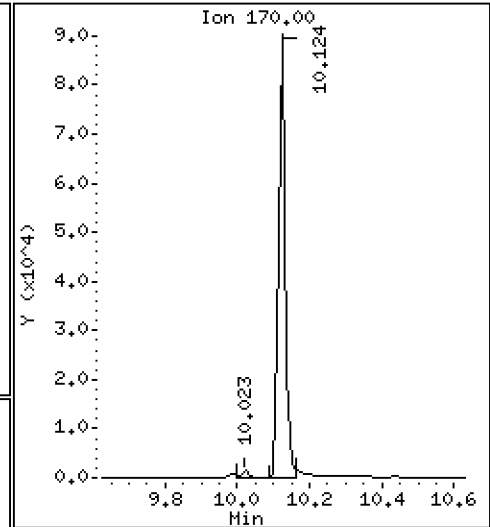
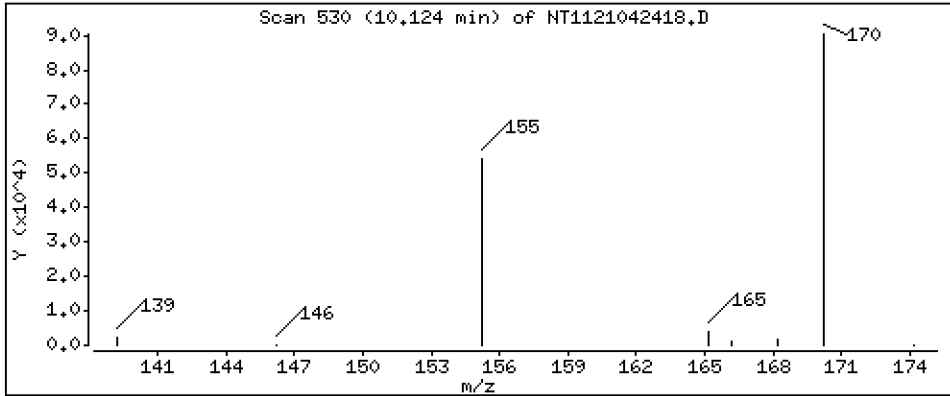
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

14 2,3,5-Trimethylnaphthalene

Concentration: 199 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

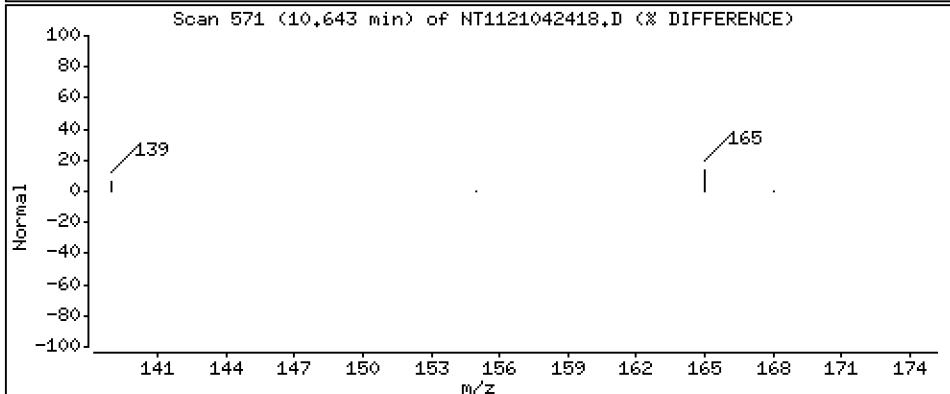
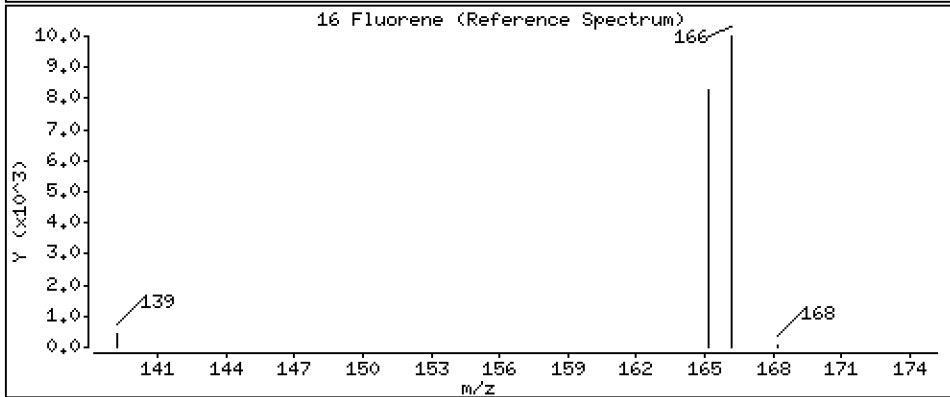
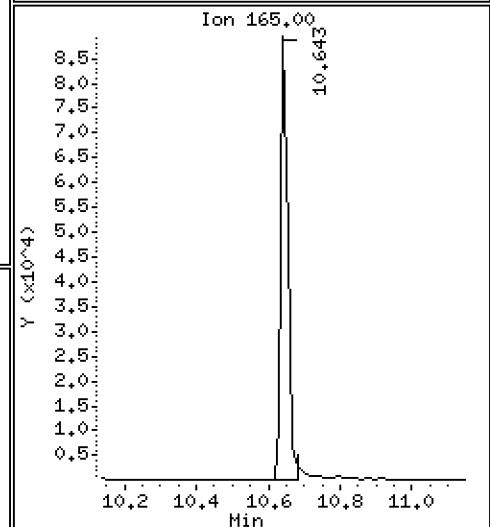
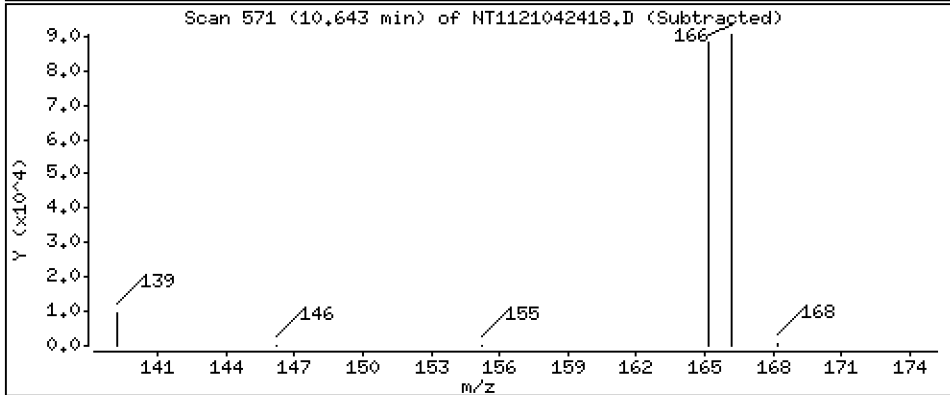
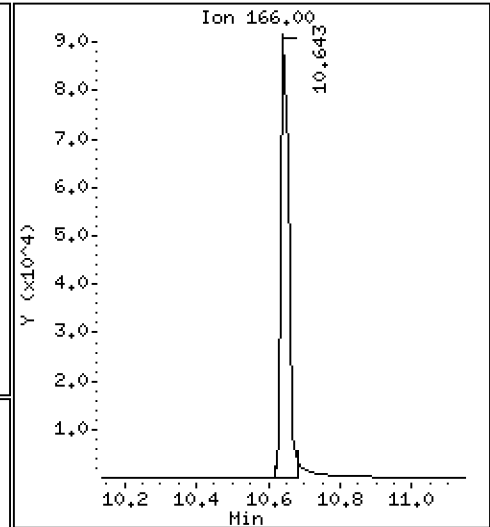
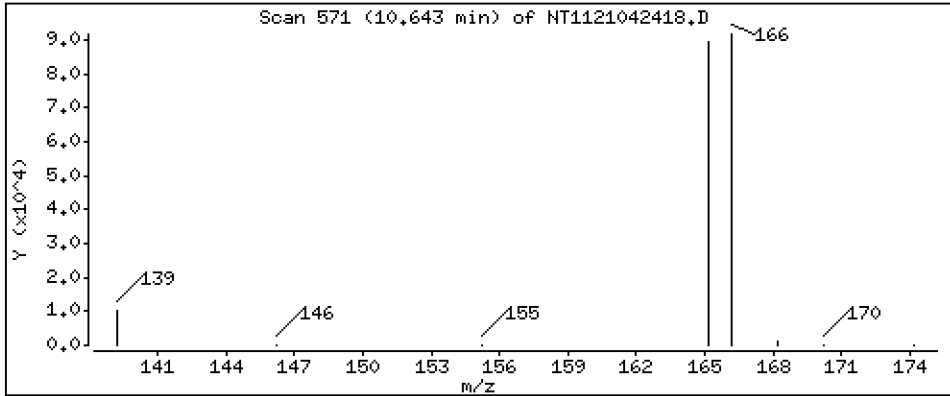
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 Fluorene

Concentration: 196 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

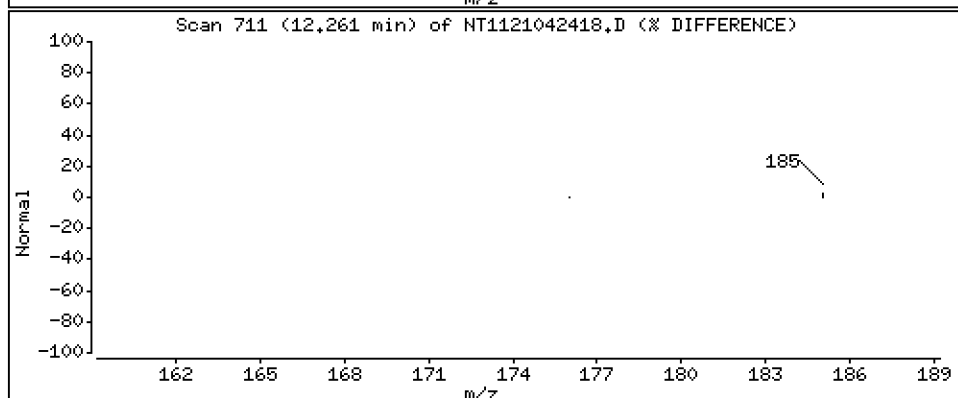
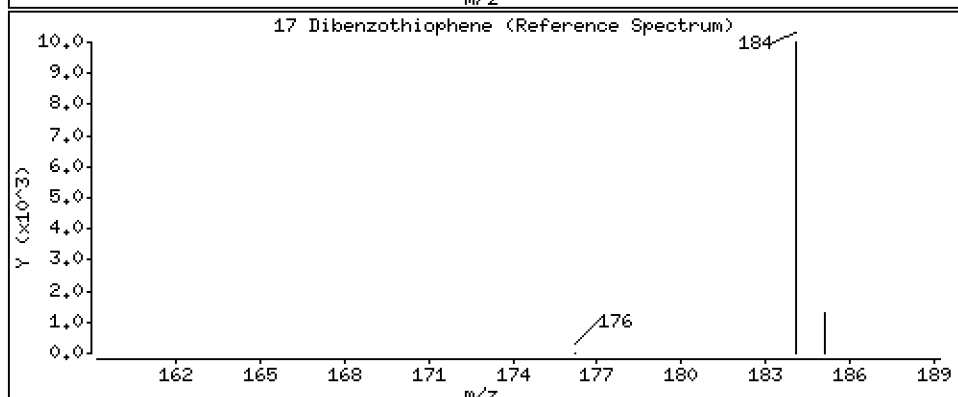
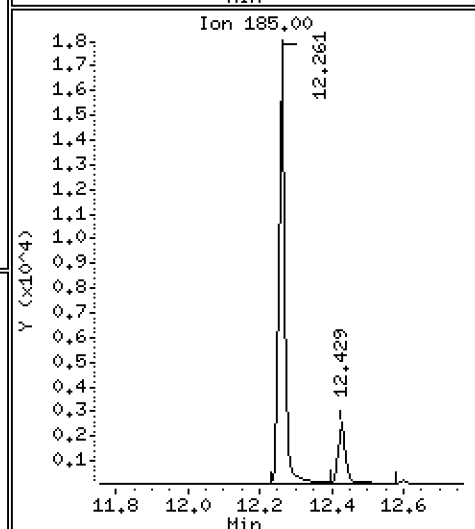
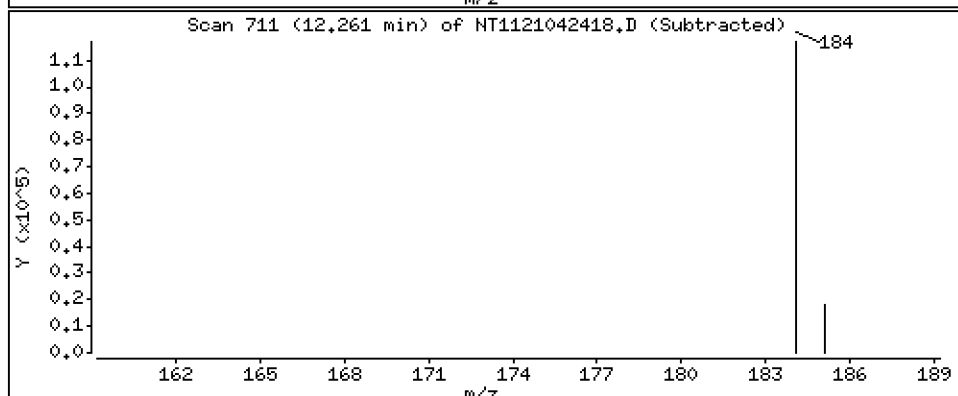
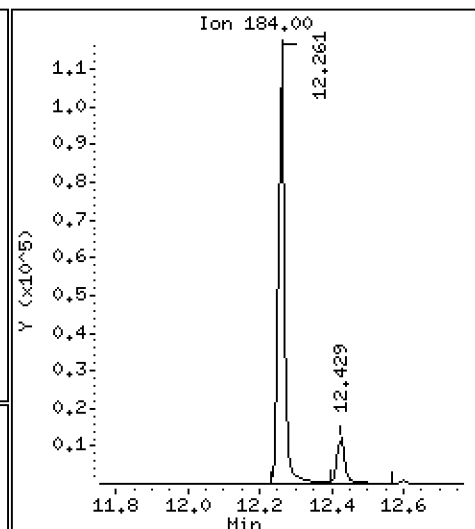
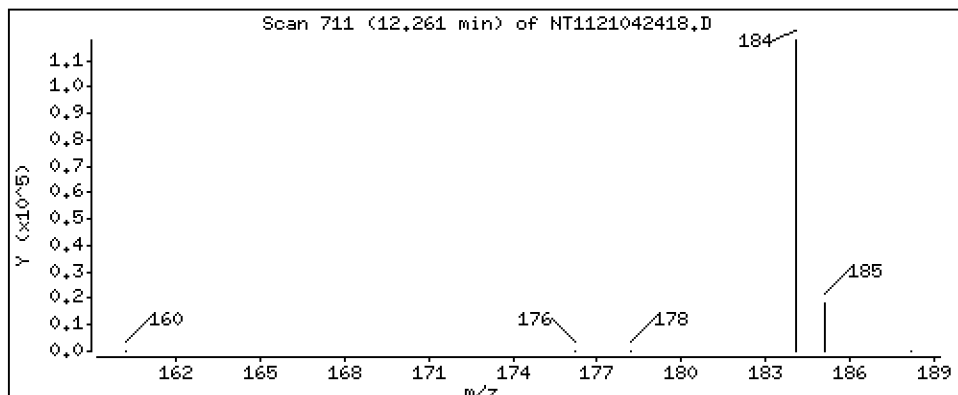
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 Dibenzothiophene

Concentration: 213 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

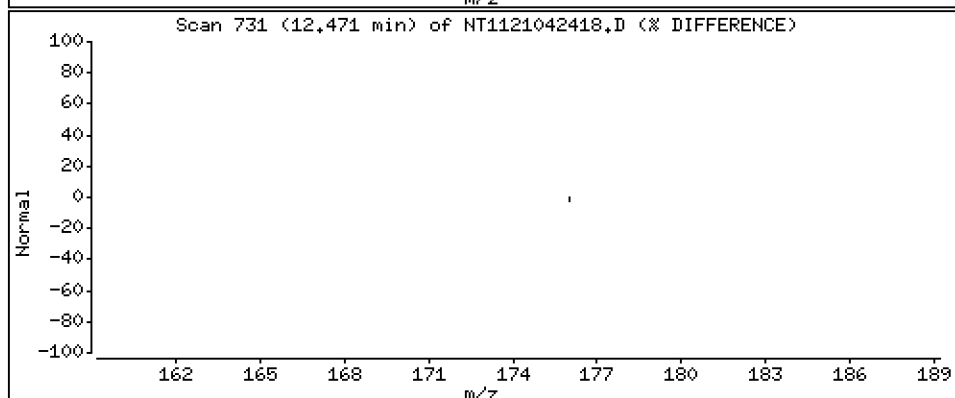
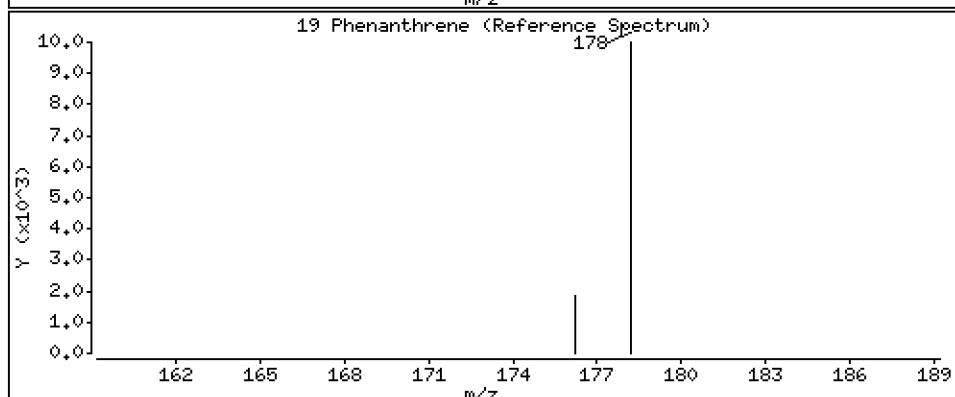
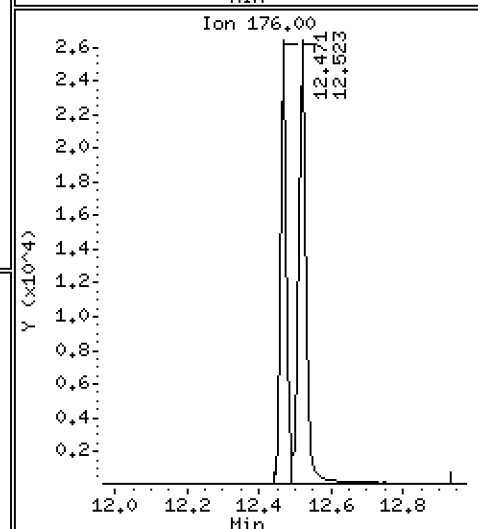
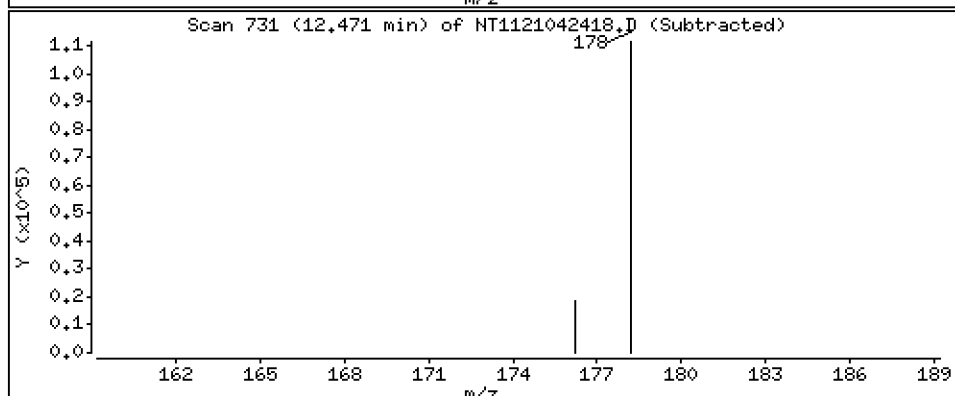
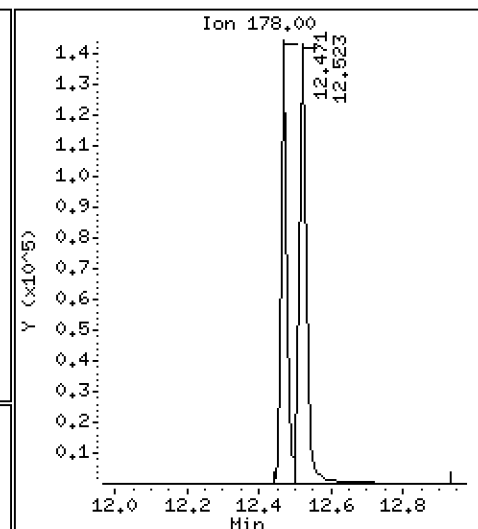
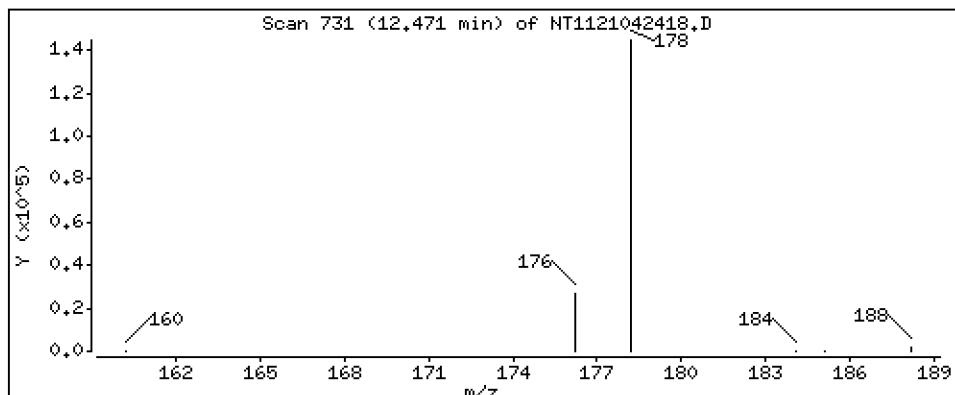
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 Phenanthrene

Concentration: 215 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

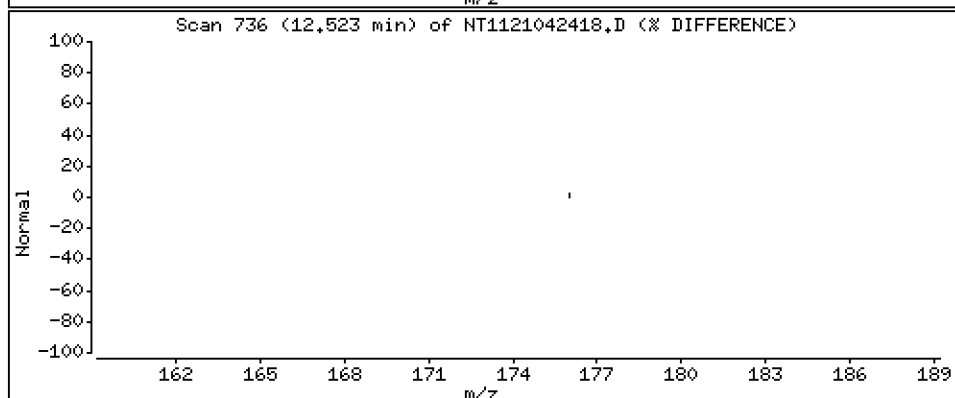
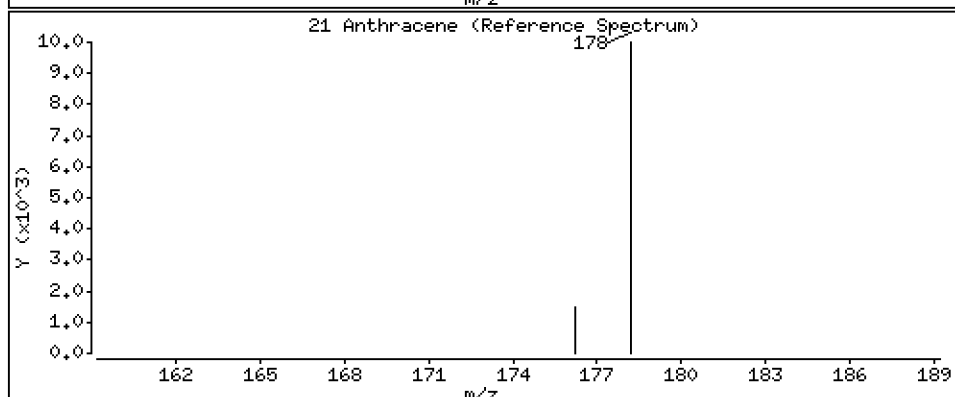
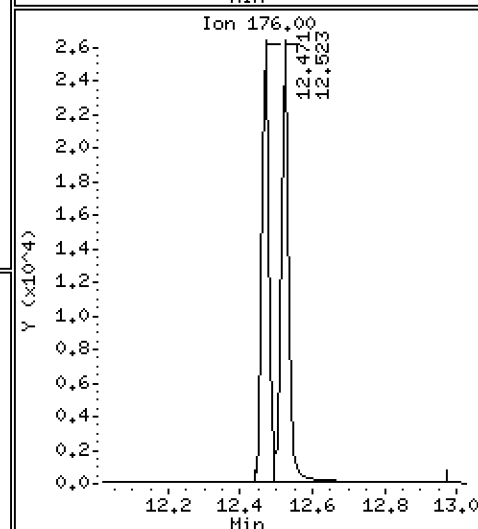
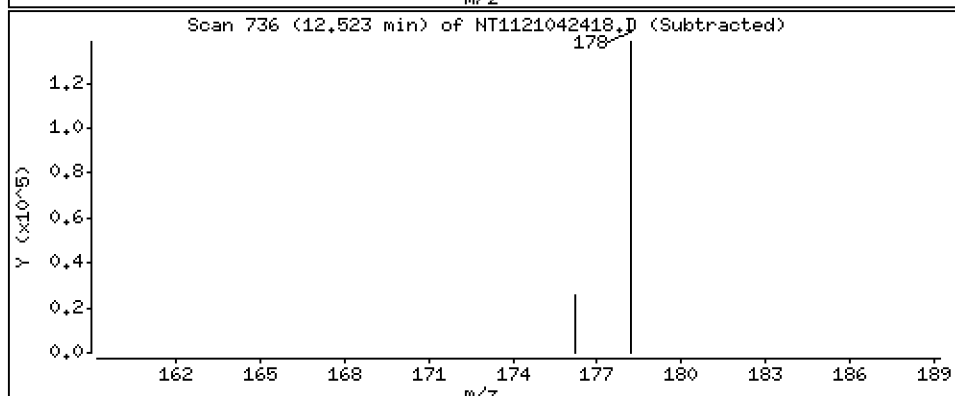
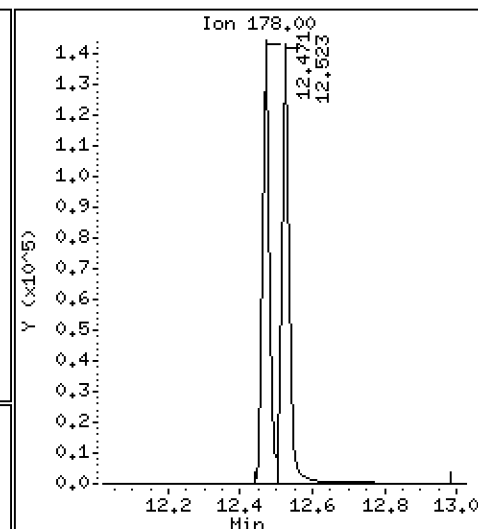
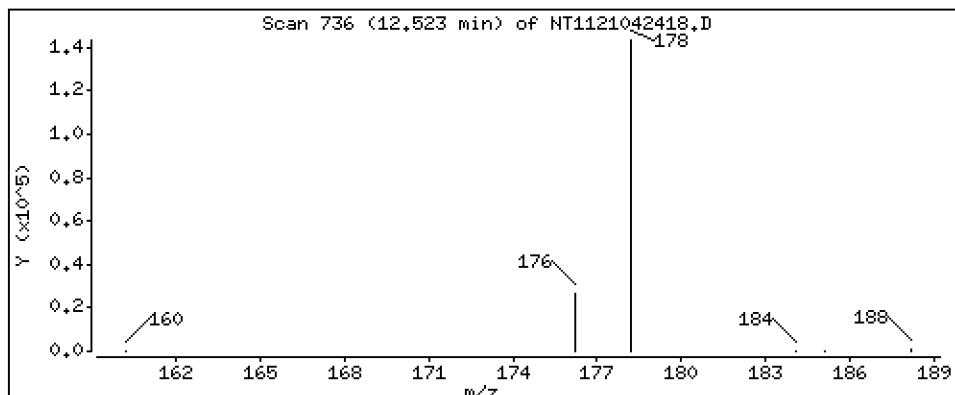
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

21 Anthracene

Concentration: 226 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

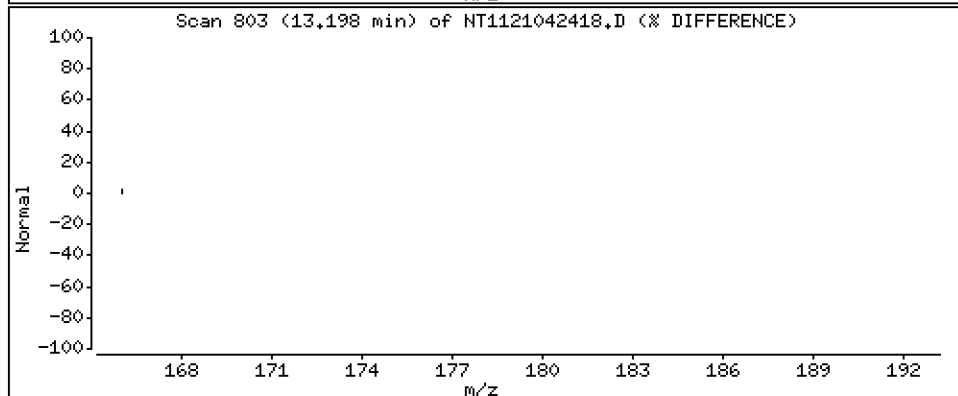
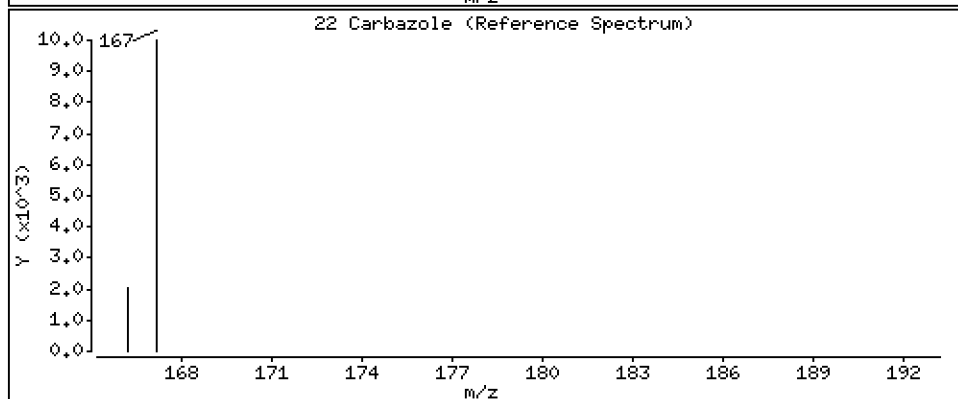
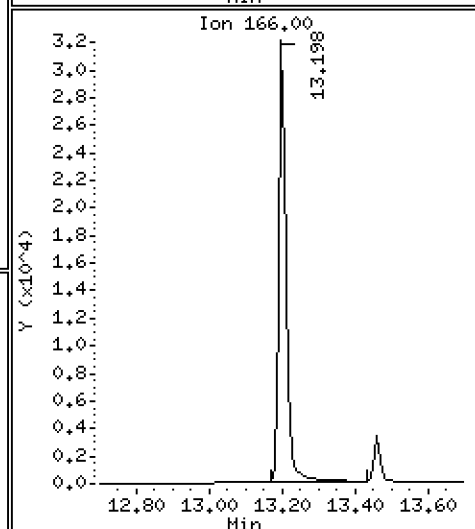
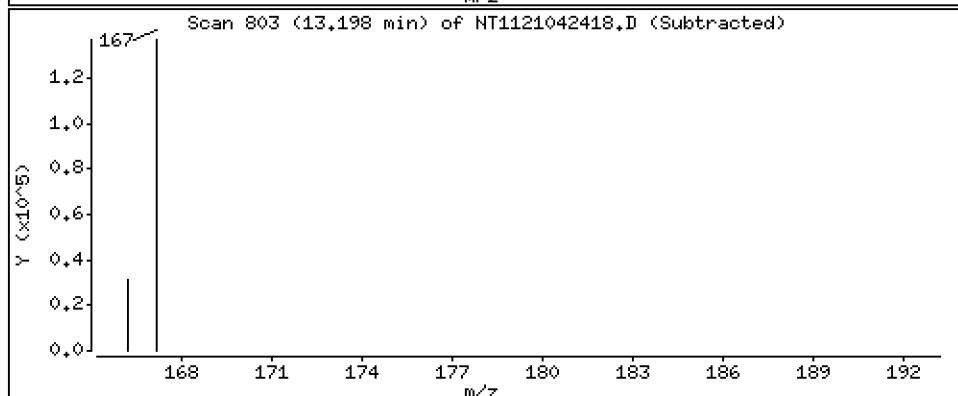
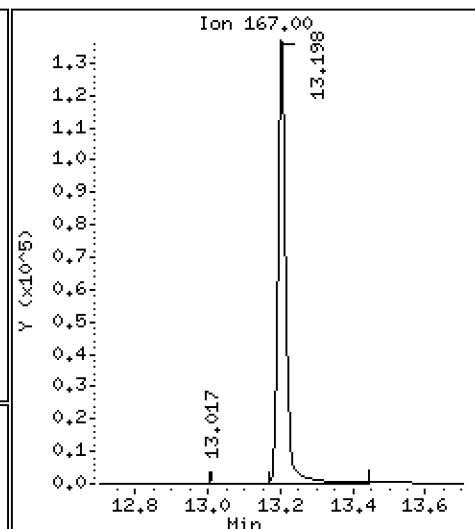
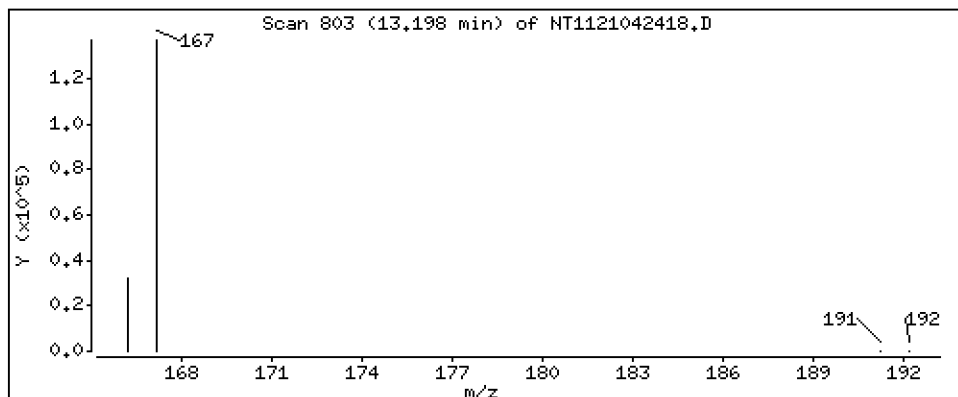
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Carbazole

Concentration: 234 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

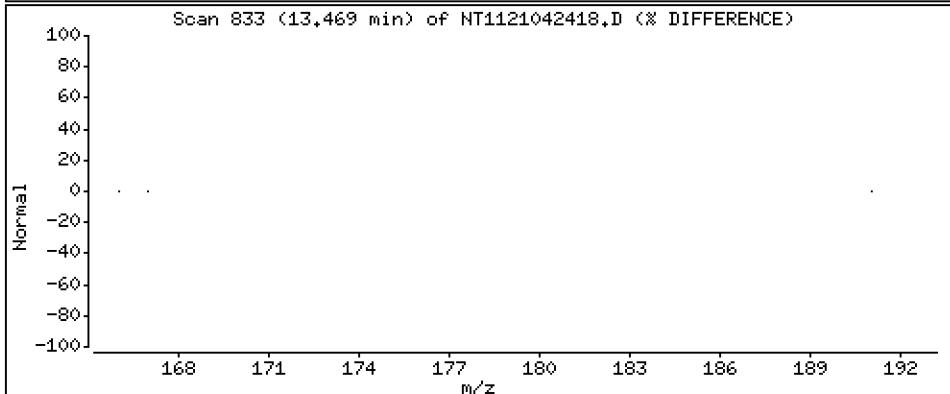
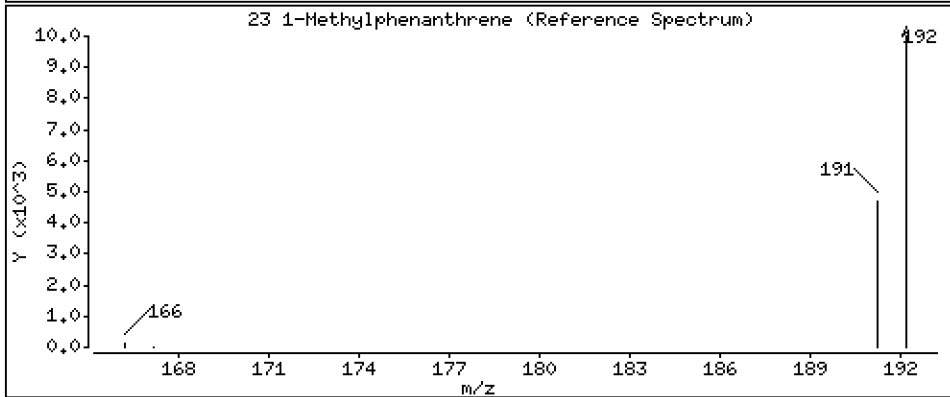
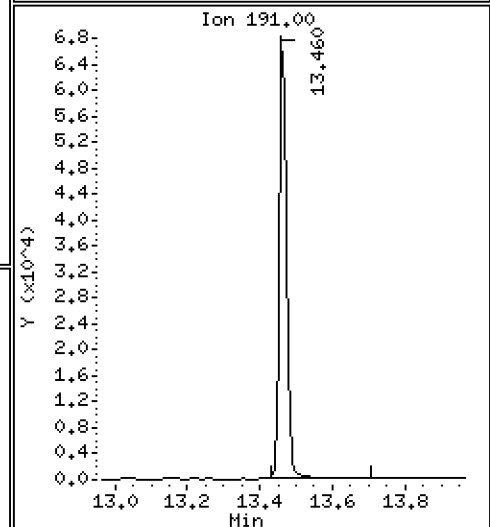
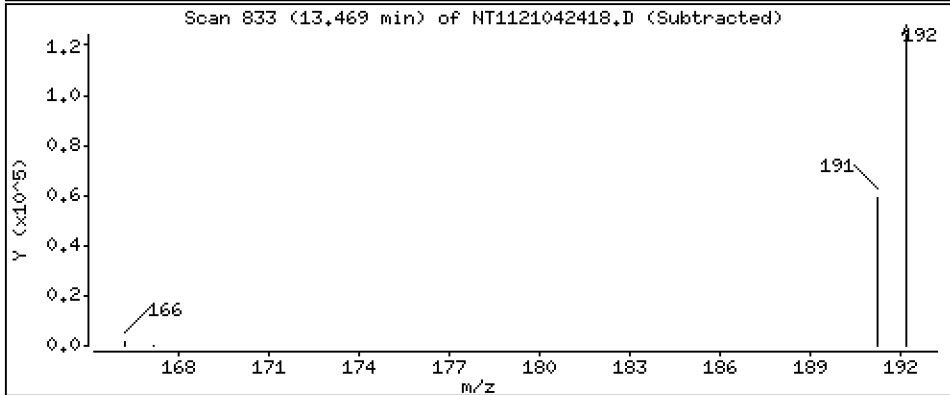
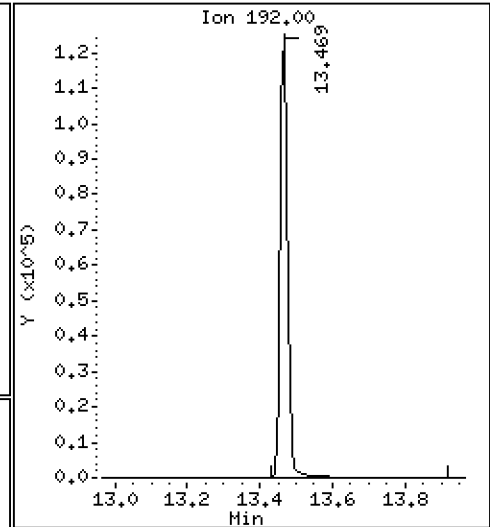
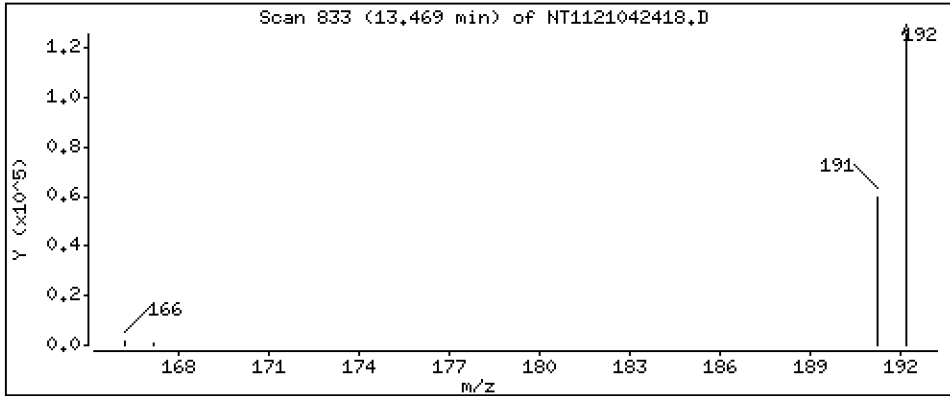
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

23 1-Methylphenanthrene

Concentration: 223 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

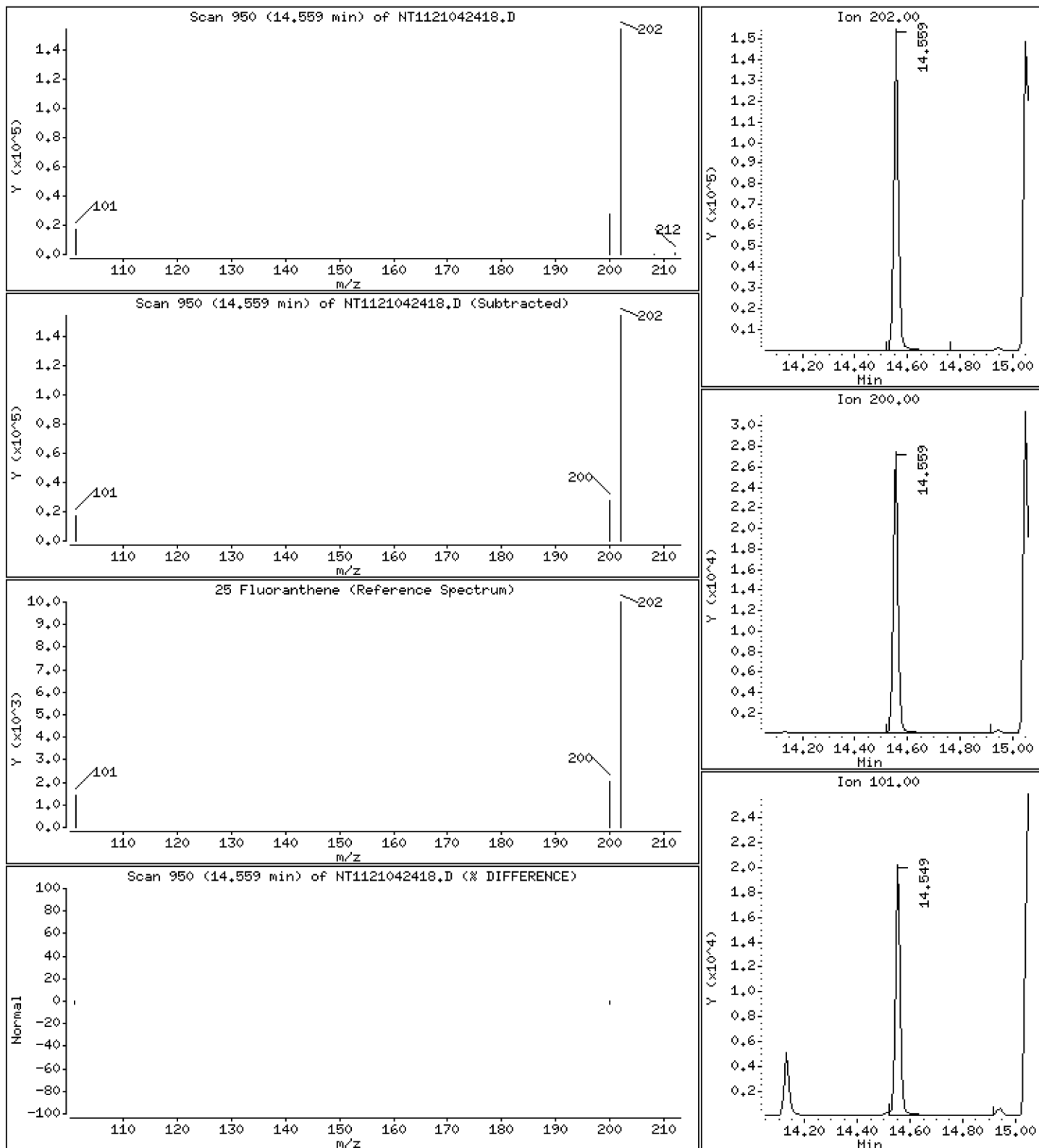
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

25 Fluoranthene

Concentration: 229 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

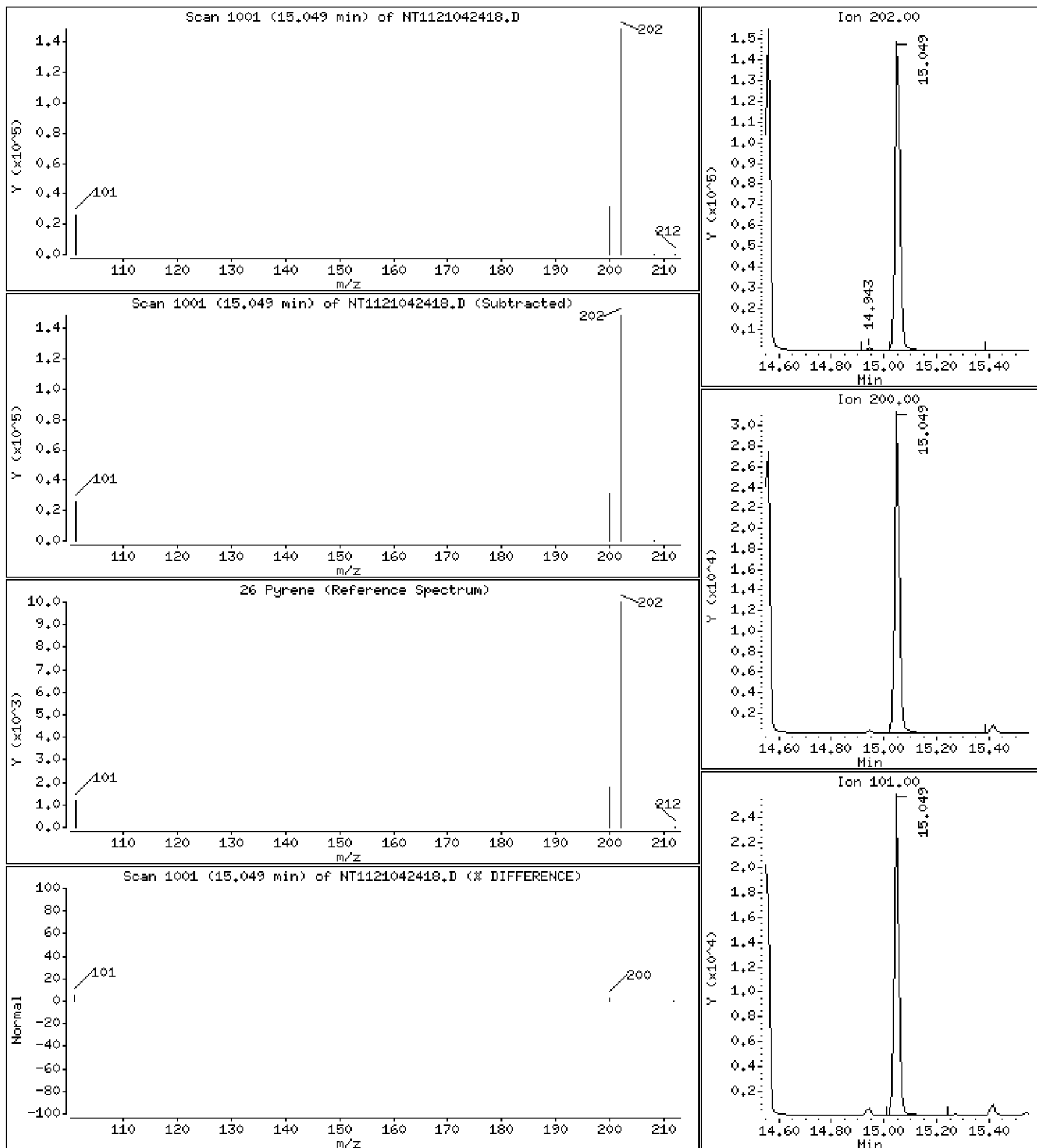
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Pyrene

Concentration: 229 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

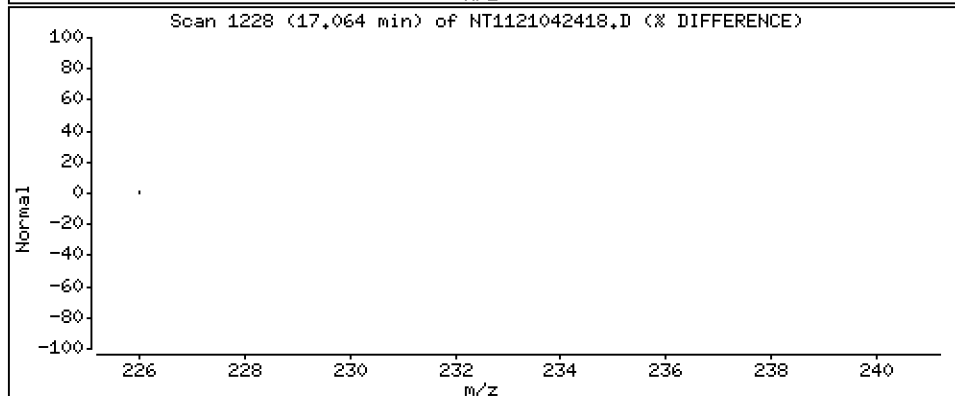
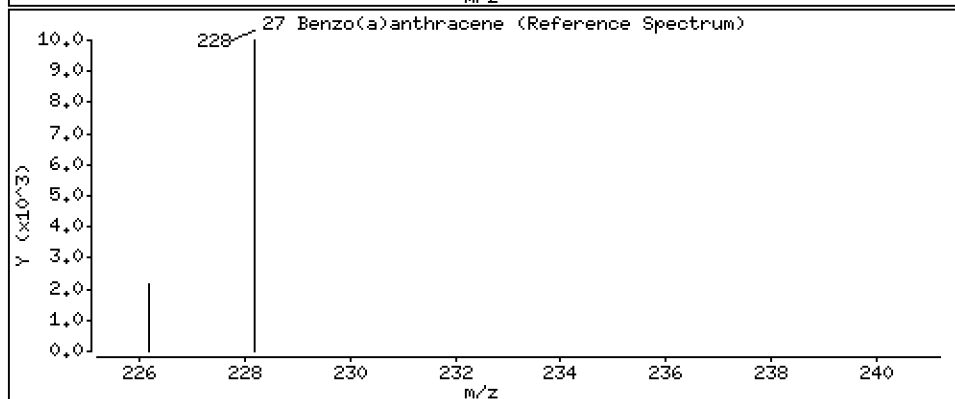
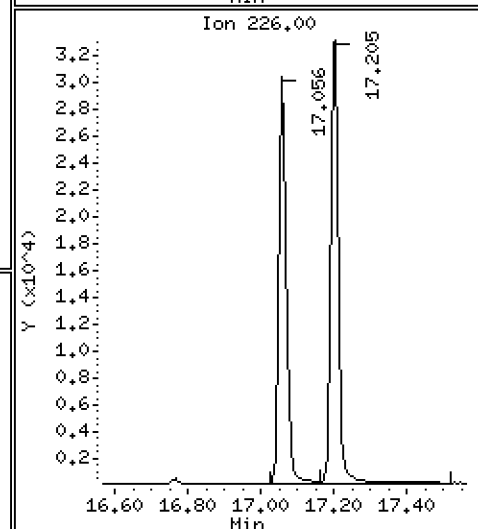
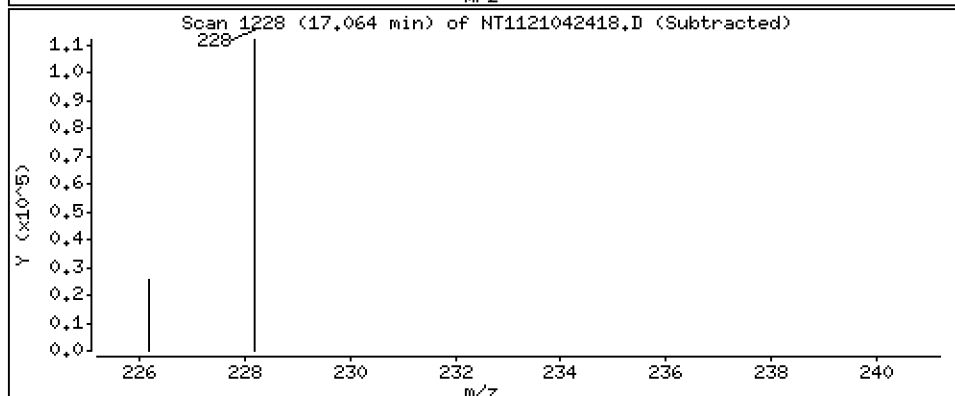
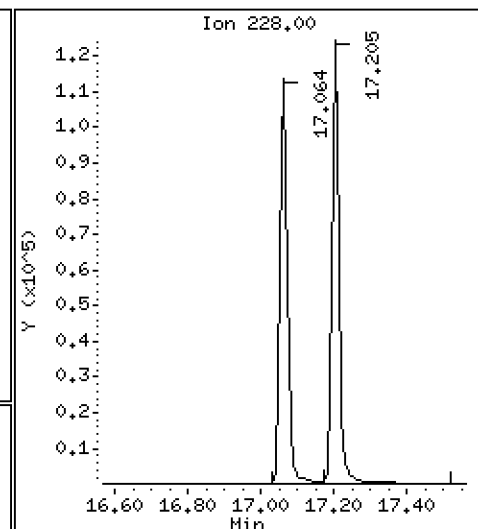
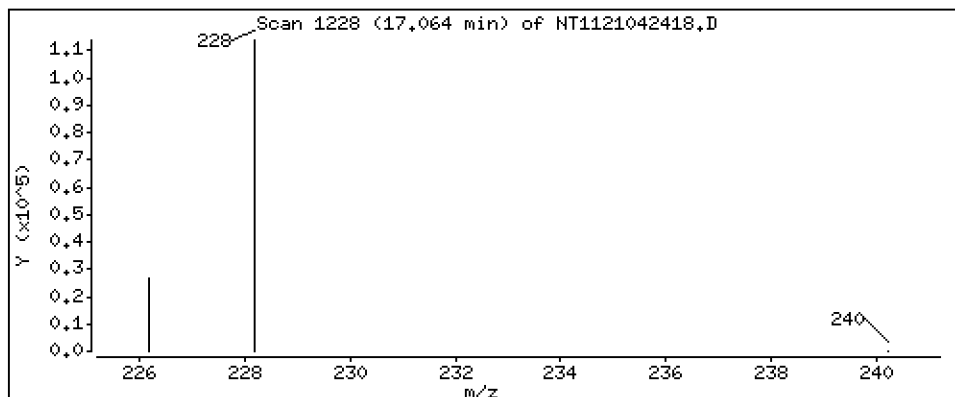
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

27 Benzo(a)anthracene

Concentration: 216 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

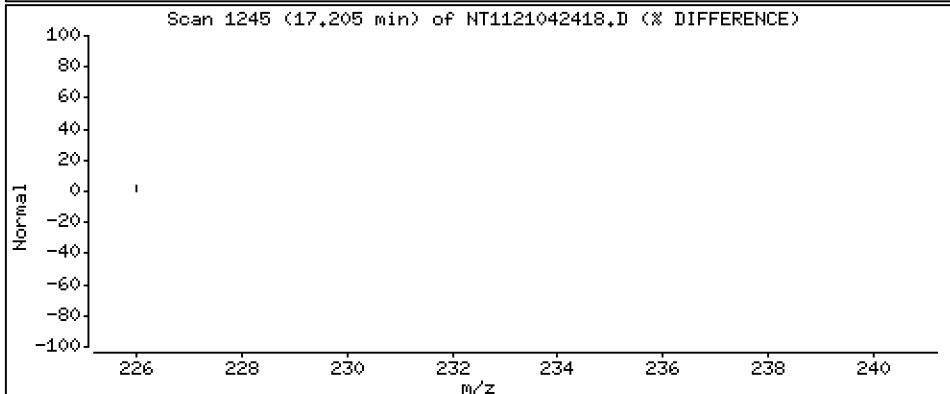
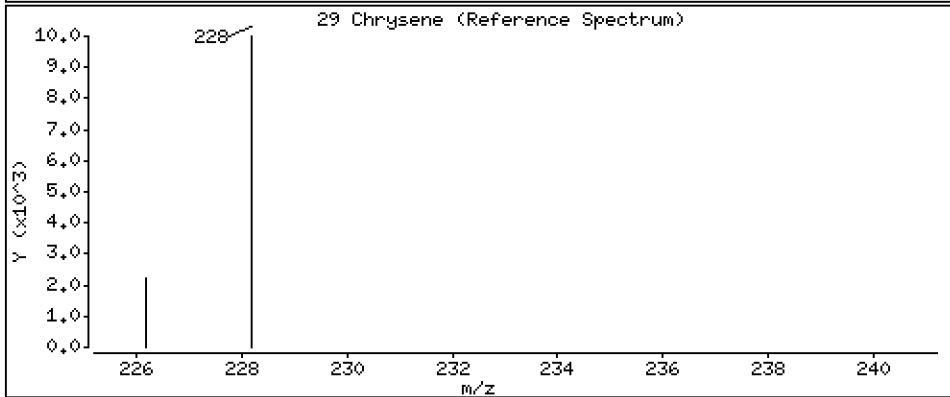
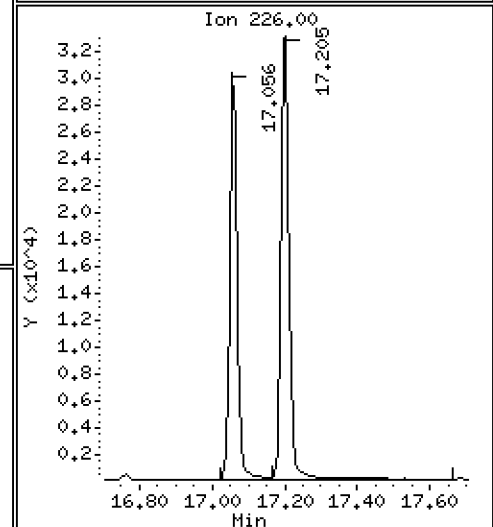
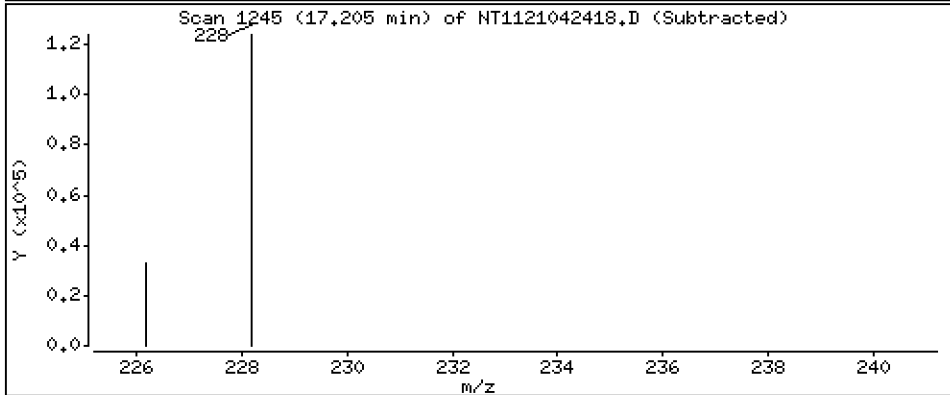
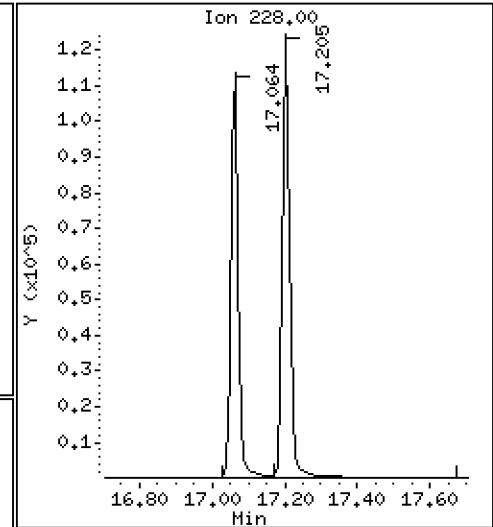
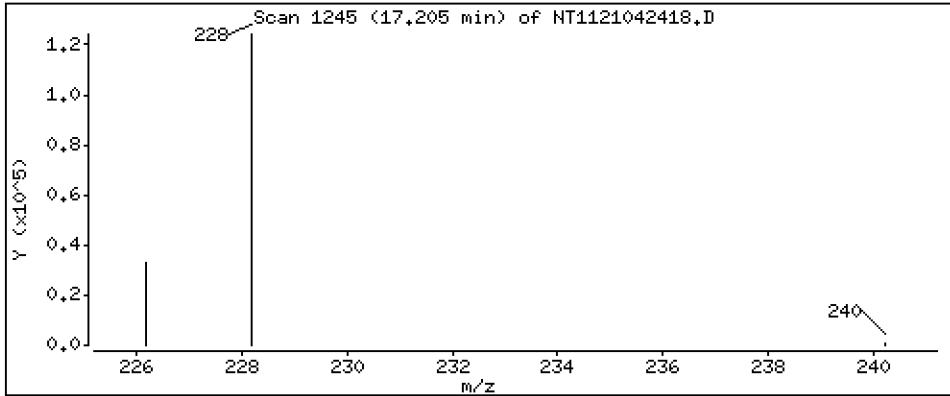
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

Concentration: 204 ng/mL

29 Chrysene



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

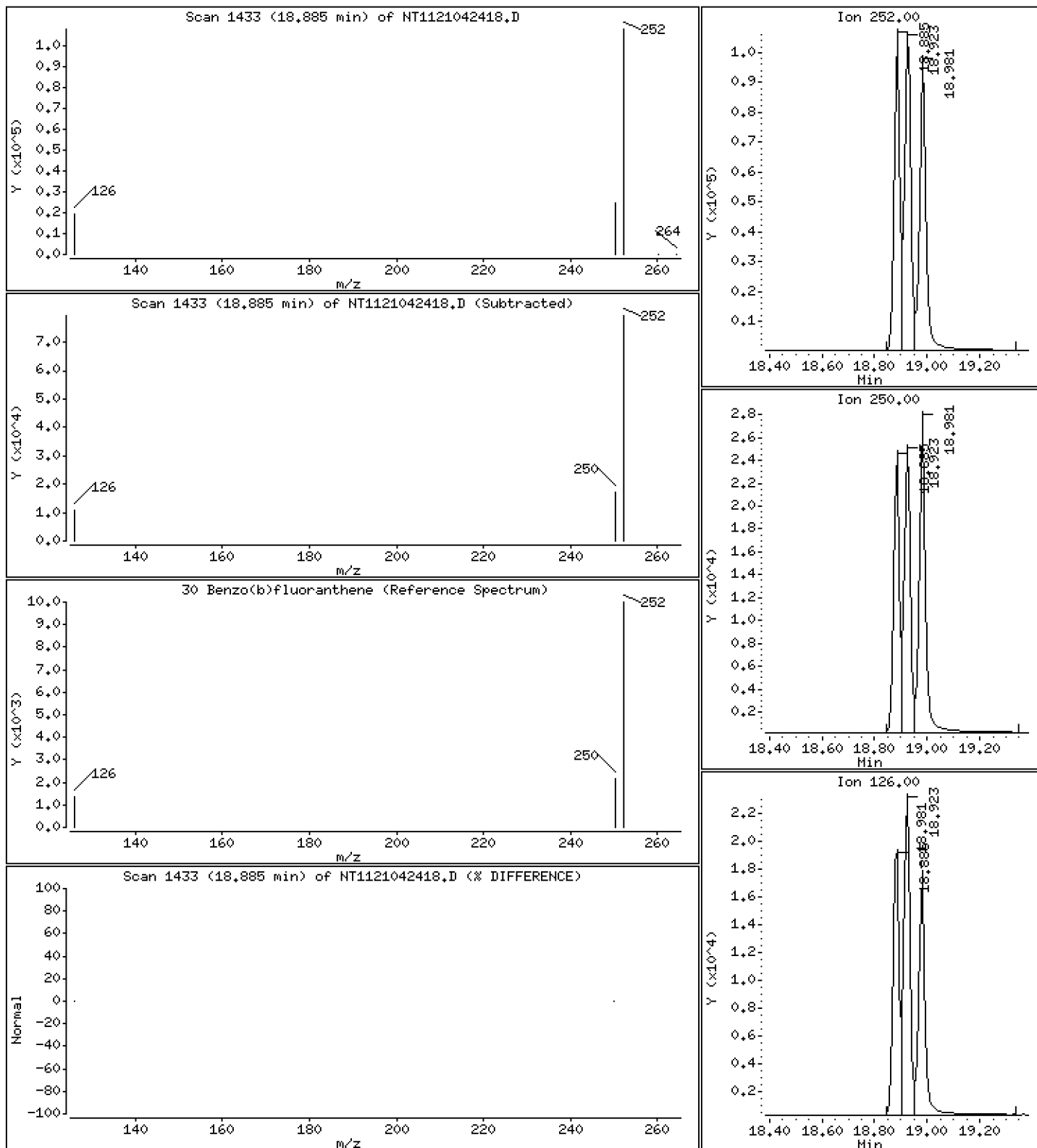
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Benzo(b)fluoranthene

Concentration: 247 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

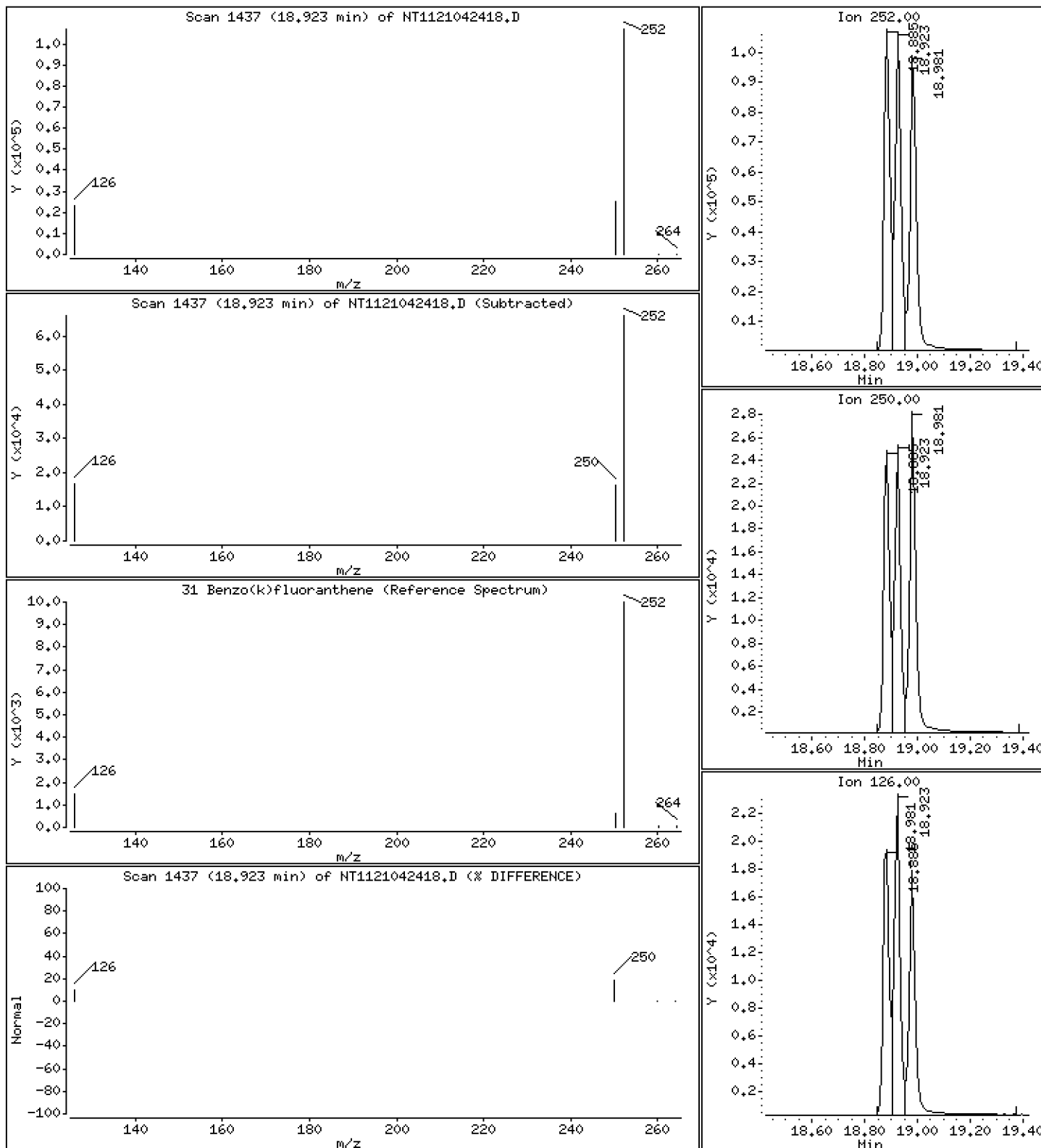
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

31 Benzo(k)fluoranthene

Concentration: 211 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

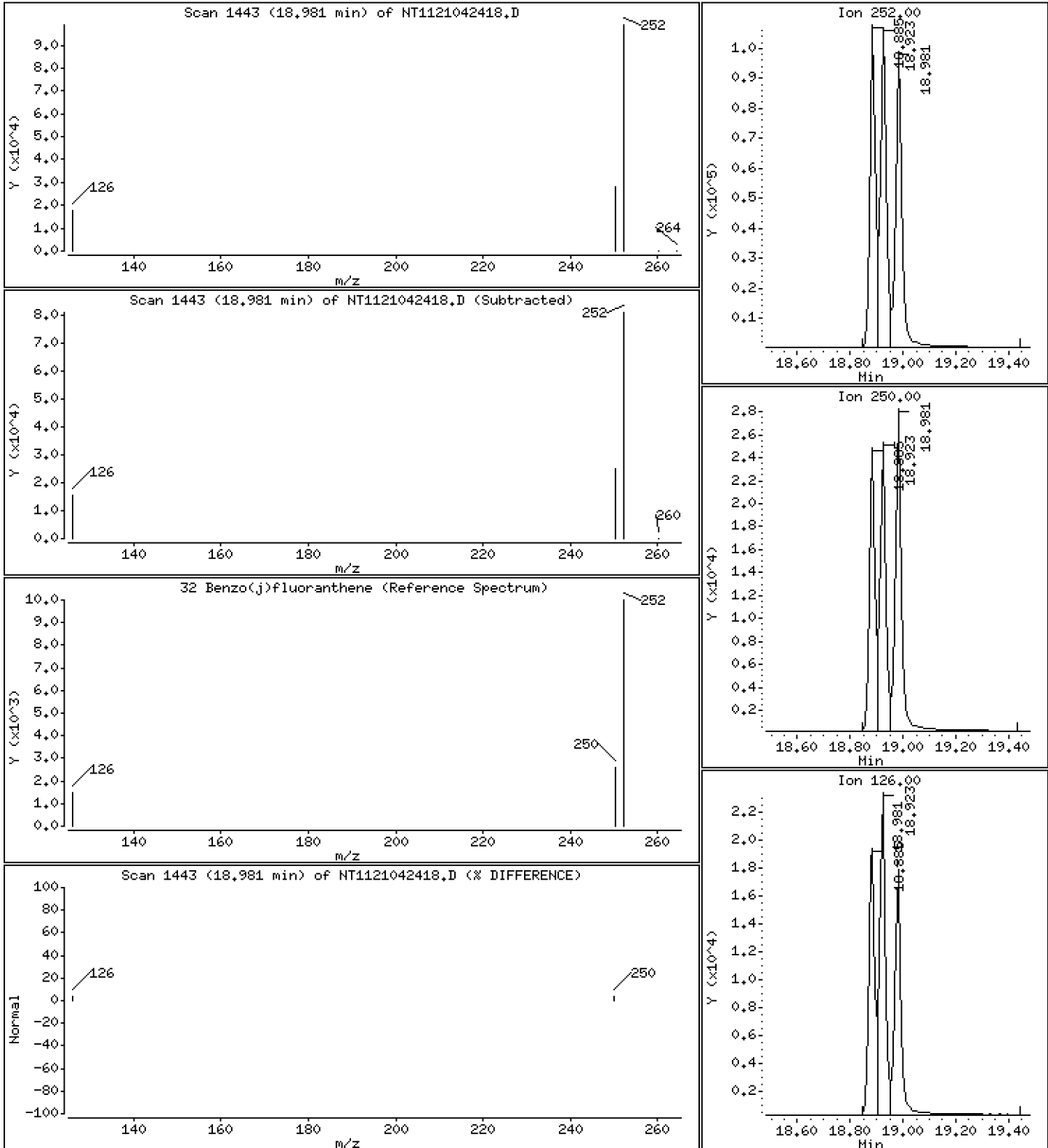
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

32 Benzo(j)fluoranthene

Concentration: 186 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

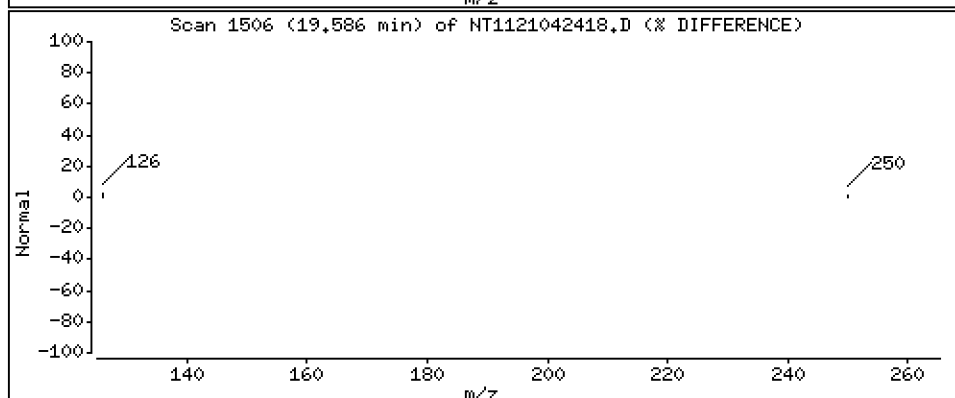
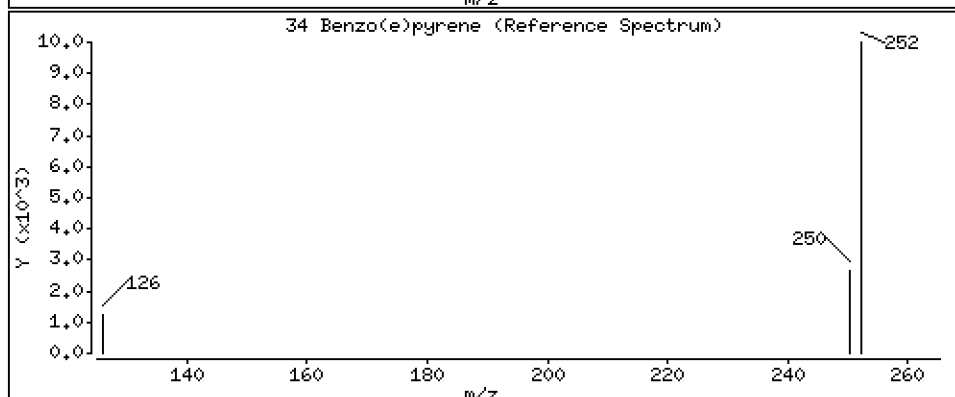
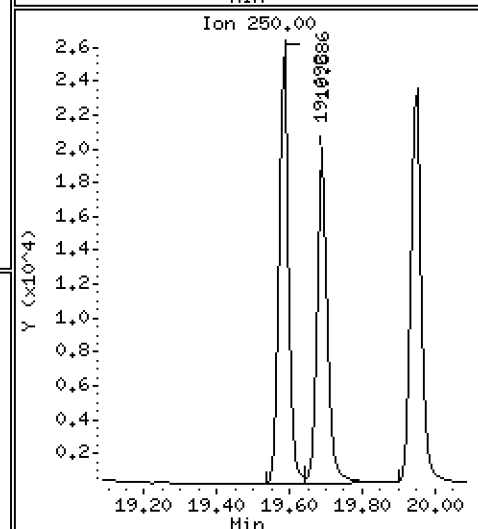
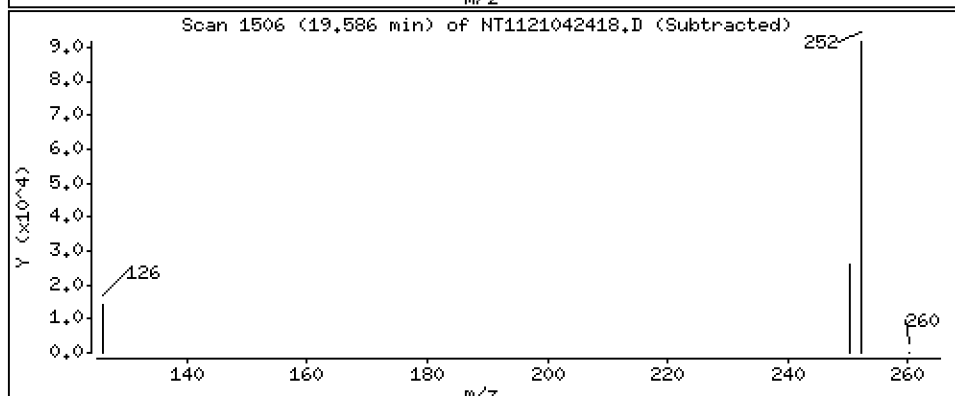
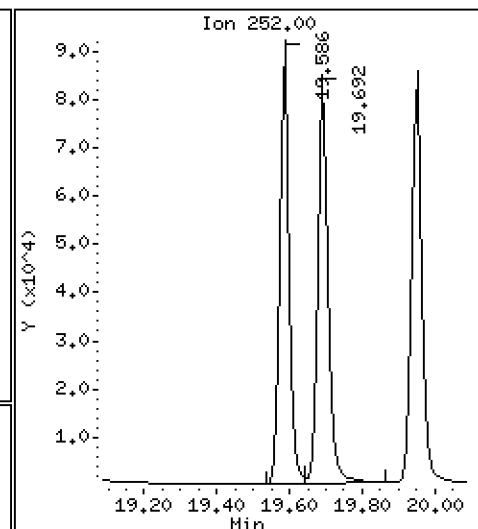
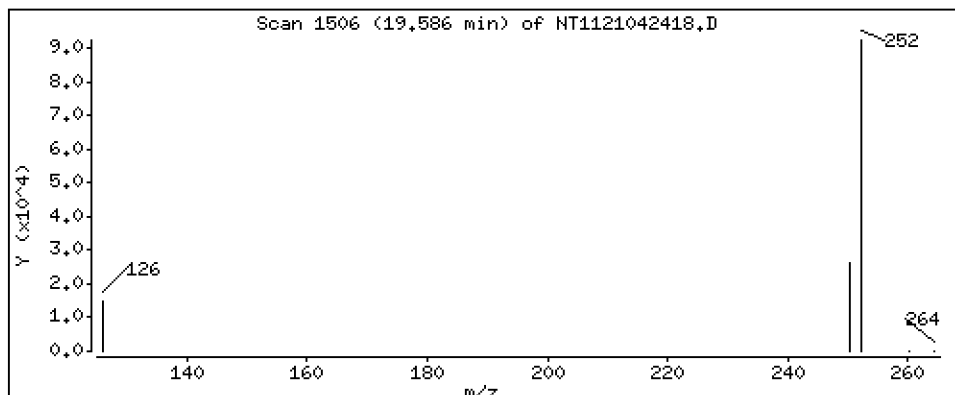
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

34 Benzo(e)pyrene

Concentration: 216 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

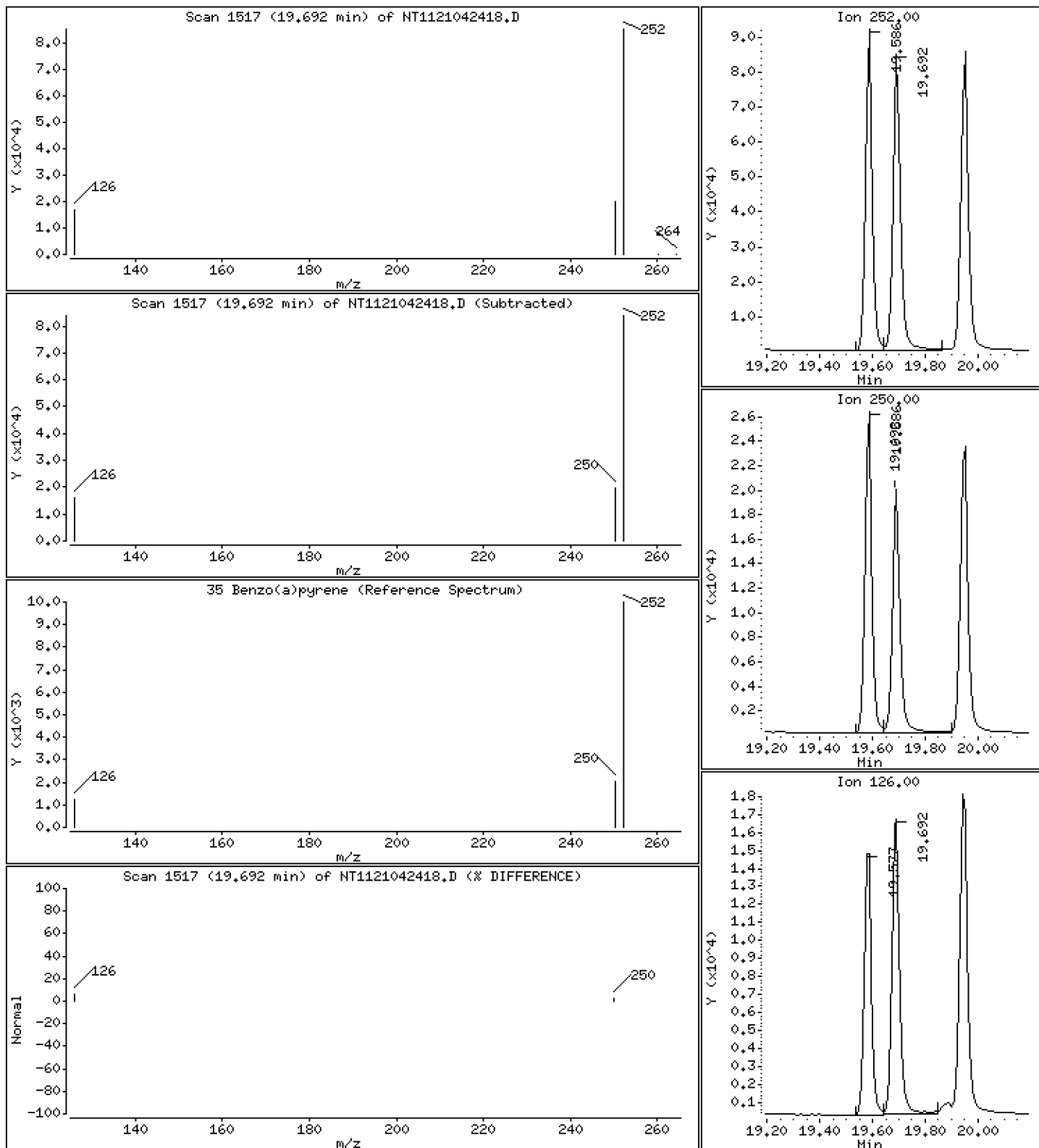
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

35 Benzo(a)pyrene

Concentration: 241 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

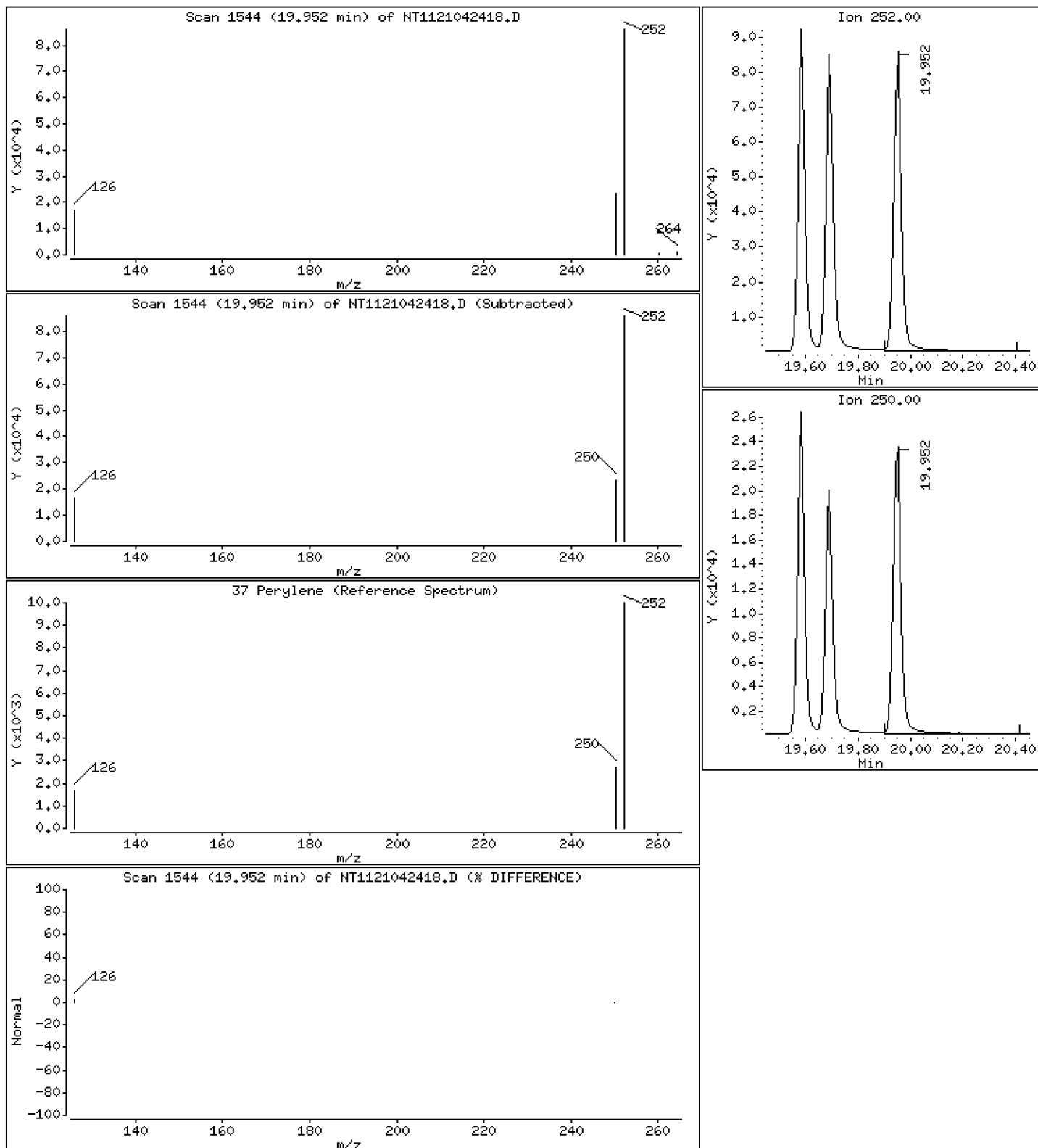
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

37 Perylene

Concentration: 218 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

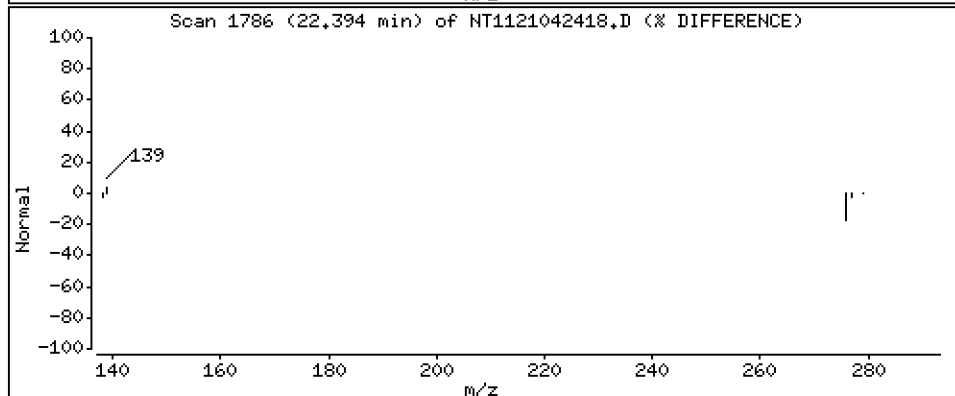
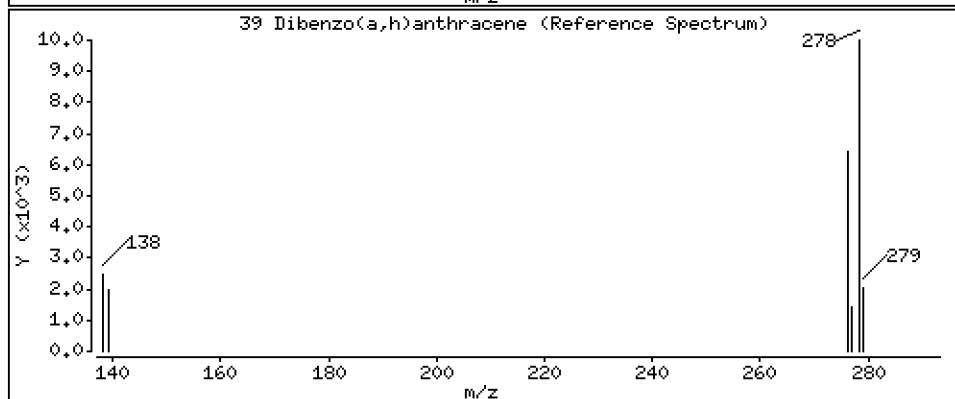
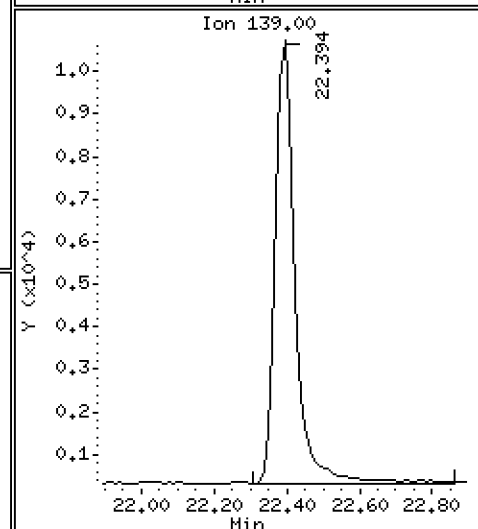
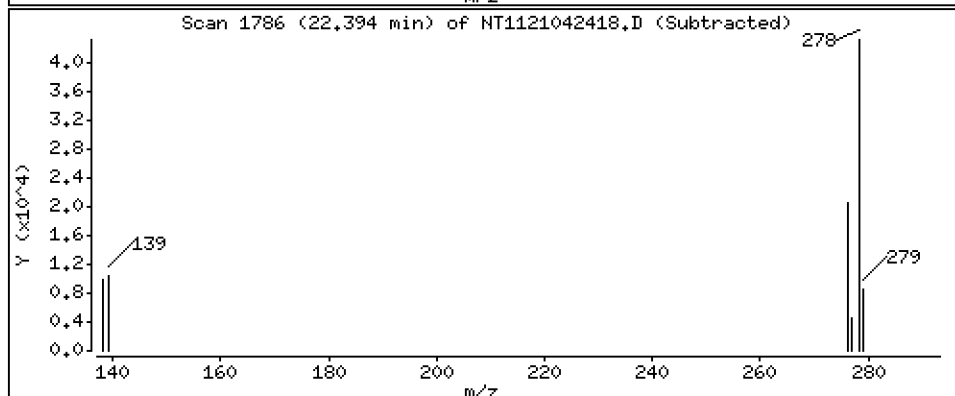
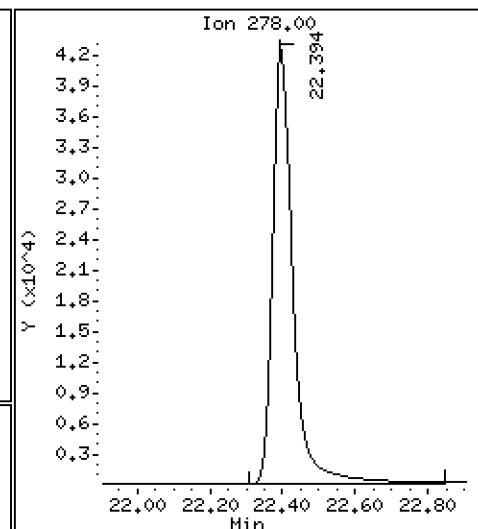
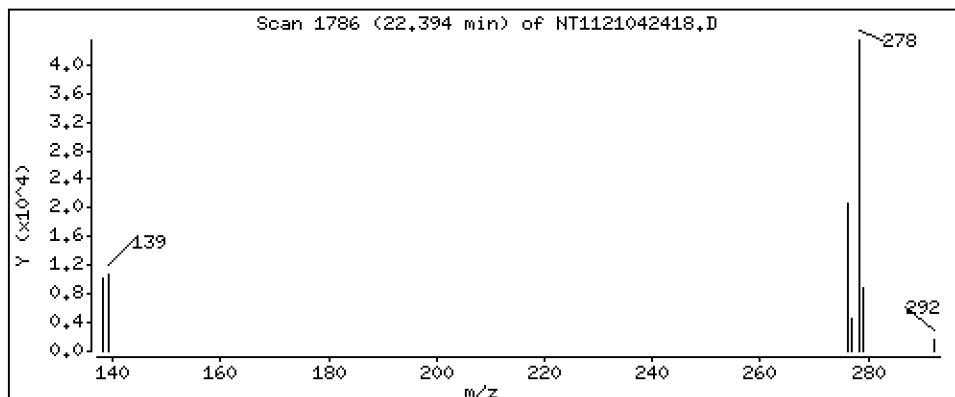
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

39 Dibenzo(a,h)anthracene

Concentration: 273 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

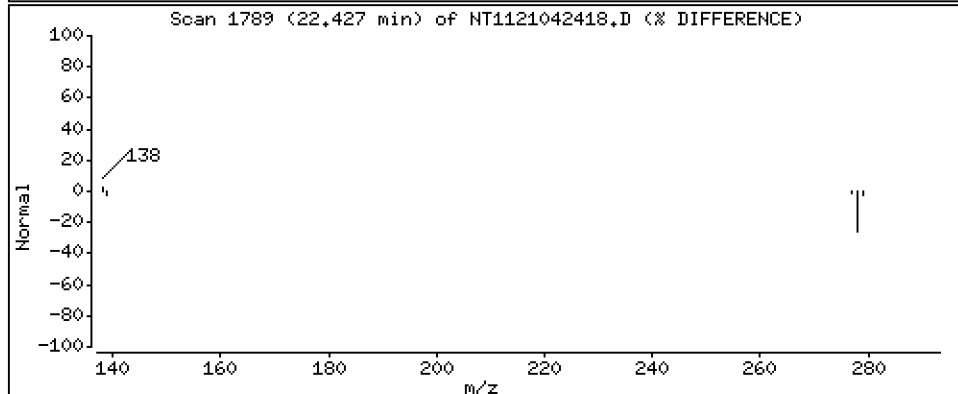
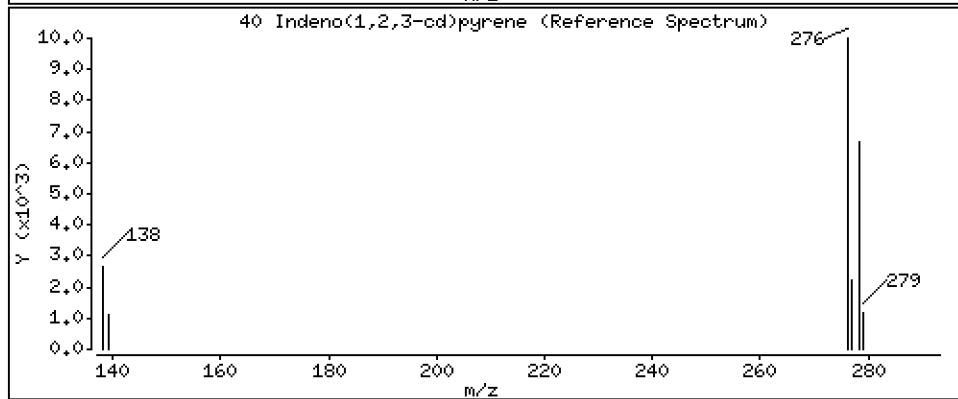
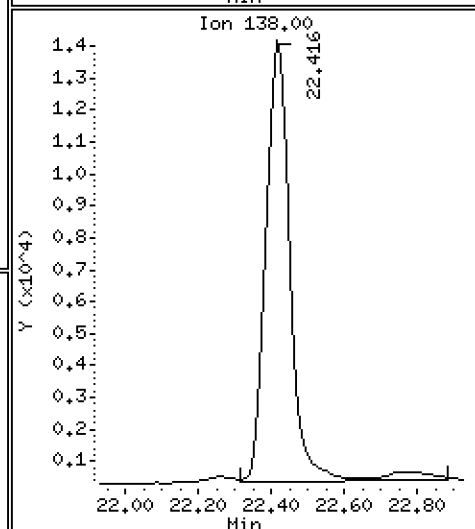
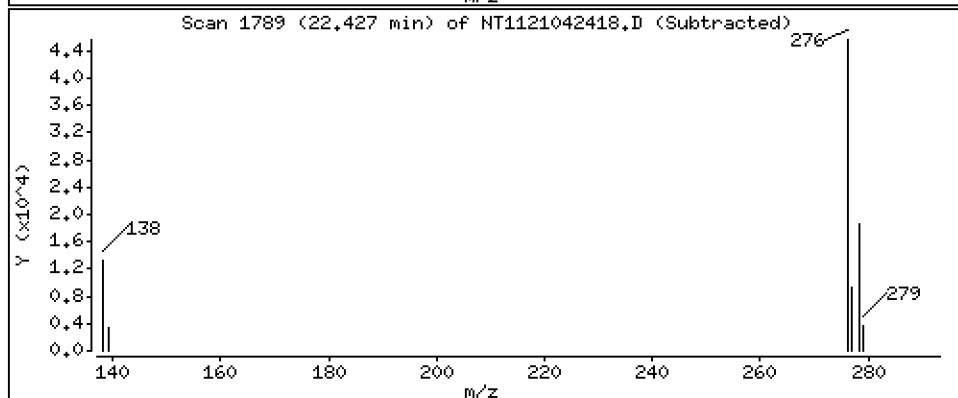
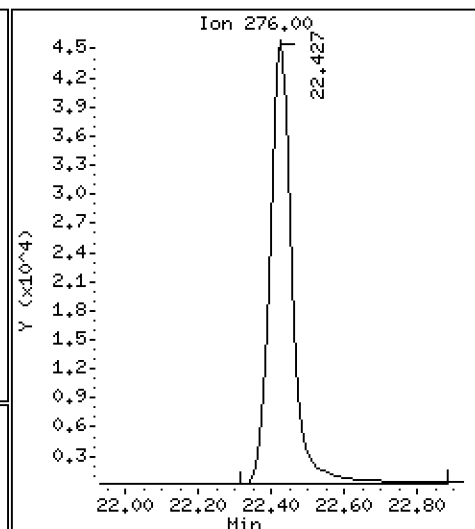
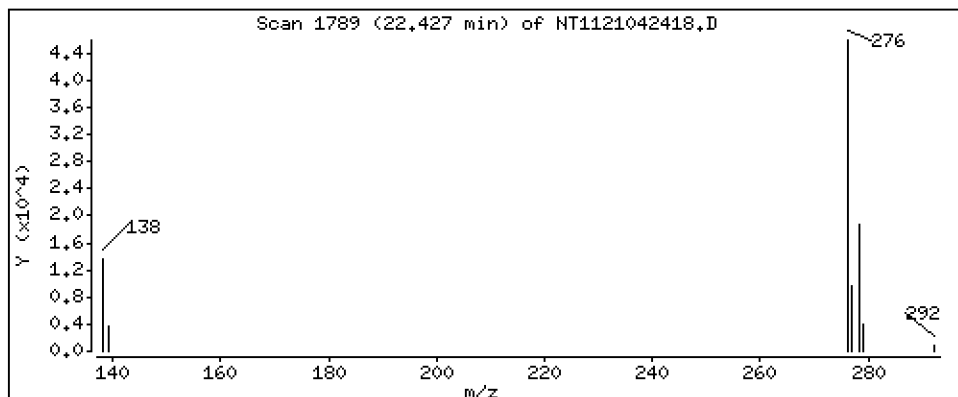
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

40 Indeno(1,2,3-cd)pyrene

Concentration: 270 ng/mL



Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

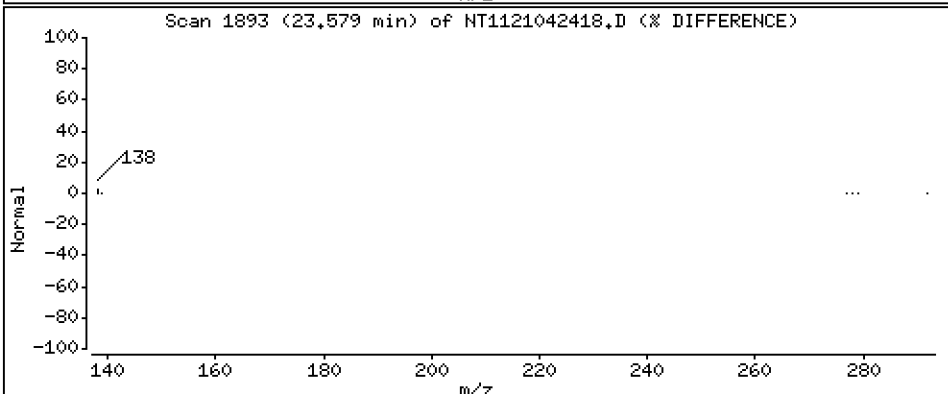
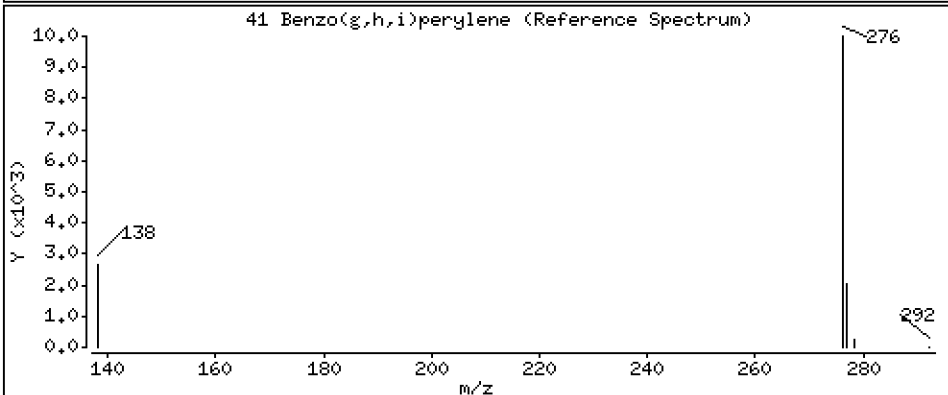
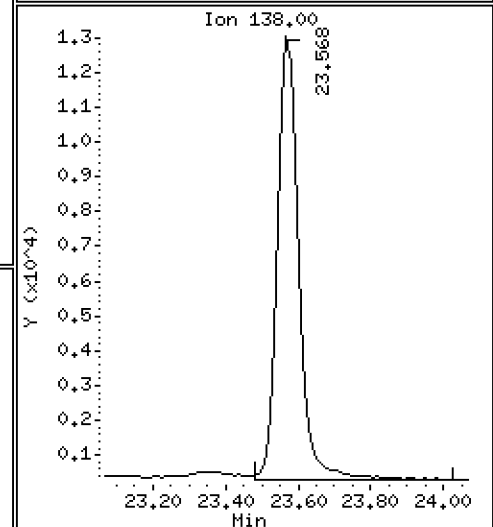
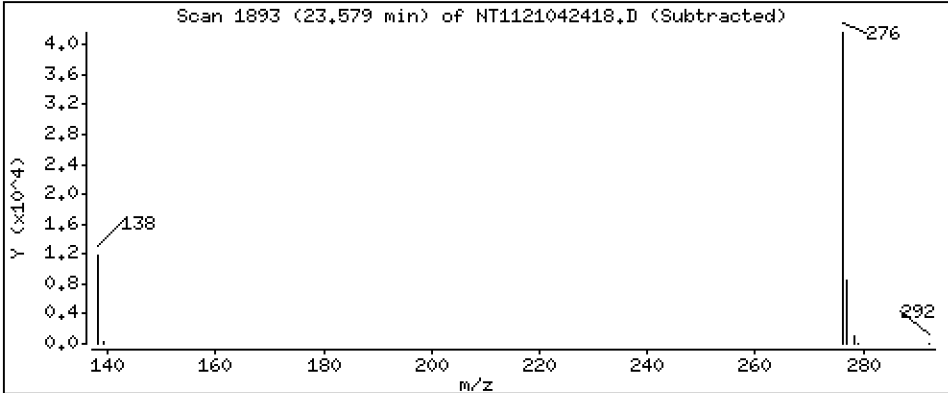
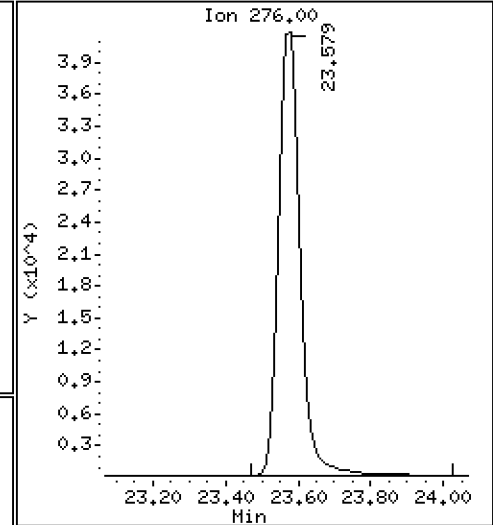
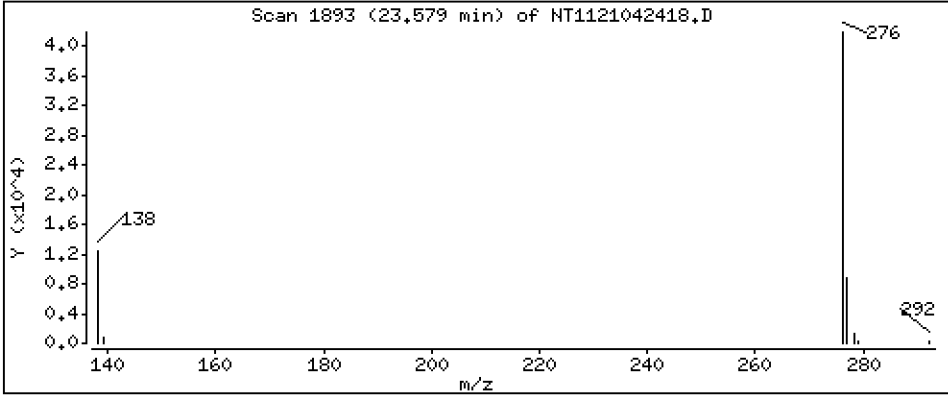
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

41 Benzo(g,h,i)perylene

Concentration: 242 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20210424.b\NT1121042418.D
 Lab Smp Id: SJD0344-CCV1
 Inj Date : 24-APR-2021 18:49 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : SJD0344-CCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20210424.b\lowsim.m
 Meth Date : 24-Apr-2021 10:50 van Quant Type: ISTD
 Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PAH.sub
 Target Version: 4.14
 Processing Host: VANS-202011

Compounds	QUANT	SIG	CONCENTRATIONS					
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/mL)
* 1 Naphthalene-d8	136		6.768	6.768	(1.000)	154986	200.000	
2 Naphthalene	128		6.795	6.795	(1.004)	201524	223.944	224
3 Benzo(b)thiophene	134		7.048	7.048	(1.041)	163145	229.804	230
\$ 4 2-Methylnaphthalene-d10	152		7.728	7.738	(1.142)	148790	238.757	239
5 2-Methylnaphthalene	142		7.791	7.791	(1.151)	170623	235.199	235
6 1-Methylnaphthalene	142		8.043	8.043	(1.188)	165700	245.717	246
7 2-Chloronaphthalene	162		8.694	8.694	(0.891)	150497	196.208	196
8 Biphenyl	154		8.663	8.663	(0.888)	190565	186.595	187
9 2,6-Dimethylnaphthalene	156		8.715	8.715	(0.893)	153365	202.396	202
10 Acenaphthylene	152		9.607	9.607	(0.984)	196075	194.044	194
* 11 Acenaphthene-d10	164		9.761	9.761	(1.000)	88075	200.000	
12 Acenaphthene	153		9.824	9.824	(1.006)	131384	196.593	197
13 Dibenzofuran	168		10.023	10.023	(1.027)	164566	184.470	184
14 2,3,5-Trimethylnaphthalene	170		10.124	10.124	(1.037)	108991	198.634	199
16 Fluorene	166		10.642	10.642	(1.090)	134652	195.948	196
17 Dibenzothiophene	184		12.260	12.260	(0.986)	157720	213.004	213
* 18 Phenanthrene-d10	188		12.428	12.428	(1.000)	133745	200.000	
19 Phenanthrene	178		12.470	12.470	(1.003)	188434	215.375	215
21 Anthracene	178		12.523	12.523	(1.008)	197526	225.955	226
22 Carbazole	167		13.197	13.206	(1.062)	218033	234.063	234
23 1-Methylphenanthrene	192		13.468	13.469	(1.084)	172503	223.208	223
\$ 24 Fluoranthene-d10	212		14.520	14.520	(1.168)	150599	214.773	215
25 Fluoranthene	202		14.558	14.558	(1.171)	199668	228.906	229
26 Pyrene	202		15.048	15.048	(1.211)	204486	228.508	229
27 Benzo(a)anthracene	228		17.064	17.064	(0.995)	162389	216.399	216
* 28 Chrysene-d12	240		17.155	17.155	(1.000)	102156	200.000	
29 Chrysene	228		17.205	17.205	(1.003)	172782	204.485	204
30 Benzo(b)fluoranthene	252		18.884	18.885	(0.950)	169507	247.401	247
31 Benzo(k)fluoranthene	252		18.923	18.923	(0.952)	189515	210.507	211
32 Benzo(j)fluoranthene	252		18.981	18.981	(0.955)	181424	186.476	186
34 Benzo(e)pyrene	252		19.586	19.586	(0.985)	167295	215.620	216
35 Benzo(a)pyrene	252		19.692	19.692	(0.990)	172110	240.516	241
* 36 Perylene-d12	264		19.884	19.893	(1.000)	125875	200.000	

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
37 Perylene	252		19.951	19.951	(1.003)	177518	217.740	218
\$ 38 Dibenzo(a,h)anthracene-d14	292		22.283	22.283	(1.121)	134845	272.532	273
39 Dibenzo(a,h)anthracene	278		22.394	22.405	(1.126)	162039	273.110	273
40 Indeno(1,2,3-cd)pyrene	276		22.427	22.427	(1.128)	187803	270.258	270
41 Benzo(g,h,i)perylene	276		23.579	23.568	(1.186)	168467	242.466	242

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 24-APR-2021
 Lab File ID: NT1121042418.D Calibration Time: 10:14
 Lab Smp Id: SJD0344-CCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20210424.b\lowsim.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	134531	67266	269062	154986	15.20
11 Acenaphthene-d10	76981	38491	153962	88075	14.41
18 Phenanthrene-d10	116022	58011	232044	133745	15.28
28 Chrysene-d12	83386	41693	166772	102156	22.51
36 Perylene-d12	98043	49022	196086	125875	28.39

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.77	6.27	7.27	6.77	-0.00
11 Acenaphthene-d10	9.76	9.26	10.26	9.76	-0.00
18 Phenanthrene-d10	12.43	11.93	12.93	12.43	-0.00
28 Chrysene-d12	17.16	16.66	17.66	17.16	-0.00
36 Perylene-d12	19.89	19.39	20.39	19.88	-0.05

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.

REVIEW SUMMARY FOR FILE - NT1121042418.D

Lab ID: SJD0344-CCV1

nt11.i, 20210424.b\lowsim.m, 24-APR-2021 18:49

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1121042402.D

On Column LOD for nt11.i, 20210424.b\lowsim.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000

Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000

Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *



LOW-CONCENTRATION
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor QEA, LLC

Project: Gasco Siltronic - US Moorings

Instrument ID: NT11

Calibration: DH00073

Lab File ID: NT1121042403.D

Calibration Date: 08/27/2020

Sequence: SJD0344

Injection Date: 04/24/21

Lab Sample ID: SJD0344-LCV1

Injection Time: 10:46

Sequence Name: LCV 10

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Naphthalene	A	10.000	10.3	1.1612470	1.1925690		2.7	
2-Methylnaphthalene	A	10.000	9.46	0.9361384	0.8851426		-5.4	
Acenaphthylene	A	10.000	8.71	2.2945630	1.9974430		-12.9	
Acenaphthene	A	10.000	8.66	1.5175830	1.3142710		-13.4	
Fluorene	A	10.000	8.51	1.5604500	1.3279910		-14.9	
Phenanthrene	A	10.000	9.23	1.3083250	1.2072030		-7.7	
Anthracene	A	10.000	9.86	1.3072390	1.2892970		-1.4	
Fluoranthene	A	10.000	9.47	1.3043810	1.2354100		-5.3	
Pyrene	A	10.000	9.68	1.3381820	1.2956120		-3.2	
Benzo(a)anthracene	A	10.000	8.26	1.4691530	1.2133210		-17.4	
Chrysene	A	10.000	9.67	1.6542610	1.5993770		-3.3	
Benzo(b)fluoranthene	A	10.000	5.93	1.0886210	0.6456175		-40.7	
Benzo(k)fluoranthene	A	10.000	7.98	1.4304320	1.1420240		-20.2	
Benzo(j)fluoranthene	A	10.000	11.5	1.5458300	1.7824470		15.3	
Benzo(a)pyrene	A	10.000	8.35	1.1369780	0.9495224		-16.5	
Indeno(1,2,3-cd)pyrene	A	10.000	7.91	1.1041170	0.8733297		-20.9	
Dibenzo(a,h)anthracene	A	10.000	7.49	0.8775199	0.6894860		-25.1	
Benzo(g,h,i)perylene	A	10.000	8.99	1.1039640	0.9925250		-10.1	
2-Methylnaphthalene-d10	A	10.000	9.25	0.8041846	0.7439882		-7.5	
Dibenzo[a,h]anthracene-d14	A	10.000	7.07	0.7035414	0.5422956		-29.3	
Fluoranthene-d10	A	10.000	9.28	1.0485620	0.9727090		-7.2	

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.1\20210424.6\NT1121042403.D

Date : 24-APR-2021 10:46

Client ID:

Sample Info: SJD0344-LCW1

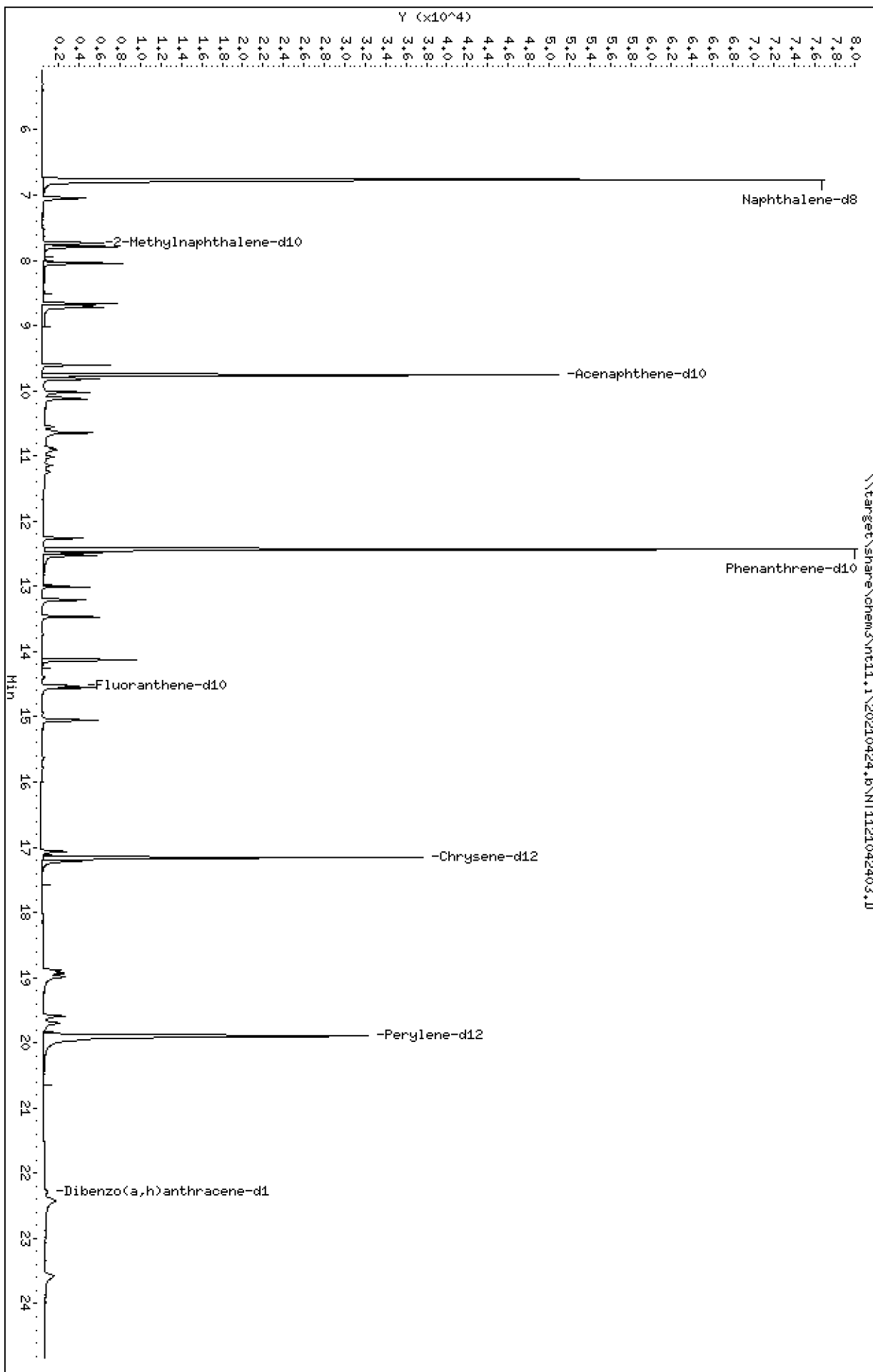
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

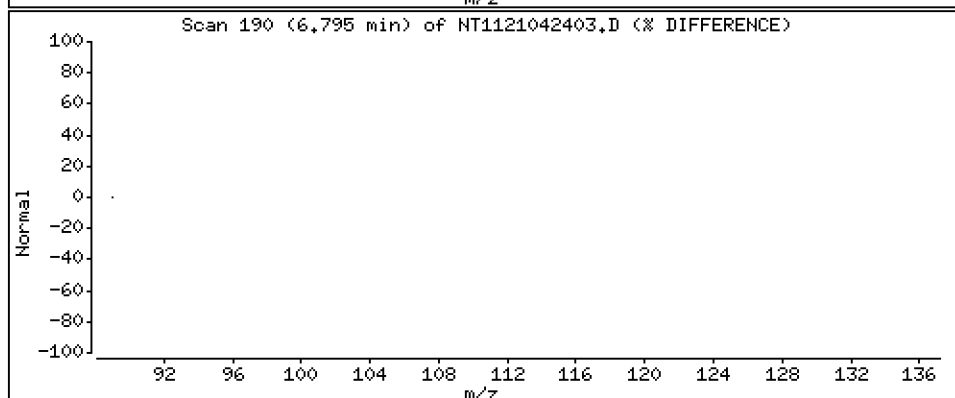
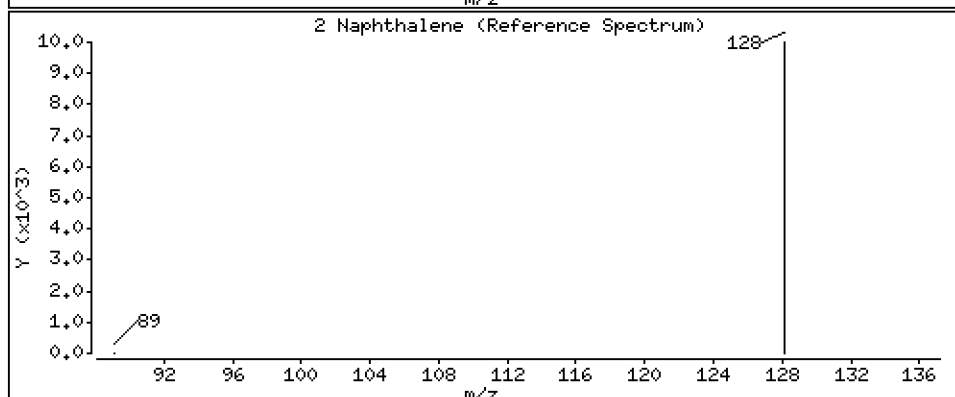
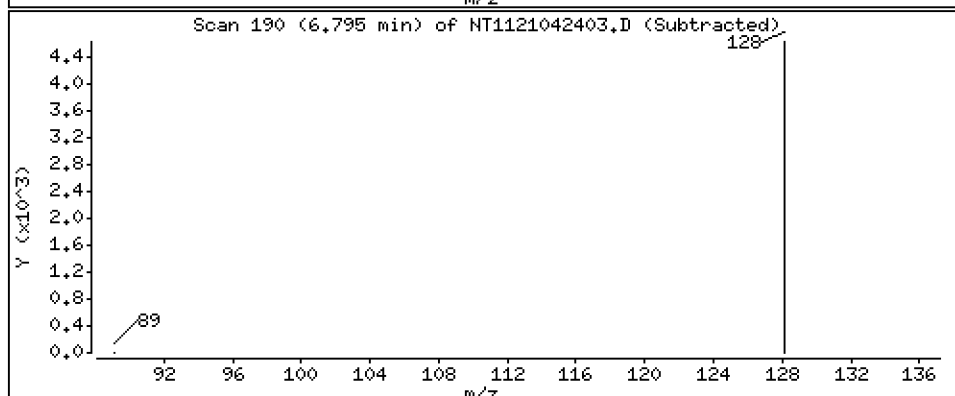
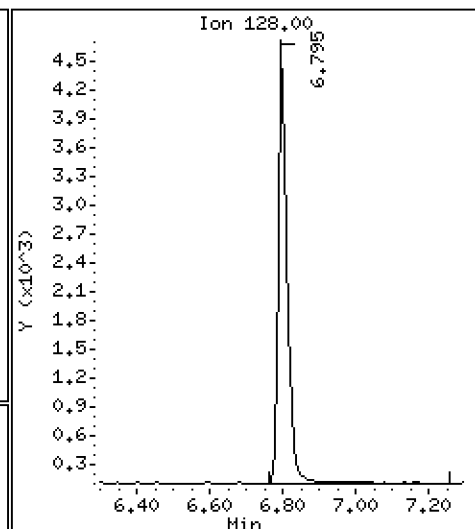
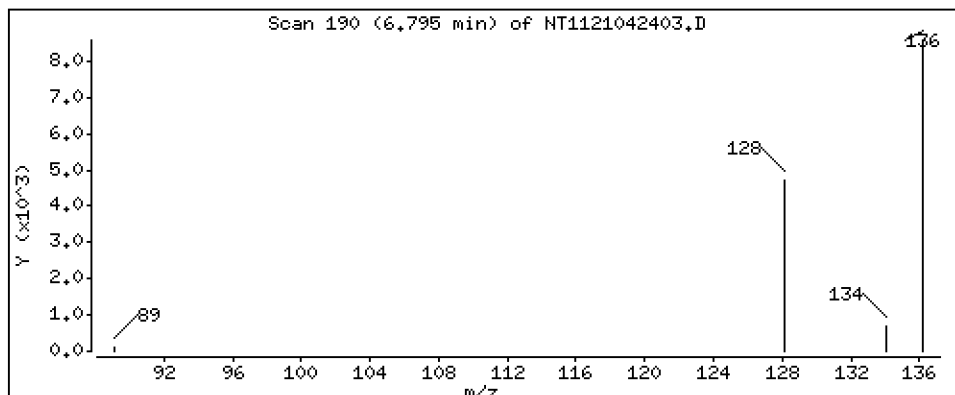
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 10,3 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

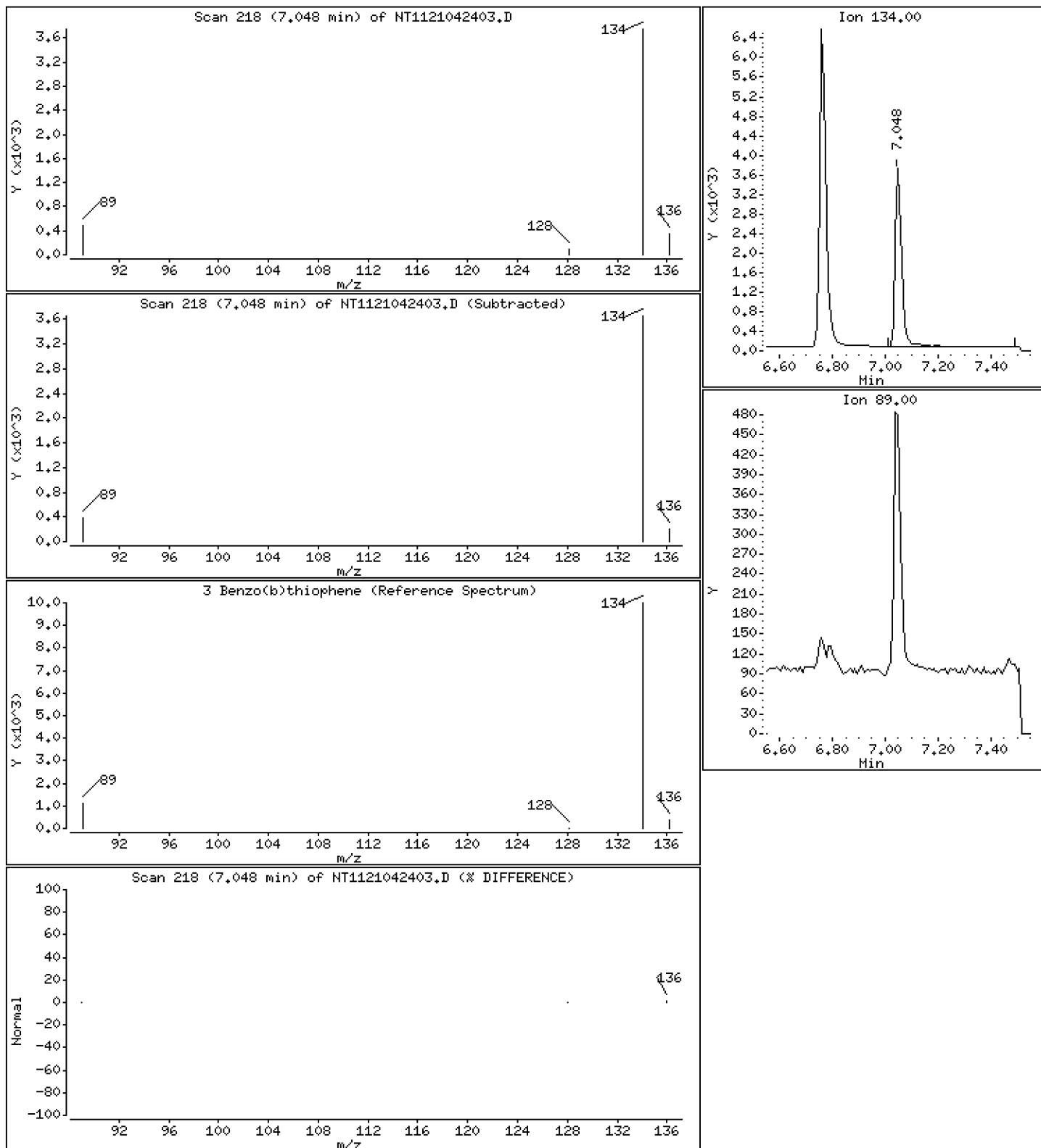
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

3 Benzo(b)thiophene

Concentration: 10,2 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

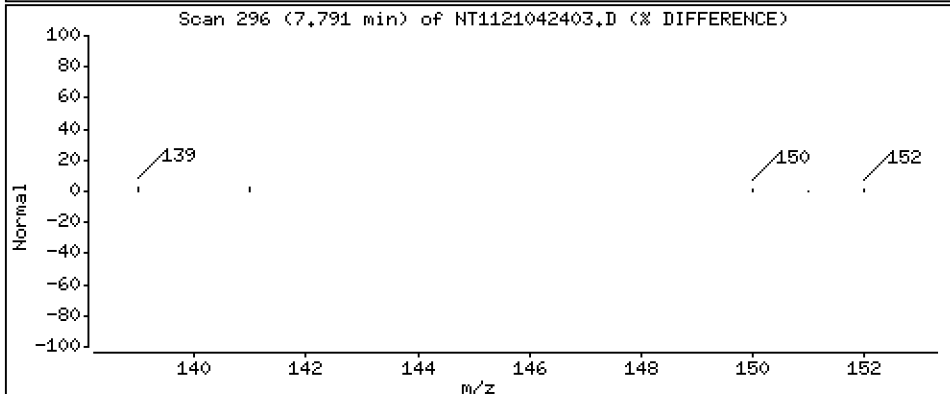
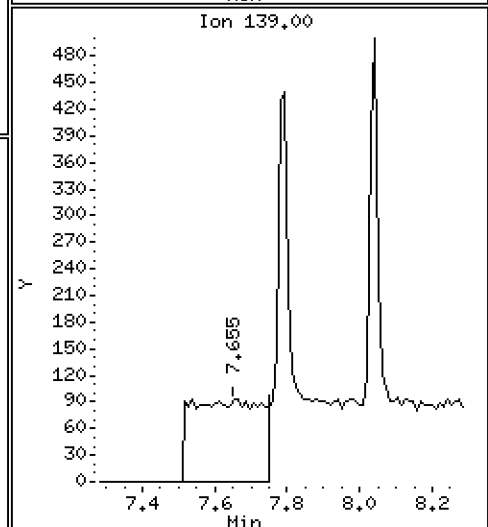
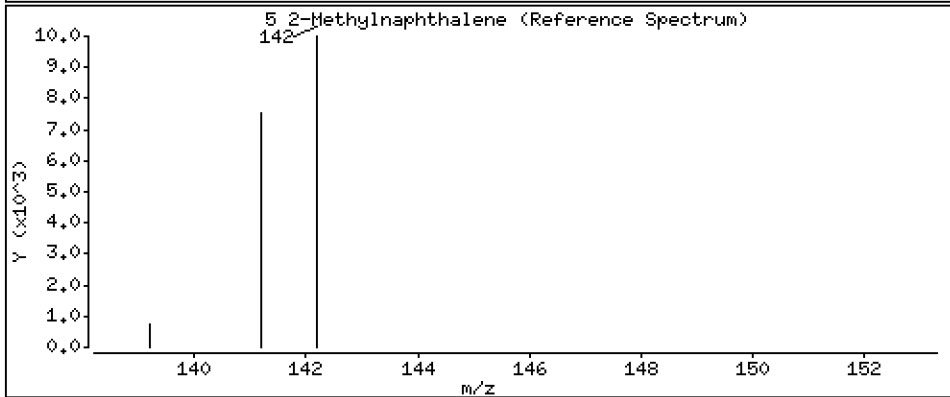
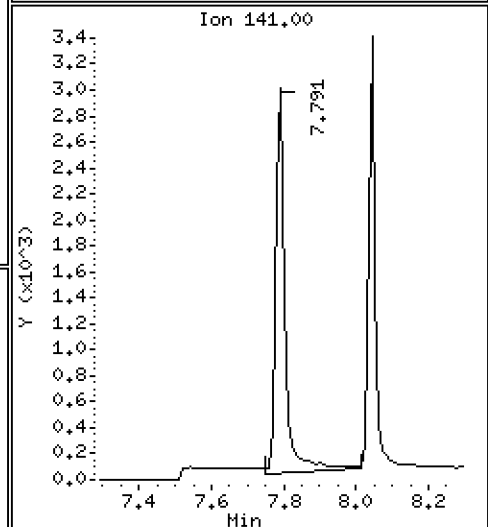
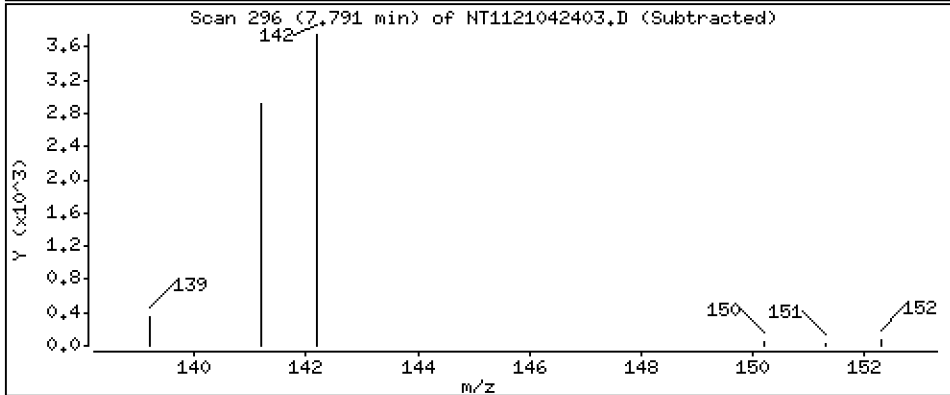
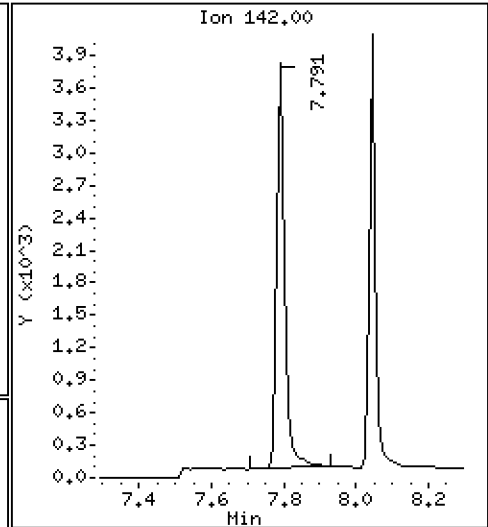
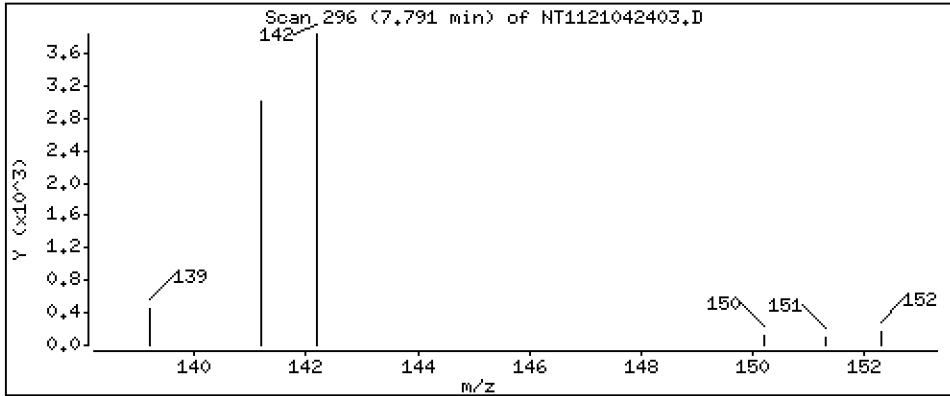
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

5-2-Methylnaphthalene

Concentration: 9,46 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

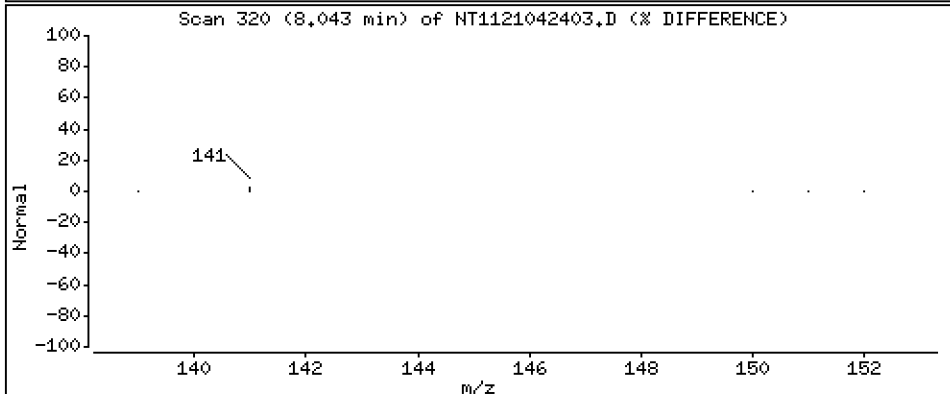
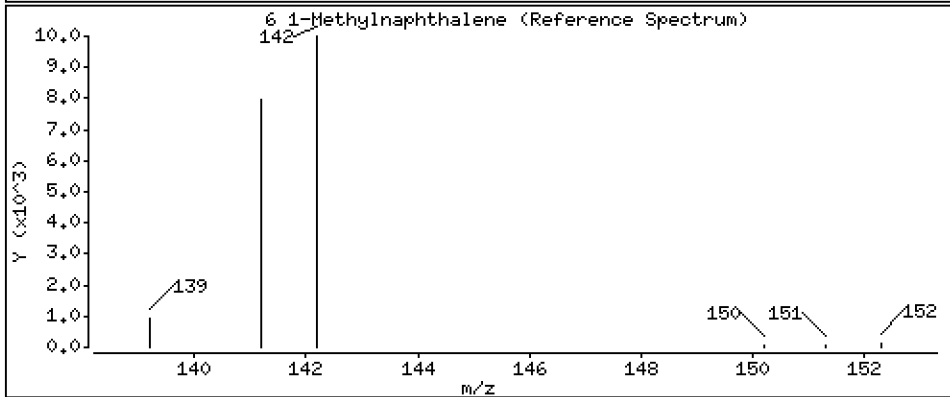
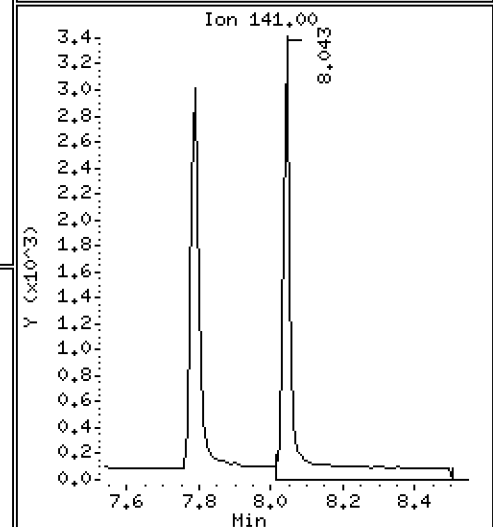
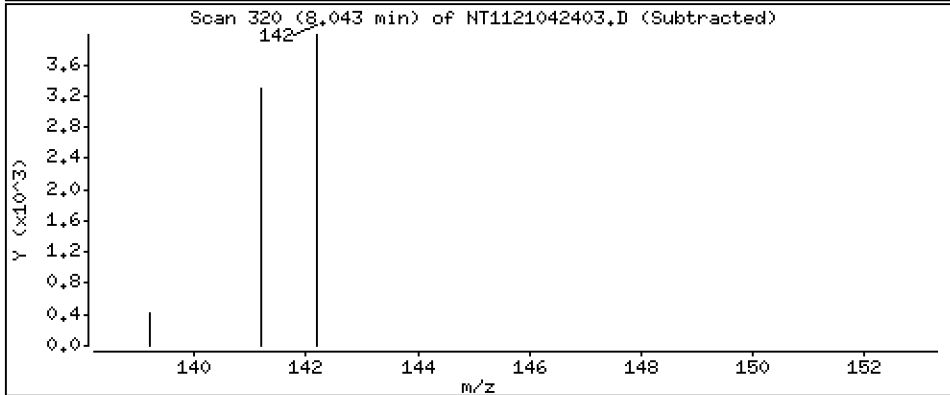
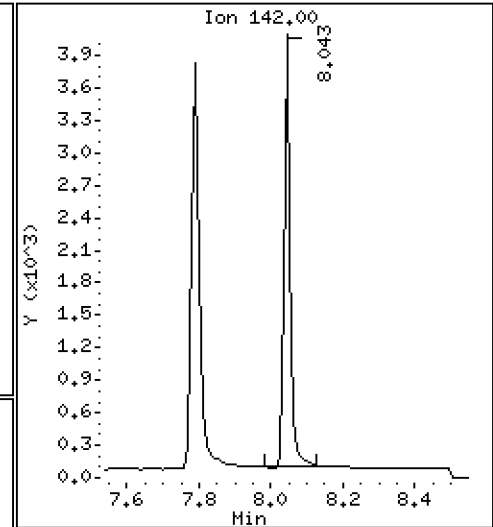
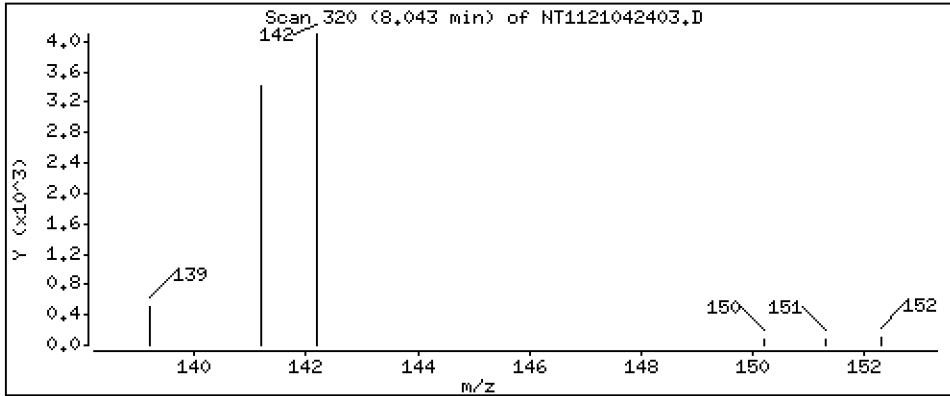
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

6 1-Methylnaphthalene

Concentration: 9,39 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

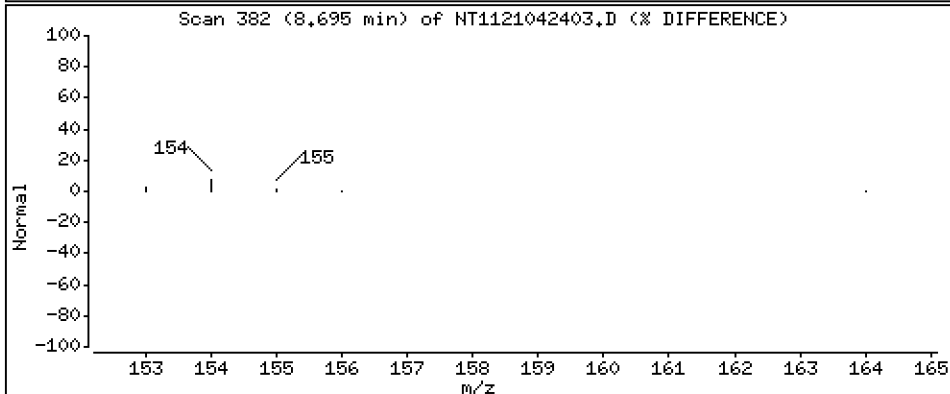
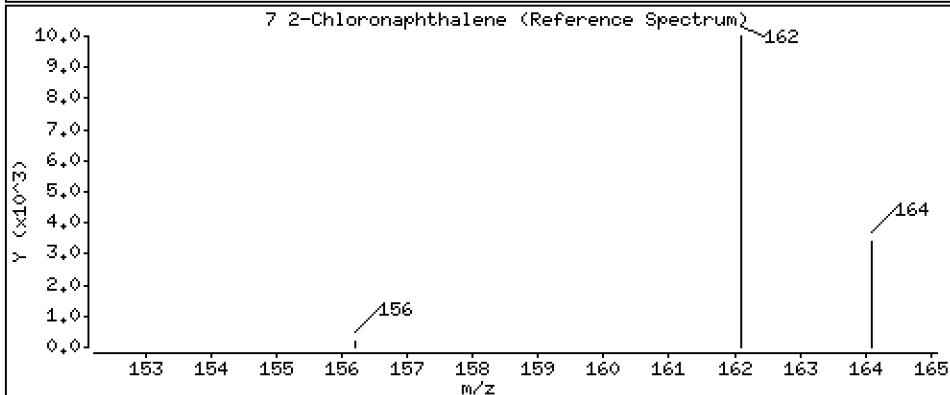
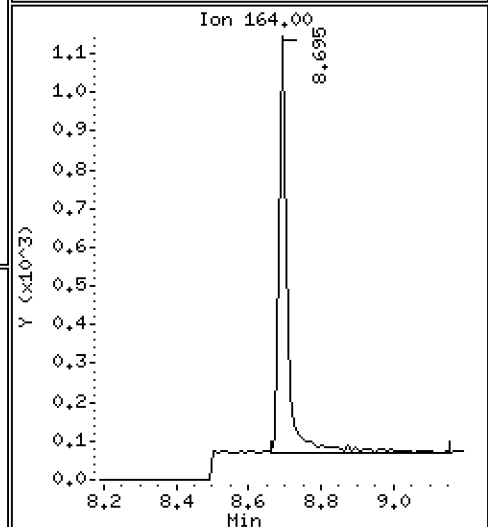
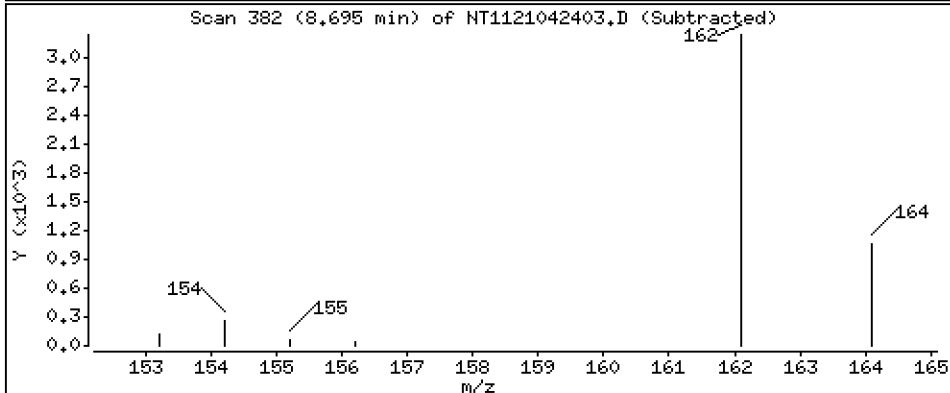
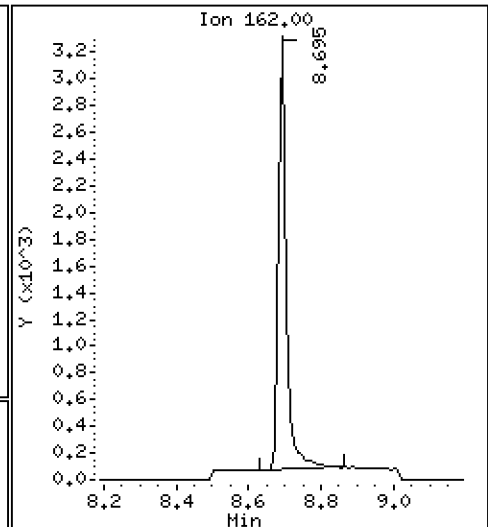
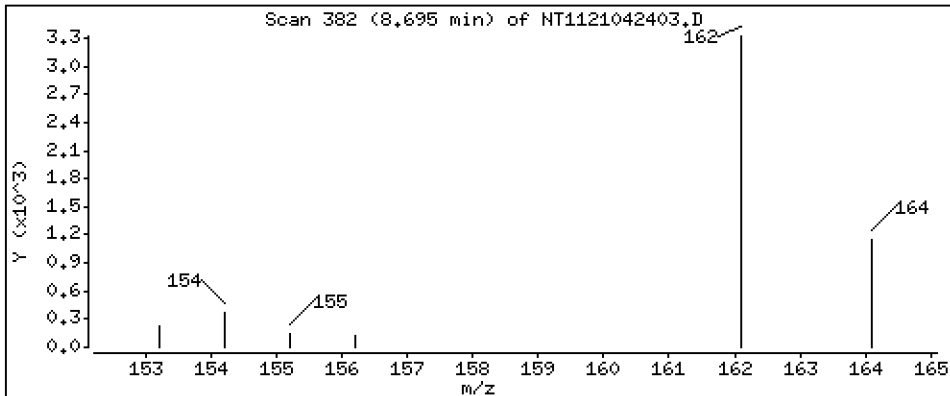
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

7 2-Chloronaphthalene

Concentration: 8,69 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

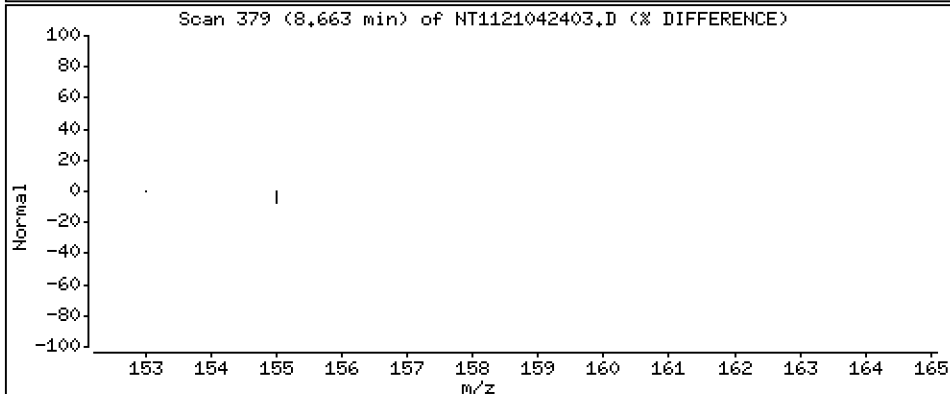
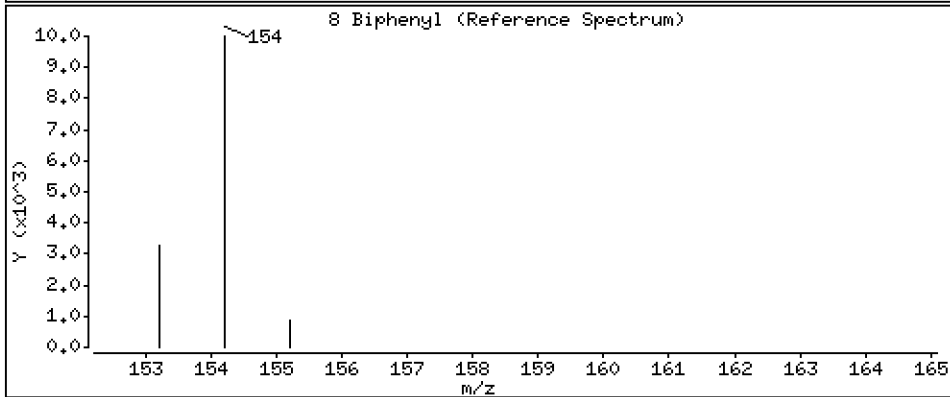
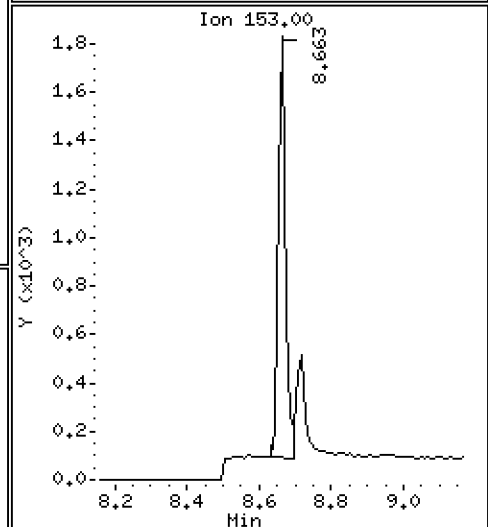
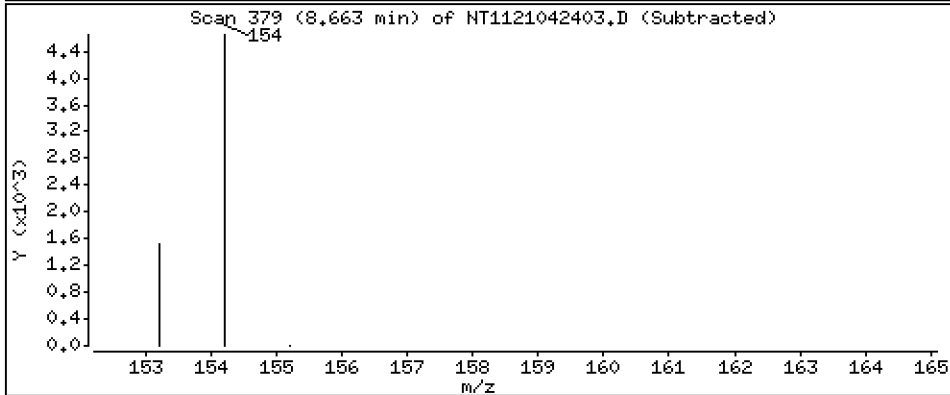
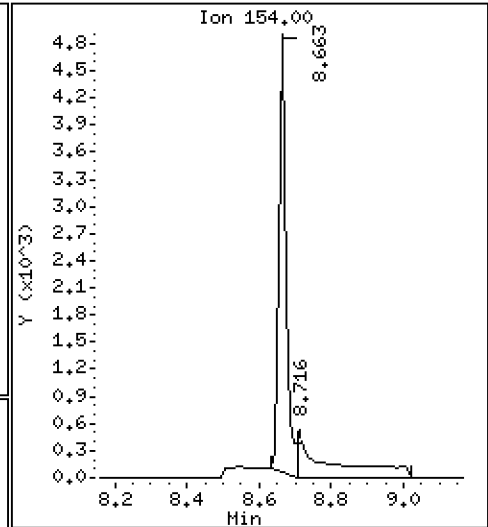
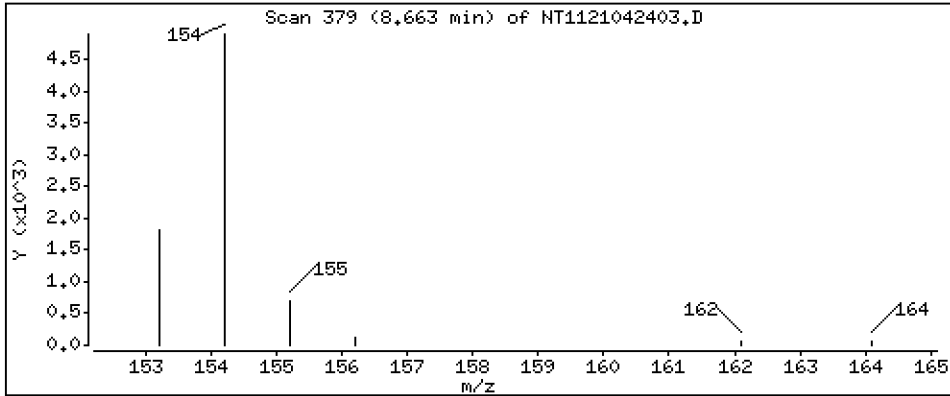
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

8 Biphenyl

Concentration: 9,00 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

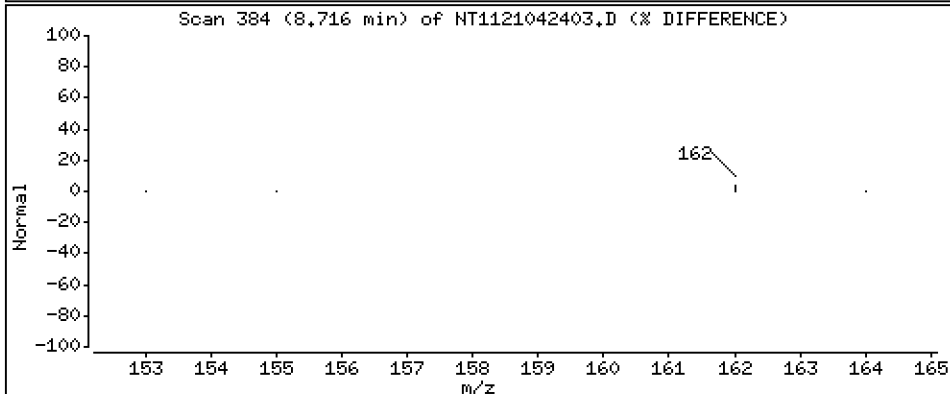
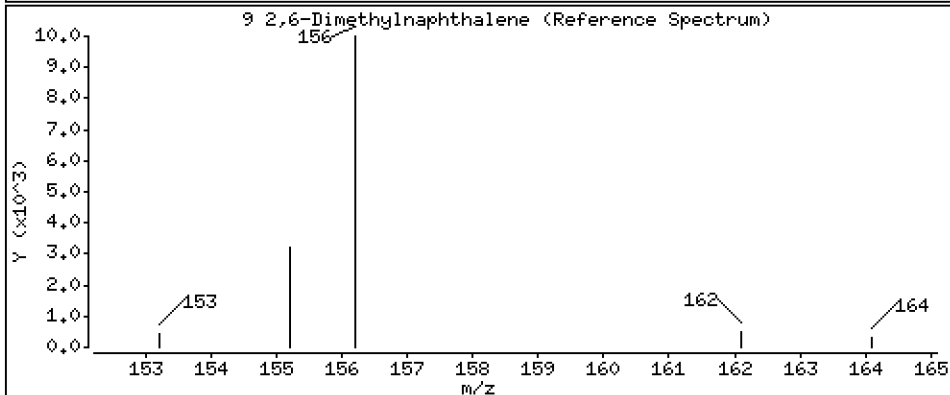
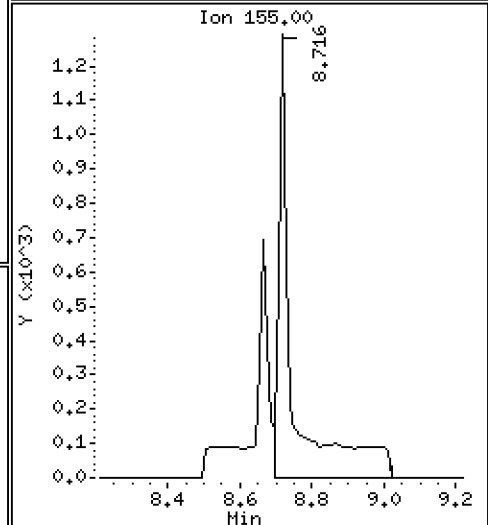
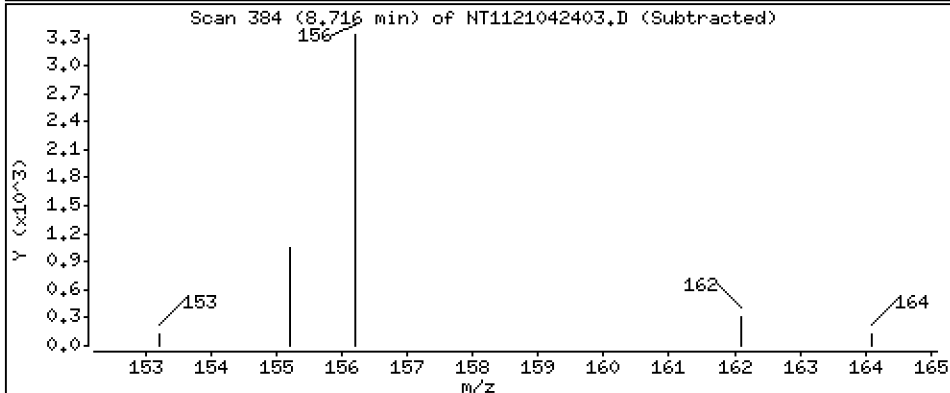
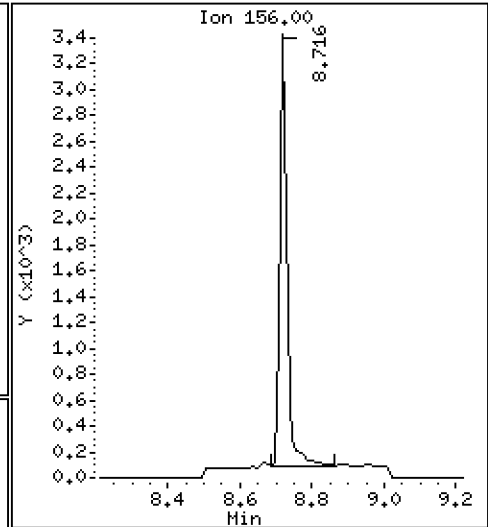
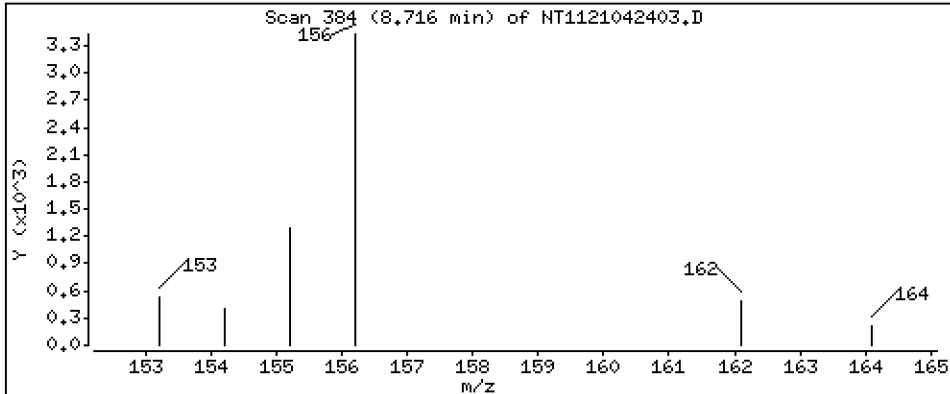
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

9,2,6-Dimethylnaphthalene

Concentration: 8,56 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

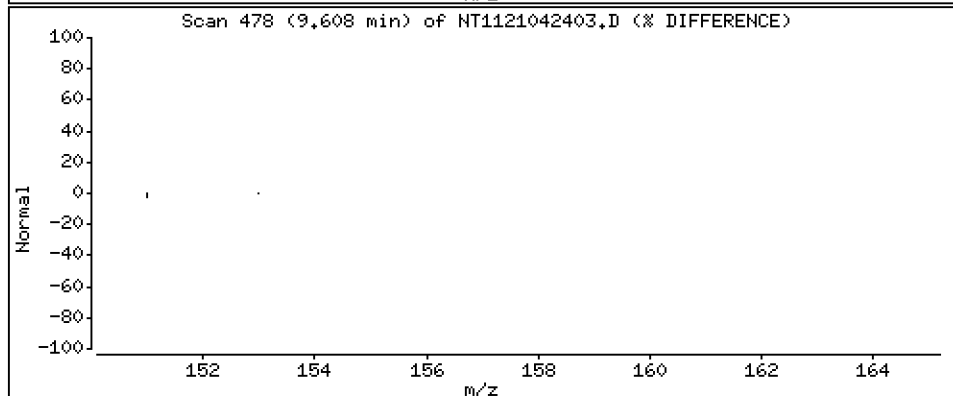
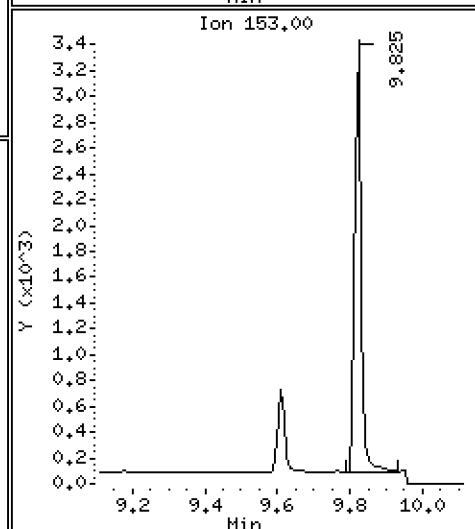
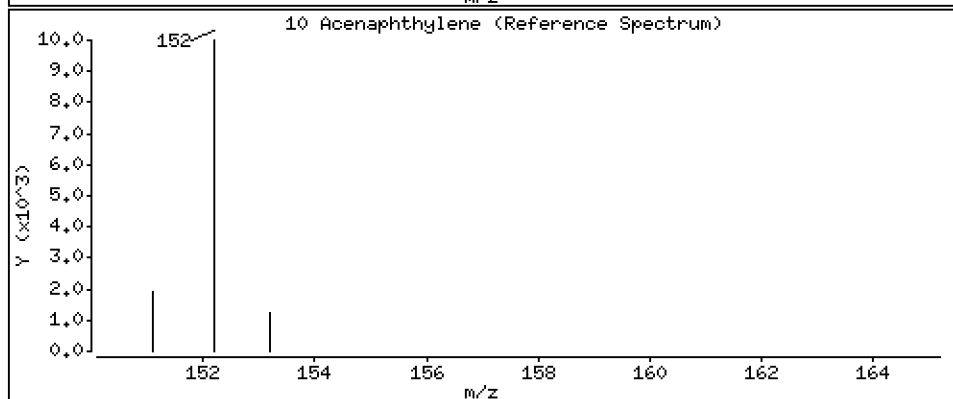
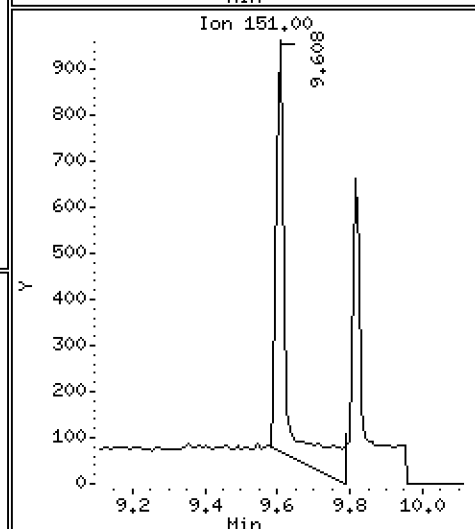
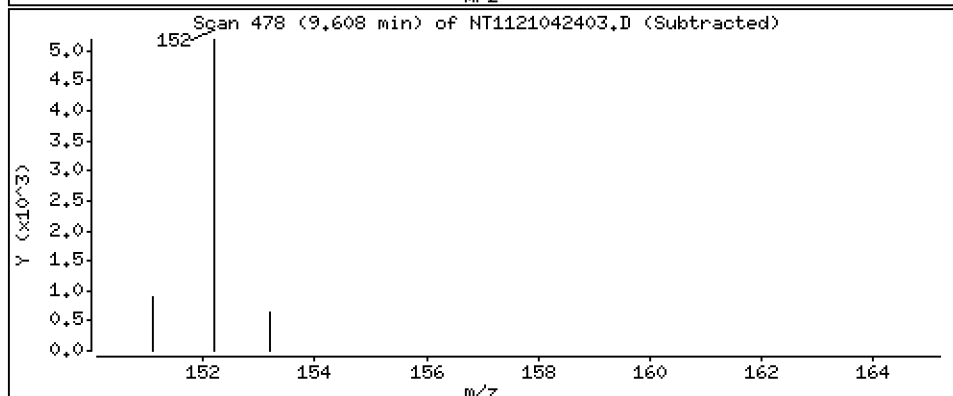
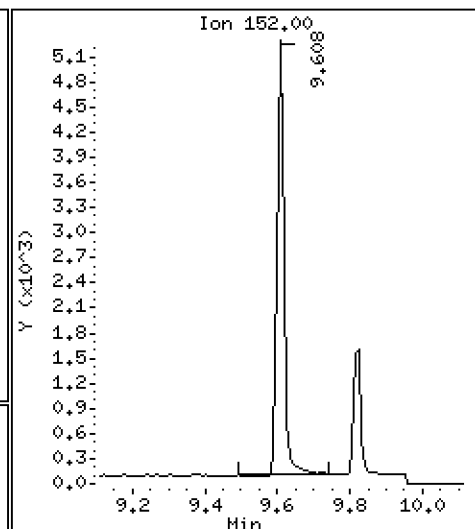
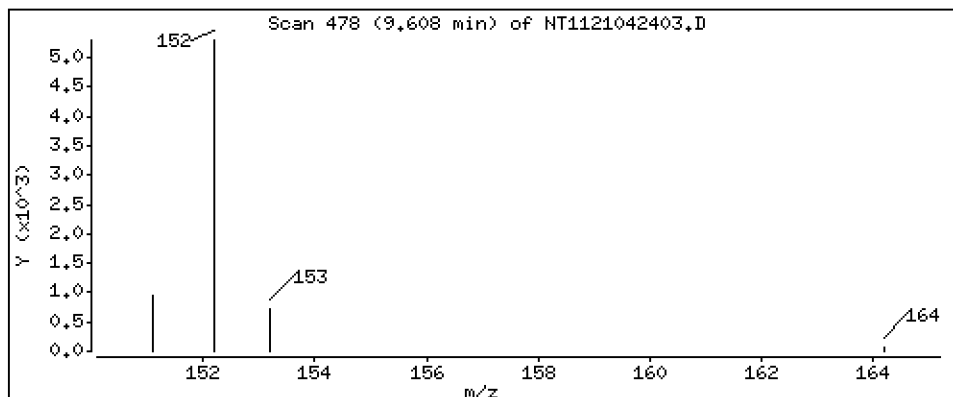
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

10 Acenaphthylene

Concentration: 8.71 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

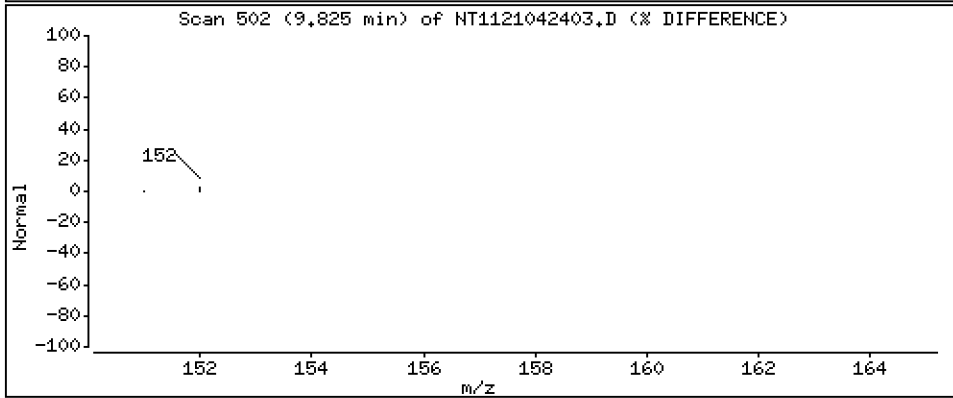
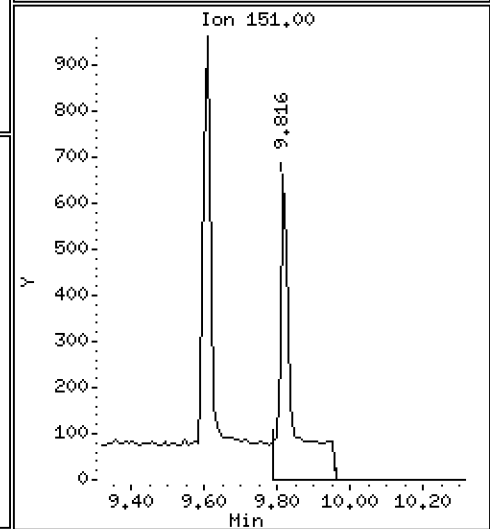
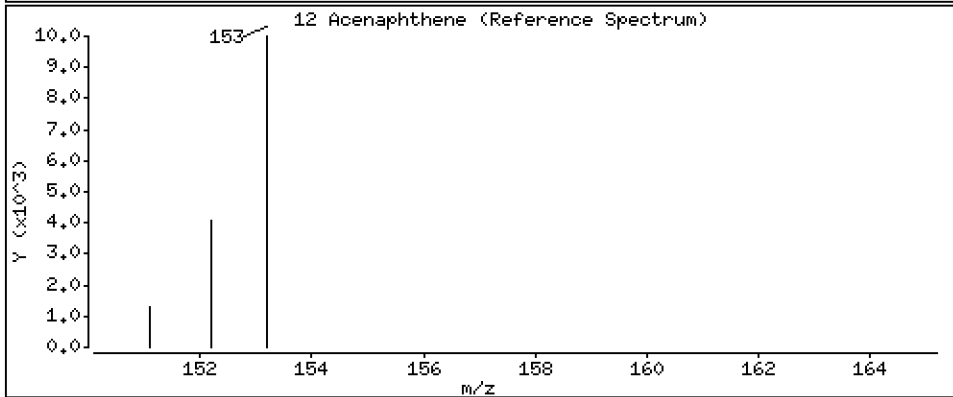
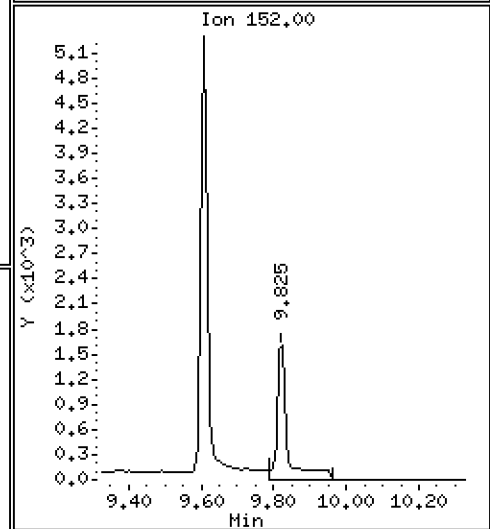
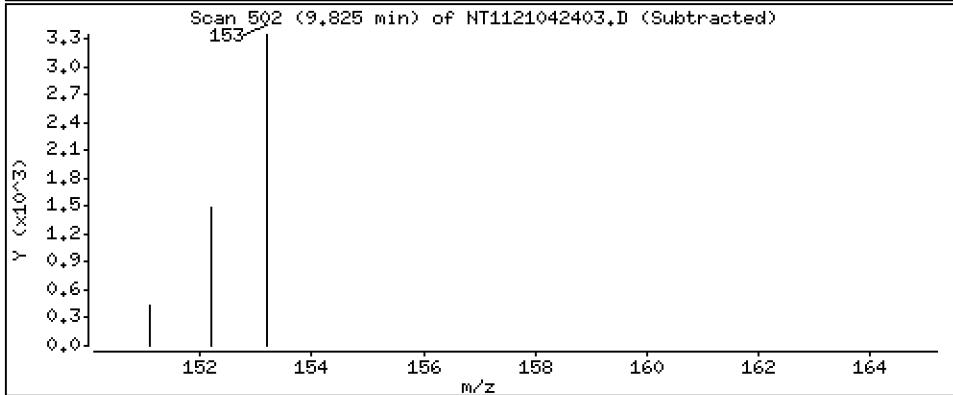
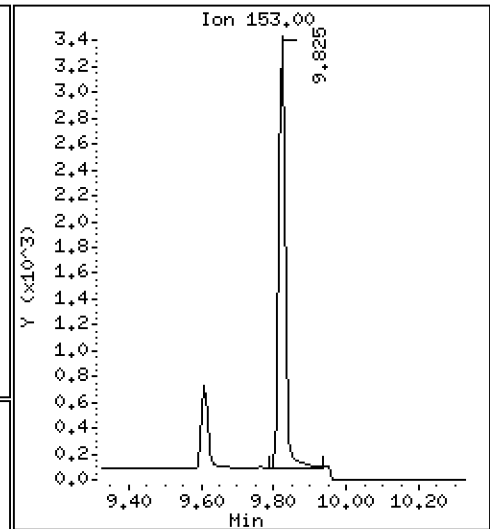
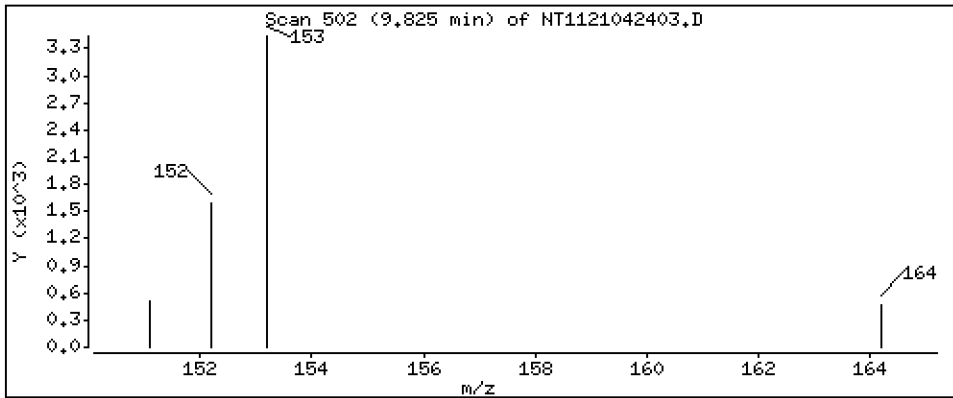
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

Concentration: 8,66 ng/mL

12 Acenaphthene



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

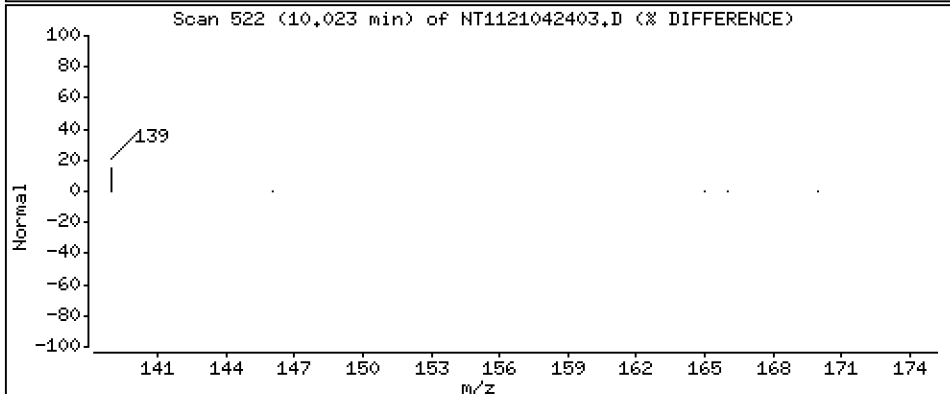
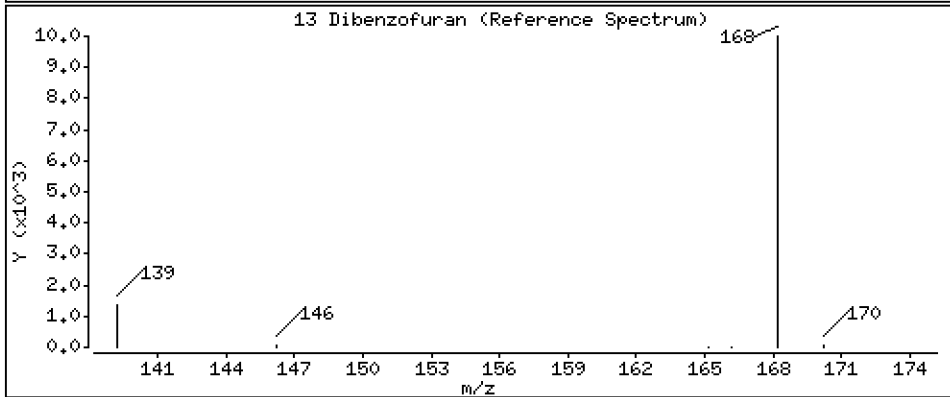
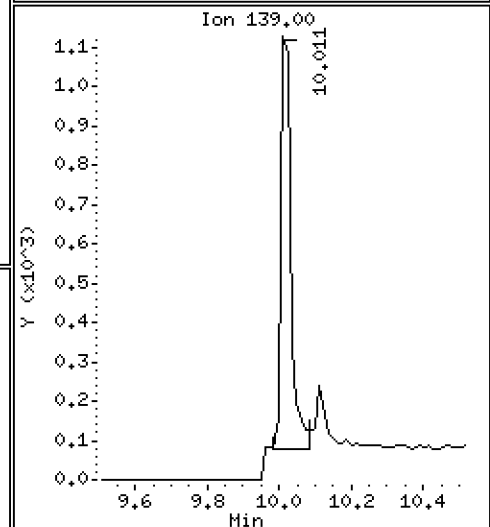
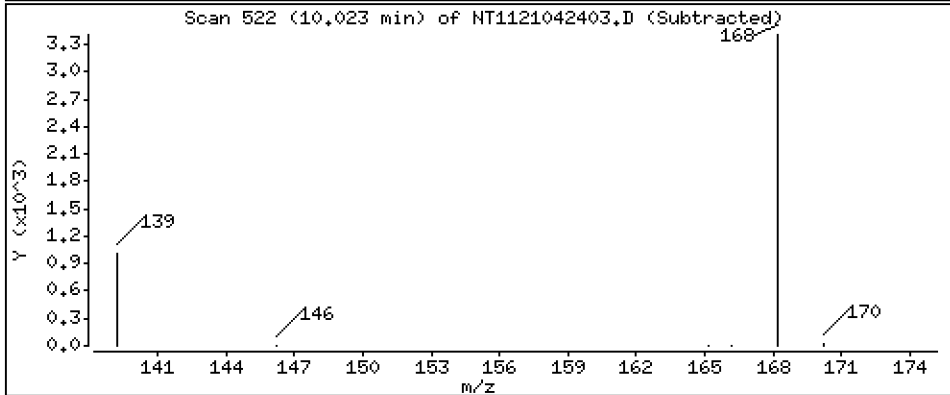
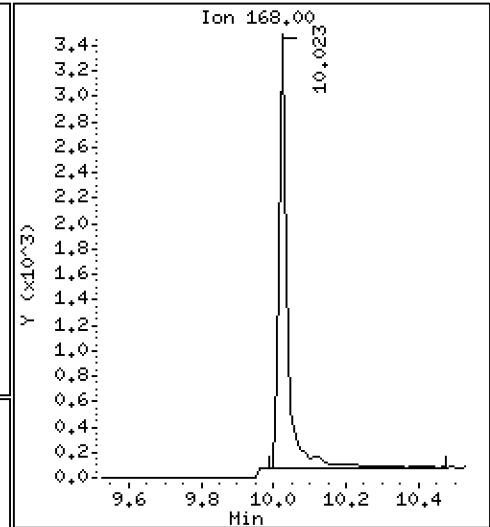
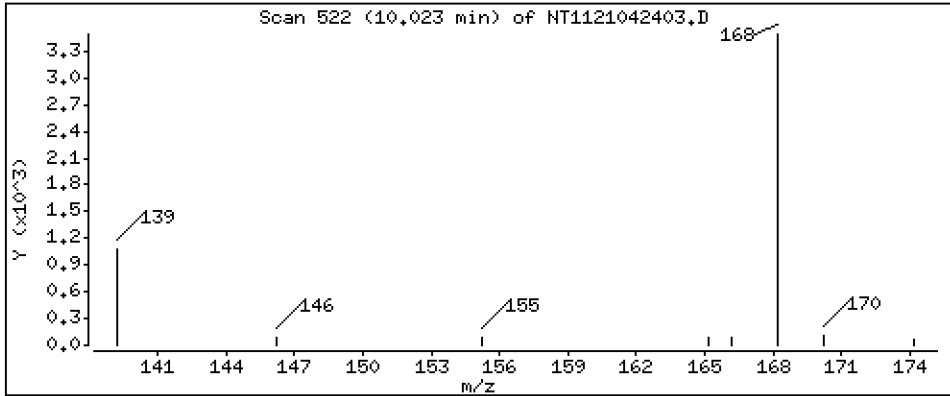
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

13 Dibenzofuran

Concentration: 8,60 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

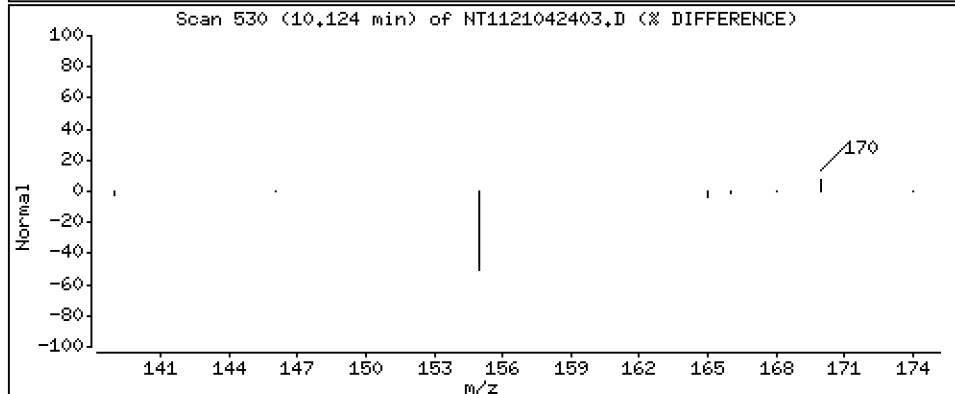
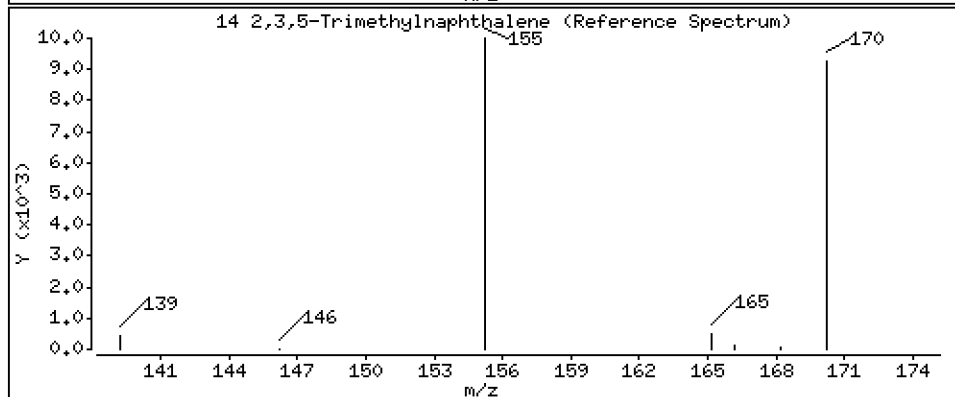
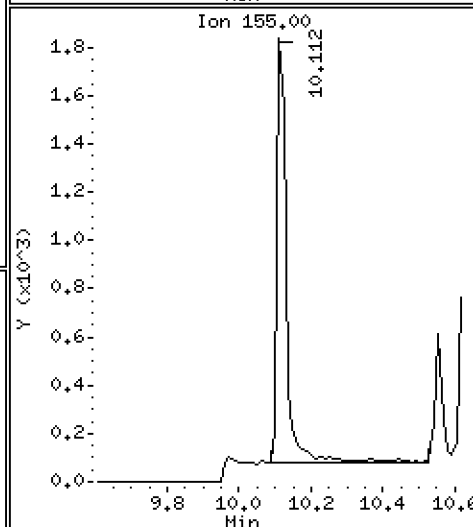
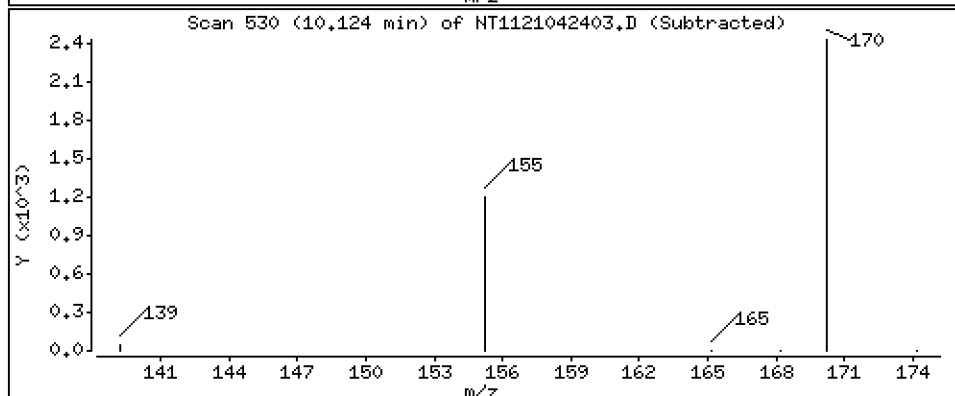
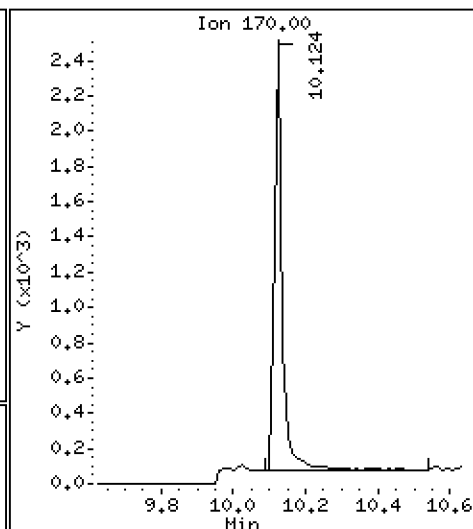
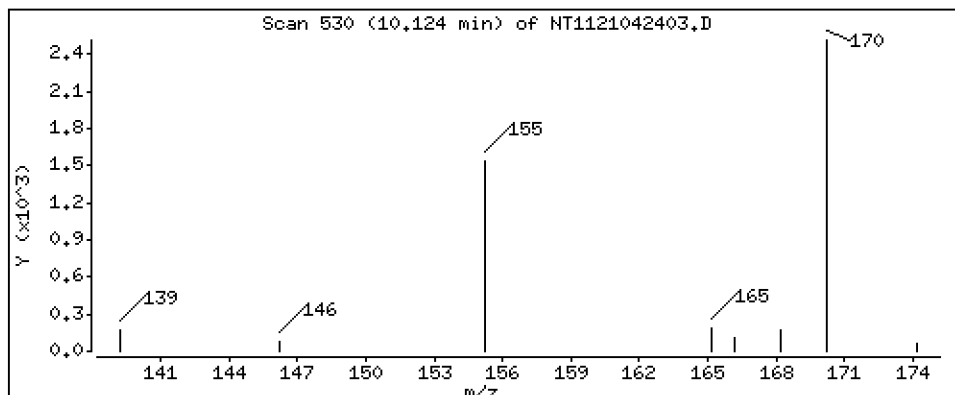
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

14 2,3,5-Trimethylnaphthalene

Concentration: 8,86 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

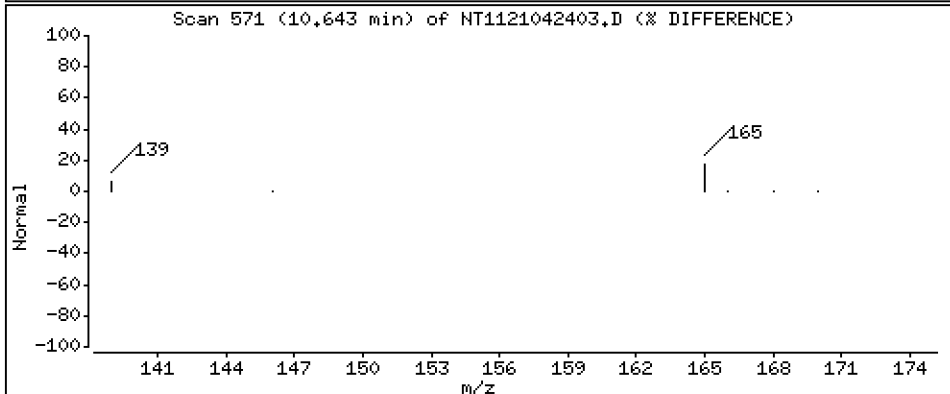
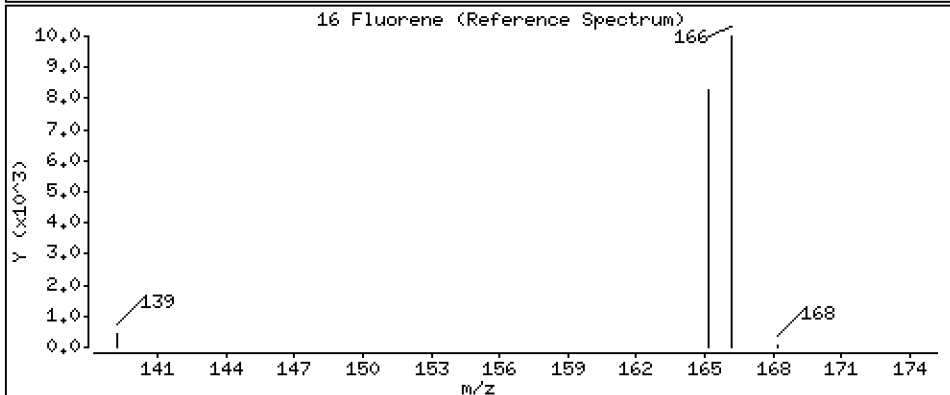
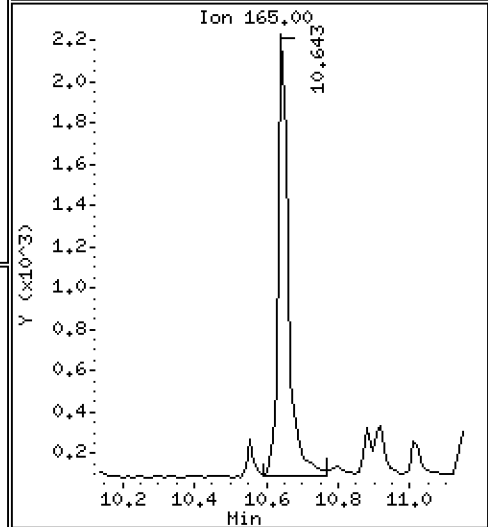
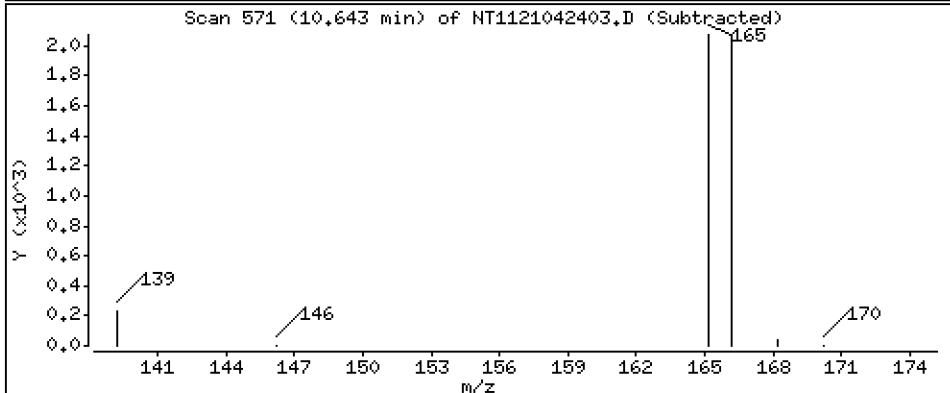
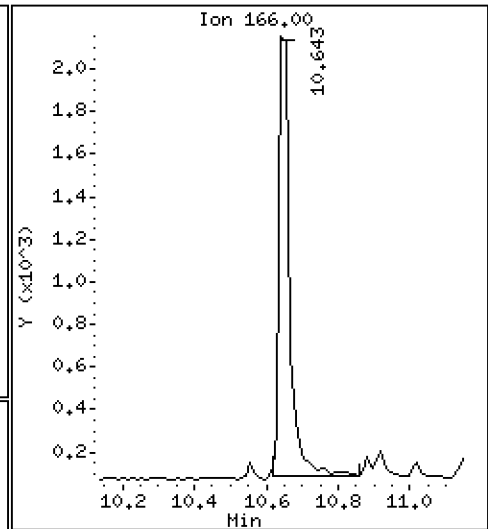
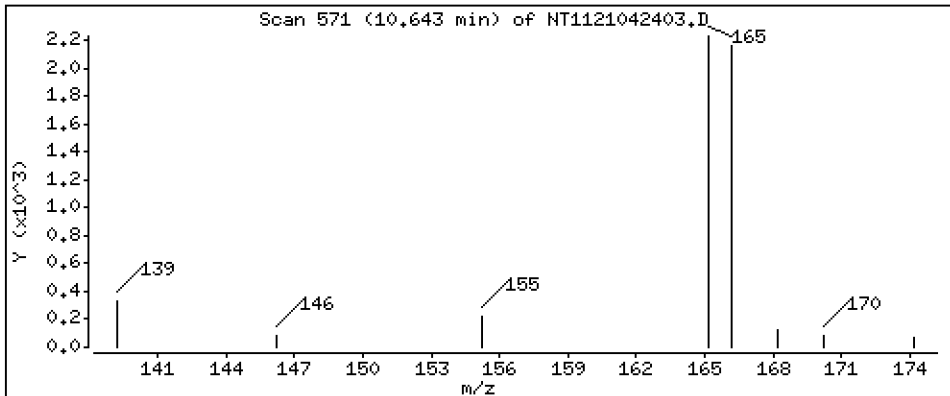
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 Fluorene

Concentration: 8,51 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

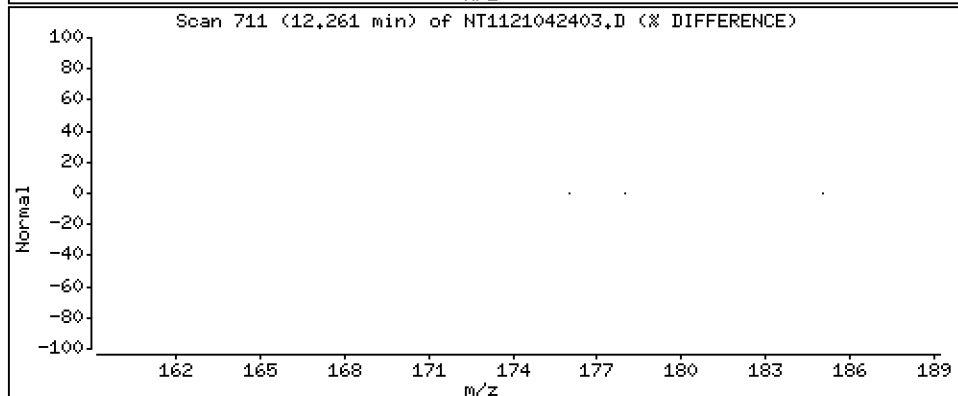
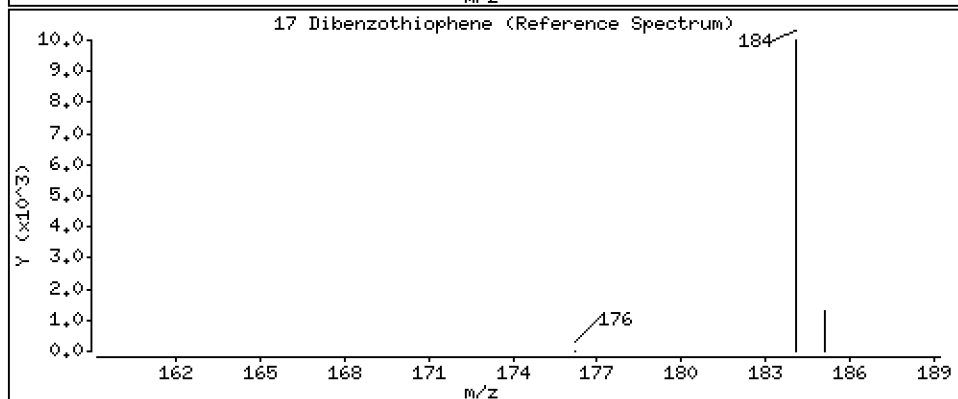
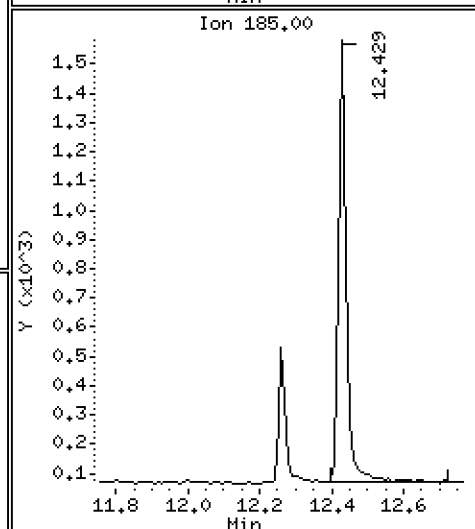
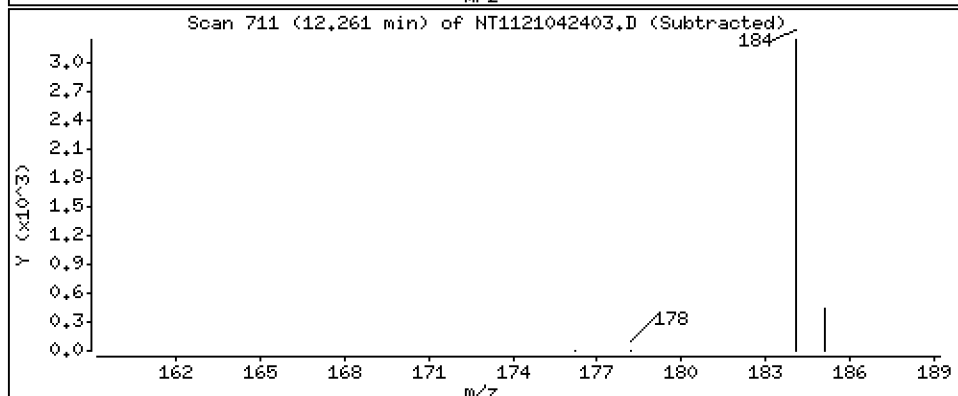
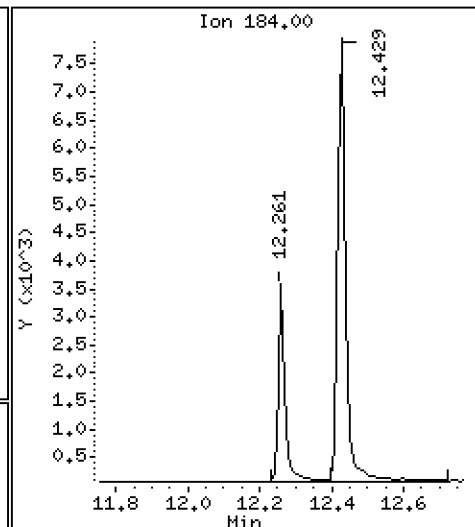
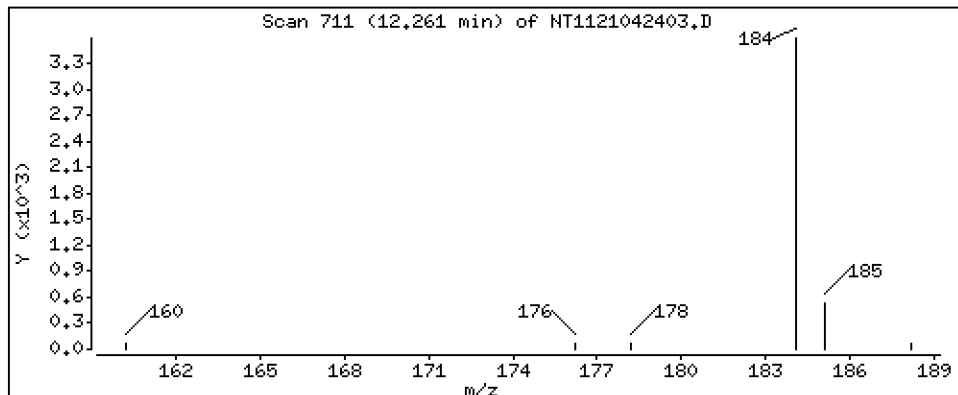
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 Dibenzothiophene

Concentration: 9,72 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

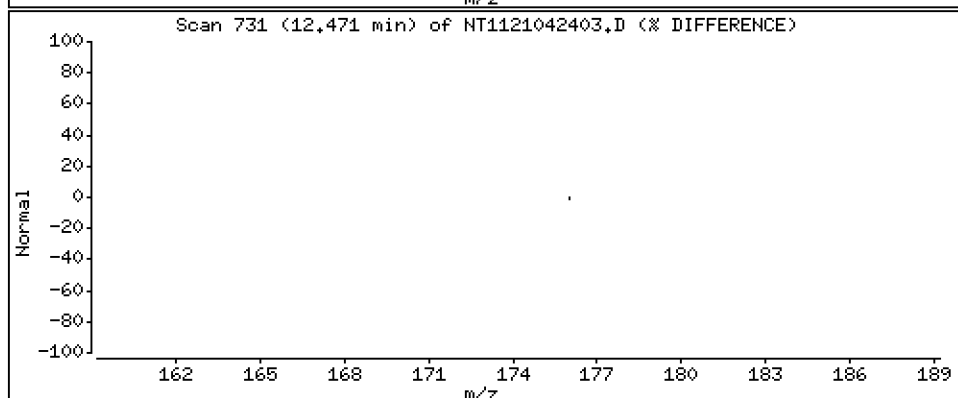
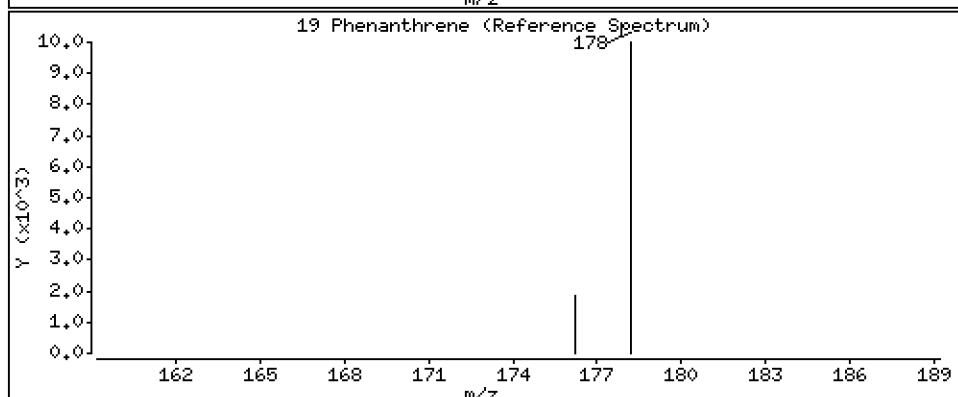
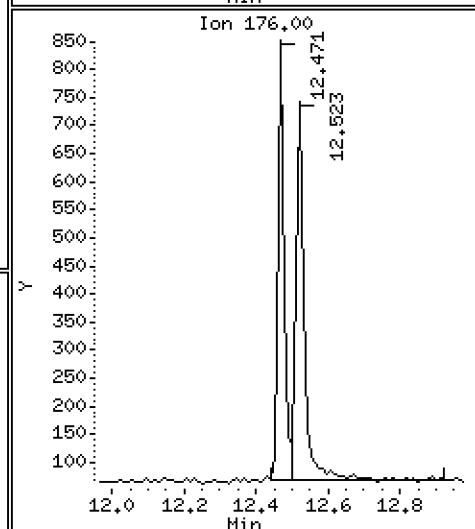
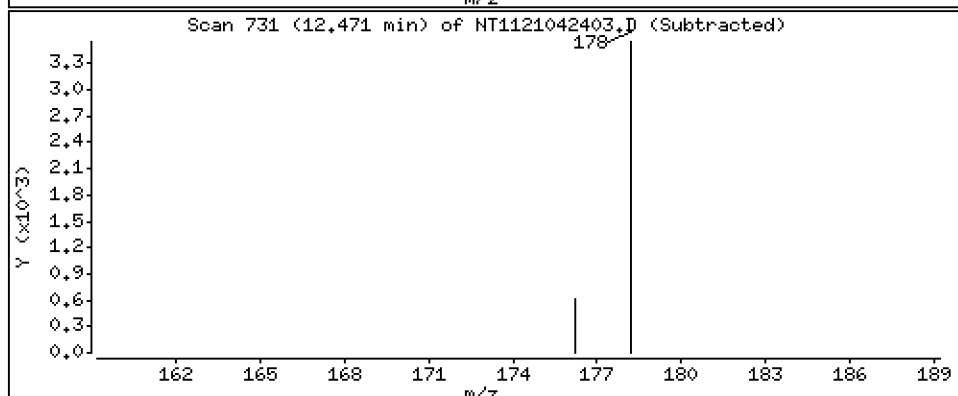
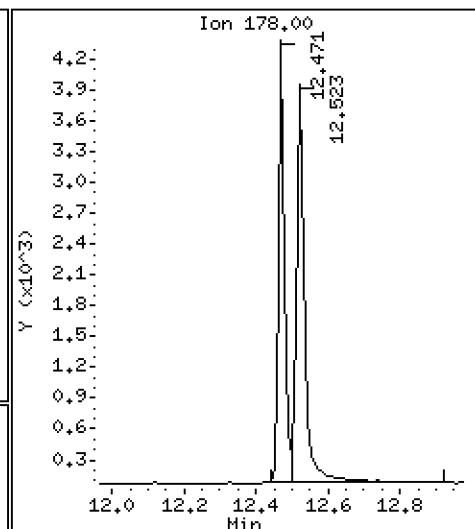
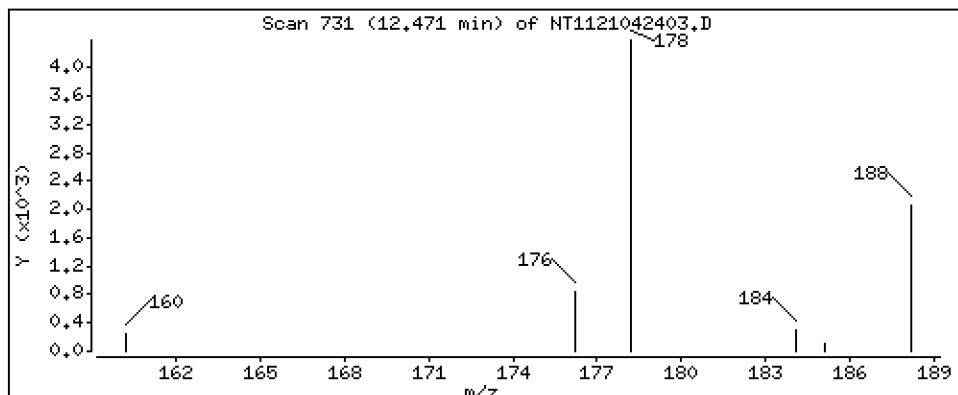
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

19 Phenanthrene

Concentration: 9,23 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

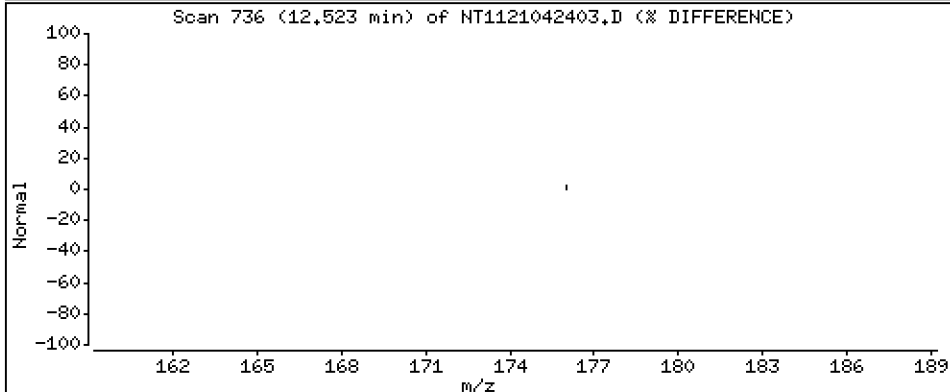
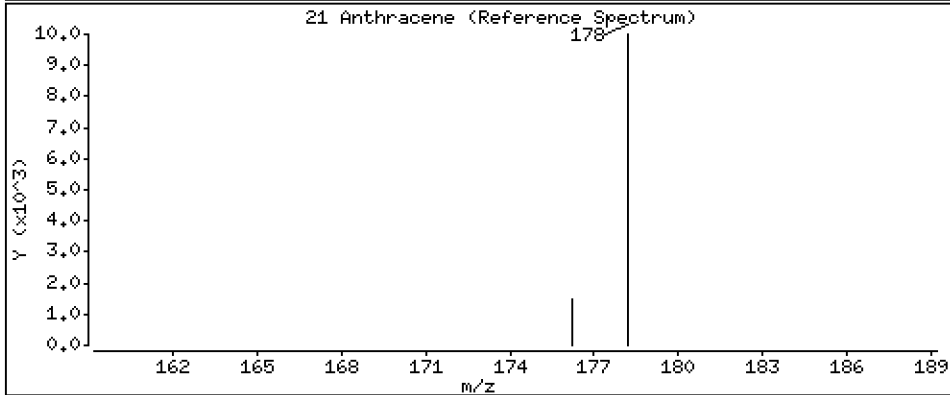
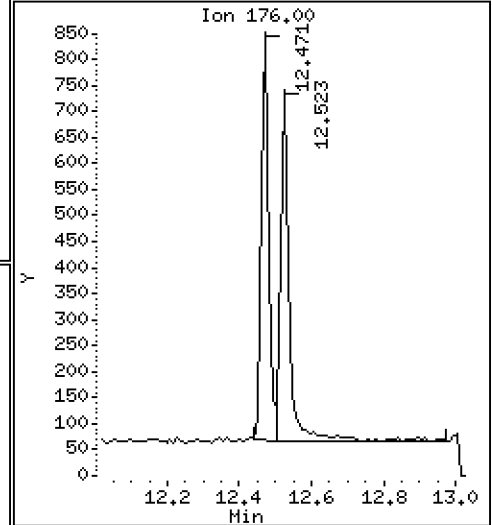
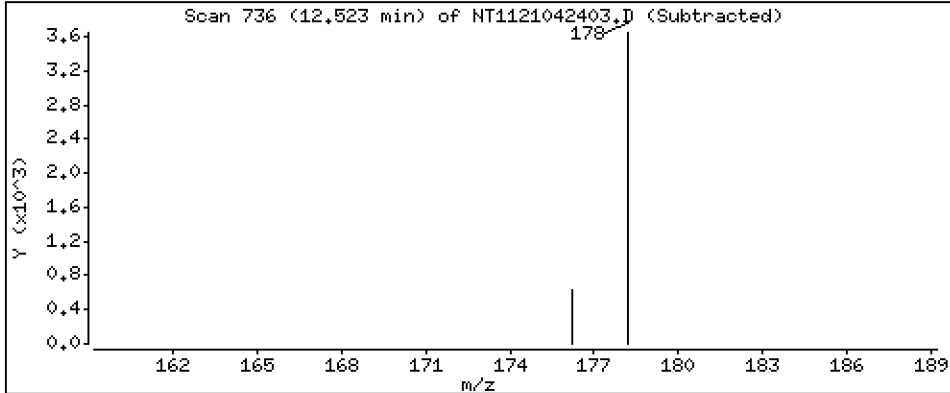
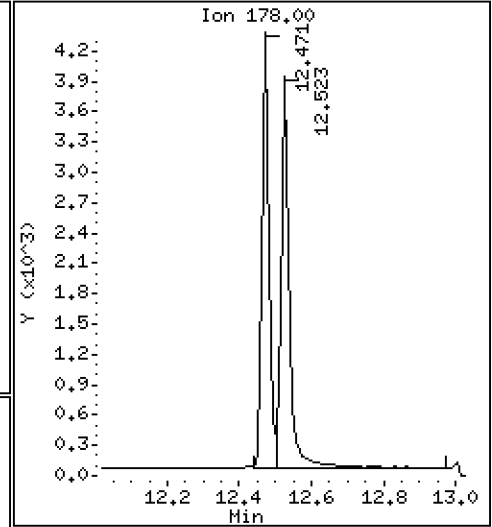
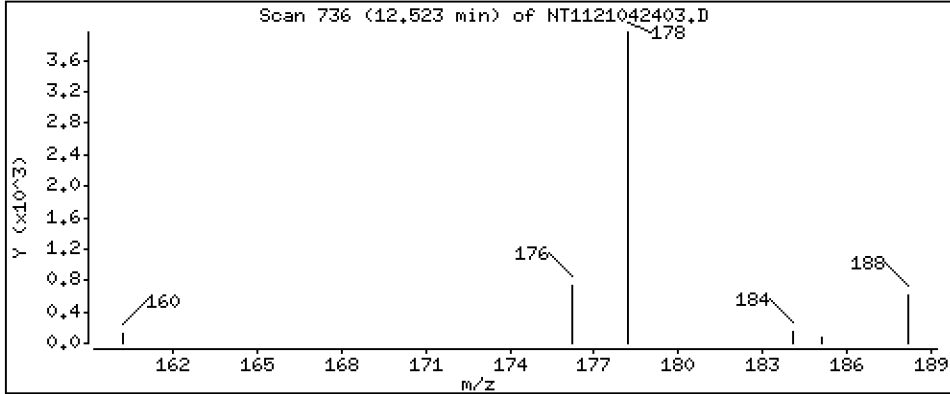
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

21 Anthracene

Concentration: 9,86 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

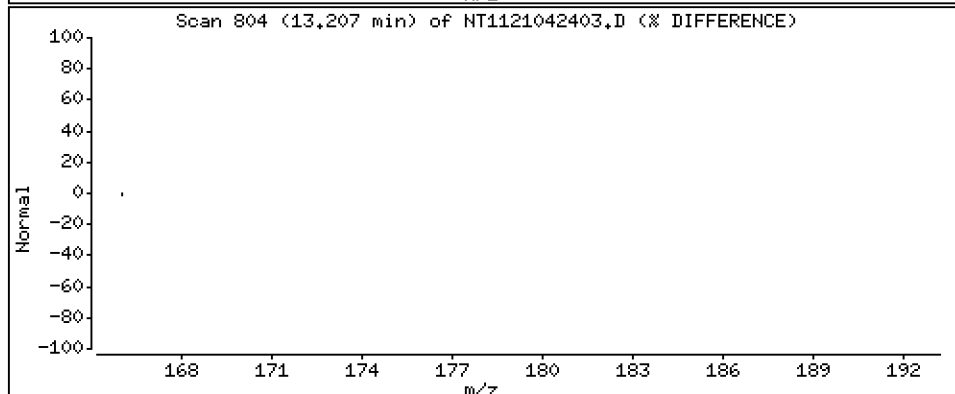
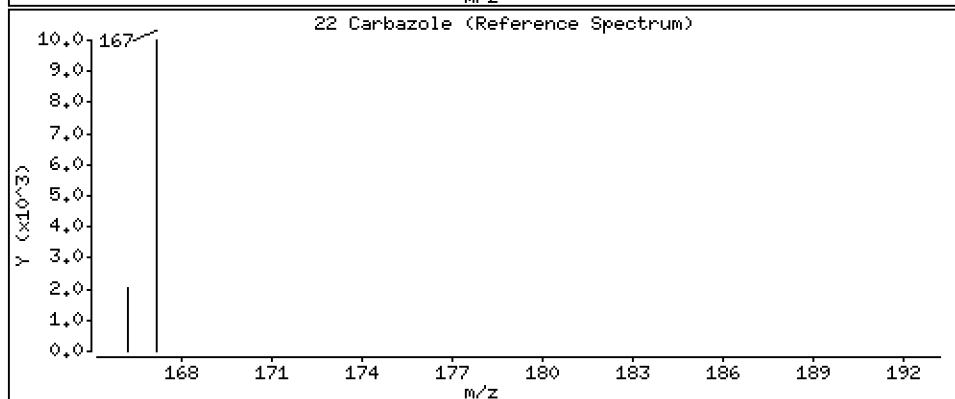
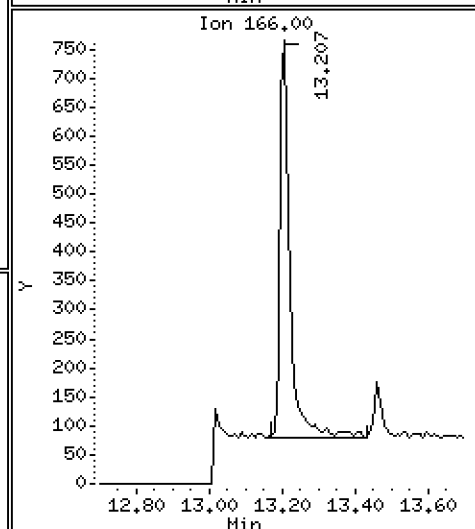
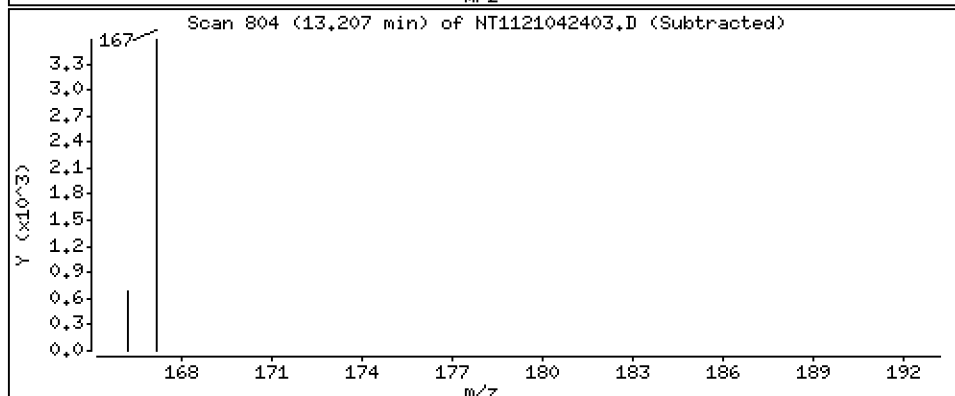
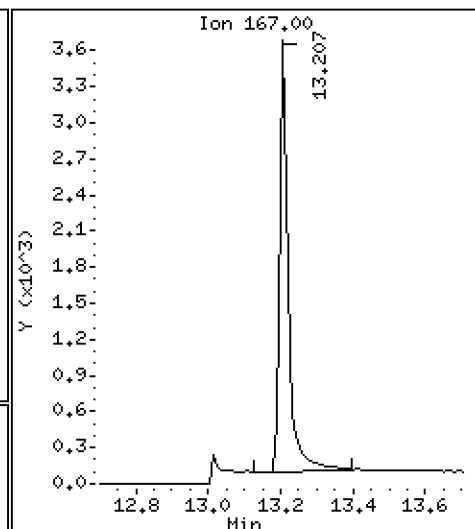
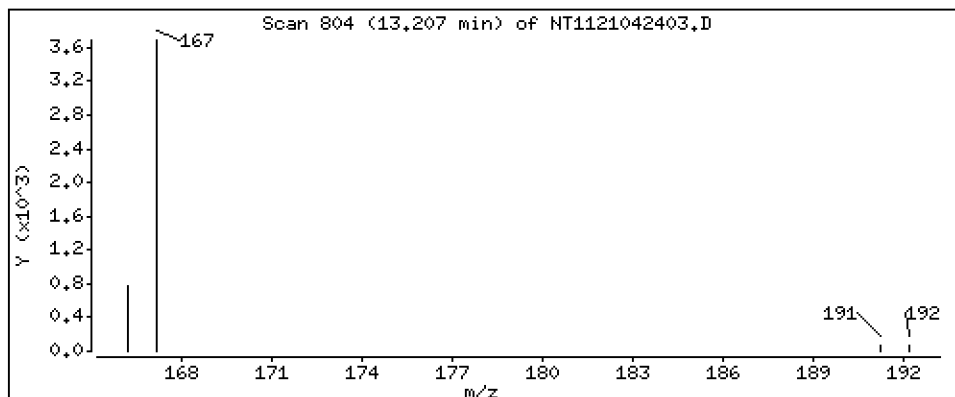
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Carbazole

Concentration: 9,25 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

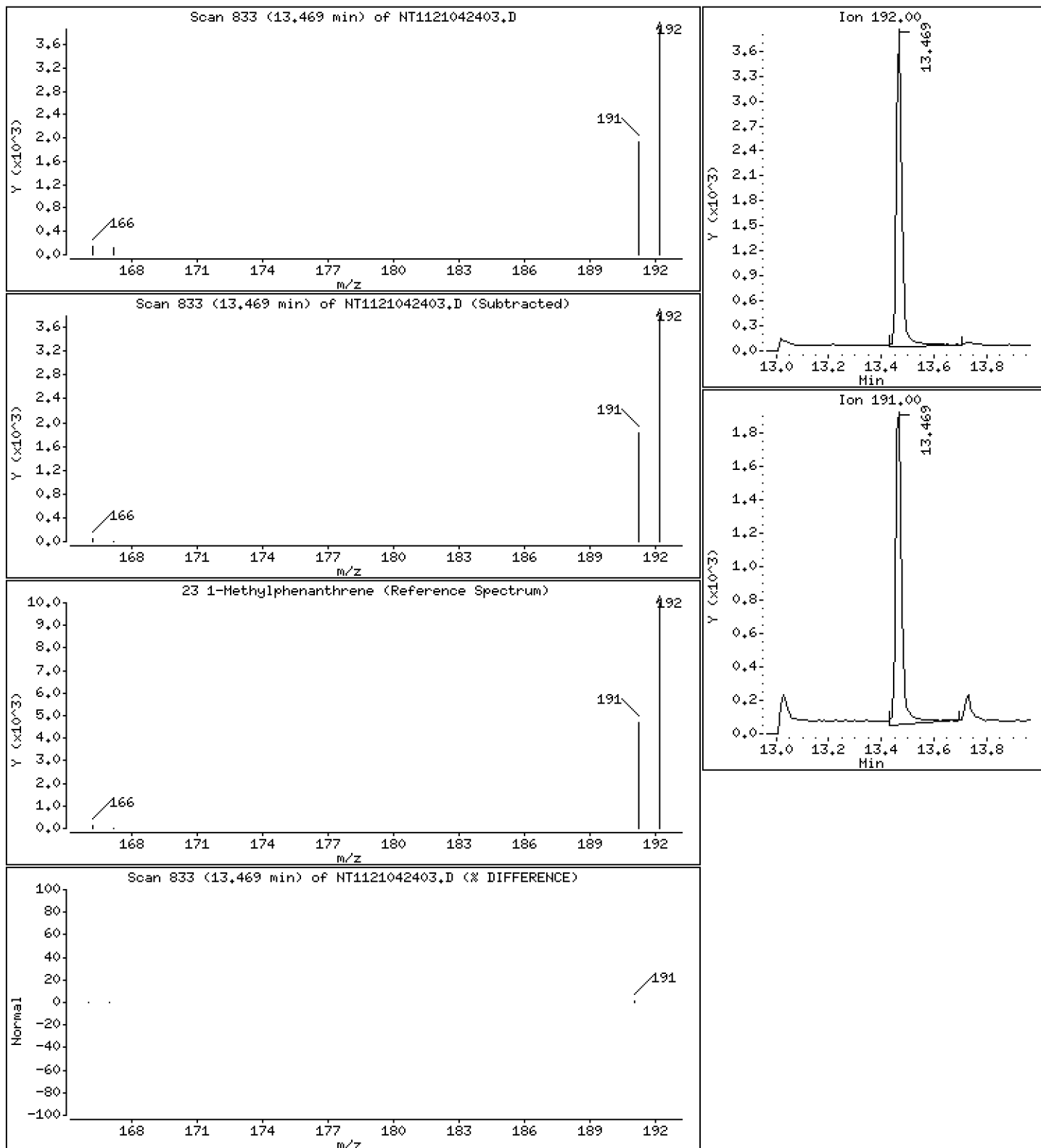
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 1-Methylphenanthrene

Concentration: 9,95 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

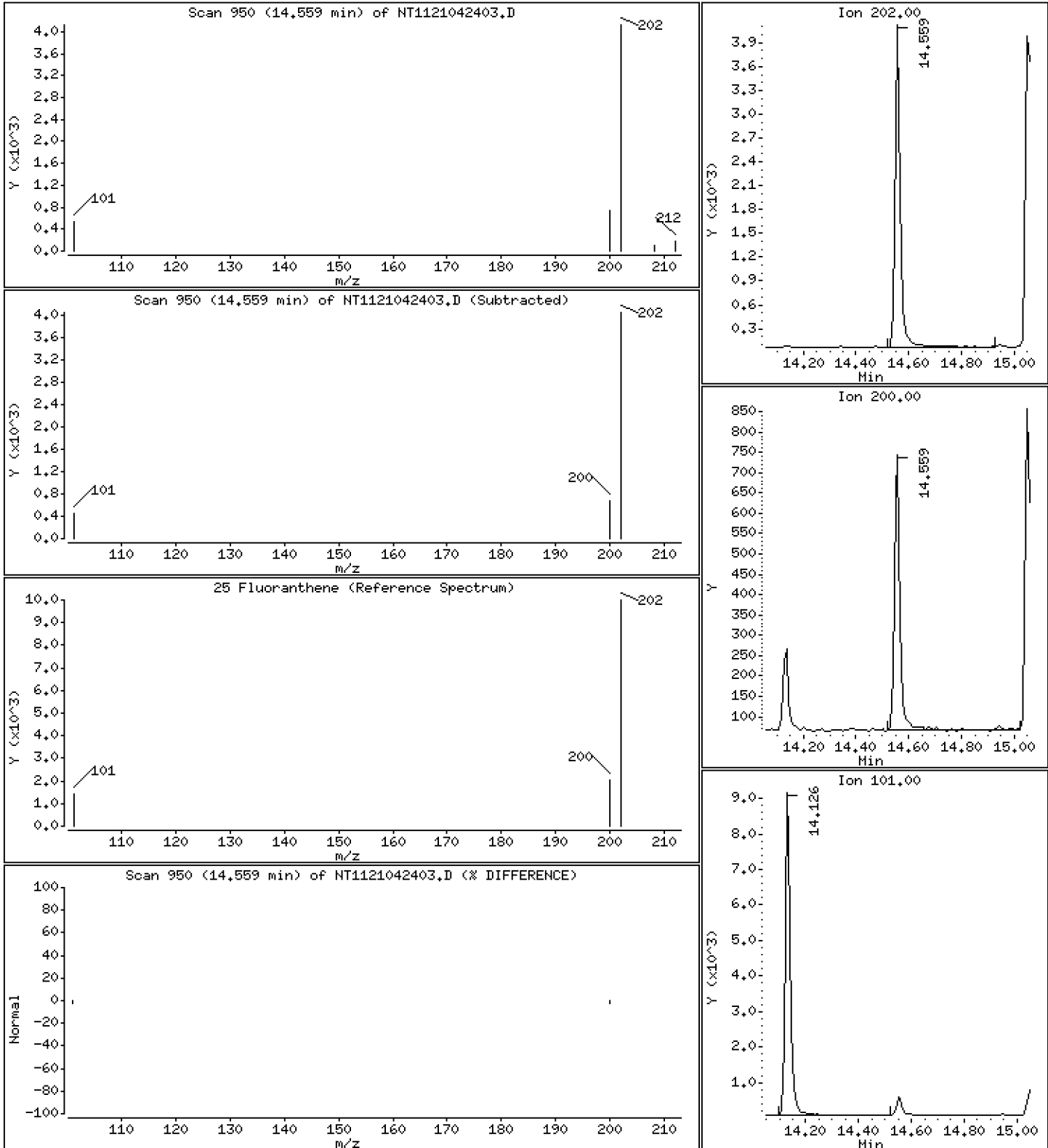
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

25 Fluoranthene

Concentration: 9.47 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

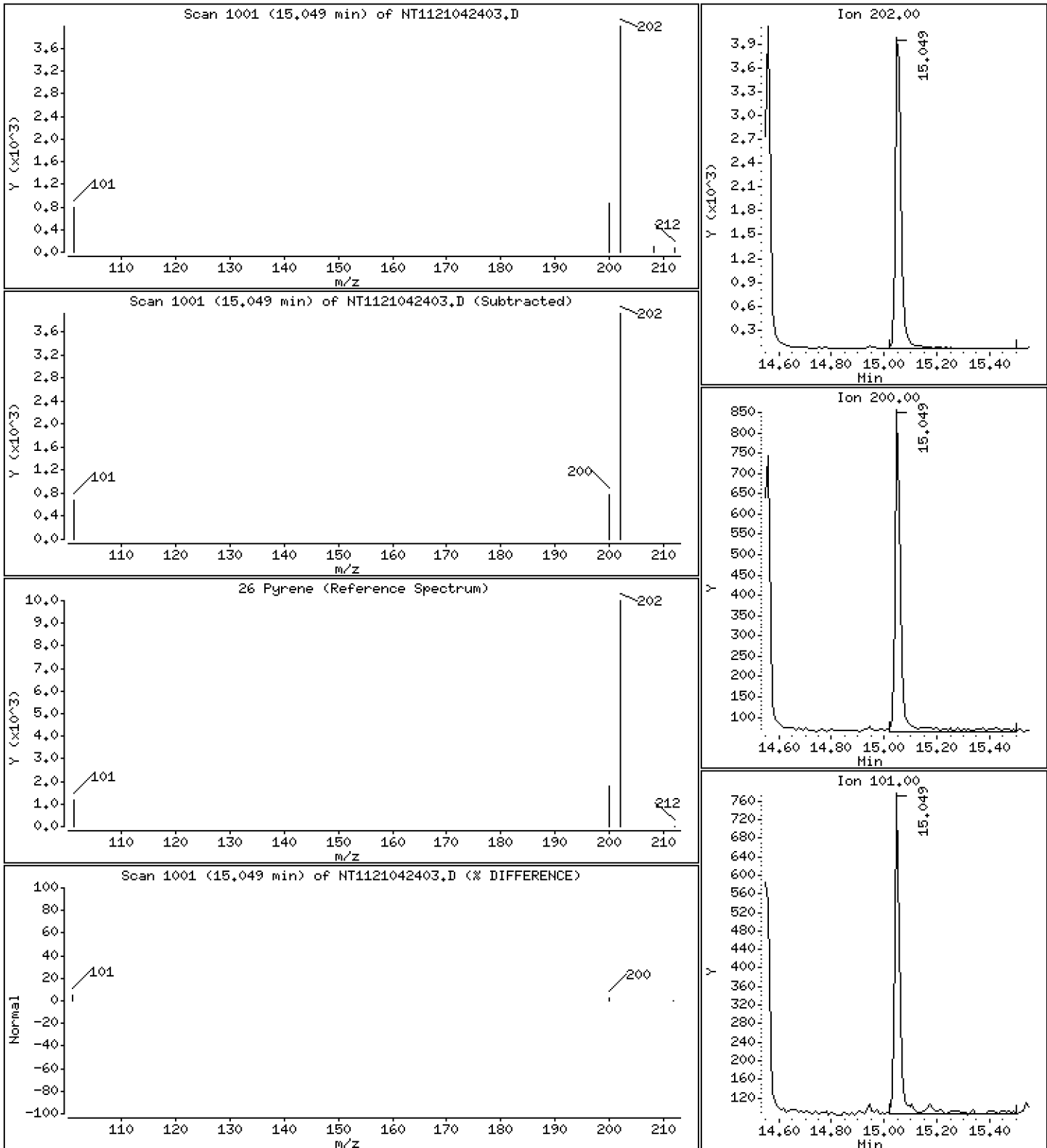
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

Concentration: 9,68 ng/mL

26 Pyrene



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

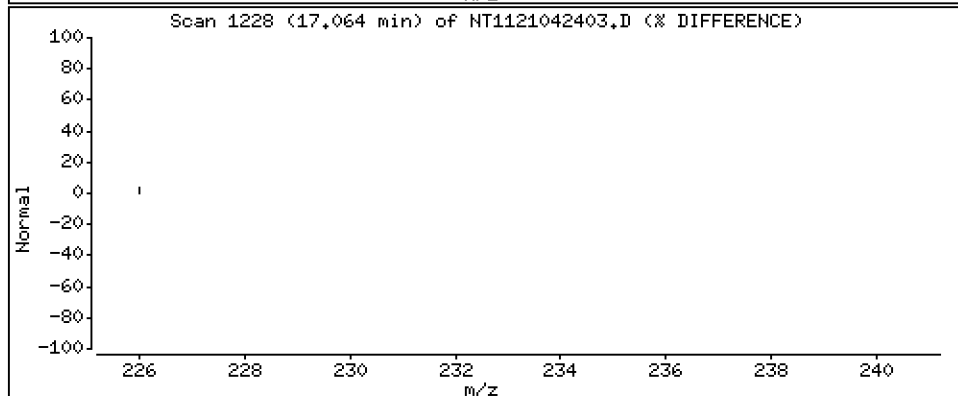
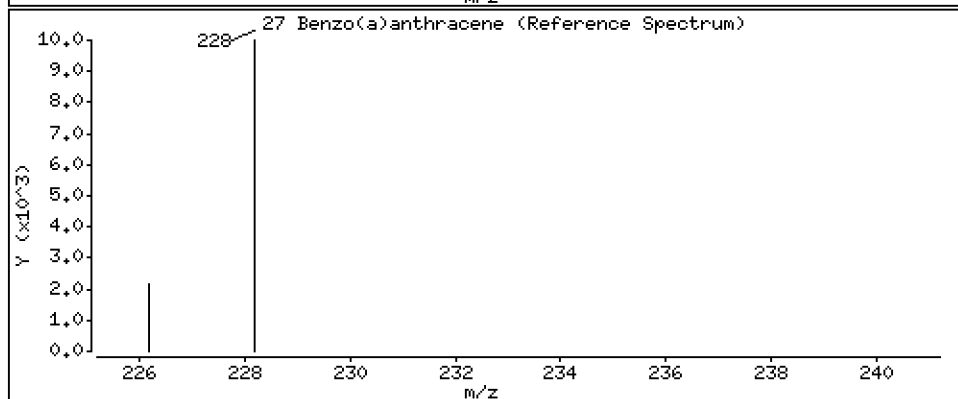
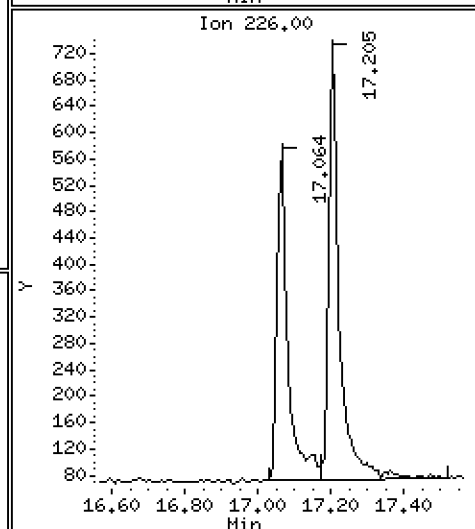
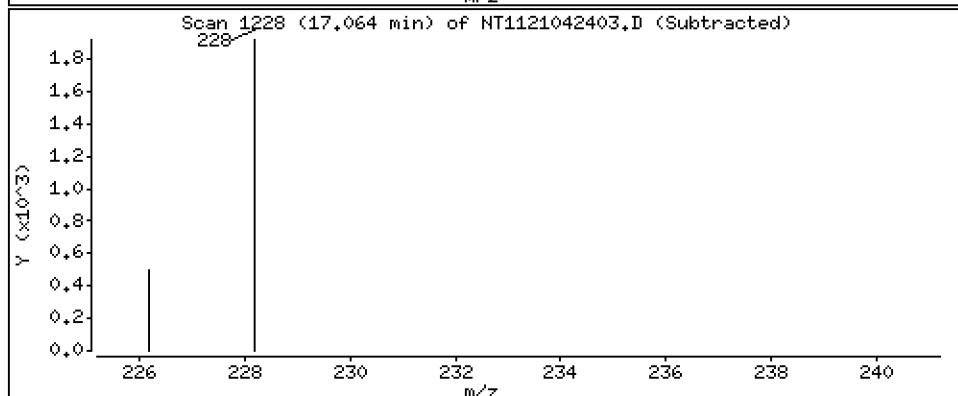
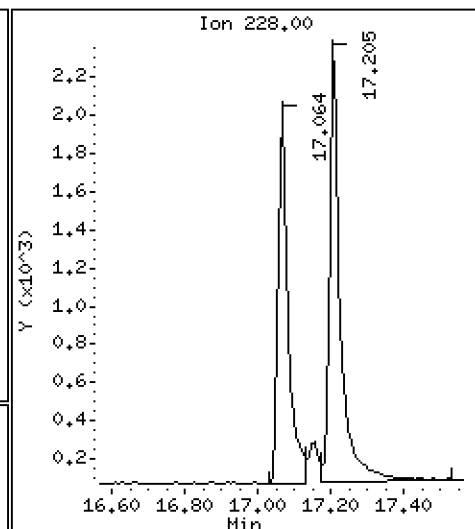
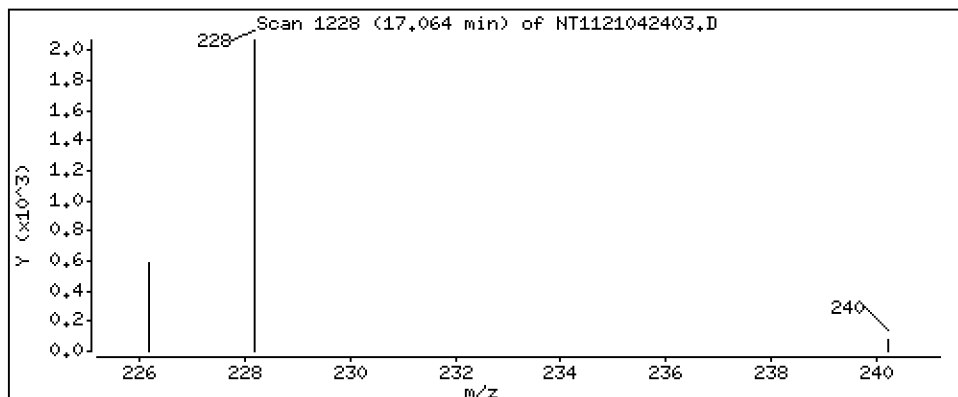
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

27 Benzo(a)anthracene

Concentration: 8,26 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

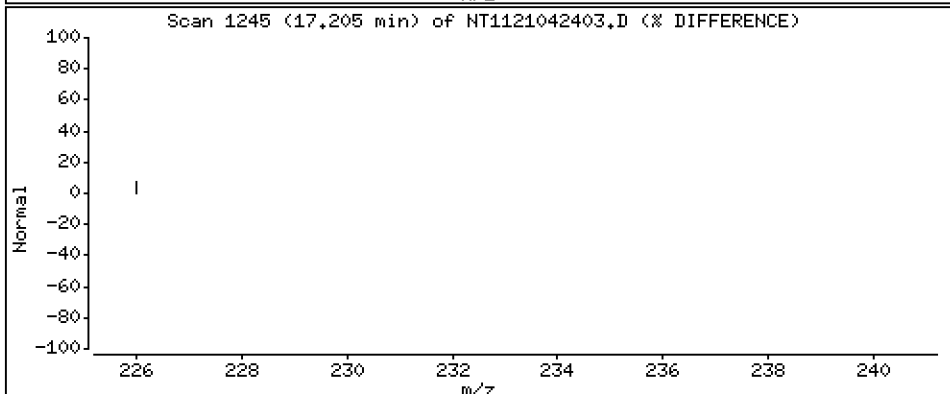
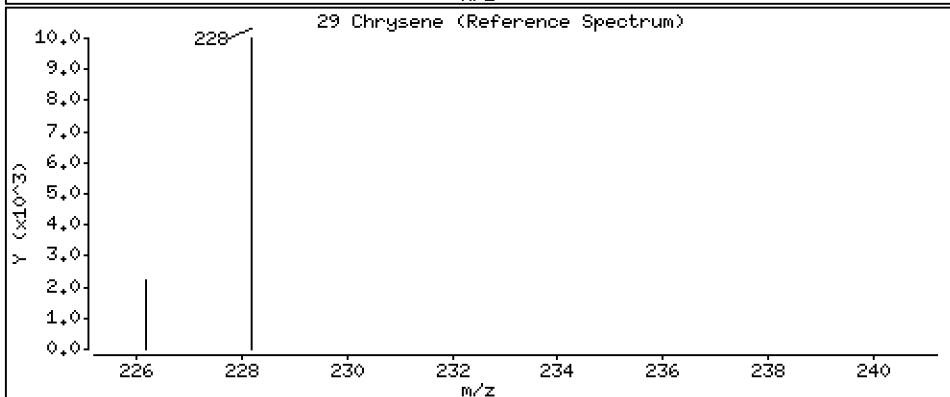
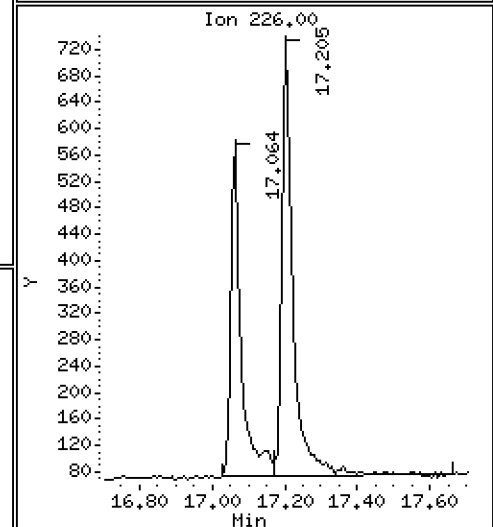
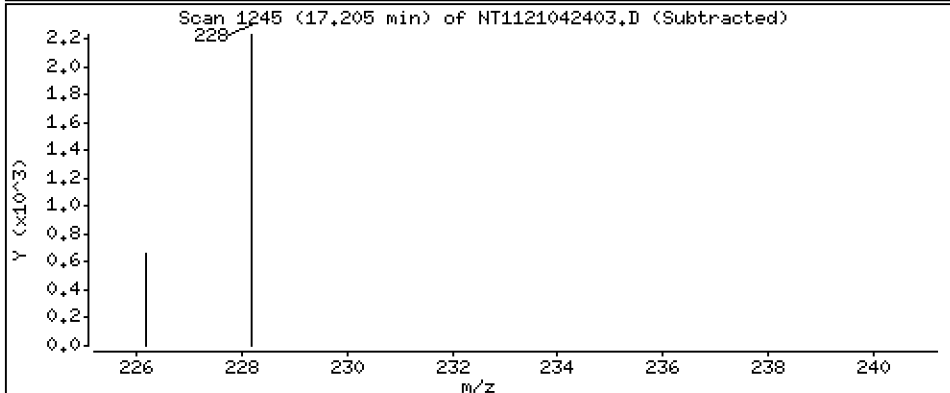
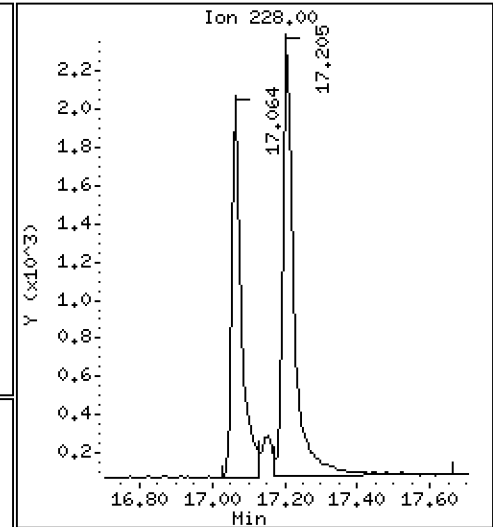
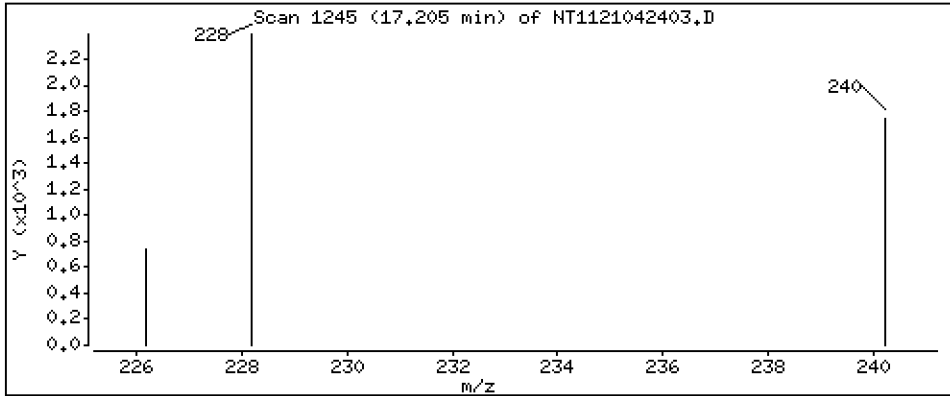
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

Concentration: 9,67 ng/mL

29 Chrysene



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

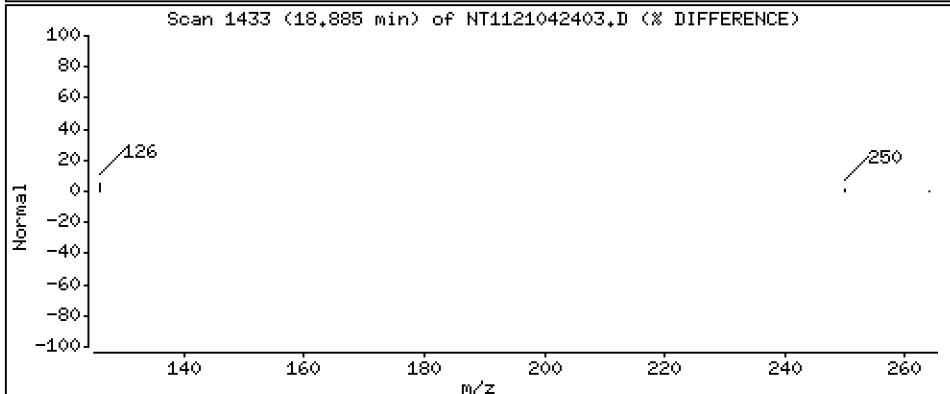
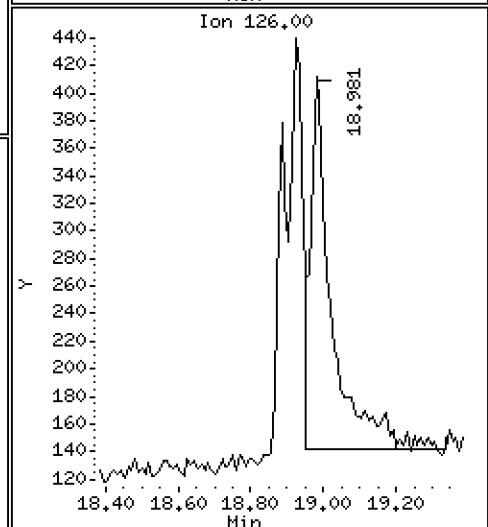
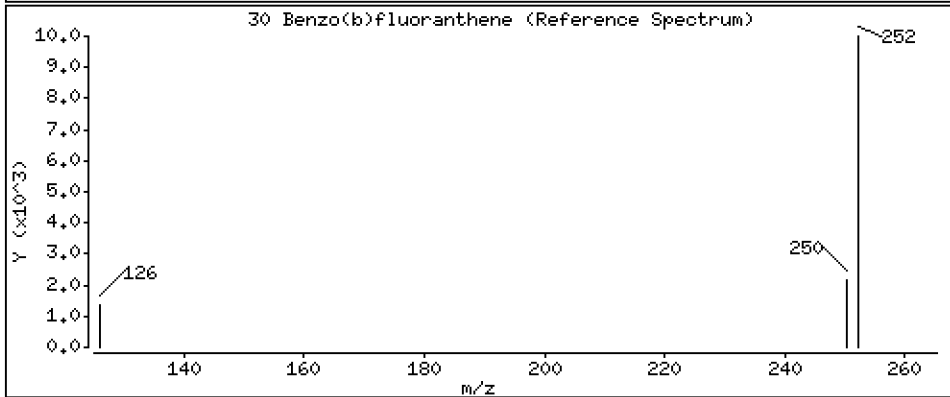
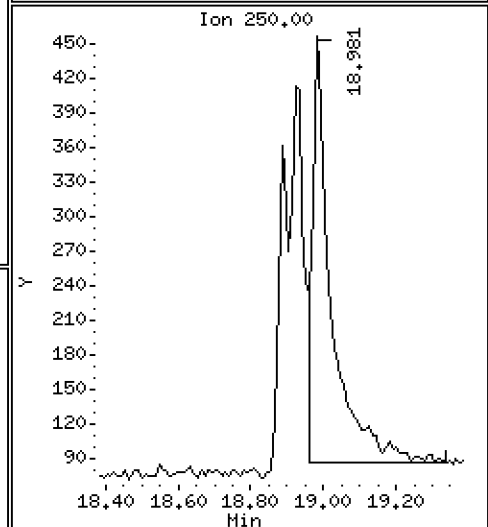
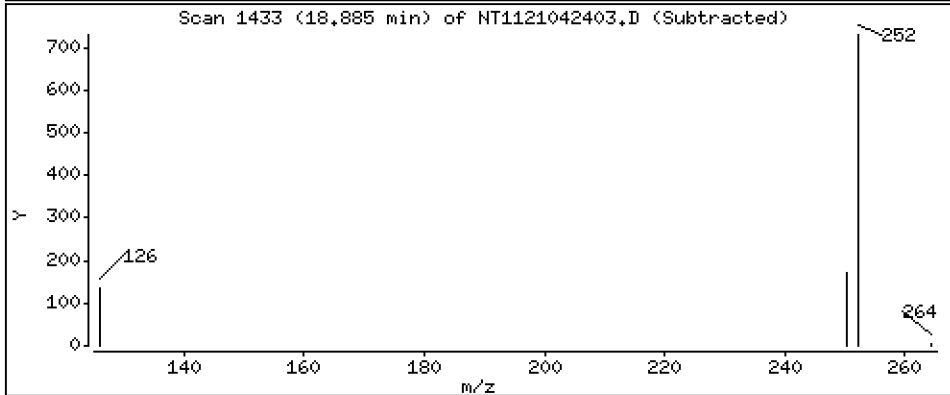
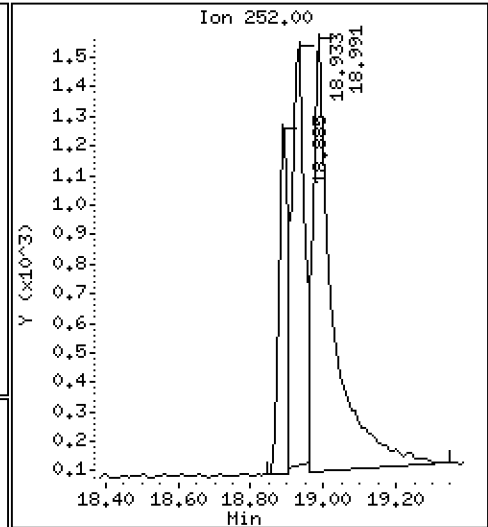
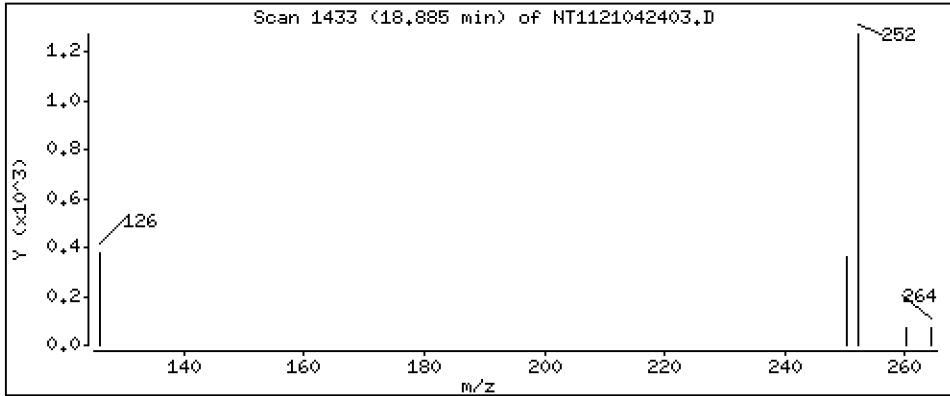
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Benzo(b)fluoranthene

Concentration: 5,93 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

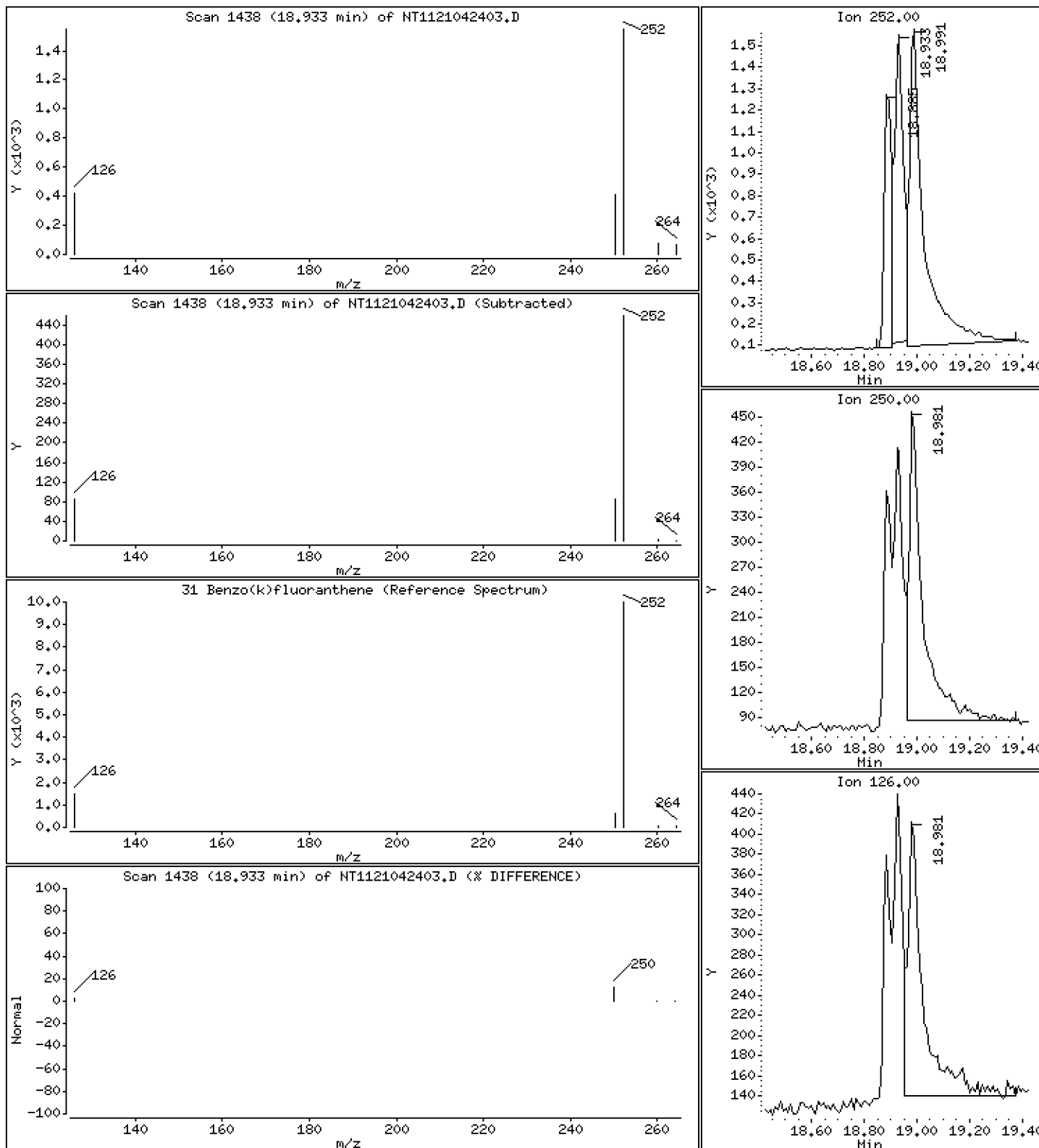
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

31 Benzo(k)fluoranthene

Concentration: 7,98 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

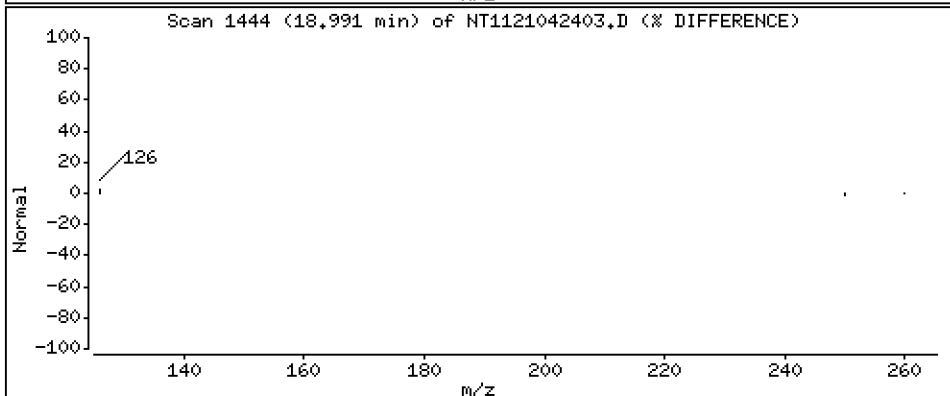
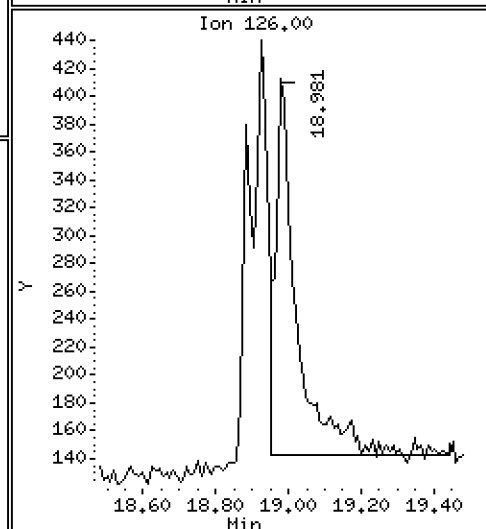
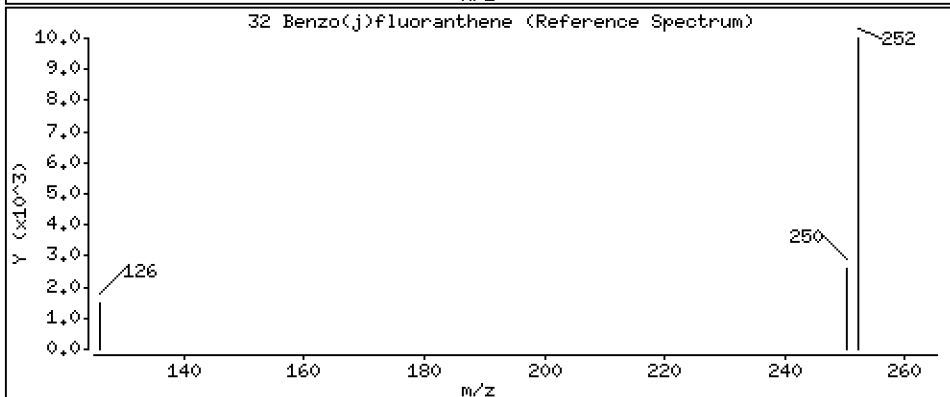
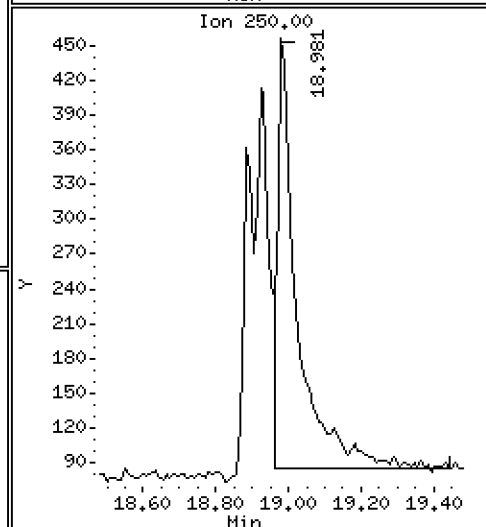
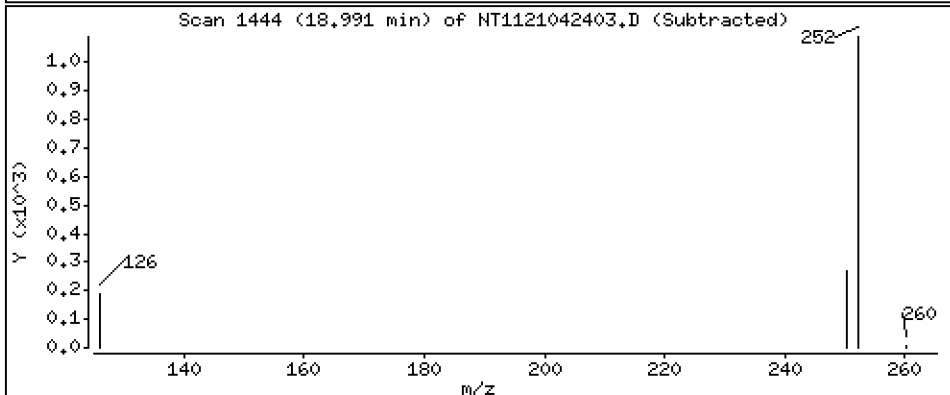
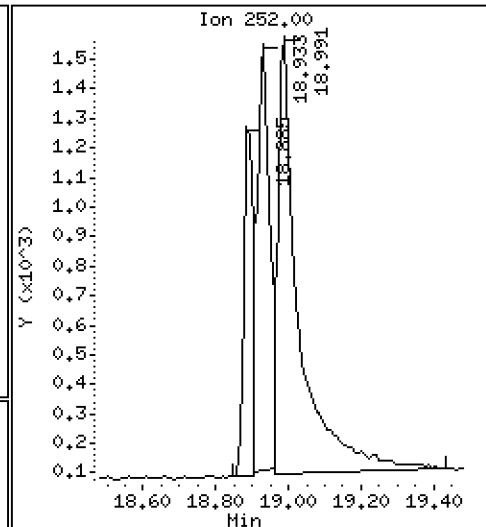
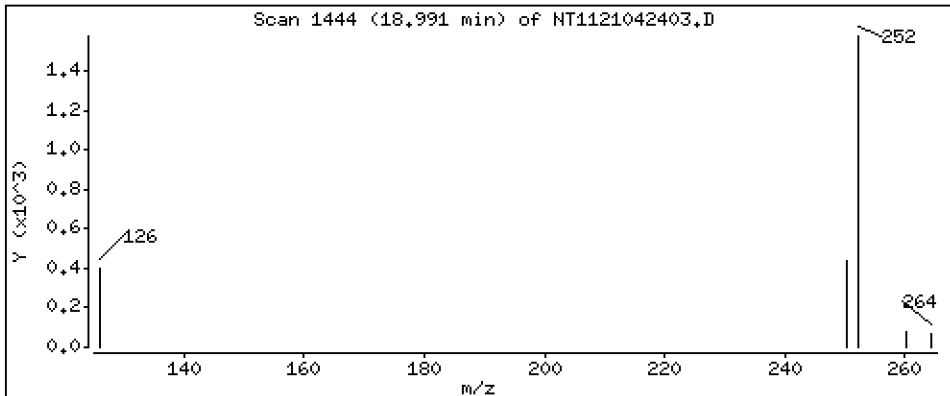
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

32 Benzo(j)fluoranthene

Concentration: 11,5 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

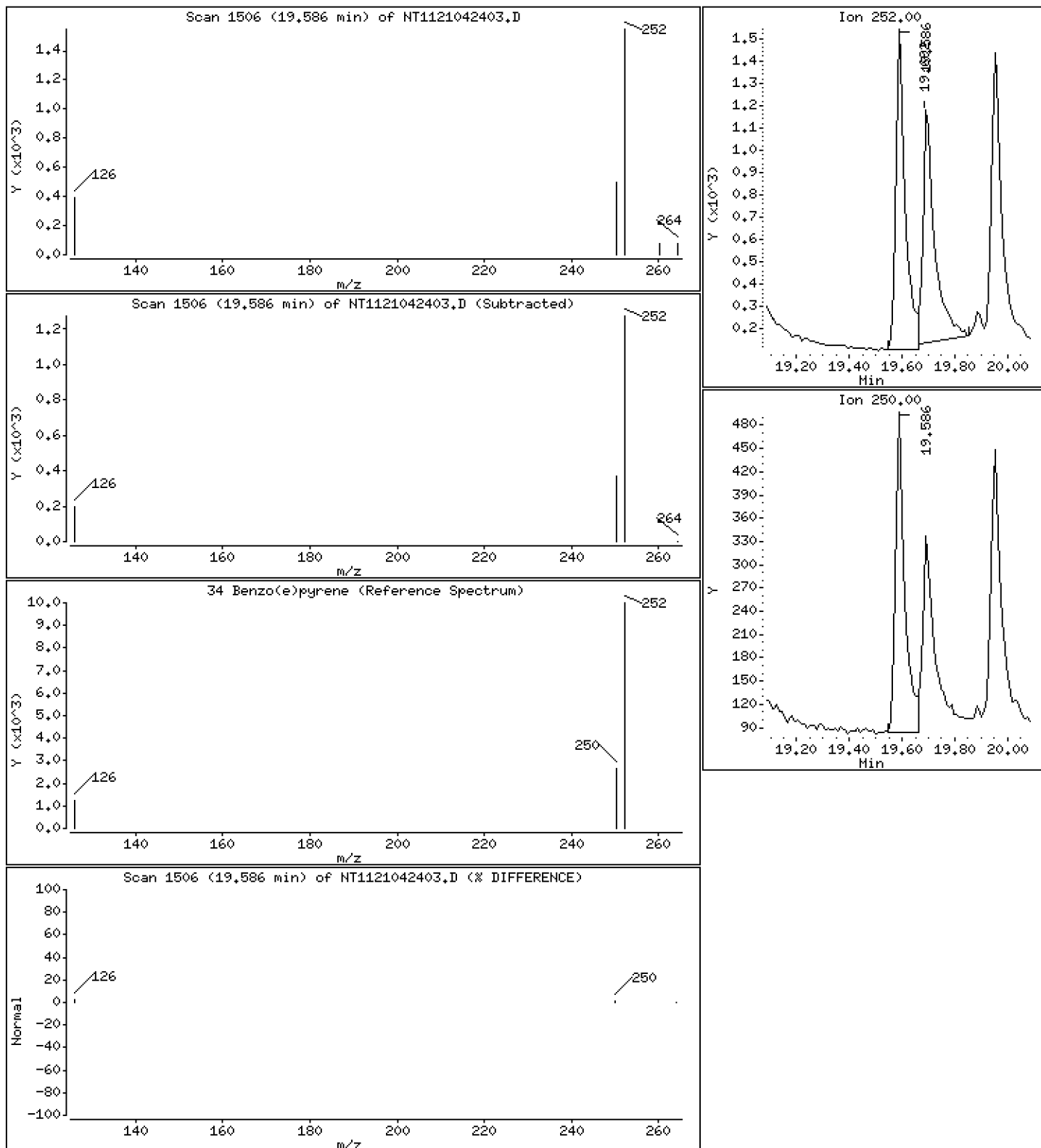
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

34 Benzo(e)pyrene

Concentration: 8,68 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

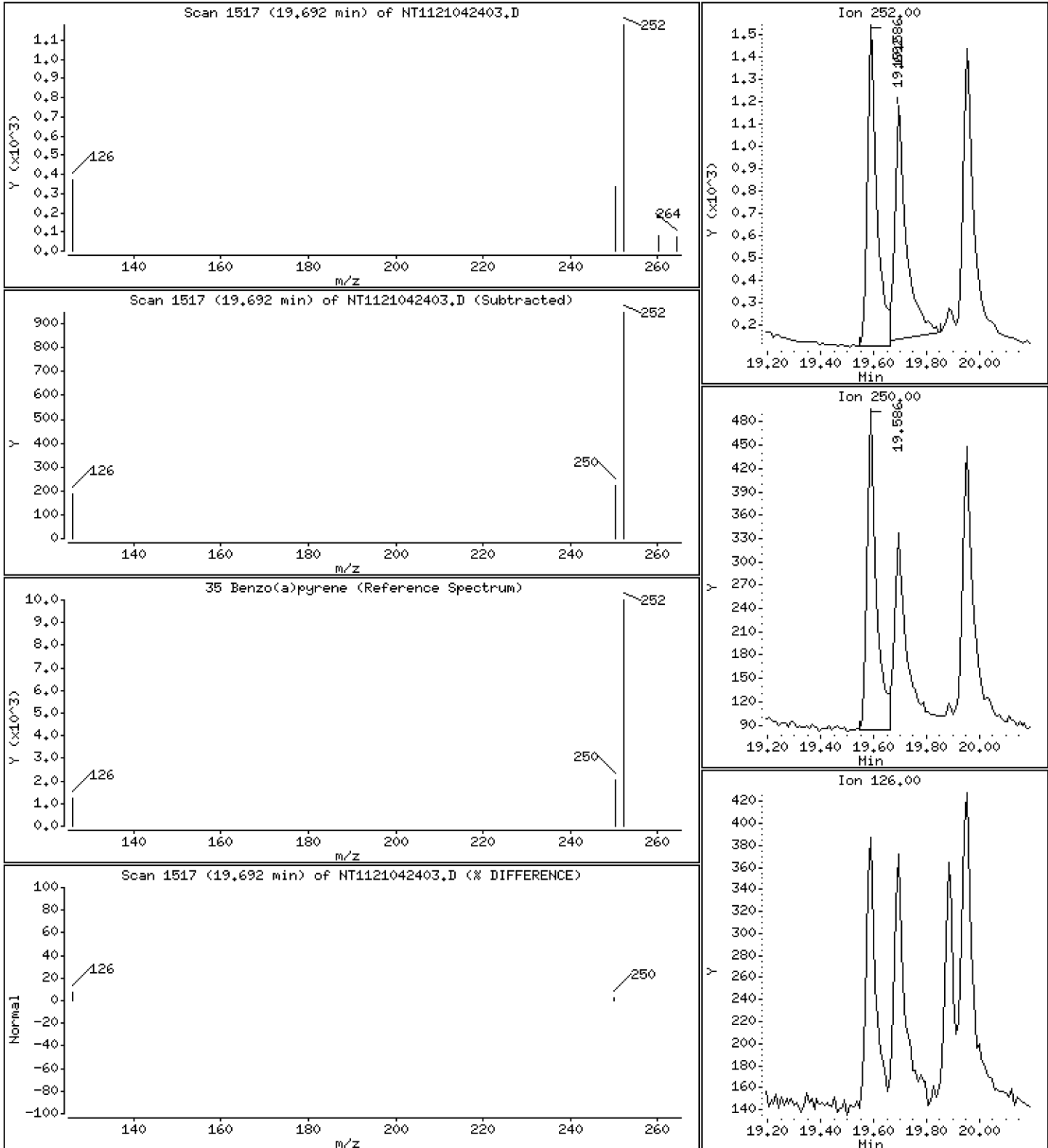
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

35 Benzo(a)pyrene

Concentration: 8,35 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

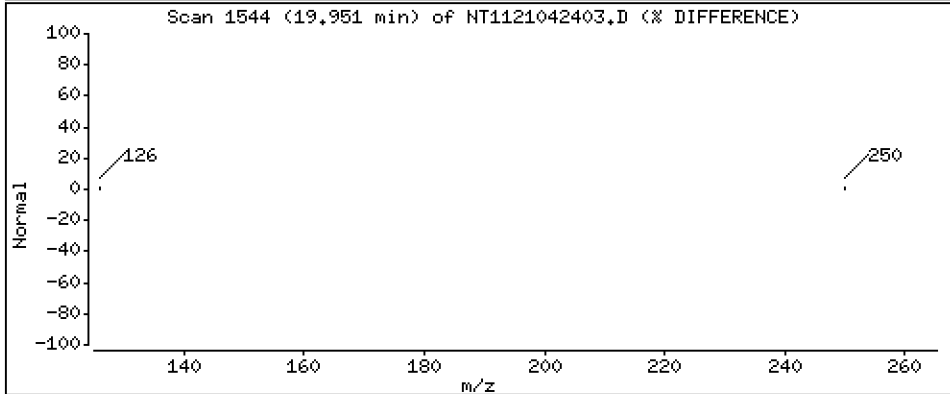
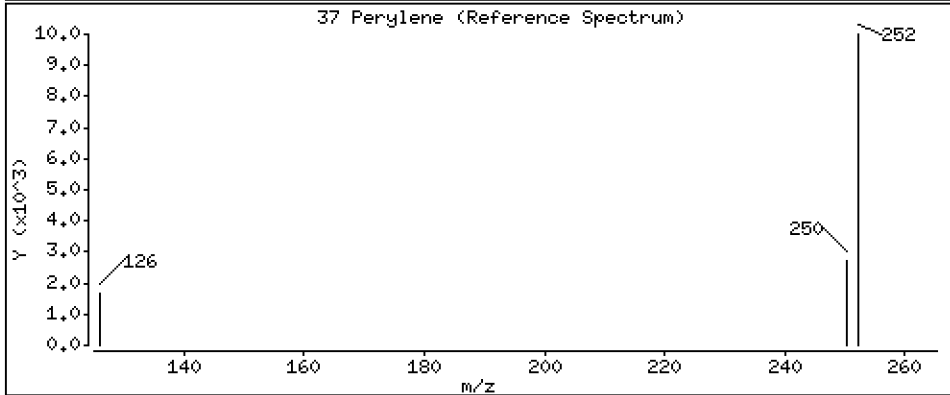
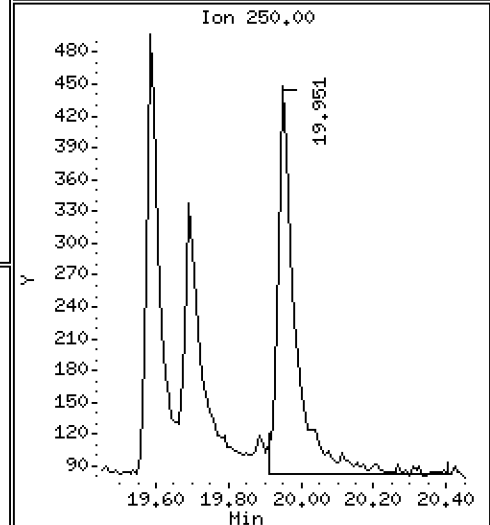
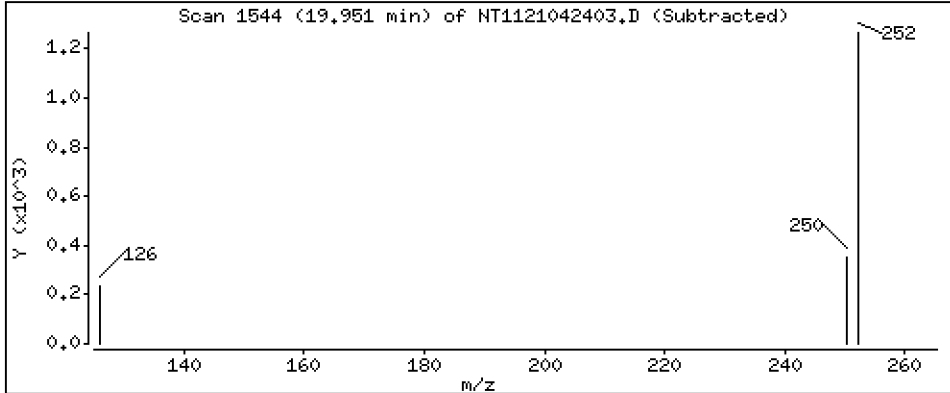
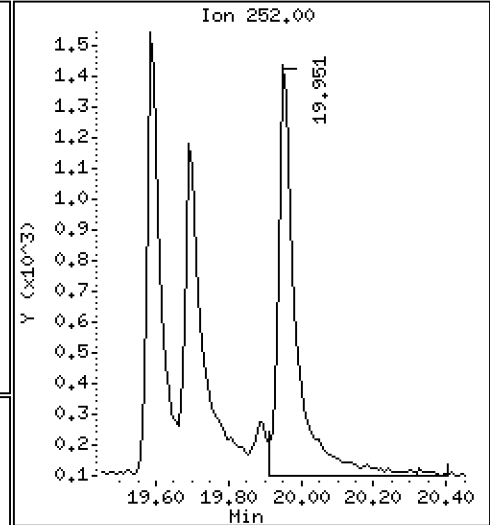
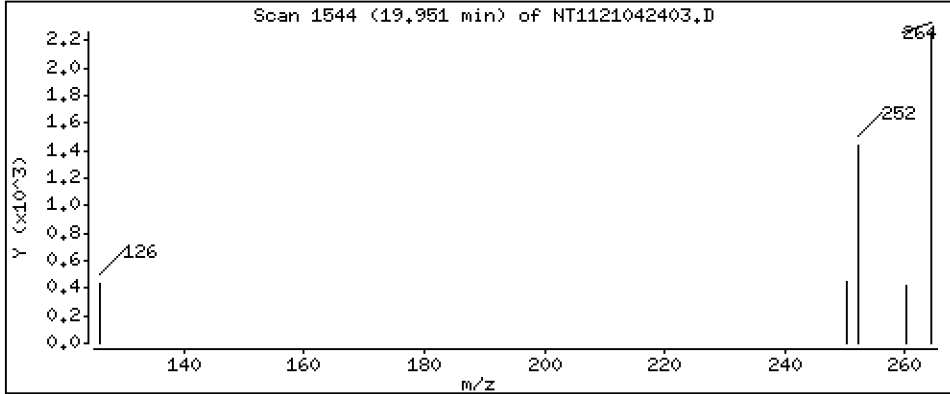
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

Concentration: 10,2 ng/mL

37 Perylene



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

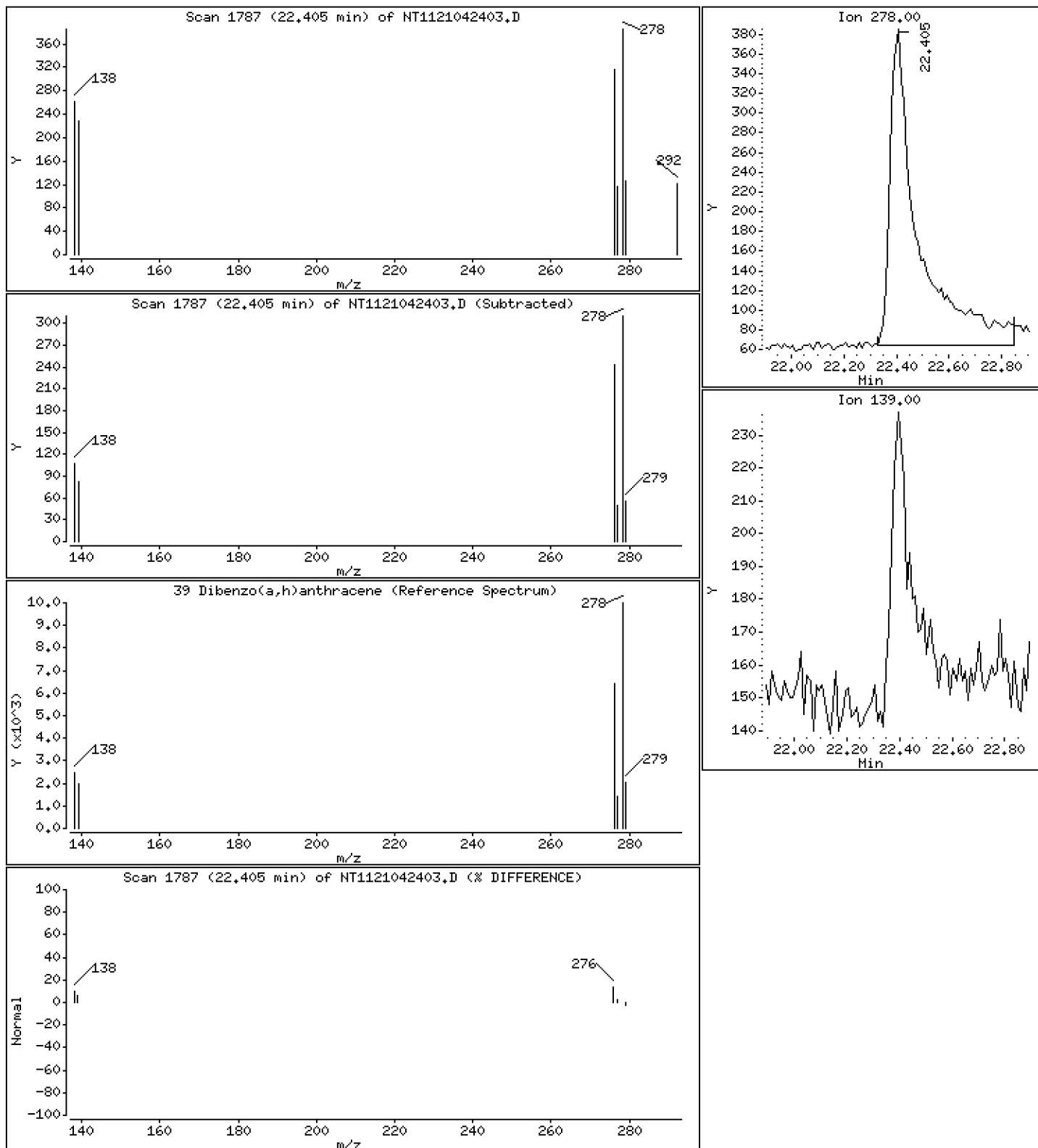
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

39 Dibenzo(a,h)anthracene

Concentration: 7,49 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

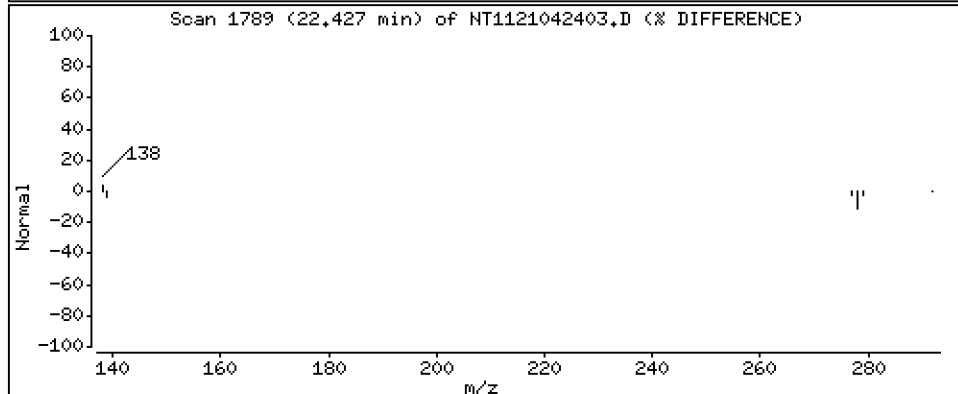
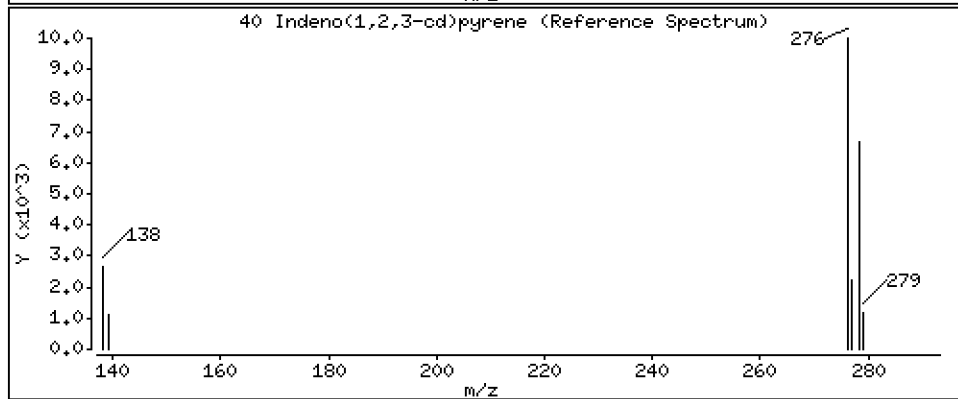
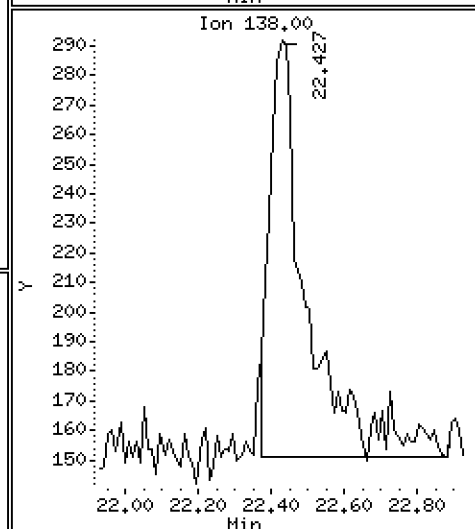
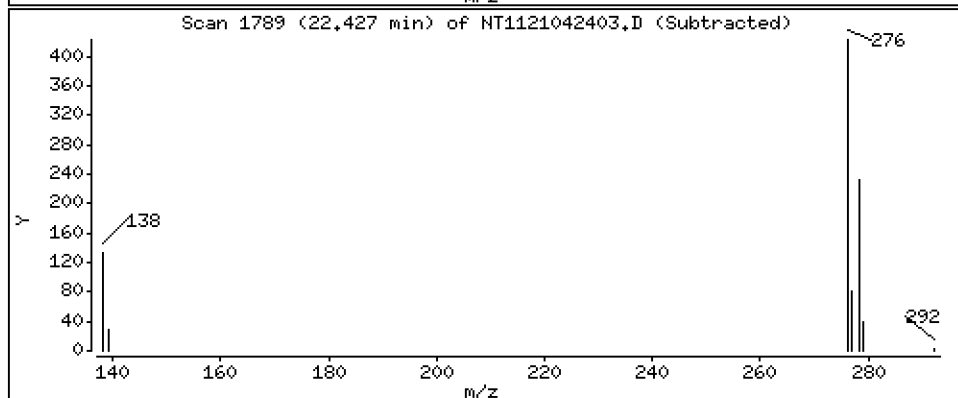
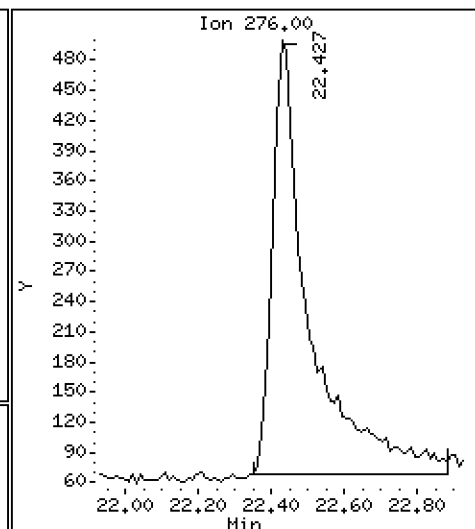
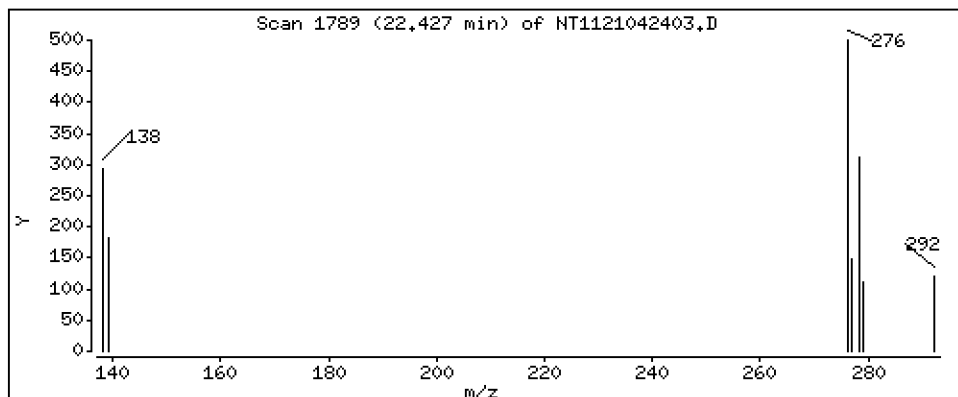
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

40 Indeno(1,2,3-cd)pyrene

Concentration: 7,91 ng/mL



Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

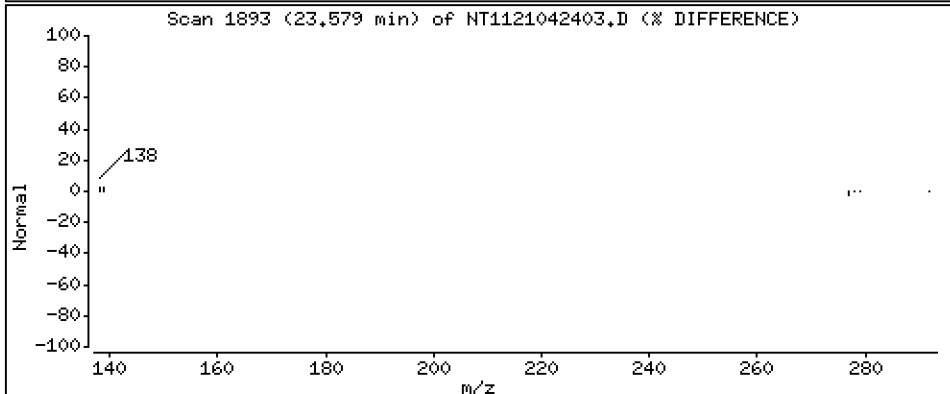
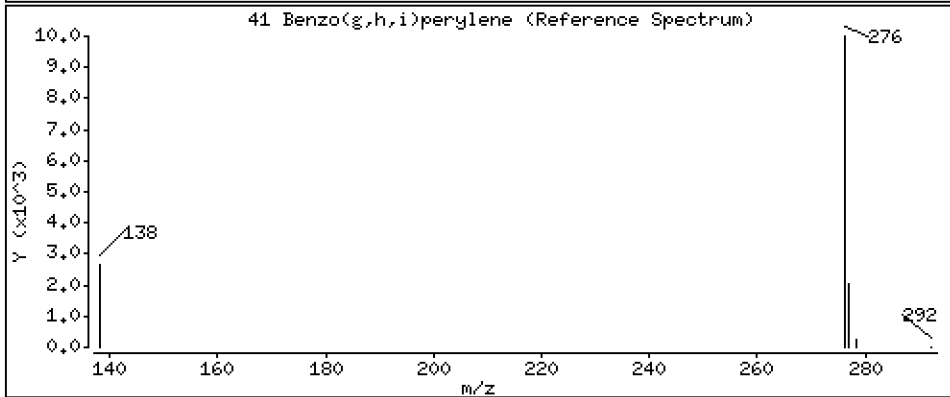
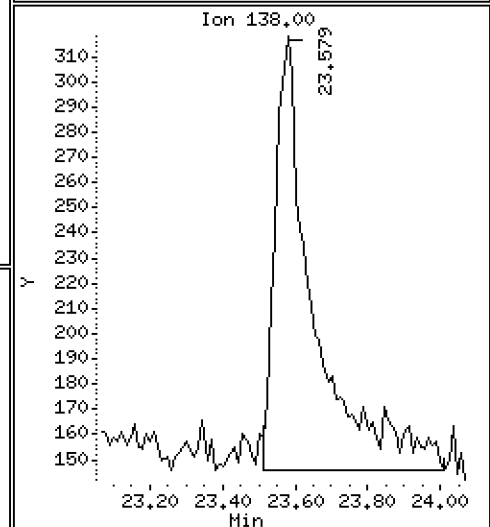
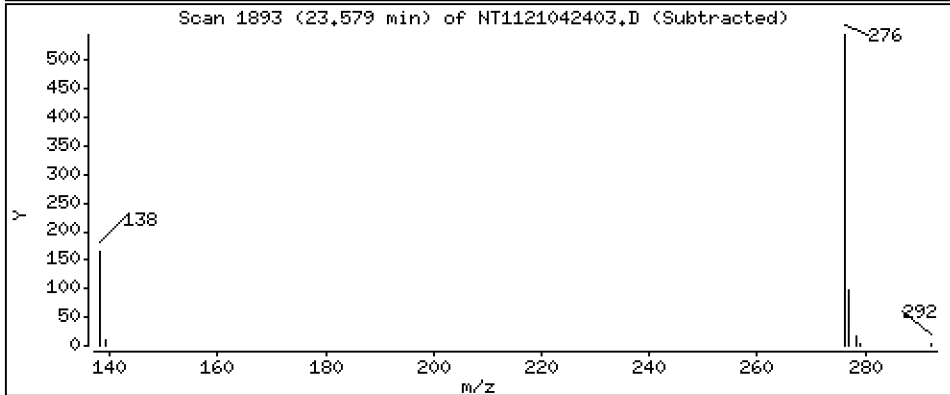
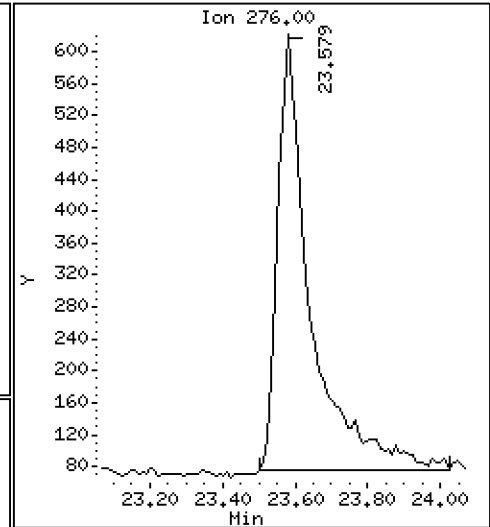
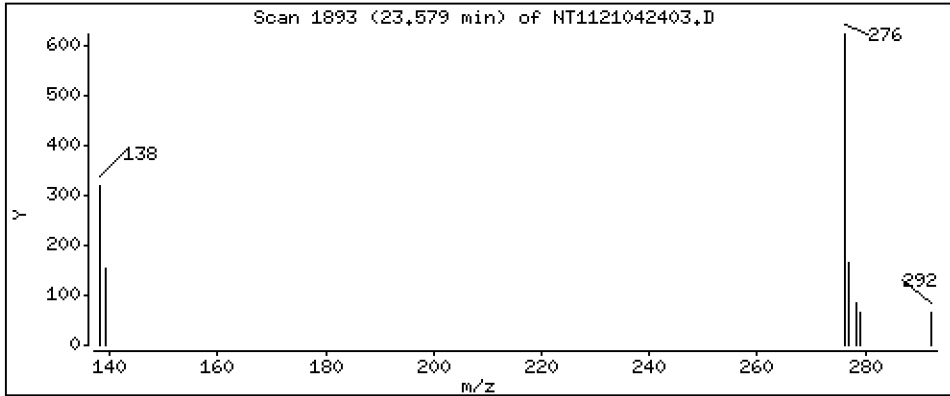
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

41 Benzo(g,h,i)perylene

Concentration: 8,99 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20210424.b\NT1121042403.D
 Lab Smp Id: SJD0344-LCV1
 Inj Date : 24-APR-2021 10:46 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : SJD0344-LCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20210424.b\lowsim.m
 Meth Date : 24-Apr-2021 10:50 van Quant Type: ISTD
 Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PAH.sub
 Target Version: 4.14
 Processing Host: VANS-202011

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		6.759	6.768	(1.000)	129787	200.000	
2 Naphthalene	128		6.795	6.795	(1.005)	7739	10.2697	10.3
3 Benzo(b)thiophene	134		7.048	7.048	(1.043)	6037	10.1547	10.2
\$ 4 2-Methylnaphthalene-d10	152		7.738	7.738	(1.145)	4828	9.25146	9.25 (M)
5 2-Methylnaphthalene	142		7.791	7.791	(1.153)	5744	9.45525	9.46 (M)
6 1-Methylnaphthalene	142		8.043	8.043	(1.190)	5302	9.38887	9.39 (M)
7 2-Chloronaphthalene	162		8.694	8.694	(0.891)	4852	8.68600	8.69 (M)
8 Biphenyl	154		8.663	8.663	(0.888)	6693	8.99888	9.00
9 2,6-Dimethylnaphthalene	156		8.715	8.715	(0.893)	4724	8.56042	8.56 (M)
10 Acenaphthylene	152		9.607	9.607	(0.984)	6406	8.70512	8.71 (M)
* 11 Acenaphthene-d10	164		9.761	9.761	(1.000)	64142	200.000	
12 Acenaphthene	153		9.824	9.824	(1.006)	4215	8.66029	8.66
13 Dibenzofuran	168		10.023	10.023	(1.027)	5585	8.59643	8.60
14 2,3,5-Trimethylnaphthalene	170		10.124	10.124	(1.037)	3539	8.85635	8.86
16 Fluorene	166		10.642	10.642	(1.090)	4259	8.51031	8.51
17 Dibenzothiophene	184		12.260	12.260	(0.986)	5112	9.71820	9.72
* 18 Phenanthrene-d10	188		12.428	12.428	(1.000)	95013	200.000	
19 Phenanthrene	178		12.470	12.470	(1.003)	5735	9.22709	9.23
21 Anthracene	178		12.523	12.523	(1.008)	6125	9.86275	9.86
22 Carbazole	167		13.206	13.206	(1.063)	6121	9.24971	9.25 (M)
23 1-Methylphenanthrene	192		13.468	13.469	(1.084)	5464	9.95216	9.95
\$ 24 Fluoranthene-d10	212		14.520	14.520	(1.168)	4621	9.27660	9.28
25 Fluoranthene	202		14.558	14.558	(1.171)	5869	9.47124	9.47
26 Pyrene	202		15.048	15.048	(1.211)	6155	9.68188	9.68
27 Benzo(a)anthracene	228		17.064	17.064	(0.995)	3740	8.25864	8.26
* 28 Chrysene-d12	240		17.155	17.155	(1.000)	61649	200.000	
29 Chrysene	228		17.205	17.205	(1.003)	4930	9.66823	9.67
30 Benzo(b)fluoranthene	252		18.884	18.885	(0.949)	2237	5.93060	5.93
31 Benzo(k)fluoranthene	252		18.932	18.923	(0.952)	3957	7.98377	7.98
32 Benzo(j)fluoranthene	252		18.990	18.981	(0.955)	6176	11.5307	11.5
34 Benzo(e)pyrene	252		19.586	19.586	(0.985)	3709	8.68322	8.68
35 Benzo(a)pyrene	252		19.692	19.692	(0.990)	3290	8.35128	8.35
* 36 Perylene-d12	264		19.893	19.893	(1.000)	69298	200.000	

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/mL)	FINAL (ng/mL)
37 Perylene	252	19.951	19.951	(1.003)	4571	10.1842	10.2
\$ 38 Dibenzo(a,h)anthracene-d14	292	22.294	22.283	(1.121)	1879	7.07261	7.07
39 Dibenzo(a,h)anthracene	278	22.405	22.405	(1.126)	2389	7.49188	7.49
40 Indeno(1,2,3-cd)pyrene	276	22.427	22.427	(1.127)	3026	7.90975	7.91
41 Benzo(g,h,i)perylene	276	23.579	23.568	(1.185)	3439	8.99056	8.99

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 24-APR-2021
 Lab File ID: NT1121042403.D Calibration Time: 10:14
 Lab Smp Id: SJD0344-LCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20210424.b\lowsim.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	134531	67266	269062	129787	-3.53
11 Acenaphthene-d10	76981	38491	153962	64142	-16.68
18 Phenanthrene-d10	116022	58011	232044	95013	-18.11
28 Chrysene-d12	83386	41693	166772	61649	-26.07
36 Perylene-d12	98043	49022	196086	69298	-29.32

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.77	6.27	7.27	6.76	-0.13
11 Acenaphthene-d10	9.76	9.26	10.26	9.76	-0.00
18 Phenanthrene-d10	12.43	11.93	12.93	12.43	-0.00
28 Chrysene-d12	17.16	16.66	17.66	17.16	-0.00
36 Perylene-d12	19.89	19.39	20.39	19.89	-0.00

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.

REVIEW SUMMARY FOR FILE - NT1121042403.D

Lab ID: SJD0344-LCV1

nt11.i, 20210424.b\lowsim.m, 24-APR-2021 10:46

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1121042402.D

On Column LOD for nt11.i, 20210424.b\lowsim.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000

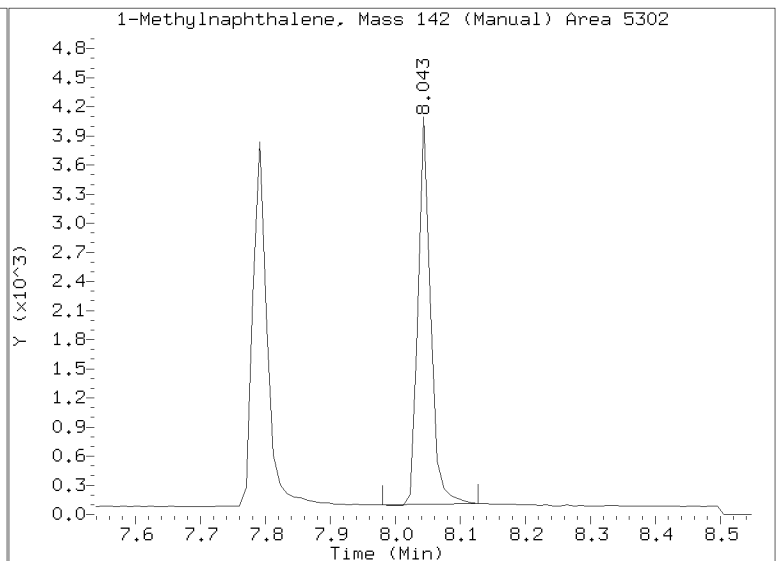
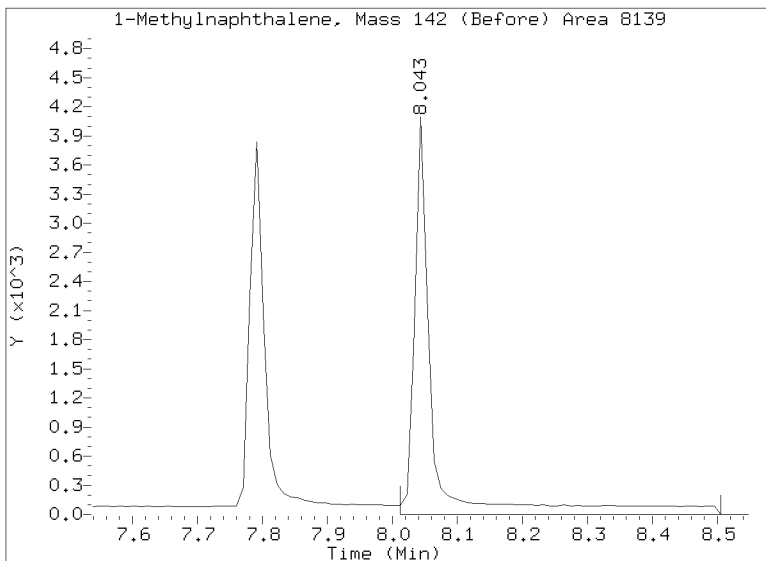
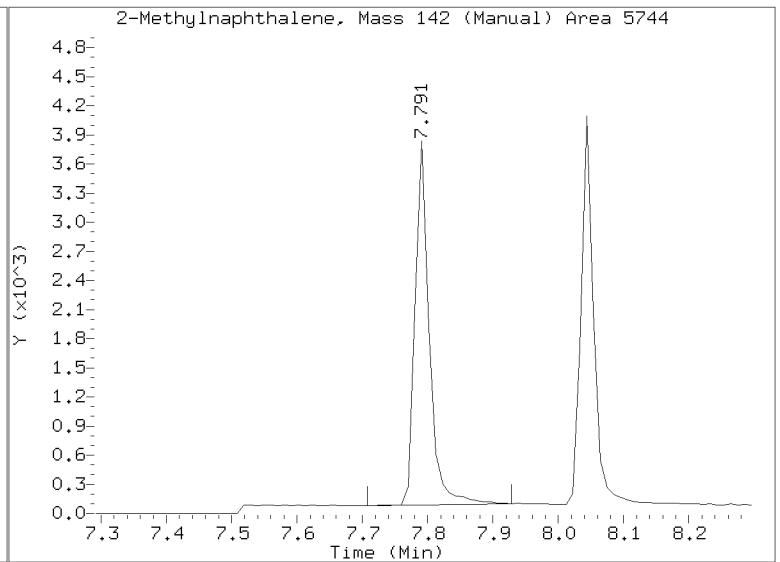
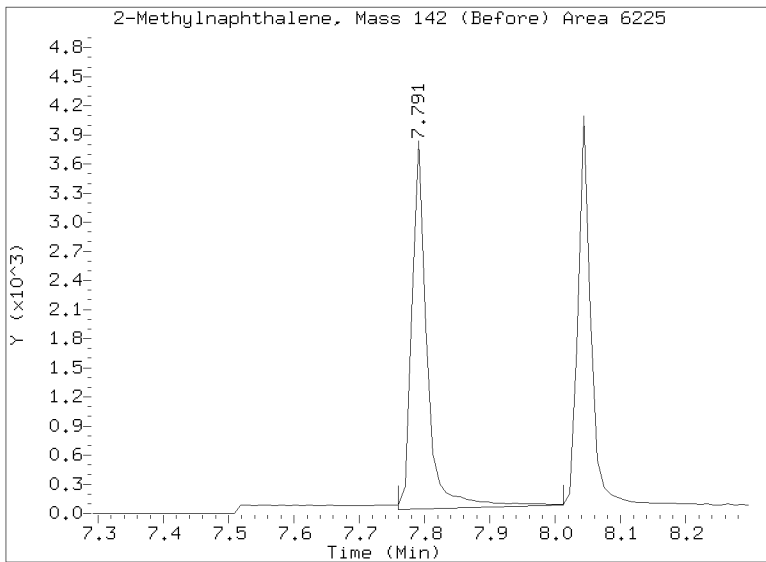
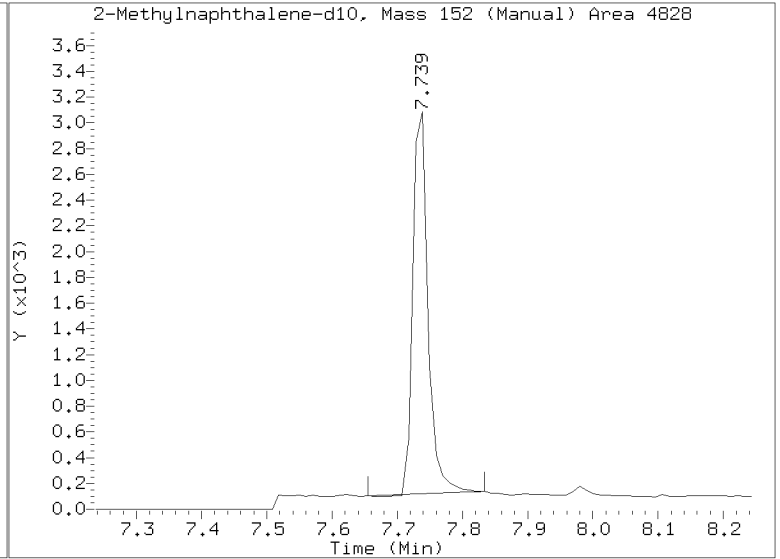
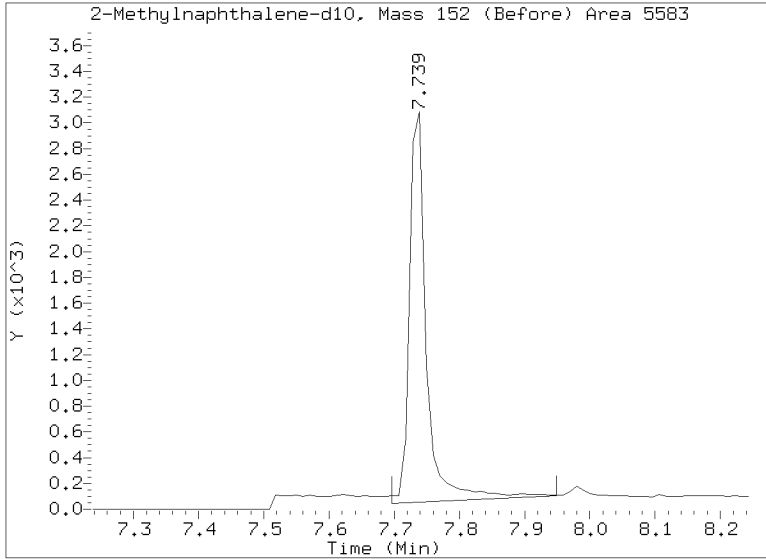
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000

Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

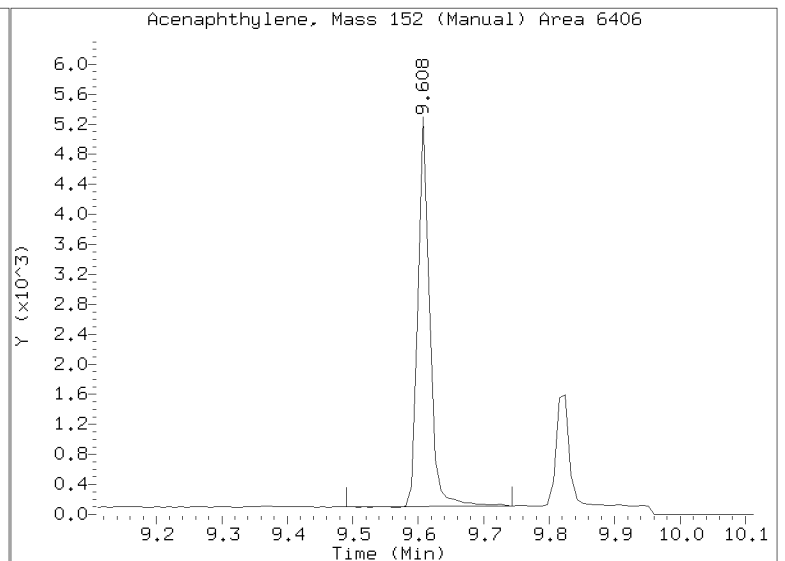
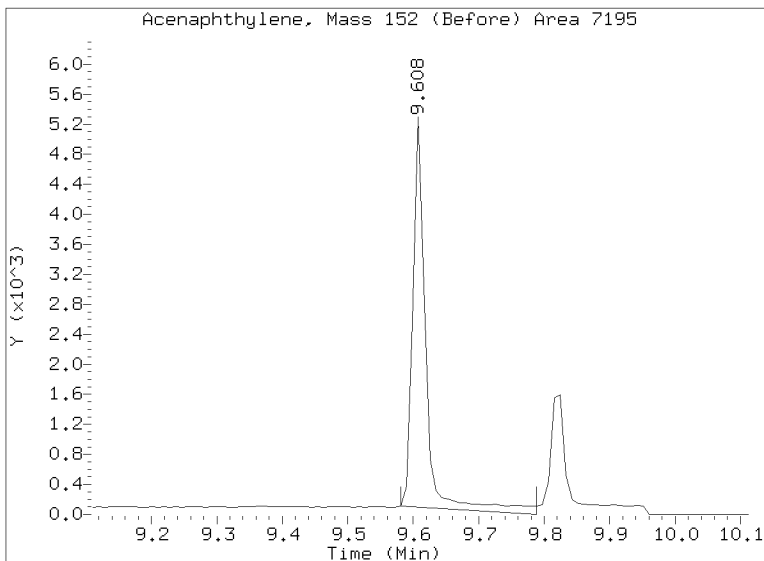
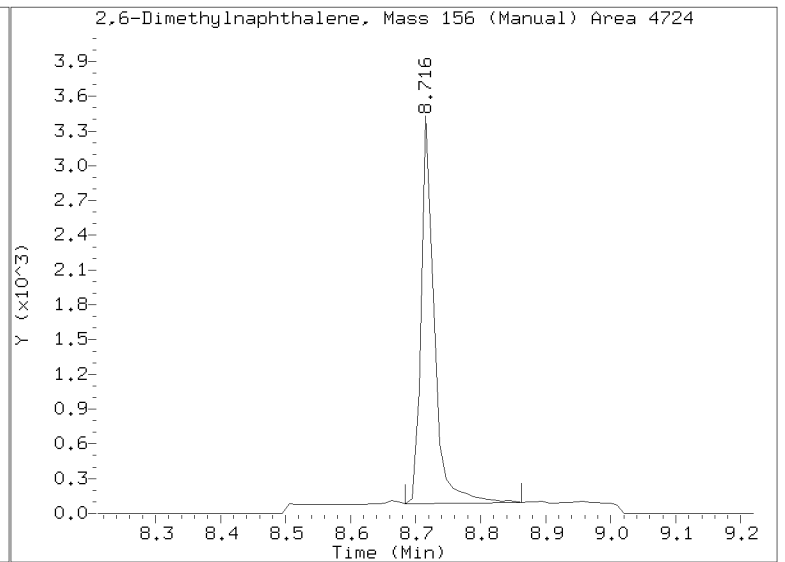
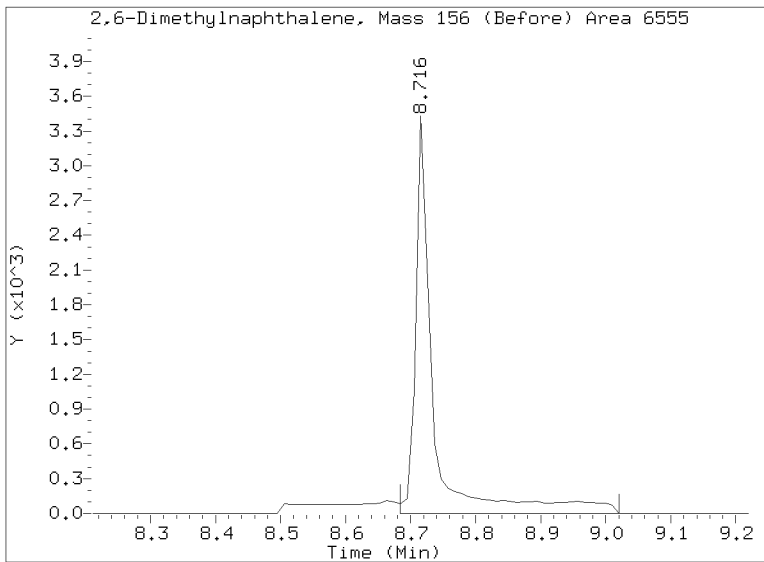
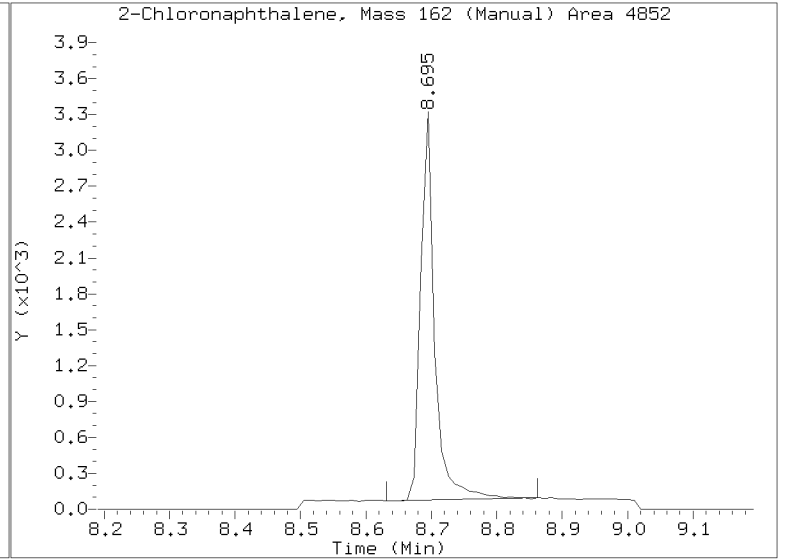
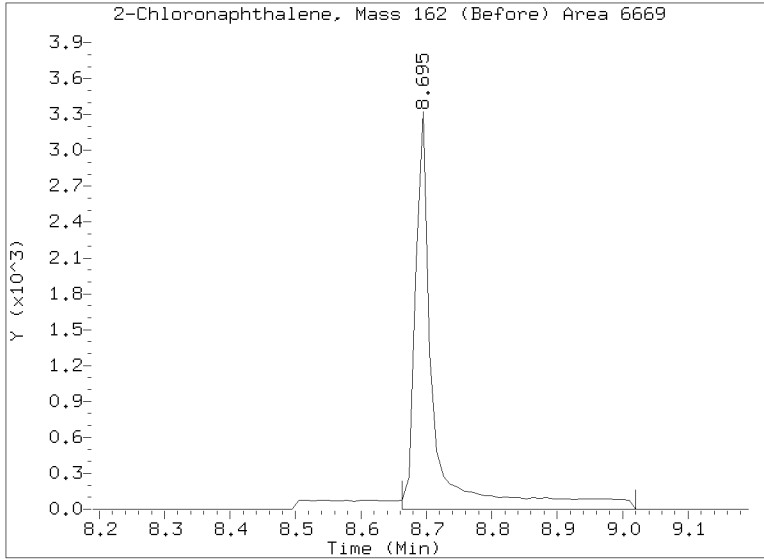
Quant Ion Manual Peak Adjustment Report

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Injection Date: 24-APR-2021 10:46
Lab ID: SJD0344-LCV1 Client ID:
Report Date: 04/27/2021 14:15



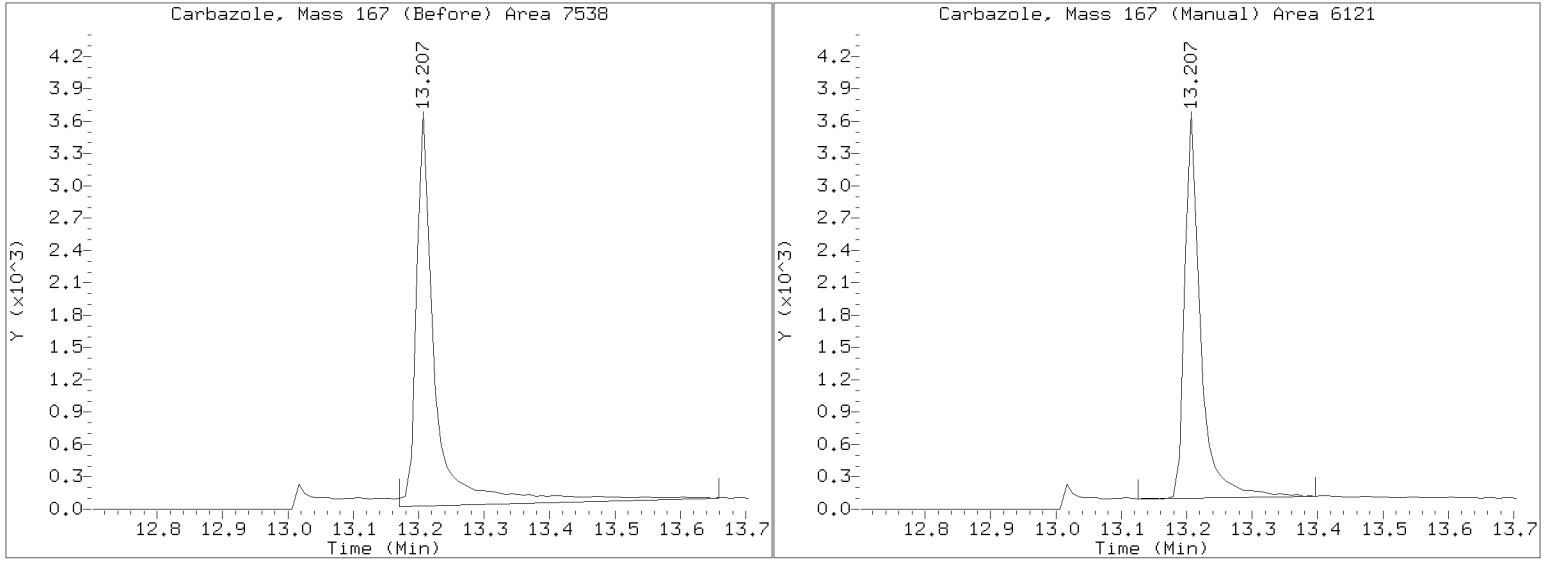
Quant Ion Manual Peak Adjustment Report

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Lab ID: SJD0344-LCV1 Client ID:
Report Date: 04/27/2021 14:15



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20210424.b/NT1121042403.D
Injection Date: 24-APR-2021 10:46
Lab ID: SJD0344-LCV1 Client ID:
Report Date: 04/27/2021 14:15





CONTINUING CALIBRATION CHECK EPA 8270E-SIM

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>21D0180</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic - US Moorings</u>
Instrument ID: <u>NT11</u>	Calibration: <u>DH00073</u>
Lab File ID: <u>NT1121042715.D</u>	Calibration Date: <u>08/27/2020</u>
Sequence: <u>SJD0374</u>	Injection Date: <u>04/27/21</u>
Lab Sample ID: <u>SJD0374-CCV1</u>	Injection Time: <u>19:48</u>
Sequence Name: <u>Calibration Check</u>	

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Naphthalene	A	250.00	230	1.1612470	1.0694010		-7.9	+/-50
2-Methylnaphthalene	A	250.00	238	0.9361384	0.8930171		-4.6	+/-50
1-Methylnaphthalene	A	250.00	252	0.8702122	0.8760606		0.7	+/-50
2-Chloronaphthalene	A	250.00	210	1.7417600	1.4634560		-16.0	+/-50
Acenaphthylene	A	250.00	208	2.2945630	1.9090550		-16.8	+/-50
Acenaphthene	A	250.00	210	1.5175830	1.2764620		-15.9	+/-50
Dibenzofuran	A	250.00	199	2.0257800	1.6148550		-20.3	+/-50
Fluorene	A	250.00	217	1.5604500	1.3527920		-13.3	+/-50
Phenanthrene	A	250.00	223	1.3083250	1.1668100		-10.8	+/-50
Anthracene	A	250.00	251	1.3072390	1.3123020		0.4	+/-50
Carbazole	A	250.00	244	1.3929680	1.3571880		-2.6	+/-50
Fluoranthene	A	250.00	232	1.3043810	1.2123980		-7.1	+/-50
Pyrene	A	250.00	236	1.3381820	1.2629270		-5.6	+/-50
Benzo(a)anthracene	A	250.00	235	1.4691530	1.3835060		-5.8	+/-50
Chrysene	A	250.00	229	1.6542610	1.5173420		-8.3	+/-50
Benzo(b)fluoranthene	A	250.00	230	1.0886210	1.0015730		-8.0	+/-50
Benzo(k)fluoranthene	A	250.00	238	1.4304320	1.3626670		-4.7	+/-50
Benzo(j)fluoranthene	A	250.00	228	1.5458300	1.4121340		-8.6	+/-50
Benzofluoranthenes, Total	A	750.00	697	1.3549610	1.2587910		-7.1	+/-50
Benzo(a)pyrene	A	250.00	254	1.1369780	1.1564160		1.7	+/-50
Perylene	A	250.00	241	1.2953700	1.2461910		-3.8	+/-50
Indeno(1,2,3-cd)pyrene	A	250.00	277	1.1041170	1.2221960		10.7	+/-50
Dibenzo(a,h)anthracene	A	250.00	268	0.8775199	1.0114250		7.3	+/-50
Benzo(g,h,i)perylene	A	250.00	267	1.1039640	1.1770110		6.6	+/-50
2-Methylnaphthalene-d10	A	250.00	245	0.8041846	0.7894203		-1.8	+/-50
Dibenzo[a,h]anthracene-d14	A	250.00	268	0.7035414	0.8414188		7.1	+/-50
Fluoranthene-d10	A	250.00	228	1.0485620	0.9576391		-8.7	+/-50

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.1\20210427.6\NT1121042715.D

Date: 27-APR-2021 19:48

Client ID:

Sample Info: SJD0374-CCW1

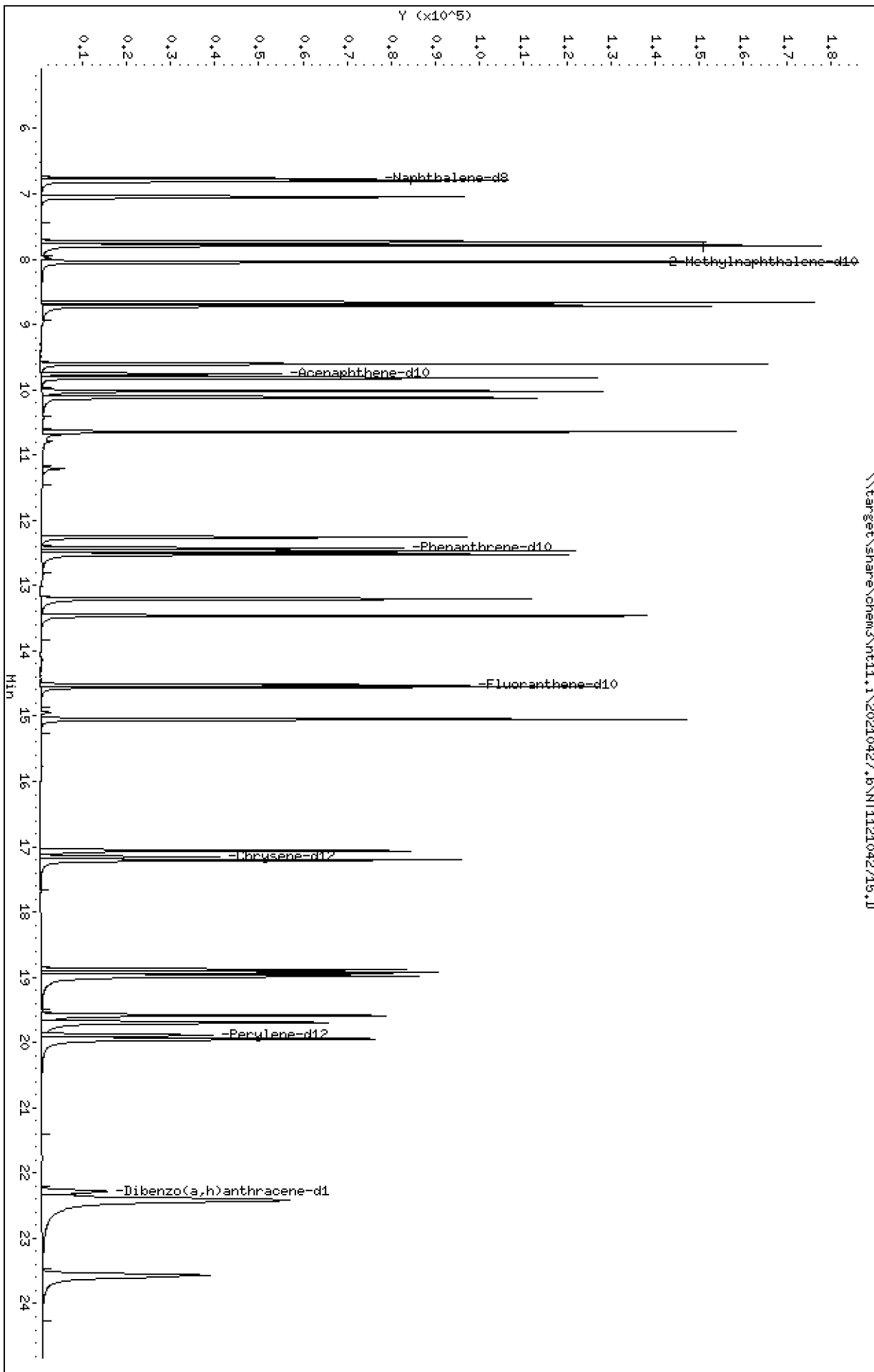
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

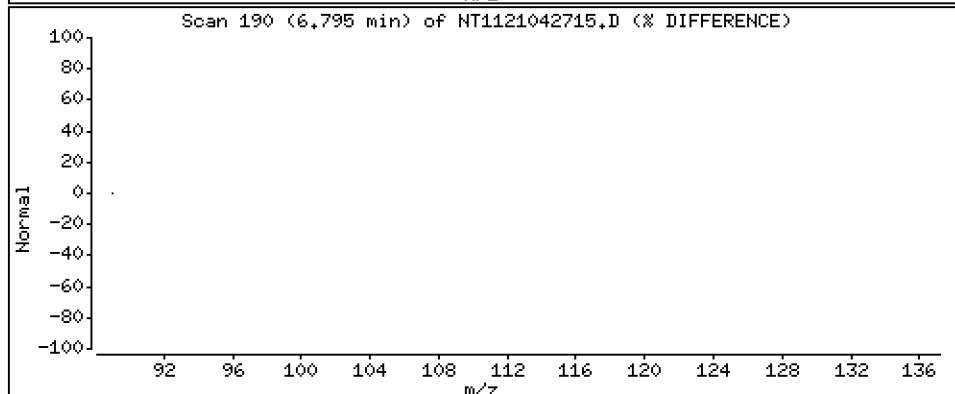
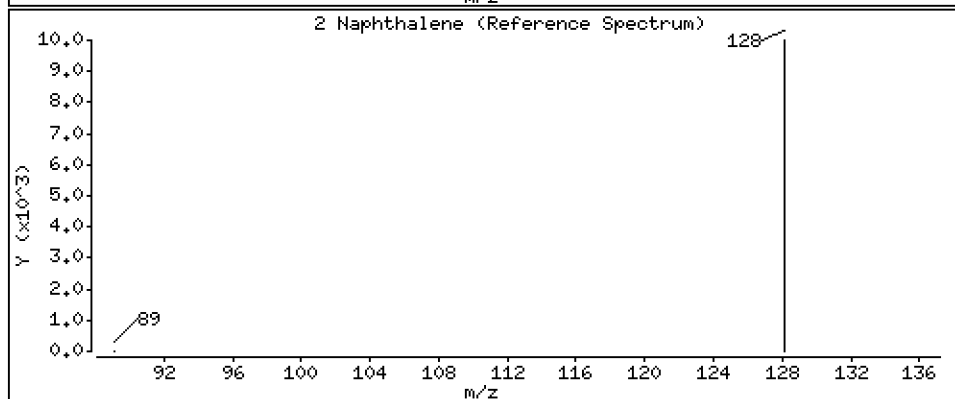
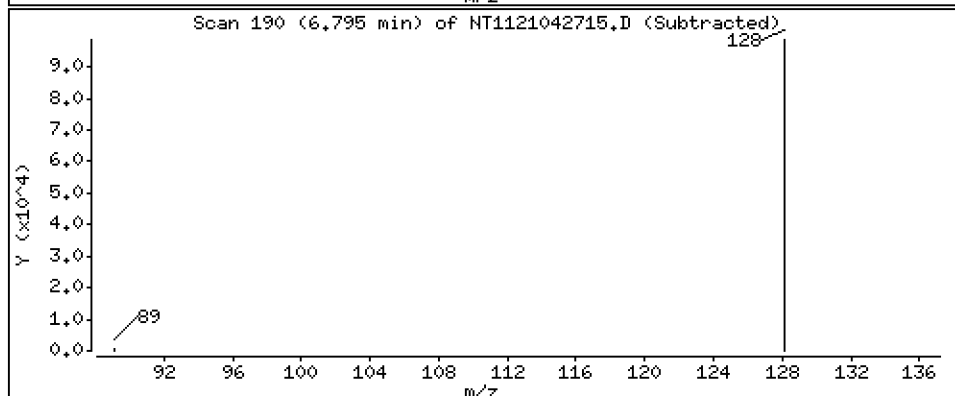
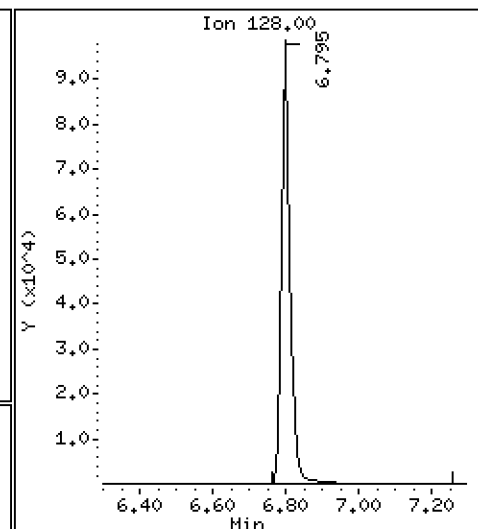
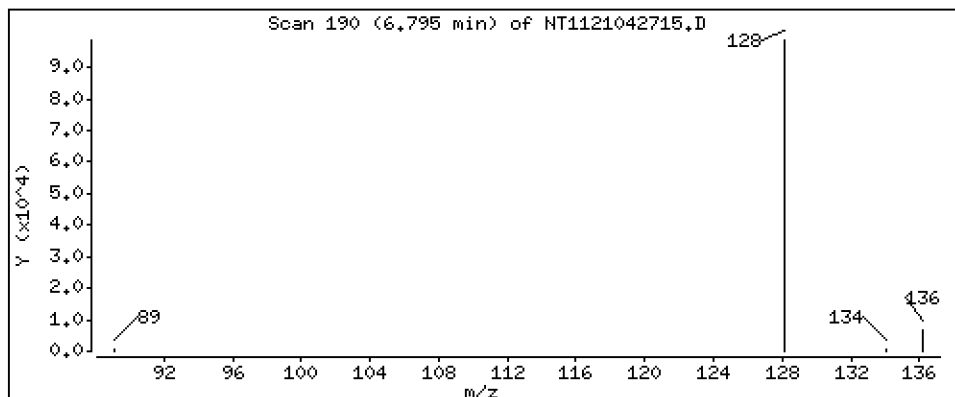
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 230 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

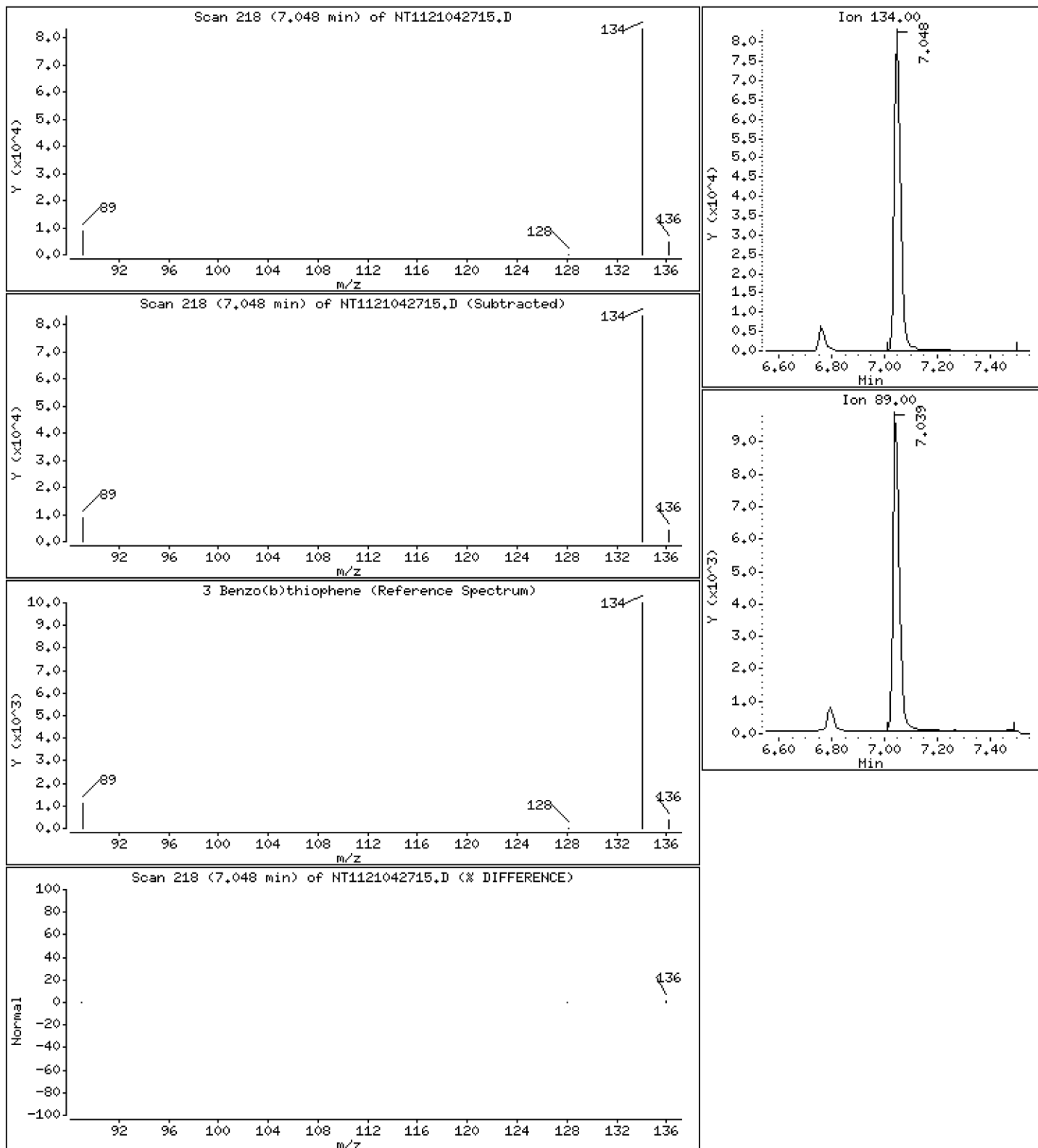
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

3 Benzo(b)thiophene

Concentration: 238 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

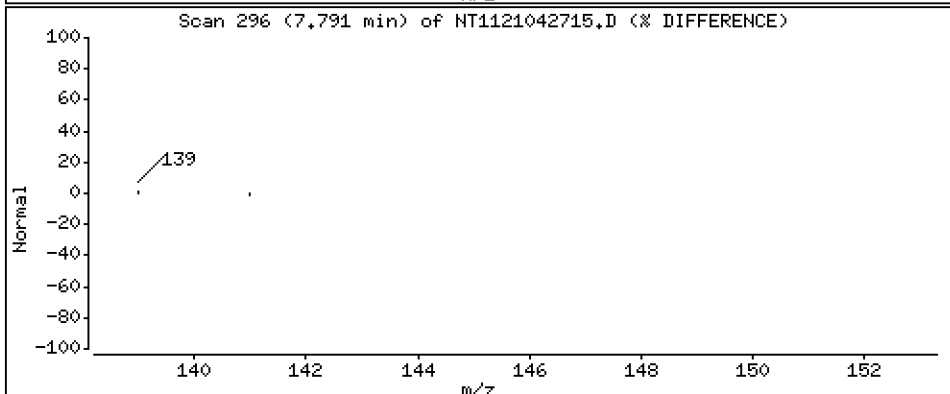
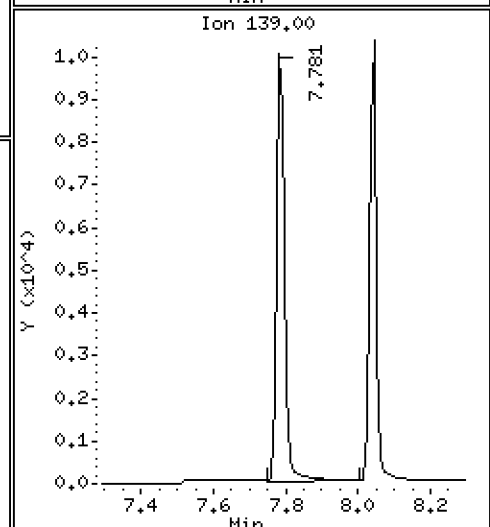
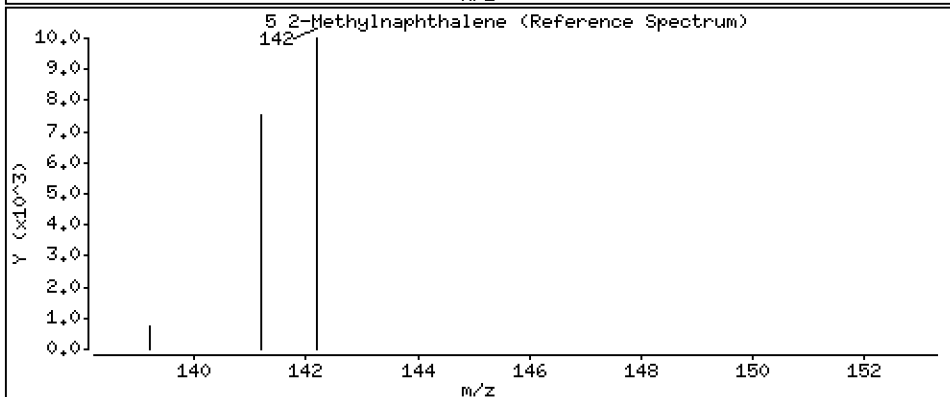
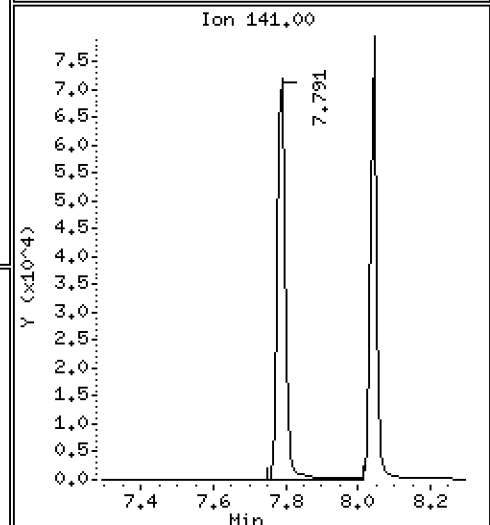
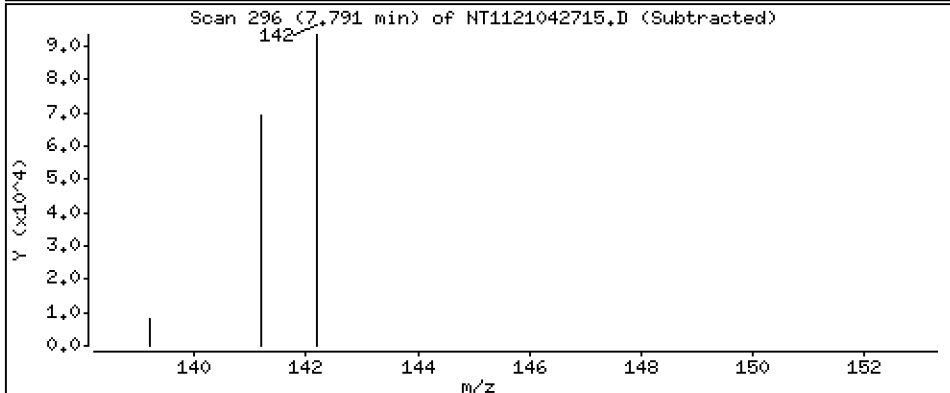
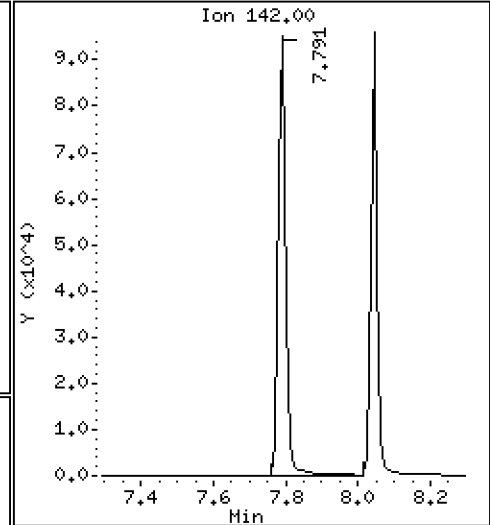
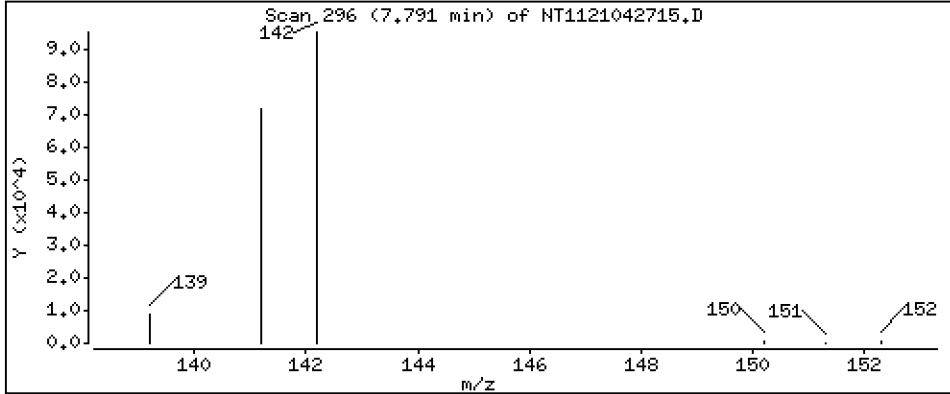
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

5-2-Methylnaphthalene

Concentration: 238 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

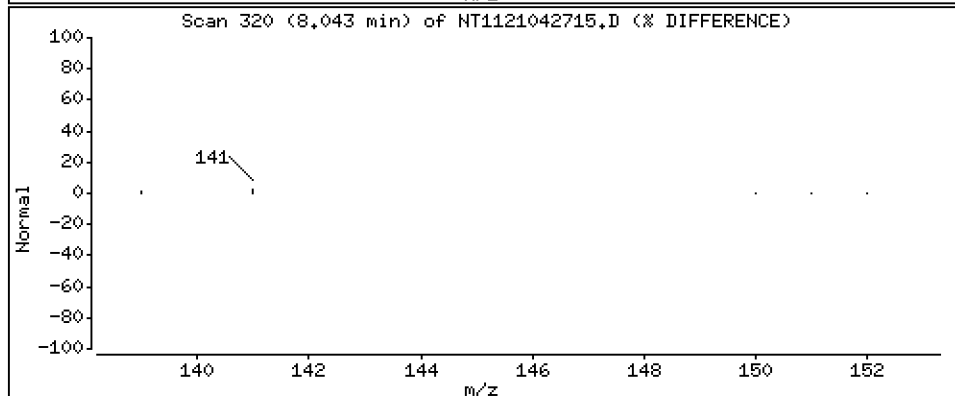
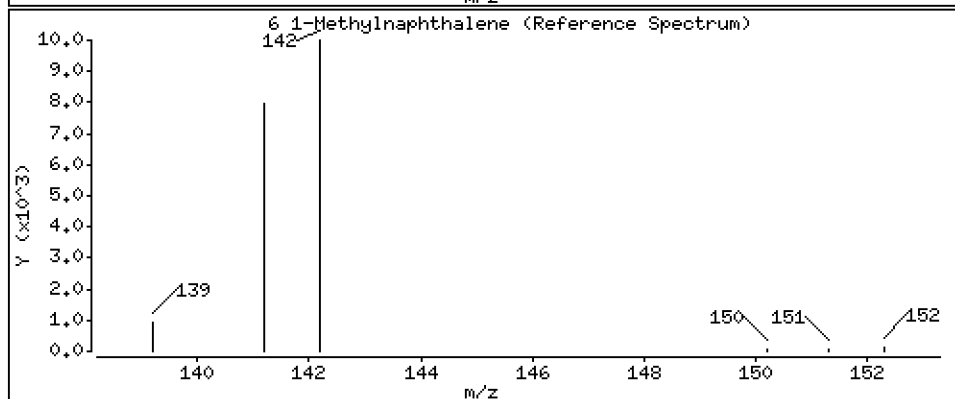
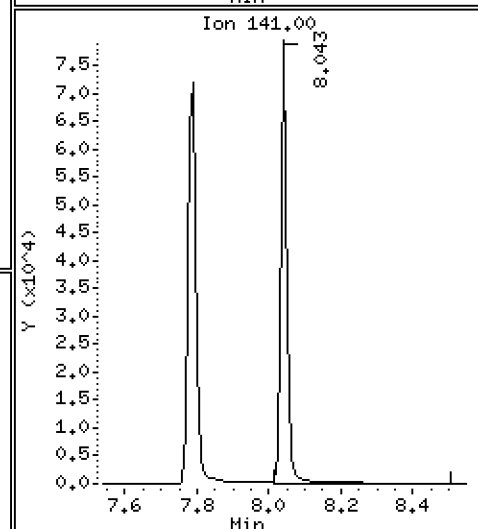
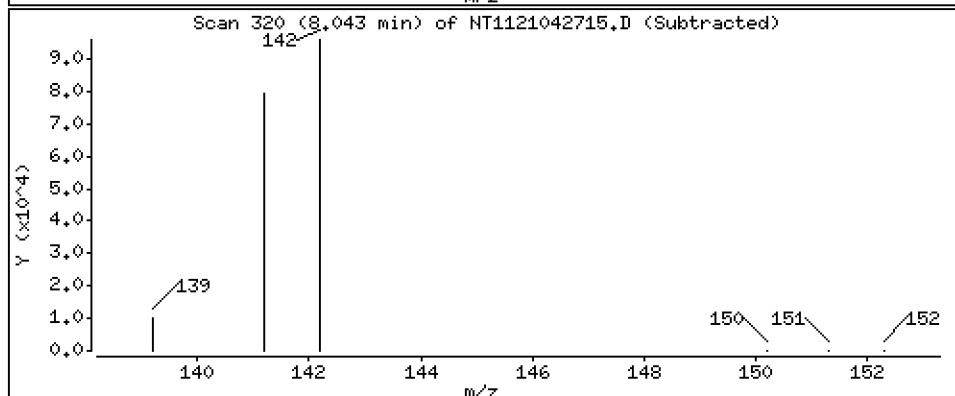
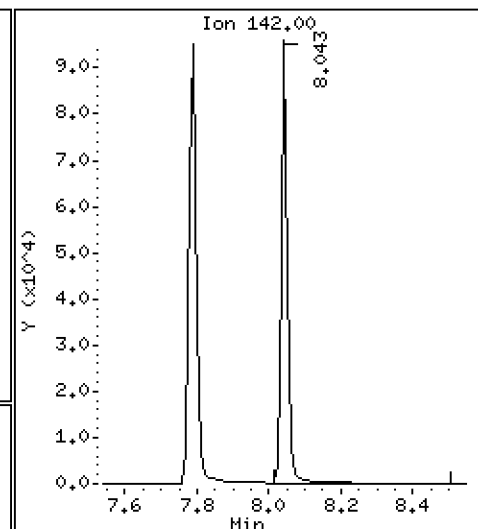
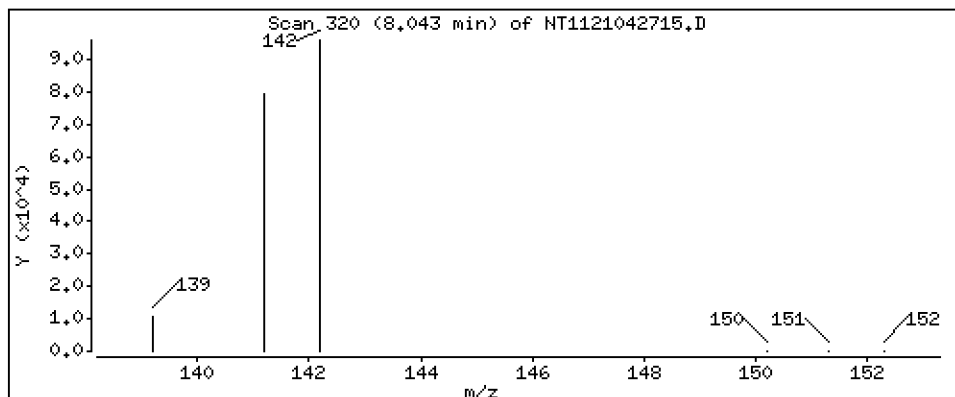
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

6 1-Methylnaphthalene

Concentration: 252 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

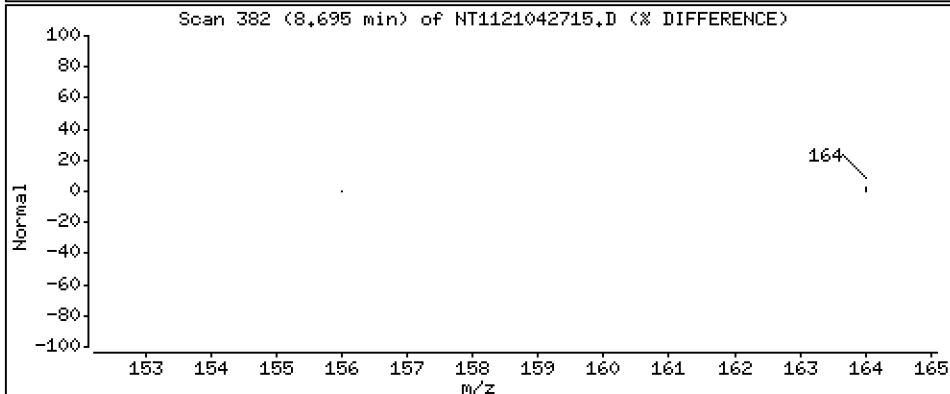
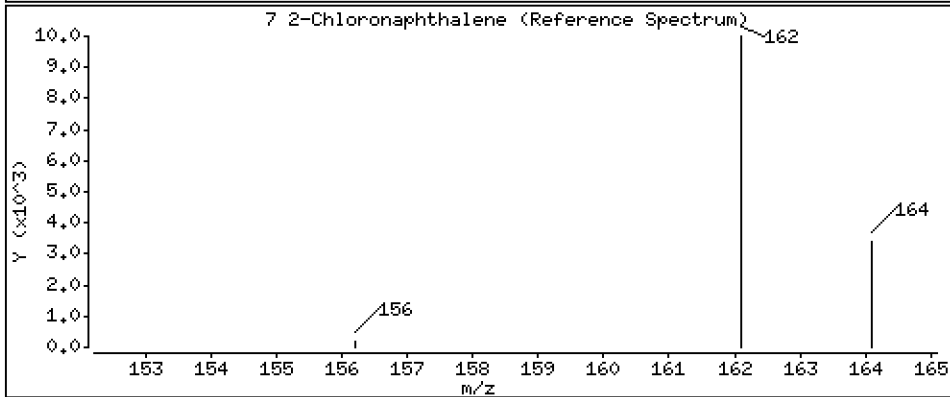
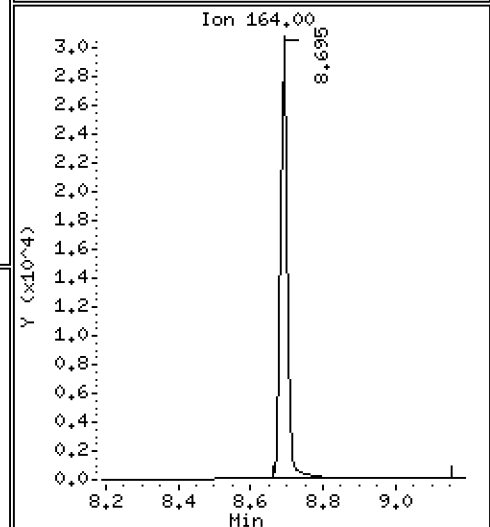
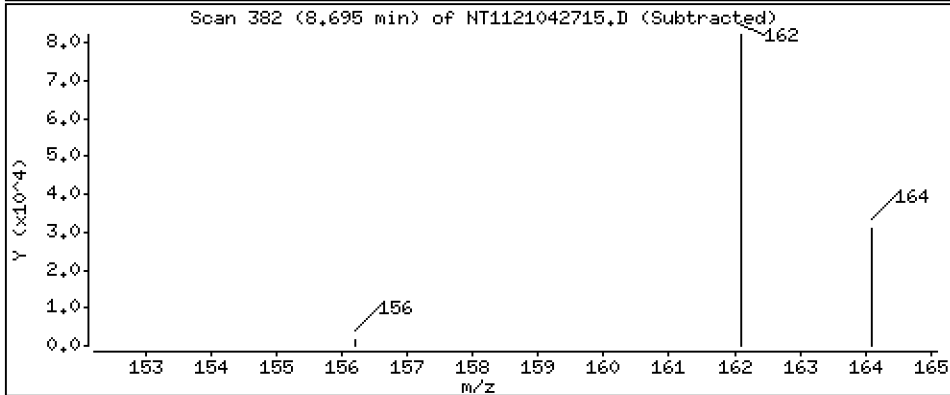
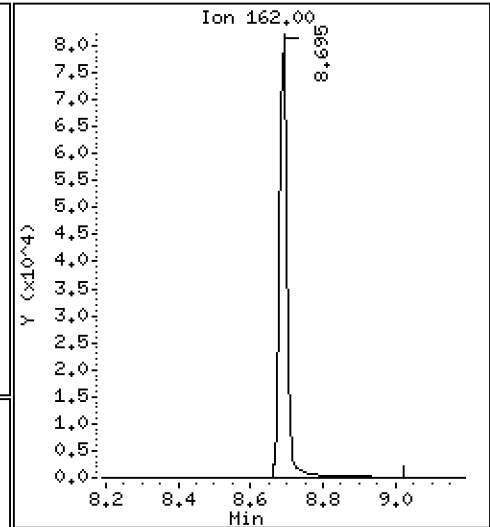
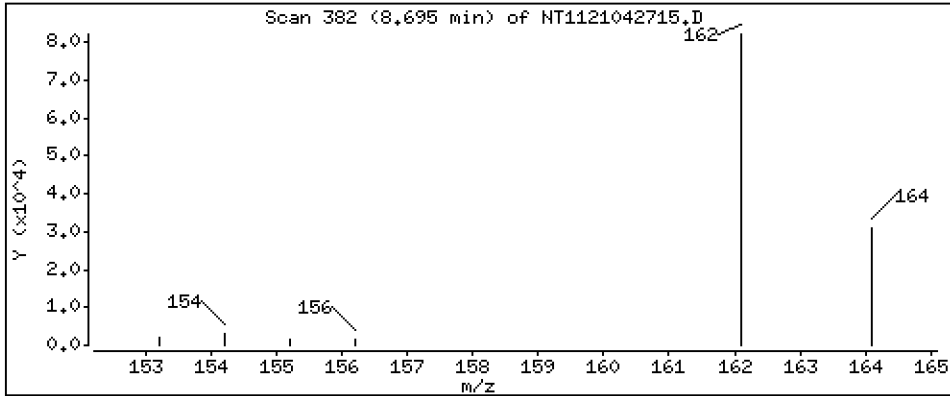
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

7 2-Chloronaphthalene

Concentration: 210 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

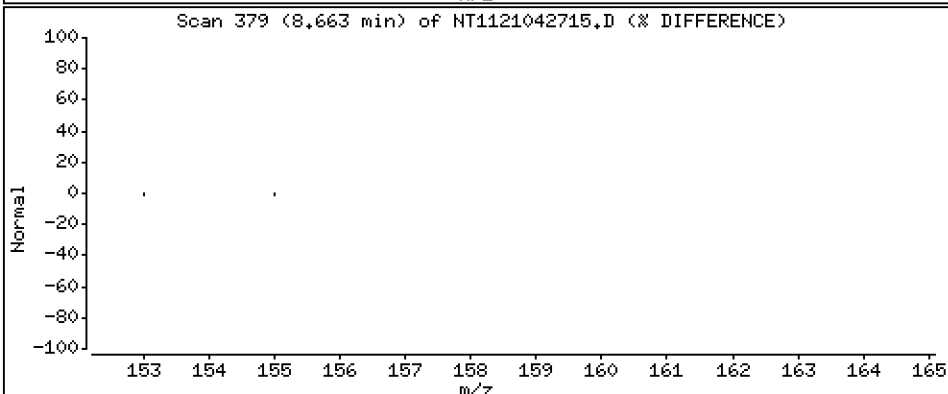
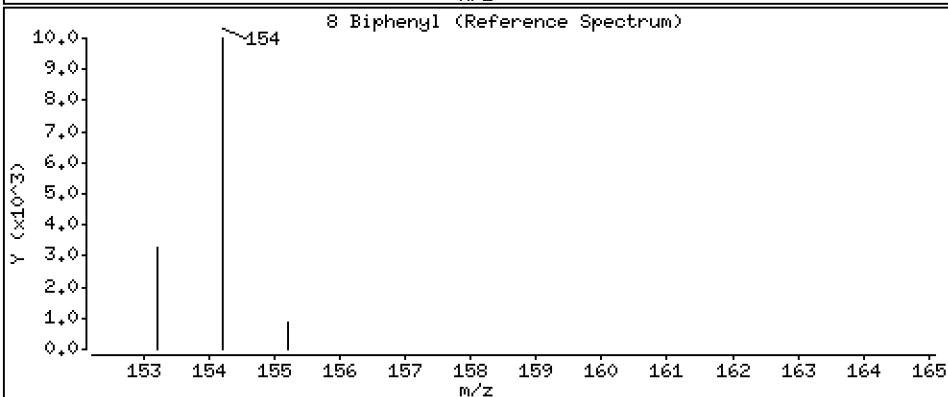
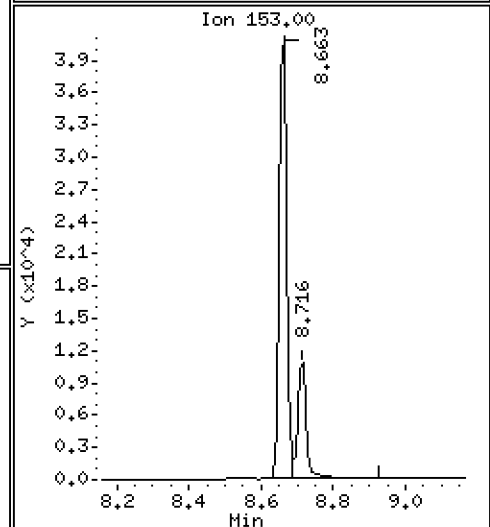
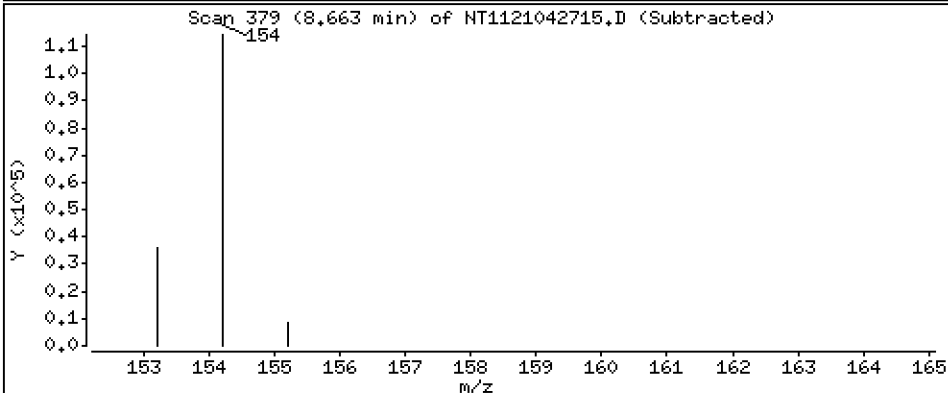
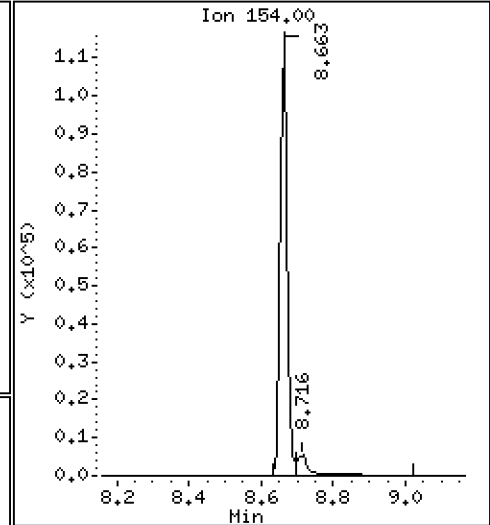
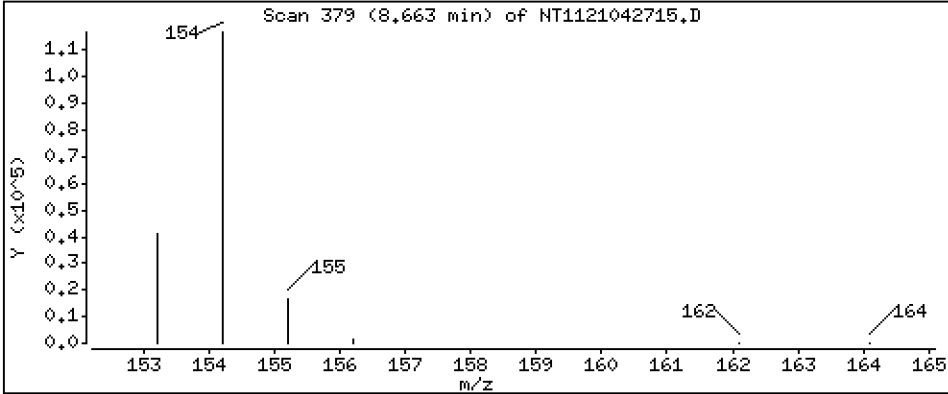
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

8 Biphenyl

Concentration: 199 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

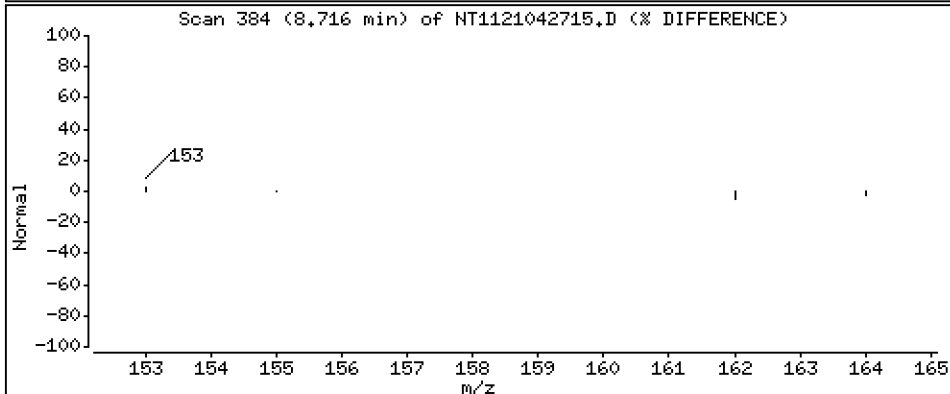
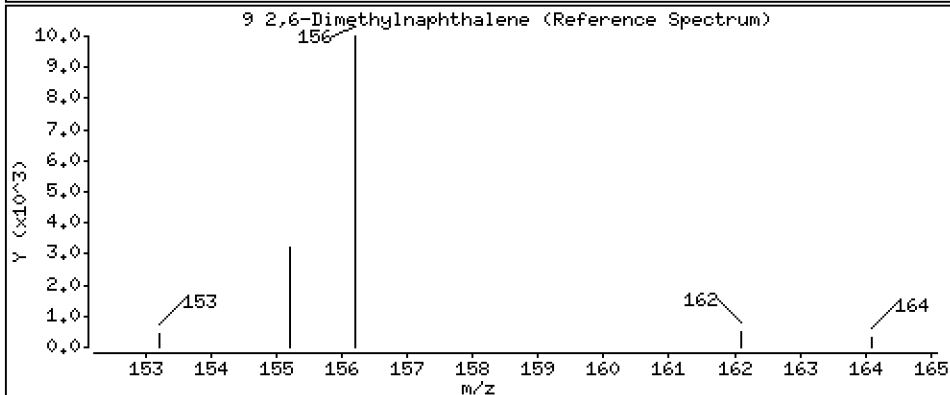
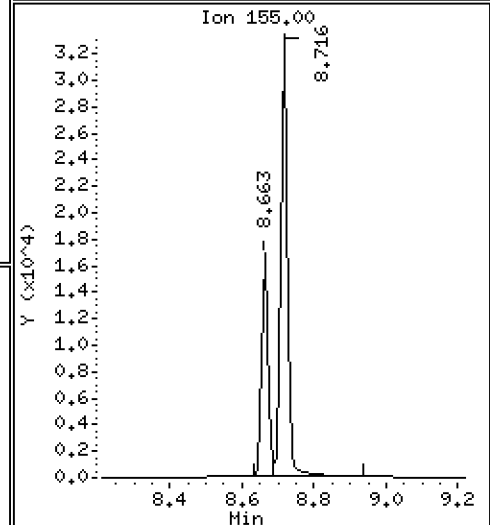
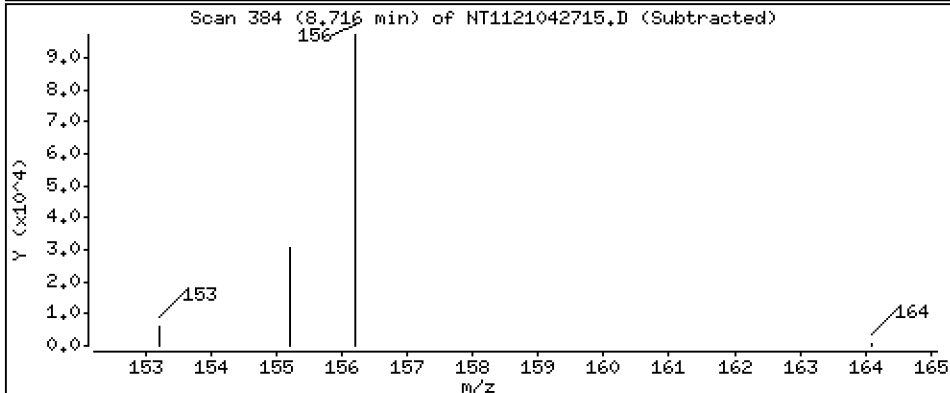
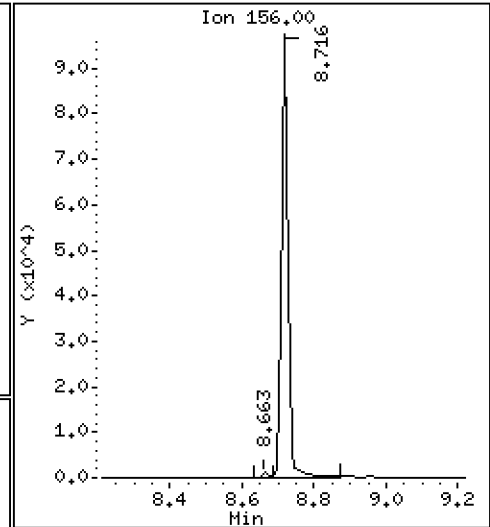
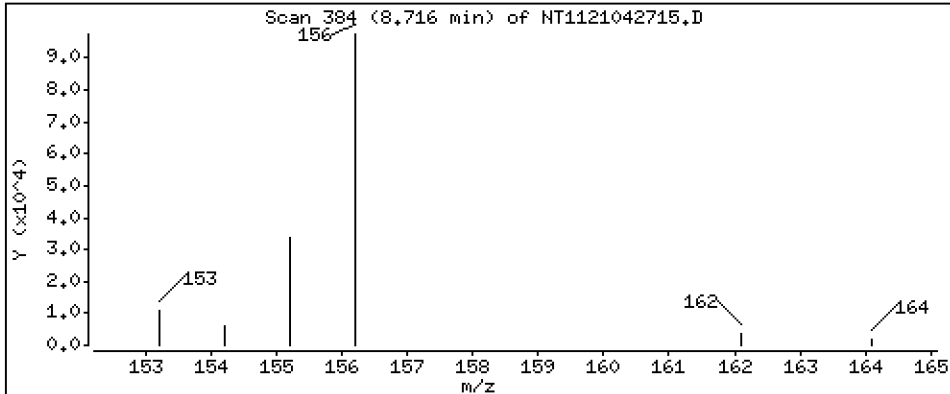
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

9,2,6-Dimethylnaphthalene

Concentration: 208 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

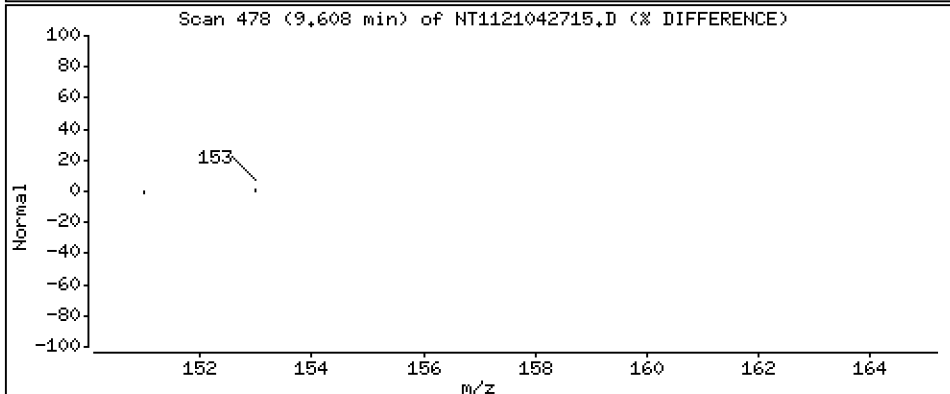
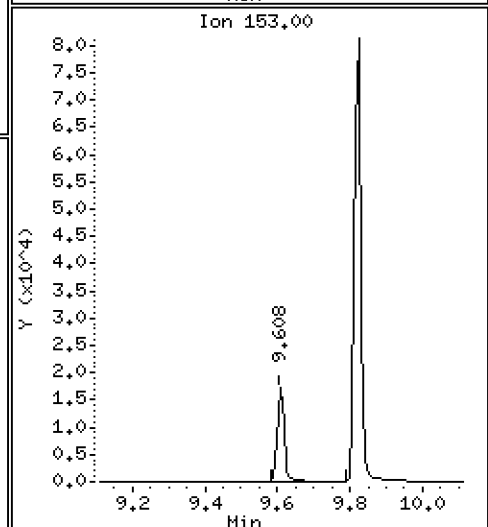
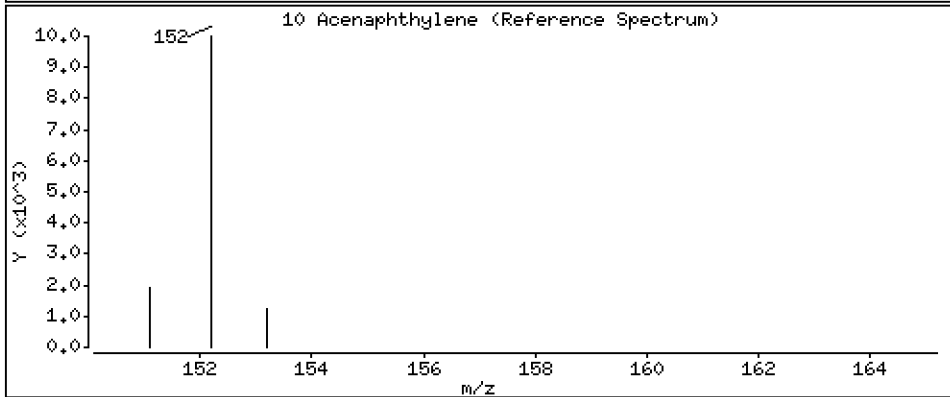
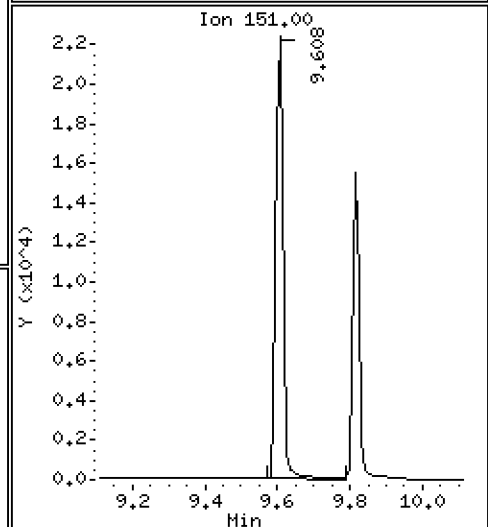
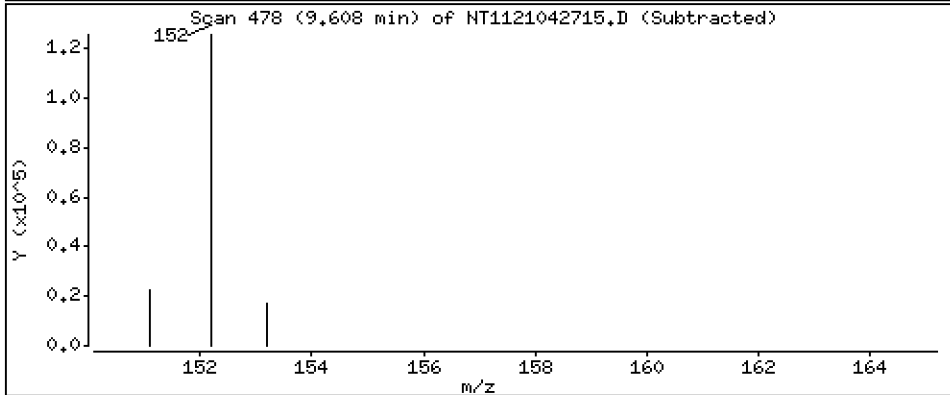
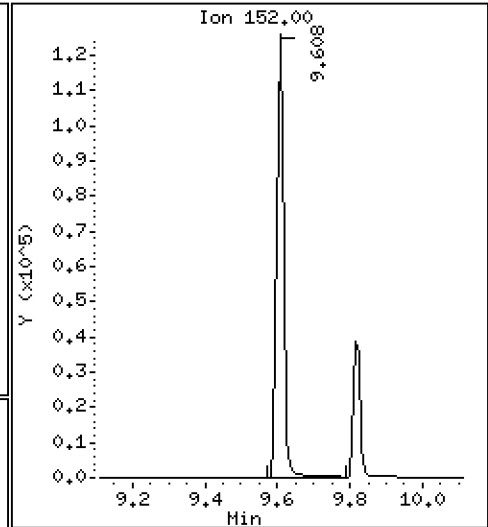
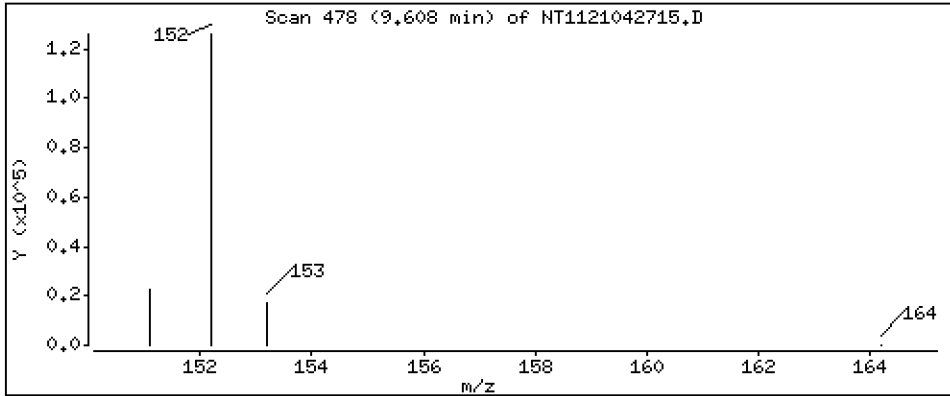
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

10 Acenaphthylene

Concentration: 208 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

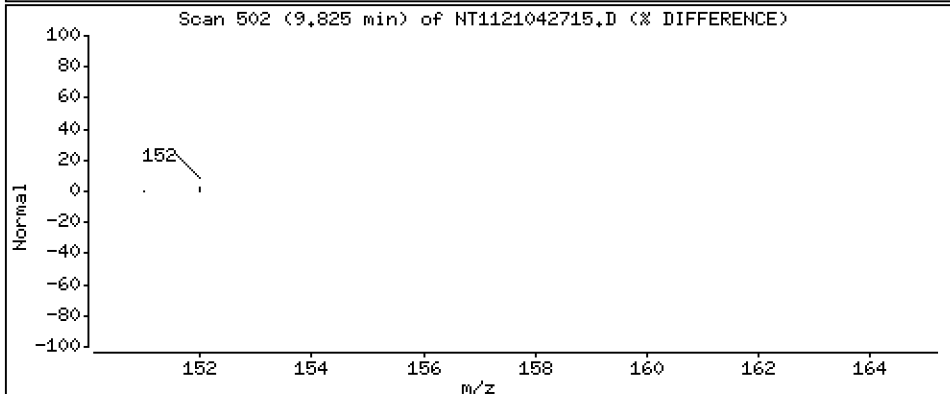
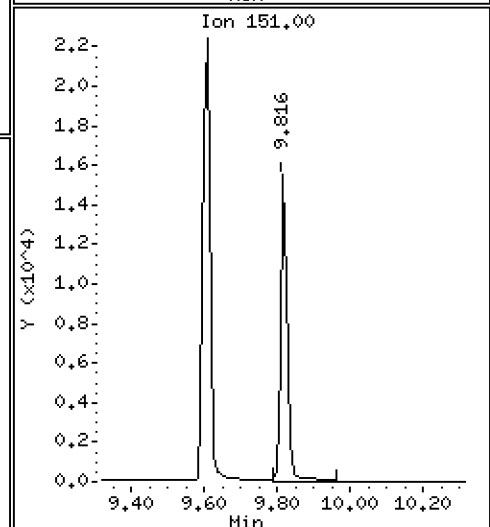
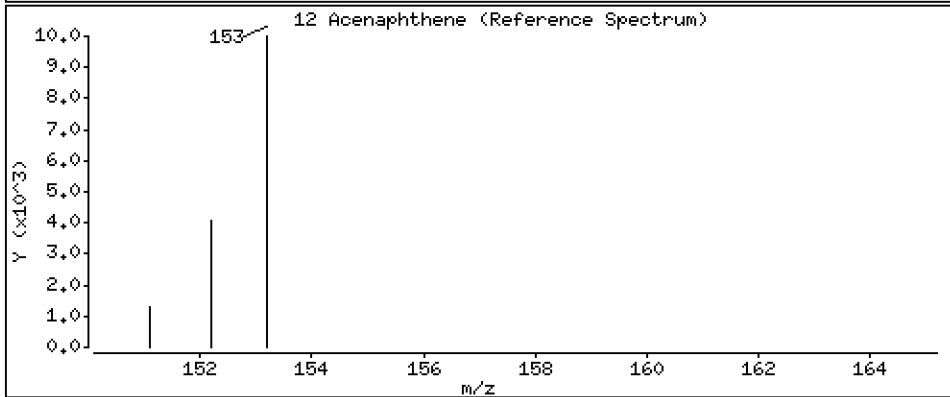
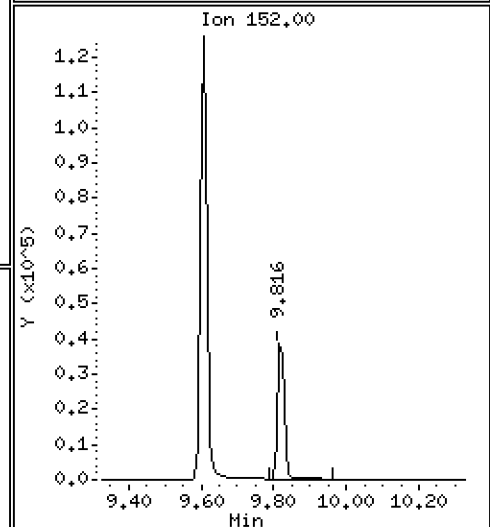
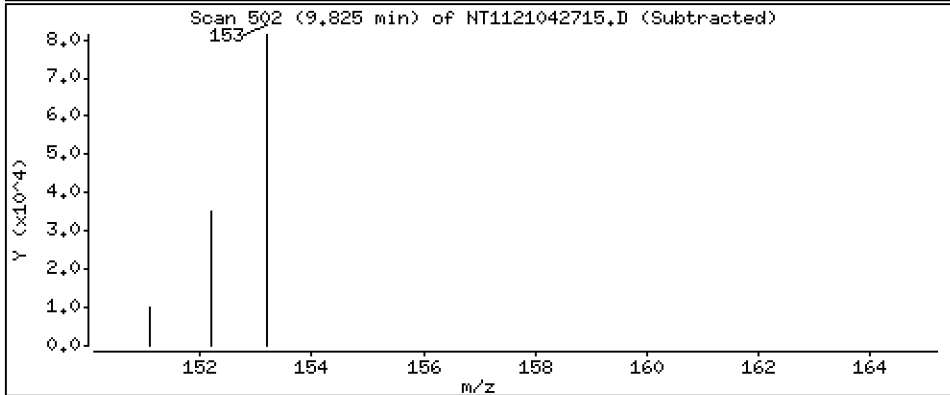
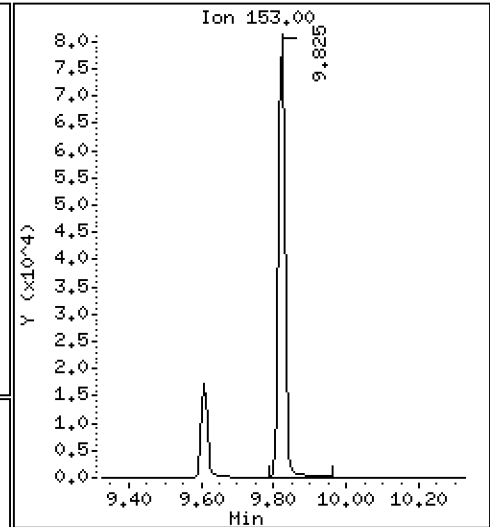
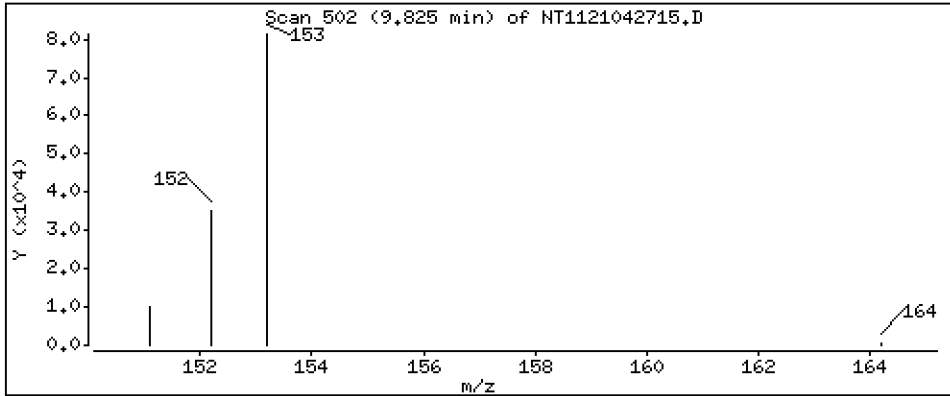
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

12 Acenaphthene

Concentration: 210 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

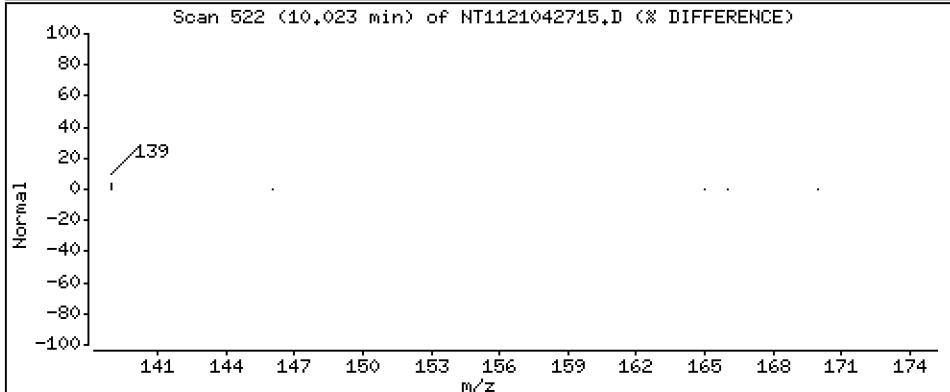
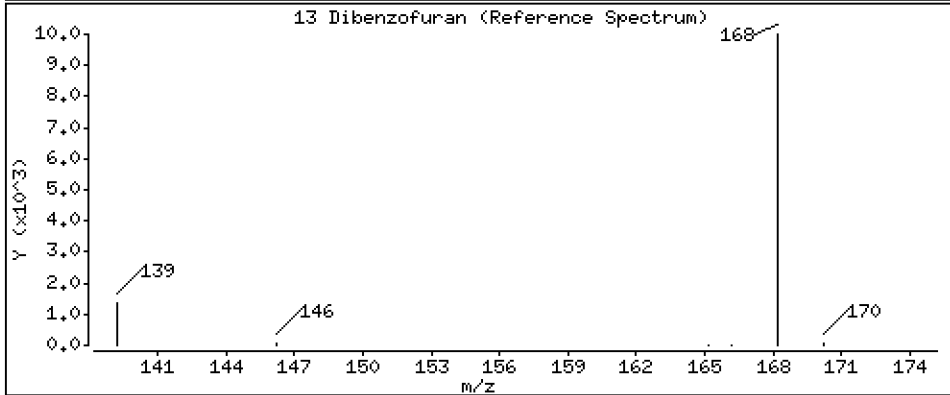
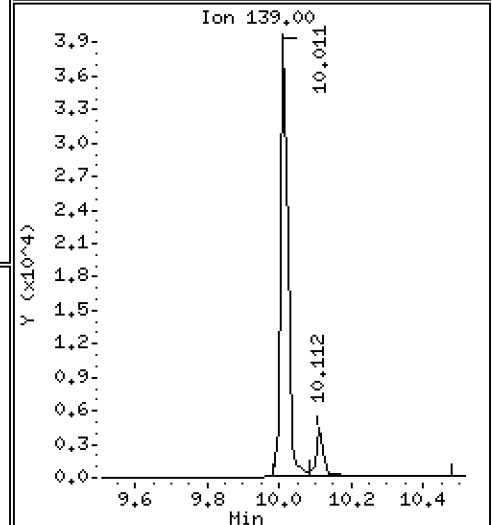
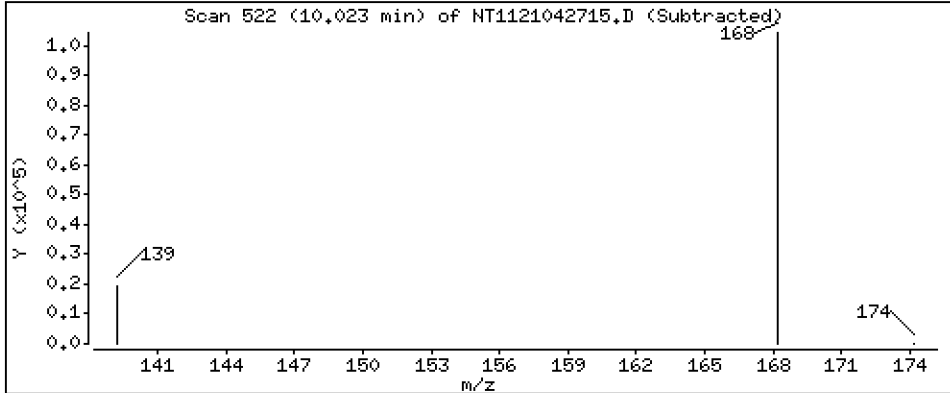
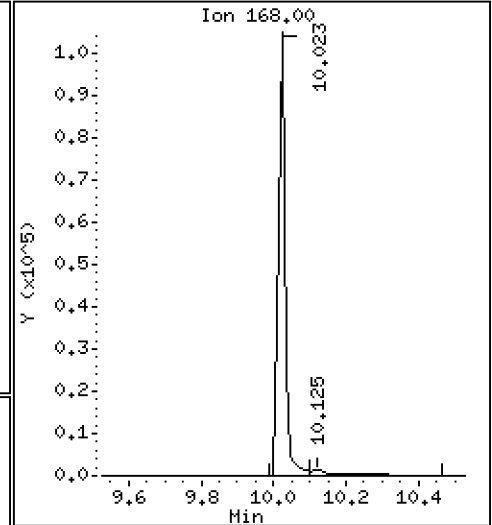
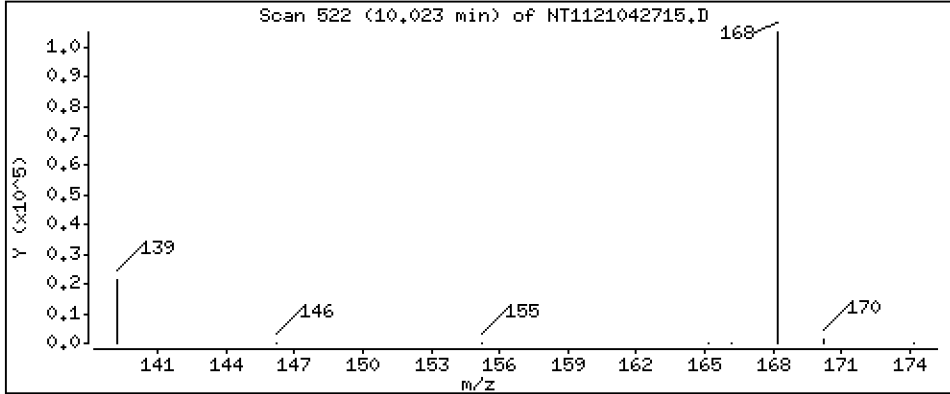
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

13 Dibenzofuran

Concentration: 199 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

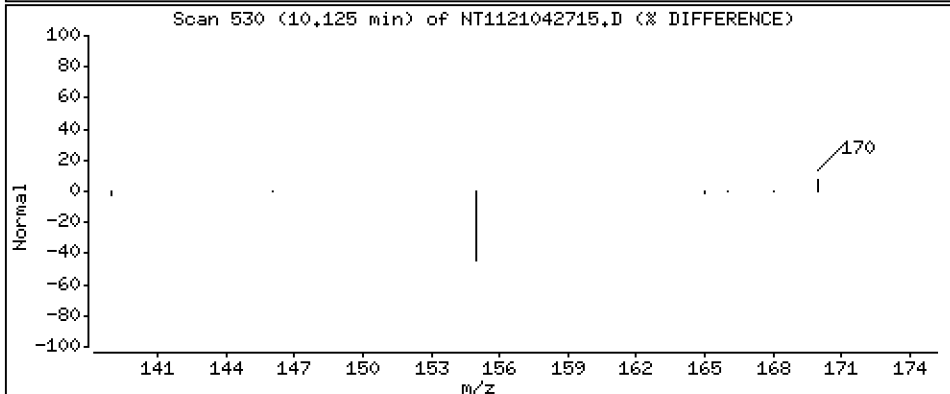
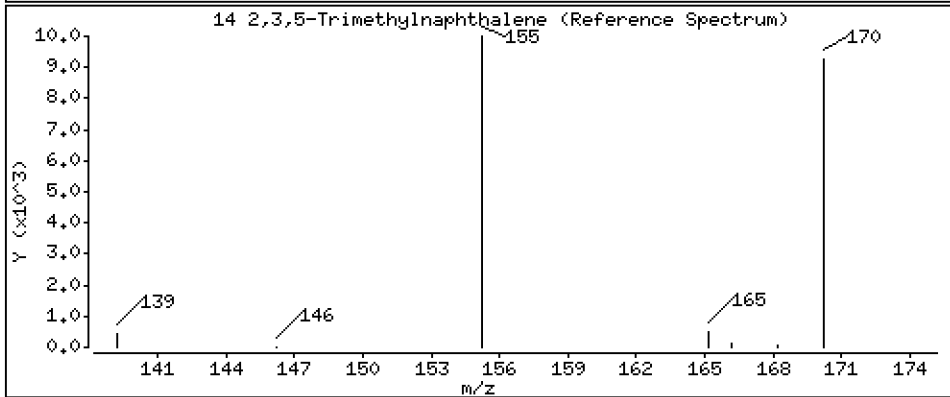
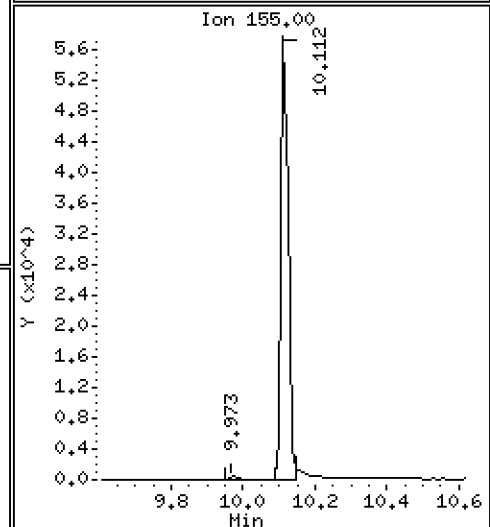
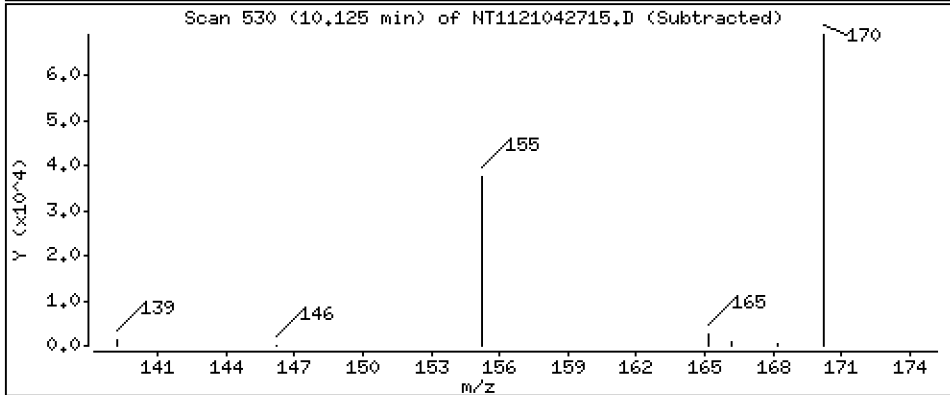
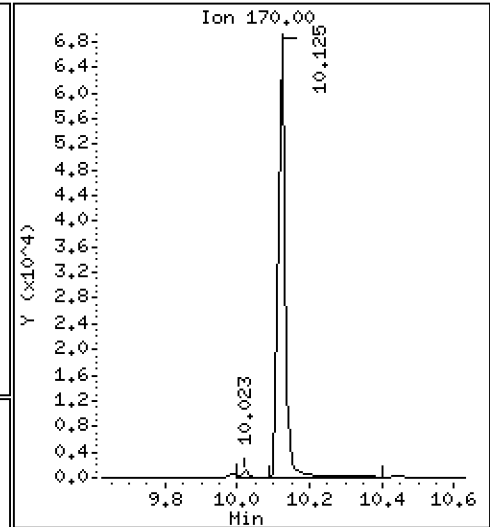
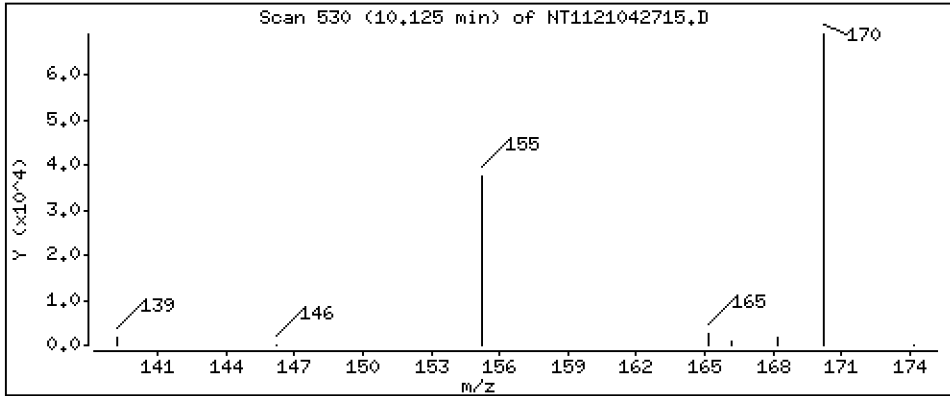
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

14 2,3,5-Trimethylnaphthalene

Concentration: 212 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

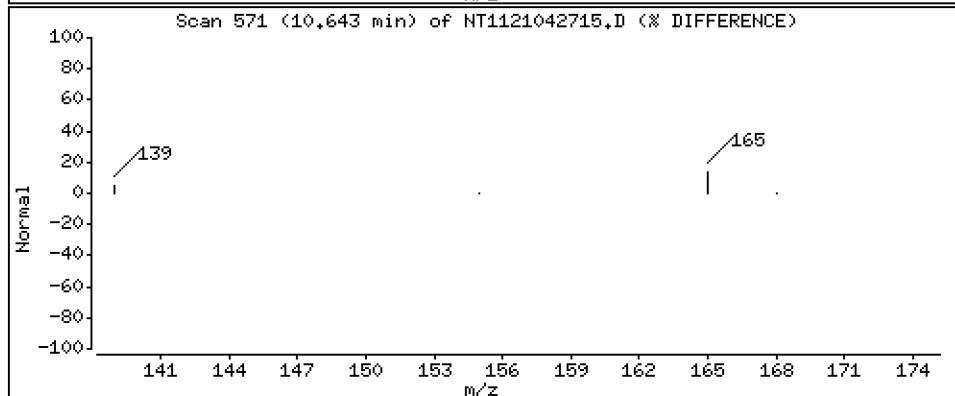
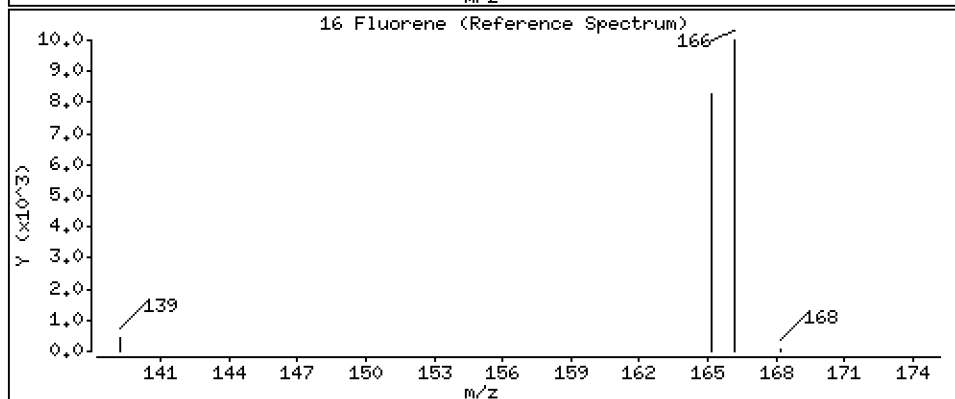
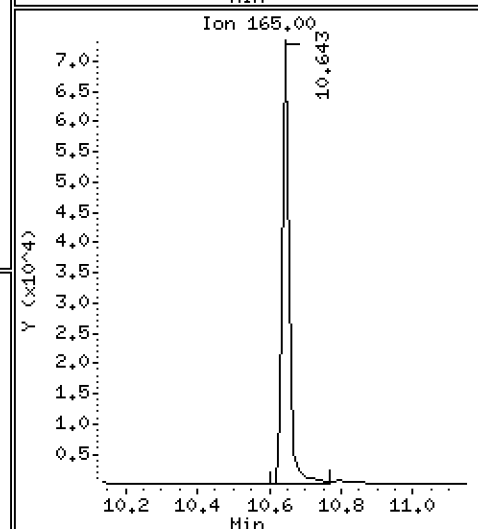
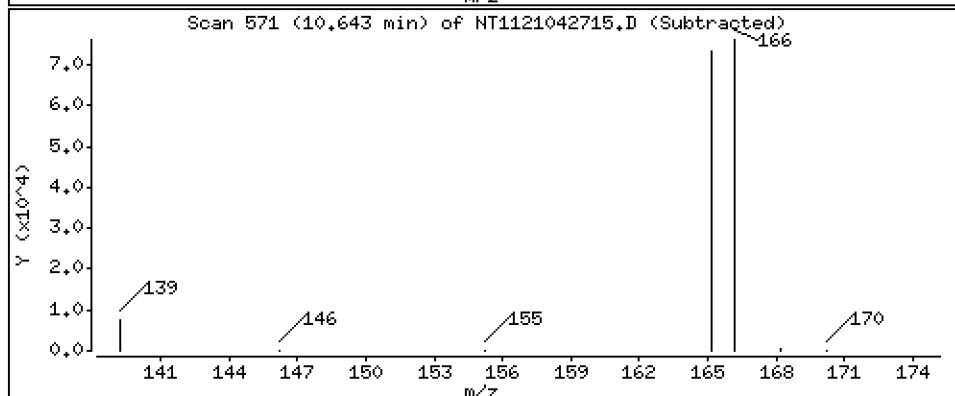
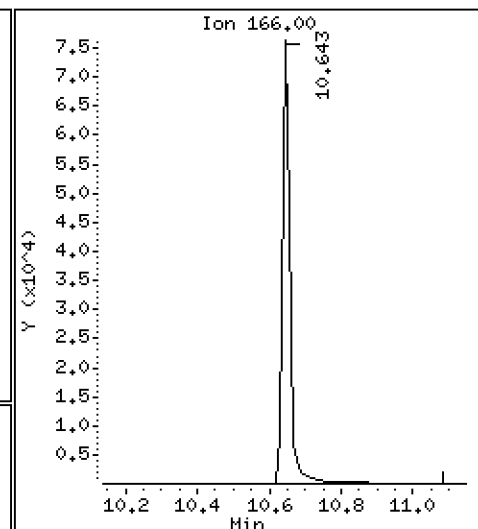
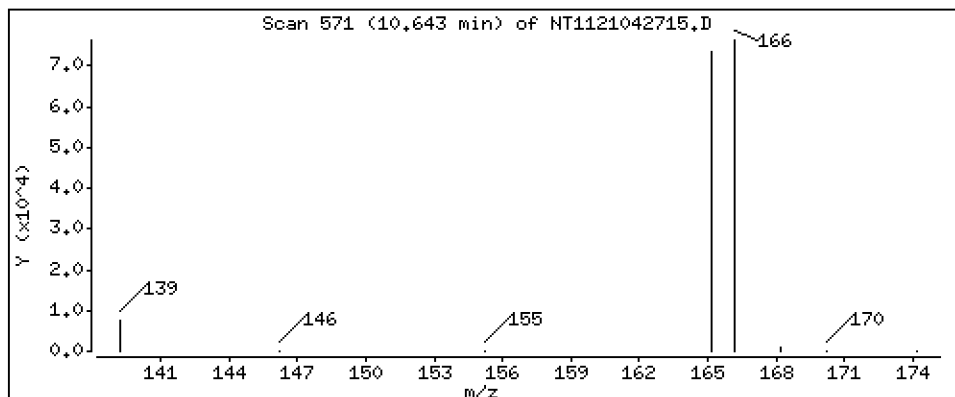
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 Fluorene

Concentration: 217 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

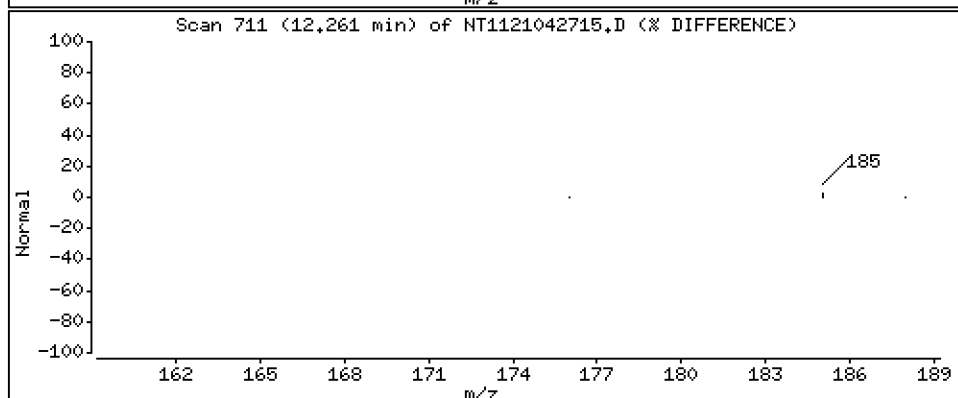
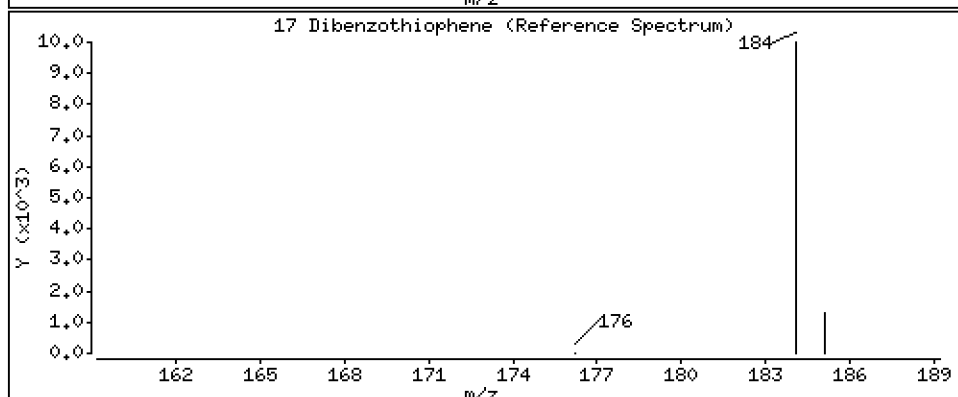
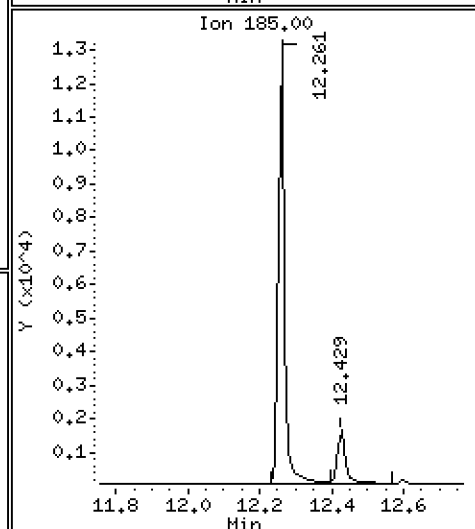
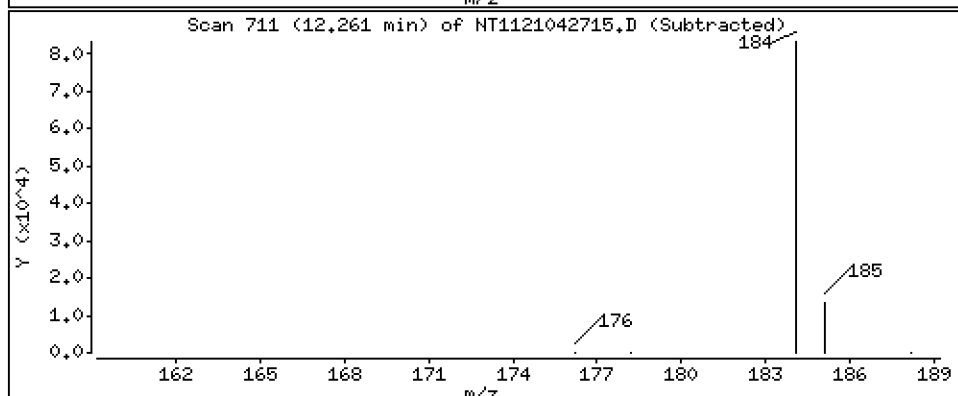
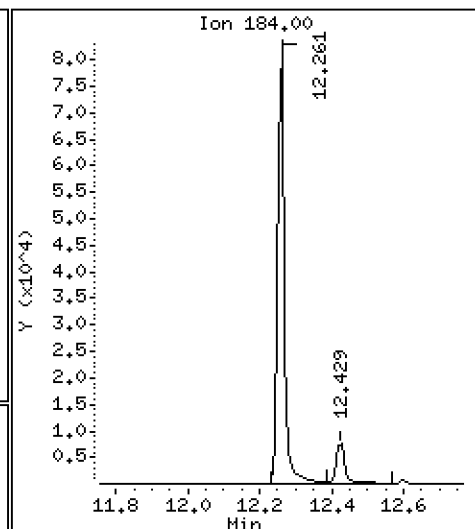
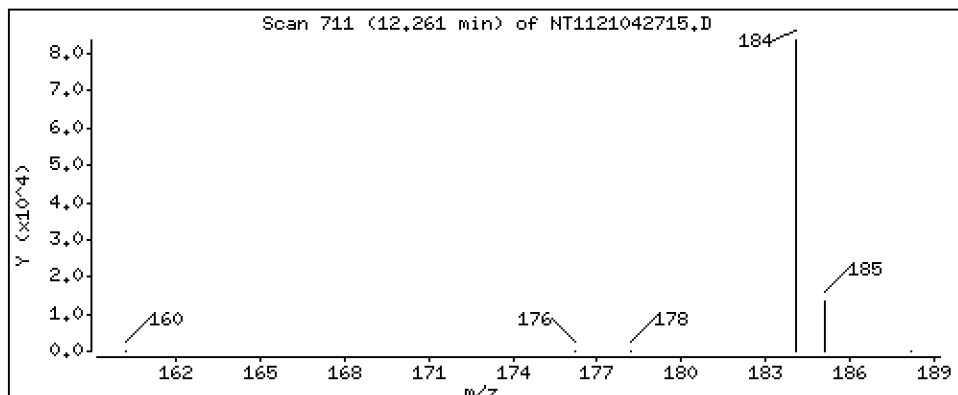
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 Dibenzothiophene

Concentration: 230 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

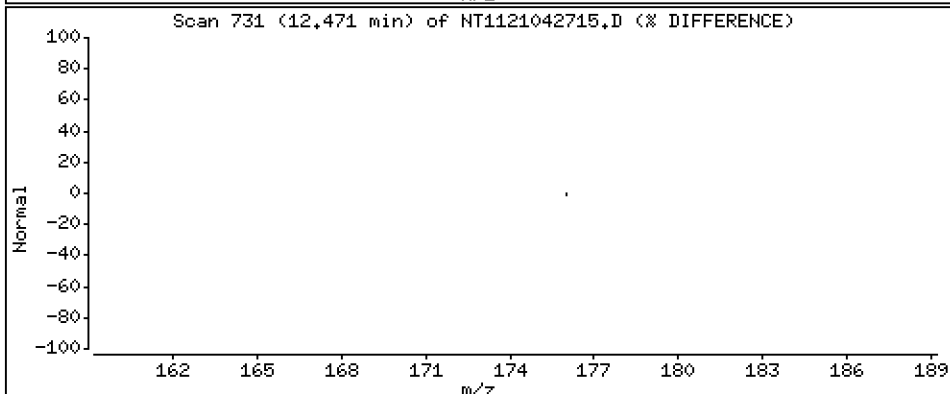
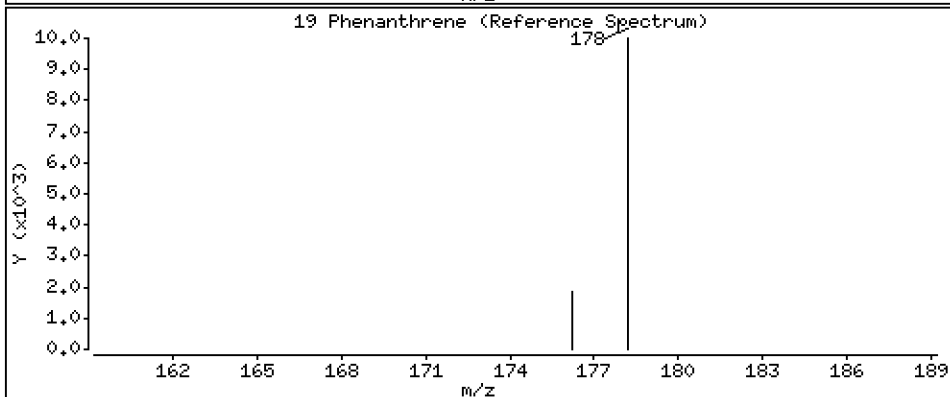
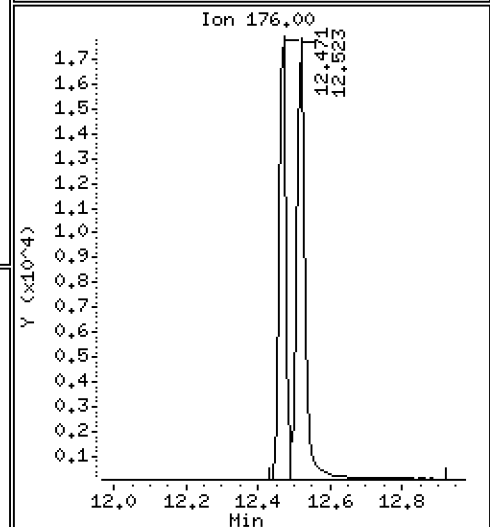
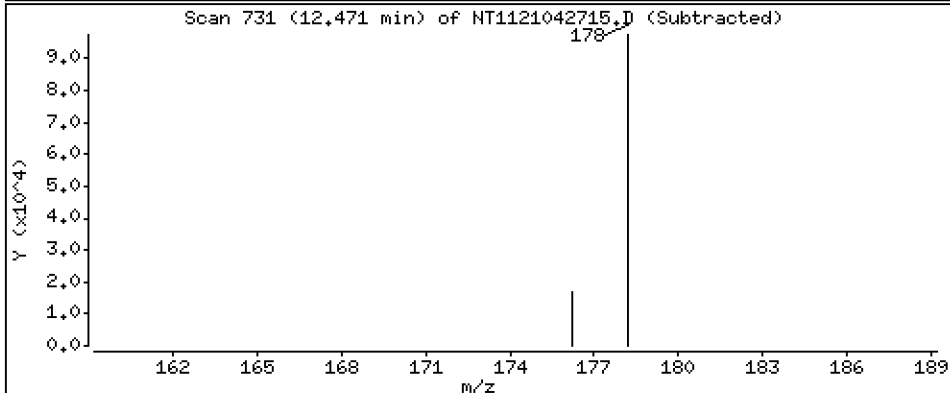
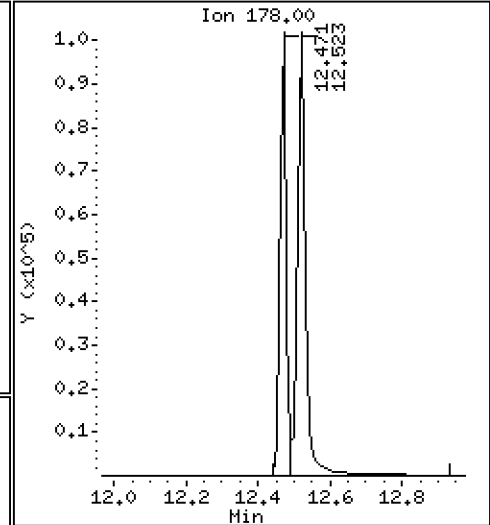
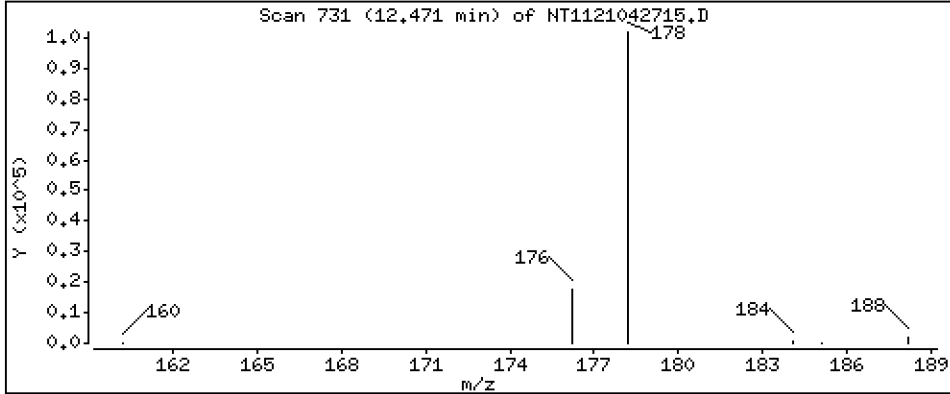
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 Phenanthrene

Concentration: 223 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

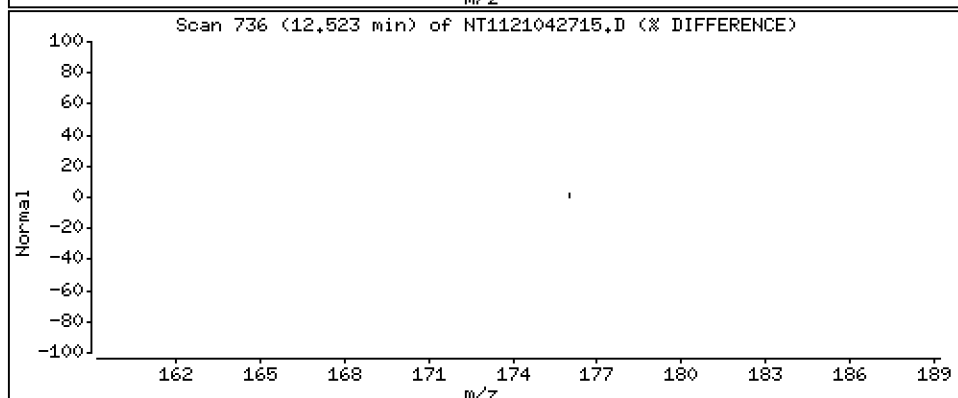
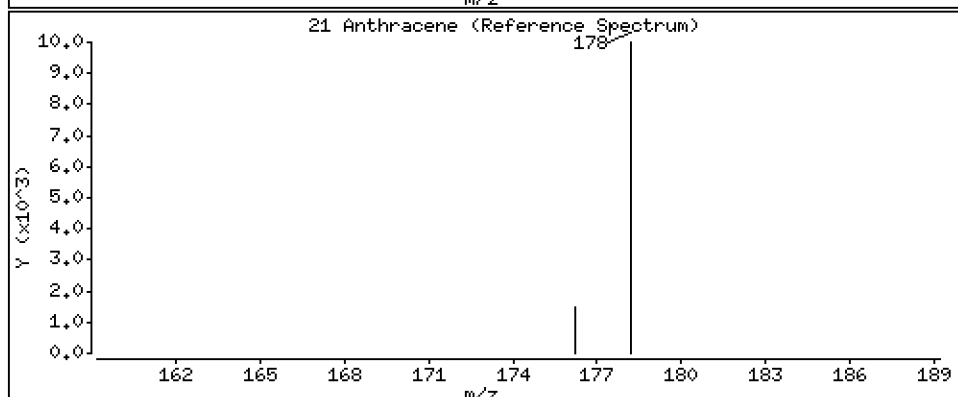
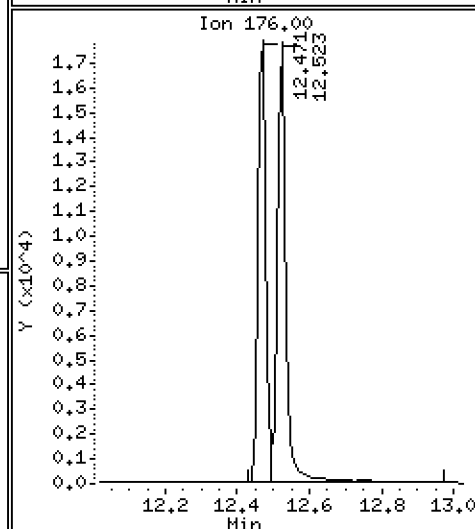
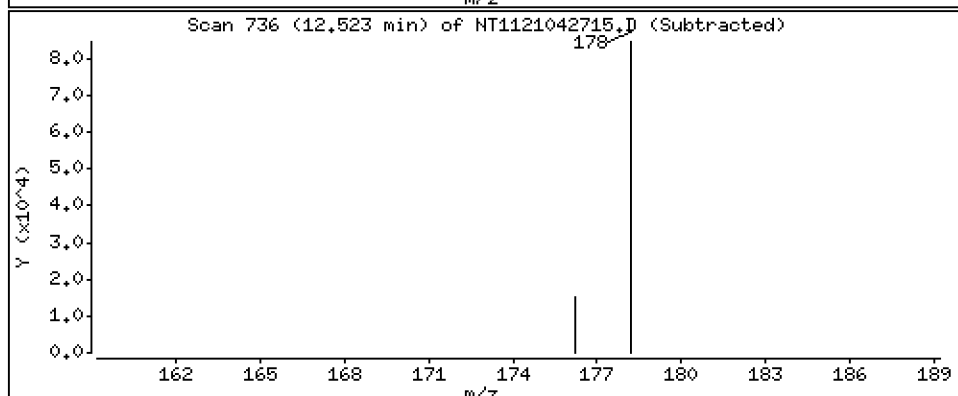
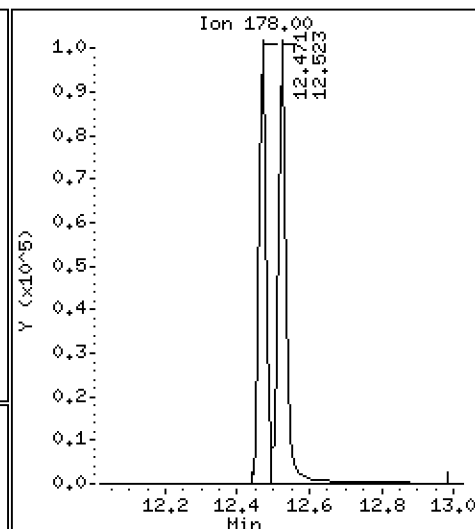
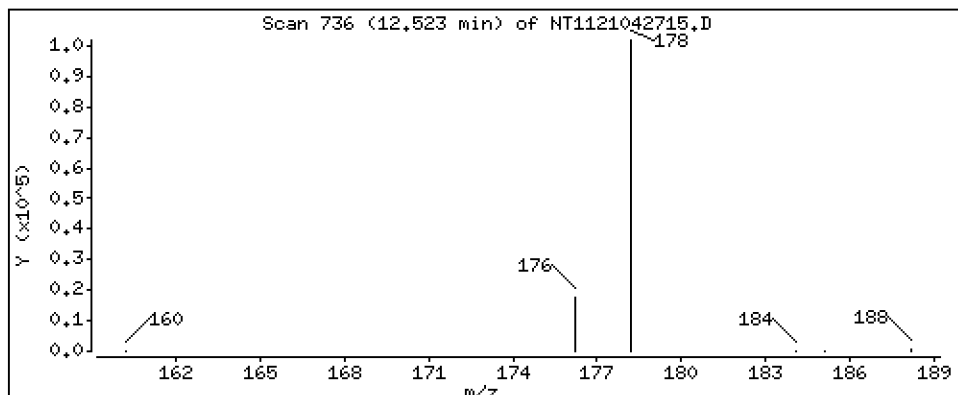
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

21 Anthracene

Concentration: 251 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

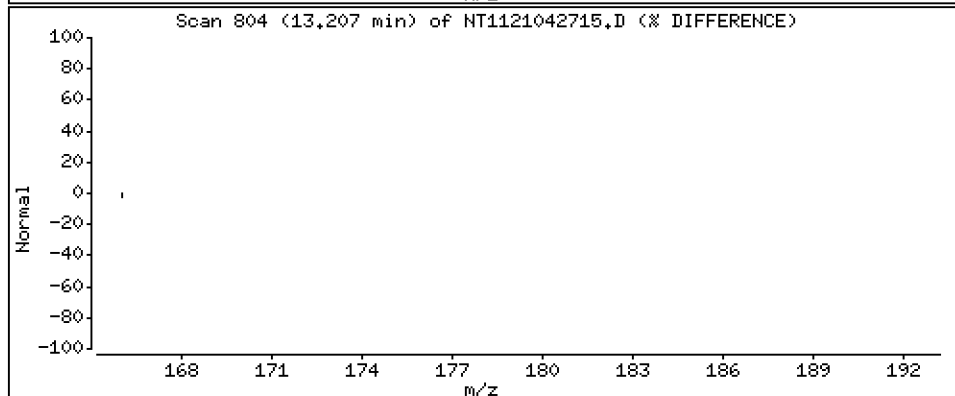
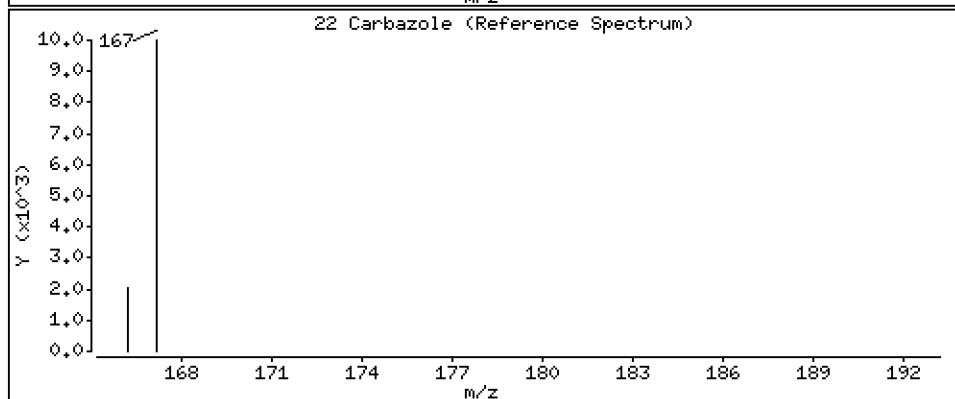
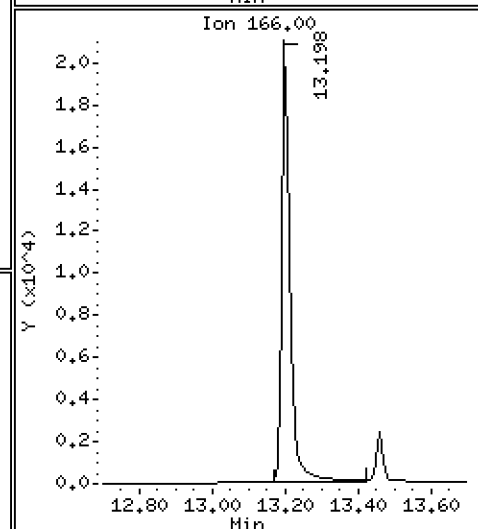
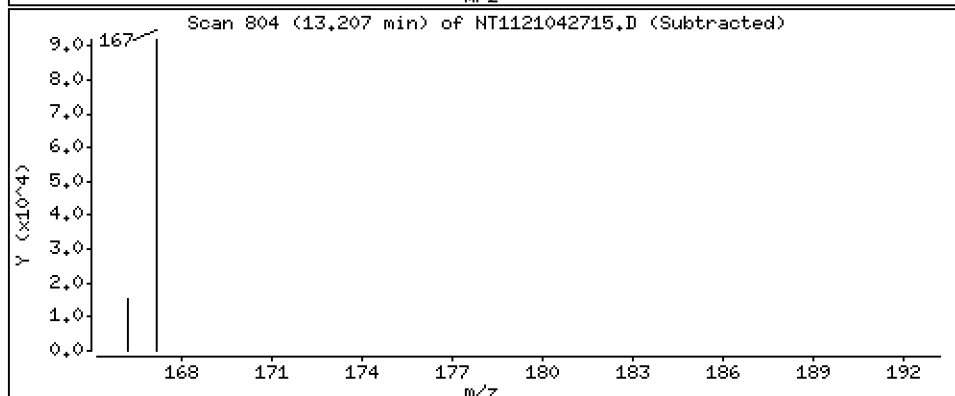
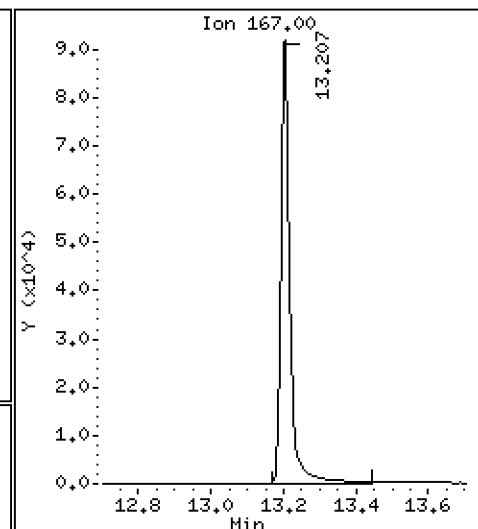
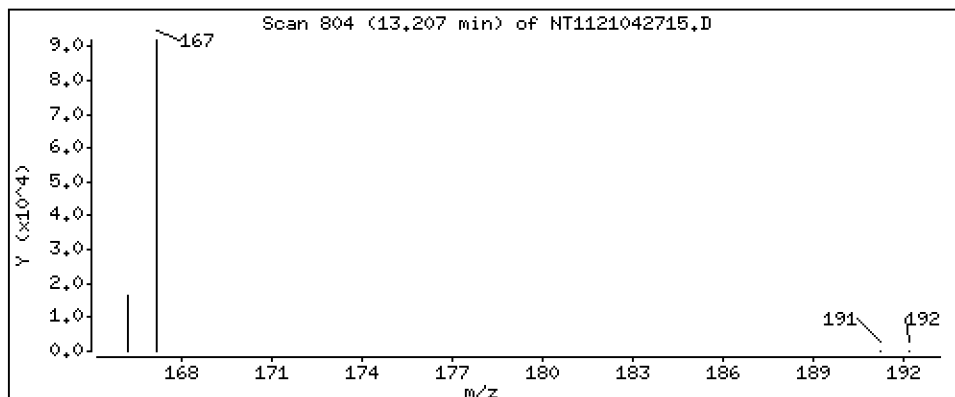
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Carbazole

Concentration: 244 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

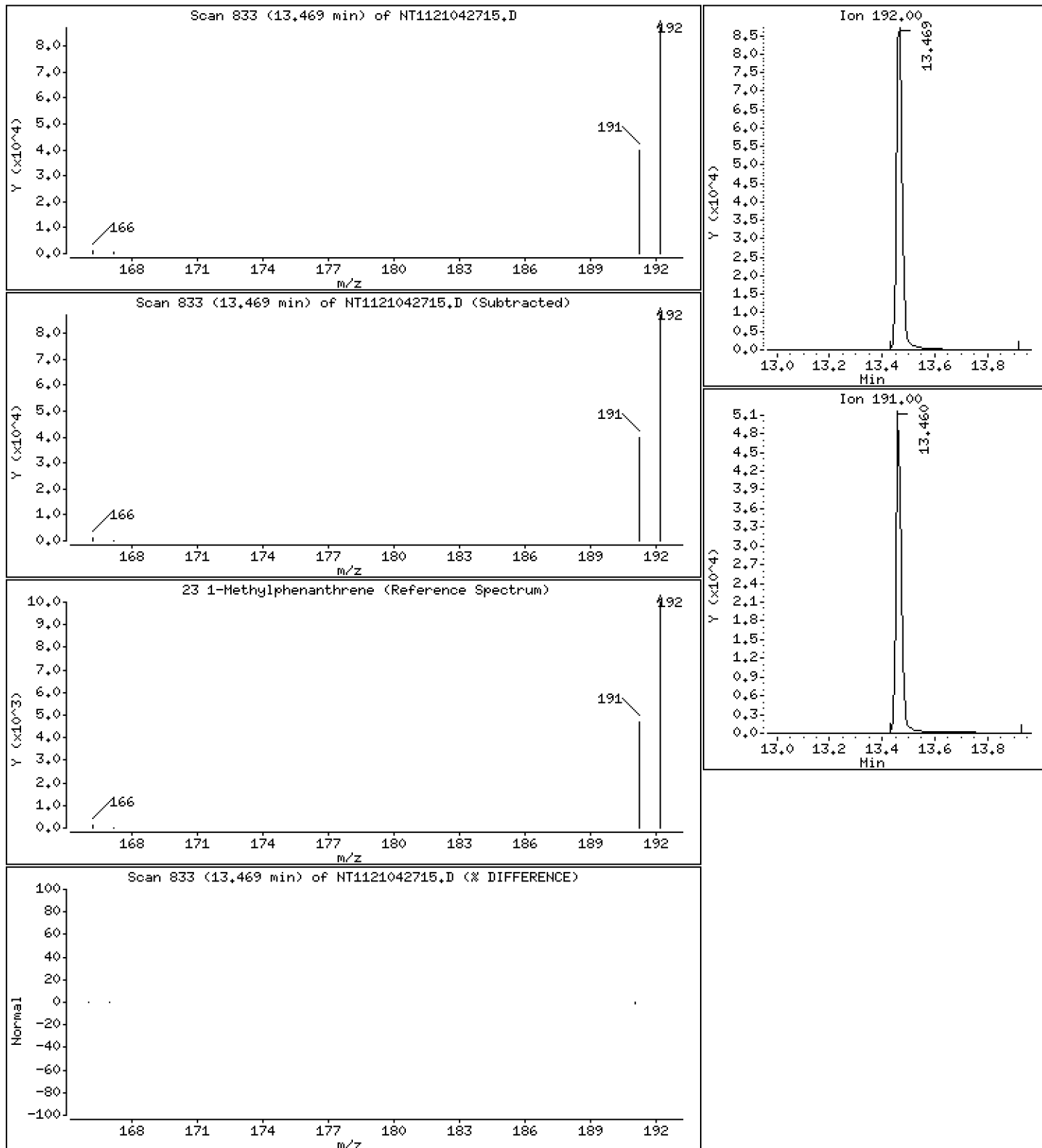
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 1-Methylphenanthrene

Concentration: 241 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

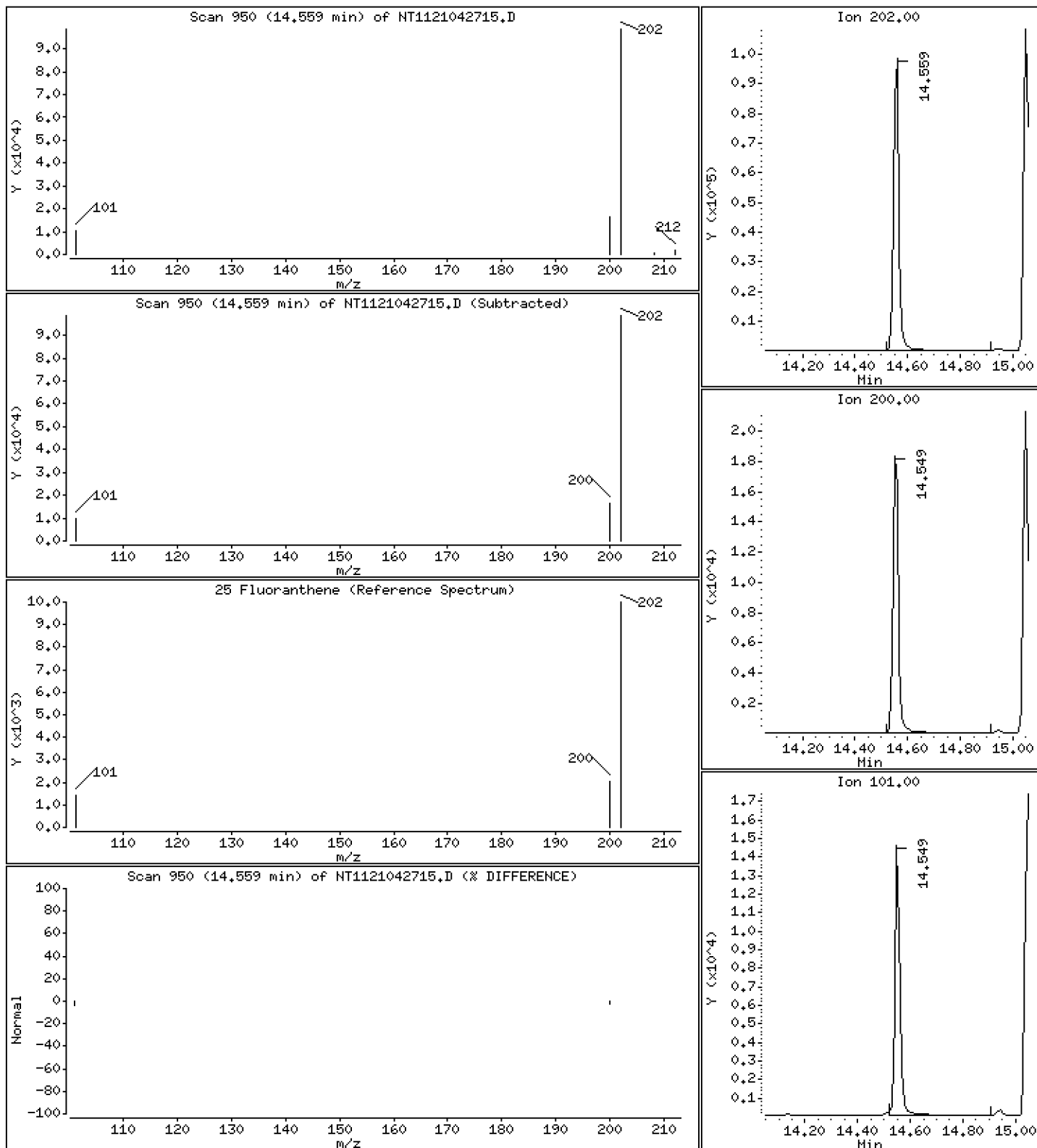
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

25 Fluoranthene

Concentration: 232 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

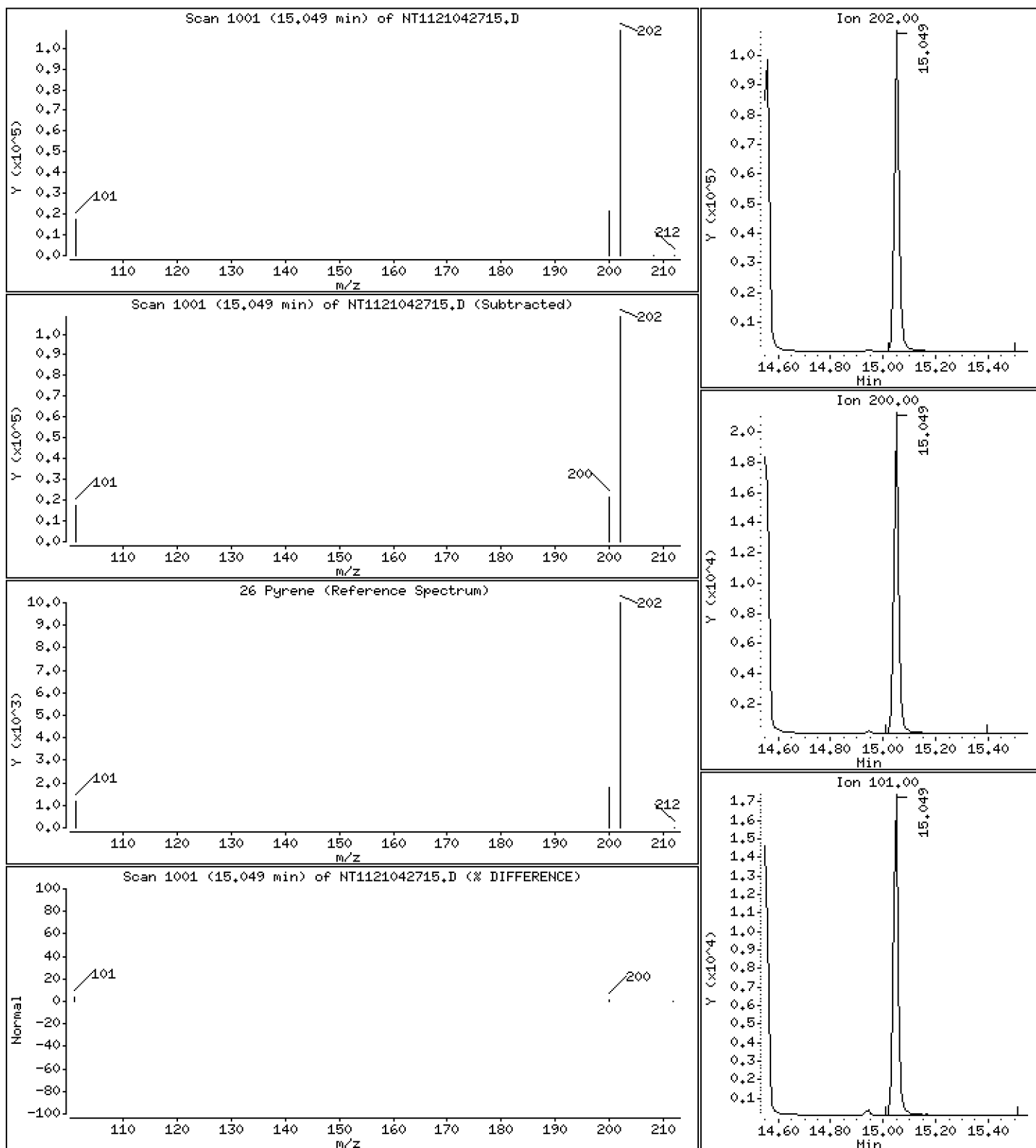
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Pyrene

Concentration: 236 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

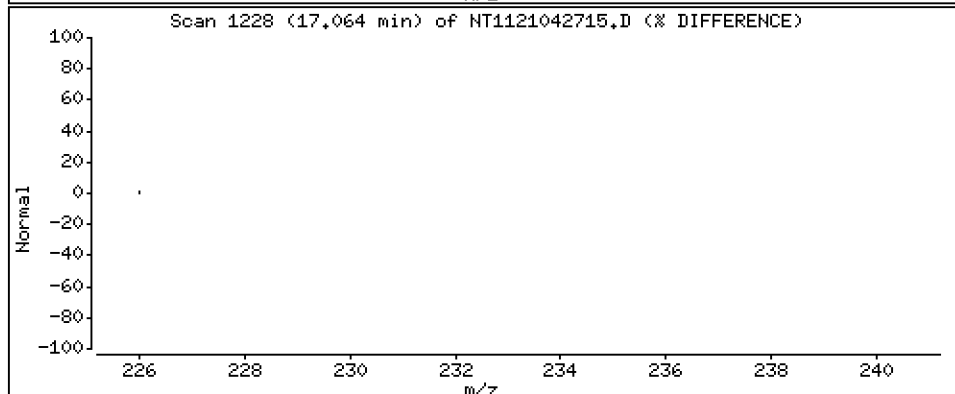
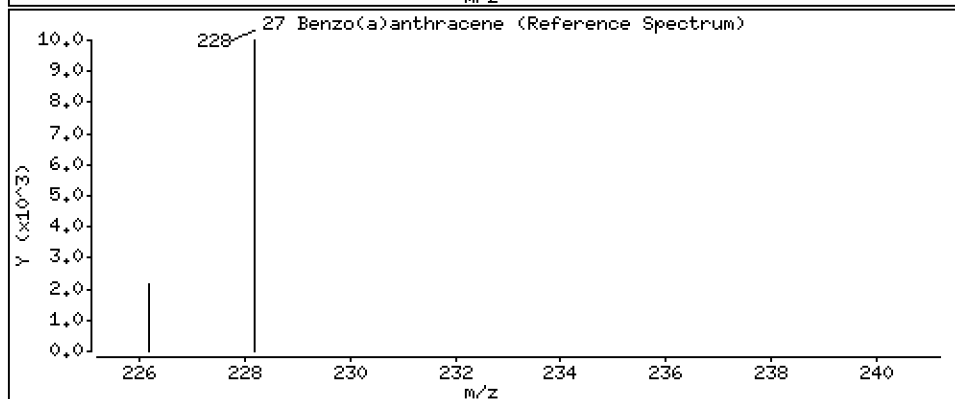
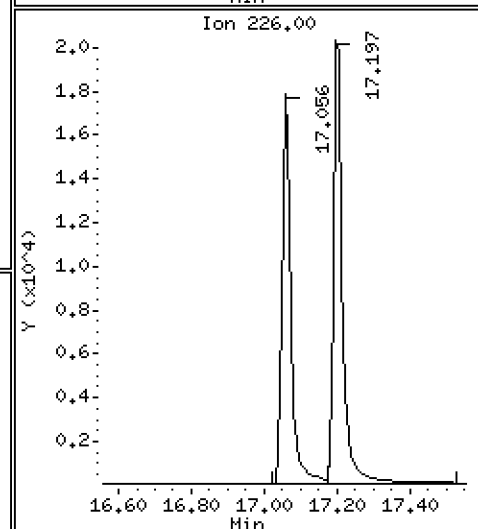
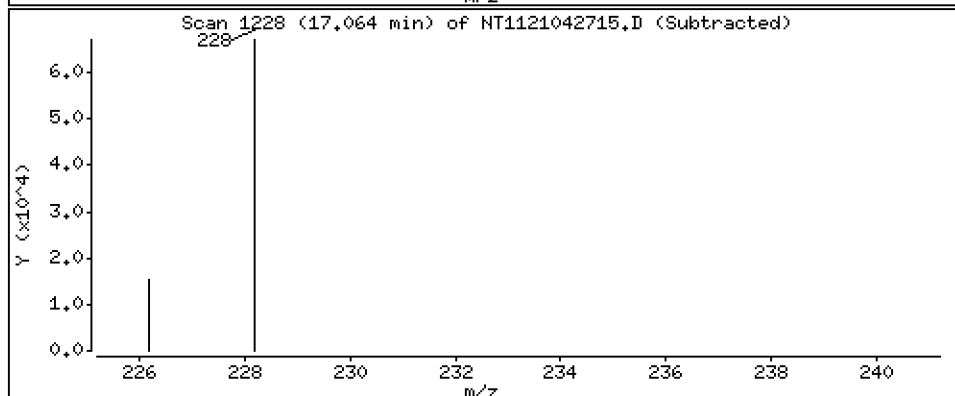
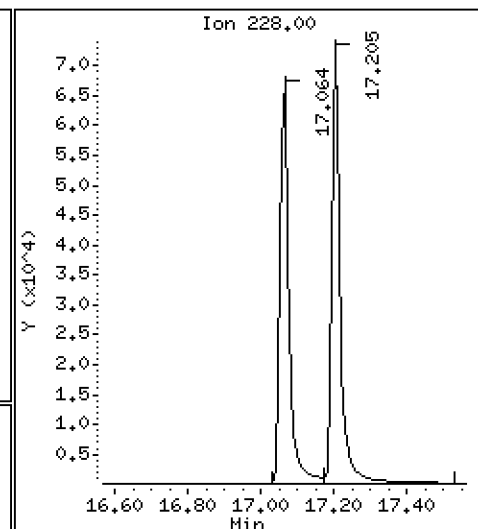
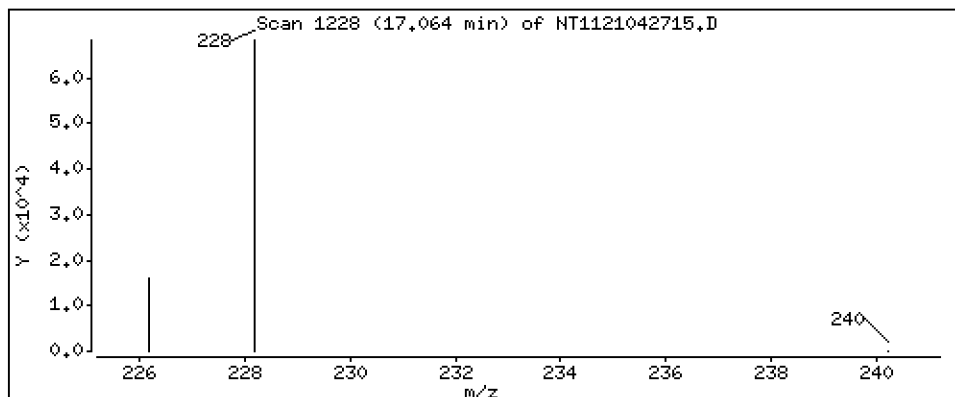
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

27 Benzo(a)anthracene

Concentration: 235 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

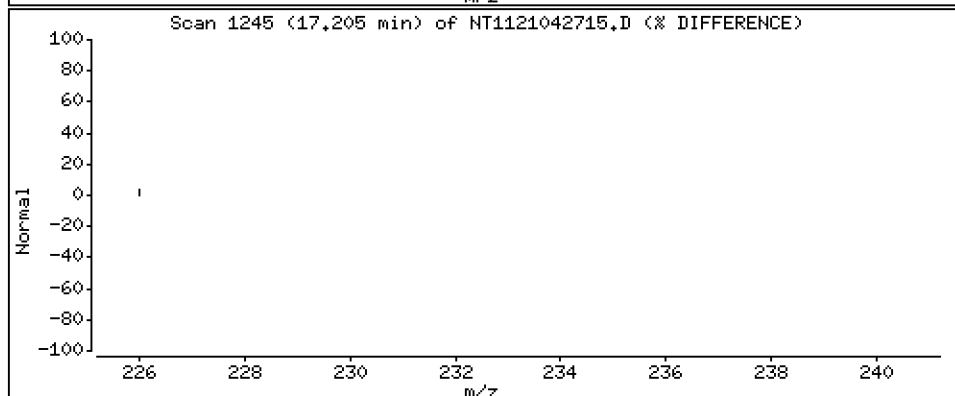
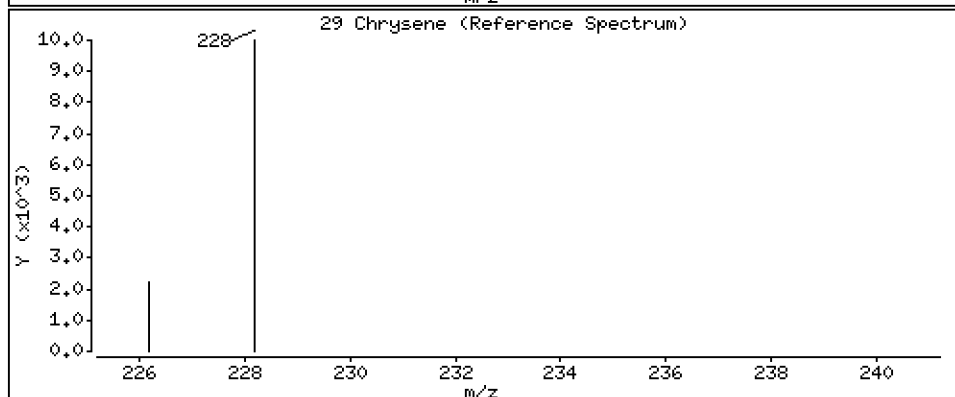
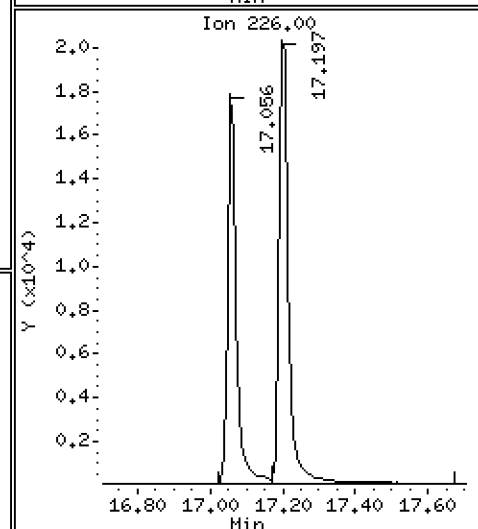
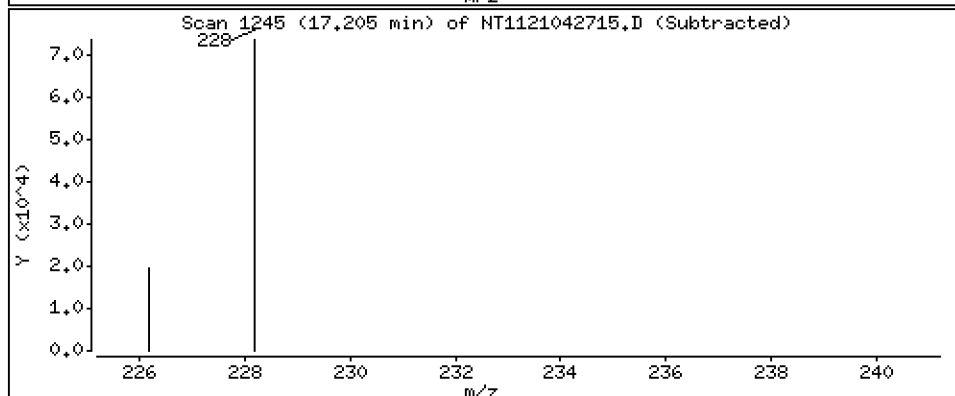
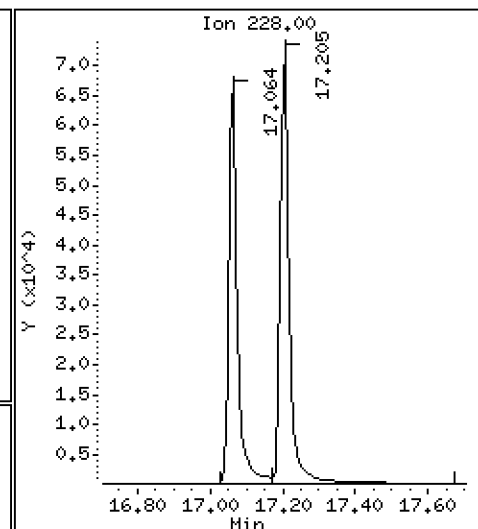
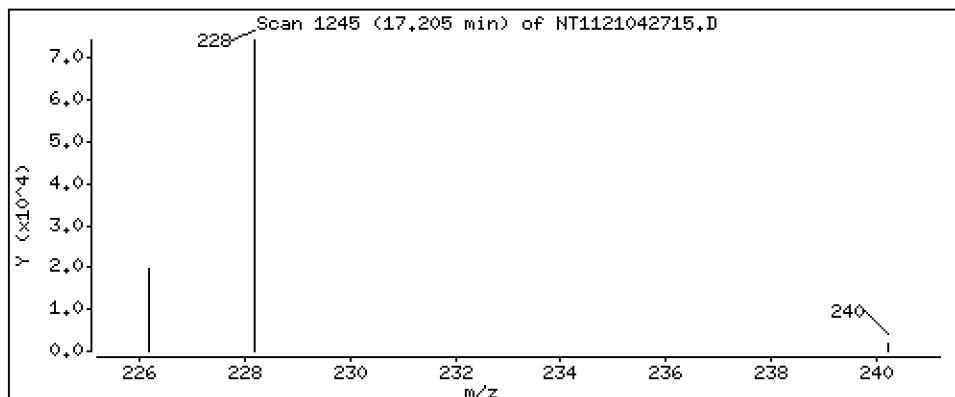
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

29 Chrysene

Concentration: 229 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

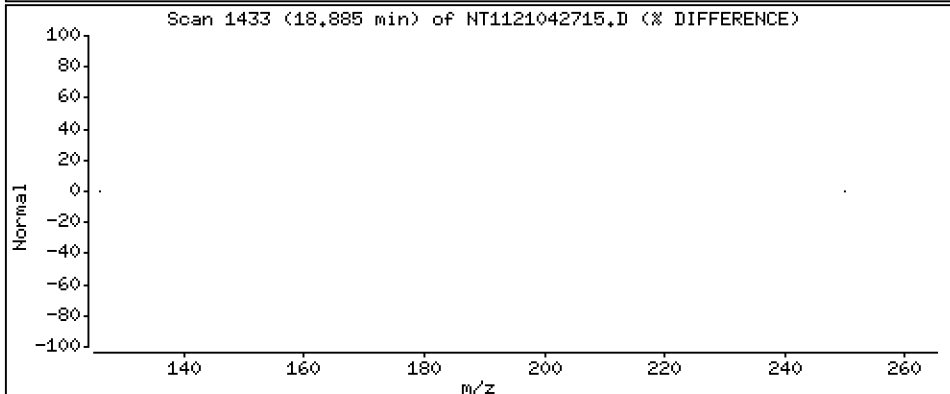
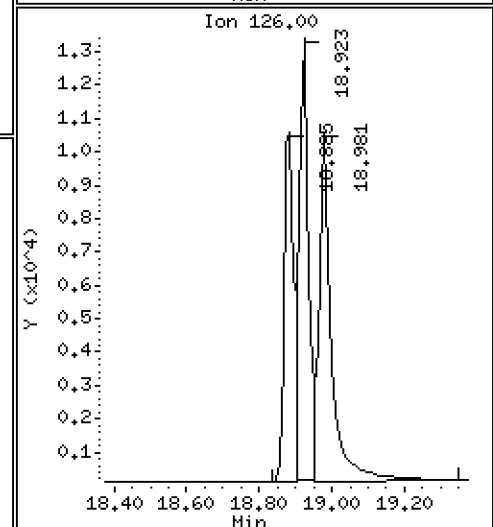
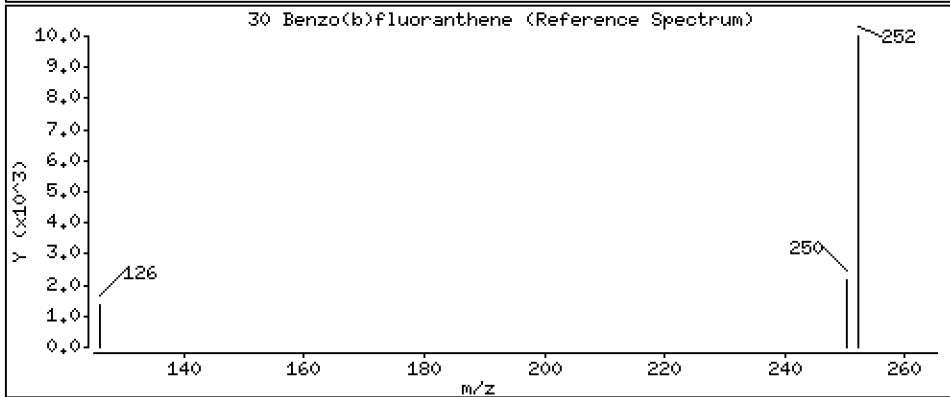
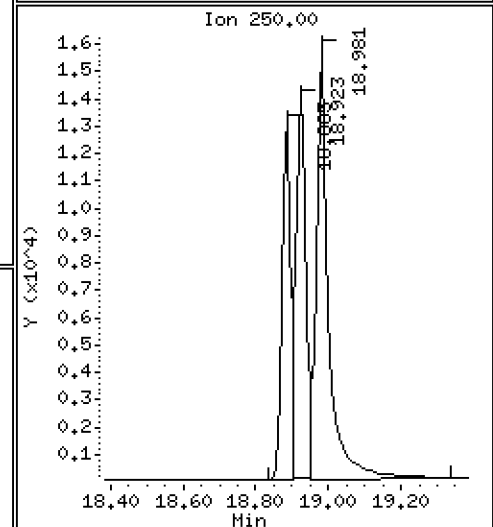
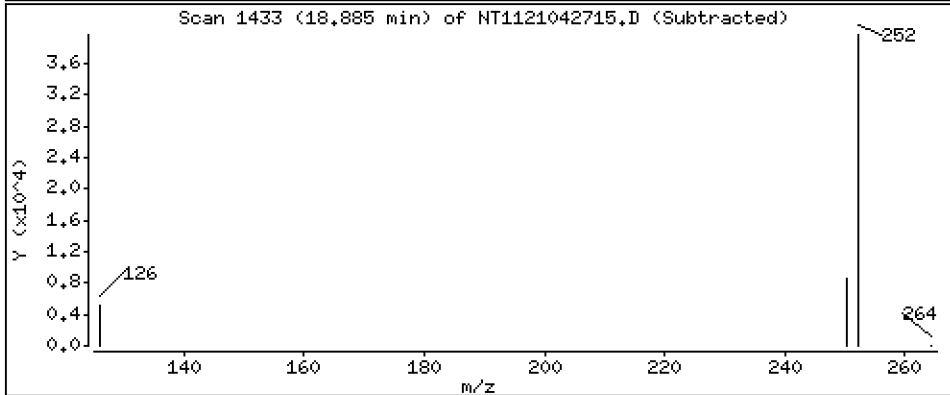
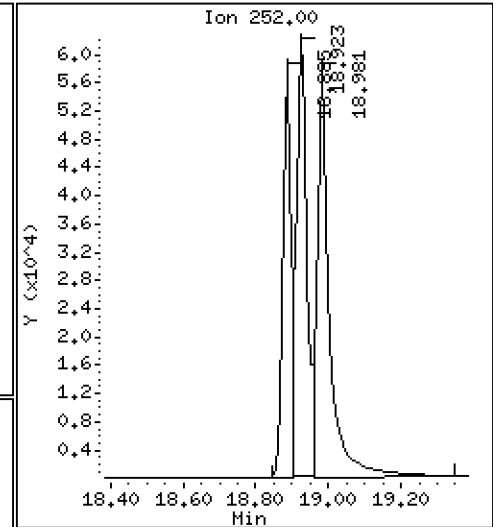
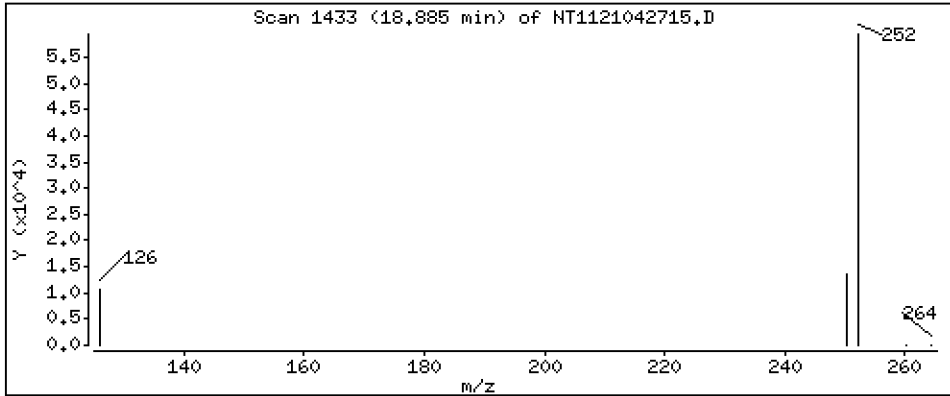
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Benzo(b)fluoranthene

Concentration: 230 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

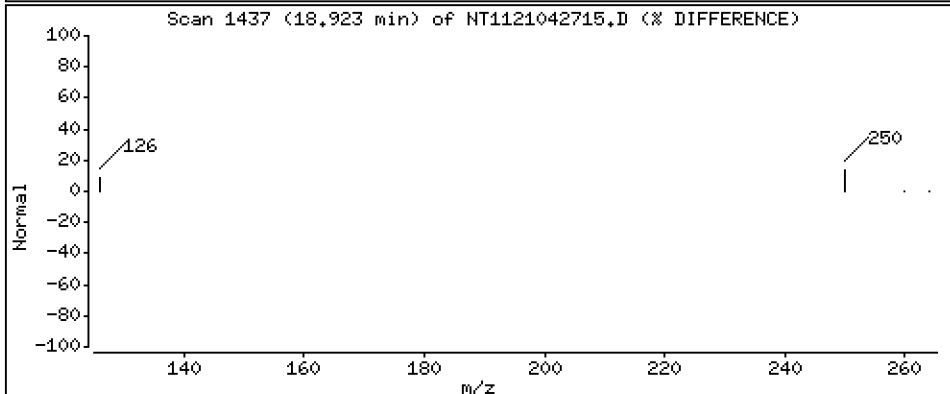
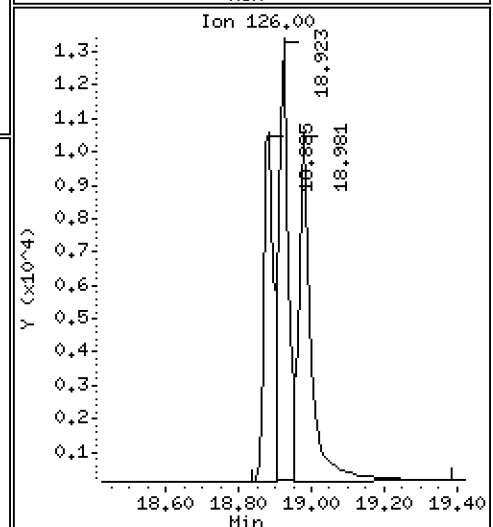
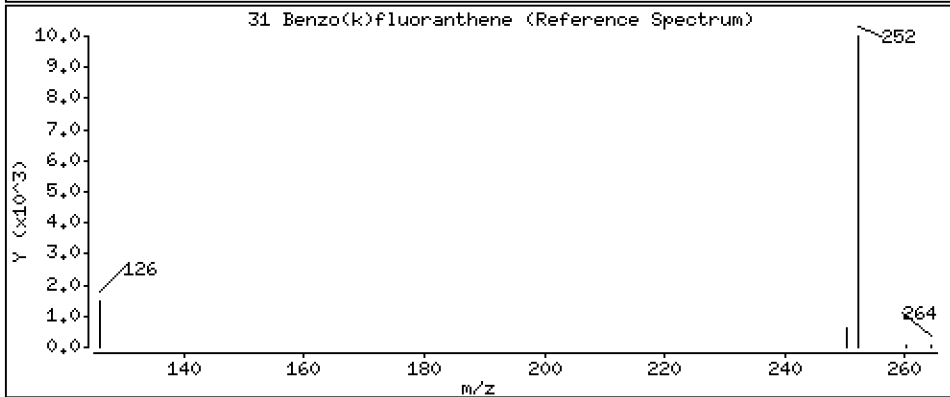
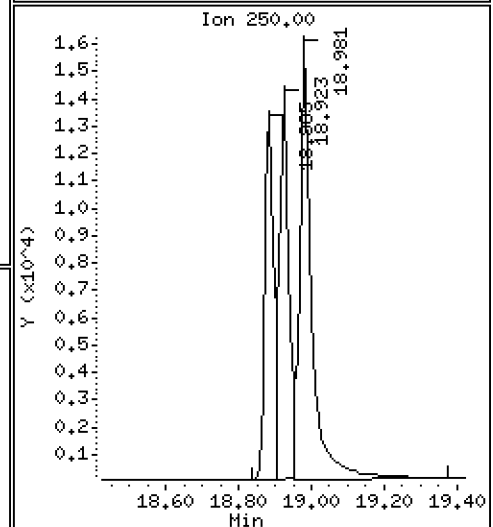
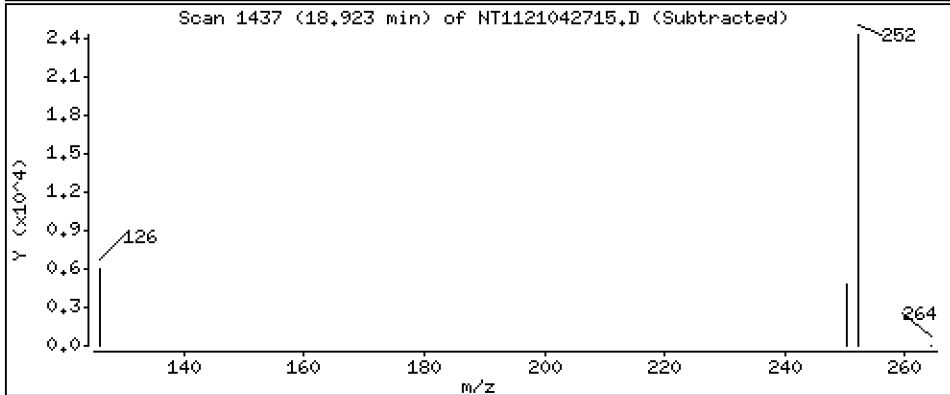
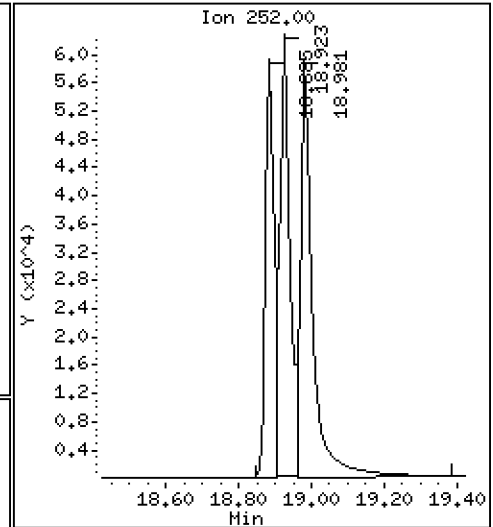
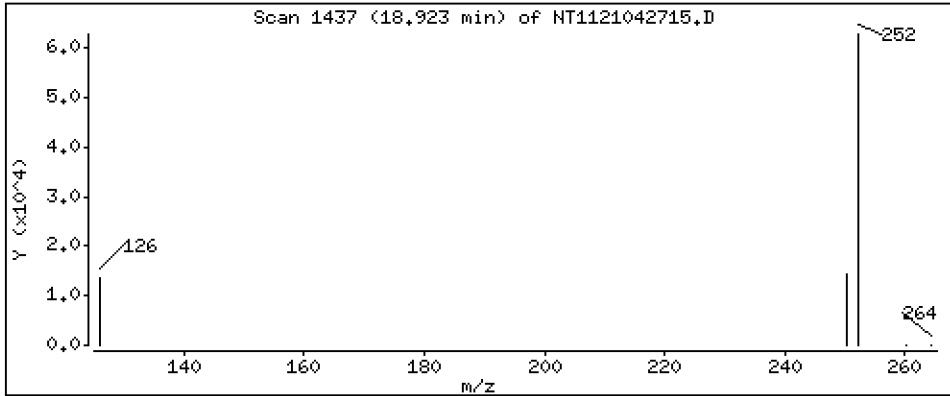
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

31 Benzo(k)fluoranthene

Concentration: 238 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

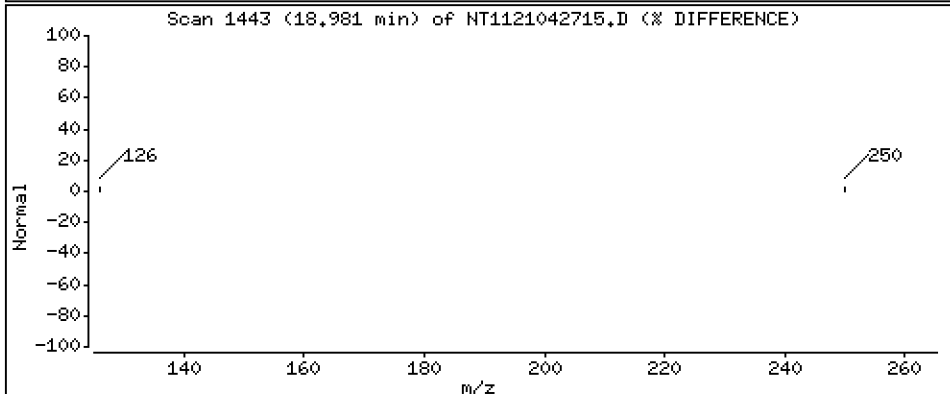
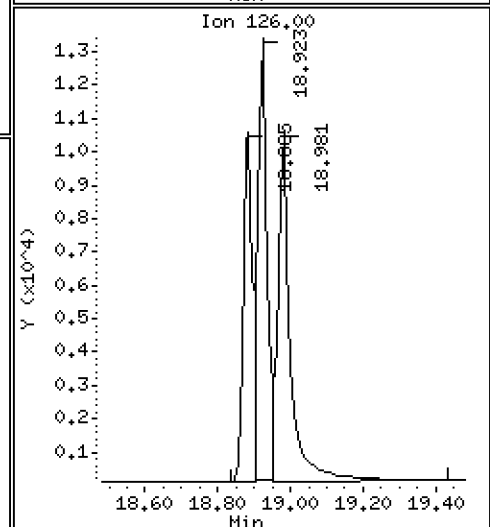
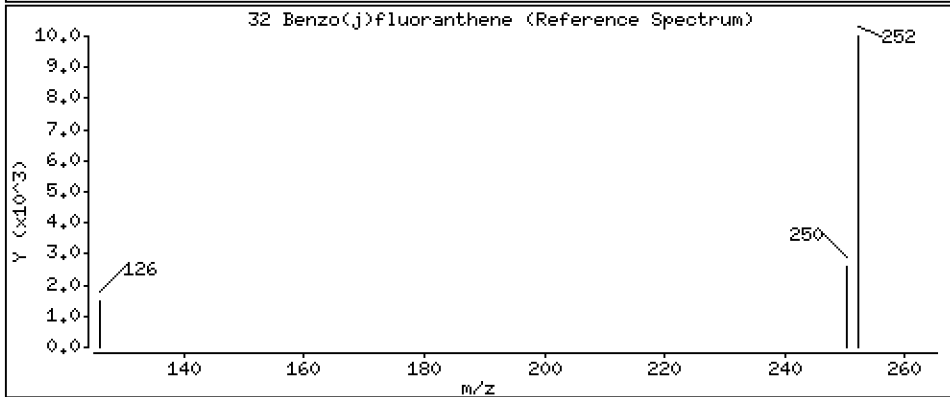
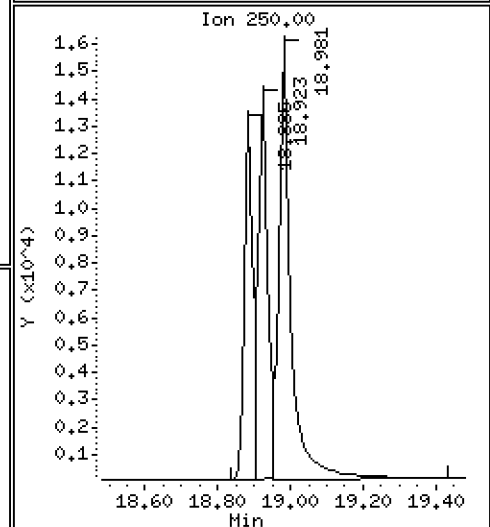
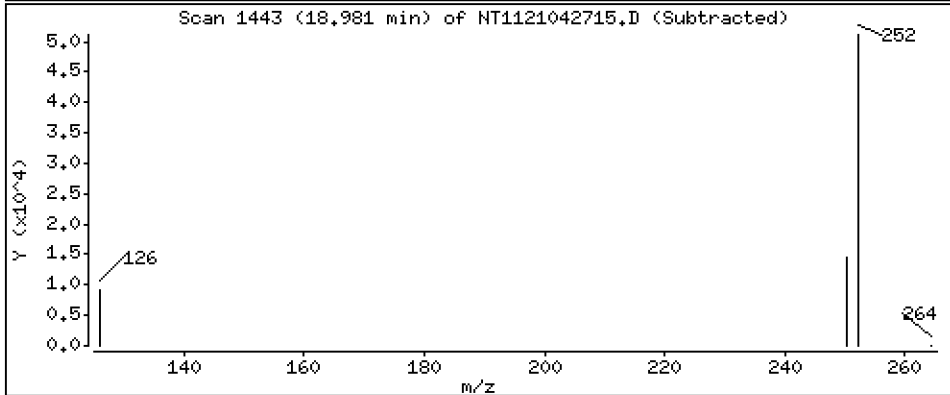
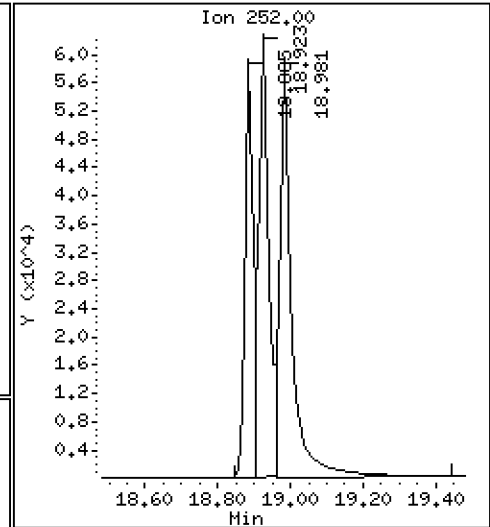
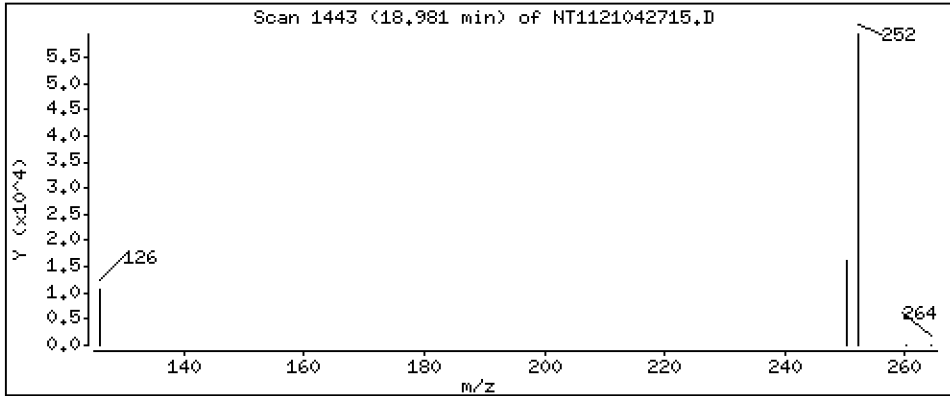
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

32 Benzo(j)fluoranthene

Concentration: 228 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

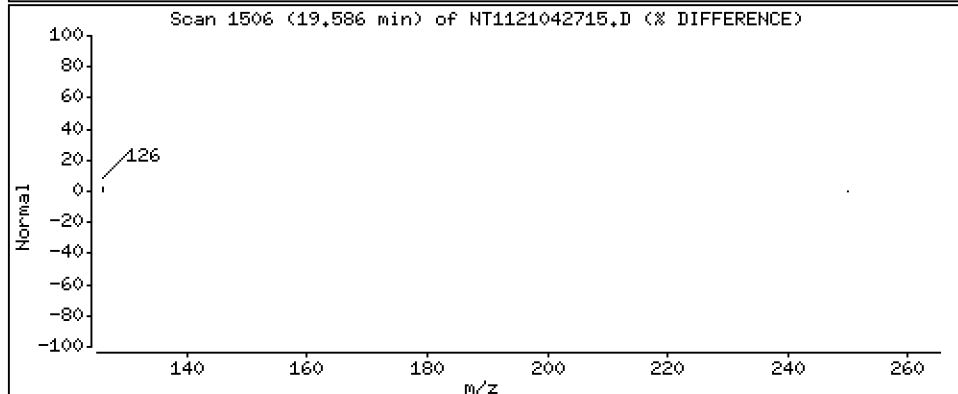
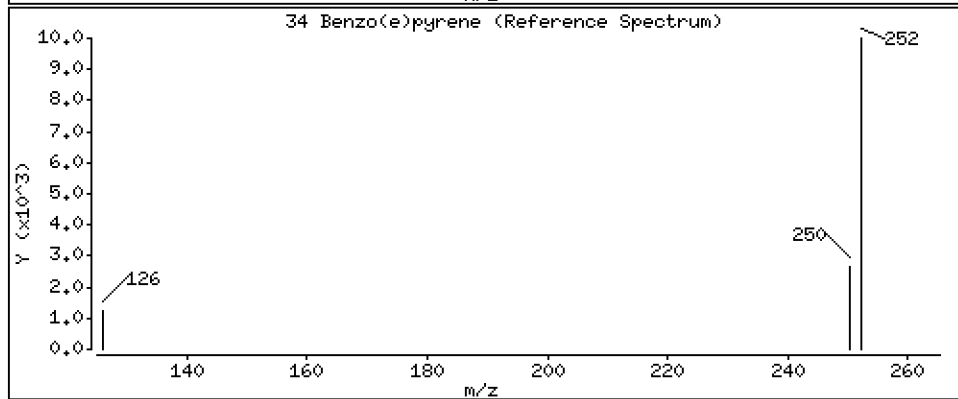
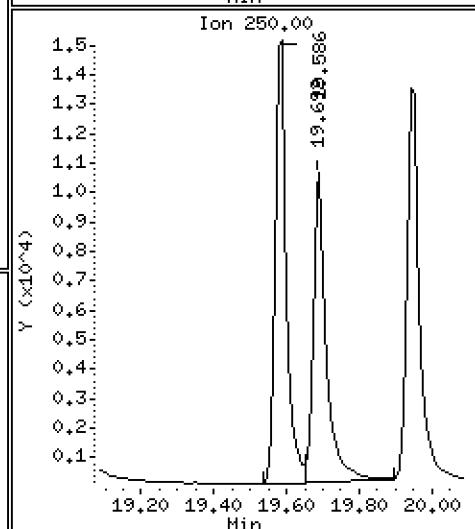
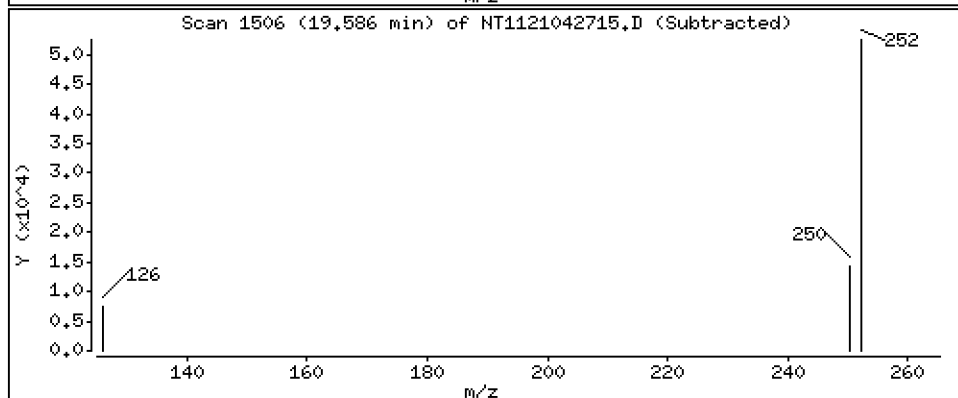
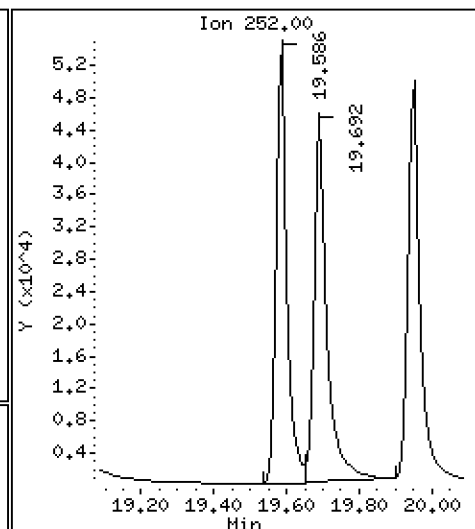
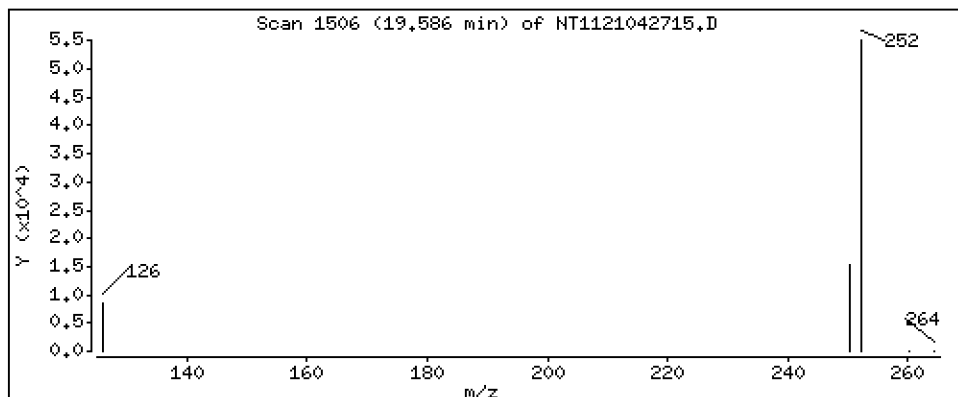
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

34 Benzo(e)pyrene

Concentration: 233 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

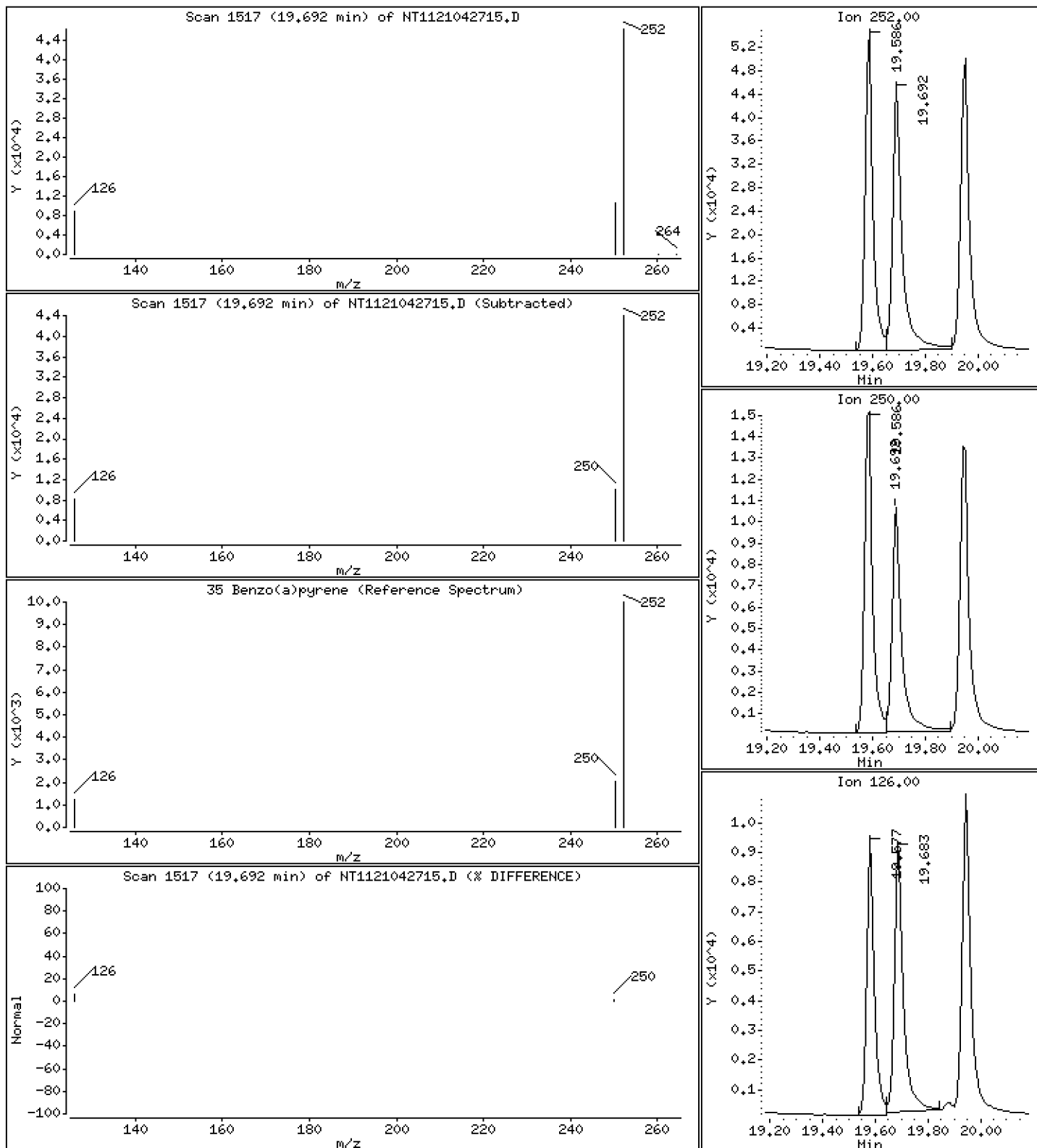
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

35 Benzo(a)pyrene

Concentration: 254 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

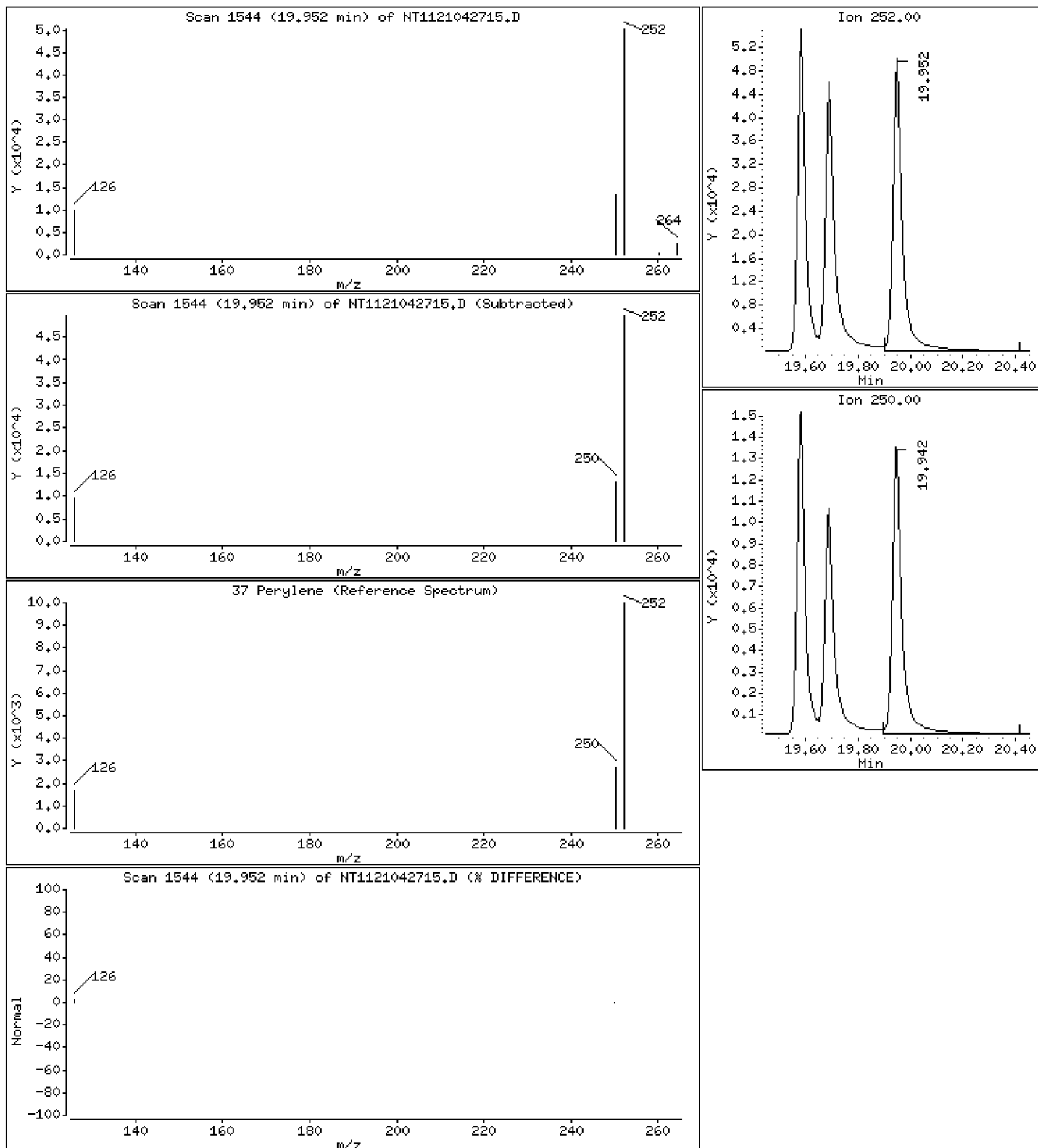
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

37 Perylene

Concentration: 241 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

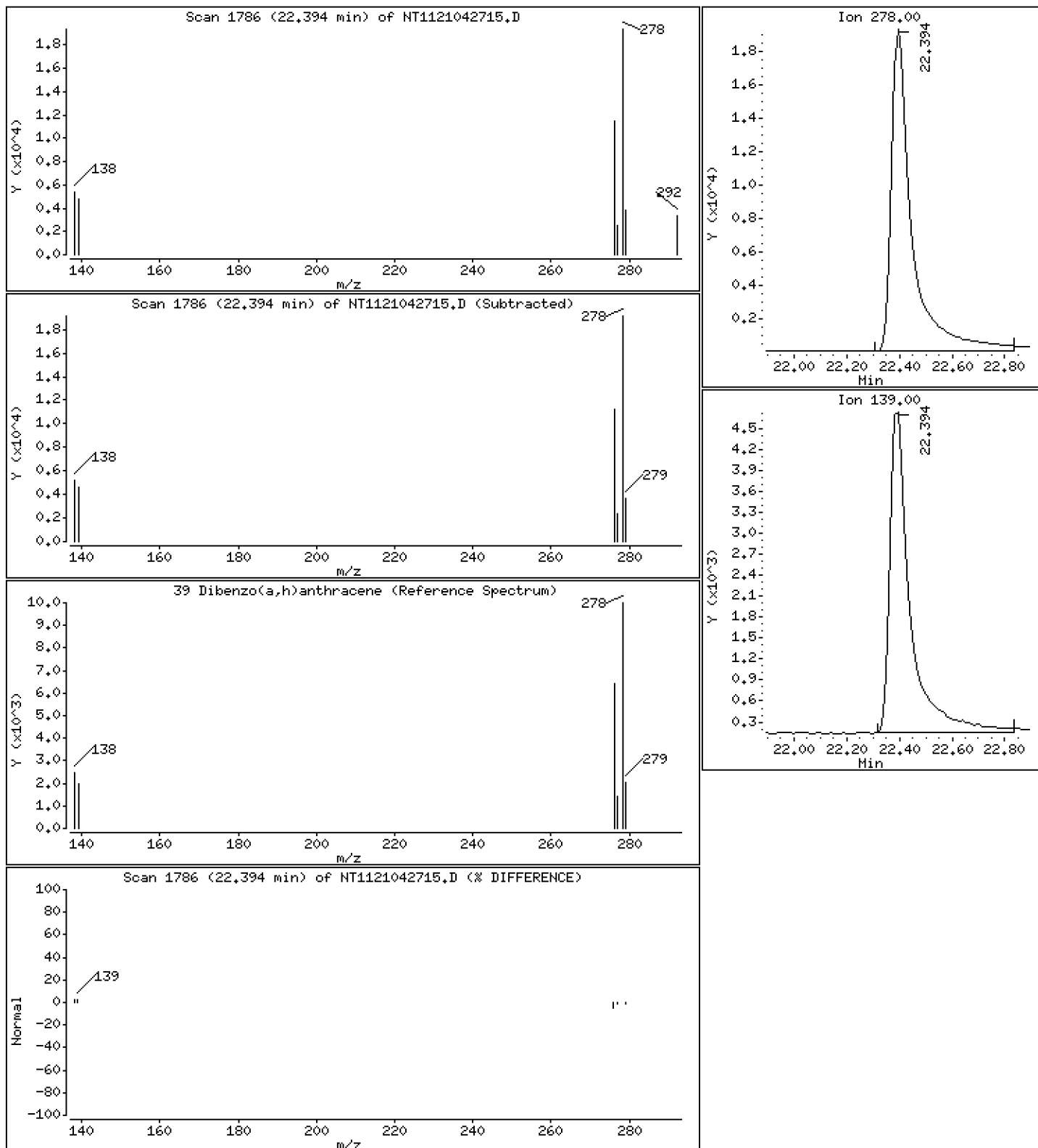
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

39 Dibenzo(a,h)anthracene

Concentration: 268 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

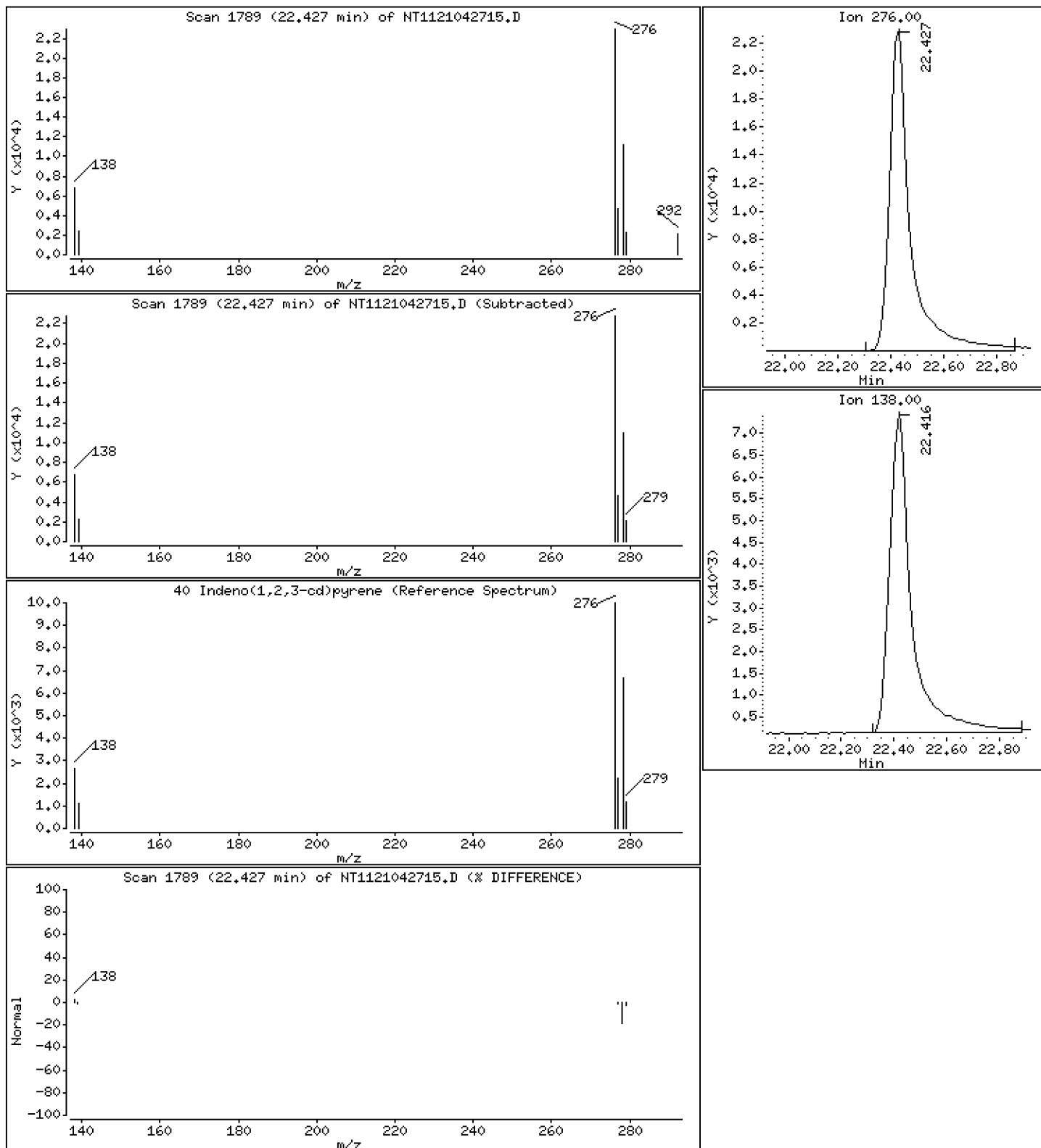
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

40 Indeno(1,2,3-cd)pyrene

Concentration: 277 ng/mL



Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

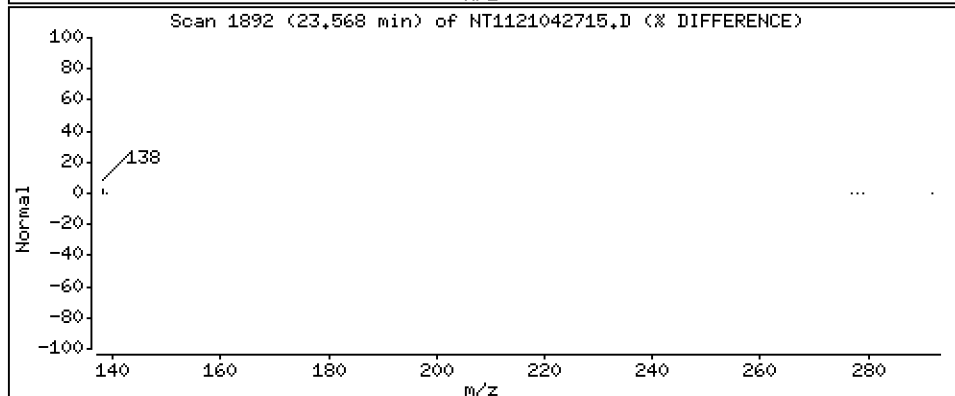
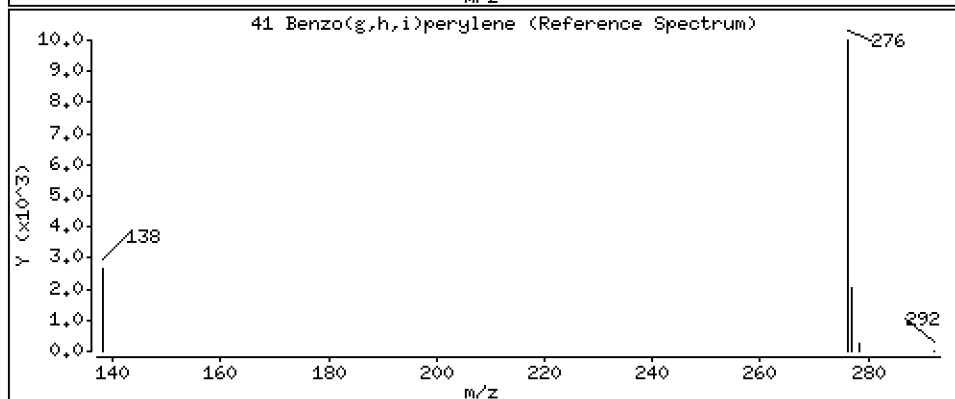
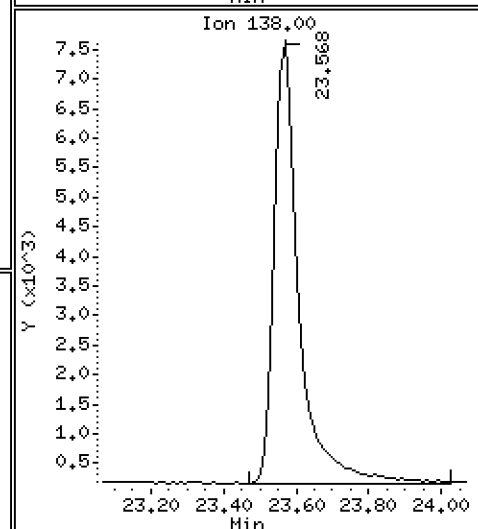
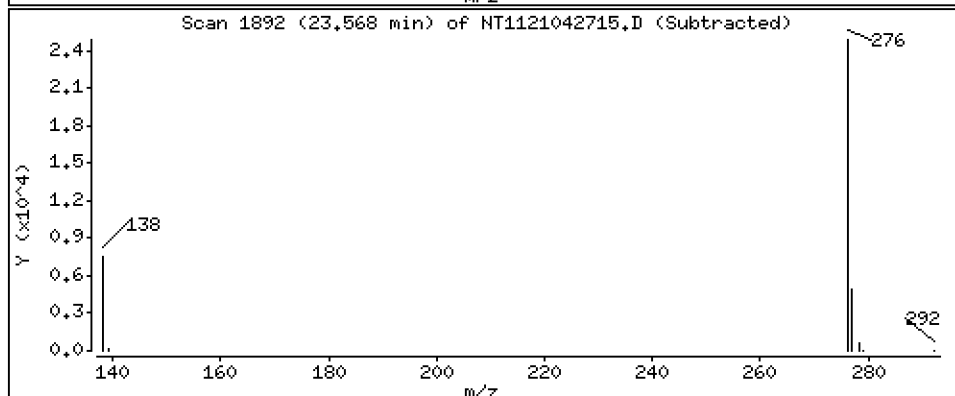
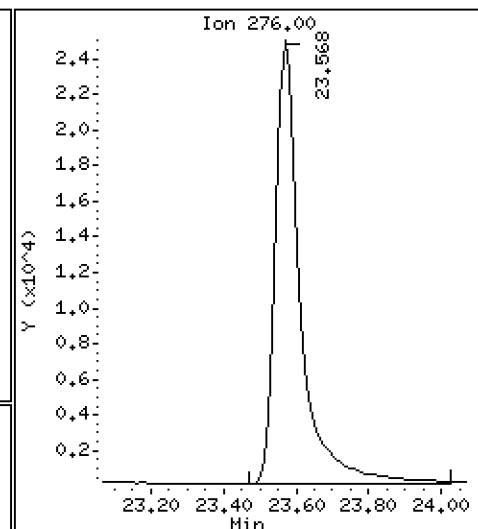
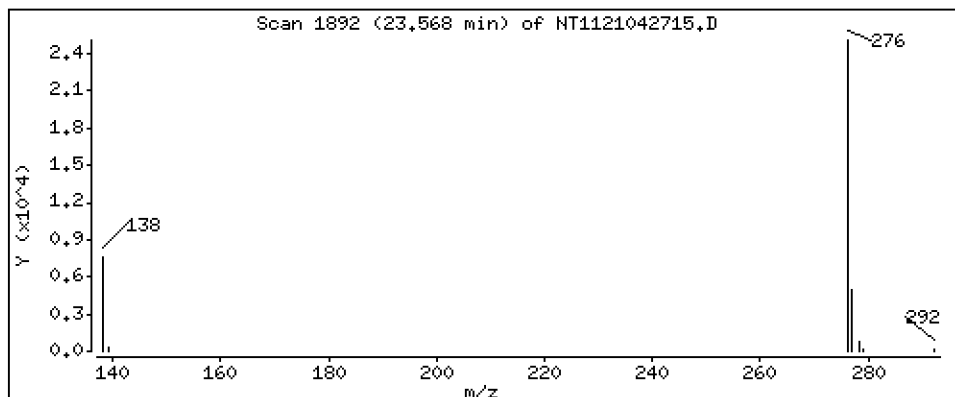
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

41 Benzo(g,h,i)perylene

Concentration: 267 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20210427.b\NT1121042715.D
 Lab Smp Id: SJD0374-CCV1
 Inj Date : 27-APR-2021 19:48 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : SJD0374-CCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20210427.b\lowsim.m
 Meth Date : 27-Apr-2021 13:08 van Quant Type: ISTD
 Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PAH.sub
 Target Version: 4.14
 Processing Host: VANS-202011

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		6.759	6.768	(1.000)	121440	200.000	
2 Naphthalene	128		6.795	6.795	(1.005)	162335	230.227	230
3 Benzo(b)thiophene	134		7.048	7.048	(1.043)	132597	238.368	238
\$ 4 2-Methylnaphthalene-d10	152		7.728	7.738	(1.143)	119834	245.410	245
5 2-Methylnaphthalene	142		7.791	7.791	(1.153)	135560	238.484	238
6 1-Methylnaphthalene	142		8.043	8.043	(1.190)	132986	251.680	252
7 2-Chloronaphthalene	162		8.694	8.694	(0.891)	121862	210.054	210
8 Biphenyl	154		8.663	8.663	(0.888)	153686	198.960	199
9 2,6-Dimethylnaphthalene	156		8.715	8.715	(0.893)	119431	208.385	208
10 Acenaphthylene	152		9.607	9.607	(0.984)	158967	207.998	208
* 11 Acenaphthene-d10	164		9.761	9.761	(1.000)	66616	200.000	
12 Acenaphthene	153		9.824	9.824	(1.006)	106291	210.279	210
13 Dibenzofuran	168		10.023	10.023	(1.027)	134469	199.288	199
14 2,3,5-Trimethylnaphthalene	170		10.124	10.124	(1.037)	87878	211.747	212
16 Fluorene	166		10.642	10.642	(1.090)	112647	216.731	217
17 Dibenzothiophene	184		12.260	12.260	(0.986)	121712	229.740	230
* 18 Phenanthrene-d10	188		12.428	12.428	(1.000)	95692	200.000	
19 Phenanthrene	178		12.470	12.470	(1.003)	139568	222.959	223
21 Anthracene	178		12.523	12.523	(1.008)	156971	250.968	251
22 Carbazole	167		13.206	13.207	(1.063)	162340	243.578	244
23 1-Methylphenanthrene	192		13.468	13.469	(1.084)	133297	241.065	241
\$ 24 Fluoranthene-d10	212		14.520	14.520	(1.168)	114548	228.322	228
25 Fluoranthene	202		14.558	14.558	(1.171)	145021	232.370	232
26 Pyrene	202		15.048	15.048	(1.211)	151065	235.941	236
27 Benzo(a)anthracene	228		17.064	17.064	(0.995)	112377	235.426	235
* 28 Chrysene-d12	240		17.155	17.155	(1.000)	64981	200.000	
29 Chrysene	228		17.205	17.205	(1.003)	123248	229.308	229
30 Benzo(b)fluoranthene	252		18.884	18.885	(0.950)	101055	230.010	230
31 Benzo(k)fluoranthene	252		18.923	18.923	(0.952)	137488	238.157	238
32 Benzo(j)fluoranthene	252		18.981	18.981	(0.955)	142479	228.378	228
34 Benzo(e)pyrene	252		19.586	19.586	(0.985)	115797	232.743	233
35 Benzo(a)pyrene	252		19.692	19.692	(0.990)	116678	254.274	254
* 36 Perylene-d12	264		19.884	19.893	(1.000)	80717	200.000	

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
=====	=====	=====	=====	=====	=====	=====	=====	=====
37 Perylene	252		19.951	19.951	(1.003)	125736	240.509	241
\$ 38 Dibenzo(a,h)anthracene-d14	292		22.283	22.283	(1.121)	84896	267.701	268
39 Dibenzo(a,h)anthracene	278		22.394	22.394	(1.126)	102049	268.346	268
40 Indeno(1,2,3-cd)pyrene	276		22.427	22.427	(1.128)	123315	276.736	277
41 Benzo(g,h,i)perylene	276		23.568	23.568	(1.185)	118756	266.542	267

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 27-APR-2021
 Lab File ID: NT1121042715.D Calibration Time: 12:42
 Lab Smp Id: SJD0374-CCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20210427.b\lowsim.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	112036	56018	224072	121440	8.39
11 Acenaphthene-d10	64624	32312	129248	66616	3.08
18 Phenanthrene-d10	96378	48189	192756	95692	-0.71
28 Chrysene-d12	68803	34402	137606	64981	-5.55
36 Perylene-d12	87167	43584	174334	80717	-7.40

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.77	6.27	7.27	6.76	-0.13
11 Acenaphthene-d10	9.76	9.26	10.26	9.76	-0.00
18 Phenanthrene-d10	12.43	11.93	12.93	12.43	-0.00
28 Chrysene-d12	17.16	16.66	17.66	17.16	-0.00
36 Perylene-d12	19.89	19.39	20.39	19.88	-0.05

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.

REVIEW SUMMARY FOR FILE - NT1121042715.D

Lab ID: SJD0374-CCV1
nt11.i, 20210427.b\lowsim.m, 27-APR-2021 19:48

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1121042702.D

On Column LOD for nt11.i, 20210427.b\lowsim.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.1\20210427.6\NT1121042703.D

Date : 27-APR-2021 13:17

Client ID:

Sample Info: SJD0374-LCW1

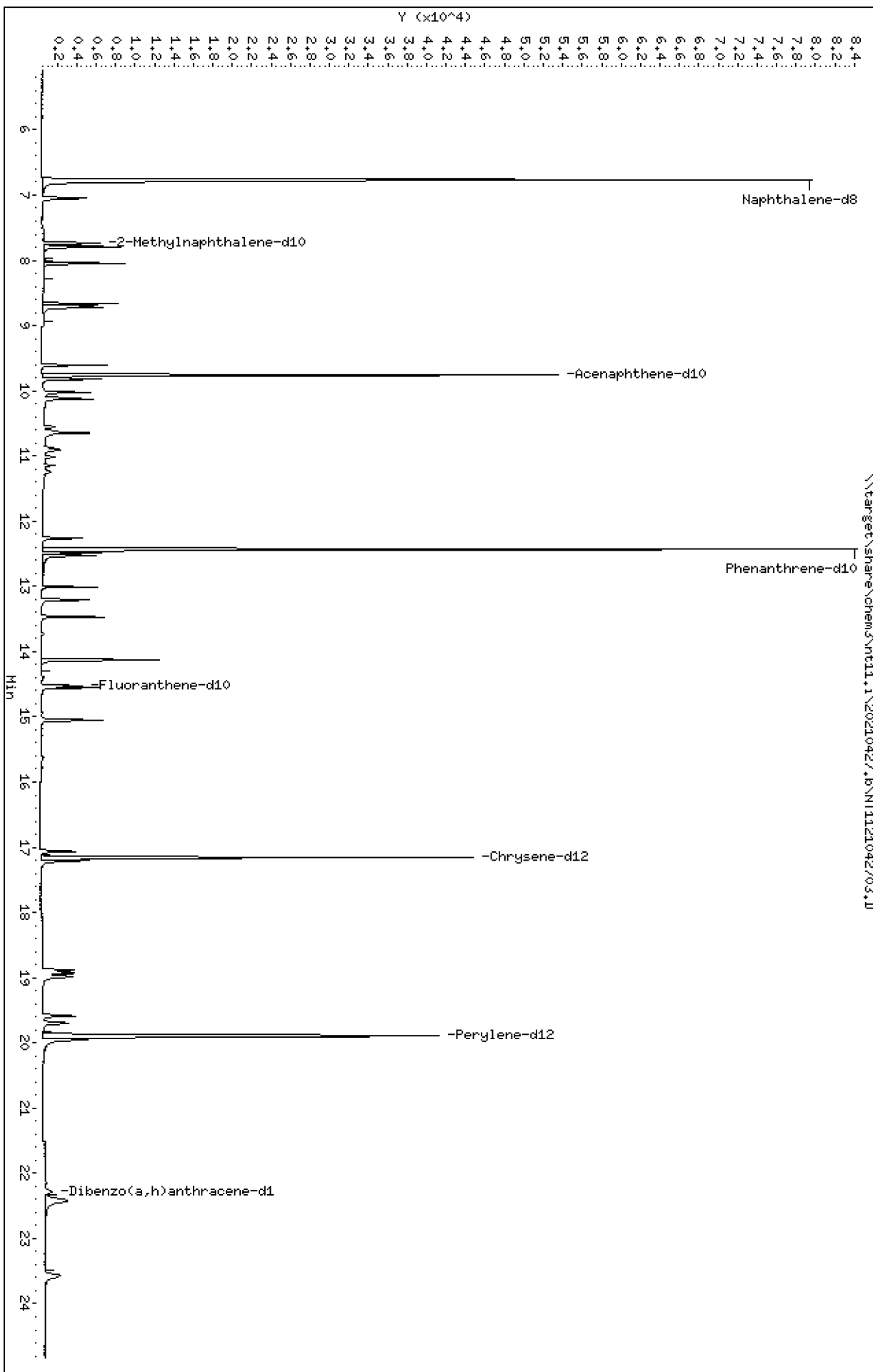
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

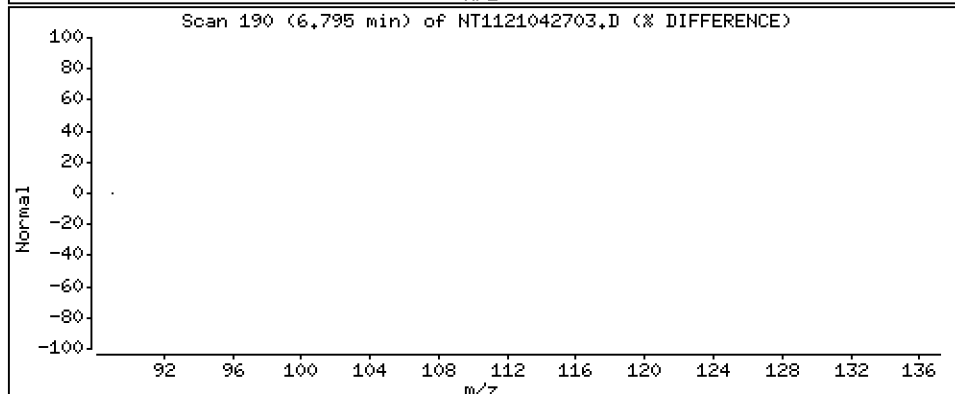
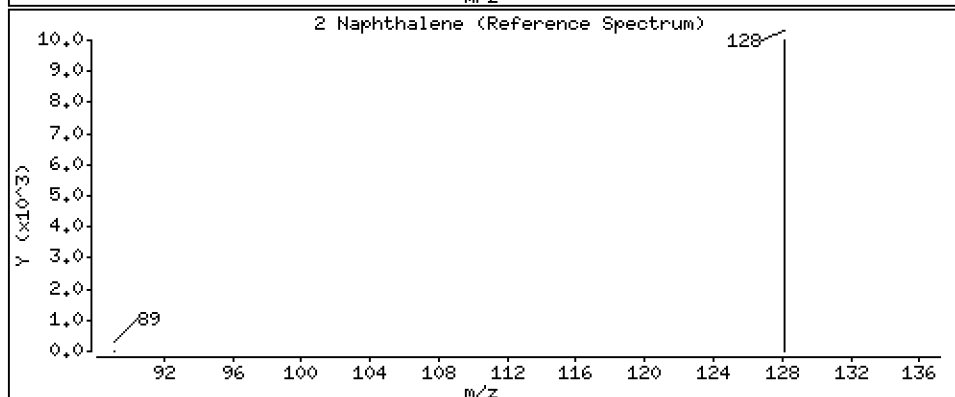
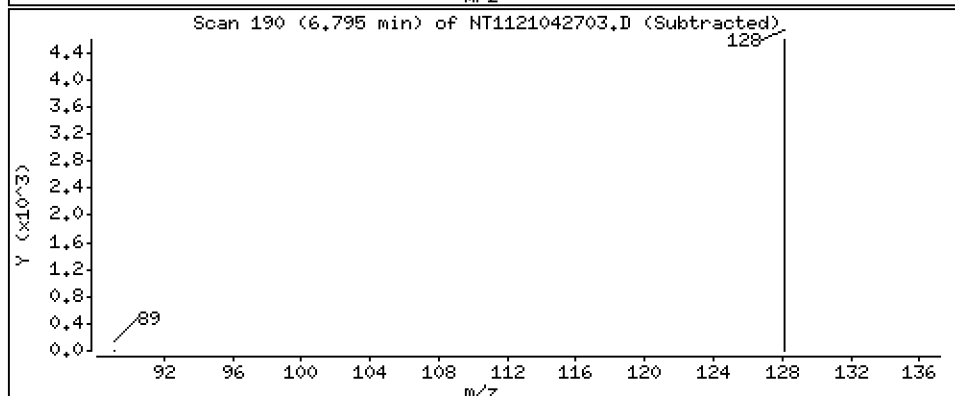
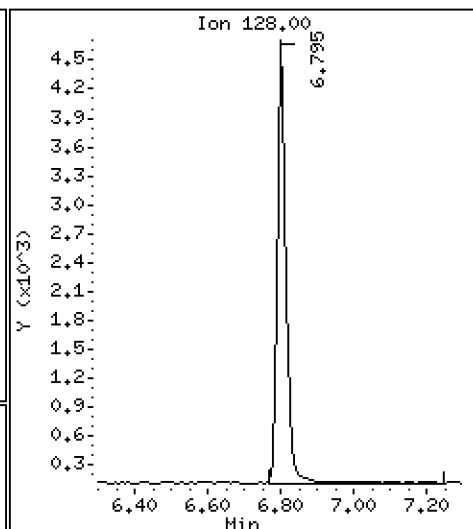
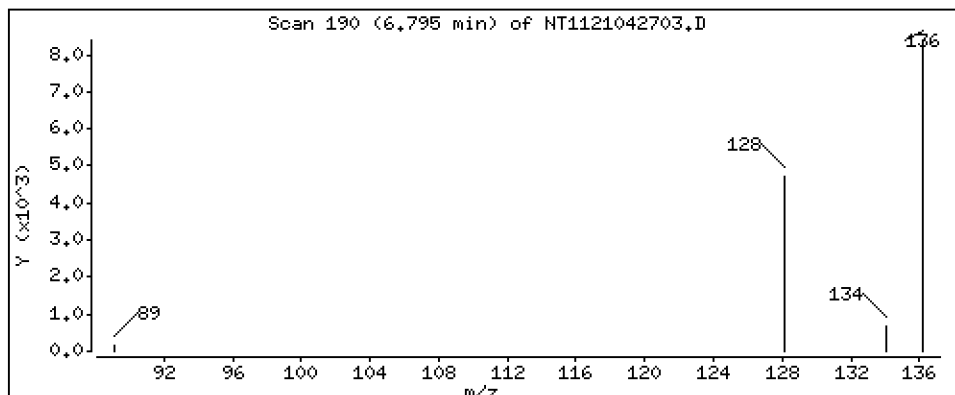
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 10,4 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

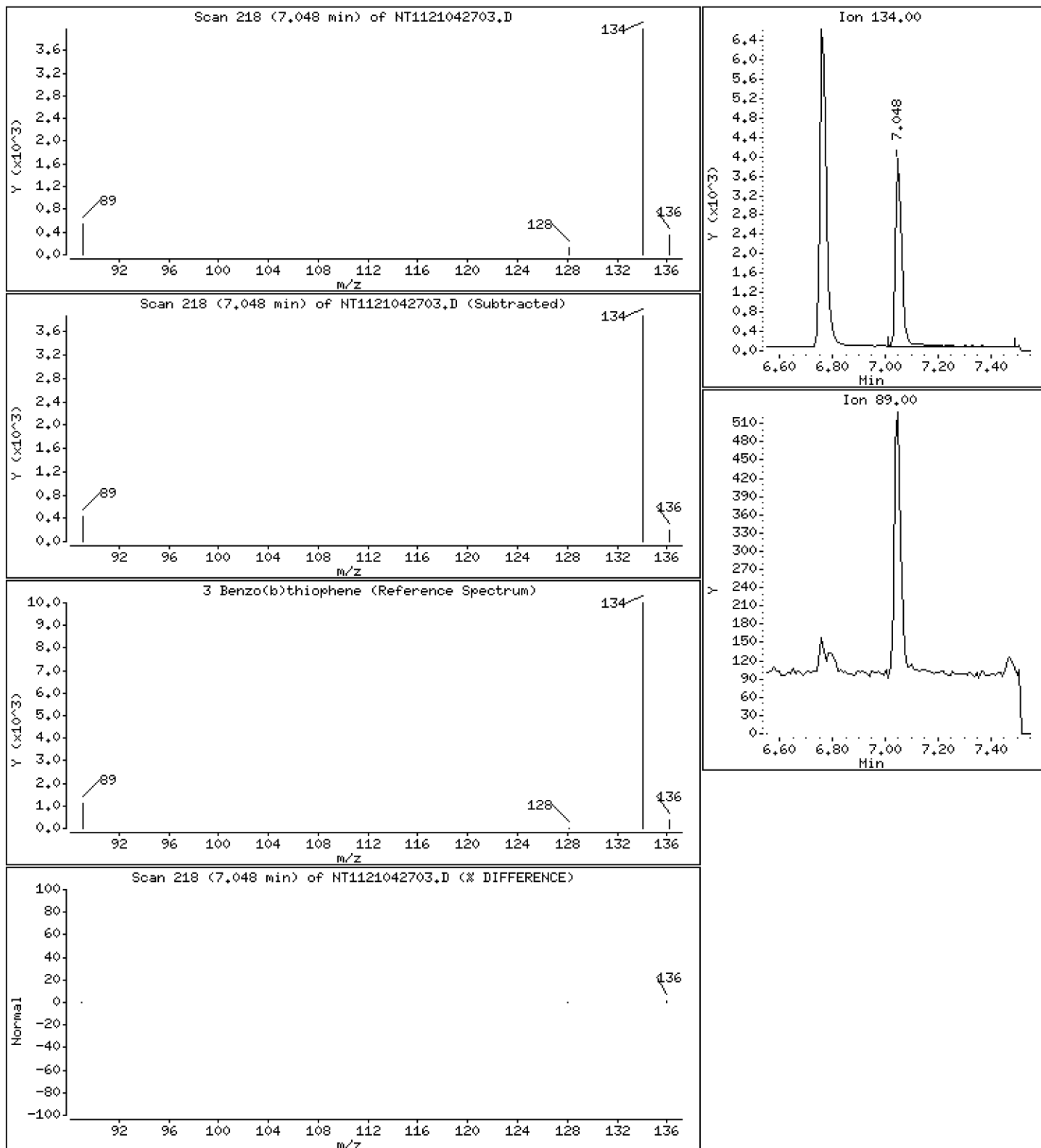
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

3 Benzo(b)thiophene

Concentration: 10,1 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

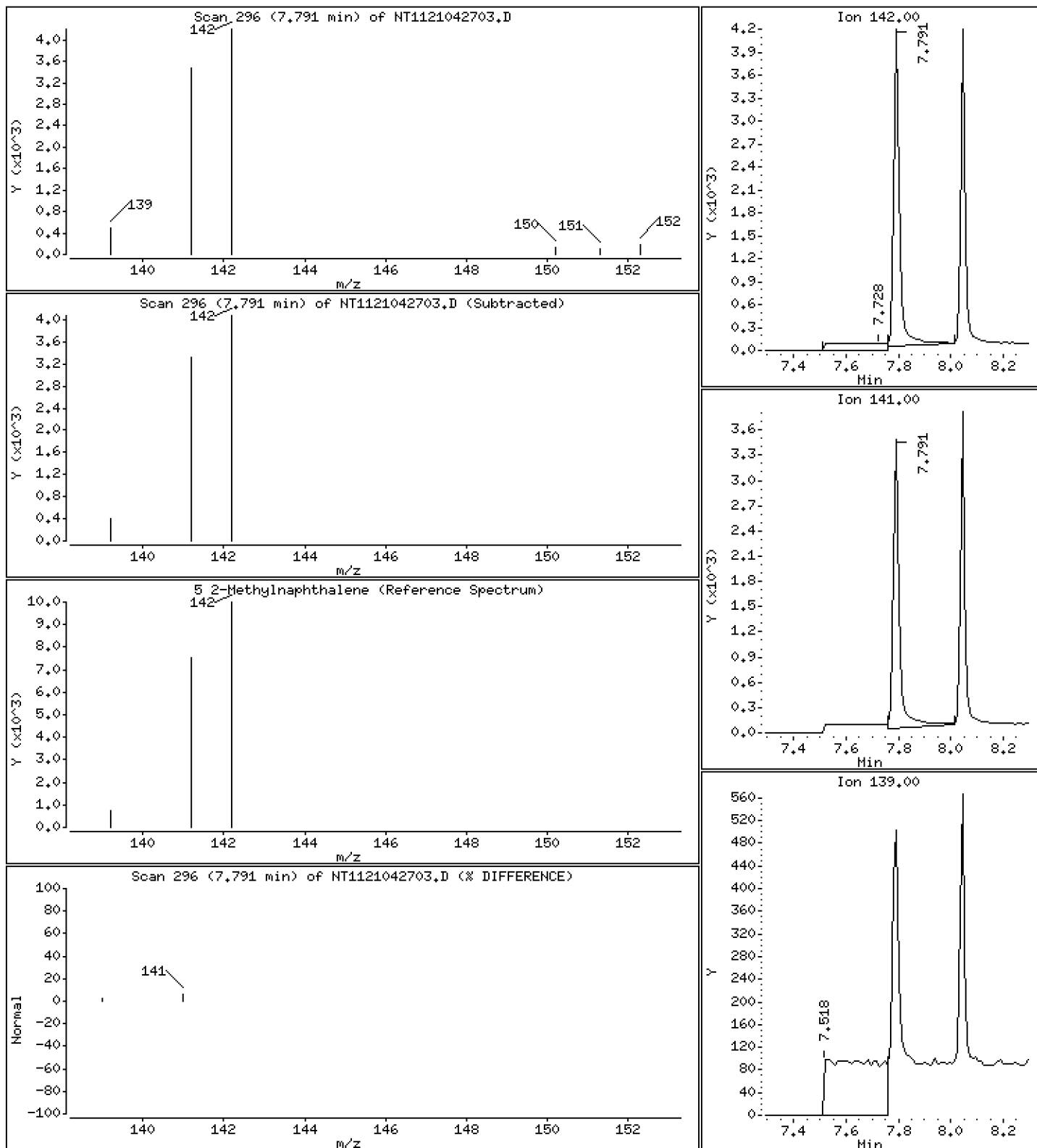
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

5-2-Methylnaphthalene

Concentration: 10,3 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

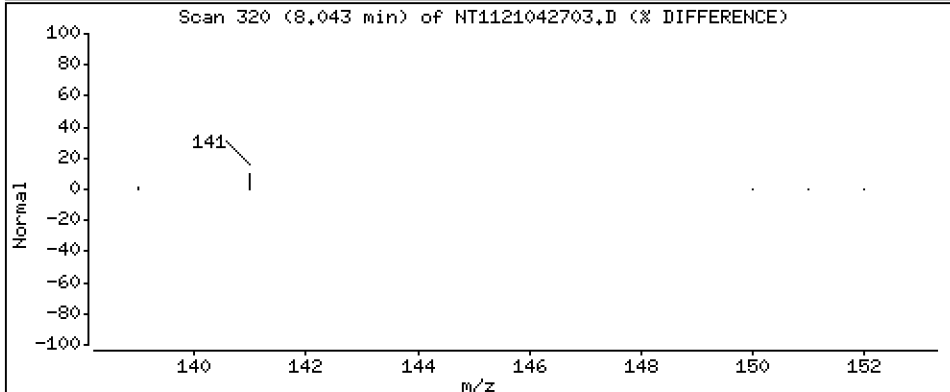
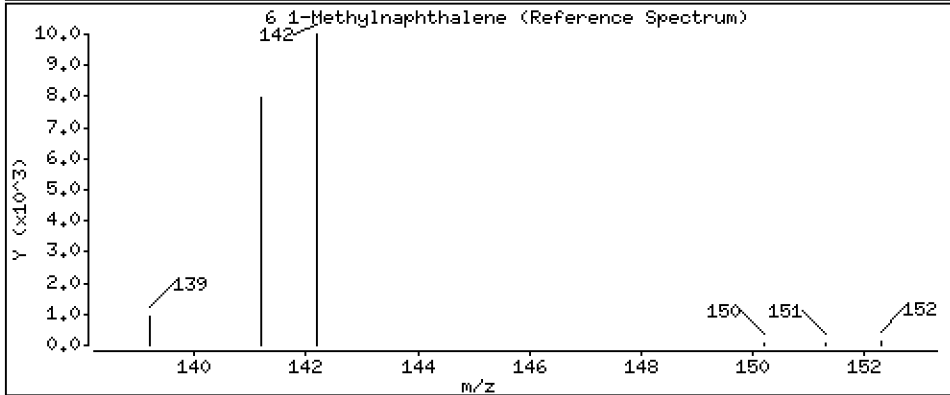
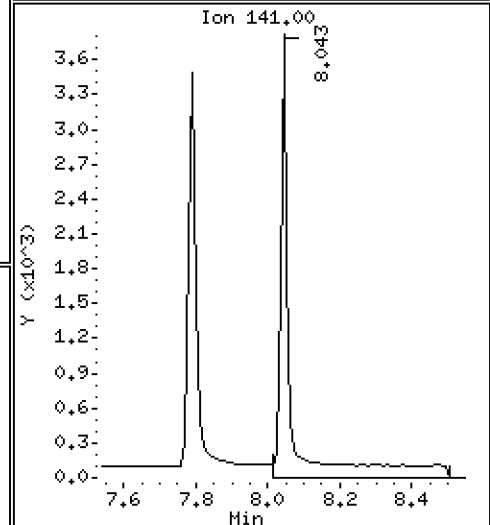
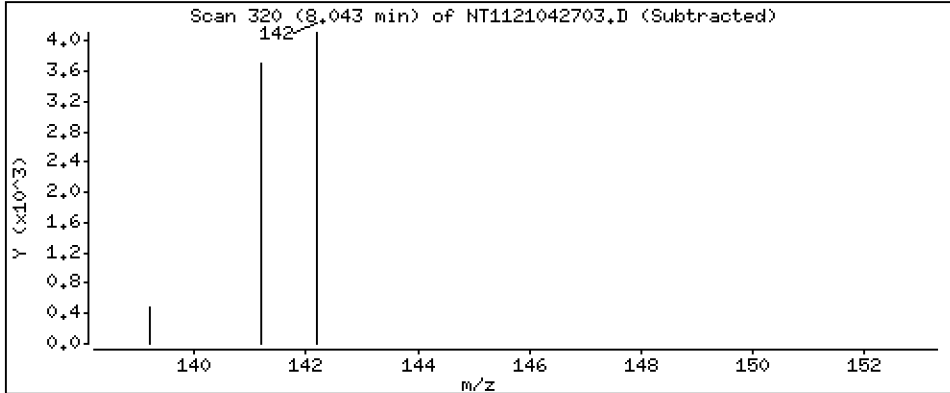
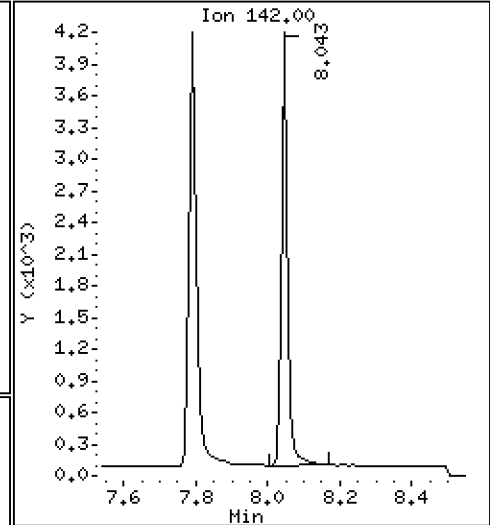
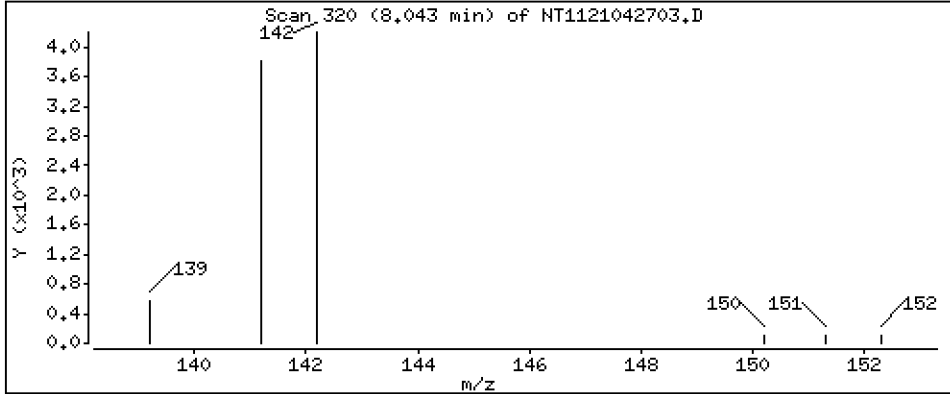
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

6 1-Methylnaphthalene

Concentration: 9,75 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

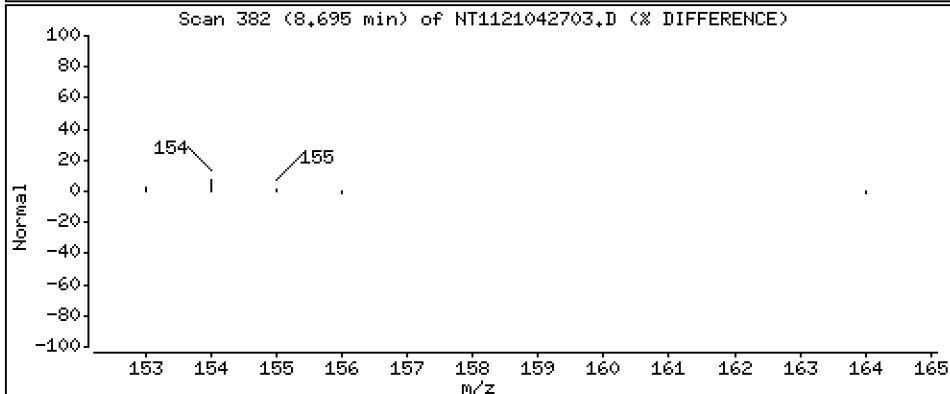
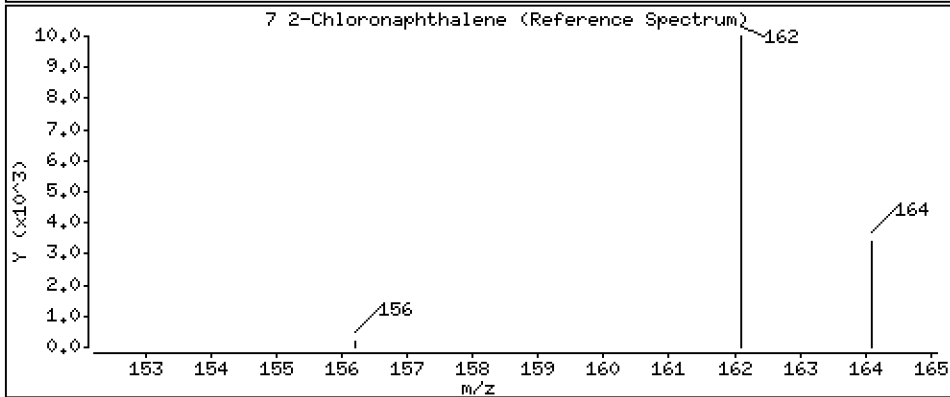
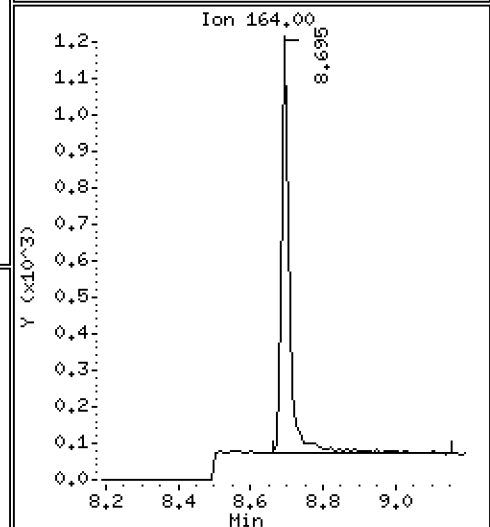
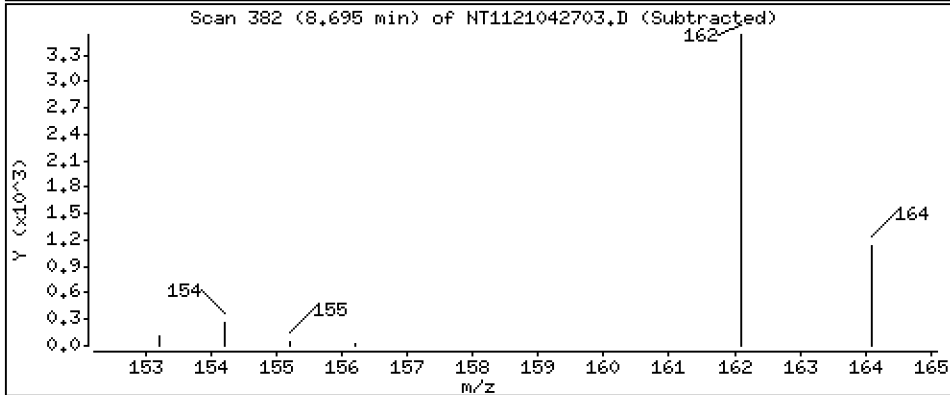
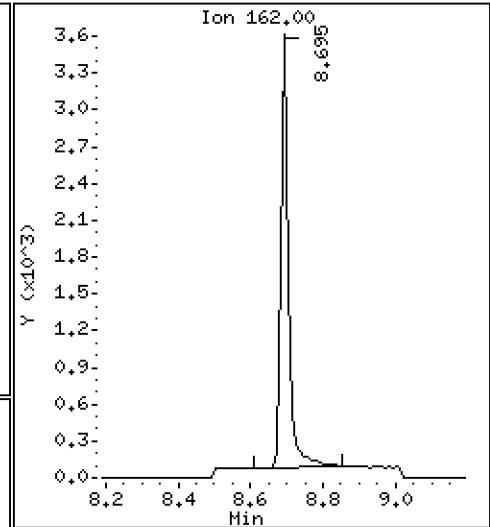
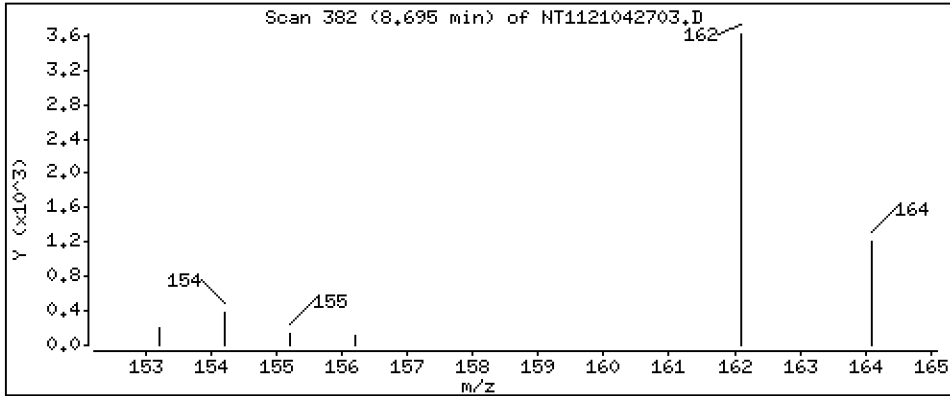
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

7 2-Chloronaphthalene

Concentration: 8,81 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

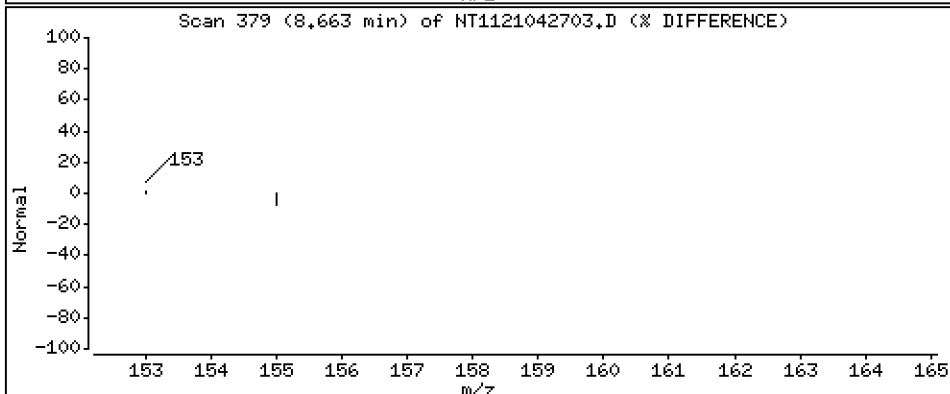
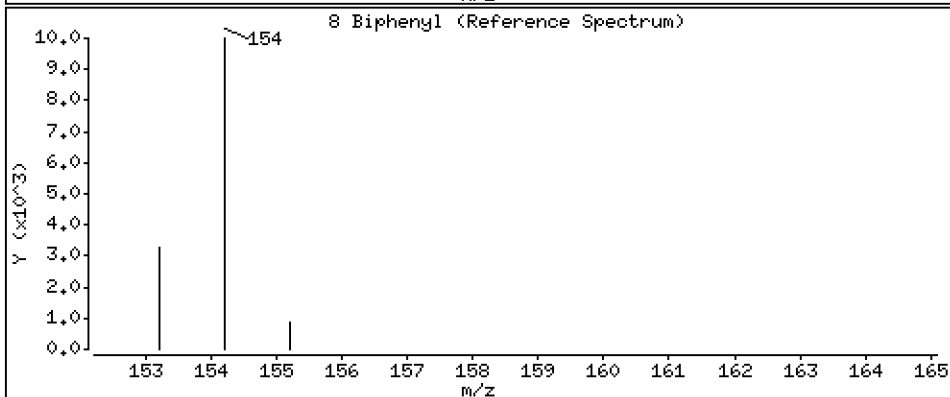
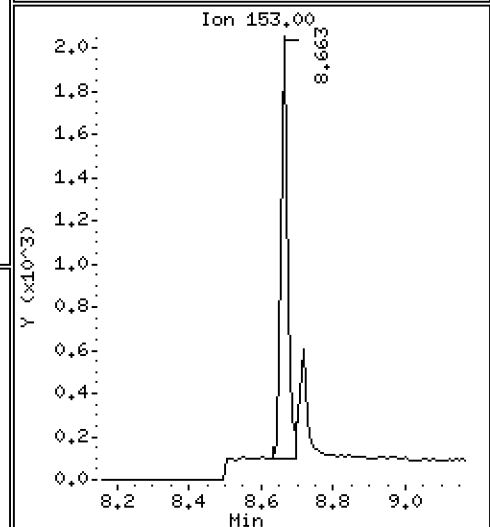
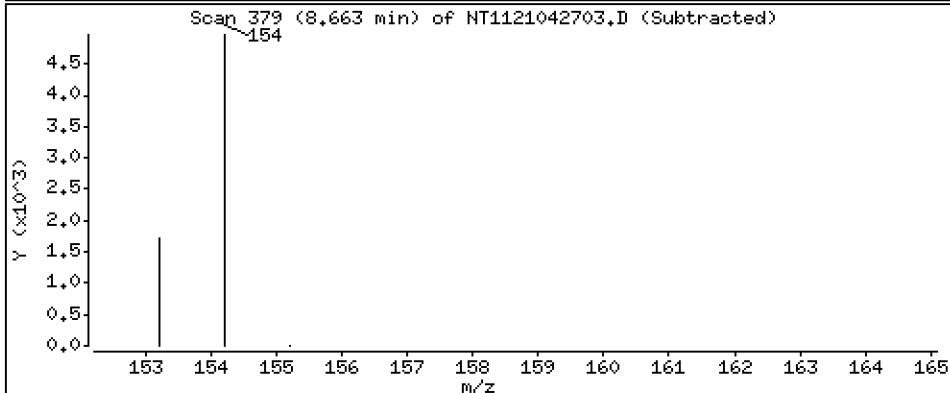
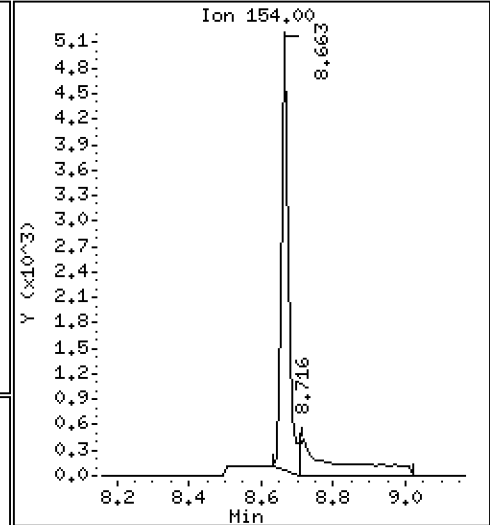
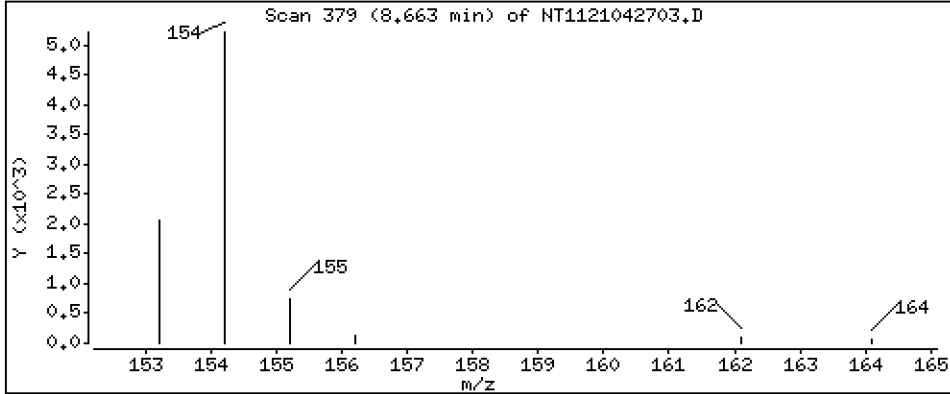
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

8 Biphenyl

Concentration: 9,07 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

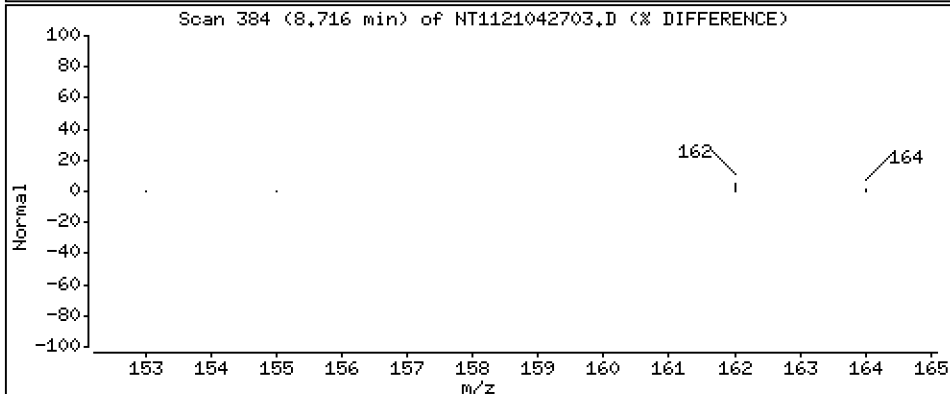
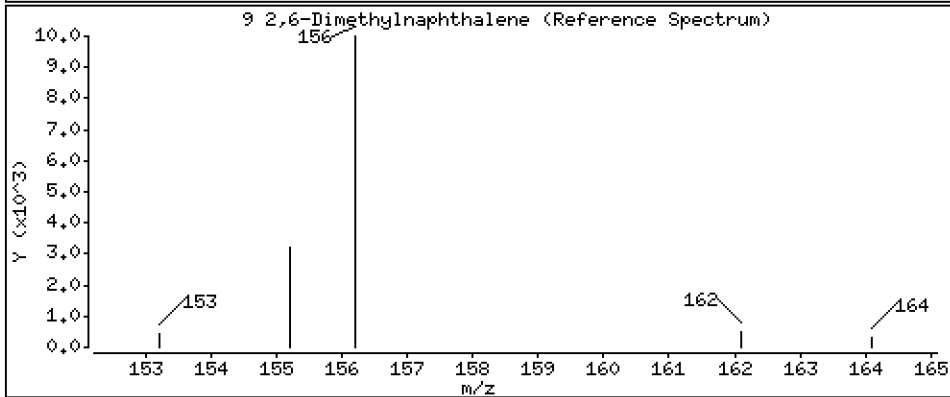
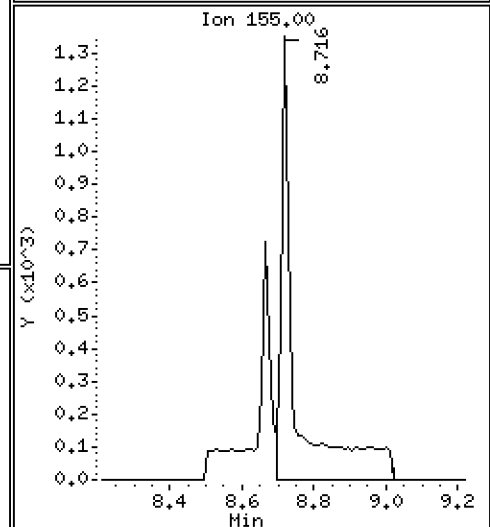
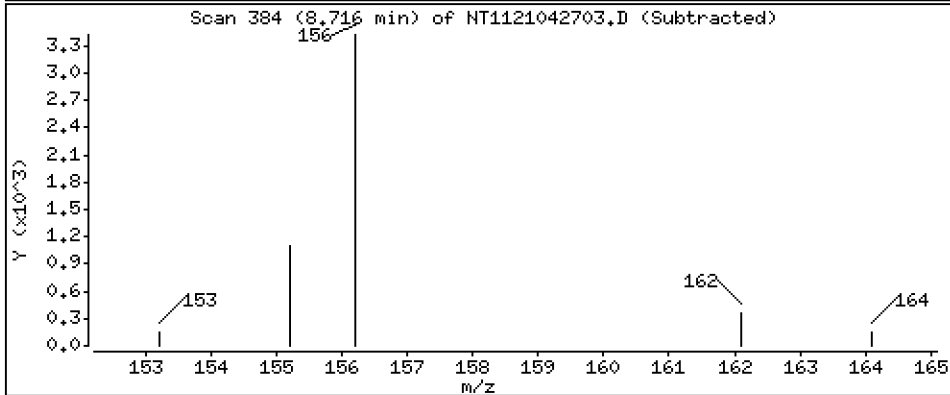
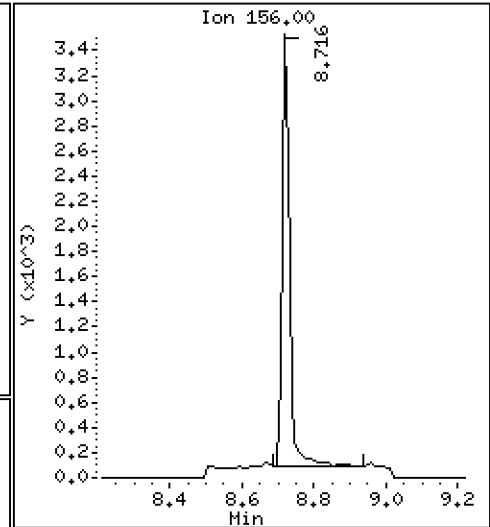
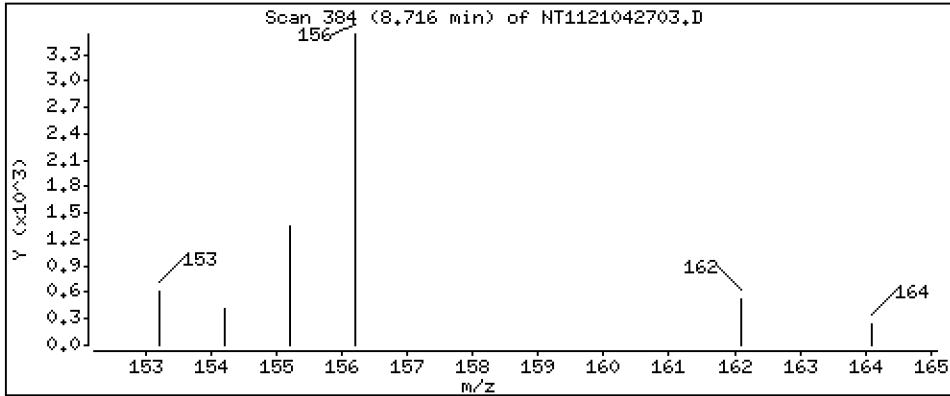
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

9,2,6-Dimethylnaphthalene

Concentration: 8.87 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

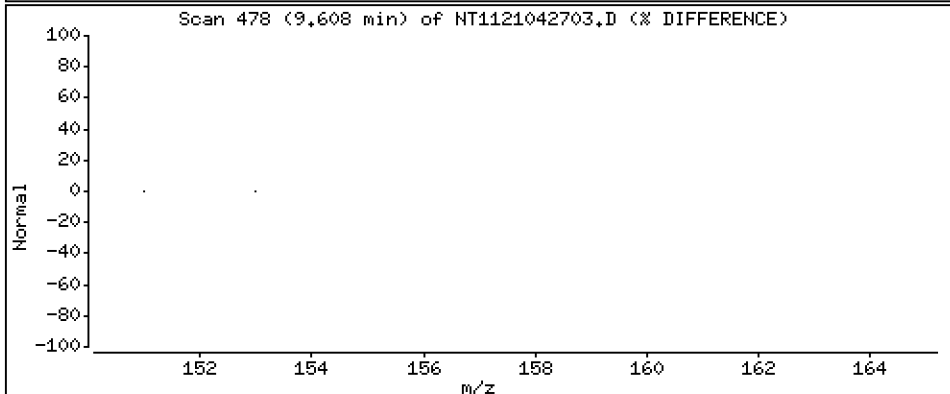
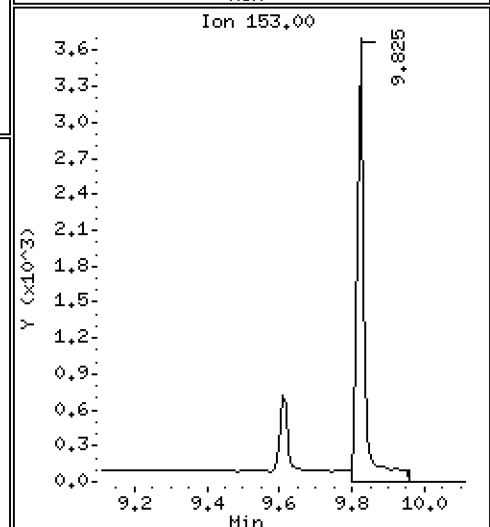
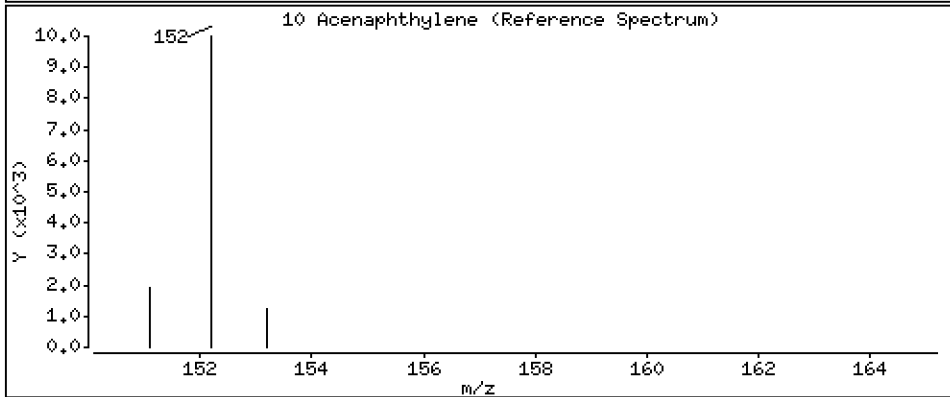
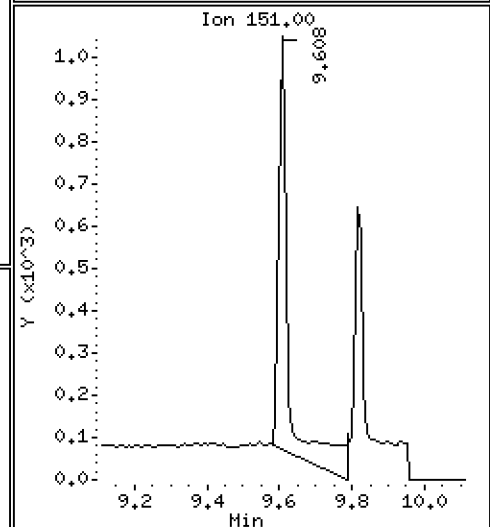
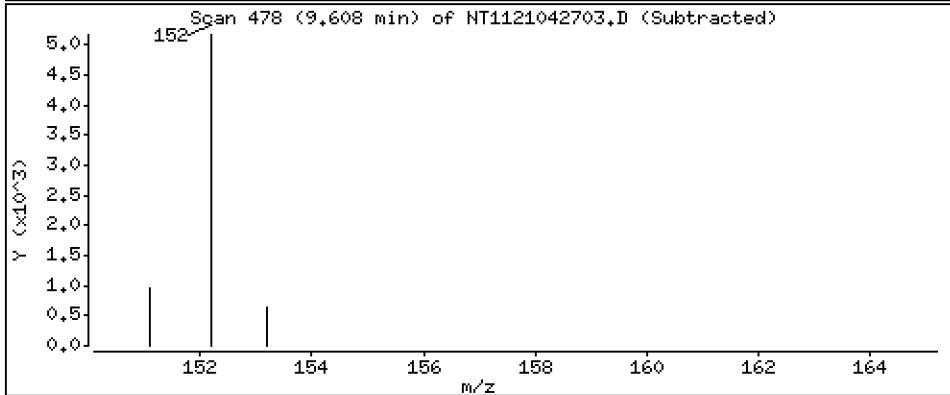
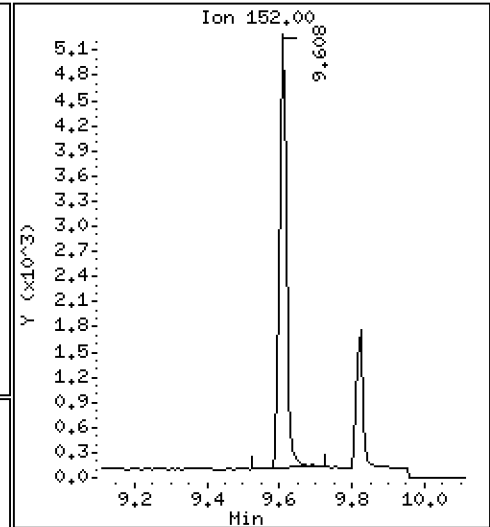
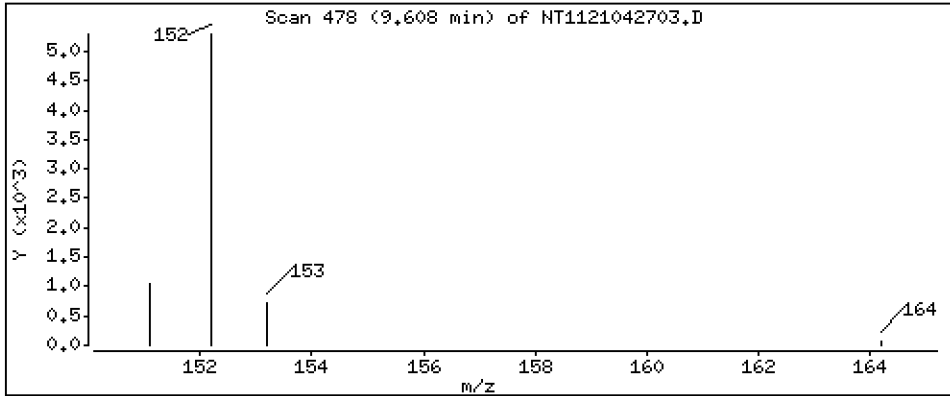
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

10 Acenaphthylene

Concentration: 8.82 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

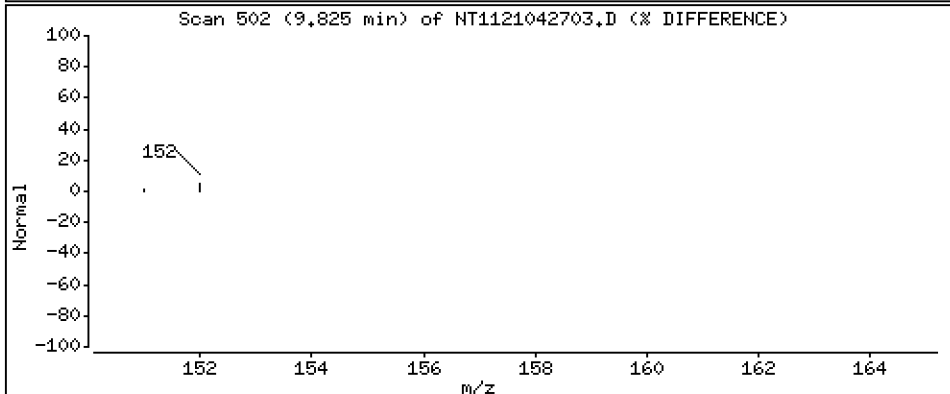
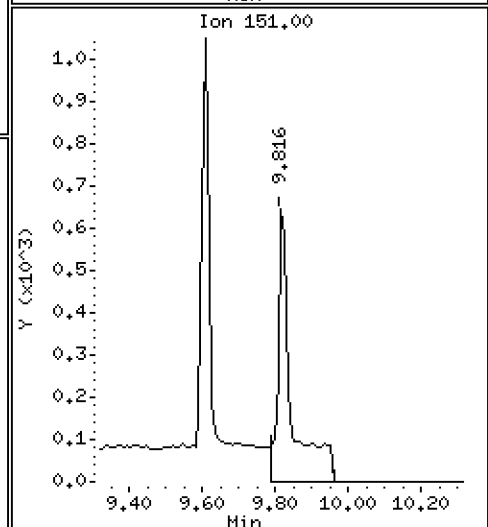
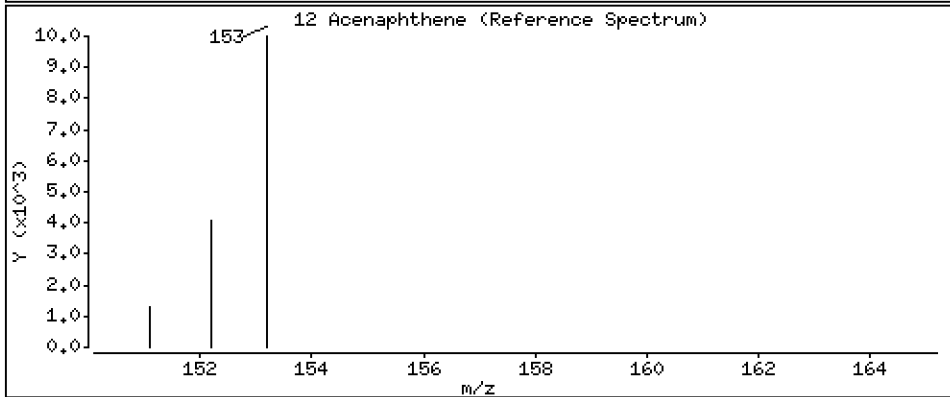
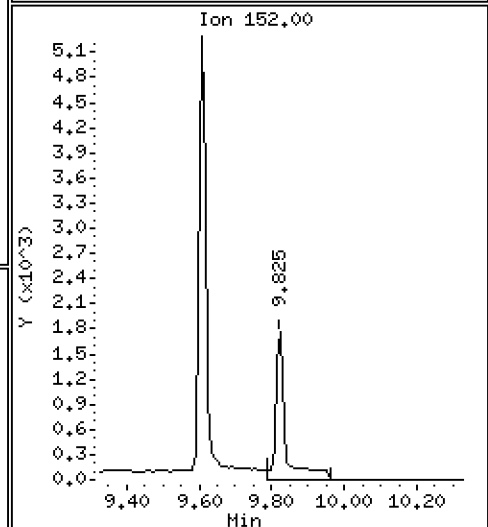
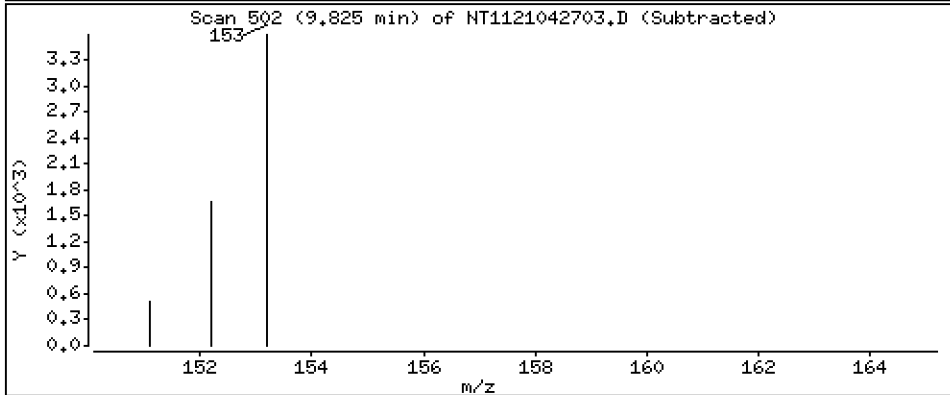
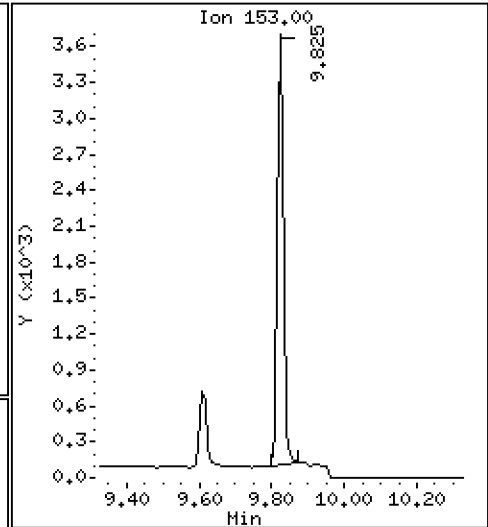
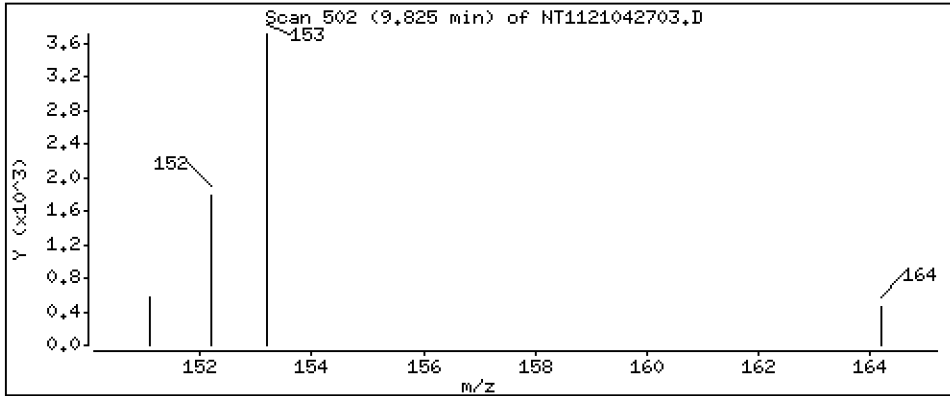
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

Concentration: 8,47 ng/mL

12 Acenaphthene



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

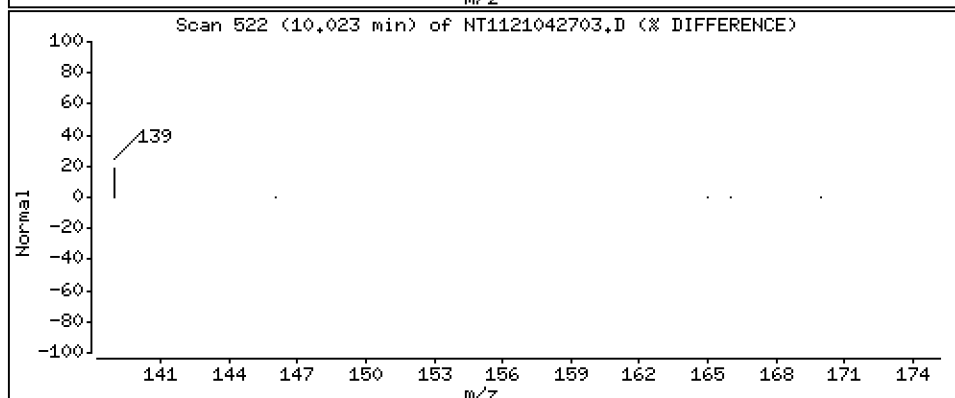
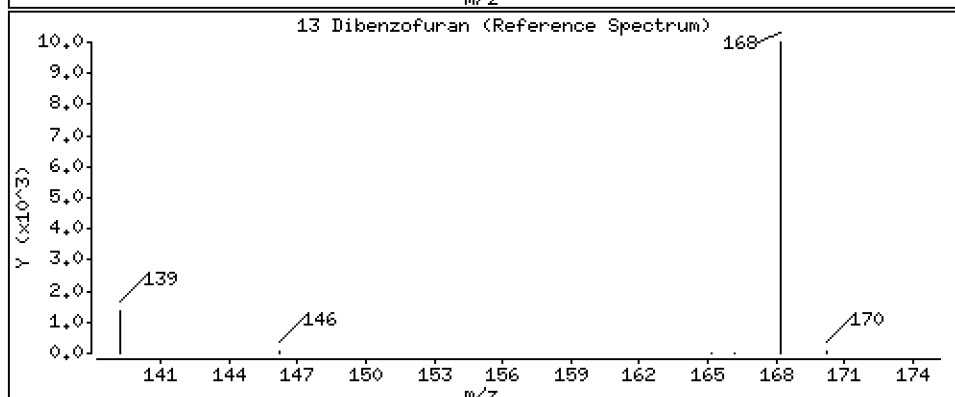
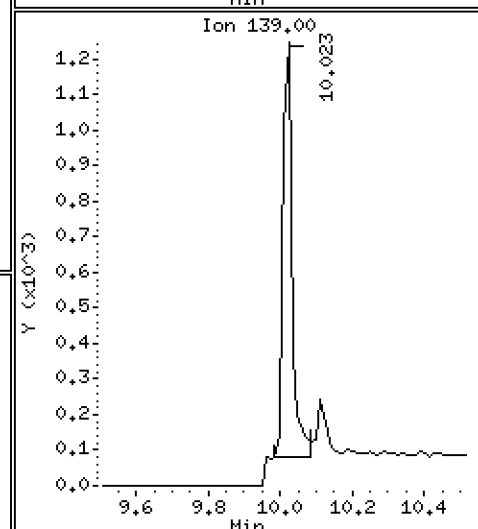
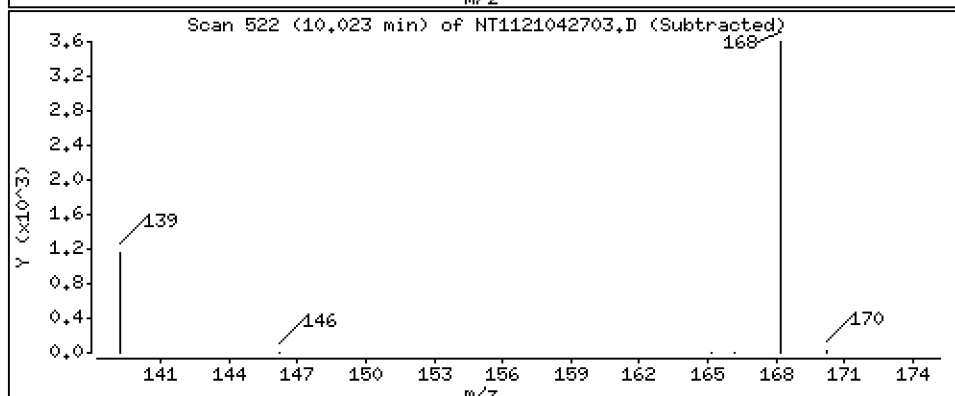
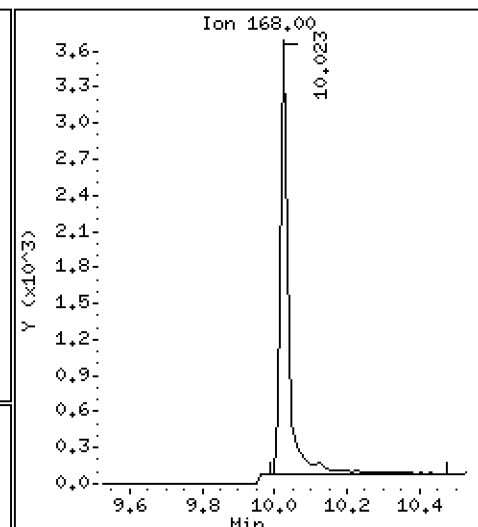
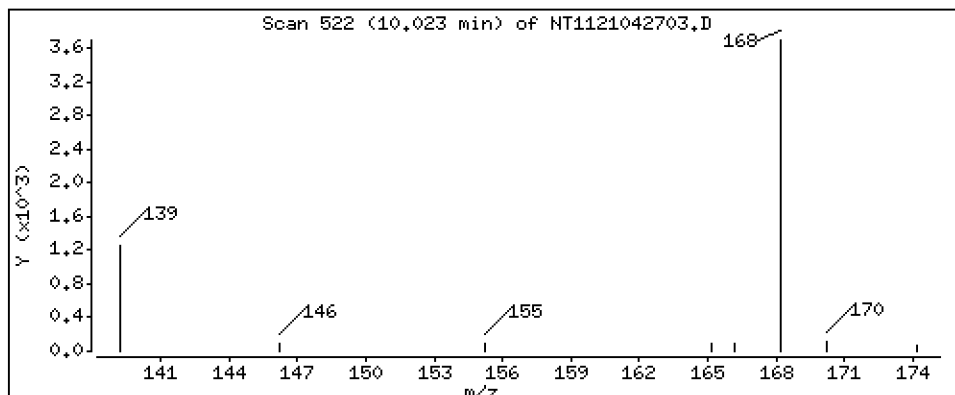
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

13 Dibenzofuran

Concentration: 8,86 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

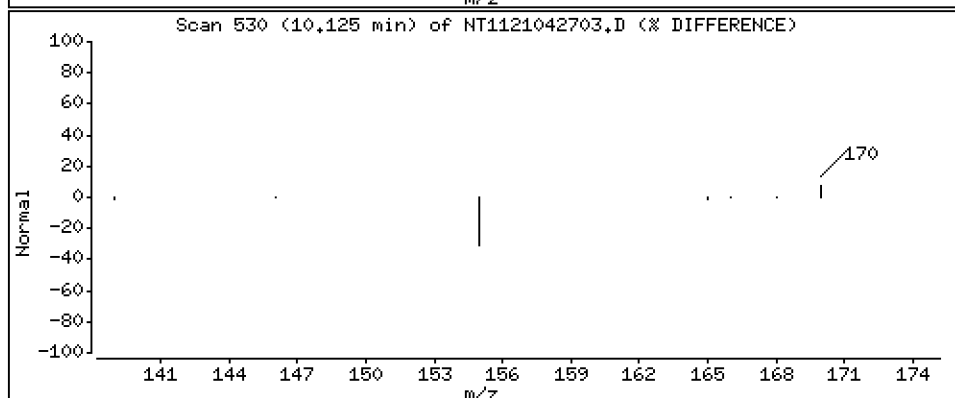
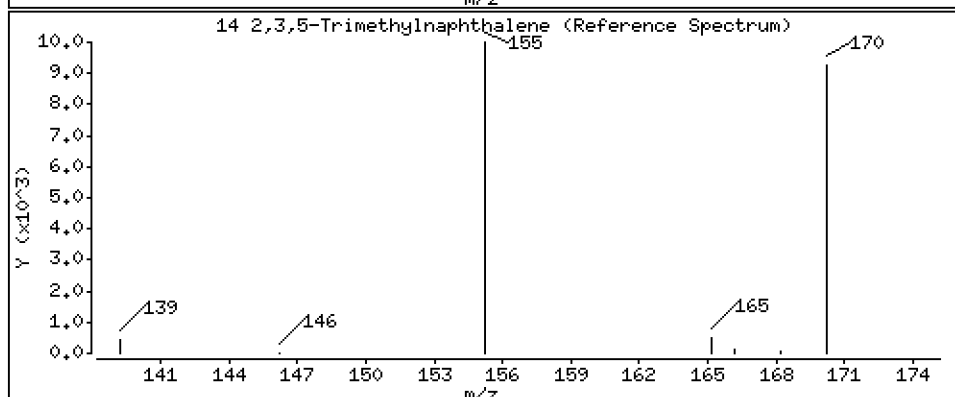
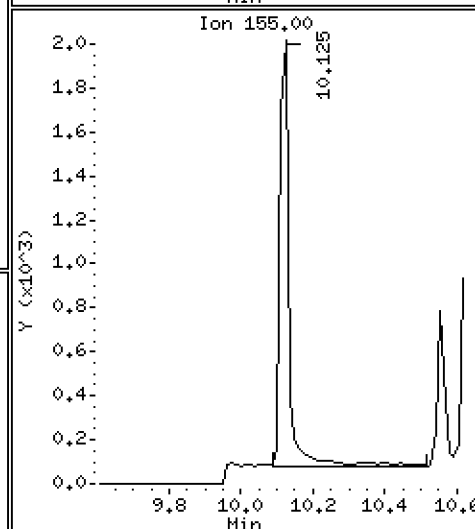
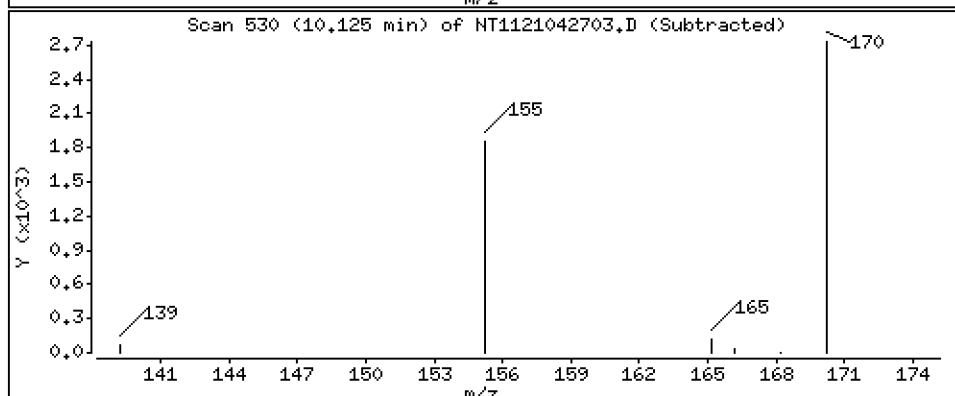
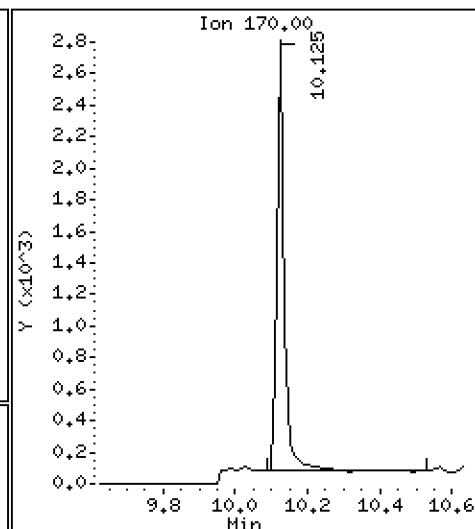
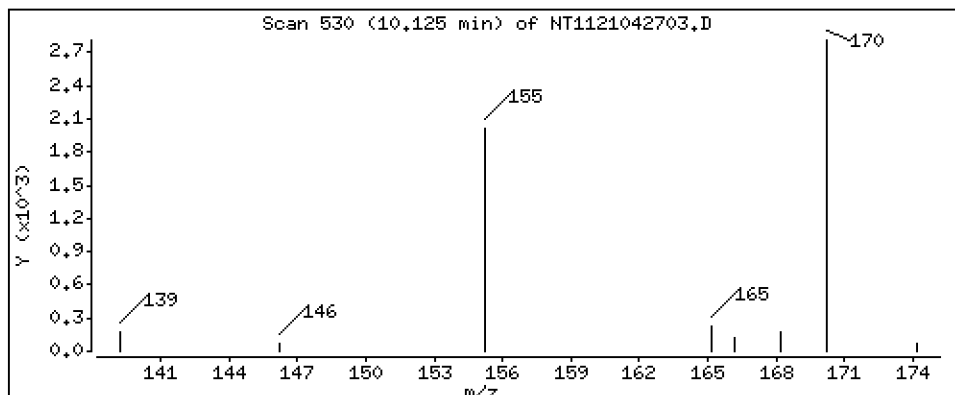
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

14 2,3,5-Trimethylnaphthalene

Concentration: 8,99 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

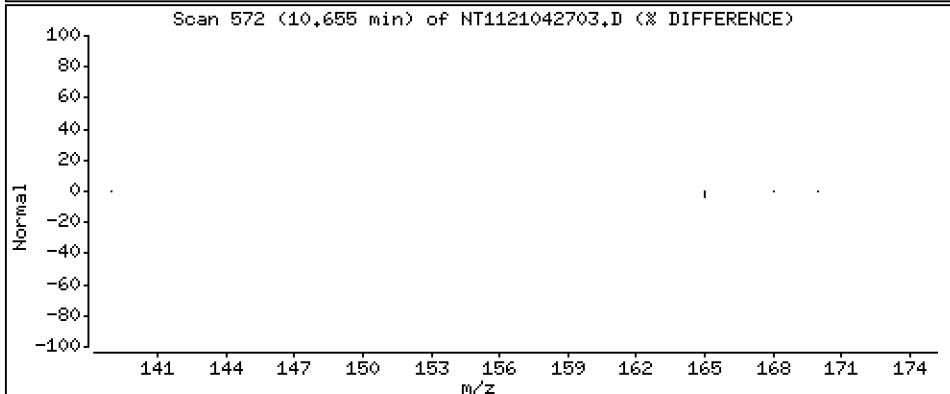
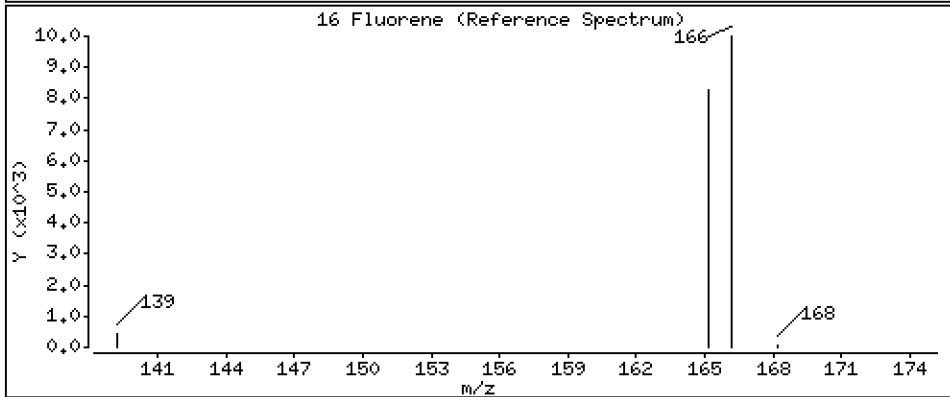
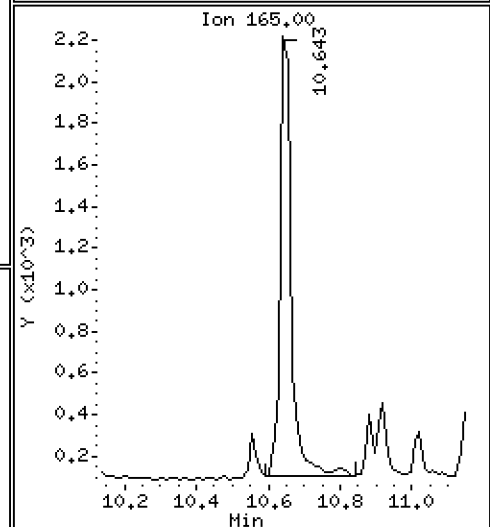
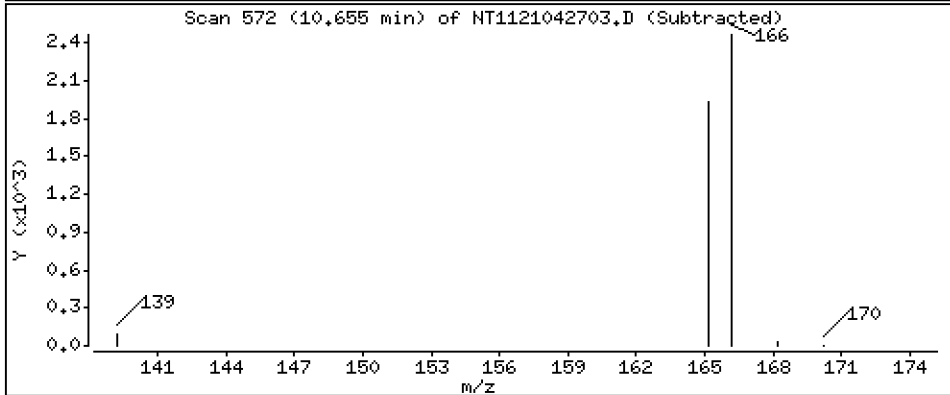
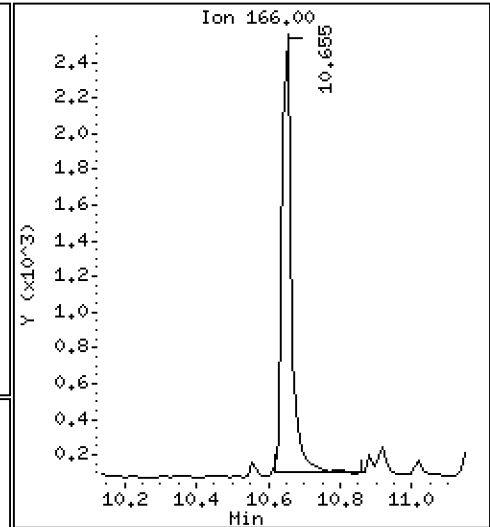
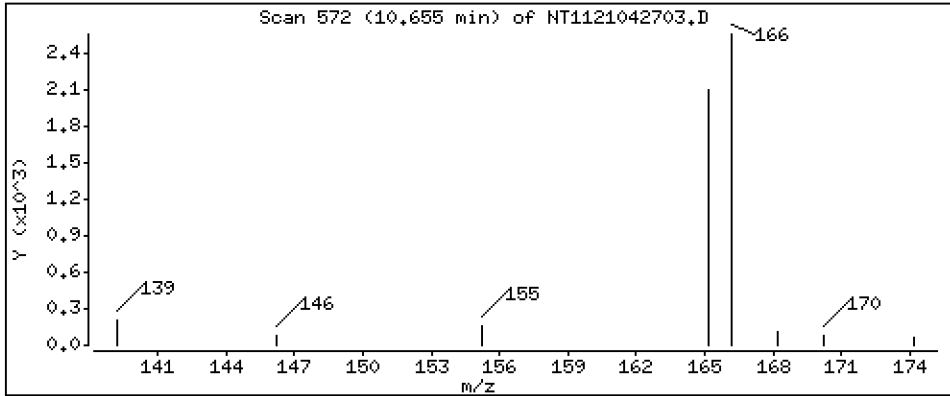
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 Fluorene

Concentration: 8,65 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

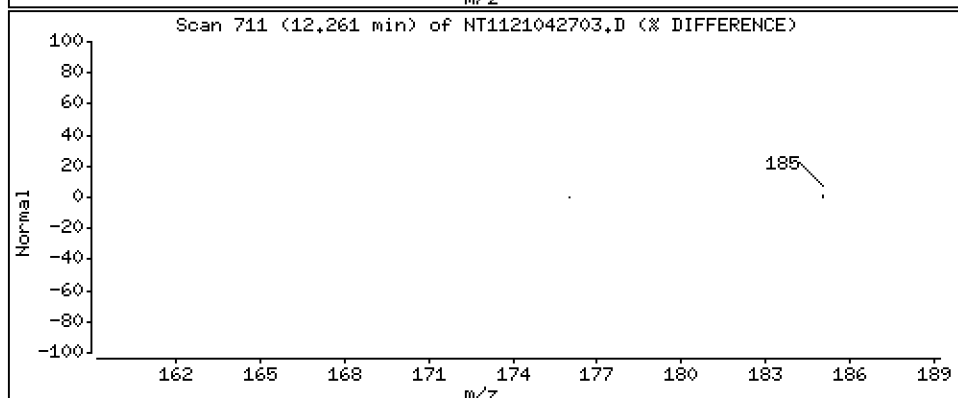
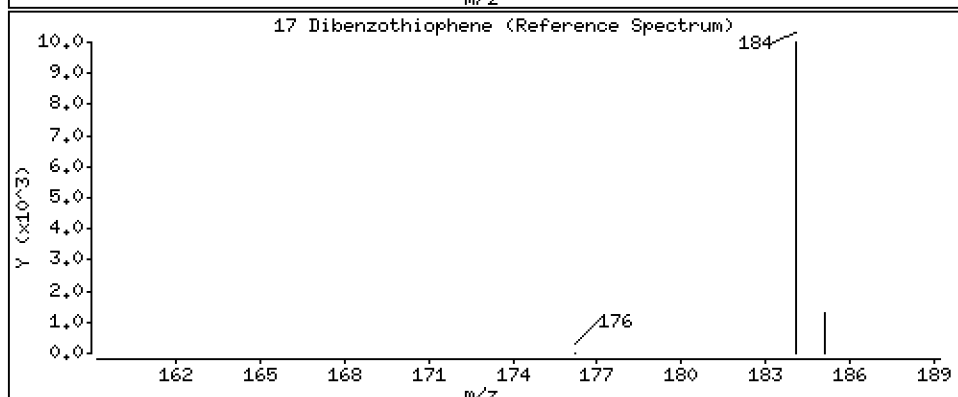
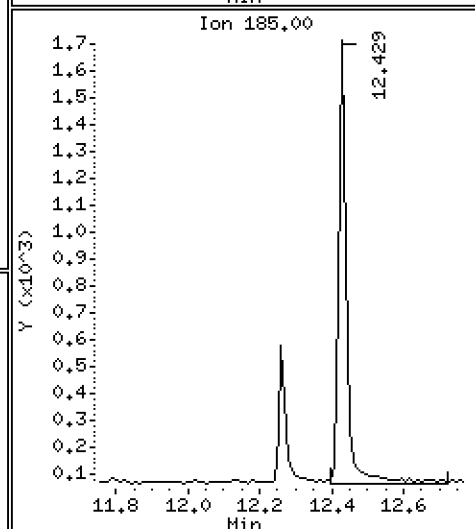
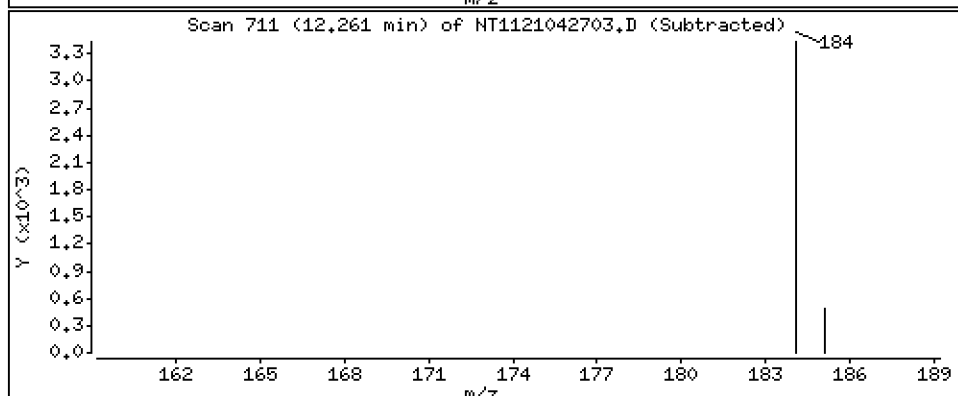
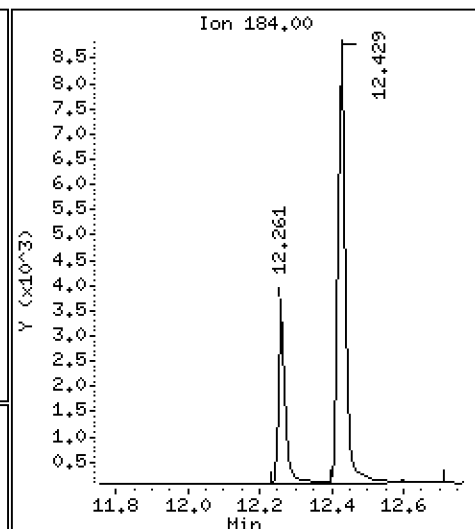
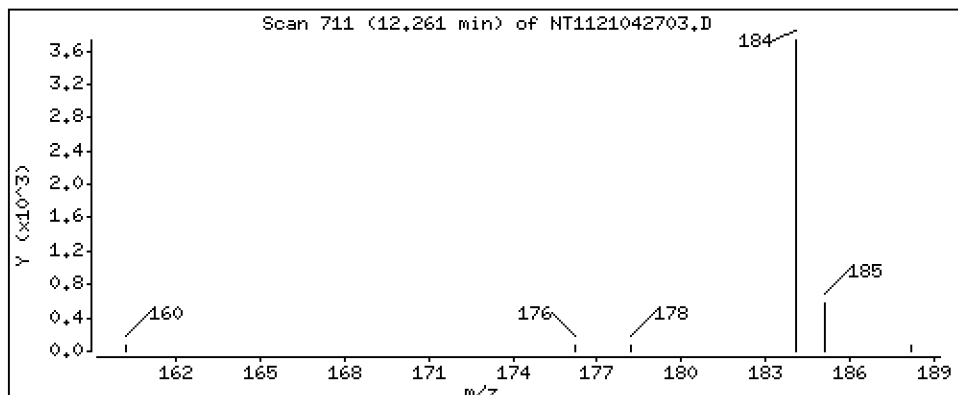
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 Dibenzothiophene

Concentration: 9,78 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

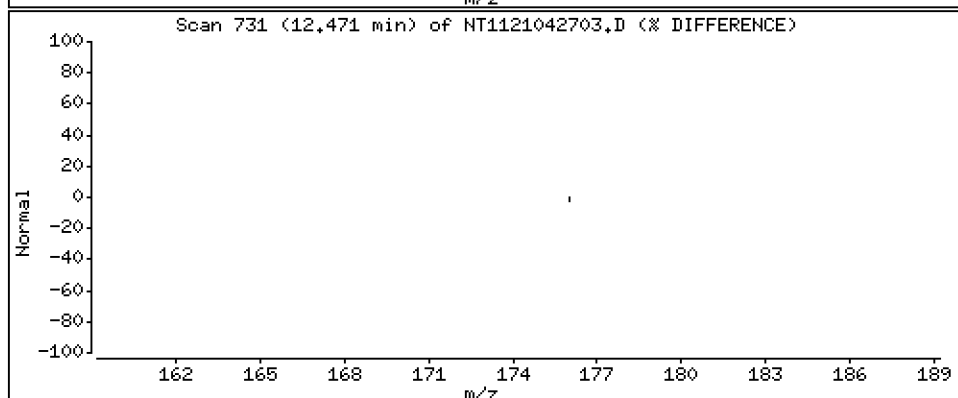
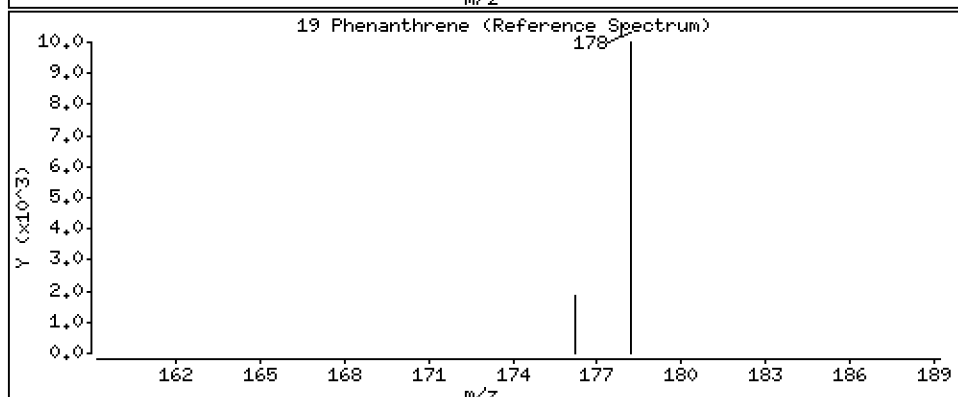
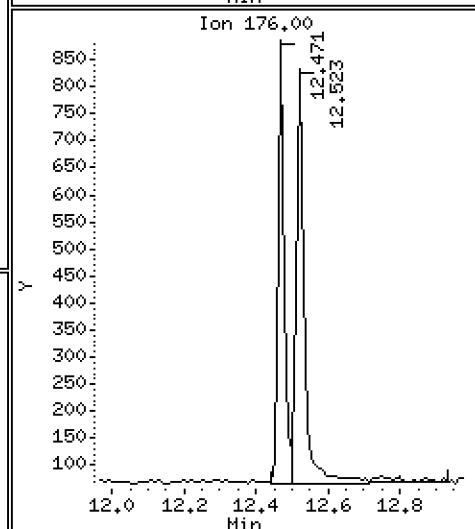
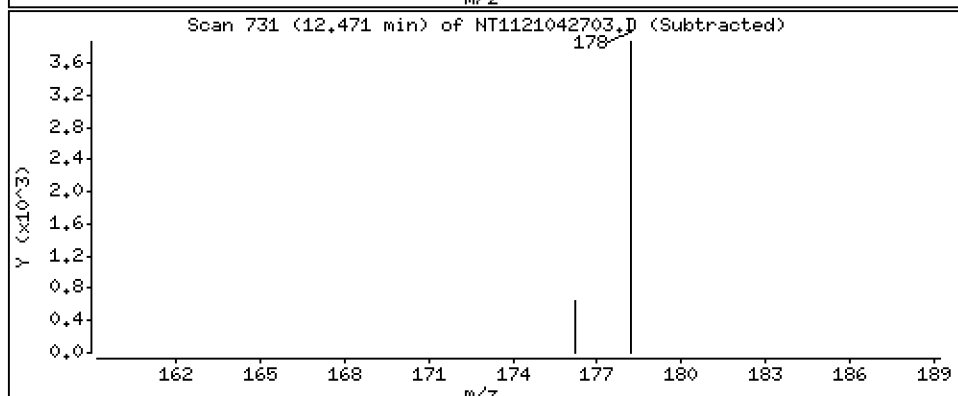
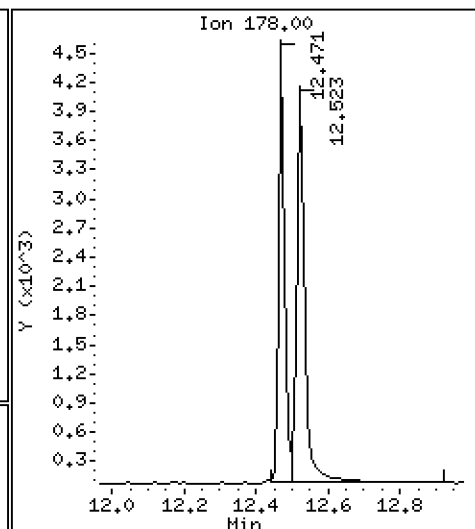
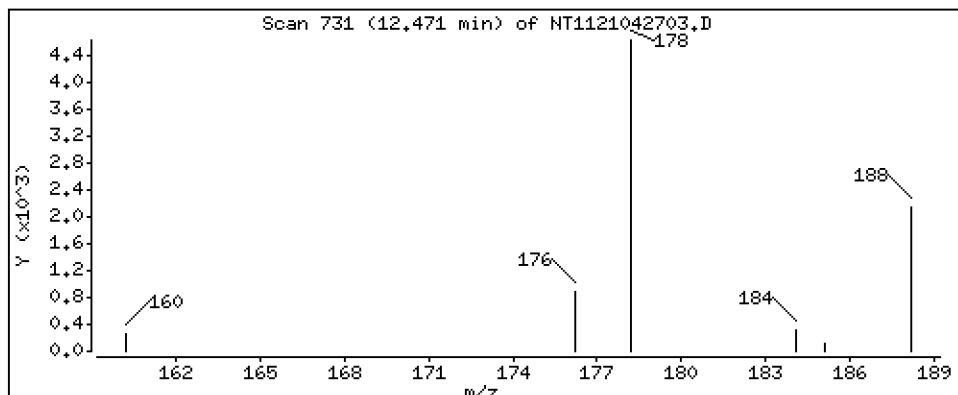
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 Phenanthrene

Concentration: 9,34 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

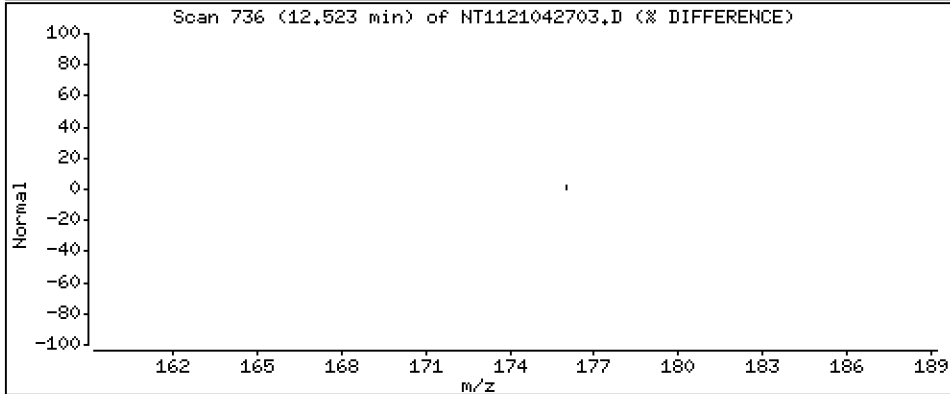
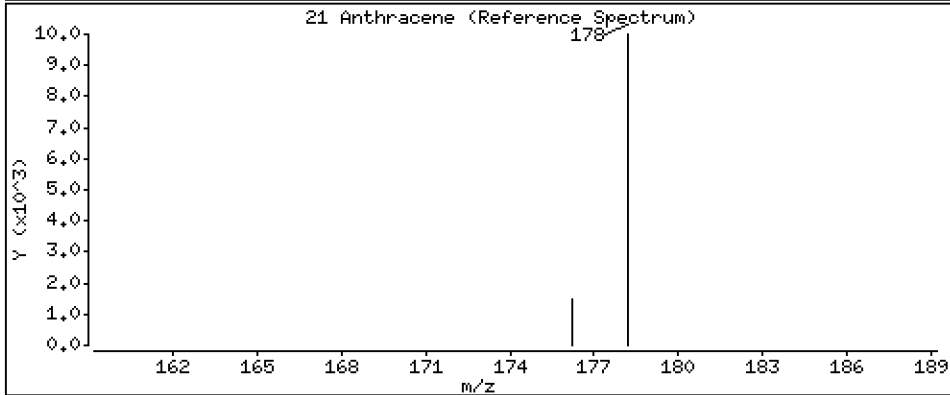
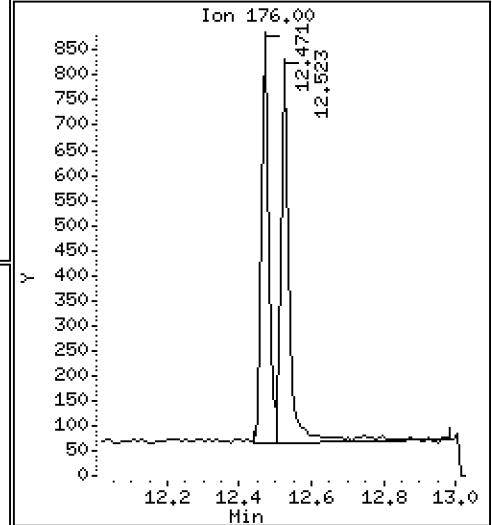
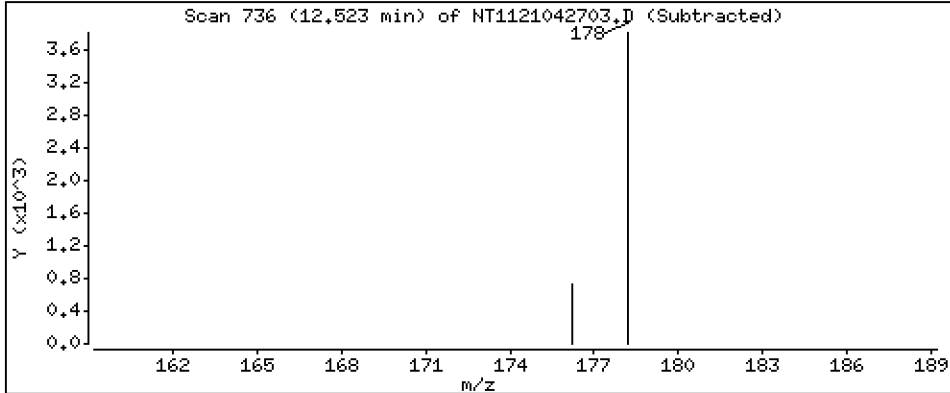
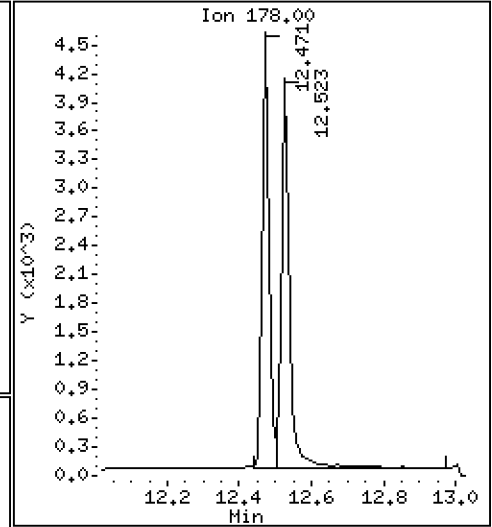
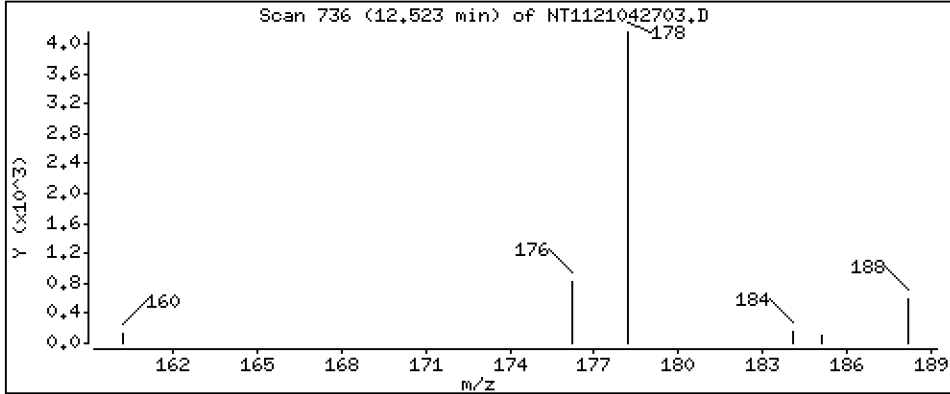
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

21 Anthracene

Concentration: 9,77 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

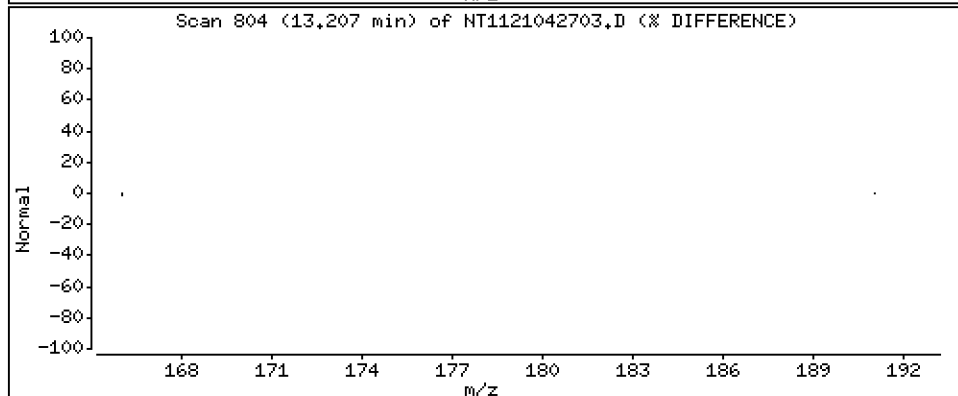
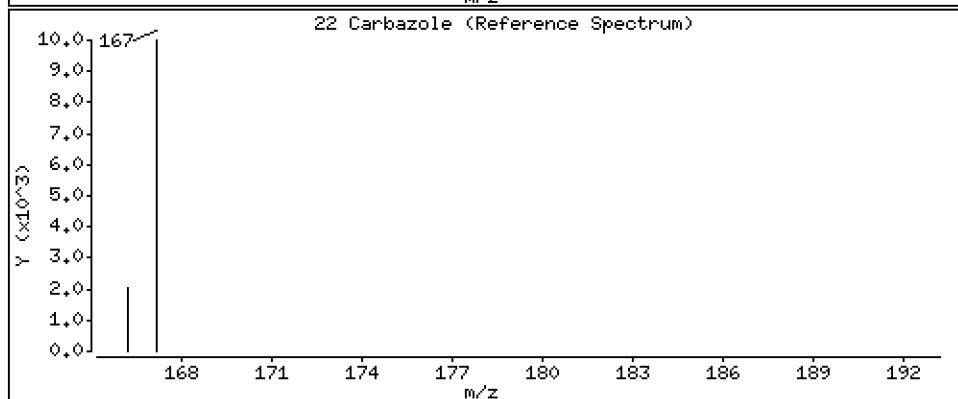
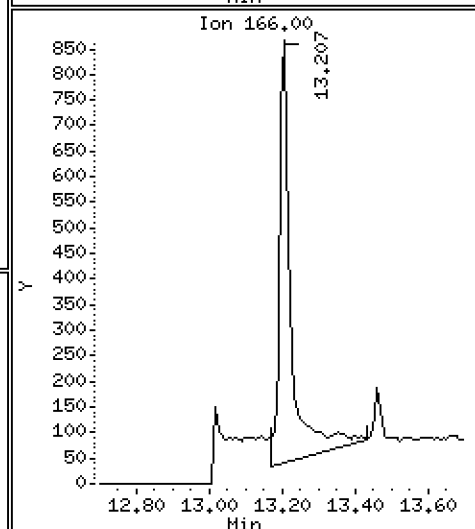
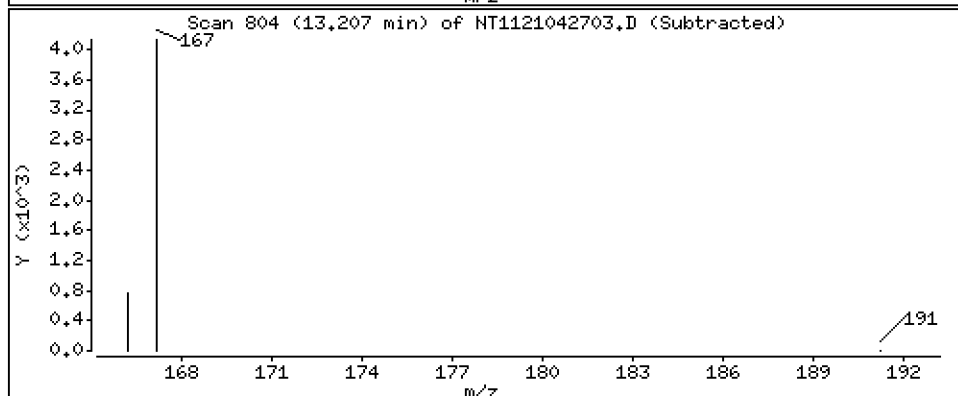
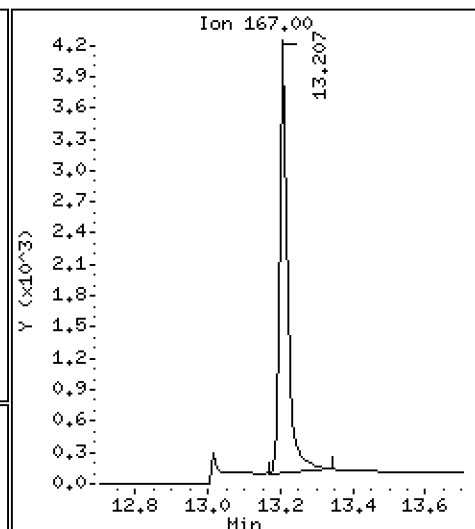
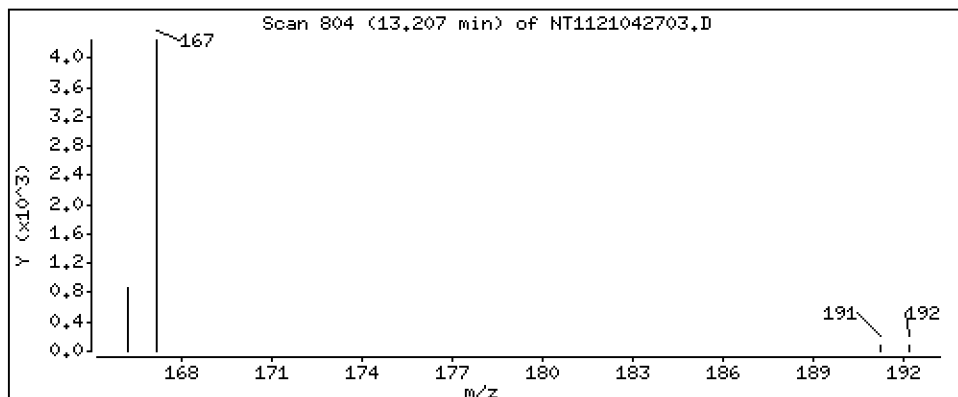
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Carbazole

Concentration: 9,42 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

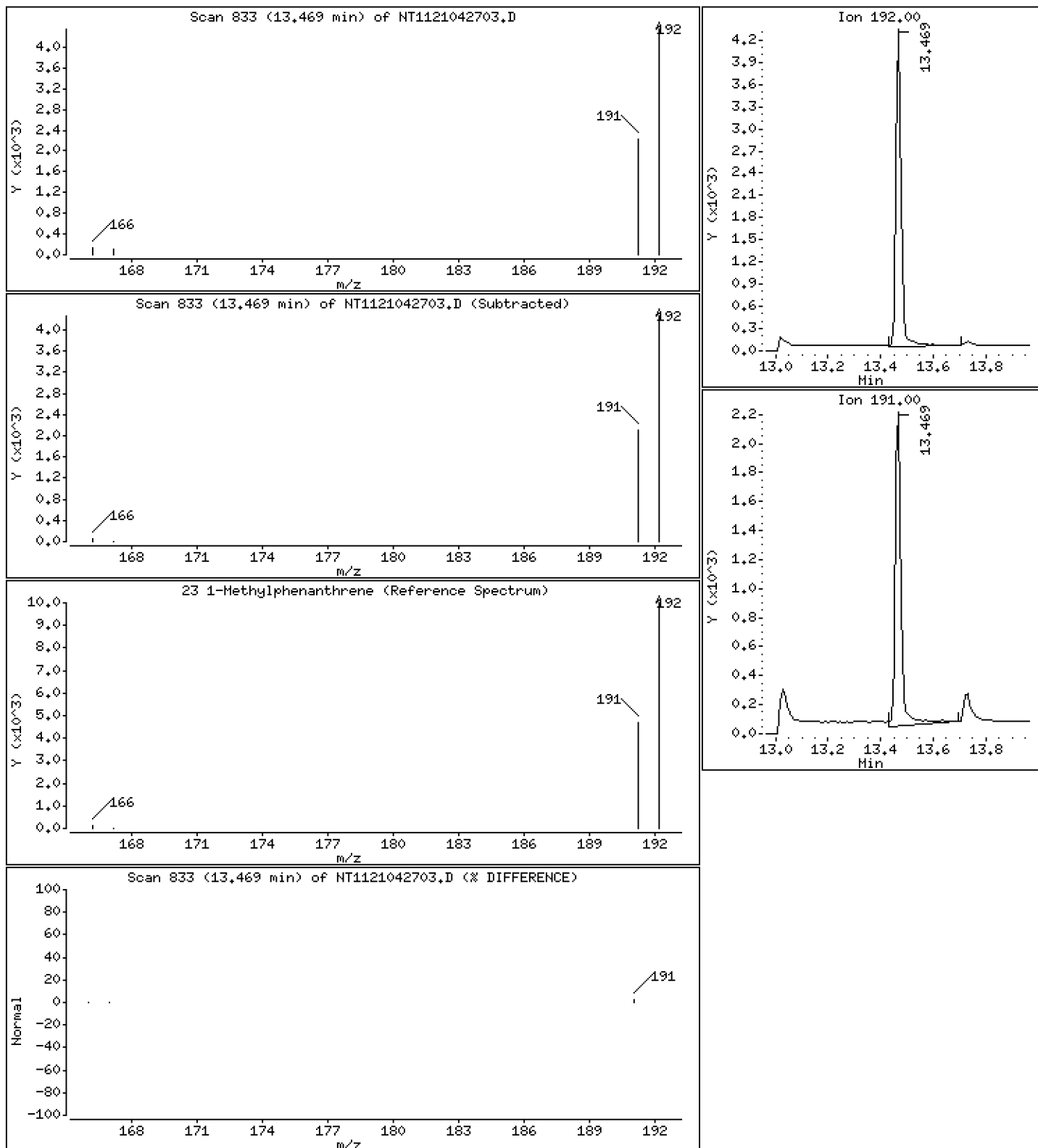
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 1-Methylphenanthrene

Concentration: 10,2 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

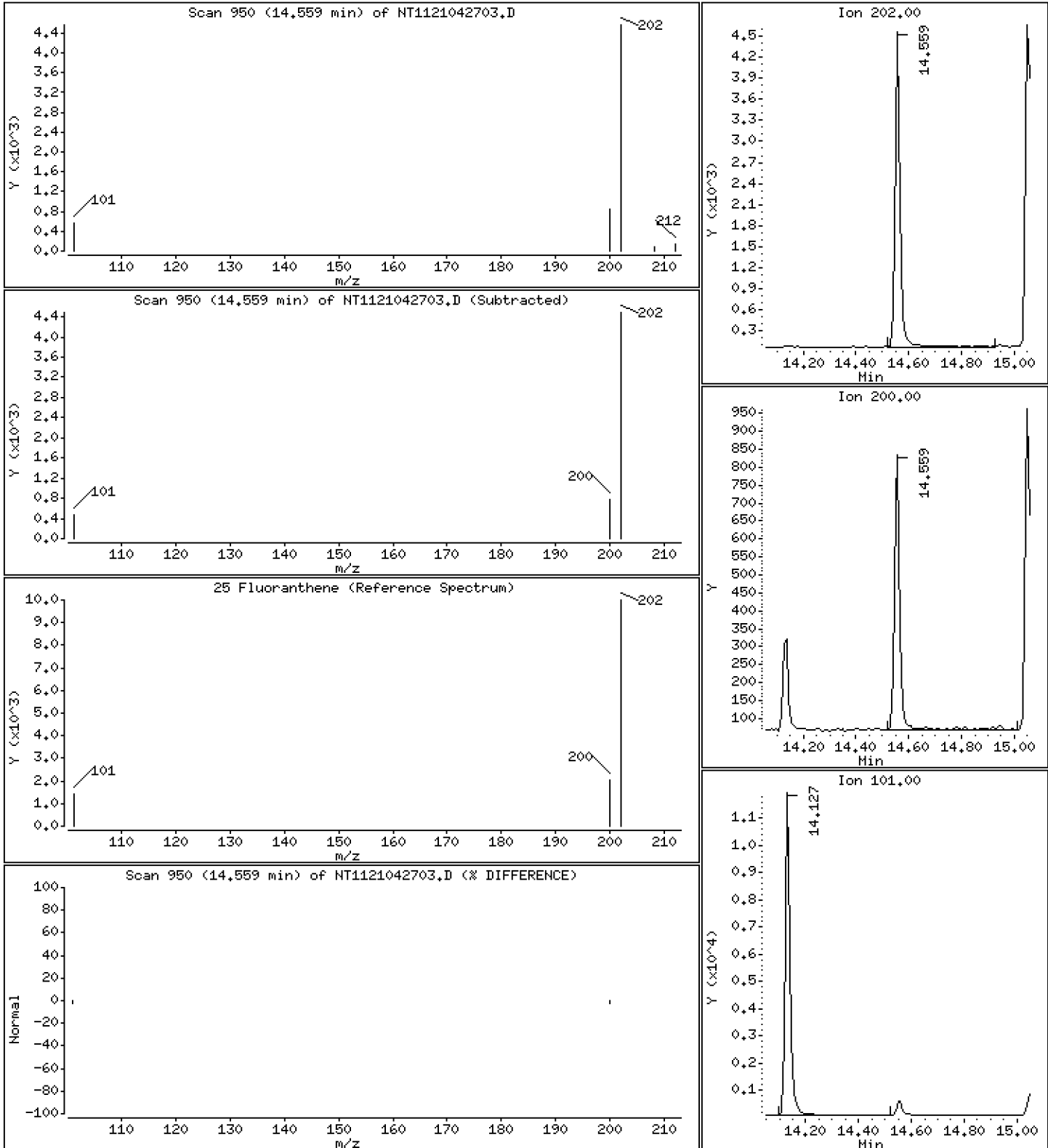
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

25 Fluoranthene

Concentration: 9,87 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

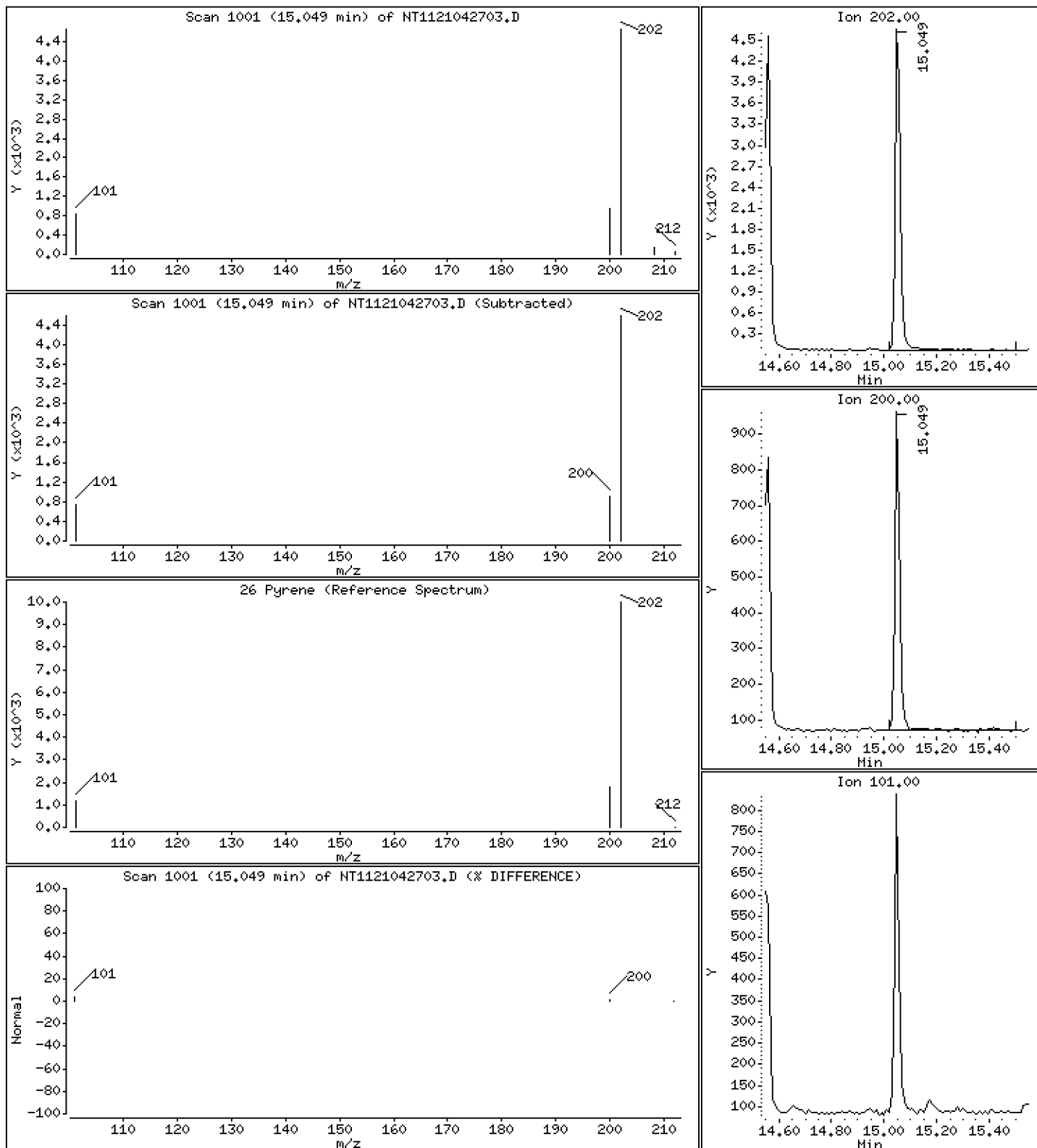
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Pyrene

Concentration: 10,0 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

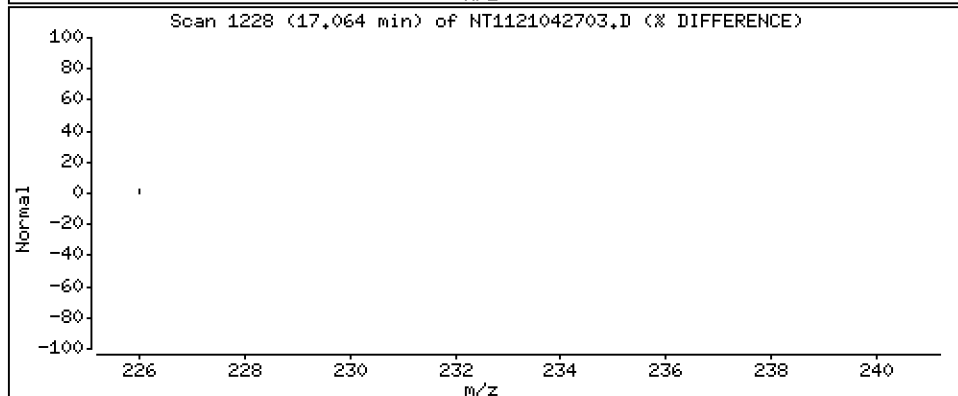
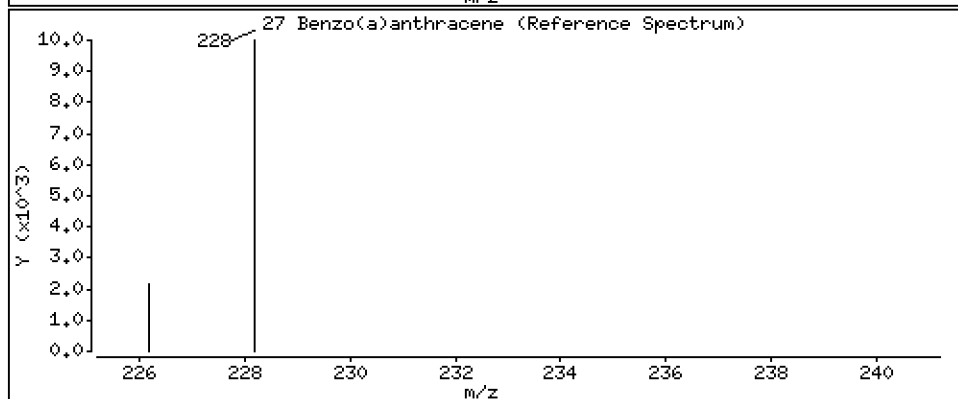
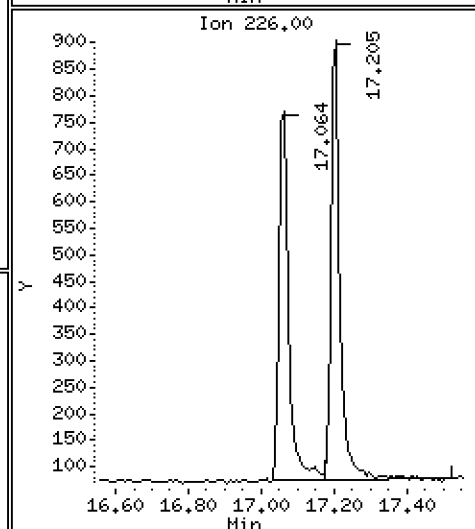
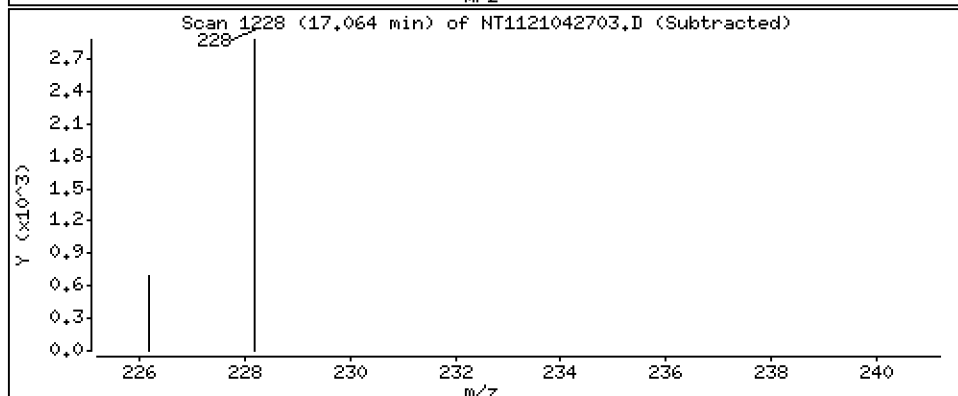
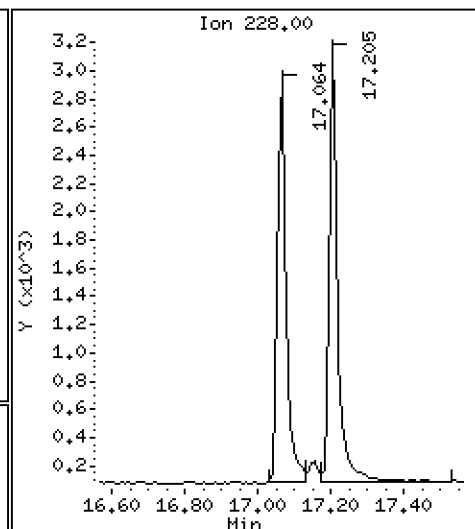
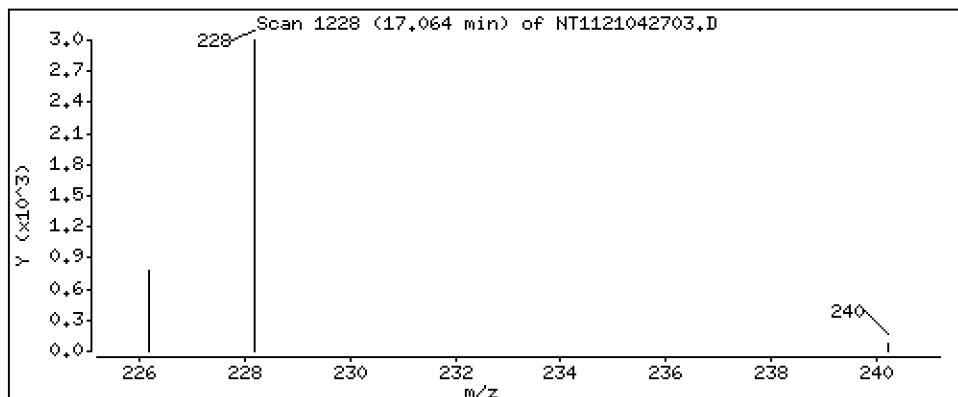
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

27 Benzo(a)anthracene

Concentration: 9,48 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

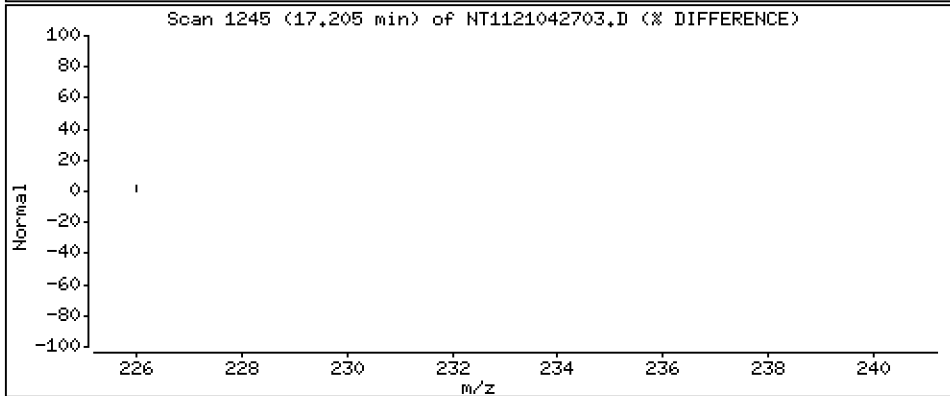
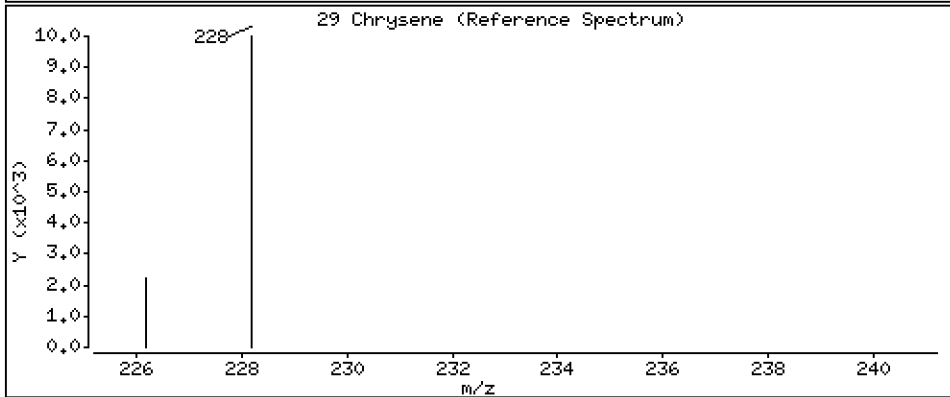
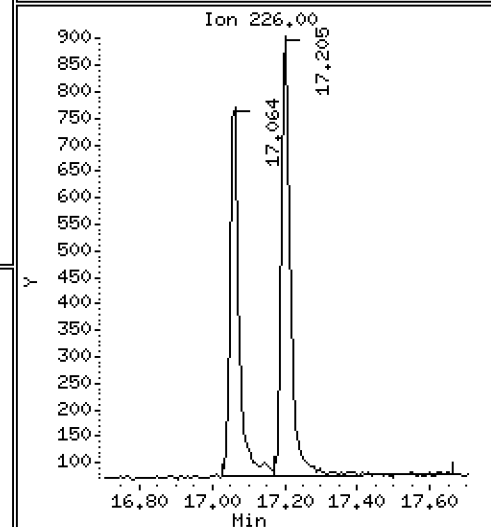
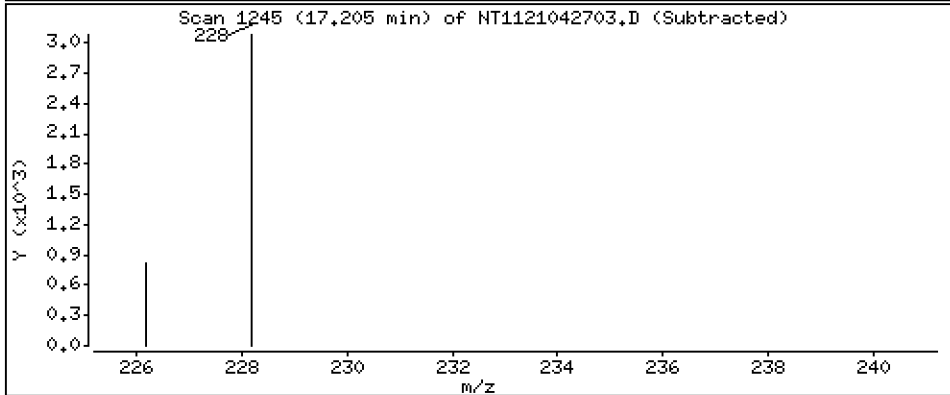
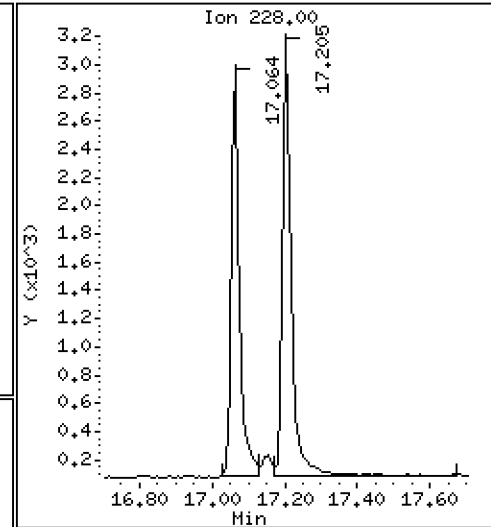
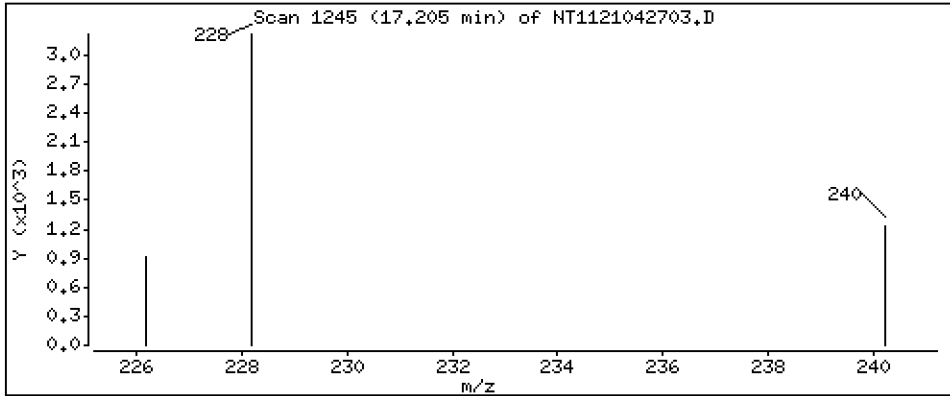
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

Concentration: 9,53 ng/mL

29 Chrysene



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

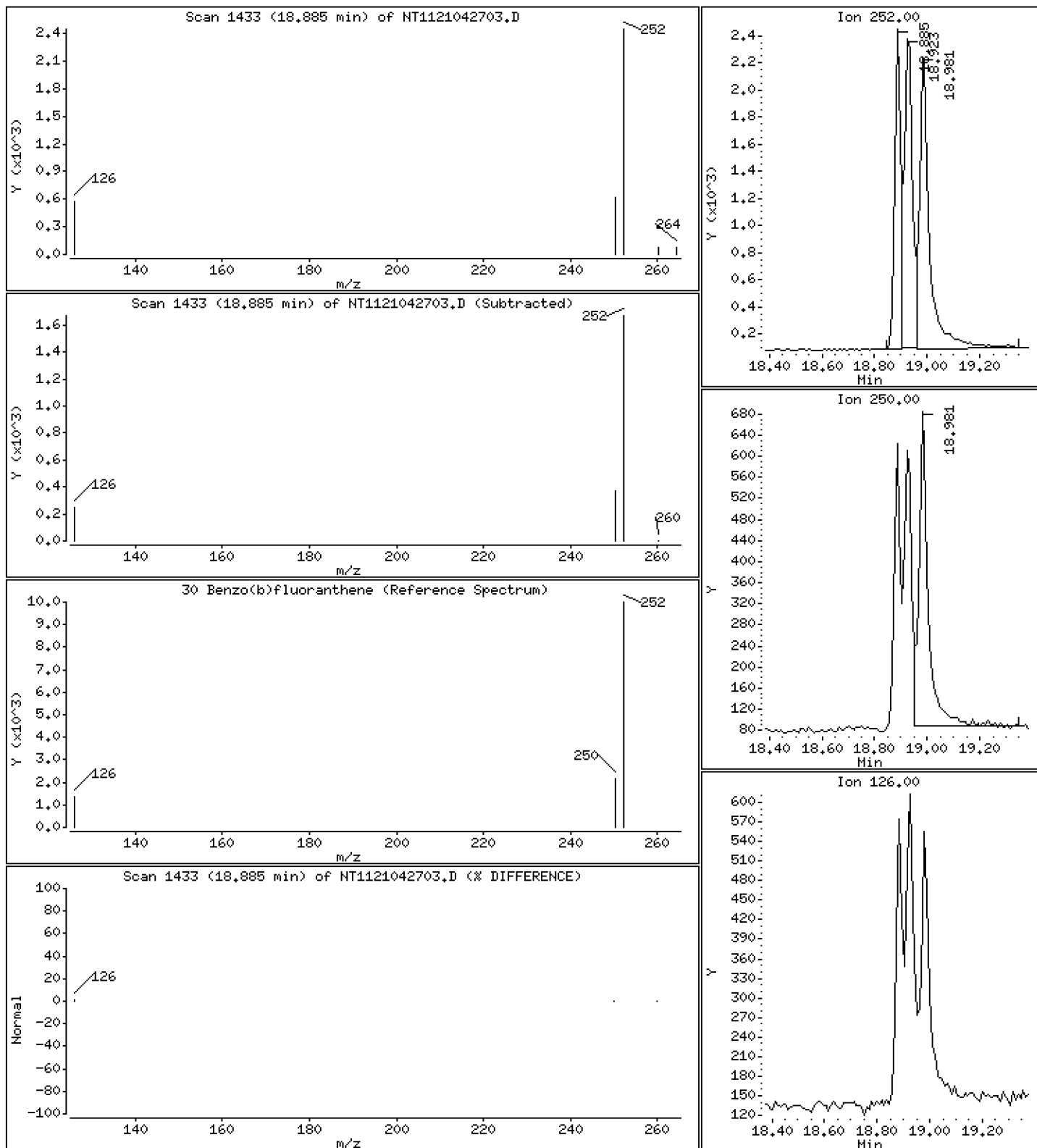
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Benzo(b)fluoranthene

Concentration: 9,29 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

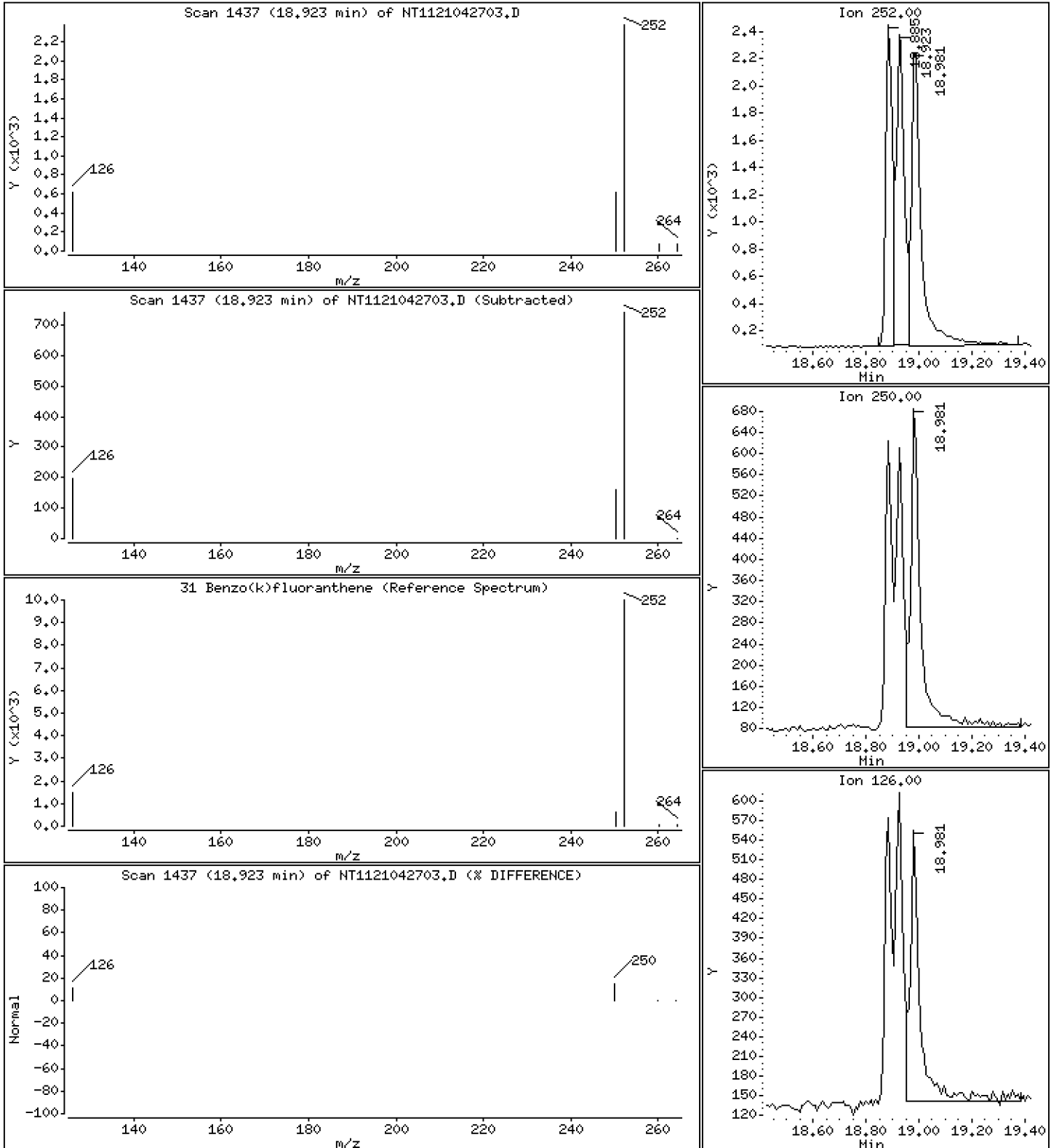
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

31 Benzo(k)fluoranthene

Concentration: 9,80 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

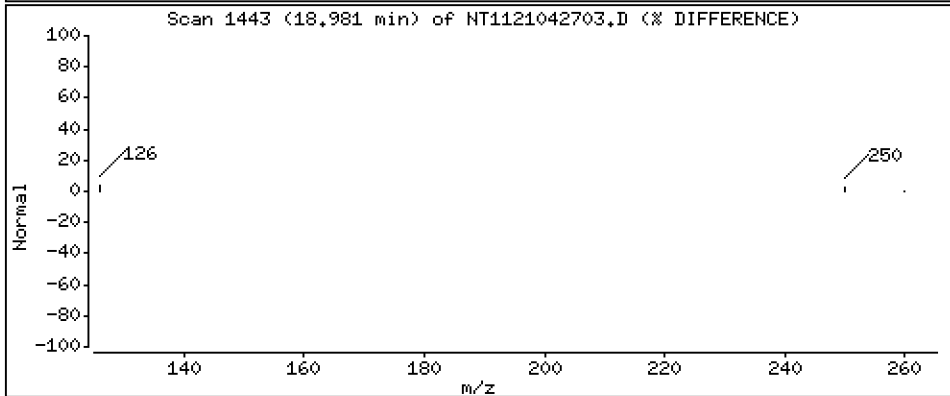
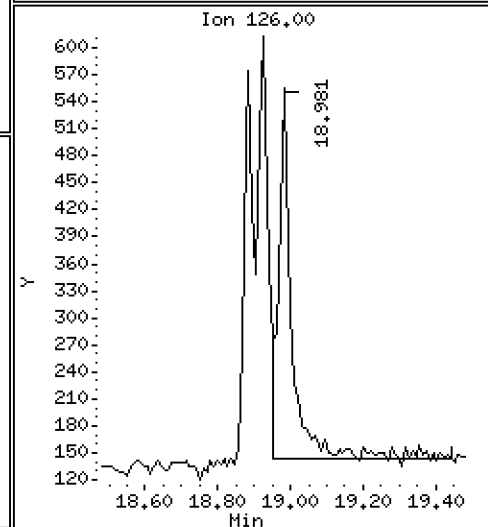
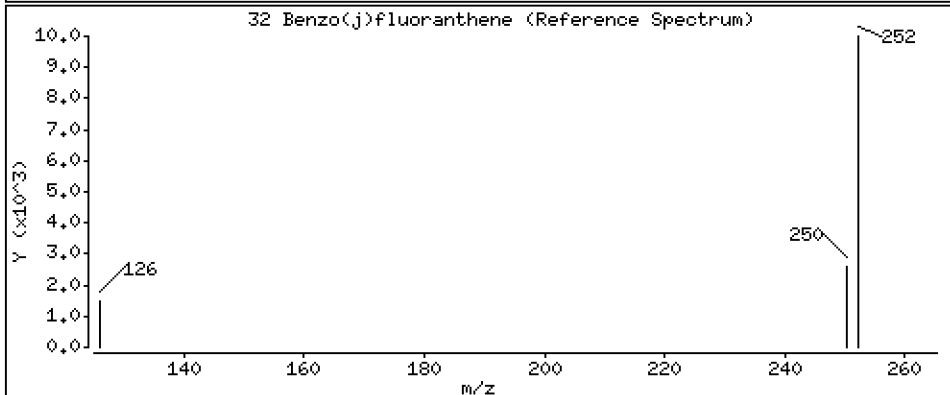
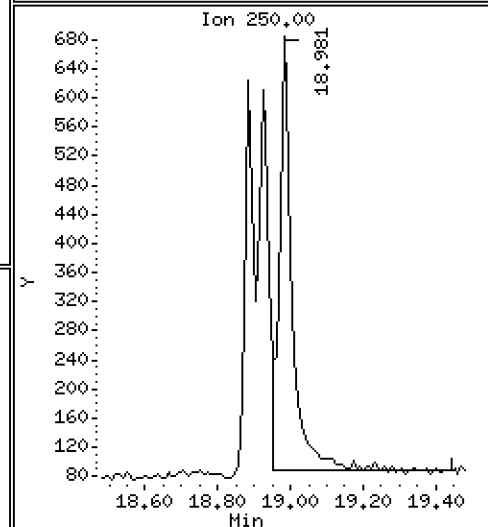
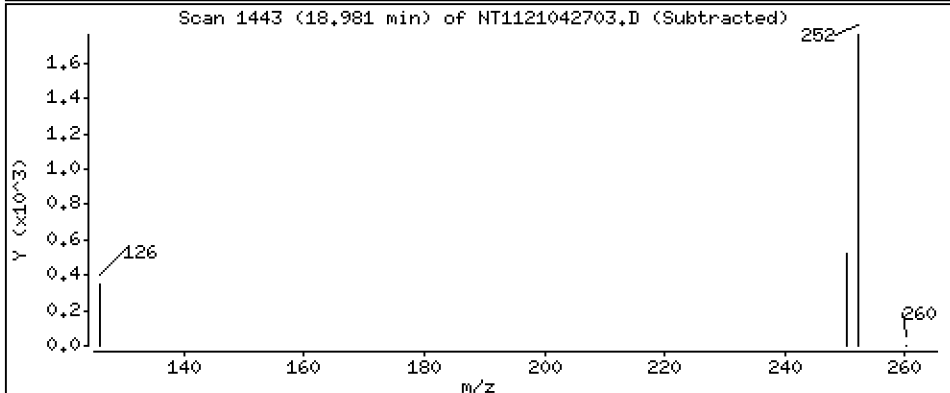
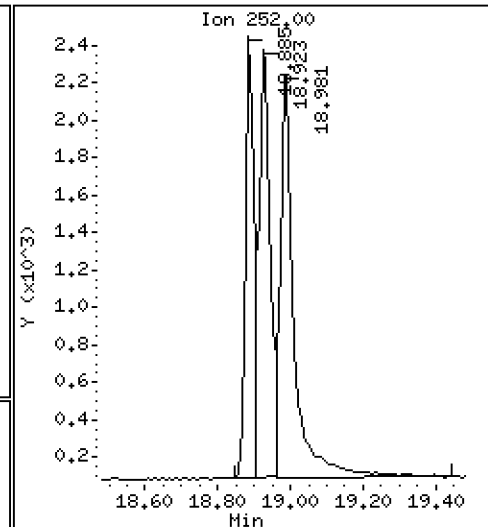
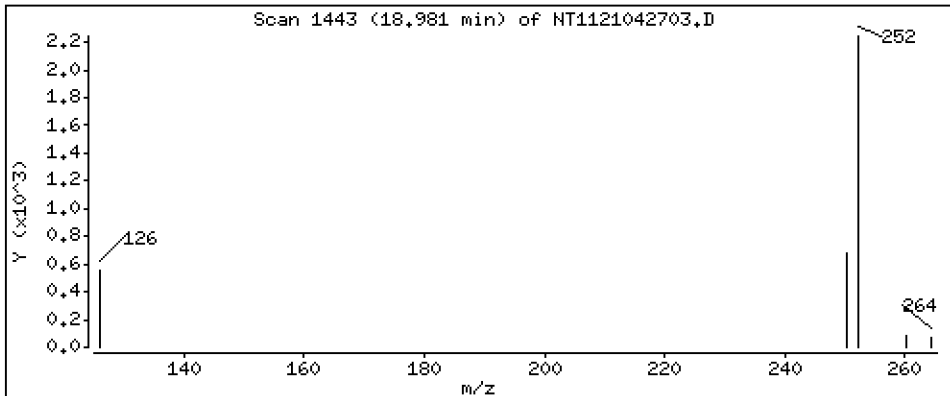
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

32 Benzo(j)fluoranthene

Concentration: 9,75 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

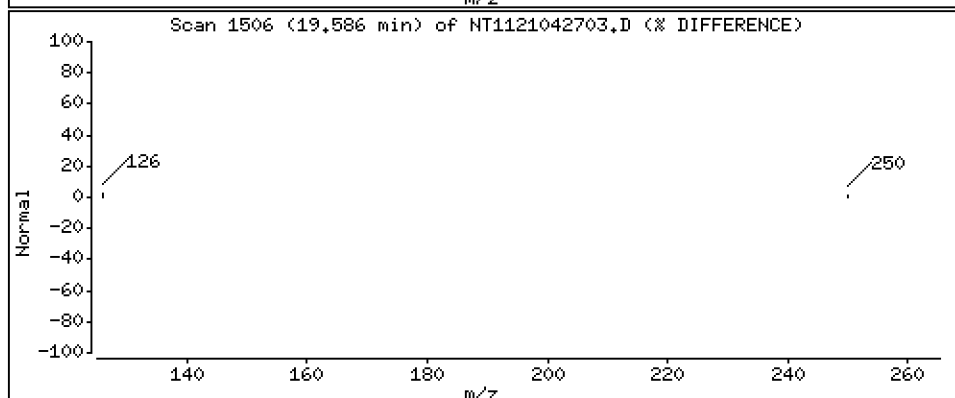
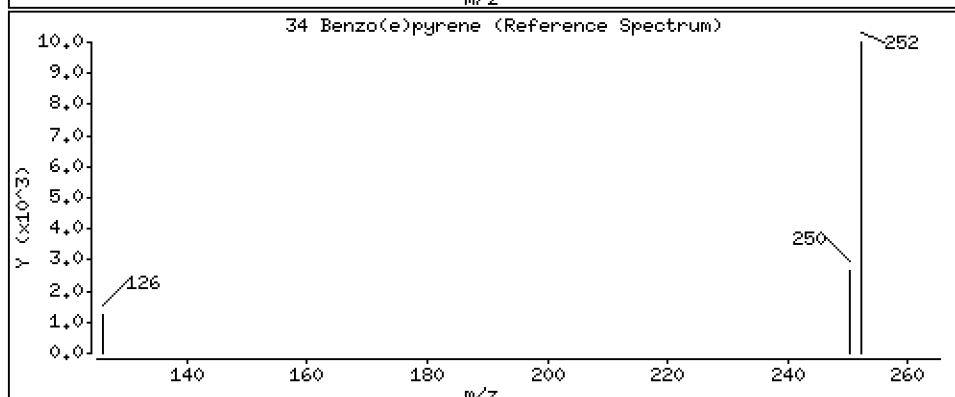
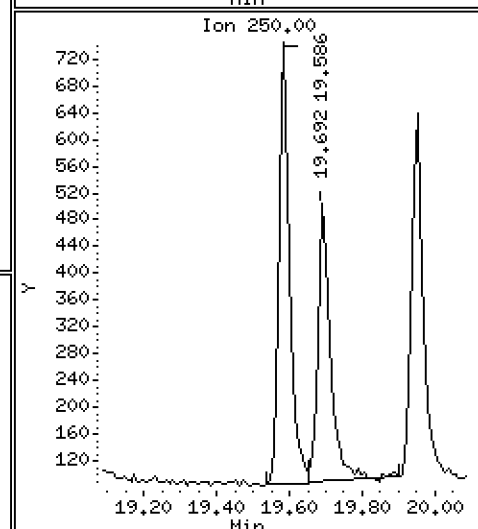
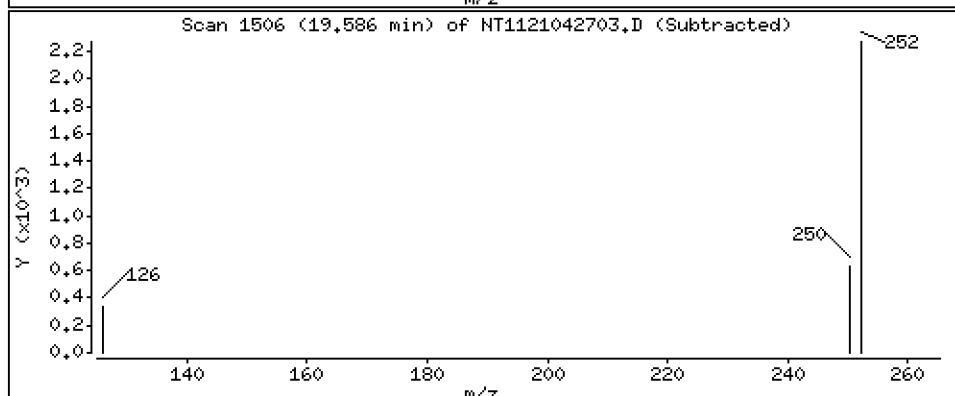
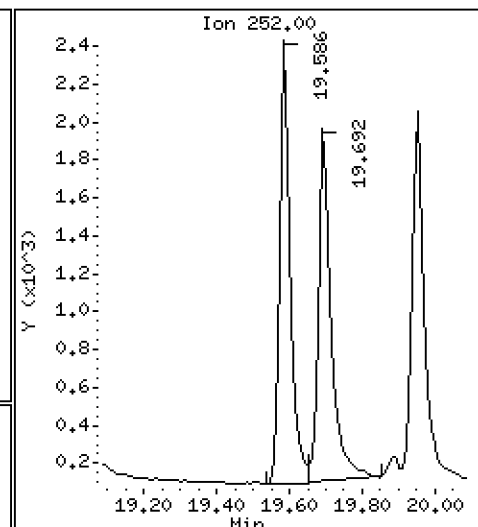
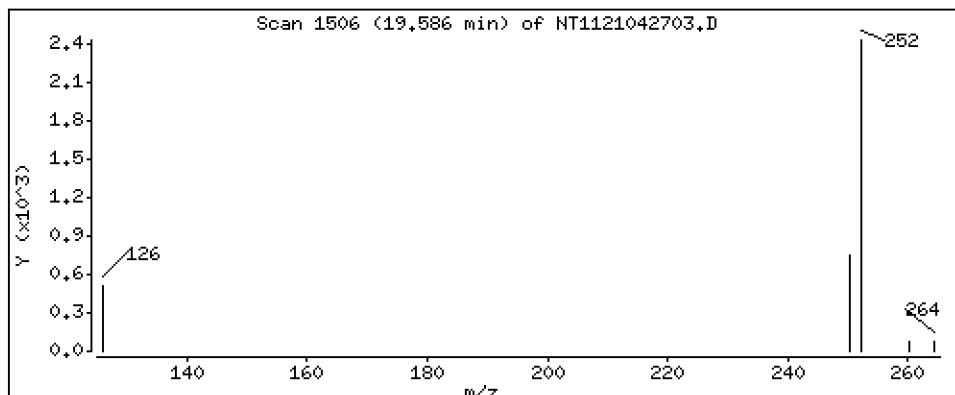
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

34 Benzo(e)pyrene

Concentration: 9,84 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

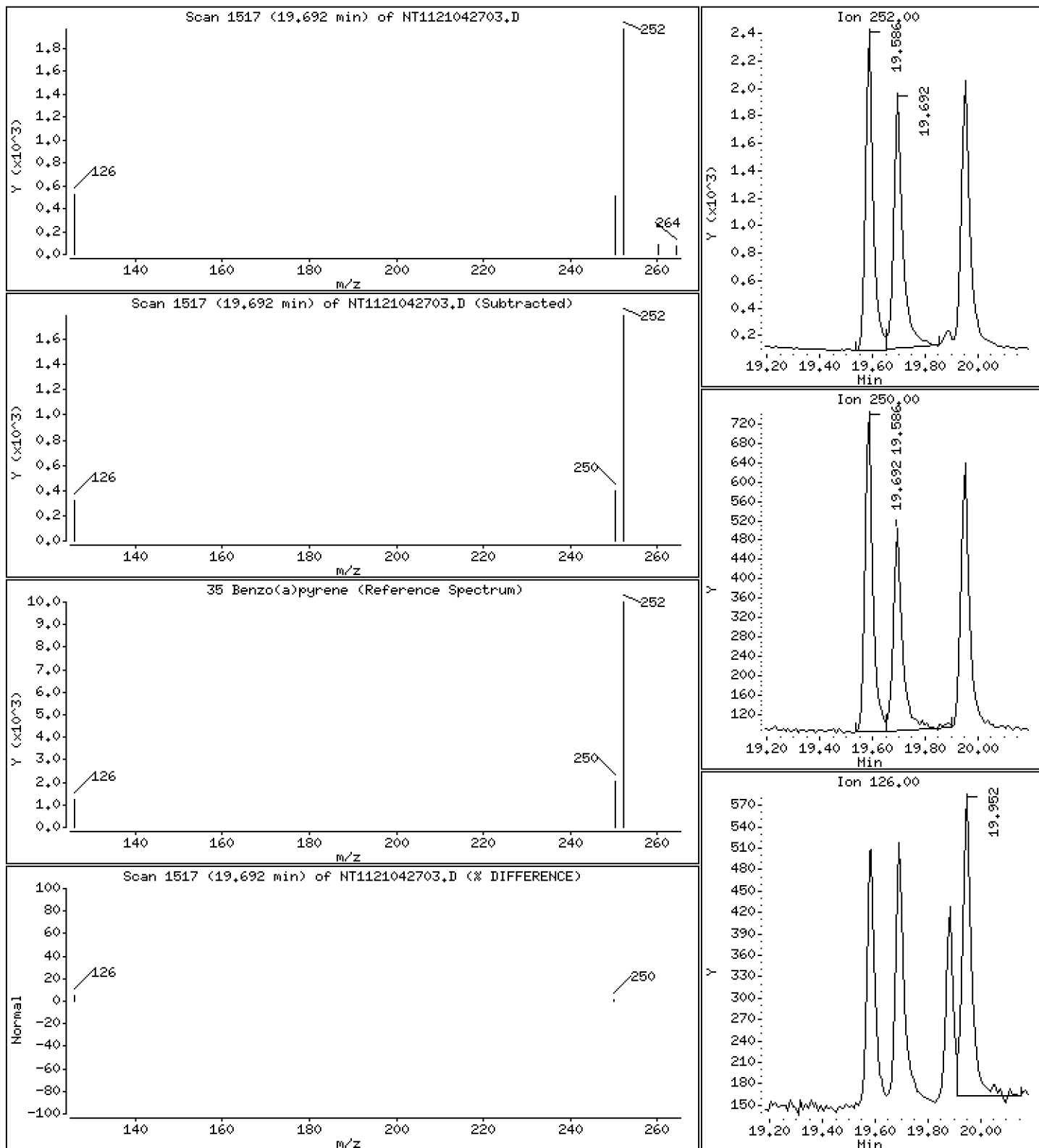
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

35 Benzo(a)pyrene

Concentration: 9,92 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

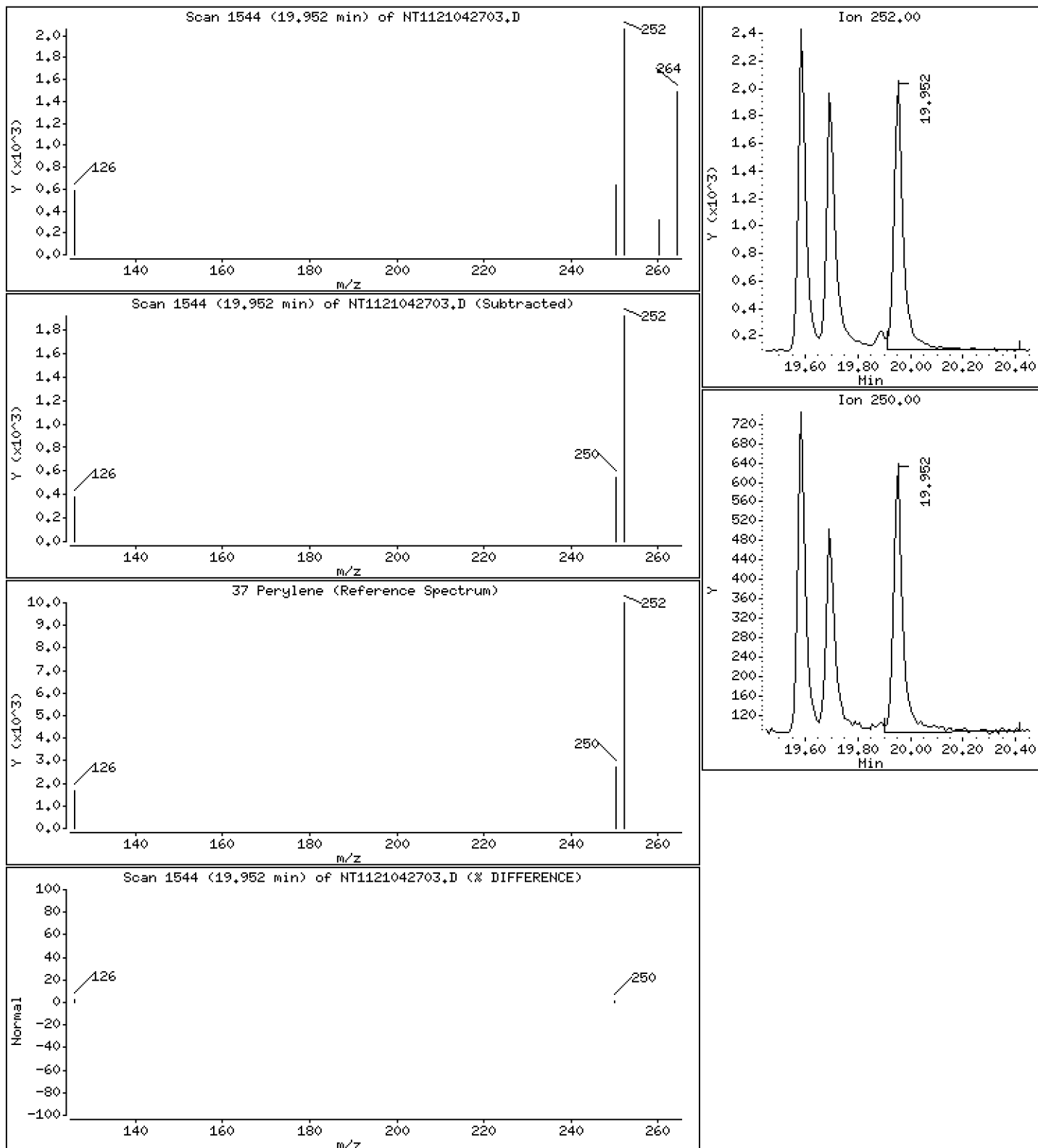
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

37 Perylene

Concentration: 9,71 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

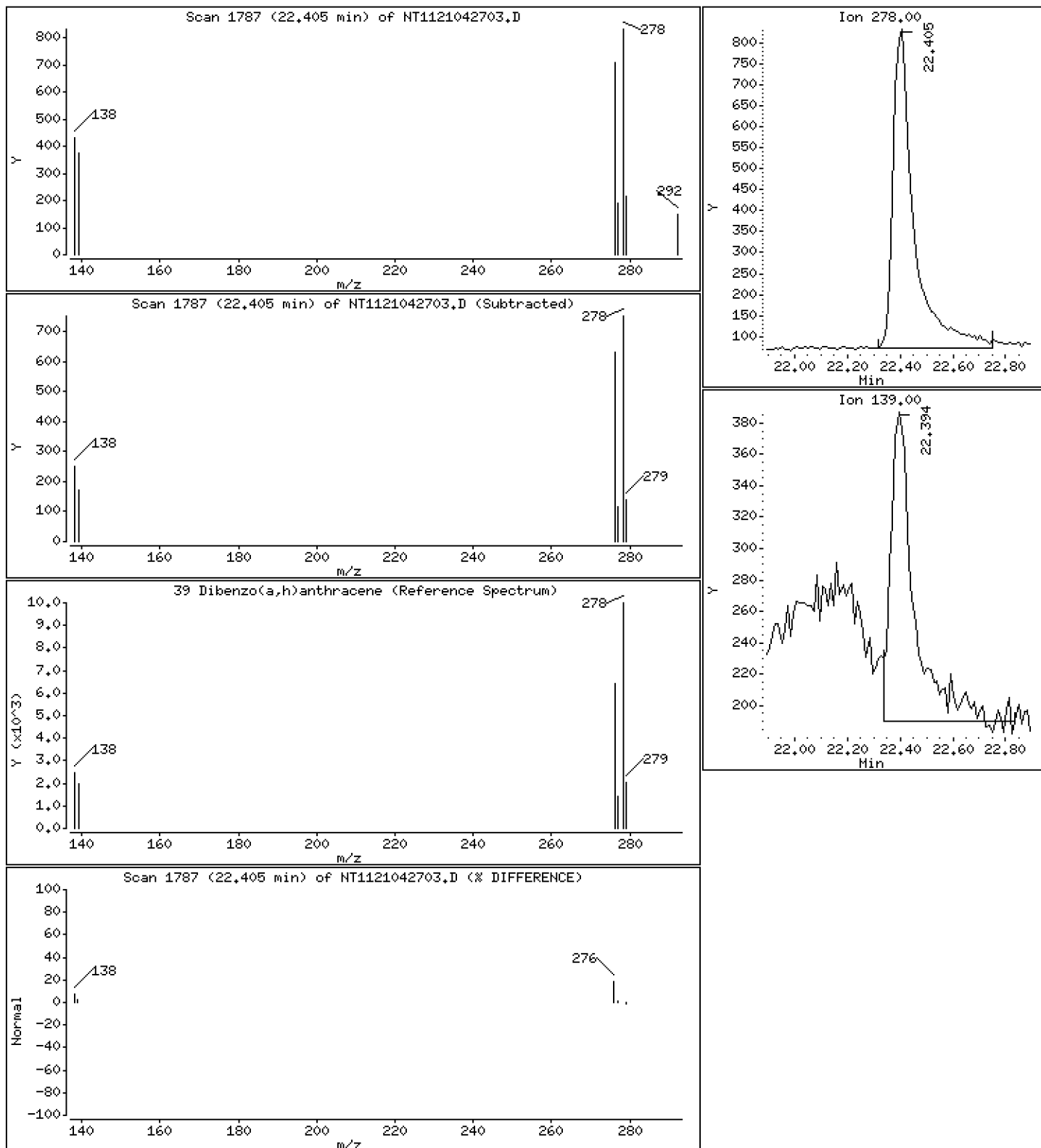
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

39 Dibenzo(a,h)anthracene

Concentration: 11,3 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

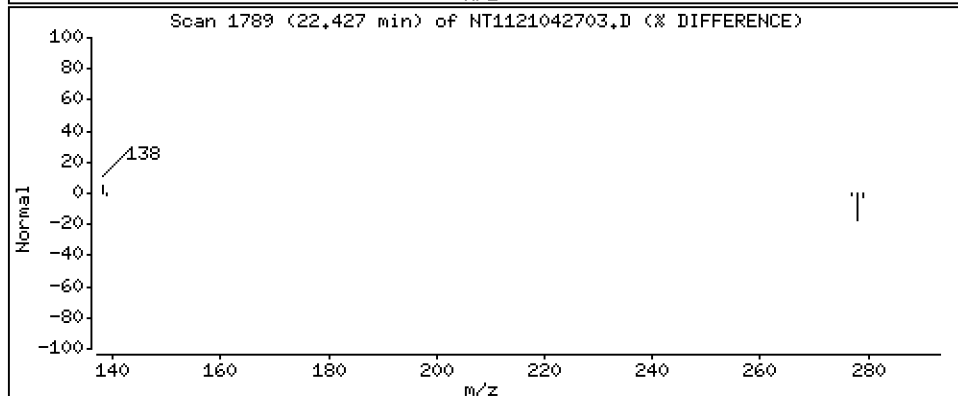
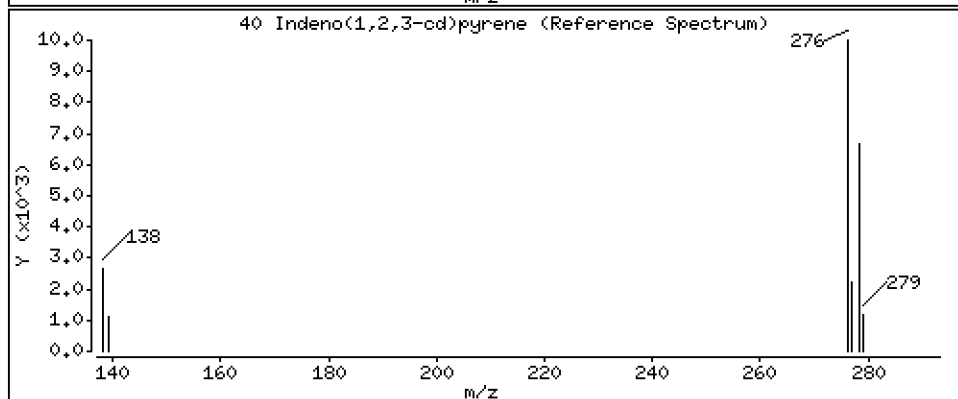
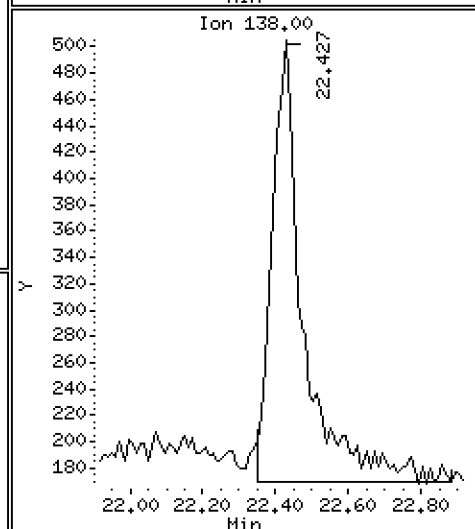
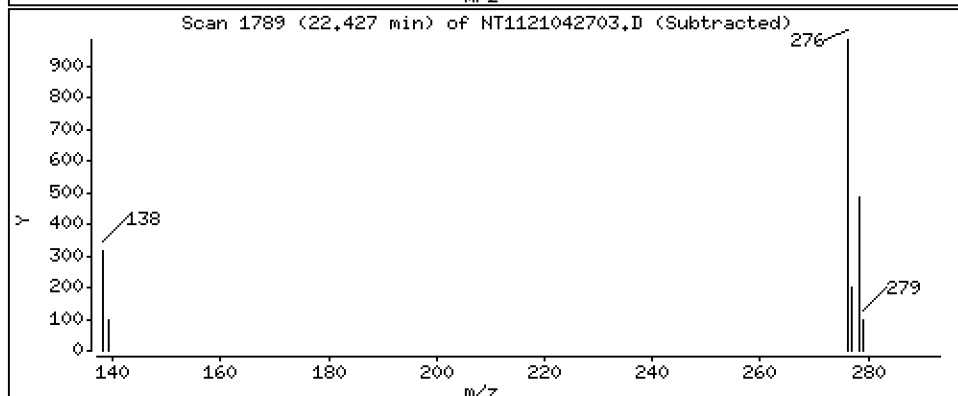
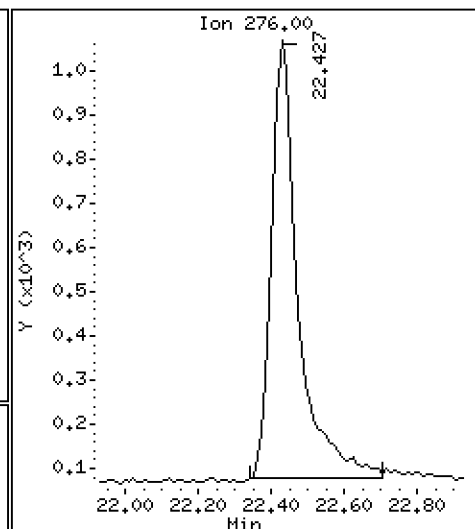
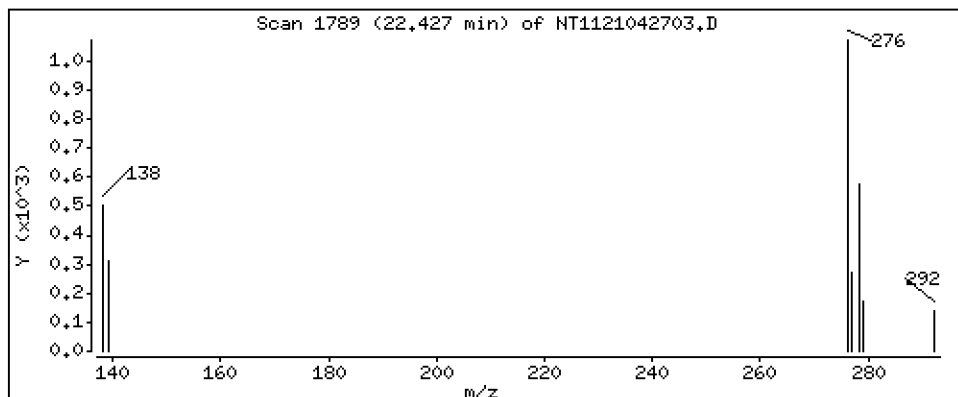
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

40 Indeno(1,2,3-cd)pyrene

Concentration: 11,2 ng/mL



Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

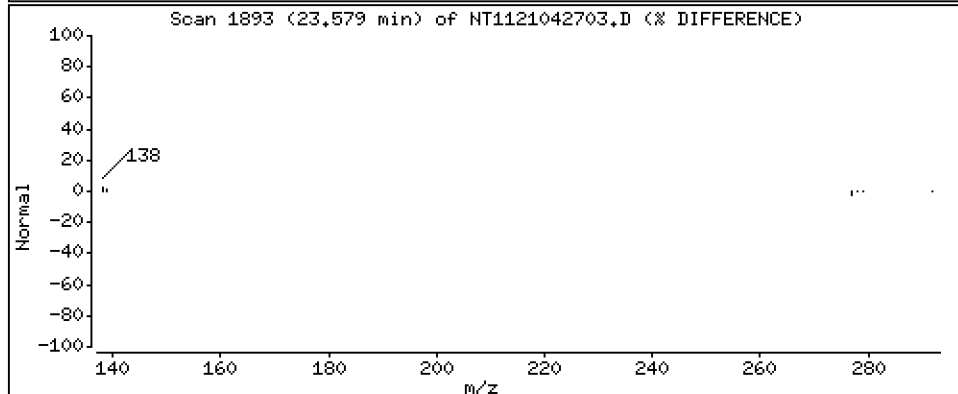
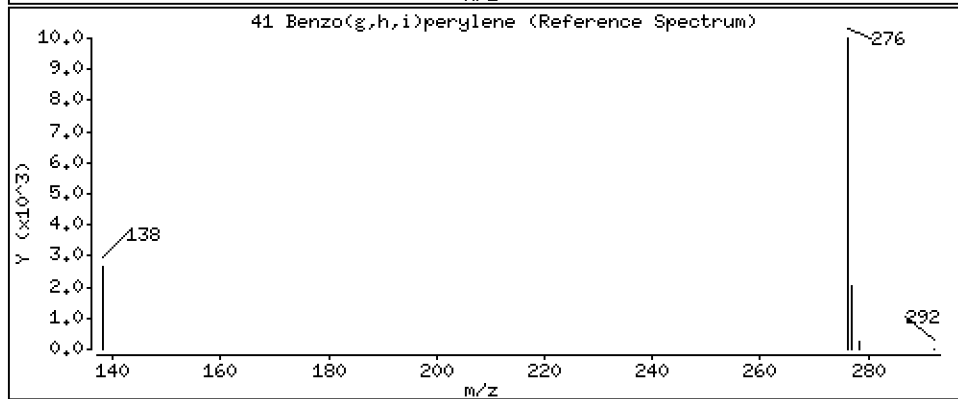
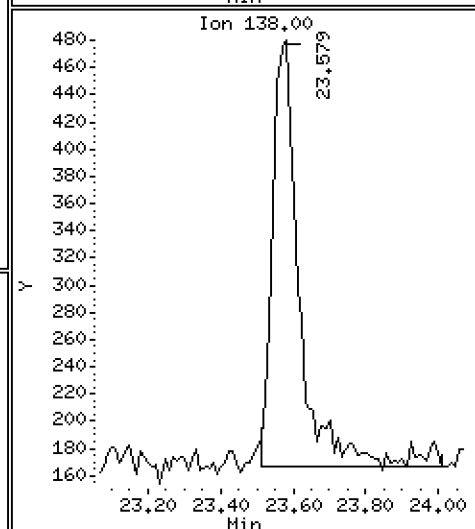
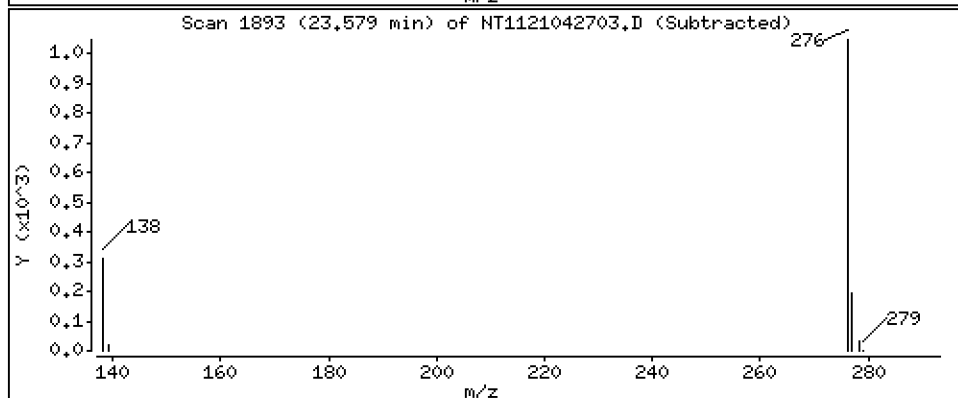
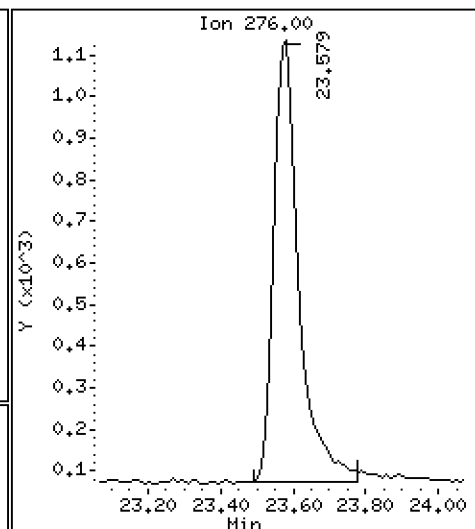
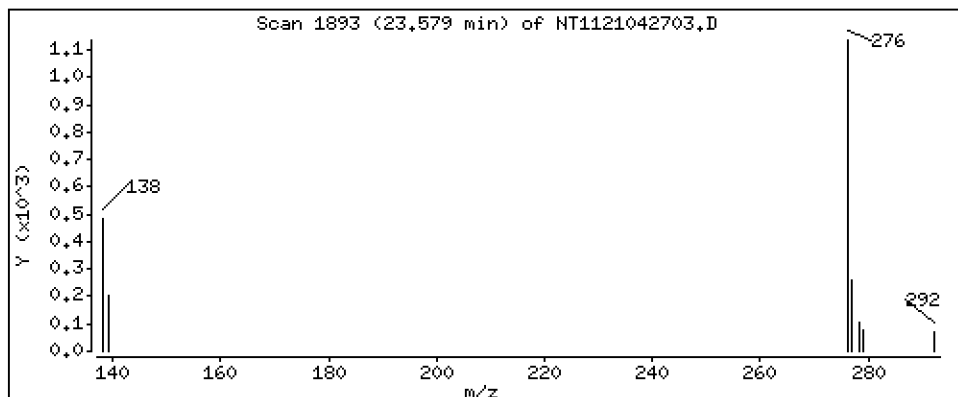
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

41 Benzo(g,h,i)perylene

Concentration: 11,4 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20210427.b\NT1121042703.D
 Lab Smp Id: SJD0374-LCV1
 Inj Date : 27-APR-2021 13:17 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : SJD0374-LCV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20210427.b\lowsim.m
 Meth Date : 27-Apr-2021 13:08 van Quant Type: ISTD
 Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: PAH.sub
 Target Version: 4.14
 Processing Host: VANS-202011

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		6.768	6.768	(1.000)	131244	200.000	
2 Naphthalene	128		6.795	6.795	(1.004)	7910	10.3801	10.4
3 Benzo(b)thiophene	134		7.048	7.048	(1.041)	6094	10.1367	10.1
\$ 4 2-Methylnaphthalene-d10	152		7.738	7.738	(1.143)	5375	10.1853	10.2
5 2-Methylnaphthalene	142		7.791	7.791	(1.151)	6341	10.3221	10.3
6 1-Methylnaphthalene	142		8.043	8.043	(1.188)	5567	9.74870	9.75 (M)
7 2-Chloronaphthalene	162		8.694	8.694	(0.891)	5033	8.80709	8.81 (M)
8 Biphenyl	154		8.663	8.663	(0.888)	6899	9.06693	9.07
9 2,6-Dimethylnaphthalene	156		8.715	8.715	(0.893)	5009	8.87242	8.87
10 Acenaphthylene	152		9.607	9.607	(0.984)	6640	8.81987	8.82 (M)
* 11 Acenaphthene-d10	164		9.761	9.761	(1.000)	65620	200.000	
12 Acenaphthene	153		9.824	9.824	(1.006)	4217	8.46925	8.47 (M)
13 Dibenzofuran	168		10.023	10.023	(1.027)	5886	8.85568	8.86
14 2,3,5-Trimethylnaphthalene	170		10.124	10.124	(1.037)	3674	8.98710	8.99
16 Fluorene	166		10.655	10.642	(1.092)	4429	8.65067	8.65
17 Dibenzothiophene	184		12.260	12.260	(0.986)	5280	9.78115	9.78
* 18 Phenanthrene-d10	188		12.428	12.428	(1.000)	97504	200.000	
19 Phenanthrene	178		12.470	12.470	(1.003)	5955	9.33627	9.34
21 Anthracene	178		12.523	12.523	(1.008)	6229	9.77397	9.77
22 Carbazole	167		13.206	13.207	(1.063)	6396	9.41835	9.42 (M)
23 1-Methylphenanthrene	192		13.469	13.469	(1.084)	5753	10.2108	10.2
\$ 24 Fluoranthene-d10	212		14.520	14.520	(1.168)	4945	9.67341	9.67
25 Fluoranthene	202		14.558	14.558	(1.171)	6274	9.86615	9.87
26 Pyrene	202		15.048	15.048	(1.211)	6522	9.99708	10.0
27 Benzo(a)anthracene	228		17.064	17.064	(0.995)	4667	9.47988	9.48
* 28 Chrysene-d12	240		17.155	17.155	(1.000)	67019	200.000	
29 Chrysene	228		17.205	17.205	(1.003)	5281	9.52674	9.53
30 Benzo(b)fluoranthene	252		18.885	18.885	(0.949)	4079	9.29440	9.29
31 Benzo(k)fluoranthene	252		18.923	18.923	(0.951)	5653	9.80293	9.80
32 Benzo(j)fluoranthene	252		18.981	18.981	(0.954)	6074	9.74669	9.75
34 Benzo(e)pyrene	252		19.586	19.586	(0.985)	4892	9.84340	9.84
35 Benzo(a)pyrene	252		19.692	19.692	(0.990)	4545	9.91576	9.92
* 36 Perylene-d12	264		19.893	19.893	(1.000)	80628	200.000	

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/mL)	FINAL (ng/mL)
=====	=====	=====	=====	=====	=====	=====	
37 Perylene	252	19.951	19.951	(1.003)	5069	9.70672	9.71
\$ 38 Dibenzo(a,h)anthracene-d14	292	22.283	22.283	(1.120)	3102	10.0326	10.0 (M)
39 Dibenzo(a,h)anthracene	278	22.405	22.394	(1.126)	4180	11.2627	11.3 (M)
40 Indeno(1,2,3-cd)pyrene	276	22.427	22.427	(1.127)	4974	11.1747	11.2 (M)
41 Benzo(g,h,i)perylene	276	23.579	23.568	(1.185)	5053	11.3537	11.4 (M)

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 27-APR-2021
 Lab File ID: NT1121042703.D Calibration Time: 12:42
 Lab Smp Id: SJD0374-LCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20210427.b\lowsim.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	112036	56018	224072	131244	17.14
11 Acenaphthene-d10	64624	32312	129248	65620	1.54
18 Phenanthrene-d10	96378	48189	192756	97504	1.17
28 Chrysene-d12	68803	34402	137606	67019	-2.59
36 Perylene-d12	87167	43584	174334	80628	-7.50

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.77	6.27	7.27	6.77	-0.00
11 Acenaphthene-d10	9.76	9.26	10.26	9.76	-0.00
18 Phenanthrene-d10	12.43	11.93	12.93	12.43	-0.00
28 Chrysene-d12	17.16	16.66	17.66	17.16	-0.00
36 Perylene-d12	19.89	19.39	20.39	19.89	-0.00

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.

REVIEW SUMMARY FOR FILE - NT1121042703.D

Lab ID: SJD0374-LCV1

nt11.i, 20210427.b\lowsim.m, 27-APR-2021 13:17

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1121042702.D

On Column LOD for nt11.i, 20210427.b\lowsim.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000

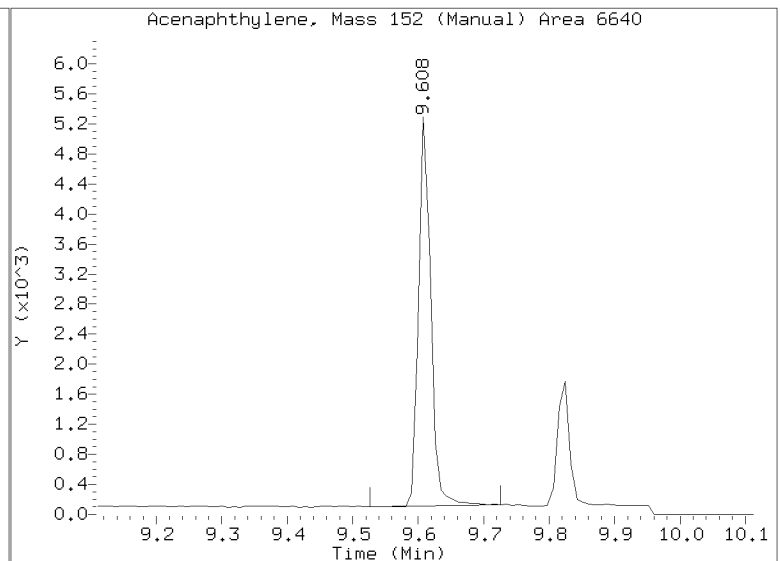
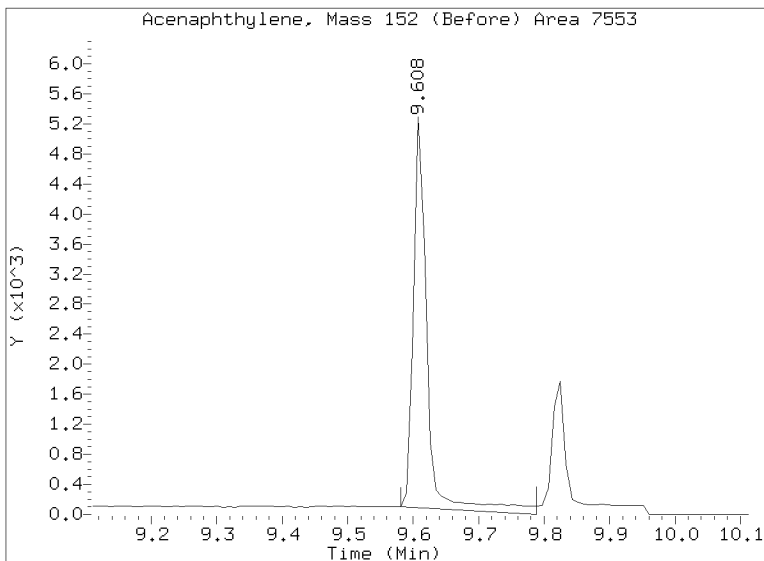
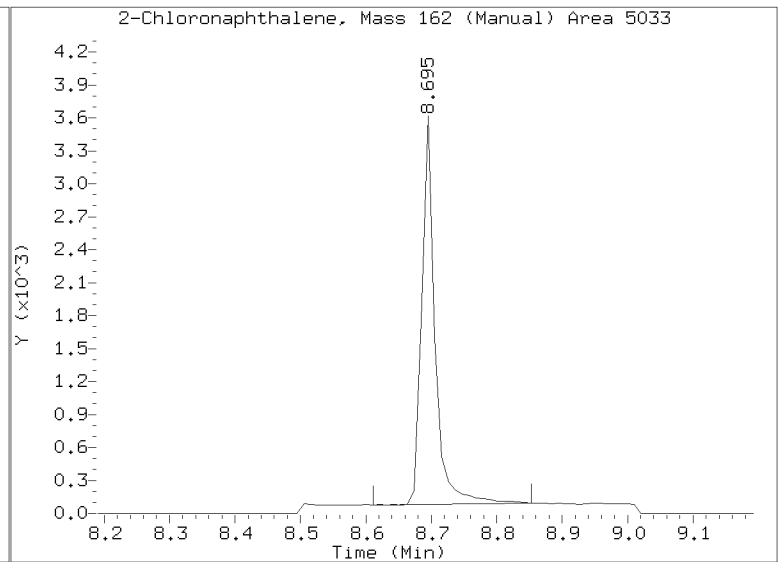
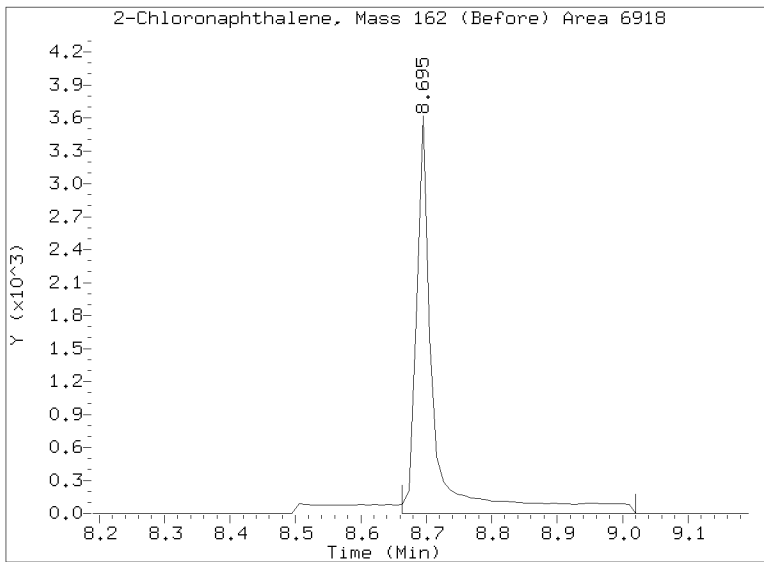
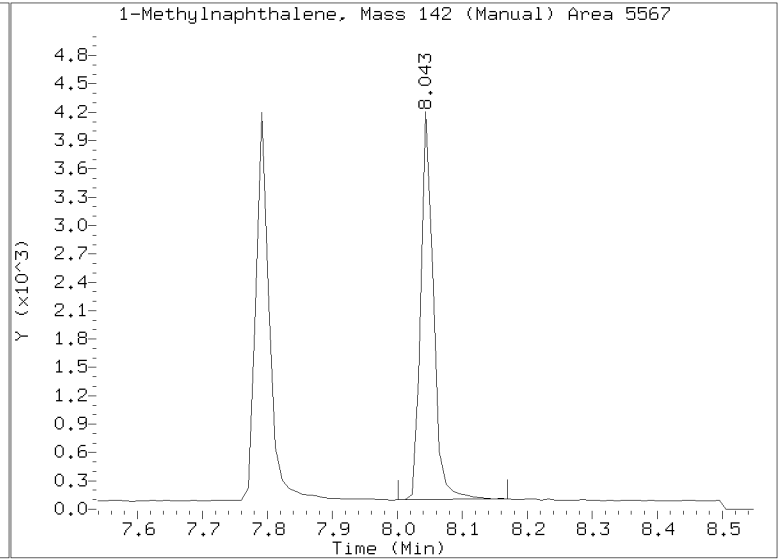
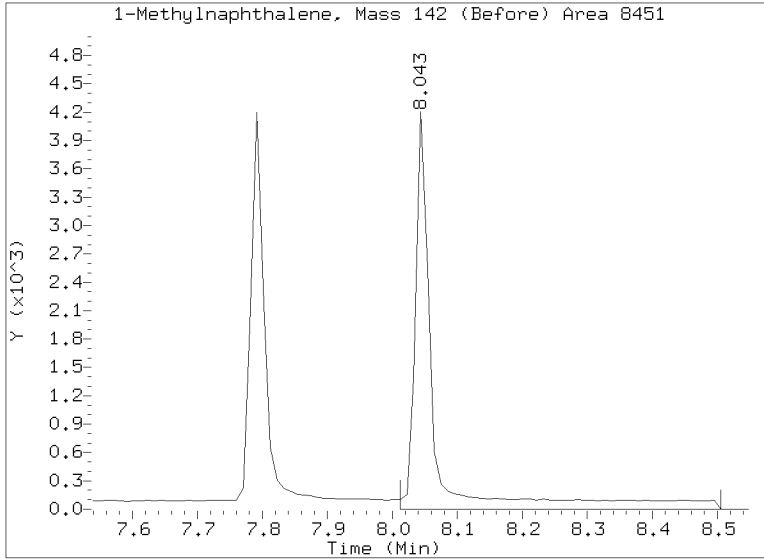
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000

Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

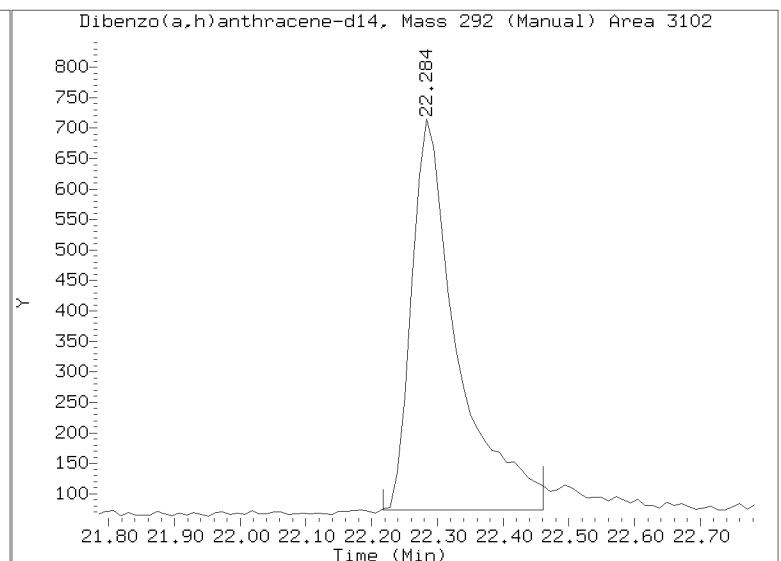
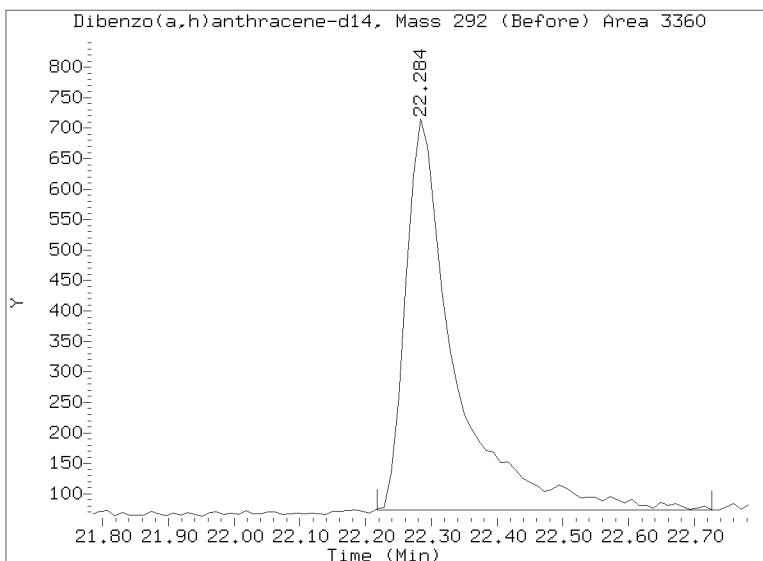
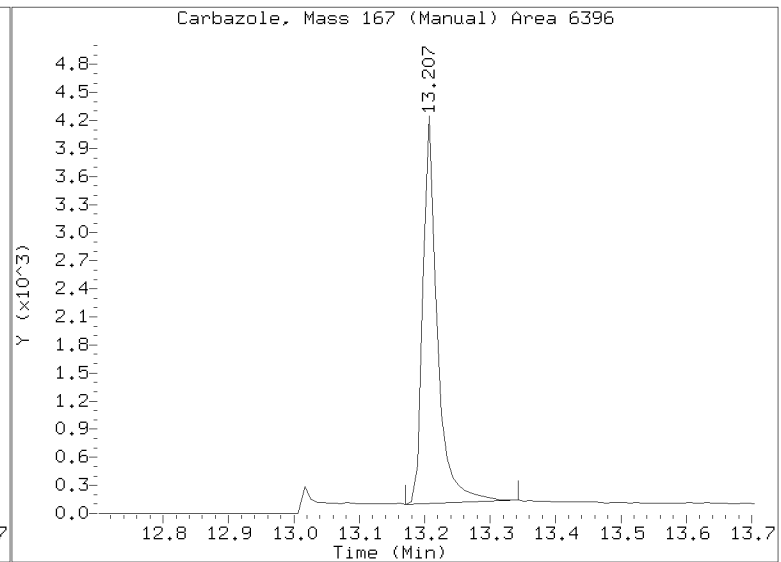
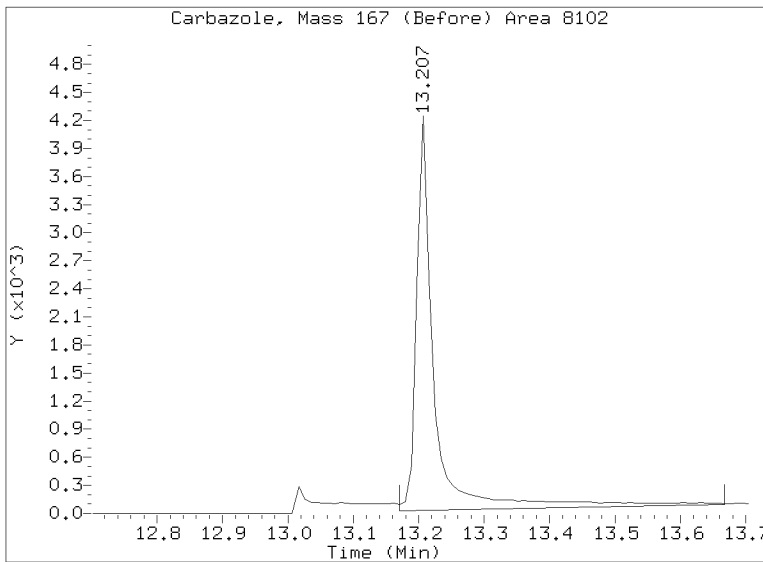
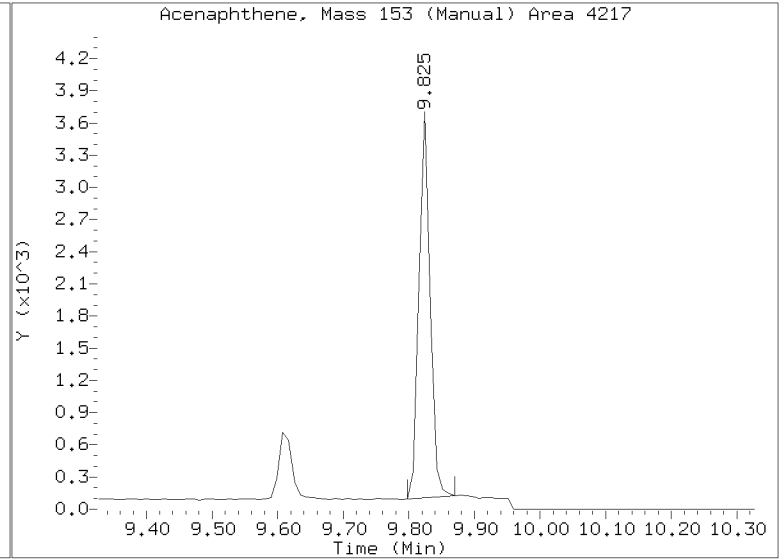
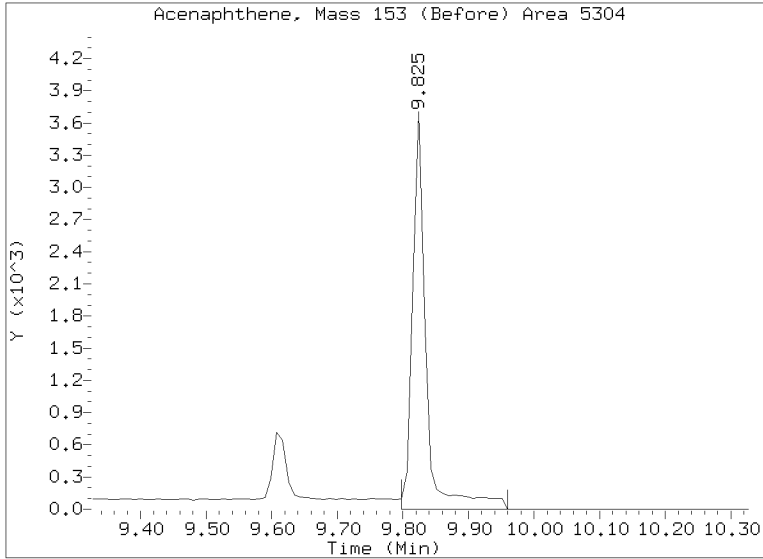
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20210427.b/NT1121042703.D
Injection Date: 27-APR-2021 13:17
Lab ID: SJD0374-LCV1 Client ID:
Report Date: 04/28/2021 10:50



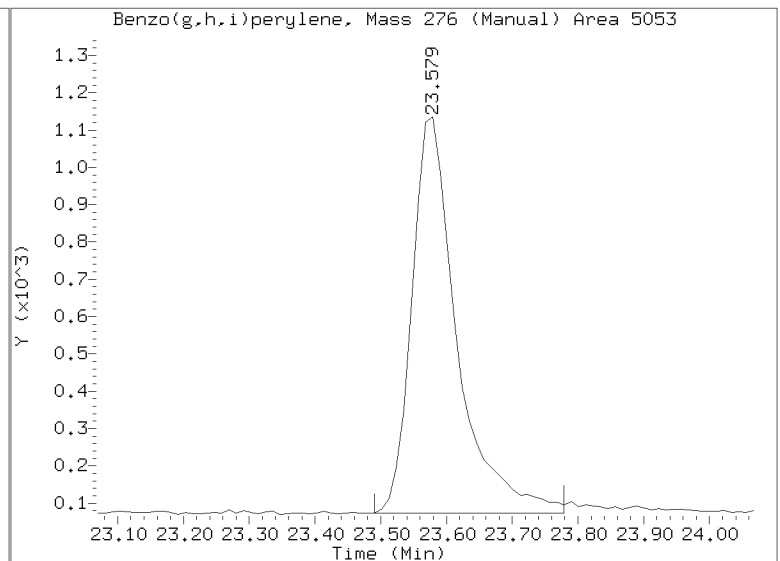
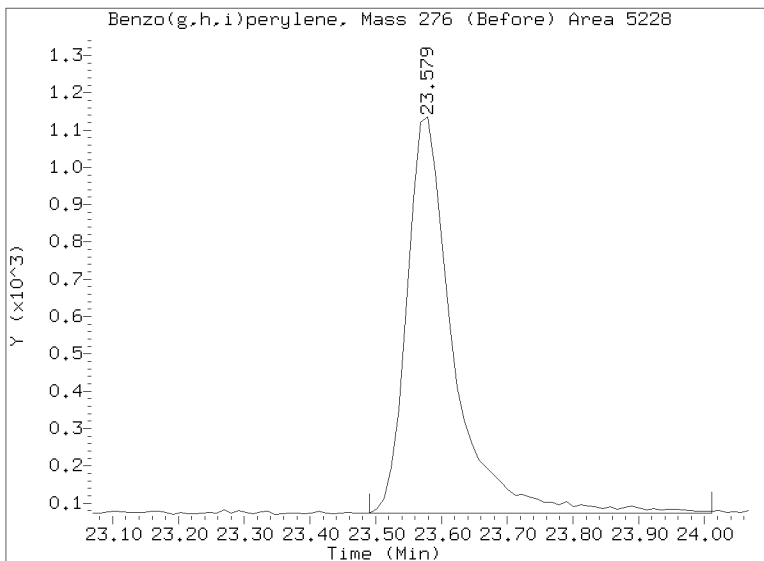
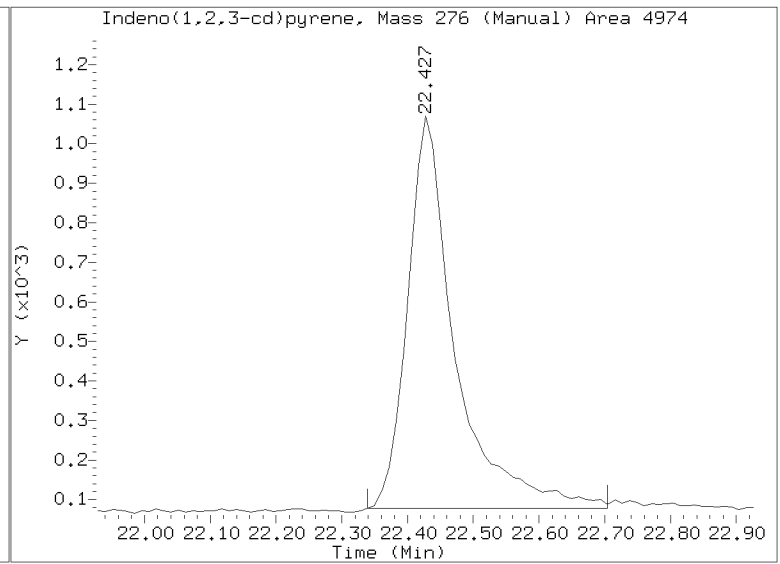
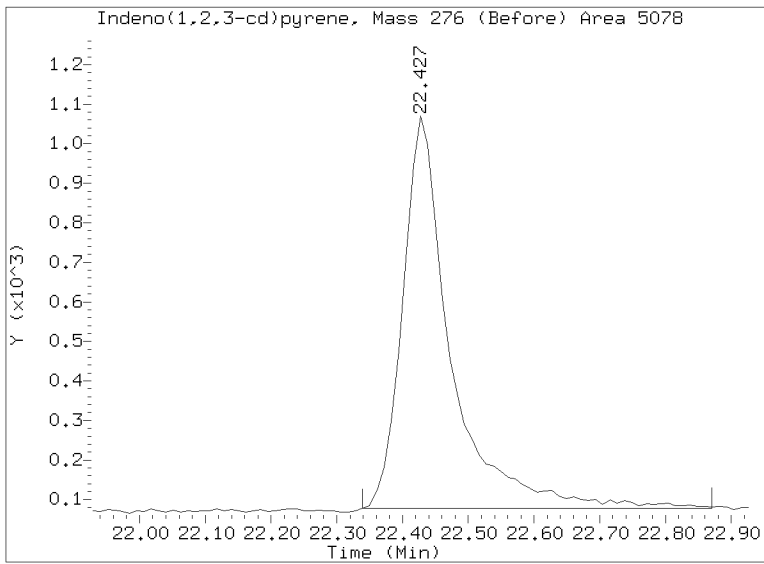
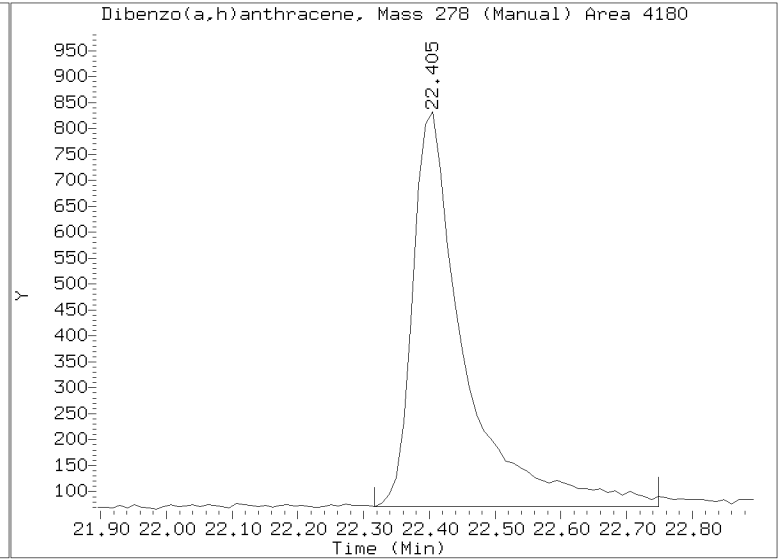
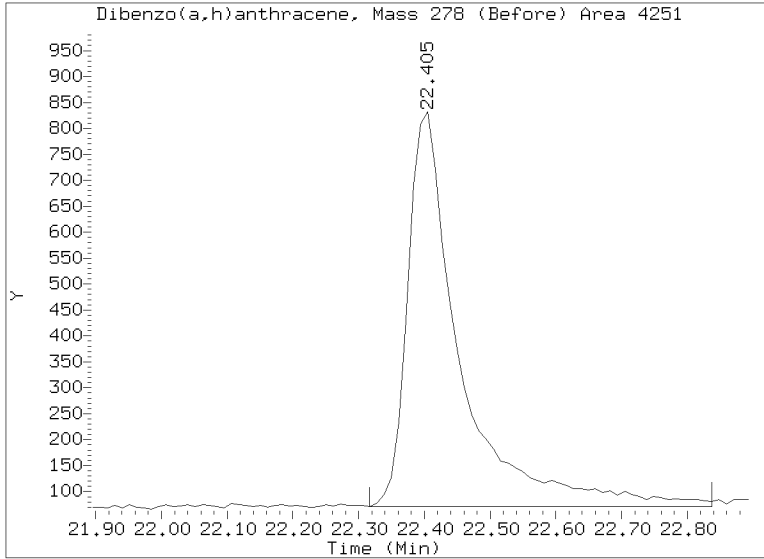
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20210427.b/NT1121042703.D
Injection Date: 27-APR-2021 13:17
Lab ID: SJD0374-LCV1 Client ID:
Report Date: 04/28/2021 10:50



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20210427.b/NT1121042703.D
Injection Date: 27-APR-2021 13:17
Lab ID: SJD0374-LCV1 Client ID:
Report Date: 04/28/2021 10:50





CONTINUING CALIBRATION CHECK EPA 8270E-SIM

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>21D0180</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic - US Moorings</u>
Instrument ID: <u>NT14</u>	Calibration: <u>EE00001</u>
Lab File ID: <u>NT1421043067.D</u>	Calibration Date: <u>04/30/2021</u>
Sequence: <u>SJE0004</u>	Injection Date: <u>05/02/21</u>
Lab Sample ID: <u>SJE0004-CCV1</u>	Injection Time: <u>12:25</u>
Sequence Name: <u>Calibration Check</u>	

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
trans-Decalin	A	2.5000	2.7	0.1489821	0.1596959		7.2	+/-50
cis-Decalin	A	2.5000	2.8	0.1028504	0.1153761		12.2	+/-50
Naphthalene	A	2.5000	2.8	1.1740120	1.2972150		10.5	+/-50
1-Methylnaphthalene	A	2.5000	2.8	0.5936130	0.6676038		12.5	+/-50
2-Methylnaphthalene	A	2.5000	2.8	0.6265036	0.7104216		13.4	+/-50
Biphenyl	A	2.5000	2.8	0.8966280	0.9956843		11.0	+/-50
2,6-Dimethylnaphthalene	A	2.5000	2.9	0.6169792	0.7086500		14.9	+/-50
Acenaphthylene	A	2.5000	3.1	0.9709370	1.2203490		25.7	+/-50
Acenaphthene	A	2.5000	2.9	0.6240076	0.7299559		17.0	+/-50
Dibenzofuran	A	2.5000	2.8	0.9455456	1.0687310		13.0	+/-50
2,3,5-Trimethylnaphthalene	A	2.5000	3.1	0.5414731	0.6648609		22.8	+/-50
Fluorene	A	2.5000	2.9	0.6871732	0.8055957		17.2	+/-50
Benzo(b)thiophene	A	2.5000	2.8	0.9340302	1.0430630		11.7	+/-50
Phenanthrene	A	2.5000	2.4	1.2066070	1.1410070		-5.4	+/-50
Anthracene	A	2.5000	2.6	1.1122650	1.1410070		2.6	+/-50
Carbazole	A	2.5000	2.6	0.8290303	0.9815243		4.7	+/-50
1-Methylphenanthrene	A	2.5000	2.7	0.7326040	0.8025132		9.5	+/-50
Fluoranthene	A	2.5000	2.7	1.0715980	1.1695000		9.1	+/-50
Dibenzothiophene	A	2.5000	3.0	0.8674458	1.0429230		20.2	+/-50
Pyrene	A	2.5000	2.8	1.1104570	1.2286710		10.6	+/-50
Benzo(a)anthracene	A	2.5000	2.6	0.8222601	0.9567589		4.1	+/-50
Chrysene	A	2.5000	2.5	0.9340580	0.9417928		0.8	+/-50
Benzo(b)fluoranthene	A	2.5000	2.8	0.7491309	0.9480621		10.8	+/-50
Benzo(j)fluoranthene	A	2.5000	2.5	0.9513865	0.9519634		0.06	+/-50
Benzo(k)fluoranthene	A	2.5000	2.6	0.9278309	1.0771370		3.7	+/-50
Benzo(e)pyrene	A	2.5000	2.8	0.8518347	0.9462694		11.1	+/-50
Benzo(a)pyrene	A	2.5000	2.6	0.7422947	0.9121621		4.0	+/-50
Indeno(1,2,3-cd)pyrene	A	2.5000	2.7	0.7887712	0.9862033		8.3	+/-50
Dibenzo(a,h)anthracene	A	2.5000	2.7	0.6549683	0.8583470		8.9	+/-50
Benzo(g,h,i)perylene	A	2.5000	3.0	0.7663214	0.9147397		19.4	+/-50
Perylene	A	2.5000	2.9	0.8135951	0.9492533		16.7	+/-50
Benzo(b)naphtho(2,1-d)thiophene	A	2.5000	2.7	1.0821370	1.1659770		7.7	+/-50
Naphthalene-d8	A	2.5000	2.80	1.1542130	1.2910940		11.9	+/-50
Acenaphthene-d10	A	2.5000	2.94	0.5635830	0.6621506		17.5	+/-50

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.1\20210430D.16\NT1421043067.D

Date: 02-MAY-2021 12:25

Client ID:

Sample Info: SJE0004-CCW1

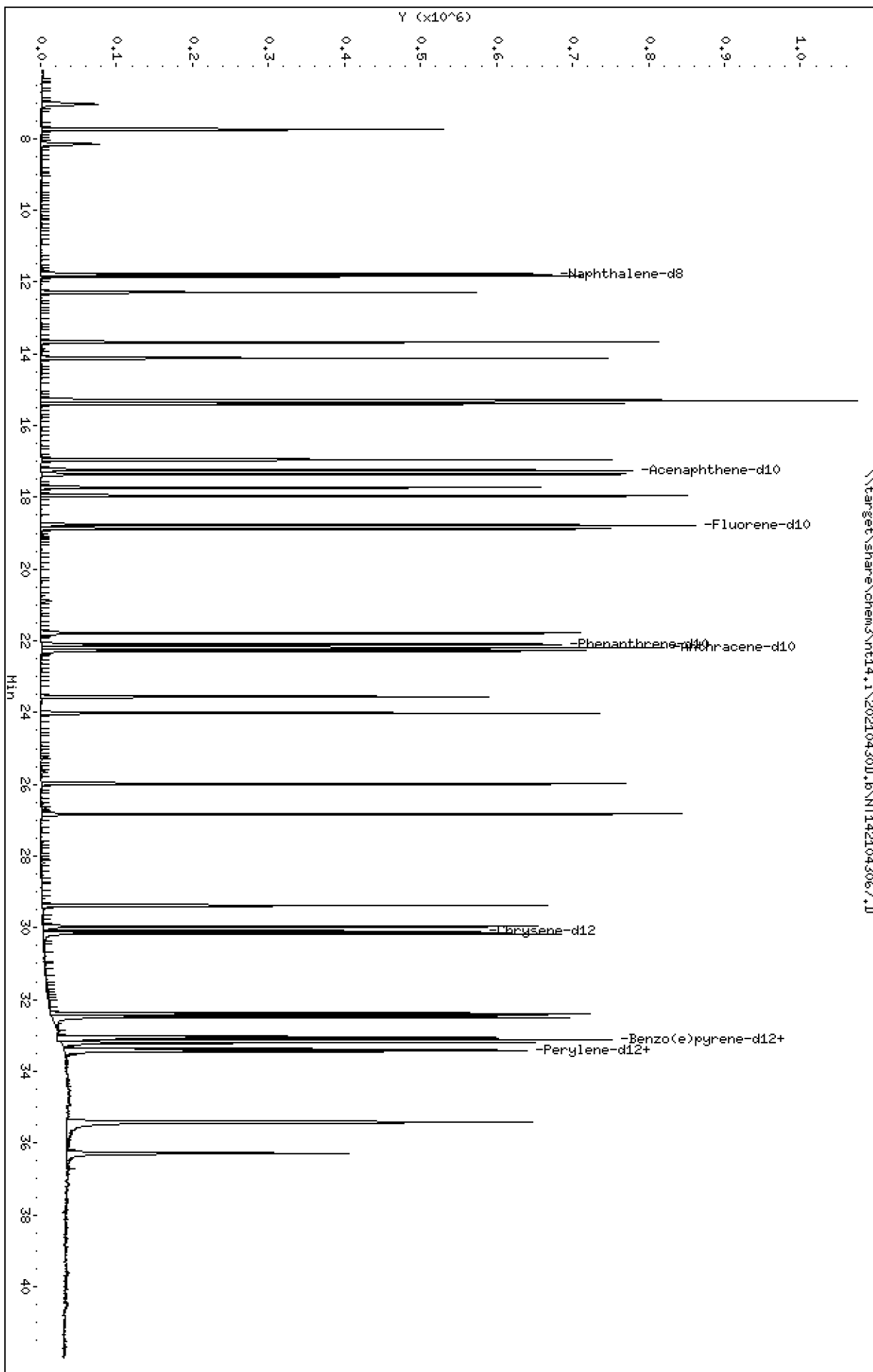
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

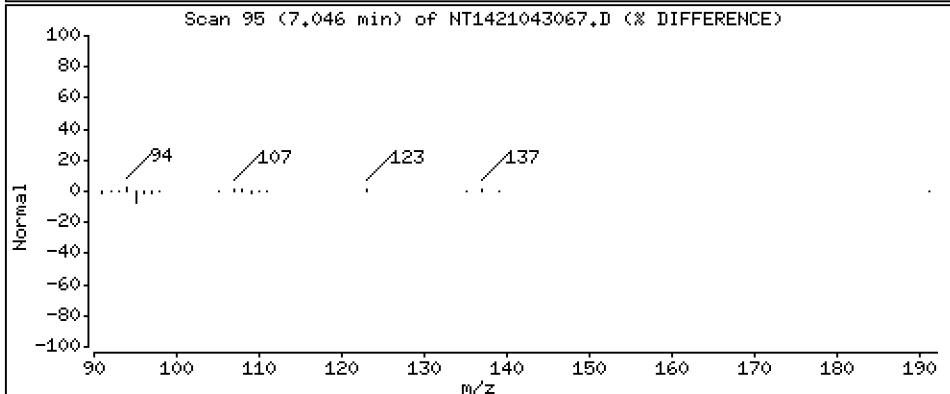
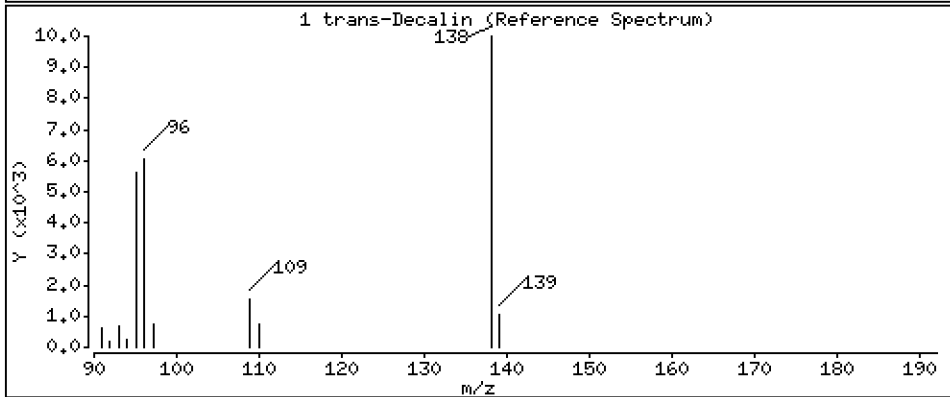
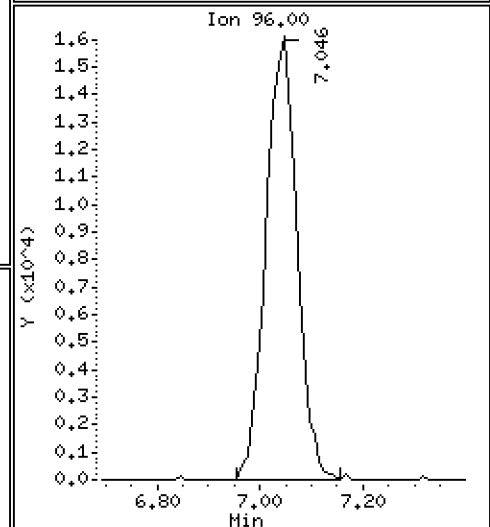
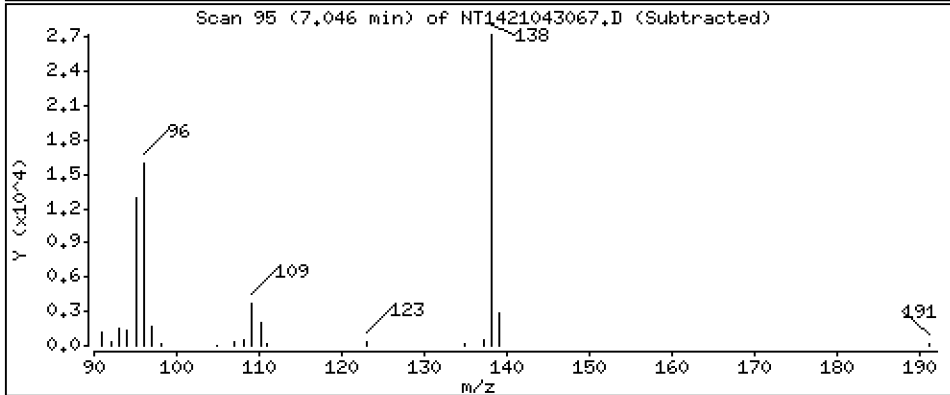
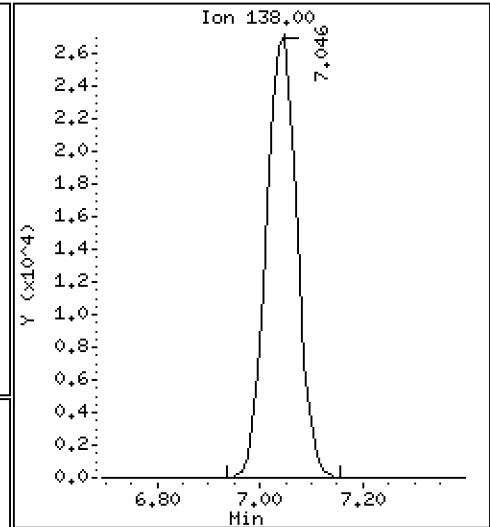
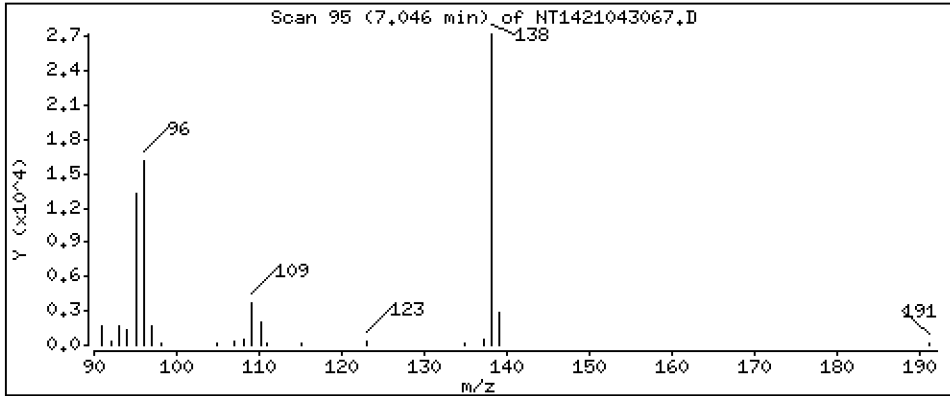
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

1 trans-Decalin

Concentration: 2,680 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

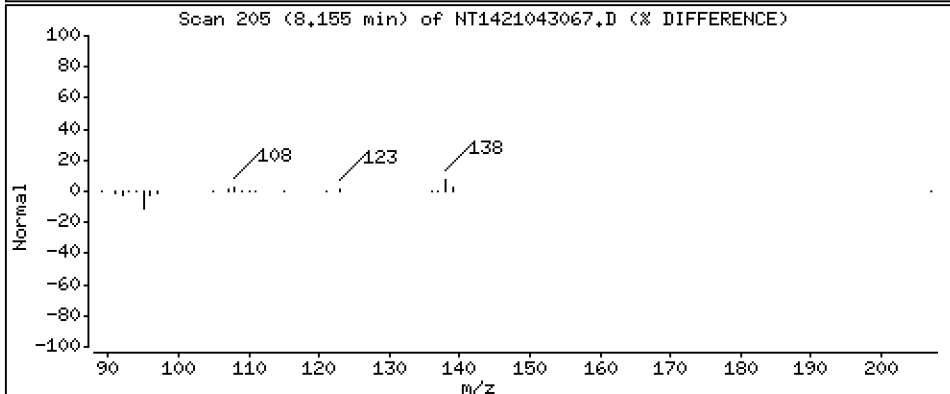
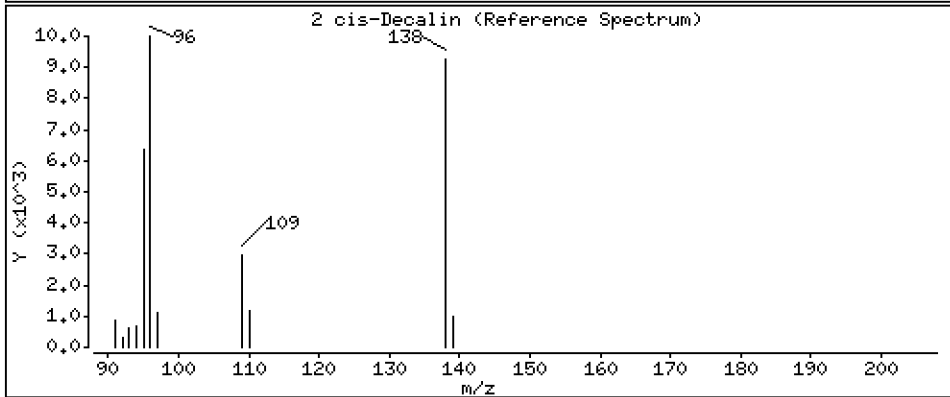
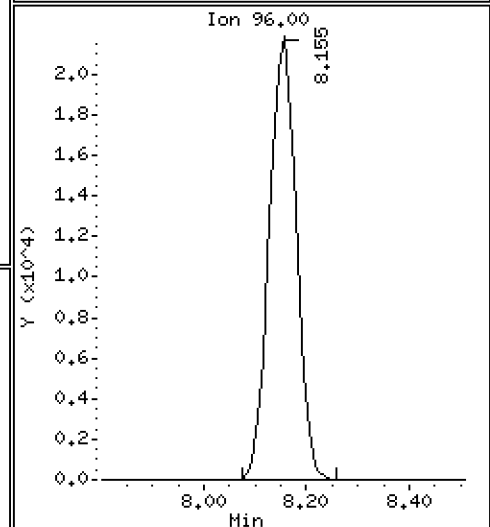
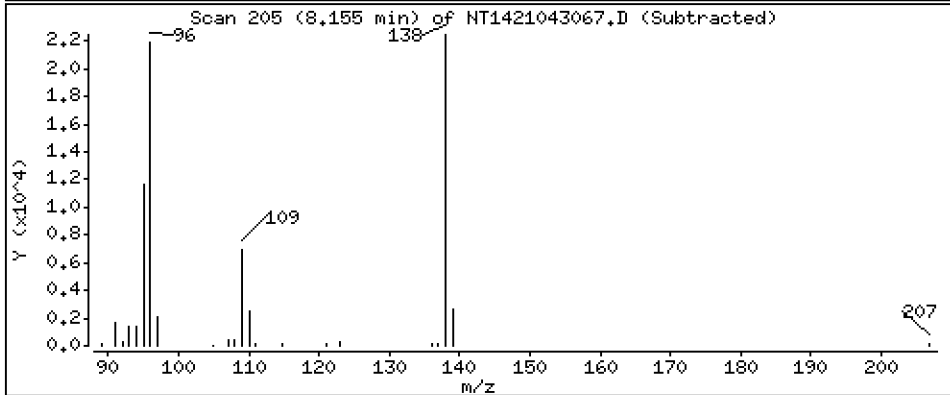
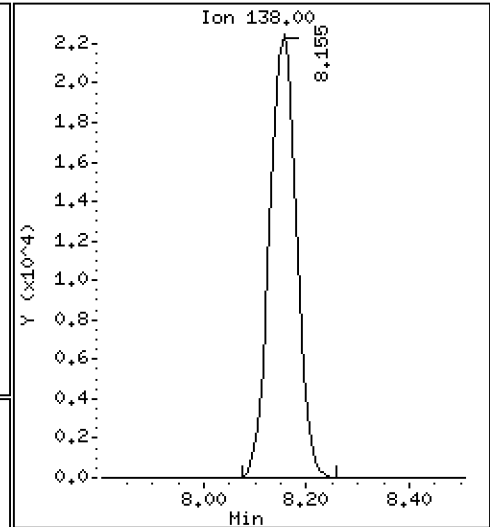
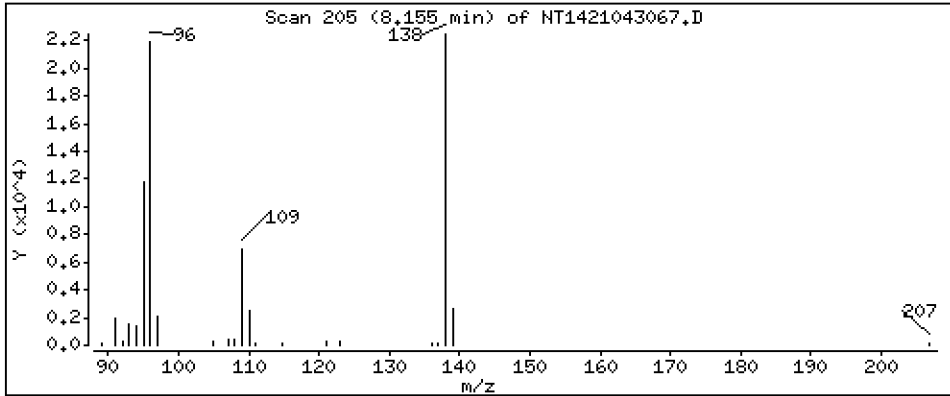
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 cis-Decalin

Concentration: 2,804 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

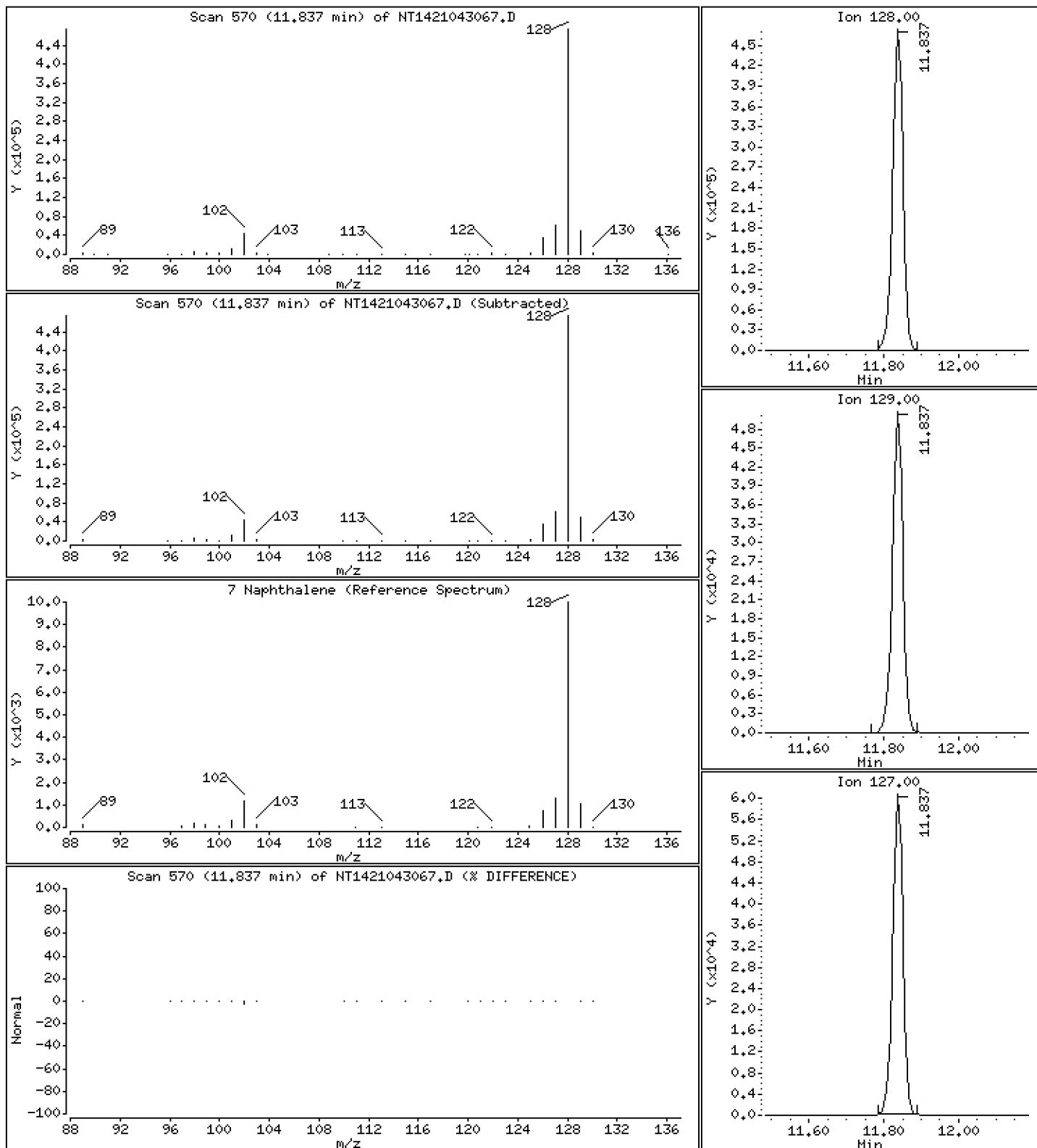
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

7 Naphthalene

Concentration: 2,762 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

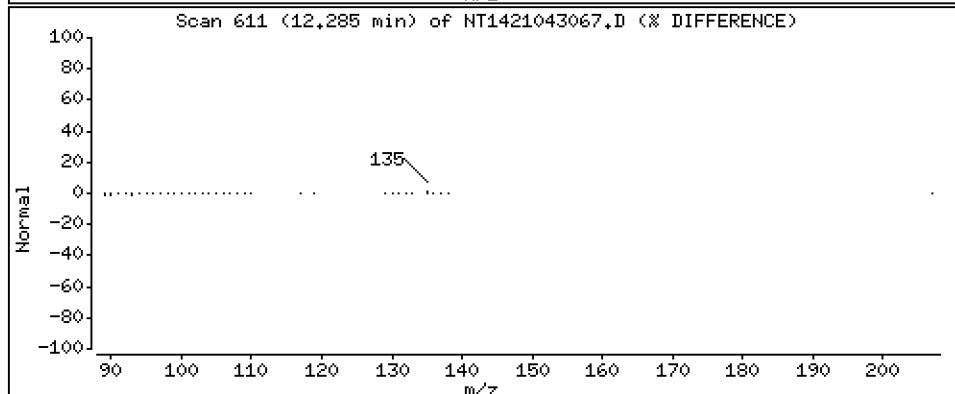
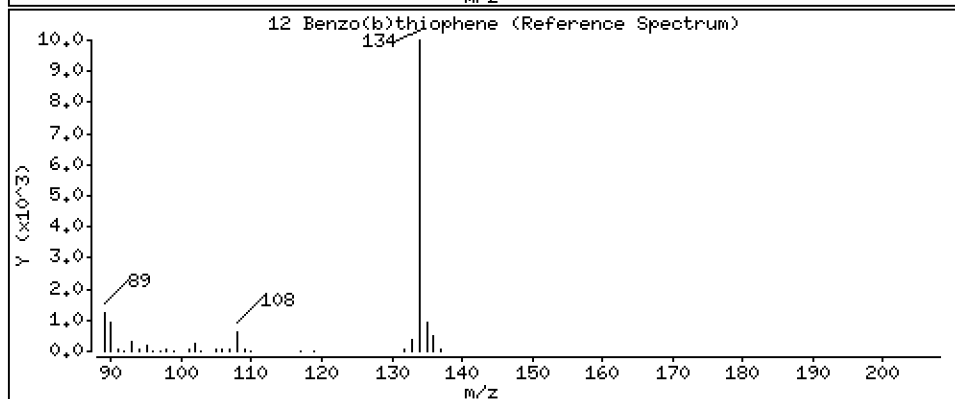
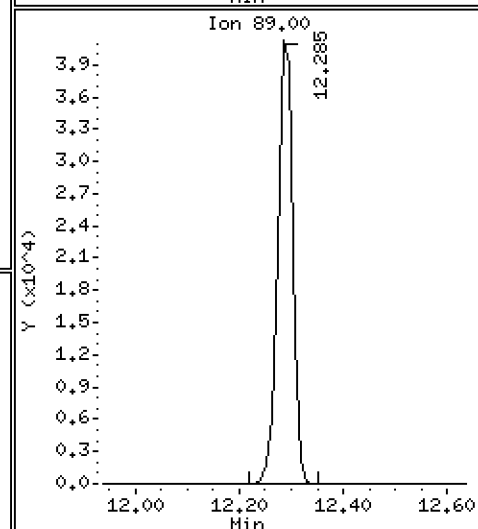
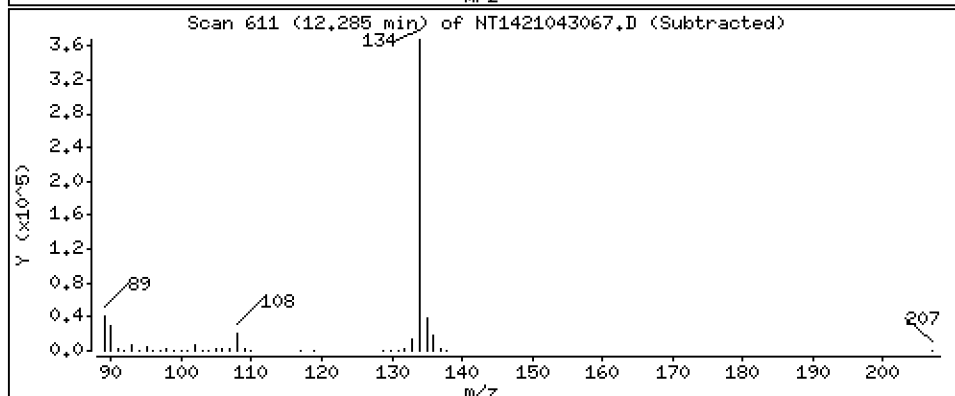
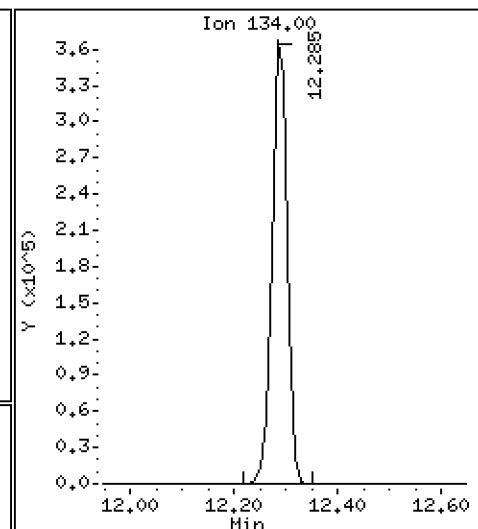
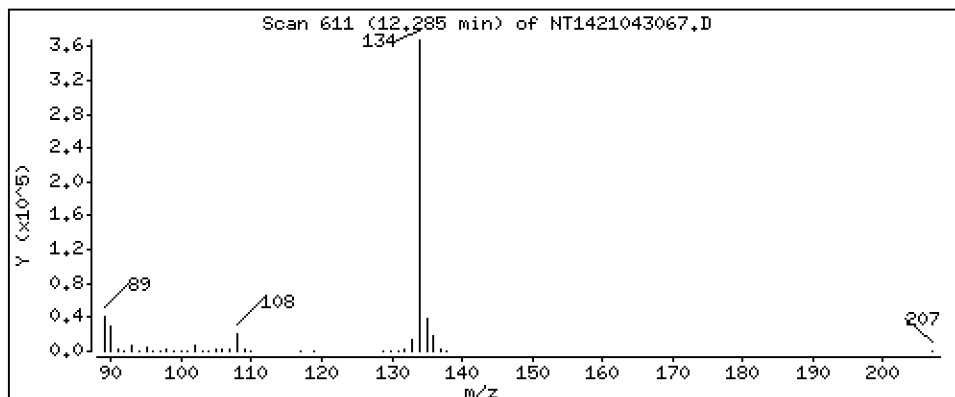
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

12 Benzo(b)thiophene

Concentration: 2,792 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

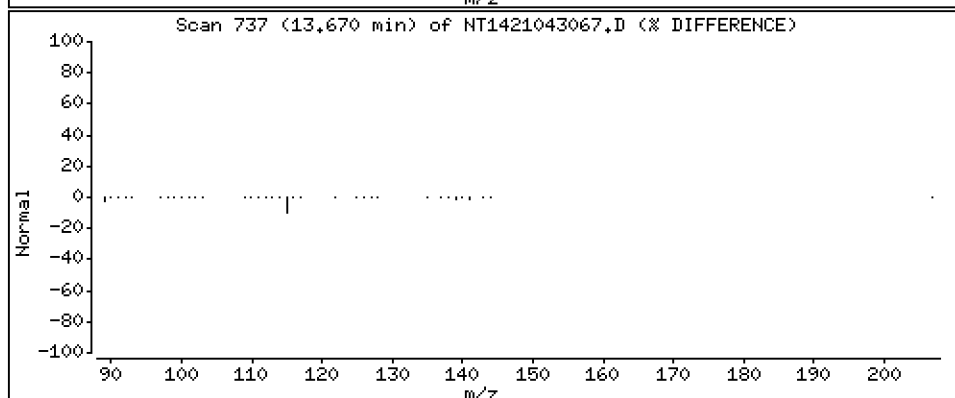
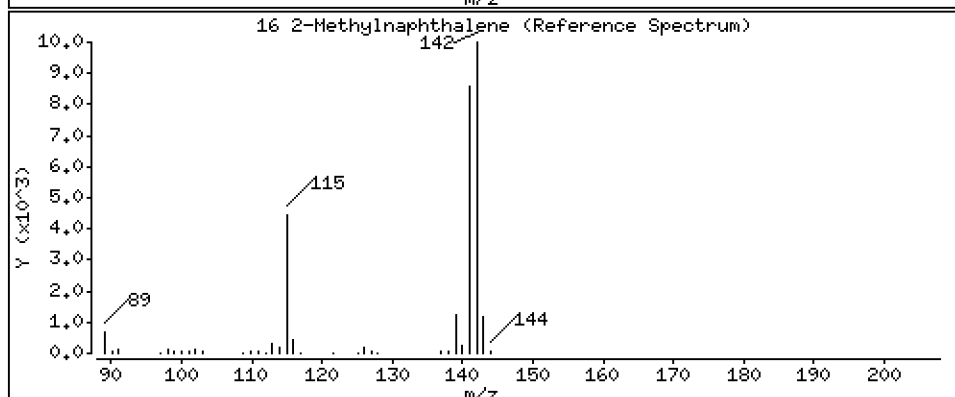
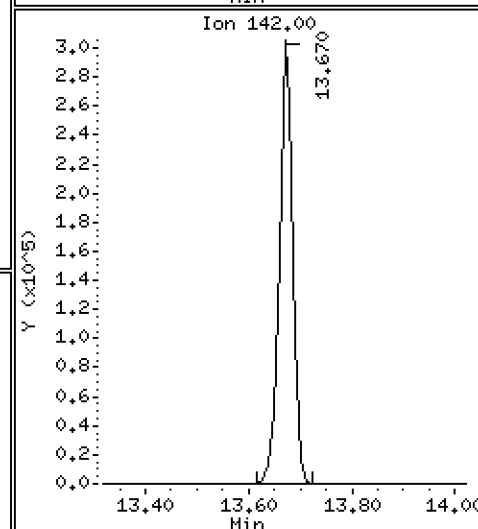
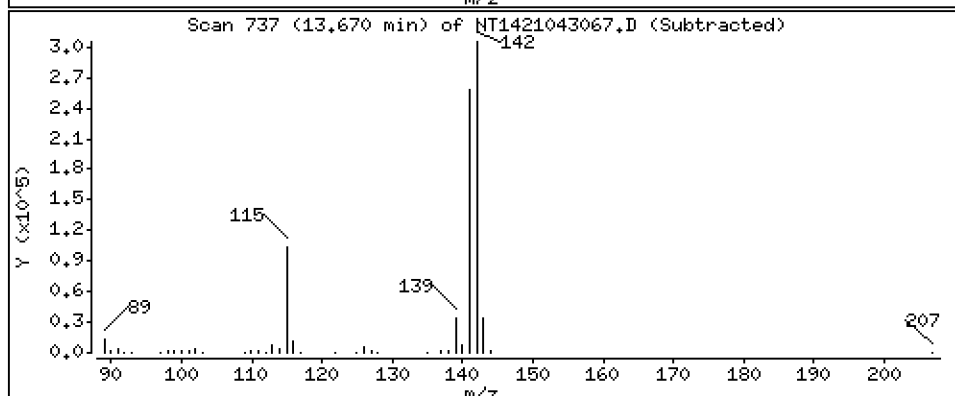
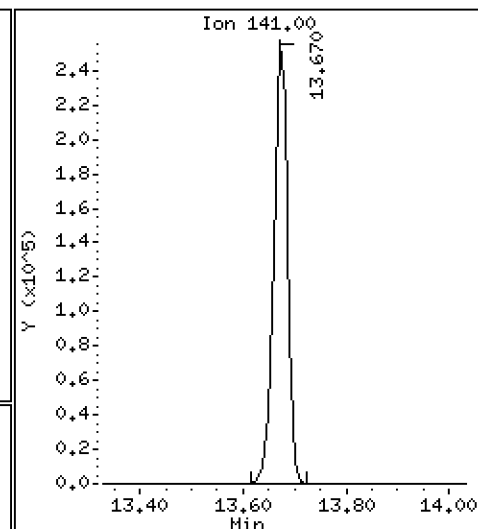
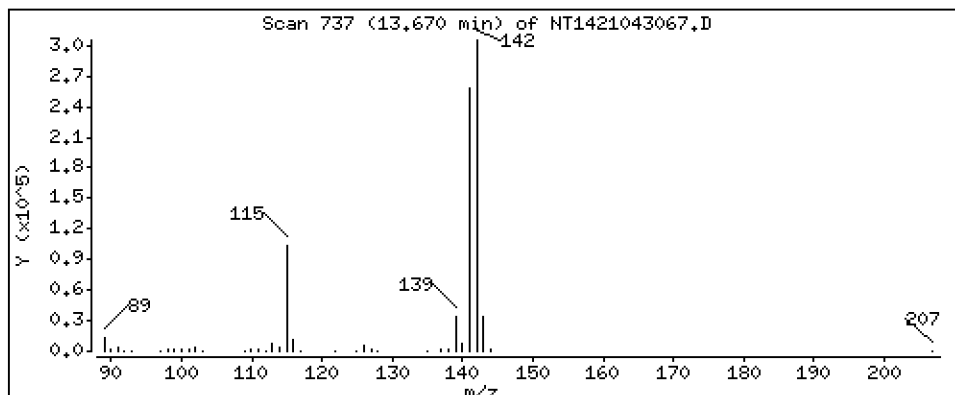
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 2-Methylnaphthalene

Concentration: 2,835 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

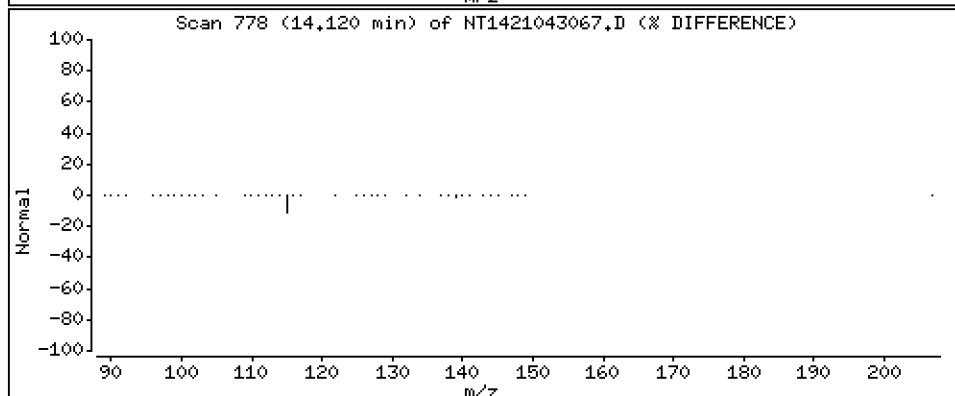
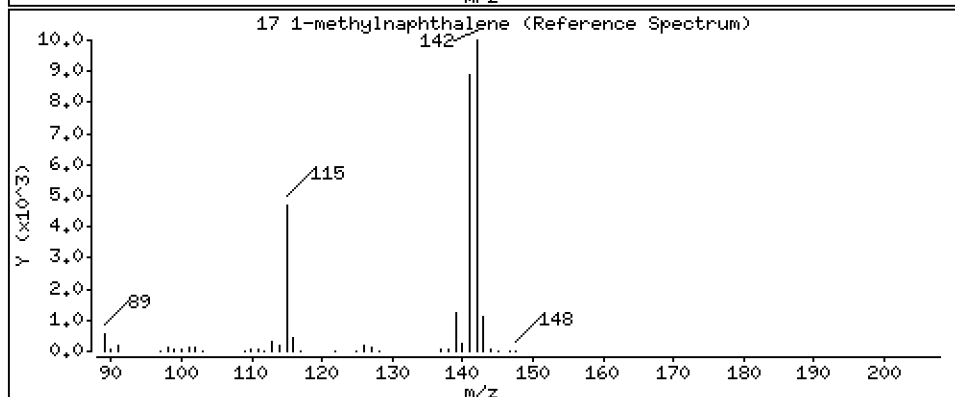
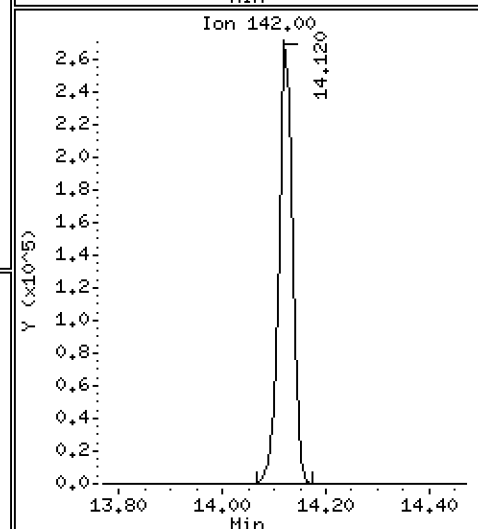
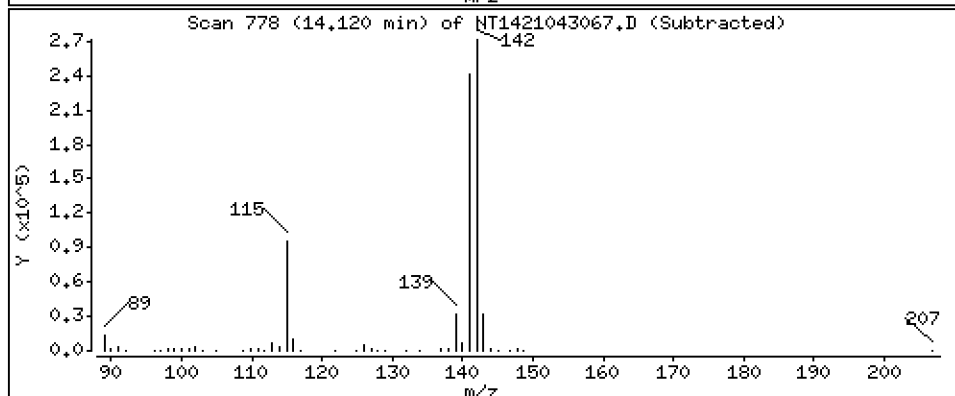
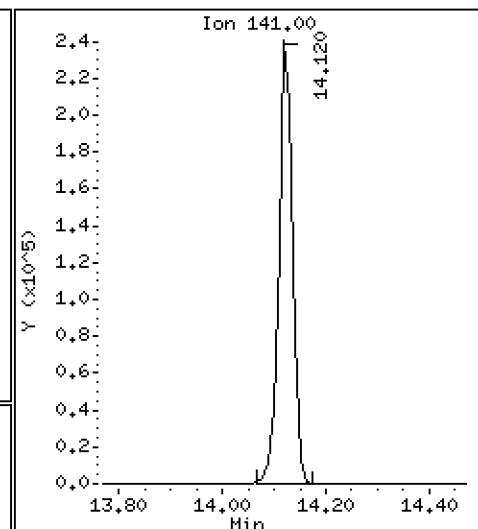
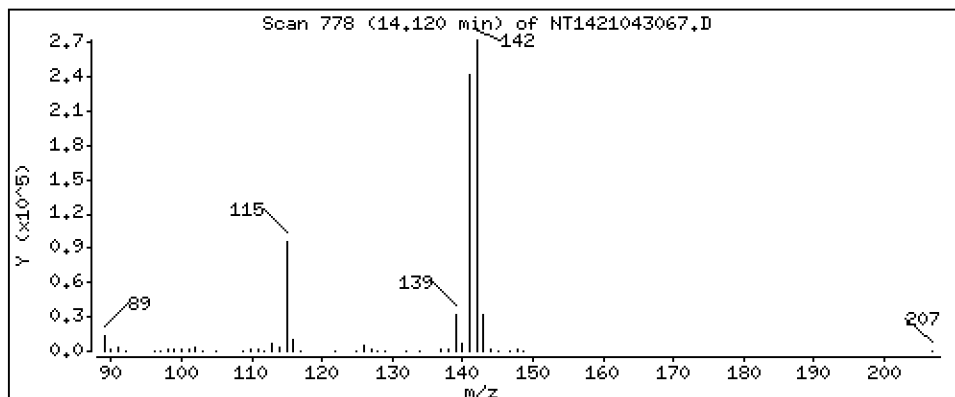
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 1-methylnaphthalene

Concentration: 2,812 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

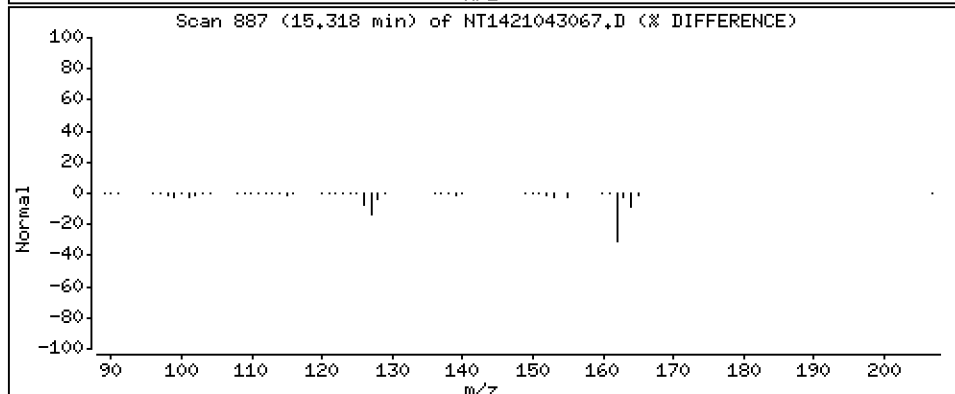
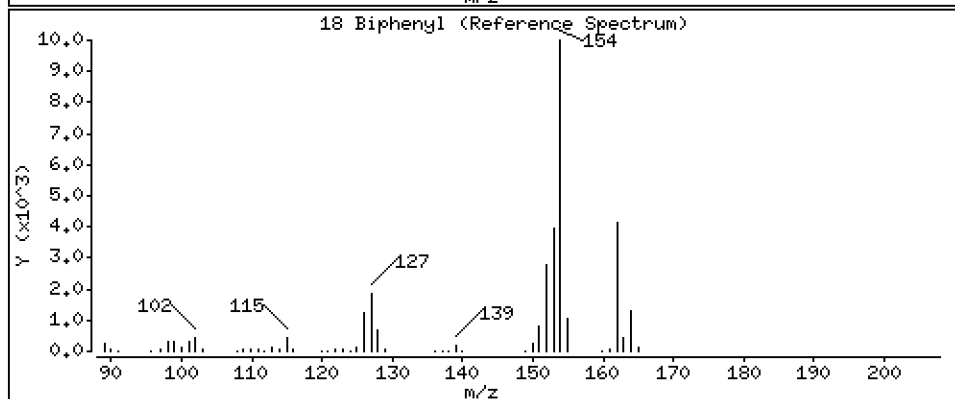
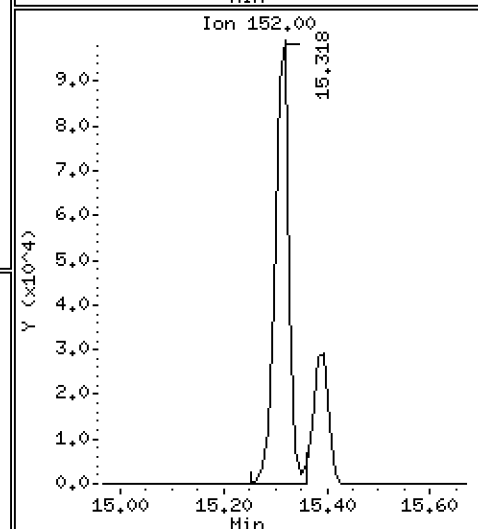
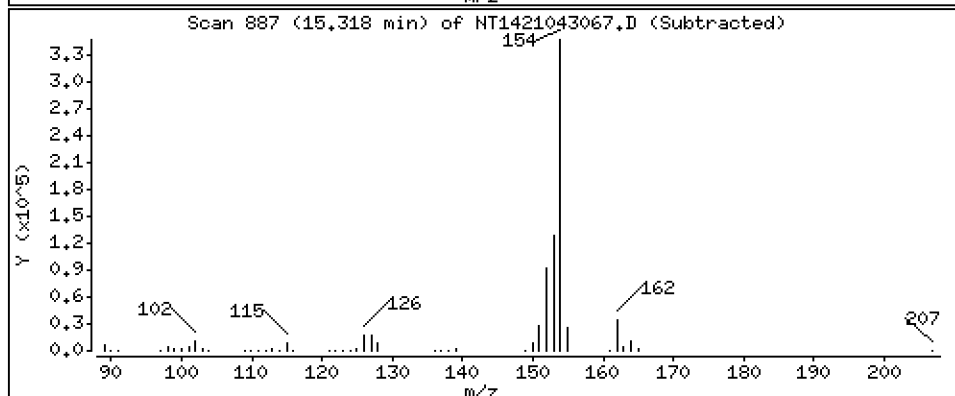
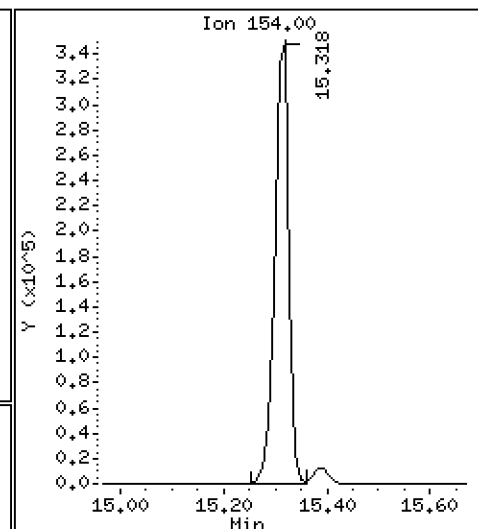
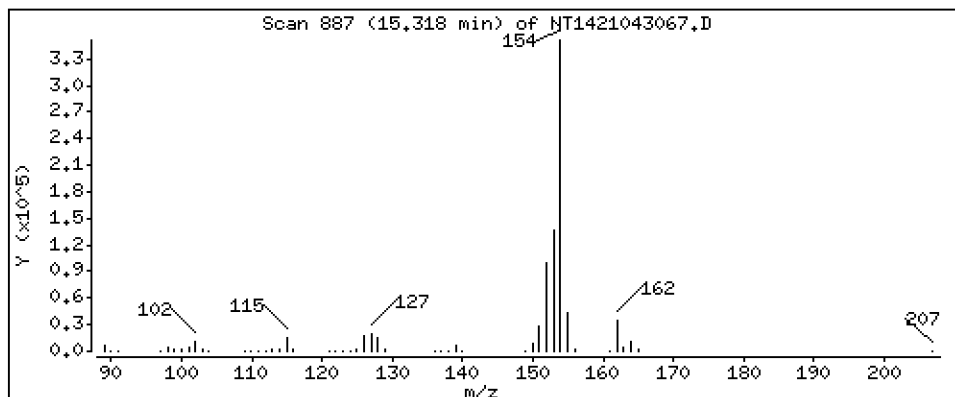
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

18 Biphenyl

Concentration: 2,776 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

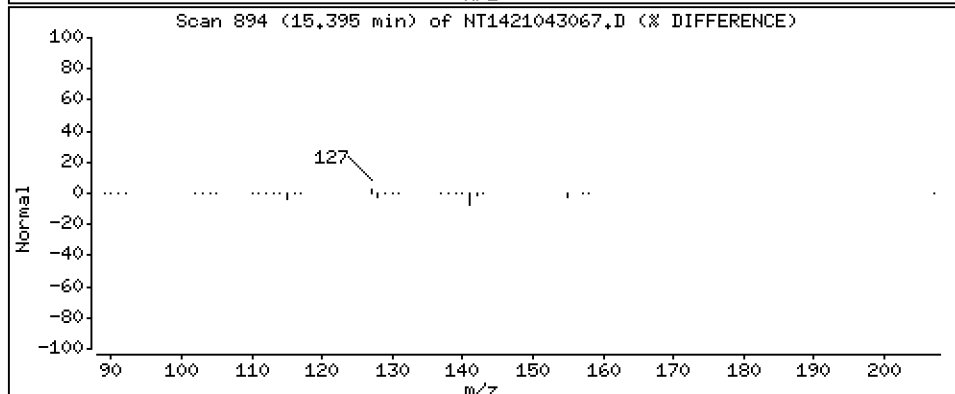
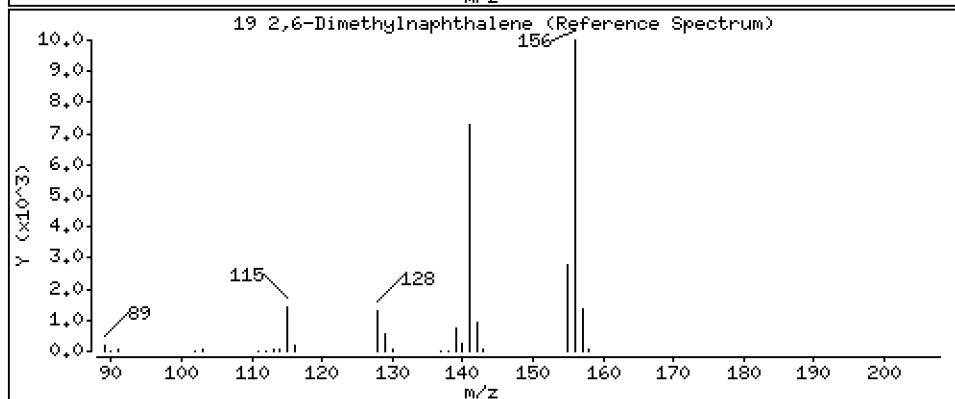
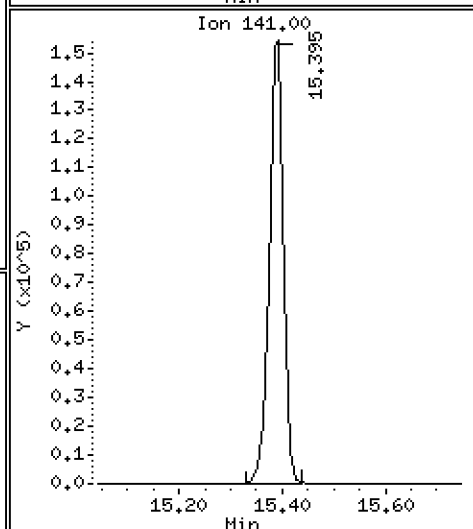
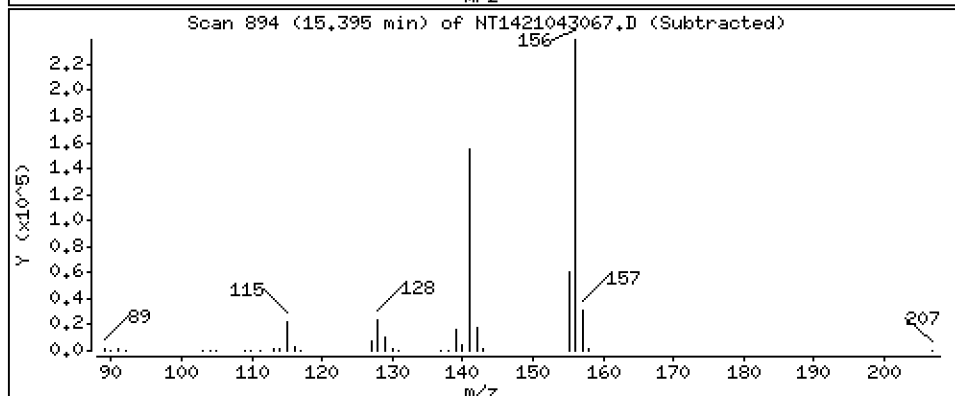
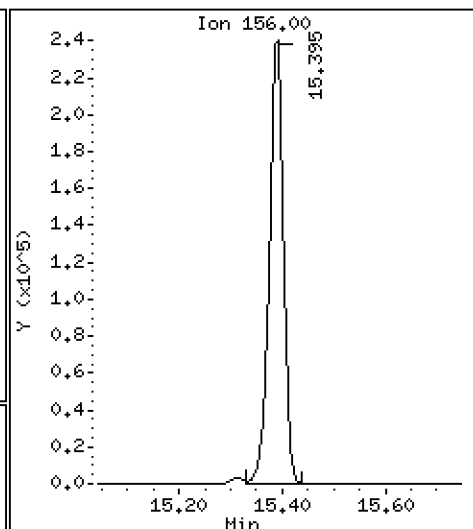
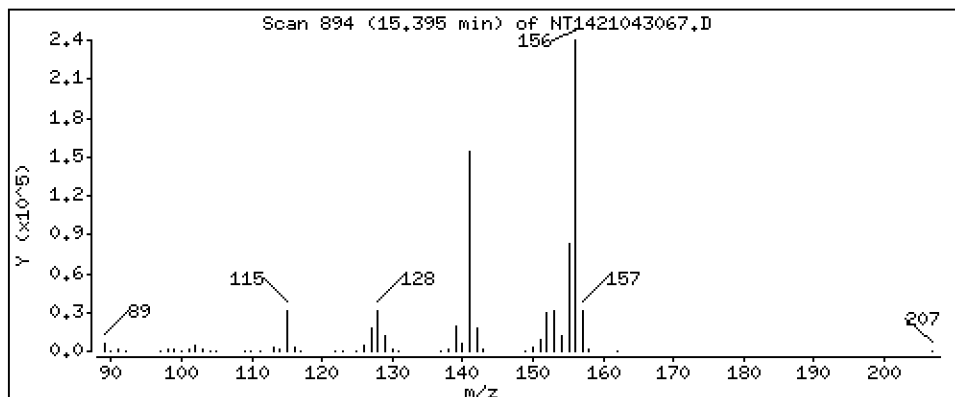
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 2,6-Dimethylnaphthalene

Concentration: 2,871 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

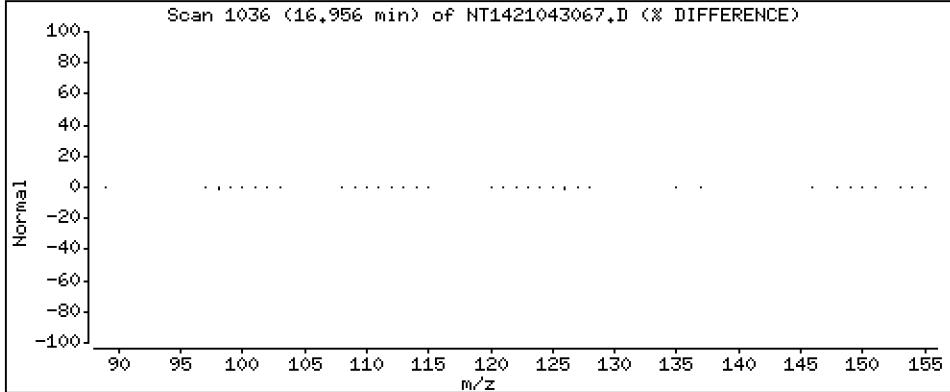
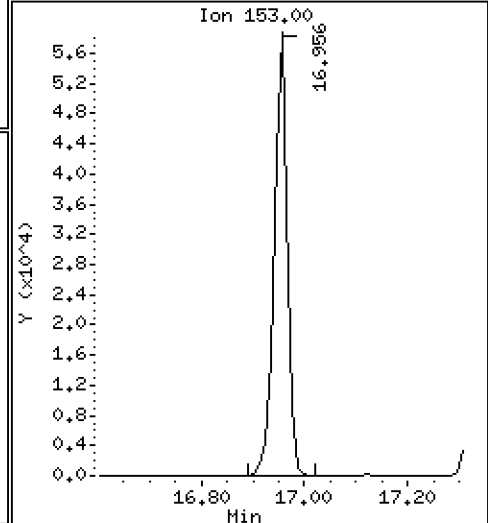
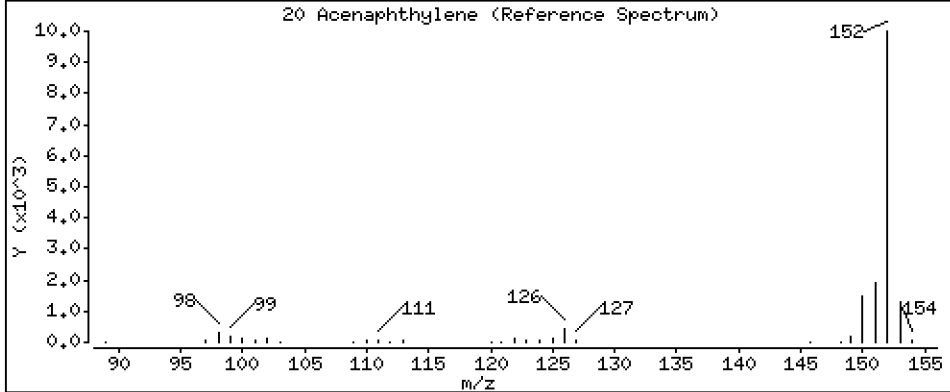
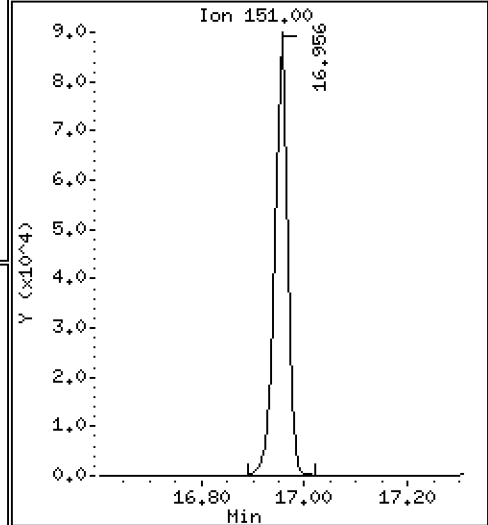
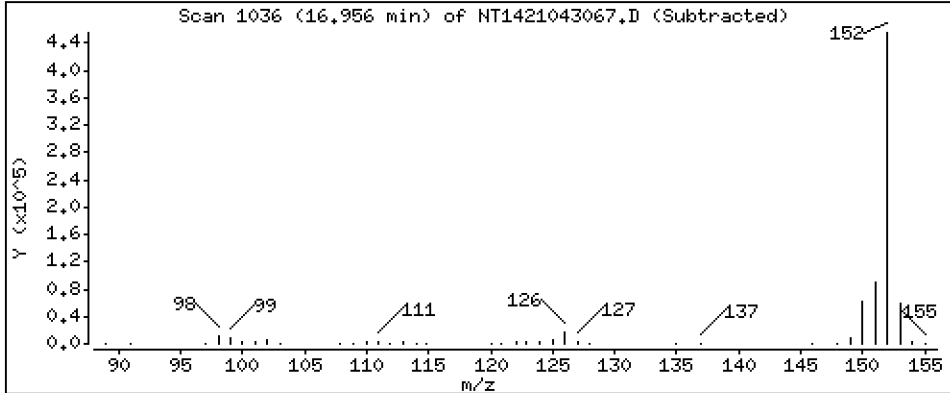
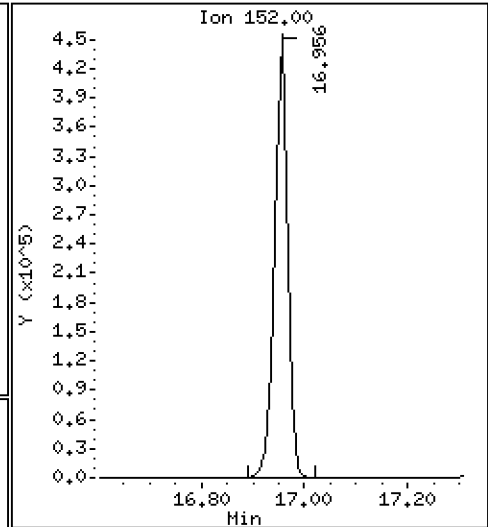
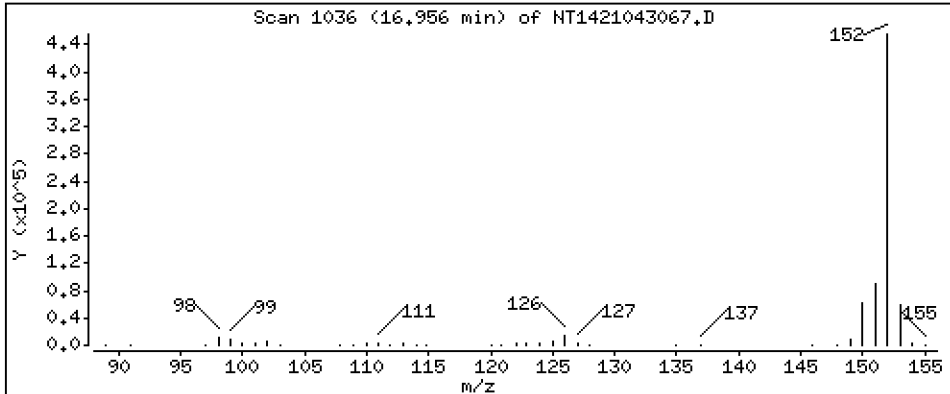
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

20 Acenaphthylene

Concentration: 3,142 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

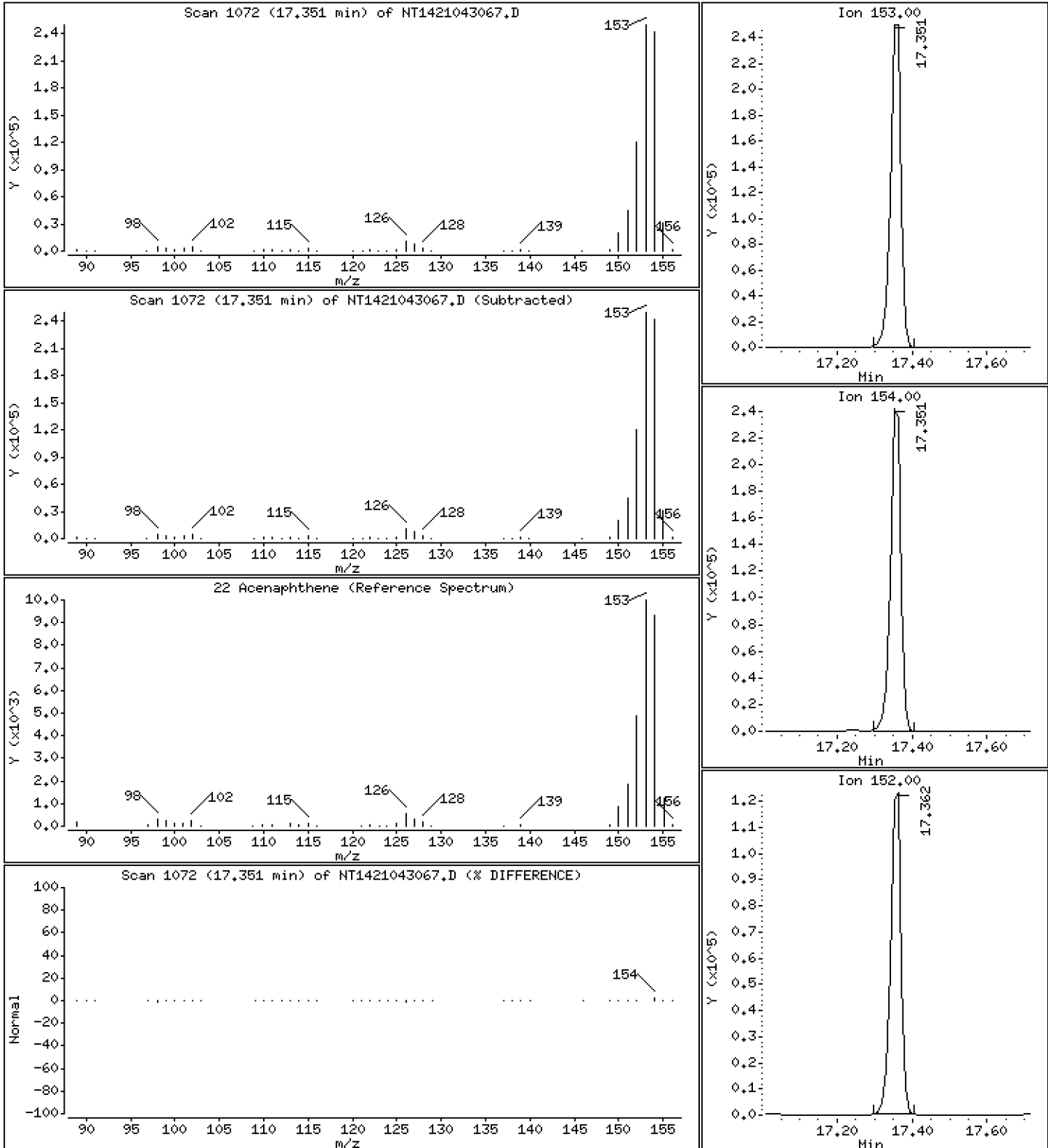
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

22 Acenaphthene

Concentration: 2,924 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

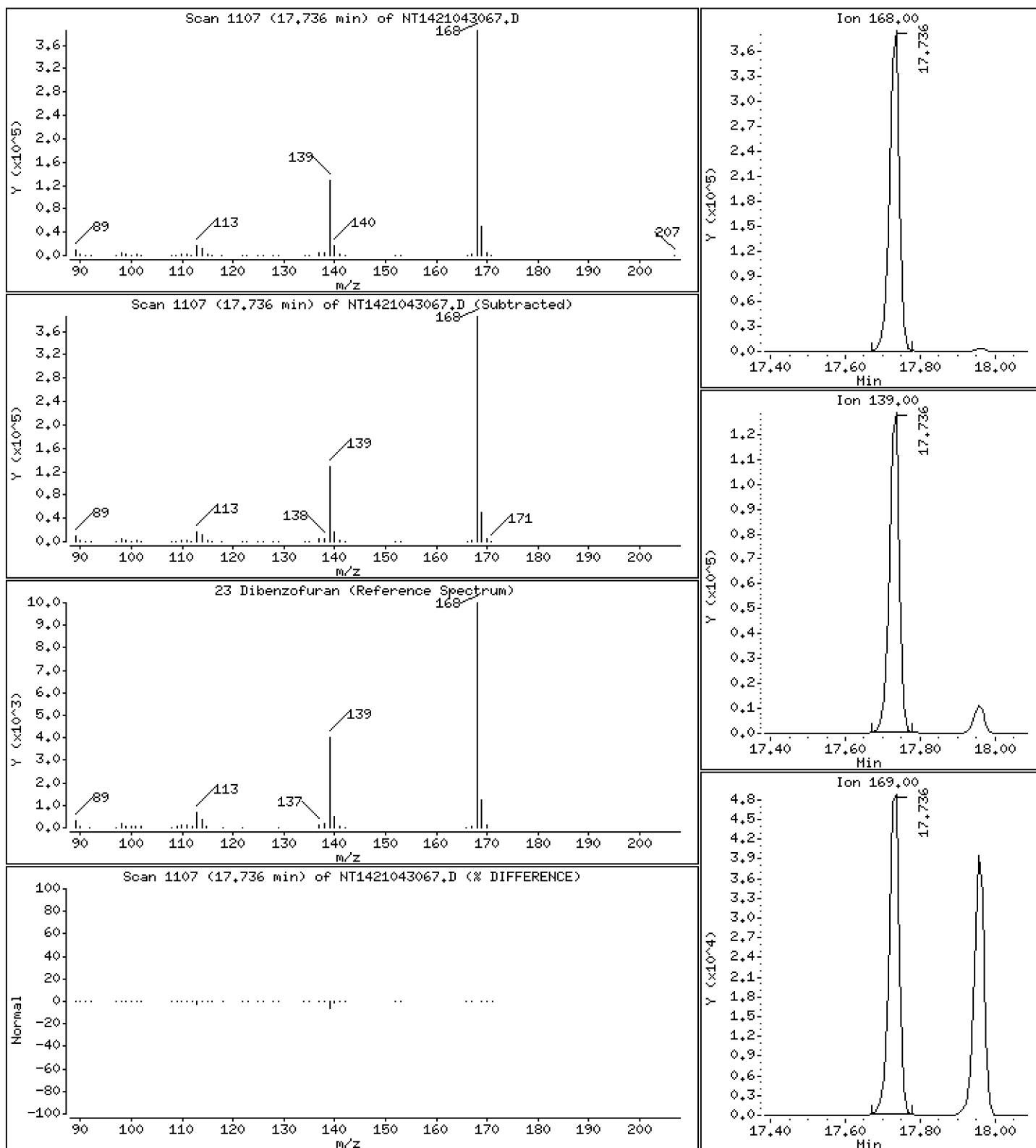
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 Dibenzofuran

Concentration: 2,826 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

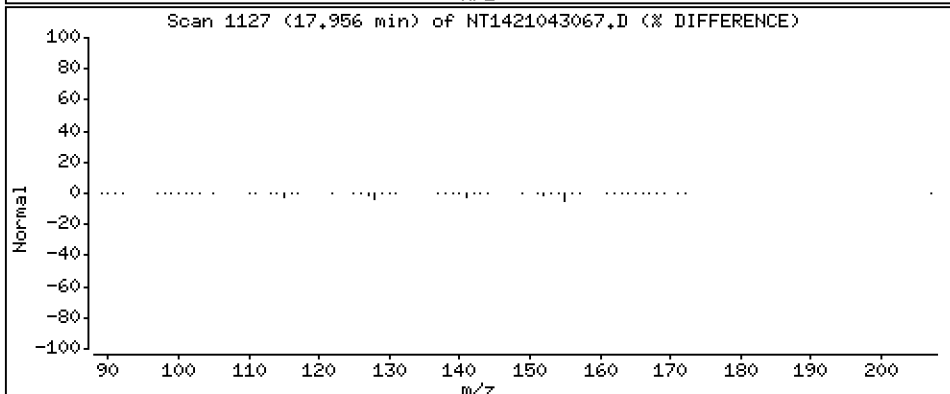
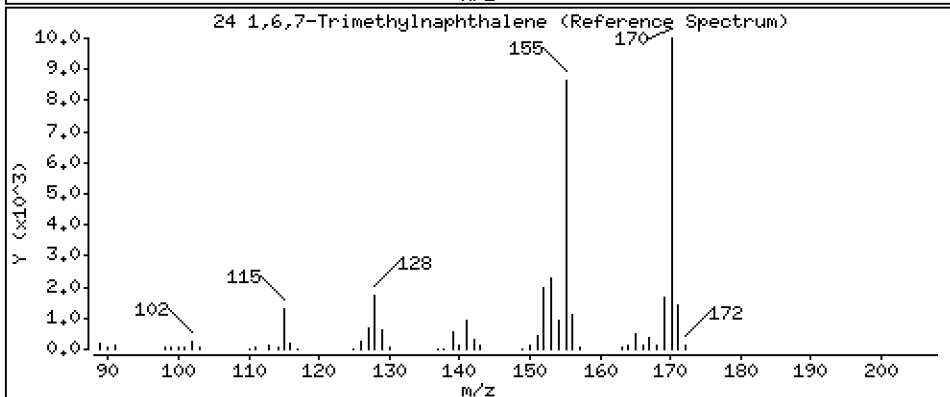
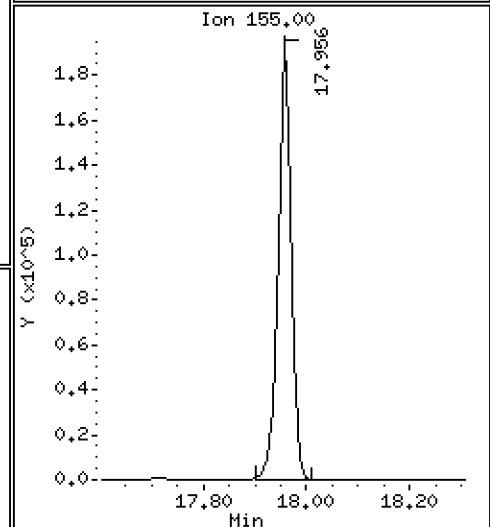
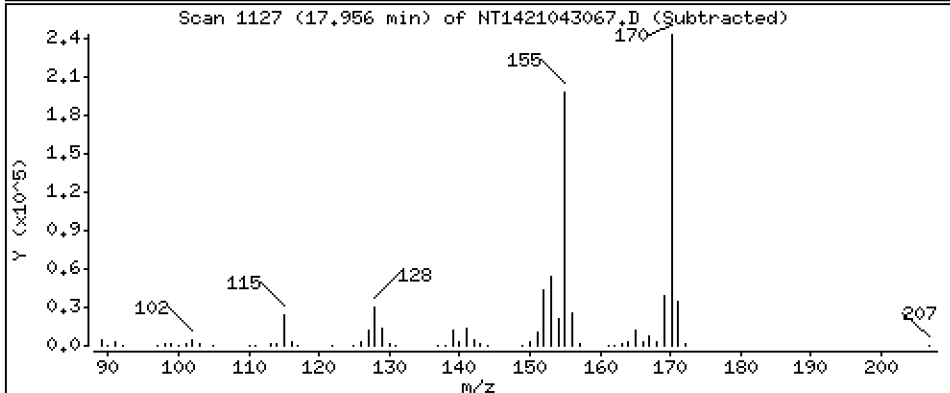
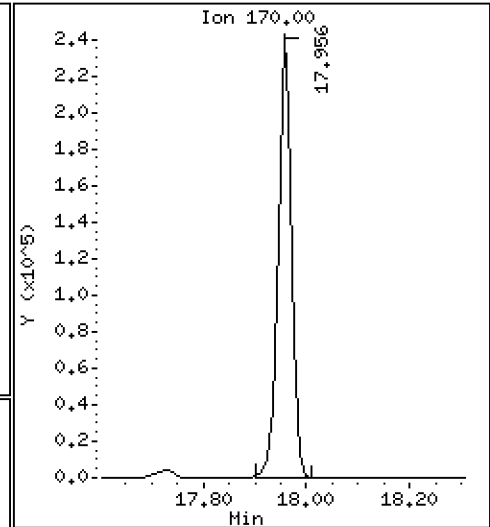
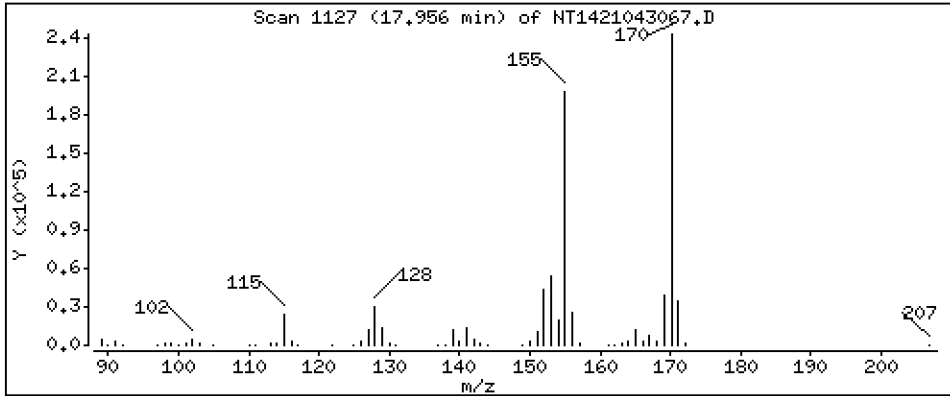
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

24 1,6,7-Trimethylnaphthalene

Concentration: 3.070 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

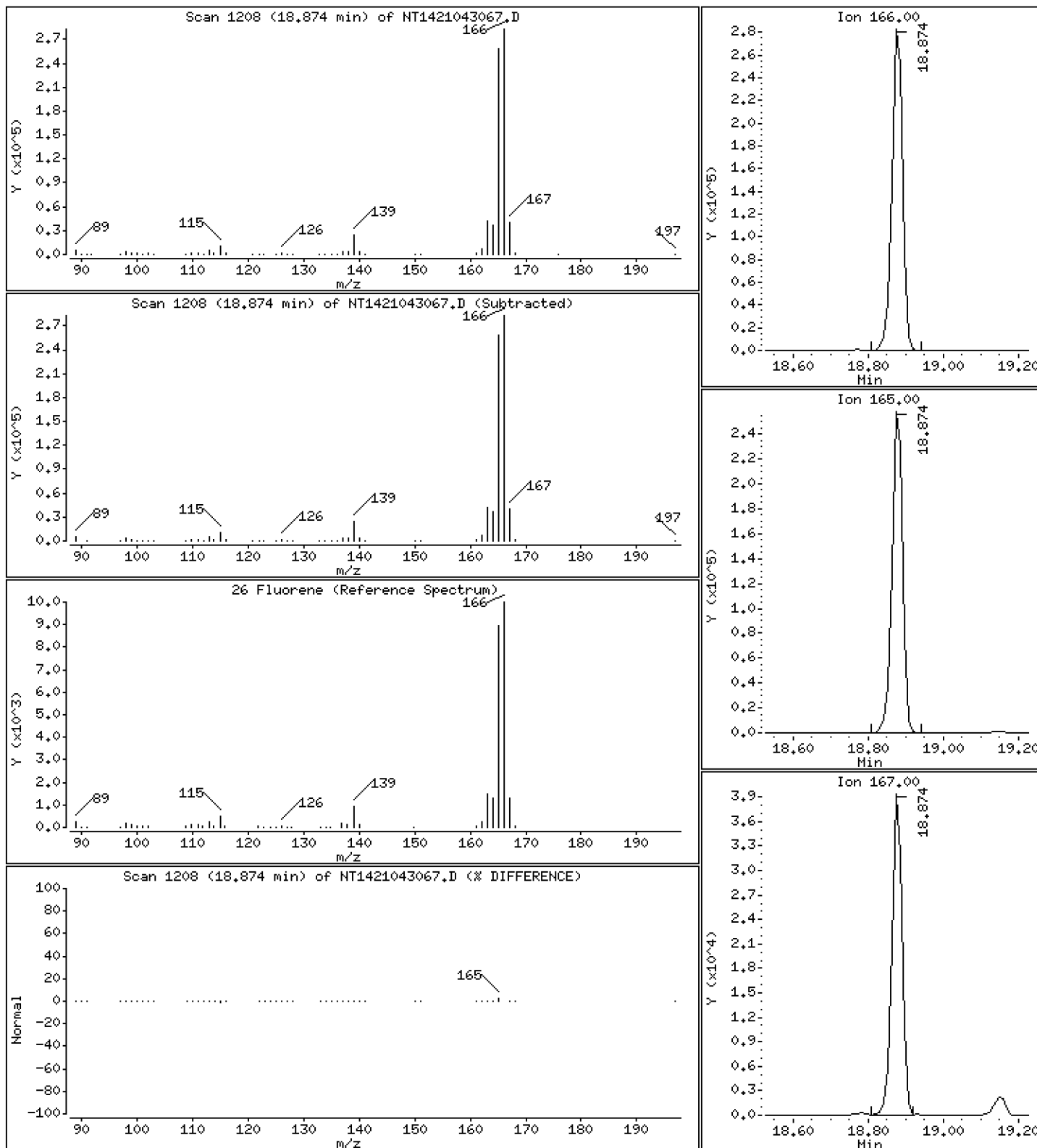
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Fluorene

Concentration: 2,931 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

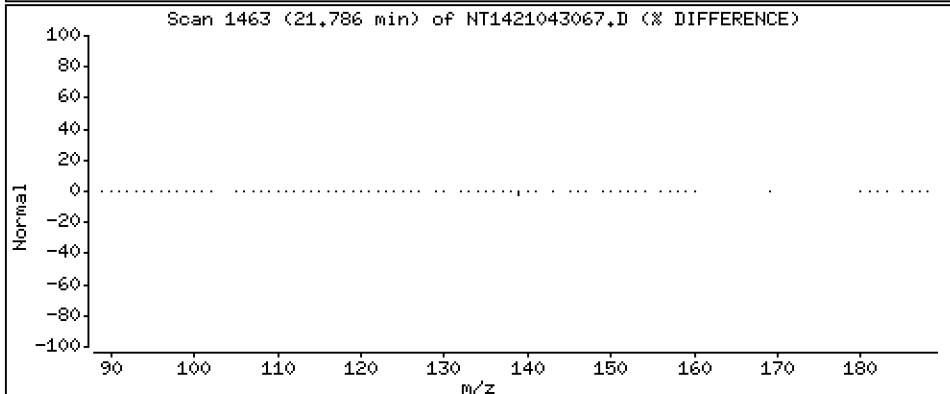
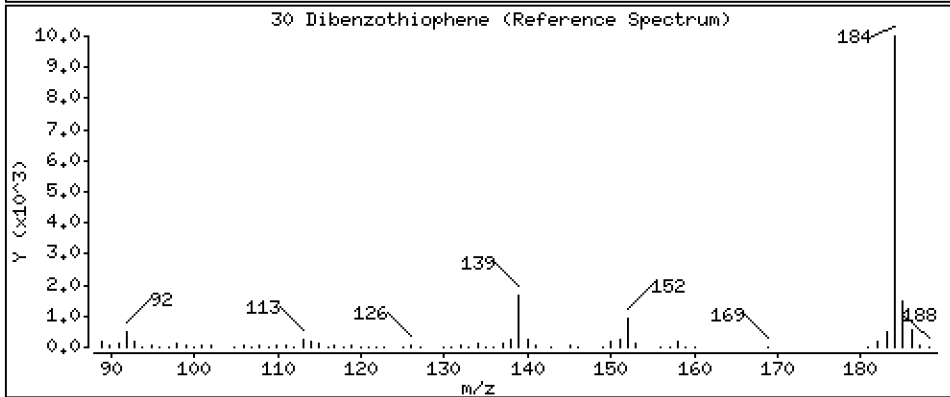
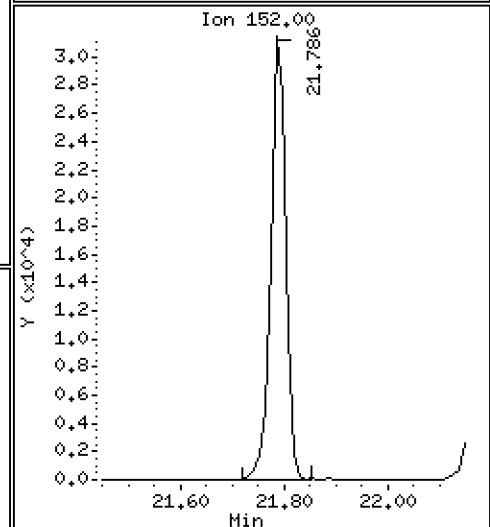
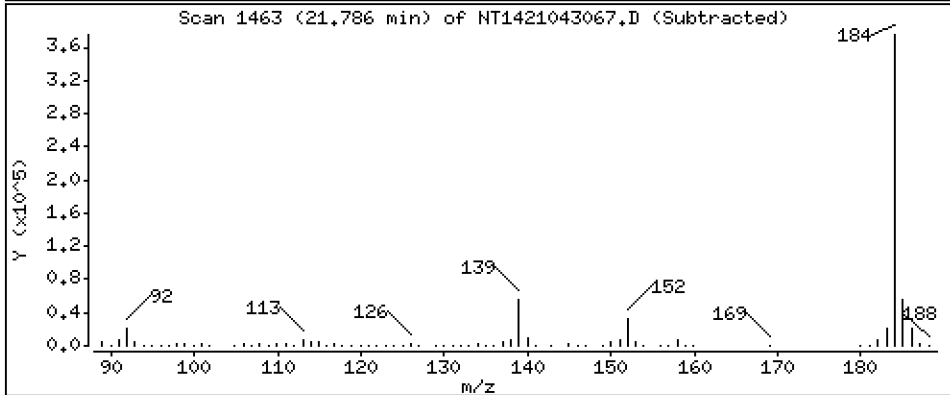
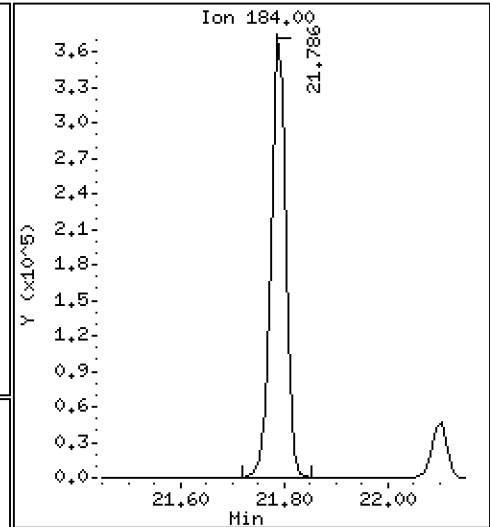
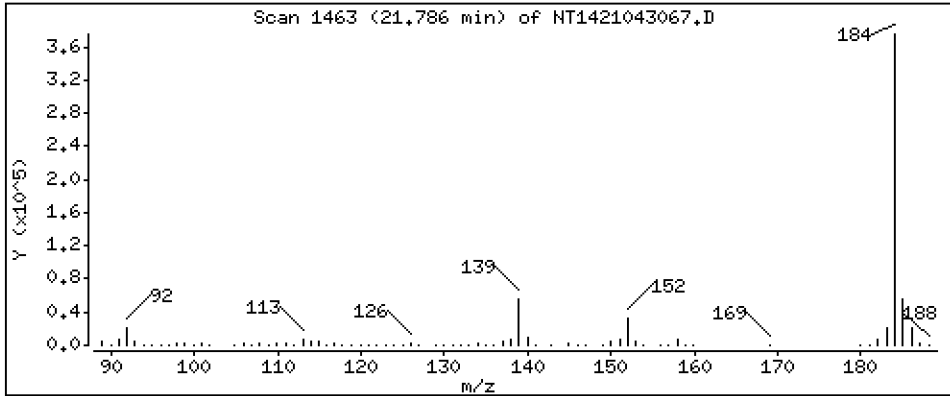
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Dibenzothiophene

Concentration: 3,006 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

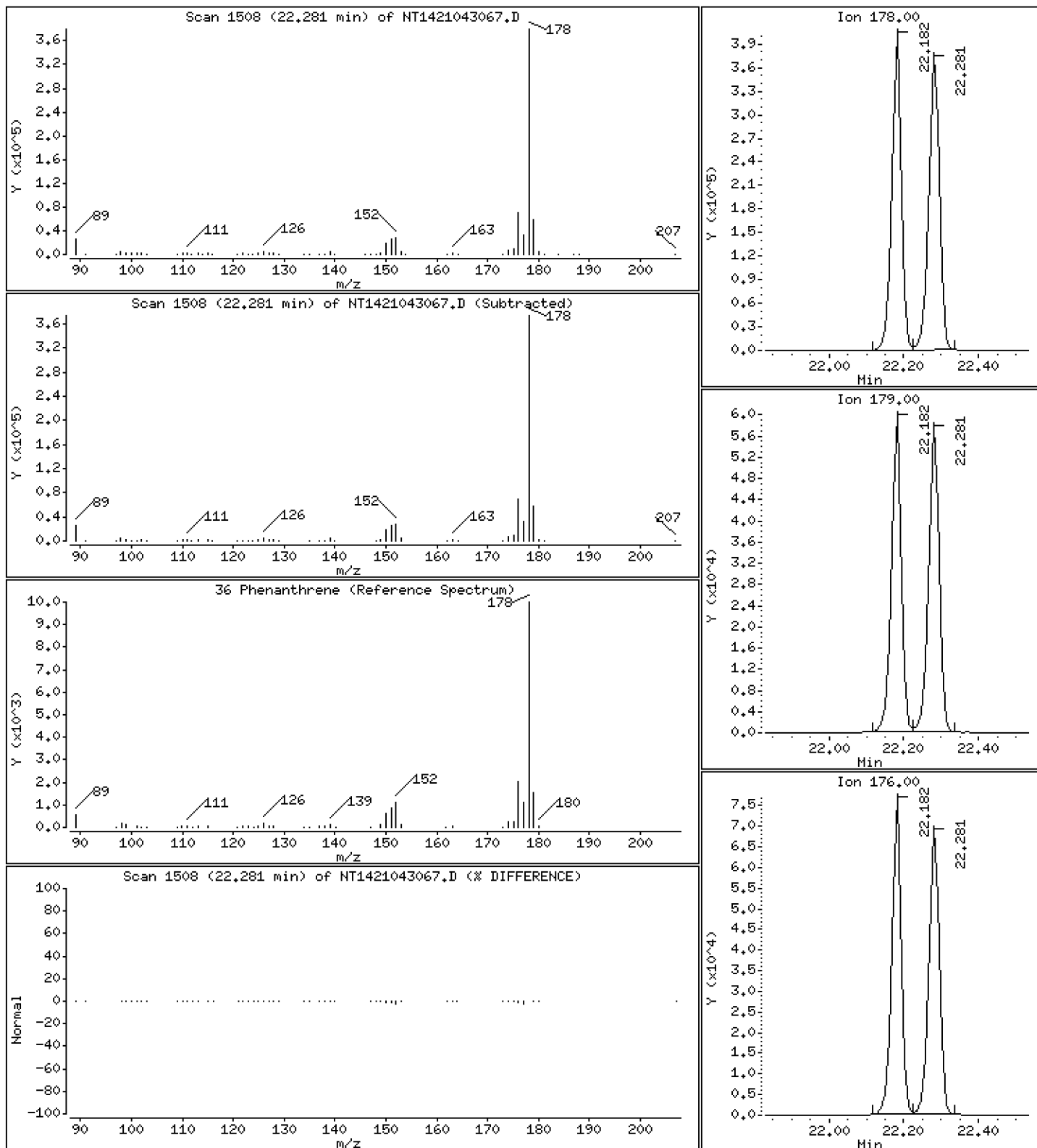
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

36 Phenanthrene

Concentration: 2,364 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

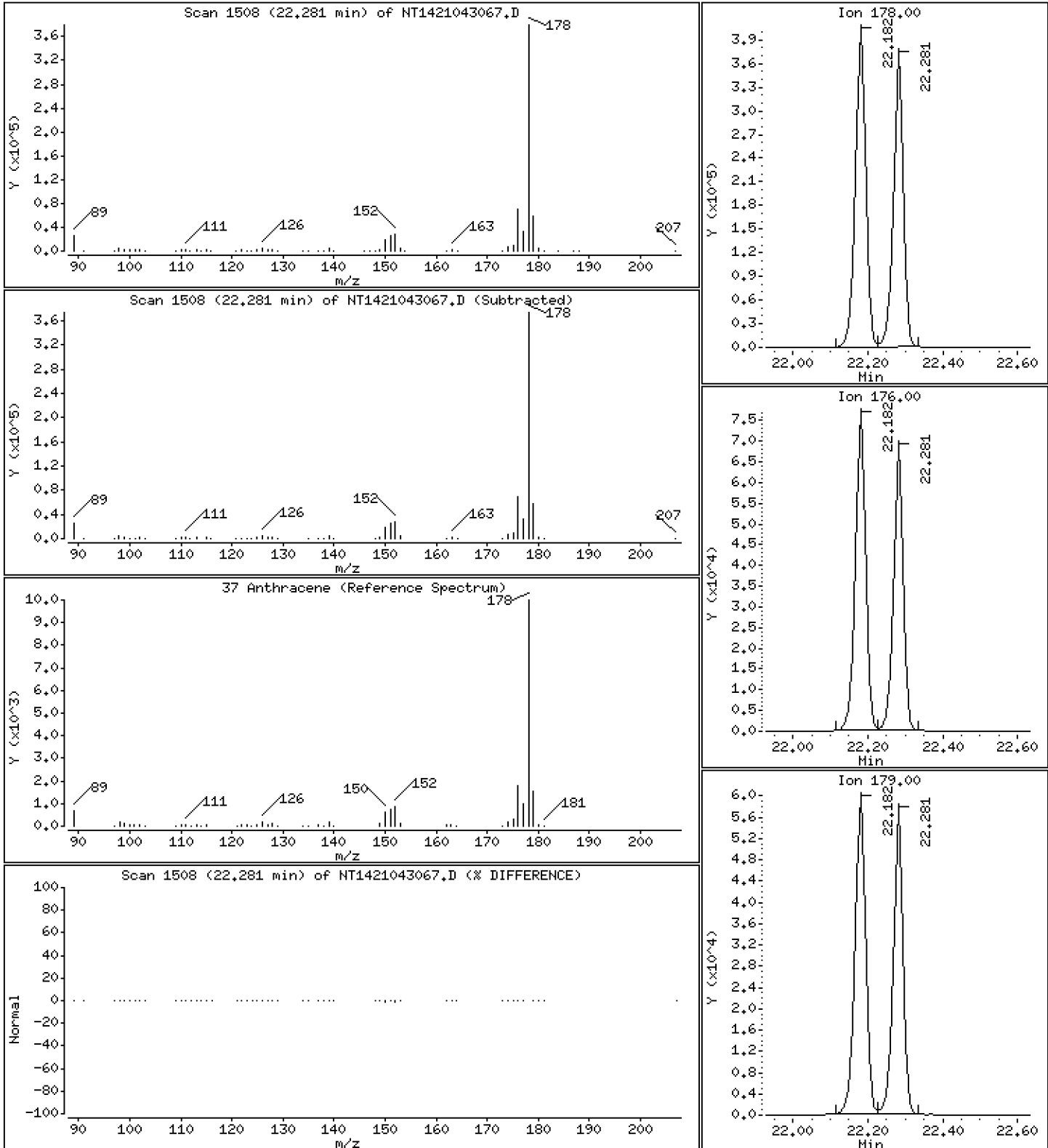
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

37 Anthracene

Concentration: 2,565 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

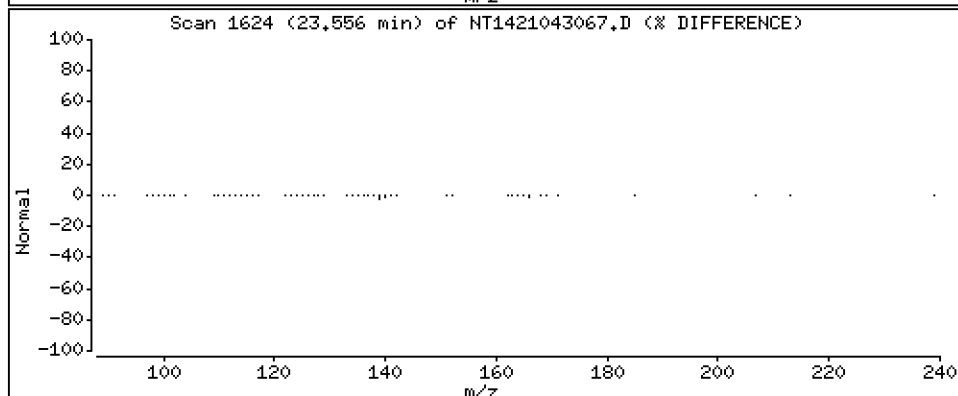
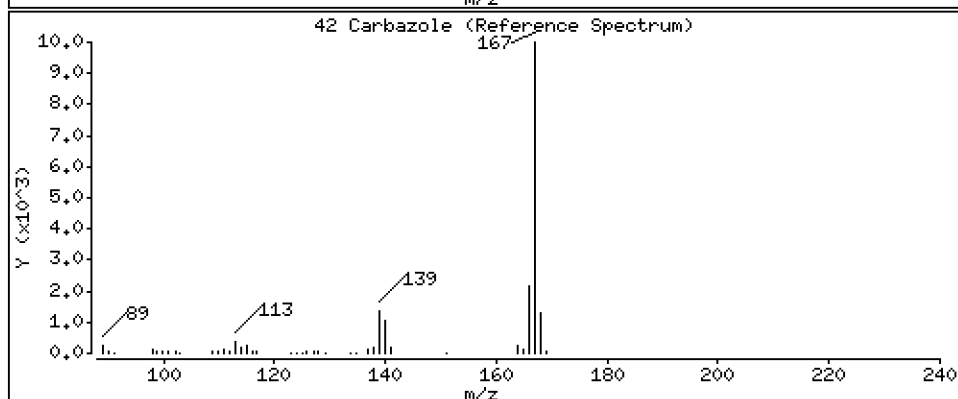
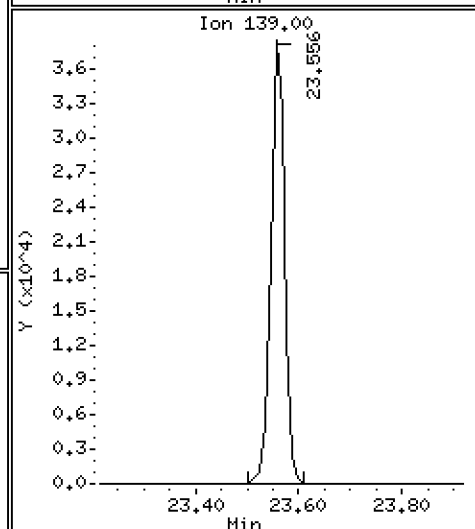
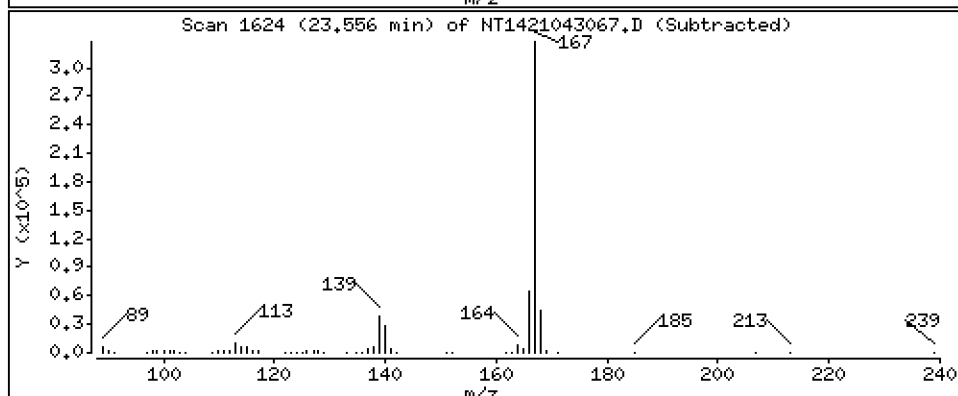
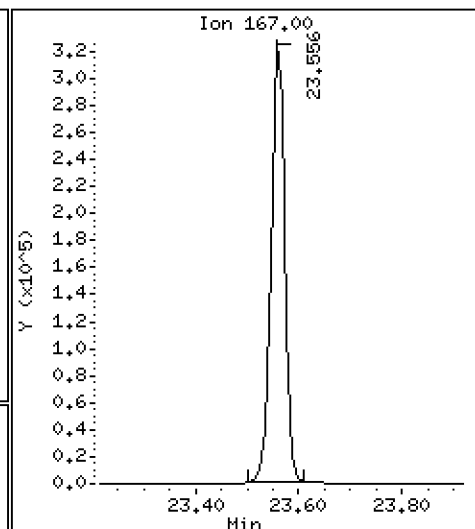
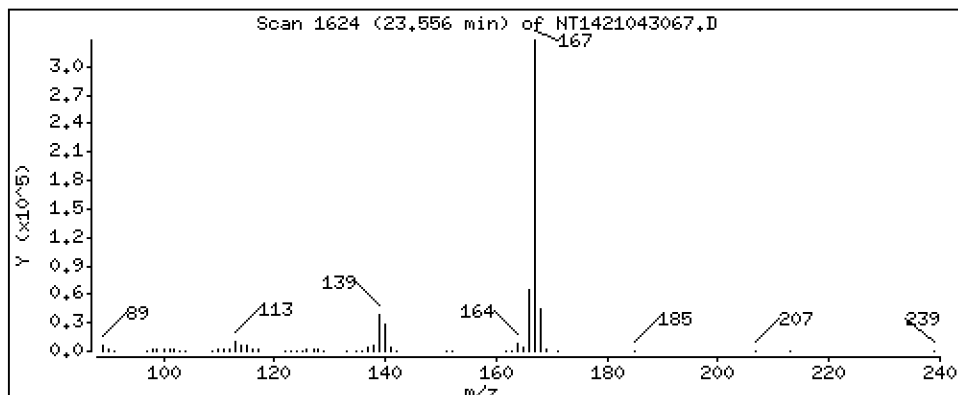
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

42 Carbazole

Concentration: 2,617 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

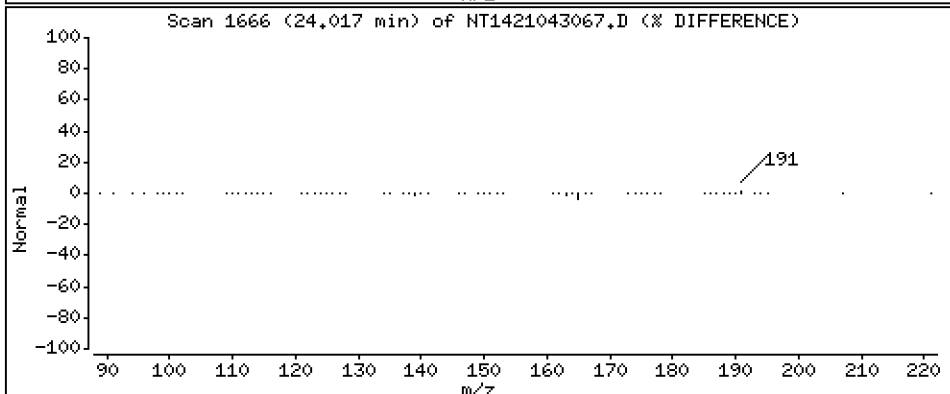
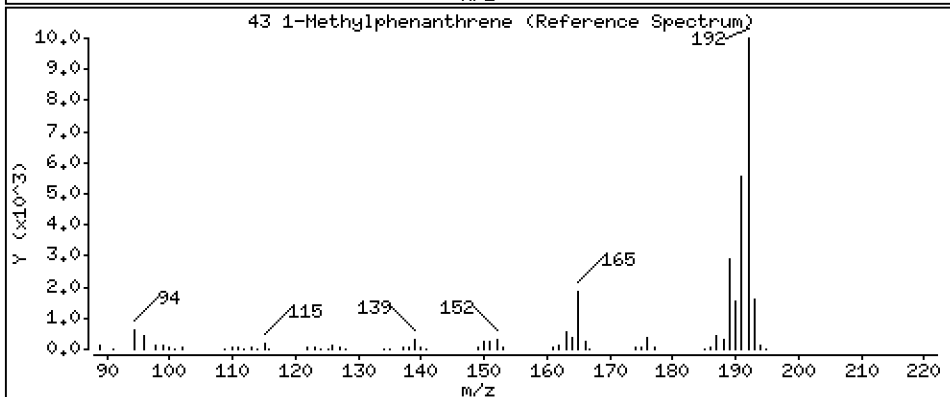
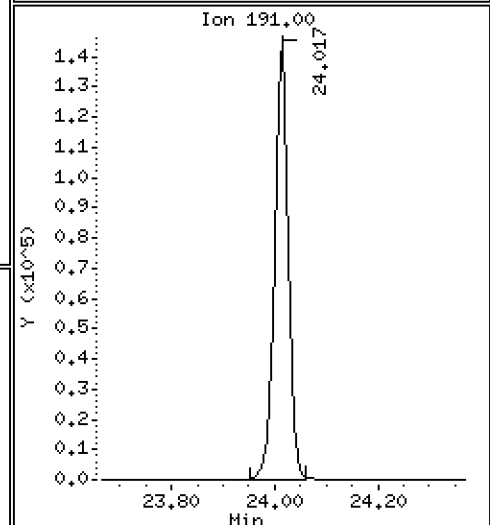
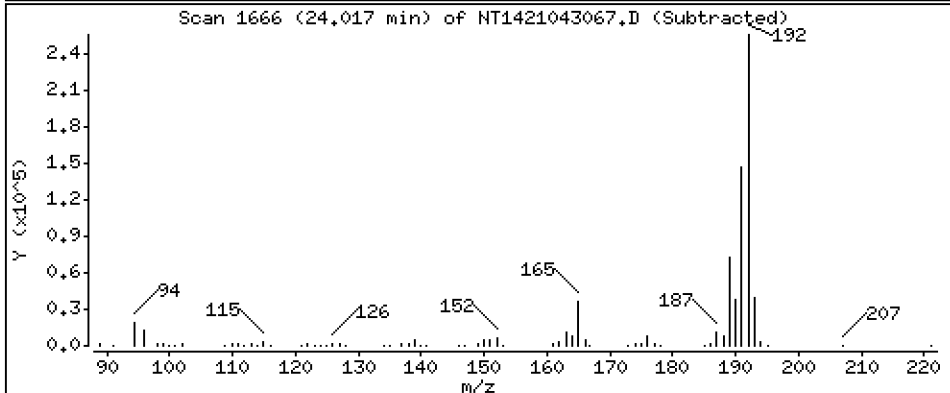
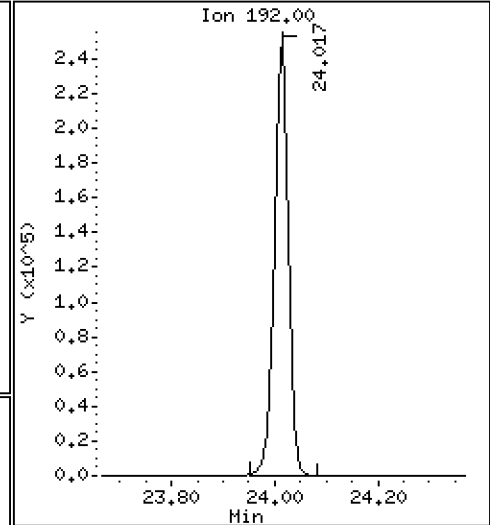
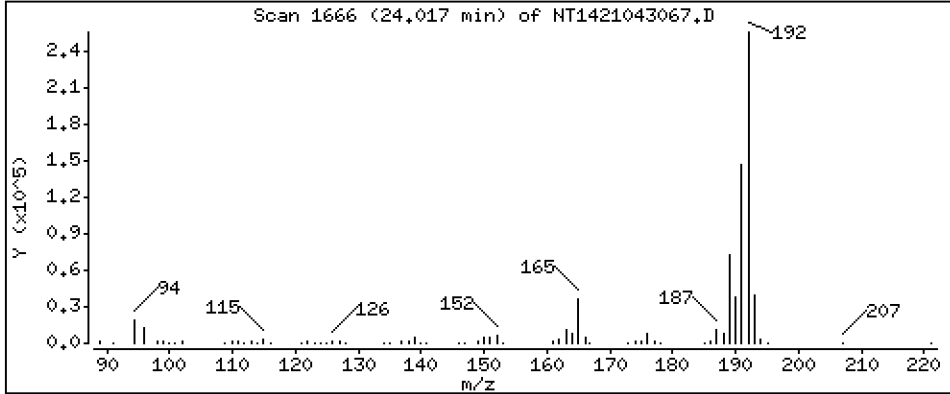
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

43 1-Methylphenanthrene

Concentration: 2,739 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

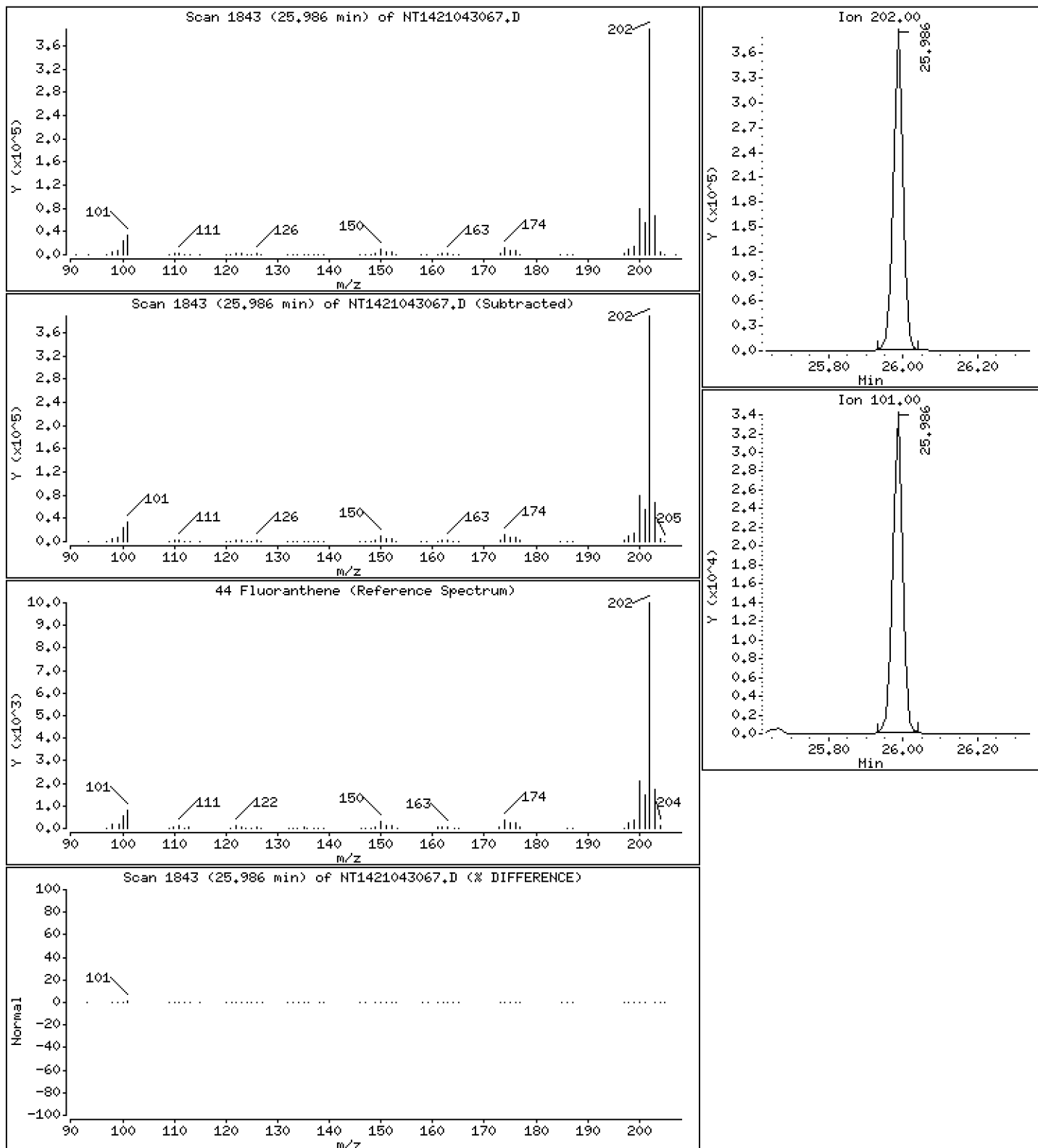
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

44 Fluoranthene

Concentration: 2,728 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

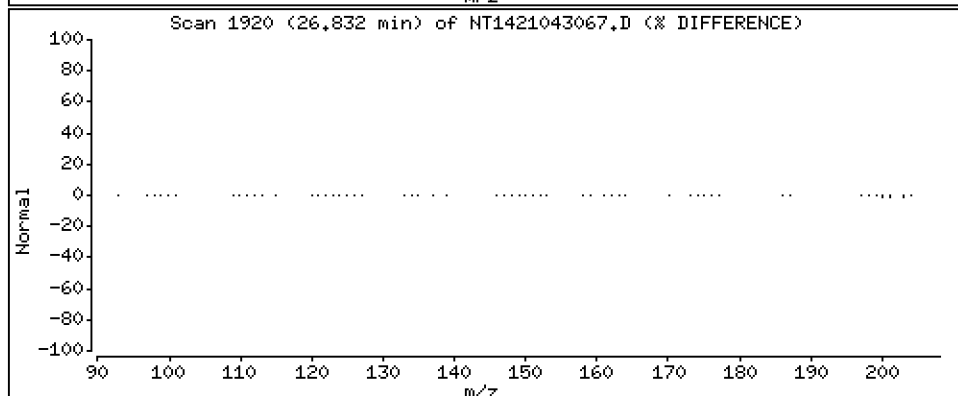
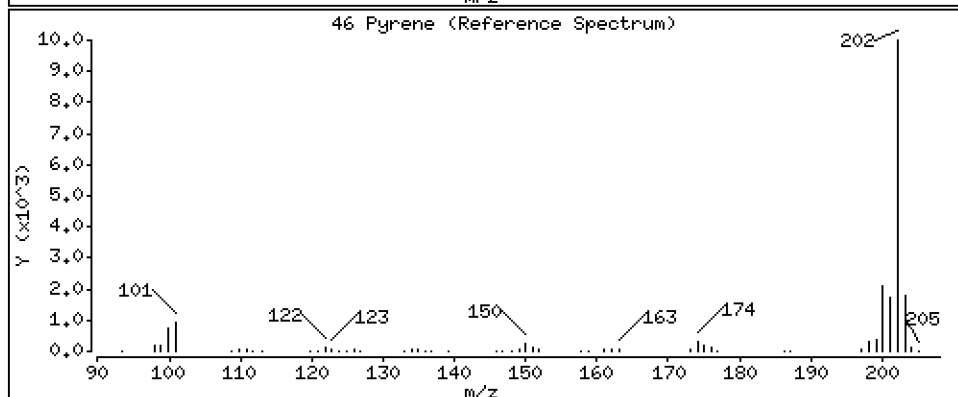
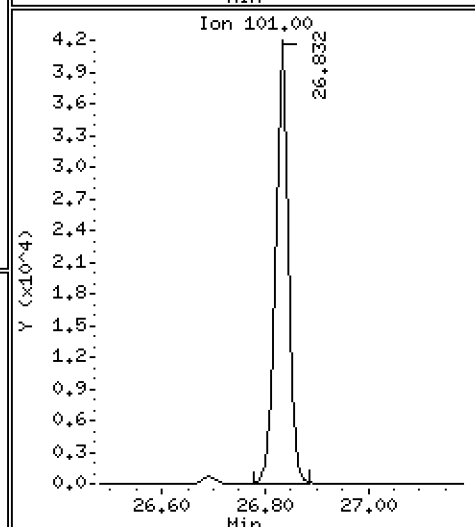
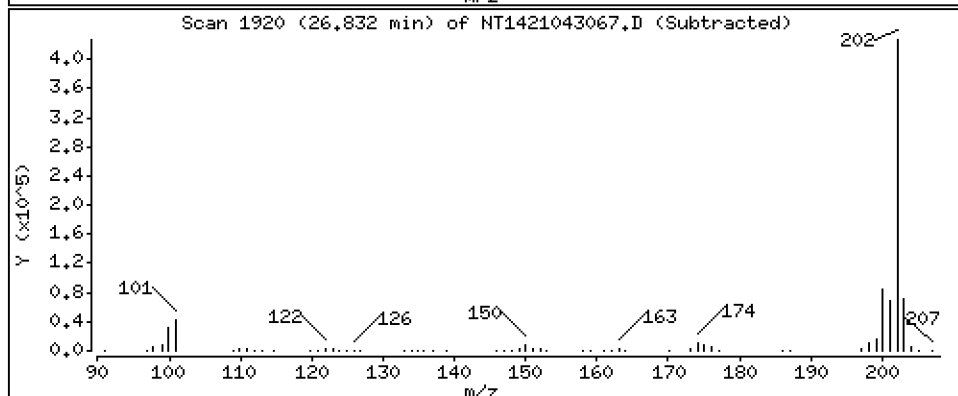
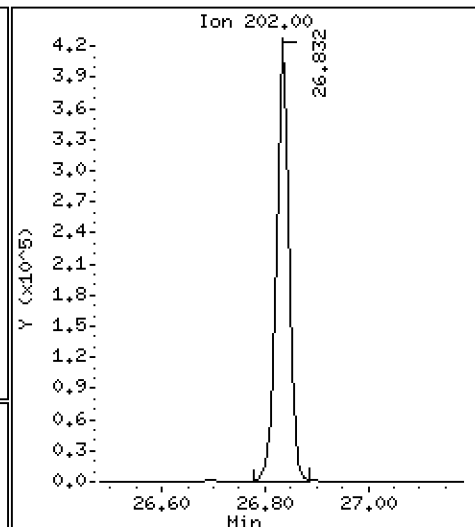
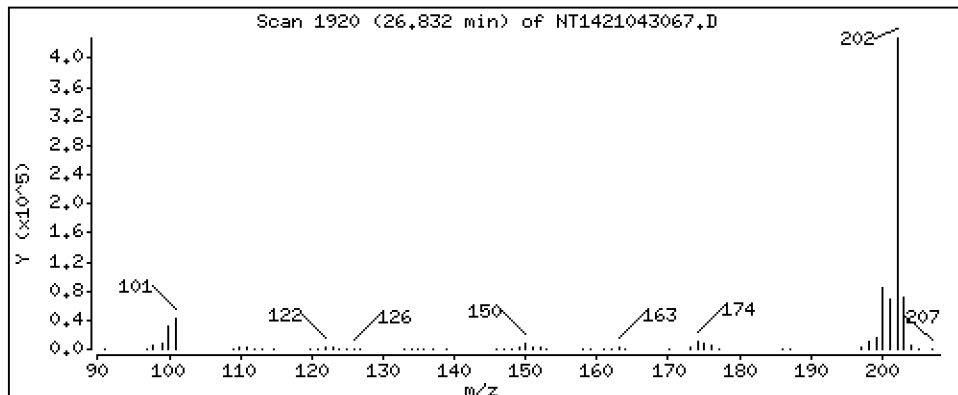
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

46 Pyrene

Concentration: 2,766 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

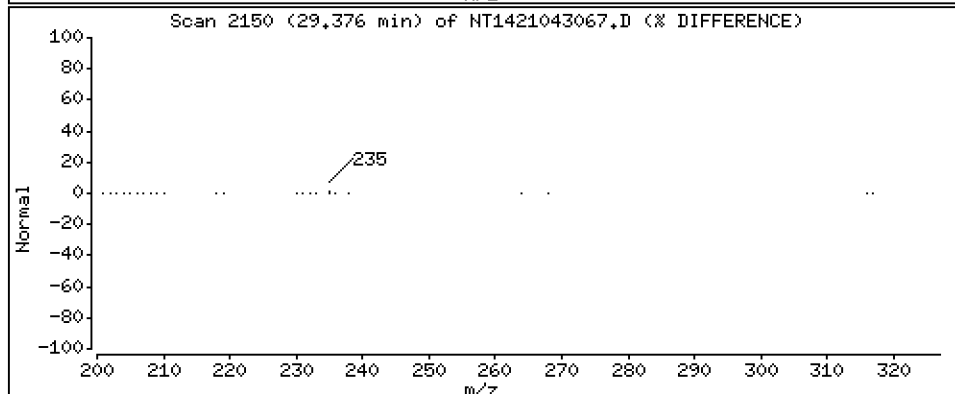
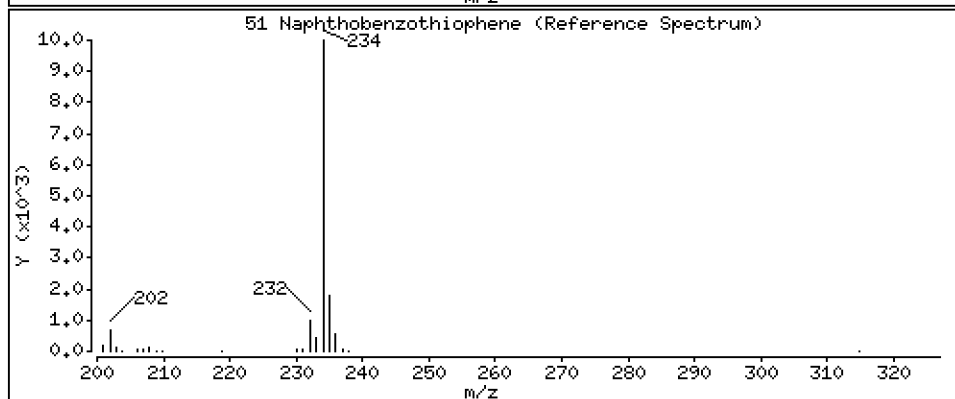
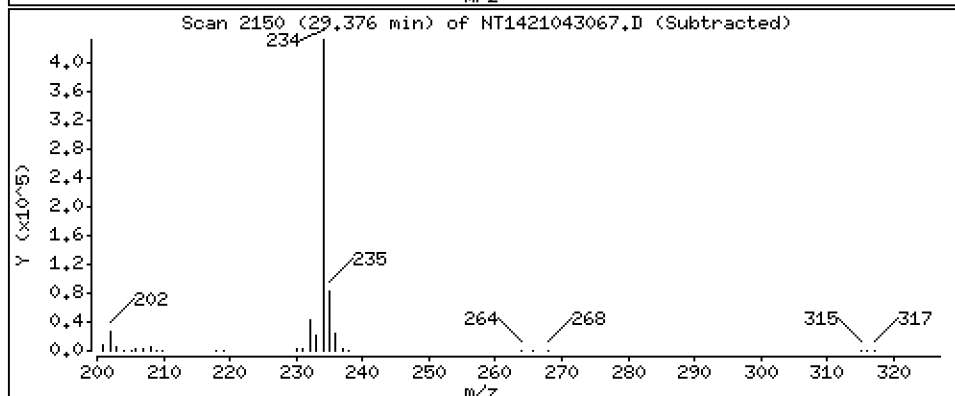
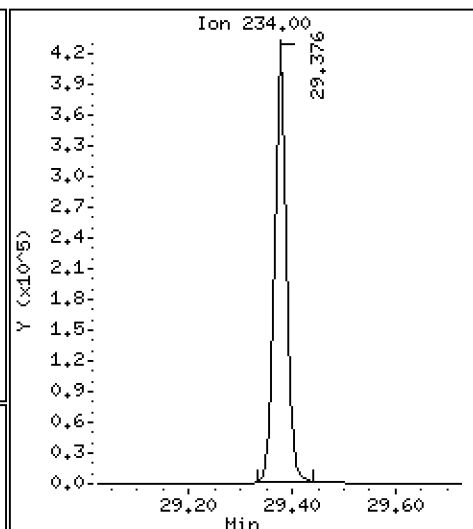
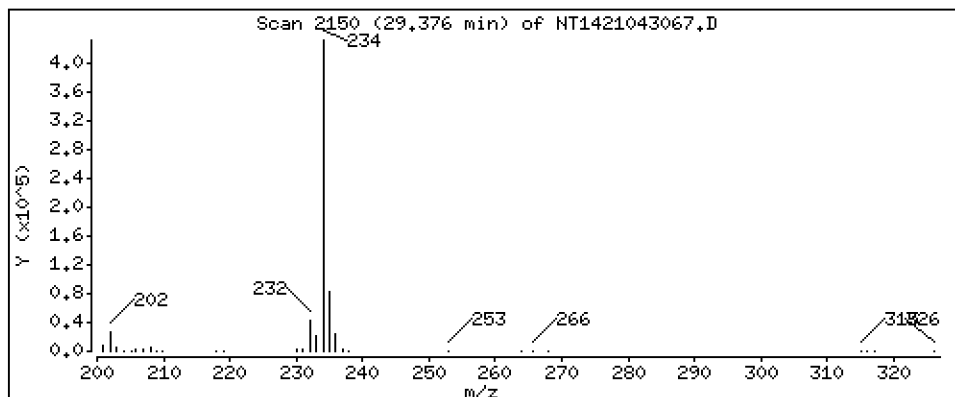
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

51 Naphthobenzothiophene

Concentration: 2,694 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

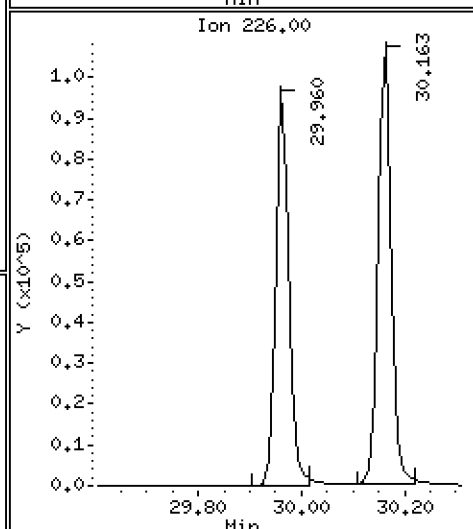
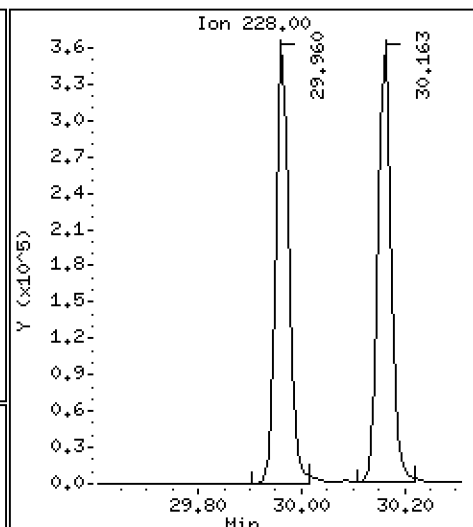
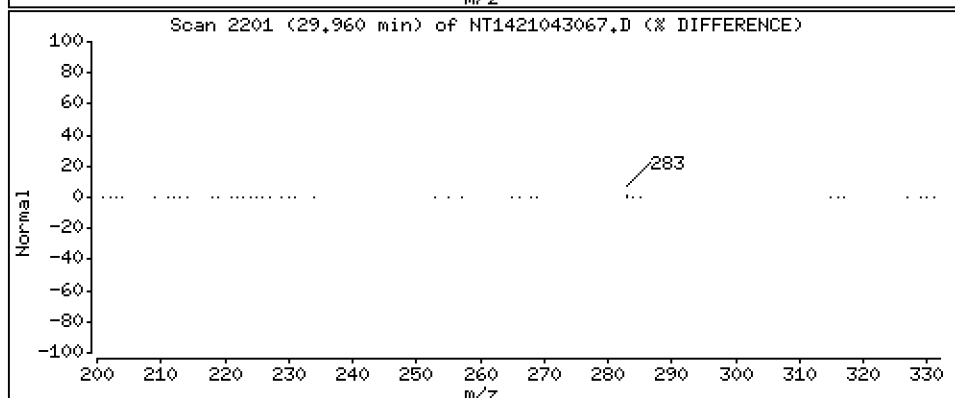
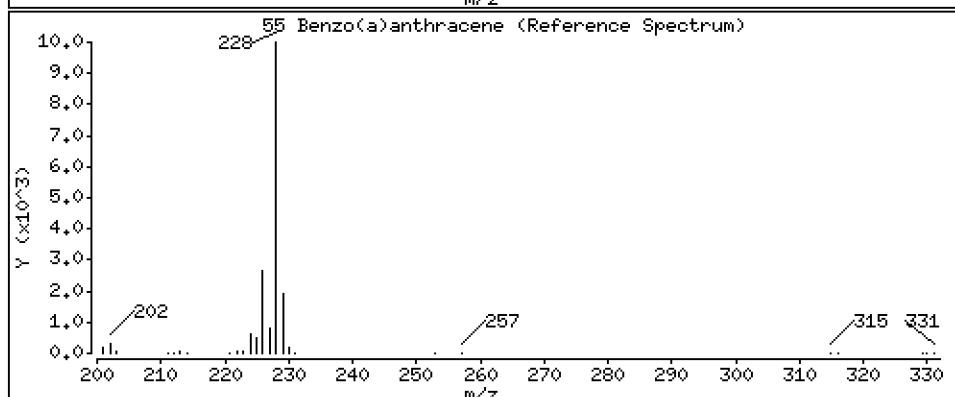
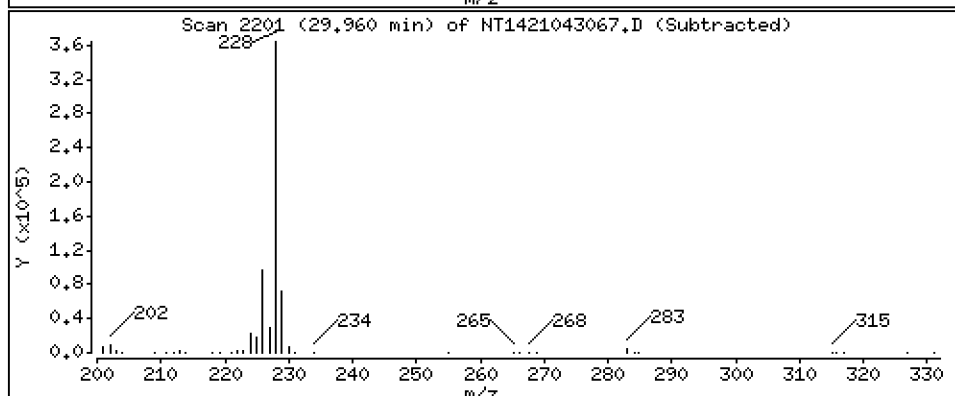
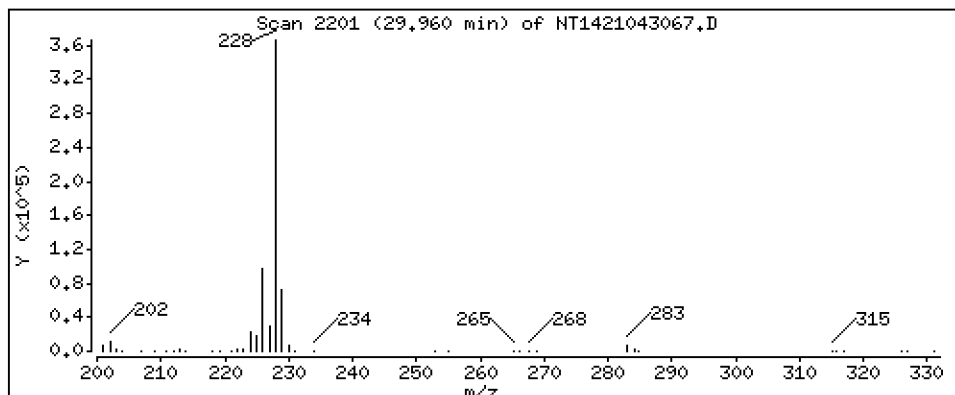
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

55 Benzo(a)anthracene

Concentration: 2,602 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

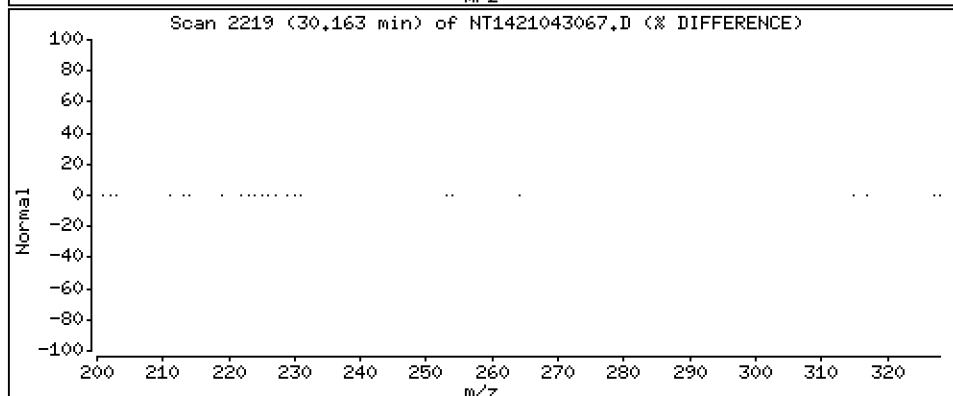
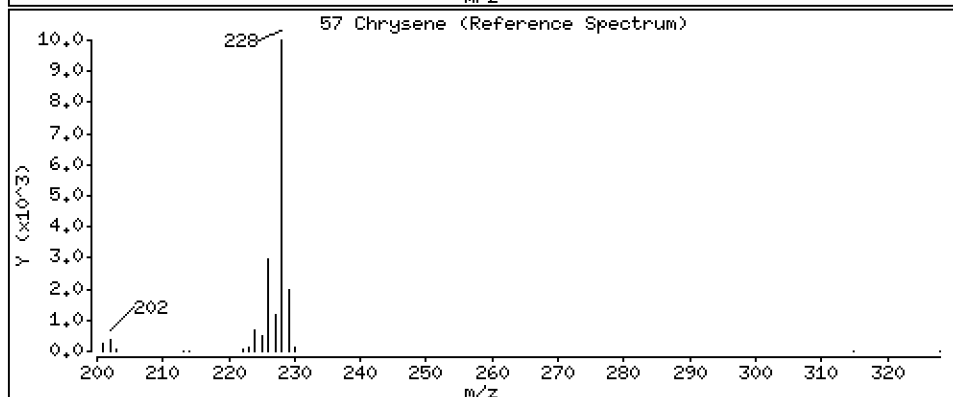
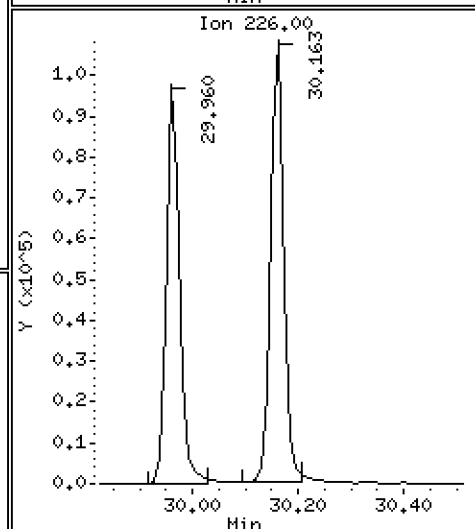
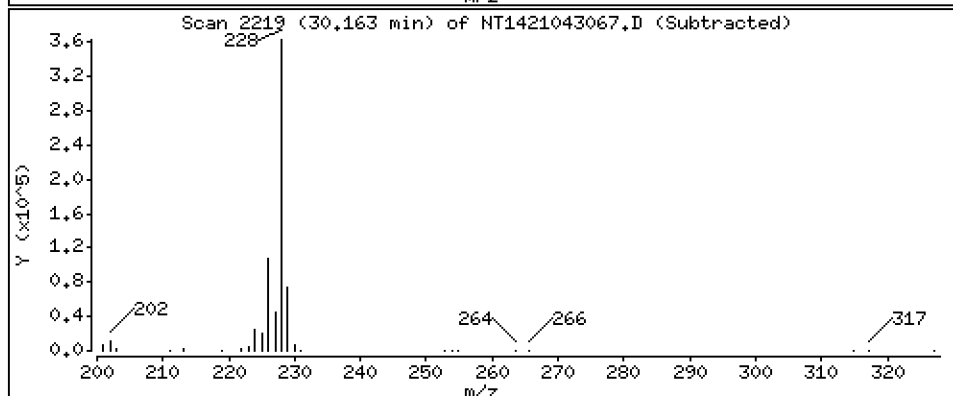
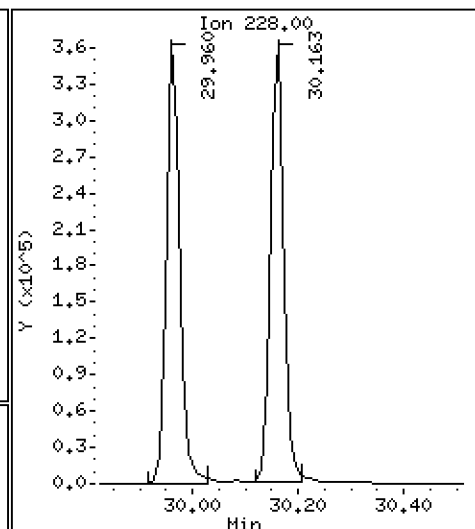
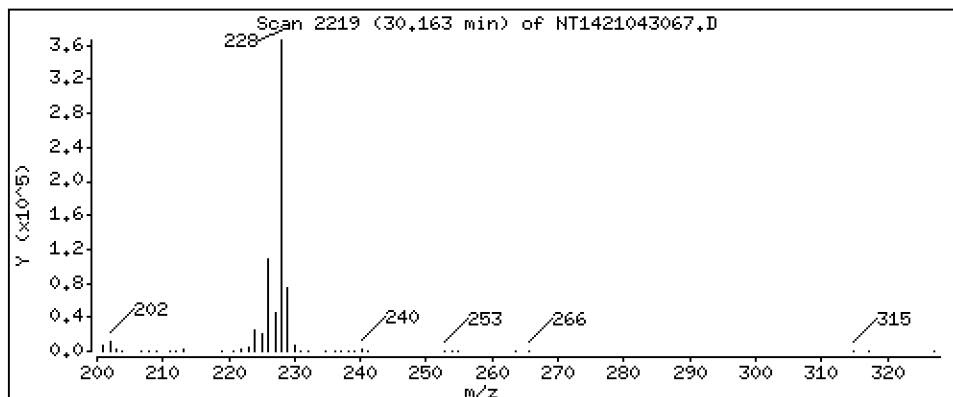
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

57 Chrysene

Concentration: 2,521 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

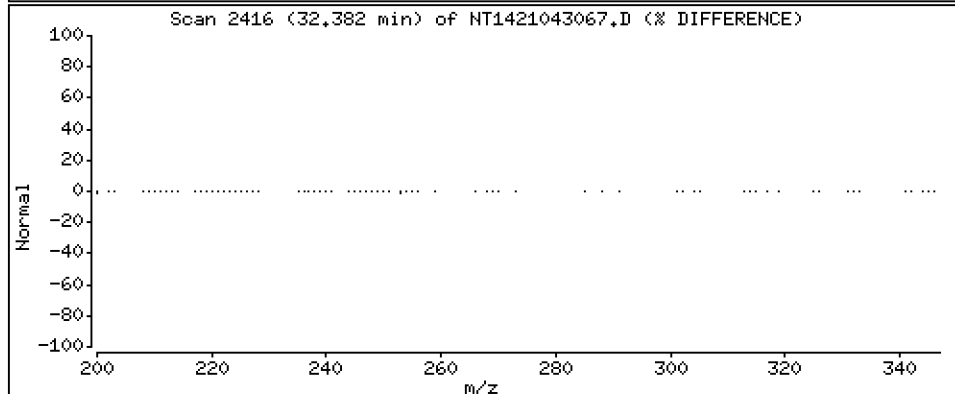
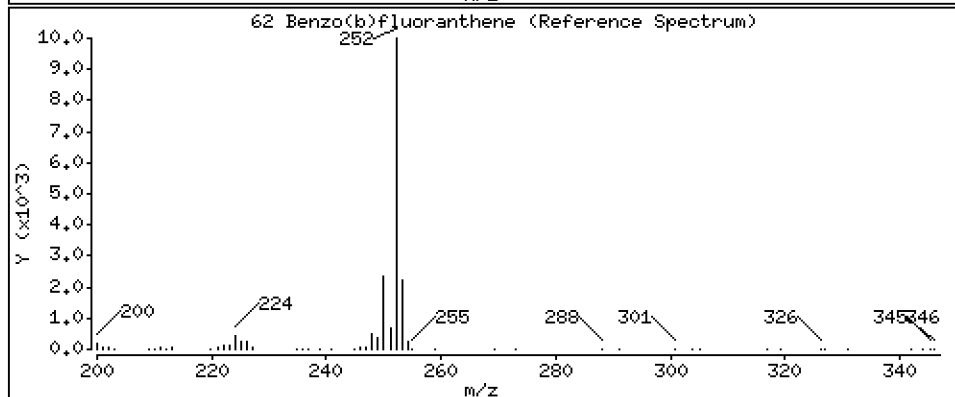
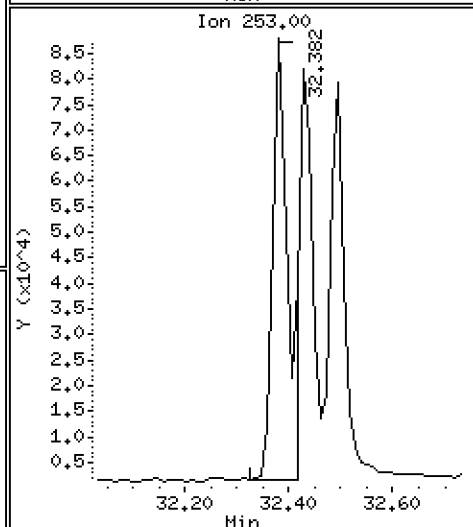
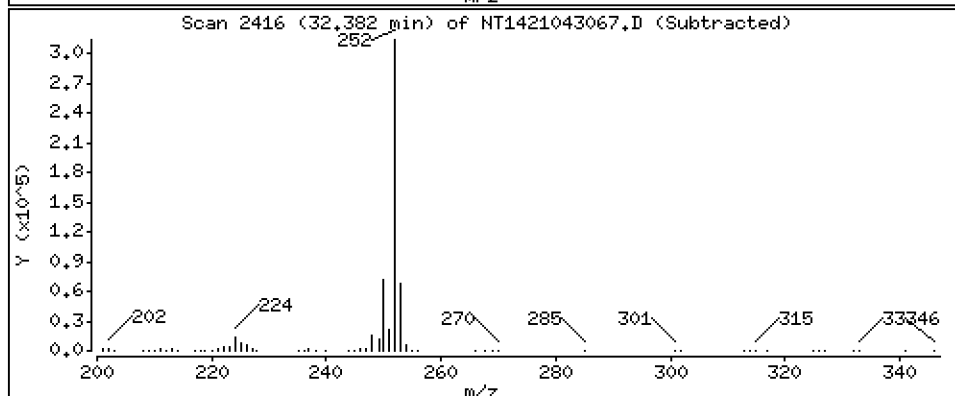
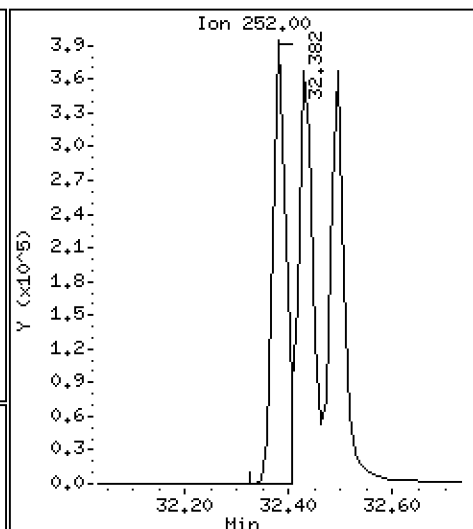
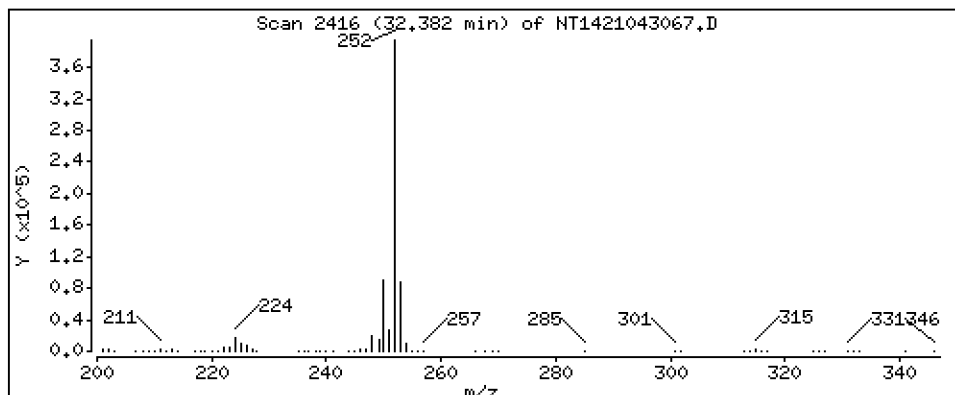
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

62 Benzo(b)fluoranthene

Concentration: 2,771 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

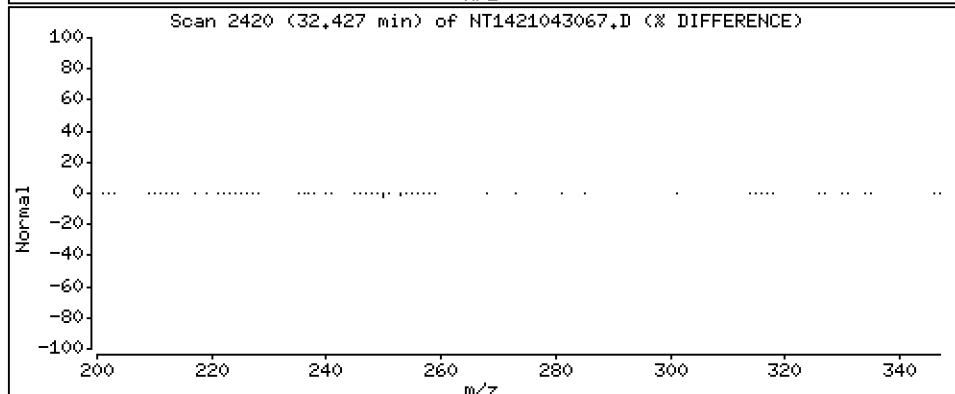
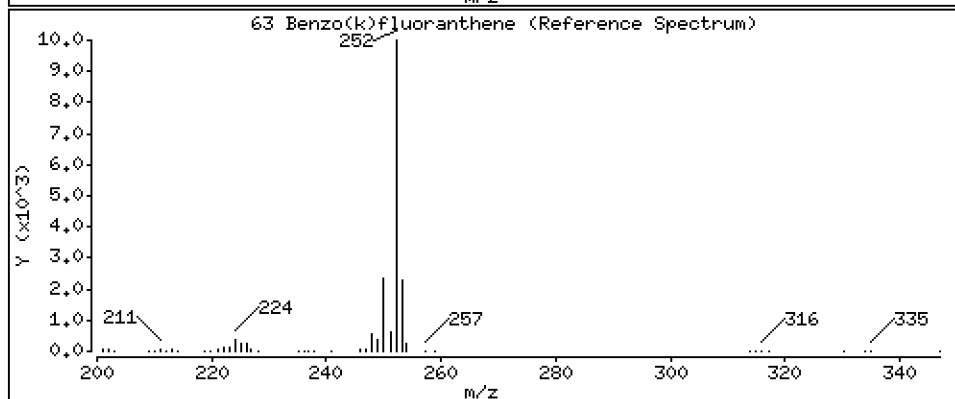
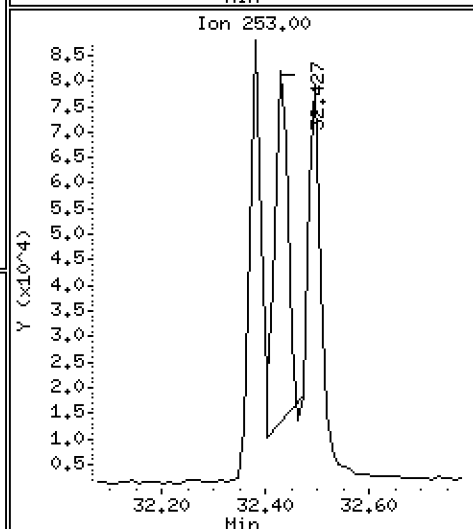
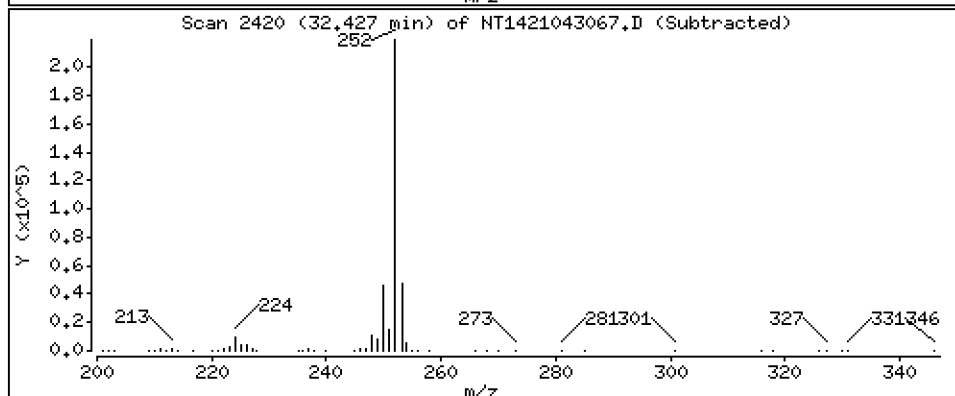
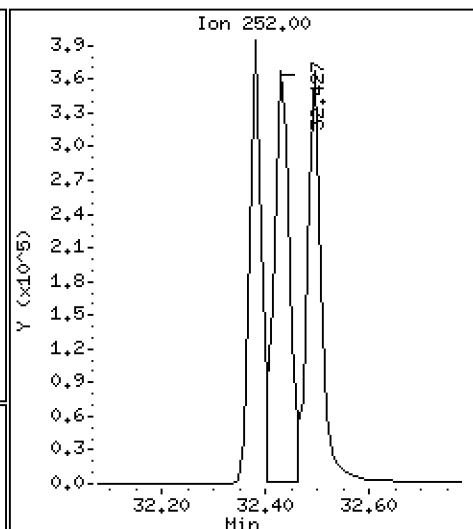
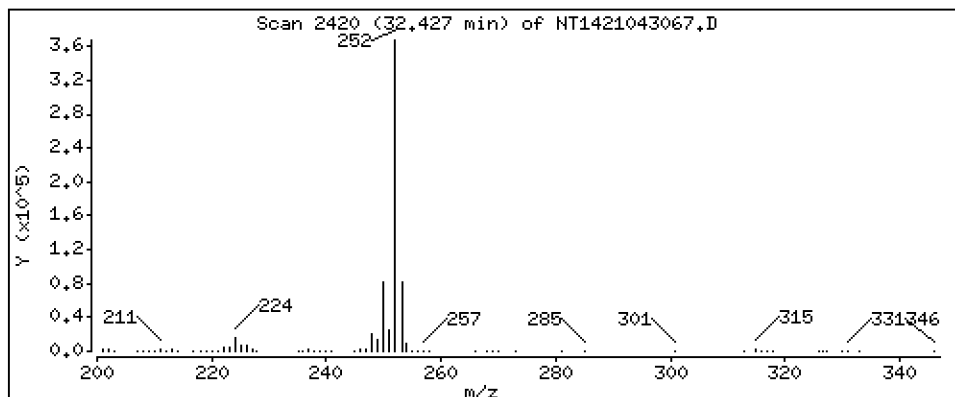
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

63 Benzo(k)fluoranthene

Concentration: 2,591 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

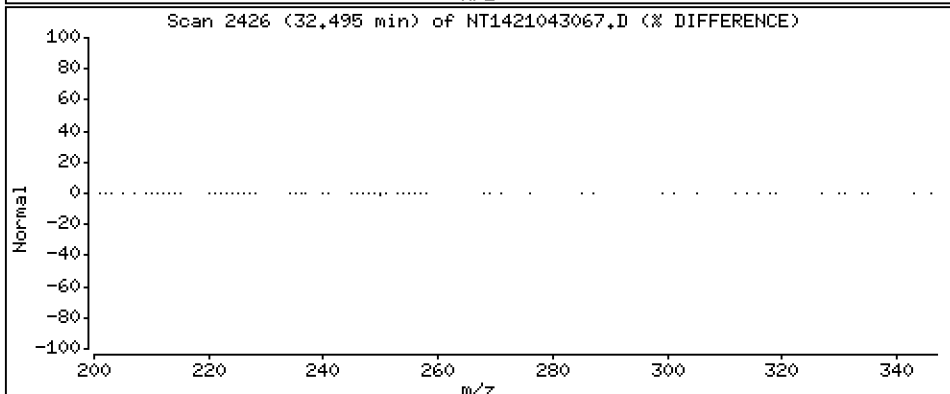
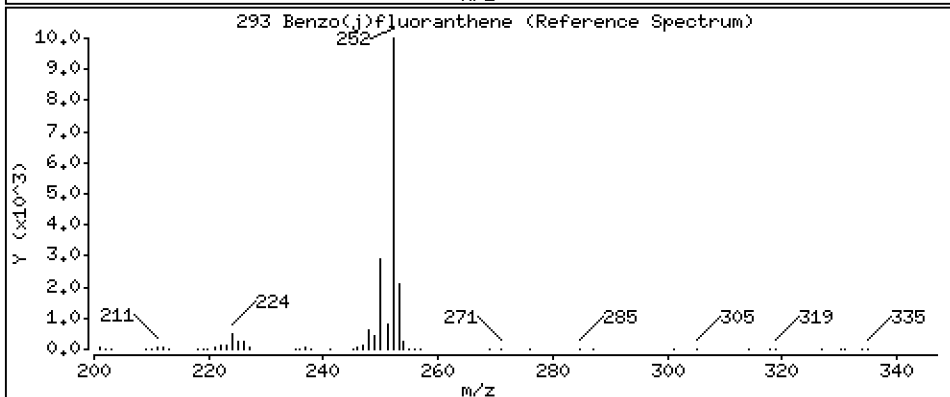
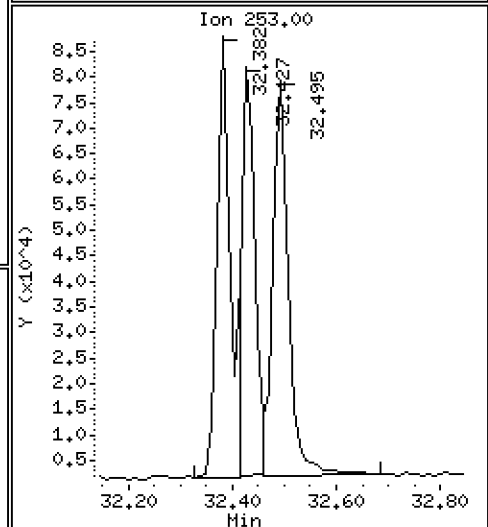
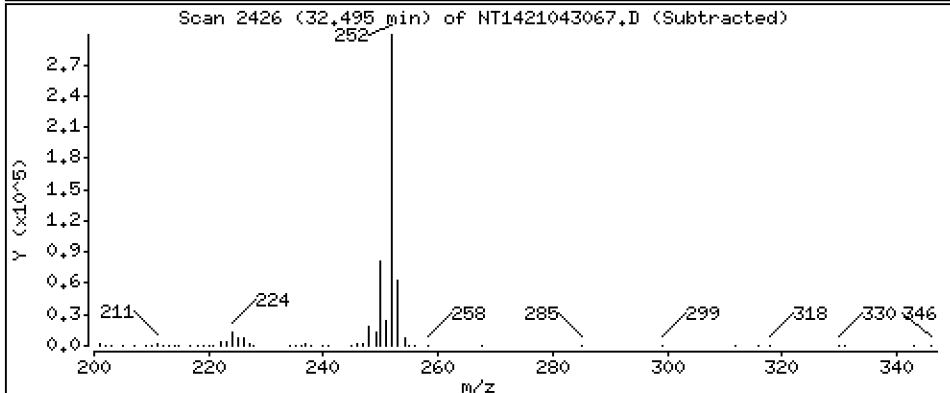
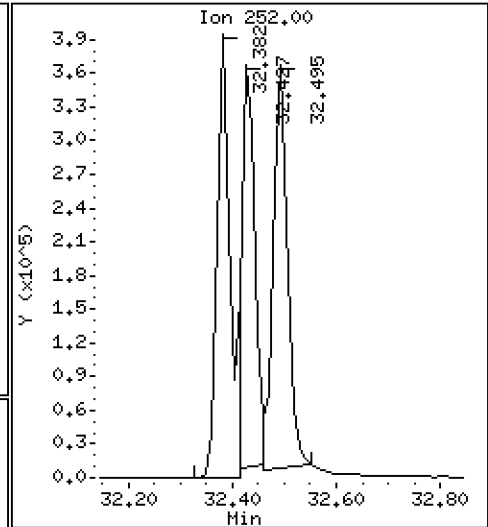
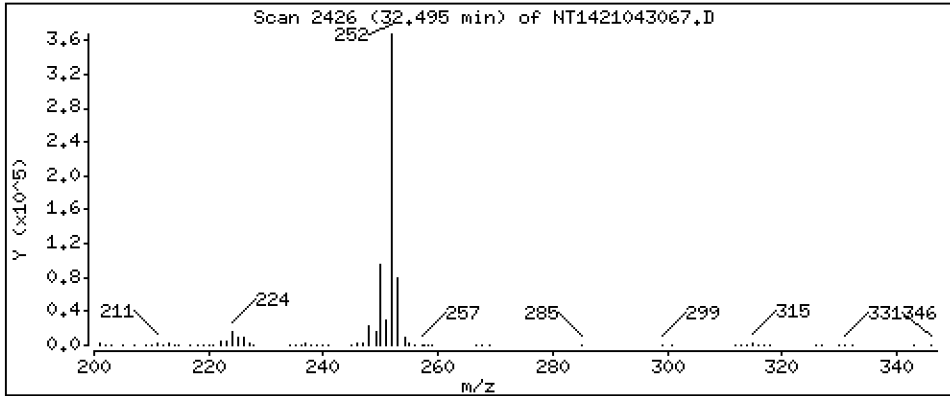
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

293 Benzo(j)fluoranthene

Concentration: 2,502 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

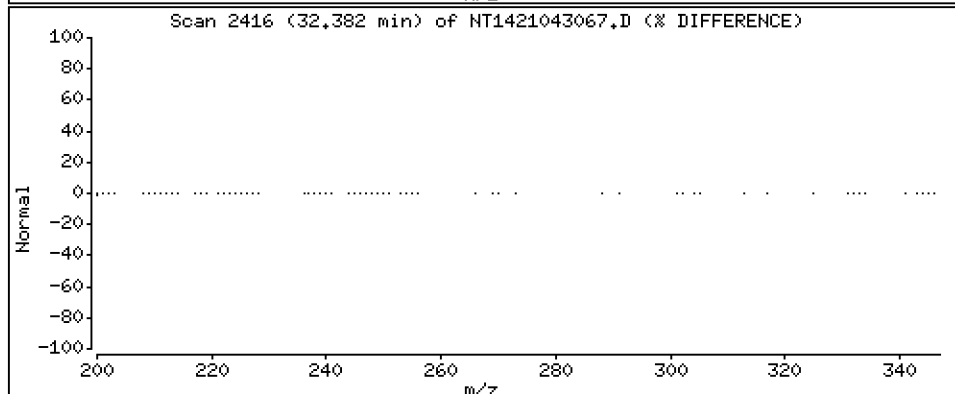
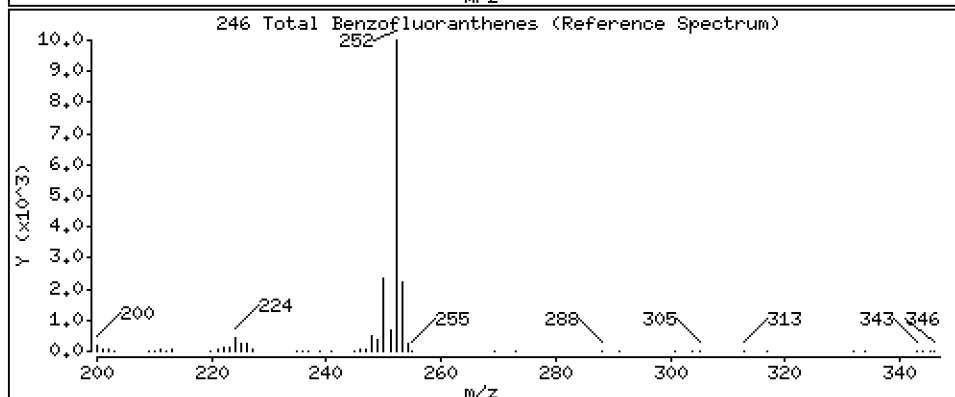
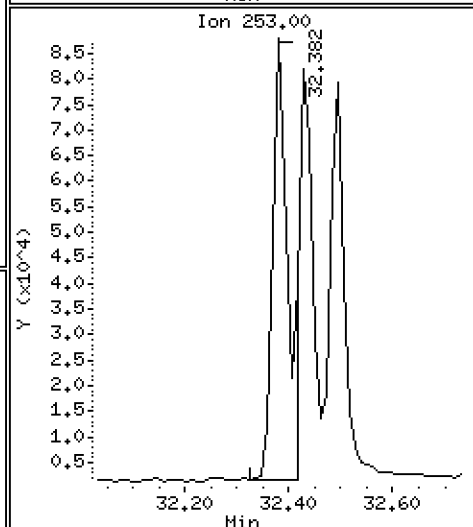
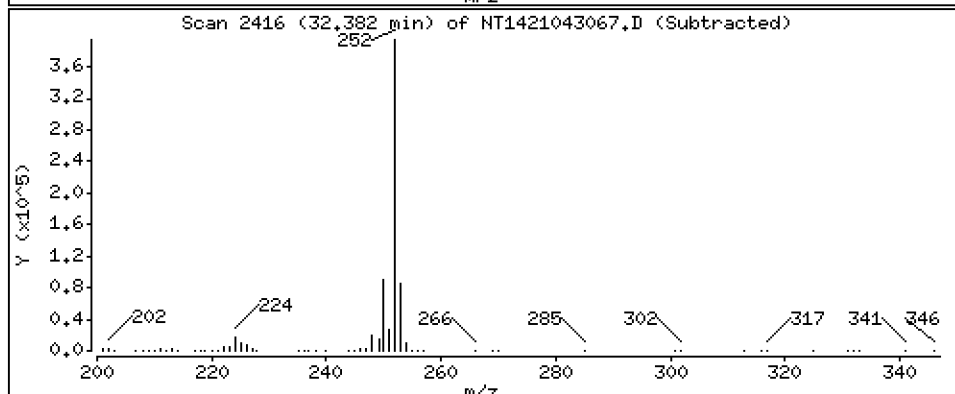
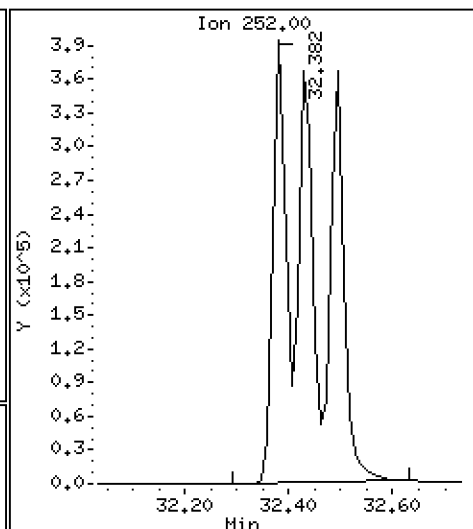
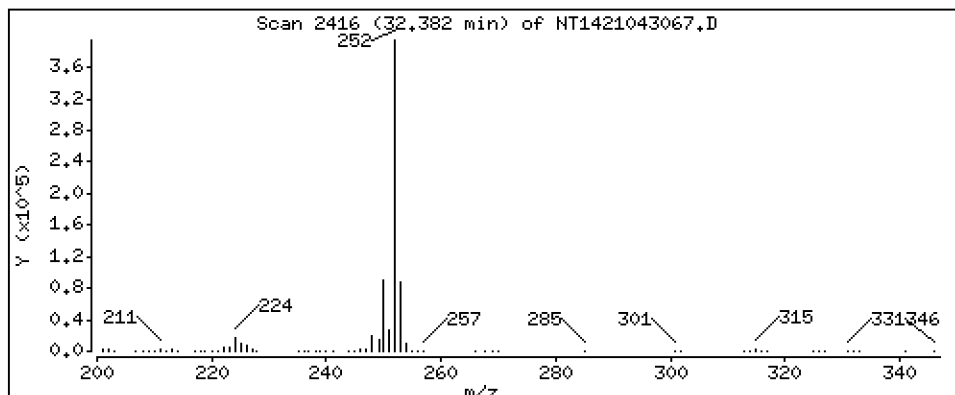
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

246 Total Benzofluoranthenes

Concentration: 7,815 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

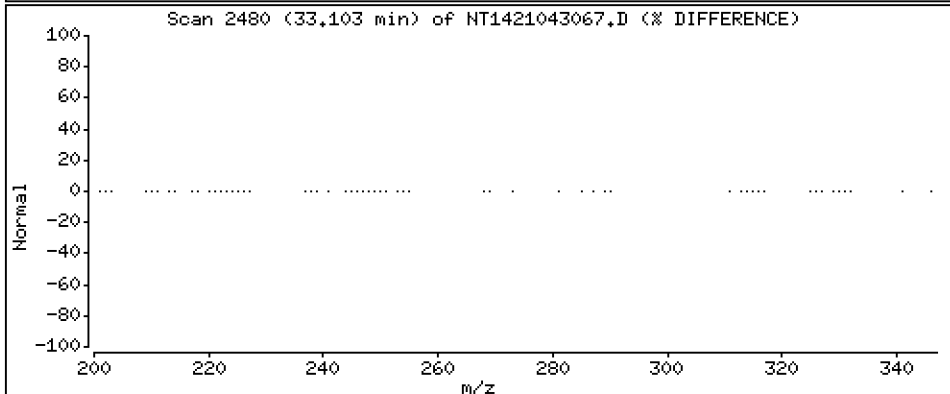
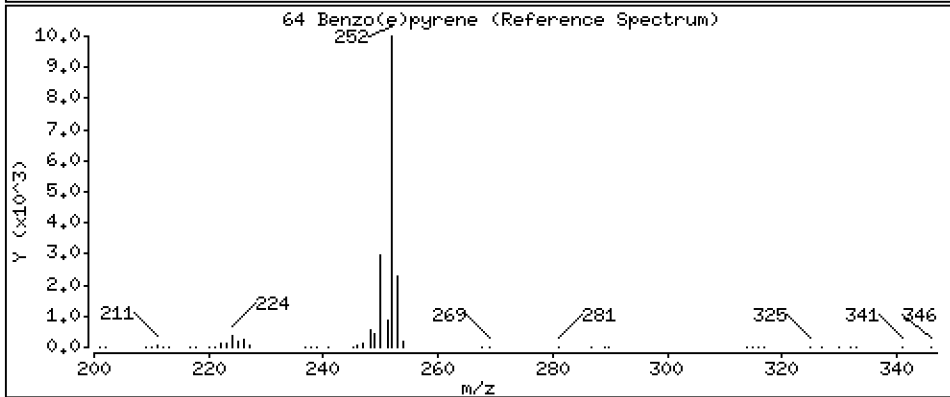
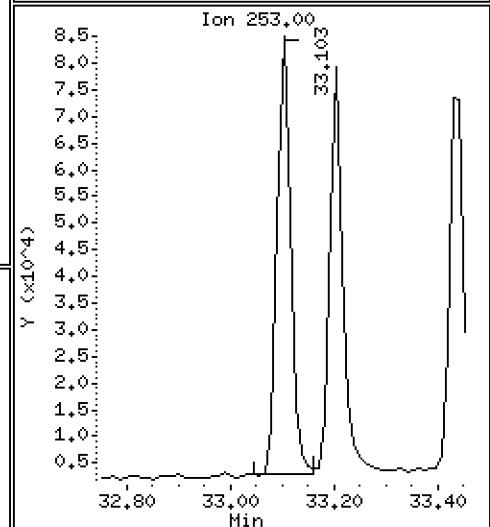
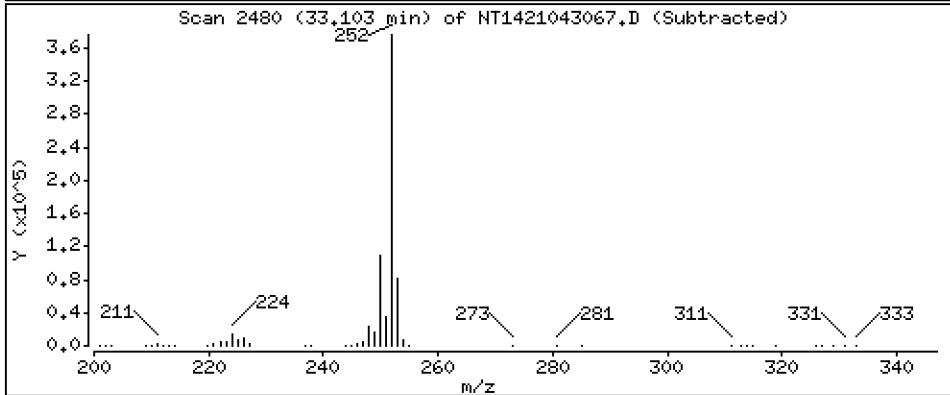
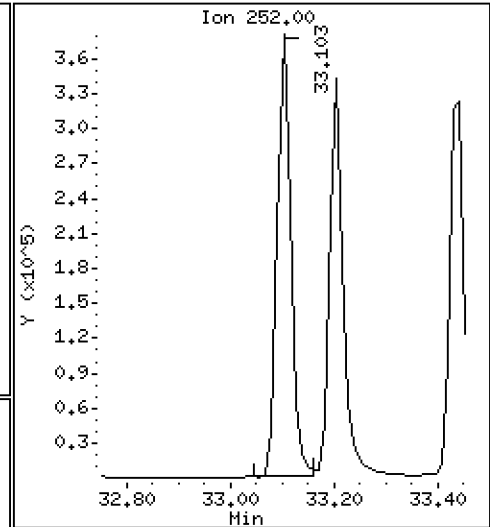
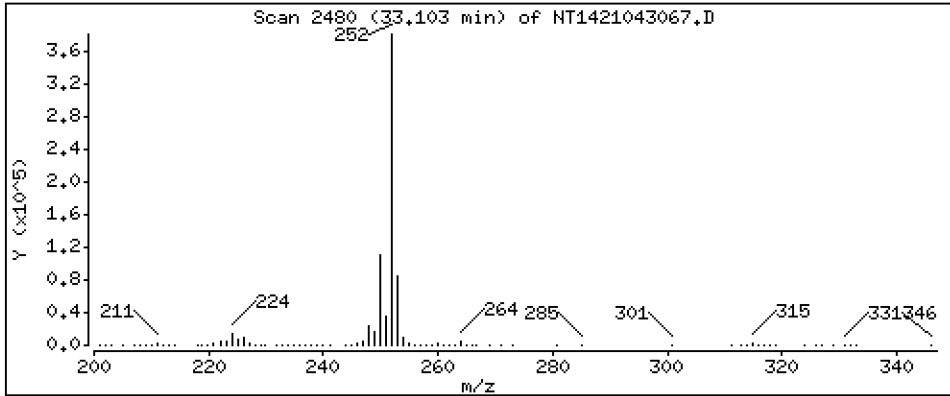
Operator: VTS

Column phase: Rxi-17Si1 MS

Column diameter: 0,25

64 Benzo(e)pyrene

Concentration: 2,777 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

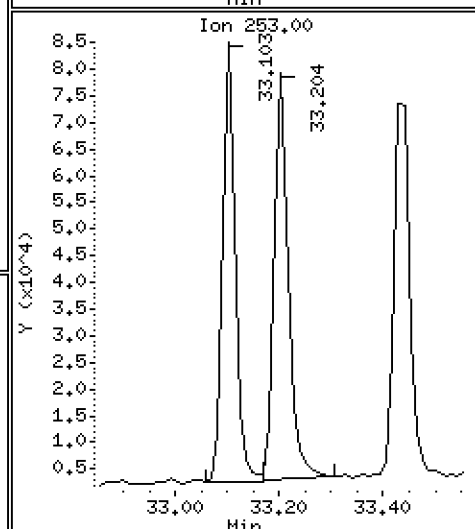
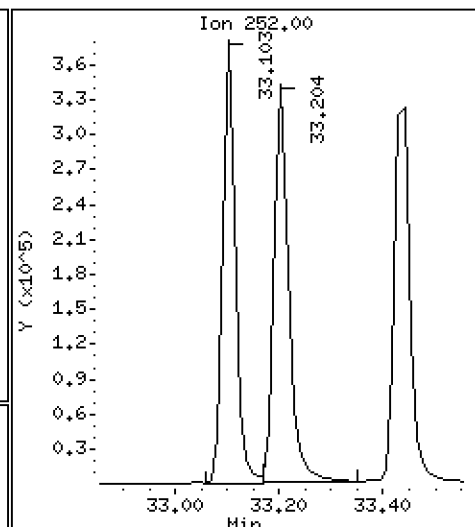
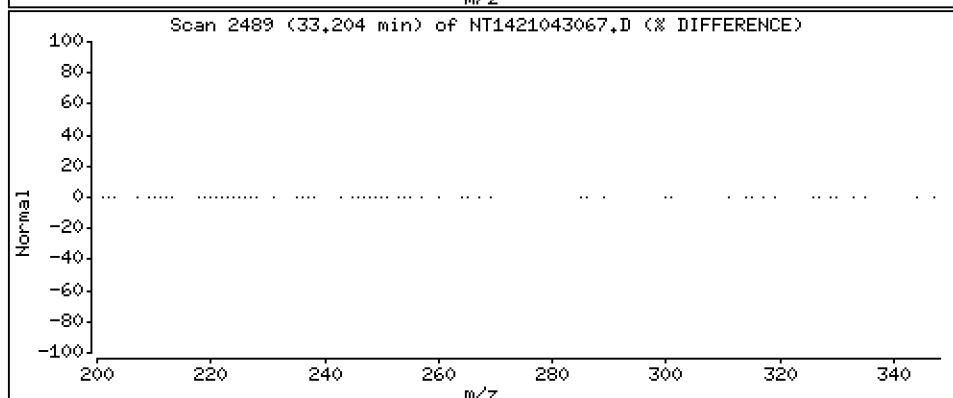
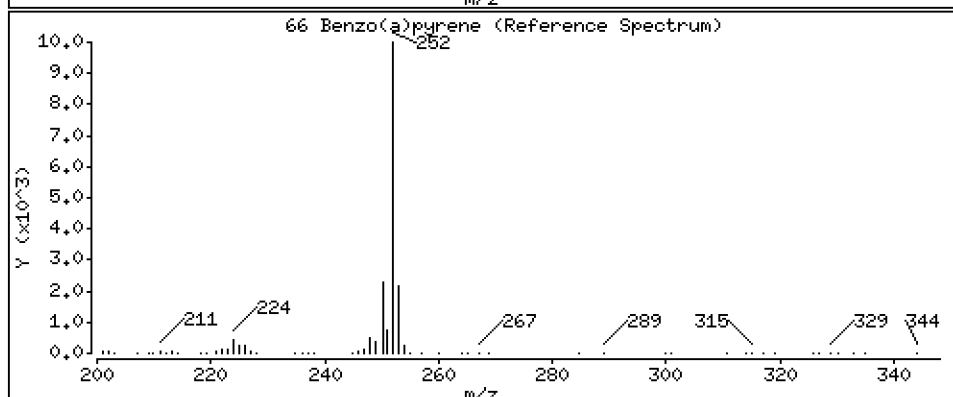
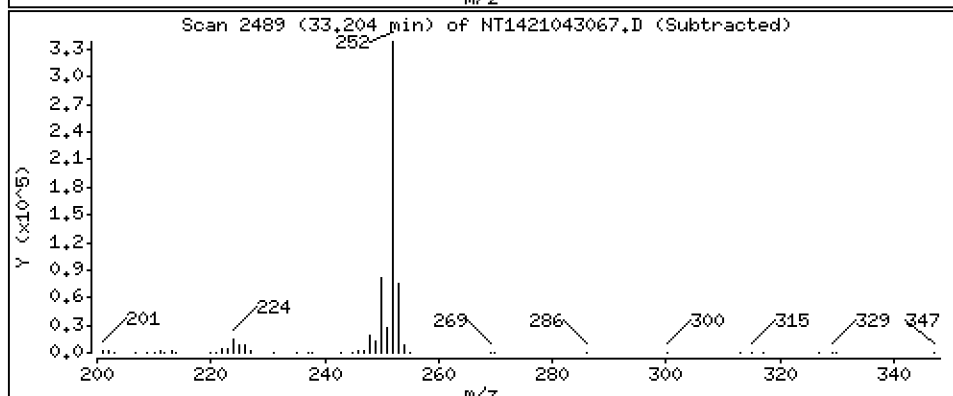
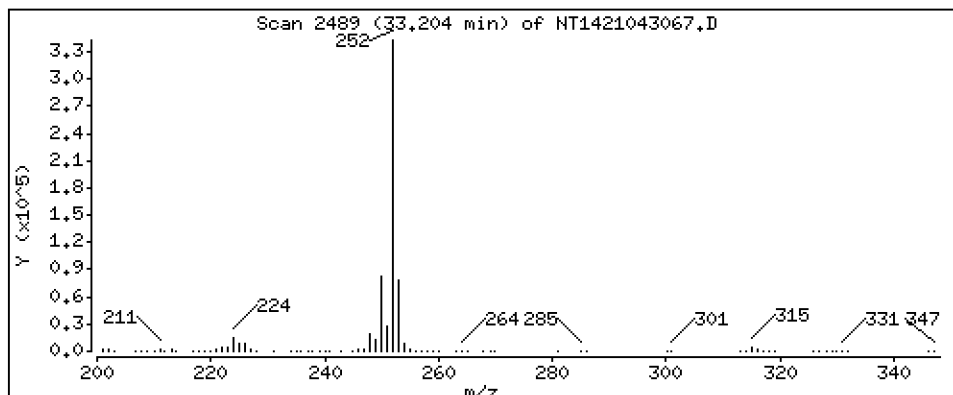
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

66 Benzo(a)pyrene

Concentration: 2,599 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

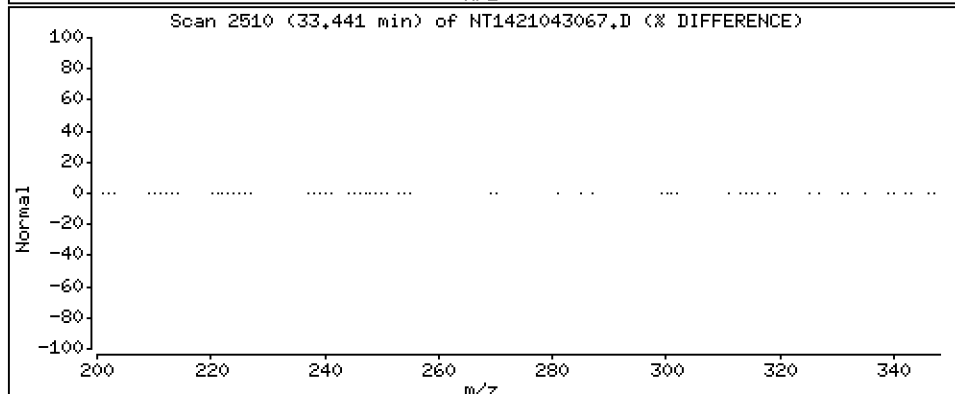
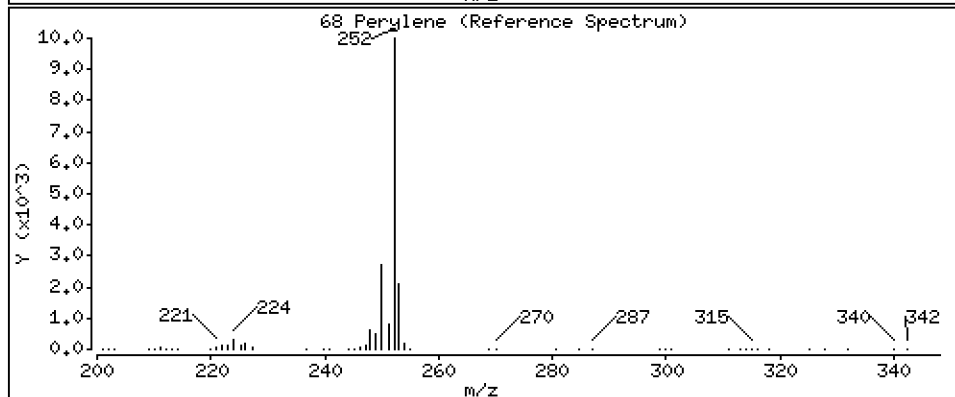
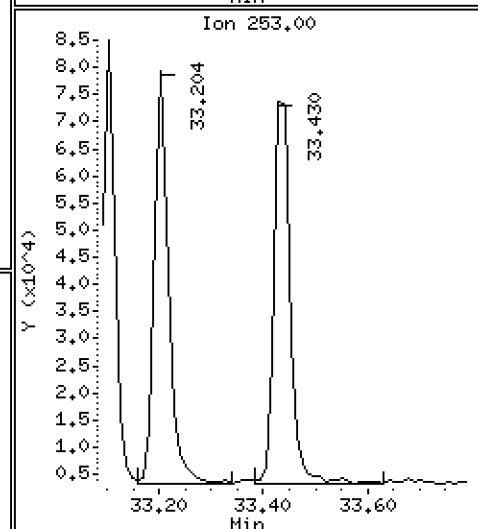
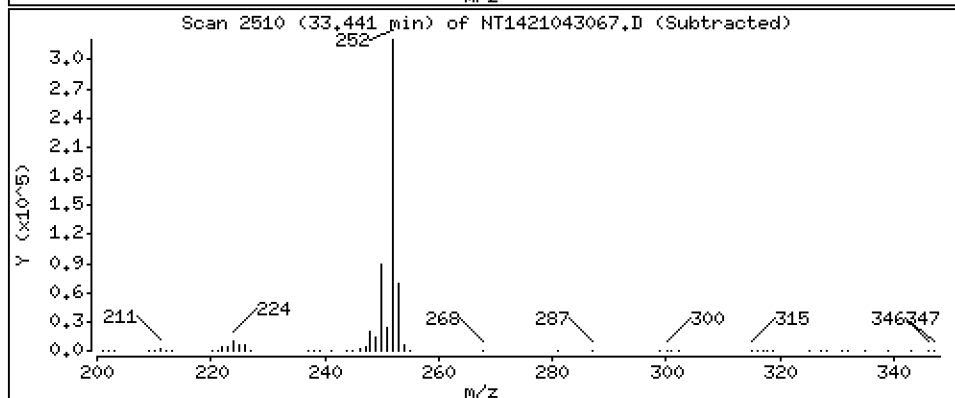
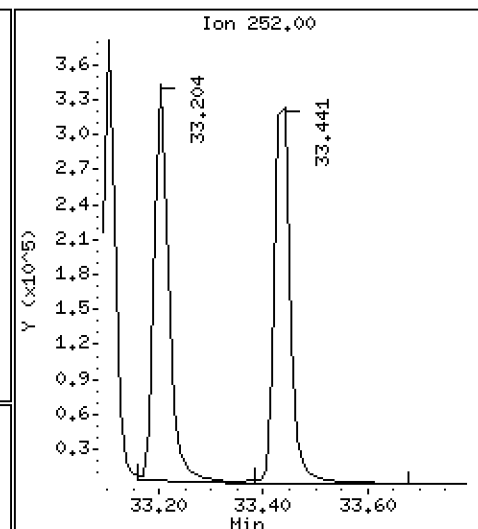
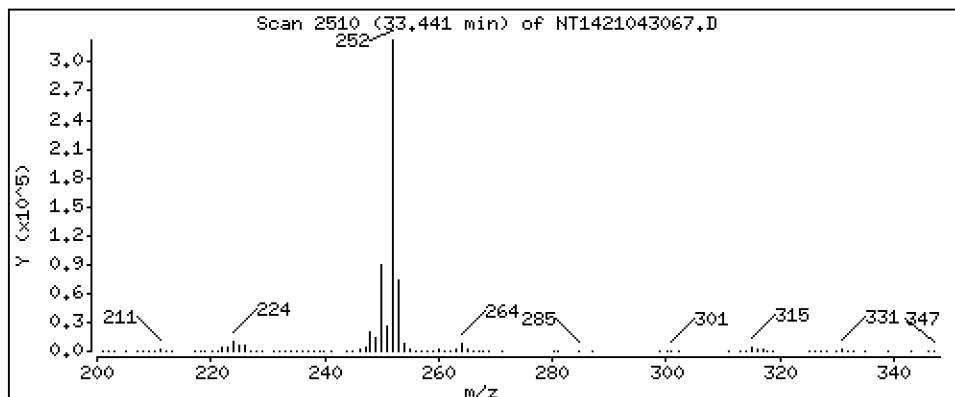
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

68 Perylene

Concentration: 2,917 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

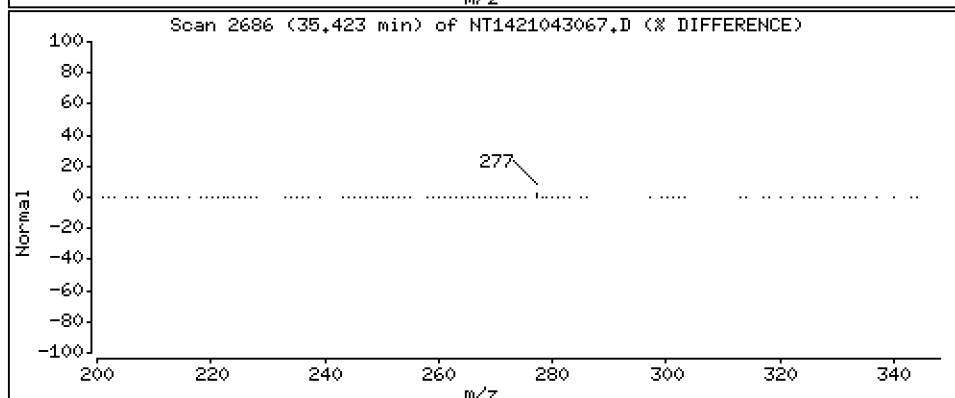
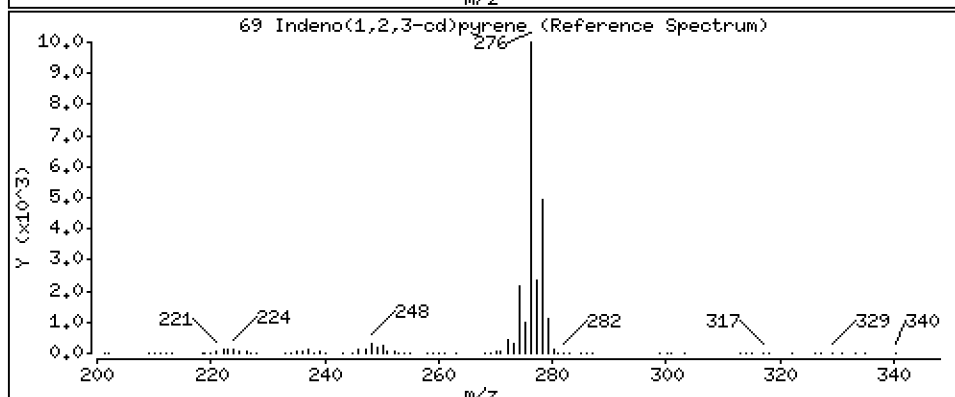
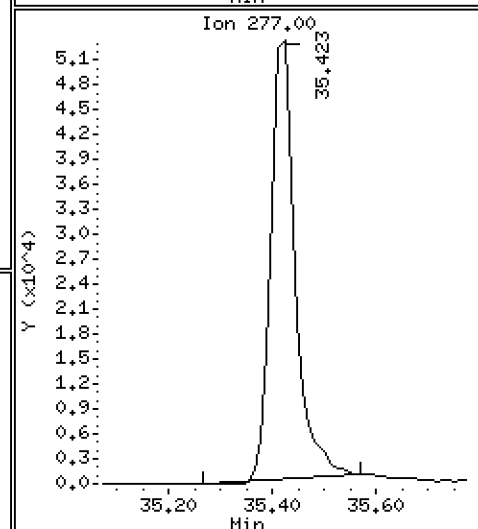
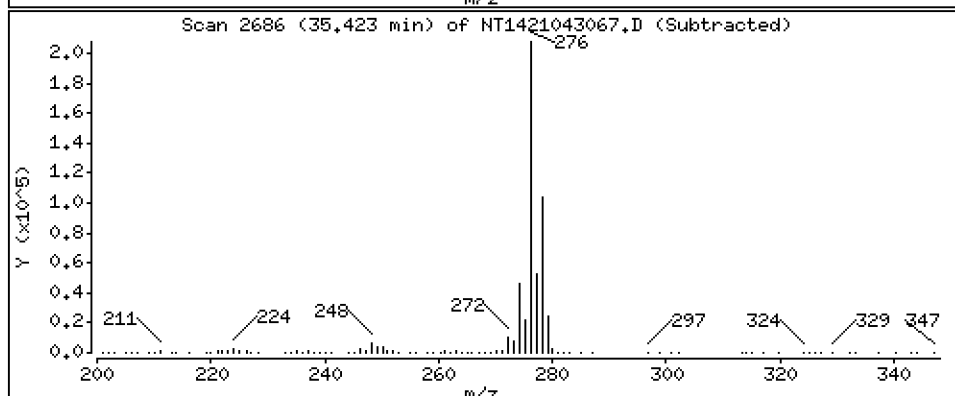
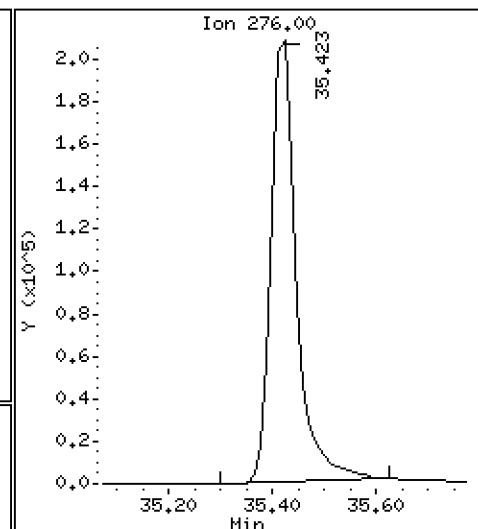
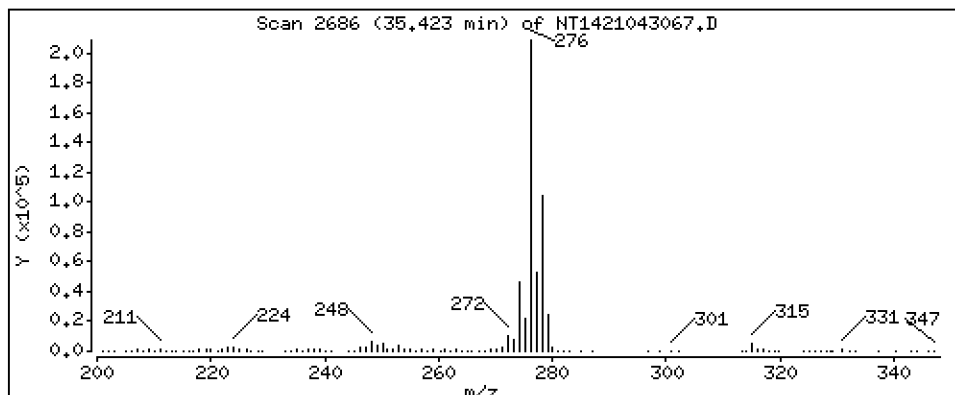
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

69 Indeno(1,2,3-cd)pyrene

Concentration: 2,707 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

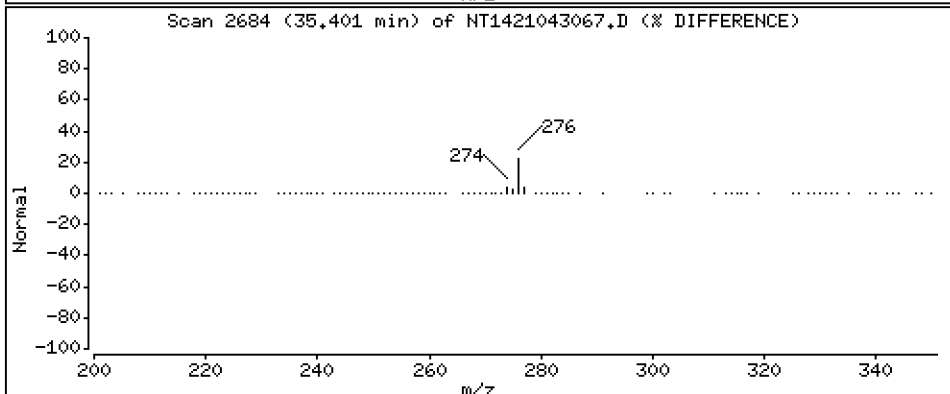
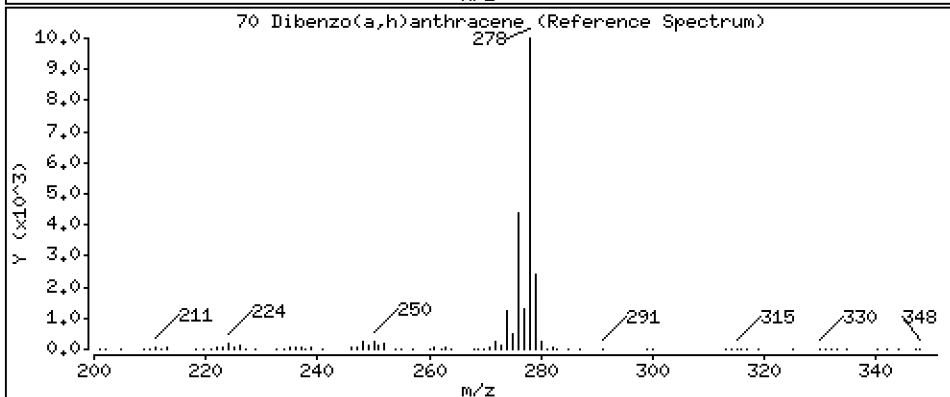
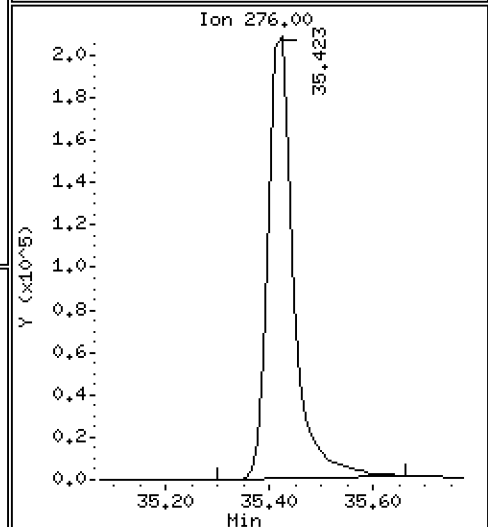
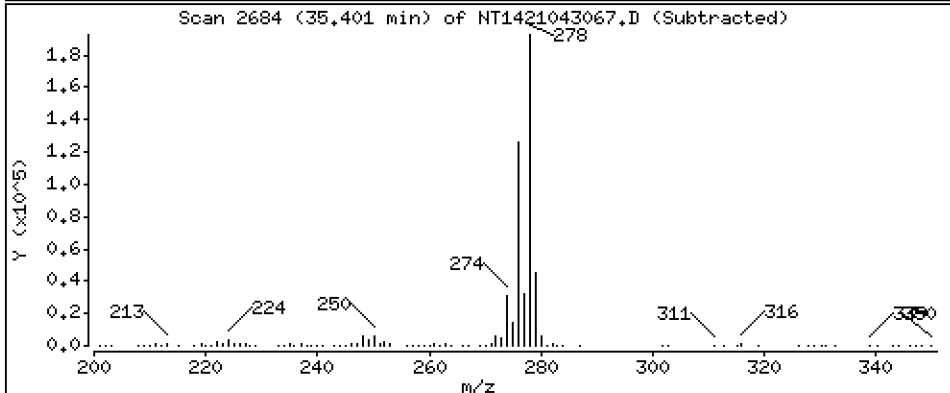
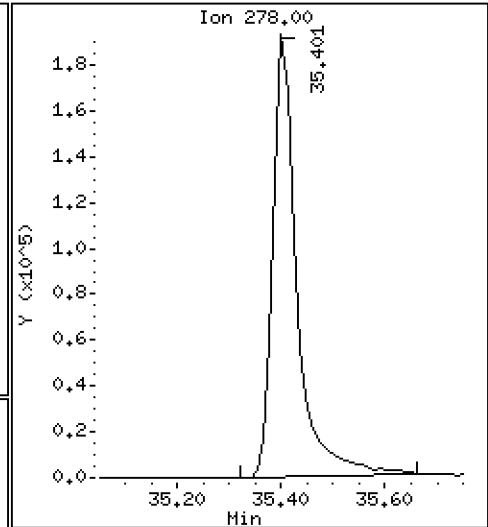
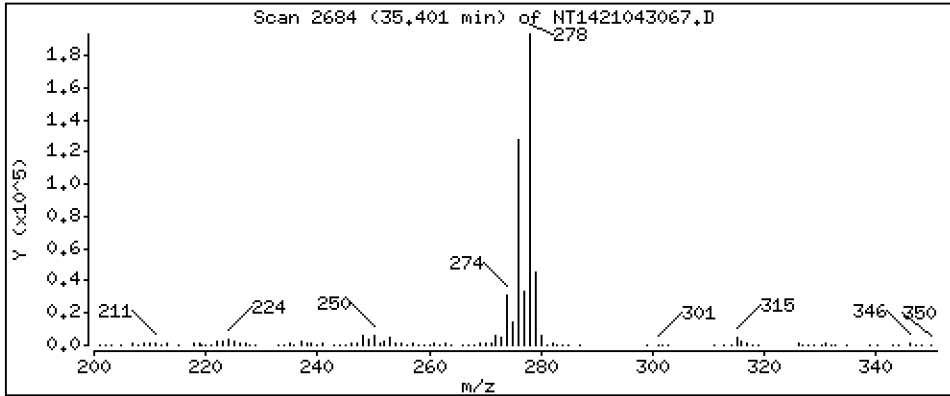
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

70 Dibenzo(a,h)anthracene

Concentration: 2,723 ug/mL



Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

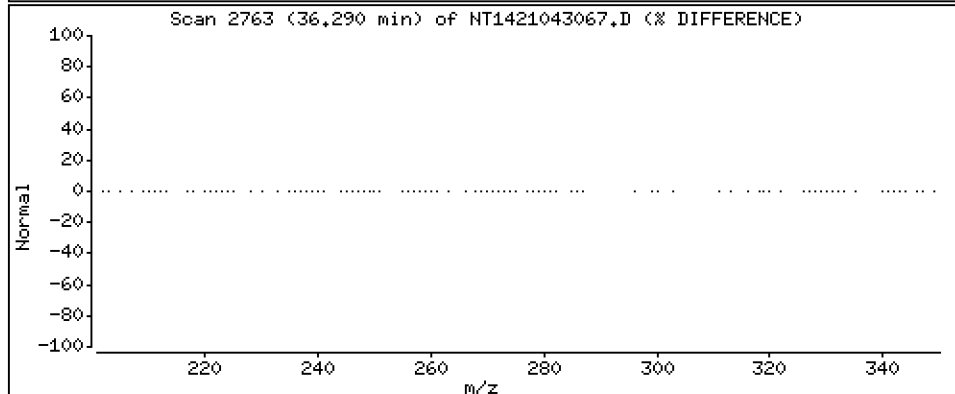
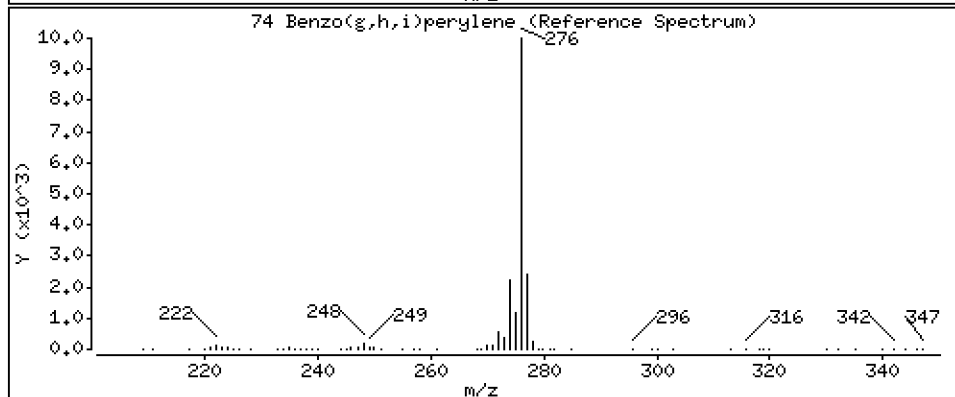
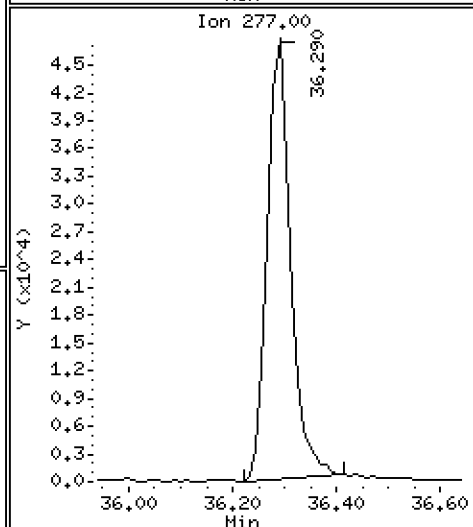
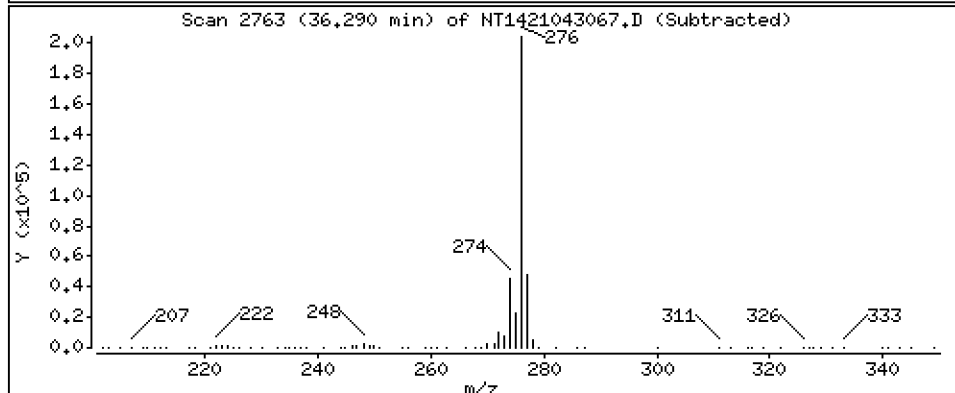
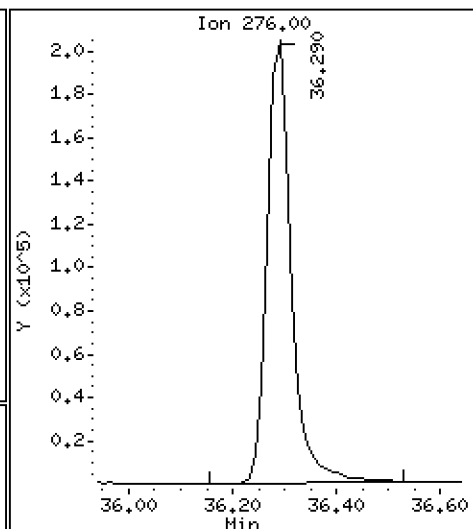
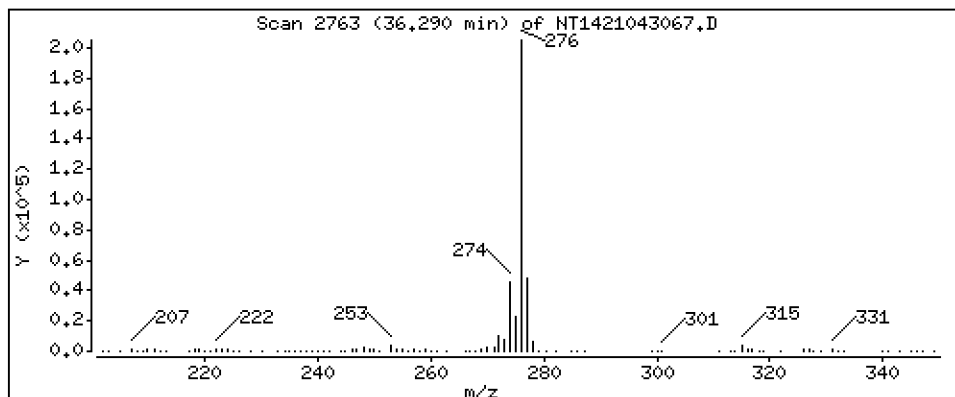
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

74 Benzo(g,h,i)perylene

Concentration: 2,984 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D
 Lab Smp Id: SJE0004-CCV1
 Inj Date : 02-MAY-2021 12:25
 Operator : VTS
 Smp Info : SJE0004-CCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
 Meth Date : 04-May-2021 08:25 van
 Cal Date : 30-APR-2021 13:32
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-202011

Inst ID: nt14.i

Quant Type: ISTD
 Cal File: NT1421043009.D

Compound Sublist: TARGETS.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
1 trans-Decalin	138		7.045	7.045	(0.375)	113128	2.67978	2.680
2 cis-Decalin	138		8.155	8.155	(0.434)	81732	2.80446	2.804
\$ 6 Naphthalene-d8	136		11.776	11.776	(0.627)	914606	2.79648	2.796 (R)
7 Naphthalene	128		11.836	11.836	(0.631)	918942	2.76236	2.762
12 Benzo(b)thiophene	134		12.284	12.295	(0.654)	738902	2.79183	2.792
16 2-Methylnaphthalene	141		13.669	13.680	(0.728)	503260	2.83487	2.835
17 1-methylnaphthalene	141		14.120	14.120	(0.752)	472928	2.81161	2.812
18 Biphenyl	154		15.318	15.318	(0.816)	705339	2.77619	2.776
19 2,6-Dimethylnaphthalene	156		15.394	15.394	(0.820)	502005	2.87145	2.871
20 Acenaphthylene	152		16.955	16.955	(0.903)	864491	3.14220	3.142
\$ 21 Acenaphthene-d10	164		17.241	17.241	(0.918)	469065	2.93724	2.937 (R)
22 Acenaphthene	153		17.351	17.362	(0.924)	517098	2.92447	2.924
23 Dibenzofuran	168		17.735	17.735	(0.945)	757085	2.82570	2.826
24 1,6,7-Trimethylnaphthalene	170		17.955	17.955	(0.956)	470985	3.06969	3.070
* 25 Fluorene-d10	176		18.772	18.772	(1.000)	566717	2.00000	
26 Fluorene	166		18.874	18.874	(1.005)	570681	2.93083	2.931
30 Dibenzothiophene	184		21.785	21.796	(1.161)	738803	3.00573	3.006
\$ 35 Phenanthrene-d10	188		22.104	22.104	(0.995)	693460	2.49616	2.496 (R)
36 Phenanthrene	178		22.280	22.181	(1.003)	733227	2.36408	2.364 (H)
* 250 Anthracene-d10	188		22.214	22.214	(1.000)	514091	2.00000	
37 Anthracene	178		22.280	22.280	(1.003)	733227	2.56460	2.565
42 Carbazole	167		23.555	23.566	(1.060)	630741	2.61742	2.617
43 1-Methylphenanthrene	192		24.017	24.017	(1.081)	515706	2.73856	2.739
44 Fluoranthene	202		25.985	25.985	(1.170)	751537	2.72840	2.728
46 Pyrene	202		26.832	26.832	(1.208)	789561	2.76614	2.766
51 Naphthobenzothiophene	234		29.375	29.375	(1.322)	749273	2.69369	2.694
55 Benzo(a)anthracene	228		29.960	29.960	(0.907)	656992	2.60191	2.602
\$ 56 Chrysene-d12	240		30.084	30.084	(0.910)	541044	2.71050	2.710 (R)
57 Chrysene	228		30.163	30.163	(0.913)	646715	2.52070	2.521
62 Benzo(b)fluoranthene	252		32.382	32.382	(0.980)	651020	2.77099	2.771 (M)
63 Benzo(k)fluoranthene	252		32.427	32.427	(0.981)	739654	2.59148	2.591 (M)
293 Benzo(j)fluoranthene	252		32.494	32.494	(0.983)	653699	2.50152	2.502
246 Total Benzofluoranthenes	252		32.382	32.382	(0.980)	2008486	7.81492	7.815 (M)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.046	33.046	(1.000)	549348	2.00000	
64 Benzo(e)pyrene	252	33.102	33.102	(1.002)	649789	2.77715	2.777
66 Benzo(a)pyrene	252	33.204	33.204	(1.005)	626368	2.59937	2.599
\$ 67 Perylene-d12	264	33.384	33.373	(1.010)	557838	2.60822	2.608 (R)
68 Perylene	252	33.440	33.440	(1.012)	651838	2.91685	2.917
69 Indeno(1,2,3-cd)pyrene	276	35.423	35.423	(1.072)	677211	2.70703	2.707 (M)
70 Dibenzo(a,h)anthracene	278	35.400	35.400	(1.071)	589414	2.72350	2.723 (M)
74 Benzo(g,h,i)perylene	276	36.290	36.290	(1.098)	628138	2.98419	2.984 (M)

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.
- H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 01-MAY-2021
 Lab File ID: NT1421043067.D Calibration Time: 23:35
 Lab Smp Id: SJE0004-CCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	504442	252221	1008884	566717	12.35
250 Anthracene-d10	459103	229552	918206	514091	11.98
251 Benzo(e)pyrene-d1	516794	258397	1033588	549348	6.30

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.77	18.27	19.27	18.77	-0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	-0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	-0.00

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.

REVIEW SUMMARY FOR FILE - NT1421043067.D

Lab ID: SJE0004-CCV1

nt14.i, 20210430D.b\ALKYLPNA.m, 02-MAY-2021 12:25

RT CO-ELUTION COMPOUNDS

22.281 Anthracene and Phenanthrene

Quant Method: ICAL

RRT CHECK

RRT CCV RRT DELTA COMPOUND

NONE

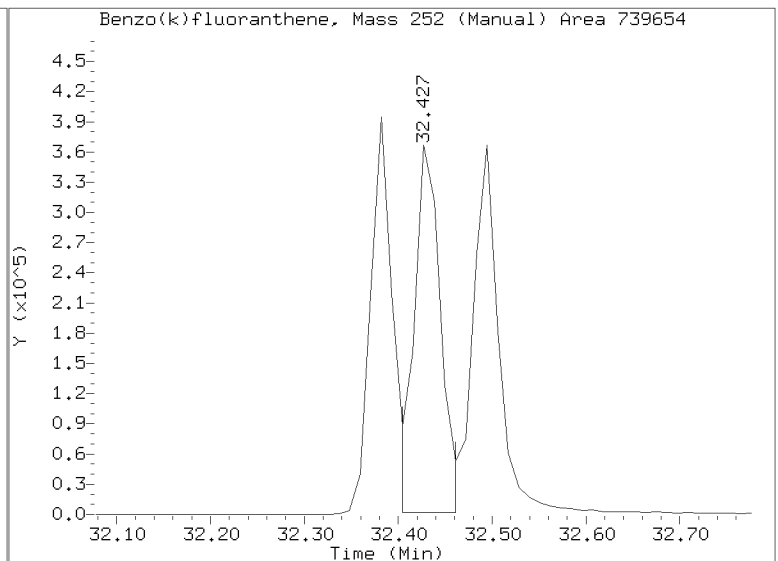
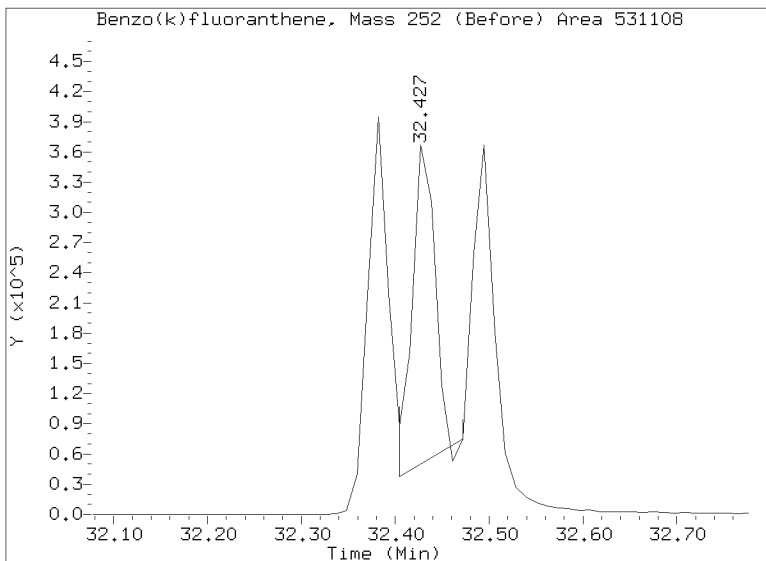
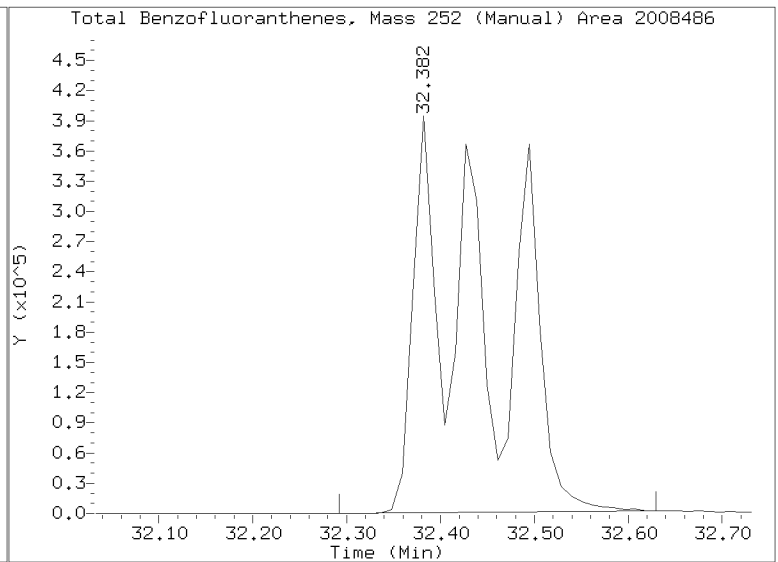
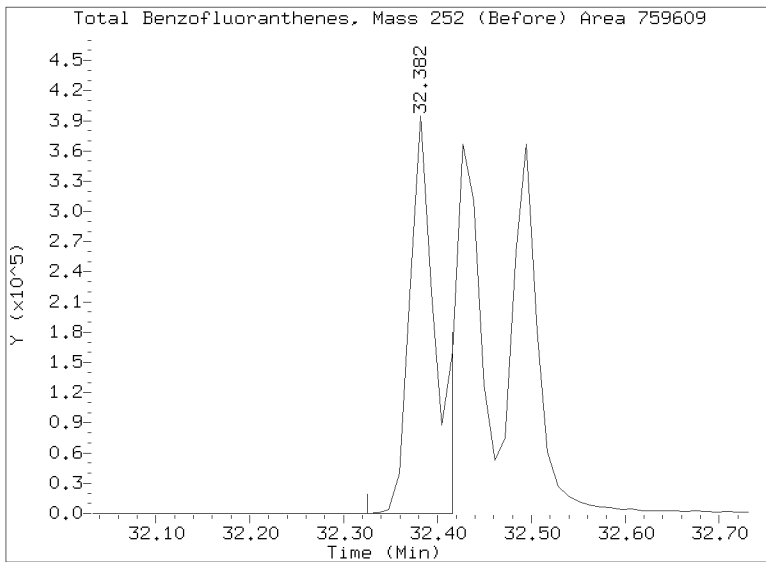
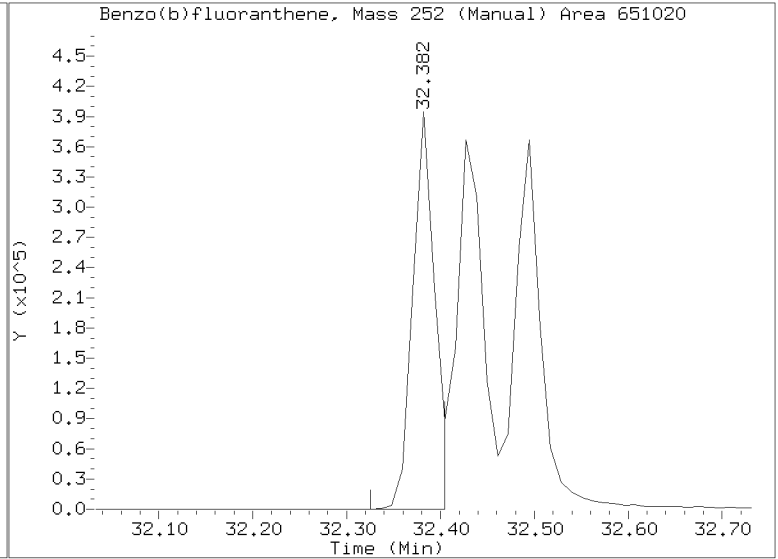
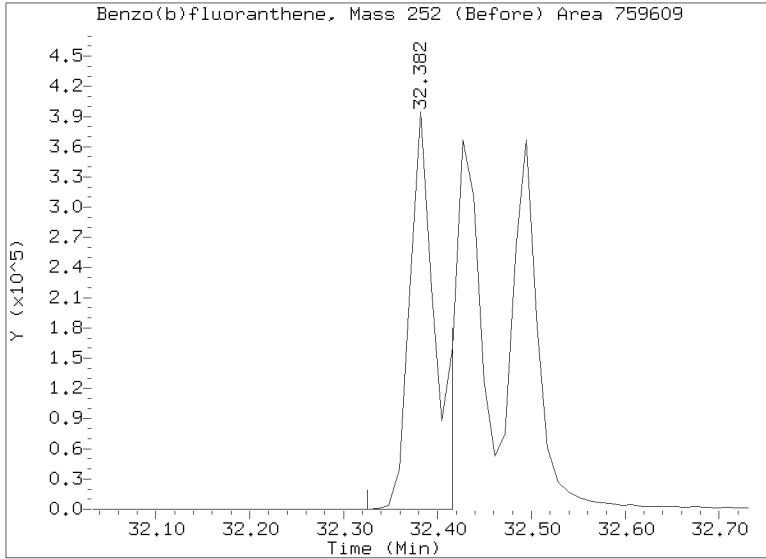
RRT check based on Ccal File: NT1421043051ICV.D

On Column LOD for nt14.i, 20210430D.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

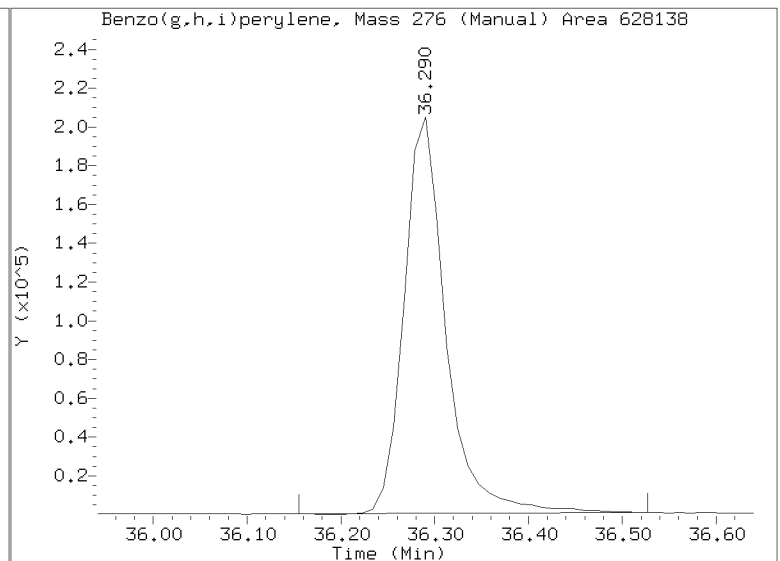
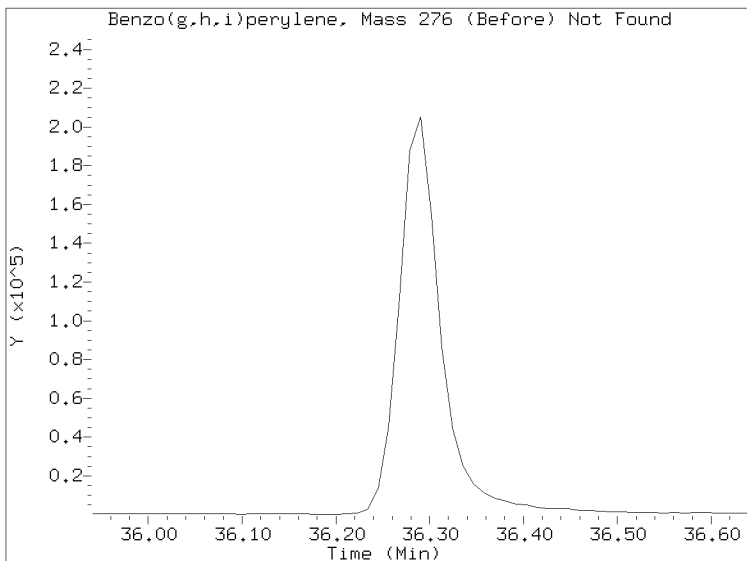
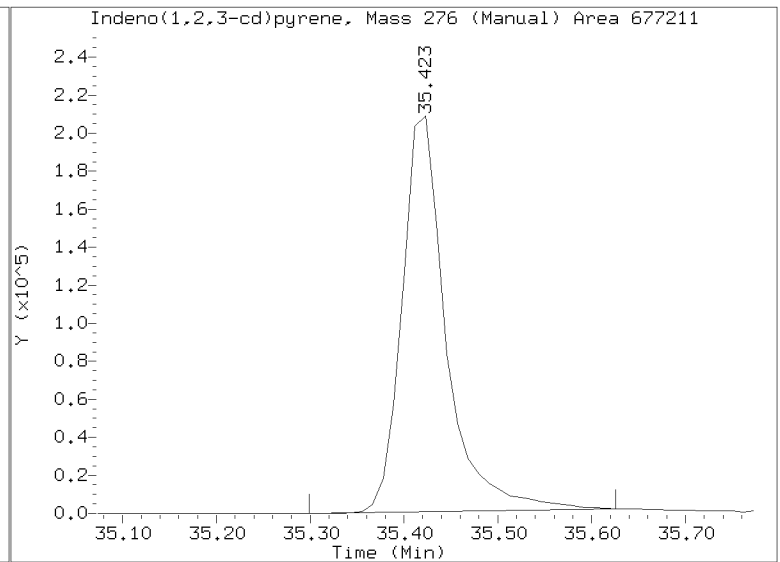
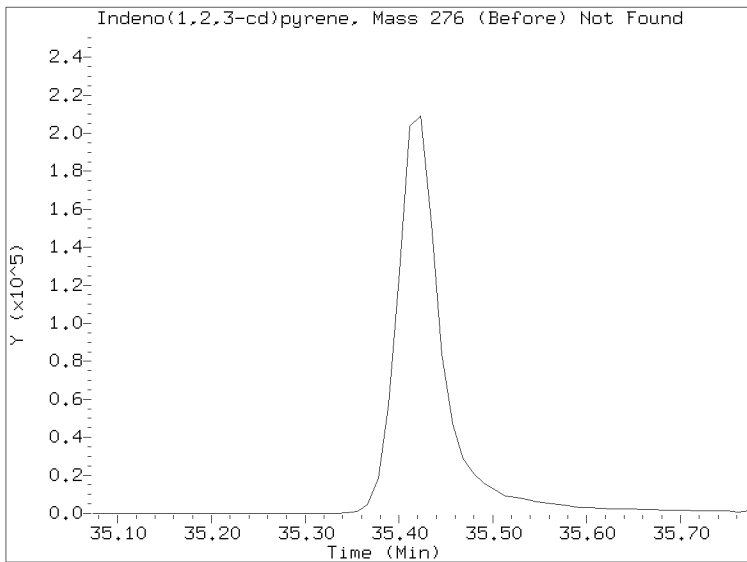
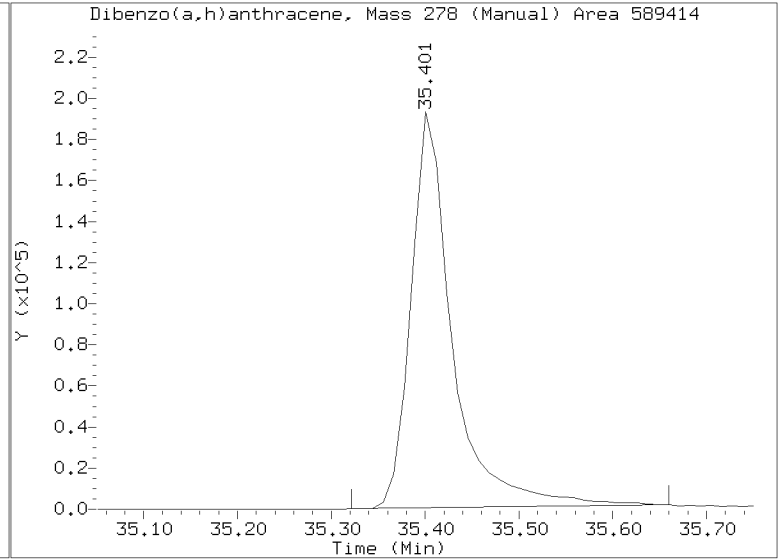
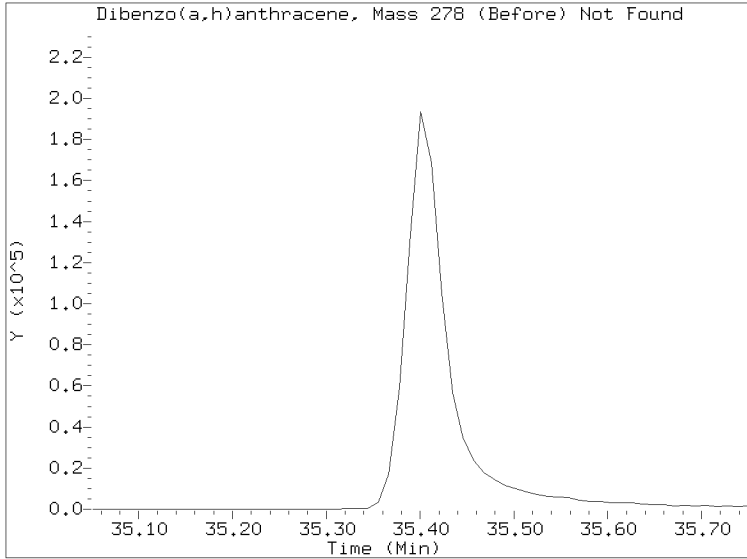
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043067.D
Injection Date: 02-MAY-2021 12:25
Lab ID: SJE0004-CCV1 Client ID:
Report Date: 05/04/2021 13:21



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043067.D
Injection Date: 02-MAY-2021 12:25
Lab ID: SJE0004-CCV1 Client ID:
Report Date: 05/04/2021 13:21





LOW-CONCENTRATION CONTINUING CALIBRATION CHECK EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor QEA, LLC

Project: Gasco Siltronic - US Moorings

Instrument ID: NT14

Calibration: EE00001

Lab File ID: NT1421043052.D

Calibration Date: 04/30/2021

Sequence: SJE0004

Injection Date: 05/02/21

Lab Sample ID: SJE0004-LCV1

Injection Time: 00:23

Sequence Name: PAH 0.1

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
trans-Decalin	A	0.10000	0.1	0.1489821	0.1560202		4.7	
cis-Decalin	A	0.10000	0.1	0.1028504	0.1171229		13.9	
Naphthalene	A	0.10000	0.1	1.1740120	1.3386700		14.0	
1-Methylnaphthalene	A	0.10000	0.1	0.5936130	0.7714451		30.0	
2-Methylnaphthalene	A	0.10000	0.1	0.6265036	0.7349183		17.3	
Biphenyl	A	0.10000	0.1	0.8966280	1.0679700		19.1	
2,6-Dimethylnaphthalene	A	0.10000	0.1	0.6169792	0.7444002		20.7	
Acenaphthylene	A	0.10000	0.1	0.9709370	1.2092280		24.5	
Acenaphthene	A	0.10000	0.1	0.6240076	0.7417783		18.9	
Dibenzofuran	A	0.10000	0.1	0.9455456	1.1052150		16.9	
2,3,5-Trimethylnaphthalene	A	0.10000	0.1	0.5414731	0.6576265		21.5	
Fluorene	A	0.10000	0.1	0.6871732	0.8269717		20.3	
Benzo(b)thiophene	A	0.10000	0.1	0.9340302	1.1364260		21.7	
Phenanthrene	A	0.10000	0.1	1.2066070	1.2785930		6.0	
Anthracene	A	0.10000	0.1	1.1122650	1.1502710		3.4	
Carbazole	A	0.10000	0.1	0.8290303	0.8982205		-1.8	
1-Methylphenanthrene	A	0.10000	0.1	0.7326040	0.7651403		4.4	
Fluoranthene	A	0.10000	0.1	1.0715980	1.2364640		15.4	
Dibenzothiophene	A	0.10000	0.1	0.8674458	1.0500120		21.1	
Pyrene	A	0.10000	0.1	1.1104570	1.2241680		10.2	
Benzo(a)anthracene	A	0.10000	0.09	0.8222601	0.8205727		-7.3	
Chrysene	A	0.10000	0.1	0.9340580	0.9130757		-2.3	
Benzo(b)fluoranthene	A	0.10000	0.1	0.7491309	0.8338433		1.7	
Benzo(j)fluoranthene	A	0.10000	0.1	0.9513865	0.9058177		-4.8	
Benzo(k)fluoranthene	A	0.10000	0.1	0.9278309	0.9703208		-3.1	
Benzo(e)pyrene	A	0.10000	0.1	0.8518347	0.9058889		6.4	
Benzo(a)pyrene	A	0.10000	0.1	0.7422947	0.8468293		-2.0	
Indeno(1,2,3-cd)pyrene	A	0.10000	0.1	0.7887712	0.9607858		9.7	
Dibenzo(a,h)anthracene	A	0.10000	0.1	0.6549683	0.7422653		-1.5	
Benzo(g,h,i)perylene	A	0.10000	0.1	0.7663214	0.9931619		29.6	
Perylene	A	0.10000	0.1	0.8135951	0.9618888		18.2	
Benzo(b)naphtho(2,1-d)thiophene	A	0.10000	0.1	1.0821370	1.1075370		2.4	
Naphthalene-d8	A	0.10000	0.116	1.1542130	1.3407900		16.2	
Acenaphthene-d10	A	0.10000	0.123	0.5635830	0.6947999		23.3	

* Values outside of QC limits



**LOW-CONCENTRATION
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM**

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>21D0180</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic - US Moorings</u>
Instrument ID:	<u>NT14</u>	Calibration:	<u>EE00001</u>
Lab File ID:	<u>NT1421043052.D</u>	Calibration Date:	<u>04/30/2021</u>
Sequence:	<u>SJE0004</u>	Injection Date:	<u>05/02/21</u>
Lab Sample ID:	<u>SJE0004-LCV1</u>	Injection Time:	<u>00:23</u>
Sequence Name:	<u>PAH 0.1</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenanthrene-d10	A	0.10000	0.0982	1.0807840	1.0611340		-1.8	
Chrysene-d12	A	0.10000	0.0989	0.7267179	0.7183924		-1.2	
Perylene-d12	A	0.10000	0.114	0.6899017	0.8652231		14.0	

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.1\20210430D.B\NT1421043052.D

Date: 02-MAY-2021 00:23

Client ID:

Sample Info: SJE0004-LCW1

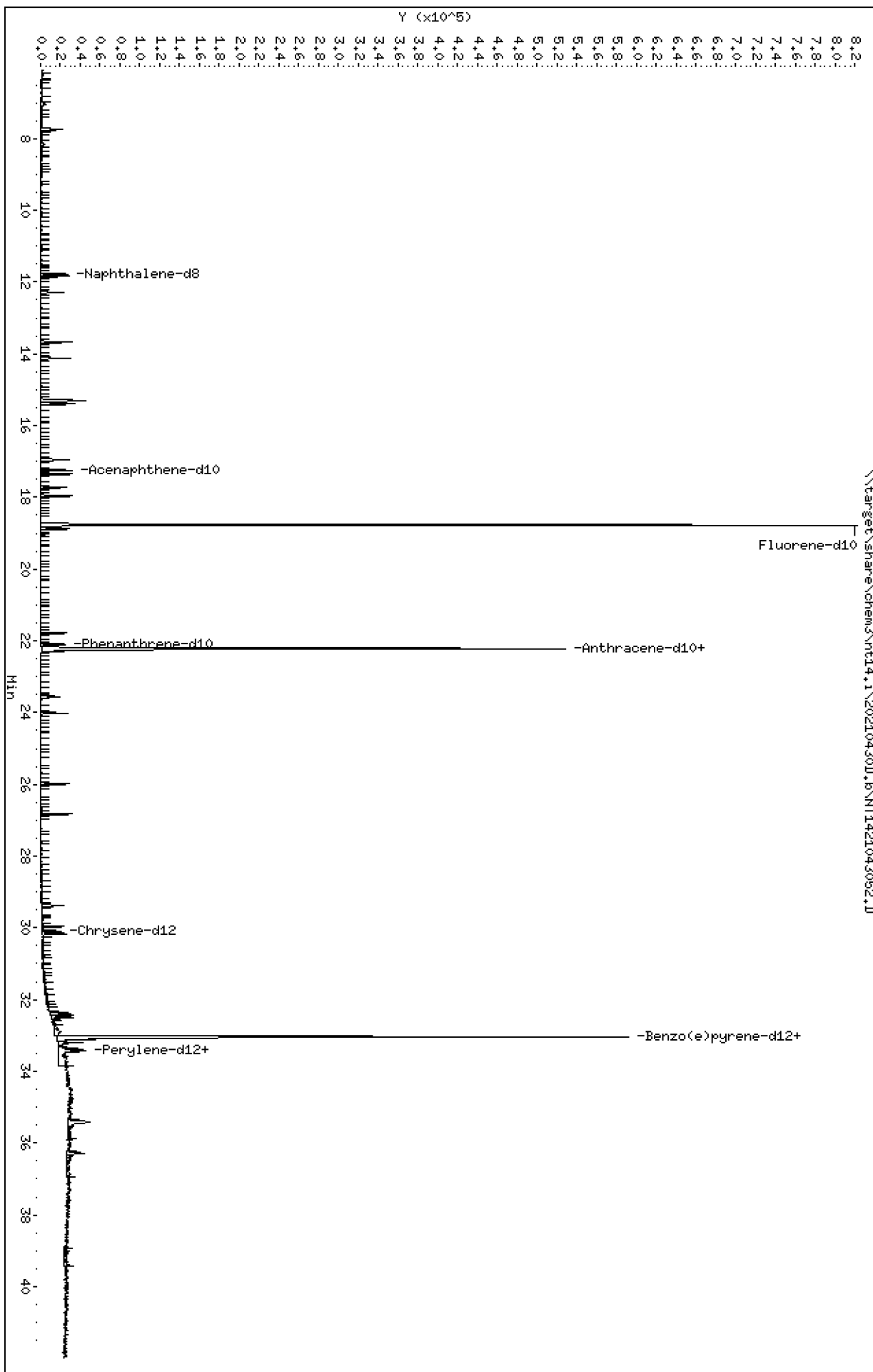
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

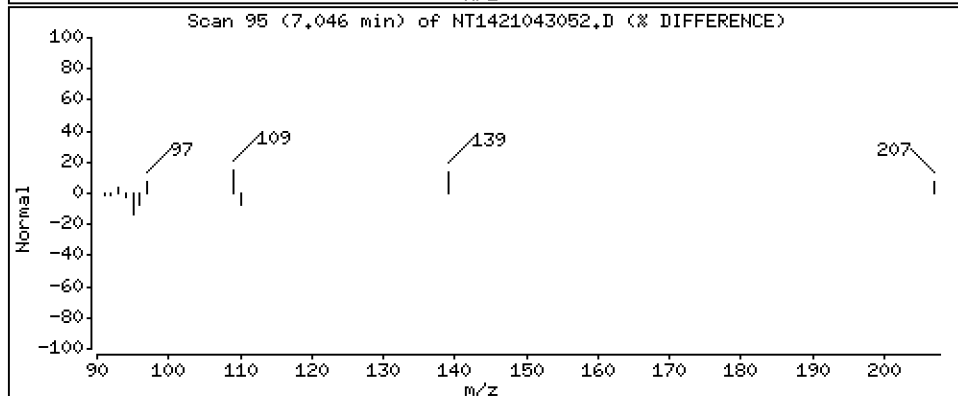
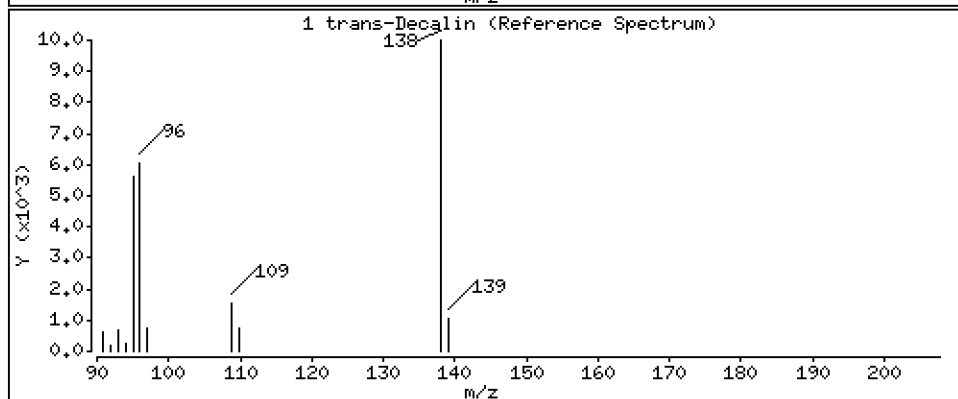
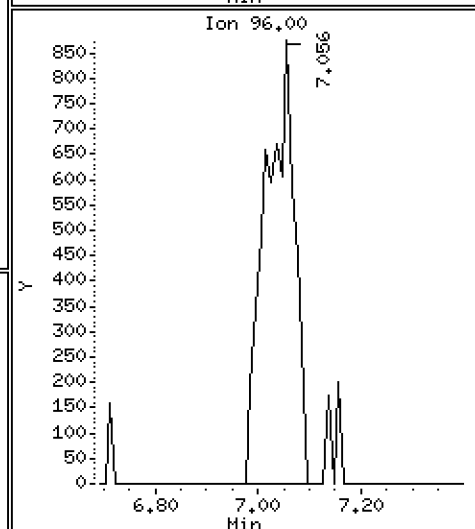
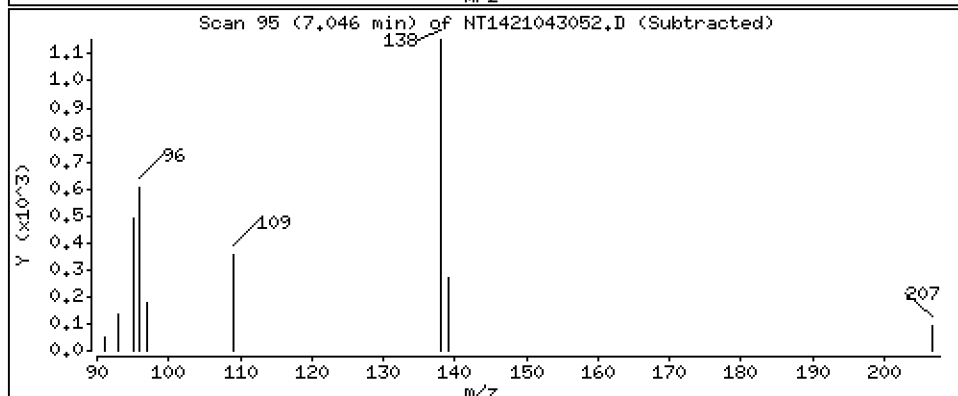
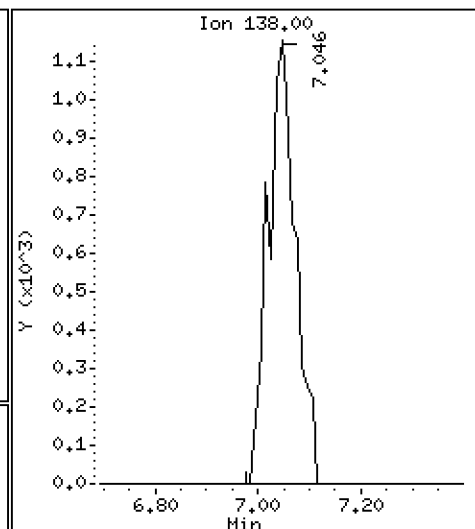
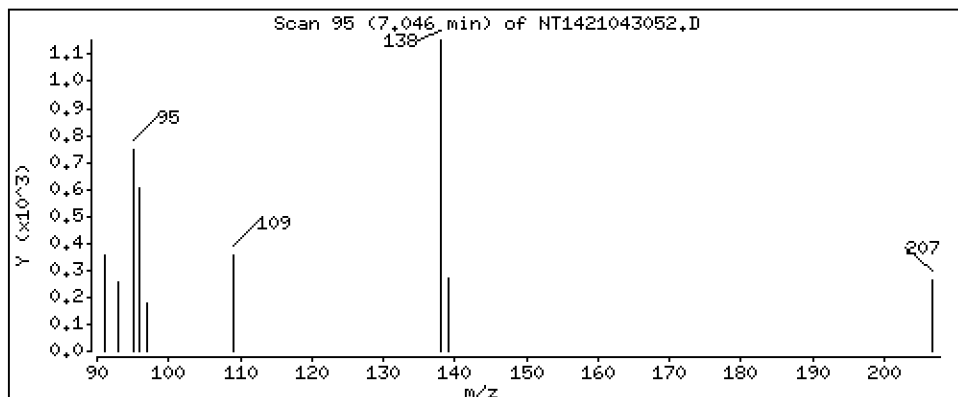
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

1 trans-Decalin

Concentration: 0.1047 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

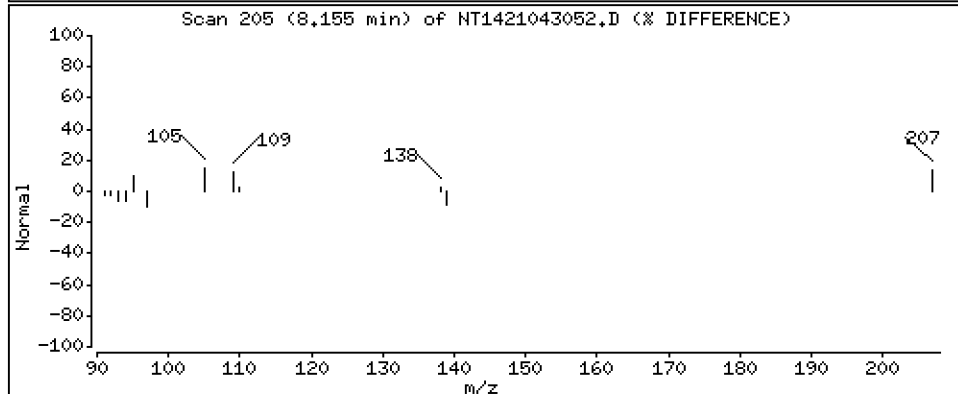
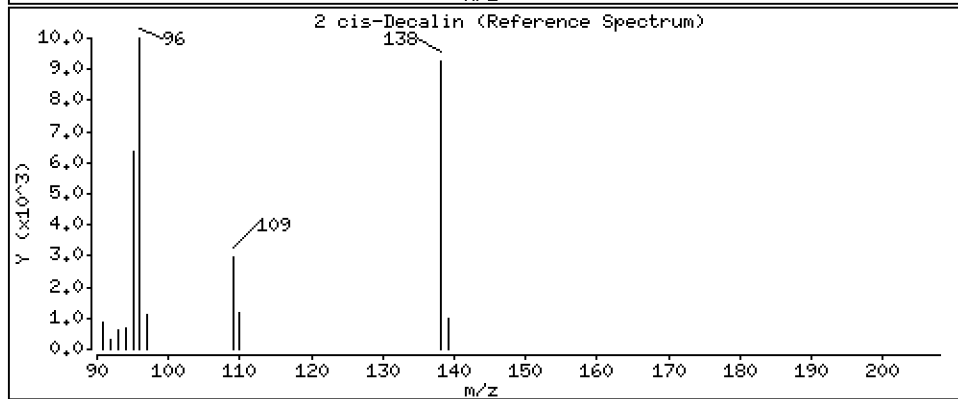
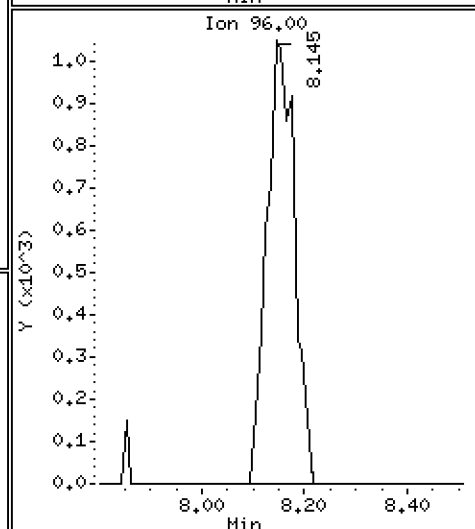
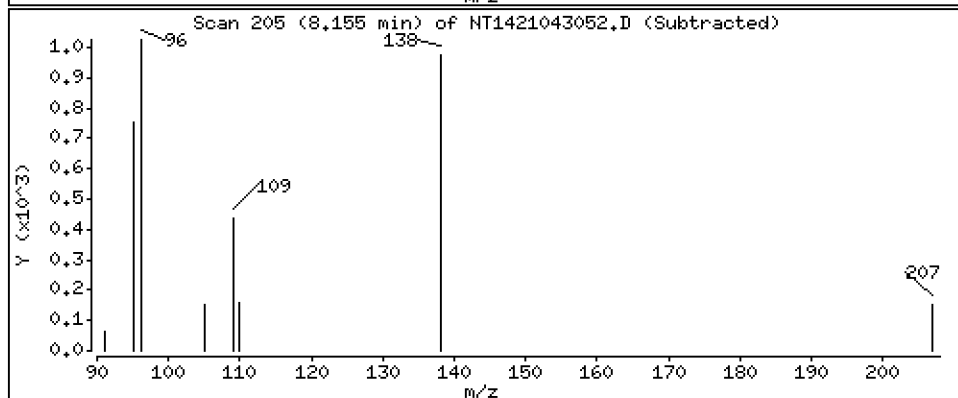
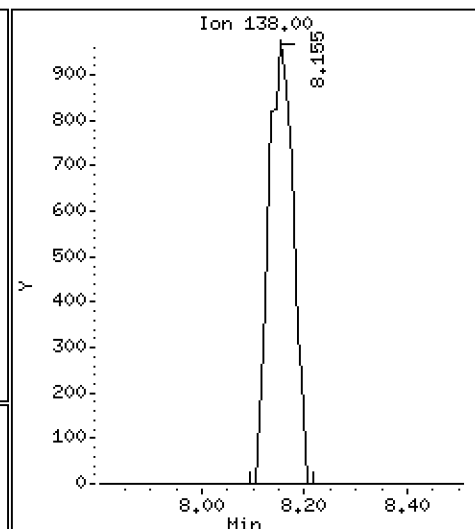
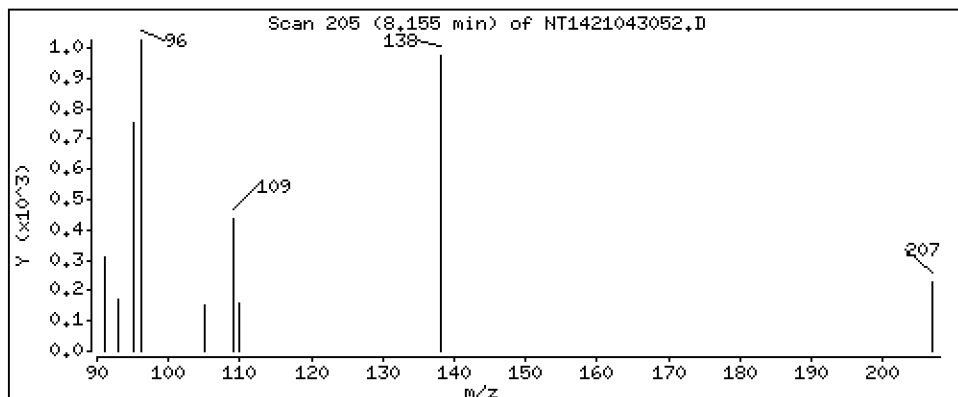
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

2 cis-Decalin

Concentration: 0.1139 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

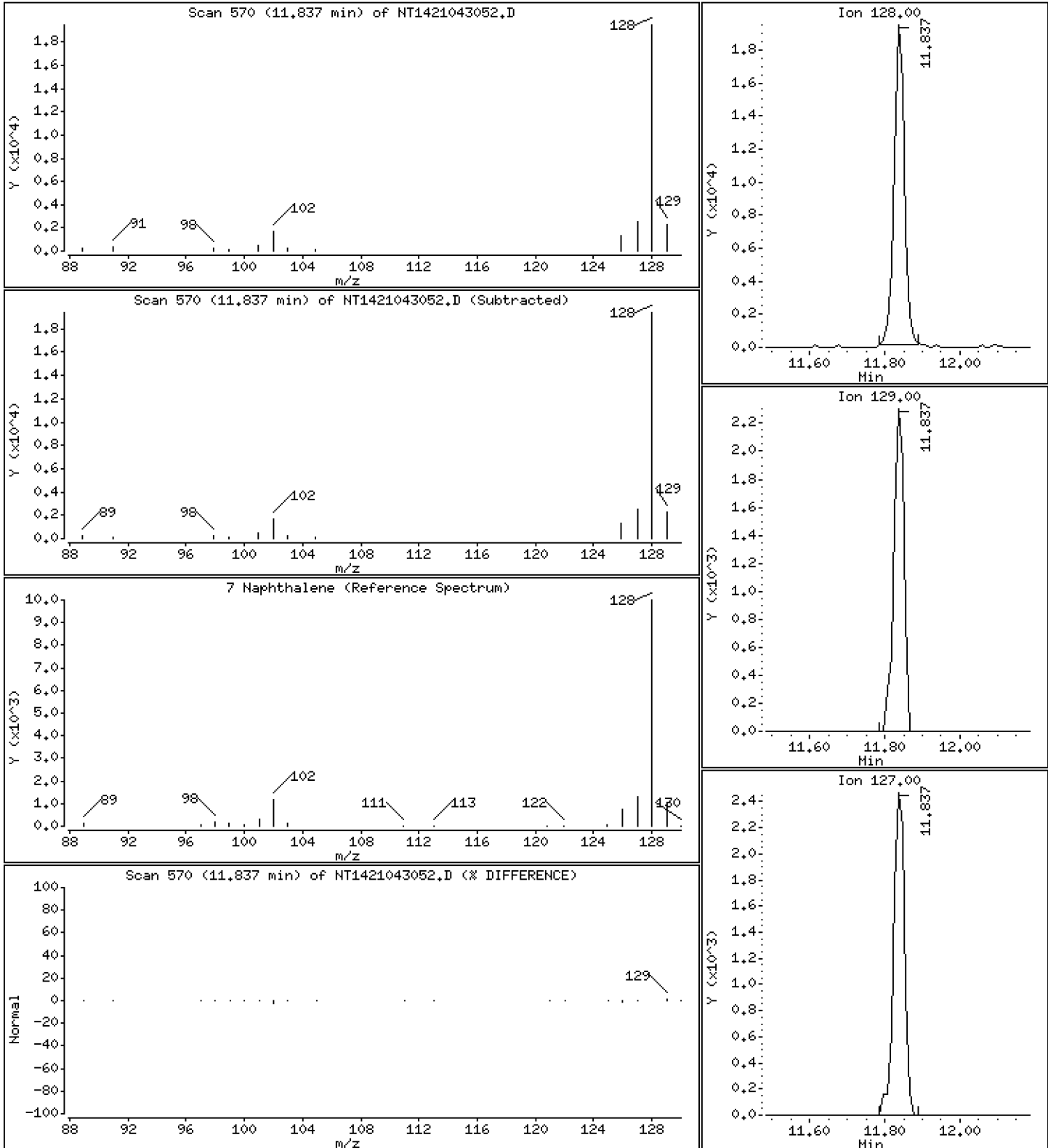
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

7 Naphthalene

Concentration: 0,1140 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

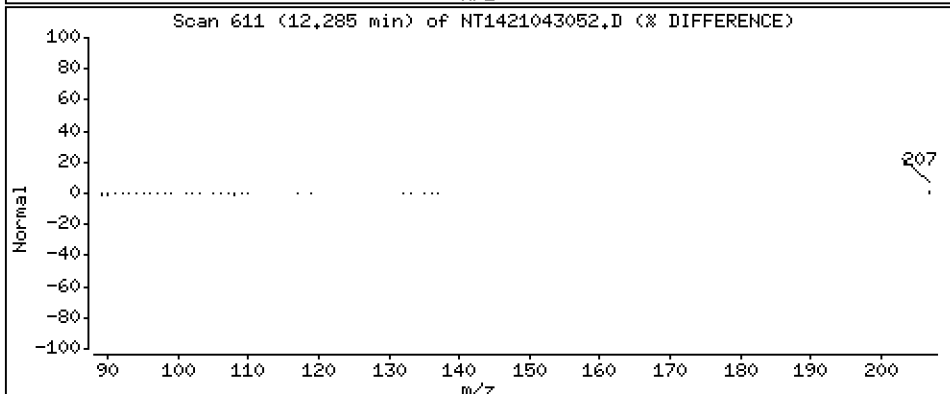
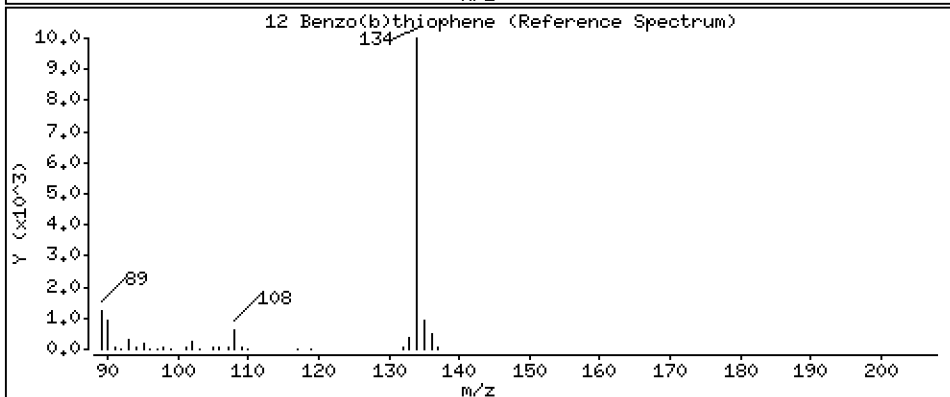
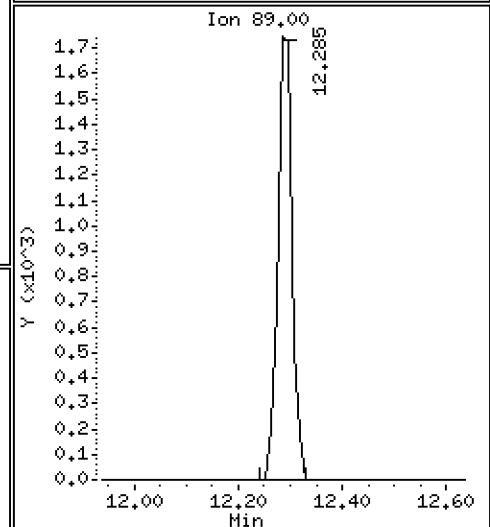
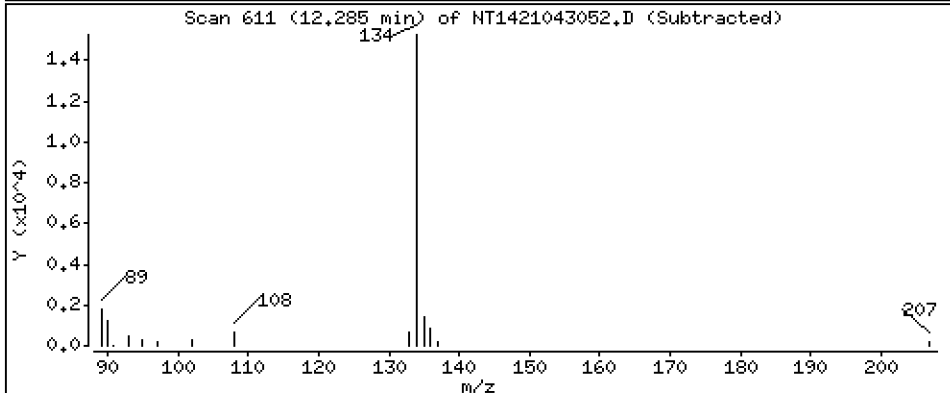
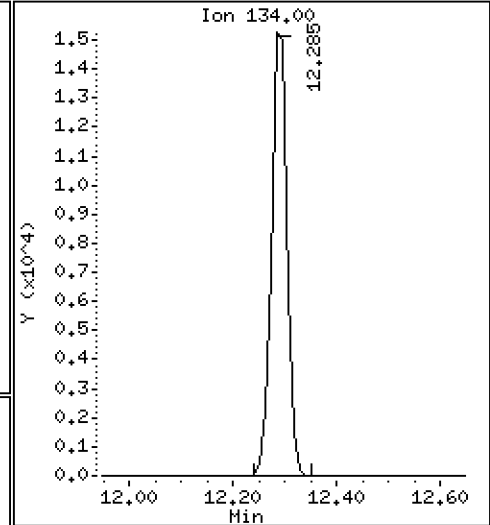
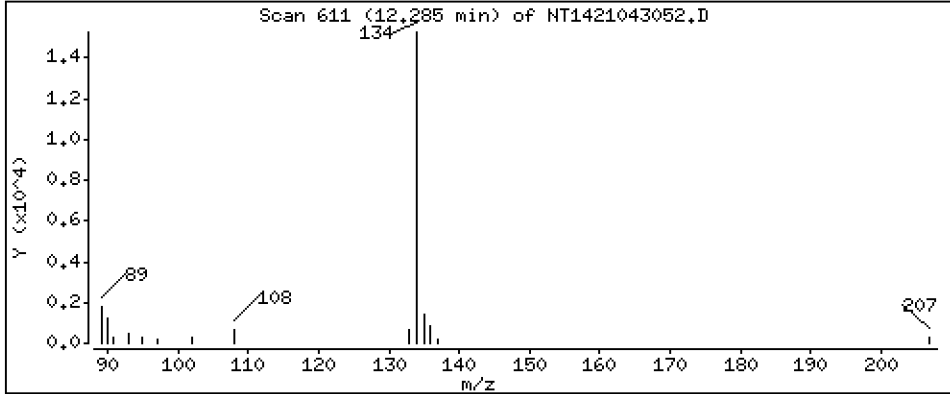
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

12 Benzo(b)thiophene

Concentration: 0,1217 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

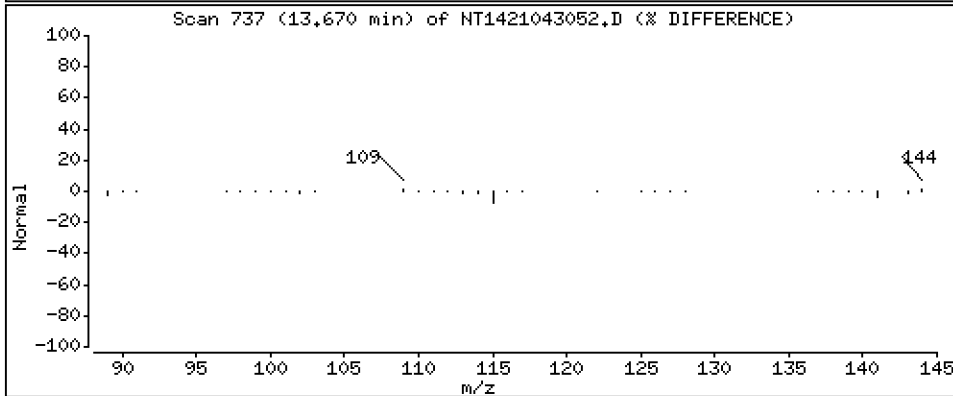
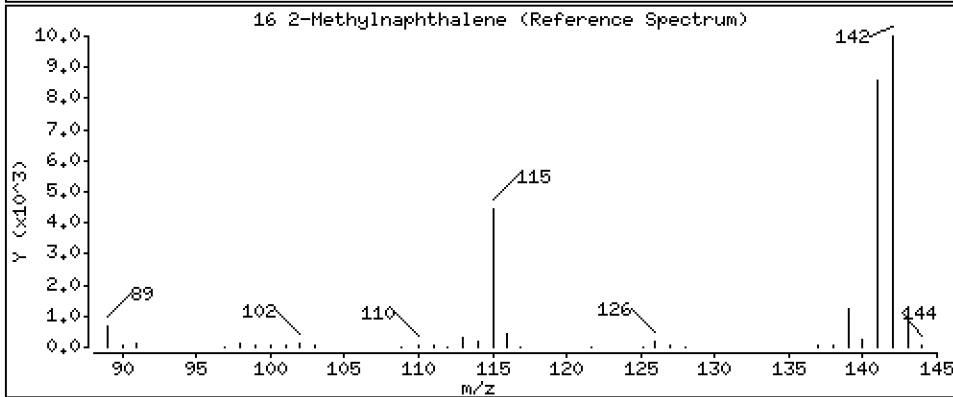
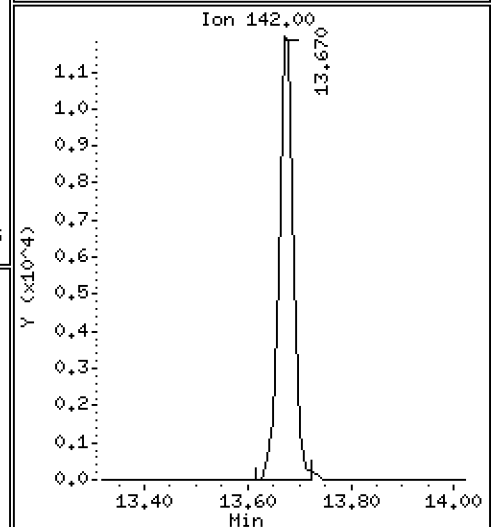
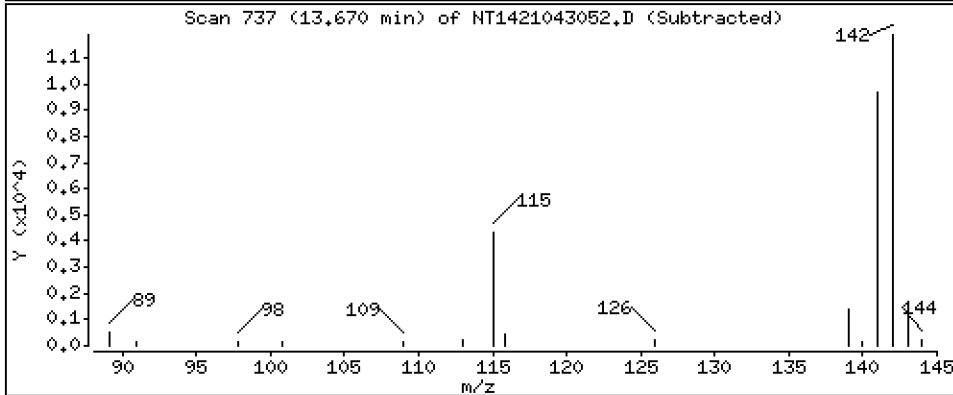
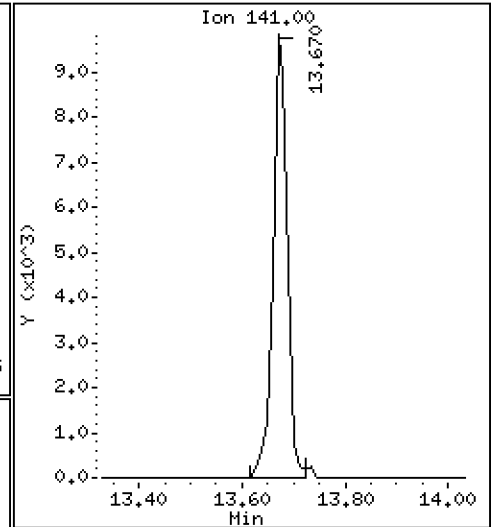
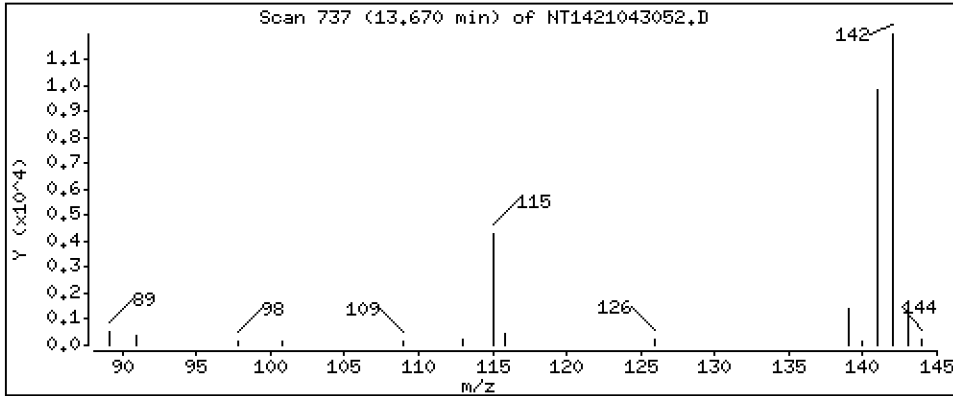
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 2-Methylnaphthalene

Concentration: 0,1173 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

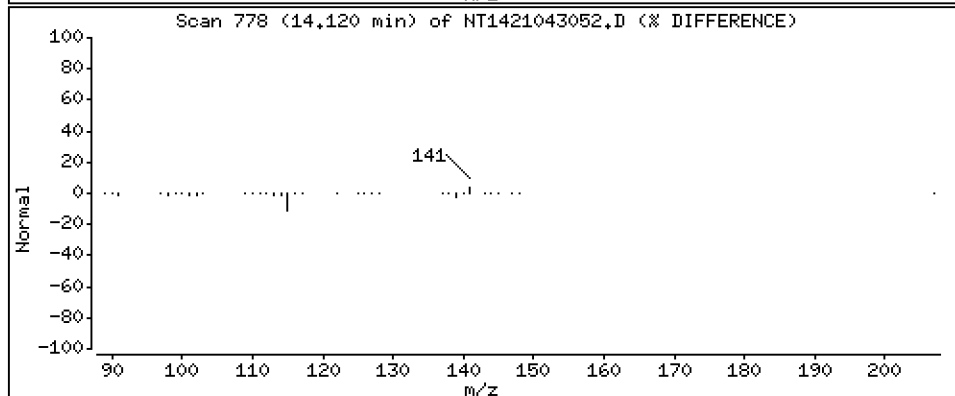
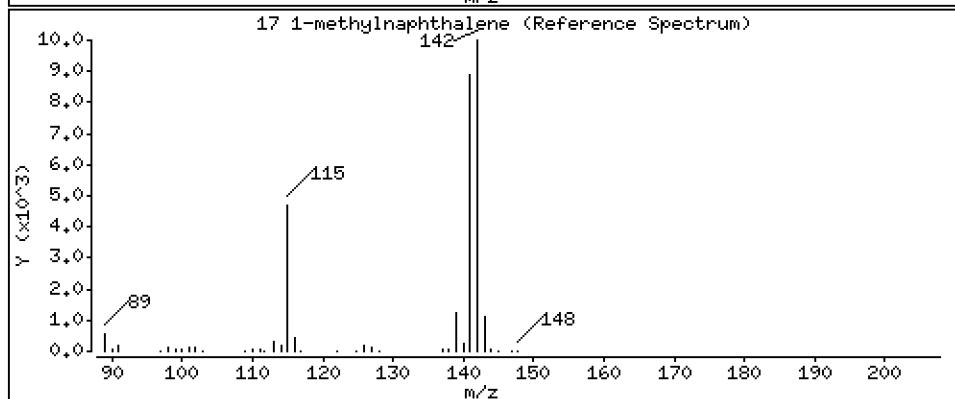
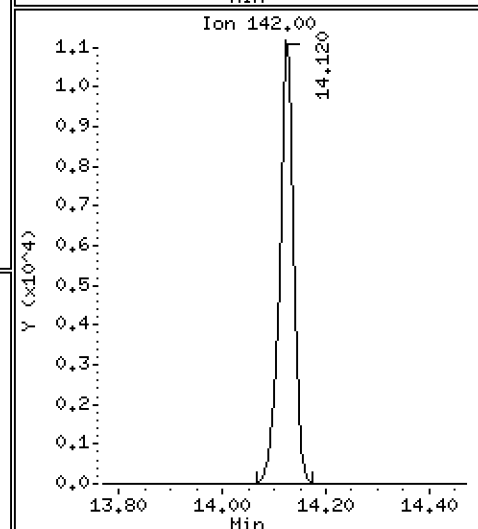
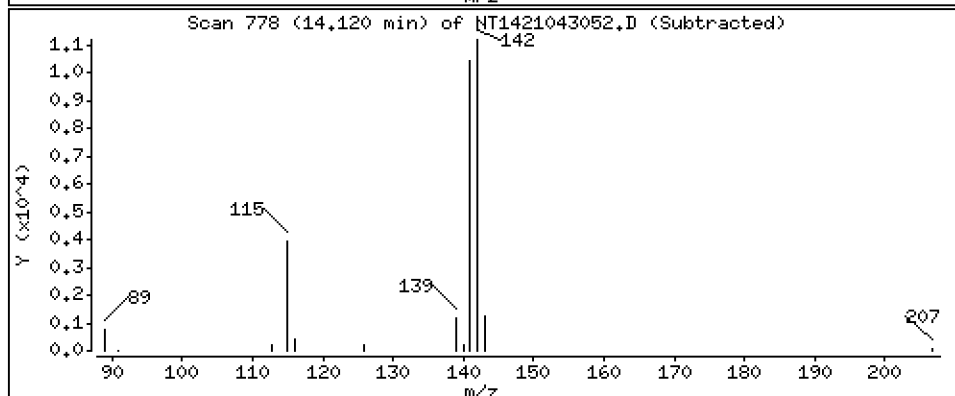
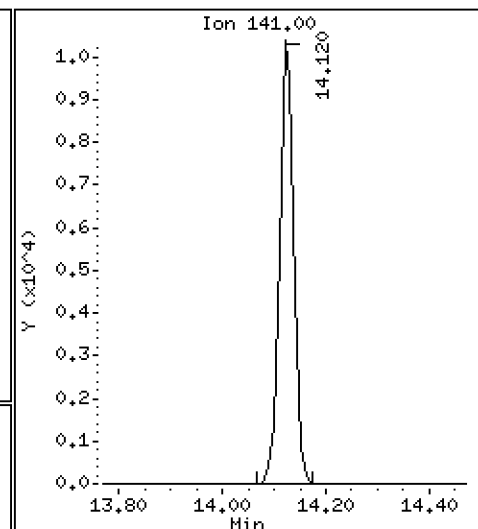
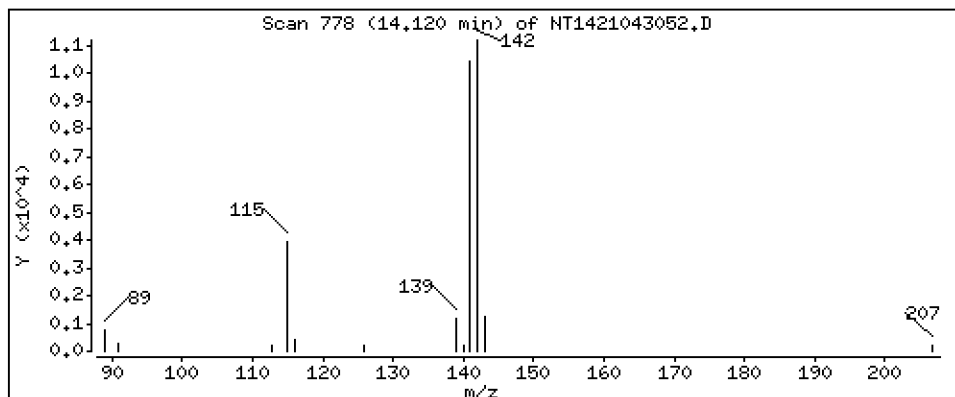
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 1-methylnaphthalene

Concentration: 0,1300 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

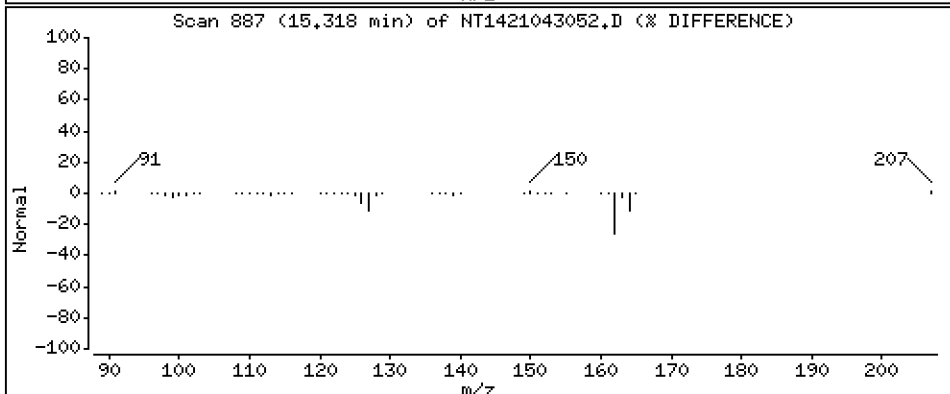
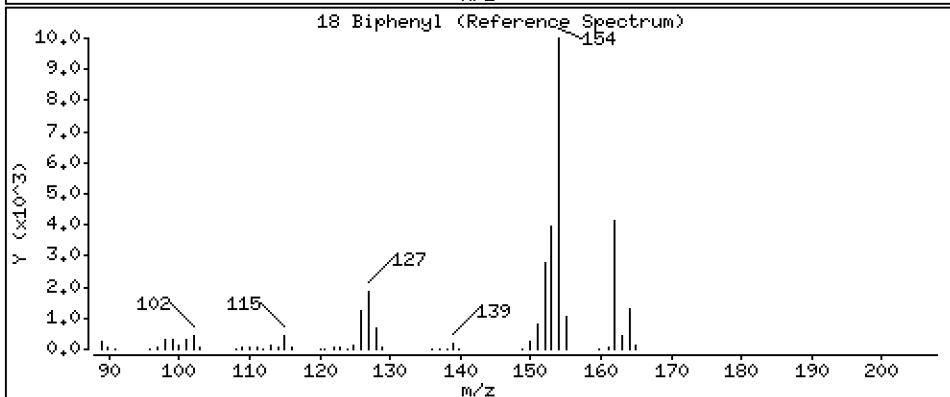
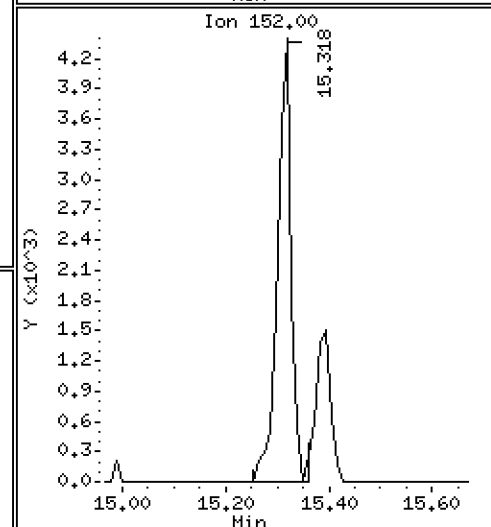
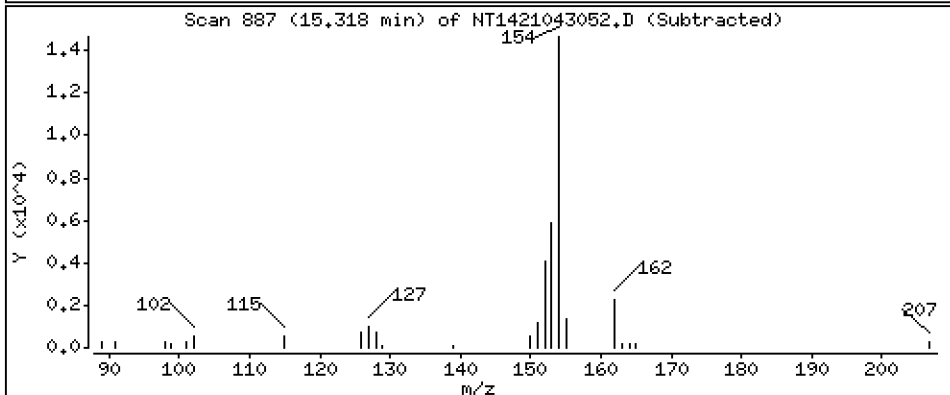
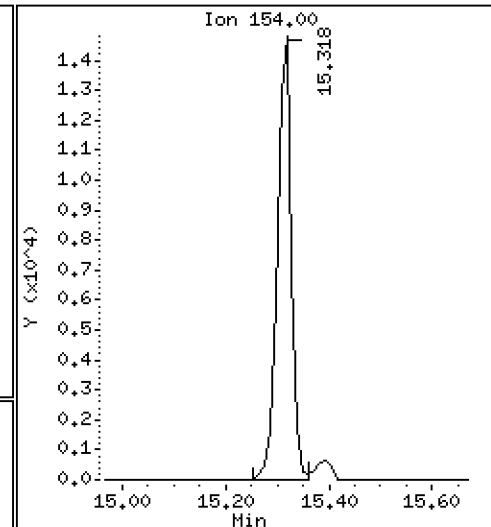
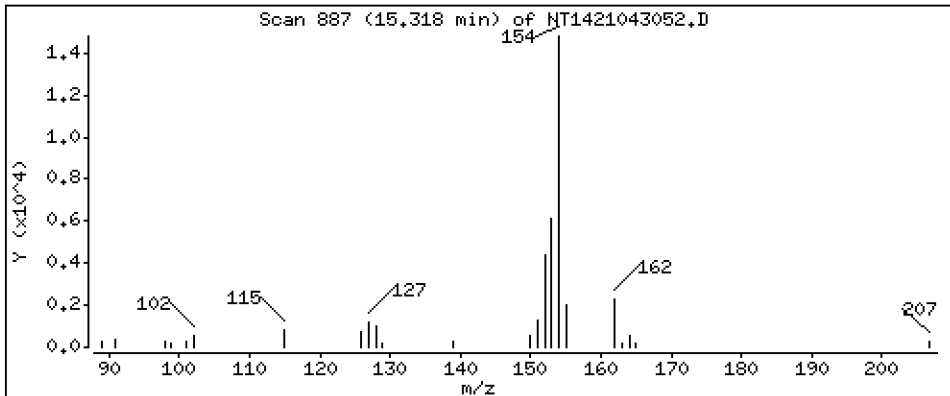
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

18 Biphenyl

Concentration: 0.1191 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

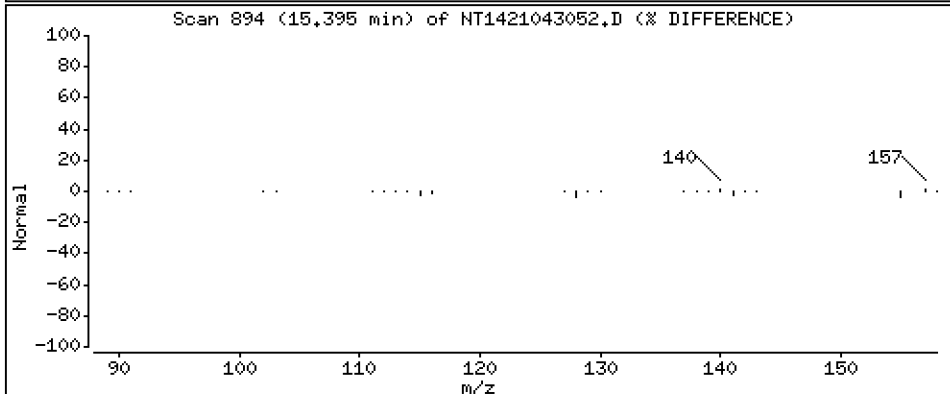
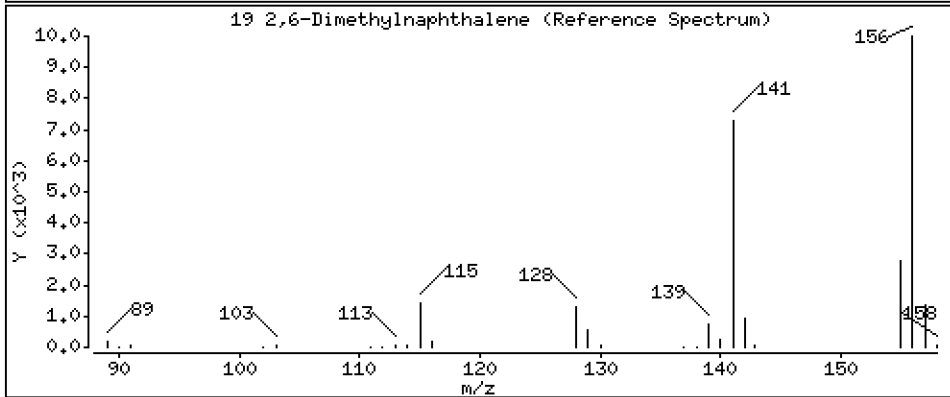
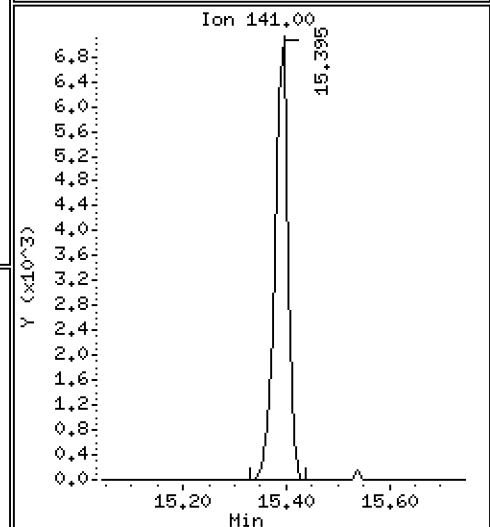
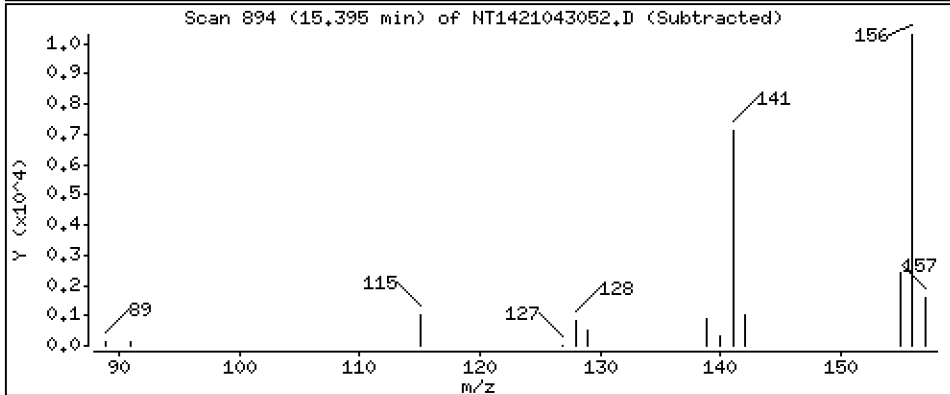
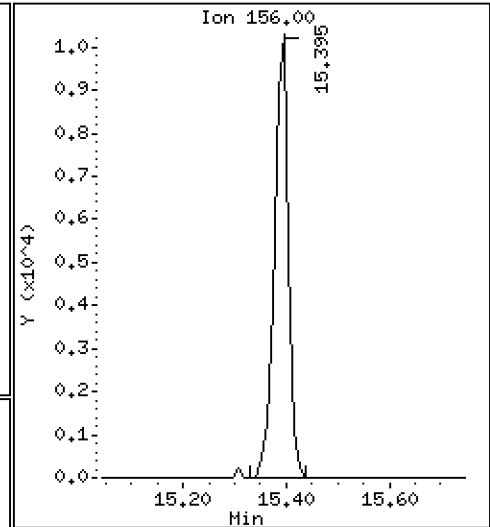
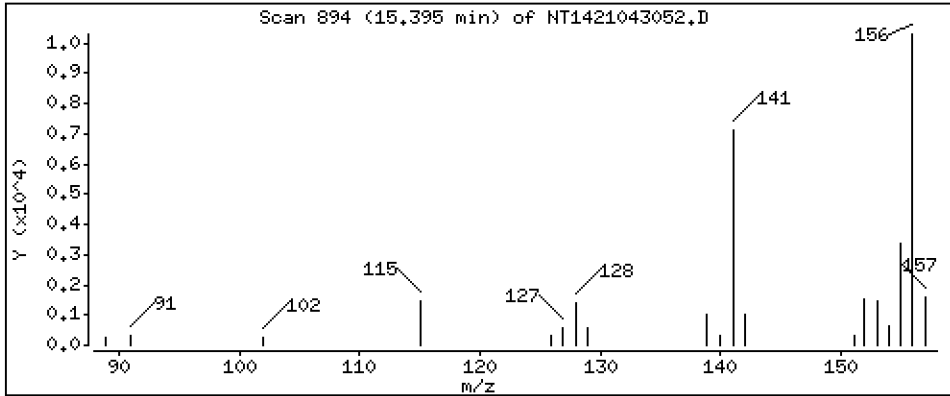
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 2,6-Dimethylnaphthalene

Concentration: 0,1207 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

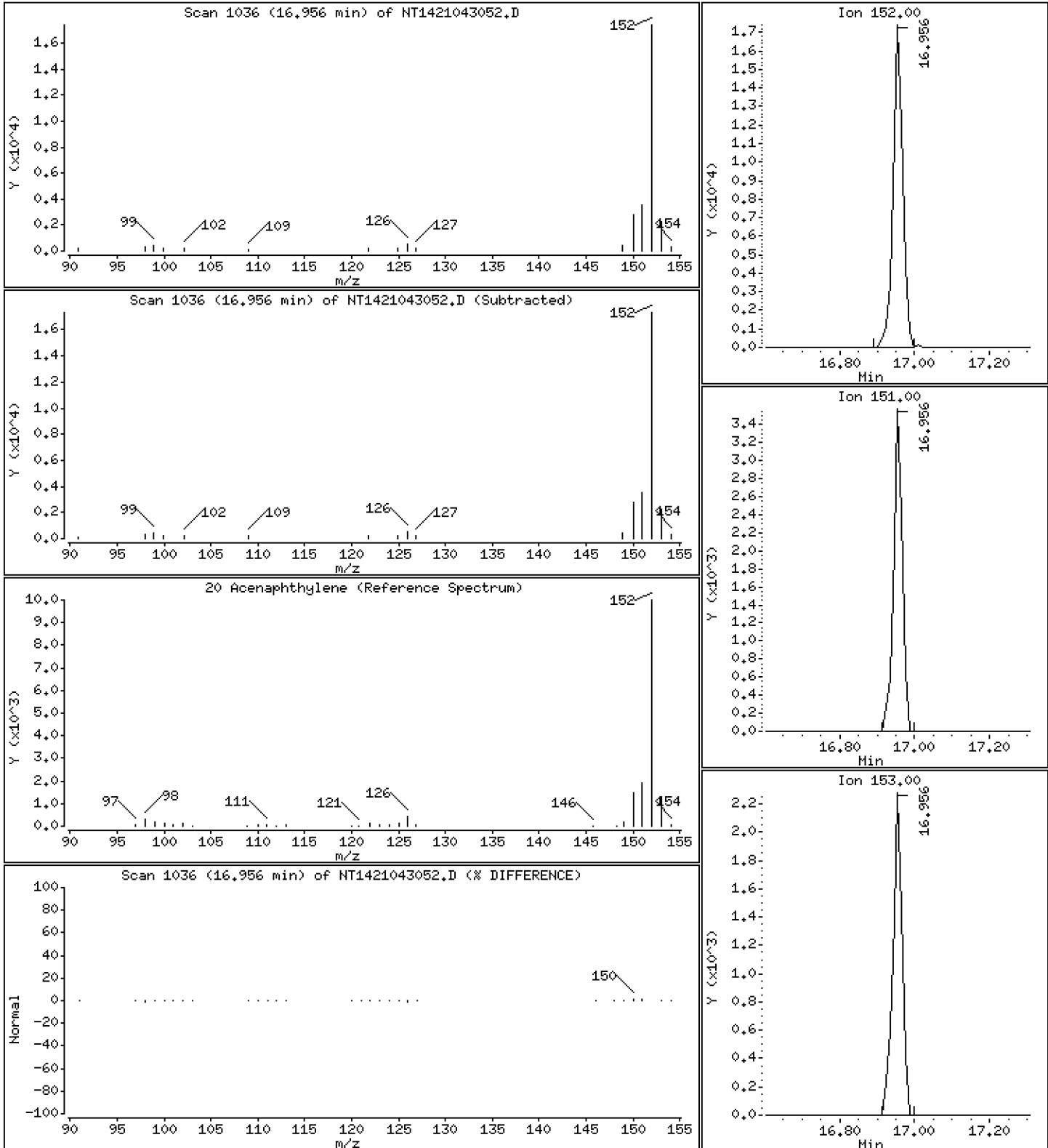
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

20 Acenaphthylene

Concentration: 0.1245 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

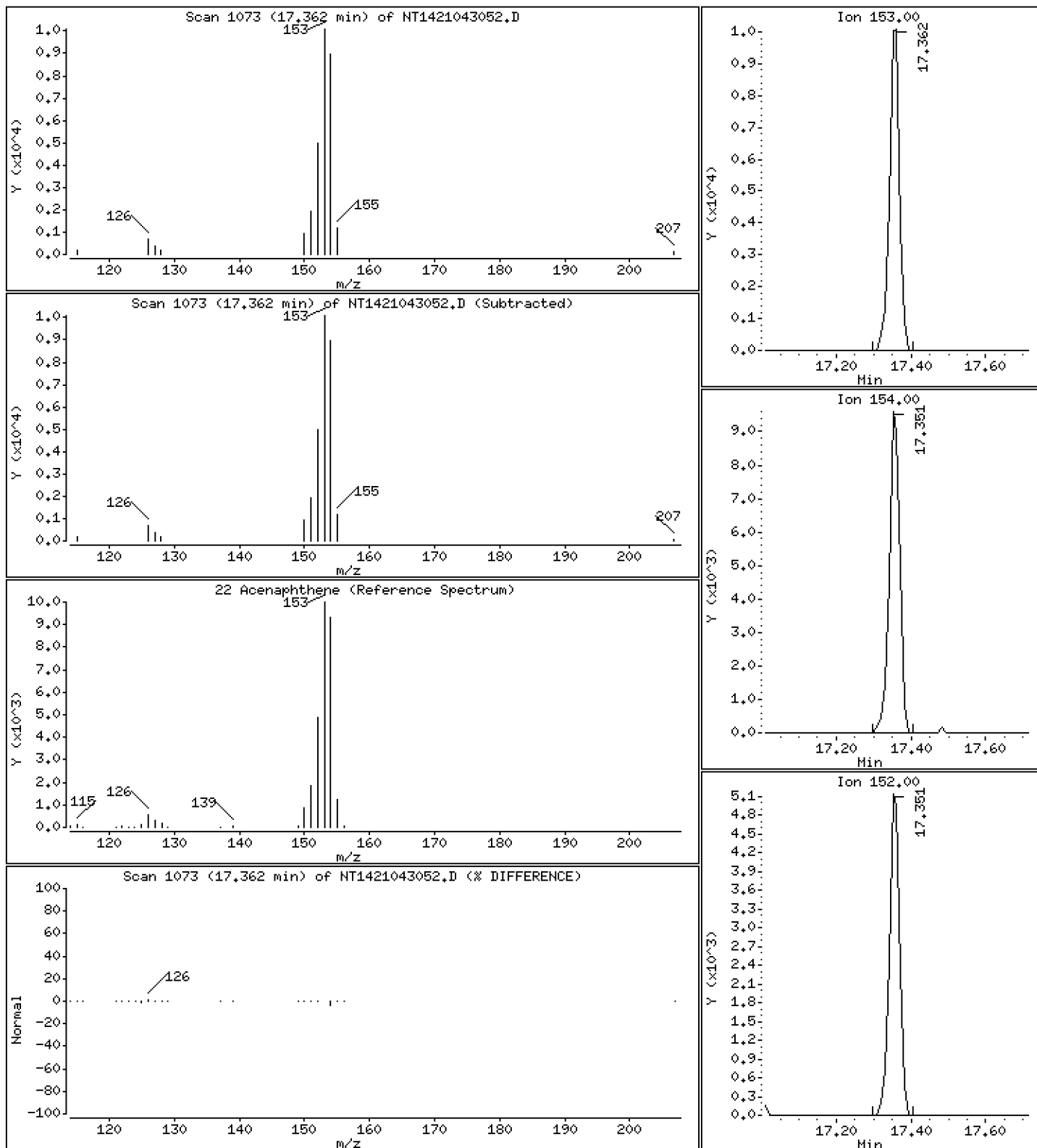
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

22 Acenaphthene

Concentration: 0,1189 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

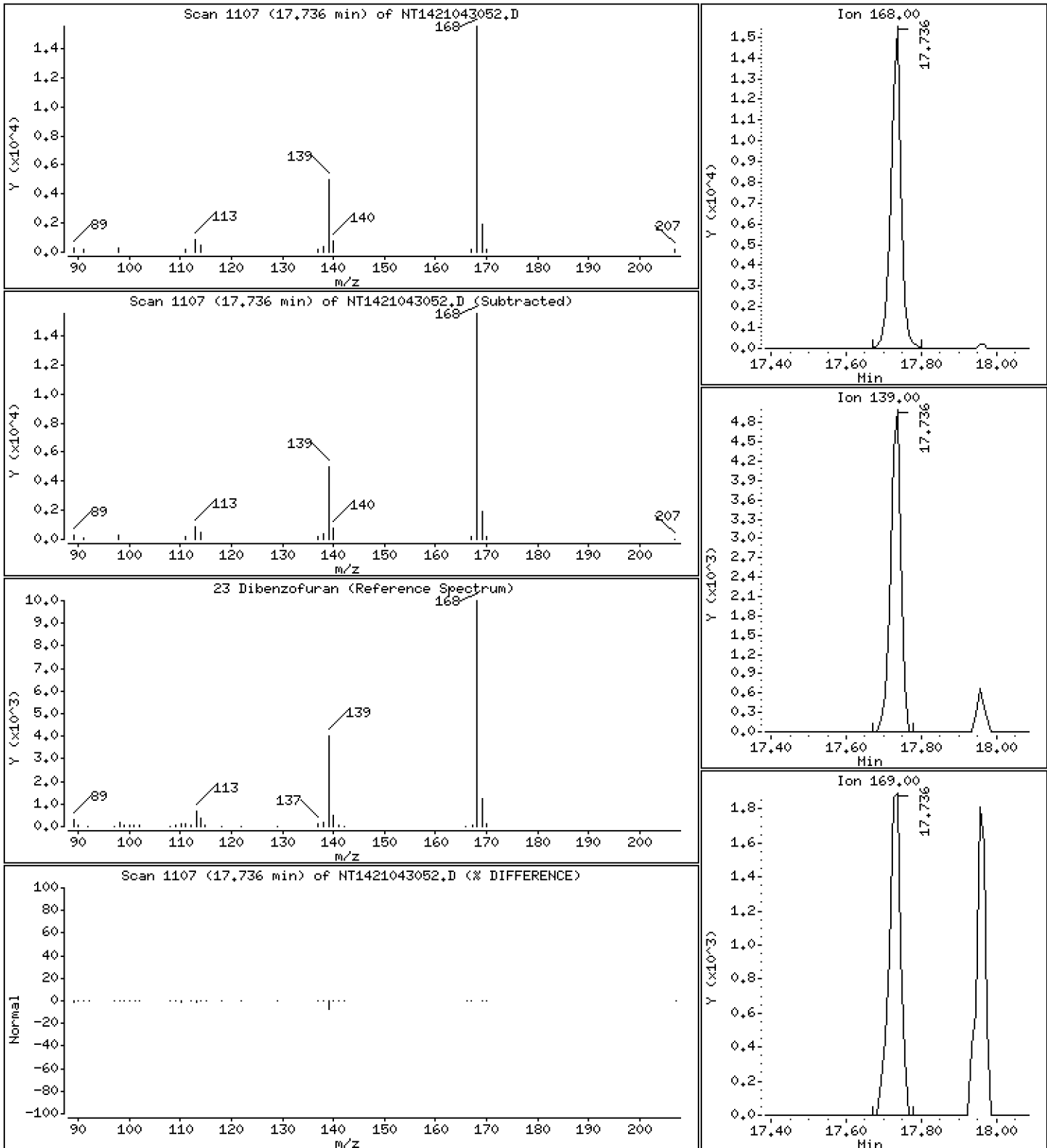
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 Dibenzofuran

Concentration: 0,1169 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

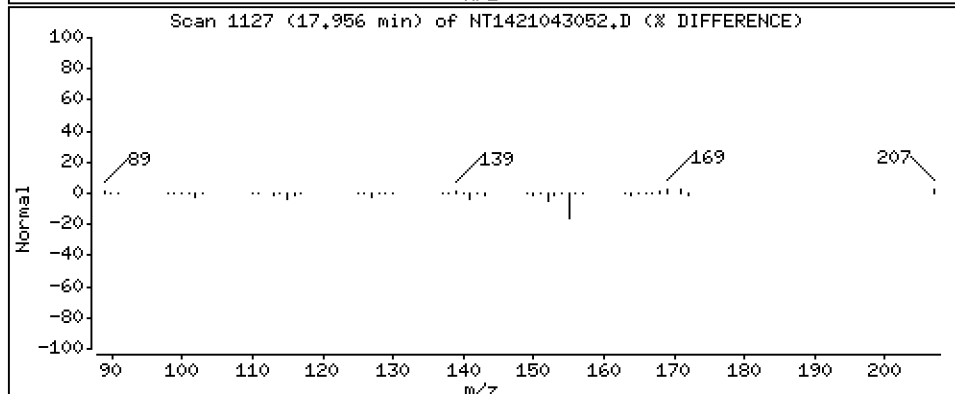
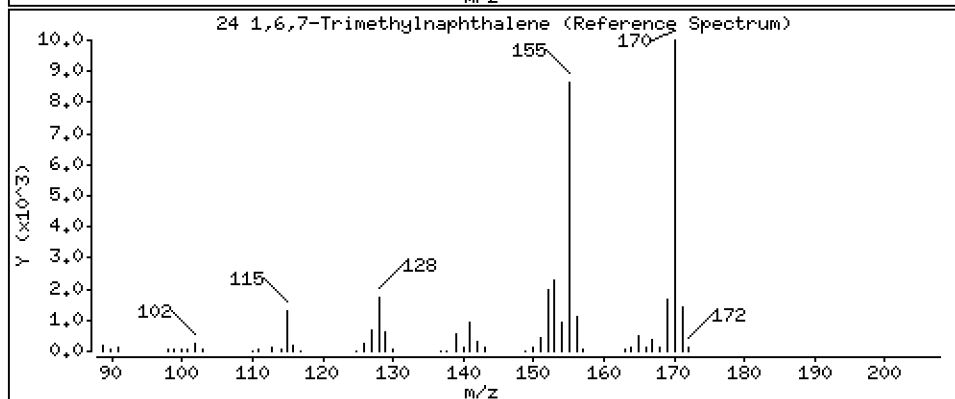
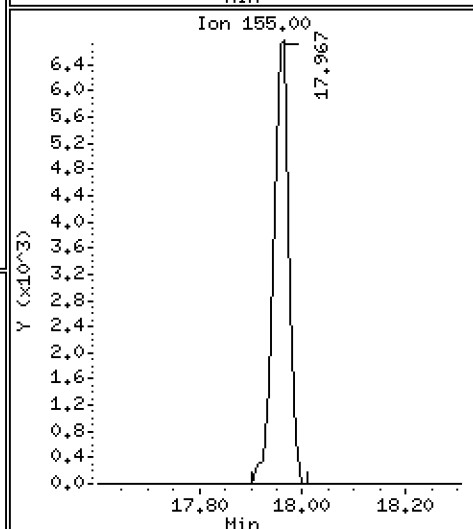
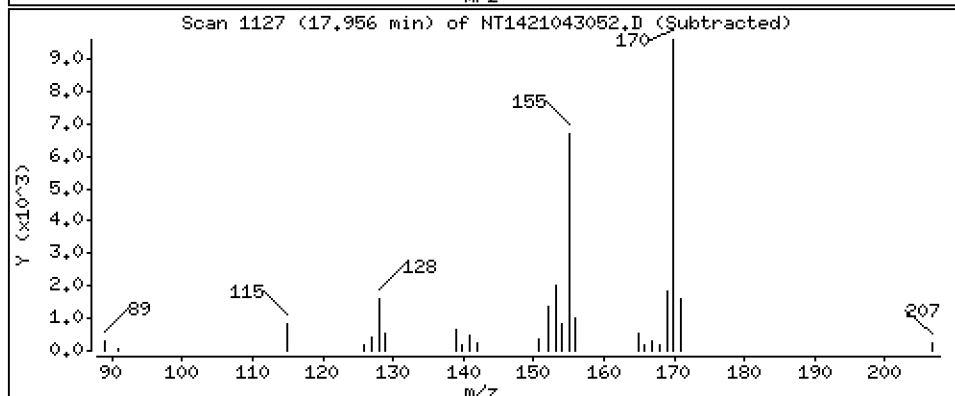
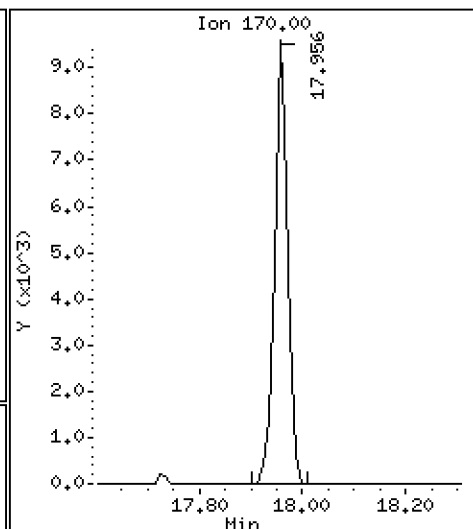
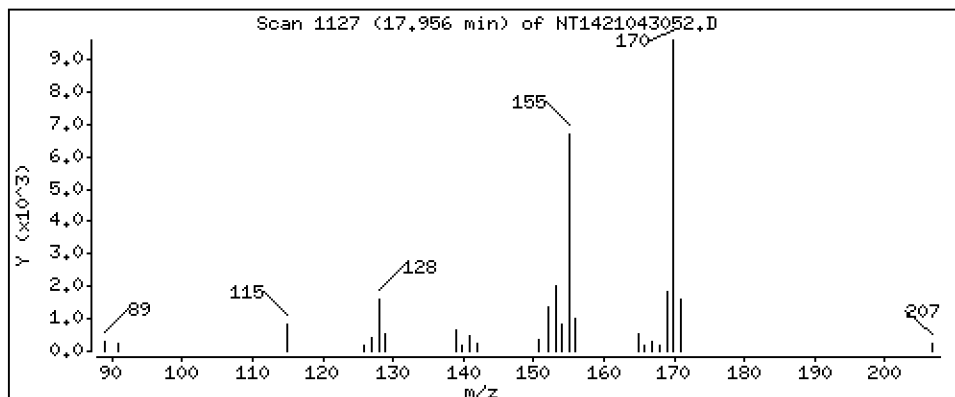
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

24 1,6,7-Trimethylnaphthalene

Concentration: 0.1215 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

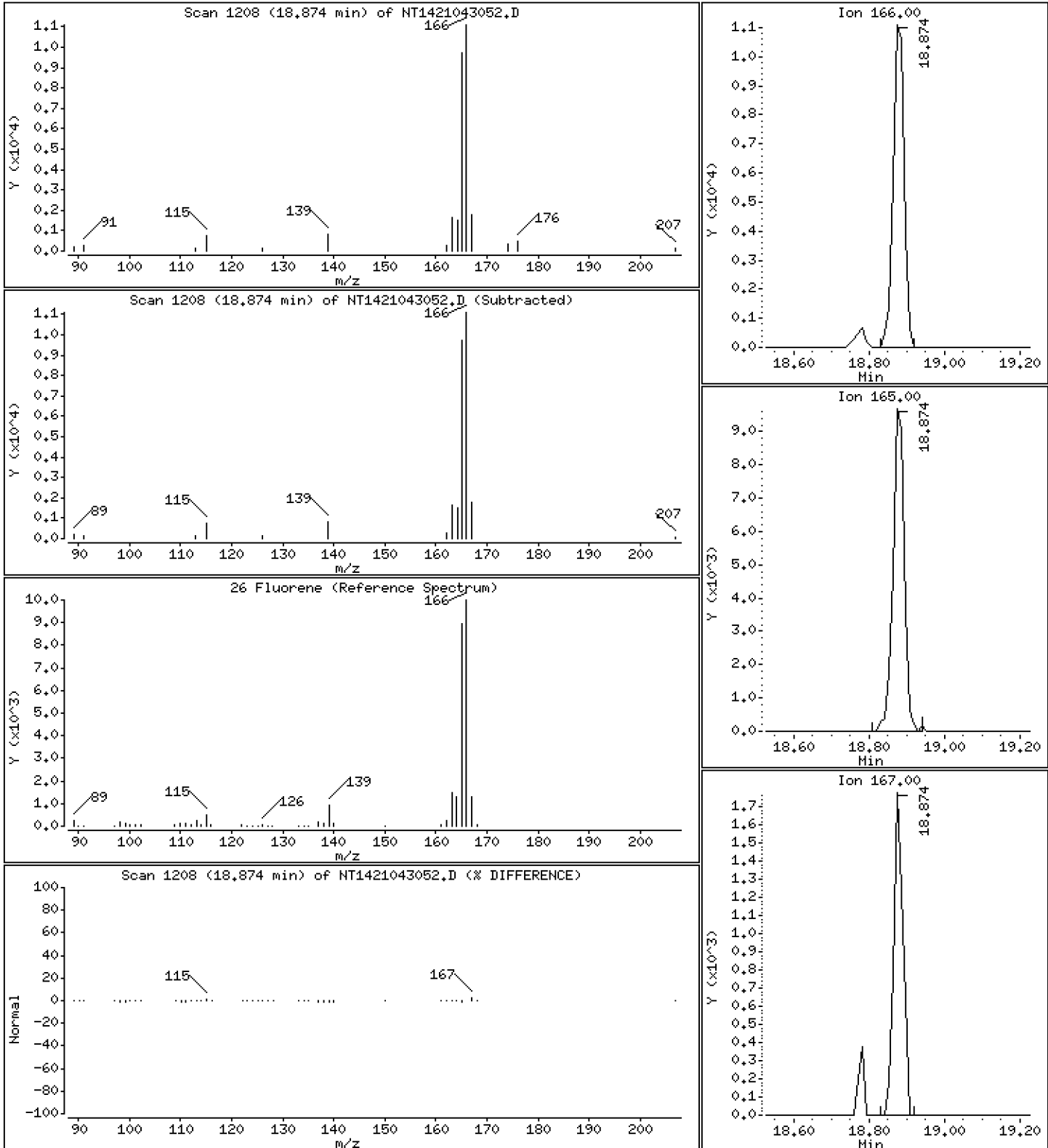
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Fluorene

Concentration: 0,1203 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

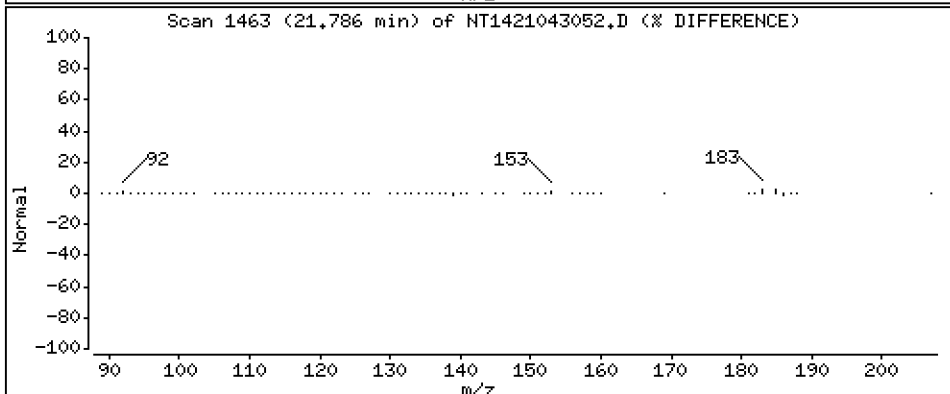
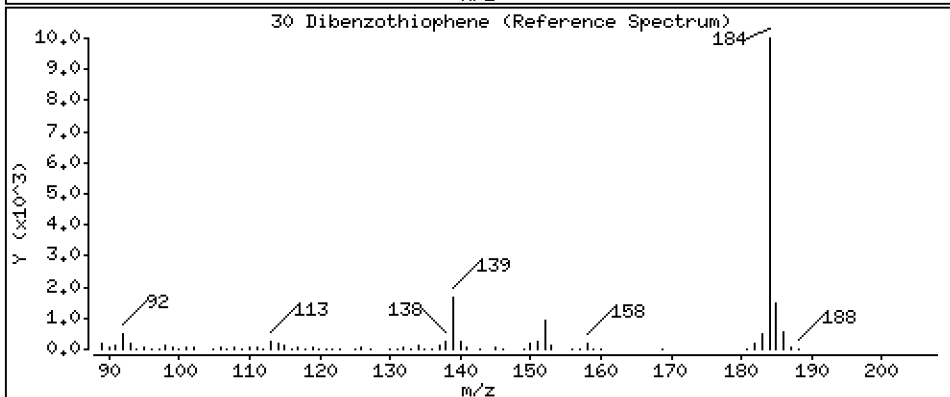
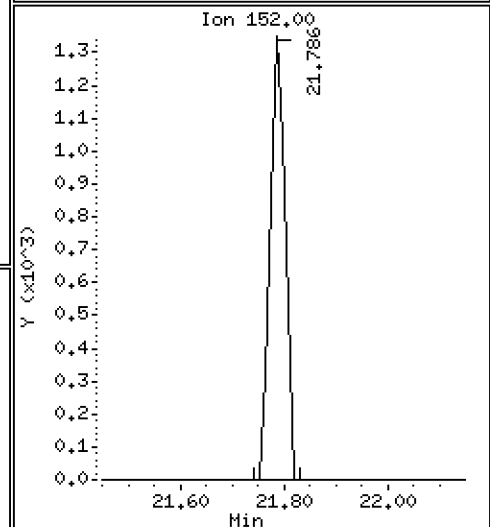
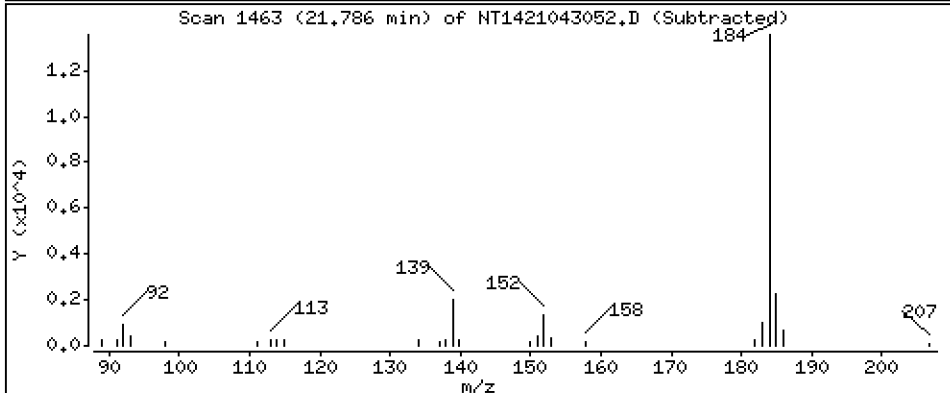
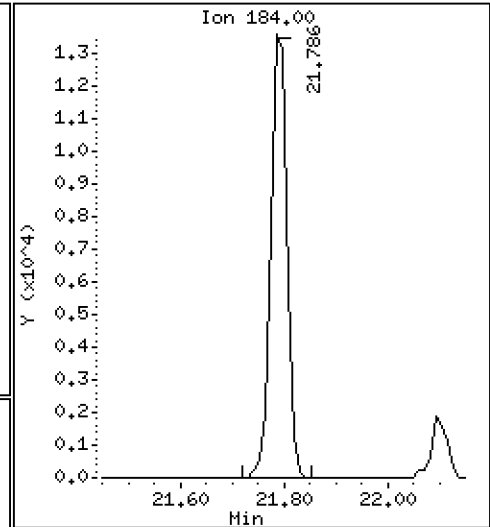
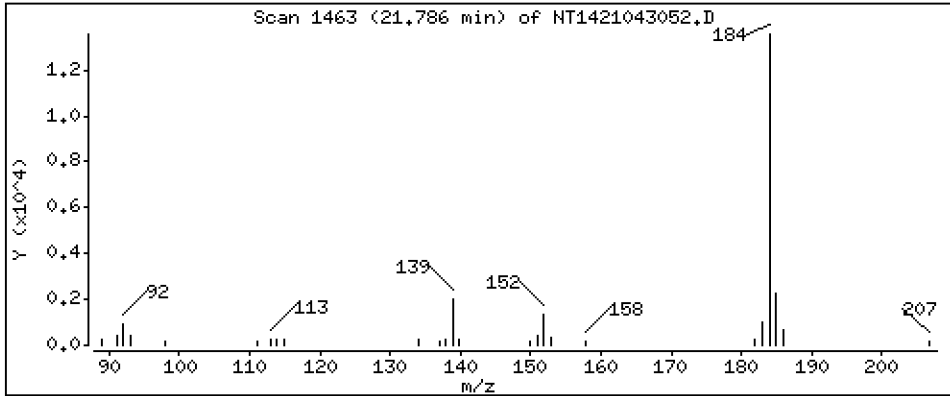
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Dibenzothiophene

Concentration: 0,1210 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

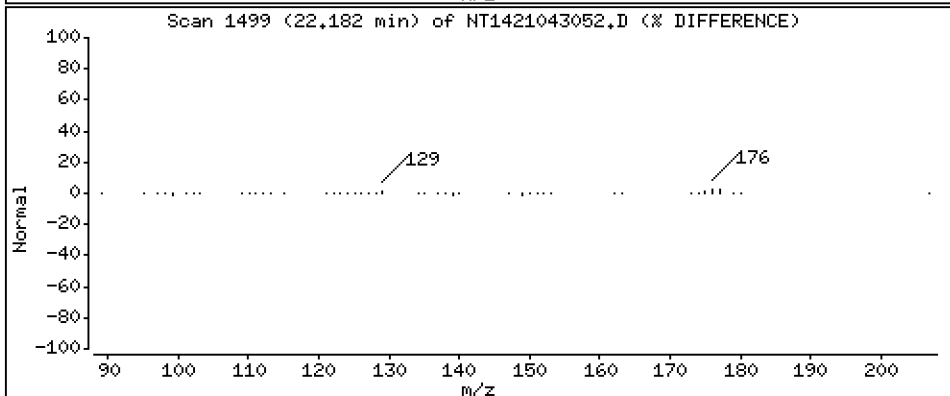
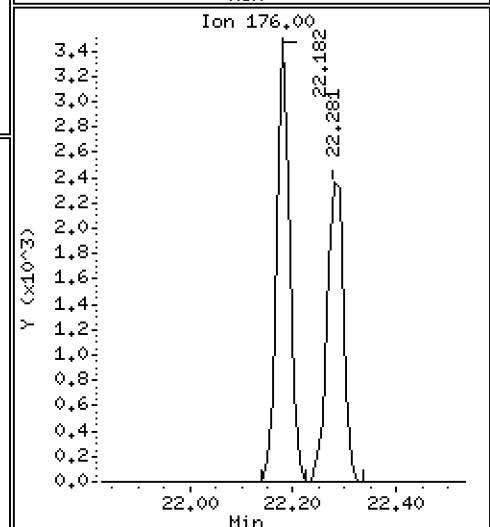
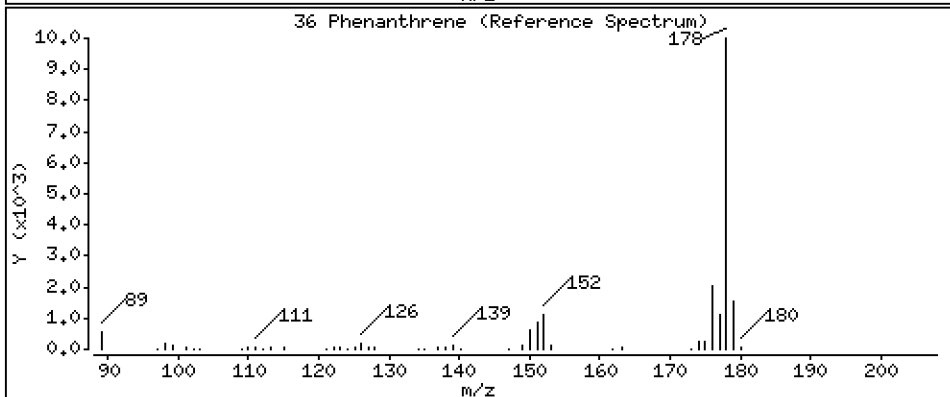
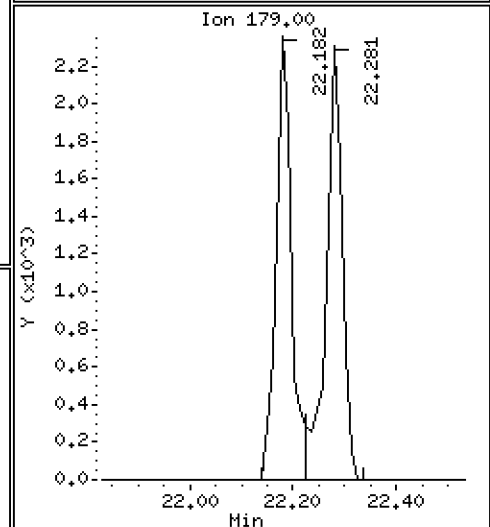
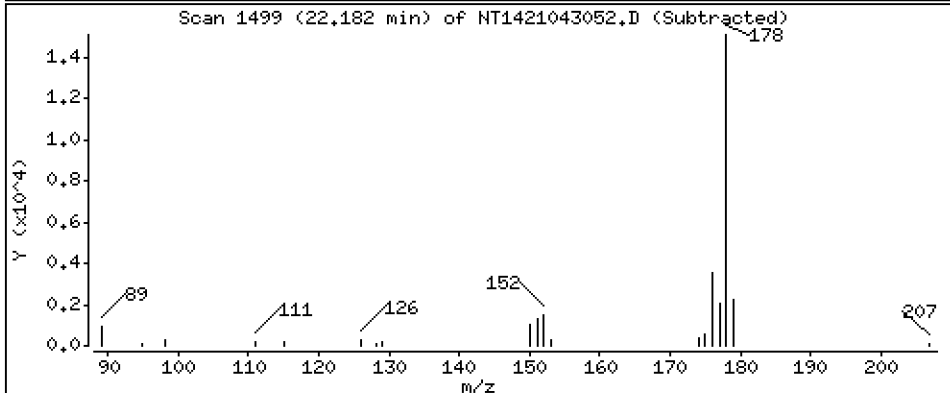
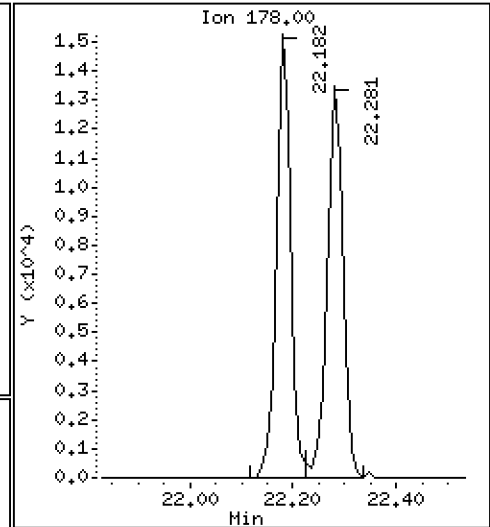
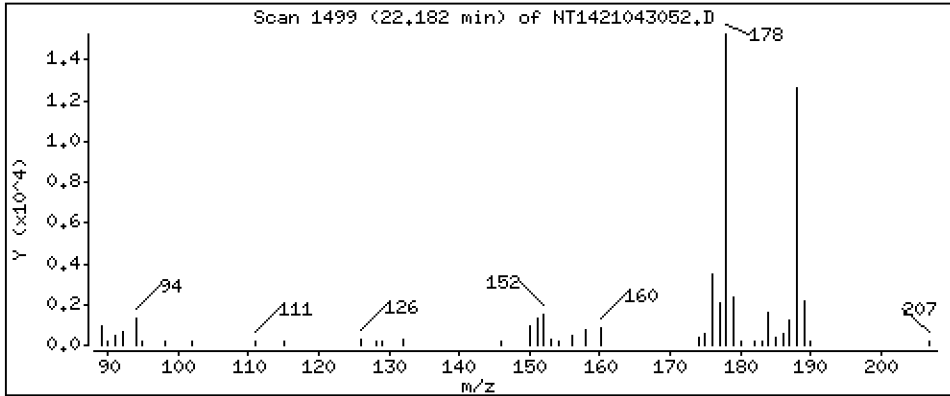
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

36 Phenanthrene

Concentration: 0.1060 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

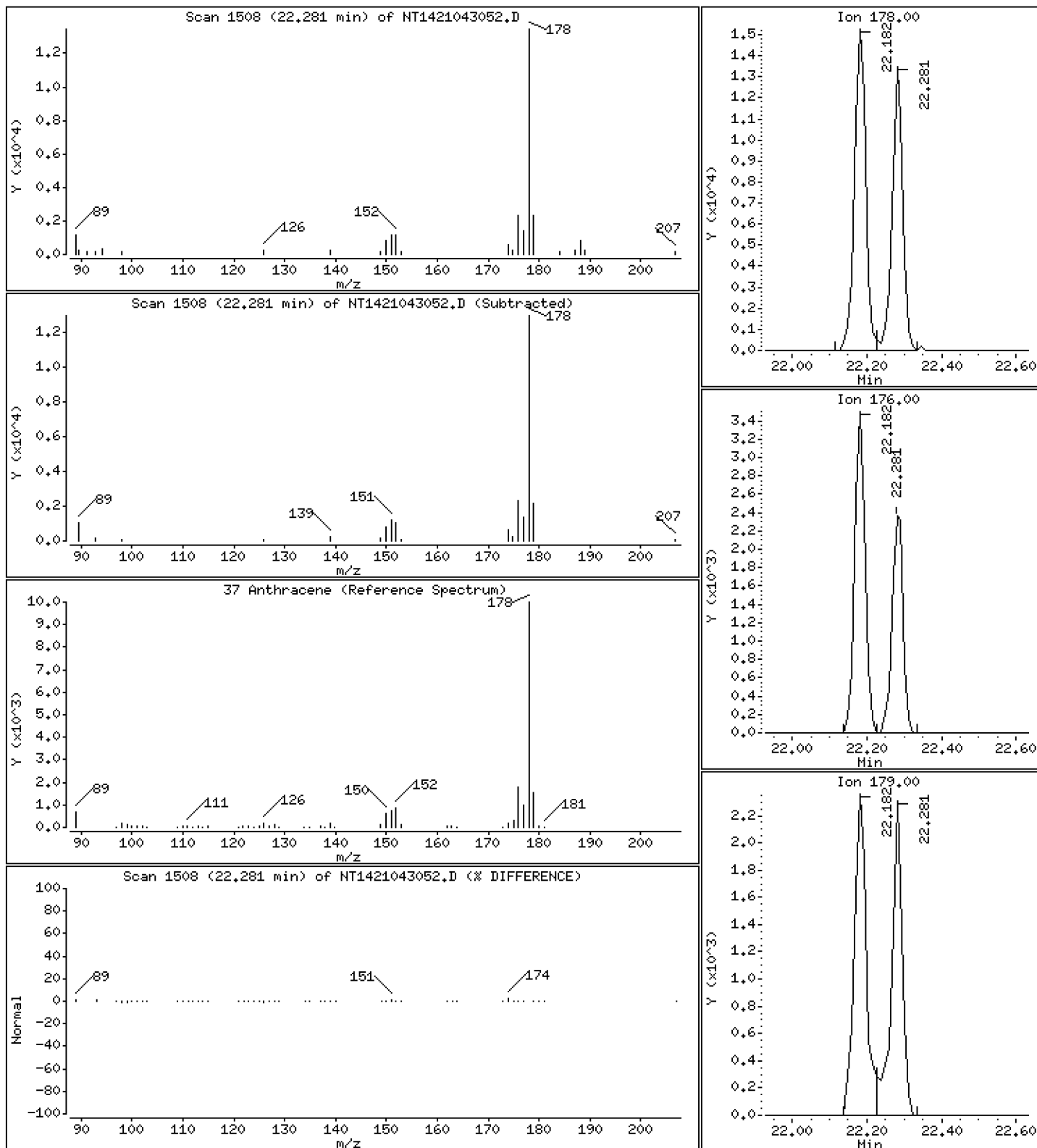
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

37 Anthracene

Concentration: 0,1034 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

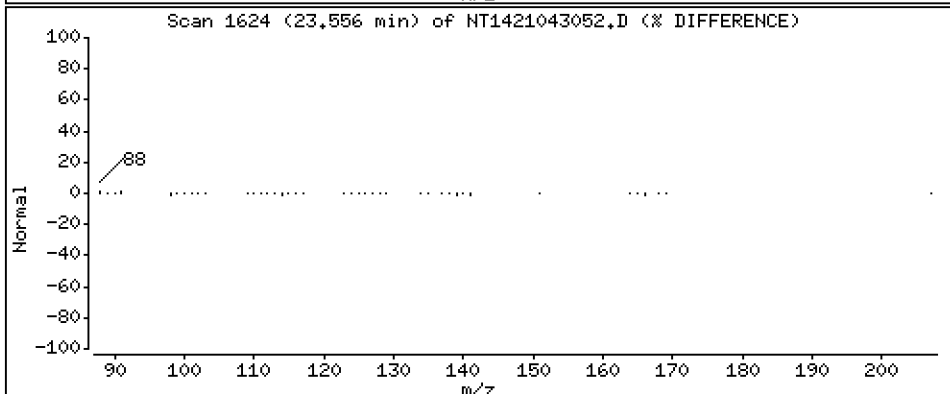
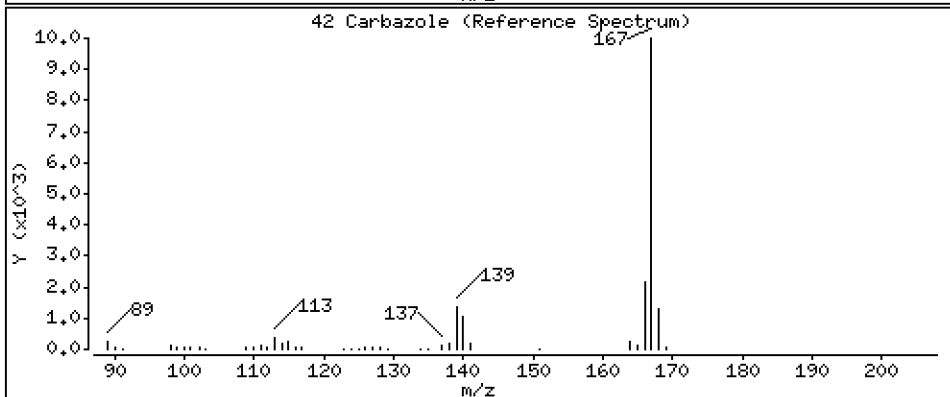
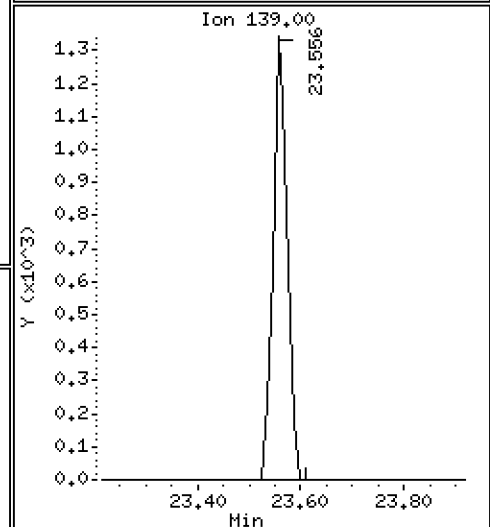
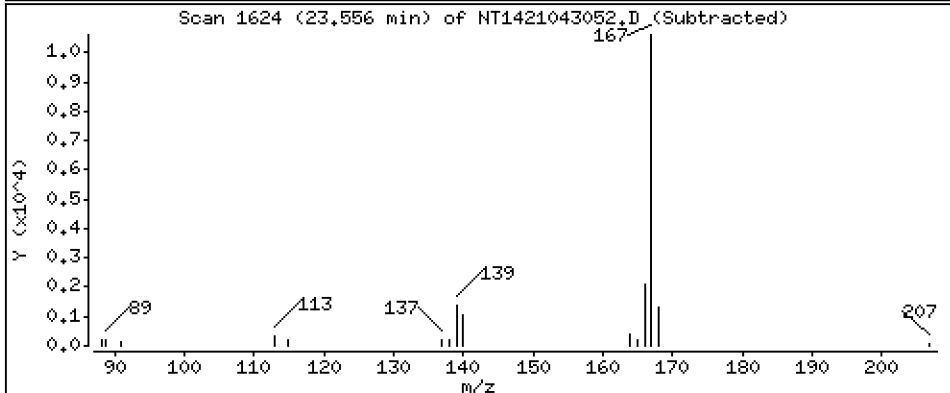
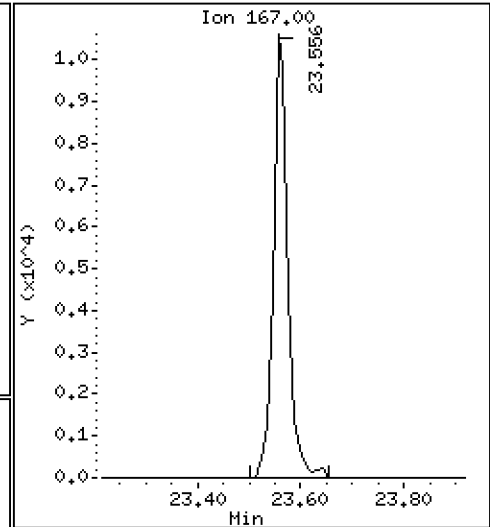
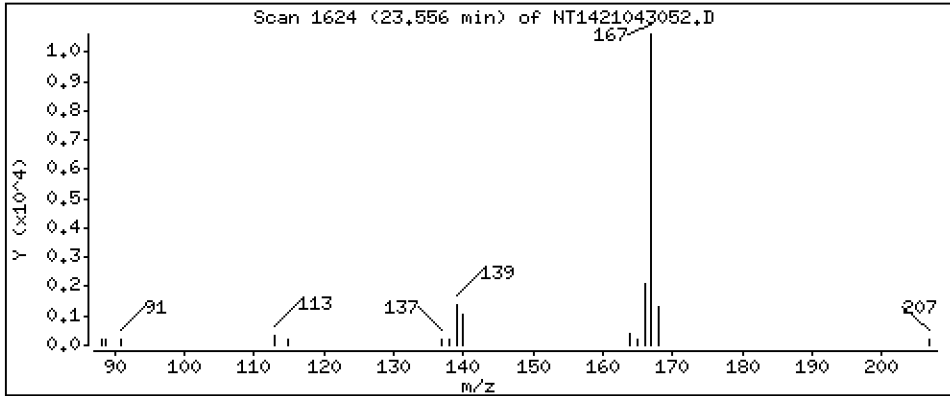
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

42 Carbazole

Concentration: 0,09817 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

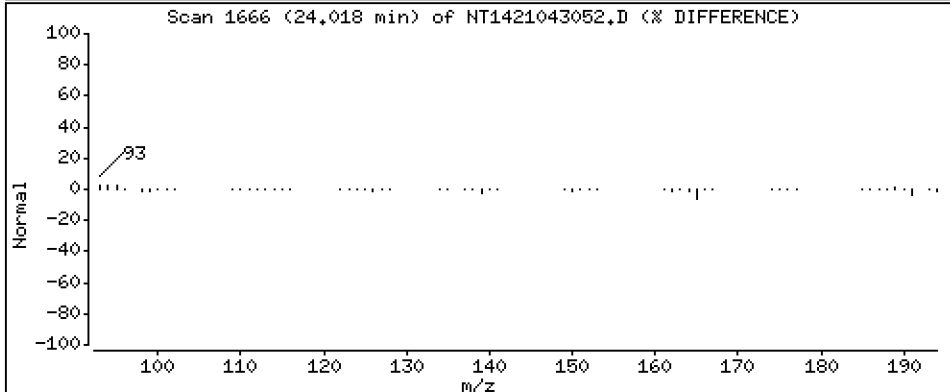
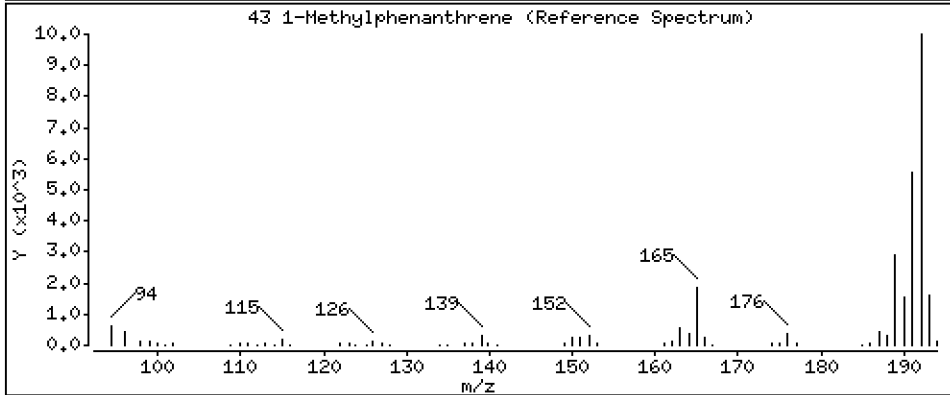
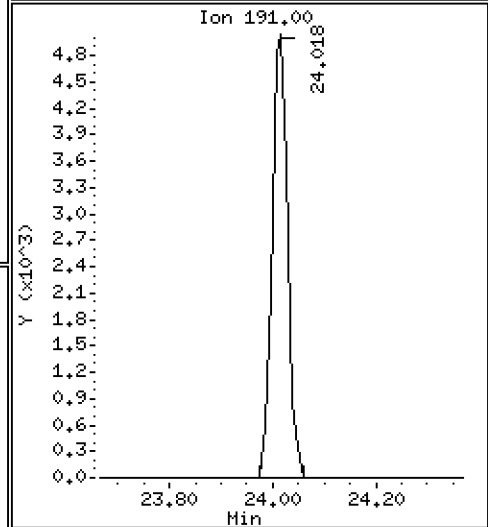
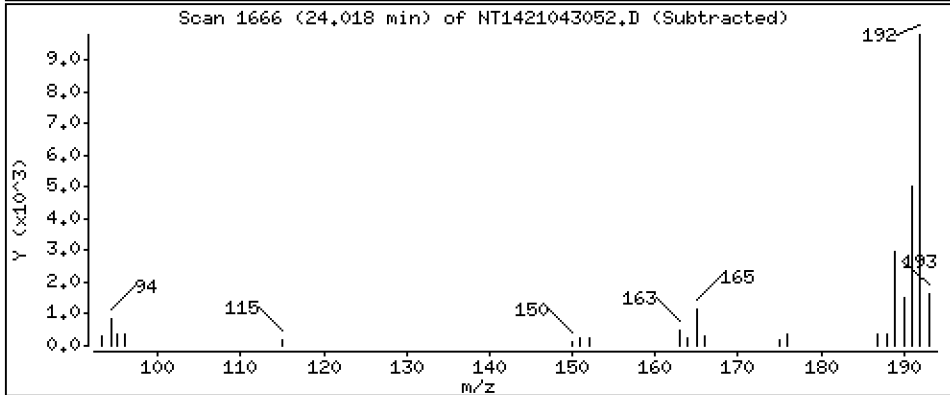
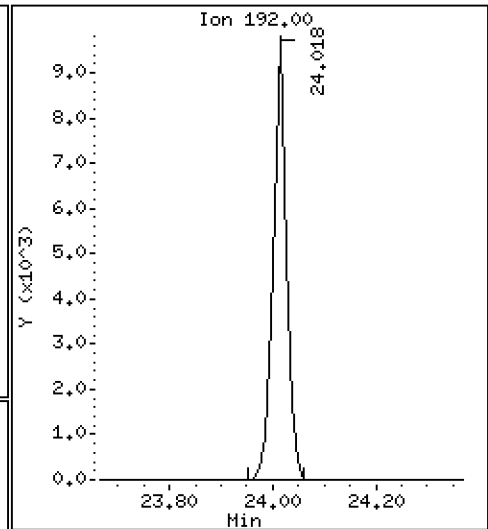
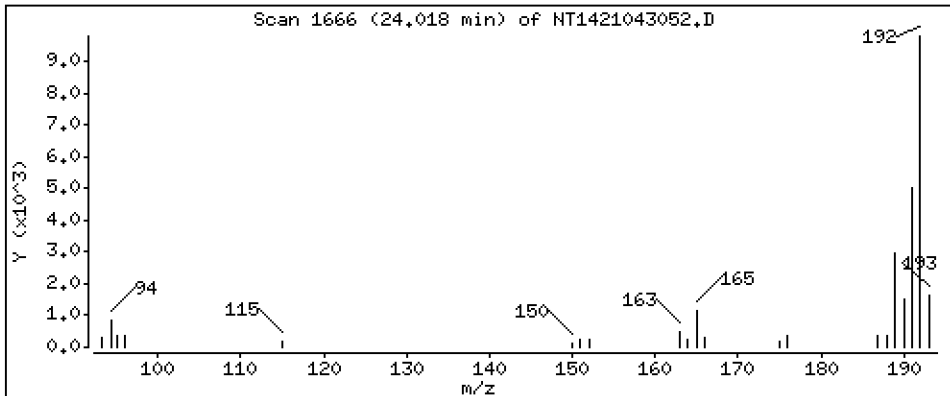
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

43 1-Methylphenanthrene

Concentration: 0.1044 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

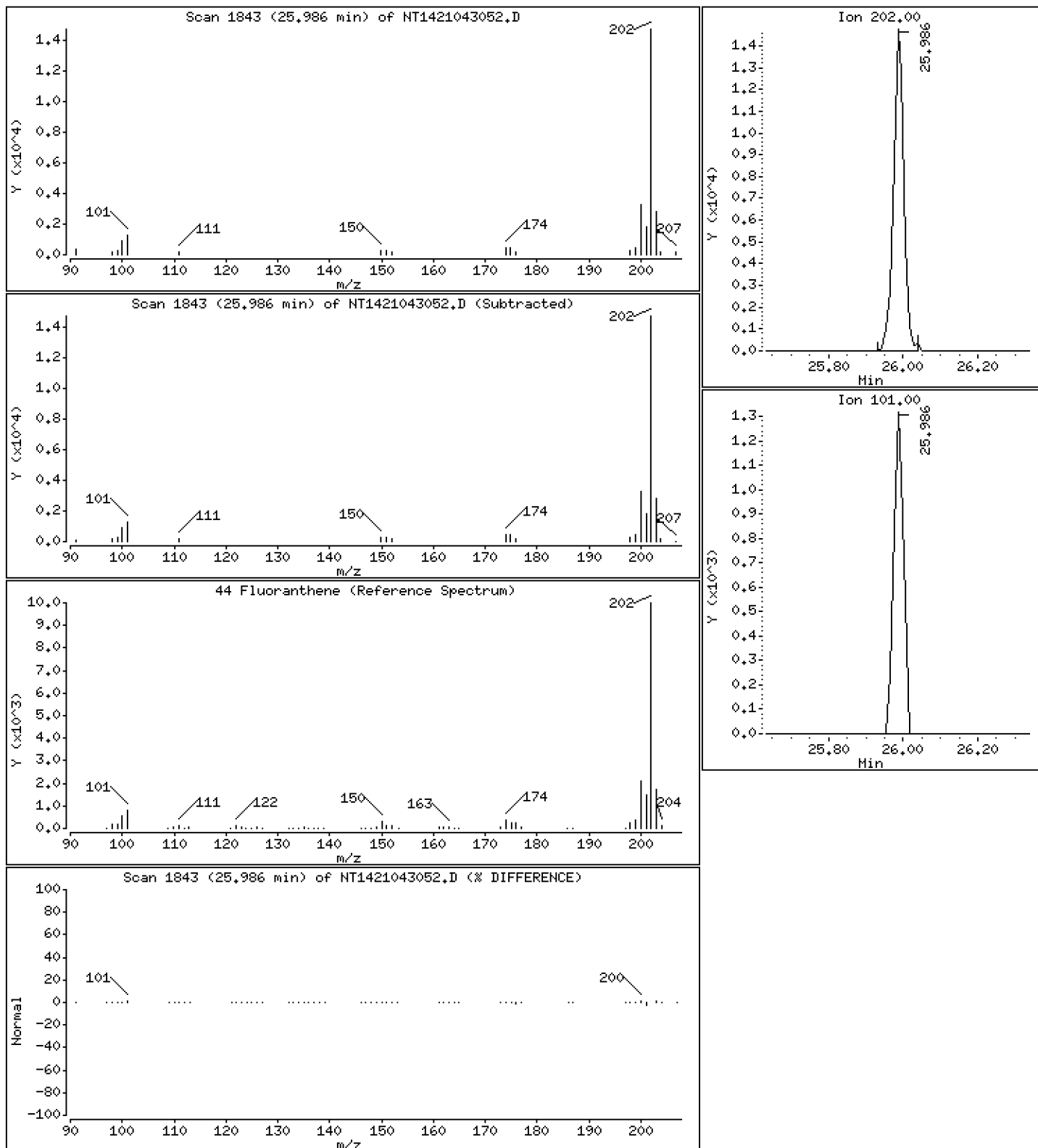
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

44 Fluoranthene

Concentration: 0,1154 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

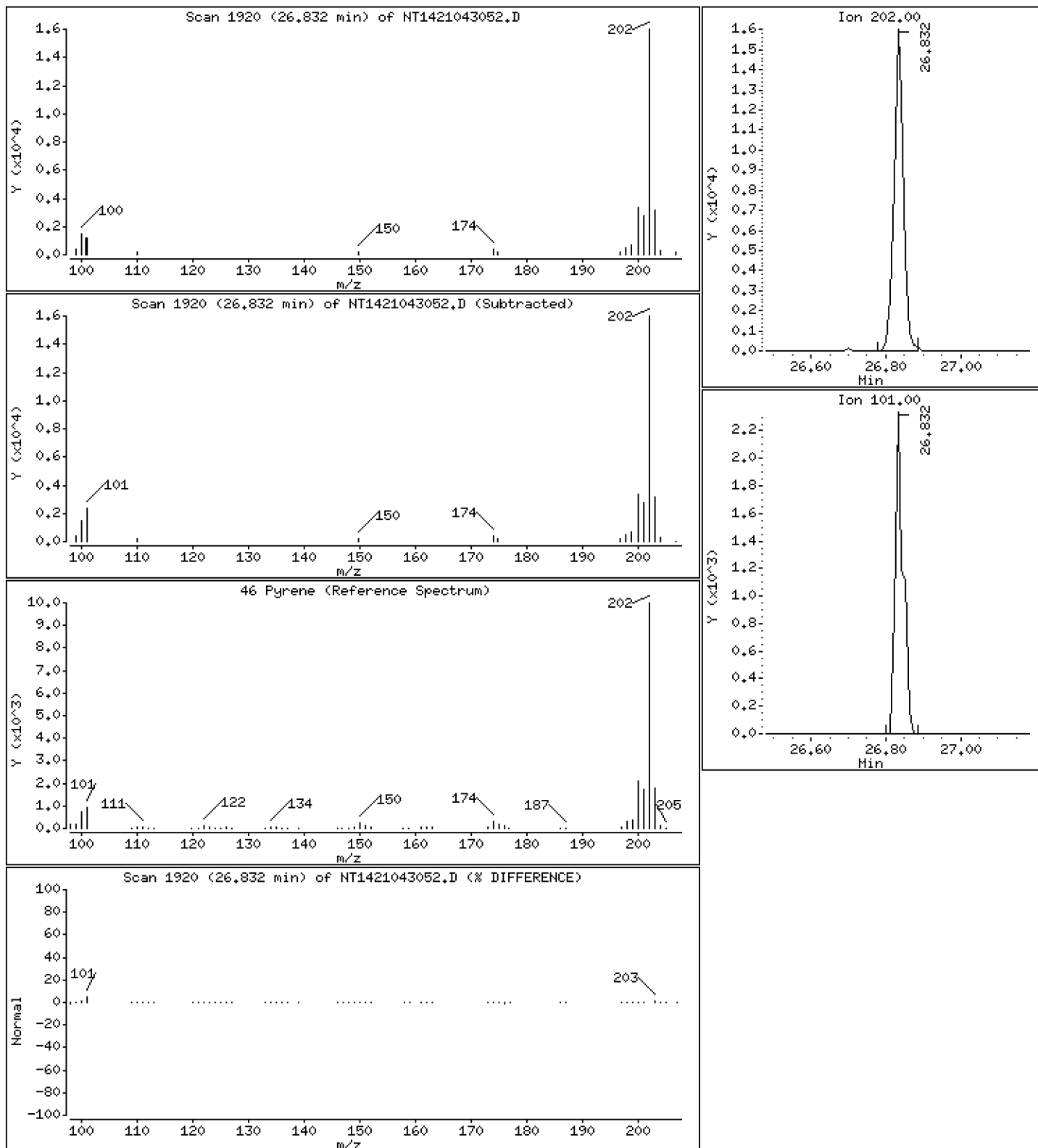
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

46 Pyrene

Concentration: 0,1102 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

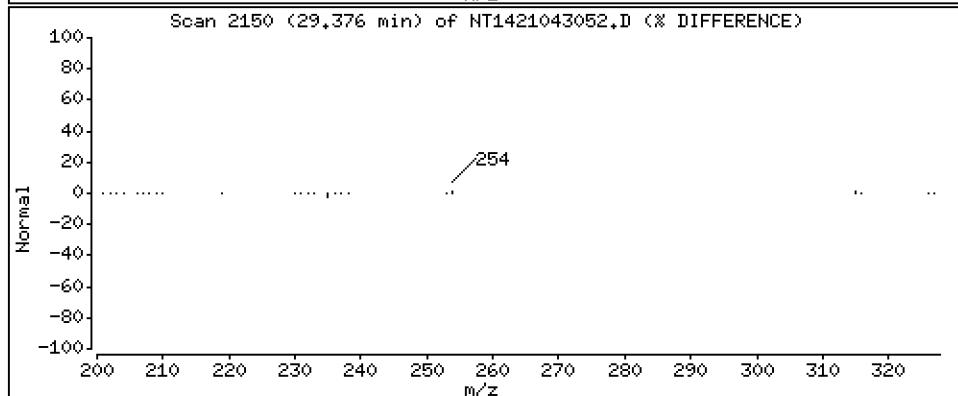
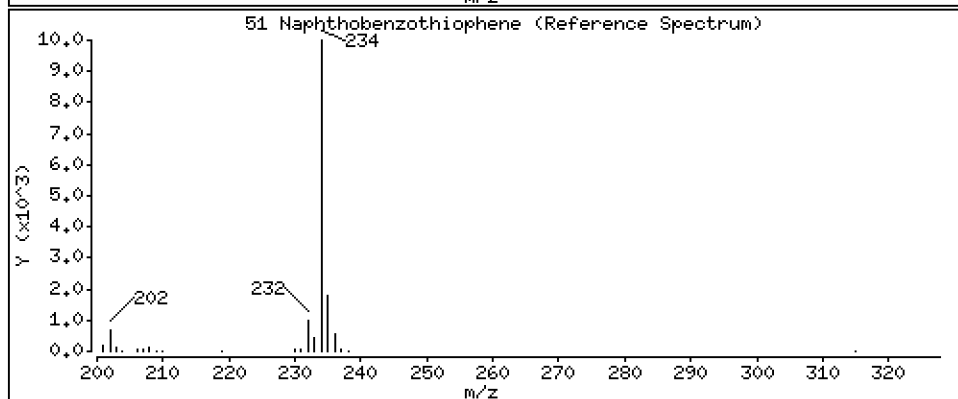
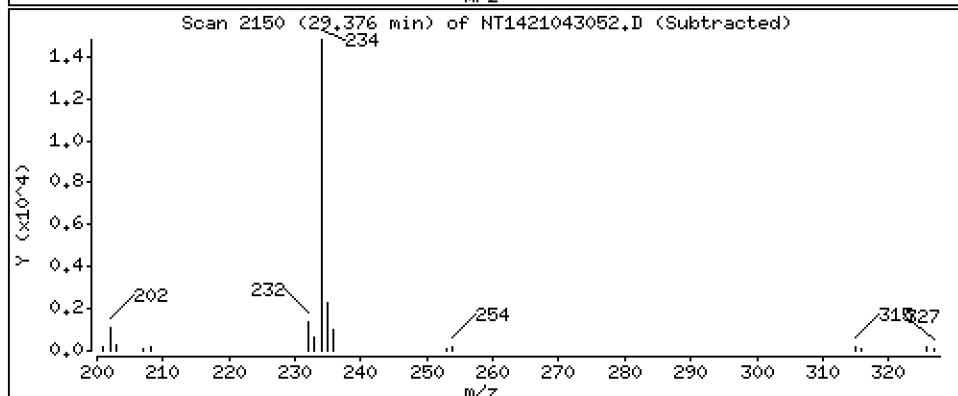
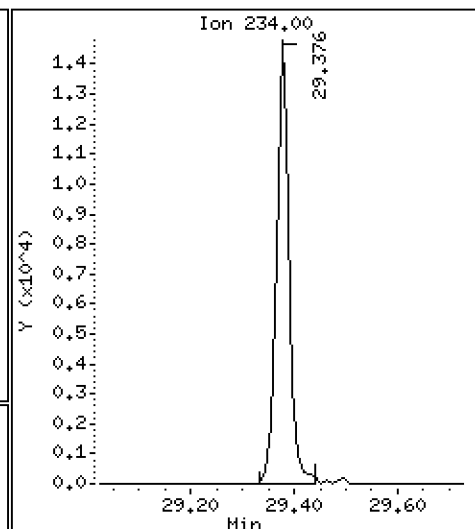
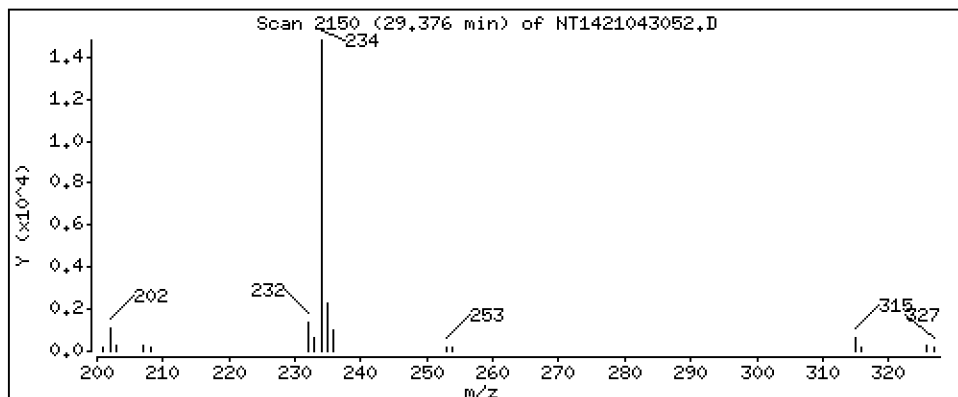
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

51 Naphthobenzothiophene

Concentration: 0,1023 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

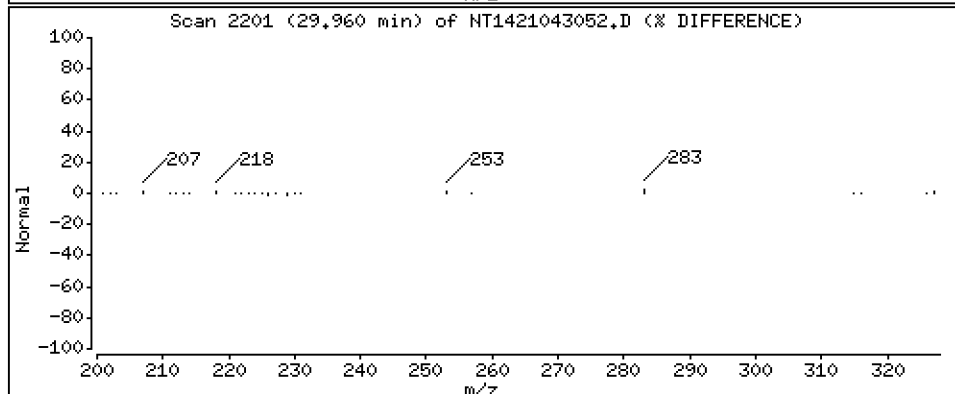
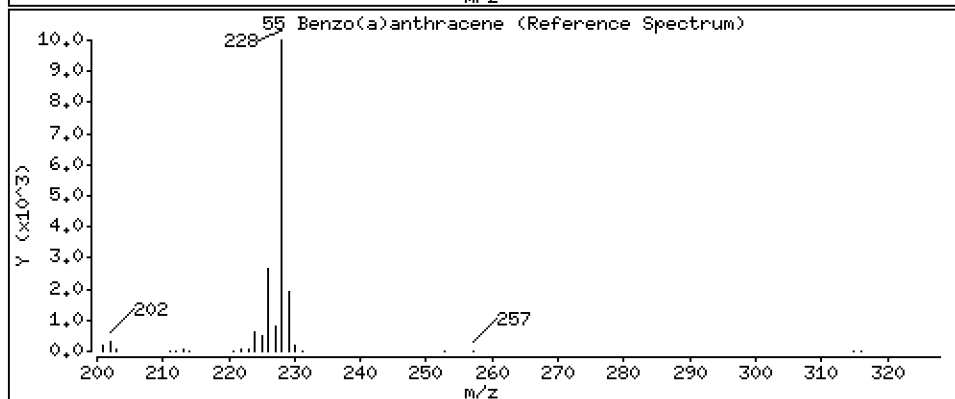
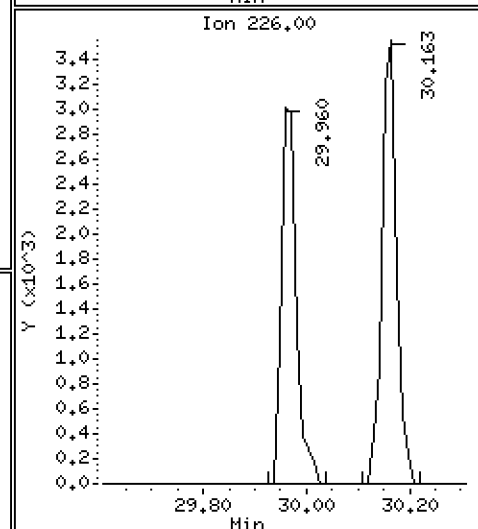
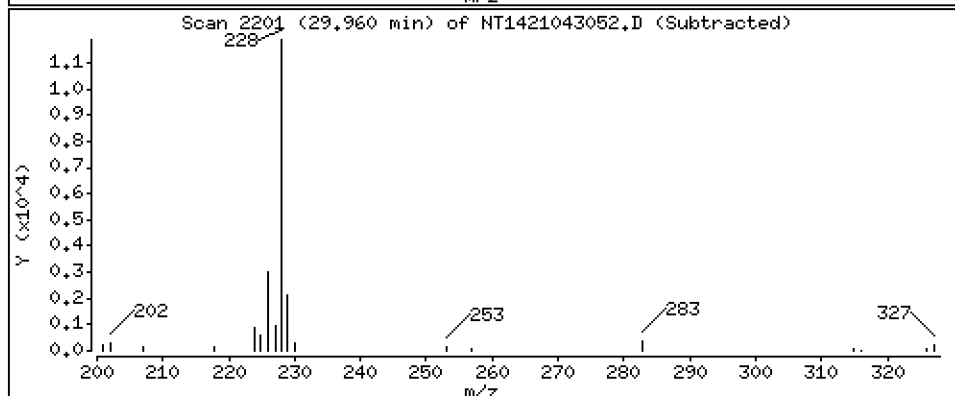
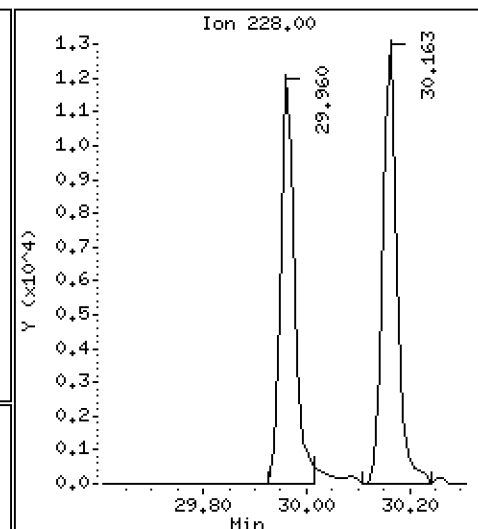
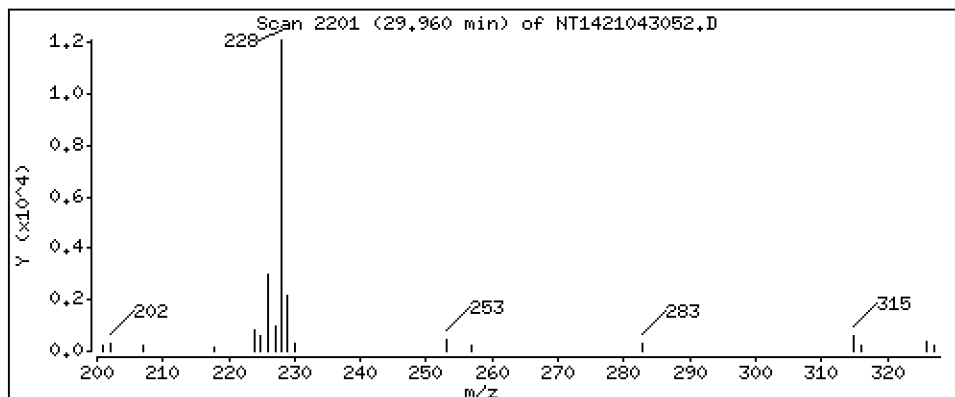
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

55 Benzo(a)anthracene

Concentration: 0,09270 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

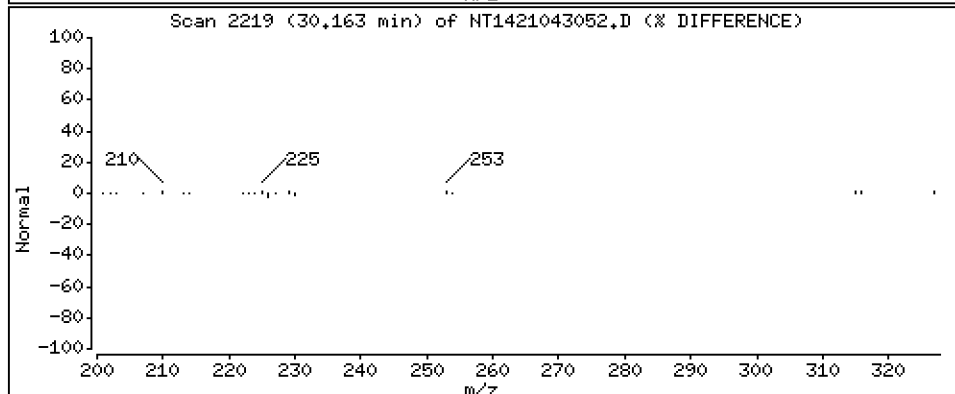
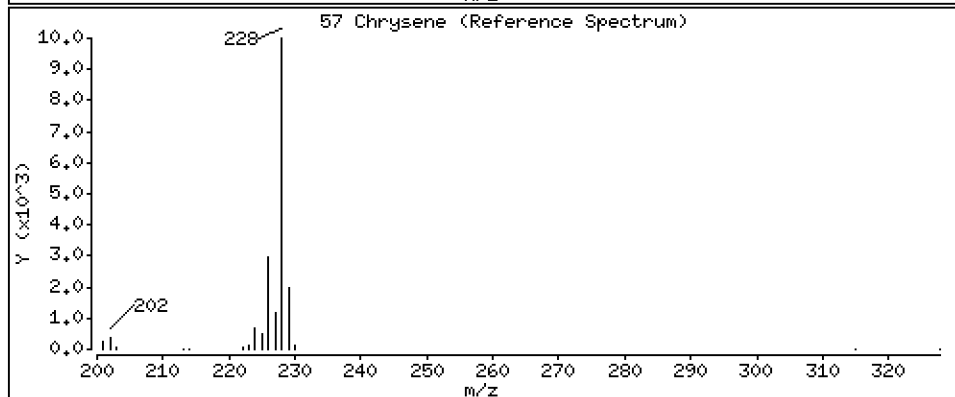
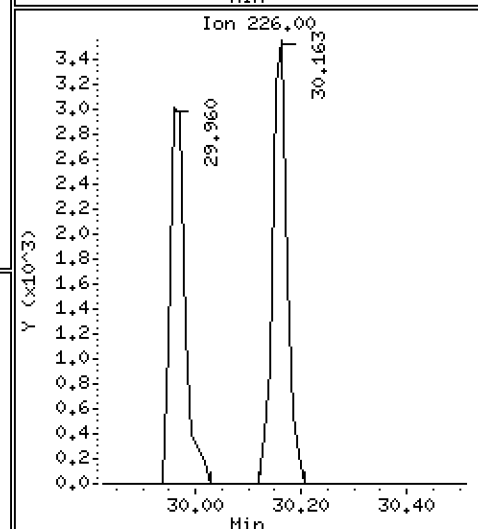
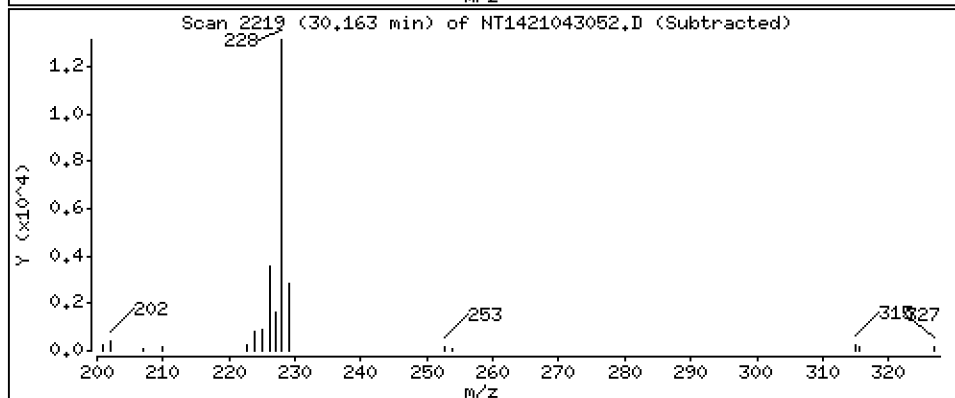
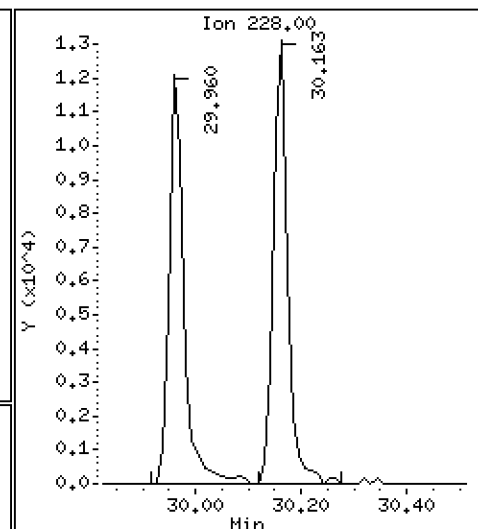
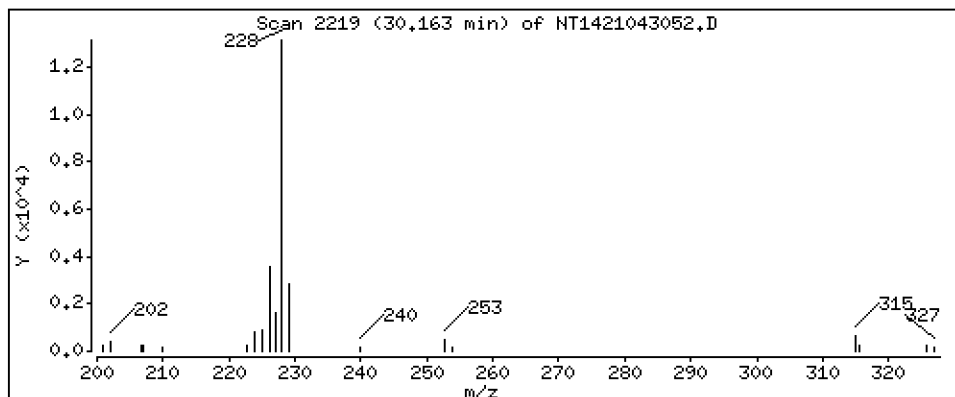
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

57 Chrysene

Concentration: 0,09775 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

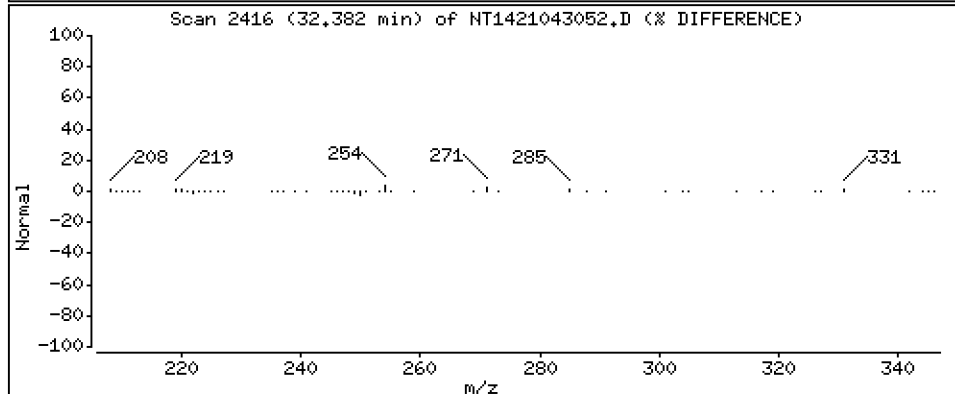
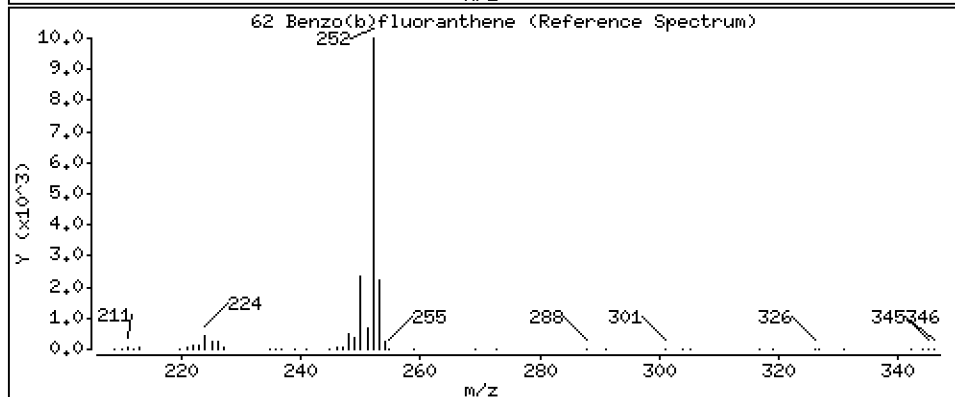
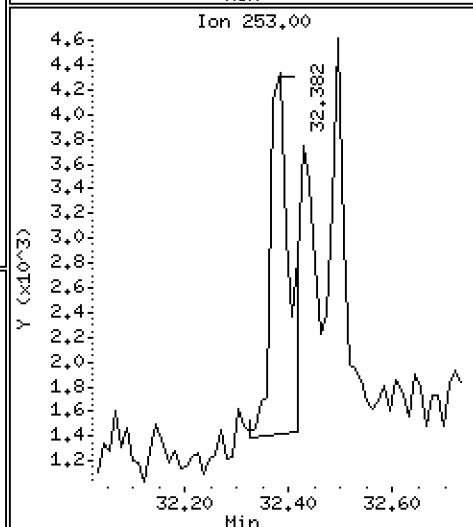
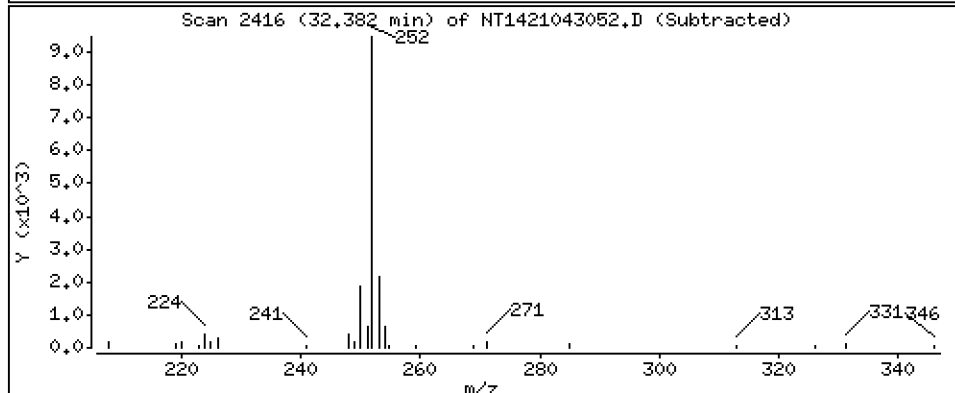
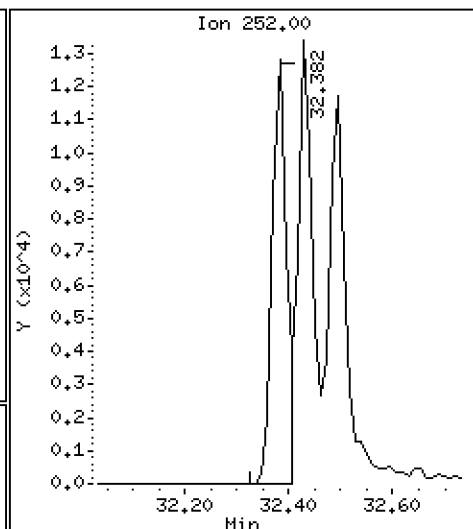
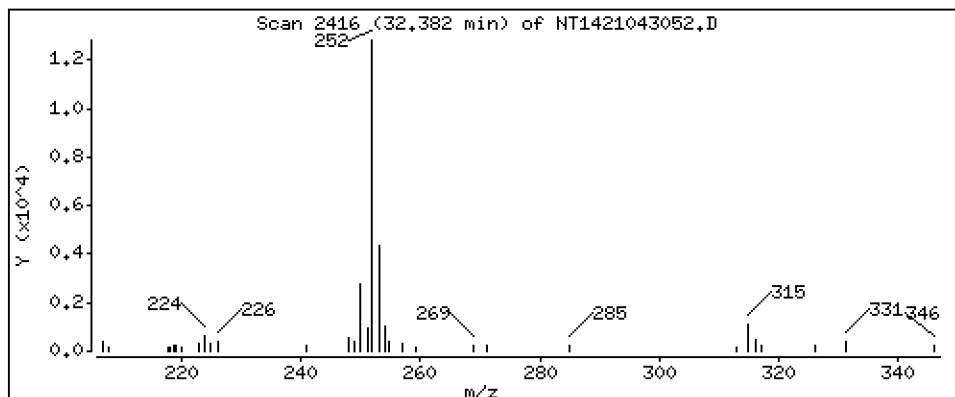
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

62 Benzo(b)fluoranthene

Concentration: 0,1017 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

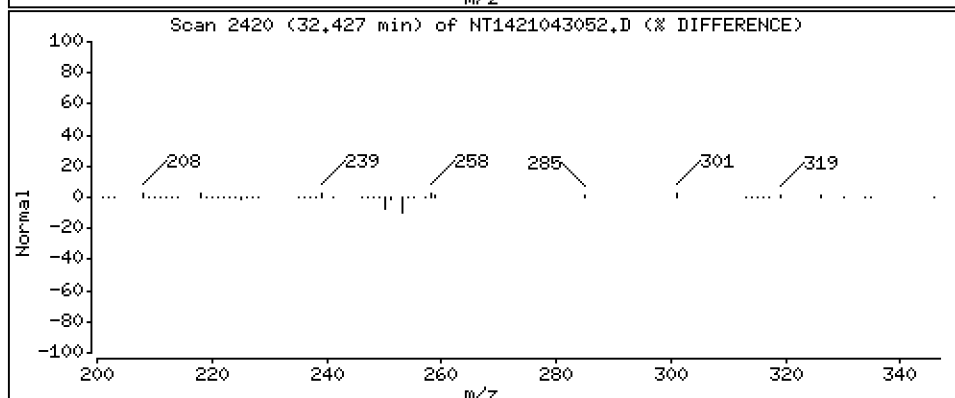
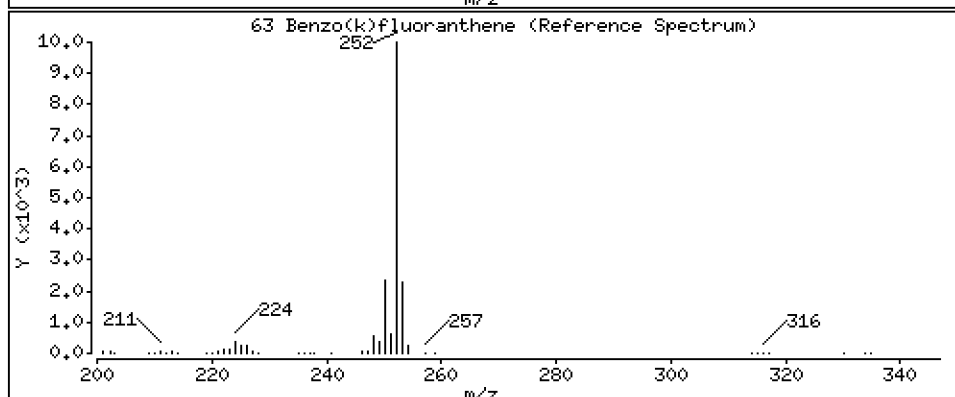
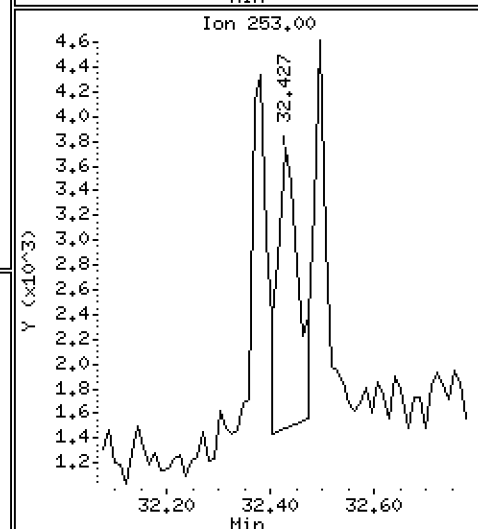
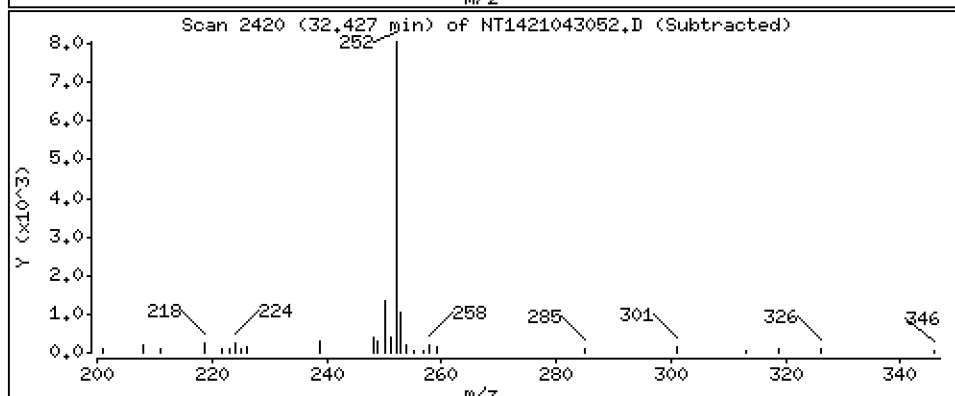
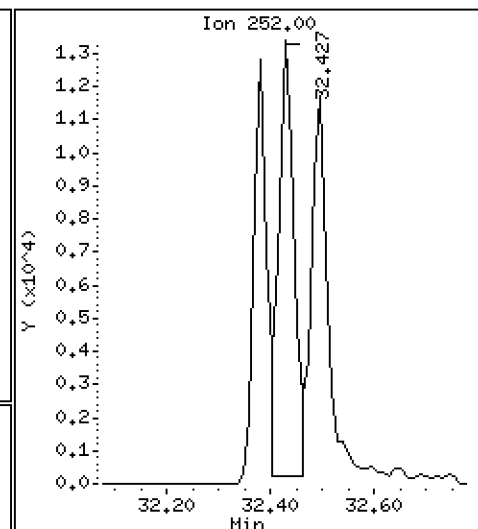
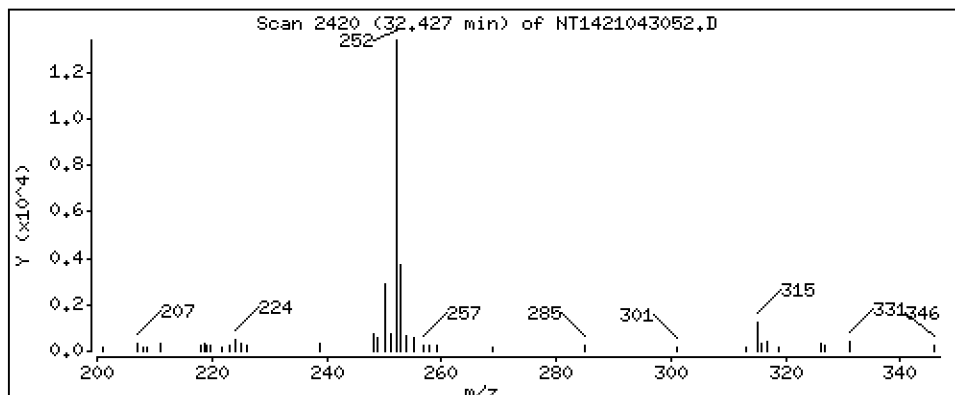
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

63 Benzo(k)fluoranthene

Concentration: 0,09687 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

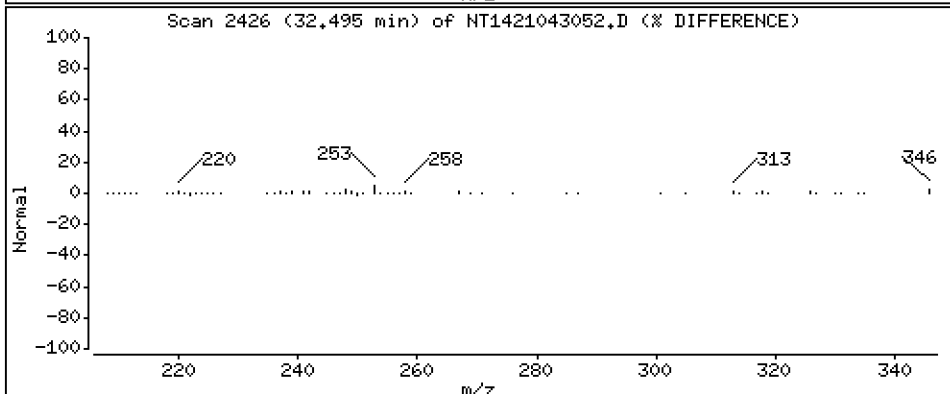
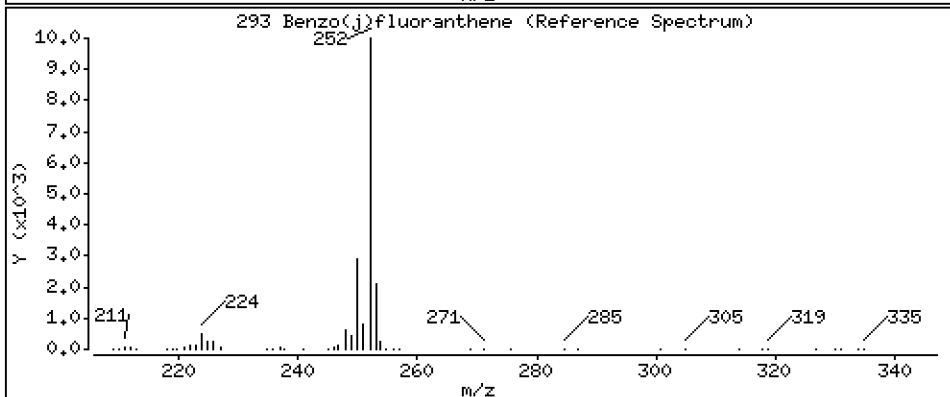
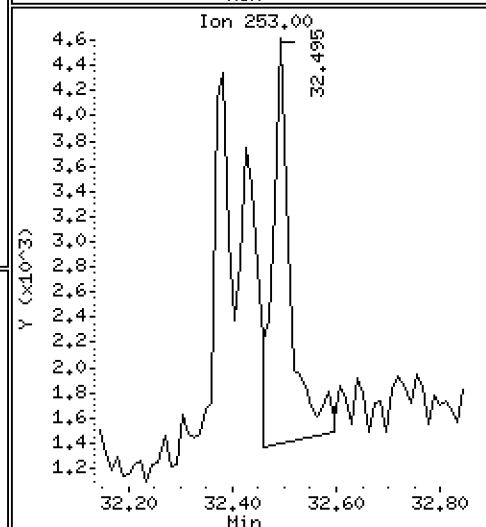
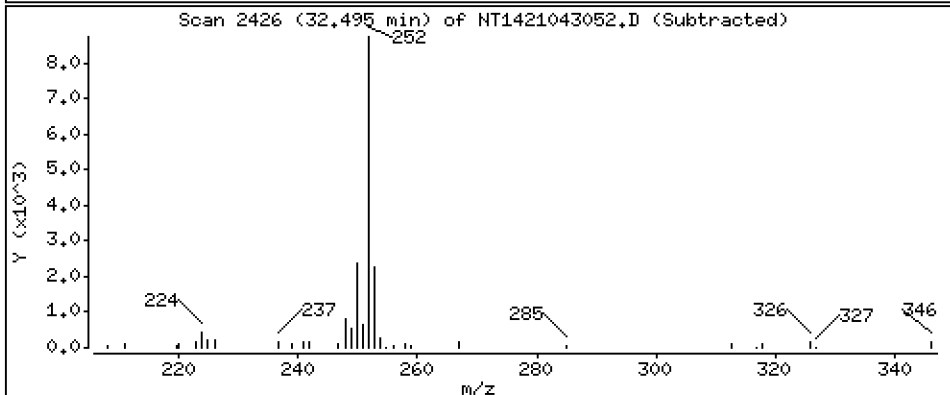
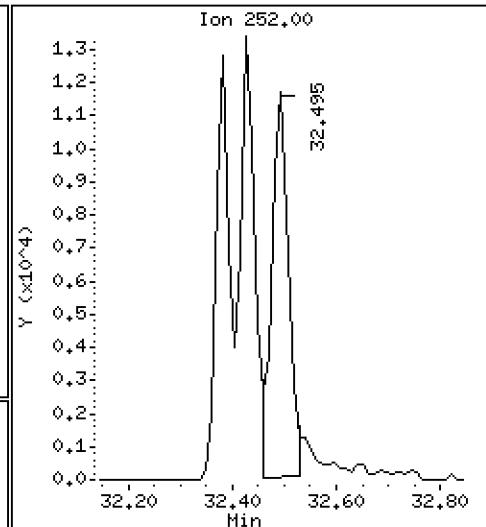
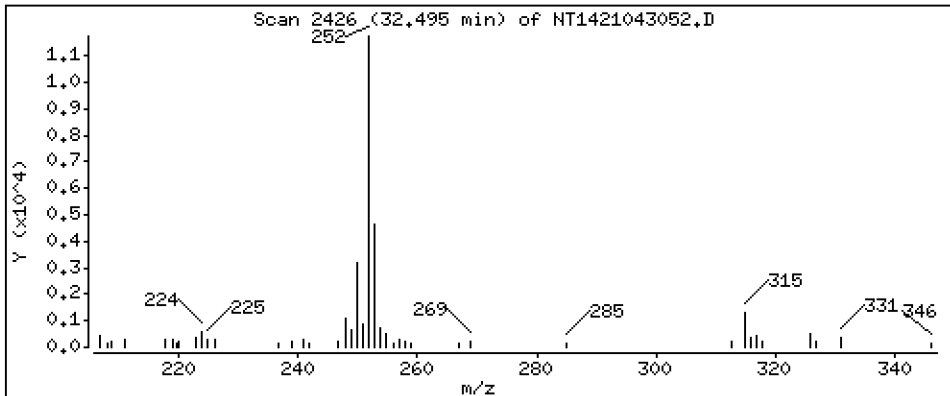
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

293 Benzo(j)fluoranthene

Concentration: 0,09521 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

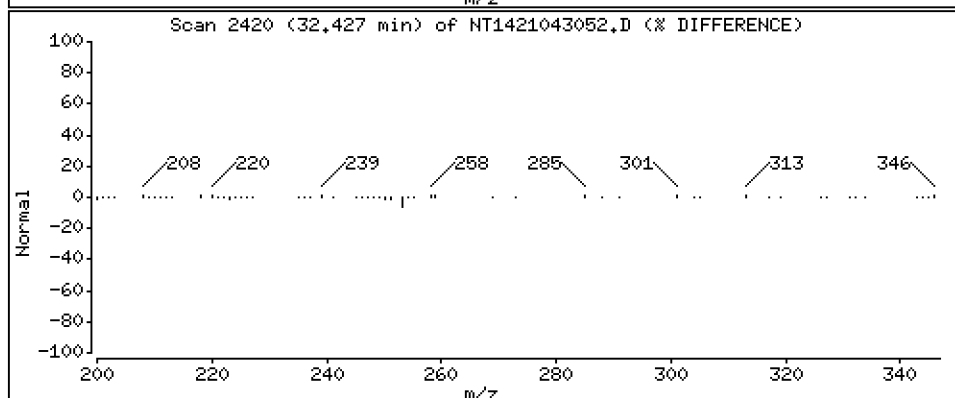
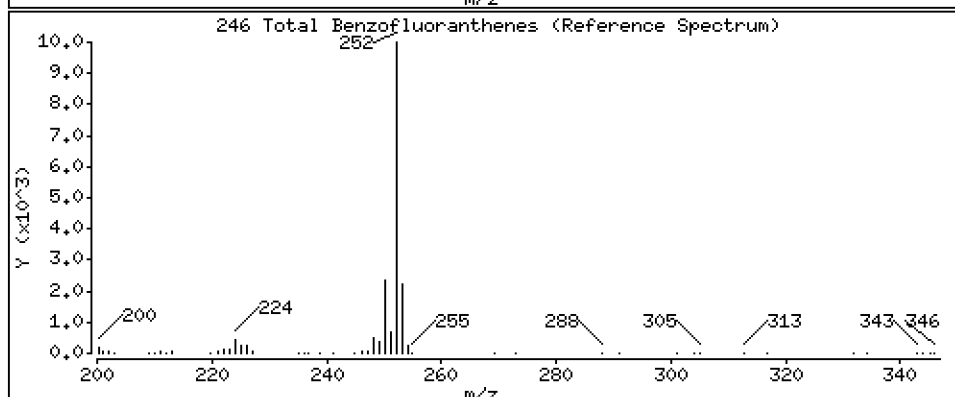
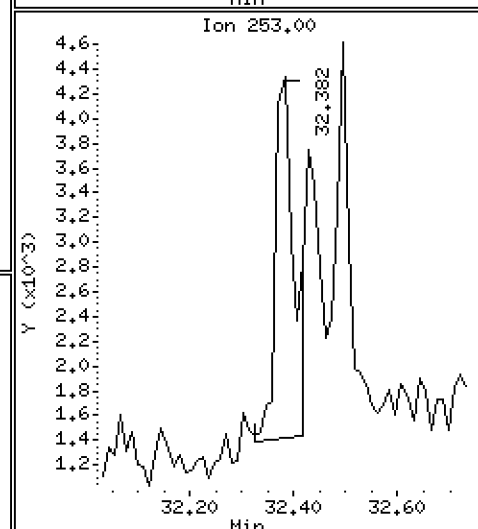
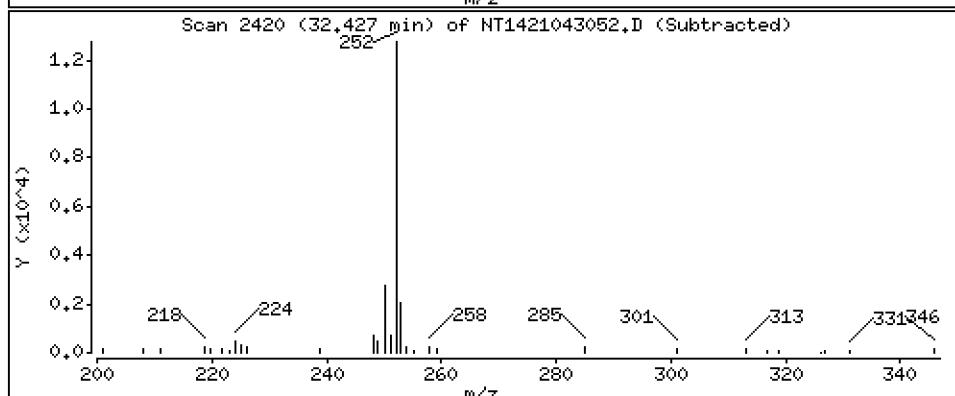
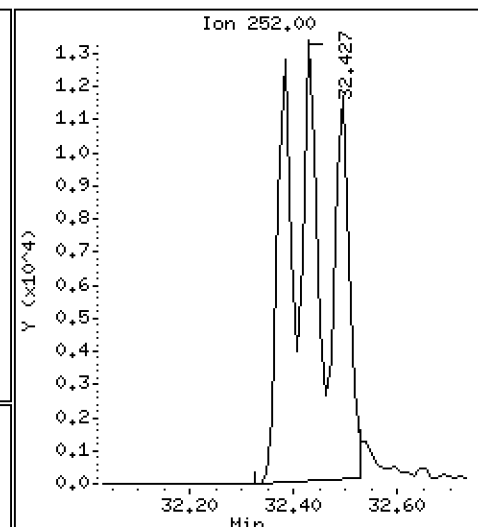
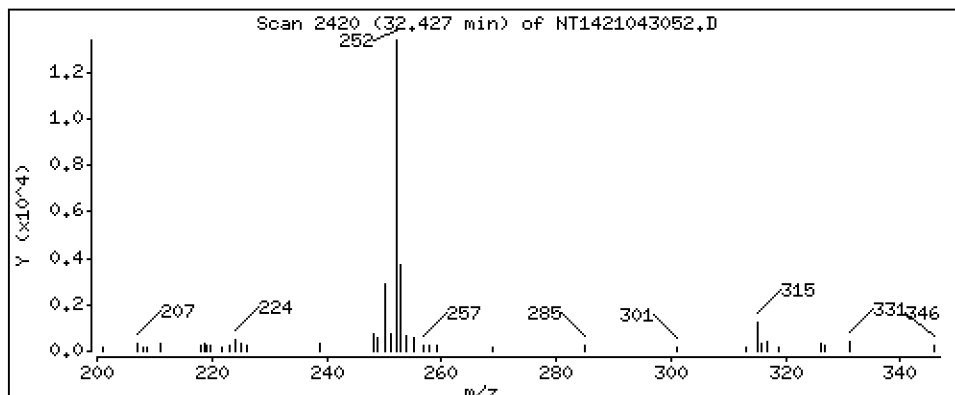
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

246 Total Benzofluoranthenes

Concentration: 0,2815 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

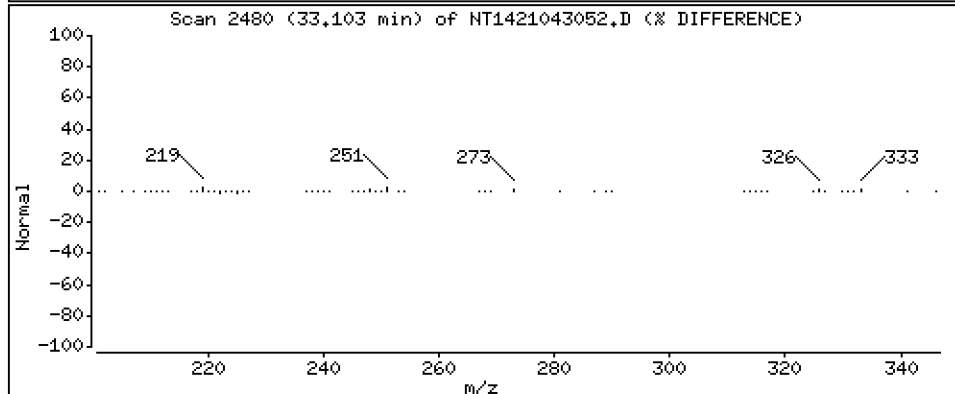
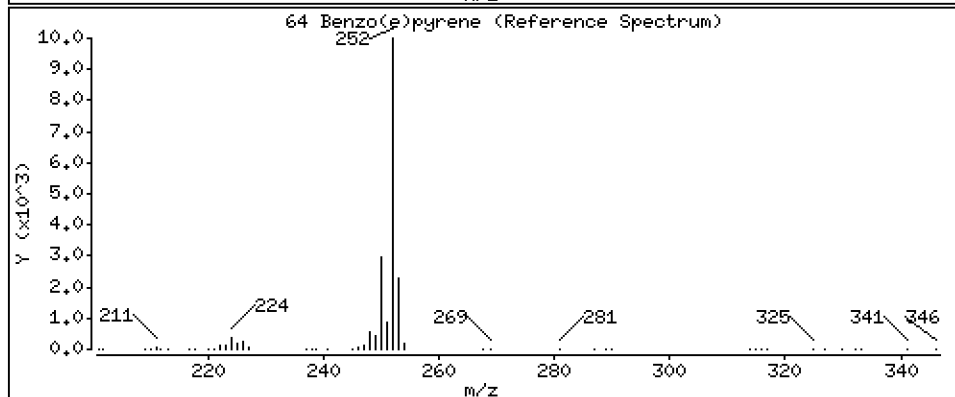
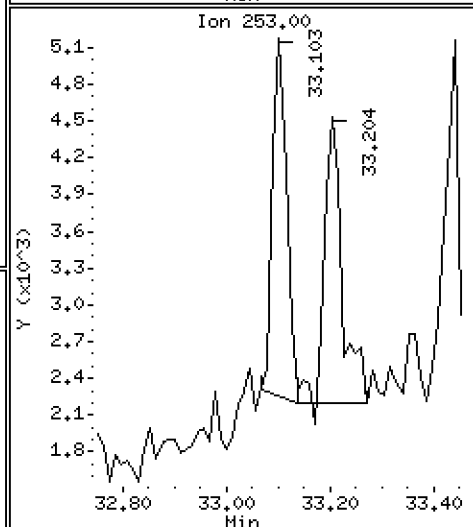
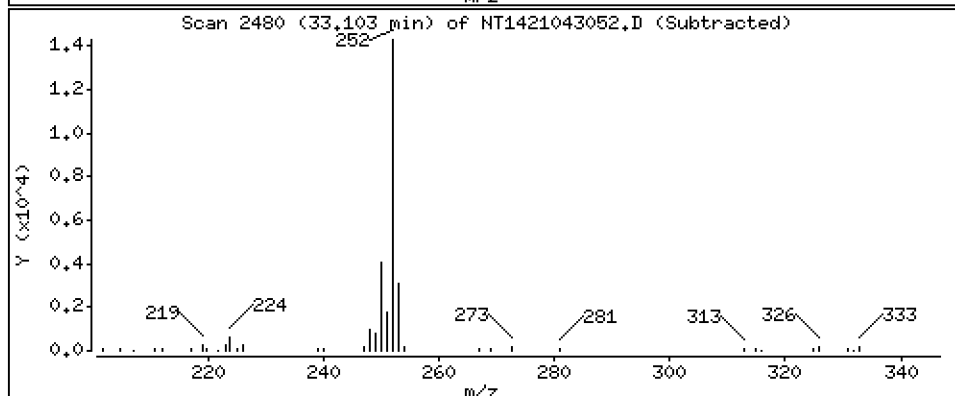
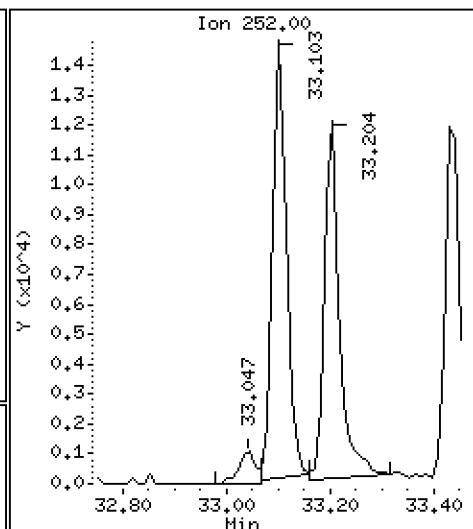
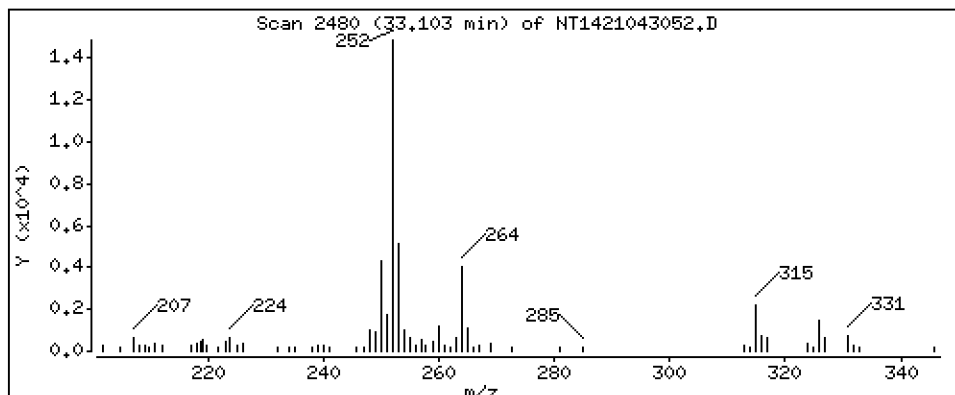
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

64 Benzo(e)pyrene

Concentration: 0,1063 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

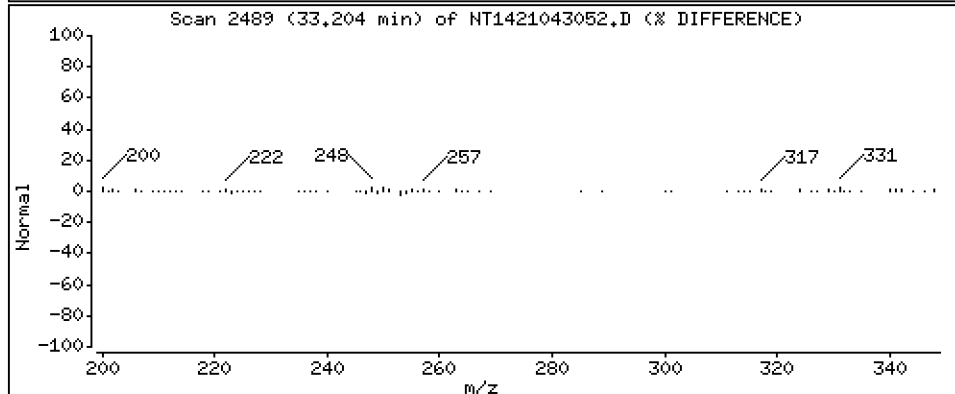
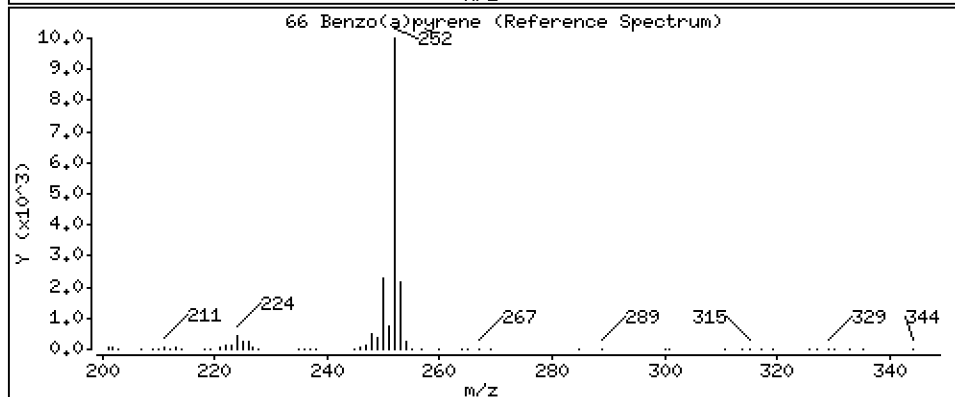
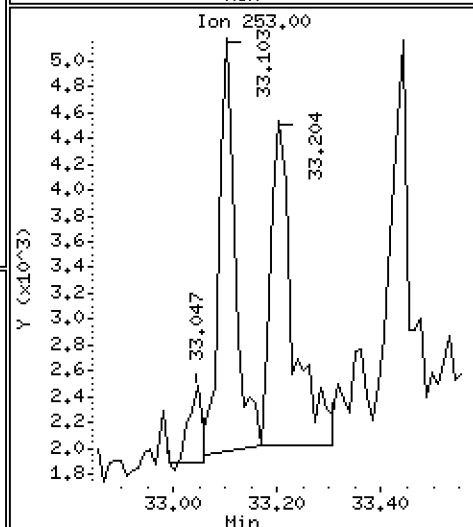
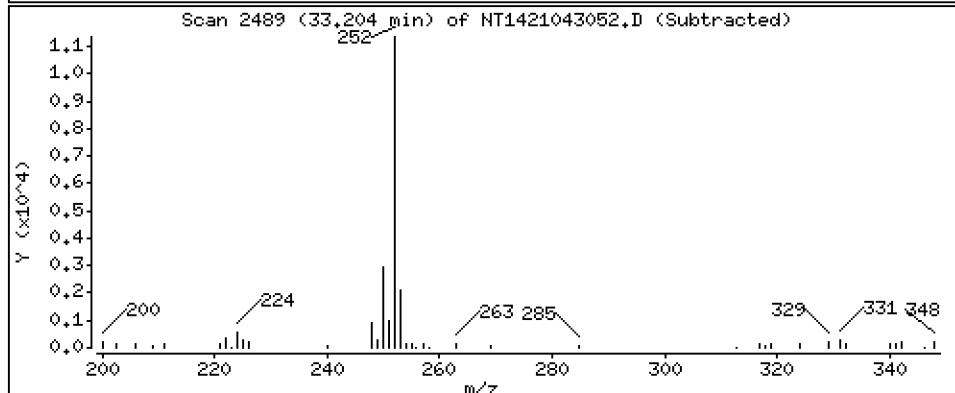
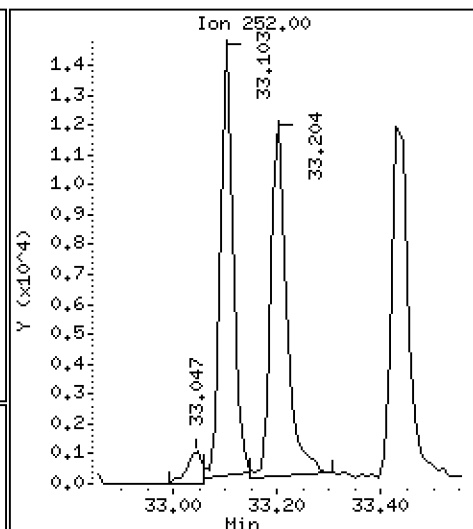
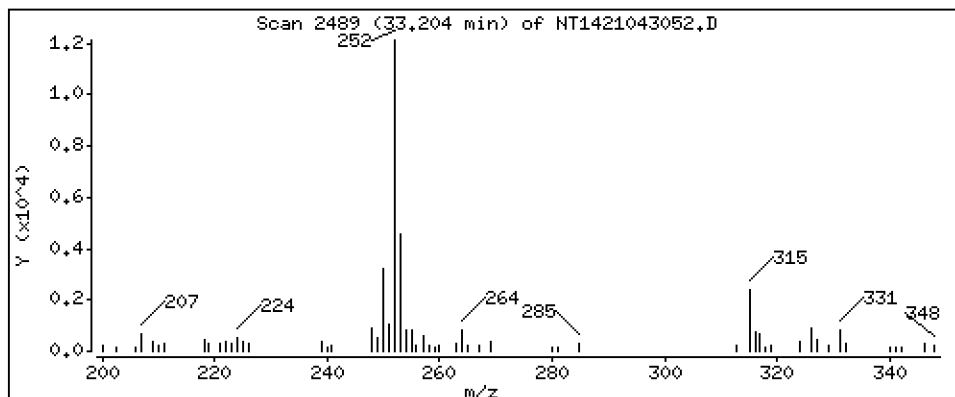
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

66 Benzo(a)pyrene

Concentration: 0,09800 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

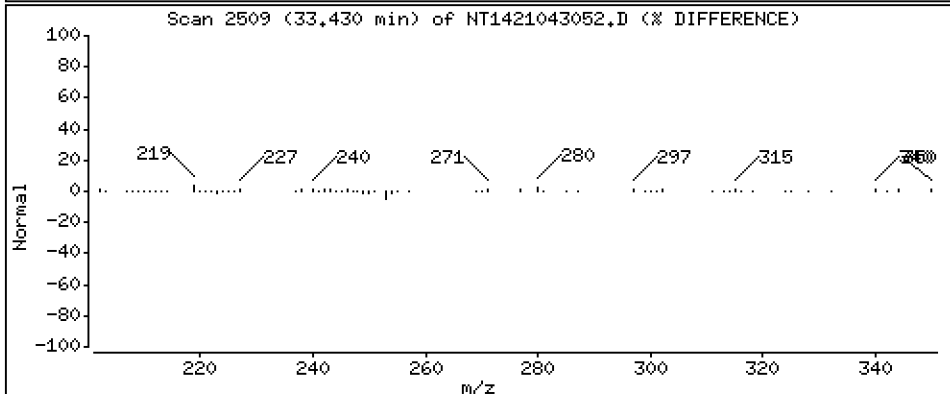
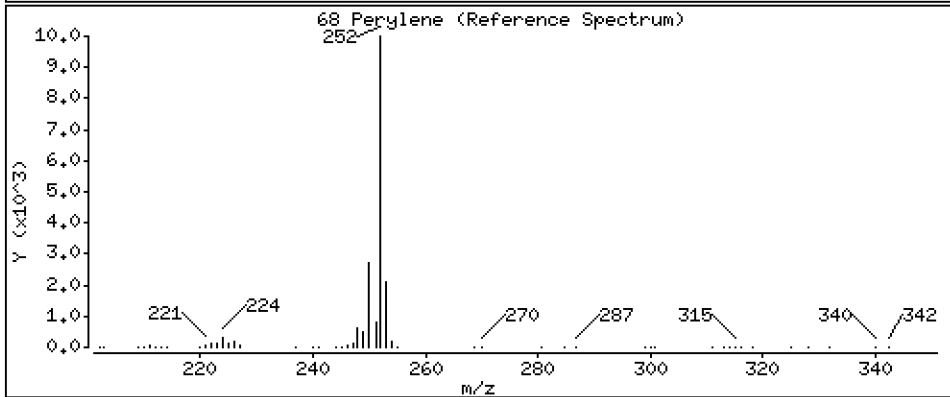
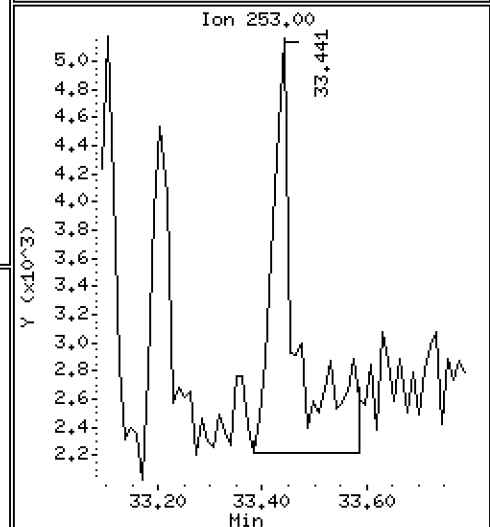
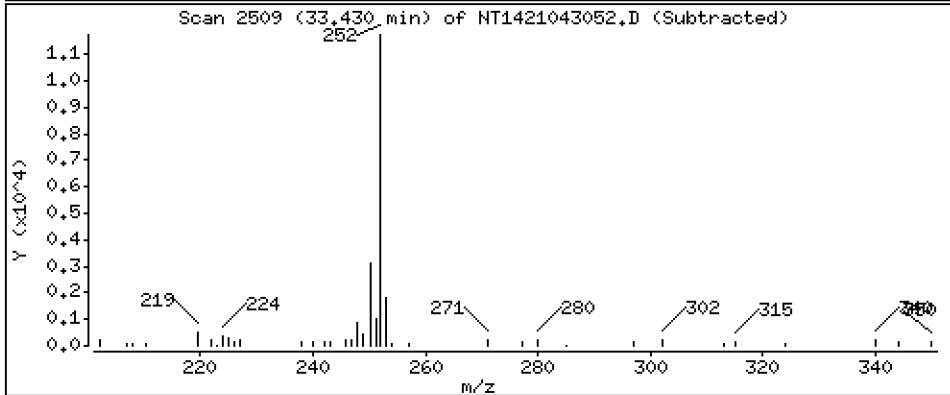
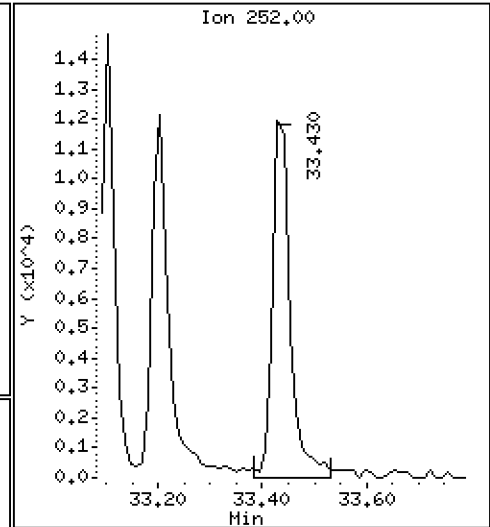
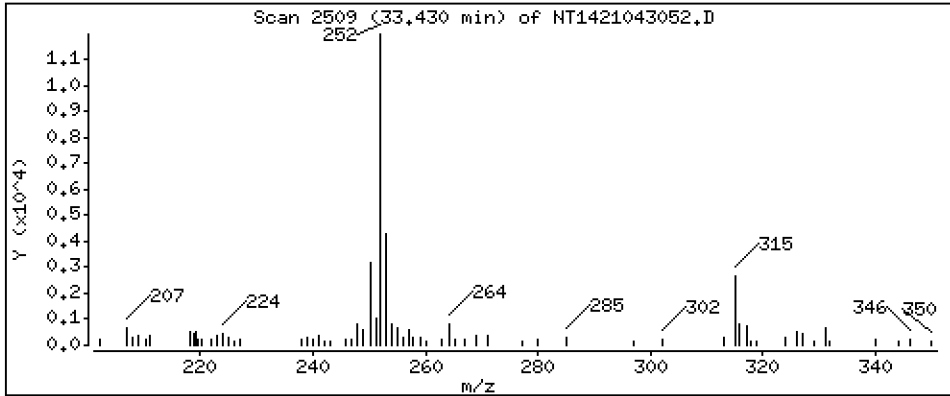
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

68 Perylene

Concentration: 0,1182 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

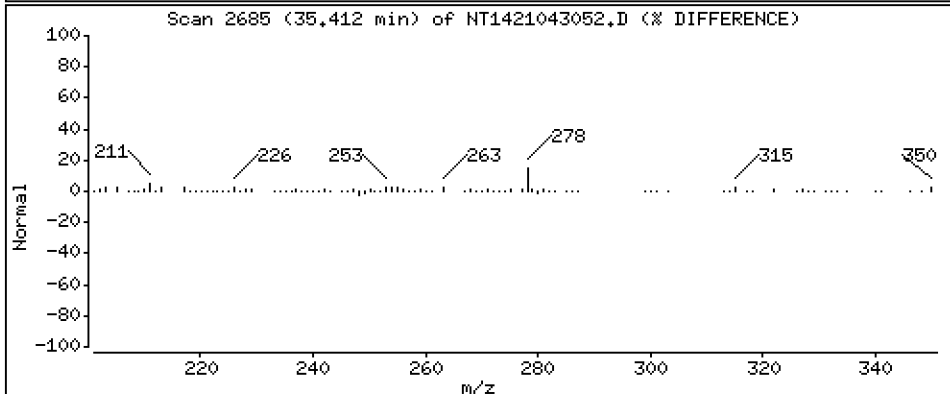
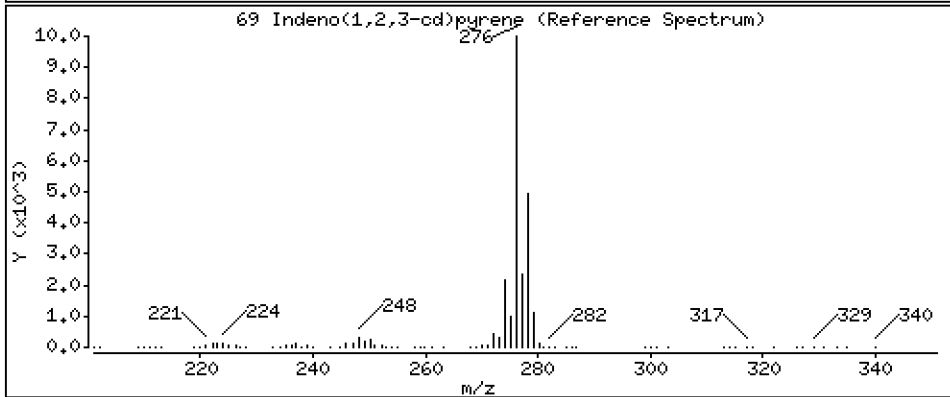
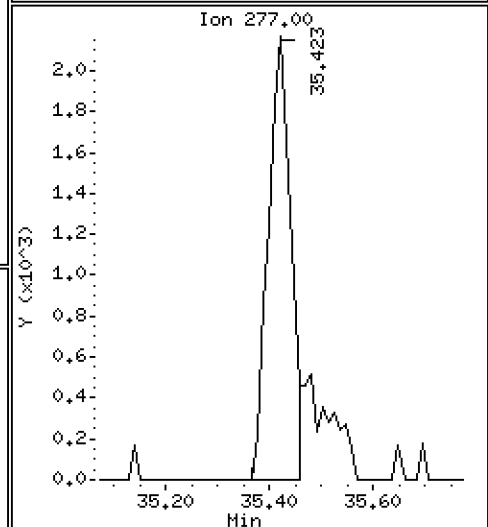
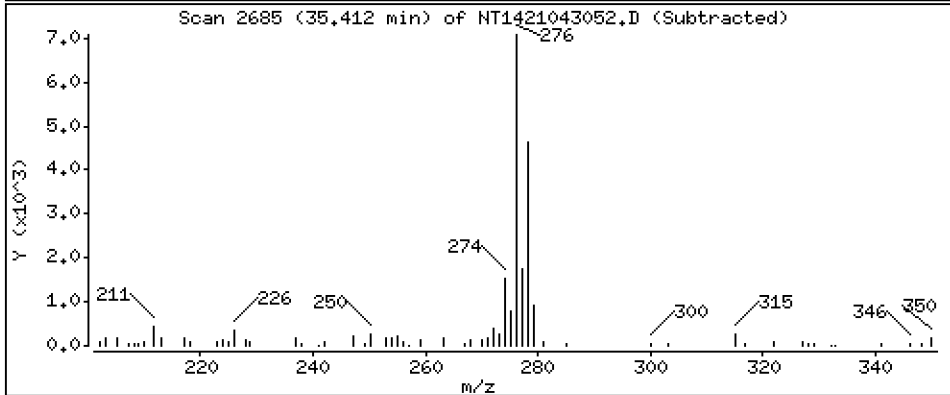
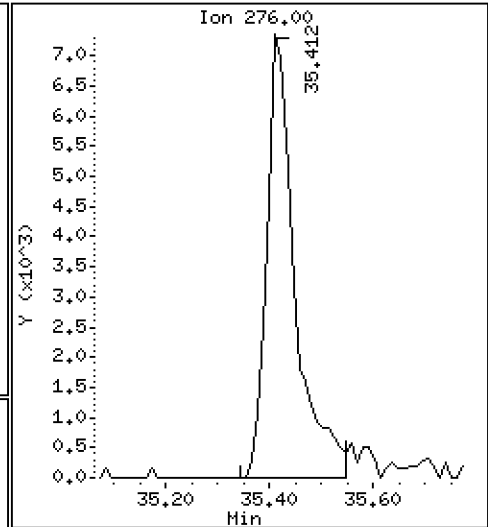
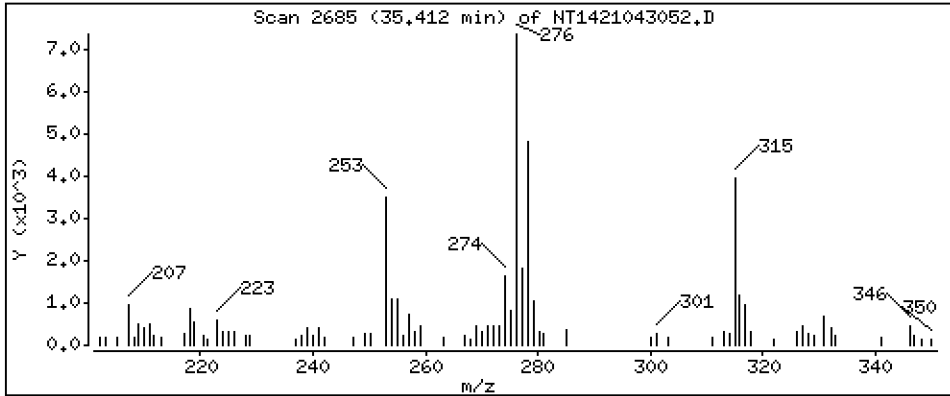
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

69 Indeno(1,2,3-cd)pyrene

Concentration: 0,1097 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

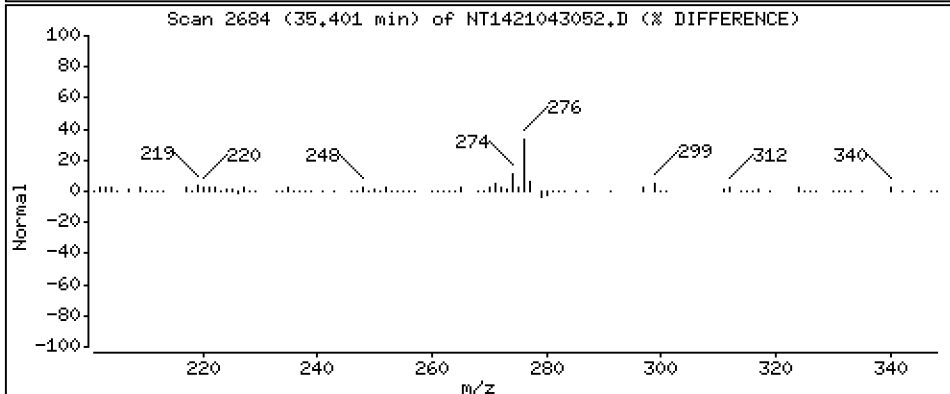
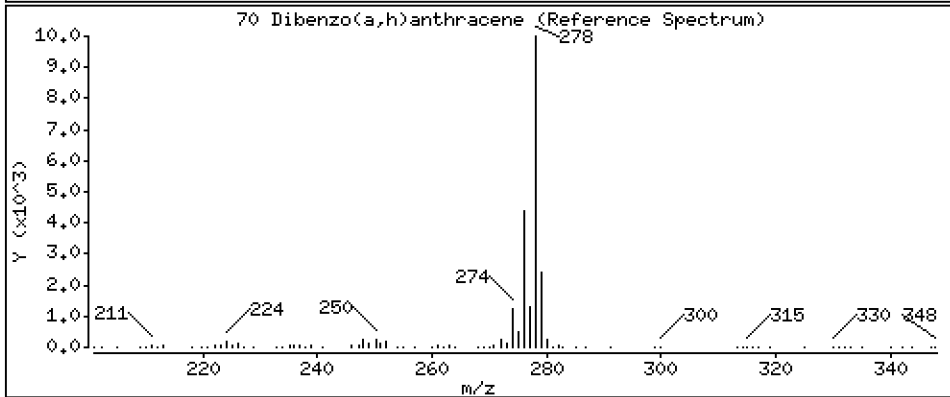
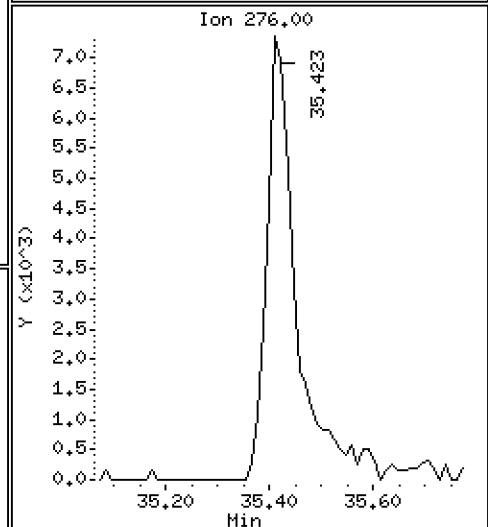
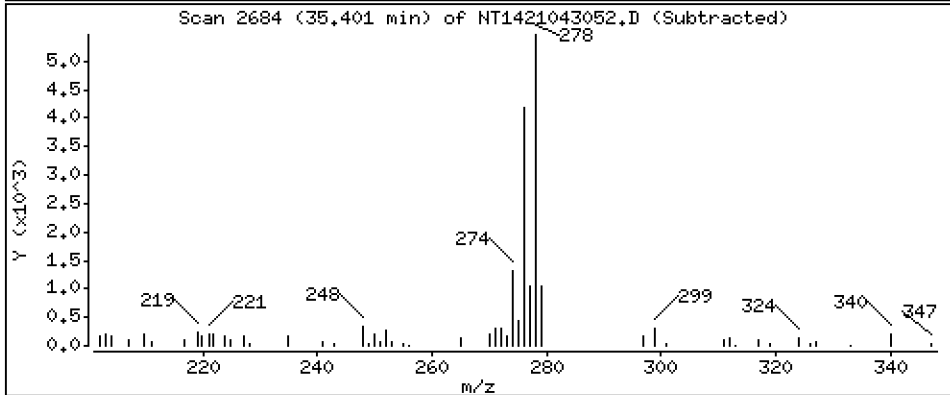
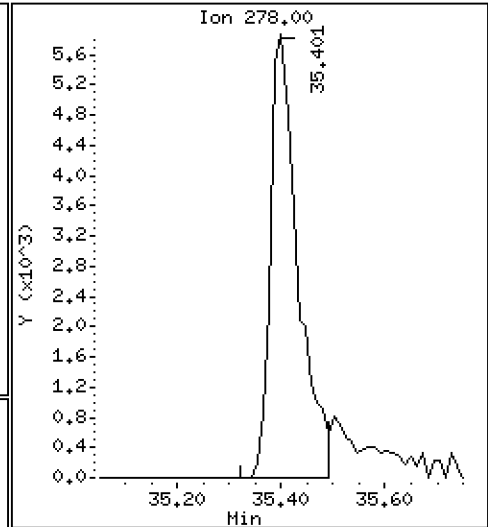
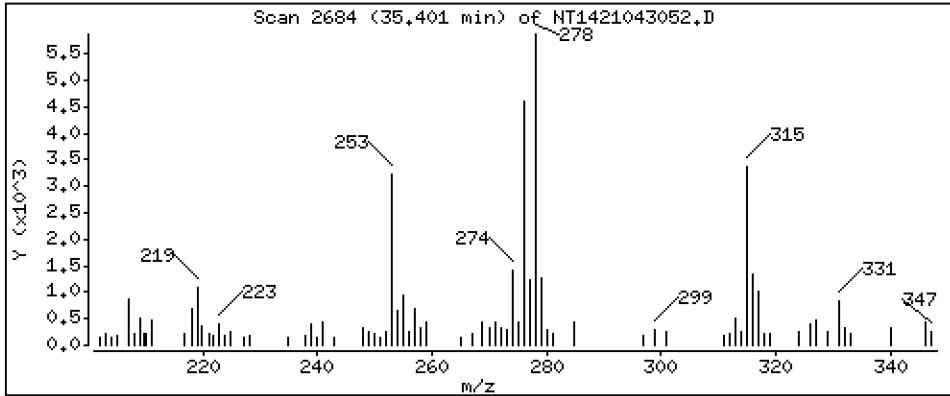
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

70 Dibenzo(a,h)anthracene

Concentration: 0,09847 ug/mL



Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

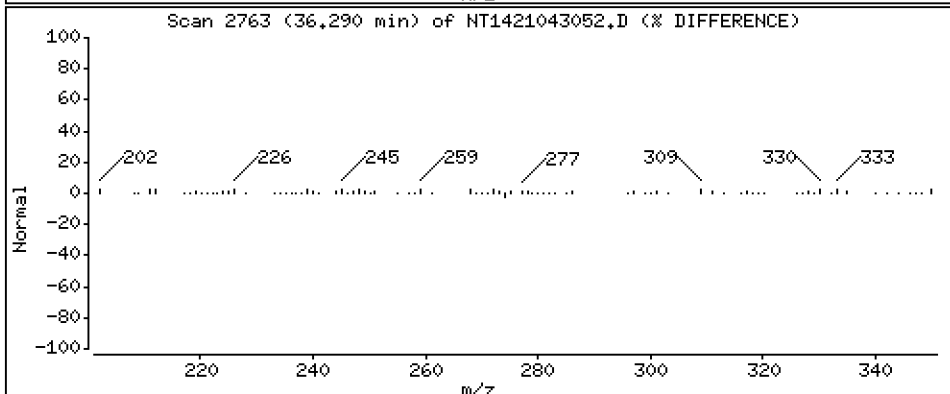
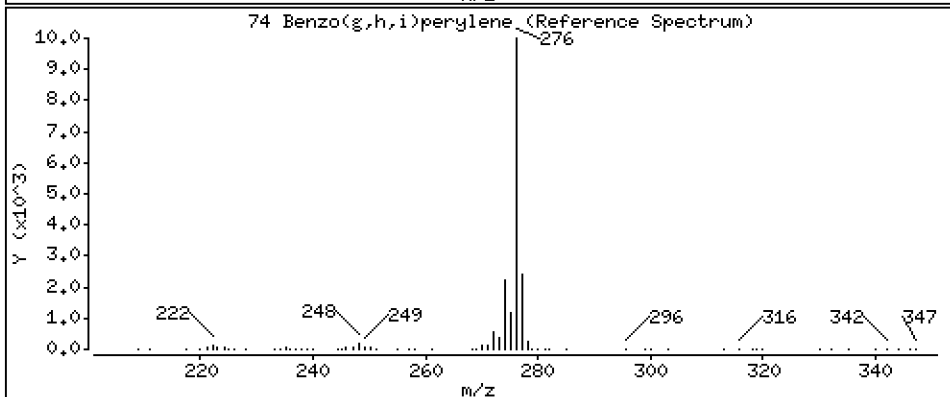
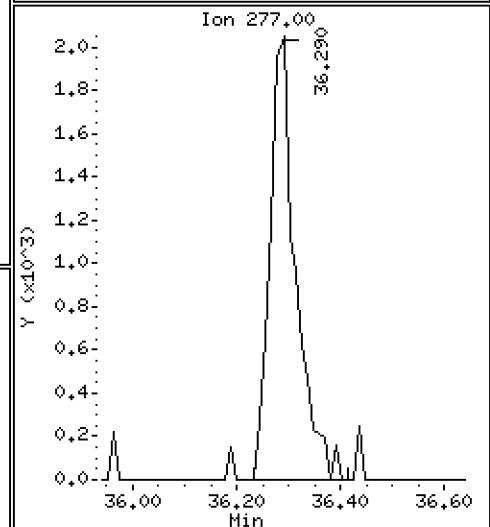
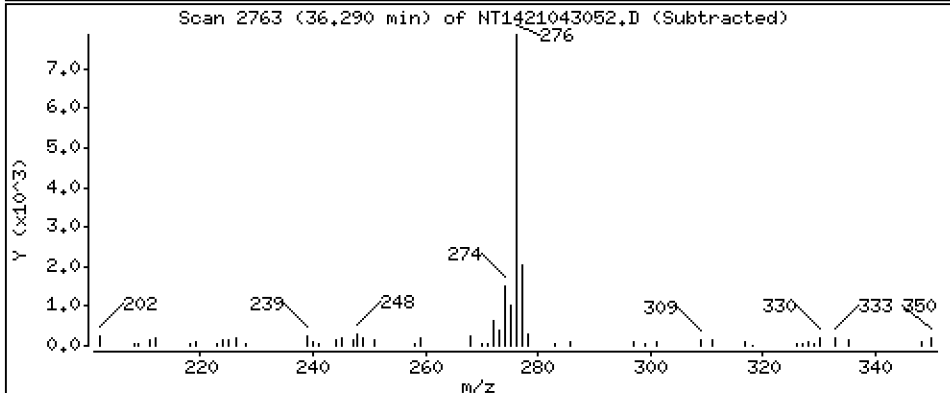
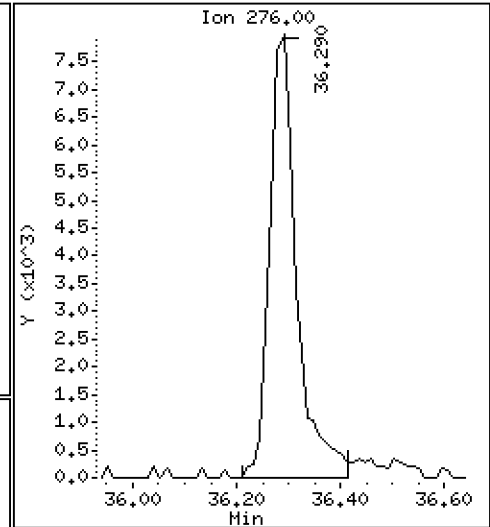
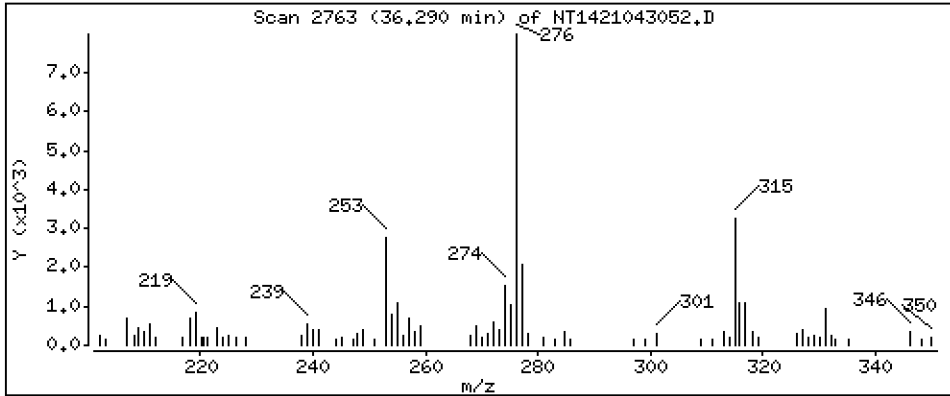
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

74 Benzo(g,h,i)perylene

Concentration: 0,1296 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430D.b\NT1421043052.D
 Lab Smp Id: SJE0004-LCV1
 Inj Date : 02-MAY-2021 00:23
 Operator : VTS
 Smp Info : SJE0004-LCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
 Meth Date : 04-May-2021 08:25 van
 Cal Date : 30-APR-2021 13:32
 Als bottle: 3
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-202011

Inst ID: nt14.i
 Quant Type: ISTD
 Cal File: NT1421043009.D
 Compound Sublist: TARGETS.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
1 trans-Decalin	138		7.045	7.045	(0.375)	4344	0.10472	0.1047
2 cis-Decalin	138		8.155	8.155	(0.434)	3261	0.11388	0.1139
\$ 6 Naphthalene-d8	136		11.776	11.776	(0.627)	37331	0.11616	0.1162 (R)
7 Naphthalene	128		11.836	11.836	(0.631)	37272	0.11403	0.1140
12 Benzo(b)thiophene	134		12.284	12.295	(0.654)	31641	0.12167	0.1217
16 2-Methylnaphthalene	141		13.669	13.680	(0.728)	20462	0.11730	0.1173
17 1-methylnaphthalene	141		14.120	14.120	(0.752)	21479	0.12996	0.1300
18 Biphenyl	154		15.318	15.318	(0.816)	29735	0.11911	0.1191
19 2,6-Dimethylnaphthalene	156		15.395	15.394	(0.820)	20726	0.12065	0.1207
20 Acenaphthylene	152		16.955	16.955	(0.903)	33668	0.12454	0.1245
\$ 21 Acenaphthene-d10	164		17.241	17.241	(0.918)	19345	0.12328	0.1233 (R)
22 Acenaphthene	153		17.362	17.362	(0.925)	20653	0.11887	0.1189
23 Dibenzofuran	168		17.735	17.735	(0.945)	30772	0.11689	0.1169
24 1,6,7-Trimethylnaphthalene	170		17.955	17.955	(0.956)	18310	0.12145	0.1215
* 25 Fluorene-d10	176		18.772	18.772	(1.000)	556851	2.00000	
26 Fluorene	166		18.874	18.874	(1.005)	23025	0.12034	0.1203
30 Dibenzothiophene	184		21.785	21.796	(1.161)	29235	0.12105	0.1210
\$ 35 Phenanthrene-d10	188		22.104	22.104	(0.995)	26321	0.09818	0.09818 (R)
36 Phenanthrene	178		22.181	22.181	(0.999)	31715	0.10597	0.1060
* 250 Anthracene-d10	188		22.214	22.214	(1.000)	496092	2.00000	
37 Anthracene	178		22.280	22.280	(1.003)	28532	0.10342	0.1034
42 Carbazole	167		23.555	23.566	(1.060)	22280	0.09817	0.09817
43 1-Methylphenanthrene	192		24.017	24.017	(1.081)	18979	0.10444	0.1044
44 Fluoranthene	202		25.985	25.985	(1.170)	30670	0.11539	0.1154
46 Pyrene	202		26.832	26.832	(1.208)	30365	0.11024	0.1102
51 Naphthobenzothiophene	234		29.375	29.375	(1.322)	27472	0.10235	0.1023
55 Benzo(a)anthracene	228		29.960	29.960	(0.907)	23064	0.09270	0.09270
\$ 56 Chrysene-d12	240		30.095	30.084	(0.911)	20192	0.09885	0.09885 (R)
57 Chrysene	228		30.163	30.163	(0.913)	25664	0.09775	0.09775
62 Benzo(b)fluoranthene	252		32.382	32.382	(0.980)	23437	0.10174	0.1017 (M)
63 Benzo(k)fluoranthene	252		32.427	32.427	(0.981)	27273	0.09687	0.09687 (M)
293 Benzo(j)fluoranthene	252		32.494	32.494	(0.983)	25460	0.09521	0.09521 (M)
246 Total Benzofluoranthenes	252		32.427	32.382	(0.981)	71877	0.28145	0.2815 (M)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.046	33.046	(1.000)	562144	2.00000	
64 Benzo(e)pyrene	252	33.102	33.102	(1.002)	25462	0.10635	0.1063
66 Benzo(a)pyrene	252	33.204	33.204	(1.005)	23802	0.09800	0.09800
\$ 67 Perylene-d12	264	33.373	33.373	(1.010)	24319	0.11402	0.1140 (R)
68 Perylene	252	33.429	33.440	(1.012)	27036	0.11823	0.1182 (M)
69 Indeno(1,2,3-cd)pyrene	276	35.411	35.423	(1.072)	27005	0.10967	0.1097 (M)
70 Dibenzo(a,h)anthracene	278	35.400	35.400	(1.071)	20863	0.09847	0.09847 (M)
74 Benzo(g,h,i)perylene	276	36.290	36.290	(1.098)	27915	0.12960	0.1296

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 01-MAY-2021
 Lab File ID: NT1421043052.D Calibration Time: 23:35
 Lab Smp Id: SJE0004-LCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	504442	252221	1008884	556851	10.39
250 Anthracene-d10	459103	229552	918206	496092	8.06
251 Benzo(e)pyrene-d1	516794	258397	1033588	562144	8.78

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.77	18.27	19.27	18.77	0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	0.00

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.

REVIEW SUMMARY FOR FILE - NT1421043052.D

Lab ID: SJE0004-LCV1
nt14.i, 20210430D.b\ALKYLPNA.m, 02-MAY-2021 00:23

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

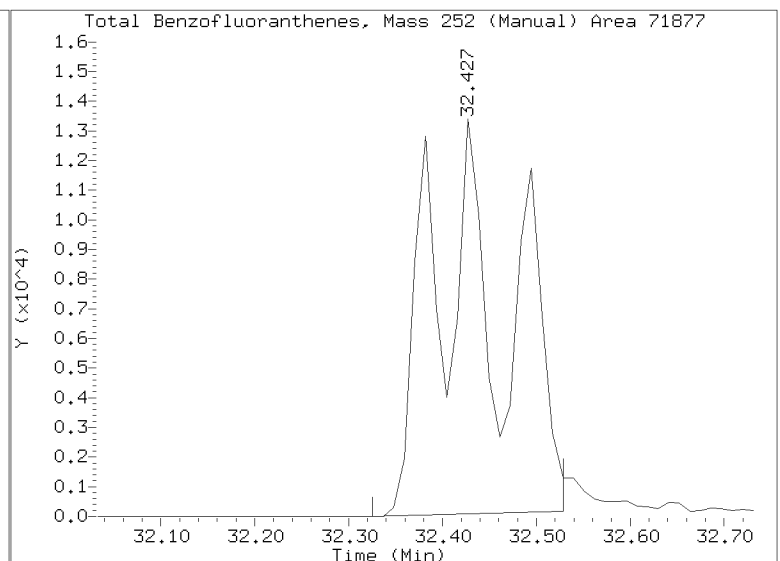
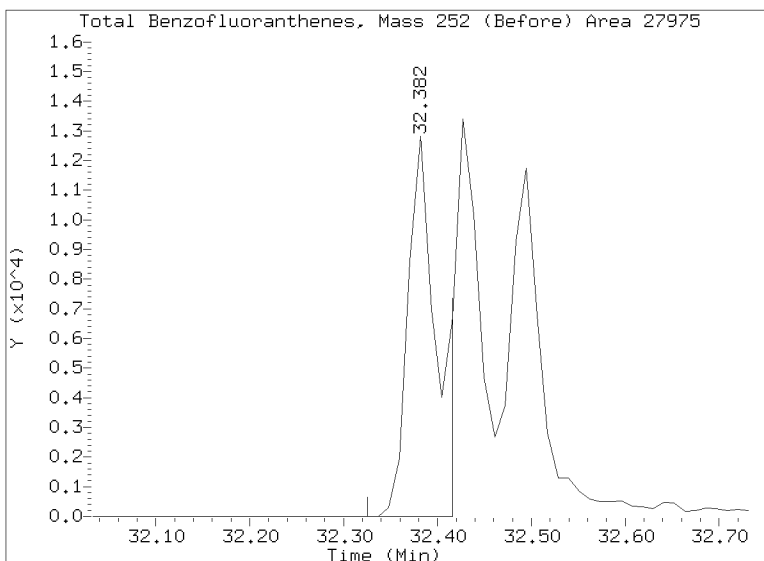
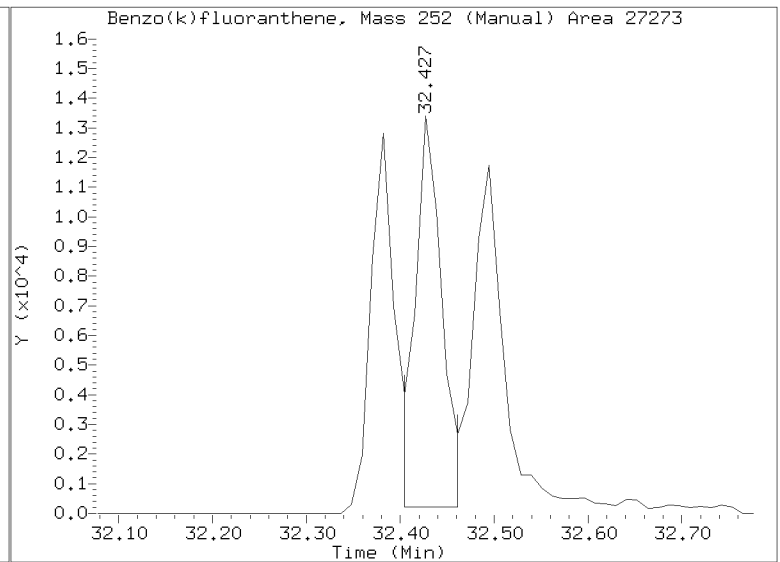
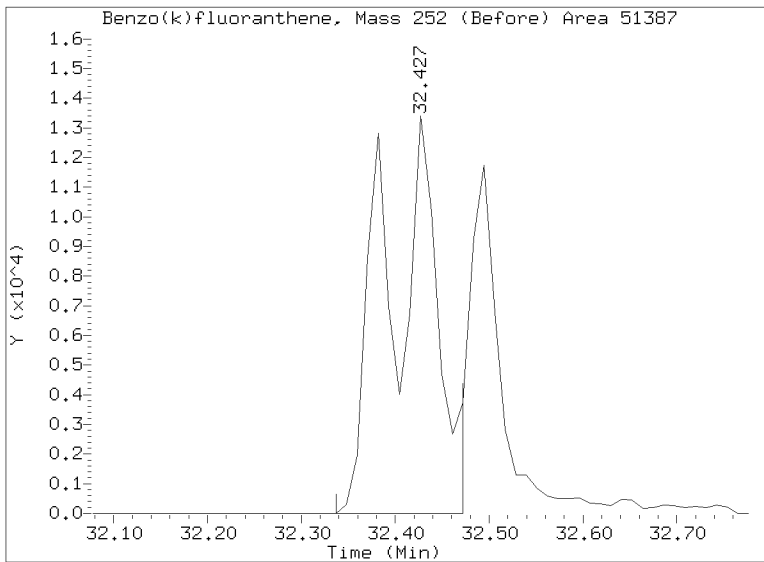
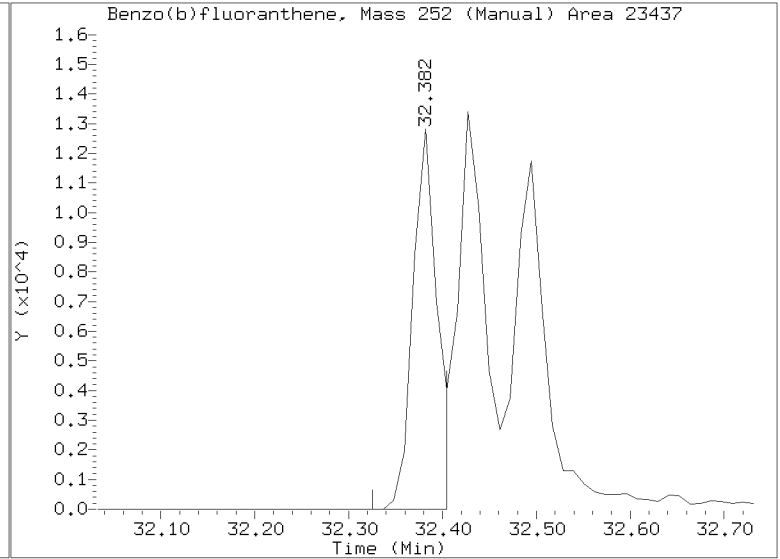
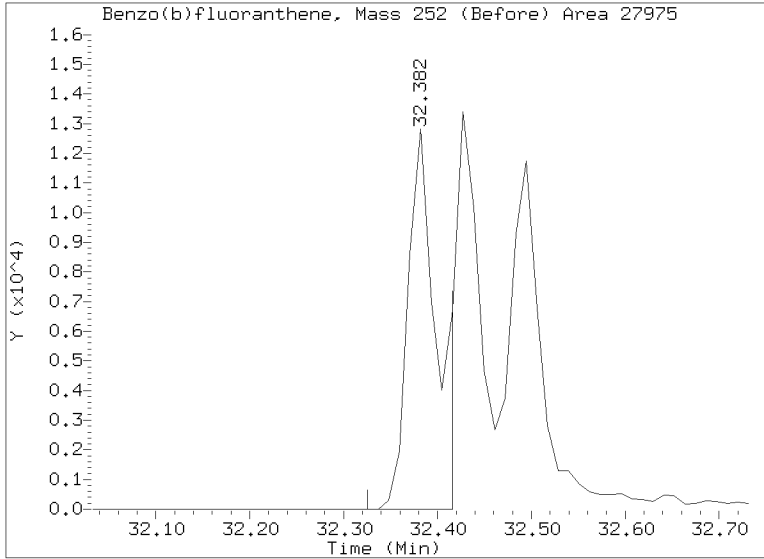
RRT check based on Ccal File: NT1421043051ICV.D

On Column LOD for nt14.i, 20210430D.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

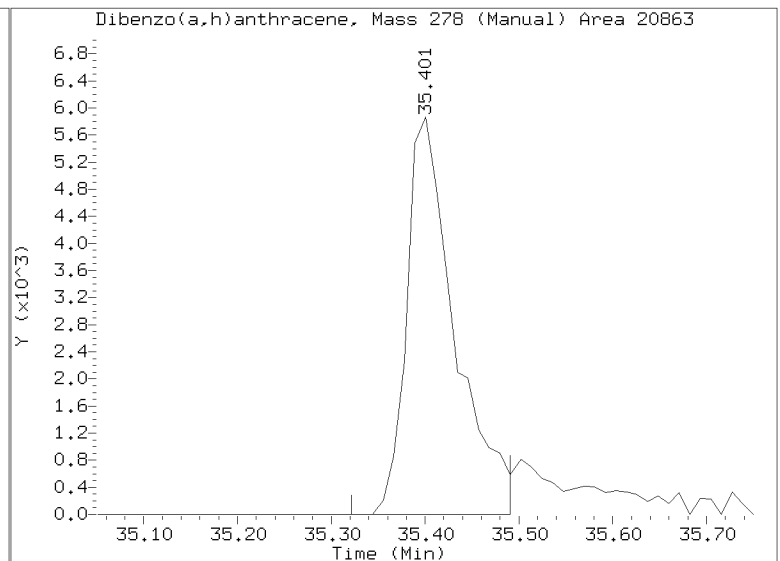
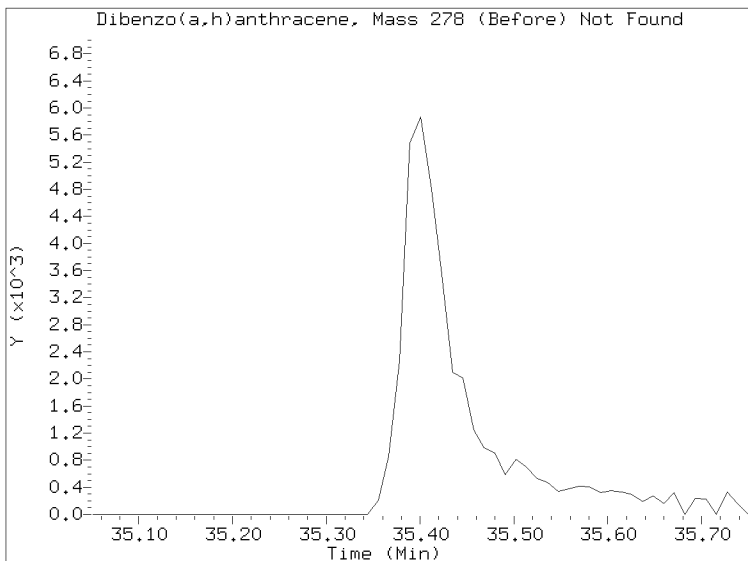
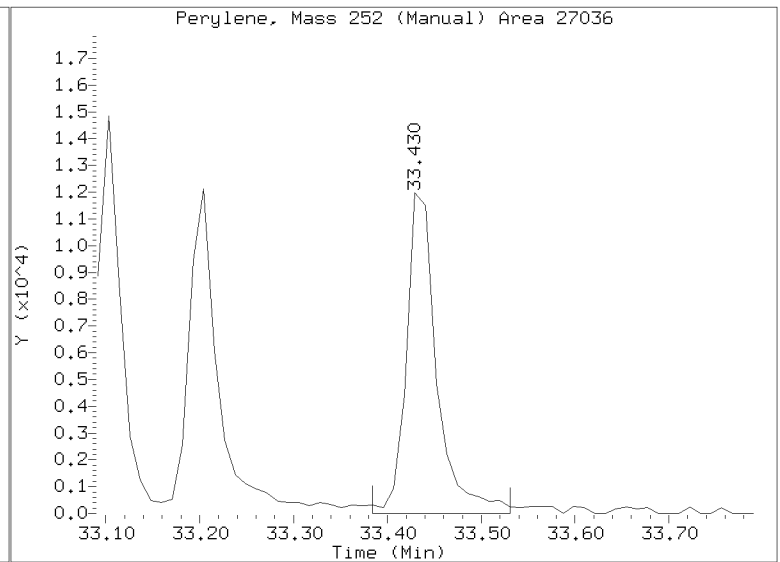
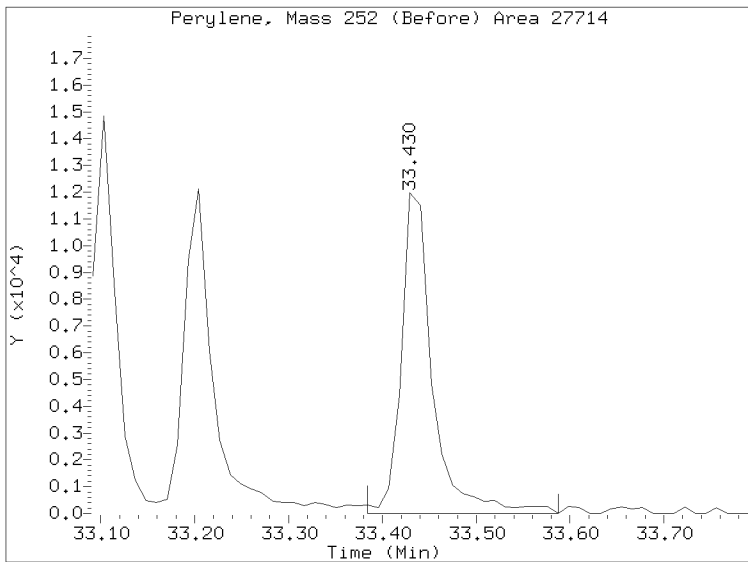
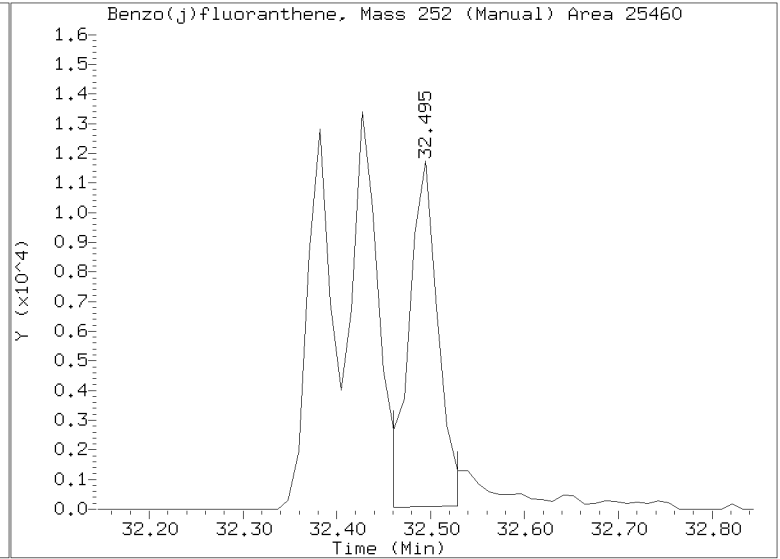
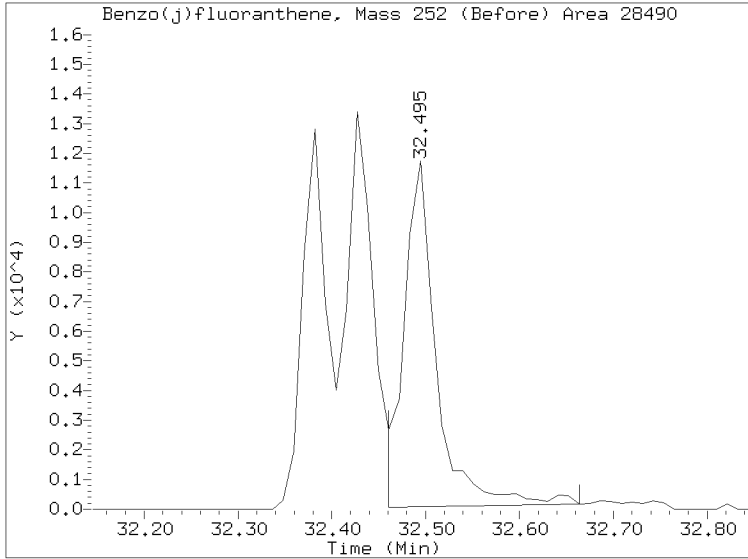
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Injection Date: 02-MAY-2021 00:23
Lab ID: SJE0004-LCV1 Client ID:
Report Date: 05/04/2021 13:20



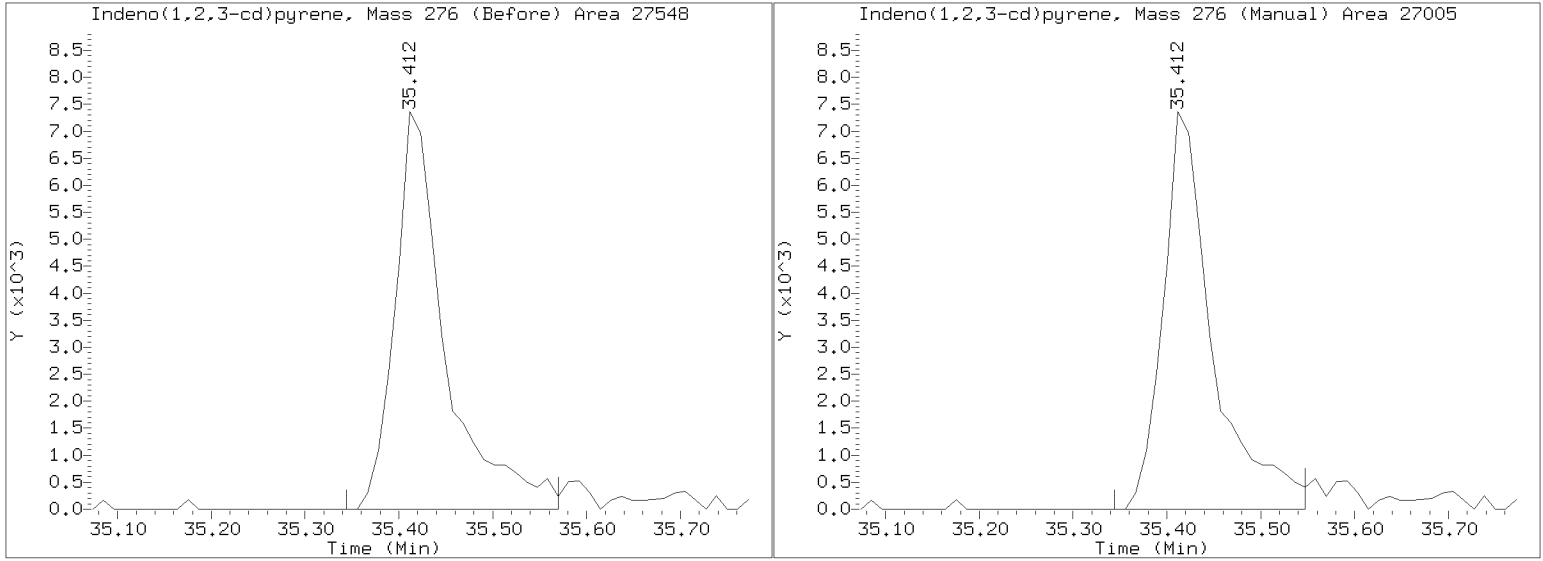
Quant Ion Manual Peak Adjustment Report

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Injection Date: 02-MAY-2021 00:23
Lab ID: SJE0004-LCV1 Client ID:
Report Date: 05/04/2021 13:20



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043052.D
Injection Date: 02-MAY-2021 00:23
Lab ID: SJE0004-LCV1 Client ID:
Report Date: 05/04/2021 13:20





CONTINUING CALIBRATION CHECK EPA 8270E-SIM

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>21D0180</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic - US Moorings</u>
Instrument ID: <u>NT14</u>	Calibration: <u>EE00001</u>
Lab File ID: <u>NT1421050405.D</u>	Calibration Date: <u>04/30/2021</u>
Sequence: <u>SJE0028</u>	Injection Date: <u>05/04/21</u>
Lab Sample ID: <u>SJE0028-CCV1</u>	Injection Time: <u>16:08</u>
Sequence Name: <u>Calibration Check</u>	

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
trans-Decalin	A	2.5000	2.73	0.1489821	0.1624172		9.0	+/-50
cis-Decalin	A	2.5000	2.79	0.1028504	0.1147037		11.5	+/-50
Naphthalene	A	2.5000	2.76	1.1740120	1.2944790		10.3	+/-50
1-Methylnaphthalene	A	2.5000	2.82	0.5936130	0.6701847		12.9	+/-50
2-Methylnaphthalene	A	2.5000	2.83	0.6265036	0.7097288		13.3	+/-50
Biphenyl	A	2.5000	2.79	0.8966280	0.9990733		11.4	+/-50
2,6-Dimethylnaphthalene	A	2.5000	2.87	0.6169792	0.7078611		14.7	+/-50
Acenaphthylene	A	2.5000	3.07	0.9709370	1.1906340		22.6	+/-50
Acenaphthene	A	2.5000	2.90	0.6240076	0.7237160		16.0	+/-50
Dibenzofuran	A	2.5000	2.82	0.9455456	1.0649890		12.6	+/-50
2,3,5-Trimethylnaphthalene	A	2.5000	3.02	0.5414731	0.6534756		20.7	+/-50
Fluorene	A	2.5000	2.85	0.6871732	0.7828099		13.9	+/-50
Benzo(b)thiophene	A	2.5000	2.80	0.9340302	1.0451920		11.9	+/-50
Phenanthrene	A	2.5000	2.53	1.2066070	1.2199620		1.1	+/-50
Anthracene	A	2.5000	2.56	1.1122650	1.1406750		2.6	+/-50
Carbazole	A	2.5000	2.63	0.8290303	0.9868937		5.3	+/-50
1-Methylphenanthrene	A	2.5000	2.82	0.7326040	0.8265388		12.8	+/-50
Fluoranthene	A	2.5000	2.88	1.0715980	1.2348560		15.2	+/-50
Dibenzothiophene	A	2.5000	2.97	0.8674458	1.0300640		18.7	+/-50
Pyrene	A	2.5000	2.87	1.1104570	1.2732900		14.7	+/-50
Benzo(a)anthracene	A	2.5000	2.61	0.8222601	0.9616053		4.6	+/-50
Chrysene	A	2.5000	2.53	0.9340580	0.9453515		1.2	+/-50
Benzo(b)fluoranthene	A	2.5000	2.65	0.7491309	0.9040213		5.9	+/-50
Benzo(j)fluoranthene	A	2.5000	2.60	0.9513865	0.9908602		4.1	
Benzo(k)fluoranthene	A	2.5000	2.63	0.9278309	1.0958000		5.4	+/-50
Benzofluoranthenes, Total	A	7.5000	7.74	0.8388531	0.9657782		3.2	
Benzo(e)pyrene	A	2.5000	2.72	0.8518347	0.9268700		8.8	+/-50
Benzo(a)pyrene	A	2.5000	2.52	0.7422947	0.8822030		0.6	+/-50
Indeno(1,2,3-cd)pyrene	A	2.5000	2.61	0.7887712	0.9499198		4.5	+/-50
Dibenzo(a,h)anthracene	A	2.5000	2.55	0.6549683	0.7998939		1.8	+/-50
Benzo(g,h,i)perylene	A	2.5000	2.78	0.7663214	0.8533738		11.4	+/-50
Perylene	A	2.5000	2.74	0.8135951	0.8925604		9.7	+/-50
Benzo(b)naphtho(2,1-d)thiophene	A	2.5000	2.75	1.0821370	1.1906010		10.0	+/-50
Naphthalene-d8	A	2.5000	2.77	1.1542130	1.2769540		10.6	

* Values outside of QC limits



CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>21D0180</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic - US Moorings</u>
Instrument ID:	<u>NT14</u>	Calibration:	<u>EE00001</u>
Lab File ID:	<u>NT1421050405.D</u>	Calibration Date:	<u>04/30/2021</u>
Sequence:	<u>SJE0028</u>	Injection Date:	<u>05/04/21</u>
Lab Sample ID:	<u>SJE0028-CCV1</u>	Injection Time:	<u>16:08</u>
Sequence Name:	<u>Calibration Check</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Acenaphthene-d10	A	2.5000	2.87	0.5635830	0.6479537		15.0	
Phenanthrene-d10	A	2.5000	2.56	1.0807840	1.1072680		2.5	
Chrysene-d12	A	2.5000	2.71	0.7267179	0.7883642		8.5	
Perylene-d12	A	2.5000	2.52	0.6899017	0.7841237		0.8	

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.1\20210504.1\NT1421050405.D

Date : 04-May-2021 16:08

Client ID:

Sample Info: SJE0028-CCW1

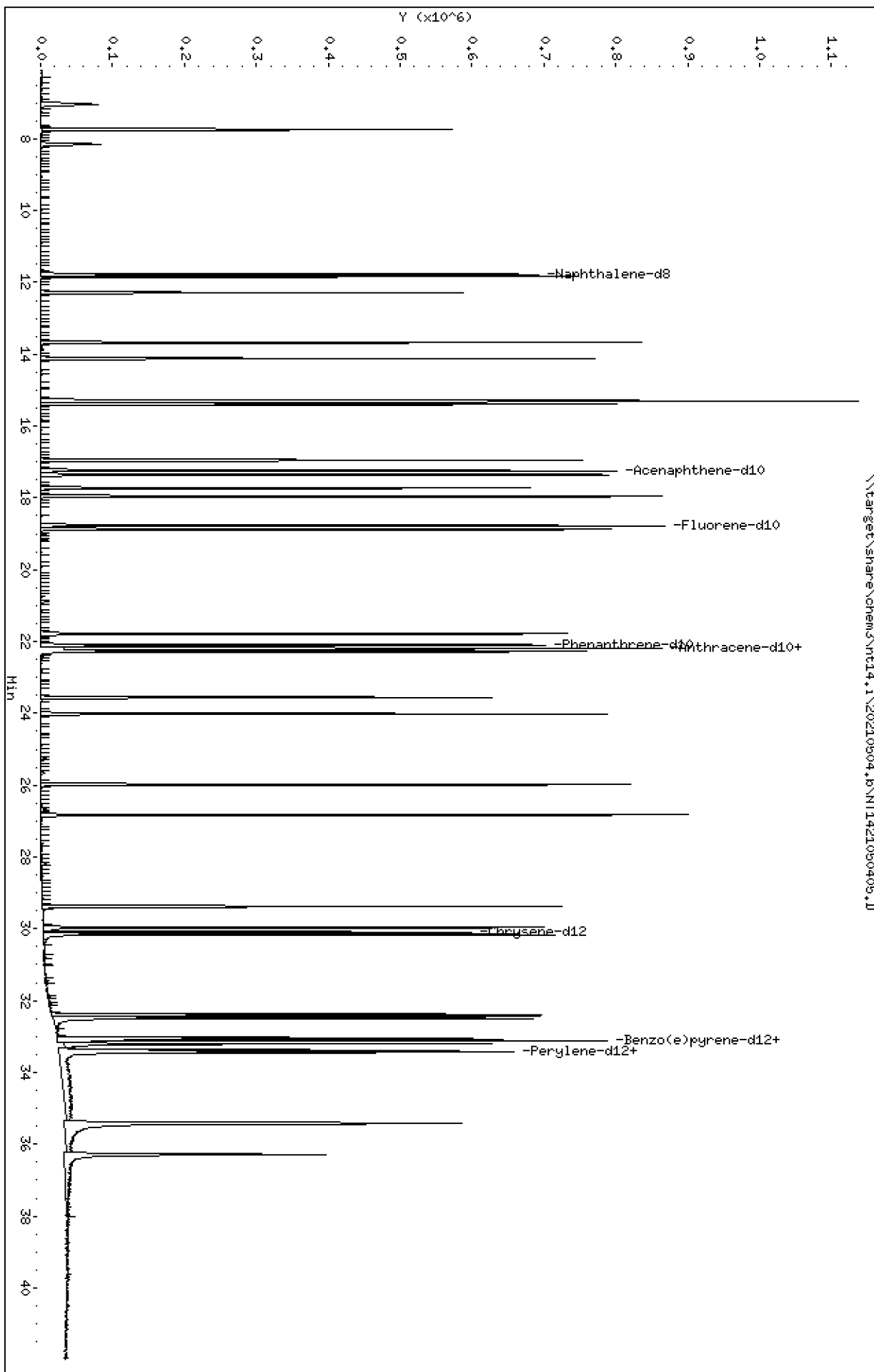
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

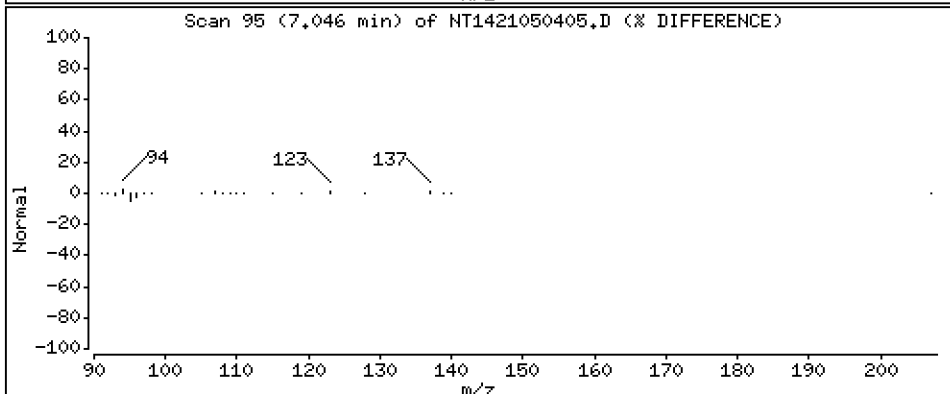
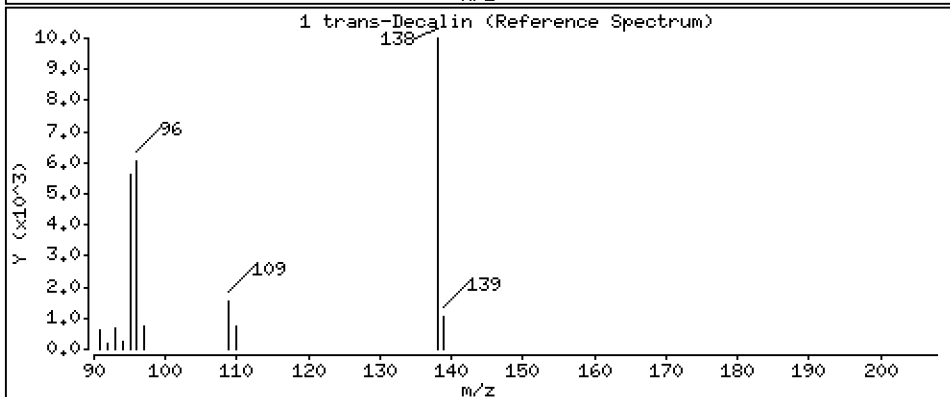
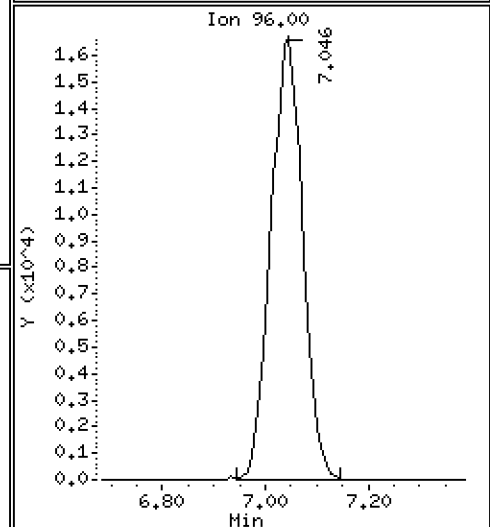
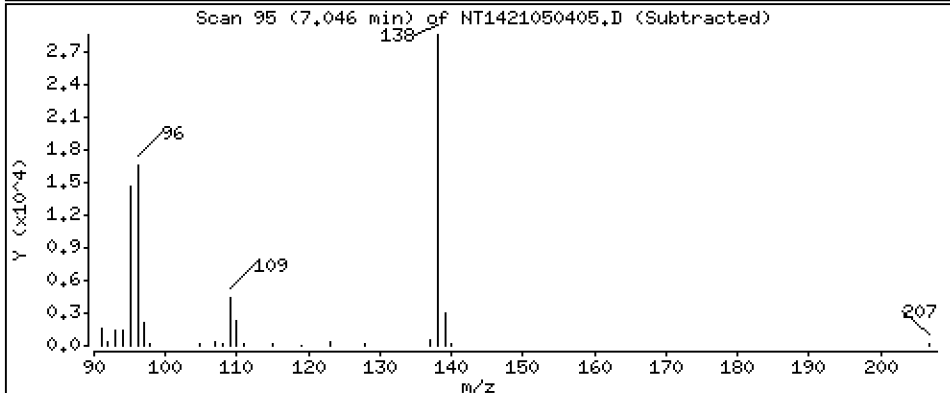
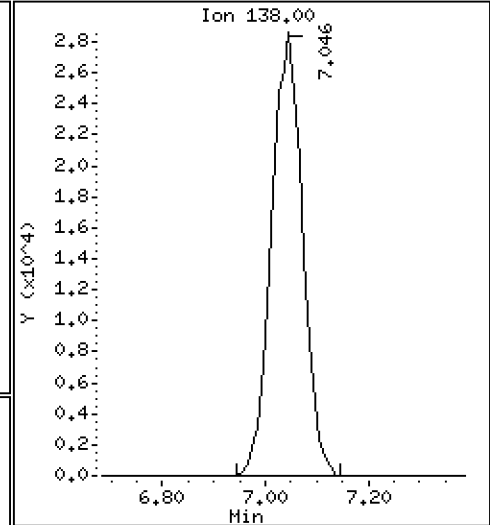
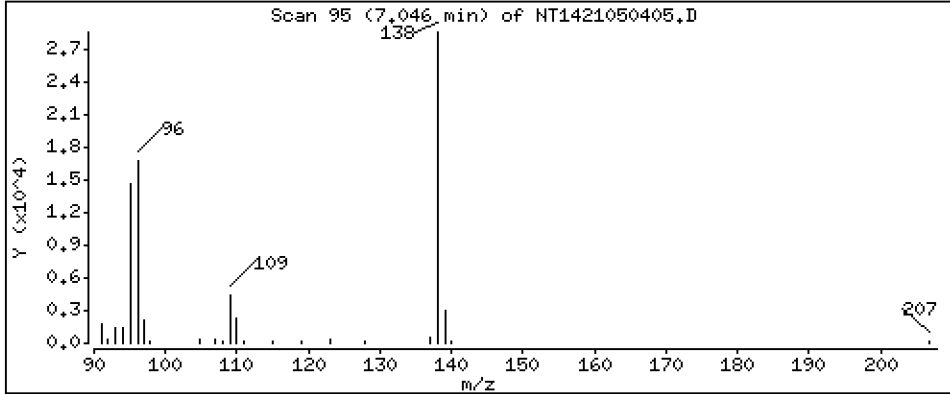
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

1 trans-Decalin

Concentration: 2,725 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

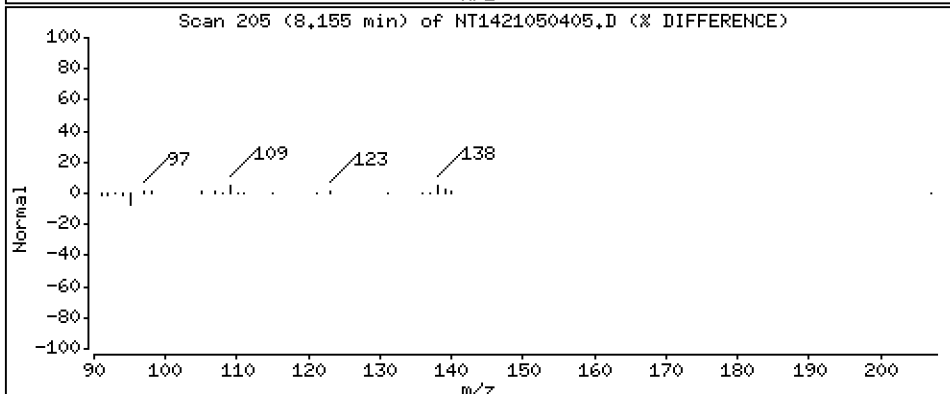
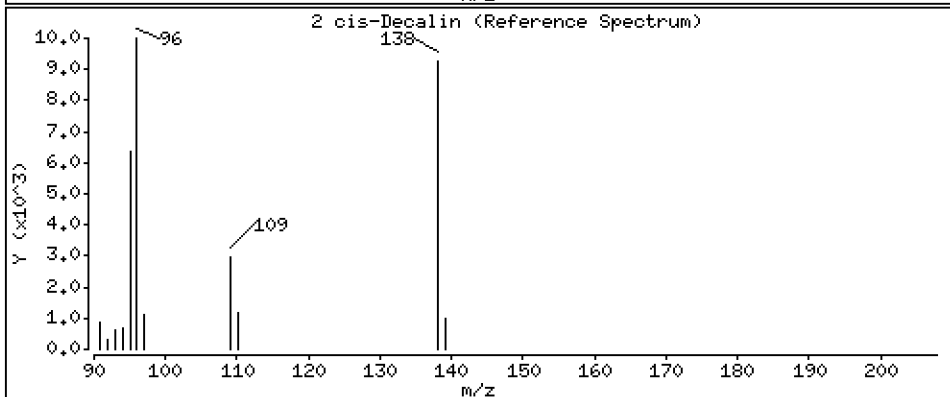
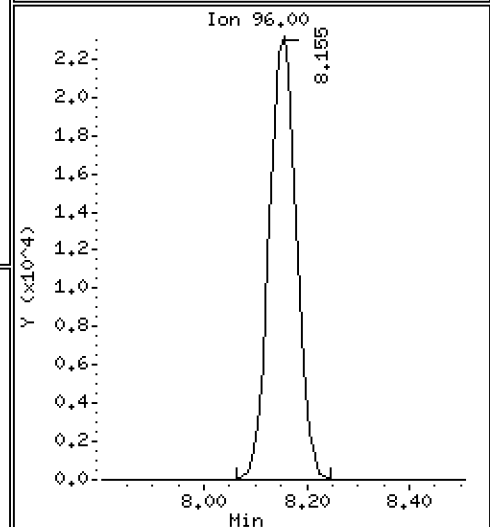
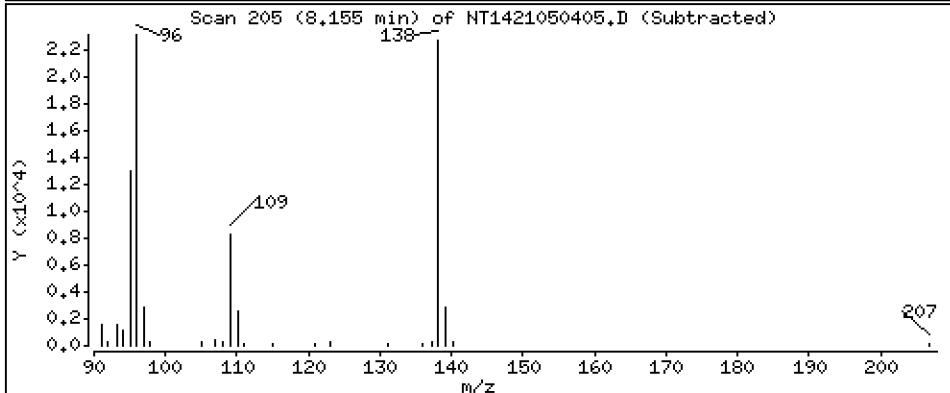
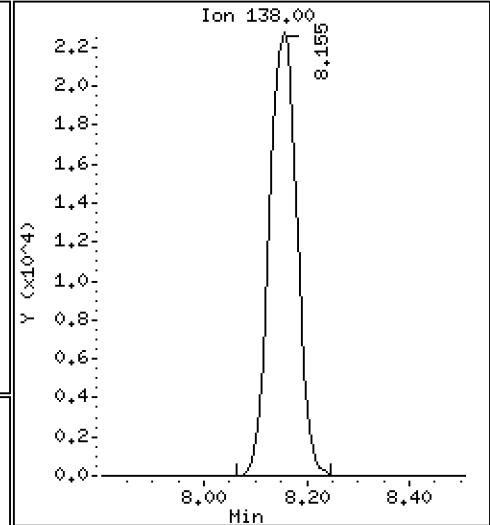
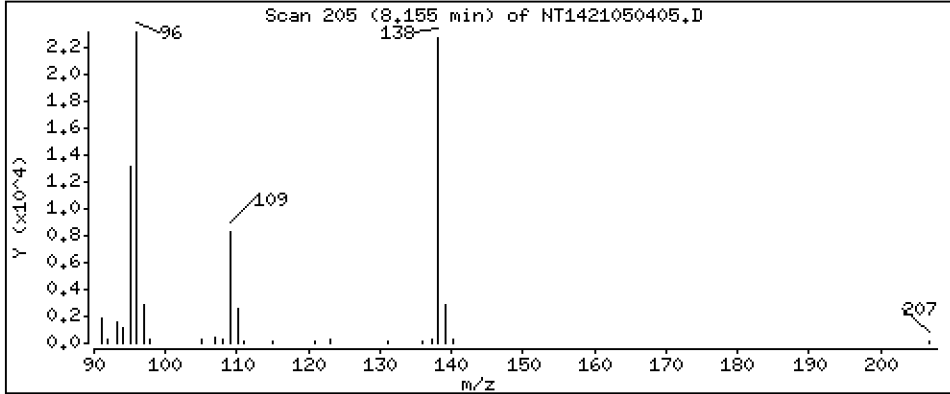
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 cis-Decalin

Concentration: 2,788 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

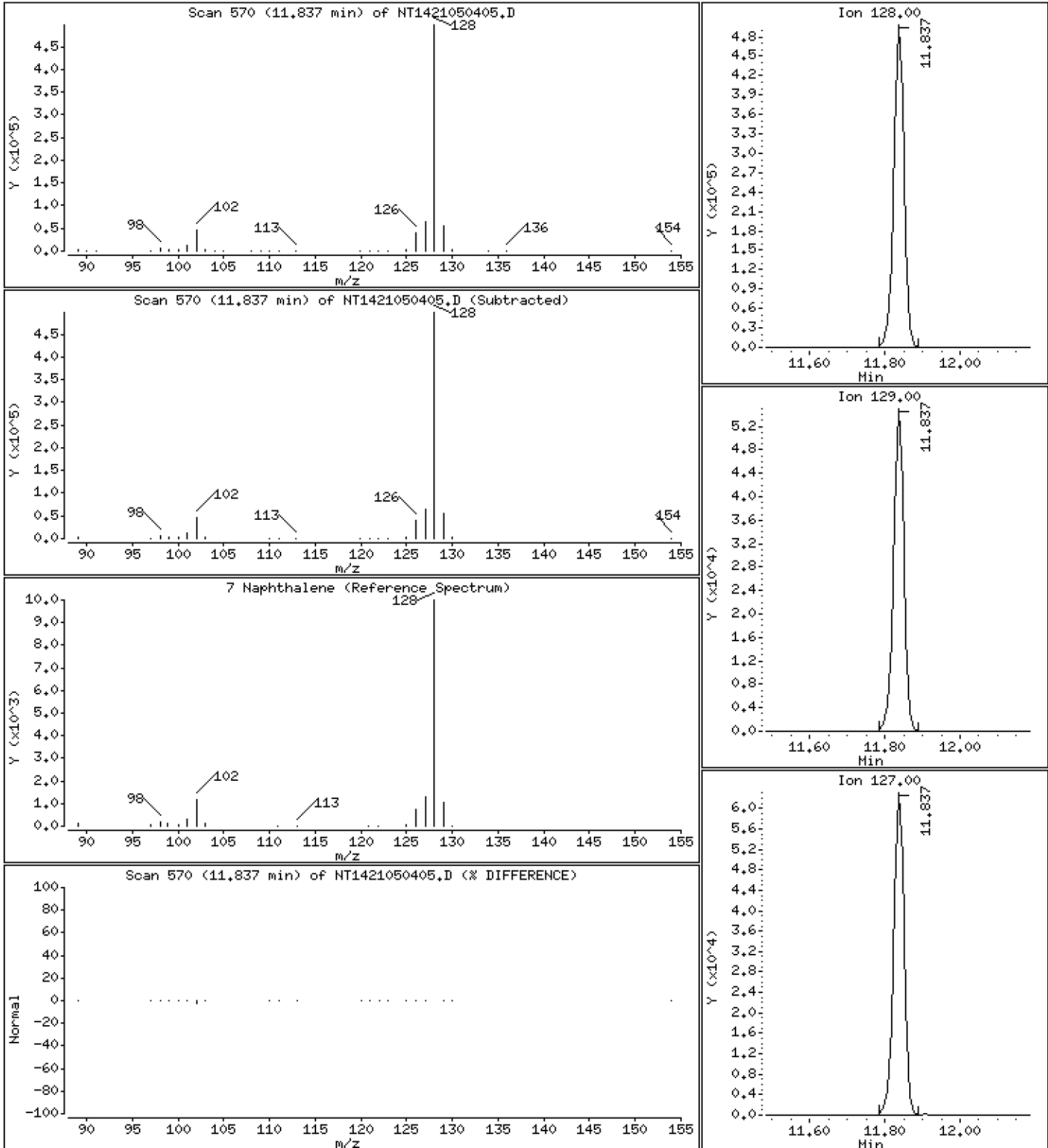
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

7 Naphthalene

Concentration: 2,757 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

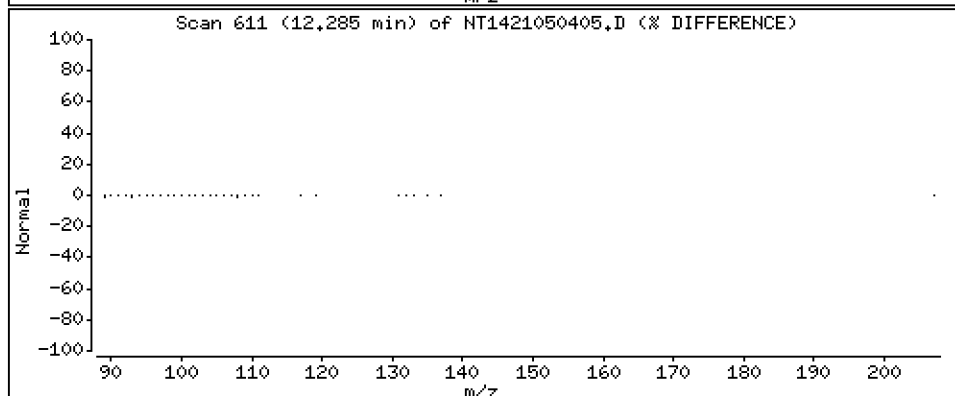
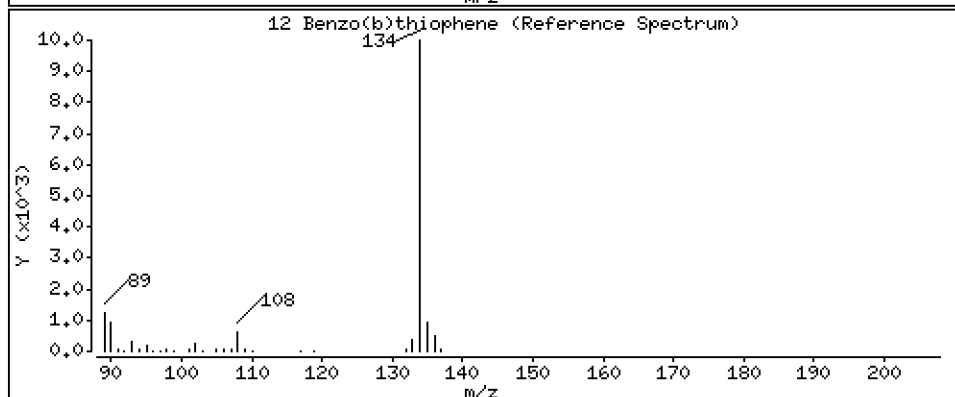
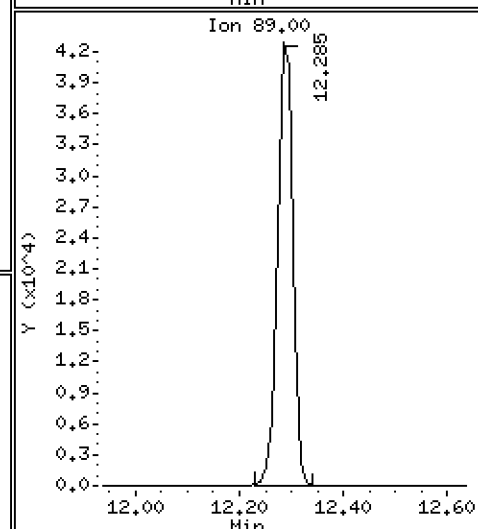
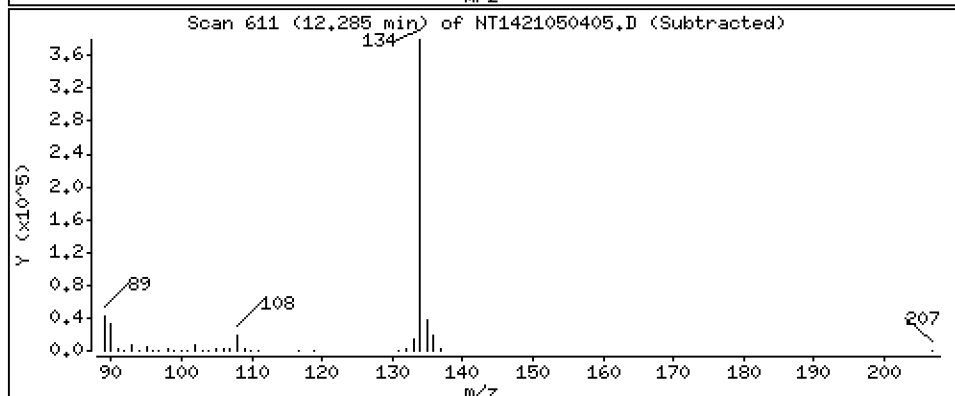
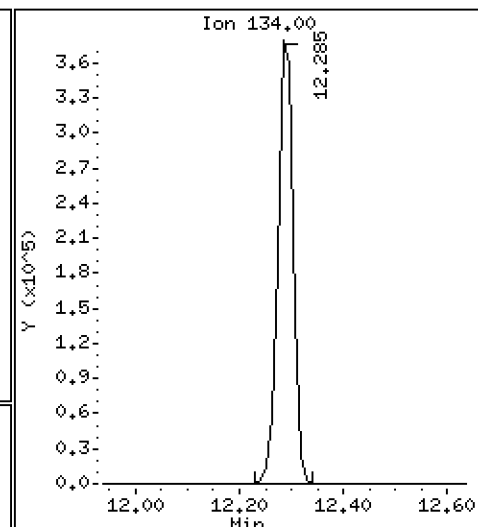
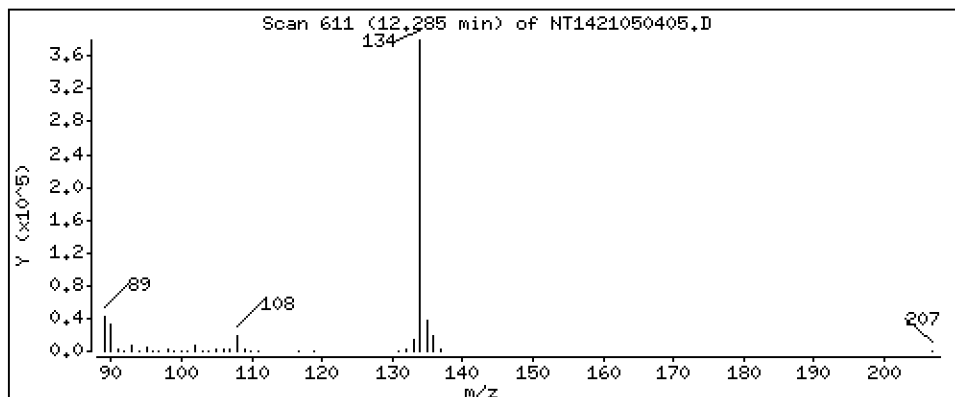
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

12 Benzo(b)thiophene

Concentration: 2,798 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

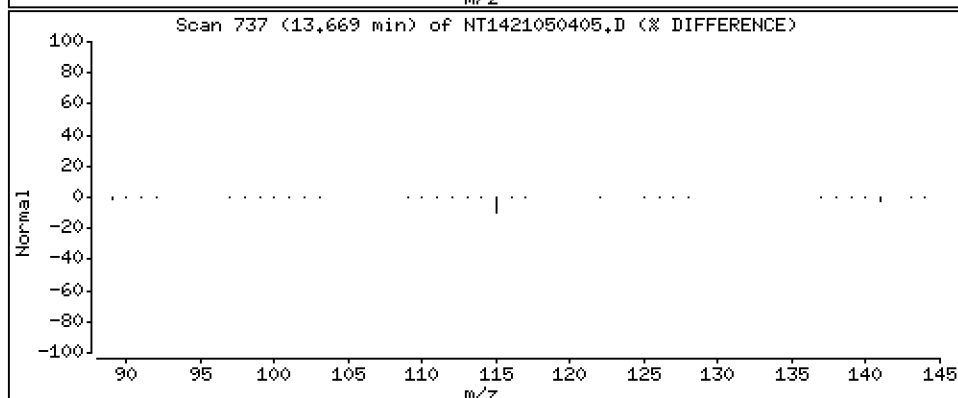
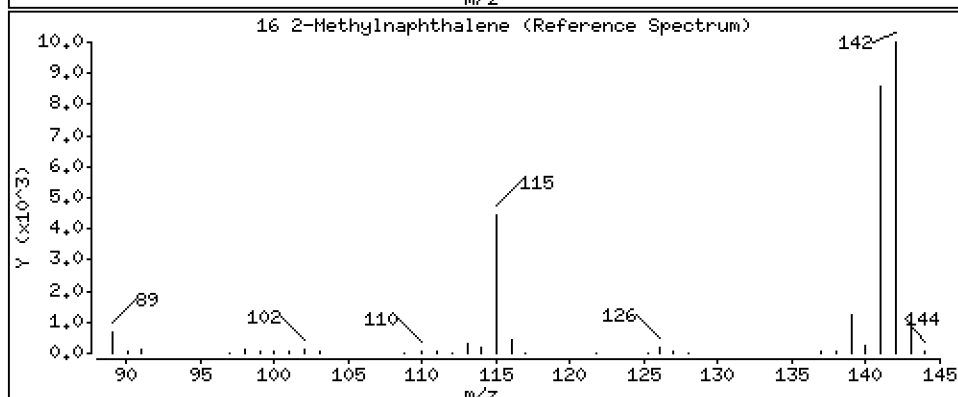
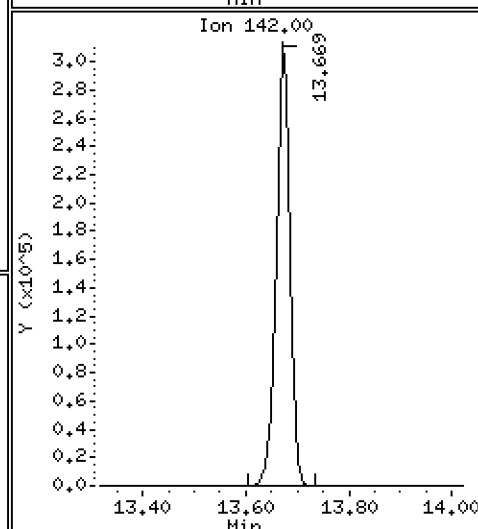
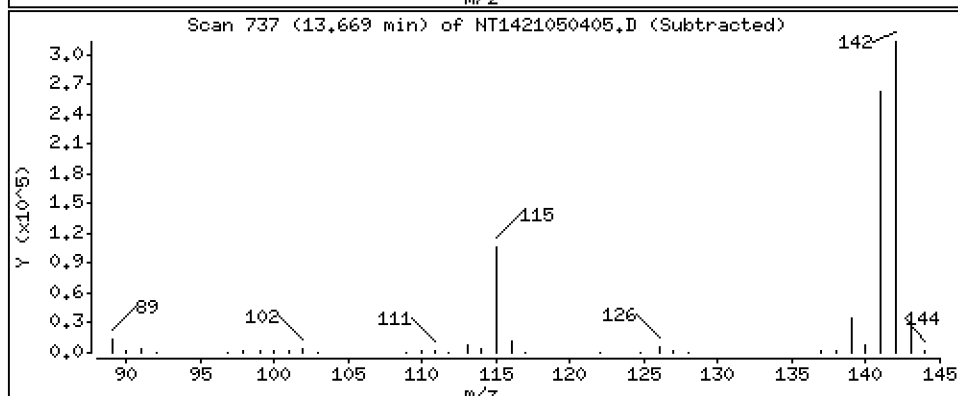
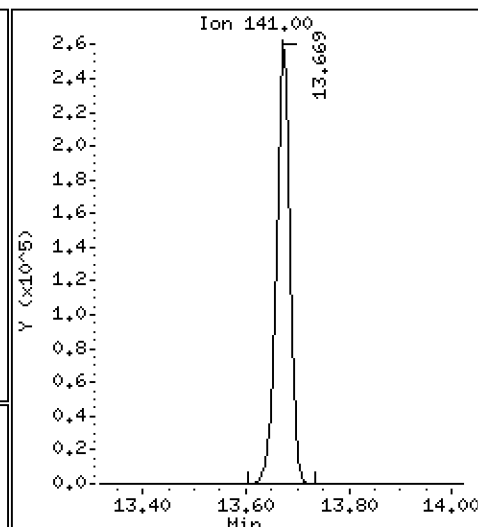
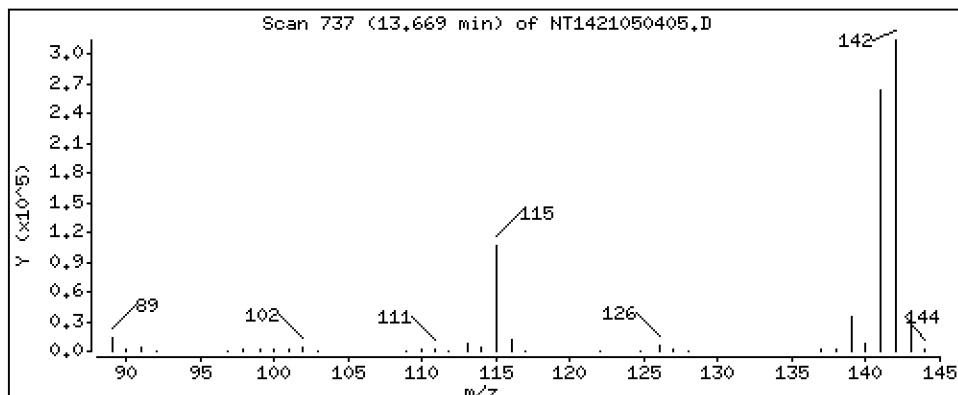
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 2-Methylnaphthalene

Concentration: 2,832 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

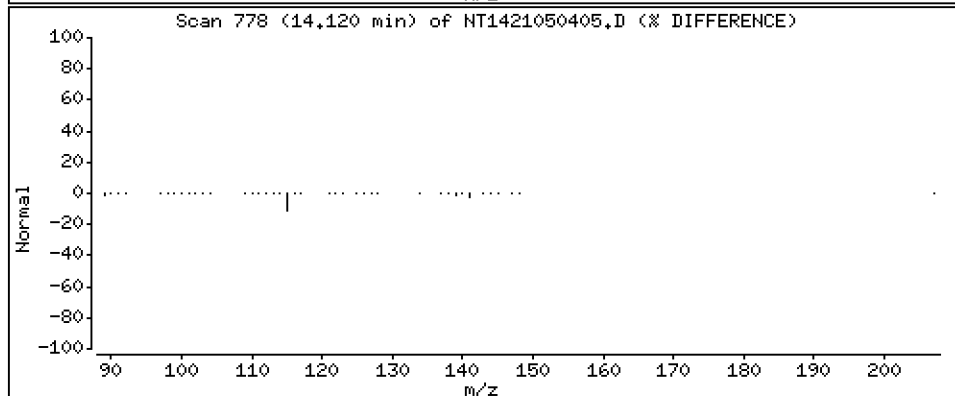
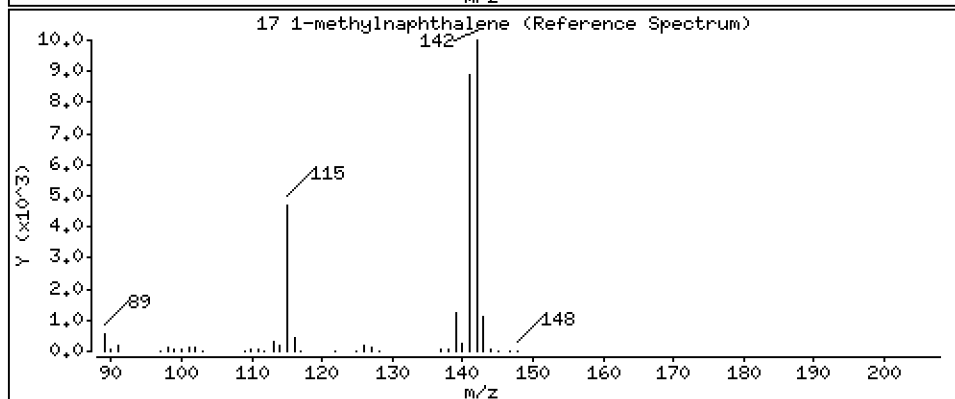
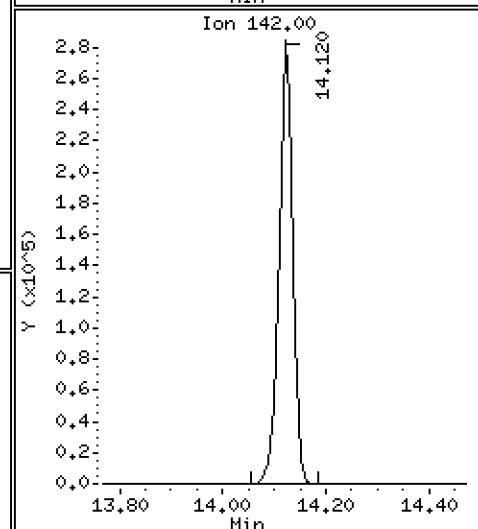
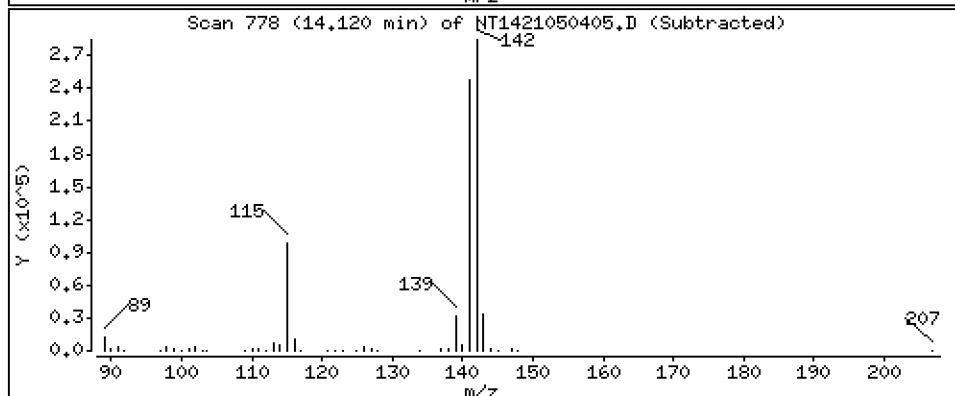
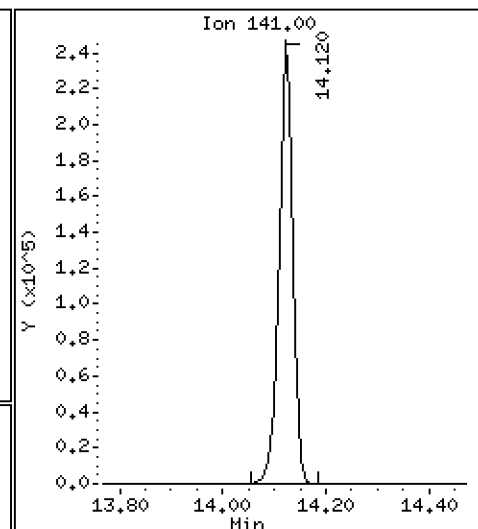
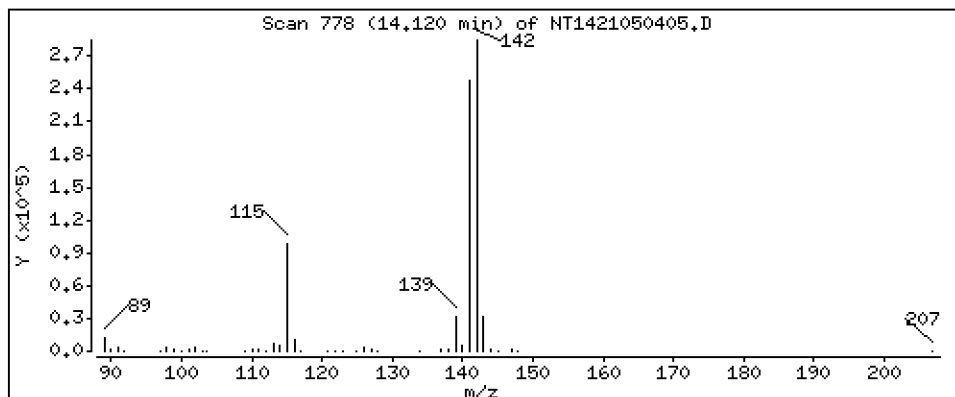
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 1-methylnaphthalene

Concentration: 2,822 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

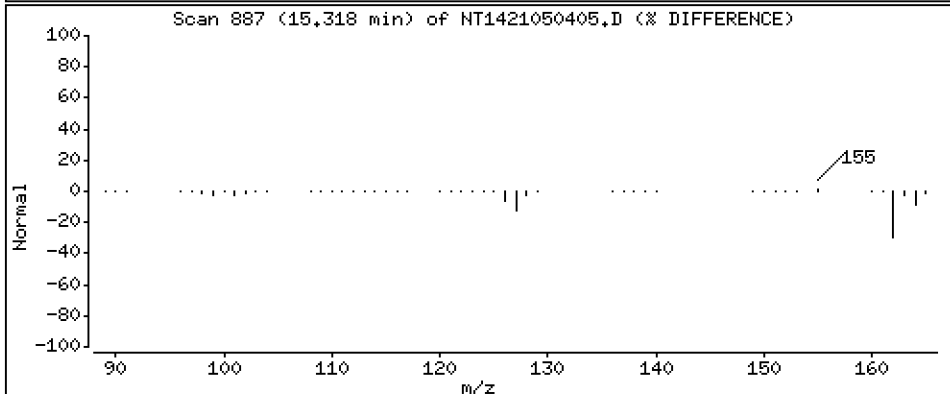
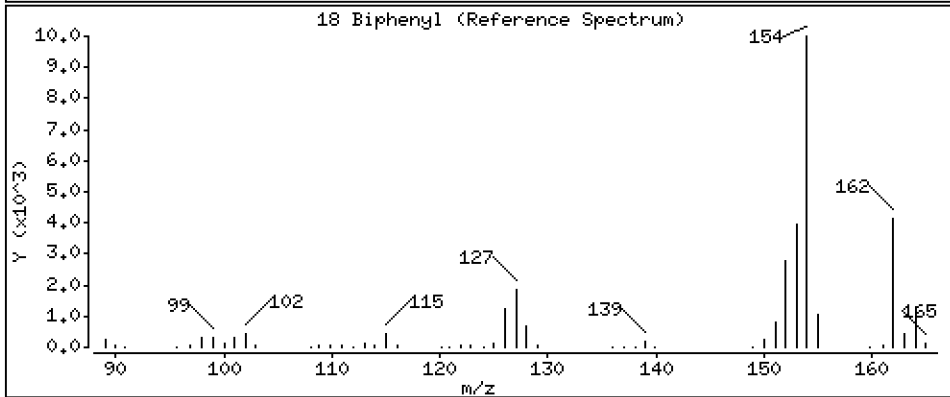
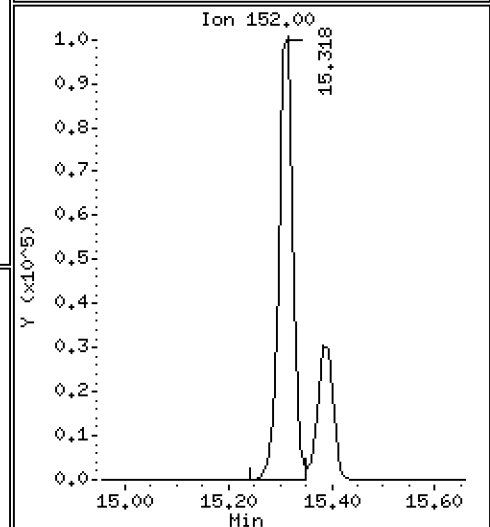
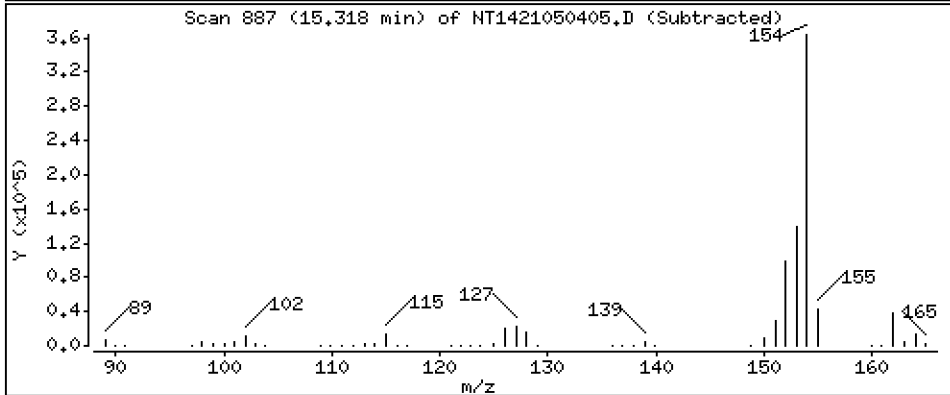
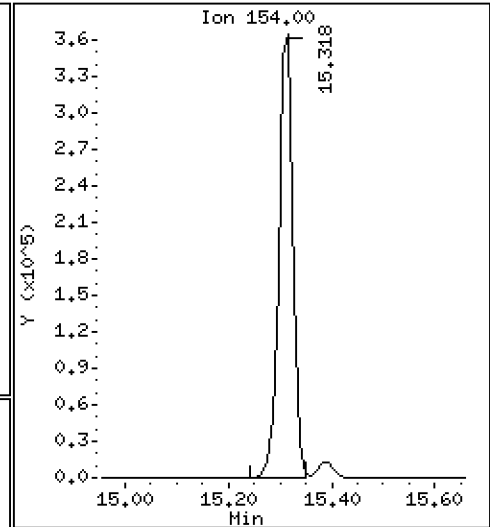
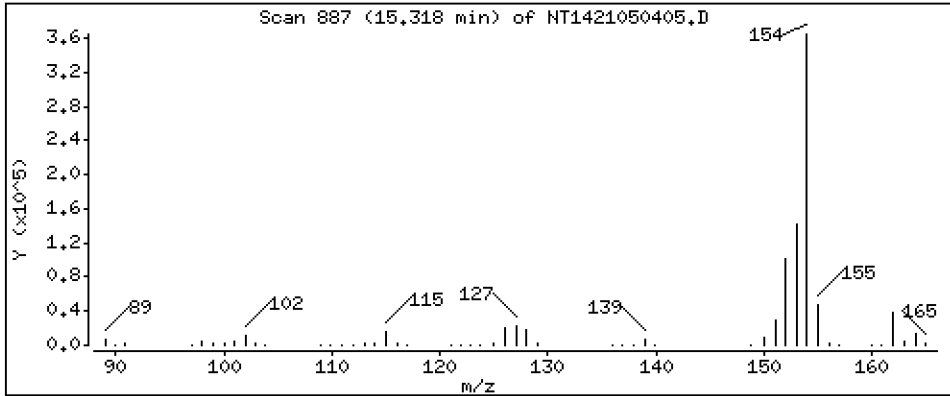
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

18 Biphenyl

Concentration: 2,786 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

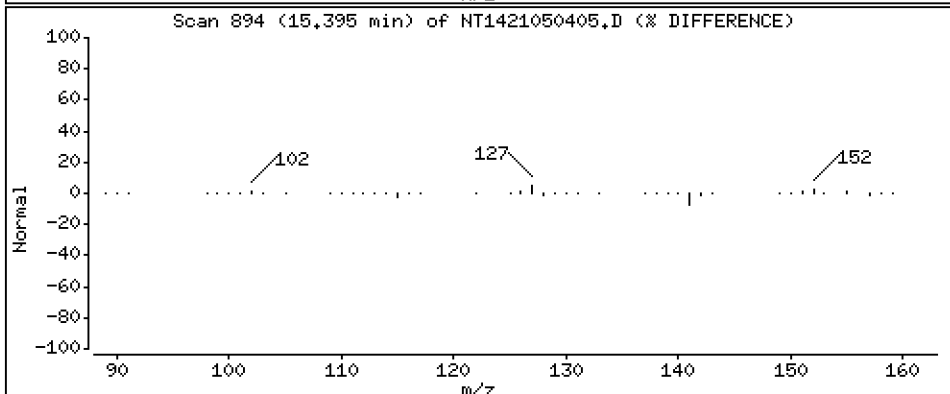
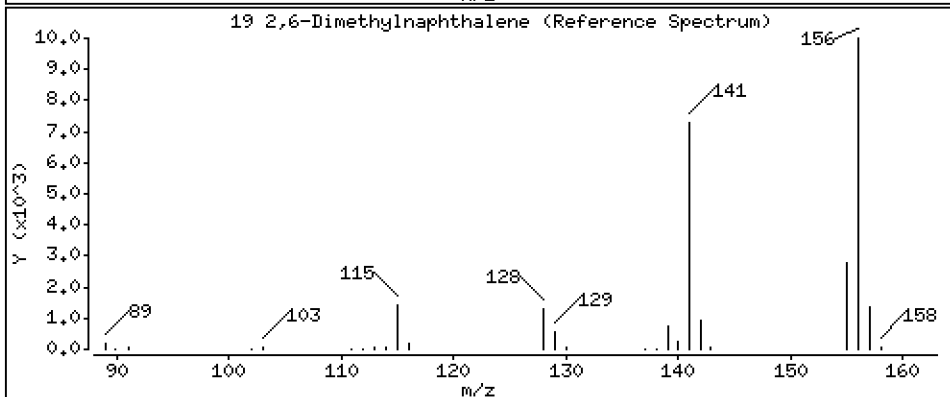
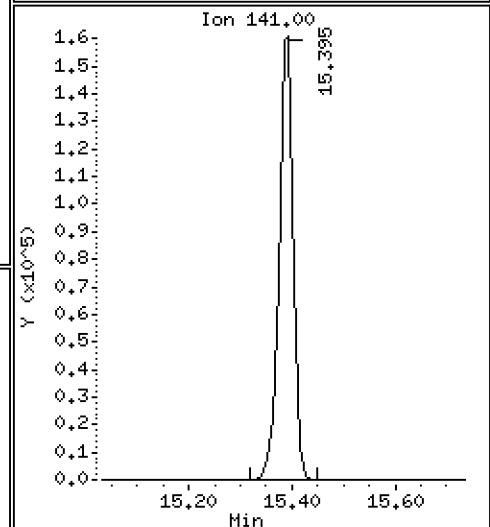
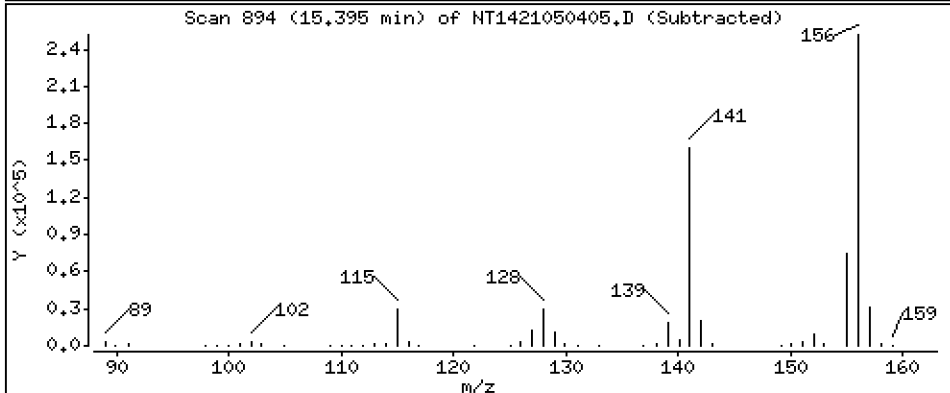
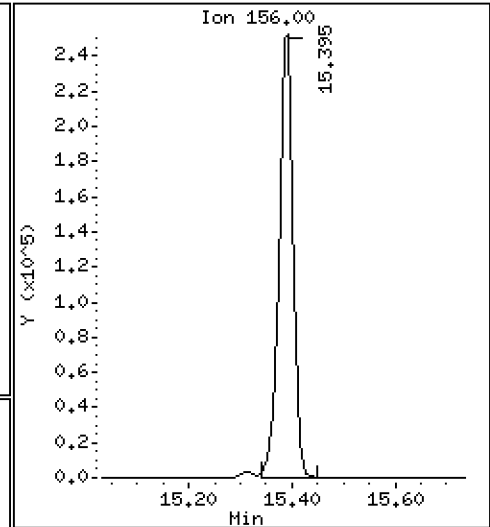
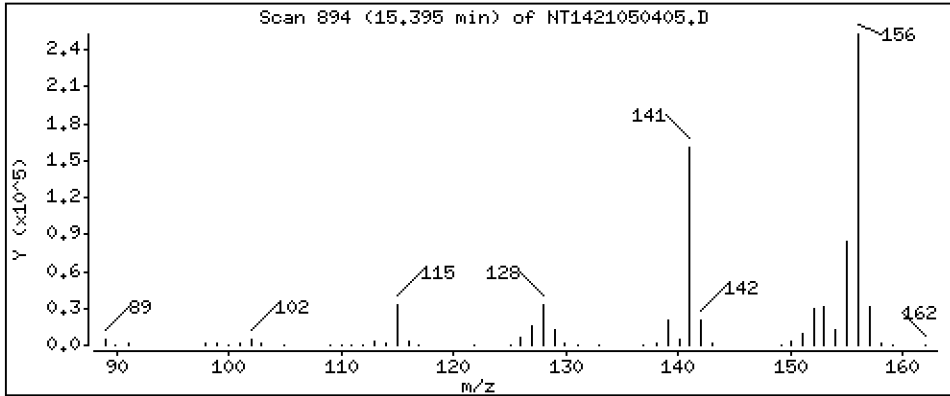
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 2,6-Dimethylnaphthalene

Concentration: 2,868 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

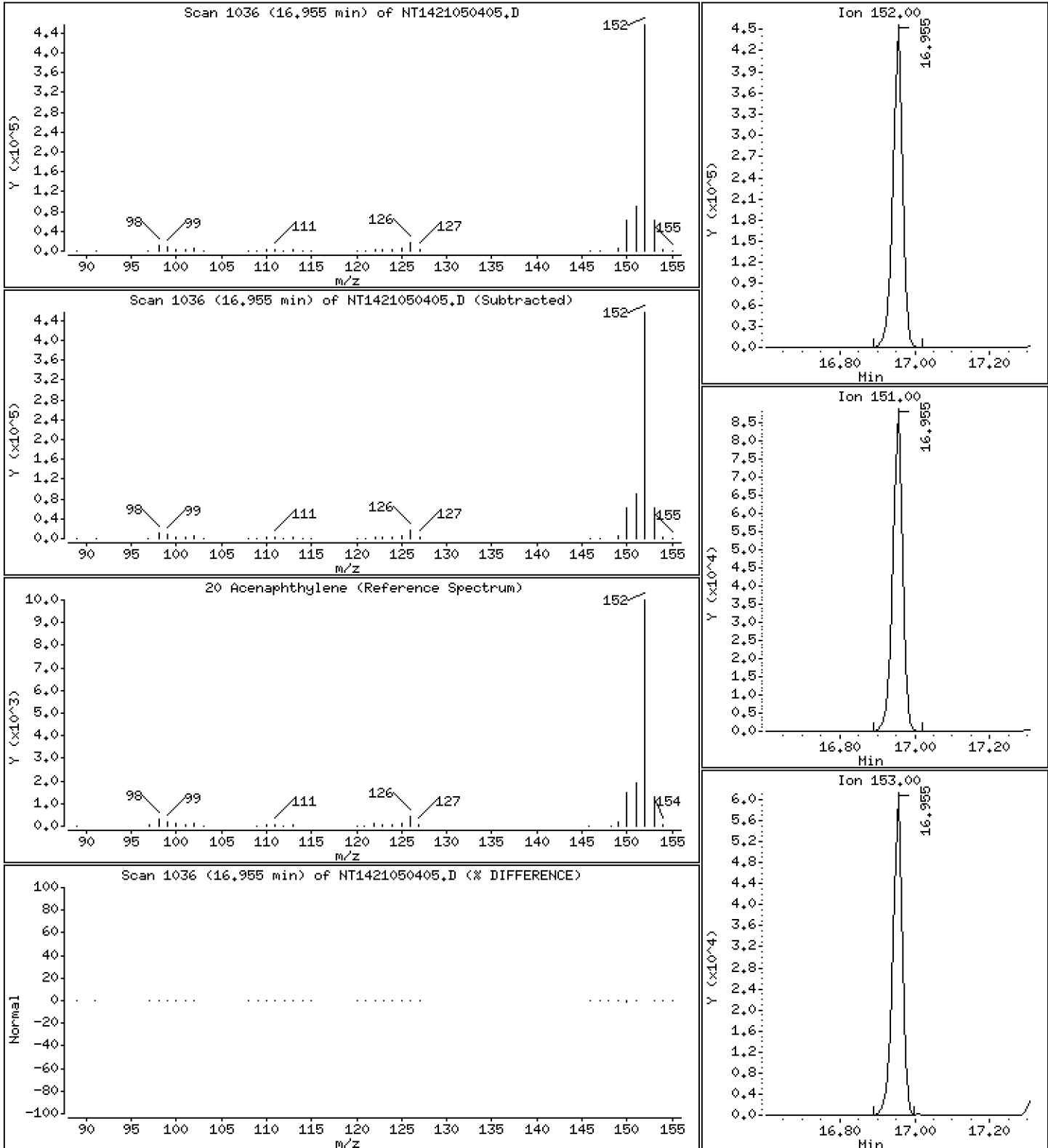
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

20 Acenaphthylene

Concentration: 3,066 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

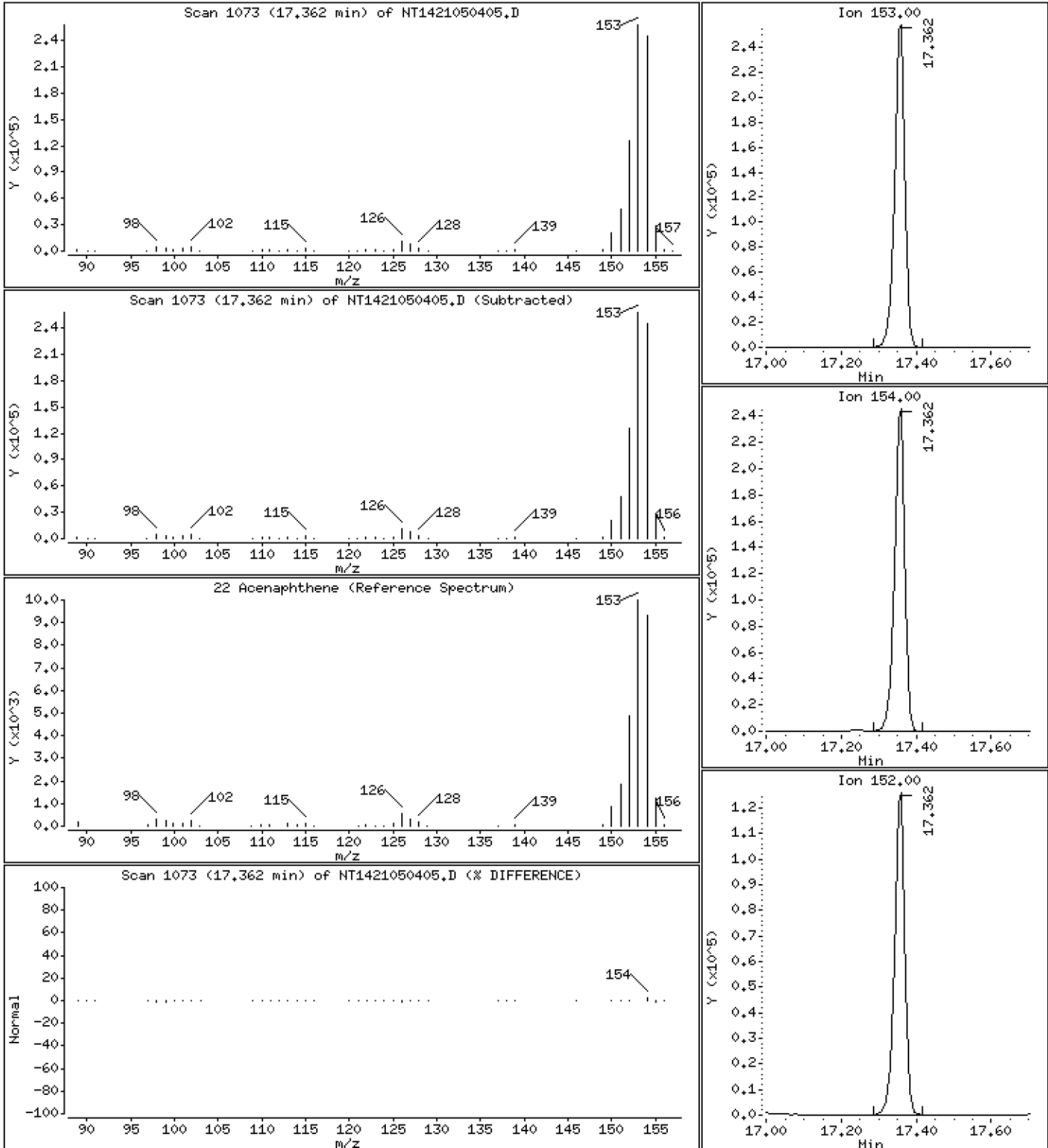
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

22 Acenaphthene

Concentration: 2,899 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

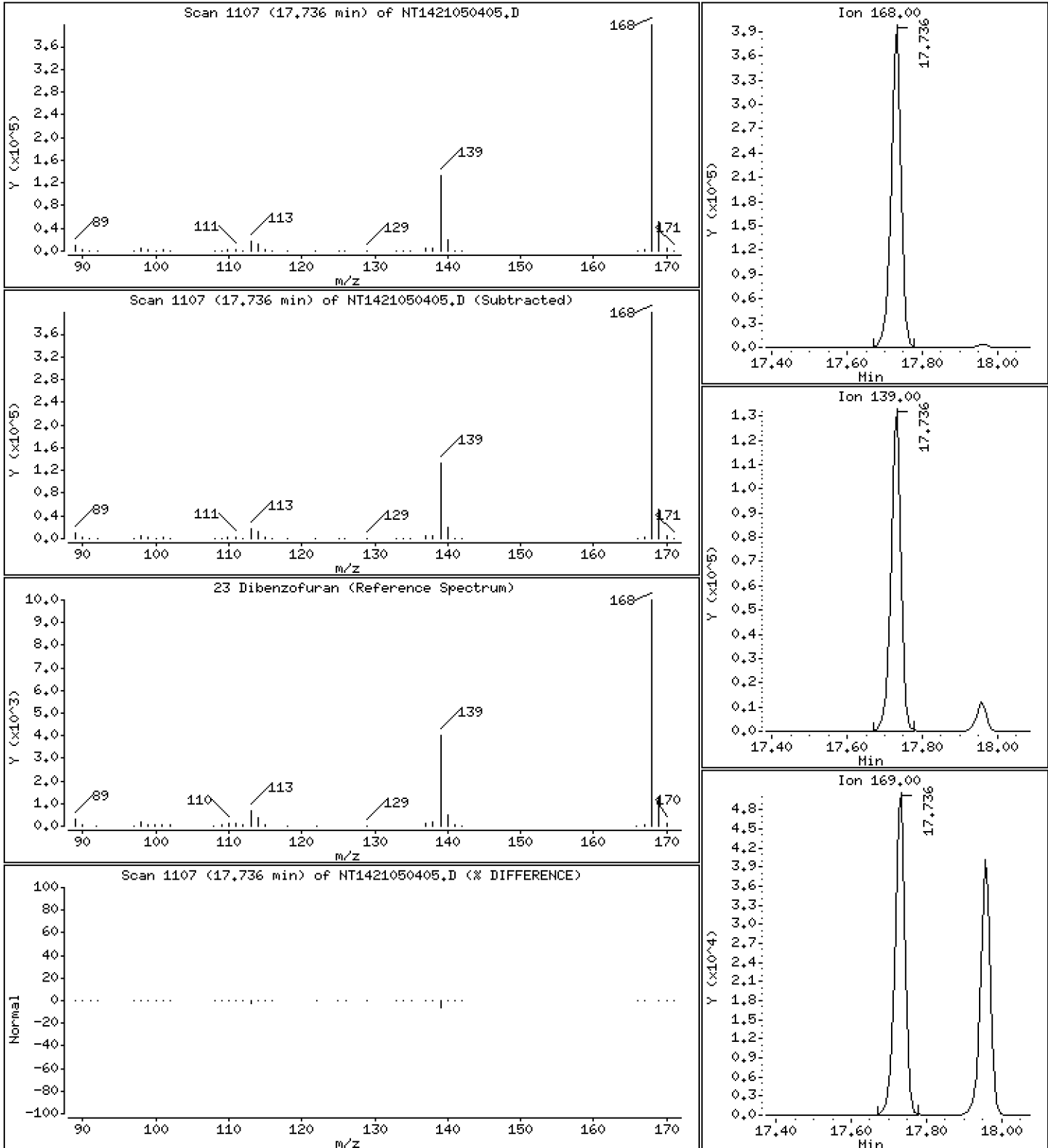
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 Dibenzofuran

Concentration: 2,816 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

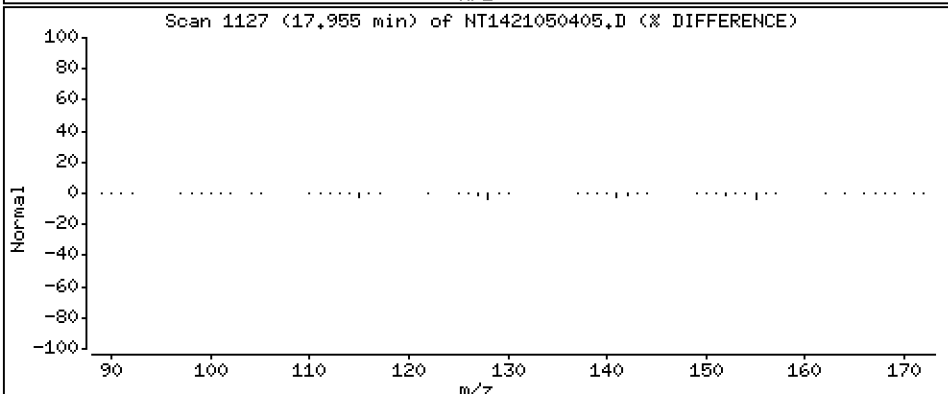
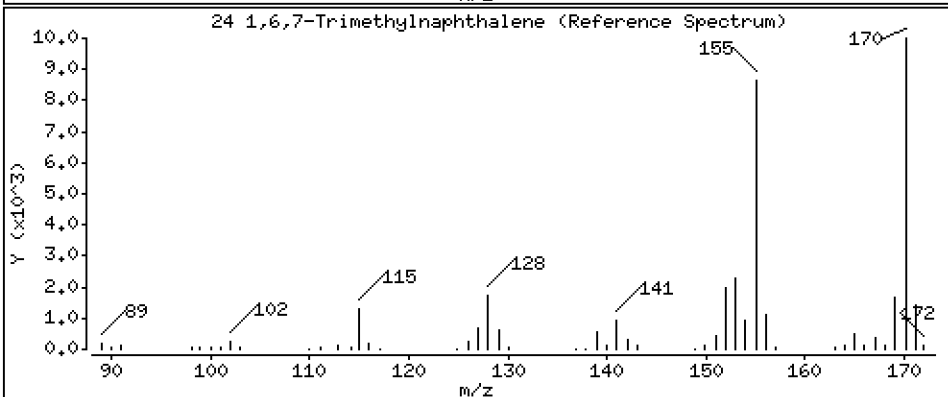
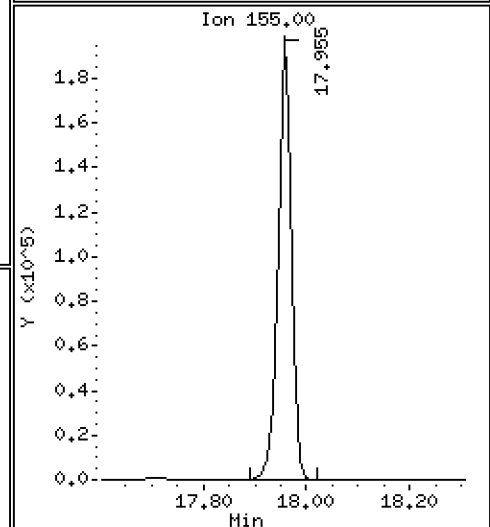
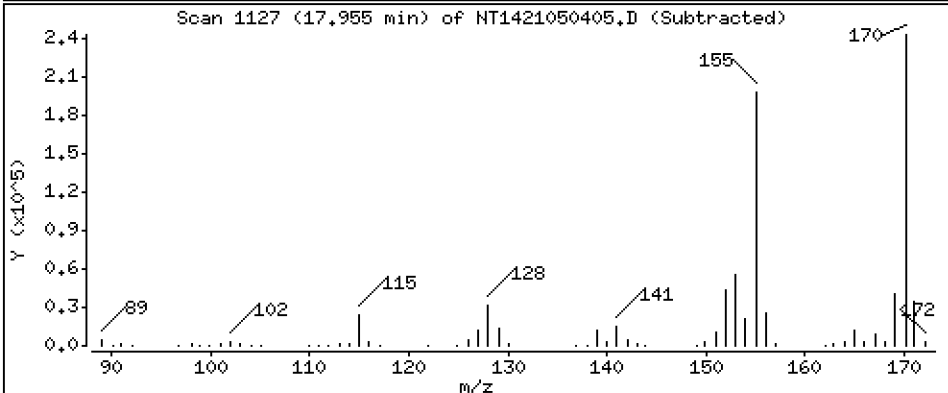
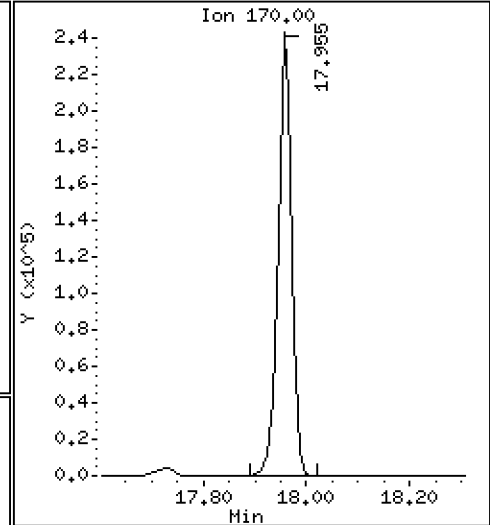
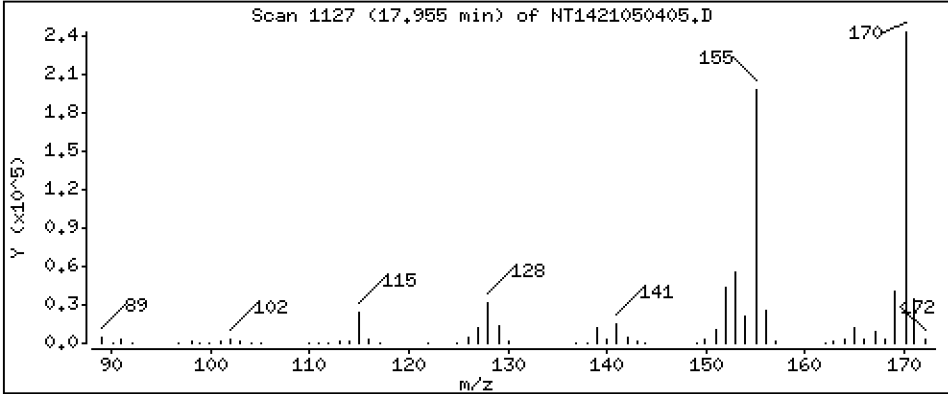
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

24 1,6,7-Trimethylnaphthalene

Concentration: 3,017 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

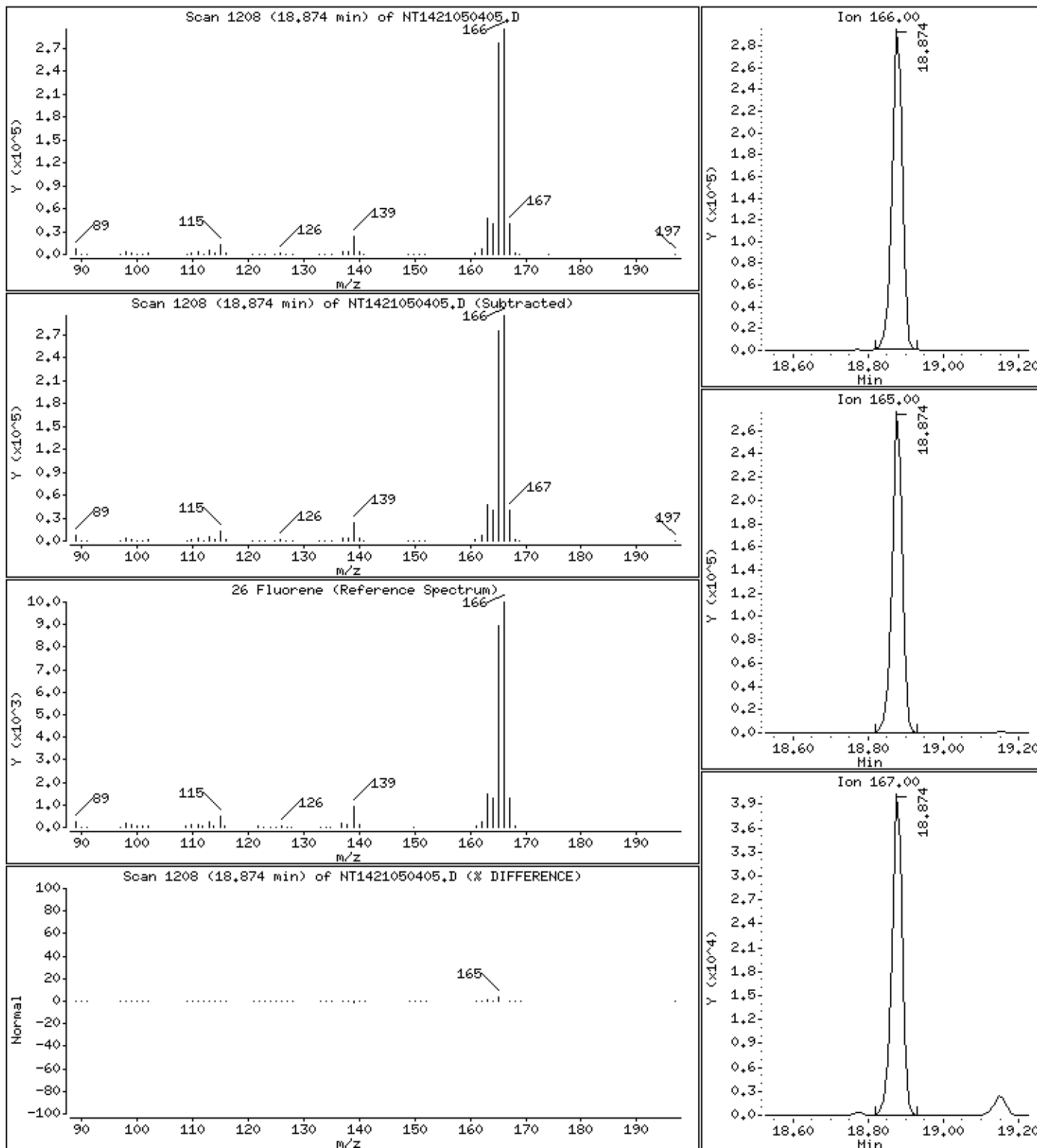
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Fluorene

Concentration: 2,848 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

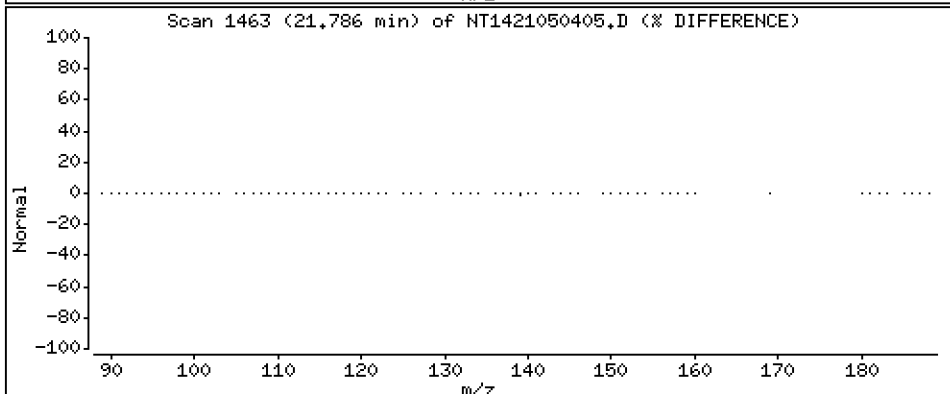
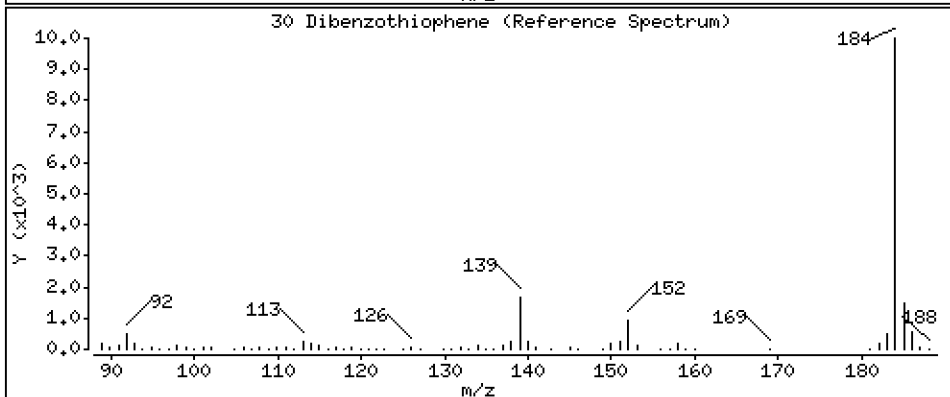
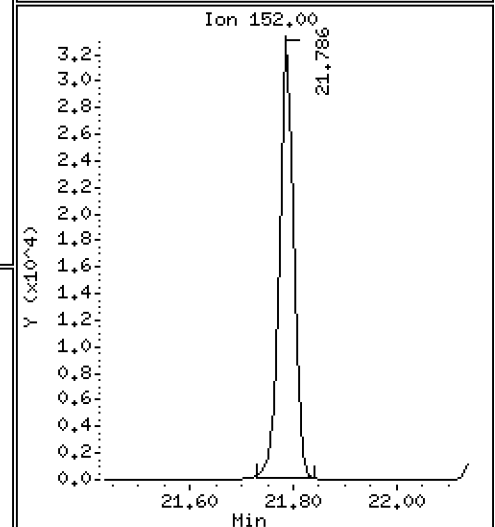
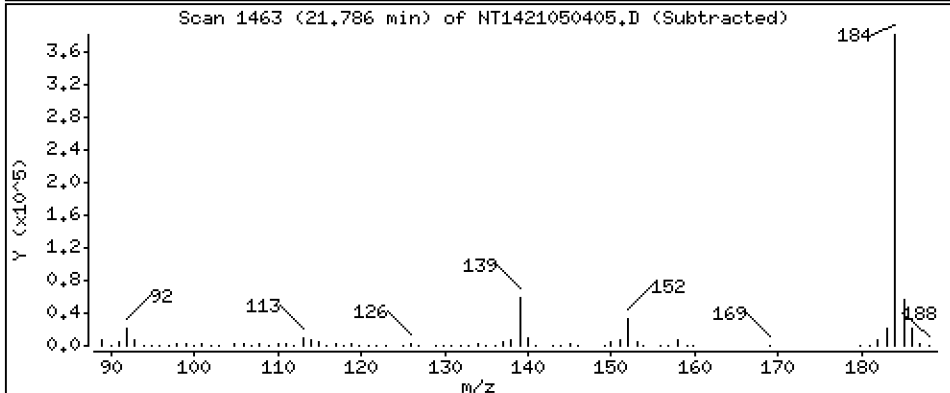
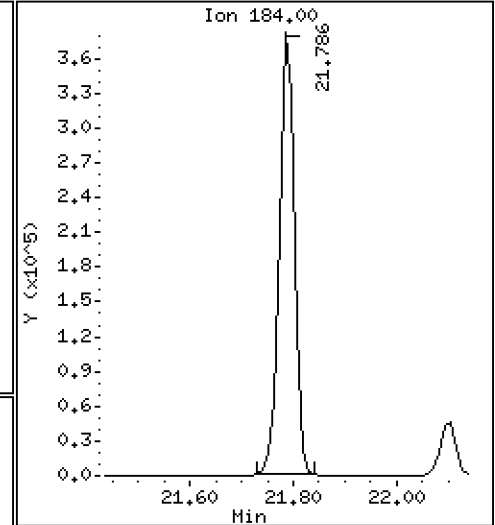
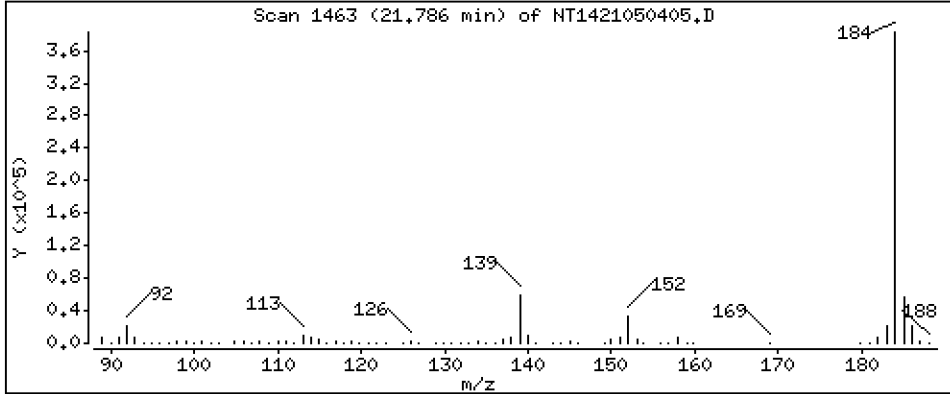
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Dibenzothiophene

Concentration: 2,969 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

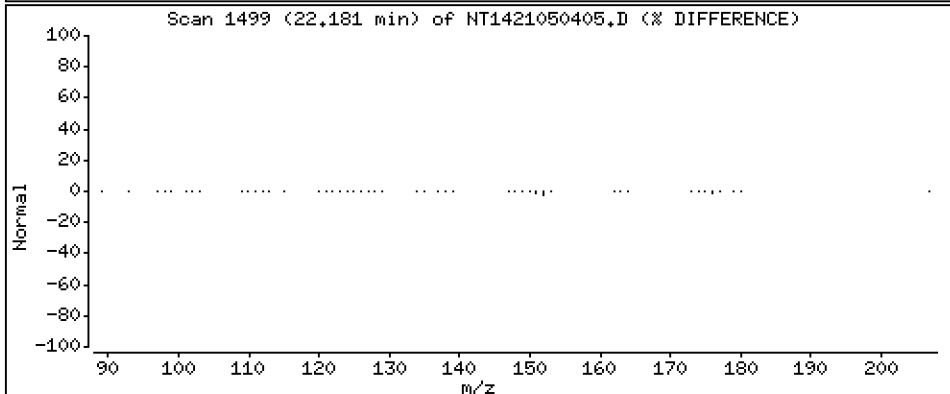
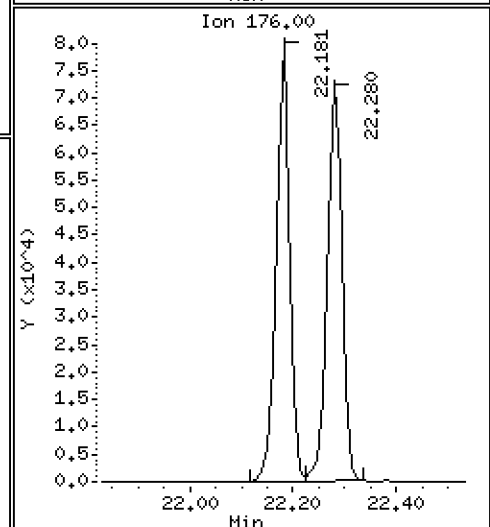
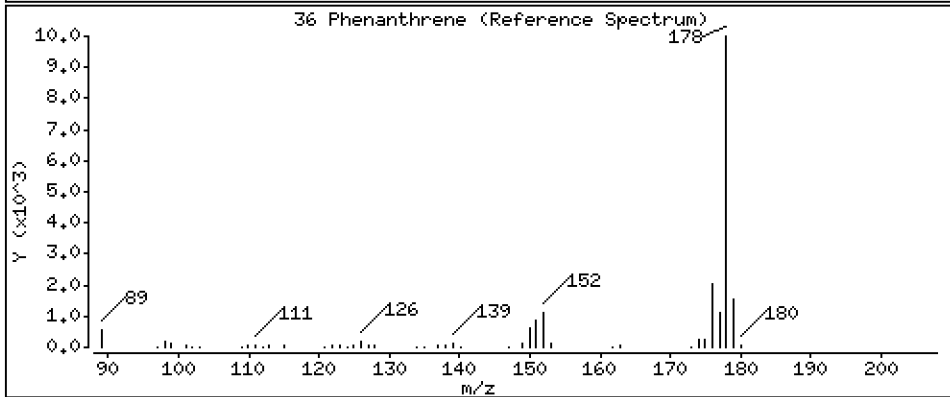
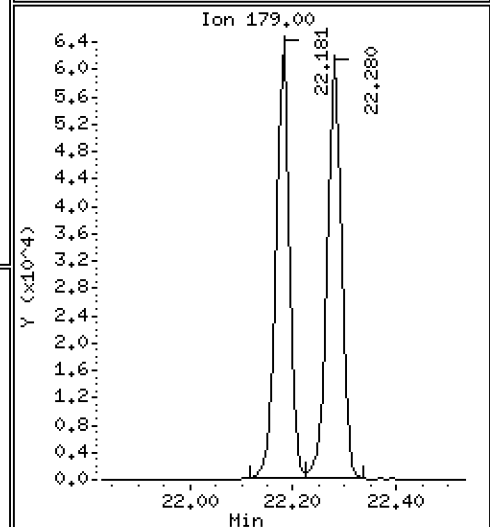
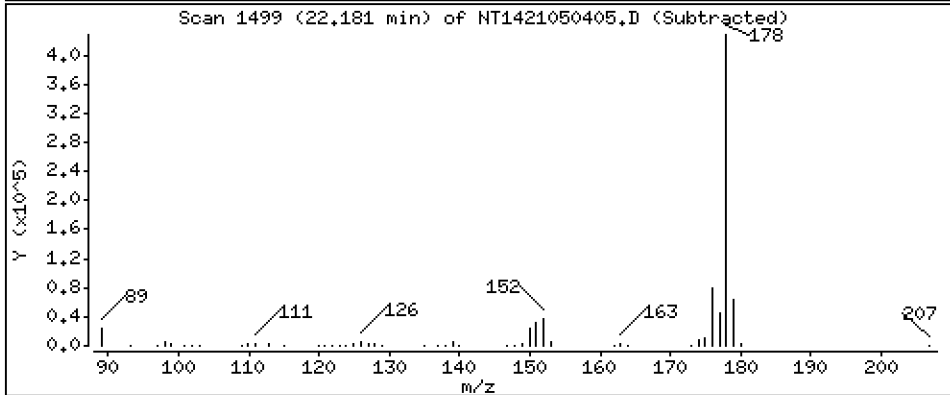
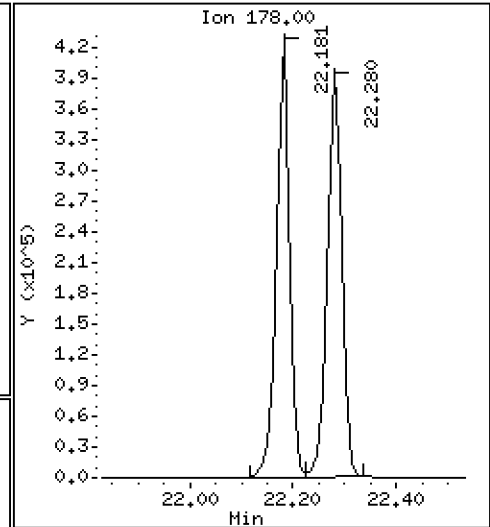
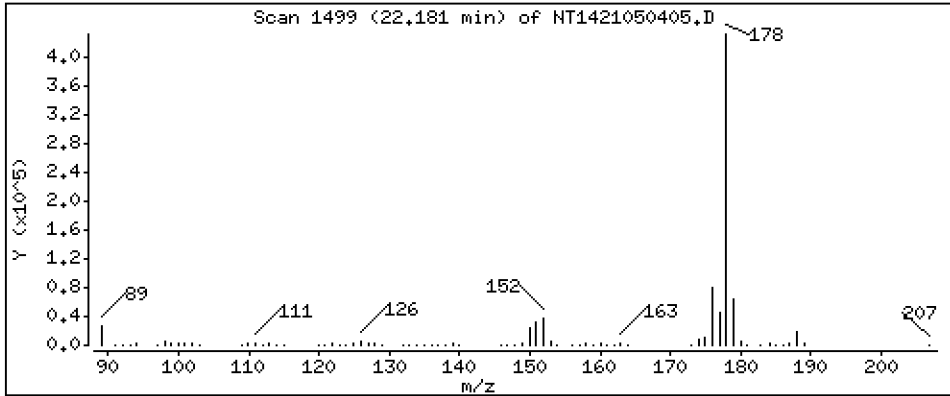
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

36 Phenanthrene

Concentration: 2,528 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

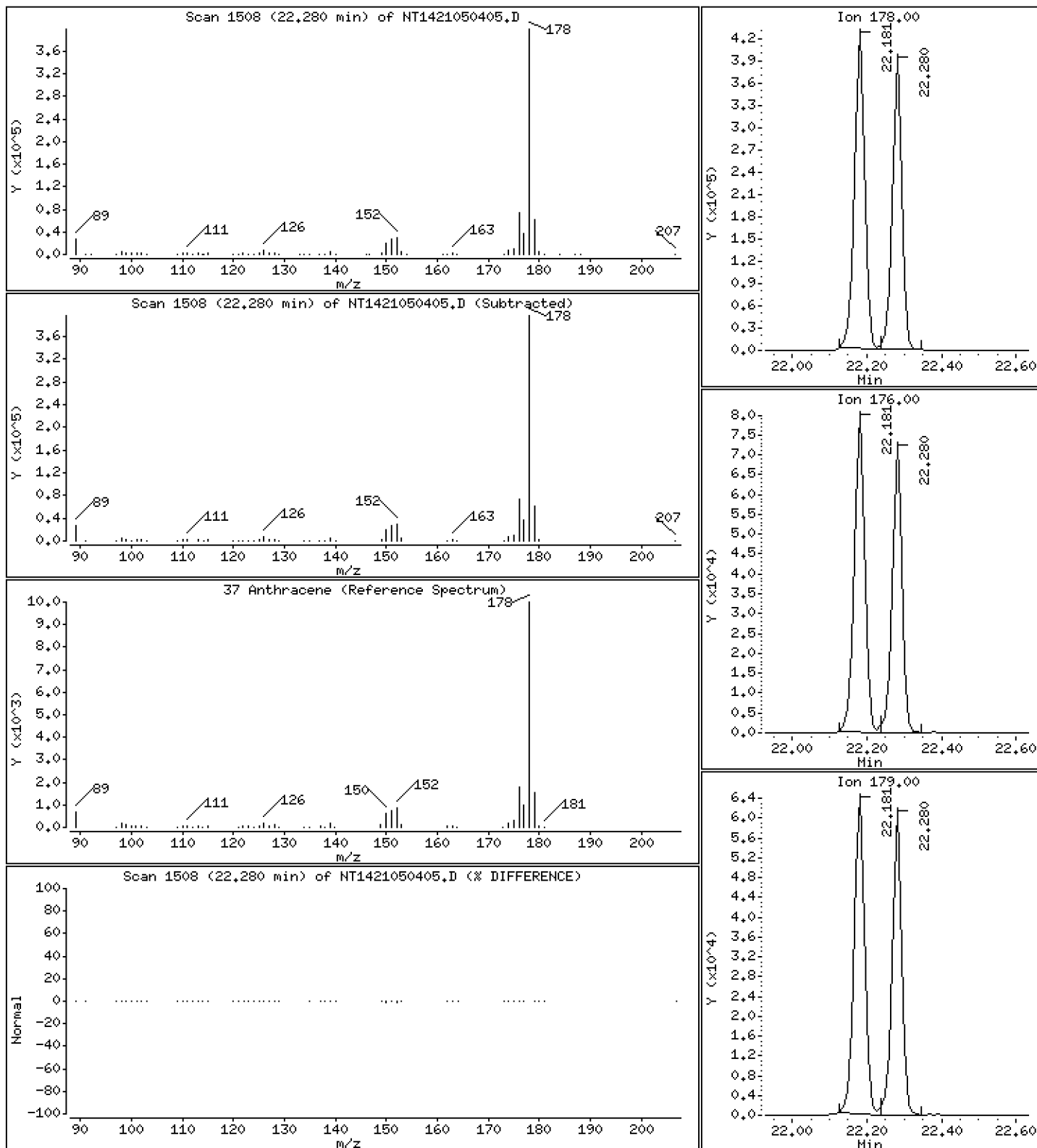
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

37 Anthracene

Concentration: 2,564 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

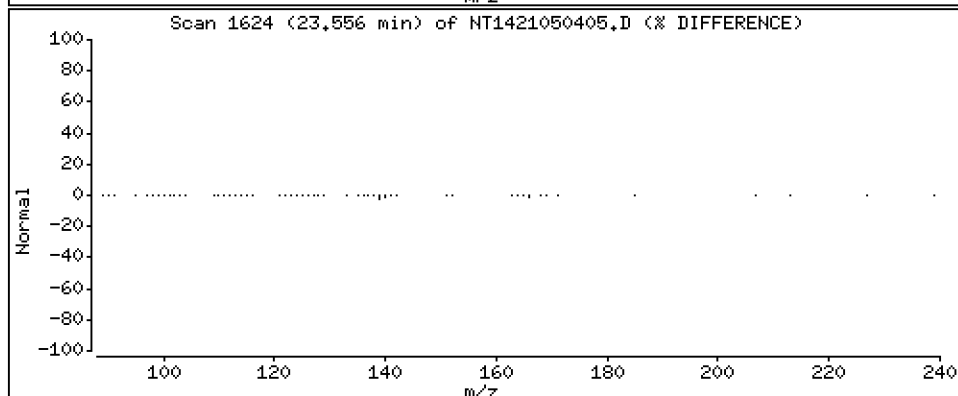
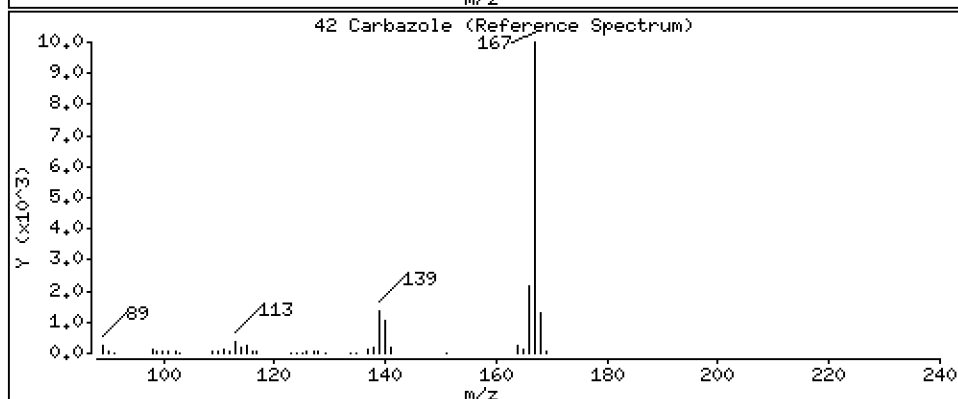
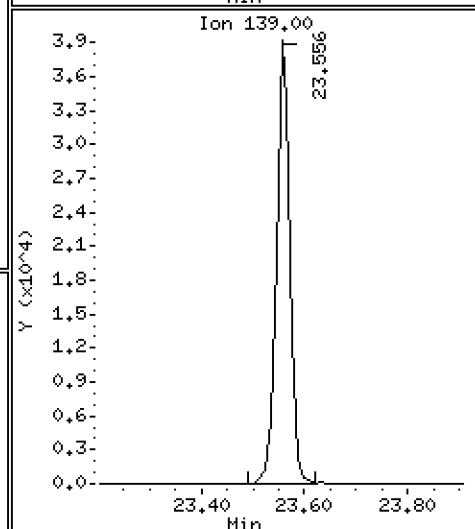
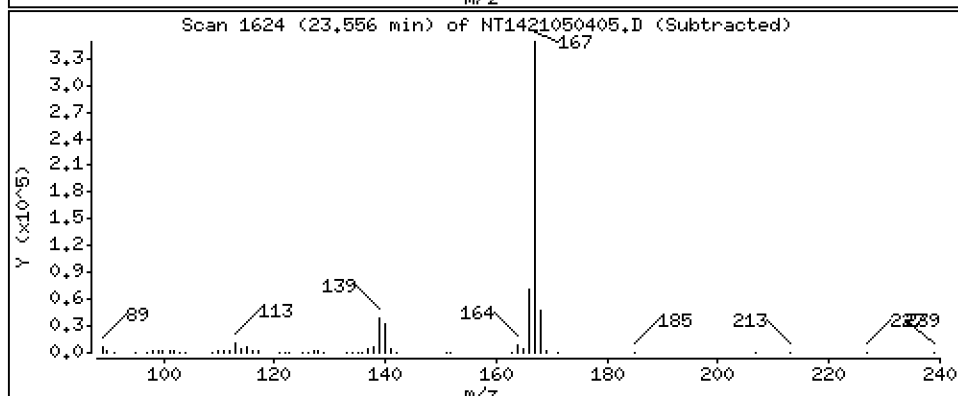
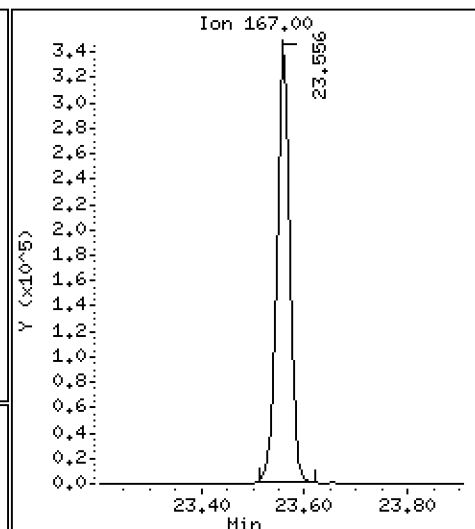
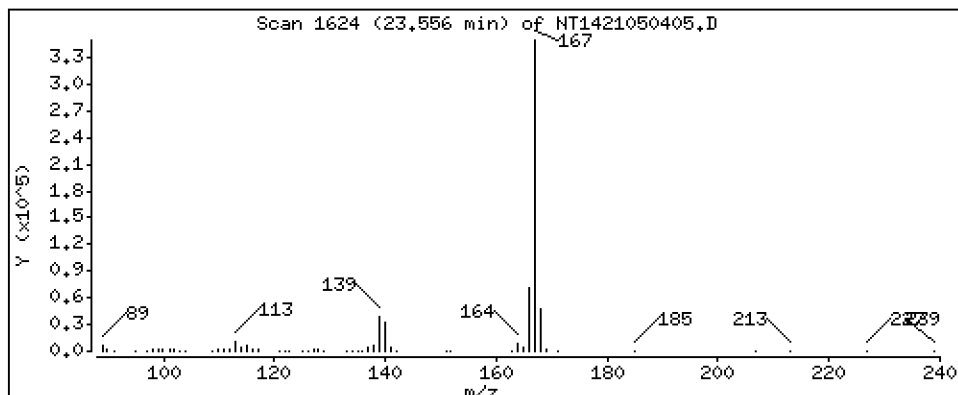
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

42 Carbazole

Concentration: 2,631 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

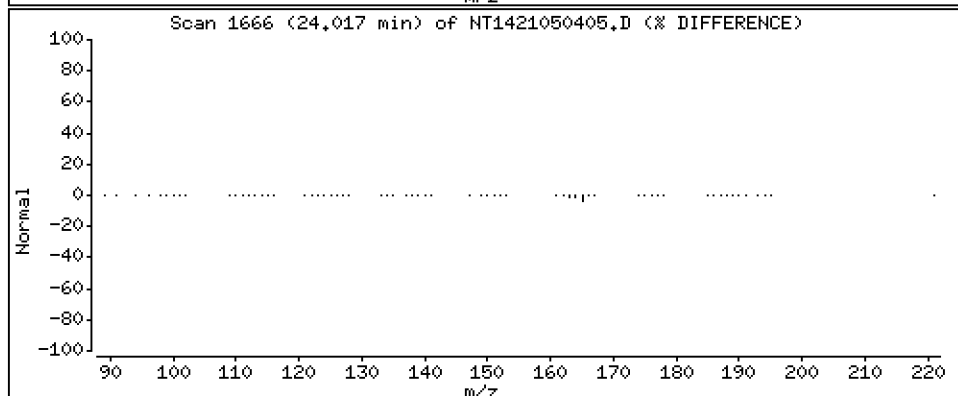
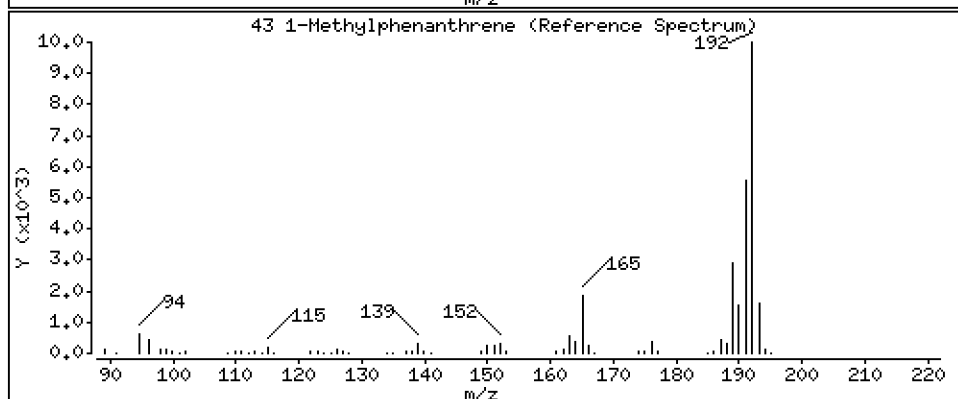
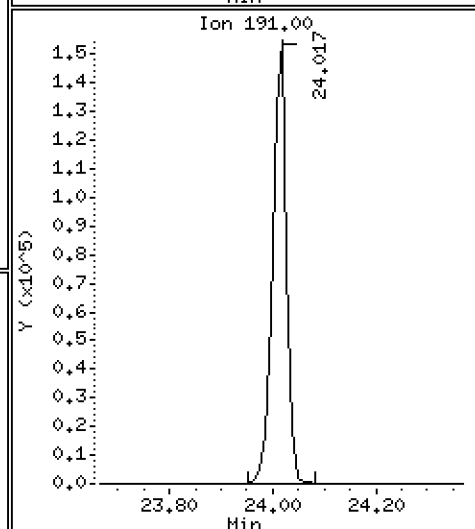
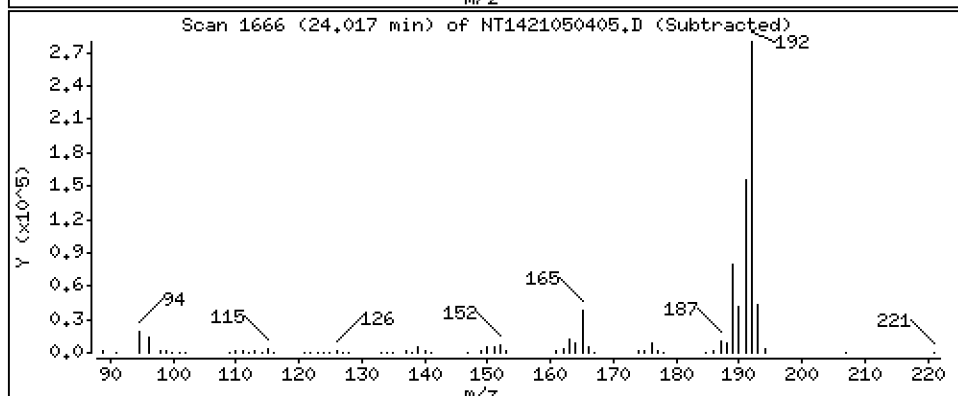
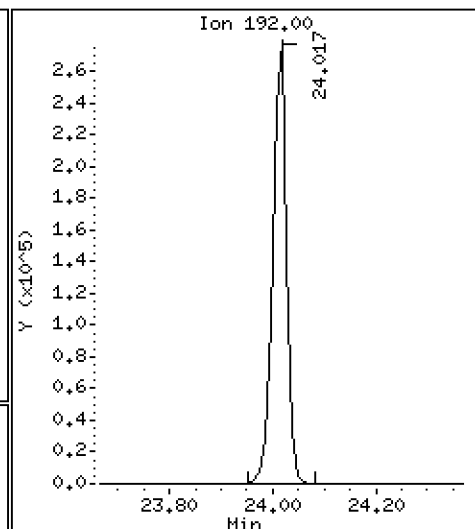
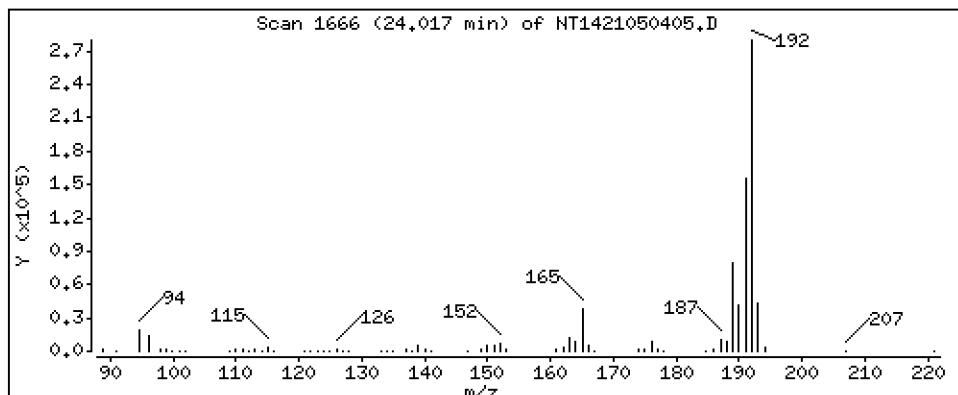
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

43 1-Methylphenanthrene

Concentration: 2,821 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

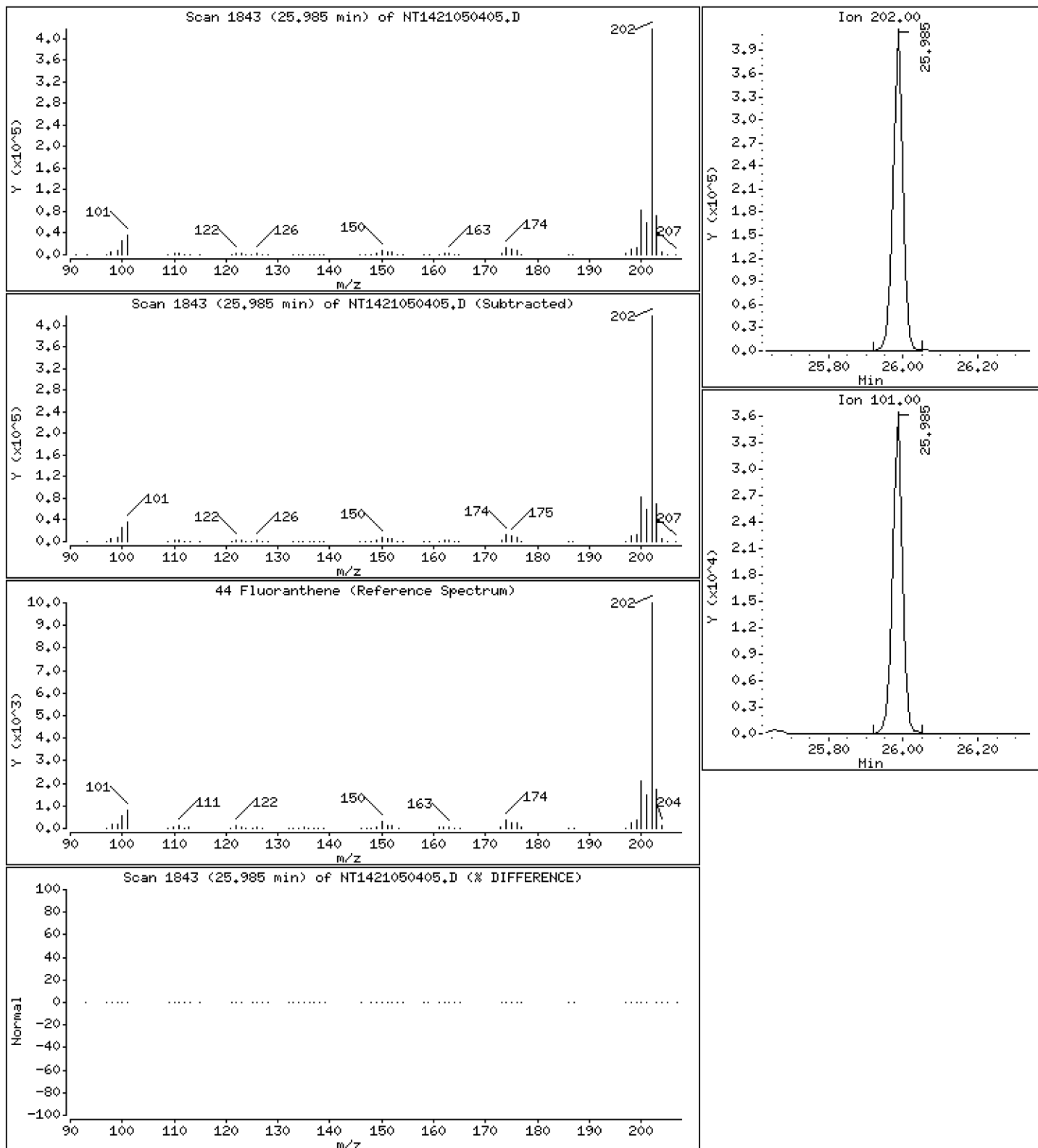
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

44 Fluoranthene

Concentration: 2,881 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

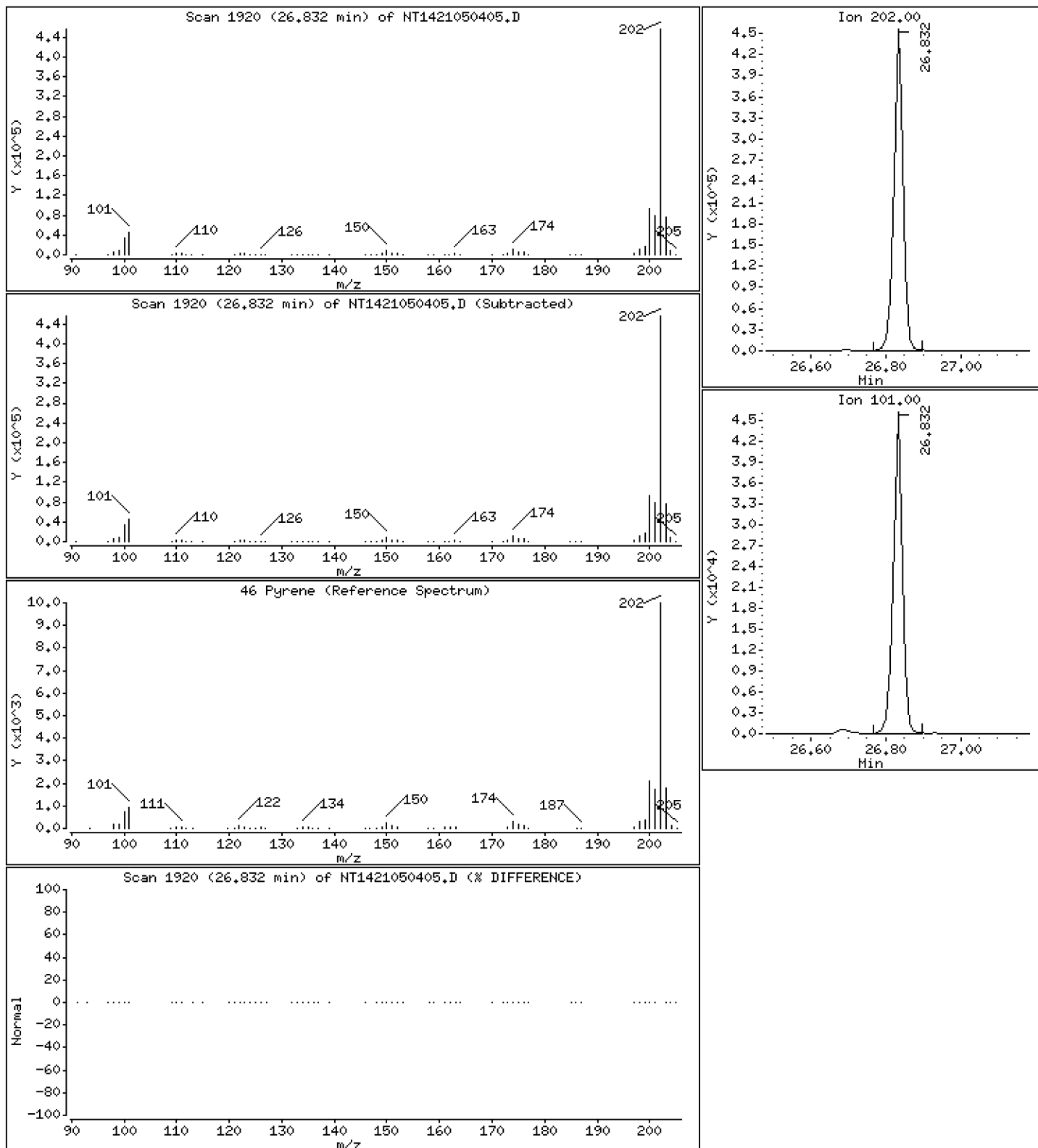
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

46 Pyrene

Concentration: 2,867 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

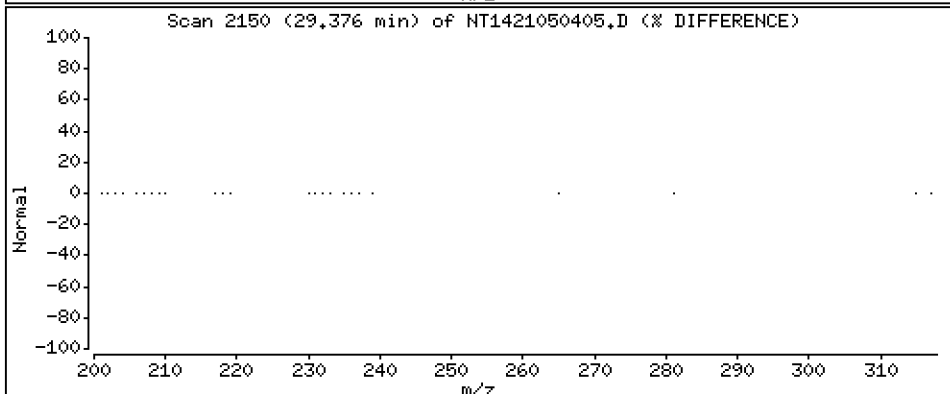
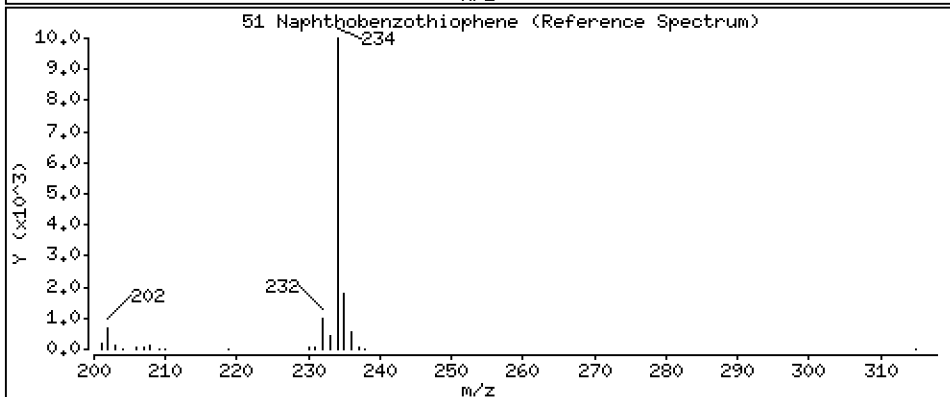
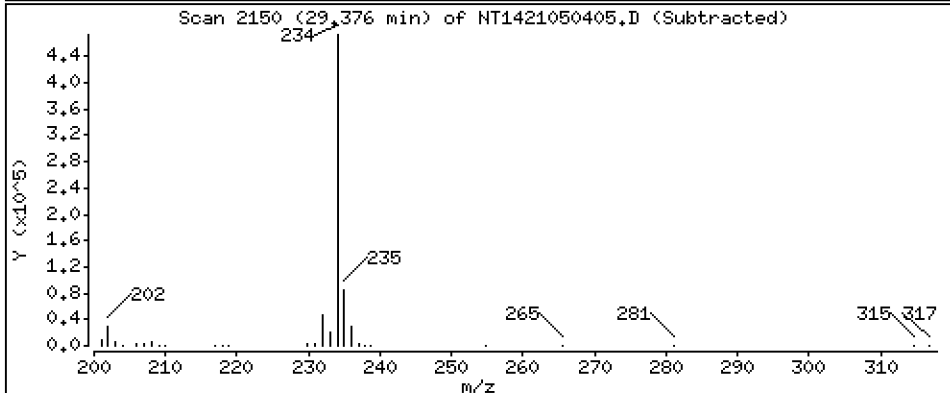
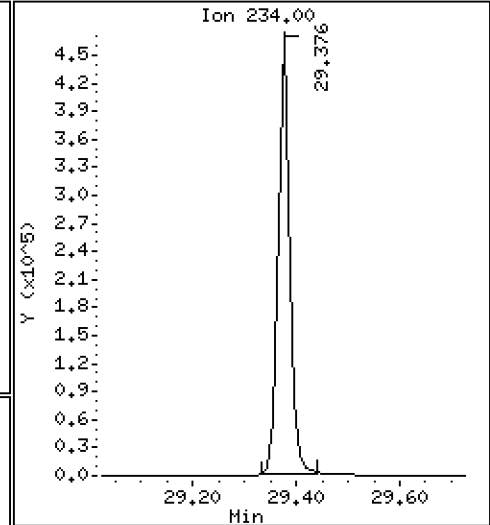
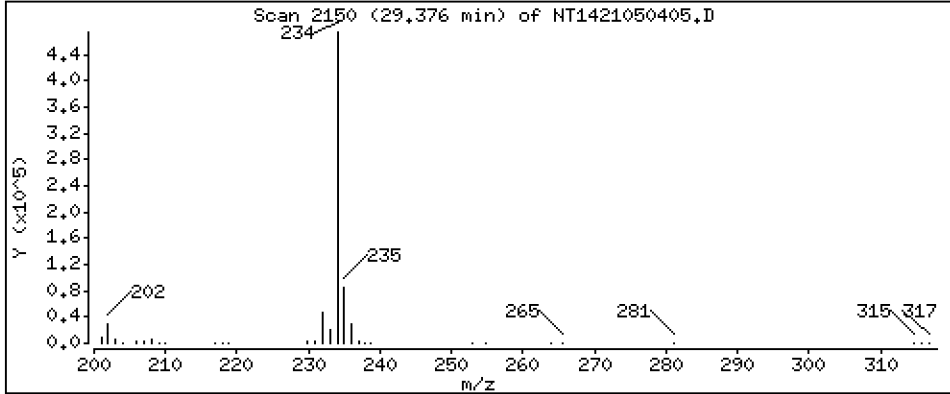
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

51 Naphthobenzothiophene

Concentration: 2,751 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

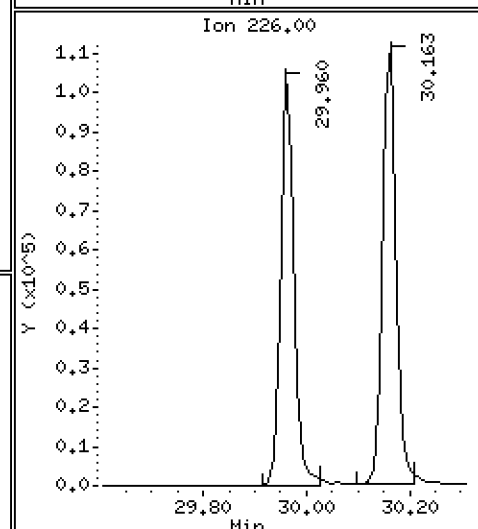
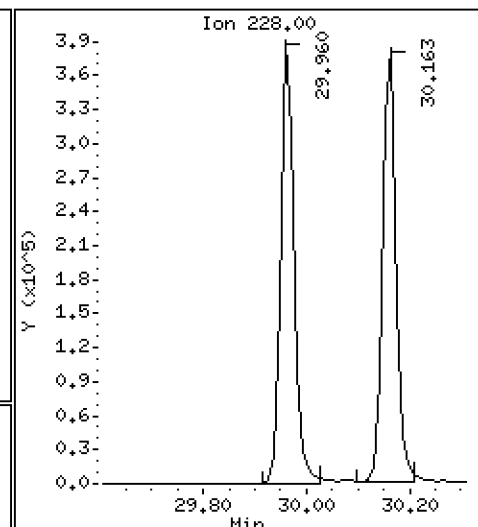
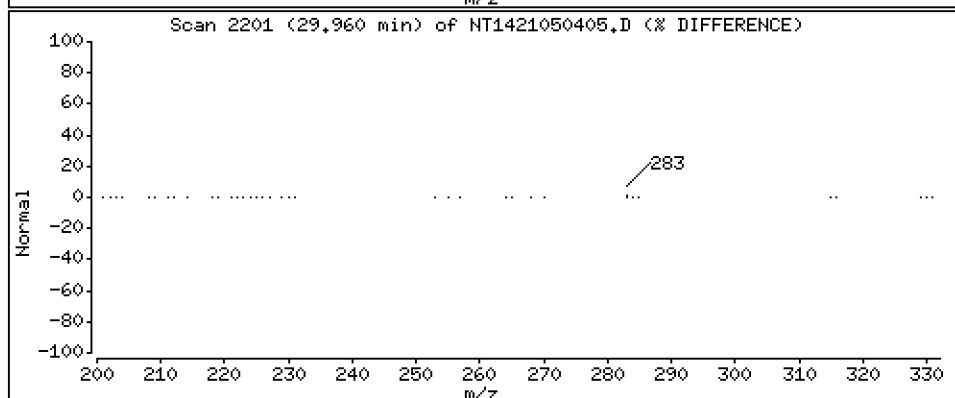
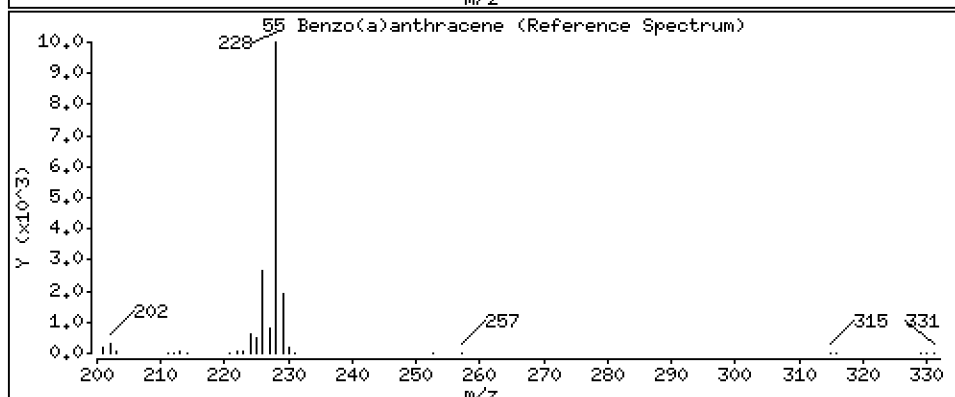
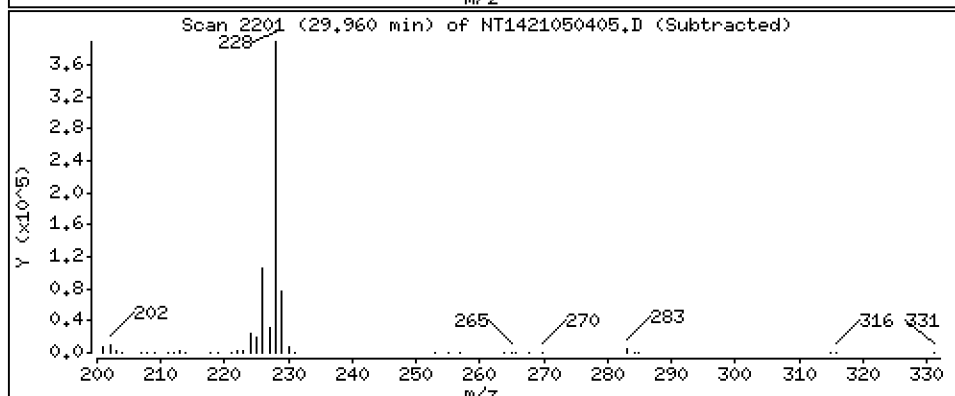
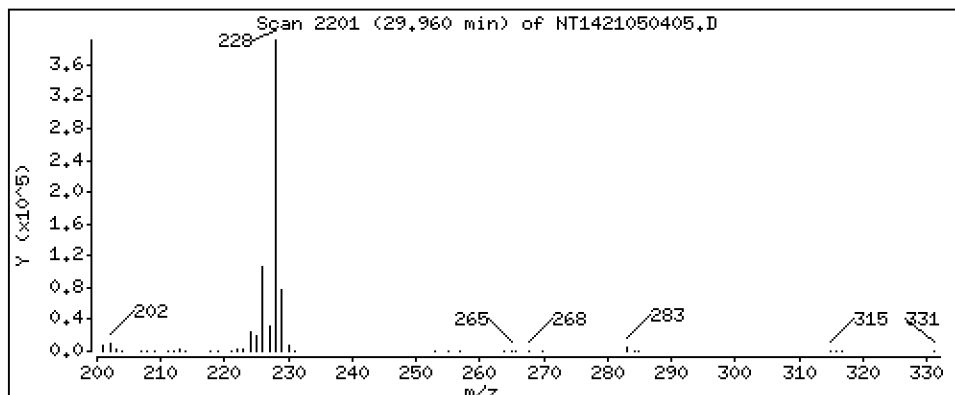
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

55 Benzo(a)anthracene

Concentration: 2,615 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

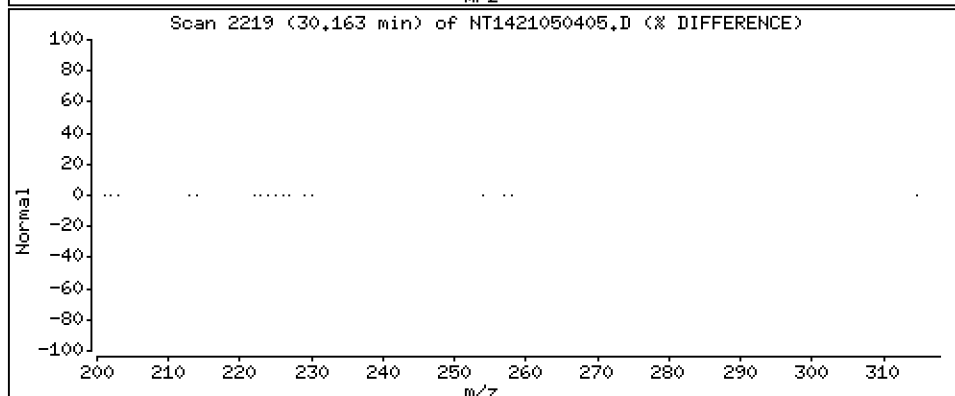
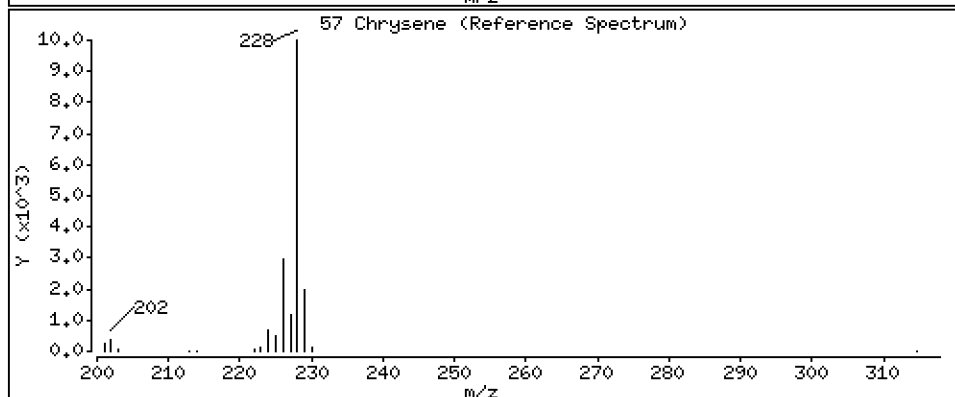
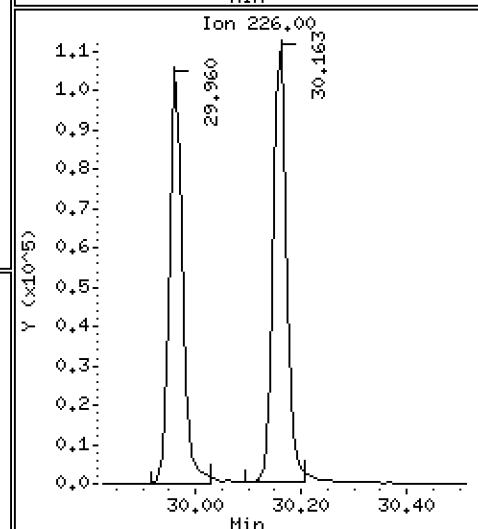
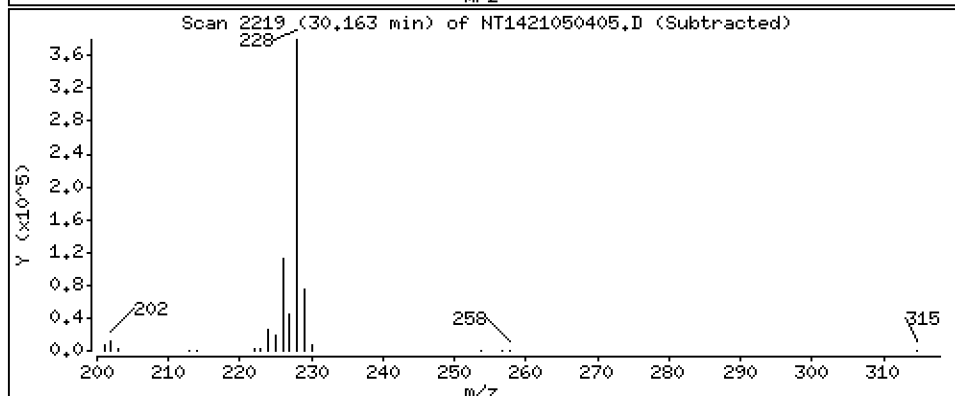
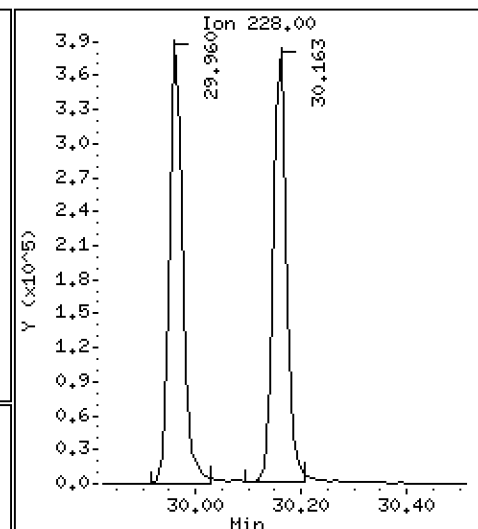
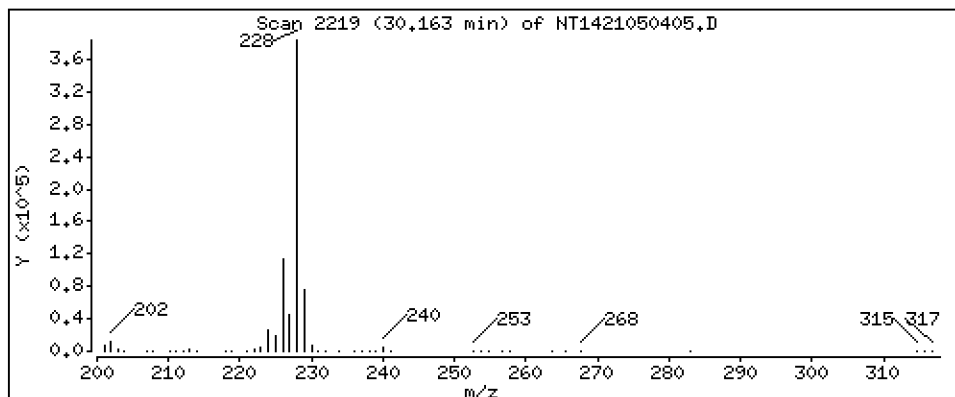
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

57 Chrysene

Concentration: 2,530 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

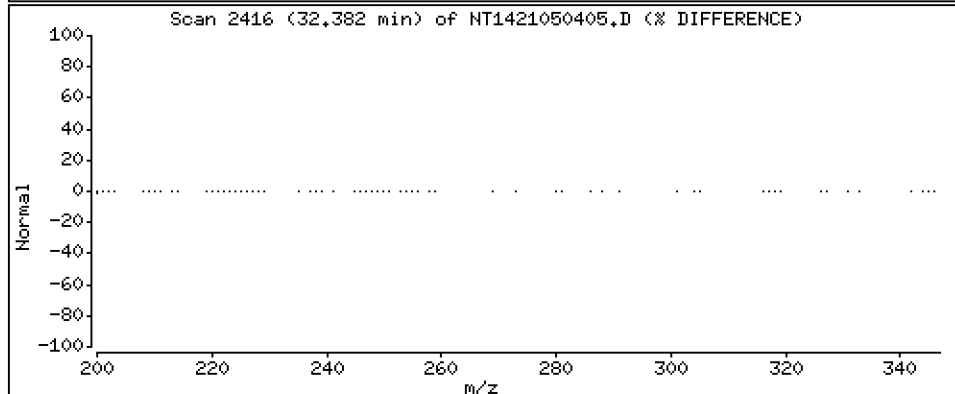
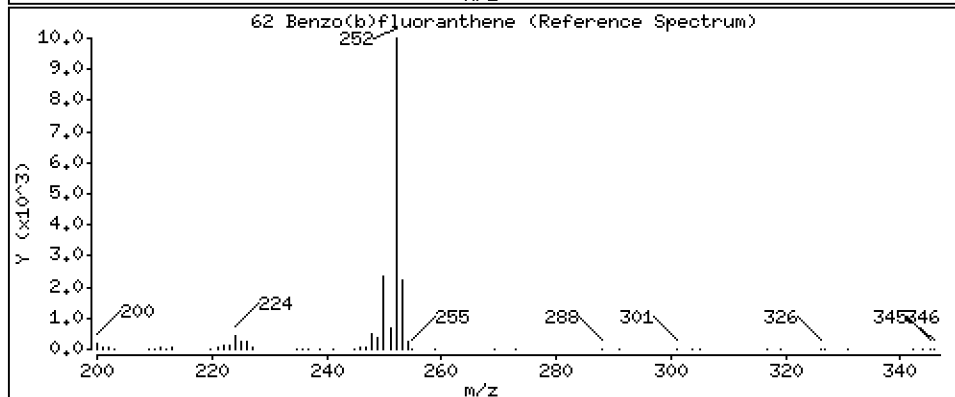
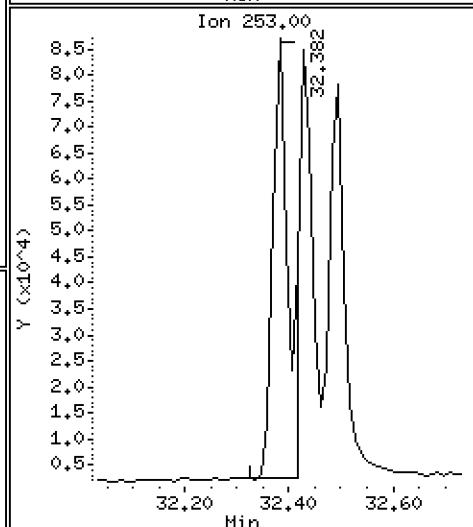
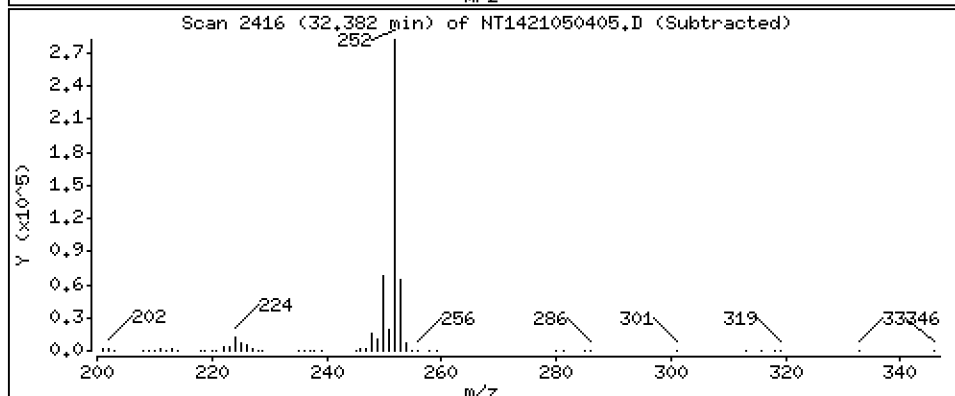
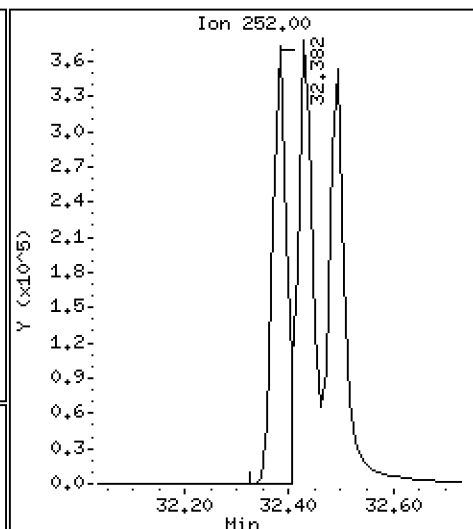
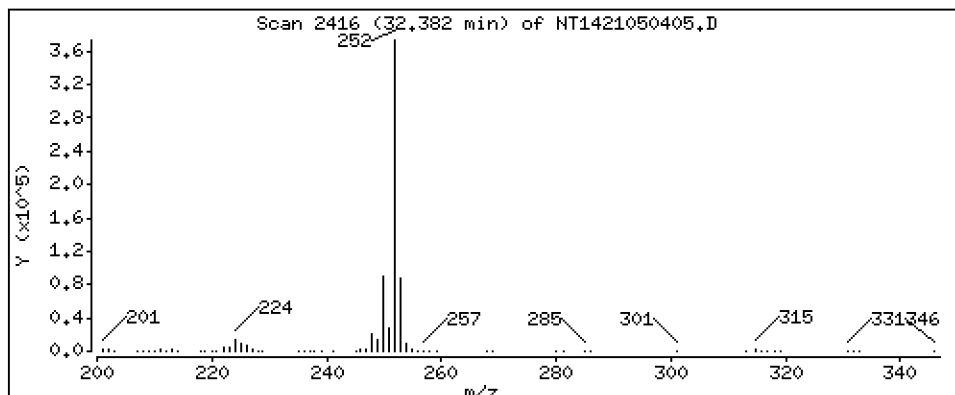
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

62 Benzo(b)fluoranthene

Concentration: 2,648 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

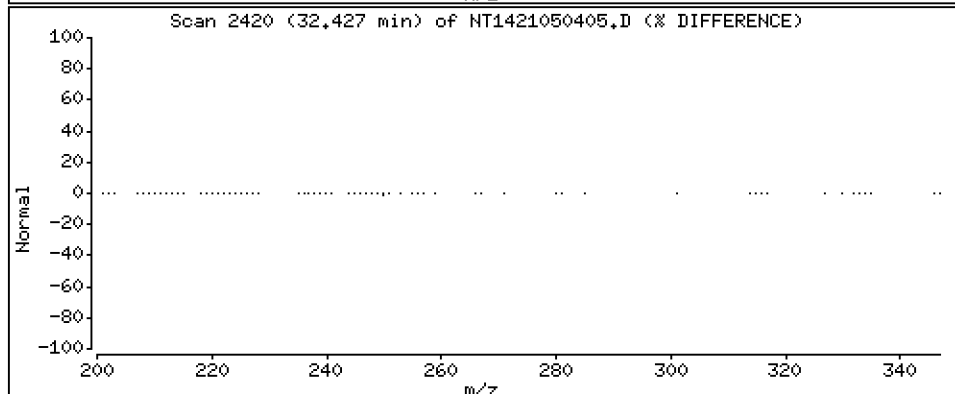
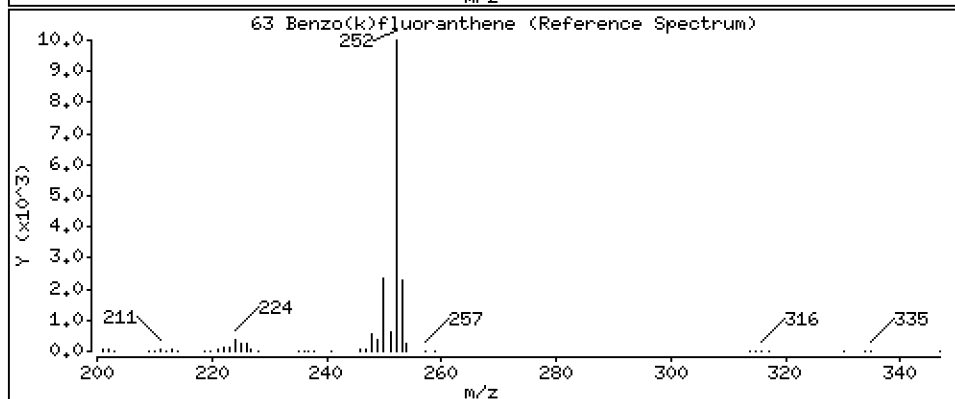
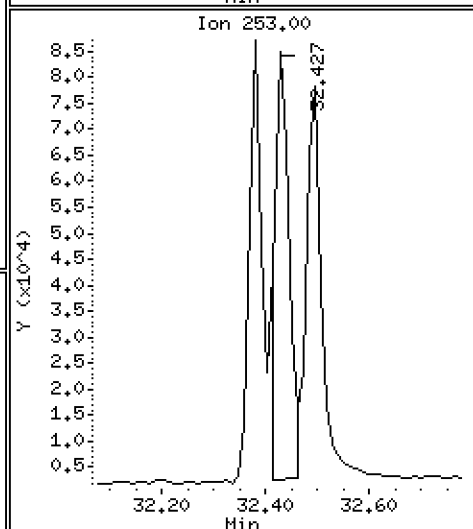
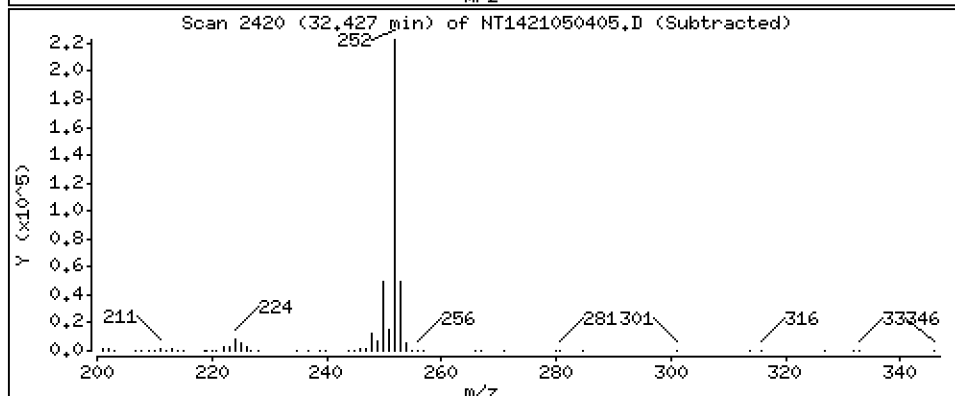
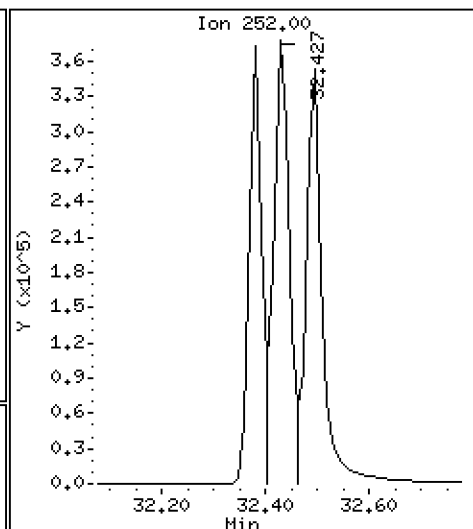
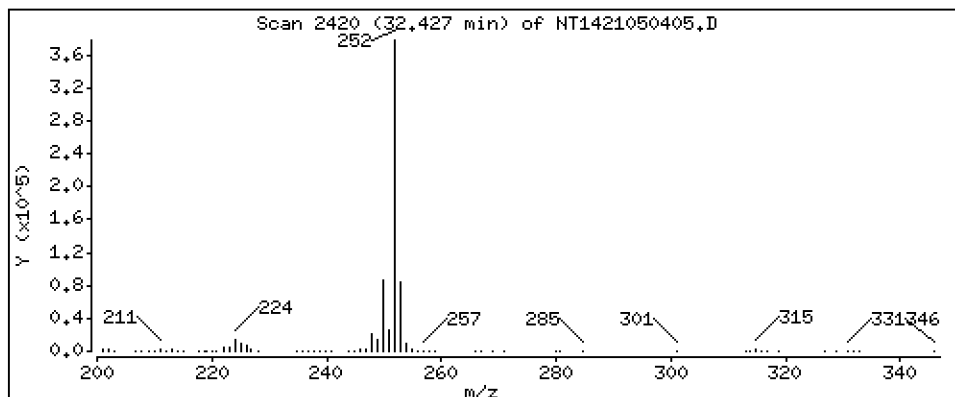
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

63 Benzo(k)fluoranthene

Concentration: 2,635 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

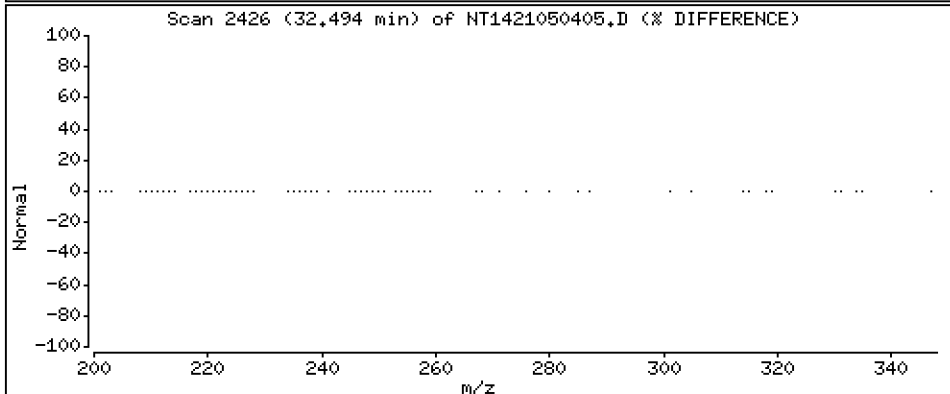
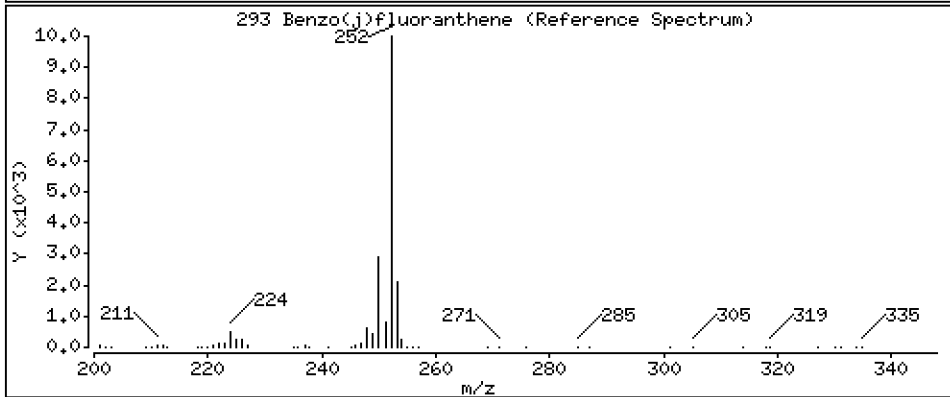
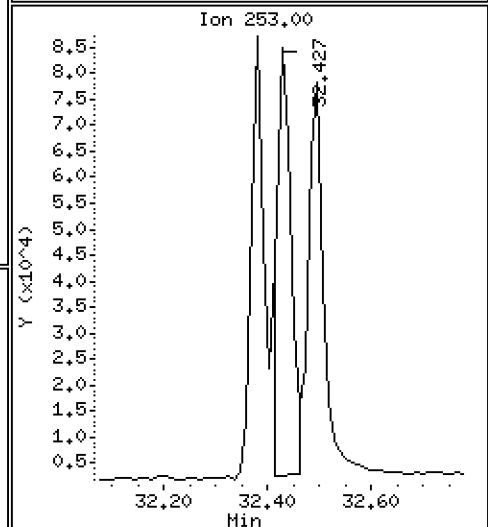
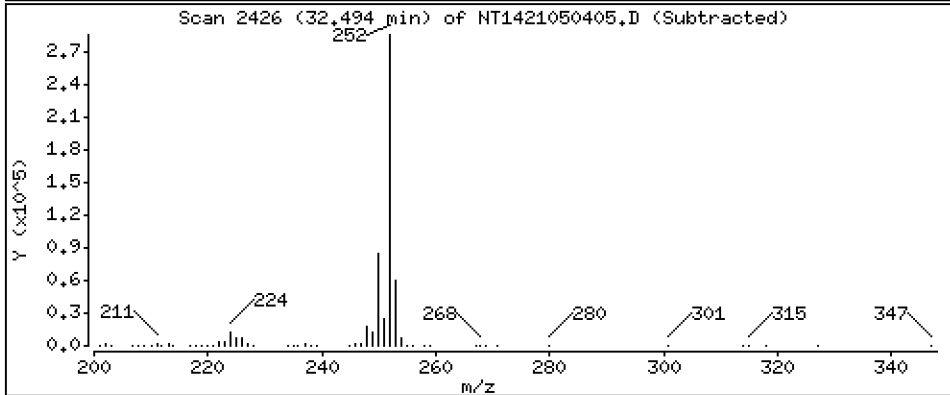
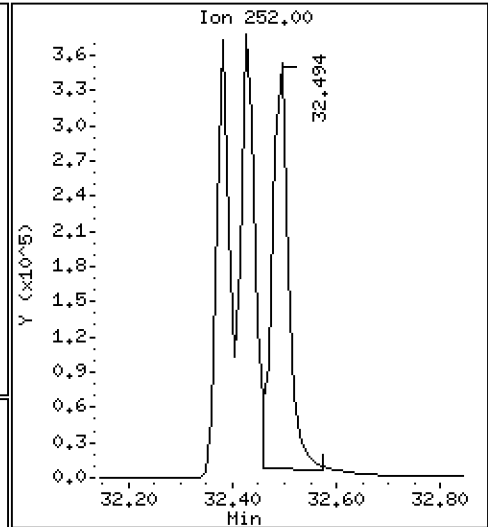
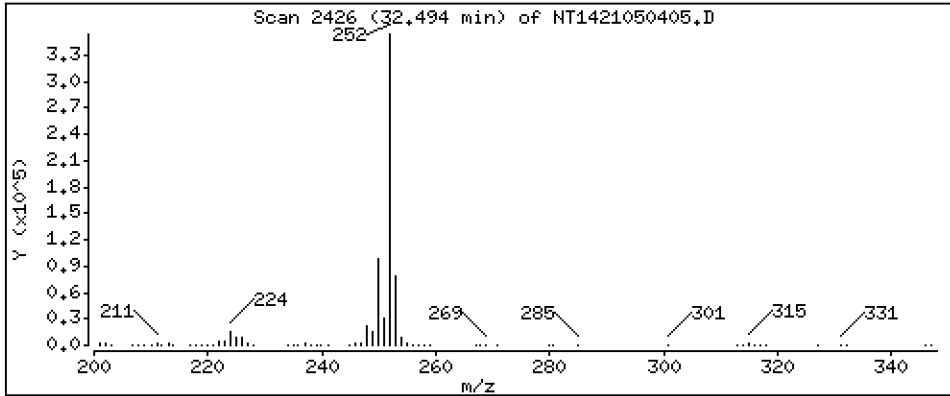
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

293 Benzo(j)fluoranthene

Concentration: 2,604 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

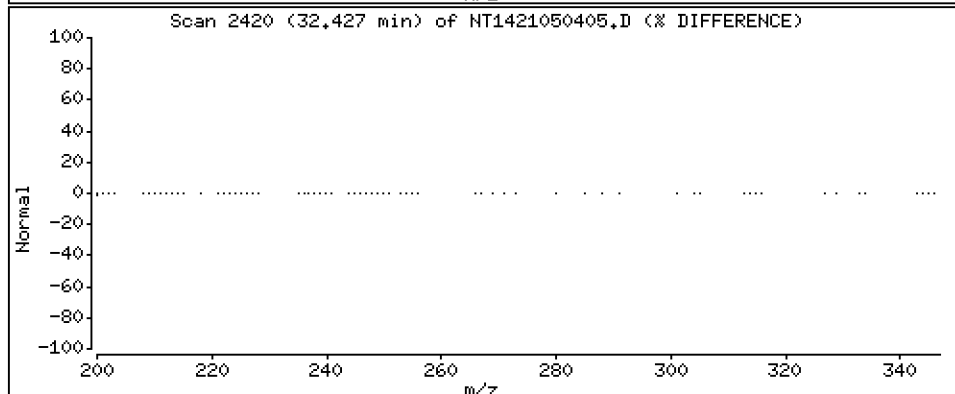
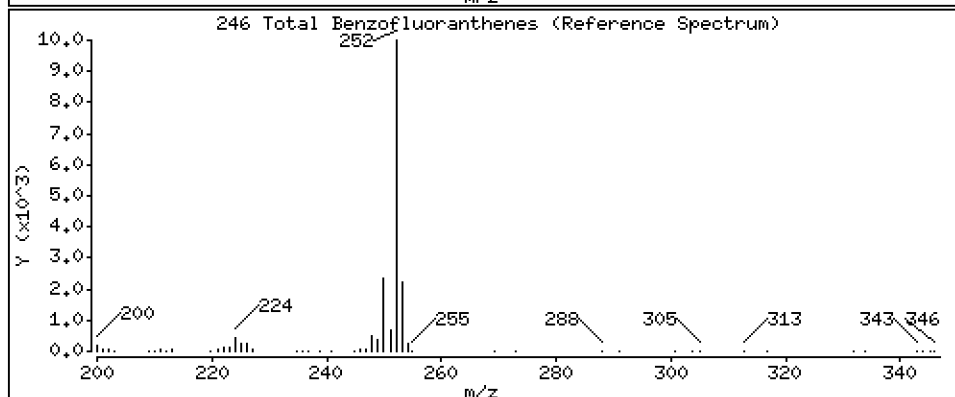
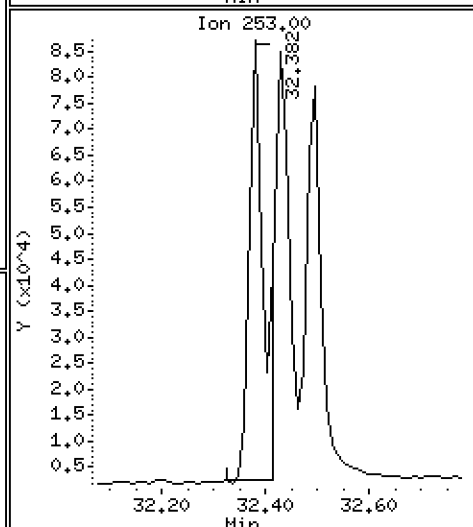
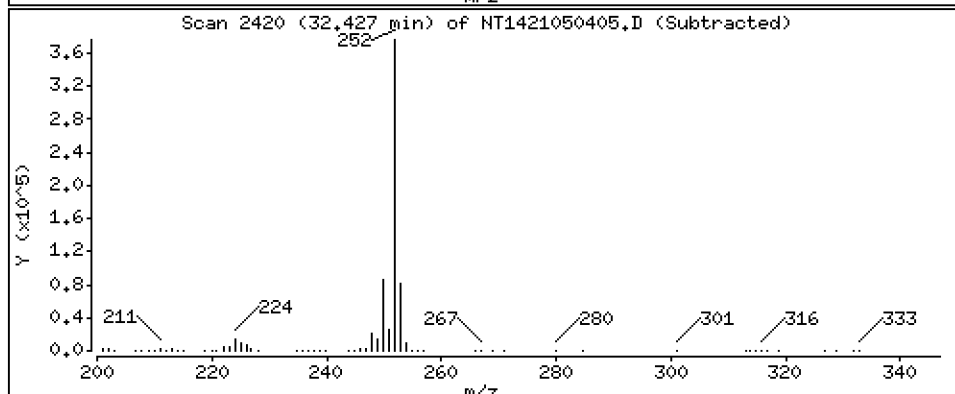
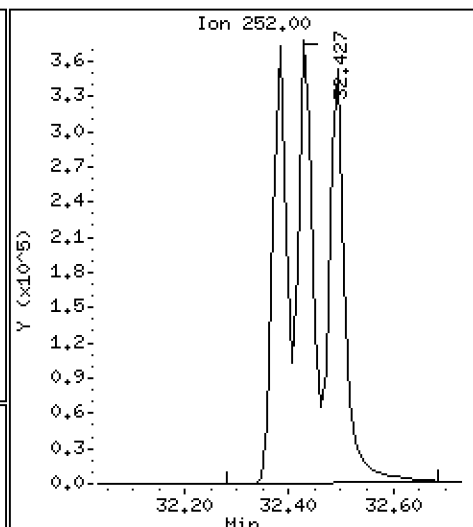
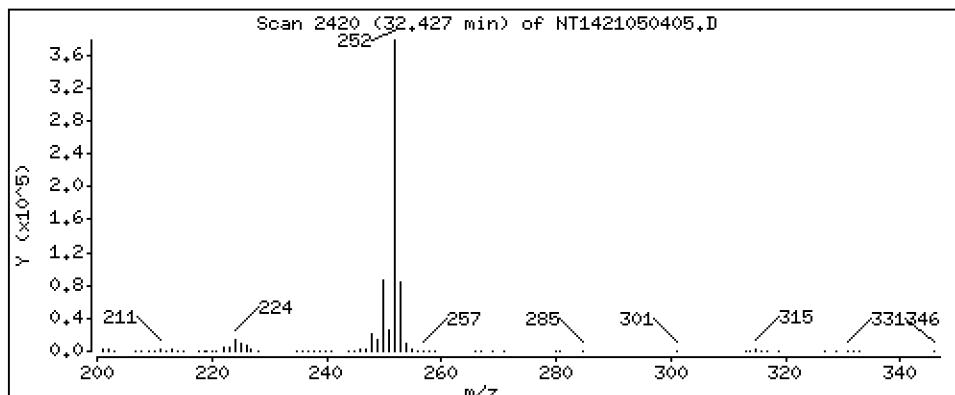
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

246 Total Benzofluoranthenes

Concentration: 7,744 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

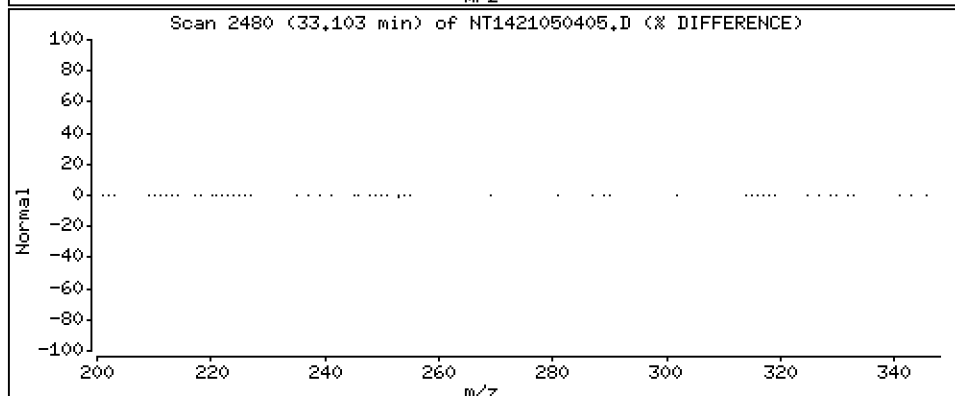
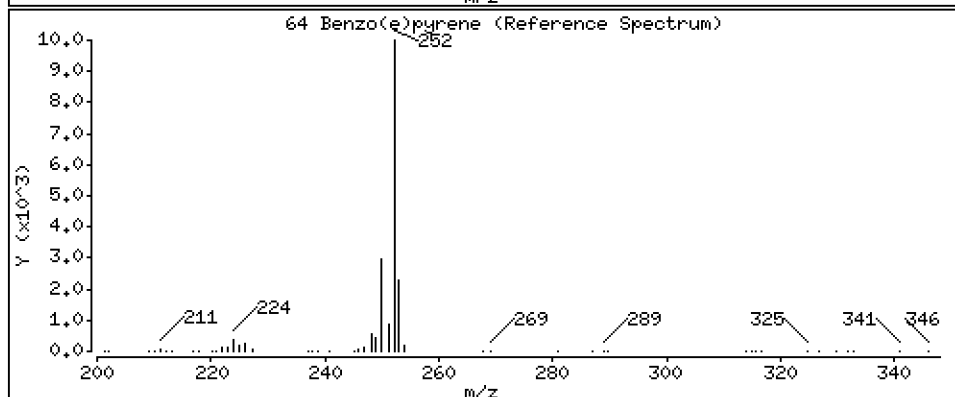
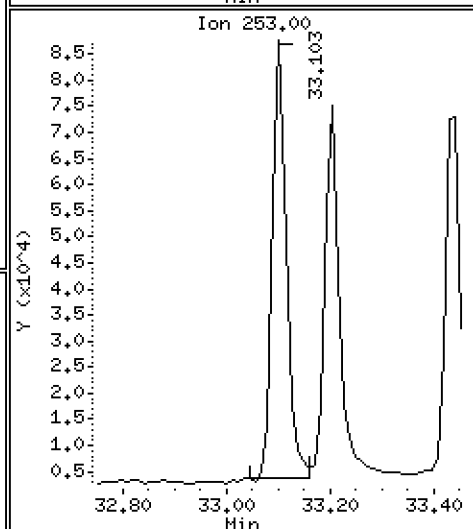
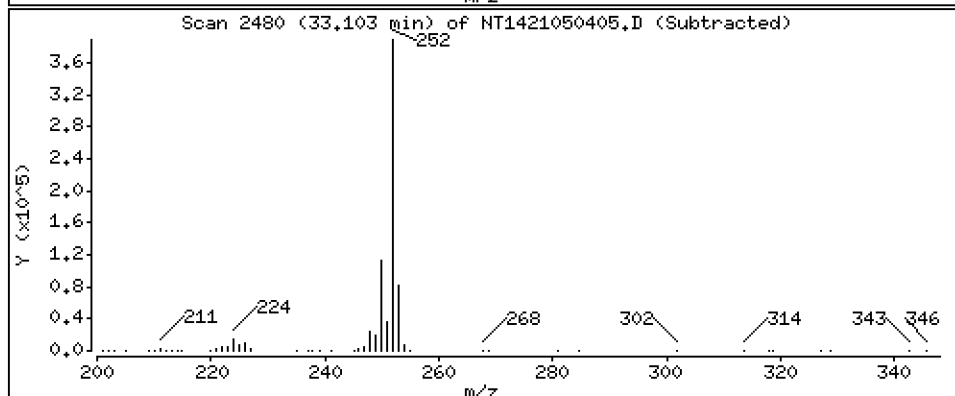
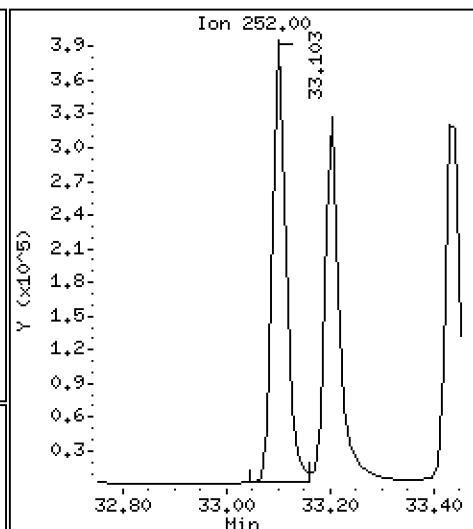
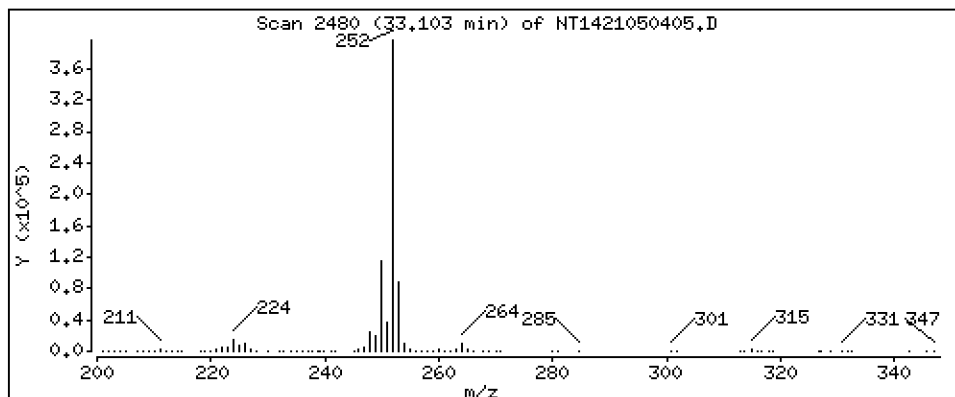
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

64 Benzo(e)pyrene

Concentration: 2,720 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

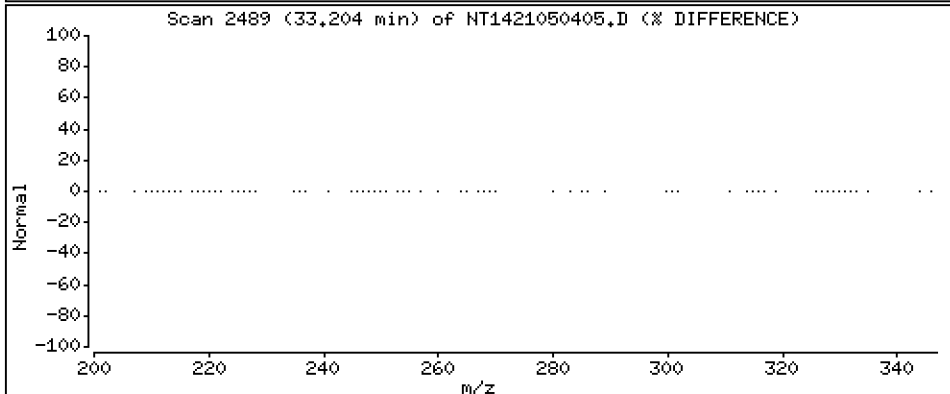
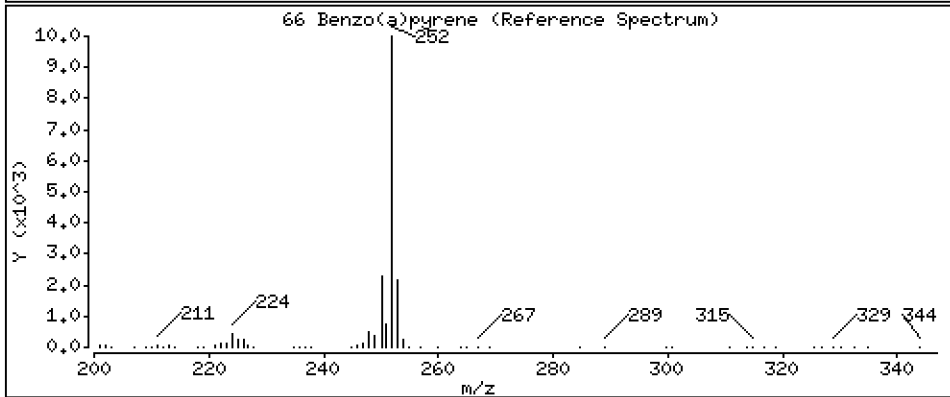
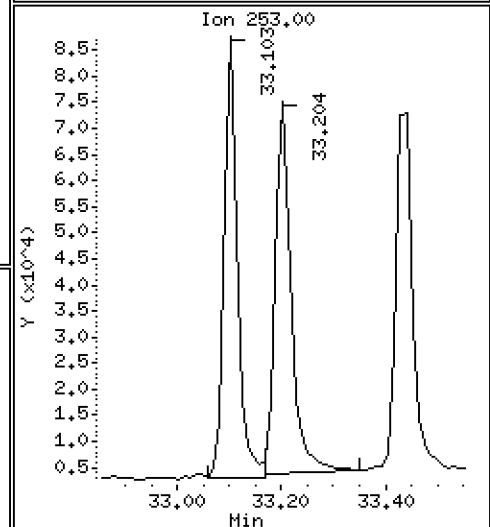
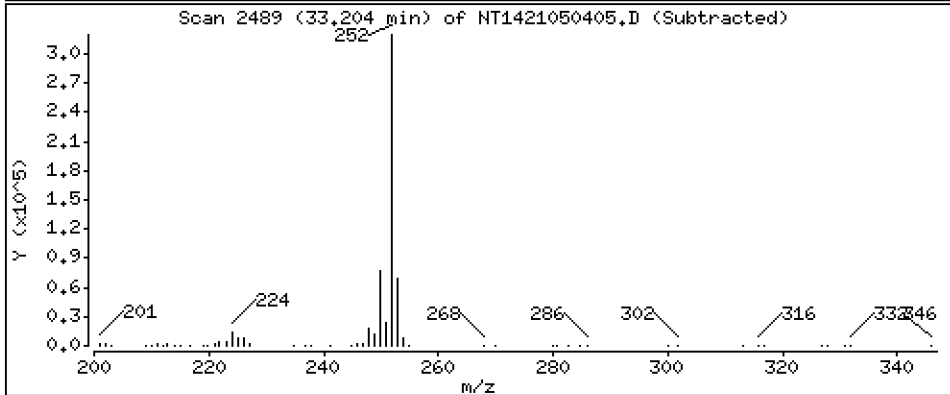
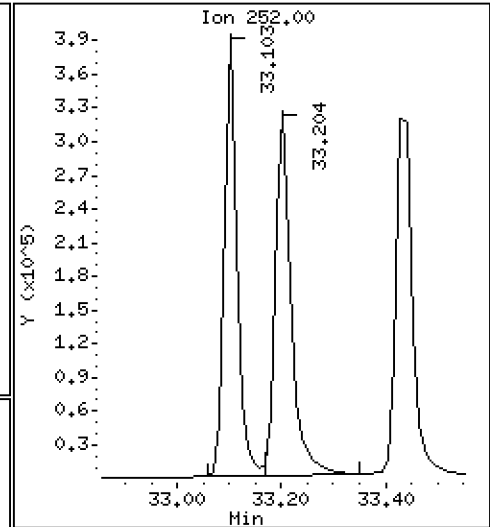
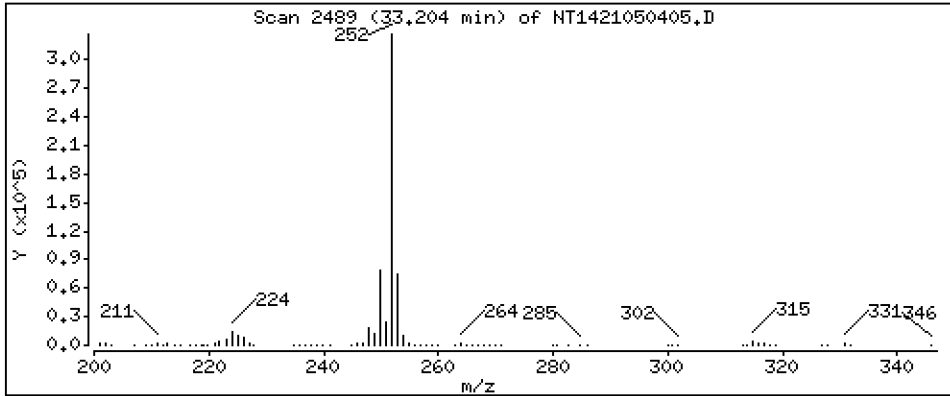
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

66 Benzo(a)pyrene

Concentration: 2,515 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

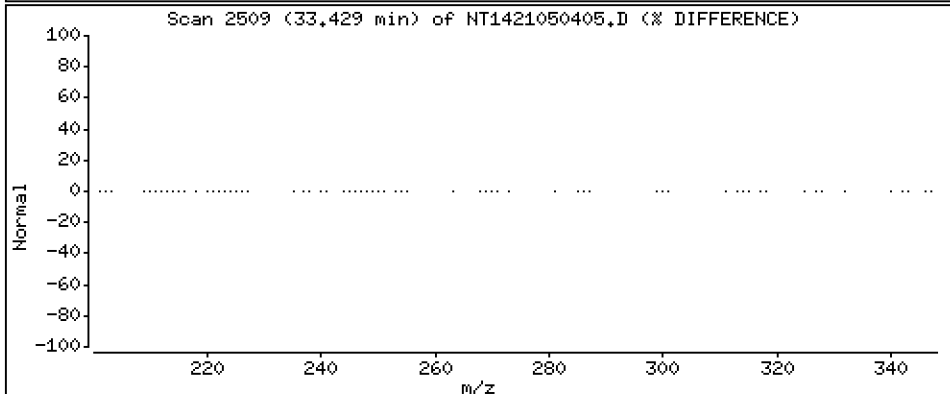
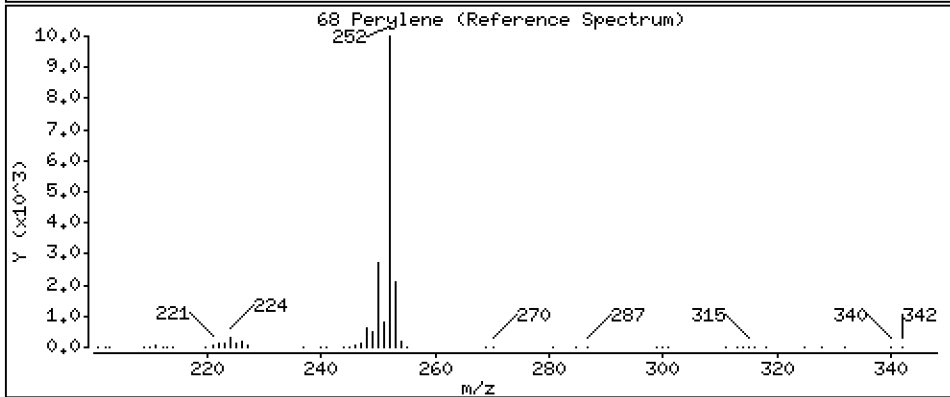
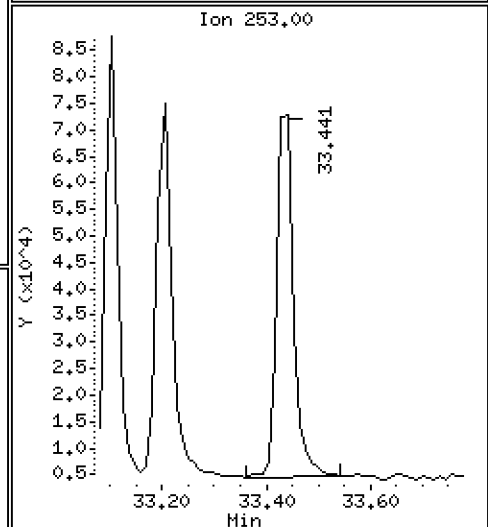
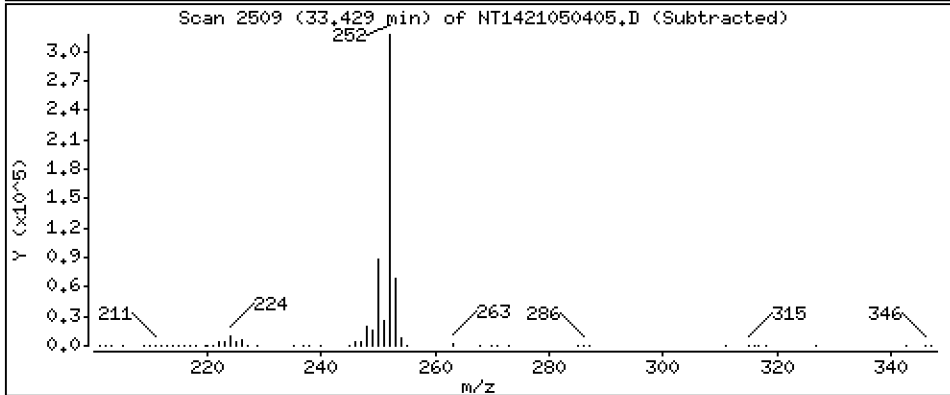
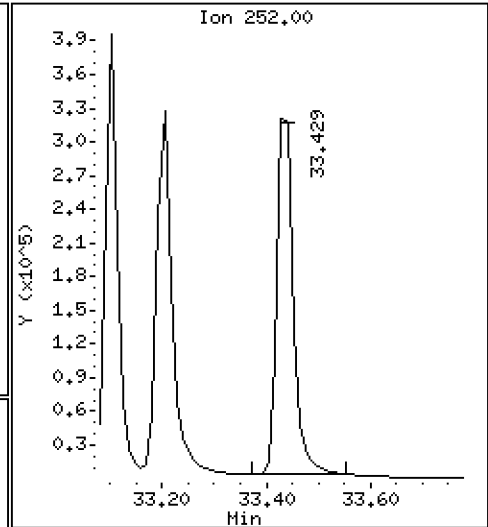
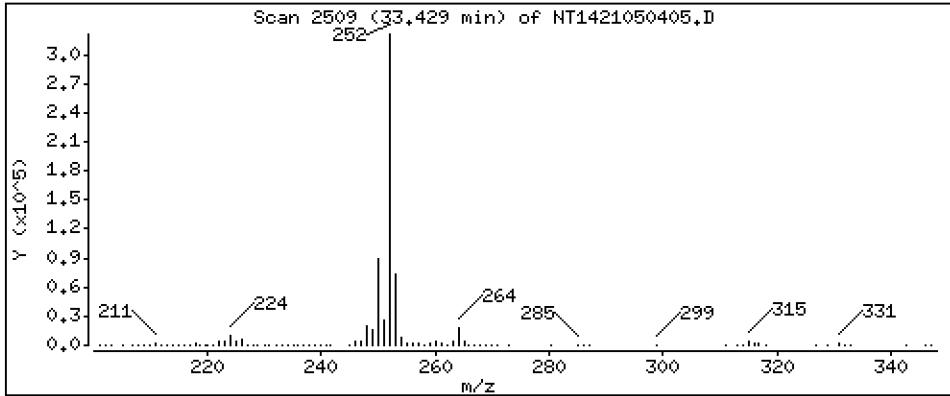
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

68 Perylene

Concentration: 2,743 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

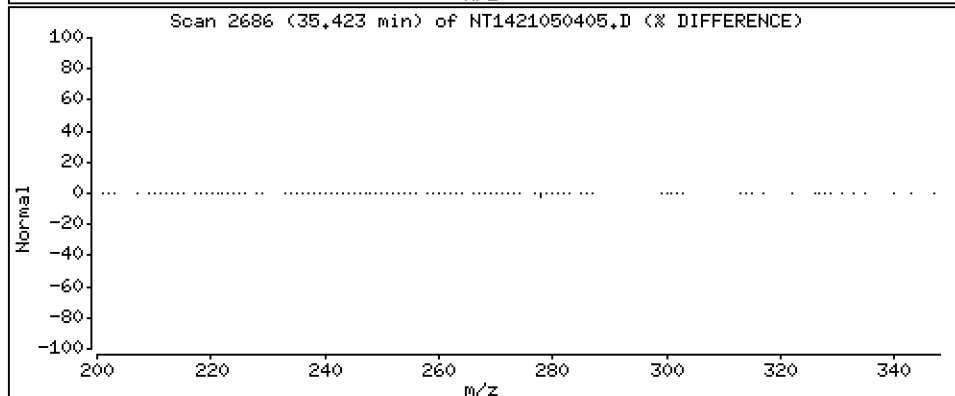
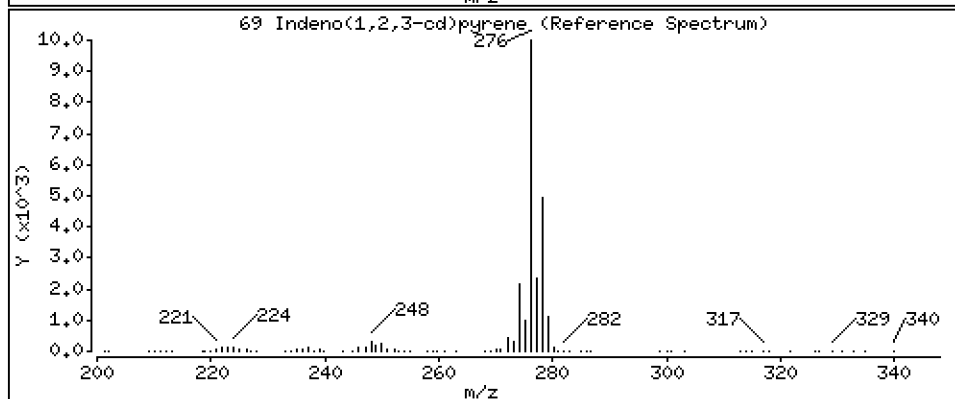
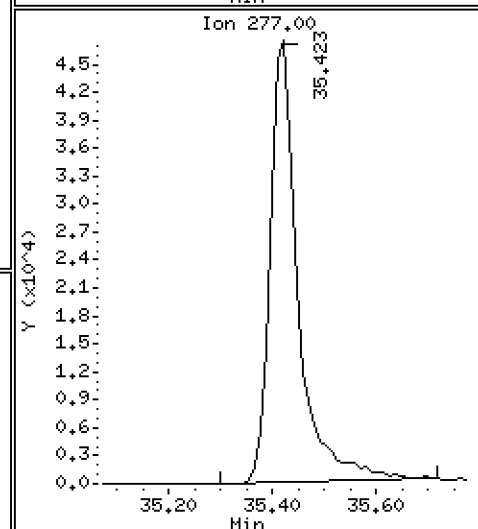
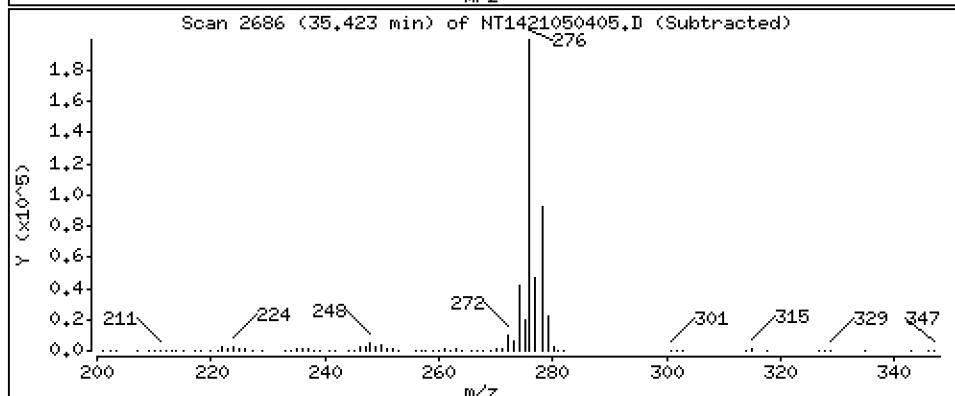
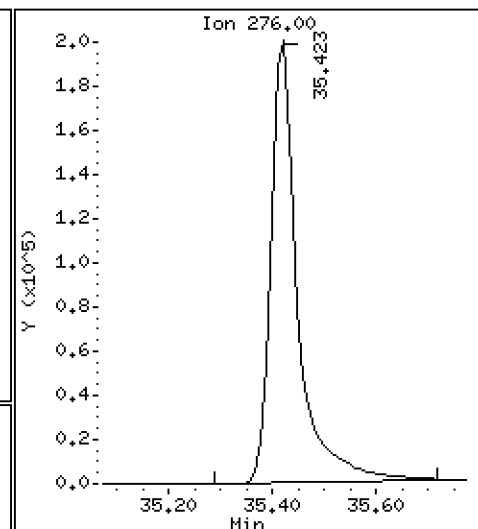
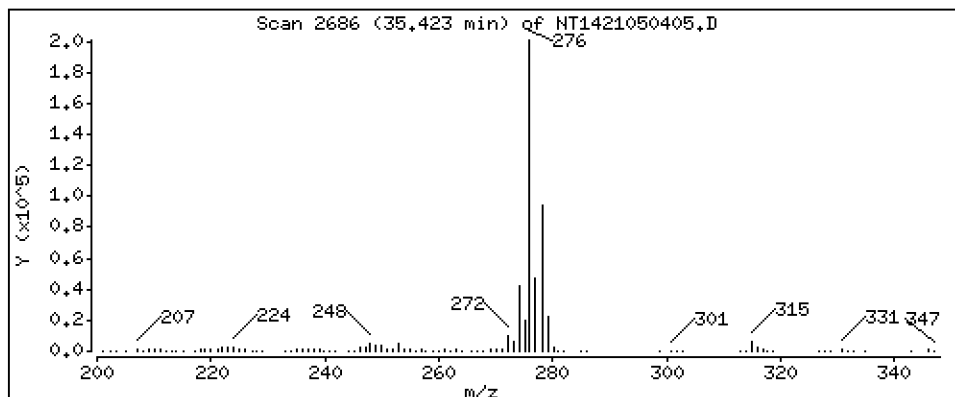
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

69 Indeno(1,2,3-cd)pyrene

Concentration: 2,611 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

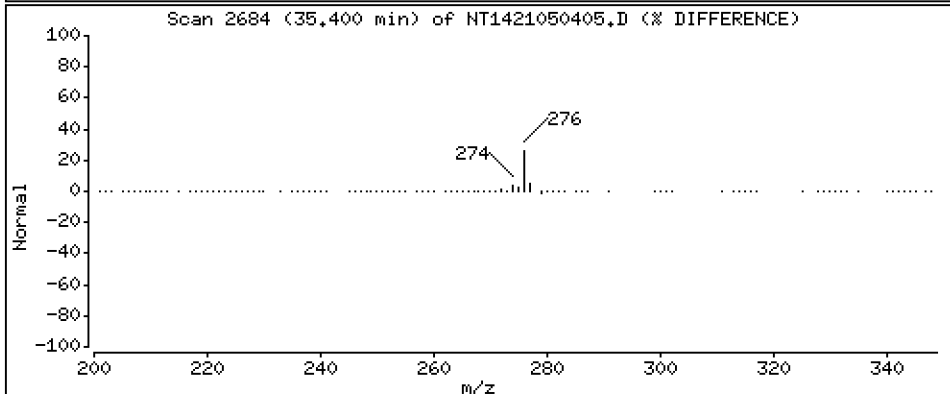
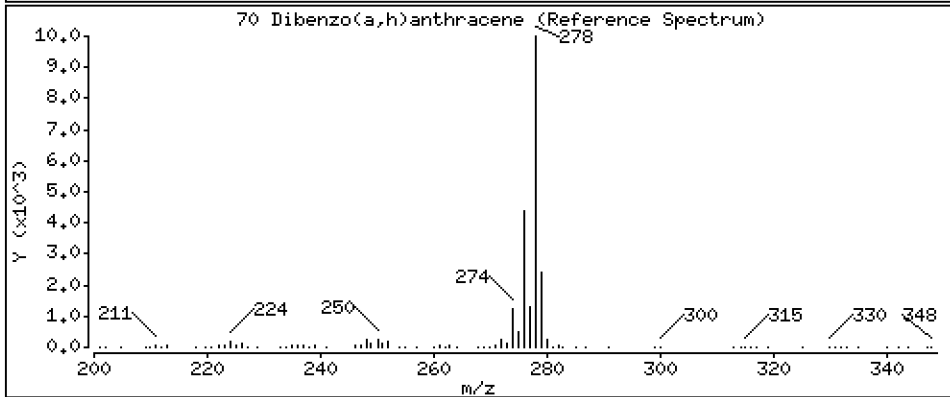
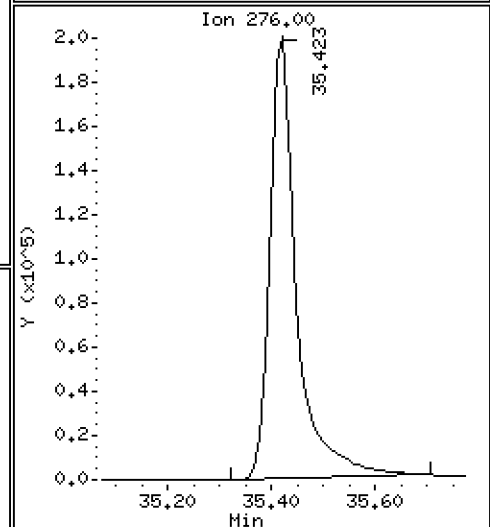
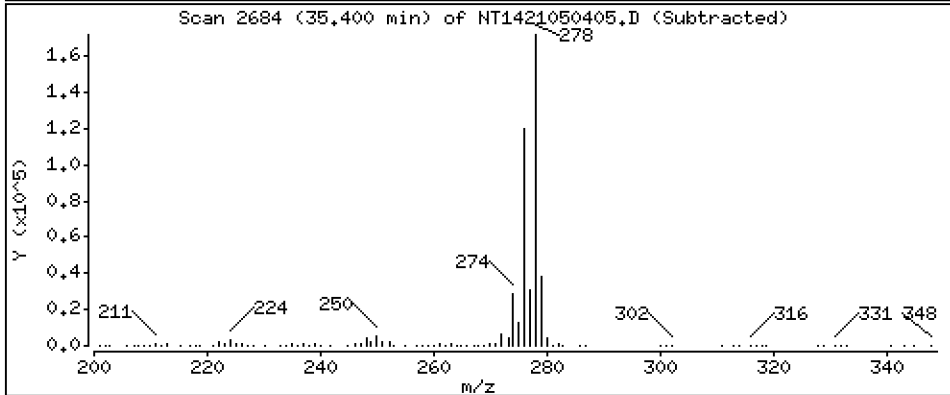
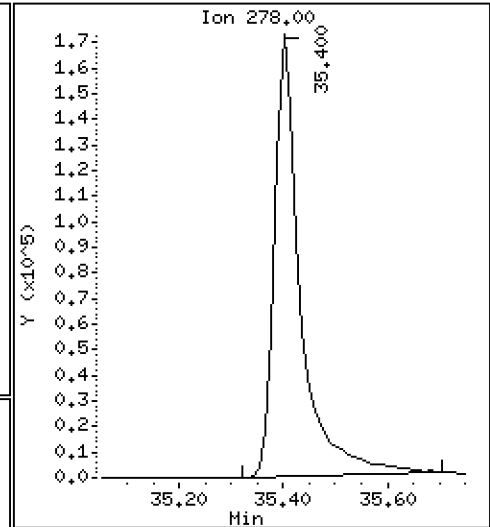
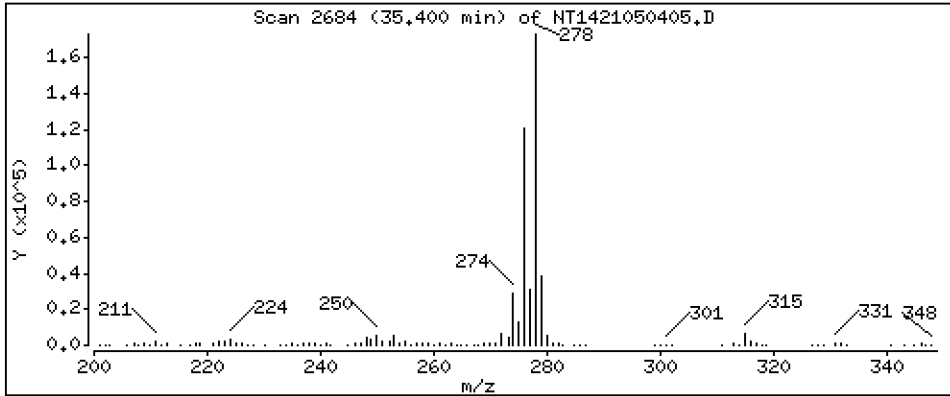
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

70 Dibenzo(a,h)anthracene

Concentration: 2,546 ug/mL



Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

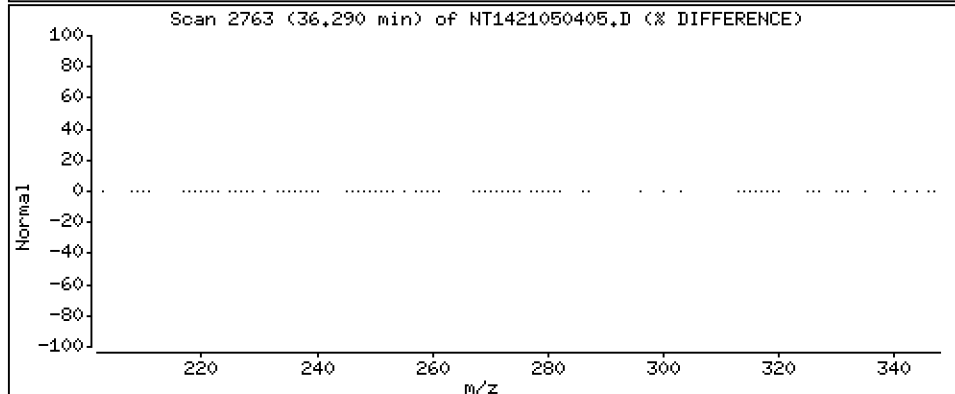
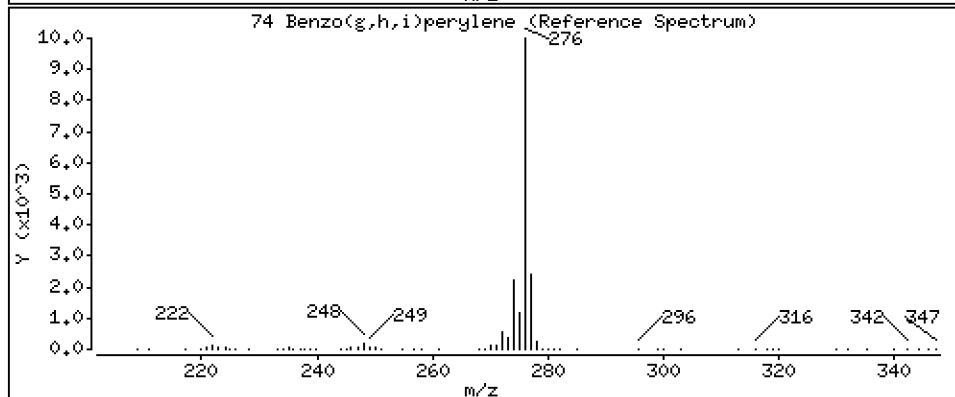
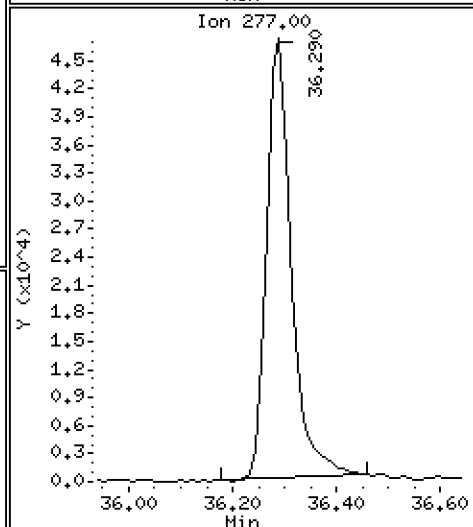
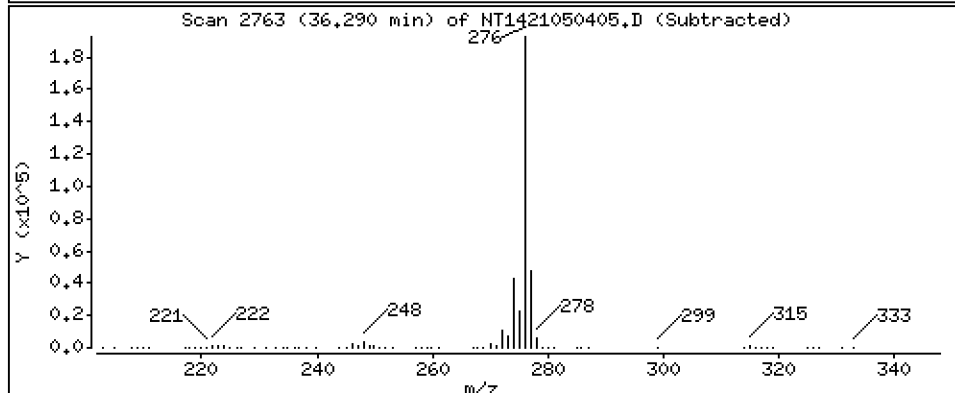
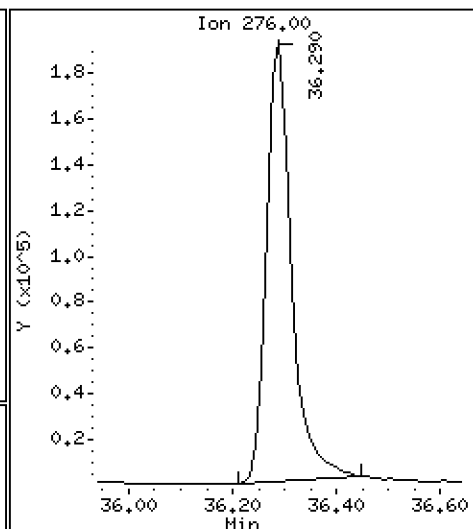
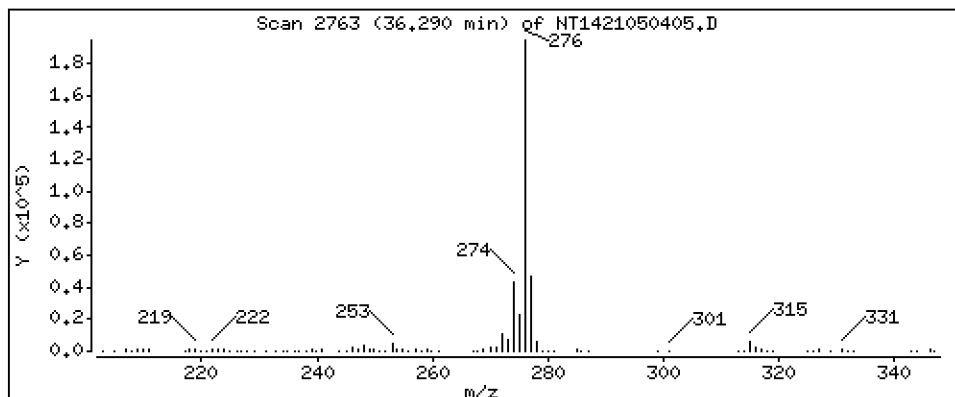
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

74 Benzo(g,h,i)perylene

Concentration: 2,784 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210504.b\NT1421050405.D
 Lab Smp Id: SJE0028-CCV1
 Inj Date : 04-MAY-2021 16:08
 Operator : VTS
 Smp Info : SJE0028-CCV1
 Misc Info :
 Comment : 1ul Injection
 Method : \\target\share\chem3\nt14.i\20210504.b\ALKYLPNA.m
 Meth Date : 04-May-2021 14:17 van
 Cal Date : 30-APR-2021 13:32
 Als bottle: 2
 Dil Factor: 1.00000
 Integrator: HP RTE
 Target Version: 4.14
 Processing Host: VANS-202011

Inst ID: nt14.i
 Quant Type: ISTD
 Cal File: NT1421043009.D
 Compound Sublist: TARGETS.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
1 trans-Decalin	138		7.045	7.035	(0.375)	120182	2.72545	2.725
2 cis-Decalin	138		8.155	8.155	(0.434)	84876	2.78812	2.788
\$ 6 Naphthalene-d8	136		11.776	11.766	(0.627)	944893	2.76585	2.766 (R)
7 Naphthalene	128		11.836	11.836	(0.631)	957861	2.75653	2.757
12 Benzo(b)thiophene	134		12.284	12.284	(0.654)	773399	2.79753	2.798
16 2-Methylnaphthalene	141		13.669	13.669	(0.728)	525170	2.83210	2.832
17 1-methylnaphthalene	141		14.120	14.120	(0.752)	495909	2.82248	2.822
18 Biphenyl	154		15.317	15.307	(0.816)	739273	2.78564	2.786
19 2,6-Dimethylnaphthalene	156		15.394	15.384	(0.820)	523788	2.86825	2.868
20 Acenaphthylene	152		16.955	16.955	(0.903)	881020	3.06568	3.066
\$ 21 Acenaphthene-d10	164		17.241	17.241	(0.918)	479459	2.87426	2.874 (R)
22 Acenaphthene	153		17.361	17.351	(0.925)	535520	2.89947	2.899
23 Dibenzofuran	168		17.735	17.735	(0.945)	788048	2.81581	2.816
24 1,6,7-Trimethylnaphthalene	170		17.955	17.955	(0.956)	483545	3.01712	3.017
* 25 Fluorene-d10	176		18.772	18.772	(1.000)	591967	2.00000	
26 Fluorene	166		18.874	18.874	(1.005)	579247	2.84793	2.848
30 Dibenzothiophene	184		21.785	21.785	(1.161)	762205	2.96867	2.969
\$ 35 Phenanthrene-d10	188		22.104	22.093	(0.995)	738156	2.56126	2.561 (R)
36 Phenanthrene	178		22.181	22.181	(0.999)	813283	2.52767	2.528
* 250 Anthracene-d10	188		22.214	22.214	(1.000)	533317	2.00000	
37 Anthracene	178		22.280	22.280	(1.003)	760427	2.56386	2.564
42 Carbazole	167		23.555	23.555	(1.060)	657909	2.63137	2.631
43 1-Methylphenanthrene	192		24.017	24.017	(1.081)	551009	2.82055	2.821
44 Fluoranthene	202		25.985	25.985	(1.170)	823212	2.88087	2.881
46 Pyrene	202		26.832	26.832	(1.208)	848834	2.86659	2.867
51 Naphthobenzothiophene	234		29.375	29.375	(1.322)	793710	2.75058	2.751
55 Benzo(a)anthracene	228		29.960	29.960	(0.907)	697992	2.61456	2.615
\$ 56 Chrysene-d12	240		30.084	30.084	(0.910)	572243	2.71207	2.712 (R)
57 Chrysene	228		30.163	30.163	(0.913)	686194	2.53023	2.530
62 Benzo(b)fluoranthene	252		32.381	32.382	(0.980)	656194	2.64782	2.648 (M)
63 Benzo(k)fluoranthene	252		32.426	32.427	(0.981)	795399	2.63461	2.635 (M)
293 Benzo(j)fluoranthene	252		32.494	32.494	(0.983)	719227	2.60373	2.604 (M)
246 Total Benzofluoranthenes	252		32.426	32.382	(0.981)	2103063	7.74352	7.744 (M)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.046	33.046	(1.000)	580689	2.00000	
64 Benzo(e)pyrene	252	33.102	33.102	(1.002)	672779	2.72022	2.720
66 Benzo(a)pyrene	252	33.204	33.204	(1.005)	640357	2.51531	2.515
\$ 67 Perylene-d12	264	33.384	33.373	(1.010)	569165	2.51994	2.520 (RM)
68 Perylene	252	33.429	33.429	(1.012)	647875	2.74264	2.743 (M)
69 Indeno(1,2,3-cd)pyrene	276	35.422	35.423	(1.072)	689510	2.61139	2.611 (M)
70 Dibenzo(a,h)anthracene	278	35.400	35.400	(1.071)	580612	2.54613	2.546 (M)
74 Benzo(g,h,i)perylene	276	36.290	36.290	(1.098)	619431	2.78399	2.784 (M)

QC Flag Legend

- R - Spike/Surrogate failed recovery limits.
- M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 04-MAY-2021
 Lab File ID: NT1421050405.D Calibration Time: 12:52
 Lab Smp Id: SJE0028-CCV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt14.i\20210504.b\ALKYLPNA.m
 Misc Info:

Test Mode:
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	560901	280451	1121802	591967	5.54
250 Anthracene-d10	511244	255622	1022488	533317	4.32
251 Benzo(e)pyrene-d1	574536	287268	1149072	580689	1.07

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.77	18.27	19.27	18.77	-0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	-0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	-0.00

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.

REVIEW SUMMARY FOR FILE - NT1421050405.D

Lab ID: SJE0028-CCV1

nt14.i, 20210504.b\ALKYLPNA.m, 04-MAY-2021 16:08

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

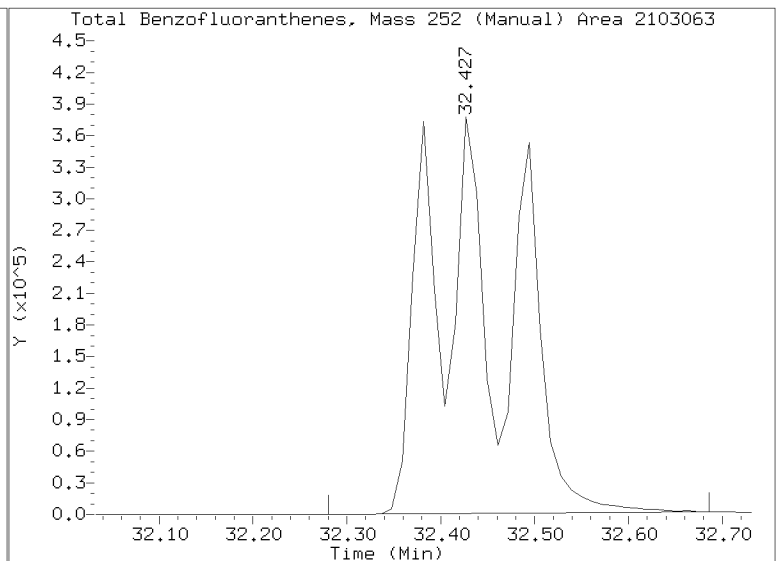
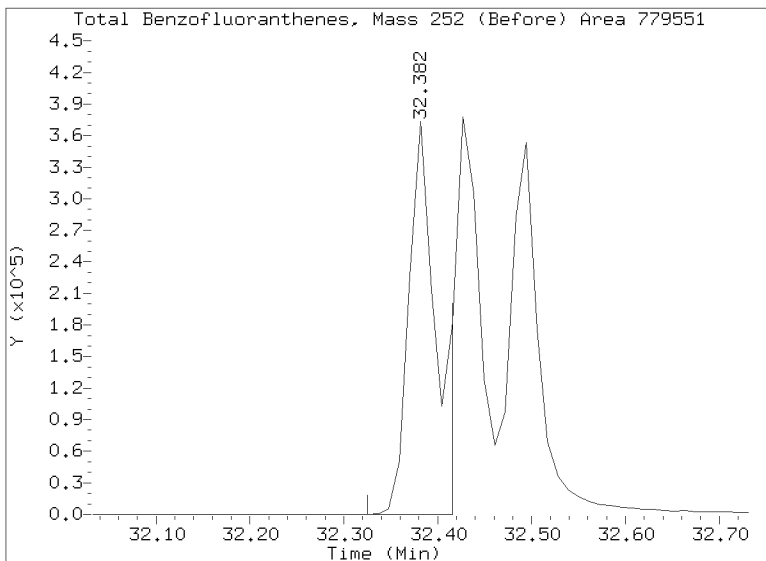
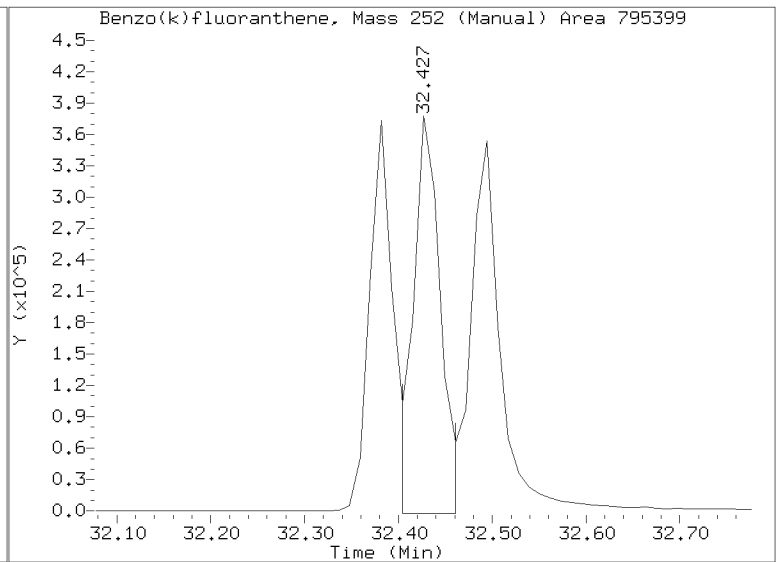
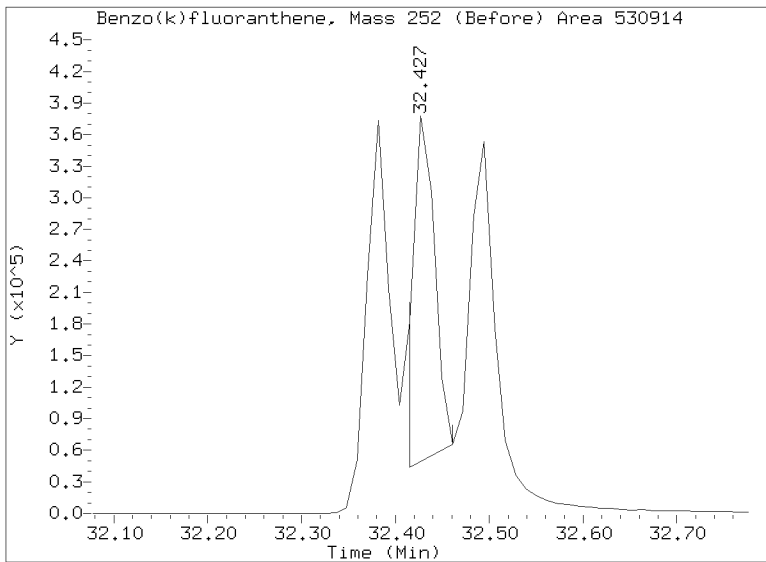
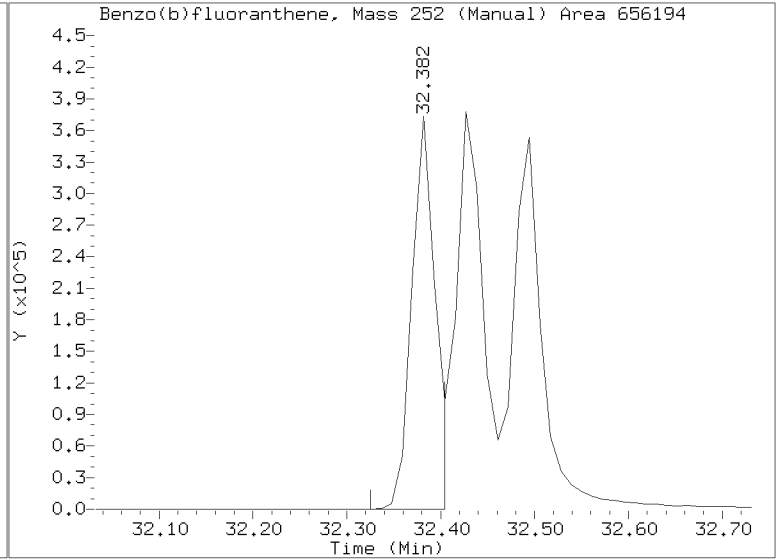
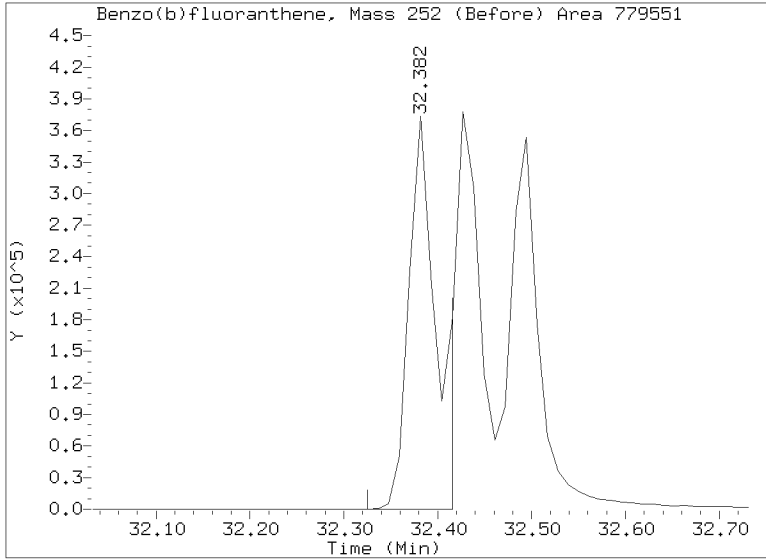
RRT check based on Ccal File: NT1421050402.D

On Column LOD for nt14.i, 20210504.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

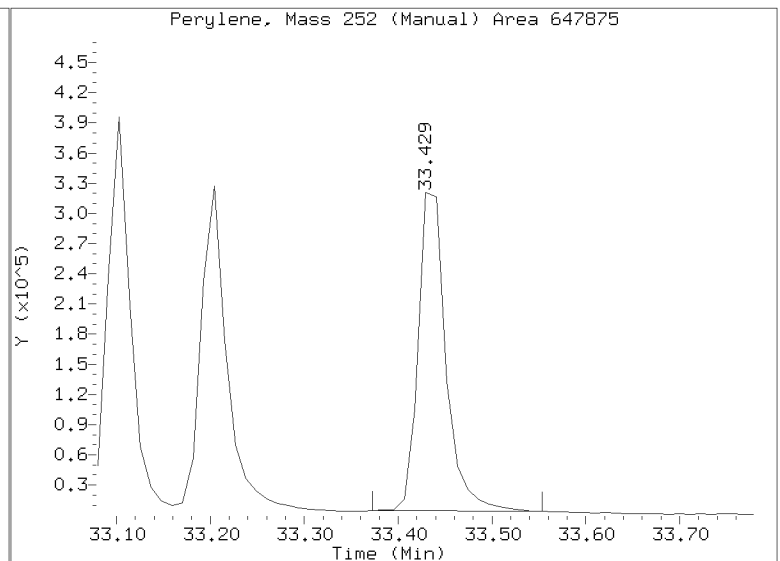
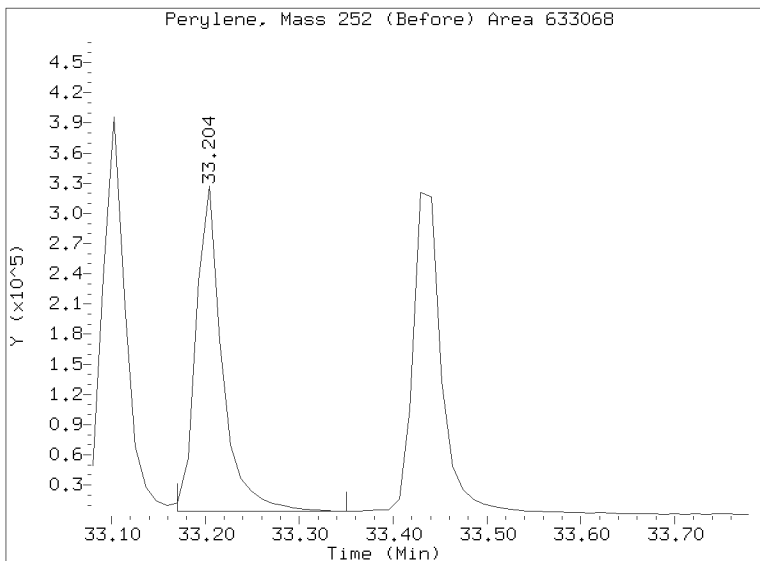
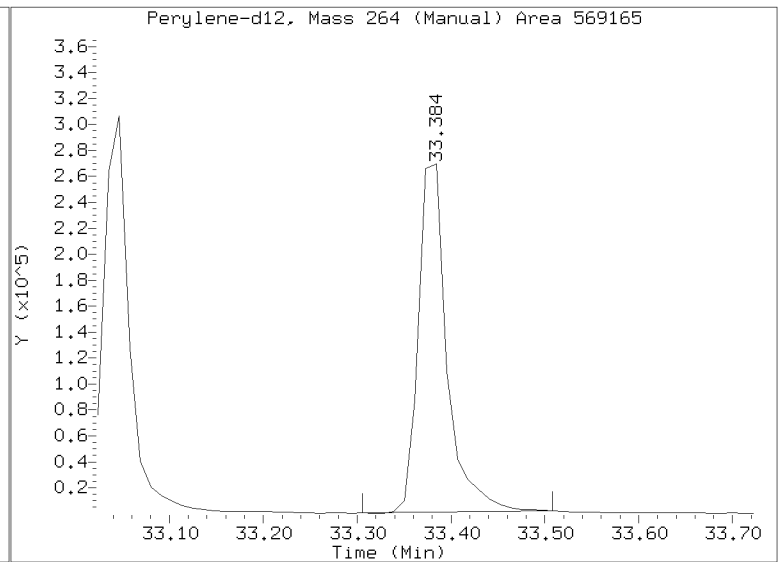
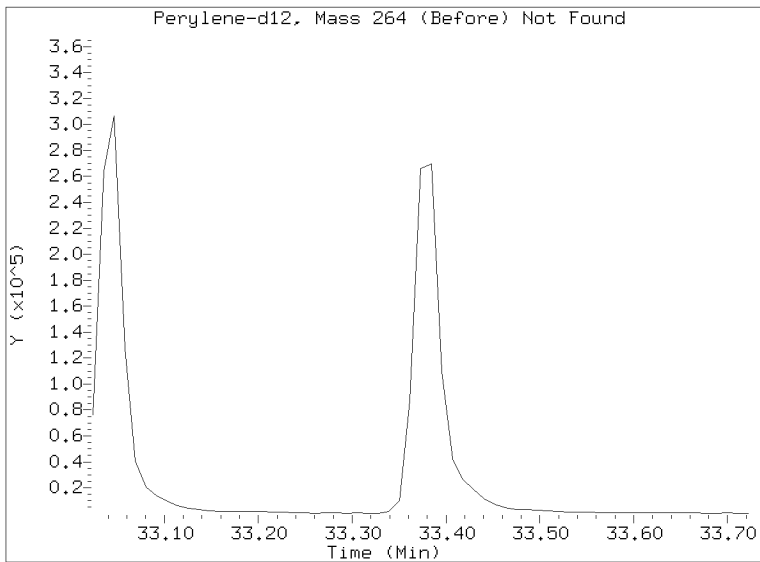
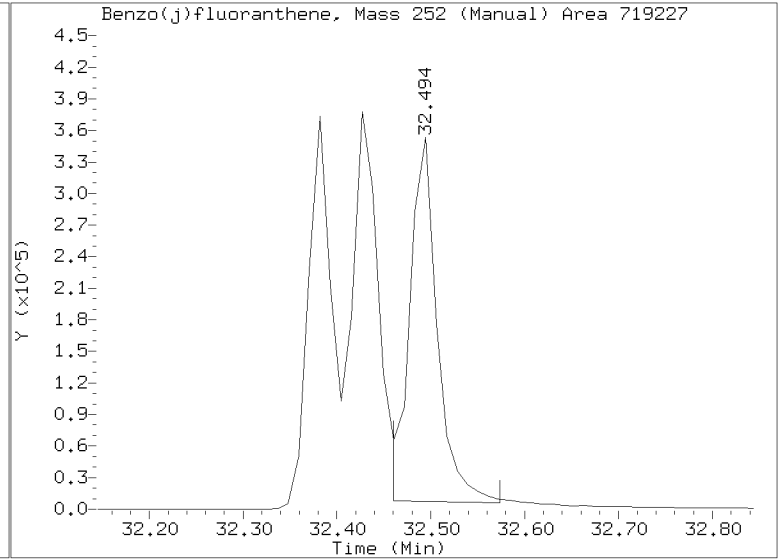
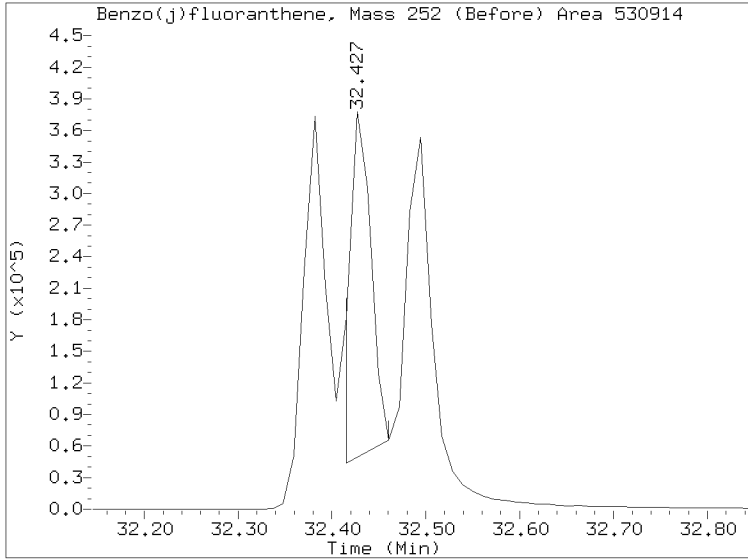
Quant Ion Manual Peak Adjustment Report

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Injection Date: 04-MAY-2021 16:08
Lab ID:SJE0028-CCV1 Client ID:
Report Date: 05/05/2021 12:34



Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210504.b/NT1421050405.D
Injection Date: 04-MAY-2021 16:08
Lab ID:SJE0028-CCV1 Client ID:
Report Date: 05/05/2021 12:34



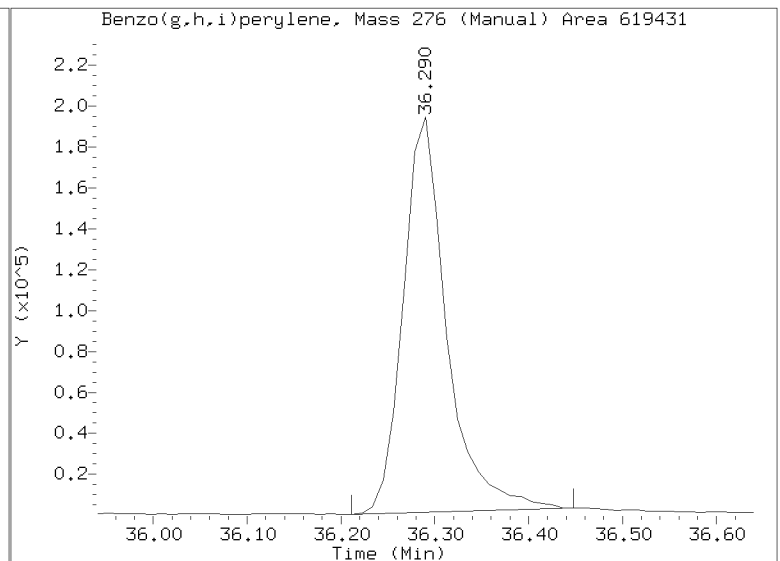
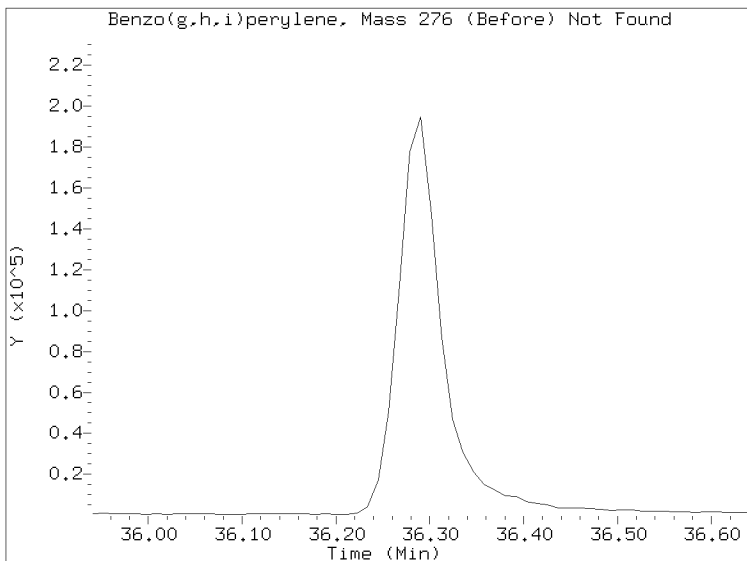
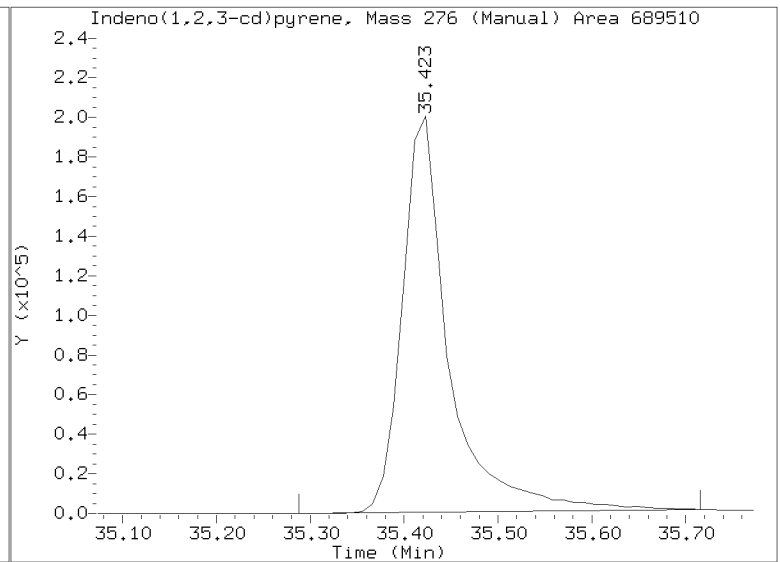
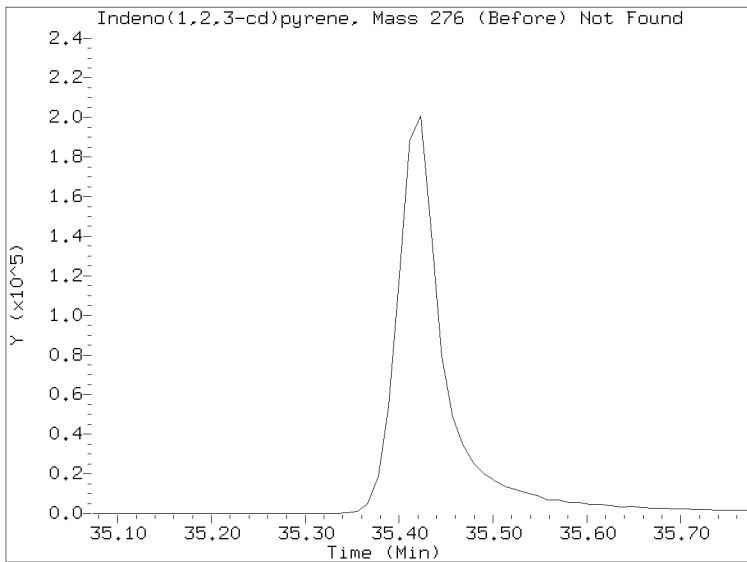
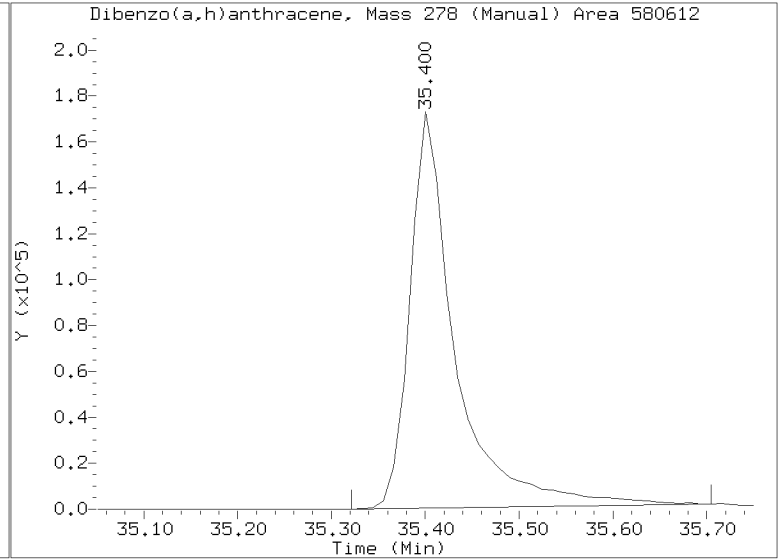
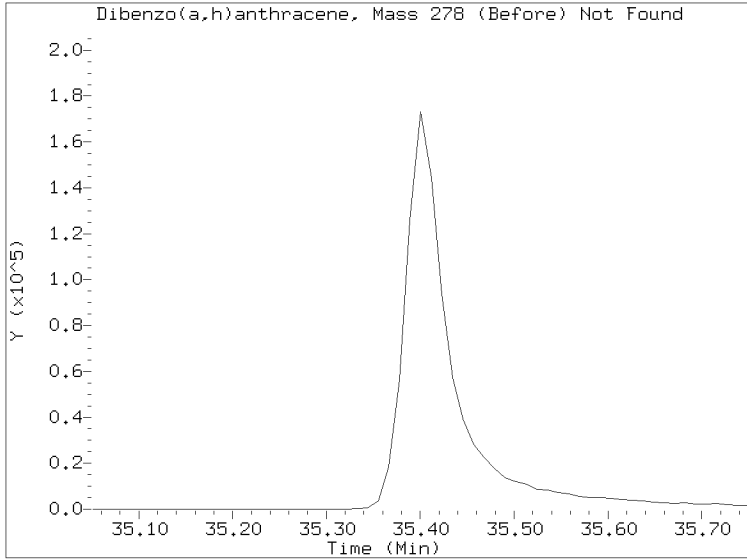
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210504.b/NT1421050405.D

Injection Date: 04-MAY-2021 16:08

Lab ID: SJE0028-CCV1 Client ID:

Report Date: 05/05/2021 12:34





ANALYSIS SEQUENCE

SIH0304

Instrument: NT11 Element Column ID: I005862
Calibration ID: DH00073 Tune File: 190904.U
EM Voltage: 1247

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SIH0304-TUN1	DFTPP	QC		1	I007631		
SIH0304-CAL4	PAH 250	QC		2	I004578	I002616	
SIH0304-CAL6	PAH 1000	QC		3	I004580	I002616	
SIH0304-CAL1	PAH 10	QC		4	I004575	I002616	
SIH0304-CAL5	PAH 500	QC		5	I004579	I002616	
SIH0304-CAL2	PAH 50	QC		6	I004576	I002616	
SIH0304-CAL3	PAH 100	QC		7	I004577	I002616	
SIH0304-SCV1	PAH 250 SCV	QC		8	I004581	I002616	
SIH0304-ICB1	Initial Cal Blank	QC		9	I007632	I002616	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20200827.b

Time	Filename	LabID	ClientId	DF												
1	1220	NT1120082701.D	SIH0304-TUN1	1	NO	ISTDS	FOUND									
2	1235	NT1120082702.D	SIH0304-CAL4	1		6.81	215332		9.81	102217	12.48	170387	17.21	116138	19.98	139038
3	1307	NT1120082703.D	SIH0304-CAL6	1		6.81	211963		9.81	104596	12.48	173851	17.21	118274	19.98	139375
4	1338	NT1120082704.D	SIH0304-CAL1	1		6.80	218979		9.81	96342	12.48	152977	17.21	94808	19.98	108221
5	1408	NT1120082705.D	SIH0304-CAL5	1		6.80	205773		9.81	98118	12.48	160808	17.21	104617	19.98	121661
6	1438	NT1120082706.D	SIH0304-CAL2	1		6.80	206491		9.81	90319	12.48	134229	17.21	84619	19.98	93566
7	1508	NT1120082707.D	SIH0304-CAL3	1		6.80	198254		9.81	88696	12.48	133333	17.21	84043	19.98	92362
8	1538	NT1120082708.D	SIH0304-SCV1	1		6.80	202035		9.81	90189	12.48	142829	17.22	104063	19.98	119273
9	1609	NT1120082709.D	SIH0304-ICB1	1		6.80	216694		9.81	94656	12.48	145070	17.22	97049	19.98	107633

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20200827.b

Instrument: nt11.i Date: 27-AUG-2020

Time	Filename	LabID	DF	Manually Integrated Compounds
1220	NT1120082701.D	SIH0304-TUN1	1	NO MANUAL INTEGRATION
1235	NT1120082702.D	SIH0304-CAL4	1	NO MANUAL INTEGRATION
1307	NT1120082703.D	SIH0304-CAL6	1	NO MANUAL INTEGRATION
1338	NT1120082704.D	SIH0304-CAL1	1	Dibenzo(a,h)anthracene-d14,
1408	NT1120082705.D	SIH0304-CAL5	1	NO MANUAL INTEGRATION
1438	NT1120082706.D	SIH0304-CAL2	1	NO MANUAL INTEGRATION
1508	NT1120082707.D	SIH0304-CAL3	1	NO MANUAL INTEGRATION
1538	NT1120082708.D	SIH0304-SCV1	1	NO MANUAL INTEGRATION
1609	NT1120082709.D	SIH0304-ICB1	1	NO MANUAL INTEGRATION

Security Status Report

Date: 28-Aug-2020 09:31

NT1120082701.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082702.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082703.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082704.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082705.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082706.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082707.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082708.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082709.D	Data Locked	van, 28-Aug-2020 09:31



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21D0180
Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings
Sequence: SJD0305 Instrument: NT14
Calibration: EE00001

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SJD0305-TUN1	NT1421043001.D	NA	04/30/21 07:42
PAH 2.5	SJD0305-CAL5	NT1421043002.D	NA	04/30/21 07:56
PAH 10.0	SJD0305-CAL7	NT1421043003.D	NA	04/30/21 08:43
PAH 5.0	SJD0305-CAL6	NT1421043005.D	NA	04/30/21 10:19
PAH 0.25	SJD0305-CAL2	NT1421043006.D	NA	04/30/21 11:07
PAH 1.0	SJD0305-CAL4	NT1421043007.D	NA	04/30/21 11:55
PAH 0.5	SJD0305-CAL3	NT1421043008.D	NA	04/30/21 12:43
PAH 0.1	SJD0305-CAL1	NT1421043009.D	NA	04/30/21 13:32
Secondary Cal Check	SJD0305-SCV1	NT1421043010.D	NA	04/30/21 14:41
Initial Cal Blank	SJD0305-ICB1	NT1421043011.D	NA	04/30/21 15:29



ANALYSIS SEQUENCE

SJD0305

Instrument: NT14 Element Column ID: J008815
Calibration ID: EE00001 Tune File: 200104.U
EM Voltage: 2000

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SJD0305-TUN1	MS Tune	QC		1	I007631		
SJD0305-CAL5	PAH 2.5	QC		2	J004700	J004384	
SJD0305-CAL7	PAH 10.0	QC		3	J004701	J004384	
SJD0305-CAL6	PAH 5.0	QC		4	J004702	J004384	
SJD0305-CAL2	PAH 0.25	QC		5	J004705	J004384	
SJD0305-CAL4	PAH 1.0	QC		6	J004703	J004384	
SJD0305-CAL3	PAH 0.5	QC		7	J004704	J004384	
SJD0305-CAL1	PAH 0.1	QC		8	J004706	J004384	
SJD0305-SCV1	Secondary Cal Check	QC		9	J004707	J004384	
SJD0305-ICB1	Initial Cal Blank	QC		10	J004708	J004384	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210430.b

Time	Filename	LabID	ClientId	DF					
1	0742	NT1421043001.D	SJD0305-TUN1		1	NO	ISTDS	FOUND	
2	0756	NT1421043002.D	SJD0305-CAL5		1	18.78	420456	22.22	381033
						33.05			370998
3	0843	NT1421043003.D	SJD0305-CAL7		1	18.78	463680	22.22	358366
						33.05			363264
4	0931	NT1421043004.D	SJD0305-CAL1		1	18.78	393678	22.22	335095
						33.05			358059
5	1019	NT1421043005.D	SJD0305-CAL6		1	18.78	459220	22.22	341294
						33.05			348573
6	1107	NT1421043006.D	SJD0305-CAL2		1	18.77	514907	22.22	378499
						33.05			385845
7	1155	NT1421043007.D	SJD0305-CAL4		1	18.78	445719	22.22	328813
						33.05			341443
8	1243	NT1421043008.D	SJD0305-CAL3		1	18.78	369261	22.22	315516
						33.05			324493
9	1332	NT1421043009.D	SJD0305-CAL1		1	18.78	472157	22.22	325856
						33.05			333740
10	1441	NT1421043010.D	SJD0305-SCV1		1	18.78	351020	22.23	309177
						33.05			328565
11	1529	NT1421043011.D	SJD0305-ICB1		1	18.77	376278	22.23	322067
						33.05			328767

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210430.b

Instrument: nt14.i Date: 30-APR-2021

Time	Filename	LabID	DF	Manually Integrated Compounds
0742	NT1421043001.D	SJD0305-TUN1	1	NO MANUAL INTEGRATION
0756	NT1421043002.D	SJD0305-CAL5	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Perylene, Total Benzofluoranthenes,
0843	NT1421043003.D	SJD0305-CAL7	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
0931	NT1421043004.D	SJD0305-CAL1	1	Carbazole, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(g,h,i)perylene, Perylene, Total Benzofluoranthene
1019	NT1421043005.D	SJD0305-CAL6	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes, Perylene-d12,
1107	NT1421043006.D	SJD0305-CAL2	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Benzo(j)fluoranthene,
1155	NT1421043007.D	SJD0305-CAL4	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Perylene, Total Benzofluoranthenes,
1243	NT1421043008.D	SJD0305-CAL3	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
1332	NT1421043009.D	SJD0305-CAL1	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
1441	NT1421043010.D	SJD0305-SCV1	1	Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Benzo(g,h,i)perylene, Perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene, Chrysene-d12, Perylene-d12,
1529	NT1421043011.D	SJD0305-ICB1	1	Chrysene-d12, Perylene-d12,

Security Status Report

Date: 01-May-2021 09:39

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NT1421043002.D	Data Locked	van, 01-May-2021 09:39
NT1421043003.D	Data Locked	van, 01-May-2021 09:39
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NT1421043009.D	Data Locked	van, 01-May-2021 09:39
NT1421043010.D	Data Locked	van, 01-May-2021 09:39
NT1421043011.D	Data Locked	van, 01-May-2021 09:39



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21D0180
Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings
Sequence: SJD0344 Instrument: NT11
Calibration: DH00073

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
DFTPP	SJD0344-TUN1	NT1121042401.D	NA	04/24/21 09:58
Initial Cal Check	SJD0344-ICV1	NT1121042402.D	NA	04/24/21 10:14
LCV 10	SJD0344-LCV1	NT1121042403.D	NA	04/24/21 10:46
Blank	BJD0479-BLK1	NT1121042404.D	Solid	04/24/21 11:18
LCS	BJD0479-BS1	NT1121042405.D	Solid	04/24/21 11:51
ZZZZZ	21D0179-01	NT1121042406.D	Solid	04/24/21 12:23
ZZZZZ	21D0179-02	NT1121042407.D	Solid	04/24/21 12:55
ZZZZZ	21D0179-03	NT1121042408.D	Solid	04/24/21 13:27
ZZZZZ	21D0179-05	NT1121042412.D	Solid	04/24/21 15:36
ZZZZZ	21D0179-06	NT1121042413.D	Solid	04/24/21 16:08
Calibration Check	SJD0344-CCV1	NT1121042418.D	NA	04/24/21 18:49



ANALYSIS SEQUENCE

SJD0344

Instrument: NT11 Element Column ID: J000057
Calibration ID: DH00073 Tune File: 190904.U
EM Voltage: 1753

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SJD0344-TUN1	DFTPP	QC		1	I007631		
SJD0344-ICV1	Initial Cal Check	QC		2	I009255	J002777	
SJD0344-LCV1	LCV 10	QC		3	I010630	J002777	
BJD0479-BLK1	Blank	QC		4		J002777	
BJD0479-BS1	LCS	QC		5		J002777	
21D0179-01	USMPDI-008SG-210413	270E-SIM PAH Low (0.01ug/L or 0.5ug/kg)	A 02	6		J002777	Version
21D0179-02	USMPDI-016SG-210413	270E-SIM PAH Low (0.01ug/L or 0.5ug/kg)	A 02	7		J002777	Version
21D0179-03	USMPDI-024SG-210413	270E-SIM PAH Low (0.01ug/L or 0.5ug/kg)	A 02	8		J002777	Version
21D0179-04	USMPDI-036SG-210413	270E-SIM PAH Low (0.01ug/L or 0.5ug/kg)	A 02	9		J002777	Version
BJD0479-MS1	Matrix Spike	QC		10		J002777	
BJD0479-MSD1	Matrix Spike Dup	QC		11		J002777	
21D0179-05	USMPDI-037SG-210413	270E-SIM PAH Low (0.01ug/L or 0.5ug/kg)	A 02	12		J002777	Version
21D0179-06	USMPDI-1037SG-210413	270E-SIM PAH Low (0.01ug/L or 0.5ug/kg)	A 02	13		J002777	Version
21D0180-01	USMPDI-010SG-210414	270E-SIM PAH Low (0.01ug/L or 0.5ug/kg)	A 02	14		J002777	Version
21D0180-02	USMPDI-015SG-210414	270E-SIM PAH Low (0.01ug/L or 0.5ug/kg)	A 02	15		J002777	Version
21D0180-03	USMPDI-019SG-210414	270E-SIM PAH Low (0.01ug/L or 0.5ug/kg)	A 02	16		J002777	Version
21D0180-04	USMPDI-029SG-210414	270E-SIM PAH Low (0.01ug/L or 0.5ug/kg)	A 02	17		J002777	Version
SJD0344-CCV1	Calibration Check	QC		18	I009255	J002777	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20210424.b

Instrument: nt11.i Date: 24-APR-2021

Time	Filename	LabID	DF	Manually Integrated Compounds
0958	NT1121042401.D	SJD0344-TUN1	1	NO MANUAL INTEGRATION
1014	NT1121042402.D	SJD0344-ICV1	1	NO MANUAL INTEGRATION
1046	NT1121042403.D	SJD0344-LCV1	1	2-Methylnaphthalene, Acenaphthylene, 1-Methylnaphthalene, 2-Chloronaphthalene, 2,6-Dimethylnaphthalene, Carbazole, 2-Methylnaphthalene-d10,
1118	NT1121042404.D	BJD0479-BLK1	1	Naphthalene, Chrysene,
1151	NT1121042405.D	BJD0479-BS1	1	NO MANUAL INTEGRATION
1223	NT1121042406.D	21D0179-01	1	Benzo(a)anthracene, 2,6-Dimethylnaphthalene, Carbazole,
1255	NT1121042407.D	21D0179-02	1	Perylene-d12, 2,6-Dimethylnaphthalene, Biphenyl,
1327	NT1121042408.D	21D0179-03	1	Perylene-d12, Benzo(b)thiophene, 2,6-Dimethylnaphthalene, 1-Methylphenanthrene, Carbazole, Biphenyl, Dibenzo(a,h)anthracene-d14,
1400	NT1121042409.D	21D0179-04	1	Acenaphthylene, Indeno(1,2,3-cd)pyrene, Benzo(g,h,i)perylene, Perylene, Perylene-d12, 2,6-Dimethylnaphthalene, Dibenzo(a,h)anthracene-d14,
1432	NT1121042410.D	BJD0479-MS1	1	Indeno(1,2,3-cd)pyrene, Perylene-d12,
1504	NT1121042411.D	BJD0479-MSD1	1	Perylene-d12,
1536	NT1121042412.D	21D0179-05	1	Acenaphthylene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Perylene-d12, 2,6-Dimethylnaphthalene, 1-Methylphenanthrene, 2-Methylnaphthalene-d10, Dibenzo(a,h)anthracene-d14,
1608	NT1121042413.D	21D0179-06	1	Acenaphthylene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Perylene, Perylene-d12, 2,6-Dimethylnaphthalene, 1-Methylphenanthrene, Dibenzo(a,h)anthracene-d14,
1641	NT1121042414.D	21D0180-01	1	Acenaphthylene, Perylene, Perylene-d12, 2,6-Dimethylnaphthalene,
1713	NT1121042415.D	21D0180-02	1	Acenaphthylene, Benzo(g,h,i)perylene, Perylene-d12, 2,6-Dimethylnaphthalene,
1745	NT1121042416.D	21D0180-03	1	Acenaphthylene, Benzo(g,h,i)perylene, Perylene-d12, 2,6-Dimethylnaphthalene, Carbazole, Biphenyl, Dibenzo(a,h)anthracene-d14, Fluoranthene-d10,
1817	NT1121042417.D	21D0180-04	1	Acenaphthylene, Indeno(1,2,3-cd)pyrene, Perylene-d12, 2,6-Dimethylnaphthalene, Dibenzo(a,h)anthracene-d14,

Instrument: nt11.i Date: 24-APR-2021

Time	Filename	LabID	DF	Manually Integrated Compounds
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1849	NT1121042418.D	SJD0344-CCV1	1	NO MANUAL INTEGRATION
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Security Status Report

Date: 27-Apr-2021 14:25

NT1121042401.D	Data Locked	van, 27-Apr-2021 14:25
NT1121042402.D	Data Locked	van, 27-Apr-2021 14:25
NT1121042403.D	Data Locked	van, 27-Apr-2021 14:25
NT1121042404.D	Data Locked	van, 27-Apr-2021 14:25
NT1121042405.D	Data Locked	van, 27-Apr-2021 14:25
NT1121042406.D	Data Locked	van, 27-Apr-2021 14:25
NT1121042407.D	Data Locked	van, 27-Apr-2021 14:25
NT1121042408.D	Data Locked	van, 27-Apr-2021 14:25
NT1121042409.D	Data Locked	van, 27-Apr-2021 14:25
NT1121042410.D	Data Locked	van, 27-Apr-2021 14:25
NT1121042411.D	Data Locked	van, 27-Apr-2021 14:25
NT1121042412.D	Data Locked	van, 27-Apr-2021 14:25
NT1121042413.D	Data Locked	van, 27-Apr-2021 14:25
NT1121042414.D	Data Locked	van, 27-Apr-2021 14:25
NT1121042415.D	Data Locked	van, 27-Apr-2021 14:25
NT1121042416.D	Data Locked	van, 27-Apr-2021 14:25
NT1121042417.D	Data Locked	van, 27-Apr-2021 14:25
NT1121042418.D	Data Locked	van, 27-Apr-2021 14:25



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21D0180
Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings
Sequence: SJD0374 Instrument: NT11
Calibration: DH00073

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
DFTPP	SJD0374-TUN1	NT1121042701.D	NA	04/27/21 12:25
Initial Cal Check	SJD0374-ICV1	NT1121042702.D	NA	04/27/21 12:42
LCV 10	SJD0374-LCV1	NT1121042703.D	NA	04/27/21 13:17
Instrument Blank	SJD0374-IBL1	NT1121042704.D	NA	04/27/21 13:50
ZZZZZ	21D0179-01RE1	NT1121042705.D	Solid	04/27/21 14:22
ZZZZZ	21D0179-02RE1	NT1121042706.D	Solid	04/27/21 14:55
ZZZZZ	21D0179-03RE1	NT1121042707.D	Solid	04/27/21 15:27
ZZZZZ	21D0179-04RE1	NT1121042708.D	Solid	04/27/21 15:59
ZZZZZ	21D0179-05RE1	NT1121042709.D	Solid	04/27/21 16:32
ZZZZZ	21D0179-06RE1	NT1121042710.D	Solid	04/27/21 17:05
Calibration Check	SJD0374-CCV1	NT1121042715.D	NA	04/27/21 19:48



ANALYSIS SEQUENCE

SJD0374

Instrument: NT11 Element Column ID: J000057
 Calibration ID: DH00073 Tune File: 190904.U
 EM Voltage: 1753

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SJD0374-TUN1	DFTPP	QC		1	I007631		
SJD0374-ICV1	Initial Cal Check	QC		2	I009255	J002777	
SJD0374-LCV1	LCV 10	QC		3	I010630	J002777	
SJD0374-IBL1	Instrument Blank	QC		4	J003707	J002777	
21D0179-01RE1	USMPDI-008SG-210413	270E-SIM PAH Low (0.01ug/L or 0.5ug/kg)	A 02	5		J002777	Version
21D0179-02RE1	USMPDI-016SG-210413	270E-SIM PAH Low (0.01ug/L or 0.5ug/kg)	A 02	6		J002777	Version
21D0179-03RE1	USMPDI-024SG-210413	270E-SIM PAH Low (0.01ug/L or 0.5ug/kg)	A 02	7		J002777	Version
21D0179-04RE1	USMPDI-036SG-210413	270E-SIM PAH Low (0.01ug/L or 0.5ug/kg)	A 02	8		J002777	Version
21D0179-05RE1	USMPDI-037SG-210413	270E-SIM PAH Low (0.01ug/L or 0.5ug/kg)	A 02	9		J002777	Version
21D0179-06RE1	USMPDI-1037SG-210413	270E-SIM PAH Low (0.01ug/L or 0.5ug/kg)	A 02	10		J002777	Version
21D0180-01RE1	USMPDI-010SG-210414	270E-SIM PAH Low (0.01ug/L or 0.5ug/kg)	A 02	11		J002777	Version
21D0180-02RE1	USMPDI-015SG-210414	270E-SIM PAH Low (0.01ug/L or 0.5ug/kg)	A 02	12		J002777	Version
21D0180-03RE1	USMPDI-019SG-210414	270E-SIM PAH Low (0.01ug/L or 0.5ug/kg)	A 02	13		J002777	Version
21D0180-04RE1	USMPDI-029SG-210414	270E-SIM PAH Low (0.01ug/L or 0.5ug/kg)	A 02	14		J002777	Version
SJD0374-CCV1	Calibration Check	QC		15	I009255	J002777	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20210427.b

Time	Filename	LabID	ClientId	DF																
1	1225	NT1121042701.D	SJD0374-TUN1		1		NO	ISTDS	FOUND											
2	1242	NT1121042702.D	SJD0374-ICV1		1		6.77	112036		9.76	64624		12.43	96378		17.16	68803		19.89	87167
3	1317	NT1121042703.D	SJD0374-LCV1		1		6.77	131244		9.76	65620		12.43	97504		17.16	67019		19.89	80628
4	1350	NT1121042704.D	SJD0374-IBL1		1		6.77	108457		9.76	55701		12.43	83735		17.16	54682		19.89	65619
5	1422	NT1121042705.D	21D0179-01RE1		20		6.77	108132		9.76	57070		12.43	86686		17.16	66489		19.89	82298
6	1455	NT1121042706.D	21D0179-02RE1		10		6.76	112474		9.76	59964		12.43	90210		17.16	66723		19.88	84285
7	1527	NT1121042707.D	21D0179-03RE1		10		6.77	113668		9.76	60220		12.43	89649		17.16	66910		19.88	84676
8	1559	NT1121042708.D	21D0179-04RE1		20		6.77	118406		9.76	61809		12.43	92759		17.16	68279		19.88	85508
9	1632	NT1121042709.D	21D0179-05RE1		10		6.77	119175		9.76	63613		12.43	95259		17.16	71349		19.88	90492
10	1705	NT1121042710.D	21D0179-06RE1		10		6.77	118542		9.76	63157		12.43	95111		17.16	69426		19.88	88464
11	1737	NT1121042711.D	21D0180-01RE1		20		6.76	121924		9.76	64187		12.43	95969		17.16	70684		19.88	87768
12	1810	NT1121042712.D	21D0180-02RE1		20		6.76	117583		9.76	61610		12.43	92382		17.16	68544		19.88	86013
13	1842	NT1121042713.D	21D0180-03RE1		20		6.77	115708		9.76	60257		12.43	90072		17.16	67146		19.88	82610
14	1915	NT1121042714.D	21D0180-04RE1		10		6.77	115344		9.76	61178		12.43	91333		17.16	70336		19.88	90132
15	1948	NT1121042715.D	SJD0374-CCV1		1		6.76	121440		9.76	66616		12.43	95692		17.16	64981		19.88	80717

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20210427.b

Instrument: nt11.i Date: 27-APR-2021

Time	Filename	LabID	DF	Manually Integrated Compounds
1225	NT1121042701.D	SJD0374-TUN1	1	NO MANUAL INTEGRATION
1242	NT1121042702.D	SJD0374-ICV1	1	NO MANUAL INTEGRATION
1317	NT1121042703.D	SJD0374-LCV1	1	Acenaphthylene, Aceraphthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, 1-Methylna 2-Chloronaphthalene, Carbazole, Dibenzo(a,h)anthracene-d14,
1350	NT1121042704.D	SJD0374-IBL1	1	NO MANUAL INTEGRATION
1422	NT1121042705.D	21D0179-01RE1	20	2-Methylnaphthalene, Dibenzofuran, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, 1-Methylnaphthalene, 2,6-Dime Biphenyl, 2-Methylnaphthalene-d10, Dibenzo(a,h)anthracene-d14, Fluoranthene-d10,
1455	NT1121042706.D	21D0179-02RE1	10	Naphthalene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, 1-Methylnaphthalene, Benzo(b)thiophene, 2,6-Dimet 2-Methylnaphthalene-d10, Dibenzo(a,h)anthracene-d14,
1527	NT1121042707.D	21D0179-03RE1	10	Dibenzo(a,h)anthracene, Phenanthrene-d10, 2,6-Dimethylnaphthalene, 1-Methylphenanthrene, Biphenyl, 2-Methylnap Dibenzo(a,h)anthracene-d14,
1559	NT1121042708.D	21D0179-04RE1	20	Naphthalene, 2-Methylnaphthalene, Dibenzofuran, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)pe 1-Methylnaphthalene, 2,6-Dimethylnaphthalene, Biphenyl, 2-Methylnaphthalene-d10, Dibenzo(a,h)anthracene-d1
1632	NT1121042709.D	21D0179-05RE1	10	Dibenzofuran, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, 1-Methylnaphthalene, 2,6-Dimethylnaphthalene, 2-Me Dibenzo(a,h)anthracene-d14,
1705	NT1121042710.D	21D0179-06RE1	10	Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, 2,6-Dimethylnaphthalene, Carbazole, Biphenyl, 2-Methylnaphthalen Dibenzo(a,h)anthracene-d14,
1737	NT1121042711.D	21D0180-01RE1	20	Naphthalene, Dibenzofuran, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, 1-Methylnapht 2,6-Dimethylnaphthalene, 2-Methylnaphthalene-d10, Dibenzo(a,h)anthracene-d14, Fluoranthene-d10,
1810	NT1121042712.D	21D0180-02RE1	20	Naphthalene, 2-Methylnaphthalene, Dibenzofuran, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)pe 1-Methylnaphthalene, 2,6-Dimethylnaphthalene, Biphenyl, 2-Methylnaphthalene-d10, Dibenzo(a,h)anthracene-d1
1842	NT1121042713.D	21D0180-03RE1	20	Naphthalene, 2-Methylnaphthalene, Dibenzofuran, Fluorene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, 1-Methylnaphthalene, 2,6-Dimethylnaphthalene, Biphenyl, 2-Methylnaphthalene-d10, Fluoranthene-d10,
1915	NT1121042714.D	21D0180-04RE1	10	Naphthalene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, 1-Methylnaphthalene, 2,6-Di 2-Methylnaphthalene-d10, Dibenzo(a,h)anthracene-d14,
1948	NT1121042715.D	SJD0374-CCV1	1	NO MANUAL INTEGRATION

Security Status Report

Date: 28-Apr-2021 11:04

NT1121042701.D	Data Locked	van, 28-Apr-2021 10:45
NT1121042702.D	Data Locked	van, 28-Apr-2021 10:45
NT1121042703.D	Data Locked	van, 28-Apr-2021 10:45
NT1121042704.D	Data Locked	van, 28-Apr-2021 10:45
NT1121042705.D	Data Locked	van, 28-Apr-2021 10:45
NT1121042706.D	Data Locked	van, 28-Apr-2021 10:45
NT1121042707.D	Data Locked	van, 28-Apr-2021 10:45
NT1121042708.D	Data Locked	van, 28-Apr-2021 10:45
NT1121042709.D	Data Locked	van, 28-Apr-2021 10:45
NT1121042710.D	Data Locked	van, 28-Apr-2021 10:45
NT1121042711.D	Data Locked	van, 28-Apr-2021 10:45
NT1121042712.D	Data Locked	van, 28-Apr-2021 10:45
NT1121042713.D	Data Locked	van, 28-Apr-2021 10:45
NT1121042714.D	Data Locked	van, 28-Apr-2021 10:45
NT1121042715.D	Data Locked	van, 28-Apr-2021 10:45



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21D0180
Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings
Sequence: SJE0004 Instrument: NT14
Calibration: EE00001

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Initial Cal Check	SJE0004-ICV1	NT1421043051ICV.D	NA	05/01/21 23:35
PAH 0.1	SJE0004-LCV1	NT1421043052.D	NA	05/02/21 00:23
Blank	BJD0507-BLK1	NT1421043053.D	Solid	05/02/21 01:11
LCS	BJD0507-BS1	NT1421043054.D	Solid	05/02/21 02:00
ZZZZZ	21D0179-01	NT1421043055.D	Solid	05/02/21 02:48
ZZZZZ	21D0179-02	NT1421043056.D	Solid	05/02/21 03:36
ZZZZZ	21D0179-03	NT1421043059.D	Solid	05/02/21 06:00
ZZZZZ	21D0179-04	NT1421043060.D	Solid	05/02/21 06:48
ZZZZZ	21D0179-05	NT1421043061.D	Solid	05/02/21 07:37
ZZZZZ	21D0179-06	NT1421043062.D	Solid	05/02/21 08:25
USMPDI-010SG-210414	21D0180-01	NT1421043063.D	Solid	05/02/21 09:13
USMPDI-015SG-210414	21D0180-02	NT1421043064.D	Solid	05/02/21 10:01
USMPDI-019SG-210414	21D0180-03	NT1421043065.D	Solid	05/02/21 10:49
Calibration Check	SJE0004-CCV1	NT1421043067.D	NA	05/02/21 12:25



ANALYSIS SEQUENCE

SJE0004

Instrument: NT14 Element Column ID: J008815
Calibration ID: EE00001 Tune File: 200104.U
EM Voltage: 2000

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SJE0004-ICV1	Initial Cal Check	QC		1	J004383	J004384	
SJE0004-LCV1	PAH 0.1	QC		2	J004706	J004384	
BJD0507-BLK1	Blank	QC		3		J004384	
BJD0507-BS1	LCS	QC		4		J004384	
21D0179-01	USMPDI-008SG-210413	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 03	5		J004384	
21D0179-02	USMPDI-016SG-210413	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 03	6		J004384	
BJD0507-MS1	Matrix Spike	QC		7		J004384	
BJD0507-MSD1	Matrix Spike Dup	QC		8		J004384	
21D0179-03	USMPDI-024SG-210413	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 03	9		J004384	
21D0179-04	USMPDI-036SG-210413	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 03	10		J004384	
21D0179-05	USMPDI-037SG-210413	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 03	11		J004384	
21D0179-06	USMPDI-1037SG-210413	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 03	12		J004384	
21D0180-01	USMPDI-010SG-210414	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 03	13		J004384	
21D0180-02	USMPDI-015SG-210414	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 03	14		J004384	
21D0180-03	USMPDI-019SG-210414	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 03	15		J004384	
SJE0004-CCV1	Calibration Check	QC		16	J004383	J004384	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210430D.b

Time	Filename	LabID	ClientId	DF
1 2335	NT1421043051ICV.D	SJE0004-ICV1		1 18.77 504442 22.21 459103 33.05 516794
2 0023	NT1421043052.D	SJE0004-LCV1		1 18.77 556851 22.21 496092 33.05 562144
3 0111	NT1421043053.D	BJD0507-BLK1		1 18.77 587393 22.21 510143 33.05 530125
4 0200	NT1421043054.D	BJD0507-BS1		1 18.77 576235 22.21 511706 33.05 543631
5 0248	NT1421043055.D	21D0179-01		1 18.77 521236 22.21 468631 33.05 595479
6 0336	NT1421043056.D	21D0179-02		1 18.77 541850 22.21 479683 33.05 583696
7 0424	NT1421043057.D	BJD0507-MS1		1 18.77 531490 22.21 479467 33.05 607139
8 0512	NT1421043058.D	BJD0507-MSD1		1 18.77 550369 22.21 487258 33.05 607317
9 0600	NT1421043059.D	21D0179-03		1 18.77 545278 22.21 496380 33.05 601963
10 0648	NT1421043060.D	21D0179-04		1 18.77 527209 22.21 480476 33.05 611152
11 0737	NT1421043061.D	21D0179-05		1 18.77 591865 22.21 536548 33.05 603473
12 0825	NT1421043062.D	21D0179-06		1 18.77 536018 22.21 493480 33.05 612523
13 0913	NT1421043063.D	21D0180-01		1 18.77 524796 22.21 475082 33.05 616810
14 1001	NT1421043064.D	21D0180-02		1 18.77 533752 22.21 494716 33.05 608015
15 1049	NT1421043065.D	21D0180-03		1 18.77 562163 22.21 511717 33.05 618257
16 1137	NT1421043066.D	21D0180-04		1 18.77 585765 22.21 529751 33.05 626065
17 1225	NT1421043067.D	SJE0004-CCV1		1 18.77 566717 22.21 514091 33.05 549348

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210430D.b

Instrument: nt14.i Date: 01-MAY-2021

Time	Filename	LabID	DF	Manually Integrated Compounds					
2335	NT1421043051ICV.D	SJE0004-ICV1	1	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Indeno(1,2,3-cd)pyrene,	Dibenzo(a,h)anthracene,	Benzo(g,h,i)perylene	
0023	NT1421043052.D	SJE0004-LCV1	1	Benzo(b)fluoranthene, Benzo(j)fluoranthene,	Benzo(k)fluoranthene,	Indeno(1,2,3-cd)pyrene,	Dibenzo(a,h)anthracene,	Perylene,	Total Be
0111	NT1421043053.D	BJD0507-BLK1	1	Perylene-d12,					
0200	NT1421043054.D	BJD0507-BS1	1	Benzo(b)fluoranthene, Perylene-d12,	Benzo(k)fluoranthene,	Indeno(1,2,3-cd)pyrene,	Dibenzo(a,h)anthracene,	Benzo(g,h,i)perylene,	
0248	NT1421043055.D	21D0179-01	1	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Dibenzo(a,h)anthracene,	Dibenzothiophene,	2,6-Dimethylnaphthalene,	
0336	NT1421043056.D	21D0179-02	1	Benzo(b)fluoranthene, Naphthobenzothiophene,	Benzo(k)fluoranthene, Total Benzofluoranthenes,	Indeno(1,2,3-cd)pyrene,	Dibenzo(a,h)anthracene,	Dibenzothiophene,	
0424	NT1421043057.D	BJD0507-MS1	1	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Dibenzo(a,h)anthracene,	Total Benzofluoranthenes,		
0512	NT1421043058.D	BJD0507-MSD1	1	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Dibenzo(a,h)anthracene,	Benzo(g,h,i)perylene,	Total Benzofluoranthenes	
0600	NT1421043059.D	21D0179-03	1	Pyrene, Total Benzofluoranthenes,	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Dibenzo(a,h)anthracene,	Dibenzothiophene,	2,6-Dimethylnaph
0648	NT1421043060.D	21D0179-04	1	Carbazole, Naphthobenzothiophene,	Benzo(b)fluoranthene, Total Benzofluoranthenes,	Benzo(k)fluoranthene,	Dibenzo(a,h)anthracene,	Dibenzothiophene,	2,6-Dimethyln
0737	NT1421043061.D	21D0179-05	1	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Dibenzo(a,h)anthracene,	Dibenzothiophene,	2,6-Dimethylnaphthalene,	
0825	NT1421043062.D	21D0179-06	1	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Dibenzo(a,h)anthracene,	Total Benzofluoranthenes,		
0913	NT1421043063.D	21D0180-01	1	Benzo(b)fluoranthene, Naphthobenzothiophene,	Benzo(k)fluoranthene, Total Benzofluoranthenes,	Indeno(1,2,3-cd)pyrene,	Dibenzo(a,h)anthracene,	Dibenzothiophene,	
1001	NT1421043064.D	21D0180-02	1	Pyrene, Naphthobenzothiophene,	Benzo(b)fluoranthene, Total Benzofluoranthenes,	Benzo(k)fluoranthene,	Dibenzo(a,h)anthracene,	Dibenzothiophene,	2,6-Dimethylnaph
1049	NT1421043065.D	21D0180-03	1	Pyrene, Naphthobenzothiophene,	Benzo(b)fluoranthene, Total Benzofluoranthenes,	Benzo(k)fluoranthene,	Dibenzo(a,h)anthracene,	Dibenzothiophene,	2,6-Dimethylnaph
1137	NT1421043066.D	21D0180-04	1	Dibenzofuran, 2,6-Dimethylnaphthalene,	Pyrene, Total Benzofluoranthenes,	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Indeno(1,2,3-cd)pyrene,	Dibenzo(a,h)anthracene,

Security Status Report

Date: 04-May-2021 13:25

NT1421043051ICV.D	Data Locked	van,	04-May-2021	13:25
NT1421043052.D	Data Locked	van,	04-May-2021	13:25
NT1421043053.D	Data Locked	van,	04-May-2021	13:25
NT1421043054.D	Data Locked	van,	04-May-2021	13:25
NT1421043055.D	Data Locked	van,	04-May-2021	13:25
NT1421043056.D	Data Locked	van,	04-May-2021	13:25
NT1421043057.D	Data Locked	van,	04-May-2021	13:25
NT1421043058.D	Data Locked	van,	04-May-2021	13:25
NT1421043059.D	Data Locked	van,	04-May-2021	13:25
NT1421043060.D	Data Locked	van,	04-May-2021	13:25
NT1421043061.D	Data Locked	van,	04-May-2021	13:25
NT1421043062.D	Data Locked	van,	04-May-2021	13:25
NT1421043063.D	Data Locked	van,	04-May-2021	13:25
NT1421043064.D	Data Locked	van,	04-May-2021	13:25
NT1421043065.D	Data Locked	van,	04-May-2021	13:25
NT1421043066.D	Data Locked	van,	04-May-2021	13:25
NT1421043067.D	Data Locked	van,	04-May-2021	13:25



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21D0180
Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings
Sequence: SJE0028 Instrument: NT14
Calibration: EE00001

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SJE0028-TUN1	NT1421050401.D	NA	05/04/21 12:38
Initial Cal Check	SJE0028-ICV1	NT1421050402.D	NA	05/04/21 12:52
Instrument Blank	SJE0028-IBL1	NT1421050403.D	NA	05/04/21 14:30
USMPDI-029SG-210414	21D0180-04	NT1421050404.D	Solid	05/04/21 15:19
Calibration Check	SJE0028-CCV1	NT1421050405.D	NA	05/04/21 16:08



ANALYSIS SEQUENCE

SJE0028

Instrument: NT14 Element Column ID: J008815
Calibration ID: UNASSIGNED Tune File: 200104.U
EM Voltage: 2000

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SJE0028-TUN1	MS Tune	QC		1	I007631		
SJE0028-ICV1	Initial Cal Check	QC		2	J004383	J004384	
SJE0028-IBL1	Instrument Blank	QC		3	J004708	J004384	
21D0180-04	USMPDI-029SG-210414	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 03	4		J004384	
SJE0028-CCV1	Calibration Check	QC		5	J004383	J004384	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210504.b

Time	Filename	LabID	ClientId	DF
1 1238	NT1421050401.D	SJE0028-TUN1		1 NO ISTDS FOUND
2 1252	NT1421050402.D	SJE0028-ICV1		1 18.77 560901 22.21 511244 33.05 574536
3 1430	NT1421050403.D	SJE0028-IBL1		1 18.77 511447 22.21 442739 33.05 537579
4 1519	NT1421050404.D	21D0180-04		1 18.77 514283 22.21 476033 33.05 553821
5 1608	NT1421050405.D	SJE0028-CCV1		1 18.77 591967 22.21 533317 33.05 580689

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210504.b

Instrument: nt14.i Date: 04-MAY-2021

Time	Filename	LabID	DF	Manually Integrated Compounds
1238	NT1421050401.D	SJE0028-TUN1	1	NO MANUAL INTEGRATION
1252	NT1421050402.D	SJE0028-ICV1	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene, Perylene-d12,
1430	NT1421050403.D	SJE0028-IBL1	1	Perylene-d12,
1519	NT1421050404.D	21D0180-04	1	Carbazole, Pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, 2,6-Dimethylnaphthalene, Total Benzofluoranthenes,
1608	NT1421050405.D	SJE0028-CCV1	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene, Perylene-d12,

Security Status Report

Date: 05-May-2021 12:36

NT1421050401.D	Data Locked	van, 05-May-2021 12:36
NT1421050402.D	Data Locked	van, 05-May-2021 12:36
NT1421050403.D	Data Locked	van, 05-May-2021 12:36
NT1421050404.D	Data Locked	van, 05-May-2021 12:36
NT1421050405.D	Data Locked	van, 05-May-2021 12:36



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21D0180
Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings
Sequence: SJE0095 Instrument: NT14
Calibration: EE00019

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Blank	BJD0507-BLK2	NT1421043053S.D	Solid	05/02/21 01:11
ZZZZZ	21D0179-01	NT1421043055S.D	Solid	05/02/21 02:48
ZZZZZ	21D0179-02	NT1421043056S.D	Solid	05/02/21 03:36
ZZZZZ	21D0179-03	NT1421043059S.D	Solid	05/02/21 06:00
ZZZZZ	21D0179-04	NT1421043060S.D	Solid	05/02/21 06:48
ZZZZZ	21D0179-05	NT1421043061S.D	Solid	05/02/21 07:37
ZZZZZ	21D0179-06	NT1421043062S.D	Solid	05/02/21 08:25
USMPDI-010SG-210414	21D0180-01	NT1421043063S.D	Solid	05/02/21 09:13
USMPDI-015SG-210414	21D0180-02	NT1421043064S.D	Solid	05/02/21 10:01
USMPDI-019SG-210414	21D0180-03	NT1421043065S.D	Solid	05/02/21 10:49



ANALYSIS SEQUENCE

SJE0095

Instrument: NT14 Element Column ID: i008815
Calibration ID: EE00019 Tune File: 200104u
EM Voltage: 2000

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SJE0095-ICV1	Initial Cal Check	QC		1	J004700	J004384	
BJD0507-BLK2	Blank	QC		2		J004384	
21D0179-01	USMPDI-008SG-210413	8270E-SIM Alkyl PAH (Range) Dual Scan	A 04	3		J004384	
21D0179-02	USMPDI-016SG-210413	8270E-SIM Alkyl PAH (Range) Dual Scan	A 04	4		J004384	
21D0179-03	USMPDI-024SG-210413	8270E-SIM Alkyl PAH (Range) Dual Scan	A 04	5		J004384	
21D0179-04	USMPDI-036SG-210413	8270E-SIM Alkyl PAH (Range) Dual Scan	A 04	6		J004384	
21D0179-05	USMPDI-037SG-210413	8270E-SIM Alkyl PAH (Range) Dual Scan	A 04	7		J004384	
21D0179-06	USMPDI-1037SG-210413	8270E-SIM Alkyl PAH (Range) Dual Scan	A 04	8		J004384	
21D0180-01	USMPDI-010SG-210414	8270E-SIM Alkyl PAH (Range) Dual Scan	A 04	9		J004384	
21D0180-02	USMPDI-015SG-210414	8270E-SIM Alkyl PAH (Range) Dual Scan	A 04	10		J004384	
21D0180-03	USMPDI-019SG-210414	8270E-SIM Alkyl PAH (Range) Dual Scan	A 04	11		J004384	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210430.b\SIM.b

Time	Filename	LabID	ClientId	DF						
1	2335	NT1421043051S.D	SJE0095-ICV1		1	18.76	584738 22.21	550360 33.04	638375	
2	0023	NT1421043052S.D	SJE0004-LCV1		1	18.77	656654 22.21	595106 33.04	681943	
3	0111	NT1421043053S.D	BJD0507-BLK1		1	18.76	682587 22.21	602752 33.04	662179	
4	0200	NT1421043054S.D	BJD0507-BS1		1	18.76	679346 22.21	609083 33.04	657303	
5	0248	NT1421043055S.D	21D0179-01		1	18.76	614375 22.21	556137 33.04	699237	
6	0336	NT1421043056S.D	21D0179-02		1	18.76	632296 22.21	580031 33.04	717054	
7	0424	NT1421043057S.D	BJD0507-MS1		1	18.76	618506 22.21	564851 33.04	736387	
8	0512	NT1421043058S.D	BJD0507-MSD1		1	18.76	636567 22.21	583753 33.04	744743	
9	0600	NT1421043059S.D	21D0179-03		1	18.76	634484 22.21	588214 33.04	732745	
10	0648	NT1421043060S.D	21D0179-04		1	18.76	620148 22.21	576893 33.04	741525	
11	0737	NT1421043061S.D	21D0179-05		1	18.76	689453 22.21	640961 33.04	739479	
12	0825	NT1421043062S.D	21D0179-06		1	18.76	626202 22.21	581202 33.04	742844	
13	0913	NT1421043063S.D	21D0180-01		1	18.76	614005 22.21	559042 33.04	749516	
14	1001	NT1421043064S.D	21D0180-02		1	18.77	533752 22.21	494716 33.05	612826	
15	1049	NT1421043065S.D	21D0180-03		1	18.76	645514 22.21	607222 33.04	752067	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210430.b\SIM.b

ARI Job No.: SJE0 Method: SIM.b\ALKYLRANGES.m Instrument: nt14.i Date: 01-MAY-2021

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2335	NT1421043051S.D	SJE0095-ICV1		1	NO MANUAL INTEGRATION
0023	NT1421043052S.D	SJE0004-LCV1		1	NO MANUAL INTEGRATION
0111	NT1421043053S.D	BJD0507-BLK1		1	NO MANUAL INTEGRATION
0200	NT1421043054S.D	BJD0507-BS1		1	NO MANUAL INTEGRATION
0248	NT1421043055S.D	21D0179-01		1	C2-Decalin, C3-Decalin, C1-Naphthalenes, C4-Naphthobenzothiophenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophenes, C2-Benzothiophenes, C3_Benzothiophenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C1-Phenanthrenes/Anthracenes, C2-Phe
0336	NT1421043056S.D	21D0179-02		1	C1-Decalin, C2-Decalin, C3-Decalin, C1-Naphthalenes, C4-Naphthobenzothiophenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophenes, C2-Benzothiophenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C1-Phenanthrenes/Anthracenes, C2-Phe
0424	NT1421043057S.D	BJD0507-MS1		1	NO MANUAL INTEGRATION
0512	NT1421043058S.D	BJD0507-MSD1		1	NO MANUAL INTEGRATION
0600	NT1421043059S.D	21D0179-03		1	C1-Decalin, C2-Decalin, C3-Decalin, C4-Decalin, C1-Naphthalenes, C4-Naphthobenzothiophenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophenes, C2-Benzothiophenes, C3_Benzothiophenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C1
0648	NT1421043060S.D	21D0179-04		1	C1-Decalin, C2-Decalin, C3-Decalin, C1-Naphthalenes, C4-Naphthobenzothiophenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophenes, C2-Benzothiophenes, C3_Benzothiophenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C1-Phenanthrenes/Anthr
0737	NT1421043061S.D	21D0179-05		1	C1-Decalin, C2-Decalin, C3-Decalin, C4-Decalin, C1-Naphthalenes, C4-Naphthobenzothiophenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophenes, C2-Benzothiophenes, C3_Benzothiophenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C1
0825	NT1421043062S.D	21D0179-06		1	C1-Decalin, C2-Decalin, C3-Decalin, C1-Naphthalenes, C4-Naphthobenzothiophenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophenes, C2-Benzothiophenes, C3_Benzothiophenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C1-Phenanthrenes/Anthr
0913	NT1421043063S.D	21D0180-01		1	C1-Decalin, C2-Decalin, C3-Decalin, C1-Naphthalenes, C4-Naphthobenzothiophenes, C4-Fluoranthenes/Pyrenes,

C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophenes, C2-Benzothiophenes, C3-Benzothiophenes,
C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C1-Phenanthrenes/Anthr

1001 NT1421043064S.D 21D0180-02

1 C1-Naphthalenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C1-Benzothiophenes, C2-Benzothiophenes,
C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes,
C1-Phenanthrenes/Anthracenes, C2-Phenanthrenes/Anthracenes, C3-Phenanthrenes/Anthracenes, C4-Phenanthrenes/Anthracenes, C1-Fluoran

1049 NT1421043065S.D 21D0180-03

1 C1-Decalin, C2-Decalin, C1-Naphthalenes, C4-Naphthobenzothiophenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes,
C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophenes, C2-Benzothiophenes, C3-Benzothiophenes, C1-Fluorenes,
C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C1-Phenanthrenes/Anthracenes, C2-Phe

Security Status Report

Date: 07-May-2021 15:33

NT1421043051S.D	Data Locked	yev, 07-
NT1421043052S.D	Data Locked	yev, 07-
NT1421043053S.D	Data Locked	yev, 07-
NT1421043054S.D	Data Locked	yev, 07-
NT1421043055S.D	Data Locked	yev, 07-
NT1421043056S.D	Data Locked	yev, 07-
NT1421043057S.D	Data Locked	yev, 07-
NT1421043058S.D	Data Locked	yev, 07-
NT1421043059S.D	Data Locked	yev, 07-
NT1421043060S.D	Data Locked	yev, 07-
NT1421043061S.D	Data Locked	yev, 07-
NT1421043062S.D	Data Locked	yev, 07-
NT1421043063S.D	Data Locked	yev, 07-
NT1421043064S.D	Data Locked	yev, 07-
NT1421043065S.D	Data Locked	yev, 07-



SURROGATE RECOVERY AND RT SUMMARY

EPA 8270E-SIM

Laboratory: <u>Analytical Resources, Inc.</u>	SDG/WO: <u>21D0180</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic - US Moorings</u>
Sequence: <u>SJD0305</u>	Instrument: <u>NT14</u>
Calibration: <u>EE00001</u>	Calibration Date: <u>04/30/2021</u>

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SJD0305-SCV1 (Solid)		Lab File ID: NT1421043010.D			Analyzed: 04/30/21 14:41			
Naphthalene-d8	2.5000	119	80 - 120	11.776	11.776	0.0000	N/A	
Acenaphthene-d10	2.5000	121	80 - 120	17.252	17.24414	0.0079	N/A	
Phenanthrene-d10	2.5000	107	80 - 120	22.104	22.102	0.0020	N/A	
Chrysene-d12	2.5000	113	80 - 120	30.095	30.08914	0.0059	N/A	
Perylene-d12	2.5000	100	80 - 120	33.384	33.38629	-0.0023	N/A	
SJD0305-ICB1 (Solid)		Lab File ID: NT1421043011.D			Analyzed: 04/30/21 15:29			
Naphthalene-d8	2.5000	120	30 - 160	11.776	11.776	0.0000	N/A	
Acenaphthene-d10	2.5000	121	30 - 160	17.241	17.24414	-0.0031	N/A	
Phenanthrene-d10	2.5000	112	30 - 160	22.104	22.102	0.0020	N/A	
Chrysene-d12	2.5000	116	30 - 160	30.095	30.08914	0.0059	N/A	
Perylene-d12	2.5000	91.5	30 - 160	33.384	33.38629	-0.0023	N/A	



SURROGATE RECOVERY AND RT SUMMARY

EPA 8270E-SIM

Laboratory: <u>Analytical Resources, Inc.</u>	SDG/WO: <u>21D0180</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic - US Moorings</u>
Sequence: <u>SJD0344</u>	Instrument: <u>NT11</u>
Calibration: <u>DH00073</u>	Calibration Date: <u>08/27/2020</u>

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SJD0344-ICV1 (Solid) Lab File ID: NT1121042402.D Analyzed: 04/24/21 10:14								
2-Methylnaphthalene-d10	250.00	97.2	80 - 120	7.738	7.78	-0.0420	N/A	
Dibenzo[a,h]anthracene-d14	250.00	98.4	80 - 120	22.283	22.418	-0.1350	N/A	
Fluoranthene-d10	250.00	84.4	80 - 120	14.52	14.578	-0.0580	N/A	
SJD0344-LCV1 (Solid) Lab File ID: NT1121042403.D Analyzed: 04/24/21 10:46								
2-Methylnaphthalene-d10	10.000	92.5	0 - 200	7.738	7.78	-0.0420	N/A	
Dibenzo[a,h]anthracene-d14	10.000	70.7	0 - 200	22.294	22.418	-0.1240	N/A	
Fluoranthene-d10	10.000	92.8	0 - 200	14.52	14.578	-0.0580	N/A	
SJD0344-CCV1 (Solid) Lab File ID: NT1121042418.D Analyzed: 04/24/21 18:49								
2-Methylnaphthalene-d10	250.00	95.5	50 - 150	7.728	7.78	-0.0520	N/A	
Dibenzo[a,h]anthracene-d14	250.00	109	50 - 150	22.283	22.418	-0.1350	N/A	
Fluoranthene-d10	250.00	85.9	50 - 150	14.52	14.578	-0.0580	N/A	



SURROGATE RECOVERY AND RT SUMMARY

EPA 8270E-SIM

Laboratory: <u>Analytical Resources, Inc.</u>	SDG/WO: <u>21D0180</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic - US Moorings</u>
Sequence: <u>SJD0374</u>	Instrument: <u>NT11</u>
Calibration: <u>DH00073</u>	Calibration Date: <u>08/27/2020</u>

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SJD0374-ICV1 (Water) Lab File ID: NT1121042702.D Analyzed: 04/27/21 12:42								
2-Methylnaphthalene-d10	250.00	102	80 - 120	7.738	7.78	-0.0420	N/A	
Dibenzo[a,h]anthracene-d14	250.00	119	80 - 120	22.283	22.418	-0.1350	N/A	
Fluoranthene-d10	250.00	91.6	80 - 120	14.52	14.578	-0.0580	N/A	
SJD0374-LCV1 (Water) Lab File ID: NT1121042703.D Analyzed: 04/27/21 13:17								
2-Methylnaphthalene-d10	10.000	102	0 - 200	7.738	7.78	-0.0420	N/A	
Dibenzo[a,h]anthracene-d14	10.000	100	0 - 200	22.283	22.418	-0.1350	N/A	
Fluoranthene-d10	10.000	96.7	0 - 200	14.52	14.578	-0.0580	N/A	
SJD0374-IBL1 (Water) Lab File ID: NT1121042704.D Analyzed: 04/27/21 13:50								
2-Methylnaphthalene-d10	250.00	97.5	42 - 120	7.728	7.78	-0.0520	N/A	
Dibenzo[a,h]anthracene-d14	250.00	115	29 - 120	22.283	22.418	-0.1350	N/A	
Fluoranthene-d10	250.00	91.0	57 - 120	14.52	14.578	-0.0580	N/A	
SJD0374-CCV1 (Water) Lab File ID: NT1121042715.D Analyzed: 04/27/21 19:48								
2-Methylnaphthalene-d10	250.00	98.2	50 - 150	7.728	7.78	-0.0520	N/A	
Dibenzo[a,h]anthracene-d14	250.00	107	50 - 150	22.283	22.418	-0.1350	N/A	
Fluoranthene-d10	250.00	91.3	50 - 150	14.52	14.578	-0.0580	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.
Client: Anchor QEA, LLC
Sequence: SJE0004
Calibration: EE00001

SDG/WO: 21D0180
Project: Gasco Siltronic - US Moorings
Instrument: NT14
Calibration Date: 04/30/2021

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SJE0004-ICV1 (Solid) Lab File ID: NT1421043051ICV.D Analyzed: 05/01/21 23:35								
Naphthalene-d8	2.5000	109	80 - 120	11.776	11.776	0.0000	N/A	
Acenaphthene-d10	2.5000	115	80 - 120	17.241	17.24414	-0.0031	N/A	
Phenanthrene-d10	2.5000	101	80 - 120	22.104	22.102	0.0020	N/A	
Chrysene-d12	2.5000	106	80 - 120	30.084	30.08914	-0.0051	N/A	
Perylene-d12	2.5000	106	80 - 120	33.373	33.38629	-0.0133	N/A	
SJE0004-LCV1 (Solid) Lab File ID: NT1421043052.D Analyzed: 05/02/21 00:23								
Naphthalene-d8	0.10000	116	0 - 200	11.776	11.776	0.0000	N/A	
Acenaphthene-d10	0.10000	123	0 - 200	17.241	17.24414	-0.0031	N/A	
Phenanthrene-d10	0.10000	98.2	0 - 200	22.104	22.102	0.0020	N/A	
Chrysene-d12	0.10000	98.9	0 - 200	30.095	30.08914	0.0059	N/A	
Perylene-d12	0.10000	114	0 - 200	33.373	33.38629	-0.0133	N/A	
BJD0507-BLK1 (Solid) Lab File ID: NT1421043053.D Analyzed: 05/02/21 01:11								
Naphthalene-d8	150.00	62.1	30 - 160	11.766	11.776	-0.0100	N/A	
Acenaphthene-d10	150.00	70.8	30 - 160	17.241	17.24414	-0.0031	N/A	
Phenanthrene-d10	150.00	69.6	30 - 160	22.093	22.102	-0.0090	N/A	
Chrysene-d12	150.00	74.1	30 - 160	30.084	30.08914	-0.0051	N/A	
Perylene-d12	150.00	76.0	30 - 160	33.384	33.38629	-0.0023	N/A	
BJD0507-BS1 (Solid) Lab File ID: NT1421043054.D Analyzed: 05/02/21 02:00								
Naphthalene-d8	150.00	65.5	30 - 160	11.766	11.776	-0.0100	N/A	
Acenaphthene-d10	150.00	72.2	30 - 160	17.241	17.24414	-0.0031	N/A	
Phenanthrene-d10	150.00	69.0	30 - 160	22.104	22.102	0.0020	N/A	
Chrysene-d12	150.00	74.5	30 - 160	30.084	30.08914	-0.0051	N/A	
Perylene-d12	150.00	76.0	30 - 160	33.384	33.38629	-0.0023	N/A	
21D0180-01 (Solid) Lab File ID: NT1421043063.D Analyzed: 05/02/21 09:13								
Naphthalene-d8	149.55	68.1	30 - 160	11.766	11.776	-0.0100	N/A	
Acenaphthene-d10	149.55	75.5	30 - 160	17.241	17.24414	-0.0031	N/A	
Phenanthrene-d10	149.55	67.9	30 - 160	22.104	22.102	0.0020	N/A	
Chrysene-d12	149.55	67.0	30 - 160	30.095	30.08914	0.0059	N/A	
Perylene-d12	149.55	75.7	30 - 160	33.384	33.38629	-0.0023	N/A	



SURROGATE RECOVERY AND RT SUMMARY

EPA 8270E-SIM

Laboratory: <u>Analytical Resources, Inc.</u>	SDG/WO: <u>21D0180</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic - US Moorings</u>
Sequence: <u>SJE0004</u>	Instrument: <u>NT14</u>
Calibration: <u>EE00001</u>	Calibration Date: <u>04/30/2021</u>

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
21D0180-02 (Solid)								
Lab File ID: NT1421043064.D				Analyzed: 05/02/21 10:01				
Naphthalene-d8	150.02	63.6	30 - 160	11.766	11.776	-0.0100	N/A	
Acenaphthene-d10	150.02	71.5	30 - 160	17.241	17.24414	-0.0031	N/A	
Phenanthrene-d10	150.02	65.0	30 - 160	22.104	22.102	0.0020	N/A	
Chrysene-d12	150.02	67.4	30 - 160	30.084	30.08914	-0.0051	N/A	
Perylene-d12	150.02	75.6	30 - 160	33.384	33.38629	-0.0023	N/A	
21D0180-03 (Solid)								
Lab File ID: NT1421043065.D				Analyzed: 05/02/21 10:49				
Naphthalene-d8	149.99	59.8	30 - 160	11.766	11.776	-0.0100	N/A	
Acenaphthene-d10	149.99	69.4	30 - 160	17.241	17.24414	-0.0031	N/A	
Phenanthrene-d10	149.99	63.4	30 - 160	22.104	22.102	0.0020	N/A	
Chrysene-d12	149.99	65.8	30 - 160	30.084	30.08914	-0.0051	N/A	
Perylene-d12	149.99	72.4	30 - 160	33.384	33.38629	-0.0023	N/A	
SJE0004-CCV1 (Solid)								
Lab File ID: NT1421043067.D				Analyzed: 05/02/21 12:25				
Naphthalene-d8	2.5000	112	50 - 150	11.776	11.776	0.0000	N/A	
Acenaphthene-d10	2.5000	117	50 - 150	17.241	17.24414	-0.0031	N/A	
Phenanthrene-d10	2.5000	99.8	50 - 150	22.104	22.102	0.0020	N/A	
Chrysene-d12	2.5000	108	50 - 150	30.084	30.08914	-0.0051	N/A	
Perylene-d12	2.5000	104	50 - 150	33.384	33.38629	-0.0023	N/A	



SURROGATE RECOVERY AND RT SUMMARY

EPA 8270E-SIM

Laboratory: <u>Analytical Resources, Inc.</u>	SDG/WO: <u>21D0180</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic - US Moorings</u>
Sequence: <u>SJE0028</u>	Instrument: <u>NT14</u>
Calibration: <u>EE00001</u>	Calibration Date: <u>04/30/2021</u>

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SJE0028-ICV1 (Water)								
Lab File ID: NT1421050402.D				Analyzed: 05/04/21 12:52				
Naphthalene-d8	2.5000	114	0 - 200	11.766	11.776	-0.0100	N/A	
Acenaphthene-d10	2.5000	118	0 - 200	17.241	17.24414	-0.0031	N/A	
Phenanthrene-d10	2.5000	102	0 - 200	22.093	22.102	-0.0090	N/A	
Chrysene-d12	2.5000	108	0 - 200	30.084	30.08914	-0.0051	N/A	
Perylene-d12	2.5000	103	0 - 200	33.373	33.38629	-0.0133	N/A	
SJE0028-IBL1 (Water)								
Lab File ID: NT1421050403.D				Analyzed: 05/04/21 14:30				
Naphthalene-d8	2.5000	117	30 - 160	11.766	11.776	-0.0100	N/A	
Acenaphthene-d10	2.5000	119	30 - 160	17.241	17.24414	-0.0031	N/A	
Phenanthrene-d10	2.5000	110	30 - 160	22.104	22.102	0.0020	N/A	
Chrysene-d12	2.5000	107	30 - 160	30.084	30.08914	-0.0051	N/A	
Perylene-d12	2.5000	96.6	30 - 160	33.384	33.38629	-0.0023	N/A	
21D0180-04 (Solid)								
Lab File ID: NT1421050404.D				Analyzed: 05/04/21 15:19				
Naphthalene-d8	149.89	62.9	30 - 160	11.766	11.776	-0.0100	N/A	
Acenaphthene-d10	149.89	71.5	30 - 160	17.241	17.24414	-0.0031	N/A	
Phenanthrene-d10	149.89	66.8	30 - 160	22.093	22.102	-0.0090	N/A	
Chrysene-d12	149.89	68.0	30 - 160	30.084	30.08914	-0.0051	N/A	
Perylene-d12	149.89	71.2	30 - 160	33.373	33.38629	-0.0133	N/A	
SJE0028-CCV1 (Water)								
Lab File ID: NT1421050405.D				Analyzed: 05/04/21 16:08				
Naphthalene-d8	2.5000	111	0 - 200	11.776	11.776	0.0000	N/A	
Acenaphthene-d10	2.5000	115	0 - 200	17.241	17.24414	-0.0031	N/A	
Phenanthrene-d10	2.5000	102	0 - 200	22.104	22.102	0.0020	N/A	
Chrysene-d12	2.5000	108	0 - 200	30.084	30.08914	-0.0051	N/A	
Perylene-d12	2.5000	101	0 - 200	33.384	33.38629	-0.0023	N/A	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor OEA, LLC

Project: Gasco Siltronic - US Moorings

Sequence: SIH0304

Instrument: NT11

Calibration: DH00073

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Secondary Cal Check (SIH0304-SCV1)		(Water)	Lab File ID: NT1120082708.D			Analyzed: 08/27/20 15:38			
Naphthalene-d8	202035	6.804	215332	6.813	94	50 - 200	-0.009	+/-0.50	
Acenaphthene-d10	90189	9.807	102217	9.807	88	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	142829	12.482	170387	12.482	84	50 - 200	0.000	+/-0.50	
Chrysene-d12	104063	17.222	116138	17.214	90	50 - 200	0.008	+/-0.50	
Perylene-d12	119273	19.981	139038	19.981	86	50 - 200	0.000	+/-0.50	
Initial Cal Blank (SIH0304-ICB1)		(Water)	Lab File ID: NT1120082709.D			Analyzed: 08/27/20 16:09			
Naphthalene-d8	216694	6.804	215332	6.813	101	50 - 200	-0.009	+/-0.50	
Acenaphthene-d10	94656	9.807	102217	9.807	93	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	145070	12.482	170387	12.482	85	50 - 200	0.000	+/-0.50	
Chrysene-d12	97049	17.222	116138	17.214	84	50 - 200	0.008	+/-0.50	
Perylene-d12	107633	19.981	139038	19.981	77	50 - 200	0.000	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.
Client: Anchor OEA, LLC
Sequence: SJD0344

SDG: 21D0180
Project: Gasco Siltronic - US Moorings
Instrument: NT11
Calibration: DH00073

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SJD0344-ICV1)		(Solid)	Lab File ID: NT1121042402.D			Analyzed: 04/24/21 10:14			
Naphthalene-d8	134531	6.768	134531	6.768	100	50 - 200	0.000	+/-0.50	
Acenaphthene-d10	76981	9.761	76981	9.761	100	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	116022	12.428	116022	12.428	100	50 - 200	0.000	+/-0.50	
Chrysene-d12	83386	17.155	83386	17.155	100	50 - 200	0.000	+/-0.50	
Perylene-d12	98043	19.893	98043	19.893	100	50 - 200	0.000	+/-0.50	
Low Cal Check (SJD0344-LCV1)		(Solid)	Lab File ID: NT1121042403.D			Analyzed: 04/24/21 10:46			
Naphthalene-d8	129787	6.759	134531	6.768	96	50 - 200	-0.009	+/-0.50	
Acenaphthene-d10	64142	9.761	76981	9.761	83	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	95013	12.428	116022	12.428	82	50 - 200	0.000	+/-0.50	
Chrysene-d12	61649	17.155	83386	17.155	74	50 - 200	0.000	+/-0.50	
Perylene-d12	69298	19.893	98043	19.893	71	50 - 200	0.000	+/-0.50	
Blank (BJD0479-BLK1)		(Solid)	Lab File ID: NT1121042404.D			Analyzed: 04/24/21 11:18			
Naphthalene-d8	126302	6.758	134531	6.768	94	50 - 200	-0.010	+/-0.50	
Acenaphthene-d10	64954	9.761	76981	9.761	84	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	94766	12.428	116022	12.428	82	50 - 200	0.000	+/-0.50	
Chrysene-d12	67946	17.155	83386	17.155	81	50 - 200	0.000	+/-0.50	
Perylene-d12	74191	19.893	98043	19.893	76	50 - 200	0.000	+/-0.50	
LCS (BJD0479-BS1)		(Solid)	Lab File ID: NT1121042405.D			Analyzed: 04/24/21 11:51			
Naphthalene-d8	121416	6.759	134531	6.768	90	50 - 200	-0.009	+/-0.50	
Acenaphthene-d10	64822	9.761	76981	9.761	84	50 - 200	0.000	+/-0.50	
Phenanthrene-d10	98925	12.428	116022	12.428	85	50 - 200	0.000	+/-0.50	
Chrysene-d12	67104	17.155	83386	17.155	80	50 - 200	0.000	+/-0.50	
Perylene-d12	74558	19.893	98043	19.893	76	50 - 200	0.000	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.
Client: Anchor OEA, LLC
Sequence: SJE0004

SDG: 21D0180
Project: Gasco Siltronic - US Moorings
Instrument: NT14
Calibration: EE00001

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SJE0004-ICV1)		(Solid)	Lab File ID: NT1421043051ICV.D			Analyzed: 05/01/21 23:35			
Fluorene-d10	504442	18.772	504442	18.772	100	50 - 200	0.000	+/-0.50	
Anthracene-d10	459103	22.214	459103	22.214	100	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	516794	33.046	516794	33.046	100	50 - 200	0.000	+/-0.50	
Low Cal Check (SJE0004-LCV1)		(Solid)	Lab File ID: NT1421043052.D			Analyzed: 05/02/21 00:23			
Fluorene-d10	556851	18.772	504442	18.772	110	50 - 200	0.000	+/-0.50	
Anthracene-d10	496092	22.214	459103	22.214	108	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	562144	33.046	516794	33.046	109	50 - 200	0.000	+/-0.50	
Blank (BJD0507-BLK1)		(Solid)	Lab File ID: NT1421043053.D			Analyzed: 05/02/21 01:11			
Fluorene-d10	587393	18.772	504442	18.772	116	50 - 200	0.000	+/-0.50	
Anthracene-d10	510143	22.214	459103	22.214	111	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	530125	33.046	516794	33.046	103	50 - 200	0.000	+/-0.50	
LCS (BJD0507-BS1)		(Solid)	Lab File ID: NT1421043054.D			Analyzed: 05/02/21 02:00			
Fluorene-d10	576235	18.772	504442	18.772	114	50 - 200	0.000	+/-0.50	
Anthracene-d10	511706	22.214	459103	22.214	111	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	543631	33.046	516794	33.046	105	50 - 200	0.000	+/-0.50	
USMPDI-010SG-210414 (21D0180-01)		(Solid)	Lab File ID: NT1421043063.D			Analyzed: 05/02/21 09:13			
Fluorene-d10	524796	18.772	504442	18.772	104	50 - 200	0.000	+/-0.50	
Anthracene-d10	475082	22.214	459103	22.214	103	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	616810	33.046	516794	33.046	119	50 - 200	0.000	+/-0.50	
USMPDI-015SG-210414 (21D0180-02)		(Solid)	Lab File ID: NT1421043064.D			Analyzed: 05/02/21 10:01			
Fluorene-d10	533752	18.772	504442	18.772	106	50 - 200	0.000	+/-0.50	
Anthracene-d10	494716	22.214	459103	22.214	108	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	608015	33.046	516794	33.046	118	50 - 200	0.000	+/-0.50	
USMPDI-019SG-210414 (21D0180-03)		(Solid)	Lab File ID: NT1421043065.D			Analyzed: 05/02/21 10:49			
Fluorene-d10	562163	18.772	504442	18.772	111	50 - 200	0.000	+/-0.50	
Anthracene-d10	511717	22.214	459103	22.214	111	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	618257	33.046	516794	33.046	120	50 - 200	0.000	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY EPA 8270E-SIM

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>21D0180</u>
Client:	<u>Anchor OEA, LLC</u>	Project:	<u>Gasco Siltronic - US Moorings</u>
Sequence:	<u>SJE0028</u>	Instrument:	<u>NT14</u>
		Calibration:	<u>EE00001</u>

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SJE0028-ICV1)		(Water)	Lab File ID: NT1421050402.D			Analyzed: 05/04/21 12:52			
Fluorene-d10	560901	18.772	560901	18.772	100	50 - 200	0.000	+/-0.50	
Anthracene-d10	511244	22.214	511244	22.214	100	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	574536	33.046	574536	33.046	100	50 - 200	0.000	+/-0.50	
Instrument Blank (SJE0028-IBL1)		(Water)	Lab File ID: NT1421050403.D			Analyzed: 05/04/21 14:30			
Fluorene-d10	511447	18.772	560901	18.772	91	50 - 200	0.000	+/-0.50	
Anthracene-d10	442739	22.214	511244	22.214	87	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	537579	33.046	574536	33.046	94	50 - 200	0.000	+/-0.50	
USMPDI-029SG-210414 (21D0180-04)		(Solid)	Lab File ID: NT1421050404.D			Analyzed: 05/04/21 15:19			
Fluorene-d10	514283	18.772	560901	18.772	92	50 - 200	0.000	+/-0.50	
Anthracene-d10	476033	22.214	511244	22.214	93	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	553821	33.046	574536	33.046	96	50 - 200	0.000	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.
Client: Anchor OEA, LLC
Sequence: SJE0095

SDG: 21D0180
Project: Gasco Siltronic - US Moorings
Instrument: NT14
Calibration: EE00019

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Blank (BJD0507-BLK2)		(Solid)	Lab File ID: NT1421043053S.D			Analyzed: 05/02/21 01:11			
Fluorene-d10	682587	18.762	584738	18.762	117	50 - 200		+/-0.50	
Anthracene-d10	602752	22.205	550360	22.205	110	50 - 200		+/-0.50	
Benzo(e)pyrene-d12	662179	33.036	638375	33.036	104	50 - 200		+/-0.50	
USMPDI-010SG-210414 (21D0180-01)		(Solid)	Lab File ID: NT1421043063S.D			Analyzed: 05/02/21 09:13			
Fluorene-d10	614005	18.762	584738	18.762	105	50 - 200		+/-0.50	
Anthracene-d10	559042	22.205	550360	22.205	102	50 - 200		+/-0.50	
Benzo(e)pyrene-d12	749516	33.036	638375	33.036	117	50 - 200		+/-0.50	
USMPDI-015SG-210414 (21D0180-02)		(Solid)	Lab File ID: NT1421043064S.D			Analyzed: 05/02/21 10:01			
Fluorene-d10	533752	18.772	584738	18.762	91	50 - 200		+/-0.50	
Anthracene-d10	494716	22.214	550360	22.205	90	50 - 200		+/-0.50	
Benzo(e)pyrene-d12	612826	33.046	638375	33.036	96	50 - 200		+/-0.50	
USMPDI-019SG-210414 (21D0180-03)		(Solid)	Lab File ID: NT1421043065S.D			Analyzed: 05/02/21 10:49			
Fluorene-d10	645514	18.762	584738	18.762	110	50 - 200		+/-0.50	
Anthracene-d10	607222	22.205	550360	22.205	110	50 - 200		+/-0.50	
Benzo(e)pyrene-d12	752067	33.037	638375	33.036	118	50 - 200		+/-0.50	



HOLDING TIME SUMMARY

Analysis: EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor OEA, LLC

Project: Gasco Siltronic - US Moorings

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
USMPDI-010SG-210414 21D0180-01	04/14/21 11:41	04/16/21 10:30	04/22/21 11:05	7	14	05/02/21 09:13	10	40	
USMPDI-010SG-210414 21D0180-01	04/14/21 11:41	04/16/21 10:30	04/22/21 11:05	7	14	05/02/21 09:13	10	40	
USMPDI-015SG-210414 21D0180-02	04/14/21 10:35	04/16/21 10:30	04/22/21 11:05	8	14	05/02/21 10:01	10	40	
USMPDI-015SG-210414 21D0180-02	04/14/21 10:35	04/16/21 10:30	04/22/21 11:05	8	14	05/02/21 10:01	10	40	
USMPDI-019SG-210414 21D0180-03	04/14/21 08:36	04/16/21 10:30	04/22/21 11:05	8	14	05/02/21 10:49	10	40	
USMPDI-019SG-210414 21D0180-03	04/14/21 08:36	04/16/21 10:30	04/22/21 11:05	8	14	05/02/21 10:49	10	40	
USMPDI-029SG-210414 21D0180-04	04/14/21 09:22	04/16/21 10:30	04/22/21 11:05	8	14	05/04/21 15:19	12	40	
USMPDI-029SG-210414 21D0180-04	04/14/21 09:22	04/16/21 10:30	04/22/21 11:05	8	14	05/04/21 15:19	12	40	

* Indicates hold time exceedance.



METHOD DETECTION AND REPORTING LIMITS

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor OEA, LLC

Project: Gasco Siltronic - US Moorings

Matrix: Solid

Instrument: NT11

Analyte	MDL	RL	Units
Naphthalene	0.44	0.60	ug/kg
2-Methylnaphthalene	0.13	0.50	ug/kg
Acenaphthylene	0.06	0.50	ug/kg
Acenaphthene	0.09	0.50	ug/kg
Fluorene	0.07	0.50	ug/kg
Phenanthrene	0.11	0.50	ug/kg
Anthracene	0.07	0.50	ug/kg
Fluoranthene	0.08	0.50	ug/kg
Pyrene	0.09	0.50	ug/kg
Benzo(a)anthracene	0.07	0.50	ug/kg
Chrysene	0.07	0.50	ug/kg
Benzo(b)fluoranthene	0.07	0.50	ug/kg
Benzo(k)fluoranthene	0.10	0.50	ug/kg
Benzo(j)fluoranthene	0.10	0.50	ug/kg
Benzo(a)pyrene	0.09	0.50	ug/kg
Indeno(1,2,3-cd)pyrene	0.09	0.50	ug/kg
Dibenzo(a,h)anthracene	0.11	0.50	ug/kg
Benzo(g,h,i)perylene	0.09	0.50	ug/kg



METHOD DETECTION AND REPORTING LIMITS

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor OEA, LLC

Project: Gasco Siltronic - US Moorings

Matrix: Solid

Instrument: NT14

Analyte	MDL	RL	Units
trans-Decalin	0.03	5.0	ug/kg
cis-Decalin	0.5	5.0	ug/kg
Naphthalene	0.4	5.0	ug/kg
1-Methylnaphthalene	0.4	5.0	ug/kg
2-Methylnaphthalene	0.4	5.0	ug/kg
Biphenyl	0.3	5.0	ug/kg
2,6-Dimethylnaphthalene	0.4	5.0	ug/kg
Acenaphthylene	0.3	5.0	ug/kg
Acenaphthene	0.5	5.0	ug/kg
Dibenzofuran	0.4	5.0	ug/kg
2,3,5-Trimethylnaphthalene	0.4	5.0	ug/kg
Fluorene	0.5	5.0	ug/kg
Benzo(b)thiophene	0.4	5.0	ug/kg
Phenanthrene	0.9	5.0	ug/kg
Anthracene	0.05	5.0	ug/kg
Carbazole	0.7	5.0	ug/kg
1-Methylphenanthrene	0.5	5.0	ug/kg
Fluoranthene	1.4	5.0	ug/kg
Dibenzothiophene	0.7	5.0	ug/kg
Pyrene	1.0	5.0	ug/kg
Benzo(a)anthracene	1.4	5.0	ug/kg
Chrysene	0.7	5.0	ug/kg
Benzo(b)fluoranthene	0.8	5.0	ug/kg
Benzo(j)fluoranthene	0.7	5.0	ug/kg
Benzo(k)fluoranthene	0.8	5.0	ug/kg
Benzo(e)pyrene	0.6	5.0	ug/kg
Benzo(a)pyrene	1.0	5.0	ug/kg
Indeno(1,2,3-cd)pyrene	0.4	5.0	ug/kg
Dibenzo(a,h)anthracene	0.7	5.0	ug/kg
Benzo(g,h,i)perylene	0.5	5.0	ug/kg
Perylene	0.4	5.0	ug/kg
Benzo(b)naphtho(2,1-d)thiophene	5.0	5.0	ug/kg
C1-Decalins	0.5	5.0	ug/kg
C2-Decalins	0.5	5.0	ug/kg
C3-Decalins	0.5	5.0	ug/kg
C4-Decalins	0.5	5.0	ug/kg



METHOD DETECTION AND REPORTING LIMITS

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor OEA, LLC

Project: Gasco Siltronic - US Moorings

Matrix: Solid

Instrument: NT14

Analyte	MDL	RL	Units
C1-Naphthalenes	0.4	5.0	ug/kg
C2-Naphthalenes	0.4	5.0	ug/kg
C3-Naphthalenes	0.4	5.0	ug/kg
C4-Naphthalenes	0.4	5.0	ug/kg
C1-Fluorenes	0.5	5.0	ug/kg
C2-Fluorenes	0.5	5.0	ug/kg
C3-Fluorenes	0.5	5.0	ug/kg
C1-Dibenzothiophenes	0.7	5.0	ug/kg
C2-Dibenzothiophenes	0.7	5.0	ug/kg
C3-Dibenzothiophenes	0.7	5.0	ug/kg
C4-Dibenzothiophenes	0.7	5.0	ug/kg
C1-Phenanthrenes/Anthracenes	0.9	5.0	ug/kg
C2-Phenanthrenes/Anthracenes	0.9	5.0	ug/kg
C3-Phenanthrenes/Anthracenes	0.9	5.0	ug/kg
C4-Phenanthrenes/Anthracenes	0.9	5.0	ug/kg
C1-Fluoranthenes/Pyrenes	1.0	5.0	ug/kg
C2-Fluoranthenes/Pyrenes	1.0	5.0	ug/kg
C3-Fluoranthenes/Pyrenes	1.0	5.0	ug/kg
C4-Fluoranthenes/Pyrenes	1.0	5.0	ug/kg
C1-Benzo(a)anthracenes/Chrysenes	0.7	5.0	ug/kg
C2-Benzo(a)anthracenes/Chrysenes	0.7	5.0	ug/kg
C3-Benzo(a)anthracenes/Chrysenes	0.7	5.0	ug/kg
C4-Benzo(a)anthracenes/Chrysenes	0.7	5.0	ug/kg
C1-Benzothiophenes	0.4	5.0	ug/kg
C2-Benzothiophenes	0.4	5.0	ug/kg
C3-Benzothiophenes	0.4	5.0	ug/kg
C1-Naphthobenzothiophenes	2.5	5.0	ug/kg
C2-Naphthobenzothiophenes	2.5	5.0	ug/kg
C3-Naphthobenzothiophenes	2.5	5.0	ug/kg
C4-Naphthobenzothiophenes	2.5	5.0	ug/kg
C1-Dibenzo(a)anthracenes	0.7	5.0	ug/kg
C2-Dibenzo(a)anthracenes	0.7	5.0	ug/kg
C3-Dibenzo(a)anthracenes	0.7	5.0	ug/kg



METHOD DETECTION AND REPORTING LIMITS

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor OEA, LLC

Project: Gasco Siltronic - US Moorings

Matrix: Water

Instrument: NT11

Analyte	MDL	RL	Units
Naphthalene	0.001	0.010	ug/L
2-Methylnaphthalene	0.001	0.010	ug/L
1-Methylnaphthalene	0.0009	0.010	ug/L
Acenaphthylene	0.002	0.010	ug/L
Acenaphthene	0.003	0.010	ug/L
Dibenzofuran	0.002	0.010	ug/L
Fluorene	0.002	0.010	ug/L
Phenanthrene	0.001	0.010	ug/L
Anthracene	0.001	0.010	ug/L
Carbazole	0.001	0.010	ug/L
Fluoranthene	0.002	0.010	ug/L
Pyrene	0.001	0.010	ug/L
Benzo(a)anthracene	0.0008	0.010	ug/L
Chrysene	0.0009	0.010	ug/L
Benzo(b)fluoranthene	0.0005	0.010	ug/L
Benzo(k)fluoranthene	0.003	0.010	ug/L
Benzo(j)fluoranthene	0.002	0.010	ug/L
Benzo(a)fluoranthenes, Total	0.004	0.010	ug/L
Benzo(a)pyrene	0.002	0.010	ug/L
Perylene	0.006	0.010	ug/L
Indeno(1,2,3-cd)pyrene	0.001	0.010	ug/L
Dibenzo(a,h)anthracene	0.001	0.010	ug/L
Benzo(g,h,i)perylene	0.001	0.010	ug/L



METHOD DETECTION AND REPORTING LIMITS

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor OEA, LLC

Project: Gasco Siltronic - US Moorings

Matrix: Water

Instrument: NT14

Analyte	MDL	RL	Units
trans-Decalin	0.007	0.100	ug/L
cis-Decalin	0.007	0.100	ug/L
Naphthalene	0.011	0.100	ug/L
1-Methylnaphthalene	0.010	0.100	ug/L
2-Methylnaphthalene	0.010	0.100	ug/L
Biphenyl	0.012	0.100	ug/L
2,6-Dimethylnaphthalene	0.013	0.100	ug/L
Acenaphthylene	0.006	0.100	ug/L
Acenaphthene	0.011	0.100	ug/L
Dibenzofuran	0.009	0.100	ug/L
2,3,5-Trimethylnaphthalene	0.008	0.100	ug/L
Fluorene	0.007	0.100	ug/L
Benzo(b)thiophene	0.009	0.100	ug/L
Phenanthrene	0.009	0.100	ug/L
Anthracene	0.025	0.100	ug/L
Carbazole	0.028	0.100	ug/L
1-Methylphenanthrene	0.005	0.100	ug/L
Fluoranthene	0.007	0.100	ug/L
Dibenzothiophene	0.021	0.100	ug/L
Pyrene	0.014	0.100	ug/L
Benzo(a)anthracene	0.017	0.100	ug/L
Chrysene	0.010	0.100	ug/L
Benzo(b)fluoranthene	0.010	0.100	ug/L
Benzo(j)fluoranthene	0.038	0.100	ug/L
Benzo(k)fluoranthene	0.010	0.100	ug/L
Benzo(a)fluoranthenes, Total	0.085	0.200	ug/L
Benzo(e)pyrene	0.014	0.100	ug/L
Benzo(a)pyrene	0.022	0.100	ug/L
Indeno(1,2,3-cd)pyrene	0.014	0.100	ug/L
Dibenzo(a,h)anthracene	0.013	0.100	ug/L
Benzo(g,h,i)perylene	0.009	0.100	ug/L
Perylene	0.032	0.100	ug/L
Benzo(b)naphtho(2,1-d)thiophene	0.100	0.100	ug/L

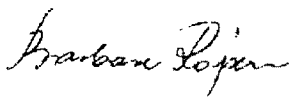
Certificate of Analysis

I 8227

SIGMA-ALDRICH

Product Name Pentachlorophenol,
97%
Product Number P2604
Product Brand ALDRICH
CAS Number 87-86-5
Molecular Formula C₆Cl₅OH
Molecular Weight 266.34

TEST	SPECIFICATION	LOT 07119HO RESULTS
APPEARANCE	WHITE TO OFF-WHITE OR LIGHT BLUE POWDER	OFF-WHITE POWDER
INFRARED SPECTRUM	CONFORMS TO STRUCTURE.	CONFORMS TO STRUCTURE AND STANDARD
TITRATION	97.5% - 102.5% (WITH AGNO ₃ AFTER OXYGEN	100.5 % (WITH AGNO ₃ AFTER OXYGEN COMBUSTION)
GAS LIQUID CHROMATOGRAPHY	97.5% (MINIMUM)	99.9 %
SOLUBILITY		100 MG/ML, 95% ETOH: VERY HAZY, FAINT YELLOW SOLUTION
QUALITY CONTROL		JUNE 2001
ACCEPTANCE DATE		



Barbara Rajzer, Supervisor
Quality Control
Milwaukee, Wisconsin USA

Certificate of Analysis

SIGMA-ALDRICH

Product Name 2,4,6-Tribromophenol,
 99%
Product Number 137715
Product Brand ALDRICH
CAS Number 118-79-6
Molecular Formula Br₃C₆H₂OH
Molecular Weight 330.80

TEST	SPECIFICATION	LOT 03410KL RESULTS
APPEARANCE	WHITE TO OFF-WHITE TO PINK FLAKES, CHUNKS,	OFF-WHITE CHIPS
INFRARED SPECTRUM	CONFORMS TO STRUCTURE.	CONFORMS TO STRUCTURE
MELTING POINT		93 DEGREES CELSIUS
GAS LIQUID		99.4 %
CHROMATOGRAPHY		

Barbara Rajzer, Supervisor
Quality Control
Milwaukee, Wisconsin USA

Please wait...

I 8244

Certificate of Analysis



9006587

7/19/18

PAH Mixture

Product Number: US-106N

Page:

1 of 1

Lot Number: CS-2324

Lot Issue Date: 04-May-2018

Expiration Date:

31-May-2021

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
acenaphthene	000083-32-9	RM09993	2003 ± 10 µg/mL
acenaphthylene	000208-96-8	RM09993	2002 ± 10 µg/mL
anthracene	000120-12-7	RM03477	2004 ± 10 µg/mL
benz[a]anthracene	000056-55-3	RM13735	2007 ± 10 µg/mL
benzo[b]fluoranthene	000205-99-2	RM09988	2002 ± 10 µg/mL
benzo[k]fluoranthene	000207-08-9	RM10962	2009 ± 10 µg/mL
benzo[ghi]perylene	000191-24-2	RM10337	2008 ± 10 µg/mL
benzo[a]pyrene	000050-32-8	RM13734	2006 ± 10 µg/mL
chrysene	000218-01-9	RM11308	2002 ± 10 µg/mL
dibenz[a,h]anthracene	000053-70-3	RM06786	2001 ± 10 µg/mL
fluoranthene	000206-44-0	RM12277	2006 ± 10 µg/mL
fluorene	000086-73-7	RM09441	2001 ± 10 µg/mL
indeno[1,2,3-cd]pyrene	000193-39-5	RM06789	2008 ± 10 µg/mL
naphthalene	000091-20-3	RM10445	2001 ± 10 µg/mL
phenanthrene	000085-01-8	RM10495	2006 ± 10 µg/mL
pyrene	000129-00-0	RM03479	2006 ± 10 µg/mL

Matrix: methylene chloride/benzene (1:1)

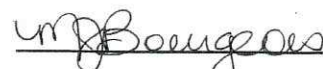
Storage: Store at Room Temperature (15° to 30°C).

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.



ISO 9001
Registered
TUV USA, Inc.


John Russo
President


Monica Bourgeois
Director of QA/RA



Product Name: DIBENZ[A,H]ANTHRACENE
(Isotopic Label & Enrichment Specification) (D14, 97%)

Lot Number: PR-28018

Catalog Number: DLM-677-0

Product Information

Chemical Purity Specification: $\geq 98\%$

MW*: 292.43
* For isotopically labeled compounds, MW listed is for the fully enriched product.

Labeled CAS Number: 13250-98-1

Unlabeled CAS Number: 53-70-3

Chemical Formula: C22D14

Storage: Store at room temperature away from light and moisture.

G 01 0436 JK
Reed 11/09/18

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

The retest date for this chemical has been designated based on CIL's experience in working with chemical standards for over 30 years, and includes review of actual analytical results and relevant literature references. The retest date is valid only for unopened vials or ampoules that have been stored as recommended.

Approved by: Sashi Sivendran-Basak

Sashi Sivendran-Basak, Ph.D., Quality Review

Quality Control Tests and Results

¹ H NMR for Chemical Purity	Pass
¹ H NMR for Isotopic Enrichment	99.6%
² H NMR for Chemical Purity	Pass
GC/FID for Chemical Purity	99.3%
GC/MS for Identification	Conforms
GC/MS for Isotopic Enrichment	99.3%
Melting Point Range Determination	257-267°C

CIL subscribes to the following standards for different products: ISO Guide 34, ISO/IEC 17025, ISO 13485 and cGMP as appropriate.



Product Name: DIBENZ[A,H]ANTHRACENE
(Isotopic Label & Enrichment Specification) (D14, 97%)

Lot Number: PR-28018

Catalog Number: DLM-677-0

Additional Testing Information:
Retest/Review Date: 02/28/27

CIL subscribes to the following standards for different products: ISO Guide 34, ISO/IEC 17025, ISO 13485 and cGMP as appropriate.

CERTIFICATE OF ANALYSIS

2-Chloronaphthalene

CATALOG NUMBER N-10323-100MG
LOT NUMBER 7762100
DATE CERTIFIED 05/22/18
EXPIRATION DATE 05/31/24
CAS NUMBER 91-58-7
MOLECULAR FORMULA C₁₀H₇Cl
MOLECULAR WEIGHT 162.62
STORAGE Store in a cool dry place.
HANDLING See Safety Data Sheet
INTENDED USE For laboratory use only.
ISO GUIDE 34 CERTIFIED []

Analytical Test	Value
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

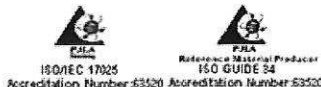
Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

G010438
2-Chloronaphthalene NEAT
Solvent / Lot: NEAT
Prep: 11/10/2018 by VS
Exp: 5/31/2024
Location: BOX P

Chem Service, Inc. is accredited to ISO Guide 34:2009, ISO/IEC 17025:2005 and certified to ISO 9001:2008

COA Form
Revision 3 (3/2015)



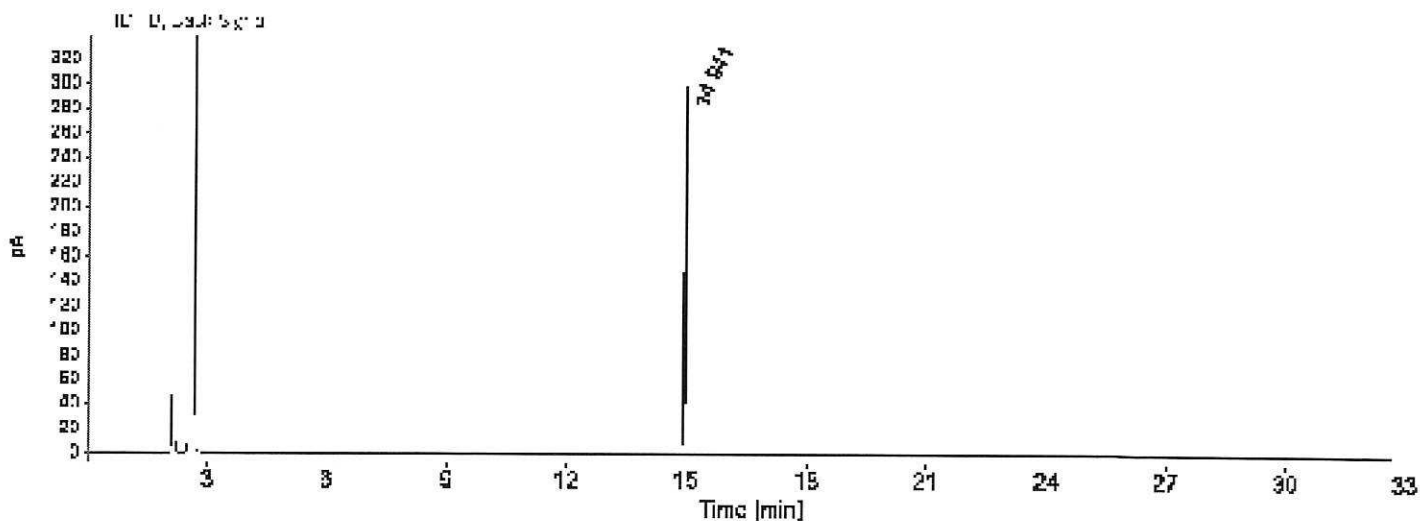
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
 1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Gas Chromatography / Flame Ionization Detector (GC/FID)

Data file: C:\Chem32\11\Data\2018 Data\0518\2-Chloronaphthalene.D
Sample name: 2-Chloronaphthalene

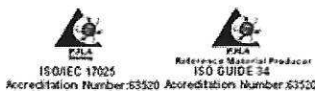
Instrument: GC3	Location: 209
Injection date: 5/22/2018 1:12:52 PM	Injection volume: 1.0uL
Acq. method: REAR_SCREEN.M	
Col Type: pn# 7HG-G006-17-C	Diameter: 250.000
	Length: 30.000



Signal: FID1 B, Back Signal

RT [min]	Type	Width [min]	Area	Height	Area%
14.941	BB	0.0410	808.8124	308.5675	100.0000
Sum			808.8124		

Chem Service, Inc. is accredited to ISO Guide 34:2005, ISO/IEC 17025:2005 and certified to ISO 9001:2008





CERTIFIED WEIGHT REPORT

Part Number: 70476
Lot Number: 011619
Description: Benzo(j)fluoranthene

Solvent(s): Methylene chloride
Lot# 102669

Expiration Date: 011624
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 2684186

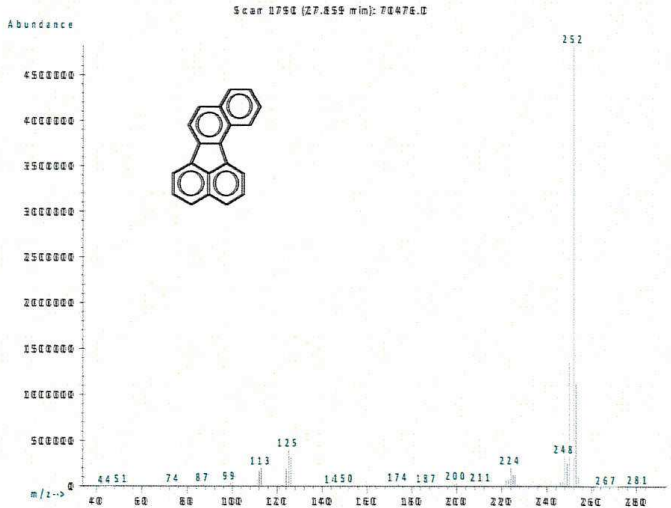
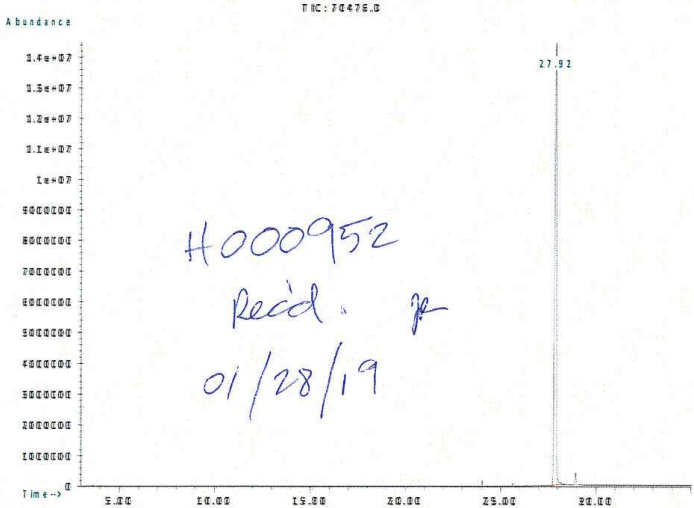
Weight(s) shown below were combined and diluted to (mL): 25.0

5E-05 Balance Uncertainty
0.001 Flask Uncertainty

Formulated By: <i>Mario Luis</i>	011619
DATE	
Reviewed By: <i>Pedro L. Rentas</i>	011619
DATE	

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded SDS Information (Solvent Safety Info. On Attached pg.)			
									Expanded Uncertainty (+/-) (µg/mL)	CAS#	OSHA PEL (TWA)	LDSO
1. Benzo(j)fluoranthene	476	3-CSZ-153-20	1000	98.1	0.2	0.02547	0.02558	1004.2	5.7	205-82-3	0.2mg/m3	N/A

Method GC/MS/MS: Column: SBB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1 min.), Temp 2 = 300°C (9 min.), Rate = 10°C/min., Injector B = 200°C, Detector B = 290°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by Candice Warren.



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31206 **Lot No.:** A0149213

Description : SV Internal Standard Mix 2mg/ml
SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	1,4-Dichlorobenzene-d4	2,018.3 µg/mL	+/-	11.7348	µg/mL	Gravimetric
	CAS # 3855-82-1 (Lot PR-18488)		+/-	90.9069	µg/mL	Unstressed
	Purity 99%		+/-	100.8725	µg/mL	Stressed
2	Naphthalene-d8	2,013.2 µg/mL	+/-	11.7047	µg/mL	Gravimetric
	CAS # 1146-65-2 (Lot M-1452)		+/-	90.6742	µg/mL	Unstressed
	Purity 99%		+/-	100.6143	µg/mL	Stressed
3	Acenaphthene-d10	2,017.4 µg/mL	+/-	11.7294	µg/mL	Gravimetric
	CAS # 15067-26-2 (Lot PR-28021)		+/-	90.8657	µg/mL	Unstressed
	Purity 99%		+/-	100.8267	µg/mL	Stressed
4	Phenanthrene-d10	2,013.3 µg/mL	+/-	11.7057	µg/mL	Gravimetric
	CAS # 1517-22-2 (Lot PR-27621)		+/-	90.6817	µg/mL	Unstressed
	Purity 99%		+/-	100.6226	µg/mL	Stressed
5	Chrysene-d12	2,016.5 µg/mL	+/-	11.7241	µg/mL	Gravimetric
	CAS # 1719-03-5 (Lot PR-29295)		+/-	90.8244	µg/mL	Unstressed
	Purity 99%		+/-	100.7809	µg/mL	Stressed
6	Perylene-d12	2,013.8 µg/mL	+/-	11.7086	µg/mL	Gravimetric
	CAS # 1520-96-3 (Lot PR-27342)		+/-	90.7043	µg/mL	Unstressed
	Purity 99%		+/-	100.6476	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

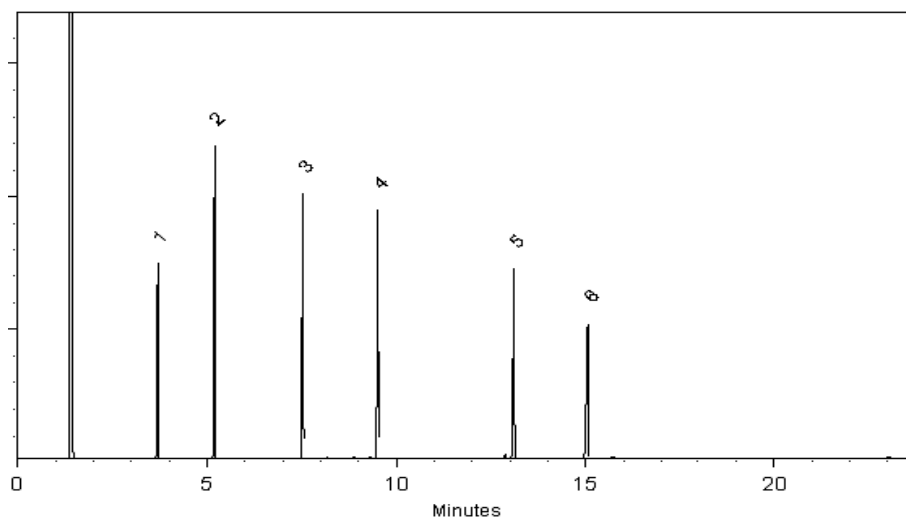
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Walker Workman - Operations Technician I

Date Mixed: 15-May-2019 **Balance:** B345965662

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 20-May-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

H009550

SVOA-d14-Dibenzo(a,h)anthracene-2500ug/ml

Data :
Repor

Solvent / Lot: DCM/H008760
Prep: 10/2/2019 by VS
Exp: 10/2/2020
Location: Warm to 30C

1910C

H009569

LOW SIM PAH CAL-5ug/ml
Solvent / Lot: DCM/H008760
Prep: 10/3/2019 by VS
Exp: 5/17/2020
Location:

ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20191003.b\NT1119100302.D

Lab Smp Id: H009569-250

Inj Date : 03-OCT-2019 11:00

MS Autotune Date: 15-JAN-2015 16:59

Operator : VTS

Inst ID: nt11.i

Smp Info : H009569-250

Misc Info :

Comment :

Method : \\target\share\chem3\nt11.i\20191003.b\lowsim.m

Meth Date : 03-Oct-2019 12:25 van

Quant Type: ISTD

Cal Date : 03-OCT-2019 10:30

Cal File: NT1119100301.D

Als bottle: 2

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: PAH.sub

Target Version: 4.14

Processing Host: VANS

@ 250
compared to old mix

Compounds	QUANT	SIG	CONCENTRATIONS					
			ON-COLUMN	FINAL				
	MASS		RT	EXP RT	REL RT	RESPONSE	(ng/mL)	(ng/mL)
* 1 Naphthalene-d8	136		6.650	6.650	(1.000)	150999	200.000	
2 Naphthalene	128		6.677	6.677	(1.004)	196187	256.450	256
3 Benzo(b)thiophene	134		6.930	6.930	(1.042)	159213	256.263	256
\$ 4 2-Methylnaphthalene-d10	152		7.618	7.618	(1.146)	112539	239.085	239
5 2-Methylnaphthalene	142		7.670	7.670	(1.153)	141284	258.781	259
6 1-Methylnaphthalene	142		7.923	7.933	(1.191)	141015	257.499	257
7 2-Chloronaphthalene	162		8.574	8.574	(0.889)	130821	262.182	262
8 Biphenyl	154		8.542	8.553	(0.885)	167818	263.154	263
9 2,6-Dimethylnaphthalene	156		8.605	8.605	(0.892)	128101	261.452	261
10 Acenaphthylene	152		9.494	9.494	(0.984)	155523	257.952	258
* 11 Acenaphthene-d10	164		9.648	9.648	(1.000)	73006	200.000	
12 Acenaphthene	153		9.702	9.702	(1.006)	111115	261.393	261
13 Dibenzofuran	168		9.906	9.906	(1.027)	142747	262.407	262
14 2,3,5-Trimethylnaphthalene	170		10.007	10.007	(1.037)	101355	262.119	262
16 Fluorene	166		10.538	10.538	(1.092)	115264	260.004	260
17 Dibenzothiophene	184		12.142	12.142	(0.986)	154483	262.360	262
* 18 Phenanthrene-d10	188		12.311	12.310	(1.000)	128794	200.000	
19 Phenanthrene	178		12.353	12.353	(1.003)	155069	260.459	260
21 Anthracene	178		12.405	12.405	(1.008)	181695	259.415	259
22 Carbazole	167		13.095	13.095	(1.064)	179113	260.252	260
23 1-Methylphenanthrene	192		13.348	13.348	(1.084)	146014	260.198	260
\$ 24 Fluoranthene-d10	212		14.411	14.411	(1.171)	136675	239.312	239
25 Fluoranthene	202		14.439	14.439	(1.173)	177769	261.870	262
26 Fyrene	202		14.939	14.939	(1.214)	181289	262.196	262
27 Benzo(a)anthracene	228		16.944	16.944	(0.995)	142356	260.815	261
* 28 Chrysene-d12	240		17.035	17.043	(1.000)	97091	200.000	
29 Chrysene	228		17.085	17.085	(1.003)	160479	268.375	268
✓ 30 Benzo(b)fluoranthene	252		18.755	18.755	(0.951)	144336	274.209	274 110%
31 Benzo(k)fluoranthene	252		18.793	18.793	(0.953)	165195	266.919	267
32 Benzo(j)fluoranthene	252		18.851	18.851	(0.956)	169926	269.517	270
34 Benzo(e)pyrene	252		19.427	19.437	(0.985)	146932	270.097	270
35 Benzo(a)pyrene	252		19.533	19.533	(0.990)	139050	268.012	268
* 36 Perylene-d12	264		19.725	19.725	(1.000)	104829	200.000	

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/mL)	FINAL (ng/mL)
37 Perylene	252	19.783	19.783	(1.003)	147335	269.490	269
\$ 38 Dibenzo(a,h)anthracene-d14	292	22.044	22.044	(1.118)	93336	231.868	232
39 Dibenzo(a,h)anthracene	278	22.155	22.155	(1.123)	117340	266.540	267
40 Indeno(1,2,3-cd)pyrene	276	22.177	22.177	(1.124)	137482	266.881	267
41 Benzo(g,h,i)perylene	276	23.285	23.285	(1.180)	128893	267.641	268

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: NT1119100302.D
 Lab Smp Id: H009569-250
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20191003.b\lowsim.m
 Misc Info:

Calibration Date: 03-OCT-2019
 Calibration Time: 10:30
 Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	201797	100899	403594	150999	-25.17
11 Acenaphthene-d10	96586	48293	193172	73006	-24.41
18 Phenanthrene-d10	169149	84575	338298	128794	-23.86
28 Chrysene-d12	126783	63392	253566	97091	-23.42
36 Perylene-d12	124340	62170	248680	104829	-15.69

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	6.65	6.15	7.15	6.65	0.00
11 Acenaphthene-d10	9.65	9.15	10.15	9.65	0.00
18 Phenanthrene-d10	12.31	11.81	12.81	12.31	0.00
28 Chrysene-d12	17.04	16.54	17.54	17.04	-0.05
36 Perylene-d12	19.73	19.23	20.23	19.73	0.00

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.

REVIEW SUMMARY FOR FILE - NT1119100302.D

Lab ID: H009569-250

nt11.i, 20191003.b\lowsim.m, 03-OCT-2019 11:00

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

** CHECK CAL FILE ON TARGET REPORT! QUANT FROM CCAL. **

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1119100301.D

On Column LOD for nt11.i, 20191003.b\lowsim.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000

Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000

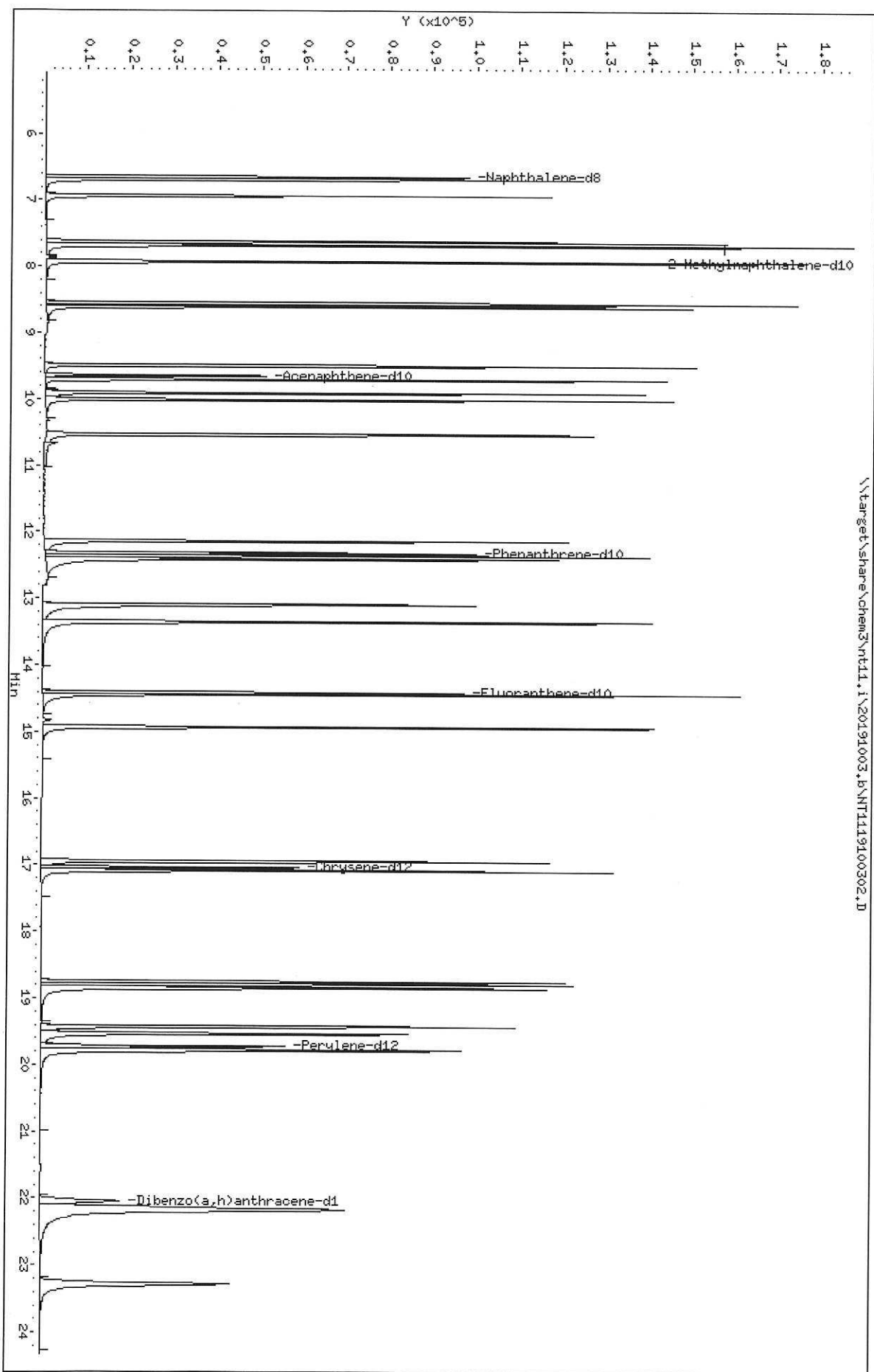
Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.i\20191003.b\NT1119100302.D
Date: 03-OCT-2019 11:00
Client ID:
Sample Info: H009569-250

Column phase: Rxi-17S11 MS

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25





CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 33913 Lot No.: A0149554

Description : SOM01.0 SIM Analysis Standard
SOM01.0 SIM Analysis Standard 2000µg/mL, Methylene chloride, 1mL /ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : April 30, 2025 Storage: 10°C or colder

Handling: Sonication required. Mix is photosensitive.

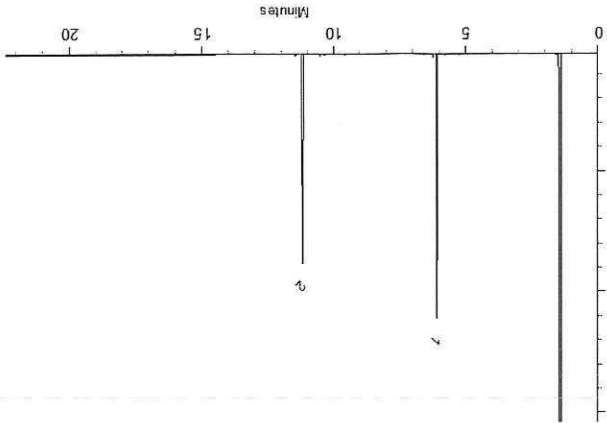
CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	2-Methylnaphthalene-d10	2,000.2 µg/mL	+/-	11.7382	µg/mL	Gravimetric
	CAS # 7297-45-2 (Lot AC-257)		+/-	90.1034	µg/mL	Unstressed
	Purity 98%		+/-	99.9779	µg/mL	Stressed
2	Fluoranthene-d10	2,000.2 µg/mL	+/-	11.7382	µg/mL	Gravimetric
	CAS # 93951-69-0 (Lot PR-20668)		+/-	90.1034	µg/mL	Unstressed
	Purity 98%		+/-	99.9779	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

H010524
SOMO 1.0 SIM DMC
Solvent / Lot: A0149554
Prep: 10/26/2019 by VS
Exp: 4/30/2025
Location:

Column: 30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)
Carrier Gas: hydrogen-constant pressure 10 psi
Temp. Program: 75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)
Inj. Temp: 250°C
Det. Temp: 330°C
Det. Type: FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cheryl Graham
Cheryl Graham - Mix Technician

Date Mixed: 26-May-2019 Balance: B345965662

Justin Albersson
Justin Albersson - Operations Tech-ARM QC

Date Passed: 29-May-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@sial.com

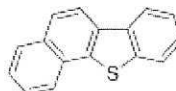
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:

1,2-Benzodiphenylene sulfide - 99%

Product Number: 255122
Batch Number: MKCL4273
Brand: ALDRICH
CAS Number: 239-35-0
MDL Number: MFCD00010043
Formula: C16H10S
Formula Weight: 234.32 g/mol
Quality Release Date: 25 NOV 2019



Test	Specification	Result
Appearance (Color)	White to Off White	White
Appearance (Form)	Conforms to Requirements	Powder
Crystalline Powder or Solid		
Infrared Spectrum	Conforms to Structure	Conforms
Carbon Content	80.8 - 83.2 %	82.0 %
Nitrogen Content	13.4 - 14.0 %	13.7 %
Purity (TLC)	> 99 %	> 99 %
Solubility (Turbidity)	Clear to Slightly Hazy	Clear
2.5% in CHCL3		
Solubility (Color)	Colorless to Faint Yellow	Colorless

Michael Grady, Manager
 Quality Control
 Milwaukee, WI US

1000979

Benzo(b)naphtho(2,1-d)thiophene

Solvent / Lot: NA

Prep: 1/31/2020 by VS

Exp: 7/29/2040

Location: R-19

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.



Product Name: DI-N-OCTYL PHTHALATE (RING-D4, 98%)
(Isotopic Label & Enrichment Specification)

Lot Number: PR-14719

Catalog Number: DLM-1630-0

Product Information

Chemical Purity Specification: ≥ 98%

MW*: 394.58
* For isotopically labeled compounds, MW listed is for the fully enriched product.

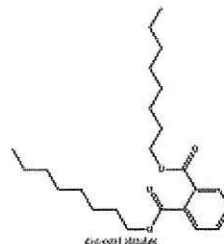
Labeled CAS Number: 93952-13-7

Unlabeled CAS Number: 117-84-0

Chemical Formula: C6D4-1,2-(CO2(CH2)7CH3)2

Storage: Store at room temperature away from light and moisture.

Intended Use: For Research Use Only. Not for use in diagnostic procedures.



Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

The retest date for this chemical has been designated based on CIL's experience in working with chemical standards for over 30 years, and includes review of actual analytical results and relevant literature references. The retest date is valid only for unopened vials or ampoules that have been stored as recommended.

Approved by: Jeffrey O'Neill

Jeffrey O'Neill, Quality Review

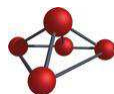
Quality Control Tests and Results

1H NMR for Chemical Purity	Pass
GC/MS for Chemical Purity	99.8%
GC/MS for Isotopic Enrichment	99.1%

I 2078
I 2079
I 2080

Additional Testing Information:
Retest/Review Date: 01/17/23

CIL subscribes to the following standards for different products: ISO Guide 34, ISO/IEC 17025, ISO 13485 and cGMP as appropriate.



CERTIFIED WEIGHT REPORT

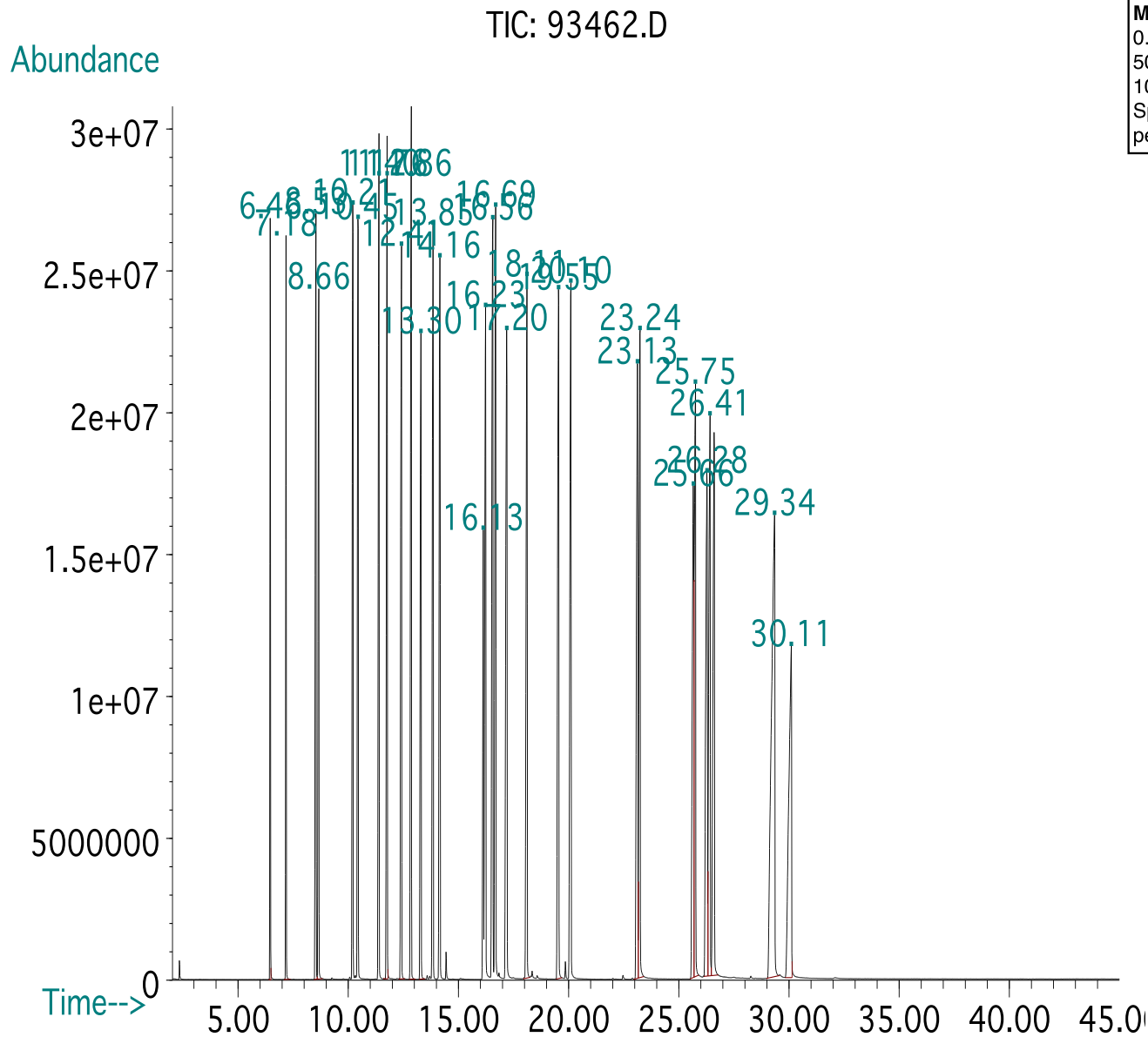
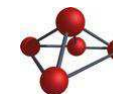
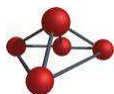
Part Number: 93462
Lot Number: 022620
Description: PAH Standard
30 components
Expiration Date: 022625
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UTB
5E-05 Balance Uncertainty
Volume(s) shown below were combined and diluted to (mL): 20.0 0.003 Flask Uncertainty

Solvent(s): Methylene chloride
Lot# 102669

<i>Eli Aliaga</i>		022620
Formulated By:	Eli Aliaga	DATE
<i>Pedro L. Rentas</i>		022620
Reviewed By:	Pedro L. Rentas	DATE

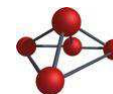
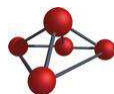
Compound	Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(µg/mL)	Final Conc.(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)		
									CAS#	OSHA PEL (TWA)	LD50
1. Acenaphthene	10007	060118	0.50	10.00	0.042	2000.1	999.5	9.3	83-32-9	N/A	ipr-rat 600mg/kg
2. Acenaphthylene	10007	060118	0.50	10.00	0.042	2000.2	999.5	9.4	208-96-8	N/A	N/A
3. Anthracene	10007	060118	0.50	10.00	0.042	2000.3	999.5	9.3	120-12-7	0.2mg/m3 (8H)	ipr-mus 430mg/kg
4. Benzo(a)anthracene	10007	060118	0.50	10.00	0.042	2000.9	999.9	9.4	56-55-3	N/A	N/A
5. Benzo(a)pyrene	10007	060118	0.50	10.00	0.042	2000.3	999.6	9.3	50-32-8	0.2mg/m3 (8H)	scu-rat 50mg/kg
6. Benzo(b)fluoranthene	10007	060118	0.50	10.00	0.042	2000.7	999.8	9.4	205-99-2	N/A	N/A
7. Benzo(k)fluoranthene	10007	060118	0.50	10.00	0.042	2000.6	999.7	9.4	207-08-9	N/A	N/A
8. Benzo(g,h,i)perylene	10007	060118	0.50	10.00	0.042	2000.4	999.6	9.3	191-24-2	N/A	N/A
9. Carbazole	10007	060118	0.50	10.00	0.042	2000.7	999.7	9.4	86-74-8	N/A	ipr-mus 200mg/kg
10. Chrysene	10007	060118	0.50	10.00	0.042	2000.4	999.6	9.4	218-01-9	0.2mg/m3	N/A
11. Dibenzo(a,h)anthracene	10007	060118	0.50	10.00	0.042	2000.5	999.7	9.4	53-70-3	0.2mg/m3	N/A
12. Fluoranthene	10007	060118	0.50	10.00	0.042	2000.5	999.6	9.4	206-44-0	N/A	ori-rat 2000mg/kg
13. Fluorene	10007	060118	0.50	10.00	0.042	2000.4	999.6	9.4	86-73-7	N/A	ipr-mus 2 g/kg
14. Indeno(1,2,3-cd)pyrene	10007	060118	0.50	10.00	0.042	2000.3	999.5	9.4	193-39-5	N/A	N/A
15. Naphthalene	10007	060118	0.50	10.00	0.042	2000.8	999.8	9.4	91-20-3	10 ppm (50mg/m3/8H)	ori-rat 490mg/kg
16. Phenanthrene	10007	060118	0.50	10.00	0.042	2000.8	999.8	9.4	85-01-8	0.2mg/m3/8H	ori-mus 700mg/kg
17. Pyrene	10007	060118	0.50	10.00	0.042	2000.0	999.4	9.4	129-00-0	0.2mg/m3/8H	ori-rat 2700mg/kg
18. Benzo(e)pyrene	94851	021119	0.50	10.00	0.042	2001.6	1000.2	9.4	192-97-2	N/A	N/A
19. Biphenyl	94851	021119	0.50	10.00	0.042	2003.6	1001.2	9.4	92-52-4	0.2 ppm(1mg/m3/8H)	ori-rat 2400mg/kg
20. Decalin (49% cis, 51% trans)	94851	021119	0.50	10.00	0.042	2004.1	1001.4	9.4	91-17-8	N/A	N/A
21. Dibenzofuran	94851	021119	0.50	10.00	0.042	2000.9	999.9	9.4	132-64-9	N/A	N/A
22. Dibenzothiophene	94851	021119	0.50	10.00	0.042	2002.7	1000.7	9.4	132-65-0	N/A	ori-mus 470 mg/kg
23. 2,6-Dimethylnaphthalene	94851	021119	0.50	10.00	0.042	2000.7	999.8	9.4	581-42-0	N/A	N/A
24. 1-Methylnaphthalene	94851	021119	0.50	10.00	0.042	2001.0	999.9	9.4	90-12-0	N/A	ori-rat 1840mg/kg
25. 2-Methylnaphthalene	94851	021119	0.50	10.00	0.042	2001.6	1000.2	9.4	91-57-6	N/A	ori-rat 1630mg/kg
26. 1-Methylphenanthrene	94851	021119	0.50	10.00	0.042	2003.3	1001.1	13.2	832-69-9	N/A	N/A
27. Pentachlorophenol	94851	021119	0.50	10.00	0.042	2003.0	1000.9	9.4	87-86-5	0.5mg/m3/8H (skin)	ori-rat 27mg/kg
28. Perylene	94851	021119	0.50	10.00	0.042	2003.3	1001.0	9.4	198-55-0	N/A	N/A
29. Thianaphthene	94851	021119	0.50	10.00	0.042	2000.3	999.6	9.4	95-15-8	N/A	N/A
30. 2,3,5-Trimethylnaphthalene	94851	021119	0.50	10.00	0.042	2003.3	1001.0	9.5	2245-38-7	N/A	N/A

• The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
 • Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
 • Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
 • All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
 • Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).



Method GC8MSD-2Long: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (14min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Gina McLane.

Retention Time (min.)	
Decahydronaphthalene (Decalin) (isomer)	6.46
Decahydronaphthalene (Decalin) (isomer)	7.18
Naphthalene	8.53
Thianaphthene	8.66
2-Methylnaphthalene	10.21
1-Methylnaphthalene	10.45
Biphenyl	11.4
2,6-Dimethylnaphthalene	11.76
Acenaphthylene	12.41
Acenaphthene	12.86
Dibenzofuran	13.3
2,3,5-Trimethylnaphthalene	13.85
Fluorene	14.16
Pentachlorophenol	16.13
Dibenzothiophene	16.23
Phenanthrene	16.56
Anthracene	16.69
Carbazole	17.2
1-Methylphenanthrene	18.11
Fluoranthene	19.55
Pyrene	20.1
Benzo(a)anthracene	23.13
Chrysene	23.24
Benzo(b)fluoranthene	25.66
Benzo(k)fluoranthene	25.75
Perylene	26.28
Benzo(a)pyrene	26.41
Benzo(e)pyrene	26.61
Indeno(1,2,3-cd)pyrene	29.34
Dibenzo(a,h)anthracene	29.34
Benzo(g,h,i)perylene	30.11

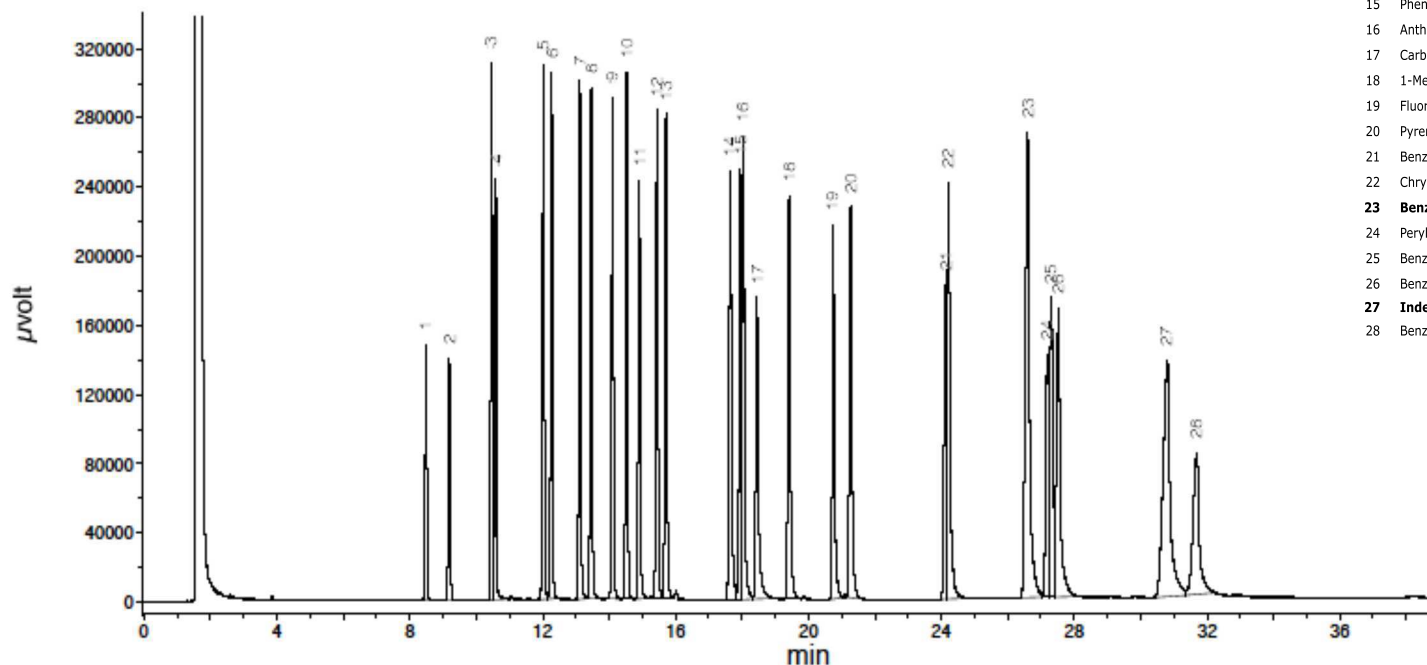


Run 47, "P93462 L022620 [1000µg/mL in MeCl2]"

Run Length: 40.00 min, 23999 points at 10 points/second.
Created: Wed, Mar 4, 2020 at 4:09:15 AM.
Sampled: Sequence "030220-GC9M2", Method "GC9-M2".
Analyzed using Method "GC9-M2".

Comments

GC9-M2 Analysis by Candice Warren
Column ID SPB-5 30 meter x 0.53mm x 1.5µm Film Thickness.
Flow rates; Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) = 360 mL Oven Temp 1 = 50°C (1 min).
Rate = 10°C/min, Oven Temp 2 = 300°C (14 min), Total Run Time = 40 Minutes. Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 µL, Range = 3



Peak No.	Name	FID RT (min.)
1	Decahydronaphthalene (Decalin) (isomer)	8.96
2	Decahydronaphthalene (Decalin) (isomer)	9.67
3	Naphthalene	10.96
4	Thianaphthene	11.09
5	2-Methylnaphthalene	12.53
6	1-Methylnaphthalene	12.78
7	Biphenyl	13.63
8	2,6-Dimethylnaphthalene	13.99
9	Acenaphthylene	14.63
10	Acenaphthene	15.07
11	Dibenzofuran	15.44
12	2,3,5-Trimethylnaphthalene	15.98
13	Fluorene	16.26
14	Pentachlorophenol/Dibenzothiophene	18.22
15	Phenanthrene	18.51
16	Anthracene	18.62
17	Carbazole	19.01
18	1-Methylphenanthrene	20.00
19	Fluoranthene	21.34
20	Pyrene	21.88
21	Benzo(a)anthracene	24.74
22	Chrysene	24.84
23	Benzo(b)fluoranthene/Benzo(k)fluoranthene	27.36
24	Perylene	28.04
25	Benzo(a)pyrene	28.18
26	Benzo(e)pyrene	28.42
27	Indeno(1,2,3-cd)pyrene/Dibenzo(a,h)anthracene	32.26
28	Benzo(g,h,i)perylene	33.30



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 33913 **Lot No.:** A0154854

Description : SOM01.0 SIM Analysis Standard
SOM01.0 SIM Analysis Standard 2000µg/mL, Methylene chloride, 1 mL /ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2025 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	2-Methylnaphthalene-d10	2,017.8 µg/mL	+/-	11.8417	µg/mL	Gravimetric
	CAS # 7297-45-2 (Lot AC-257)		+/-	90.8981	µg/mL	Unstressed
	Purity 98%		+/-	100.8597	µg/mL	Stressed
2	Fluoranthene-d10	1,999.2 µg/mL	+/-	11.7324	µg/mL	Gravimetric
	CAS # 93951-69-0 (Lot PR-20668)		+/-	90.0593	µg/mL	Unstressed
	Purity 98%		+/-	99.9290	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

I 4369



Product Name: DIBENZ[A,H]ANTHRACENE
(Isotopic Label & Enrichment Specification) (D14, 98%)

Lot Number: PR-30906

Catalog Number: DLM-677-0

Product Information

Chemical Purity Specification: $\geq 98\%$

MW*: 292.43
* For isotopically labeled compounds, MW listed is for the fully enriched product.

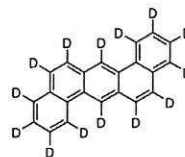
Labeled CAS Number: 13250-98-1

Unlabeled CAS Number: 53-70-3

Chemical Formula: C₂₂D₁₄

Storage: Store at room temperature away from light and moisture.

Intended Use: For Research Use Only. Not for use in diagnostic procedures.



I4874

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

The retest date for this chemical has been designated based on CIL's experience in working with chemical standards for over 30 years, and includes review of actual analytical results and relevant literature references. The retest date is valid only for unopened vials or ampoules that have been stored as recommended.

Approved by: Sashi Sivendran-Basak

Sashi Sivendran-Basak, Ph.D., Quality Review

Quality Control Tests and Results

1H NMR for Chemical Purity	Pass
1H NMR for Isotopic Enrichment	99.4%
2H NMR for Chemical Purity	Pass
GC/FID for Chemical Purity	99.4%
GC/MS for Identification	Conforms
Melting Point Range Determination	261-267°C

Additional Testing Information:

CIL subscribes to the following standards for different products: ISO Guide 34, ISO/IEC 17025, ISO 13485 and cGMP as appropriate.



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 33913 Lot No.: A0161454

Description : SOM01.0 SIM Analysis Standard
SOM01.0 SIM Analysis Standard 2000µg/mL, Methylene chloride, 1mL /ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : May 31, 2026 Storage: 10°C or colder

Handling: Sonication required. Mix is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	2-Methylnaphthalene-d10	2,013.1 µg/mL	+/-	11.8141	µg/mL	Gravimetric
	CAS # 7297-45-2 (Lot EF-135)		+/-	90.6864	µg/mL	Unstressed
	Purity 96%		+/-	100.6247	µg/mL	Stressed
2	Fluoranthene-d10	2,002.1 µg/mL	+/-	11.7497	µg/mL	Gravimetric
	CAS # 93951-69-0 (Lot PR-20668)		+/-	90.1917	µg/mL	Unstressed
	Purity 98%		+/-	100.0759	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

I5177

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

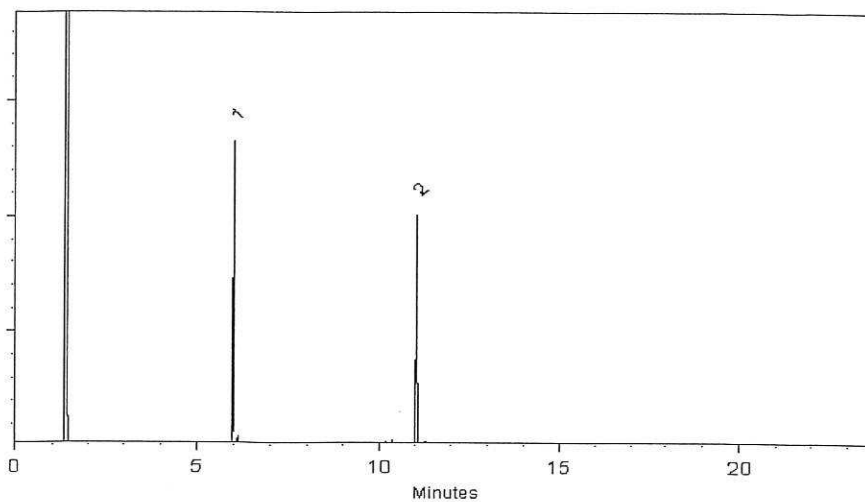
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Kyle Struble - Operations Technician I

Date Mixed: 04-Jun-2020 Balance: 1128360905


Fang-Yun Lo - GC Analyst

Date Passed: 08-Jun-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

Certificate of Analysis



Phenova Certified Reference Materials are sold by Phenomenex.

411 Madrid Ave., Torrance, CA 90501 USA ■ Tel: 310-212-0555 ■ Fax: 310-328-7768 ■ info@phenomenex.com

Access your MSDS and digital C of A at www.phenomenex.com/mysupport. Re-order at www.phenomenex.com/standards

Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101291

Lot Number: CL10999

Description: GC/MS Tuning Mix

Certification Date: May 9, 2014

Storage: 4 °C

Expiration Date: December 31, 2023

Provided As: 1 mL in 2 mL Ampoule in Methylene chloride

Revision Date: June 19, 2015

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty (%)
Benzidine	92-87-5	1000	± 4.575%
Decafluorotriphenylphosphine (DFTPP)	5074-71-5	1000	± 2.420%
4,4'-DDT	50-29-3	1000	± 2.772%
Pentachlorophenol	87-86-5	1000	± 2.616%

7 5998



Reference Material Producer
Certificate No. 2427.02



Manufactured by Phenova, Inc.

Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis

Produced by Phenova

6390 Joyce Drive STE 100, Golden, CO 80403 USA ■ Tel: 303-940-0033 ■ Fax: 303-940-0043 ■ info@phenova.com
Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

1. **Quality Document:** This Certificate of Analysis has been created in accordance with ISO Guide 31¹ and ISO Guide 35.²
2. **Quality Standards:** Phenova is accredited by A2LA to ISO 17034³ and ISO/IEC 17025⁴ as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.
3. **Intended Use:** The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.
4. **Handling and Usage Notes:** Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.
5. **Hazardous Situation:** The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.
6. **Level of Homogeneity:** The product has been certified to guarantee the certified values and their uncertainties at a volume of 25 µL.
7. **Certified Value:** Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.
8. **Raw Materials and Purity:** Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.
9. **Expanded Uncertainty:** The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98⁵ and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. **Metrological Traceability:** The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.
11. **Values Obtained During Product Testing:** This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.
12. **Period of Validity:** The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

- ¹ ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
- ² ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
- ³ ISO 17034 – General Requirements for the Competence of Reference Material Producers.
- ⁴ ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
- ⁵ ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)



Reference Material Producer
Certificate No. 2427.02



Phenova is an accredited ISO/IEC 17034 Reference Material
Producer and ISO/IEC 17025 accredited Chemical Testing Laboratory.



Chemical Testing Laboratory
Certificate No. 2427.03



CERTIFIED WEIGHT REPORT

Part Number: 93462
Lot Number: 092220
Description: PAH Standard
30 components
Expiration Date: 092225
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 23060

Solvent(s): Methylene chloride
Lot# 102669

Volume(s) shown below were combined and diluted to (mL): 20.0
5E-05 Balance Uncertainty
0.003 Flask Uncertainty

		092220
Formulated By:	Benson Chair	DATE
		092220
Reviewed By:	Pedro L. Rentas	DATE

Compound	Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(µg/mL)	Final Conc.(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)		
									CAS#	OSHA PEL (TWA)	LD50
1. Acenaphthene	10007	060118	0.50	10.00	0.042	2000.1	999.5	9.3	83-32-9	N/A	ipr-rat 600mg/kg
2. Acenaphthylene	10007	060118	0.50	10.00	0.042	2000.2	999.5	9.4	208-96-8	N/A	N/A
3. Anthracene	10007	060118	0.50	10.00	0.042	2000.3	999.5	9.3	120-12-7	0.2mg/m3 (8H)	ipr-mus 430mg/kg
4. Benzo(a)anthracene	10007	060118	0.50	10.00	0.042	2000.9	999.9	9.4	56-55-3	N/A	N/A
5. Benzo(a)pyrene	10007	060118	0.50	10.00	0.042	2000.3	999.6	9.3	50-32-8	0.2mg/m3 (8H)	scu-rat 50mg/kg
6. Benzo(b)fluoranthene	10007	060118	0.50	10.00	0.042	2000.7	999.8	9.4	205-99-2	N/A	N/A
7. Benzo(k)fluoranthene	10007	060118	0.50	10.00	0.042	2000.6	999.7	9.4	207-08-9	N/A	N/A
8. Benzo(g,h,i)perylene	10007	060118	0.50	10.00	0.042	2000.4	999.6	9.3	191-24-2	N/A	N/A
9. Carbazole	10007	060118	0.50	10.00	0.042	2000.7	999.7	9.4	86-74-8	N/A	ipr-mus 200mg/kg
10. Chrysene	10007	060118	0.50	10.00	0.042	2000.4	999.6	9.4	218-01-9	0.2mg/m3	N/A
11. Dibenzo(a,h)anthracene	10007	060118	0.50	10.00	0.042	2000.5	999.7	9.4	53-70-3	0.2mg/m3	N/A
12. Fluoranthene	10007	060118	0.50	10.00	0.042	2000.5	999.6	9.4	206-44-0	N/A	ori-rat 2000mg/kg
13. Fluorene	10007	060118	0.50	10.00	0.042	2000.4	999.6	9.4	86-73-7	N/A	ipr-mus 2 g/kg
14. Indeno(1,2,3-cd)pyrene	10007	060118	0.50	10.00	0.042	2000.3	999.5	9.4	193-39-5	N/A	N/A
15. Naphthalene	10007	060118	0.50	10.00	0.042	2000.8	999.8	9.4	91-20-3	10 ppm (50mg/m3/8H)	ori-rat 490mg/kg
16. Phenanthrene	10007	060118	0.50	10.00	0.042	2000.8	999.8	9.4	85-01-8	0.2mg/m3/8H	ori-mus 700mg/kg
17. Pyrene	10007	060118	0.50	10.00	0.042	2000.0	999.4	9.4	129-00-0	0.2mg/m3/8H	ori-rat 2700mg/kg
18. Benzo(e)pyrene	94851	021119	0.50	10.00	0.042	2001.6	1000.2	9.4	192-97-2	N/A	N/A
19. Biphenyl	94851	021119	0.50	10.00	0.042	2003.6	1001.2	9.4	92-52-4	0.2 ppm(1mg/m3/8H)	ori-rat 2400mg/kg
20. Decalin (49% cis, 51% trans)	94851	021119	0.50	10.00	0.042	2004.1	1001.4	9.4	91-17-8	N/A	N/A
21. Dibenzofuran	94851	021119	0.50	10.00	0.042	2000.9	999.9	9.4	132-64-9	N/A	N/A
22. Dibenzothiophene	94851	021119	0.50	10.00	0.042	2002.7	1000.7	9.4	132-65-0	N/A	ori-mus 470 mg/kg
23. 2,6-Dimethylnaphthalene	94851	021119	0.50	10.00	0.042	2000.7	999.8	9.4	581-42-0	N/A	N/A
24. 1-Methylnaphthalene	94851	021119	0.50	10.00	0.042	2001.0	999.9	9.4	90-12-0	N/A	ori-rat 1840mg/kg
25. 2-Methylnaphthalene	94851	021119	0.50	10.00	0.042	2001.6	1000.2	9.4	91-57-6	N/A	ori-rat 1630mg/kg
26. 1-Methylphenanthrene	94851	021119	0.50	10.00	0.042	2003.3	1001.1	13.2	832-69-9	N/A	N/A
27. Pentachlorophenol	94851	021119	0.50	10.00	0.042	2003.0	1000.9	9.4	87-86-5	0.5mg/m3/8H (skin)	ori-rat 27mg/kg
28. Perylene	94851	021119	0.50	10.00	0.042	2003.3	1001.0	9.4	198-55-0	N/A	N/A
29. Thianaphthene	94851	021119	0.50	10.00	0.042	2000.3	999.6	9.4	95-15-8	N/A	N/A
30. 2,3,5-Trimethylnaphthalene	94851	021119	0.50	10.00	0.042	2003.3	1001.0	9.5	2245-38-7	N/A	N/A

• The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
 • Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
 • Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
 • All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
 • Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

SVQA PAH STD-RMP-1000µg/ml
1009060
Solvent / Lot: 092220
Prep: 10/3/2020 by VS
Exp: 9/22/2025
Location: Fridge 19



CERTIFIED WEIGHT REPORT

Part Number: 70476
Lot Number: 092220
Description: Benzo(j)fluoranthene

Solvent(s): Methylene chloride
Lot# 104929

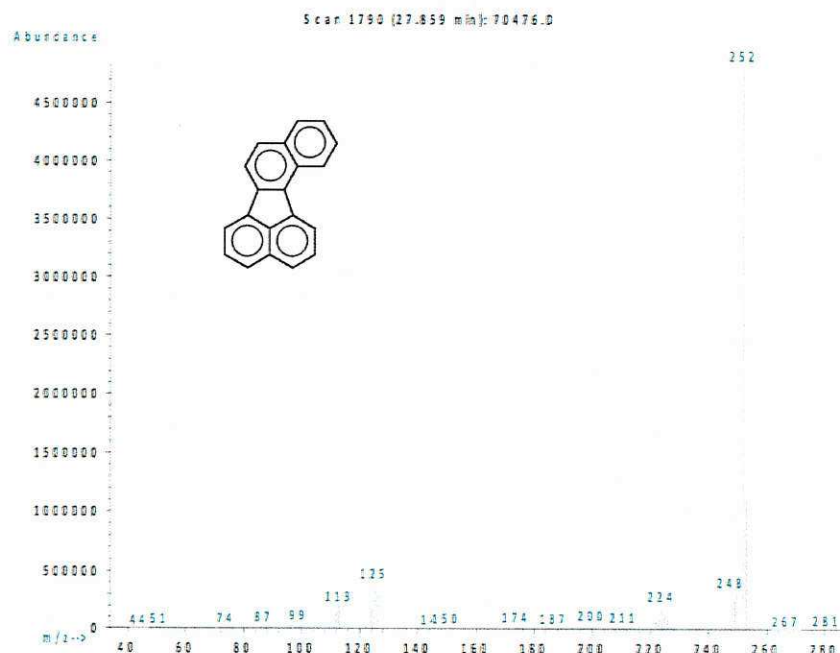
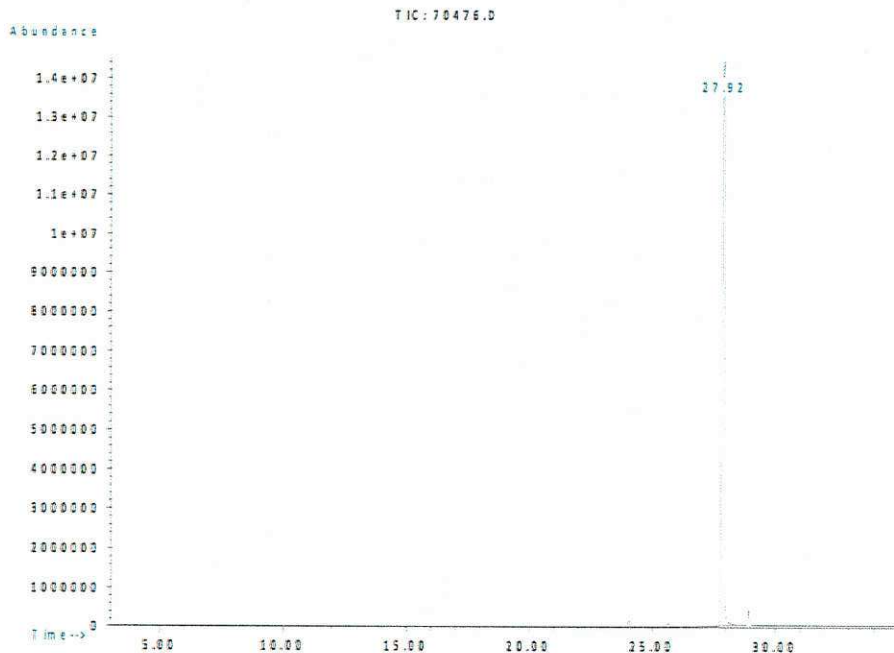
		092220
Formulated By: Benson Chan	DATE	
		092220
Reviewed By: Pedro L. Rentas	DATE	

Expiration Date: 092225
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 23060

Weight(s) shown below were combined and diluted to (mL): 25.0 0.001 Flask Uncertainty

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)		
										CAS#	OSHA PEL (TWA)	LD50
1. Benzo(j)fluoranthene	476	3-CSZ-153-20	1000	98.1	0.2	0.02547	0.02552	1001.8	5.7	205-82-3	0.2mg/m3	N/A

Method GC8MSD1M: Column:SBB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9 min.), Rate = 10°C/min., Injector B= 200°C, Detector B = 290°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by Candice Warren.



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

1009061
 Benzo(j)fluoranthene 1000µg/mL
 Schenk / Lot: 092220
 Prep: 10/31/2020 by VS
 Exp: 9/22/2025
 Location:



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis

11/19/2020



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31206 **Lot No.:** A0162879

Description : SV Internal Standard Mix 2mg/ml
SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2026 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

I010724
SVOA 8270 IS Mix-2mg/ml
Solvent / Lot: DCM
Prep: 11/19/2020 by JZ
Exp: 5/31/2026
Location: GC

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dichlorobenzene-d4 CAS # 3855-82-1 (Lot PR-18488) Purity 99%	2,014.5 µg/mL	+/-	11.7123	µg/mL Gravimetric
			+/-	90.7328	µg/mL Unstressed
			+/-	100.6792	µg/mL Stressed
2	Naphthalene-d8 CAS # 1146-65-2 (Lot M-1452) Purity 99%	2,014.9 µg/mL	+/-	11.7150	µg/mL Gravimetric
			+/-	90.7538	µg/mL Unstressed
			+/-	100.7026	µg/mL Stressed
3	Acenaphthene-d10 CAS # 15067-26-2 (Lot PR-30913) Purity 99%	2,011.9 µg/mL	+/-	11.6972	µg/mL Gravimetric
			+/-	90.6157	µg/mL Unstressed
			+/-	100.5493	µg/mL Stressed
4	Phenanthrene-d10 CAS # 1517-22-2 (Lot PR-29119) Purity 99%	2,015.7 µg/mL	+/-	11.7196	µg/mL Gravimetric
			+/-	90.7898	µg/mL Unstressed
			+/-	100.7425	µg/mL Stressed
5	Chrysene-d12 CAS # 1719-03-5 (Lot PR-30486) Purity 99%	2,004.0 µg/mL	+/-	11.6514	µg/mL Gravimetric
			+/-	90.2614	µg/mL Unstressed
			+/-	100.1561	µg/mL Stressed
6	Perylene-d12 CAS # 1520-96-3 (Lot PR-30020) Purity 99%	2,013.6 µg/mL	+/-	11.7072	µg/mL Gravimetric
			+/-	90.6938	µg/mL Unstressed
			+/-	100.6359	µg/mL Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

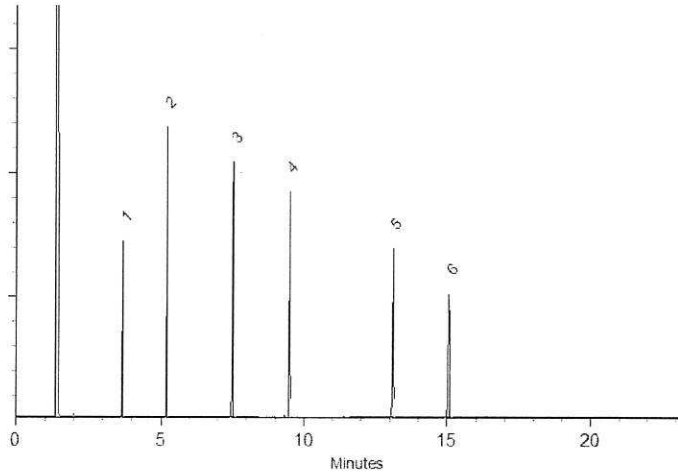
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cydnei L. Crust
Cydnei L. Crust - Mix Technician

Date Mixed: 23-Jul-2020

Balance: B251644995

Justine Albertson
Justine Albertson - Operations Tech-ARM QC

Date Passed: 24-Jul-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k \sqrt{U_{gravimetric}^2 + U_{homogeneity}^2 + U_{storage\ stability}^2 + U_{shipping\ stability}^2}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.



Form I
ORGANIC ANALYSIS DATA SHEET
NWTPH-Dx
TPH (Extractables) low level

Laboratory: Analytical Resources, Inc.
 Client: Anchor OEA, LLC
 Project: Gasco Siltronic - US Moorings
 Matrix: Sediment Laboratory ID: 21D0180-01 A SDG: 21D0180
 Sampled: 04/14/21 11:41 Prepared: 04/21/21 10:48 File ID: 421D2817.D
 % Solids: 46.63 Preparation: EPA 3546 (Microwave) Analyzed: 04/28/21 20:01
 Batch: BJD0478 Sequence: SJD0413 Initial/Final: 10.02 g Wet / 1 mL
 Instrument: FID4 Column: RTX-1 Calibration: ED00037

CAS NO.	COMPOUND	DILUTION	CONC: (mg/kg dry)	Q	DL	RL
DRO	Diesel Range Organics (C12-C24)	1	37.3		5.01	10.7
RRO	Motor Oil Range Organics (C24-C38)	1	266		6.40	21.4

SURROGATES	ADDED: (mg/kg dry)	FOUND: (mg/kg dry)	% REC	QC LIMITS	Q
o-Terphenyl	24.078	20.3	84.4	50 - 150	

Data File: \\target\share\chem2\fid4a,1\20210428_b\42102817.D

Date: 28-APR-2021 20:01

Client ID:

Sample Info: 21D0180-01

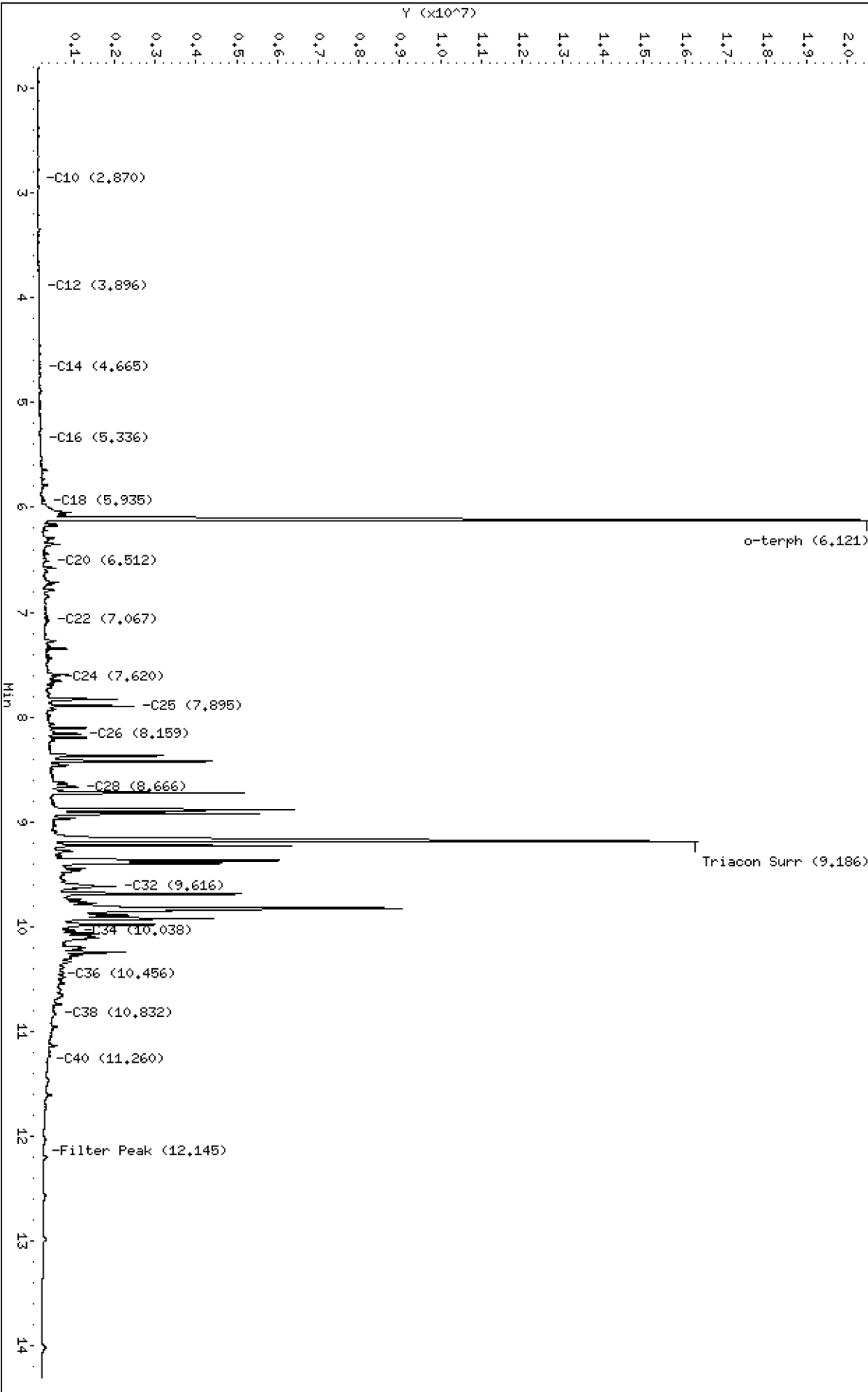
Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

Column phase: RTX-1

\\target\share\chem2\fid4a,1\20210428_b\42102817.D



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210428.b/421D2817.D
Method: 20210428.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/29/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: 21D0180-01
Client ID:
Injection: 28-APR-2021 20:01
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

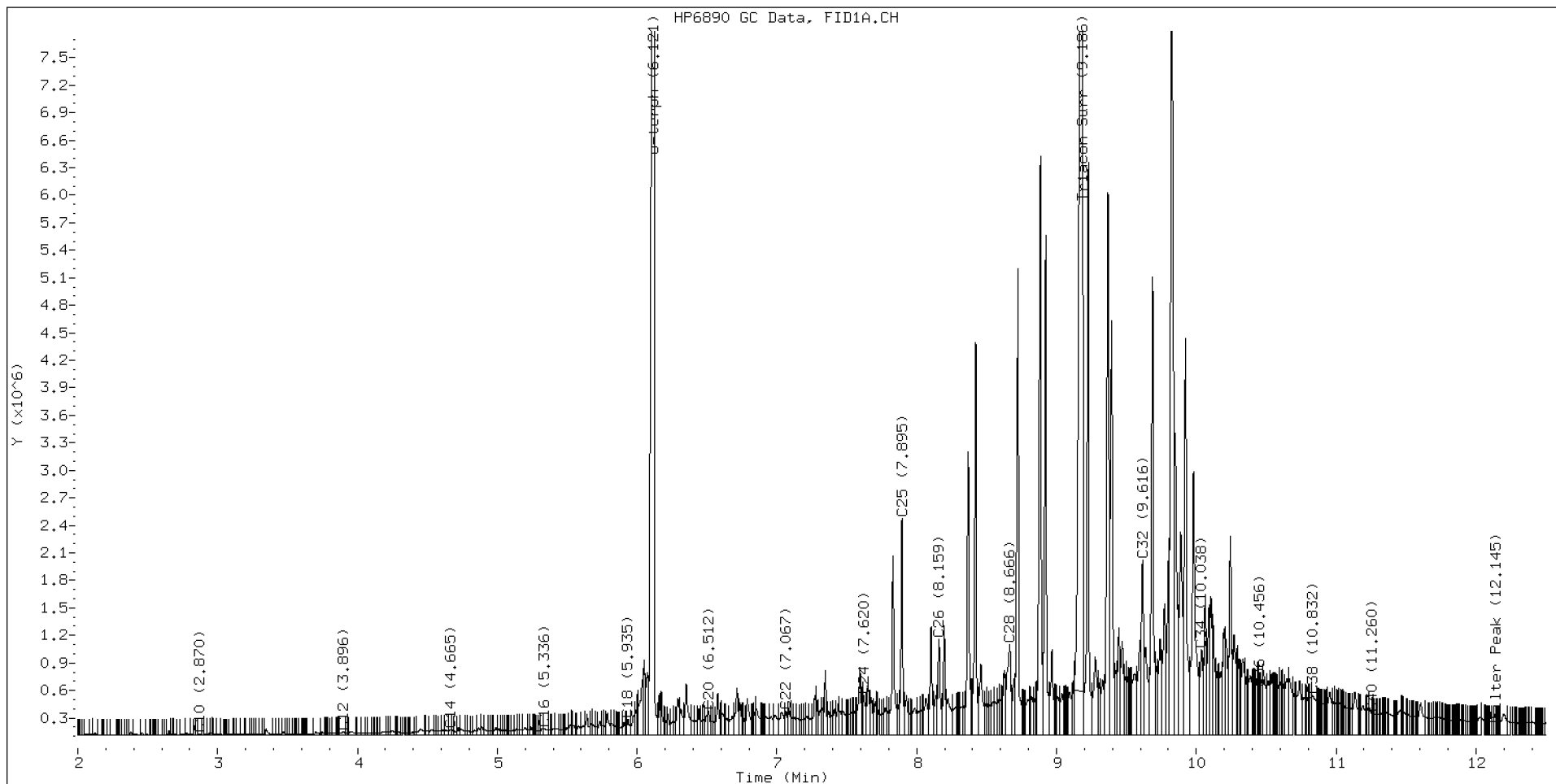
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.601	0.018	8177	13103	WATPHD	(C12-C24)	31827444	174.1
C10	2.870	-0.006	15677	15562	WATPHM	(C24-C38)	163536305	1244.2
C12	3.896	0.008	34307	83298	AK102	(C10-C25)	36778542	170.7
C14	4.665	-0.004	58586	65720	AK103	(C25-C36)	149040571	1474.8
C16	5.336	-0.005	74249	143882	OR.DIES	(C10-C28)	63194457	322.4
C18	5.935	-0.007	171157	227426				
C20	6.512	0.002	257461	258360	JET-A	(C10-C18)	8490075	57.9
C22	7.067	-0.008	257130	294410				
C24	7.620	-0.007	433424	481391				
C25	7.895	-0.005	2358625	2034459				
C26	8.159	-0.004	1048062	1264364				
C28	8.666	-0.008	986757	1871585				
C32	9.616	0.003	1908019	2265494				
C34	10.038	-0.005	928207	1348129				
Filter Peak	12.145	0.006	143684	57315	BUNKERC	(C10-C38)	196360228	4374.0
C36	10.456	0.003	510366	76369				
C38	10.832	-0.010	434142	885720				
C40	11.260	0.010	237406	117908				
o-terph	6.121	0.001	20424408	23625386				
Triacon Surr	9.186	0.004	15735179	21906646	NAS DIES	(C10-C24)	32823924	168.2

Range Times: NW Diesel(3.887 - 7.627) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.67)

Surrogate	Area	Amount
o-Terphenyl	23625386	94.9
Triacontane	21906646	103.4 M

M Indicates the peak was manually integrated

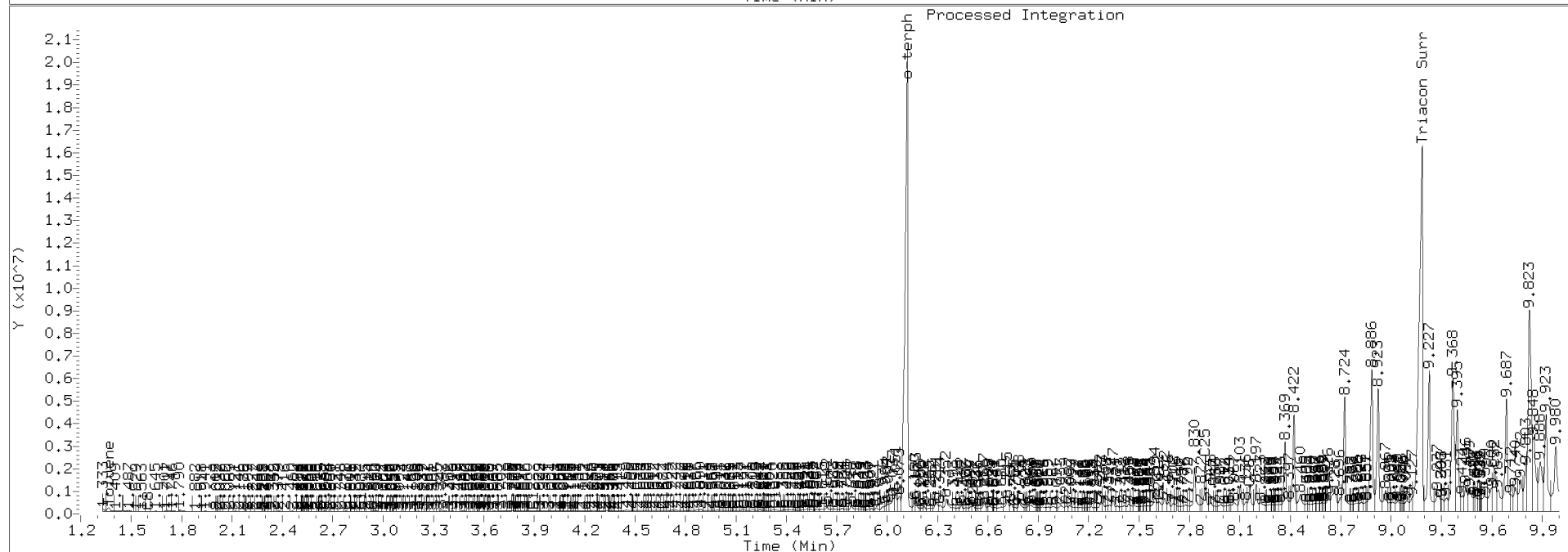
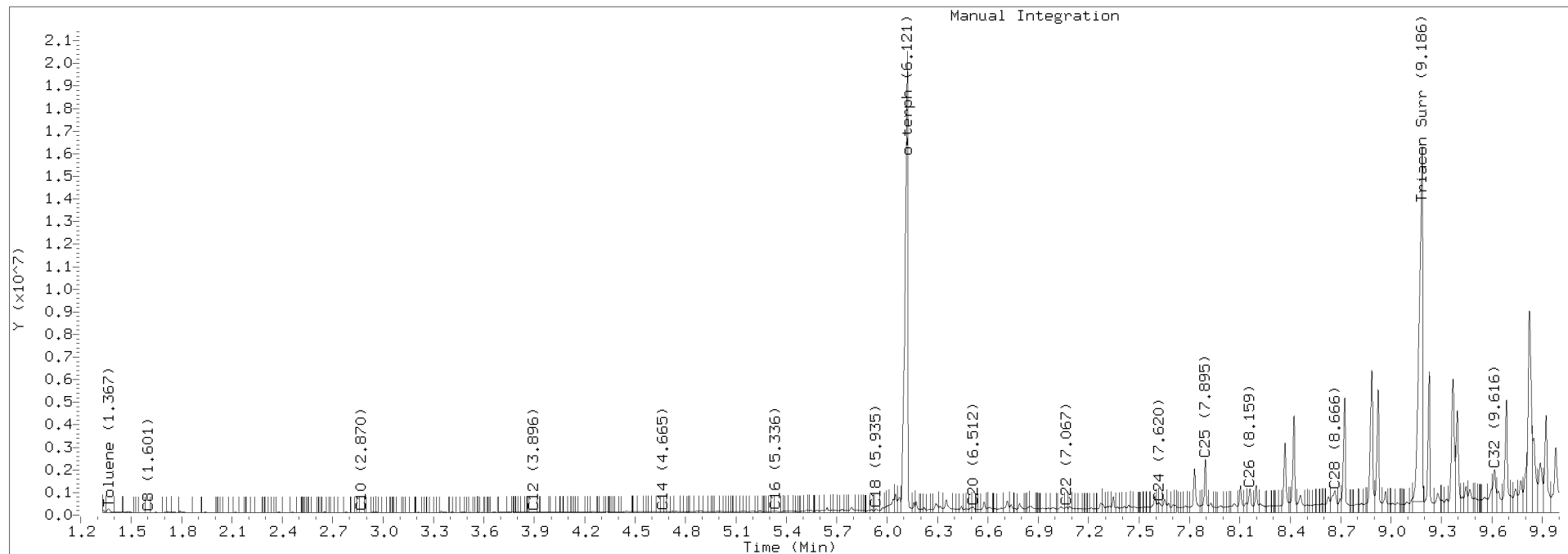
Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021



TPH Manual Integrations Report

Datafile: FID4A, 20210428.b/421D2817.D Injection: 28-APR-2021 20:01

Lab ID:21D0180-01





Form I
ORGANIC ANALYSIS DATA SHEET
NWTPH-Dx
TPH (Extractables) low level

Laboratory: Analytical Resources, Inc.
 Client: Anchor OEA, LLC
 Project: Gasco Siltronic - US Moorings
 Matrix: Sediment Laboratory ID: 21D0180-02 A SDG: 21D0180
 Sampled: 04/14/21 10:35 Prepared: 04/21/21 10:48 File ID: 421D2818.D
 % Solids: 45.49 Preparation: EPA 3546 (Microwave) Analyzed: 04/28/21 20:22
 Batch: BJD0478 Sequence: SJD0413 Initial/Final: 10.02 g Wet / 1 mL
 Instrument: FID4 Column: RTX-1 Calibration: ED00037

CAS NO.	COMPOUND	DILUTION	CONC: (mg/kg dry)	Q	DL	RL
DRO	Diesel Range Organics (C12-C24)	1	32.8		5.13	11.0
RRO	Motor Oil Range Organics (C24-C38)	1	232		6.56	21.9

SURROGATES	ADDED: (mg/kg dry)	FOUND: (mg/kg dry)	% REC	QC LIMITS	Q
o-Terphenyl	24.681	18.8	76.2	50 - 150	

Data File: \\target\share\chem2\fid4a,1\20210428_b\421D2818.D

Date: 28-APR-2021 20:22

Client ID:

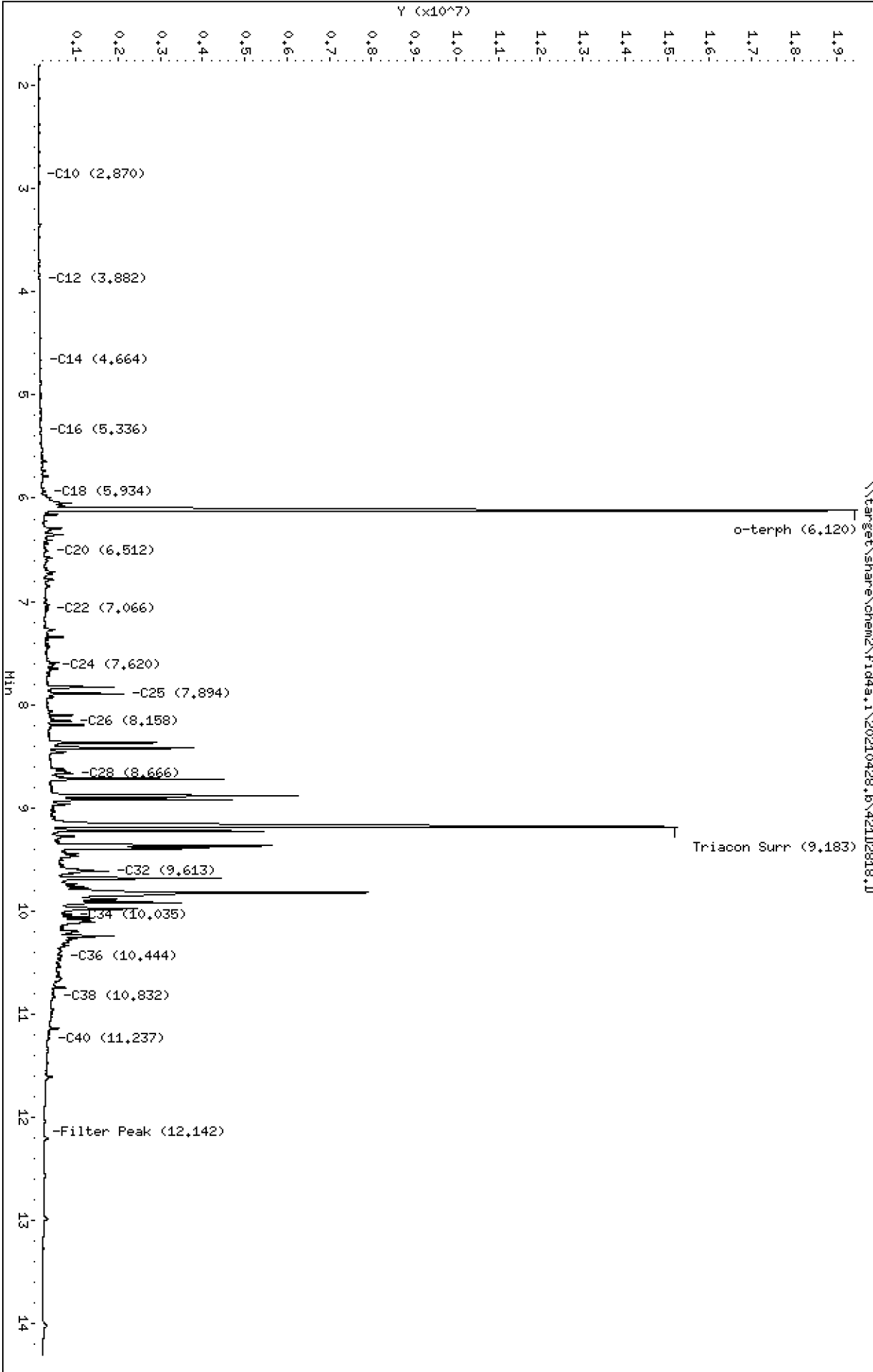
Sample Info: 21D0180-02

Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210428.b/421D2818.D
Method: 20210428.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/29/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: 21D0180-02
Client ID:
Injection: 28-APR-2021 20:22
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

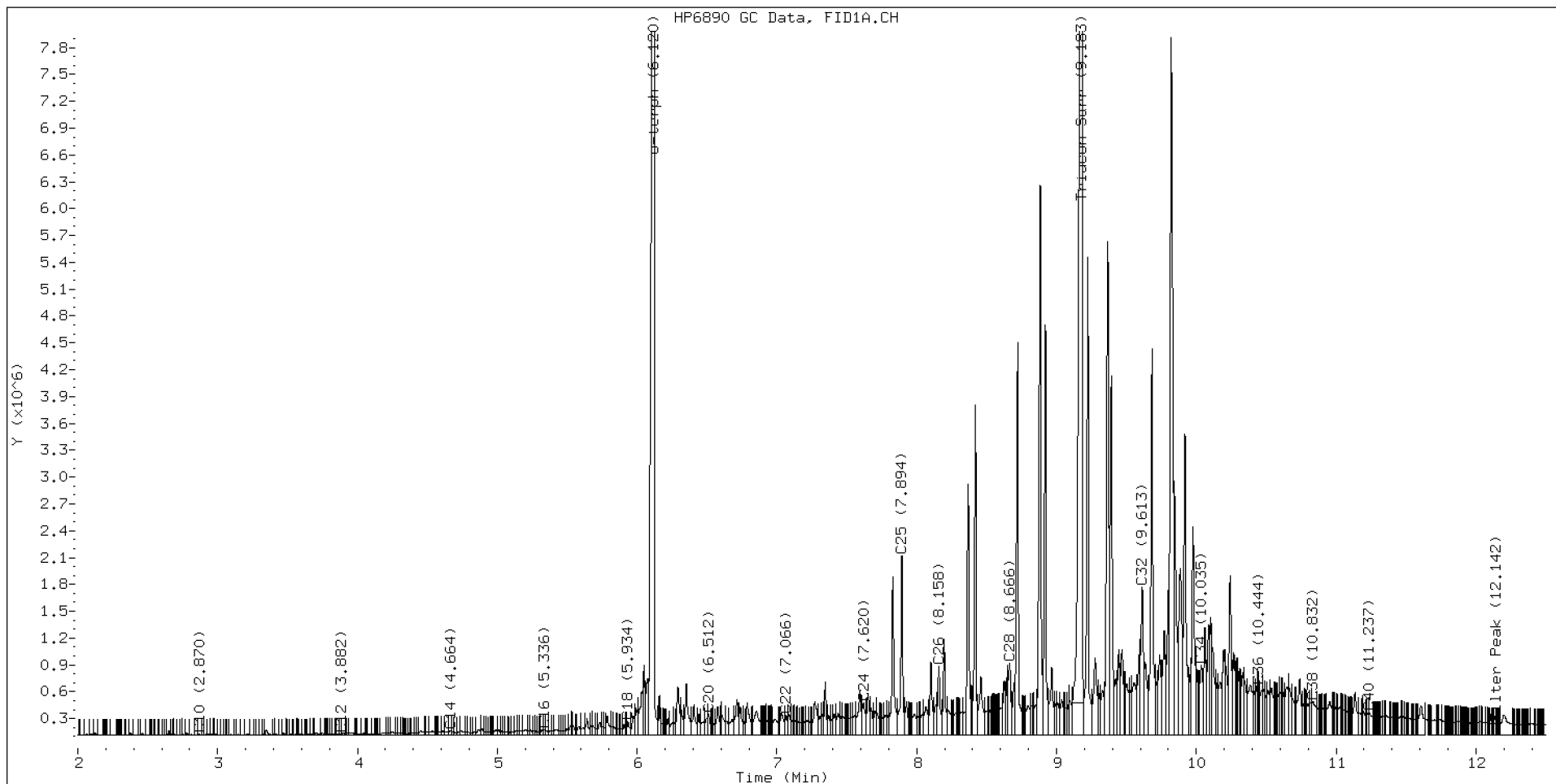
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.598	0.016	12348	19787	WATPHD	(C12-C24)	27311465	149.4
C10	2.870	-0.006	13444	11288	WATPHM	(C24-C38)	138926638	1057.0
C12	3.882	-0.005	19440	17558	AK102	(C10-C25)	31565354	146.5
C14	4.664	-0.005	48952	54004	AK103	(C25-C36)	125814152	1245.0
C16	5.336	-0.005	61859	53479	OR.DIES	(C10-C28)	57445810	293.1
C18	5.934	-0.008	150523	206015				
C20	6.512	0.002	239459	257052	JET-A	(C10-C18)	7022757	47.9
C22	7.066	-0.009	219964	242258				
C24	7.620	-0.007	362439	604624				
C25	7.894	-0.006	2001200	1947755				
C26	8.158	-0.005	769985	914460				
C28	8.666	-0.008	802421	1063559				
C32	9.613	0.000	1661607	2005912				
C34	10.035	-0.008	787423	1166269				
Filter Peak	12.142	0.003	130943	45781	BUNKERC	(C10-C38)	166966105	3719.2
C36	10.444	-0.008	547446	396115				
C38	10.832	-0.009	376381	778987				
C40	11.237	-0.013	254682	398285				
o-terph	6.120	0.000	19390867	21344541				
Triacon Surr	9.183	0.002	14763956	20241792	NAS DIES	(C10-C24)	28039467	143.7

Range Times: NW Diesel(3.887 - 7.627) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.67)

Surrogate	Area	Amount
o-Terphenyl	21344541	85.7
Triacontane	20241792	95.6 M

M Indicates the peak was manually integrated

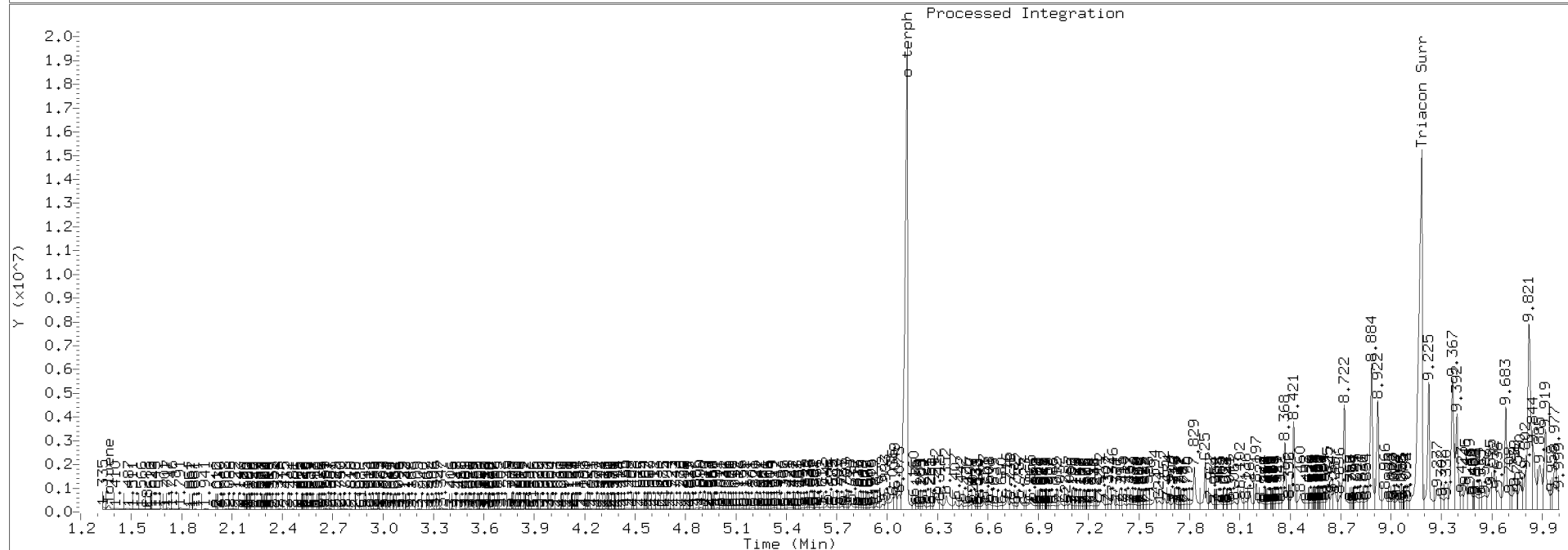
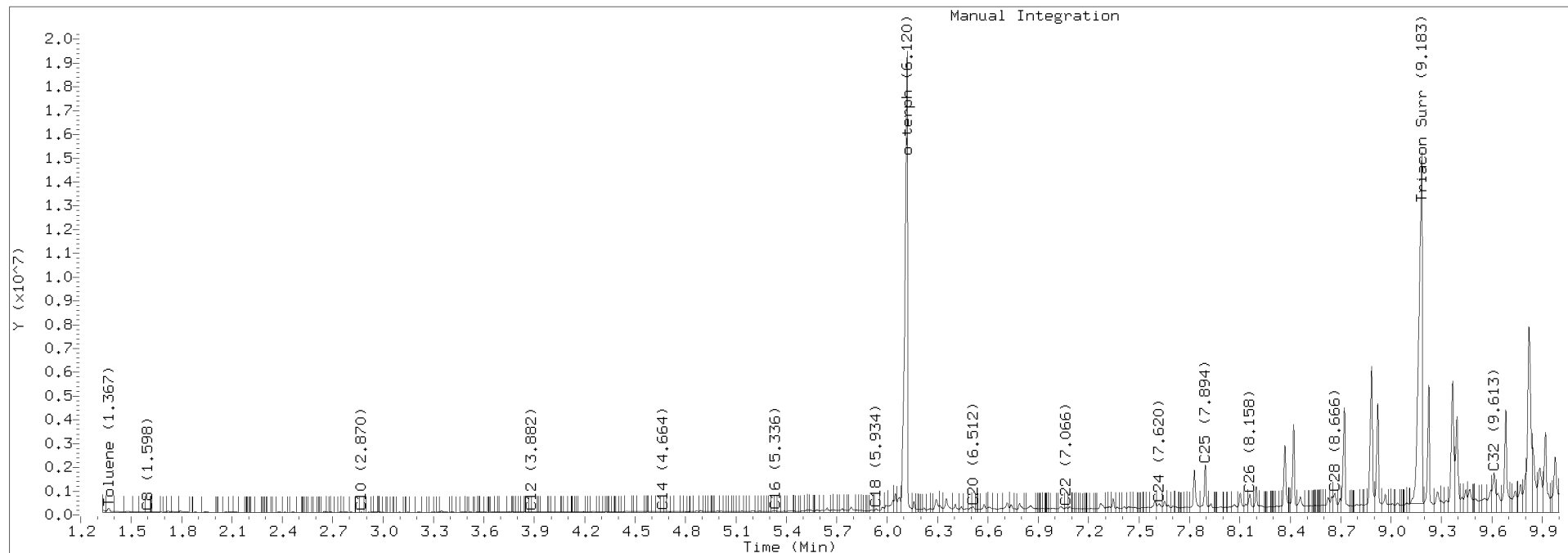
Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021



TPH Manual Integrations Report

Datafile: FID4A, 20210428.b/421D2818.D Injection: 28-APR-2021 20:22

Lab ID:21D0180-02





Form I
ORGANIC ANALYSIS DATA SHEET
NWTPH-Dx
TPH (Extractables) low level

Laboratory: Analytical Resources, Inc.
 Client: Anchor OEA, LLC
 Project: Gasco Siltronic - US Moorings
 Matrix: Sediment Laboratory ID: 21D0180-03 A SDG: 21D0180
 Sampled: 04/14/21 08:36 Prepared: 04/21/21 10:48 File ID: 421D2819.D
 % Solids: 46.60 Preparation: EPA 3546 (Microwave) Analyzed: 04/28/21 20:44
 Batch: BJD0478 Sequence: SJD0413 Initial/Final: 10.02 g Wet / 1 mL
 Instrument: FID4 Column: RTX-1 Calibration: ED00037

CAS NO.	COMPOUND	DILUTION	CONC: (mg/kg dry)	Q	DL	RL
DRO	Diesel Range Organics (C12-C24)	1	33.2		5.01	10.7
RRO	Motor Oil Range Organics (C24-C38)	1	225		6.40	21.4

SURROGATES	ADDED: (mg/kg dry)	FOUND: (mg/kg dry)	% REC	QC LIMITS	Q
o-Terphenyl	24.093	18.0	74.6	50 - 150	

Data File: \\target\share\chem2\fid4a,1\20210428_b\42102819.D

Date: 28-APR-2021 20:44

Client ID:

Sample Info: 21D0180-03

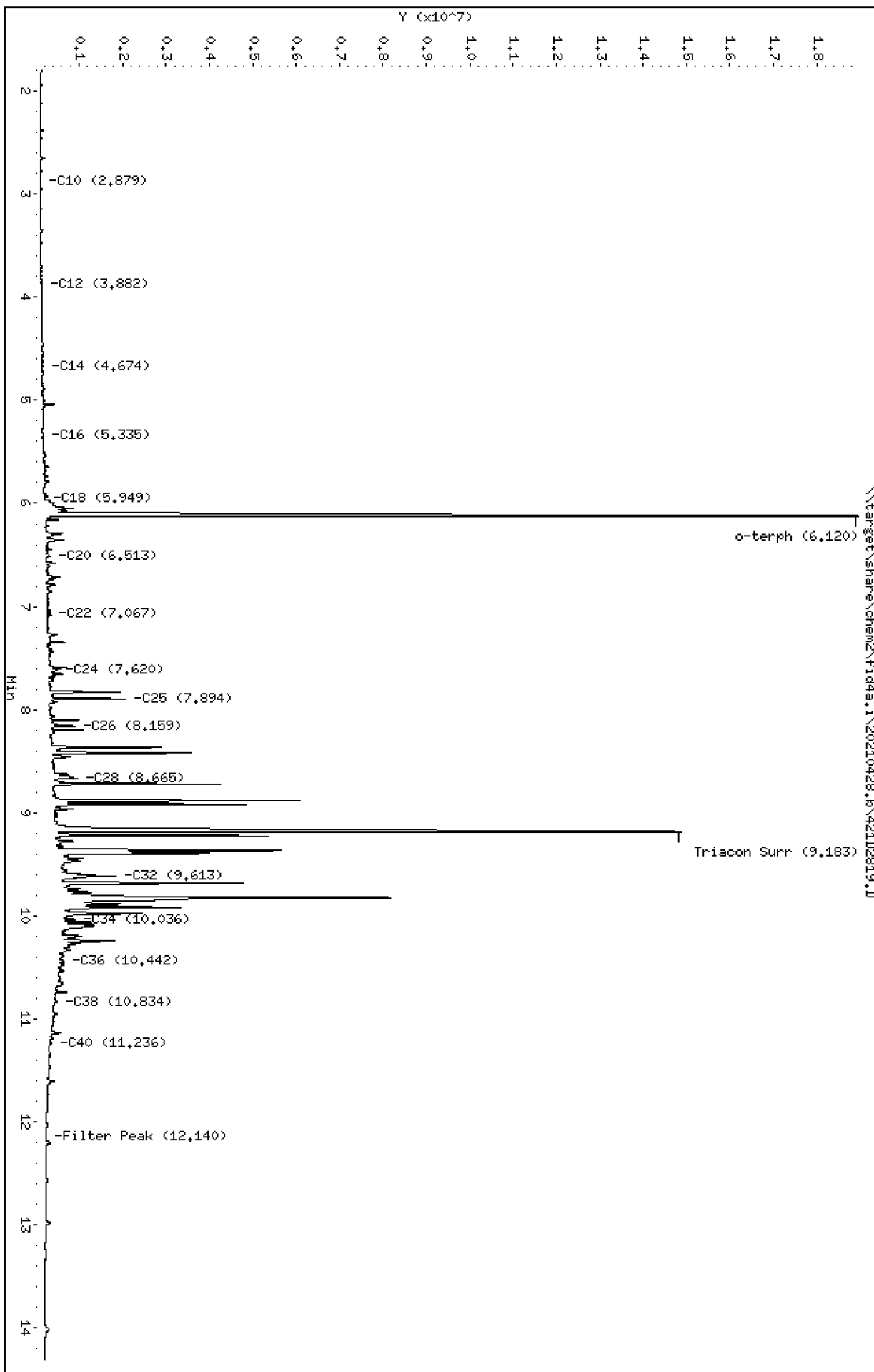
Instrument: fid4a,1

Column phase: RTX-1

Operator: CTO

Column diameter: 0.25

Page 1



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210428.b/421D2819.D
Method: 20210428.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/29/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: 21D0180-03
Client ID:
Injection: 28-APR-2021 20:44
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

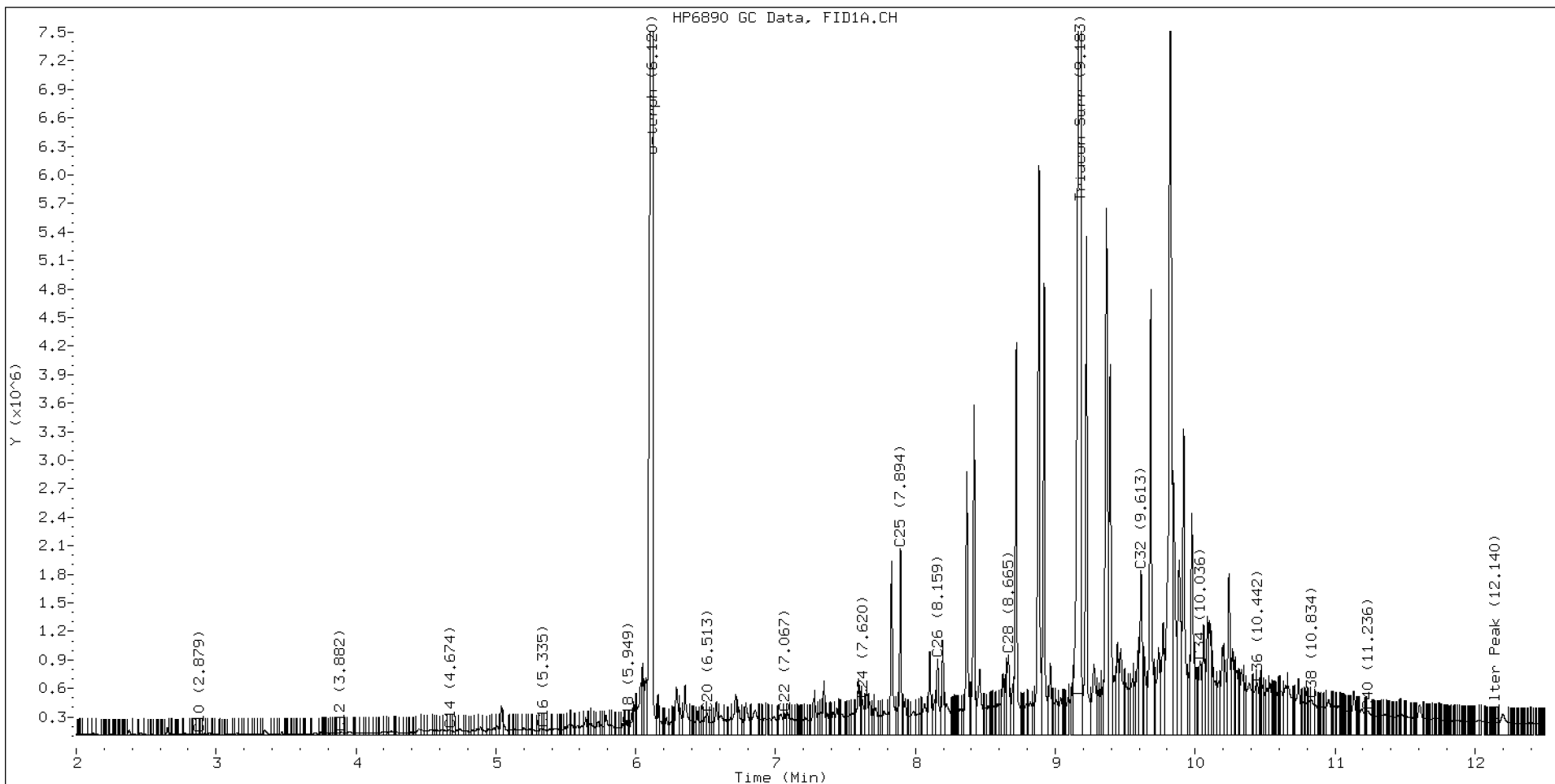
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.564	-0.019	11750	20043	WATPHD	(C12-C24)	28359587	155.1
C10	2.879	0.004	3887	1984	WATPHM	(C24-C38)	138105078	1050.7
C12	3.882	-0.005	18624	18780	AK102	(C10-C25)	32684612	151.7
C14	4.674	0.005	50729	53350	AK103	(C25-C36)	125208668	1239.0
C16	5.335	-0.005	62343	52279	OR.DIES	(C10-C28)	58874299	300.4
C18	5.949	0.006	94461	45552				
C20	6.513	0.002	233042	237535	JET-A	(C10-C18)	7905282	53.9
C22	7.067	-0.008	222668	245461				
C24	7.620	-0.007	374716	390267				
C25	7.894	-0.006	1955517	1623246				
C26	8.159	-0.004	795592	994427				
C28	8.665	-0.009	840371	1045598				
C32	9.613	-0.000	1724850	1989998				
C34	10.036	-0.007	778867	1124072				
Filter Peak	12.140	0.001	131615	58796	BUNKERC	(C10-C38)	167207401	3724.6
C36	10.442	-0.010	543998	578217				
C38	10.834	-0.008	365914	645450				
C40	11.236	-0.014	254415	570672				
o-terph	6.120	0.000	18845471	20883641				
Triacon Surr	9.183	0.001	14330026	19918347	NAS DIES	(C10-C24)	29102324	149.1

Range Times: NW Diesel(3.887 - 7.627) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.67)

Surrogate	Area	Amount
o-Terphenyl	20883641	83.9
Triacontane	19918347	94.0 M

M Indicates the peak was manually integrated

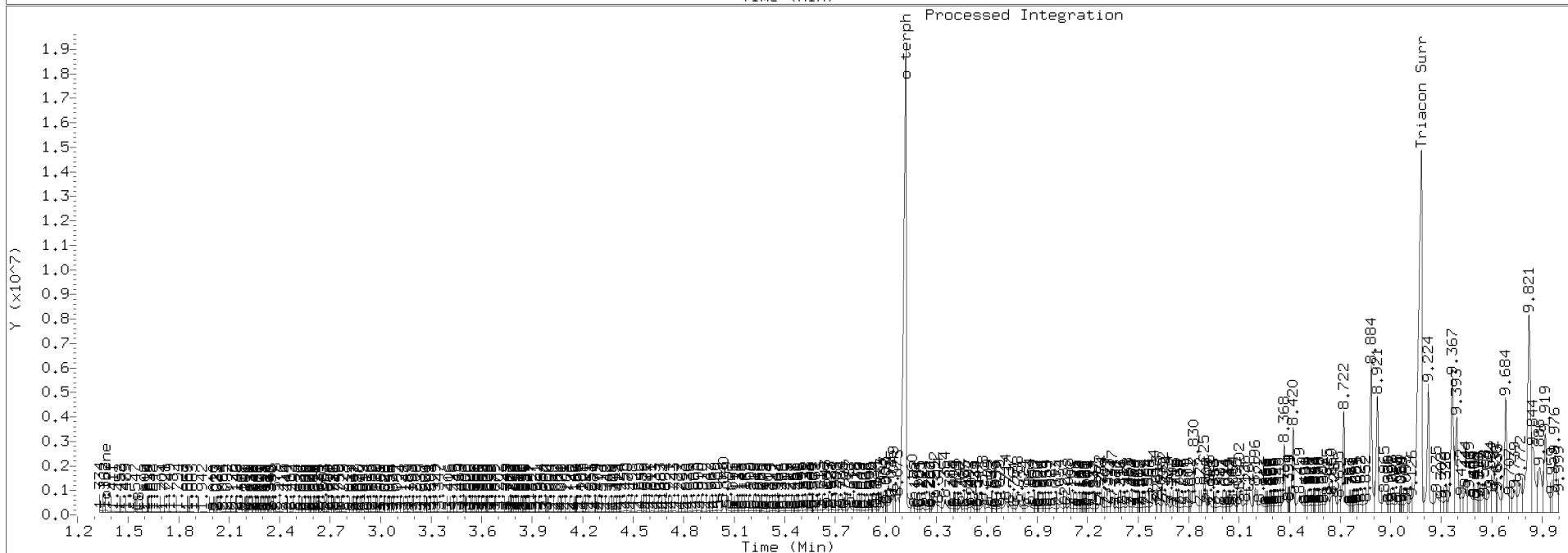
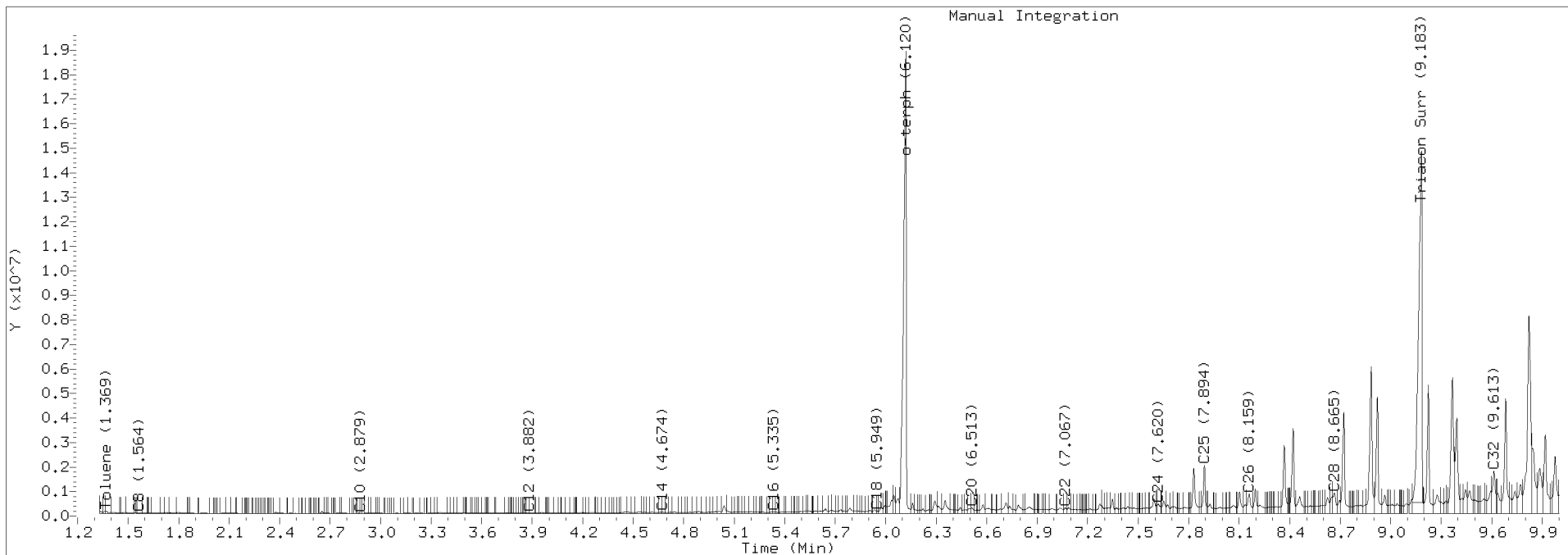
Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021



TPH Manual Integrations Report

Datafile: FID4A, 20210428.b/421D2819.D Injection: 28-APR-2021 20:44

Lab ID:21D0180-03





Form I
ORGANIC ANALYSIS DATA SHEET
NWTPH-Dx
TPH (Extractables) low level

Laboratory: Analytical Resources, Inc.
 Client: Anchor OEA, LLC
 Project: Gasco Siltronic - US Moorings
 Matrix: Sediment Laboratory ID: 21D0180-04 A SDG: 21D0180
 Sampled: 04/14/21 09:22 Prepared: 04/21/21 10:48 File ID: 421D2820.D
 % Solids: 35.60 Preparation: EPA 3546 (Microwave) Analyzed: 04/28/21 21:05
 Batch: BJD0478 Sequence: SJD0413 Initial/Final: 10.01 g Wet / 1 mL
 Instrument: FID4 Column: RTX-1 Calibration: ED00037

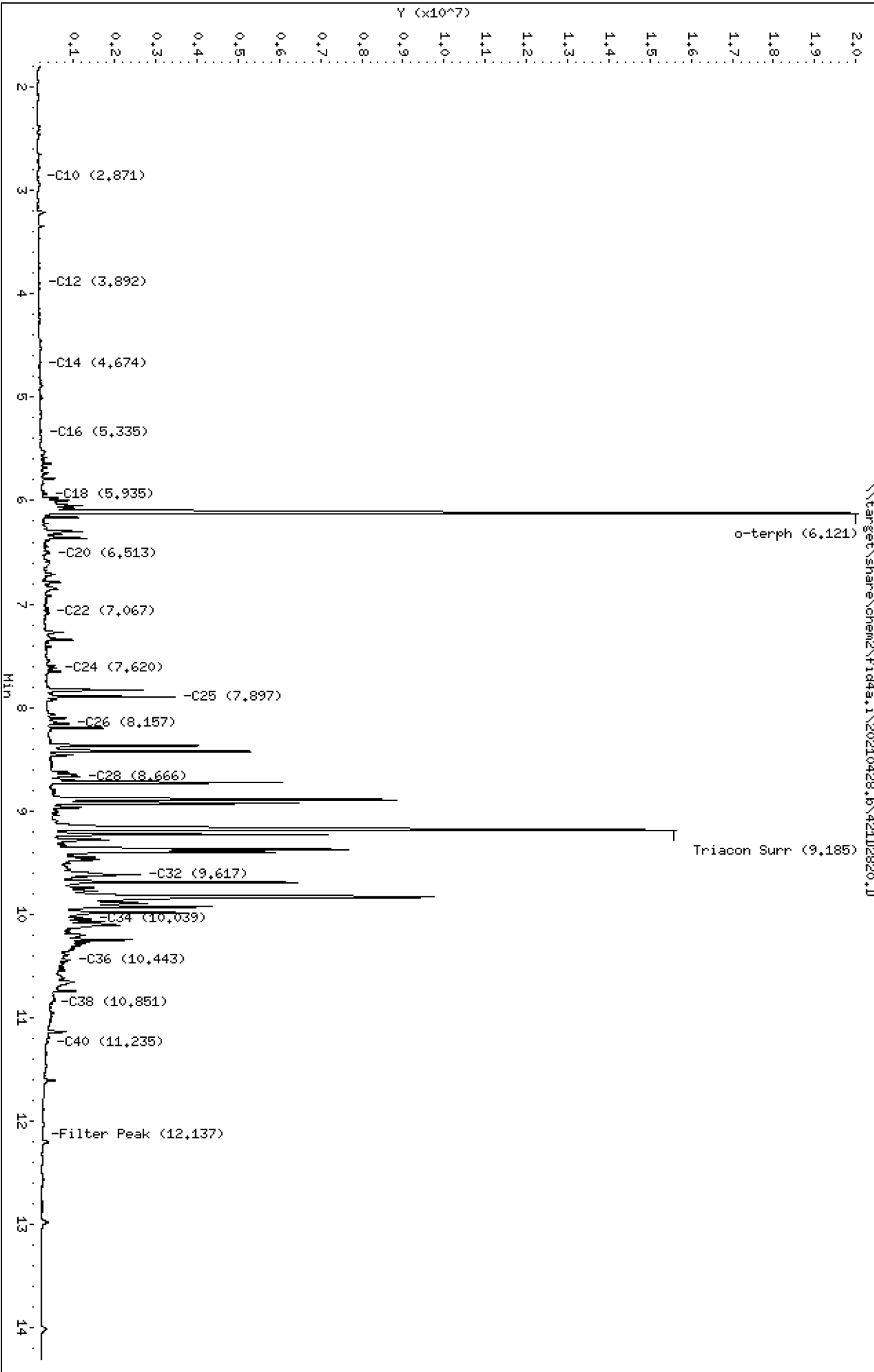
CAS NO.	COMPOUND	DILUTION	CONC: (mg/kg dry)	Q	DL	RL
DRO	Diesel Range Organics (C12-C24)	1	59.5		6.57	14.0
RRO	Motor Oil Range Organics (C24-C38)	1	403		8.39	28.1

SURROGATES	ADDED: (mg/kg dry)	FOUND: (mg/kg dry)	% REC	QC LIMITS	Q
o-Terphenyl	31.570	25.6	81.2	50 - 150	

Data File: \\target\share\chem2\fid4a,1\20210428_b\42102820.D
Date: 28-APR-2021 21:05
Client ID:
Sample Info: 21D0180-04

Column phase: RTX-1

Instrument: fid4a,1
Operator: CTO
Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210428.b/421D2820.D
Method: 20210428.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/29/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: 21D0180-04
Client ID:
Injection: 28-APR-2021 21:05
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

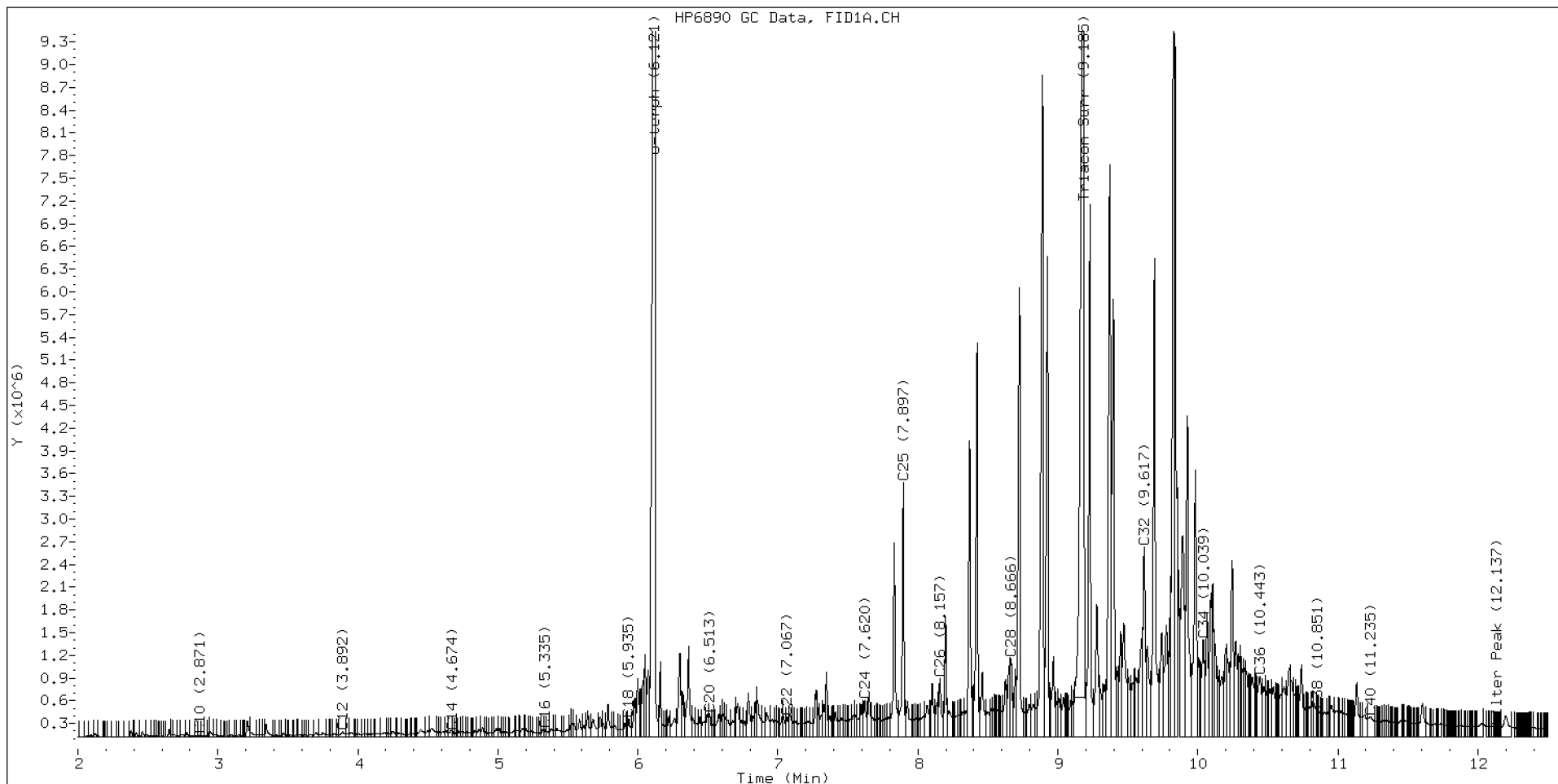
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.567	-0.016	27694	45834	WATPHD	(C12-C24)	38784469	212.1
C10	2.871	-0.005	24246	20511	WATPHM	(C24-C38)	188870051	1436.9
C12	3.892	0.004	66765	143148	AK102	(C10-C25)	45298642	210.3
C14	4.674	0.005	78904	60618	AK103	(C25-C36)	172600150	1708.0
C16	5.335	-0.006	93571	74300	OR.DIES	(C10-C28)	73893178	377.0
C18	5.935	-0.007	239230	289792				
C20	6.513	0.003	311654	293388	JET-A	(C10-C18)	12759279	87.0
C22	7.067	-0.007	266426	294754				
C24	7.620	-0.007	481826	590488				
C25	7.897	-0.003	3358795	2962867				
C26	8.157	-0.007	774140	933990				
C28	8.666	-0.008	1040383	1152879				
C32	9.617	0.003	2512276	2926850				
C34	10.039	-0.004	1289510	1774535				
Filter Peak	12.137	-0.002	131693	72136	BUNKERC	(C10-C38)	229763205	5118.1
C36	10.443	-0.009	805298	1398827				
C38	10.851	0.009	361909	196694				
C40	11.235	-0.015	271257	785660				
o-terph	6.121	0.001	19937769	22737851				
Triacon Surr	9.185	0.003	14982442	21267111	NAS DIES	(C10-C24)	40893154	209.5

Range Times: NW Diesel(3.887 - 7.627) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.67)

Surrogate	Area	Amount
o-Terphenyl	22737851	91.3
Triacontane	21267111	100.4 M

M Indicates the peak was manually integrated

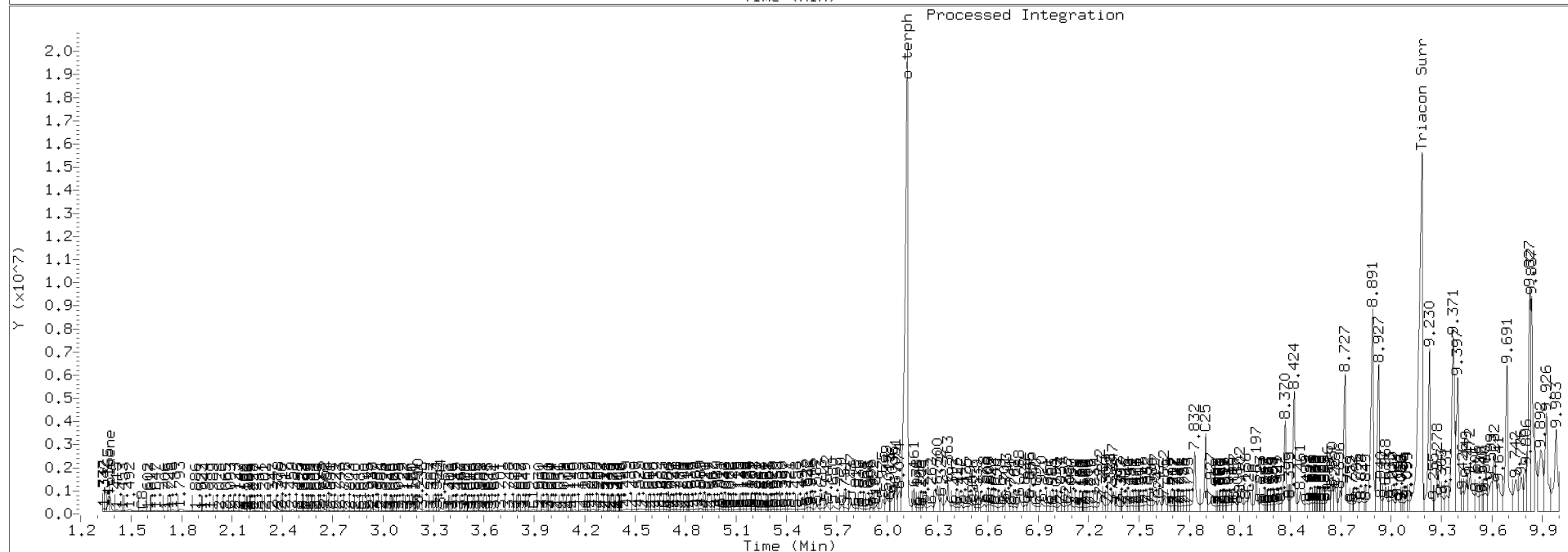
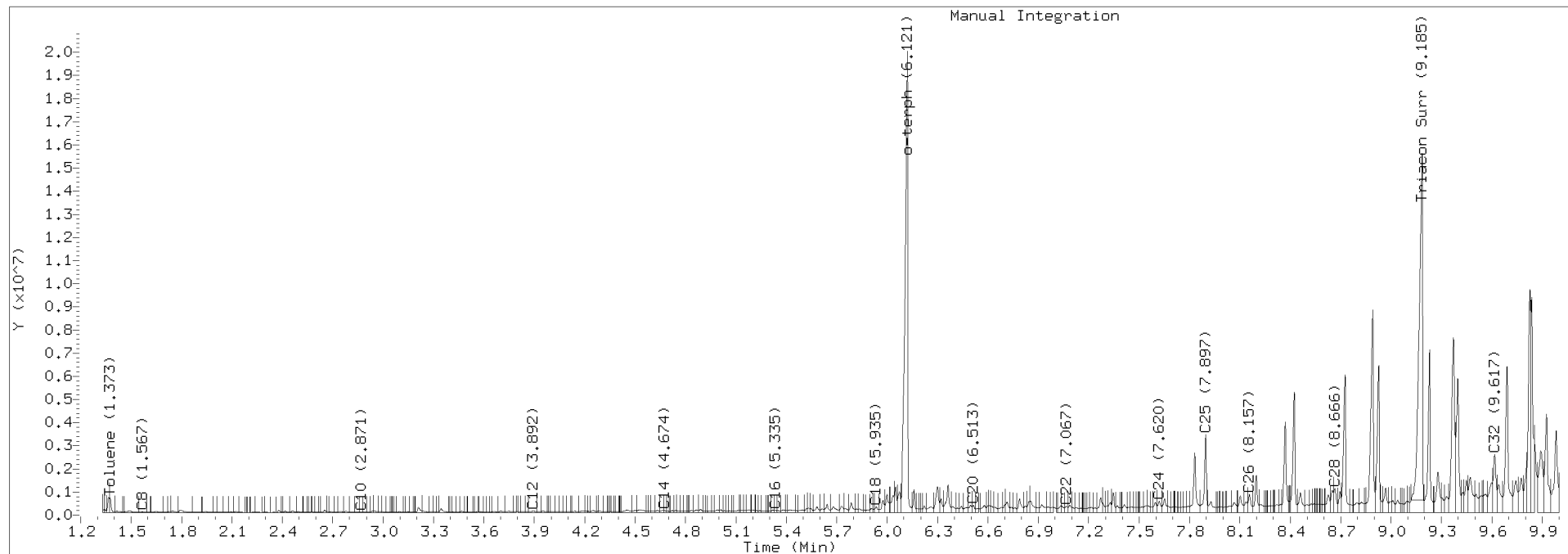
Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021



TPH Manual Integrations Report

Datafile: FID4A, 20210428.b/421D2820.D Injection: 28-APR-2021 21:05

Lab ID:21D0180-04





Batch: BJD0478

Prepared using: EPA 3546 (Microwave)

TPH NW (Extractables) low level in Solid (Version:DRO)

Matrix: Solid

Date Prepared: 04/21/21

Balance ID: 3146462614

Set Up By: GTO 4/20/21

The following standards may be missing from this batch!

Designator	Description
QLS 18	QLS Spike

Analysis: TPH NW (Extractables) low level

Lab Number & Container	Initial (g)		Acid C/U (1:1) Y/N	Silica Gel C/U (1:1) Y/N	Final Effective Vol (mL)	Vol to Lab	Extraction Comments
	Target Wet: 10 (Wet)	Actual					
21D0179-01 A	(10.000)	<u>10.00</u>	(1:1) Y/N	(1:1) Y/N	1	1.0	
21D0179-02 A	(10.000)	<u>10.02</u>	(1:1) Y/N	(1:1) Y/N	1	1.0	
21D0179-03 A	(10.000)	<u>10.00</u>	(1:1) Y/N	(1:1) Y/N	1	1.0	
21D0179-04 A	(10.000)	<u>10.00</u>	(1:1) Y/N	(1:1) Y/N	1	1.0	
21D0179-05 A	(10.000)	<u>10.02</u>	(1:1) Y/N	(1:1) Y/N	1	1.0	
21D0179-06 A	(10.000)	<u>10.02</u>	(1:1) Y/N	(1:1) Y/N	1	1.0	
21D0180-01 A	(10.000)	<u>10.02</u>	(1:1) Y/N	(1:1) Y/N	1	1.0	
21D0180-02 A	(10.000)	<u>10.02</u>	(1:1) Y/N	(1:1) Y/N	1	1.0	
21D0180-03 A	(10.000)	<u>10.02</u>	(1:1) Y/N	(1:1) Y/N	1	1.0	
21D0180-04 A	(10.000)	<u>10.01</u>	(1:1) Y/N	(1:1) Y/N	1	1.0	

Batch QC

Lab Number	Initial (g)		Acid C/U (1:1) Y/N	Silica Gel C/U (1:1) Y/N	Final Effective Vol (mL)	Vol to Lab	Extraction Comments
	Target Wet: 10 (Wet)	Actual					
BJD0478-BLK1	(10.000)	<u>10.00</u>	(1:1) Y/N	(1:1) Y/N	1	1.0	
BJD0478-BS1	(10.000)	<u>10.00</u>	(1:1) Y/N	(1:1) Y/N	1	1.0	
BJD0478-MS1	(10.000)	<u>10.00</u>	(1:1) Y/N	(1:1) Y/N	1	1.0	Use 21D0179-04
BJD0478-MSD1	(10.000)	<u>10.00</u>	(1:1) Y/N	(1:1) Y/N	1	1.0	Use 21D0179-04

Client ID verified By GTO 04/21/21

Date

Preparation Reviewed By BT

Date

04/21/21

Extraction Date and Time 04/21/21

10:48



Batch: BJD0478

Prepared using: EPA 3546 (Microwave)

TPH NW (Extractables) low level in Solid (Version:DRO)

Prep Steps	Reagents Used	Surrogates & Spike Standards Used															
Microwave 1 2 3 <i>JE 04/21/21</i> Analyst/Date	Station/Reagent Standard ID Microwave Analyst: <i>JE</i> Date: <i>04/21/21</i> Methylene Chloride <i>J443349</i> Anhydrous Sodium Sulfate <i>J443527</i> Neutral Glass Wool <i>J443346</i>	<table border="1"> <thead> <tr> <th>Type</th> <th>Vial ID / Standard ID</th> <th>Vol uL</th> <th>Analyst</th> <th>Witness</th> </tr> </thead> <tbody> <tr> <td>Surrogate</td> <td>P <i>J002741</i> Exp: 08/08/2021</td> <td>100µL</td> <td><i>Out for Lab</i></td> <td><i>JE</i></td> </tr> <tr> <td>Spike</td> <td>11 <i>1011054</i> Exp: 12/01/2021</td> <td>100µL</td> <td><i>Out for Lab</i></td> <td><i>JE</i></td> </tr> </tbody> </table>	Type	Vial ID / Standard ID	Vol uL	Analyst	Witness	Surrogate	P <i>J002741</i> Exp: 08/08/2021	100µL	<i>Out for Lab</i>	<i>JE</i>	Spike	11 <i>1011054</i> Exp: 12/01/2021	100µL	<i>Out for Lab</i>	<i>JE</i>
Type	Vial ID / Standard ID	Vol uL	Analyst	Witness													
Surrogate	P <i>J002741</i> Exp: 08/08/2021	100µL	<i>Out for Lab</i>	<i>JE</i>													
Spike	11 <i>1011054</i> Exp: 12/01/2021	100µL	<i>Out for Lab</i>	<i>JE</i>													
TurboVap Pre Acid/Silica Clean 1 2 3 4 5 <i>BT 04/21/21</i> Analyst/Date	Vialing Analyst: <i>BT</i> Date: <i>04/21/21</i> Methylene Chloride <i>J003349</i> Concentrated Sulfuric Acid 99% Silica Gel	<p>(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.</p> <p>If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator in the Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).</p>															
Vialing <i>BT 04/21/21</i> Analyst/Date																	



Batch: BJD0478

Prepared using: EPA 3546 (Microwave)

TPH NW (Extractables) low level in Solid (Version:DRO)

Prep Instructions	
<p>SPECIAL INSTRUCTIONS:</p> <ol style="list-style-type: none">1. Weigh into 100mL beakers-dry with Sodium Sulfate.2. Transfer to microwave vessel.3. Add DCM to the vessel until the solvent is 1 inch above soil layer after homogenization.4. Add surr/spike.5. Microwave on appropriate power setting determined by # of samples.6. After microwave-Re-homogenize while hot then let cool 15 min. in Refridgerator 05. Re-homogenize while cool.7. Collect into turbo tube with sm. funnel containing glasswool and 1 Inch sodium sulfate.8. Add (2) 10mL DCM rinses to vessel and transfer to turbo tube.9. TurboVap.10. Acid/Silica Clean-up?= Y / <input type="checkbox"/> N11. Vial in DCM. <p>A. Need Total Solids Y / <input type="checkbox"/> N</p> <p>B. Archive/Freeze Y / <input type="checkbox"/> N</p>	

Batch: BJD0478

Batch Comment: **NONE**

Project: Gasco Siltronic - US Moorings

Project Comments: <G> MS/MSD per 20 samples, please batch with other work orders, SM2540 Needed </G>

Work Order:21D0179

Work Order Comments: <G> MS/MSD per 20 samples, please batch with other work orders, SM2540 Needed </G>

Sample: 21D0179-01

Sample Comments: **NONE**

Sample: 21D0179-02

Sample Comments: **NONE**

Sample: 21D0179-03

Sample Comments: **NONE**

Sample: 21D0179-04

Sample Comments: MS/MSD

Sample: 21D0179-05

Sample Comments: **NONE**

Sample: 21D0179-06

Sample Comments: **NONE**

Work Order:21D0180

Work Order Comments: <G> MS/MSD per 20 samples, please batch with other work orders, SM2540 Needed </G>

Sample: 21D0180-01

Sample Comments: **NONE**

Sample: 21D0180-02

Sample Comments: **NONE**

Sample: 21D0180-03

Sample Comments: **NONE**

Sample: 21D0180-04

Sample Comments: **NONE**



Extraction Parameter: TPH | LLSIM | SIMALOX Extraction Batch BJD0478

Total Solids Batch: BJD0425 Work Order(s): 21D0179

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)=	
<input checked="" type="checkbox"/> Standing Water Decanted (Not shared)= <u>phi 1, phi 2, phi 3, phi 4, phi 5, phi 6.</u>	<u>MJ 04/16/21</u>
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input checked="" type="checkbox"/> Oily, obvious fuel/sulfur odors= <u>sulfur odor = phi 1, phi 2, phi 3, phi 4, phi 5, phi 6.</u>	<u>MJ 04/16/21</u>
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input type="checkbox"/> Previously Frozen =	
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y <u>(N)</u>	<u>MJ 04/16/21</u>
<input checked="" type="checkbox"/> Multiple Jars Y <u>(N)</u>	<u>MJ 04/16/21</u>
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	



Extraction Parameter: TPH Extraction Batch B5D0478

Total Solids Batch: B5D0427 Work Order(s): 21D0180

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)=	
<input checked="" type="checkbox"/> Standing Water Decanted (Not shared)= <u>φ1, φ2, φ3, φ4.</u>	<u>YB φ4/16/21</u>
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input checked="" type="checkbox"/> Oily, obvious fuel/sulfur odors= <u>Sulfur odor = φ1, φ2, φ3, φ4.</u>	<u>YB φ4/16/21</u>
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input type="checkbox"/> Previously Frozen =	
<input checked="" type="checkbox"/> Other (Details)= <u>180-04 low volume on VCP</u>	<u>B504/20/21</u>
Aqueous:	
<input type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y / <u>(N)</u>	<u>YB φ4/16/21</u>
<input checked="" type="checkbox"/> Multiple Jars Y / <u>(N)</u>	<u>YB φ4/16/21</u>
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	



Batch: BJD0478

Prepared using: EPA 3546 (Microwave)

TPH NW (Extractables) low level in Solid (Version:DRO)

Matrix: Solid

Date Prepared: 04/21/21

Balance ID: B146462614

Set Up By: GTO 4/20/21

The following standards may be missing from this batch!

Designator	Description
QLS 18	QLS Spike

Analysis: TPH NW (Extractables) low level

Lab Number & Container	Initial (g)		Acid C/U (1:1) Y/N	Silica Gel C/U (1:1) Y/N	Final Effective Vol (mL)	Vol to Lab	Extraction Comments
	Target Wet: 10 (Wet)	Actual					
21D0179-01 A	(10.000)	10.00	(1:1) Y/N	(1:1) Y/N	1	1.0	
21D0179-02 A	(10.000)	10.02	(1:1) Y/N	(1:1) Y/N	1	1.0	
21D0179-03 A	(10.000)	10.00	(1:1) Y/N	(1:1) Y/N	1	1.0	
21D0179-04 A	(10.000)	10.00	(1:1) Y/N	(1:1) Y/N	1	1.0	
21D0179-05 A	(10.000)	10.02	(1:1) Y/N	(1:1) Y/N	1	1.0	
21D0179-06 A	(10.000)	10.02	(1:1) Y/N	(1:1) Y/N	1	1.0	
21D0180-01 A	(10.000)	10.02	(1:1) Y/N	(1:1) Y/N	1	1.0	
21D0180-02 A	(10.000)	10.02	(1:1) Y/N	(1:1) Y/N	1	1.0	
21D0180-03 A	(10.000)	10.02	(1:1) Y/N	(1:1) Y/N	1	1.0	
21D0180-04 A	(10.000)	10.01	(1:1) Y/N	(1:1) Y/N	1	1.0	

Batch QC

Lab Number	Initial (g)		Acid C/U (1:1) Y/N	Silica Gel C/U (1:1) Y/N	Final Effective Vol (mL)	Vol to Lab	Extraction Comments
	Target Wet: 10 (Wet)	Actual					
BJD0478-BLK1	(10.000)	10.00	(1:1) Y/N	(1:1) Y/N	1	1.0	
BJD0478-BS1	(10.000)	10.00	(1:1) Y/N	(1:1) Y/N	1	1.0	
BJD0478-MS1	(10.000)	10.00	(1:1) Y/N	(1:1) Y/N	1	1.0	Use 21D0179-04
BJD0478-MSD1	(10.000)	10.00	(1:1) Y/N	(1:1) Y/N	1	1.0	Use 21D0179-04

Client ID verified By: [Signature] Date: 04/21/21

Preparation Reviewed By: [Signature] Date: 04/21/21

Extraction Date and Time: 04/21/21 10:48



Batch: BJD0478

Prepared using: EPA 3546 (Microwave)

TPH NW (Extractables) low level in Solid (Version:DRO)

Prep Steps	Reagents Used	Surrogates & Spike Standards Used																									
Microwave 1 2 3 <i>JE 04/21/21</i> Analyst/Date	Station/Reagent Standard ID Microwave Analyst: <i>JE</i> Date: <i>04/21/21</i>	<table border="1"> <thead> <tr> <th>Type</th> <th>Vial ID / Standard ID</th> <th>Vol uL</th> <th>Analyst</th> <th>Witness</th> </tr> </thead> <tbody> <tr> <td>Surrogate</td> <td>P <u>J002741</u> Exp: 08/08/2021</td> <td>100µL</td> <td><i>cut for Lab</i></td> <td><i>↓</i></td> </tr> <tr> <td>1125µg/mL</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Spike</td> <td>11 <u>I011054</u> Exp: 12/01/2021</td> <td>100µL</td> <td><i>cut for Lab</i></td> <td><i>↓</i></td> </tr> <tr> <td>15000µg/mL</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Type	Vial ID / Standard ID	Vol uL	Analyst	Witness	Surrogate	P <u>J002741</u> Exp: 08/08/2021	100µL	<i>cut for Lab</i>	<i>↓</i>	1125µg/mL					Spike	11 <u>I011054</u> Exp: 12/01/2021	100µL	<i>cut for Lab</i>	<i>↓</i>	15000µg/mL				
	Type	Vial ID / Standard ID	Vol uL	Analyst	Witness																						
Surrogate	P <u>J002741</u> Exp: 08/08/2021	100µL	<i>cut for Lab</i>	<i>↓</i>																							
1125µg/mL																											
Spike	11 <u>I011054</u> Exp: 12/01/2021	100µL	<i>cut for Lab</i>	<i>↓</i>																							
15000µg/mL																											
TurboVap Pre Acid/Silica Clean 1 2 3 4 ⑤ <i>BT 04/21/21</i> Analyst/Date	Station/Reagent Standard ID Anhydrous Sodium Sulfate <i>J003527</i> Neutral Glass Wool <i>J003346</i>	(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards. If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator in the Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).																									
	Vialing Analyst: <i>BT</i> Date: <i>04/21/21</i> Methylene Chloride <i>J003349</i> Concentrated Sulfuric Acid 0% Silica Gel																										
Vialing <i>BT 04/21/21</i> Analyst/Date																											



Batch: BJD0478

Prepared using: EPA 3546 (Microwave)

TPH NW (Extractables) low level in Solid (Version:DRO)

Prep Instructions	
<p>SPECIAL INSTRUCTIONS:</p> <ol style="list-style-type: none">1. Weigh into 100mL beakers-dry with Sodium Sulfate.2. Transfer to microwave vessel.3. Add DCM to the vessel until the solvent is 1 inch above soil layer after homogenization.4. Add surr/spike.5. Microwave on appropriate power setting determined by # of samples.6. After microwave-Re-homogenize while hot then let cool 15 min. in Refridgerator 05. Re-homogenize while cool.7. Collect into turbo tube with sm. funnel containing glasswool and 1 Inch sodium sulfate.8. Add (2) 10mL DCM rinses to vessel and transfer to turbo tube.9. TurboVap.10. Acid/Silica Clean-up?= Y <input type="checkbox"/> N <input checked="" type="checkbox"/>11. Vial in DCM. <p>A. Need Total Solids Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p> <p>B. Archive/Freeze Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p>	

Batch: BJD0478

Batch Comment: **NONE**

Project: Gasco Siltronic - US Moorings

Project Comments: <G> MS/MSD per 20 samples, please batch with other work orders, SM2540 Needed </G>

Work Order:21D0179

Work Order Comments: <G> MS/MSD per 20 samples, please batch with other work orders, SM2540 Needed </G>

Sample: 21D0179-01

Sample Comments: **NONE**

Sample: 21D0179-02

Sample Comments: **NONE**

Sample: 21D0179-03

Sample Comments: **NONE**

Sample: 21D0179-04

Sample Comments: MS/MSD

Sample: 21D0179-05

Sample Comments: **NONE**

Sample: 21D0179-06

Sample Comments: **NONE**

Work Order:21D0180

Work Order Comments: <G> MS/MSD per 20 samples, please batch with other work orders, SM2540 Needed </G>

Sample: 21D0180-01

Sample Comments: **NONE**

Sample: 21D0180-02

Sample Comments: **NONE**

Sample: 21D0180-03

Sample Comments: **NONE**

Sample: 21D0180-04

Sample Comments: **NONE**



Extraction Parameter: TPH | LLSIM | SIM ALKYL Extraction Batch B5D0478

Total Solids Batch: B5D0425 Work Order(s): 21D0179

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)=	
<input checked="" type="checkbox"/> Standing Water Decanted (Not shared)= <u>φ1, φ2, φ3, φ4, φ5, φ6.</u>	<u>Y φ4/16/21</u>
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input checked="" type="checkbox"/> Oily, obvious fuel/sulfur odors= <u>sulfur odor = φ1, φ2, φ3, φ4, φ5, φ6.</u>	<u>Y φ4/16/21</u>
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input type="checkbox"/> Previously Frozen =	
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y (N)	<u>Y φ4/16/21</u>
<input checked="" type="checkbox"/> Multiple Jars Y (N)	<u>Y φ4/16/21</u>
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	



Extraction Parameter: TPH Extraction Batch B5D0478

Total Solids Batch: B5D0427 Work Order(s): 21P0180

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)=	
<input checked="" type="checkbox"/> Standing Water Decanted (Not shared)= <u>φ1, φ2, φ3, φ4.</u>	<u>Y φ4/16/21</u>
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input checked="" type="checkbox"/> Oily, obvious fuel/sulfur odors= <u>Sulfur odor = φ1, φ2, φ3, φ4.</u>	<u>Y φ4/16/21</u>
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input type="checkbox"/> Previously Frozen =	
<input checked="" type="checkbox"/> Other (Details)= <u>180-04 low volume on Vcgs</u>	<u>B504/21/21</u>
Aqueous:	
<input type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<input checked="" type="checkbox"/> Share Samples Y / <u>(N)</u>	<u>Y φ4/16/21</u>
<input checked="" type="checkbox"/> Multiple Jars Y / <u>(N)</u>	<u>Y φ4/16/21</u>
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	



Form I
METHOD BLANK DATA SHEET
NWTPH-Dx

Blank

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>21D0180</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic - US Moorings</u>
Matrix:	<u>Solid</u>	Laboratory ID:	<u>BJD0478-BLK1</u>
Sampled:	<u>N/A</u>	Prepared:	<u>04/21/21 10:48</u>
Solids:		Preparation:	<u>EPA 3546 (Microwave)</u>
Batch:	<u>BJD0478</u>	Sequence:	<u>SJD0413</u>
Instrument:	<u>FID4</u>	Column:	<u>RTX-1</u>
		File ID:	<u>421D2807.D</u>
		Analyzed:	<u>04/28/21 16:30</u>
		Initial/Final:	<u>10 g / 1 mL</u>
		Calibration:	<u>ED00037</u>

CAS NO.	COMPOUND	DILUTION	CONC: (mg/kg wet)	Q	DL	RL
DRO	Diesel Range Organics (C12-C24)	1	5.00	U	2.34	5.00
RRO	Motor Oil Range Organics (C24-C38)	1	10.0	U	2.99	10.0
SURROGATES		ADDED: (mg/kg wet)	FOUND: (mg/kg wet)	% REC	QC LIMITS	Q
o-Terphenyl		11.250	10.1	89.7	50 - 150	

Data File: \\target\share\chem2\fid4a,1\20210428,b\42102807.D

Date: 28-APR-2021 16:30

Client ID:

Sample Info: BJD0478-BLK1

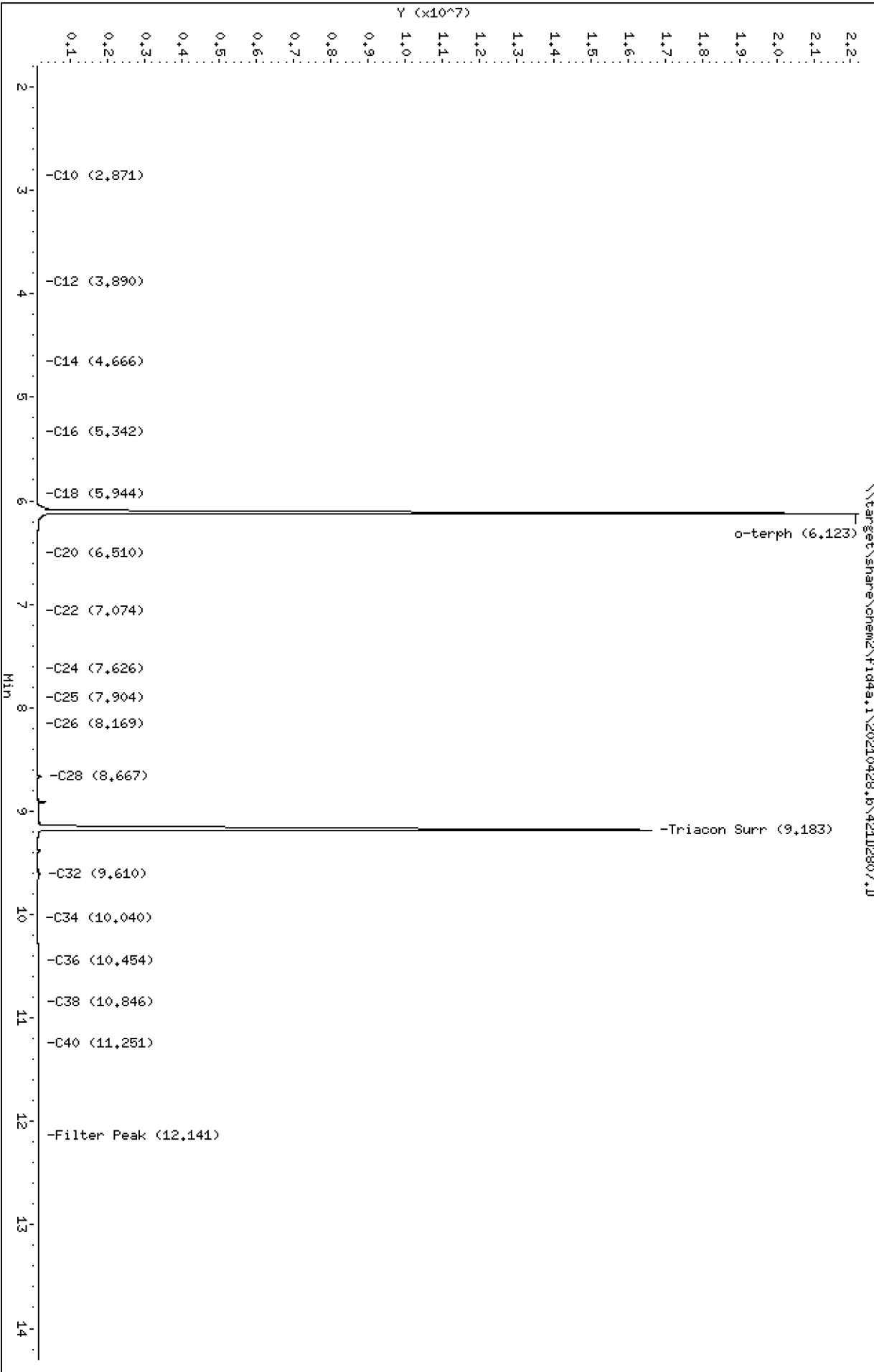
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

Page 1



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210428.b/421D2807.D
Method: 20210428.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/29/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: BJD0478-BLK1
Client ID:
Injection: 28-APR-2021 16:30
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

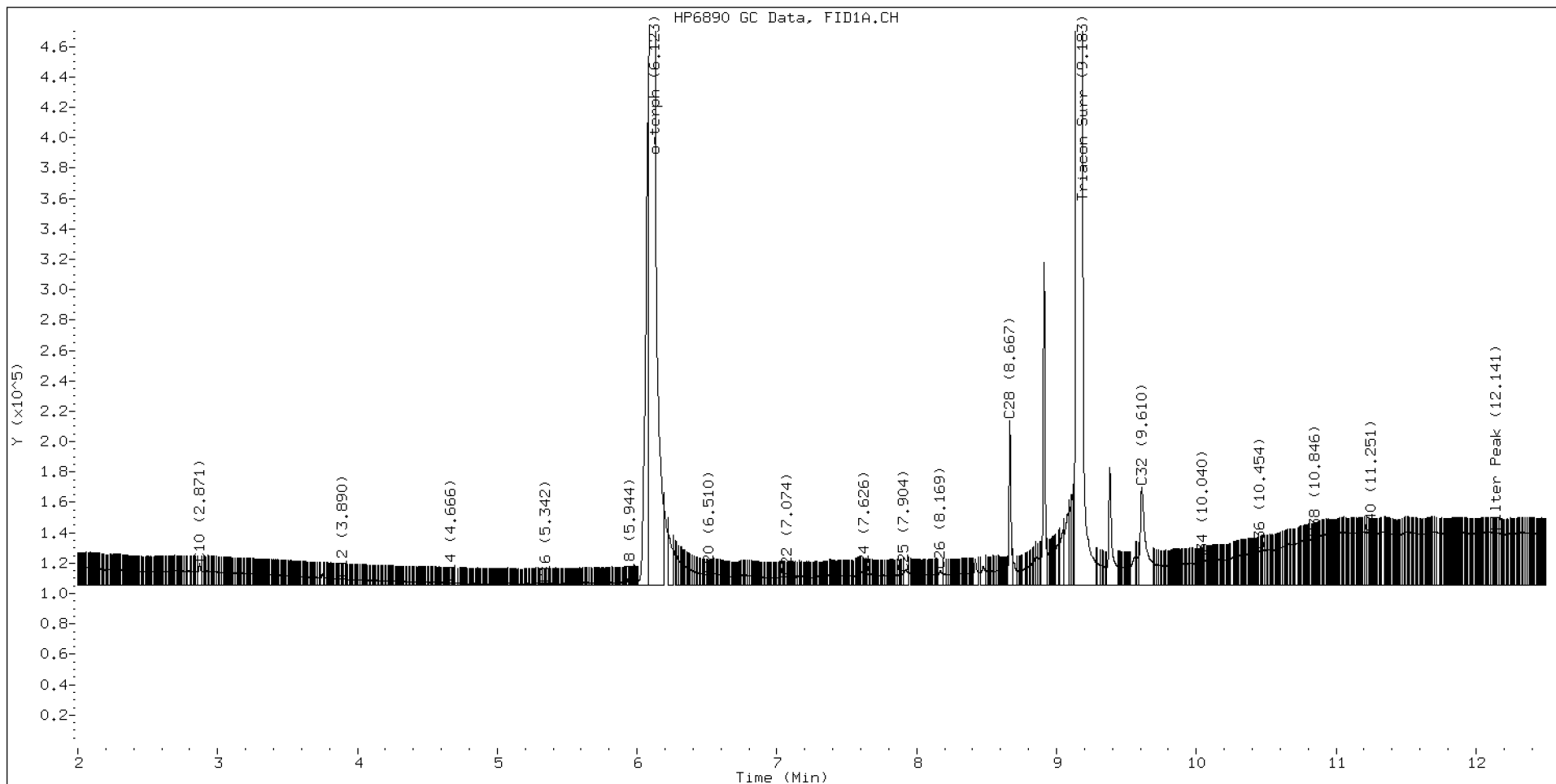
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.582	-0.000	17470	3481	WATPHD	(C12-C24)	1210307	6.6
C10	2.871	-0.005	13880	21400	WATPHM	(C24-C38)	3148691	24.0
C12	3.890	0.003	3798	1295	AK102	(C10-C25)	1700389	7.9
C14	4.666	-0.003	1436	686	AK103	(C25-C36)	2472539	24.5
C16	5.342	0.001	674	126	OR.DIES	(C10-C28)	2175910	11.1
C18	5.944	0.002	1921	619				
C20	6.510	-0.000	6670	2950	JET-A	(C10-C18)	593307	4.0
C22	7.074	-0.000	5245	1537				
C24	7.626	-0.001	6869	1368				
C25	7.904	0.005	7657	7559				
C26	8.169	0.005	9557	17950				
C28	8.667	-0.007	108135	108137				
C32	9.610	-0.003	64510	184445				
C34	10.040	-0.003	14458	3568				
Filter Peak	12.141	0.002	34263	15332	BUNKERC	(C10-C38)	4784077	106.6
C36	10.454	0.001	22232	11002				
C38	10.846	0.005	30374	9064				
C40	11.251	0.001	33770	18452				
o-terph	6.123	0.003	22098259	25113458				
Triacon Surr	9.183	0.001	16537890	23386607	NAS DIES	(C10-C24)	1635386	8.4

Range Times: NW Diesel(3.887 - 7.627) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.67)

Surrogate	Area	Amount
o-Terphenyl	25113458	100.9
Triacontane	23386607	110.4

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021





LCS / LCS DUPLICATE RECOVERY
NWTPH-Dx

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>21D0180</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic - US Moorings</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>04/28/21 16:51</u>
Batch:	<u>BJD0478</u>	Laboratory ID:	<u>BJD0478-BS1</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>10 g / 1 mL</u>		

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Diesel Range Organics (C12-C24)	150	154		103	63 - 120

* Indicates values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20210428,b\421D2808.D

Date: 28-APR-2021 16:51

Client ID:

Sample Info: BJD0478-BS1

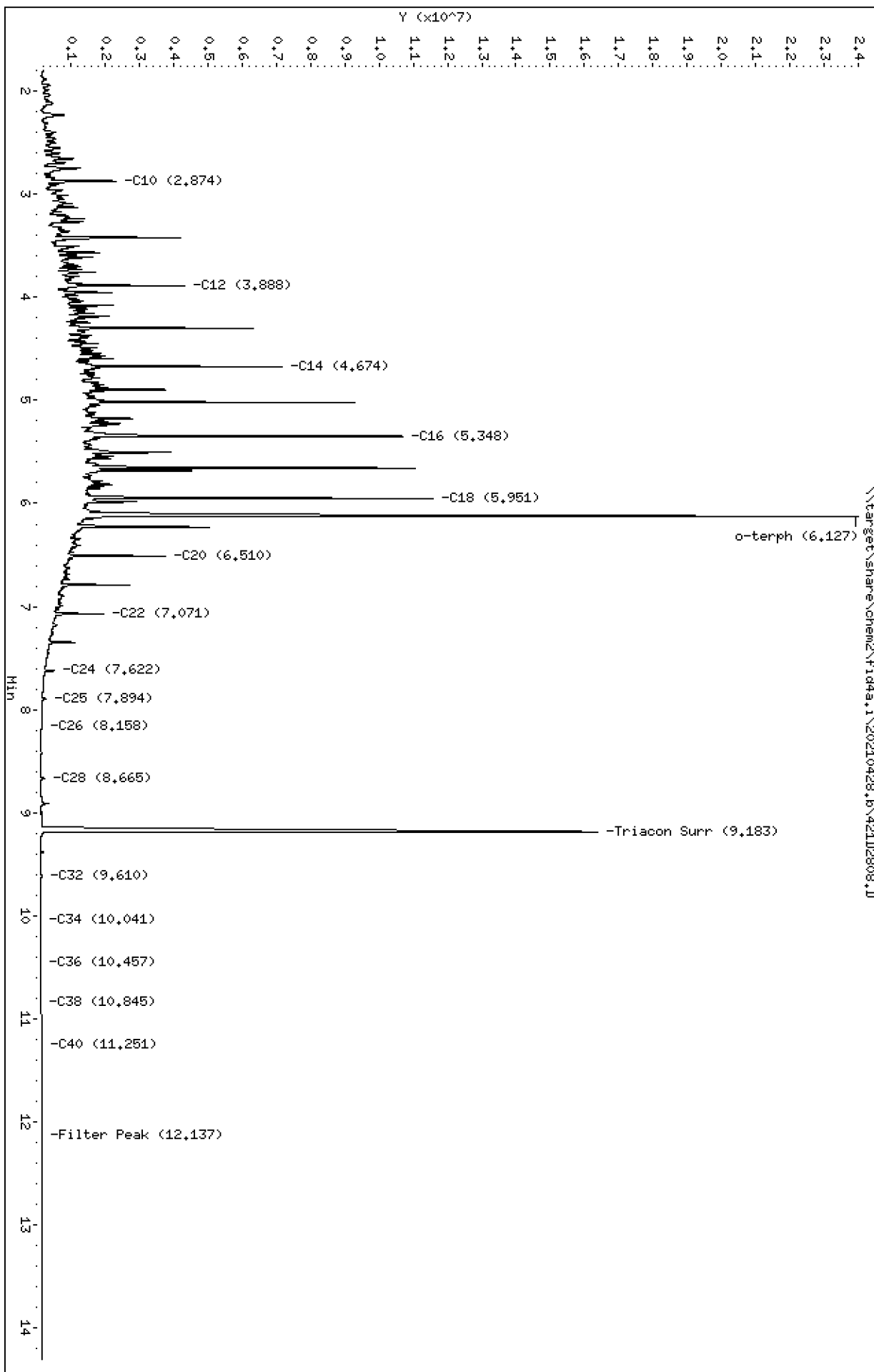
Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

Column phase: RTX-1

\\target\share\chem2\fid4a,1\20210428,b\421D2808.D



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210428.b/421D2808.D
Method: 20210428.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/29/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: BJD0478-BS1
Client ID:
Injection: 28-APR-2021 16:51
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

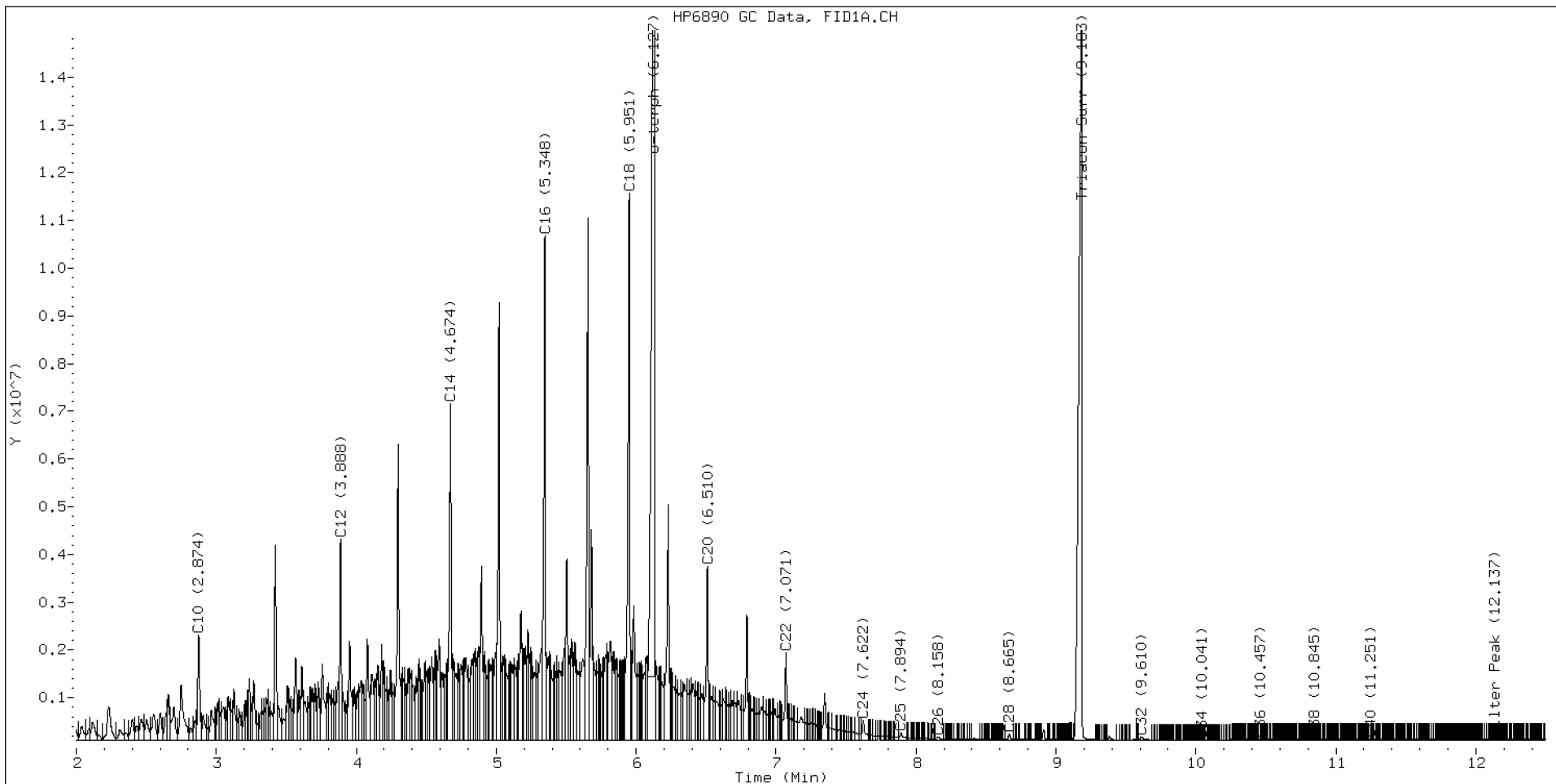
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.581	-0.002	92480	115748	WATPHD	(C12-C24)	282460810	1544.9
C10	2.874	-0.002	2205953	2364810	WATPHM	(C24-C38)	3247147	24.7
C12	3.888	0.001	4217485	3340428	AK102	(C10-C25)	332430469	1543.2
C14	4.674	0.005	7052114	6128186	AK103	(C25-C36)	2212613	21.9
C16	5.348	0.007	10570058	9361720	OR.DIES	(C10-C28)	333611429	1702.1
C18	5.951	0.009	11462133	11046617				
C20	6.510	-0.001	3648604	3522205	JET-A	(C10-C18)	259076836	1766.6
C22	7.071	-0.004	1827125	2044290				
C24	7.622	-0.005	407030	604618				
C25	7.894	-0.006	152055	275202				
C26	8.158	-0.005	58262	110357				
C28	8.665	-0.008	119751	121112				
C32	9.610	-0.003	58266	110078				
C34	10.041	-0.002	2554	1283				
Filter Peak	12.137	-0.002	22266	5539	BUNKERC	(C10-C38)	334962949	7461.4
C36	10.457	0.005	8589	5036				
C38	10.845	0.003	17495	10421				
C40	11.251	0.002	21047	8384				
o-terph	6.127	0.007	22551300	26048687				
Triacon Surr	9.183	0.002	16251852	24157661	NAS DIES	(C10-C24)	331715802	1699.8

Range Times: NW Diesel(3.887 - 7.627) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.67)

Surrogate	Area	Amount
o-Terphenyl	26048687	104.6 M
Triacontane	24157661	114.0

M Indicates the peak was manually integrated

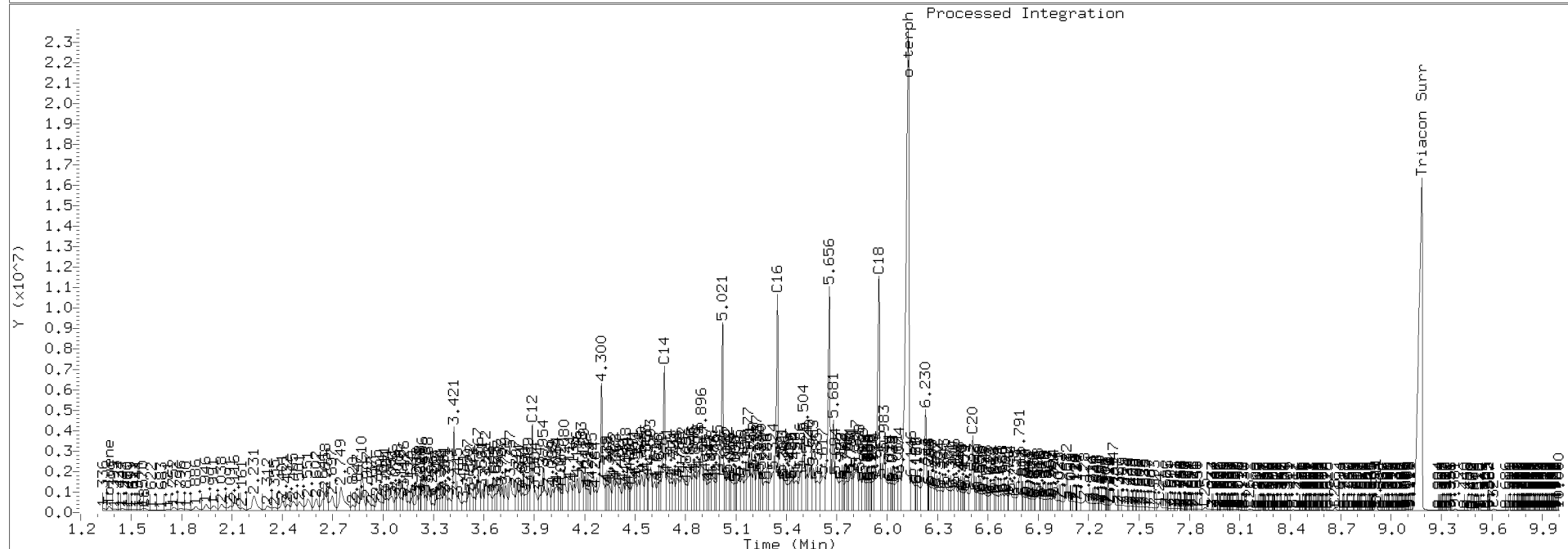
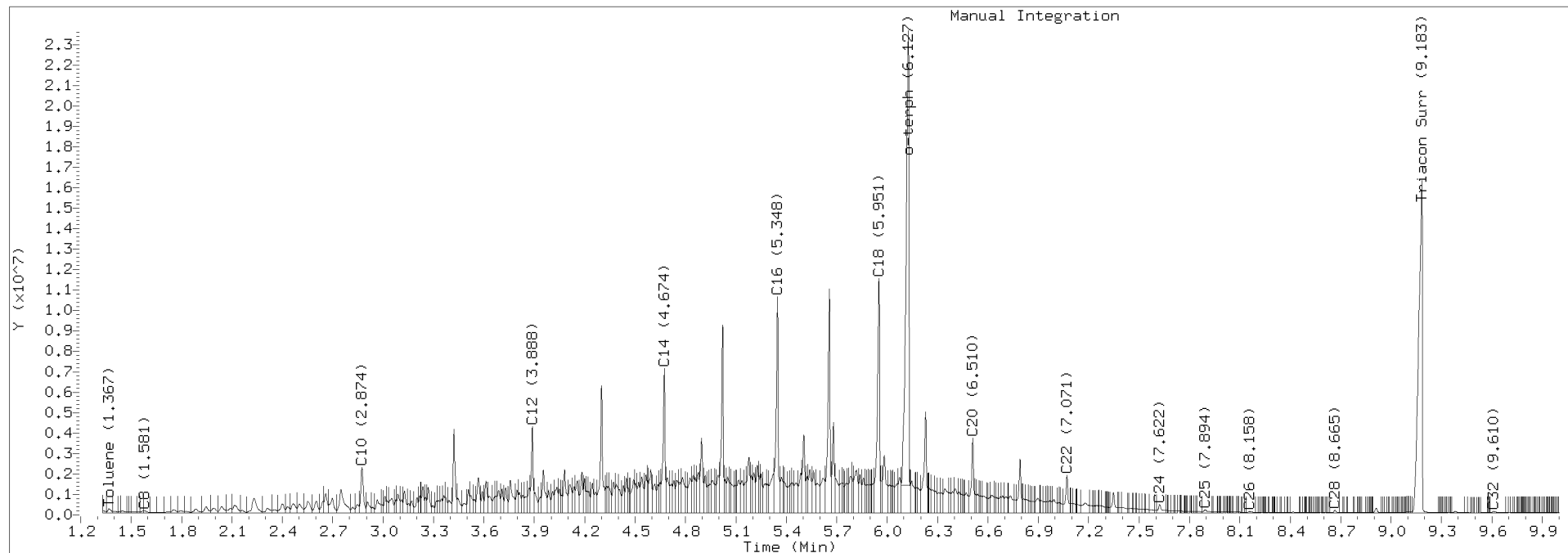
Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021



TPH Manual Integrations Report

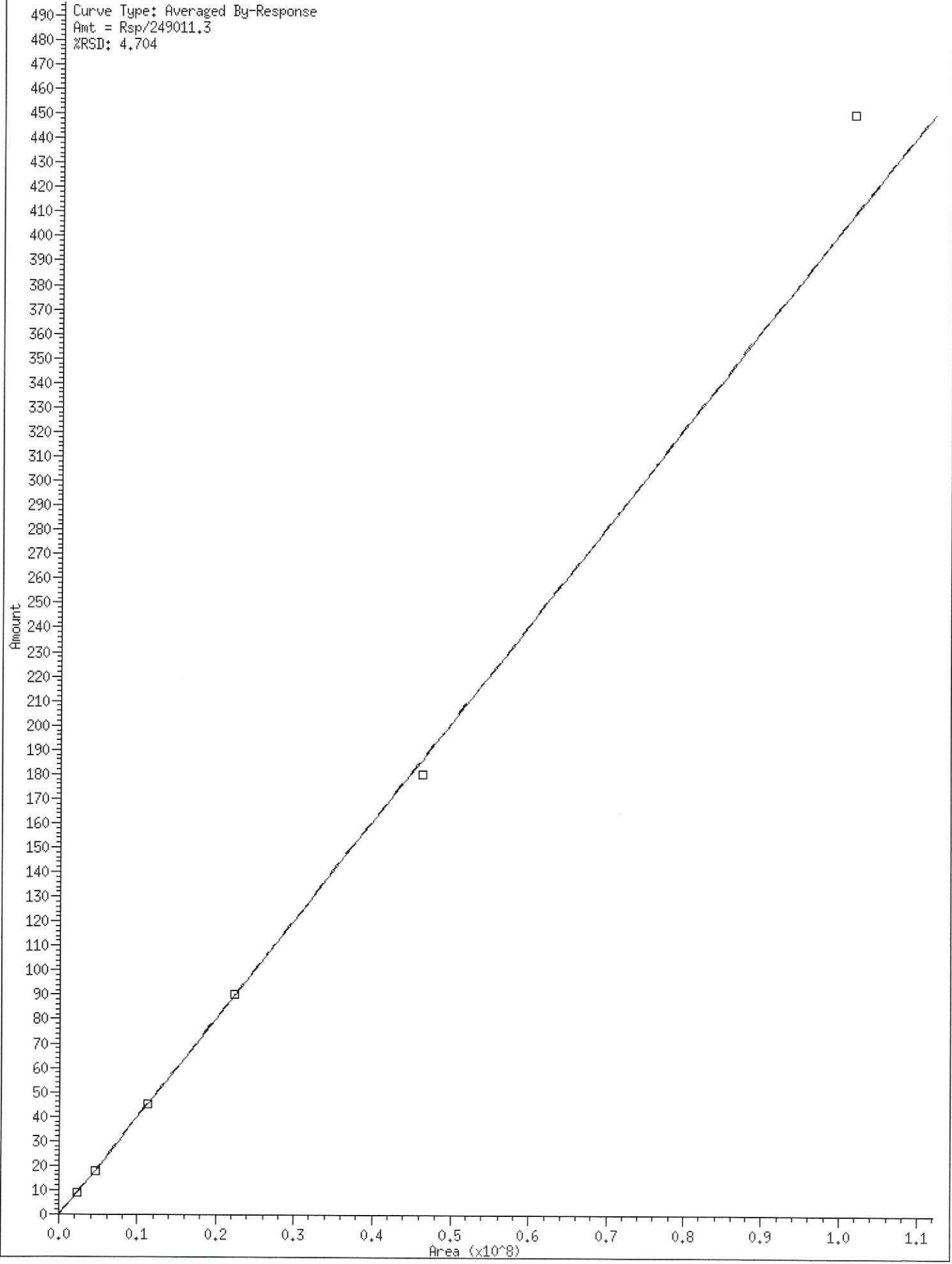
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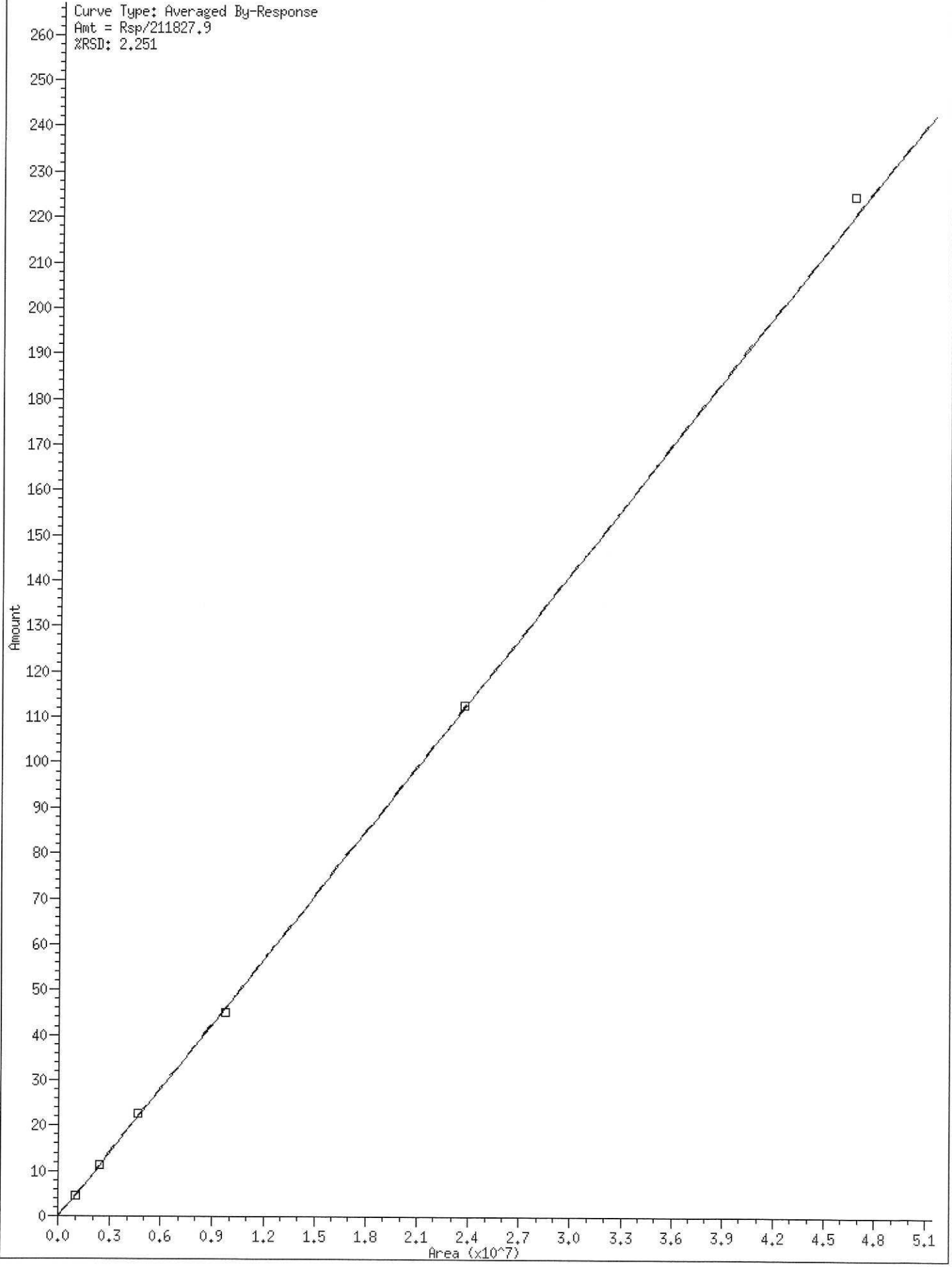
Lab ID:BJD0478-BS1

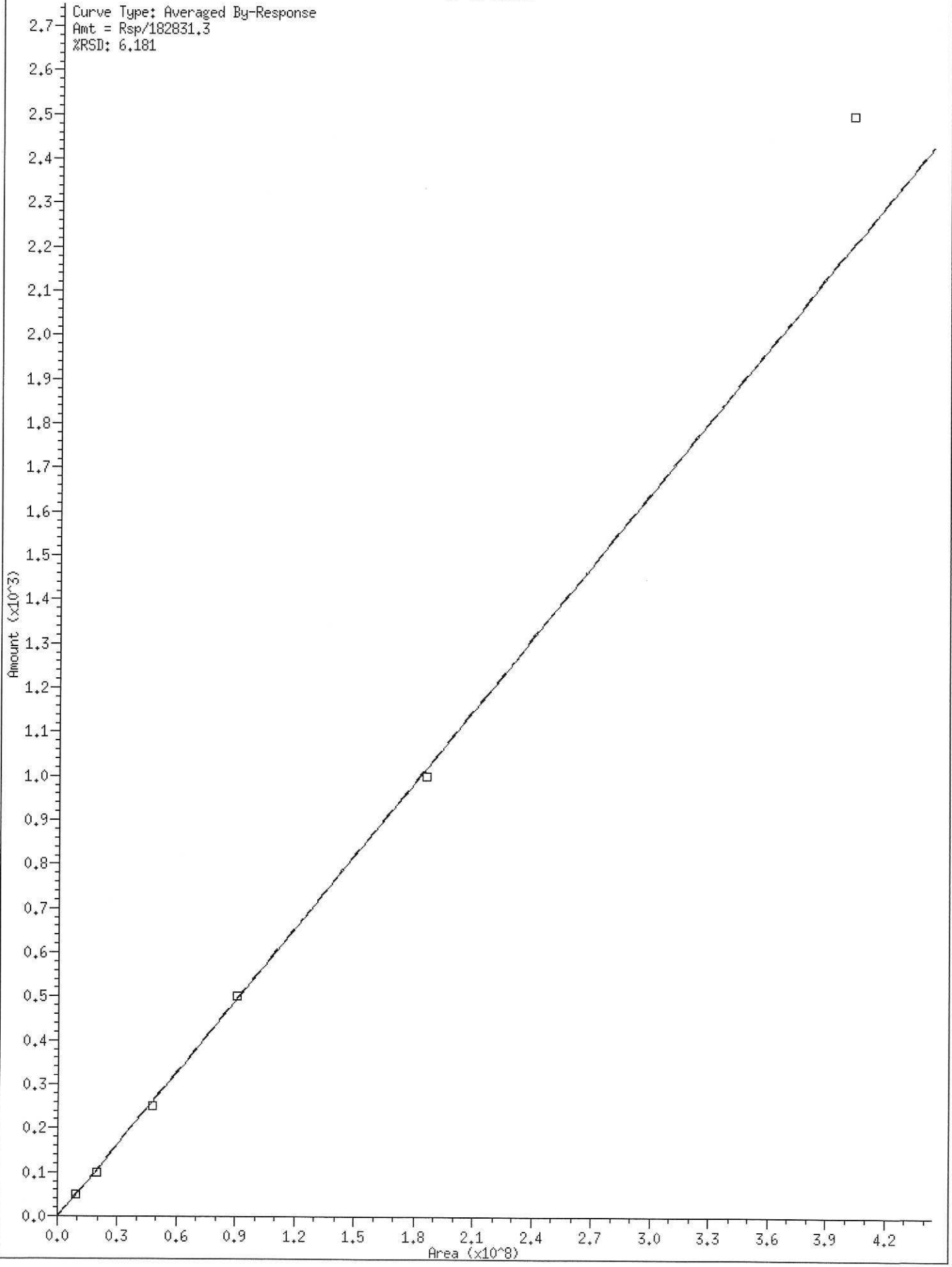


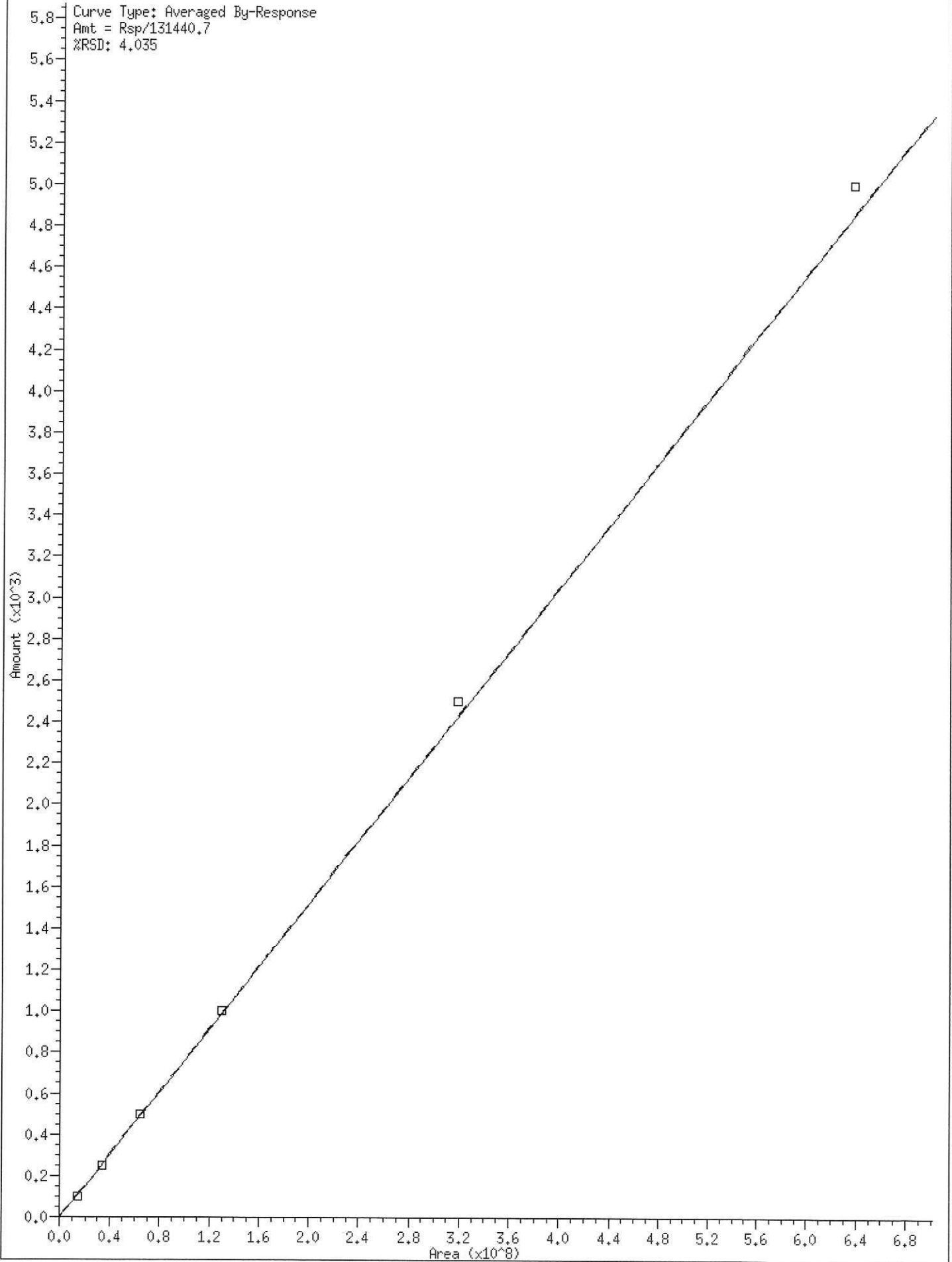
ED00037

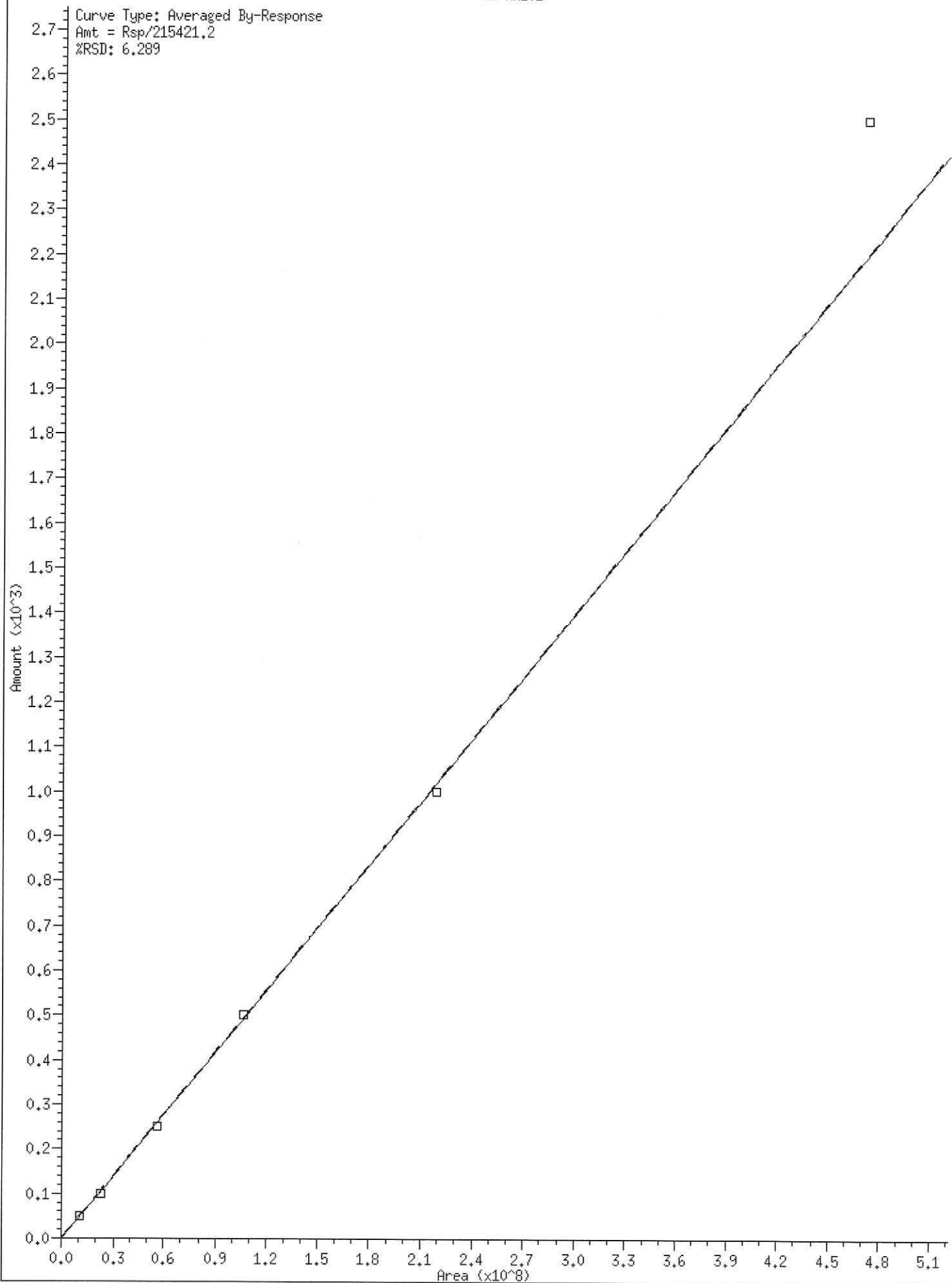
* 8 o-terph

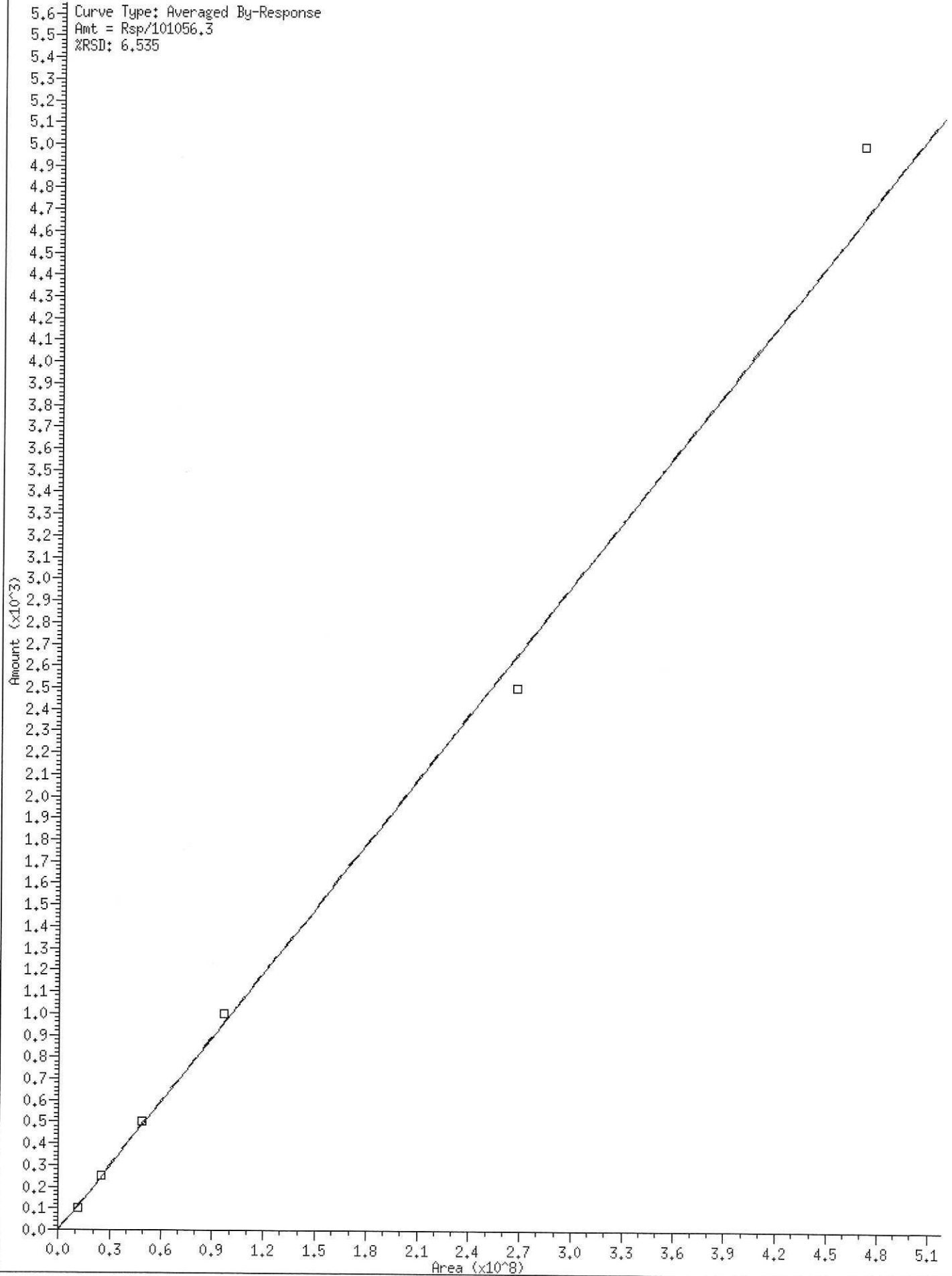














SECOND-SOURCE CALIBRATION VERIFICATION
NWTPH-Dx

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor QEA, LLC

Project: Gasco Siltronic - US Moorings

Calibration: ED00037

Laboratory ID: SJD0189-SCV1

Sequence: SJD0189

Sequence Name: DIESEL SCV

Standard ID: I004025

ANALYTE	EXPECTED (mg/L)	FOUND (mg/L)	% DRIFT	QC LIMIT
Diesel Range Organics (C12-C24)	500.00	492	-1.7	30.00

* Indicates values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20210413,8\421D1315.D

Date: 13-APR-2021 15:37

Client ID:

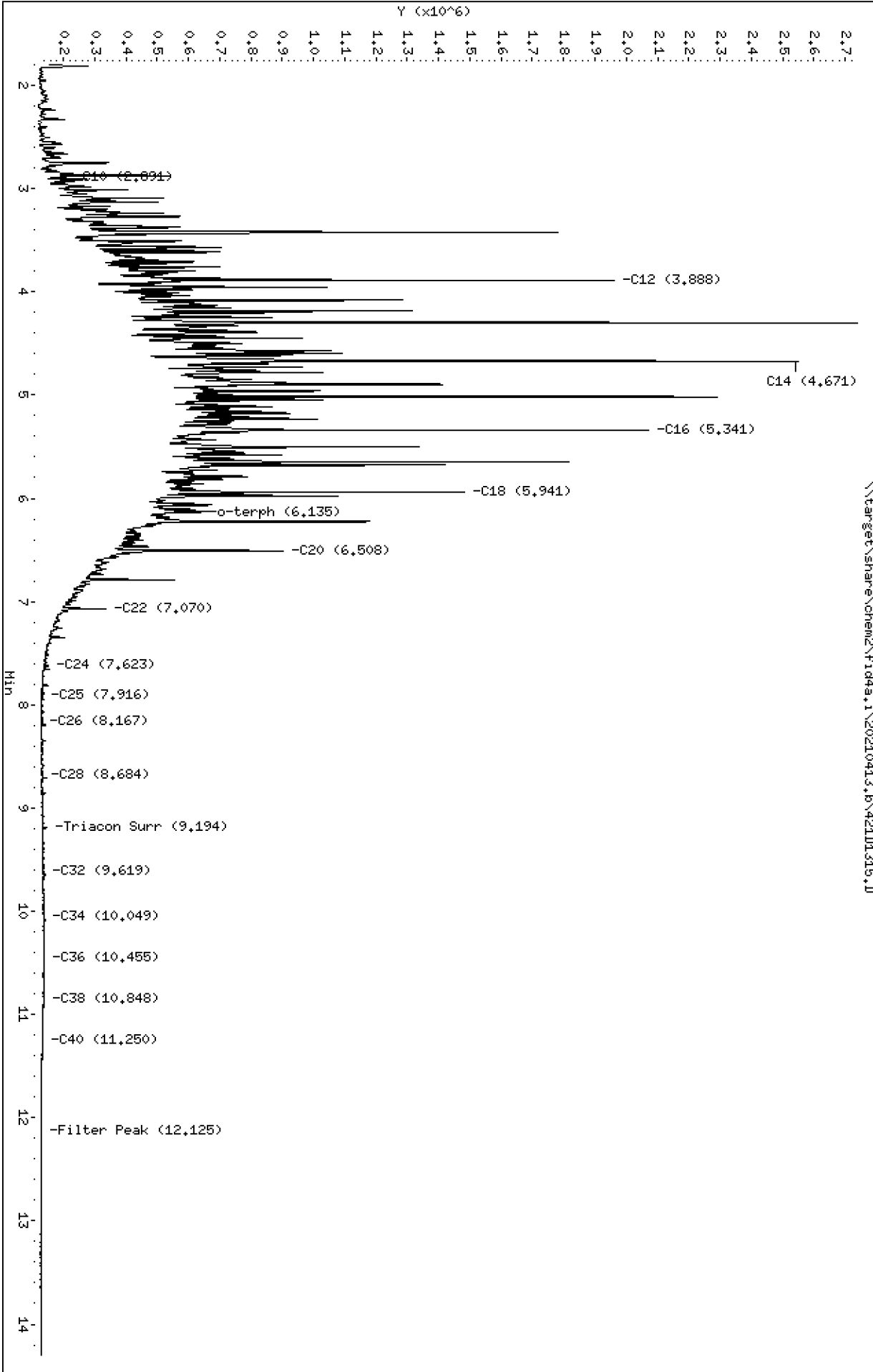
Sample Info: SEQ-SCV1

Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210413.b/421D1315.D
Method: 20210413.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/14/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-SCV1
Client ID:
Injection: 13-APR-2021 15:37
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

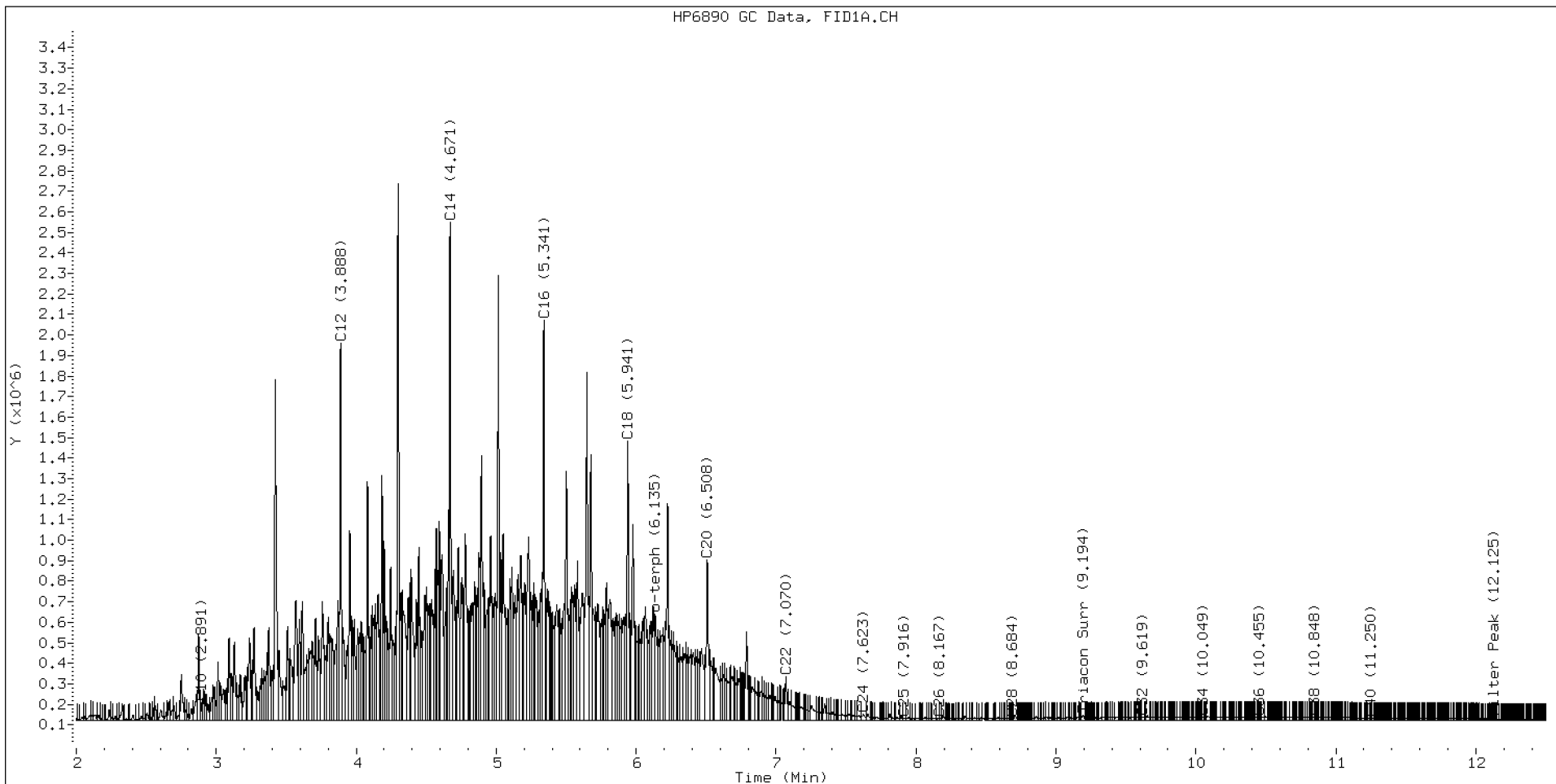
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.643	0.008	54603	64091	WATPHD	(C12-C24)	89863949	491.5
C10	2.891	0.001	88521	60047	WATPHM	(C24-C38)	2579689	19.6
C12	3.888	-0.007	1839965	1228653	AK102	(C10-C25)	107410855	498.6
C14	4.671	-0.006	2430486	1810508	AK103	(C25-C36)	2086166	20.6
C16	5.341	-0.007	1950234	1476241	OR.DIES	(C10-C28)	107974378	550.9
C18	5.941	-0.008	1361376	1097598				
C20	6.508	-0.009	783405	864803	JET-A	(C10-C18)	89494855	610.3
C22	7.070	-0.012	216300	223341				
C24	7.623	-0.012	29214	46183				
C25	7.916	0.008	13547	12777				
C26	8.167	-0.005	8723	1733				
C28	8.684	0.003	11097	3231				
C32	9.619	-0.004	16094	18913				
C34	10.049	-0.003	16451	8995				
Filter Peak	12.125	0.003	8610	2562	CREOSOT	(C12-C22)	88684804	8332.6
C36	10.455	-0.004	16099	8787				
C38	10.848	0.002	15723	4681				
C40	11.250	-0.002	12238	2441				
o-terph	6.135	0.005	518842	594571				
Triacon Surr	9.194	0.000	24981	26960	NAS DIES	(C10-C24)	107276298	549.7

Range Times: NW Diesel(3.894 - 7.635) AK102(2.89 - 7.91) Jet A(2.89 - 5.95)
NW M.Oil(7.64 - 10.85) AK103(7.91 - 10.46) OR Diesel(2.89 - 8.68)

Surrogate	Area	Amount
o-Terphenyl	594571	2.4
Triacontane	26960	0.1

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	10643.2	30-MAR-2020





SECOND-SOURCE CALIBRATION VERIFICATION
NWTPH-Dx

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor QEA, LLC

Project: Gasco Siltronic - US Moorings

Calibration: ED00037

Laboratory ID: SJD0189-SCV2

Sequence: SJD0189

Sequence Name: MOIL SCV

Standard ID: I004757

ANALYTE	EXPECTED (mg/L)	FOUND (mg/L)	% DRIFT	QC LIMIT
Motor Oil Range Organics (C24-C38)	1000.0	918	-8.2	30.00

* Indicates values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20210413,8\421D1322.D

Date: 13-APR-2021 18:07

Client ID:

Sample Info: SEQ-SCV2

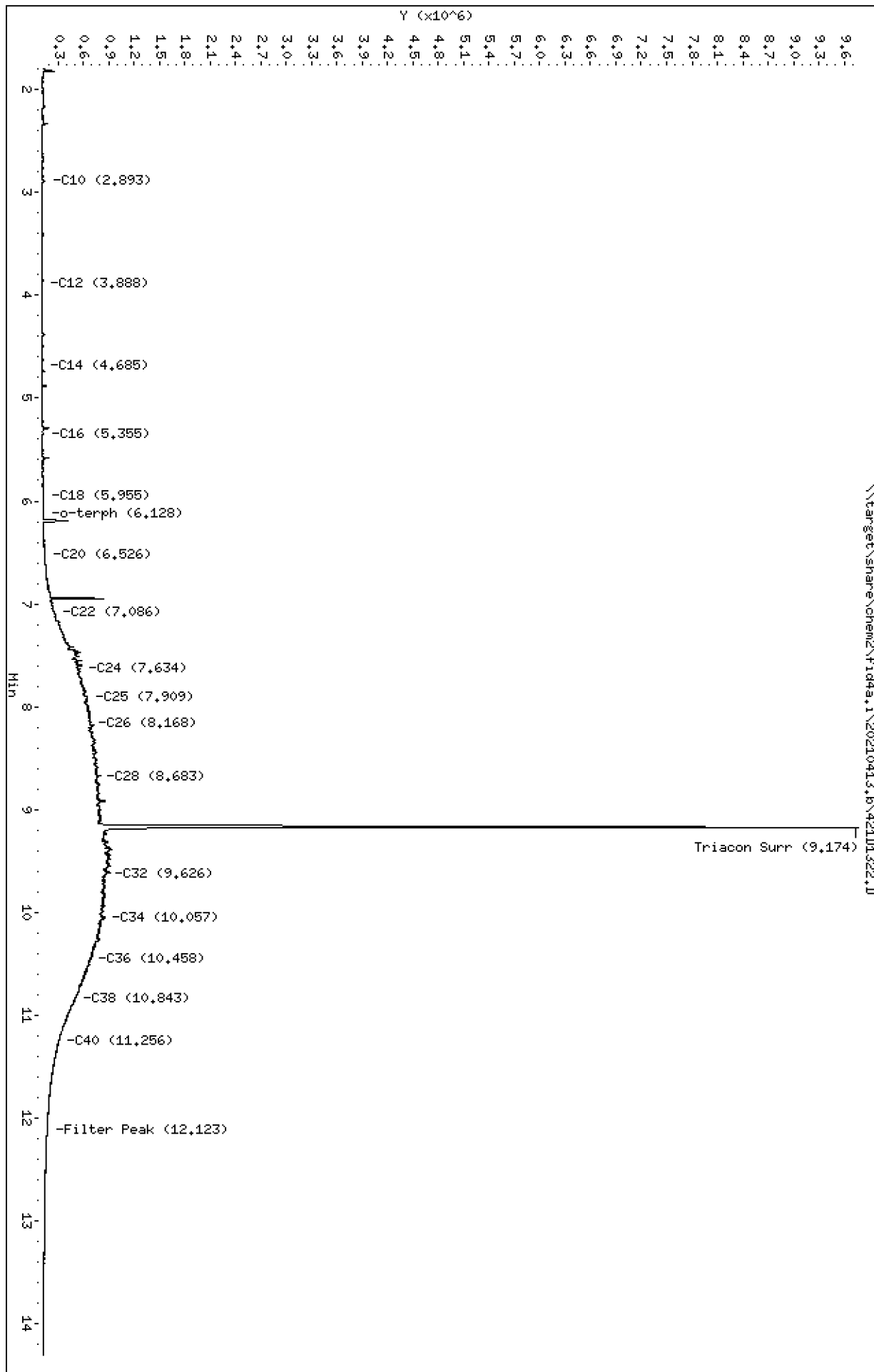
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

\\target\share\chem2\fid4a,1\20210413,8\421D1322.D



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210413.b/421D1322.D
Method: 20210413.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/14/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-SCV2
Client ID:
Injection: 13-APR-2021 18:07
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

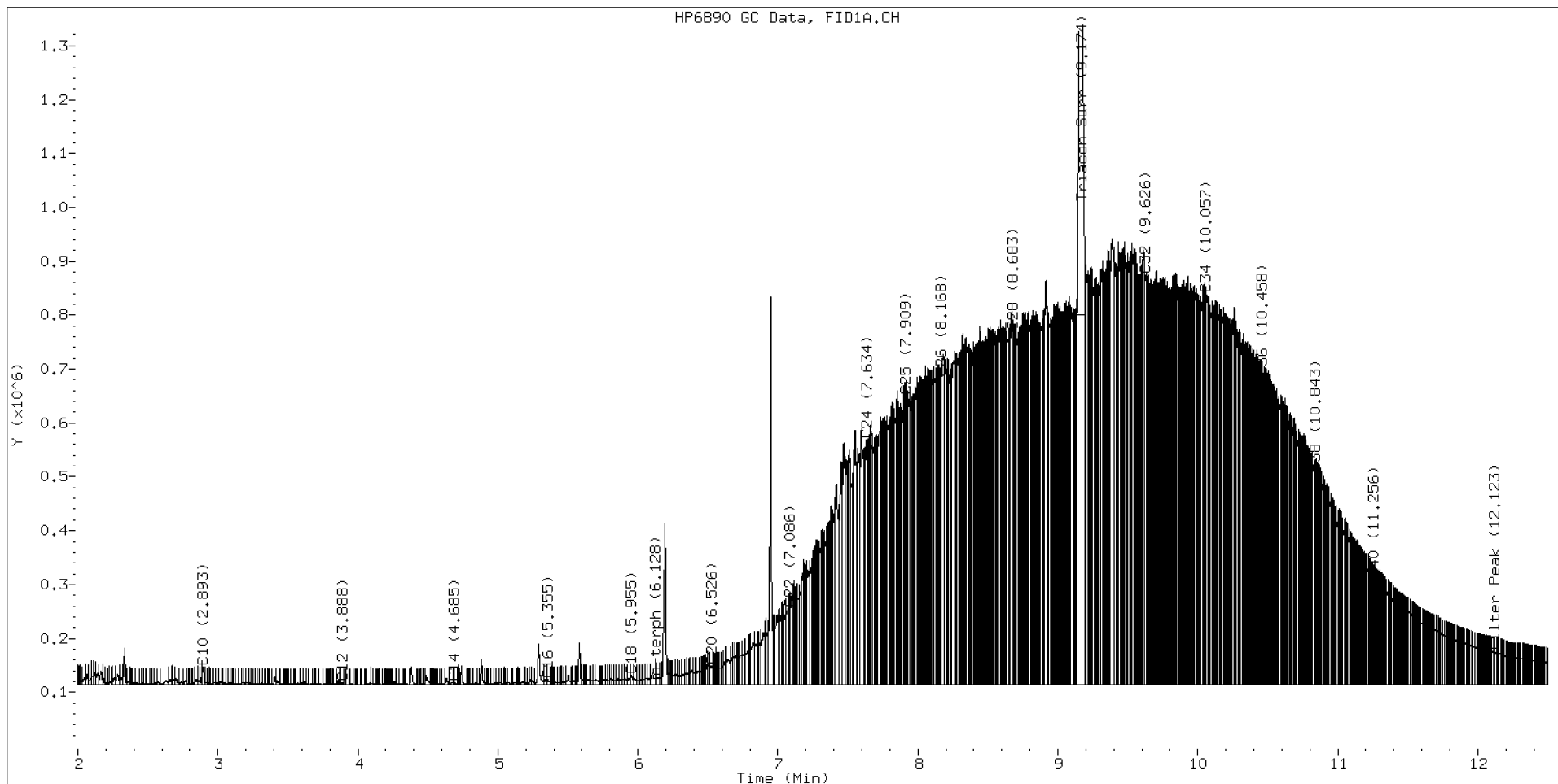
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.626	-0.008	65747	96813	WATPHD	(C12-C24)	15532252	85.0
C10	2.893	0.003	32970	23142	WATPHM	(C24-C38)	120611856	917.6
C12	3.888	-0.006	5389	3628	AK102	(C10-C25)	20669789	96.0
C14	4.685	0.008	3945	1476	AK103	(C25-C36)	105207415	1041.1
C16	5.355	0.007	9584	10953	OR.DIES	(C10-C28)	51331560	261.9
C18	5.955	0.006	19031	17530				
C20	6.526	0.009	34956	39910	JET-A	(C10-C18)	962360	6.6
C22	7.086	0.004	142736	70767				
C24	7.634	-0.001	455529	454995				
C25	7.909	0.002	536300	187150				
C26	8.168	-0.004	569572	113374				
C28	8.683	0.001	657302	357915				
C32	9.626	0.003	760723	638055				
C34	10.057	0.005	726792	323841				
Filter Peak	12.123	0.002	60871	41807	CREOSOT	(C12-C22)	4882924	458.8
C36	10.458	-0.002	571891	252641				
C38	10.843	-0.003	392748	215443				
C40	11.256	0.004	196755	78044				
o-terph	6.128	-0.002	13513	9103				
Triacon Surr	9.174	-0.019	8966637	9459500	NAS DIES	(C10-C24)	15747411	80.7

Range Times: NW Diesel(3.894 - 7.635) AK102(2.89 - 7.91) Jet A(2.89 - 5.95)
NW M.Oil(7.64 - 10.85) AK103(7.91 - 10.46) OR Diesel(2.89 - 8.68)

Surrogate	Area	Amount
o-Terphenyl	9103	0.0
Triacontane	9459500	44.7 M

M Indicates the peak was manually integrated

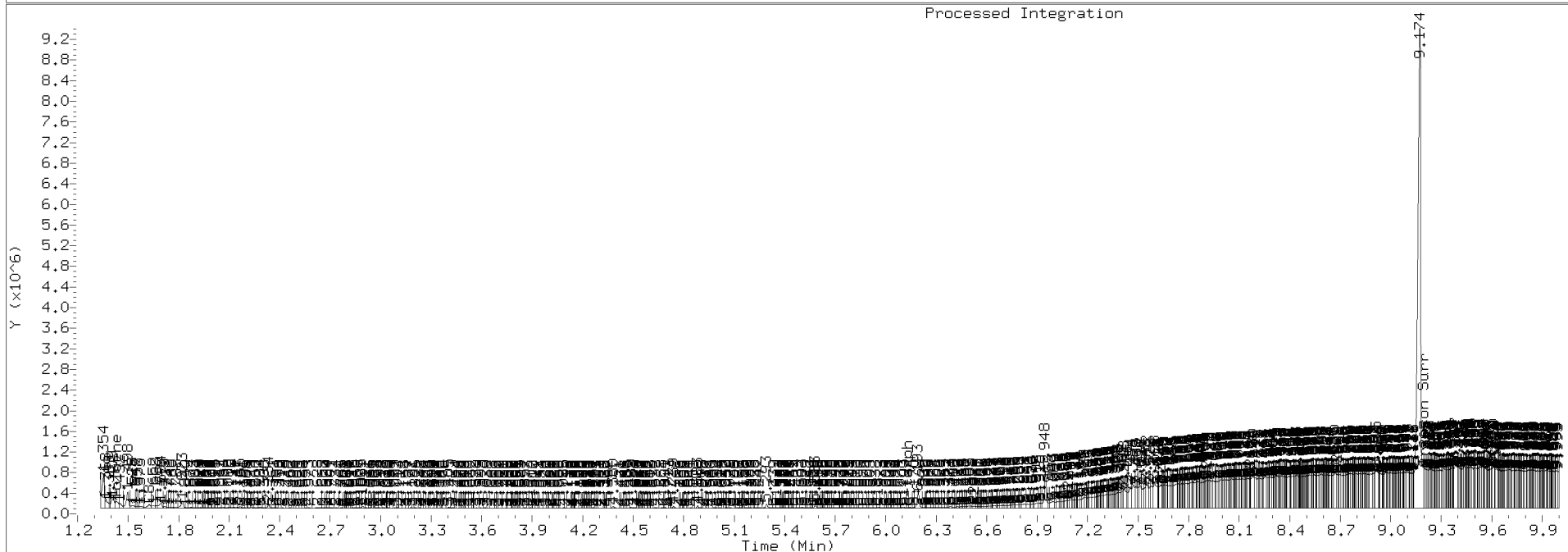
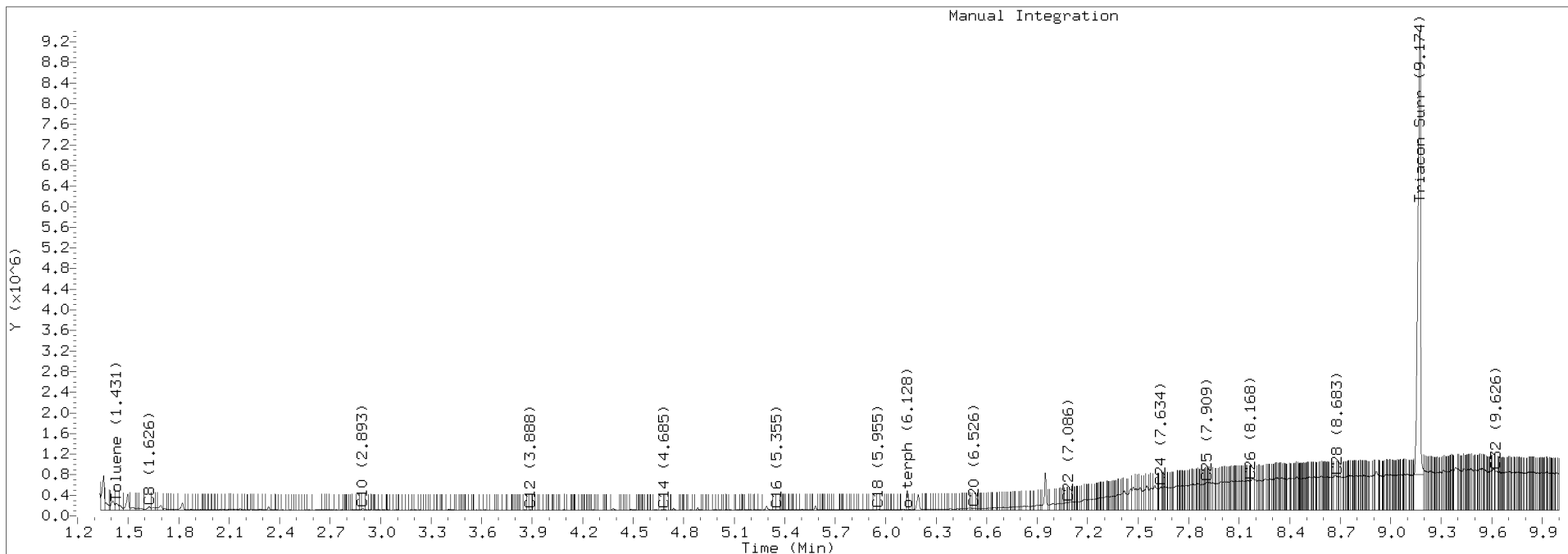
Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	10643.2	30-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20210413.b/421D1322.D Injection: 13-APR-2021 18:07

Lab ID:SEQ-SCV2





INITIAL CALIBRATION CHECK

NWTPH-Dx

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>21D0180</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic - US Moorings</u>
Instrument ID:	<u>FID4</u>	Calibration:	<u>ED00037</u>
Lab File ID:	<u>421D1561.D</u>	Calibration Date:	<u>04/13/2021</u>
Sequence:	<u>SJD0260</u>	Injection Date:	<u>04/16/21</u>
Lab Sample ID:	<u>SJD0260-ICV1</u>	Injection Time:	<u>06:21</u>
Sequence Name:	<u>DIESEL ICV</u>		

COMPOUND	TYPE	CONC. (mg/L)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Diesel Range Organics (C12-C24)	A	500.00	499	182831.3000	182439.2000		-0.2	+/-15
o-Terphenyl	A	90.000	87.0	249011.4000	240625.8000		-3.3	+/-15

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20210415b,b\421D1561.D

Date: 16-APR-2021 06:21

Client ID:

Sample Info: SEQ-ICV1

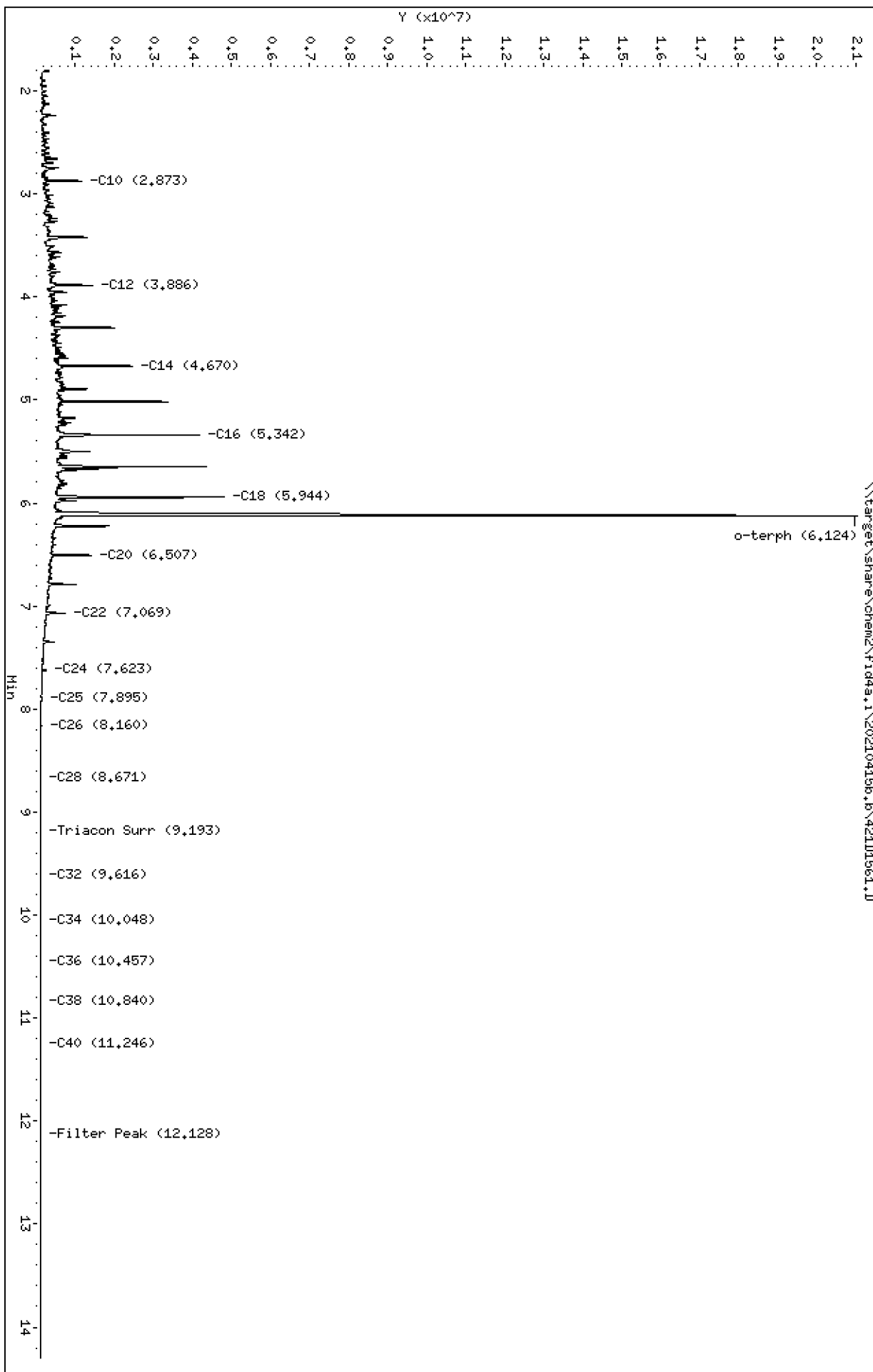
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

Page 1



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210415b.b/421D1561.D
Method: 20210415b.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/19/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-ICV1
Client ID:
Injection: 16-APR-2021 06:21
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

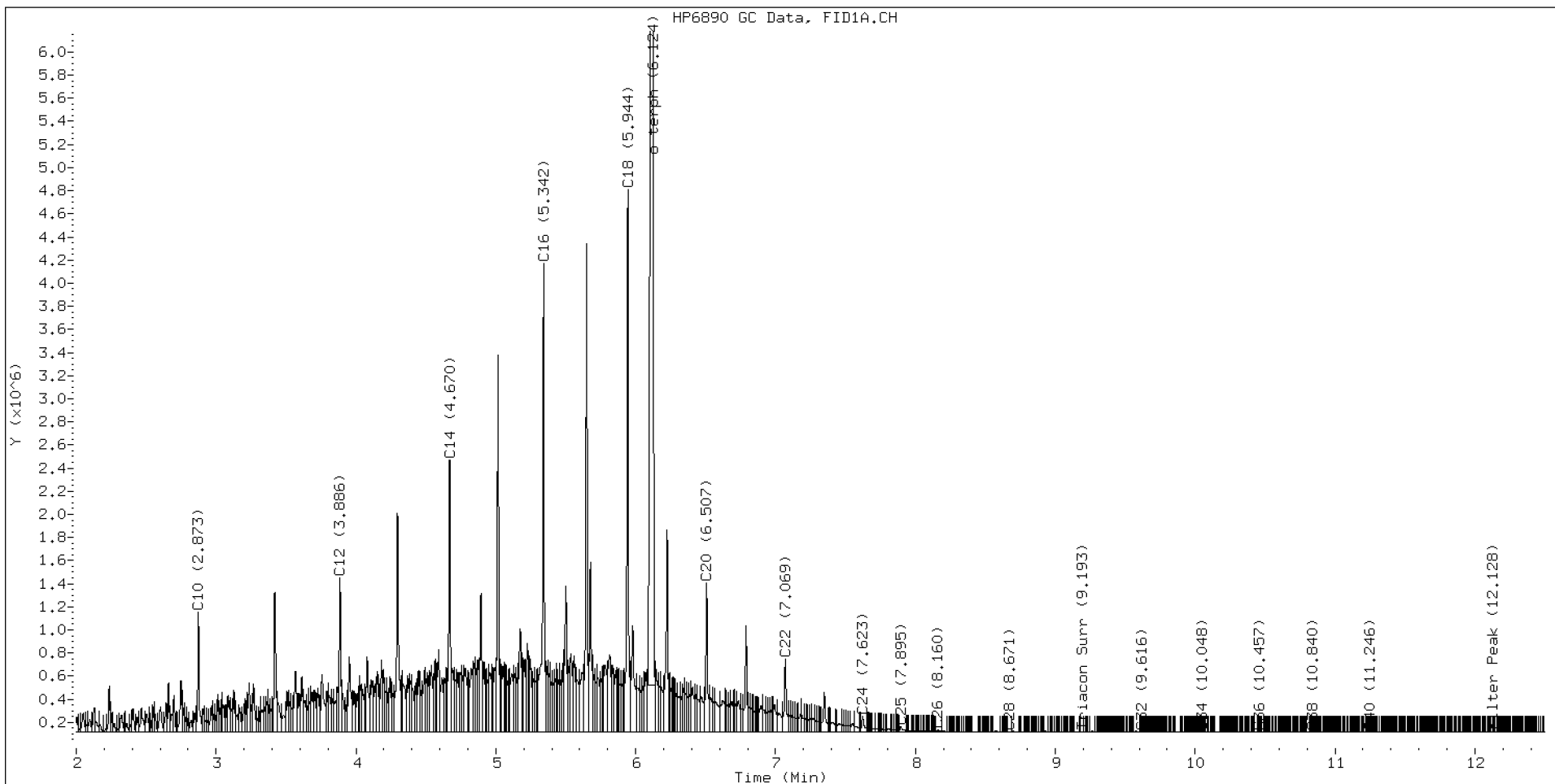
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.609	-0.001	112644	125856	WATPHD	(C12-C24)	91219617	498.9
C10	2.873	-0.006	1038507	786922	WATPHM	(C24-C38)	877375	6.7
C12	3.886	-0.002	1337018	1070306	AK102	(C10-C25)	107631460	499.6
C14	4.670	-0.001	2351029	2027178	AK103	(C25-C36)	532809	5.3
C16	5.342	-0.001	4060546	3872792	OR.DIES	(C10-C28)	108018043	551.1
C18	5.944	-0.001	4691534	3670982				
C20	6.507	-0.007	1287445	1292118	JET-A	(C10-C18)	84182999	574.0
C22	7.069	-0.008	632412	655045				
C24	7.623	-0.008	140665	184376				
C25	7.895	-0.007	48878	80604				
C26	8.160	-0.007	17884	30824				
C28	8.671	-0.005	3768	5029				
C32	9.616	-0.000	702	162				
C34	10.048	0.002	1056	404				
Filter Peak	12.128	0.003	6822	1932	CREOSOT	(C12-C22)	88435872	2266.7
C36	10.457	0.003	2877	818				
C38	10.840	0.001	5073	3458				
C40	11.246	-0.001	6257	1849				
o-terph	6.124	0.001	20516680	21656325				
Triacon Surr	9.193	0.007	3523	3605	NAS DIES	(C10-C24)	107377182	550.2

Range Times: NW Diesel(3.888 - 7.631) AK102(2.88 - 7.90) Jet A(2.88 - 5.95)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.68)

Surrogate	Area	Amount
o-Terphenyl	21656325	87.0 M
Triacontane	3605	0.0

M Indicates the peak was manually integrated

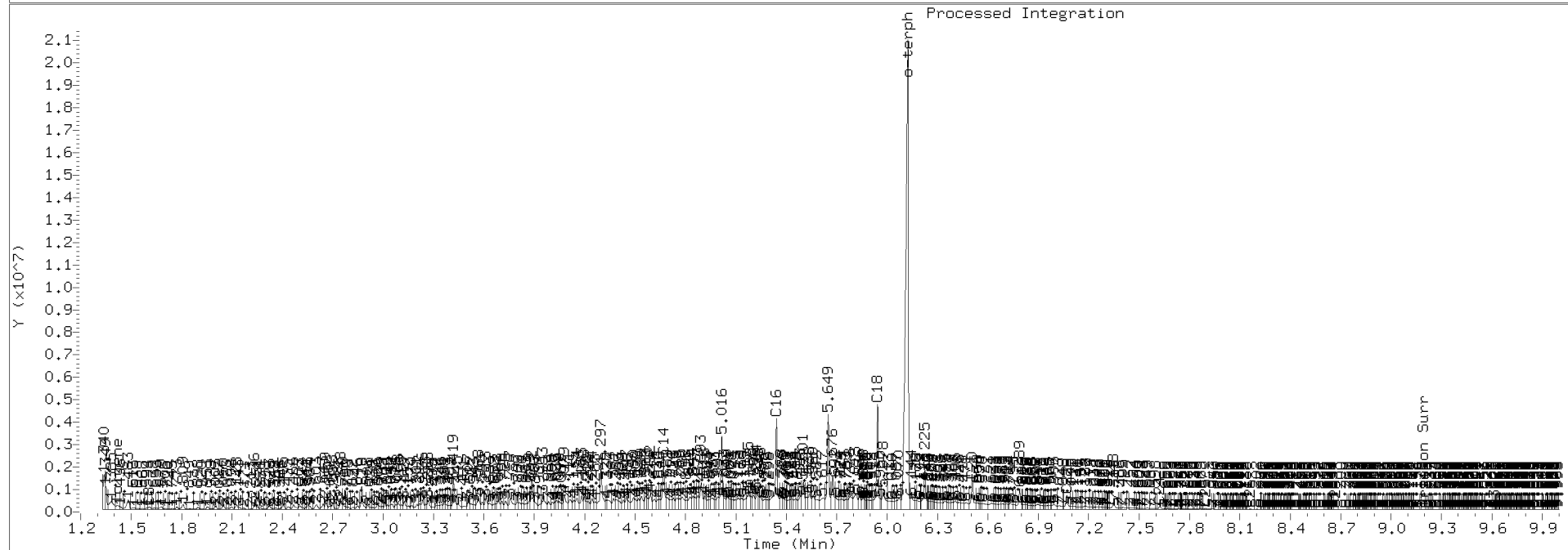
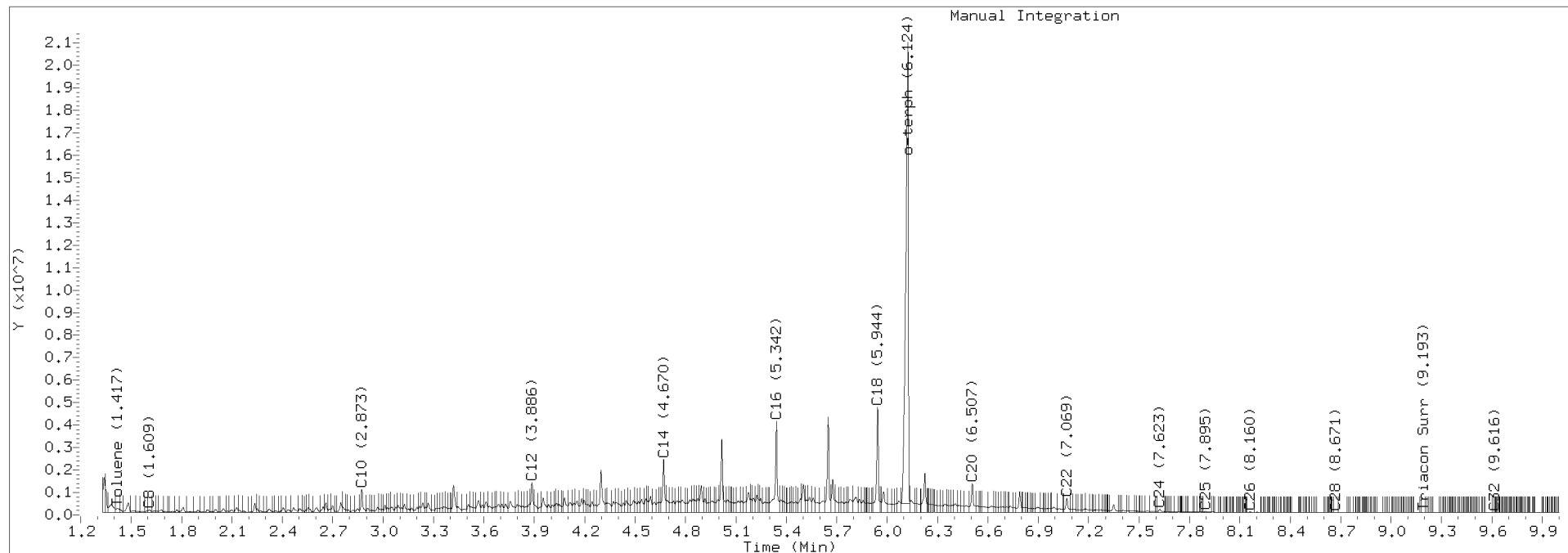
Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	39015.8	30-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20210415b.b/421D1561.D Injection: 16-APR-2021 06:21

Lab ID:SEQ-ICV1





INITIAL CALIBRATION CHECK

NWTPH-Dx

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>21D0180</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic - US Moorings</u>
Instrument ID: <u>FID4</u>	Calibration: <u>ED00037</u>
Lab File ID: <u>421D1562.D</u>	Calibration Date: <u>04/13/2021</u>
Sequence: <u>SJD0260</u>	Injection Date: <u>04/16/21</u>
Lab Sample ID: <u>SJD0260-ICV2</u>	Injection Time: <u>06:42</u>
Sequence Name: <u>MOIL ICV</u>	

COMPOUND	TYPE	CONC. (mg/L)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Motor Oil Range Organics (C24-C38)	A	1000.0	1180	131440.7000	155644.0000		18.4	+/-15 *

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20210415b,b\421D1562.D

Date: 16-APR-2021 06:42

Client ID:

Sample Info: SEQ-ICV2

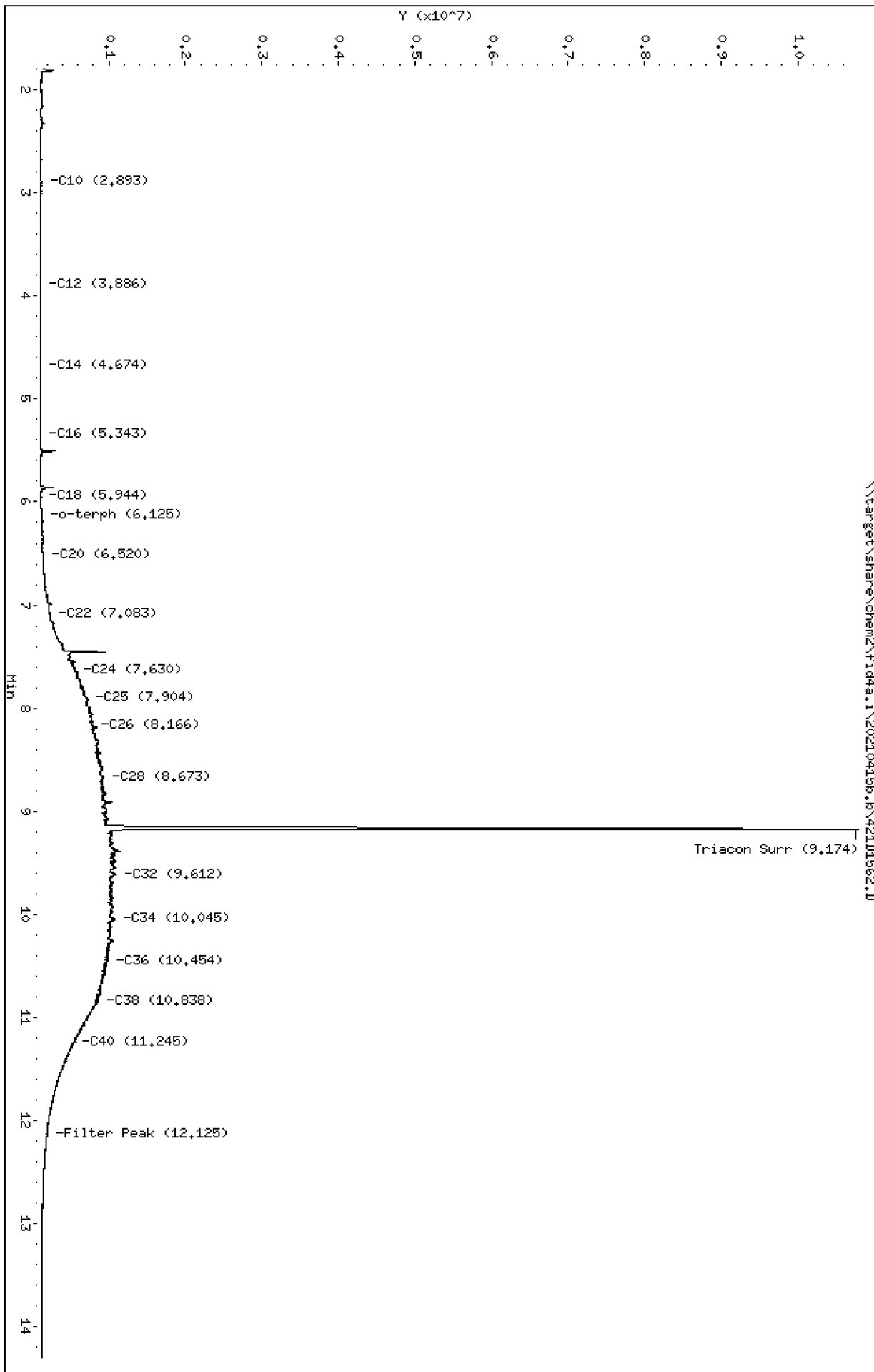
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

\\target\share\chem2\fid4a,1\20210415b,b\421D1562.D



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210415b.b/421D1562.D
Method: 20210415b.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/19/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-ICV2
Client ID:
Injection: 16-APR-2021 06:42
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

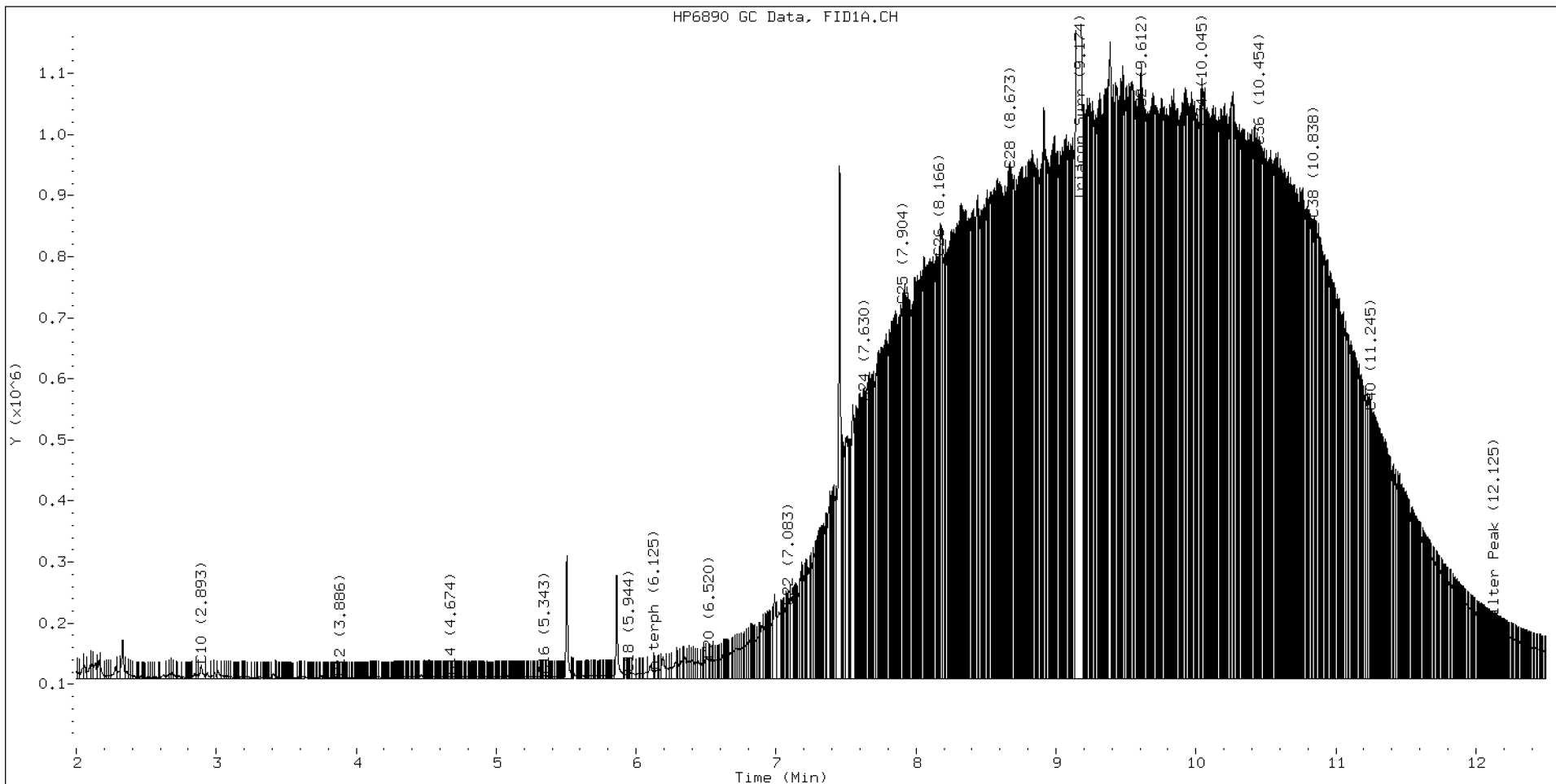
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.620	0.010	79445	114551	WATPHD	(C12-C24)	13969364	76.4
C10	2.893	0.014	21986	28723	WATPHM	(C24-C38)	155644038	1184.1
C12	3.886	-0.001	1914	1485	AK102	(C10-C25)	19406620	90.1
C14	4.674	0.003	3193	943	AK103	(C25-C36)	132173405	1307.9
C16	5.343	0.000	4315	2109	OR.DIES	(C10-C28)	56265963	287.1
C18	5.944	-0.001	8251	1644				
C20	6.520	0.006	30709	20749	JET-A	(C10-C18)	821458	5.6
C22	7.083	0.005	116656	28892				
C24	7.630	-0.001	451736	112436				
C25	7.904	0.002	610127	479843				
C26	8.166	-0.001	689125	272337				
C28	8.673	-0.003	832047	329420				
C32	9.612	-0.004	989937	532388				
C34	10.045	-0.001	964151	381225				
Filter Peak	12.125	-0.001	84250	29053	CREOSOT	(C12-C22)	3721874	95.4
C36	10.454	0.000	871779	518981				
C38	10.838	-0.001	751332	514765				
C40	11.245	-0.001	436685	108472				
o-terph	6.125	0.001	11073	3279				
Triacon Surr	9.174	-0.012	9847122	10778658	NAS DIES	(C10-C24)	14137722	72.4

Range Times: NW Diesel(3.888 - 7.631) AK102(2.88 - 7.90) Jet A(2.88 - 5.95)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.68)

Surrogate	Area	Amount
o-Terphenyl	3279	0.0
Triacontane	10778658	50.9 M

M Indicates the peak was manually integrated

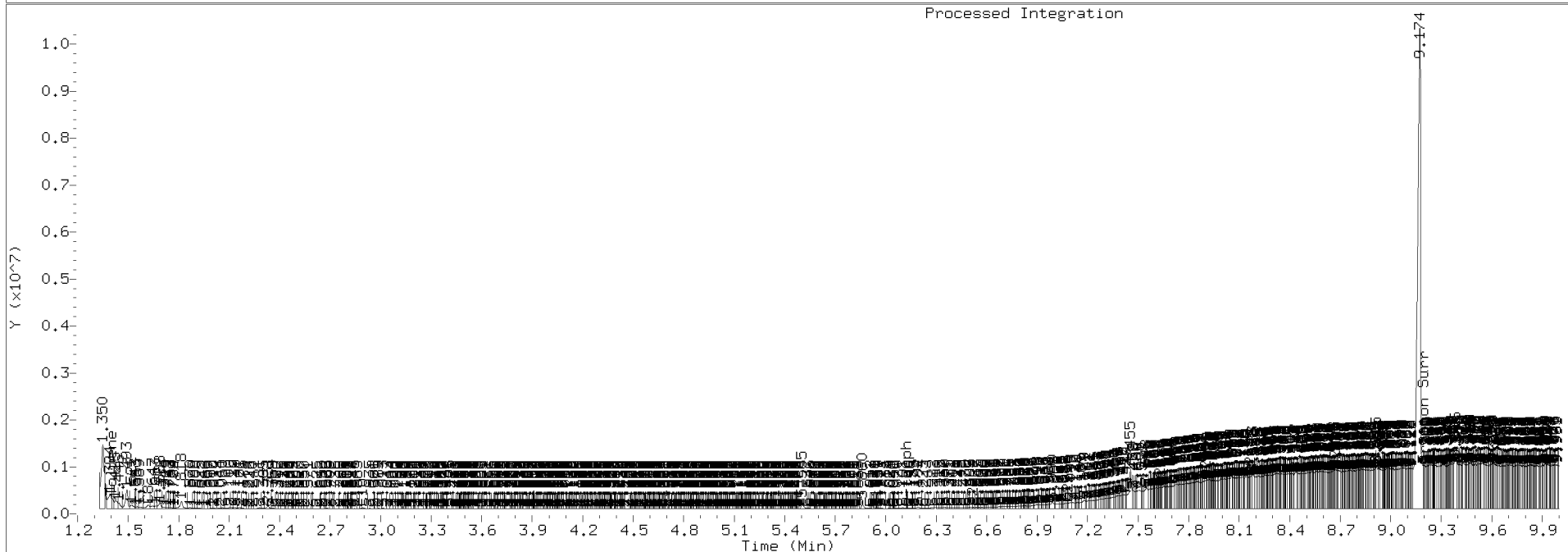
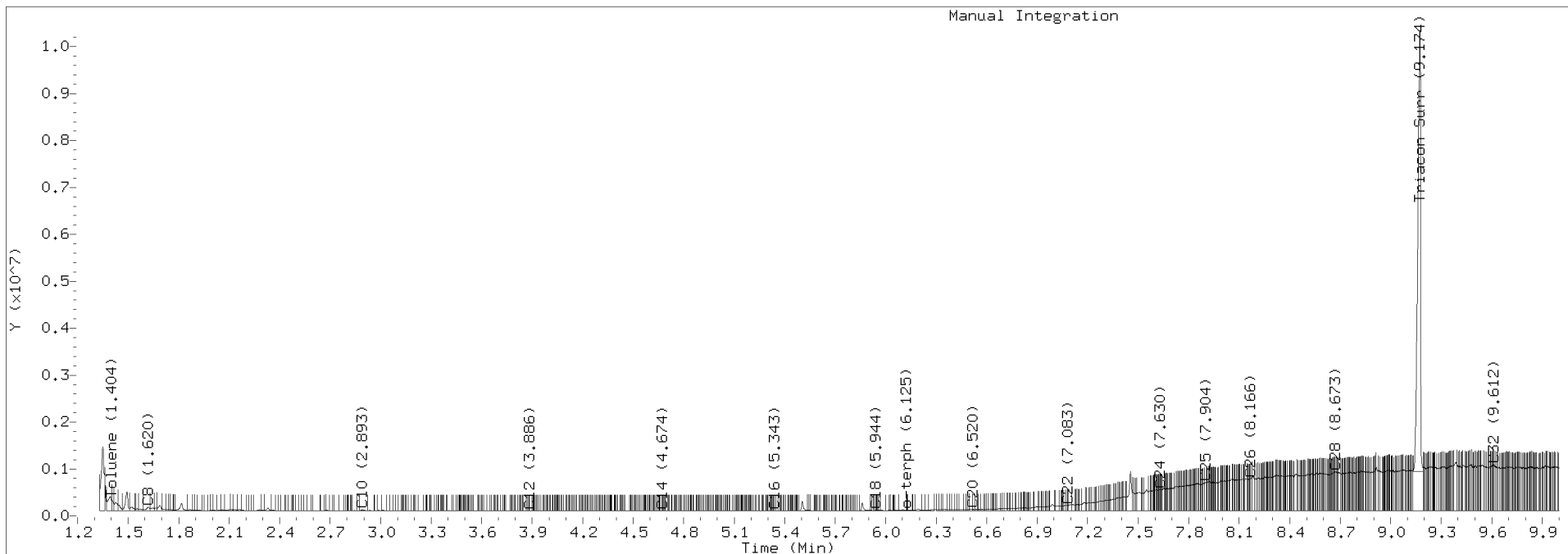
Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	39015.8	30-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20210415b.b/421D1562.D Injection: 16-APR-2021 06:42

Lab ID:SEQ-ICV2





INITIAL CALIBRATION CHECK

NWTPH-Dx

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>21D0180</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic - US Moorings</u>
Instrument ID:	<u>FID4</u>	Calibration:	<u>ED00037</u>
Lab File ID:	<u>421D1563.D</u>	Calibration Date:	<u>04/13/2021</u>
Sequence:	<u>SJD0260</u>	Injection Date:	<u>04/16/21</u>
Lab Sample ID:	<u>SJD0260-ICV3</u>	Injection Time:	<u>07:03</u>
Sequence Name:	<u>A/S Creosote ICV</u>		

COMPOUND	TYPE	CONC. (mg/L)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Creosote Range Organics (C12-C22)	A	1000.0	942	39015.8400	36759.2300		-5.8	+/-15
o-Terphenyl	A	90.000	80.9	249011.4000	223885.7000		-10.1	+/-15

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20210415b,b\421D1563.D

Date: 16-APR-2021 07:03

Client ID:

Sample Info: SEQ-ICV3

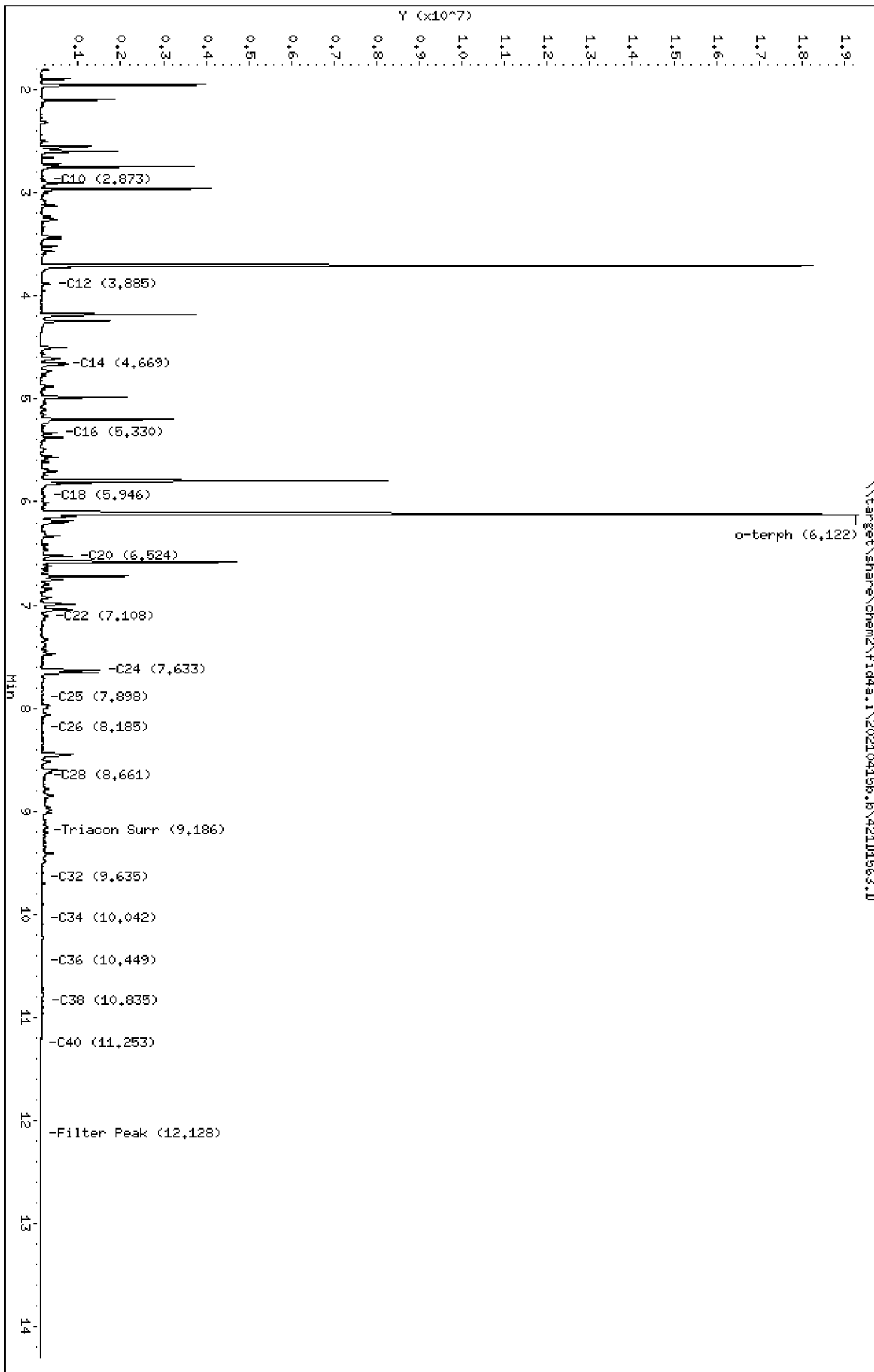
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

Page 1



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210415b.b/421D1563.D
Method: 20210415b.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/19/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-ICV3
Client ID:
Injection: 16-APR-2021 07:03
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

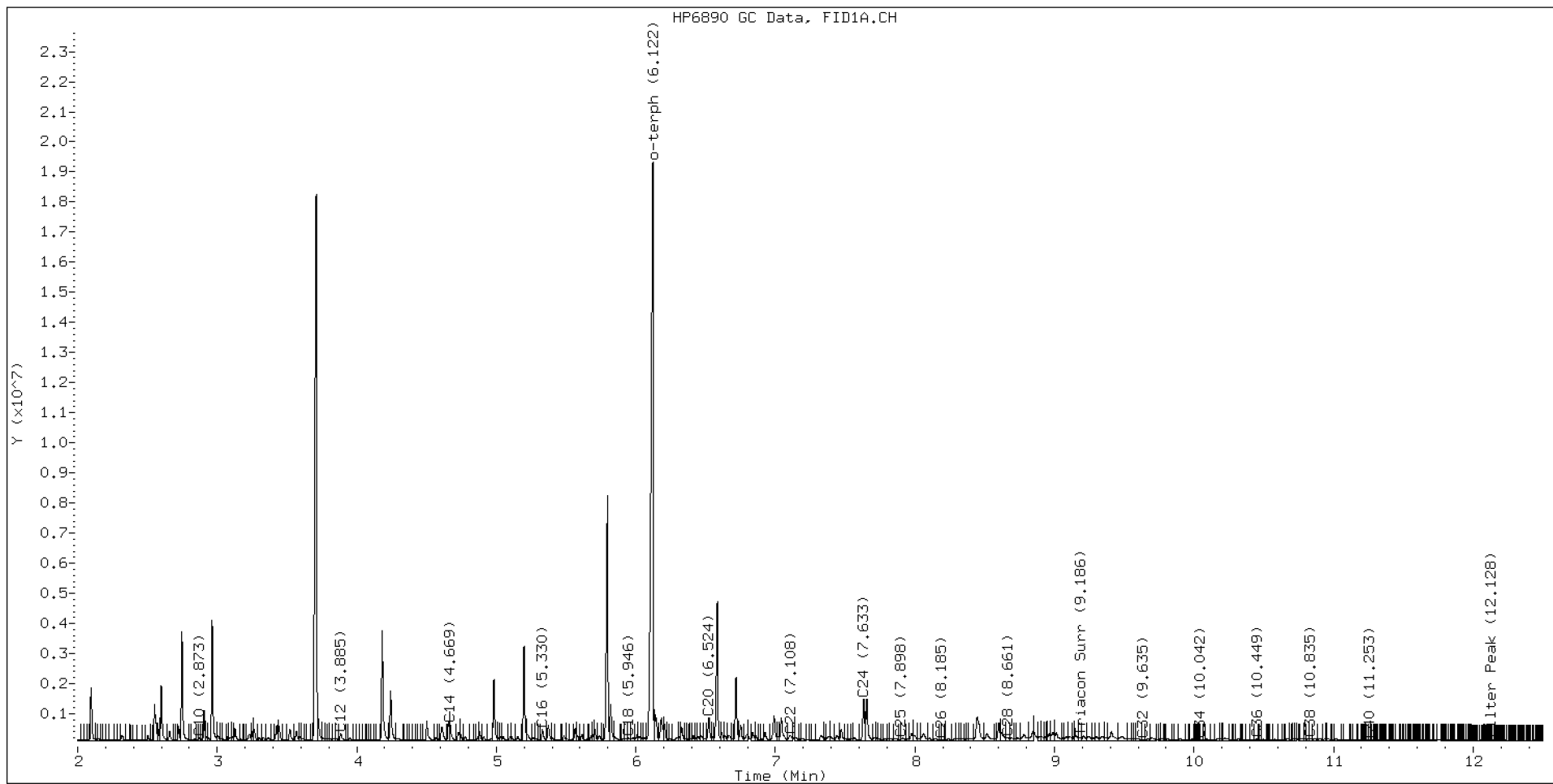
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.610	0.000	83533	121908	WATPHD	(C12-C24)	41084434	224.7
C10	2.873	-0.006	84020	54114	WATPHM	(C24-C38)	13445948	102.3
C12	3.885	-0.002	228898	243746	AK102	(C10-C25)	65972947	306.3
C14	4.669	-0.002	544251	492987	AK103	(C25-C36)	12179350	120.5
C16	5.330	-0.013	379787	343677	OR.DIES	(C10-C28)	71078269	362.6
C18	5.946	0.001	81234	101276				
C20	6.524	0.010	756175	690943	JET-A	(C10-C18)	47063943	320.9
C22	7.108	0.030	157344	256653				
C24	7.633	0.002	1383061	1245338				
C25	7.898	-0.004	39353	35911				
C26	8.185	0.019	28749	21842				
C28	8.661	-0.015	97719	140386				
C32	9.635	0.019	36560	57770				
C34	10.042	-0.004	30823	16346				
Filter Peak	12.128	0.003	4121	2203	CREOSOT	(C12-C22)	36759229	942.2
C36	10.449	-0.005	38987	62090				
C38	10.835	-0.005	48555	63116				
C40	11.253	0.006	13503	12291				
o-terph	6.122	-0.001	19198875	20149713				
Triacon Surr	9.186	0.000	89900	105769	NAS DIES	(C10-C24)	65524403	335.8

Range Times: NW Diesel(3.888 - 7.631) AK102(2.88 - 7.90) Jet A(2.88 - 5.95)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.68)

Surrogate	Area	Amount
o-Terphenyl	20149713	80.9
Triacontane	105769	0.5

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	39015.8	30-MAR-2020





INITIAL CALIBRATION CHECK

NWTPH-Dx

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>21D0180</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic - US Moorings</u>
Instrument ID: <u>FID4</u>	Calibration: <u>ED00037</u>
Lab File ID: <u>421D2011.D</u>	Calibration Date: <u>04/13/2021</u>
Sequence: <u>SJD0282</u>	Injection Date: <u>04/20/21</u>
Lab Sample ID: <u>SJD0282-ICV1</u>	Injection Time: <u>17:08</u>
Sequence Name: <u>DIESEL ICV</u>	

COMPOUND	TYPE	CONC. (mg/L)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Diesel Range Organics (C12-C24)	A	500.00	516	182831.3000	188573.8000		3.1	+/-15
o-Terphenyl	A	90.000	90.7	249011.4000	250908.6000		0.8	+/-15

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20210420,b\421D2011.D

Date: 20-APR-2021 17:08

Client ID:

Sample Info: SEQ-ICV1

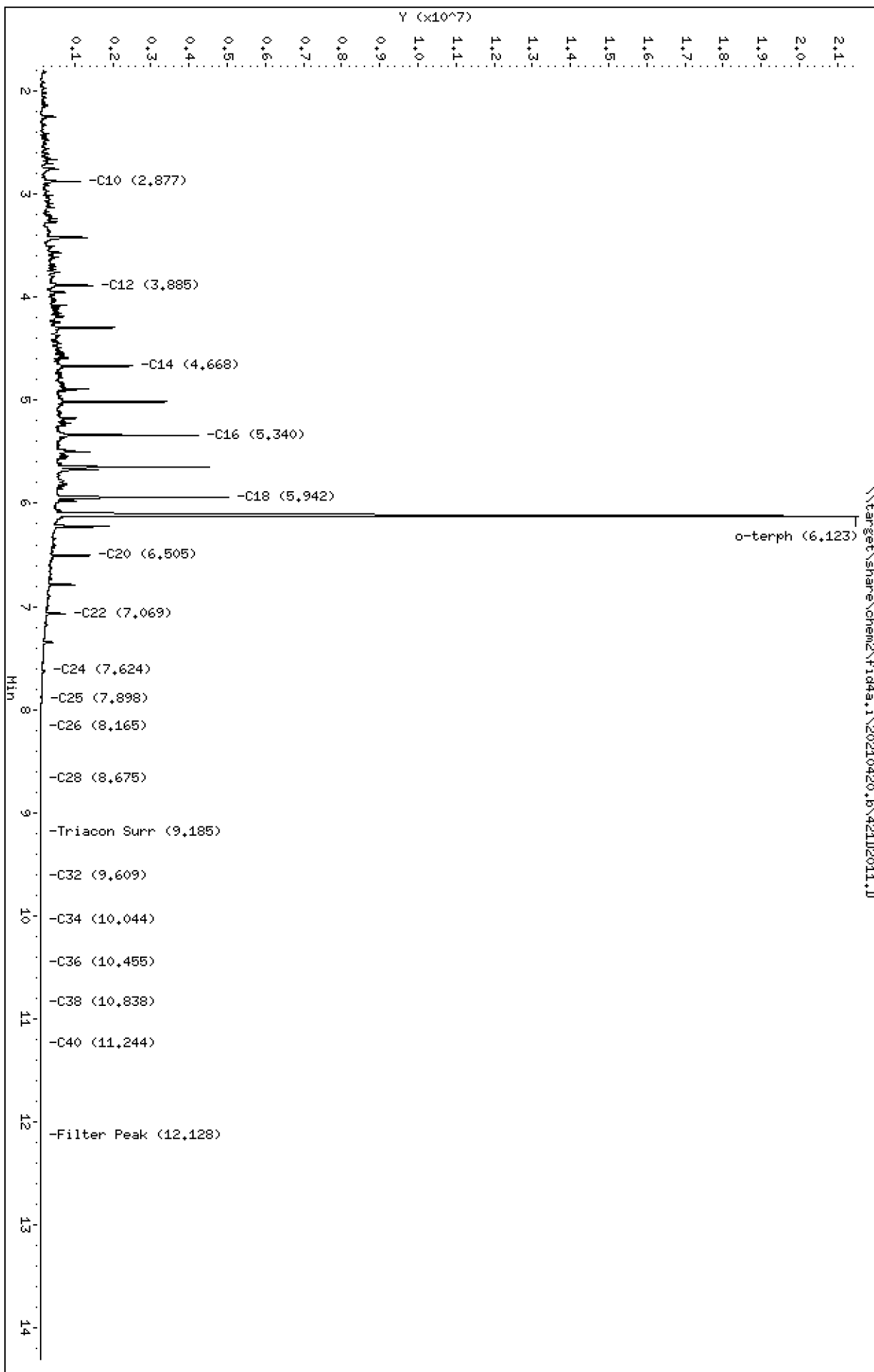
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

Page 1



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210420.b/421D2011.D
Method: 20210420.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/21/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-ICV1
Client ID:
Injection: 20-APR-2021 17:08
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

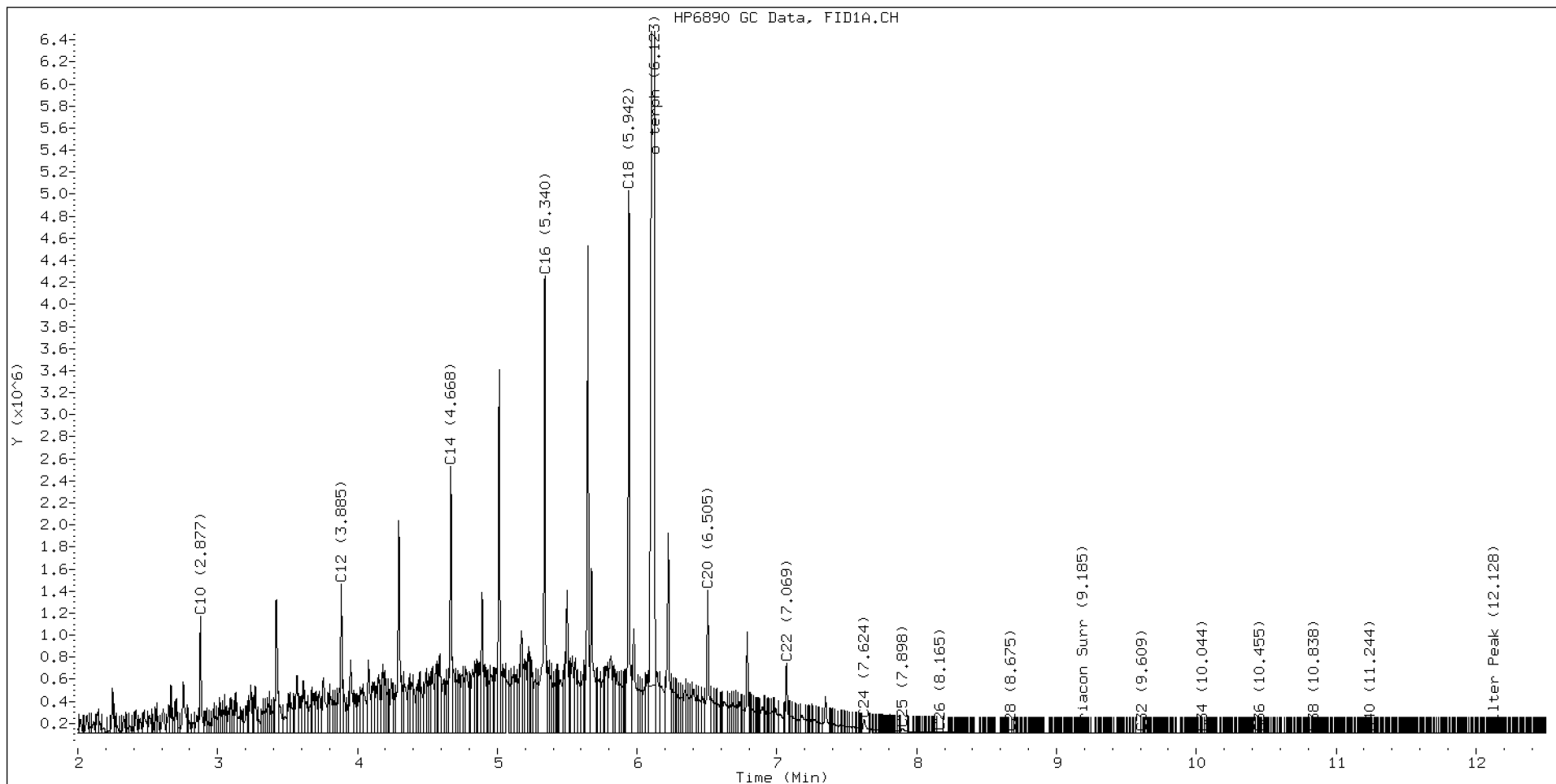
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.619	0.001	103614	105478	WATPHD	(C12-C24)	94286922	515.7
C10	2.877	-0.004	1058088	793077	WATPHM	(C24-C38)	899507	6.8
C12	3.885	-0.002	1354738	1093753	AK102	(C10-C25)	110996676	515.3
C14	4.668	-0.003	2418638	2102930	AK103	(C25-C36)	554262	5.5
C16	5.340	-0.002	4151721	4161098	OR.DIES	(C10-C28)	111424849	568.5
C18	5.942	-0.002	4921098	3981609				
C20	6.505	-0.007	1301000	1397131	JET-A	(C10-C18)	86483930	589.7
C22	7.069	-0.007	637950	634934				
C24	7.624	-0.006	123389	210018				
C25	7.898	-0.003	42457	92565				
C26	8.165	-0.001	16568	32758				
C28	8.675	-0.001	2665	2524				
C32	9.609	-0.007	676	370				
C34	10.044	-0.002	1322	254				
Filter Peak	12.128	0.002	6596	2905	BUNKERC	(C10-C38)	111639644	2486.8
C36	10.455	0.003	2681	1046				
C38	10.838	-0.002	4581	2420				
C40	11.244	0.000	6106	1804				
o-terph	6.123	0.001	21002714	22581772				
Triacon Surr	9.185	0.001	1079	403	NAS DIES	(C10-C24)	110740137	567.5

Range Times: NW Diesel(3.888 - 7.630) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.68)

Surrogate	Area	Amount
o-Terphenyl	22581772	90.7 M
Triacontane	403	0.0

M Indicates the peak was manually integrated

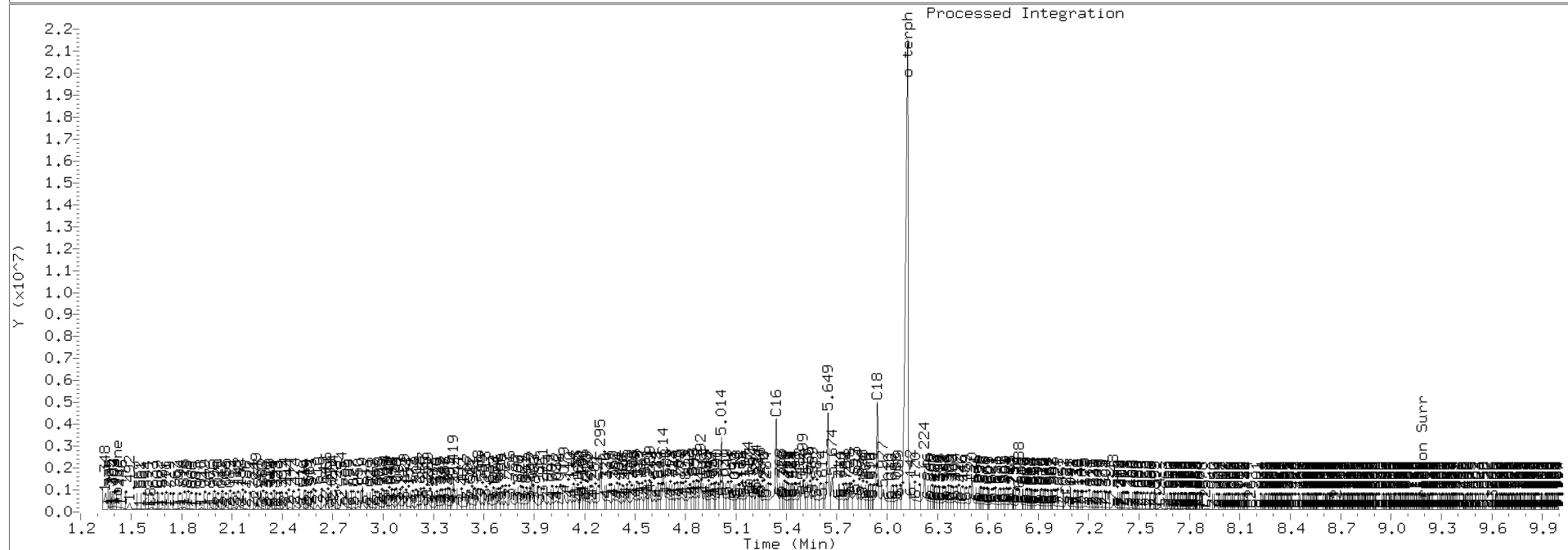
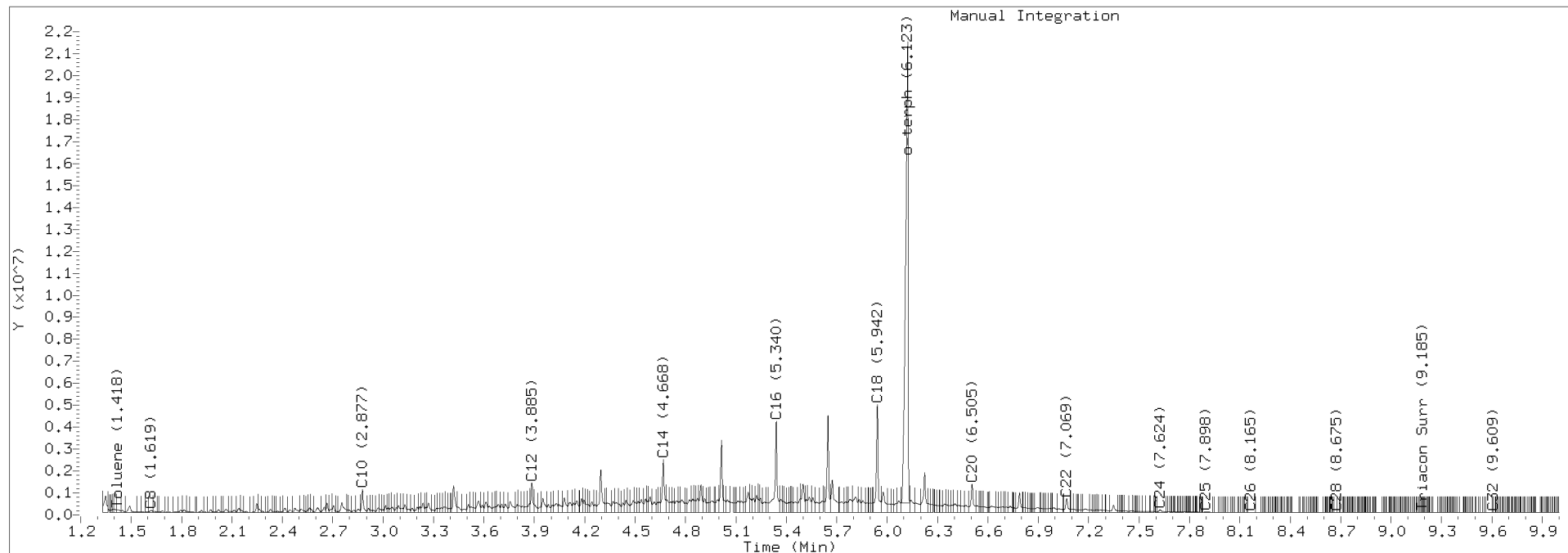
Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021



TPH Manual Integrations Report

Datafile: FID4A, 20210420.b/421D2011.D Injection: 20-APR-2021 17:08

Lab ID:SEQ-ICV1





INITIAL CALIBRATION CHECK

NWTPH-Dx

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>21D0180</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic - US Moorings</u>
Instrument ID:	<u>FID4</u>	Calibration:	<u>ED00037</u>
Lab File ID:	<u>421D2012.D</u>	Calibration Date:	<u>04/13/2021</u>
Sequence:	<u>SJD0282</u>	Injection Date:	<u>04/20/21</u>
Lab Sample ID:	<u>SJD0282-ICV2</u>	Injection Time:	<u>17:30</u>
Sequence Name:	<u>MOIL ICV</u>		

COMPOUND	TYPE	CONC. (mg/L)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Motor Oil Range Organics (C24-C38)	A	1000.0	1030	131440.7000	135055.5000		2.8	+/-15

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20210420,8\421D2012.D

Date: 20-APR-2021 17:30

Client ID:

Sample Info: SEQ-ICV2

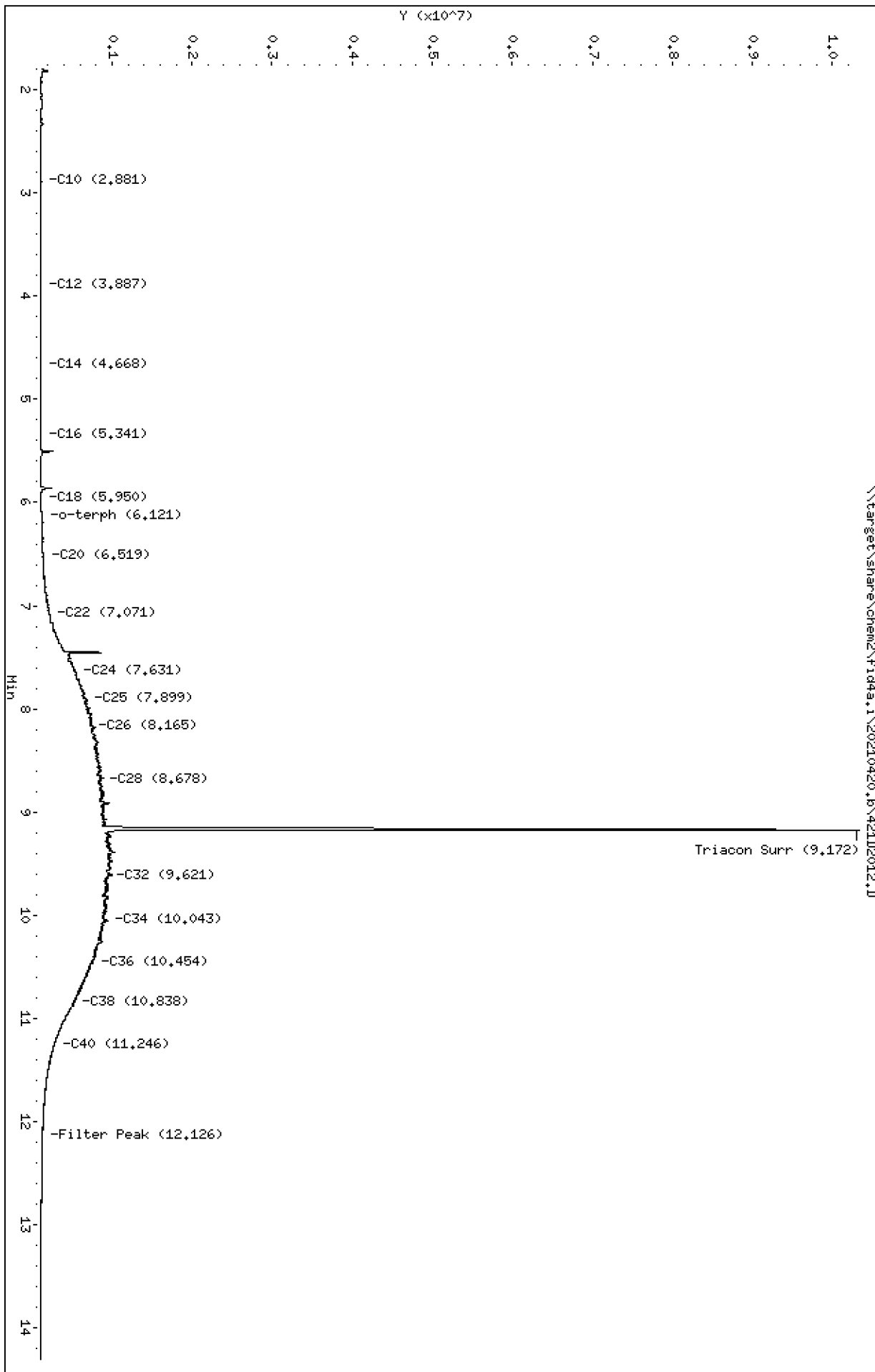
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

\\target\share\chem2\fid4a,1\20210420,8\421D2012.D



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210420.b/421D2012.D
Method: 20210420.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/21/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-ICV2
Client ID:
Injection: 20-APR-2021 17:30
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

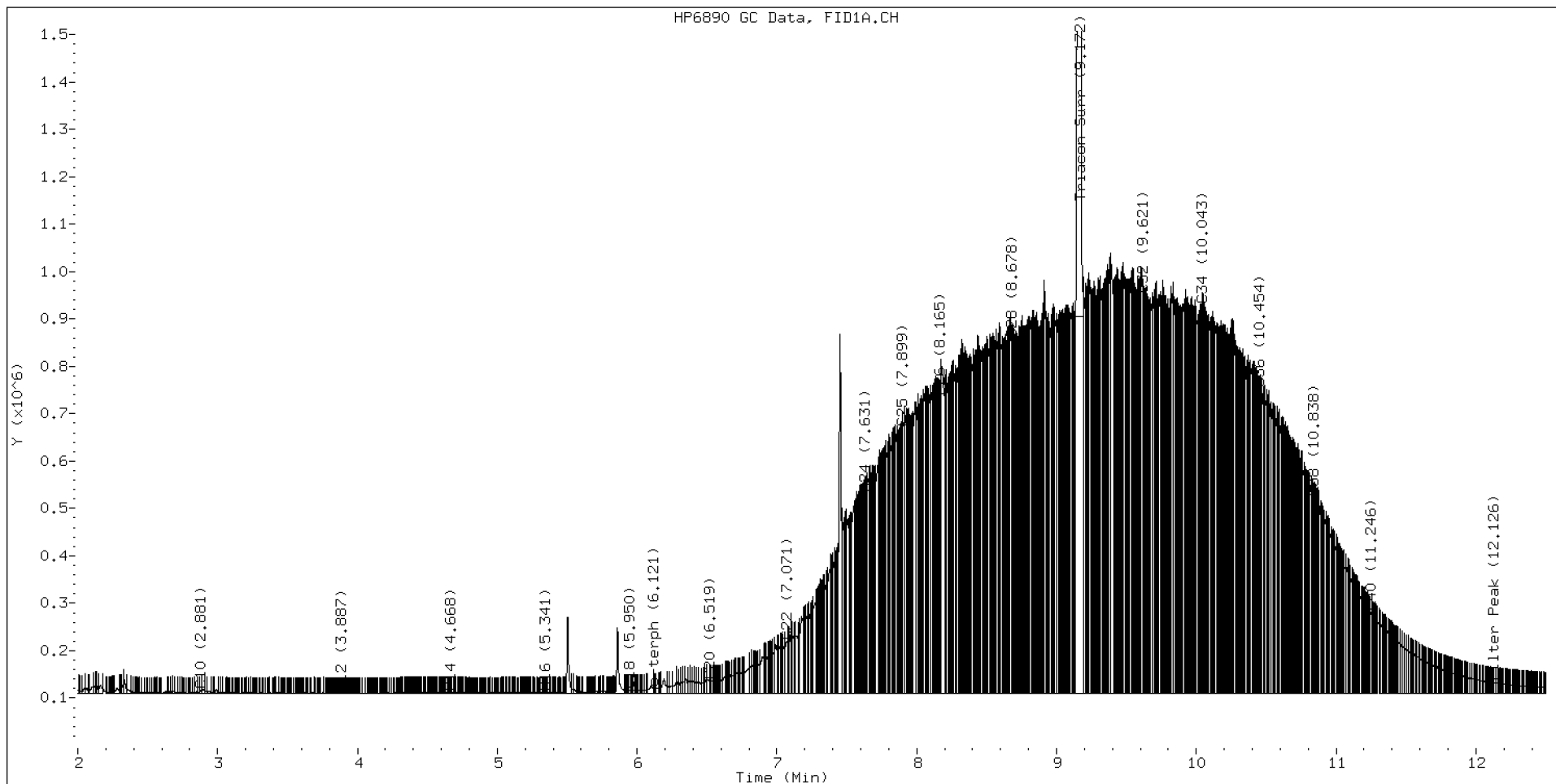
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.621	0.004	53060	80480	WATPHD	(C12-C24)	12568205	68.7
C10	2.881	-0.000	6786	4387	WATPHM	(C24-C38)	135055495	1027.5
C12	3.887	-0.000	558	245	AK102	(C10-C25)	18071372	83.9
C14	4.668	-0.003	1753	835	AK103	(C25-C36)	117930032	1167.0
C16	5.341	-0.001	2390	1581	OR.DIES	(C10-C28)	52471110	267.7
C18	5.950	0.006	7086	6144				
C20	6.519	0.006	26720	16957	JET-A	(C10-C18)	561683	3.8
C22	7.071	-0.005	110635	147977				
C24	7.631	0.000	422151	105029				
C25	7.899	-0.002	561091	112008				
C26	8.165	-0.001	626123	93800				
C28	8.678	0.002	746837	111880				
C32	9.621	0.005	841443	125750				
C34	10.043	-0.002	818926	203248				
Filter Peak	12.126	0.000	22603	8933	BUNKERC	(C10-C38)	147709173	3290.3
C36	10.454	0.001	644112	160284				
C38	10.838	-0.001	412466	82315				
C40	11.246	0.002	171620	109739				
o-terph	6.121	-0.000	9962	3418				
Triacon Surr	9.172	-0.012	9430808	9858755	NAS DIES	(C10-C24)	12653678	64.8

Range Times: NW Diesel(3.888 - 7.630) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.68)

Surrogate	Area	Amount
o-Terphenyl	3418	0.0
Triacontane	9858755	46.5 M

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021





INITIAL CALIBRATION CHECK

NWTPH-Dx

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>21D0180</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic - US Moorings</u>
Instrument ID: <u>FID4</u>	Calibration: <u>ED00037</u>
Lab File ID: <u>421D2013.D</u>	Calibration Date: <u>04/13/2021</u>
Sequence: <u>SJD0282</u>	Injection Date: <u>04/20/21</u>
Lab Sample ID: <u>SJD0282-ICV3</u>	Injection Time: <u>17:51</u>
Sequence Name: <u>A/S BUNKER C</u>	

COMPOUND	TYPE	CONC. (mg/L)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Bunker C Range Organics (C10-C38)	A	1000.0	990	44892.5300	44426.3000		-1.0	+/-15
o-Terphenyl	A	45.000	41.9	249011.4000	231845.8000		-6.9	+/-15

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20210420,8\421D2013.D

Date: 20-APR-2021 17:51

Client ID:

Sample Info: SEQ-ICV3

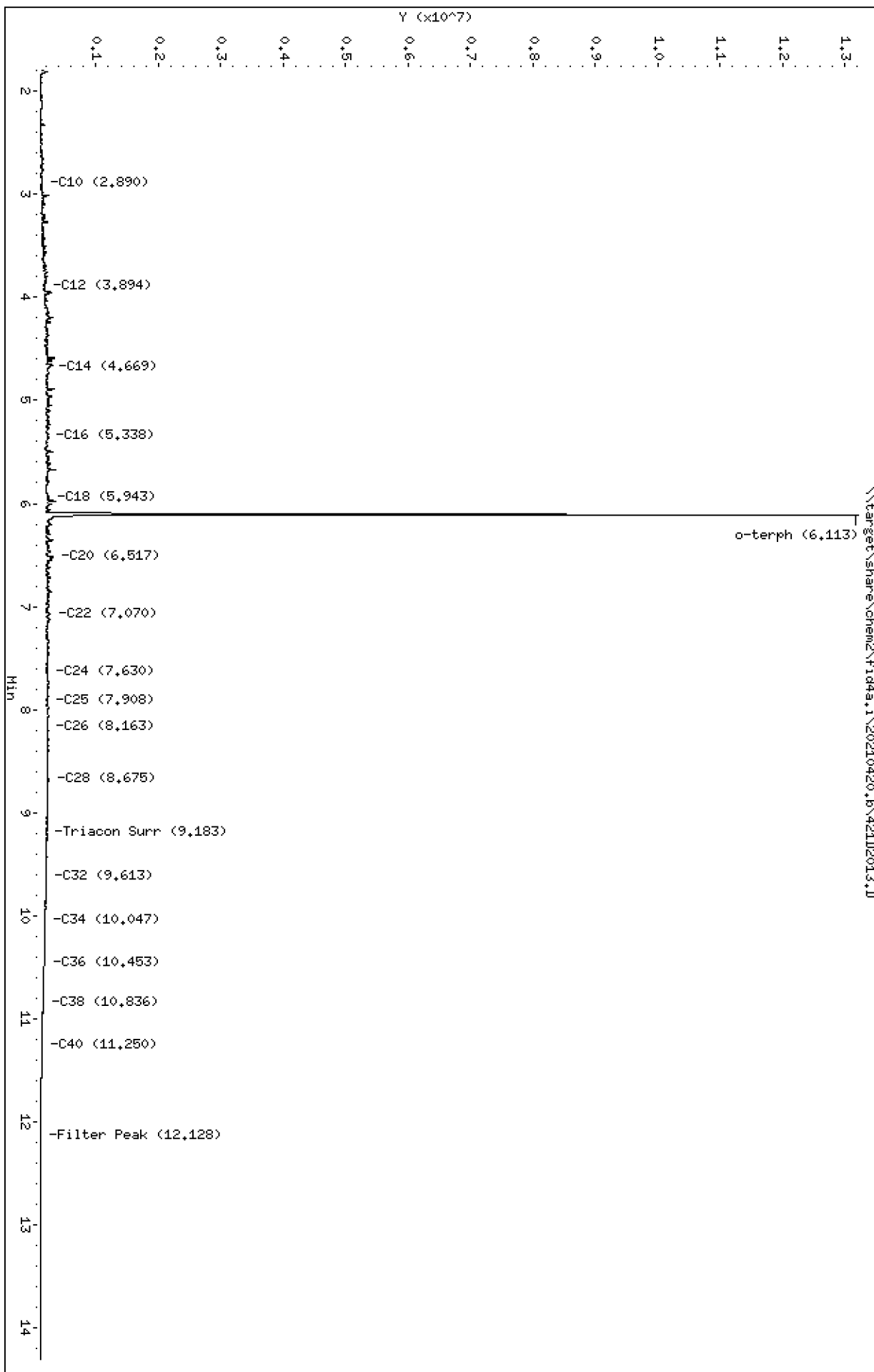
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

Page 1



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210420.b/421D2013.D
Method: 20210420.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/21/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-ICV3
Client ID:
Injection: 20-APR-2021 17:51
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

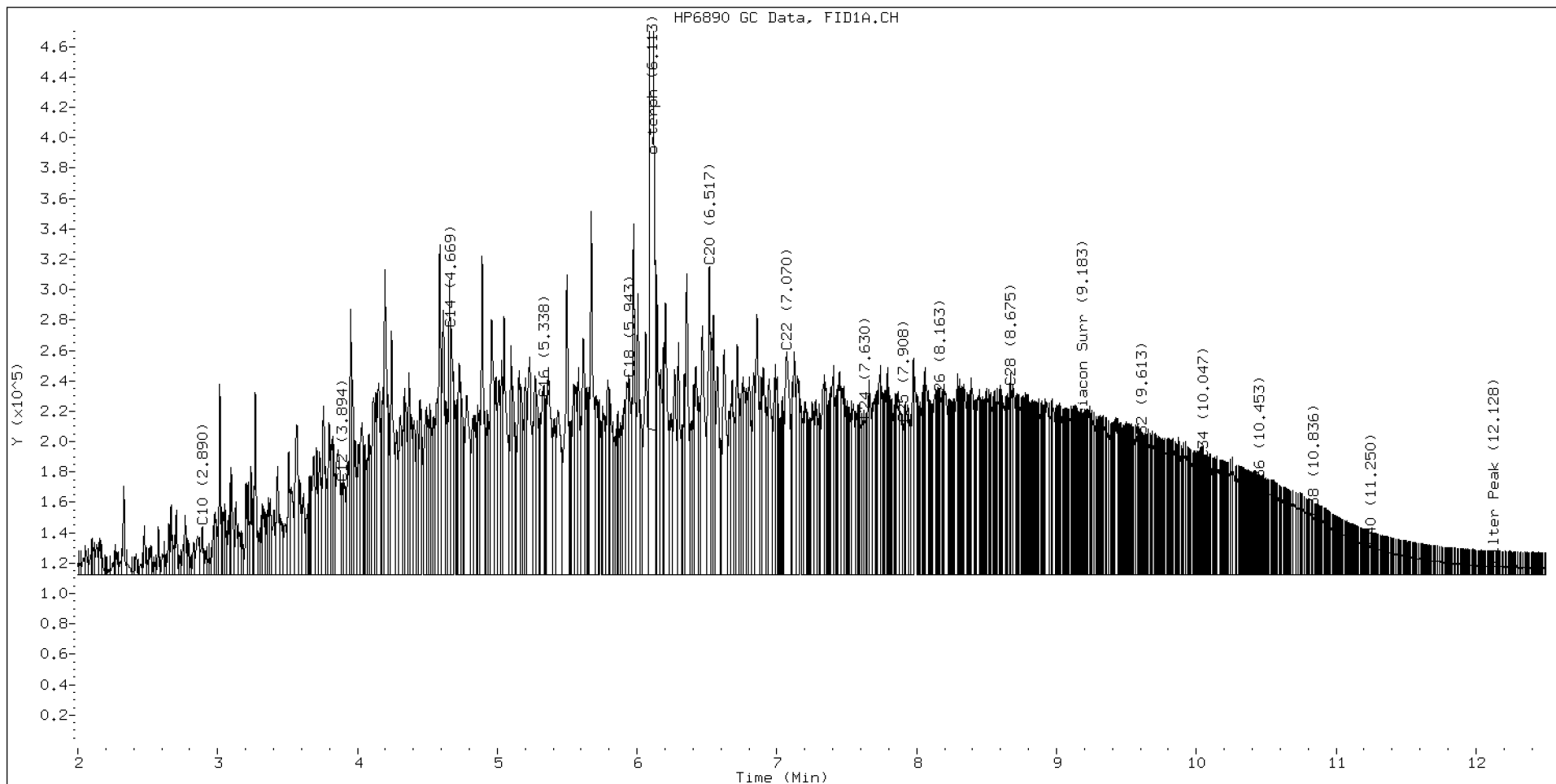
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.618	-0.000	56846	81837	WATPHD	(C12-C24)	24686907	135.0
C10	2.890	0.009	31460	32944	WATPHM	(C24-C38)	16748650	127.4
C12	3.894	0.007	60229	54024	AK102	(C10-C25)	28783068	133.6
C14	4.669	-0.002	162251	193126	AK103	(C25-C36)	14611153	144.6
C16	5.338	-0.003	116117	72644	OR.DIES	(C10-C28)	34465621	175.8
C18	5.943	-0.000	128718	153387				
C20	6.517	0.004	203137	295452	JET-A	(C10-C18)	16273777	111.0
C22	7.070	-0.006	147032	356588				
C24	7.630	-0.000	101705	89852				
C25	7.908	0.007	99410	63450				
C26	8.163	-0.003	113186	39538				
C28	8.675	-0.001	123368	89655				
C32	9.613	-0.003	85304	59072				
C34	10.047	0.002	75936	26390				
Filter Peak	12.128	0.002	5931	1469	BUNKERC	(C10-C38)	44426295	989.6
C36	10.453	0.001	56466	27924				
C38	10.836	-0.003	38070	24375				
C40	11.250	0.007	18675	7354				
o-terph	6.113	-0.009	13005175	10433064				
Triacon Surr	9.183	-0.001	96919	19322	NAS DIES	(C10-C24)	27677645	141.8

Range Times: NW Diesel(3.888 - 7.630) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.68)

Surrogate	Area	Amount
o-Terphenyl	10433064	41.9 M
Triacontane	19322	0.1

M Indicates the peak was manually integrated

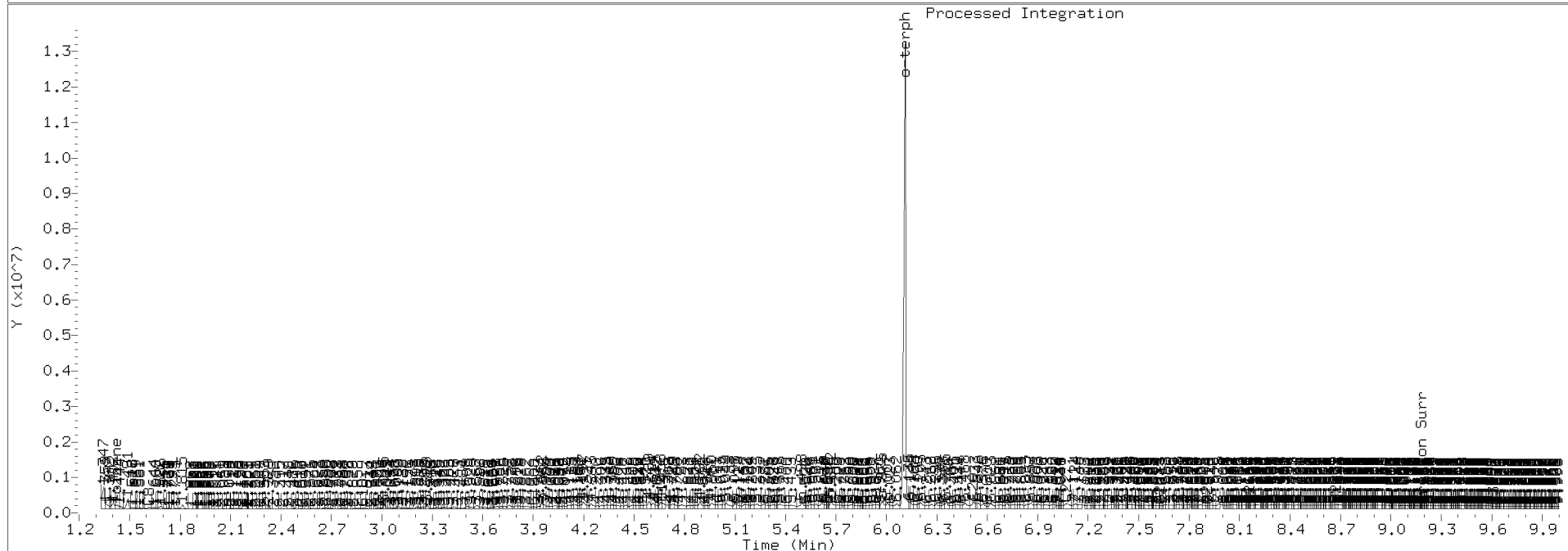
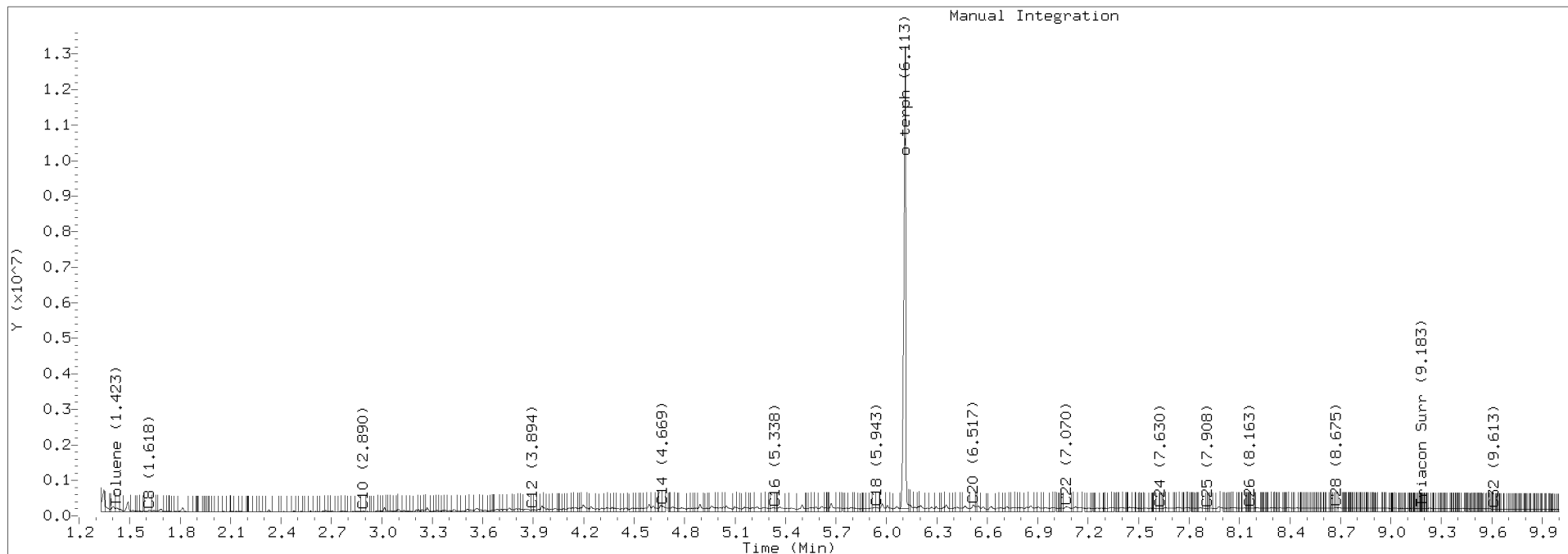
Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021



TPH Manual Integrations Report

Datafile: FID4A, 20210420.b/421D2013.D Injection: 20-APR-2021 17:51

Lab ID:SEQ-ICV3





INITIAL CALIBRATION CHECK

NWTPH-Dx

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>21D0180</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic - US Moorings</u>
Instrument ID:	<u>FID4</u>	Calibration:	<u>ED00037</u>
Lab File ID:	<u>421D2805.D</u>	Calibration Date:	<u>04/13/2021</u>
Sequence:	<u>SJD0413</u>	Injection Date:	<u>04/28/21</u>
Lab Sample ID:	<u>SJD0413-ICV1</u>	Injection Time:	<u>15:48</u>
Sequence Name:	<u>DIESEL ICV</u>		

COMPOUND	TYPE	CONC. (mg/L)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Diesel Range Organics (C12-C24)	A	500.00	472	182831.3000	172658.0000		-5.6	+/-15
o-Terphenyl	A	90.000	84.4	249011.4000	233576.9000		-6.2	+/-15

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20210428,b\421D2805.D

Date : 28-APR-2021 15:48

Client ID:

Sample Info: SEQ-ICV1

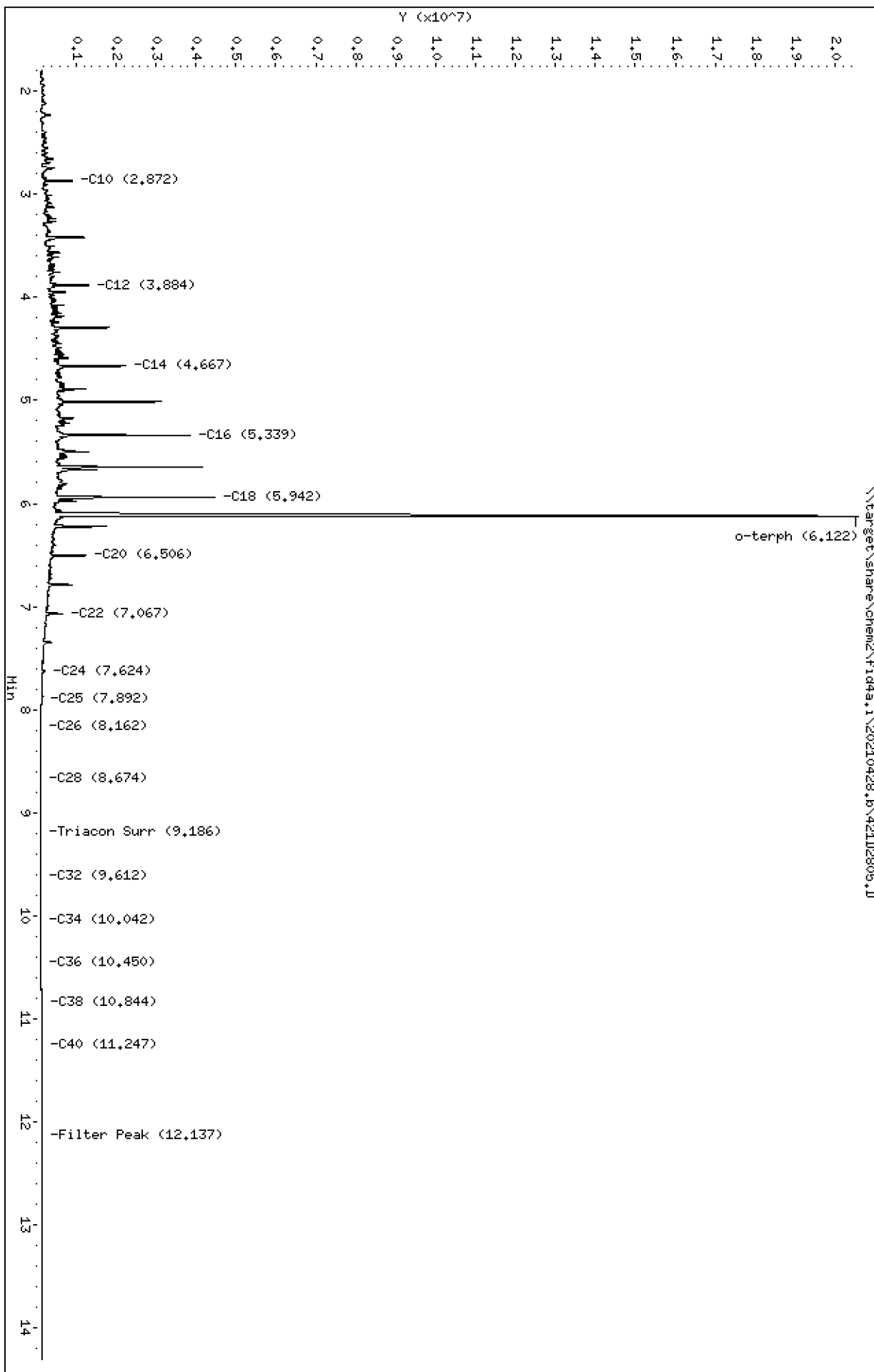
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

Page 1



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210428.b/421D2805.D
Method: 20210428.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/29/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-ICV1
Client ID:
Injection: 28-APR-2021 15:48
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

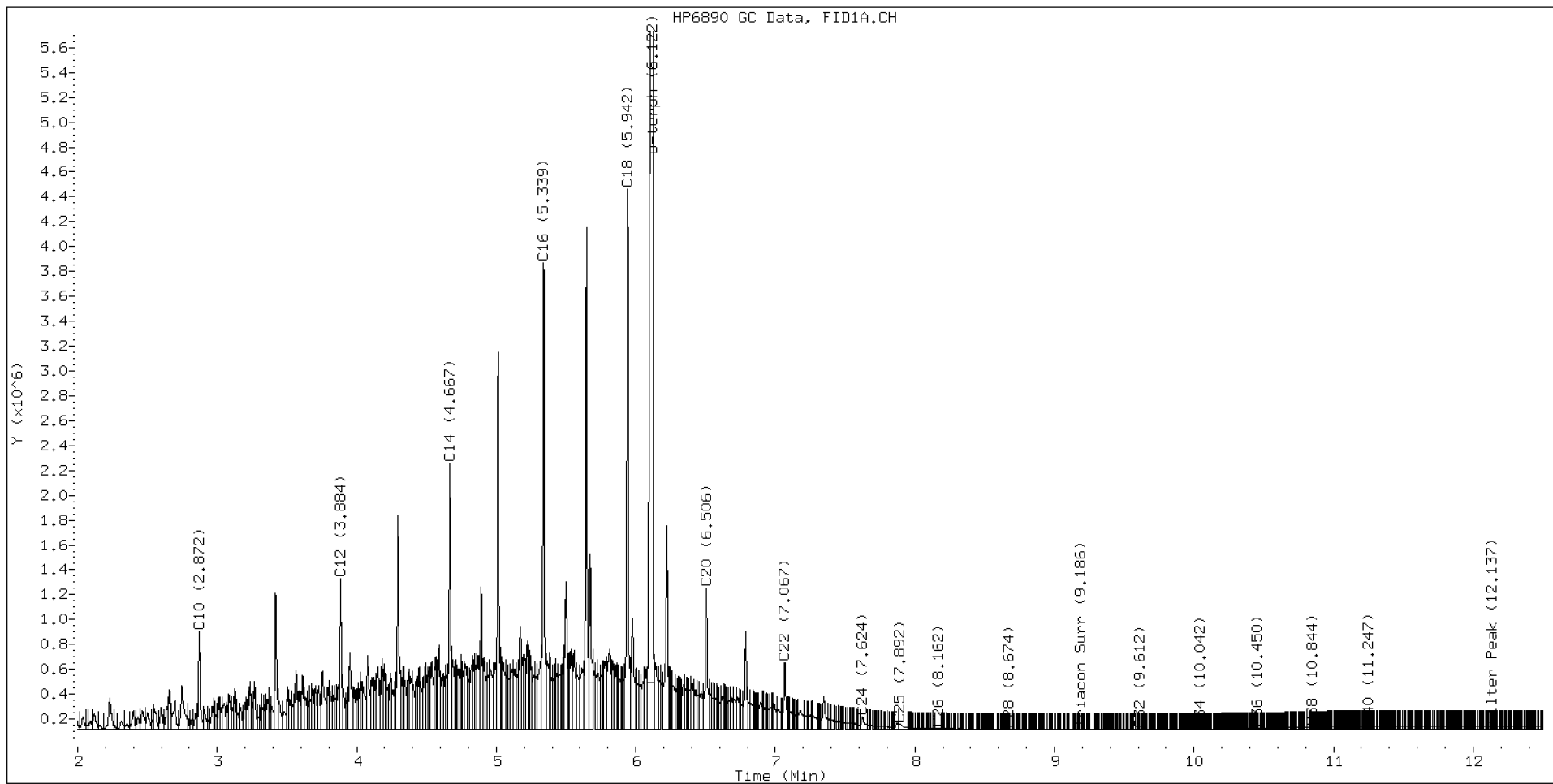
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.580	-0.002	37840	79835	WATPHD	(C12-C24)	86328989	472.2
C10	2.872	-0.004	786870	695687	WATPHM	(C24-C38)	1435590	10.9
C12	3.884	-0.003	1217323	941668	AK102	(C10-C25)	101276361	470.1
C14	4.667	-0.002	2138825	1879554	AK103	(C25-C36)	808219	8.0
C16	5.339	-0.002	3752997	2930144	OR.DIES	(C10-C28)	101758471	519.2
C18	5.942	-0.001	4347773	3747920				
C20	6.506	-0.005	1137748	1300198	JET-A	(C10-C18)	79233577	540.3
C22	7.067	-0.007	536582	606018				
C24	7.624	-0.003	102752	195140				
C25	7.892	-0.007	47553	117556				
C26	8.162	-0.001	14145	30911				
C28	8.674	0.000	2392	797				
C32	9.612	-0.002	1334	386				
C34	10.042	-0.001	4696	1395				
Filter Peak	12.137	-0.002	25931	15475	BUNKERC	(C10-C38)	102480334	2282.8
C36	10.450	-0.002	11299	5027				
C38	10.844	0.003	21258	8450				
C40	11.247	-0.003	25145	11271				
o-terph	6.122	0.002	20086252	21021916				
Triacon Surr	9.186	0.004	959	475	NAS DIES	(C10-C24)	101044744	517.8

Range Times: NW Diesel(3.887 - 7.627) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.67)

Surrogate	Area	Amount
o-Terphenyl	21021916	84.4 M
Triacontane	475	0.0

M Indicates the peak was manually integrated

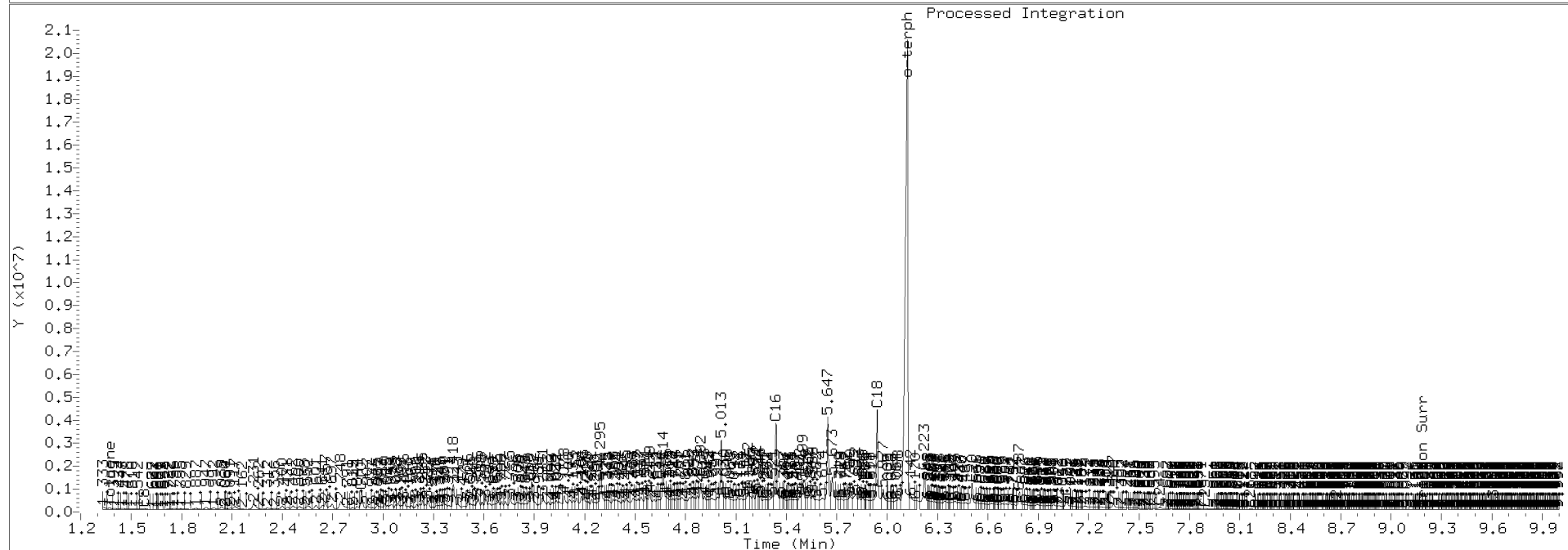
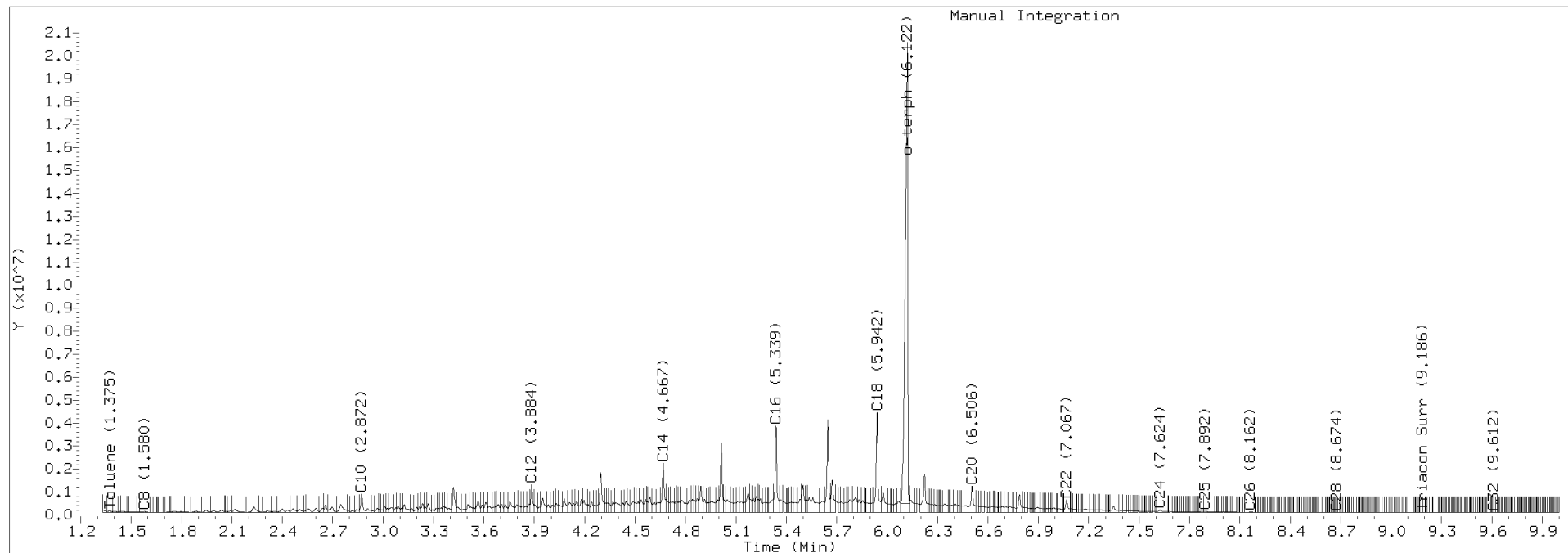
Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021



TPH Manual Integrations Report

Datafile: FID4A, 20210428.b/421D2805.D Injection: 28-APR-2021 15:48

Lab ID:SEQ-ICV1





INITIAL CALIBRATION CHECK

NWTPH-Dx

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>21D0180</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic - US Moorings</u>
Instrument ID:	<u>FID4</u>	Calibration:	<u>ED00037</u>
Lab File ID:	<u>421D2806.D</u>	Calibration Date:	<u>04/13/2021</u>
Sequence:	<u>SJD0413</u>	Injection Date:	<u>04/28/21</u>
Lab Sample ID:	<u>SJD0413-ICV2</u>	Injection Time:	<u>16:09</u>
Sequence Name:	<u>MOIL ICV</u>		

COMPOUND	TYPE	CONC. (mg/L)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Motor Oil Range Organics (C24-C38)	A	1000.0	1040	131440.7000	136892.8000		4.2	+/-15

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20210428_b\421D2806.D

Date: 28-APR-2021 16:09

Client ID:

Sample Info: SEQ-ICV2

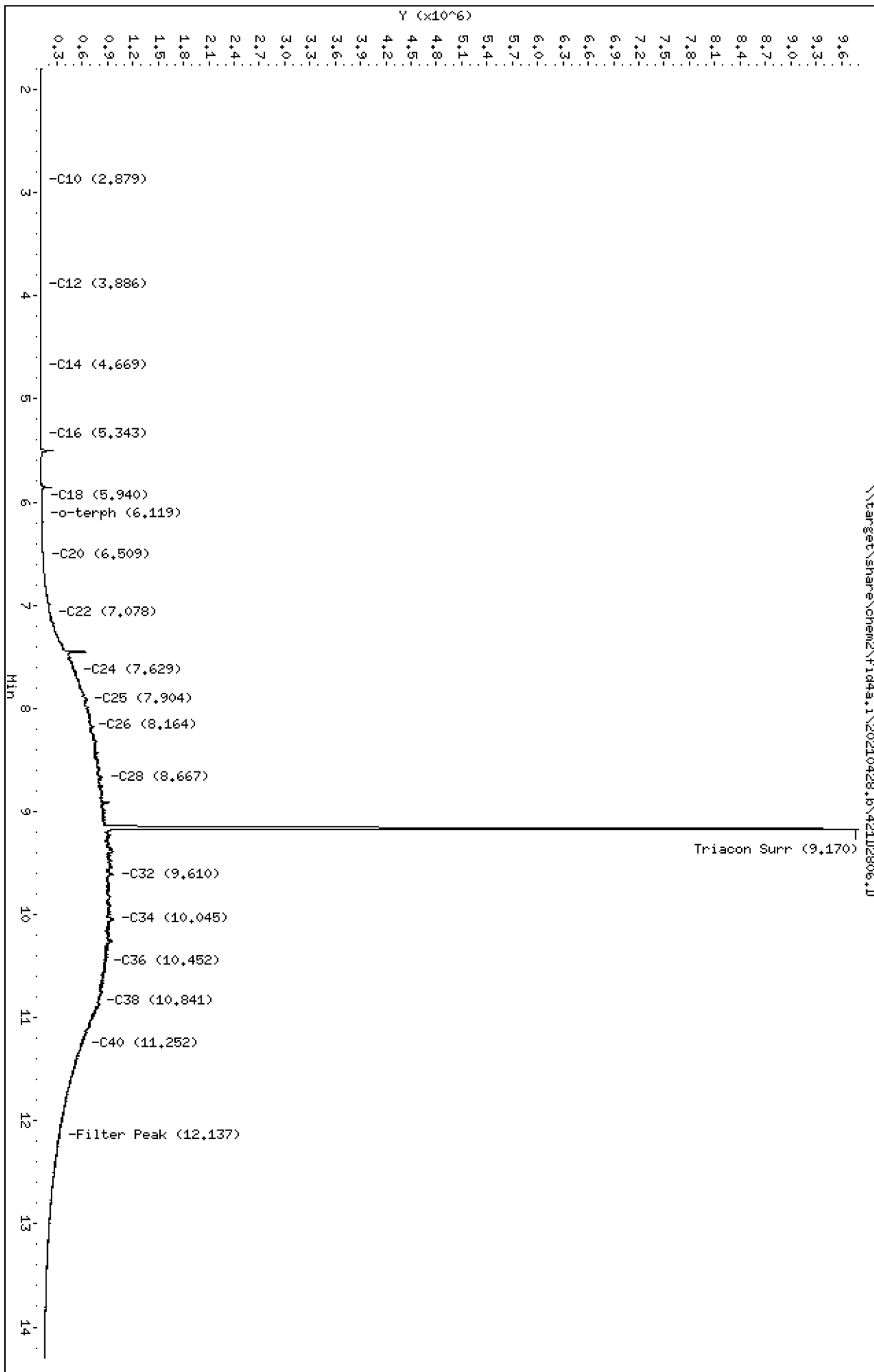
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

\\target\share\chem2\fid4a,1\20210428_b\421D2806.D



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210428.b/421D2806.D
Method: 20210428.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/29/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-ICV2
Client ID:
Injection: 28-APR-2021 16:09
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

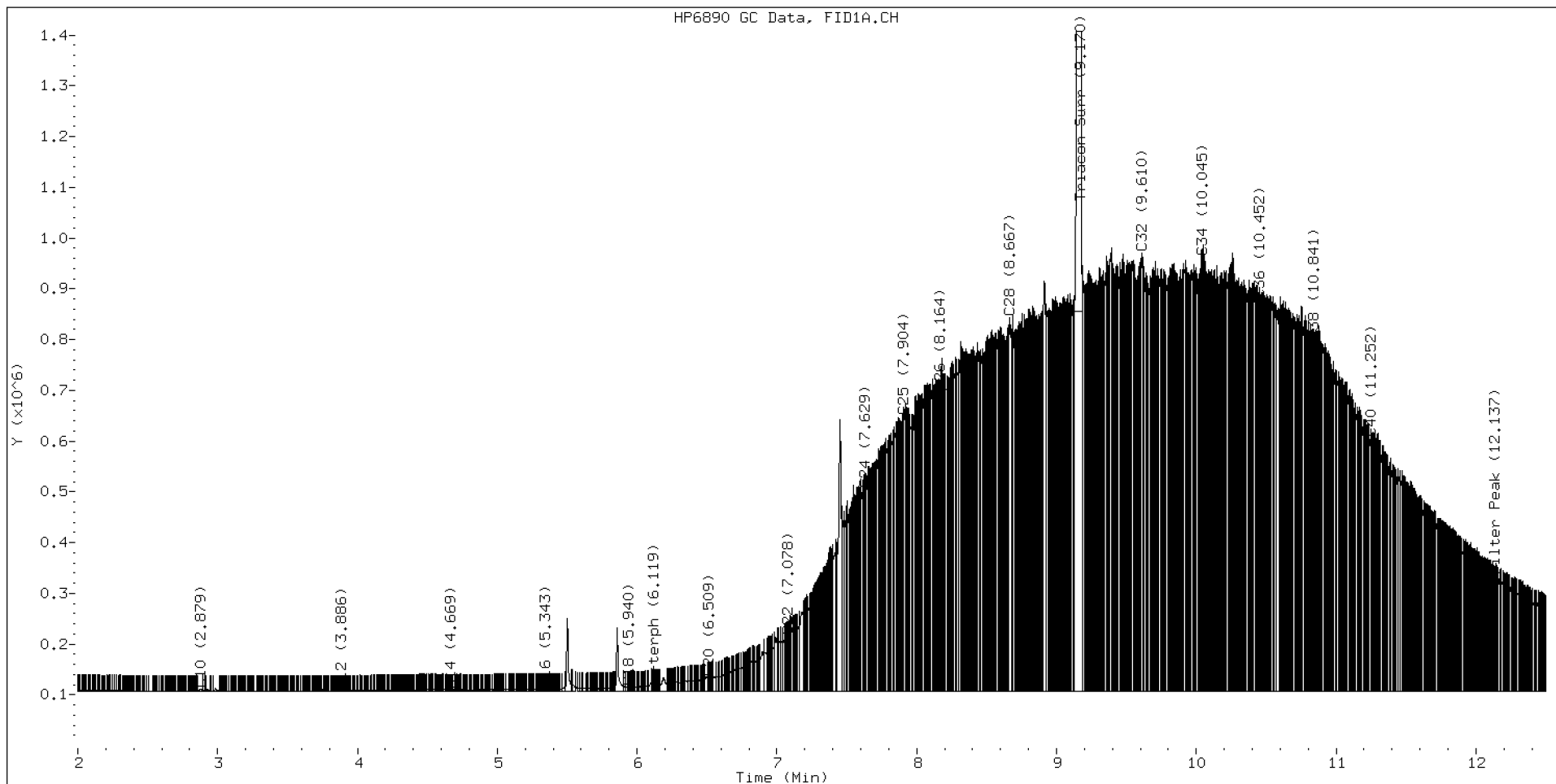
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.585	0.003	10956	4350	WATPHD	(C12-C24)	12554202	68.7
C10	2.879	0.004	5206	6295	WATPHM	(C24-C38)	136892808	1041.5
C12	3.886	-0.001	1112	373	AK102	(C10-C25)	17347979	80.5
C14	4.669	0.000	3367	825	AK103	(C25-C36)	115232473	1140.3
C16	5.343	0.002	4834	2485	OR.DIES	(C10-C28)	49402022	252.1
C18	5.940	-0.002	8730	2165				
C20	6.509	-0.001	27183	9444	JET-A	(C10-C18)	786193	5.4
C22	7.078	0.003	109026	43348				
C24	7.629	0.002	399361	79417				
C25	7.904	0.004	541650	318817				
C26	8.164	0.001	588441	117186				
C28	8.667	-0.007	737581	748677				
C32	9.610	-0.003	863828	675214				
C34	10.045	0.002	855170	212423				
Filter Peak	12.137	-0.002	225464	100070	BUNKERC	(C10-C38)	149512986	3330.5
C36	10.452	-0.000	771846	192033				
C38	10.841	-0.000	688859	171342				
C40	11.252	0.002	499496	293347				
o-terph	6.119	-0.000	12241	4808				
Triacon Surr	9.170	-0.011	8946814	9162809	NAS DIES	(C10-C24)	12620178	64.7

Range Times: NW Diesel(3.887 - 7.627) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.67)

Surrogate	Area	Amount
o-Terphenyl	4808	0.0
Triacontane	9162809	43.3 M

M Indicates the peak was manually integrated

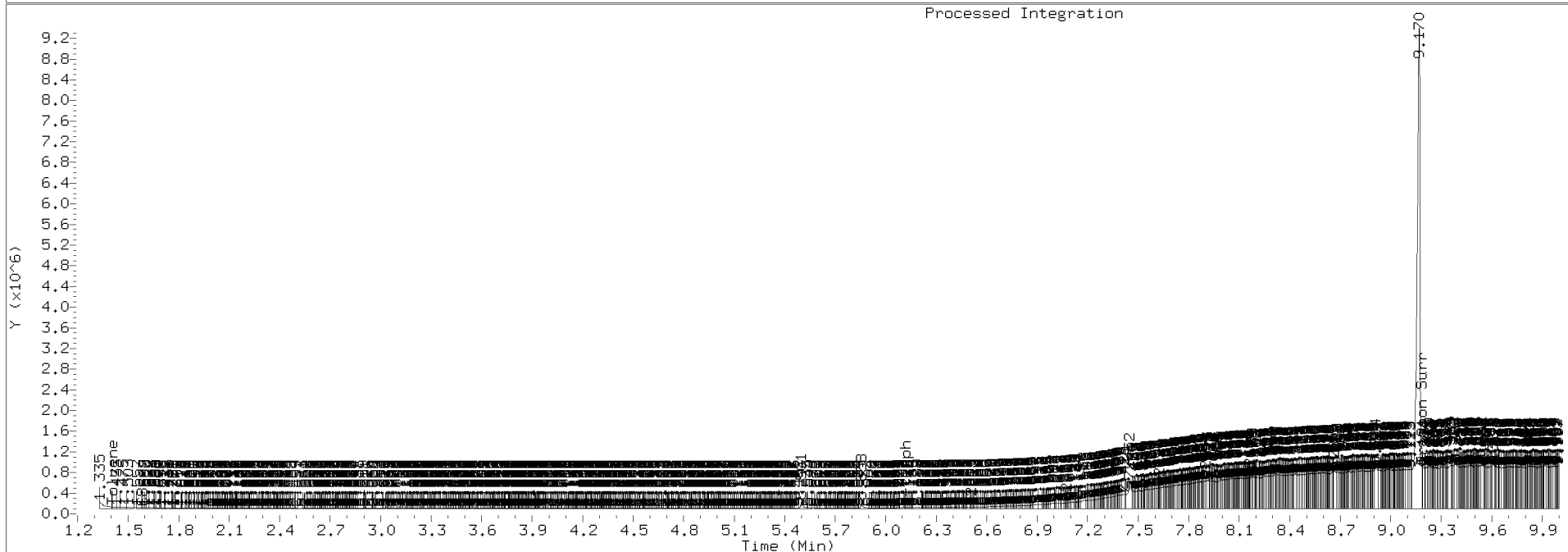
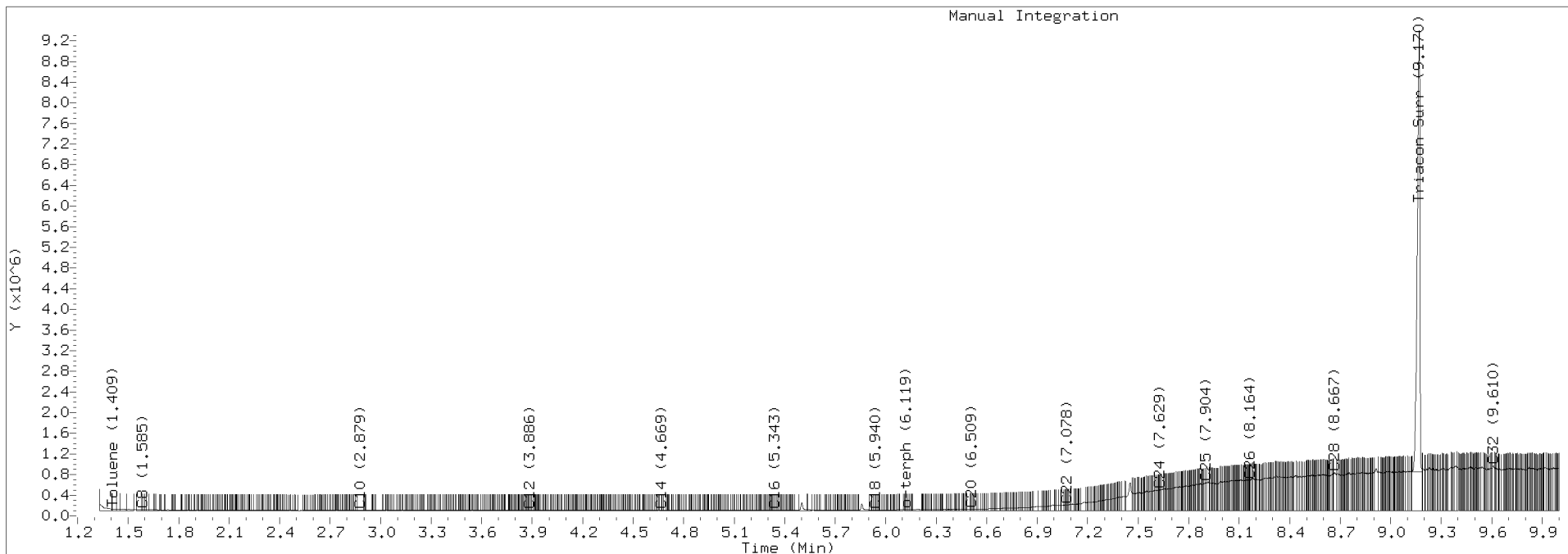
Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021



TPH Manual Integrations Report

Datafile: FID4A, 20210428.b/421D2806.D Injection: 28-APR-2021 16:09

Lab ID:SEQ-ICV2





**SECOND-SOURCE
CONTINUING CALIBRATION CHECK
NWTPH-Dx**

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>21D0180</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic - US Moorings</u>
Instrument ID:	<u>FID4</u>	Calibration:	<u>ED00037</u>
Lab File ID:	<u>421D1315.D</u>	Calibration Date:	<u>04/13/2021</u>
Sequence:	<u>SJD0189</u>	Injection Date:	<u>04/13/21</u>
Lab Sample ID:	<u>SJD0189-SCV1</u>	Injection Time:	<u>15:37</u>
Sequence Name:	<u>DIESEL SCV</u>		

COMPOUND	TYPE	CONC. (mg/L)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Diesel Range Organics (C12-C24)	A	500.00	492	182831.3	179727.9		-1.7	+/-30

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20210413,8\421D1315.D

Date: 13-APR-2021 15:37

Client ID:

Sample Info: SEQ-SCV1

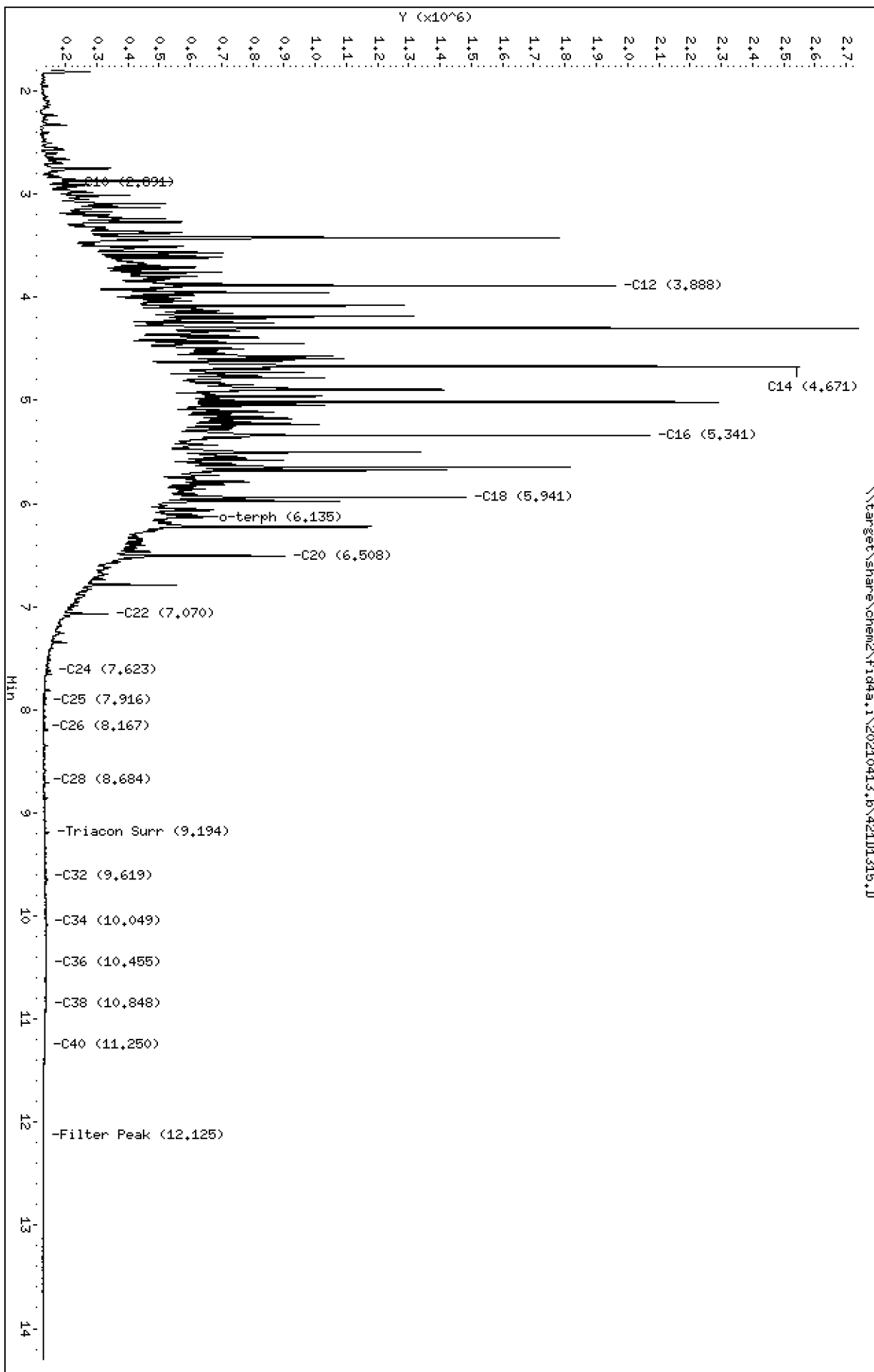
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

Page 1



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210413.b/421D1315.D
Method: 20210413.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/14/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-SCV1
Client ID:
Injection: 13-APR-2021 15:37
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

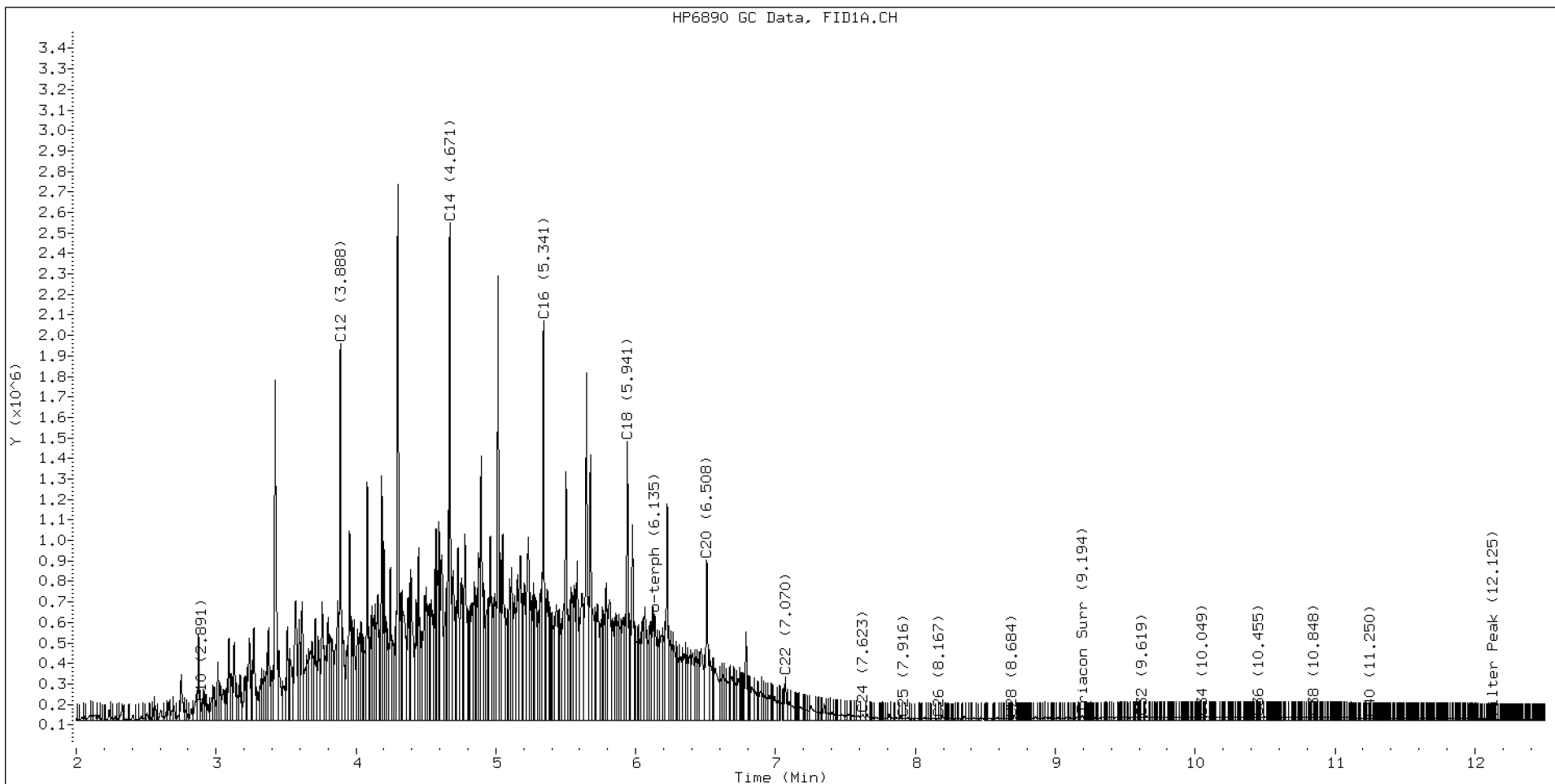
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.643	0.008	54603	64091	WATPHD	(C12-C24)	89863949	491.5
C10	2.891	0.001	88521	60047	WATPHM	(C24-C38)	2579689	19.6
C12	3.888	-0.007	1839965	1228653	AK102	(C10-C25)	107410855	498.6
C14	4.671	-0.006	2430486	1810508	AK103	(C25-C36)	2086166	20.6
C16	5.341	-0.007	1950234	1476241	OR.DIES	(C10-C28)	107974378	550.9
C18	5.941	-0.008	1361376	1097598				
C20	6.508	-0.009	783405	864803	JET-A	(C10-C18)	89494855	610.3
C22	7.070	-0.012	216300	223341				
C24	7.623	-0.012	29214	46183				
C25	7.916	0.008	13547	12777				
C26	8.167	-0.005	8723	1733				
C28	8.684	0.003	11097	3231				
C32	9.619	-0.004	16094	18913				
C34	10.049	-0.003	16451	8995				
Filter Peak	12.125	0.003	8610	2562	CREOSOT	(C12-C22)	88684804	8332.6
C36	10.455	-0.004	16099	8787				
C38	10.848	0.002	15723	4681				
C40	11.250	-0.002	12238	2441				
o-terph	6.135	0.005	518842	594571				
Triacon Surr	9.194	0.000	24981	26960	NAS DIES	(C10-C24)	107276298	549.7

Range Times: NW Diesel(3.894 - 7.635) AK102(2.89 - 7.91) Jet A(2.89 - 5.95)
NW M.Oil(7.64 - 10.85) AK103(7.91 - 10.46) OR Diesel(2.89 - 8.68)

Surrogate	Area	Amount
o-Terphenyl	594571	2.4
Triacontane	26960	0.1

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	10643.2	30-MAR-2020



Data File: \\target\share\chem2\fid4a,1\20210413,8\421D1322.D

Date: 13-APR-2021 18:07

Client ID:

Sample Info: SEQ-SCV2

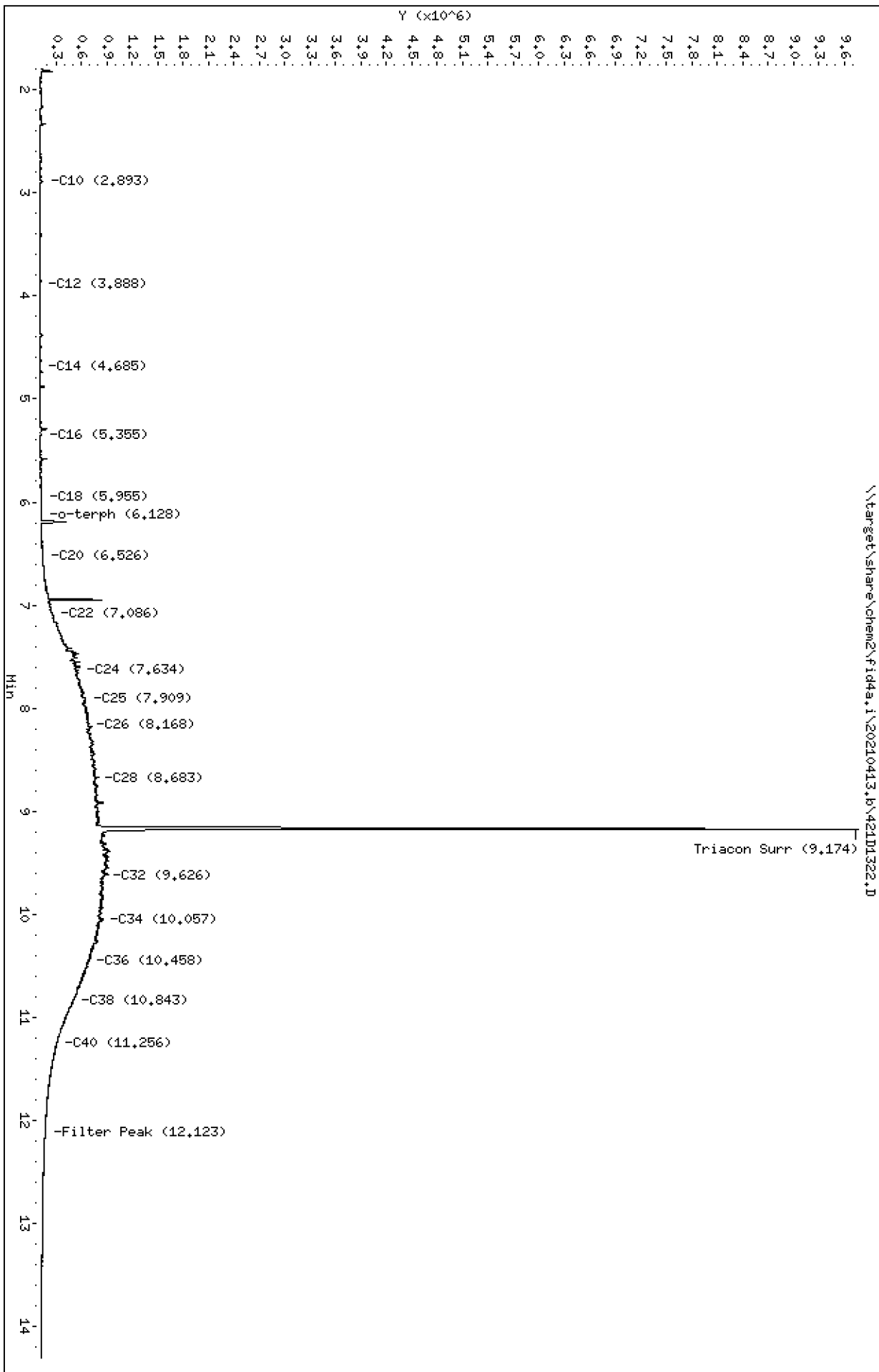
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210413.b/421D1322.D
Method: 20210413.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/14/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-SCV2
Client ID:
Injection: 13-APR-2021 18:07
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

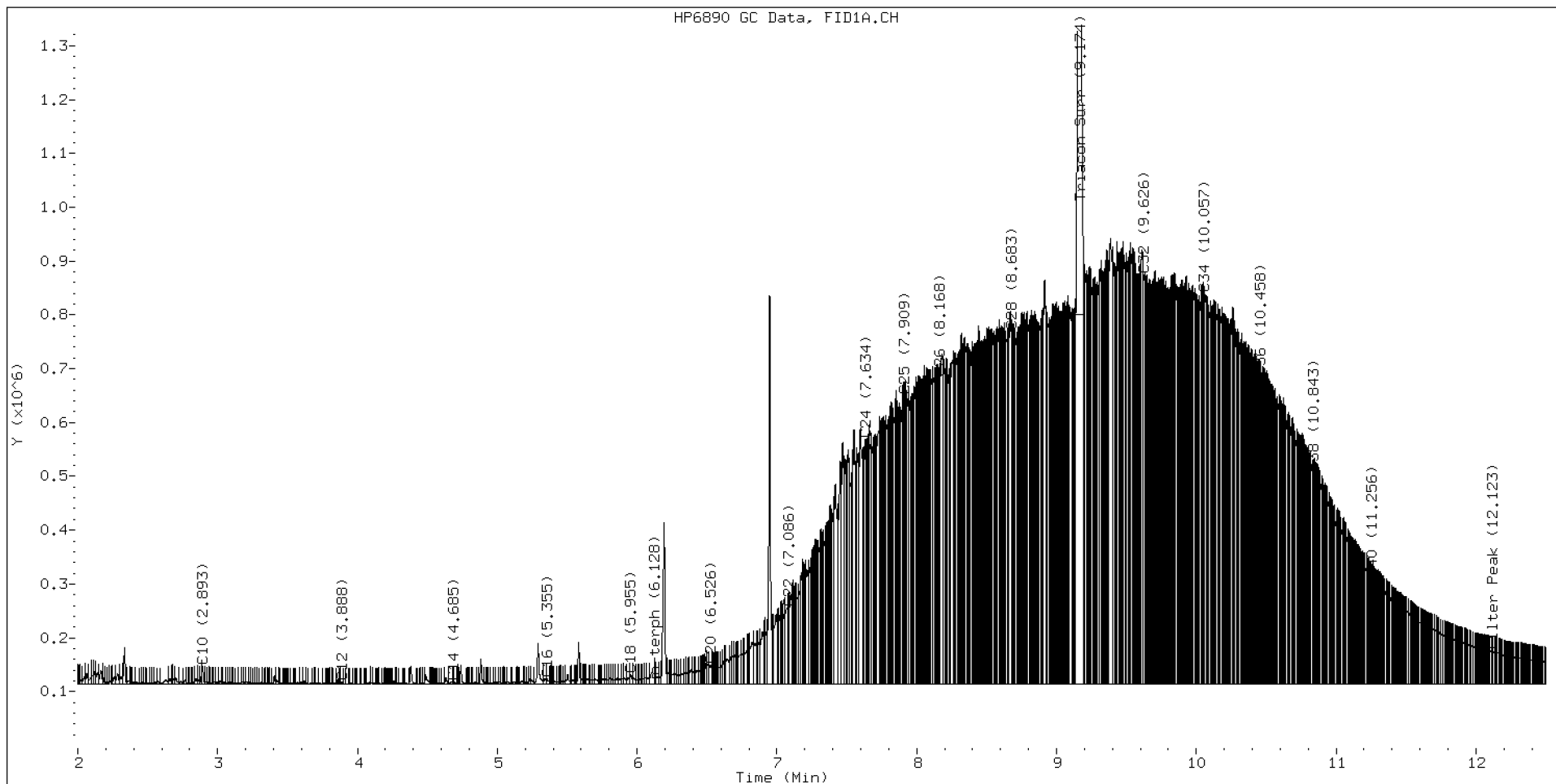
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.626	-0.008	65747	96813	WATPHD	(C12-C24)	15532252	85.0
C10	2.893	0.003	32970	23142	WATPHM	(C24-C38)	120611856	917.6
C12	3.888	-0.006	5389	3628	AK102	(C10-C25)	20669789	96.0
C14	4.685	0.008	3945	1476	AK103	(C25-C36)	105207415	1041.1
C16	5.355	0.007	9584	10953	OR.DIES	(C10-C28)	51331560	261.9
C18	5.955	0.006	19031	17530				
C20	6.526	0.009	34956	39910	JET-A	(C10-C18)	962360	6.6
C22	7.086	0.004	142736	70767				
C24	7.634	-0.001	455529	454995				
C25	7.909	0.002	536300	187150				
C26	8.168	-0.004	569572	113374				
C28	8.683	0.001	657302	357915				
C32	9.626	0.003	760723	638055				
C34	10.057	0.005	726792	323841				
Filter Peak	12.123	0.002	60871	41807	CREOSOT	(C12-C22)	4882924	458.8
C36	10.458	-0.002	571891	252641				
C38	10.843	-0.003	392748	215443				
C40	11.256	0.004	196755	78044				
o-terph	6.128	-0.002	13513	9103				
Triacon Surr	9.174	-0.019	8966637	9459500	NAS DIES	(C10-C24)	15747411	80.7

Range Times: NW Diesel(3.894 - 7.635) AK102(2.89 - 7.91) Jet A(2.89 - 5.95)
NW M.Oil(7.64 - 10.85) AK103(7.91 - 10.46) OR Diesel(2.89 - 8.68)

Surrogate	Area	Amount
o-Terphenyl	9103	0.0
Triacontane	9459500	44.7 M

M Indicates the peak was manually integrated

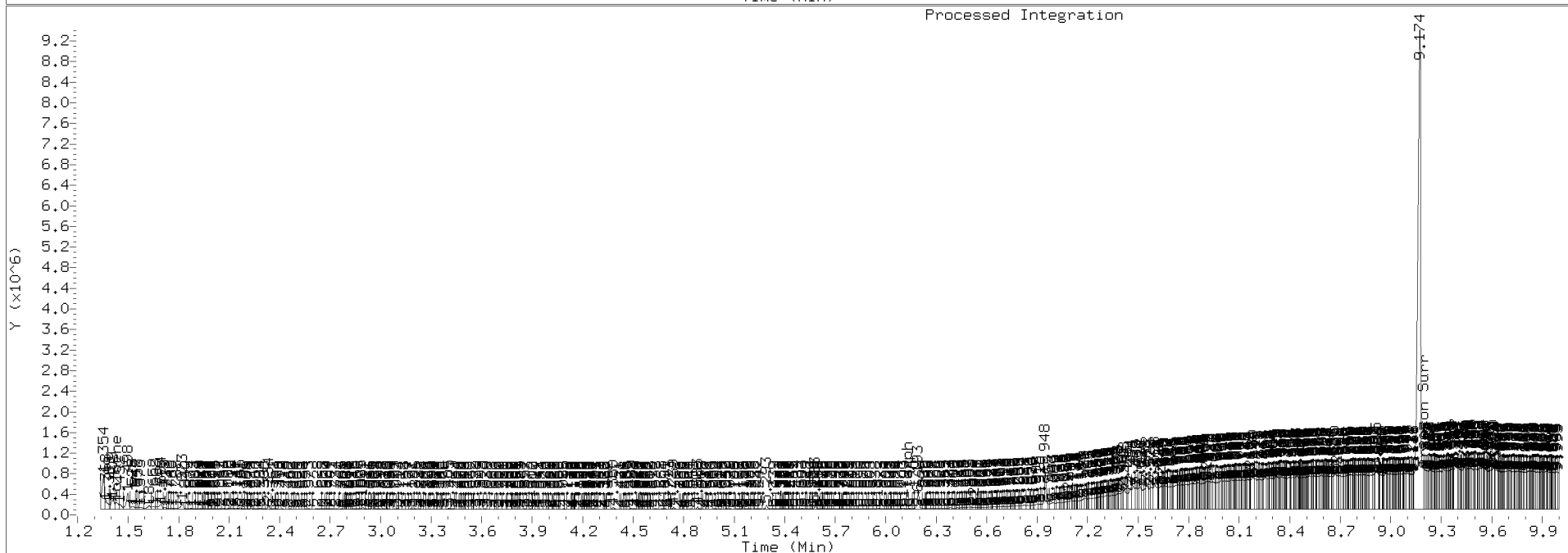
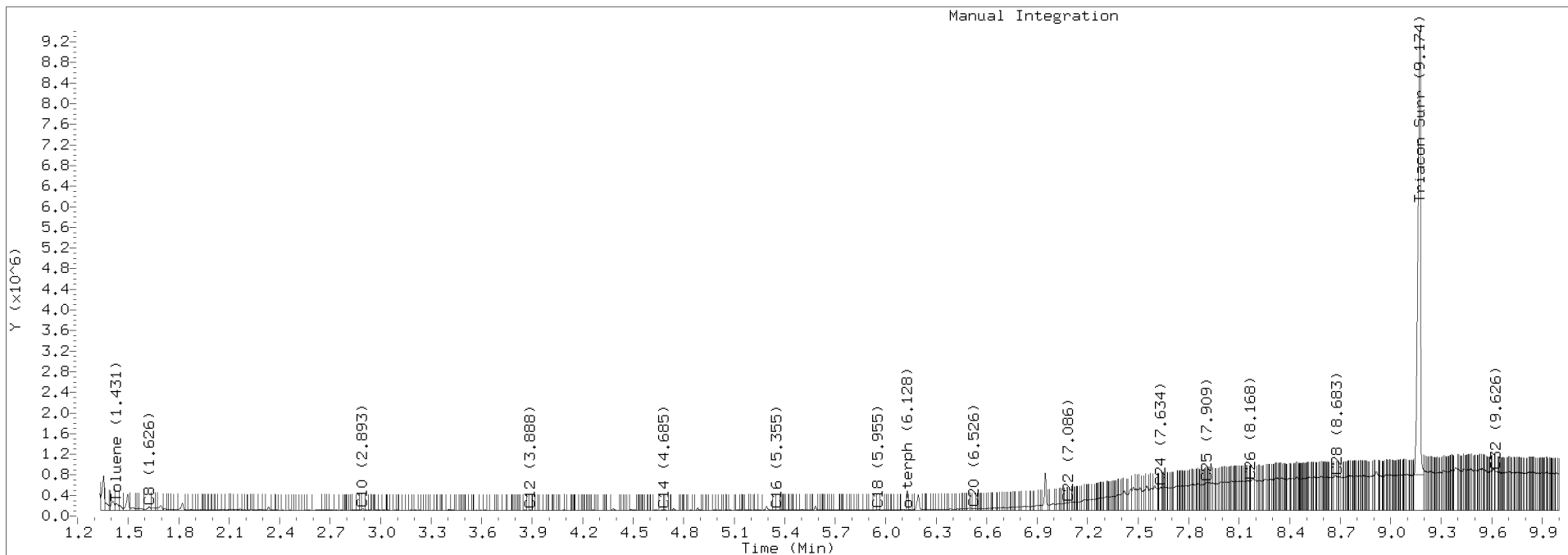
Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	10643.2	30-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20210413.b/421D1322.D Injection: 13-APR-2021 18:07

Lab ID:SEQ-SCV2





CONTINUING CALIBRATION CHECK

NWTPH-Dx

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>21D0180</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic - US Moorings</u>
Instrument ID: <u>FID4</u>	Calibration: <u>ED00037</u>
Lab File ID: <u>421D1577.D</u>	Calibration Date: <u>04/13/2021</u>
Sequence: <u>SJD0260</u>	Injection Date: <u>04/16/21</u>
Lab Sample ID: <u>SJD0260-CCV1</u>	Injection Time: <u>11:57</u>
Sequence Name: <u>DIESEL CCV</u>	

COMPOUND	TYPE	CONC. (mg/L)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Diesel Range Organics (C12-C24)	A	500.00	515	182831.3	188269		3.0	+/-15
o-Terphenyl	A	90.000	90.2	249011.4	249451.7		0.2	+/-15

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20210415b,b\421D1577.D

Date: 16-APR-2021 11:57

Client ID:

Sample Info: SEQ-CCV1

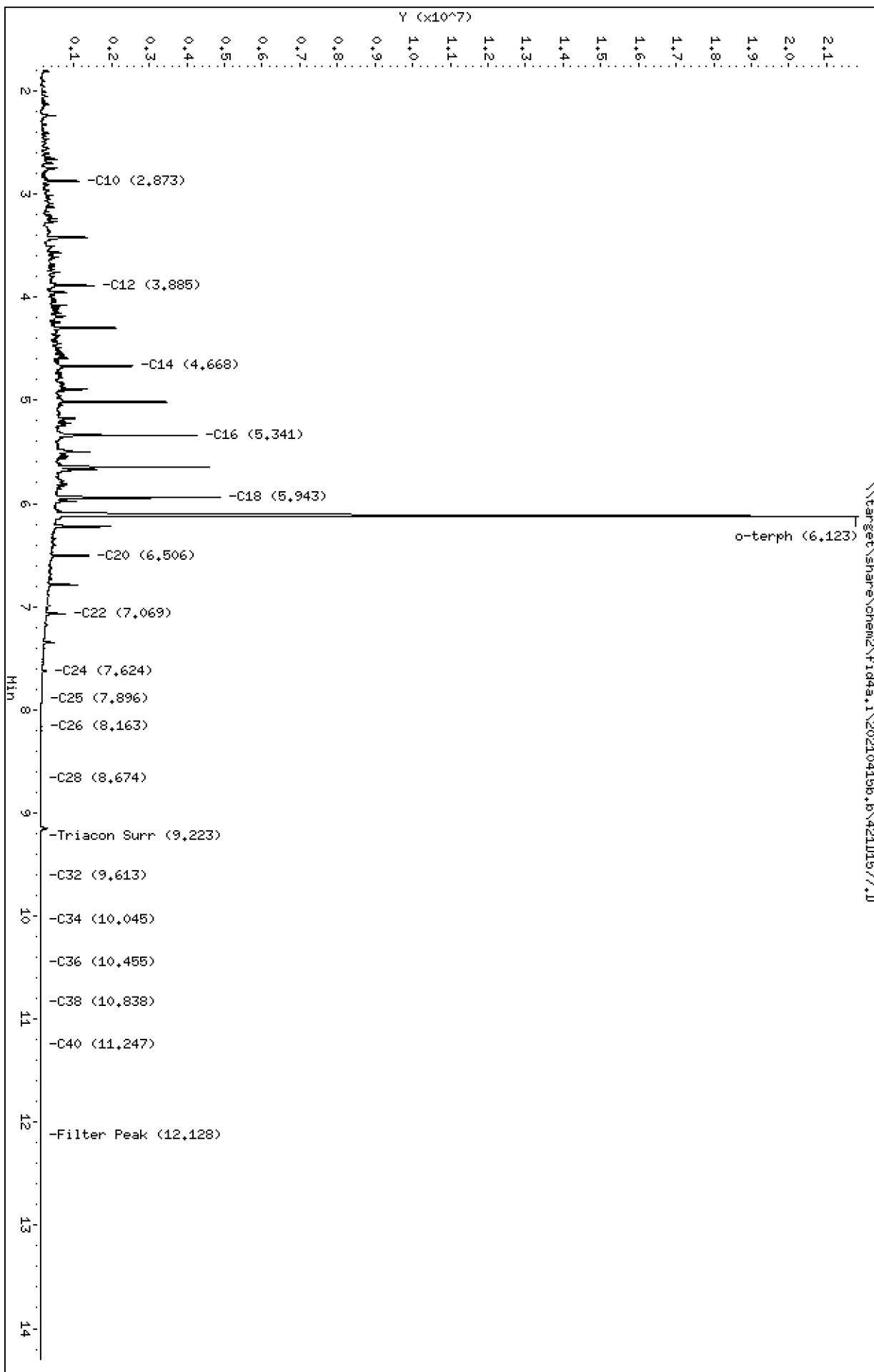
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

Page 1



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210415b.b/421D1577.D
Method: 20210415b.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/19/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-CCV1
Client ID:
Injection: 16-APR-2021 11:57
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

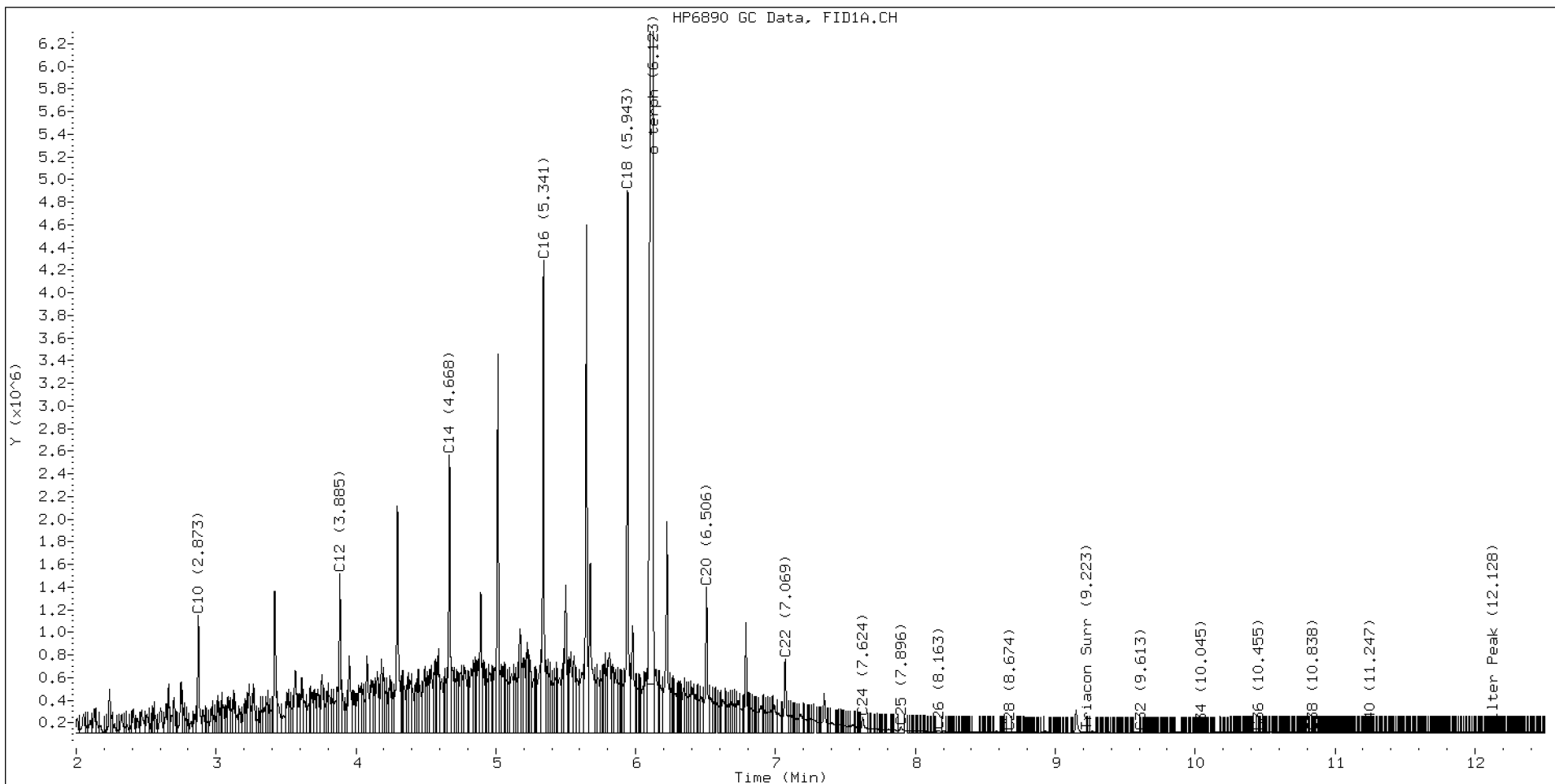
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.612	0.001	114564	177969	WATPHD	(C12-C24)	94134493	514.9
C10	2.873	-0.006	1034638	810602	WATPHM	(C24-C38)	1468613	11.2
C12	3.885	-0.003	1407224	1128460	AK102	(C10-C25)	111146558	515.9
C14	4.668	-0.003	2455286	2074212	AK103	(C25-C36)	1060863	10.5
C16	5.341	-0.002	4174787	3340301	OR.DIES	(C10-C28)	111641998	569.6
C18	5.943	-0.003	4791783	4018537				
C20	6.506	-0.008	1290571	1389200	JET-A	(C10-C18)	87086990	593.8
C22	7.069	-0.009	655790	684291				
C24	7.624	-0.007	140932	208203				
C25	7.896	-0.006	50322	85262				
C26	8.163	-0.004	20433	37327				
C28	8.674	-0.002	6930	11139				
C32	9.613	-0.003	3397	2064				
C34	10.045	-0.001	2956	864				
Filter Peak	12.128	0.002	7502	2589	CREOSOT	(C12-C22)	91360417	2341.6
C36	10.455	0.001	4121	612				
C38	10.838	-0.001	5509	2412				
C40	11.247	-0.000	7077	2460				
o-terph	6.123	-0.000	21299849	22450648				
Triacon Surr	9.223	0.037	4283	3481	NAS DIES	(C10-C24)	110846579	568.0

Range Times: NW Diesel(3.888 - 7.631) AK102(2.88 - 7.90) Jet A(2.88 - 5.95)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.68)

Surrogate	Area	Amount
o-Terphenyl	22450648	90.2 M
Triacontane	3481	0.0

M Indicates the peak was manually integrated

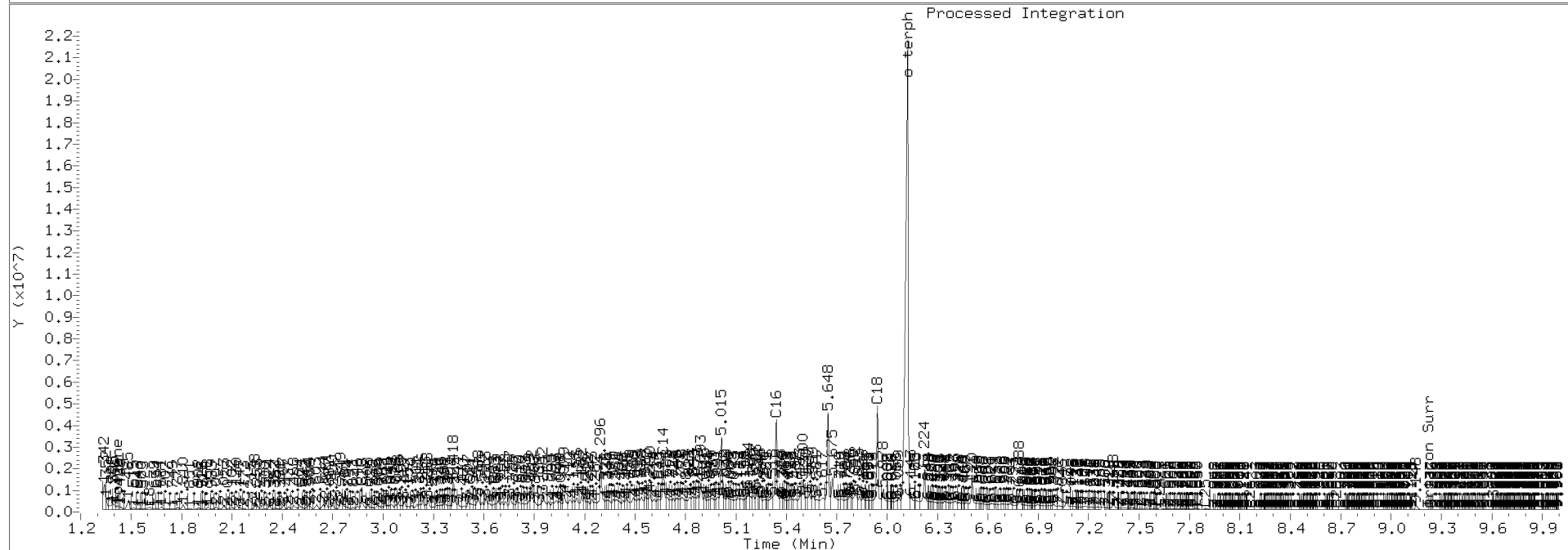
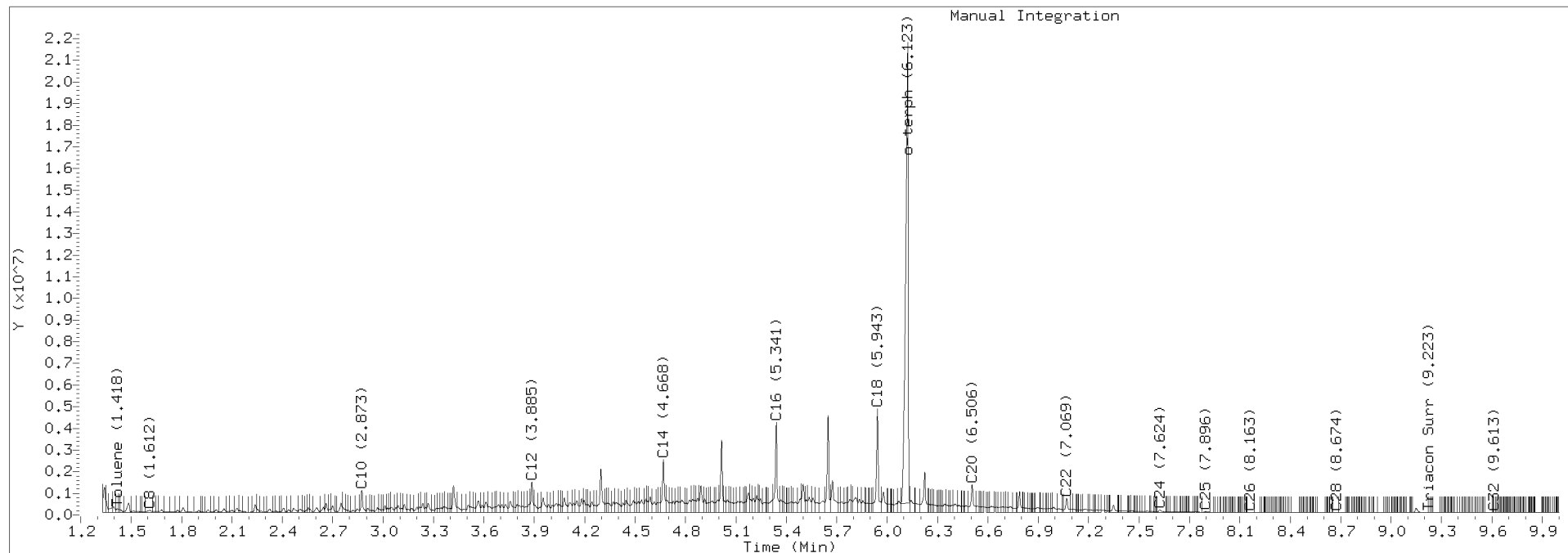
Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	39015.8	30-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20210415b.b/421D1577.D Injection: 16-APR-2021 11:57

Lab ID:SEQ-CCV1





CONTINUING CALIBRATION CHECK

NWTPH-Dx

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>21D0180</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic - US Moorings</u>
Instrument ID: <u>FID4</u>	Calibration: <u>ED00037</u>
Lab File ID: <u>421D2029.D</u>	Calibration Date: <u>04/13/2021</u>
Sequence: <u>SJD0282</u>	Injection Date: <u>04/21/21</u>
Lab Sample ID: <u>SJD0282-CCV1</u>	Injection Time: <u>23:31</u>
Sequence Name: <u>DIESEL CCV</u>	

COMPOUND	TYPE	CONC. (mg/L)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Diesel Range Organics (C12-C24)	A	500.00	482	182831.3	176249.6		-3.6	+/-15
o-Terphenyl	A	90.000	84.8	249011.4	234688.2		-5.8	+/-15

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20210420,b\421D2029.D

Date: 21-APR-2021 23:31

Client ID:

Sample Info: SEQ-CV1

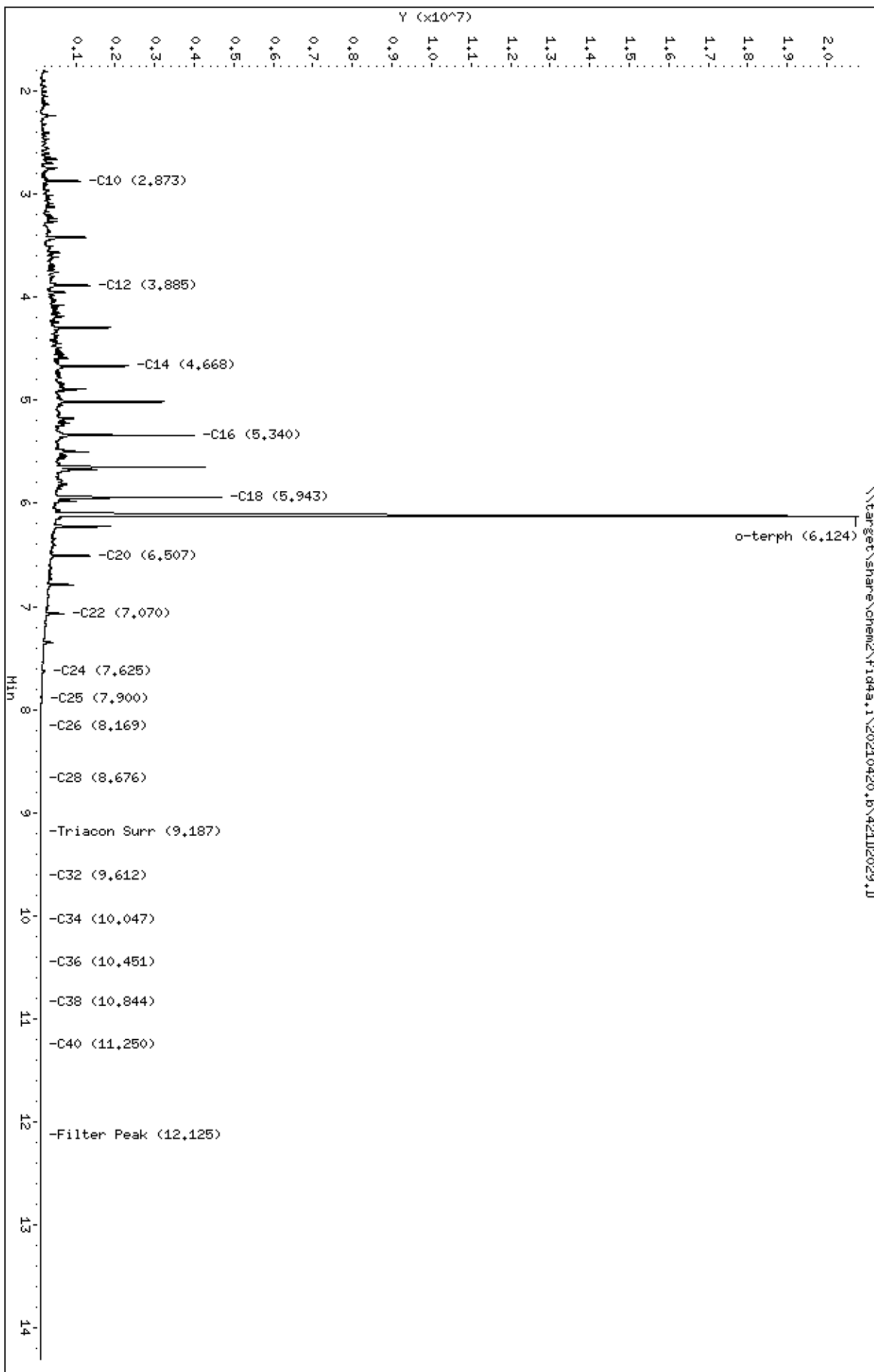
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

Page 1



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210420.b/421D2029.D
Method: 20210420.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/21/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-CCV1
Client ID:
Injection: 21-APR-2021 23:31
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

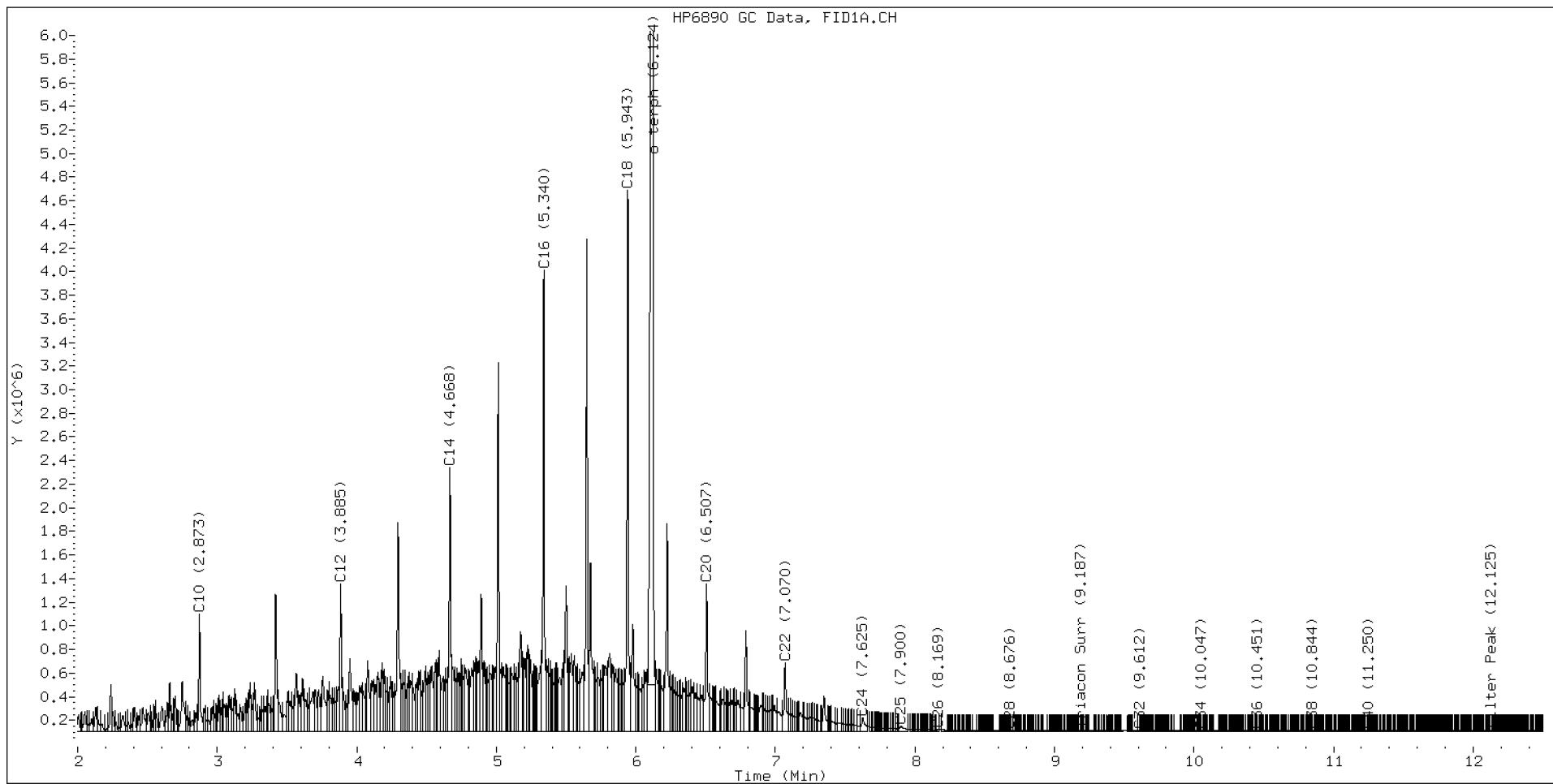
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.613	-0.005	93917	105034	WATPHD	(C12-C24)	88124796	482.0
C10	2.873	-0.008	994047	753291	WATPHM	(C24-C38)	787518	6.0
C12	3.885	-0.003	1243946	1041847	AK102	(C10-C25)	103702663	481.4
C14	4.668	-0.003	2230259	1918845	AK103	(C25-C36)	492064	4.9
C16	5.340	-0.001	3899335	3006283	OR.DIES	(C10-C28)	104099901	531.1
C18	5.943	-0.001	4581380	3772430				
C20	6.507	-0.006	1249279	1279848	JET-A	(C10-C18)	80822380	551.1
C22	7.070	-0.006	576910	673910				
C24	7.625	-0.005	107559	187239				
C25	7.900	-0.001	36739	96562				
C26	8.169	0.003	13760	17559				
C28	8.676	0.000	2645	896				
C32	9.612	-0.003	619	294				
C34	10.047	0.002	735	225				
Filter Peak	12.125	-0.001	4128	2803	BUNKERC	(C10-C38)	104238929	2322.0
C36	10.451	-0.001	1377	390				
C38	10.844	0.004	2337	462				
C40	11.250	0.007	3571	2254				
o-terph	6.124	0.002	20299823	21121939				
Triacon Surr	9.187	0.003	1352	576	NAS DIES	(C10-C24)	103451411	530.1

Range Times: NW Diesel(3.888 - 7.630) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.68)

Surrogate	Area	Amount
o-Terphenyl	21121939	84.8 M
Triacontane	576	0.0

M Indicates the peak was manually integrated

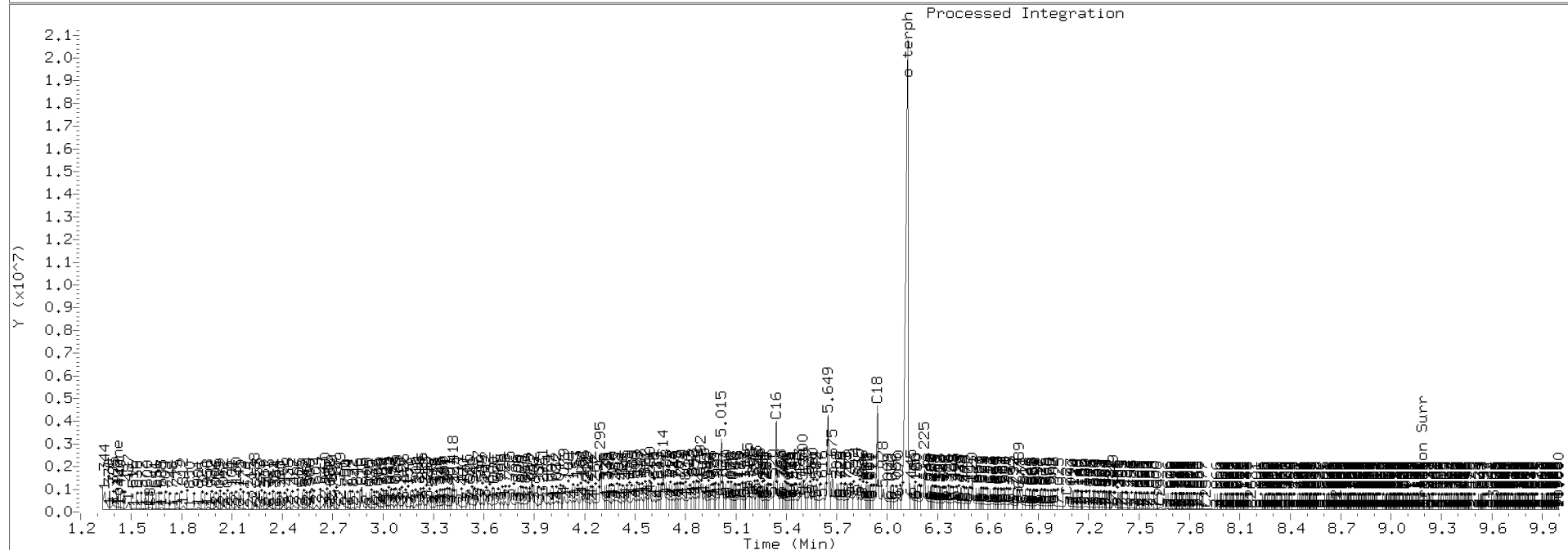
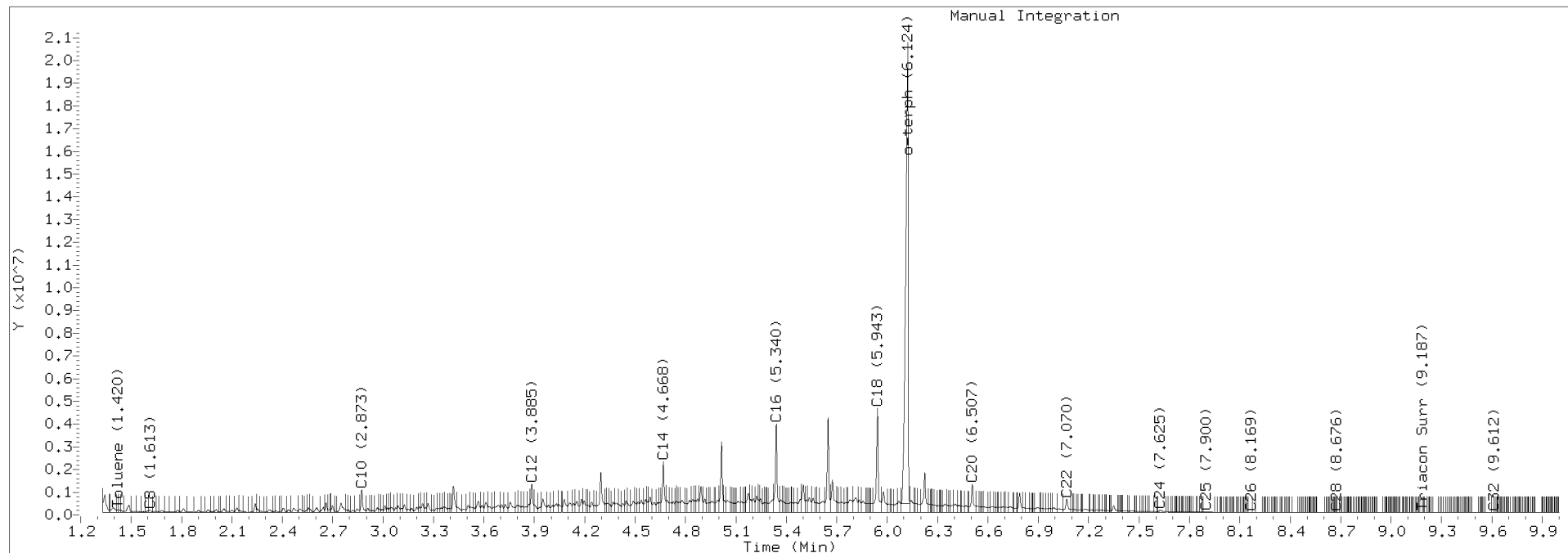
Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021



TPH Manual Integrations Report

Datafile: FID4A, 20210420.b/421D2029.D Injection: 21-APR-2021 23:31

Lab ID:SEQ-CCV1





CONTINUING CALIBRATION CHECK
NWTPH-Dx

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>21D0180</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic - US Moorings</u>
Instrument ID:	<u>FID4</u>	Calibration:	<u>ED00037</u>
Lab File ID:	<u>421D2821.D</u>	Calibration Date:	<u>04/13/2021</u>
Sequence:	<u>SJD0413</u>	Injection Date:	<u>04/28/21</u>
Lab Sample ID:	<u>SJD0413-CCV1</u>	Injection Time:	<u>21:26</u>
Sequence Name:	<u>DIESEL CCV</u>		

COMPOUND	TYPE	CONC. (mg/L)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Diesel Range Organics (C12-C24)	A	500.00	495	182831.3	181162.5		-0.9	+/-15
o-Terphenyl	A	90.000	84.3	249011.4	233175.8		-6.3	+/-15

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20210428,b\421D2821.D

Date: 28-APR-2021 21:26

Client ID:

Sample Info: SEQ-CV1

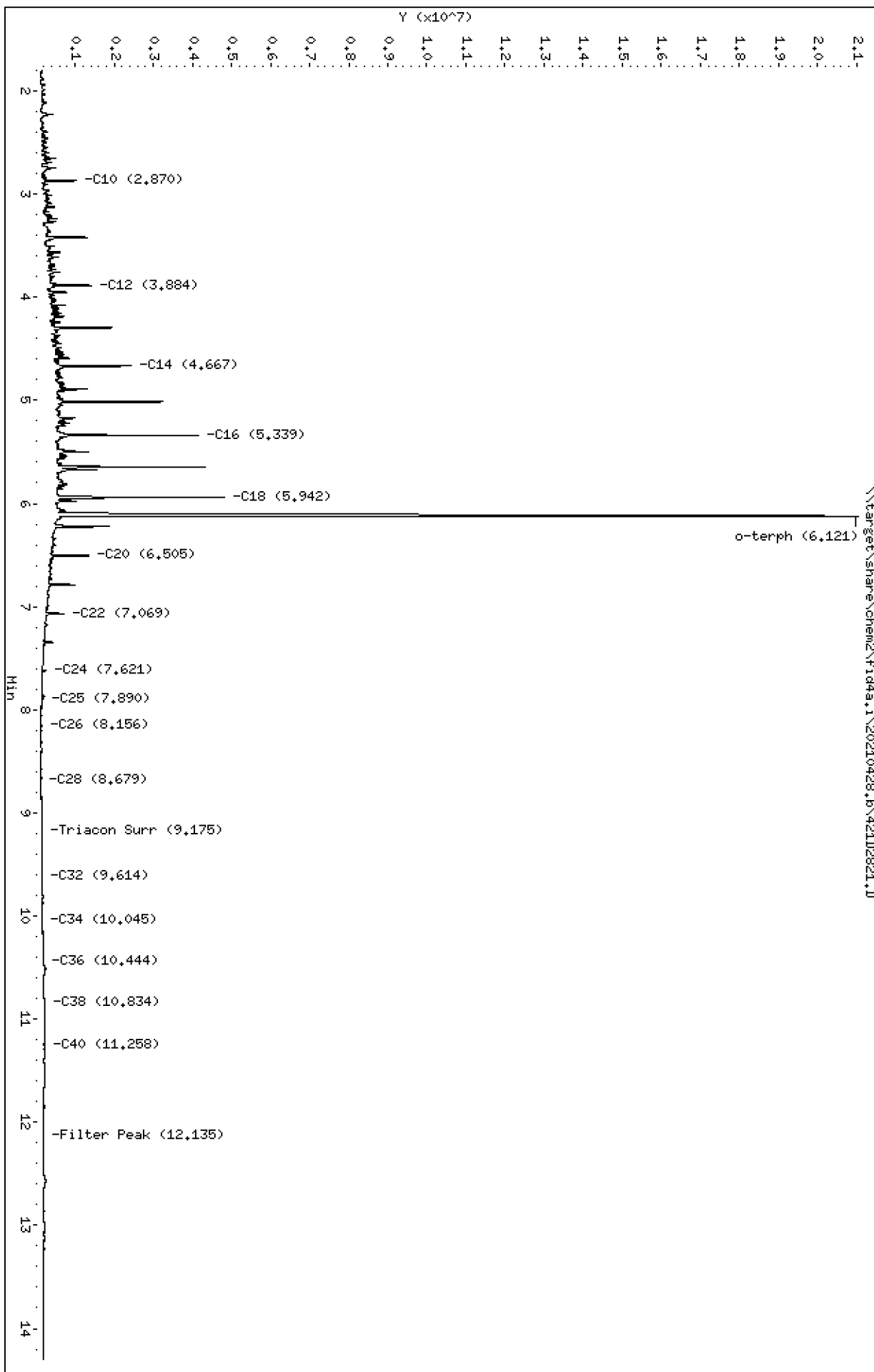
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

Page 1



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210428.b/421D2821.D
Method: 20210428.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/29/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-CCV1
Client ID:
Injection: 28-APR-2021 21:26
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

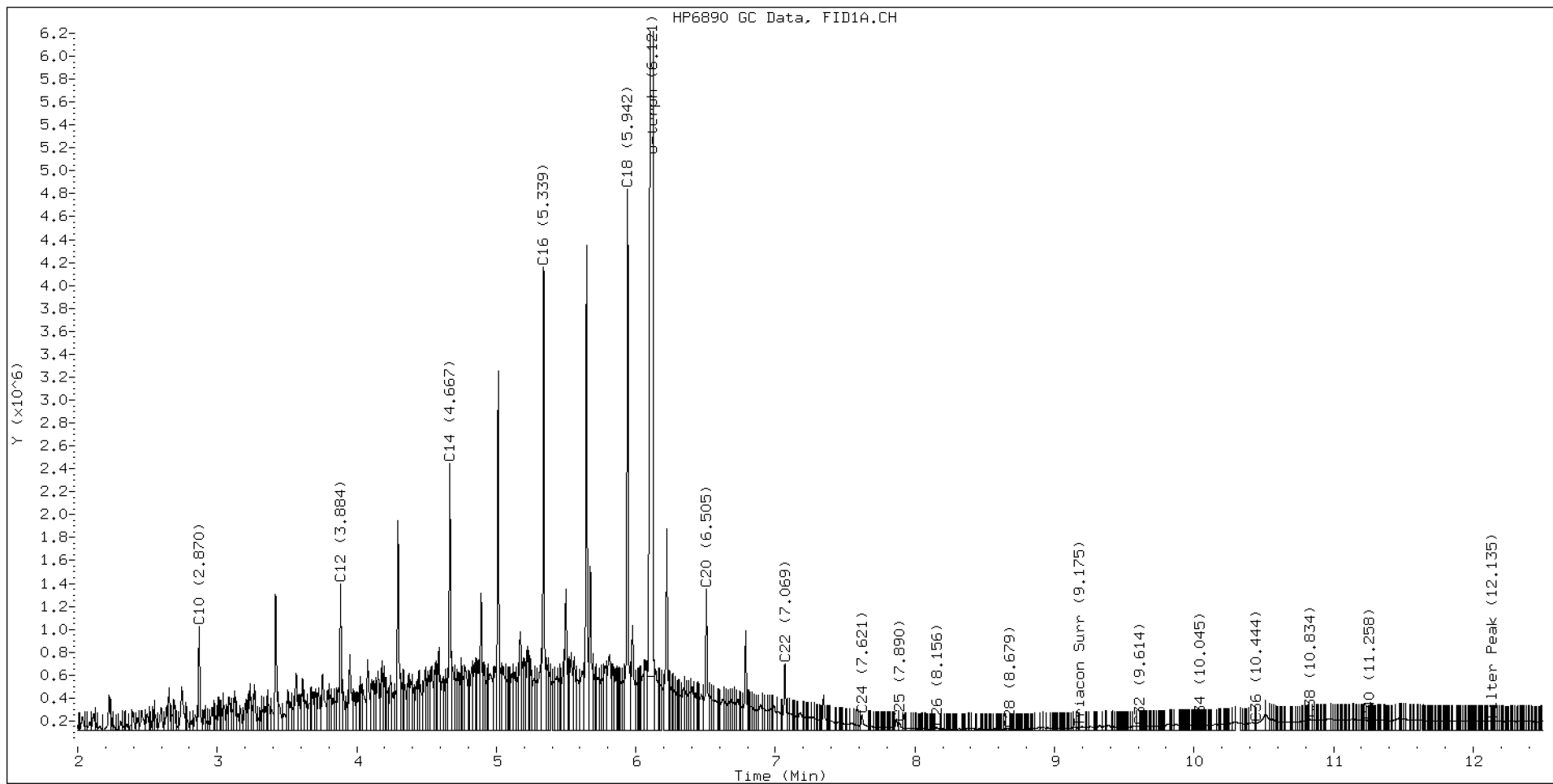
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.570	-0.012	41613	71612	WATPHD	(C12-C24)	90581239	495.4
C10	2.870	-0.005	910094	718151	WATPHM	(C24-C38)	7385315	56.2
C12	3.884	-0.003	1282446	1000406	AK102	(C10-C25)	106047812	492.3
C14	4.667	-0.002	2331655	1919020	AK103	(C25-C36)	4781678	47.3
C16	5.339	-0.001	4046877	2956957	OR.DIES	(C10-C28)	106991838	545.9
C18	5.942	-0.000	4721139	3749354				
C20	6.505	-0.005	1231466	1342083	JET-A	(C10-C18)	81806861	557.8
C22	7.069	-0.006	582078	615127				
C24	7.621	-0.006	137485	230714				
C25	7.890	-0.010	63200	85217				
C26	8.156	-0.007	30009	46143				
C28	8.679	0.005	15242	7993				
C32	9.614	0.000	36958	11011				
C34	10.045	0.002	45340	13567				
Filter Peak	12.135	-0.004	83048	45565	BUNKERC	(C10-C38)	113128161	2520.0
C36	10.444	-0.009	65591	51795				
C38	10.834	-0.008	97944	160642				
C40	11.258	0.008	88628	52597				
o-terph	6.121	0.001	20458126	20985821				
Triacon Surr	9.175	-0.006	25064	6246	NAS DIES	(C10-C24)	105742846	541.9

Range Times: NW Diesel(3.887 - 7.627) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.67)

Surrogate	Area	Amount
o-Terphenyl	20985821	84.3 M
Triacontane	6246	0.0

M Indicates the peak was manually integrated

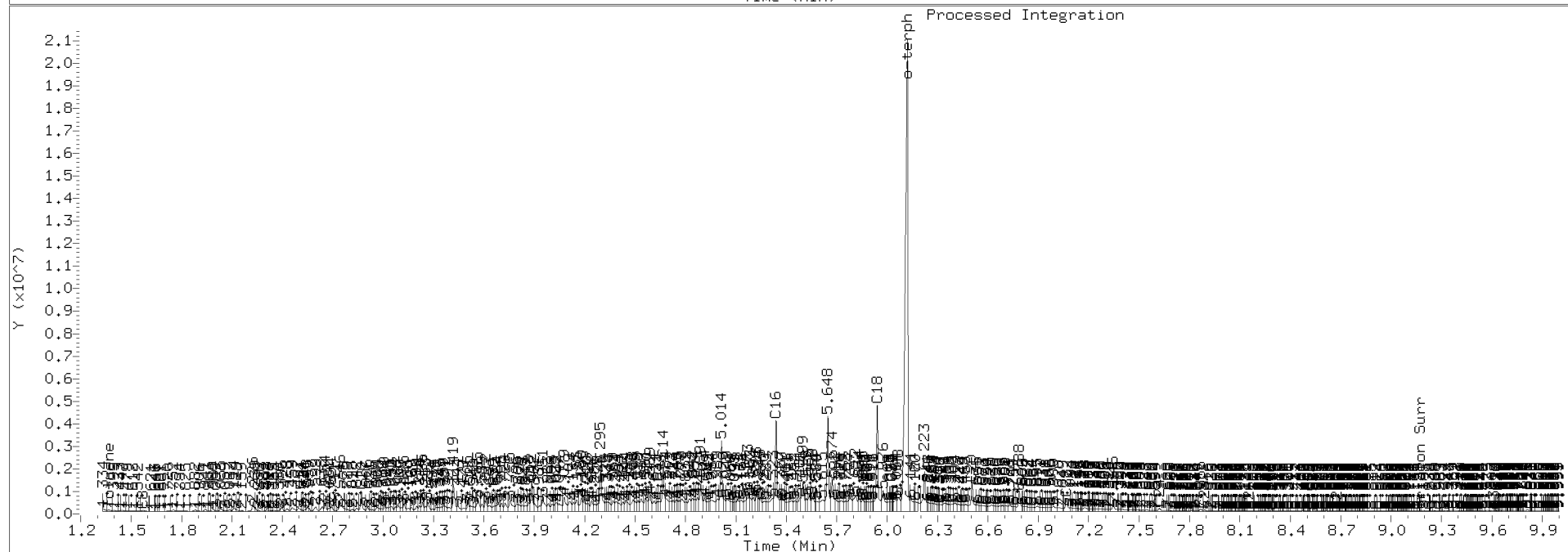
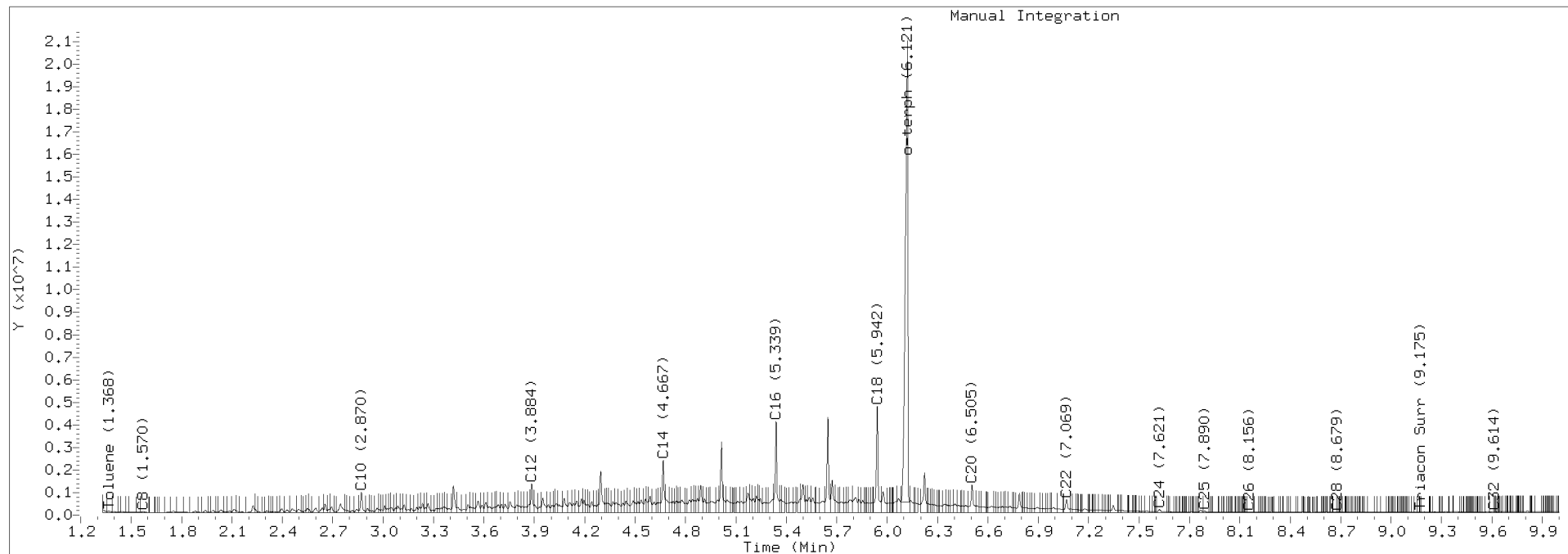
Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021



TPH Manual Integrations Report

Datafile: FID4A, 20210428.b/421D2821.D Injection: 28-APR-2021 21:26

Lab ID:SEQ-CCV1





CONTINUING CALIBRATION CHECK
NWTPH-Dx

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>21D0180</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic - US Moorings</u>
Instrument ID:	<u>FID4</u>	Calibration:	<u>ED00037</u>
Lab File ID:	<u>421D2822.D</u>	Calibration Date:	<u>04/13/2021</u>
Sequence:	<u>SJD0413</u>	Injection Date:	<u>04/28/21</u>
Lab Sample ID:	<u>SJD0413-CCV2</u>	Injection Time:	<u>21:47</u>
Sequence Name:	<u>MOIL CCV</u>		

COMPOUND	TYPE	CONC. (mg/L)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Motor Oil Range Organics (C24-C38)	A	1000.0	1070	131440.7	140410.1		6.8	+/-15

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20210428,6\42102822.D

Date: 28-APR-2021 21:47

Client ID:

Sample Info: SEQ-CV2

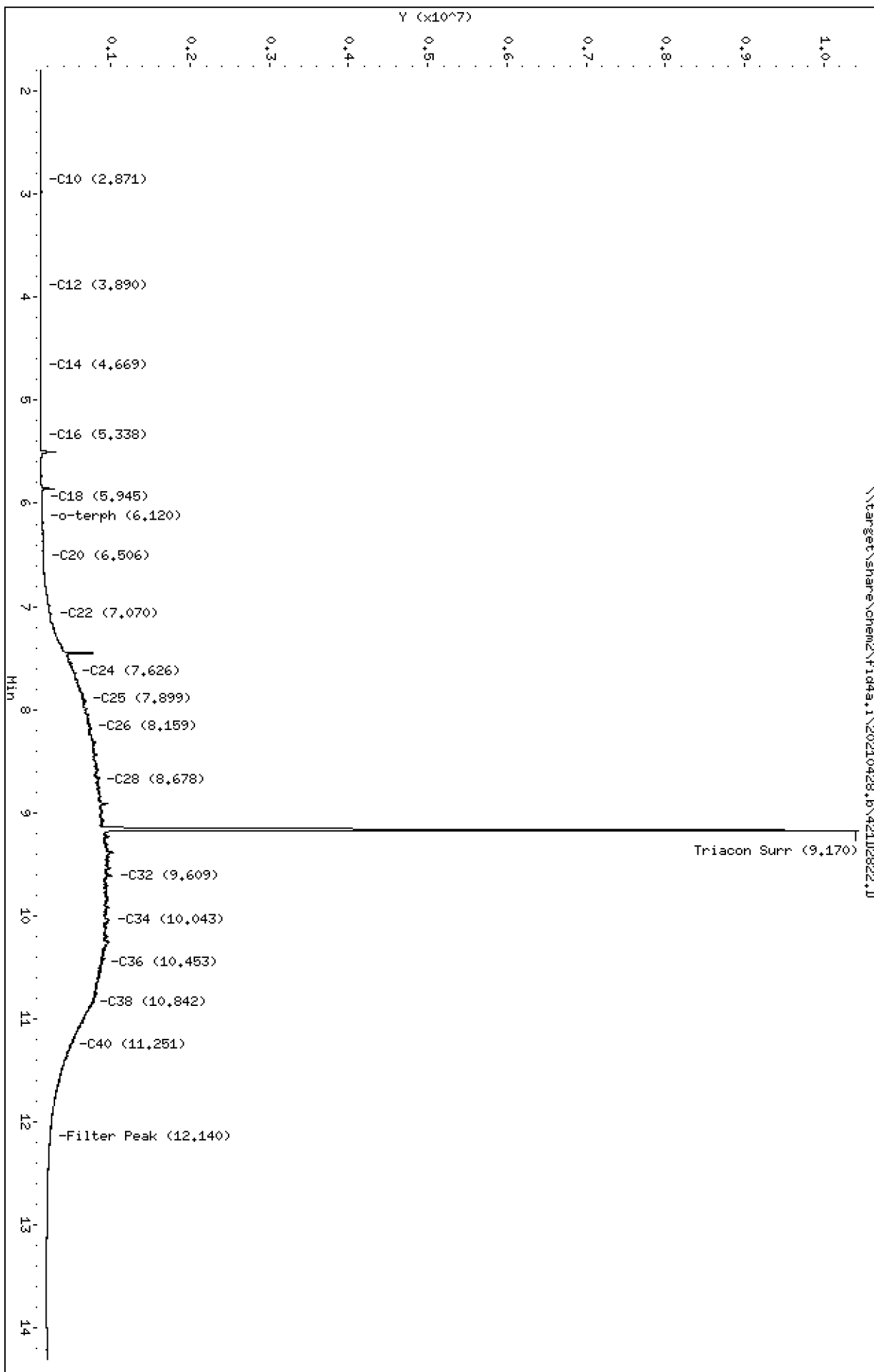
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

\\target\share\chem2\fid4a,1\20210428,6\42102822.D



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210428.b/421D2822.D
Method: 20210428.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/29/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-CCV2
Client ID:
Injection: 28-APR-2021 21:47
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

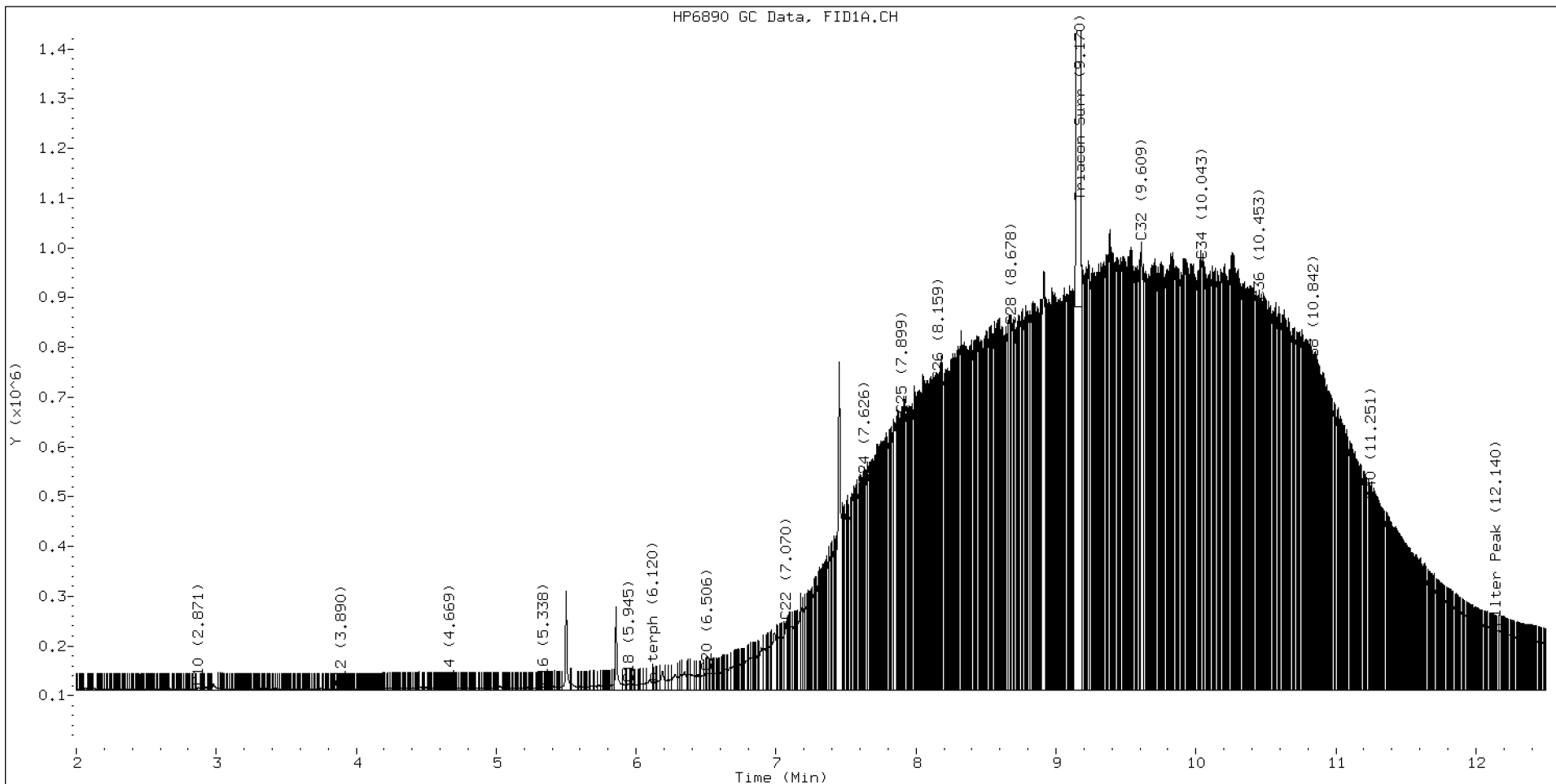
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.582	-0.000	7264	2153	WATPHD	(C12-C24)	13277218	72.6
C10	2.871	-0.004	4980	5063	WATPHM	(C24-C38)	140410077	1068.2
C12	3.890	0.002	1376	260	AK102	(C10-C25)	18671831	86.7
C14	4.669	-0.000	3595	1940	AK103	(C25-C36)	118910109	1176.7
C16	5.338	-0.003	5204	3329	OR.DIES	(C10-C28)	51882718	264.7
C18	5.945	0.002	11209	16844				
C20	6.506	-0.004	34292	27986	JET-A	(C10-C18)	937223	6.4
C22	7.070	-0.005	137491	187278				
C24	7.626	-0.001	411211	81914				
C25	7.899	-0.001	552083	326643				
C26	8.159	-0.004	618619	274729				
C28	8.678	0.004	729051	253689				
C32	9.609	-0.004	899592	1235247				
C34	10.043	-0.000	862893	598352				
Filter Peak	12.140	0.001	121794	60048	BUNKERC	(C10-C38)	153814579	3426.3
C36	10.453	0.001	781007	310534				
C38	10.842	0.001	645894	128845				
C40	11.251	0.001	379524	112959				
o-terph	6.120	0.001	14241	7772				
Triacon Surr	9.170	-0.011	9557431	9436645	NAS DIES	(C10-C24)	13404502	68.7

Range Times: NW Diesel(3.887 - 7.627) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.67)

Surrogate	Area	Amount
o-Terphenyl	7772	0.0
Triacontane	9436645	44.5 M

M Indicates the peak was manually integrated

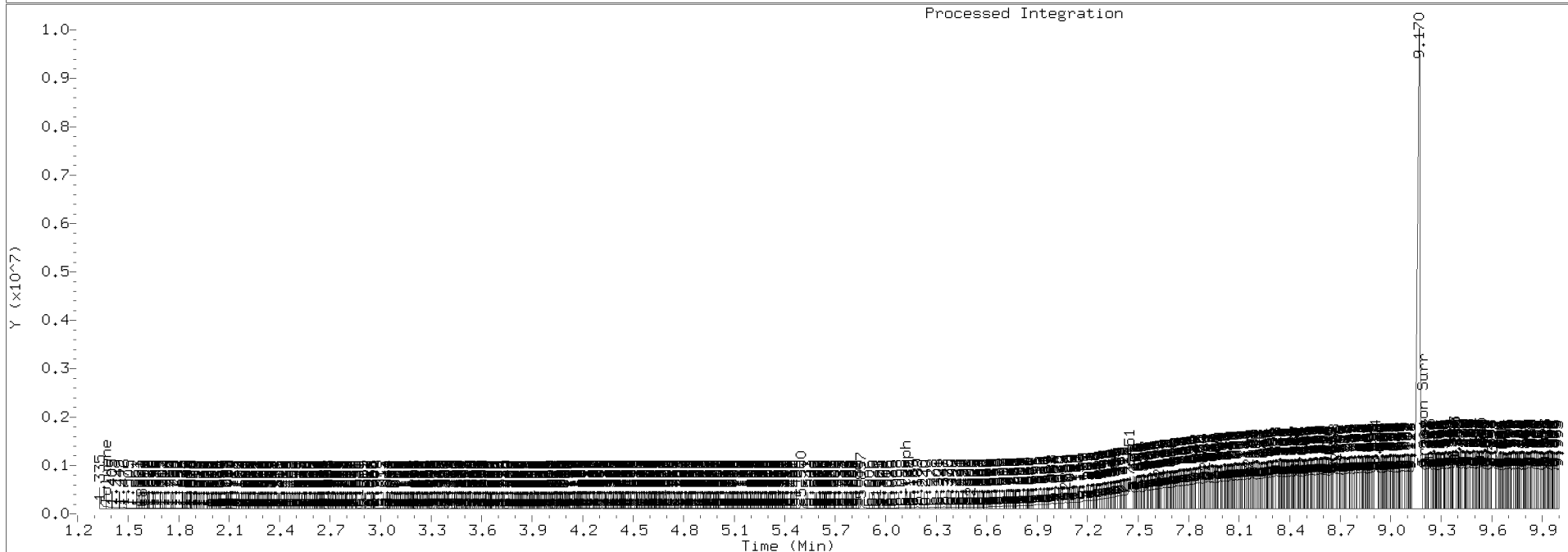
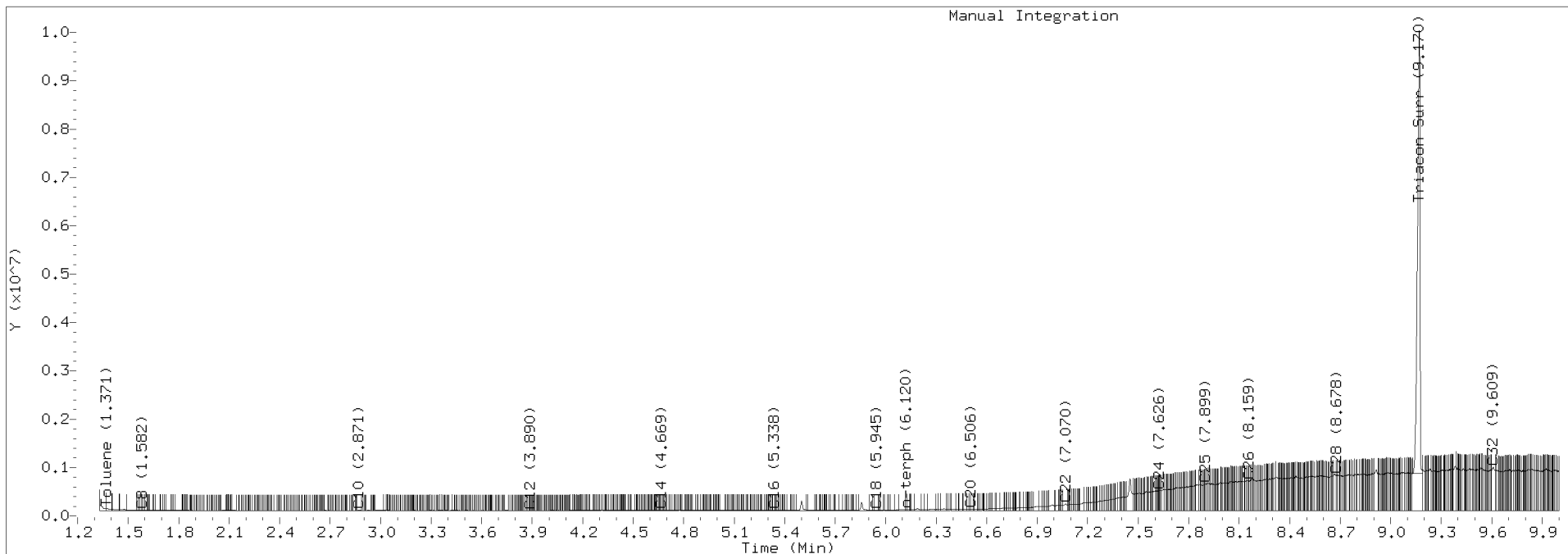
Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021



TPH Manual Integrations Report

Datafile: FID4A, 20210428.b/421D2822.D Injection: 28-APR-2021 21:47

Lab ID:SEQ-CCV2





CONTINUING CALIBRATION CHECK

NWTPH-Dx

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>21D0180</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic - US Moorings</u>
Instrument ID: <u>FID4</u>	Calibration: <u>ED00037</u>
Lab File ID: <u>421D2833.D</u>	Calibration Date: <u>04/13/2021</u>
Sequence: <u>SJD0413</u>	Injection Date: <u>04/29/21</u>
Lab Sample ID: <u>SJD0413-CCV3</u>	Injection Time: <u>01:38</u>
Sequence Name: <u>DIESEL CCV</u>	

COMPOUND	TYPE	CONC. (mg/L)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Diesel Range Organics (C12-C24)	A	500.00	500	182831.3	182749.9		-0.04	+/-15
o-Terphenyl	A	90.000	84.7	249011.4	234217		-5.9	+/-15

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20210428,b\421D2833.D

Date: 23-APR-2021 01:38

Client ID:

Sample Info: SEQ-CCV3

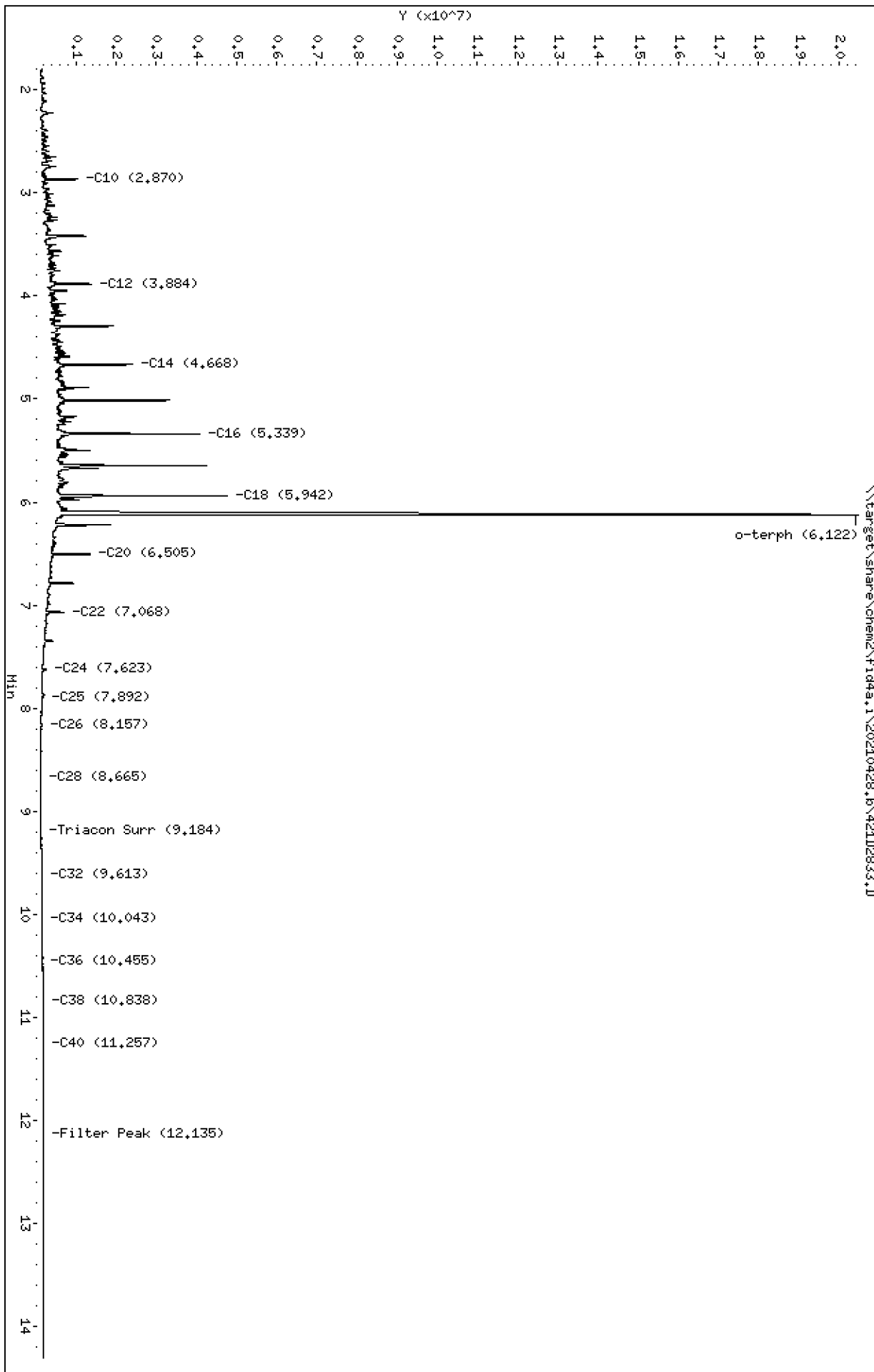
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

Page 1



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210428.b/421D2833.D
Method: 20210428.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/29/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-CCV3
Client ID:
Injection: 29-APR-2021 01:38
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

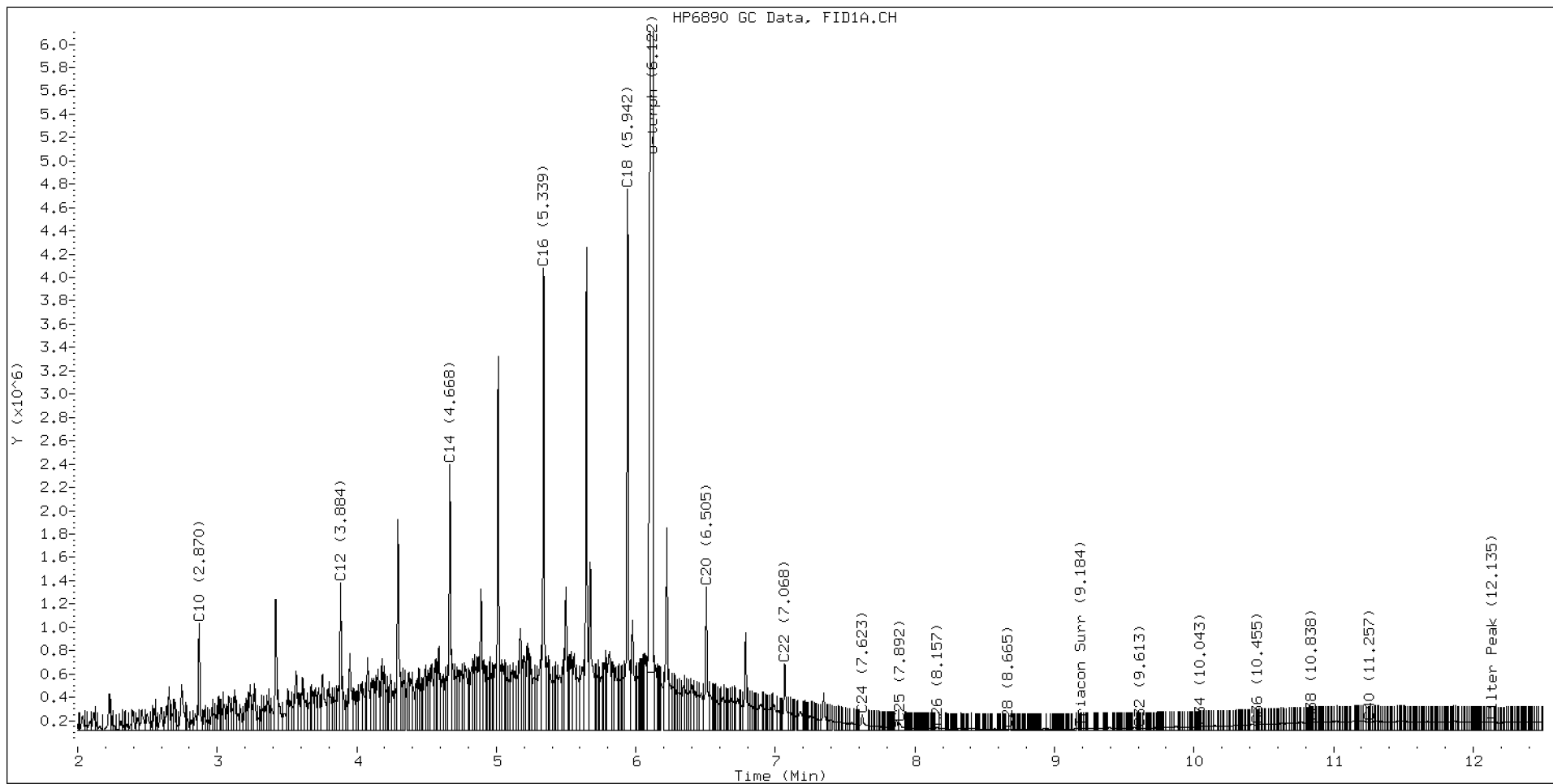
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.573	-0.009	40828	72760	WATPHD	(C12-C24)	91374949	499.8
C10	2.870	-0.006	916473	726073	WATPHM	(C24-C38)	5145742	39.1
C12	3.884	-0.003	1264561	991952	AK102	(C10-C25)	106984525	496.6
C14	4.668	-0.001	2281908	1935370	AK103	(C25-C36)	3399466	33.6
C16	5.339	-0.001	3968421	3005423	OR.DIES	(C10-C28)	107846197	550.2
C18	5.942	-0.001	4639901	3748467				
C20	6.505	-0.006	1231402	1378397	JET-A	(C10-C18)	82669398	563.7
C22	7.068	-0.007	568685	679241				
C24	7.623	-0.005	131872	244958				
C25	7.892	-0.008	61722	104934				
C26	8.157	-0.006	26110	36291				
C28	8.665	-0.009	12817	14815				
C32	9.613	0.000	21763	6486				
C34	10.043	-0.001	32321	11225				
Filter Peak	12.135	-0.004	72821	74595	BUNKERC	(C10-C38)	111831769	2491.1
C36	10.455	0.003	49340	12312				
C38	10.838	-0.003	69406	34506				
C40	11.257	0.007	73161	43713				
o-terph	6.122	0.002	19867741	21079534				
Triacon Surr	9.184	0.003	14076	8307	NAS DIES	(C10-C24)	106686027	546.7

Range Times: NW Diesel(3.887 - 7.627) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.67)

Surrogate	Area	Amount
o-Terphenyl	21079534	84.7 M
Triacontane	8307	0.0

M Indicates the peak was manually integrated

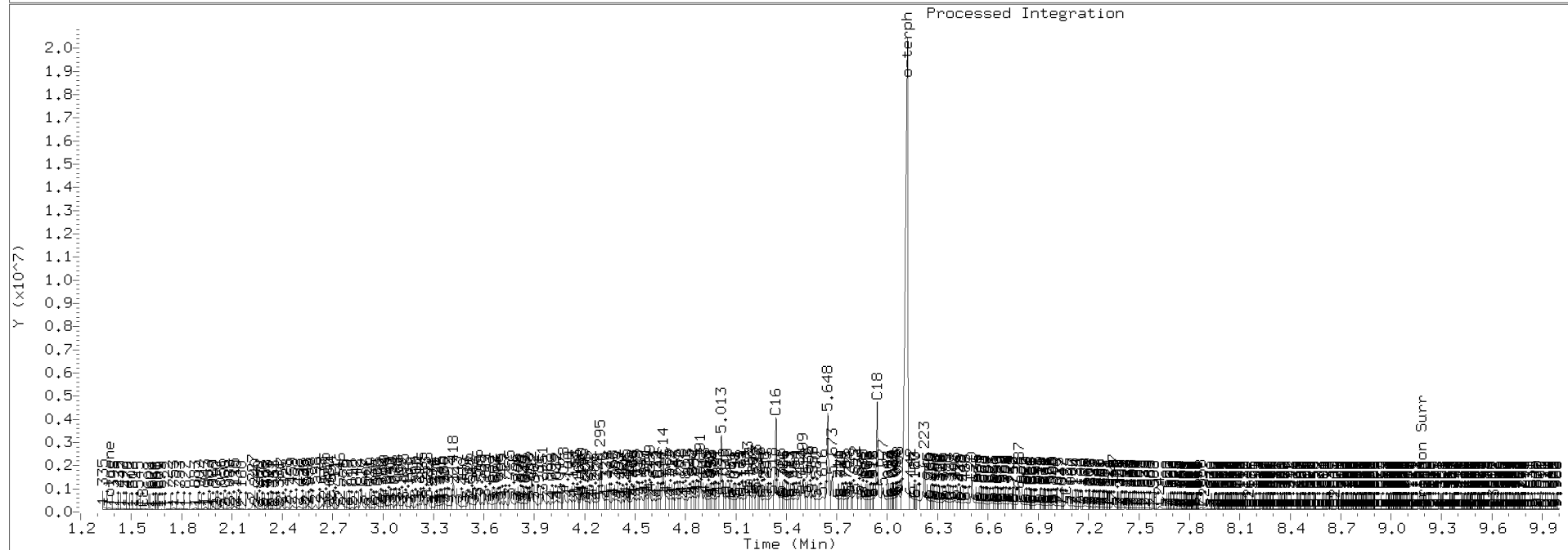
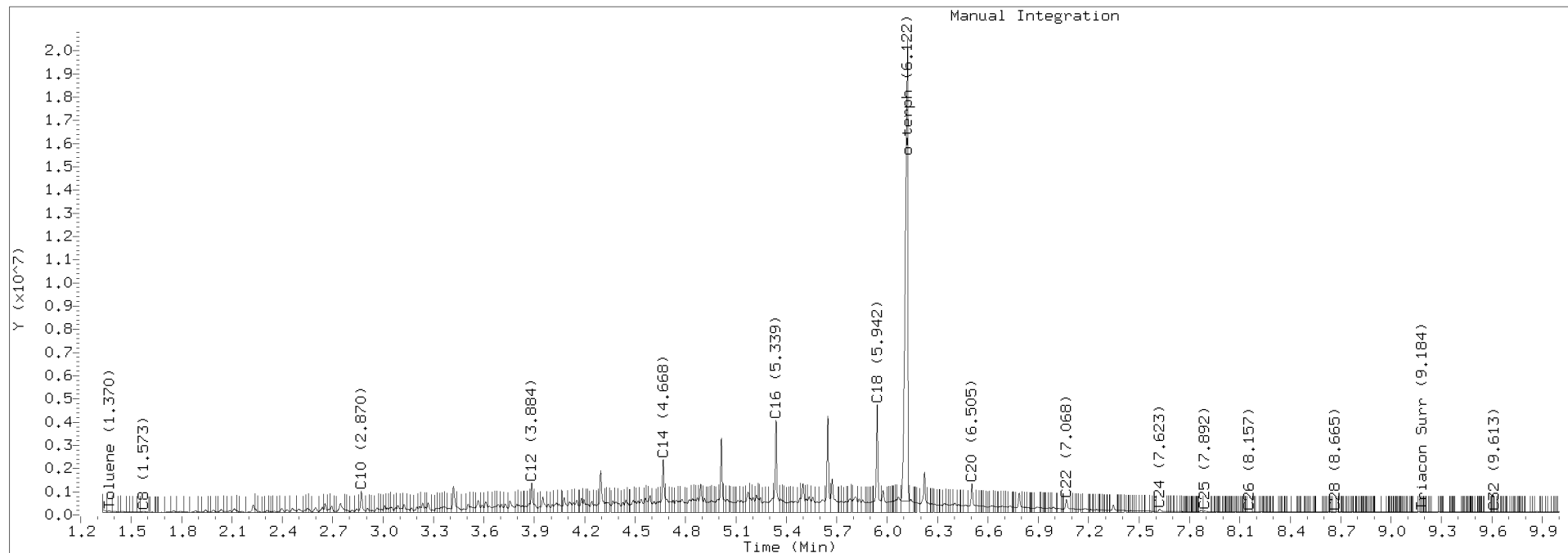
Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021



TPH Manual Integrations Report

Datafile: FID4A, 20210428.b/421D2833.D Injection: 29-APR-2021 01:38

Lab ID:SEQ-CCV3



Data File: \\target\share\chem2\fid4a,1\20210428,b\42102834.D

Date: 23-APR-2021 01:59

Client ID:

Sample Info: SED-OCV4

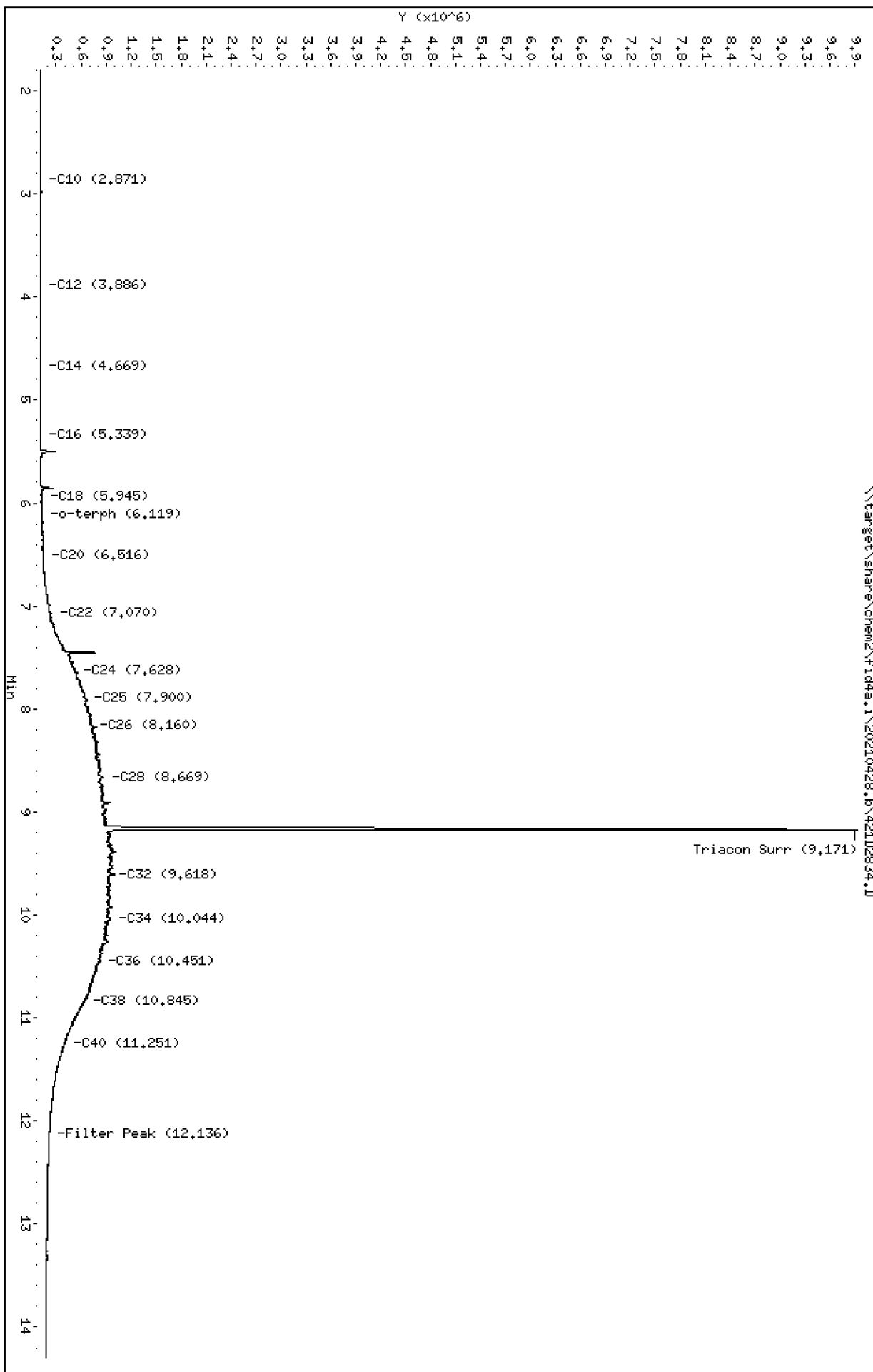
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

Page 1



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210428.b/421D2834.D
Method: 20210428.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/29/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-CCV4
Client ID:
Injection: 29-APR-2021 01:59
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

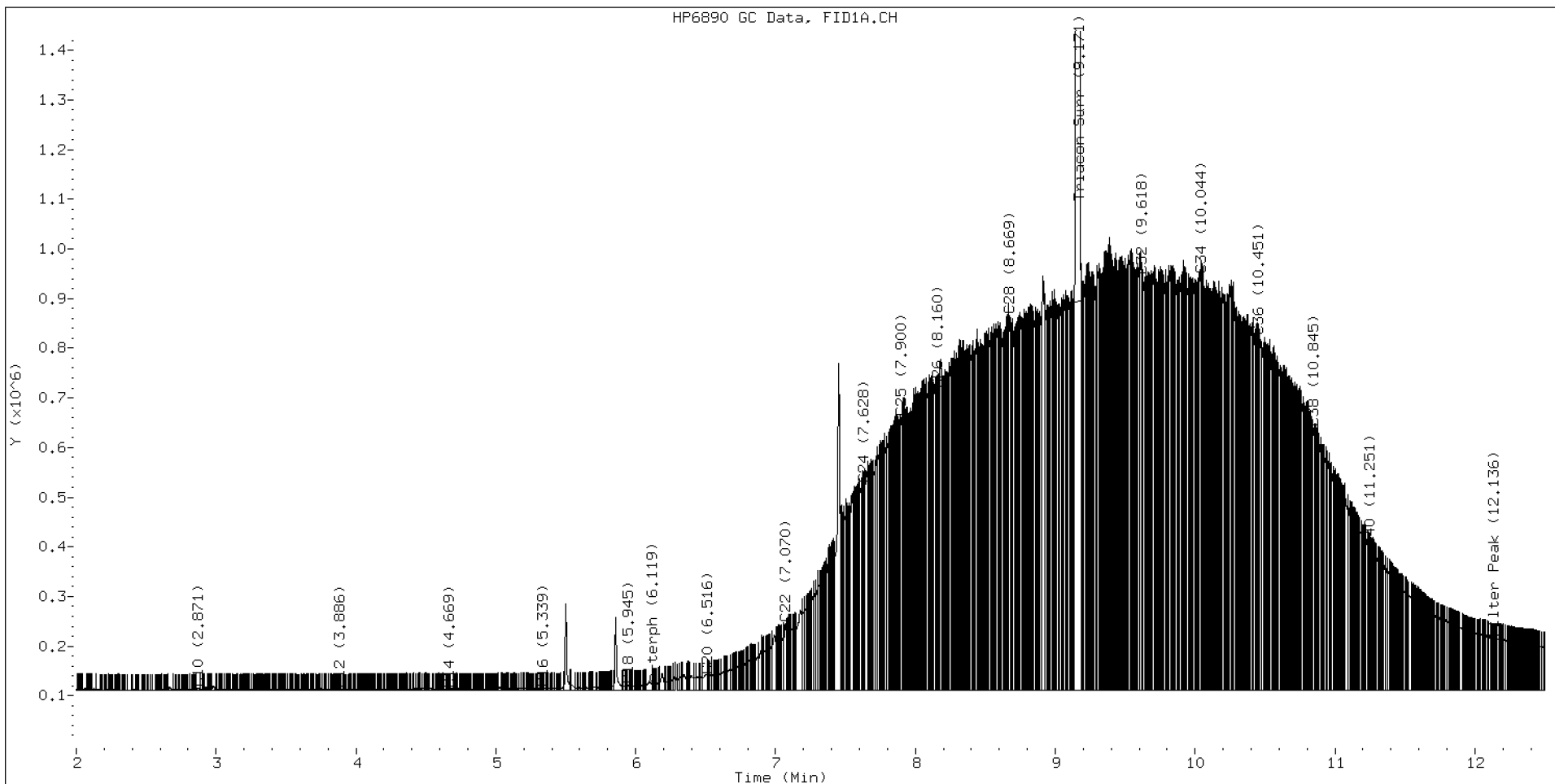
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.586	0.003	7964	2749	WATPHD	(C12-C24)	12953749	70.9
C10	2.871	-0.004	4775	5124	WATPHM	(C24-C38)	135716422	1032.5
C12	3.886	-0.001	1349	322	AK102	(C10-C25)	18222377	84.6
C14	4.669	0.000	3261	1434	AK103	(C25-C36)	116872554	1156.5
C16	5.339	-0.002	4462	1534	OR.DIES	(C10-C28)	51456598	262.5
C18	5.945	0.003	10289	8363				
C20	6.516	0.005	30026	8951	JET-A	(C10-C18)	823154	5.6
C22	7.070	-0.005	134447	162893				
C24	7.628	0.001	415835	206391				
C25	7.900	0.000	549673	482446				
C26	8.160	-0.003	607052	151345				
C28	8.669	-0.005	754567	514737				
C32	9.618	0.005	834885	289582				
C34	10.044	0.001	836747	208622				
Filter Peak	12.136	-0.003	103201	46140	BUNKERC	(C10-C38)	148781934	3314.2
C36	10.451	-0.001	712934	211421				
C38	10.845	0.003	529079	310483				
C40	11.251	0.002	288377	184030				
o-terph	6.119	-0.001	12250	3636				
Triacon Surr	9.171	-0.010	9036088	9497984	NAS DIES	(C10-C24)	13065512	67.0

Range Times: NW Diesel(3.887 - 7.627) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.67)

Surrogate	Area	Amount
o-Terphenyl	3636	0.0
Triacontane	9497984	44.8 M

M Indicates the peak was manually integrated

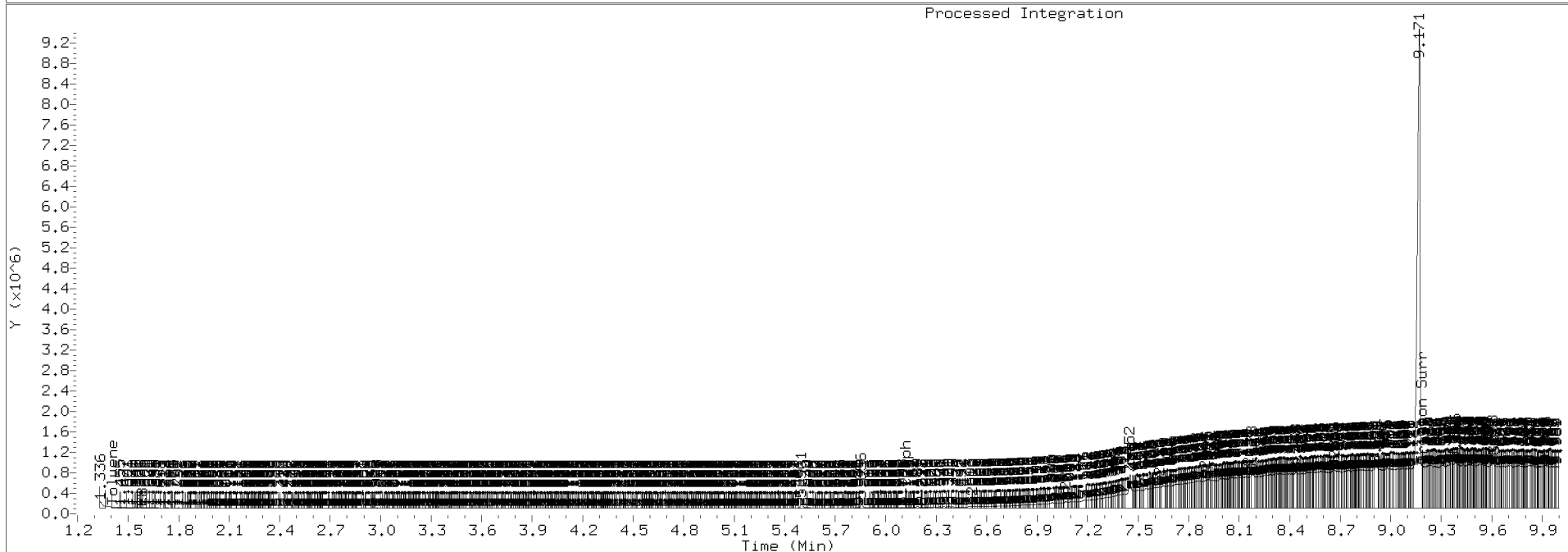
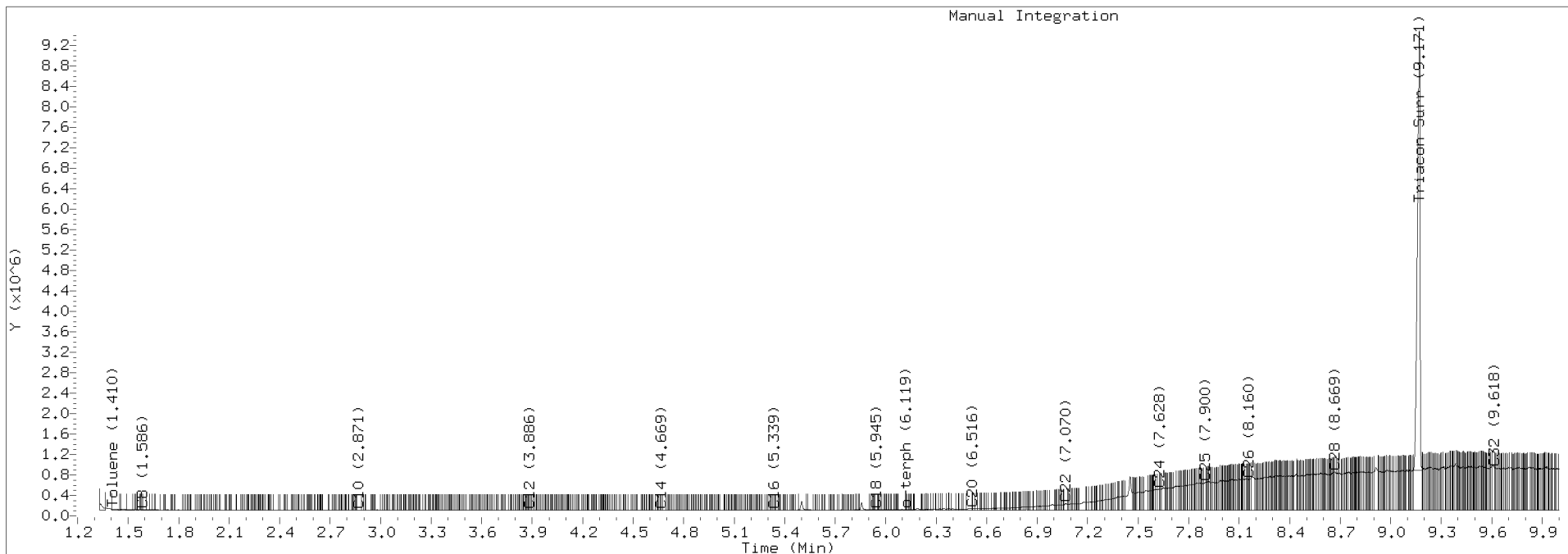
Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021



TPH Manual Integrations Report

Datafile: FID4A, 20210428.b/421D2834.D Injection: 29-APR-2021 01:59

Lab ID:SEQ-CCV4





ANALYSIS BATCH (SEQUENCE) SUMMARY

NWTPH-Dx

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor QEA, LLC

Project: Gasco Siltronic - US Moorings

Sequence: SJD0189

Instrument: FID4

Calibration: ED00037

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Retention Time Standard	SJD0189-IBL1	421D1307.D	NA	04/13/21 12:46
Instrument Blank	SJD0189-IBL2	421D1308.D	NA	04/13/21 13:07
DIESEL 50	SJD0189-CAL1	421D1309.D	NA	04/13/21 13:29
DIESEL 100	SJD0189-CAL2	421D1310.D	NA	04/13/21 13:50
DIESEL 250	SJD0189-CAL3	421D1311.D	NA	04/13/21 14:11
DIESEL 500	SJD0189-CAL4	421D1312.D	NA	04/13/21 14:33
DIESEL 1000	SJD0189-CAL5	421D1313.D	NA	04/13/21 14:54
DIESEL 2500	SJD0189-CAL6	421D1314.D	NA	04/13/21 15:16
DIESEL SCV	SJD0189-SCV1	421D1315.D	NA	04/13/21 15:37
MOIL 100	SJD0189-CAL7	421D1316.D	NA	04/13/21 15:59
MOIL 250	SJD0189-CAL8	421D1317.D	NA	04/13/21 16:20
MOIL 500	SJD0189-CAL9	421D1318.D	NA	04/13/21 16:42
MOIL 1000	SJD0189-CALA	421D1319.D	NA	04/13/21 17:03
MOIL 2500	SJD0189-CALB	421D1320.D	NA	04/13/21 17:24
MOIL 5000	SJD0189-CALC	421D1321.D	NA	04/13/21 17:46
MOIL SCV	SJD0189-SCV2	421D1322.D	NA	04/13/21 18:07
AK103 100	SJD0189-CALD	421D1323.D	NA	04/13/21 18:28
AK103 250	SJD0189-CALE	421D1324.D	NA	04/13/21 18:50
AK103 500	SJD0189-CALF	421D1325.D	NA	04/13/21 19:11
AK103 1000	SJD0189-CALG	421D1326.D	NA	04/13/21 19:32
AK103 2500	SJD0189-CALH	421D1327.D	NA	04/13/21 19:53
AK103 5000	SJD0189-CALI	421D1328.D	NA	04/13/21 20:14



ANALYSIS BATCH (SEQUENCE) SUMMARY

NWTPH-Dx

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor QEA, LLC

Project: Gasco Siltronic - US Moorings

Sequence: SJD0260

Instrument: FID4

Calibration: ED00037

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Retention Time Standard	SJD0260-IBL1	421D1553.D	NA	04/16/21 03:34
Instrument Blank	SJD0260-IBL2	421D1554.D	NA	04/16/21 03:55
A/S CREOSOTE 100	SJD0260-CAL1	421D1555.D	NA	04/16/21 04:16
A/S CREOSOTE 250	SJD0260-CAL2	421D1556.D	NA	04/16/21 04:37
A/S CREOSOTE 500	SJD0260-CAL3	421D1557.D	NA	04/16/21 04:57
A/S CREOSOTE 1000	SJD0260-CAL4	421D1558.D	NA	04/16/21 05:18
A/S CREOSOTE 2500	SJD0260-CAL5	421D1559.D	NA	04/16/21 05:39
A/S CREOSOTE 5000	SJD0260-CAL6	421D1560.D	NA	04/16/21 06:00
DIESEL ICV	SJD0260-ICV1	421D1561.D	NA	04/16/21 06:21
MOIL ICV	SJD0260-ICV2	421D1562.D	NA	04/16/21 06:42
A/S Creosote ICV	SJD0260-ICV3	421D1563.D	NA	04/16/21 07:03
ZZZZZ	BJC0355-BLK1	421D1564.D	Water	04/16/21 07:24
ZZZZZ	BJC0355-BS1	421D1565.D	Water	04/16/21 07:45
ZZZZZ	BJC0355-BSD1	421D1566.D	Water	04/16/21 08:06
ZZZZZ	21C0181-02RE1	421D1567.D	Water	04/16/21 08:27
ZZZZZ	21C0181-03RE1	421D1568.D	Water	04/16/21 08:48
ZZZZZ	21C0181-04RE1	421D1569.D	Water	04/16/21 09:09
ZZZZZ	21C0181-05RE1	421D1570.D	Water	04/16/21 09:30
ZZZZZ	21C0181-06RE1	421D1571.D	Water	04/16/21 09:51
ZZZZZ	21C0181-07RE1	421D1572.D	Water	04/16/21 10:12
ZZZZZ	21C0181-08RE1	421D1573.D	Water	04/16/21 10:33
ZZZZZ	21C0181-09RE1	421D1574.D	Water	04/16/21 10:54
ZZZZZ	21C0181-10RE1	421D1575.D	Water	04/16/21 11:15
ZZZZZ	21C0181-11RE2	421D1576.D	Water	04/16/21 11:36
DIESEL CCV	SJD0260-CCV1	421D1577.D	NA	04/16/21 11:57
MOIL CCV	SJD0260-CCV2	421D1578.D	NA	04/16/21 12:18
A/S CRESOTE CCV	SJD0260-CCV3	421D1579.D	NA	04/16/21 12:39
ZZZZZ	21C0181-12RE1	421D1580.D	Water	04/16/21 13:00
ZZZZZ	21C0181-13RE1	421D1581.D	Water	04/16/21 13:21
ZZZZZ	21C0181-14RE1	421D1582.D	Water	04/16/21 13:42



ANALYSIS BATCH (SEQUENCE) SUMMARY

NWTPH-Dx

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>21D0180</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic - US Moorings</u>
Sequence:	<u>SJD0282</u>	Instrument:	<u>FID4</u>
		Calibration:	<u>ED00037</u>

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Retention Time Standard	SJD0282-IBL1	421D2003.D	NA	04/20/21 14:16
Instrument Blank	SJD0282-IBL2	421D2004.D	NA	04/20/21 14:38
A/S LAI BUNKER C 100	SJD0282-CAL1	421D2005.D	NA	04/20/21 14:59
A/S LAI BUNKER C 250	SJD0282-CAL2	421D2006.D	NA	04/20/21 15:21
A/S LAI BUNKER C 500	SJD0282-CAL3	421D2007.D	NA	04/20/21 15:42
A/S LAI BUNKER C 1000	SJD0282-CAL4	421D2008.D	NA	04/20/21 16:04
A/S LAI BUNKER C 2500	SJD0282-CAL5	421D2009.D	NA	04/20/21 16:25
A/S LAI BUNKER C 5000	SJD0282-CAL6	421D2010.D	NA	04/20/21 16:47
DIESEL ICV	SJD0282-ICV1	421D2011.D	NA	04/20/21 17:08
MOIL ICV	SJD0282-ICV2	421D2012.D	NA	04/20/21 17:30
A/S BUNKER C	SJD0282-ICV3	421D2013.D	NA	04/20/21 17:51
ZZZZZ	BJC0848-BLK1	421D2014.D	Water	04/20/21 18:13
ZZZZZ	BJC0848-BS1	421D2015.D	Water	04/20/21 18:34
ZZZZZ	BJC0848-BSD1	421D2016.D	Water	04/20/21 18:55
ZZZZZ	21C0428-01	421D2017.D	Water	04/20/21 19:17
ZZZZZ	21C0428-02	421D2020.D	Water	04/20/21 20:21
ZZZZZ	21C0428-03	421D2021.D	Water	04/20/21 20:42
ZZZZZ	21C0428-04	421D2022.D	Water	04/20/21 21:03
ZZZZZ	21C0428-05	421D2023.D	Water	04/20/21 21:24
ZZZZZ	21C0428-06	421D2024.D	Water	04/20/21 21:45
ZZZZZ	21C0428-07	421D2025.D	Water	04/20/21 22:07
ZZZZZ	21C0428-08	421D2026.D	Water	04/20/21 22:28
ZZZZZ	21C0428-09	421D2027.D	Water	04/20/21 22:49
A/S BUNKER C	SJD0282-CCV3	421D2031.D	NA	04/21/21 00:13
ZZZZZ	21C0428-11	421D2032.D	Water	04/21/21 00:34
ZZZZZ	21C0428-12	421D2033.D	Water	04/21/21 00:55
ZZZZZ	21C0428-13	421D2034.D	Water	04/21/21 01:16
ZZZZZ	BJD0124-BLK1	421D2035.D	Water	04/21/21 01:37
ZZZZZ	BJD0124-BS1	421D2036.D	Water	04/21/21 01:58
ZZZZZ	21D0041-01	421D2037.D	Water	04/21/21 02:19



ANALYSIS BATCH (SEQUENCE) SUMMARY

NWTPH-Dx

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>21D0180</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic - US Moorings</u>
Sequence:	<u>SJD0282</u>	Instrument:	<u>FID4</u>
		Calibration:	<u>ED00037</u>

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	21D0041-03	421D2038.D	Water	04/21/21 02:40
ZZZZZ	21D0041-05	421D2039.D	Water	04/21/21 03:01
ZZZZZ	21D0041-07	421D2040.D	Water	04/21/21 03:22
ZZZZZ	21D0041-09	421D2041.D	Water	04/21/21 03:43
ZZZZZ	21D0041-11	421D2042.D	Water	04/21/21 04:04
DIESEL CCV	SJD0282-CCV4	421D2043.D	NA	04/21/21 04:25
MOIL CCV	SJD0282-CCV5	421D2044.D	NA	04/21/21 04:46
A/S BUNKER C	SJD0282-CCV6	421D2045.D	NA	04/21/21 05:07
ZZZZZ	BJD0328-BLK1	421D2046.D	Water	04/21/21 05:28
ZZZZZ	BJD0328-BS1	421D2047.D	Water	04/21/21 05:49
ZZZZZ	BJD0328-BSD1	421D2048.D	Water	04/21/21 06:10
ZZZZZ	21D0104-01	421D2049.D	Water	04/21/21 06:31
ZZZZZ	21D0104-02	421D2050.D	Water	04/21/21 06:52
ZZZZZ	21D0104-03	421D2051.D	Water	04/21/21 07:13
ZZZZZ	21D0104-04	421D2052.D	Water	04/21/21 07:34
ZZZZZ	21D0104-05	421D2053.D	Water	04/21/21 07:55
ZZZZZ	21D0104-06	421D2054.D	Water	04/21/21 08:16
ZZZZZ	21D0104-07	421D2055.D	Water	04/21/21 08:37
ZZZZZ	21D0104-08	421D2056.D	Water	04/21/21 08:58
ZZZZZ	21D0116-01	421D2057.D	Water	04/21/21 09:19
DIESEL CCV	SJD0282-CCV7	421D2058.D	NA	04/21/21 09:40
MOIL CCV	SJD0282-CCV8	421D2059.D	NA	04/21/21 10:01
ZZZZZ	21D0116-03	421D2060.D	Water	04/21/21 10:22
ZZZZZ	21D0116-04	421D2061.D	Water	04/21/21 10:43
ZZZZZ	21D0116-05	421D2062.D	Water	04/21/21 11:04
ZZZZZ	21D0116-06	421D2063.D	Water	04/21/21 11:25
ZZZZZ	21D0116-07	421D2064.D	Water	04/21/21 11:46
ZZZZZ	21D0116-08	421D2065.D	Water	04/21/21 12:07
ZZZZZ	21D0116-09	421D2066.D	Water	04/21/21 12:28
ZZZZZ	21D0116-10	421D2067.D	Water	04/21/21 12:50



ANALYSIS BATCH (SEQUENCE) SUMMARY

NWTPH-Dx

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>21D0180</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic - US Moorings</u>
Sequence:	<u>SJD0413</u>	Instrument:	<u>FID4</u>
		Calibration:	<u>ED00037</u>

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Retention Time Standard	SJD0413-IBL1	421D2803.D	NA	04/28/21 15:06
Instrument Blank	SJD0413-IBL2	421D2804.D	NA	04/28/21 15:27
DIESEL ICV	SJD0413-ICV1	421D2805.D	NA	04/28/21 15:48
MOIL ICV	SJD0413-ICV2	421D2806.D	NA	04/28/21 16:09
Blank	BJD0478-BLK1	421D2807.D	Solid	04/28/21 16:30
LCS	BJD0478-BS1	421D2808.D	Solid	04/28/21 16:51
ZZZZZ	21D0179-01	421D2809.D	Solid	04/28/21 17:12
ZZZZZ	21D0179-02	421D2810.D	Solid	04/28/21 17:33
ZZZZZ	21D0179-03	421D2811.D	Solid	04/28/21 17:54
ZZZZZ	21D0179-04	421D2812.D	Solid	04/28/21 18:15
ZZZZZ	21D0179-05	421D2815.D	Solid	04/28/21 19:18
ZZZZZ	21D0179-06	421D2816.D	Solid	04/28/21 19:40
USMPDI-010SG-210414	21D0180-01	421D2817.D	Solid	04/28/21 20:01
USMPDI-015SG-210414	21D0180-02	421D2818.D	Solid	04/28/21 20:22
USMPDI-019SG-210414	21D0180-03	421D2819.D	Solid	04/28/21 20:44
USMPDI-029SG-210414	21D0180-04	421D2820.D	Solid	04/28/21 21:05
DIESEL CCV	SJD0413-CCV1	421D2821.D	NA	04/28/21 21:26
MOIL CCV	SJD0413-CCV2	421D2822.D	NA	04/28/21 21:47
ZZZZZ	21D0215-05	421D2829.D	Solid	04/29/21 00:14
ZZZZZ	BJD0604-BLK1	421D2830.D	Solid	04/29/21 00:35
ZZZZZ	BJD0604-BS1	421D2831.D	Solid	04/29/21 00:56
ZZZZZ	21D0209-18	421D2832.D	Solid	04/29/21 01:17
DIESEL CCV	SJD0413-CCV3	421D2833.D	NA	04/29/21 01:38
MOIL CCV	SJD0413-CCV4	421D2834.D	NA	04/29/21 01:59
ZZZZZ	21D0215-01	421D2826.D	Solid	04/29/21 23:11
ZZZZZ	21D0215-02	421D2827.D	Solid	04/29/21 23:32
ZZZZZ	21D0215-03	421D2828.D	Solid	04/29/21 23:53



SURROGATE RECOVERY AND RT SUMMARY

NWTPH-Dx

Laboratory: <u>Analytical Resources, Inc.</u>	SDG/WO: <u>21D0180</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic - US Moorings</u>
Sequence: <u>SJD0260</u>	Instrument: <u>FID4</u>
Calibration: <u>ED00037</u>	Calibration Date: <u>04/13/2021</u>

Surrogate Compound	Spike Level mg/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SJD0260-ICV1 (Water)			Lab File ID: 421D1561.D			Analyzed: 04/16/21 06:21		
o-Terphenyl	90.000	96.7	85 - 115	6.12	6.13	-0.0100	N/A	
SJD0260-ICV3 (Water)			Lab File ID: 421D1563.D			Analyzed: 04/16/21 07:03		
o-Terphenyl	90.000	89.9	85 - 115	6.12	6.13	-0.0100	N/A	
SJD0260-CCV1 (Water)			Lab File ID: 421D1577.D			Analyzed: 04/16/21 11:57		
o-Terphenyl	90.000	100	85 - 115	6.12	6.13	-0.0100	N/A	



SURROGATE RECOVERY AND RT SUMMARY

NWTPH-Dx

Laboratory: <u>Analytical Resources, Inc.</u>	SDG/WO: <u>21D0180</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic - US Moorings</u>
Sequence: <u>SJD0282</u>	Instrument: <u>FID4</u>
Calibration: <u>ED00037</u>	Calibration Date: <u>04/13/2021</u>

Surrogate Compound	Spike Level mg/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SJD0282-ICV1 (Water)			Lab File ID: 421D2011.D			Analyzed: 04/20/21 17:08		
o-Terphenyl	90.000	101	85 - 115	6.12	6.13	-0.0100	N/A	
SJD0282-ICV3 (Water)			Lab File ID: 421D2013.D			Analyzed: 04/20/21 17:51		
o-Terphenyl	45.000	93.1	85 - 115	6.11	6.13	-0.0200	N/A	
SJD0282-CCV1 (Water)			Lab File ID: 421D2029.D			Analyzed: 04/21/21 23:31		
o-Terphenyl	90.000	94.2	85 - 115	6.12	6.13	-0.0100	N/A	



SURROGATE RECOVERY AND RT SUMMARY

NWTPH-Dx

Laboratory: <u>Analytical Resources, Inc.</u>	SDG/WO: <u>21D0180</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic - US Moorings</u>
Sequence: <u>SJD0413</u>	Instrument: <u>FID4</u>
Calibration: <u>ED00037</u>	Calibration Date: <u>04/20/2021</u>

Surrogate Compound	Spike Level mg/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SJD0413-IBL1 (Solid)			Lab File ID: 421D2803.D			Analyzed: 04/28/21 15:06		
o-Terphenyl	100.00	78.5	50 - 150	6.12	6.13	-0.0100	N/A	
SJD0413-IBL2 (Solid)			Lab File ID: 421D2804.D			Analyzed: 04/28/21 15:27		
o-Terphenyl	100.00	83.2	50 - 150	6.12	6.13	-0.0100	N/A	
SJD0413-ICV1 (Solid)			Lab File ID: 421D2805.D			Analyzed: 04/28/21 15:48		
o-Terphenyl	90.000	93.8	85 - 115	6.12	6.13	-0.0100	N/A	
BJD0478-BLK1 (Solid)			Lab File ID: 421D2807.D			Analyzed: 04/28/21 16:30		
o-Terphenyl	11.250	89.7	50 - 150	6.12	6.13	-0.0100	N/A	
BJD0478-BS1 (Solid)			Lab File ID: 421D2808.D			Analyzed: 04/28/21 16:51		
o-Terphenyl	11.250	93.0	50 - 150	6.13	6.13	0.0000	N/A	
21D0180-01 (Solid)			Lab File ID: 421D2817.D			Analyzed: 04/28/21 20:01		
o-Terphenyl	24.078	84.4	50 - 150	6.12	6.13	-0.0100	N/A	
21D0180-02 (Solid)			Lab File ID: 421D2818.D			Analyzed: 04/28/21 20:22		
o-Terphenyl	24.681	76.2	50 - 150	6.12	6.13	-0.0100	N/A	
21D0180-03 (Solid)			Lab File ID: 421D2819.D			Analyzed: 04/28/21 20:44		
o-Terphenyl	24.093	74.6	50 - 150	6.12	6.13	-0.0100	N/A	
21D0180-04 (Solid)			Lab File ID: 421D2820.D			Analyzed: 04/28/21 21:05		
o-Terphenyl	31.570	81.2	50 - 150	6.12	6.13	-0.0100	N/A	
SJD0413-CCV1 (Solid)			Lab File ID: 421D2821.D			Analyzed: 04/28/21 21:26		
o-Terphenyl	90.000	93.7	85 - 115	6.12	6.13	-0.0100	N/A	
SJD0413-CCV3 (Solid)			Lab File ID: 421D2833.D			Analyzed: 04/29/21 01:38		
o-Terphenyl	90.000	94.1	85 - 115	6.12	6.13	-0.0100	N/A	



HOLDING TIME SUMMARY

Analysis: **NWTPH-Dx**

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor OEA, LLC

Project: Gasco Siltronic - US Moorings

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
USMPDI-010SG-210414 21D0180-01	04/14/21 11:41	04/16/21 10:30	04/21/21 10:48	6	14	04/28/21 20:01	7	40	
USMPDI-015SG-210414 21D0180-02	04/14/21 10:35	04/16/21 10:30	04/21/21 10:48	7	14	04/28/21 20:22	7	40	
USMPDI-019SG-210414 21D0180-03	04/14/21 08:36	04/16/21 10:30	04/21/21 10:48	7	14	04/28/21 20:44	7	40	
USMPDI-029SG-210414 21D0180-04	04/14/21 09:22	04/16/21 10:30	04/21/21 10:48	7	14	04/28/21 21:05	7	40	

* Indicates hold time exceedance.



METHOD DETECTION AND REPORTING LIMITS

NWTPH-Dx

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor OEA, LLC

Project: Gasco Siltronic - US Moorings

Matrix: Solid

Instrument: FID4

Analyte	MDL	RL	Units
Diesel Range Organics (C12-C24)	2.34	5.00	mg/kg
Motor Oil Range Organics (C24-C38)	2.99	10.0	mg/kg



METHOD DETECTION AND REPORTING LIMITS

NWTPH-Dx

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor OEA, LLC

Project: Gasco Siltronic - US Moorings

Matrix: Water

Instrument: FID4

Analyte	MDL	RL	Units
Diesel Range Organics (C12-C24)	0.033	0.100	mg/L
Motor Oil Range Organics (C24-C38)	0.056	0.200	mg/L

I-6884 - chevron Motor Oil SAE30
 I-6885 - Valvoline Motor Oil SAE30
 I-6886 - Valvoline Motor Oil SAE 5W-30
 I-6887 - Valvoline Motor Oil SAE 40
 I-6888 - Mobil 1 Synthetic Motor Oil 70W30

Mrs
 5/13/11

Joe N. Seber
 5/13/11



OFFICE P.O. BOX 1156, SPRINGFIELD, MO. 65801
 PHONE (417) 862-3333

Since 1957
 Store Phone # 425 021-0080
 Permit To: PO BOX 790050
 ST LOUIS MO 63179-0050

BILL TO: 4499740 SHIP TO: 2509 210057

CASH SALE
 CHEVRON INJECTOR CLEANER
 SAVE INSTANTLY
 BUY 1 GET 1 FREE

INVOICE NUMBER: 2509 210057
 INVOICE TYPE: CHG. CARD SALE
 INVOICE DATE: 5/13/11

COUNTER NO.	SPECIAL INSTRUCTIONS	SHIP VIA	CUSTOMER ORDER NO.	TIME OF ORDER	FILLED BY	CHECKED BY						
5				02:02:50								
TAX	QTY.	LINE	ITEM NUMBER	UNIT MEAS.	CD.	DESCRIPTION	LIST PRICE	NET PRICE	DISC %	CORE PRICE	EXTENDED PRICE	
	1	1	100	EA		Motor Oil	14.73	5.99			5.99	
	1	2	100	EA		Motor Oil	14.73	5.99			5.99	
	1	3	100	EA		Synthetic Oil	12.99	8.19			8.19	
	1	4	100	EA		Motor Oil	7.95	4.69			4.69	
	1	5	100	EA		Motor Oil	7.95	4.69			4.69	
	1	6	100	EA		Motor Oil	6.25	3.69			3.69	
CREDIT CARD MASTER CARD 1254 EXPIRATION DATE XX/XX AUTHORIZATION 36894Z												
TOTALS							7	73.44	37.93			37.93

CUSTOMER SIGNATURE: _____
 CUSTOMER ORDER NO.: _____

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 INVOICE DATE: 5/13/11

COUNTER NO.	SPECIAL INSTRUCTIONS	SHIP VIA	CUSTOMER ORDER NO.	TIME OF ORDER	FILLED BY	CHECKED BY						
5				02:02:50								
TAX	QTY.	LINE	ITEM NUMBER	UNIT MEAS.	CD.	DESCRIPTION	LIST PRICE	NET PRICE	DISC %	CORE PRICE	EXTENDED PRICE	
	1	1	100	EA		Motor Oil	14.73	5.99			5.99	
	1	2	100	EA		Motor Oil	14.73	5.99			5.99	
	1	3	100	EA		Synthetic Oil	12.99	8.19			8.19	
	1	4	100	EA		Motor Oil	7.95	4.69			4.69	
	1	5	100	EA		Motor Oil	7.95	4.69			4.69	
	1	6	100	EA		Motor Oil	6.25	3.69			3.69	
CREDIT CARD MASTER CARD 1254 EXPIRATION DATE XX/XX AUTHORIZATION 36894Z												
TOTALS							7	73.44	37.93			37.93

I-6884 - chevron Motor Oil SAE30
 I-6885 - Valvoline Motor Oil SAE30
 I-6886 - Valvoline Motor Oil SAE 5W-30
 I-6887 - Valvoline Motor Oil SAE 40
 I-6888 - Mobil 1 Synthetic Motor Oil 70W30

*Ms
5/13/11*

*Joe N. Seber
5/13/11*



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STORE PHONE # 425-021-0080
 PERMIT TO: PO BOX 790050
 ST LOUIS MO 63179-0050

INVOICE NUMBER 2509 210057
 INVOICE TYPE CHG. CARD SALE
 INVOICE DATE 5/13/11

BILL TO 449970 SHIP TO

CASH SALE
 CHEVRON INJECTOR CLEANER
 SAVE INSTANTLY
 BUY 1 GET 1 FREE

000000

COUNTER NO.	SPECIAL INSTRUCTIONS	SHIP VIA	CUSTOMER ORDER NO.	TIME OF ORDER	FILLED BY	CHECKED BY					
5				05:02:50							
TAX	QTY.	LINE	ITEM NUMBER	UNIT MEAS.	CD.	DESCRIPTION	LIST PRICE	NET PRICE	DISC %	CORE PRICE	EXTENDED PRICE
	1	10	10	EA		Motor Oil	14.73	5.99			5.99
	1	10	10	EA		Motor Oil	14.73	5.99			5.99
	1	10	10	EA		Synthetic Oil	13.99	8.19			8.19
	1	10	10	EA		Motor Oil	7.95	4.69			4.69
	1	10	10	EA		Motor Oil	7.95	4.69			4.69
	1	10	10	EA		Motor Oil	7.95	4.69			4.69
	1	10	10	EA		MOTOR OIL	6.25	3.69			3.69
CREDIT CARD MASTER CARD 1254 EXPIRATION DATE XX/XX AUTHORIZATION 36894Z											
TOTALS 7 CUSTOMER COPY 1 PAGE 1 SUB-TOTAL 37.93											
MISC. TAX/FEE TOTAL											
CASH TEND. CHANGE											

CUSTOMER SIGNATURE

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INVOICE NUMBER 2509 210057
 INVOICE TYPE CHG. CARD SALE
 INVOICE DATE 5/13/11

BILL TO 449970 SHIP TO

CASH SALE
 CHEVRON INJECTOR CLEANER
 SAVE INSTANTLY
 BUY 1 GET 1 FREE

000000

COUNTER NO.	SPECIAL INSTRUCTIONS	SHIP VIA	CUSTOMER ORDER NO.	TIME OF ORDER	FILLED BY	CHECKED BY					
5				05:02:50							
TAX	QTY.	LINE	ITEM NUMBER	UNIT MEAS.	CD.	DESCRIPTION	LIST PRICE	NET PRICE	DISC %	CORE PRICE	EXTENDED PRICE

I 7 906

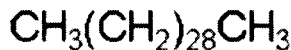
C003092
 TPHD Triacontane NEAT
 Solvent / Lot: NEAT
 Prep: 8/19/2014 by VS
 Exp: 2/15/2030
 Location: GC

1 Spruce Street, Saint Louis, MO 63103, USA
 Website: www.sigmaaldrich.com
 Email USA: techserv@sial.com
 Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name
 Triacontane - 98%

Product Number: 263842
 Batch Number: MKBL2826V
 Brand: ALDRICH
 CAS Number: 638-68-6
 MDL Number: MFCD00009410
 Formula: C₃₀H₆₂
 Formula Weight: 422.81 g/mol
 Quality Release Date: 20 JUN 2012



Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Conforms to Requirements	Flakes
Flakes or Crystalline Flakes		
Melting Point	65.0 - 69.0 °C	65.7 °C
Infrared spectrum	Conforms to Structure	Conforms
Purity (GC)	≥ 97.5 %	98.1 %

Jamie Gleason

Jamie Gleason, Manager
 Quality Control
 Milwaukee, Wisconsin US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Certificate of analysis

Product No.:	A19680
Product:	o-Terphenyl, 98%
Lot No.:	10114703
Appearance	White, crystalline powder
Melting point	55.0-55.9°C
Assay (GC)	99.9+ %

This document has been electronically generated and does not require a signature.

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: www.sigmaaldrich.com

Email USA: techserv@sial.com

Outside USA: eurtechserv@sial.com

Certificate of Analysis

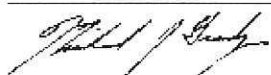
Product Name:
Triacontane - 98%

Product Number: 263842
 Batch Number: MKCD2349
 Brand: ALDRICH
 CAS Number: 638-68-6
 MDL Number: MFCD00009410
 Formula: C₃₀H₆₂
 Formula Weight: 422.81 g/mol
 Quality Release Date: 01 JUN 2017



*F8659
 Rec'd
 09/21/17*

Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form) Flakes or Crystalline Flakes	Conforms to Requirements	Flakes
Melting Point	65.0 - 69.0 °C	65.4 °C
Infrared Spectrum	Conforms to Structure	Conforms
Purity (GC)	≥ 97.5 %	98.2 %



Michael Grady, Manager
 Quality Control
 Milwaukee, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.



front



back

G 004796
5264



Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: 7.16.19 - not requested.

Chemical: Pentacosane-n

Manufacturer: Chem service

Product #: NA

Lot #: 184 - 125 A

Purity: 99%

Analyst: VTS

H006758
n-Pentacosane-Neat
Solvent / Lot: NA
Prep: 7/15/2019 by VS
Exp: 1/12/2030
Location: GC

CERTIFICATE OF ANALYSIS

Catalog No: DRH-004S-R1-5X
Description: Calibration/Window Defining Hydrocarbon Standard
Lot: 219041075
Solvent: Chloroform
Hazards: Refer to SDS for complete safety information

Date Certified: Apr 8, 2019
Expiration: Apr 8, 2029
Sample Size: 1 mL
Components: 17
Storage Condition: Ambient (>5 °C)/Sonicate



Certified Reference Material



Component	CAS #	Purity % (GC/MS)	Prepared Concentration ² (µg/mL)	Certified Analyte Concentration ¹ (µg/mL)
n-Octane	111-65-9	100.0	1017	1017
Decane	124-18-5	100.0	1014	1014
Dodecane	112-40-3	98.1	1013	994
n-Tetradecane	629-59-4	99.9	1008	1007
Hexadecane	544-76-3	98.9	1004	993
n-Octadecane	593-45-3	99.1	1013	1004
Eicosane	112-95-8	99.8	1008	1006
Docosane	629-97-0	99.1	1002	993
n-Tetracosane	646-31-1	100.0	1000	1000
Hexacosane	630-01-3	99.5	1008	1003
n-Octacosane	630-02-4	99.0	1017	1007
n-Triacontane	638-68-6	100.0	1017	1017
Dotriacontane	544-85-4	98.0	1014	994
Tetraatriacontane	14167-59-0	99.0	1012	1002
Hexatriacontane	630-06-8	98.0	1003	983
n-Octatriacontane	7194-85-6	98.5	1009	994
Tetracontane	4181-95-7	99.0	1009	999

H 007050
Recd JK
07/24/19

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.


² All weights are traceable through NIST, Test No. 684/289871-17

¹ Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is $\pm 2.4\%$. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of $K=2$ is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Certified By: 
Larry Decker, Organic QC Manager

Appendix 13.1

ALTERNATE CERTIFICATE OF ANALYSIS

An effort has been made to locate the Certificate of Analysis for the below chemical and the manufacturer of the chemical was unable to provide a certificate at the time of request by ARI. This form is serving as a substitute for documentation purposes.

Date Requested from Manufacturer: 09/20/19 purchased at gas station

Chemical: Diesel #2 NEAT

Manufacturer: 76 gas station

Product #: N/A

Lot #: N/A

Purity: NEAT

Analyst: JE

17009117

09/20/19

13310 Interurban Ave S
Tukwila Wa 98168

STANLEY H & REBECCA
00061106449
13310 INTERURBAN A
TUKWILA , WA
09/20/2019 415774136
11:10:20 AM

3605
MASTERCARD

INVOICE 110939
AUTH 00-024386
REF370230920191109

PUMP# 8
DIESEL 2 0.056G
PRICE/GAL \$3.599

FUEL TOTAL \$ 0.20

CREDIT \$ 0.20

COMPLETION
SWIPE Exp.Date:**/**
Batch: 37 Seq Num: 23
Term ID: 8
Workstation ID: 00
Your opinion
counts! Enter to
Win 1 of 60 \$25
gas gift cards!!!
Provide feedback
www.gasvisit.com
Learn how to earn
50 cents/gallon in
fuel statement
credits. Go to
drivesavvy.com or
see details at the
pump. Restrictions
apply. Offer
expires 9/30/19.
18

H009117
M
09/20/19

COMPLETE A SURVEY
WWW.GASVISIT.COM
REGISTER TO WIN!!



CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31233 Lot No.: A0157505

Description : Diesel Fuel #2 Standard (Unweathered)

Diesel Fuel #2 Standard (Unweathered) 5,000 µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : March 31, 2027 Storage: 25°C nominal

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	Diesel Fuel #2 - Single Source CAS # 68334-30-5.C (Lot 032404SZ) Purity ----%	5,000.0 µg/mL	+/- 29.3428	µg/mL	Gravimetric	
			+/- 148.9194	µg/mL	Unstressed	
			+/- 158.8208	µg/mL	Stressed	

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

I 3995
Recd. JR
05/07/20



Dioxin Extractions QC Benchsheet

Reagent and Standard QC

Chemical Receiving Inventory #	Reagent/ Standard	Brand	Lot #	Date Received/ Made	Initial Amount	Solvent Exchange	FEV	GC/ HRMS Pass Y/N
	Toluene	Omni Solv	I045216	6/15/20	100mL	Nonane	10µL	
	DCM	Omni Solv			100mL	Nonane	10µL	
	Hexane	Omni Solv	OK		100mL	Nonane	10µL	
	MeOH	B&J	the 6/15/20		100mL	Nonane	10µL	
	Nonane	Acros Organics			100µL	N/A	10µL	
	Purified Sand	Sakrete			2 scoop	Nonane	10µL	
	Glasswool	Corning Life Sciences			1" in column	Nonane	10µL	
	0% Silica	Fisher			2 scoop	Nonane	10µL	
	Acid Silica	Fisher			2 scoop	Nonane	10µL	
	Basic Silica	Fisher			2 scoop	Nonane	10µL	
	Florisil	Fluka			1 scoop	Nonane	10µL	
	Rec Standard	Wellington Labs			1mL	Nonane	10µL	
	Clean-up Standard	Wellington Labs			1mL	Nonane	10µL	
	OPR Standard	Wellington Labs			20µL	Nonane	10µL	
	QLS Standard	Wellington Labs			20µL	Nonane	10µL	

Prep Analyst/Date: *µ 6/24/20* Inst. Run Date:

Dataset: Untitled
 Last Altered: Monday, June 29, 2020 10:03:07 Pacific Daylight Time
 Printed: Monday, June 29, 2020 10:04:40 Pacific Daylight Time

Method: T:\Autospec\Methods\Dioxin200625.mdb 26 Jun 2020 07:56:21
 Calibration: T:\Autospec\Curves\200530ICIH.cdb 01 Jun 2020 10:55:54

ID: TOL I5216, Name: 20062529, Date: 26-Jun-2020, Time: 13:22:47, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
2378-TCDF					0.795		0.770	502	912								
12378-PeCDF					0.797		1.550	617	1077								
23478-PeCDF	30.165	1.001	1.227e2	1.579e2	0.962	0.777	1.550	617	1077	2.10e3	3.93e3	3.4	YES	YES	bb	db	0.021
123478-HxCDF					0.973		1.240	730	521								
234678-HxCDF					0.984		1.240	730	521								
123678-HxCDF					0.916		1.240	730	521								
123789-HxCDF					0.922		1.240	730	521								
1234678-HpCDF					1.096		1.050	407	561								
1234789-HpCDF					1.055		1.050	407	561								
OCDF					1.325		0.890	699	892								
2378-TCDD					1.140		0.770	598	496								
12378-PeCDD					1.091		1.550	796	359								
123478-HxCDD					0.922		1.240	426	461								
123678-HxCDD					0.949		1.240	426	461								
123789-HxCDD					0.847		1.240	426	461								
1234678-HpCDD	39.214	1.000	1.780e2	1.648e2	1.124	1.080	1.050	623	450	5.26e3	4.42e3	8.4	YES	NO	db	bd	0.056
OCDD	43.632	1.001	7.460e2	8.959e2	1.237	0.833	0.890	548	755	1.46e4	1.18e4	26.6	YES	NO	db	bb	0.395
13C-2378-TCDF	24.683	1.007	8.253e5	1.052e6	2.214	0.784	0.770	2142	1231	1.27e7	1.60e7	5920.7	YES	NO	bb	bb	104.193
13C-12378-PeCDF	28.785	1.175	9.077e5	5.652e5	1.903	1.606	1.550	3236	2267	1.39e7	8.73e6	4292.3	YES	NO	bb	bb	95.101
13C-23478-PeCDF	30.132	1.230	8.542e5	5.386e5	1.845	1.586	1.550	3236	2267	1.36e7	8.60e6	4196.7	YES	NO	bb	bb	92.784
13C-123478-HxCDF	33.782	0.953	3.067e5	6.177e5	1.198	0.496	0.510	985	2180	4.77e6	9.43e6	4845.3	YES	NO	bd	bd	100.338
13C-123678-HxCDF	33.927	0.957	3.240e5	6.472e5	1.488	0.501	0.510	985	2180	4.94e6	9.69e6	5021.3	YES	NO	db	db	84.878
13C-234678-HxCDF	34.828	0.982	2.825e5	5.661e5	1.195	0.499	0.510	985	2180	4.58e6	9.04e6	4654.9	YES	NO	bb	bb	92.321
13C-123789-HxCDF	35.875	1.012	2.245e5	4.600e5	1.014	0.488	0.510	985	2180	3.58e6	7.24e6	3633.6	YES	NO	bb	bb	87.800
13C-1234678-HpCDF	37.756	1.065	2.347e5	5.376e5	1.197	0.437	0.440	1921	1828	3.90e6	8.90e6	2030.5	YES	NO	bb	bb	83.898
13C-1234789-HpCDF	39.893	1.125	1.546e5	3.545e5	0.893	0.436	0.440	1921	1828	2.31e6	5.25e6	1200.4	YES	NO	bb	bb	74.159
13C-1234-TCDD	24.501	0.000	3.592e5	4.546e5	1.000	0.790	0.770	1294	805	5.73e6	7.24e6	4430.9	YES	NO	bb	bb	100.000
13C-2378-TCDD	25.302	1.033	4.262e5	5.508e5	1.193	0.774	0.770	1294	805	6.55e6	8.49e6	5063.6	YES	NO	bb	bb	100.651
13C-12378-PeCDD	30.388	1.240	5.085e5	2.920e5	0.962	1.741	1.550	1585	769	8.14e6	4.57e6	5135.1	YES	NO	bb	bb	102.293
13C-123478-HxCDD	34.951	0.986	4.607e5	3.535e5	1.059	1.303	1.240	1709	1194	7.44e6	5.71e6	4354.5	YES	NO	bd	bd	99.975
13C-123678-HxCDD	35.062	0.989	4.656e5	3.558e5	1.278	1.309	1.240	1709	1194	7.41e6	5.66e6	4332.5	YES	NO	db	db	83.562
13C-1234678-HpCDD	39.203	1.105	2.827e5	2.610e5	0.843	1.083	1.050	1161	1015	4.45e6	4.04e6	3833.9	YES	NO	bb	bb	83.842
13C-OCDD	43.605	1.230	3.233e5	3.491e5	0.616	0.926	0.890	1678	2408	4.02e6	4.31e6	2392.6	YES	NO	bb	bb	141.987

Dataset: Untitled
 Last Altered: Monday, June 29, 2020 10:03:07 Pacific Daylight Time
 Printed: Monday, June 29, 2020 10:04:40 Pacific Daylight Time

ID: TOL I5216, Name: 20062529, Date: 26-Jun-2020, Time: 13:22:47, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
13C-123789-HxCDD	35.463	0.000	4.323e5	3.368e5	1.000	1.283	1.240	1709	1194	6.94e6	5.37e6	4058.0	YES	NO	bb	bb	100.000
37CL-2378-TCDD	25.227	1.030	1.071e2		1.258			1328		2.42e3		1.8	NO		db		0.010
1368-TCDF					1.007		0.770	502	912								
1289-TCDF					0.754		0.770	502	912								
13468-PECDF					1.099		1.550	293	640								
12389-PECDF	31.178	1.083	1.504e2	7.409e1	0.841	2.030	1.550	617	1077	2.46e3	2.87e3	4.0	NO	YES	bb	bb	0.018
123468-HXCDF					1.142		1.240	730	521								
1368-TCDD					1.214		0.770	598	496								
1289-TCDD					1.061		0.770	598	496								
12479-PECDD					2.040		1.550	796	359								
12389-PECDD					1.257		1.550	796	359								
124679-HXCDD					1.164		1.240	426	461								
1234679-HPCDD	38.245	0.976	8.609e1	1.019e2	1.378	0.845	1.050	623	450	1.89e3	2.90e3	3.0	YES	YES	bb	bb	0.025
Total-tetrafurans			0.000e0		0.852			502		0.00e0							
Total-penta1			0.000e0					293		0.00e0							
Total-pentafurans			0.000e0		0.867			617		0.00e0							
Total-hexafurans			0.000e0		0.987			730		0.00e0							
Total-heptafurans			0.000e0		1.076			407		0.00e0							
Total-Furans			0.000e0		0.978			502		0.00e0							
Total-tetradiioxins			0.000e0		1.138			598		0.00e0							
Total-pentadiioxins			0.000e0		1.463			796		0.00e0							
Total-hexadiioxins			0.000e0		0.971			426		0.00e0							
Total-heptadiioxins			1.780e2		1.251			623		5.26e3							0.056
Total-Dioxins			9.240e2		1.187			598		1.99e4							0.451
Total-TEQ			9.240e2					598		1.99e4							0.451
FUNCTION1 PFK			1.728e5					220633		4.73e6							
FUNCTION2 PFK			0.000e0					159655		0.00e0							
FUNCTION3 PFK			0.000e0					198585		0.00e0							
FUNCTION4 PFK			2.228e5					179610		7.02e6							
FUNCTION5 PFK			2.507e4					138501		1.09e6							
FUNCTION1 HXCDPE			0.000e0					189		0.00e0							
FUNCTION1 HPCDPE			4.279e2					738		9.46e3							0.000
FUNCTION2 HPCDPE			1.573e2					792		4.18e3							0.000
FUNCTION3 OCDPE			8.296e1					216		3.72e3							0.000
FUNCTION4 NCDPE			0.000e0					279		0.00e0							
FUNCTION5 DCDPE			0.000e0					233		0.00e0							



Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

ThermoFisher Scientific's Quality System has been found to conform to Quality Management System
Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. ThermoFisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. ThermoFisher does not maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	T291	Quality Test / Release Date	08/15/2018
Lot Number	184485		
Description	TOLUENE - OPTIMA		
Country of Origin	United States	Suggested Retest Date	Aug/2023
Chemical Origin	Organic - non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		
Chemical Comment			

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear colorless liquid free of suspended matter
ASSAY	%	>= 99.8	99.9
BENZENE	%	<= 0.05	<0.05
COLOR	APHA	<= 10	<5
EVAPORATION RESIDUE	ppm	<= 1	<0.1
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
OPTICAL ABS AT 285 NM	ABSORBANCE UNITS	<= 1	0.69
WATER (H2O)	%	<= 0.02	0.02
OPTICAL ABS AT 325 NM	ABSORBANCE UNITS	<= 0.02	0.01
OPTICAL ABS AT 350 NM	ABSORBANCE UNITS	<= 0.005	0.001
PESTICIDE RESIDUE ANALYSIS	NG/L	<= 10	<1
REFRACTIVE INDEX @ 25 DEG C		Inclusive Between 1.4930 - 1.4950	1.4940
SUBSTANCES DARKENED BY H2SO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFUR COMPOUNDS	%	<= 0.003	<0.0003
OPTICAL ABS AT 300 NM	ABSORBANCE UNITS	<= 0.1	0.07

Jerusa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above. If there are any questions with this certificate, please call at (800) 227-6701.

*Based on suggested storage condition.



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

USMPDI-010SG-210414

Laboratory: Analytical Resources, Inc.

Client: Anchor QEA, LLC

Project: Gasco Siltronic - US Moorings

Matrix: Sediment Laboratory ID: 21D0180-01 A SDG: 21D0180

Sampled: 04/14/21 11:41 Prepared: 04/18/21 07:28 File ID:

% Solids: 45.11 Preparation: No Prep Wet Chem Analyzed: 04/18/21 08:16

Batch: BJD0433 Sequence: Initial/Final: 5 g Wet / 5 g

Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	45.11	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

USMPDI-015SG-210414

Laboratory: Analytical Resources, Inc.

Client: Anchor QEA, LLC

Project: Gasco Siltronic - US Moorings

Matrix: Sediment Laboratory ID: 21D0180-02 A SDG: 21D0180

Sampled: 04/14/21 10:35 Prepared: 04/18/21 07:28 File ID:

% Solids: 45.88 Preparation: No Prep Wet Chem Analyzed: 04/18/21 08:16

Batch: BJD0433 Sequence: Initial/Final: 5 g Wet / 5 g

Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	45.88	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

USMPDI-019SG-210414

Laboratory: Analytical Resources, Inc.

Client: Anchor QEA, LLC

Project: Gasco Siltronic - US Moorings

Matrix: Sediment Laboratory ID: 21D0180-03 A SDG: 21D0180

Sampled: 04/14/21 08:36 Prepared: 04/18/21 07:28 File ID:

% Solids: 45.65 Preparation: No Prep Wet Chem Analyzed: 04/18/21 08:16

Batch: BJD0433 Sequence: Initial/Final: 5 g Wet / 5 g

Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	45.65	1	0.04	0.04	



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

USMPDI-029SG-210414

Laboratory: Analytical Resources, Inc.

Client: Anchor QEA, LLC

Project: Gasco Siltronic - US Moorings

Matrix: Sediment Laboratory ID: 21D0180-04 A SDG: 21D0180

Sampled: 04/14/21 09:22 Prepared: 04/18/21 07:28 File ID:

% Solids: 35.70 Preparation: No Prep Wet Chem Analyzed: 04/18/21 08:16

Batch: BJD0433 Sequence: Initial/Final: 5 g Wet / 5 g

Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	35.70	1	0.04	0.04	



PREPARATION BATCH SUMMARY

SM 2540 G-97

Laboratory: Analytical Resources, Inc. SDG: 21D0180
Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings
Batch: BJD0433 Batch Matrix: Solid Preparation: No Prep Wet Chem

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
USMPDI-010SG-210414	21D0180-01		04/18/21 07:28	
USMPDI-015SG-210414	21D0180-02		04/18/21 07:28	
USMPDI-019SG-210414	21D0180-03		04/18/21 07:28	
USMPDI-029SG-210414	21D0180-04		04/18/21 07:28	
Blank	BJD0433-BLK1		04/18/21 07:28	

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET for Solid samples											Batch: BJD0433					
Method: PSEP 1986, SM2540, EPA 160.1											Date: 4/18/2021 8:16					
(dry at 104 (12-24 hr) then combust at 550 (30 min))											Analyst: KLE					
Instrumentation			Drying Ovens: 12			Analytical Balance: BAL2			Muffle Furnace: N / A							
Batch drying time			TS (%) calculated as:						TVS (mg/kg dry wt) calculated as:							
record times as mm/dd/yy hh:mm			Final dry wt (g) = (Dry Wt - Tare Wt)						Final ash wt (g) = (min ash wt - tare wt)							
date/time in oven: 4/18/2021 8:16			TS = (Final Dry Wt)/ (grams Sample-Tare)						TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000							
date/time out: 4/19/2021 15:40									if ash wt > dry wt, "Chk for Err"							
elapsed hrs = 31.4 > 24 hr									if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000"							
Balance Calibration Check											CV-02		CV-02		CV-02	
Record weights to 4 places											CV-02		CV-02		CV-02	
Cal Weight ID: CV-02			CV-02		CV-02		CV-02		CV-02		CV-02					
Date & Time: 4/18/21 7:30			4/18/21 7:58		4/19/21 16:15											
Cal Wt (g): 10.0000			10.0000		9.9999											
Cal OK!			Cal OK!		Cal OK!											
Sample ID	Dish #	Tare Wt. (g)	Dish & Sample (g)	Dry Wt 104C (grams)			dry Wt (g)	TS (%)	Notes	ASH WT 550C (grams)			Ash Wt (g)	TVS		Notes
				1	2	3				1	2	3		(mg/kg)	(%)	
BJD0433-BLK1	1	0.7877	0.0000	0.7877			0.0000	0.00%								
21D0161-01	2	0.7816	6.6971	5.0007			4.2191	71.32%								
21D0161-02	3	0.7838	6.1086	4.5806			3.7968	71.30%								
21D0179-01	4	0.7903	8.2115	4.1551			3.3648	45.34%								
21D0179-02	5	0.8092	7.6281	3.5716			2.7624	40.51%								
21D0179-03	6	0.8004	7.9311	3.7942			2.9938	41.98%								
21D0179-04	7	0.7967	6.6442	3.0222			2.2255	38.06%								
BJD0433-DUP1	8	0.8036	6.6768	3.0531			2.2495	38.30%	RPD=0.6							
21D0179-05	9	0.8107	6.7248	3.0617			2.2510	38.06%								
21D0179-06	10	0.8057	6.4811	2.9380			2.1323	37.57%								
21D0180-01	11	0.7917	6.6794	3.4479			2.6562	45.11%								
21D0180-02	12	0.7883	7.1433	3.7039			2.9156	45.88%								
21D0180-03	13	0.7952	7.1270	3.6859			2.8907	45.65%								
21D0180-04	14	0.7899	7.6633	3.2437			2.4538	35.70%								



Form I
METHOD BLANK DATA SHEET
SM 2540 G-97
TotalAnalytes

Blank

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor QEA, LLC

Project: Gasco Siltronic - US Moorings

Batch: BJD0433

Laboratory ID: BJD0433-BLK1

Prepared: 04/18/21 07:28

Matrix: Solid

Preparation: No Prep Wet Chem

Analyzed: 04/18/21 08:16

Sequence:

Calibration:

Instrument: BAL2

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	ND	1	0.04	0.04	U



HOLDING TIME SUMMARY

Analysis: SM 2540 G-97

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor OEA, LLC

Project: Gasco Siltronic - US Moorings

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
USMPDI-010SG-210414 21D0180-01	04/14/21 11:41	04/16/21 10:30	04/18/21 07:28	3	28	04/18/21 08:16	4	28	
USMPDI-015SG-210414 21D0180-02	04/14/21 10:35	04/16/21 10:30	04/18/21 07:28	3	28	04/18/21 08:16	4	28	
USMPDI-019SG-210414 21D0180-03	04/14/21 08:36	04/16/21 10:30	04/18/21 07:28	3	28	04/18/21 08:16	4	28	
USMPDI-029SG-210414 21D0180-04	04/14/21 09:22	04/16/21 10:30	04/18/21 07:28	3	28	04/18/21 08:16	4	28	

* Indicates hold time exceedance.



Analytical Resources, Incorporated
Analytical Chemists and Consultants

METHOD DETECTION AND REPORTING LIMITS

SM 2540 G-97

Laboratory: Analytical Resources, Inc.

SDG: 21D0180

Client: Anchor OEA, LLC

Project: Gasco Siltronic - US Moorings

Matrix: Solid

Instrument:

Analyte	MDL	RL	Units
Total Solids	0.04	0.04	%

TOTAL SOLIDS BENCHSHEET		Batch:	BJD0427
Method: PSEP 1986		Date:	4/16/2021 14:31
(dry at 103-105 C)		Analyst:	YL
Instrumentation		Drying Oven:	15
		Analytical Balance:	B146462614

Batch drying time		TS (%) calculated as: Final dry wt (g) = (Dry Wt - Tare Wt) TS = (Final Dry Wt X 100)/ (sample & dish -dish tare)
record times as mm/dd/yy hh:mm		
date/time in oven:	4/16/2021 15:26	
date/time out:	4/19/2021 8:30	
elapsed hrs:	65.1	> 24 hr

SAMPLE ID	Dish Tare Wt (g)	Dish with Sample (g)	Dry Wt (g)	Solids Wt (g)	TS (%)	Sample Decanted
21D0180-01	1.1300	11.3800	5.9100	4.78	46.63%	Yes
21D0180-02	1.1300	12.1000	6.1200	4.99	45.49%	Yes
21D0180-03	1.1000	12.1300	6.2400	5.14	46.60%	Yes
21D0180-04	1.1300	12.1700	5.0600	3.93	35.60%	Yes

TOTAL SOLIDS BENCHSHEET		Batch:	BJD0427
Method: PSEP 1986		Date:	4/16/2021 14:31
(dry at 103-105 C)		Analyst:	<i>[Signature]</i>
Instrumentation		Drying Oven:	<i>φ/S</i>
		Analytical Balance:	<i>B146482614</i>
Batch drying time		TS (%) calculated as: Final dry wt (g) = (Dry Wt - Tare Wt) TS = (Final Dry Wt X 100)/(sample & dish - dish tare)	
record times as mm/dd/yy hh:mm			
date/time in oven:	<i>04/18/21 15:26</i>		
date/time out:	<i>04/19/21 08:30</i>		
elapsed hrs:	0.0		

SAMPLE ID	Dish Tare Wt (g)	Dish with Sample (g)	Dry Wt (g)	Solids Wt (g)	TS (%)	Sample Decanted
21D0180-01 <i>A</i>	<i>1.13</i>	<i>11.38</i>	<i>5.91</i>			<i>No</i>
21D0180-02 <i>J</i>	<i>1.13</i>	<i>12.14</i>	<i>6.12</i>			<i>No</i>
21D0180-03 <i>↓</i>	<i>1.14</i>	<i>12.13</i>	<i>6.24</i>			<i>No</i>
21D0180-04 <i>A</i>	<i>1.13</i>	<i>12.17</i>	<i>5.46</i>			<i>No</i>

T/S + Screens

2 copies