



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

27 January 2021

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

RE: Gasco Siltronic

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)  
20K0204

Associated SDG ID(s)  
N/A

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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.

Amanda Volgardsen Johnson, Project Manager

*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.*



ARI Job #: 20K6204  
**ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY**

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

**Project:** GascoSiltronic: US Moorings  
**Client:** NW Natural

**COC ID:** ARI-20201110-153131  
**Sample Custodian:** CO  
**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-003SC-B-00-02-201110	N	SE	11/10/2020	11:55	1	<input type="checkbox"/>	EPH (QAPP C-4)	EPH	30	4°C
								Total solids (ARI)	SM2540G	30	
002	USMPDI-003SC-B-02-04-201110	N	SE	11/10/2020	11:55	1	<input type="checkbox"/>	EPH (QAPP C-4)	EPH	30	4°C
								Total solids (ARI)	SM2540G	30	
003	USMPDI-003SC-B-04-06-201110	N	SE	11/10/2020	11:55	1	<input type="checkbox"/>	EPH (QAPP C-4)	EPH	30	4°C
								Total solids (ARI)	SM2540G	30	
004	USMPDI-003SC-B-06-08-201110	N	SE	11/10/2020	11:55	1	<input type="checkbox"/>	EPH (QAPP C-4)	EPH	30	4°C
								Total solids (ARI)	SM2540G	30	
005	USMPDI-006SC-A-00-01-201110	N	SE	11/10/2020	9:25	1	<input type="checkbox"/>	PAHs and Alk. PAHs	SW8270ESIM	30	4°C
								TPH	NWTPHDx	30	
								Total solids (ARI)	SM2540G	30	
006	USMPDI-006SC-D-00-02-201110	N	SE	11/10/2020	9:05	1	<input type="checkbox"/>	EPH (QAPP C-4)	EPH	30	4°C
								Total solids (ARI)	SM2540G	30	
007	USMPDI-006SC-D-02-04-201110	N	SE	11/10/2020	9:05	2	<input type="checkbox"/>				

Comment:					
Relinquished By	Received By	Relinquished By	Received By	Relinquished By	Received By
Signature	Signature	Signature	Signature	Signature	Signature
Print Name	Print Name	Print Name	Print Name	Print Name	Print Name
Company	Company	Company	Company	Company	Company
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time
11/10/2020 0740	11/12/2020 1020				



**ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY**

**POC: #** Delaney Peterson (360-715-2707)

**Project:** GascoSiltronic: US Moorings

**COC ID:**

ARI-20201110-153131

1605 Cornwall Avenue, Bellingham, WA 98225

**Client:** NW Natural

**Sample Custodian:**

CO

**Lab:**

Analytical Resources Inc.

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
007	USMPDI-006SC-D-02-04-201110	N	SE	11/10/2020	9:05	2	<input type="checkbox"/>	EPH (QAPP C-4)	EPH	30	4°C
								PAHs and Alk. PAHs	SW8270ESIM	30	4°C
								TPH	NWTPHDx	30	
								Total solids (ARI)	SM2540G	30	
008	USMPDI-006SC-D-04-06-201110	N	SE	11/10/2020	9:05	1	<input type="checkbox"/>	EPH (QAPP C-4)	EPH	30	4°C
								Total solids (ARI)	SM2540G	30	
009	USMPDI-006SC-D-06-08-201110	N	SE	11/10/2020	9:05	1	<input type="checkbox"/>	EPH (QAPP C-4)	EPH	30	4°C
								Total solids (ARI)	SM2540G	30	
010	USMPDI-006SC-D-08-10-201110	N	SE	11/10/2020	9:05	1	<input type="checkbox"/>	EPH (QAPP C-4)	EPH	30	4°C
								Total solids (ARI)	SM2540G	30	
011	USMPDI-006SC-D-10-12-201110	N	SE	11/10/2020	9:05	1	<input type="checkbox"/>	EPH (QAPP C-4)	EPH	30	4°C
								Total solids (ARI)	SM2540G	30	
012	USMPDI-006SC-D-12-14-201110	N	SE	11/10/2020	9:05	2	<input checked="" type="checkbox"/>	EPH (QAPP C-4)	EPH	30	4°C
								Total solids (ARI)	SM2540G	30	

Comment:

Relinquished By: Signature	Received By: Signature	Relinquished By: Signature	Received By: Signature	Relinquished By: Signature	Received By: Signature
Print Name	Print Name	Print Name	Print Name	Print Name	Print Name
Company	Company	Company	Company	Company	Company
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

**ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY**

**POC: #** Delaney Peterson (360-715-2707)

**Project:** GascoSiltronic: US Moorings

**COC ID:**

ARI-20201110-153131

1605 Cornwall Avenue, Bellingham, WA 98225

**Client:** NW Natural

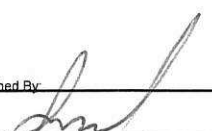

**Sample Custodian:**

CO

**Lab:**

Analytical Resources Inc.

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative	
013	USMPDI-1006SC-D-10-12-201110	FD	SE	11/10/2020		1	<input type="checkbox"/>					
									EPH (QAPP C-4)	EPH	30	4°C
									Total solids (ARI)	SM2540G	30	

Comment:					
Relinquished By	Received By	Relinquished By	Received By	Relinquished By	Received By
Signature 	Signature 	Signature	Signature	Signature	Signature
Print Name J. Norwood	Print Name Samantha Colon	Print Name	Print Name	Print Name	Print Name
Company Anchor OEA	Company ARI	Company	Company	Company	Company
Date/Time 11/11/20 @ 740	Date/Time 11/12/2020 1020	Date/Time	Date/Time	Date/Time	Date/Time



# Cooler Receipt Form

ARI Client: Anchor

Project Name: Gasco Siltronic

COC No(s): \_\_\_\_\_ NA

Delivered by: (Fed-Ex) UPS Courier Hand Delivered Other: \_\_\_\_\_

Assigned ARI Job No: 2020204

Tracking No: 7720 5793 6025 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 1020 39

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: DOO 5206

Cooler Accepted by: SC Date: 11/12/2020 Time: 1020

**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:) Cardboard

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 Date/Time: \_\_\_\_\_ Equipment: \_\_\_\_\_ Split by: \_\_\_\_\_

Samples Logged by: SC Date: 11/12/2020 Time: 1107 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

Project Number: [none]

Project Manager: Delaney Peterson

**Reported:**

01/27/2021 15:44

**ANALYTICAL REPORT FOR SAMPLES**

Laboratory ID	Sample ID	Matrix	Date Sampled	Date Received
20K0204-01	USMPDI-003SC-B-00-02-201110	Solid	11/10/20 11:55	11/12/20 10:20
20K0204-02	USMPDI-003SC-B-02-04-201110	Solid	11/10/20 11:55	11/12/20 10:20
20K0204-03	USMPDI-003SC-B-04-06-201110	Solid	11/10/20 11:55	11/12/20 10:20
20K0204-04	USMPDI-003SC-B-06-08-201110	Solid	11/10/20 11:55	11/12/20 10:20
20K0204-05	USMPDI-006SC-A-00-01-201110	Solid	11/10/20 09:25	11/12/20 10:20
20K0204-06	USMPDI-006SC-D-00-02-201110	Solid	11/10/20 09:05	11/12/20 10:20
20K0204-07	USMPDI-006SC-D-02-04-201110	Solid	11/10/20 09:05	11/12/20 10:20
20K0204-08	USMPDI-006SC-D-04-06-201110	Solid	11/10/20 09:05	11/12/20 10:20
20K0204-09	USMPDI-006SC-D-06-08-201110	Solid	11/10/20 09:05	11/12/20 10:20
20K0204-10	USMPDI-006SC-D-08-10-201110	Solid	11/10/20 09:05	11/12/20 10:20
20K0204-11	USMPDI-006SC-D-10-12-201110	Solid	11/10/20 09:05	11/12/20 10:20
20K0204-12	USMPDI-006SC-D-12-14-201110	Solid	11/10/20 09:05	11/12/20 10:20
20K0204-13	USMPDI-1006SC-D-10-12-201110	Solid	11/10/20 00:00	11/12/20 10:20



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

Project: Gasco Siltronic  
Project Number: [none]  
Project Manager: Delaney Peterson

Reported:  
27-Jan-2021 15:44

## Case Narrative

### Sample receipt

Samples as listed on the preceding page were received 12-Nov-2020 10:20 under ARI work order 20K0204. For details regarding sample receipt, please refer to the Cooler Receipt Form.

### Alkyl PAH - EPA Method SW8270E-SIM

The samples were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements, with the exception of SIJ0085-SCV1 which is outside of control limits high for Dibenzofuran. No corrective action was taken.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blanks were clean at the reporting limits.

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

A matrix spike and matrix spike duplicate were prepared in conjunction with sample USMPDI-006SC-D-02-04-201110. The matrix spike and matrix spike duplicate have several flagged low spike recoveries and high RPD. The results are advisory. No corrective action was taken.

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

The samples were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements, with the exception of SIL0065-CCV2 which is outside of control limits high for the RRO range. No corrective action was taken.

The surrogate percent recoveries were within control limits, several samples have low surrogate percent recoveries. The DRO concentrations were non-detect. No corrective action was taken.

The method blank was clean at the reporting limits.

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

A matrix spike and matrix spike duplicate were prepared in conjunction with sample USMPDI-006SC-D-02-04-201110. The matrix spike/matrix spike duplicate percent recoveries and RPD were within QC limits.

### Extractable Organic Hydrocarbons - WA-Ecology

The samples were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements, with the exception of SIJ0055-SCV2 which is outside of control limits high for the surrogate. No corrective action was taken.

The surrogate percent recoveries were within control limits.



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Project: Gasco Siltronic  
Project Number: [none]  
Project Manager: Delaney Peterson

**Reported:**  
27-Jan-2021 15:44

### **Case Narrative**

The method blanks were clean at the reporting limits.

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

A matrix spike and matrix spike duplicate were prepared in conjunction with sample USMPDI-006SC-D-02-04-201110. The matrix spike/matrix spike duplicate percent recoveries and RPD were within QC limits.





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

Project: Gasco Siltronic  
Project Number: [none]  
Project Manager: Delaney Peterson

**Reported:**  
27-Jan-2021 15:44

## **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).
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)
D1	Surrogate was not detected due to sample extract dilution
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  
SIM Alkyl PAH

Laboratory: Analytical Resources, Inc.  
Client: Anchor OEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-05 A SDG: 20K0204  
Sampled: 11/10/20 09:25 Prepared: 11/24/20 11:45 File ID: NT1420121999.D  
% Solids: 54.92 Preparation: EPA 3546 (Microwave) Analyzed: 12/22/20 16:19  
Batch: BIK0745 Sequence: SIL0350 Initial/Final: 18.21 g Wet / 2.5 mL  
Instrument: NT14 Column: ZB-5MS Calibration: DJ00029  
Cleanups: Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
493-02-7	trans-Decalin	1	25.0	U	0.1	25.0
493-01-6	cis-Decalin	1	25.0	U	2.4	25.0
91-20-3	Naphthalene	1	291		2.2	25.0
90-12-0	1-Methylnaphthalene	1	40.8		1.9	25.0
91-57-6	2-Methylnaphthalene	1	99.6		2.2	25.0
92-52-4	Biphenyl	1	36.6		1.7	25.0
581-42-0	2,6-Dimethylnaphthalene	1	52.5		1.9	25.0
208-96-8	Acenaphthylene	1	82.8		1.3	25.0
83-32-9	Acenaphthene	1	152		2.3	25.0
132-64-9	Dibenzofuran	1	43.8		2.1	25.0
2245-38-7	2,3,5-Trimethylnaphthalene	1	20.8	J	2.2	25.0
86-73-7	Fluorene	1	136		2.3	25.0
95-15-8	Benzo(b)thiophene	1	20.9	J	1.8	25.0
85-01-8	Phenanthrene	1	816		4.7	25.0
120-12-7	Anthracene	1	171		0.2	25.0
86-74-8	Carbazole	1	33.6		3.6	25.0
832-69-9	1-Methylphenanthrene	1	82.9		2.5	25.0
206-44-0	Fluoranthene	1	1270		6.8	25.0
132-65-0	Dibenzothiophene	1	81.1		3.3	25.0
129-00-0	Pyrene	1	1420		5.1	25.0
56-55-3	Benzo(a)anthracene	1	628		7.1	25.0
218-01-9	Chrysene	1	677		3.5	25.0
205-99-2	Benzo(b)fluoranthene	1	588		4.0	25.0
205-82-3	Benzo(j)fluoranthene	1	348		3.4	25.0
207-08-9	Benzo(k)fluoranthene	1	298		4.0	25.0
	Benzofluoranthenes, Total	1	1230		15.0	50.0
197-97-2	Benzo(e)pyrene	1	621		3.1	25.0
50-32-8	Benzo(a)pyrene	1	912		4.9	25.0
193-39-5	Indeno(1,2,3-cd)pyrene	1	639		1.9	25.0
53-70-3	Dibenzo(a,h)anthracene	1	93.8		3.4	25.0





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

Laboratory: Analytical Resources, Inc.  
Client: Anchor OEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-05 A SDG: 20K0204  
Sampled: 11/10/20 09:25 Prepared: 11/24/20 11:45 File ID: NT1420121999.D  
% Solids: 54.92 Preparation: EPA 3546 (Microwave) Analyzed: 12/22/20 16:19  
Batch: BIK0745 Sequence: SIL0350 Initial/Final: 18.21 g Wet / 2.5 mL  
Instrument: NT14 Column: ZB-5MS Calibration: DJ00029  
Cleanups: Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
191-24-2	Benzo(g,h,i)perylene	1	916		2.6	25.0
1985-5-0	Perylene	1	435		2.2	25.0
239-35-0	Benzo(b)naphtho(2,1-d)thiophene	1	110		25.0	25.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
Naphthalene-d8	149.99	94.1	62.7	30 - 160	
Acenaphthene-d10	149.99	103	69.0	30 - 160	
Phenanthrene-d10	149.99	135	90.1	30 - 160	
Chrysene-d12	149.99	104	69.3	30 - 160	
Perylene-d12	149.99	110	73.3	30 - 160	

Data File: \\target\share\chem3\nt14.1\20201219F JB\NT1420121999.D

Date : 22-DEC-2020 16:19

Client ID:

Sample Info: 20K0204-05

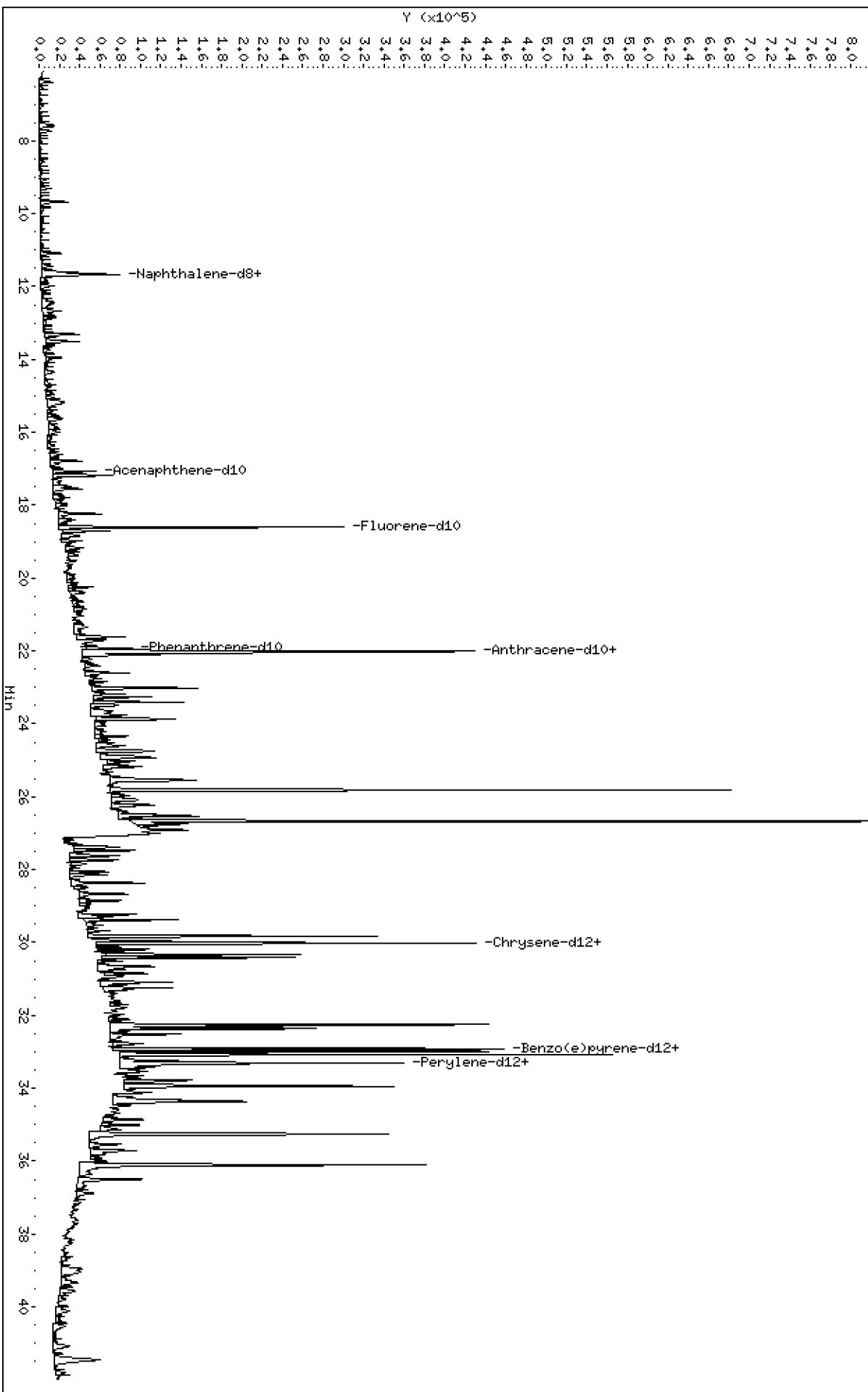
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14.1\20201219F JB\NT1420121999.D



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

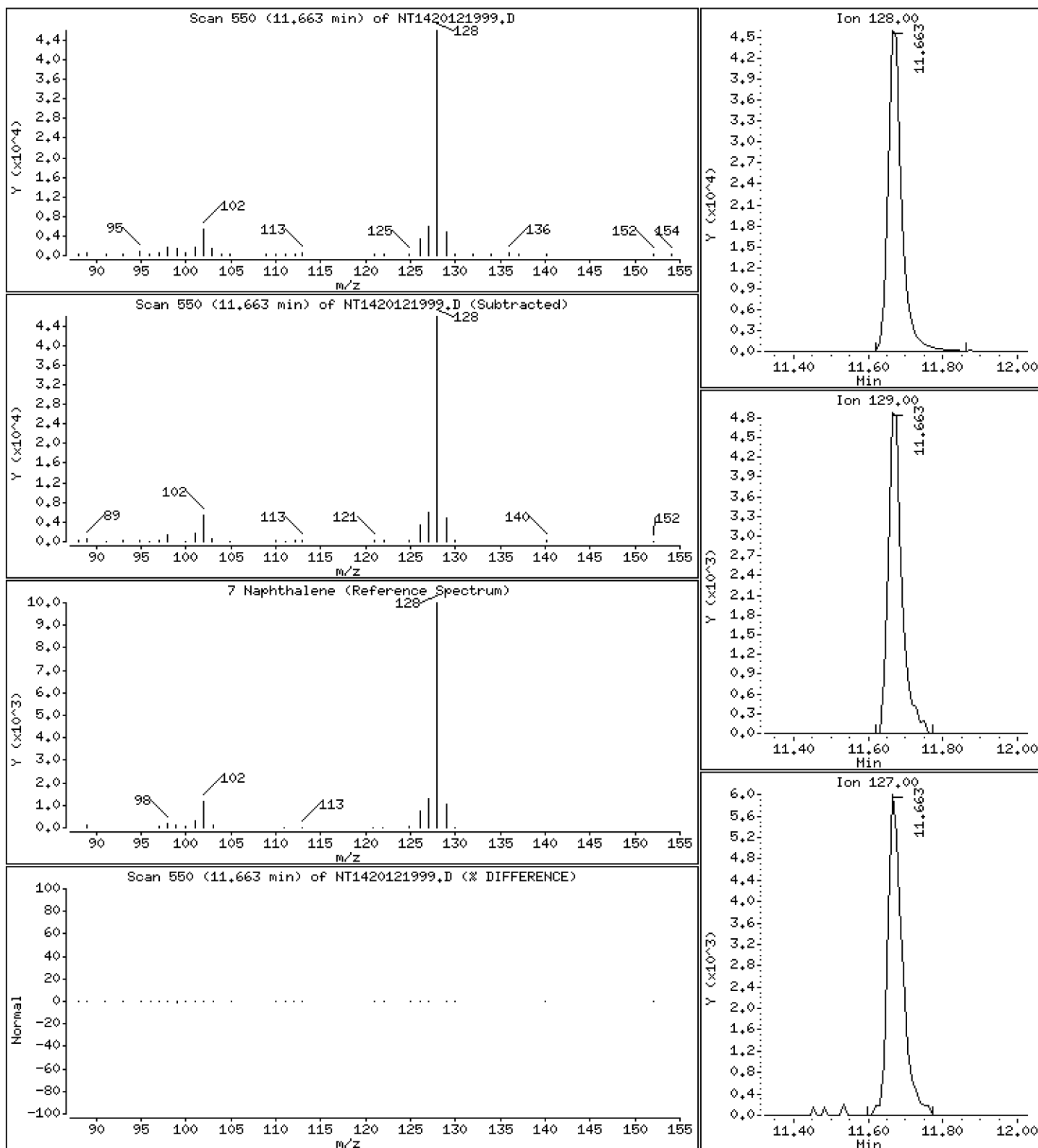
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

7 Naphthalene

Concentration: 1.165 ug/mL





Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

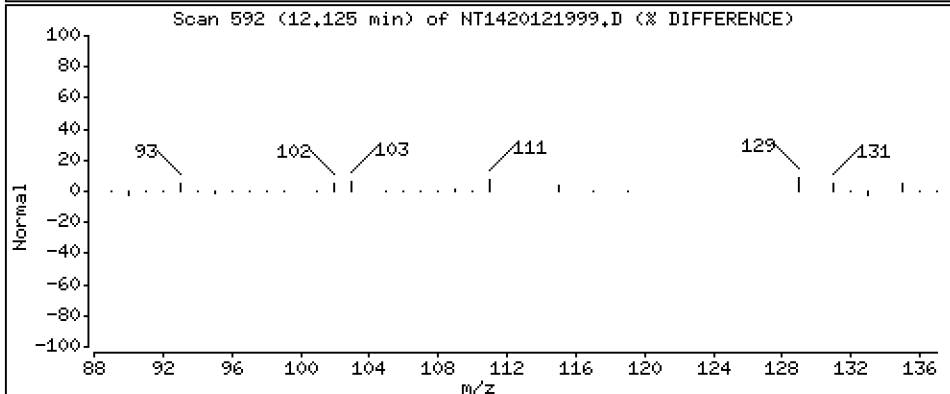
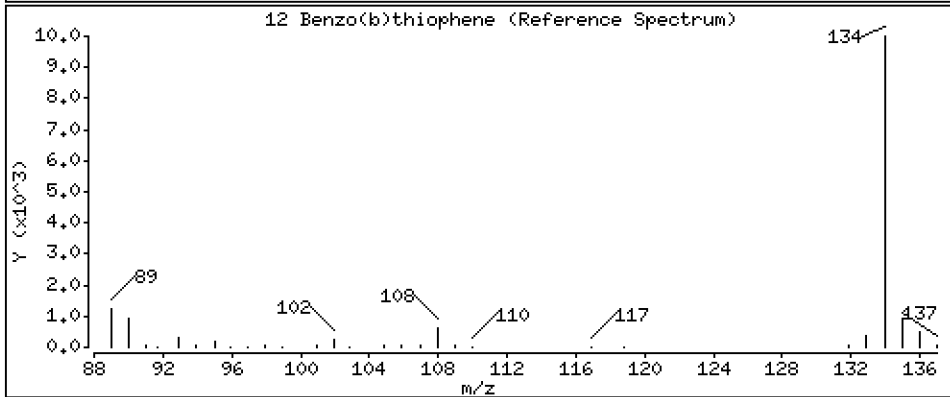
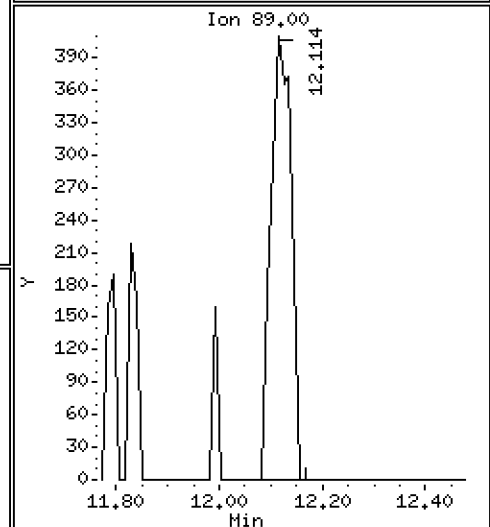
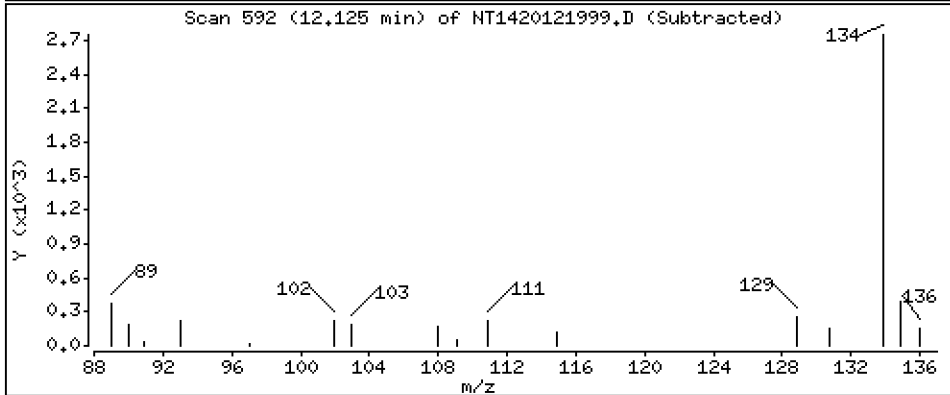
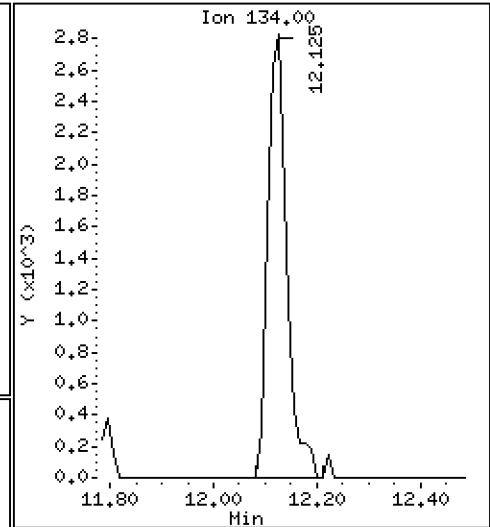
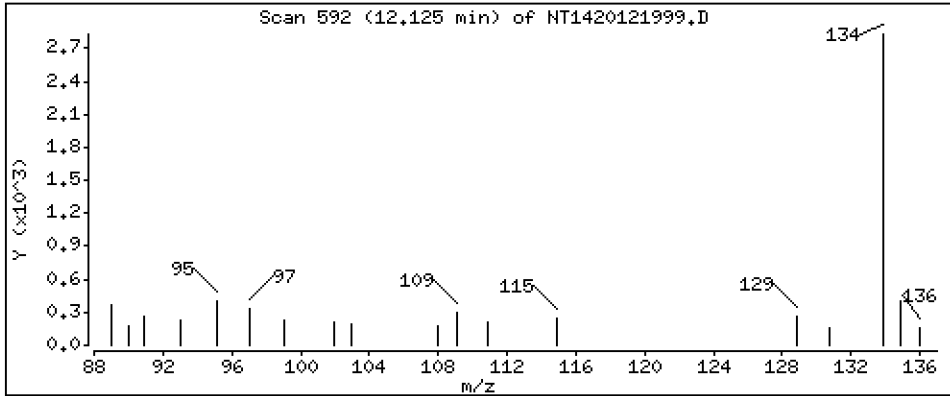
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

12 Benzo(b)thiophene

Concentration: 0,08341 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

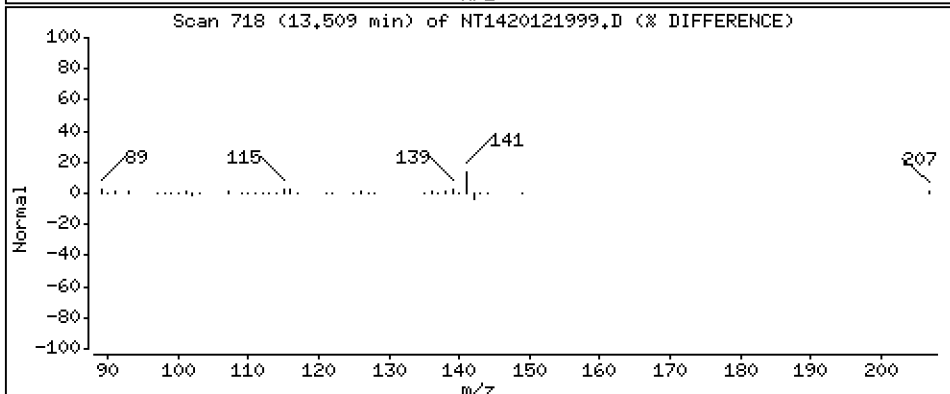
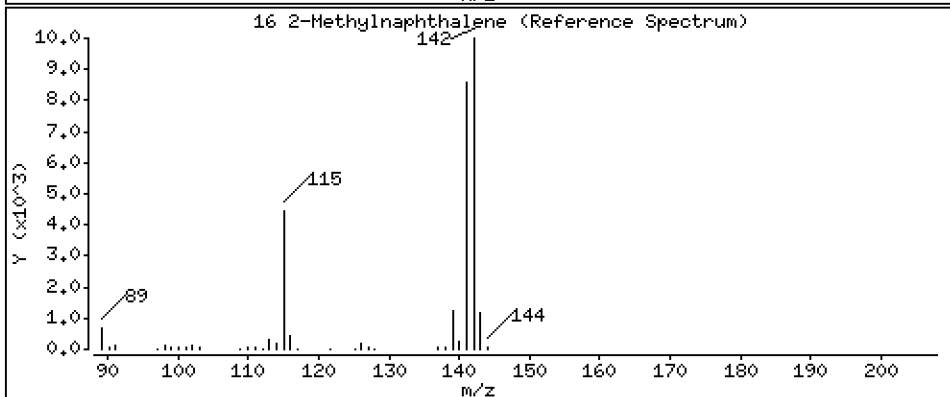
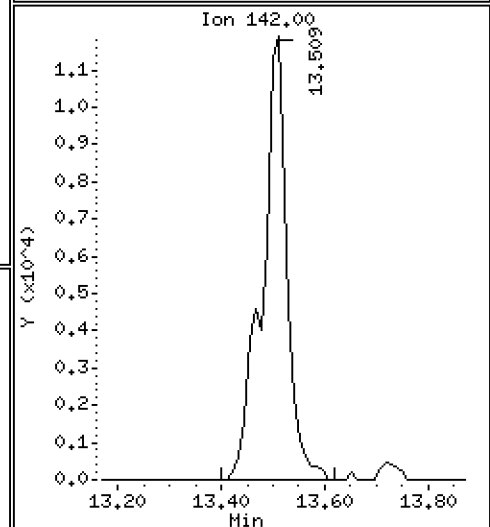
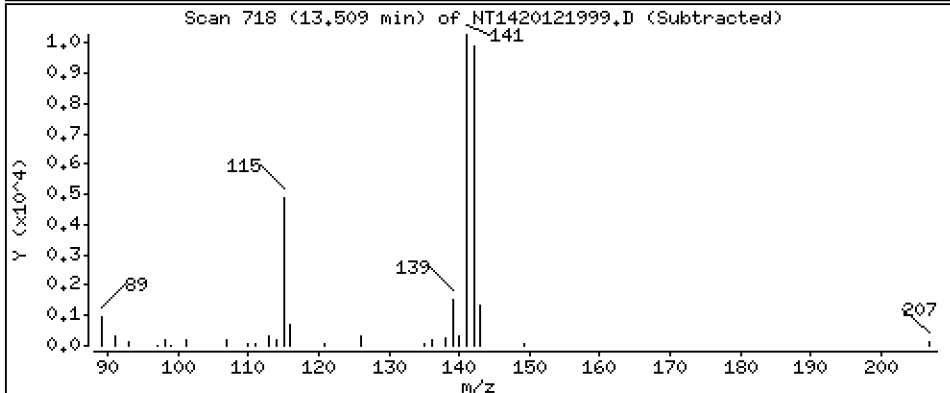
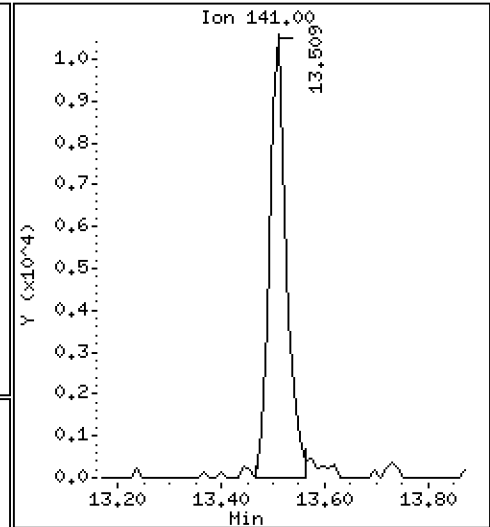
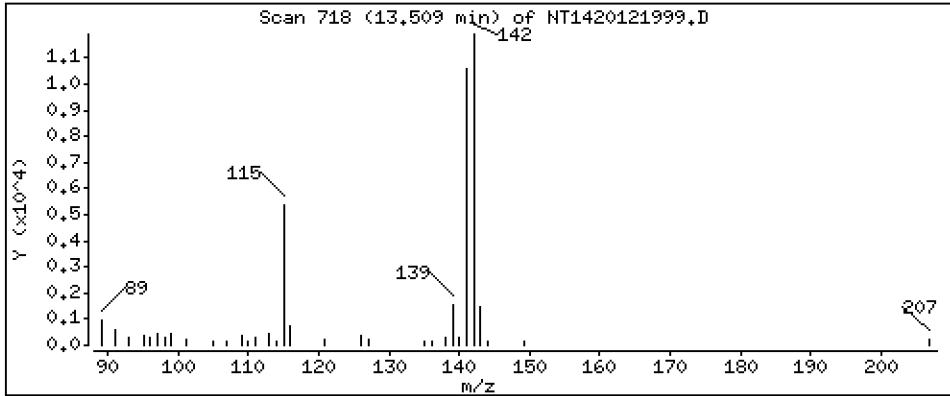
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 2-Methylnaphthalene

Concentration: 0,3983 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

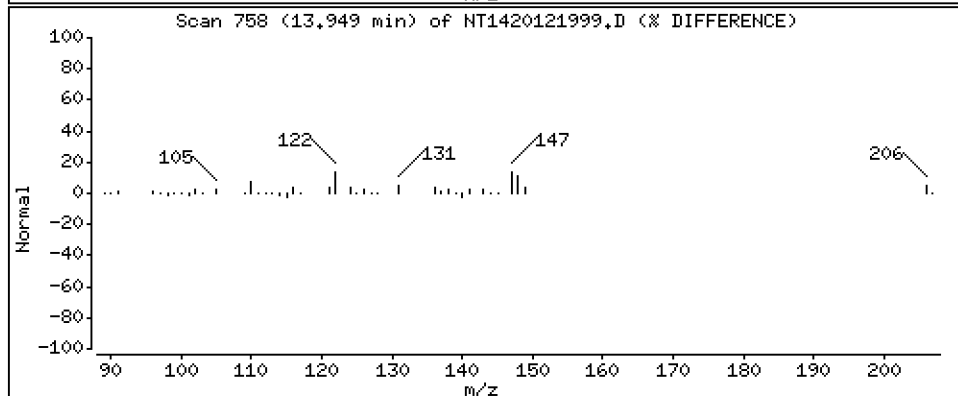
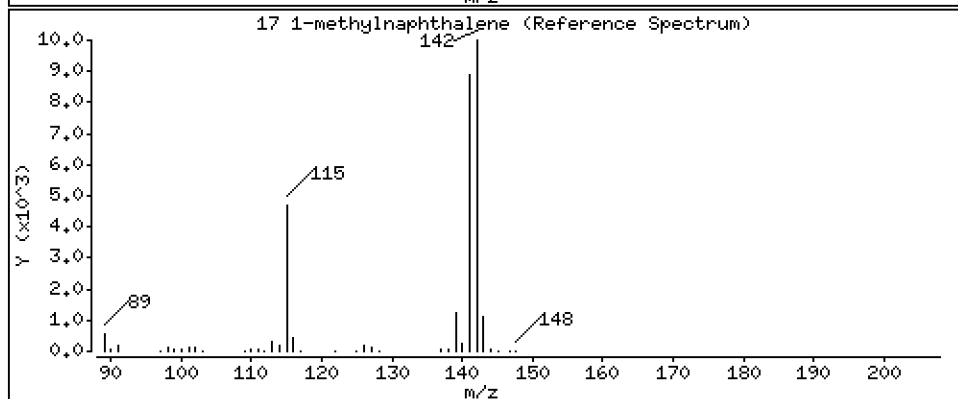
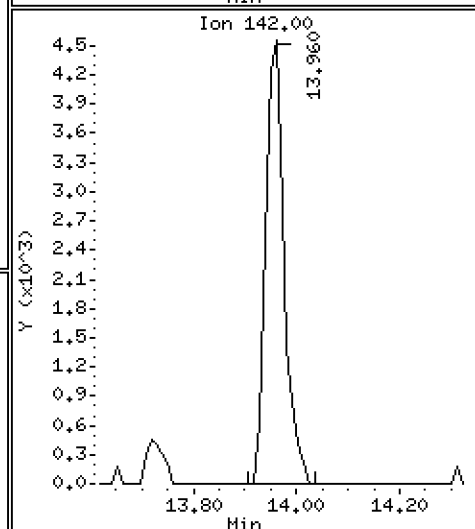
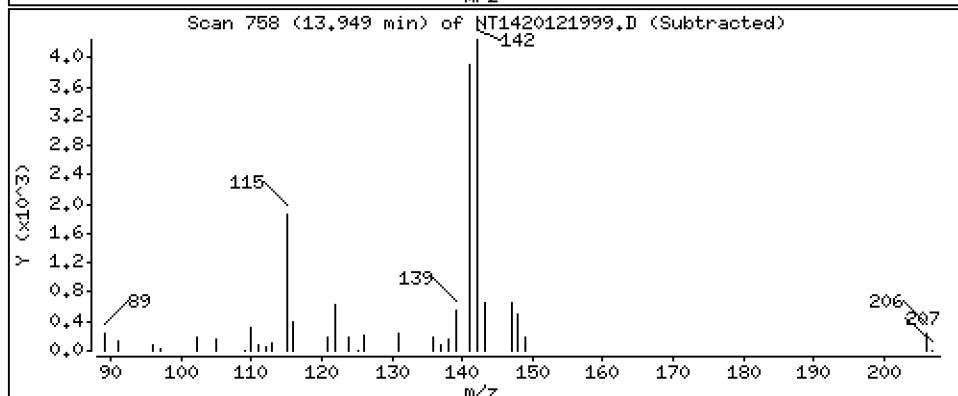
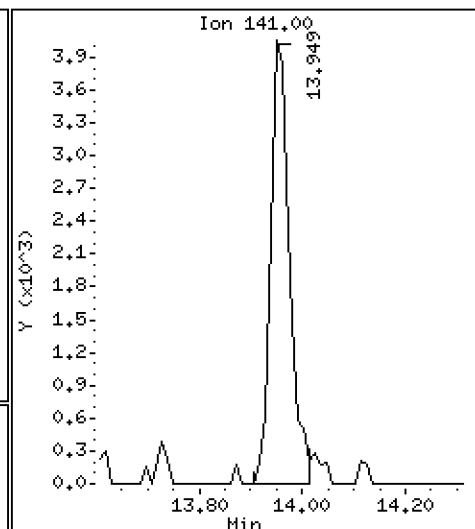
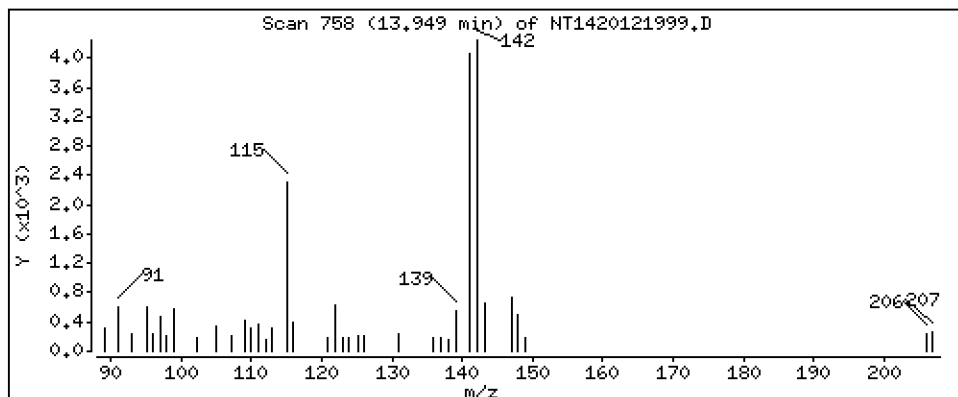
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 1-methylnaphthalene

Concentration: 0,1633 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

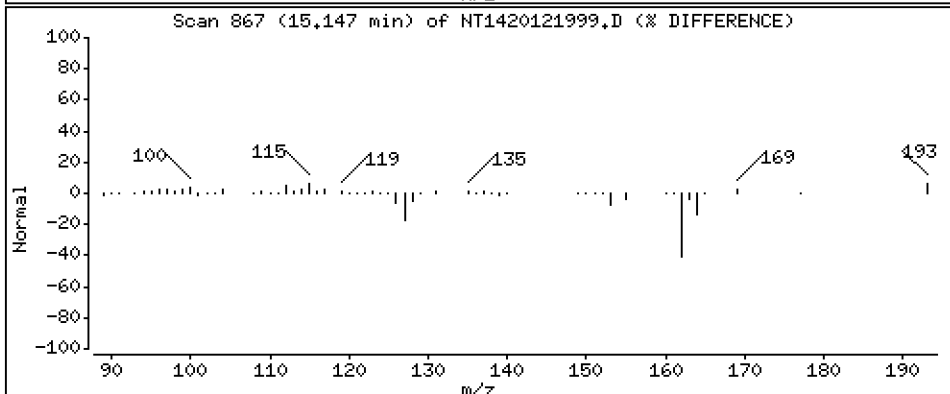
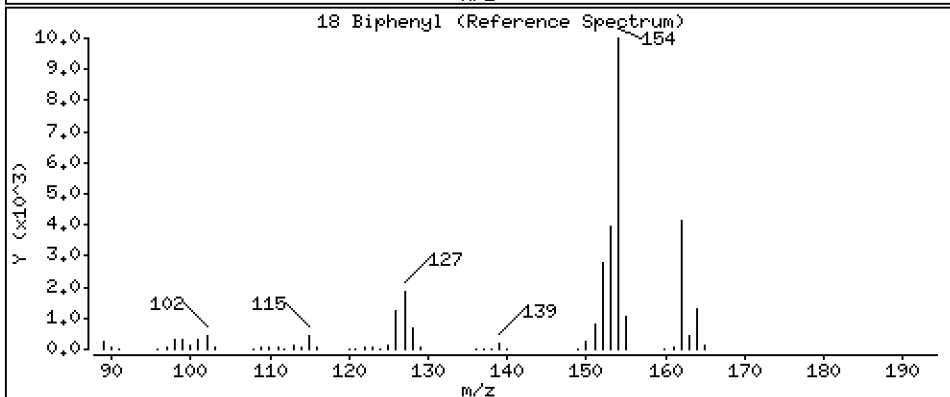
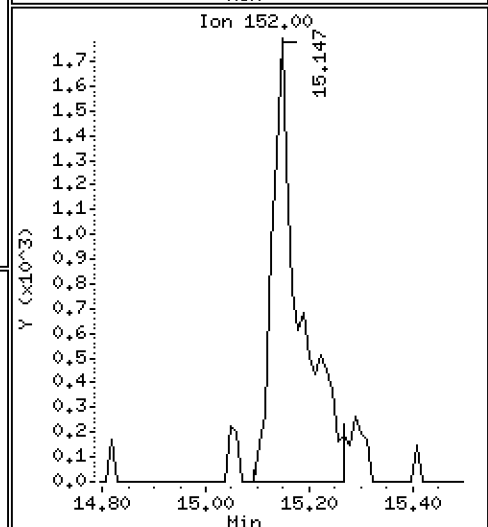
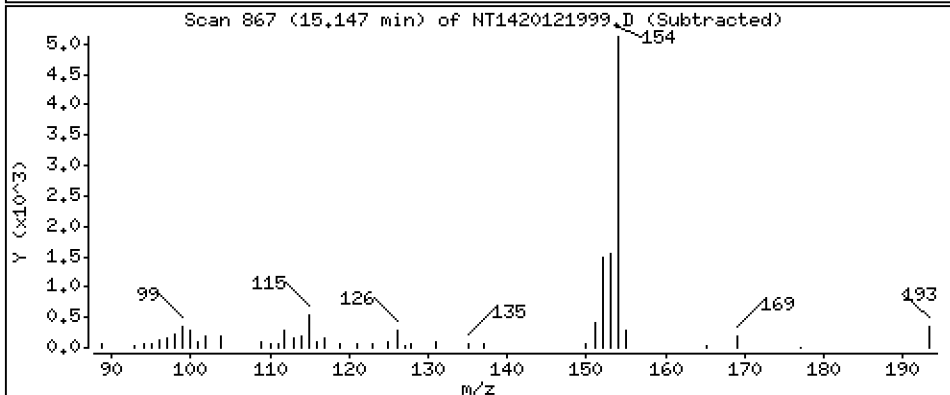
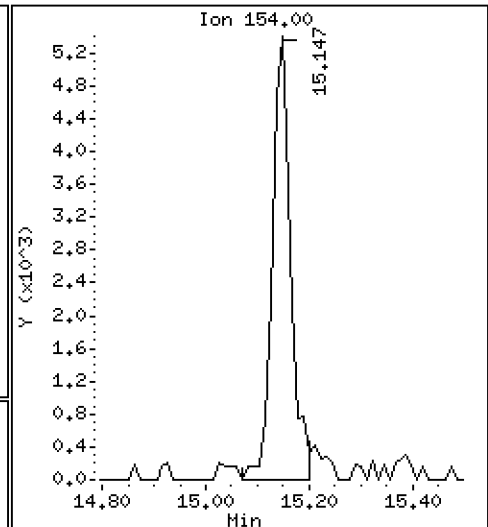
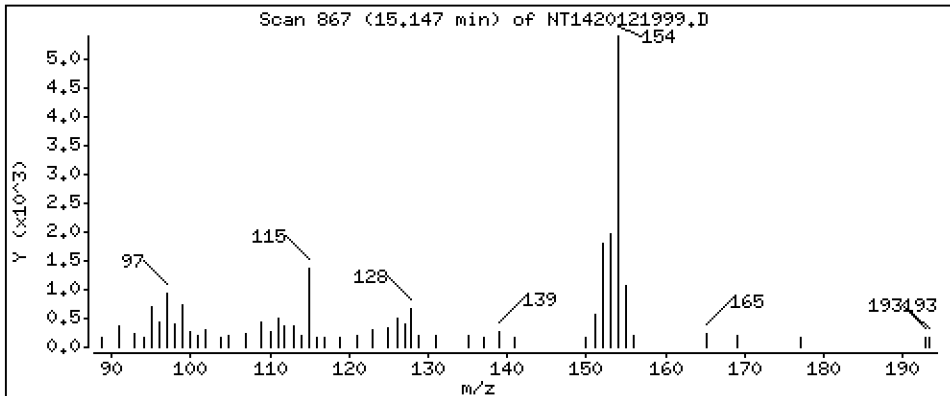
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

18 Biphenyl

Concentration: 0.1466 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

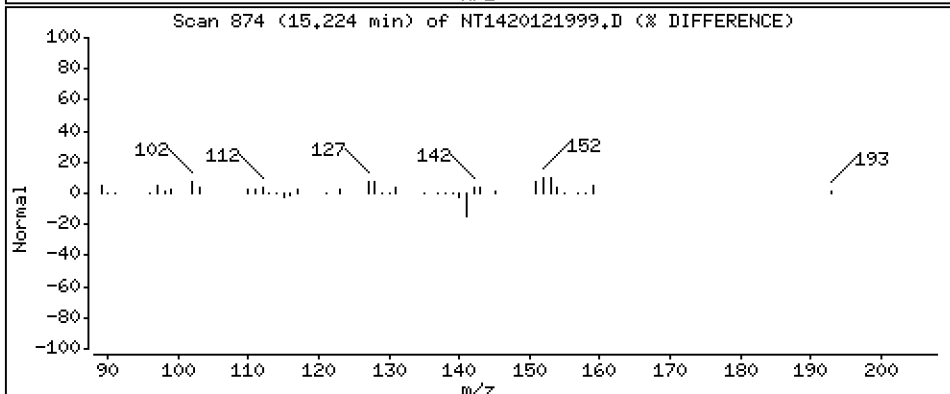
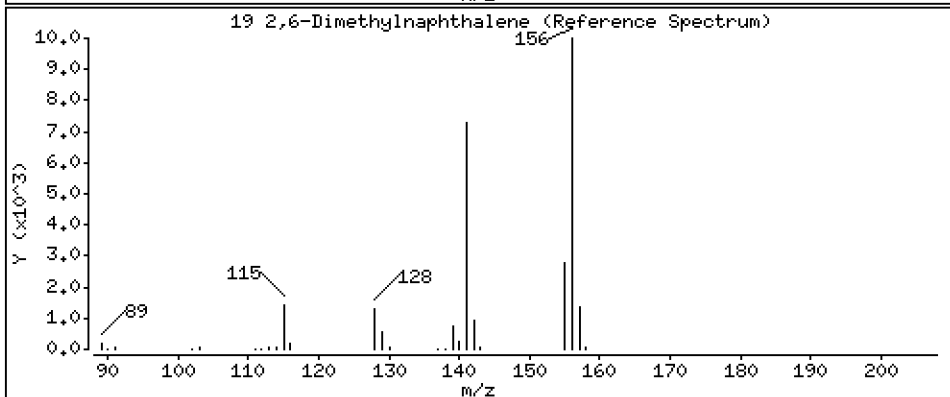
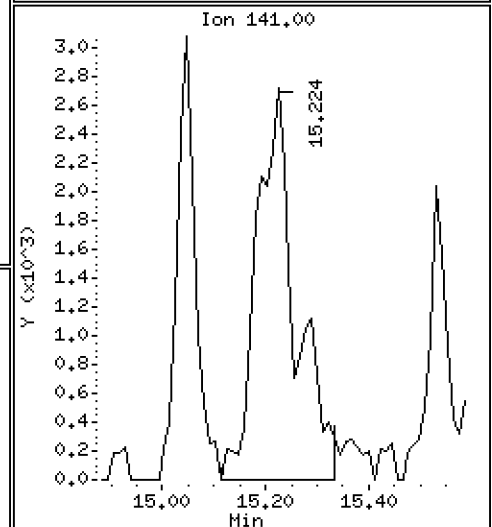
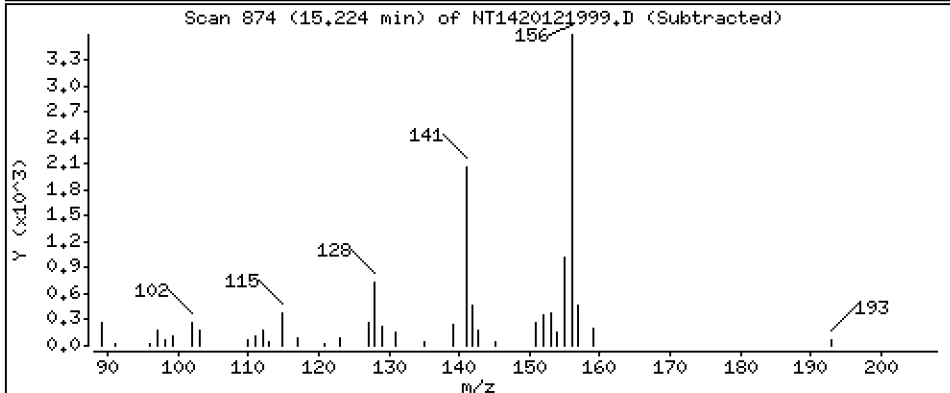
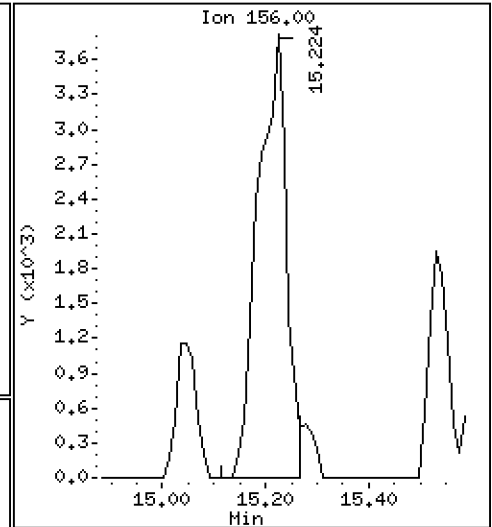
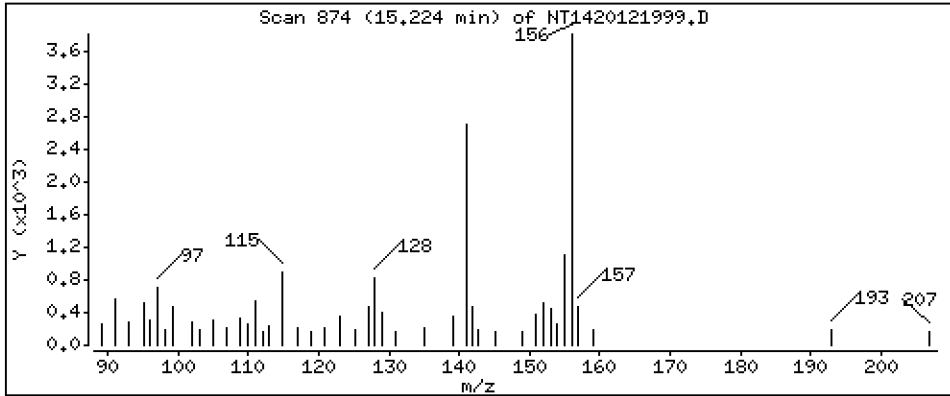
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

19 2,6-Dimethylnaphthalene

Concentration: 0.2100 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

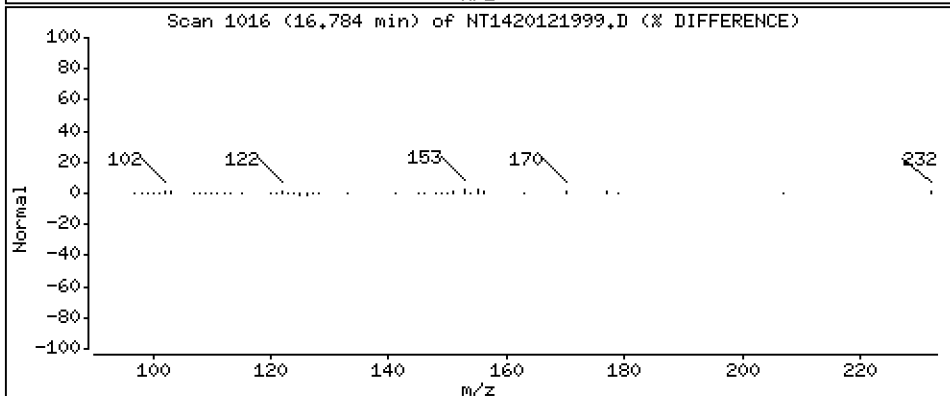
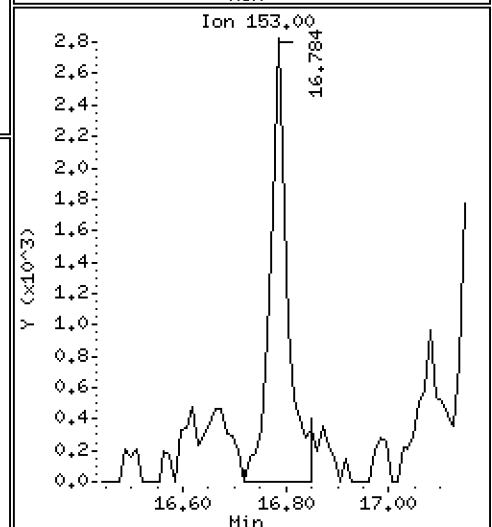
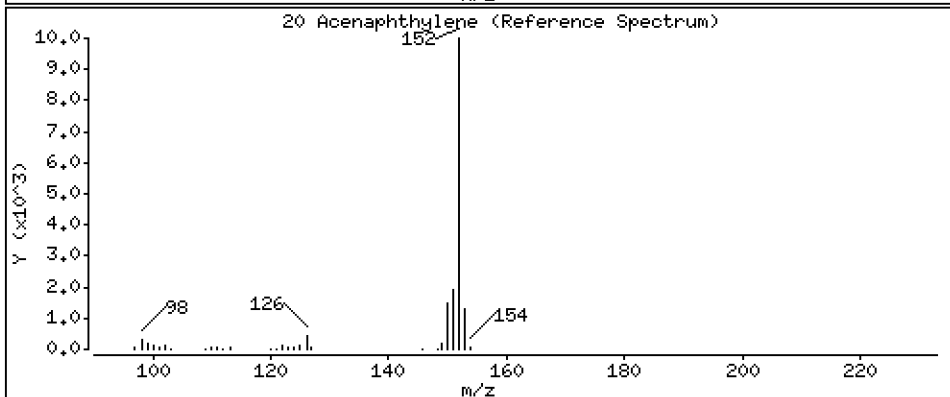
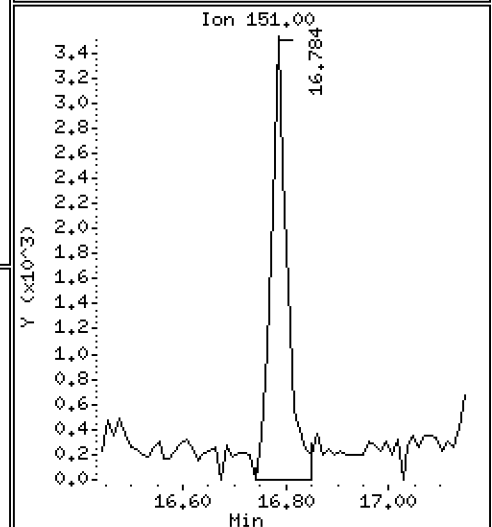
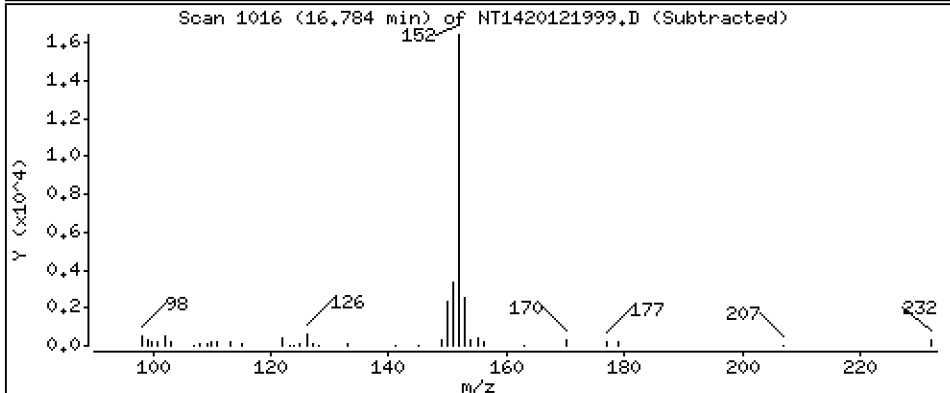
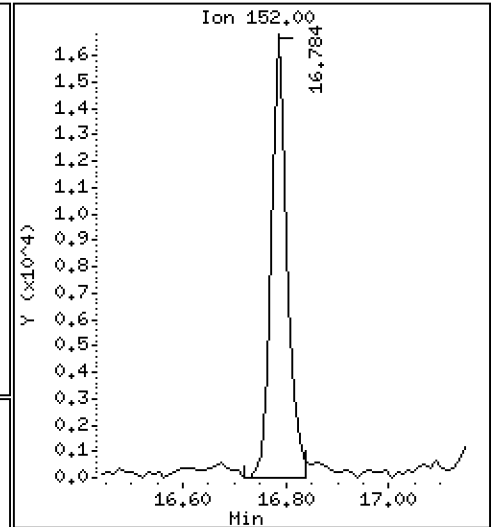
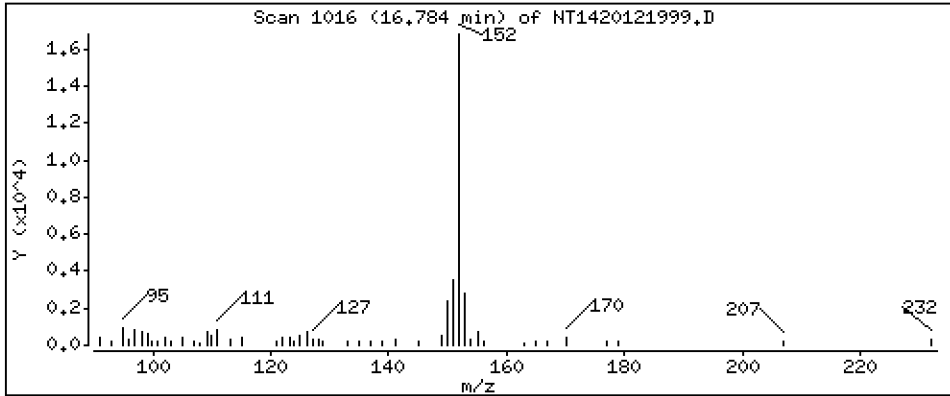
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

20 Acenaphthylene

Concentration: 0.3311 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

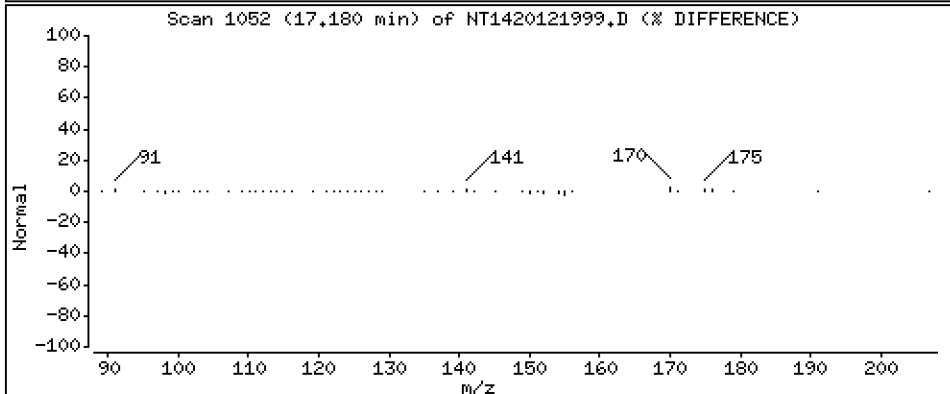
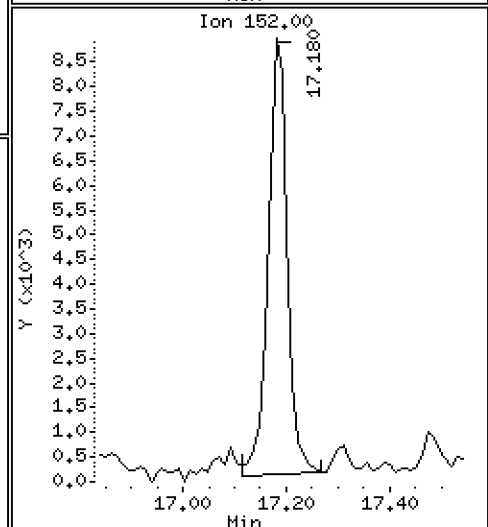
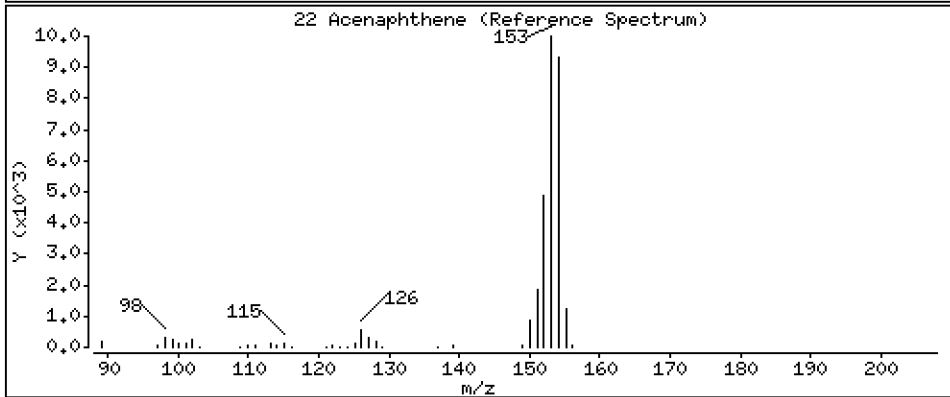
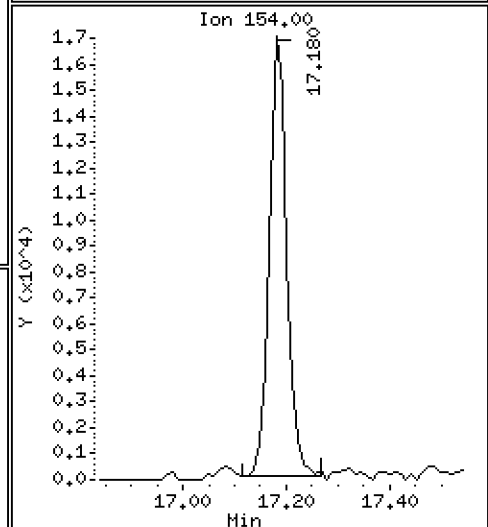
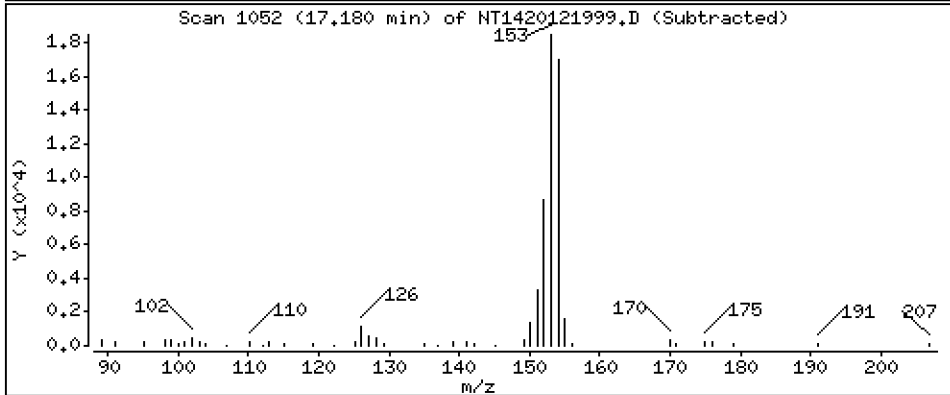
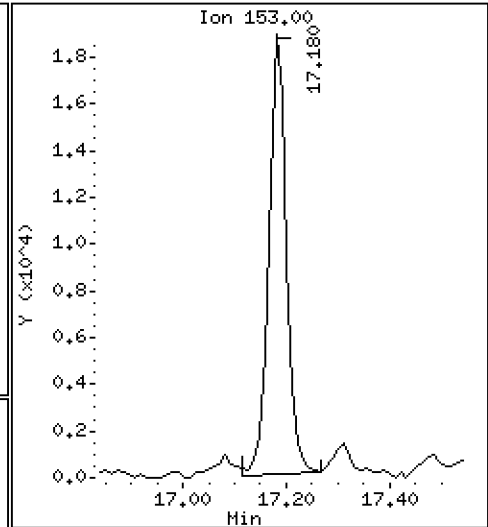
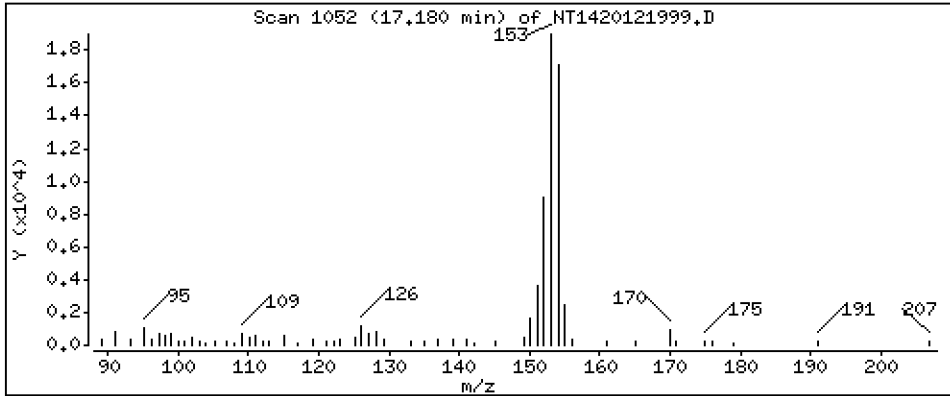
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Acenaphthene

Concentration: 0,6072 ug/mL





Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

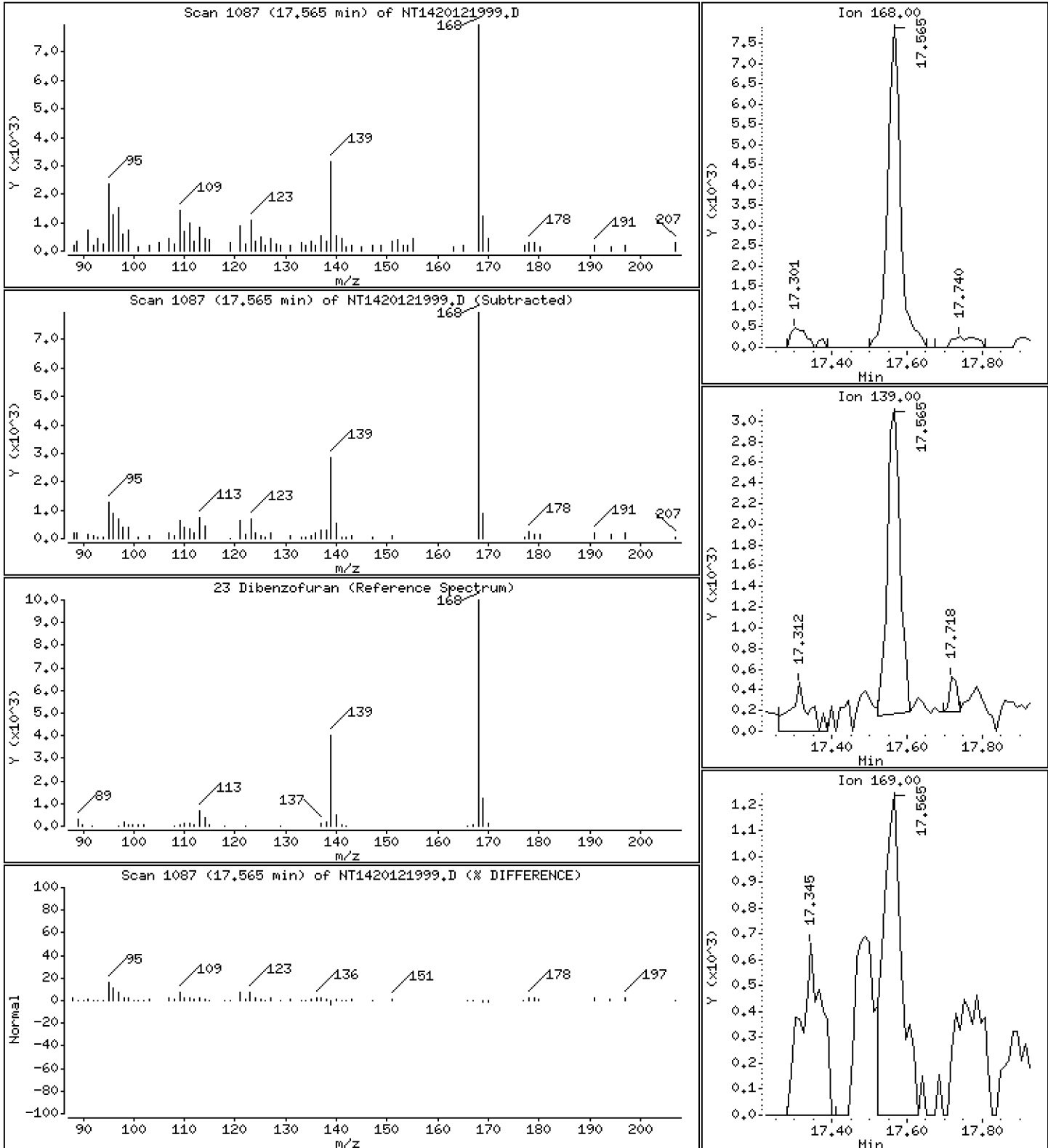
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

23 Dibenzofuran

Concentration: 0.1752 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

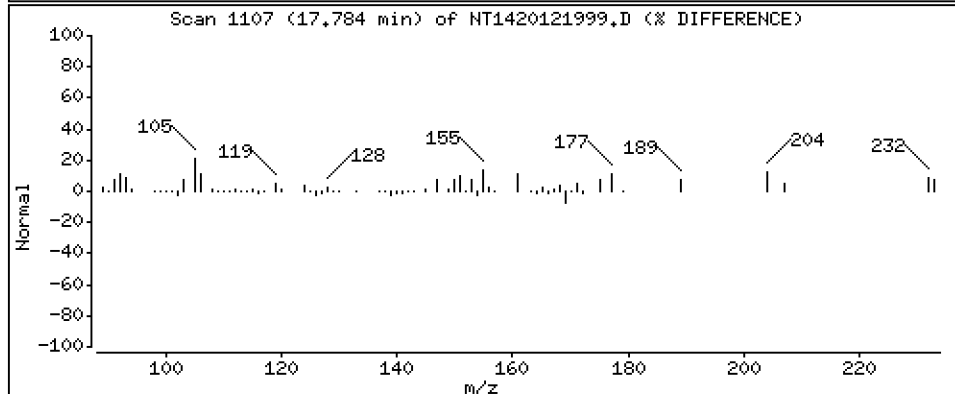
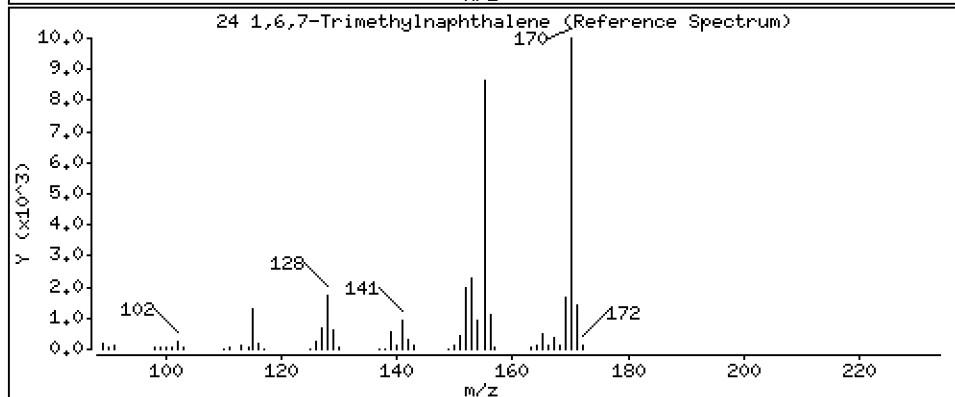
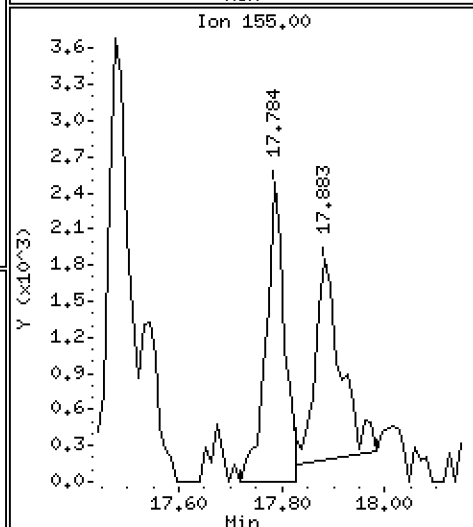
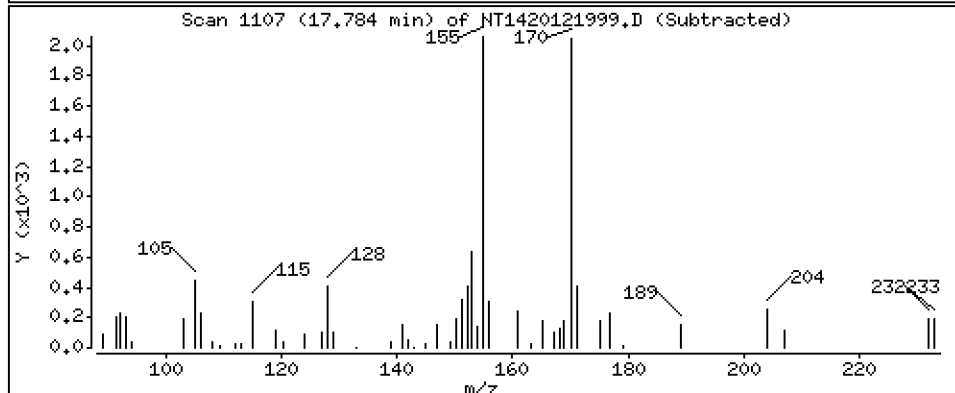
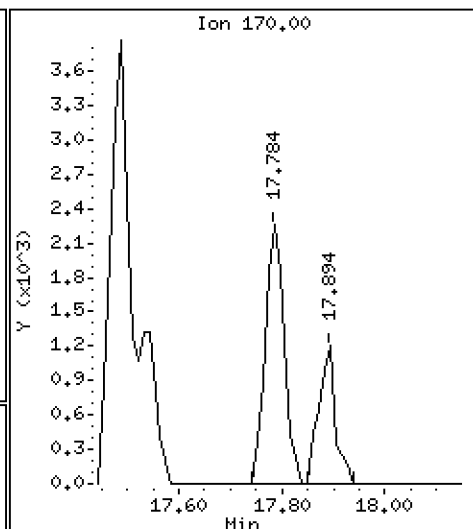
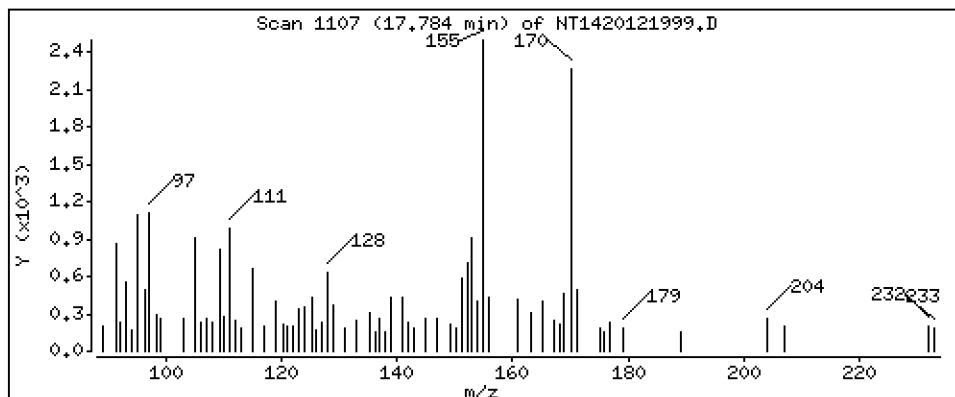
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

24 1,6,7-Trimethylnaphthalene

Concentration: 0,08329 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

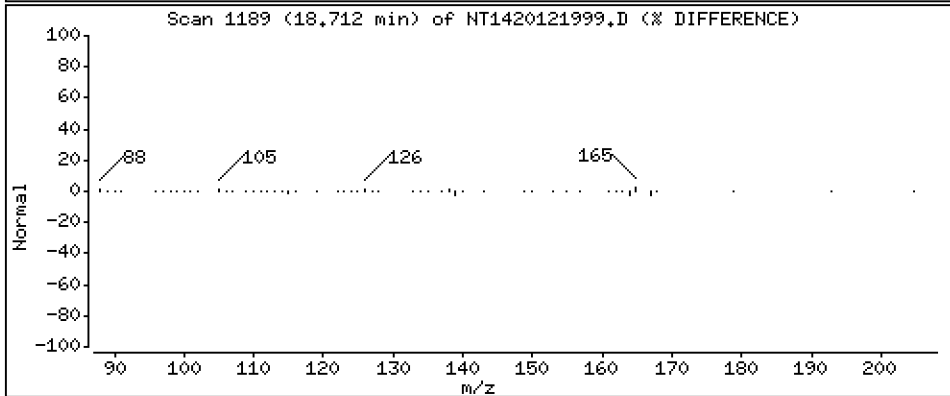
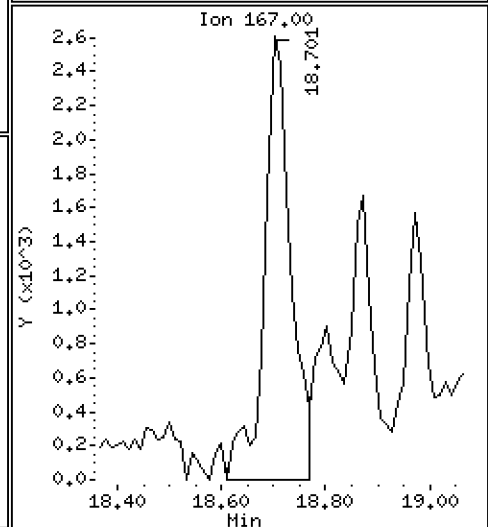
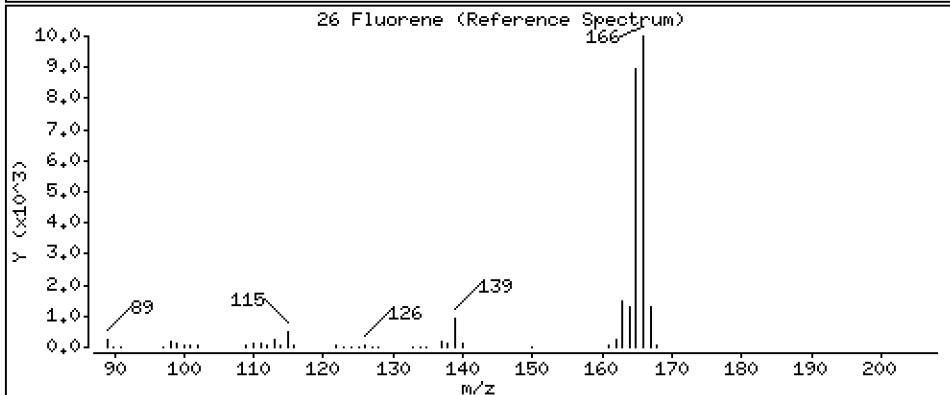
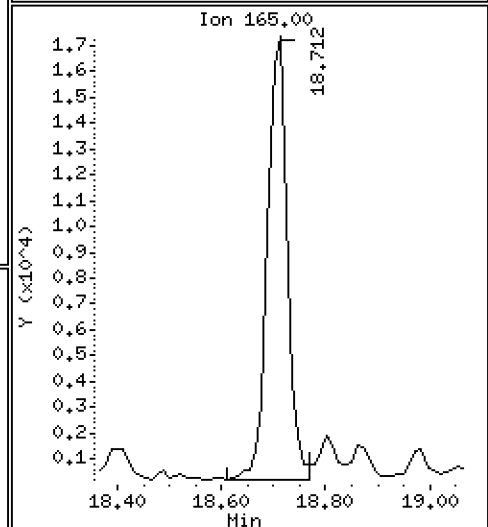
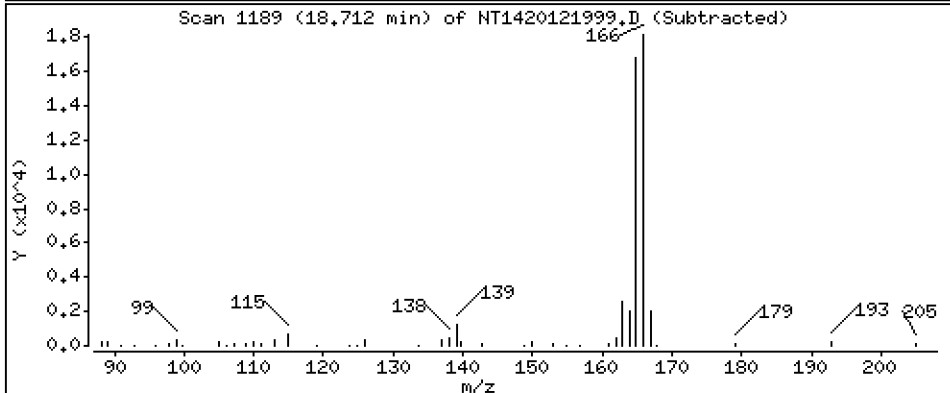
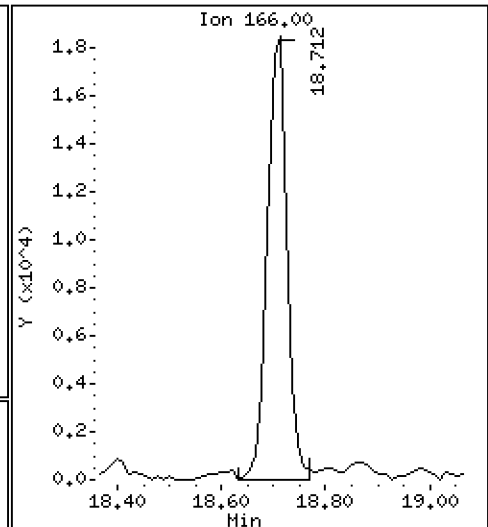
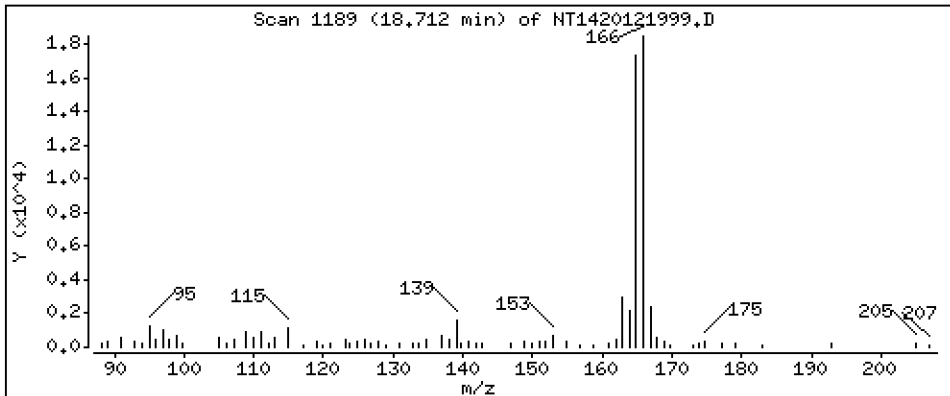
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Fluorene

Concentration: 0,5436 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

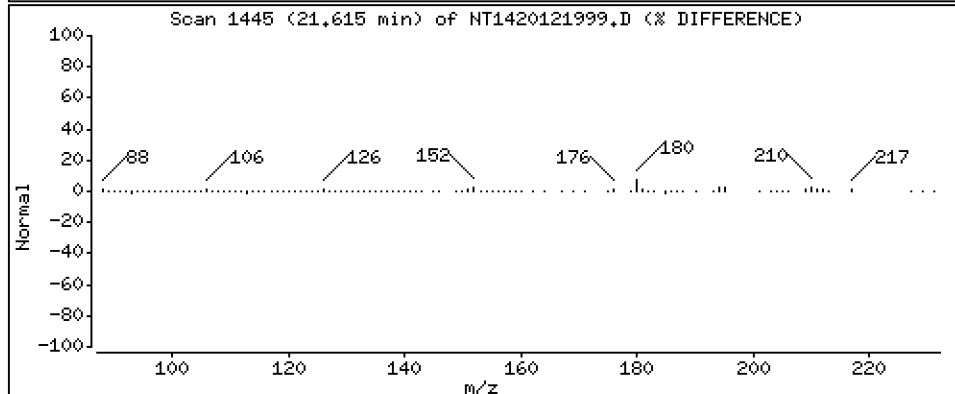
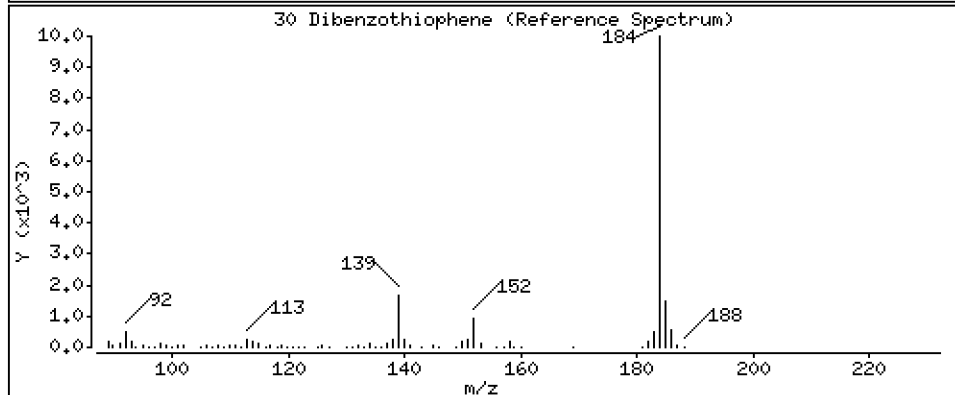
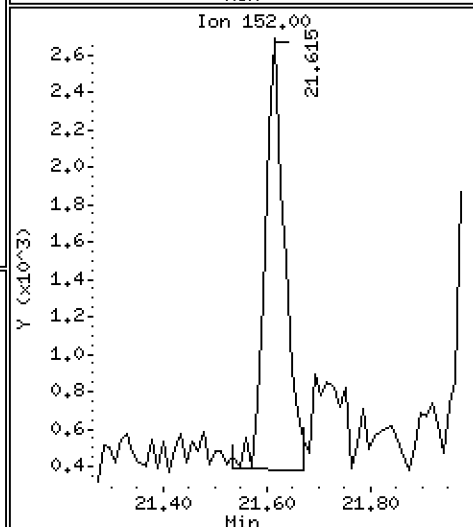
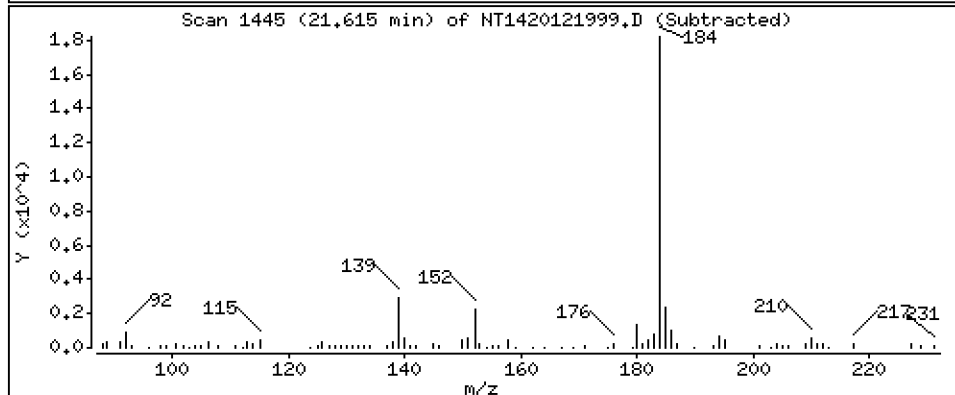
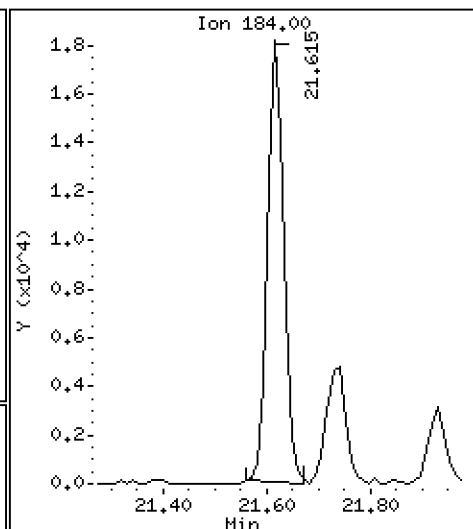
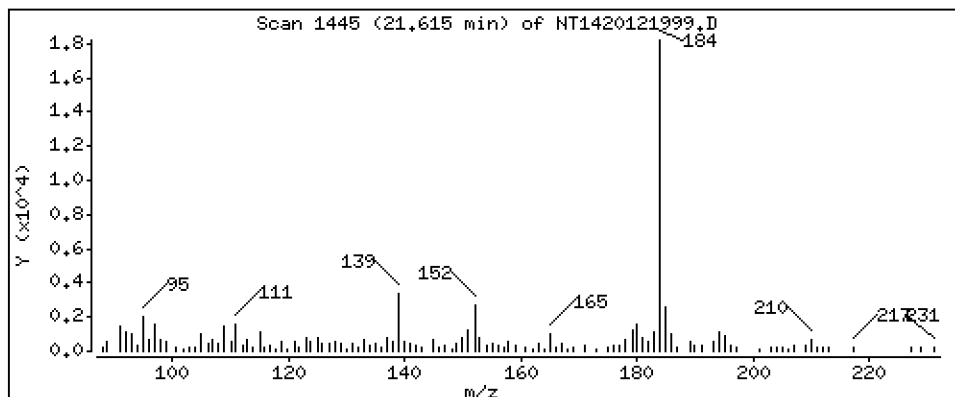
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Dibenzothiophene

Concentration: 0,3243 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

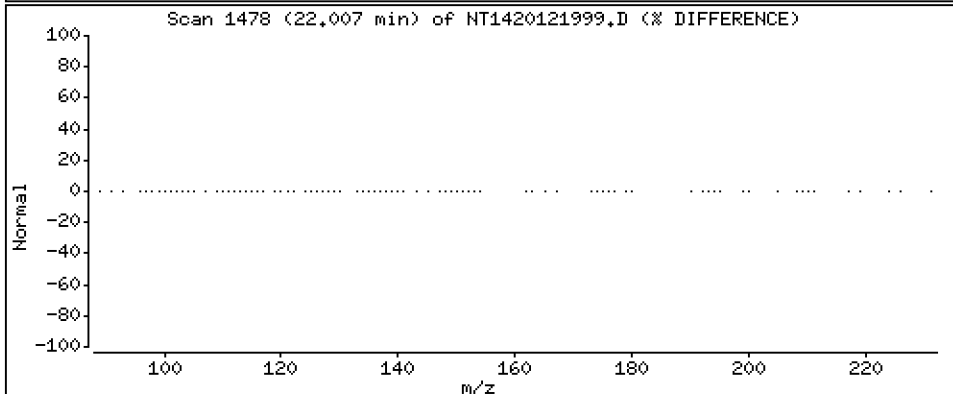
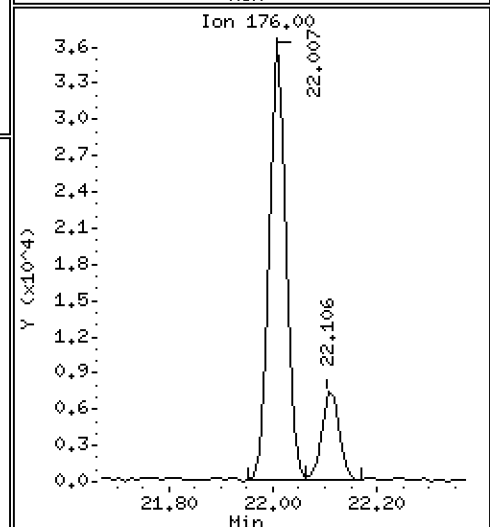
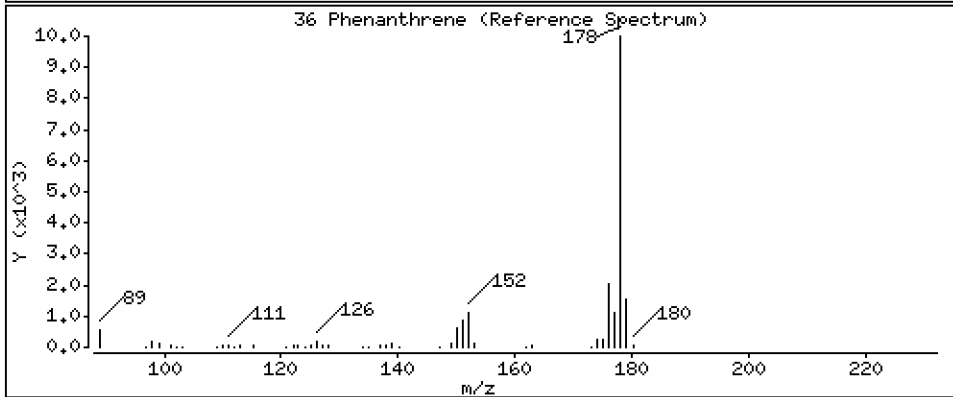
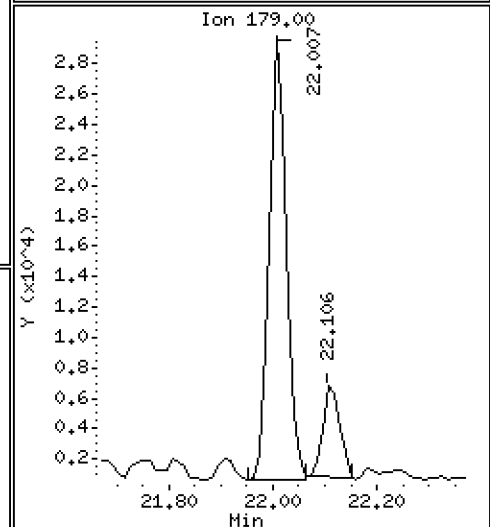
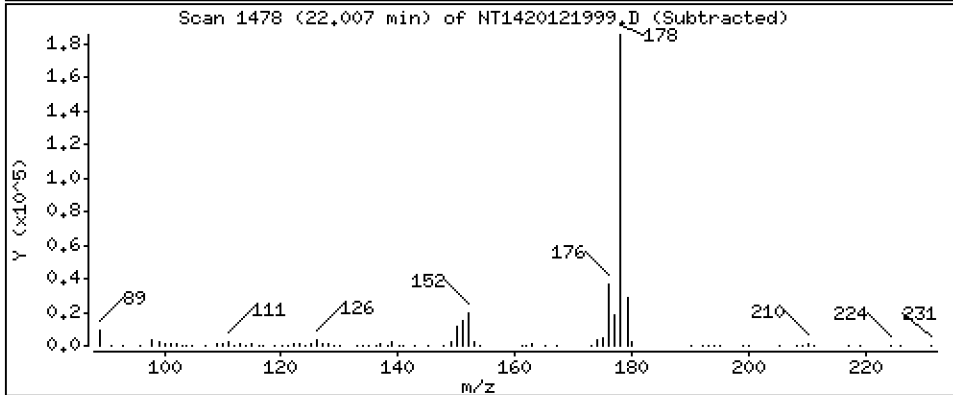
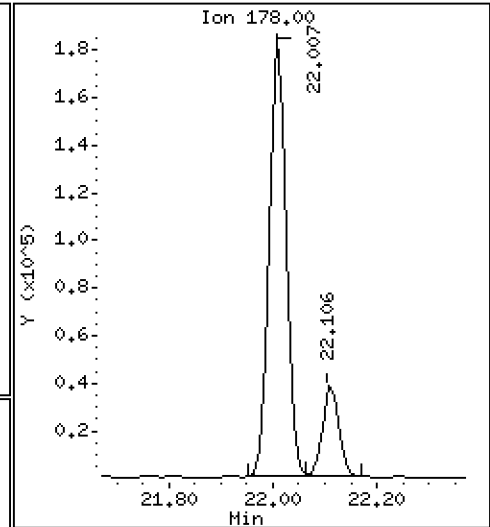
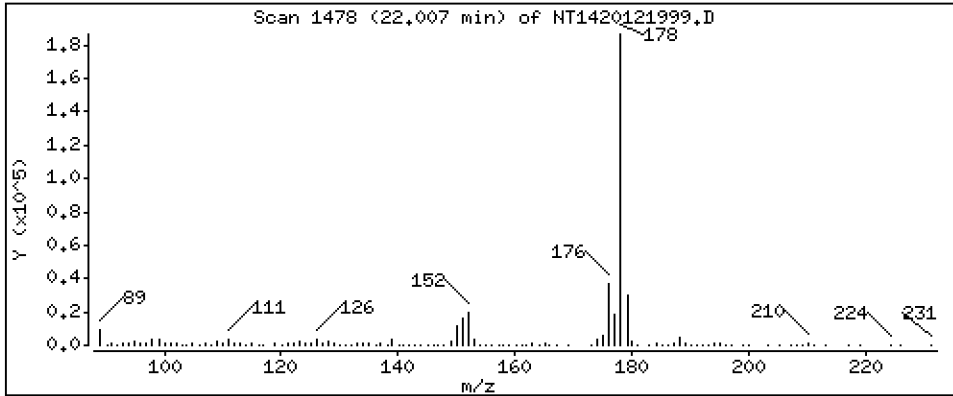
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

36 Phenanthrene

Concentration: 3,263 ug/mL



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Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

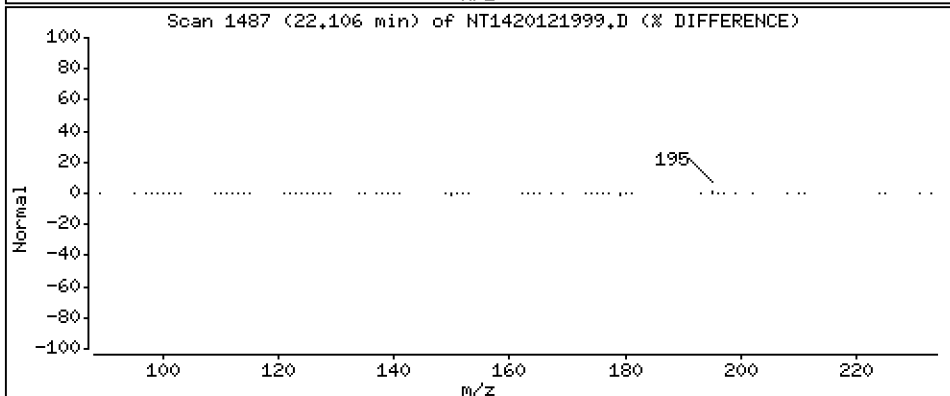
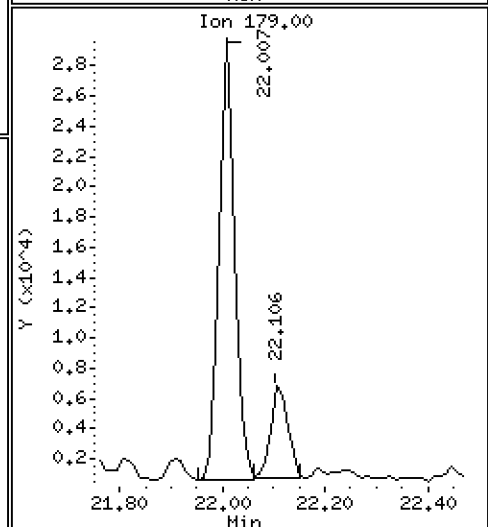
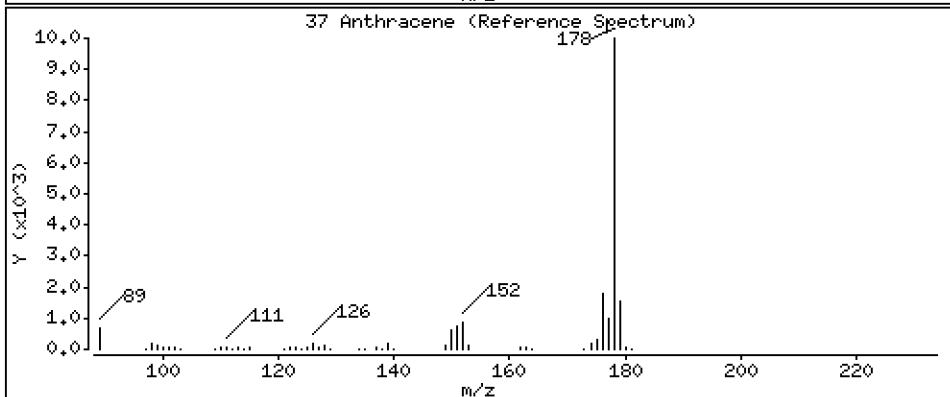
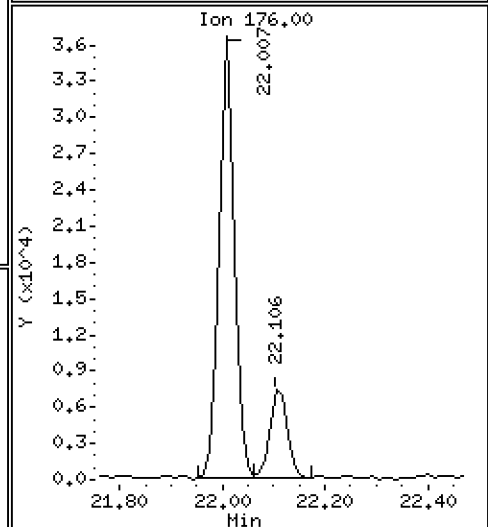
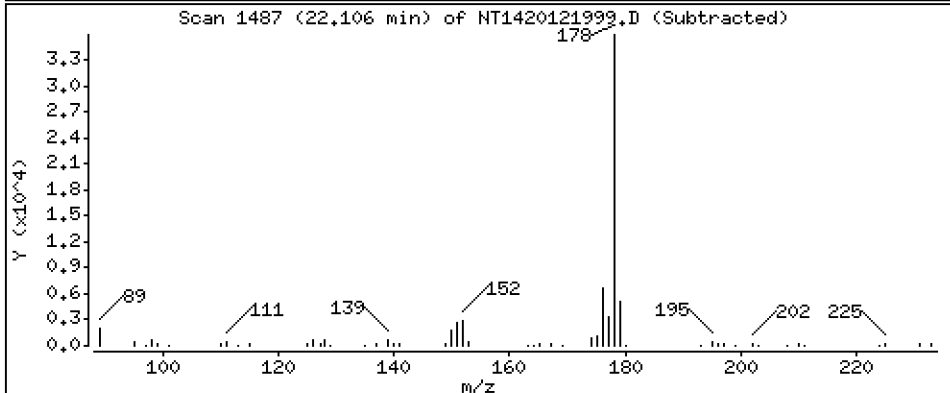
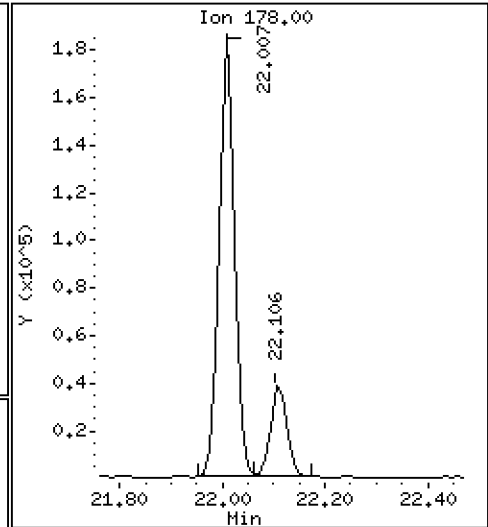
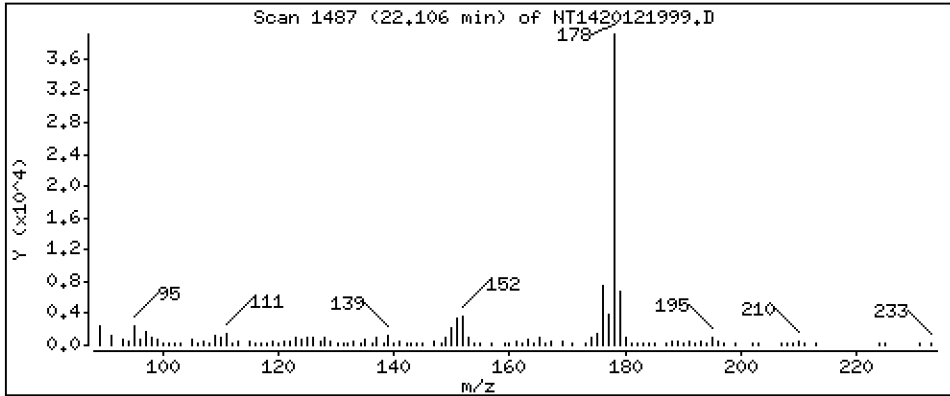
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

37 Anthracene

Concentration: 0,6826 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

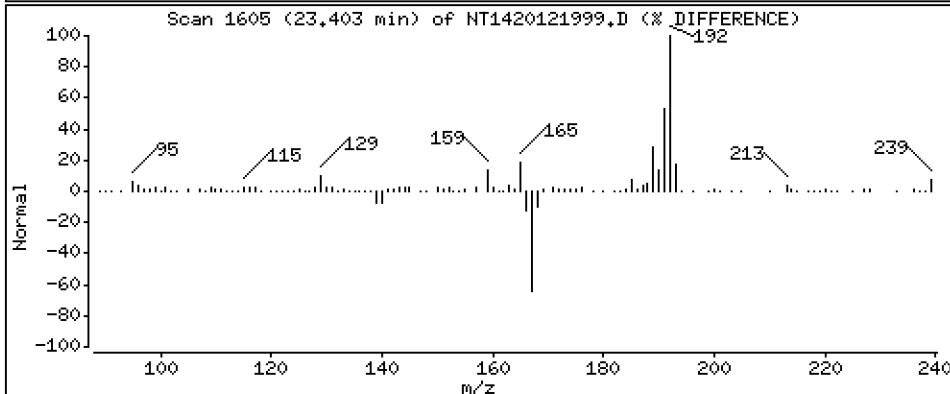
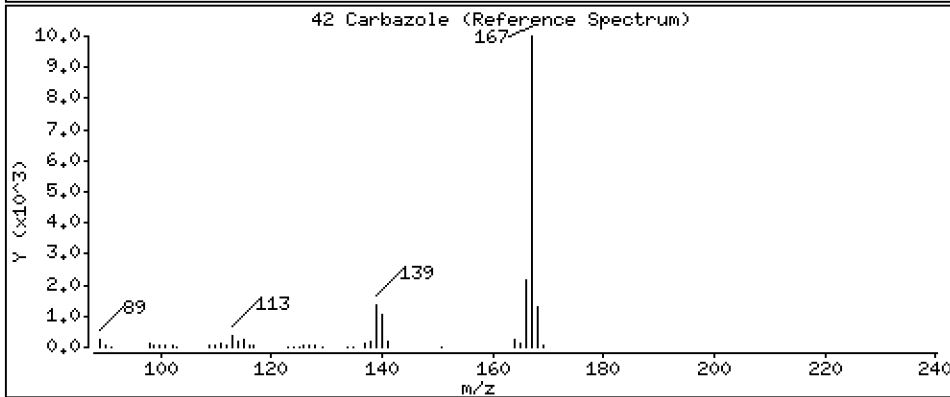
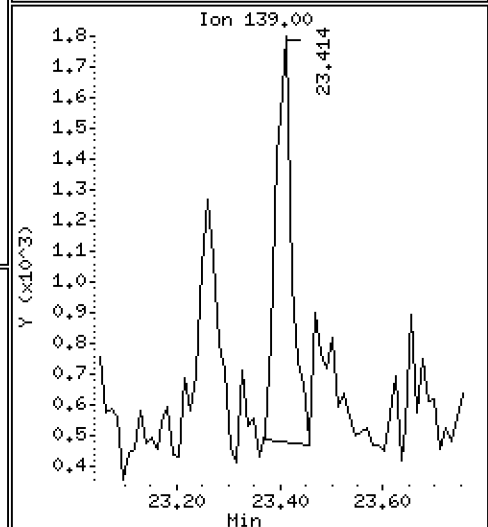
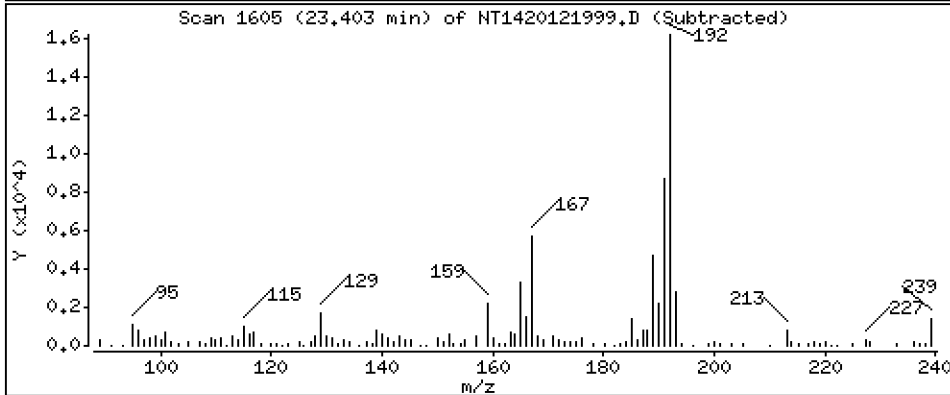
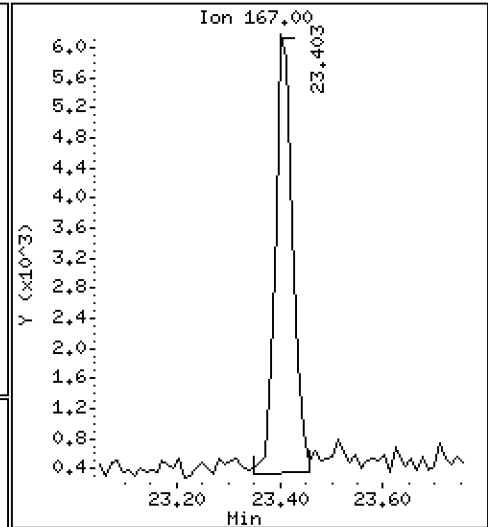
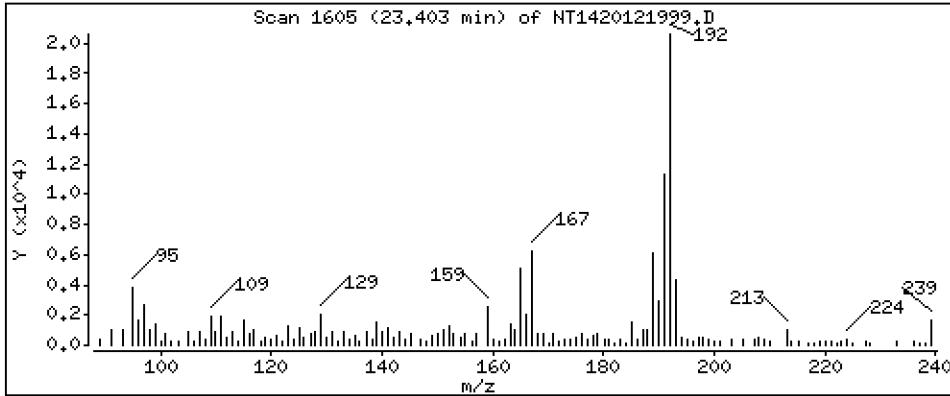
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

42 Carbazole

Concentration: 0,1346 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

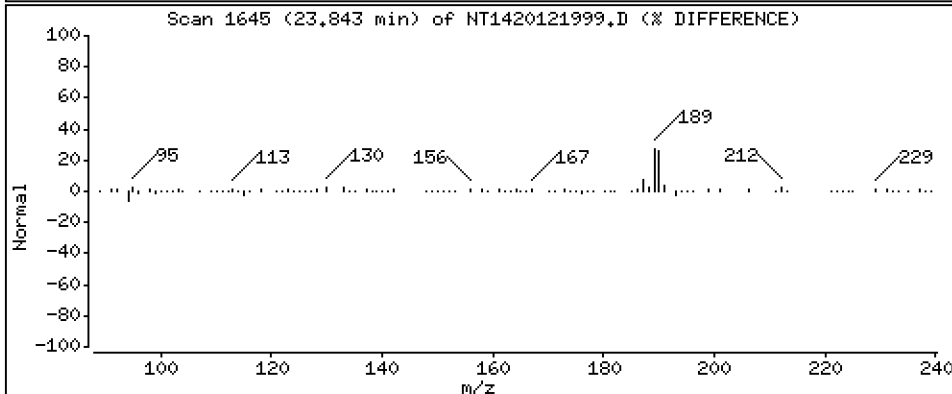
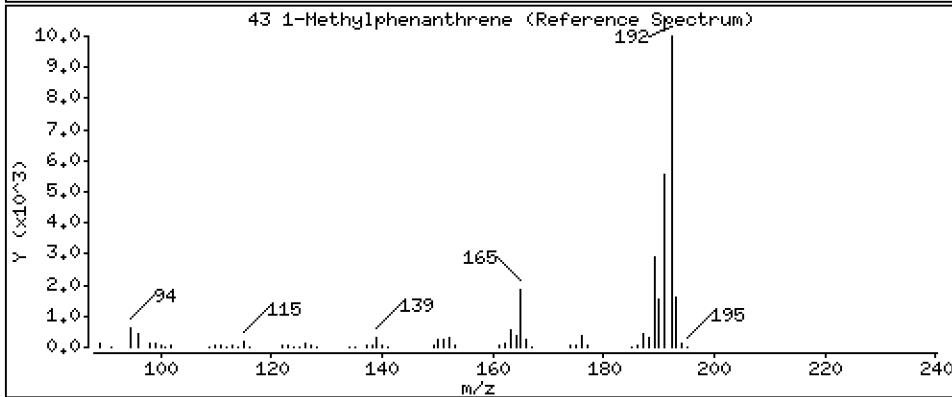
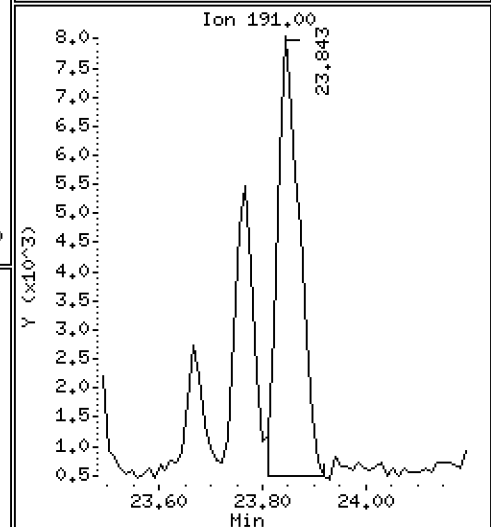
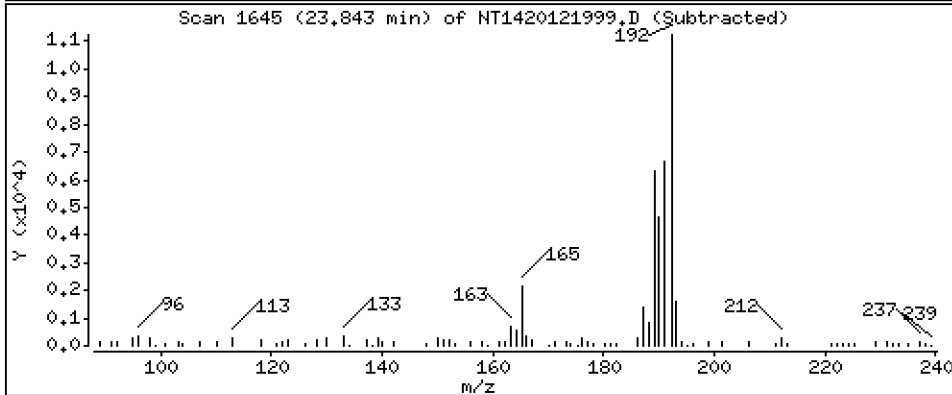
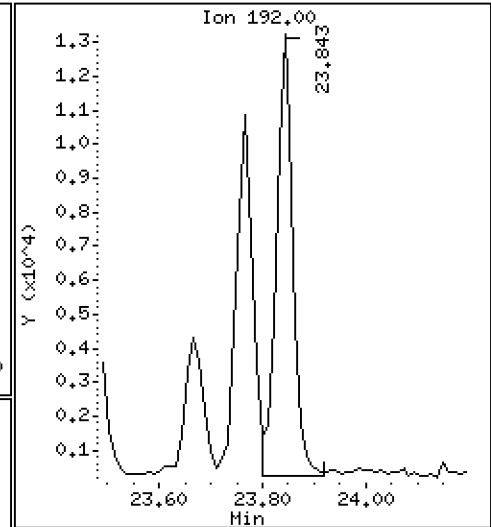
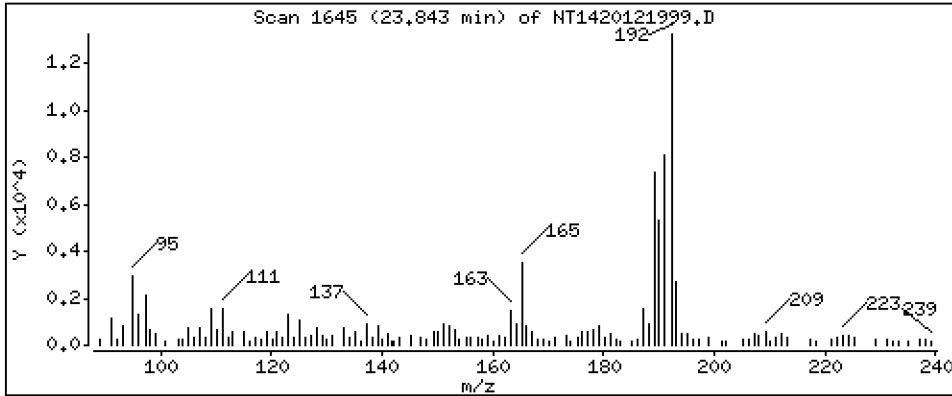
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

43 1-Methylphenanthrene

Concentration: 0,3318 ug/mL





Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

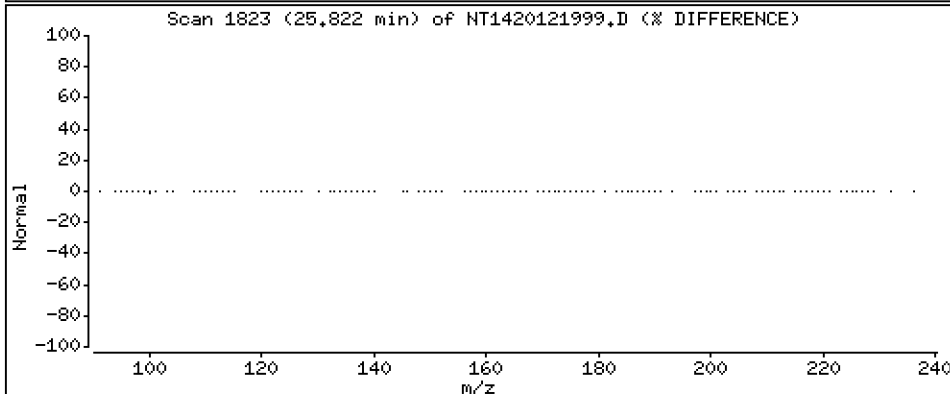
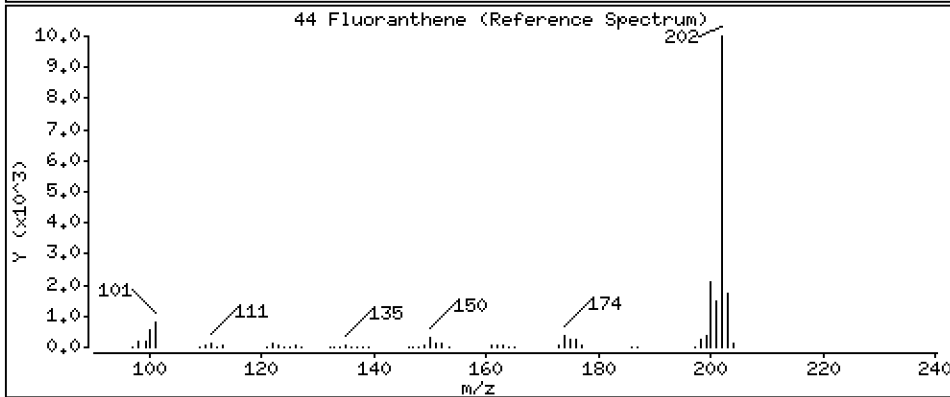
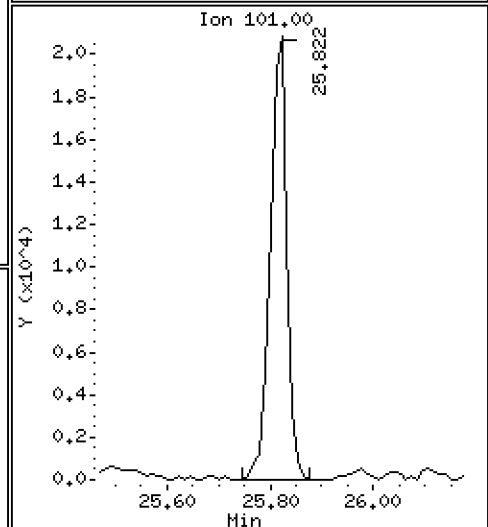
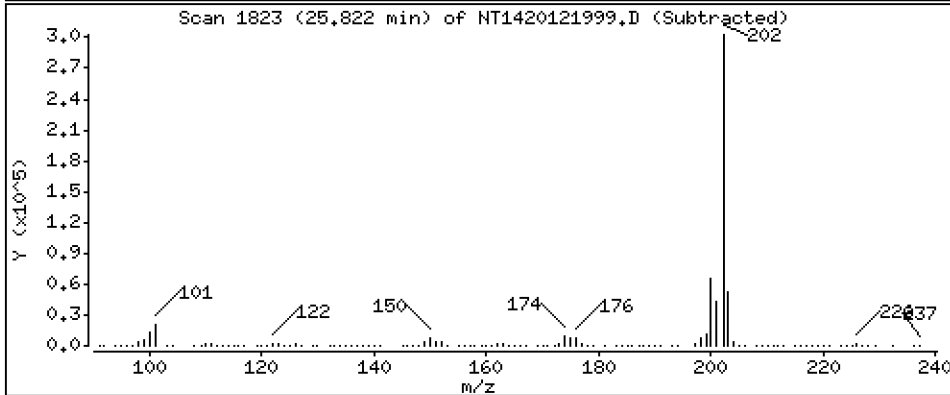
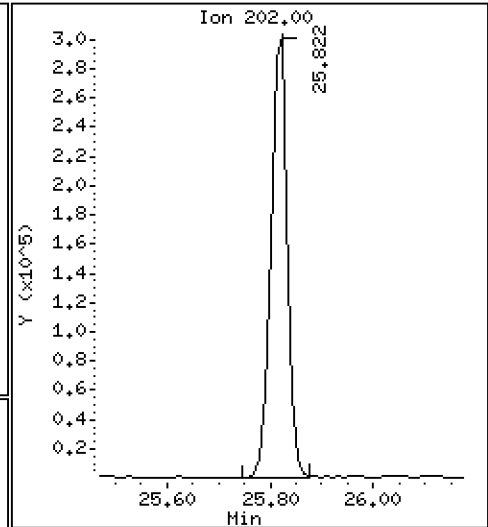
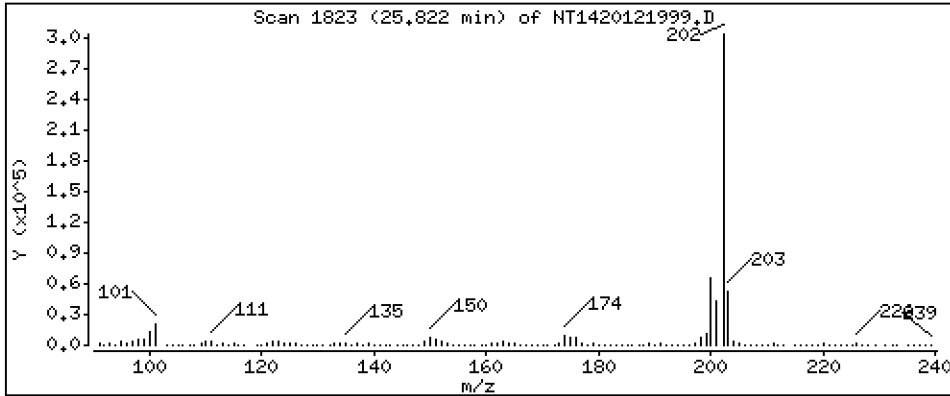
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

44 Fluoranthene

Concentration: 5,062 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

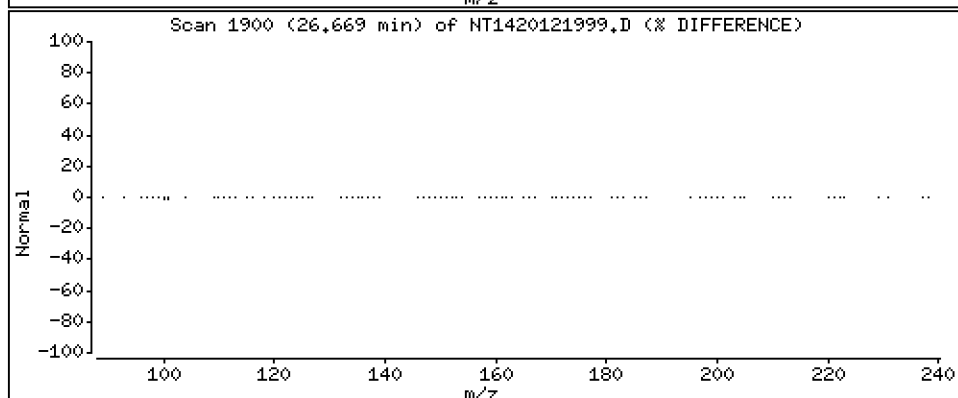
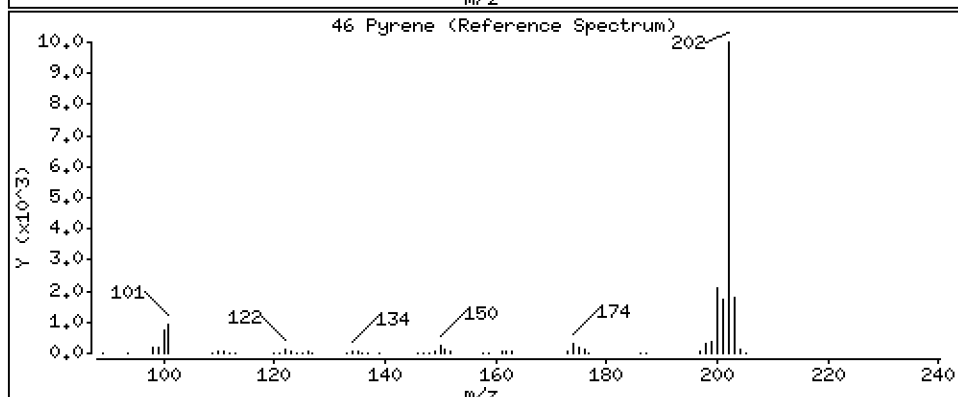
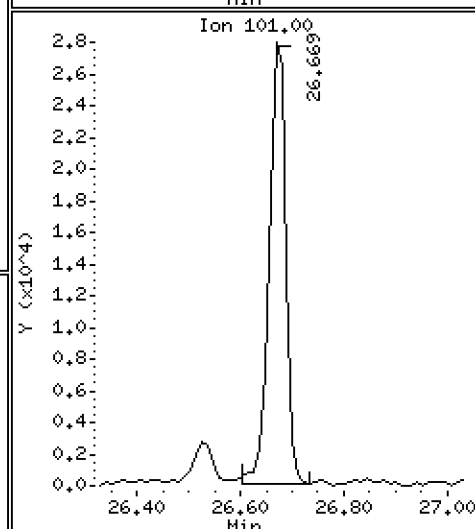
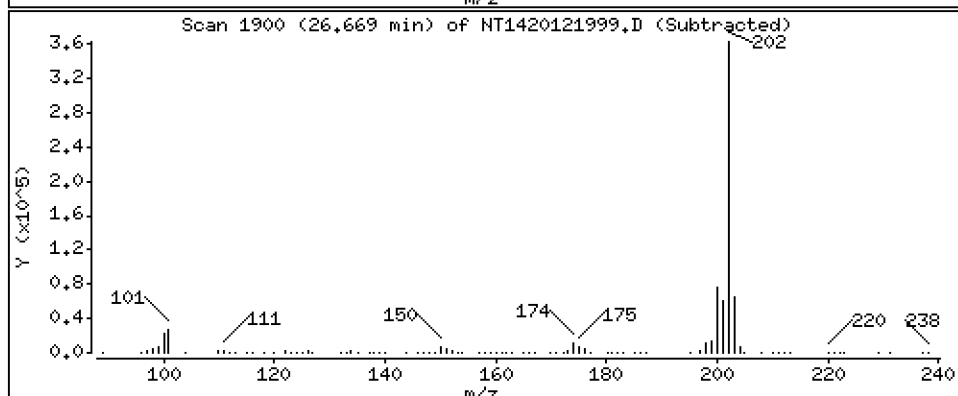
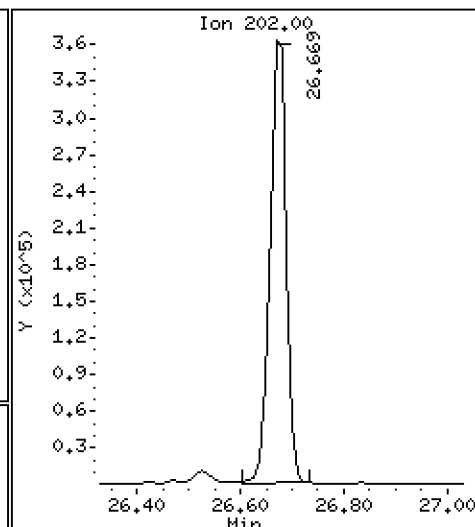
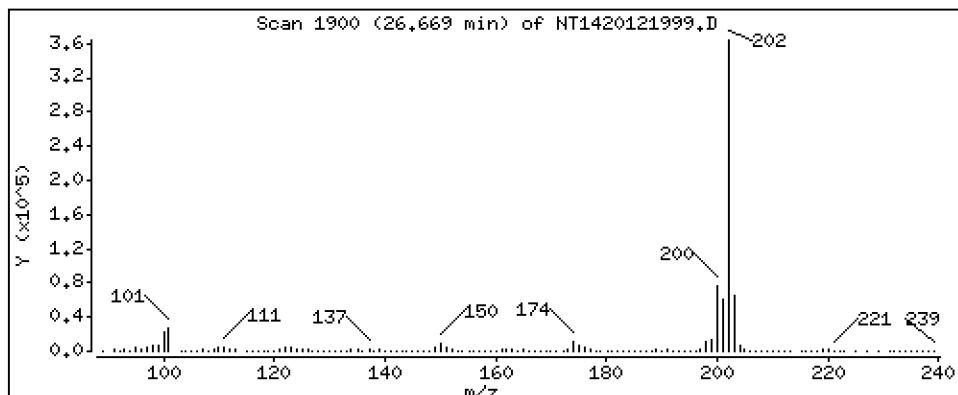
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

46 Pyrene

Concentration: 5,688 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

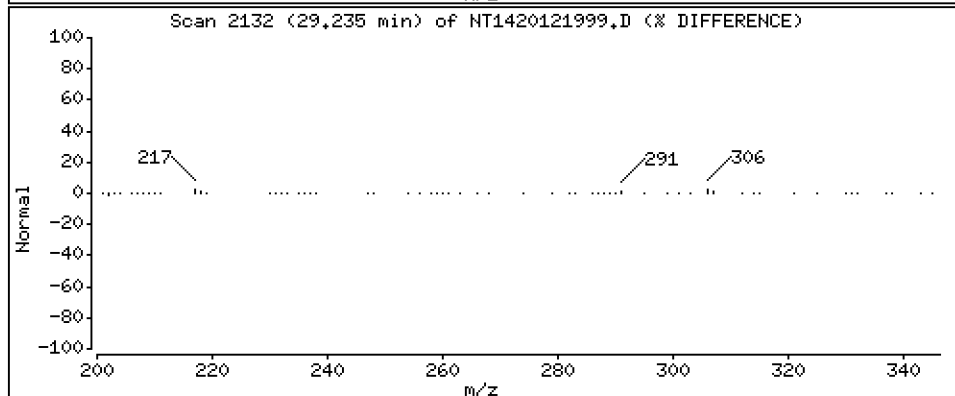
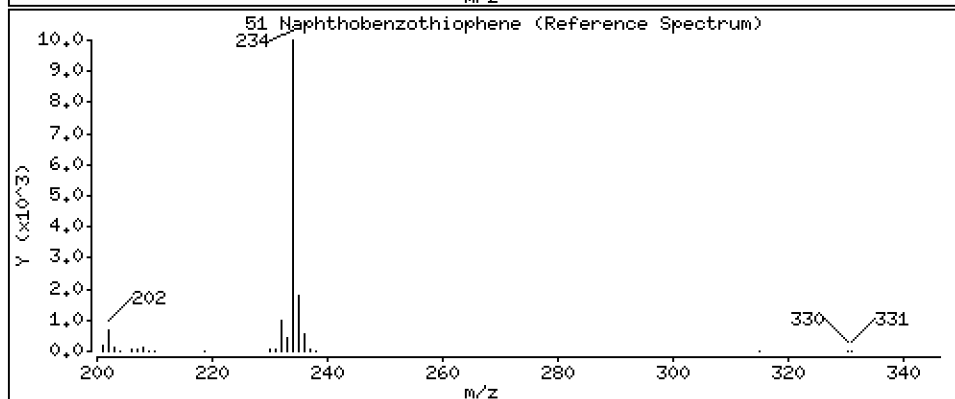
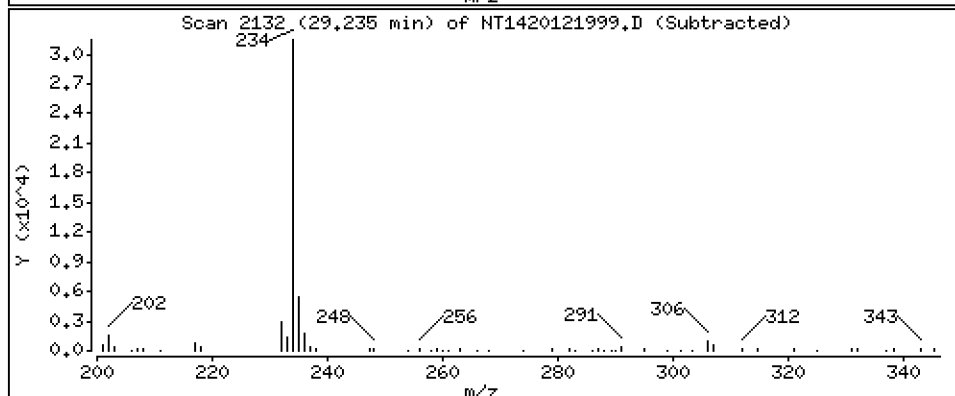
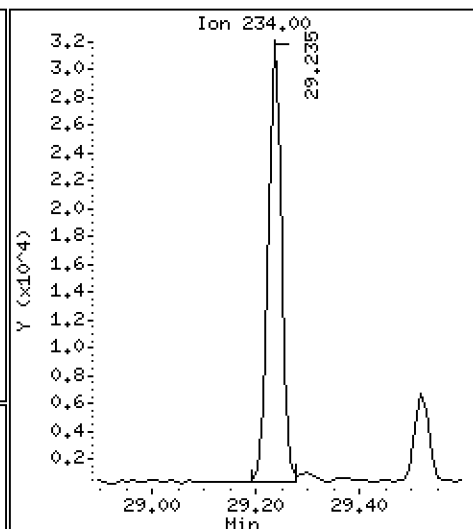
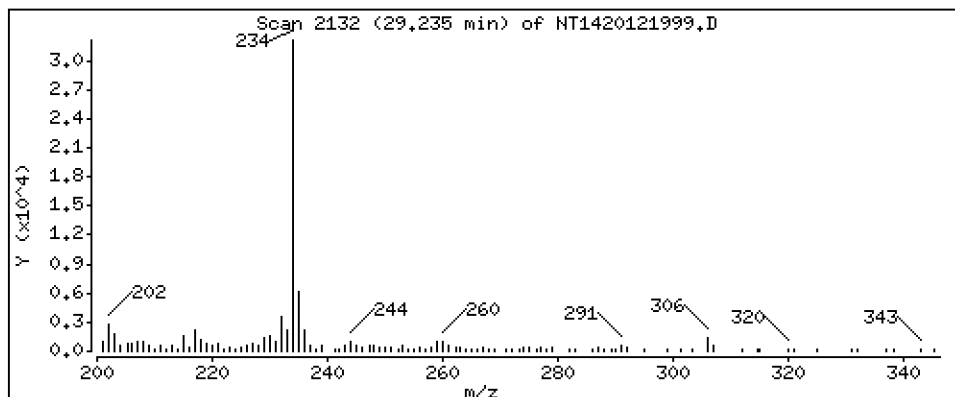
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

51 Naphthobenzothiophene

Concentration: 0,4409 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

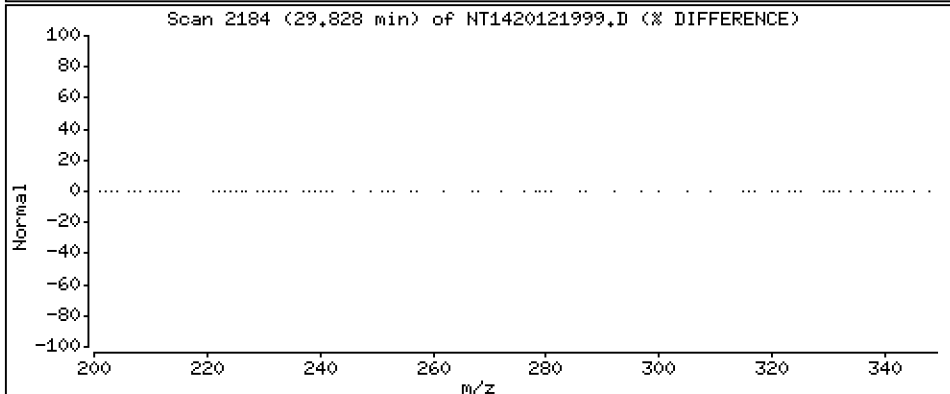
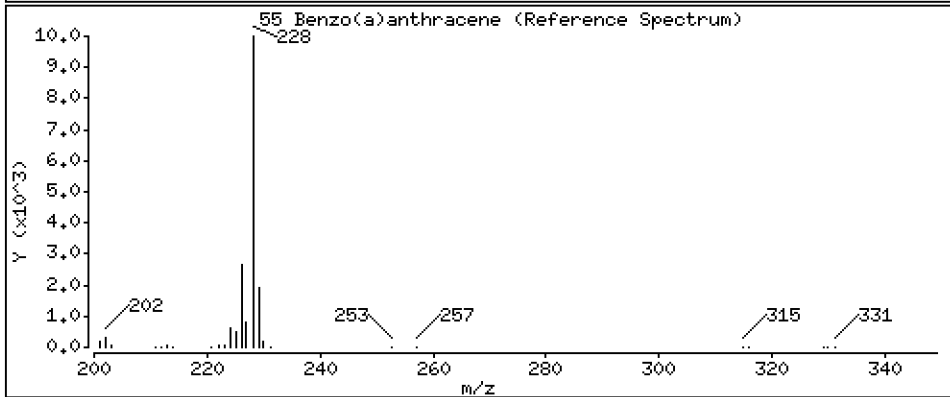
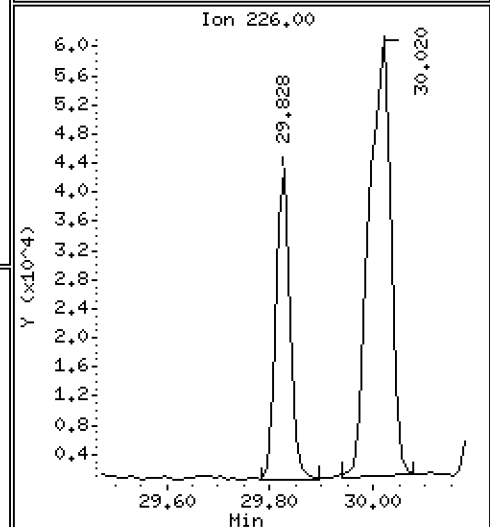
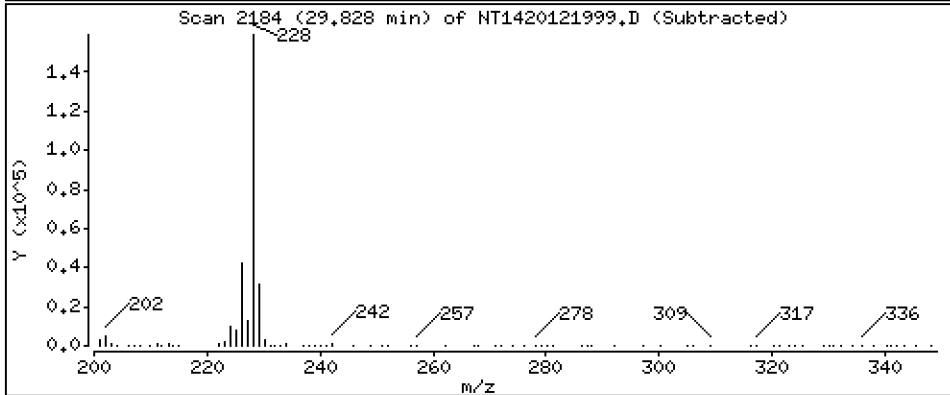
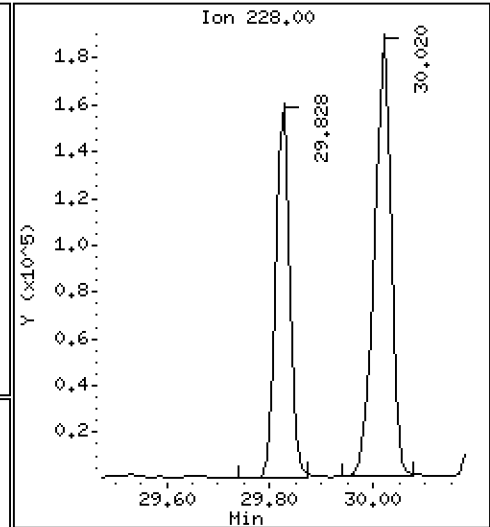
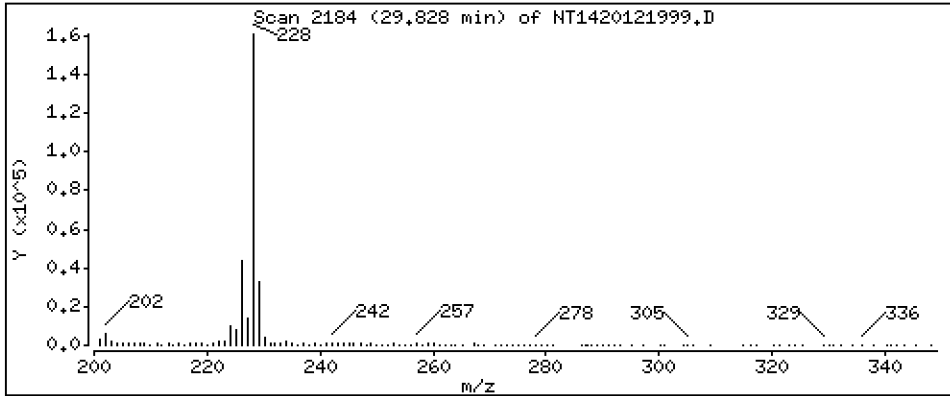
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

55 Benzo(a)anthracene

Concentration: 2,512 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

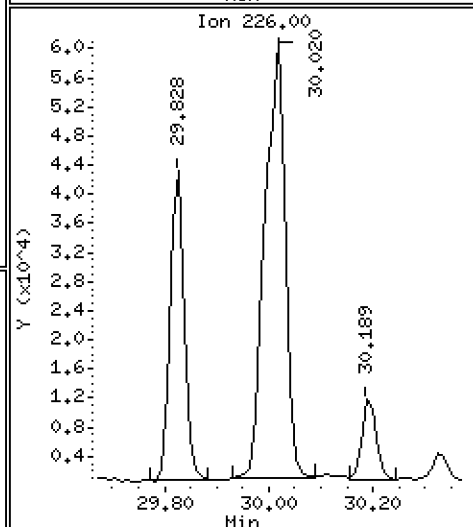
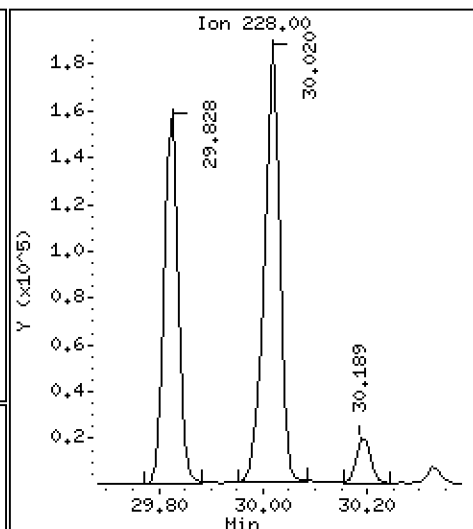
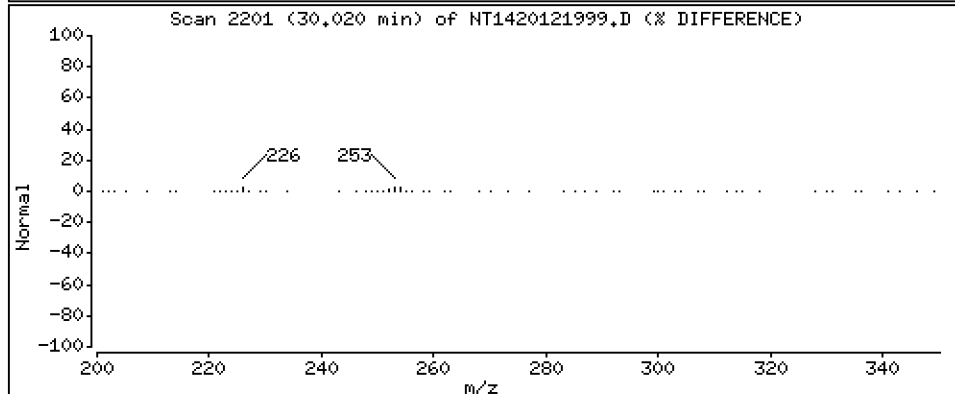
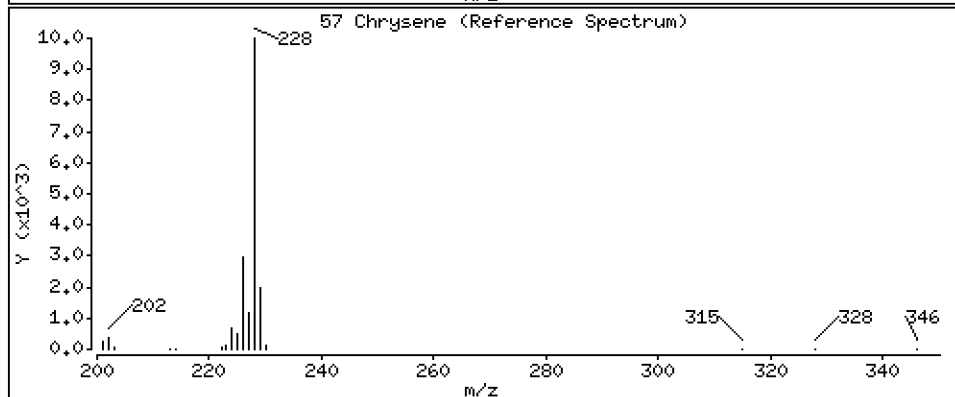
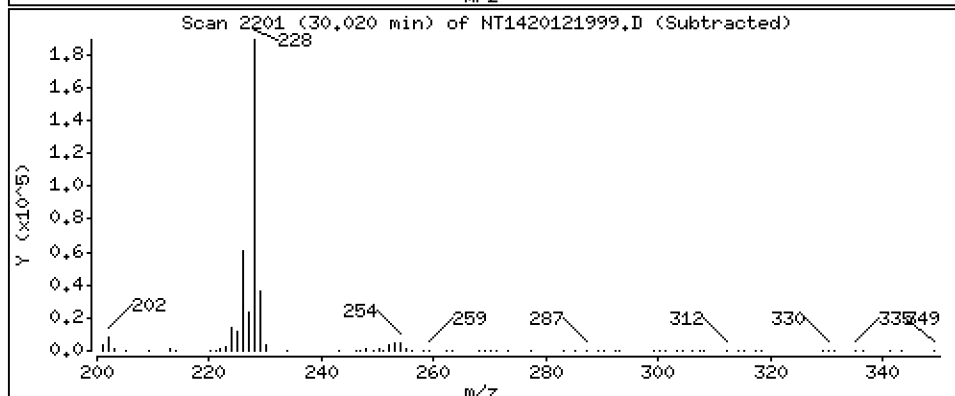
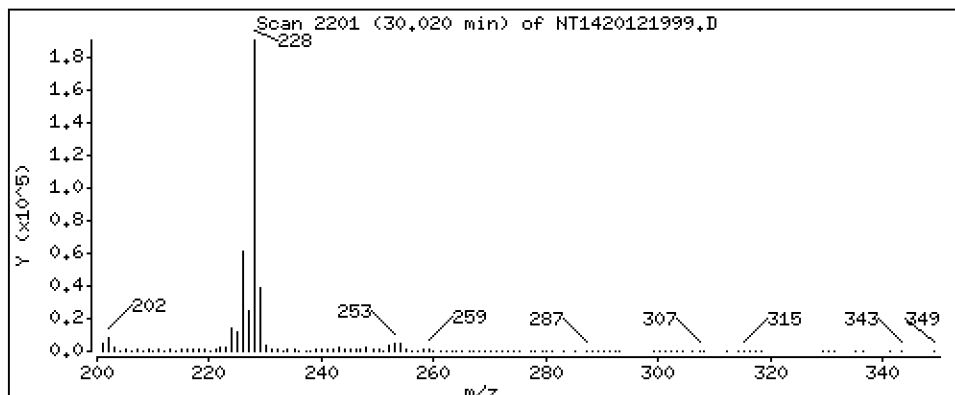
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

57 Chrysene

Concentration: 2,707 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

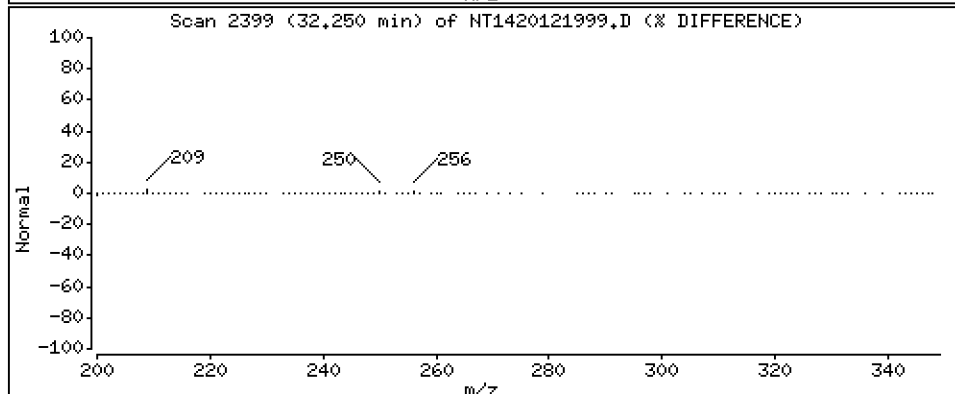
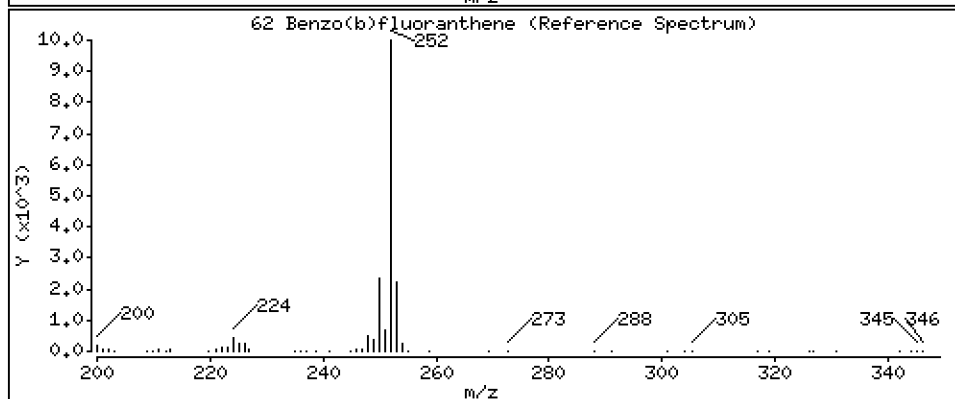
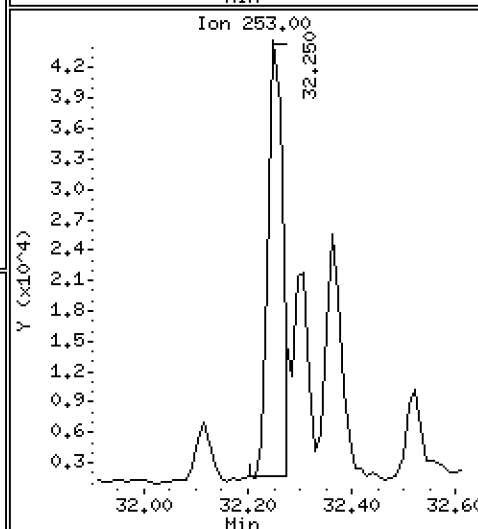
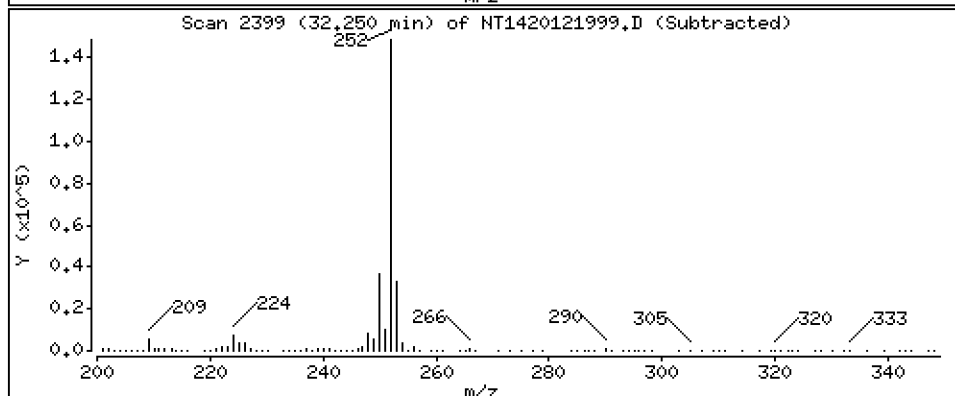
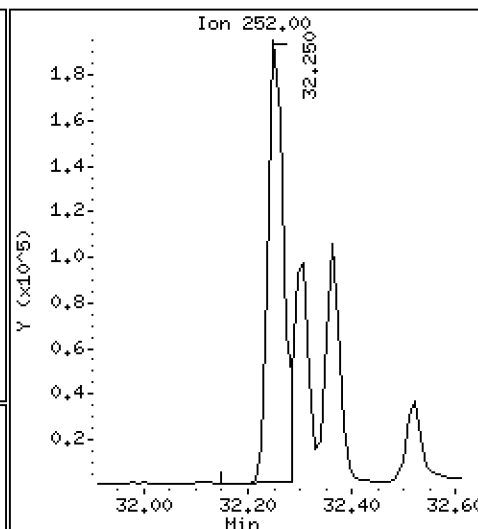
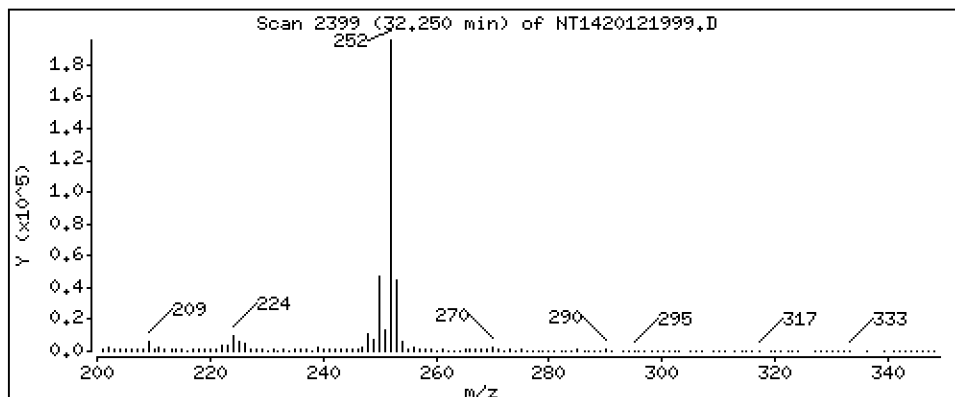
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

62 Benzo(b)fluoranthene

Concentration: 2,353 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

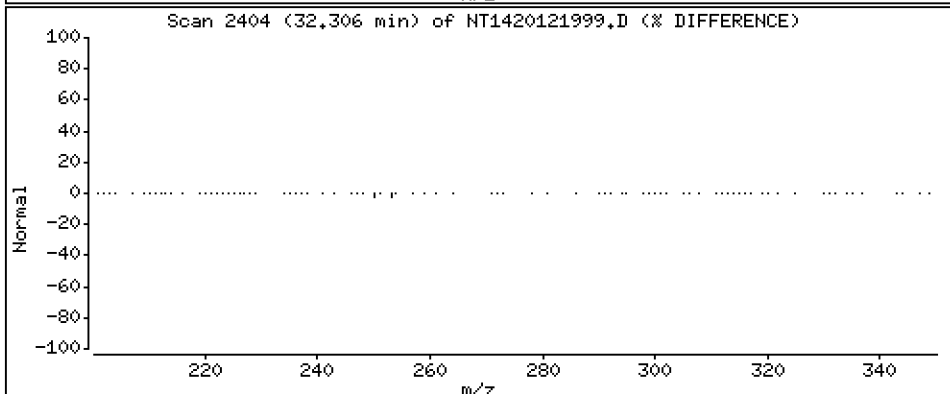
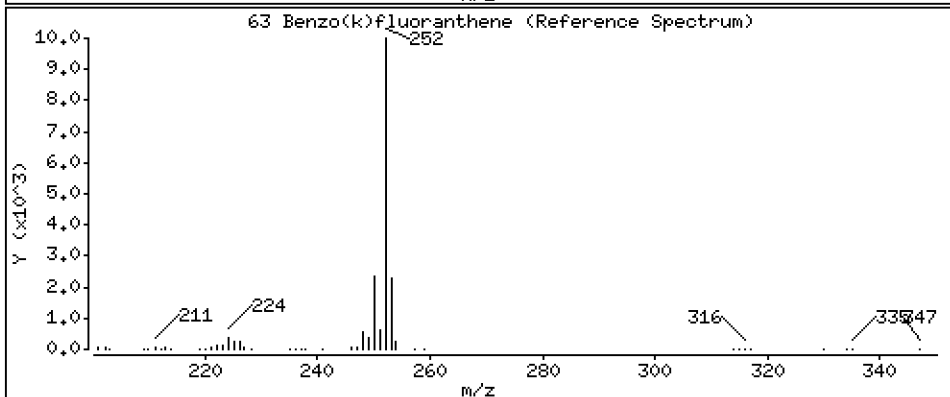
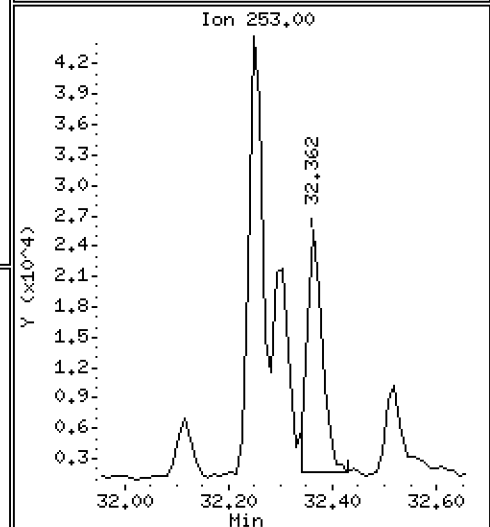
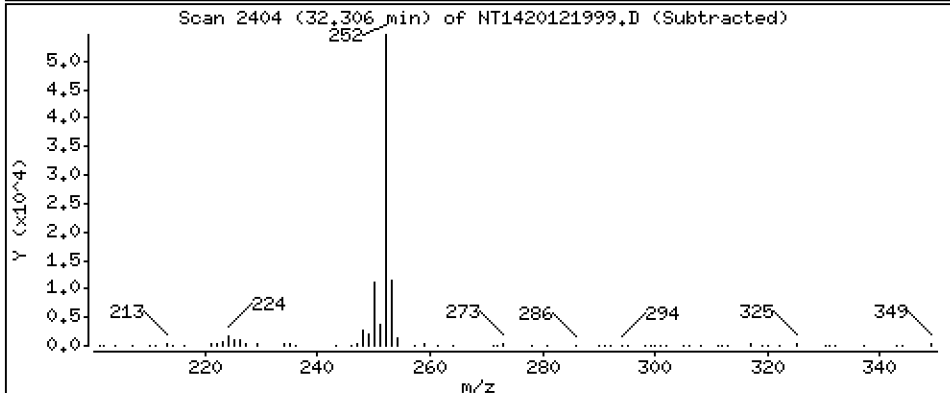
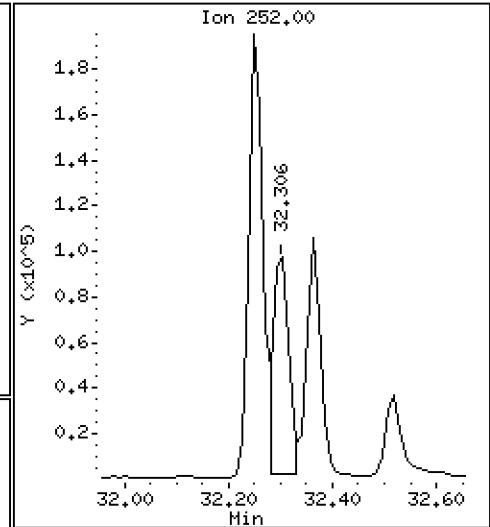
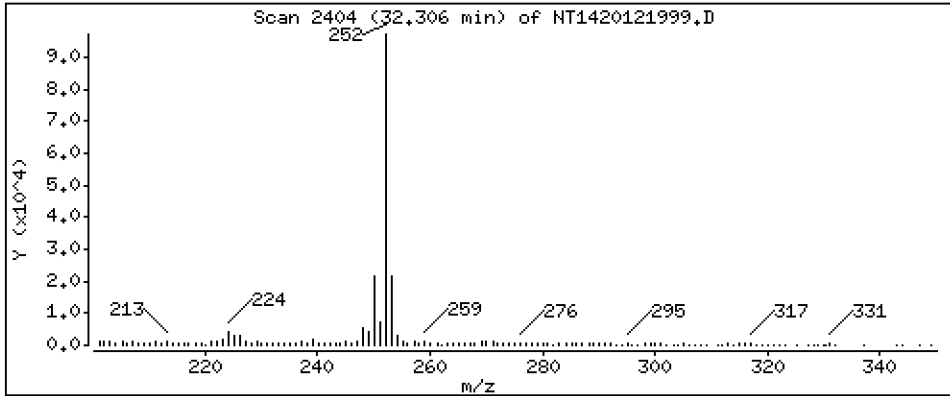
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

63 Benzo(k)fluoranthene

Concentration: 1,191 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

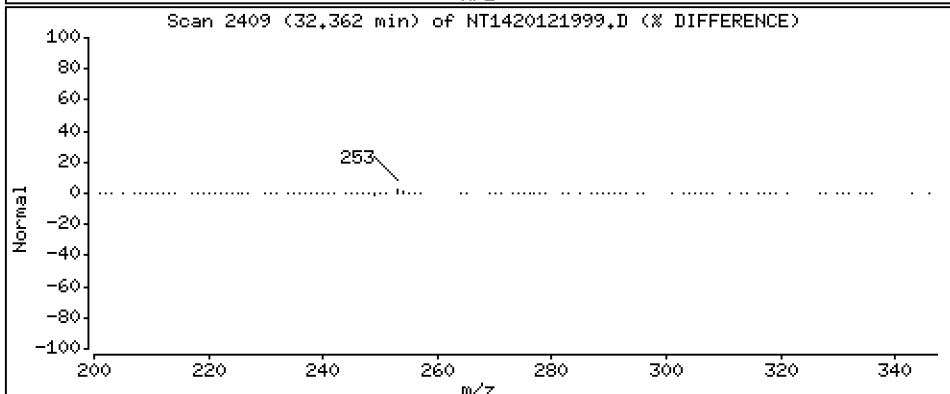
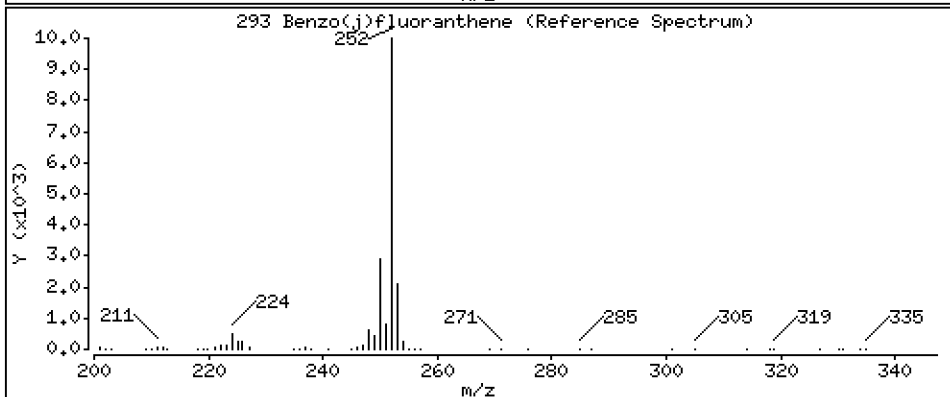
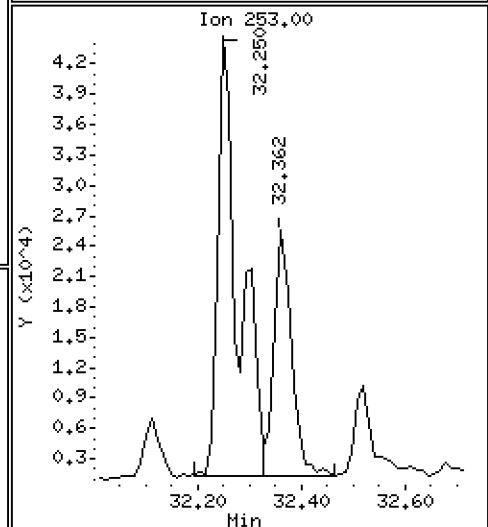
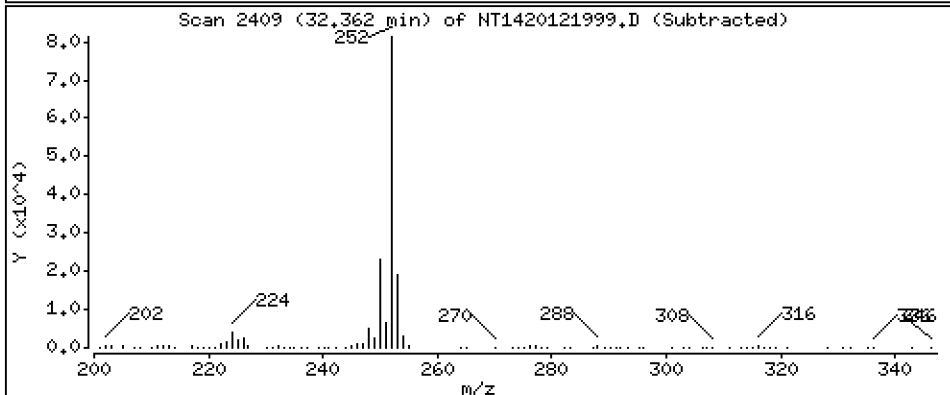
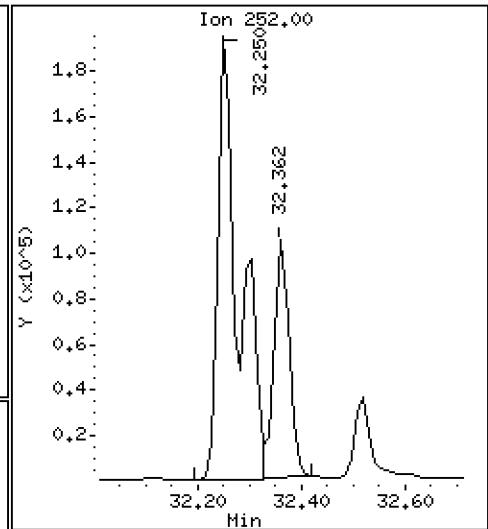
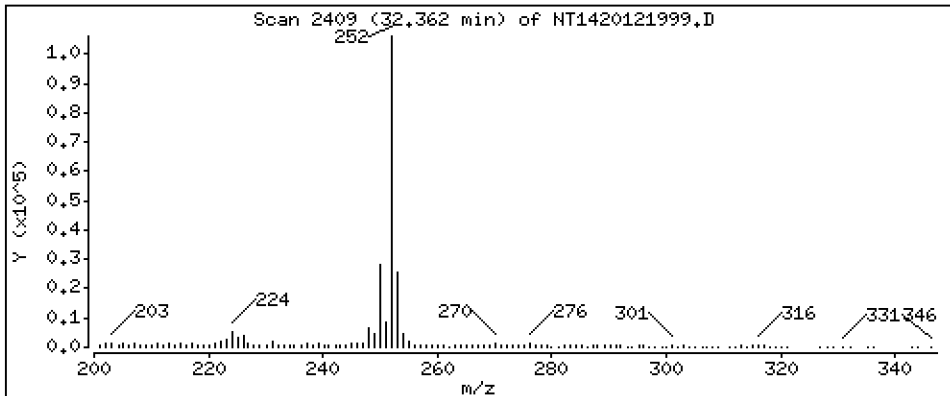
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

293 Benzo(j)fluoranthene

Concentration: 1,392 ug/mL





Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

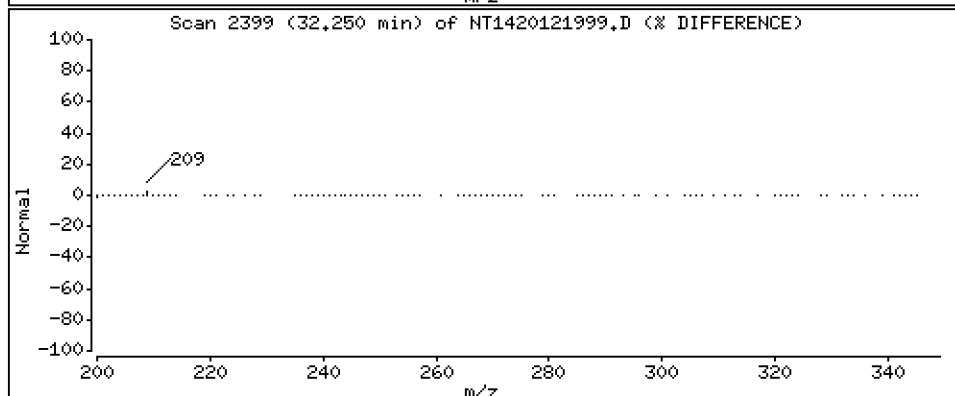
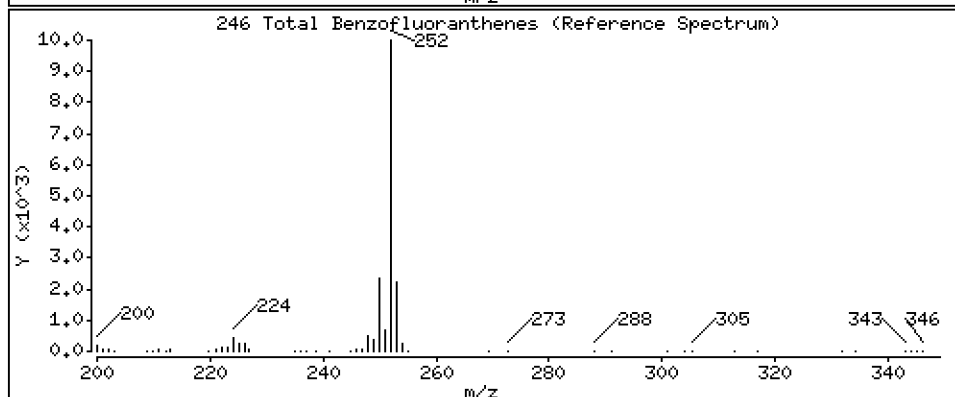
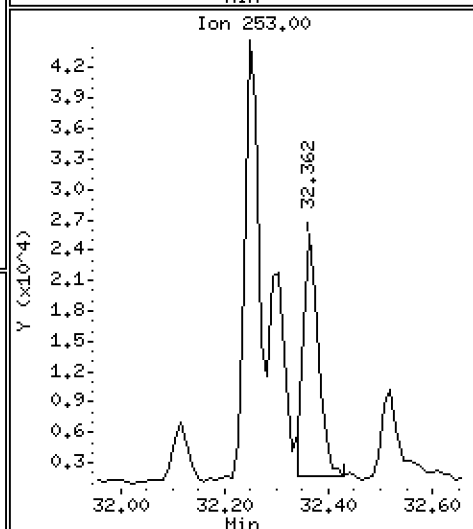
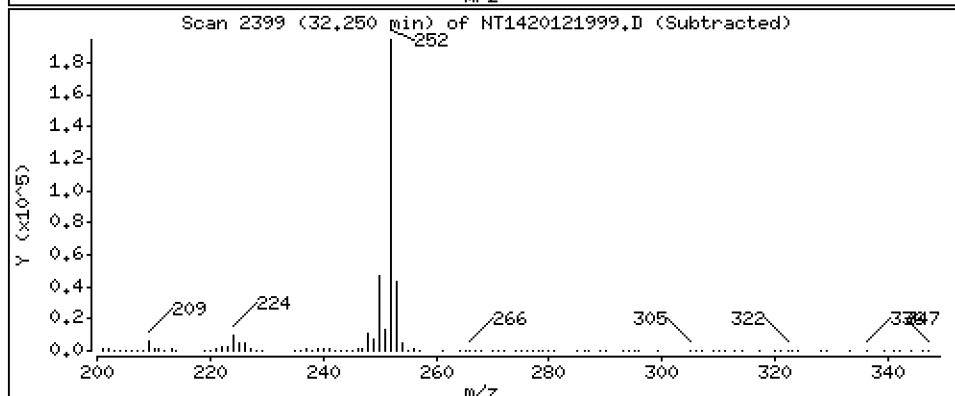
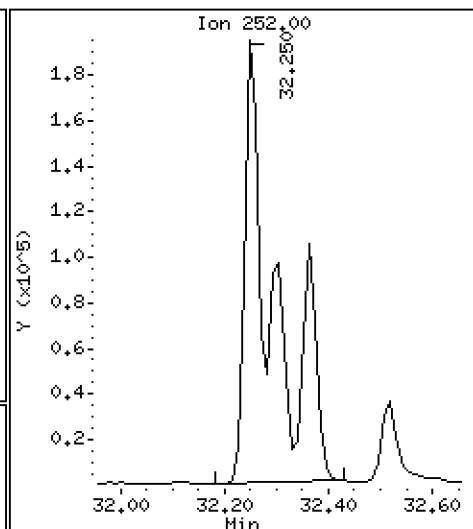
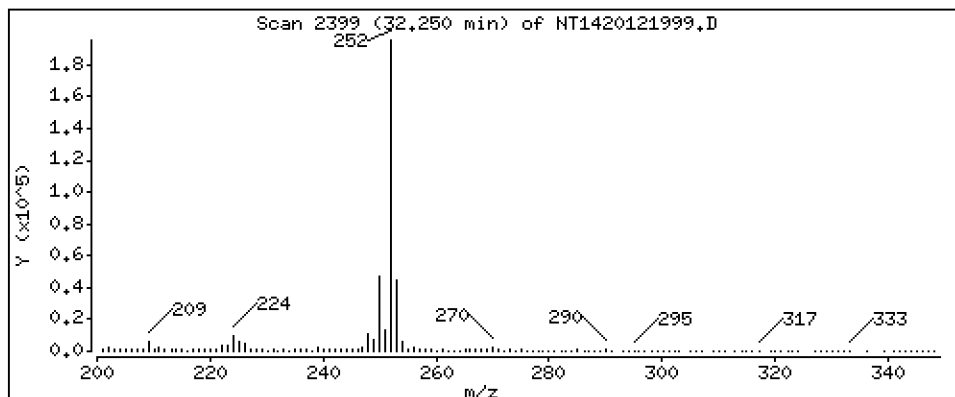
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

246 Total Benzofluoranthenes

Concentration: 4,905 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

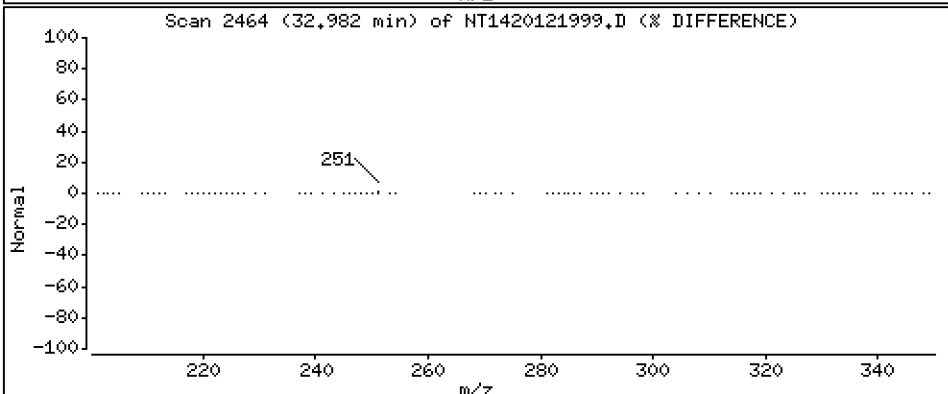
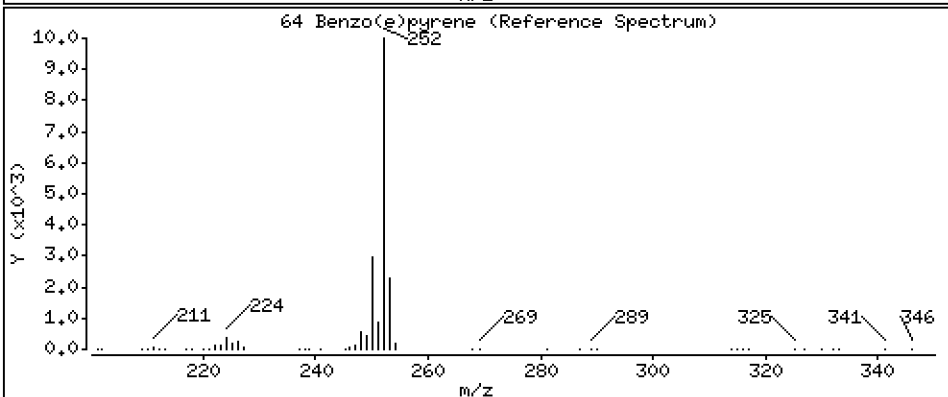
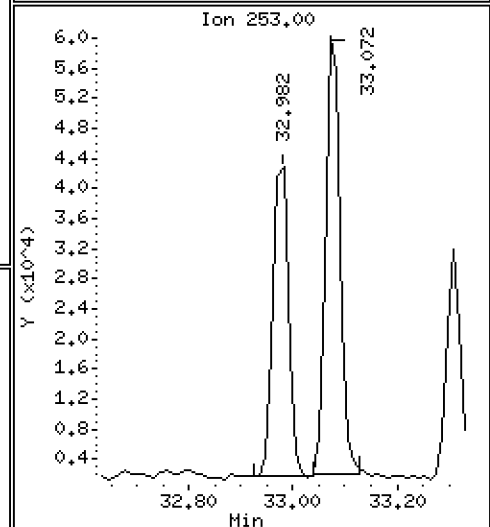
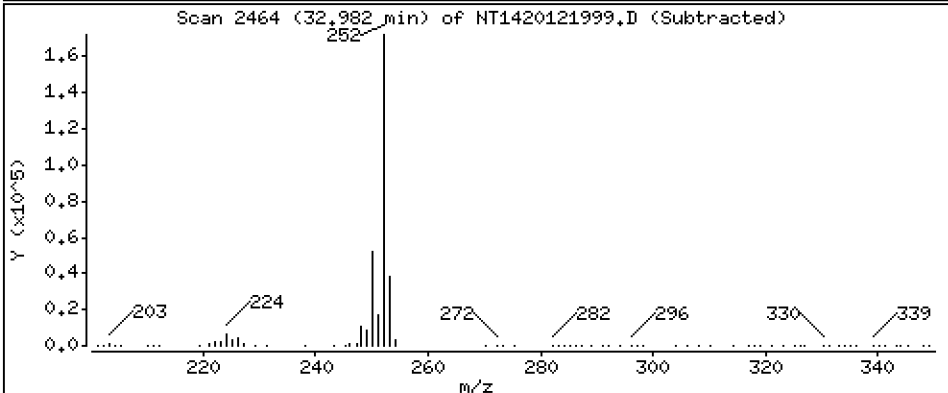
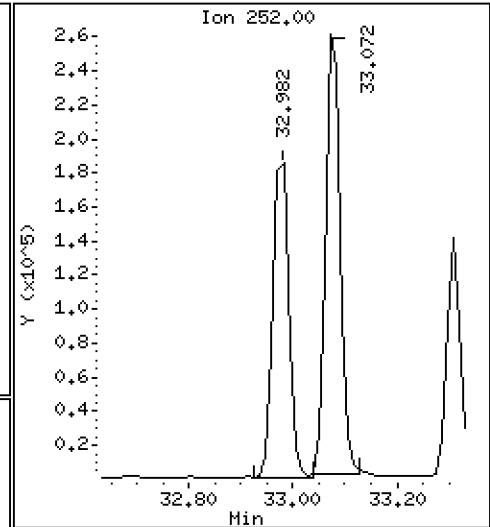
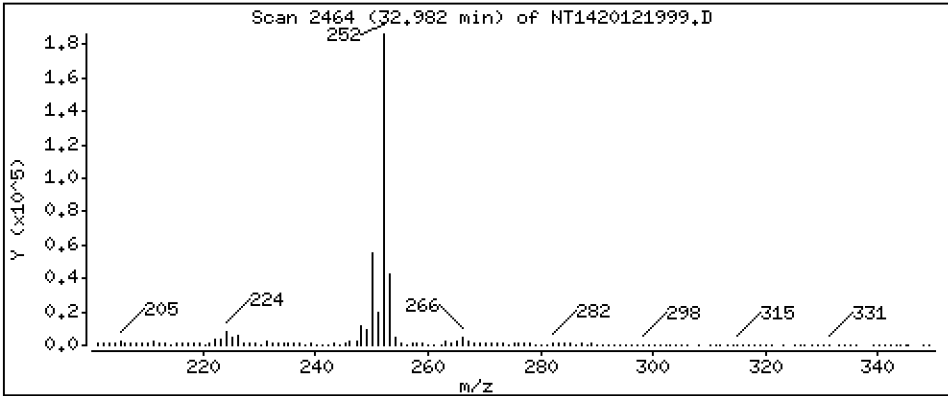
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

64 Benzo(e)pyrene

Concentration: 2,484 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

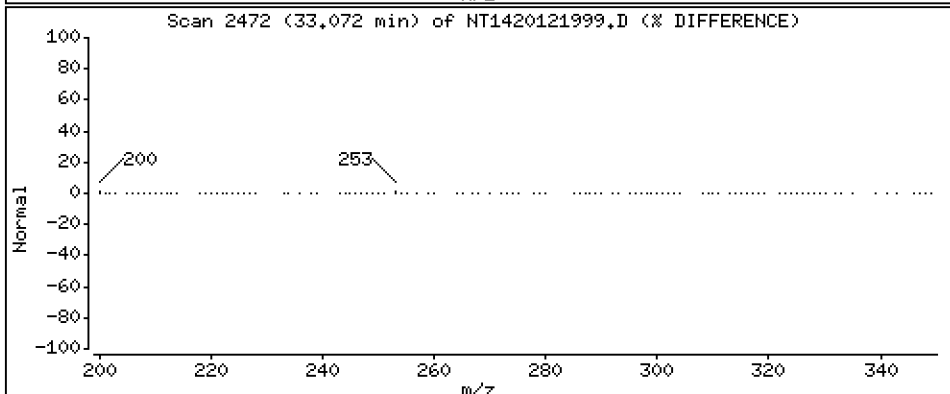
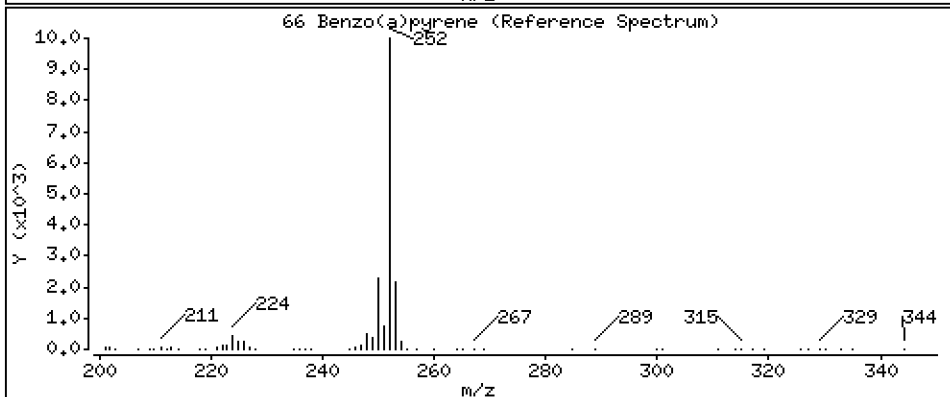
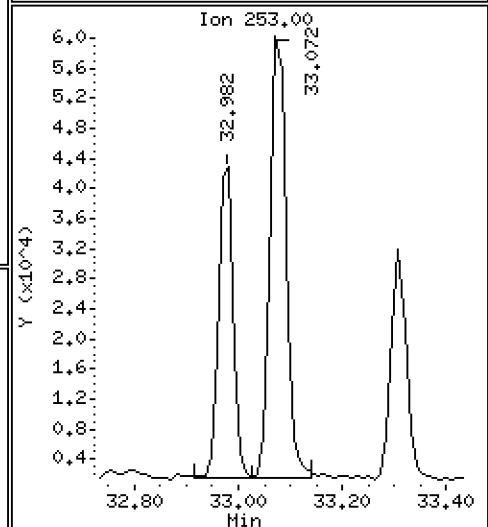
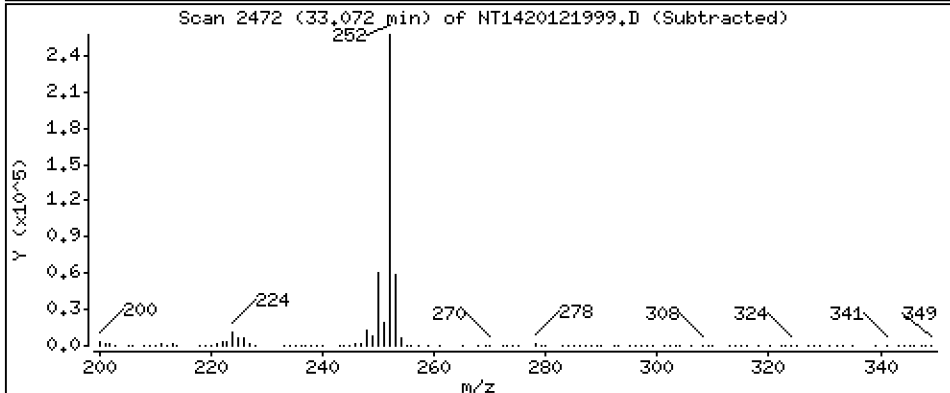
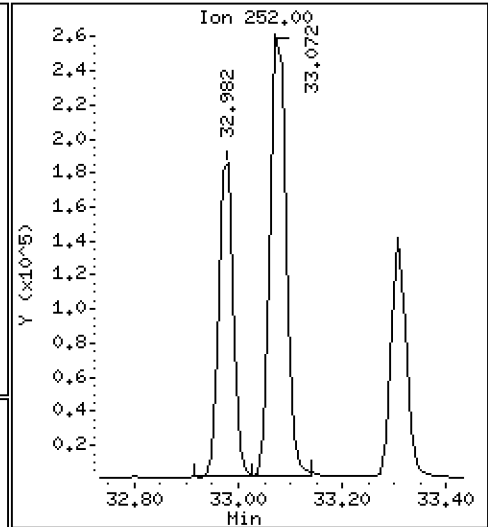
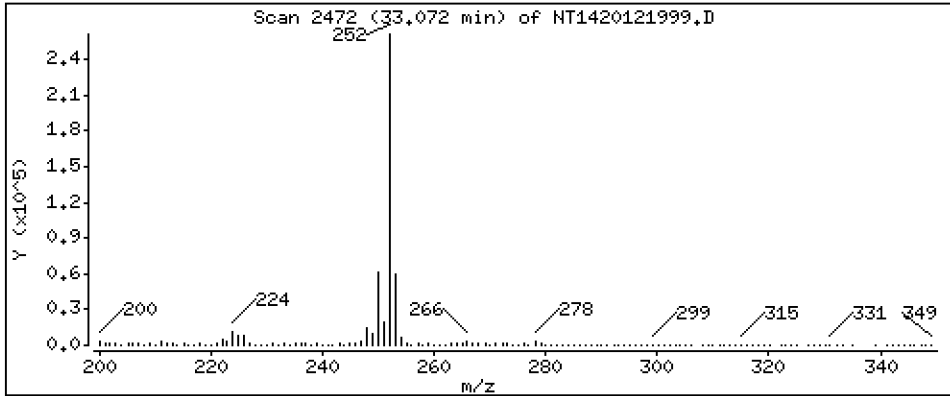
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

66 Benzo(a)pyrene

Concentration: 3,650 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

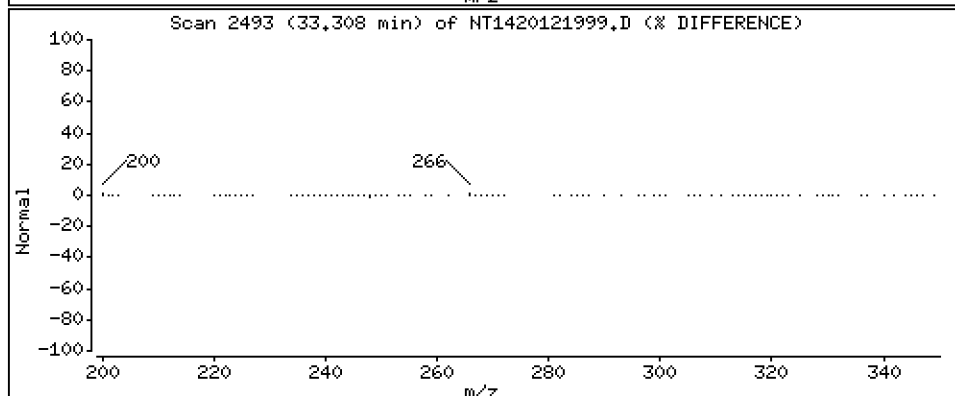
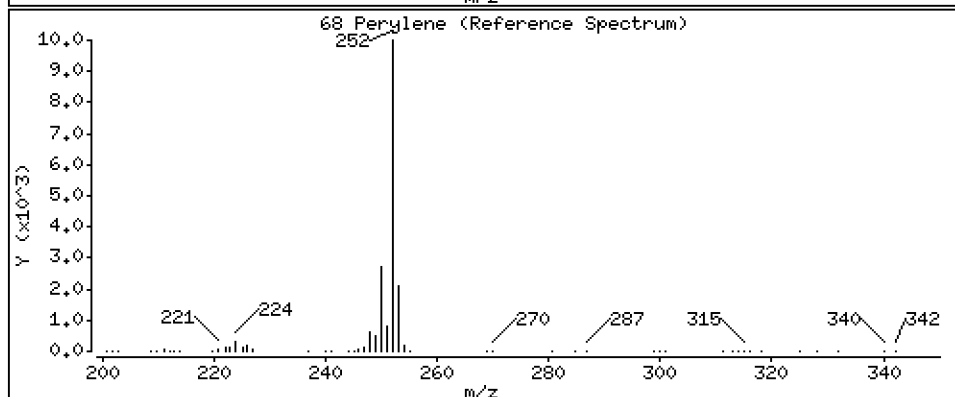
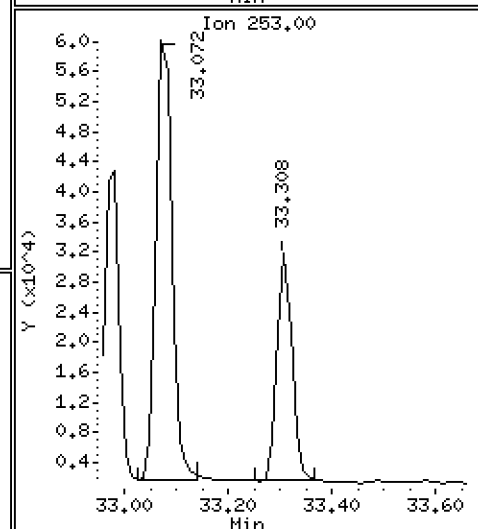
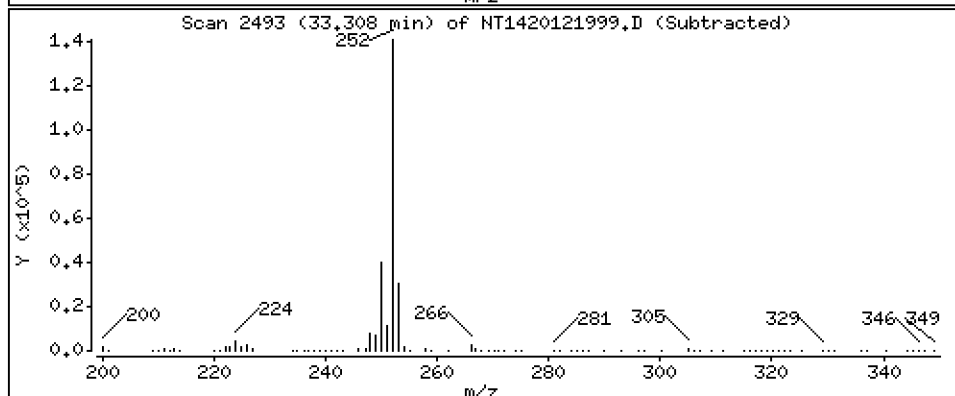
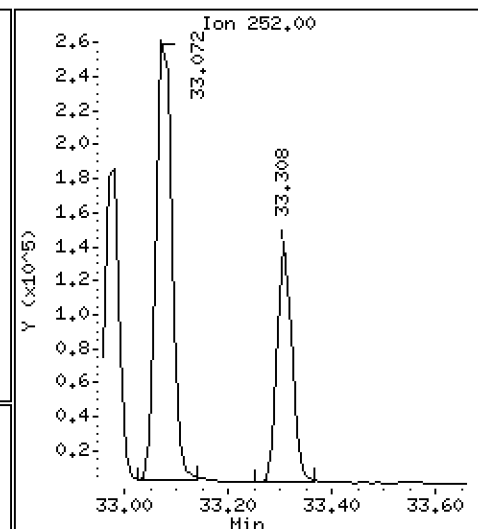
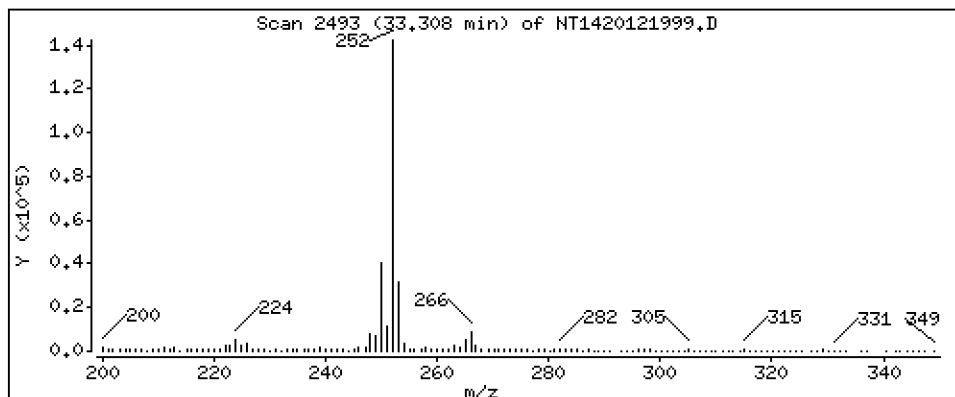
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

68 Perylene

Concentration: 1,741 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

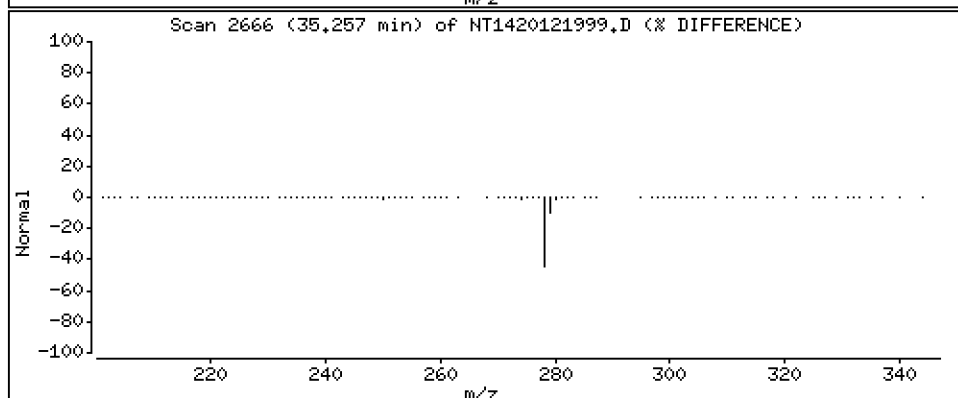
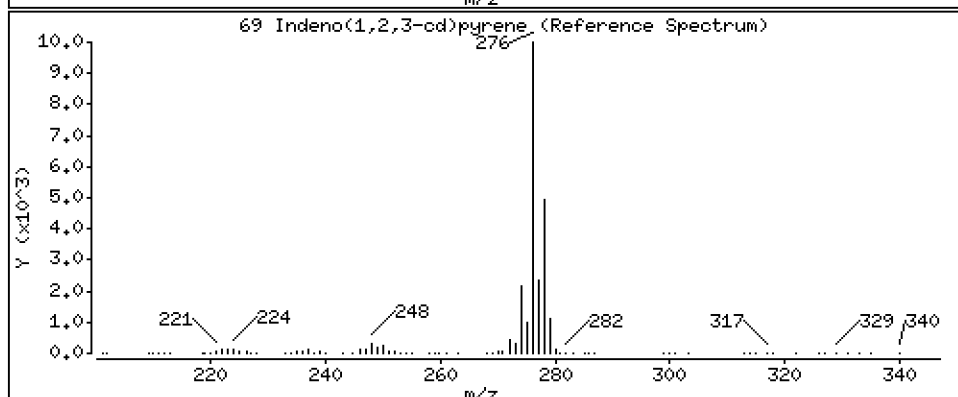
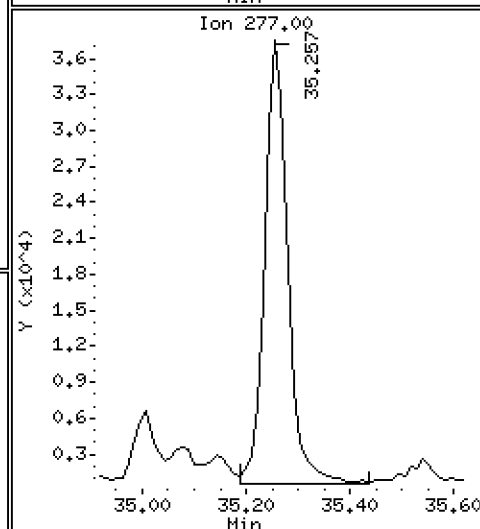
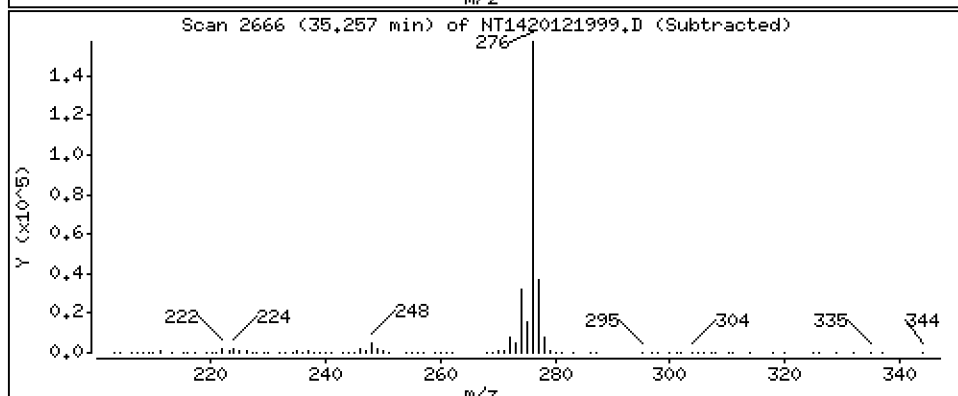
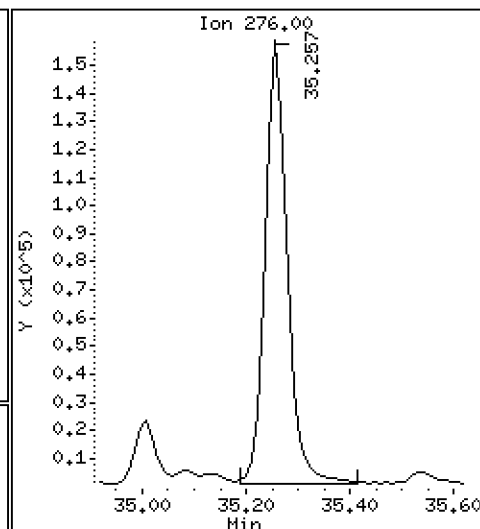
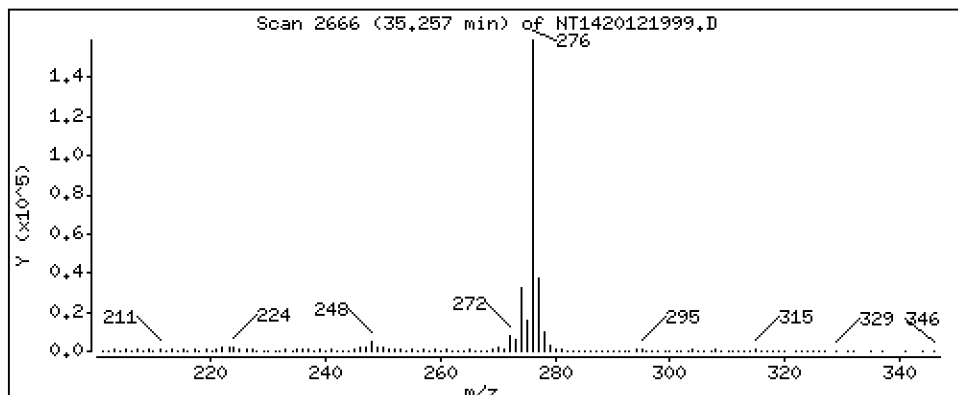
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

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

Concentration: 2,558 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

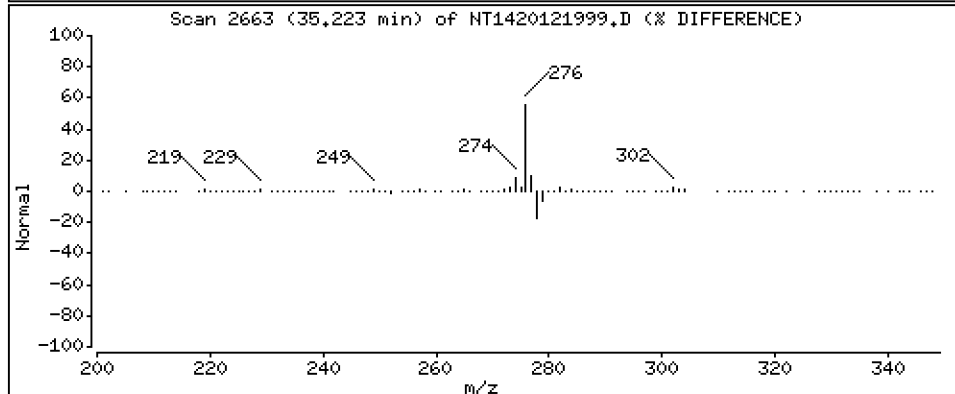
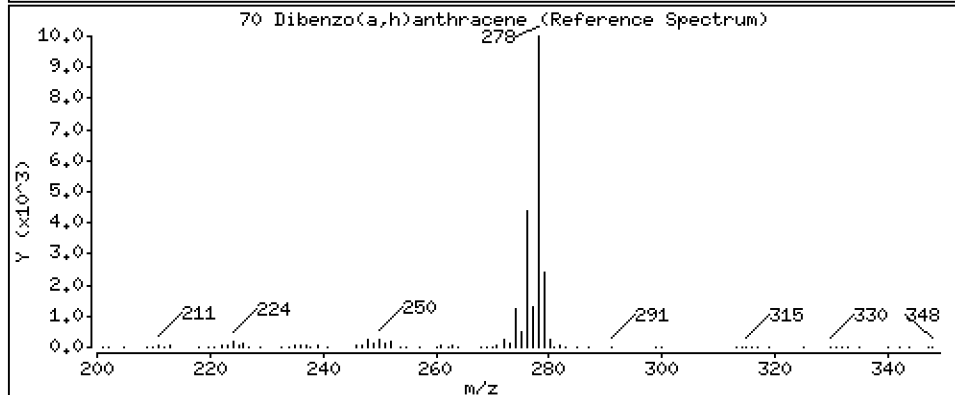
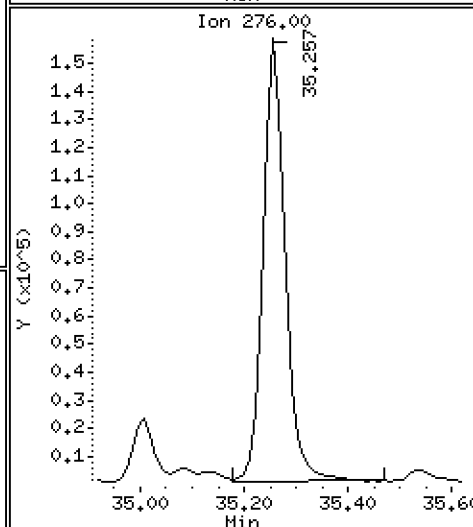
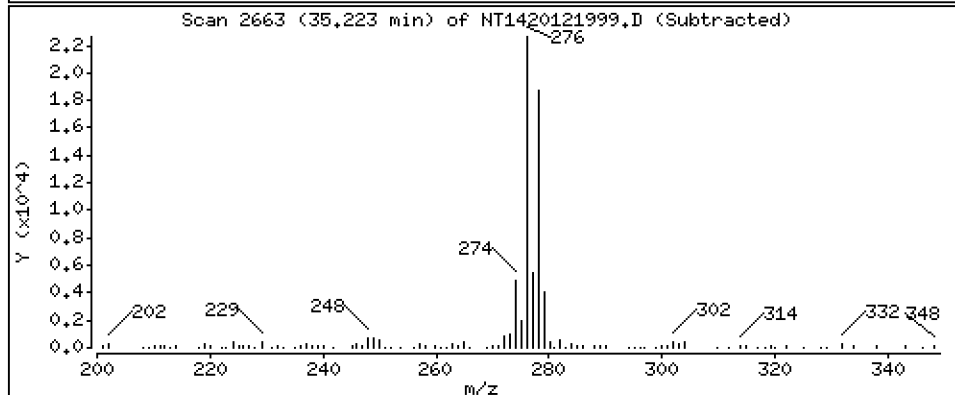
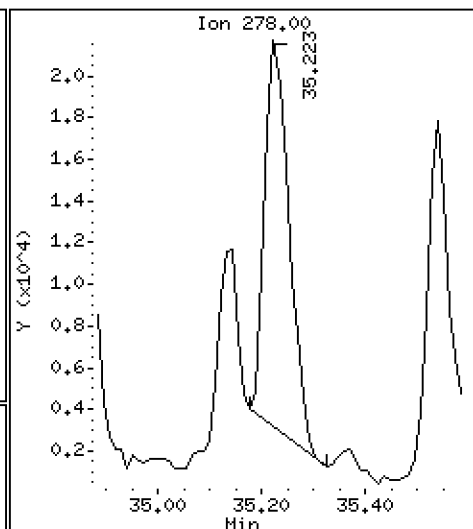
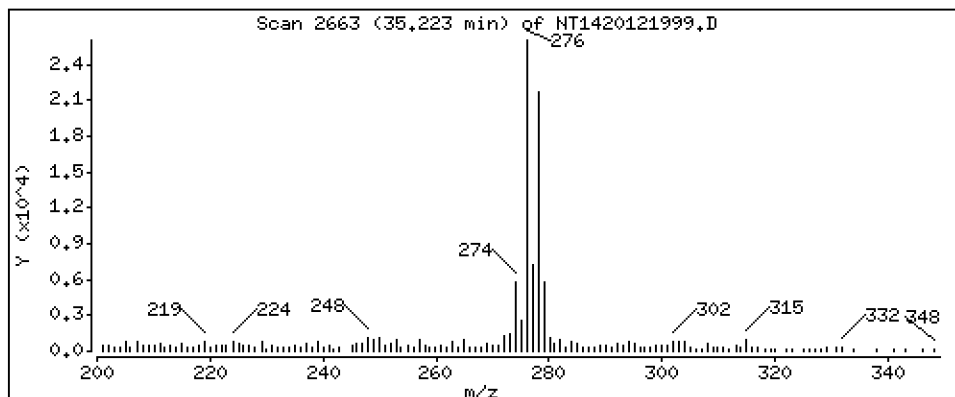
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

70 Dibenzo(a,h)anthracene

Concentration: 0,3752 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

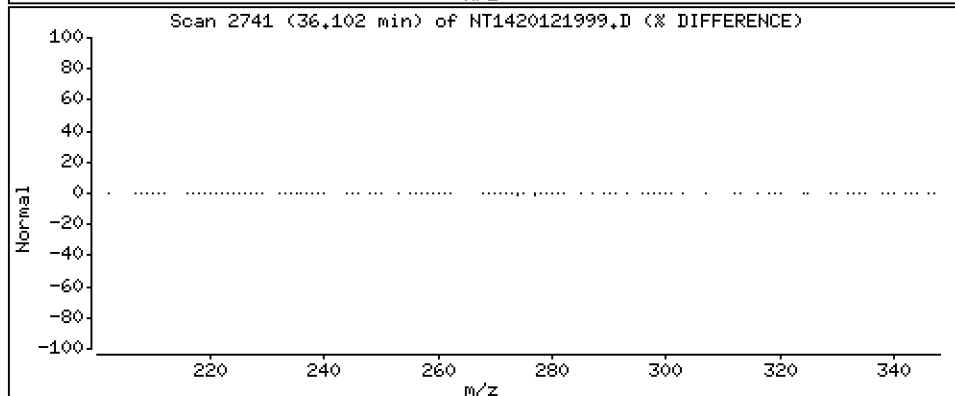
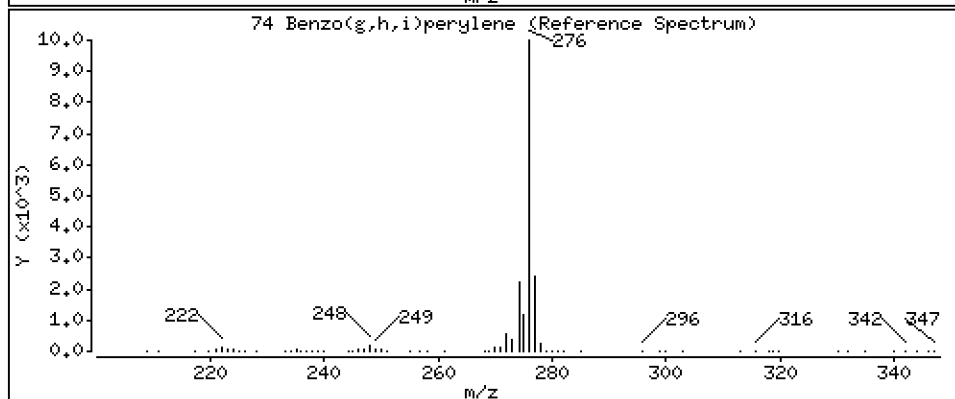
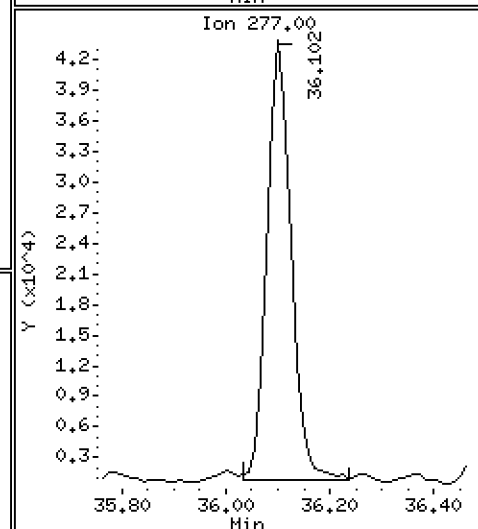
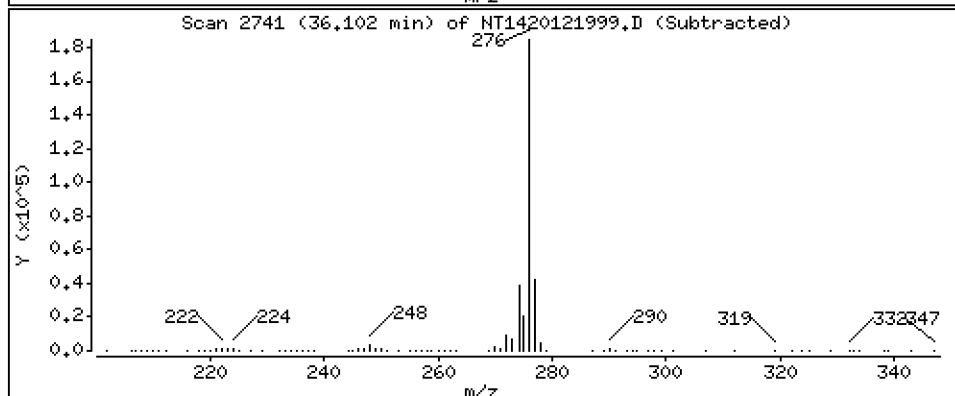
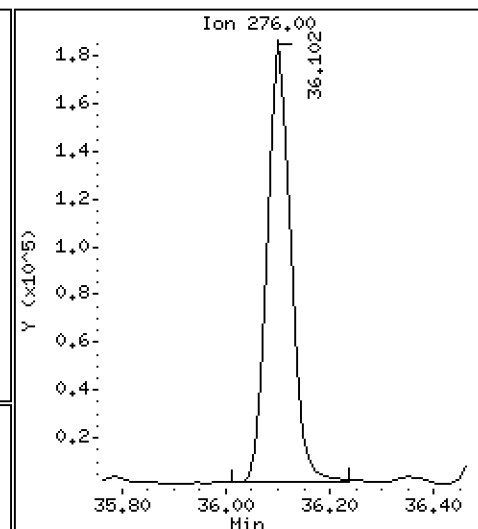
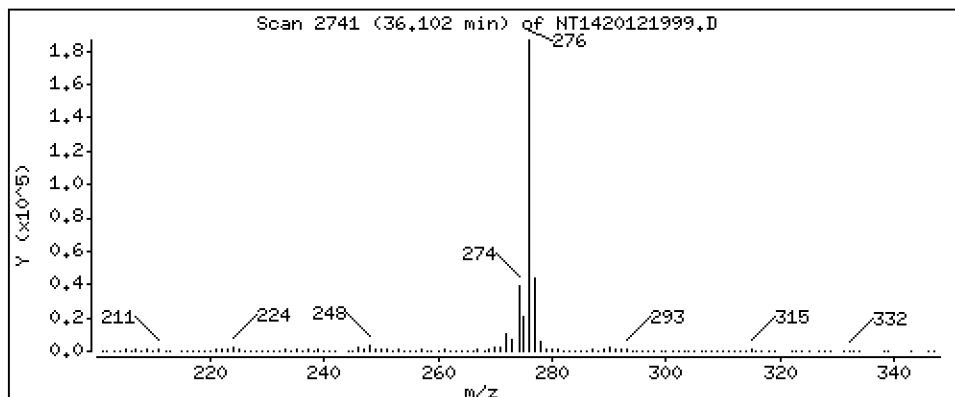
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

74 Benzo(g,h,i)perylene

Concentration: 3,663 ug/mL





ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20201219F.b\NT1420121999.D  
 Lab Smp Id: 20K0204-05  
 Inj Date : 22-DEC-2020 16:19  
 Operator : VTS  
 Smp Info : 20K0204-05  
 Misc Info :  
 Comment : 1ul Injection  
 Method : \\target\share\chem3\nt14.i\20201219F.b\ALKYLPNA.m  
 Meth Date : 23-Dec-2020 11:48 van  
 Cal Date : 07-OCT-2020 15:56  
 Als bottle: 85  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 4.14  
 Processing Host: VANS-202011

Inst ID: nt14.i

Quant Type: ISTD  
 Cal File: NT1420100708.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		11.597	11.608	(0.624)	39973	0.37642	0.3764 (R)
7 Naphthalene	128		11.663	11.674	(0.627)	123798	1.16522	1.165
12 Benzo(b)thiophene	134		12.124	12.135	(0.652)	7446	0.08341	0.08341
16 2-Methylnaphthalene	141		13.509	13.520	(0.726)	25794	0.39827	0.3983 (M)
17 1-methylnaphthalene	141		13.949	13.960	(0.750)	10895	0.16327	0.1633 (M)
18 Biphenyl	154		15.146	15.146	(0.814)	14285	0.14655	0.1466 (M)
19 2,6-Dimethylnaphthalene	156		15.223	15.234	(0.819)	14941	0.20996	0.2100 (M)
20 Acenaphthylene	152		16.784	16.795	(0.902)	38631	0.33108	0.3311 (M)
\$ 21 Acenaphthene-d10	164		17.070	17.070	(0.918)	26396	0.41394	0.4139 (R)
22 Acenaphthene	153		17.179	17.191	(0.924)	46410	0.60715	0.6072
23 Dibenzofuran	168		17.564	17.575	(0.944)	19431	0.17522	0.1752
24 1,6,7-Trimethylnaphthalene	170		17.784	17.795	(0.956)	6009	0.08329	0.08329
* 25 Fluorene-d10	176		18.598	18.610	(1.000)	260262	2.00000	
26 Fluorene	166		18.712	18.712	(1.006)	46991	0.54358	0.5436
30 Dibenzothiophene	184		21.614	21.626	(1.162)	40348	0.32430	0.3243
\$ 35 Phenanthrene-d10	188		21.930	21.930	(0.995)	59209	0.54030	0.5403 (R)
36 Phenanthrene	178		22.007	22.018	(0.999)	413475	3.26324	3.263
* 250 Anthracene-d10	188		22.040	22.051	(1.000)	228799	2.00000	
37 Anthracene	178		22.106	22.117	(1.003)	85004	0.68262	0.6826
42 Carbazole	167		23.403	23.403	(1.062)	14512	0.13457	0.1346
43 1-Methylphenanthrene	192		23.842	23.843	(1.082)	30857	0.33179	0.3318 (M)
44 Fluoranthene	202		25.821	25.822	(1.172)	707923	5.06220	5.062
46 Pyrene	202		26.668	26.679	(1.210)	839450	5.68849	5.688
51 Naphthobenzothiophene	234		29.234	29.245	(1.326)	59304	0.44090	0.4409
55 Benzo(a)anthracene	228		29.828	29.828	(0.906)	365363	2.51208	2.512
\$ 56 Chrysene-d12	240		29.952	29.952	(0.910)	47774	0.41591	0.4159 (R)
57 Chrysene	228		30.019	30.030	(0.912)	391312	2.70699	2.707
62 Benzo(b)fluoranthene	252		32.249	32.261	(0.980)	386391	2.35288	2.353 (M)
63 Benzo(k)fluoranthene	252		32.306	32.306	(0.982)	197118	1.19091	1.191 (M)
293 Benzo(j)fluoranthene	252		32.362	32.362	(0.983)	201332	1.39153	1.392
246 Total Benzofluoranthenes	252		32.249	32.306	(0.980)	747444	4.90543	4.905 (M)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	32.914	32.914	(1.000)	336901	2.00000	
64 Benzo(e)pyrene	252	32.981	32.981	(1.002)	373468	2.48384	2.484
66 Benzo(a)pyrene	252	33.071	33.083	(1.005)	518548	3.65016	3.650
\$ 67 Perylene-d12	264	33.252	33.252	(1.010)	61287	0.43994	0.4399 (R)
68 Perylene	252	33.308	33.308	(1.012)	259791	1.74105	1.741
69 Indeno(1,2,3-cd)pyrene	276	35.256	35.268	(1.071)	449923	2.55753	2.558 (M)
70 Dibenzo(a,h)anthracene	278	35.223	35.234	(1.070)	58319	0.37523	0.3752 (M)
74 Benzo(g,h,i)perylene	276	36.101	36.113	(1.097)	566124	3.66312	3.663 (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: 22-DEC-2020  
 Lab File ID: NT1420121999.D Calibration Time: 09:54  
 Lab Smp Id: 20K0204-05  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: VTS  
 Method File: \\target\share\chem3\nt14.i\20201219F.b\ALKYLPNA.m  
 Misc Info:

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	263433	131717	526866	260262	-1.20
250 Anthracene-d10	236791	118396	473582	228799	-3.38
251 Benzo(e)pyrene-d1	338506	169253	677012	336901	-0.47

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.61	18.11	19.11	18.60	-0.06
250 Anthracene-d10	22.05	21.55	22.55	22.04	-0.05
251 Benzo(e)pyrene-d1	32.91	32.41	33.41	32.91	-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 - NT1420121999.D

Lab ID: 20K0204-05

nt14.i, 20201219F.b\ALKYLPNA.m, 22-DEC-2020 16:19

RT CO-ELUTION COMPOUNDS

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NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

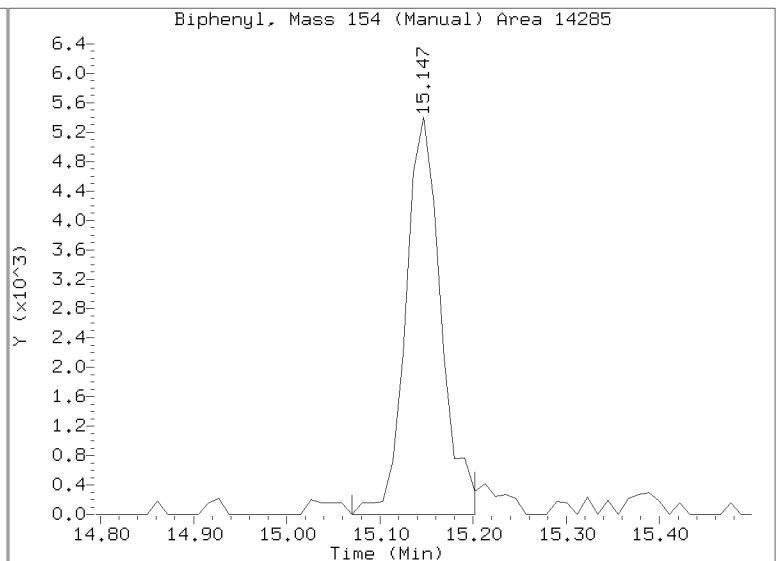
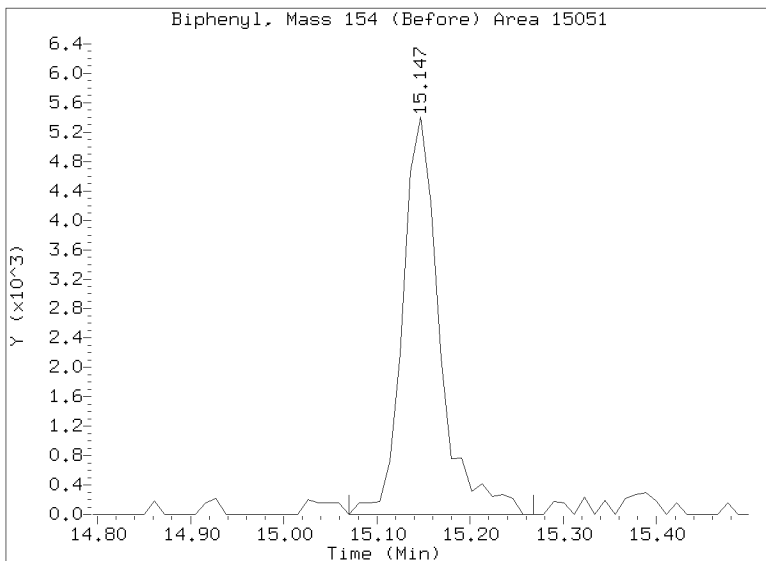
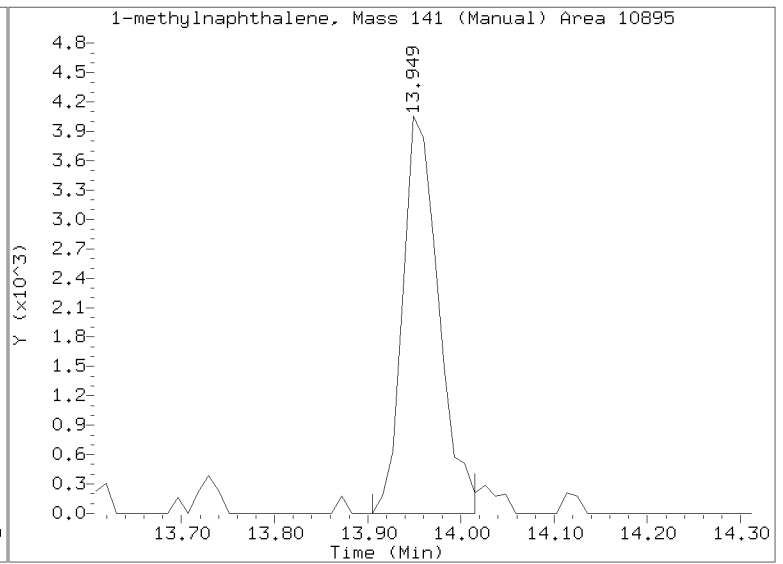
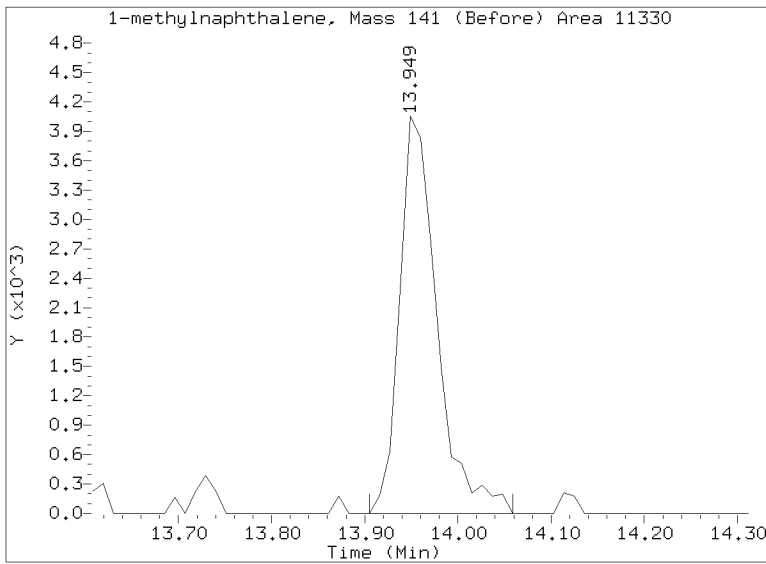
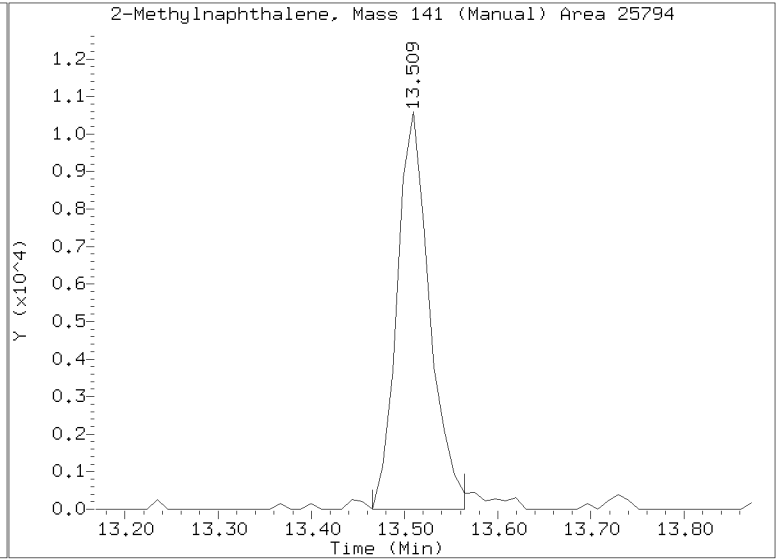
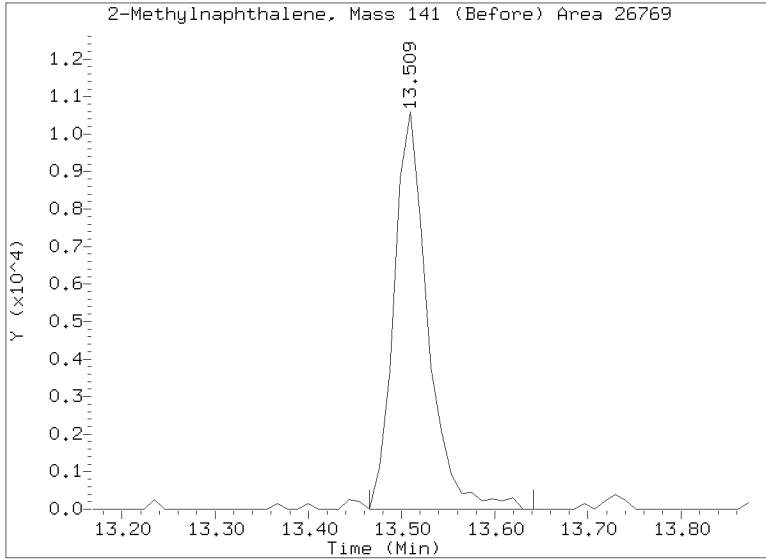
RRT check based on Ccal File: NT1420121991ICV.D

On Column LOD for nt14.i, 20201219F.b\ALKYLPNA.m, TARGETS.sub = 0.0000

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

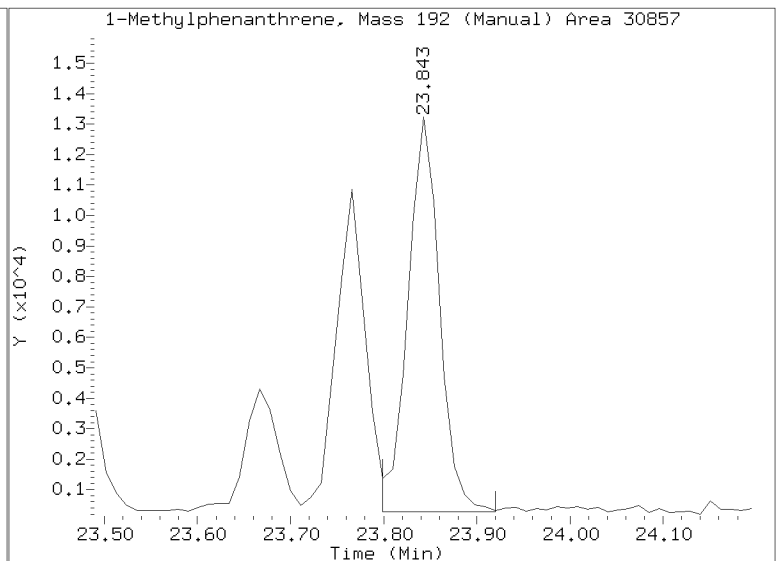
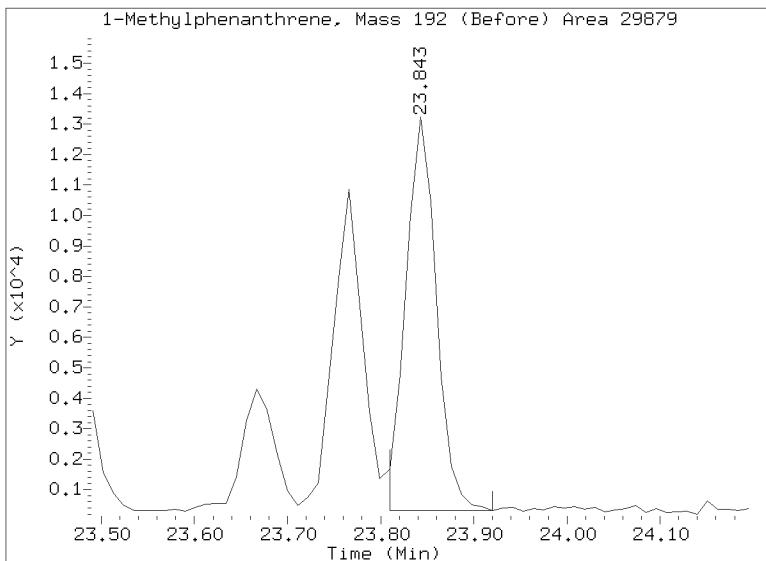
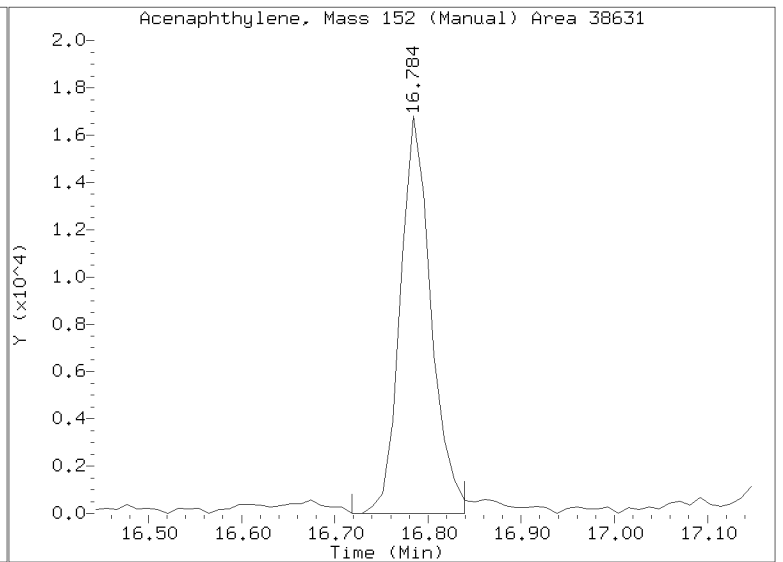
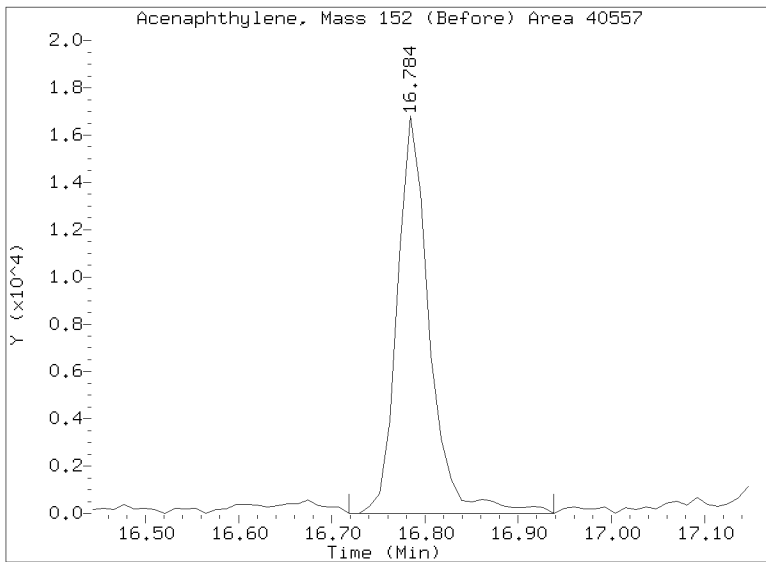
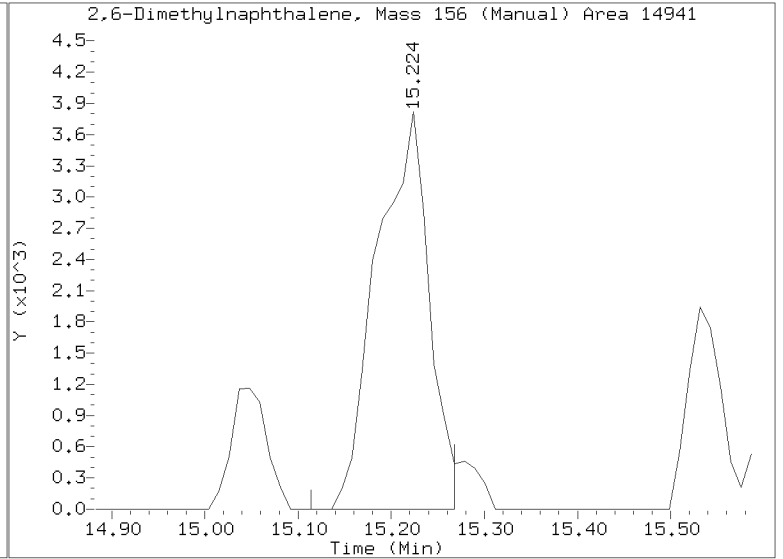
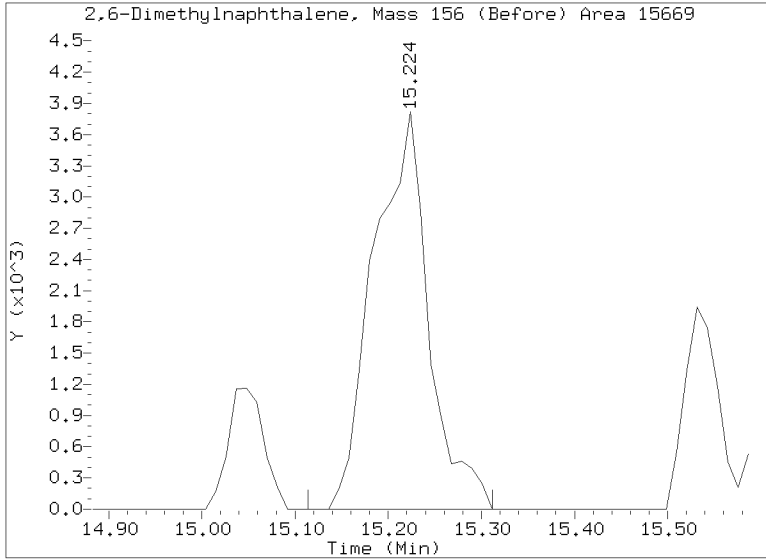
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Injection Date: 22-DEC-2020 16:19  
Lab ID:20K0204-05 Client ID:  
Report Date: 12/29/2020 13:45



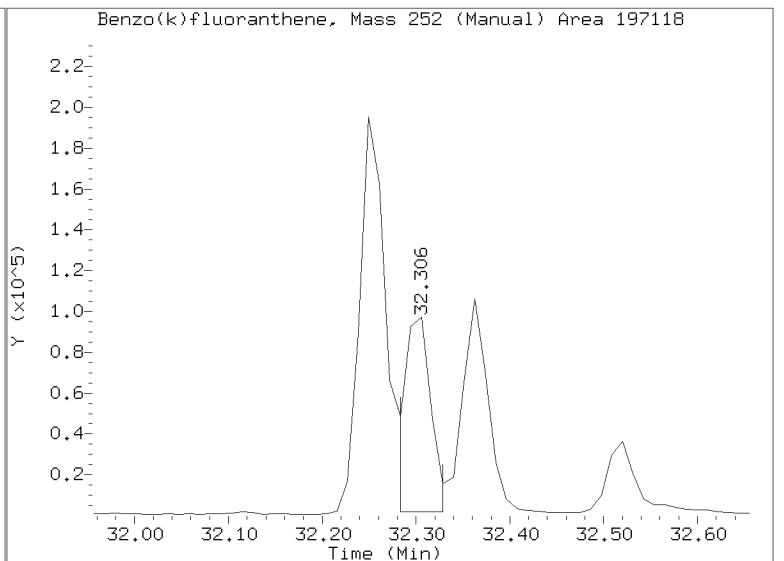
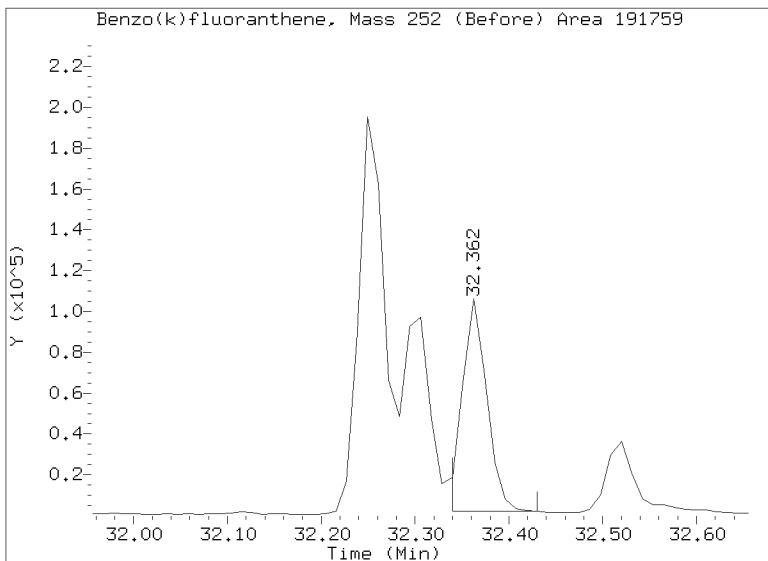
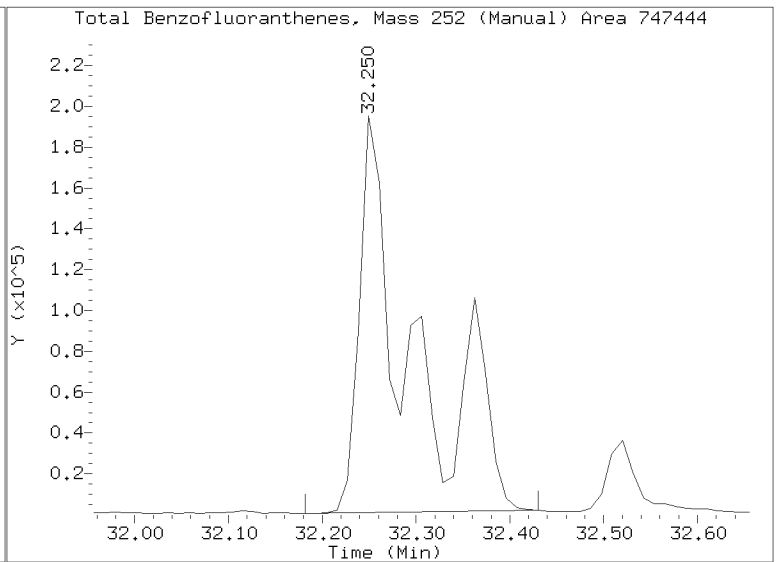
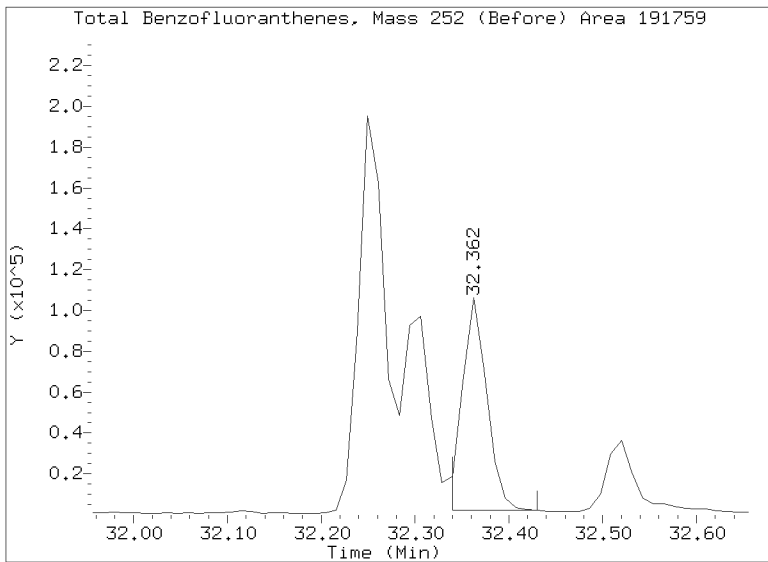
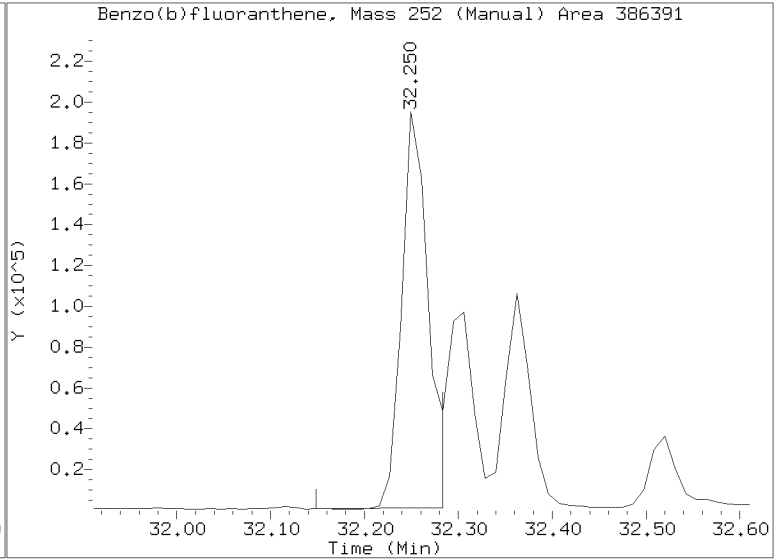
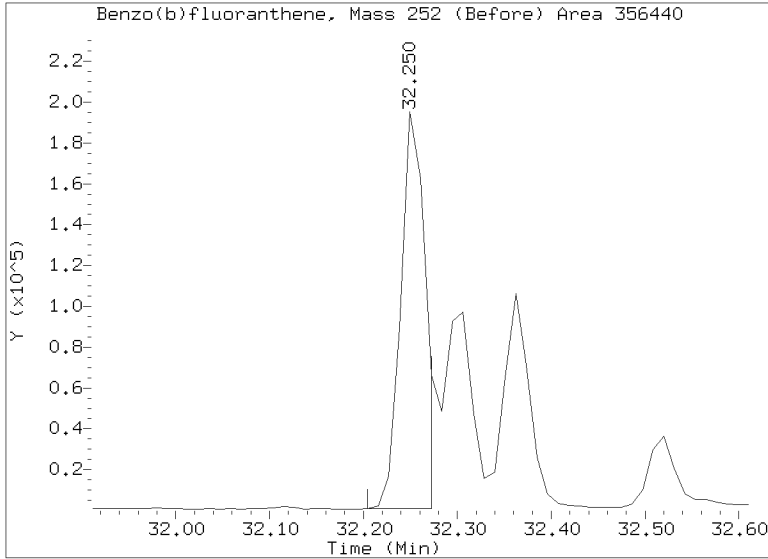
# Quant Ion Manual Peak Adjustment Report

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Injection Date: 22-DEC-2020 16:19  
Lab ID:20K0204-05 Client ID:  
Report Date: 12/29/2020 13:45



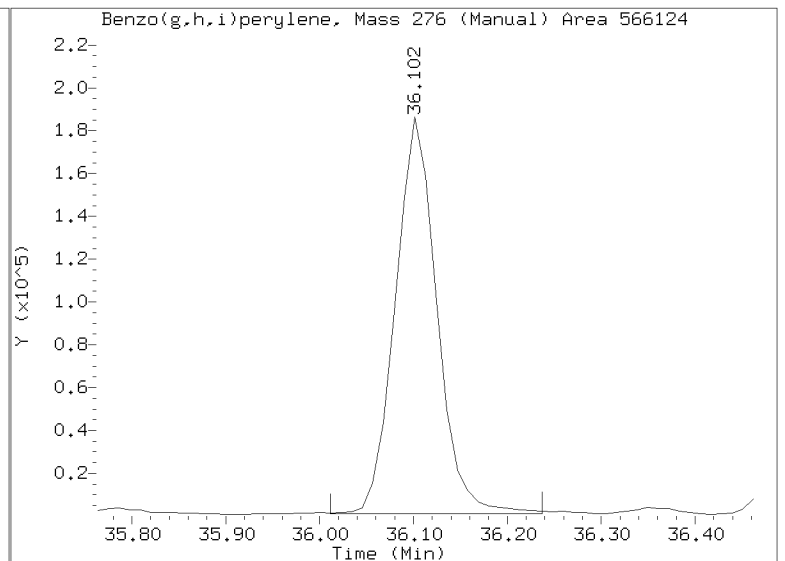
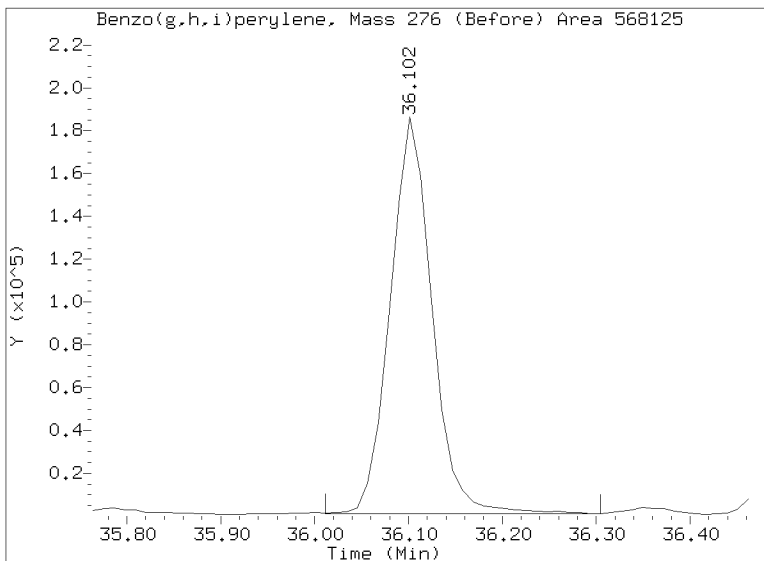
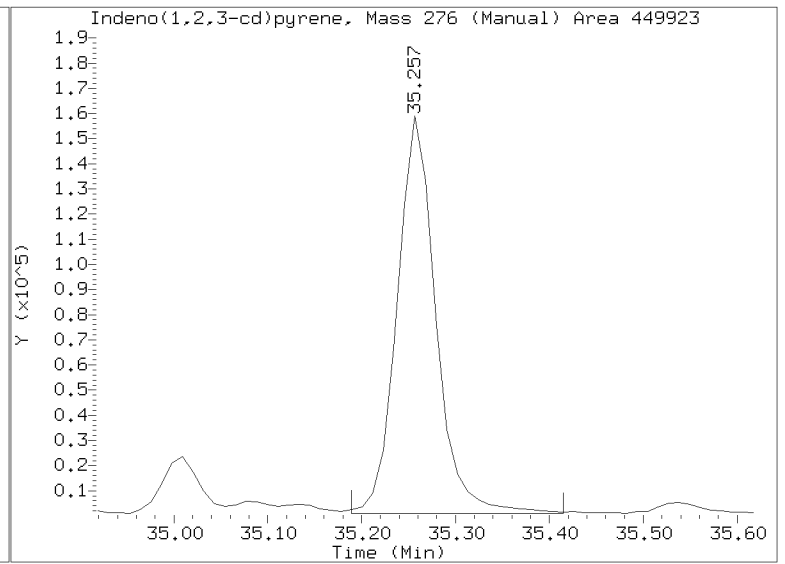
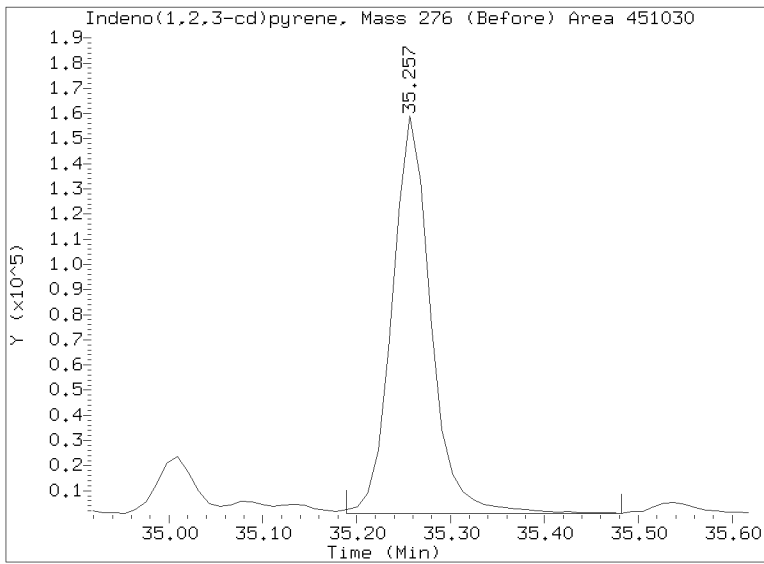
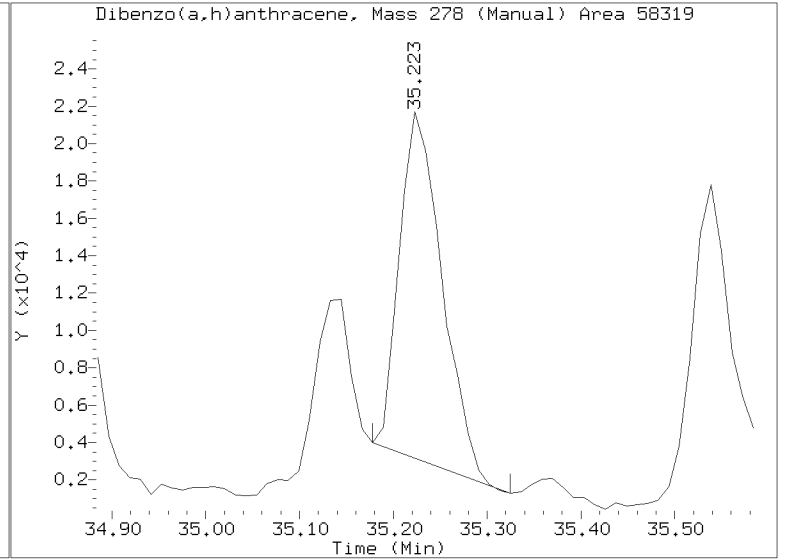
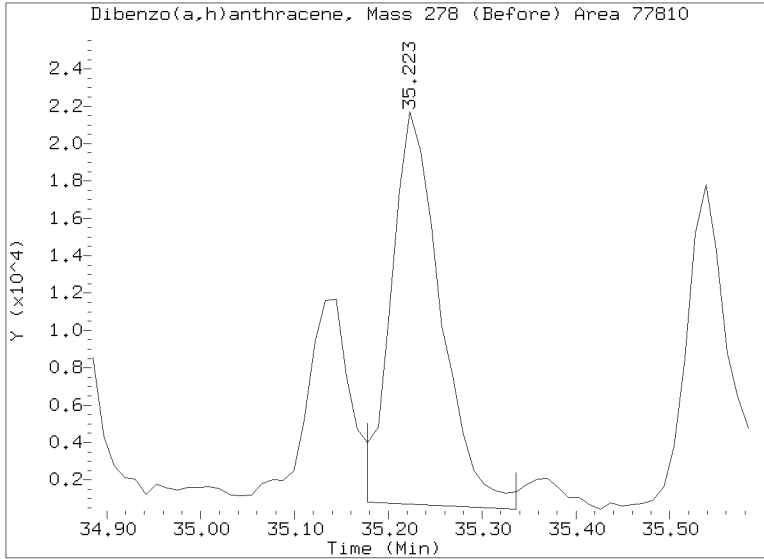
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201219F.b/NT1420121999.D  
Injection Date: 22-DEC-2020 16:19  
Lab ID:20K0204-05 Client ID:  
Report Date: 12/29/2020 13:45



# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201219F.b/NT1420121999.D  
Injection Date: 22-DEC-2020 16:19  
Lab ID:20K0204-05 Client ID:  
Report Date: 12/29/2020 13:45







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

Laboratory: Analytical Resources, Inc.  
 Client: Anchor OEA, LLC  
 Project: Gasco Siltronic  
 Matrix: Sediment Laboratory ID: 20K0204-05 A SDG: 20K0204  
 Sampled: 11/10/20 09:25 Prepared: 11/24/20 11:45 File ID: NT1420121999S.D  
 % Solids: 54.92 Preparation: EPA 3546 (Microwave) Analyzed: 12/22/20 16:19  
 Batch: BIK0745 Sequence: SIL0487 Initial/Final: 18.21 g Wet / 2.5 mL  
 Instrument: NT14 Column: ZB-5MS Calibration: DI00041  
 Cleanups: Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
C1DEC	C1-Decalins	1	47.7		2.4	25.0
C2DEC	C2-Decalins	1	110		2.4	25.0
C3DEC	C3-Decalins	1	69.4		2.4	25.0
C4DEC	C4-Decalins	1	129		2.4	25.0
C1NAPH	C1-Naphthalenes	1	146		2.2	25.0
C2NAPH	C2-Naphthalenes	1	152		2.2	25.0
C3NAPH	C3-Naphthalenes	1	125		2.2	25.0
C4NAPH	C4-Naphthalenes	1	84.5		2.2	25.0
C1FLR	C1-Fluorenes	1	77.8		2.3	25.0
C2FLR	C2-Fluorenes	1	105		2.3	25.0
C3FLR	C3-Fluorenes	1	126		2.3	25.0
C1DBTPH	C1-Dibenzothiophenes	1	77.8		3.3	25.0
C2DBTPH	C2-Dibenzothiophenes	1	104		3.3	25.0
C3DBTPH	C3-Dibenzothiophenes	1	117		3.3	25.0
C4DBTPH	C4-Dibenzothiophenes	1	61.7		3.3	25.0
C1PHNANT	C1-Phenanthrenes/Anthracenes	1	340		4.7	25.0
C2PHNANT	C2-Phenanthrenes/Anthracenes	1	339		4.7	25.0
C3PHNANT	C3-Phenanthrenes/Anthracenes	1	244		4.7	25.0
C4PHNANT	C4-Phenanthrenes/Anthracenes	1	104		4.7	25.0
C1FLPYR	C1-Fluoranthenes/Pyrenes	1	628		5.1	25.0
C2FLPYR	C2-Fluoranthenes/Pyrenes	1	272		5.1	25.0
C3FLPYR	C3-Fluoranthenes/Pyrenes	1	227		5.1	25.0
C4FLPYR	C4-Fluoranthenes/Pyrenes	1	185		5.1	25.0
C1BAACYR	C1-Benzo(a)anthracenes/Chrysenes	1	25.0	U	3.5	25.0
C2BAACYR	C2-Benzo(a)anthracenes/Chrysenes	1	240		3.5	25.0
C3BAACYR	C3-Benzo(a)anthracenes/Chrysenes	1	155		3.5	25.0
C4BAACYR	C4-Benzo(a)anthracenes/Chrysenes	1	60.7		3.5	25.0
C1BZTPH	C1-Benzothiophenes	1	24.2	J	1.8	25.0
C2BZTPH	C2-Benzothiophenes	1	26.6		1.8	25.0
C3BZTPH	C3-Benzothiophenes	1	25.0	U	1.8	25.0



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

Laboratory: Analytical Resources, Inc.  
Client: Anchor OEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-05 A SDG: 20K0204  
Sampled: 11/10/20 09:25 Prepared: 11/24/20 11:45 File ID: NT1420121999S.D  
% Solids: 54.92 Preparation: EPA 3546 (Microwave) Analyzed: 12/22/20 16:19  
Batch: BIK0745 Sequence: SIL0487 Initial/Final: 18.21 g Wet / 2.5 mL  
Instrument: NT14 Column: ZB-5MS Calibration: DI00041  
Cleanups: Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
C1NPBTP	C1-Naphthobenzothiophenes	1	154		12.5	25.0
C2NPBTP	C2-Naphthobenzothiophenes	1	93.4		12.5	25.0
C3NPBTP	C3-Naphthobenzothiophenes	1	25.0	U	12.5	25.0
C4NPBTP	C4-Naphthobenzothiopenes	1	13.4	J	12.5	25.0
C1DBA	C1-Dibenzo(a)anthracenes	1	133		3.4	25.0
C2DBA	C2-Dibenzo(a)anthracenes	1	73.2		3.4	25.0
C3DBA	C3-Dibenzo(a)anthracenes	1	20.0	J	3.4	25.0

Data File: \\target\share\chem3\nt14.1\20201219.B\SIH.B\NT1420121999S.D

Date : 22-DEC-2020 16:19

Client ID:

Sample Info: 20K0204-05

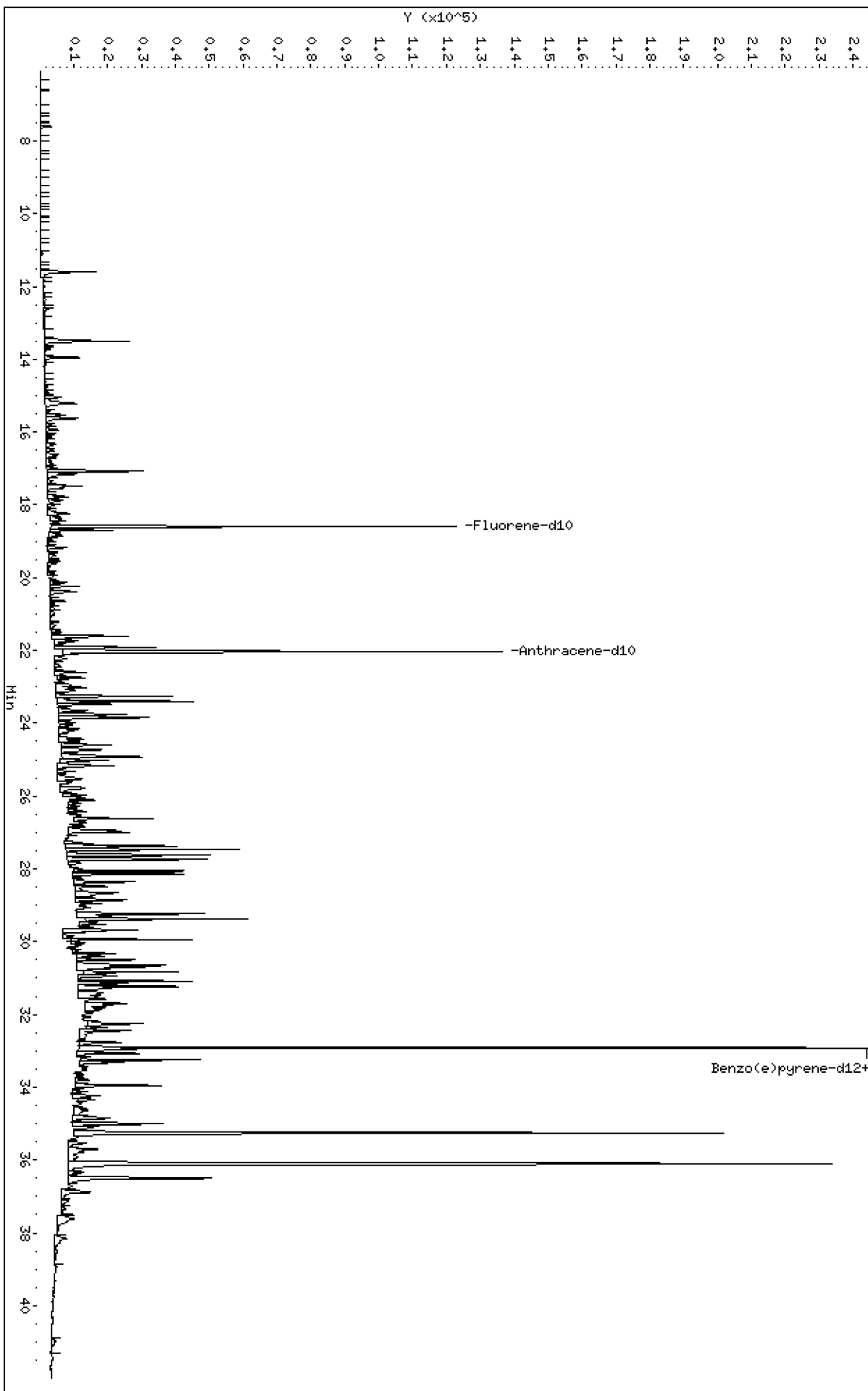
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

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Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

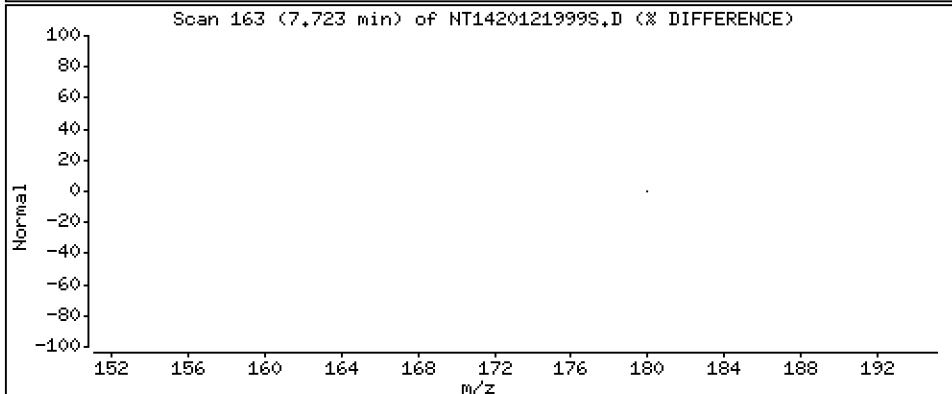
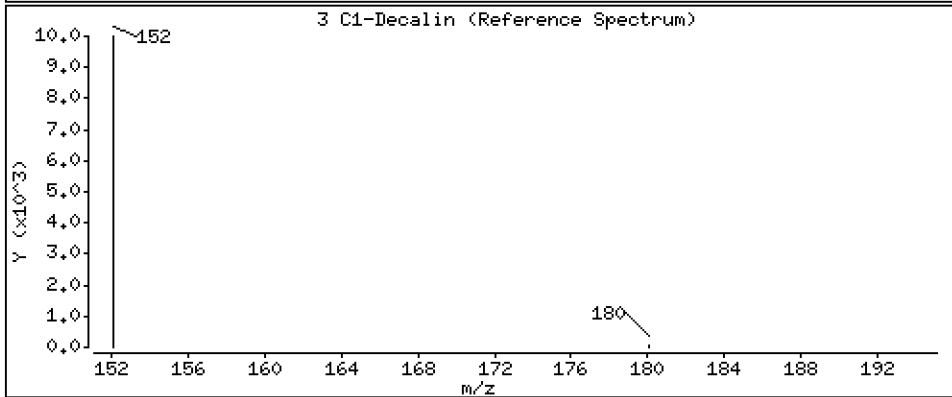
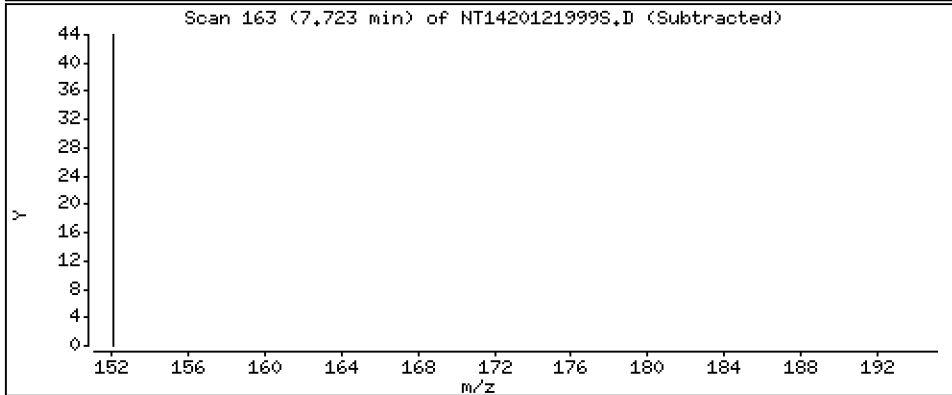
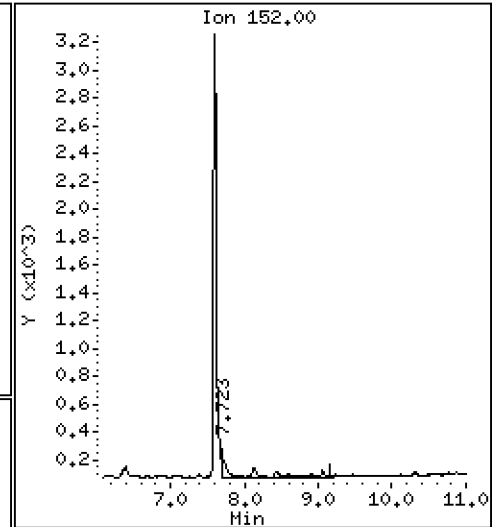
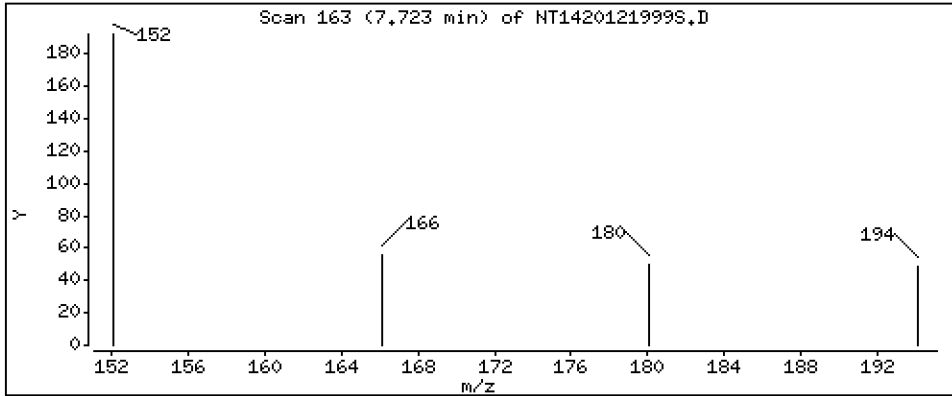
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

3 Cl-Decalin

Concentration: 0,1909 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

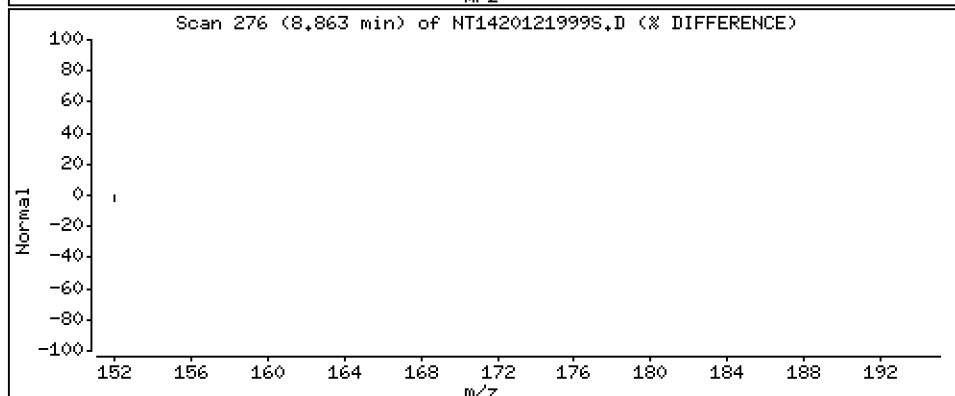
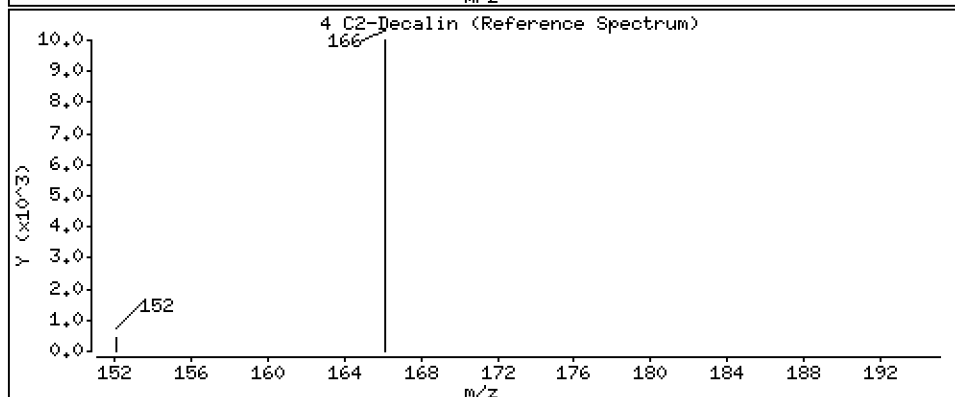
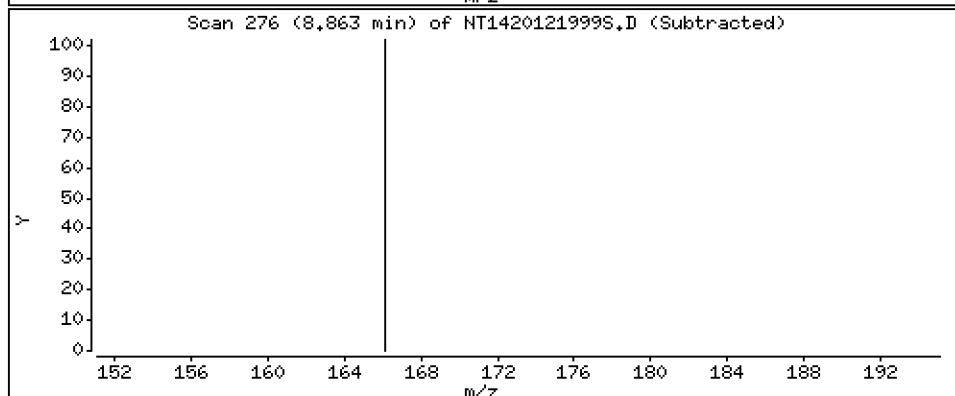
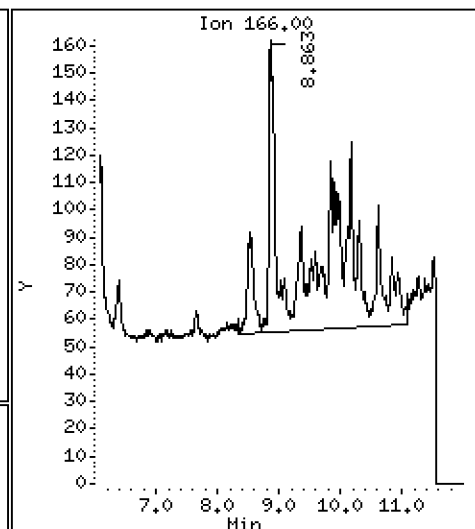
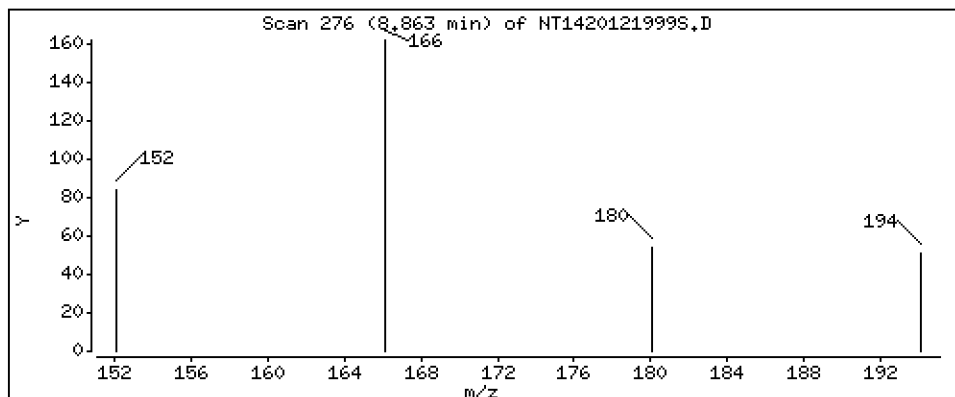
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

4 C2-Decalin

Concentration: 0,4388 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

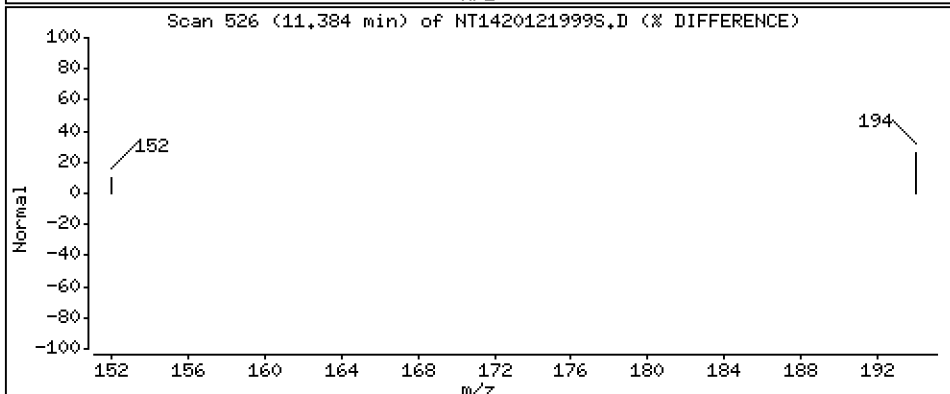
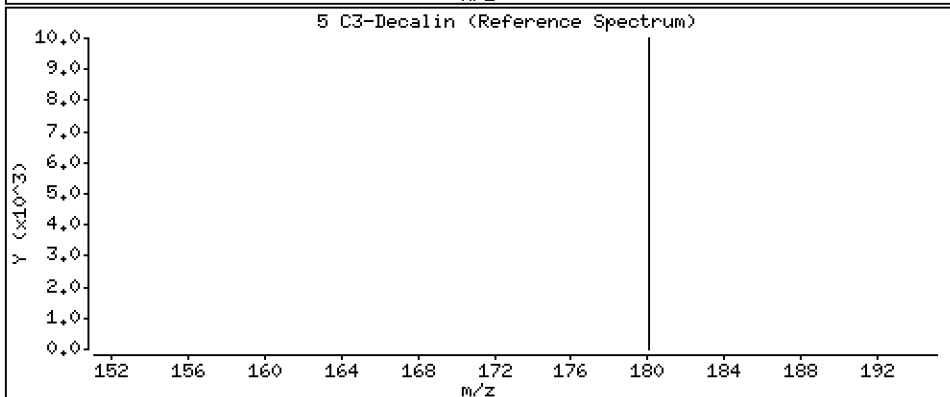
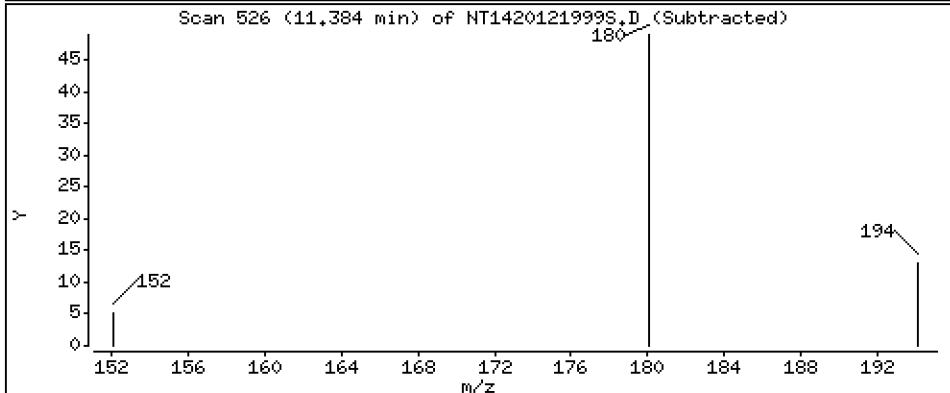
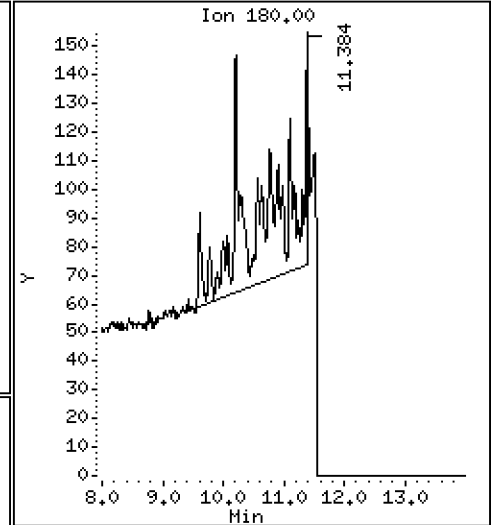
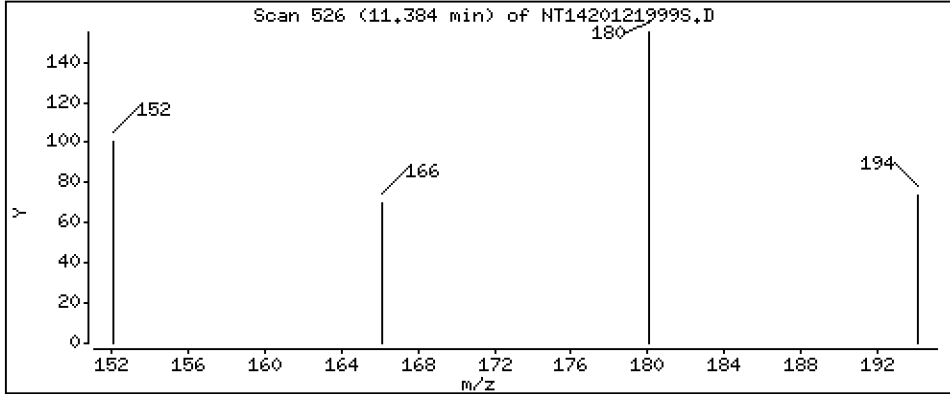
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

5 C3-Decalin

Concentration: 0,2776 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

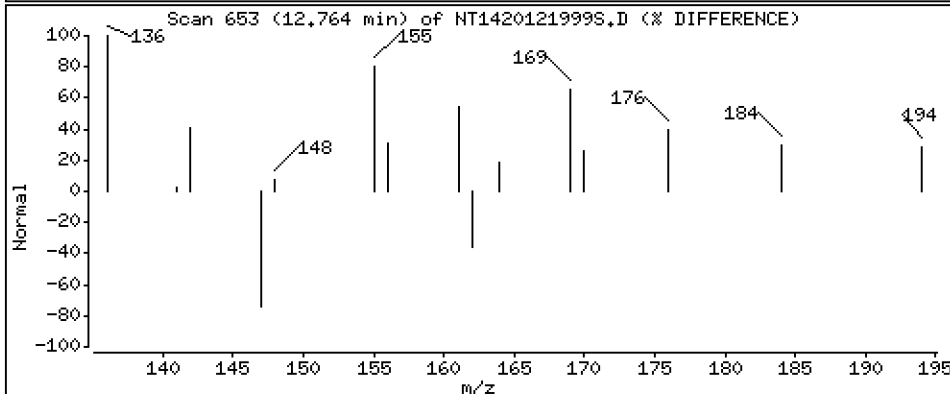
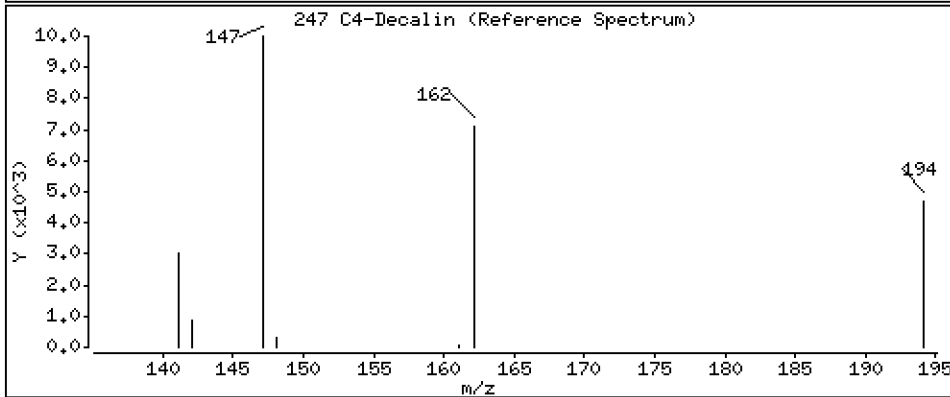
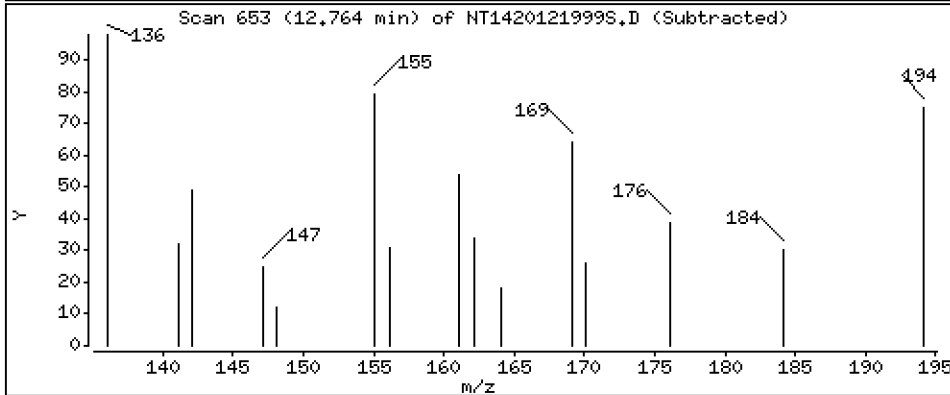
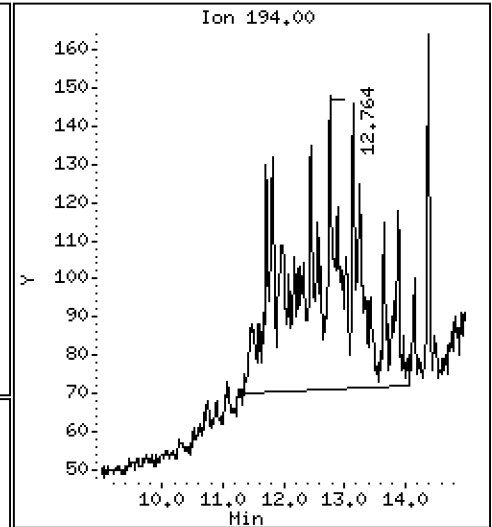
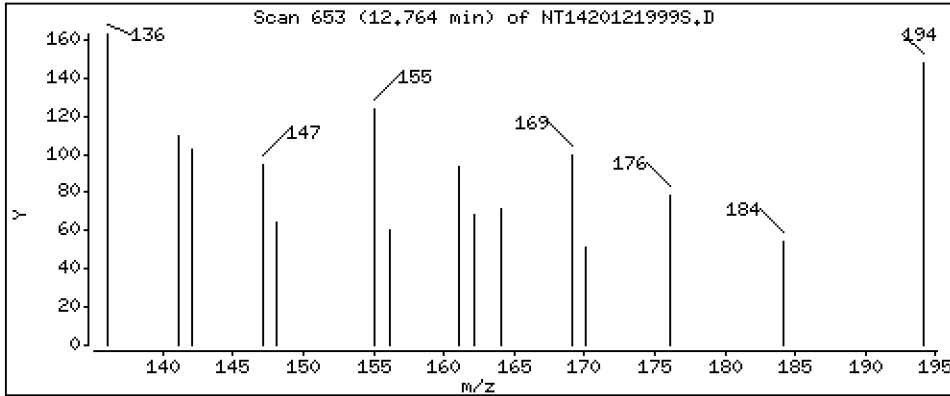
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

247 C4-Decalin

Concentration: 0,5177 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

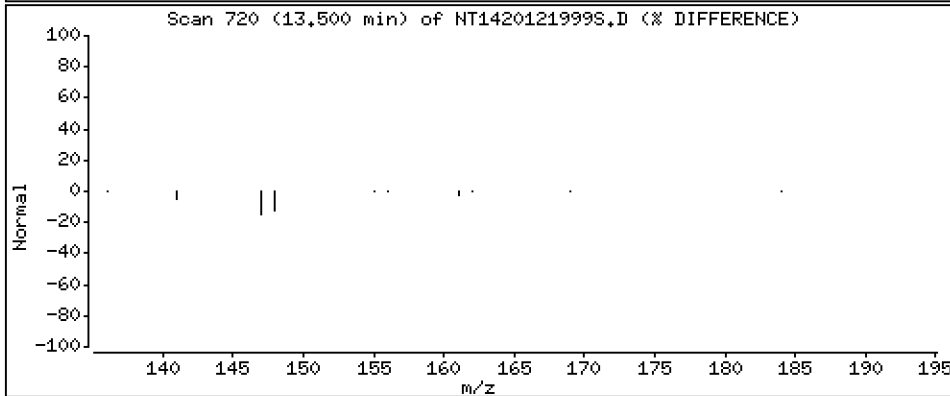
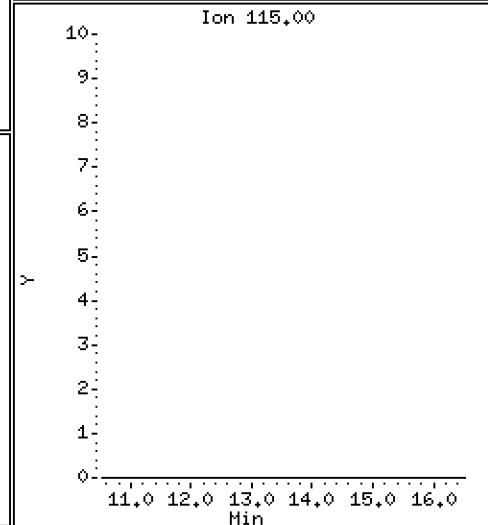
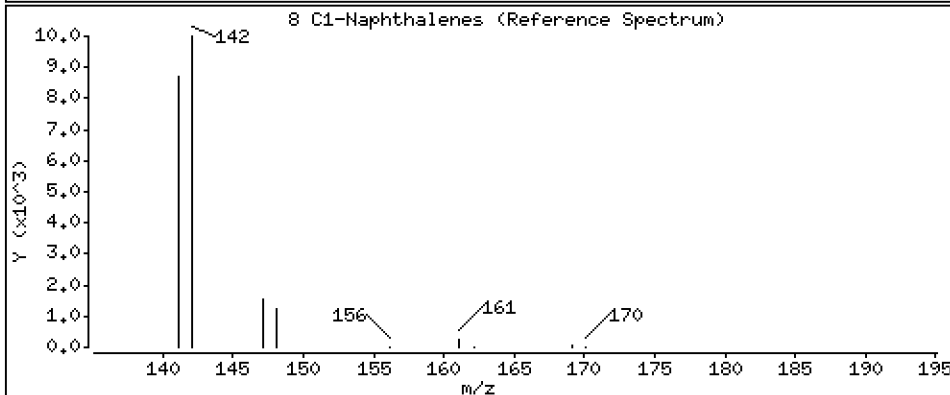
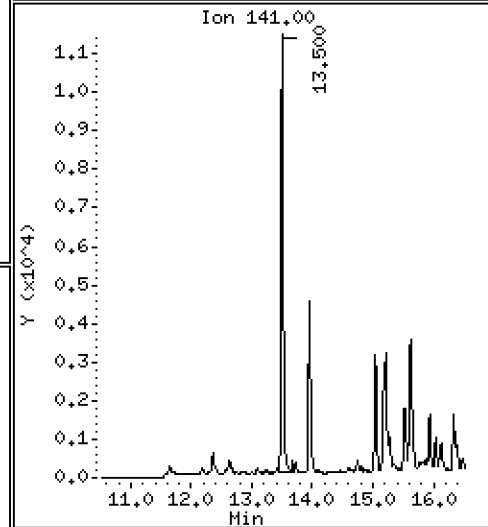
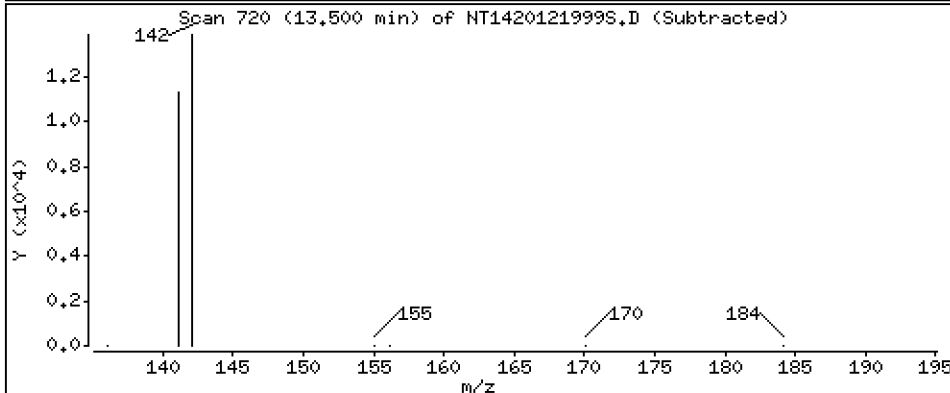
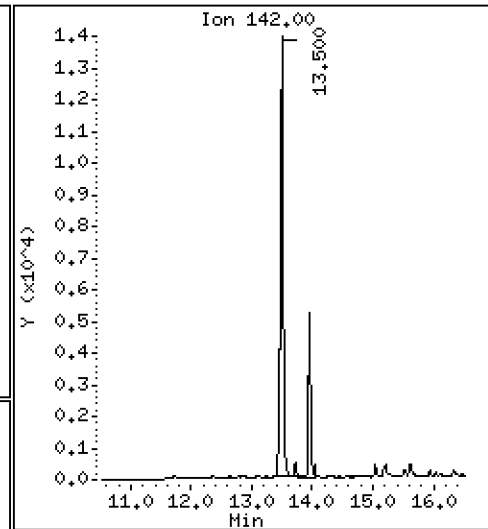
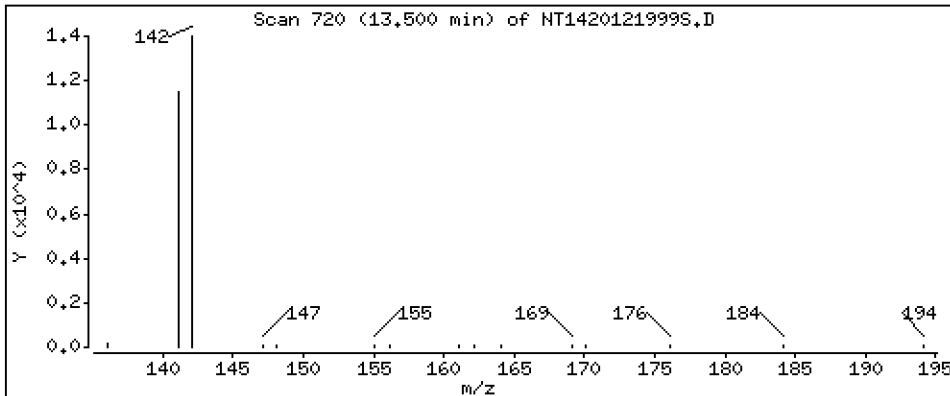
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

8 C1-Naphthalenes

Concentration: 0,5852 ug/mL





Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

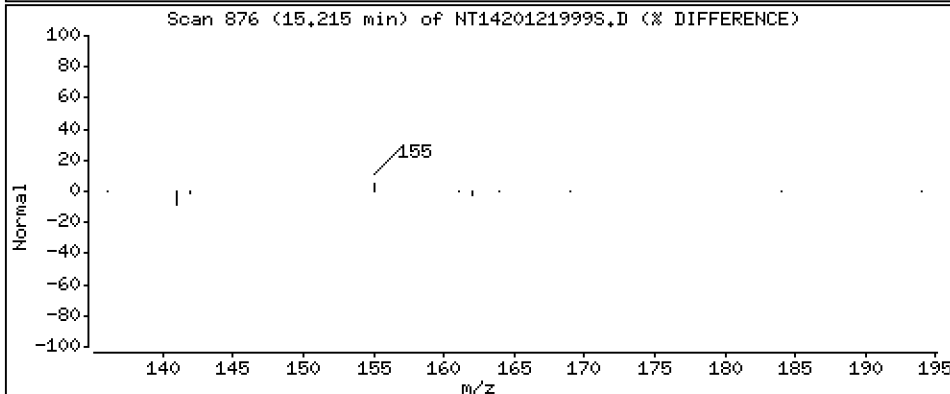
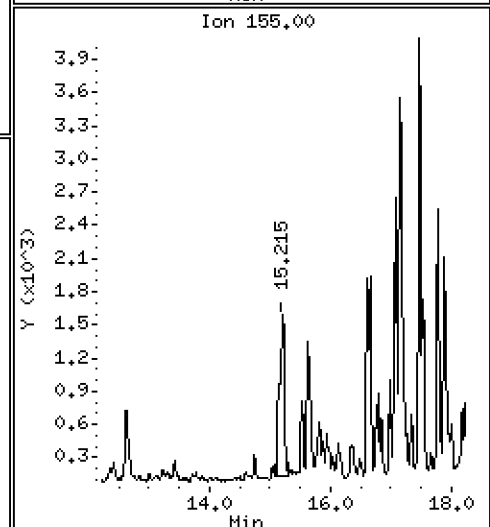
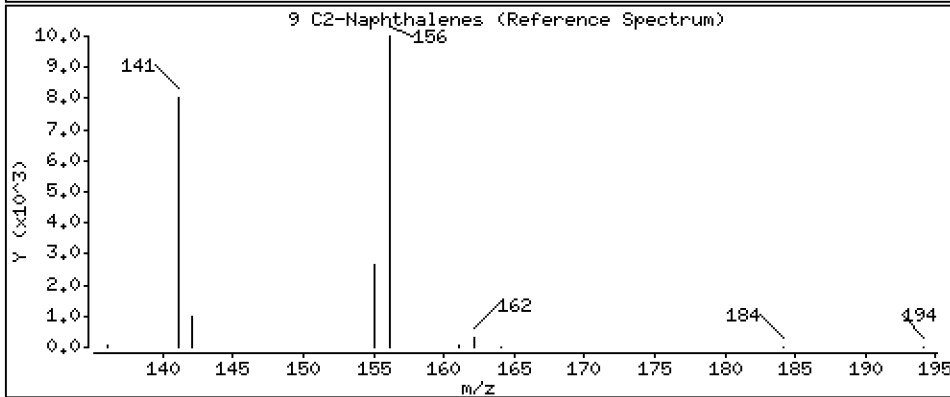
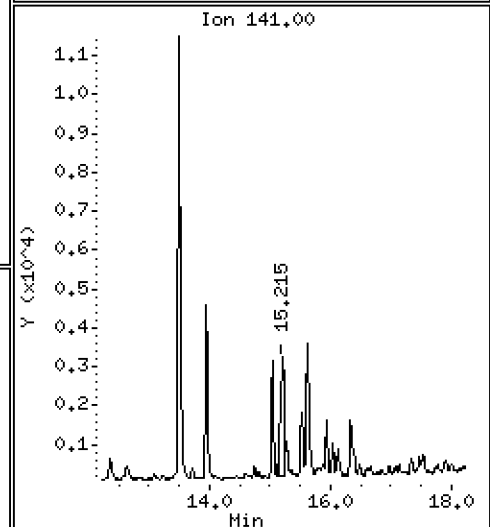
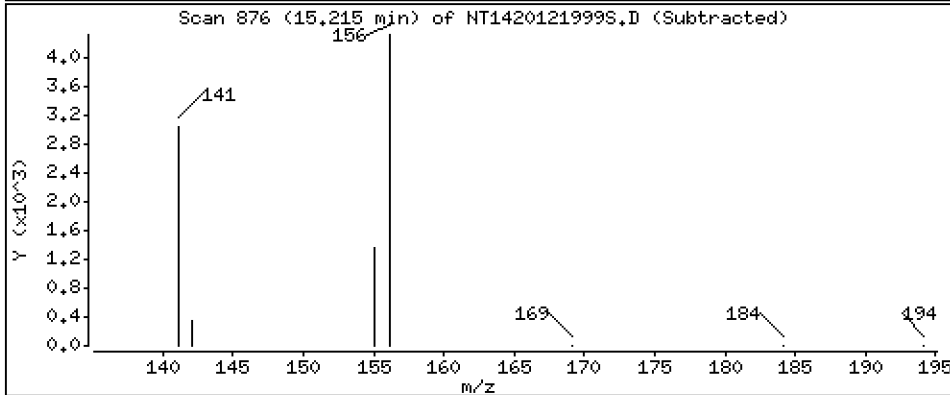
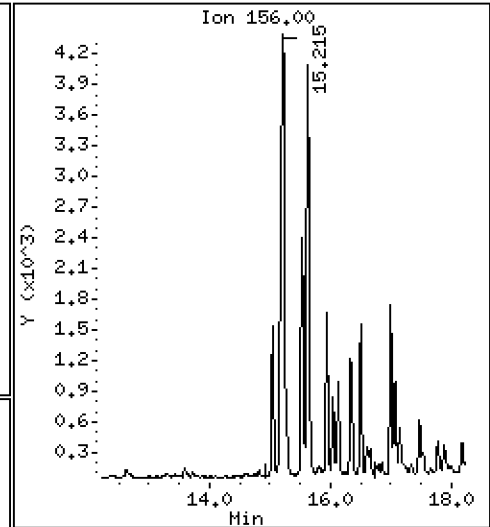
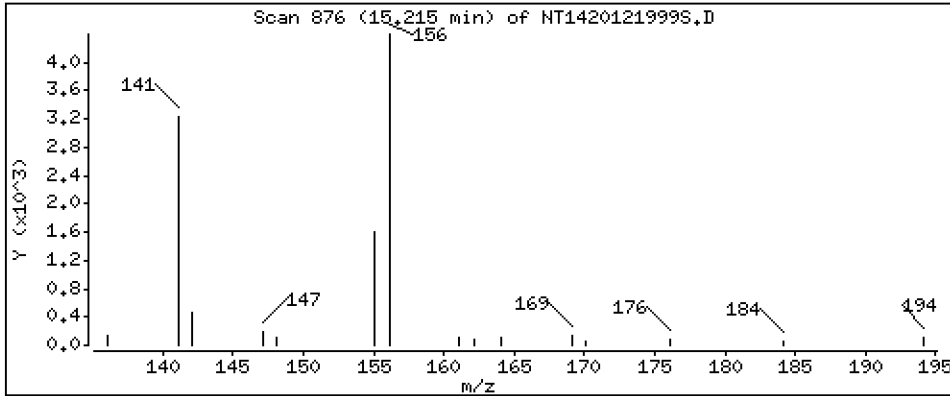
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

9 C2-Naphthalenes

Concentration: 0.6100 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

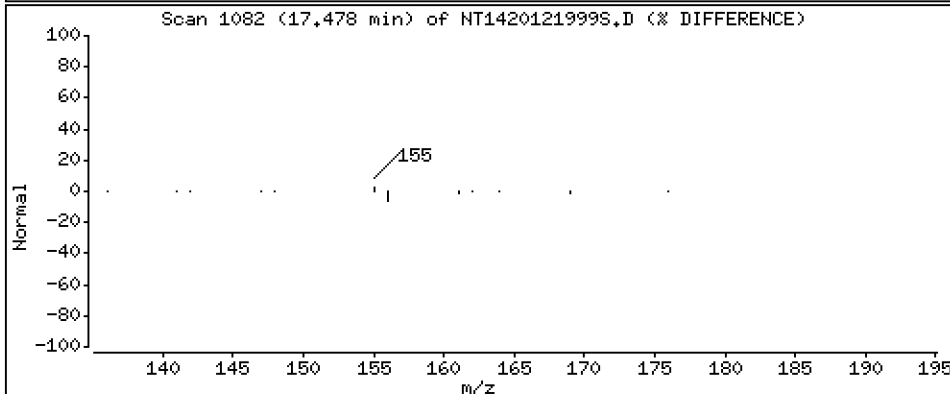
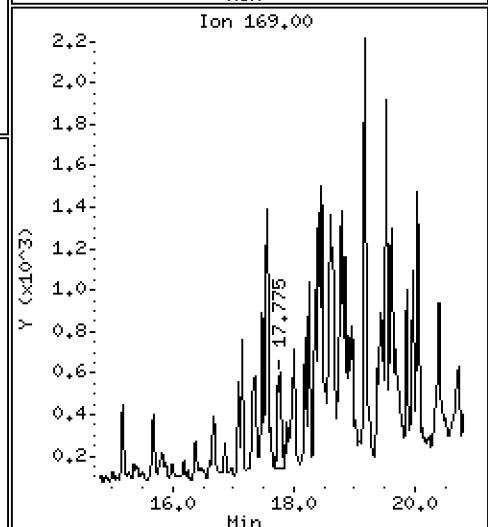
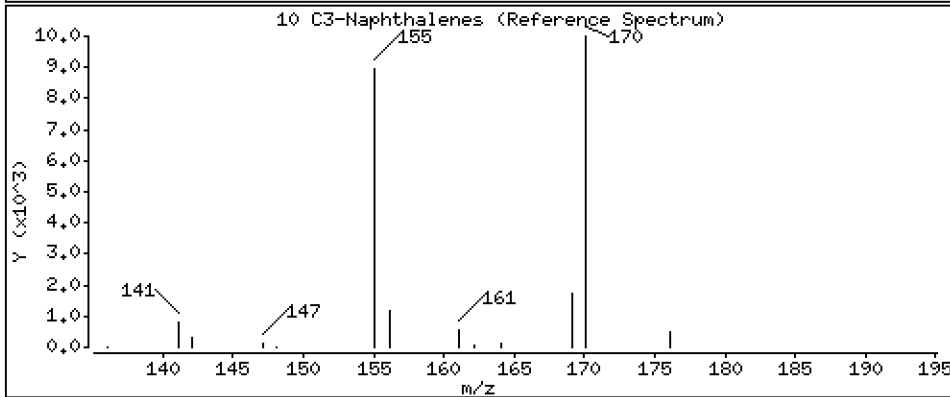
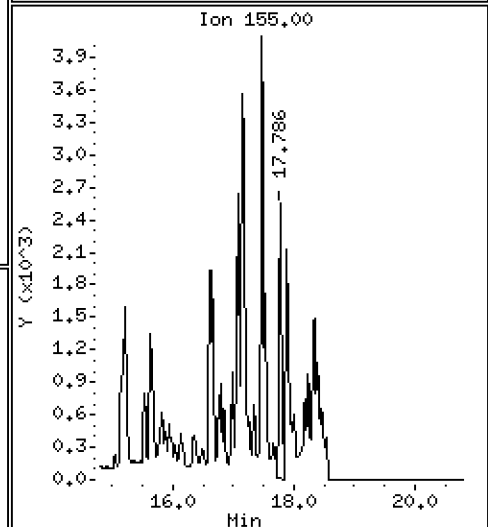
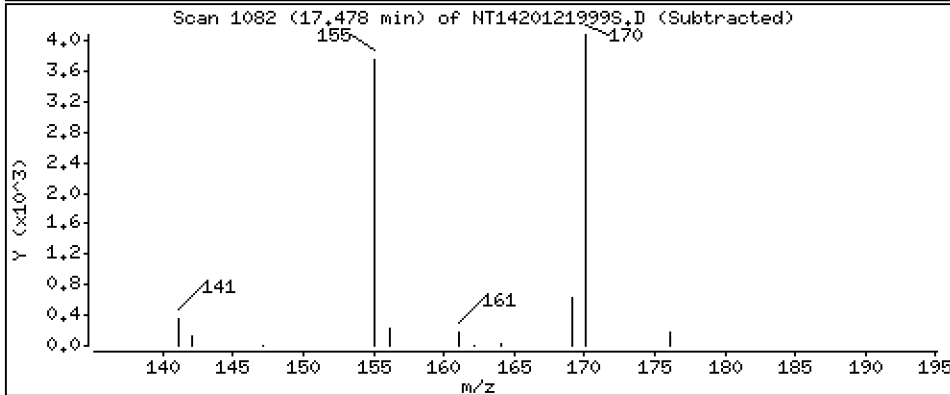
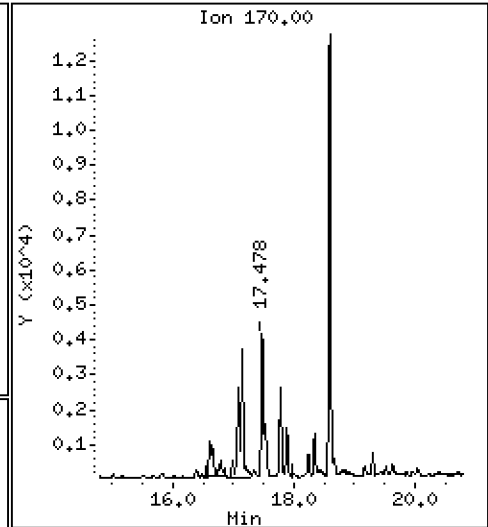
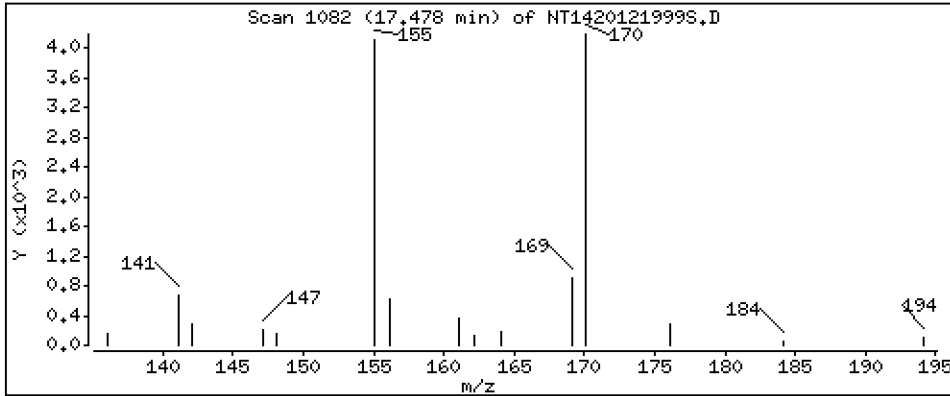
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

10 C3-Naphthalenes

Concentration: 0,4998 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

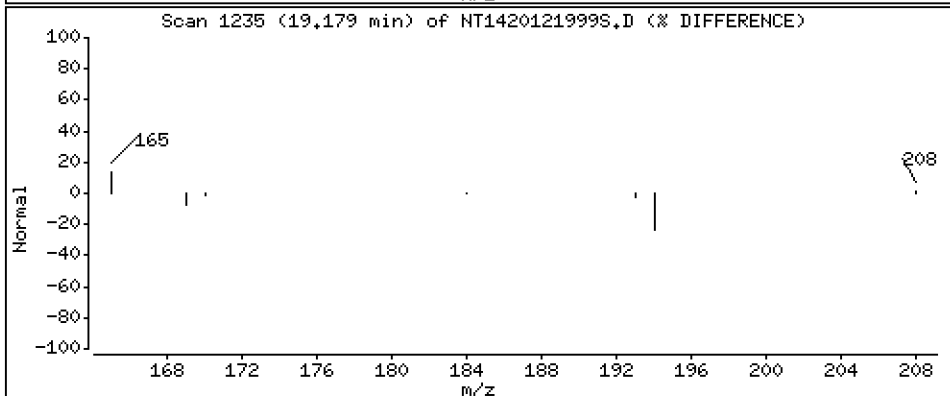
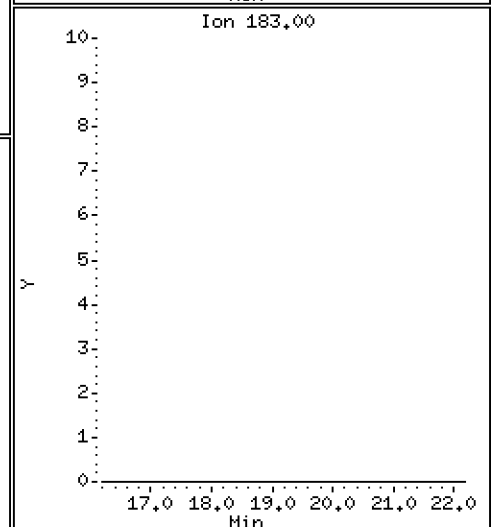
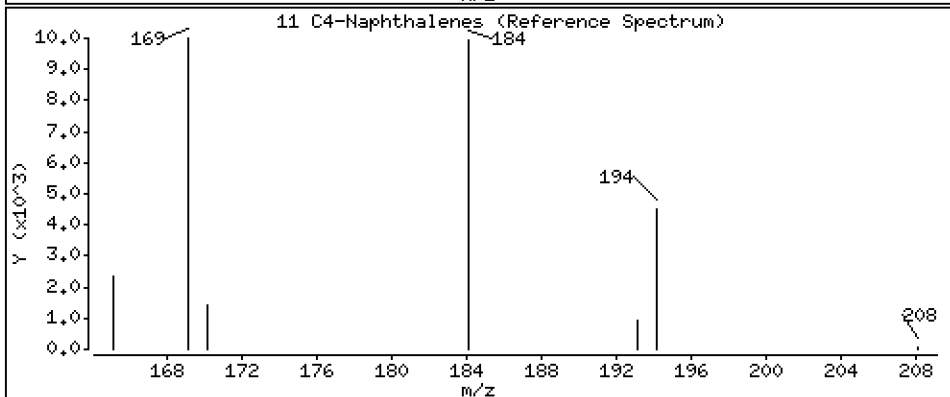
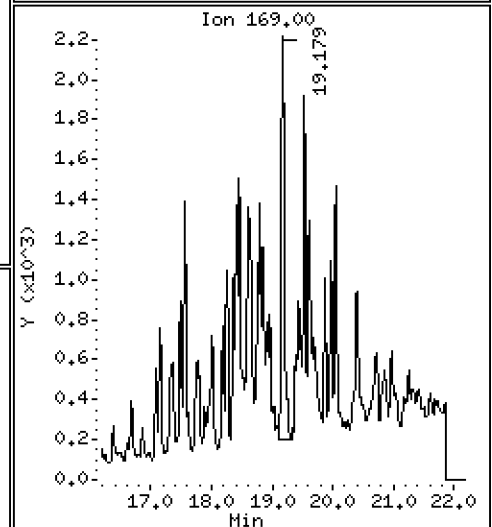
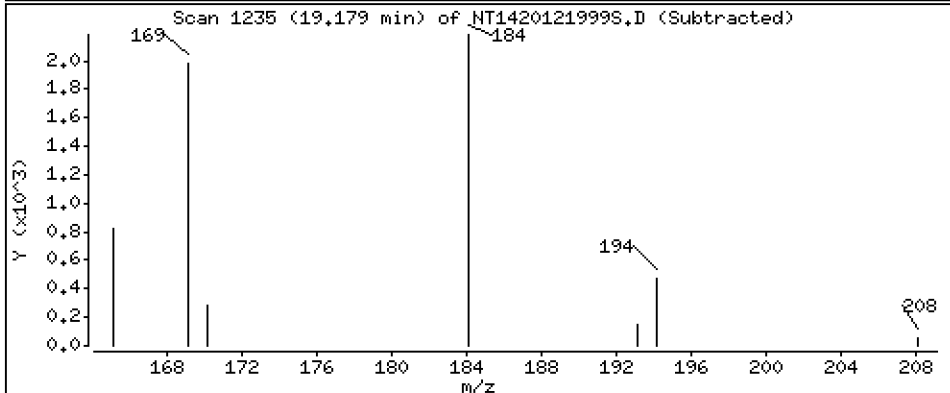
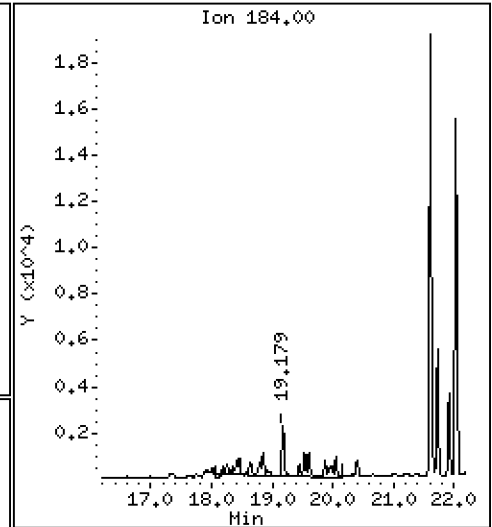
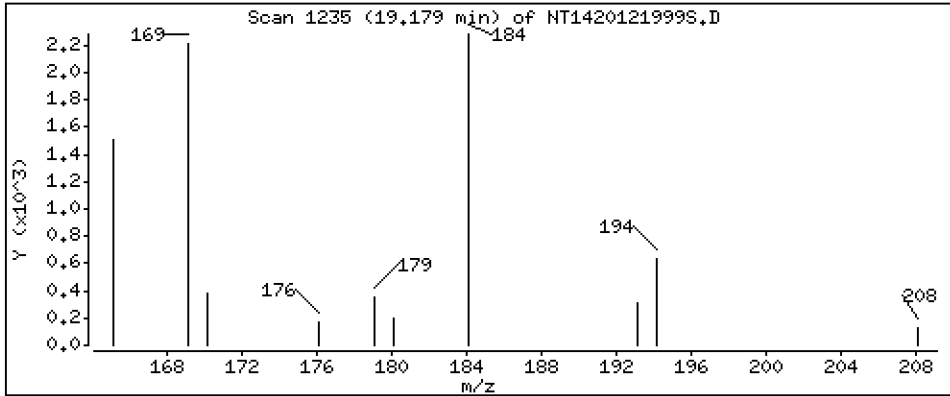
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

11 C4-Naphthalenes

Concentration: 0,3379 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

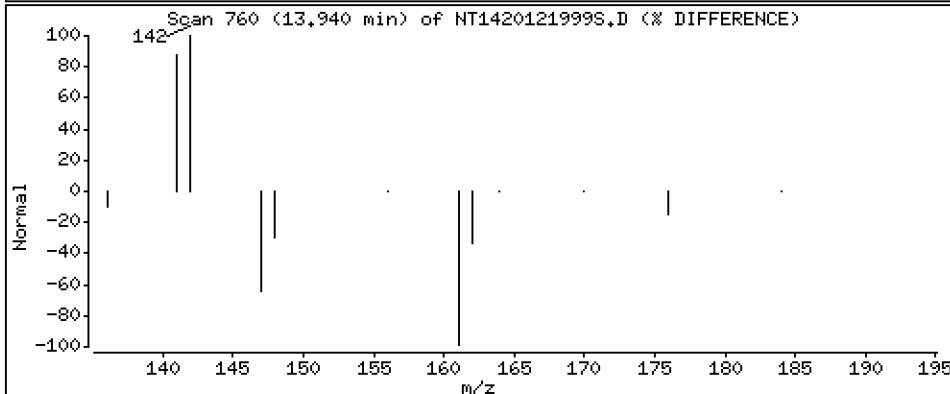
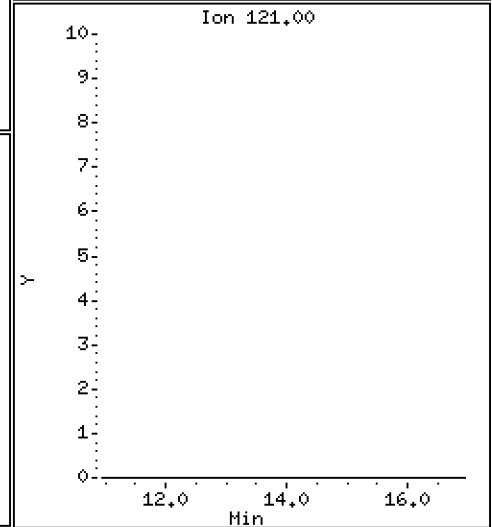
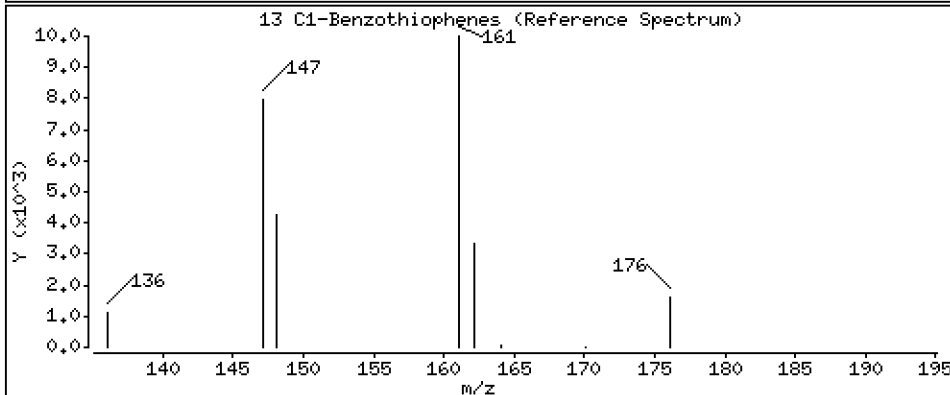
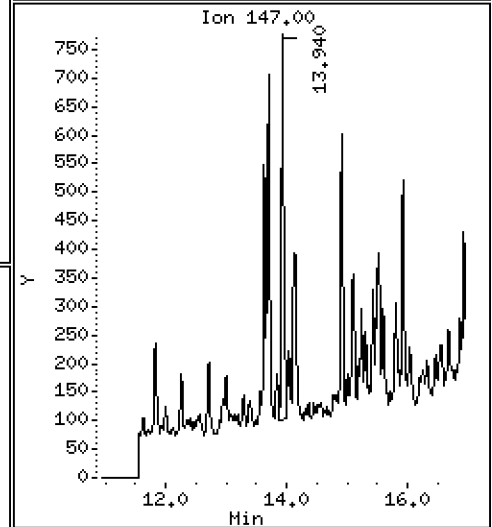
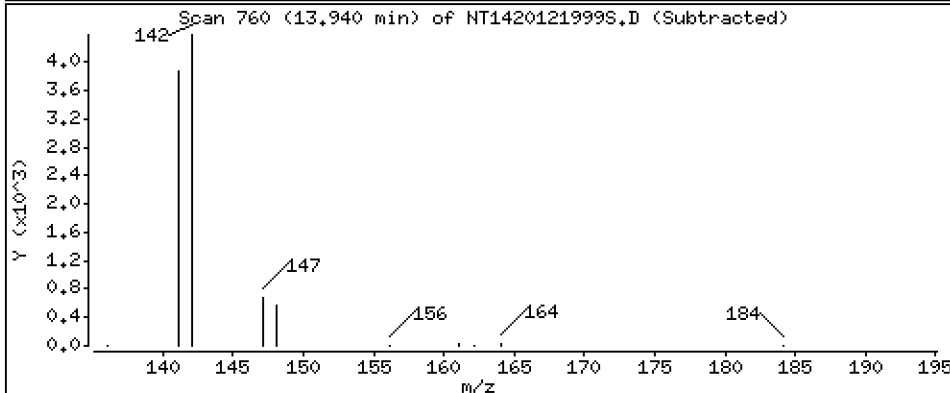
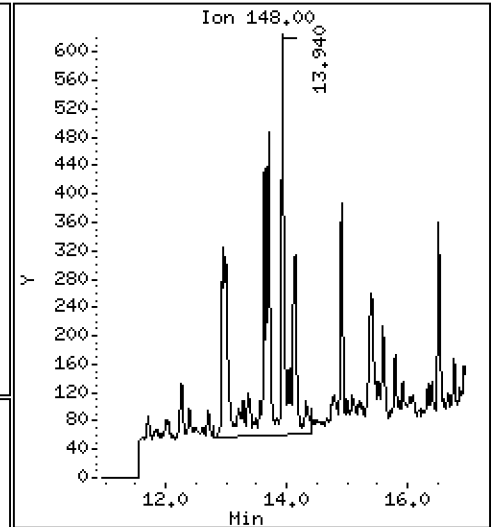
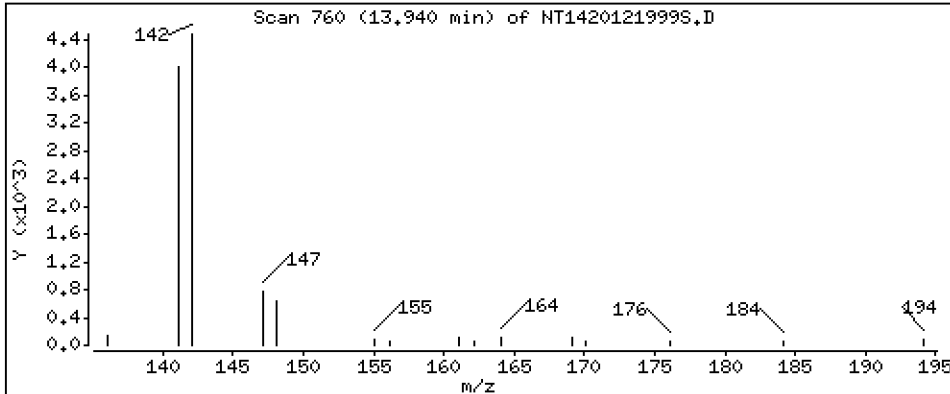
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

13 C1-Benzothiophenes

Concentration: 0,09670 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

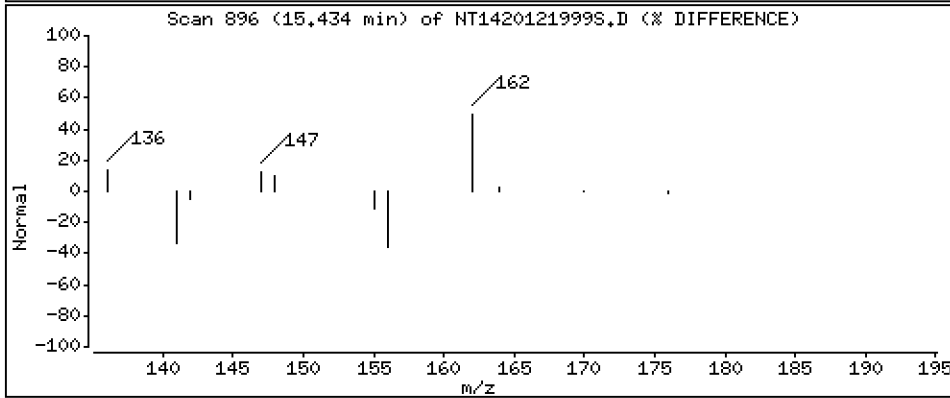
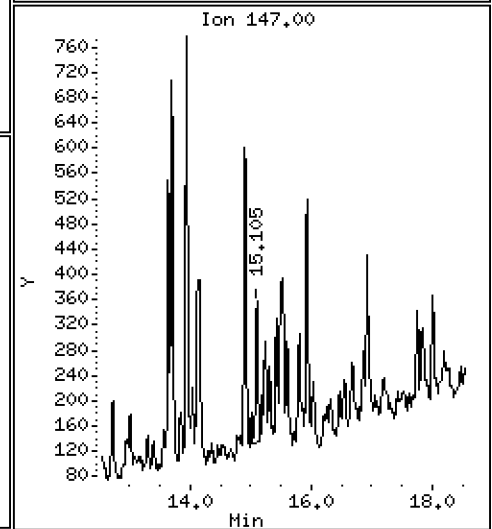
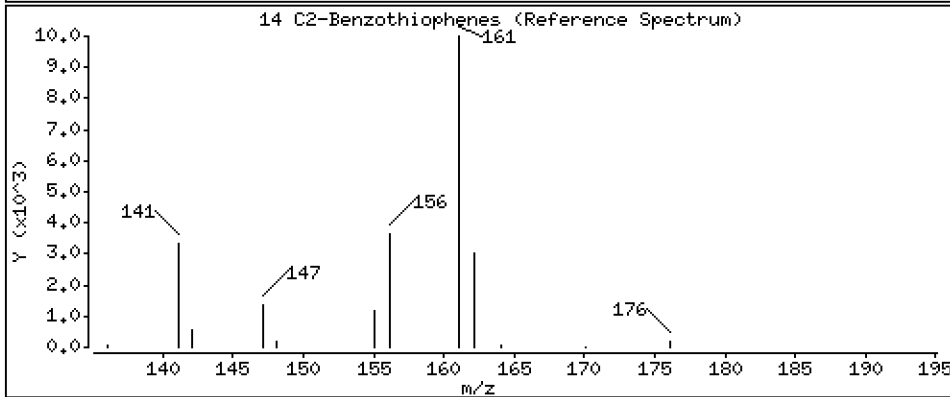
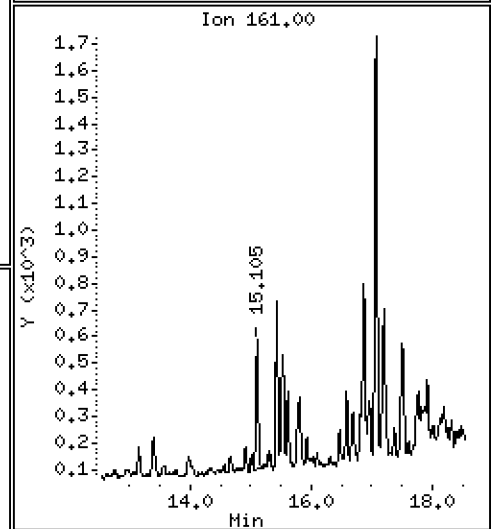
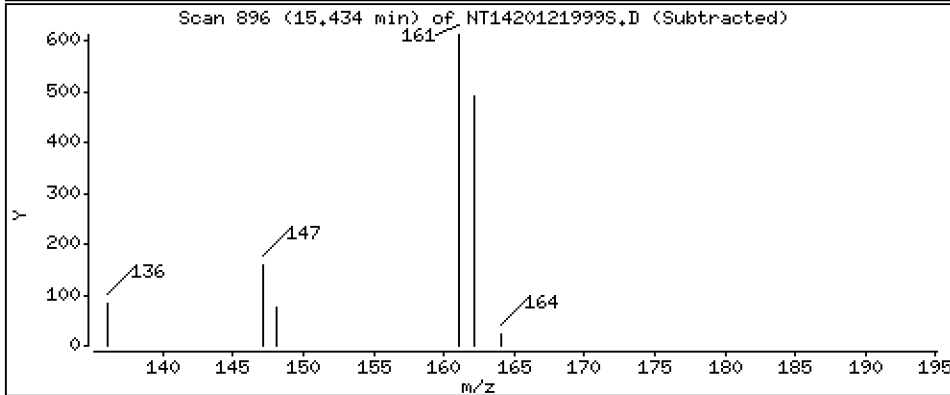
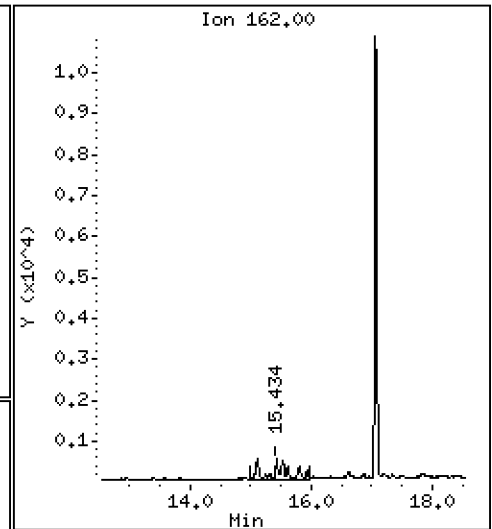
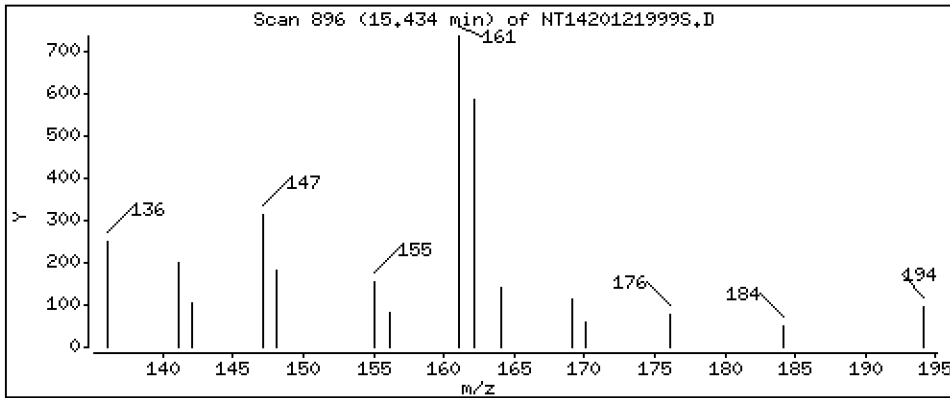
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

14 C2-Benzothiophenes

Concentration: 0,1063 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

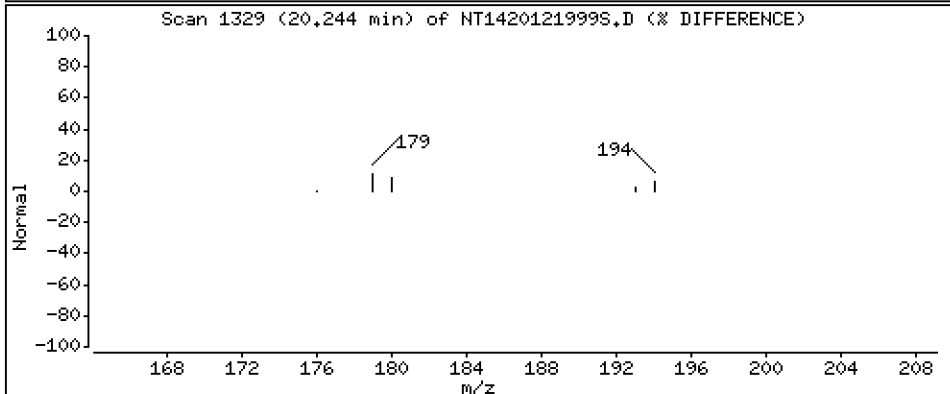
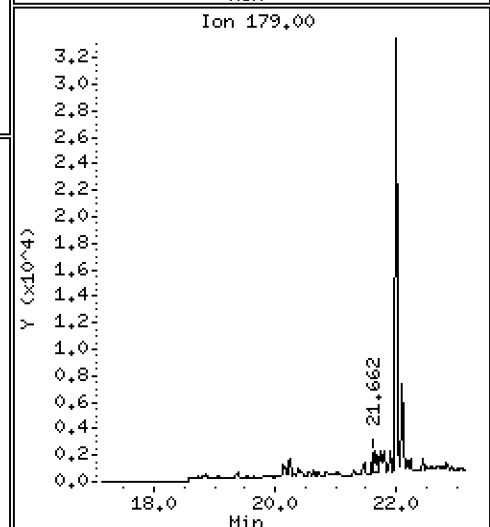
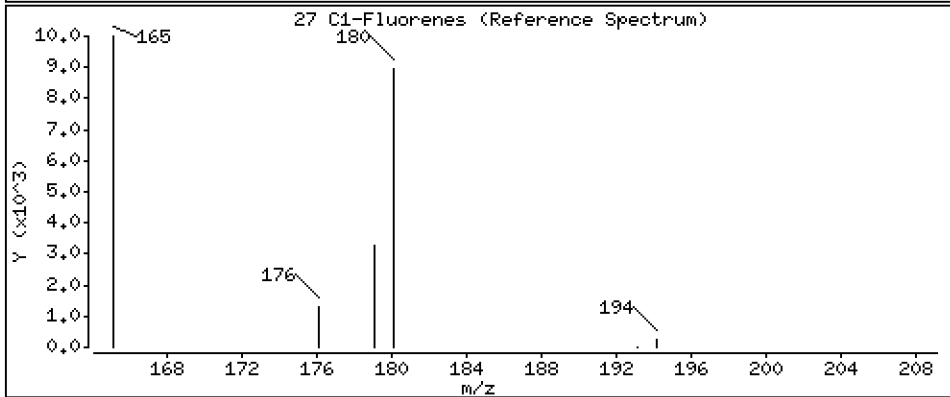
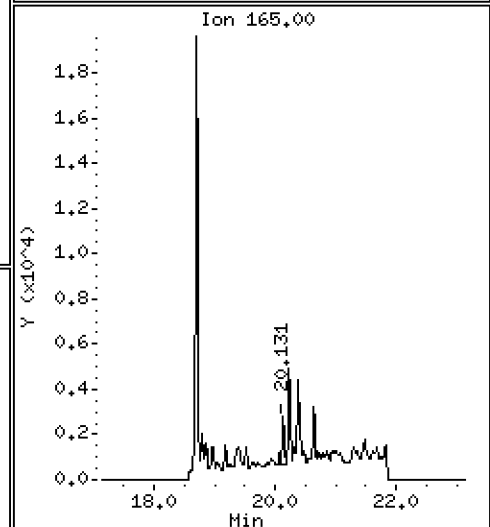
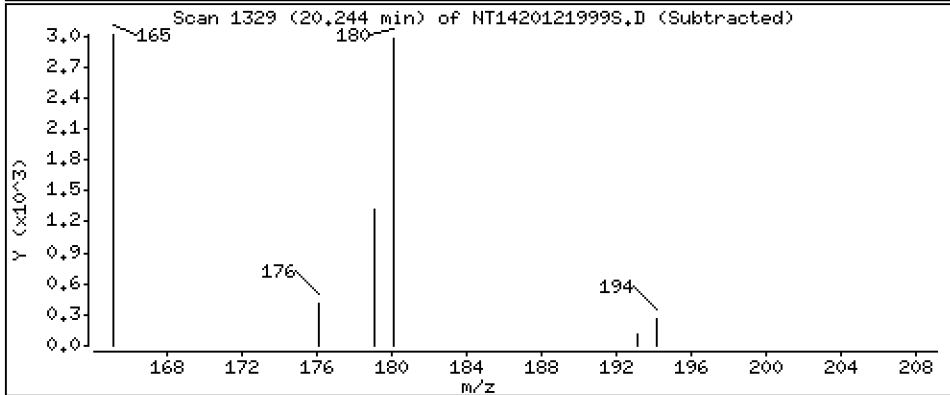
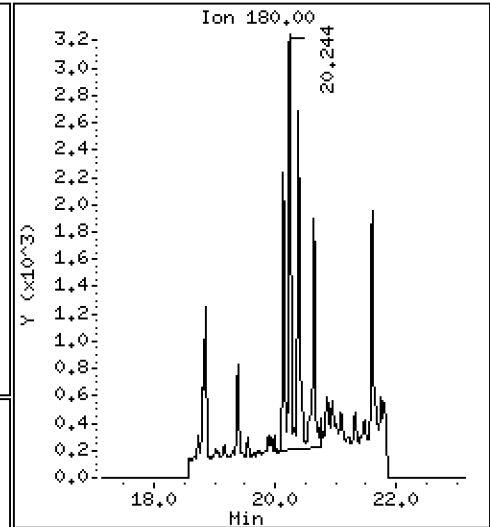
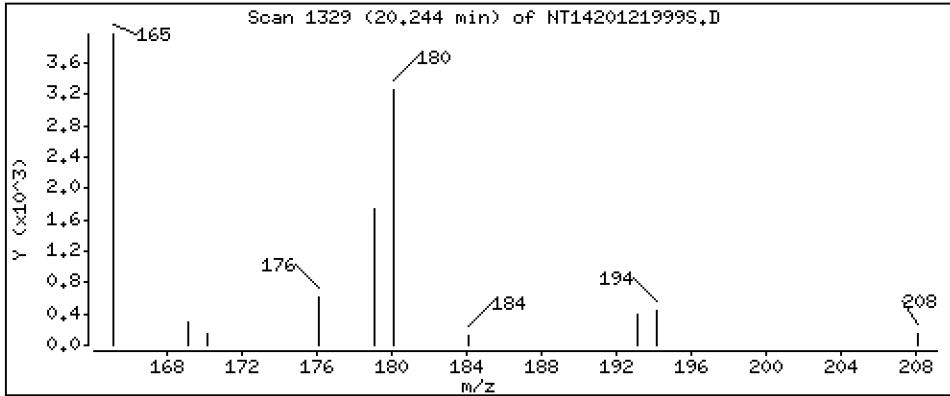
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

27 C1-Fluorenes

Concentration: 0,3112 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

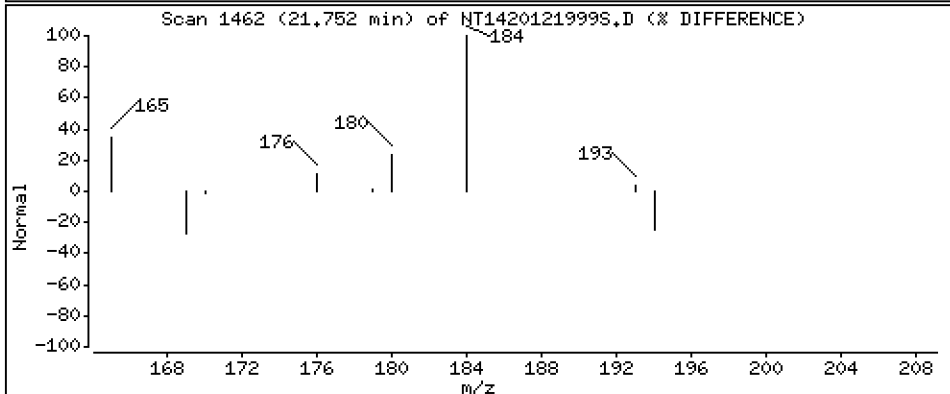
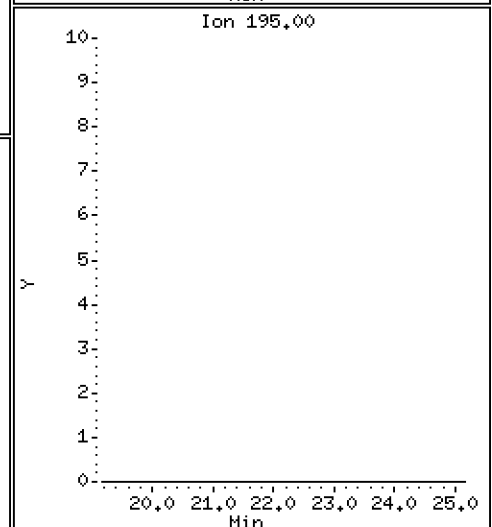
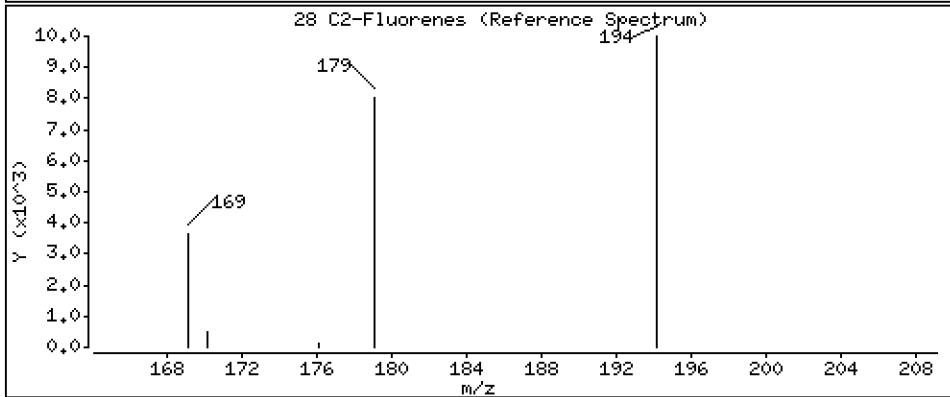
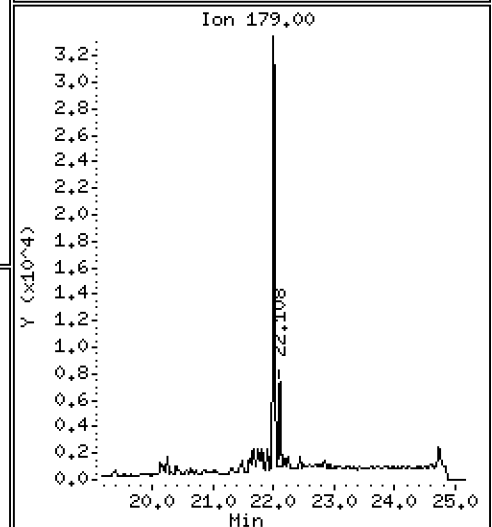
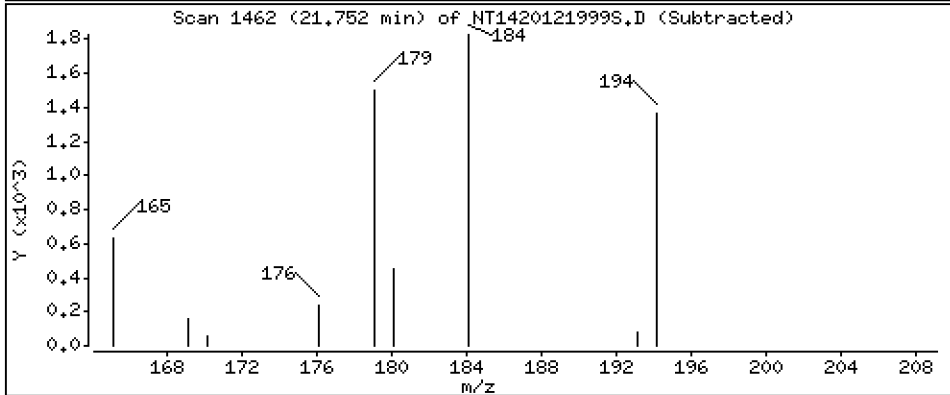
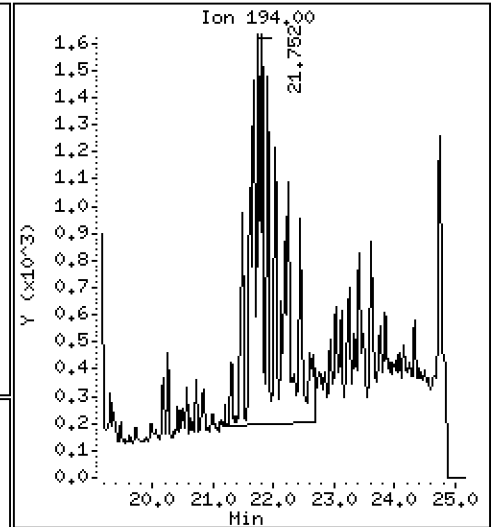
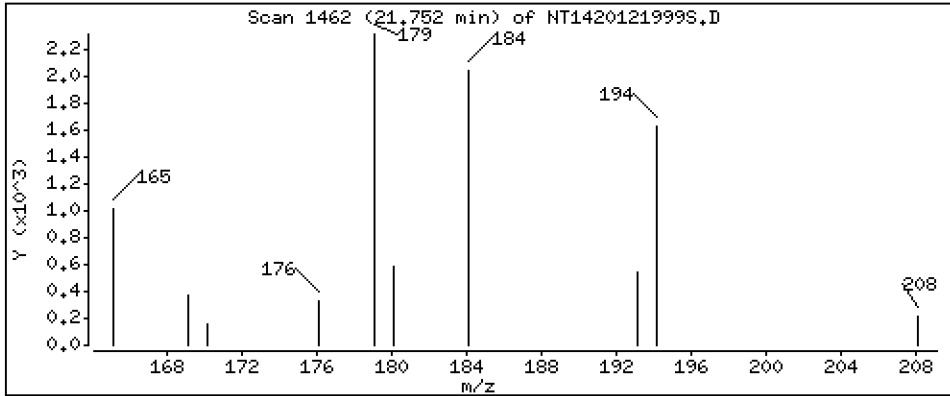
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

28 C2-Fluorenes

Concentration: 0,4202 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

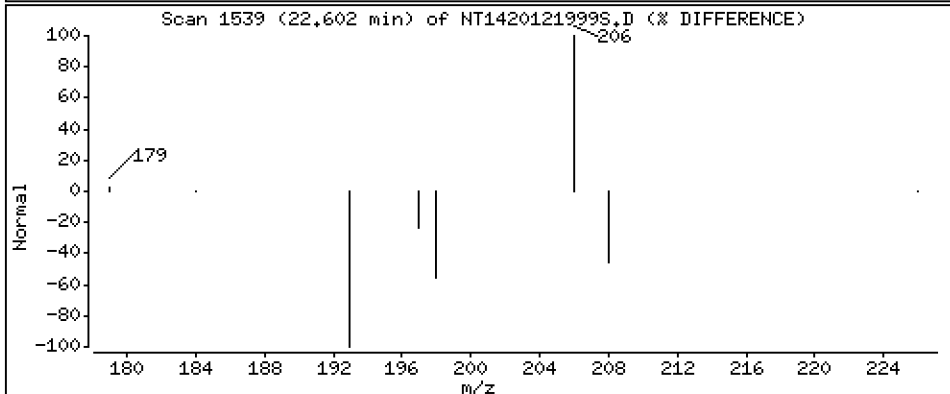
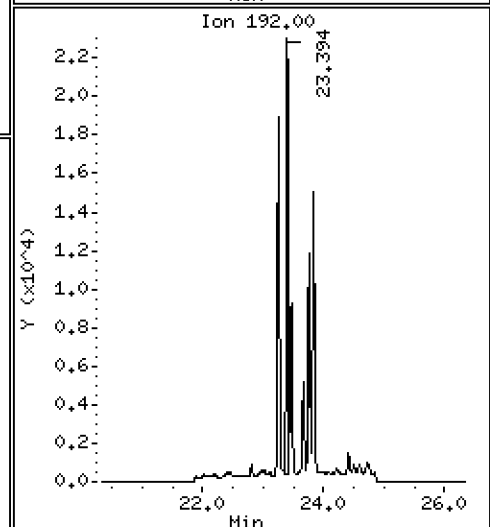
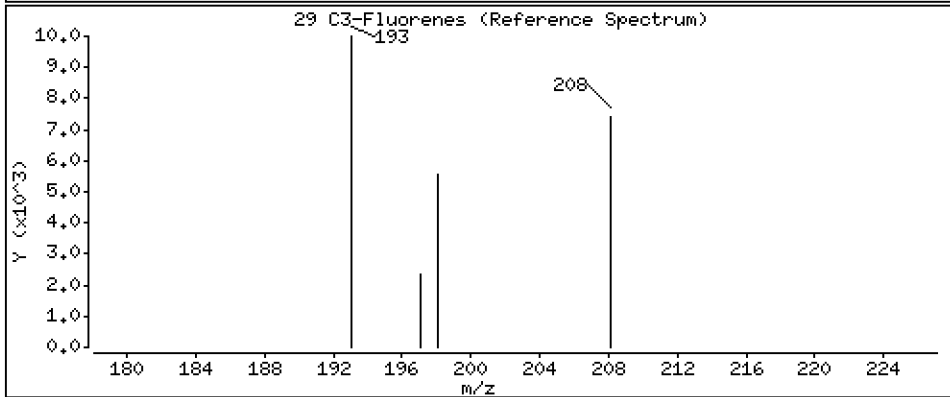
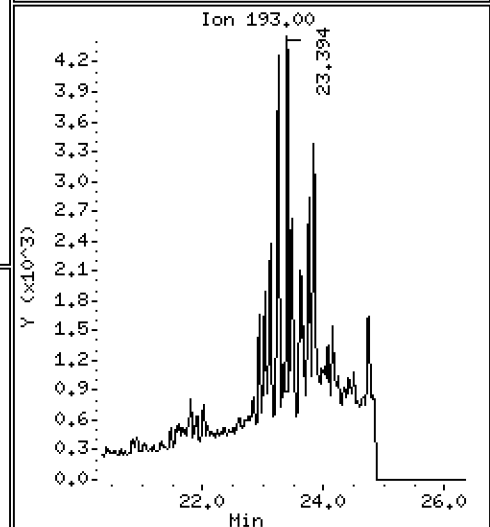
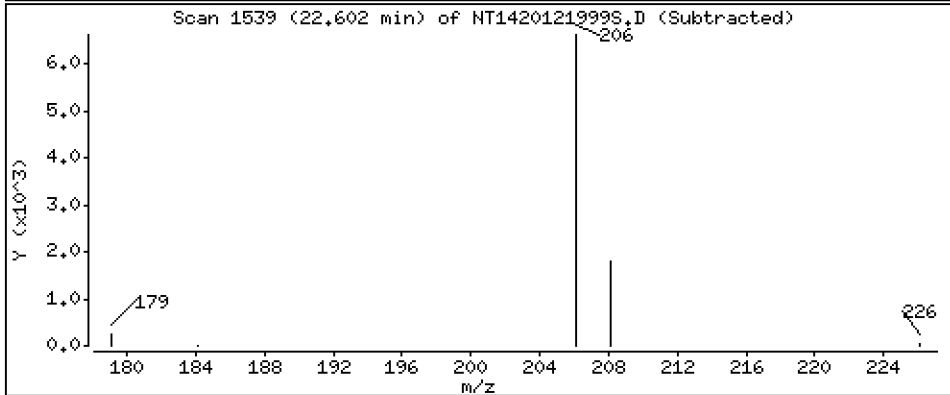
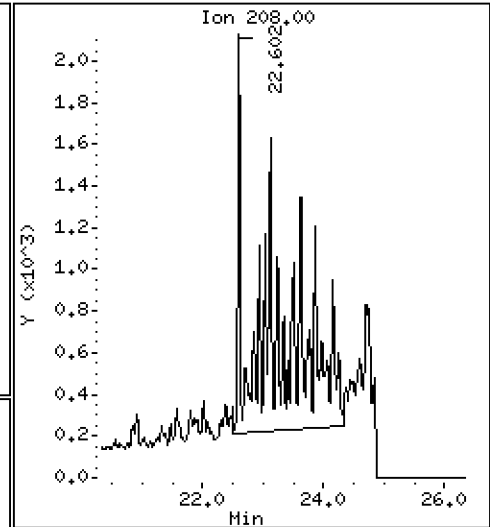
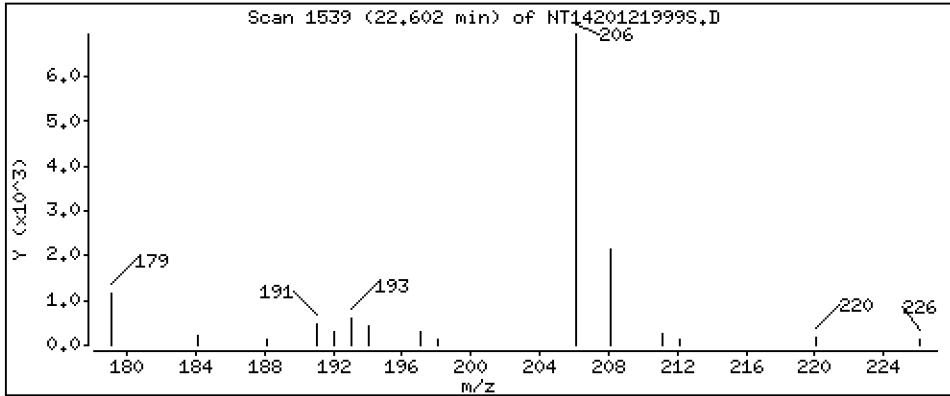
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

29 C3-Fluorenes

Concentration: 0,5058 ug/mL





Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

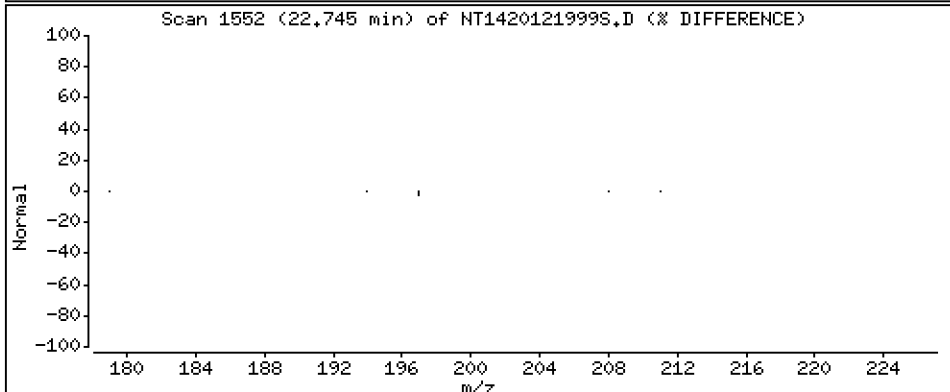
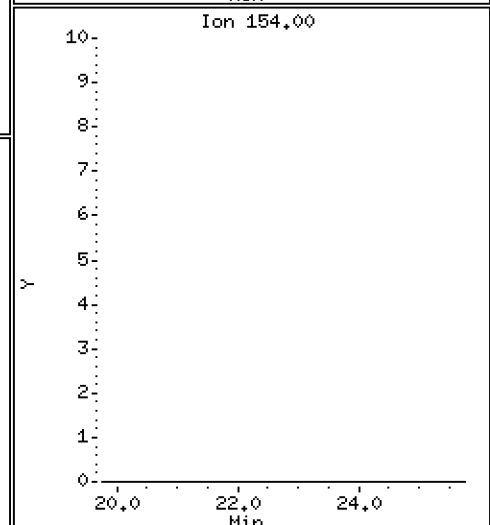
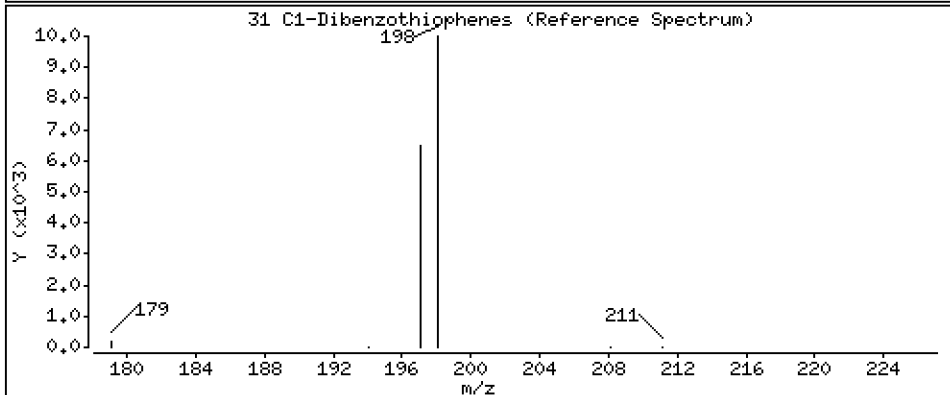
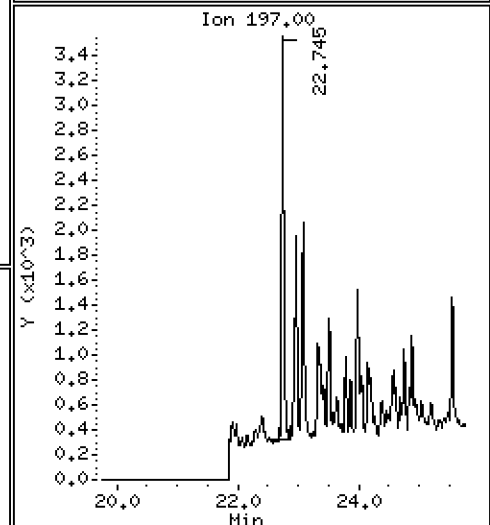
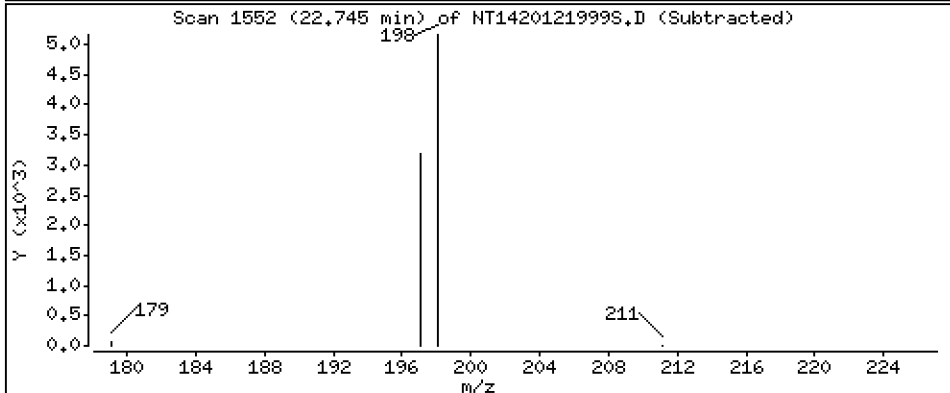
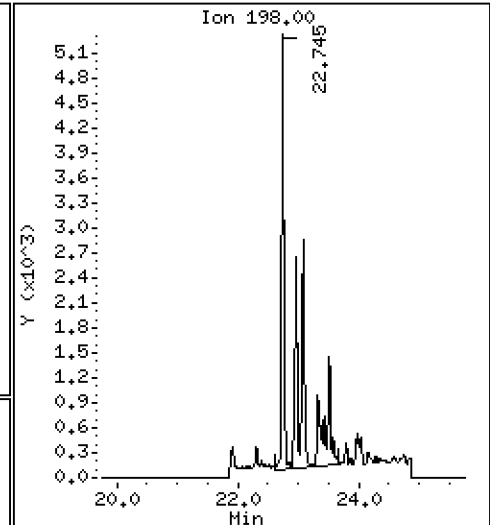
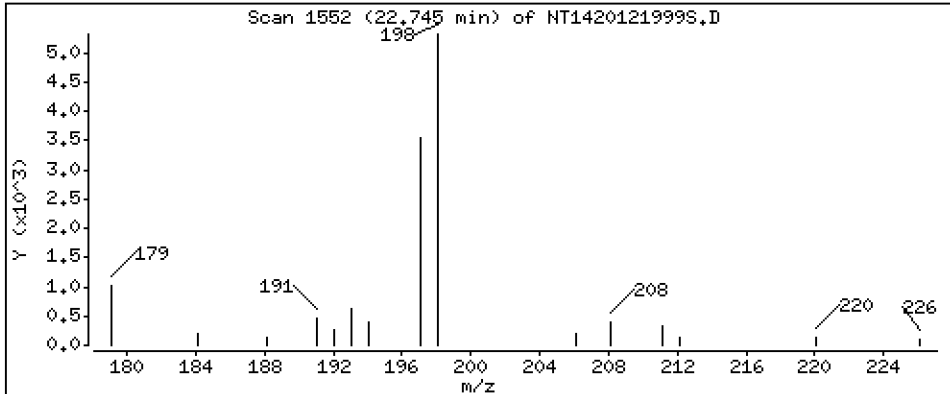
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

31 C1-Dibenzothiophenes

Concentration: 0,3111 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

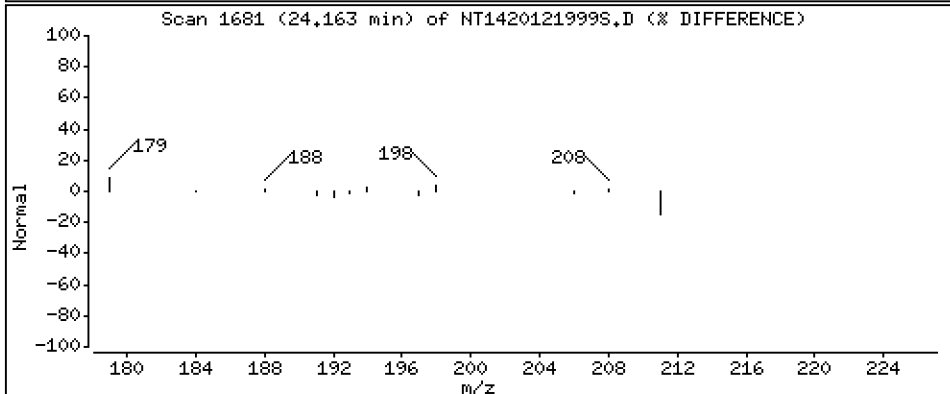
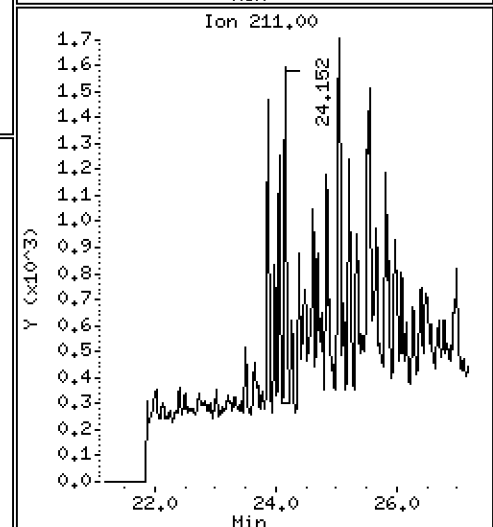
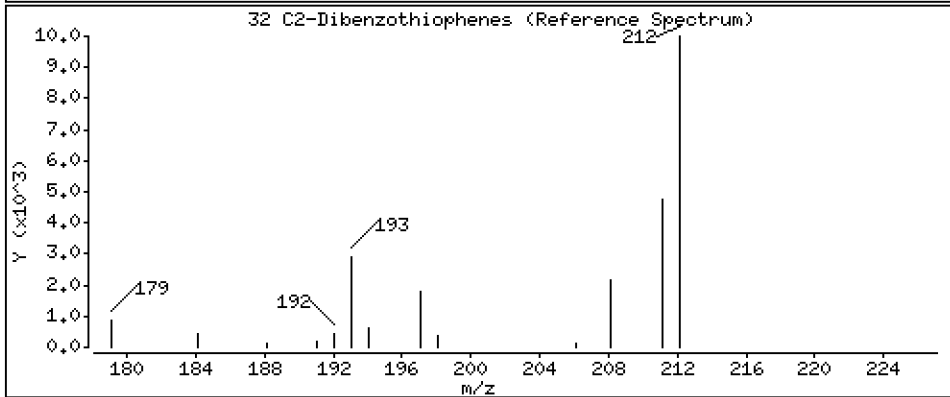
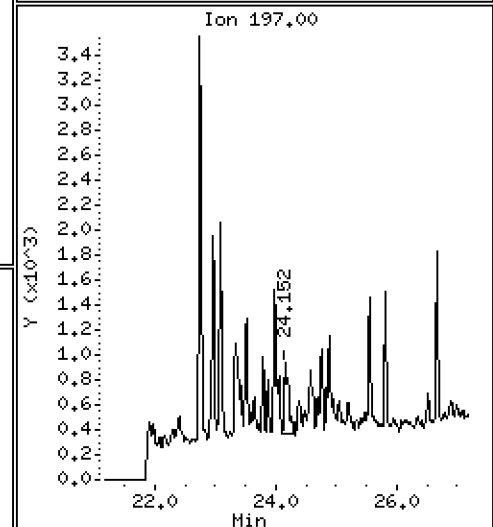
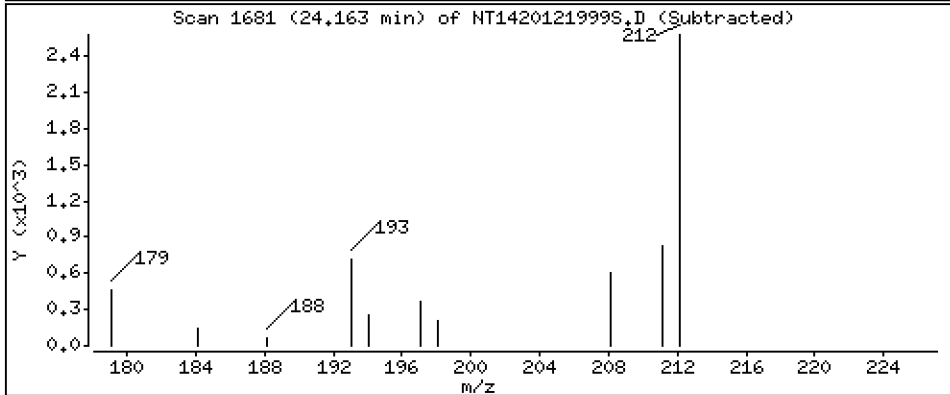
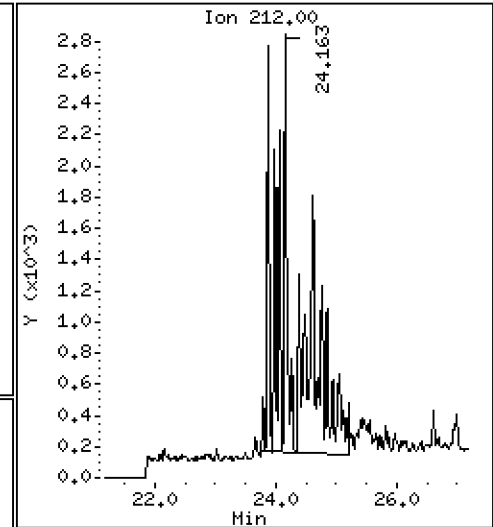
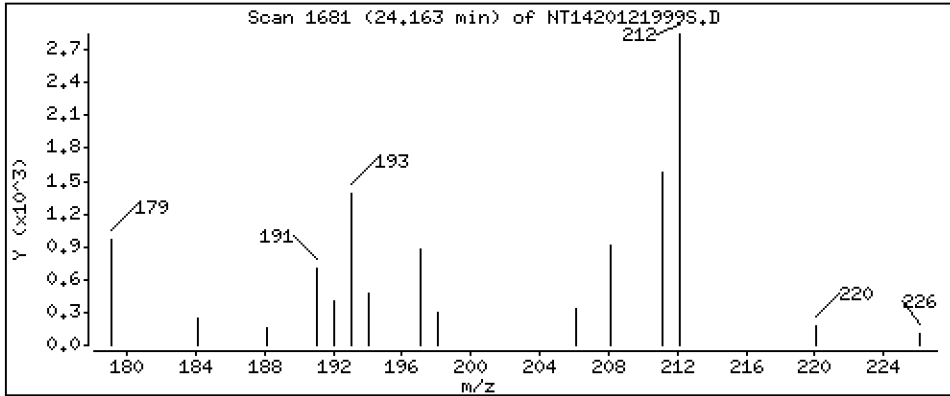
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

32 C2-Dibenzothiophenes

Concentration: 0,4142 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

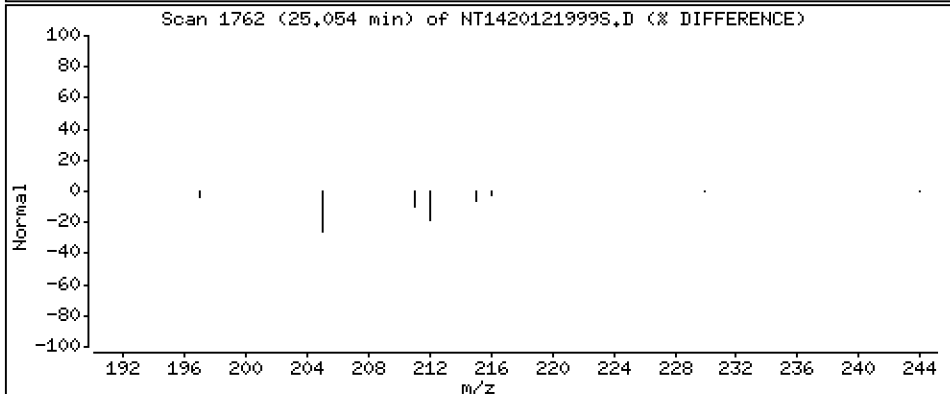
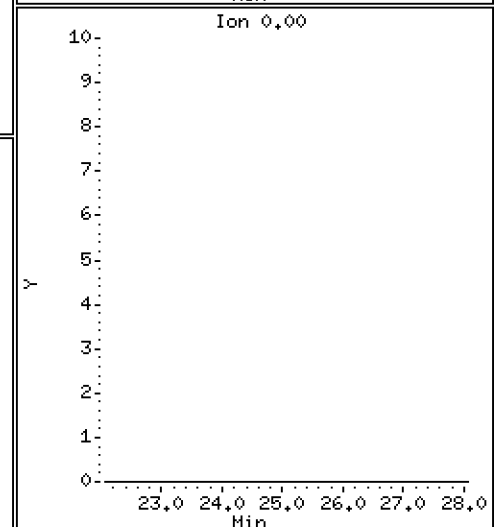
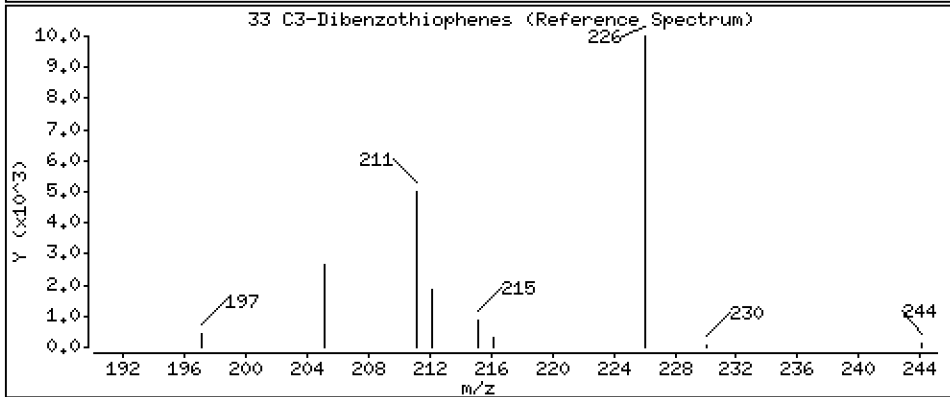
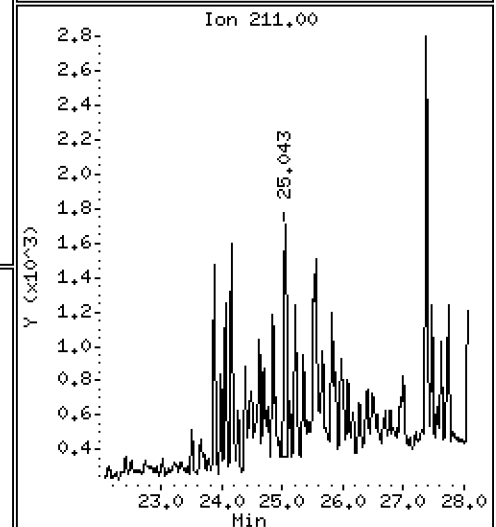
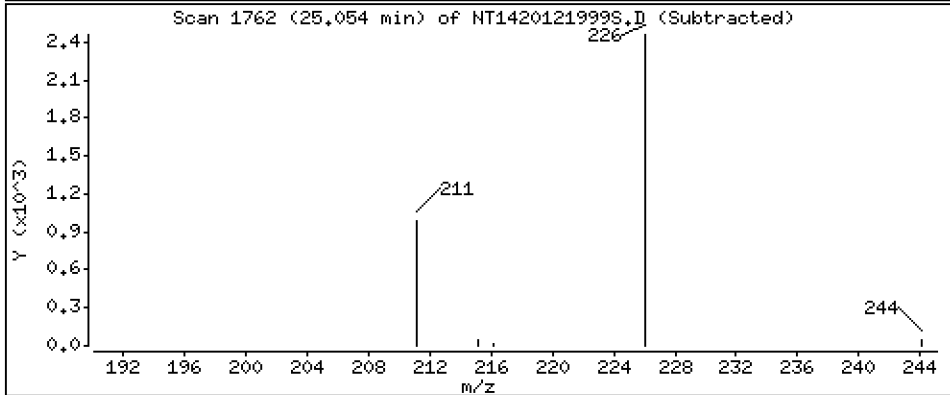
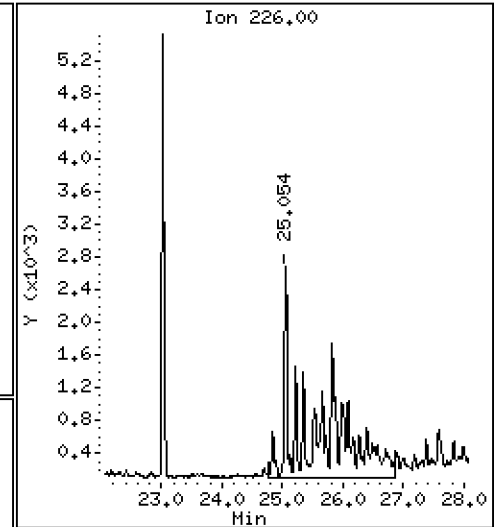
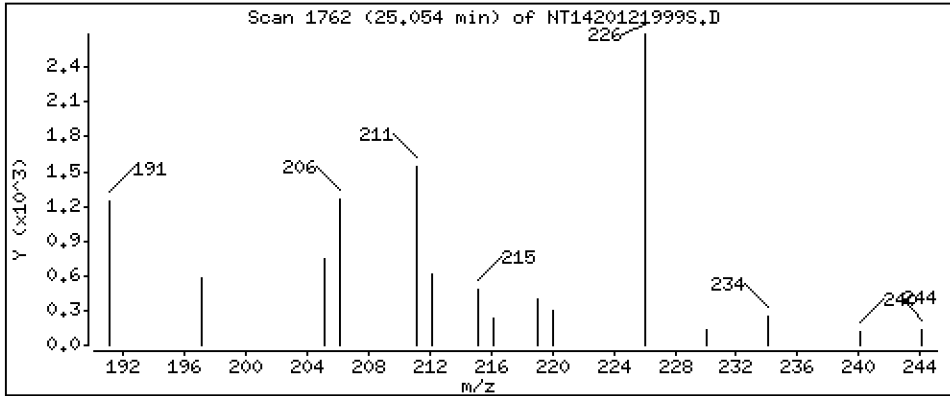
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

33 C3-Dibenzothiophenes

Concentration: 0,4661 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

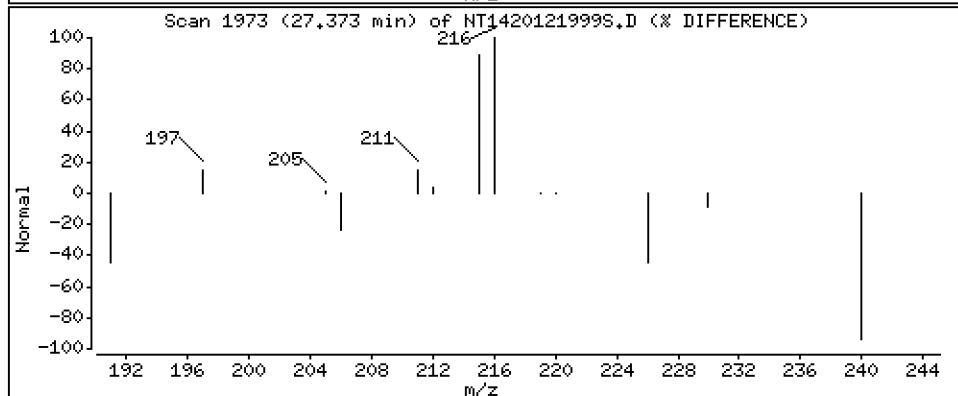
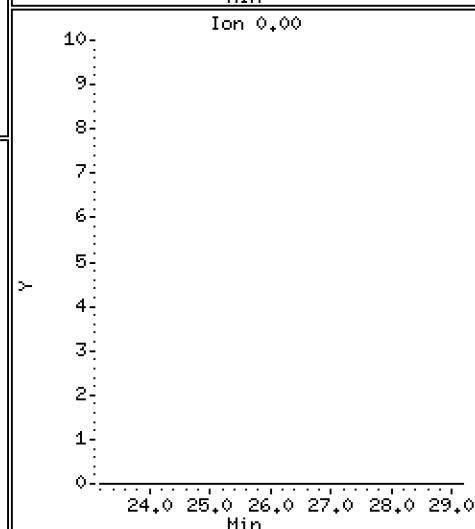
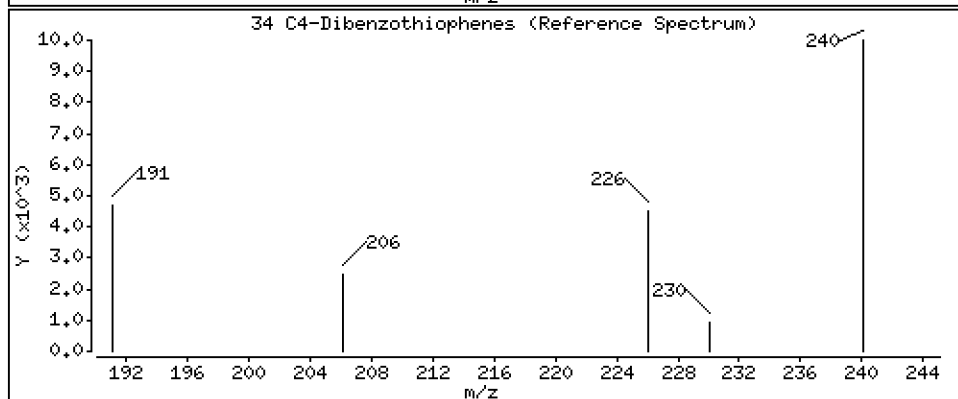
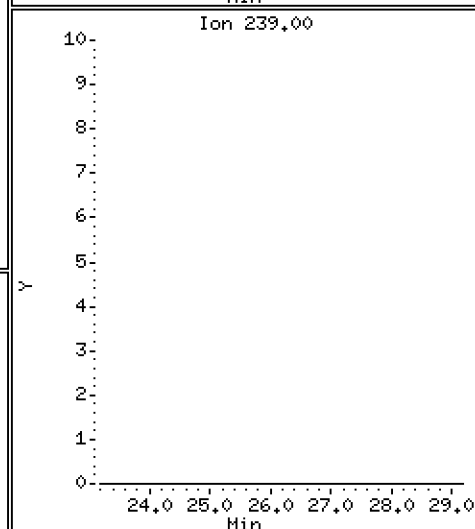
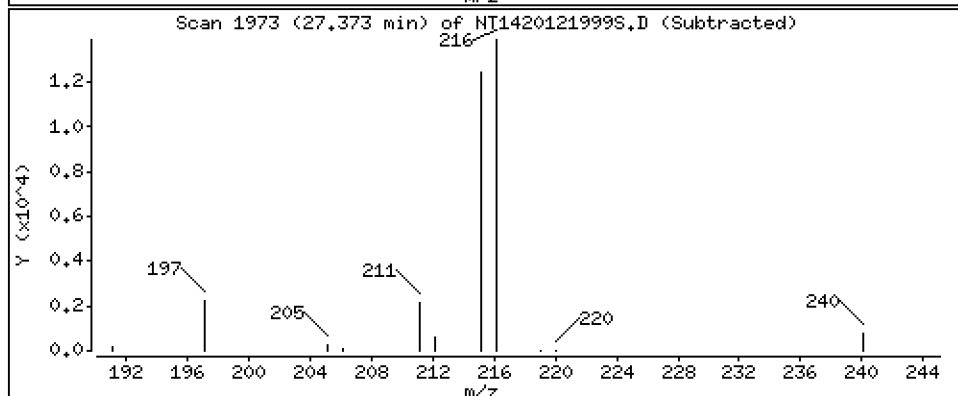
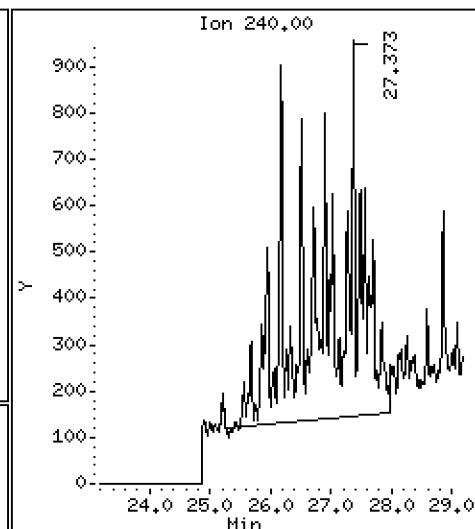
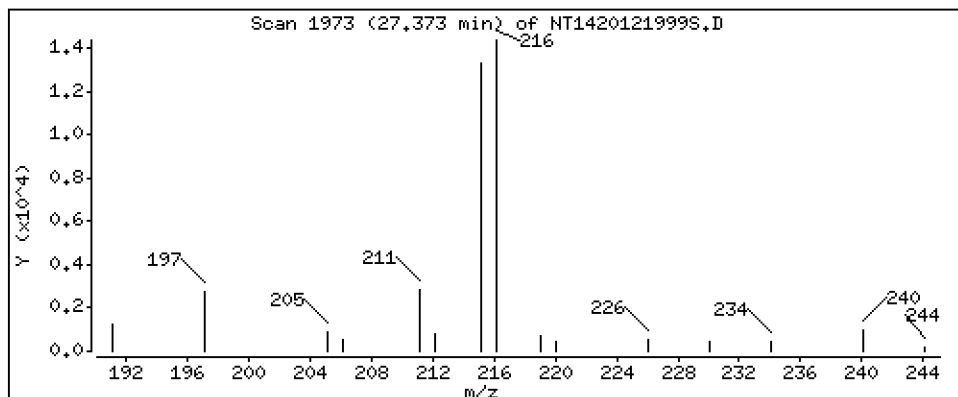
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

34 C4-Dibenzothiophenes

Concentration: 0,2469 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

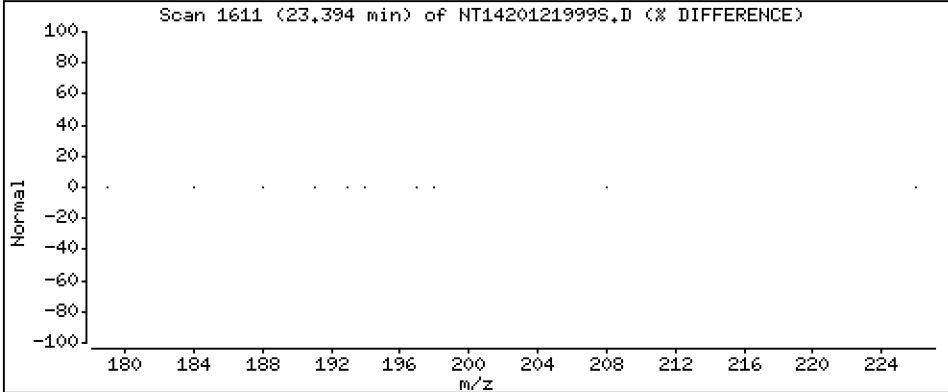
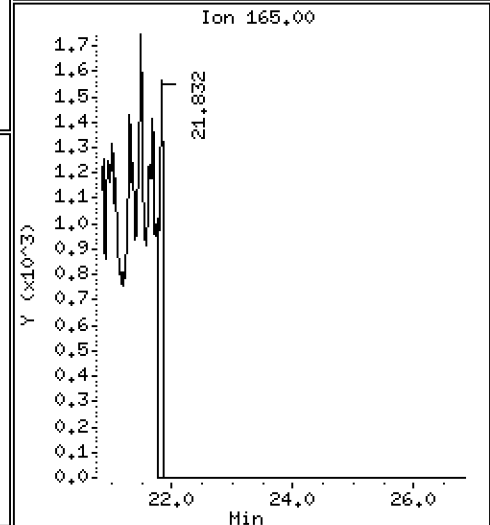
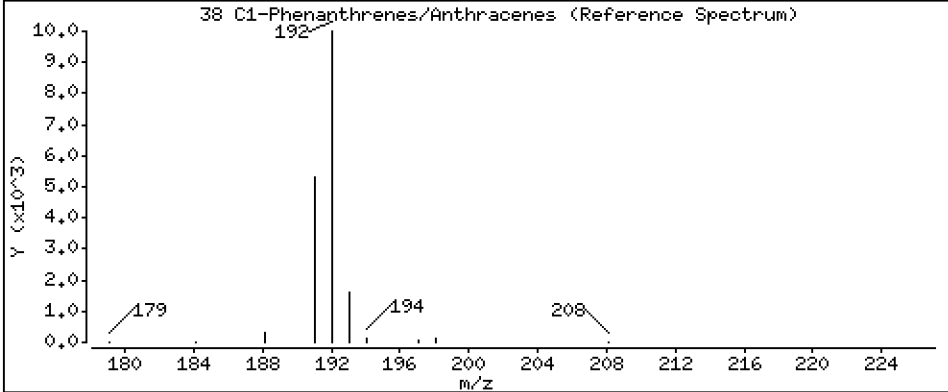
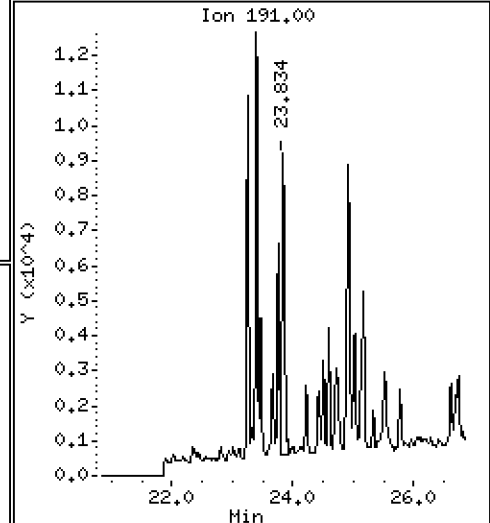
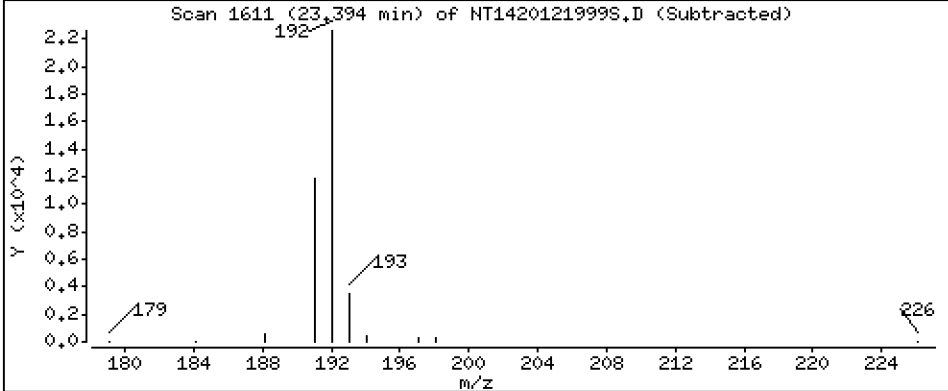
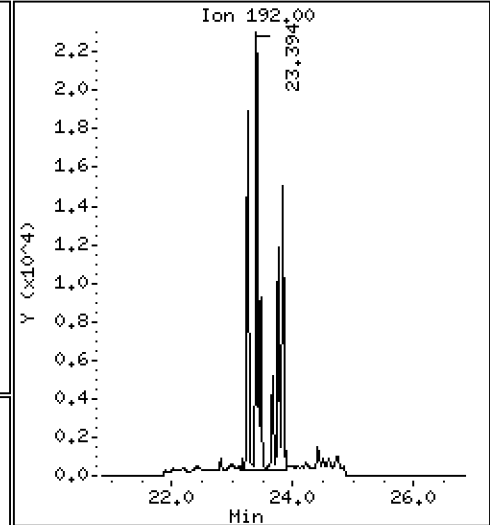
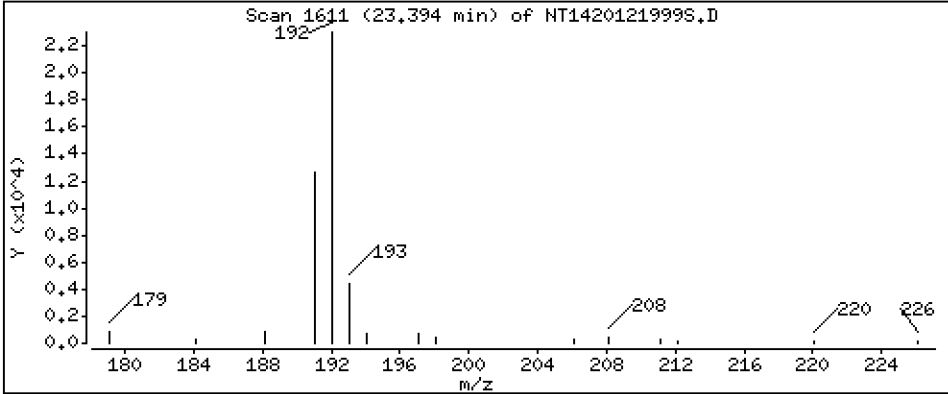
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

38 C1-Phenanthrenes/Anthracenes

Concentration: 1.361 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

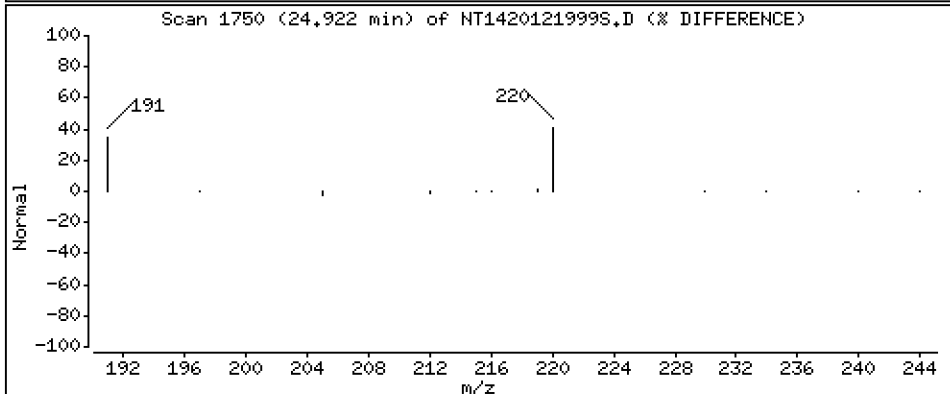
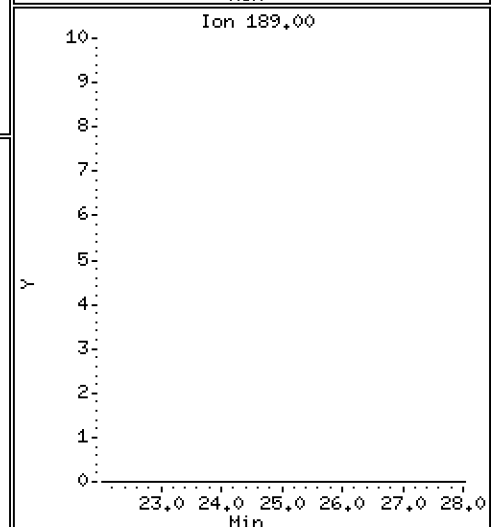
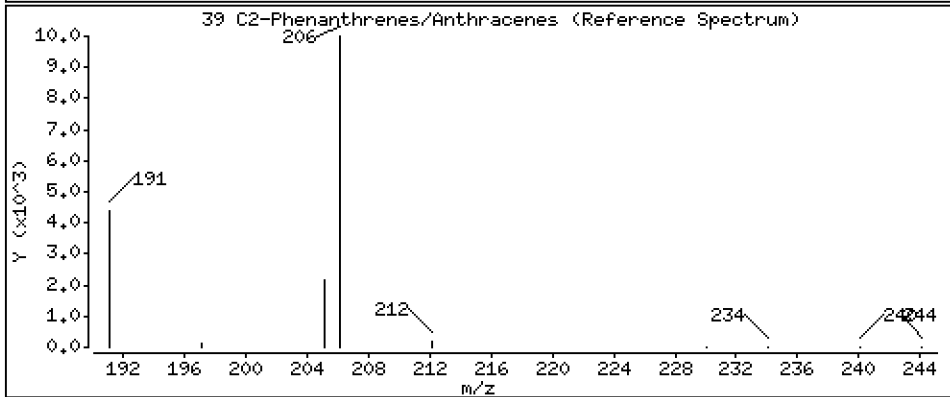
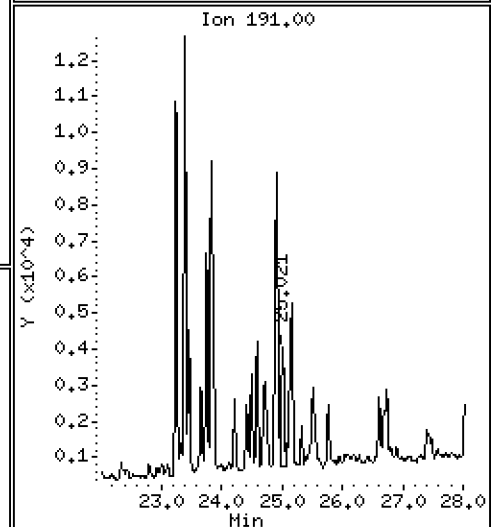
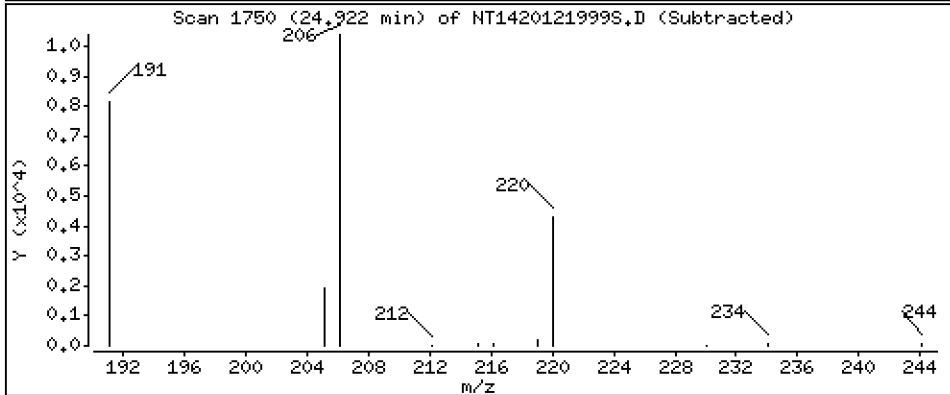
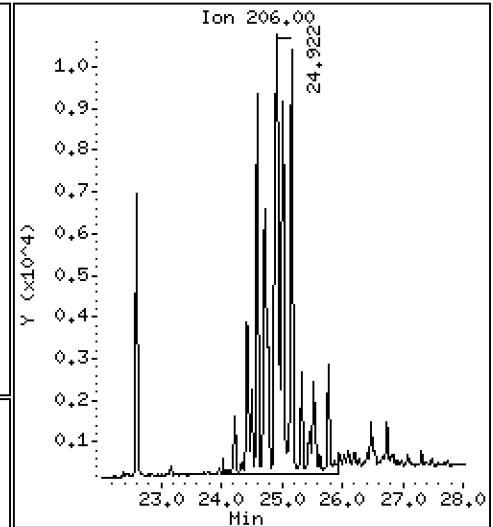
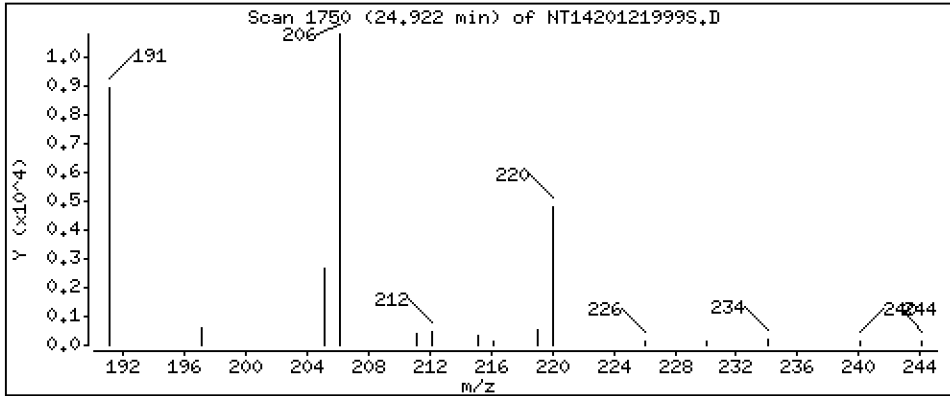
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

39 C2-Phenanthrenes/Anthracenes

Concentration: 1,355 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

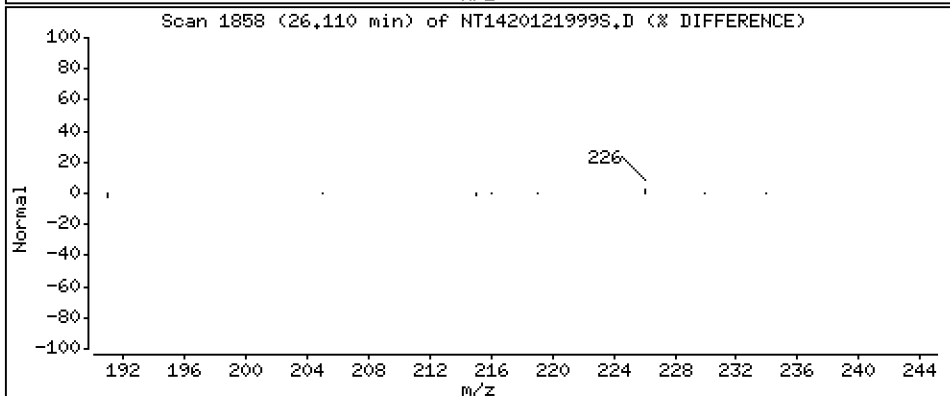
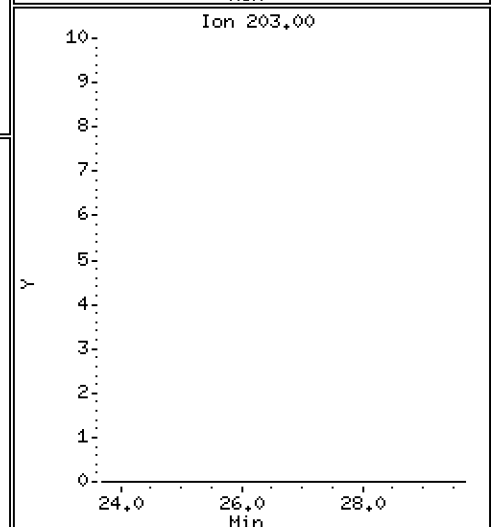
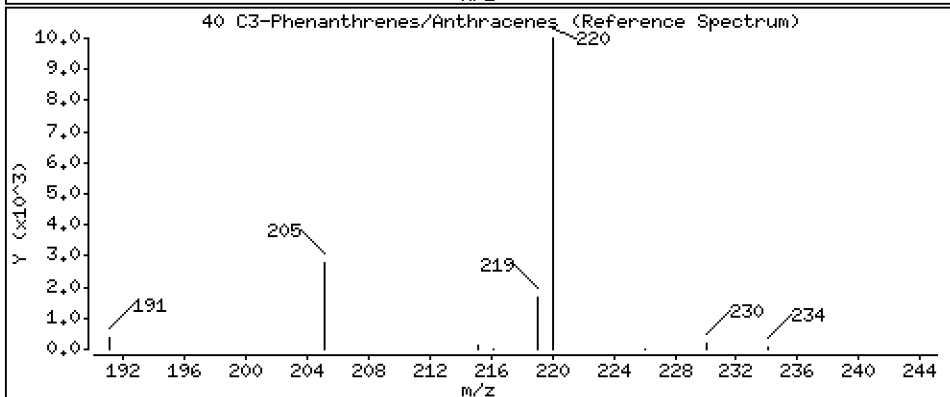
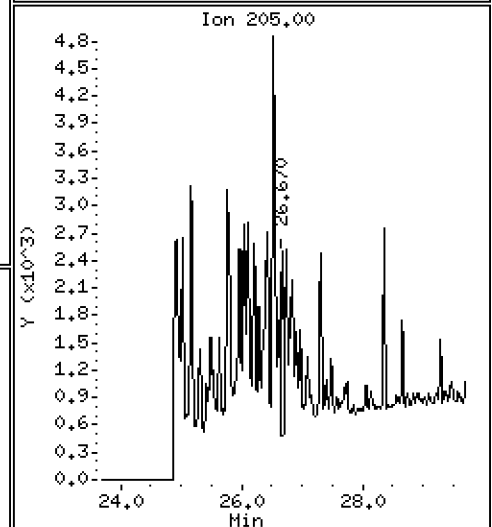
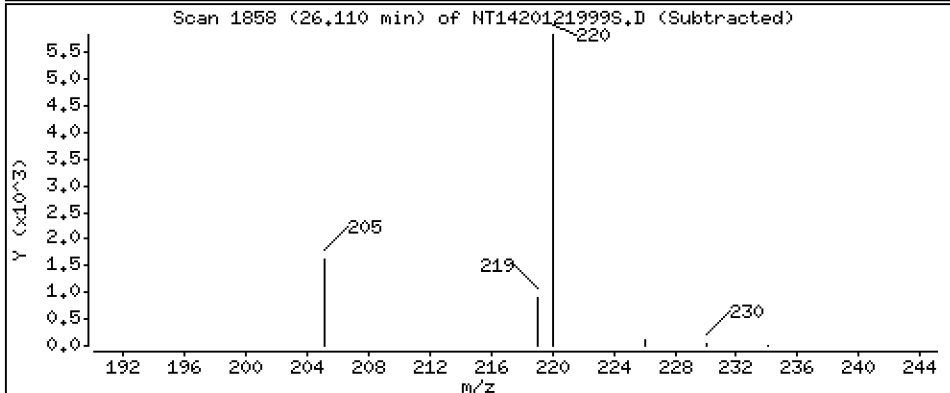
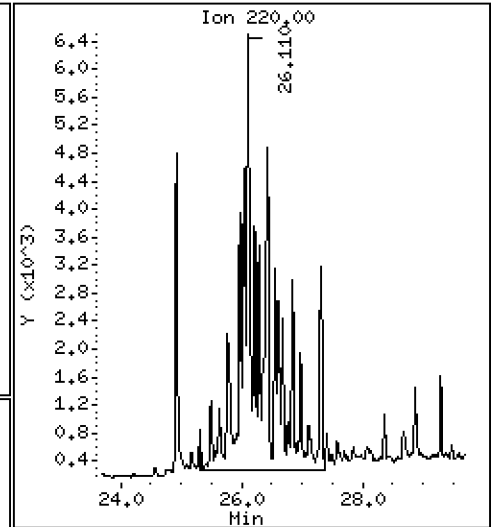
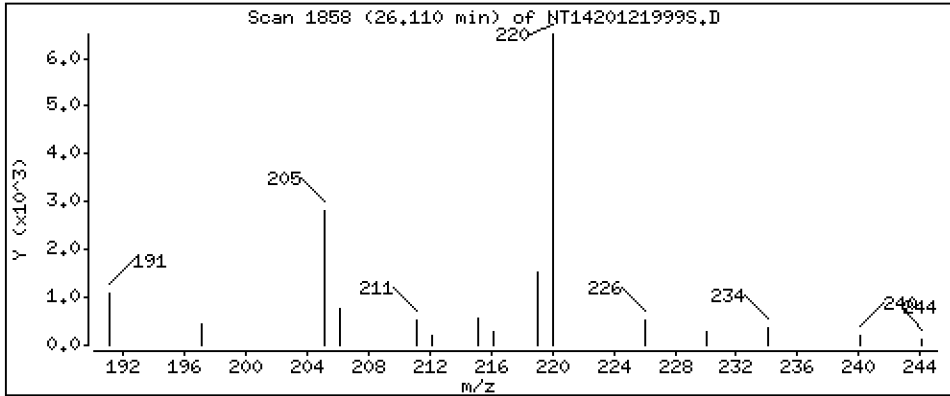
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

40 C3-Phenanthrenes/Anthracenes

Concentration: 0,9754 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

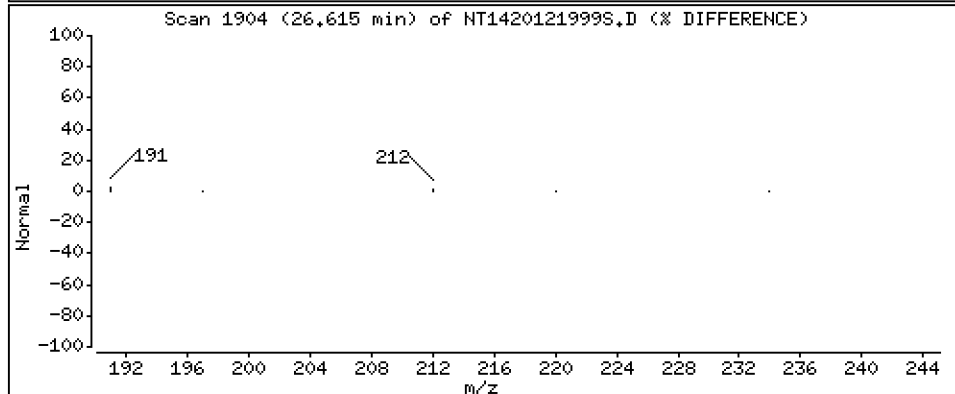
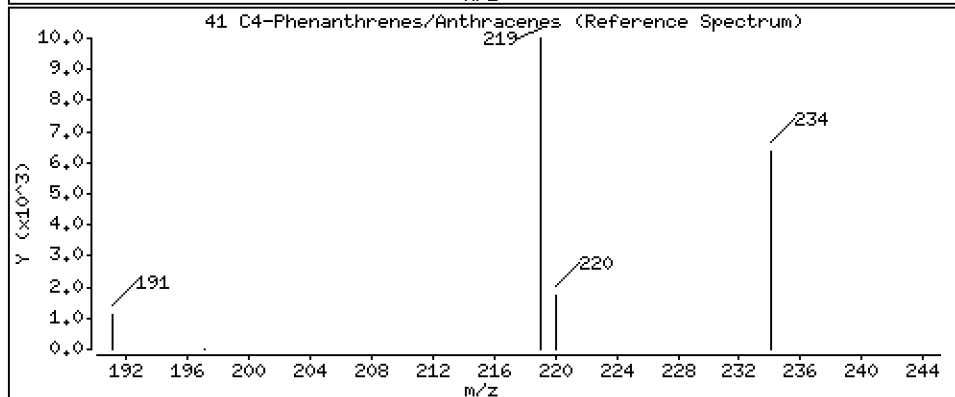
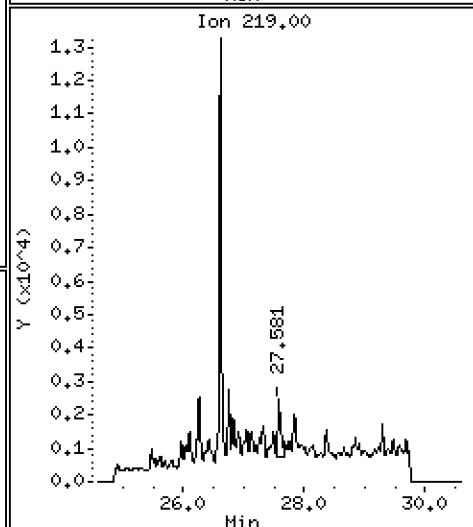
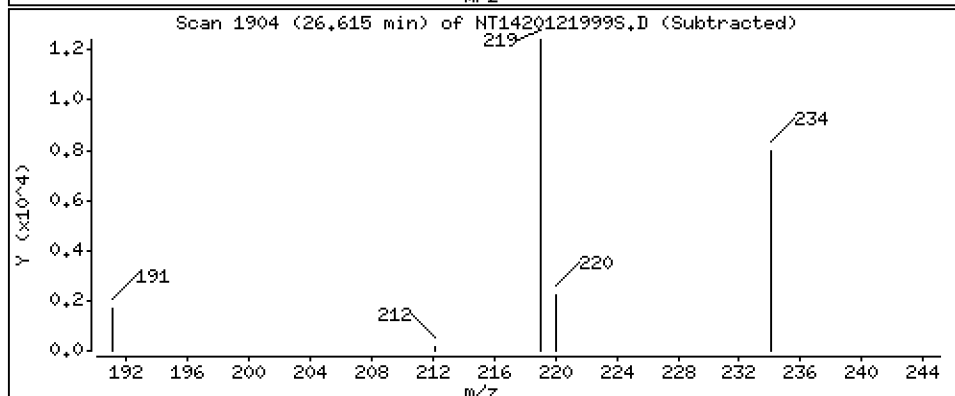
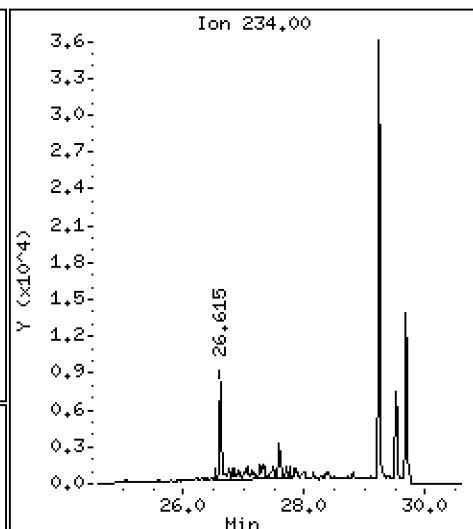
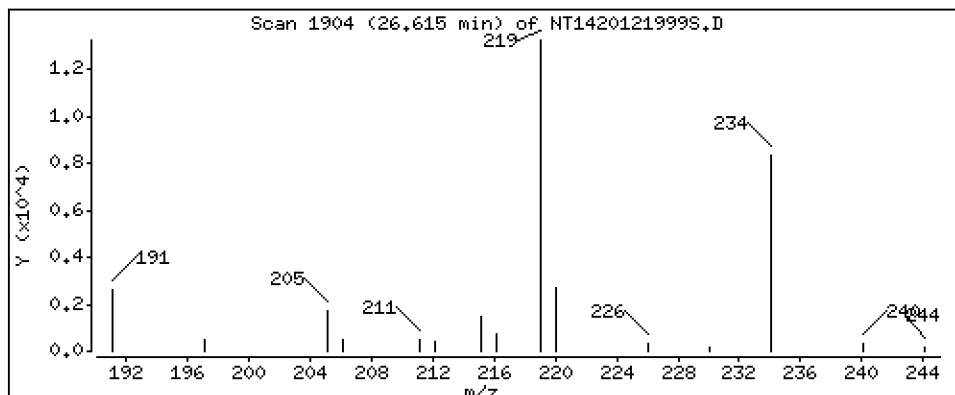
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

41 C4-Phenanthrenes/Anthracenes

Concentration: 0,4148 ug/mL





Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

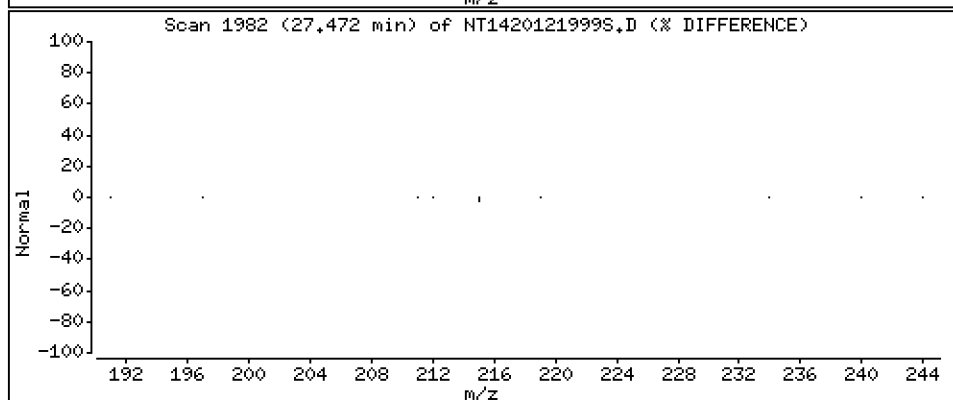
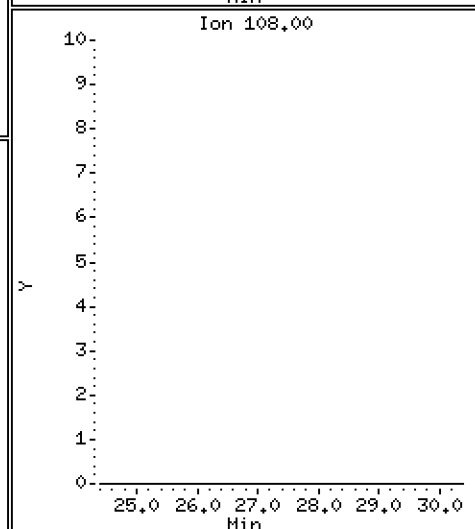
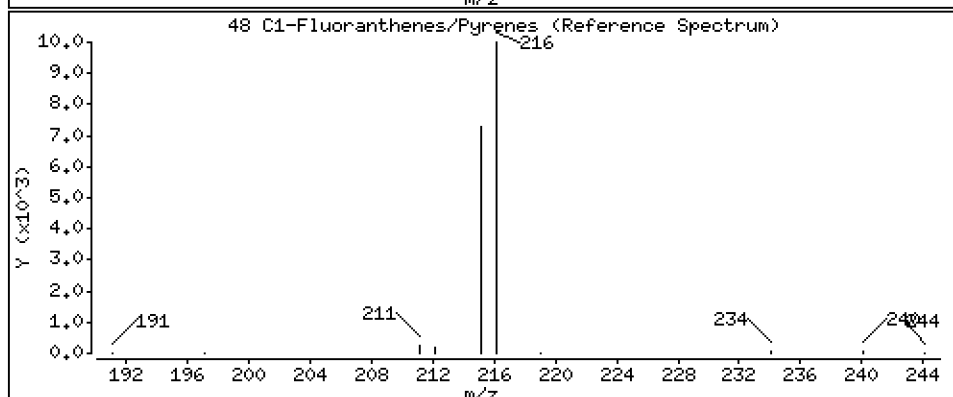
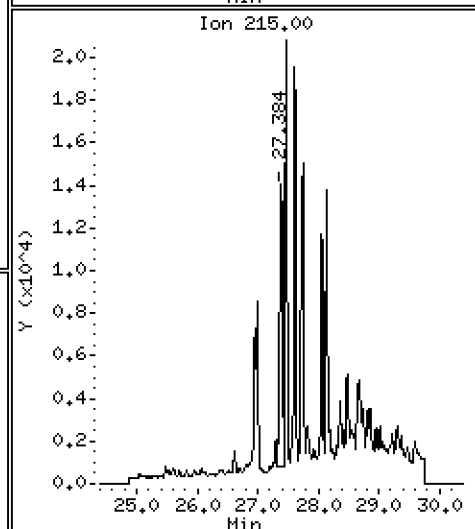
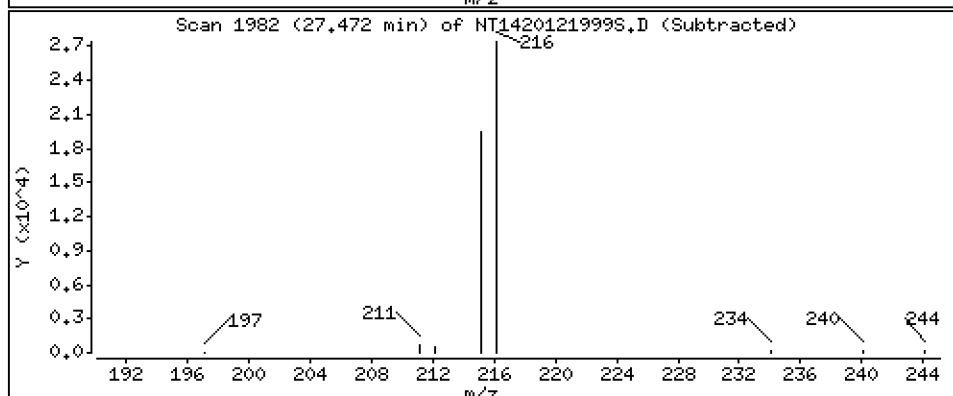
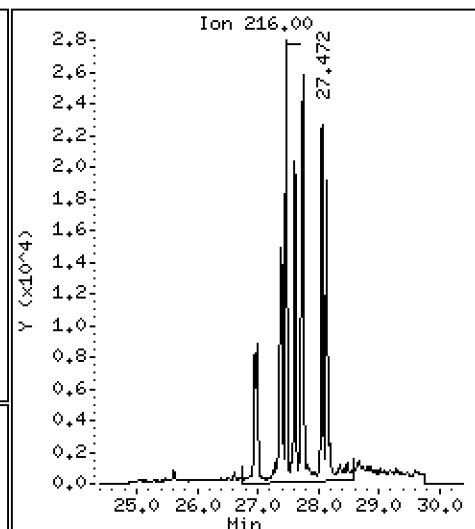
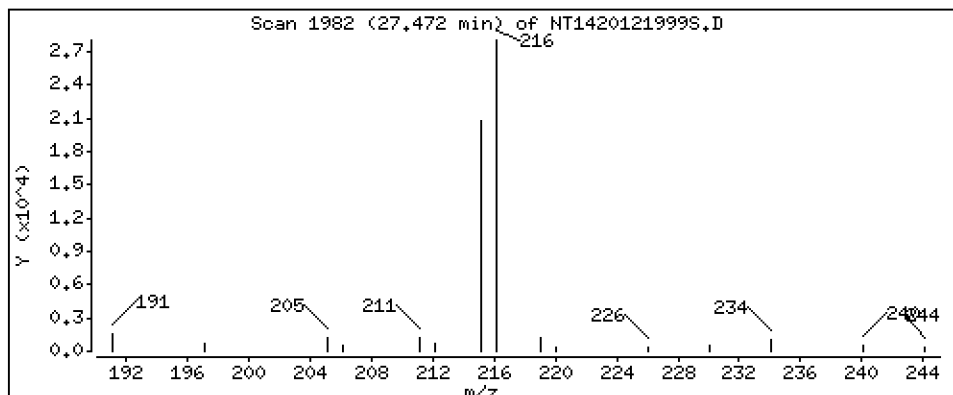
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

48 C1-Fluoranthenes/Pyrenes

Concentration: 2,510 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

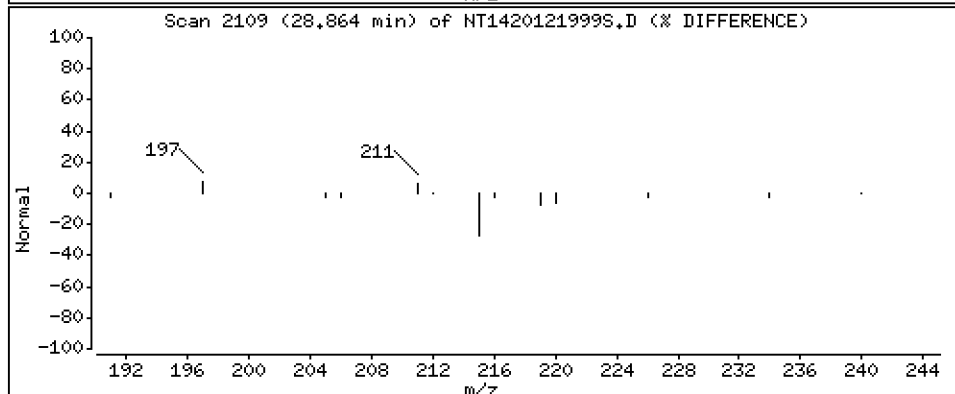
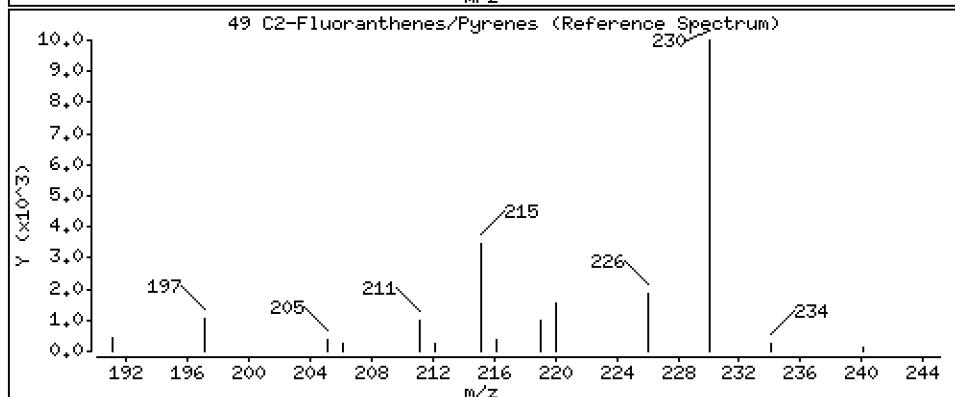
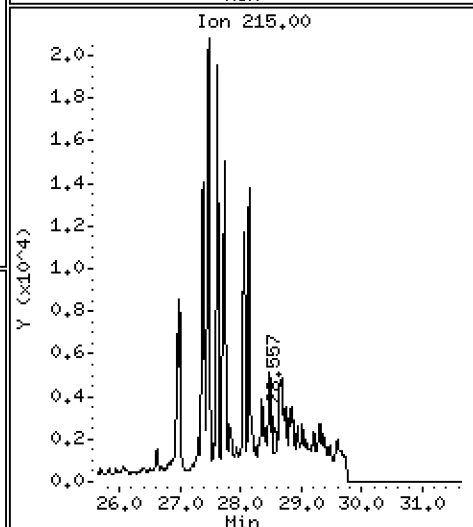
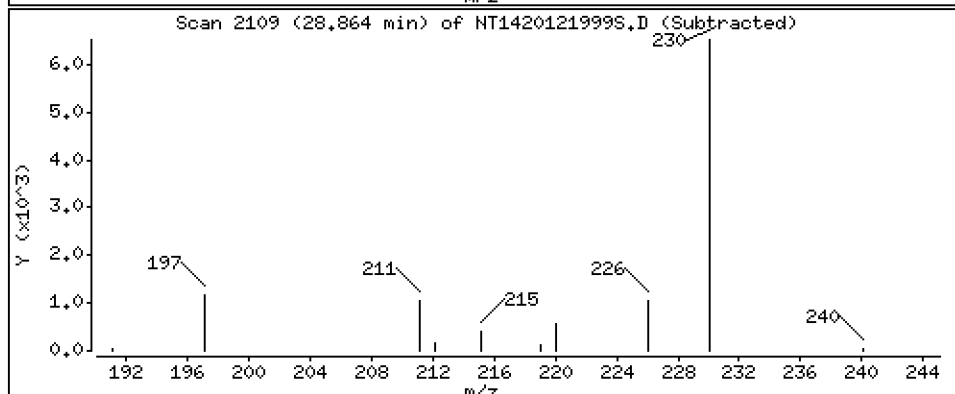
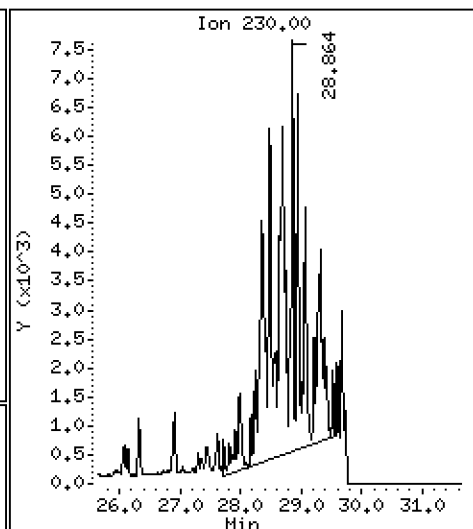
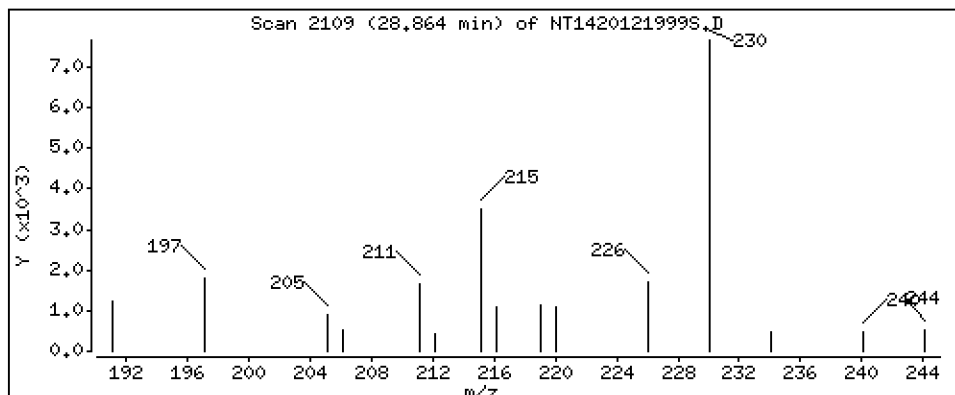
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

49 C2-Fluoranthenes/Pyrenes

Concentration: 1,088 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

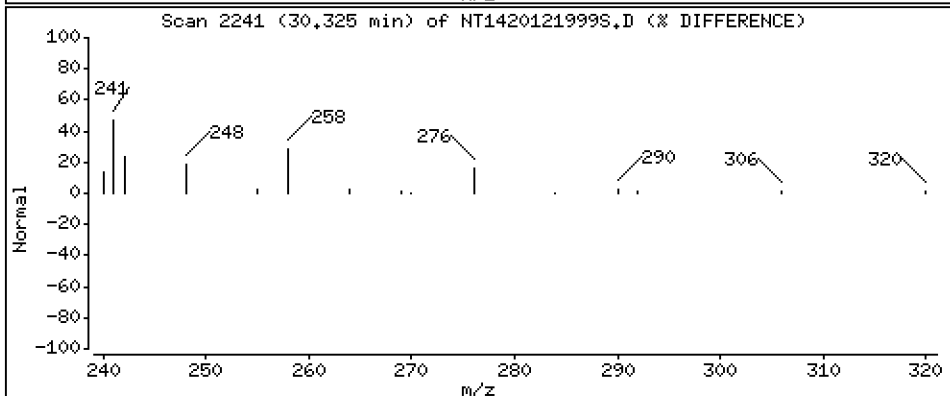
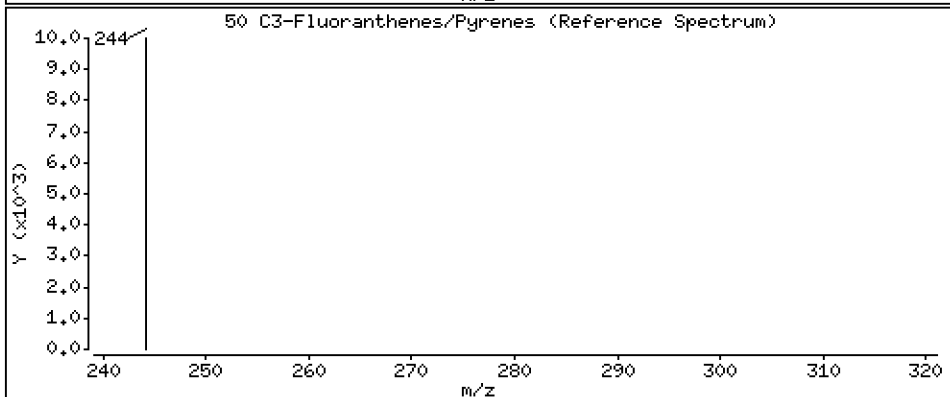
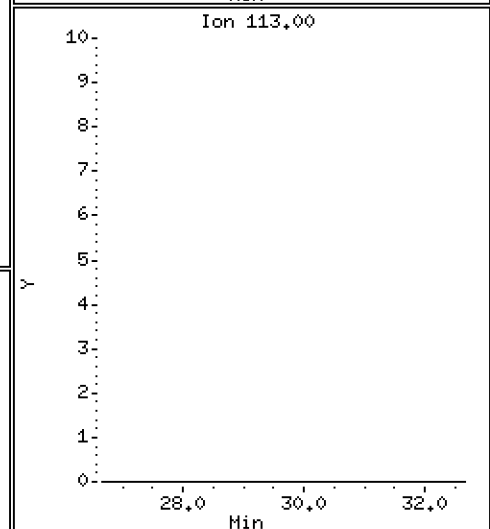
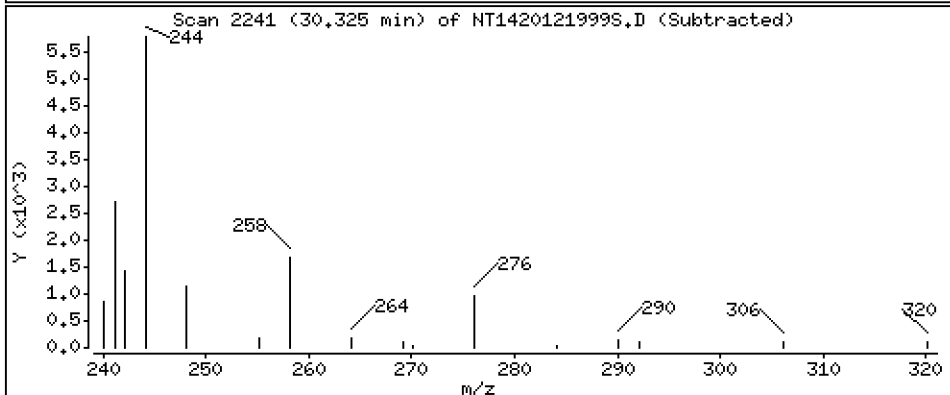
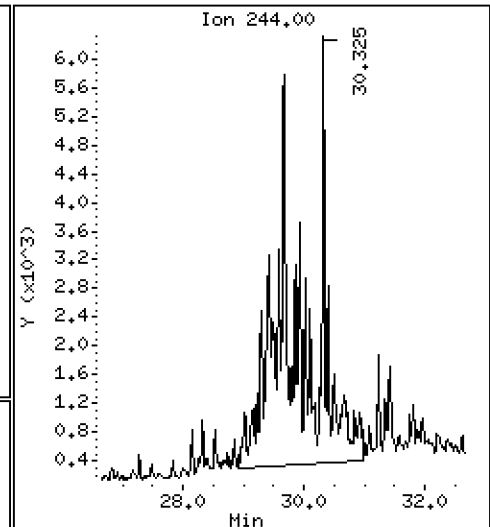
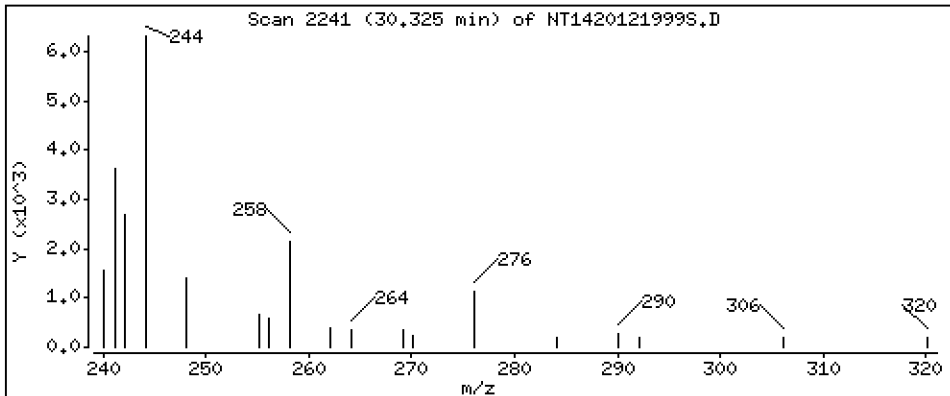
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

50 C3-Fluoranthenes/Pyrenes

Concentration: 0,9063 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

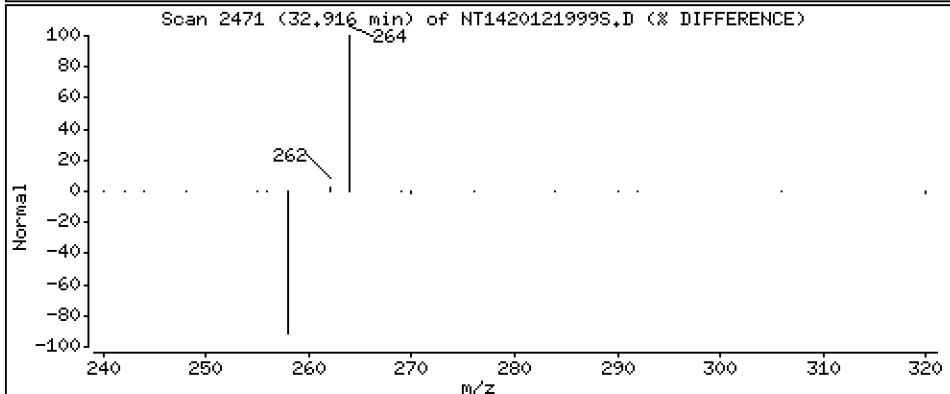
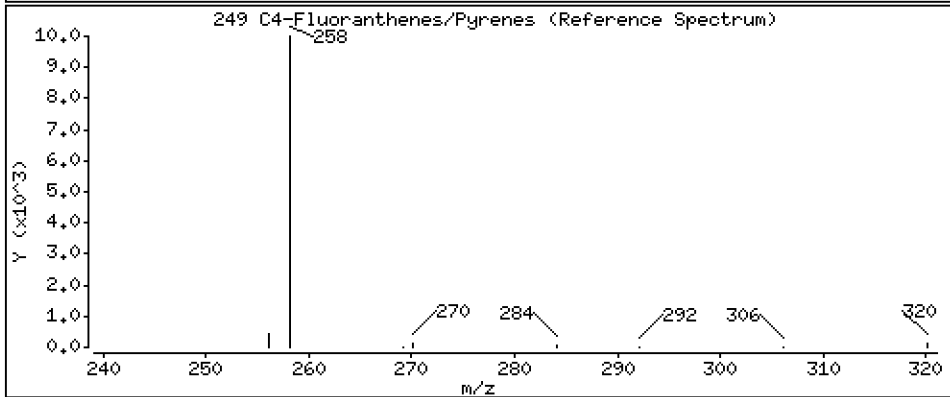
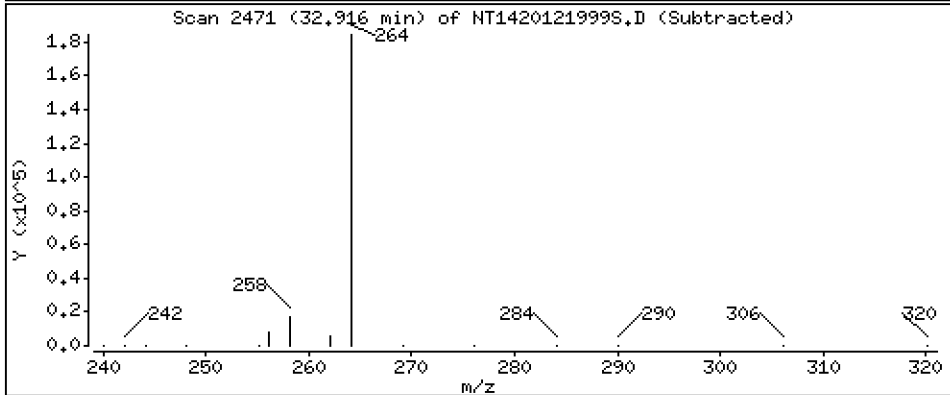
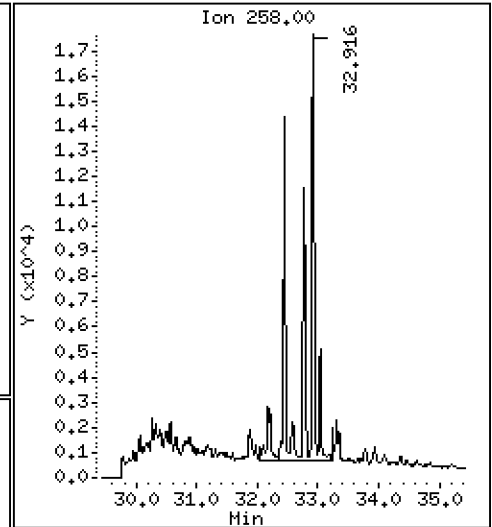
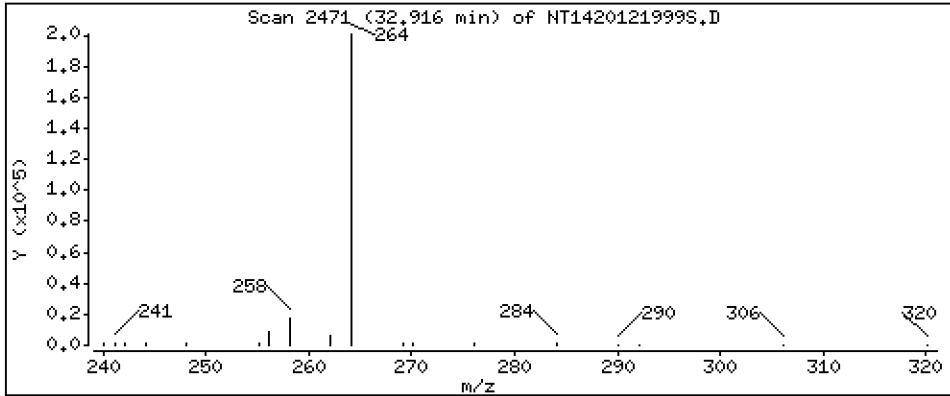
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

249 C4-Fluoranthenes/Pyrenes

Concentration: 0,7396 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

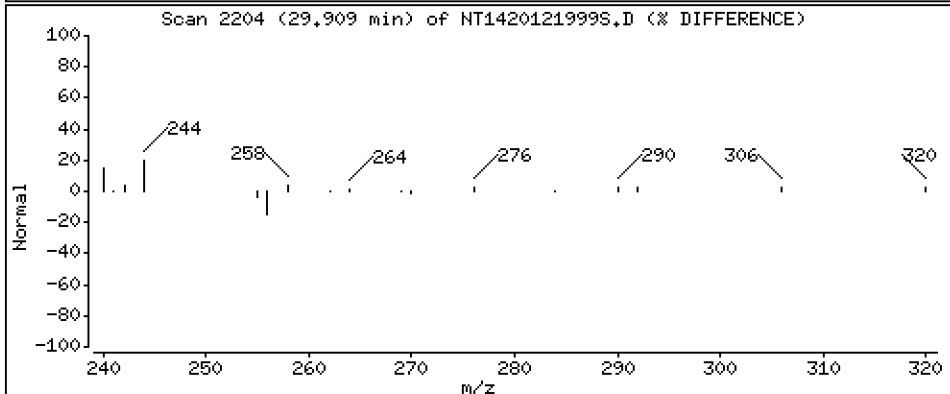
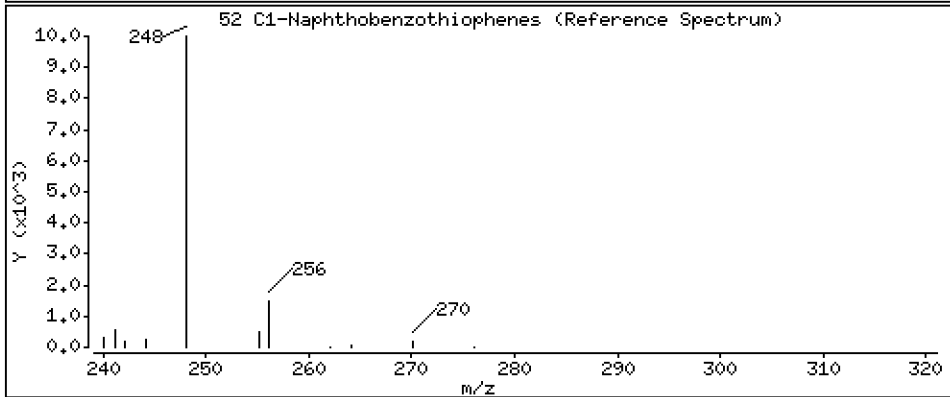
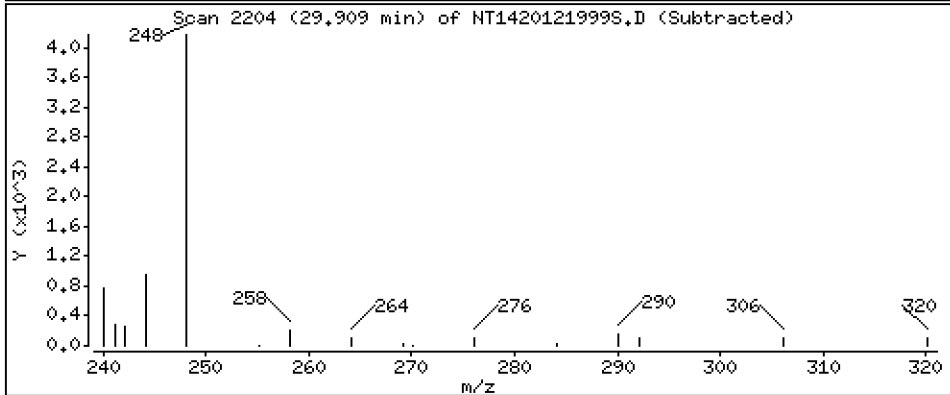
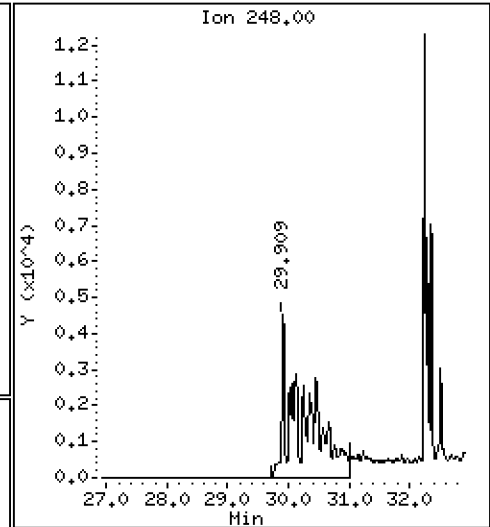
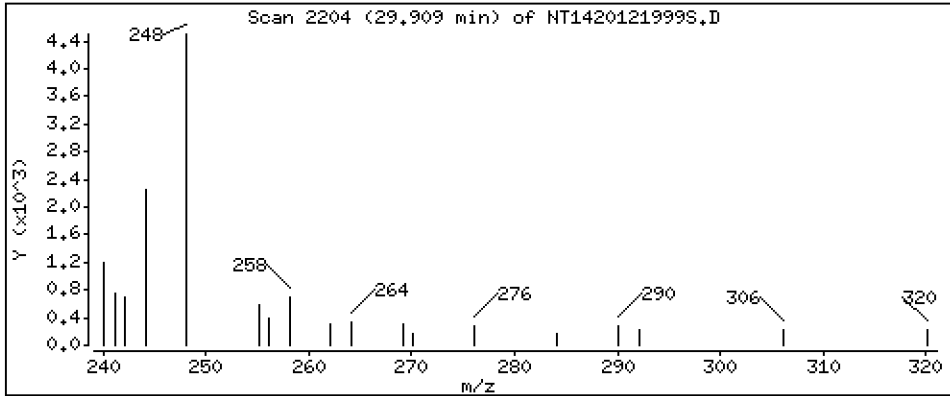
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

52 C1-Naphthobenzothiophenes

Concentration: 0,6175 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

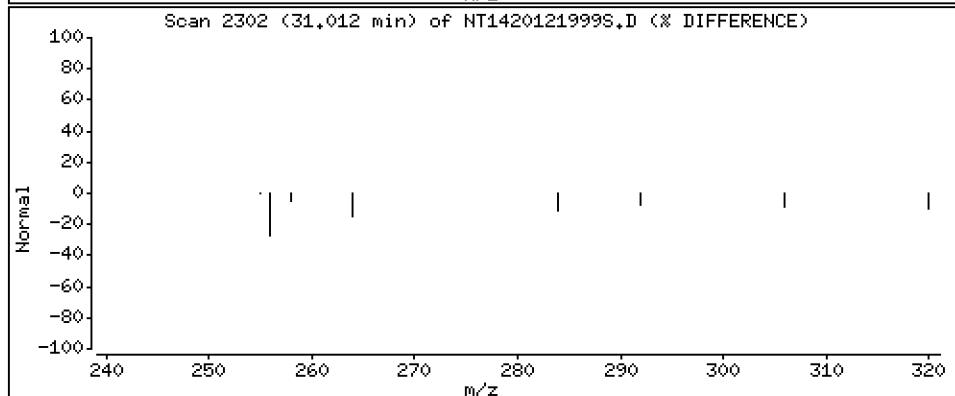
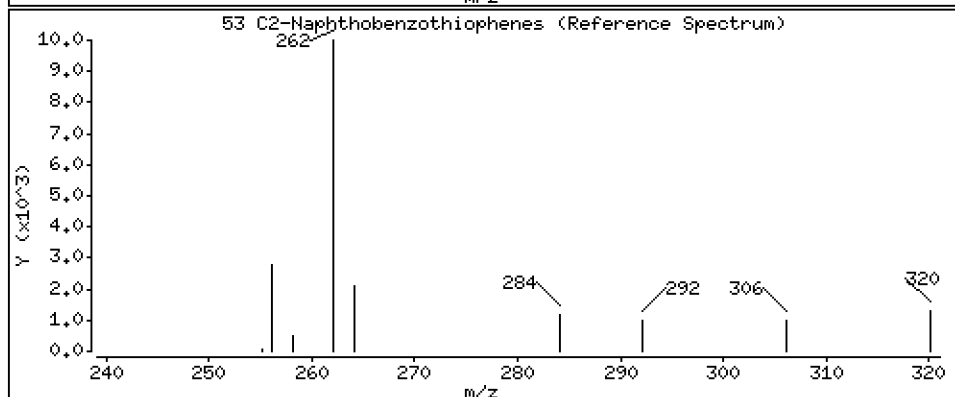
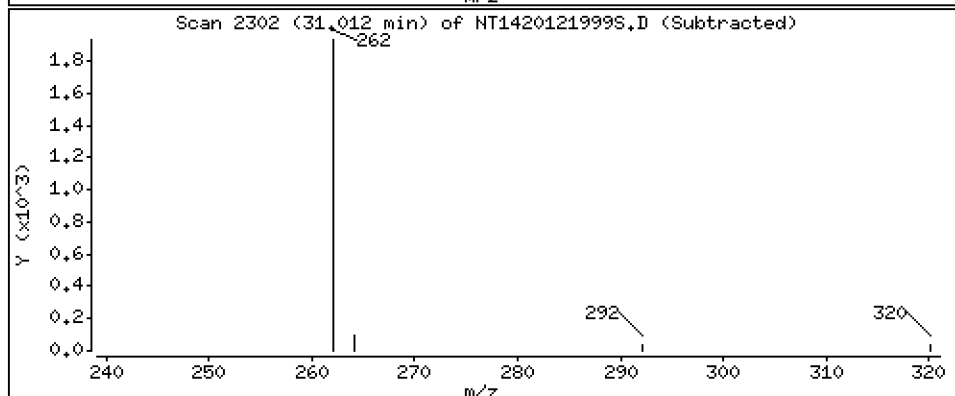
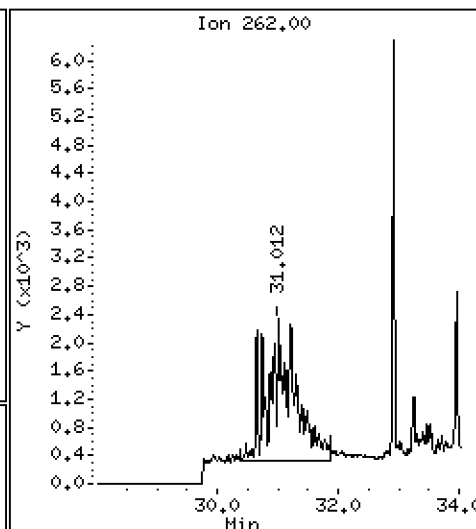
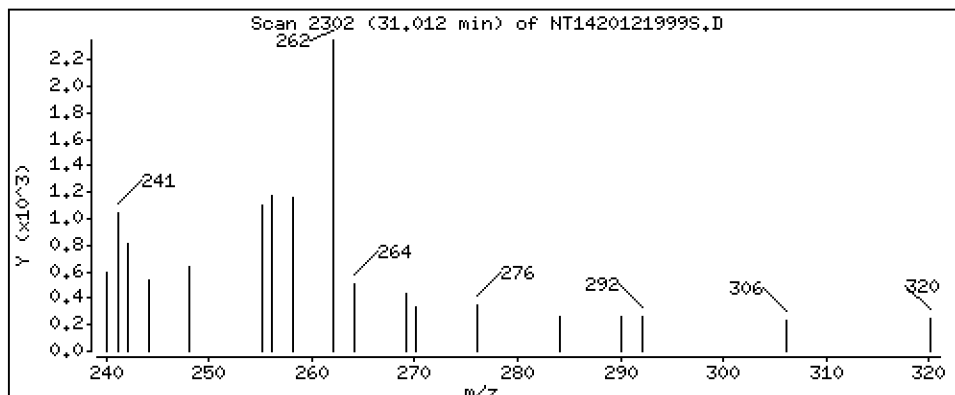
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

53 C2-Naphthobenzothiophenes

Concentration: 0,3736 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

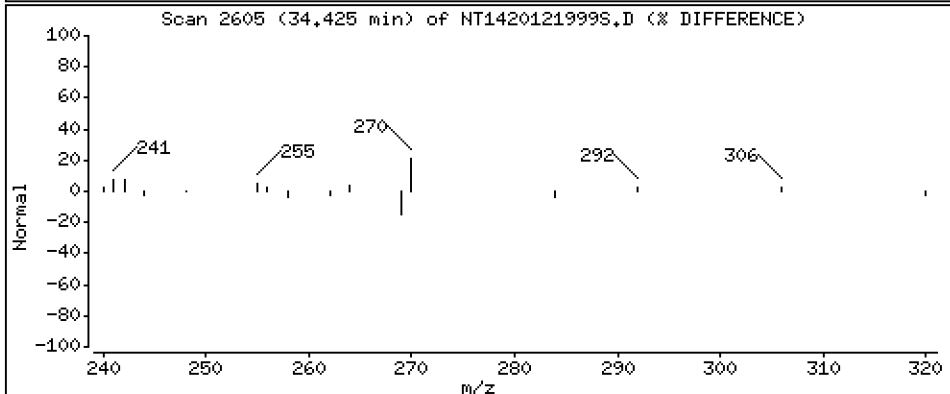
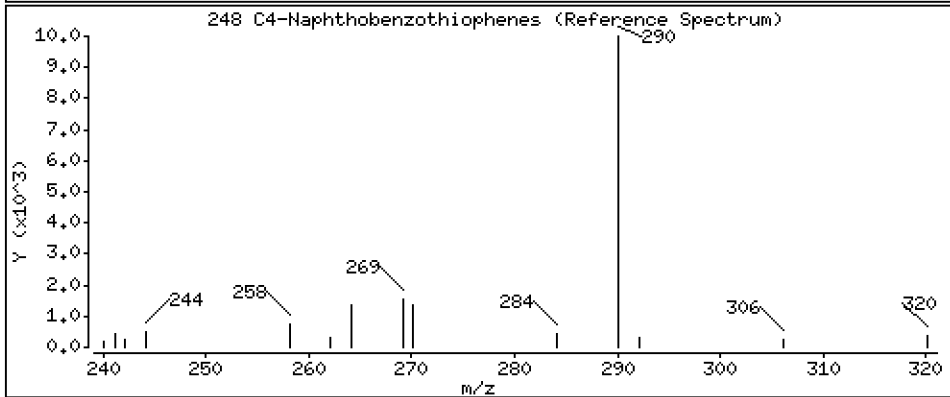
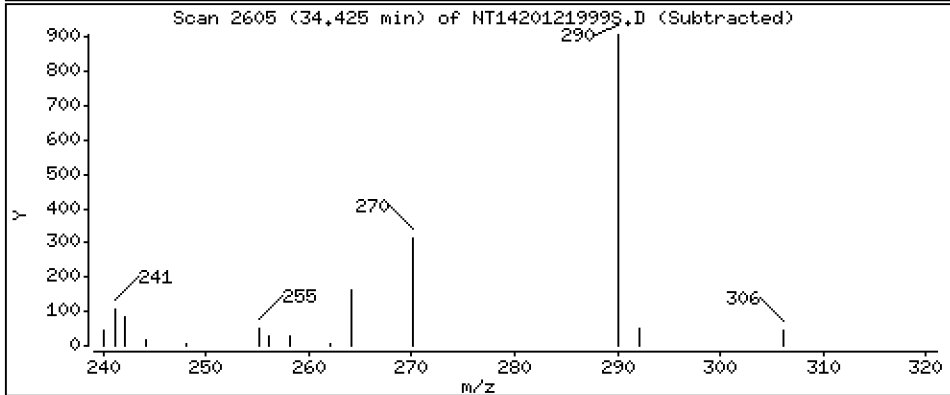
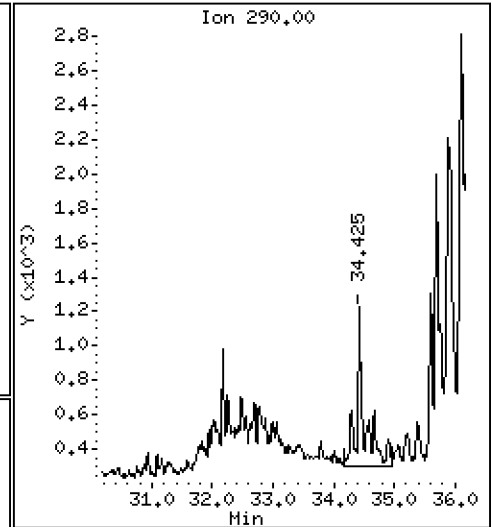
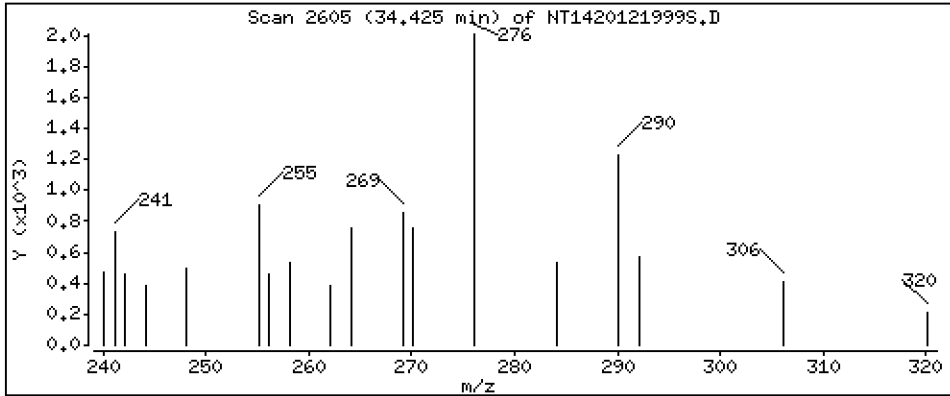
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

248 C4-Naphthobenzothiophenes

Concentration: 0,05379 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

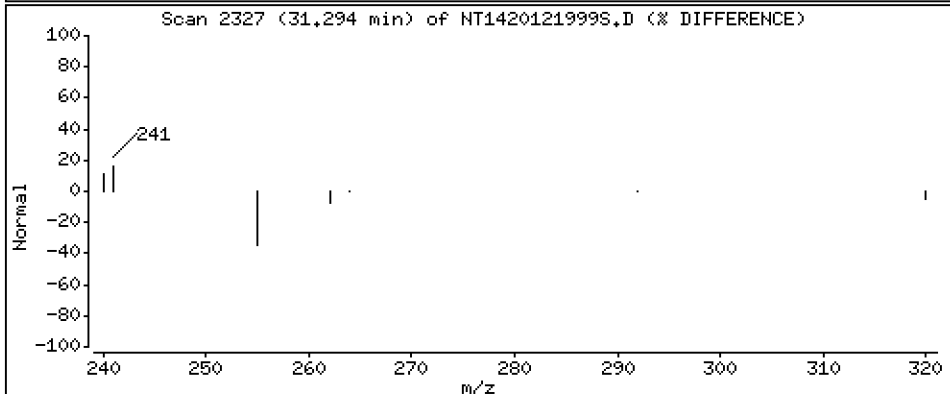
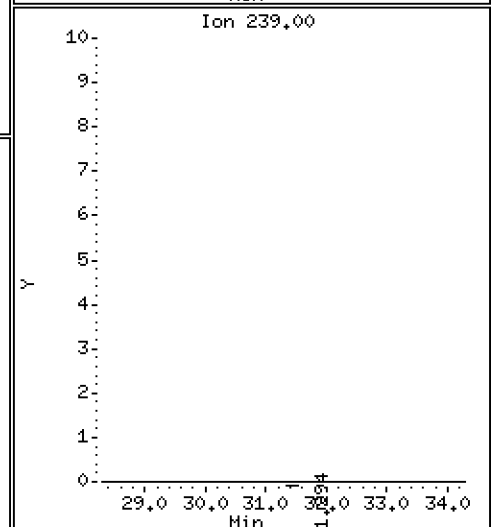
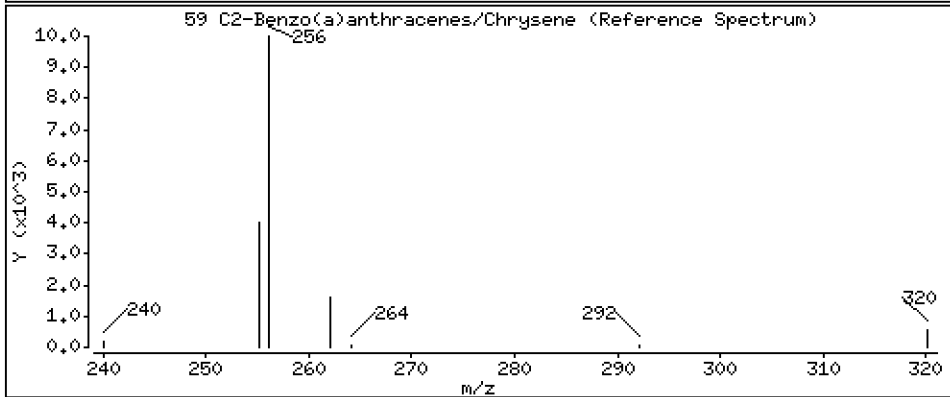
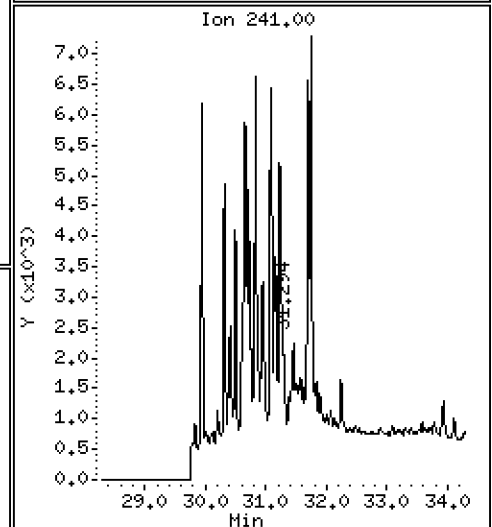
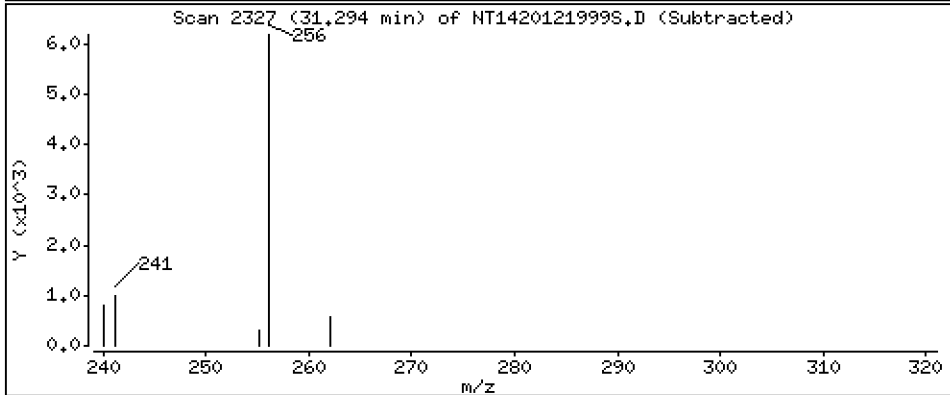
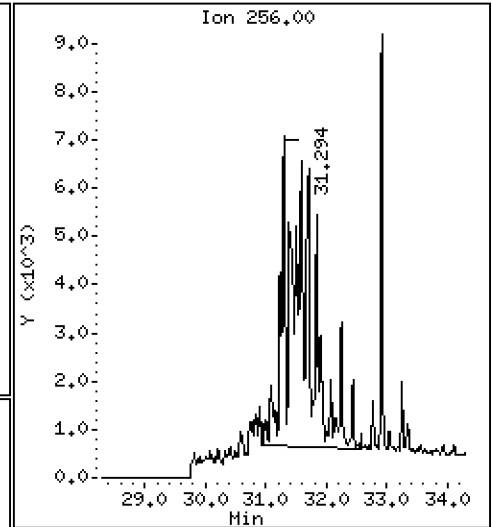
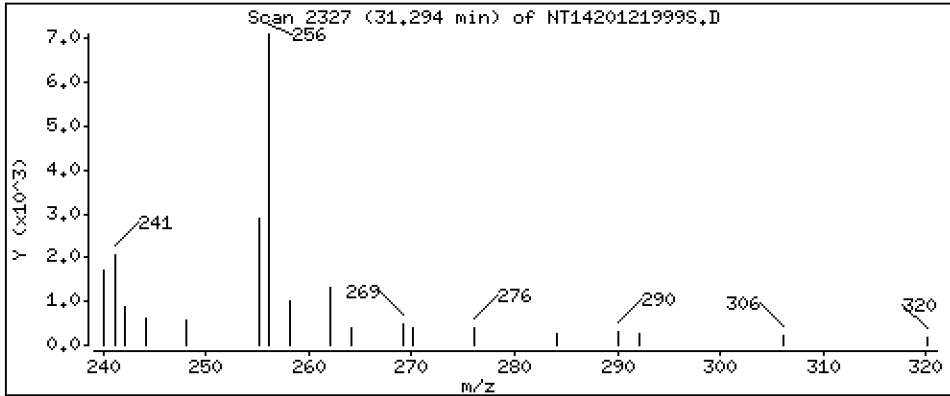
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

59 C2-Benzo(a)anthracenes/Chrysene

Concentration: 0,9593 ug/mL





Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

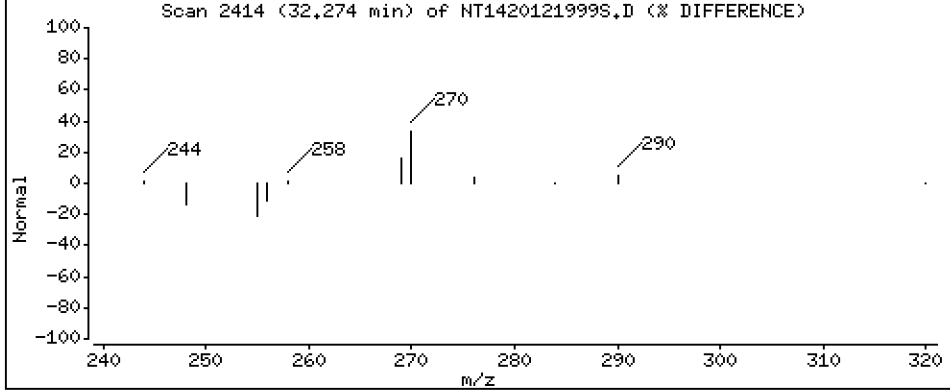
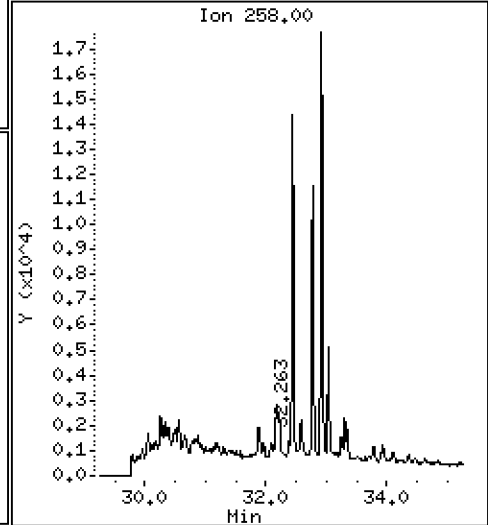
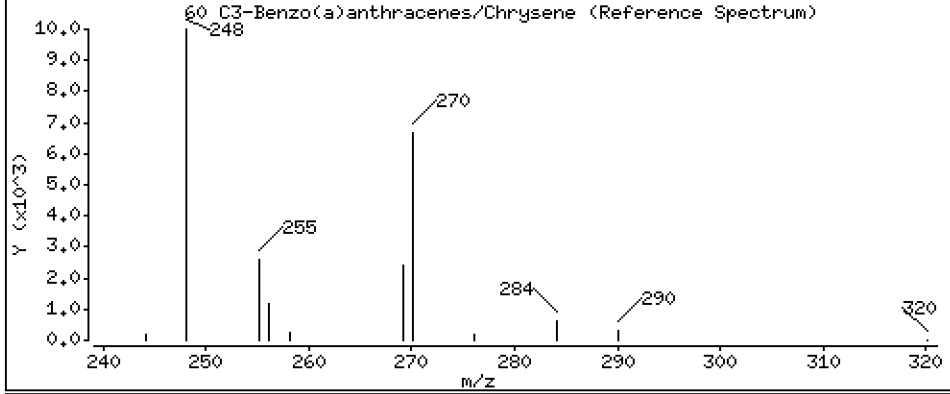
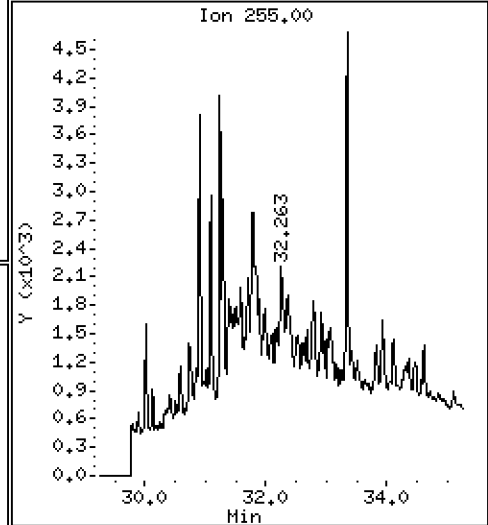
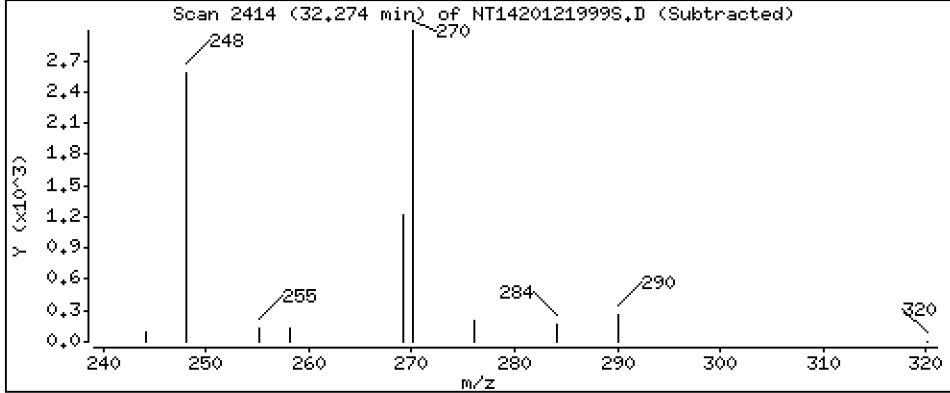
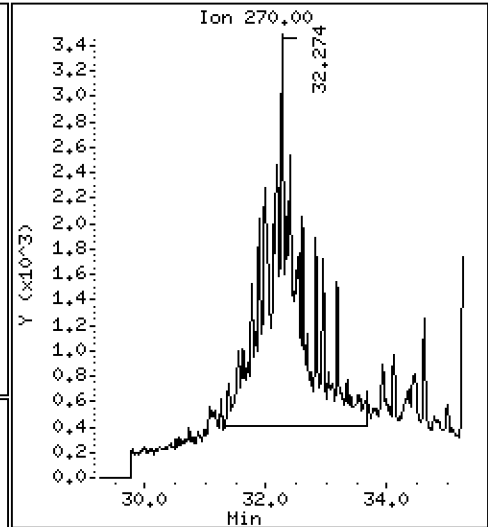
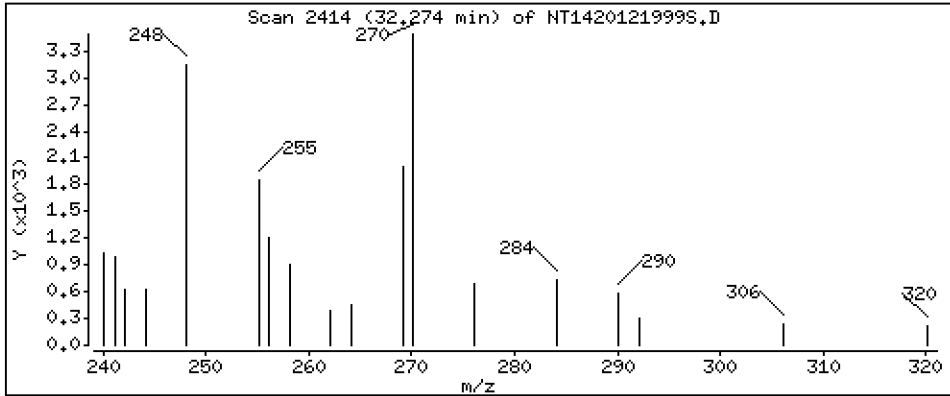
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

60 C3-Benzo(a)anthracenes/Chrysene

Concentration: 0,6182 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

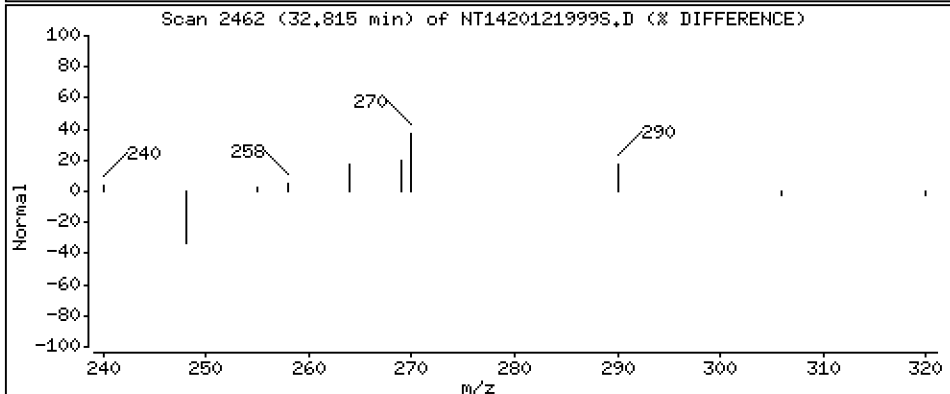
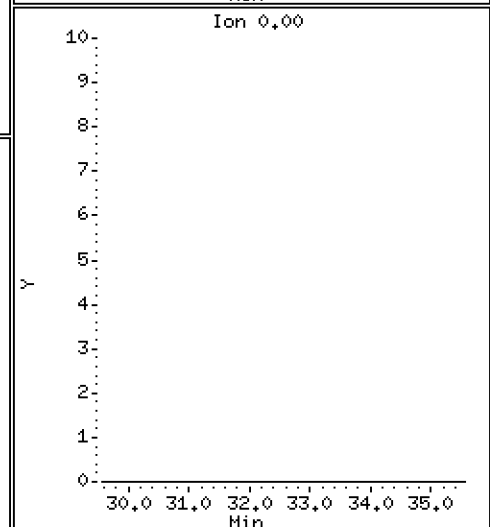
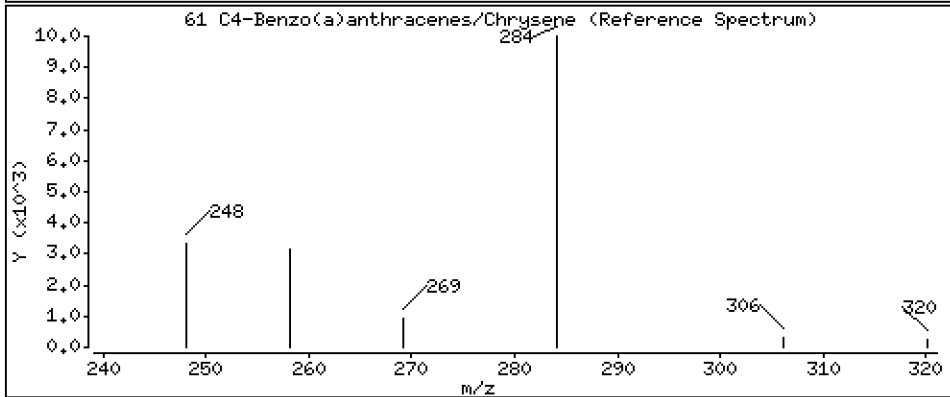
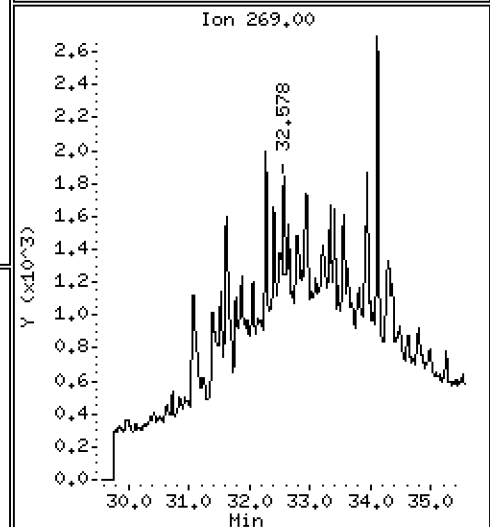
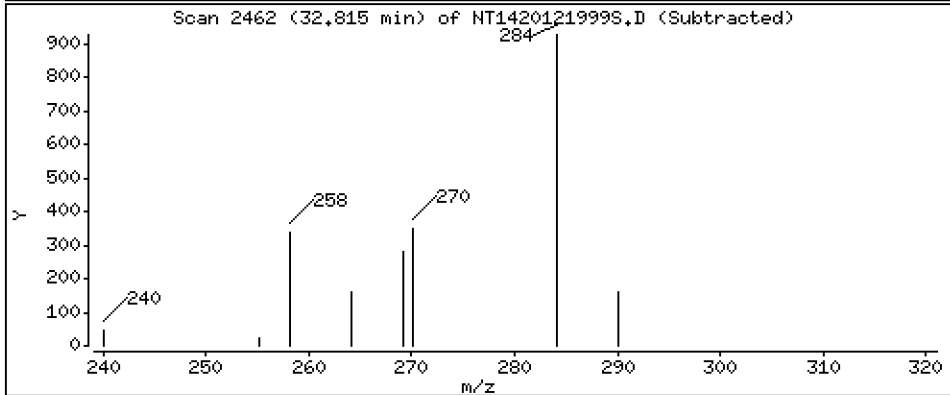
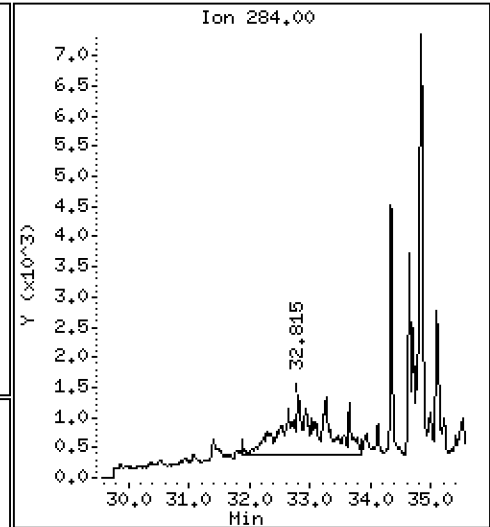
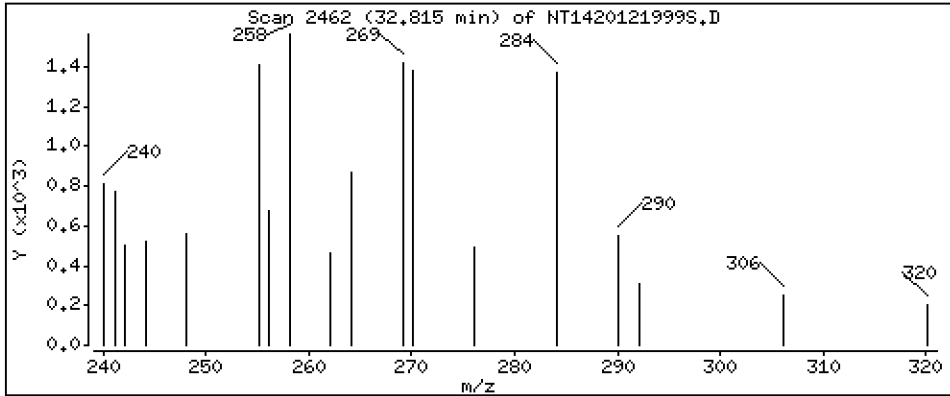
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

61 C4-Benzo(a)anthracenes/Chrysene

Concentration: 0,2427 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

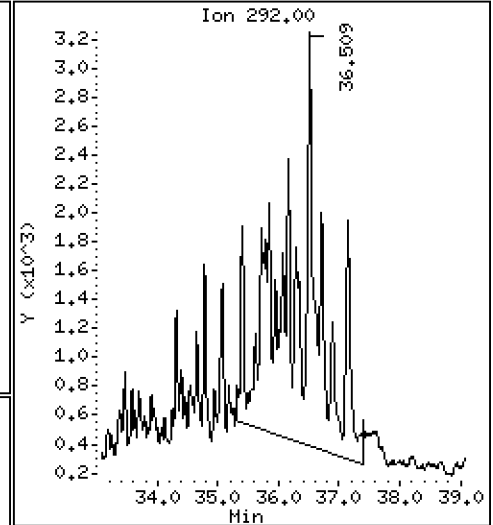
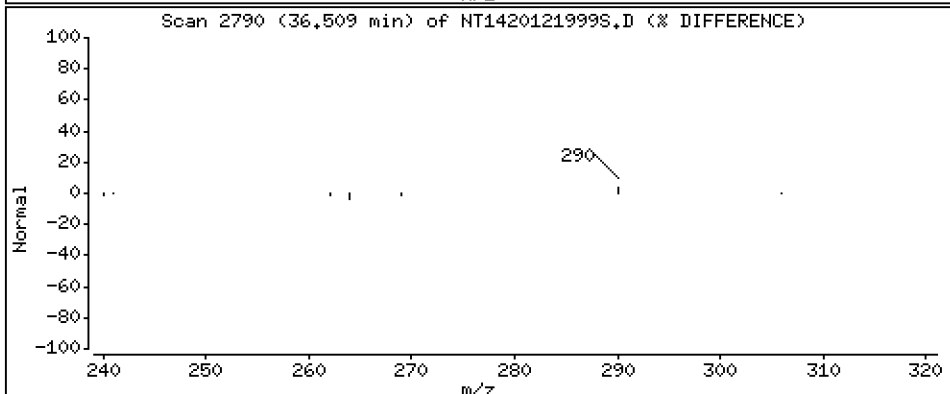
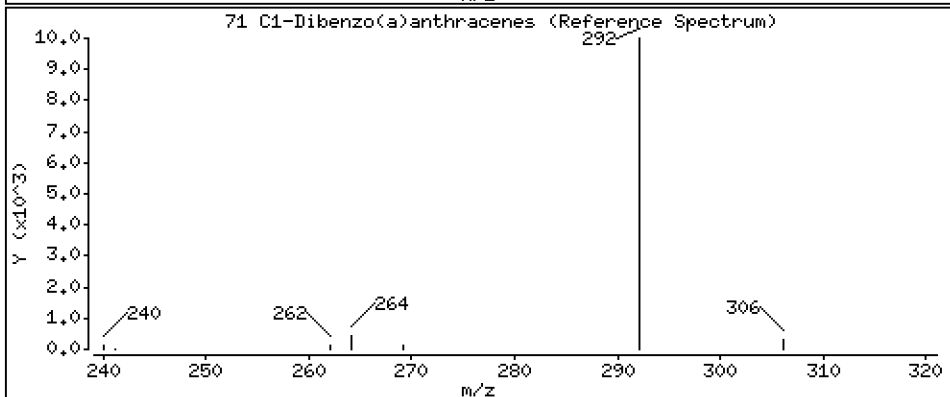
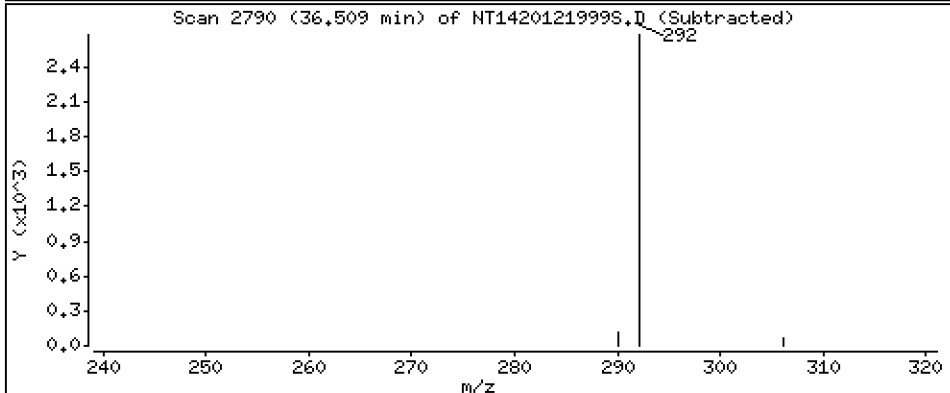
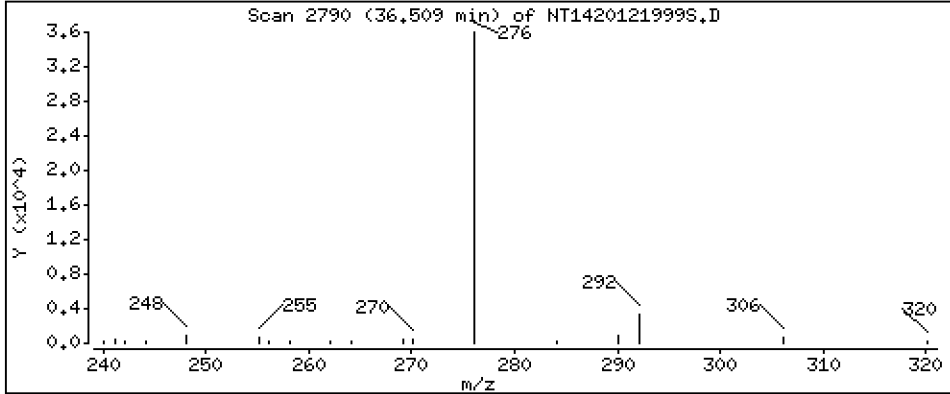
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

71 C1-Dibenzo(a)anthracenes

Concentration: 0,5326 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

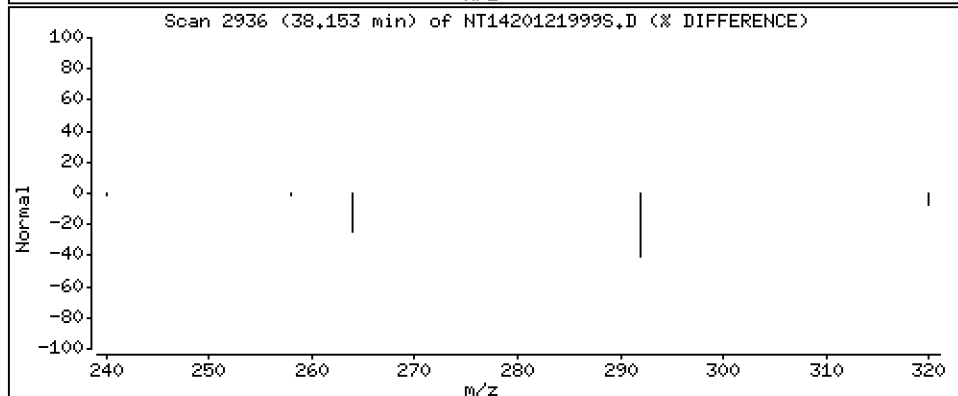
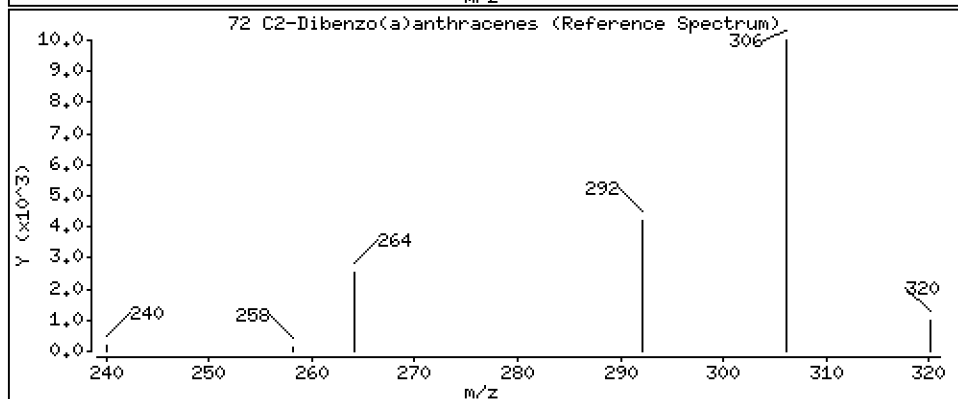
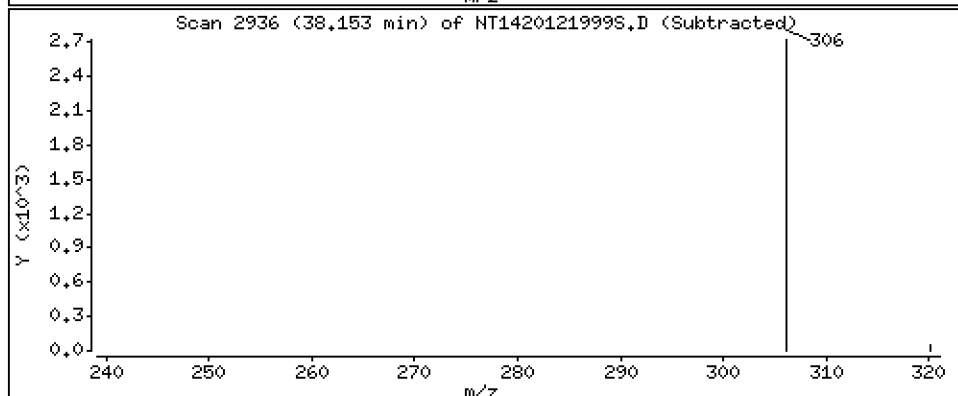
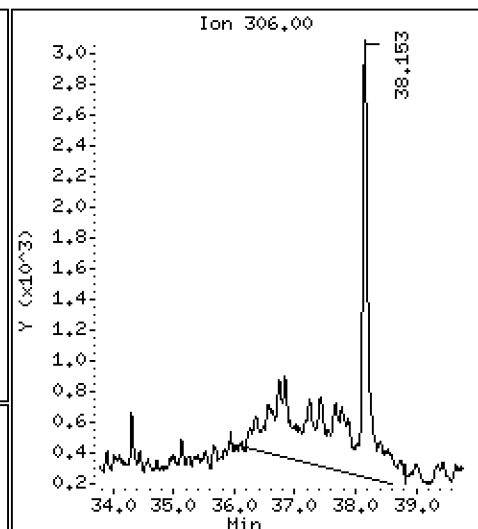
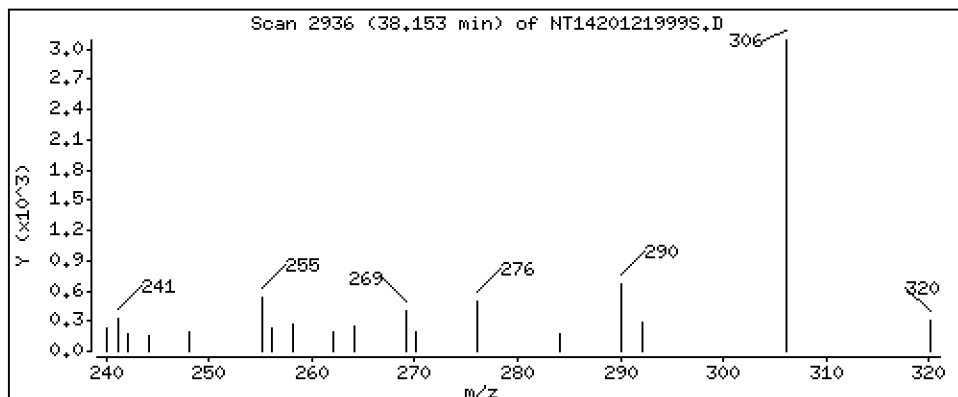
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

72 C2-Dibenzo(a)anthracenes

Concentration: 0,2929 ug/mL



Date : 22-DEC-2020 16:19

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-05

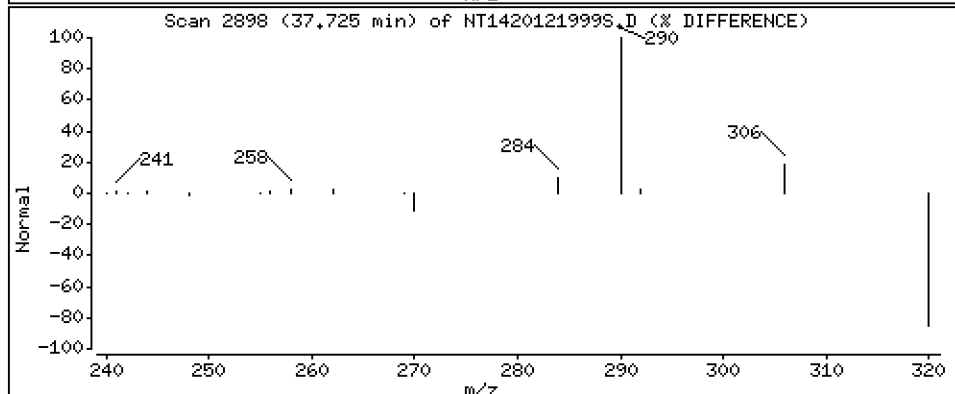
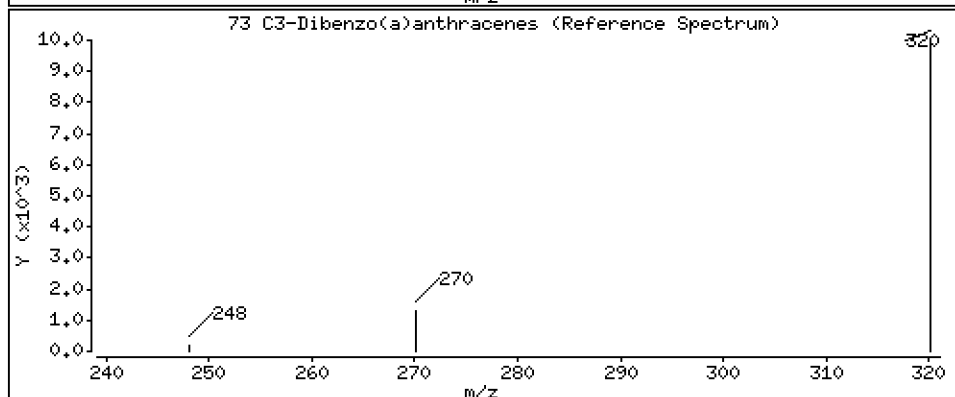
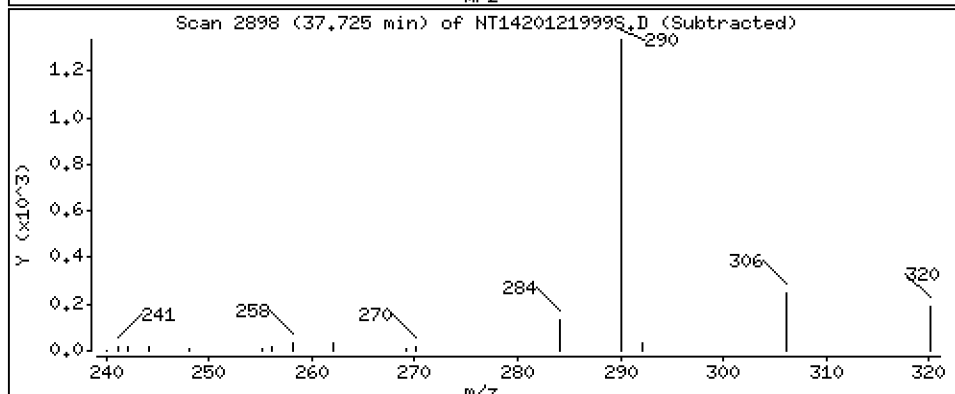
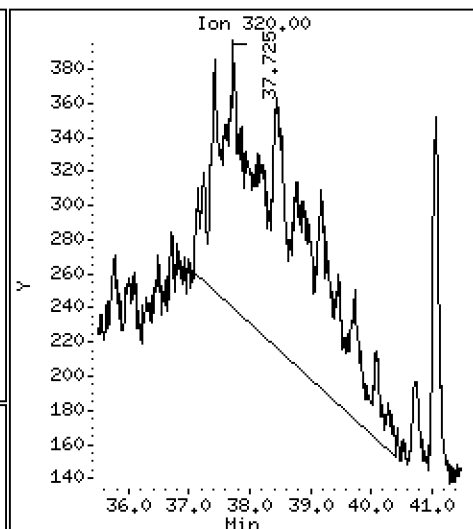
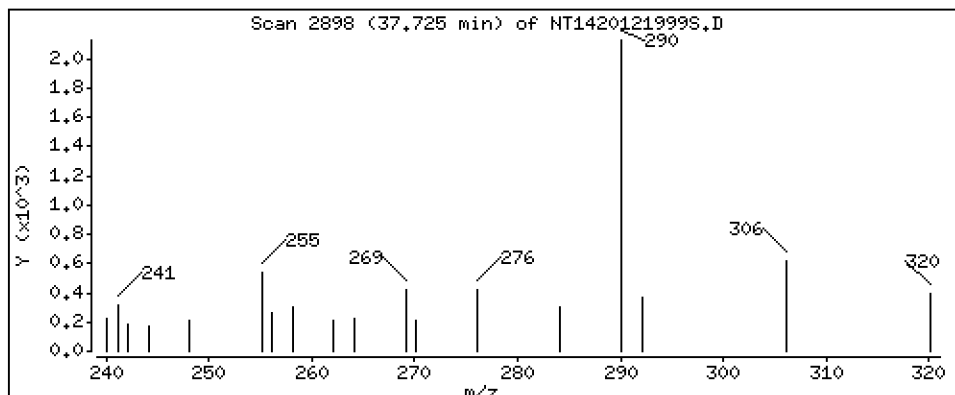
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

73 C3-Dibenzo(a)anthracenes

Concentration: 0,07988 ug/mL



ARI Labs, Inc.

Semivolatiles Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20201219.b\SIM.b\NT1420121999S.D  
 Lab Smp Id: 20K0204-05  
 Inj Date : 22-DEC-2020 16:19  
 Operator : VTS  
 Smp Info : 20K0204-05  
 Misc Info :  
 Comment : 1ul Injection  
 Method : \\target\share\chem3\nt14.i\20201219.b\SIM.b\ALKYLRANGE.m  
 Meth Date : 31-Dec-2020 11:16 yev  
 Cal Date : 17-OCT-2020 17:58  
 Als bottle: 85  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 4.14  
 Processing Host: ORGDATA102

Inst ID: nt14.i

Quant Type: ISTD  
 Cal File: NT1420101709S.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		7.723	8.000	(0.415)	1482	0.19089	0.1909 (M)
4 C2-Decalin	166		8.862	9.000	(0.476)	3407	0.43885	0.4388 (M)
5 C3-Decalin	180		11.384	11.000	(0.612)	2155	0.27758	0.2776 (M)
247 C4-Decalin	194		12.763	12.000	(0.686)	4019	0.51768	0.5177 (M)
8 C1-Naphthalenes	142		13.500	13.522	(0.726)	58972	0.58518	0.5852 (M)
9 C2-Naphthalenes	156		15.214	15.225	(0.818)	61472	0.60999	0.6100 (M)
10 C3-Naphthalenes	170		17.478	17.797	(0.940)	50366	0.49978	0.4998 (M)
11 C4-Naphthalenes	184		19.178	19.190	(1.031)	34052	0.33790	0.3379 (M)
13 C1-Benzothiophenes	148		13.939	13.950	(0.749)	8117	0.09670	0.09670 (M)
14 C2-Benzothiophenes	162		15.434	15.544	(0.830)	8923	0.10630	0.1063 (M)
15 C3-Benzothiophenes	176		Compound Not Detected.					
27 C1-Fluorenes	180		20.244	20.142	(1.088)	25520	0.31123	0.3112 (M)
28 C2-Fluorenes	194		21.752	22.162	(1.169)	34459	0.42024	0.4202 (M)
29 C3-Fluorenes	208		22.602	23.339	(1.215)	41472	0.50577	0.5058 (M)
31 C1-Dibenzothiophenes	198		22.745	22.756	(1.223)	36716	0.31112	0.3111 (M)
* 25 Fluorene-d10	176		18.600	18.611	(1.000)	246867	2.00000	
32 C2-Dibenzothiophenes	212		24.163	24.174	(1.299)	48875	0.41415	0.4142 (M)
33 C3-Dibenzothiophenes	226		25.053	25.065	(1.347)	55005	0.46610	0.4661 (M)
34 C4-Dibenzothiophenes	240		27.373	26.186	(1.472)	29132	0.24686	0.2469 (M)
38 C1-Phenanthrenes/Anthracenes	192		23.393	23.844	(1.061)	193213	1.36081	1.361 (M)
39 C2-Phenanthrenes/Anthracenes	206		24.921	25.032	(1.131)	192352	1.35475	1.355 (M)
40 C3-Phenanthrenes/Anthracenes	220		26.109	26.692	(1.185)	138496	0.97543	0.9754 (M)
41 C4-Phenanthrenes/Anthracenes	234		26.615	27.592	(1.208)	58896	0.41481	0.4148 (M)
48 C1-Fluoranthenes/Pyrenes	216		27.471	27.395	(1.246)	400282	2.51037	2.510 (M)
* 250 Anthracene-d10	188		22.041	22.052	(1.000)	260877	2.00000	
49 C2-Fluoranthenes/Pyrenes	230		28.863	28.644	(1.309)	173496	1.08808	1.088 (M)
50 C3-Fluoranthenes/Pyrenes	244		30.325	29.663	(1.376)	144515	0.90633	0.9063 (M)
249 C4-Fluoranthenes/Pyrenes	258		32.915	32.431	(1.493)	117932	0.73961	0.7396 (M)
52 C1-Naphthobenzothiophenes	248		29.908	29.920	(1.357)	94704	0.61751	0.6175 (M)
53 C2-Naphthobenzothiophenes	262		31.012	31.035	(1.407)	57304	0.37364	0.3736 (M)
54 C3-Naphthobenzothiophenes	276		Compound Not Detected.					
248 C4-Naphthobenzothiophenes	290		34.425	33.175	(1.562)	8249	0.05379	0.05379 (M)
58 C1-Benzo(a)anthracenes/Chrysen	242		Compound Not Detected.					

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	32.915	32.915	(1.000)	383683	2.00000	
59 C2-Benzo(a)anthracenes/Chrysen	256	31.294	31.294	(0.951)	157923	0.95927	0.9593 (M)
60 C3-Benzo(a)anthracenes/Chrysen	270	32.273	32.262	(0.980)	101766	0.61815	0.6182 (M)
61 C4-Benzo(a)anthracenes/Chrysen	284	32.814	32.566	(0.997)	39956	0.24270	0.2427 (M)
71 C1-Dibenzo(a)anthracenes	292	36.508	36.081	(1.109)	94280	0.53264	0.5326 (M)
72 C2-Dibenzo(a)anthracenes	306	38.153	36.779	(1.159)	51843	0.29289	0.2929 (M)
73 C3-Dibenzo(a)anthracenes	320	37.725	38.491	(1.146)	14139	0.07988	0.07988 (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: NT1420121999S.D  
Lab Smp Id: 20K0204-05  
Analysis Type: SV  
Quant Type: ISTD  
Operator: VTS  
Method File: \\target\share\chem3\nt14.i\20201219.b\SIM.b\ALKYLRANGE.m  
Misc Info:

Calibration Date: 22-DEC-2020  
Calibration Time: 10:43  
Level:  
Sample Type:

Test Mode:  
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	258320	129160	516640	246867	-4.43
250 Anthracene-d10	266780	133390	533560	260877	-2.21
251 Benzo(e)pyrene-d1	401451	200726	802902	383683	-4.43

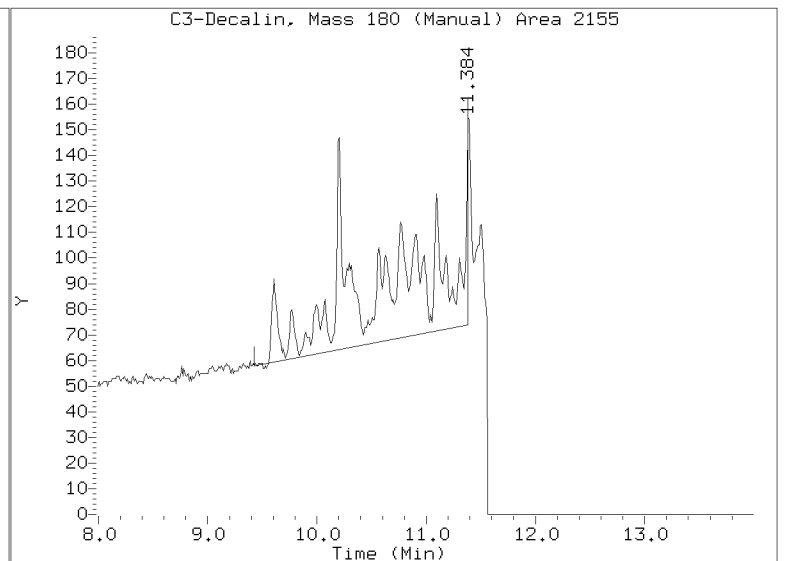
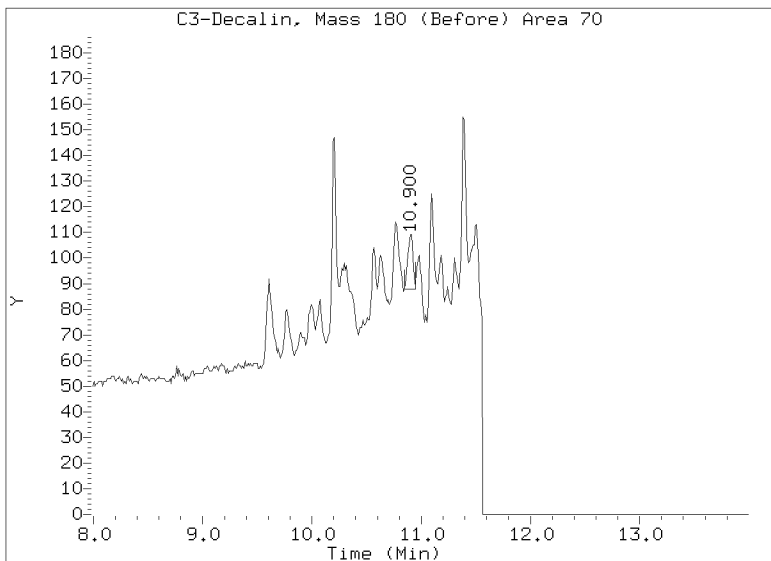
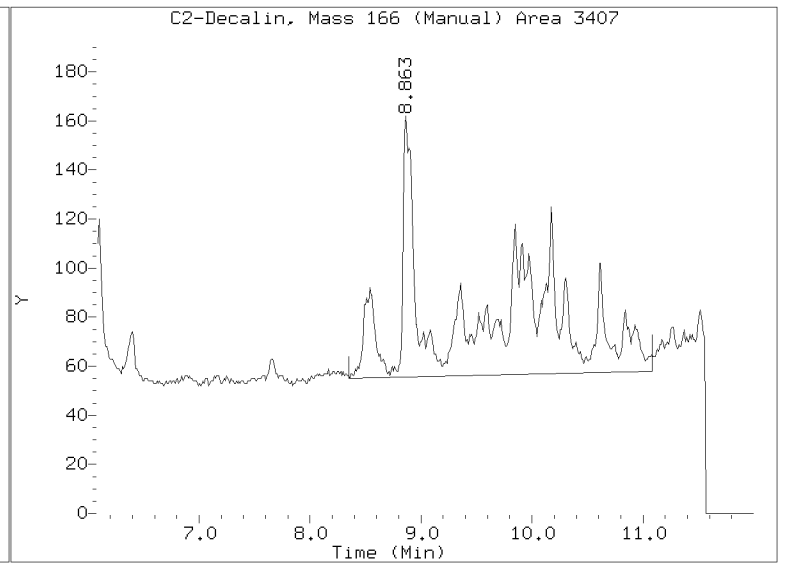
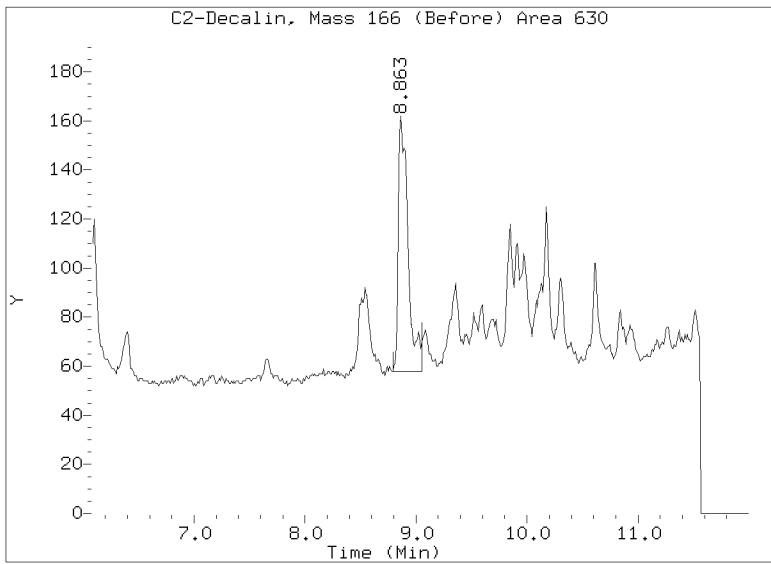
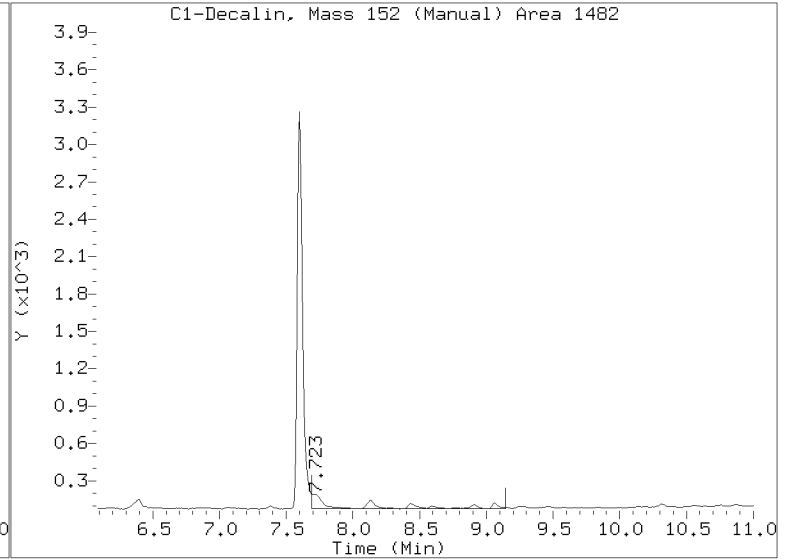
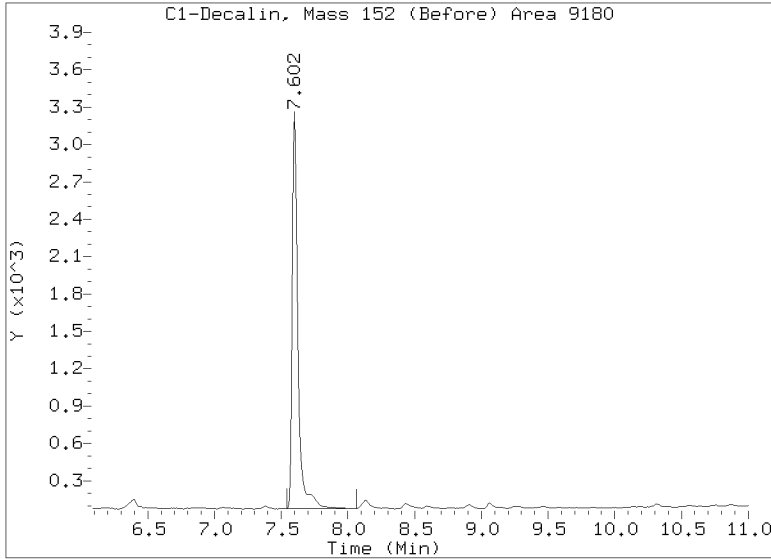
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.61	18.11	19.11	18.60	-0.06
250 Anthracene-d10	22.05	21.55	22.55	22.04	-0.05
251 Benzo(e)pyrene-d1	32.92	32.42	33.42	32.92	-0.00

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

Datafile: //target/share/chem3/nt14.i/20201219.b/SIM.b/NT1420121999S.D  
Injection Date: 22-DEC-2020 16:19  
Lab ID:20K0204-05 Client ID:  
Report Date: 12/31/2020 11:17



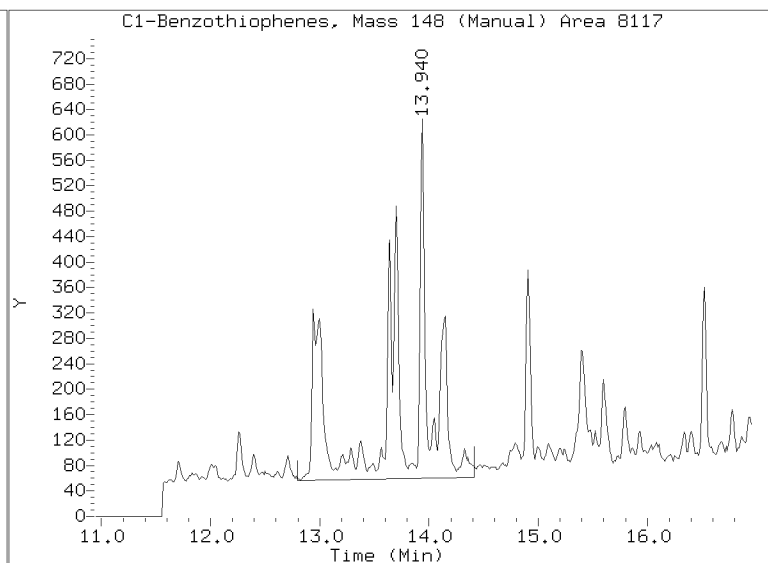
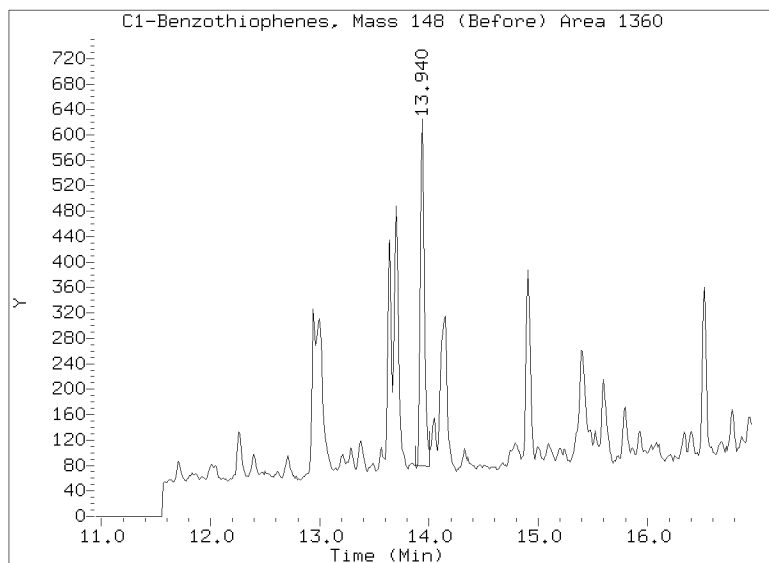
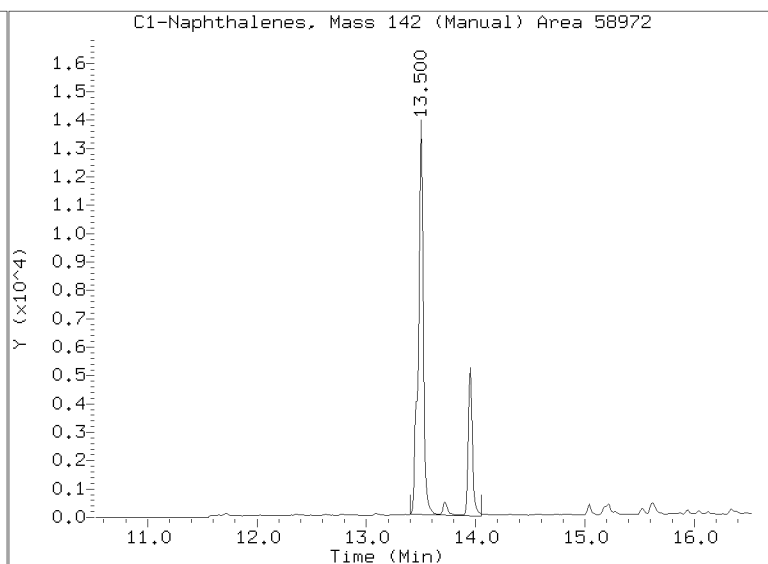
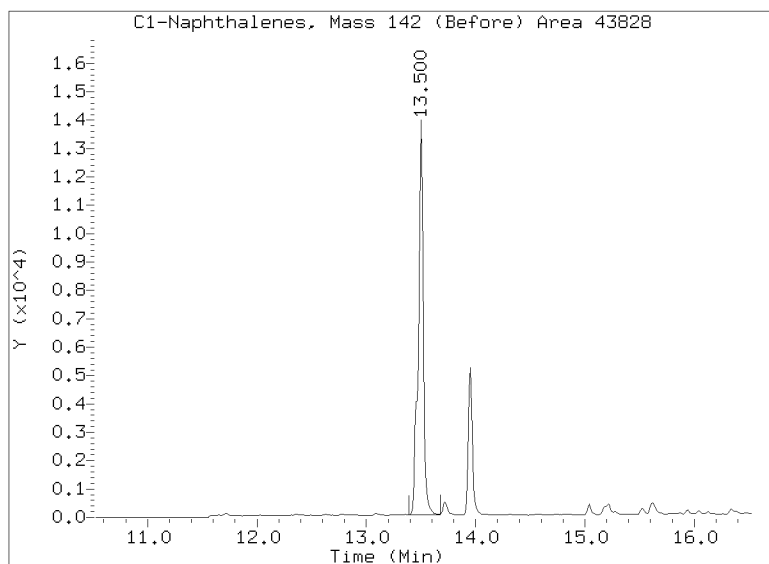
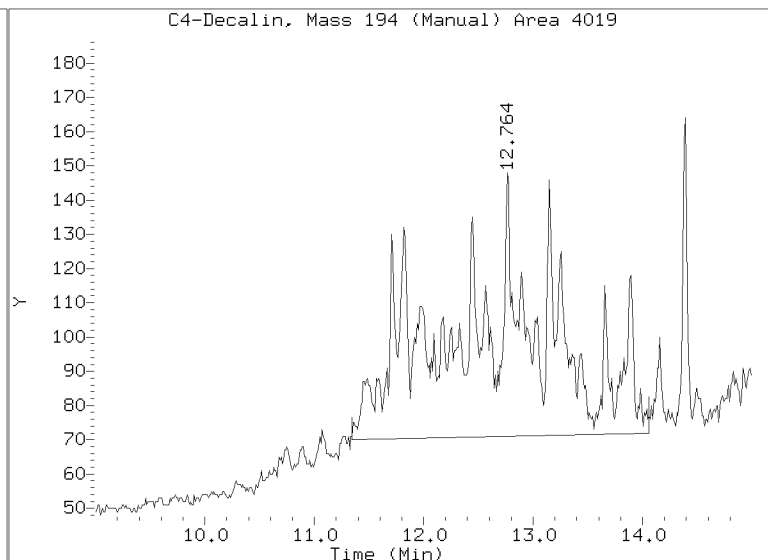
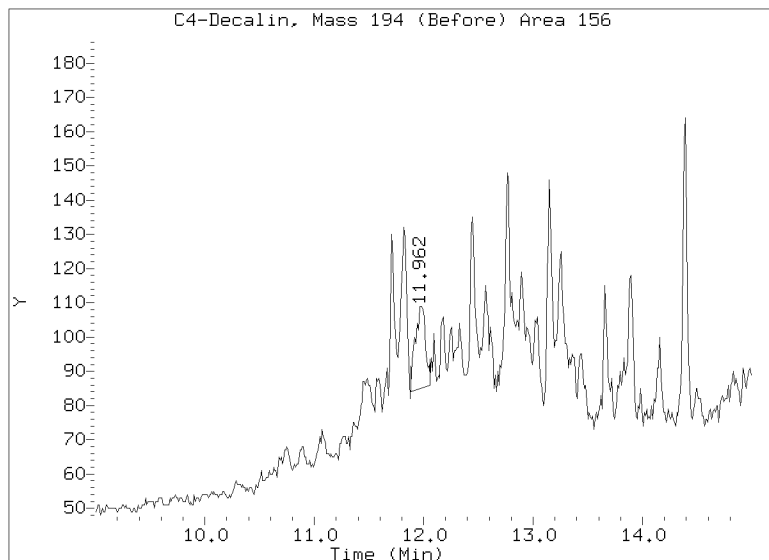
# Quant Ion Manual Peak Adjustment Report

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Injection Date: 22-DEC-2020 16:19

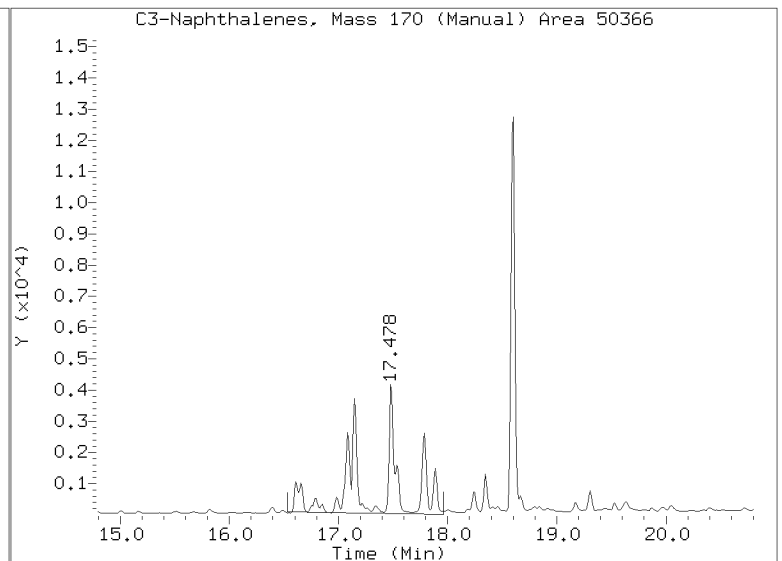
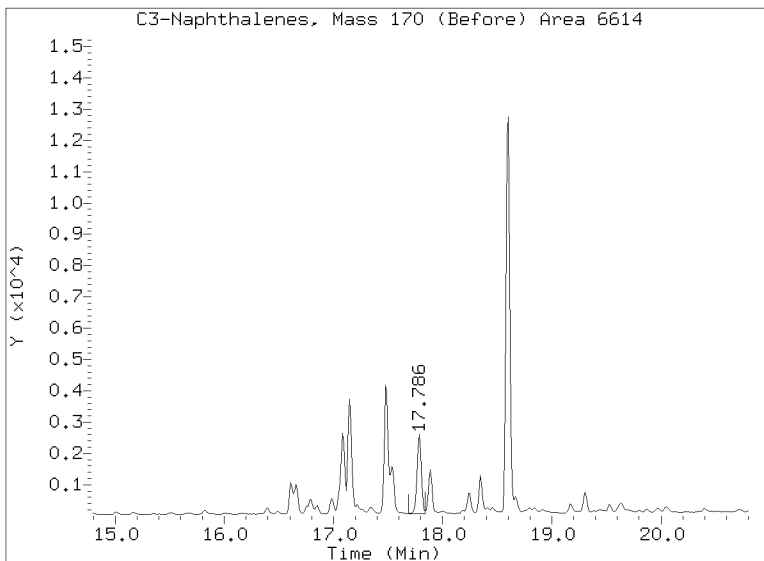
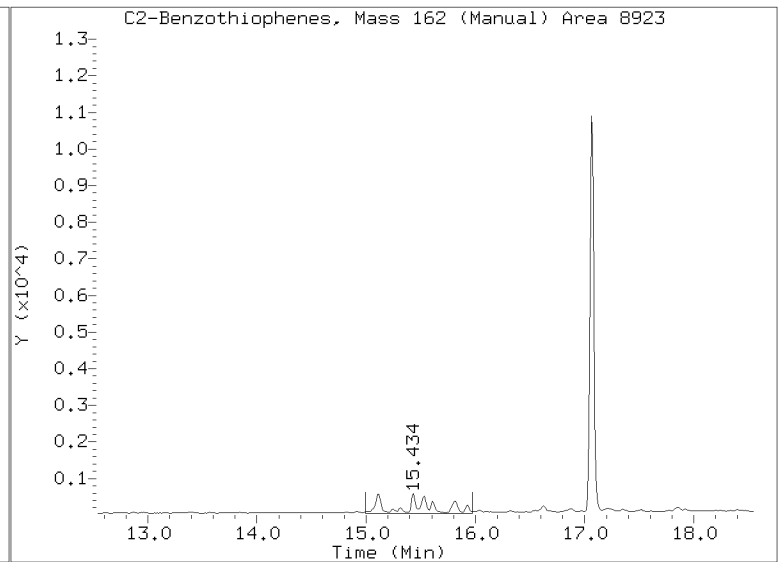
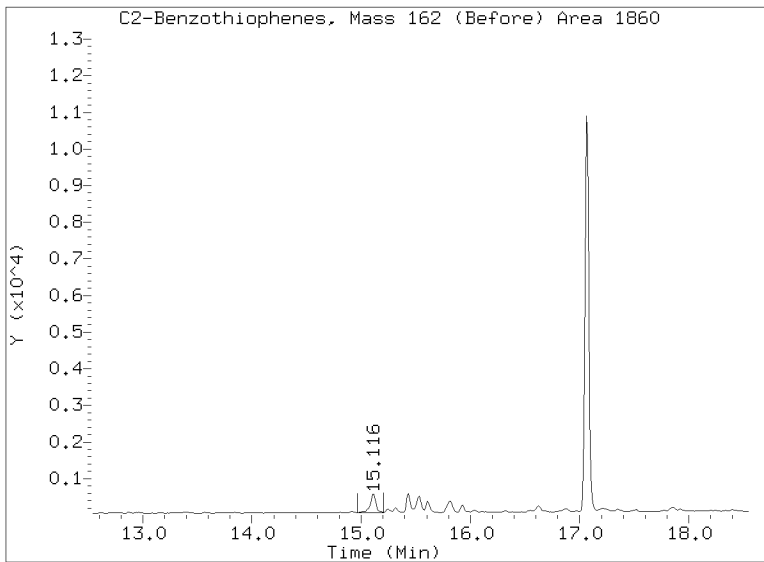
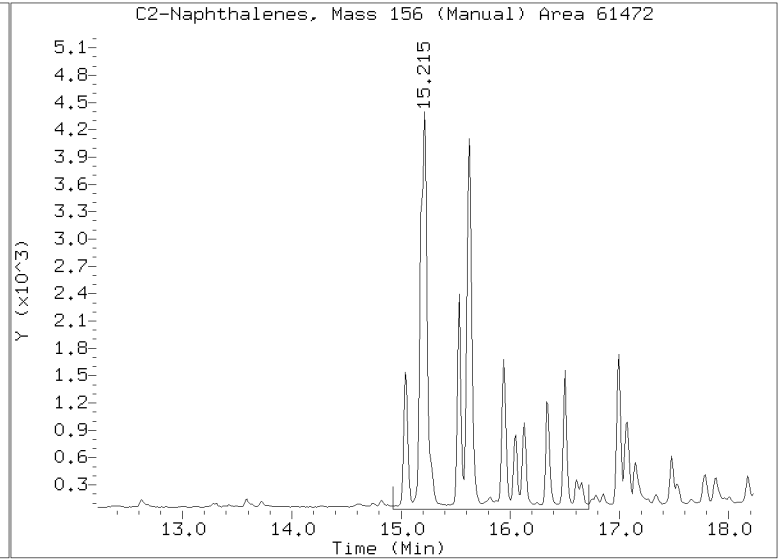
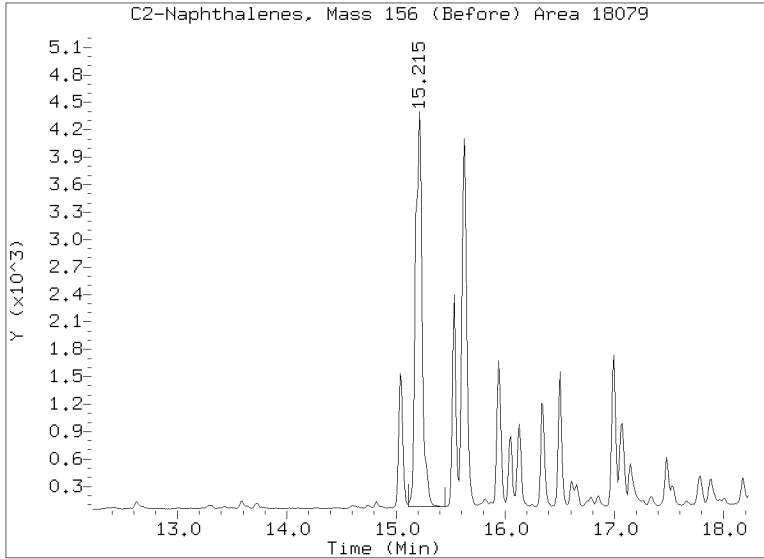
Lab ID:20K0204-05 Client ID:

Report Date: 12/31/2020 11:17



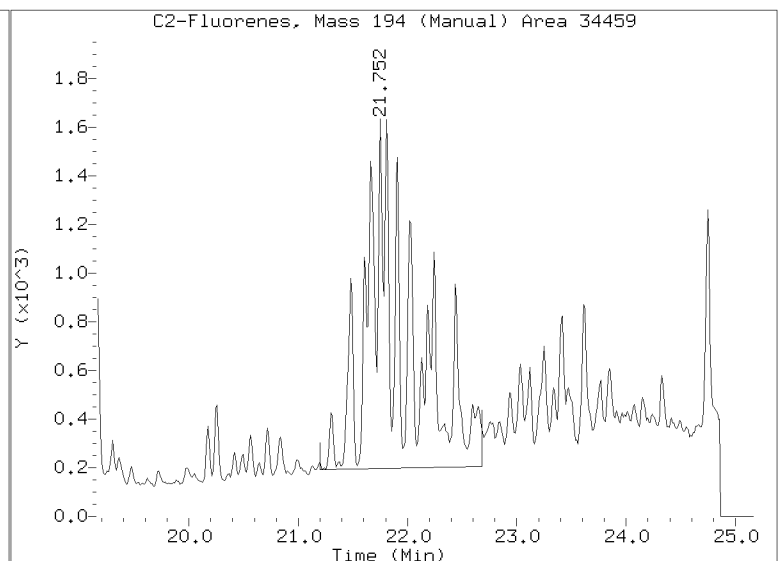
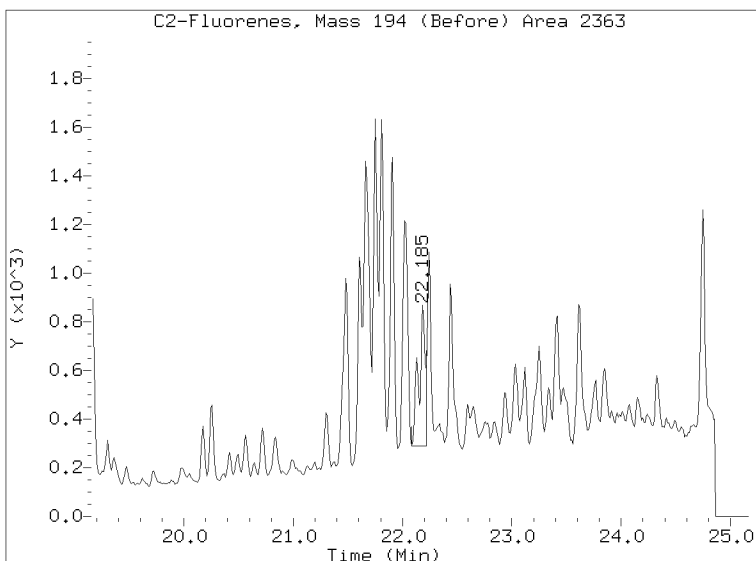
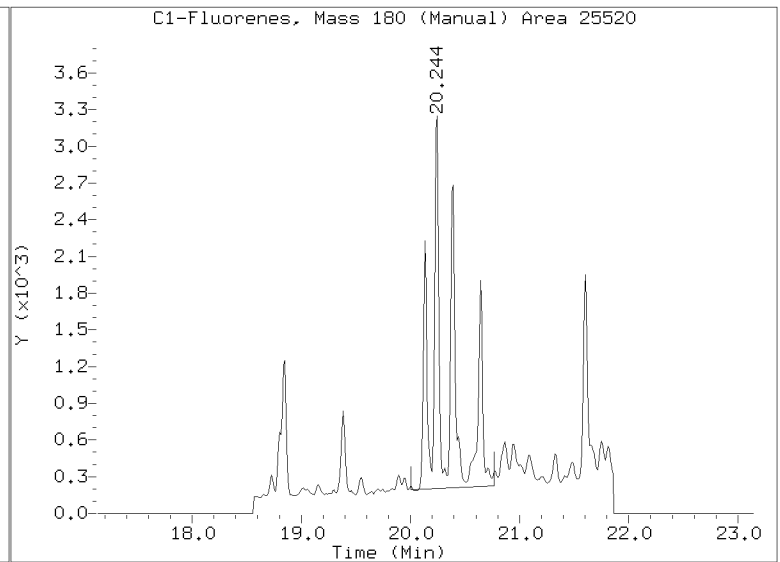
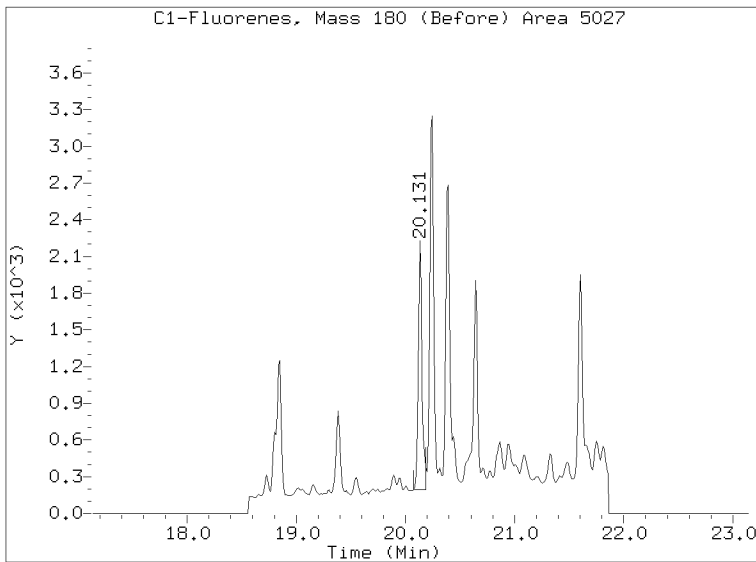
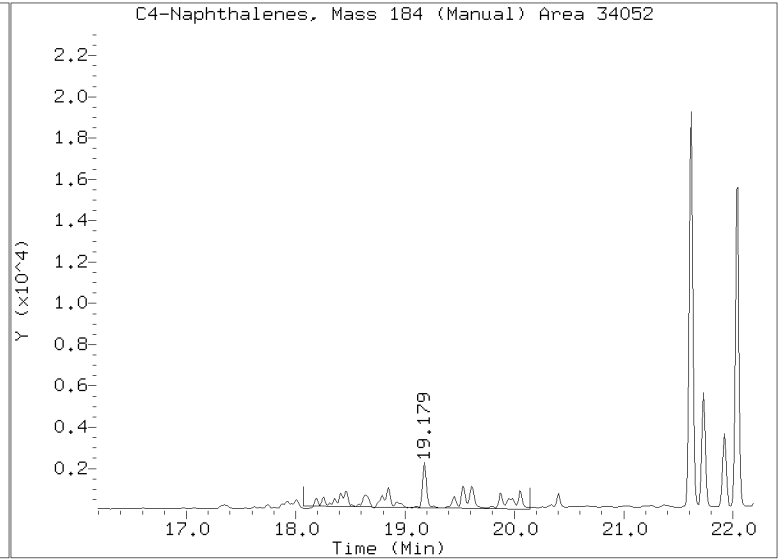
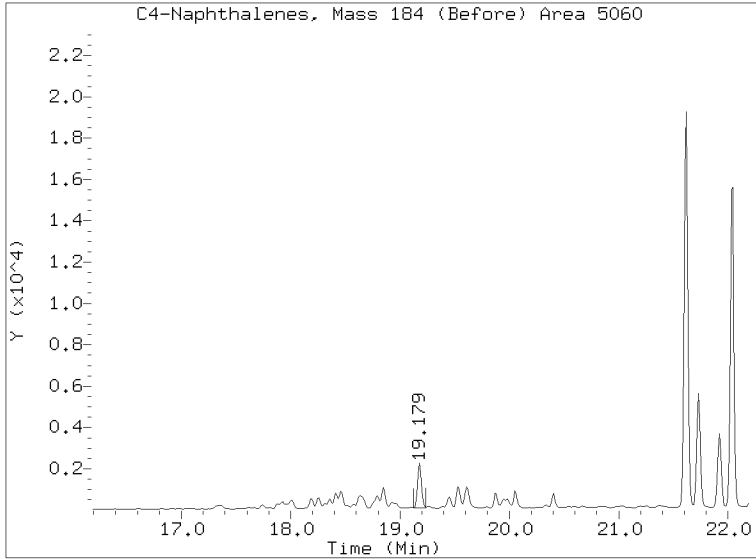
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201219.b/SIM.b/NT1420121999S.D  
Injection Date: 22-DEC-2020 16:19  
Lab ID:20K0204-05 Client ID:  
Report Date: 12/31/2020 11:17



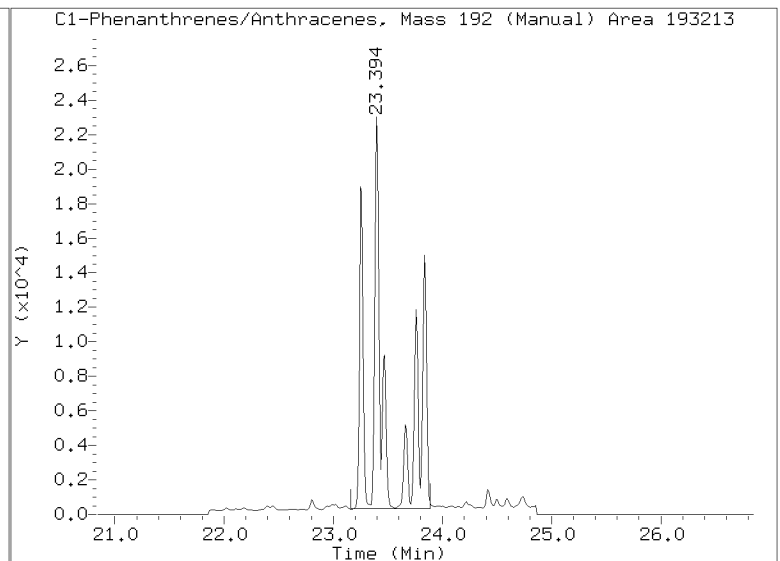
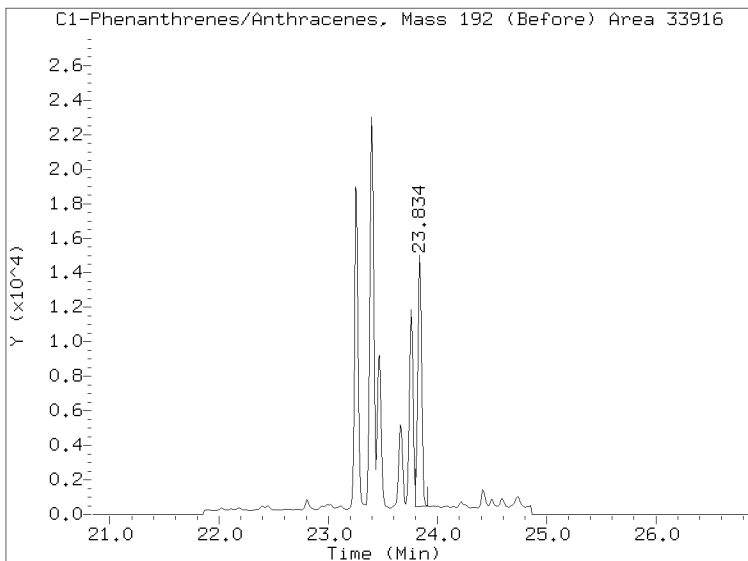
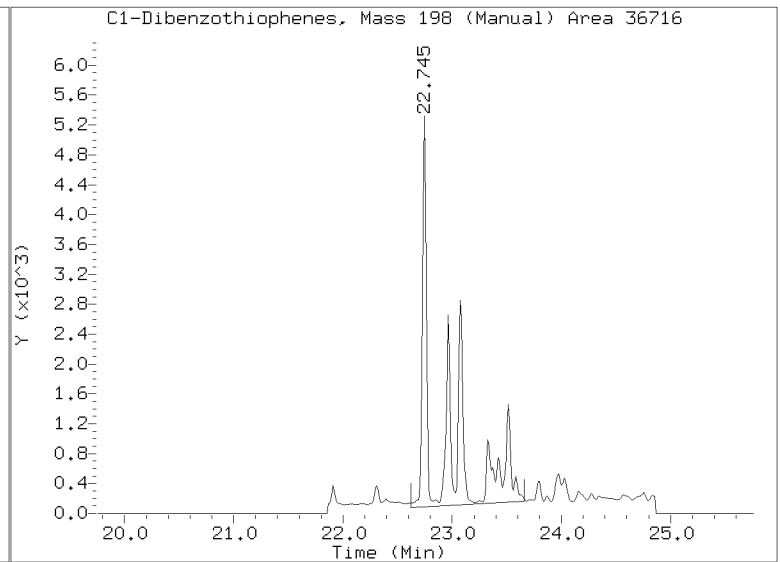
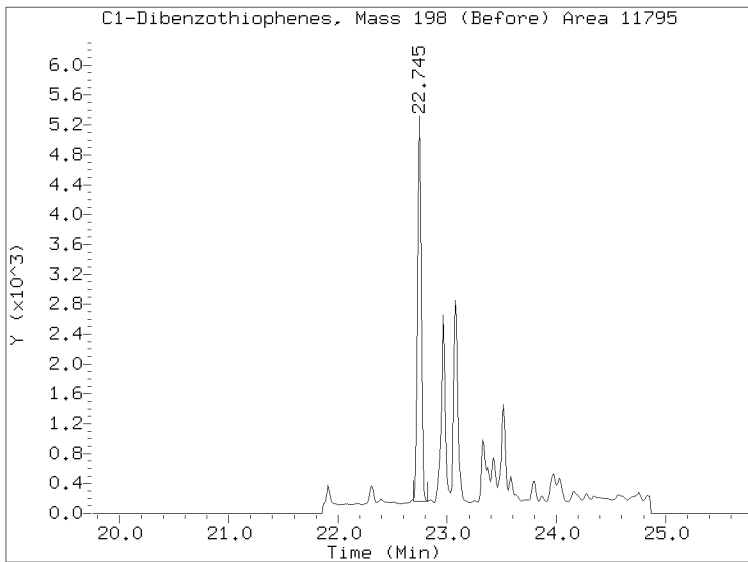
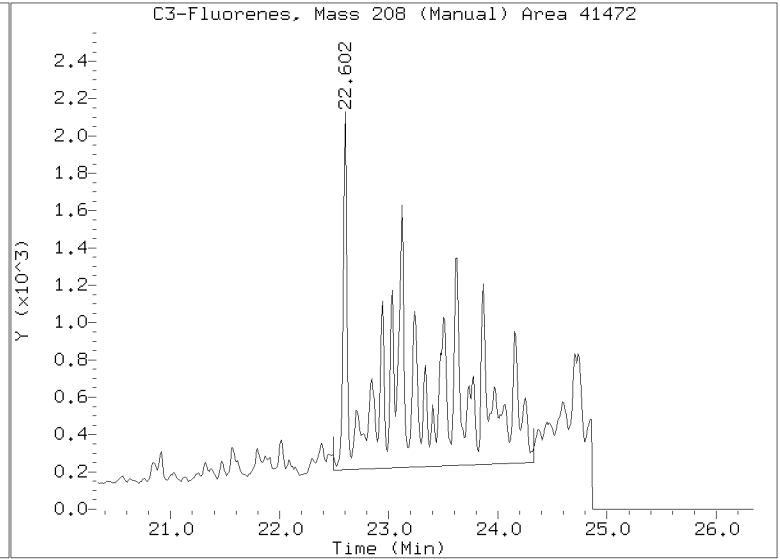
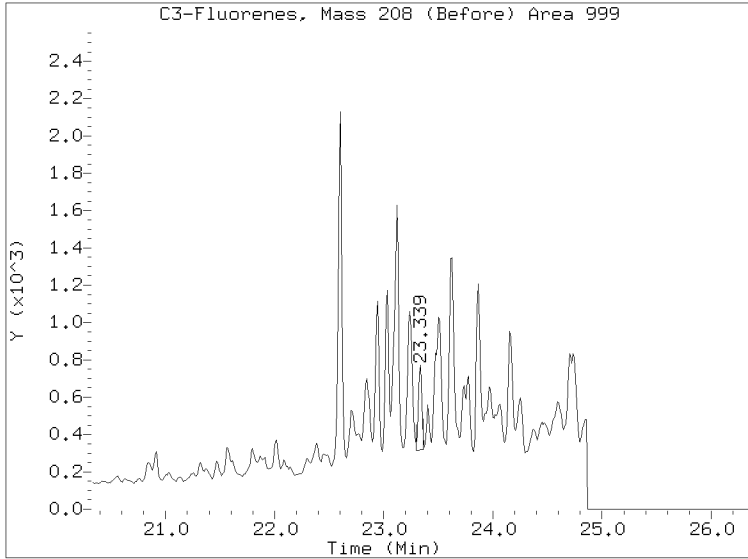
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Injection Date: 22-DEC-2020 16:19  
Lab ID:20K0204-05 Client ID:  
Report Date: 12/31/2020 11:17



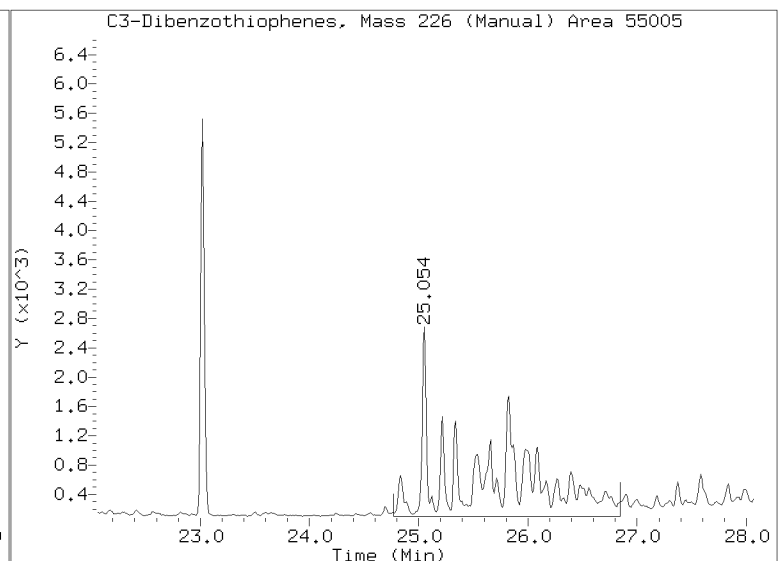
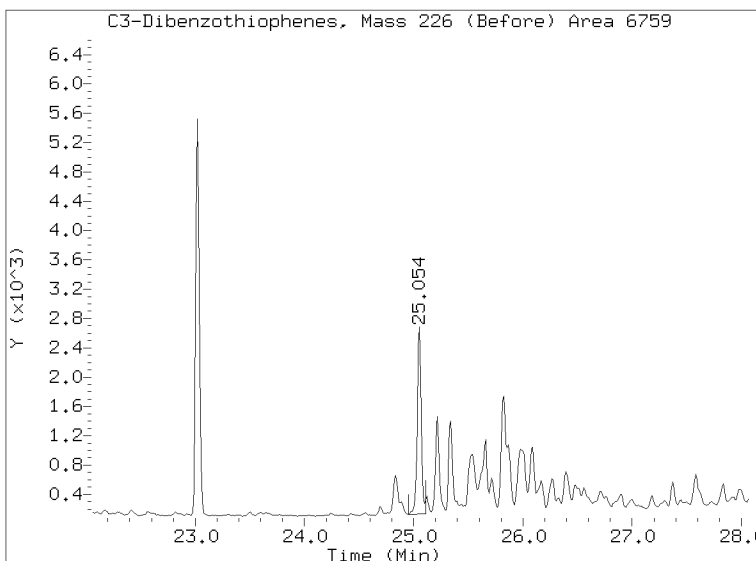
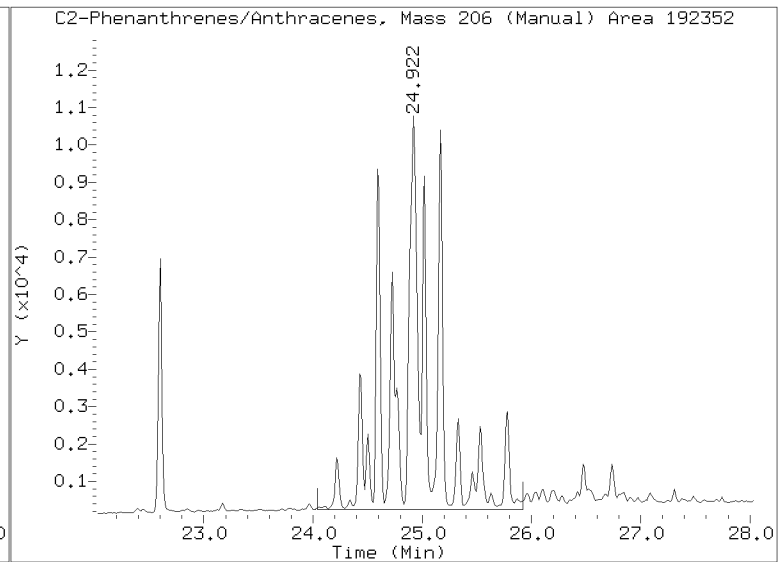
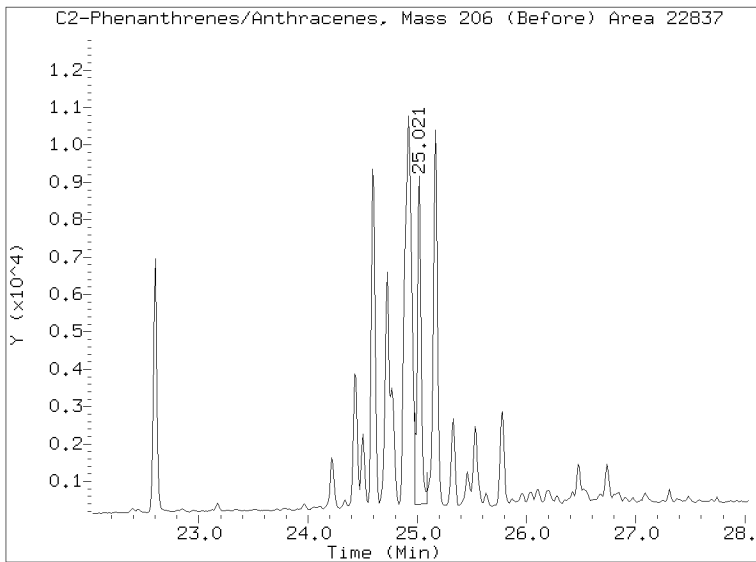
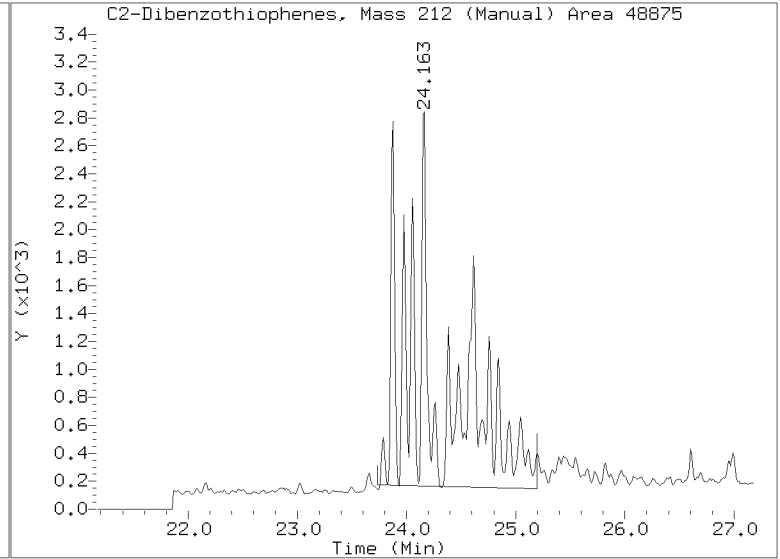
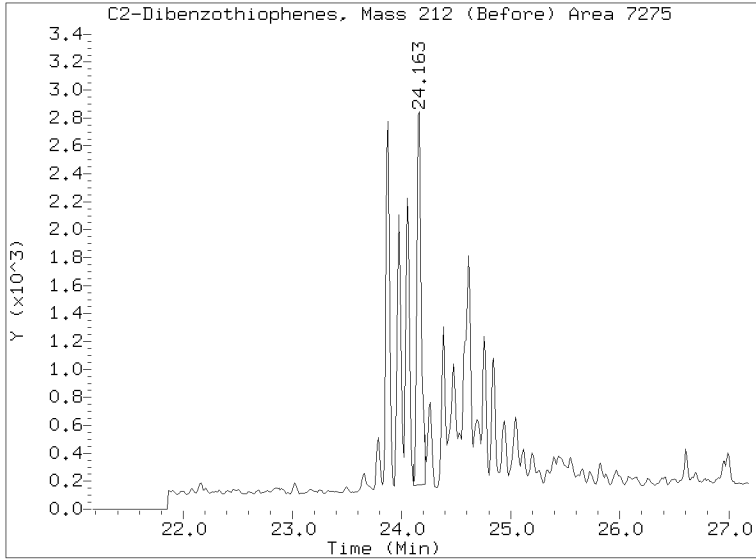
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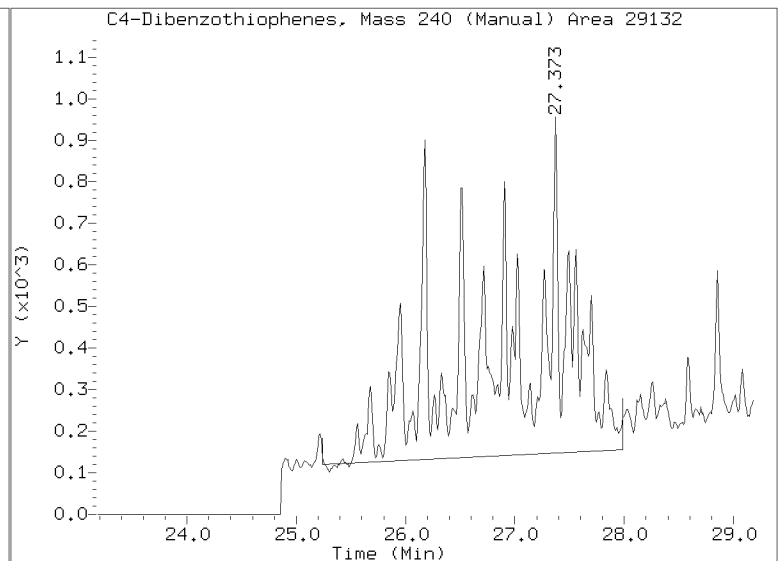
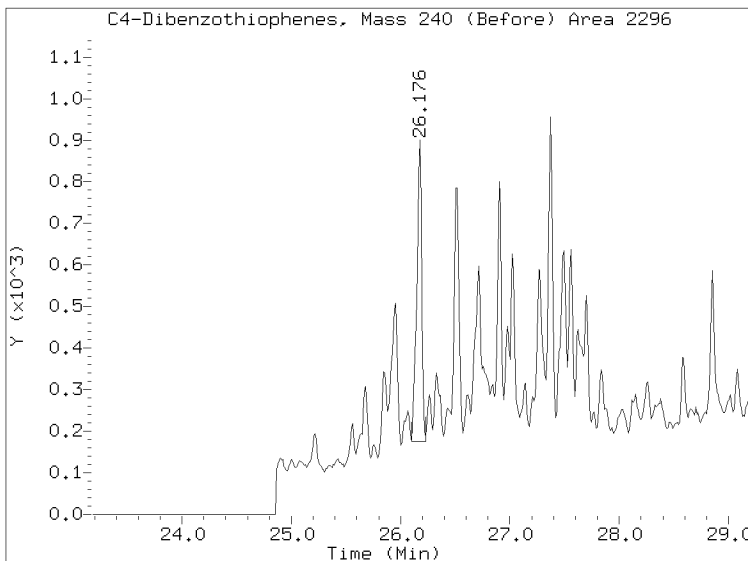
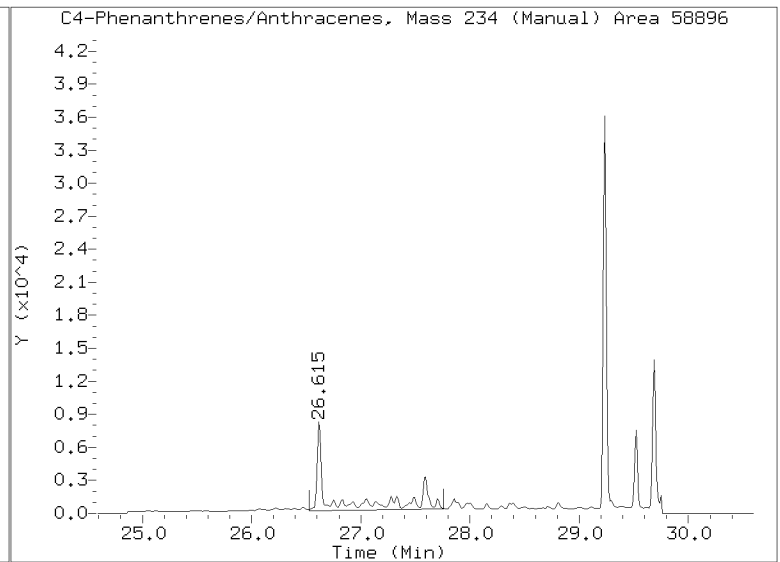
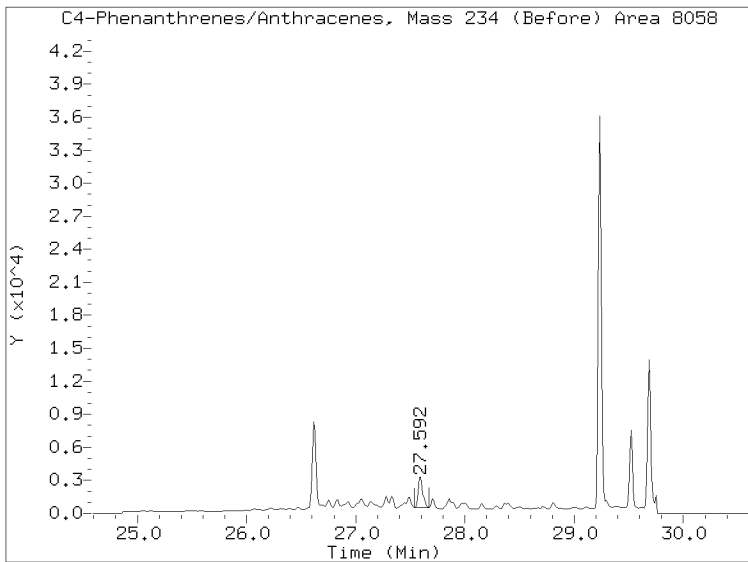
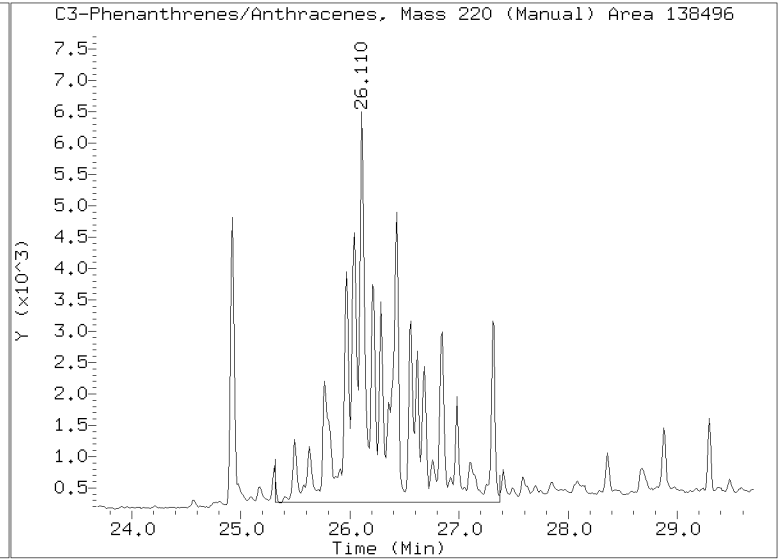
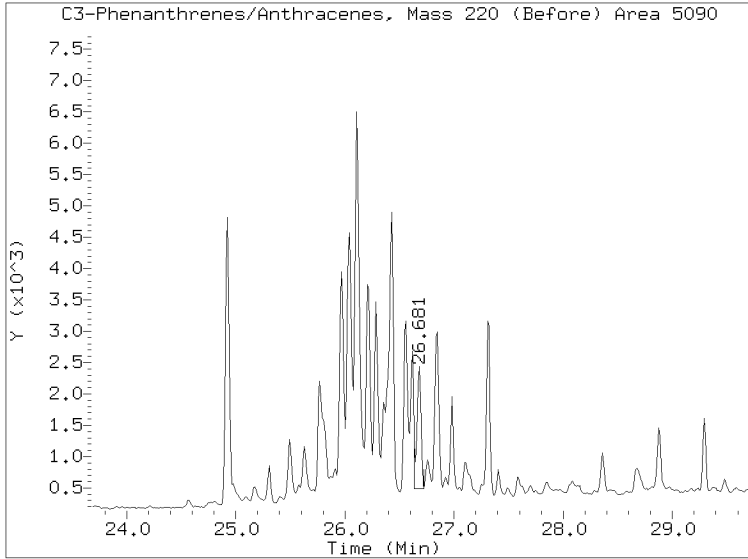
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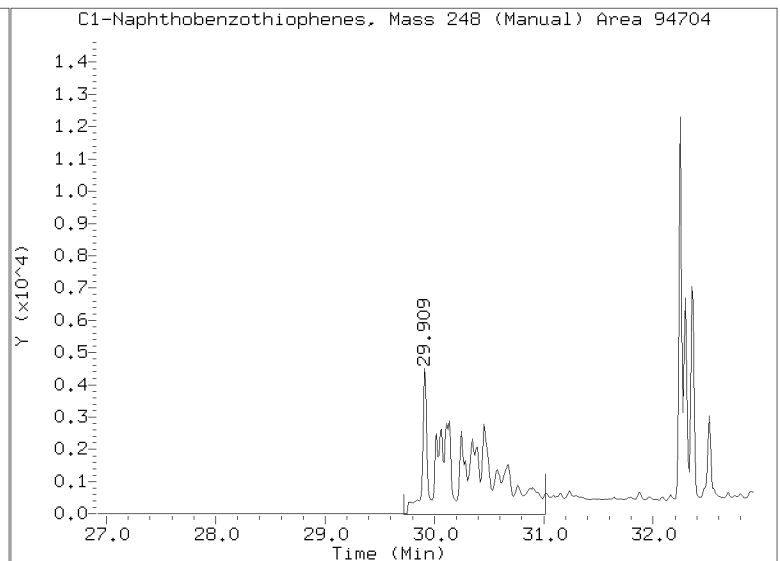
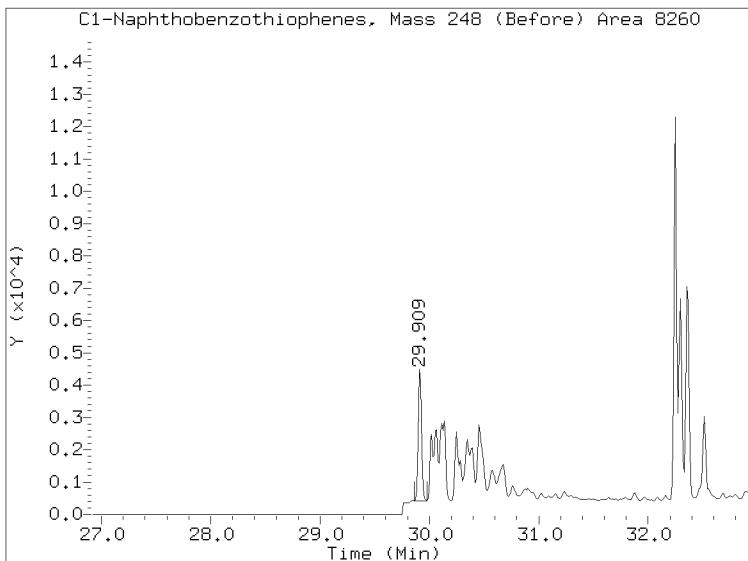
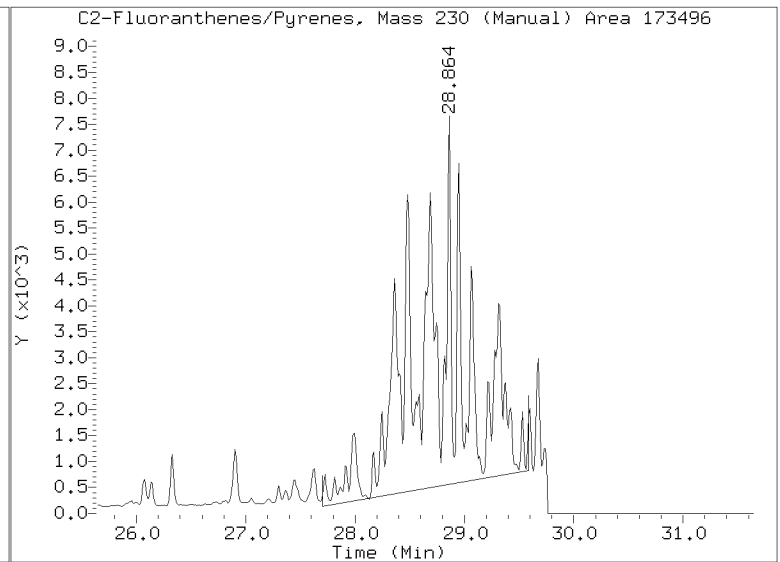
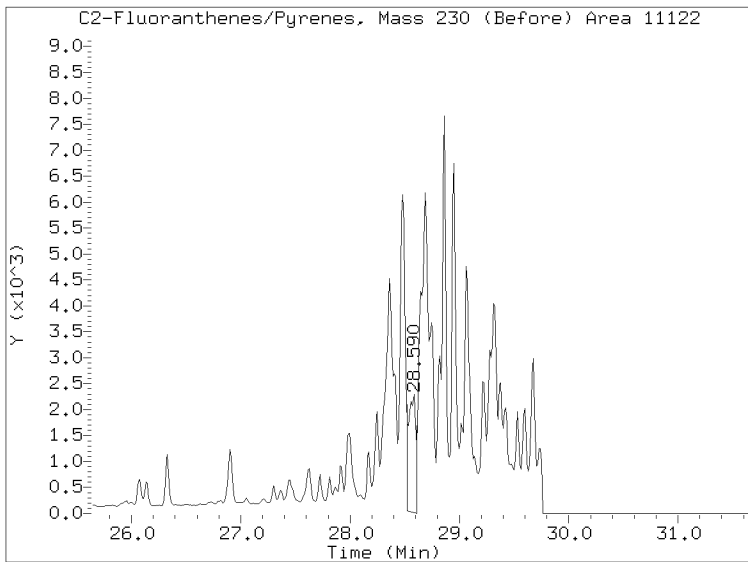
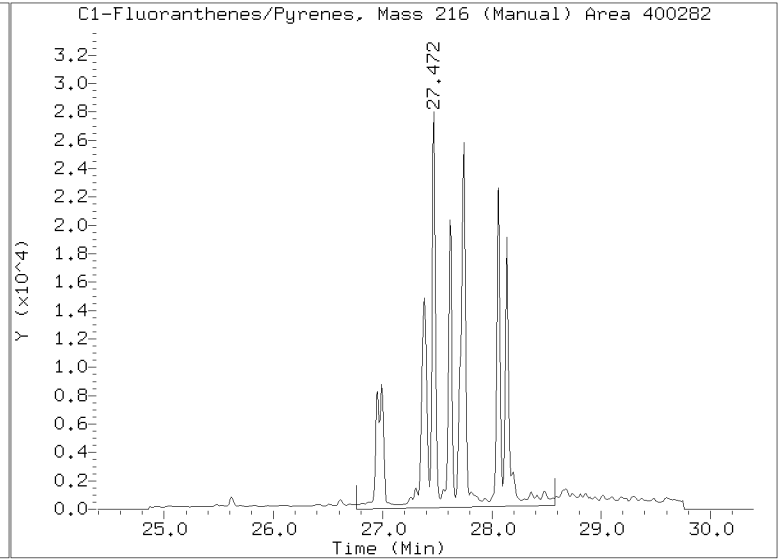
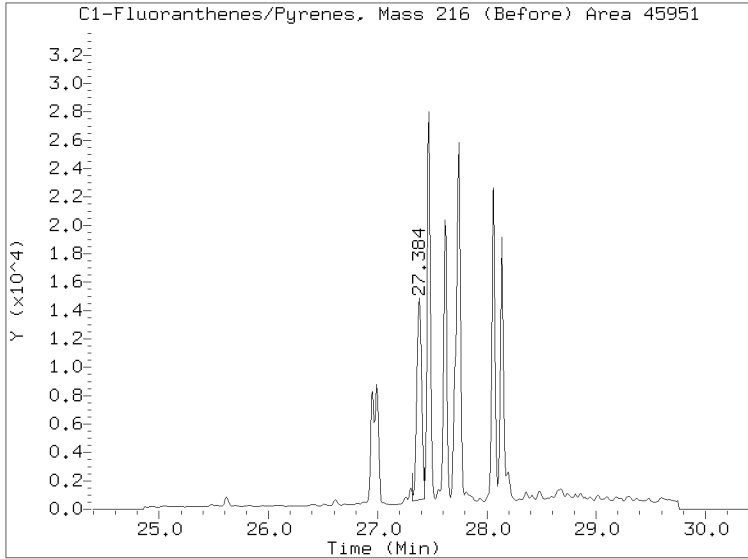
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# Quant Ion Manual Peak Adjustment Report

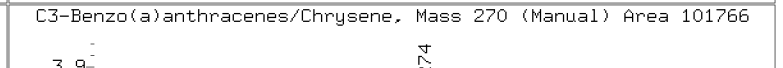
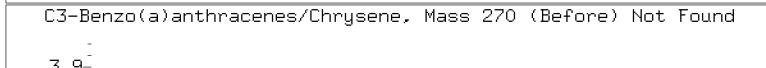
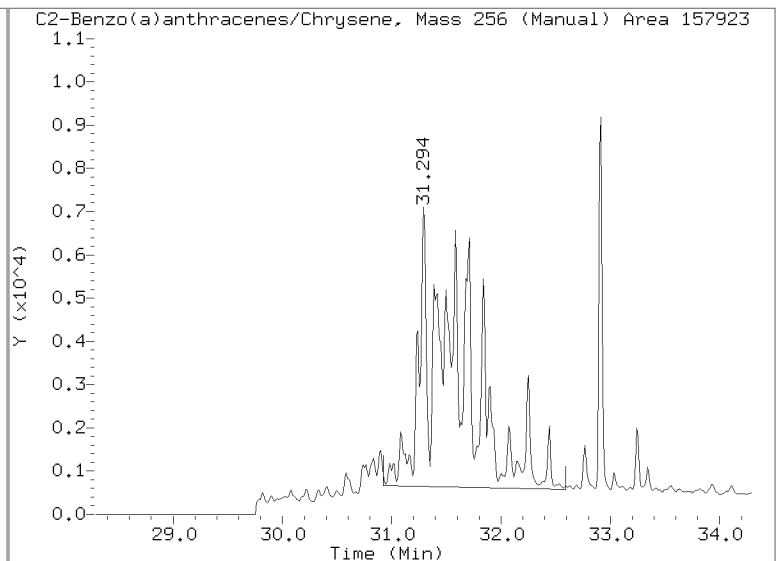
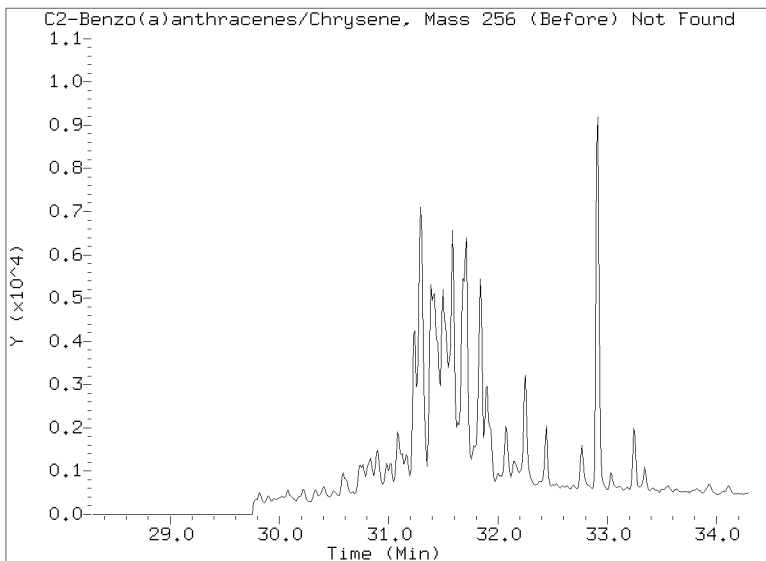
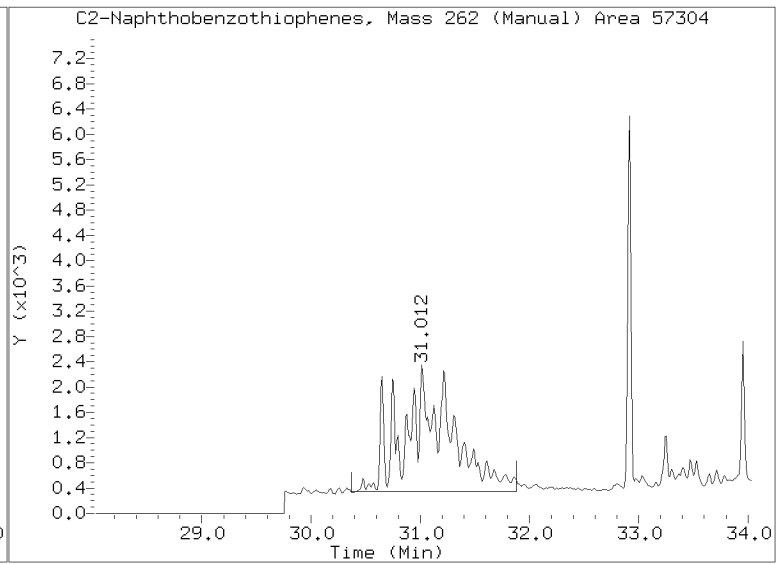
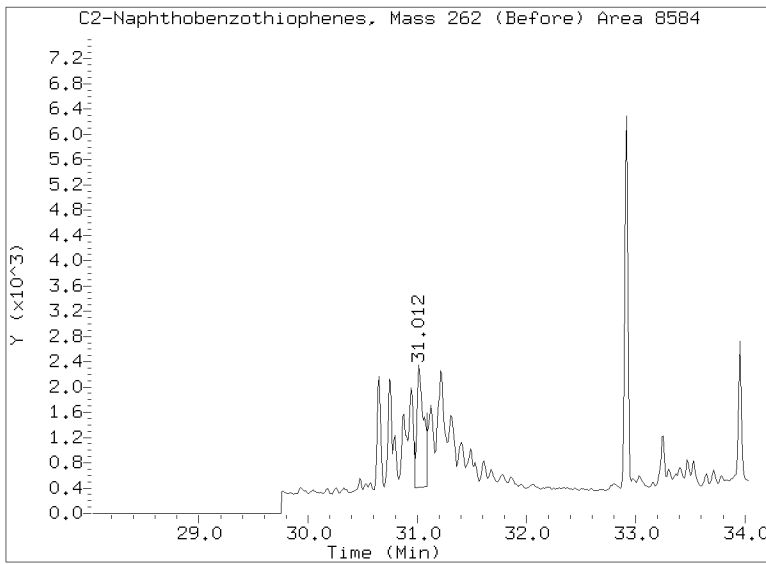
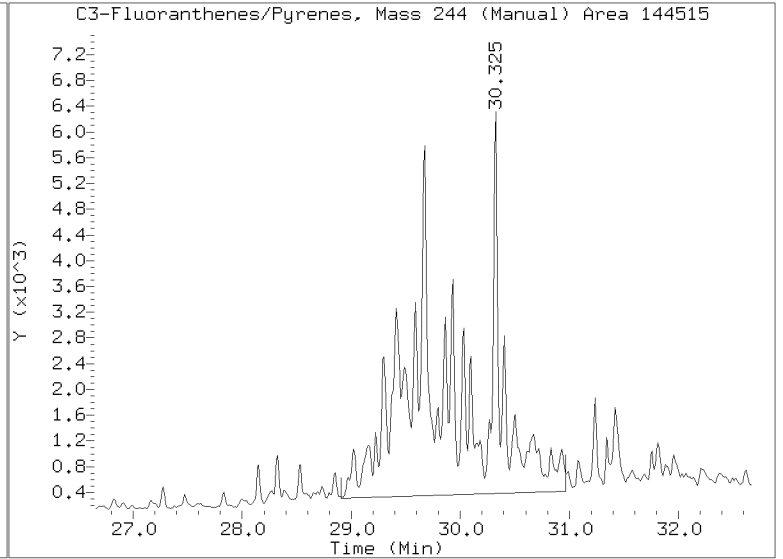
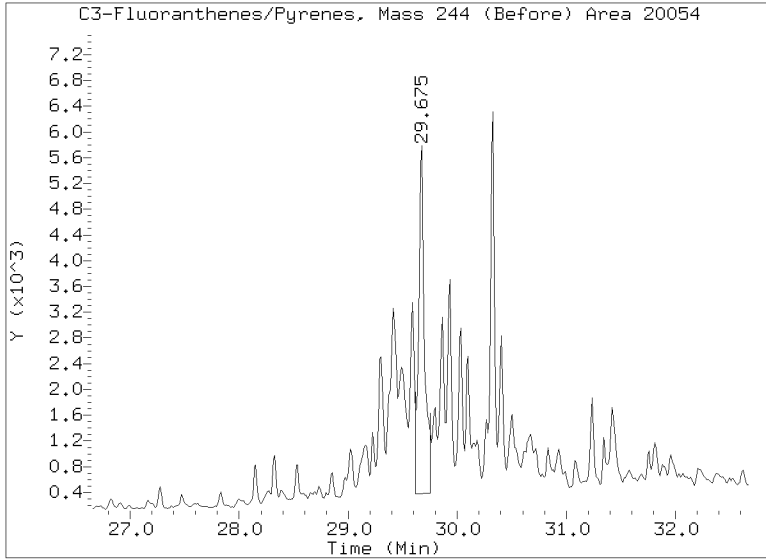
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# Quant Ion Manual Peak Adjustment Report

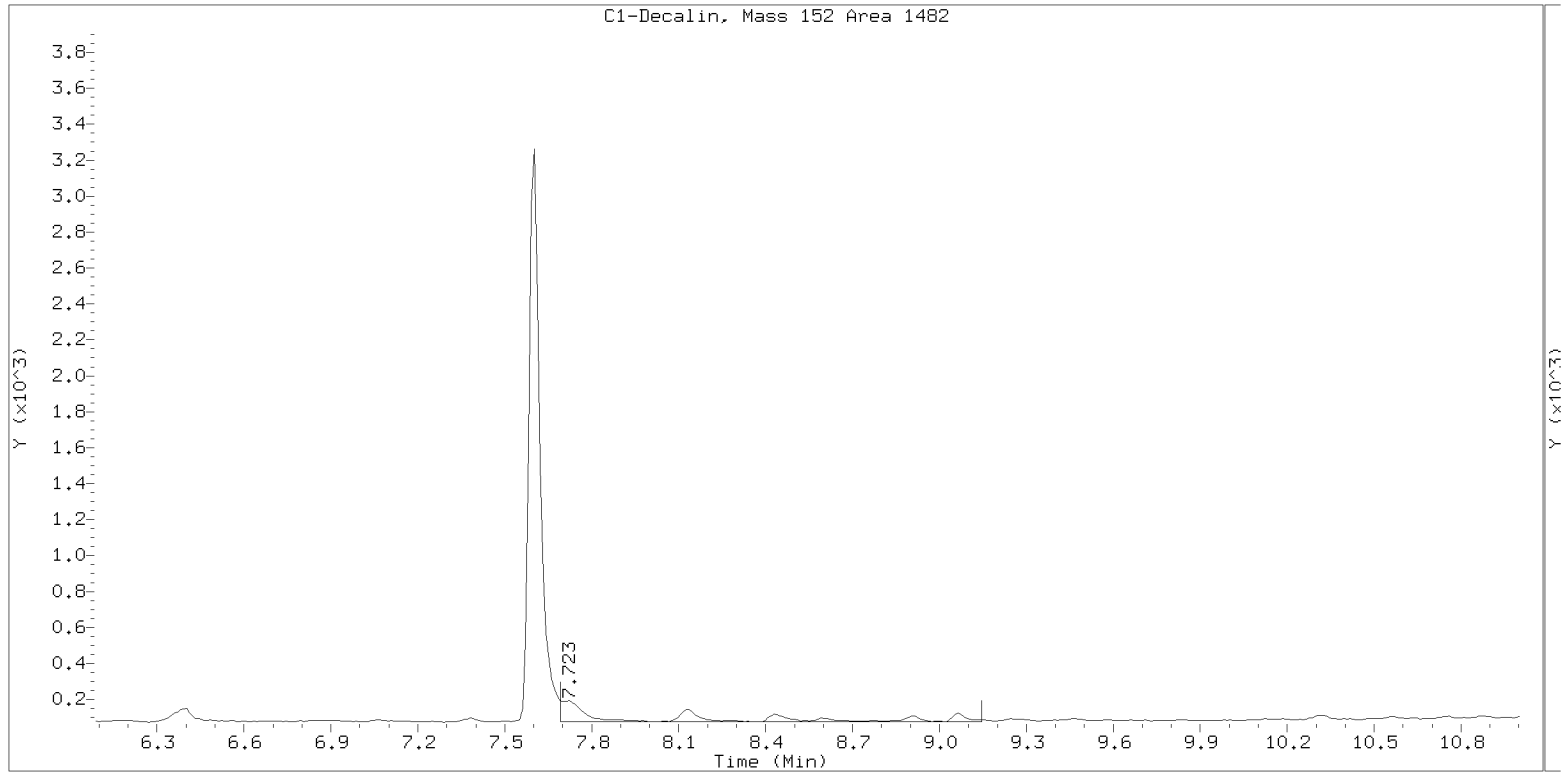
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Report Date: 12/31/2020 11:17



SIM ALKYL PNA RANGE ION WINDOWS - NT1420121999S.D

Lab ID: 20K0204-05

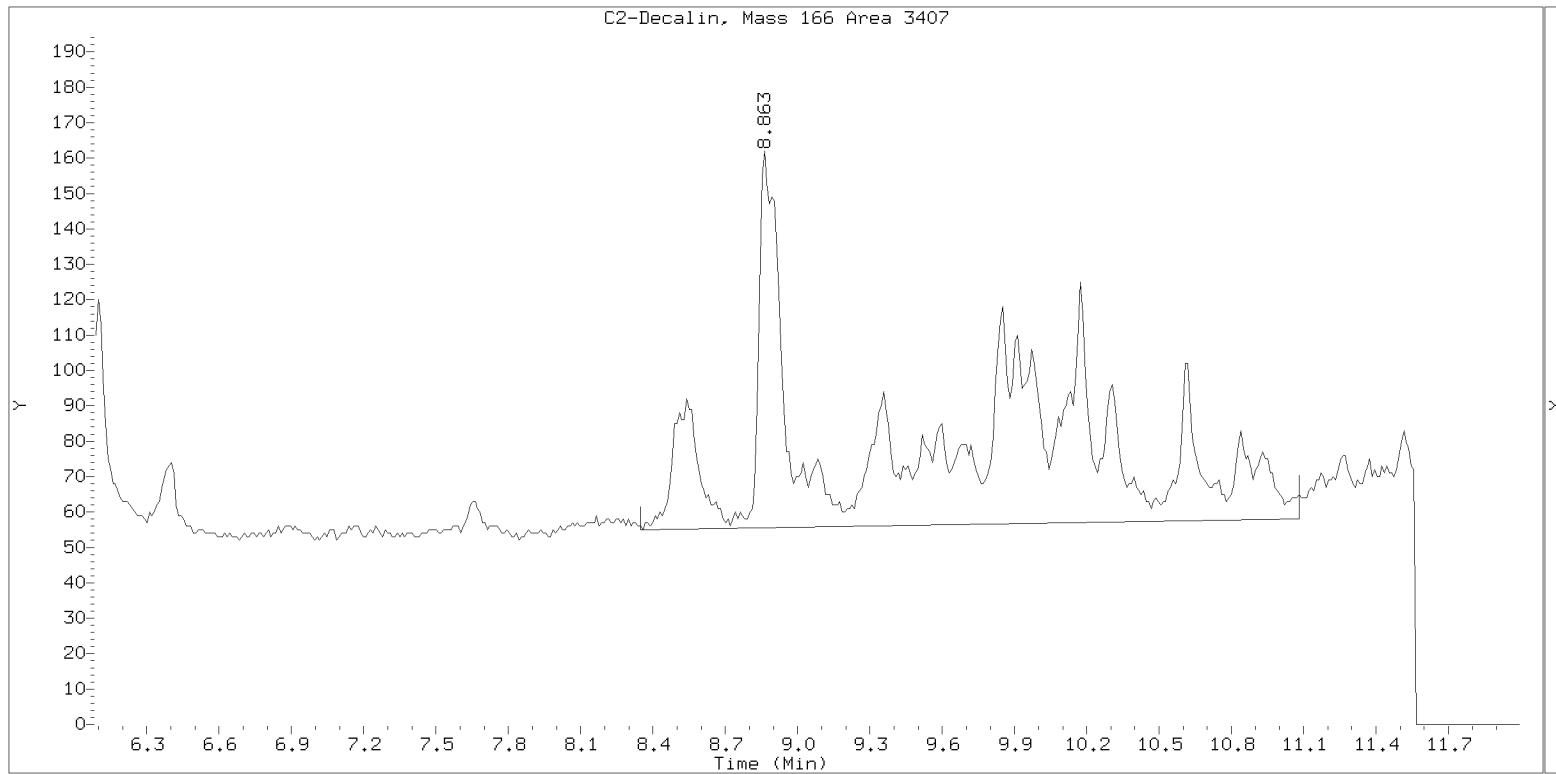
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420121999S.D

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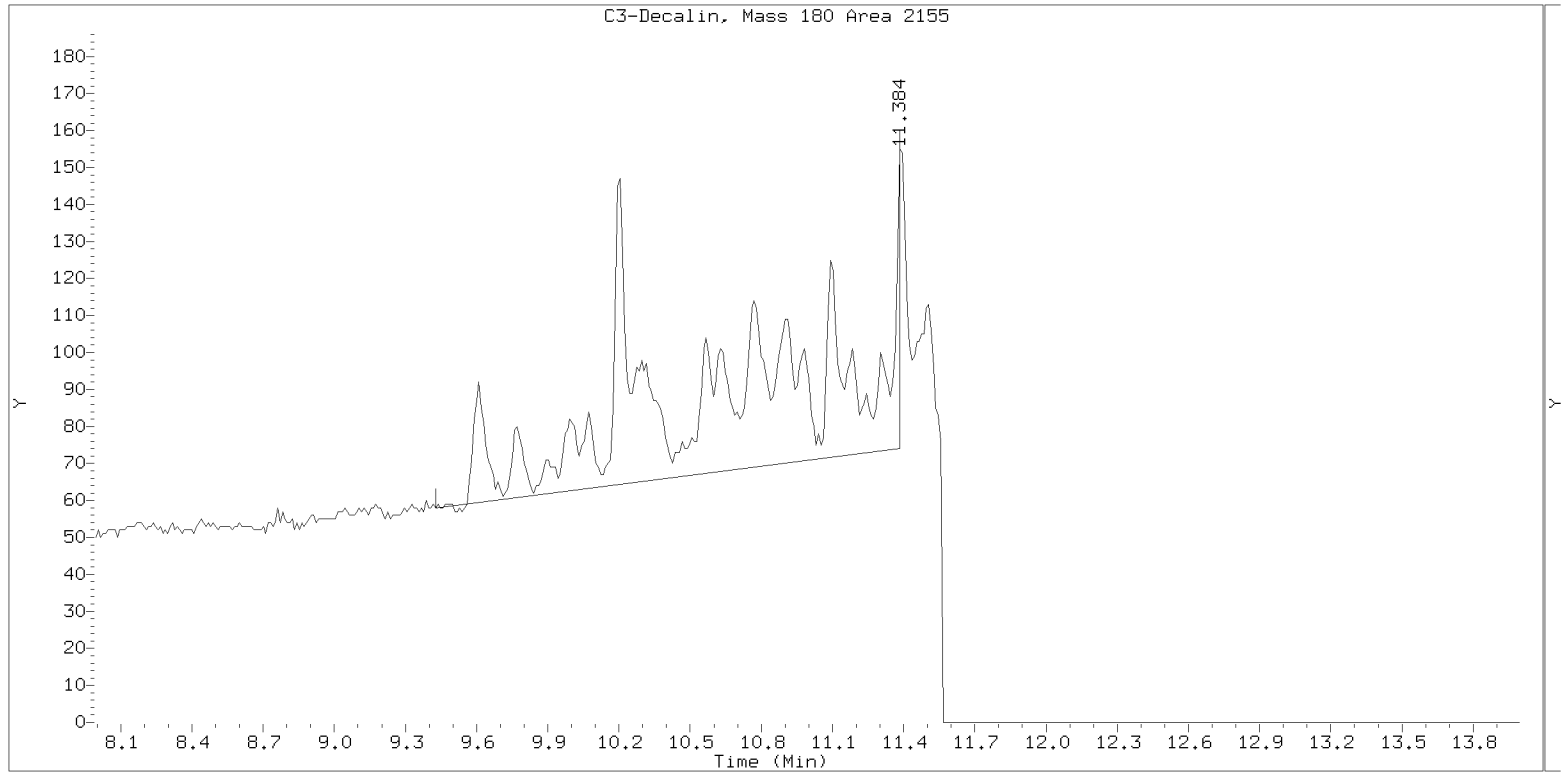
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420121999S.D

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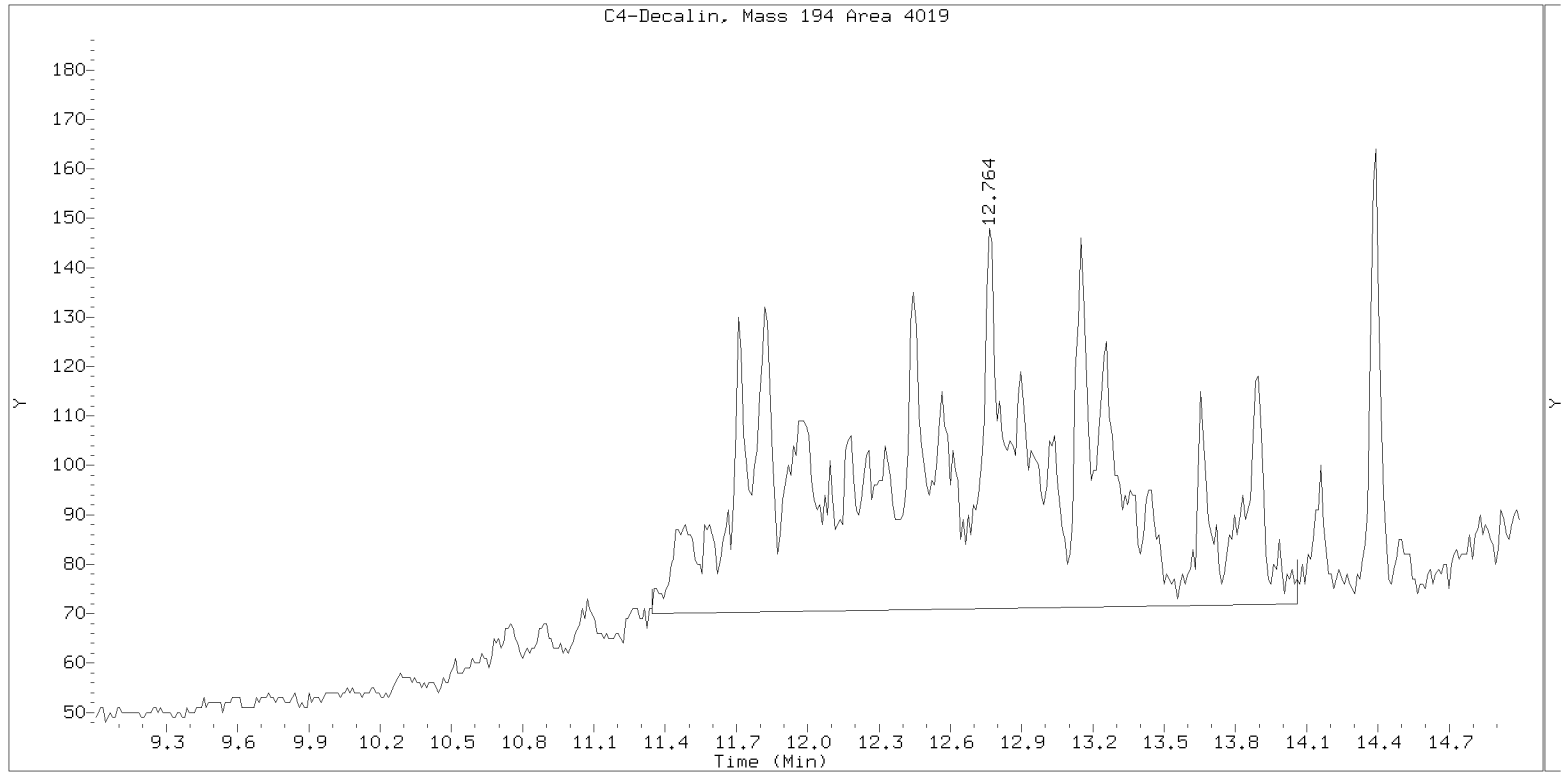
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420121999S.D

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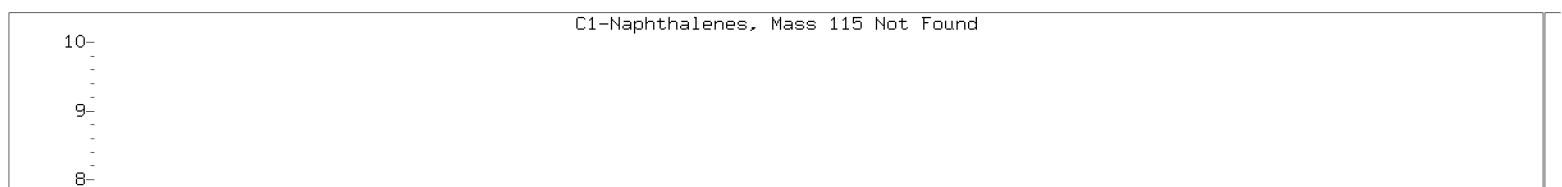
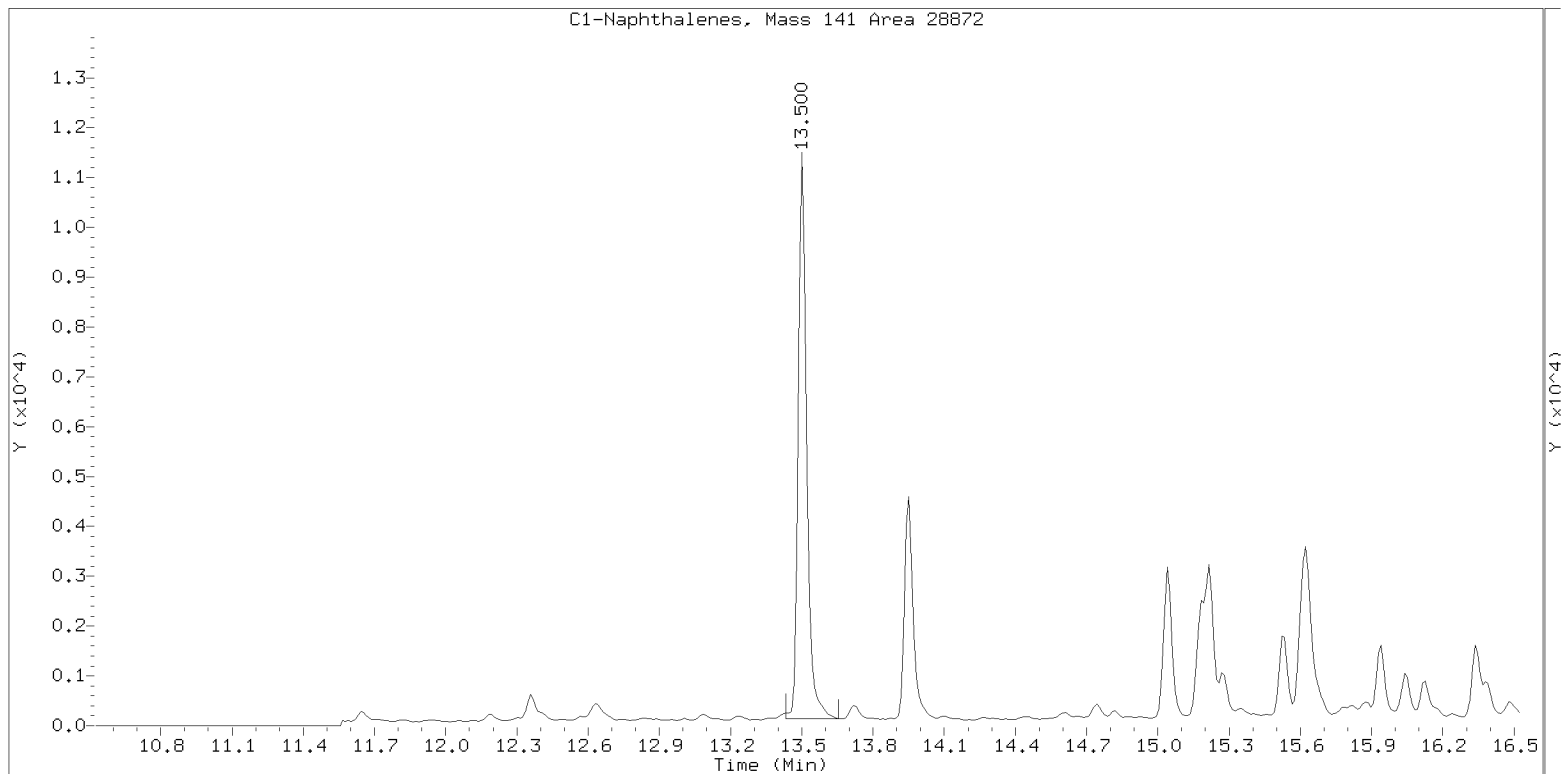
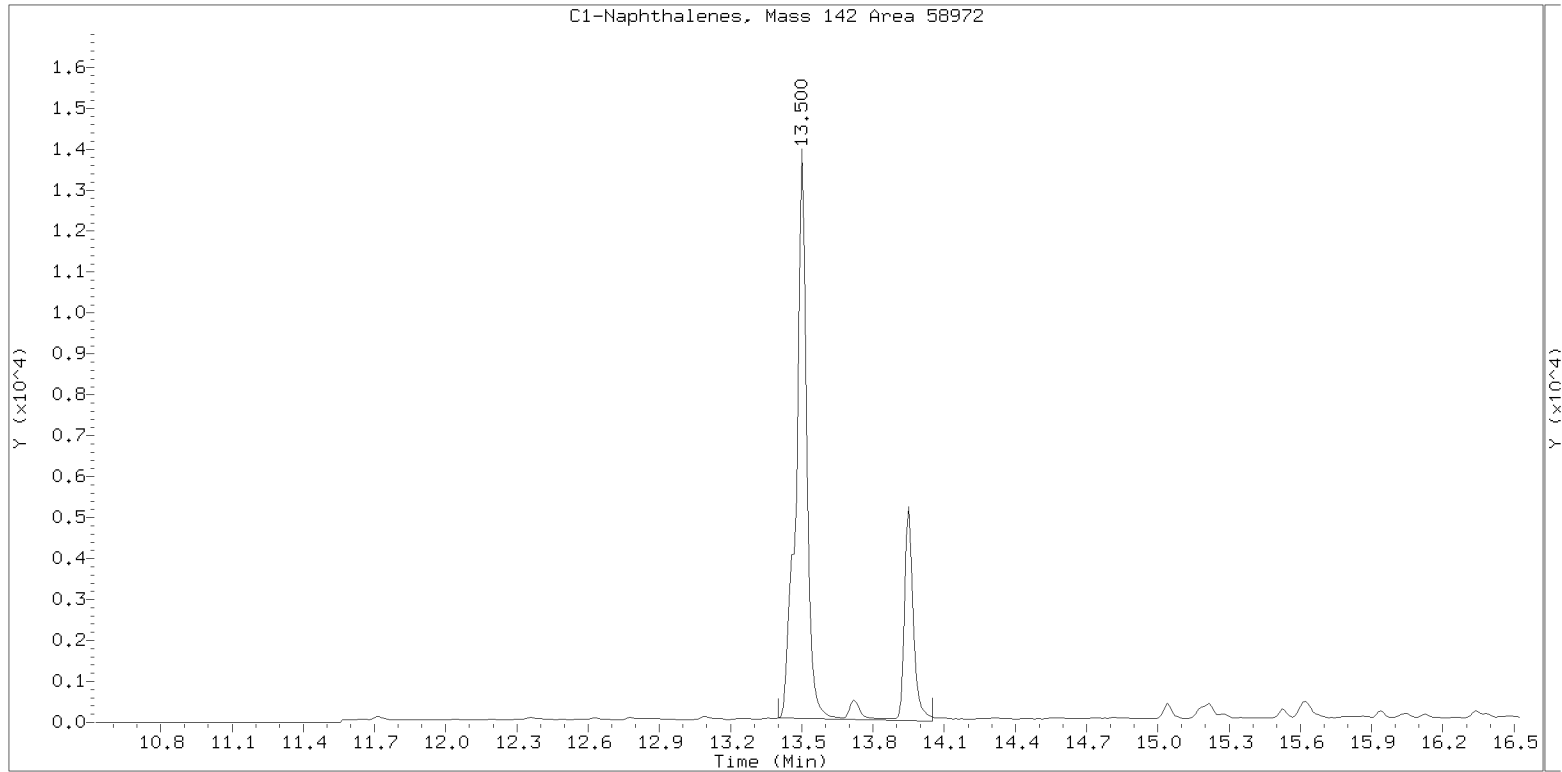
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420121999S.D

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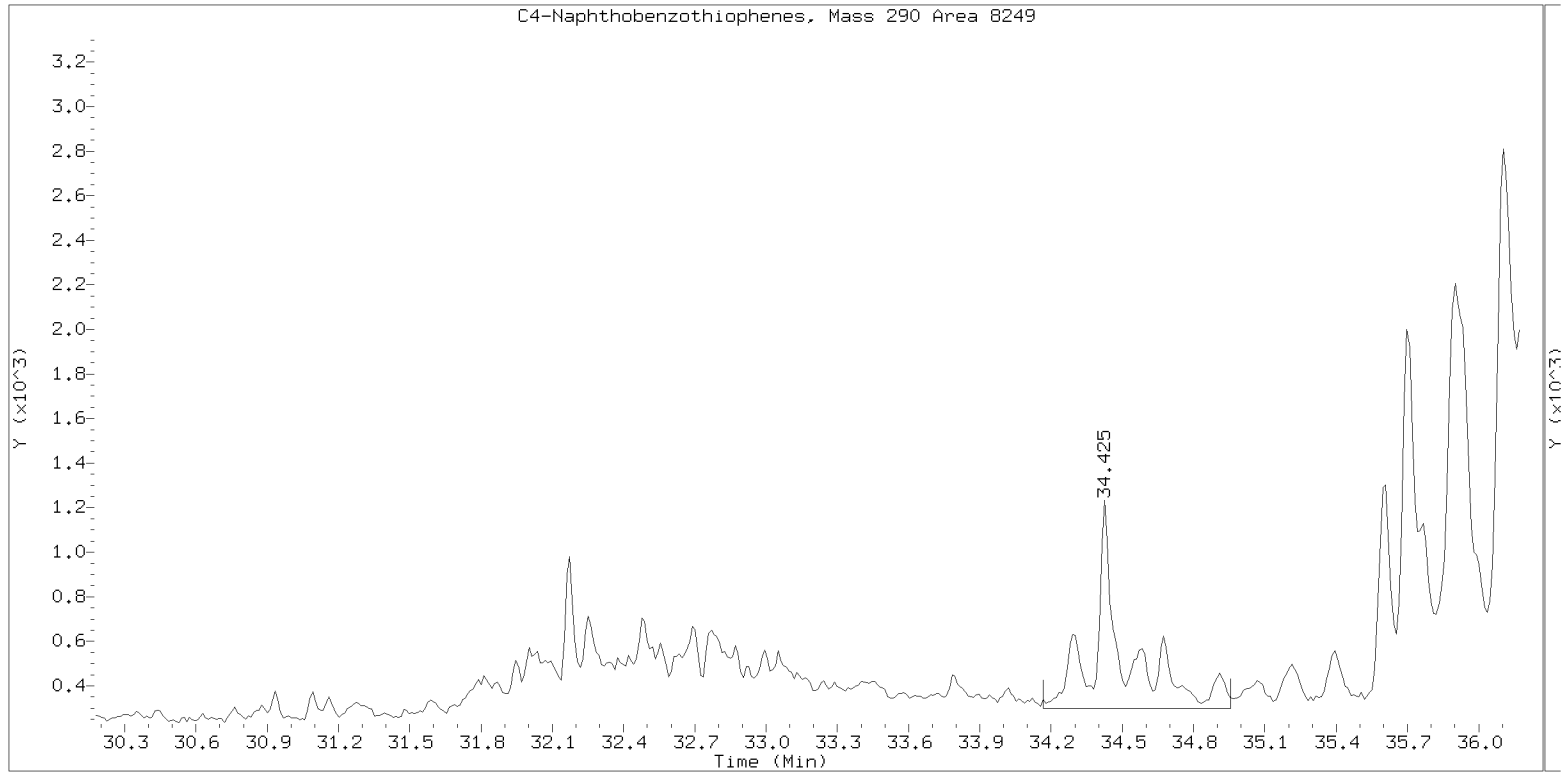
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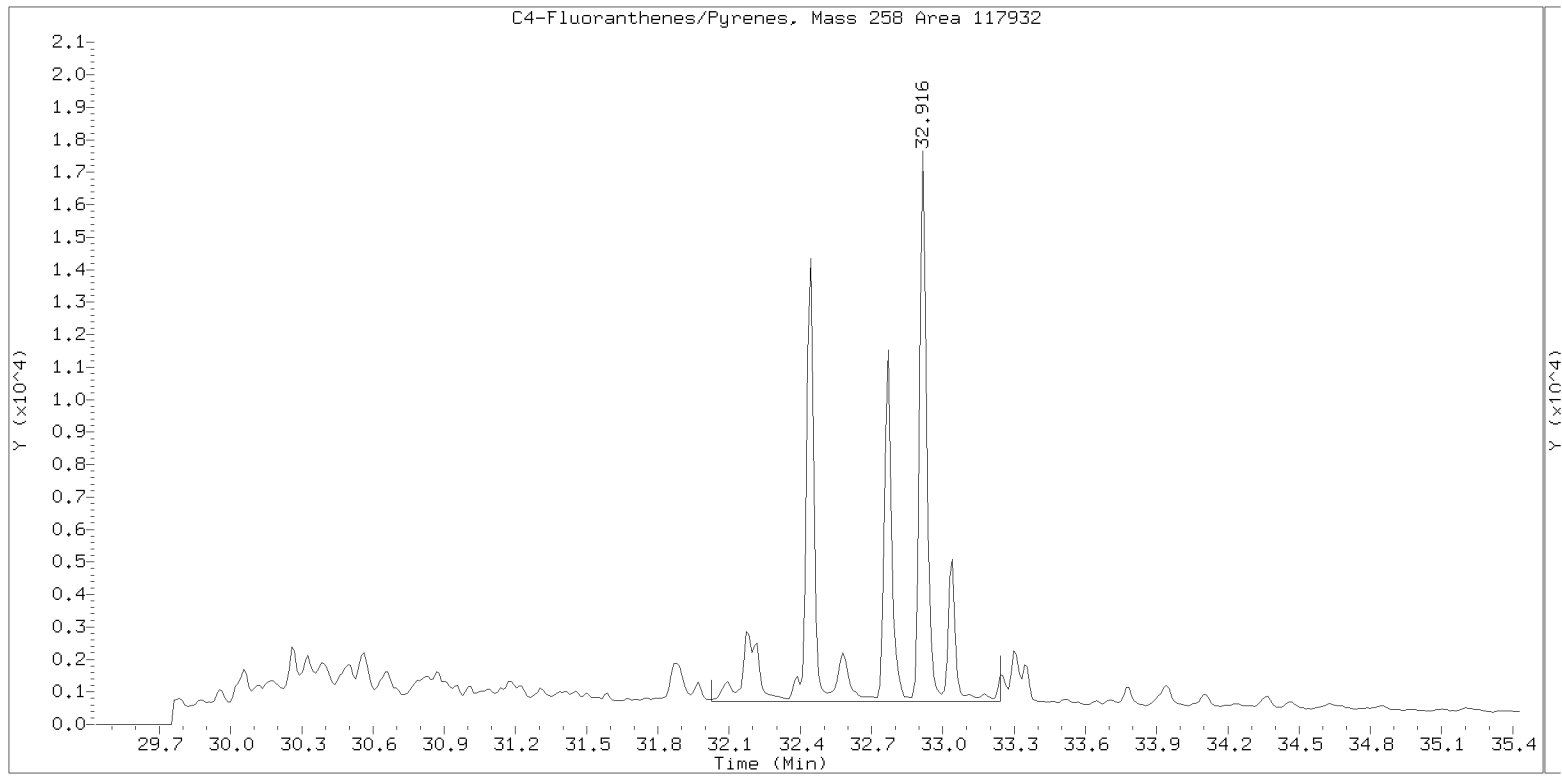
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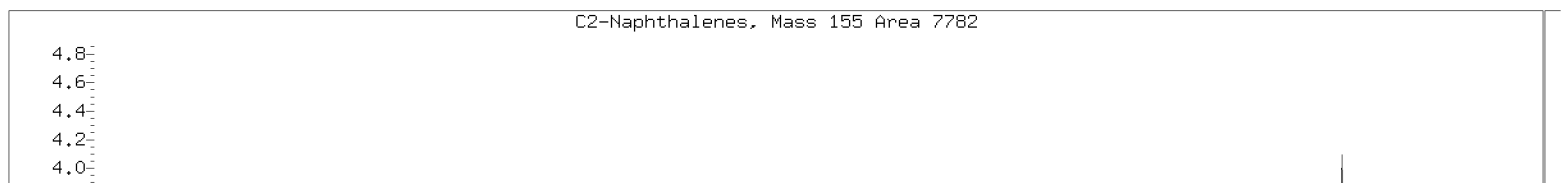
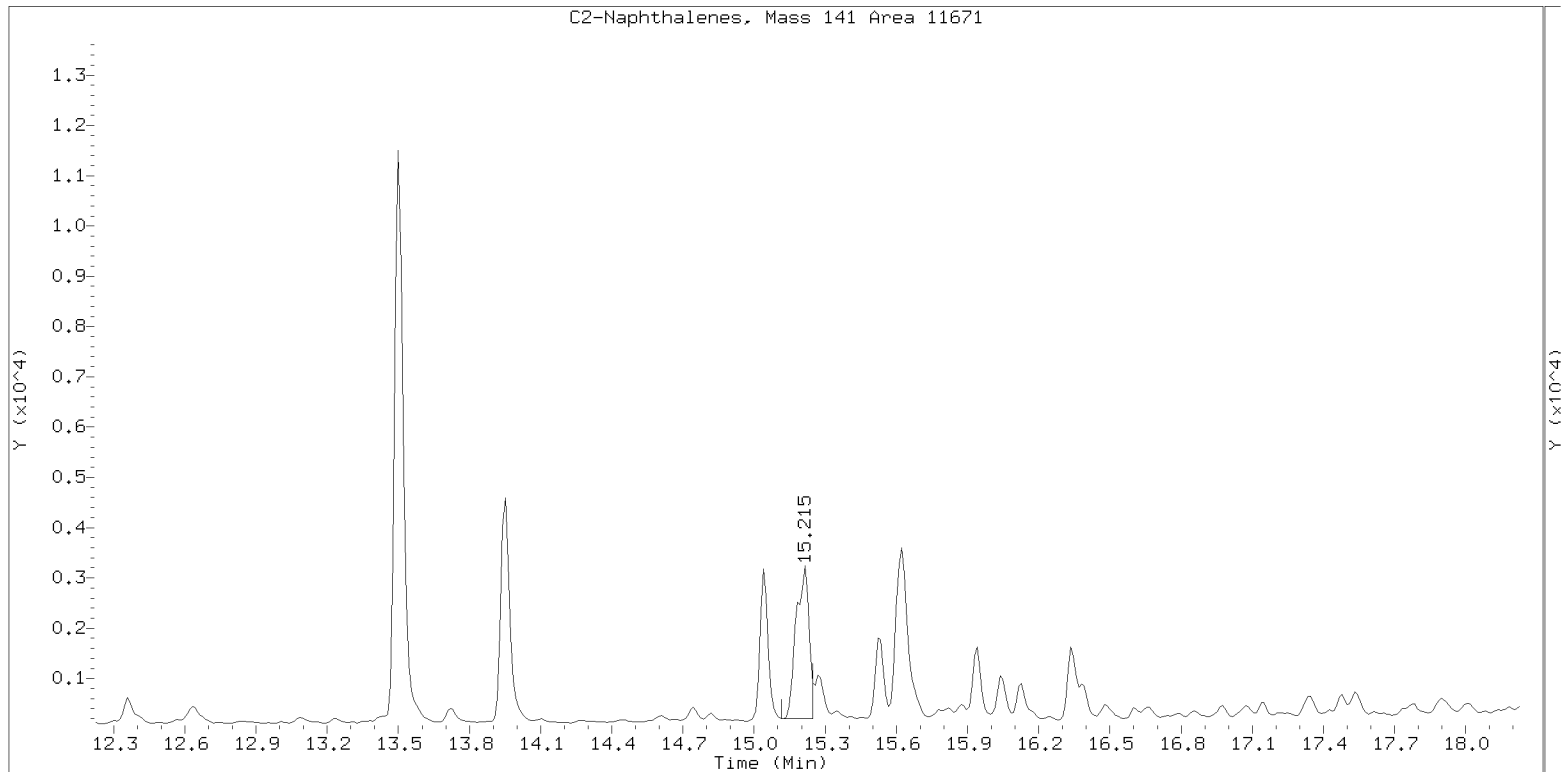
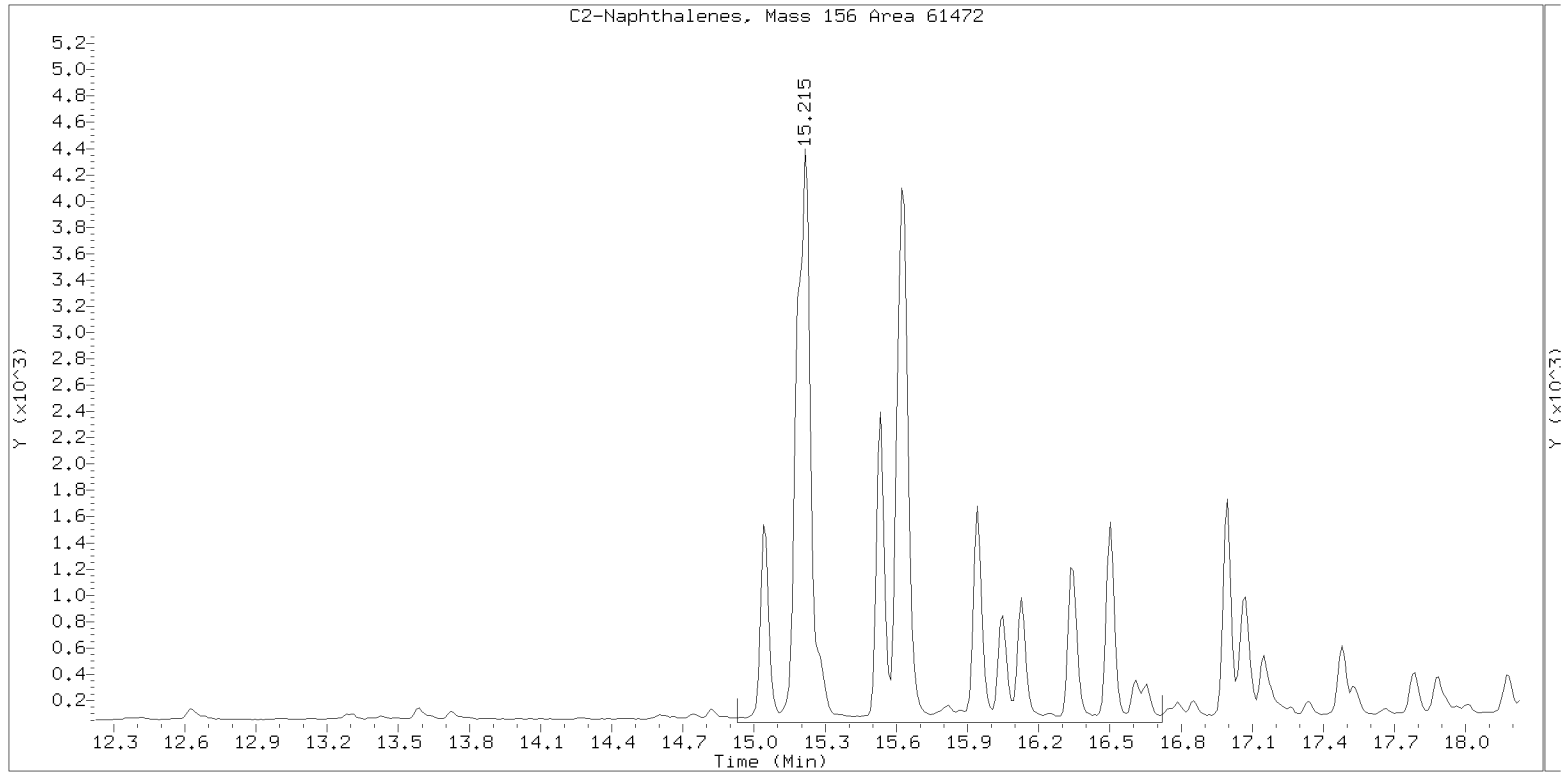




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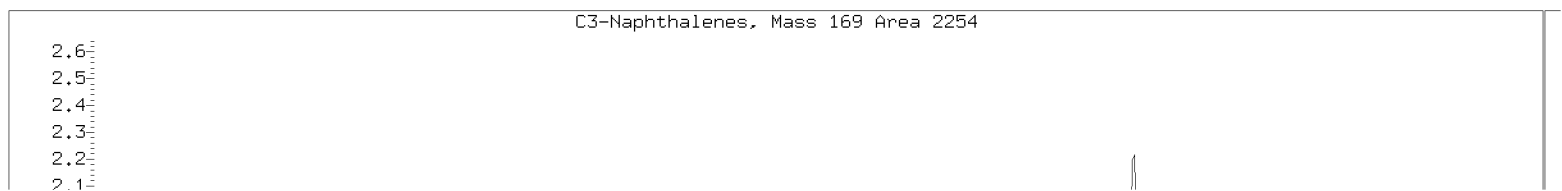
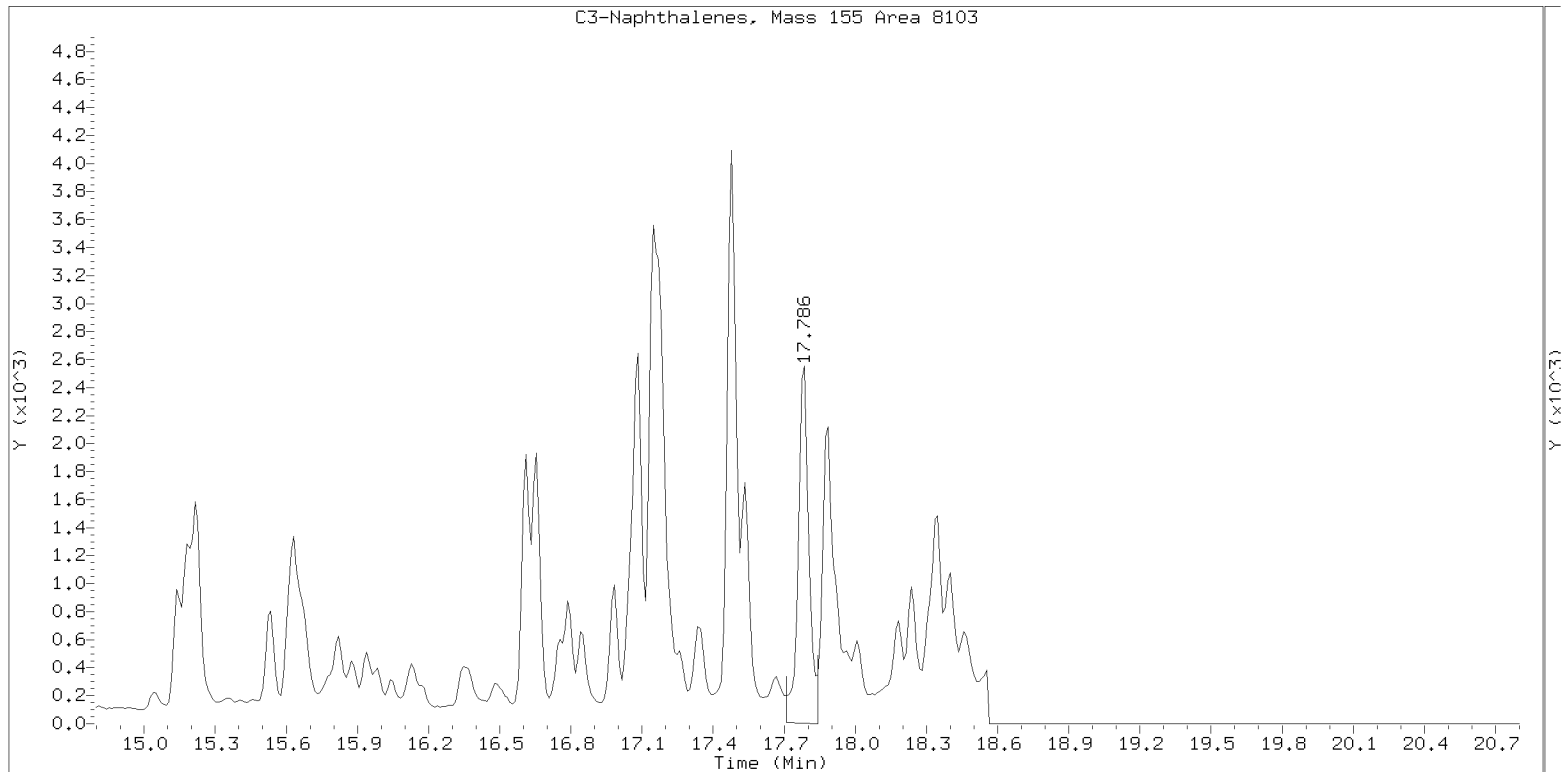
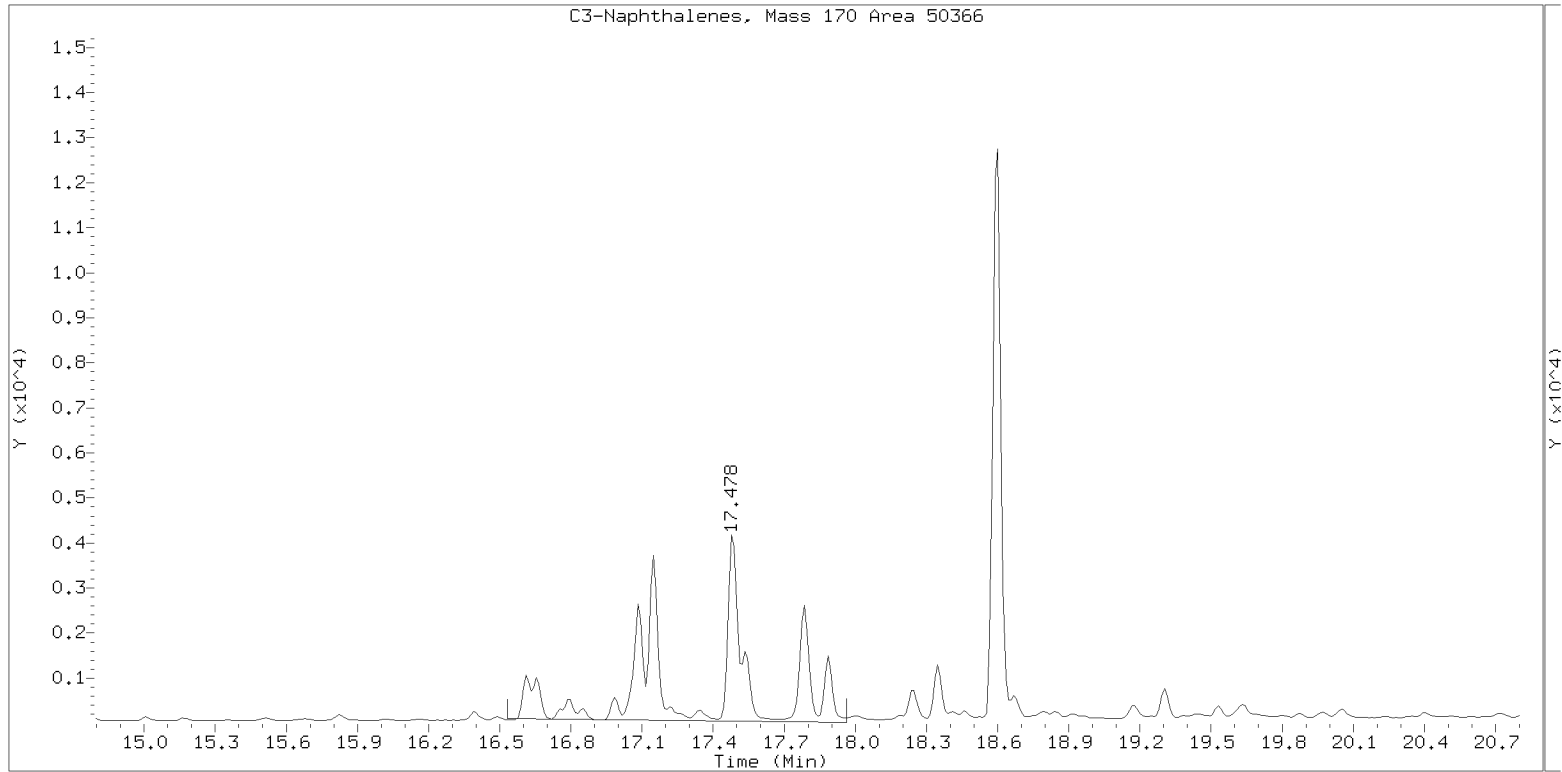
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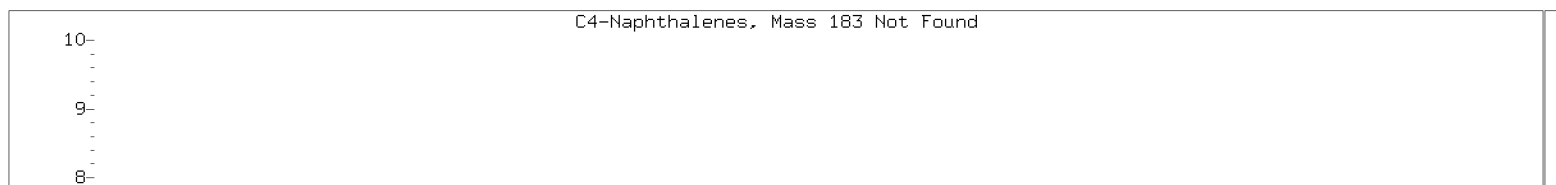
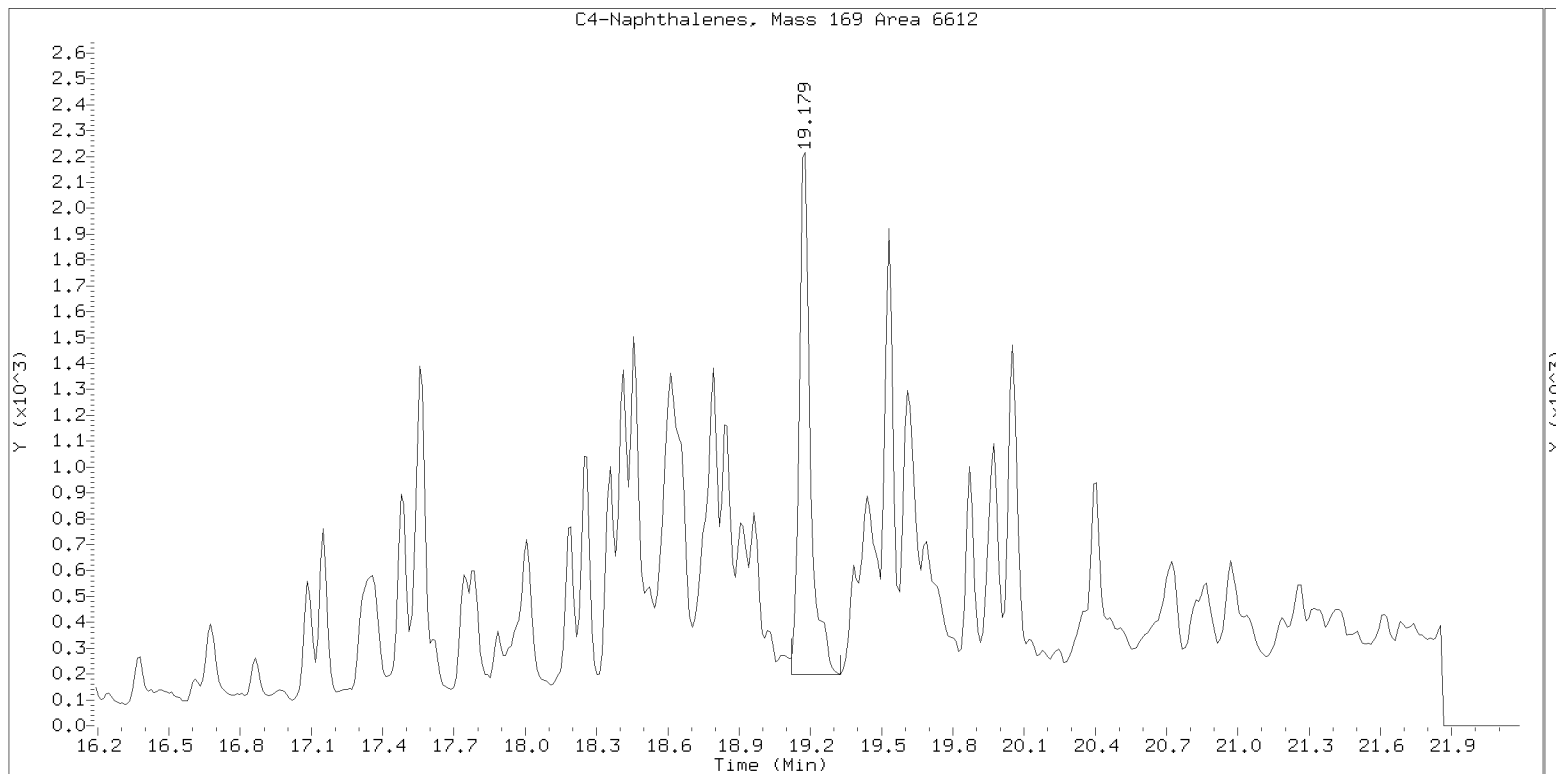
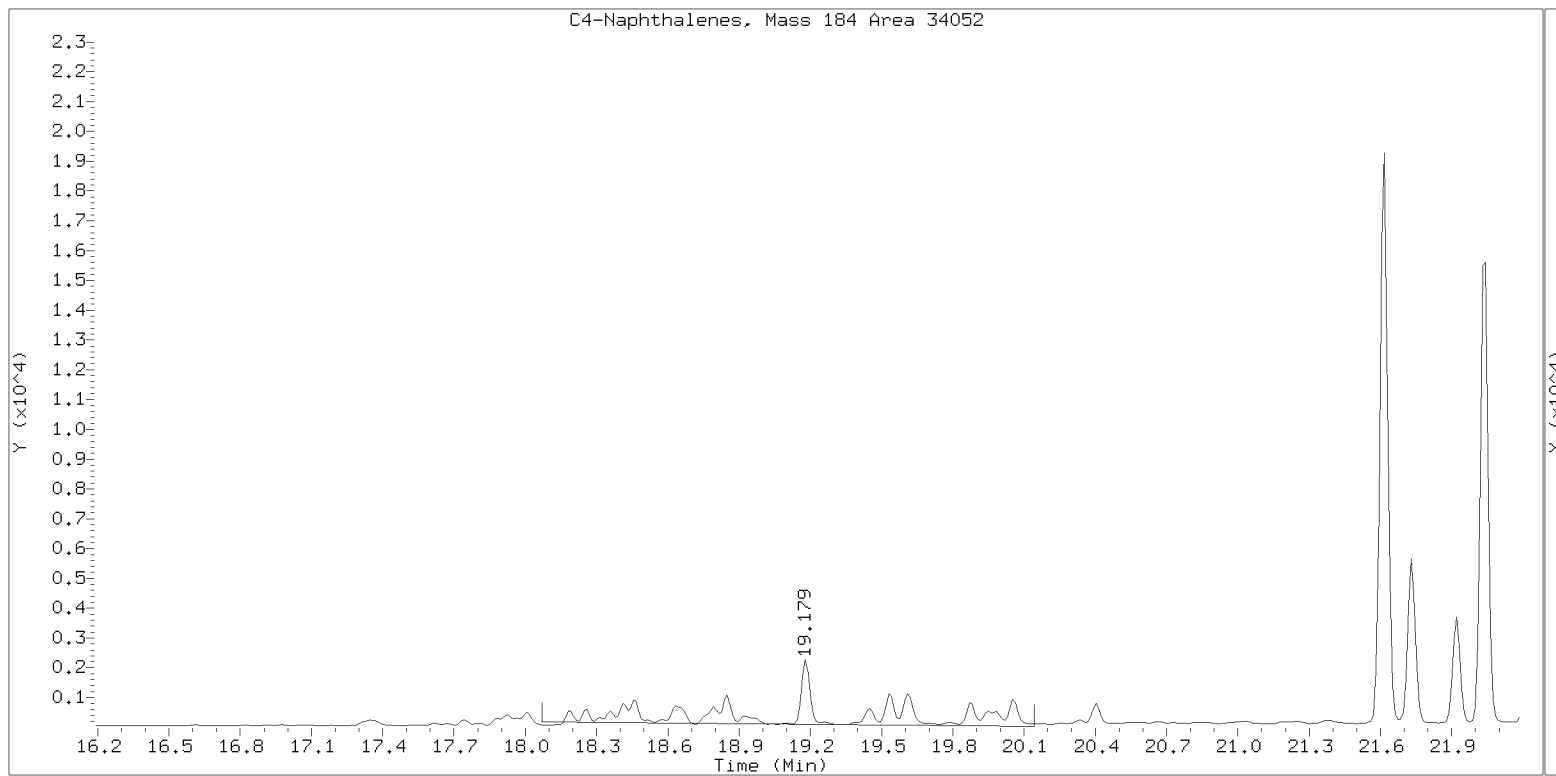
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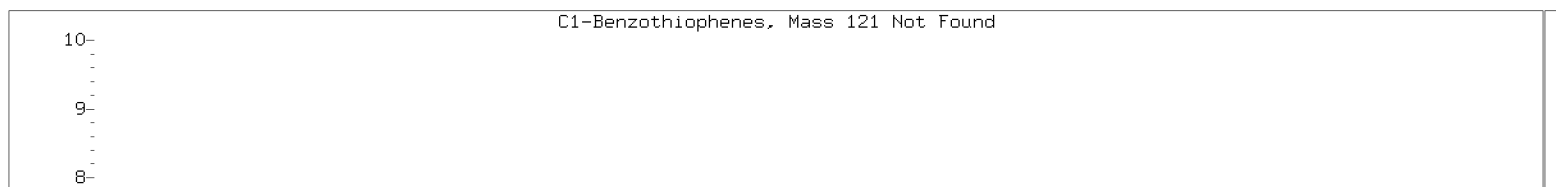
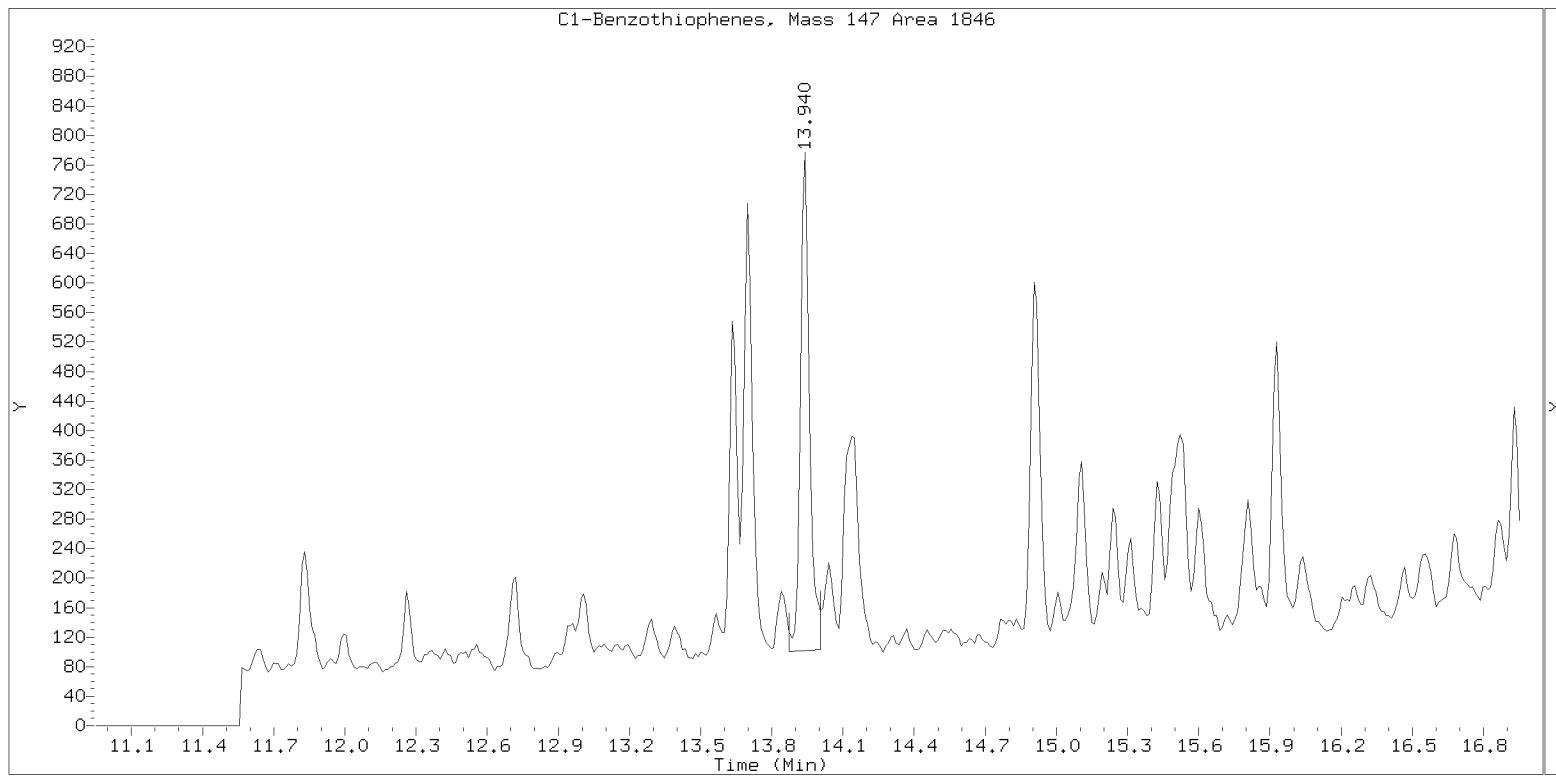
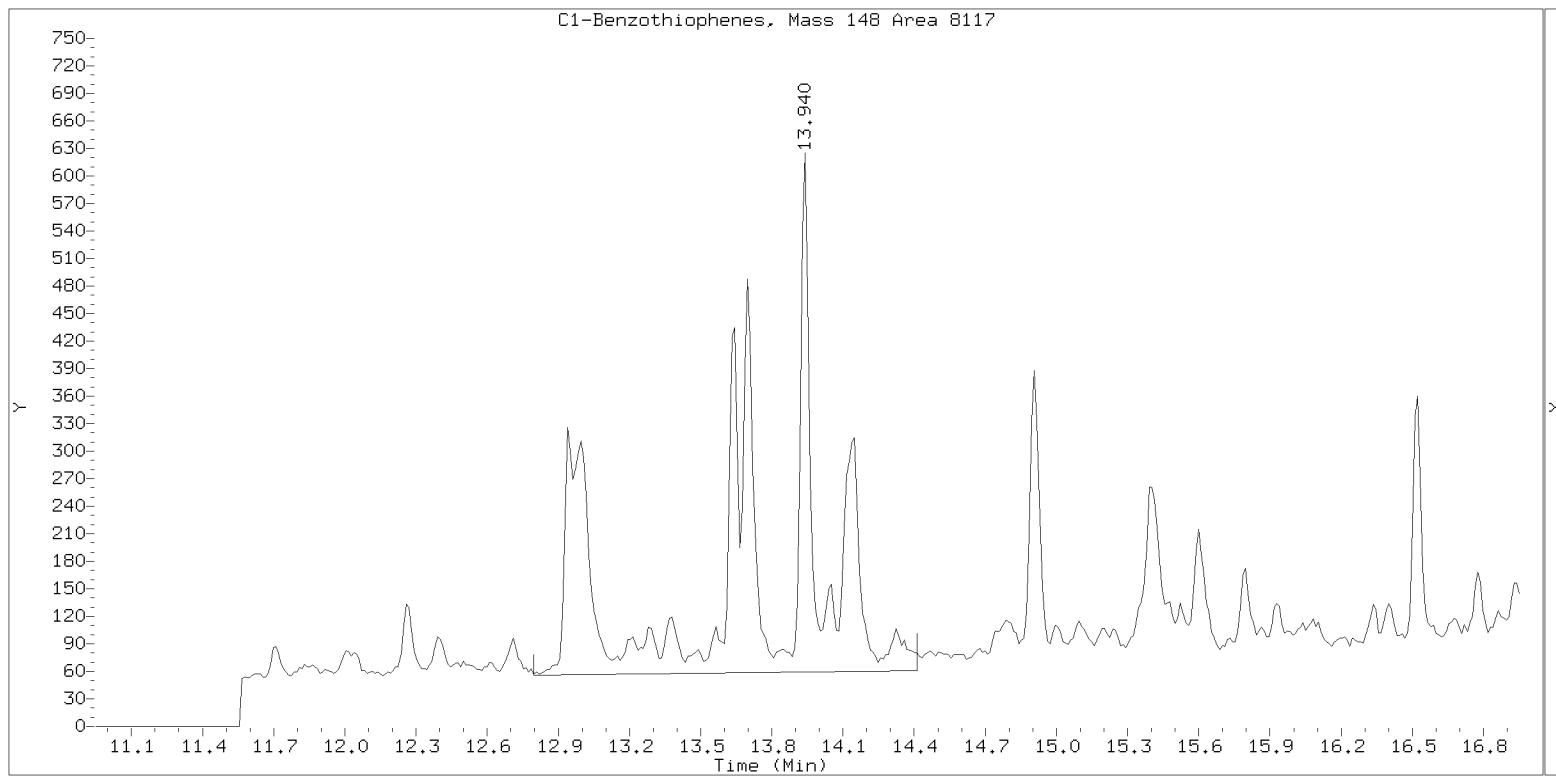
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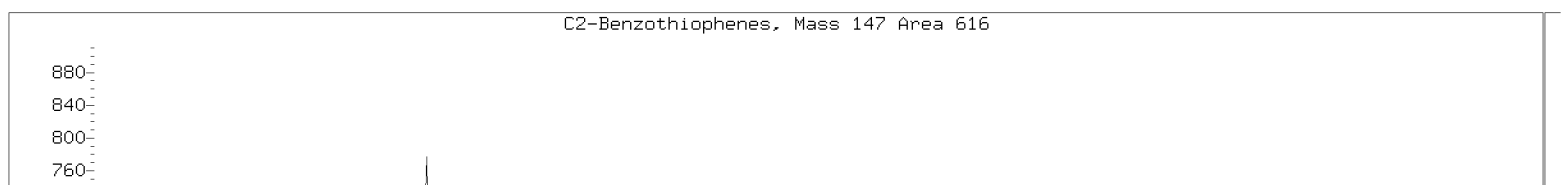
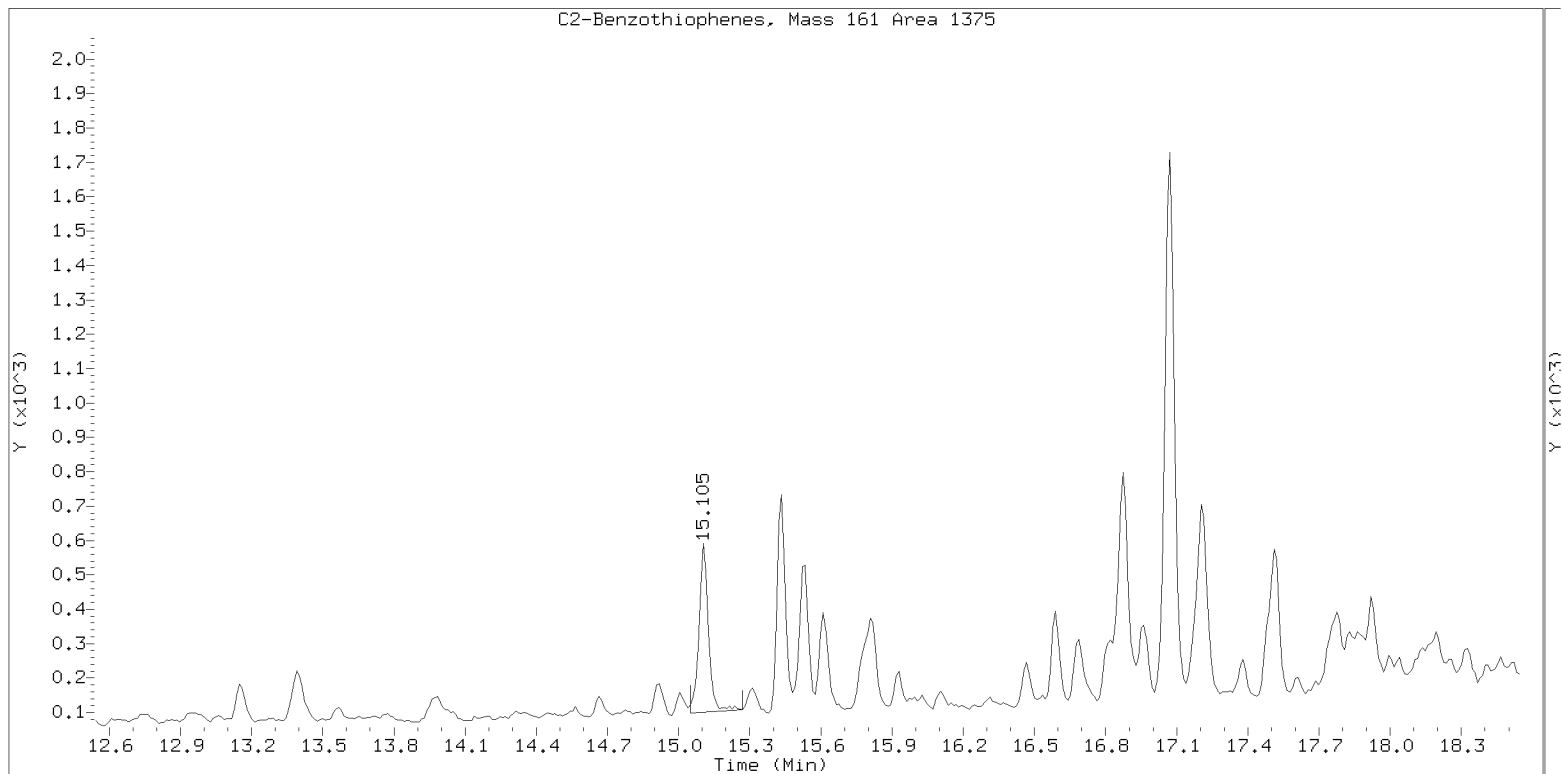
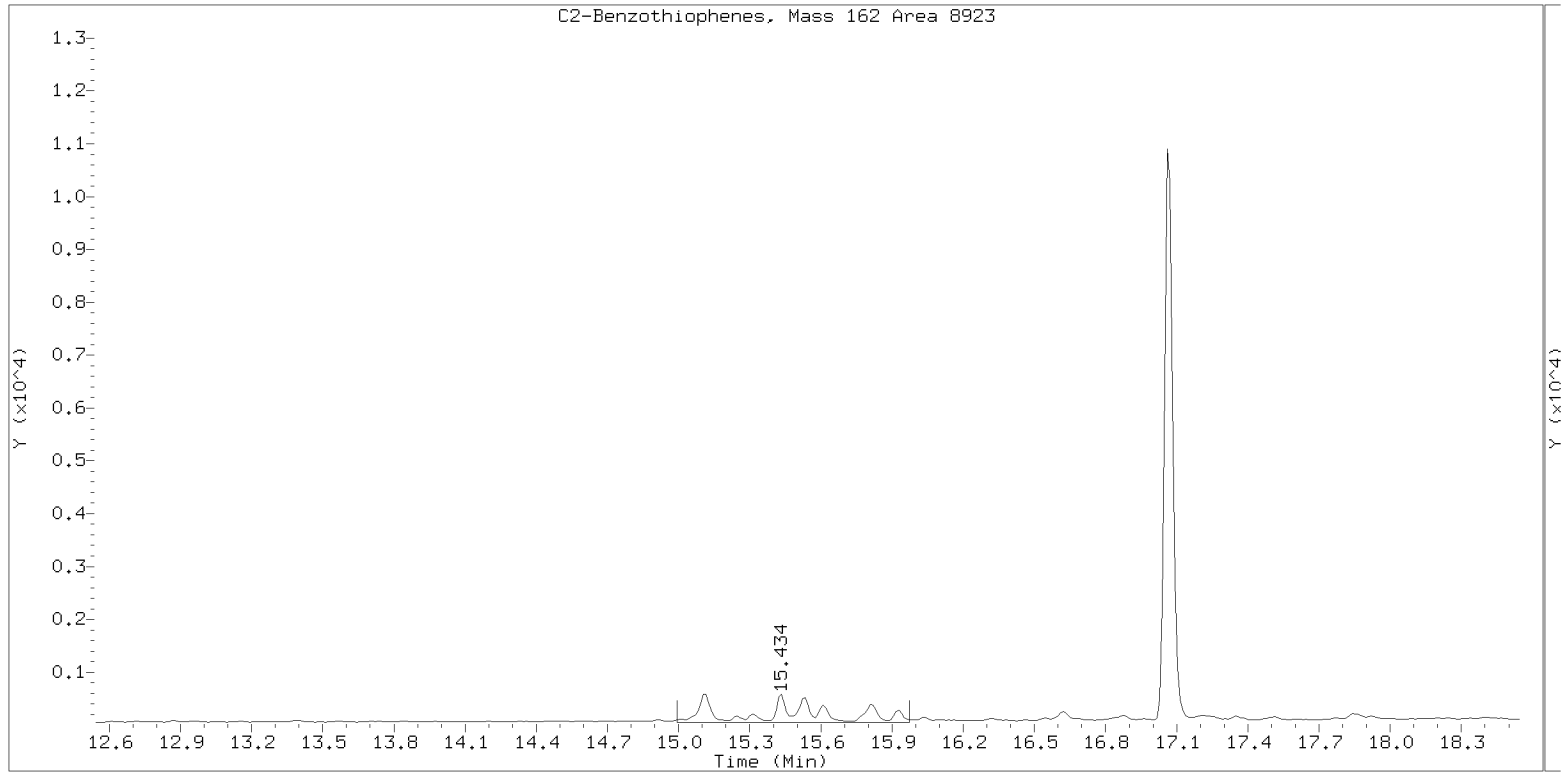
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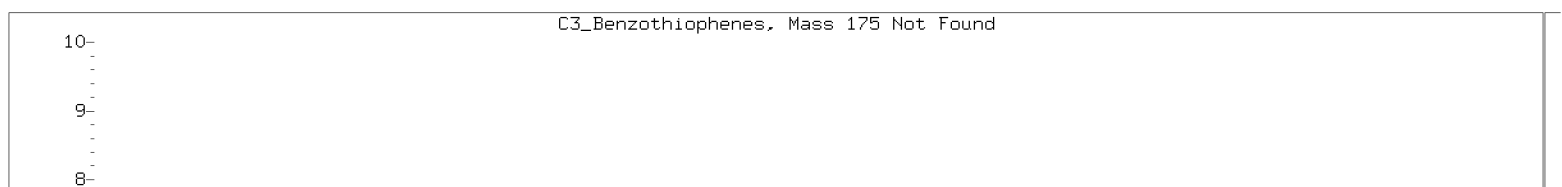
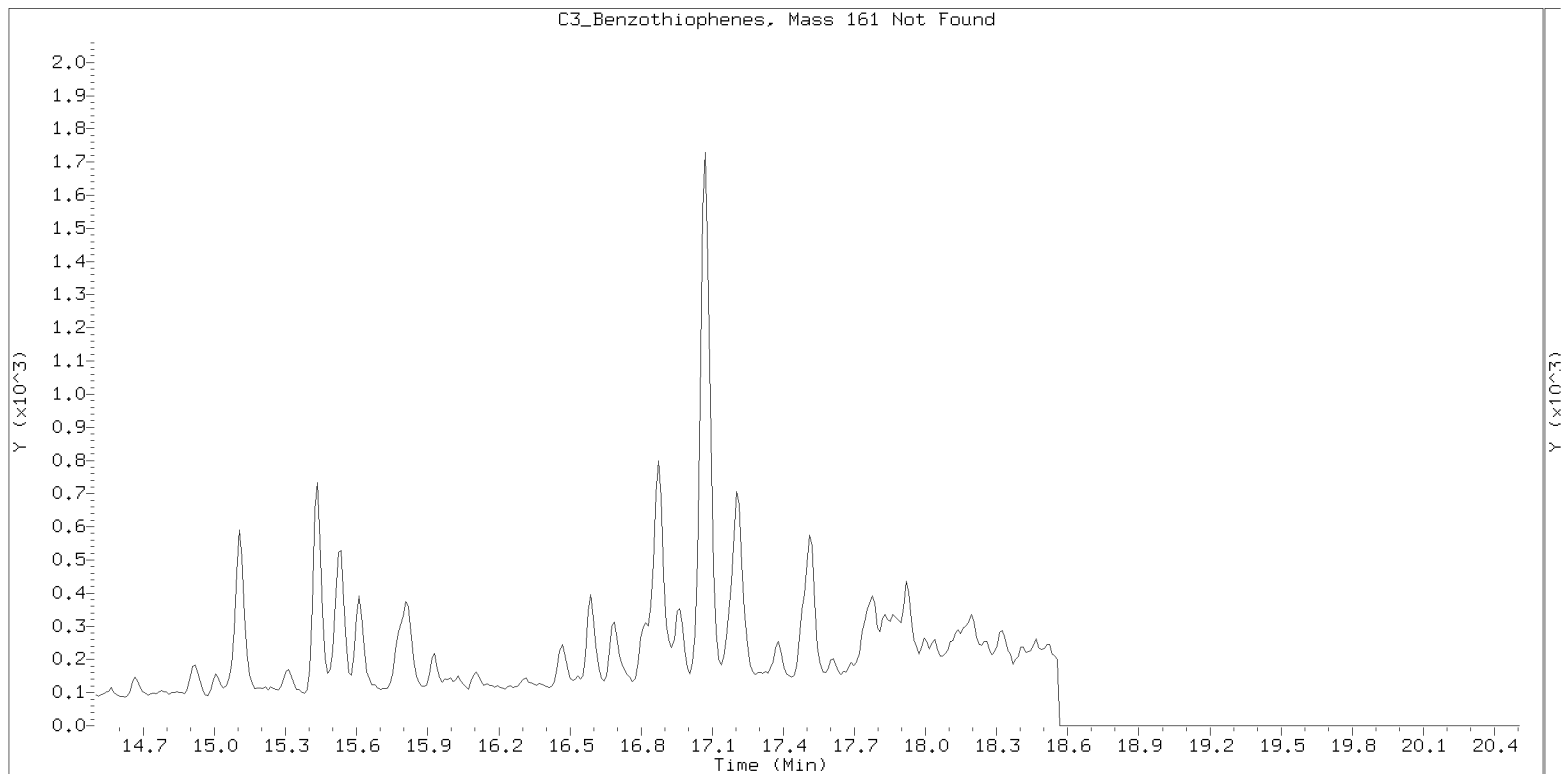
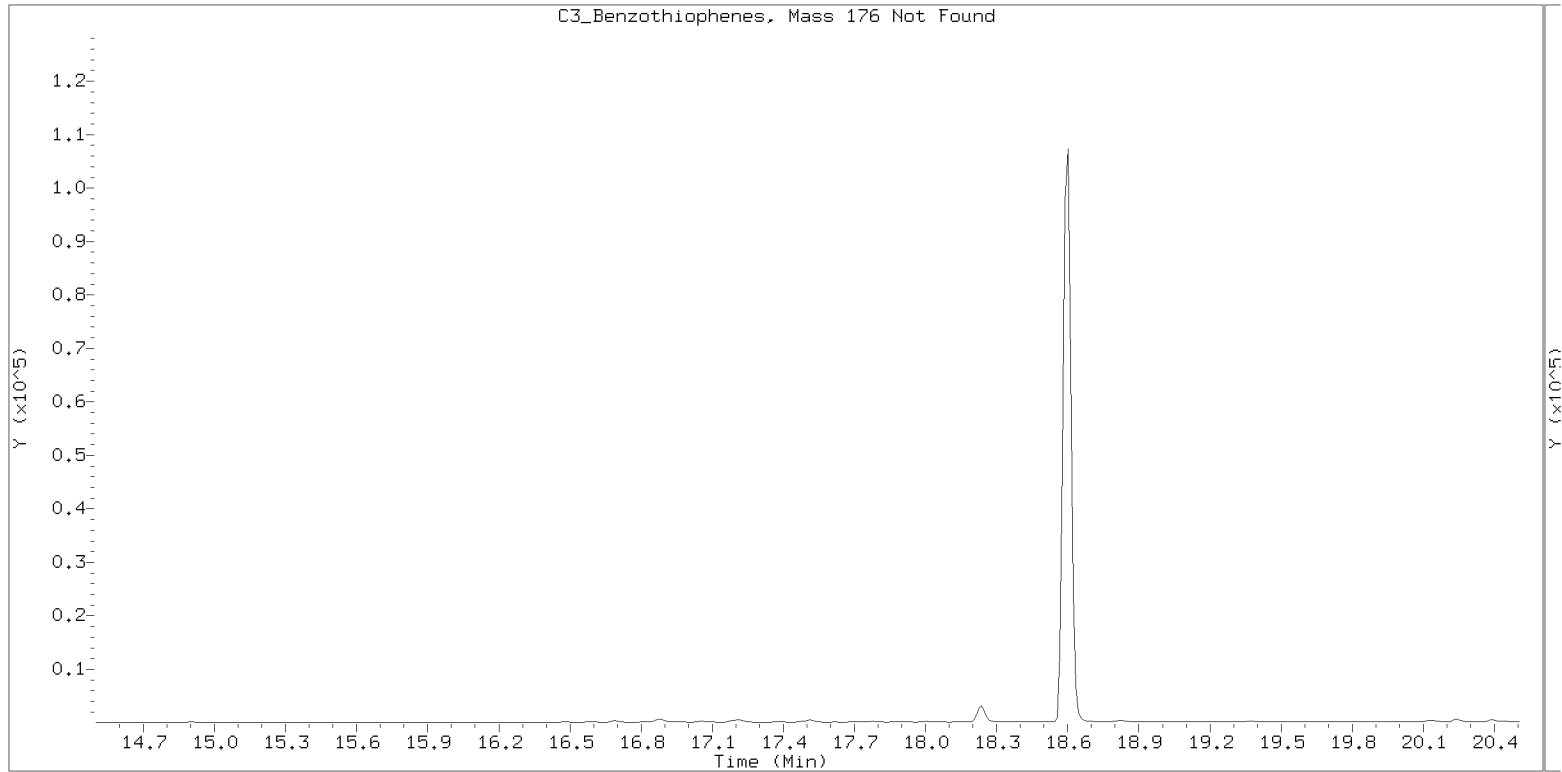
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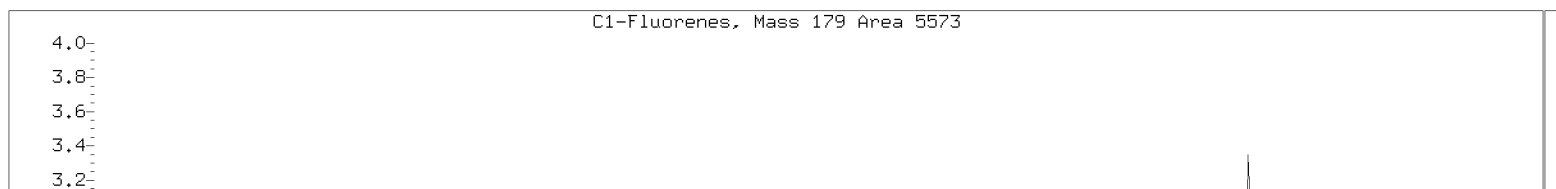
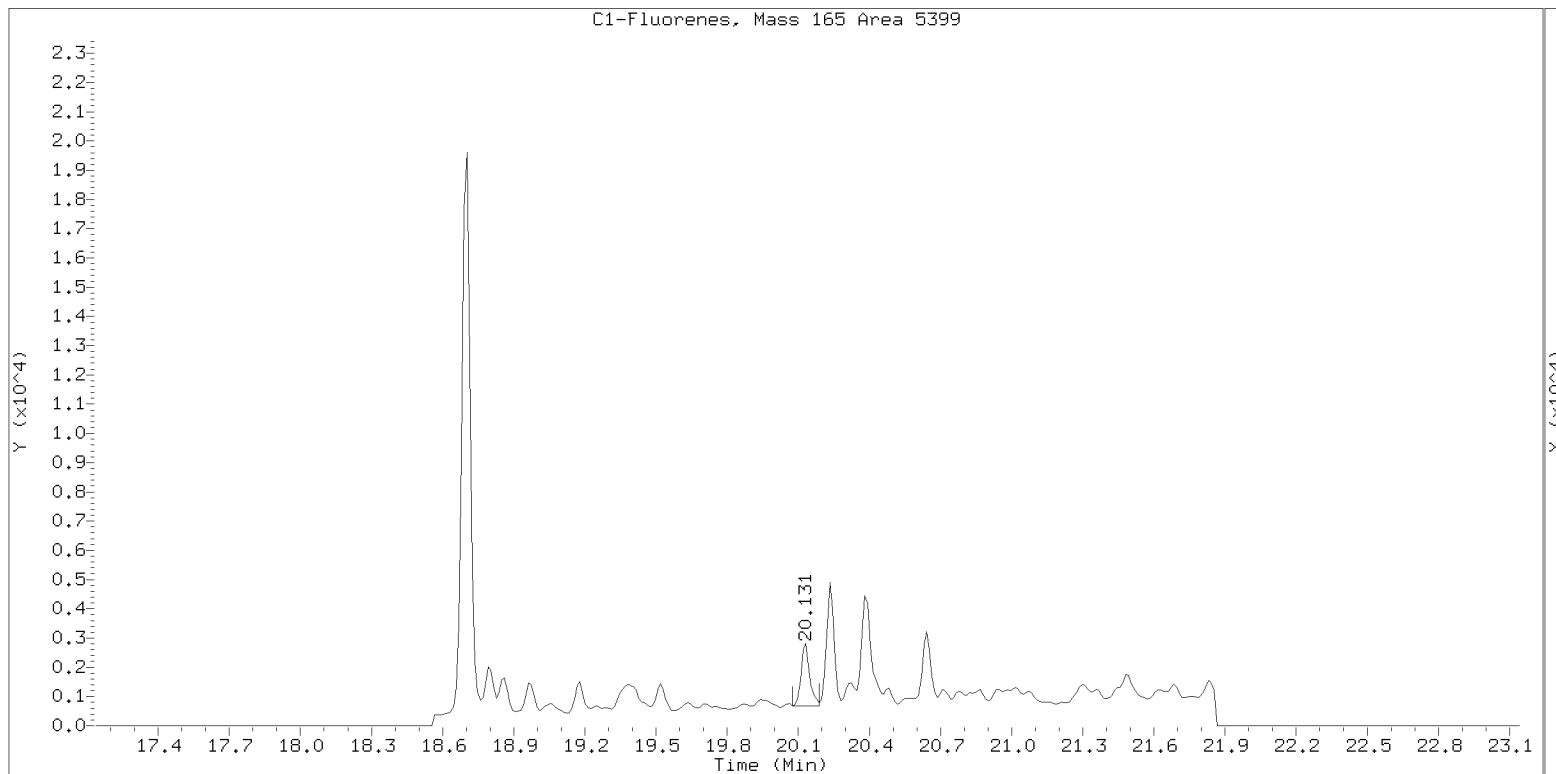
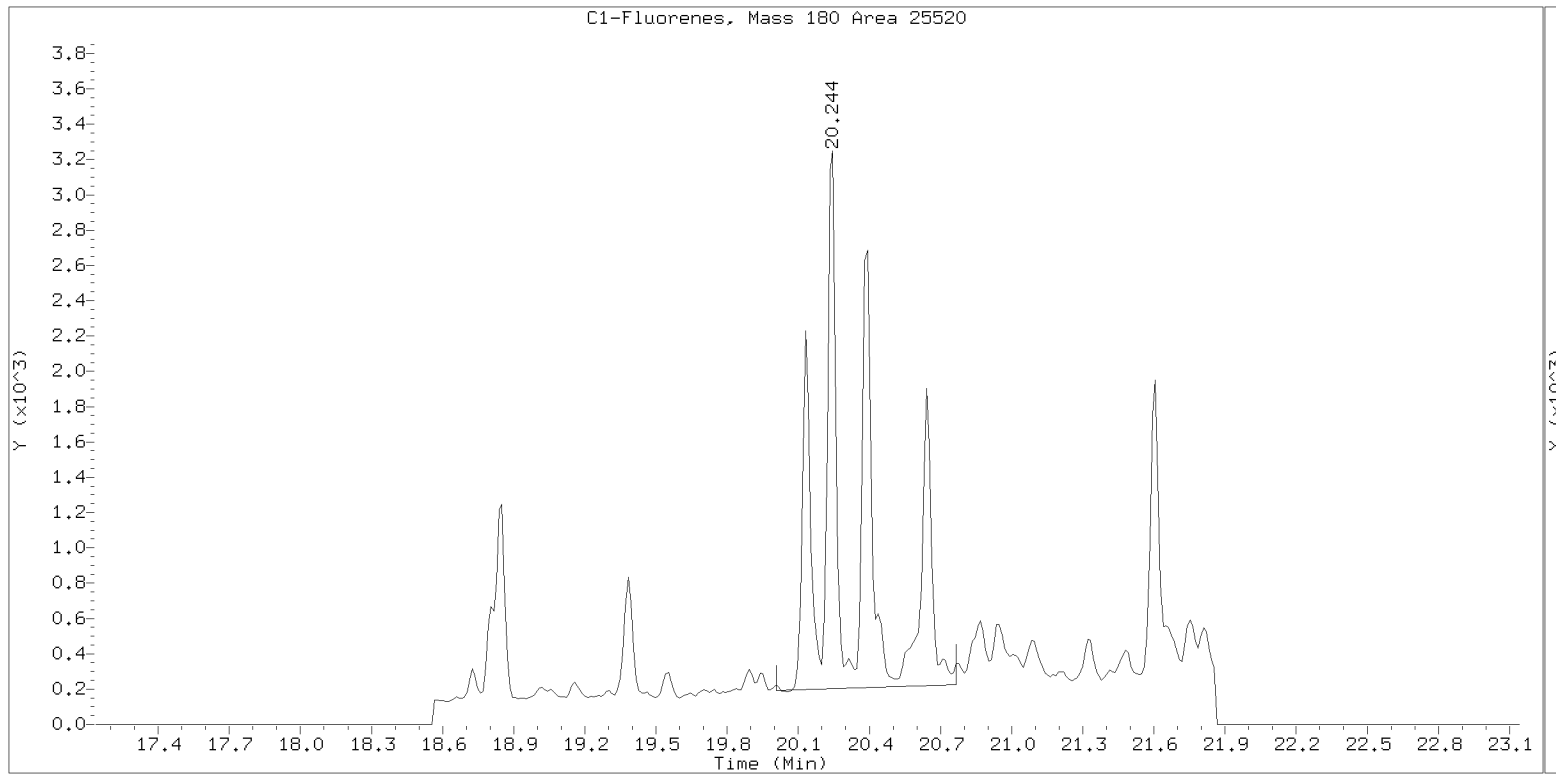
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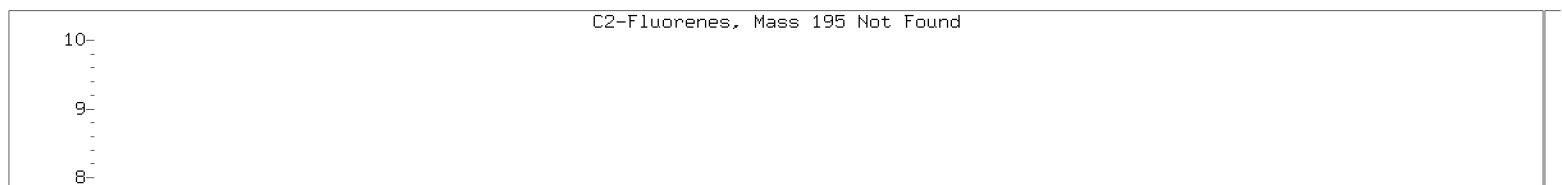
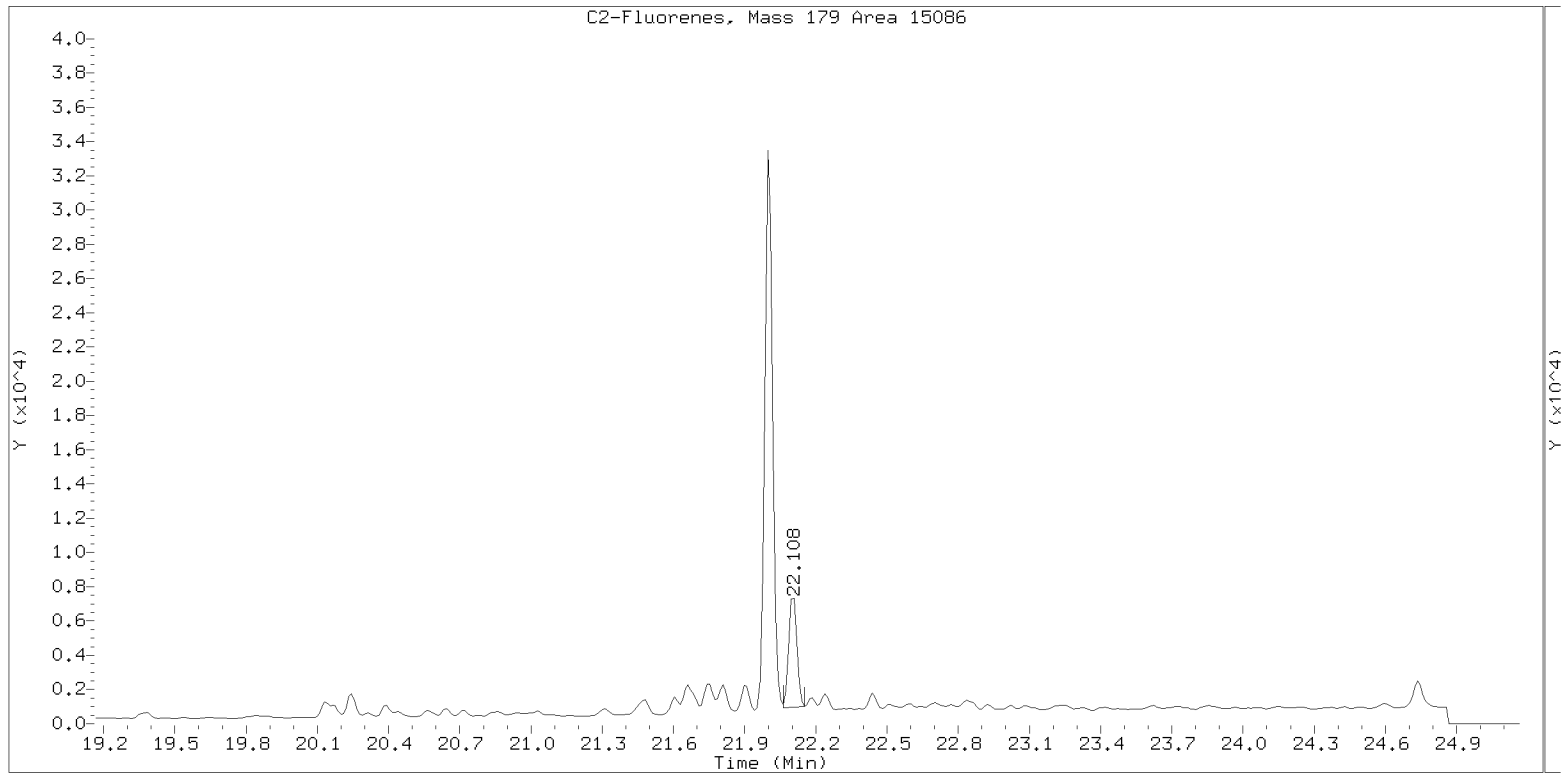
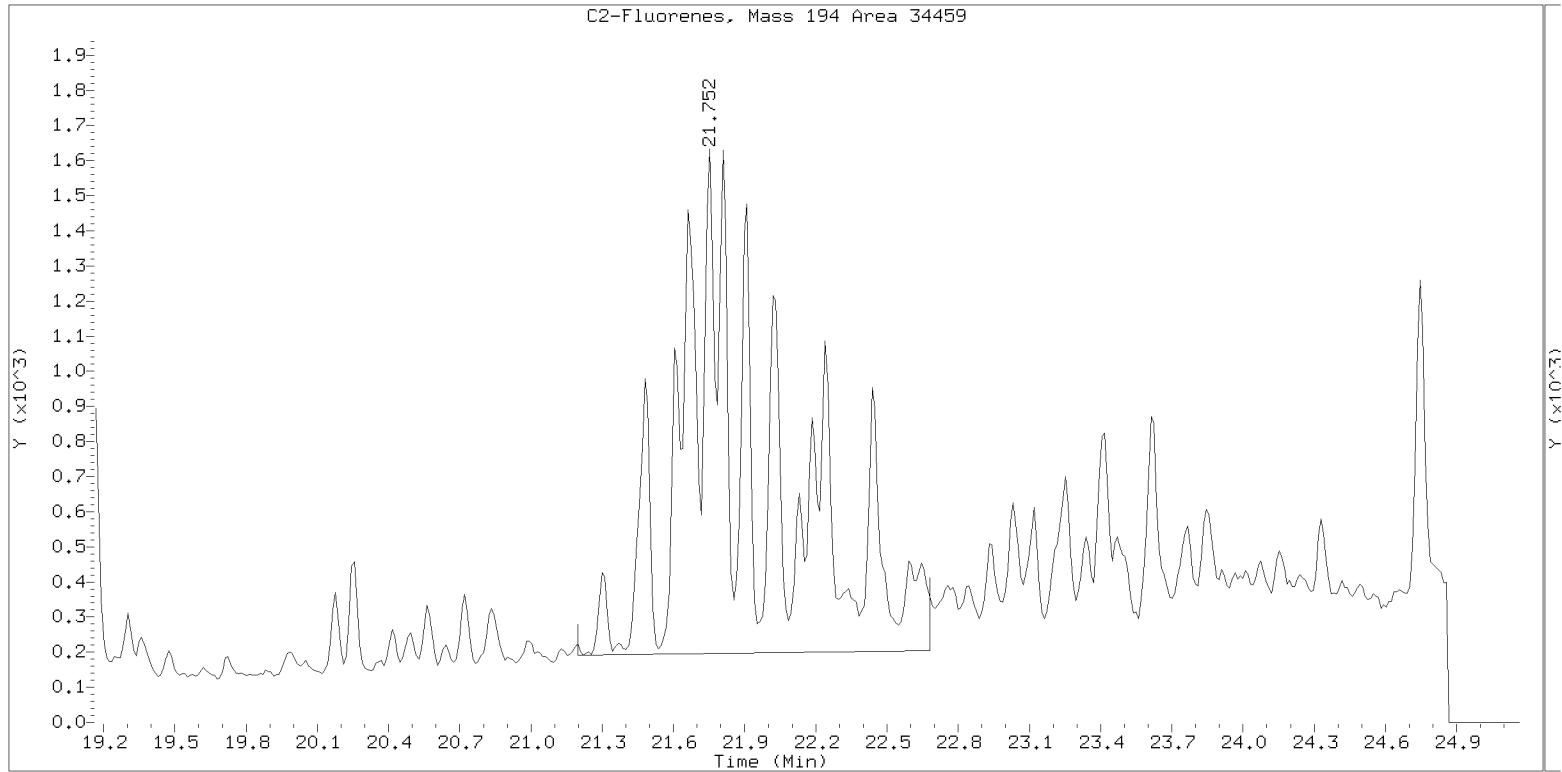
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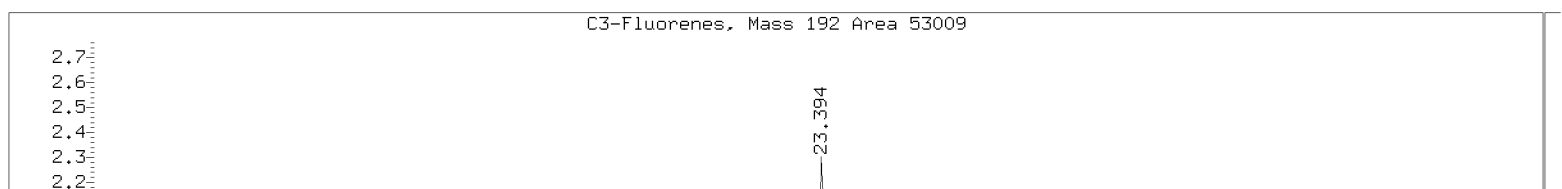
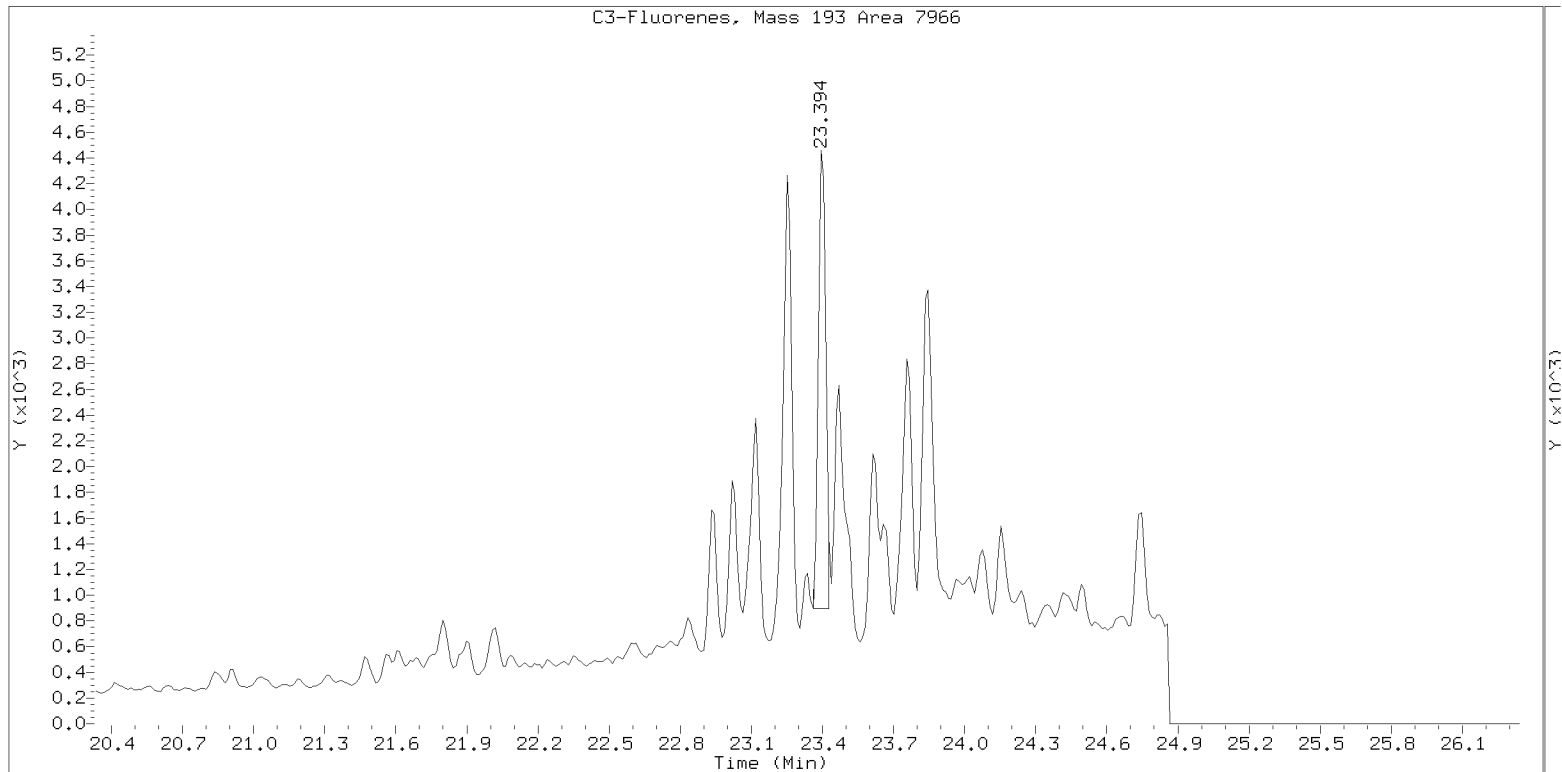
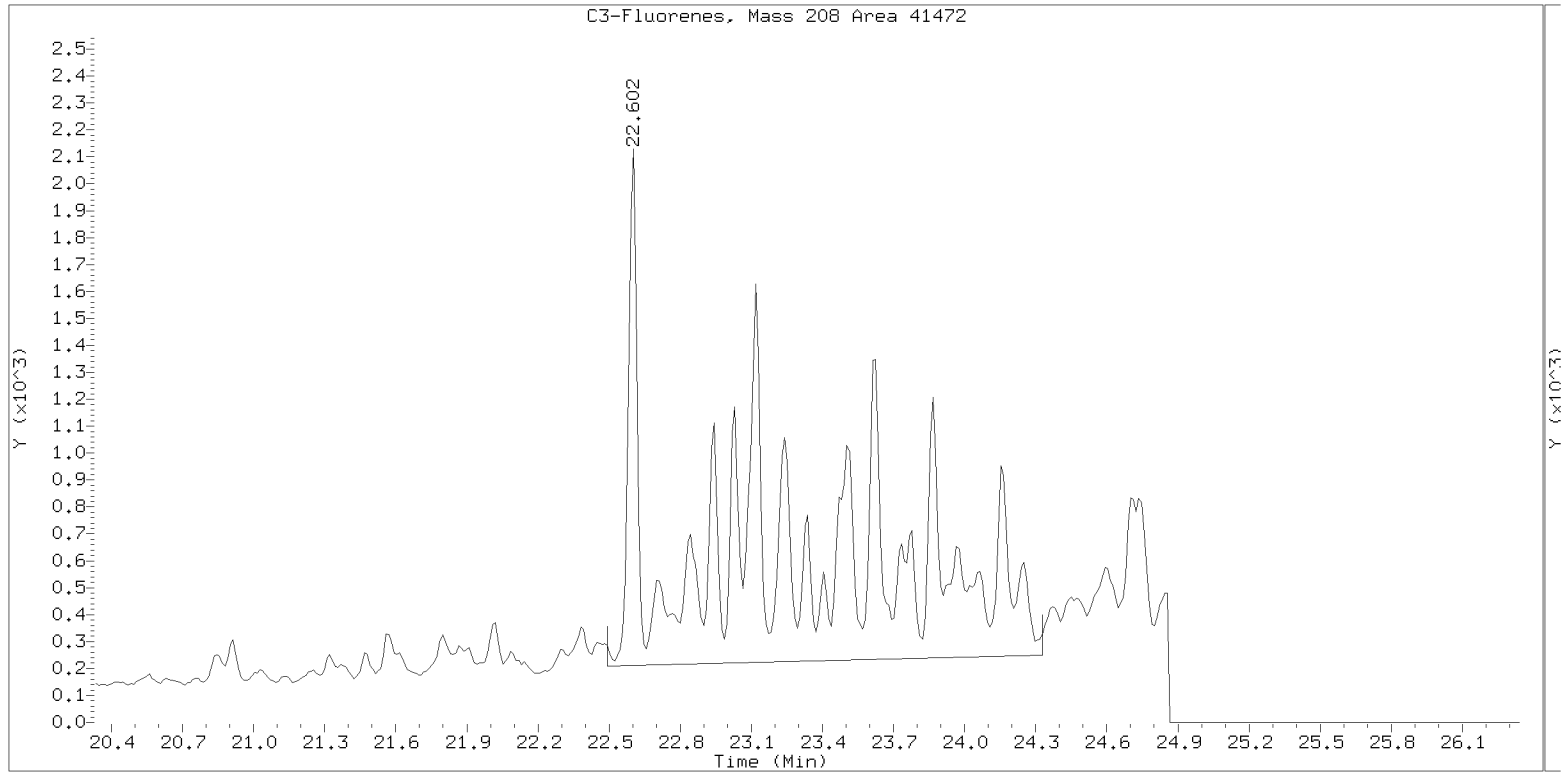




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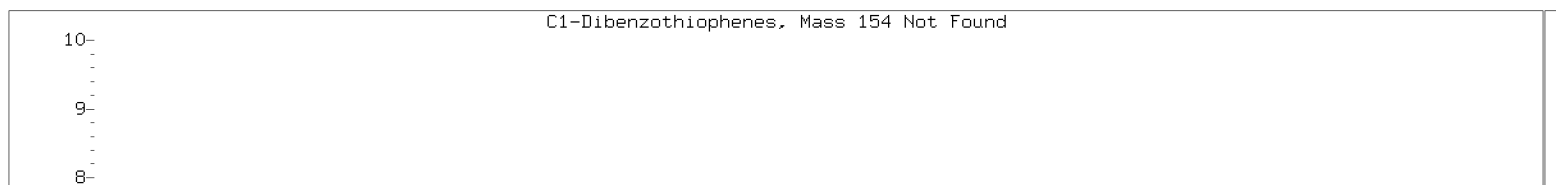
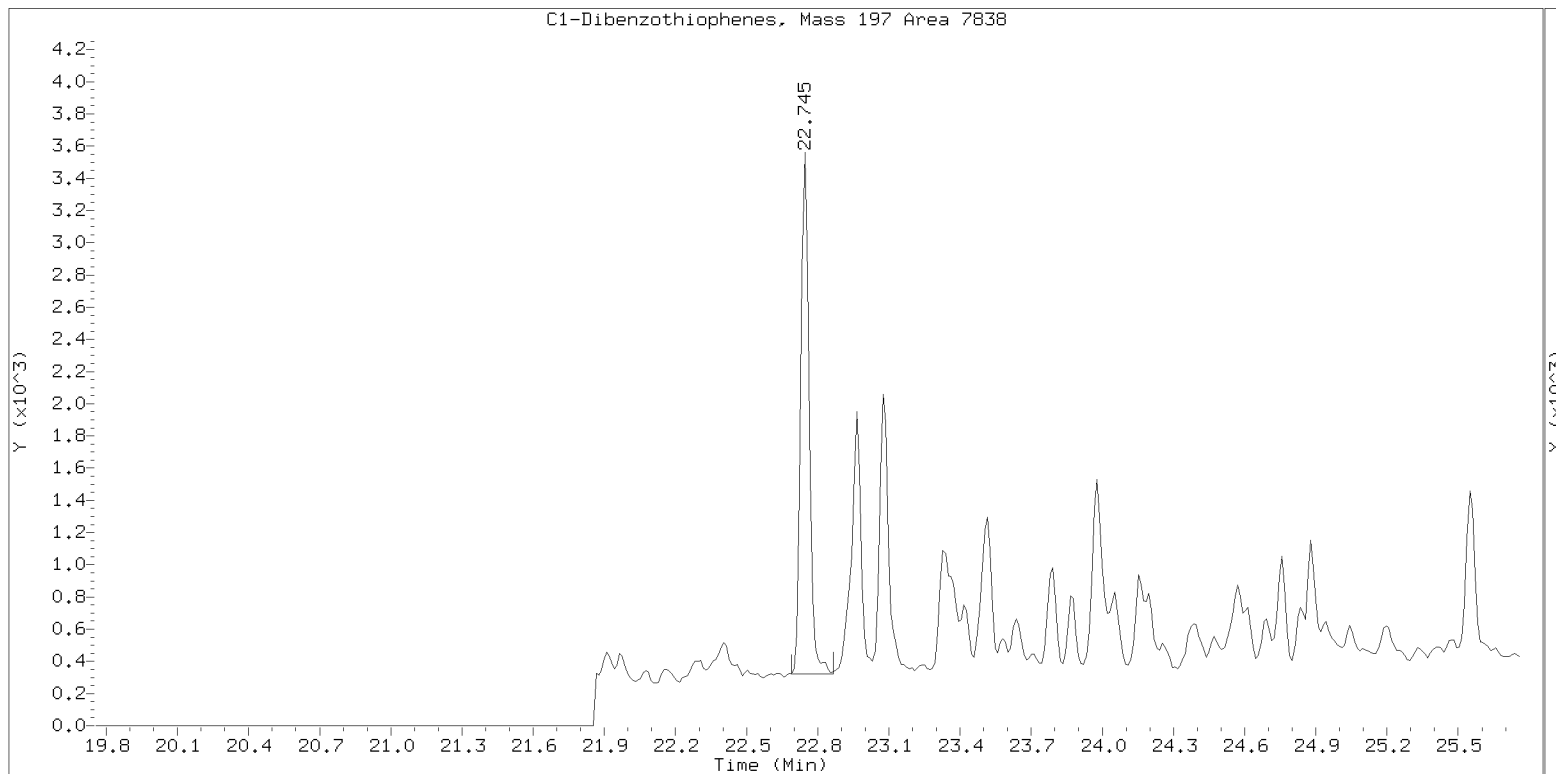
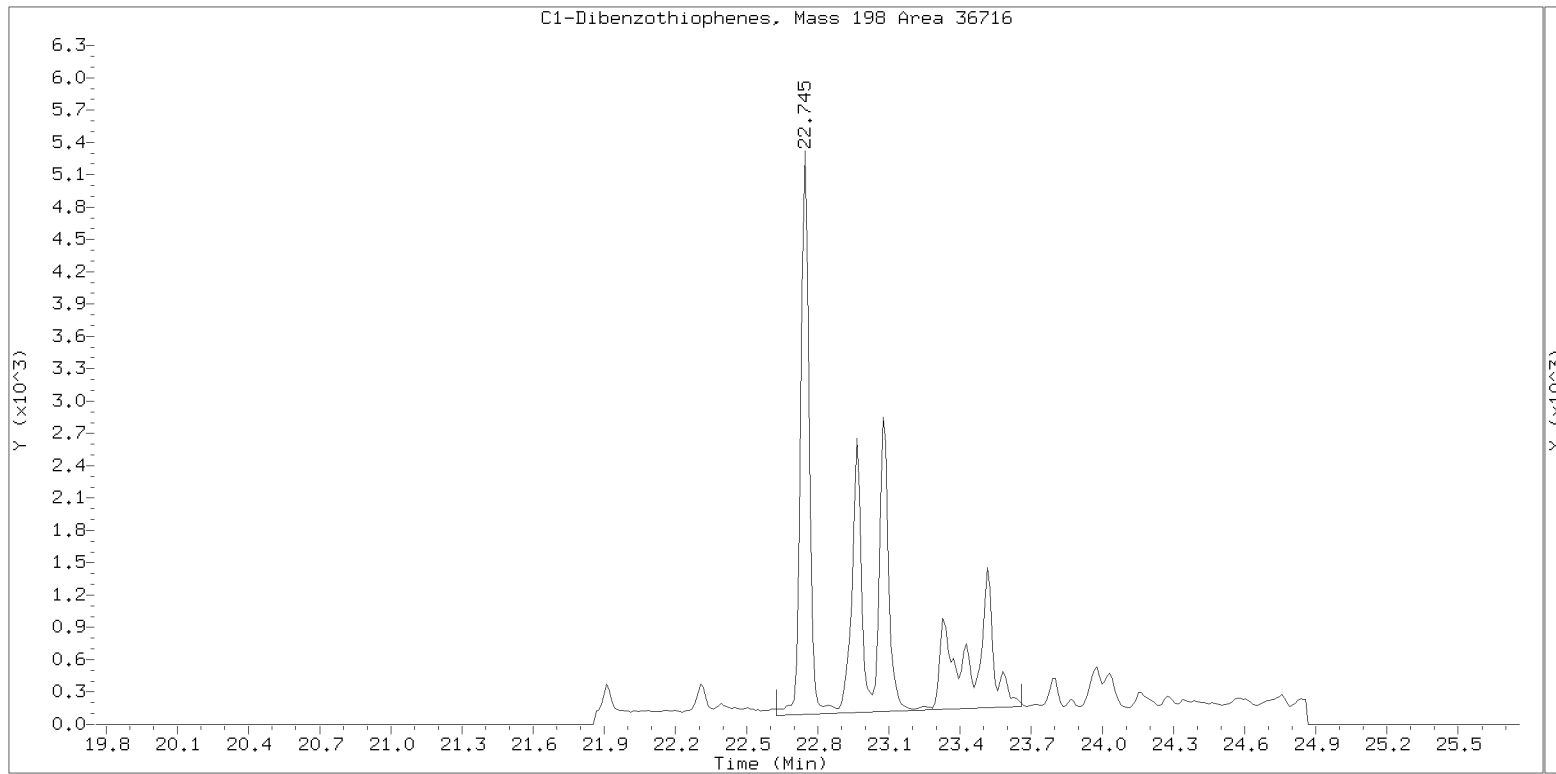
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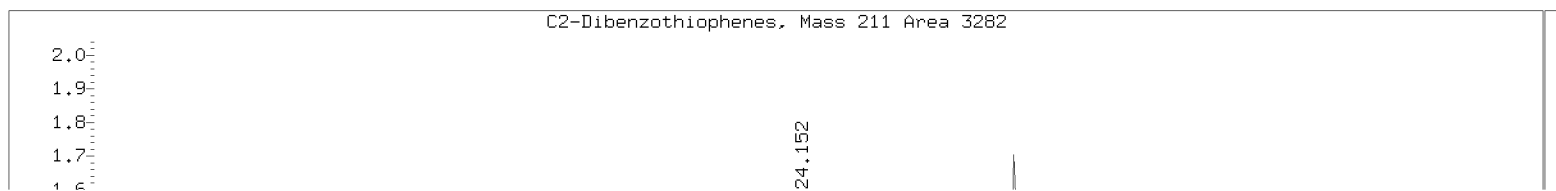
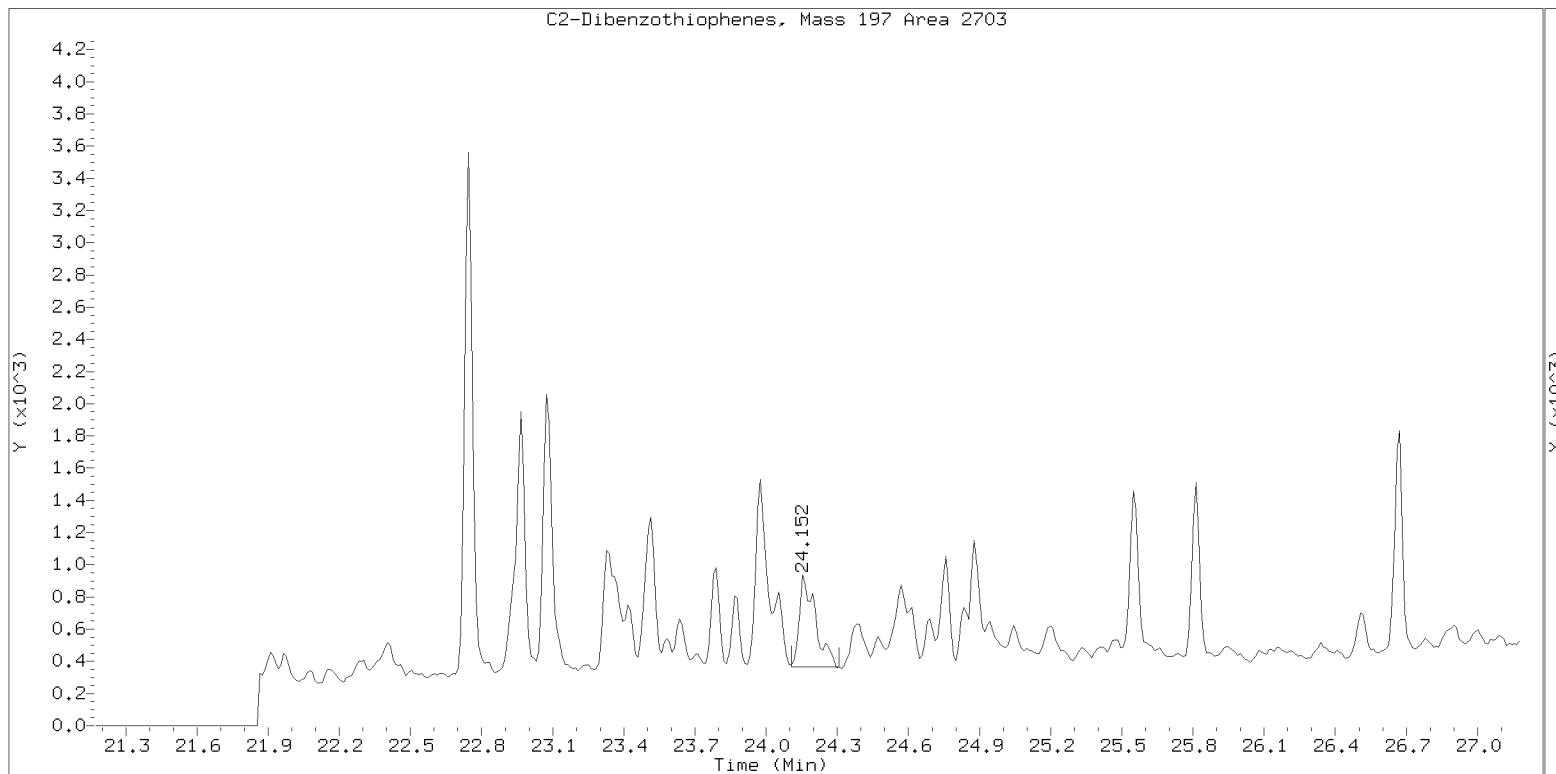
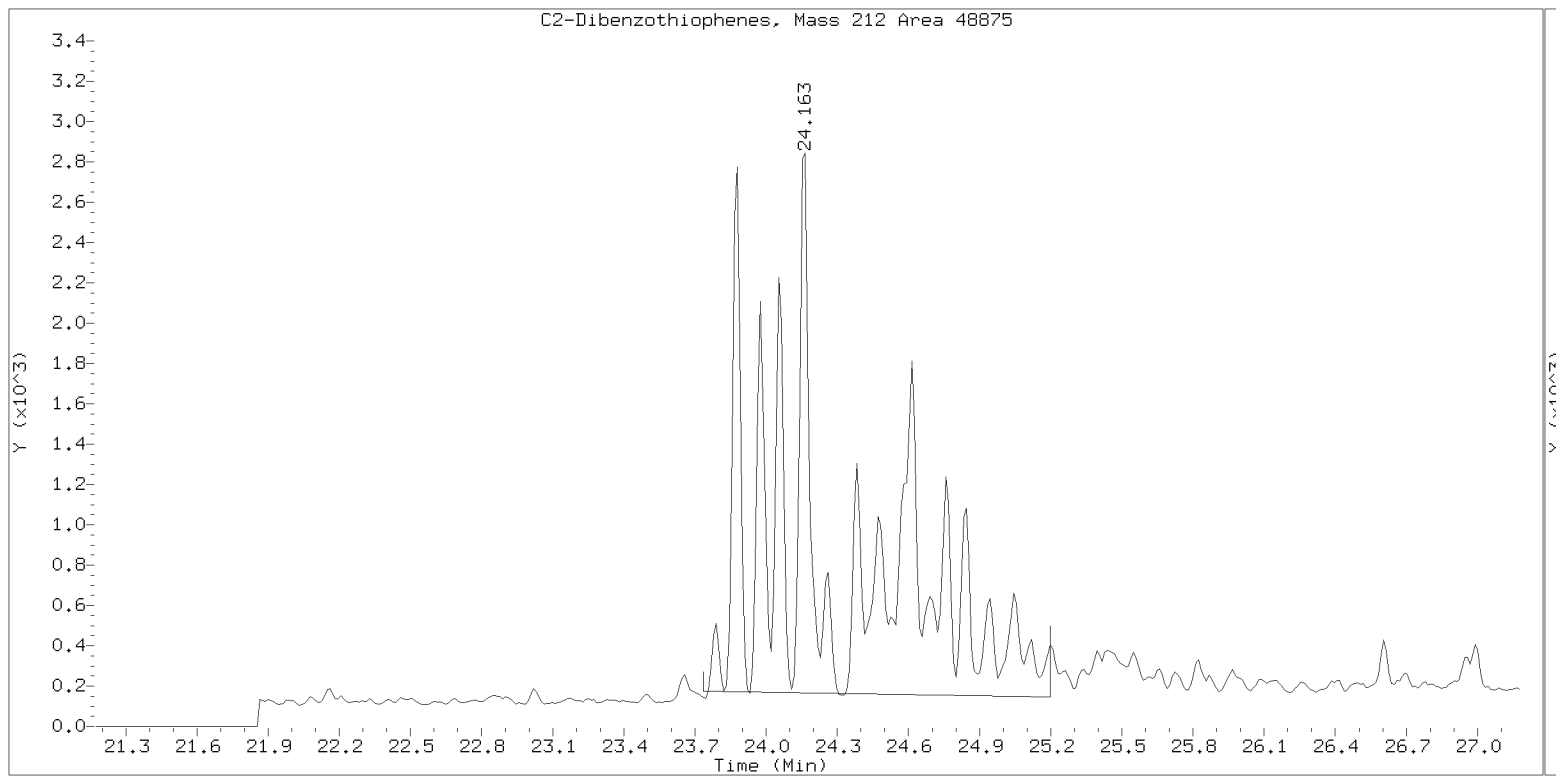
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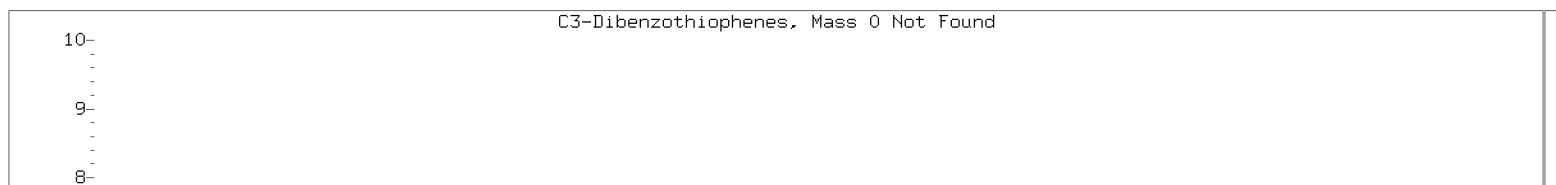
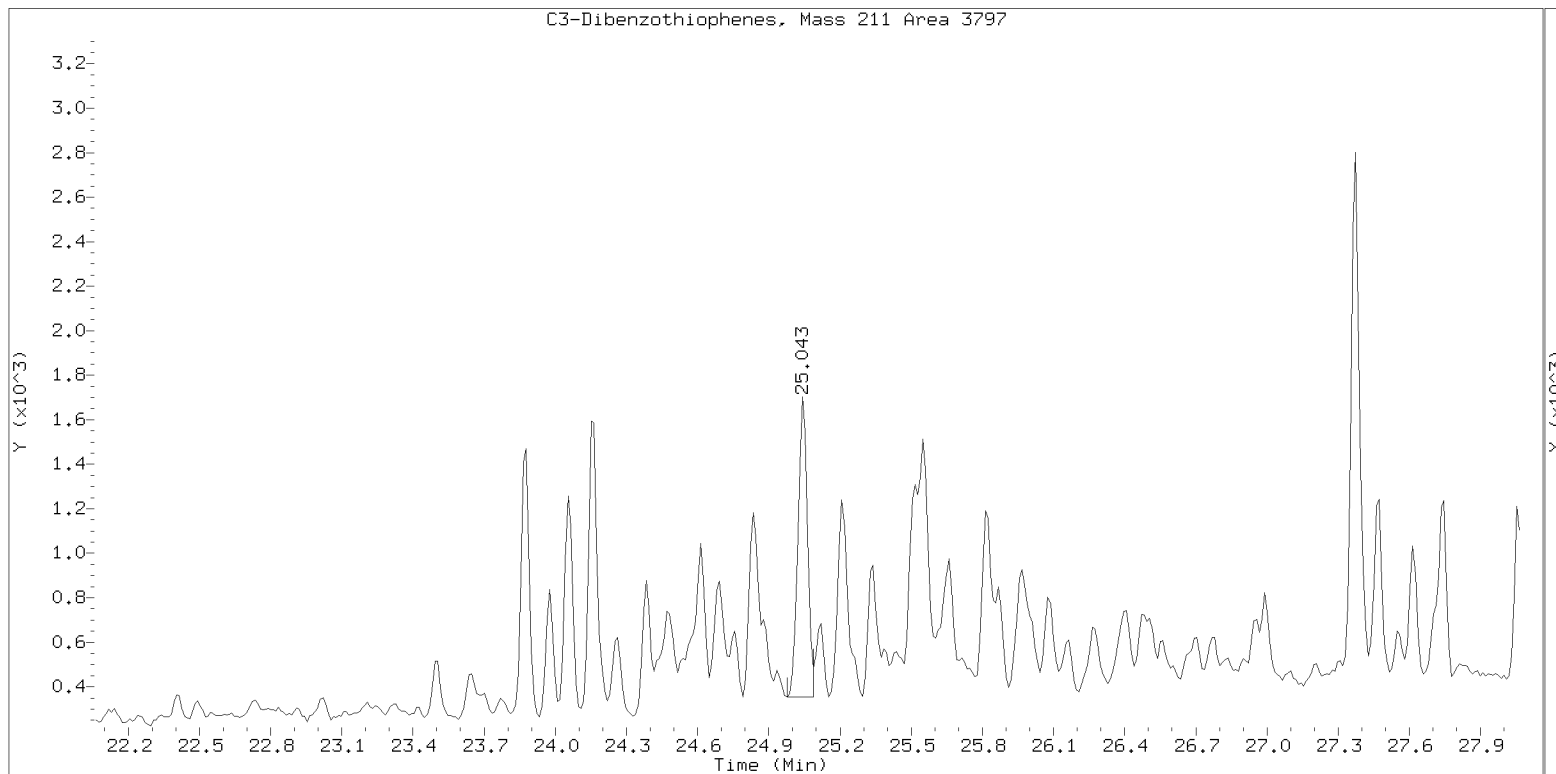
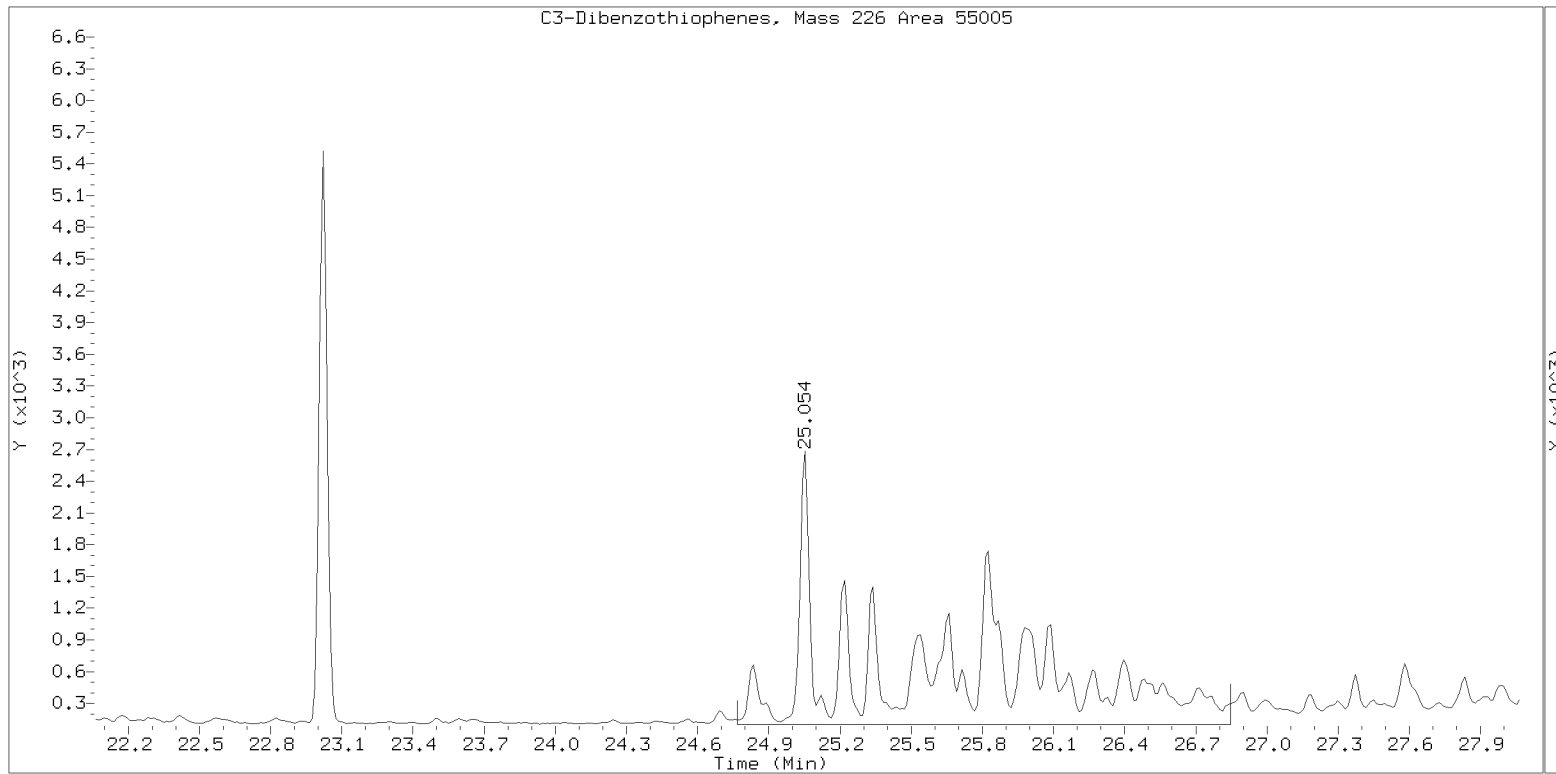
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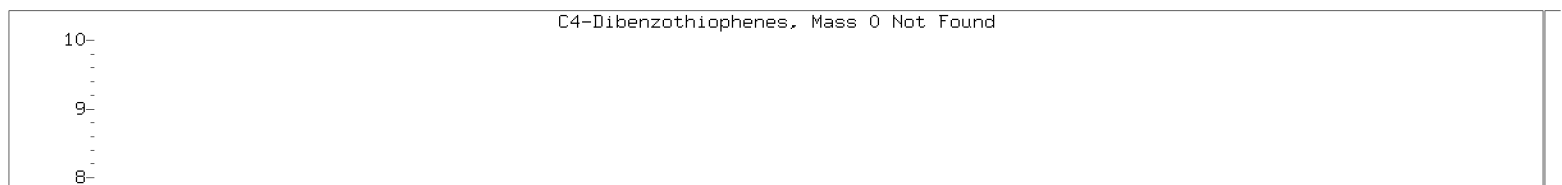
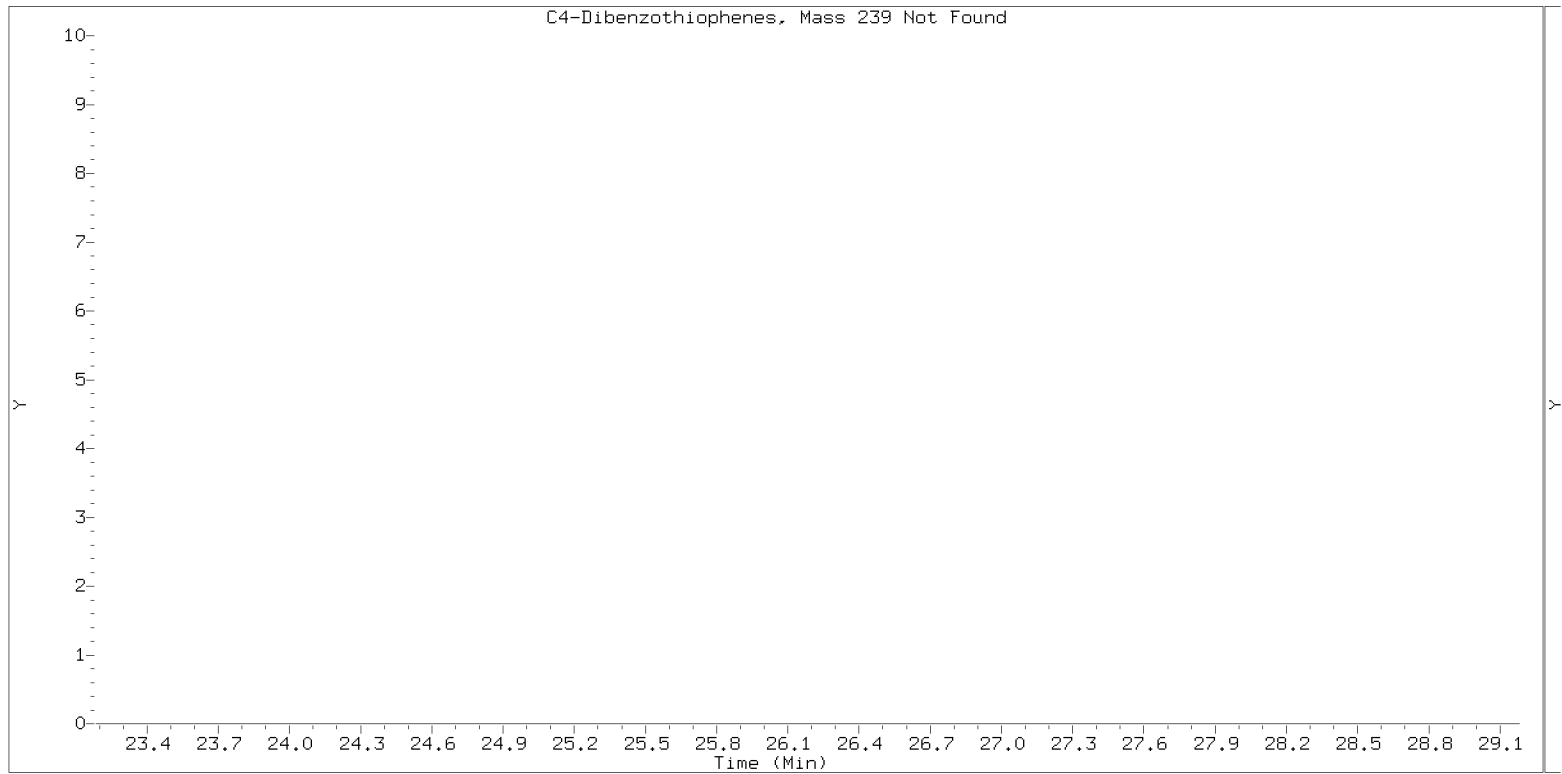
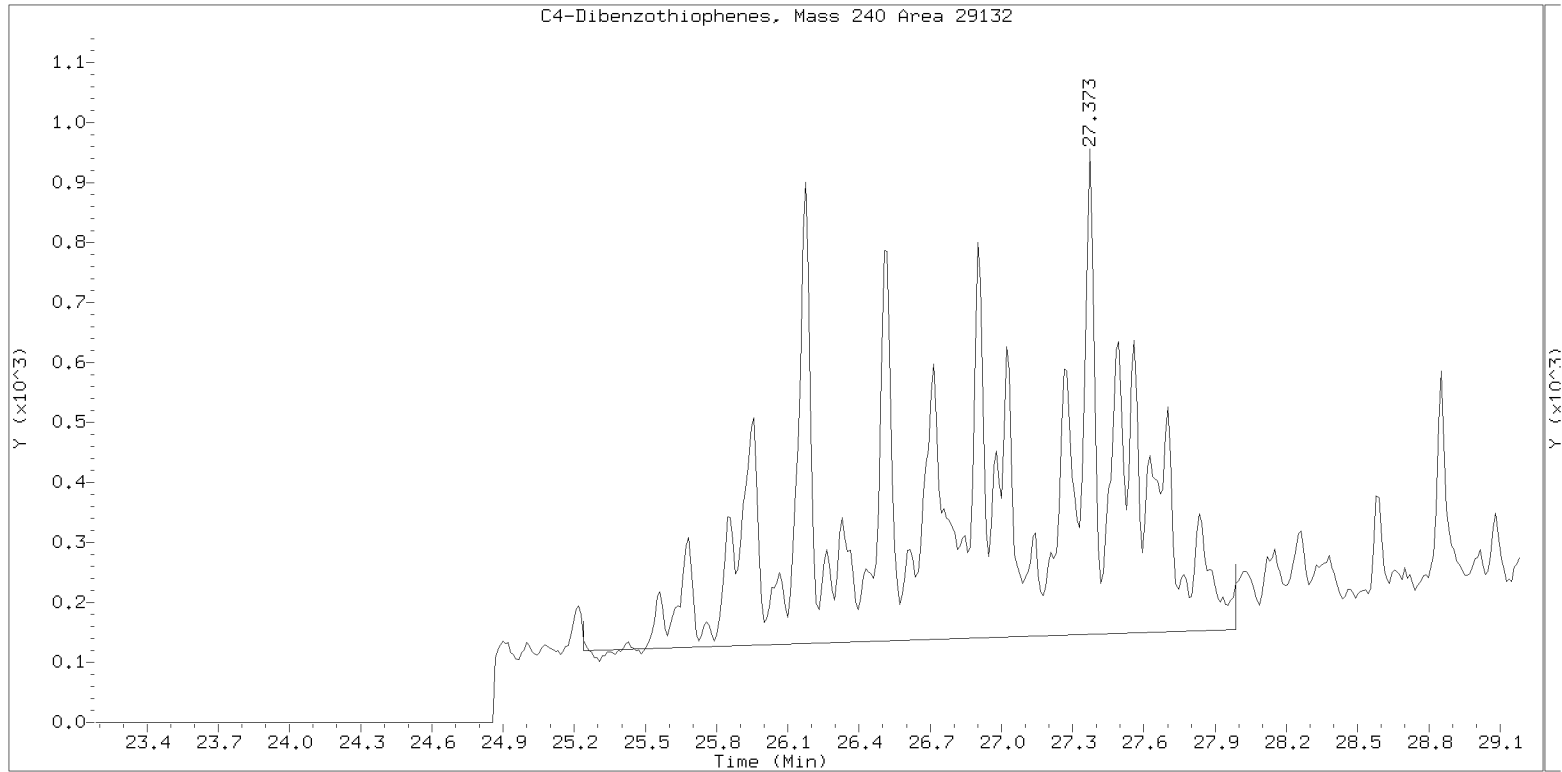
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Lab ID: 20K0204-05

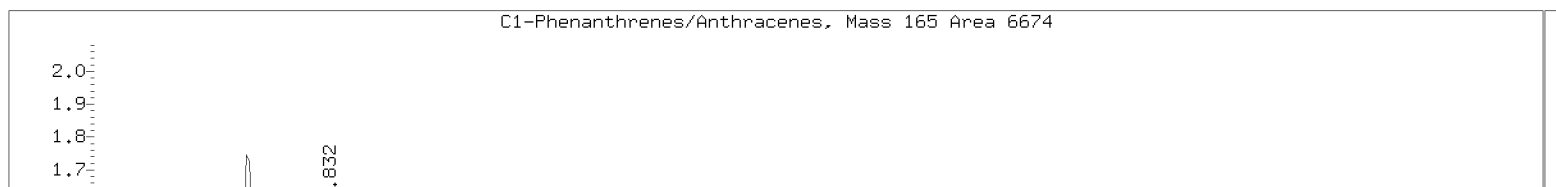
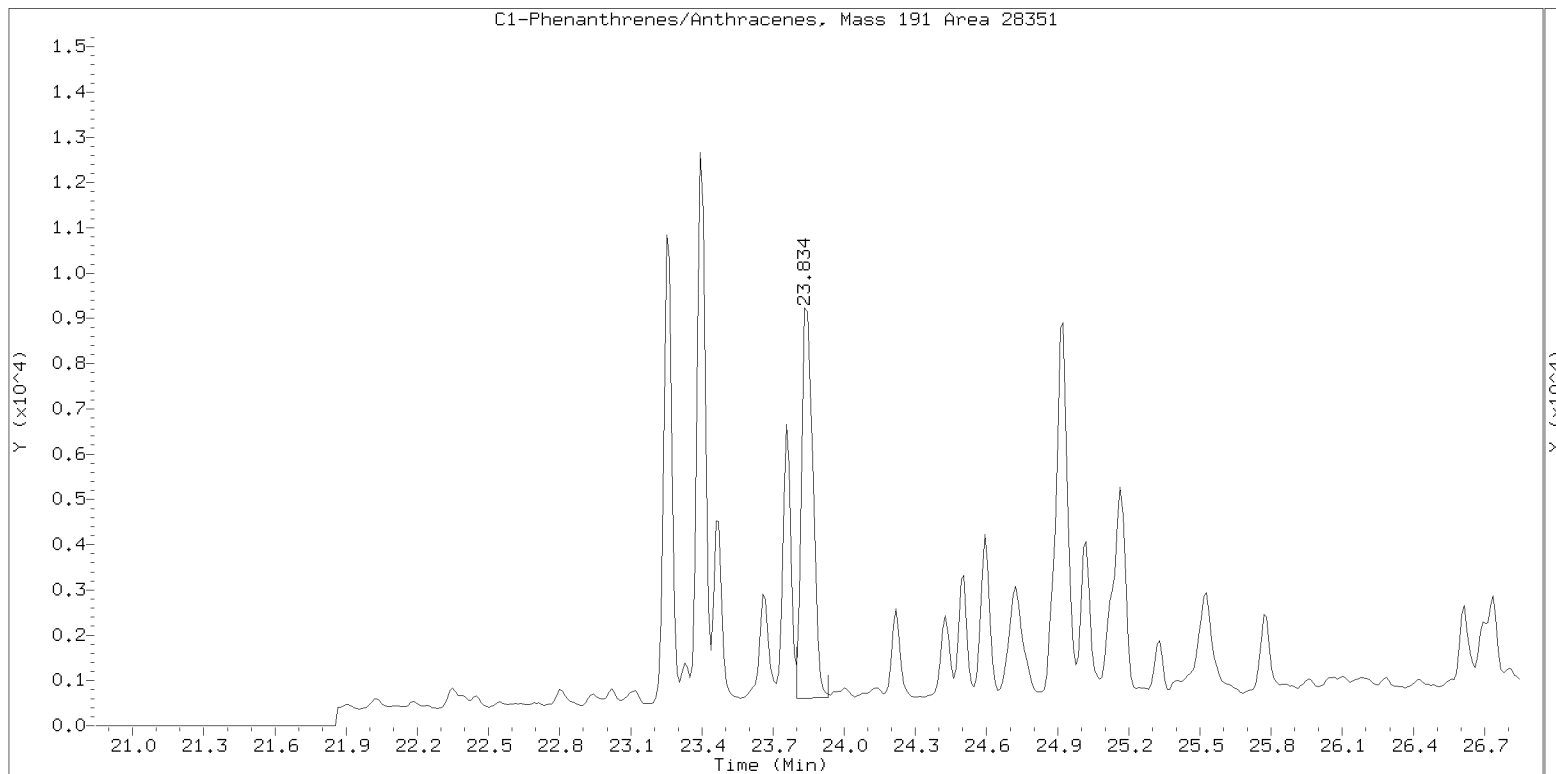
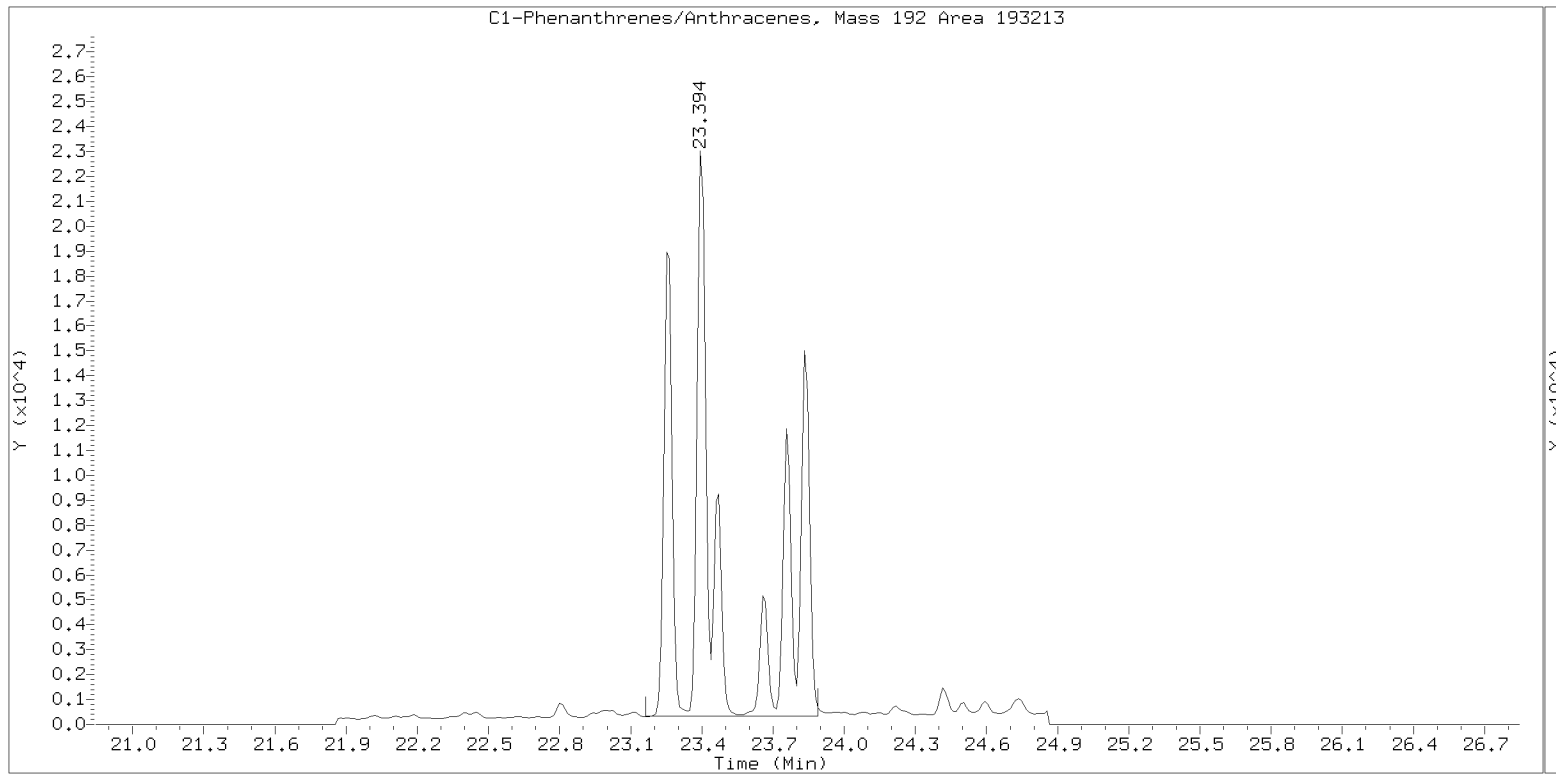
nt14.i, SIM.b\ALKYLRANGE.m, 22-DEC-2020 16:19



SIM ALKYL PNA RANGE ION WINDOWS - NT1420121999S.D

Lab ID: 20K0204-05

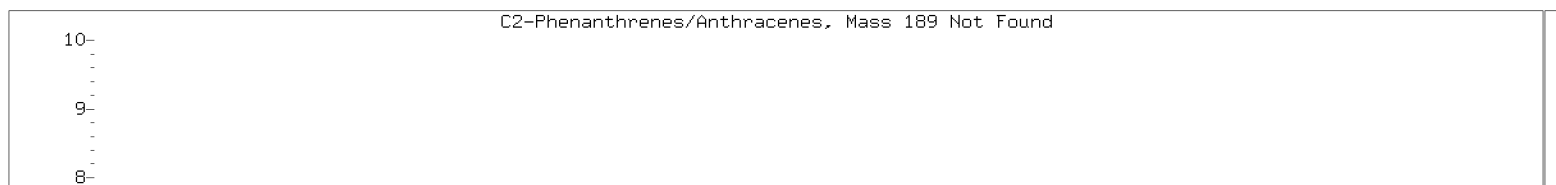
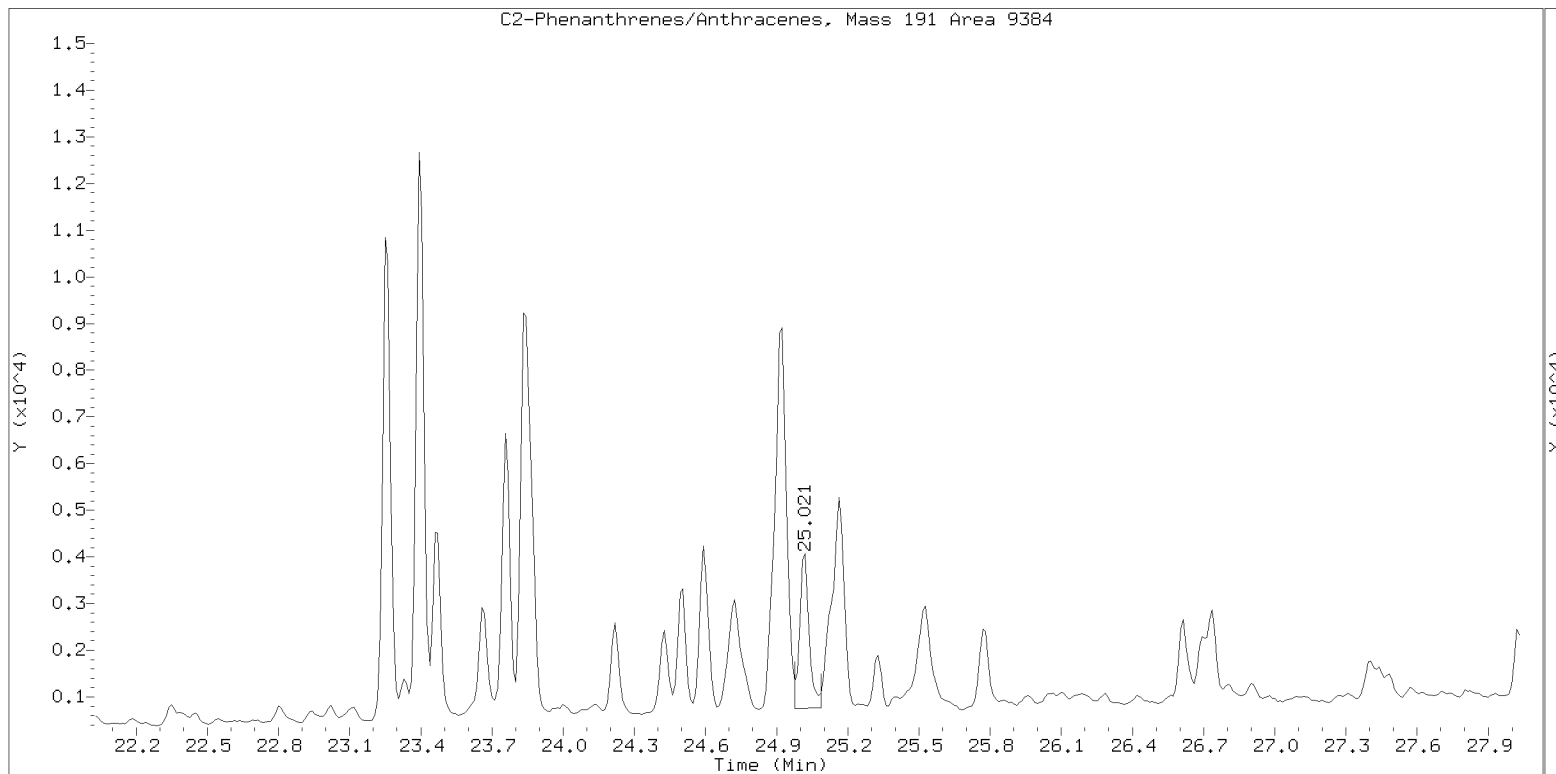
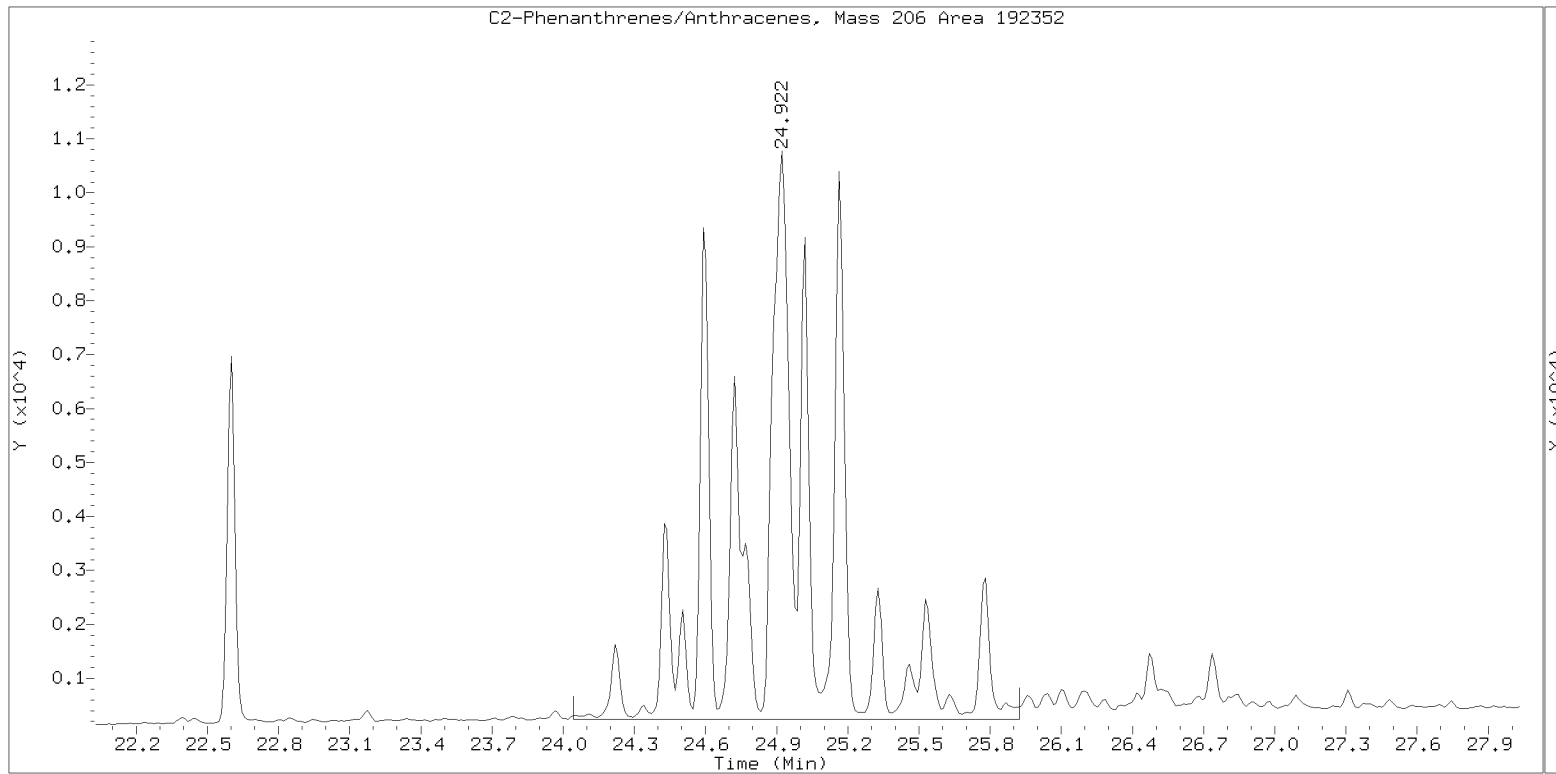
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420121999S.D

Lab ID: 20K0204-05

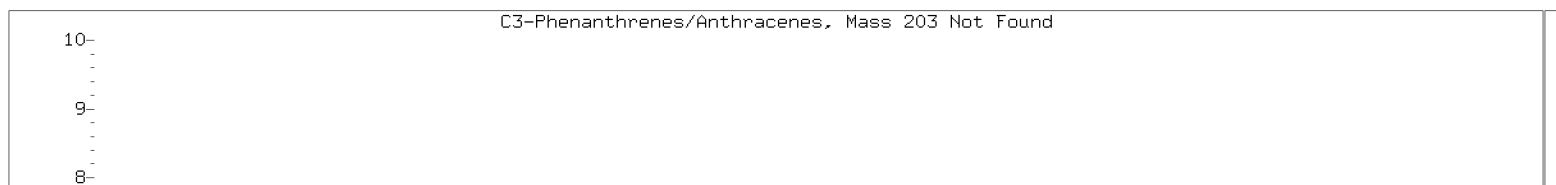
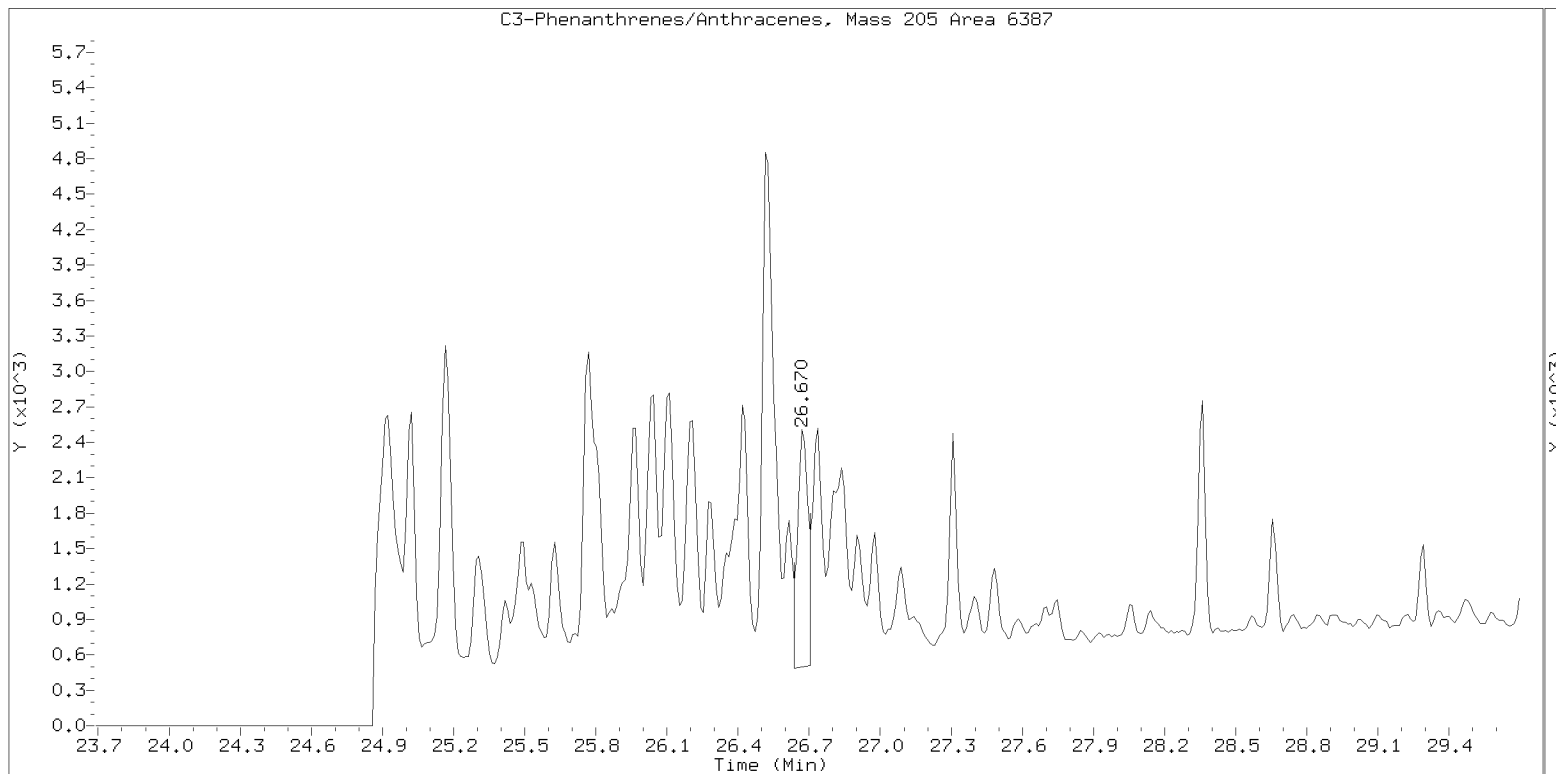
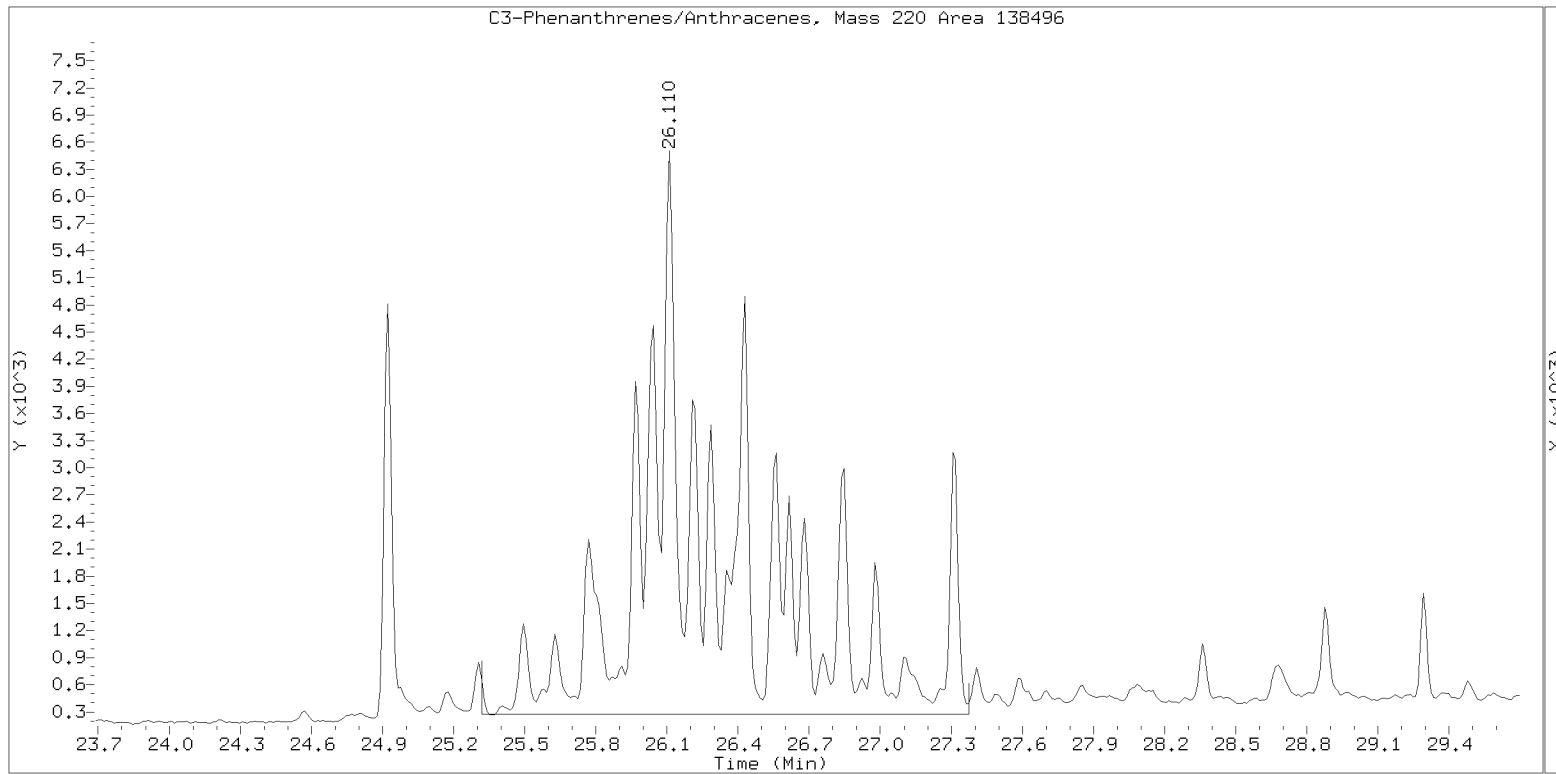
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420121999S.D

Lab ID: 20K0204-05

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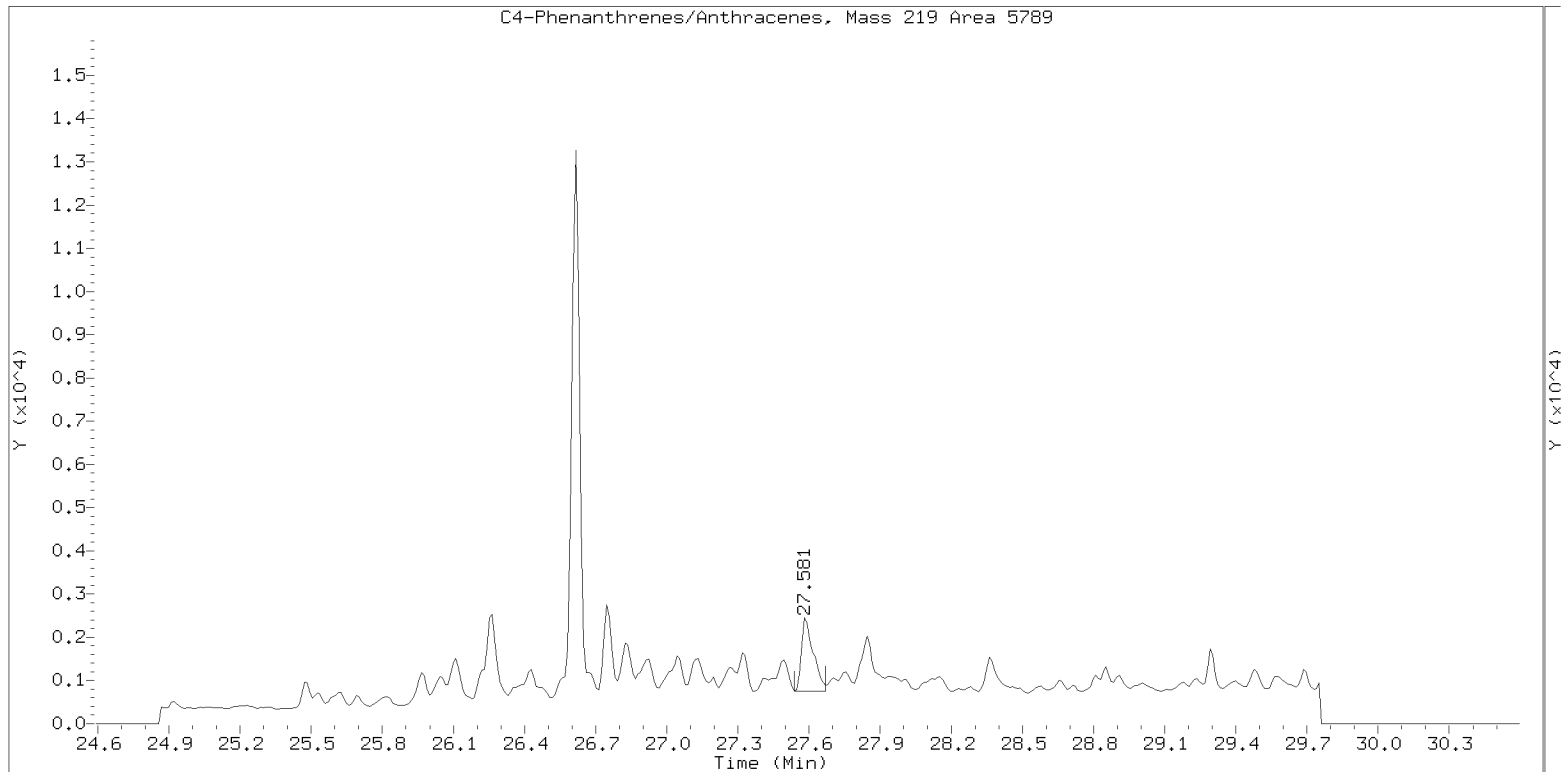
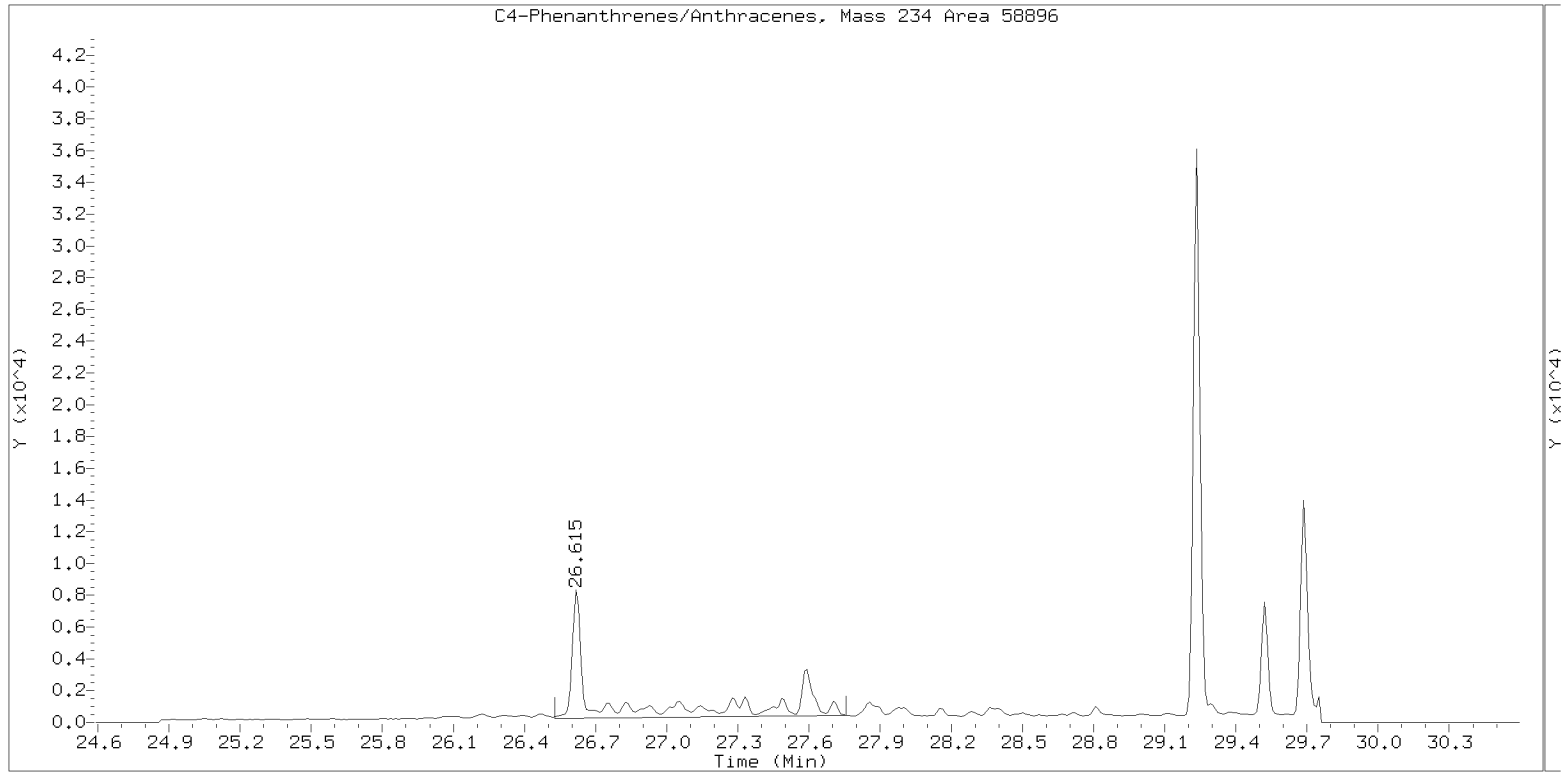




SIM ALKYL PNA RANGE ION WINDOWS - NT1420121999S.D

Lab ID: 20K0204-05

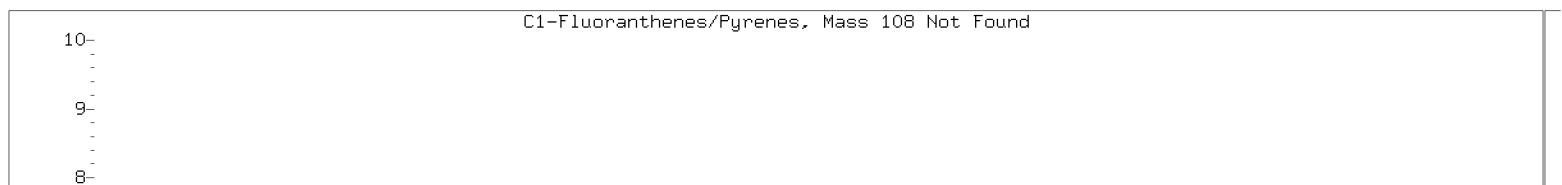
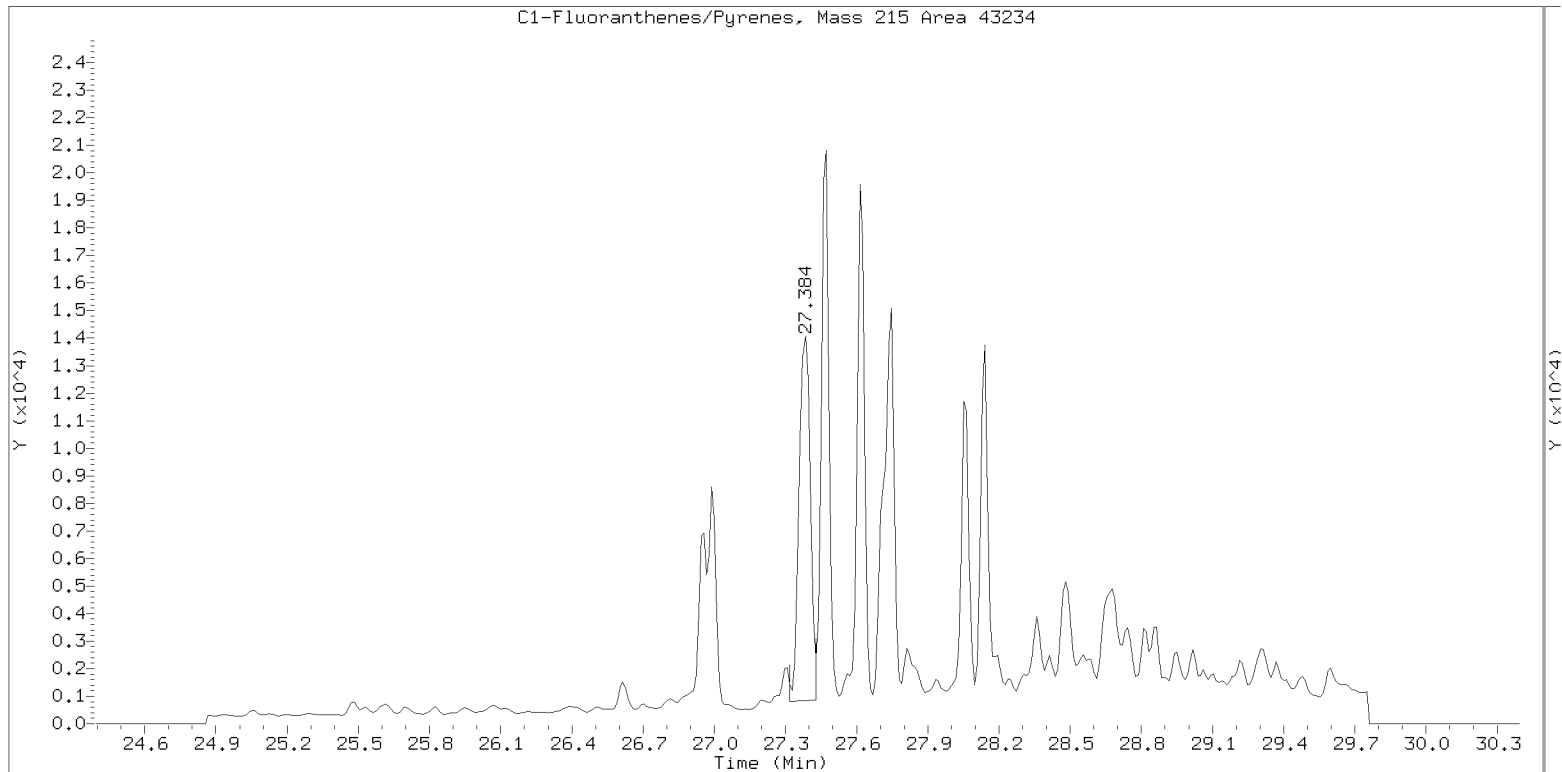
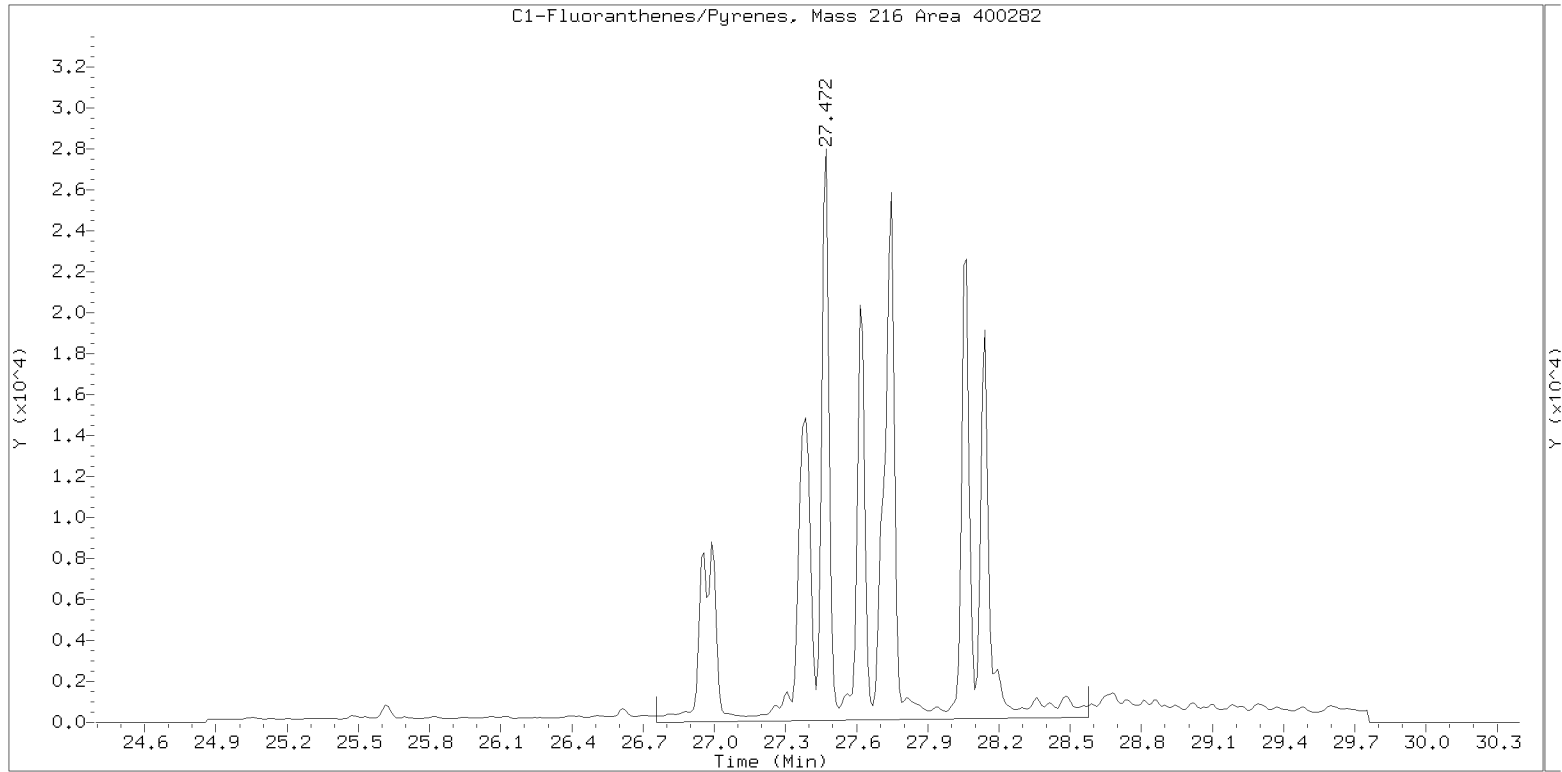
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420121999S.D

Lab ID: 20K0204-05

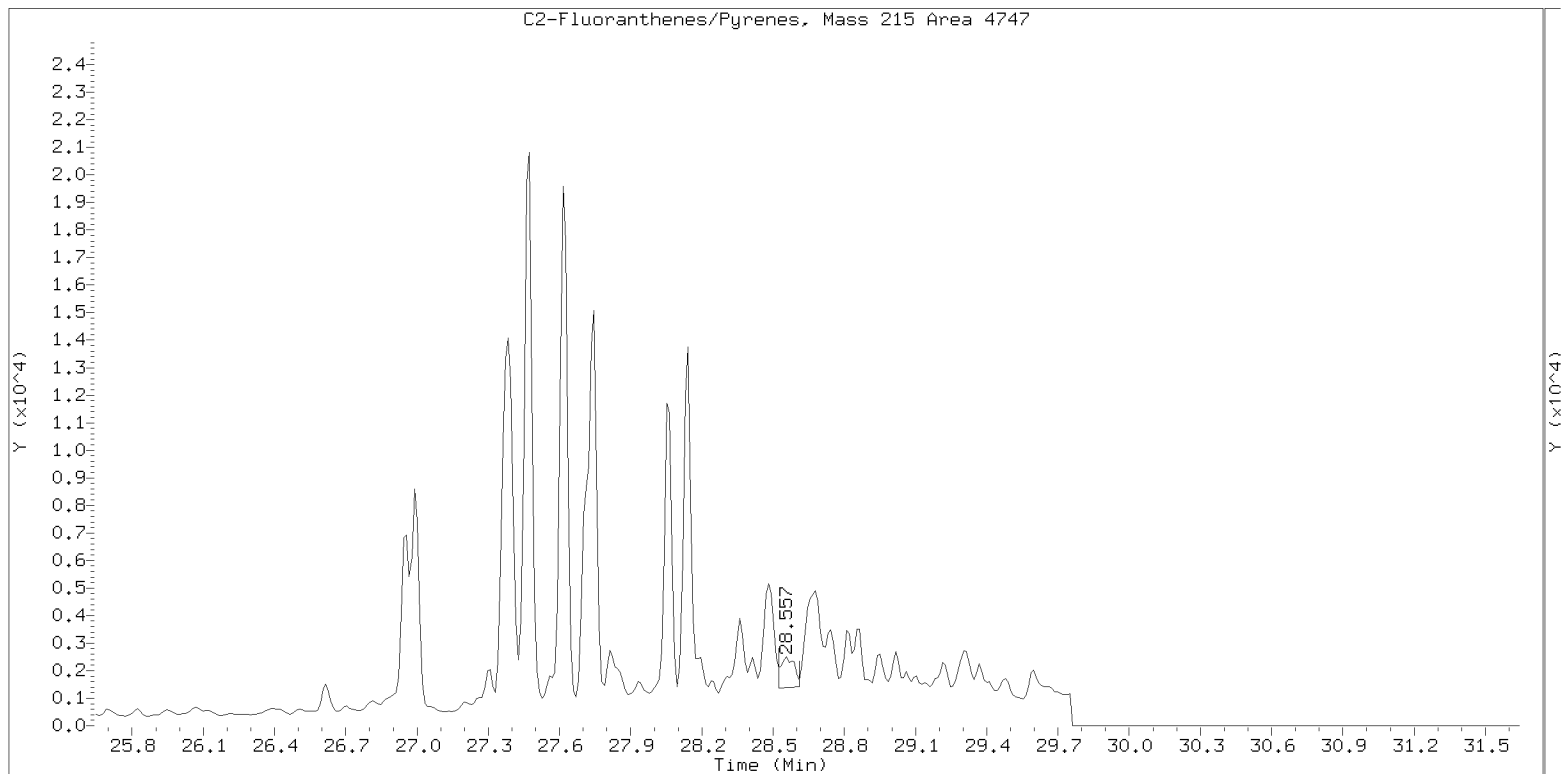
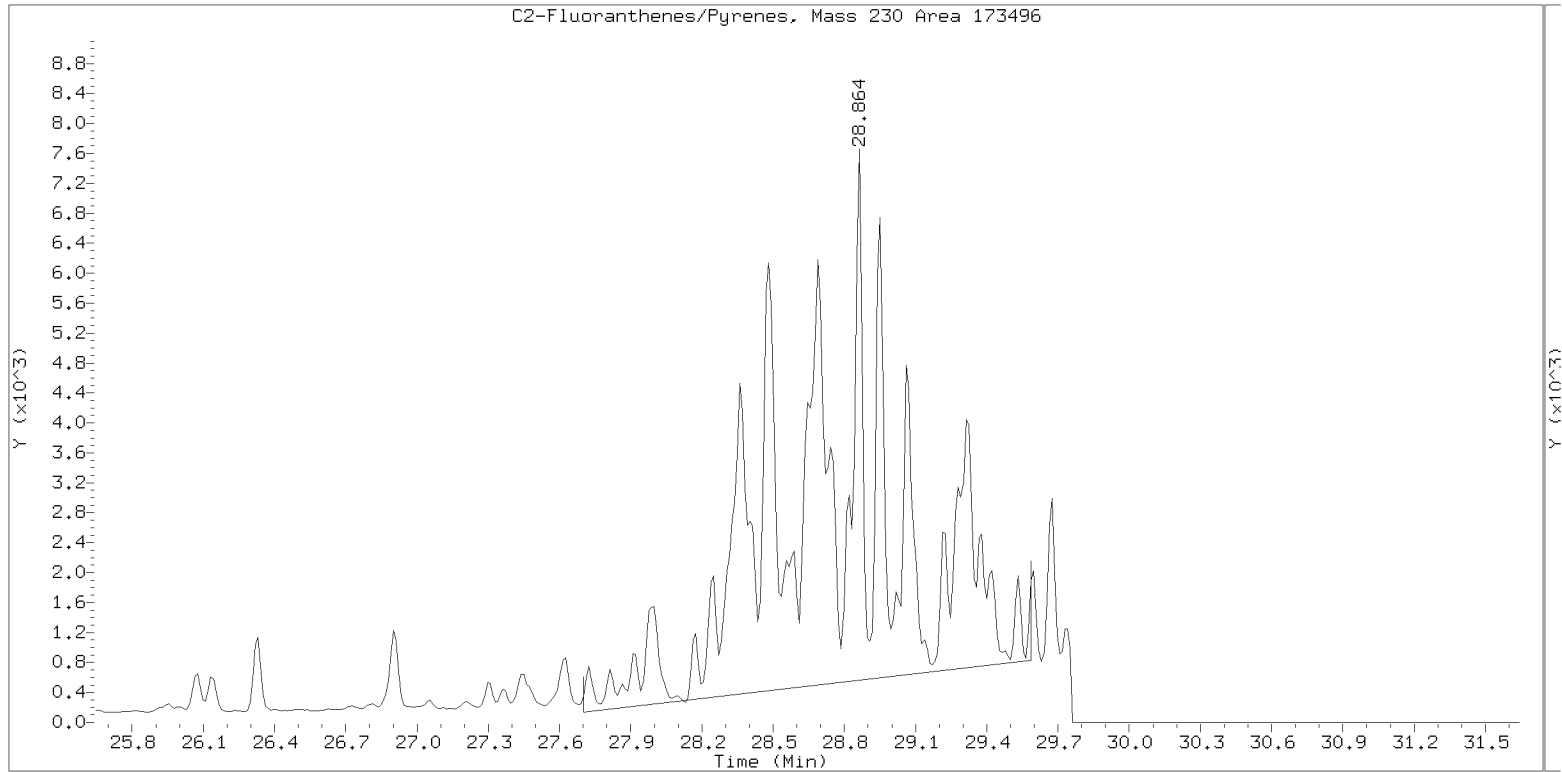
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420121999S.D

Lab ID: 20K0204-05

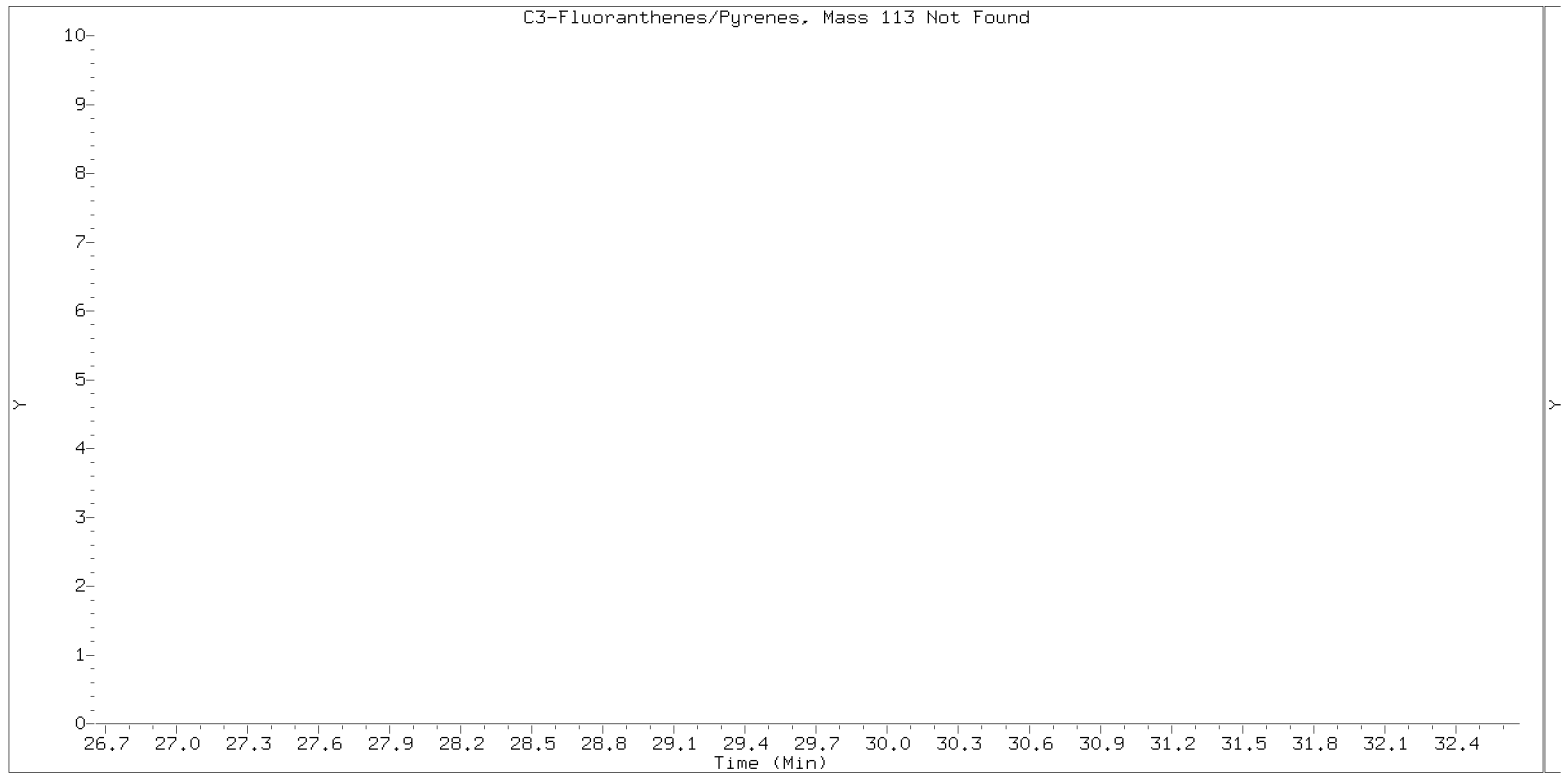
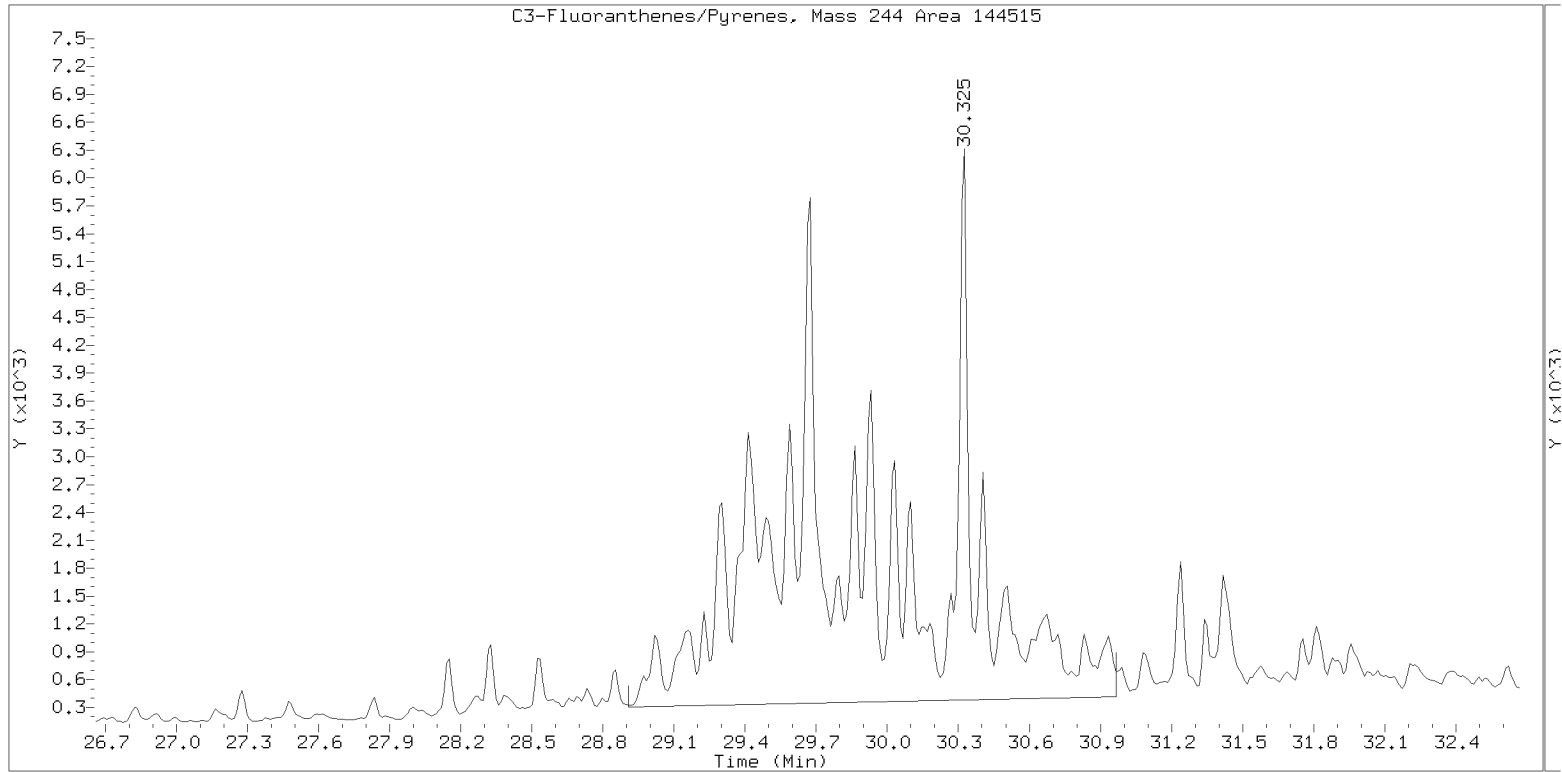
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420121999S.D

Lab ID: 20K0204-05

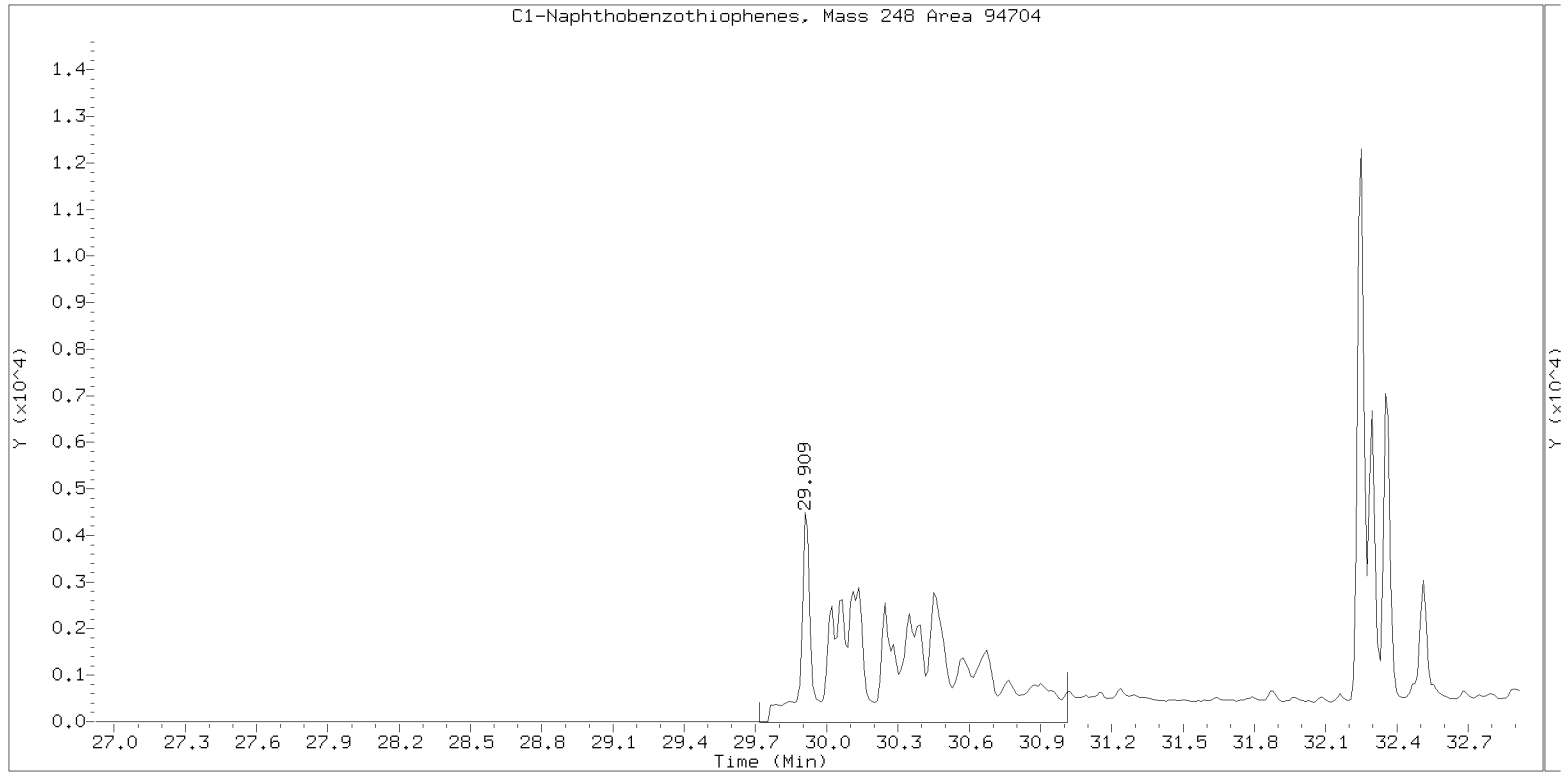
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420121999S.D

Lab ID: 20K0204-05

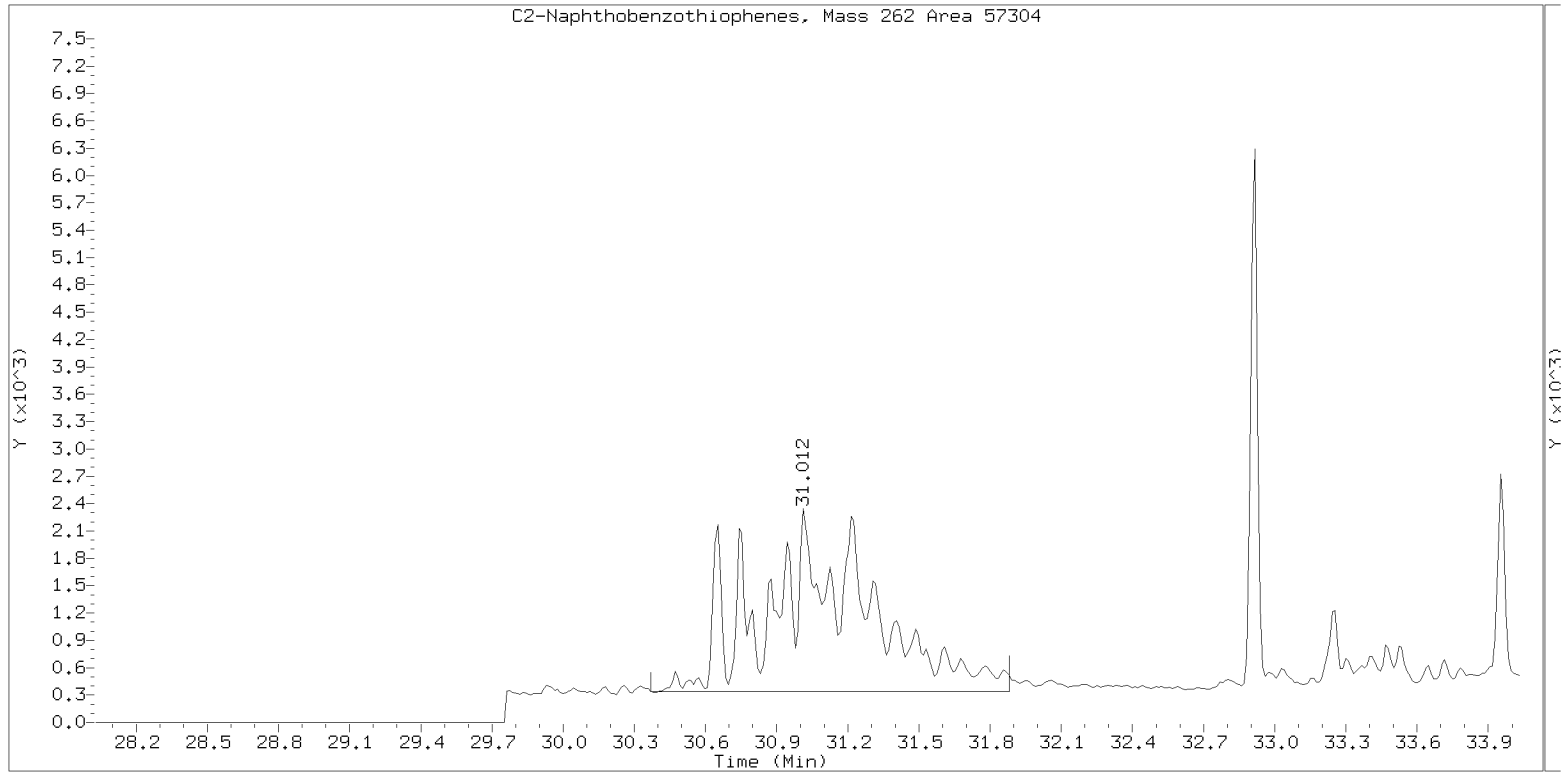
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420121999S.D

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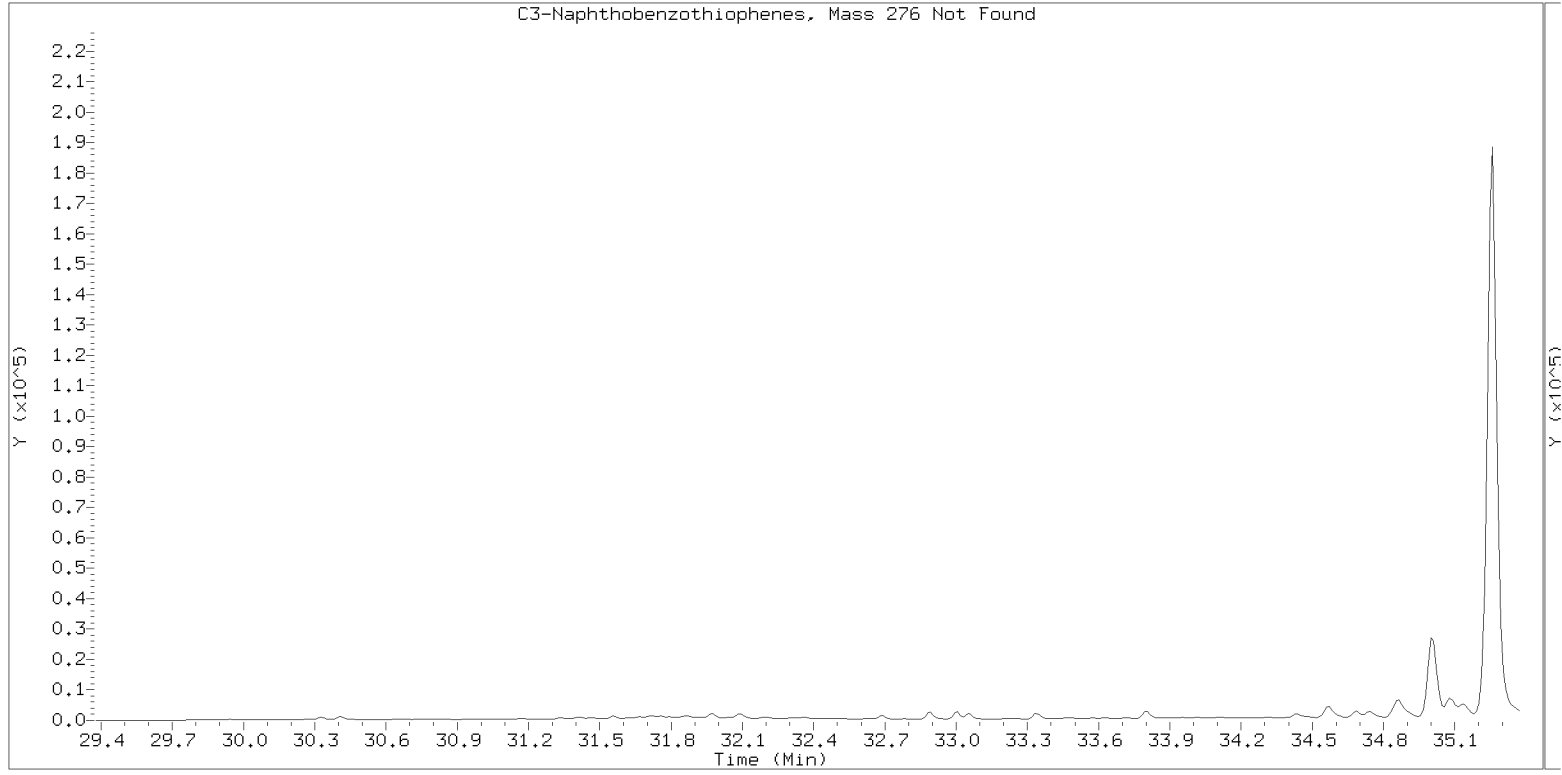
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420121999S.D

Lab ID: 20K0204-05

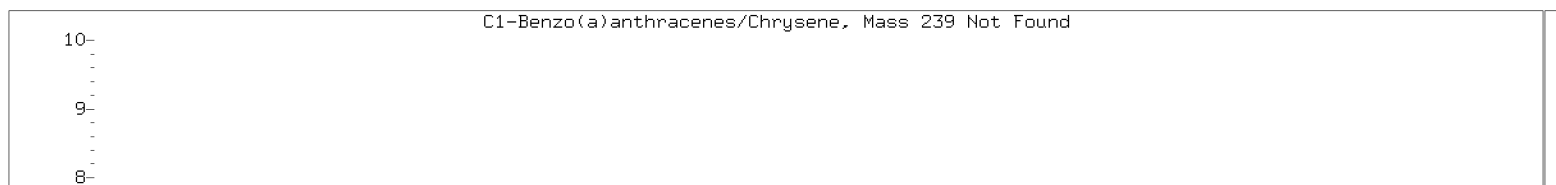
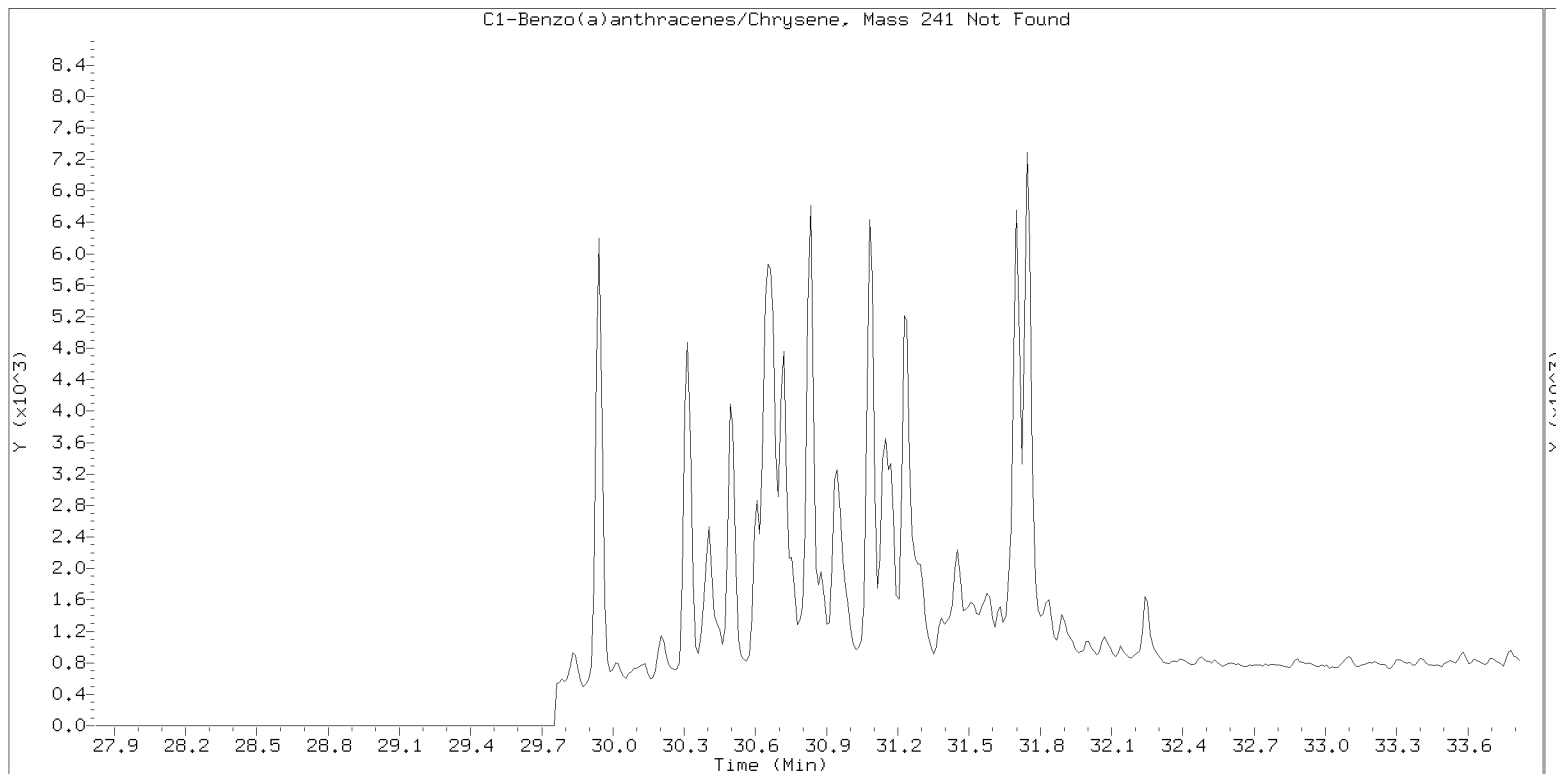
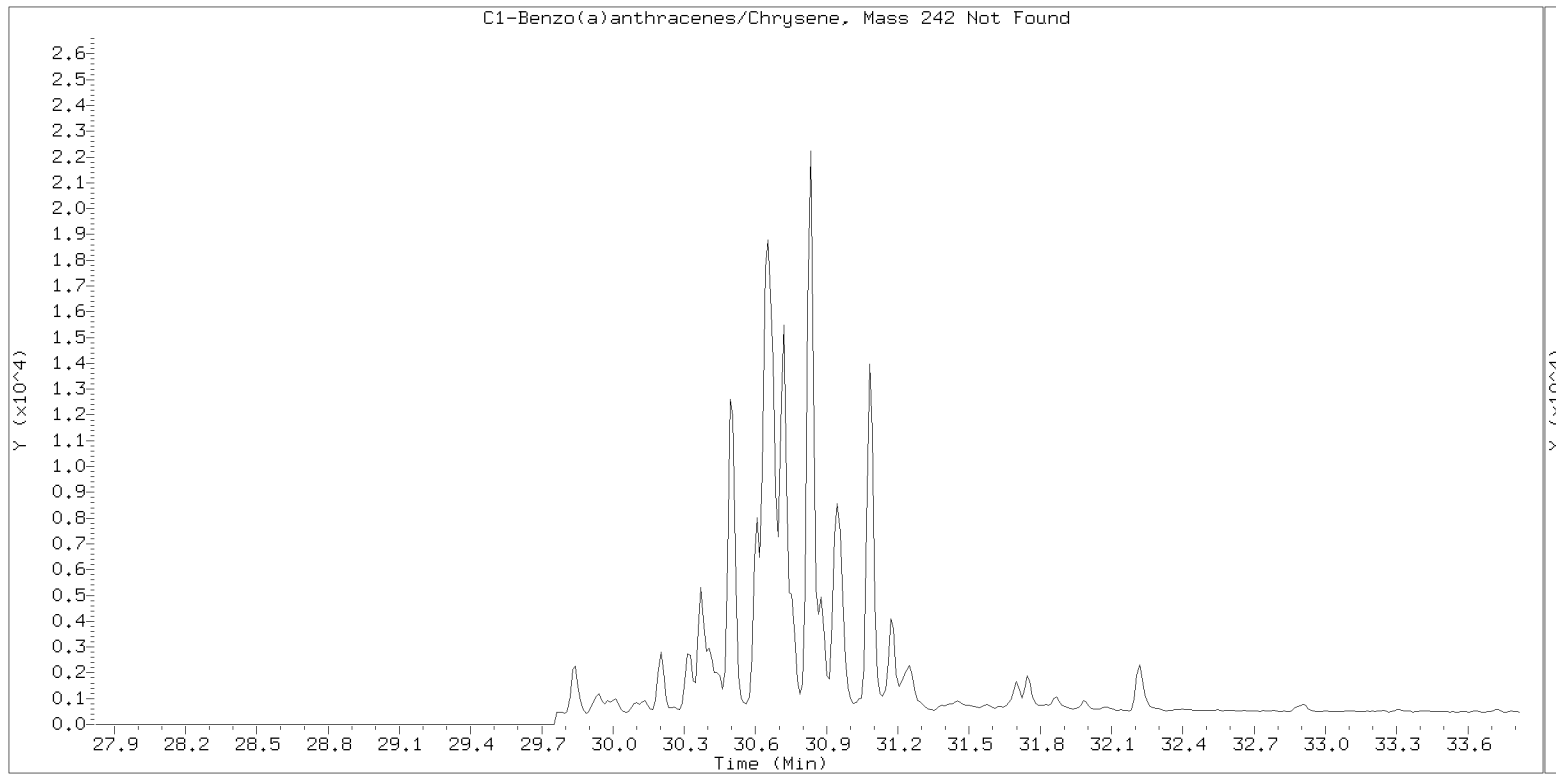
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420121999S.D

Lab ID: 20K0204-05

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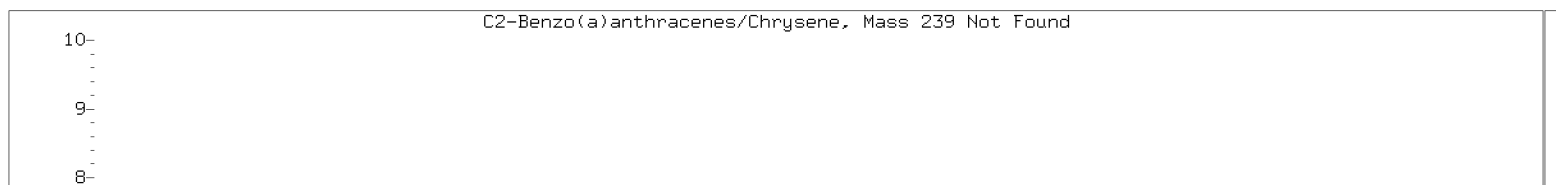
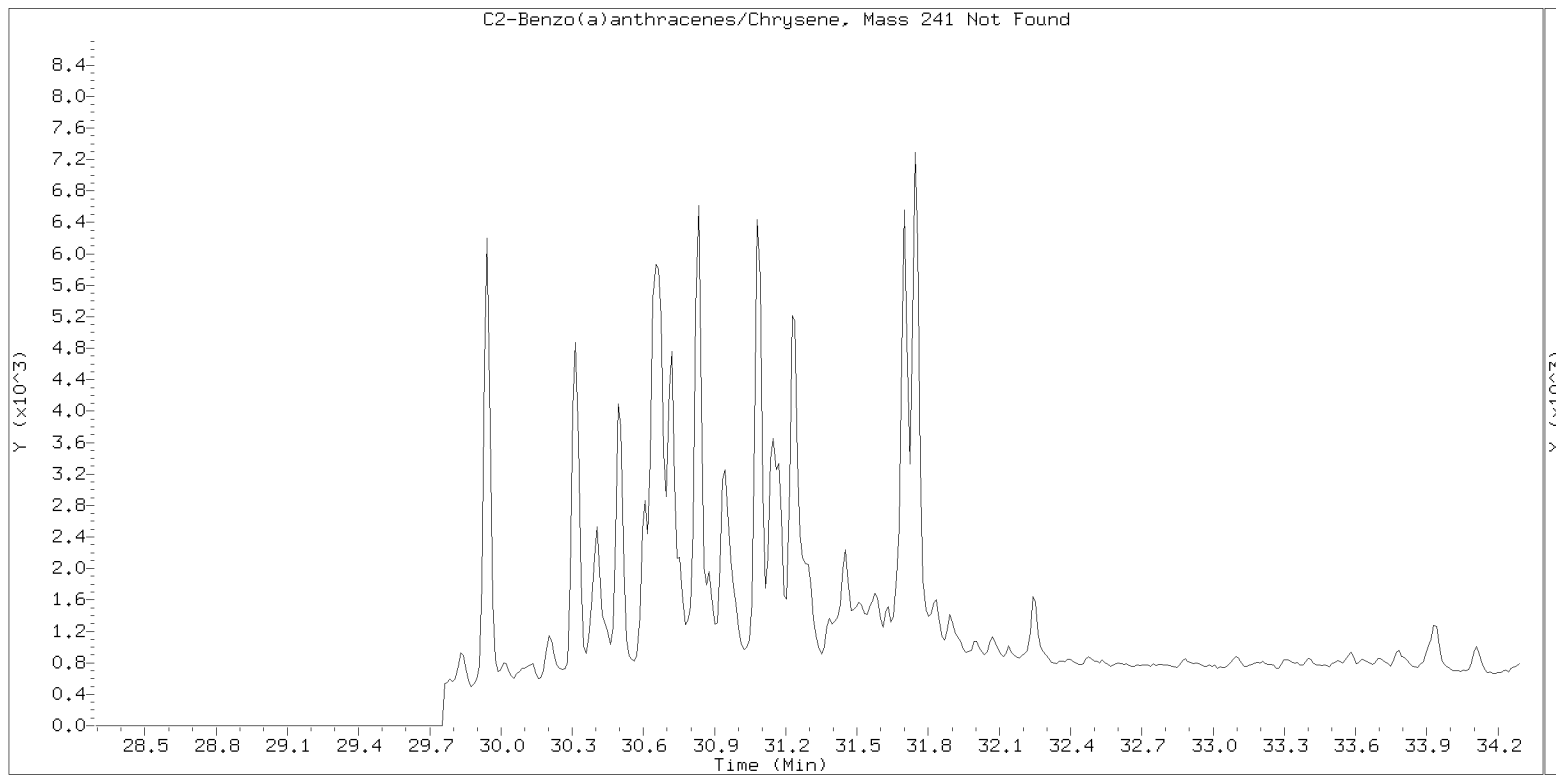
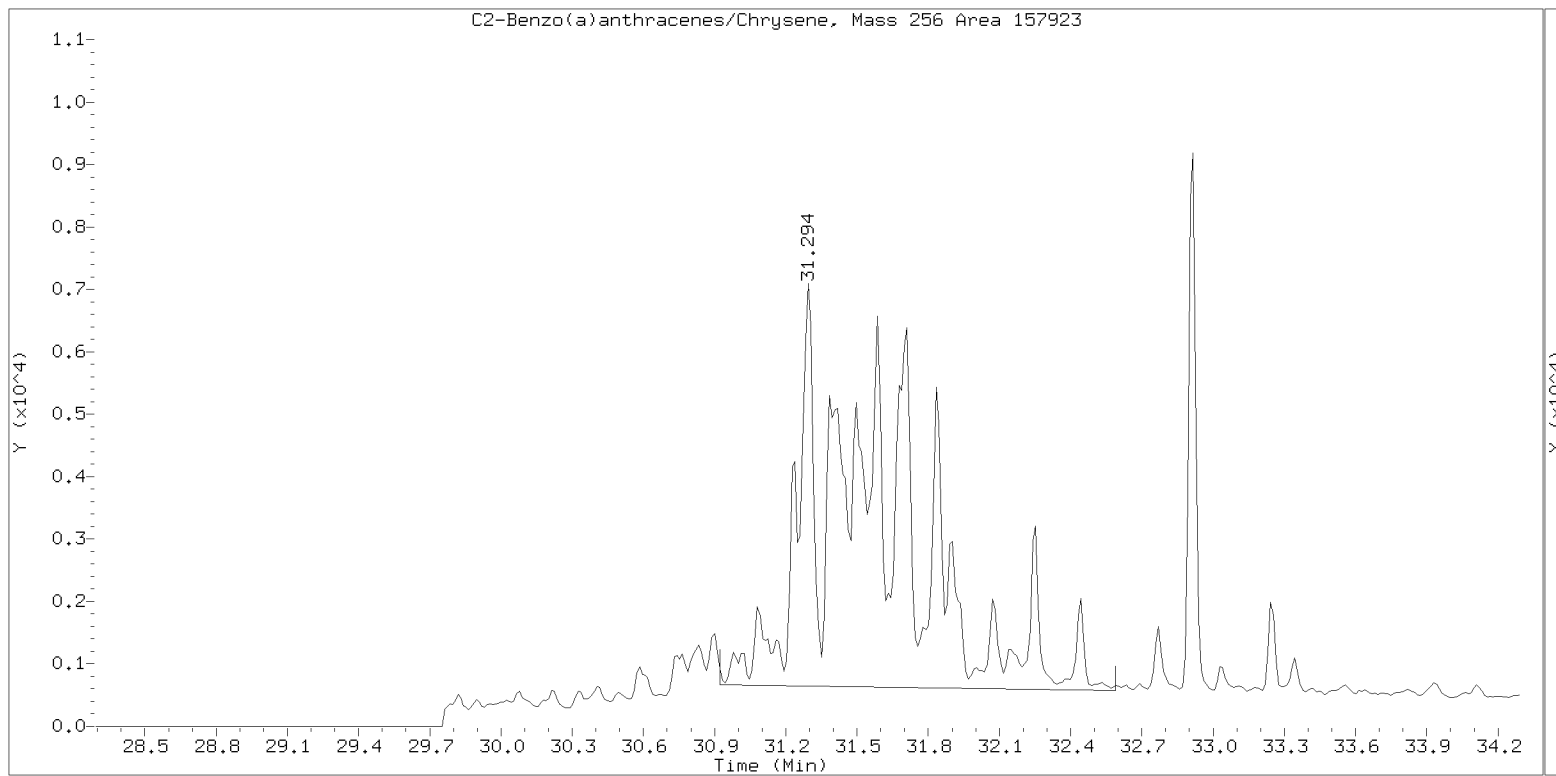




SIM ALKYL PNA RANGE ION WINDOWS - NT1420121999S.D

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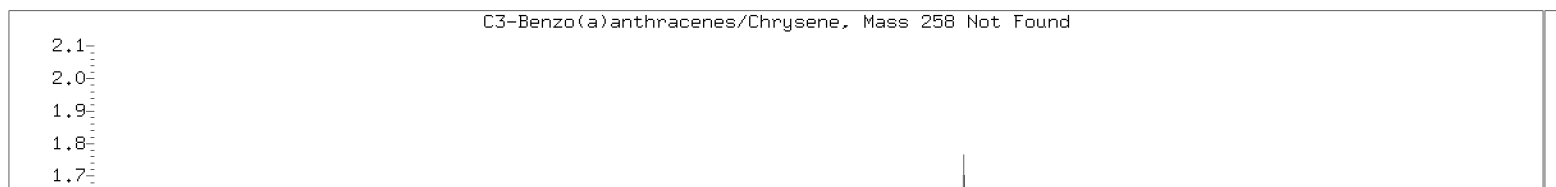
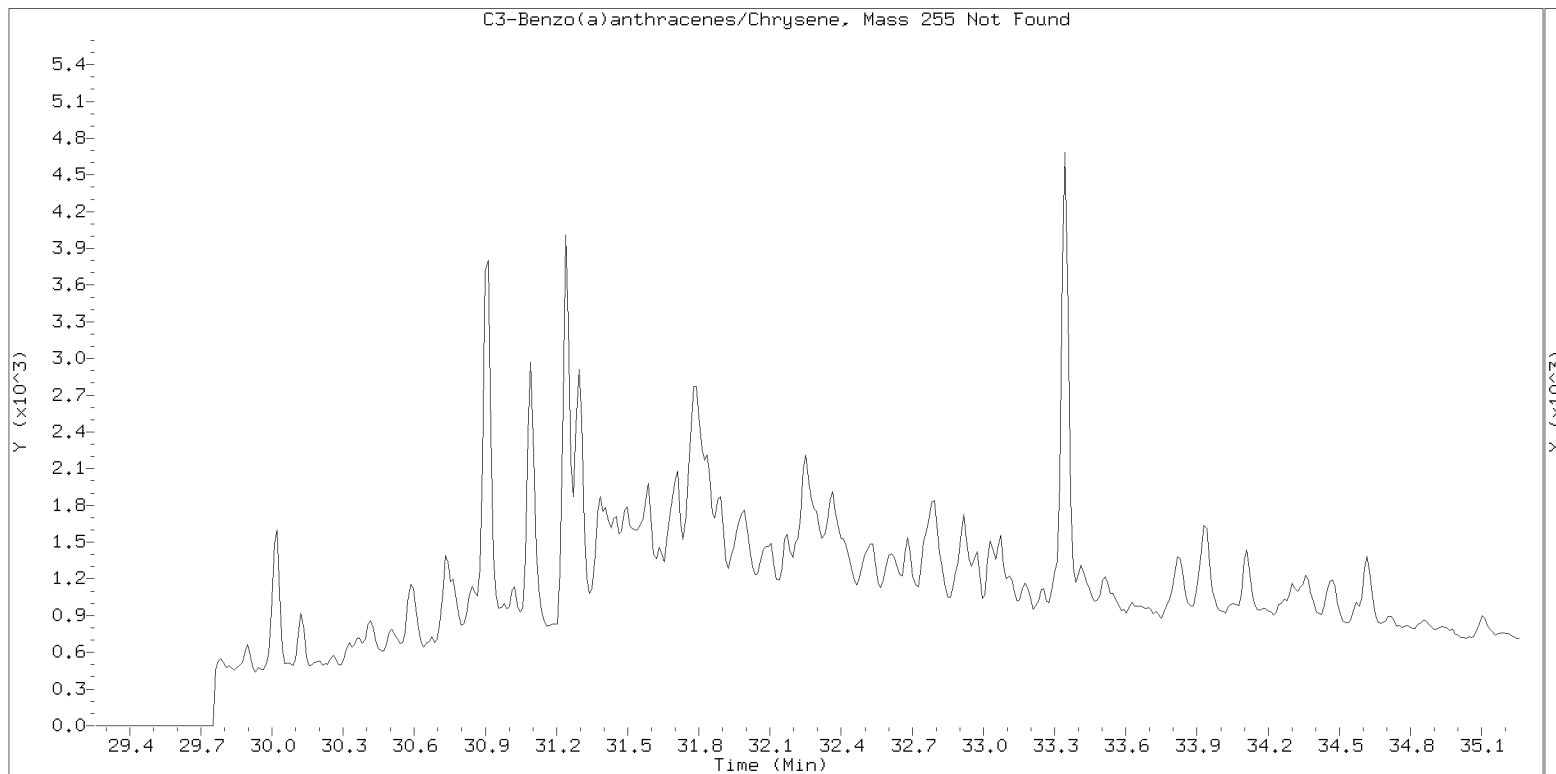
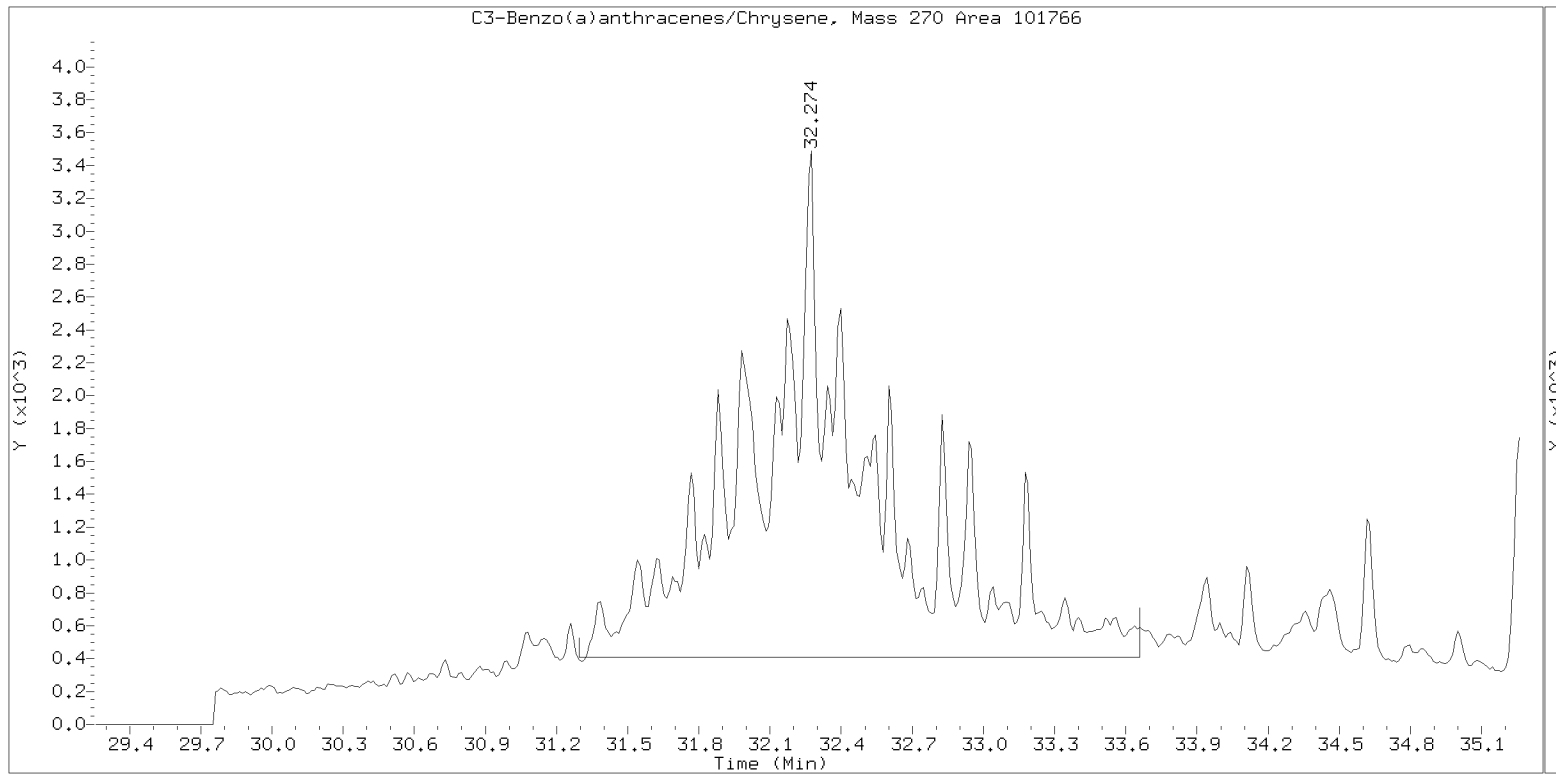
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420121999S.D

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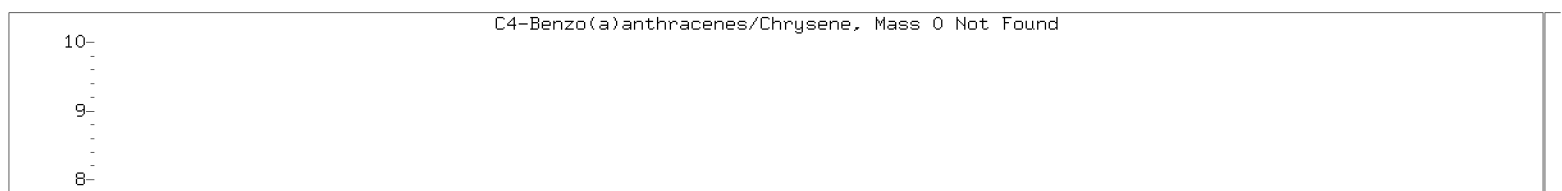
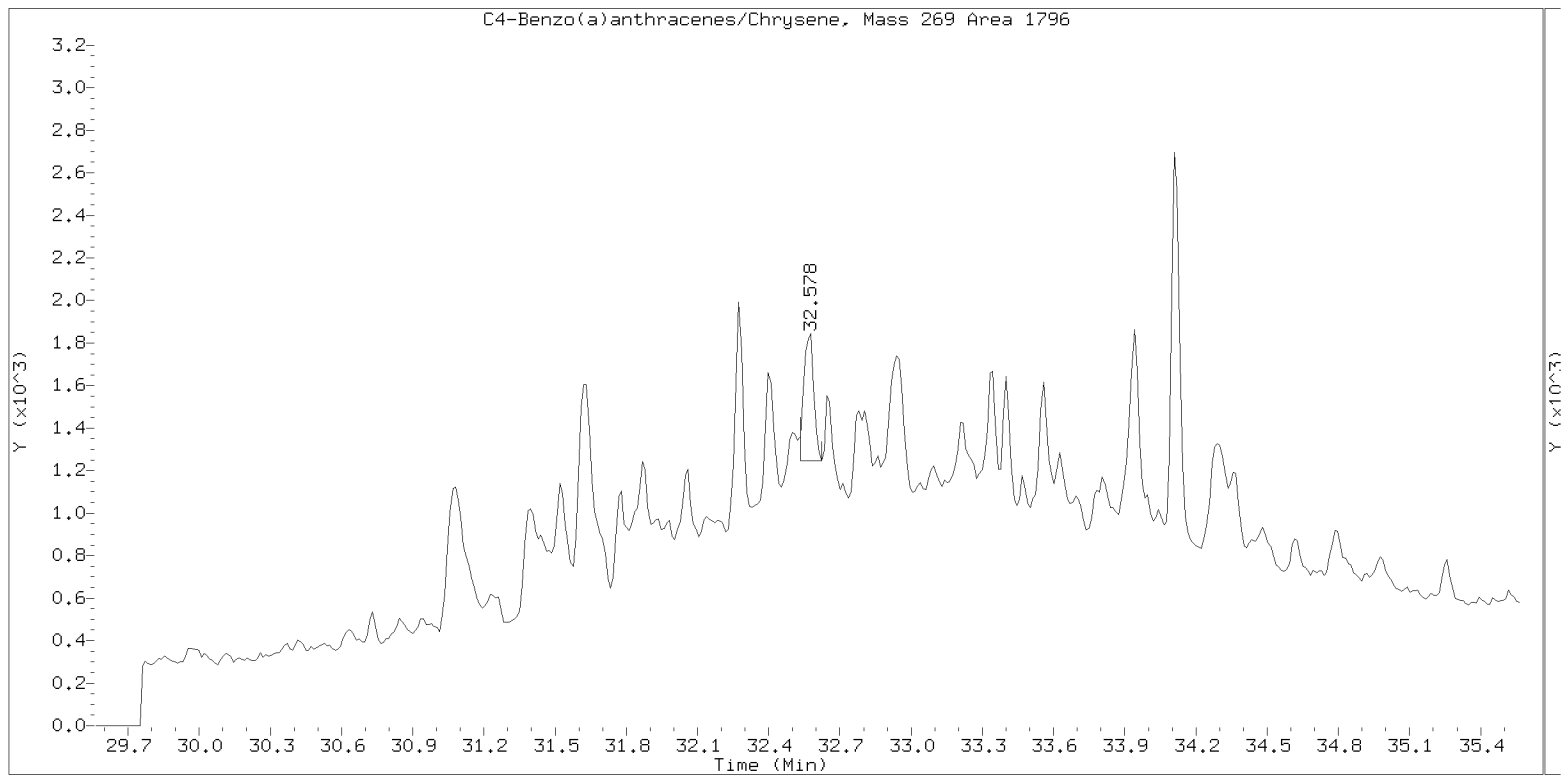
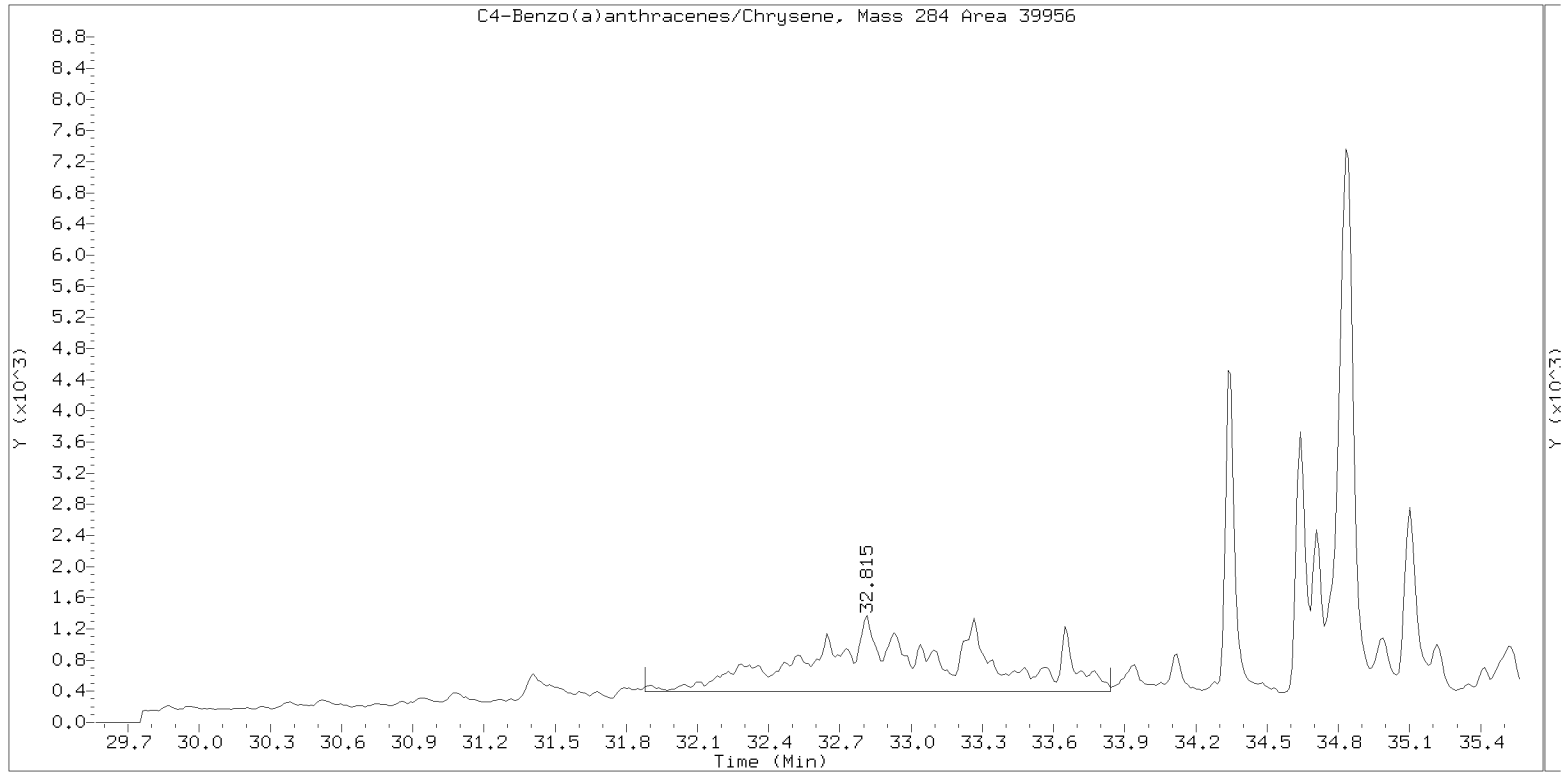
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420121999S.D

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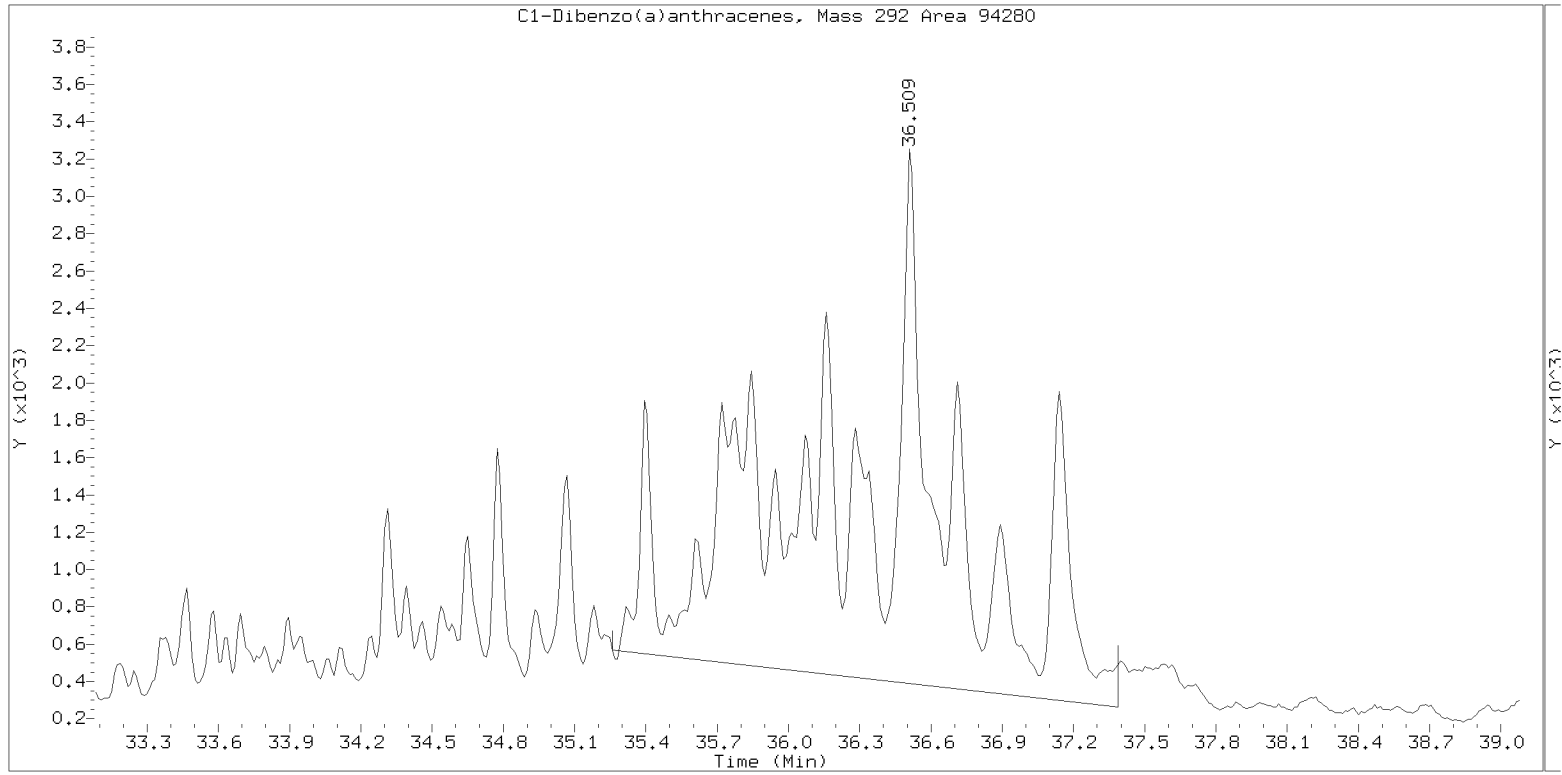
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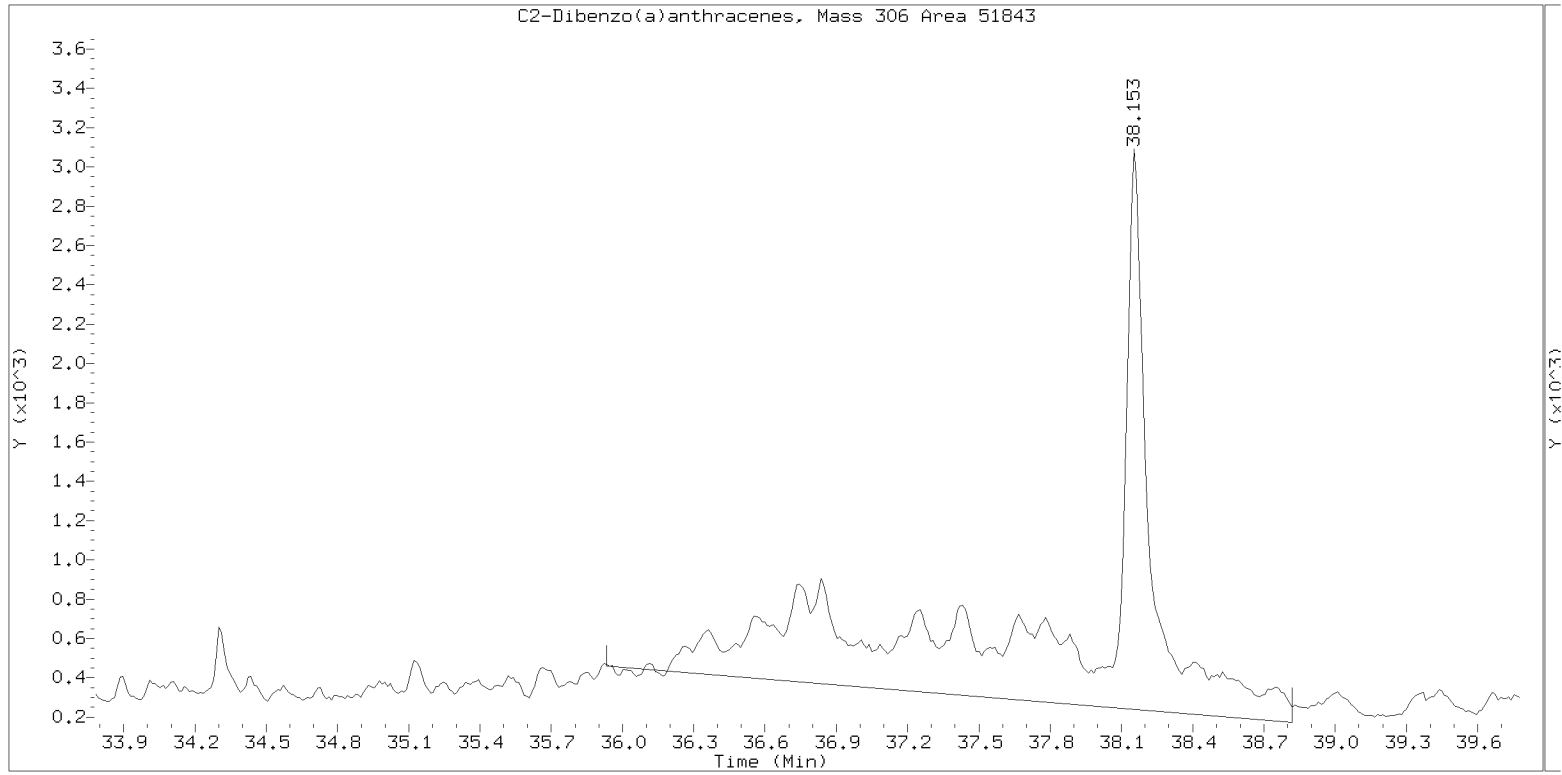
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420121999S.D

Lab ID: 20K0204-05

nt14.i, SIM.b\ALKYLRANGE.m, 22-DEC-2020 16:19



SIM ALKYL PNA RANGE ION WINDOWS - NT1420121999S.D

Lab ID: 20K0204-05

nt14.i, SIM.b\ALKYLRANGE.m, 22-DEC-2020 16:19





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

Laboratory: Analytical Resources, Inc.  
Client: Anchor OEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-07 A SDG: 20K0204  
Sampled: 11/10/20 09:05 Prepared: 11/24/20 11:45 File ID: NT1420122000.D  
% Solids: 76.42 Preparation: EPA 3546 (Microwave) Analyzed: 12/22/20 17:07  
Batch: BIK0745 Sequence: SIL0350 Initial/Final: 13.11 g Wet / 0.5 mL  
Instrument: NT14 Column: ZB-5MS Calibration: DJ00029  
Cleanups: 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	28.7		0.4	5.0
90-12-0	1-Methylnaphthalene	1	4.6	J	0.4	5.0
91-57-6	2-Methylnaphthalene	1	8.9		0.4	5.0
92-52-4	Biphenyl	1	3.6	J	0.3	5.0
581-42-0	2,6-Dimethylnaphthalene	1	3.6	J	0.4	5.0
208-96-8	Acenaphthylene	1	6.8		0.3	5.0
83-32-9	Acenaphthene	1	84.1		0.5	5.0
132-64-9	Dibenzofuran	1	5.4		0.4	5.0
2245-38-7	2,3,5-Trimethylnaphthalene	1	4.2	J	0.4	5.0
86-73-7	Fluorene	1	19.0		0.5	5.0
95-15-8	Benzo(b)thiophene	1	3.0	J	0.4	5.0
85-01-8	Phenanthrene	1	359		0.9	5.0
120-12-7	Anthracene	1	11.7		0.05	5.0
86-74-8	Carbazole	1	1.9	J	0.7	5.0
832-69-9	1-Methylphenanthrene	1	16.9		0.5	5.0
206-44-0	Fluoranthene	1	213		1.4	5.0
132-65-0	Dibenzothiophene	1	28.0		0.7	5.0
129-00-0	Pyrene	1	260		1.0	5.0
56-55-3	Benzo(a)anthracene	1	45.1		1.4	5.0
218-01-9	Chrysene	1	54.2		0.7	5.0
205-99-2	Benzo(b)fluoranthene	1	34.3		0.8	5.0
205-82-3	Benzo(j)fluoranthene	1	22.8		0.7	5.0
207-08-9	Benzo(k)fluoranthene	1	18.8		0.8	5.0
	Benzofluoranthenes, Total	1	74.6		3.0	10.0
197-97-2	Benzo(e)pyrene	1	34.6		0.6	5.0
50-32-8	Benzo(a)pyrene	1	52.4		1.0	5.0
193-39-5	Indeno(1,2,3-cd)pyrene	1	31.0		0.4	5.0
53-70-3	Dibenzo(a,h)anthracene	1	4.9	J	0.7	5.0



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

Laboratory: Analytical Resources, Inc.  
Client: Anchor OEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-07 A SDG: 20K0204  
Sampled: 11/10/20 09:05 Prepared: 11/24/20 11:45 File ID: NT1420122000.D  
% Solids: 76.42 Preparation: EPA 3546 (Microwave) Analyzed: 12/22/20 17:07  
Batch: BIK0745 Sequence: SIL0350 Initial/Final: 13.11 g Wet / 0.5 mL  
Instrument: NT14 Column: ZB-5MS Calibration: DJ00029  
Cleanups: Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
191-24-2	Benzo(g,h,i)perylene	1	44.8		0.5	5.0
1985-5-0	Perylene	1	92.3		0.4	5.0
239-35-0	Benzo(b)naphtho(2,1-d)thiophene	1	9.1		5.0	5.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
Naphthalene-d8	149.72	88.6	59.2	30 - 160	
Acenaphthene-d10	149.72	93.7	62.6	30 - 160	
Phenanthrene-d10	149.72	132	87.9	30 - 160	
Chrysene-d12	149.72	109	73.1	30 - 160	
Perylene-d12	149.72	108	72.3	30 - 160	



Data File: \\target\share\chem3\nt14.1\20201219F JB\NT1420122000.D

Date : 22-DEC-2020 17:07

Client ID:

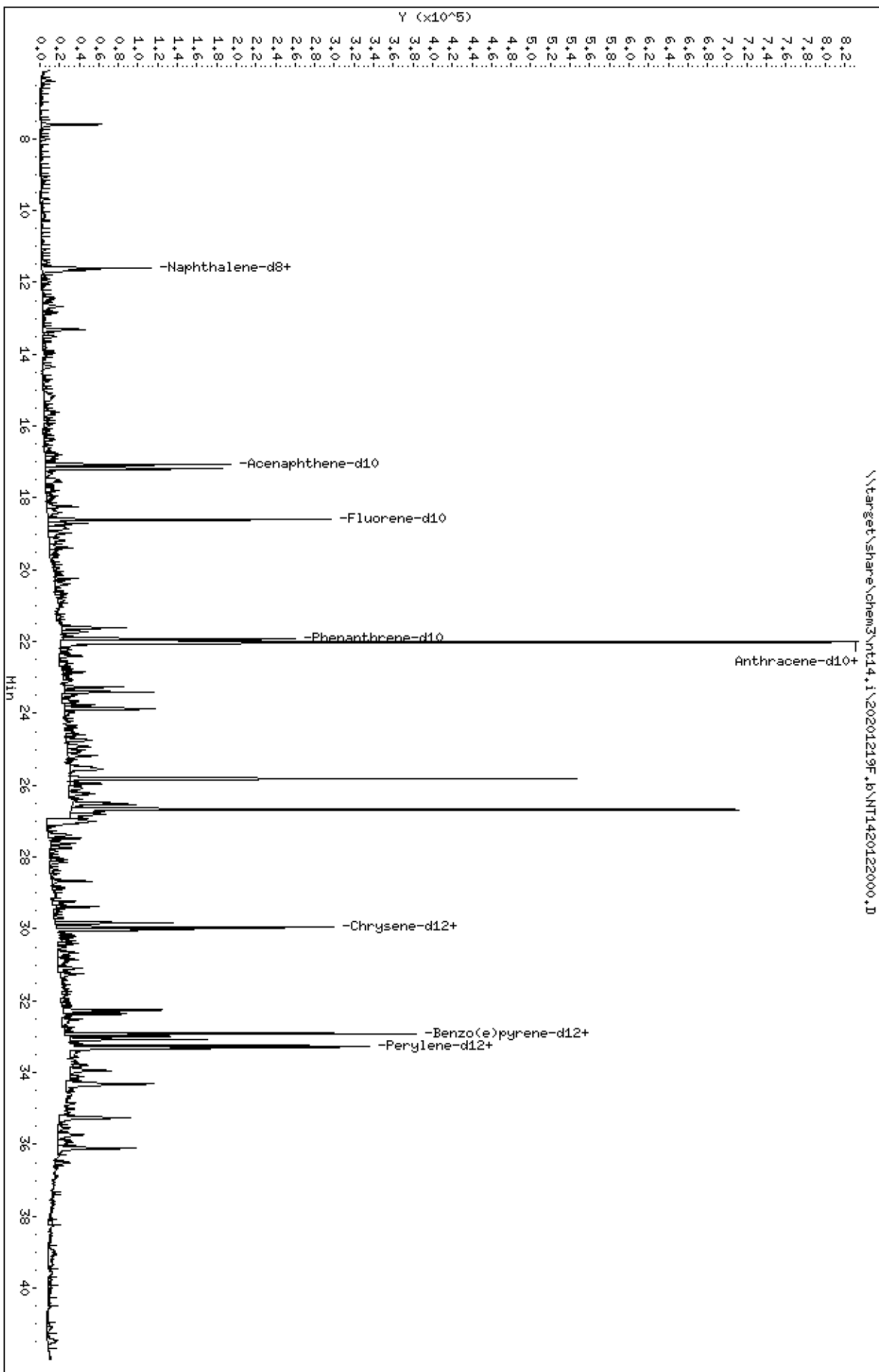
Sample Info: 20K0204-07

Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

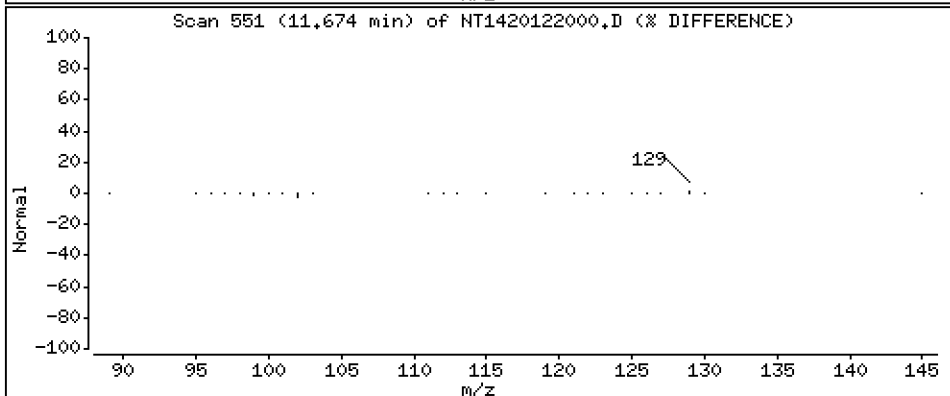
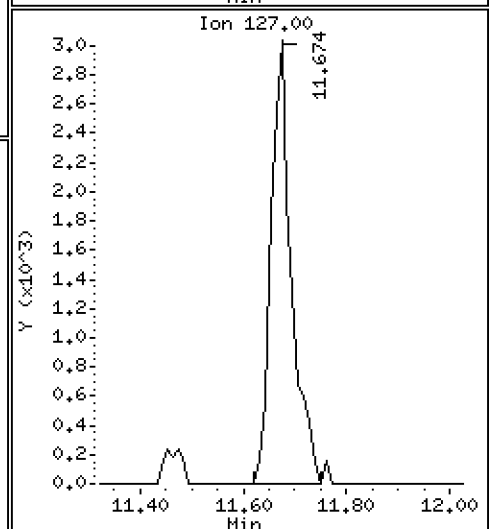
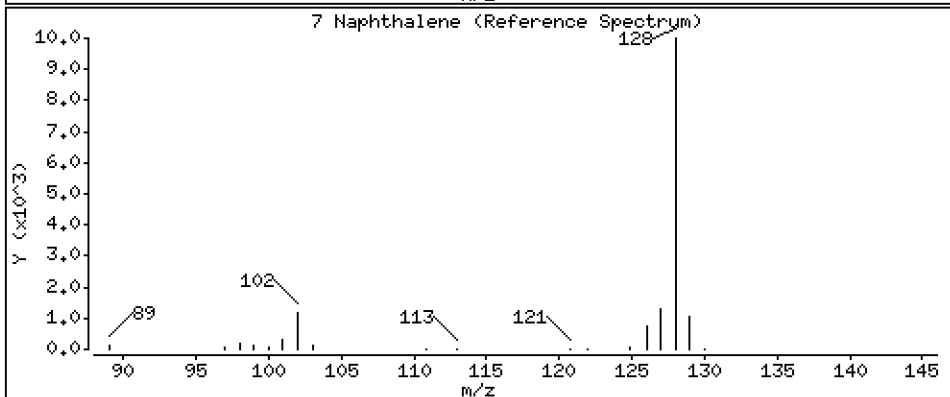
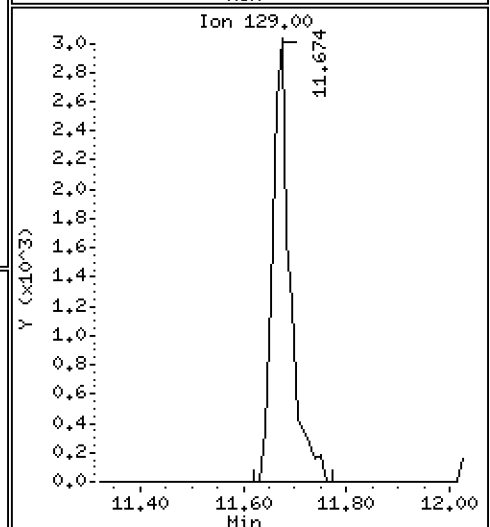
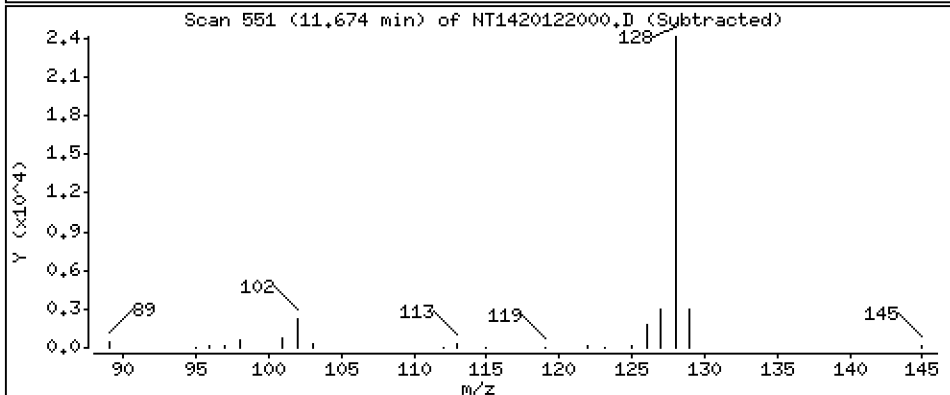
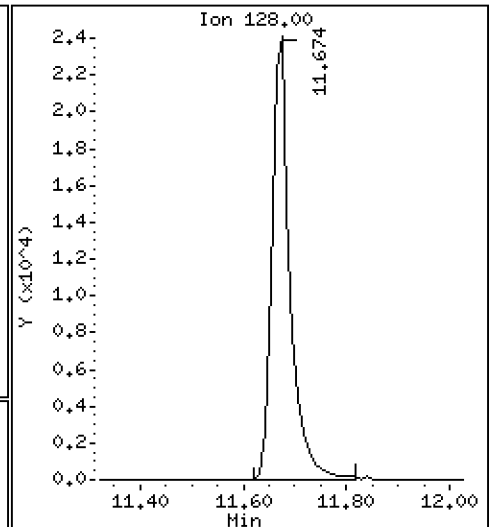
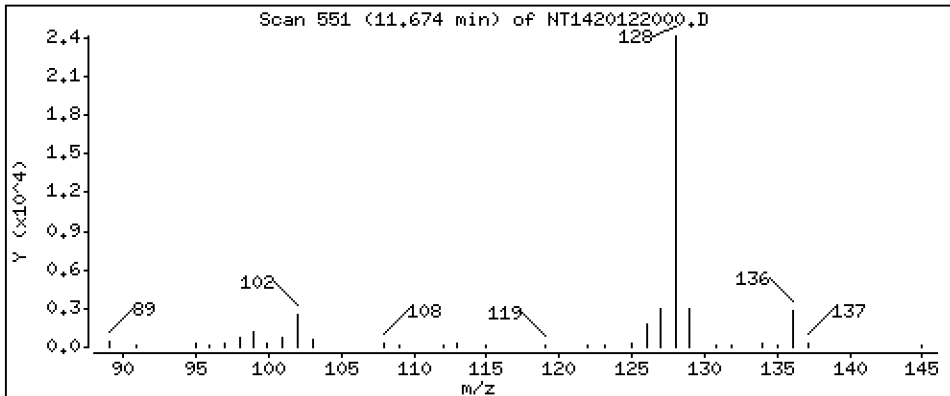
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

7 Naphthalene

Concentration: 0.5742 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

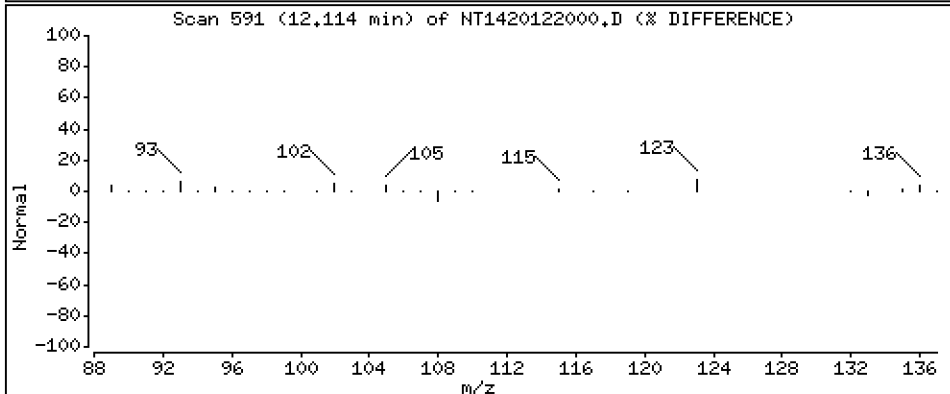
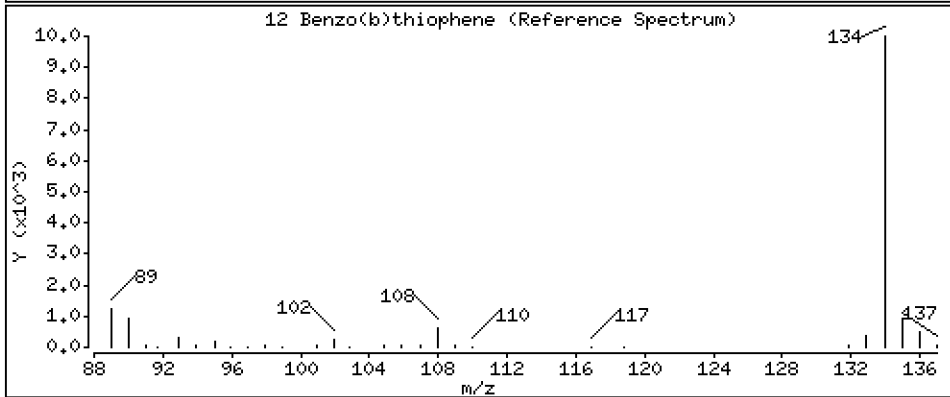
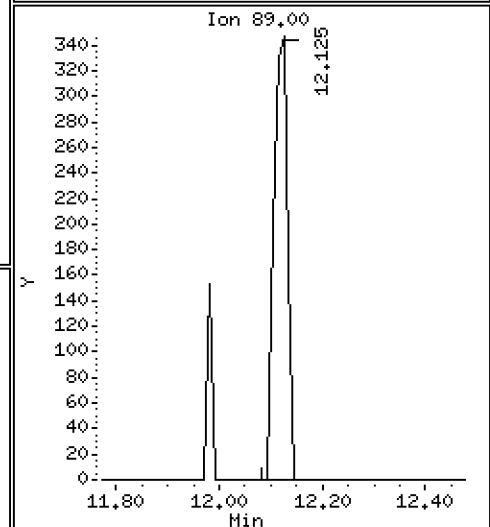
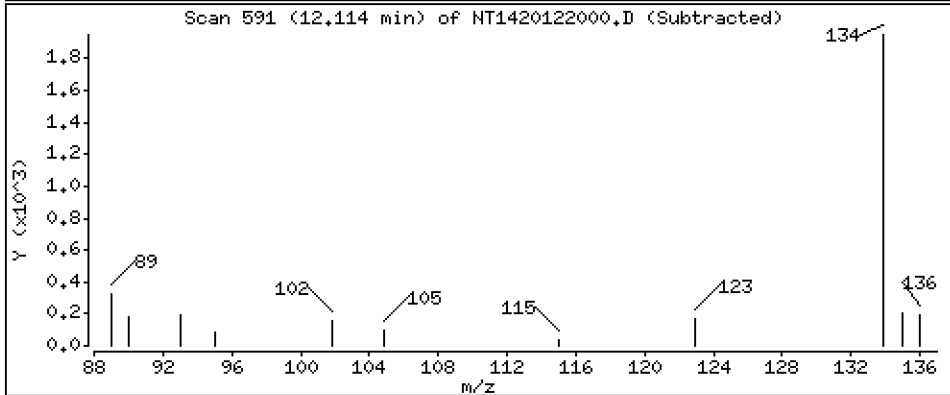
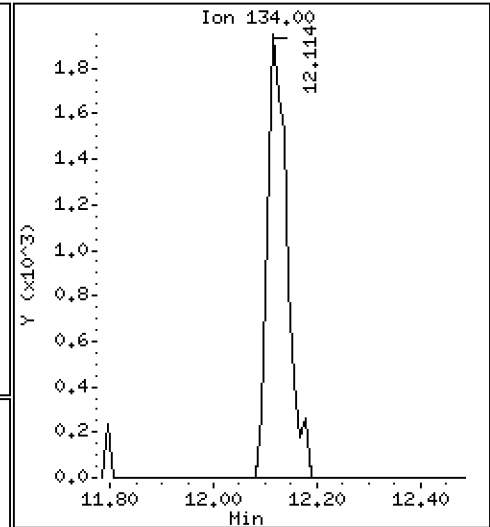
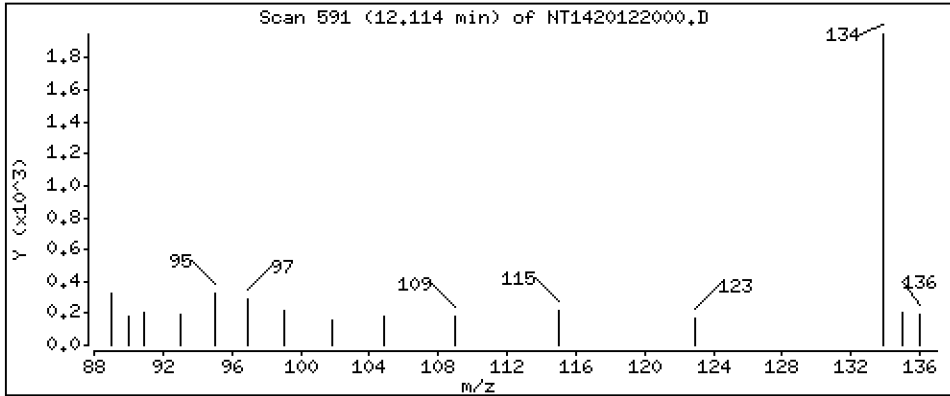
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

12 Benzo(b)thiophene

Concentration: 0,05965 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

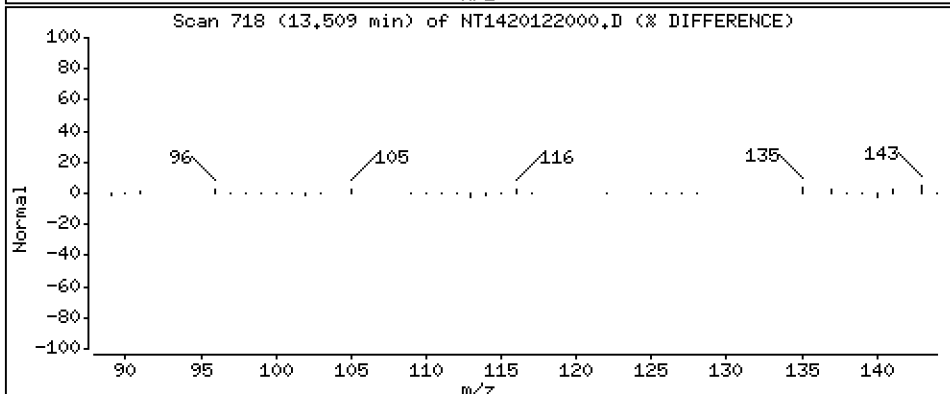
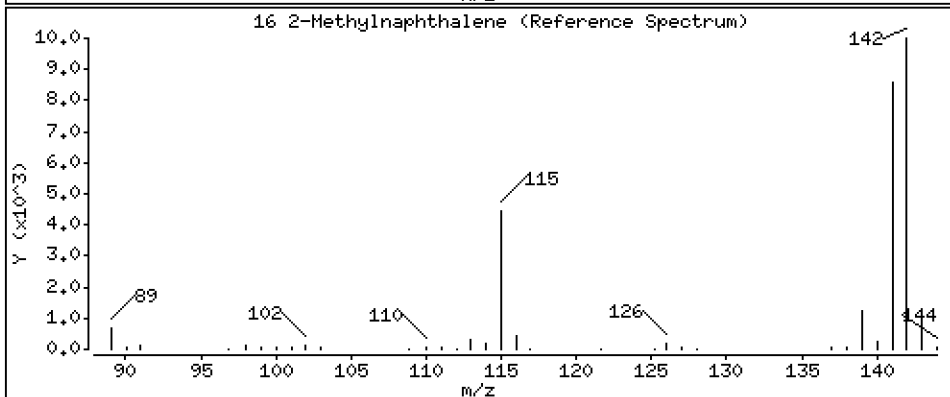
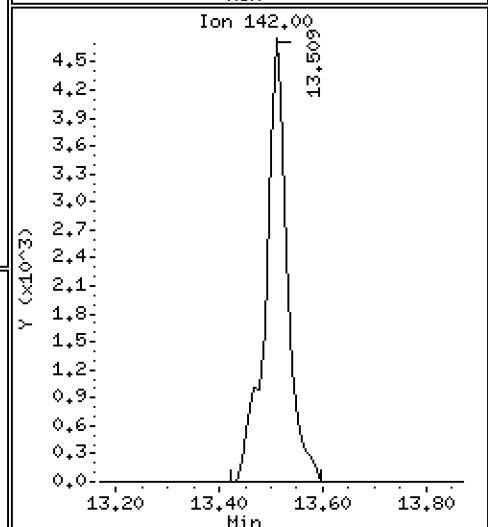
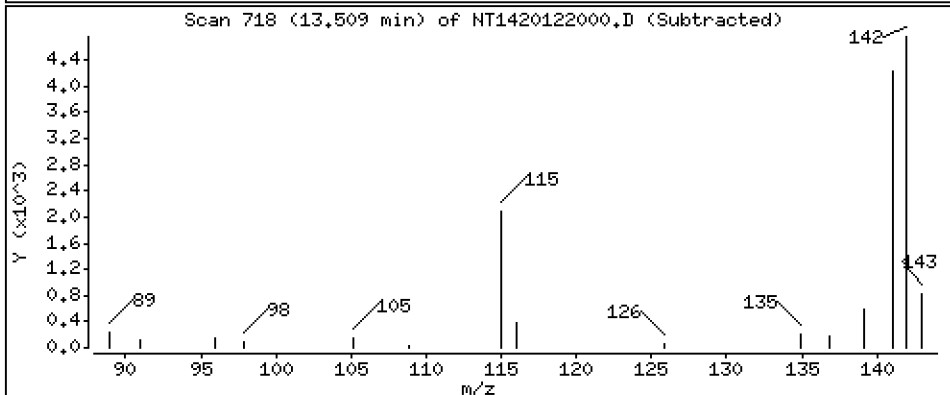
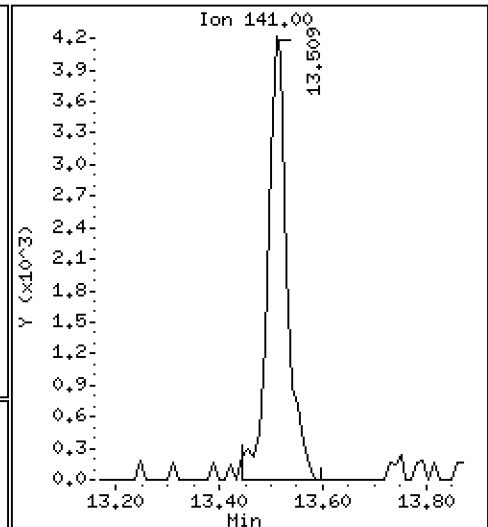
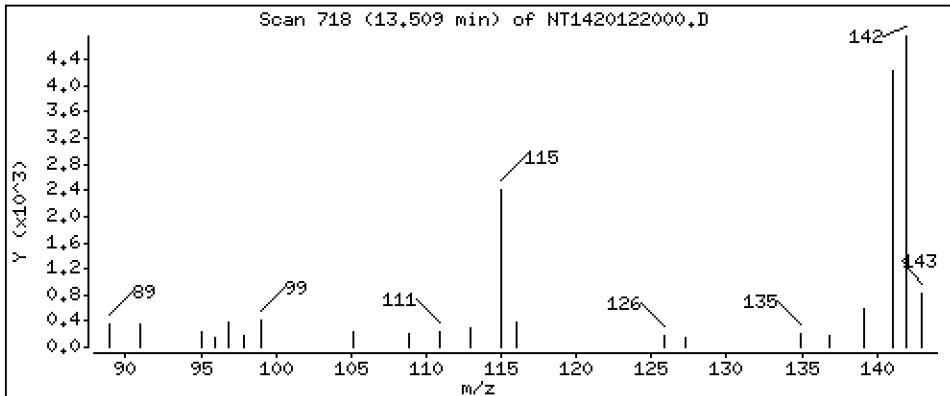
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 2-Methylnaphthalene

Concentration: 0,1786 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

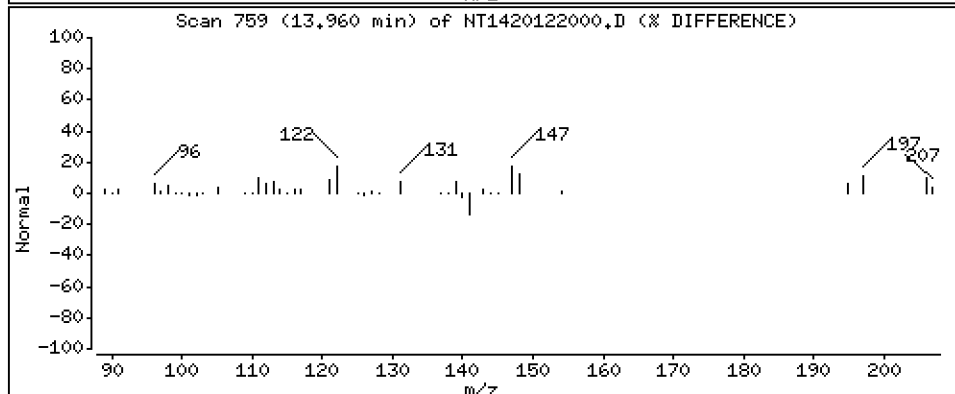
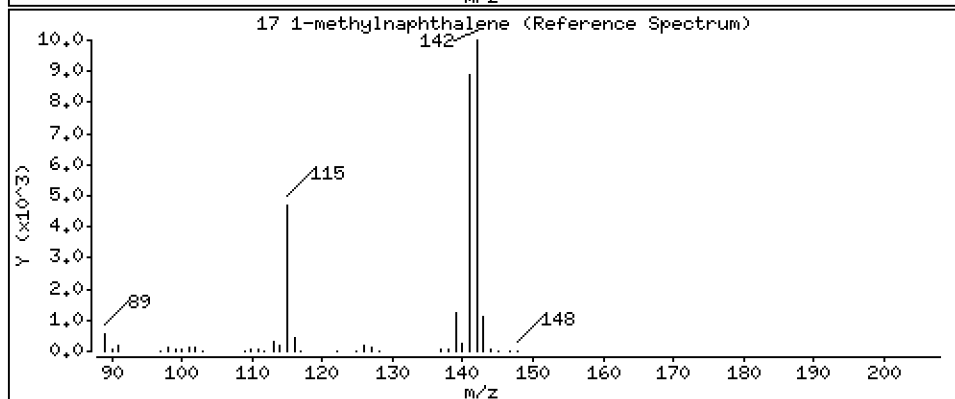
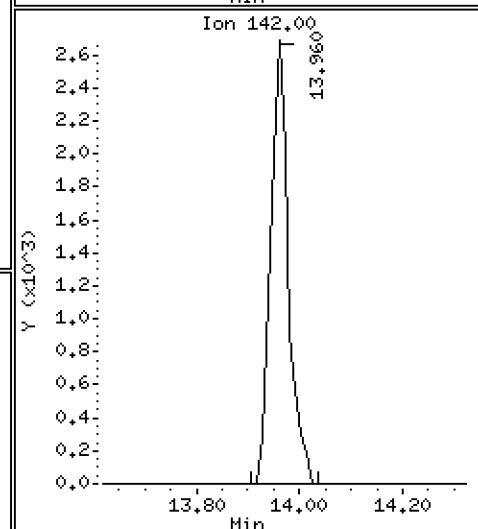
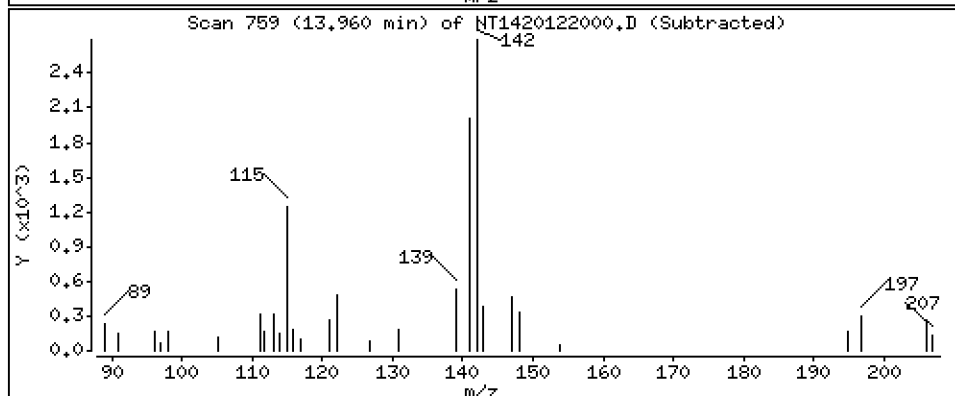
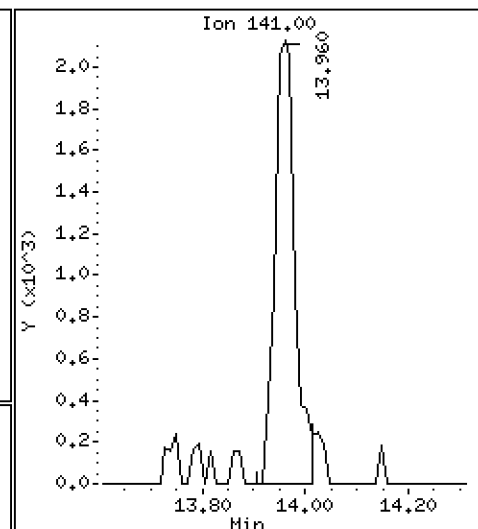
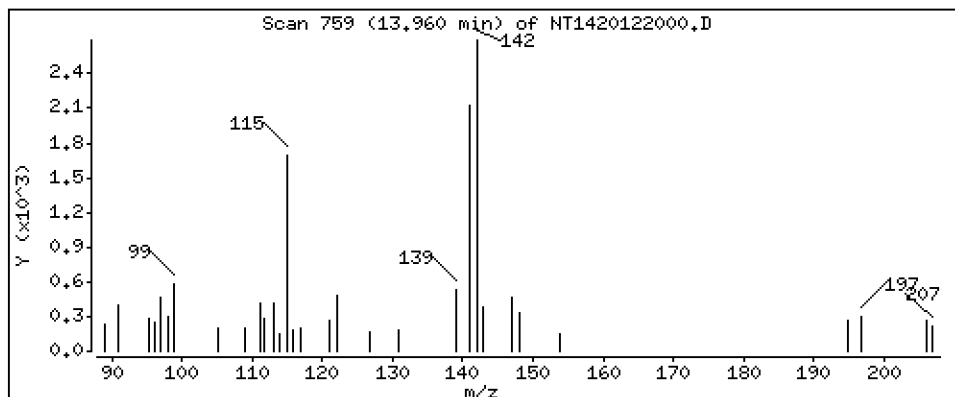
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

17 1-methylnaphthalene

Concentration: 0.09135 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

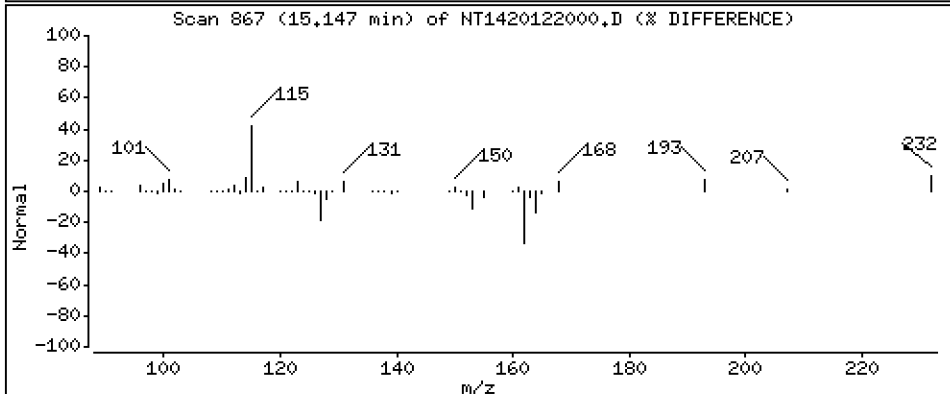
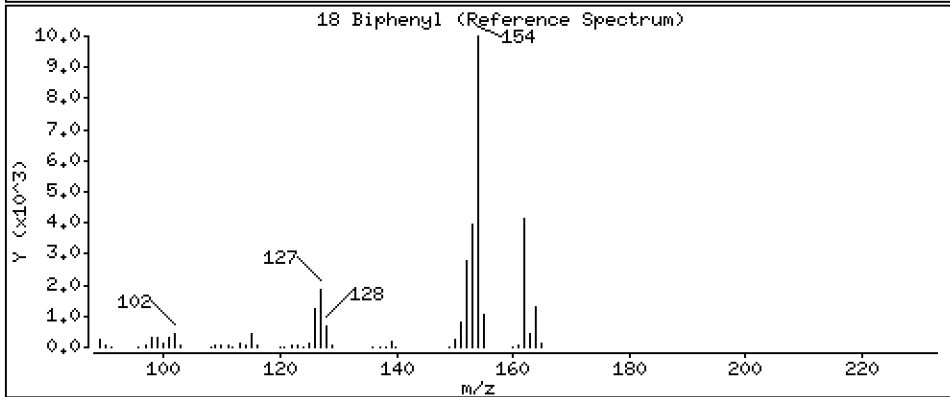
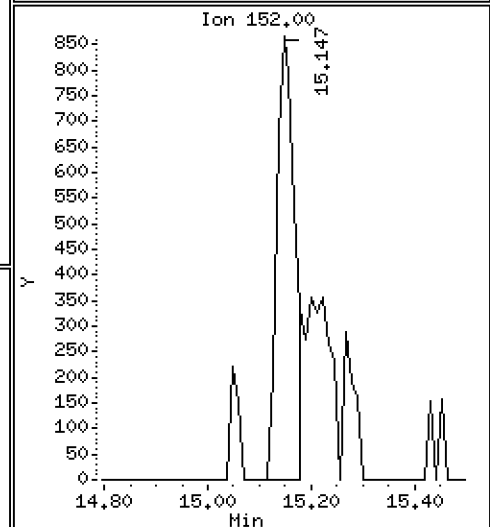
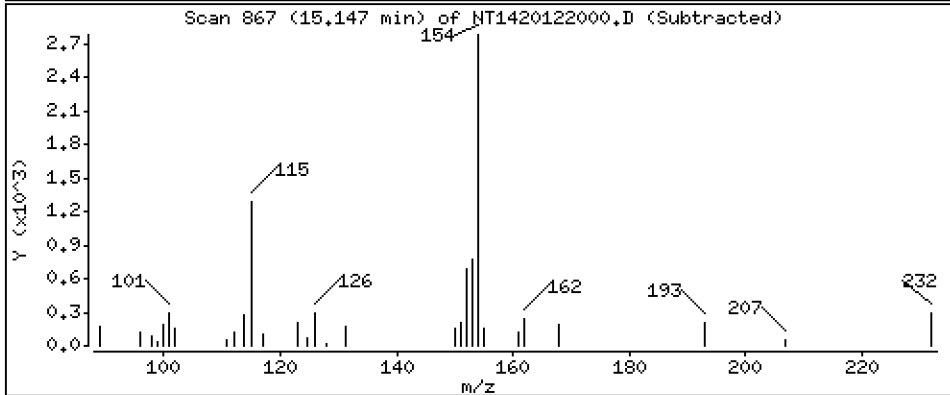
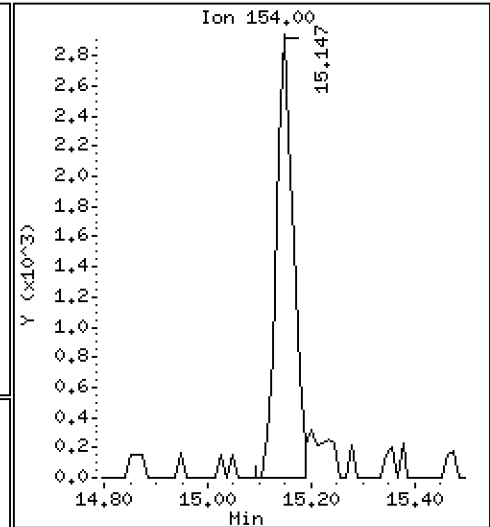
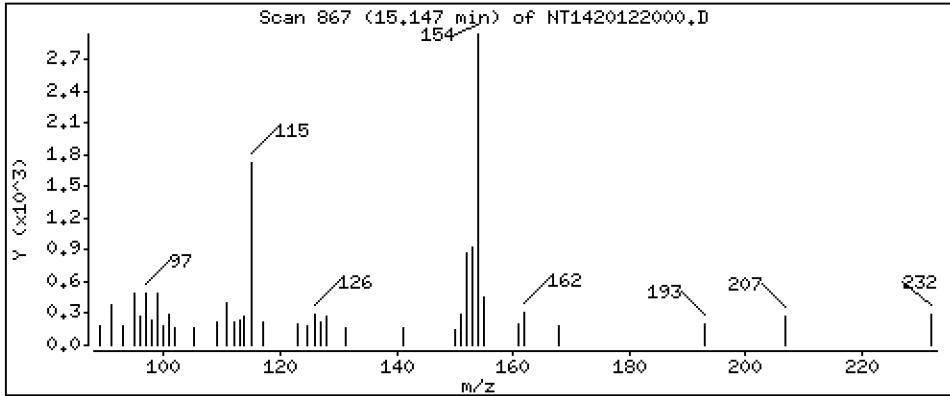
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

18 Biphenyl

Concentration: 0.07256 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

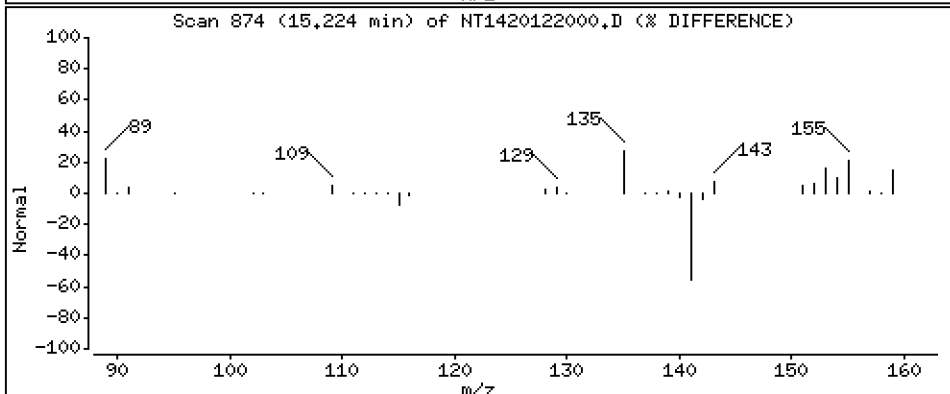
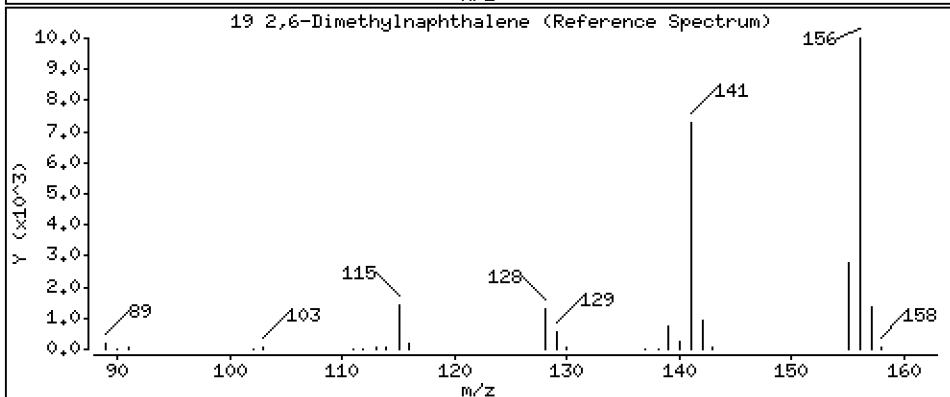
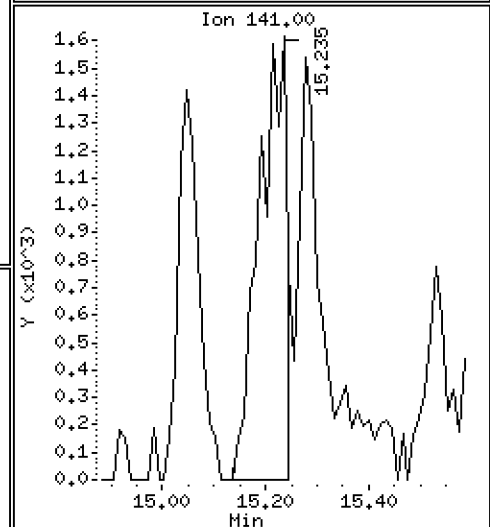
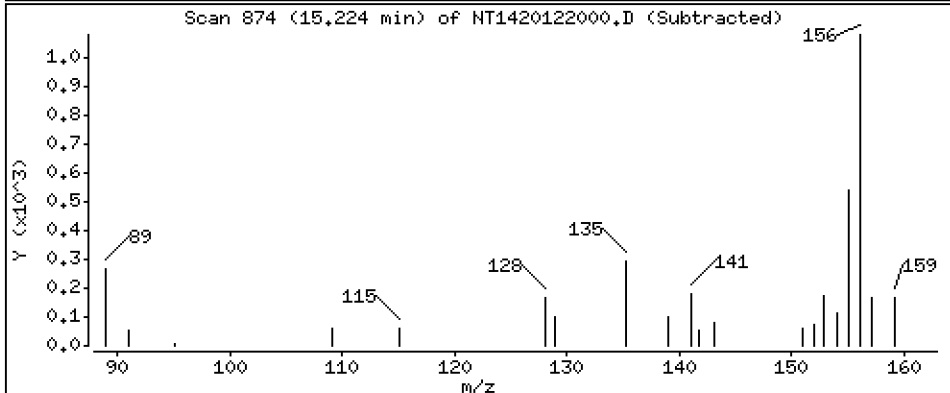
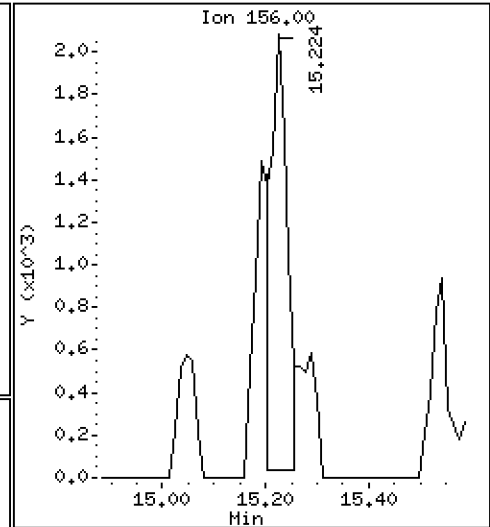
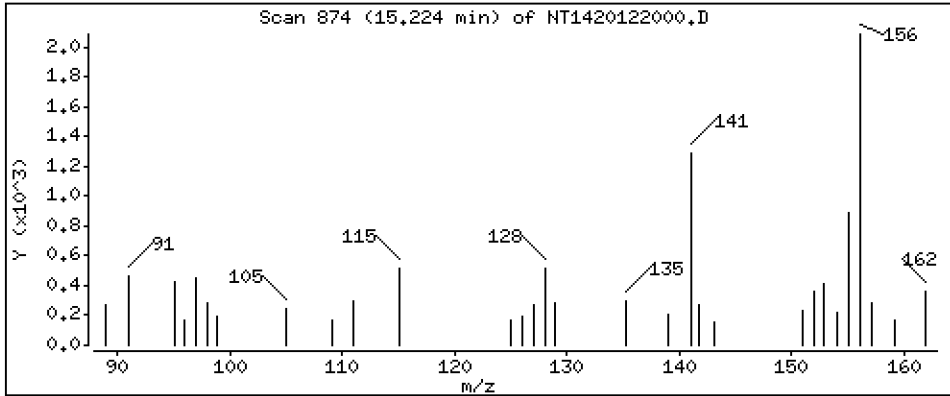
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

19 2,6-Dimethylnaphthalene

Concentration: 0.07236 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

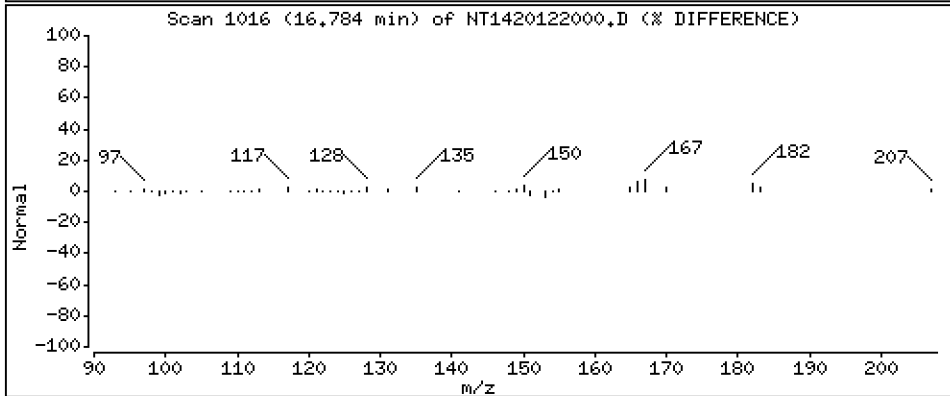
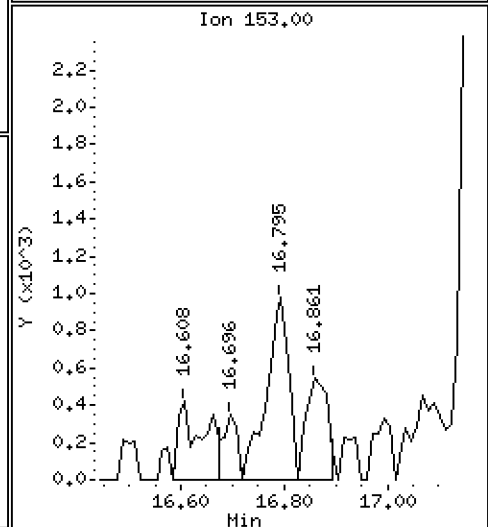
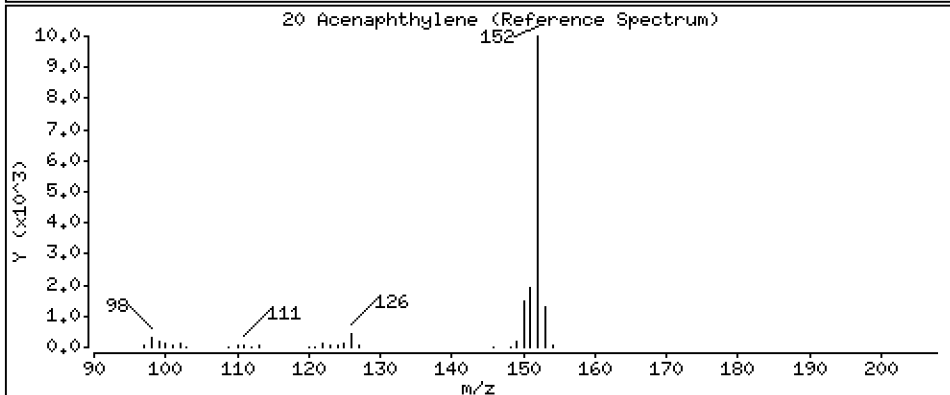
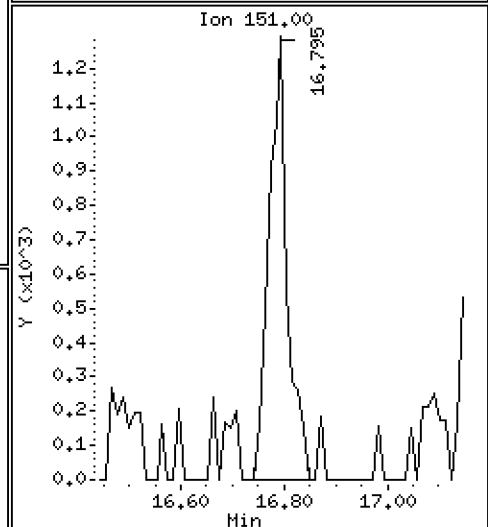
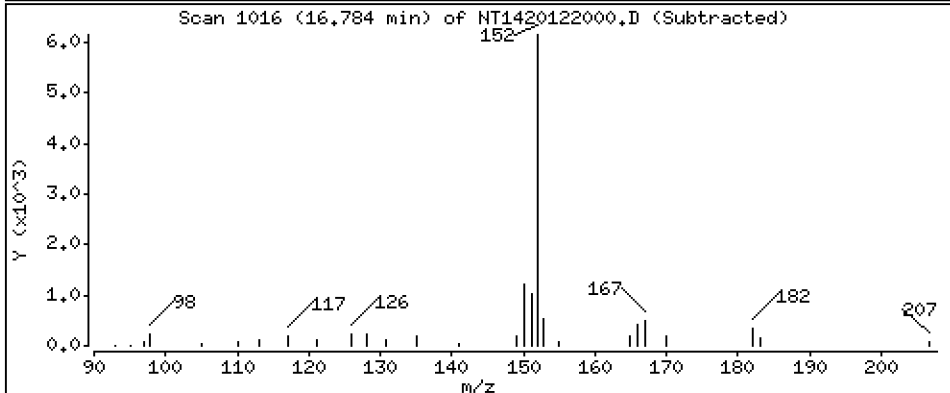
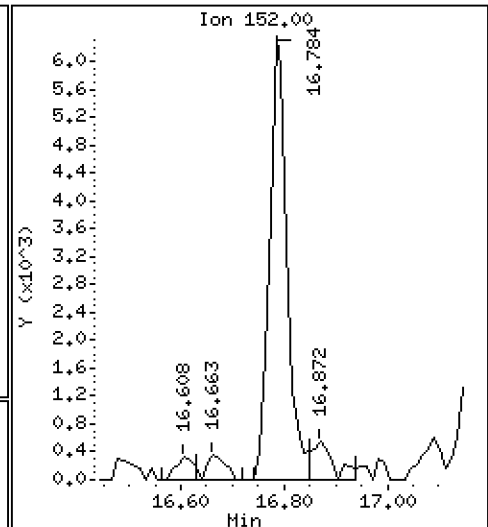
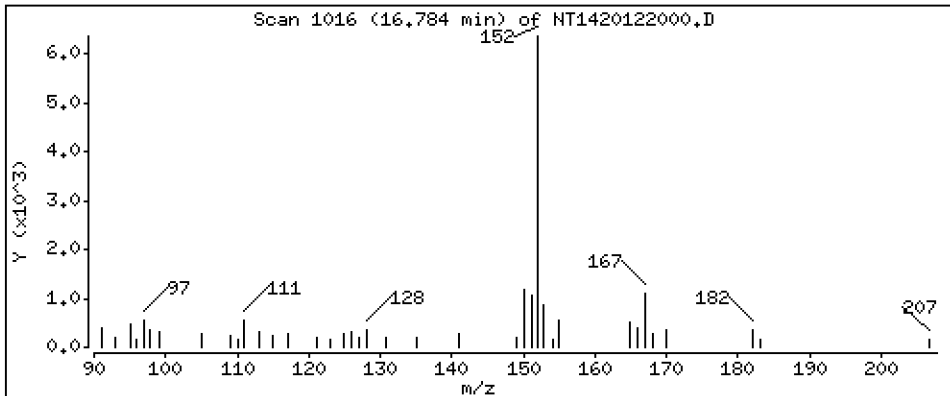
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

20 Acenaphthylene

Concentration: 0.1356 ug/mL





Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

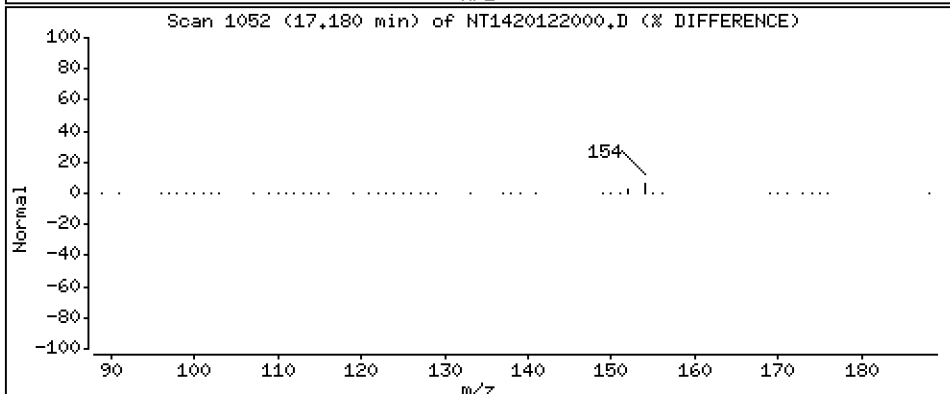
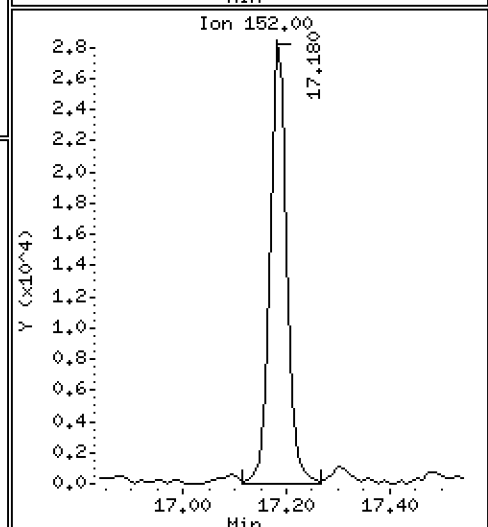
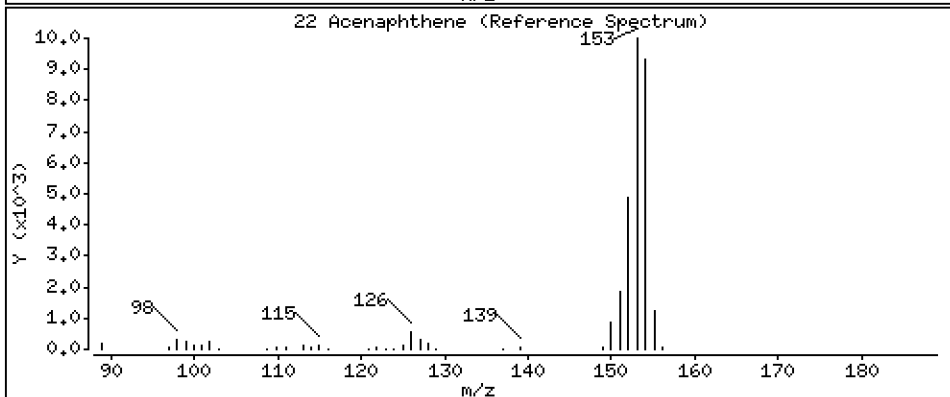
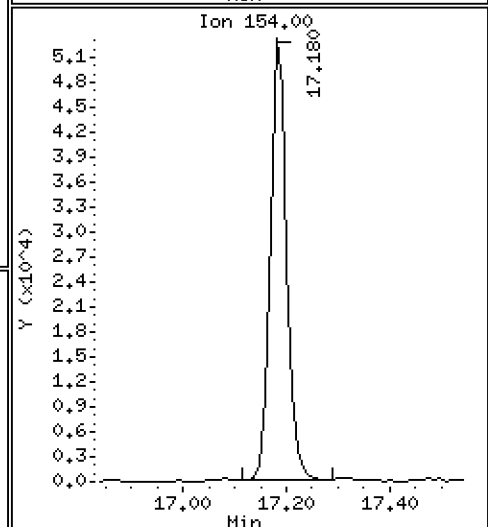
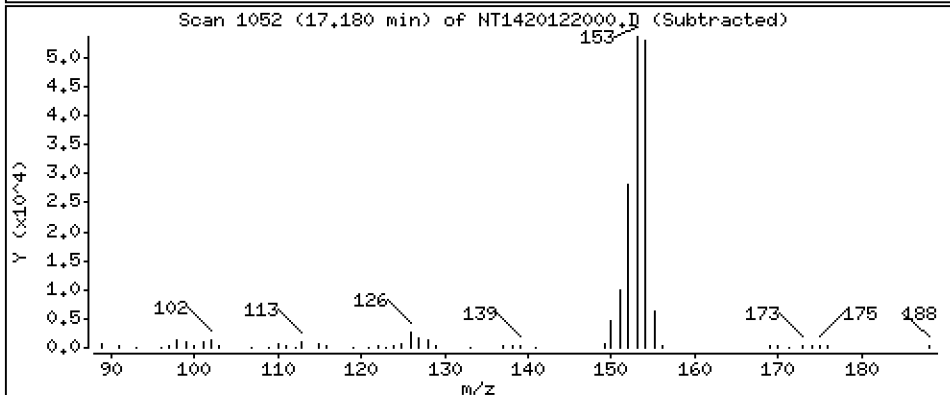
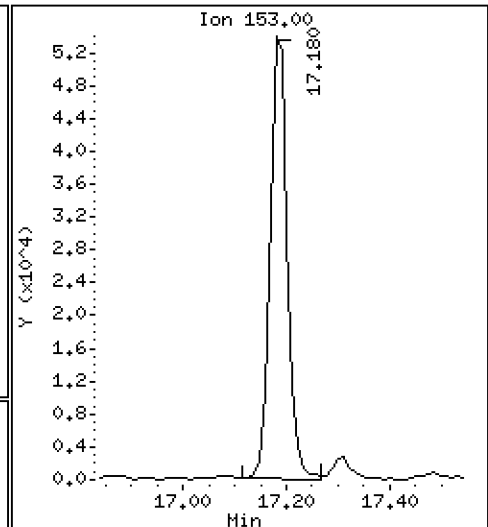
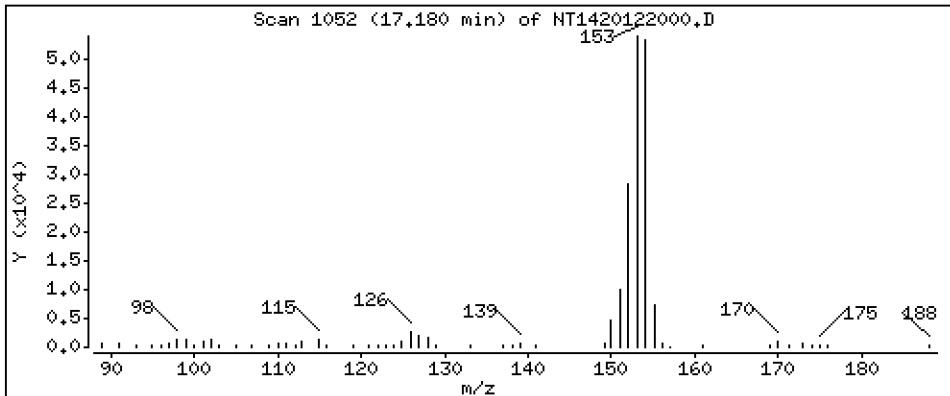
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Acenaphthene

Concentration: 1,684 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

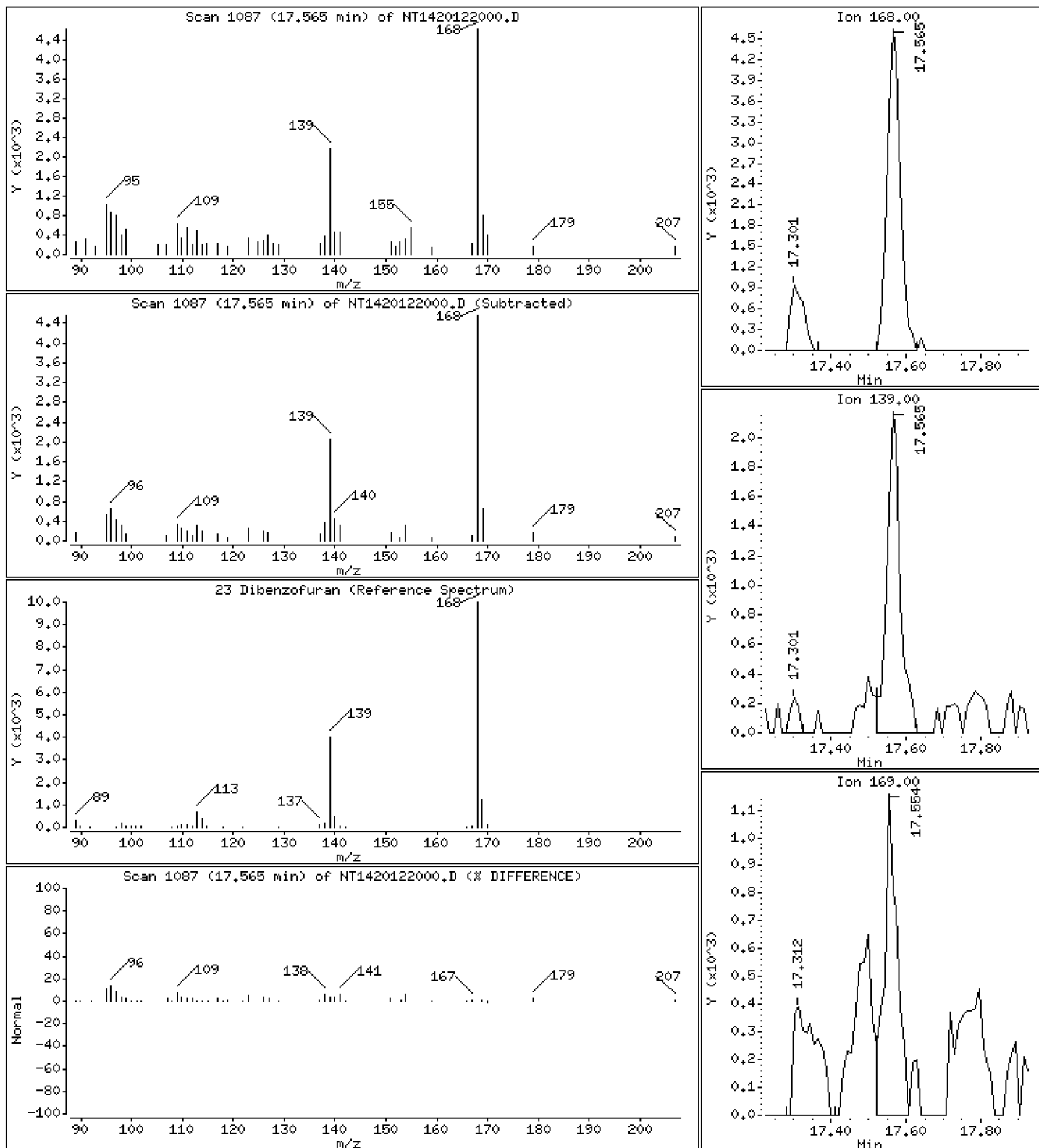
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

23 Dibenzofuran

Concentration: 0.1076 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

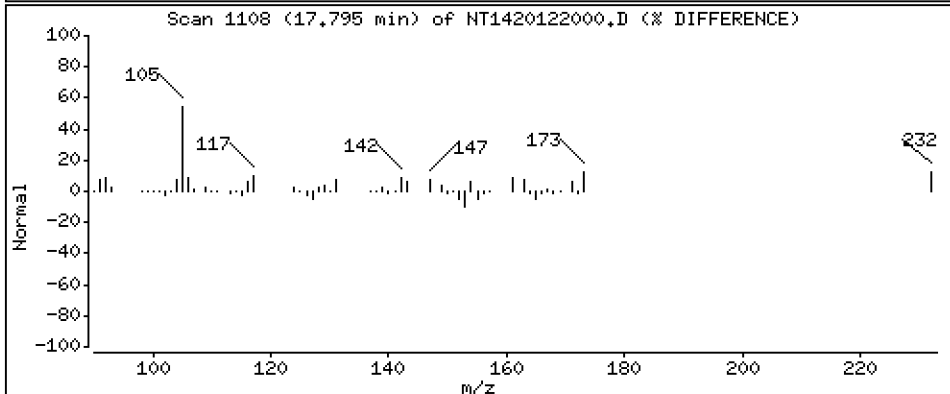
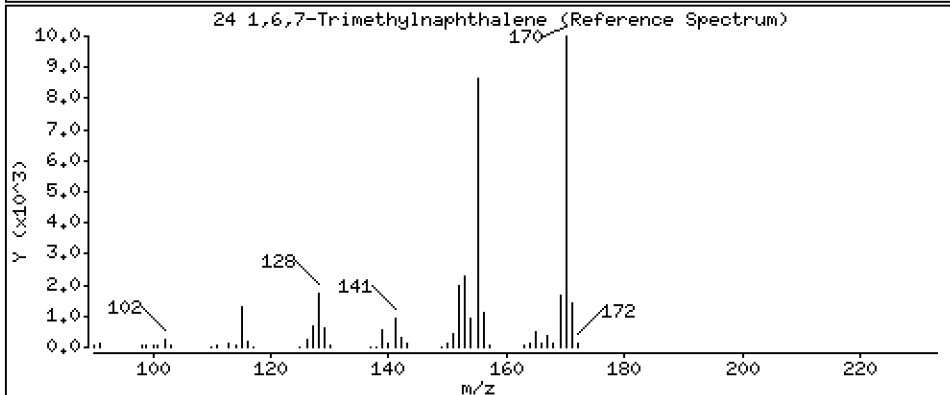
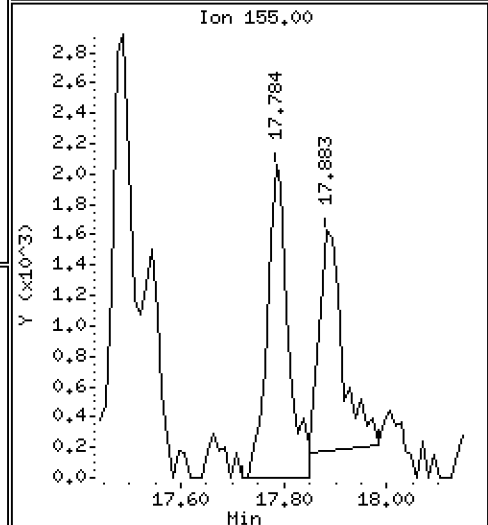
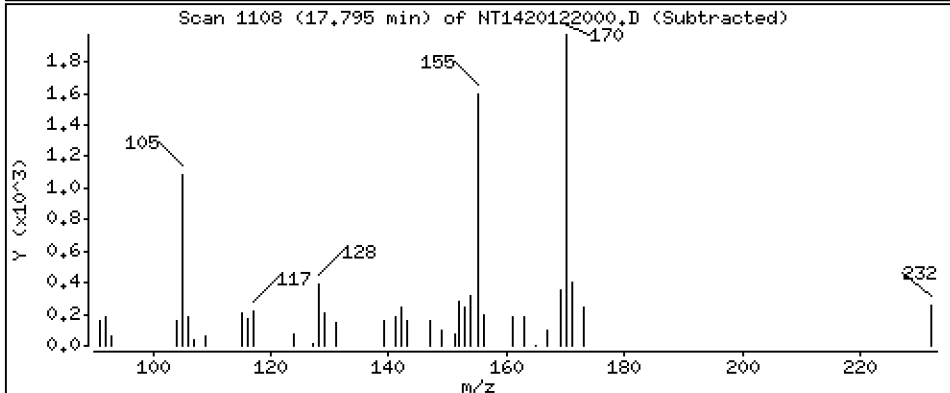
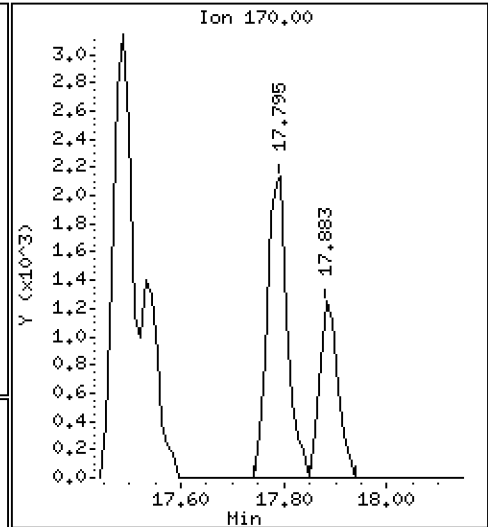
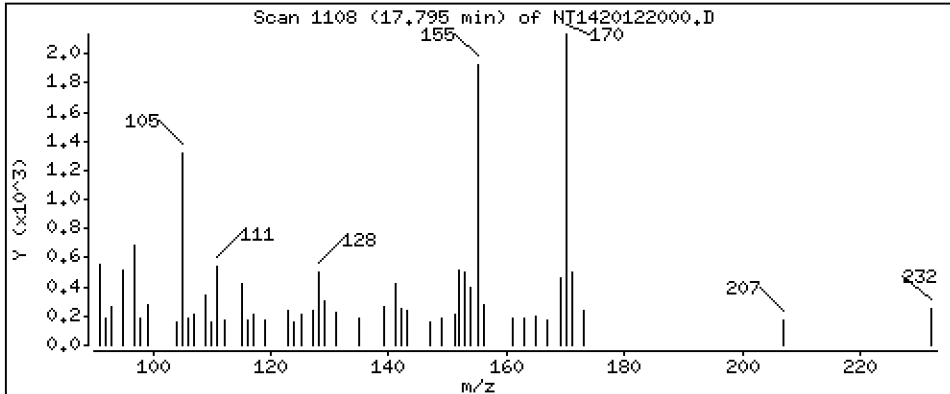
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

24 1,6,7-Trimethylnaphthalene

Concentration: 0.08432 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

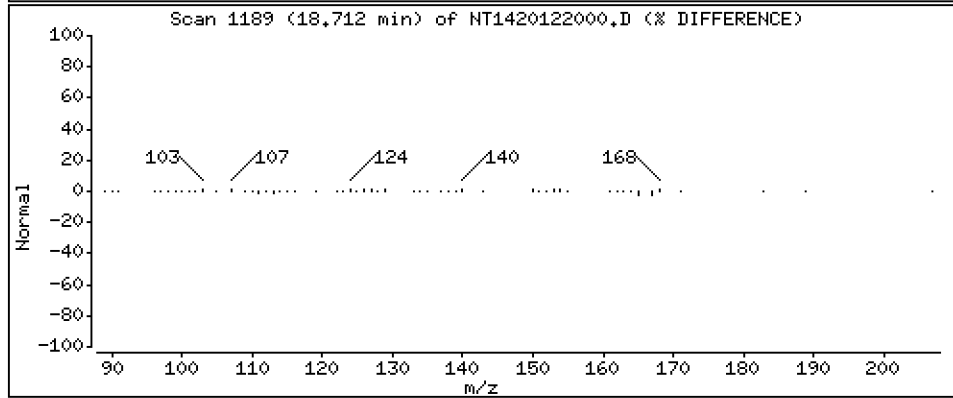
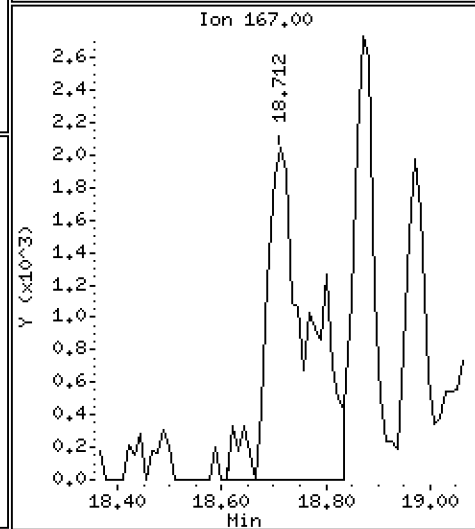
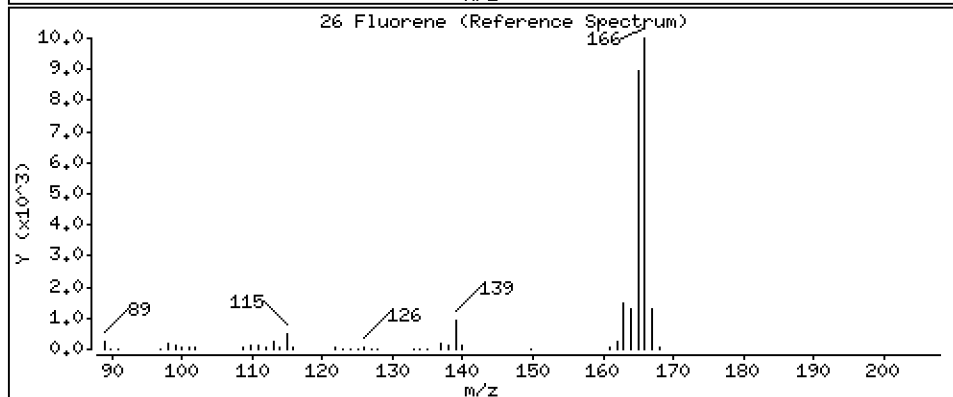
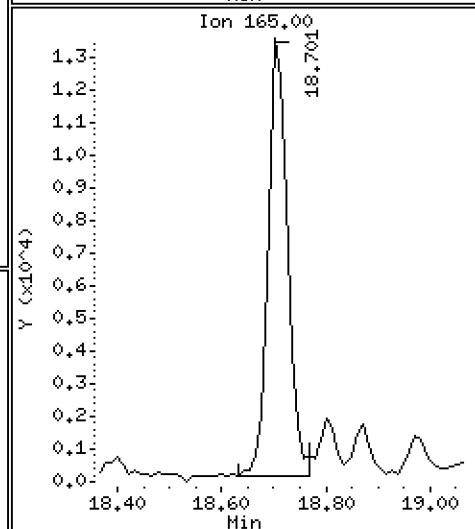
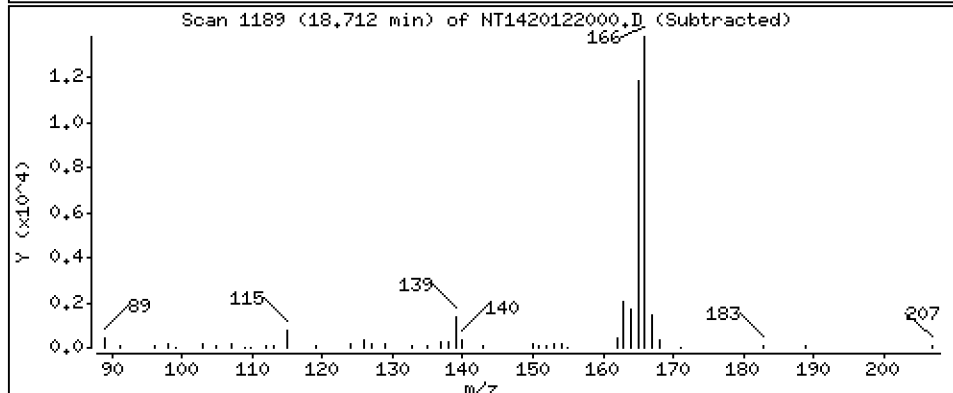
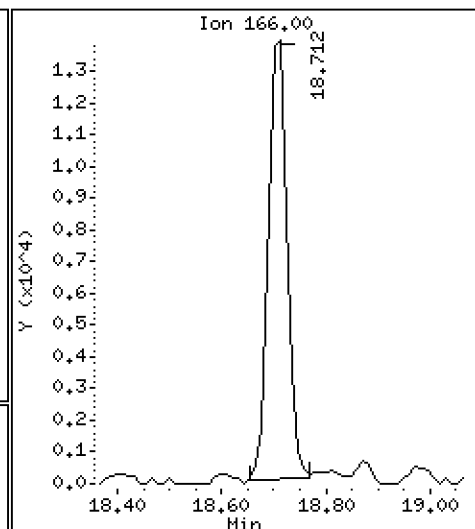
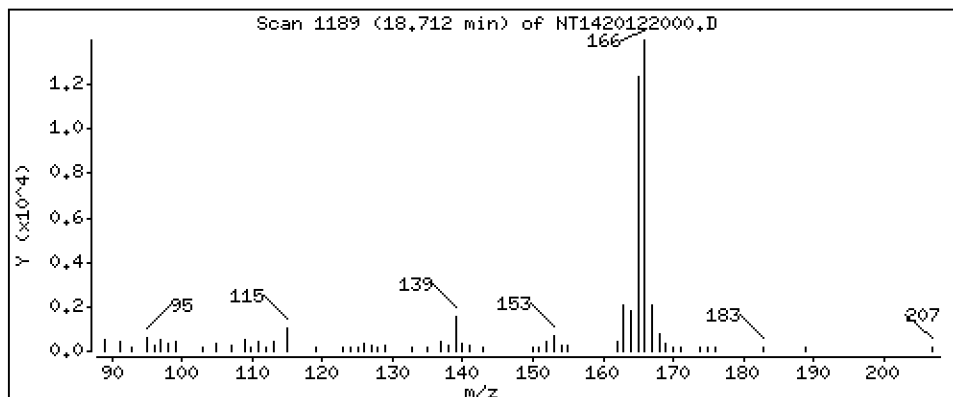
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Fluorene

Concentration: 0,3805 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

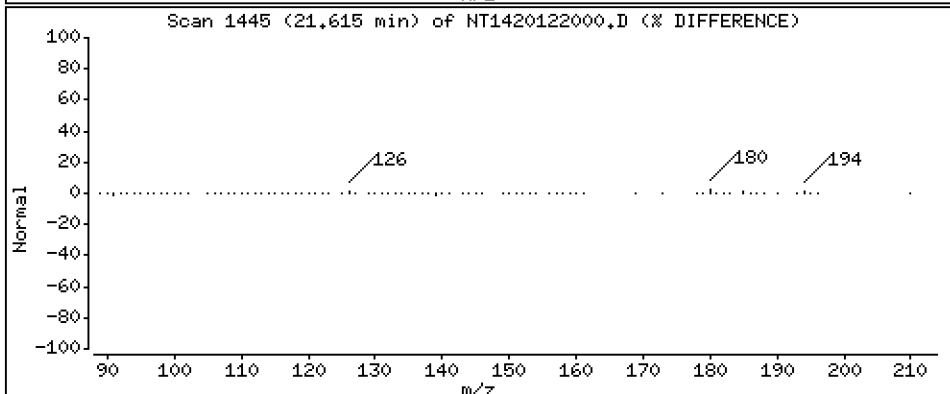
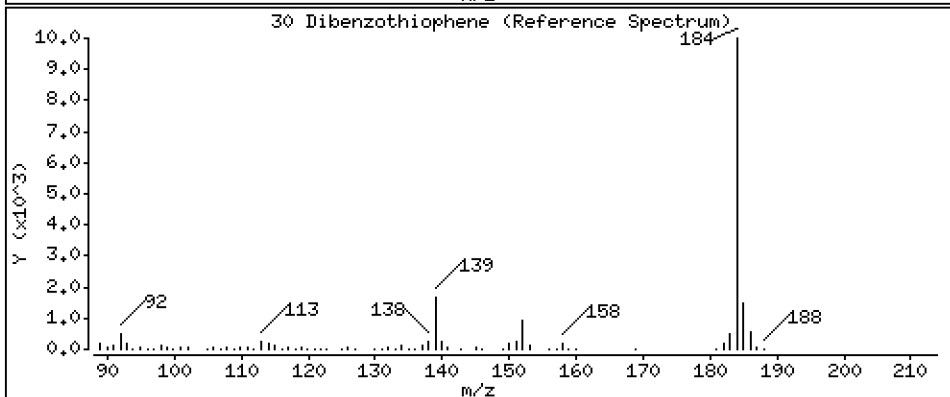
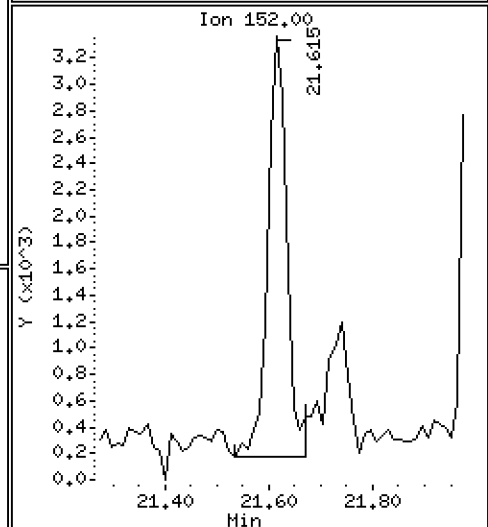
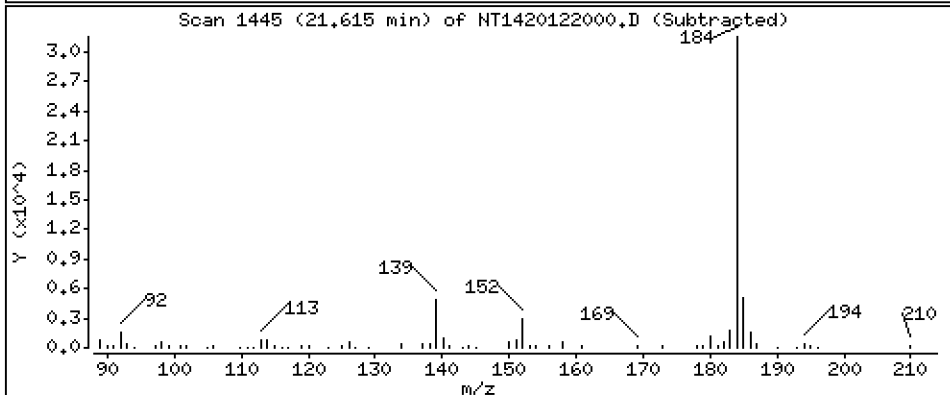
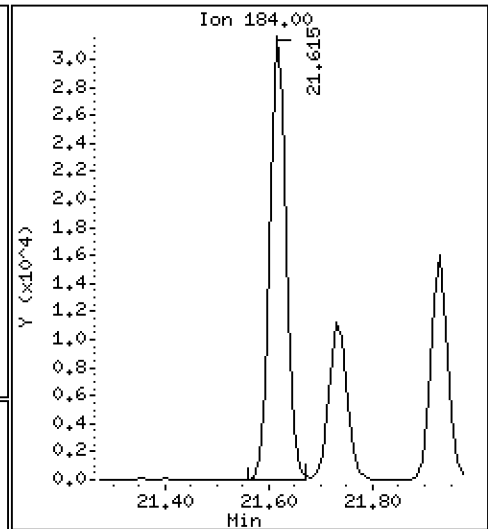
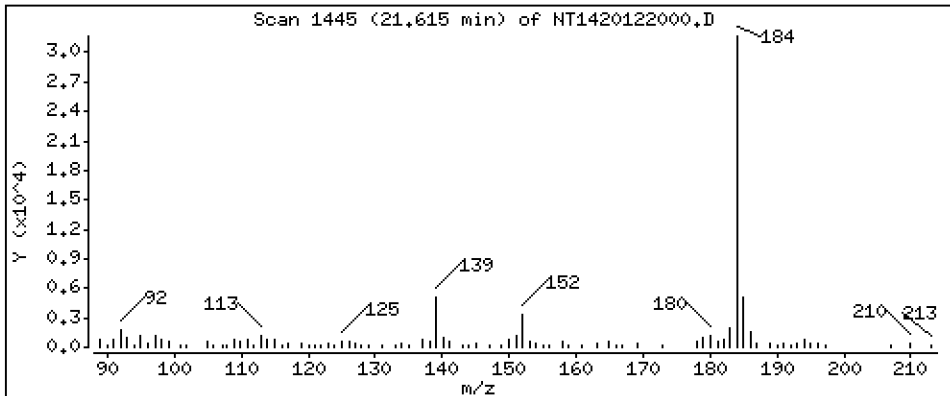
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

30 Dibenzothiophene

Concentration: 0.5602 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

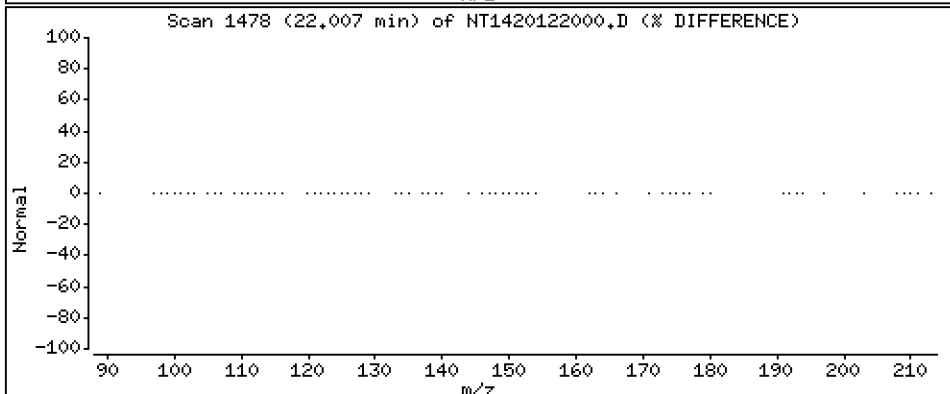
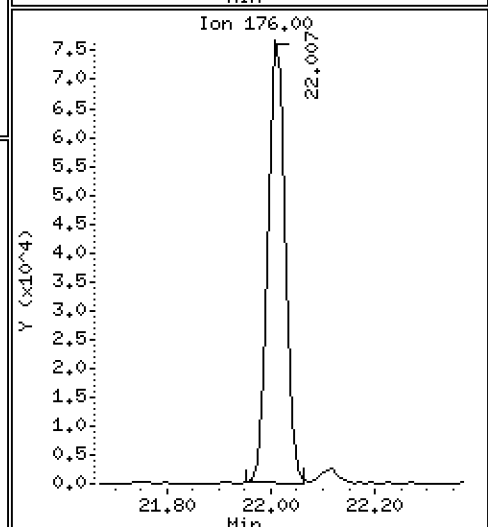
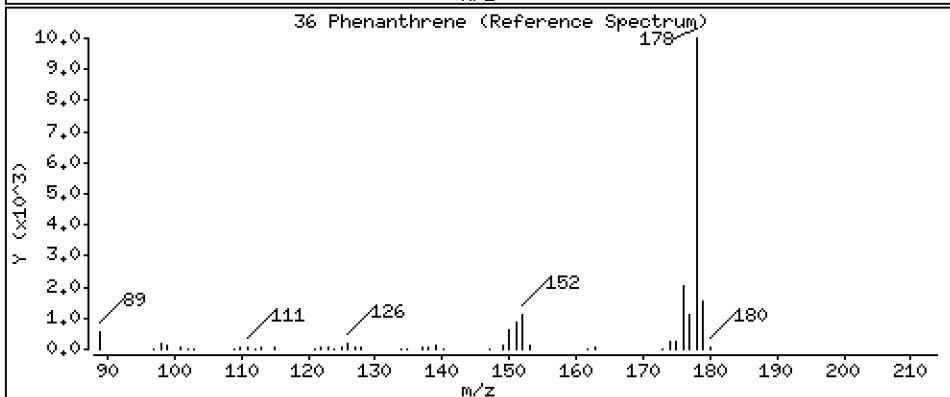
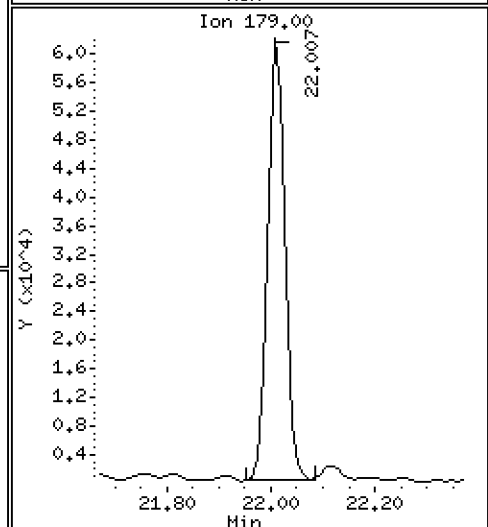
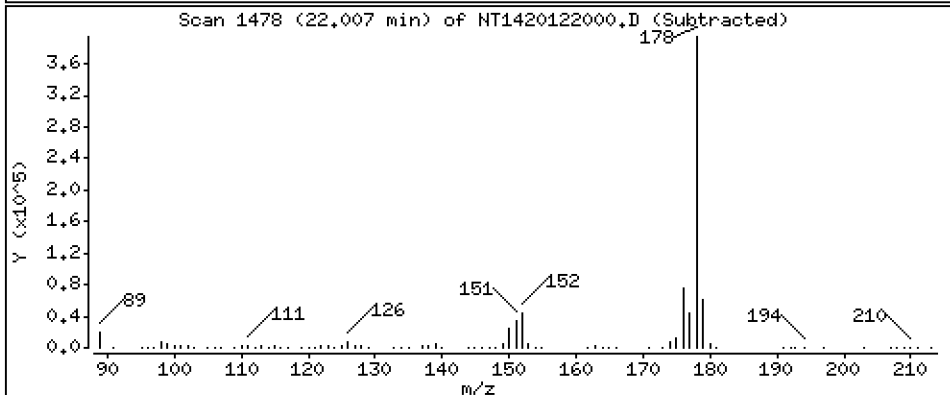
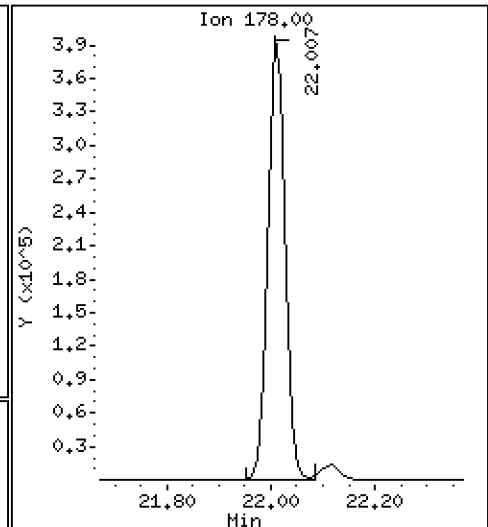
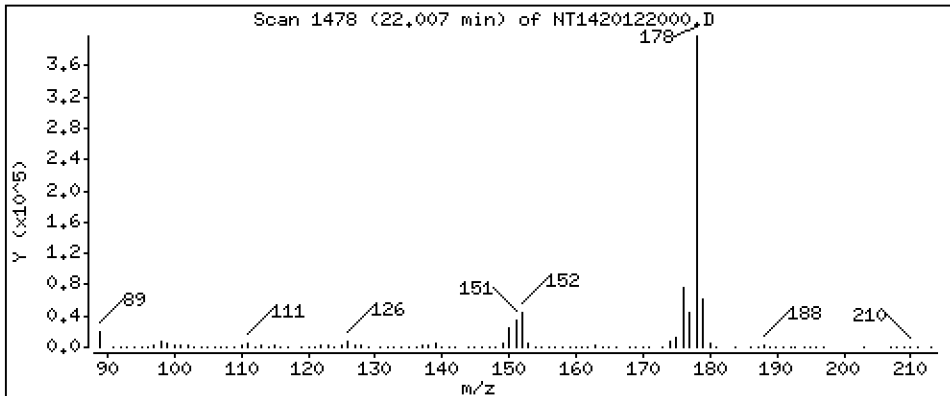
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

36 Phenanthrene

Concentration: 7,188 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

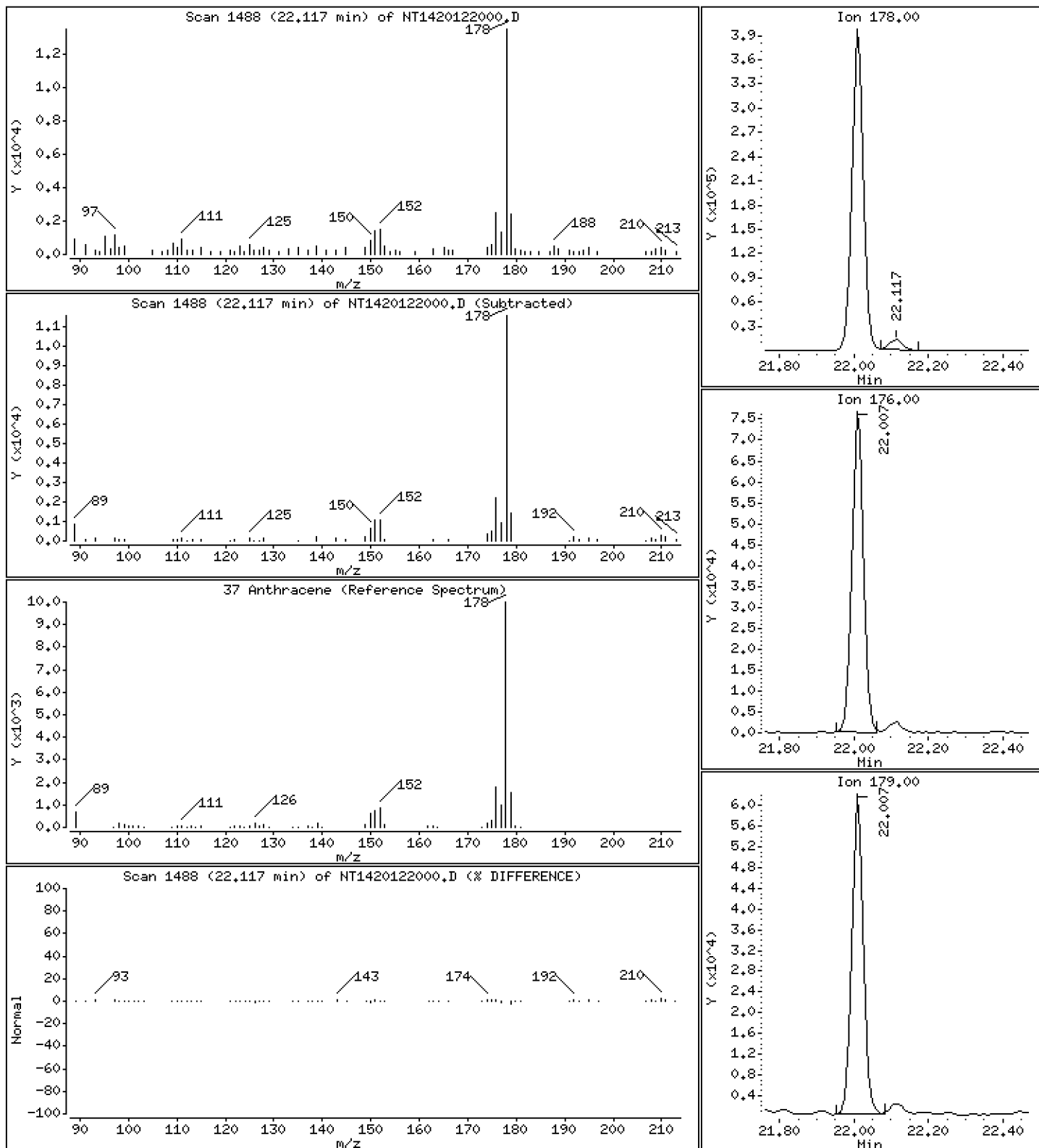
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

37 Anthracene

Concentration: 0,2344 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

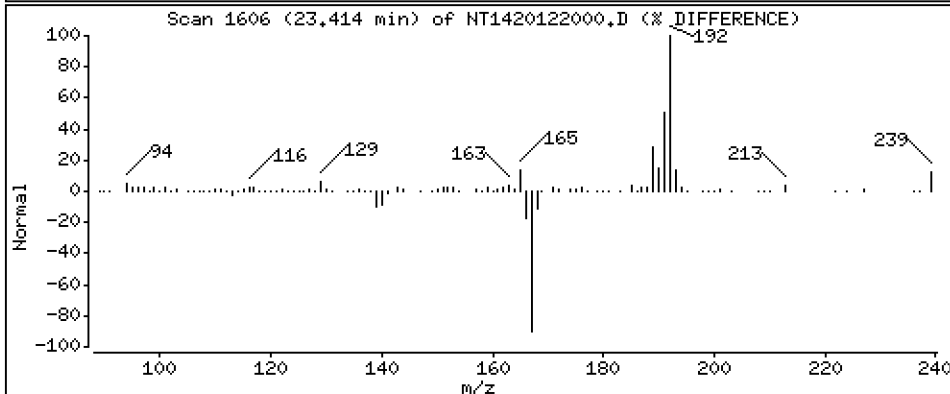
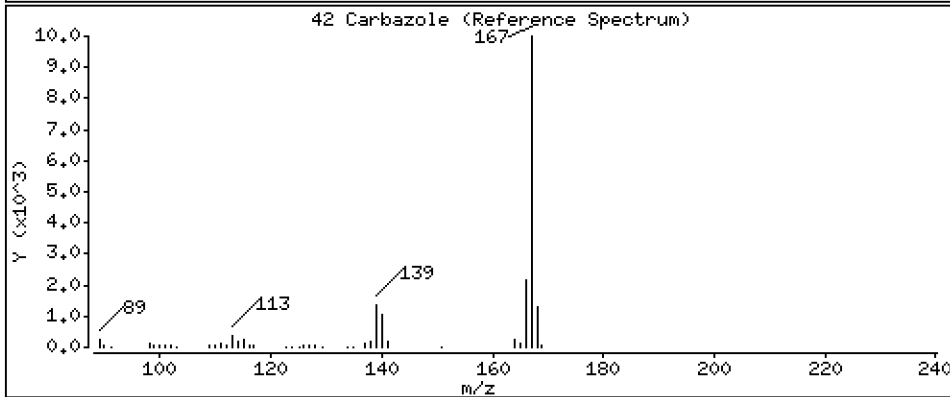
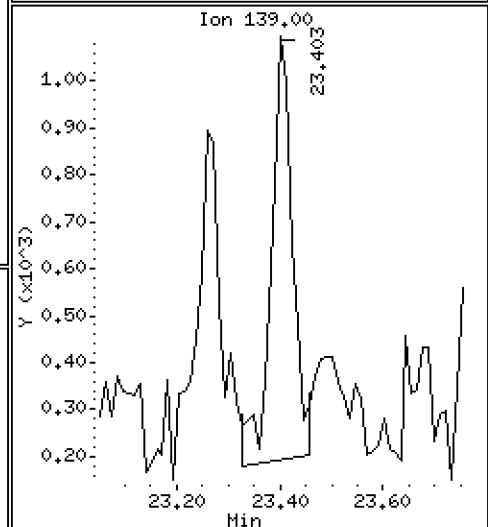
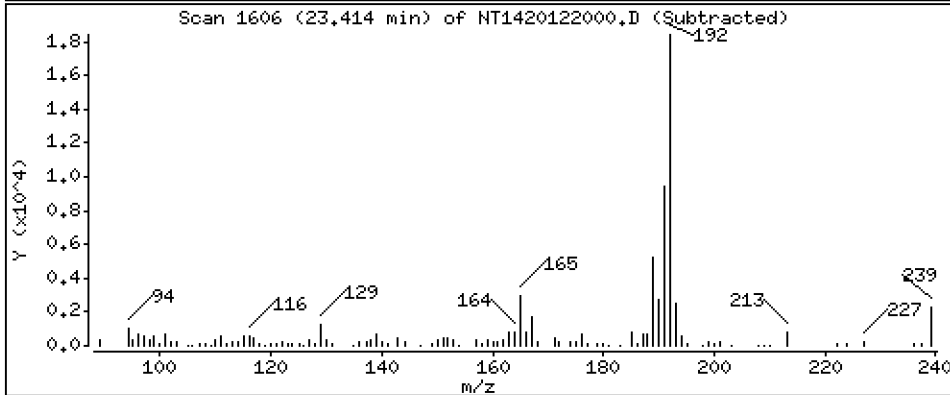
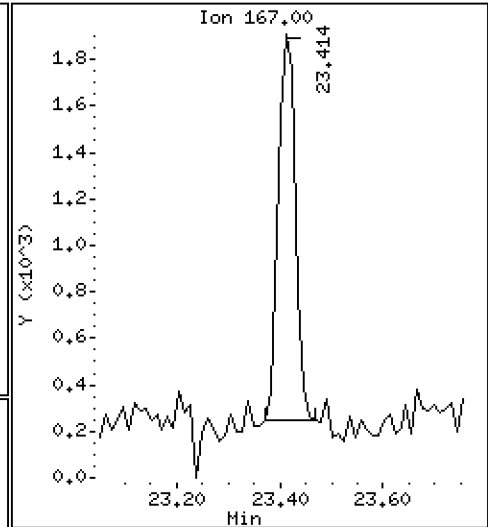
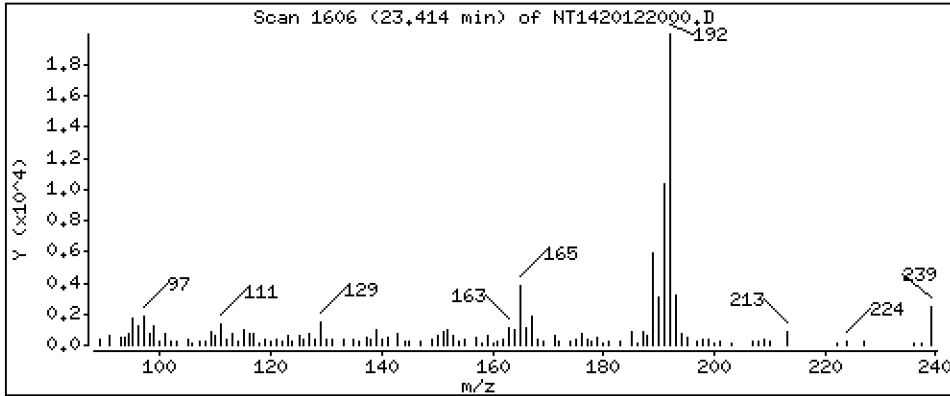
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

42 Carbazole

Concentration: 0,03756 ug/mL





Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

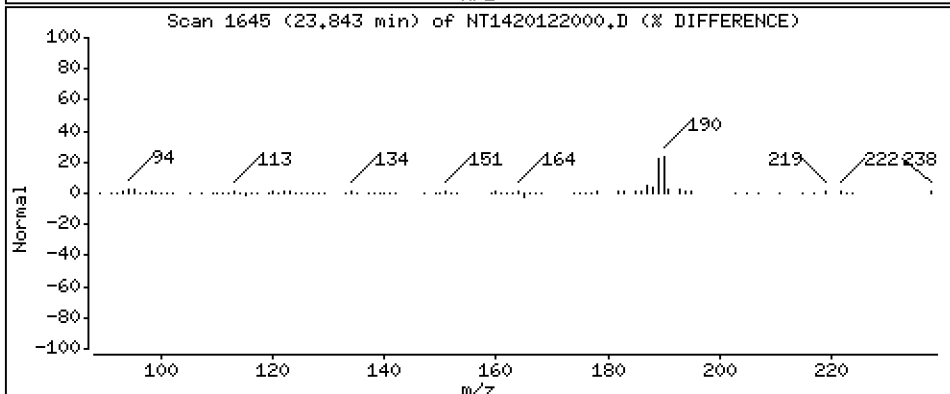
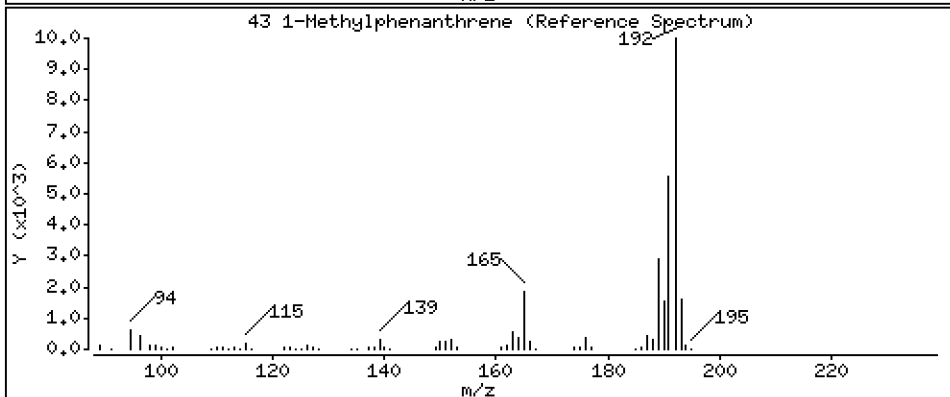
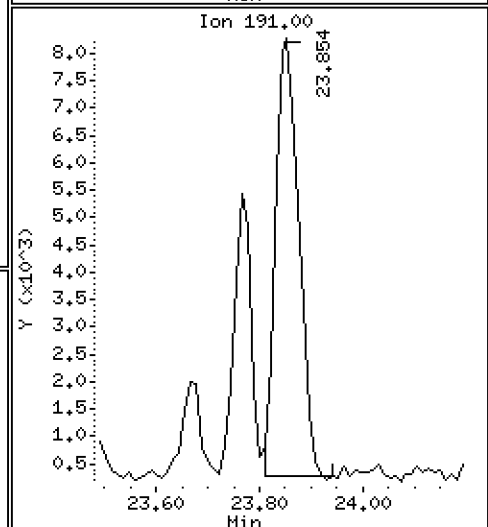
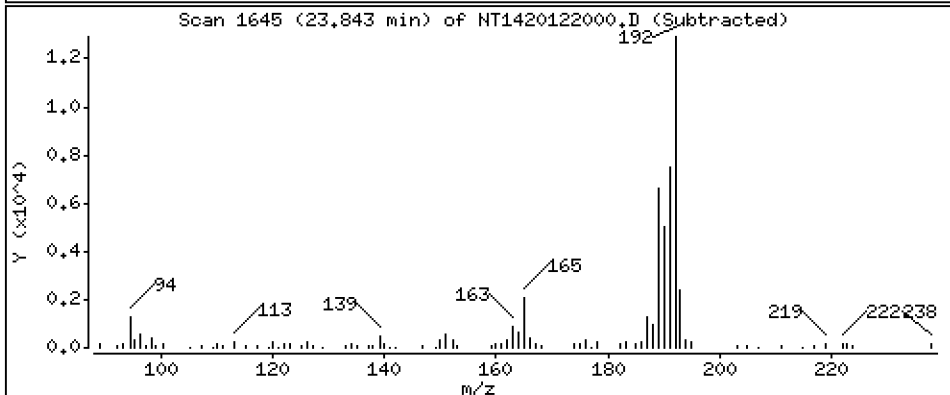
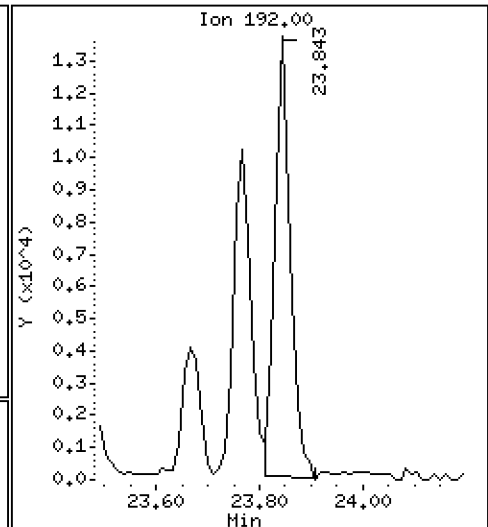
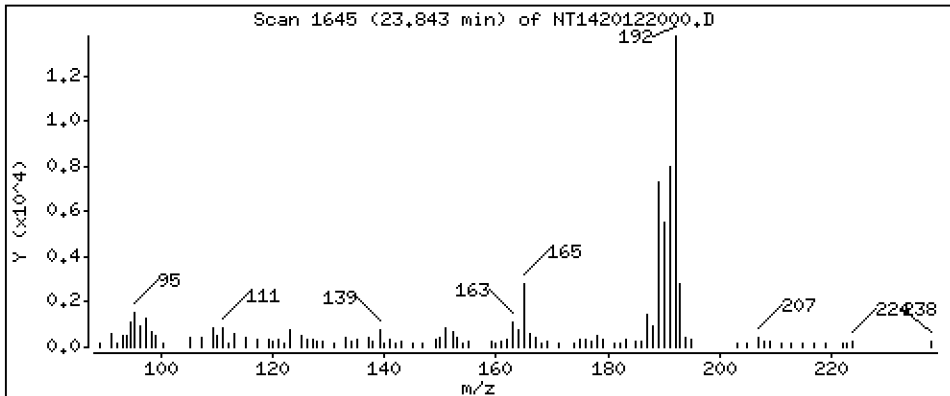
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

43 1-Methylphenanthrene

Concentration: 0,3378 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

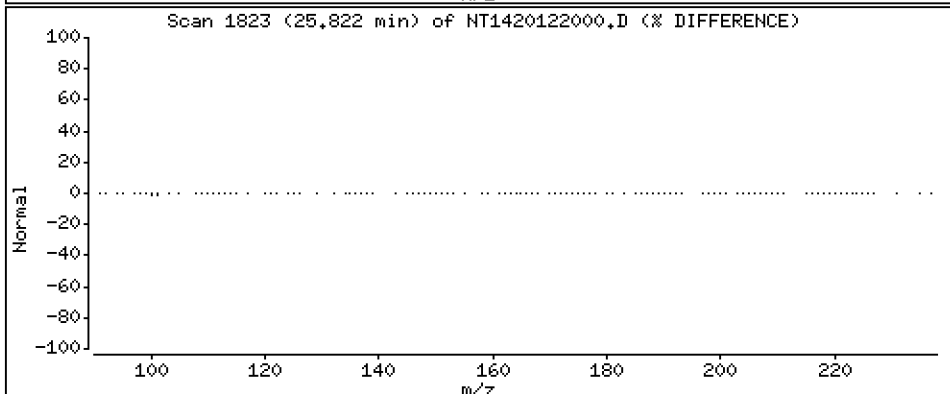
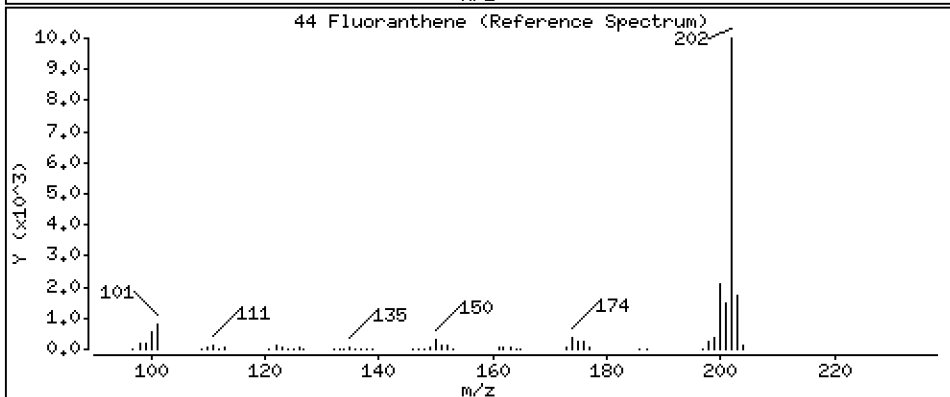
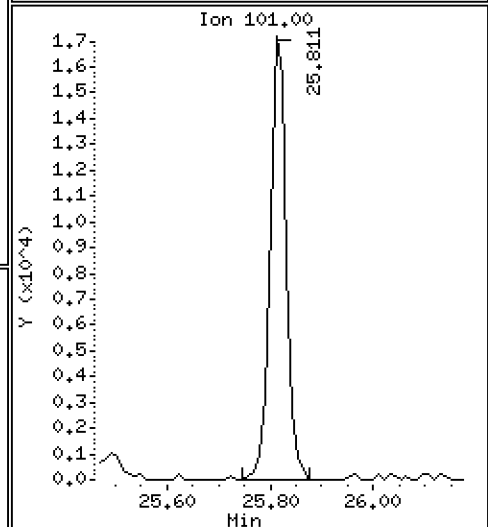
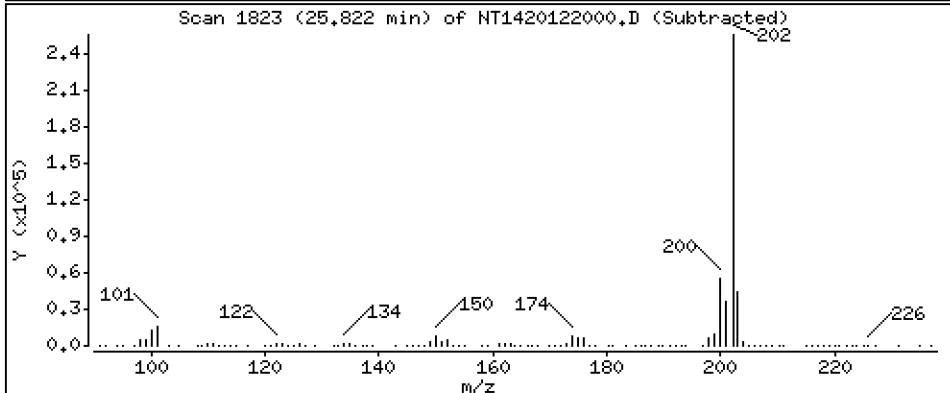
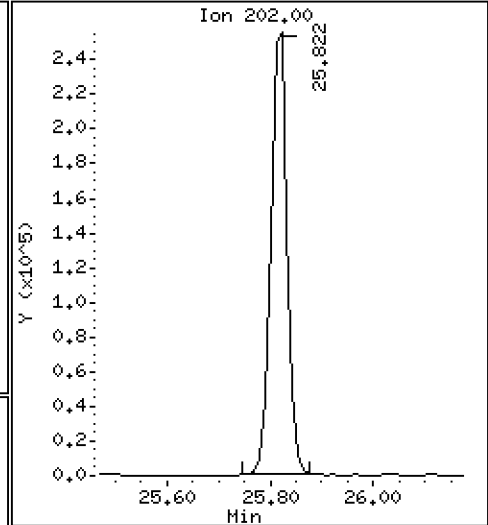
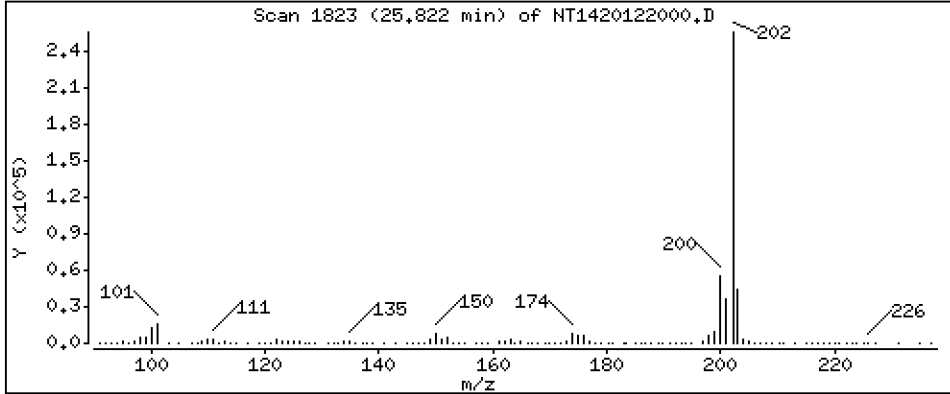
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

44 Fluoranthene

Concentration: 4,277 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

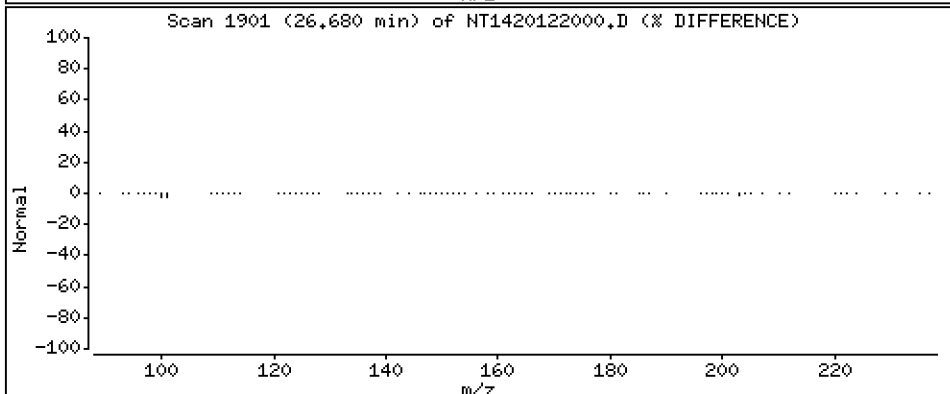
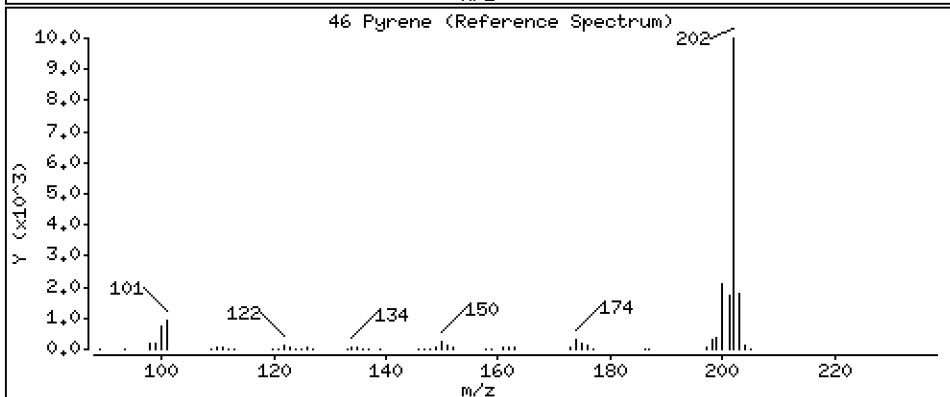
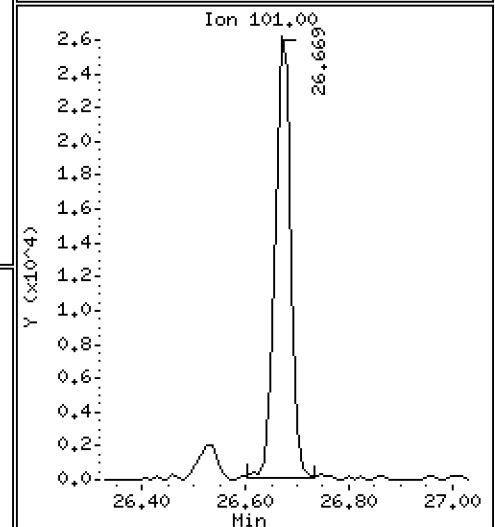
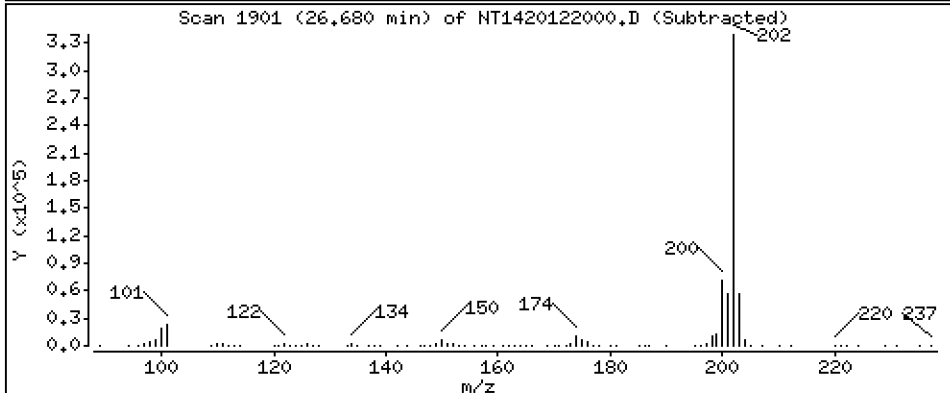
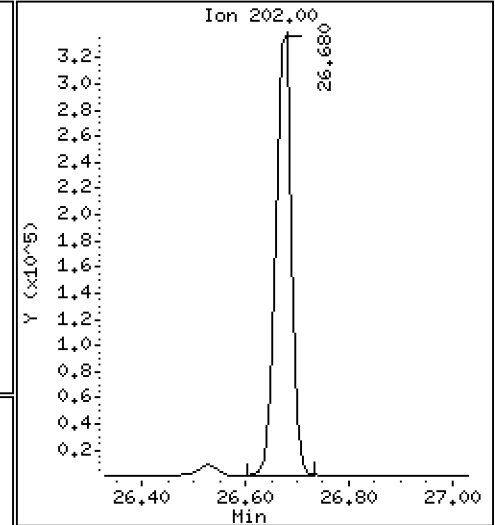
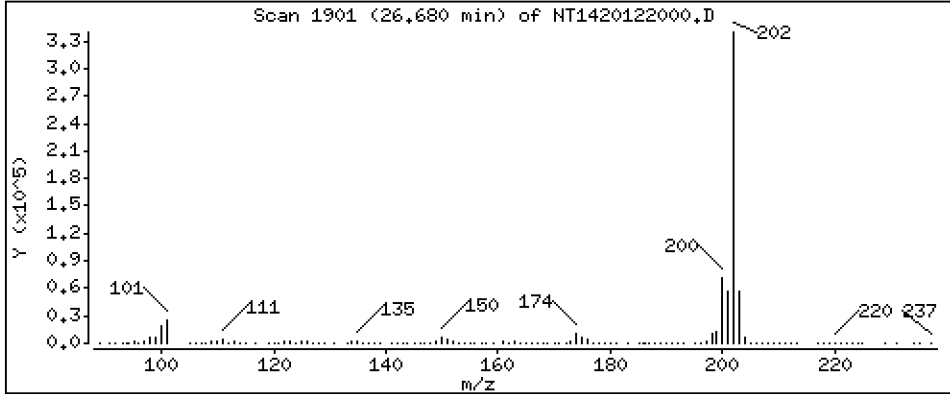
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

46 Pyrene

Concentration: 5,214 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

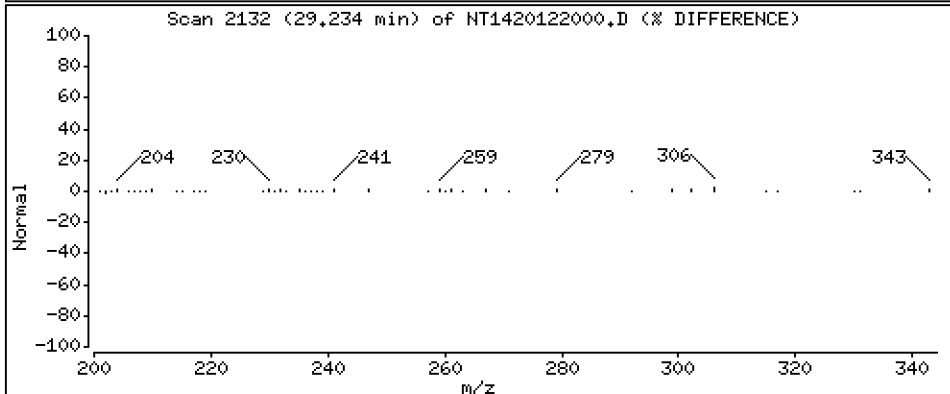
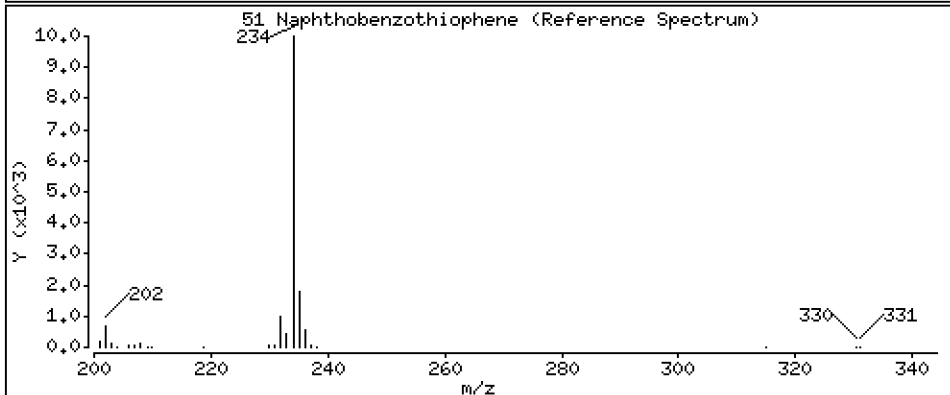
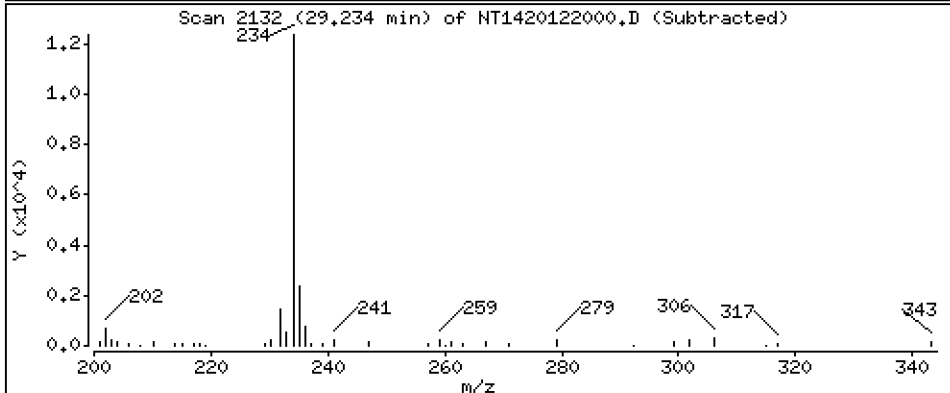
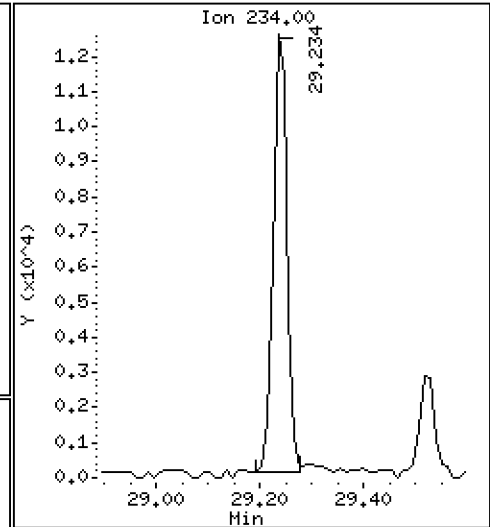
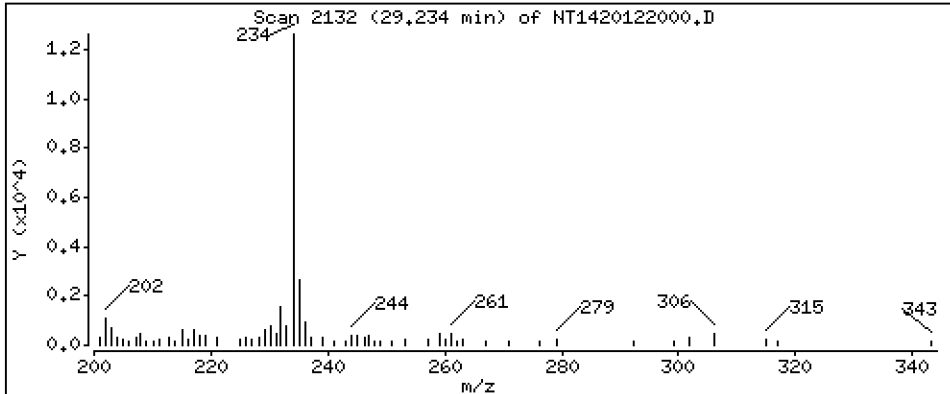
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

51 Naphthobenzothiophene

Concentration: 0,1817 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

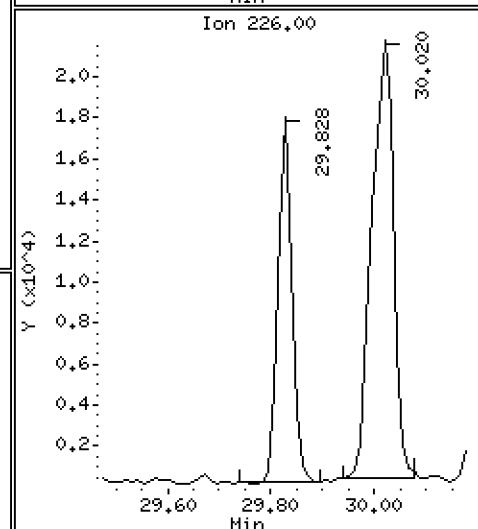
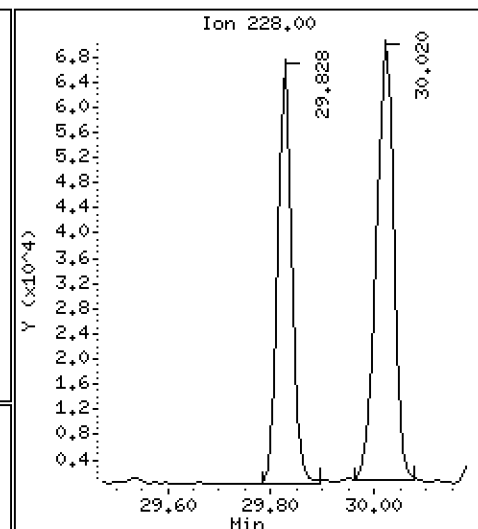
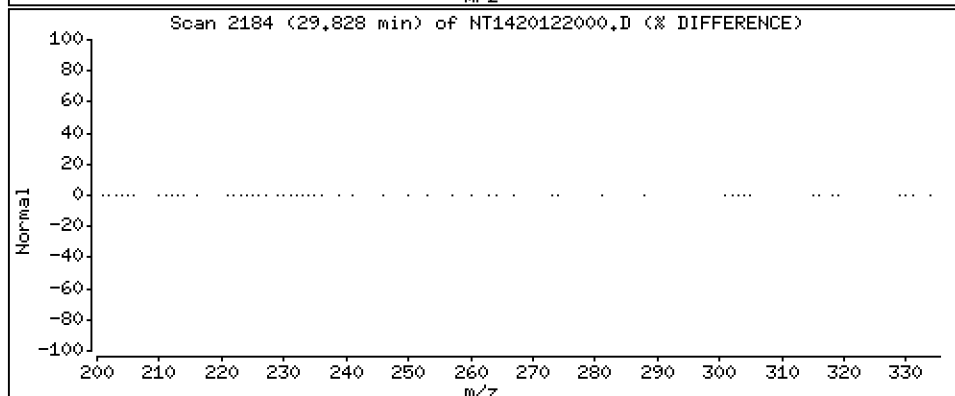
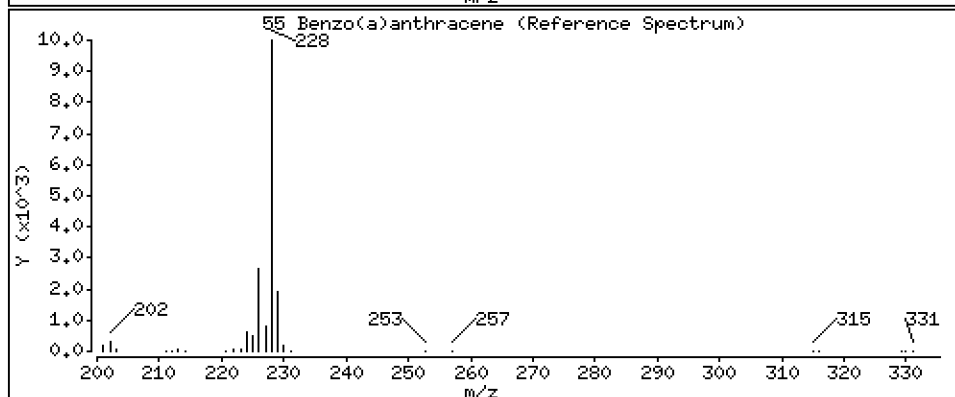
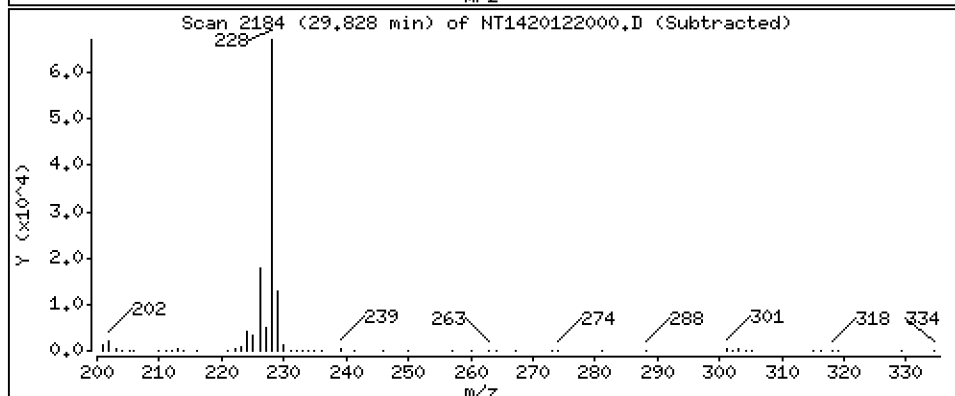
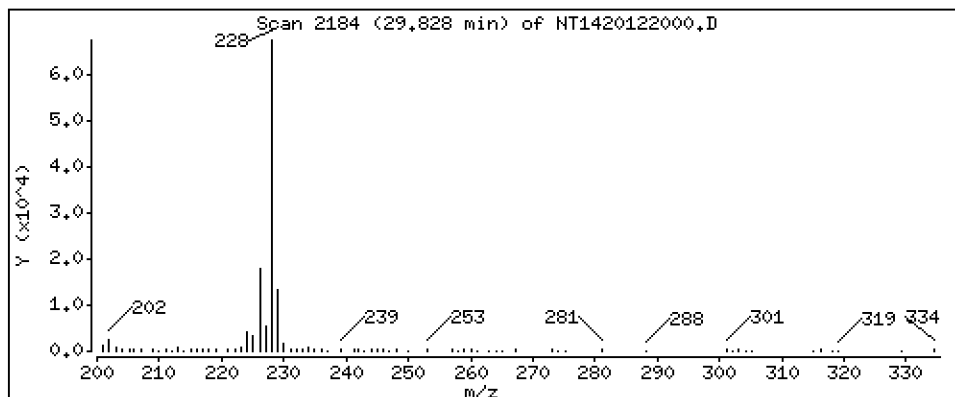
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

55 Benzo(a)anthracene

Concentration: 0,9033 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

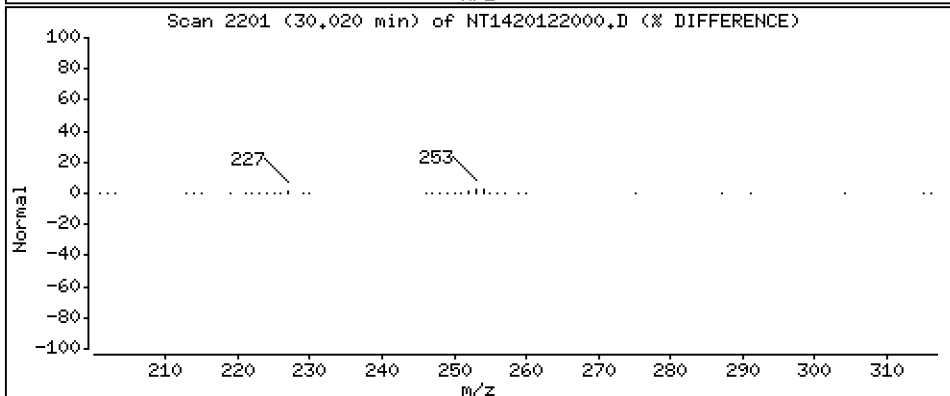
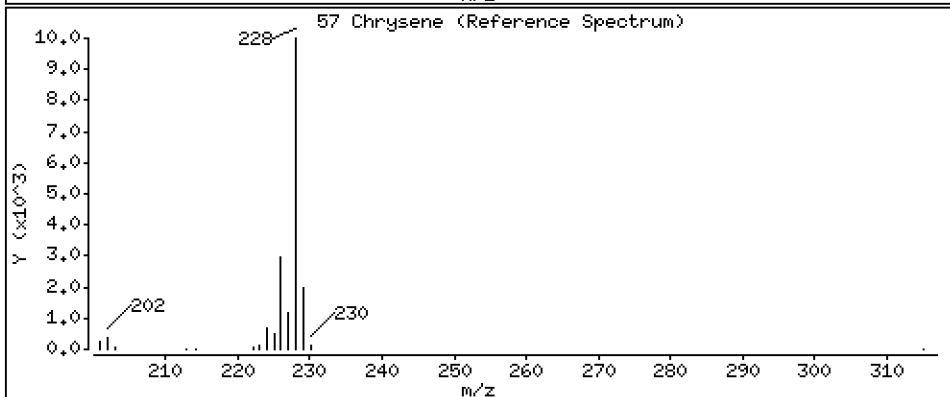
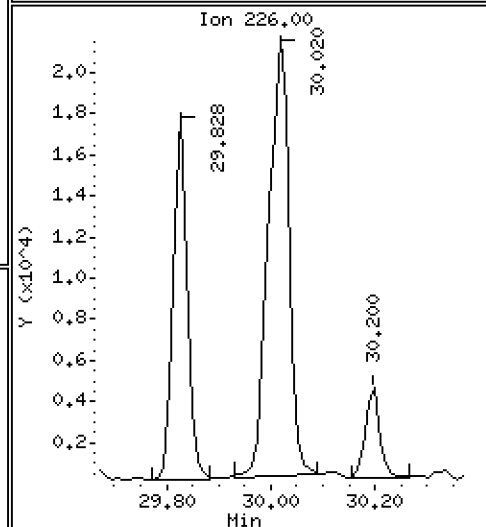
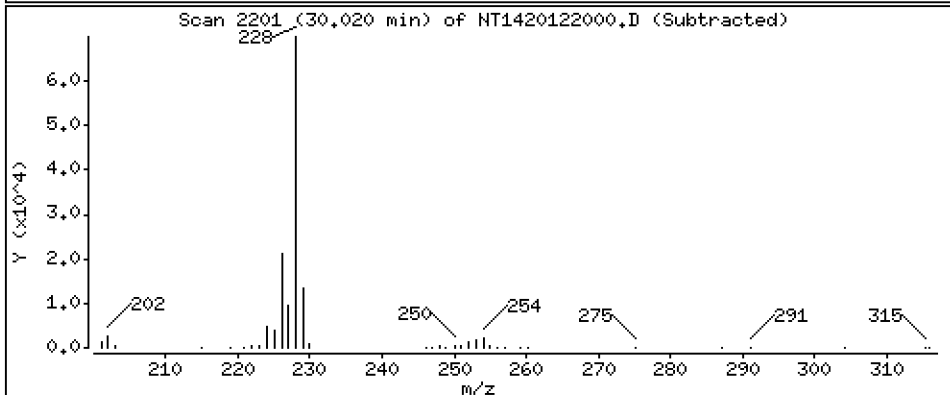
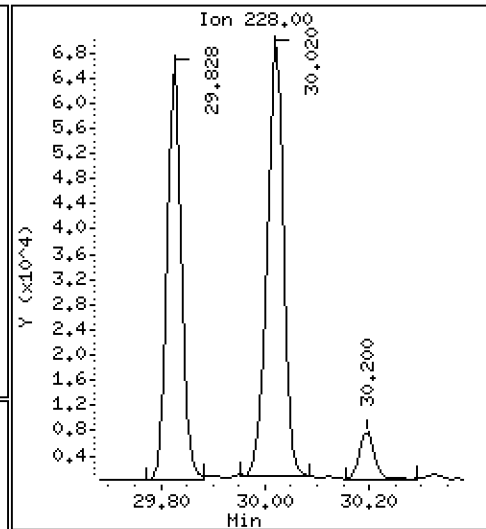
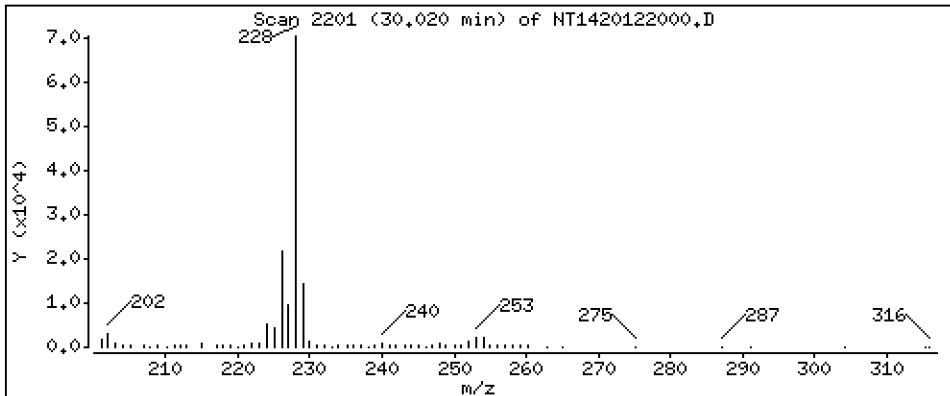
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

57 Chrysene

Concentration: 1,085 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

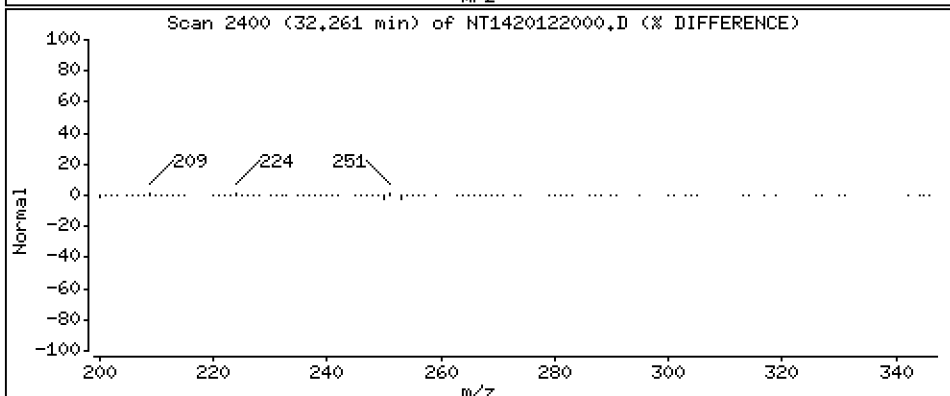
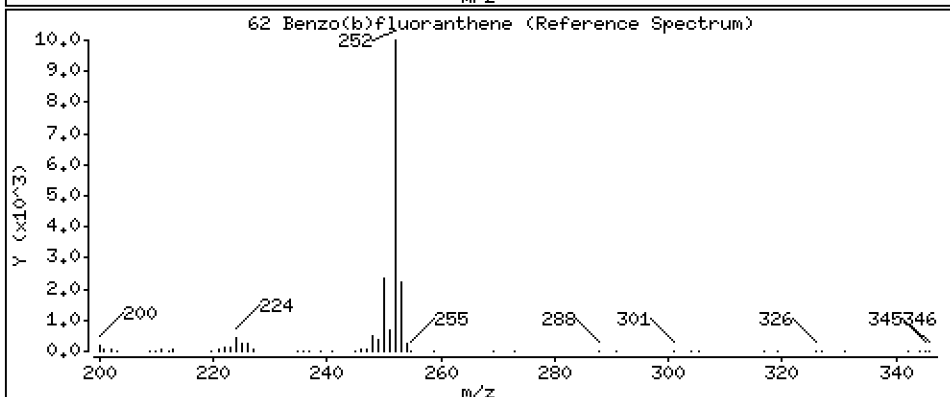
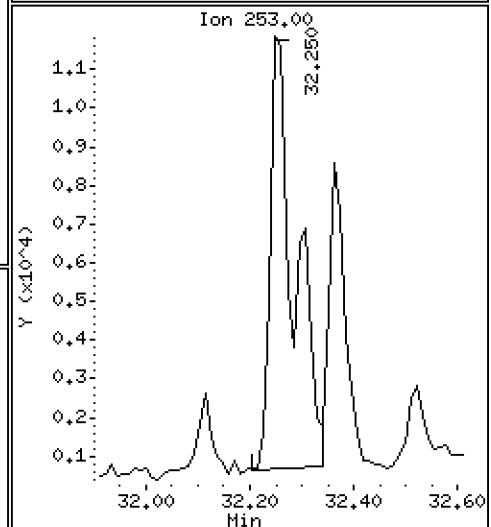
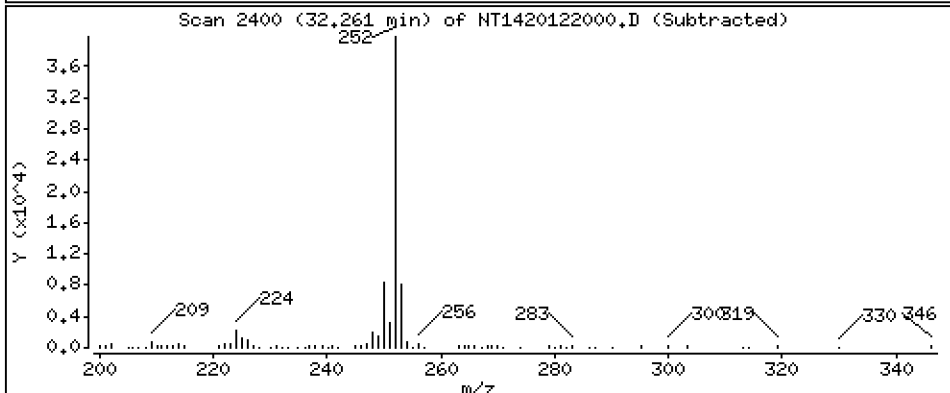
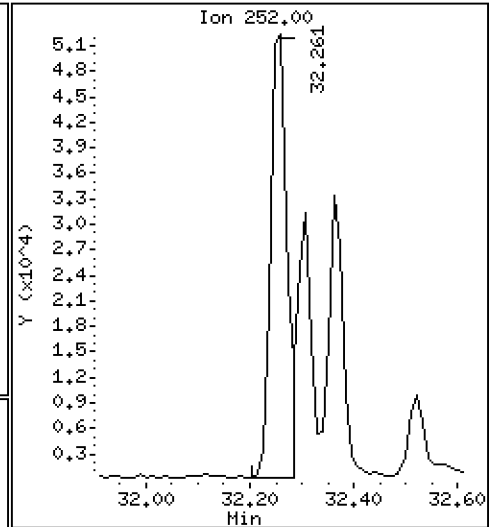
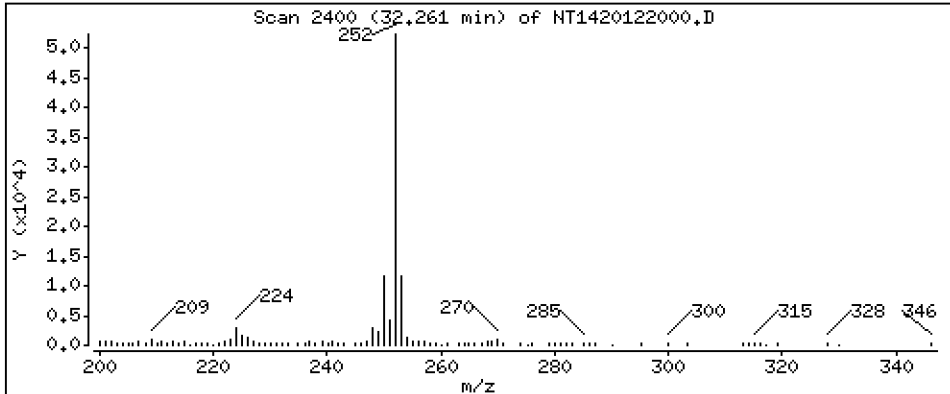
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

62 Benzo(b)fluoranthene

Concentration: 0,6872 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

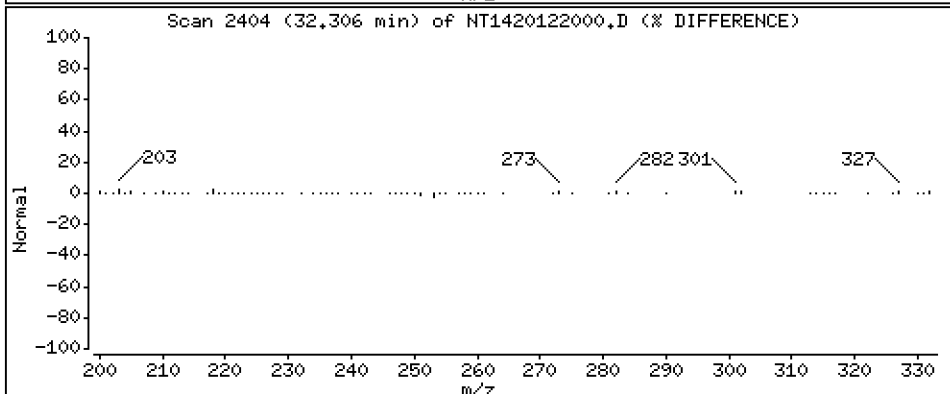
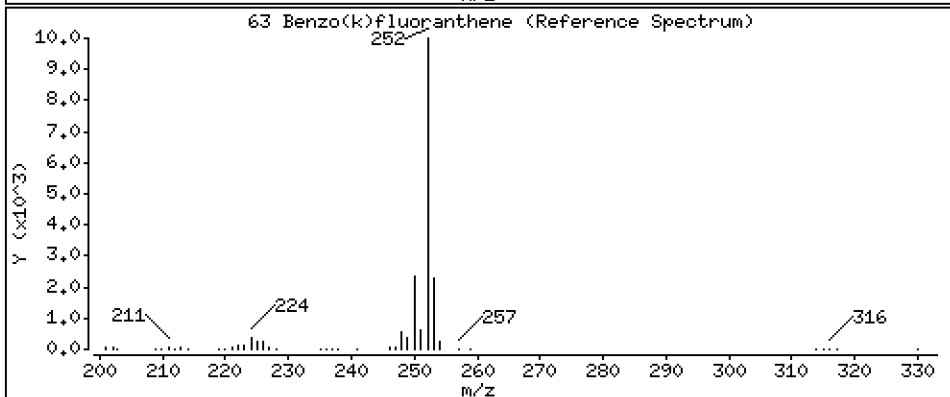
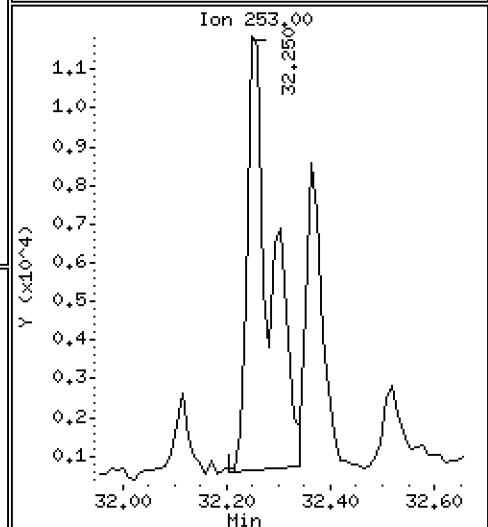
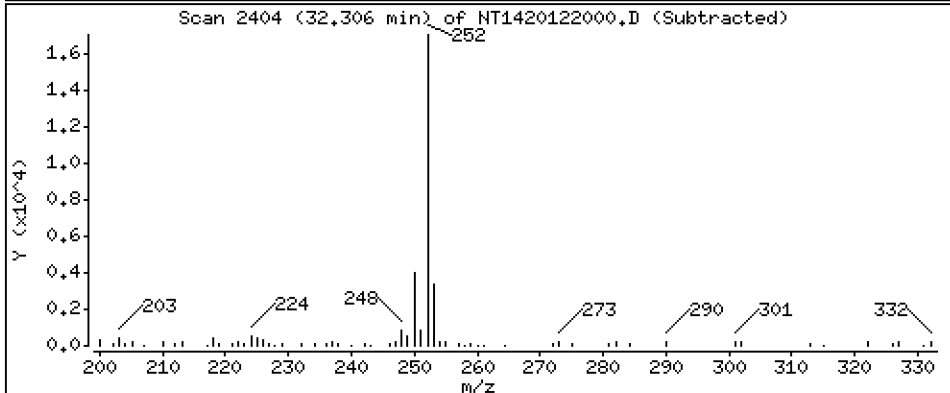
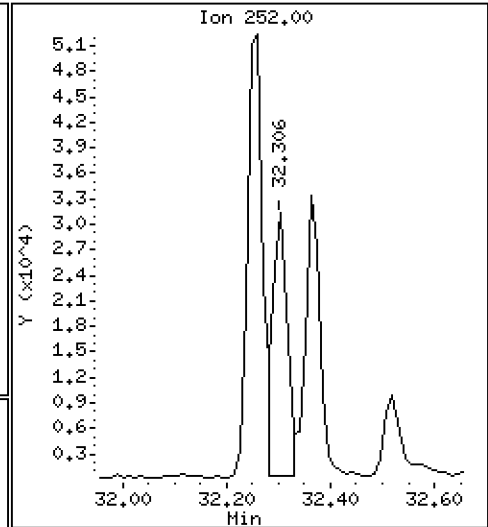
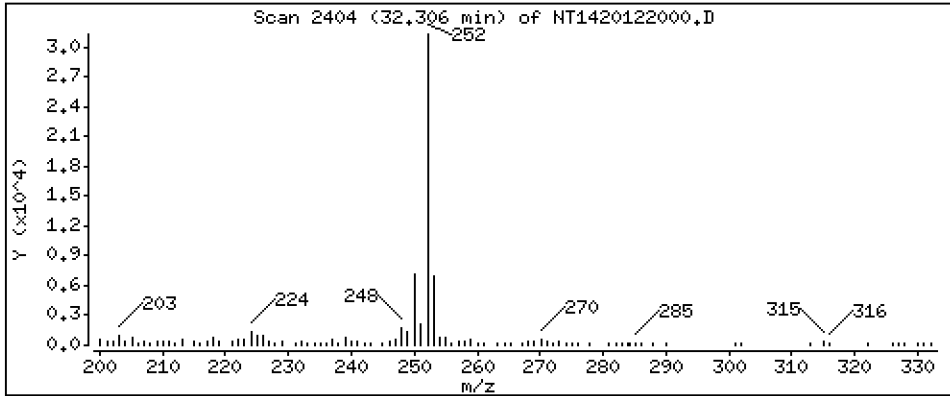
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

63 Benzo(k)fluoranthene

Concentration: 0,3773 ug/mL





Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

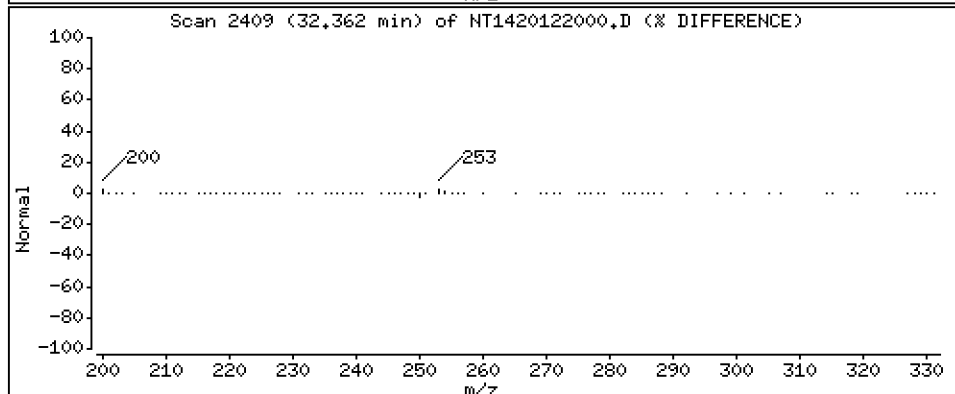
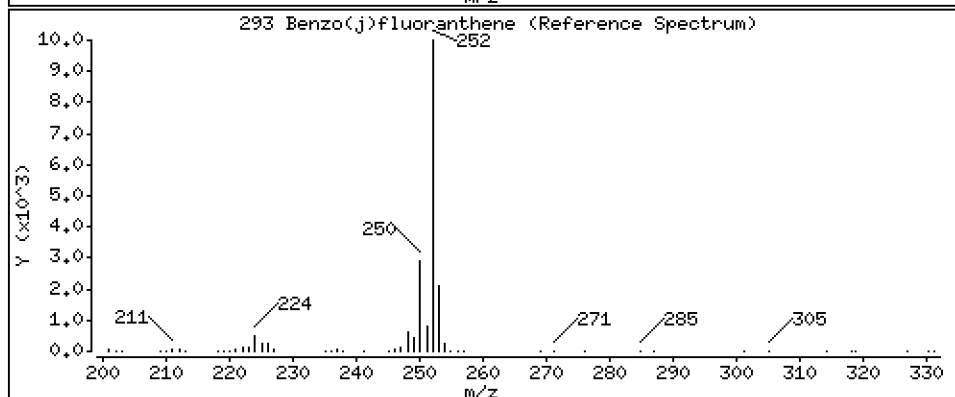
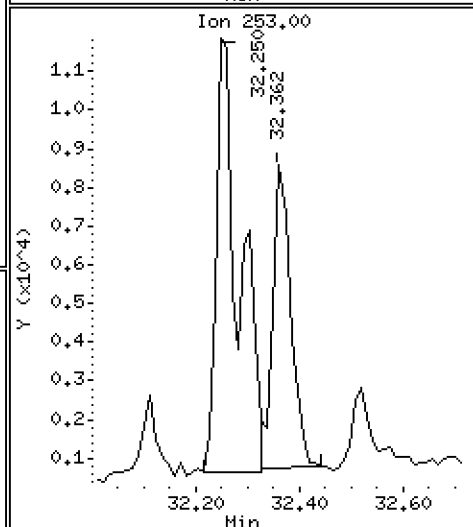
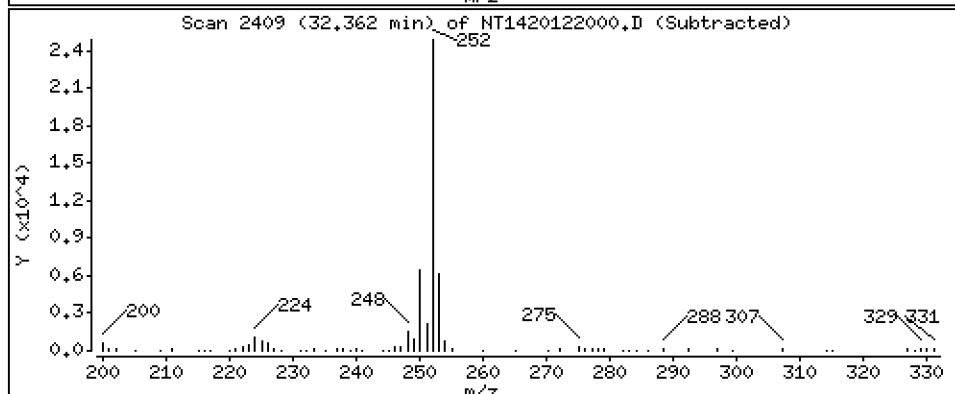
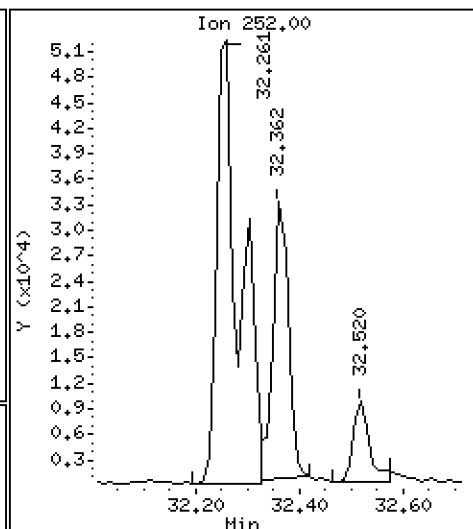
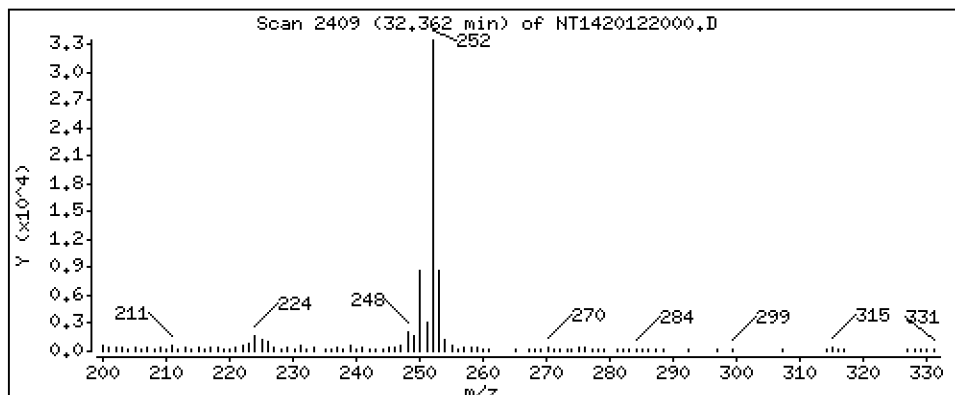
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

293 Benzo(j)fluoranthene

Concentration: 0,4561 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

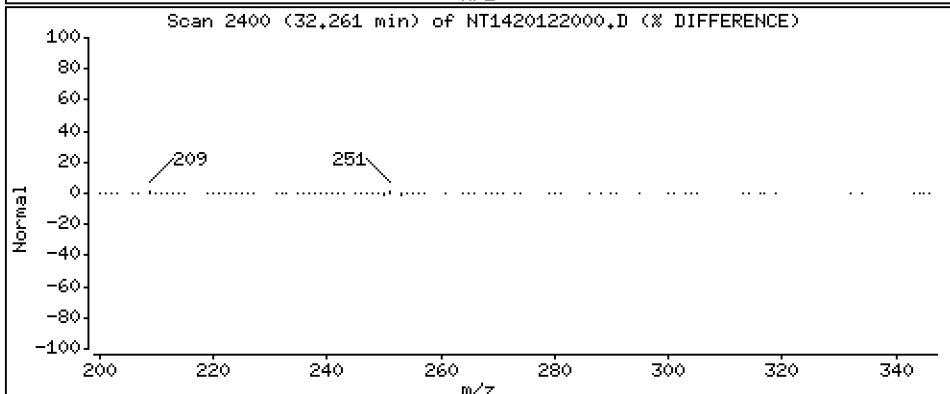
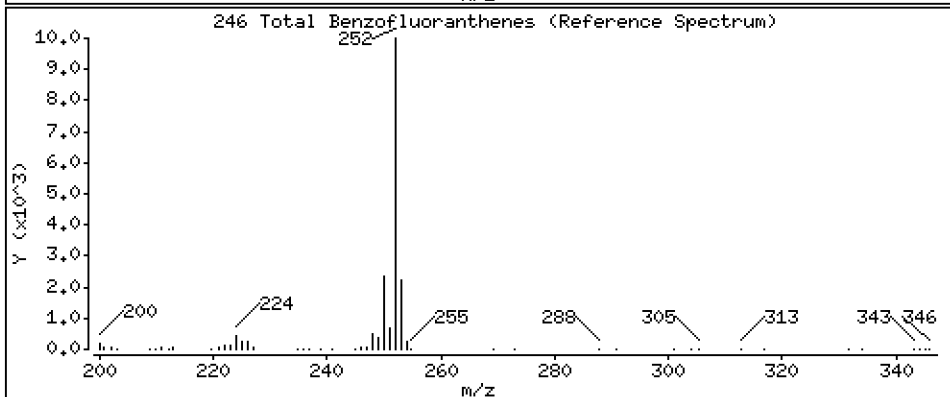
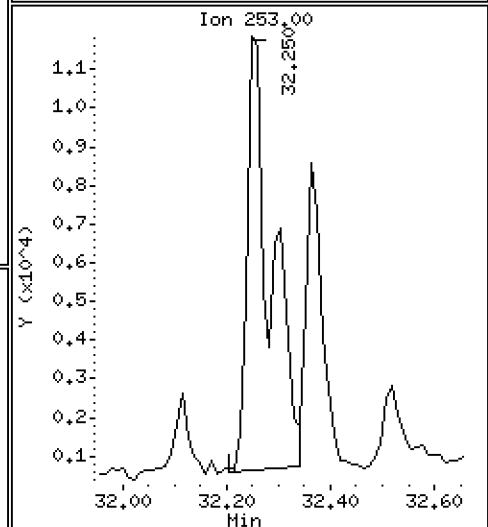
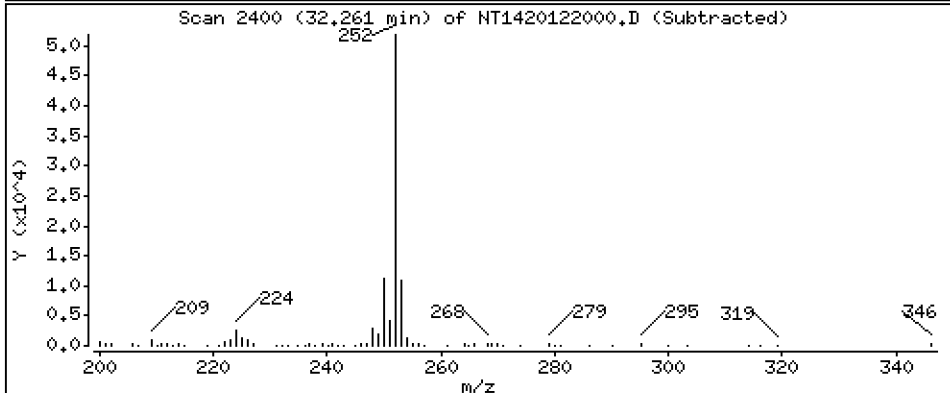
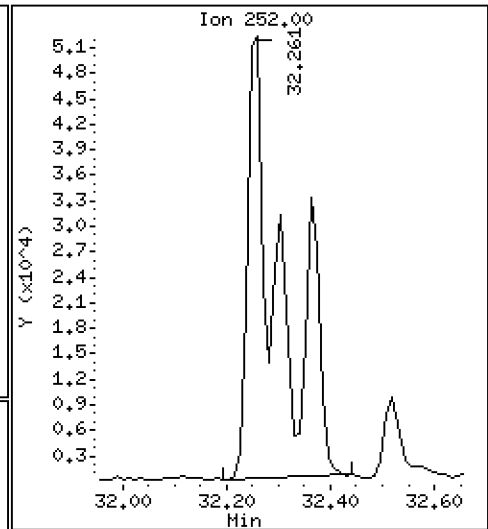
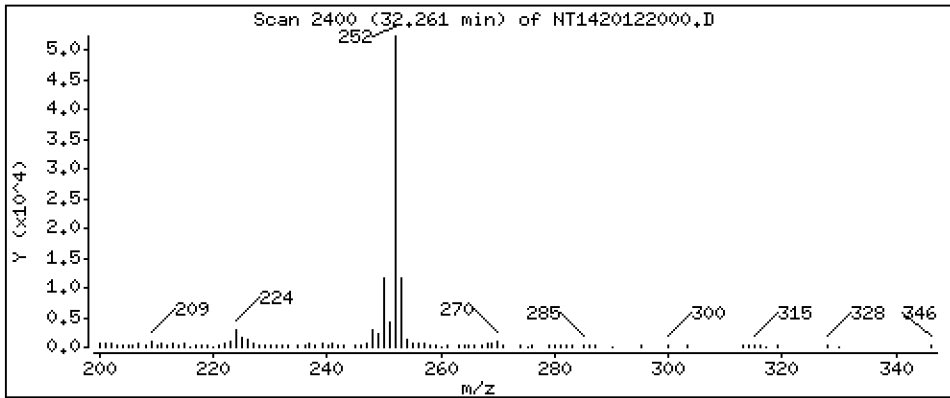
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

246 Total Benzofluoranthenes

Concentration: 1,496 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

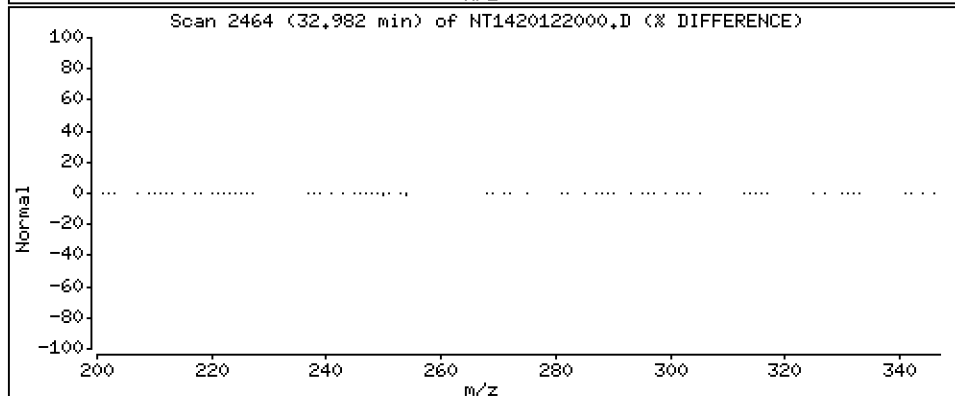
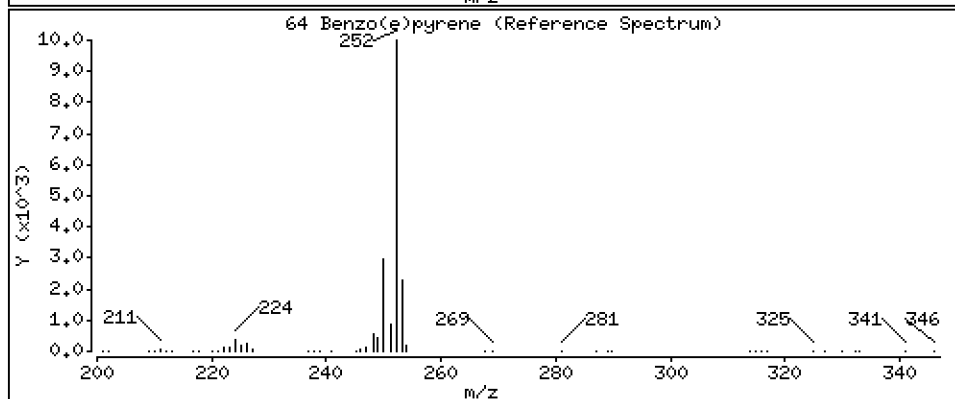
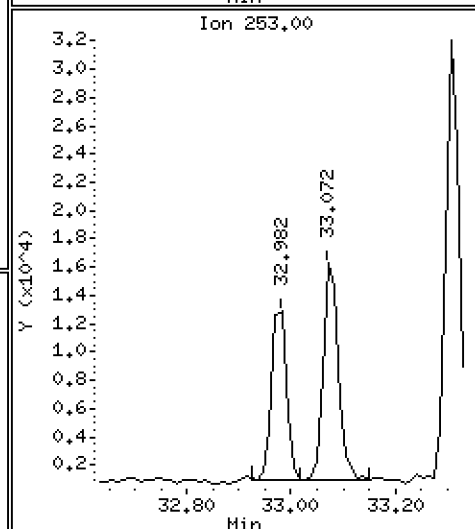
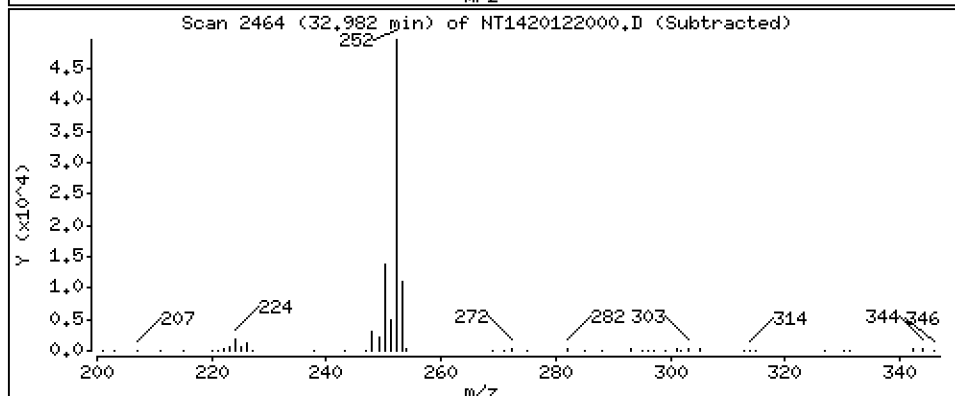
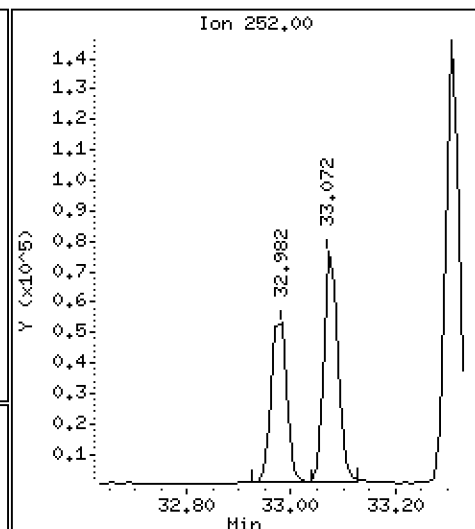
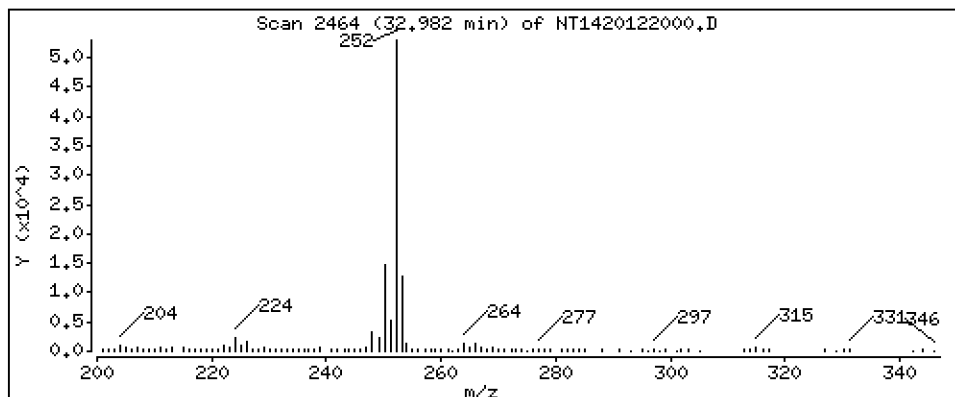
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

64 Benzo(e)pyrene

Concentration: 0,6936 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

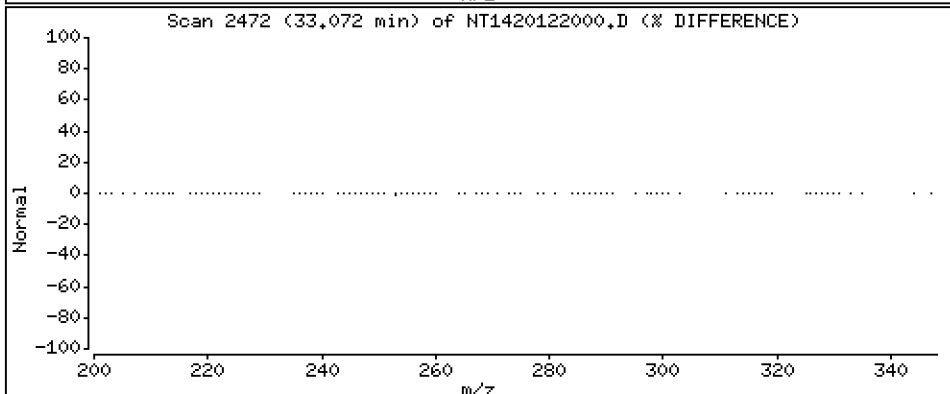
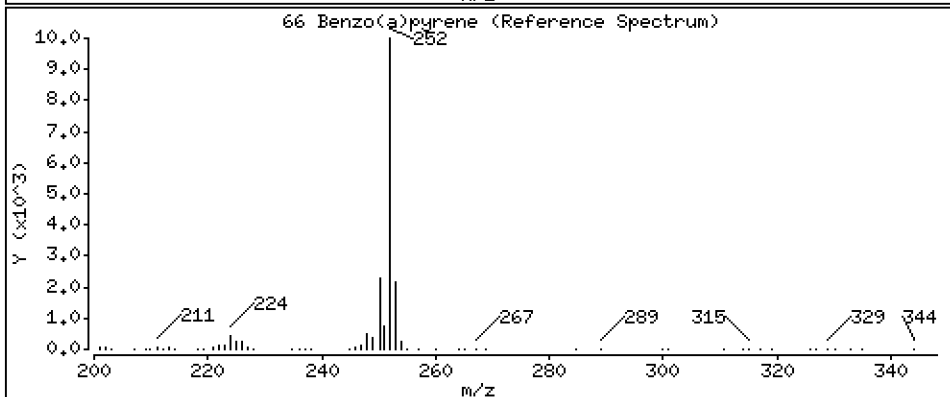
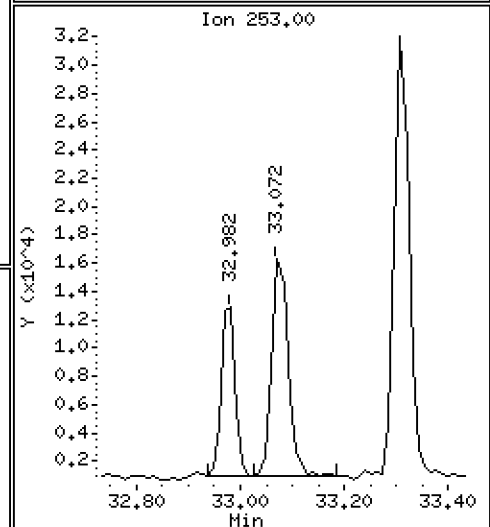
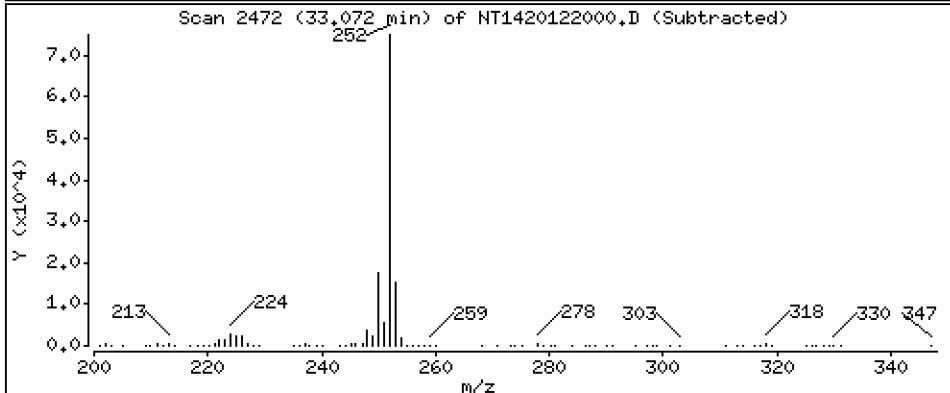
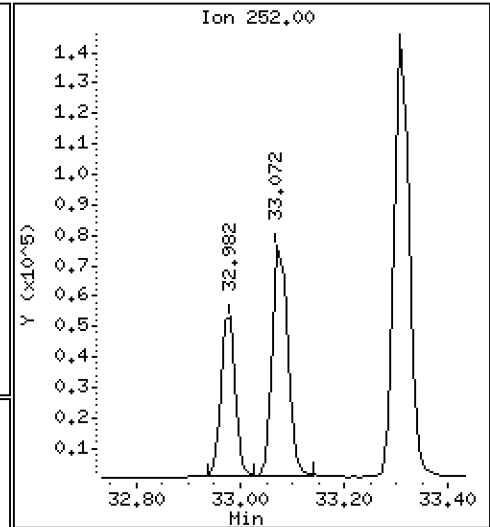
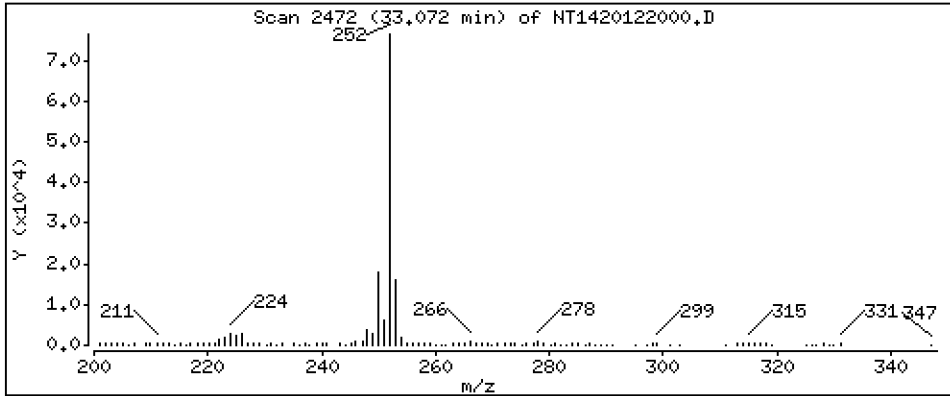
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

66 Benzo(a)pyrene

Concentration: 1,049 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

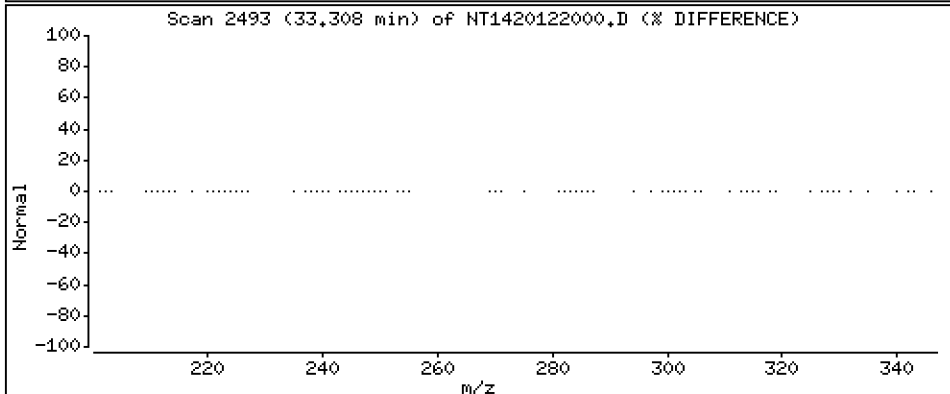
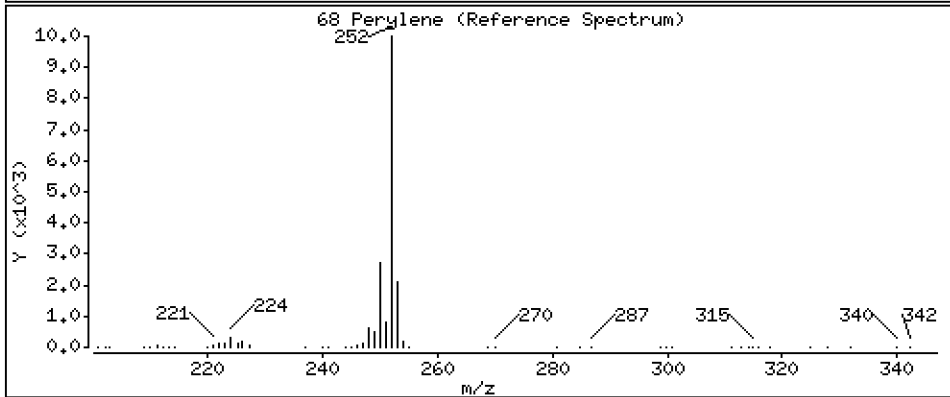
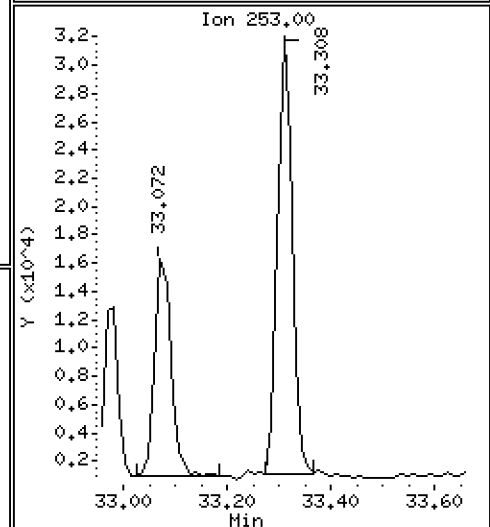
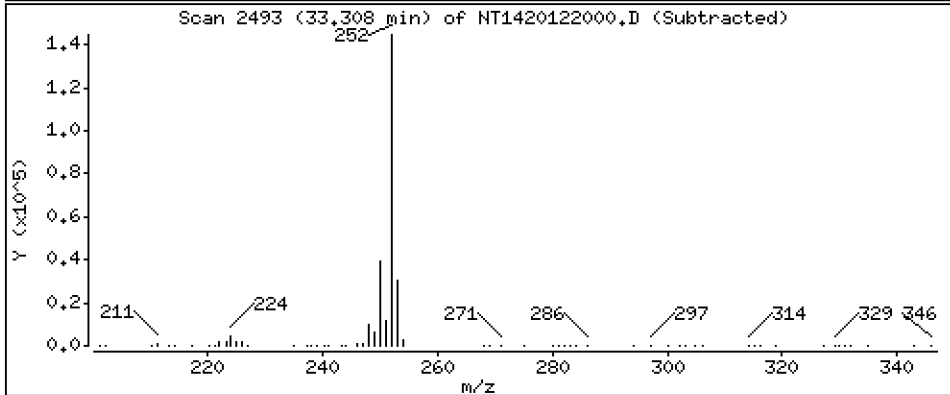
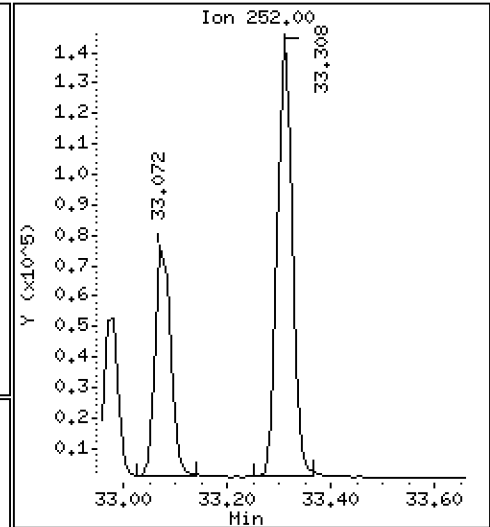
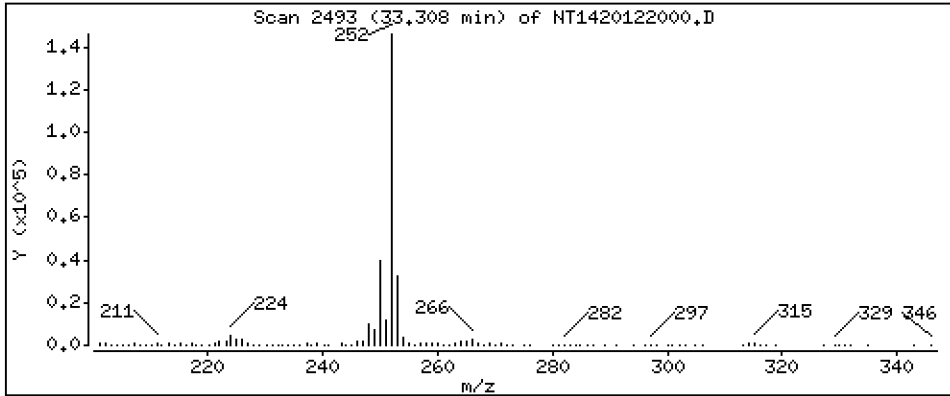
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

68 Perylene

Concentration: 1,850 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

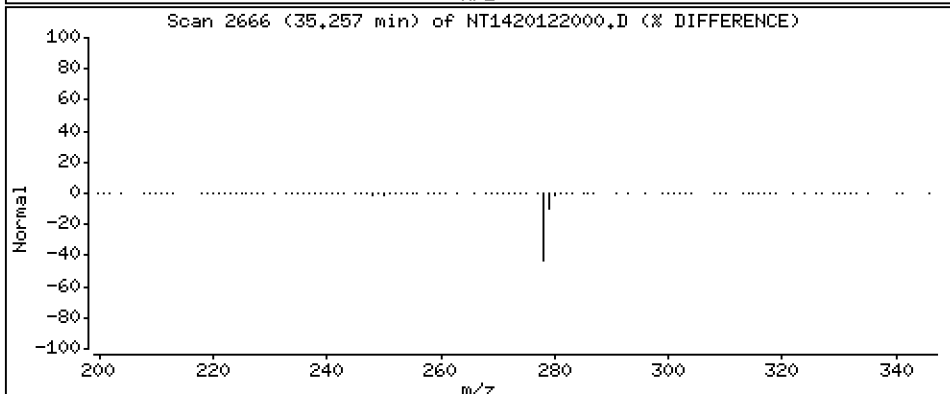
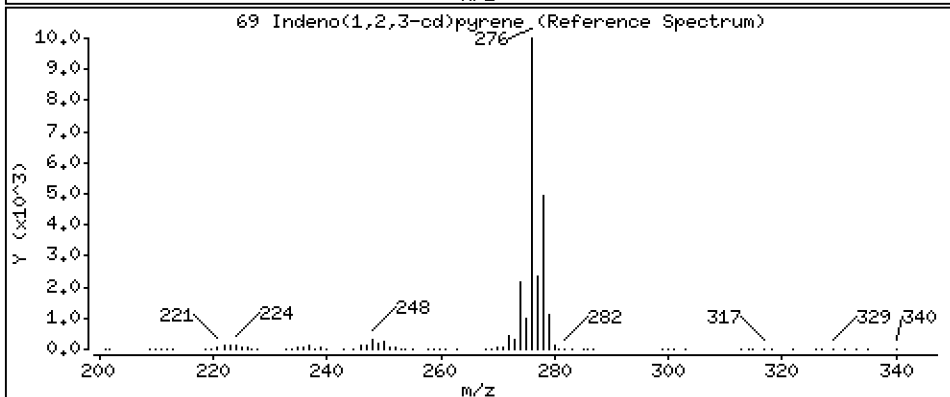
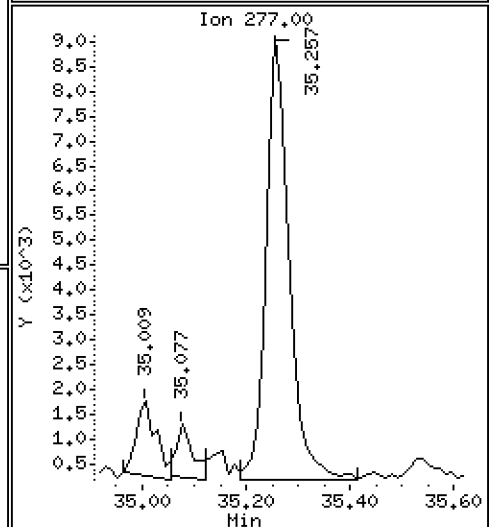
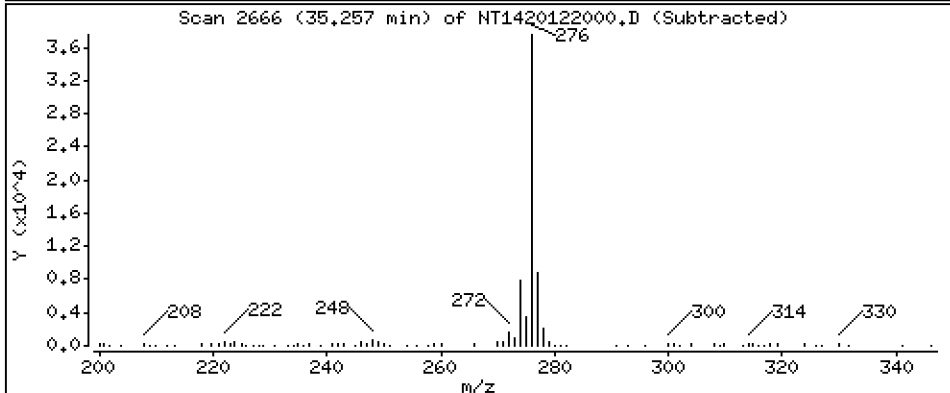
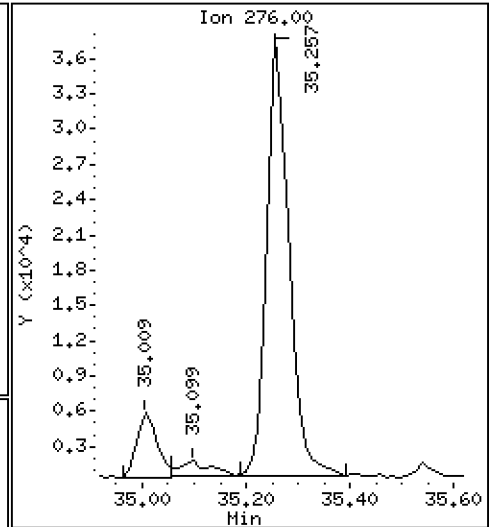
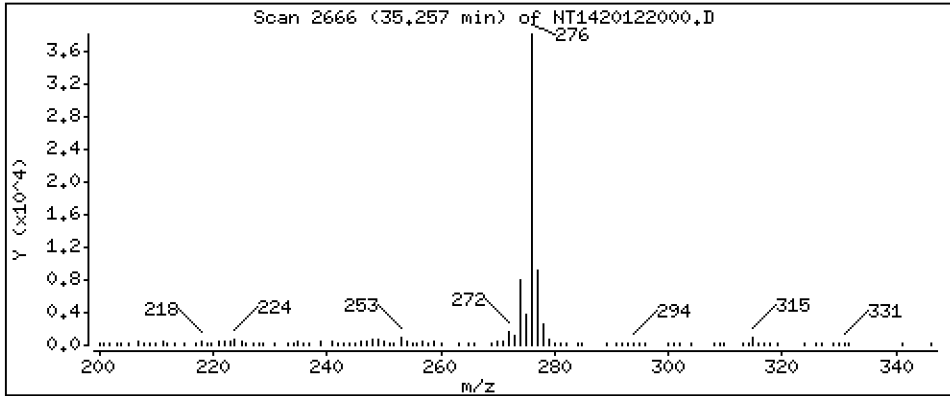
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

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

Concentration: 0,6216 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

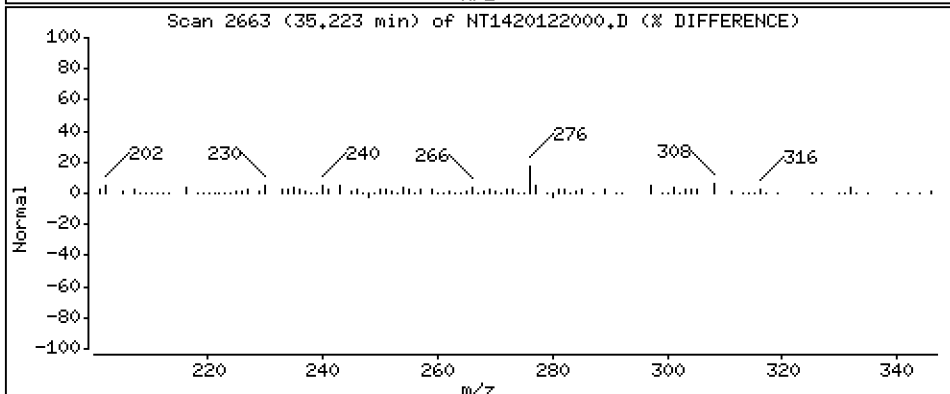
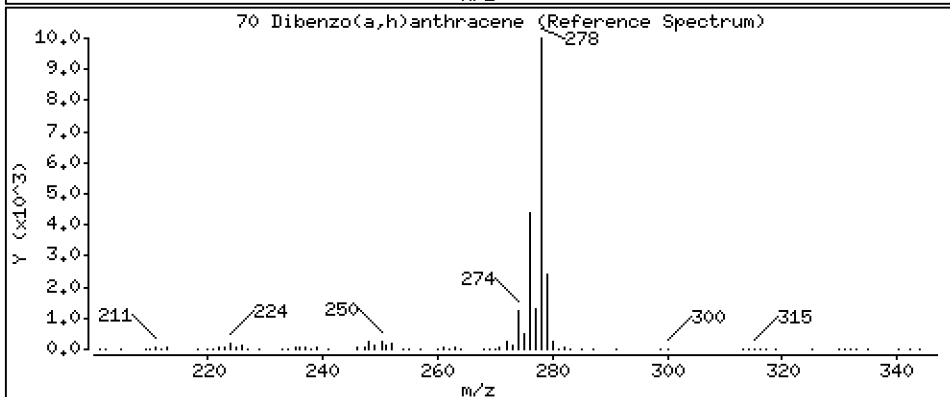
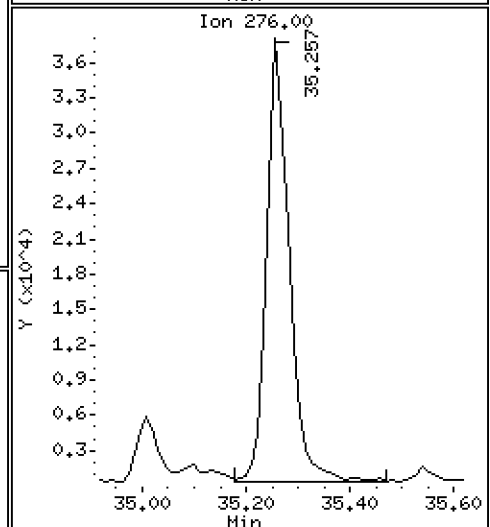
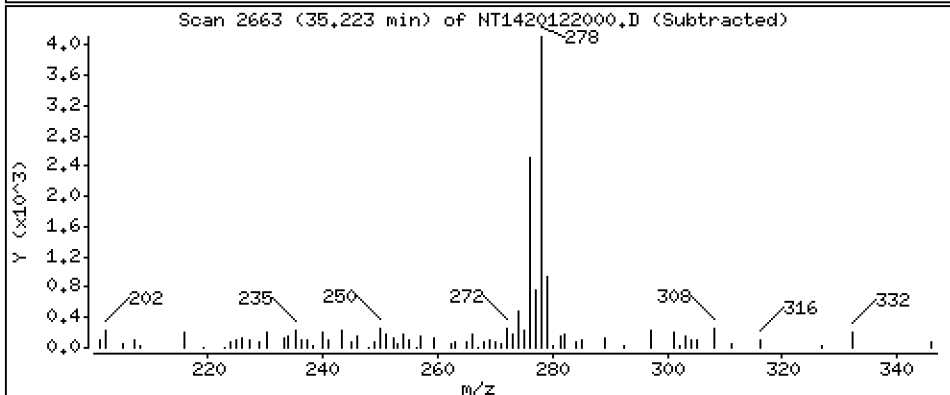
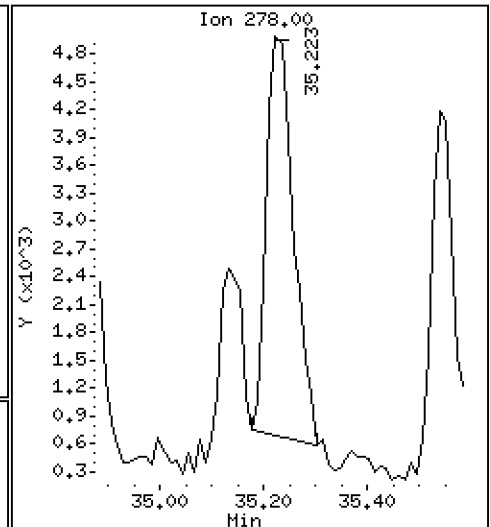
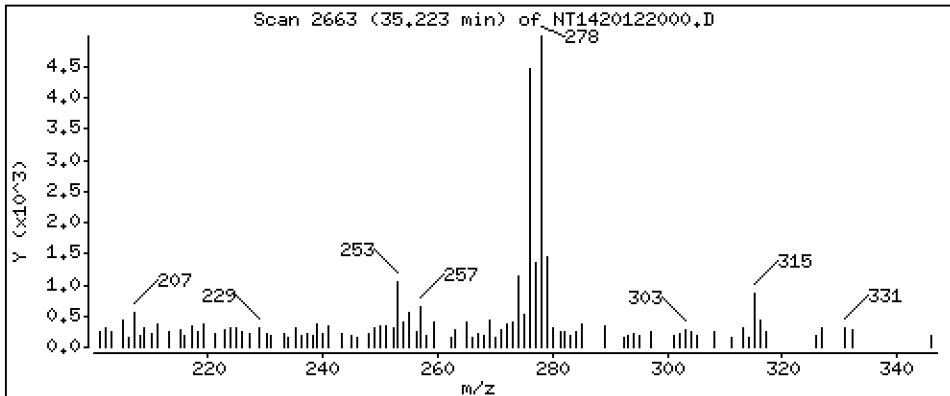
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

70 Dibenzo(a,h)anthracene

Concentration: 0,09905 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

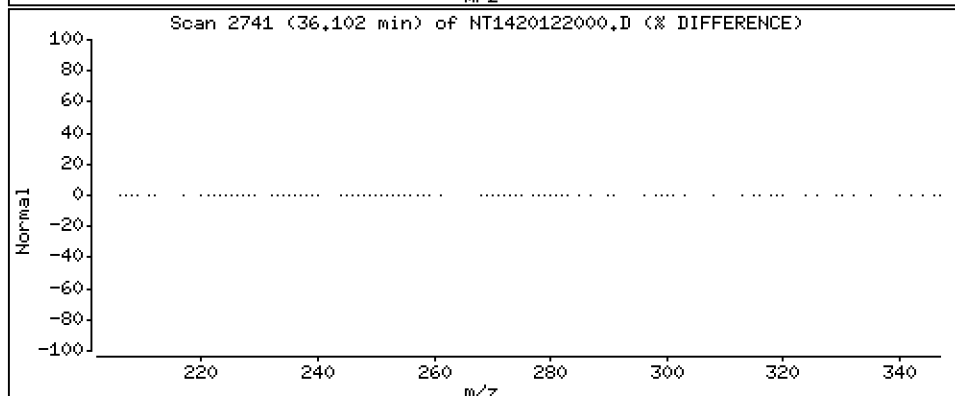
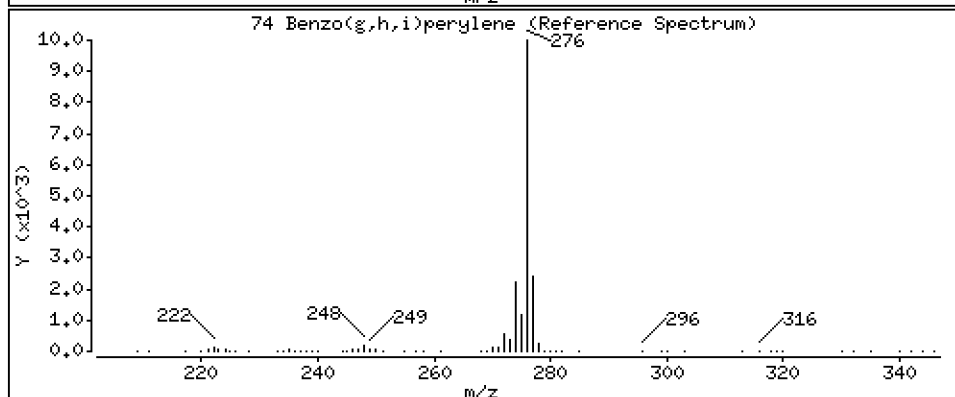
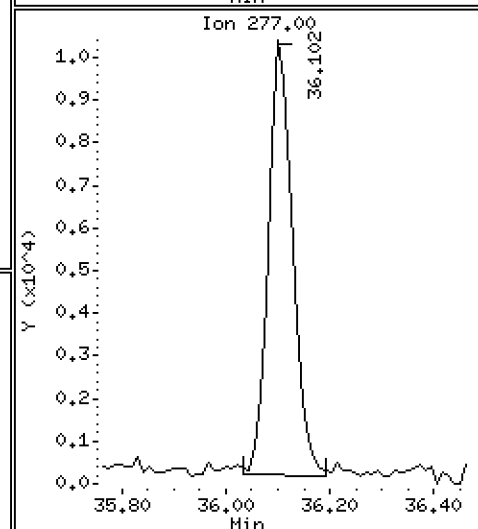
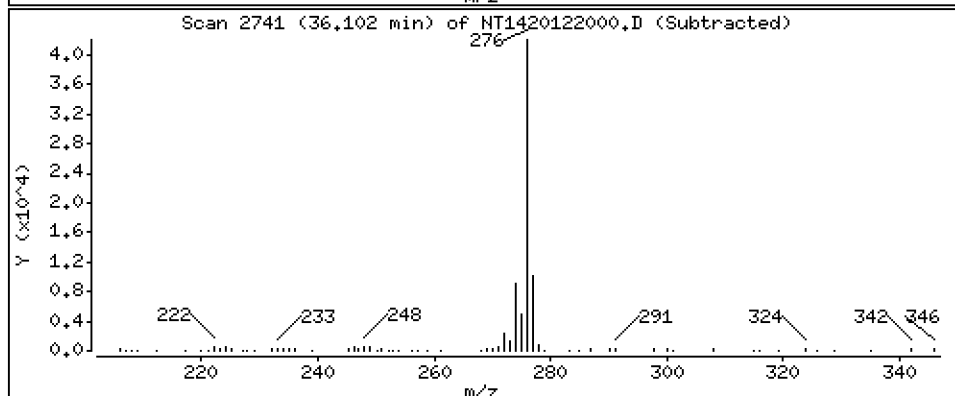
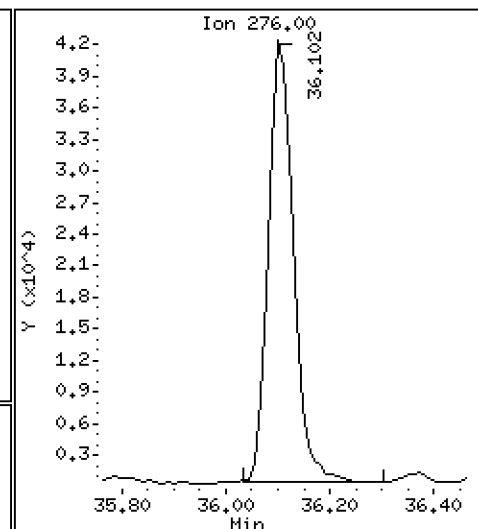
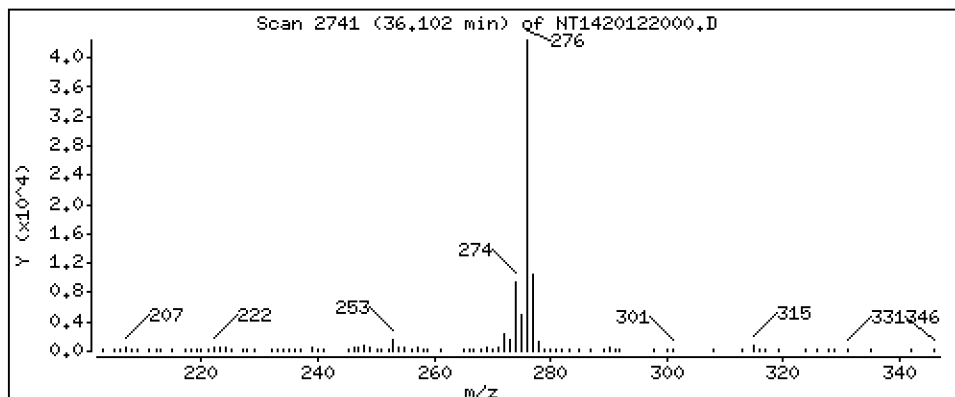
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

74 Benzo(g,h,i)perylene

Concentration: 0,8984 ug/mL





ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20201219F.b\NT1420122000.D  
 Lab Smp Id: 20K0204-07  
 Inj Date : 22-DEC-2020 17:07  
 Operator : VTS  
 Smp Info : 20K0204-07  
 Misc Info :  
 Comment : 1ul Injection  
 Method : \\target\share\chem3\nt14.i\20201219F.b\ALKYLPNA.m  
 Meth Date : 23-Dec-2020 11:48 van  
 Cal Date : 07-OCT-2020 15:56  
 Als bottle: 86  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 4.14  
 Processing Host: VANS-202011

Inst ID: nt14.i

Quant Type: ISTD  
 Cal File: NT1420100708.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	11.608	11.608	(0.624)	192346	1.77553	1.776 (R)
7 Naphthalene	128	11.674	11.674	(0.628)	62230	0.57417	0.5742
12 Benzo(b)thiophene	134	12.113	12.135	(0.651)	5432	0.05965	0.05965
16 2-Methylnaphthalene	141	13.509	13.520	(0.726)	11799	0.17859	0.1786
17 1-methylnaphthalene	141	13.959	13.960	(0.751)	6223	0.09135	0.09135
18 Biphenyl	154	15.146	15.146	(0.814)	7215	0.07256	0.07256 (M)
19 2,6-Dimethylnaphthalene	156	15.223	15.234	(0.819)	5253	0.07236	0.07236 (M)
20 Acenaphthylene	152	16.784	16.795	(0.902)	16143	0.13562	0.1356
\$ 21 Acenaphthene-d10	164	17.070	17.070	(0.918)	122095	1.87689	1.877 (R)
22 Acenaphthene	153	17.179	17.191	(0.924)	131342	1.68436	1.684
23 Dibenzofuran	168	17.564	17.575	(0.944)	12171	0.10759	0.1076
24 1,6,7-Trimethylnaphthalene	170	17.795	17.795	(0.957)	6206	0.08432	0.08432
* 25 Fluorene-d10	176	18.598	18.610	(1.000)	265502	2.00000	
26 Fluorene	166	18.712	18.712	(1.006)	33555	0.38049	0.3805
30 Dibenzothiophene	184	21.614	21.626	(1.162)	71102	0.56021	0.5602
\$ 35 Phenanthrene-d10	188	21.930	21.930	(0.995)	286824	2.63656	2.637 (R)
36 Phenanthrene	178	22.007	22.018	(0.999)	904116	7.18783	7.188
* 250 Anthracene-d10	188	22.040	22.051	(1.000)	227133	2.00000	
37 Anthracene	178	22.116	22.117	(1.003)	28977	0.23441	0.2344 (M)
42 Carbazole	167	23.414	23.403	(1.062)	4021	0.03756	0.03756 (M)
43 1-Methylphenanthrene	192	23.842	23.843	(1.082)	31184	0.33776	0.3378 (M)
44 Fluoranthene	202	25.821	25.822	(1.172)	593757	4.27697	4.277
46 Pyrene	202	26.679	26.679	(1.211)	763867	5.21427	5.214
51 Naphthobenzothiophene	234	29.234	29.245	(1.326)	24257	0.18166	0.1817
55 Benzo(a)anthracene	228	29.828	29.828	(0.906)	128741	0.90333	0.9033
\$ 56 Chrysene-d12	240	29.951	29.952	(0.910)	246920	2.19373	2.194 (R)
57 Chrysene	228	30.019	30.030	(0.912)	153715	1.08518	1.085
62 Benzo(b)fluoranthene	252	32.260	32.261	(0.980)	110576	0.68716	0.6872 (M)
63 Benzo(k)fluoranthene	252	32.305	32.306	(0.982)	61195	0.37730	0.3773 (M)
293 Benzo(j)fluoranthene	252	32.362	32.362	(0.983)	64667	0.45613	0.4561
246 Total Benzofluoranthenes	252	32.260	32.306	(0.980)	223289	1.49550	1.496 (M)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	32.914	32.914	(1.000)	330127	2.00000	
64 Benzo(e)pyrene	252	32.981	32.981	(1.002)	102199	0.69365	0.6936
66 Benzo(a)pyrene	252	33.071	33.083	(1.005)	146064	1.04927	1.049
\$ 67 Perylene-d12	264	33.252	33.252	(1.010)	296218	2.16998	2.170 (R)
68 Perylene	252	33.308	33.308	(1.012)	270561	1.85043	1.850
69 Indeno(1,2,3-cd)pyrene	276	35.256	35.268	(1.071)	107158	0.62163	0.6216
70 Dibenzo(a,h)anthracene	278	35.223	35.234	(1.070)	15085	0.09905	0.09905 (M)
74 Benzo(g,h,i)perylene	276	36.101	36.113	(1.097)	136059	0.89844	0.8984

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: 22-DEC-2020  
 Lab File ID: NT1420122000.D Calibration Time: 09:54  
 Lab Smp Id: 20K0204-07  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: VTS  
 Method File: \\target\share\chem3\nt14.i\20201219F.b\ALKYLPNA.m  
 Misc Info:

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	263433	131717	526866	265502	0.79
250 Anthracene-d10	236791	118396	473582	227133	-4.08
251 Benzo(e)pyrene-d1	338506	169253	677012	330127	-2.48

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.61	18.11	19.11	18.60	-0.06
250 Anthracene-d10	22.05	21.55	22.55	22.04	-0.05
251 Benzo(e)pyrene-d1	32.91	32.41	33.41	32.91	-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 - NT1420122000.D

Lab ID: 20K0204-07

nt14.i, 20201219F.b\ALKYLPNA.m, 22-DEC-2020 17:07

RT CO-ELUTION COMPOUNDS

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NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

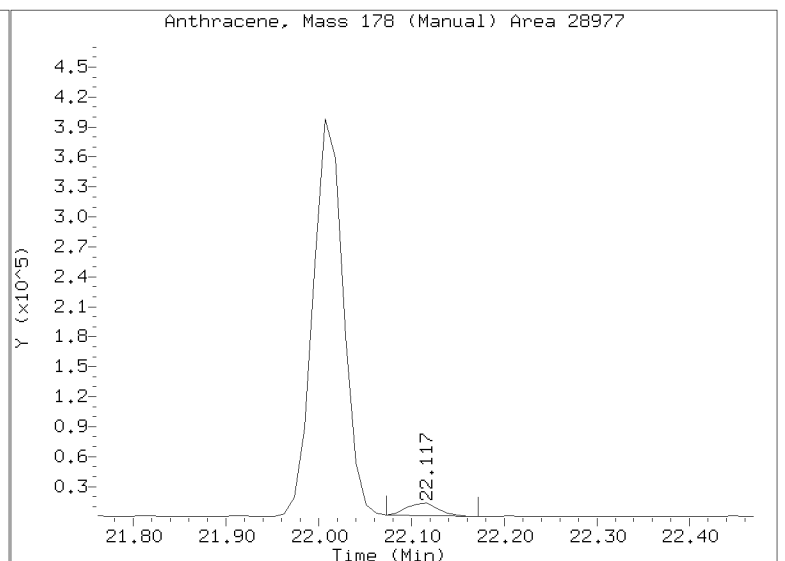
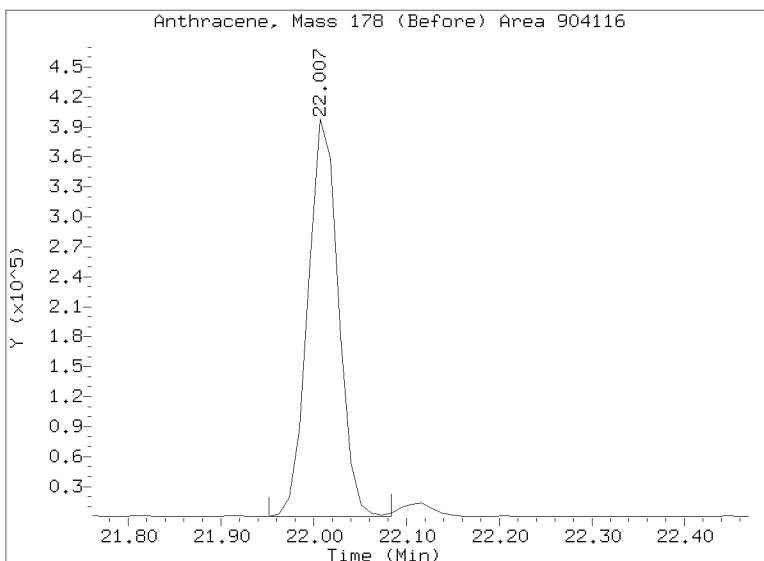
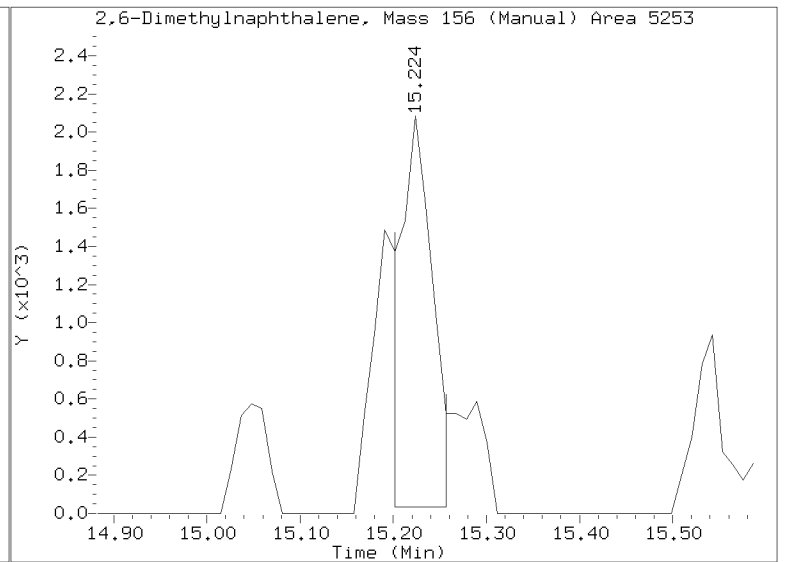
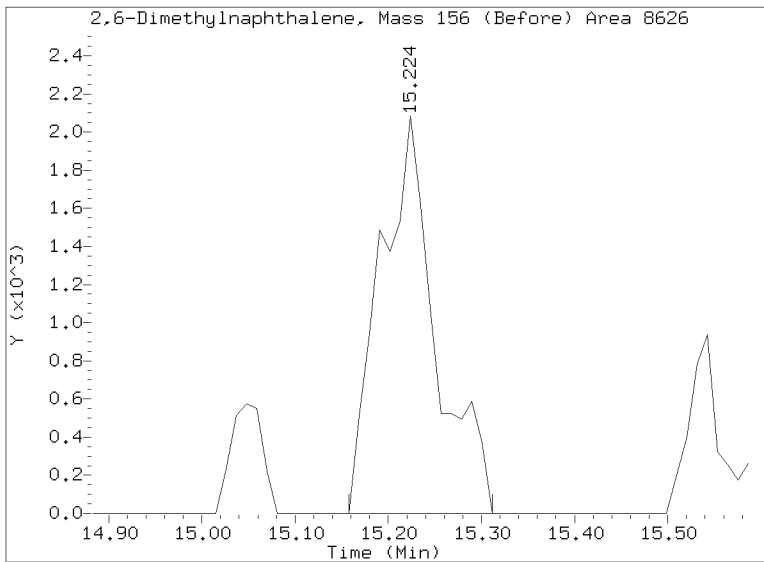
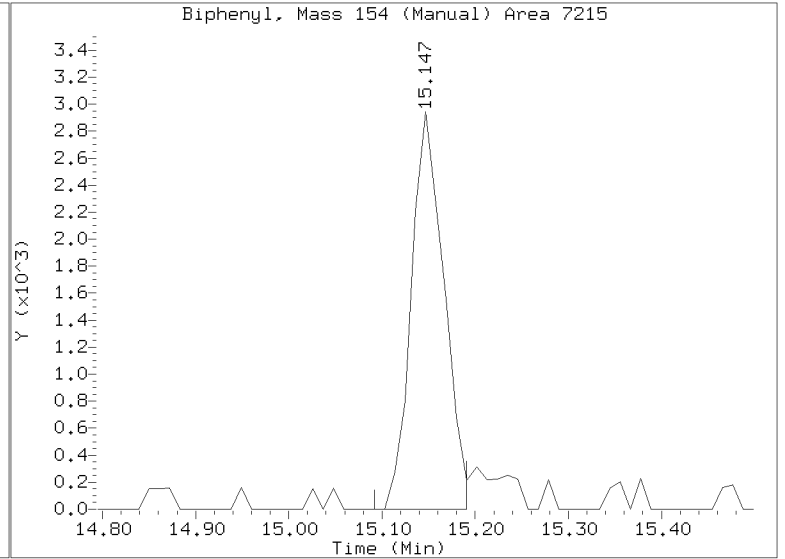
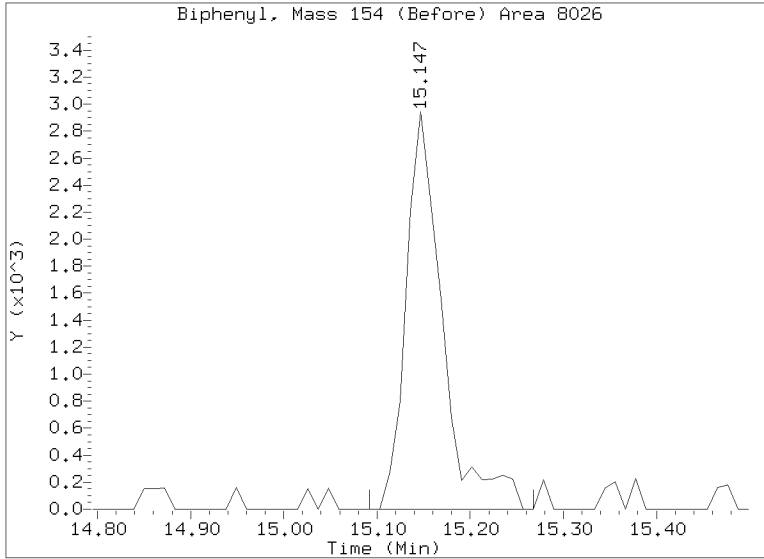
RRT check based on Ccal File: NT1420121991ICV.D

On Column LOD for nt14.i, 20201219F.b\ALKYLPNA.m, TARGETS.sub = 0.0000

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

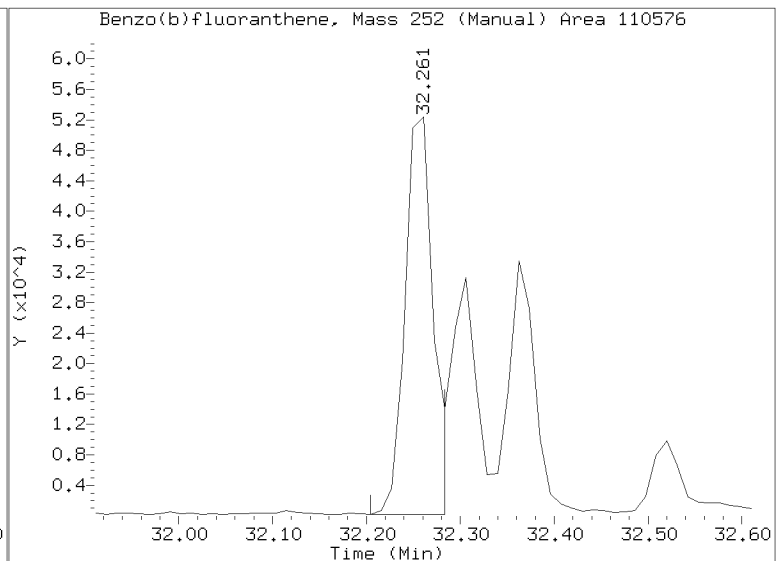
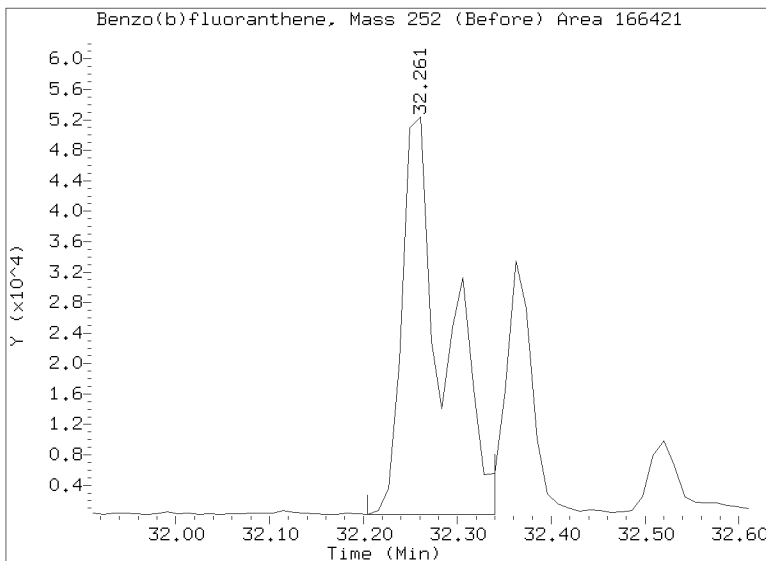
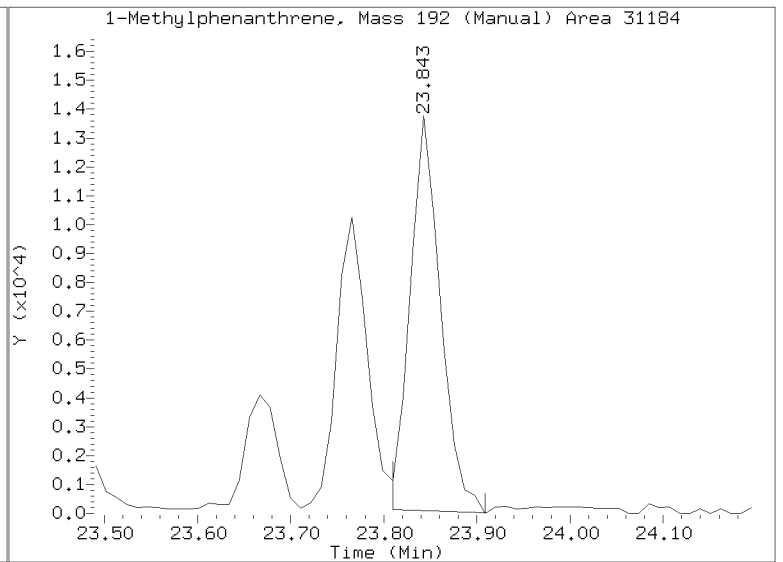
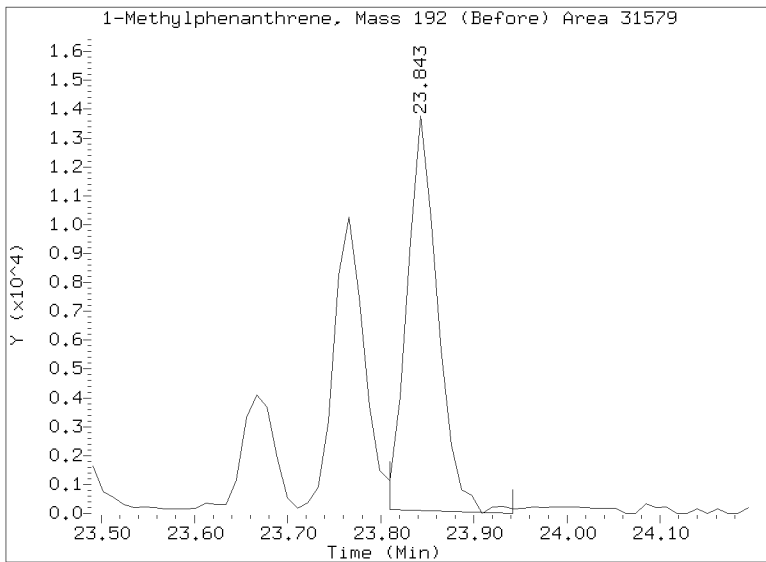
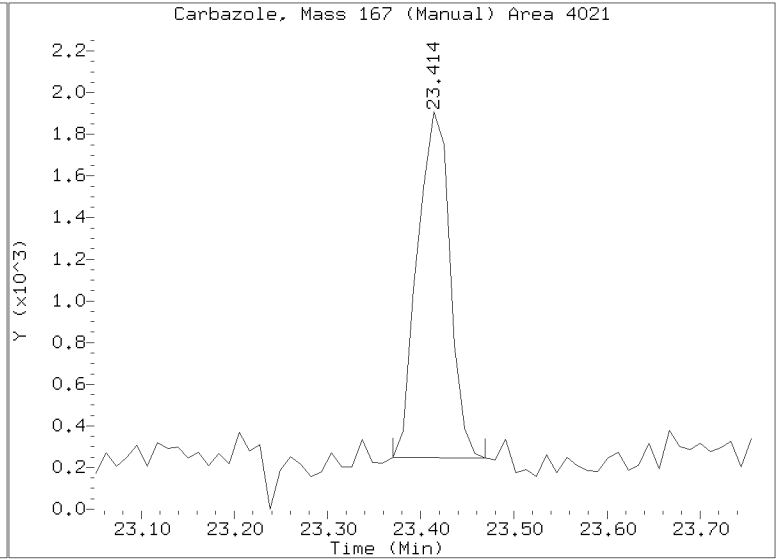
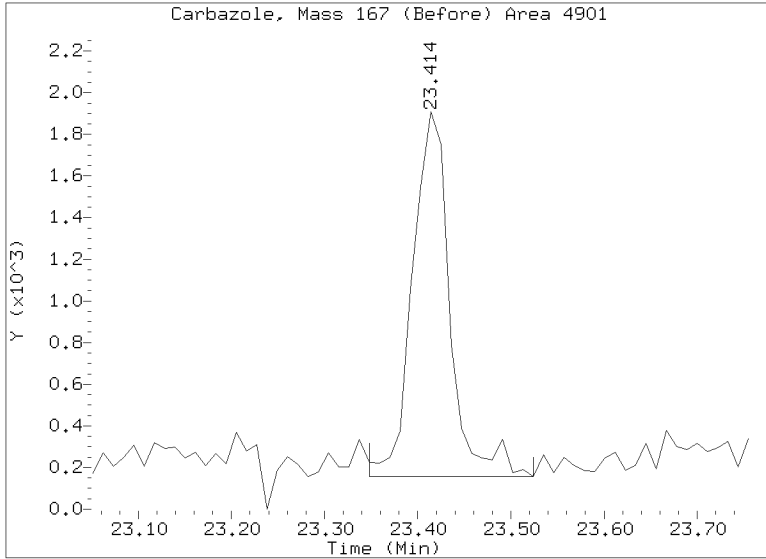
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Injection Date: 22-DEC-2020 17:07  
Lab ID:20K0204-07 Client ID:  
Report Date: 12/29/2020 13:45



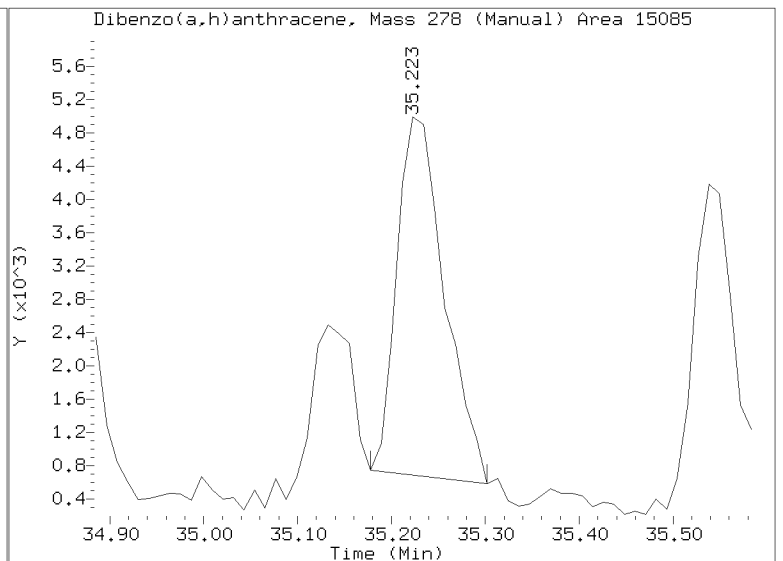
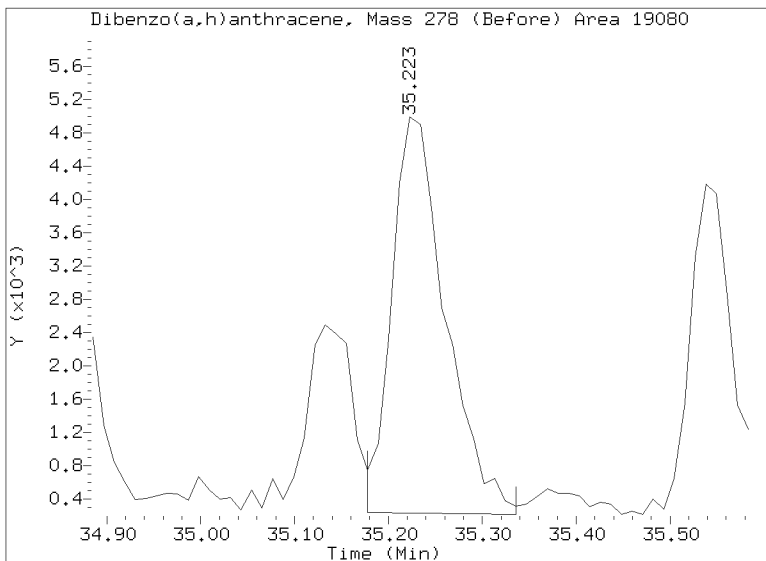
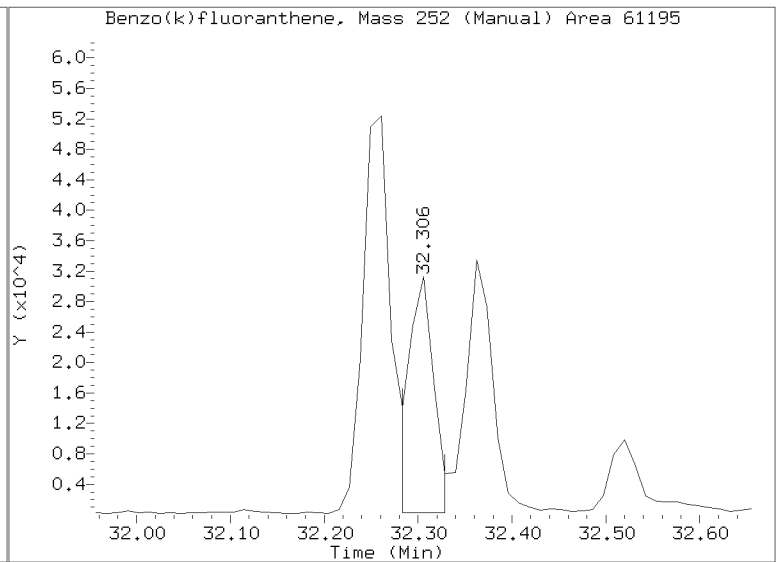
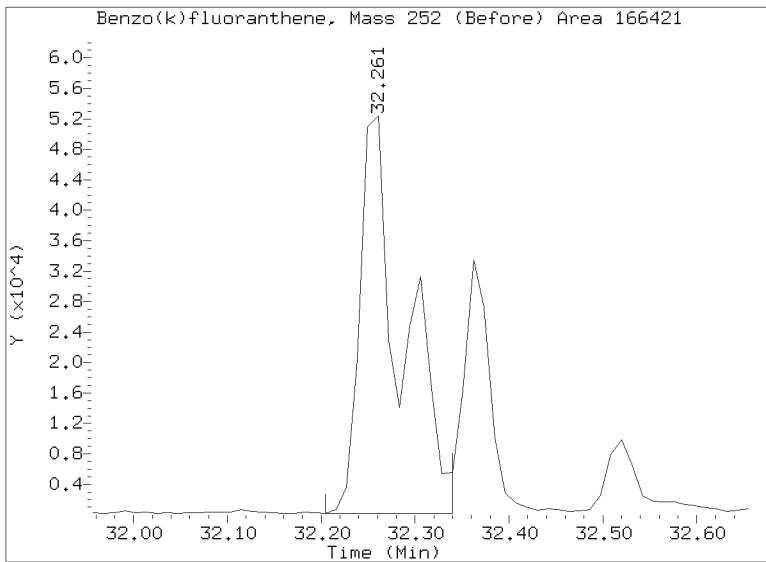
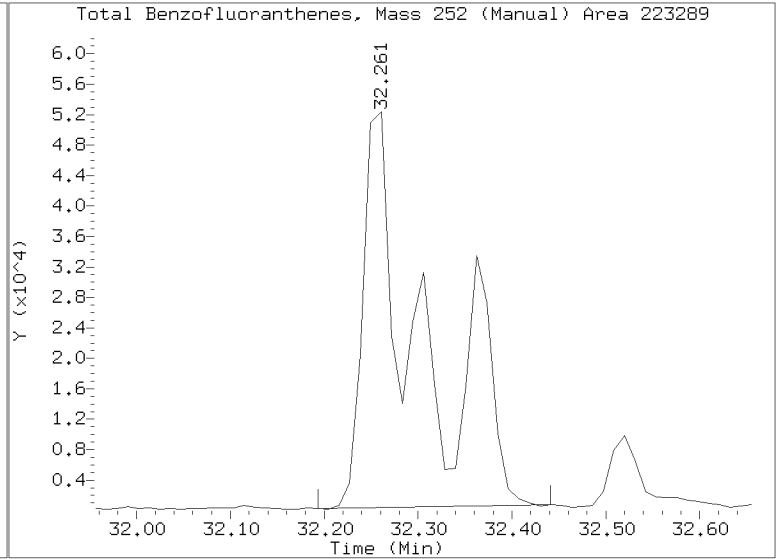
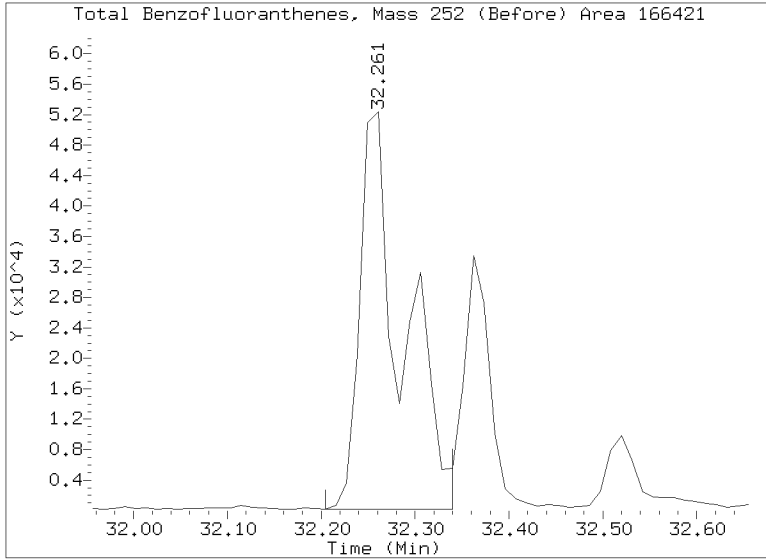
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201219F.b/NT1420122000.D  
Injection Date: 22-DEC-2020 17:07  
Lab ID:20K0204-07 Client ID:  
Report Date: 12/29/2020 13:45



# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201219F.b/NT1420122000.D  
Injection Date: 22-DEC-2020 17:07  
Lab ID:20K0204-07 Client ID:  
Report Date: 12/29/2020 13:45





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

Laboratory: Analytical Resources, Inc.  
Client: Anchor OEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-07 A SDG: 20K0204  
Sampled: 11/10/20 09:05 Prepared: 11/24/20 11:45 File ID: NT1420122000S.D  
% Solids: 76.42 Preparation: EPA 3546 (Microwave) Analyzed: 12/22/20 17:07  
Batch: BIK0745 Sequence: SIL0487 Initial/Final: 13.11 g Wet / 0.5 mL  
Instrument: NT14 Column: ZB-5MS Calibration: DI00041  
Cleanups: 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	18.7		0.5	5.0
C3DEC	C3-Decalins	1	10.7		0.5	5.0
C4DEC	C4-Decalins	1	17.0		0.5	5.0
C1NAPH	C1-Naphthalenes	1	12.7		0.4	5.0
C2NAPH	C2-Naphthalenes	1	19.7		0.4	5.0
C3NAPH	C3-Naphthalenes	1	27.7		0.4	5.0
C4NAPH	C4-Naphthalenes	1	23.3		0.4	5.0
C1FLR	C1-Fluorenes	1	17.7		0.5	5.0
C2FLR	C2-Fluorenes	1	16.1		0.5	5.0
C3FLR	C3-Fluorenes	1	14.3		0.5	5.0
C1DBTPH	C1-Dibenzothiophenes	1	15.4		0.7	5.0
C2DBTPH	C2-Dibenzothiophenes	1	13.0		0.7	5.0
C3DBTPH	C3-Dibenzothiophenes	1	8.9		0.7	5.0
C4DBTPH	C4-Dibenzothiophenes	1	5.7		0.7	5.0
C1PHNANT	C1-Phenanthrenes/Anthracenes	1	75.2		0.9	5.0
C2PHNANT	C2-Phenanthrenes/Anthracenes	1	40.6		0.9	5.0
C3PHNANT	C3-Phenanthrenes/Anthracenes	1	27.2		0.9	5.0
C4PHNANT	C4-Phenanthrenes/Anthracenes	1	8.2		0.9	5.0
C1FLPYR	C1-Fluoranthenes/Pyrenes	1	61.5		1.0	5.0
C2FLPYR	C2-Fluoranthenes/Pyrenes	1	20.9		1.0	5.0
C3FLPYR	C3-Fluoranthenes/Pyrenes	1	13.0		1.0	5.0
C4FLPYR	C4-Fluoranthenes/Pyrenes	1	15.7		1.0	5.0
C1BAACYR	C1-Benzo(a)anthracenes/Chrysenes	1	34.6		0.7	5.0
C2BAACYR	C2-Benzo(a)anthracenes/Chrysenes	1	13.0		0.7	5.0
C3BAACYR	C3-Benzo(a)anthracenes/Chrysenes	1	7.5		0.7	5.0
C4BAACYR	C4-Benzo(a)anthracenes/Chrysenes	1	3.3	J	0.7	5.0
C1BZTPH	C1-Benzothiophenes	1	4.3	J	0.4	5.0
C2BZTPH	C2-Benzothiophenes	1	14.3		0.4	5.0
C3BZTPH	C3-Benzothiophenes	1	5.0	U	0.4	5.0





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

Laboratory: Analytical Resources, Inc.  
Client: Anchor OEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-07 A SDG: 20K0204  
Sampled: 11/10/20 09:05 Prepared: 11/24/20 11:45 File ID: NT1420122000S.D  
% Solids: 76.42 Preparation: EPA 3546 (Microwave) Analyzed: 12/22/20 17:07  
Batch: BIK0745 Sequence: SIL0487 Initial/Final: 13.11 g Wet / 0.5 mL  
Instrument: NT14 Column: ZB-5MS Calibration: DI00041  
Cleanups: Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
C1NPBTP	C1-Naphthobenzothiophenes	1	8.2		2.5	5.0
C2NPBTP	C2-Naphthobenzothiophenes	1	3.5	J	2.5	5.0
C3NPBTP	C3-Naphthobenzothiophenes	1	5.7		2.5	5.0
C4NPBTP	C4-Naphthobenzothiophenes	1	5.0	U	2.5	5.0
C1DBA	C1-Dibenzo(a)anthracenes	1	7.2		0.7	5.0
C2DBA	C2-Dibenzo(a)anthracenes	1	4.4	J	0.7	5.0
C3DBA	C3-Dibenzo(a)anthracenes	1	2.6	J	0.7	5.0

Data File: \\target\share\chem3\nt14.1\20201219.B\SIH.B\NT1420122000S.D

Date : 22-DEC-2020 17:07

Client ID:

Sample Info: 20K0204-07

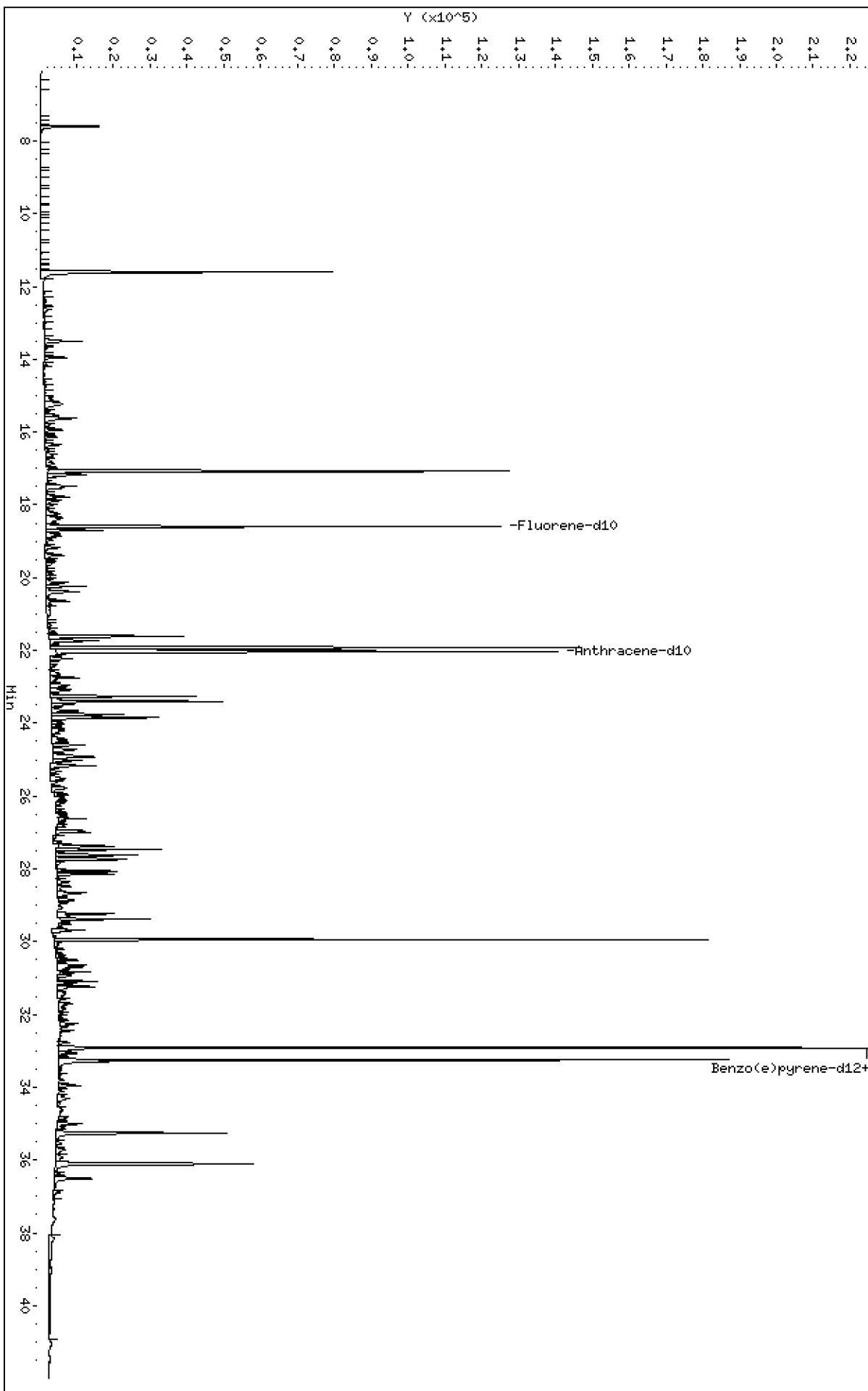
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14.1\20201219.B\SIH.B\NT1420122000S.D



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

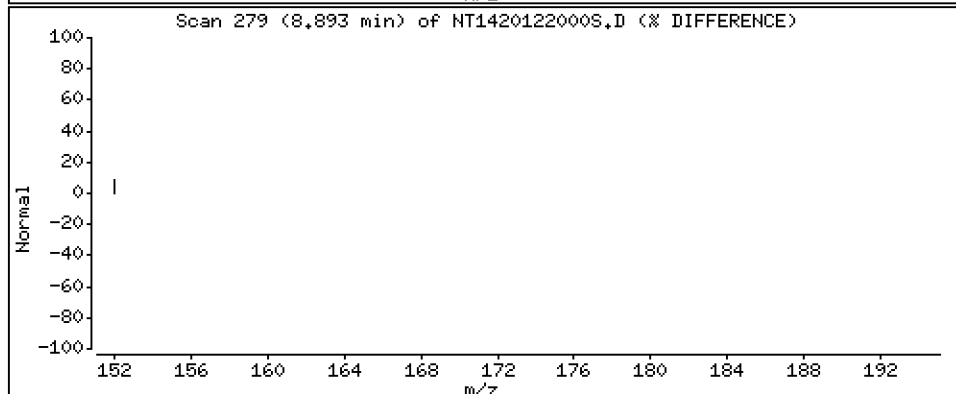
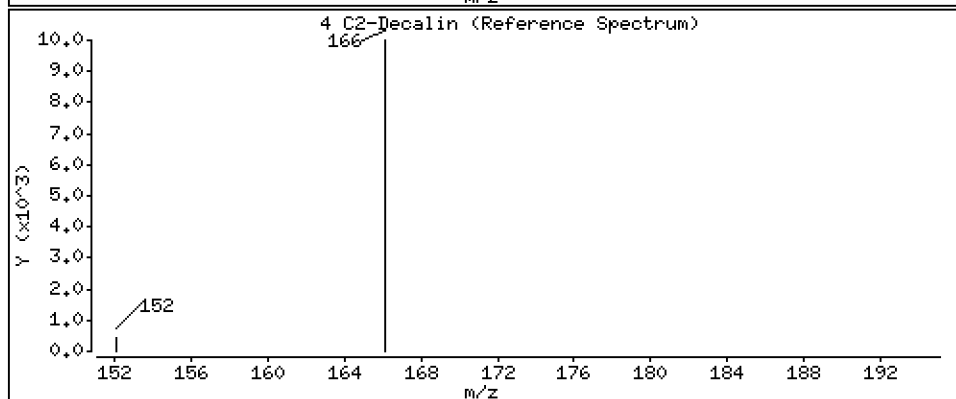
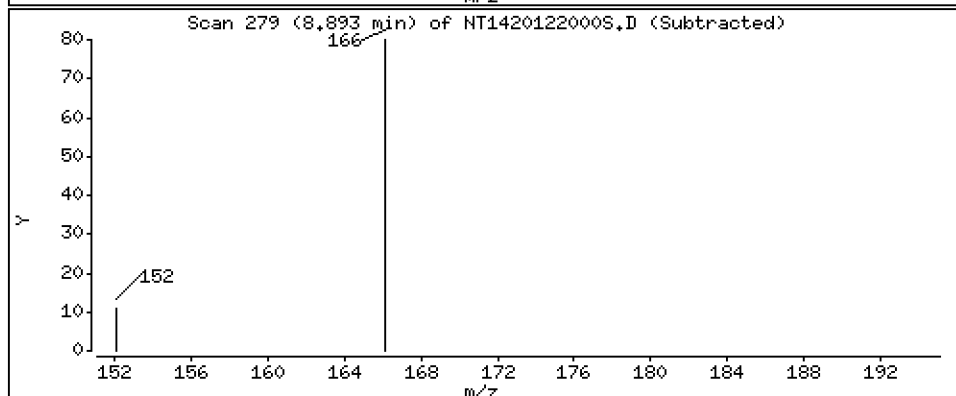
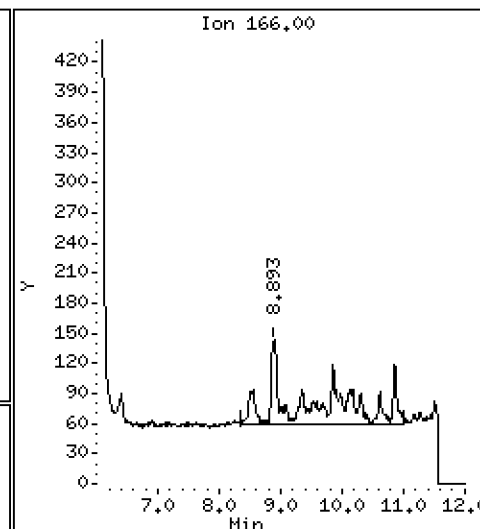
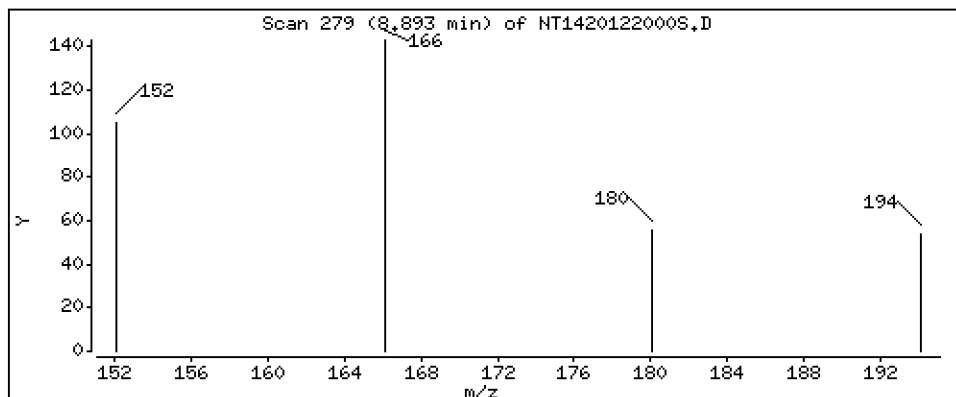
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

4 C2-Decalin

Concentration: 0,3756 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

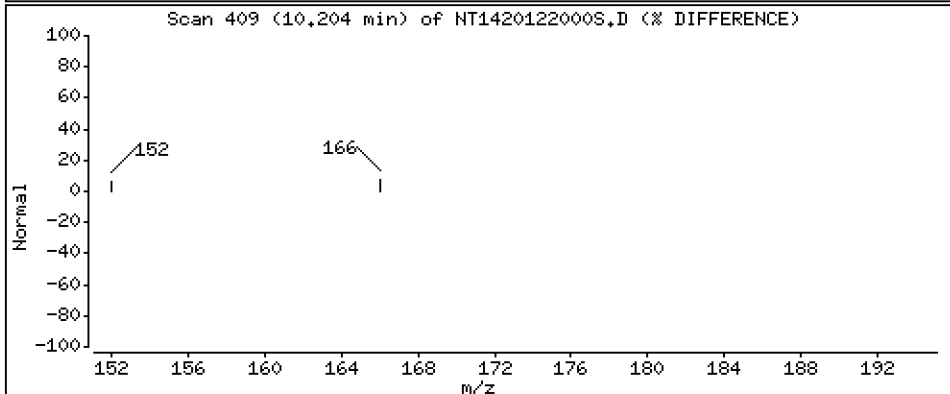
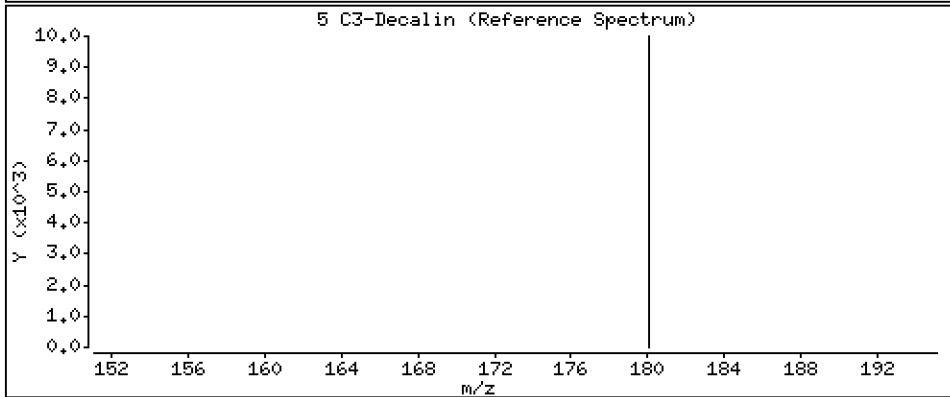
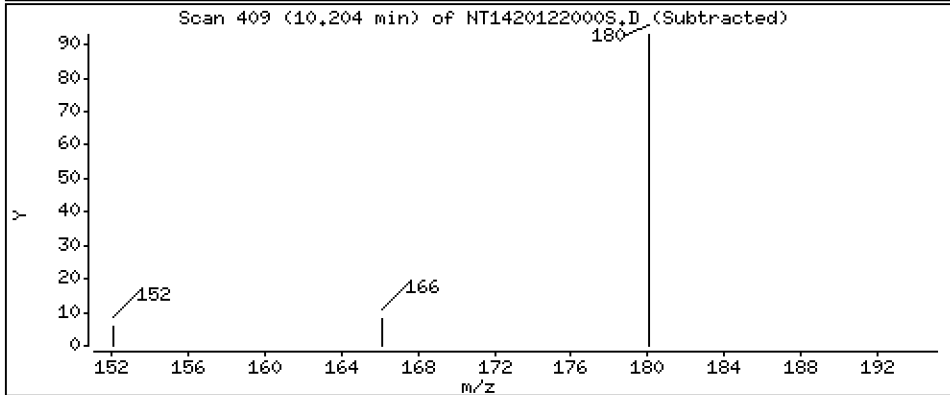
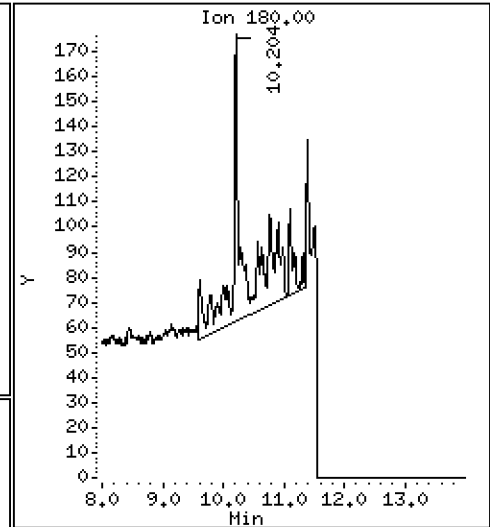
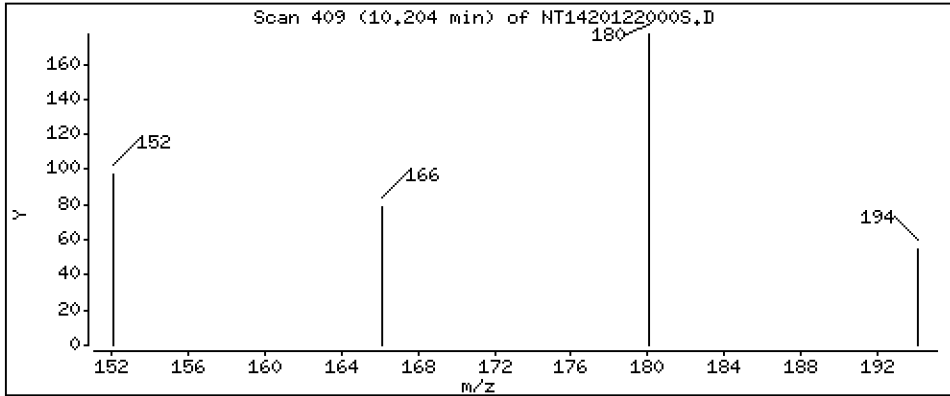
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

5 C3-Decalin

Concentration: 0,2151 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

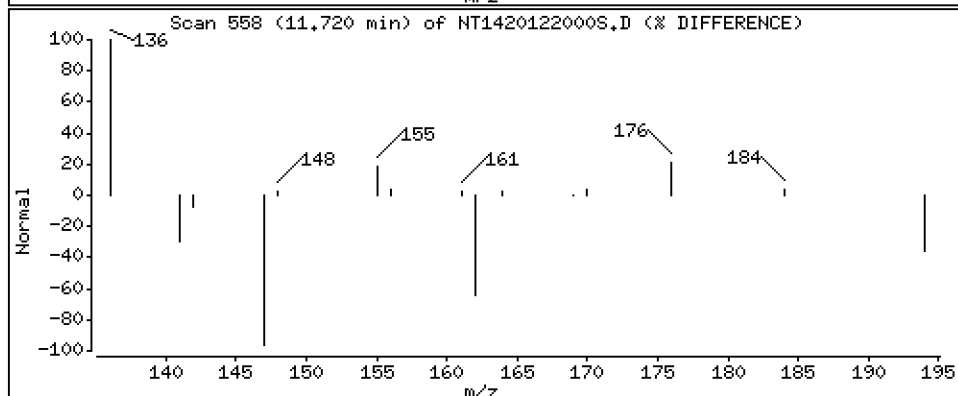
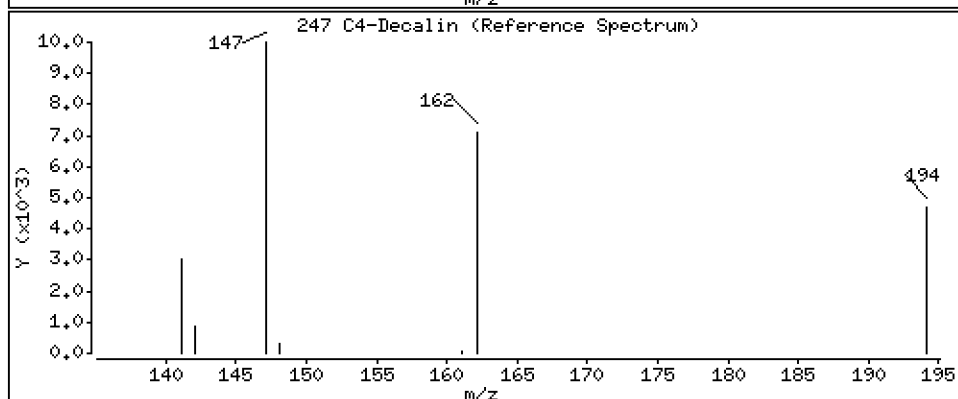
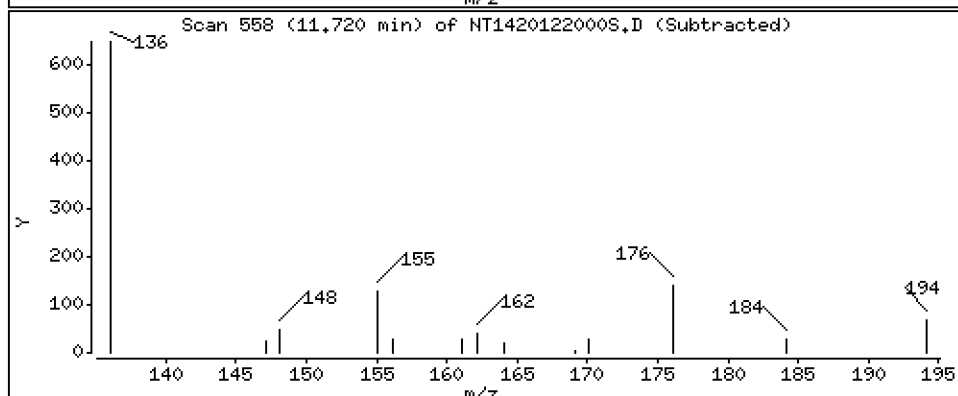
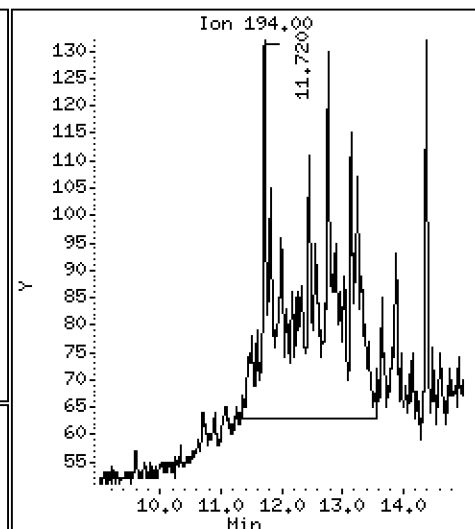
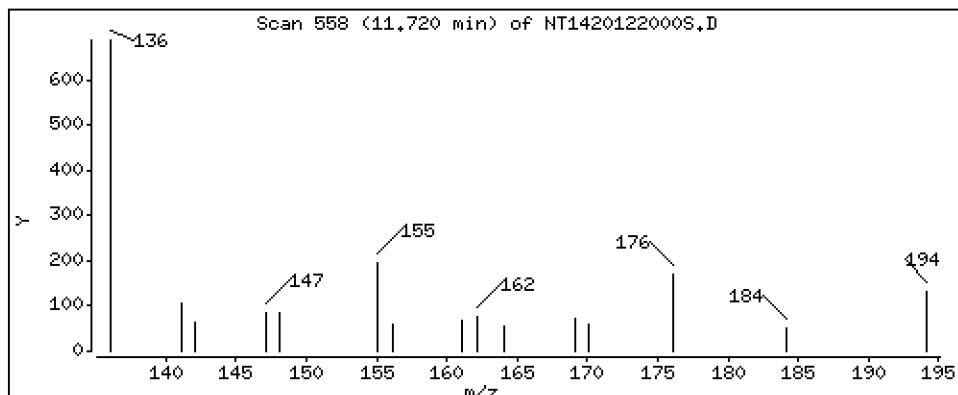
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

247 C4-Decalin

Concentration: 0,3410 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

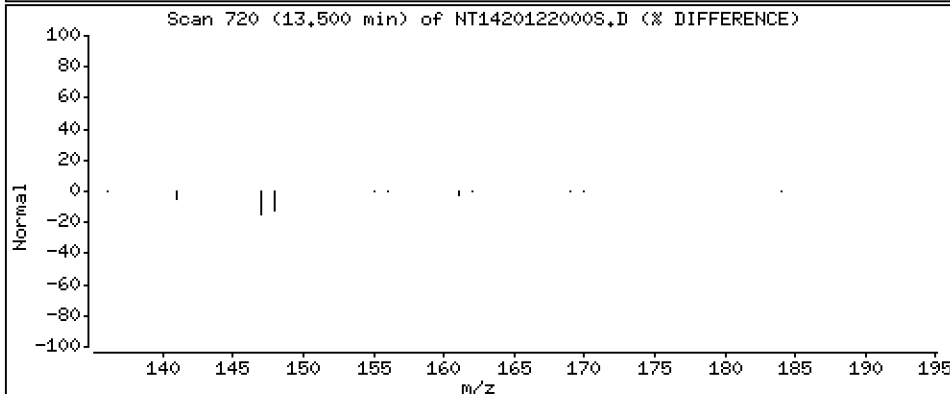
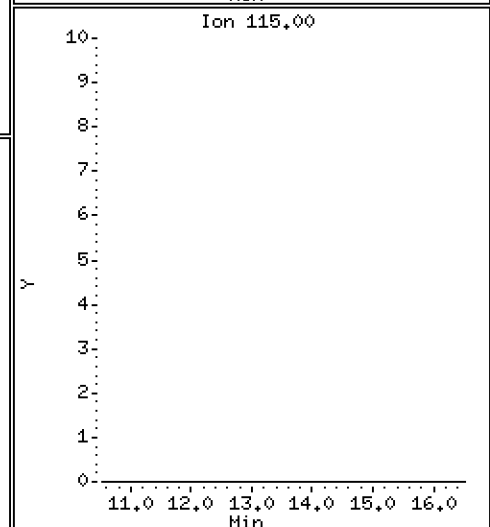
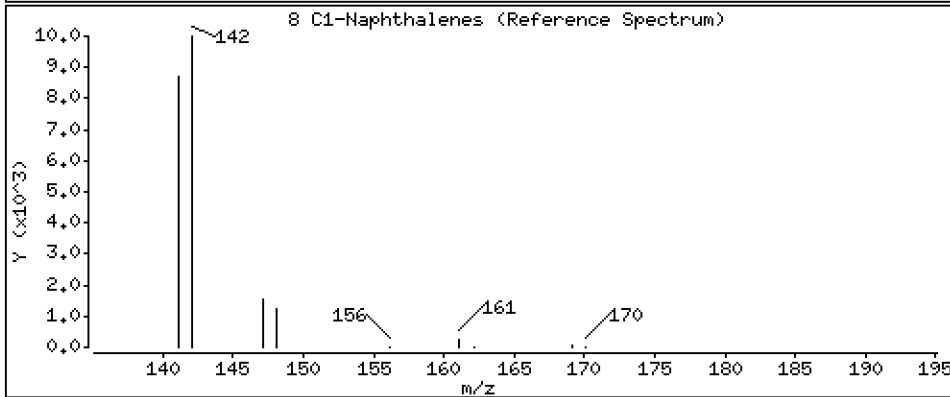
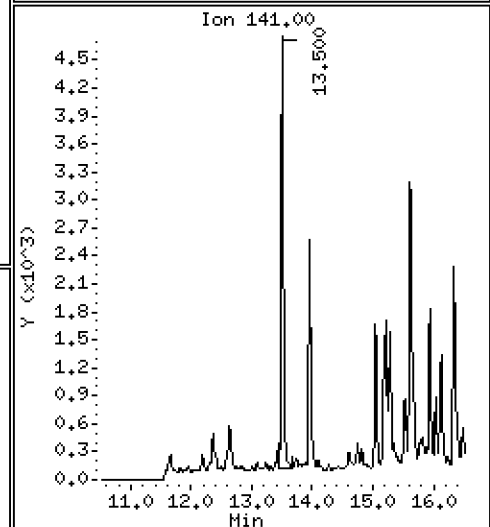
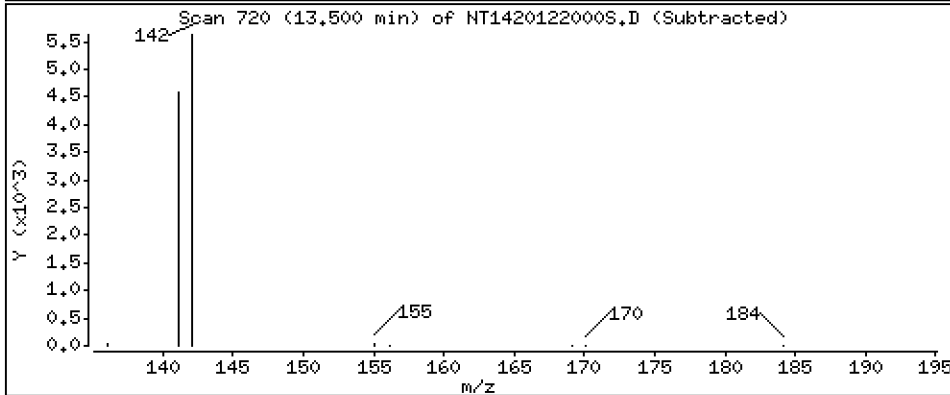
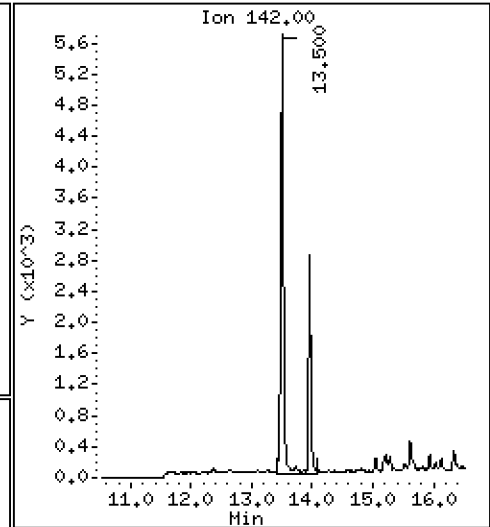
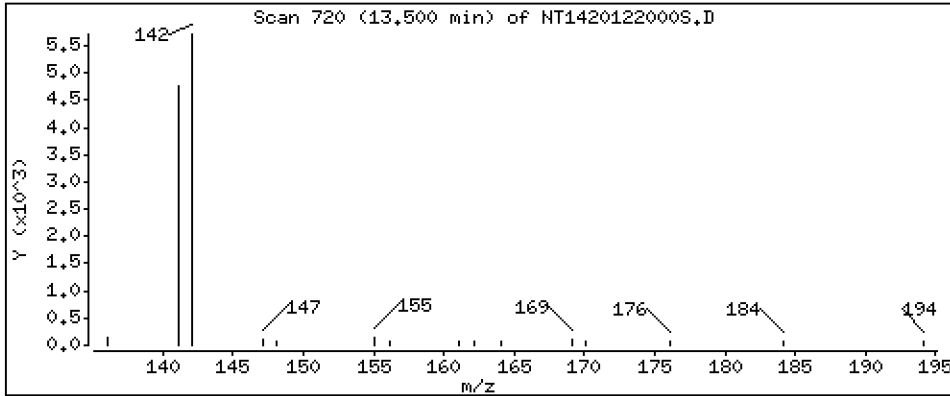
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

8 C1-Naphthalenes

Concentration: 0,2548 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

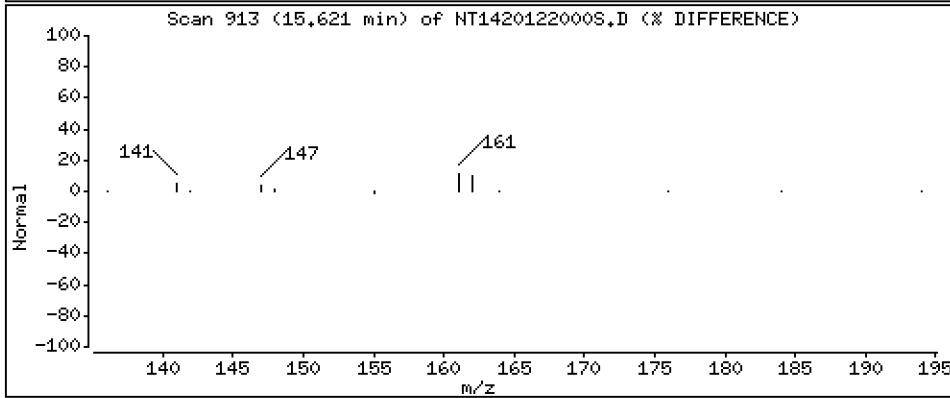
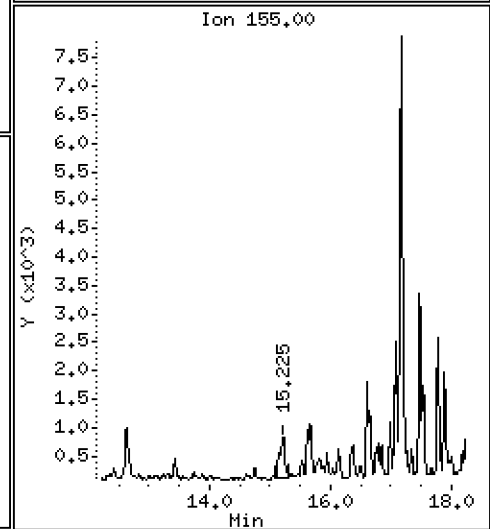
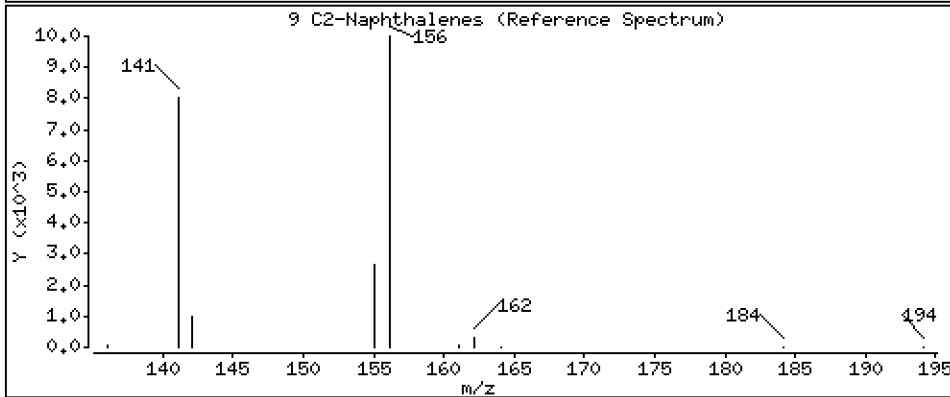
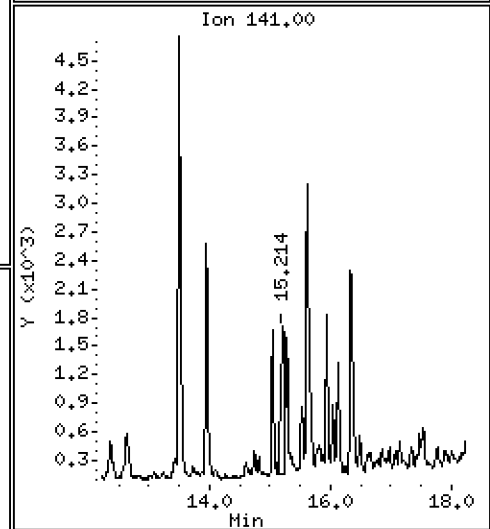
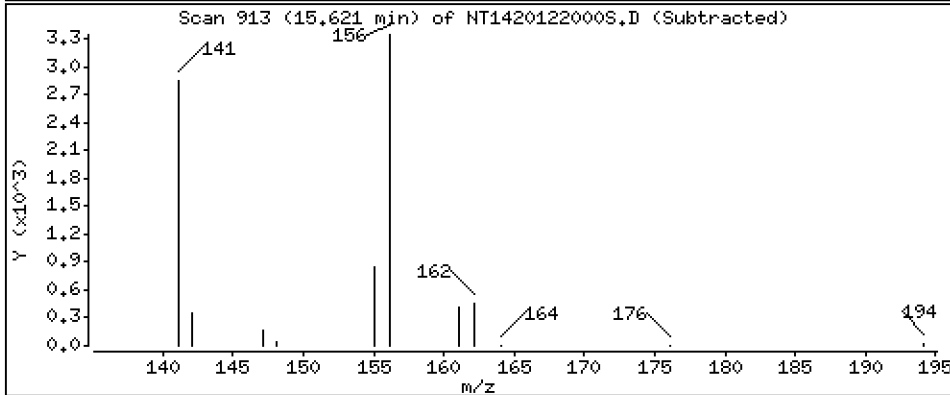
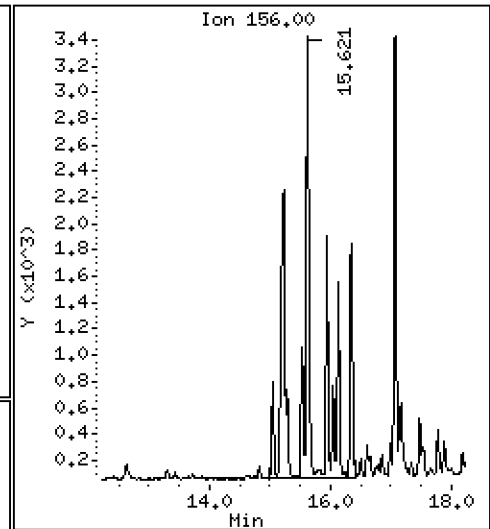
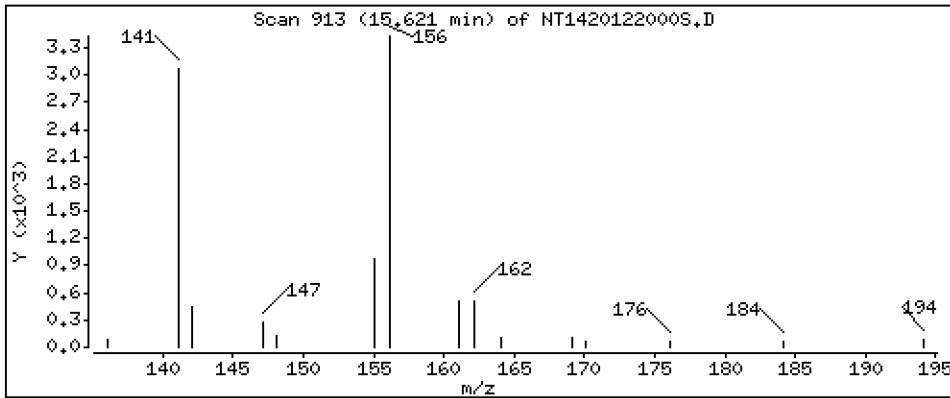
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

9 C2-Naphthalenes

Concentration: 0.3944 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

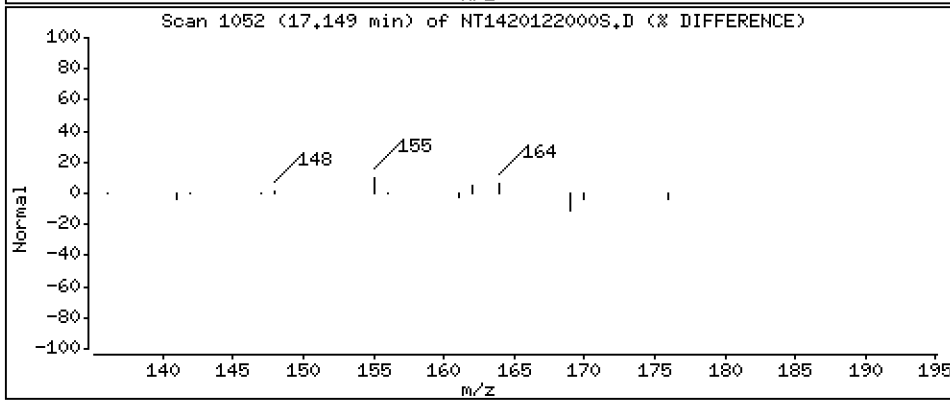
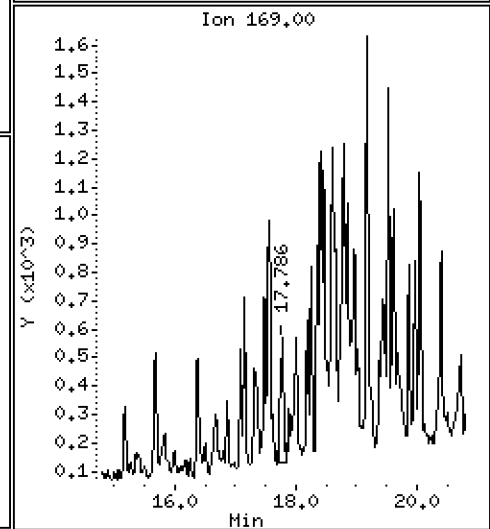
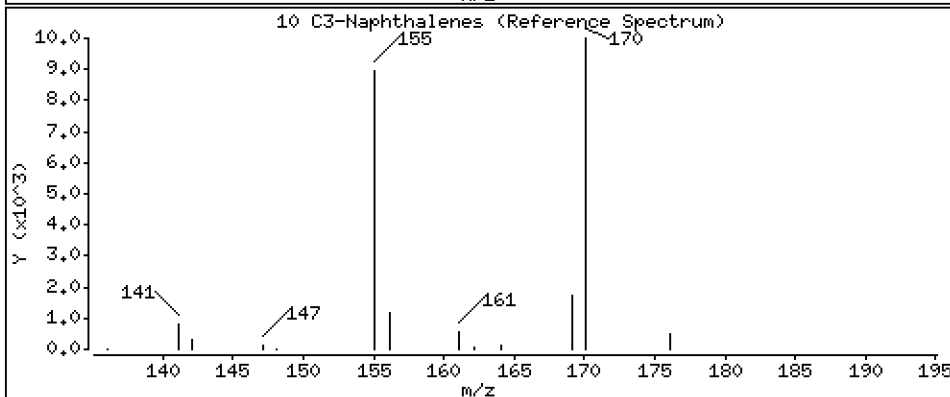
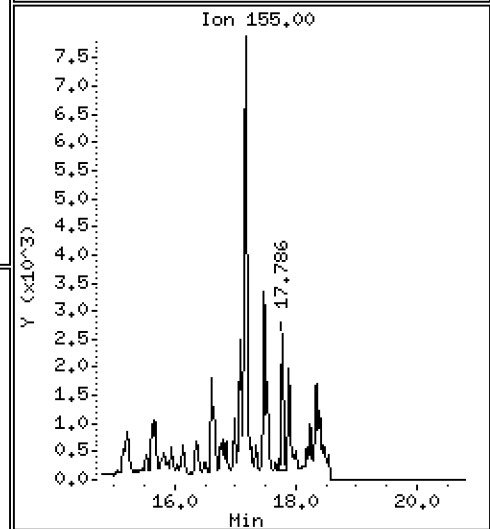
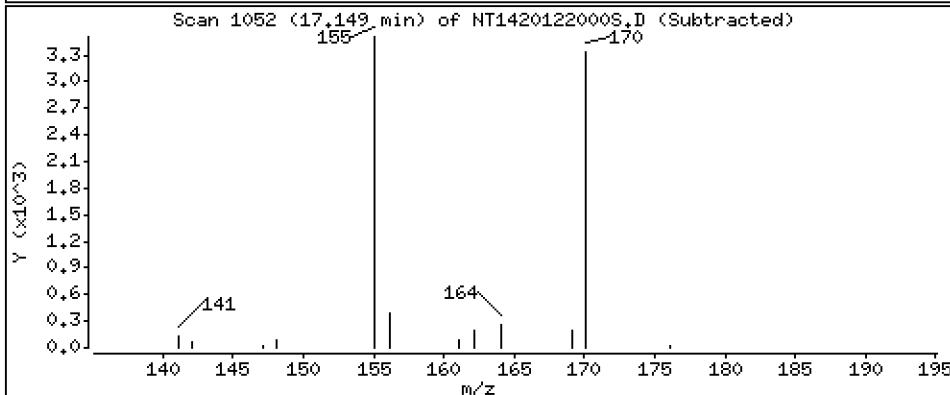
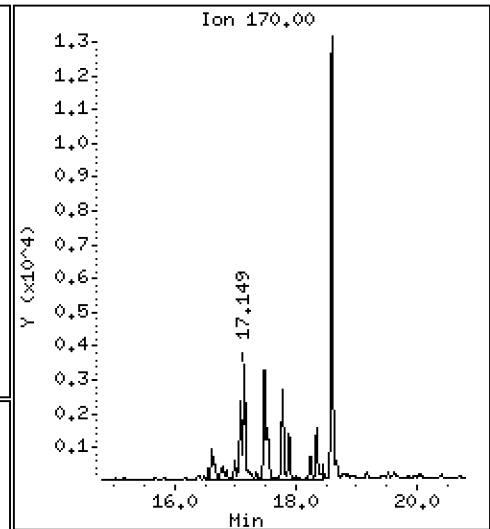
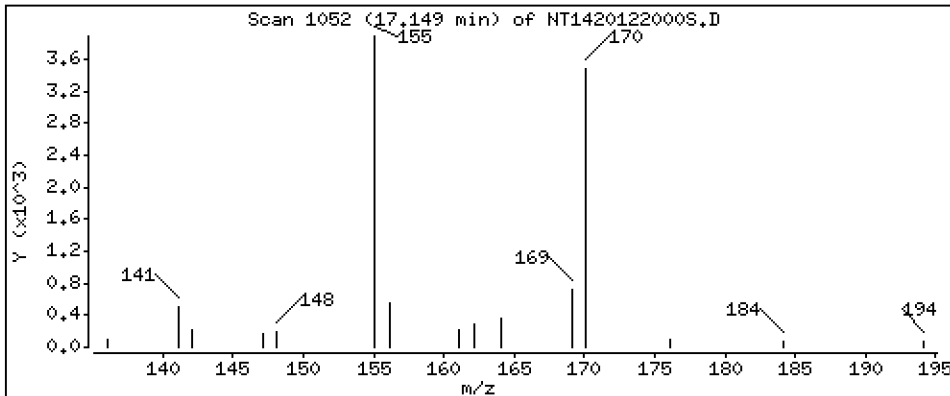
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

10 C3-Naphthalenes

Concentration: 0,5549 ug/mL





Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

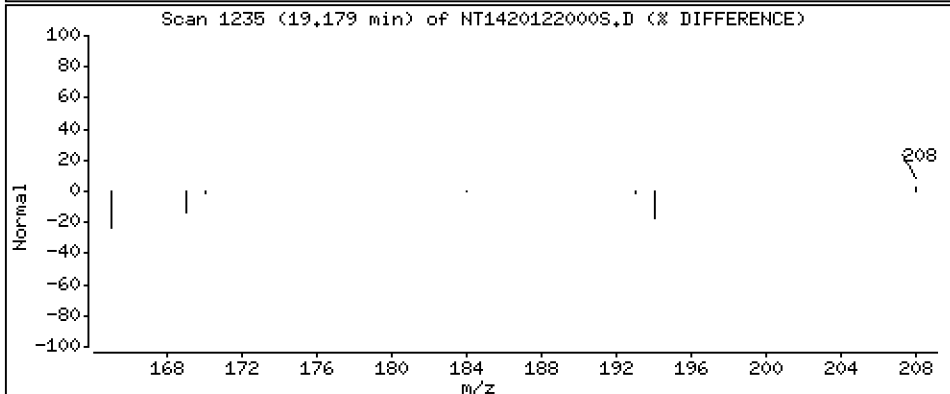
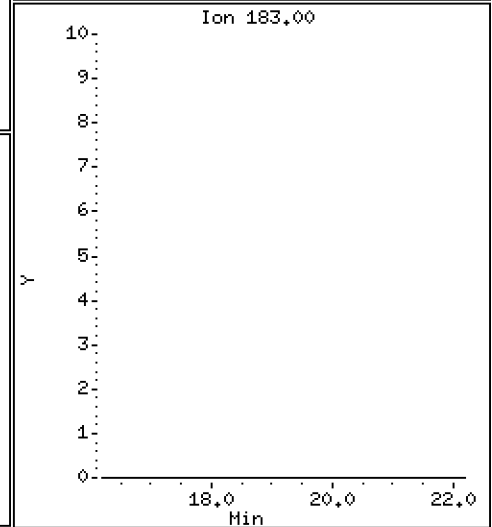
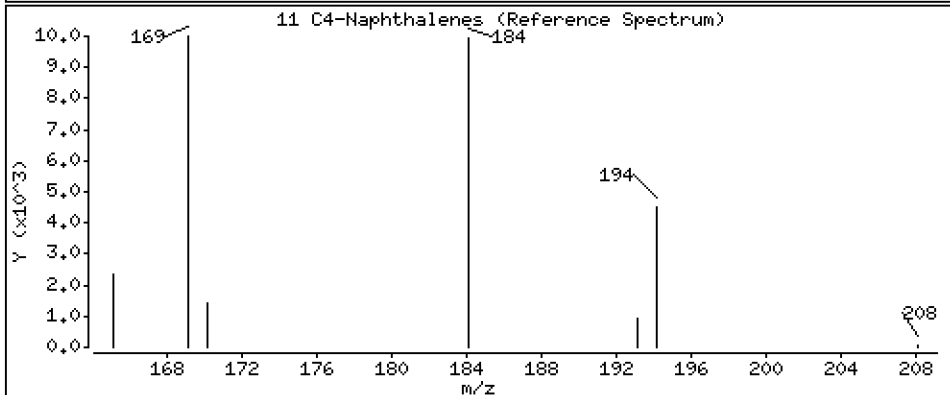
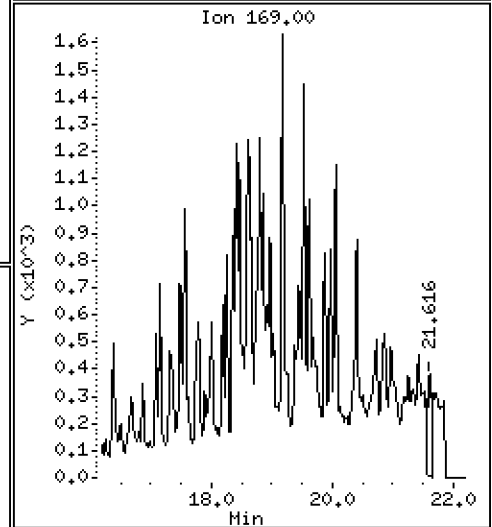
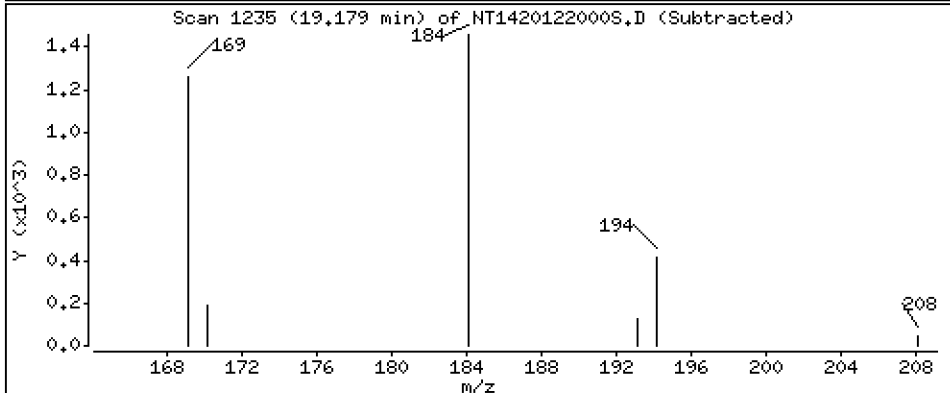
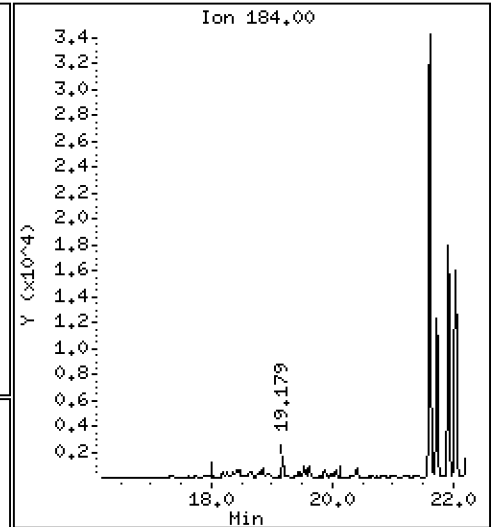
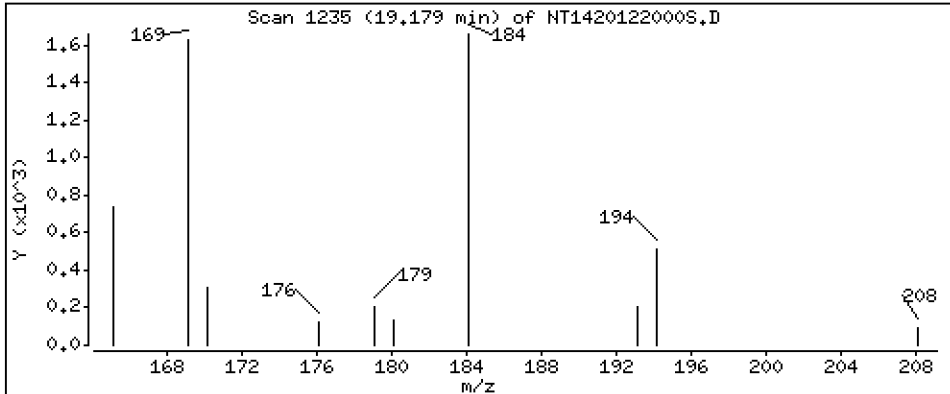
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

Concentration: 0.4662 ug/mL

11 C4-Naphthalenes



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

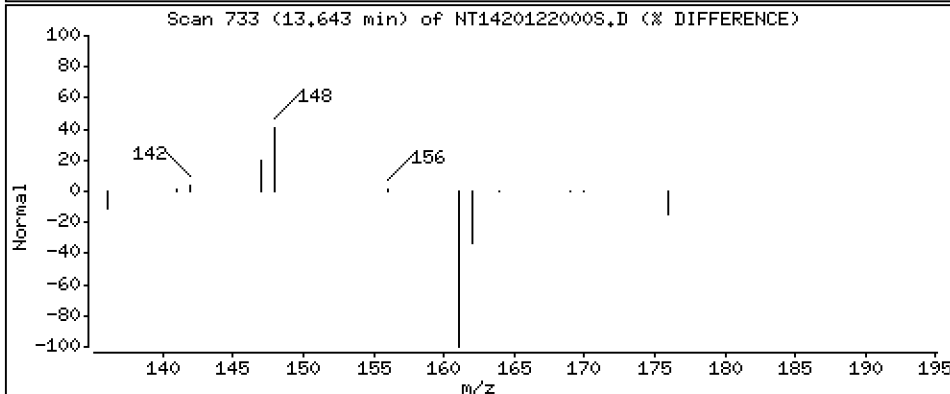
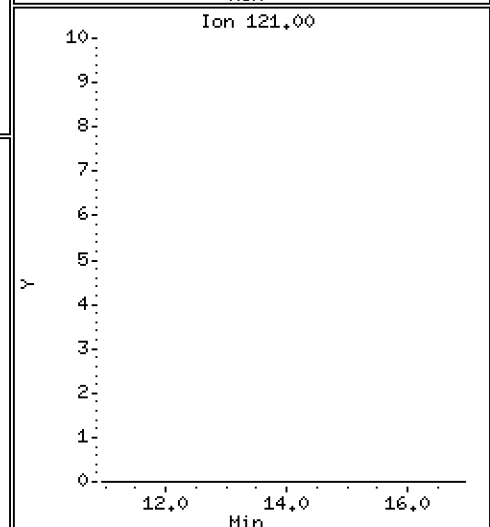
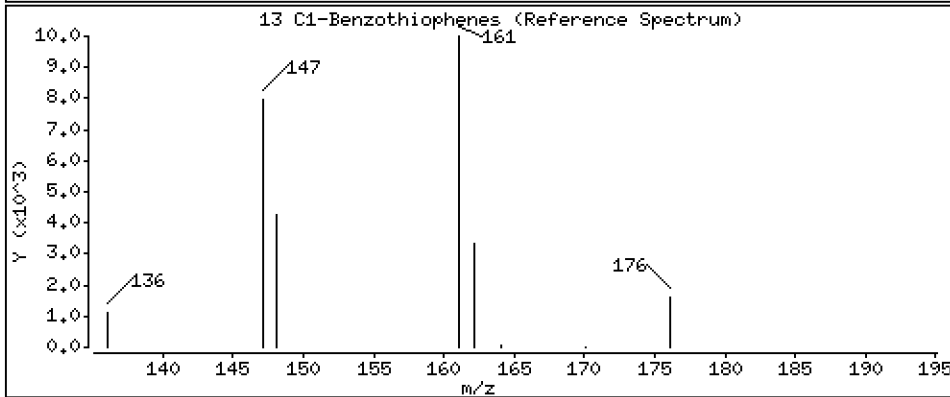
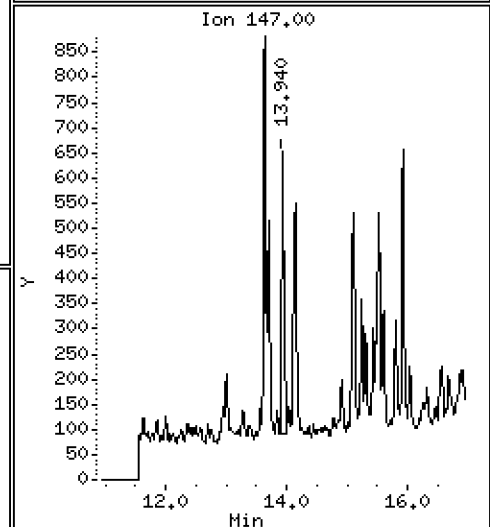
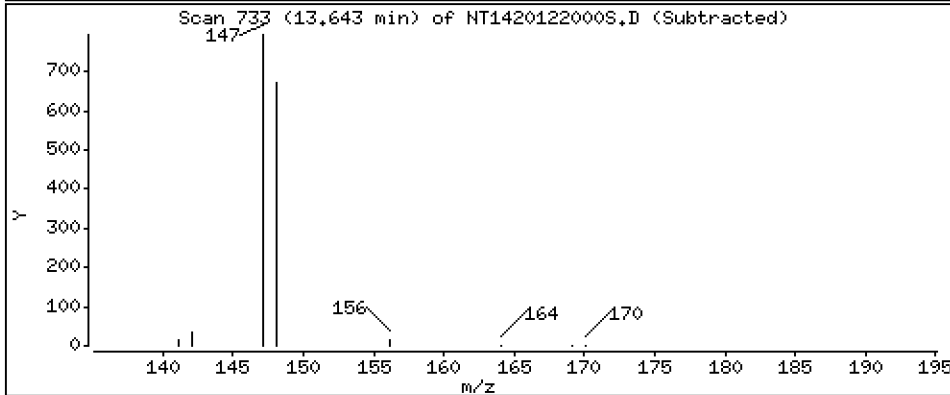
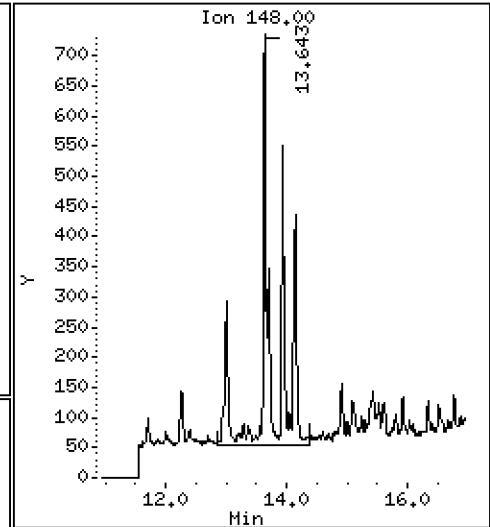
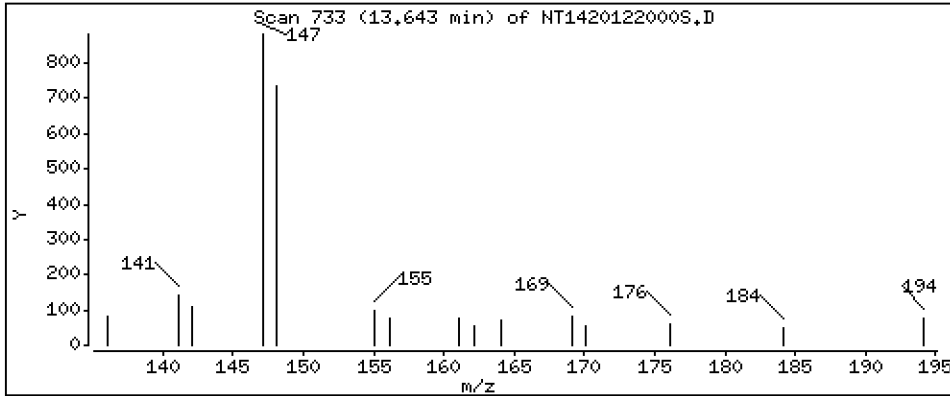
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

13 C1-Benzothiophenes

Concentration: 0,08555 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

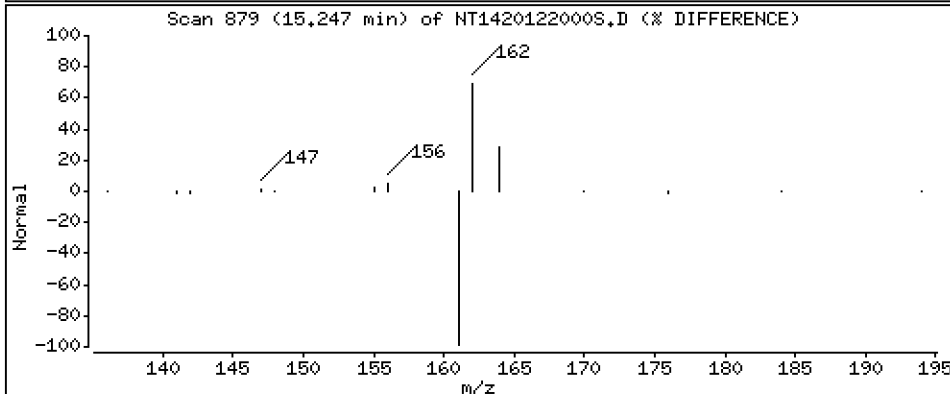
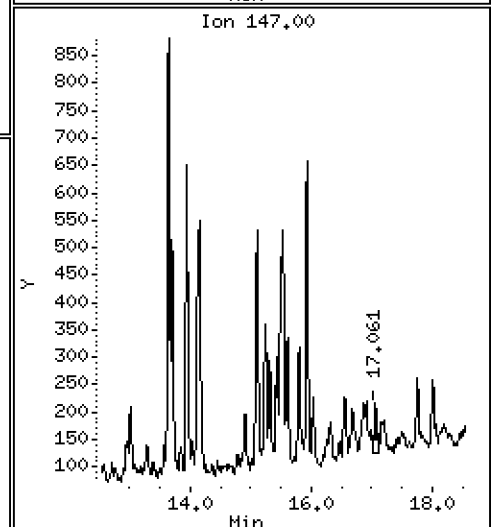
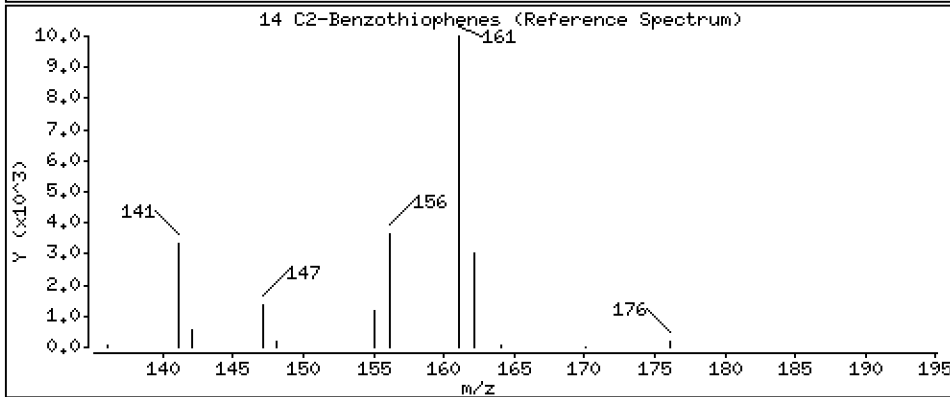
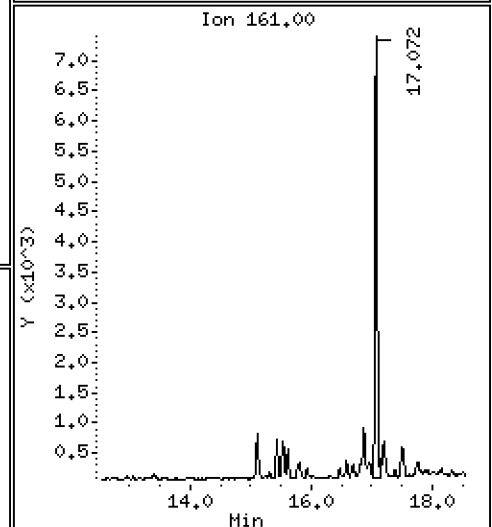
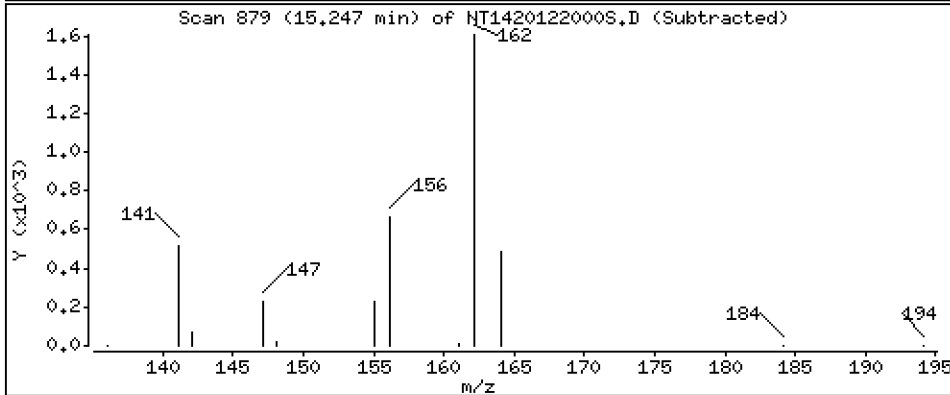
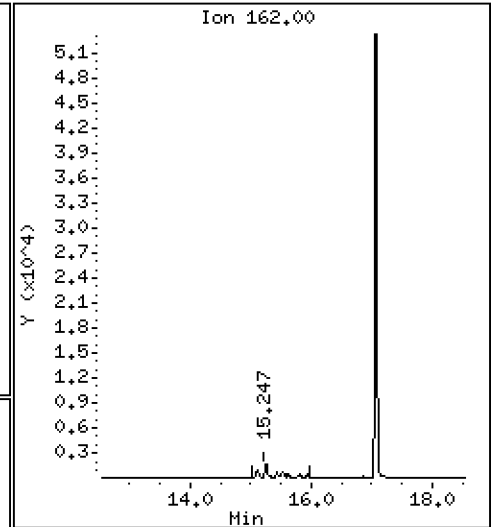
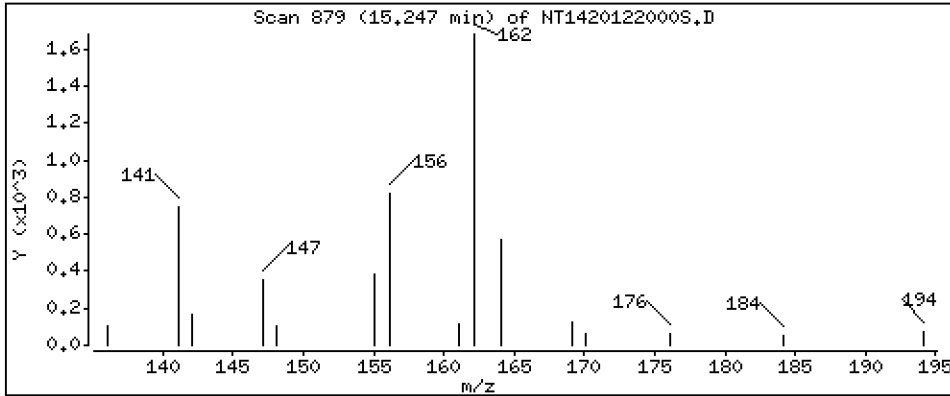
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

Concentration: 0.2863 ug/mL

14 C2-Benzothiophenes



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

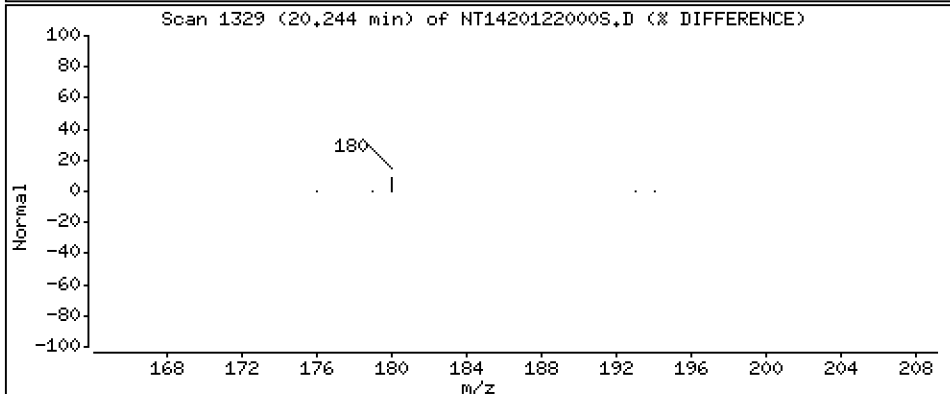
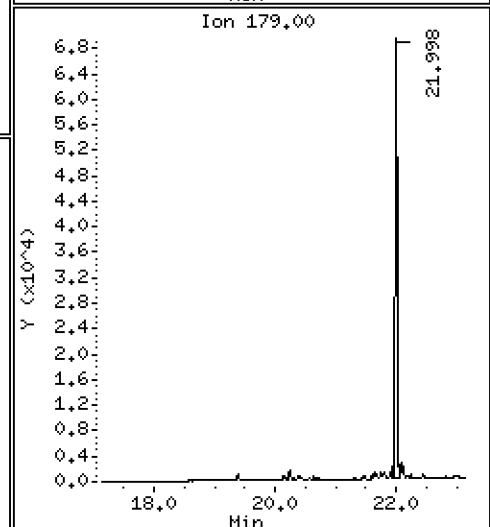
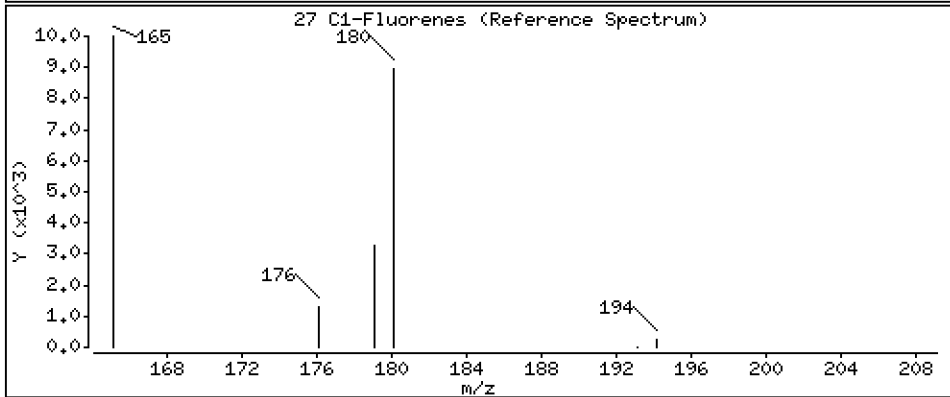
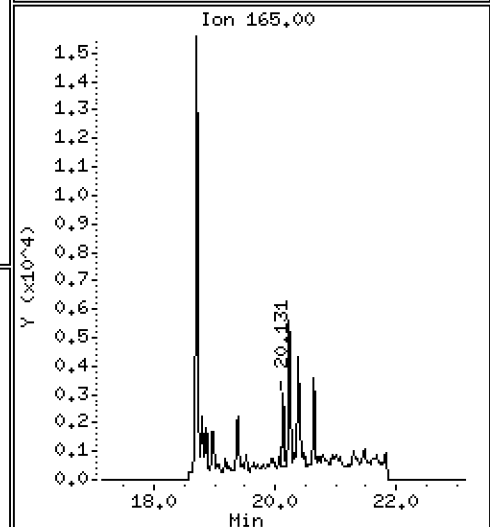
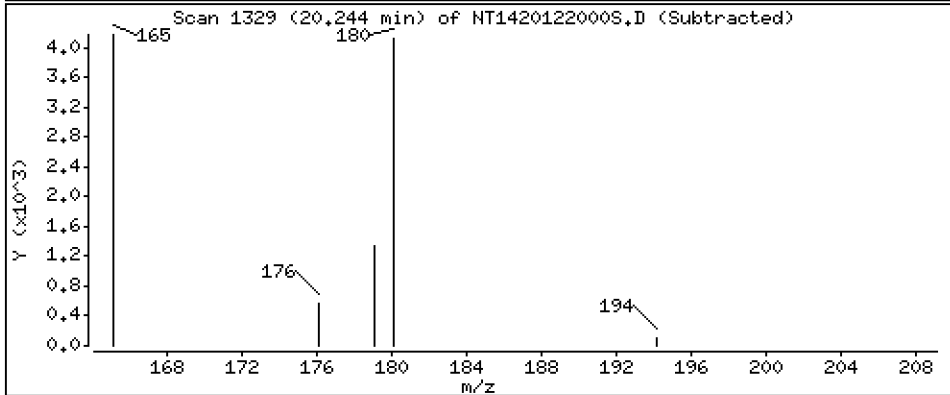
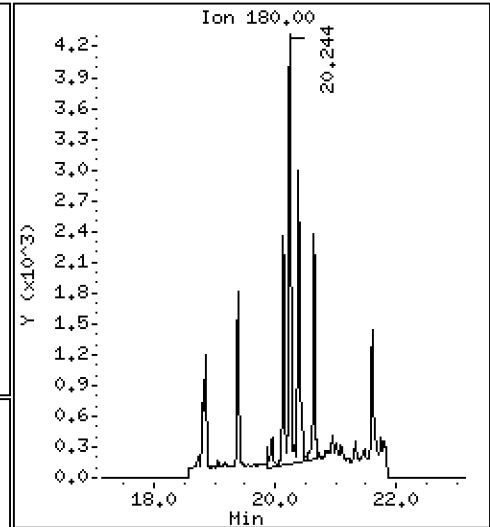
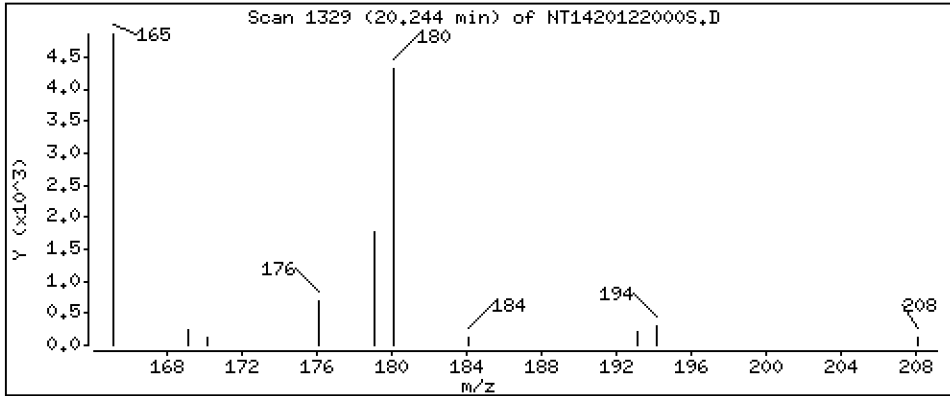
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

27 C1-Fluorenes

Concentration: 0.3556 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

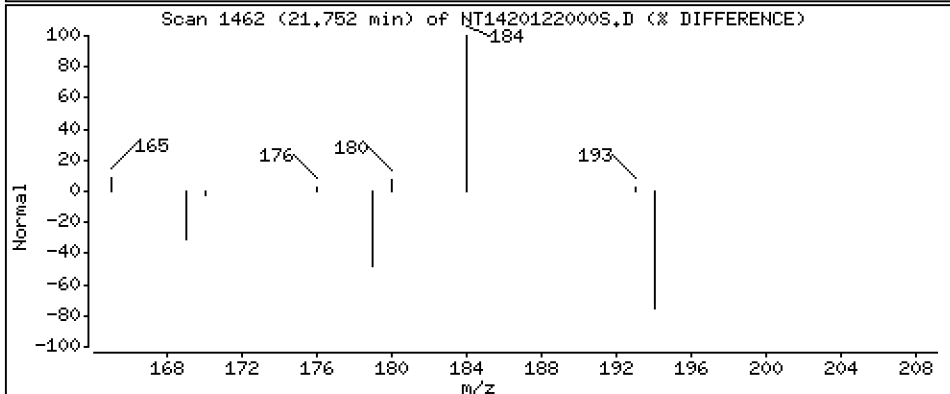
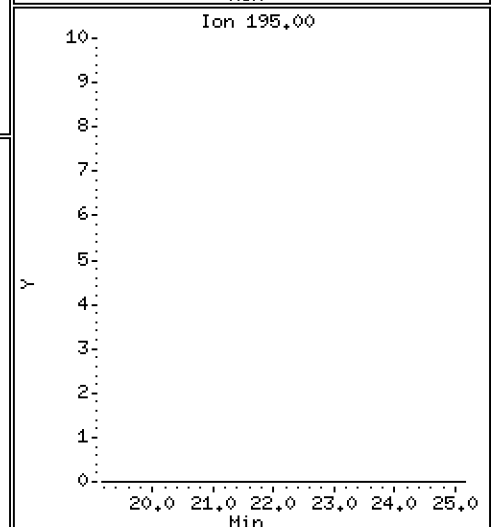
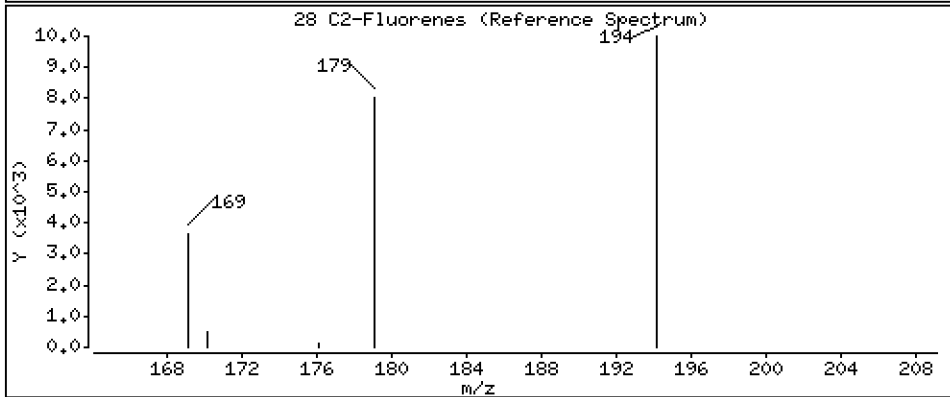
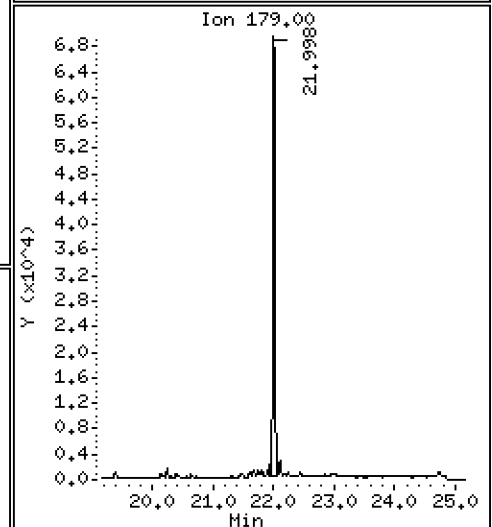
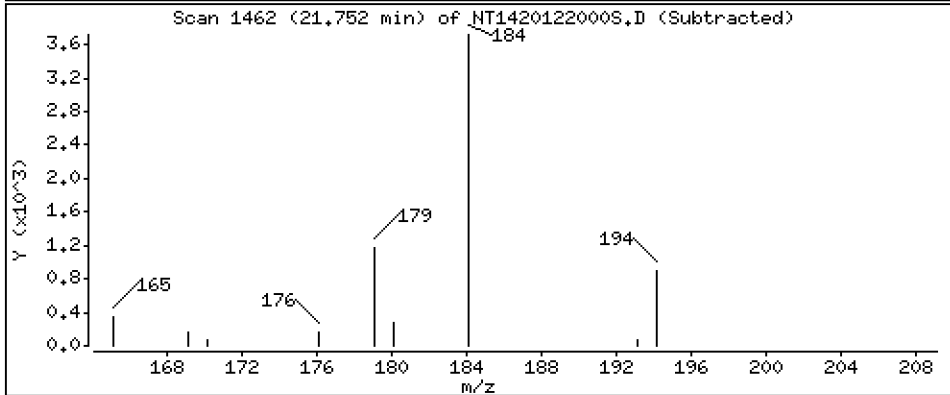
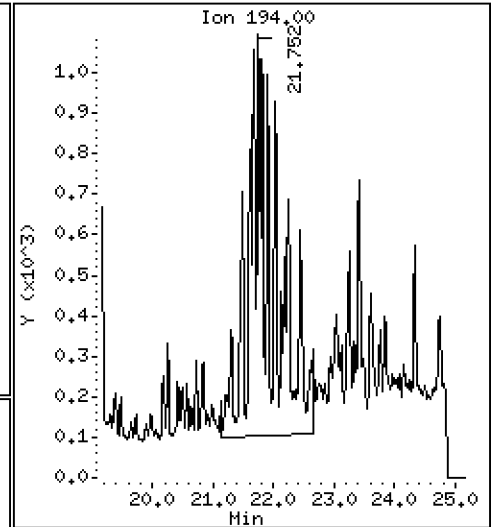
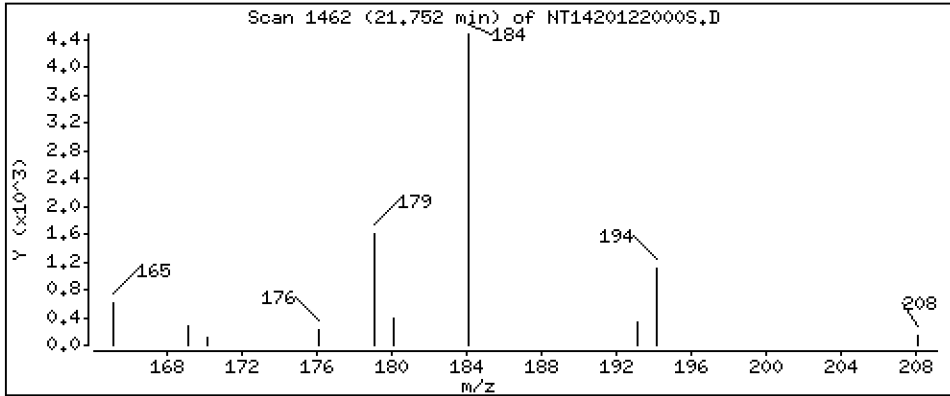
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

28 C2-Fluorenes

Concentration: 0,3232 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

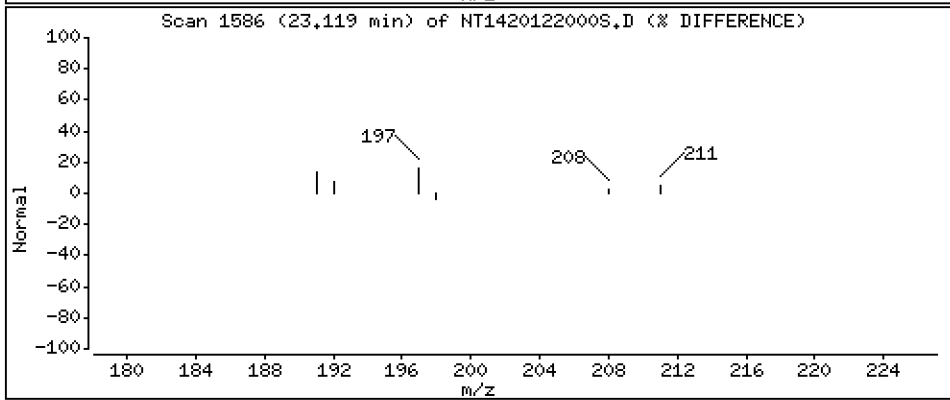
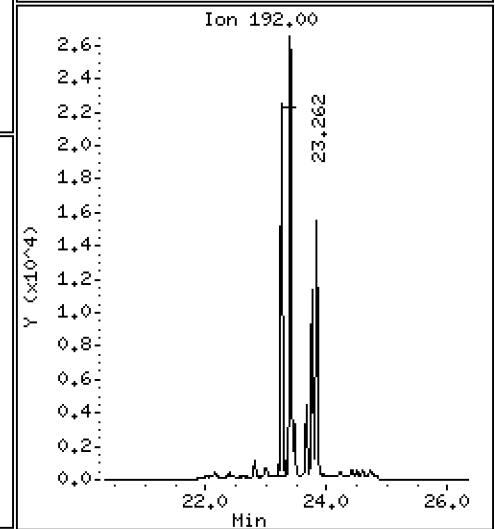
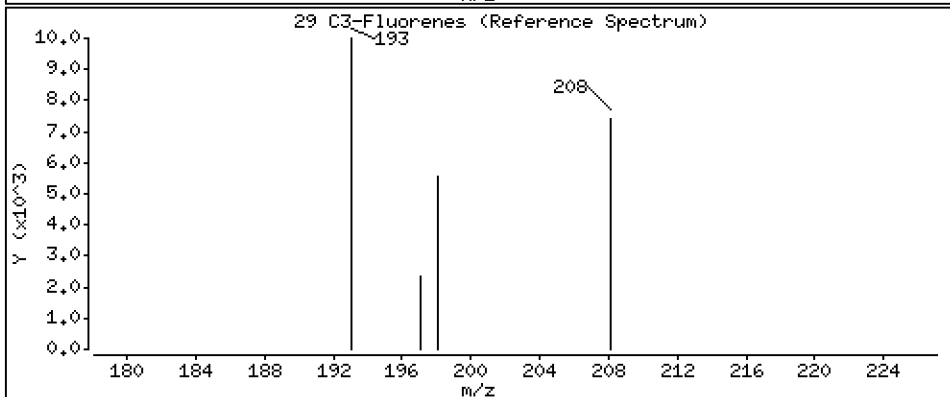
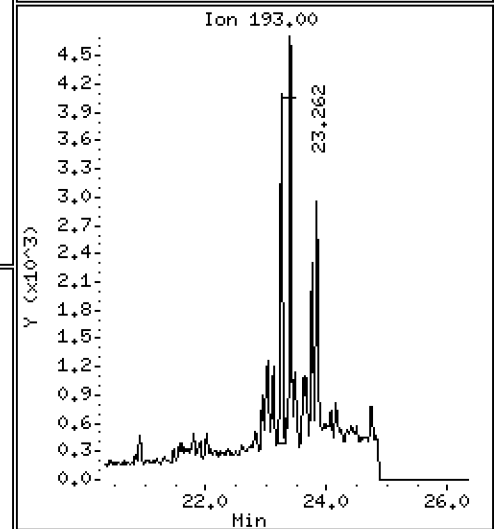
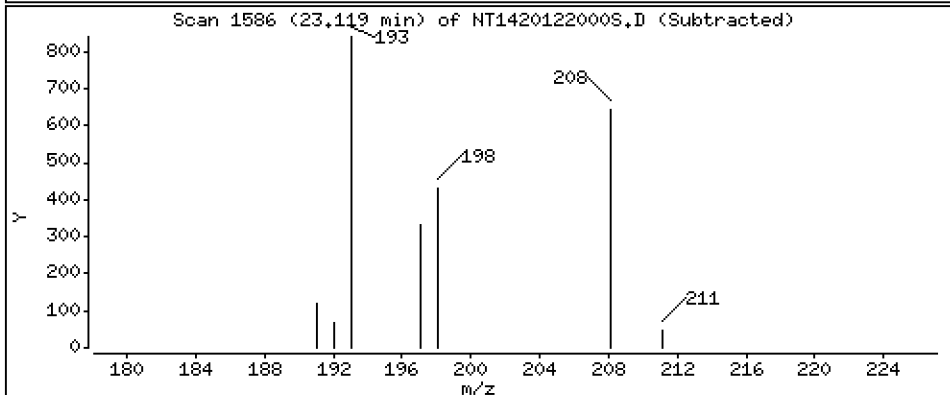
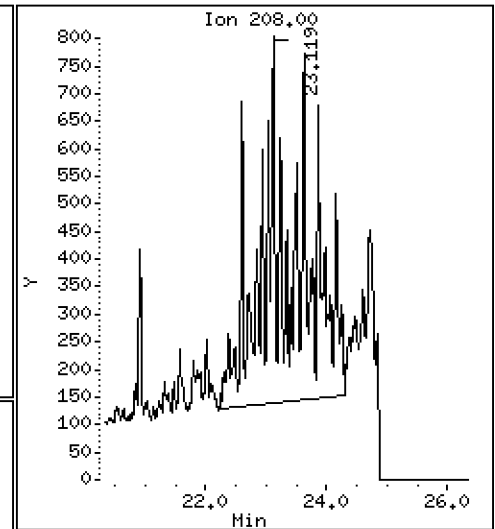
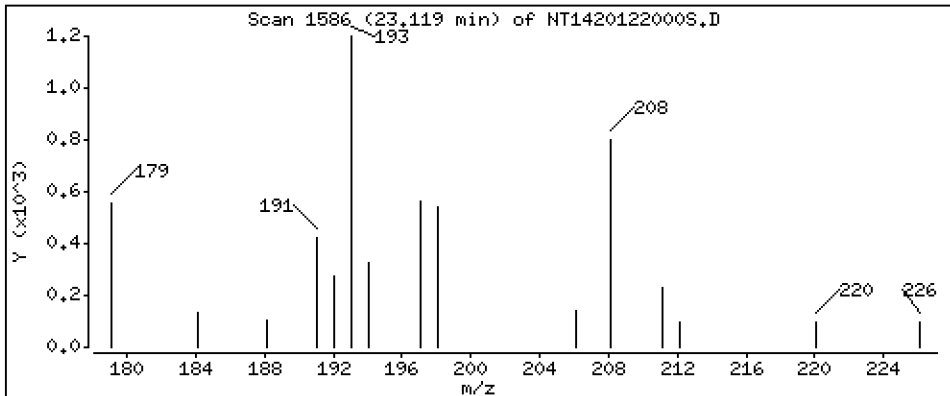
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

29 C3-Fluorenes

Concentration: 0,2859 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

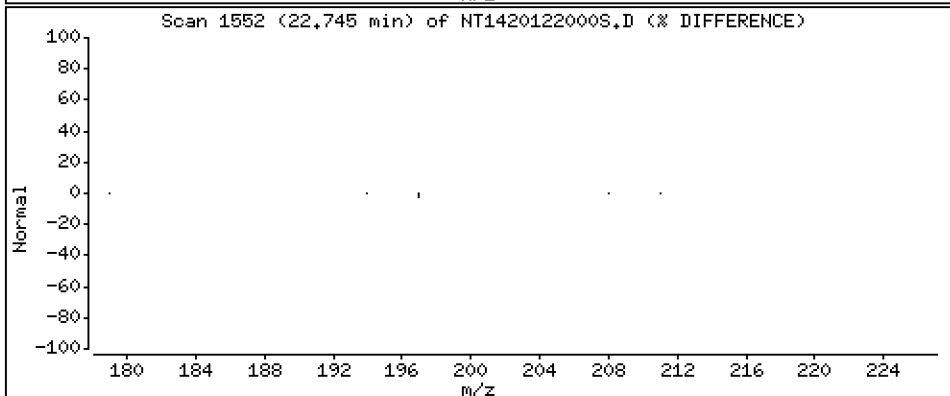
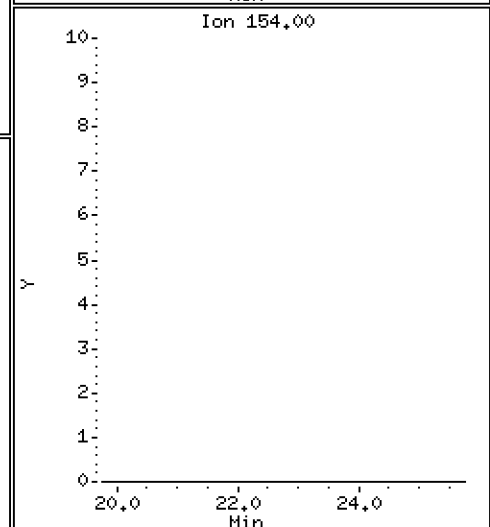
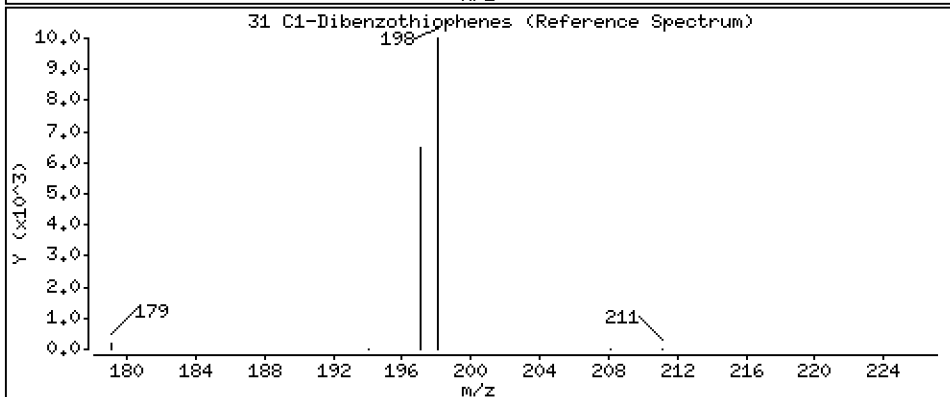
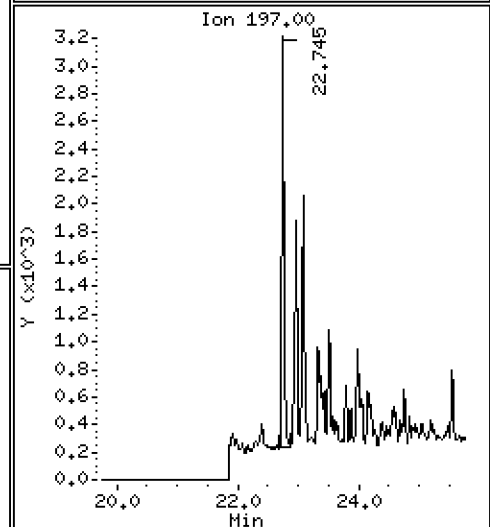
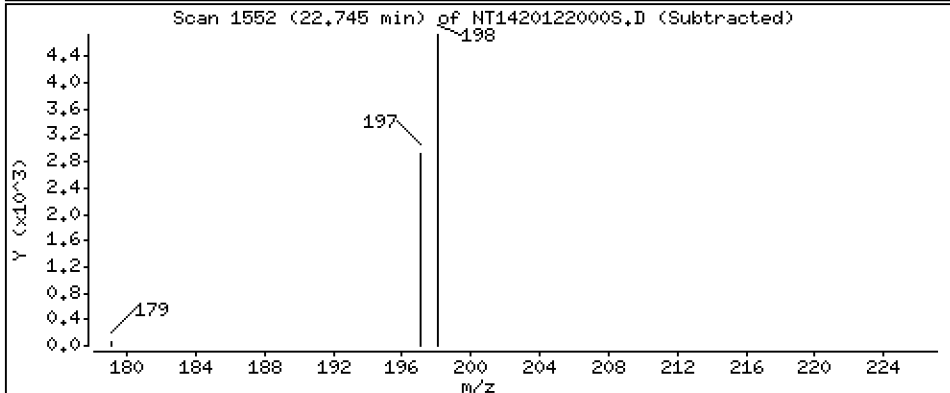
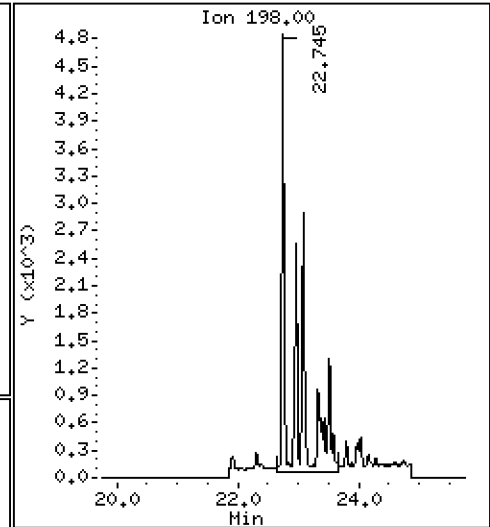
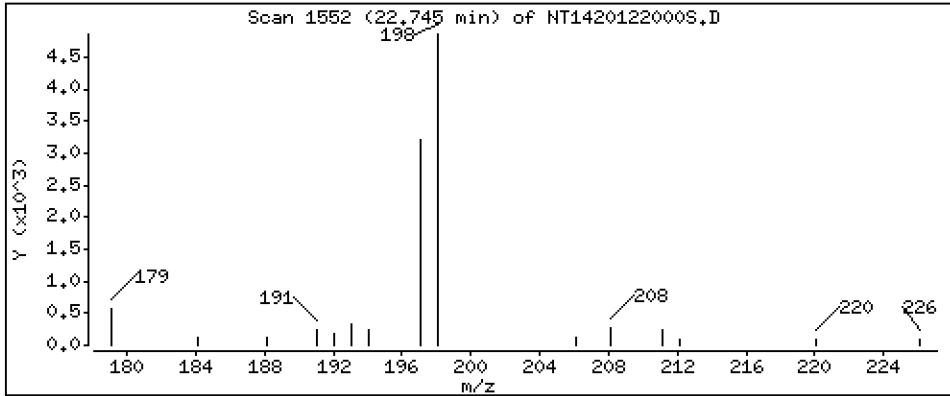
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

31 C1-Dibenzothiophenes

Concentration: 0,3085 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

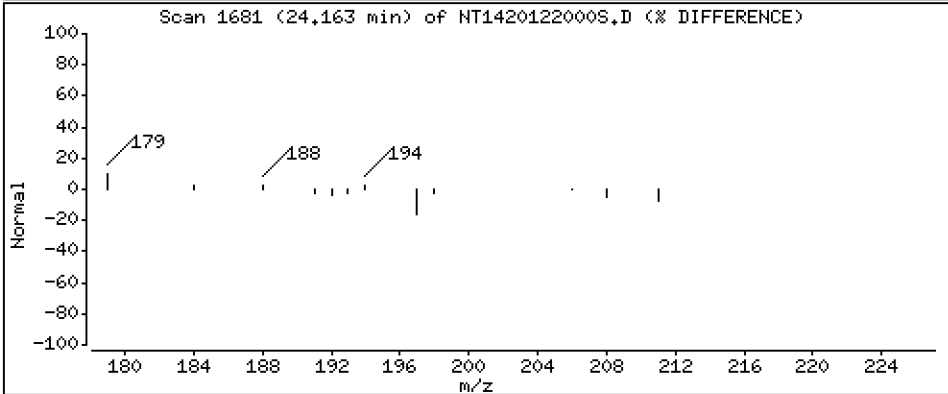
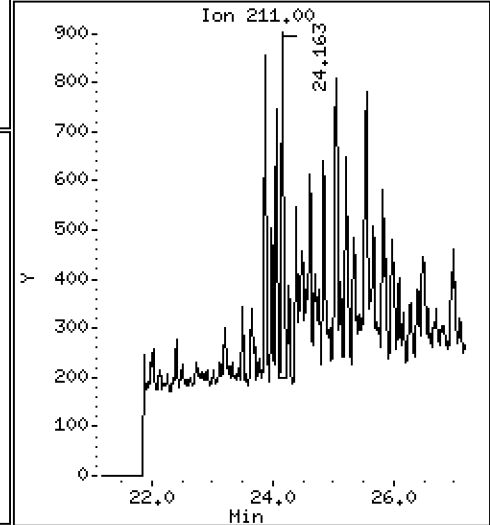
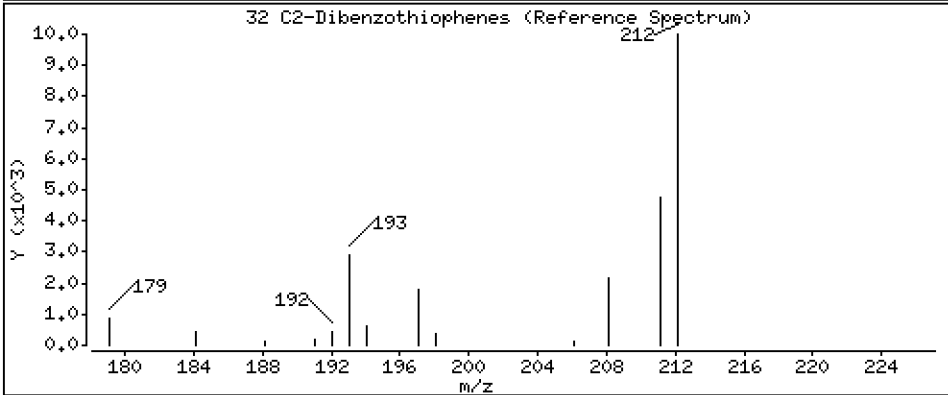
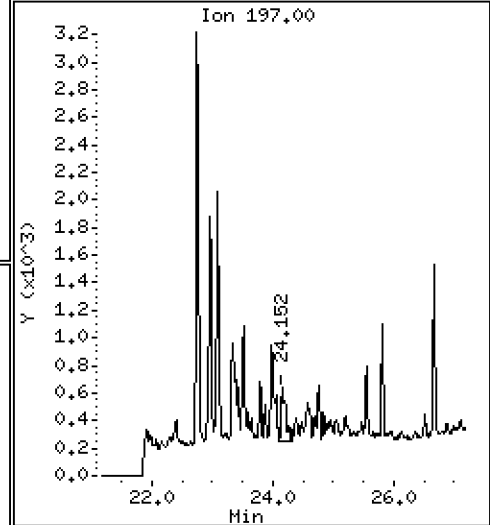
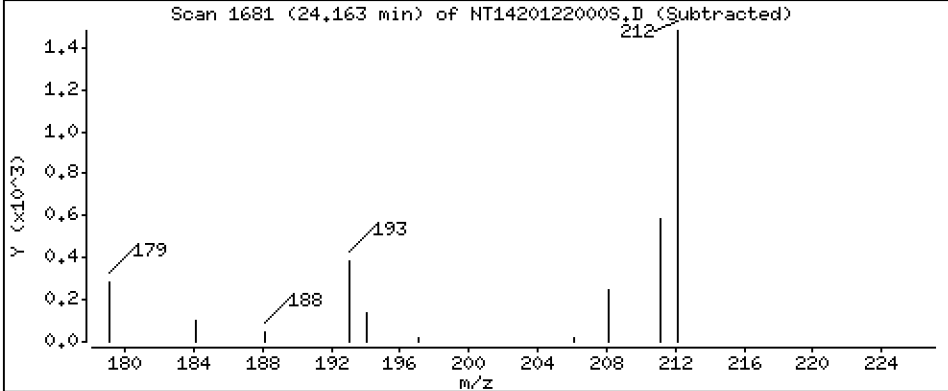
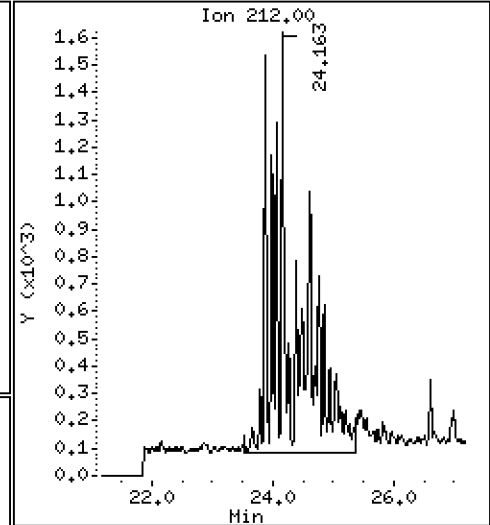
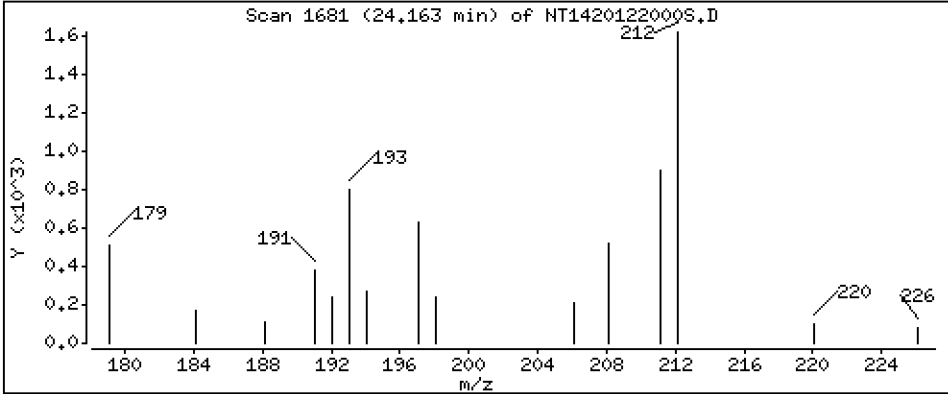
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

32 C2-Dibenzothiophenes

Concentration: 0,2611 ug/mL





Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

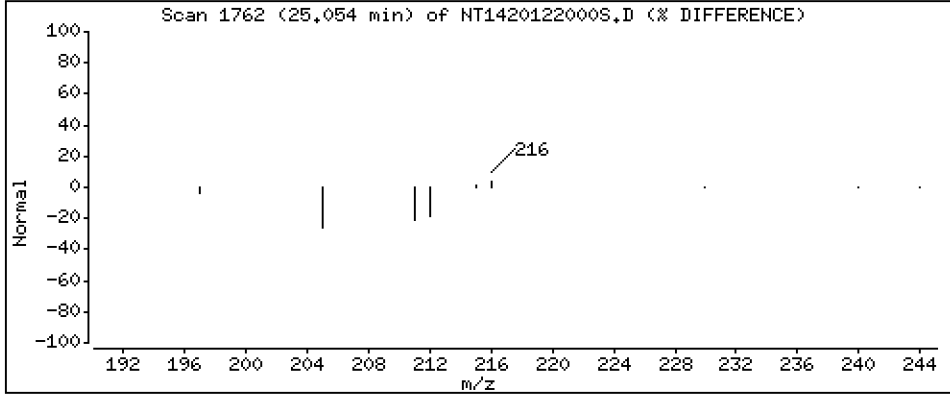
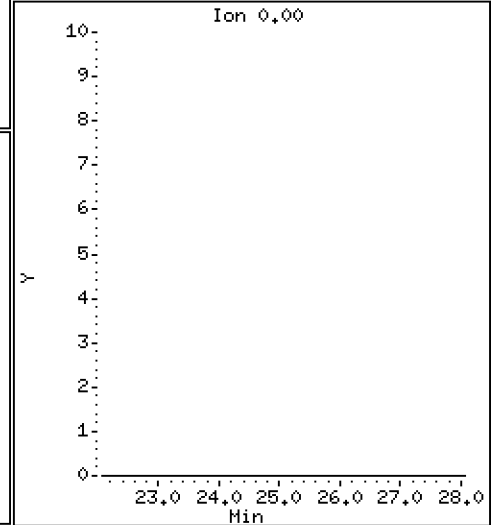
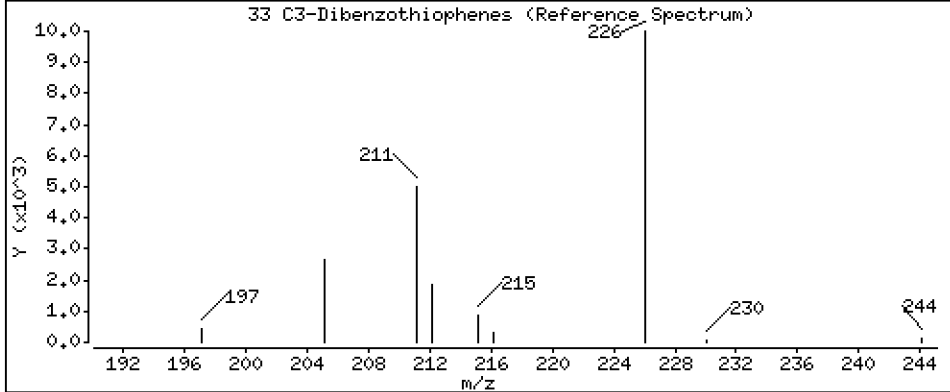
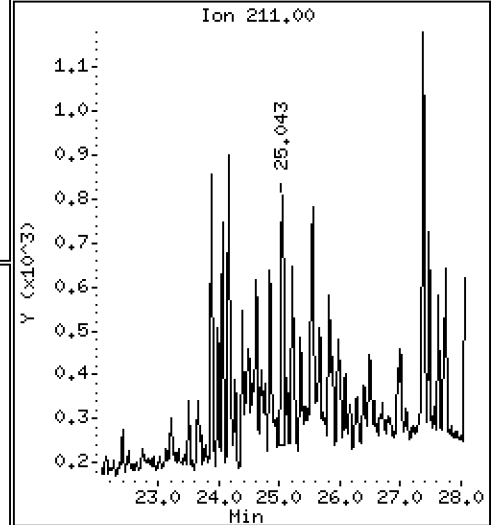
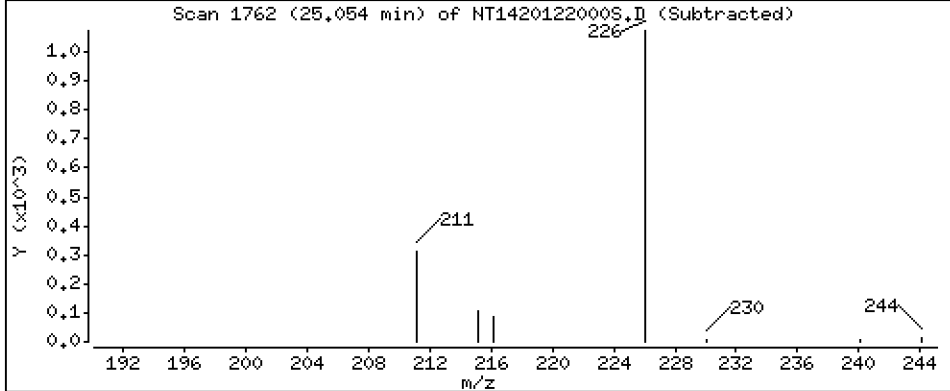
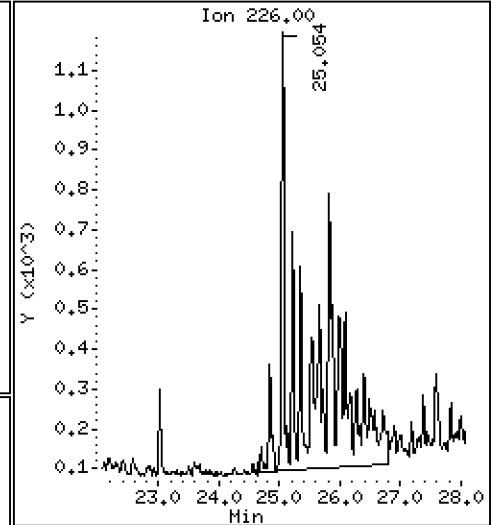
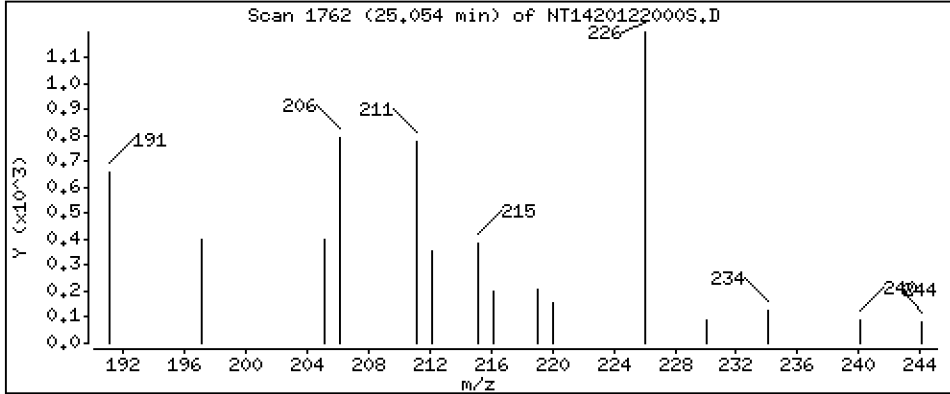
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

33 C3-Dibenzothiophenes

Concentration: 0,1787 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

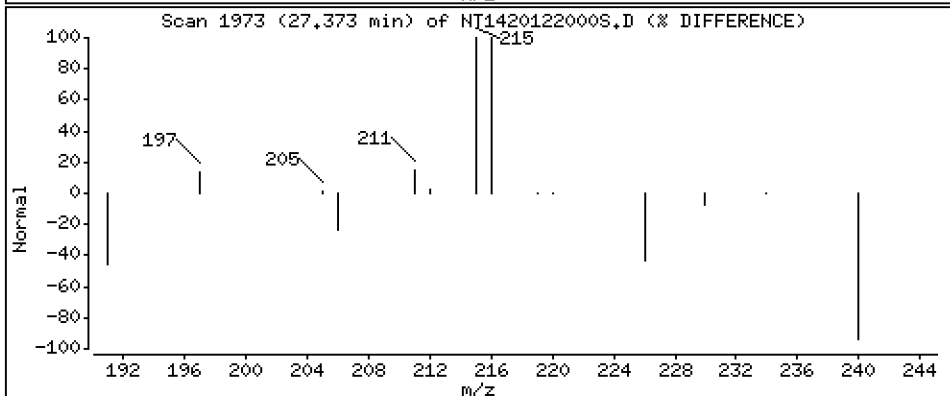
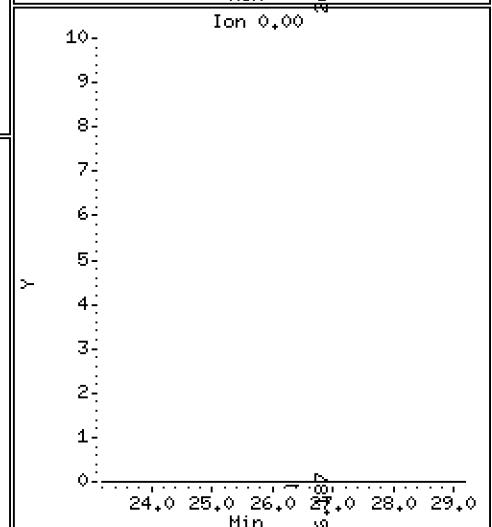
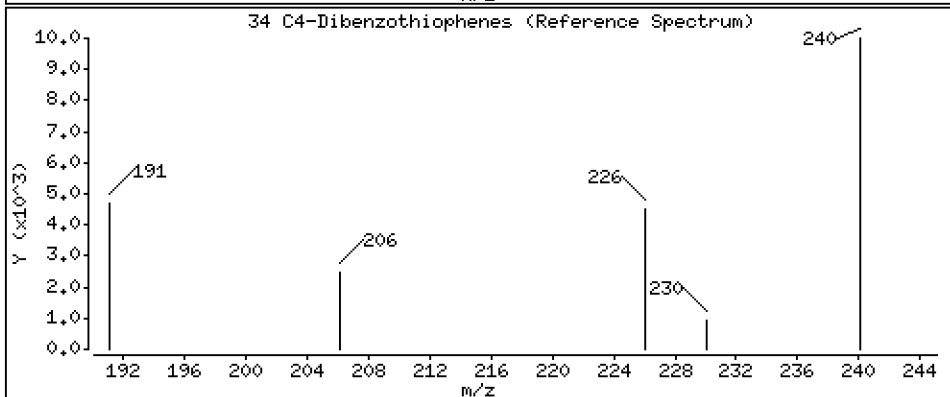
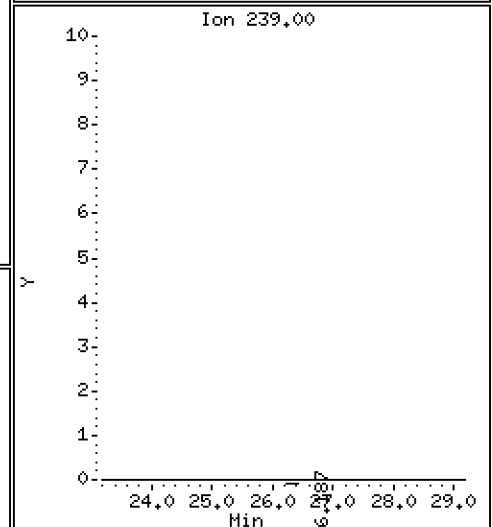
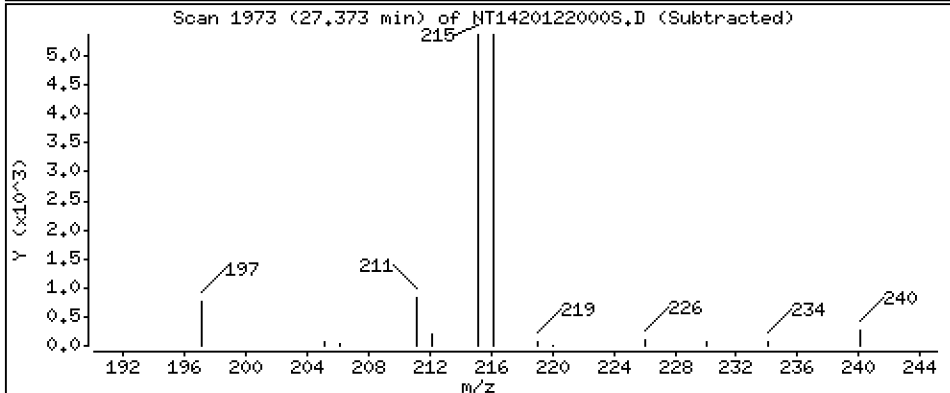
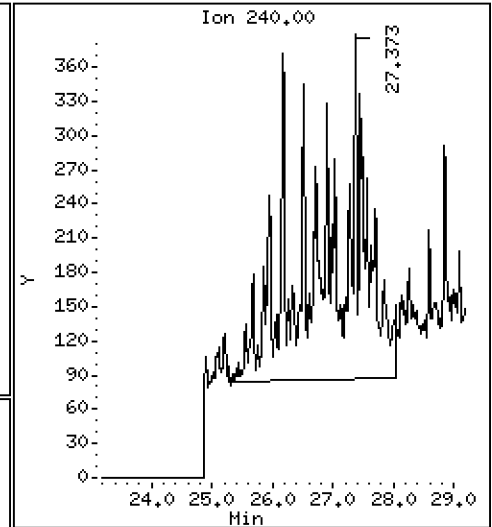
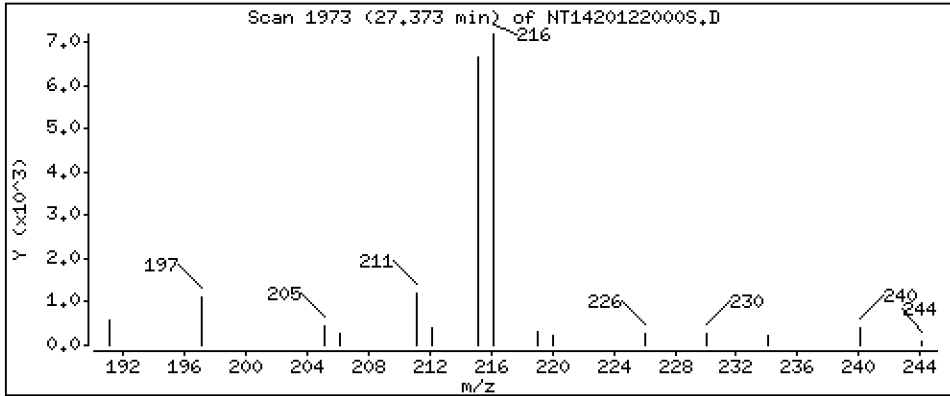
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

34 C4-Dibenzothiophenes

Concentration: 0,1133 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

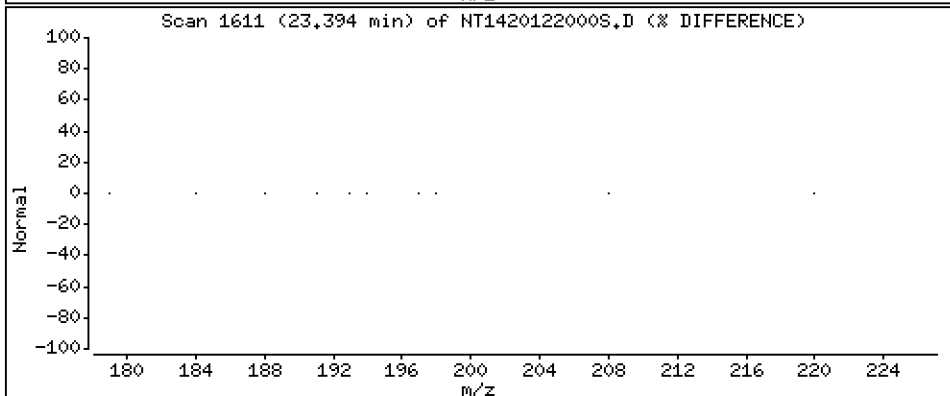
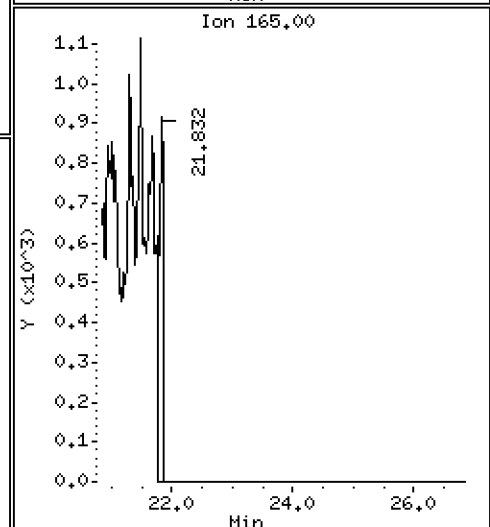
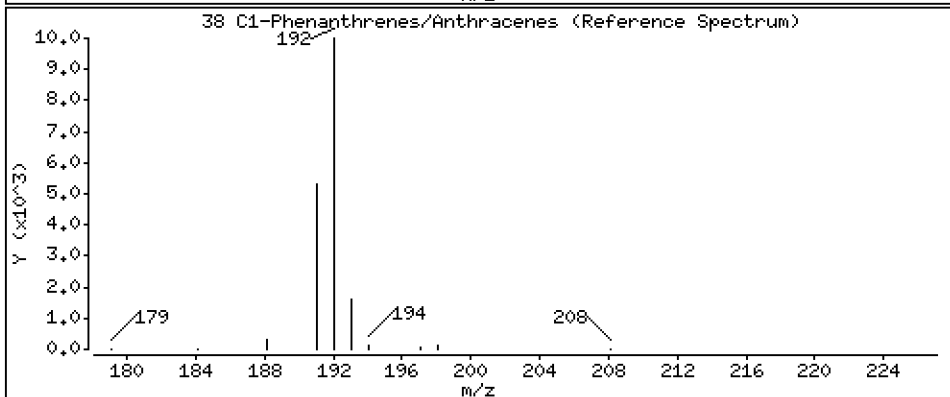
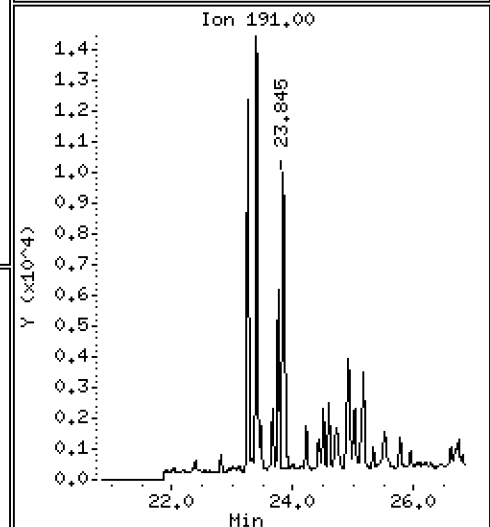
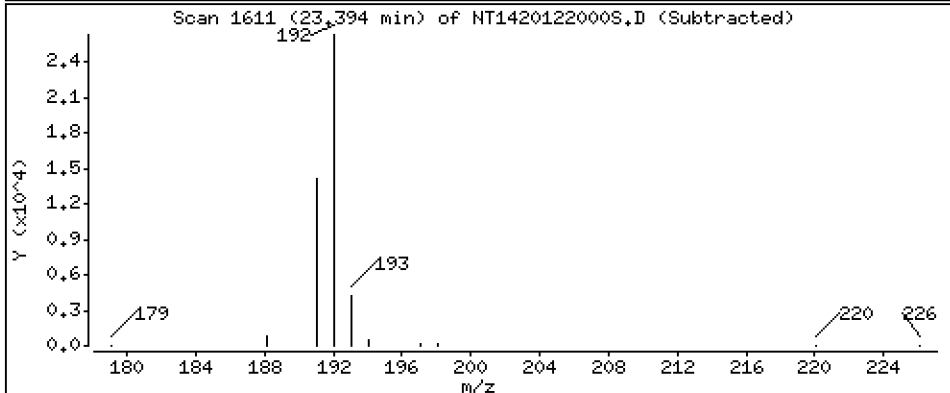
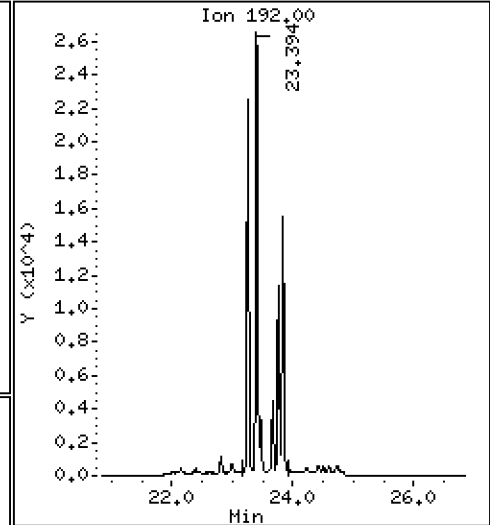
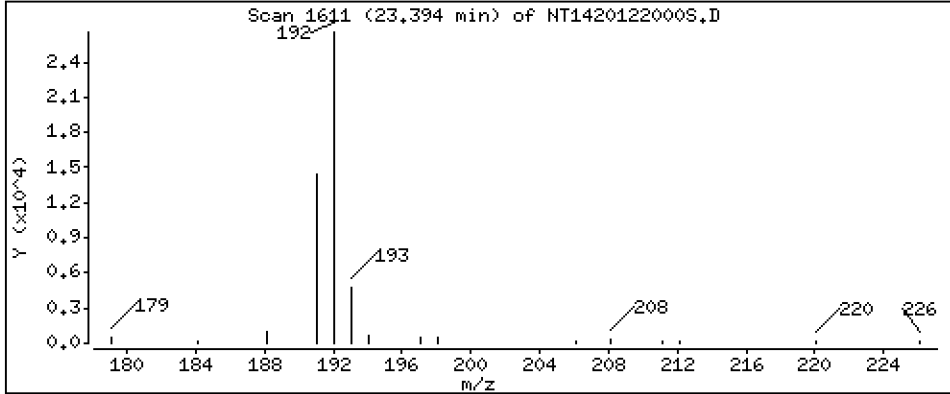
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

38 C1-Phenanthrenes/Anthracenes

Concentration: 1,506 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

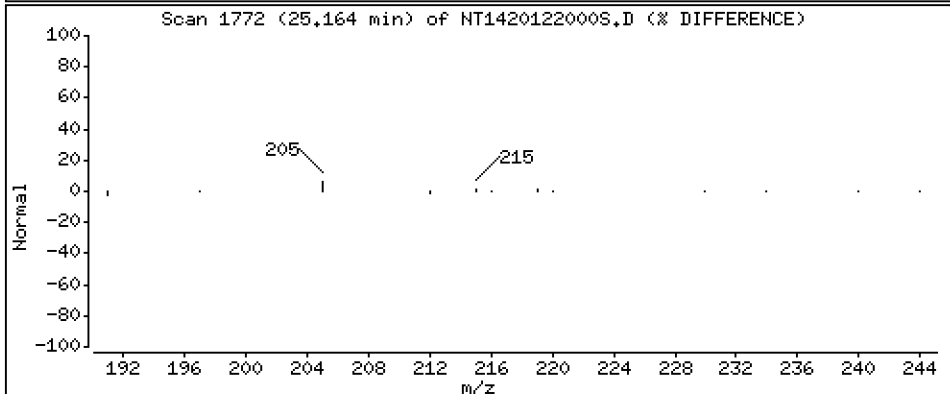
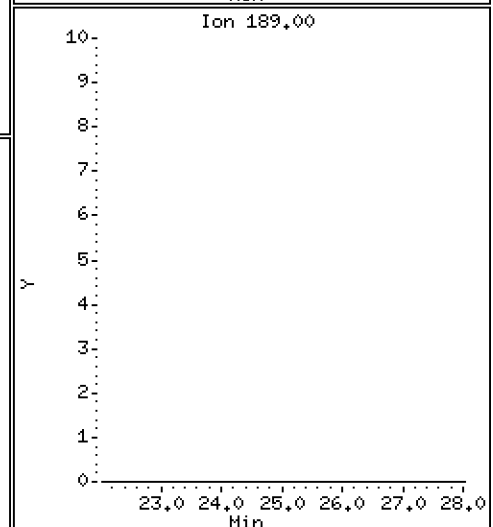
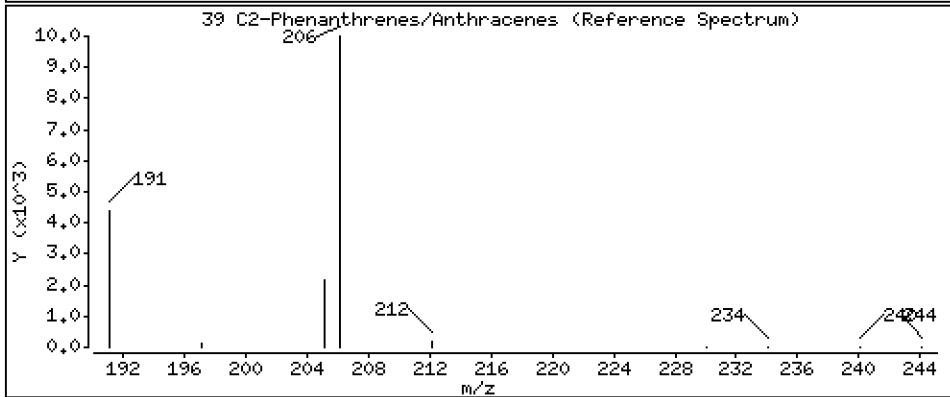
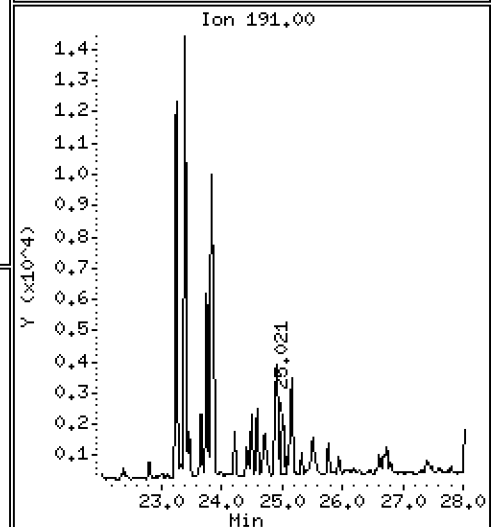
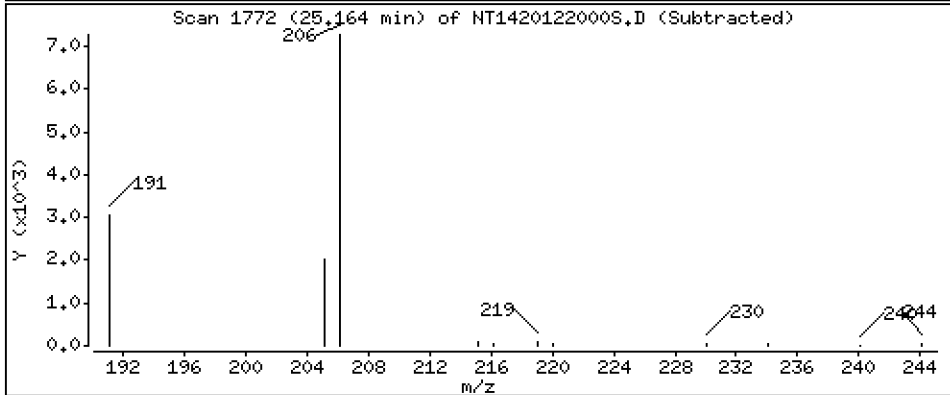
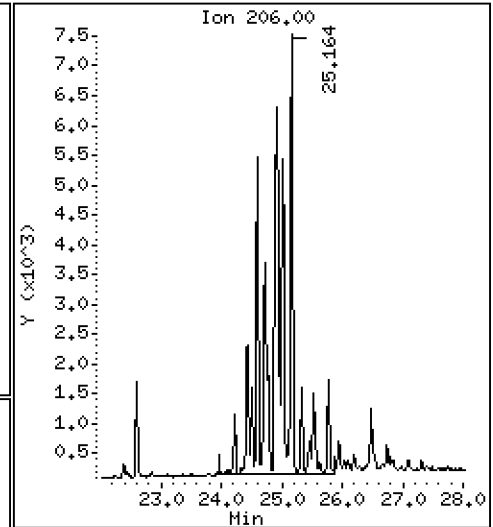
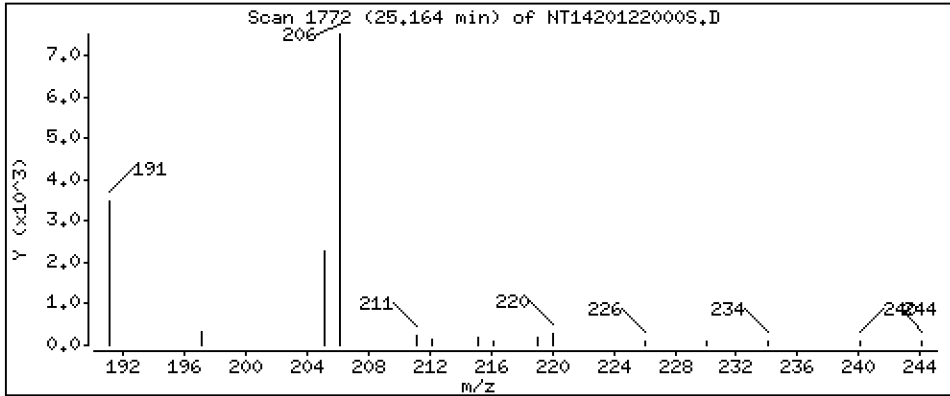
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

39 C2-Phenanthrenes/Anthracenes

Concentration: 0,8136 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

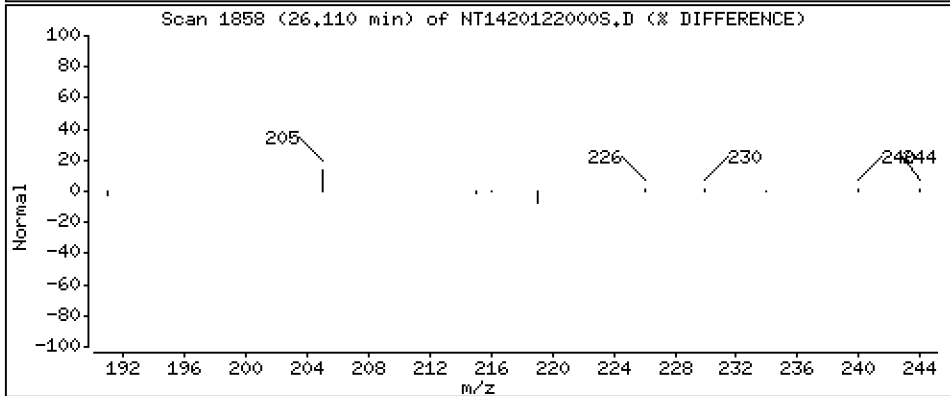
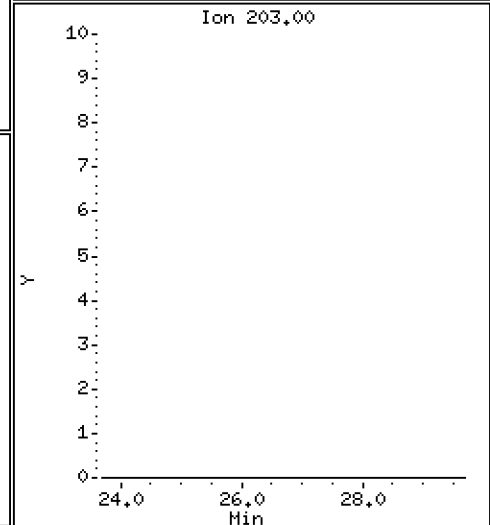
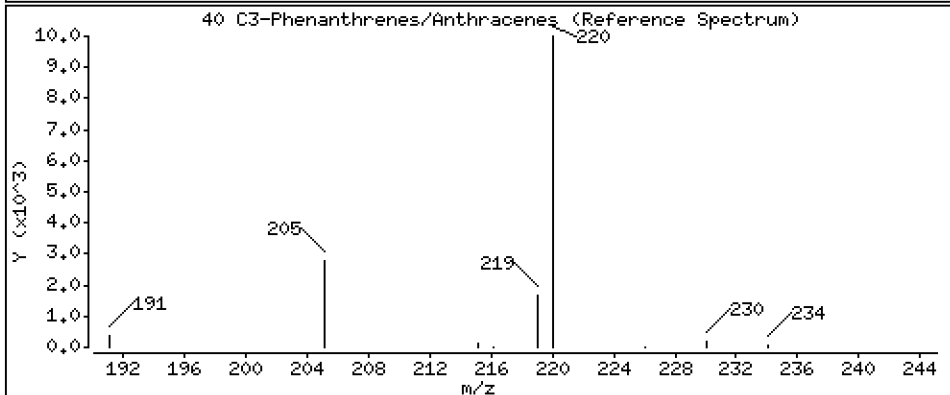
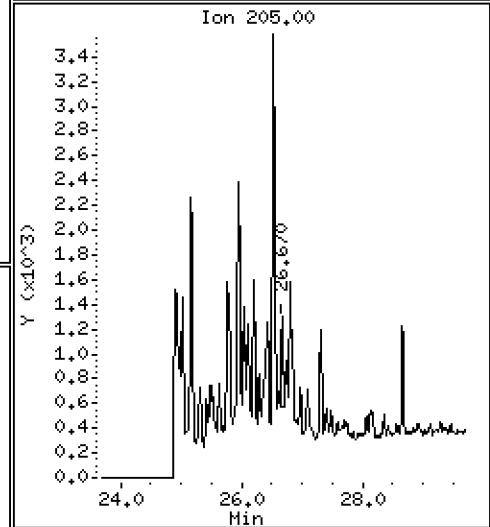
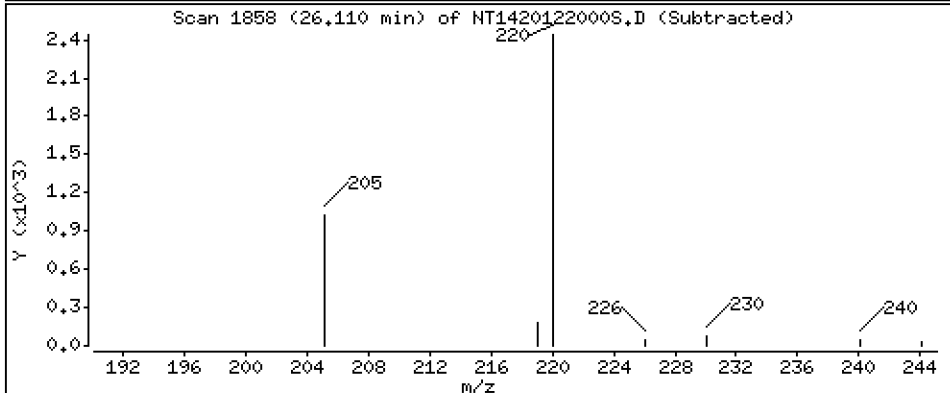
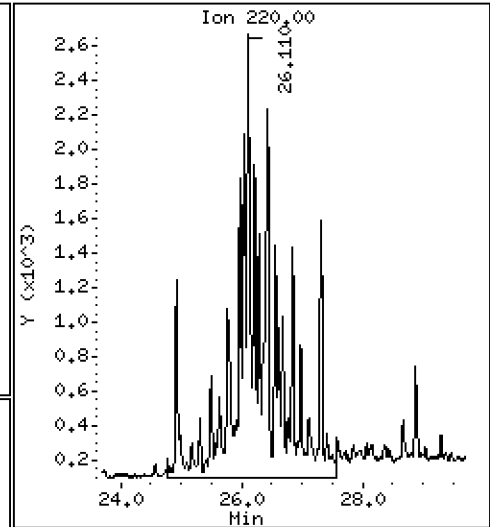
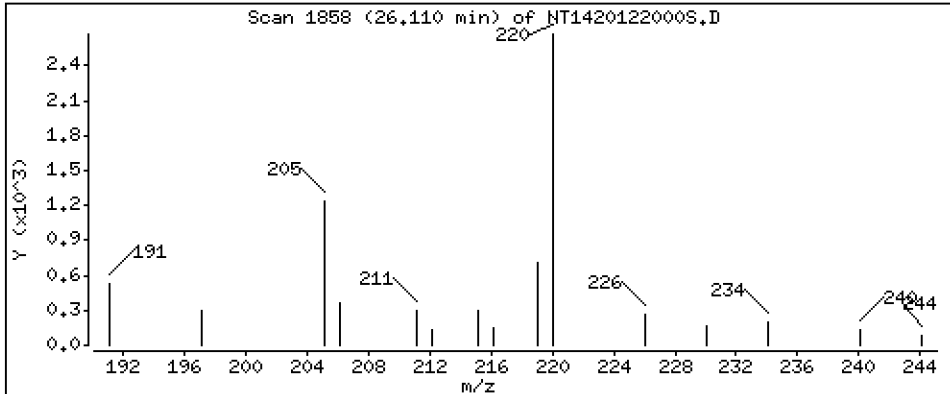
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

40 C3-Phenanthrenes/Anthracenes

Concentration: 0,5453 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

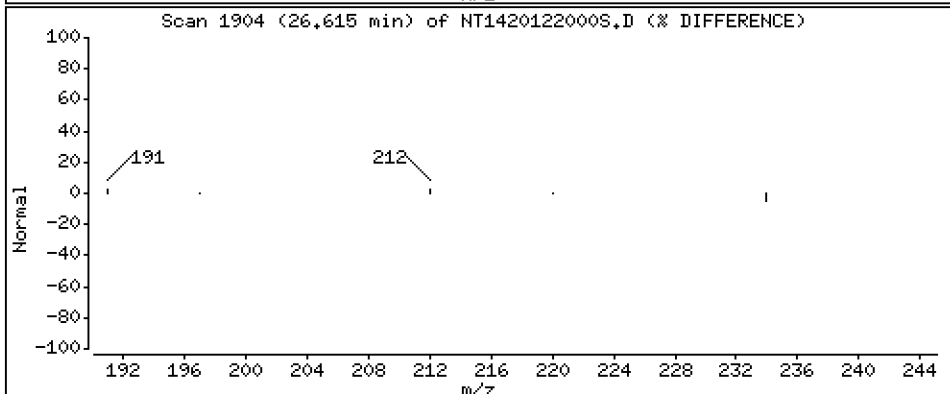
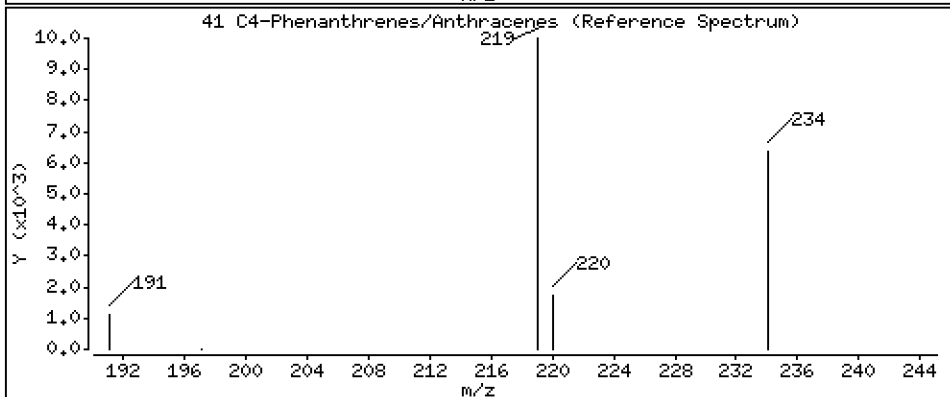
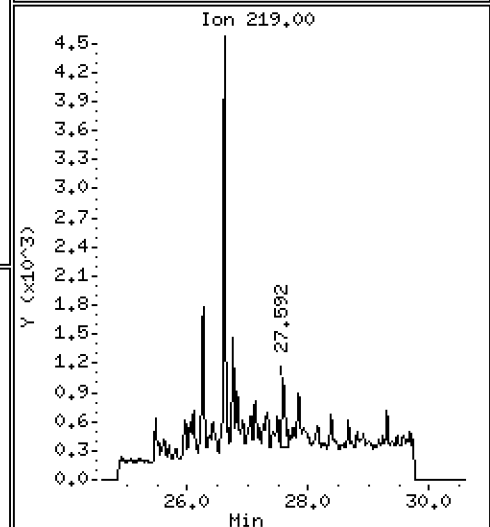
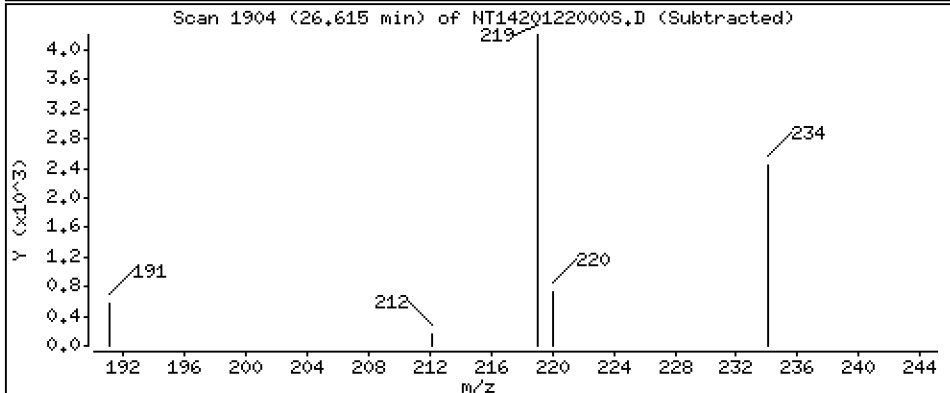
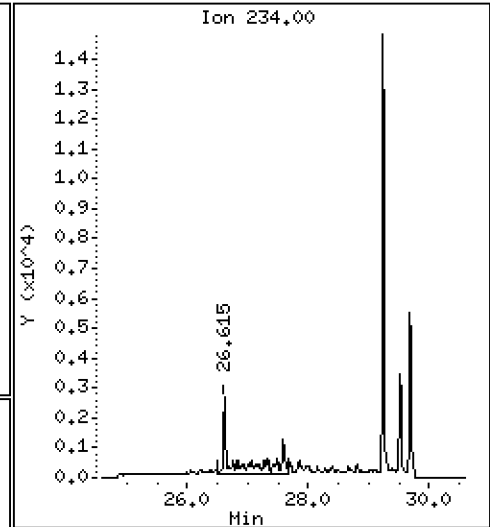
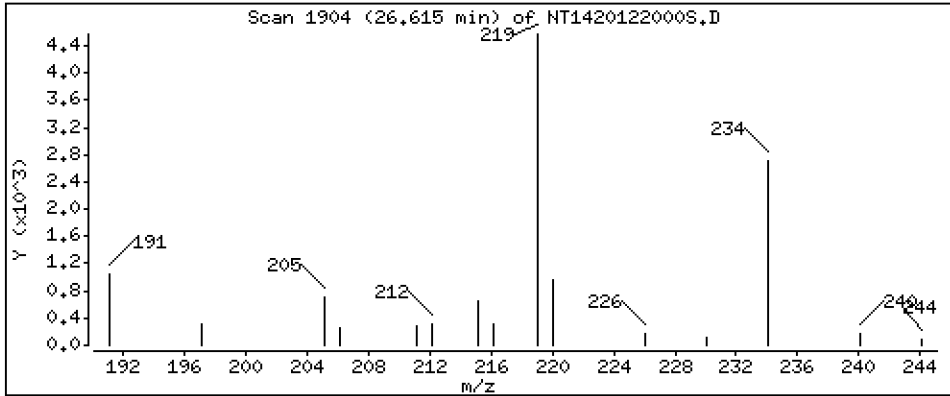
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

41 C4-Phenanthrenes/Anthracenes

Concentration: 0,1637 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

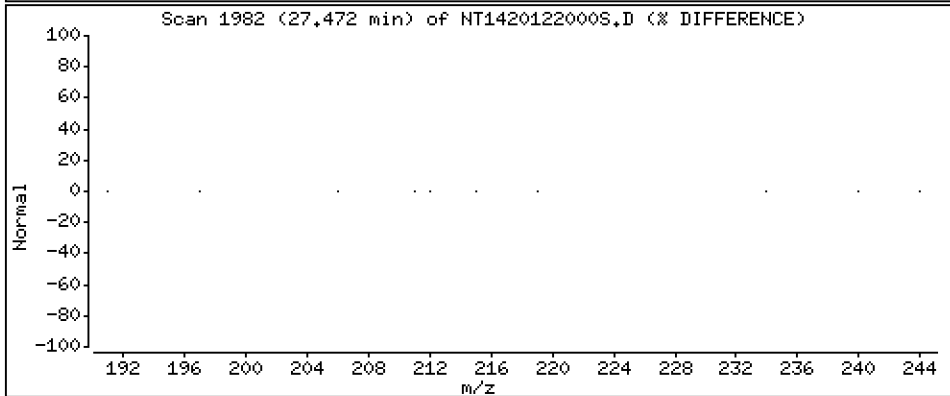
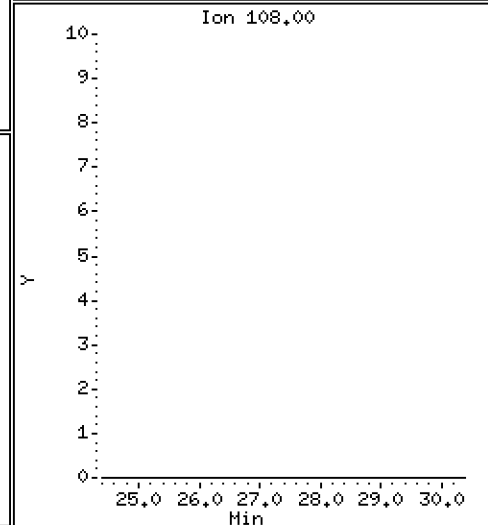
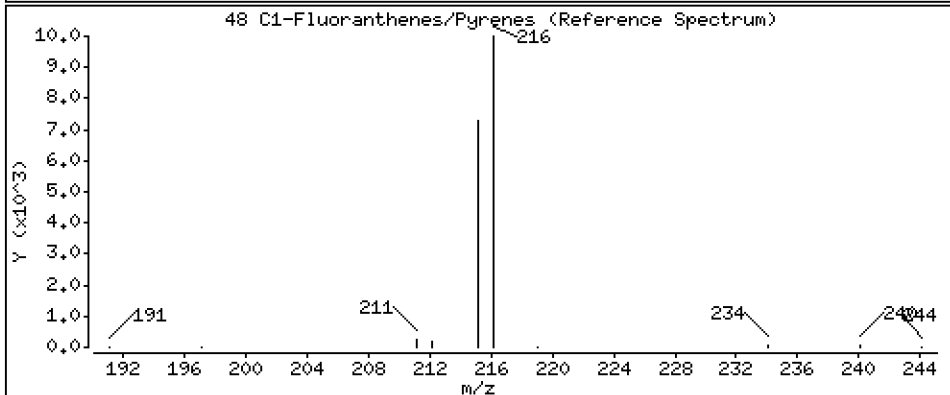
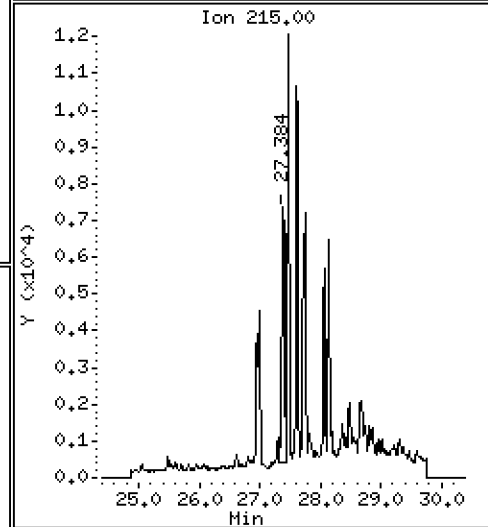
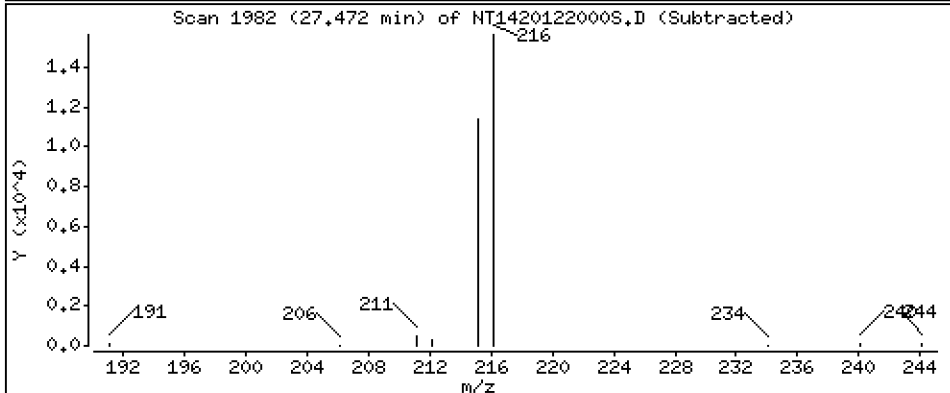
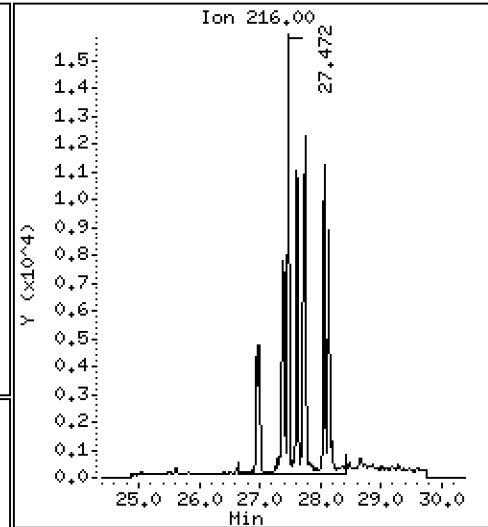
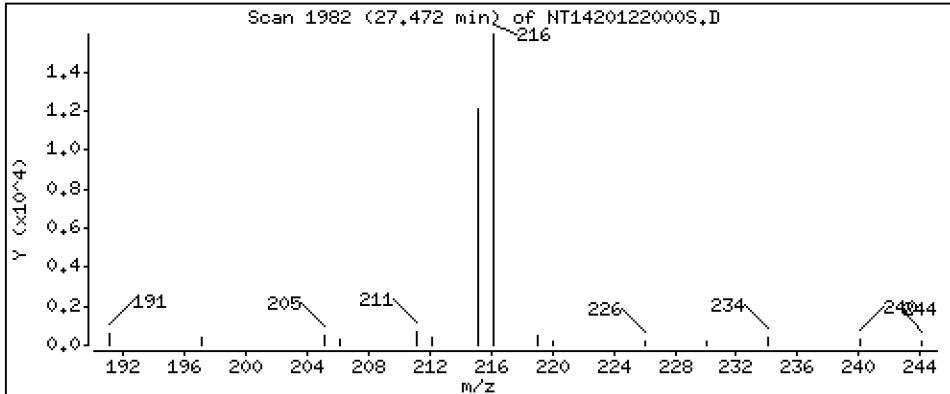
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

48 C1-Fluoranthenes/Pyrenes

Concentration: 1,233 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

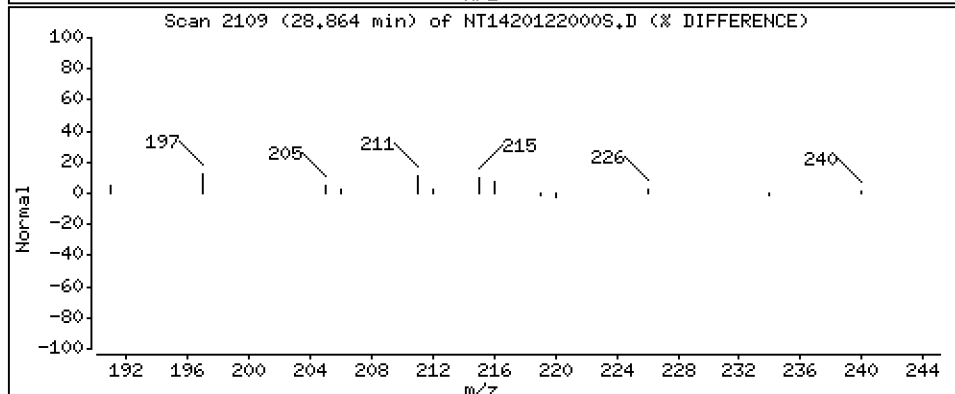
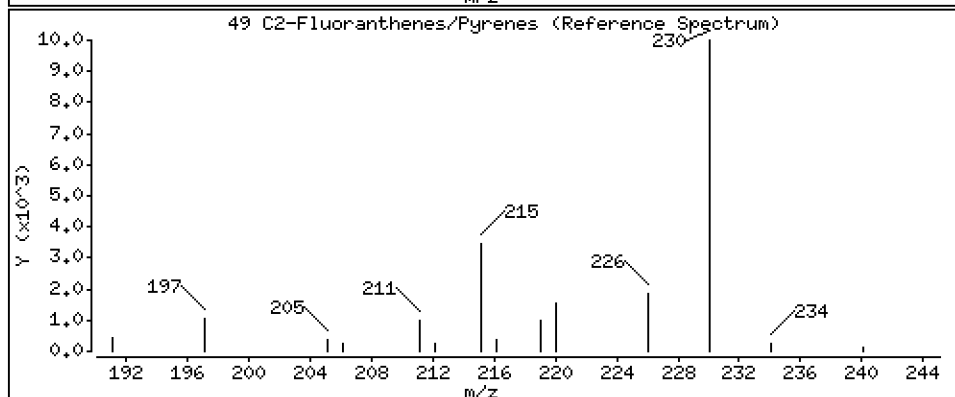
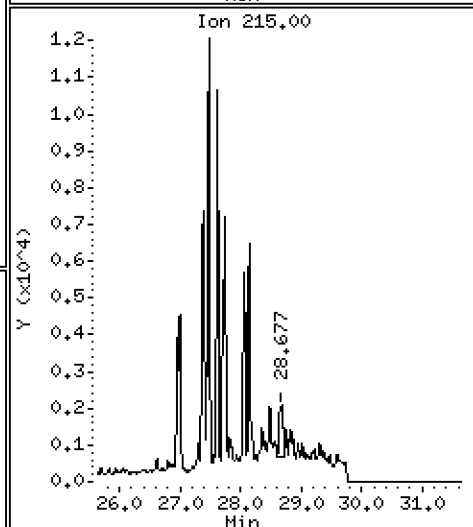
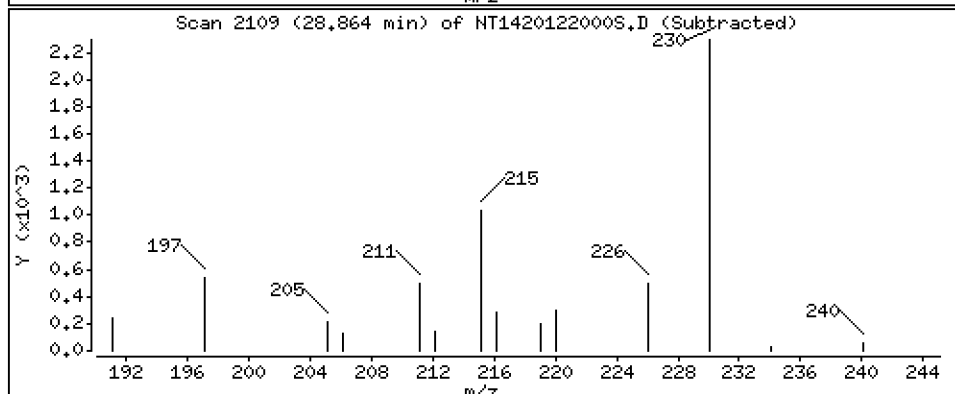
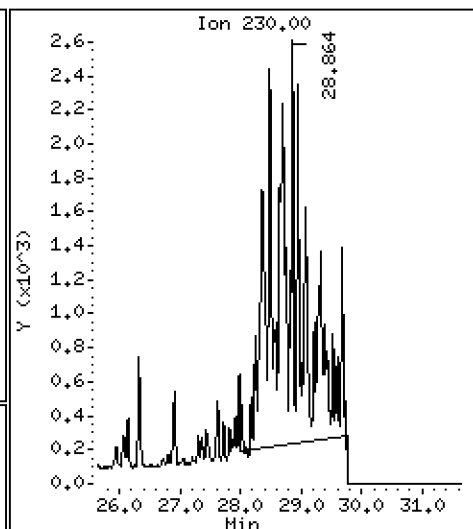
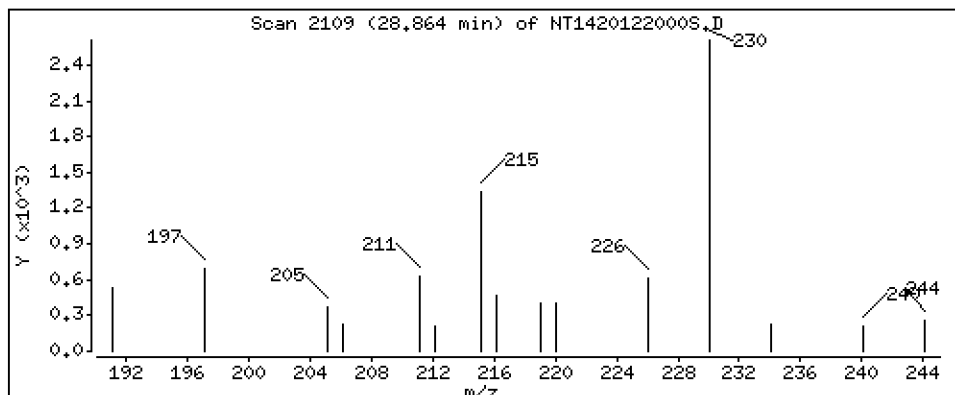
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

49 C2-Fluoranthenes/Pyrenes

Concentration: 0,4184 ug/mL





Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

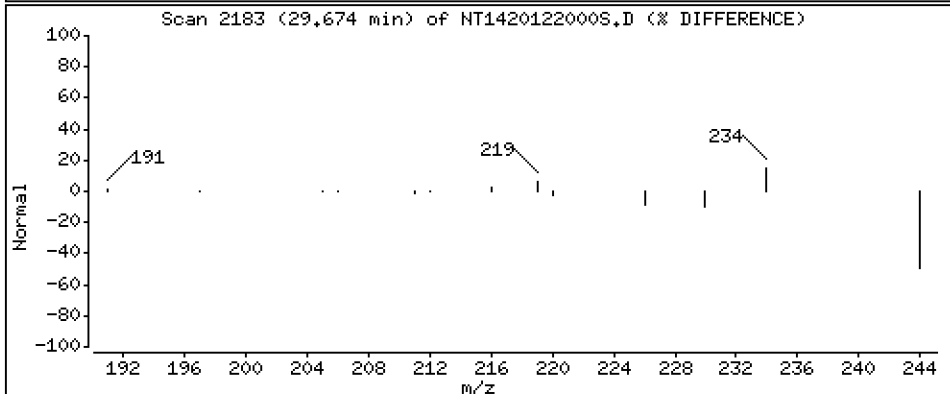
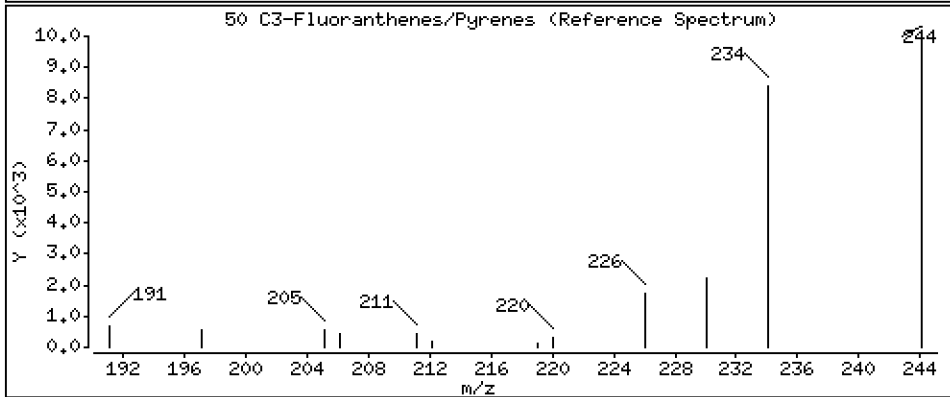
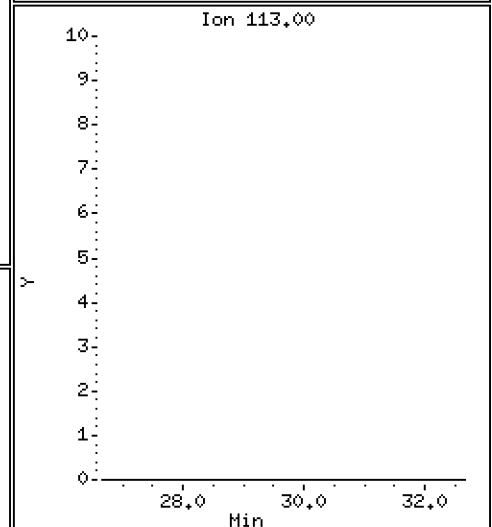
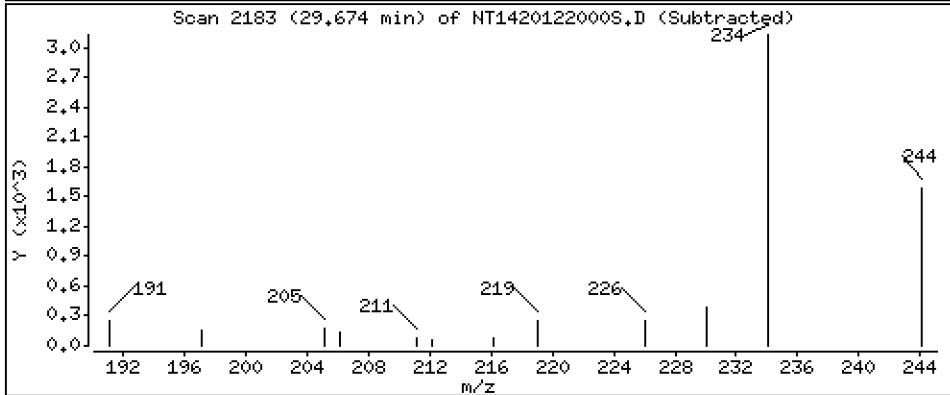
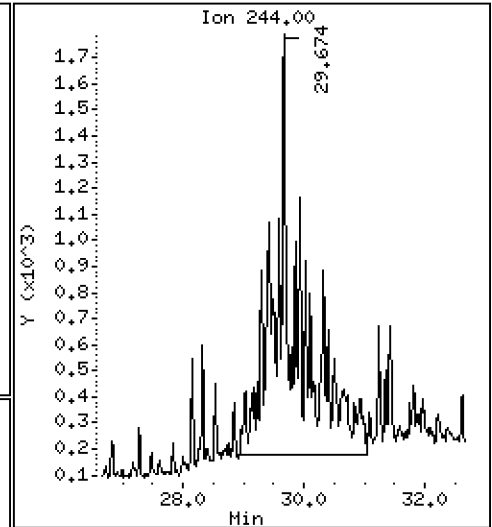
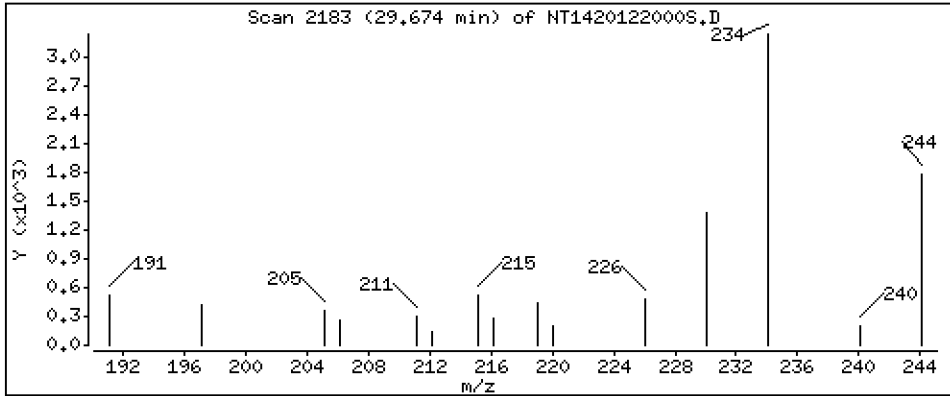
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

50 C3-Fluoranthenes/Pyrenes

Concentration: 0,2614 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

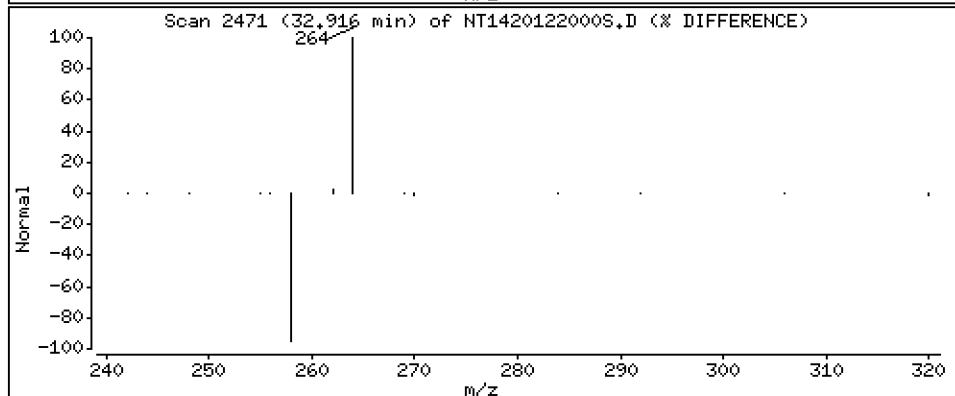
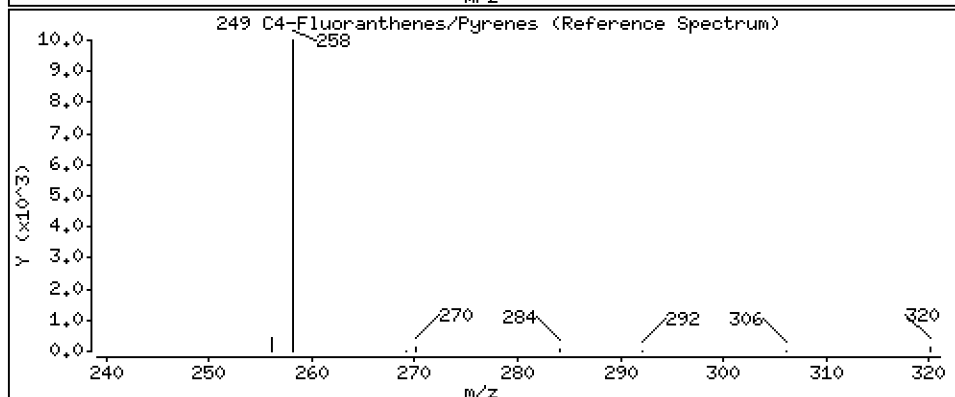
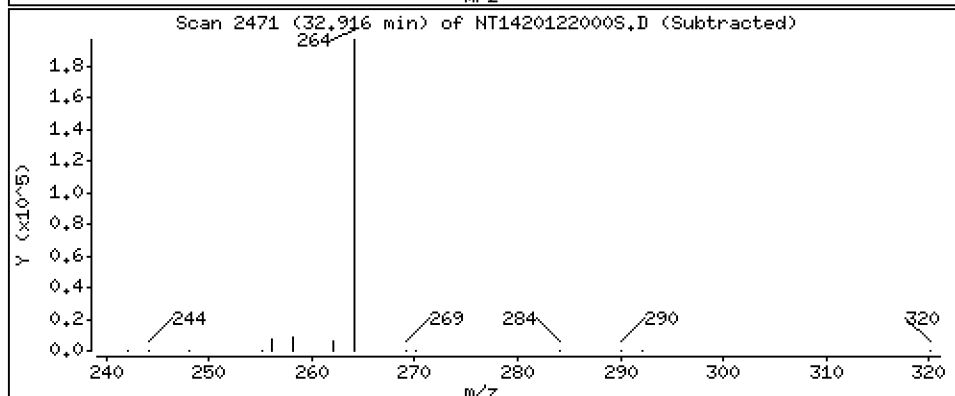
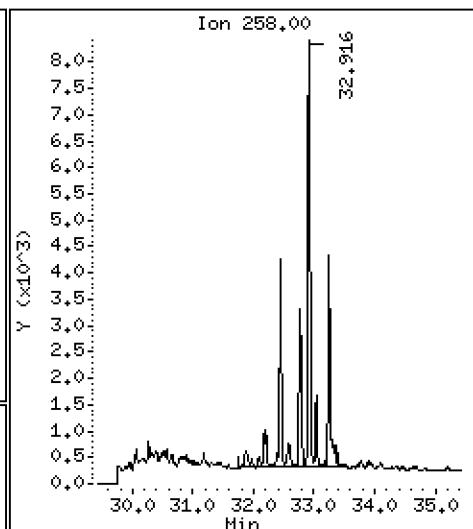
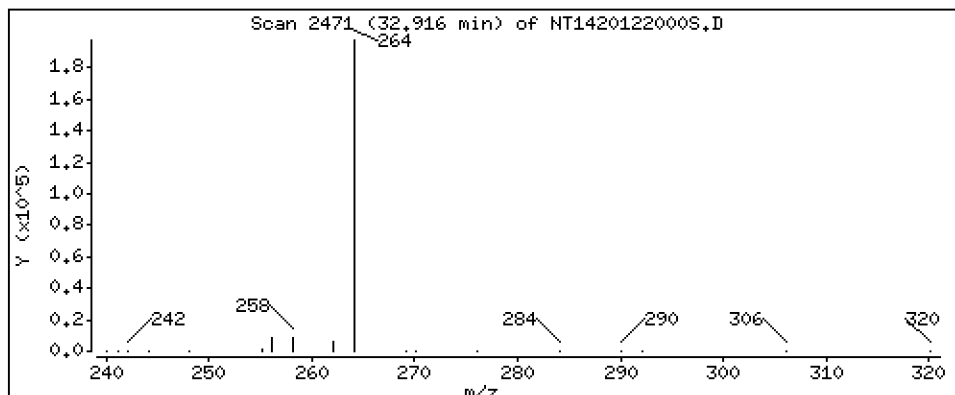
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

249 C4-Fluoranthenes/Pyrenes

Concentration: 0,3140 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

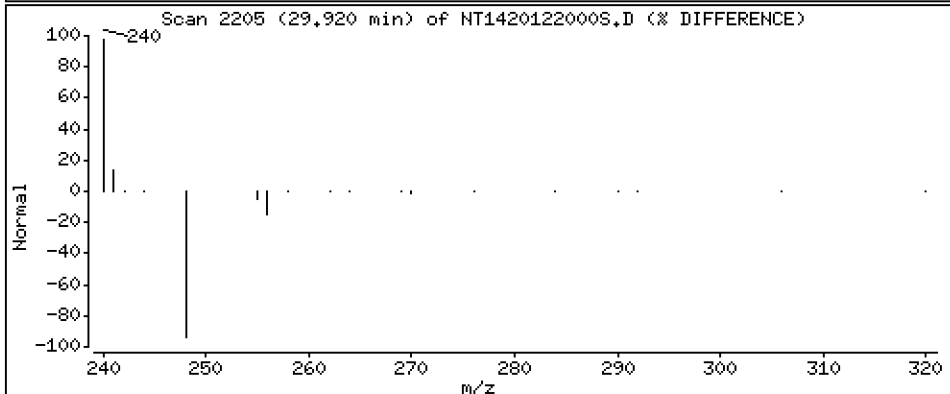
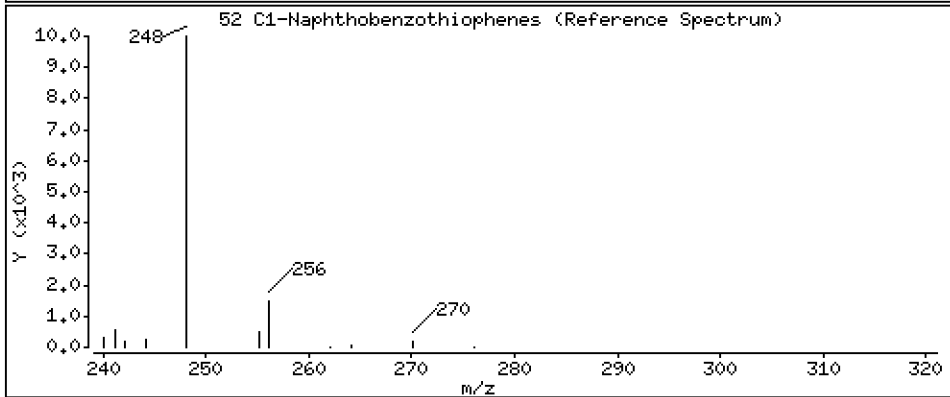
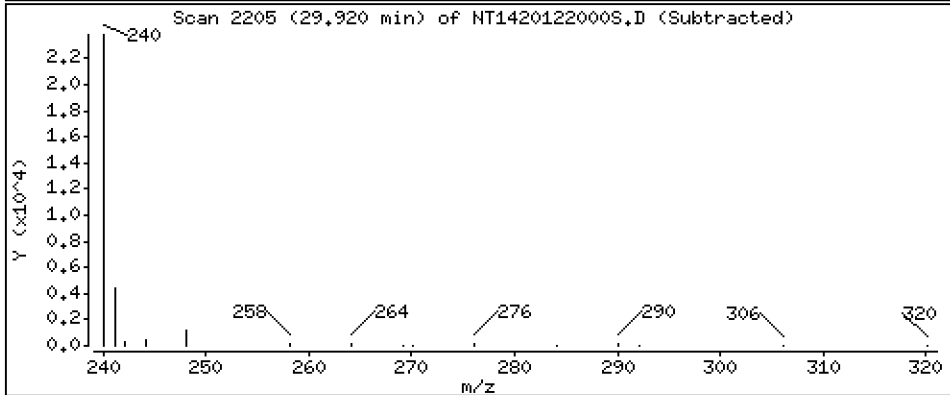
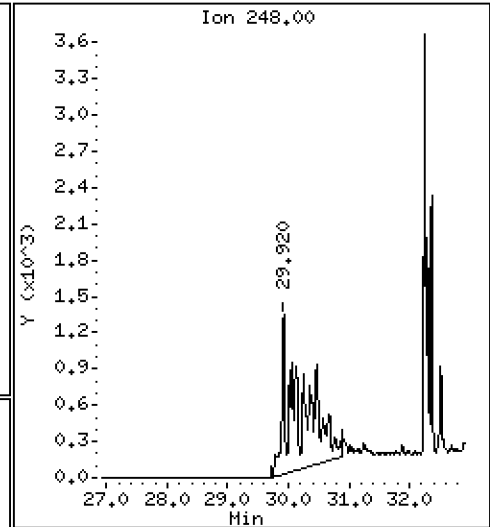
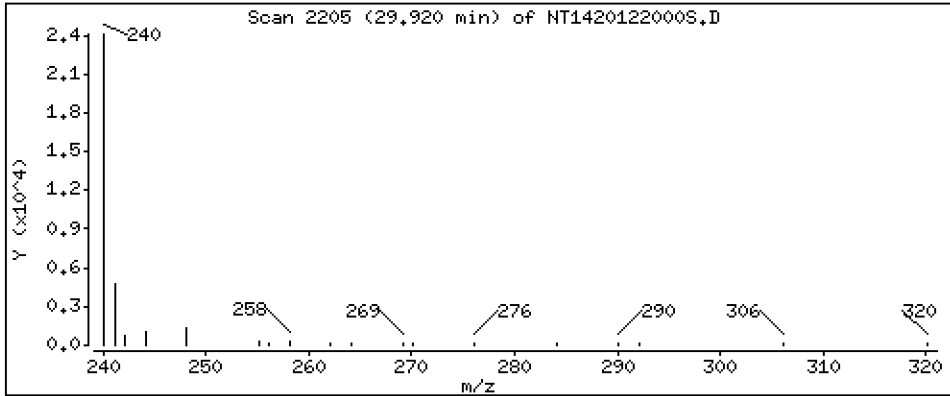
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

52 C1-Naphthobenzothiophenes

Concentration: 0,1641 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

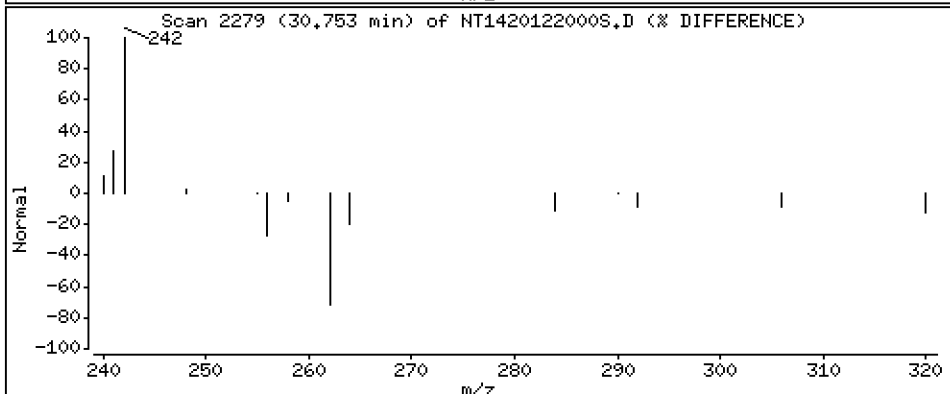
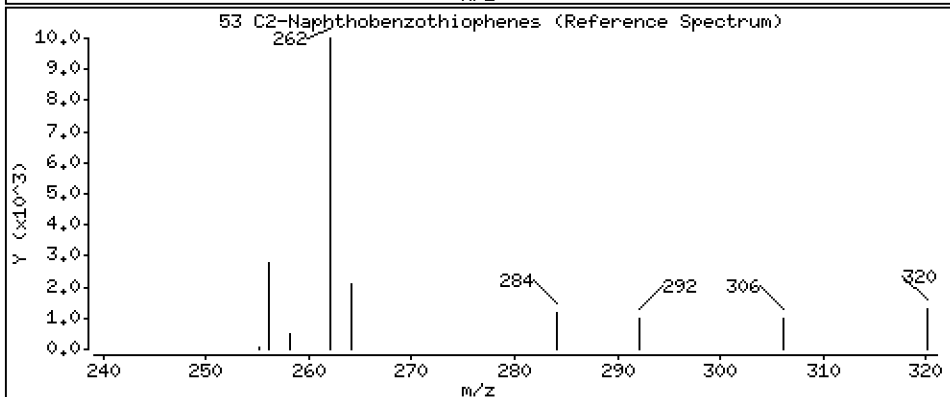
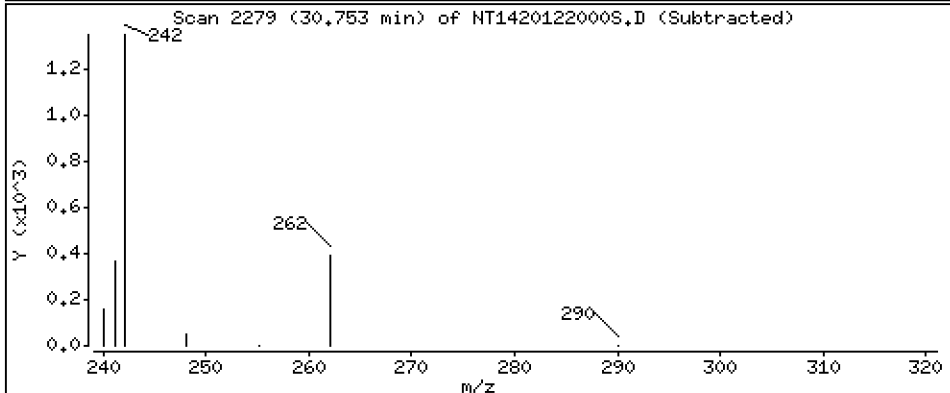
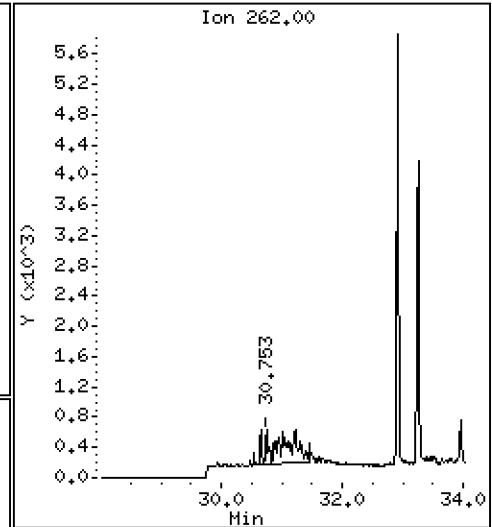
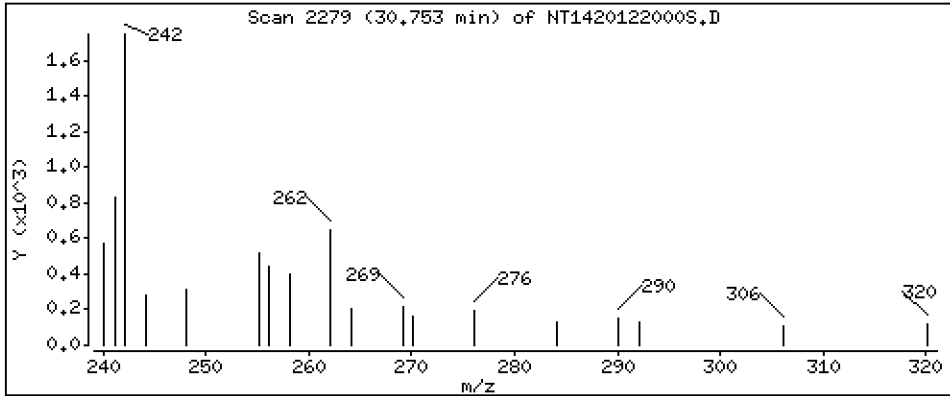
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

53 C2-Naphthobenzothiophenes

Concentration: 0,06930 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

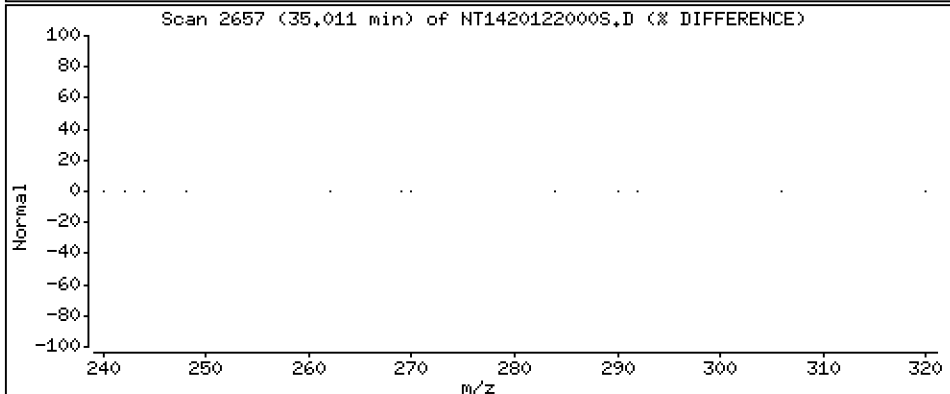
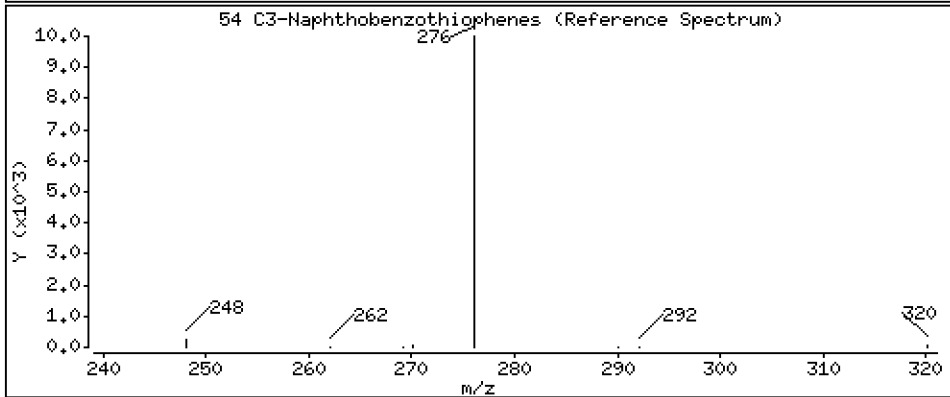
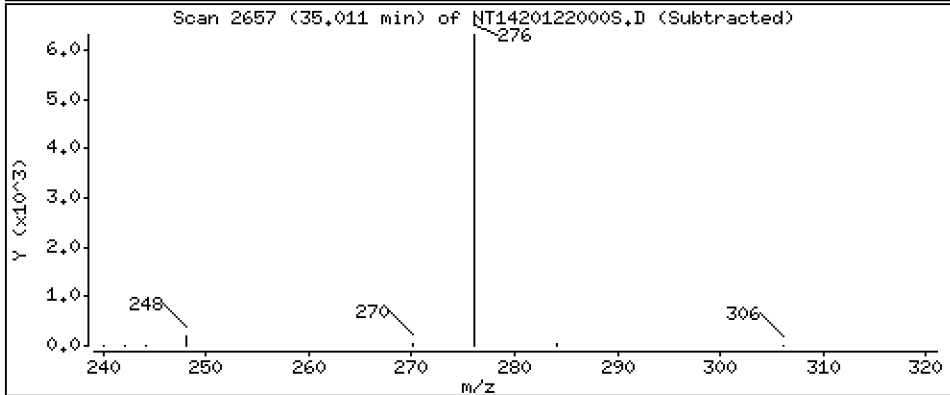
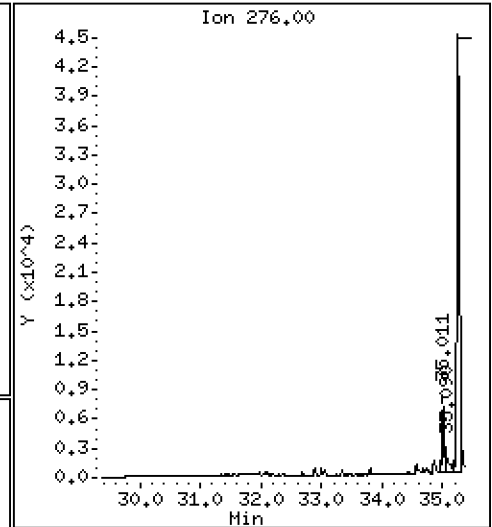
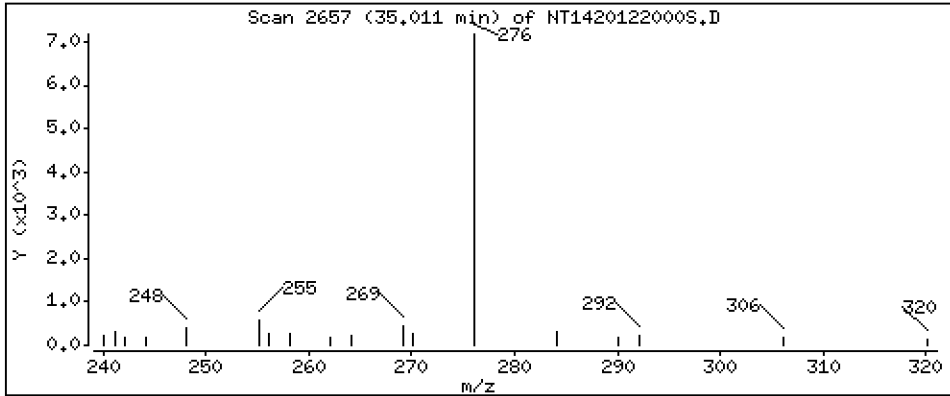
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

54 C3-Naphthobenzothiophenes

Concentration: 0,1135 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

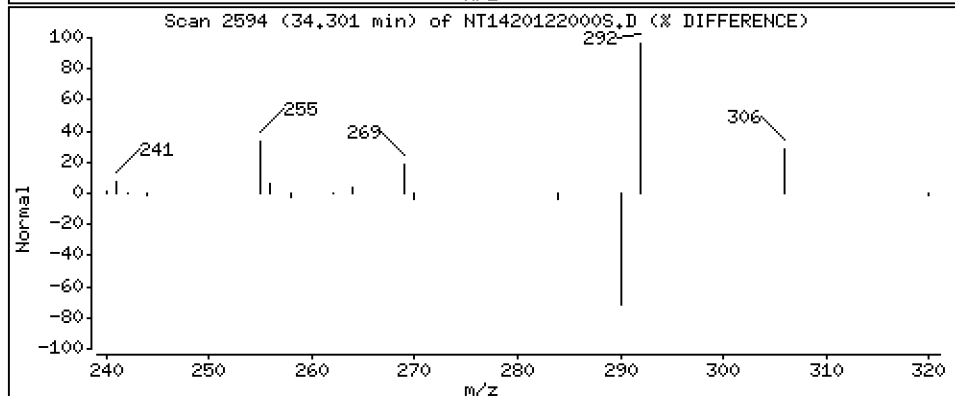
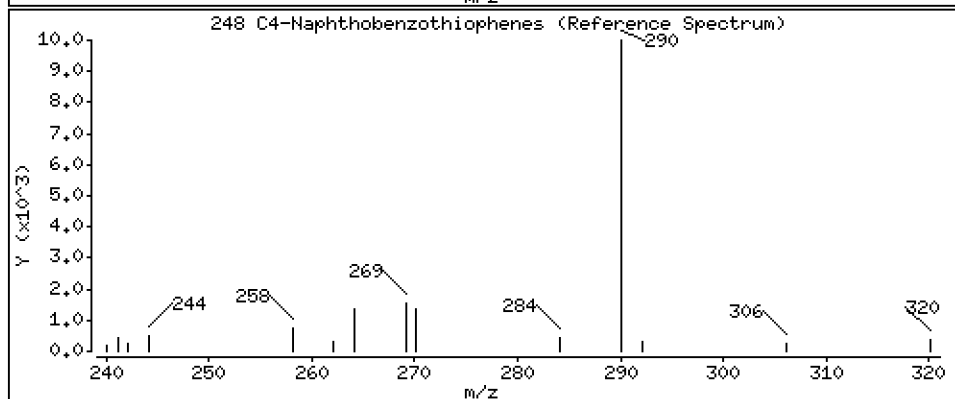
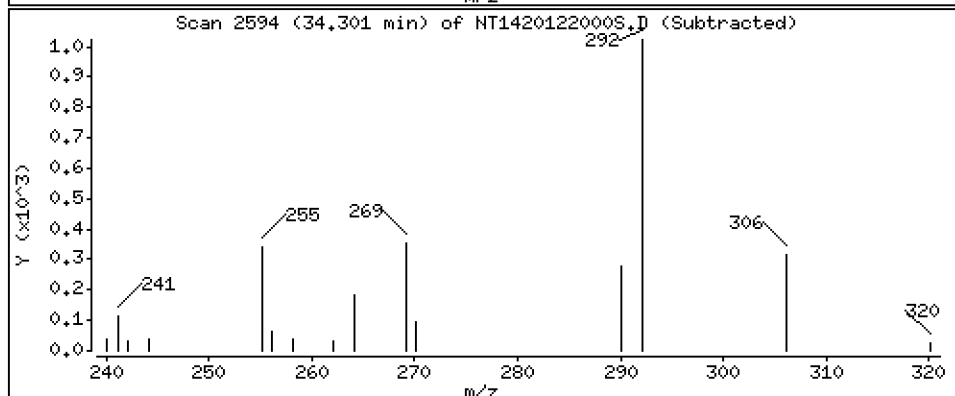
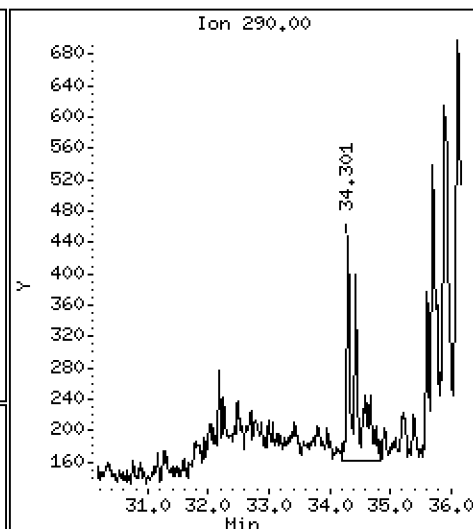
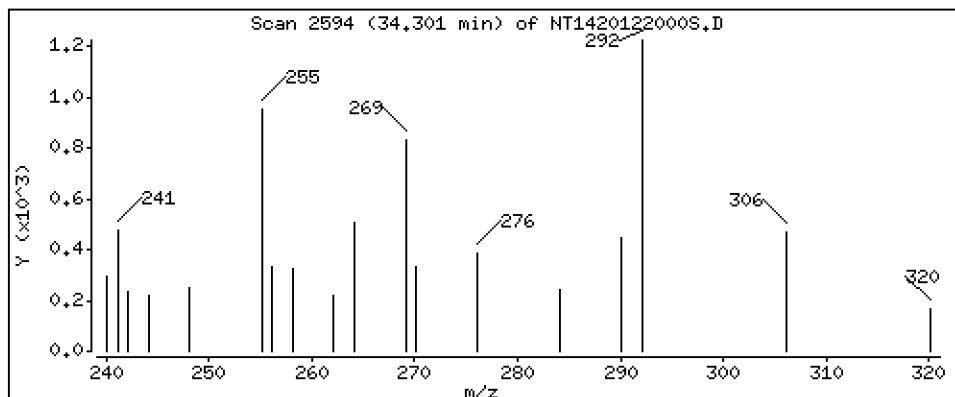
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

248 C4-Naphthobenzothiophenes

Concentration: 0,01722 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

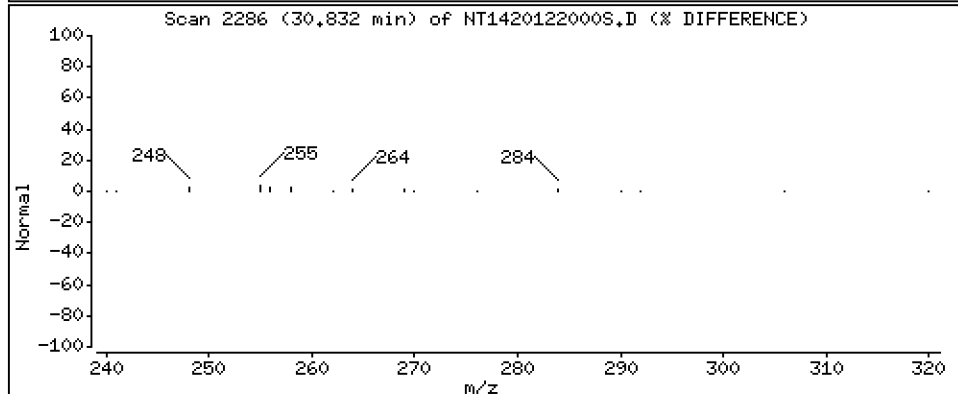
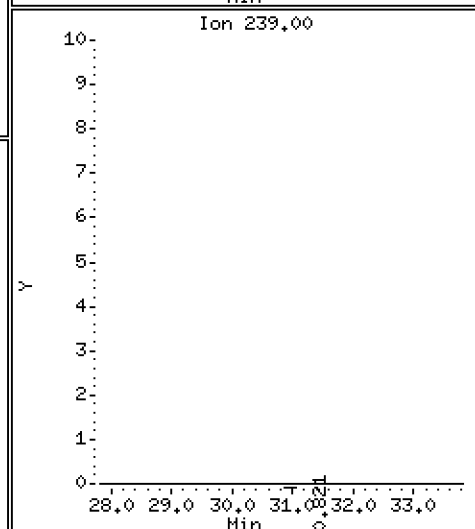
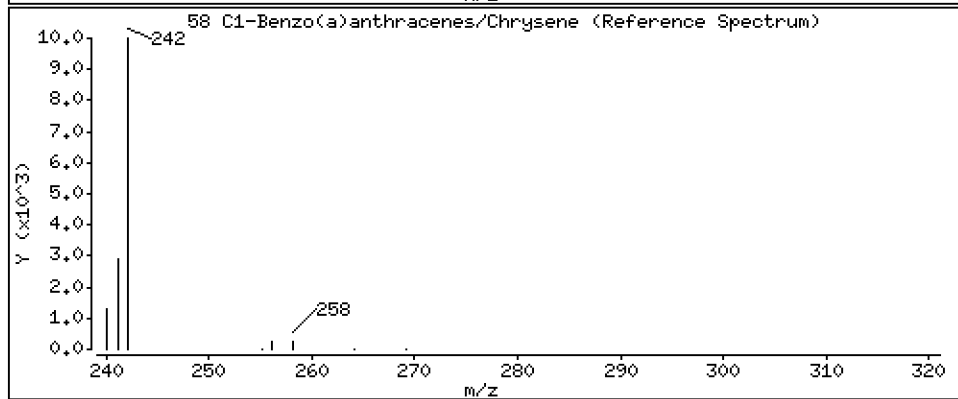
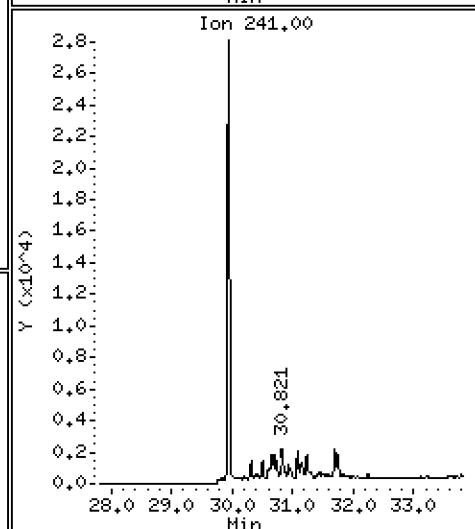
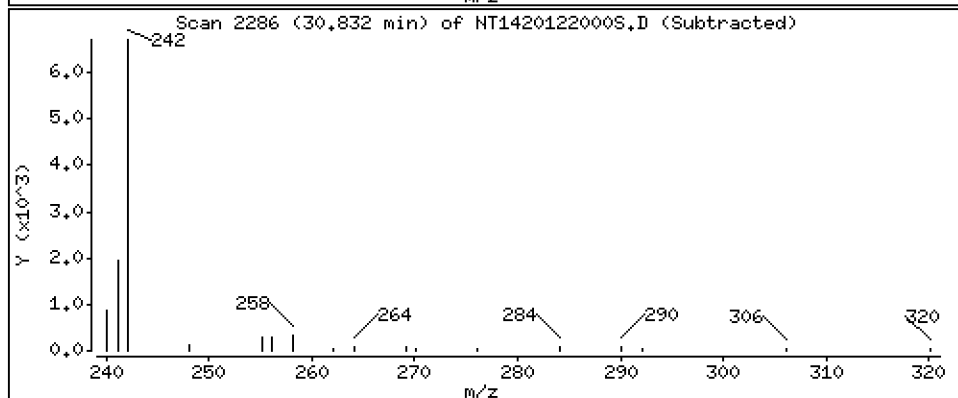
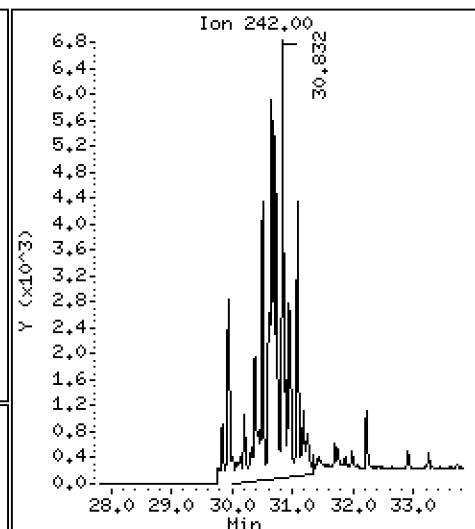
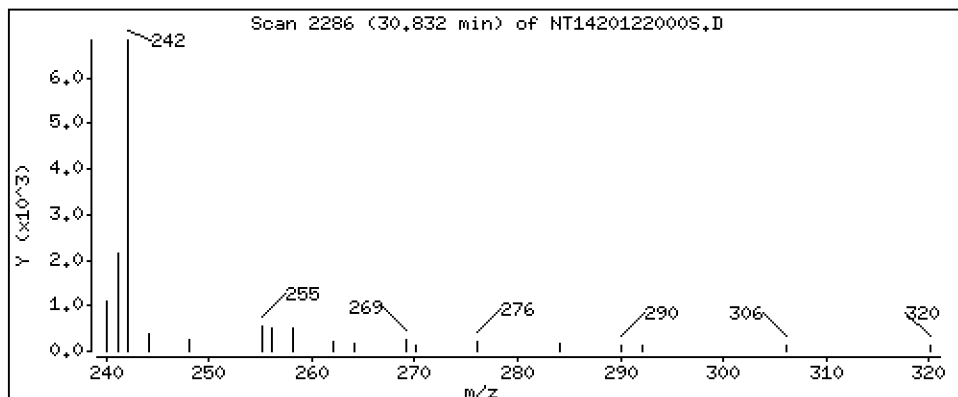
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

58 C1-Benzo(a)anthracenes/Chrysene

Concentration: 0,6942 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

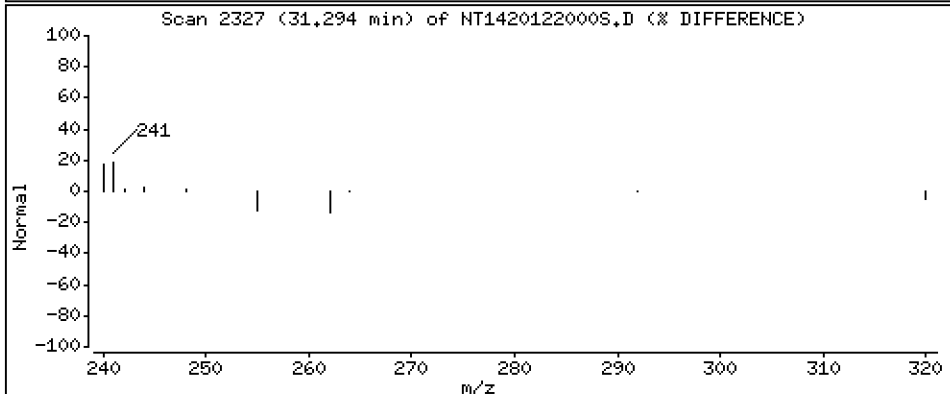
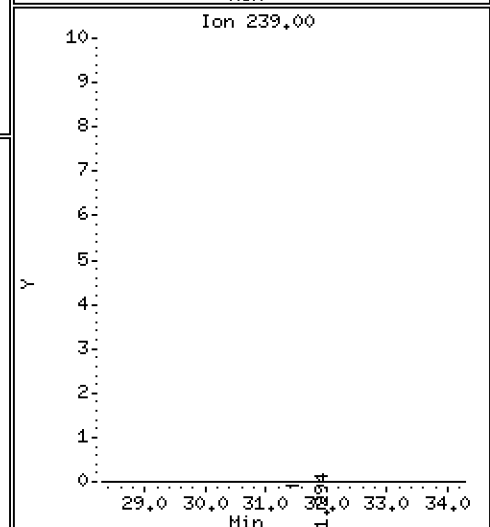
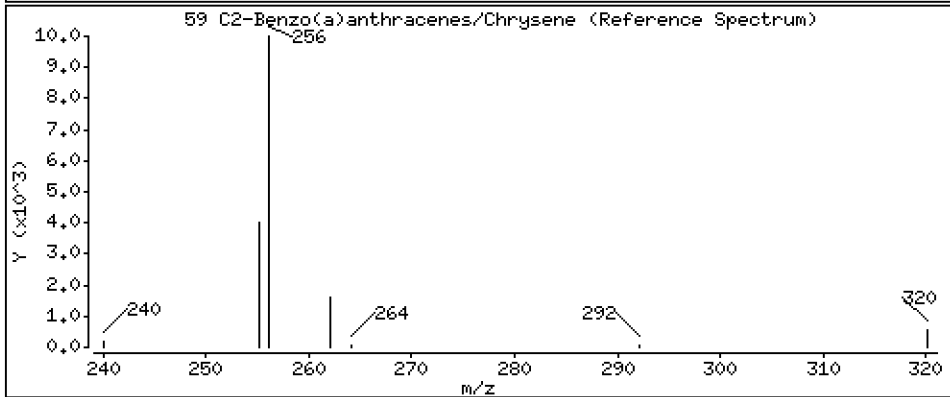
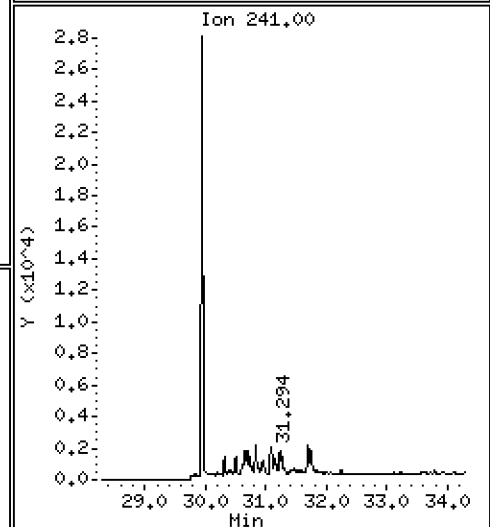
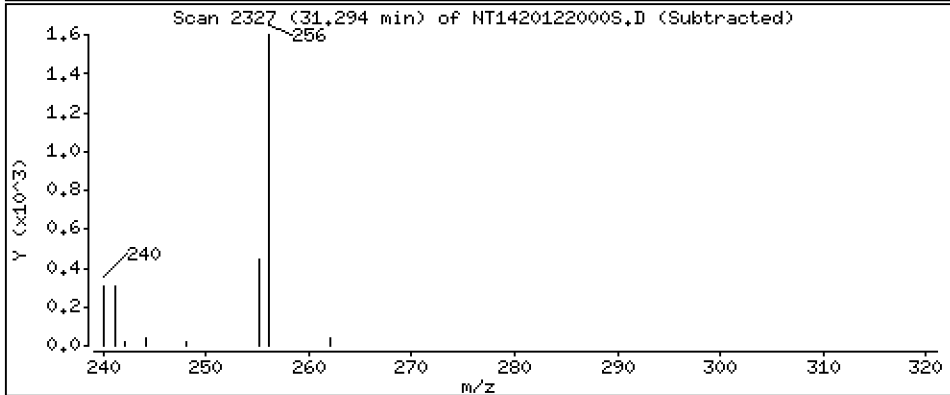
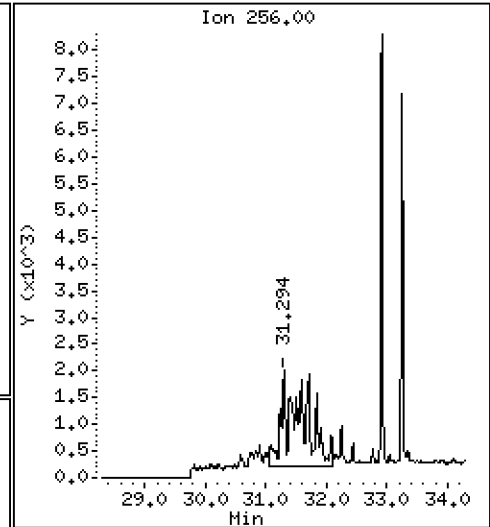
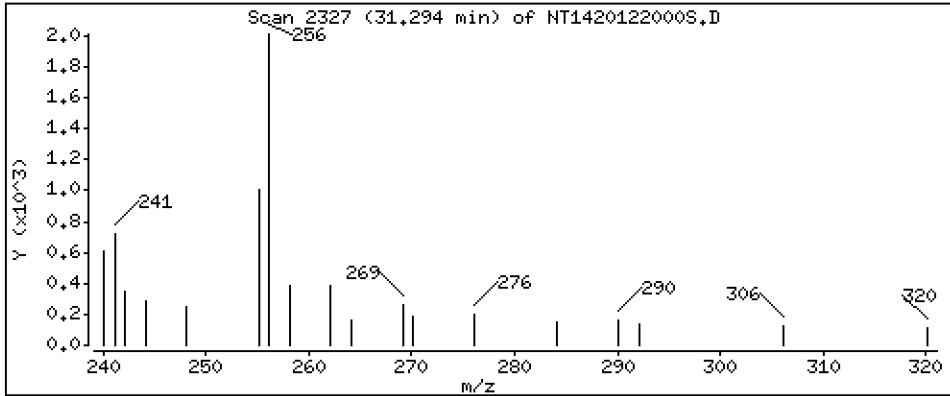
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

59 C2-Benzo(a)anthracenes/Chrysene

Concentration: 0,2609 ug/mL





Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

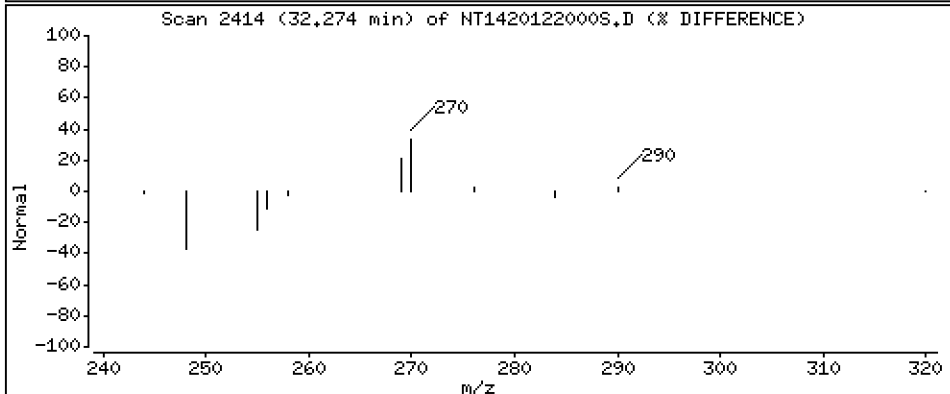
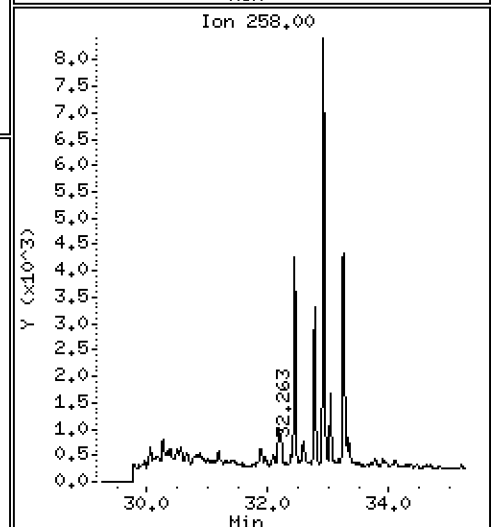
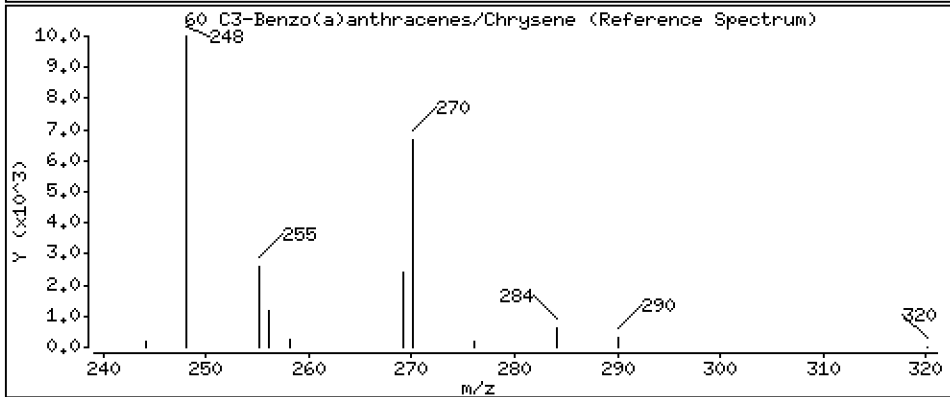
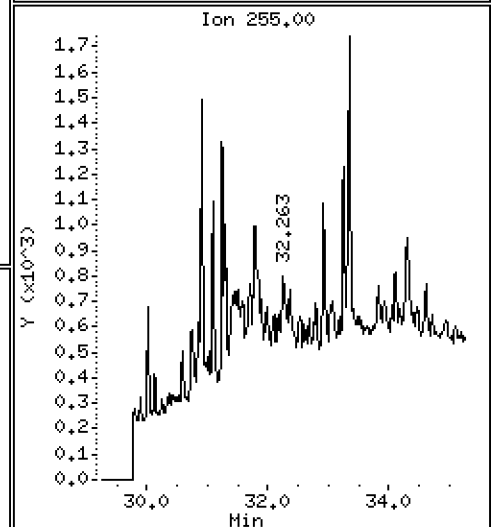
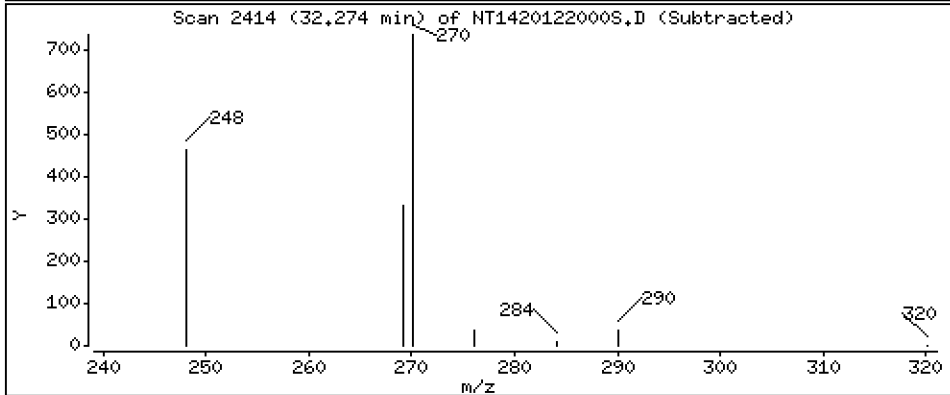
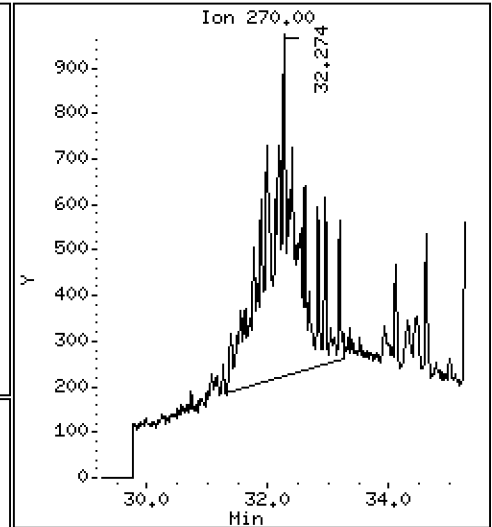
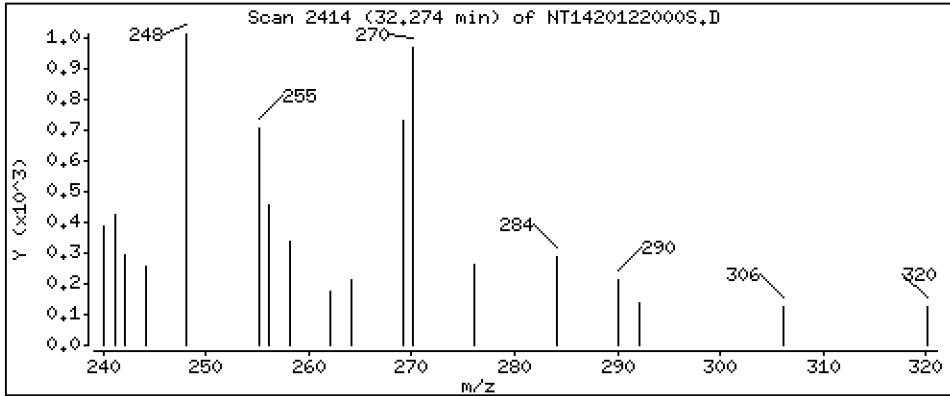
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

60 C3-Benzo(a)anthracenes/Chrysene

Concentration: 0,1493 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

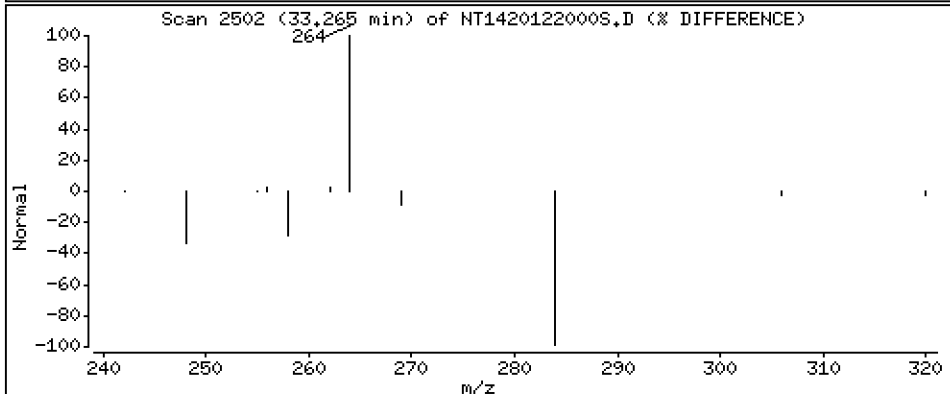
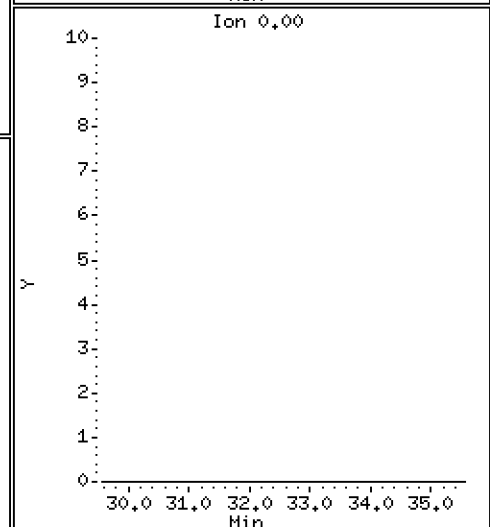
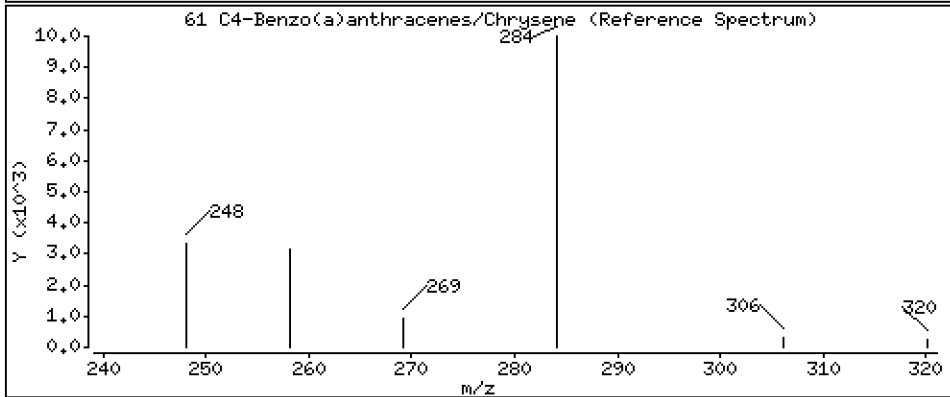
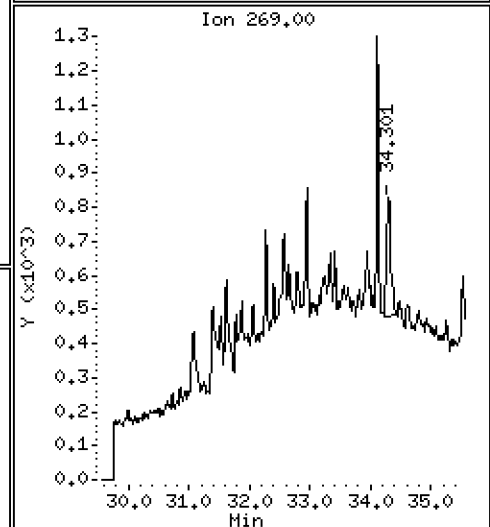
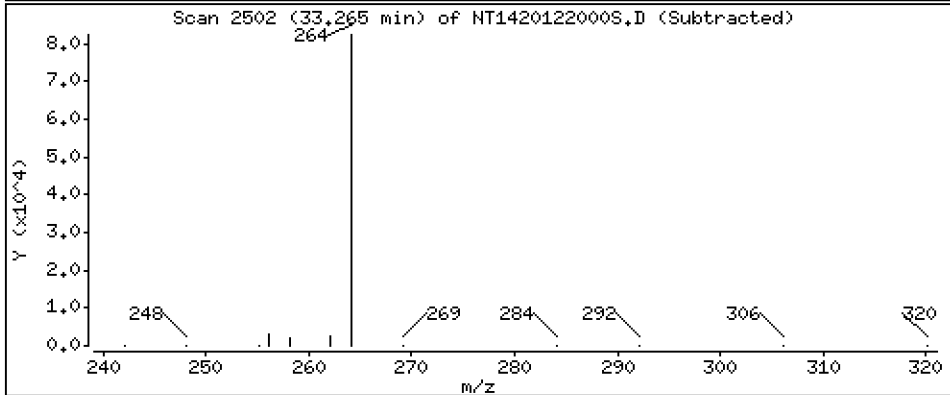
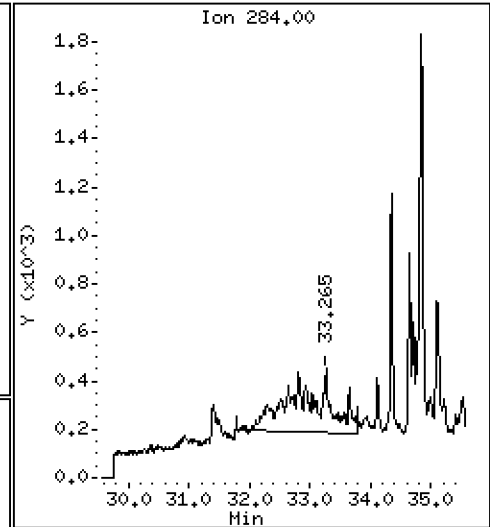
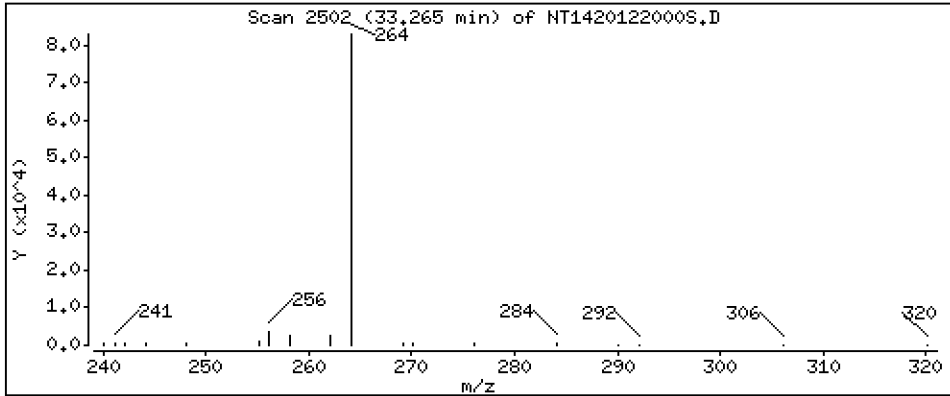
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

61 C4-Benzo(a)anthracenes/Chrysene

Concentration: 0,06568 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

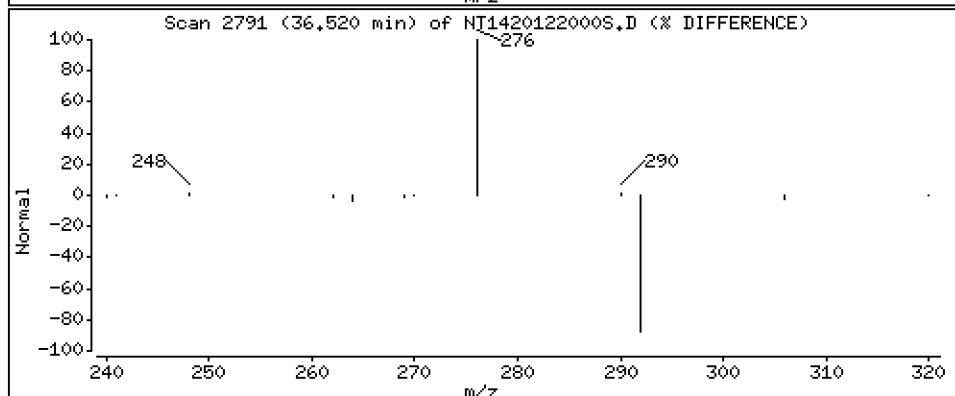
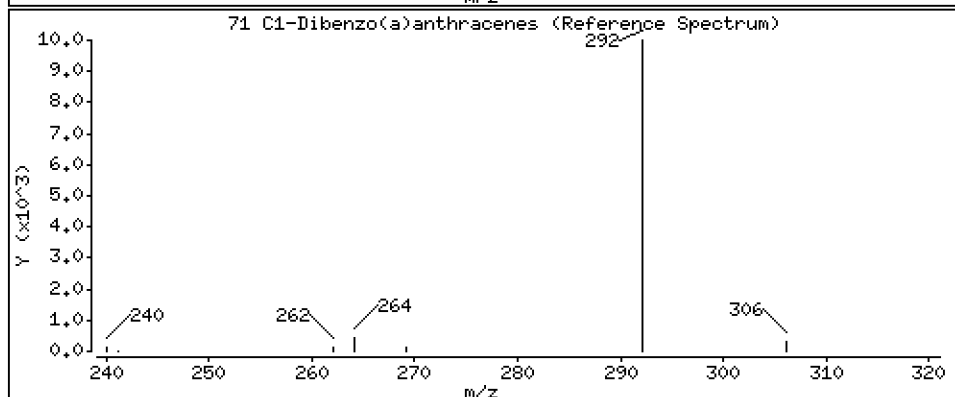
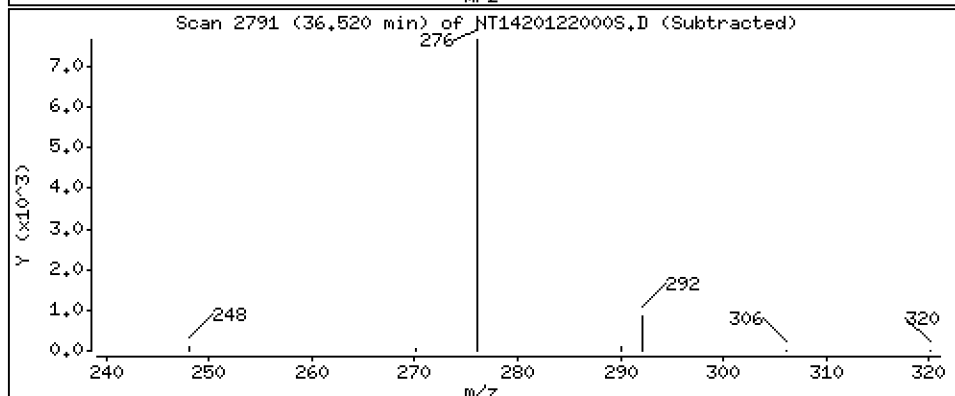
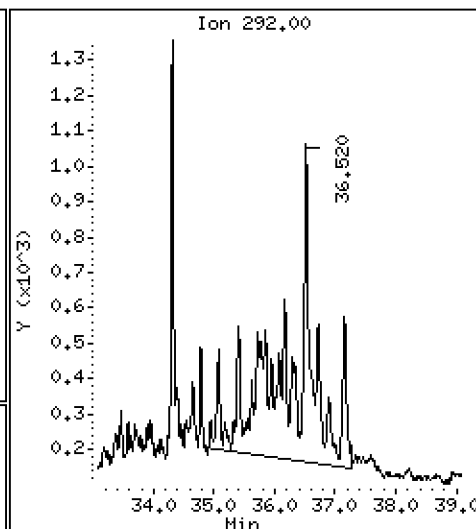
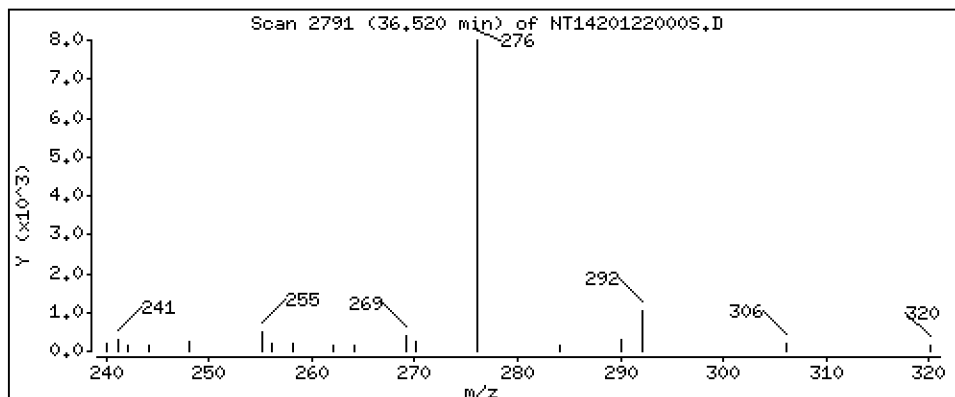
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

71 C1-Dibenzo(a)anthracenes

Concentration: 0,1435 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

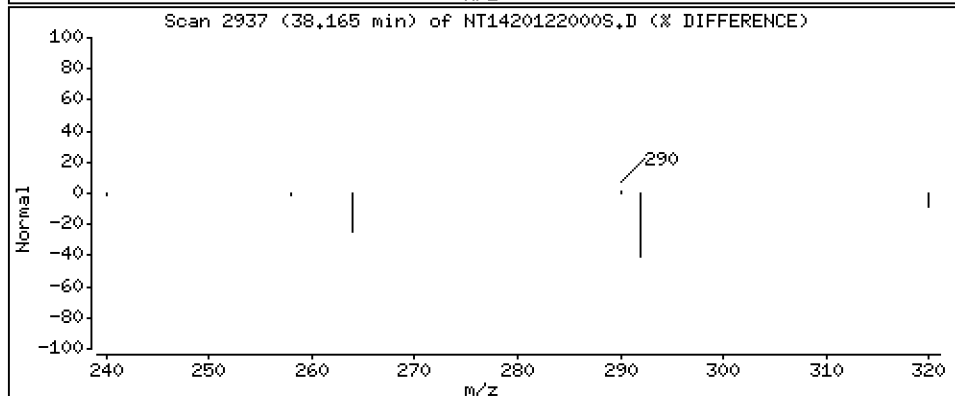
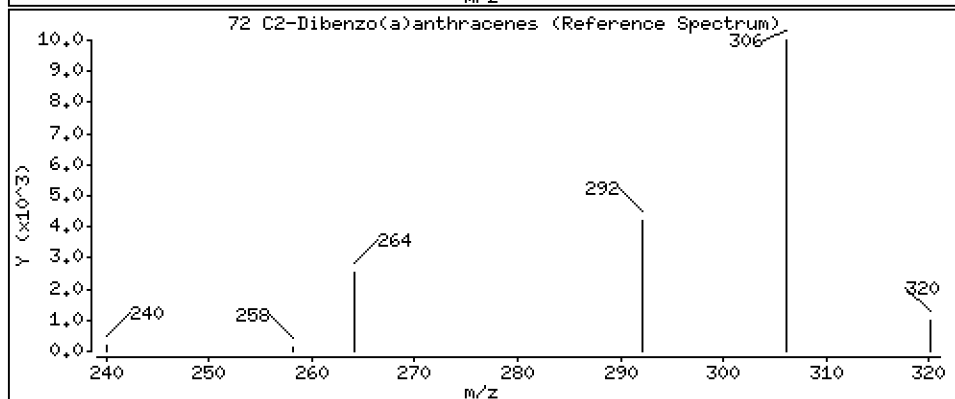
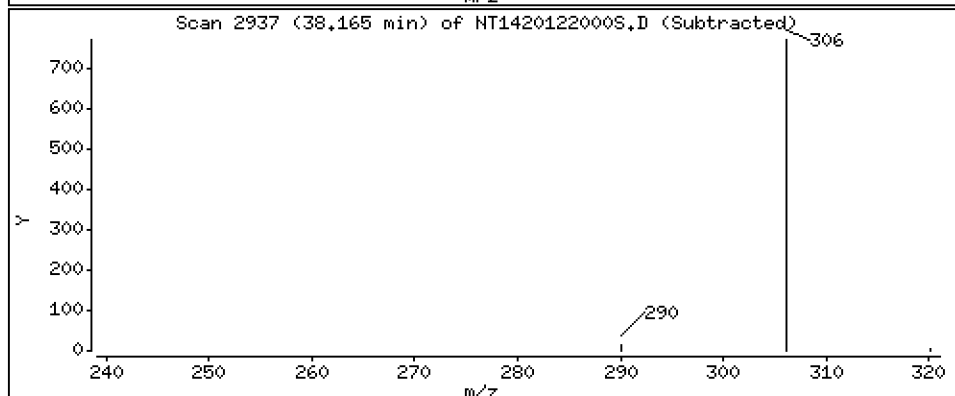
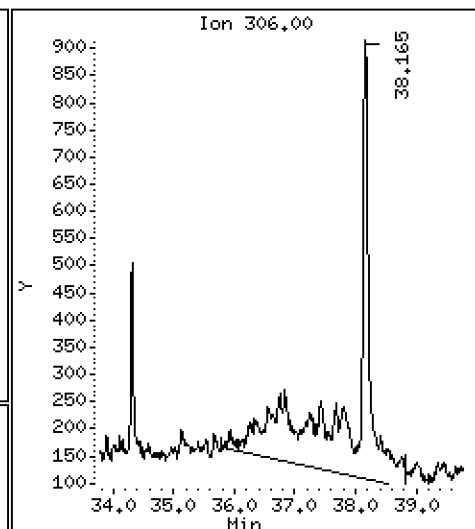
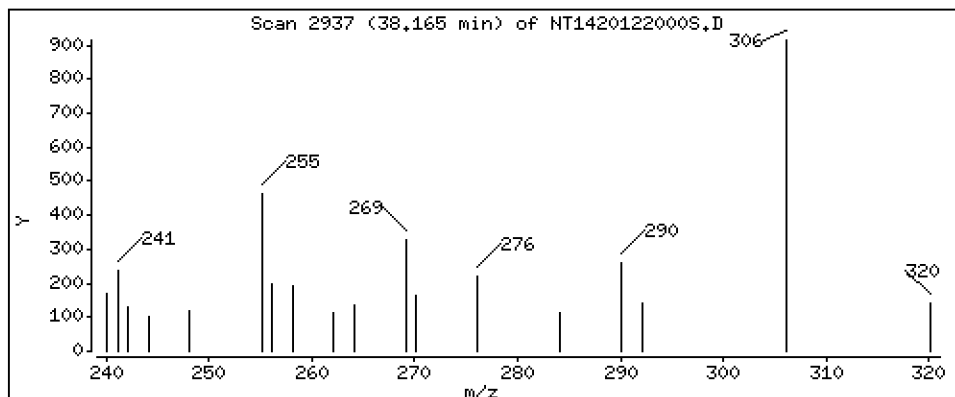
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

72 C2-Dibenzo(a)anthracenes

Concentration: 0,08841 ug/mL



Date : 22-DEC-2020 17:07

Client ID:

Instrument: nt14.i

Sample Info: 20K0204-07

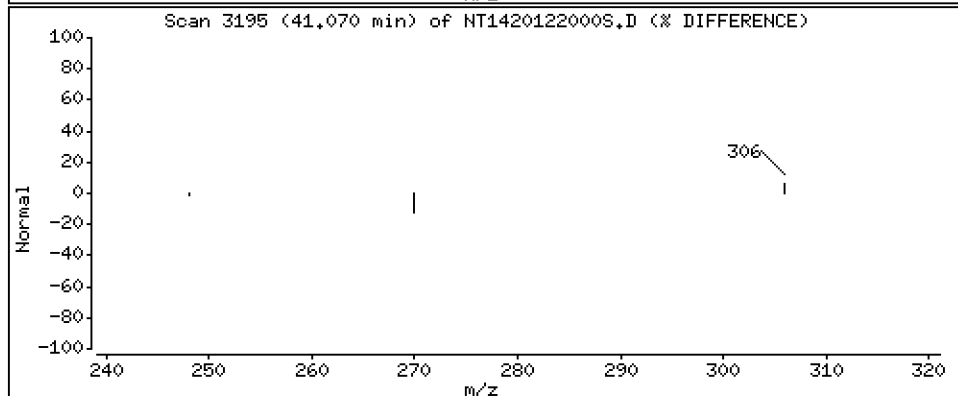
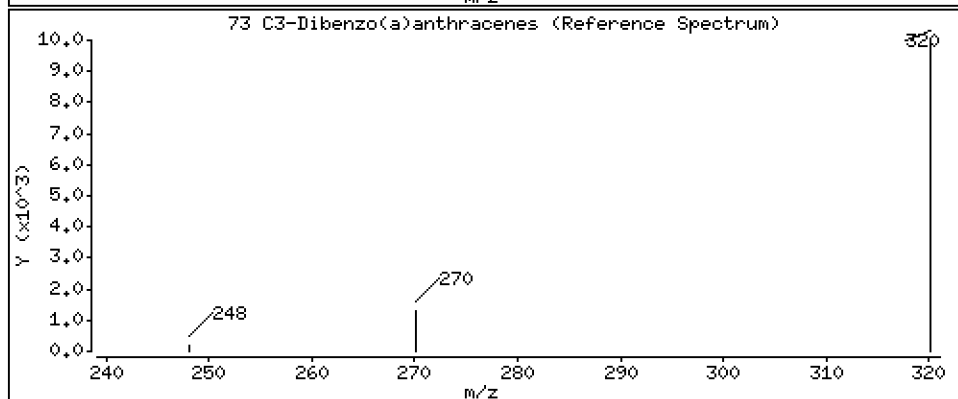
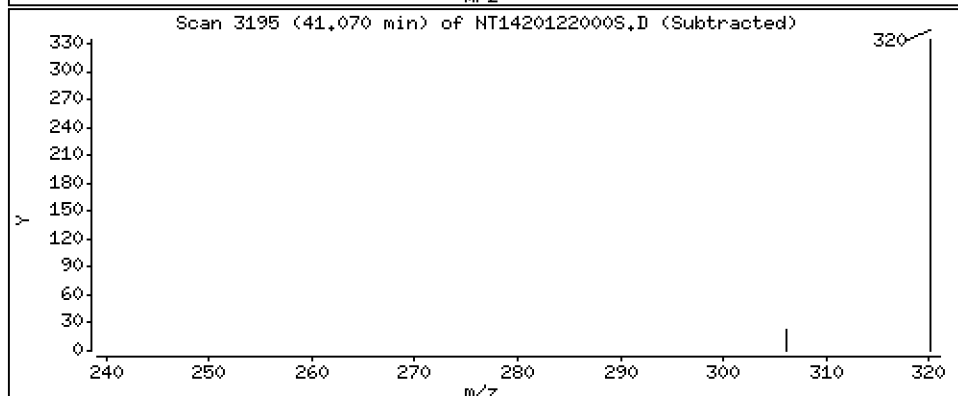
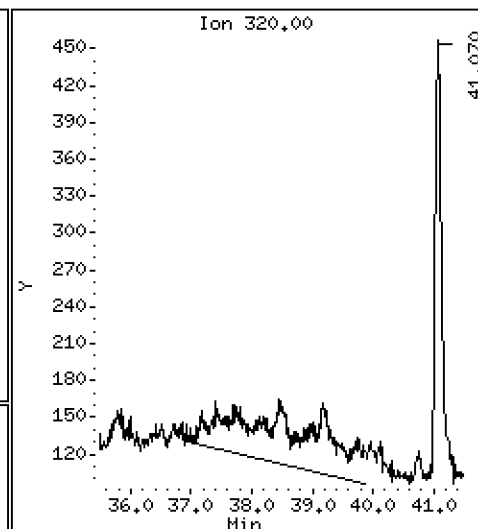
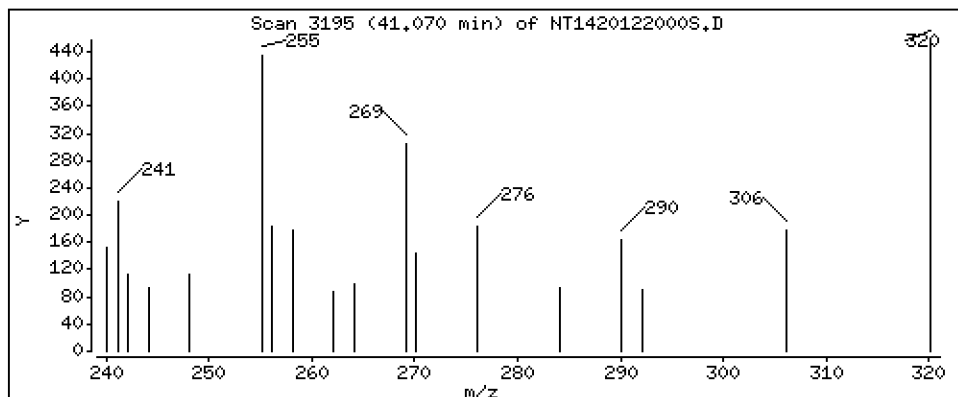
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

73 C3-Dibenzo(a)anthracenes

Concentration: 0,05155 ug/mL



ARI Labs, Inc.

Semivolatle Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20201219.b\SIM.b\NT1420122000S.D  
Lab Smp Id: 20K0204-07  
Inj Date : 22-DEC-2020 17:07  
Operator : VTS  
Smp Info : 20K0204-07  
Misc Info :  
Comment : 1ul Injection  
Method : \\target\share\chem3\nt14.i\20201219.b\SIM.b\ALKYLRANGE.m  
Meth Date : 31-Dec-2020 11:16 yev  
Cal Date : 17-OCT-2020 17:58  
Als bottle: 86  
Dil Factor: 1.00000  
Integrator: HP RTE  
Target Version: 4.14  
Processing Host: ORGDATA102

Inst ID: nt14.i

Quant Type: ISTD  
Cal File: NT1420101709S.D

Compound Sublist: ALKYLRANGES.sub

Compounds	QUANT SIG	CONCENTRATIONS					
		MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)
3 C1-Decalin	152	Compound Not Detected.					
4 C2-Decalin	166	8.893	9.000	(0.478)	2930	0.37558	0.3756 (M)
5 C3-Decalin	180	10.204	11.000	(0.549)	1678	0.21509	0.2151 (M)
247 C4-Decalin	194	11.719	12.000	(0.630)	2660	0.34097	0.3410 (M)
8 C1-Naphthalenes	142	13.500	13.522	(0.726)	25801	0.25478	0.2548 (M)
9 C2-Naphthalenes	156	15.621	15.225	(0.840)	39935	0.39436	0.3944 (M)
10 C3-Naphthalenes	170	17.148	17.797	(0.922)	56193	0.55491	0.5549 (M)
11 C4-Naphthalenes	184	19.178	19.190	(1.031)	47213	0.46623	0.4662 (M)
13 C1-Benzothiophenes	148	13.642	13.950	(0.733)	7216	0.08555	0.08555 (M)
14 C2-Benzothiophenes	162	15.247	15.544	(0.820)	24152	0.28634	0.2863 (M)
15 C3_Benzothiophenes	176	Compound Not Detected.					
27 C1-Fluorenes	180	20.244	20.142	(1.088)	29301	0.35561	0.3556 (M)
28 C2-Fluorenes	194	21.752	22.162	(1.169)	26632	0.32322	0.3232 (M)
29 C3-Fluorenes	208	23.119	23.339	(1.243)	23560	0.28593	0.2859 (M)
31 C1-Dibenzothiophenes	198	22.745	22.756	(1.223)	36579	0.30846	0.3085 (M)
* 25 Fluorene-d10	176	18.600	18.611	(1.000)	248067	2.00000	
32 C2-Dibenzothiophenes	212	24.163	24.174	(1.299)	30959	0.26107	0.2611 (M)
33 C3-Dibenzothiophenes	226	25.053	25.065	(1.347)	21191	0.17870	0.1787 (M)
34 C4-Dibenzothiophenes	240	27.373	26.186	(1.472)	13435	0.11329	0.1133 (M)
38 C1-Phenanthrenes/Anthracenes	192	23.393	23.844	(1.061)	212024	1.50589	1.506 (M)
39 C2-Phenanthrenes/Anthracenes	206	25.163	25.032	(1.142)	114557	0.81364	0.8136 (M)
40 C3-Phenanthrenes/Anthracenes	220	26.109	26.692	(1.185)	76780	0.54533	0.5453 (M)
41 C4-Phenanthrenes/Anthracenes	234	26.615	27.592	(1.208)	23043	0.16366	0.1637 (M)
48 C1-Fluoranthenes/Pyrenes	216	27.471	27.395	(1.246)	194924	1.23278	1.233 (M)
* 250 Anthracene-d10	188	22.041	22.052	(1.000)	258695	2.00000	
49 C2-Fluoranthenes/Pyrenes	230	28.863	28.644	(1.309)	66156	0.41840	0.4184 (M)
50 C3-Fluoranthenes/Pyrenes	244	29.674	29.663	(1.346)	41334	0.26141	0.2614 (M)
249 C4-Fluoranthenes/Pyrenes	258	32.915	32.431	(1.493)	49645	0.31398	0.3140 (M)
52 C1-Naphthobenzothiophenes	248	29.919	29.920	(1.357)	24956	0.16409	0.1641 (M)
53 C2-Naphthobenzothiophenes	262	30.753	31.035	(1.395)	10540	0.06930	0.06930 (M)
54 C3-Naphthobenzothiophenes	276	35.010	32.375	(1.588)	17265	0.11352	0.1135
248 C4-Naphthobenzothiophenes	290	34.301	33.175	(1.556)	2619	0.01722	0.01722 (M)
58 C1-Benzo(a)anthracenes/Chrysen	242	30.832	30.821	(0.937)	111934	0.69424	0.6942 (M)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	32.915	32.915	(1.000)	375768	2.00000	
59 C2-Benzo(a)anthracenes/Chrysen	256	31.293	31.294	(0.951)	42058	0.26085	0.2609 (M)
60 C3-Benzo(a)anthracenes/Chrysen	270	32.273	32.262	(0.980)	24073	0.14931	0.1493 (M)
61 C4-Benzo(a)anthracenes/Chrysen	284	33.265	32.566	(1.011)	10589	0.06568	0.06568 (M)
71 C1-Dibenzo(a)anthracenes	292	36.520	36.081	(1.109)	24884	0.14354	0.1435 (M)
72 C2-Dibenzo(a)anthracenes	306	38.164	36.779	(1.159)	15326	0.08841	0.08841 (M)
73 C3-Dibenzo(a)anthracenes	320	41.070	38.491	(1.248)	8937	0.05155	0.05155 (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: NT1420122000S.D  
Lab Smp Id: 20K0204-07  
Analysis Type: SV  
Quant Type: ISTD  
Operator: VTS  
Method File: \\target\share\chem3\nt14.i\20201219.b\SIM.b\ALKYLRANGE.m  
Misc Info:

Calibration Date: 22-DEC-2020  
Calibration Time: 10:43  
Level:  
Sample Type:

Test Mode:  
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	258320	129160	516640	248067	-3.97
250 Anthracene-d10	266780	133390	533560	258695	-3.03
251 Benzo(e)pyrene-d1	401451	200726	802902	375768	-6.40

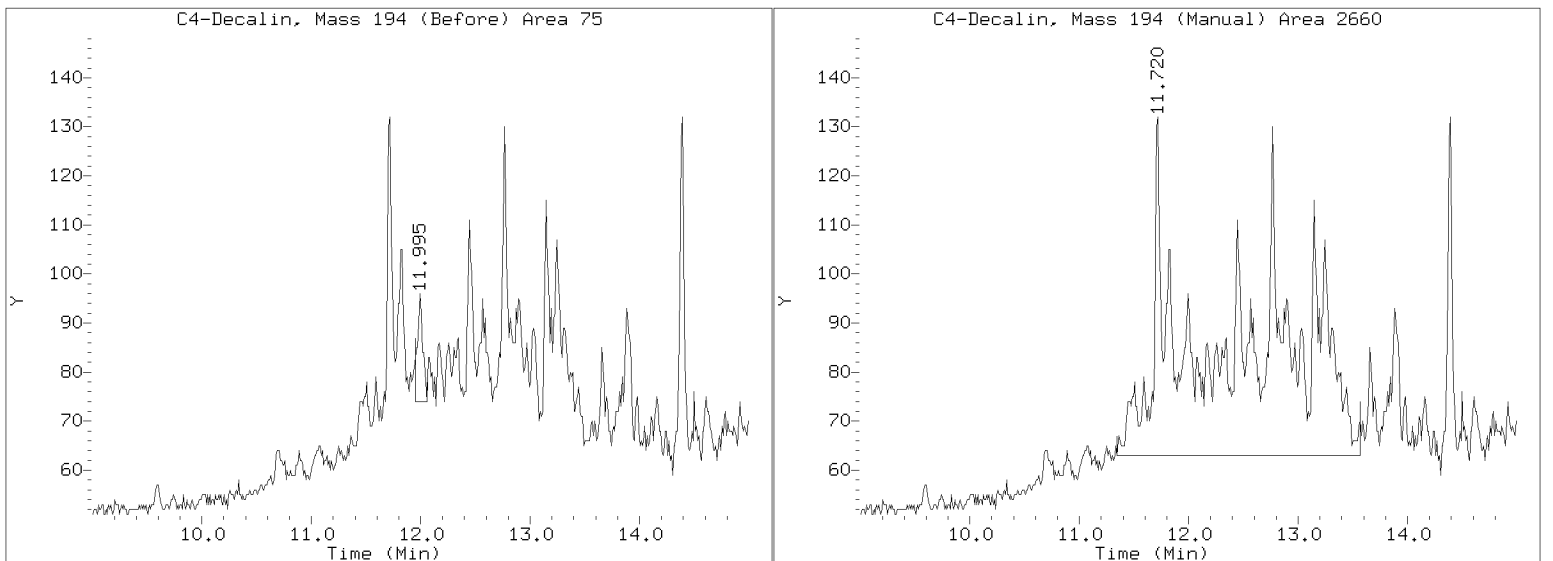
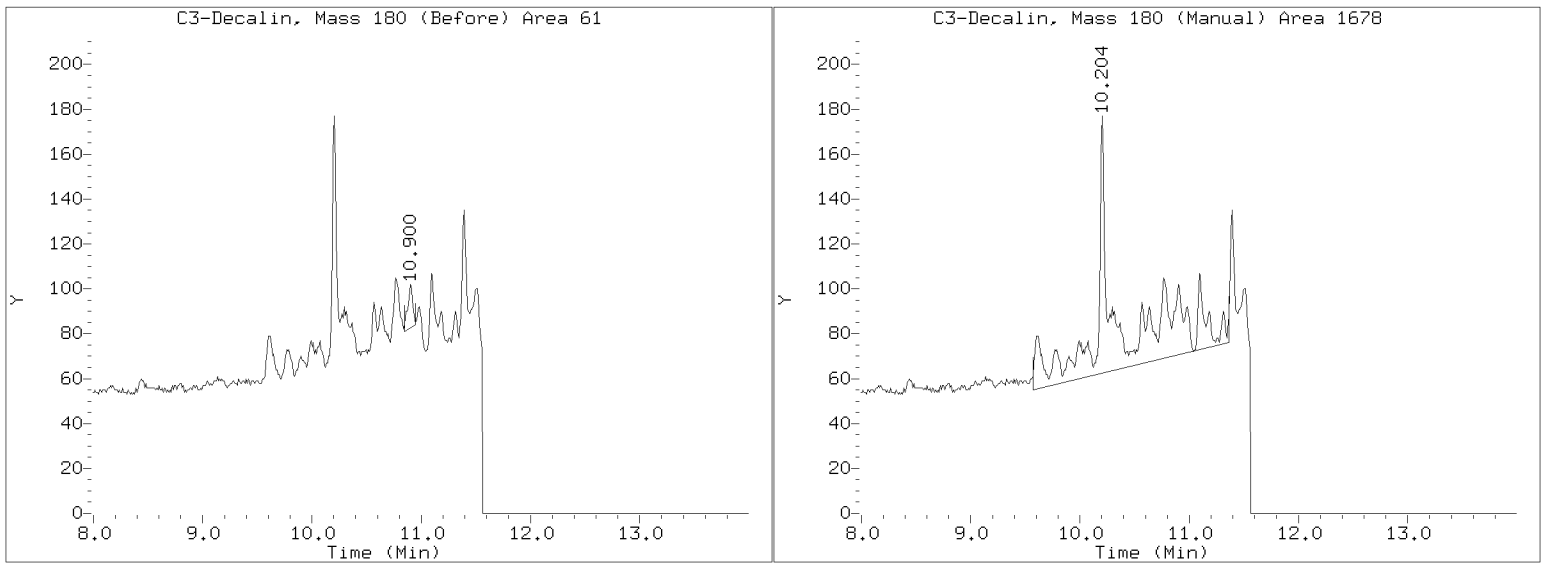
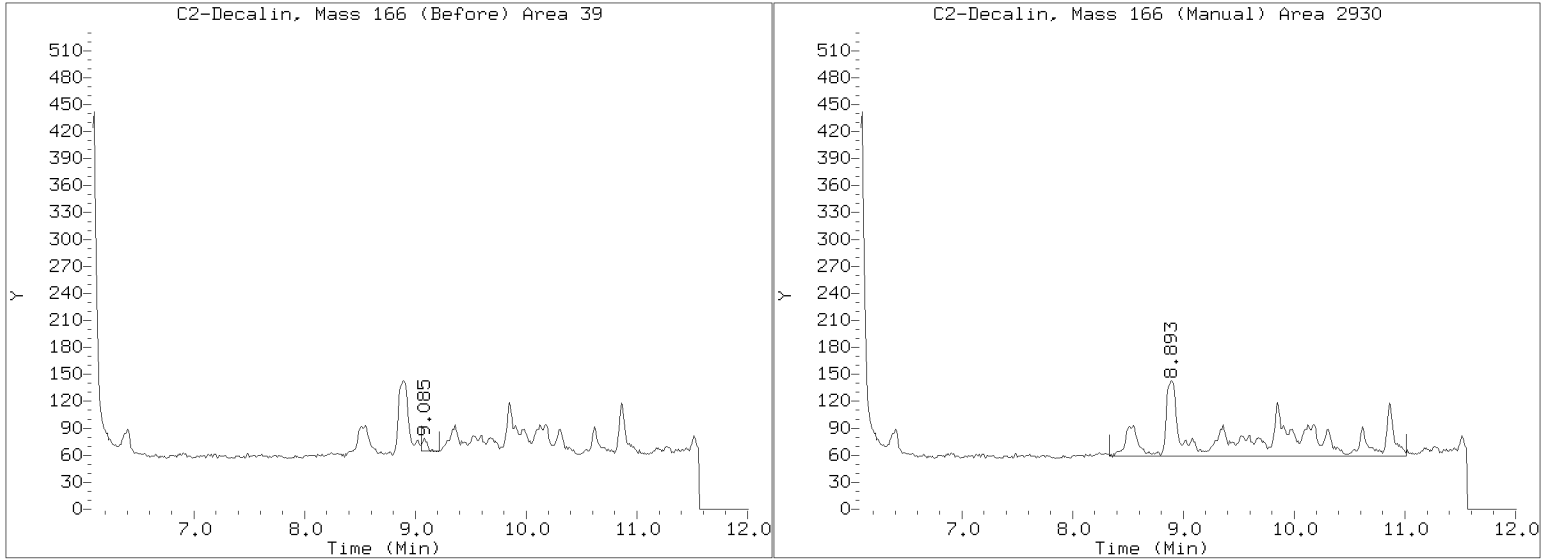
COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.61	18.11	19.11	18.60	-0.06
250 Anthracene-d10	22.05	21.55	22.55	22.04	-0.05
251 Benzo(e)pyrene-d1	32.92	32.42	33.42	32.92	-0.00

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.



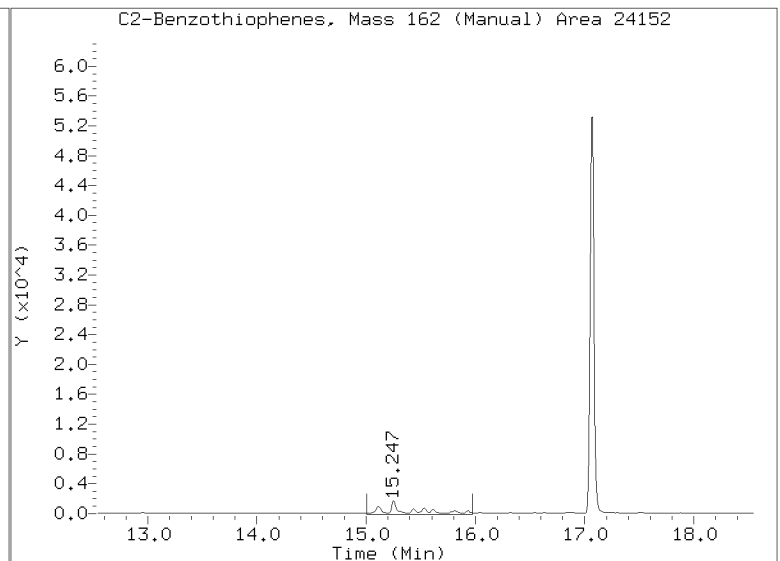
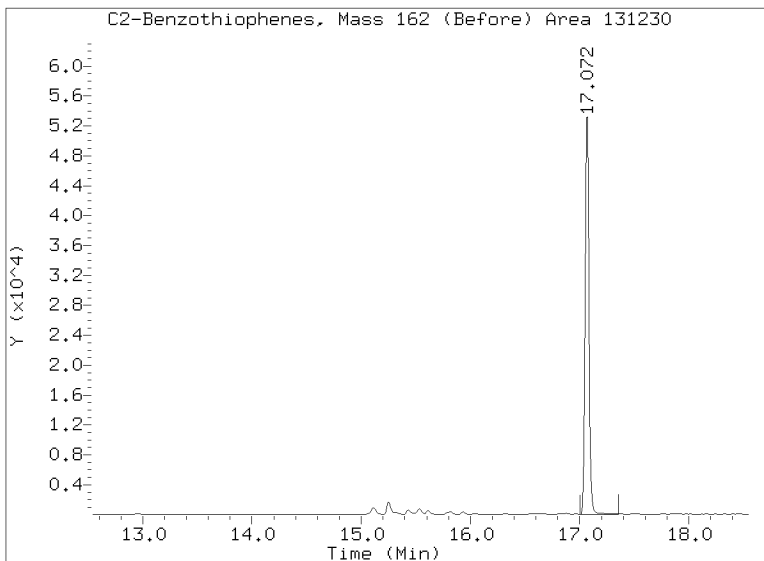
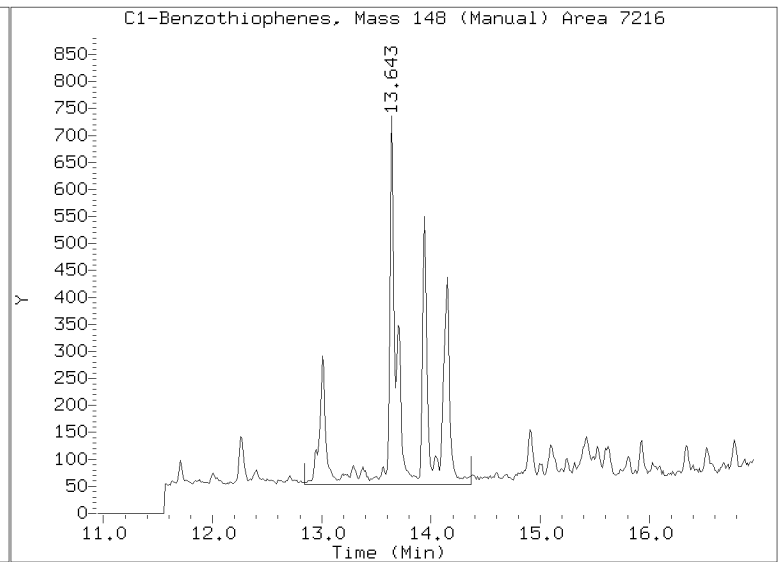
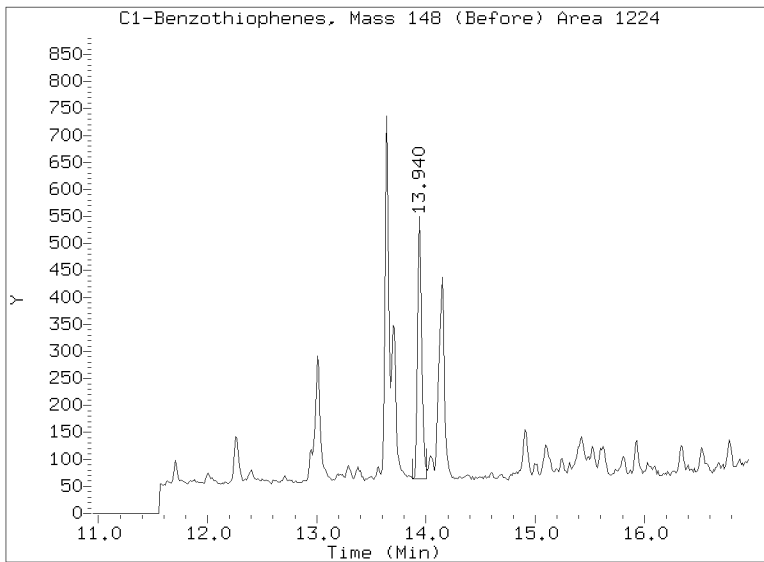
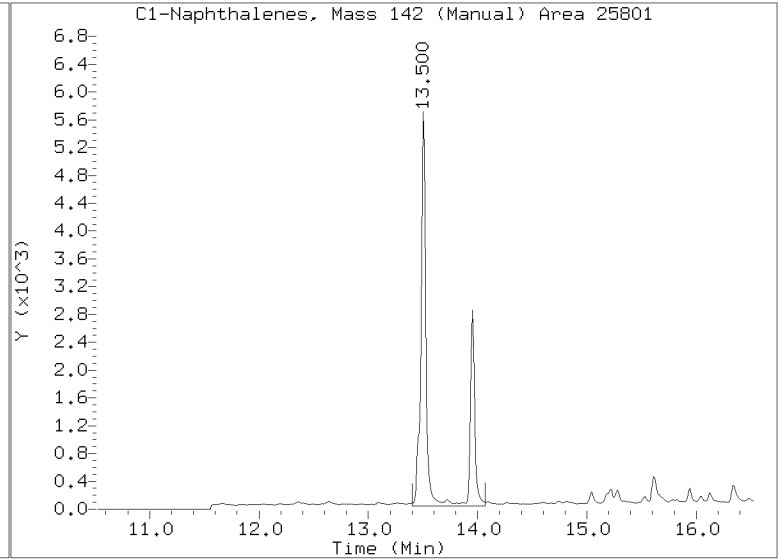
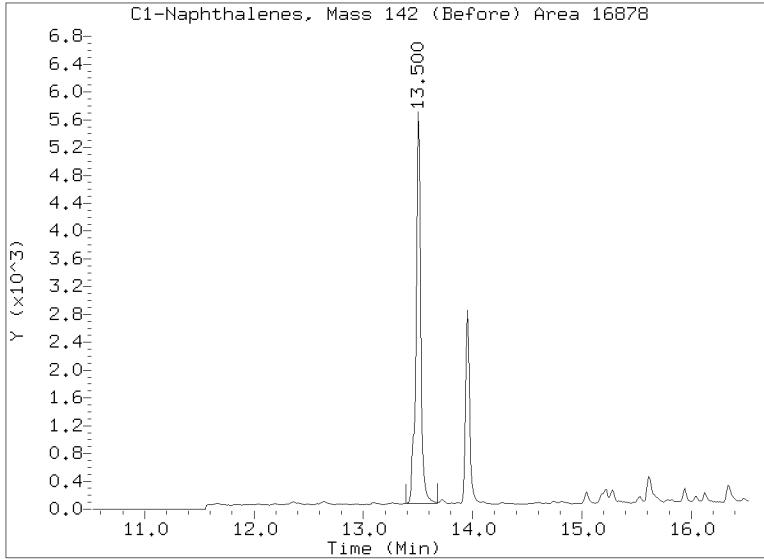
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Injection Date: 22-DEC-2020 17:07  
Lab ID:20K0204-07 Client ID:  
Report Date: 12/31/2020 11:17



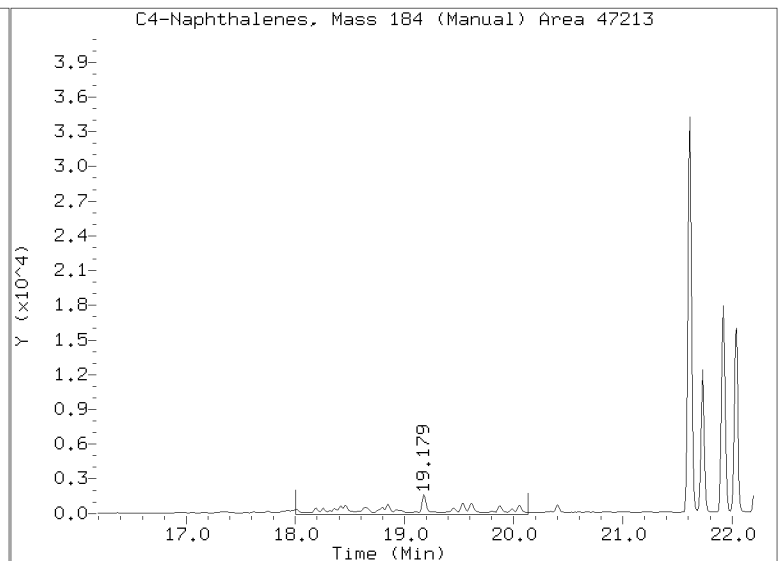
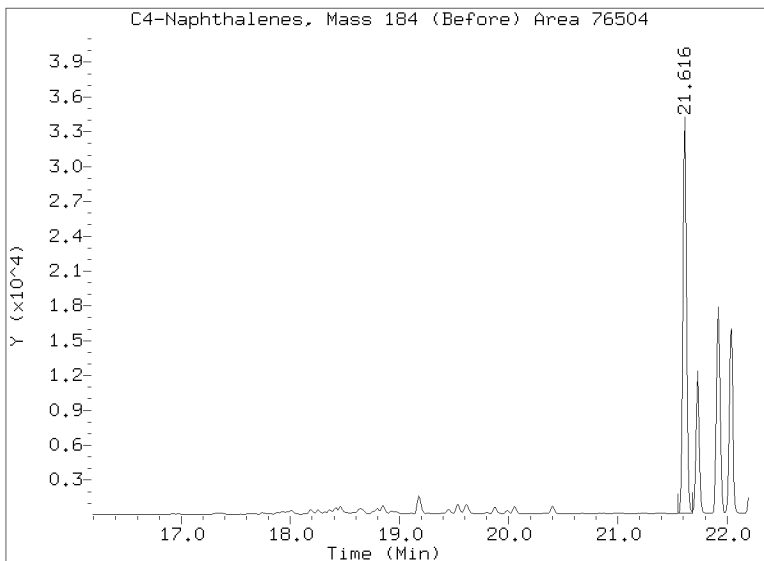
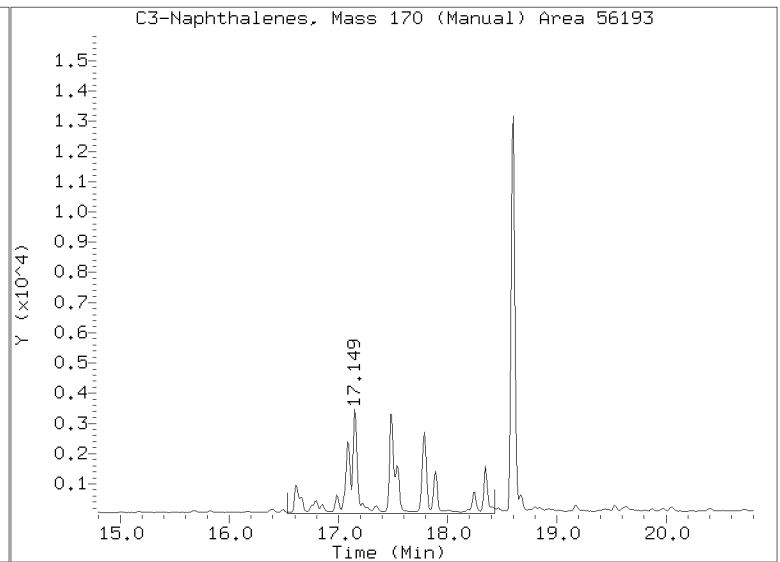
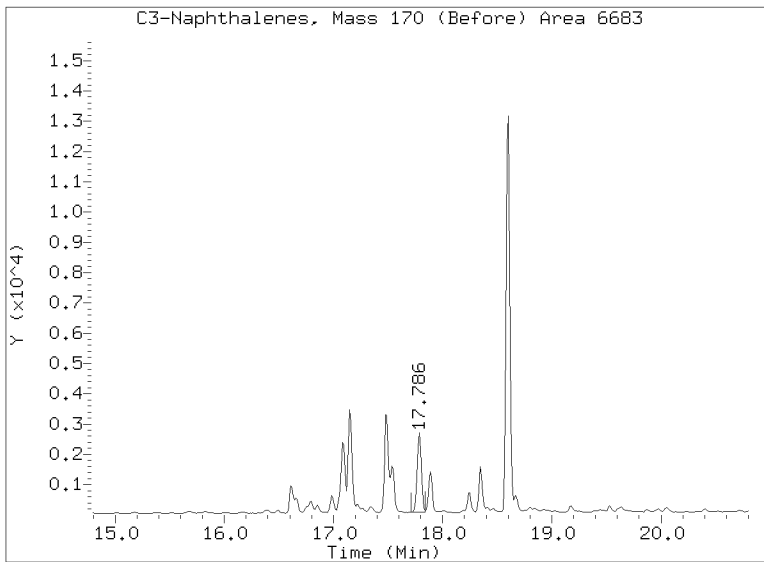
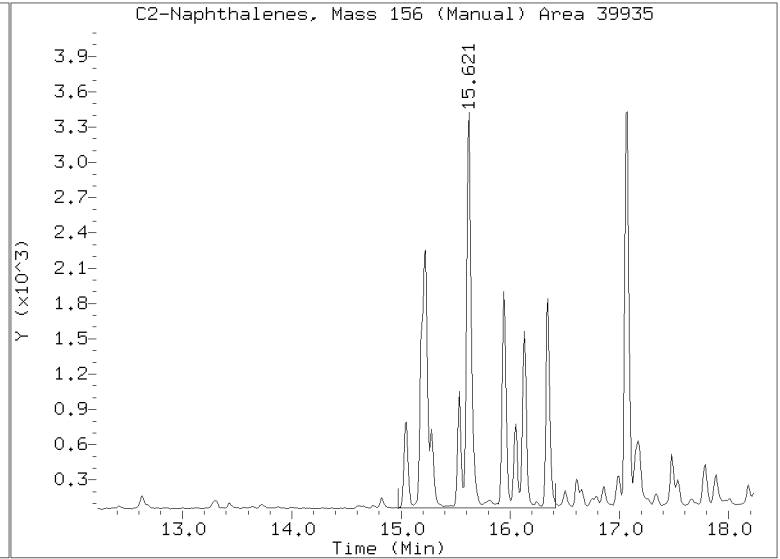
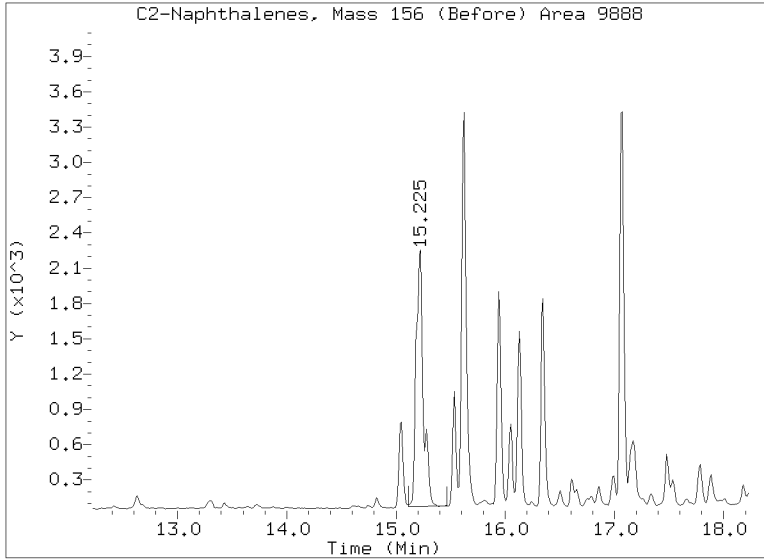
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Injection Date: 22-DEC-2020 17:07  
Lab ID:20K0204-07 Client ID:  
Report Date: 12/31/2020 11:17



# Quant Ion Manual Peak Adjustment Report

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Injection Date: 22-DEC-2020 17:07  
Lab ID:20K0204-07 Client ID:  
Report Date: 12/31/2020 11:17



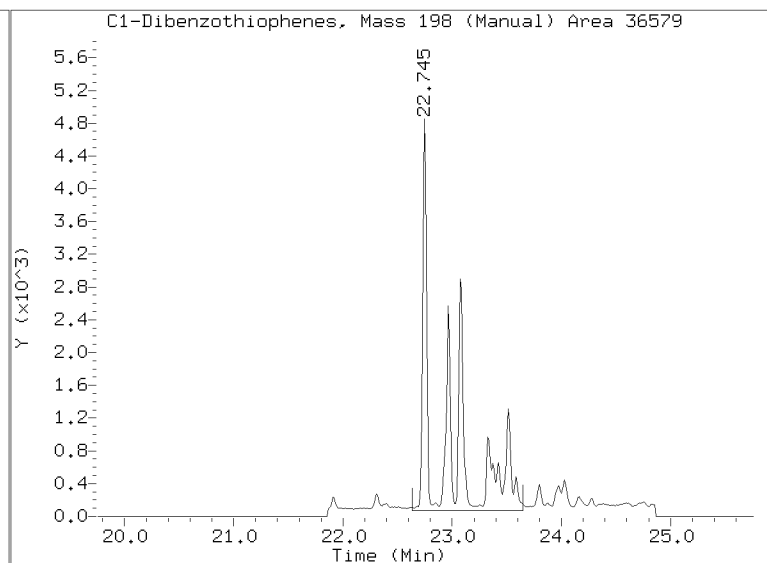
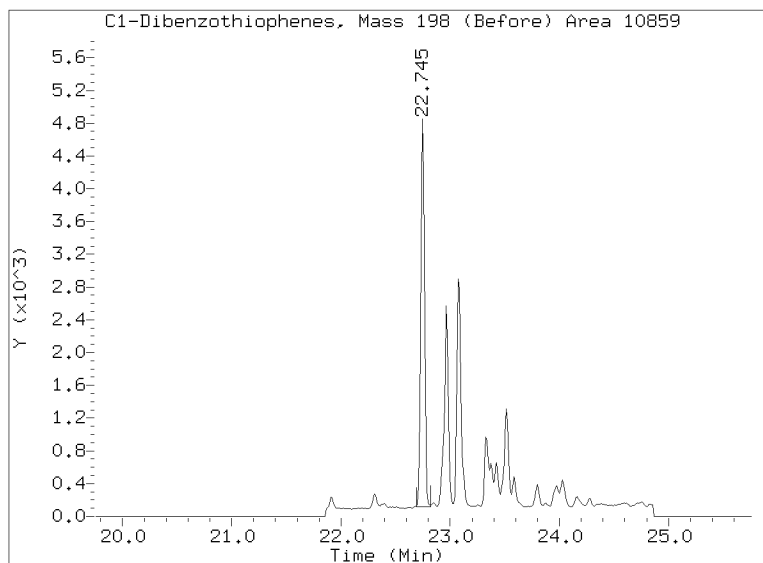
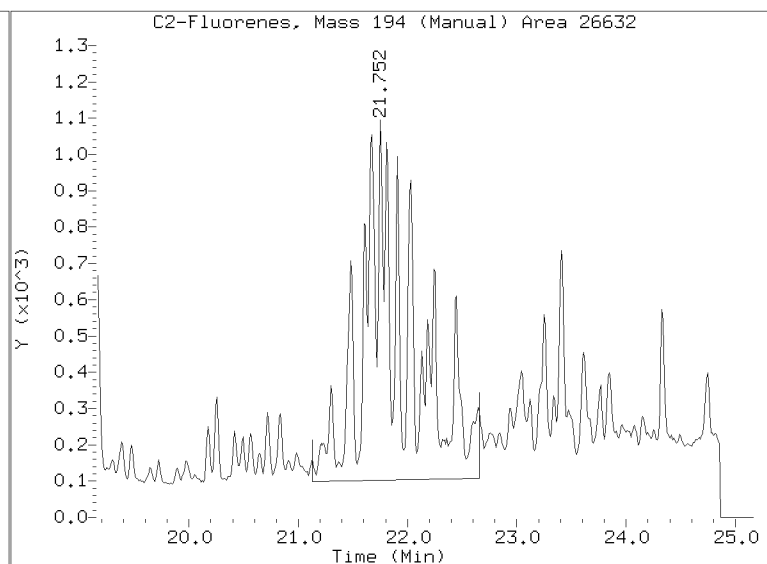
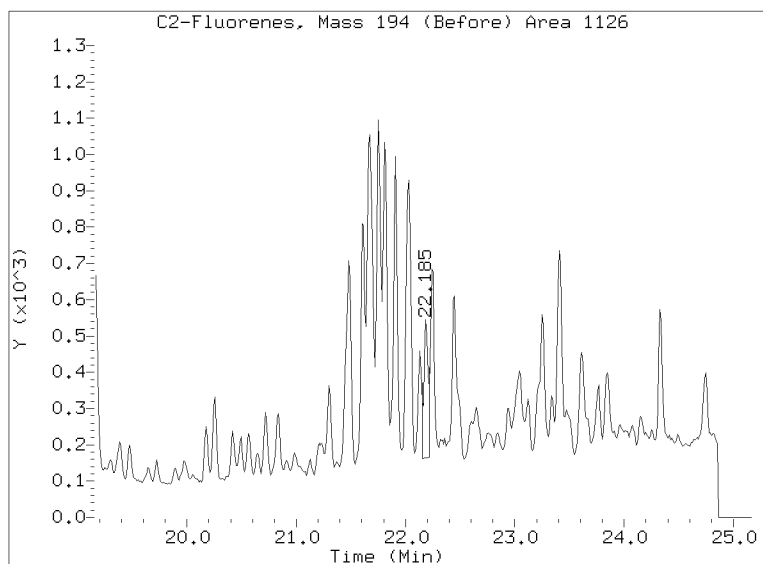
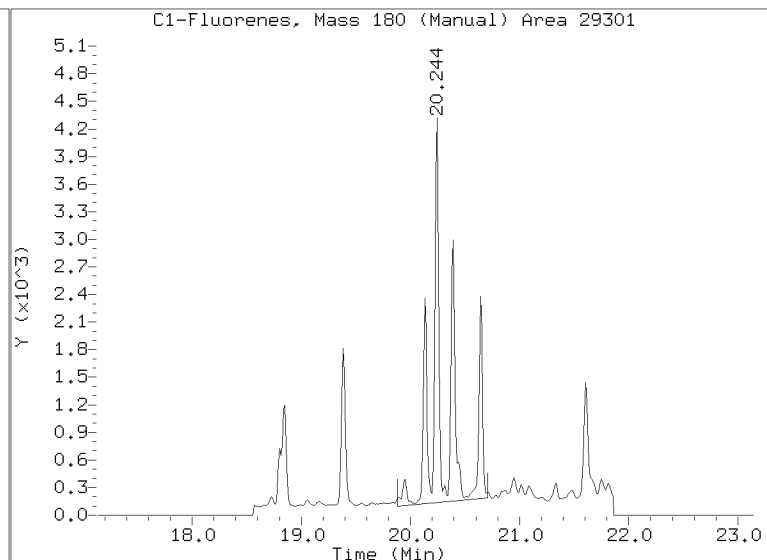
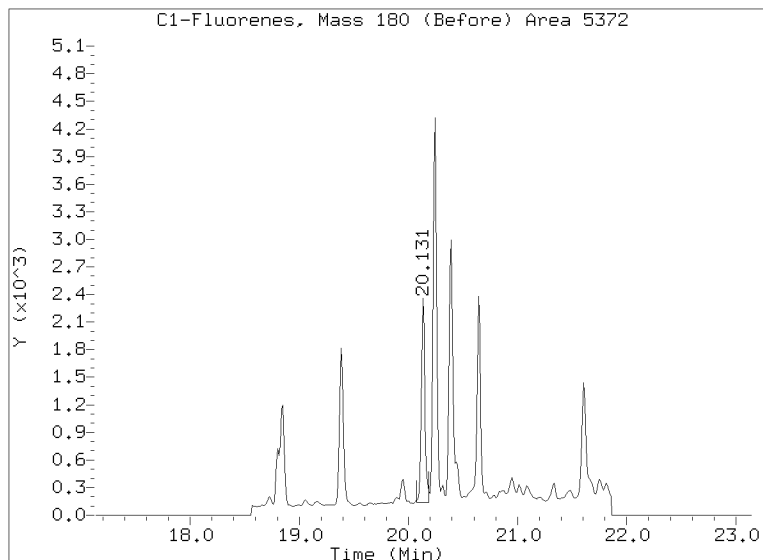
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Injection Date: 22-DEC-2020 17:07

Lab ID:20K0204-07 Client ID:

Report Date: 12/31/2020 11:17



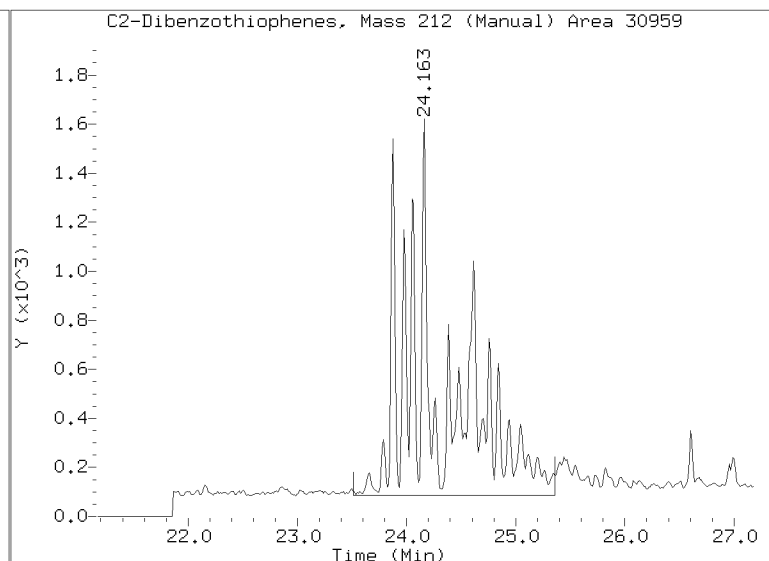
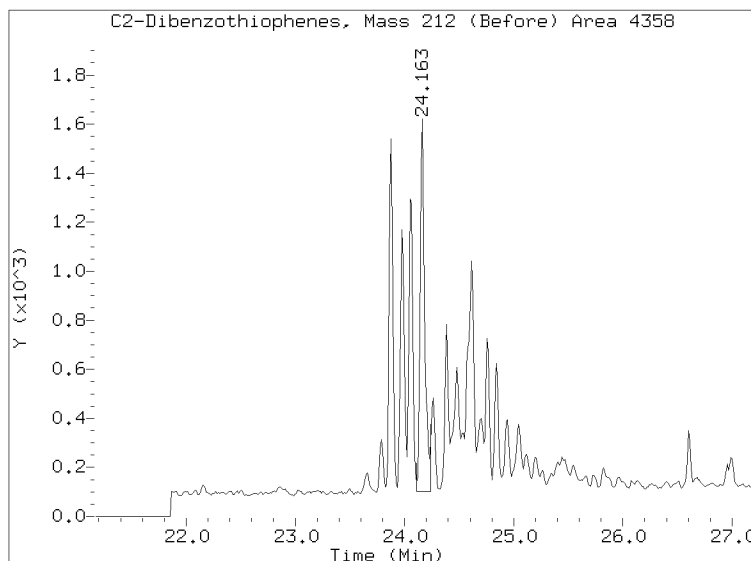
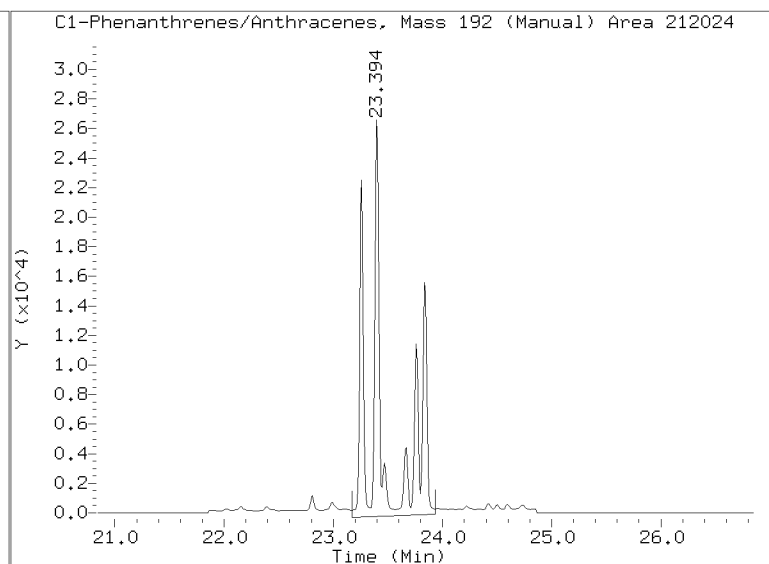
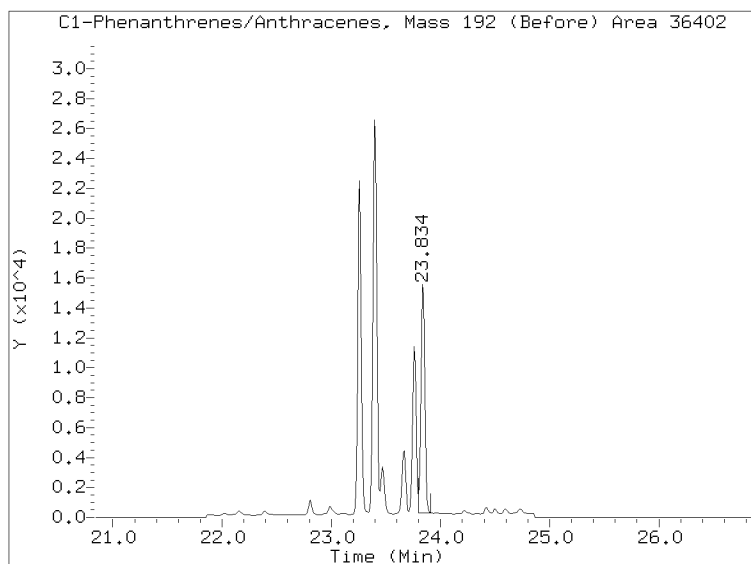
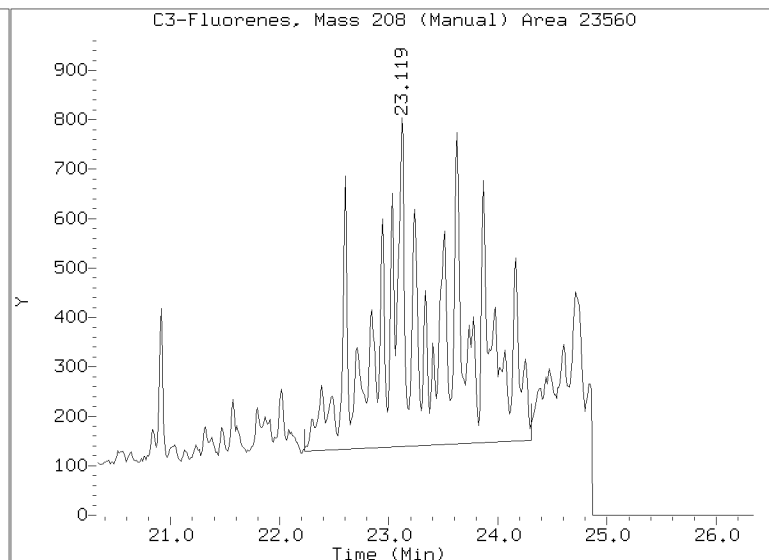
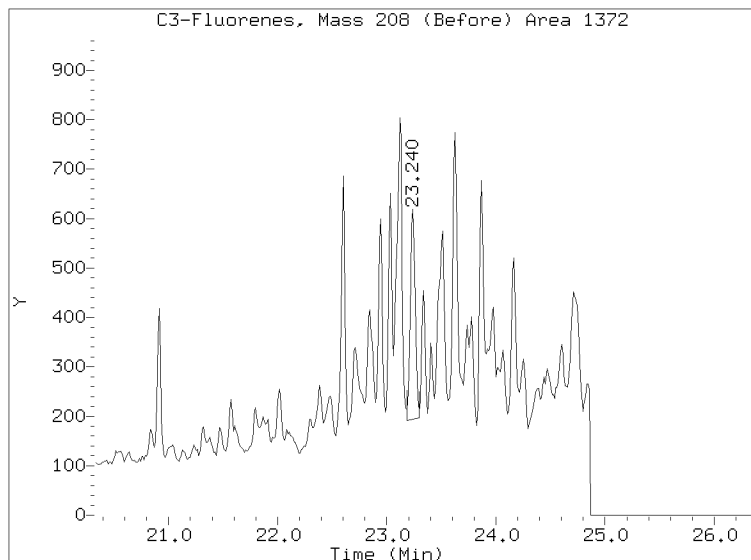
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Injection Date: 22-DEC-2020 17:07

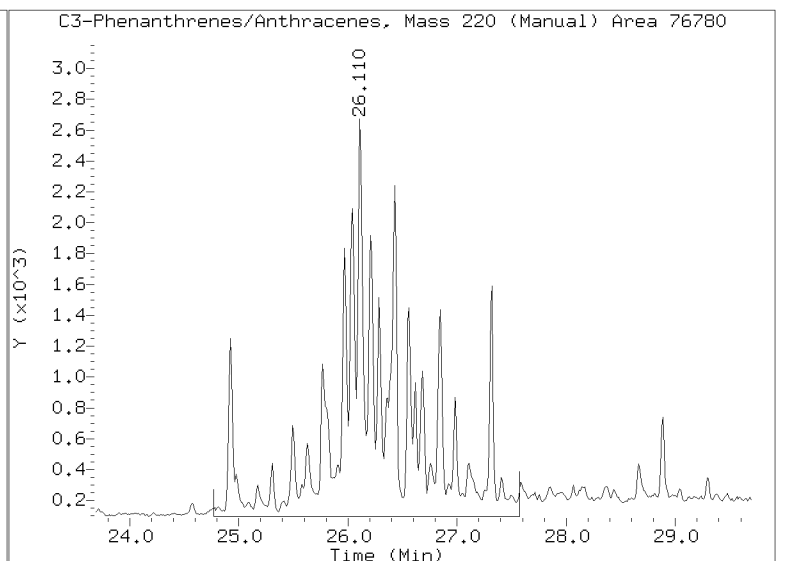
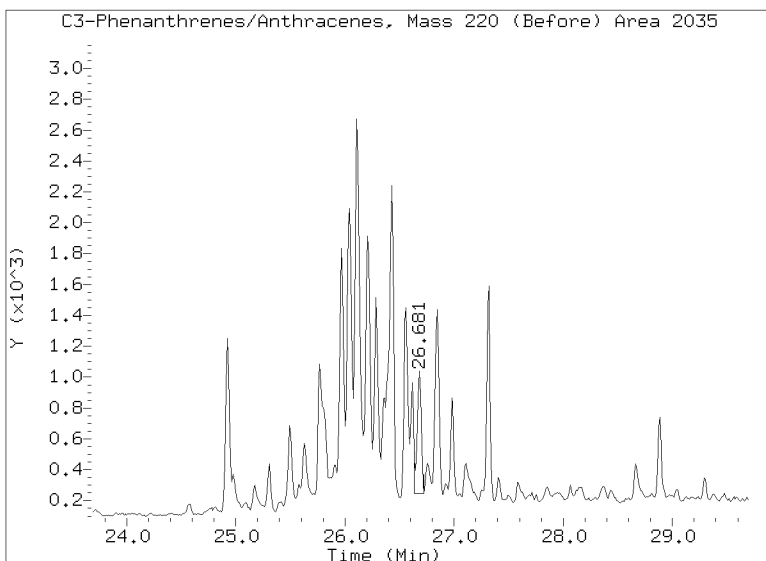
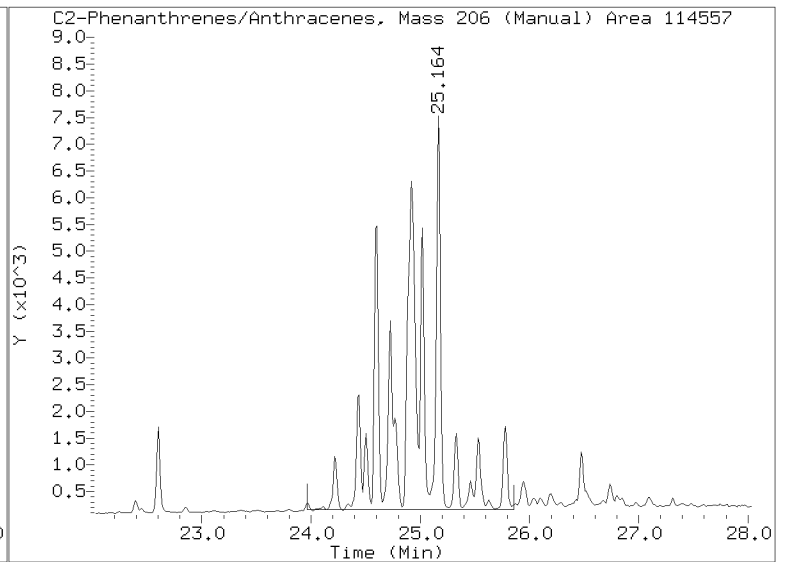
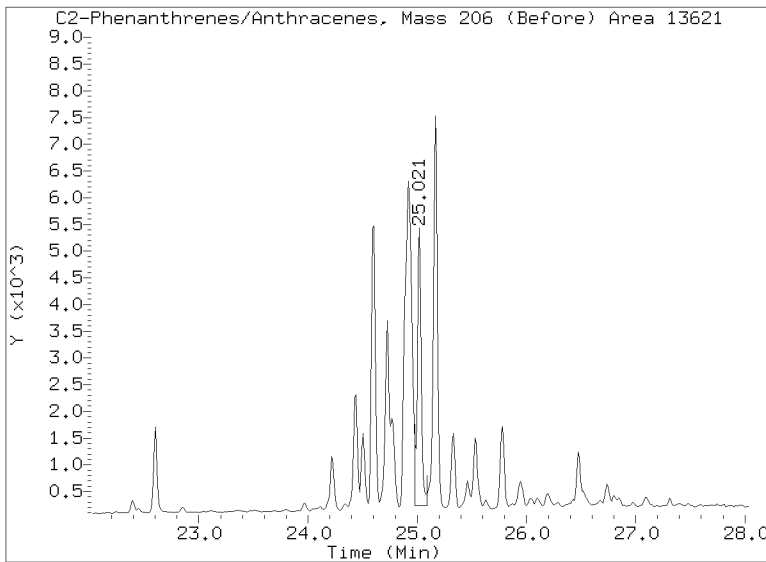
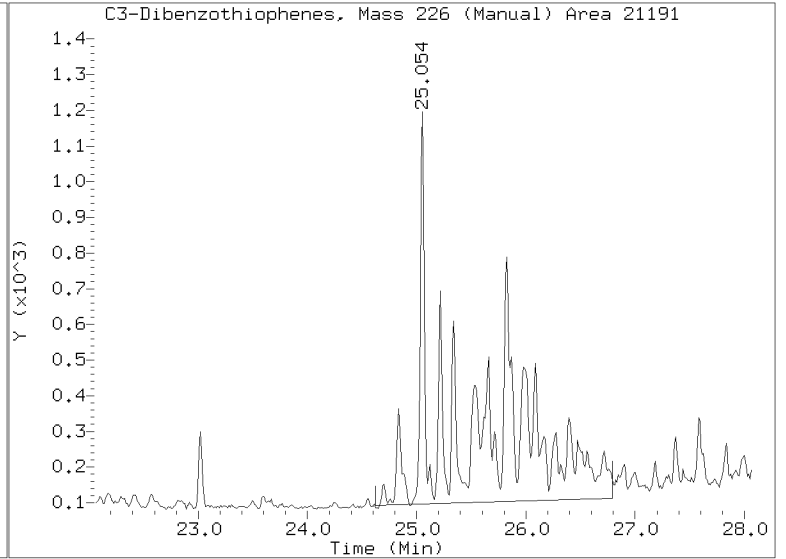
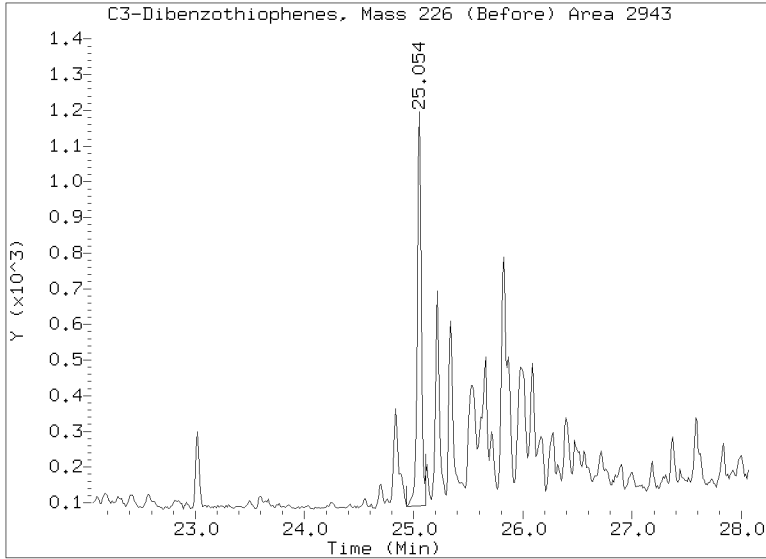
Lab ID:20K0204-07 Client ID:

Report Date: 12/31/2020 11:17



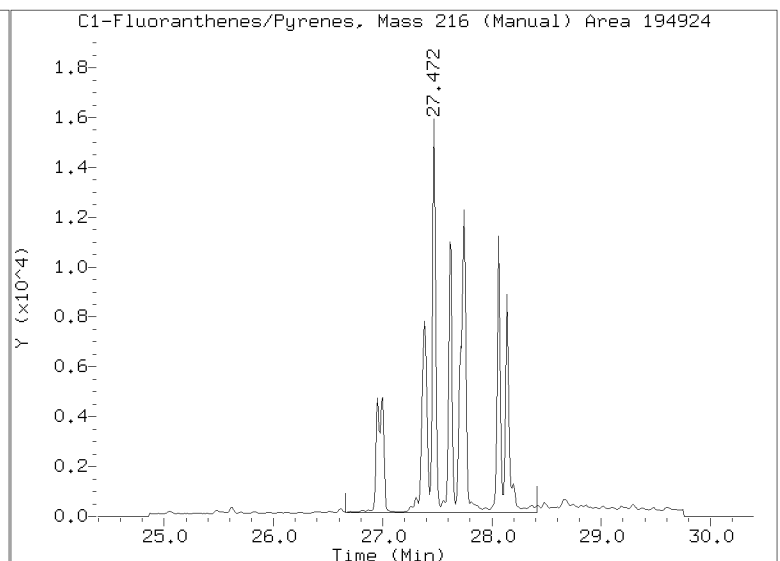
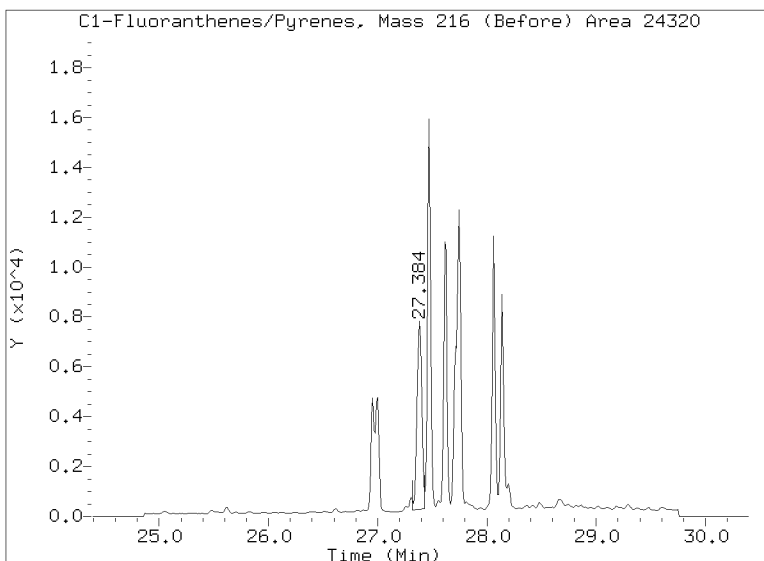
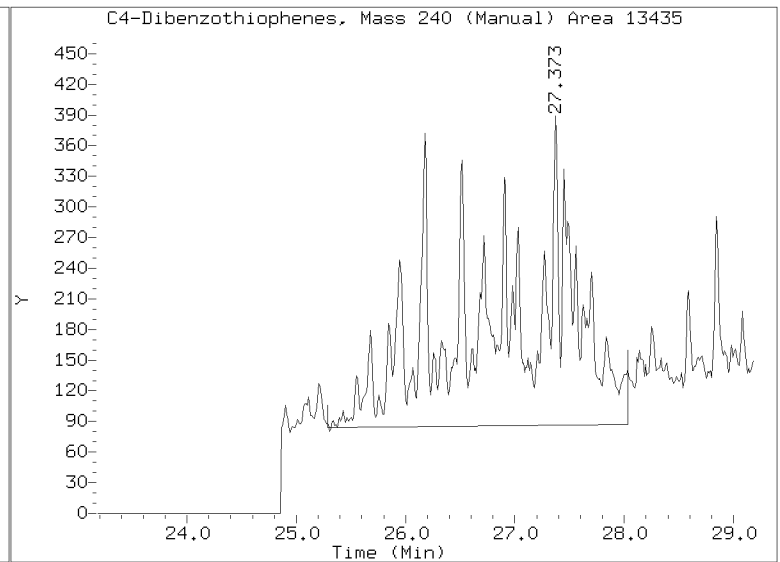
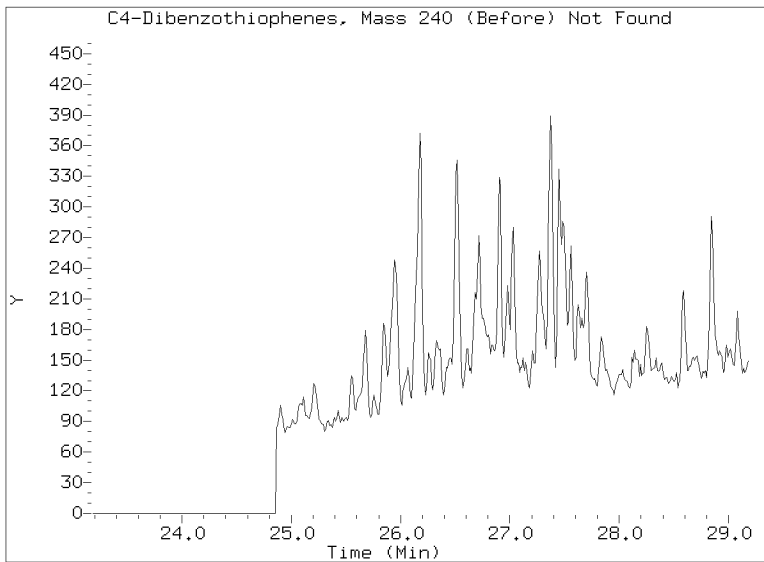
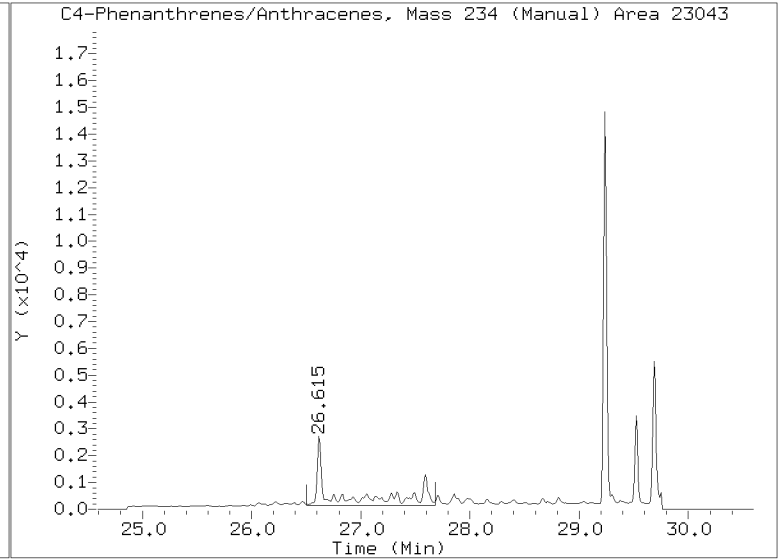
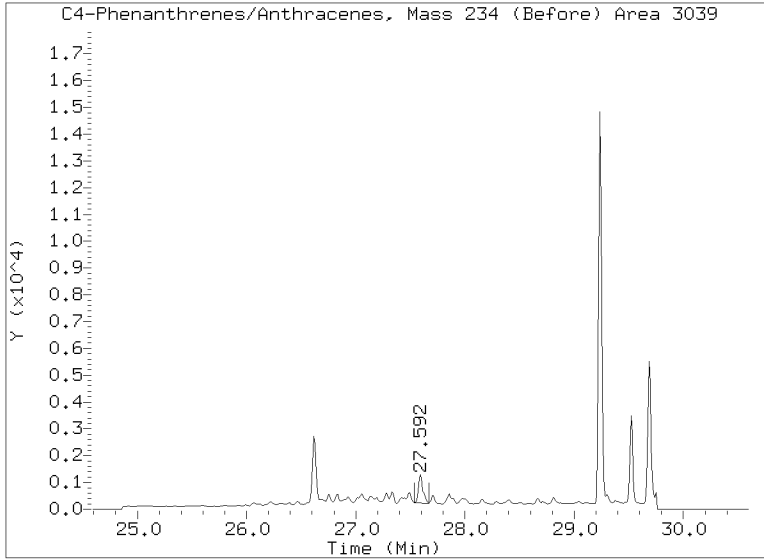
# Quant Ion Manual Peak Adjustment Report

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Injection Date: 22-DEC-2020 17:07  
Lab ID:20K0204-07 Client ID:  
Report Date: 12/31/2020 11:17



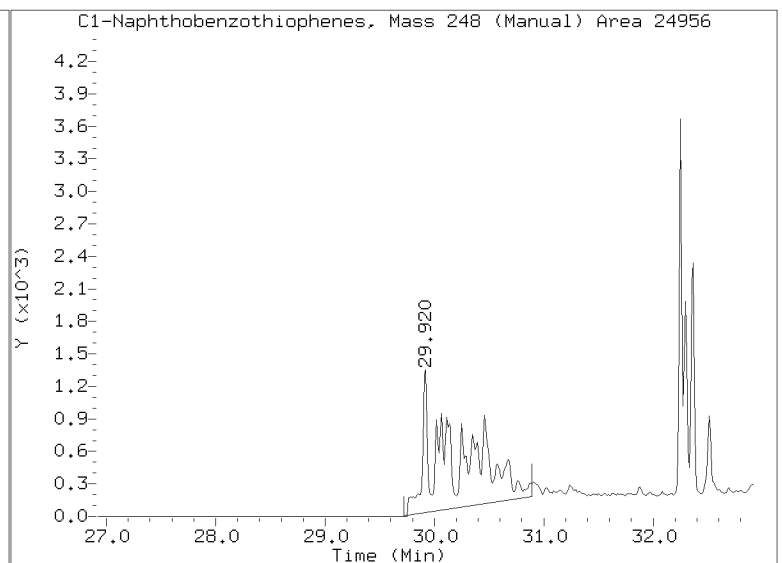
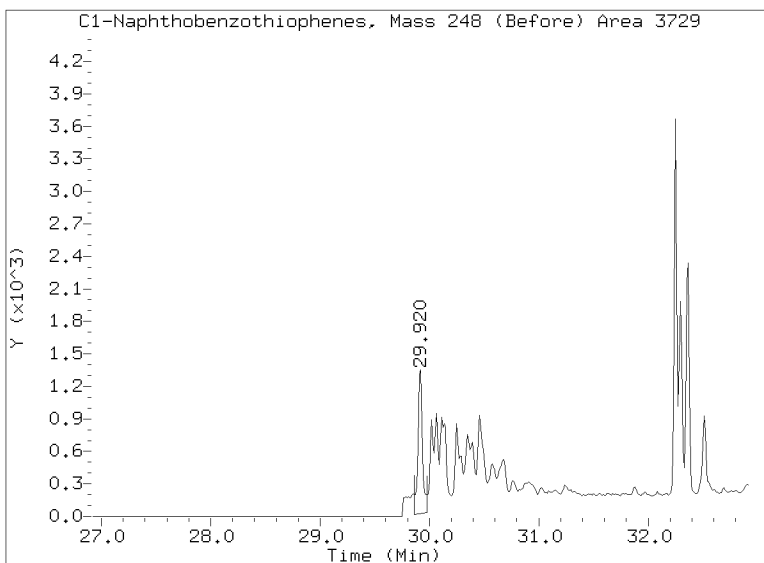
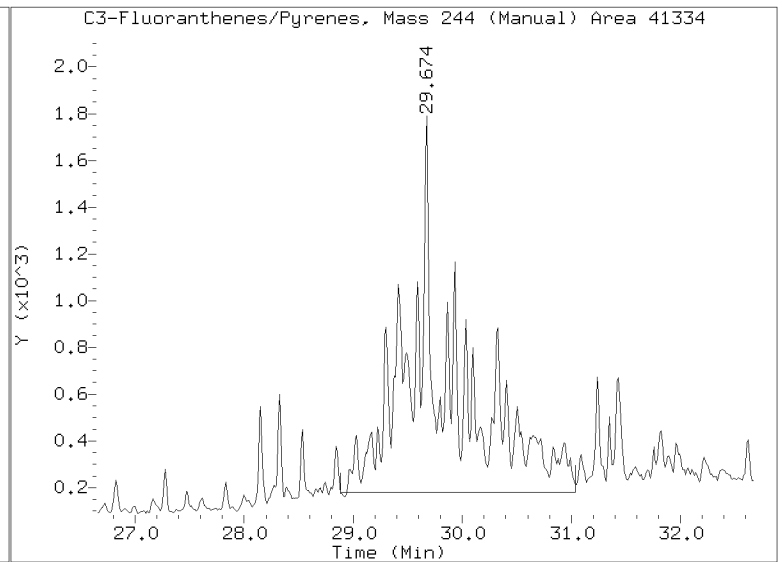
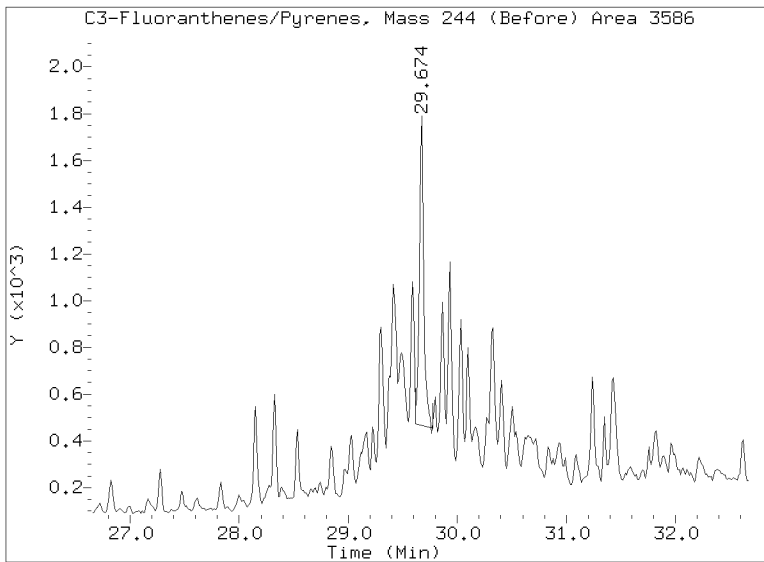
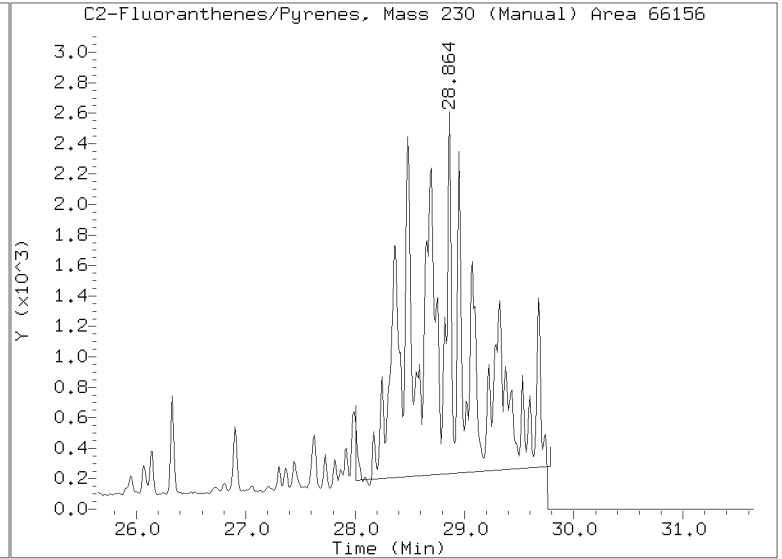
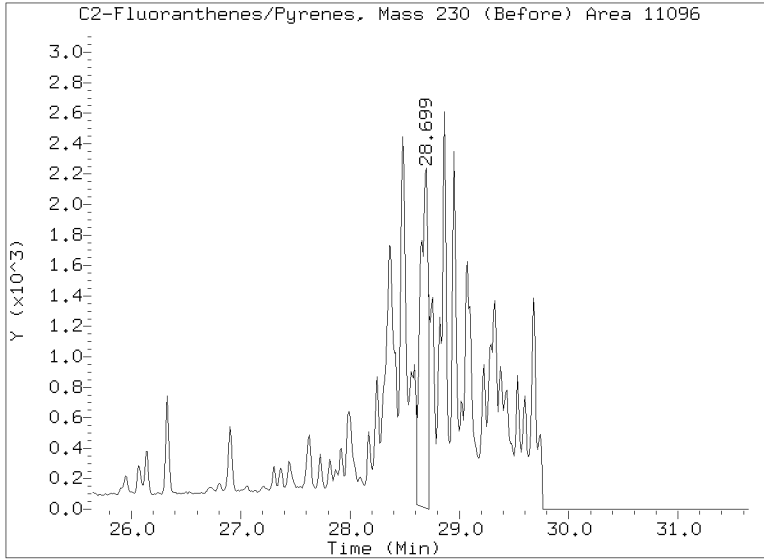
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Lab ID:20K0204-07 Client ID:  
Report Date: 12/31/2020 11:17



# Quant Ion Manual Peak Adjustment Report

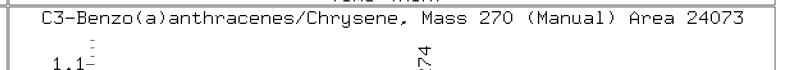
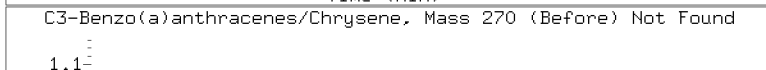
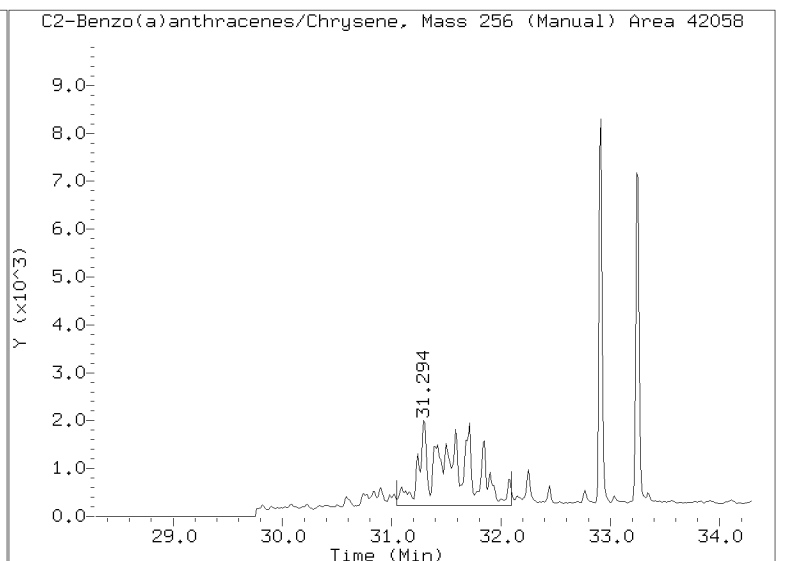
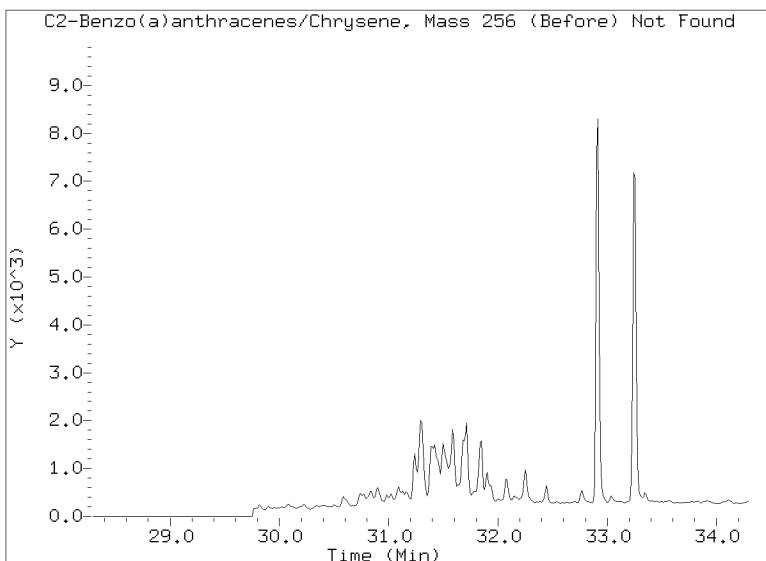
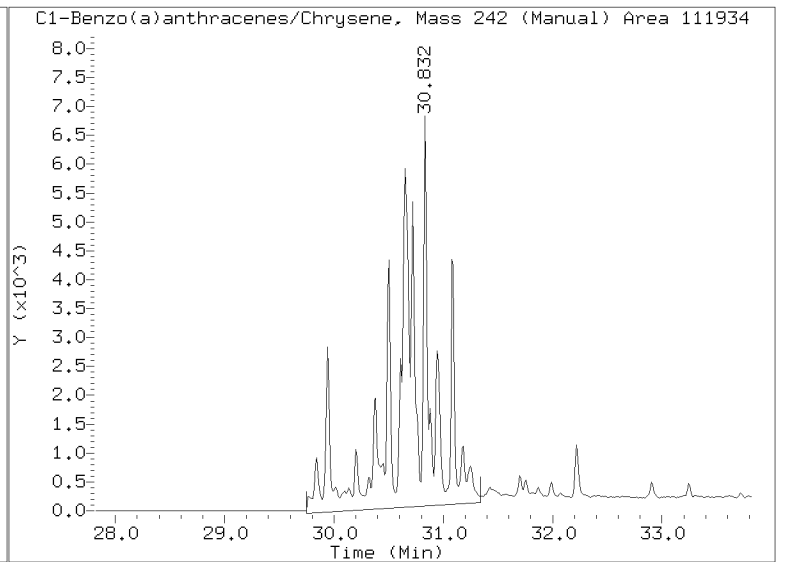
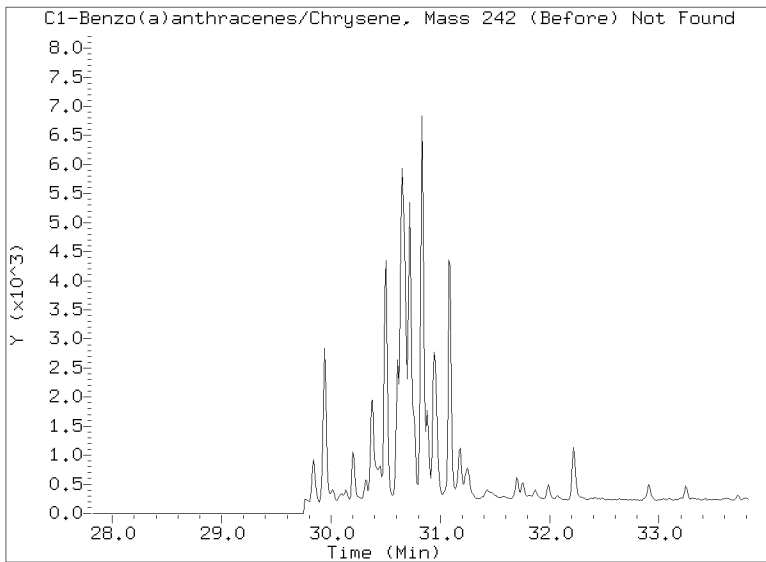
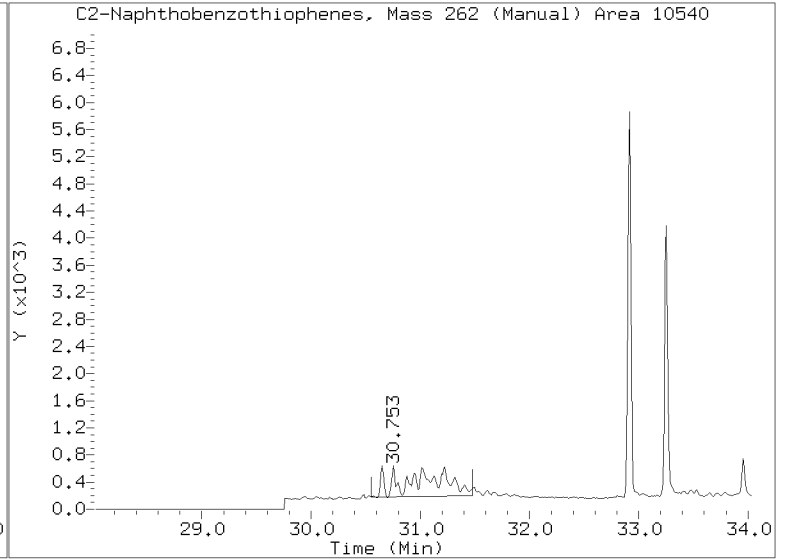
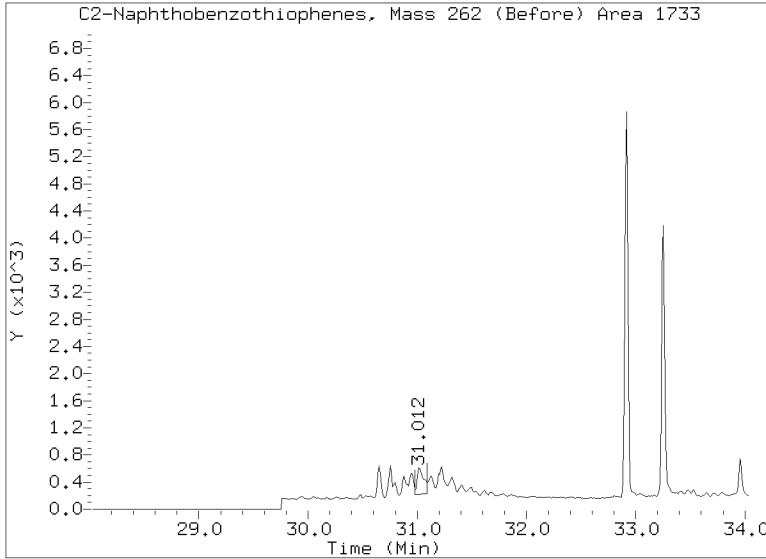
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# Quant Ion Manual Peak Adjustment Report

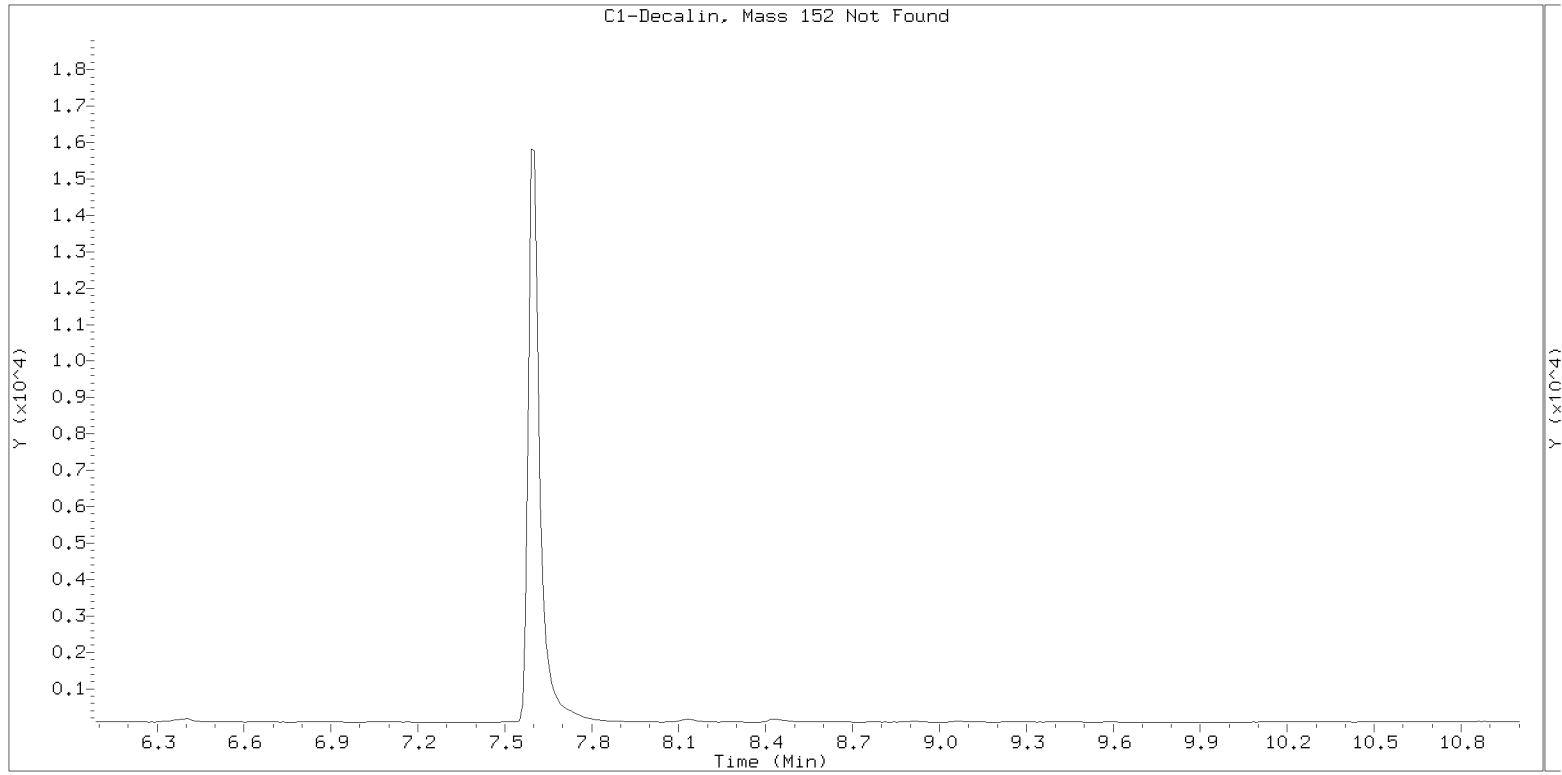
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Lab ID:20K0204-07 Client ID:  
Report Date: 12/31/2020 11:17



SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

Lab ID: 20K0204-07

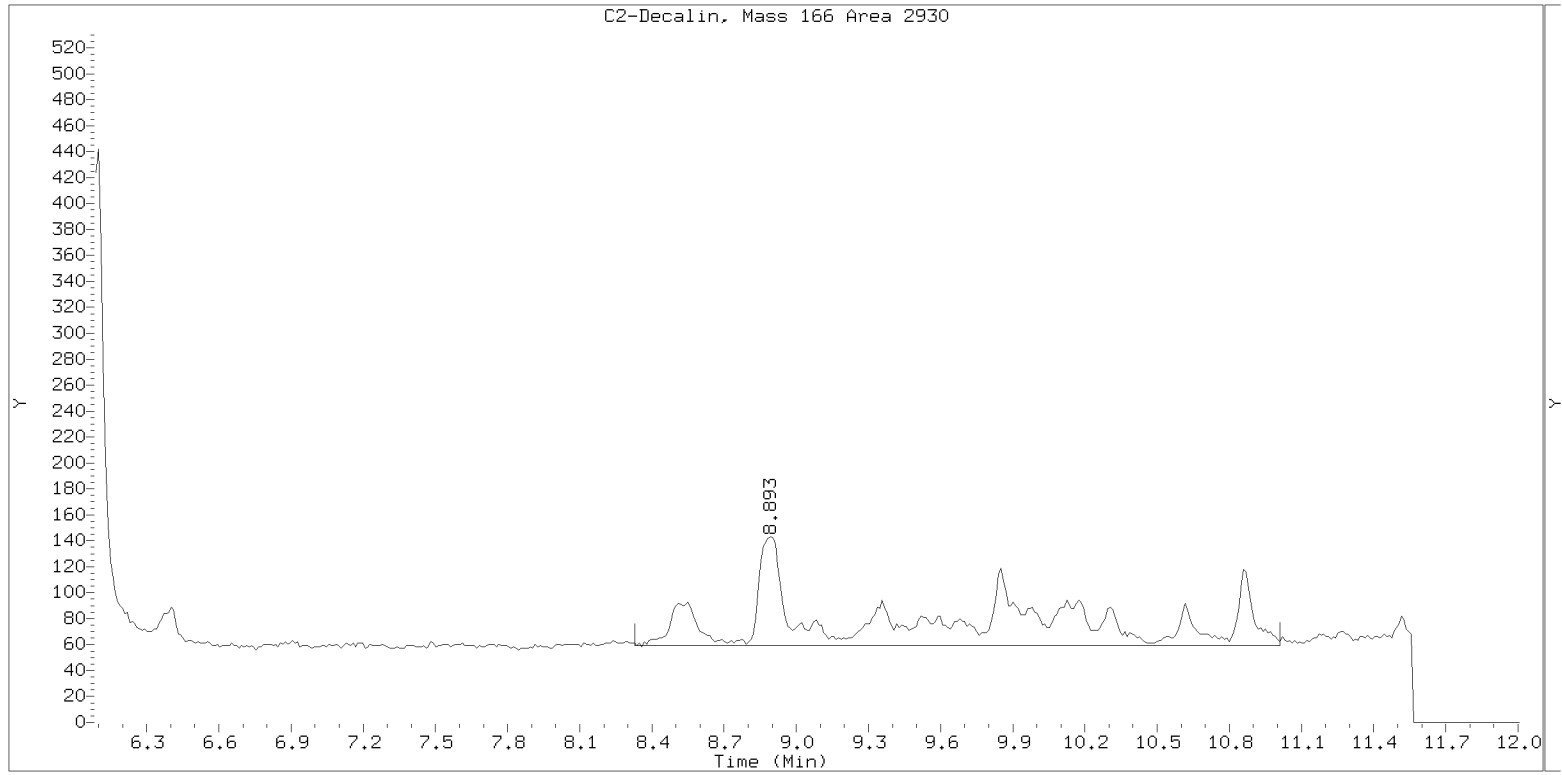
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

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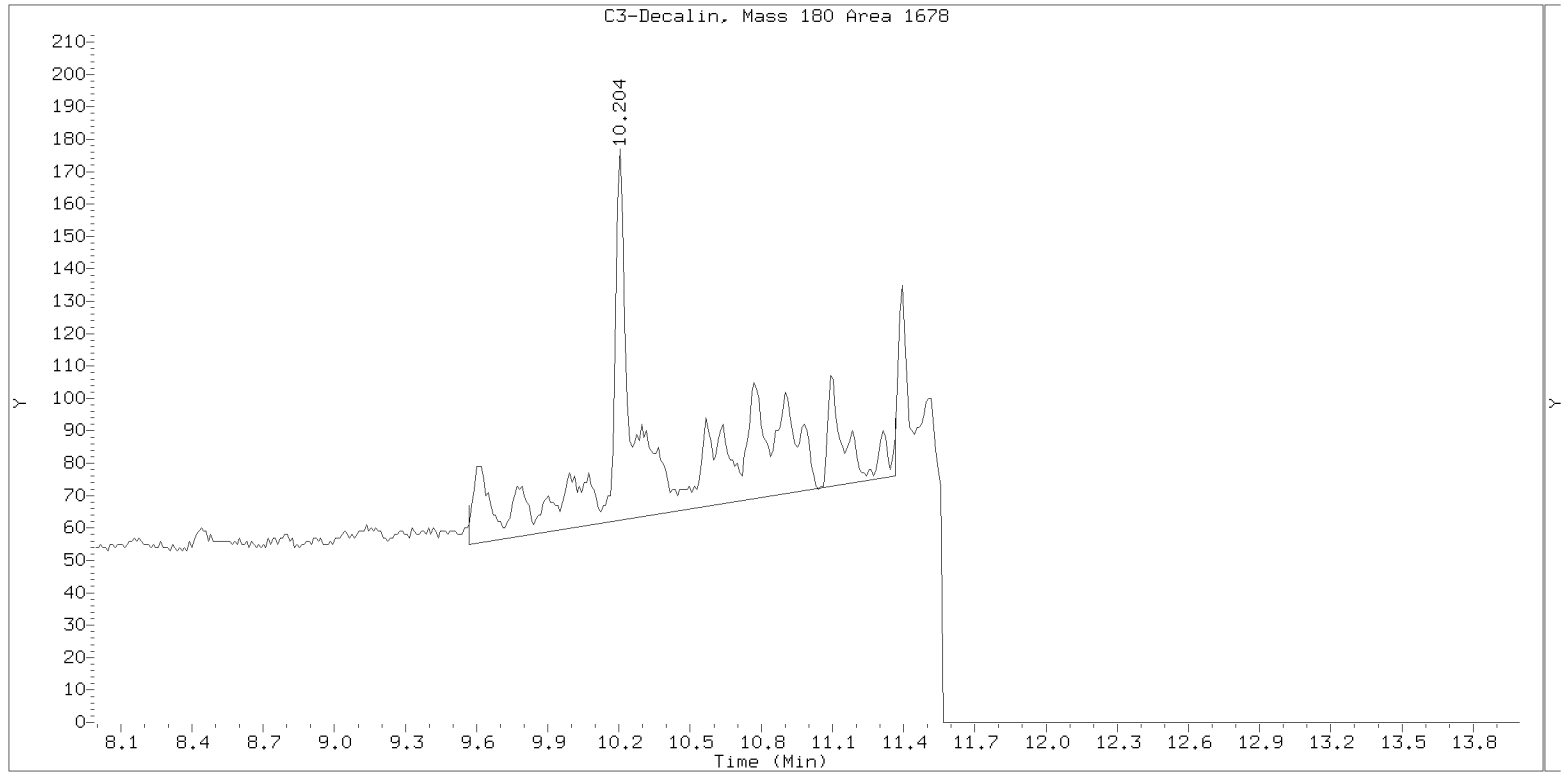
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

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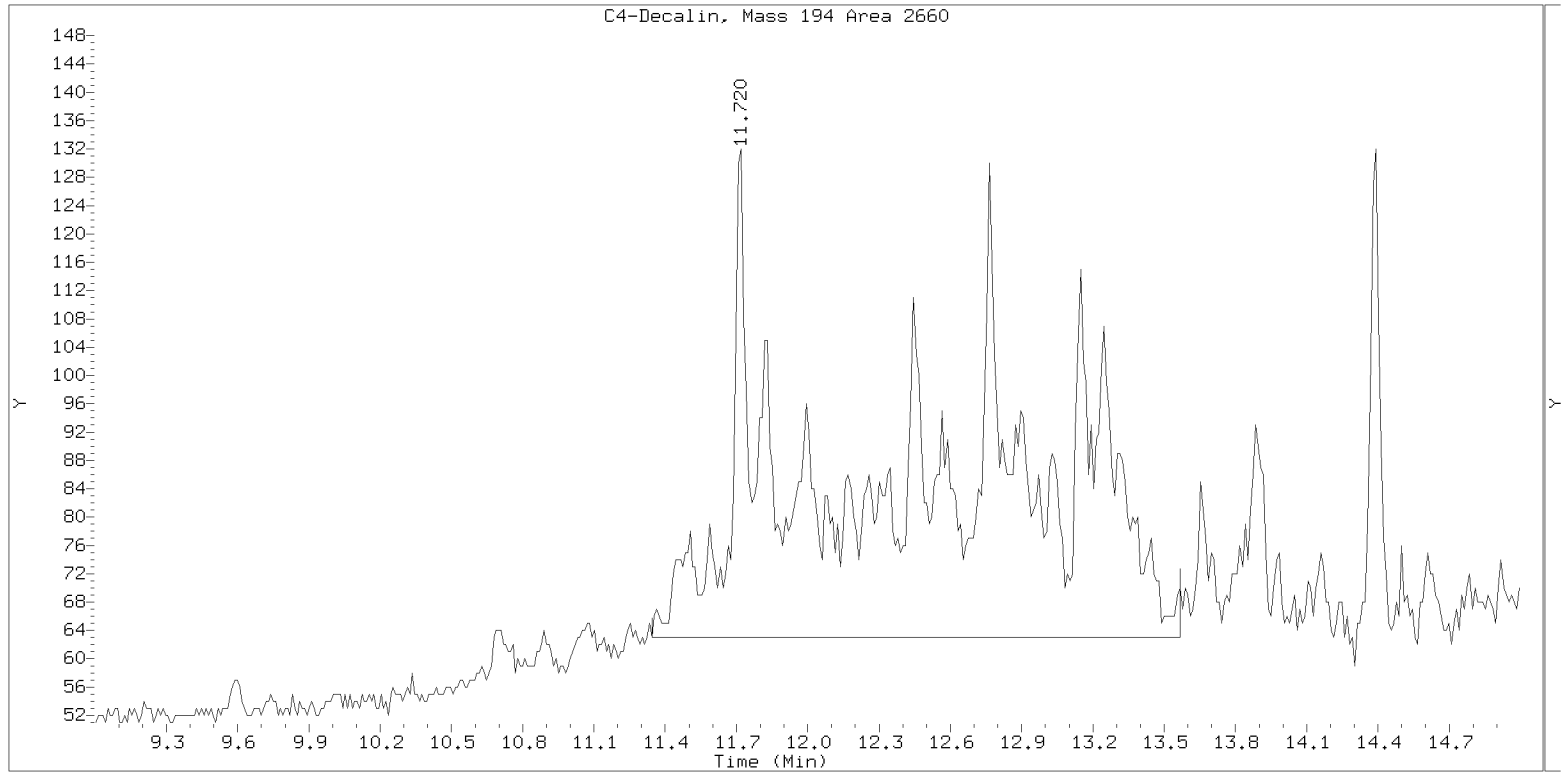
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

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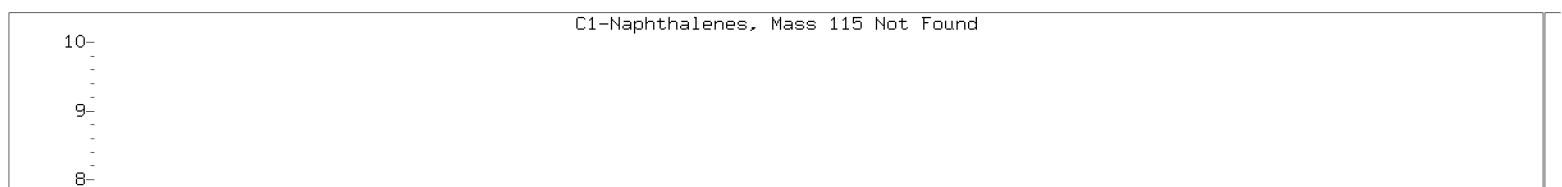
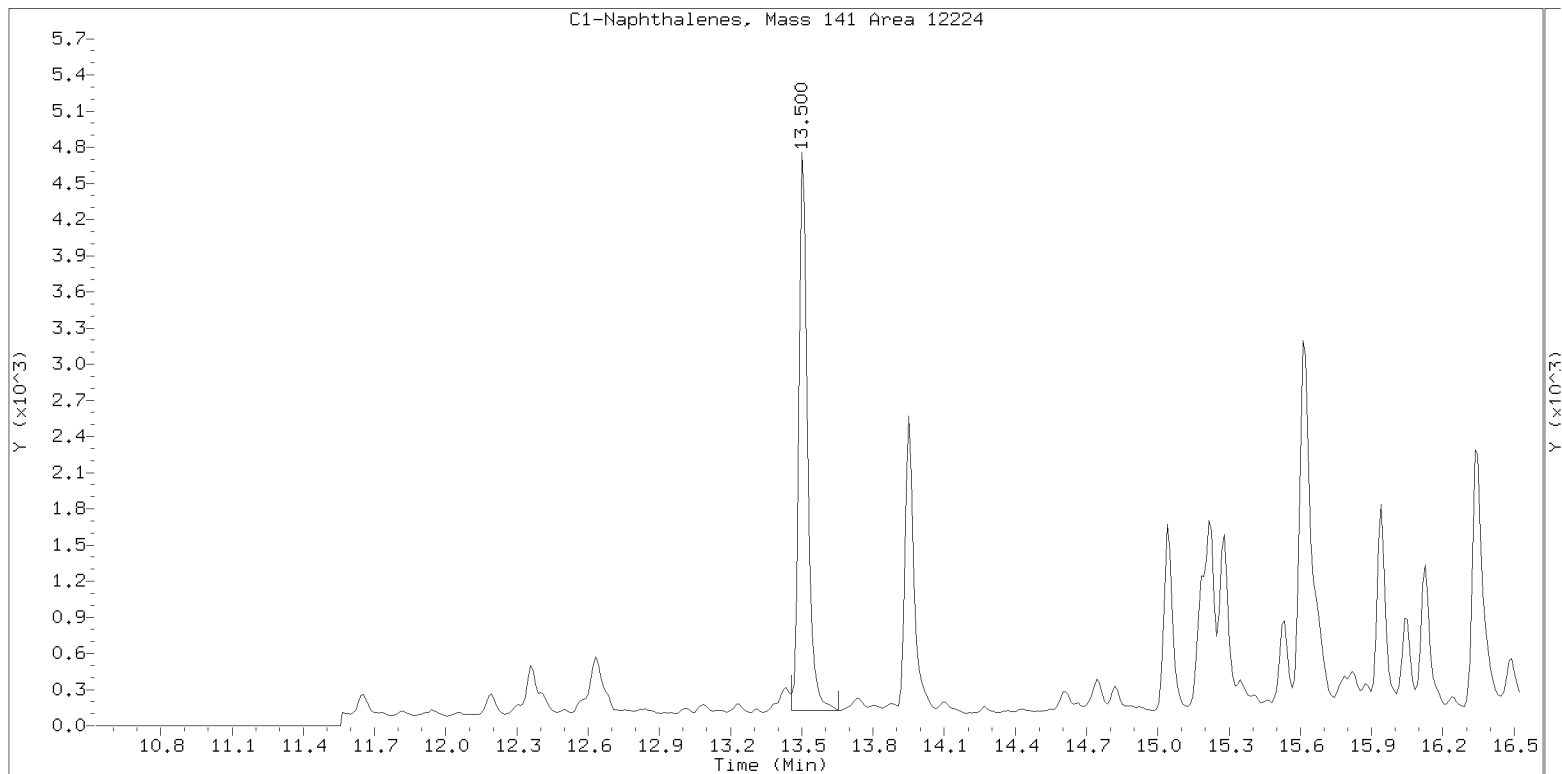
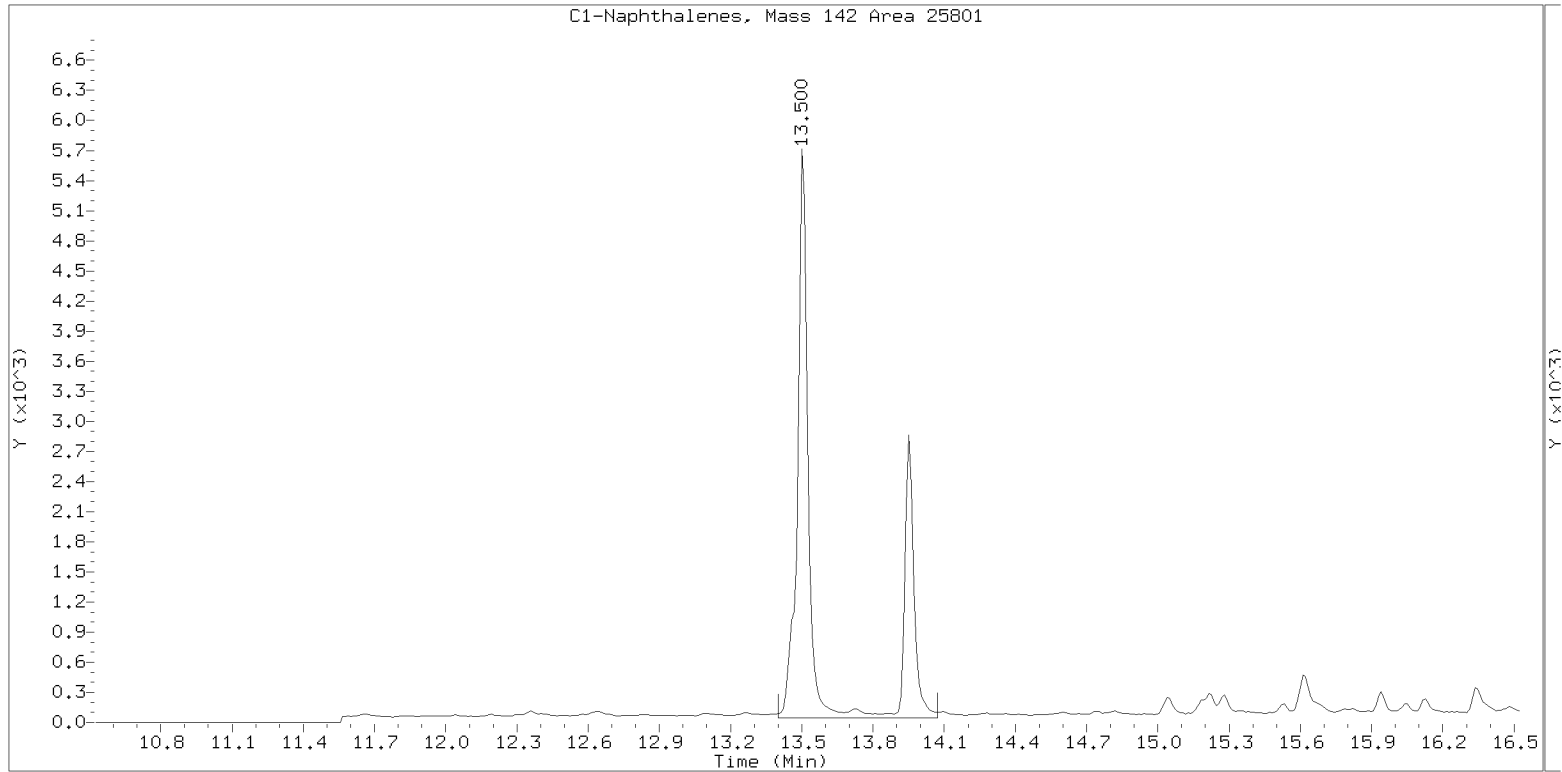
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

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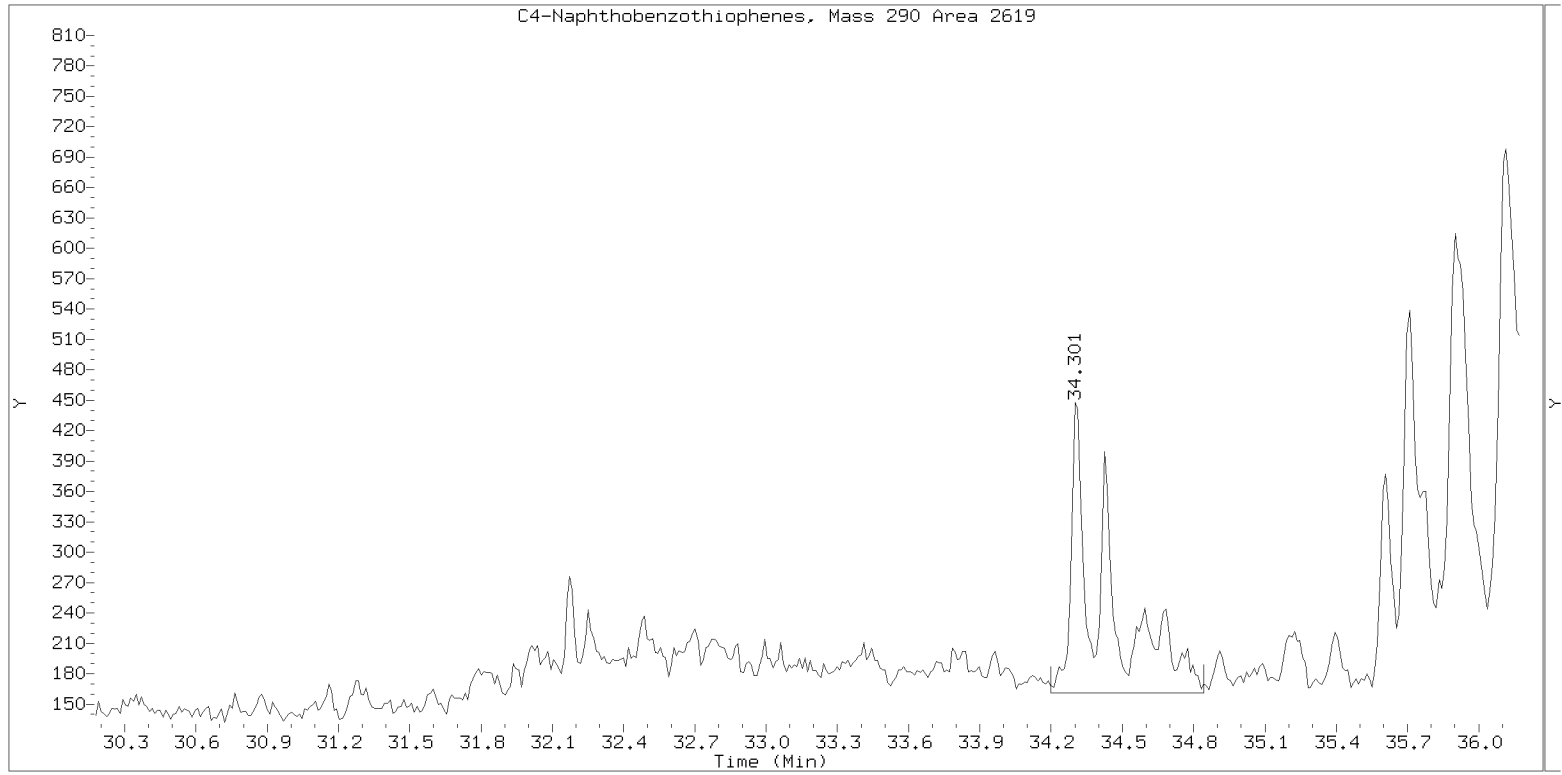
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

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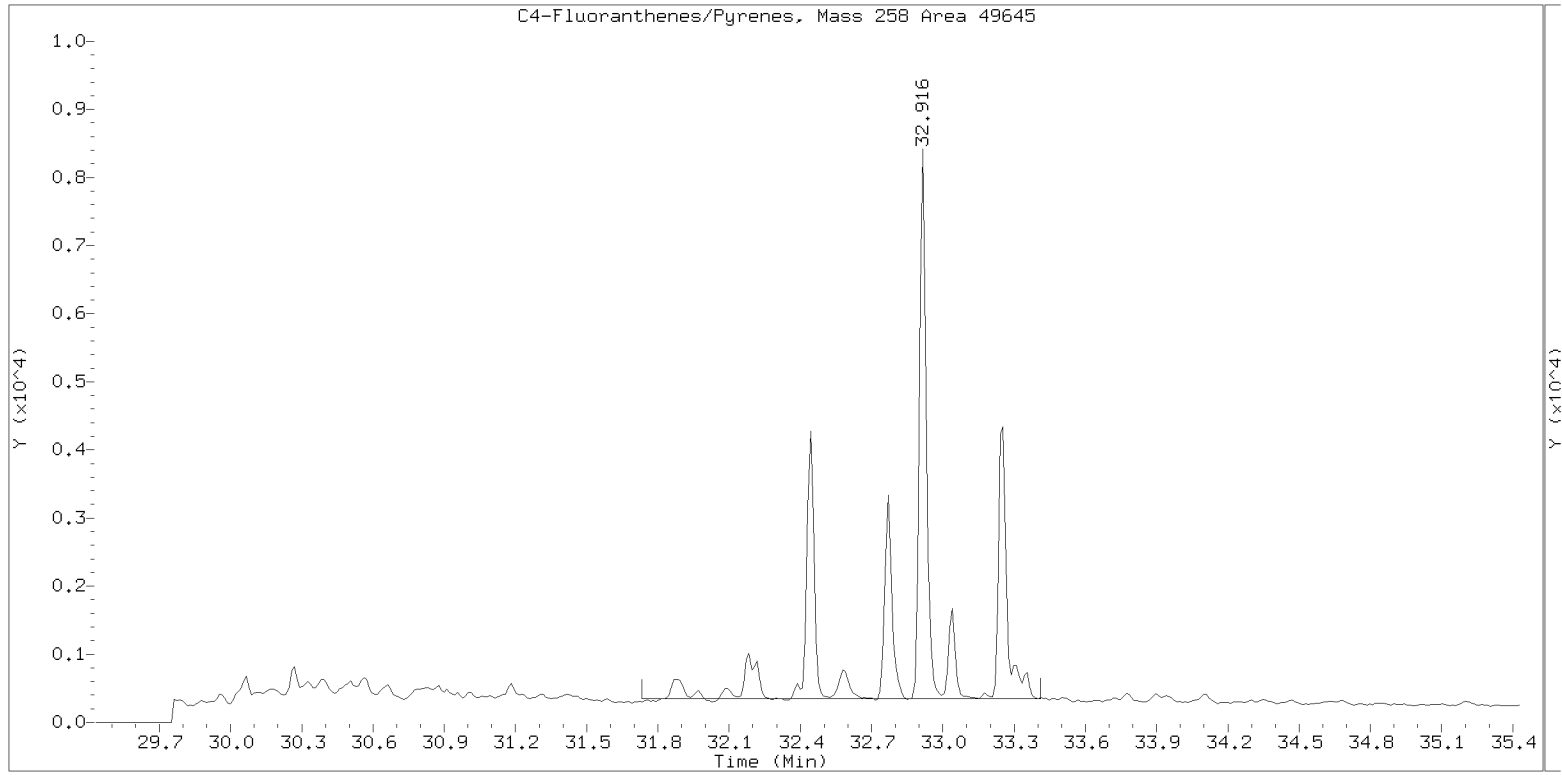
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

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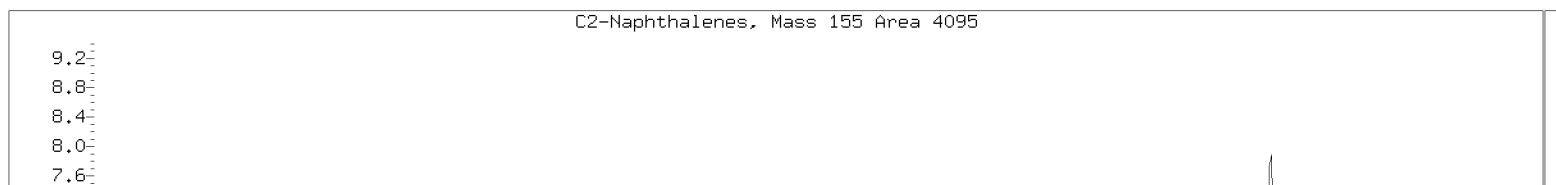
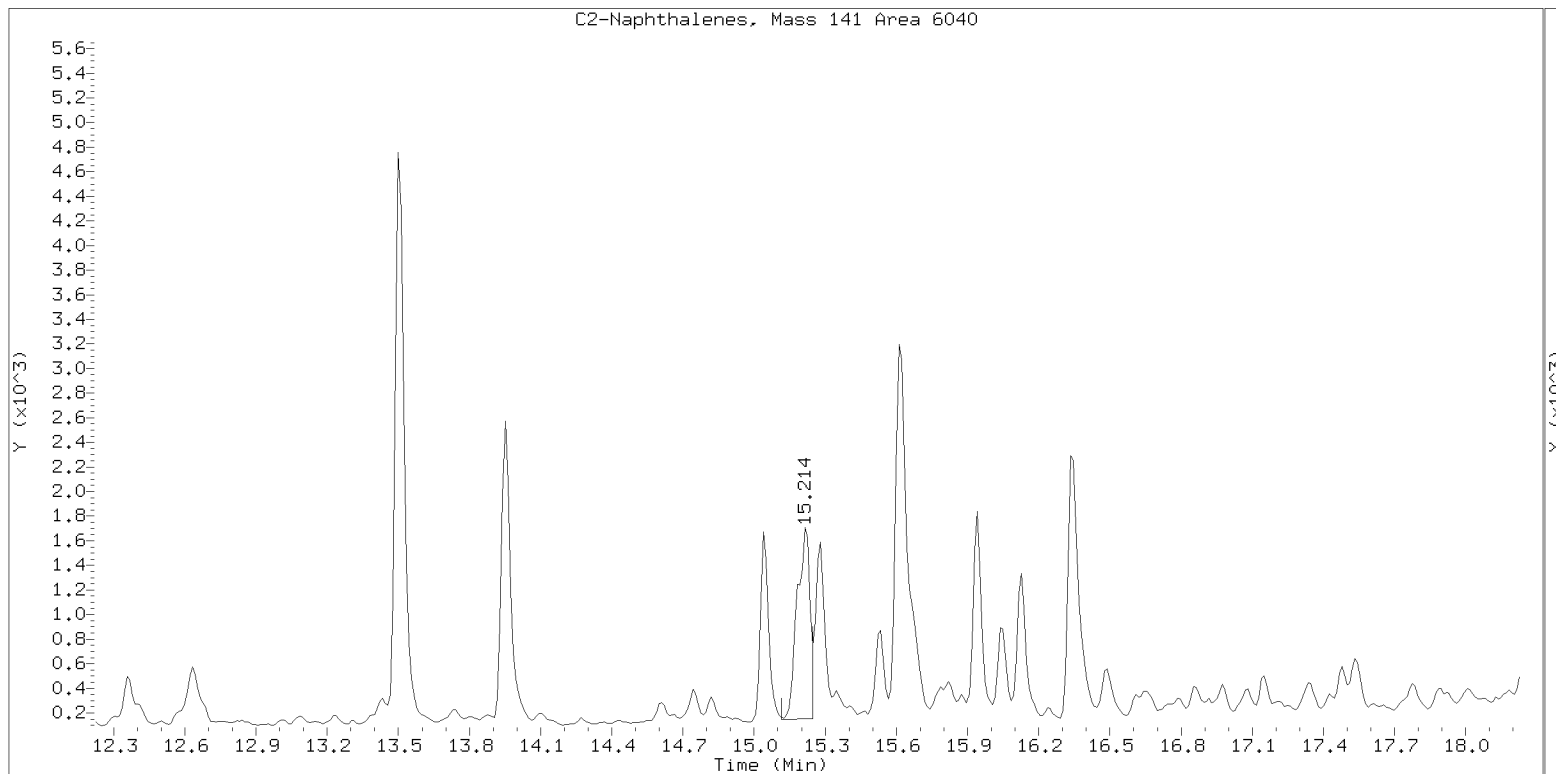
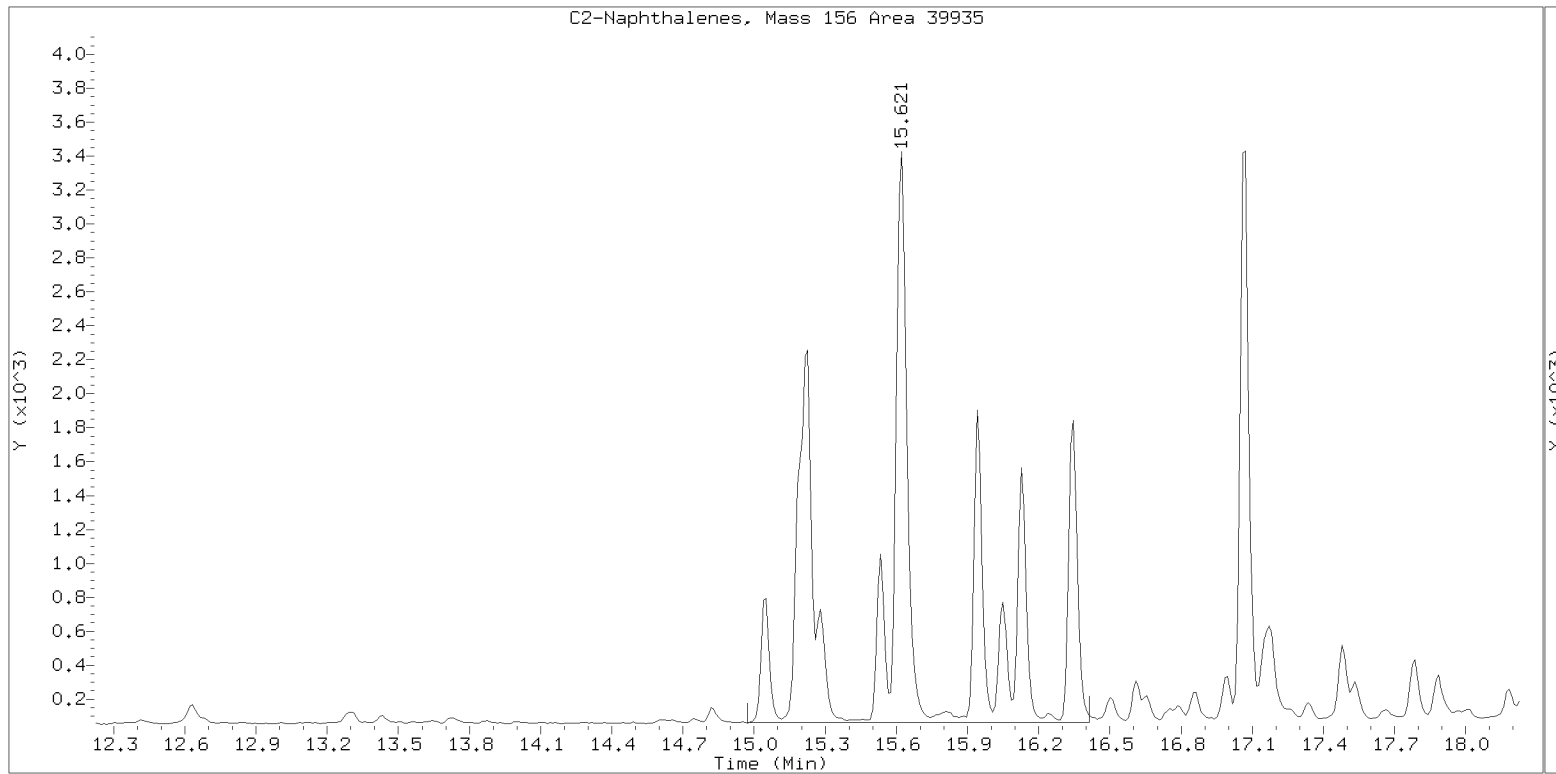




SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

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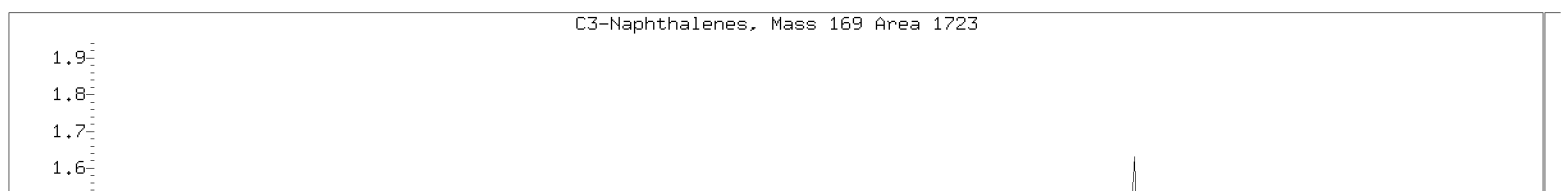
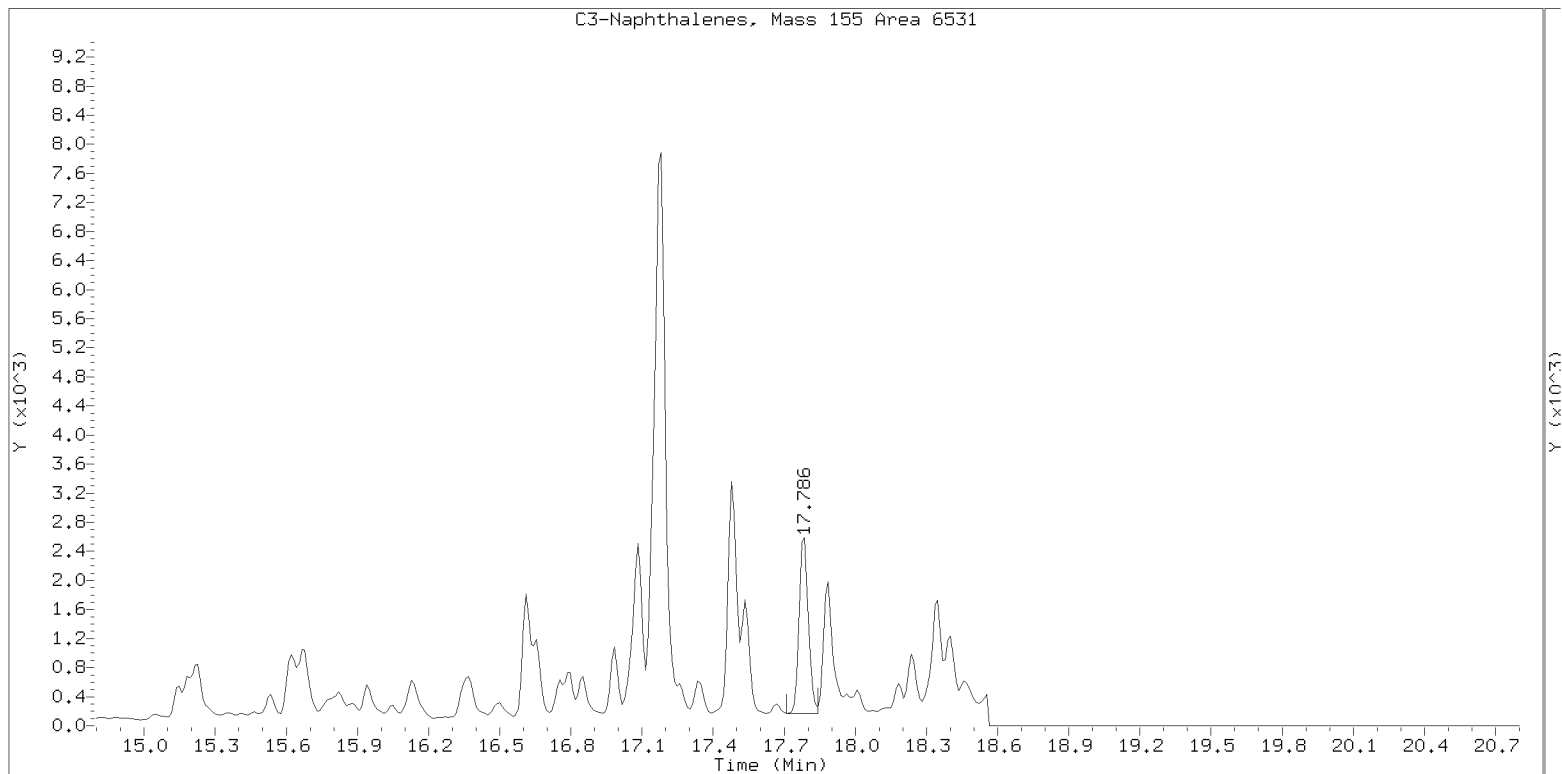
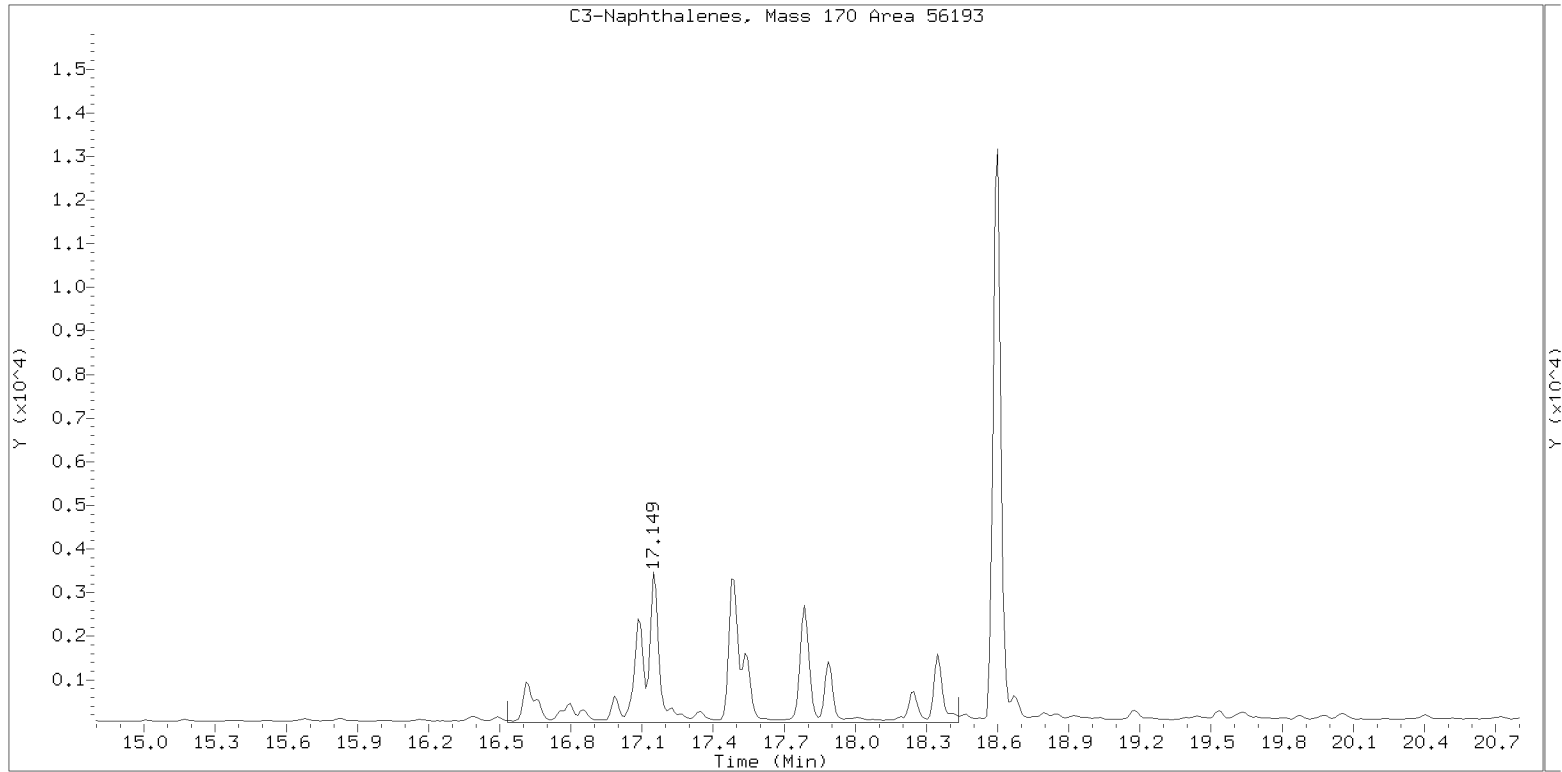
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

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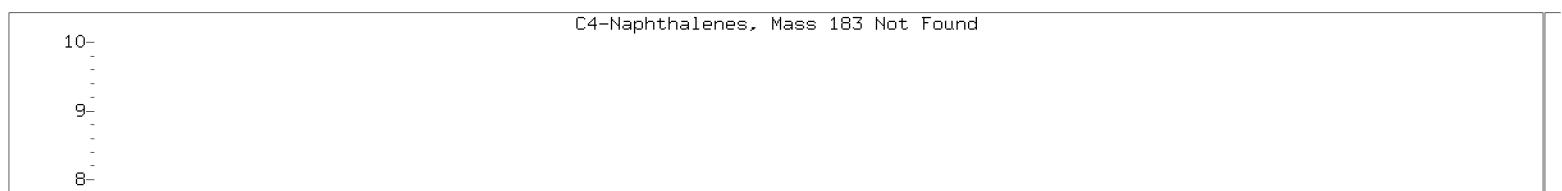
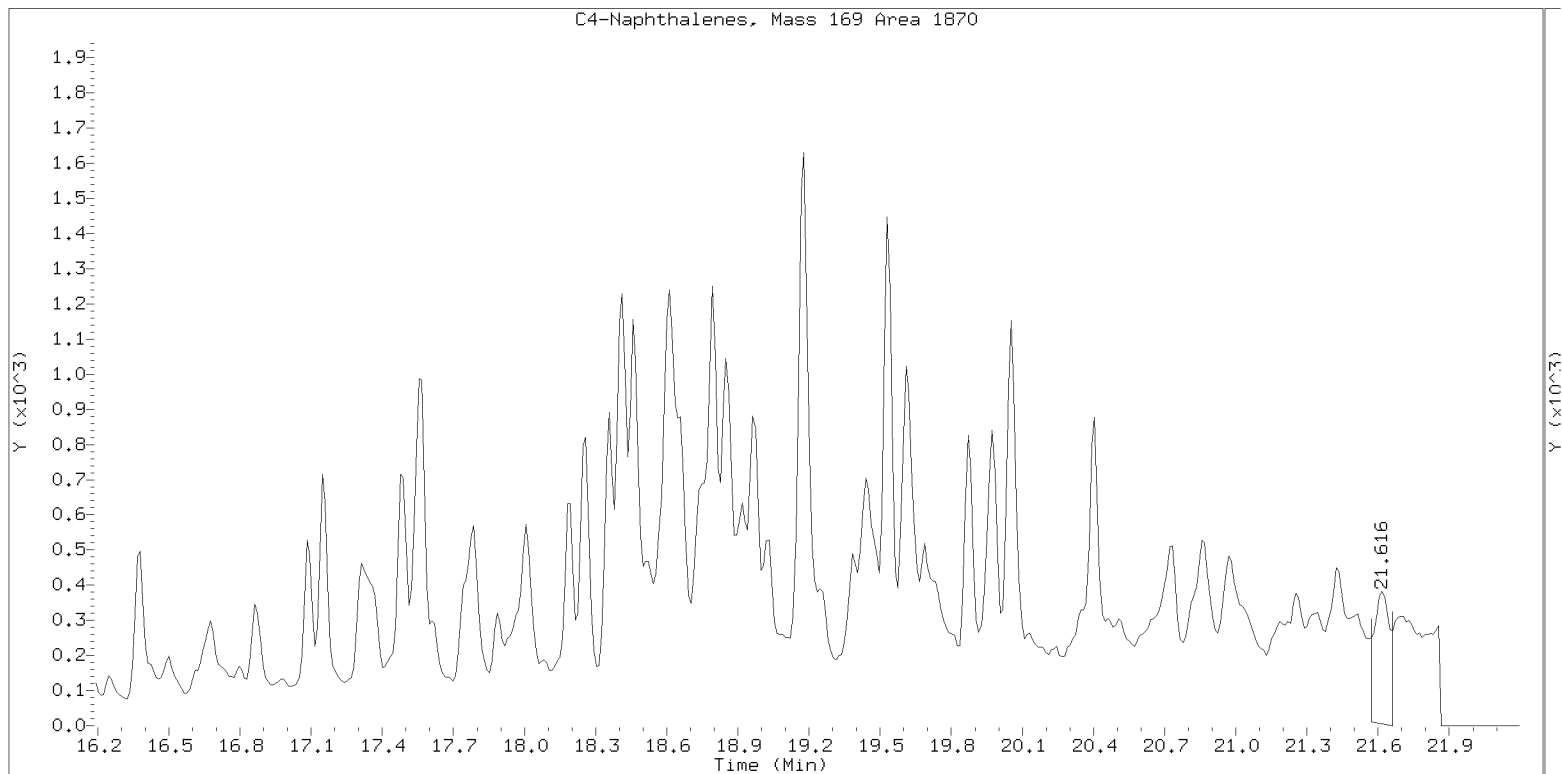
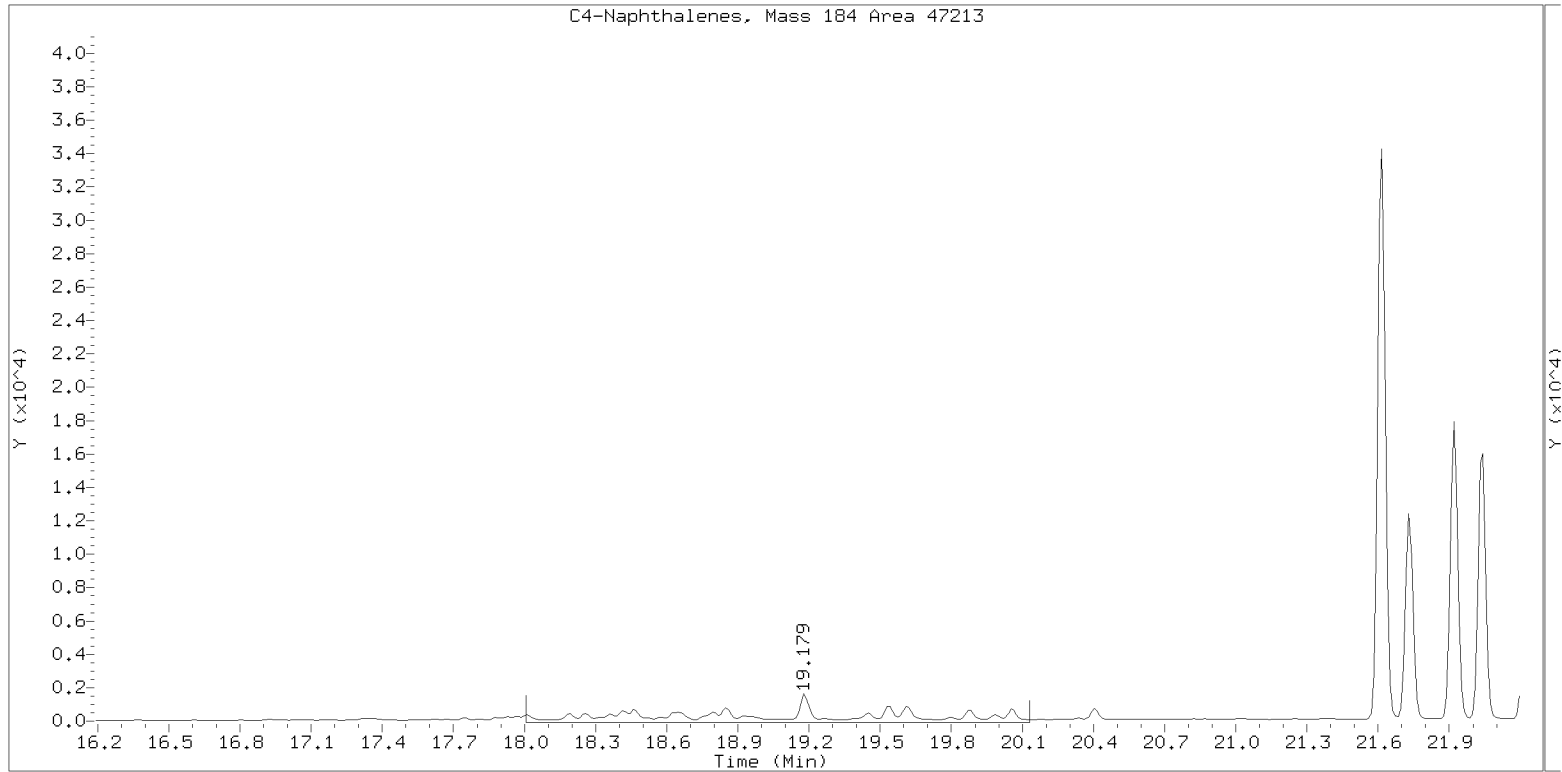
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

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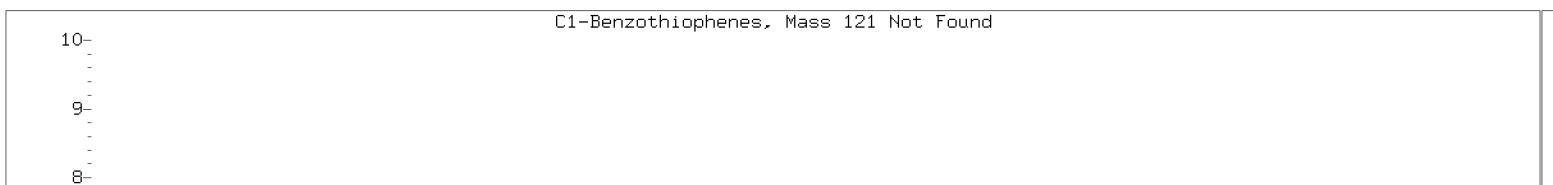
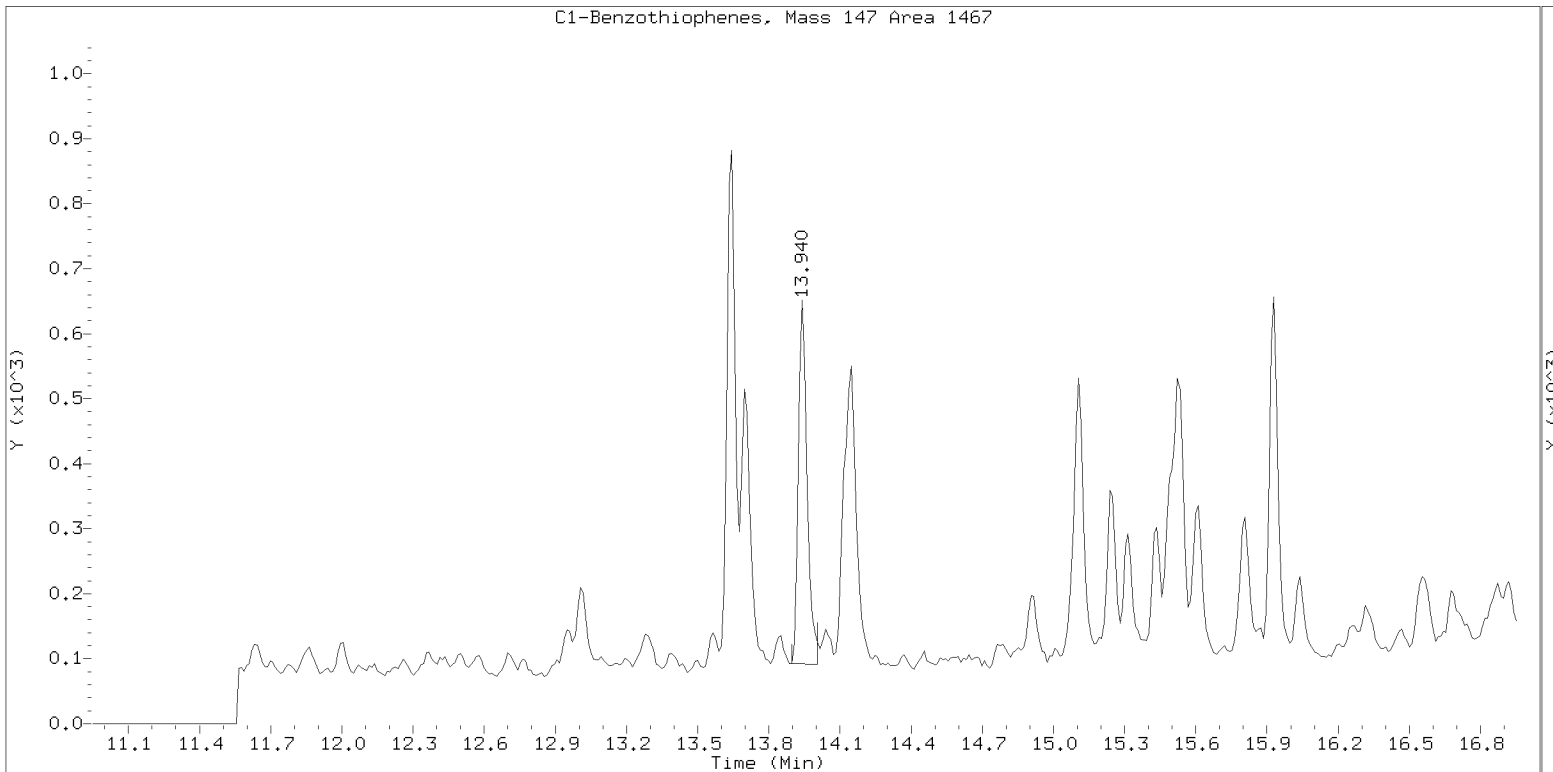
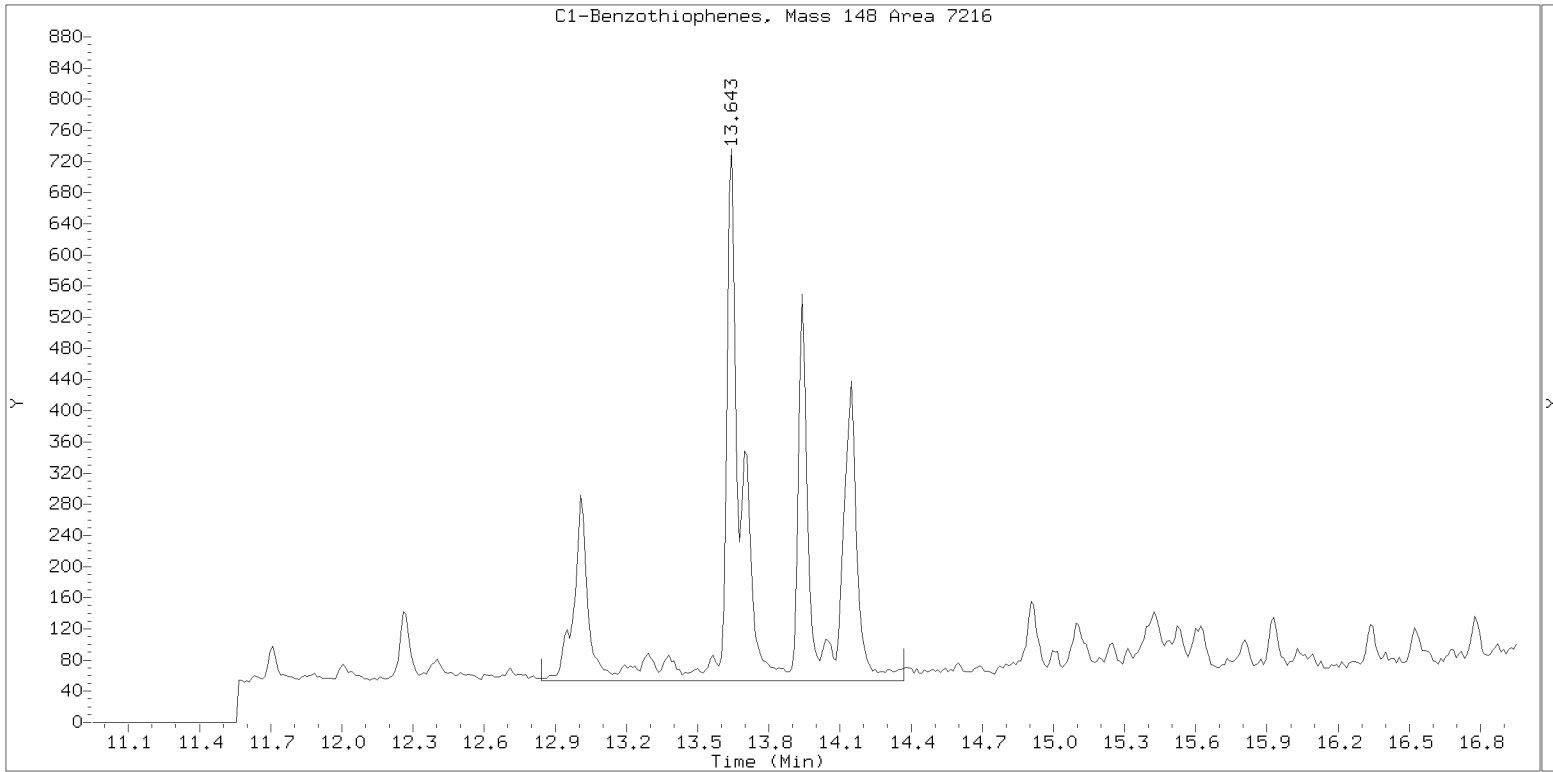
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

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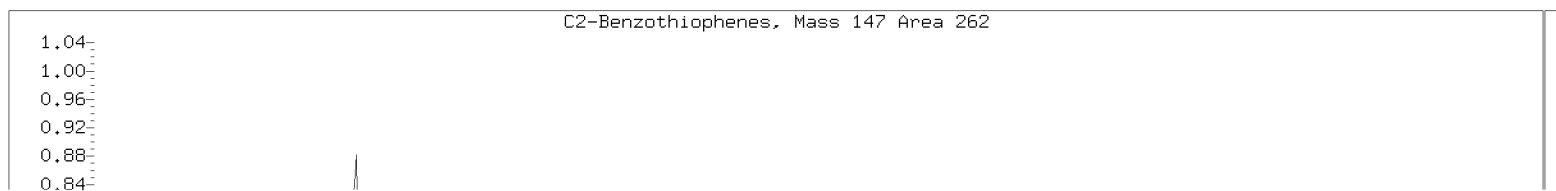
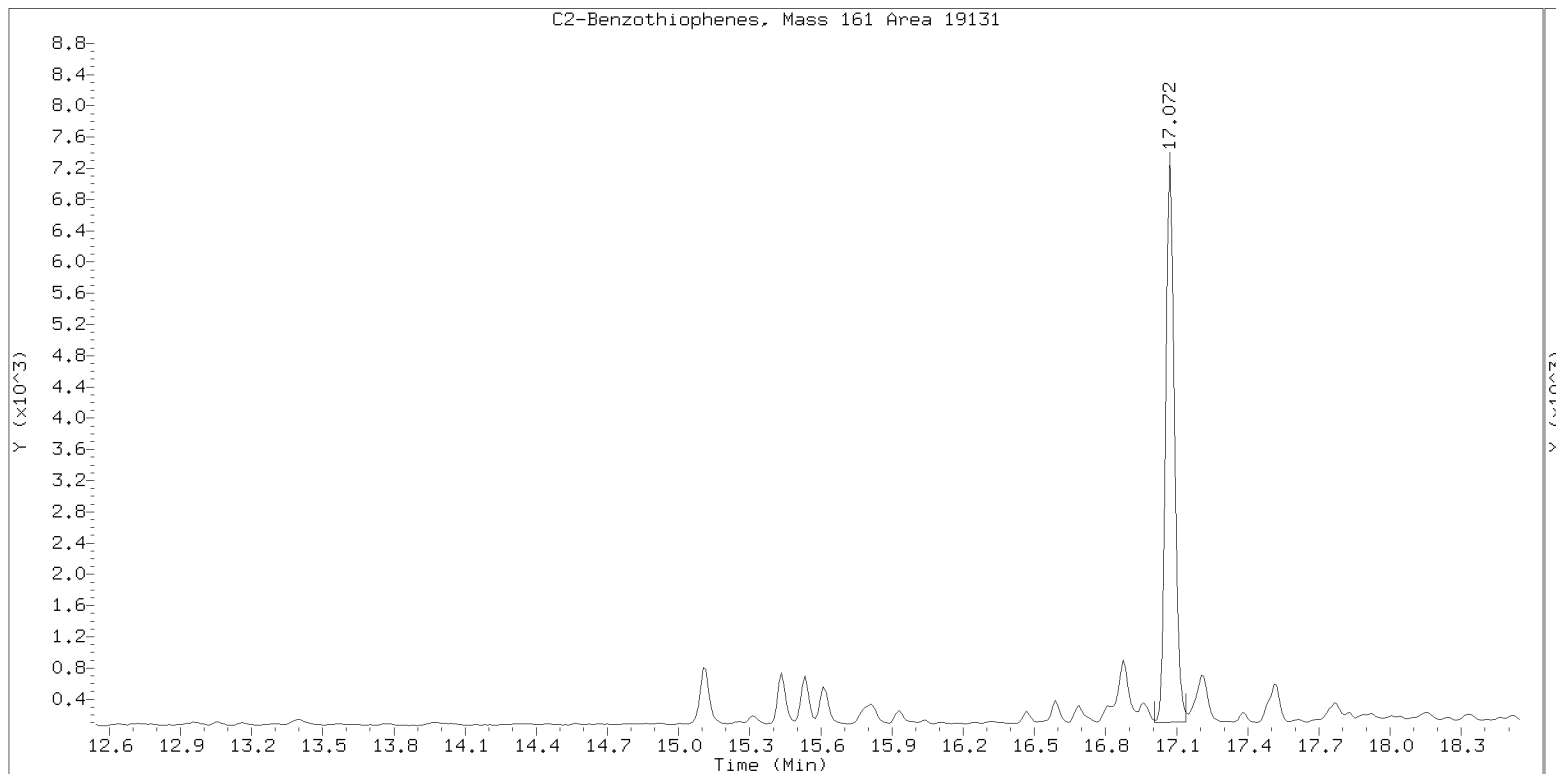
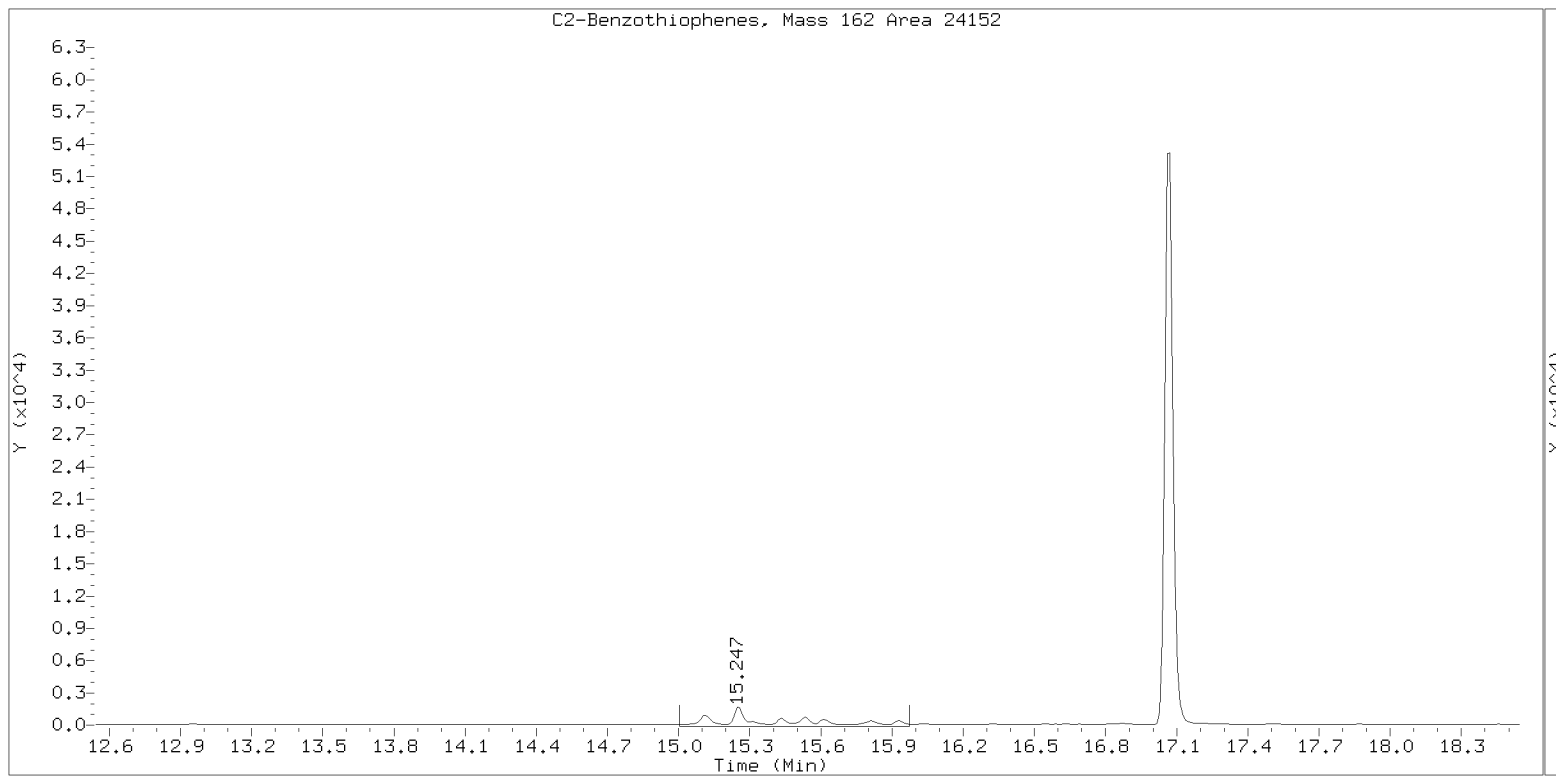
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

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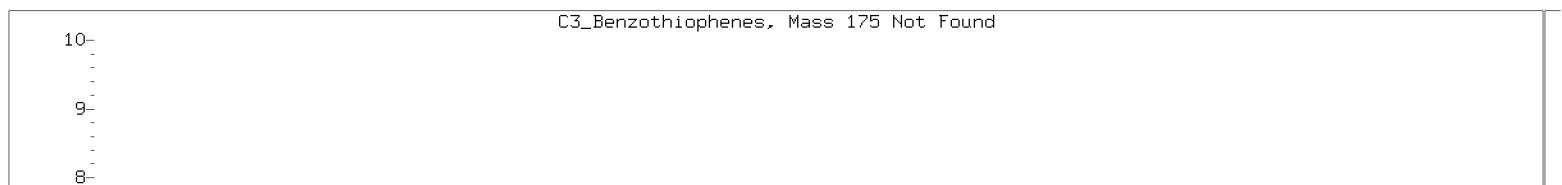
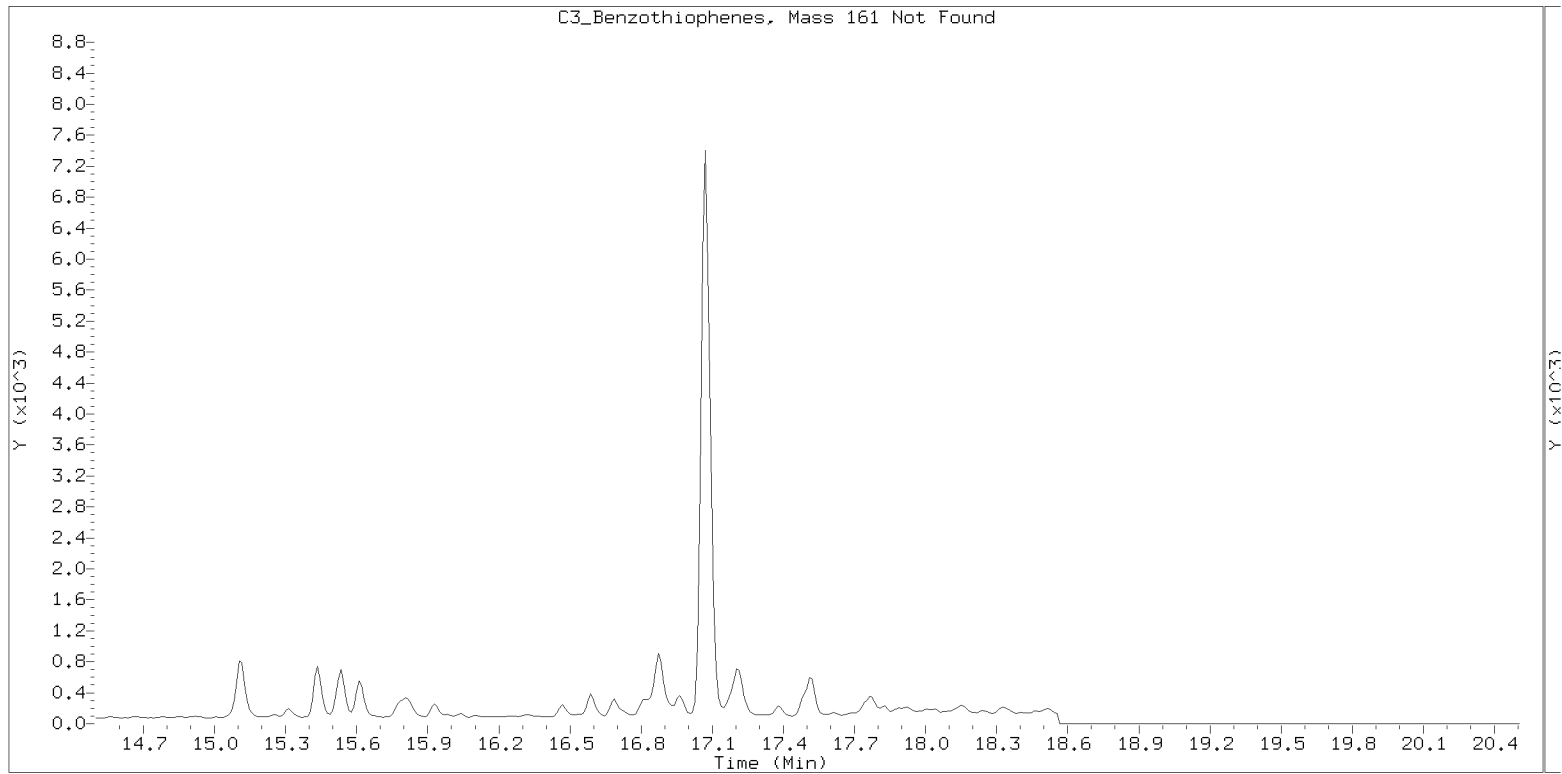
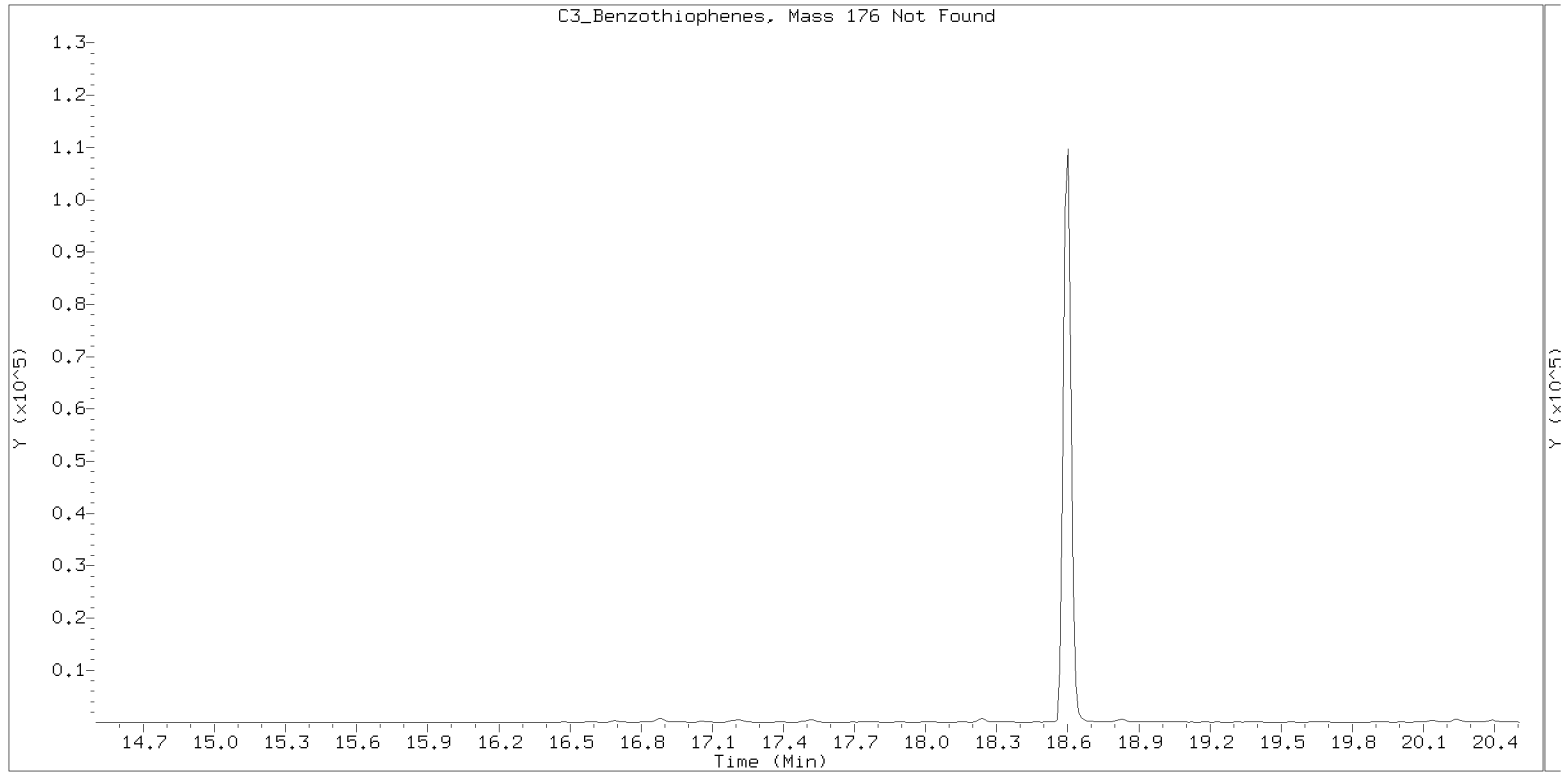
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

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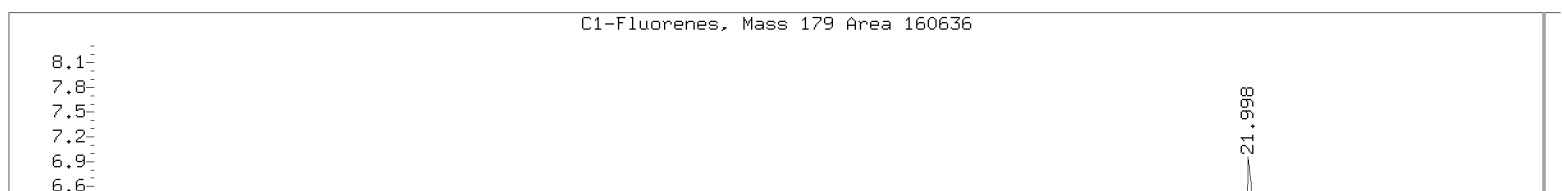
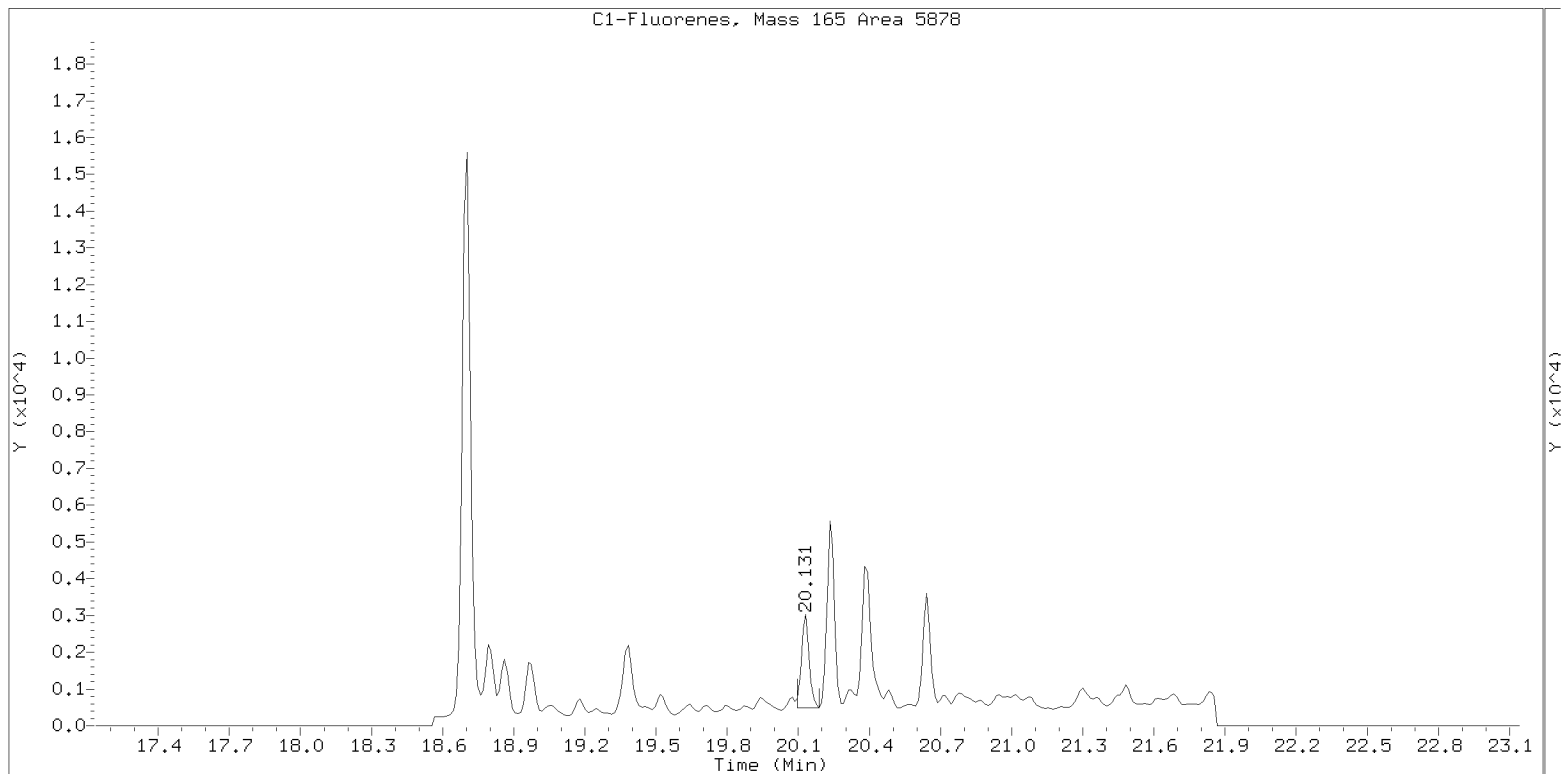
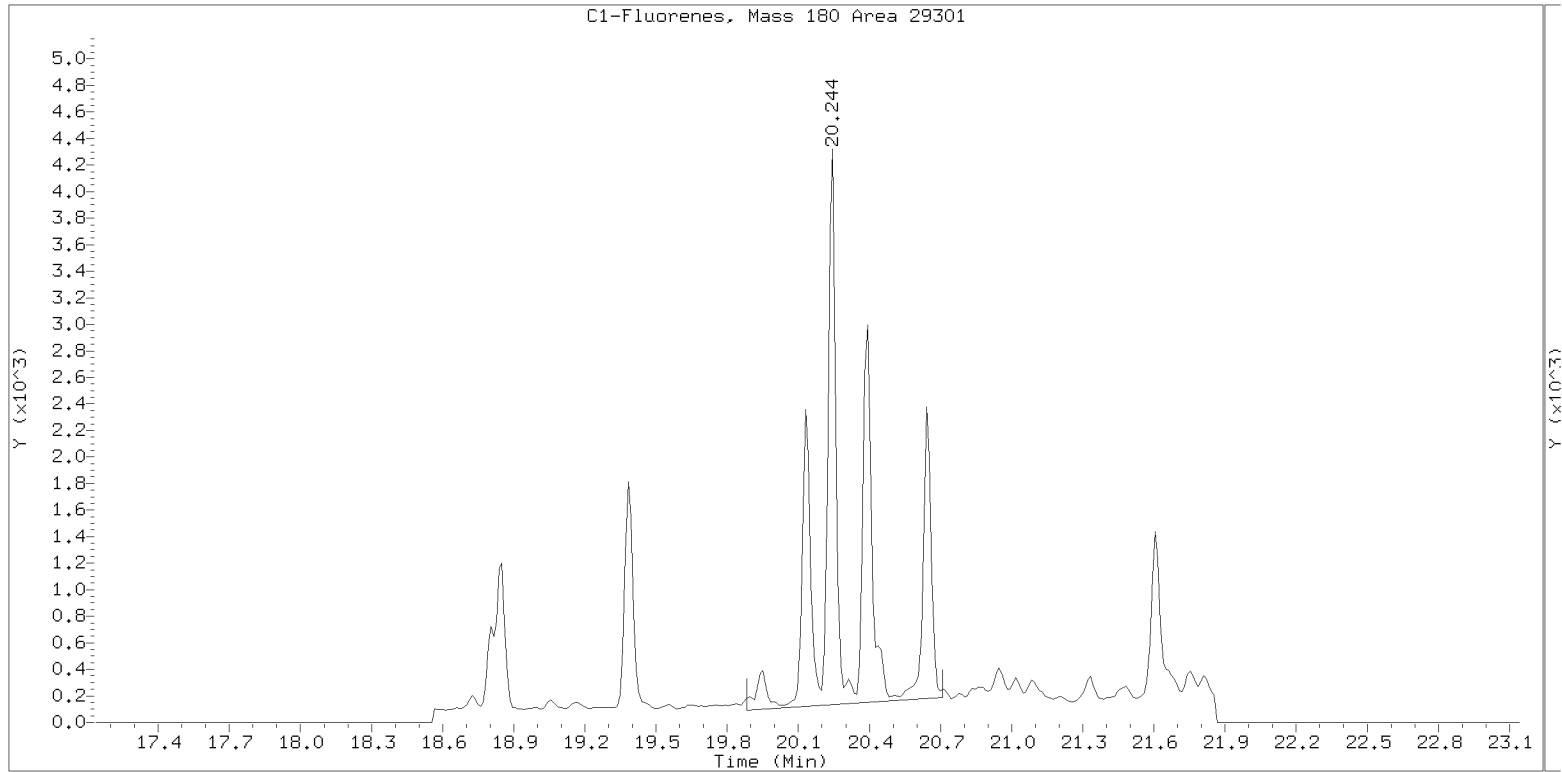
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

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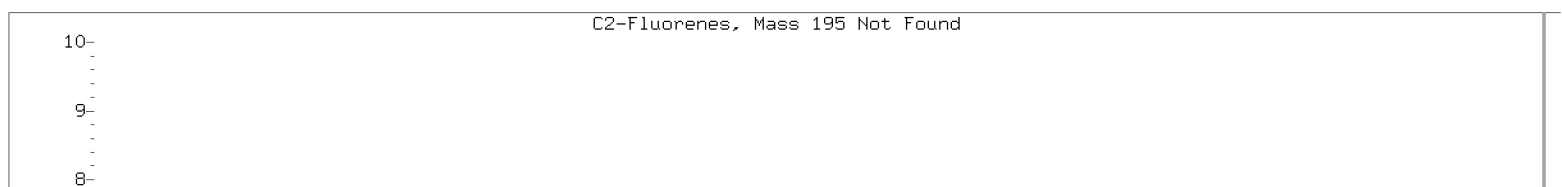
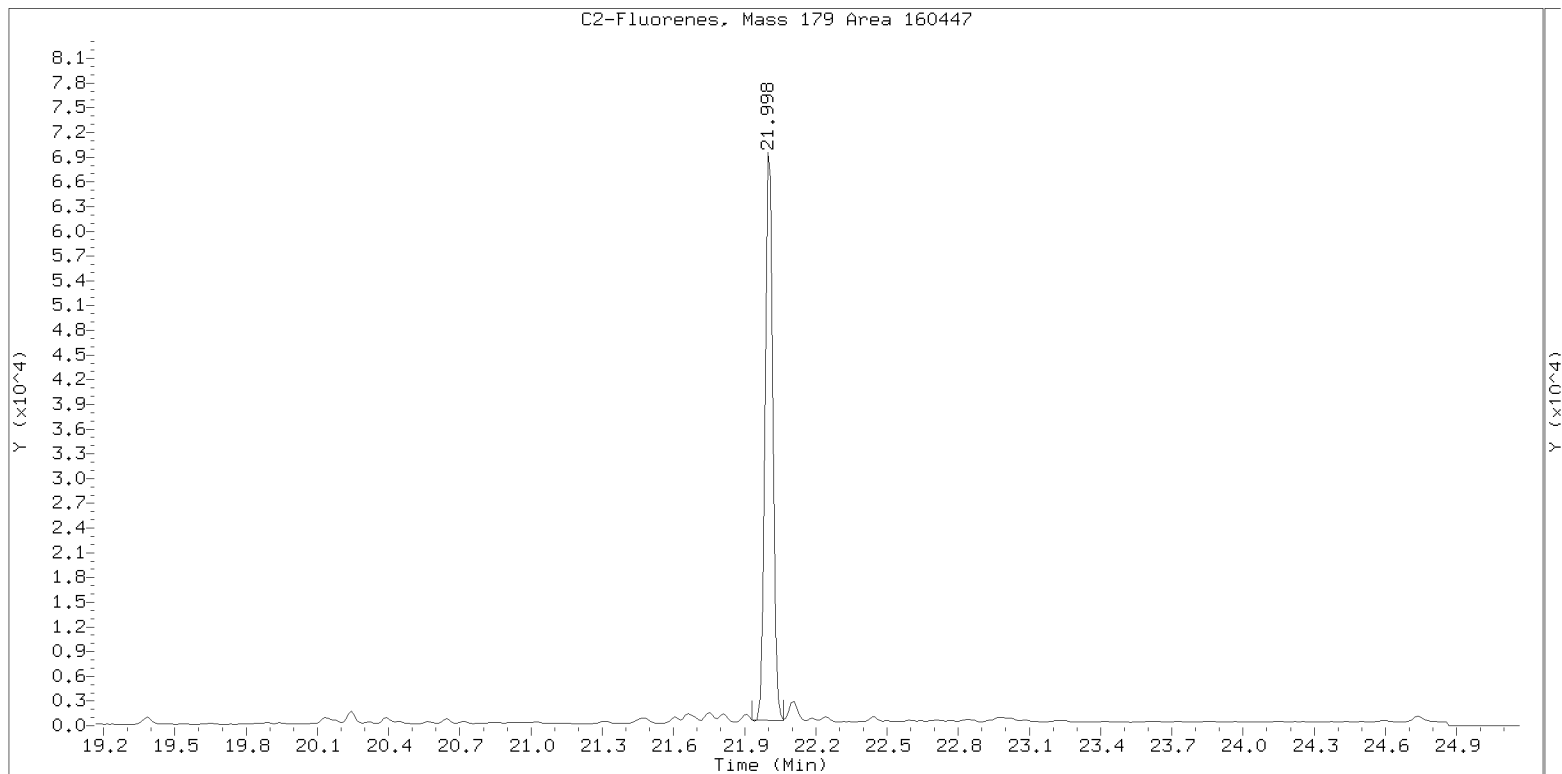
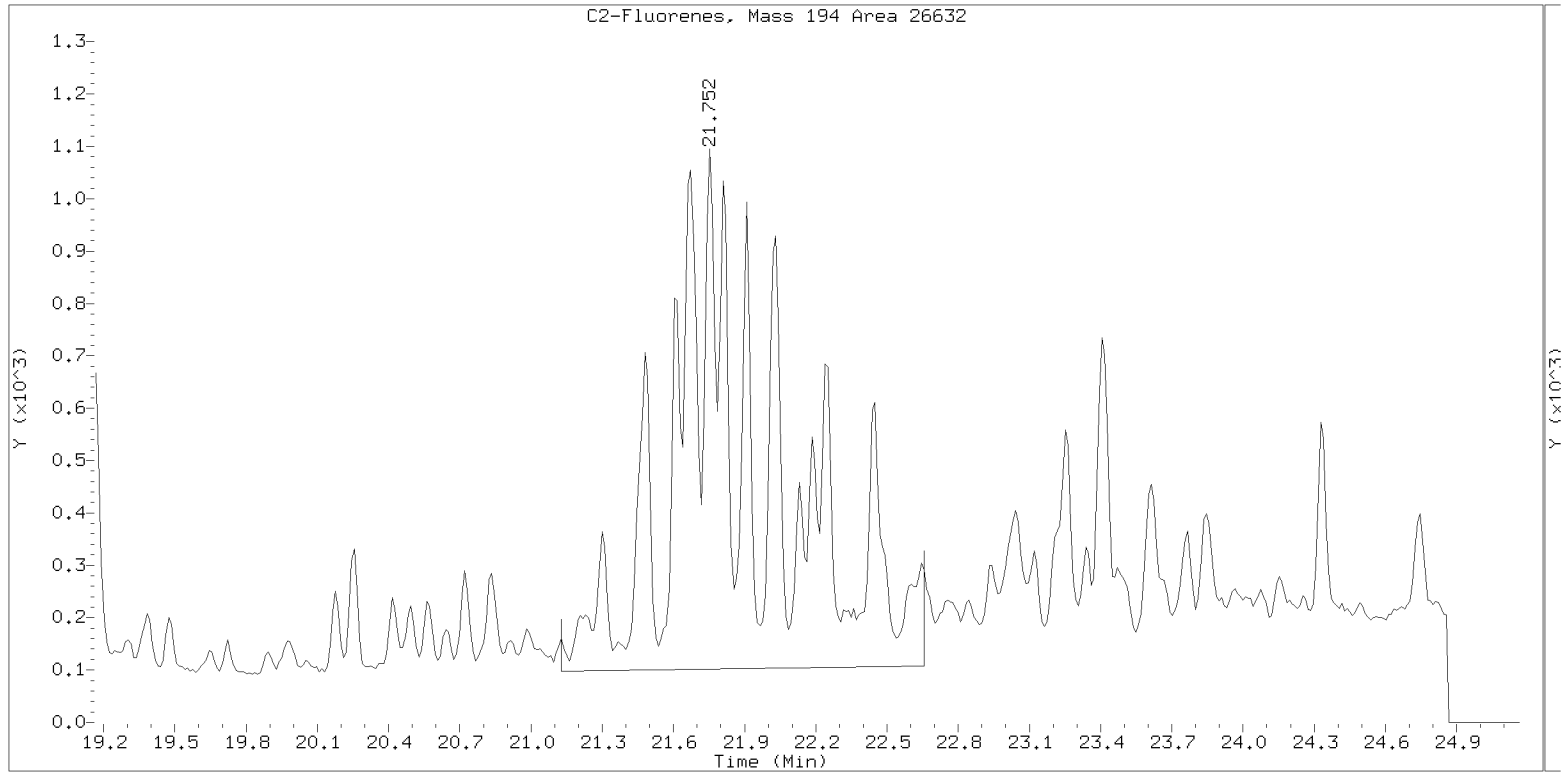
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

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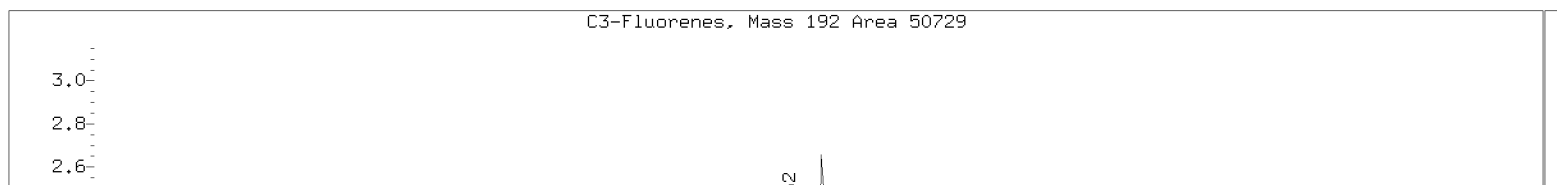
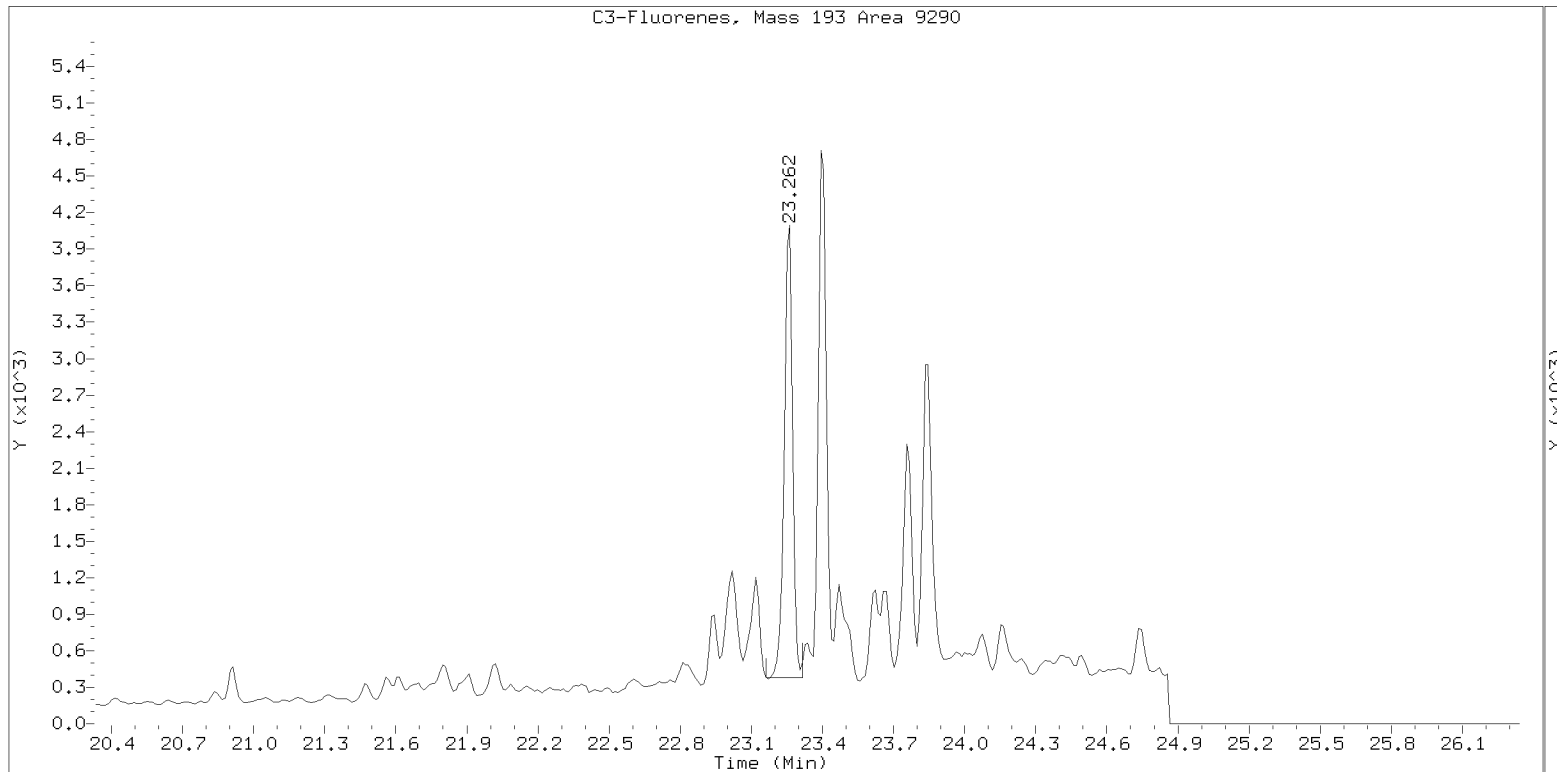
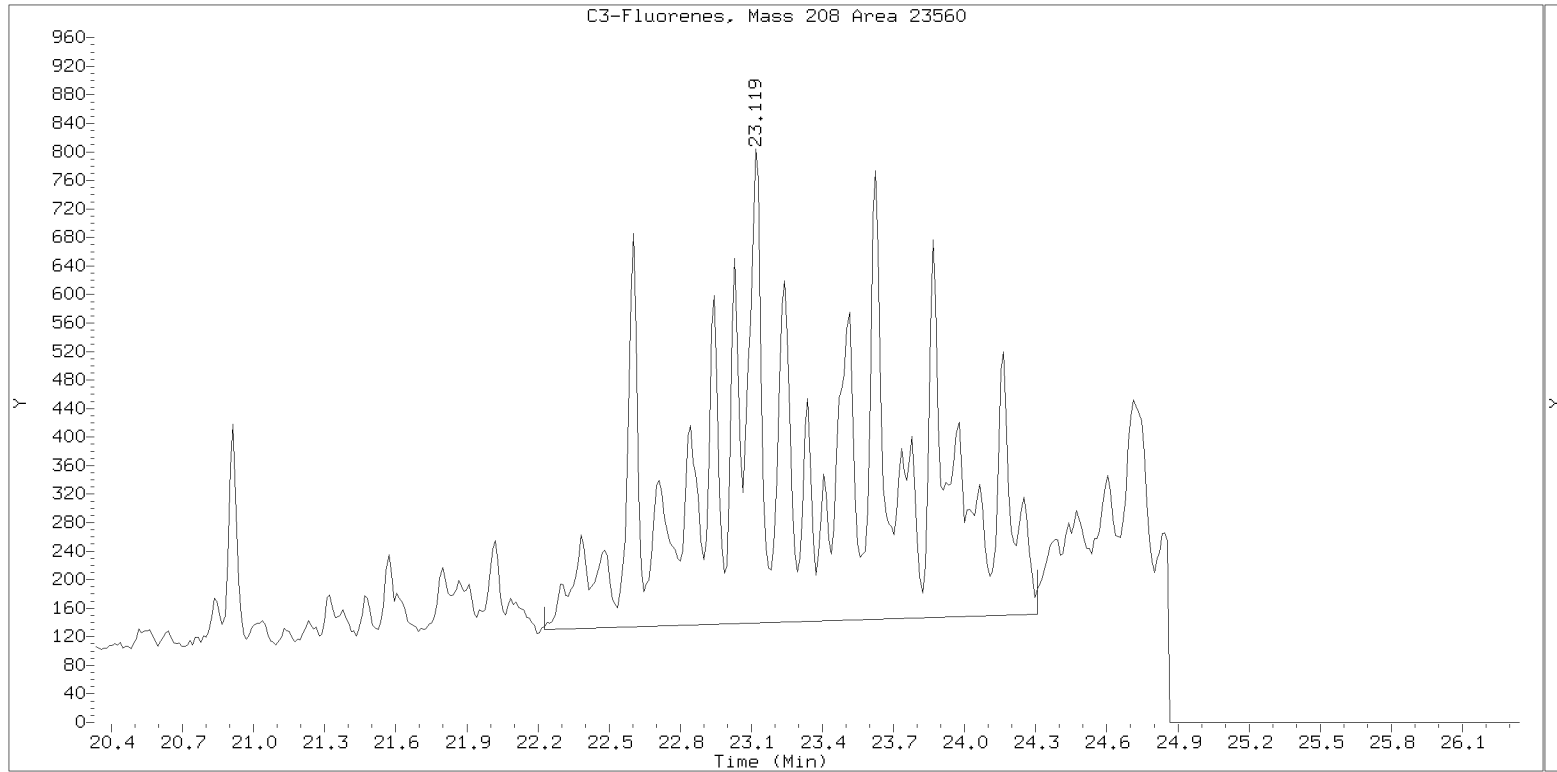




SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

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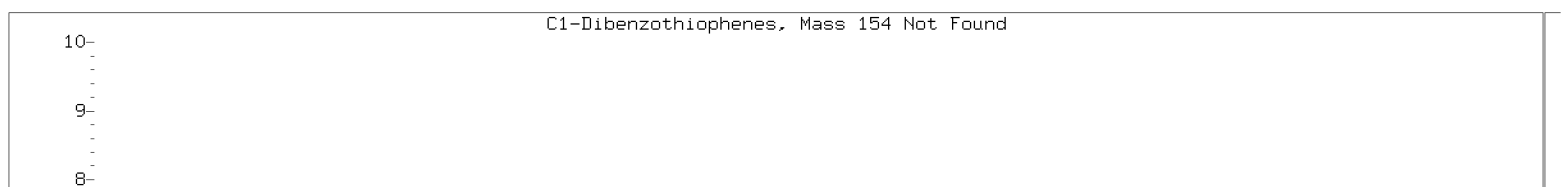
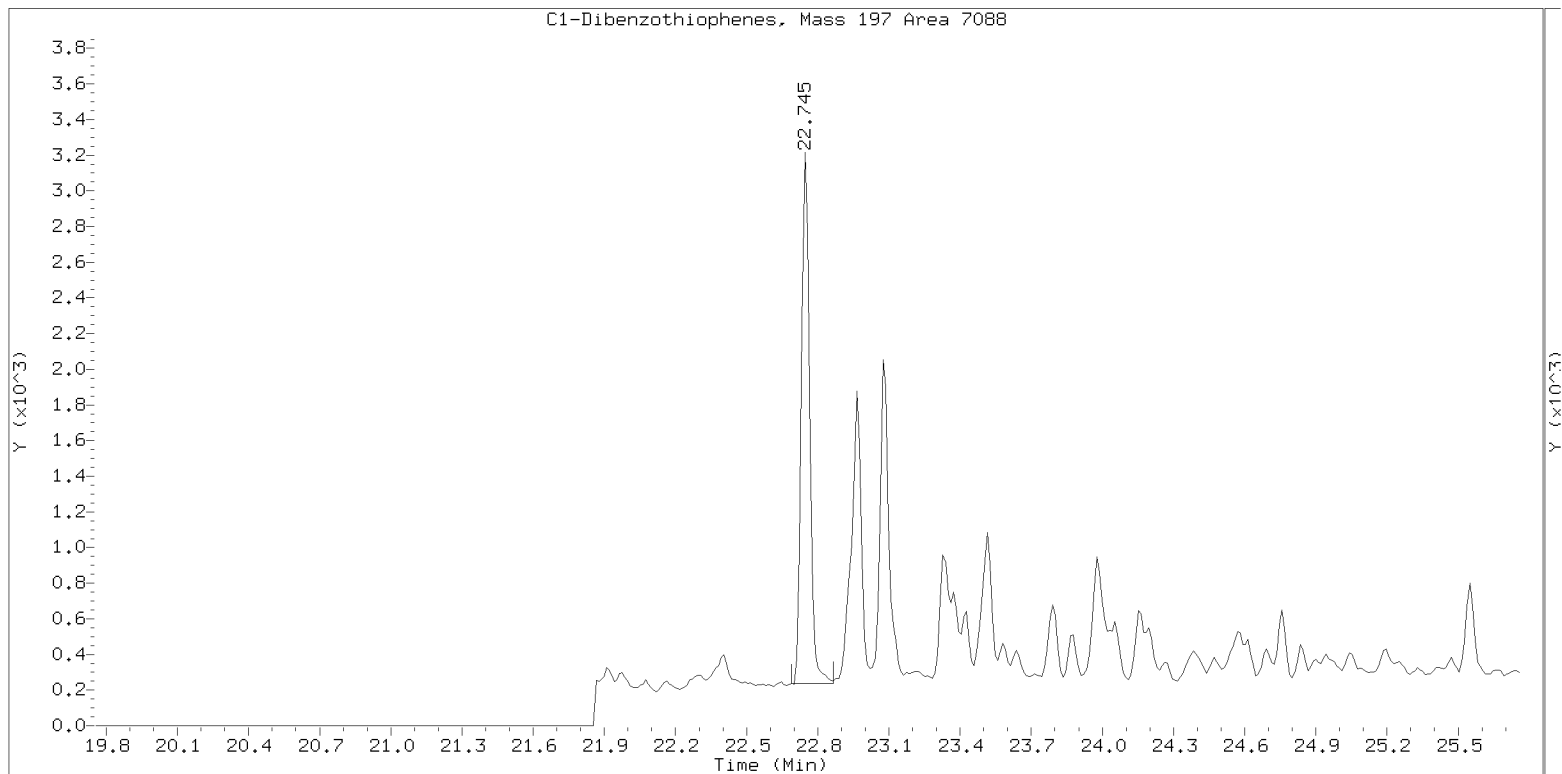
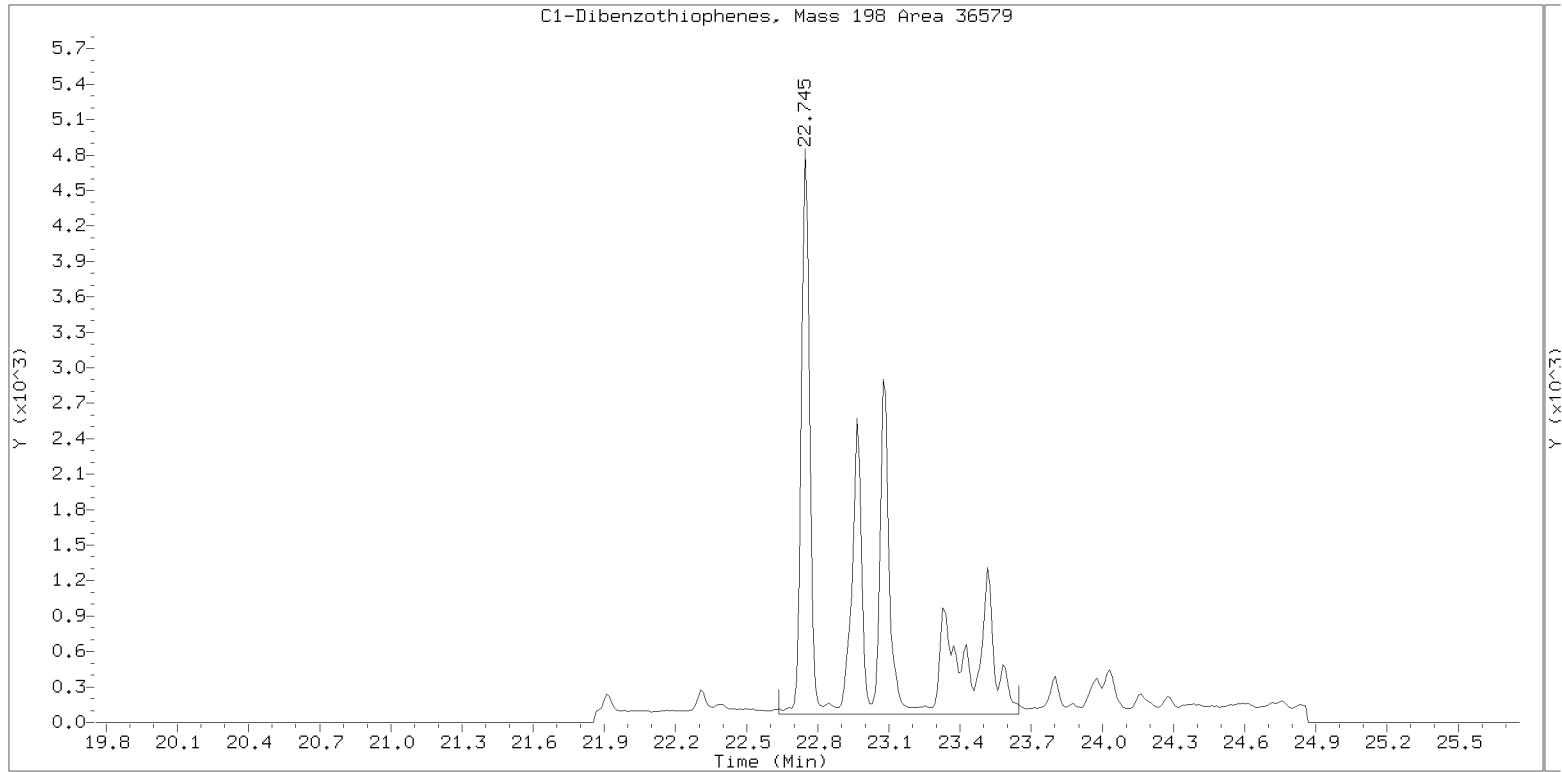
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

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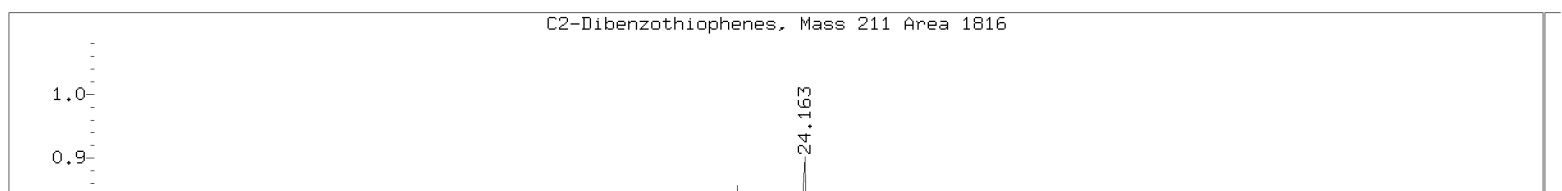
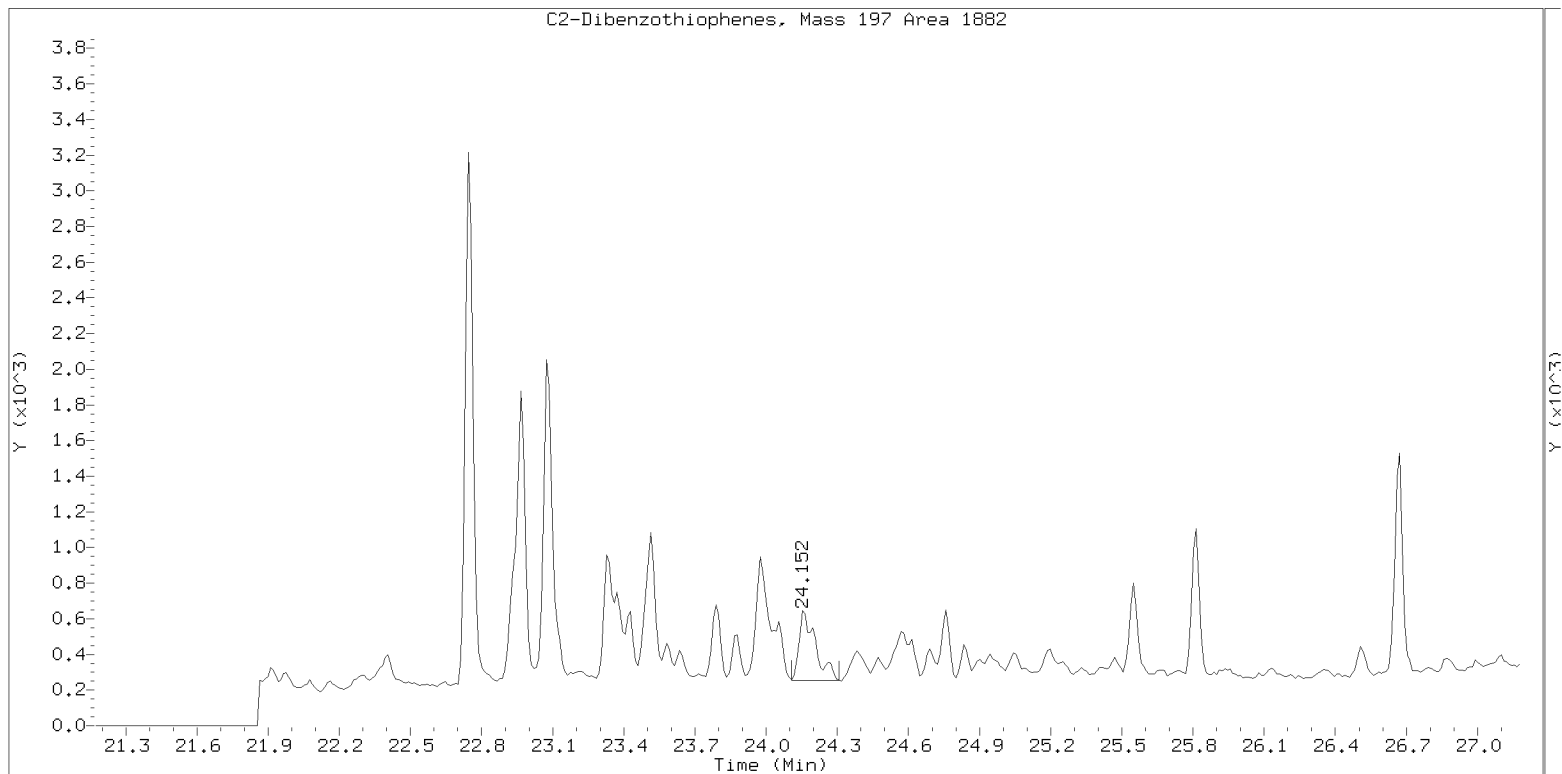
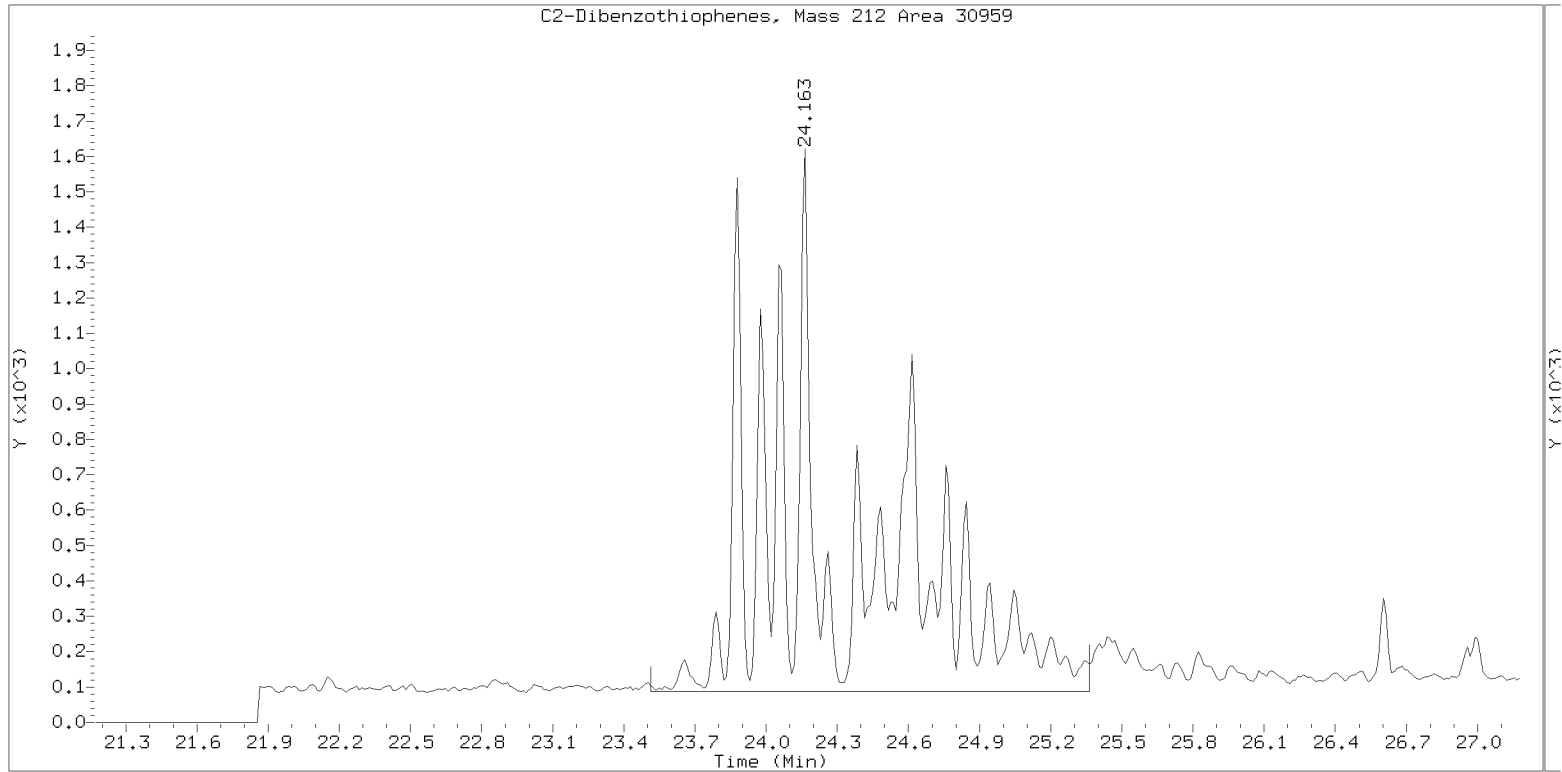
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

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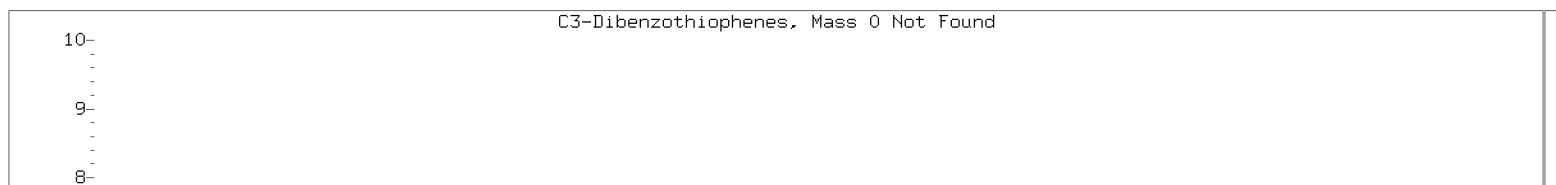
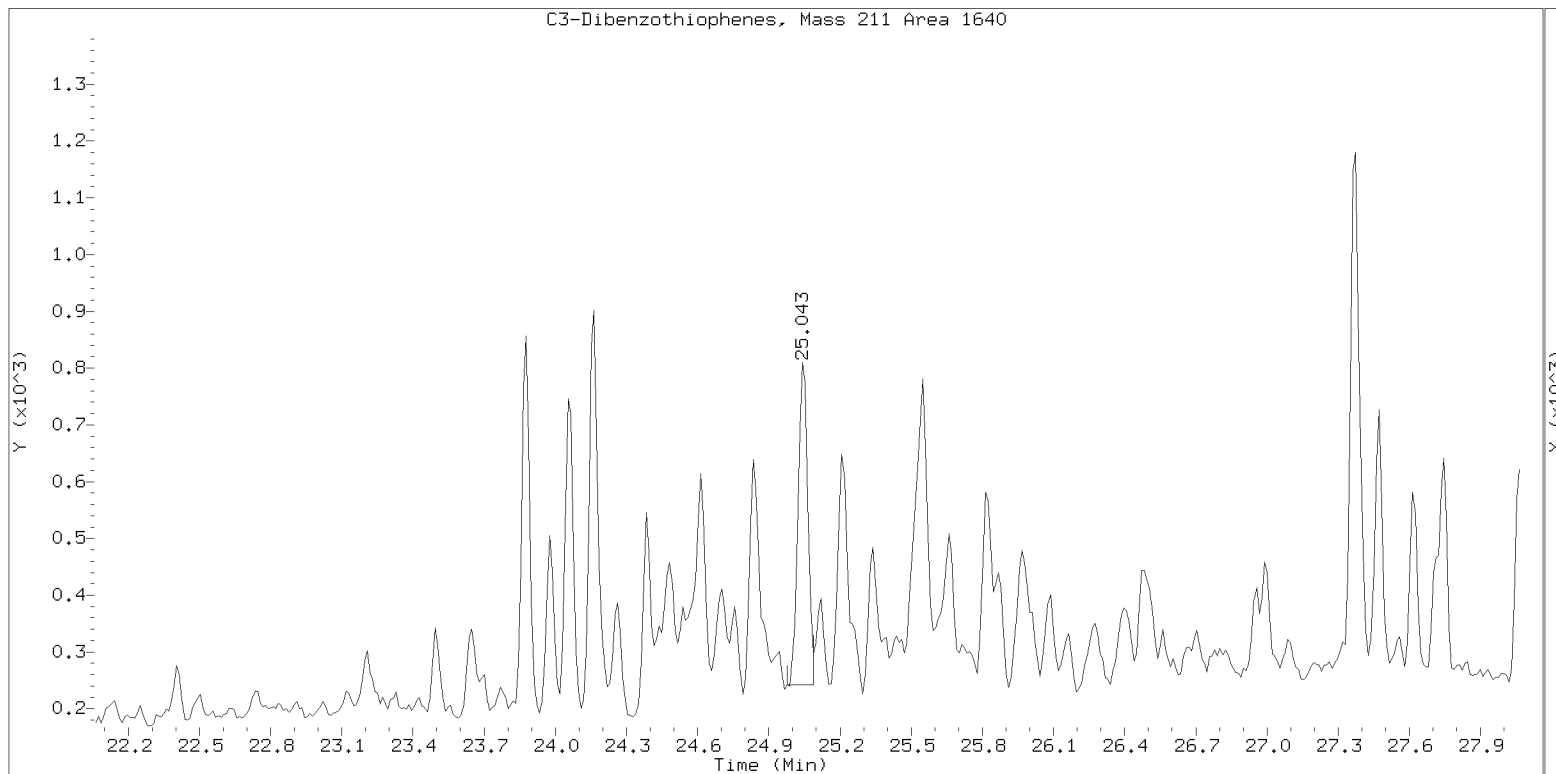
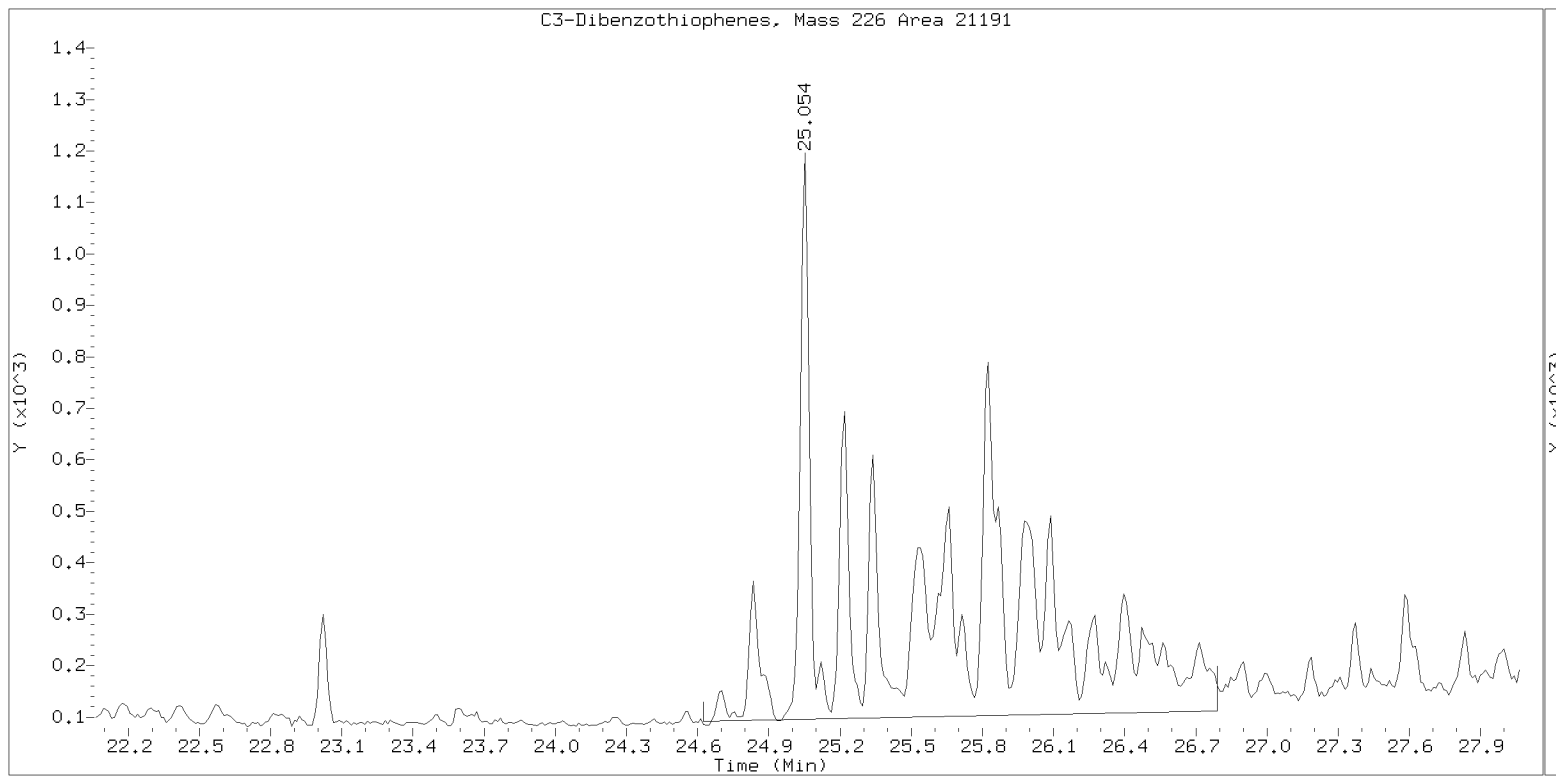
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

Lab ID: 20K0204-07

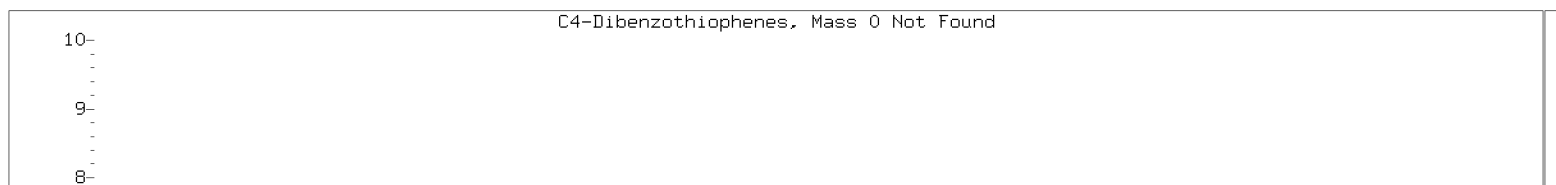
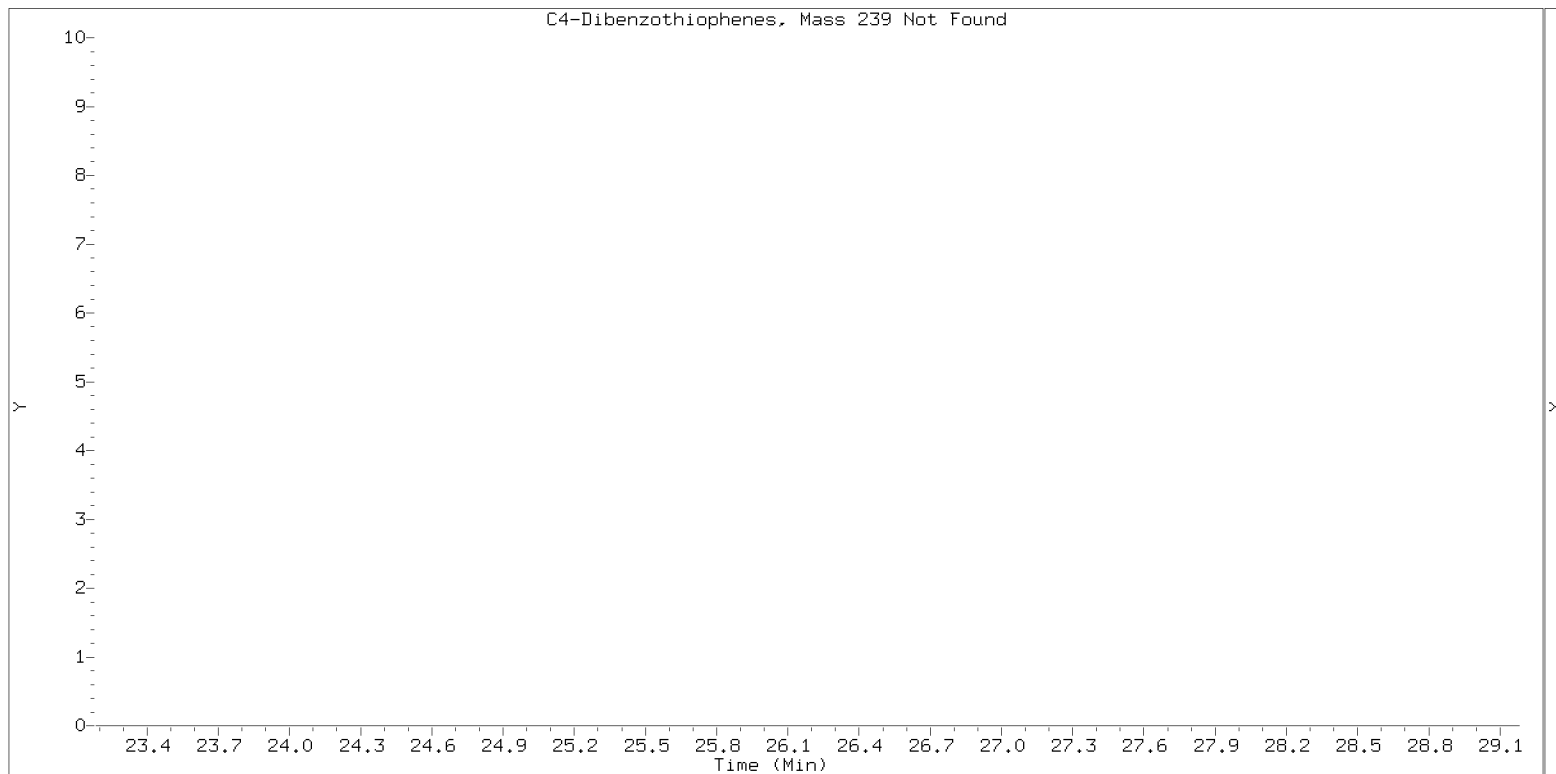
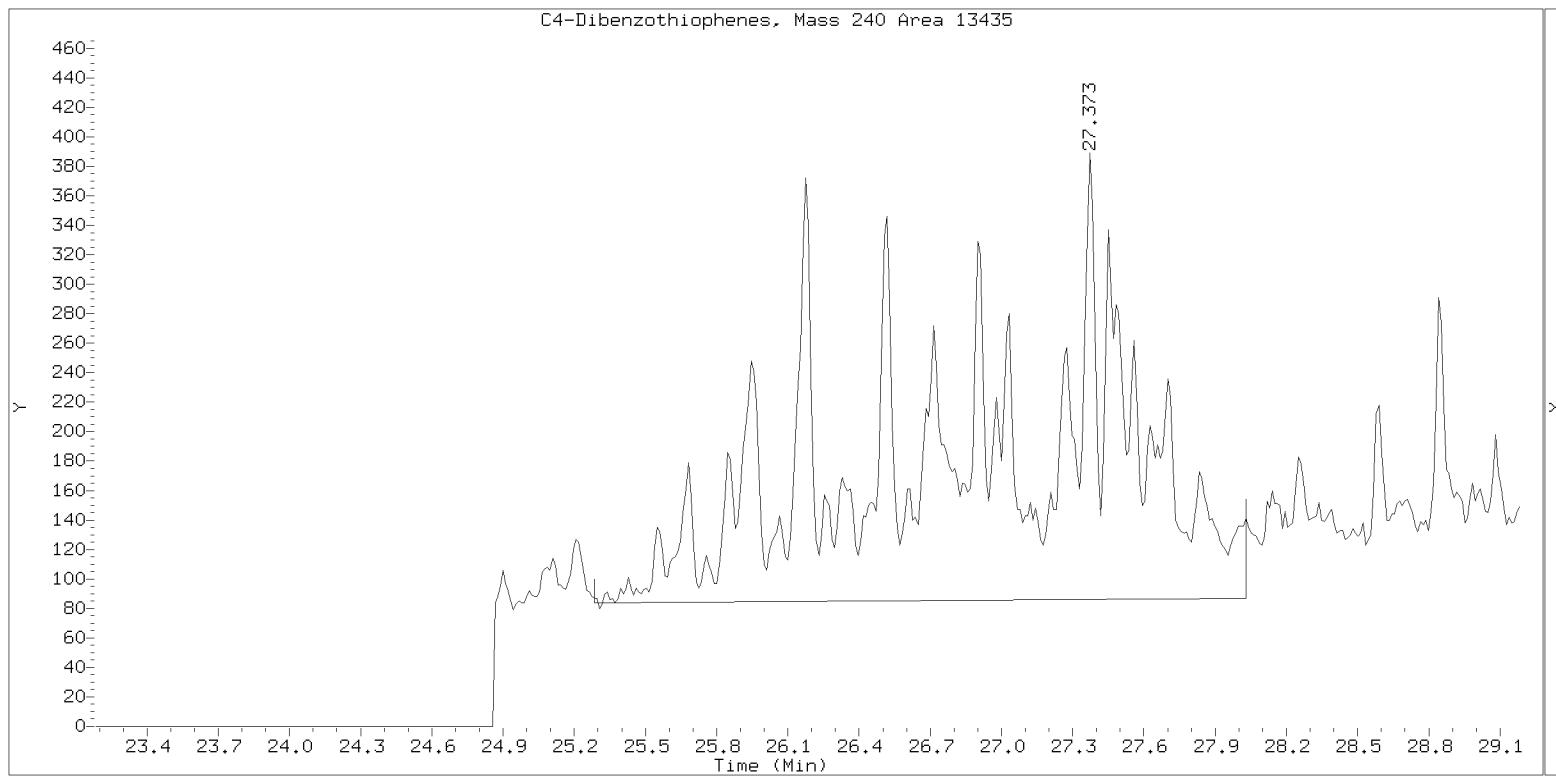
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

Lab ID: 20K0204-07

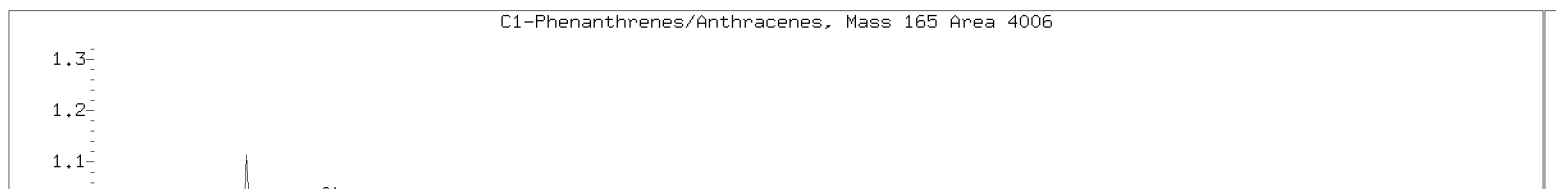
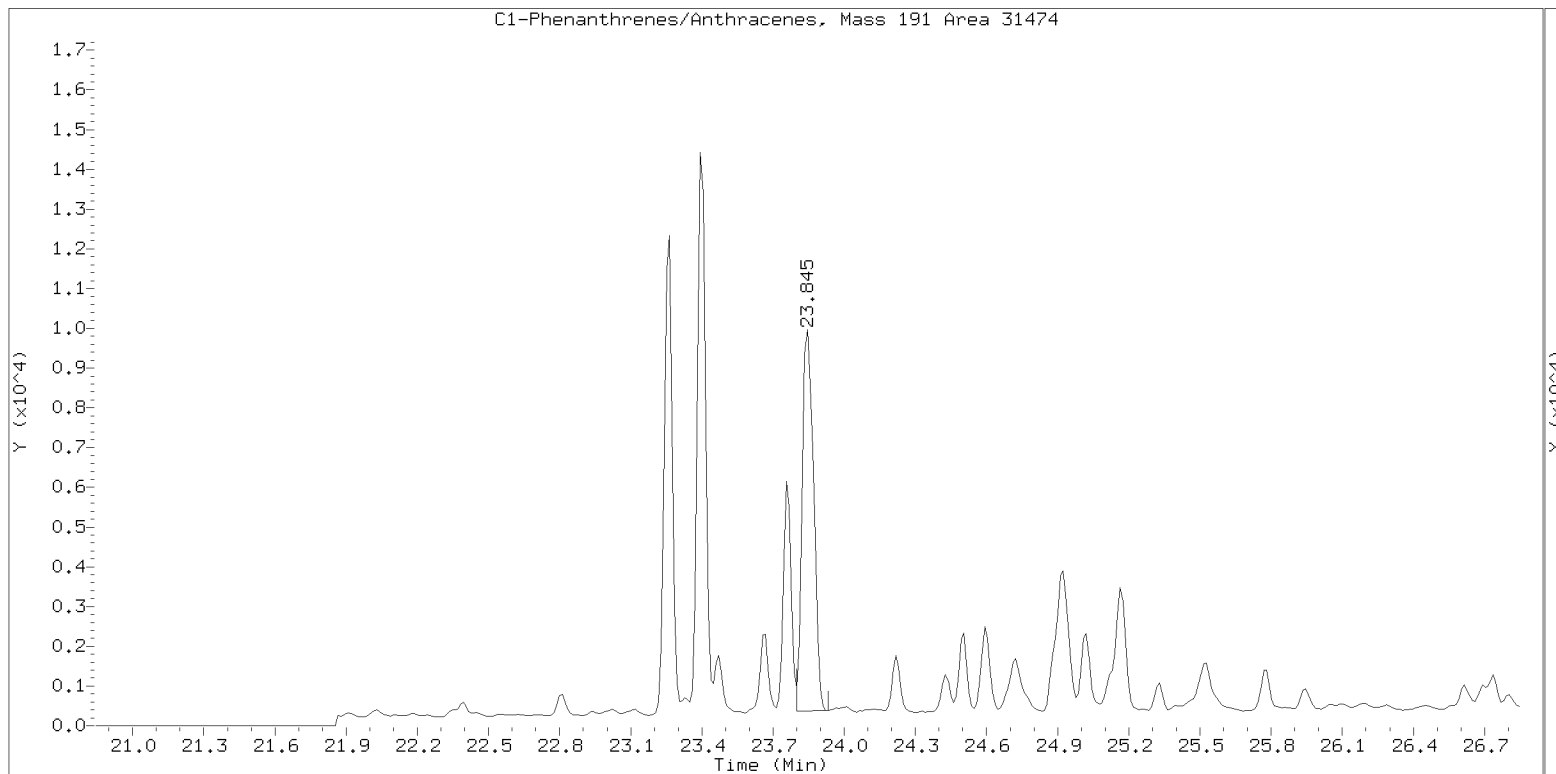
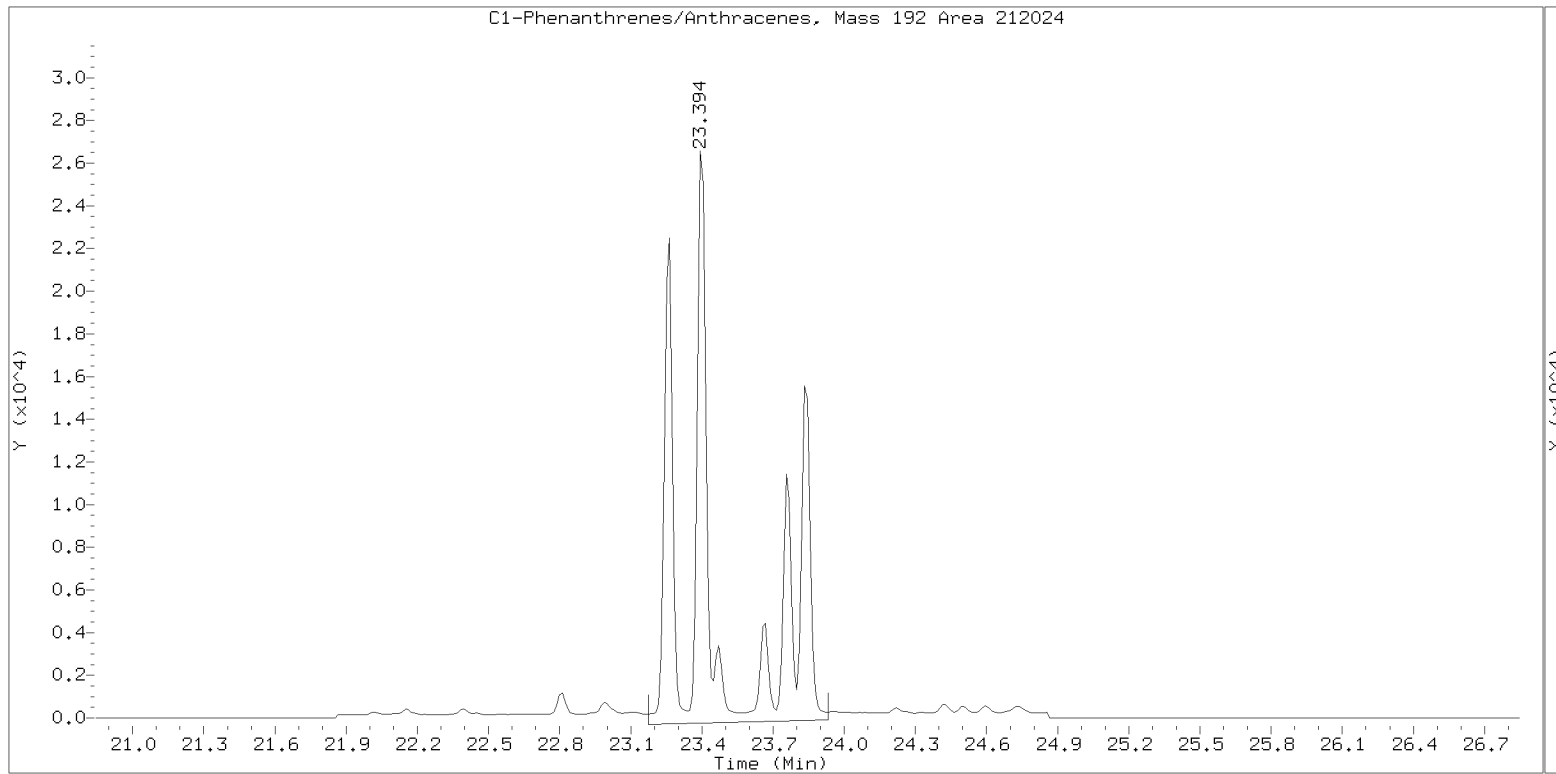
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

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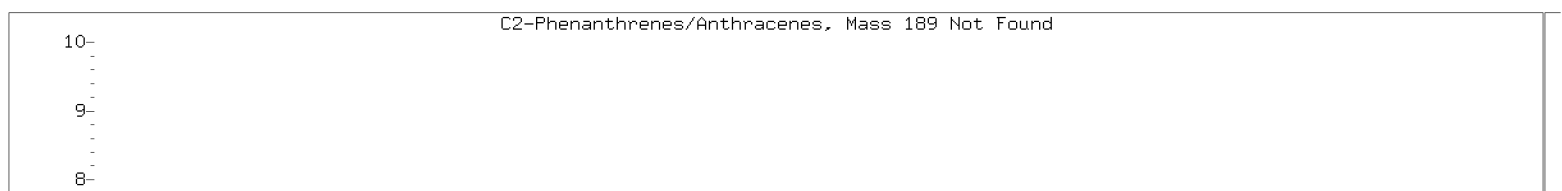
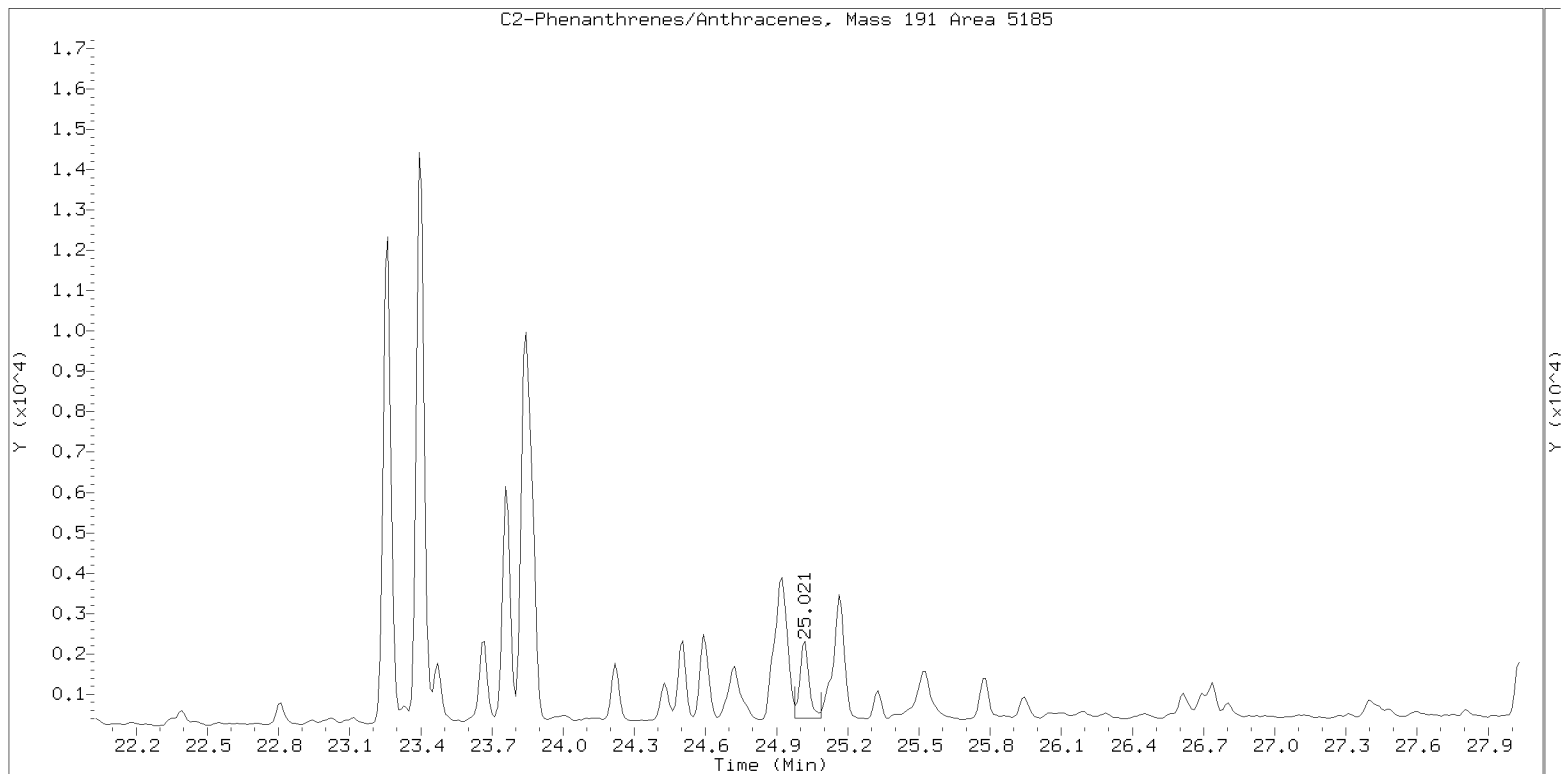
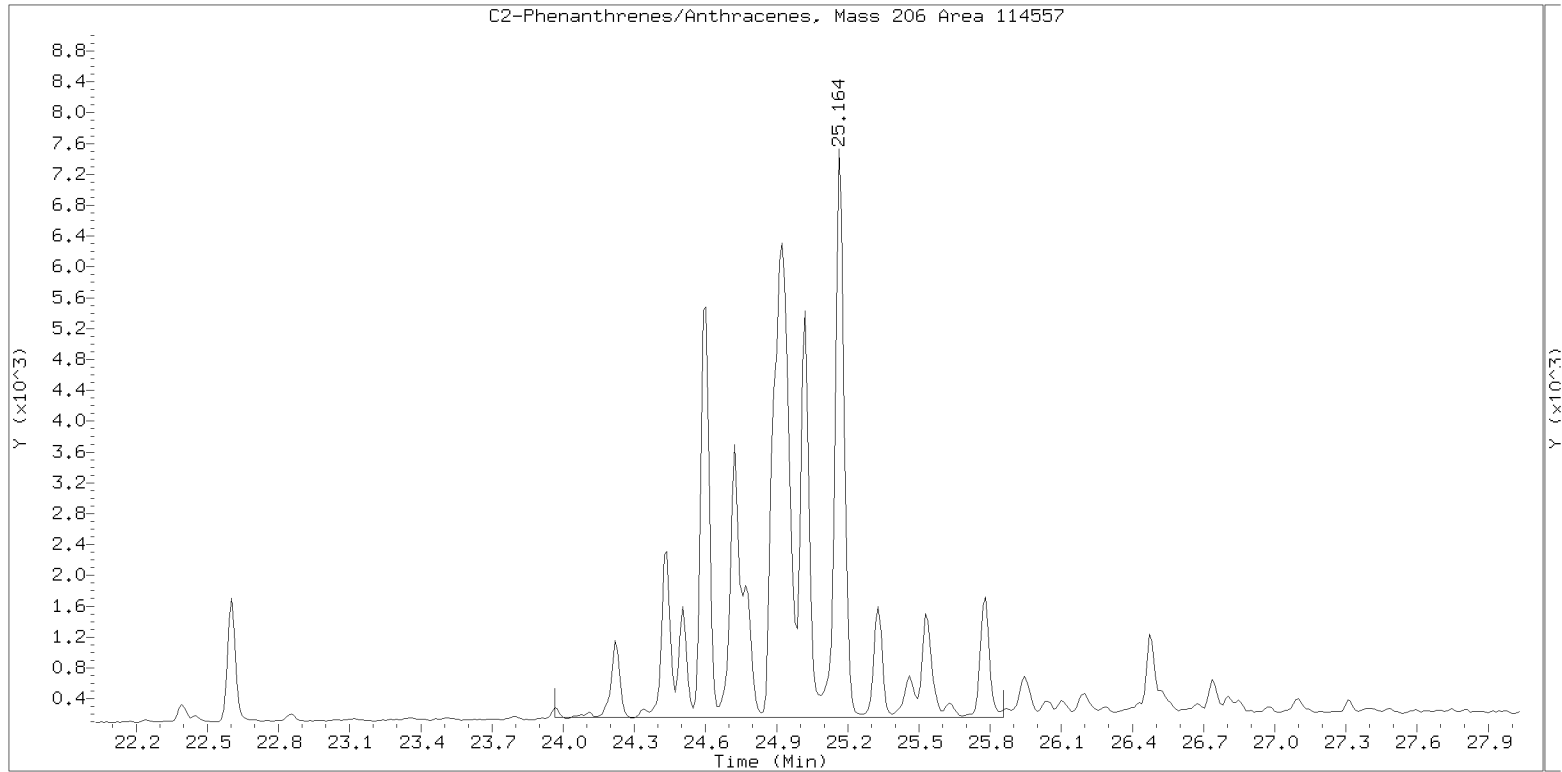
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

Lab ID: 20K0204-07

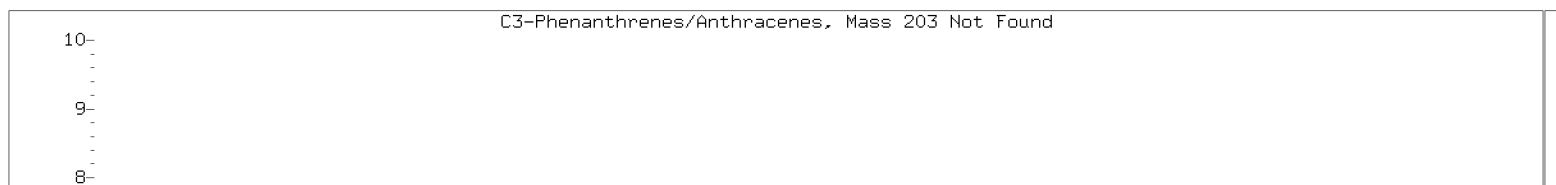
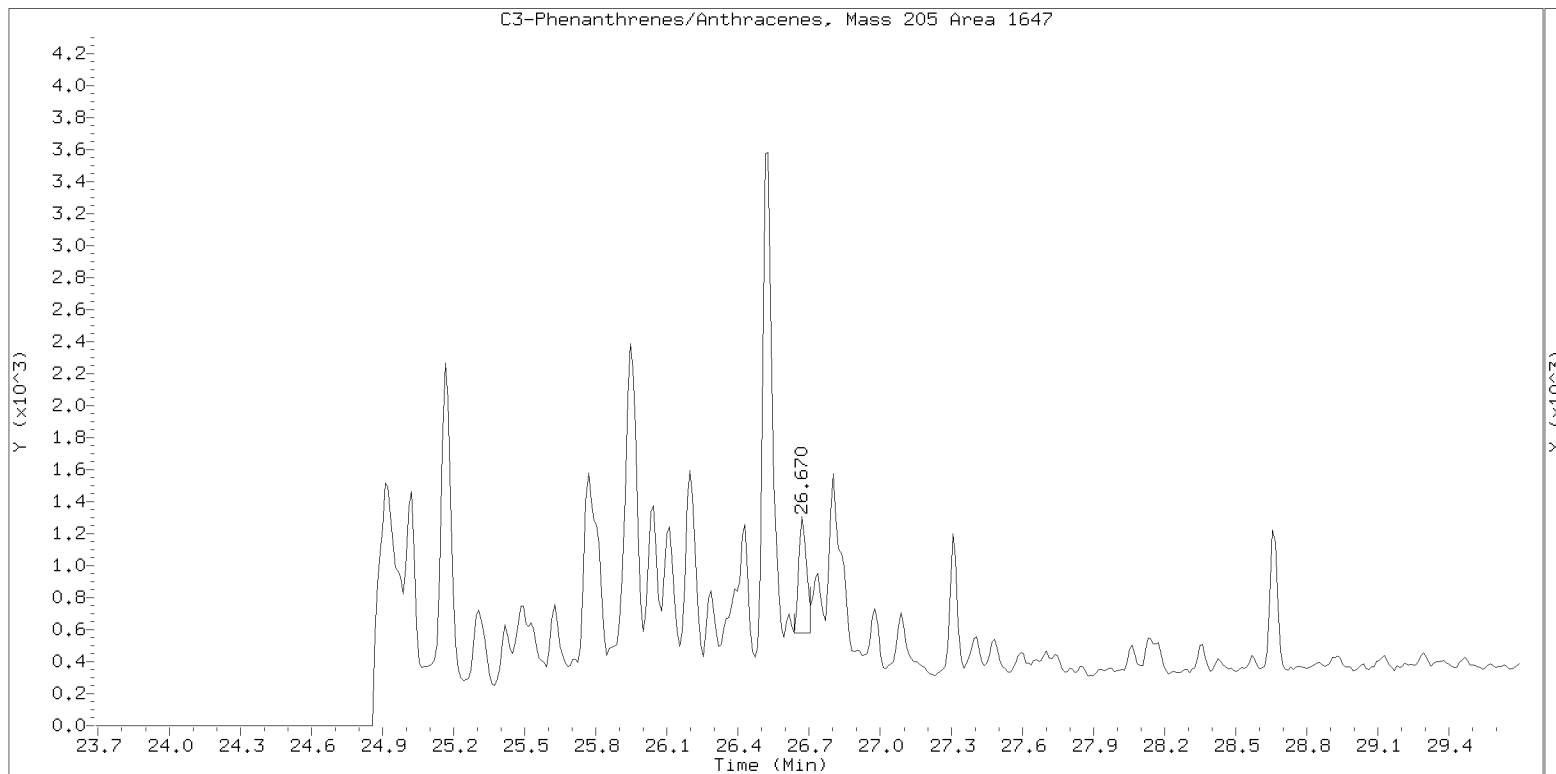
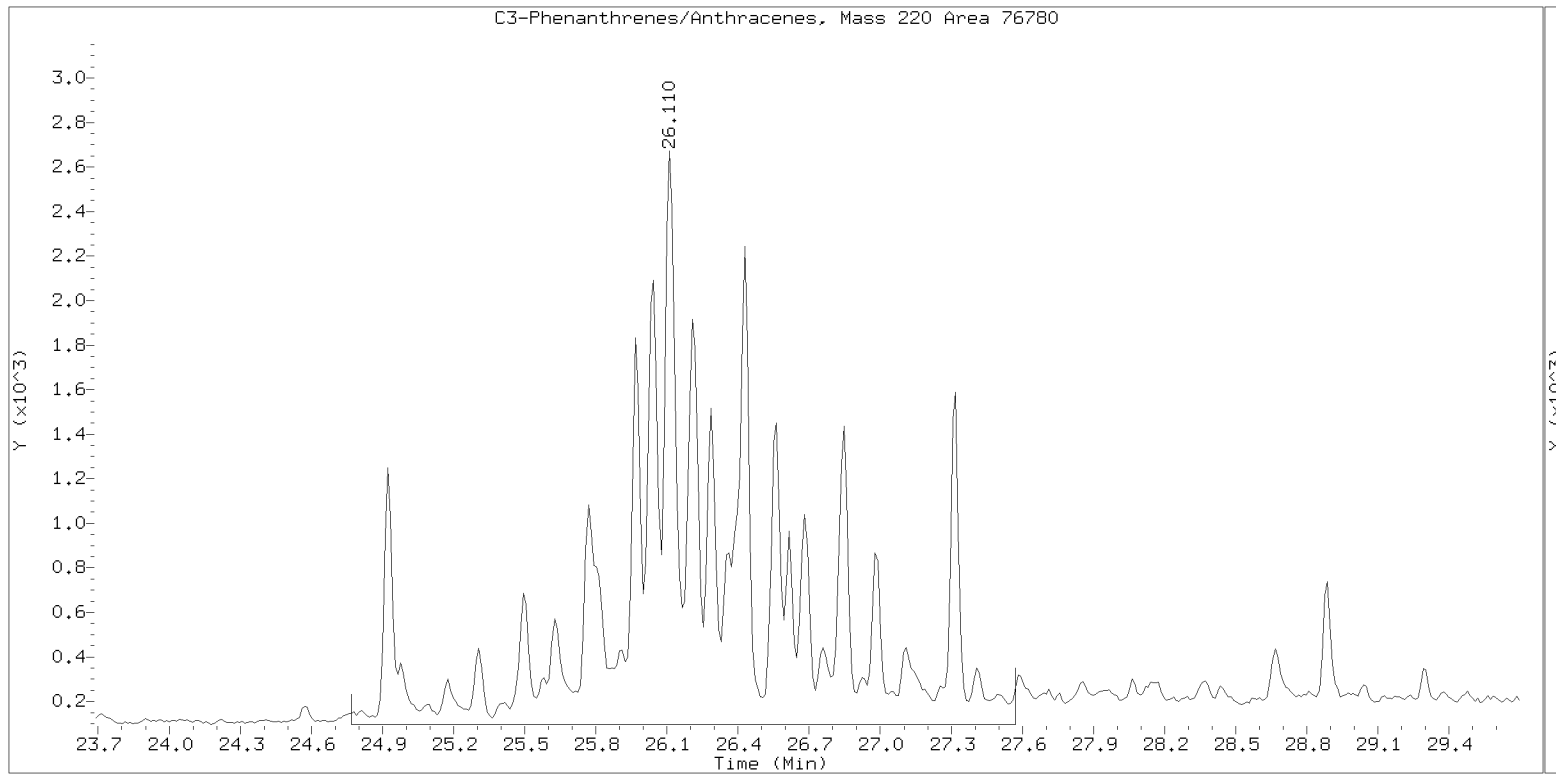
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

Lab ID: 20K0204-07

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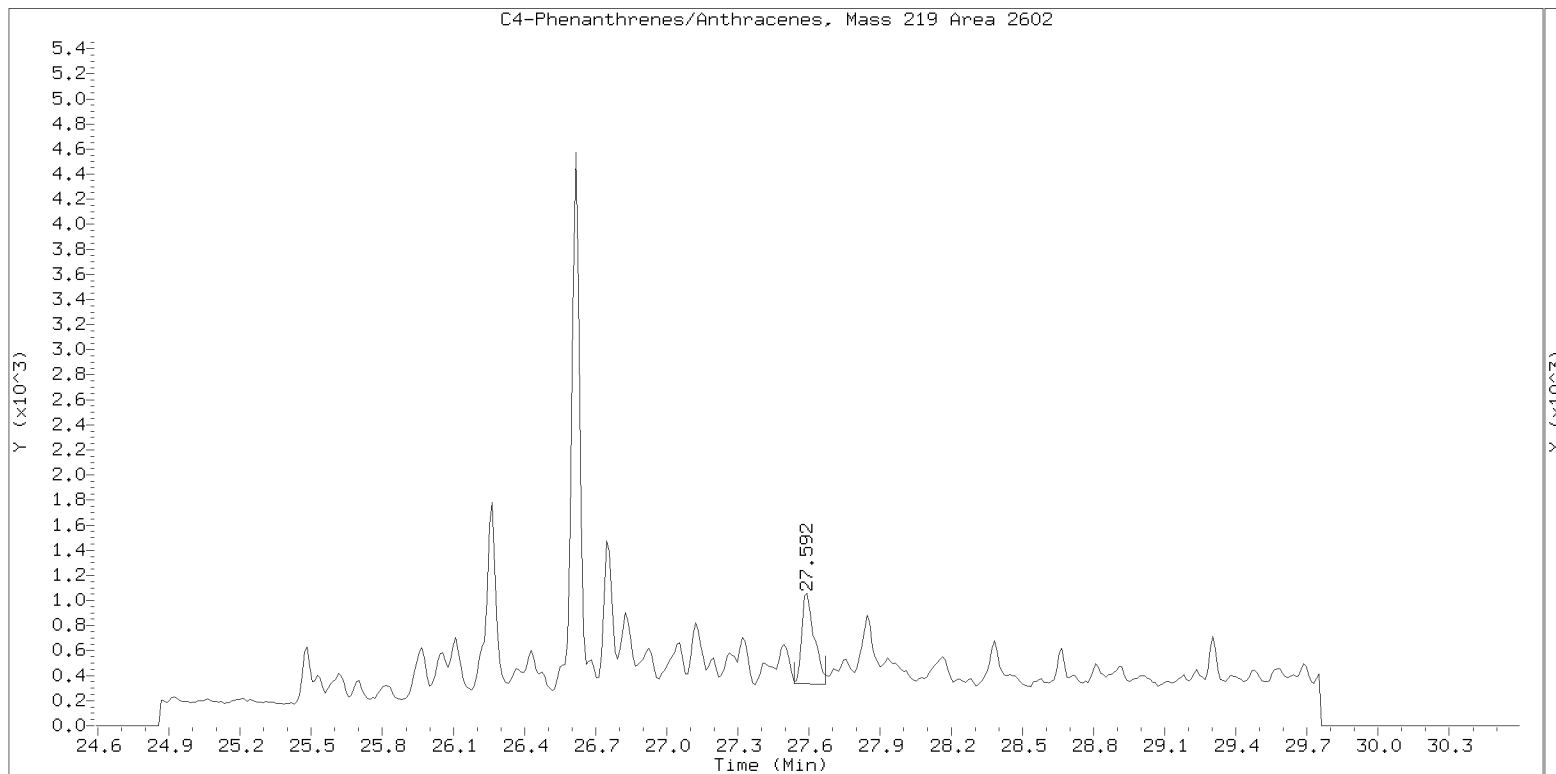
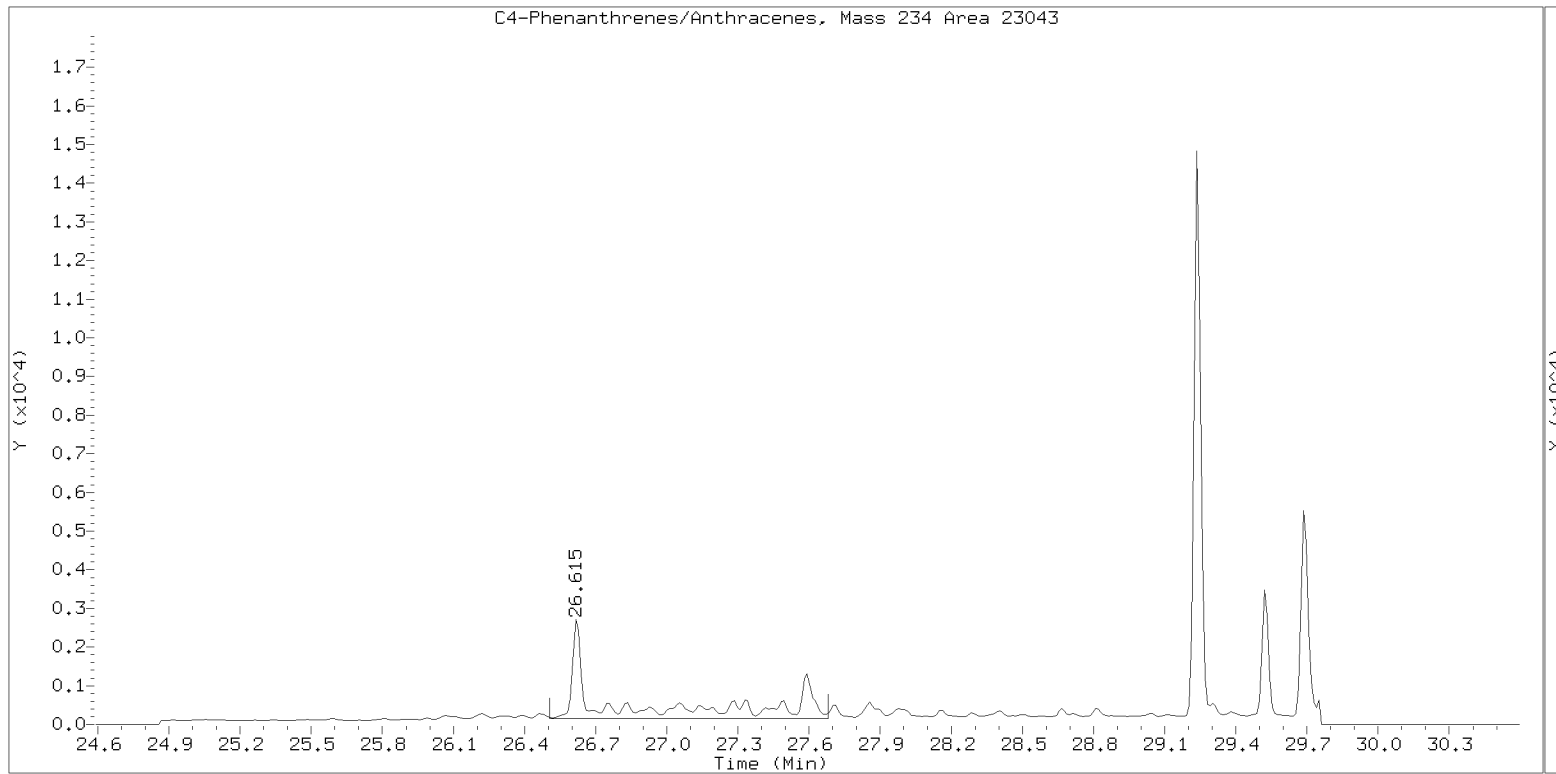




SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

Lab ID: 20K0204-07

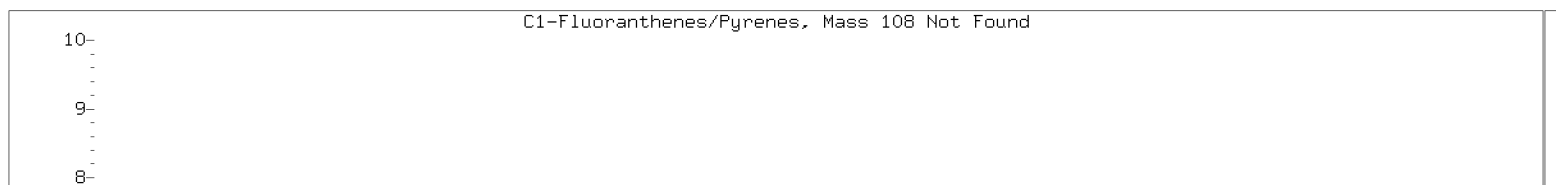
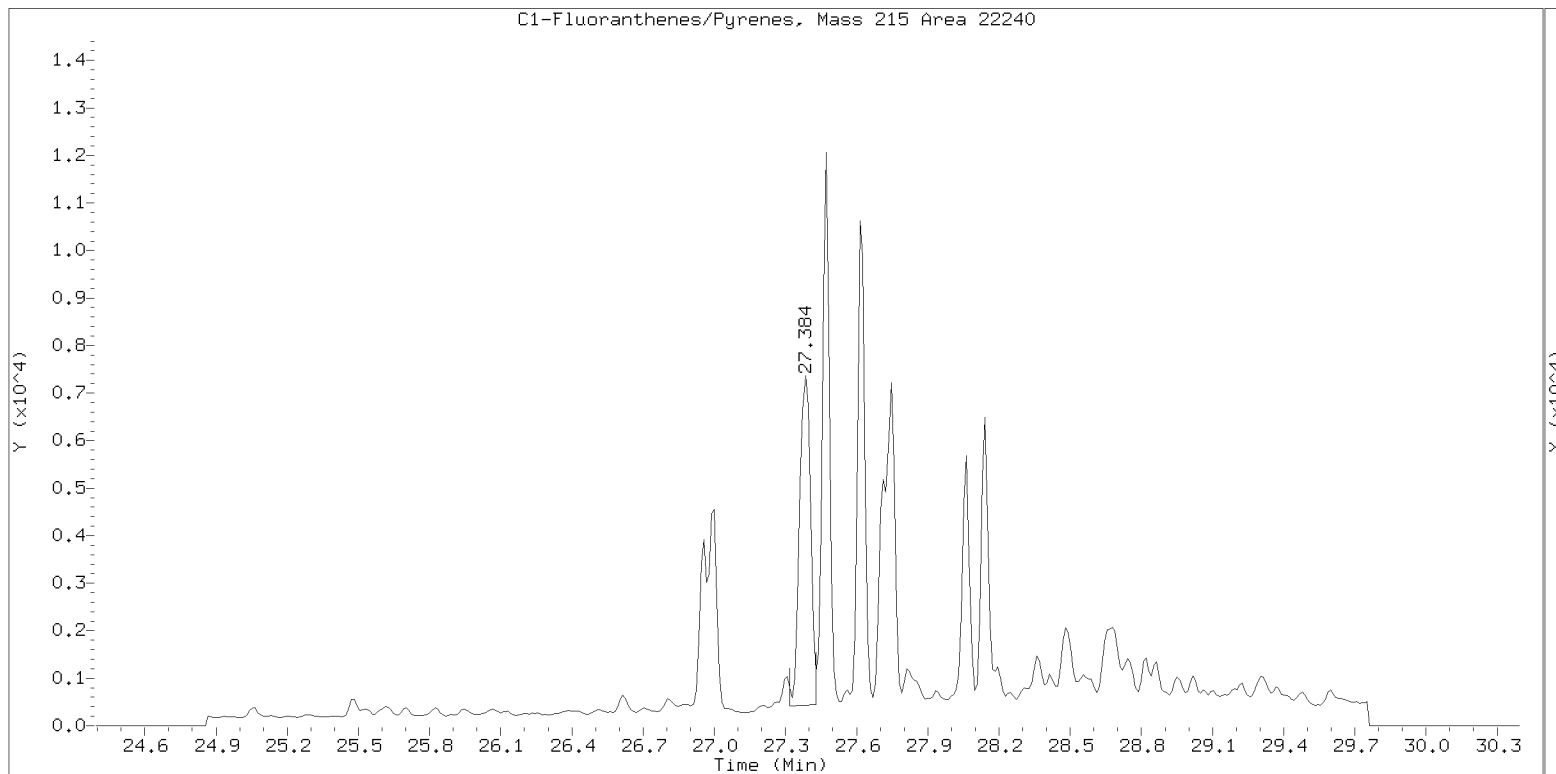
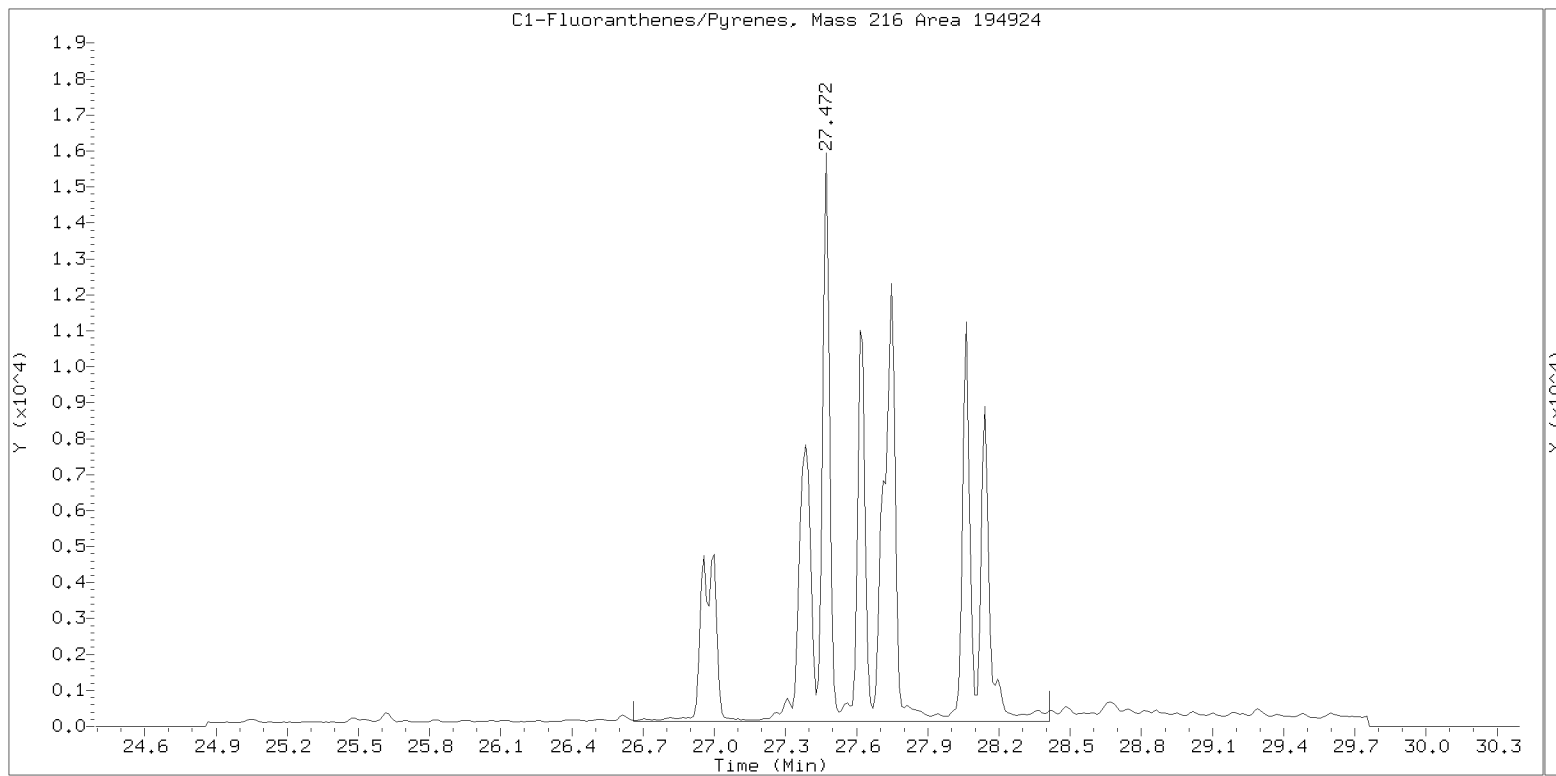
nt14.i, SIM.b\ALKYLRANGE.m, 22-DEC-2020 17:07



SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

Lab ID: 20K0204-07

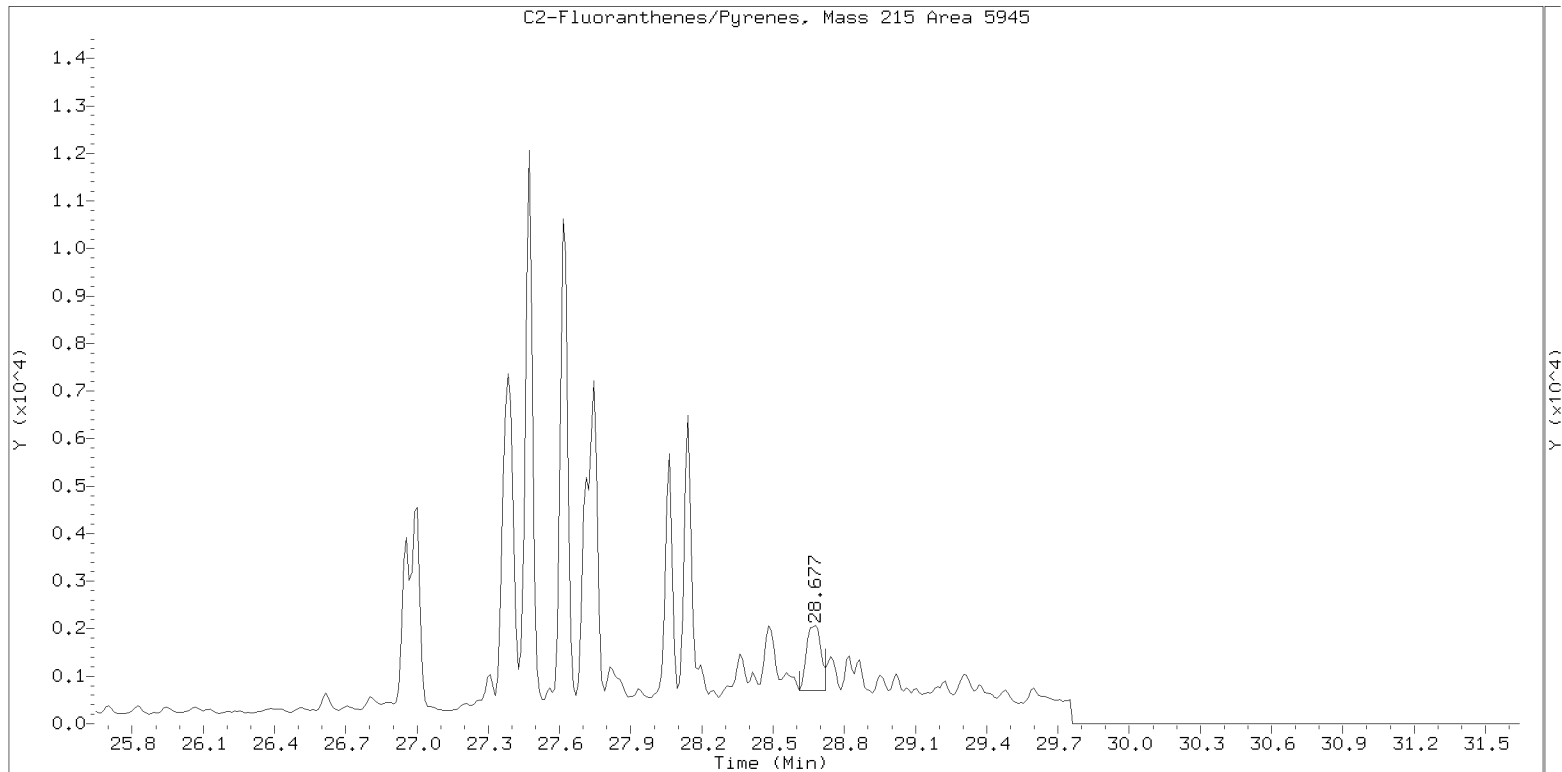
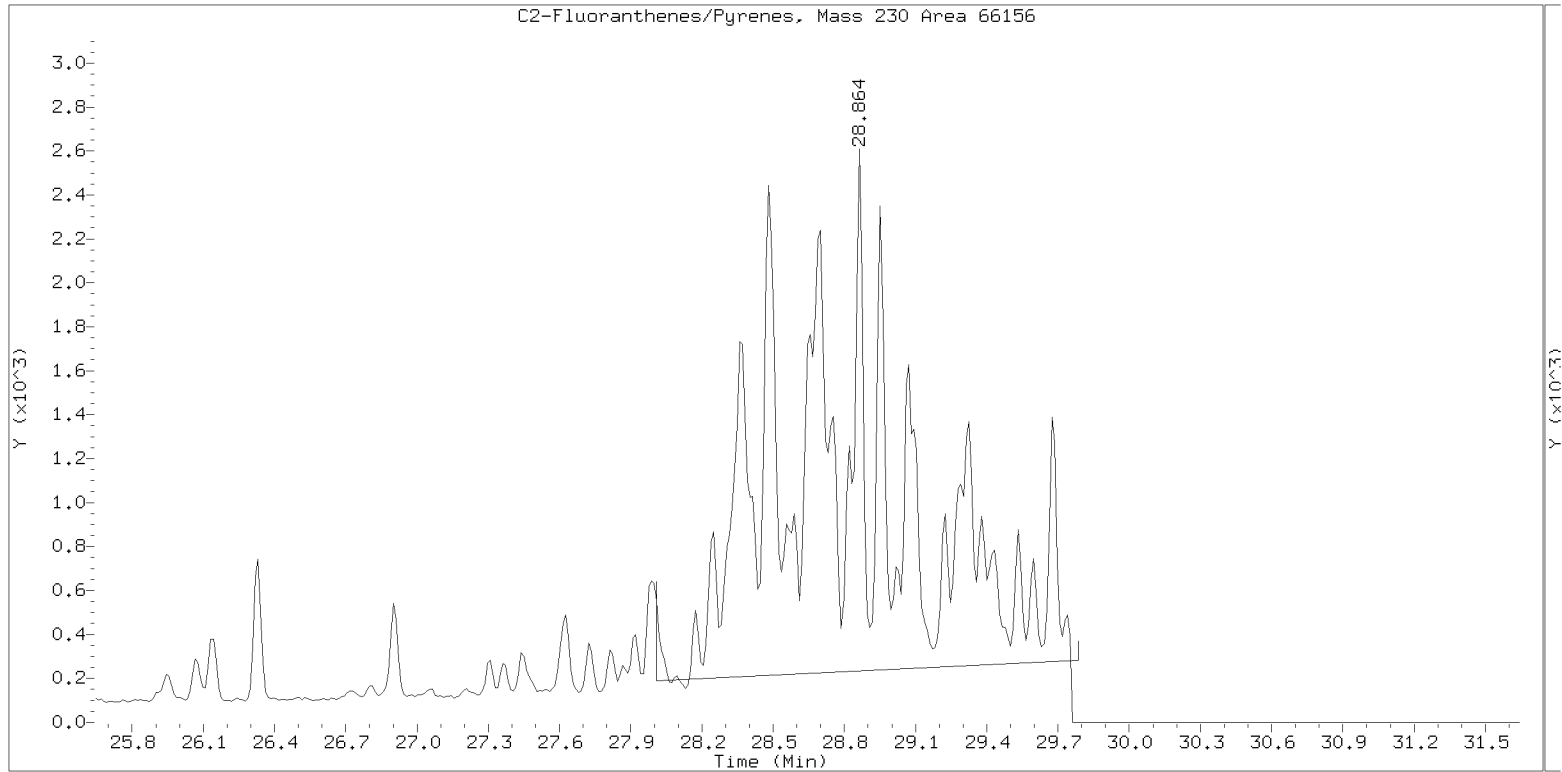
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

Lab ID: 20K0204-07

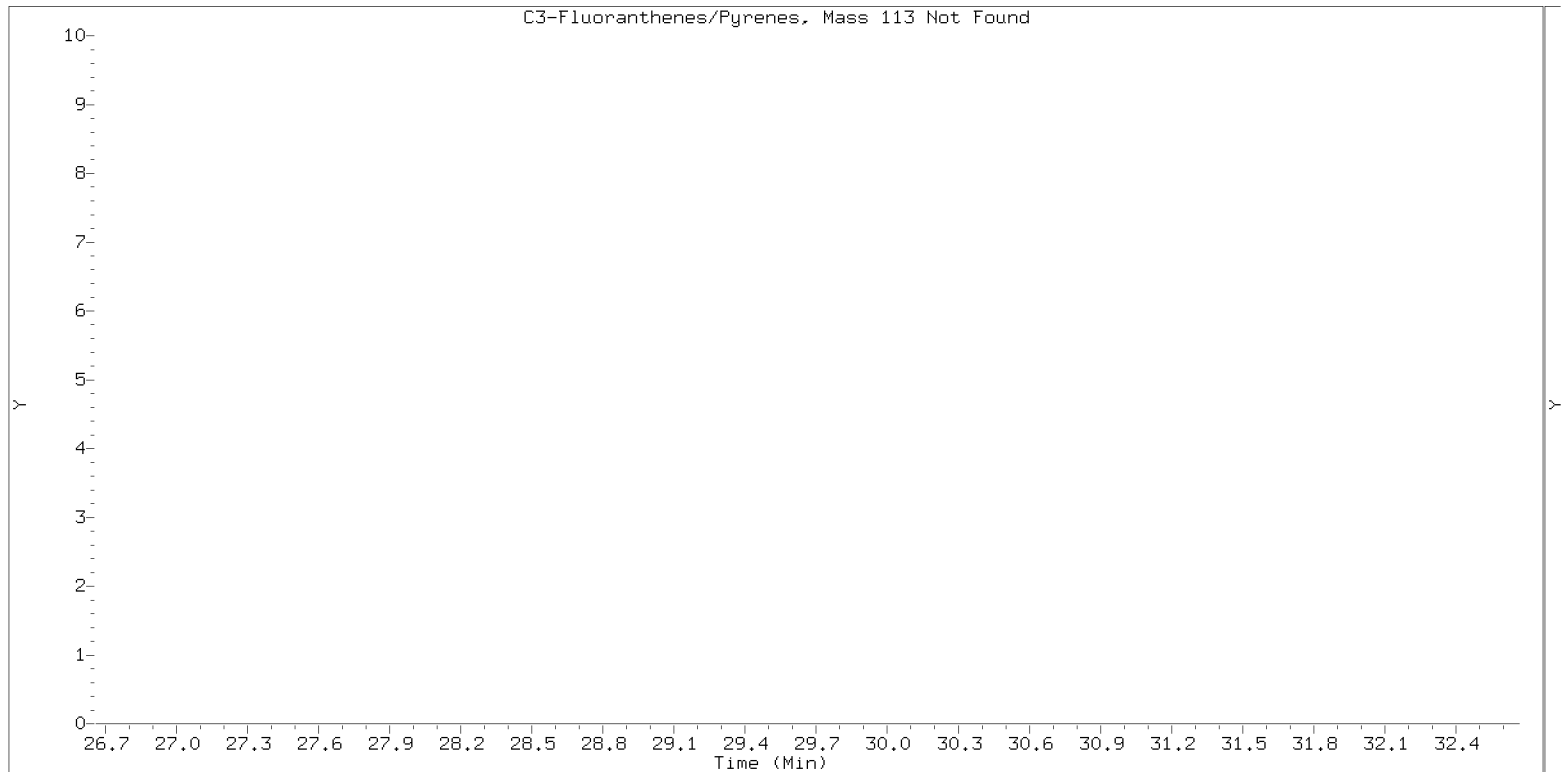
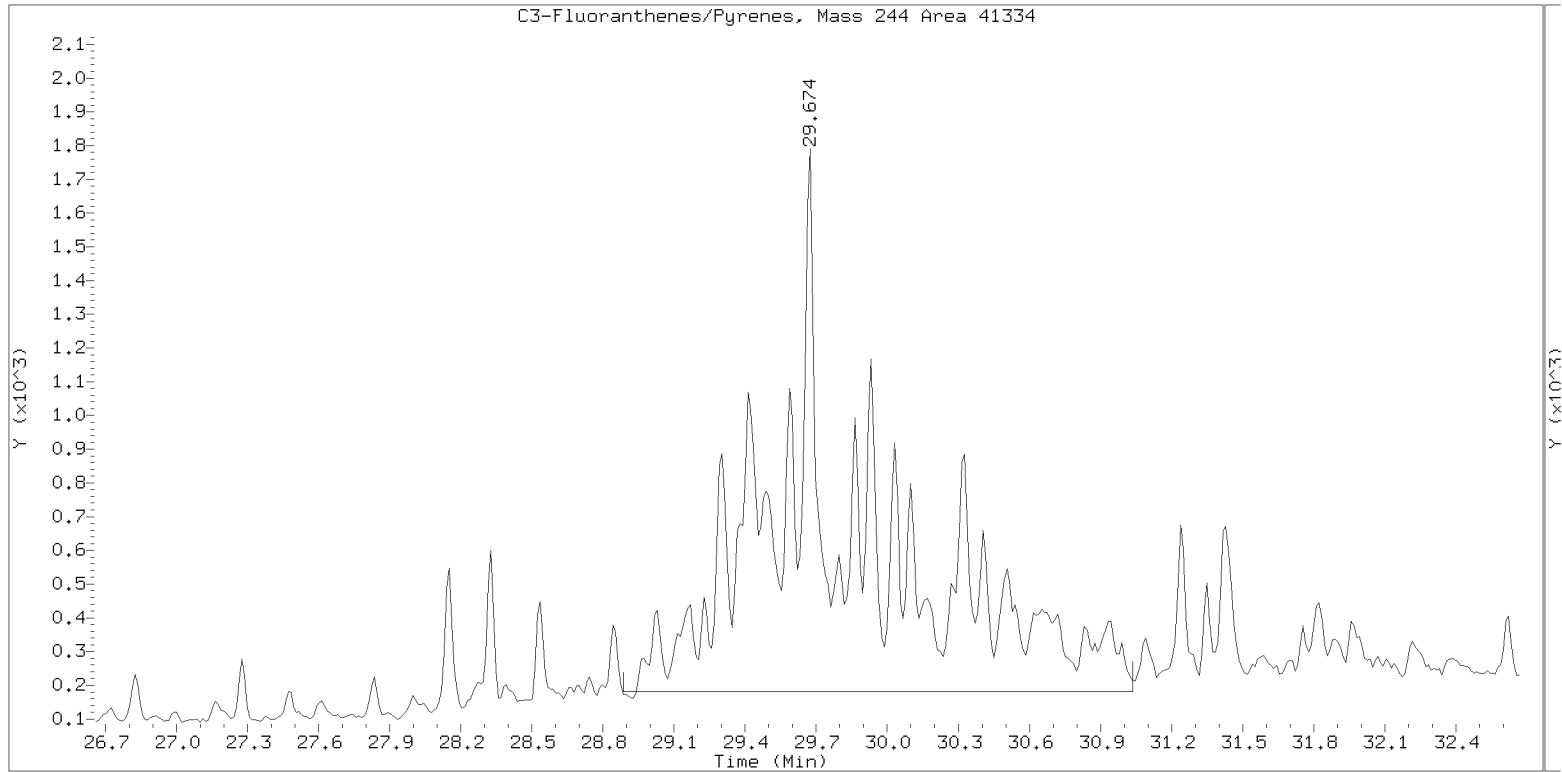
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

Lab ID: 20K0204-07

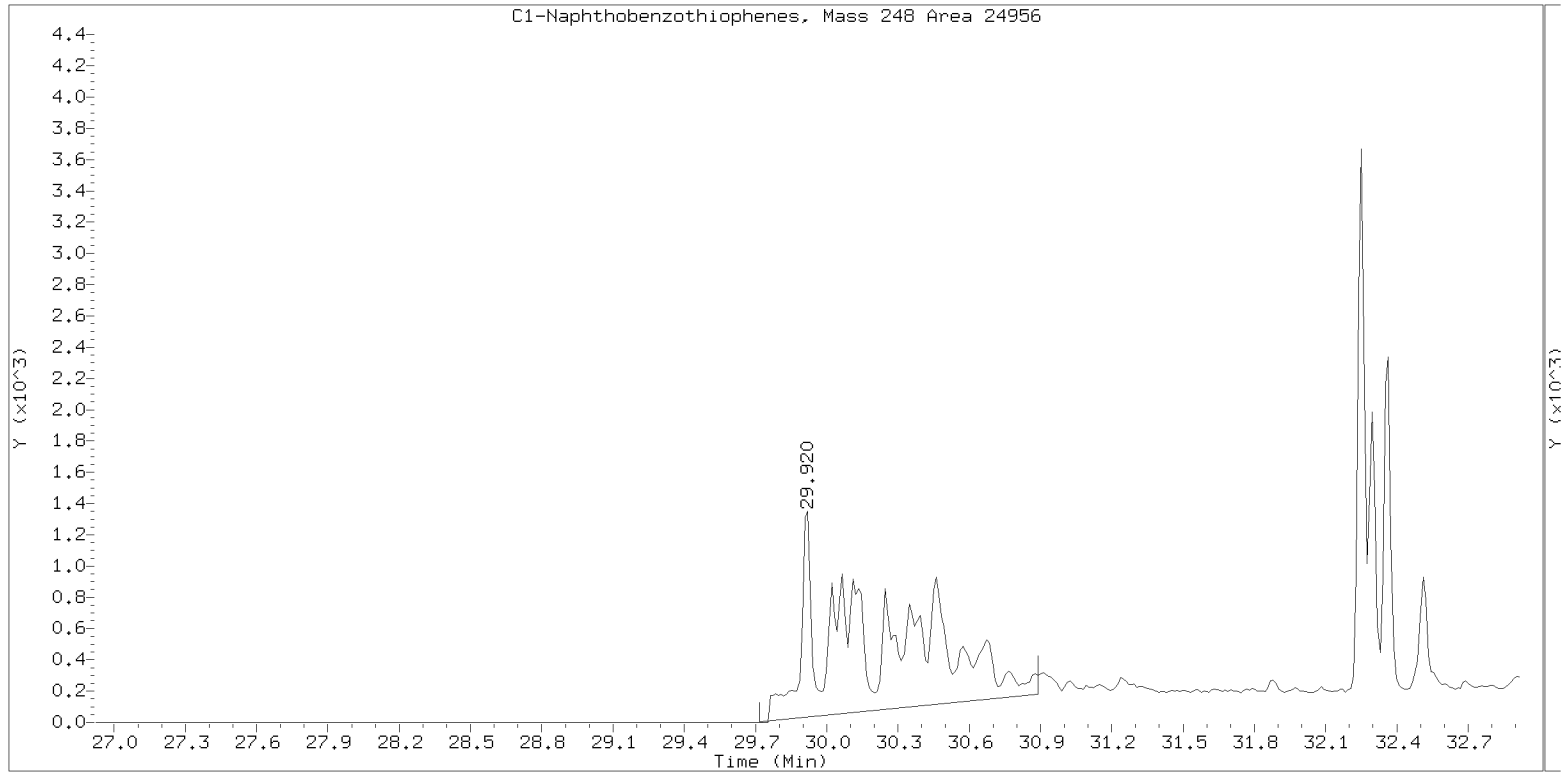
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

Lab ID: 20K0204-07

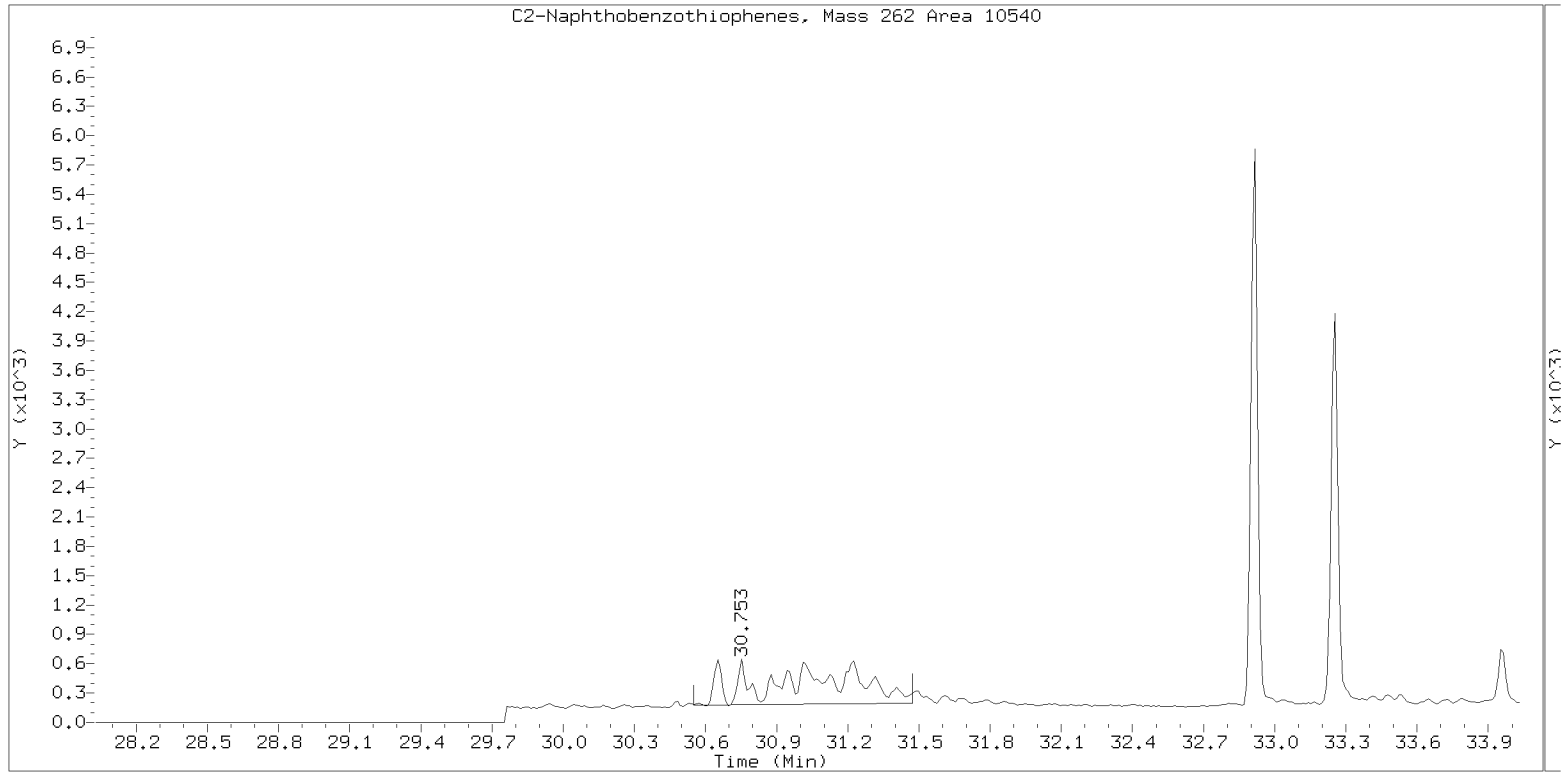
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

Lab ID: 20K0204-07

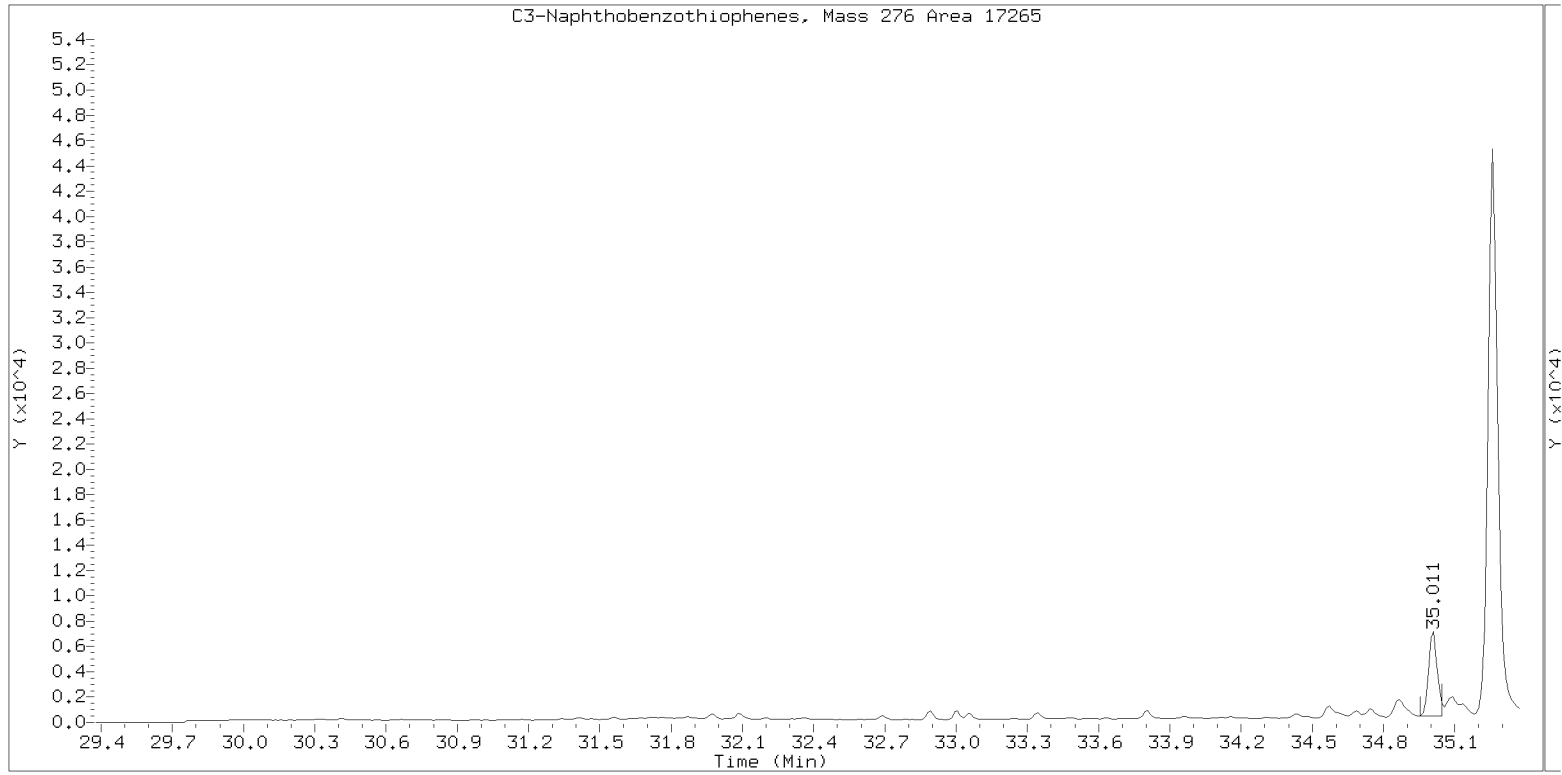
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

Lab ID: 20K0204-07

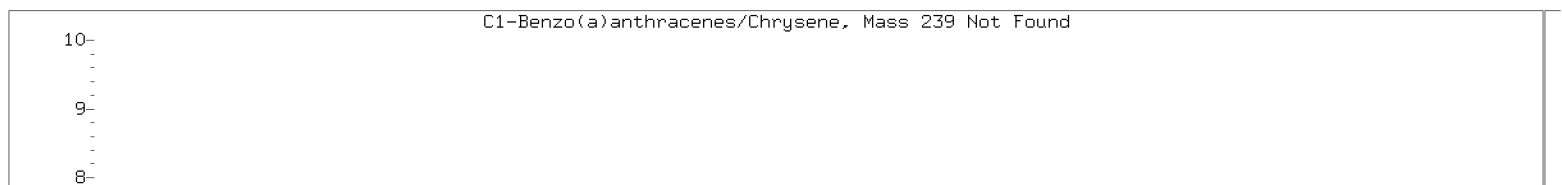
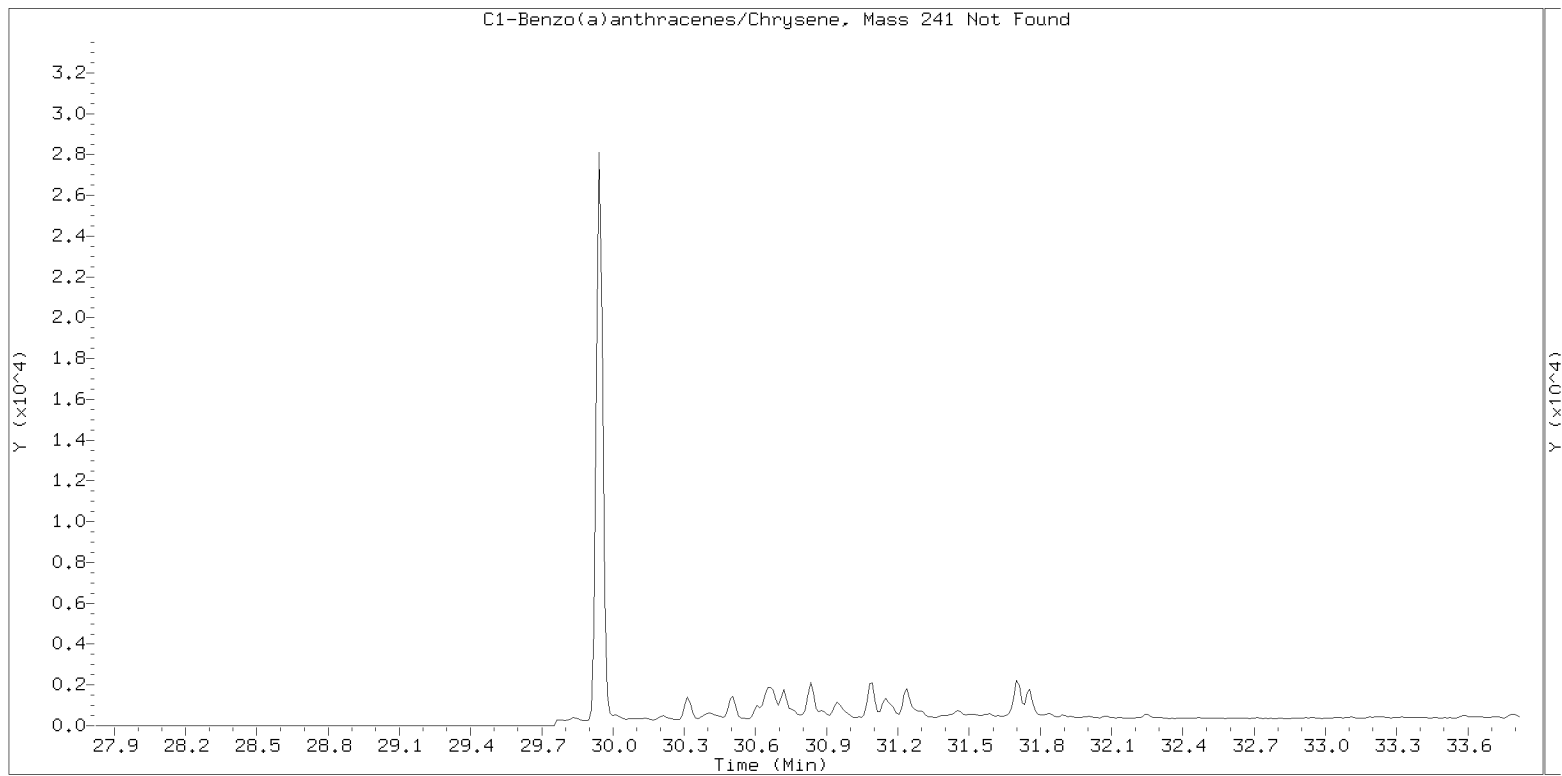
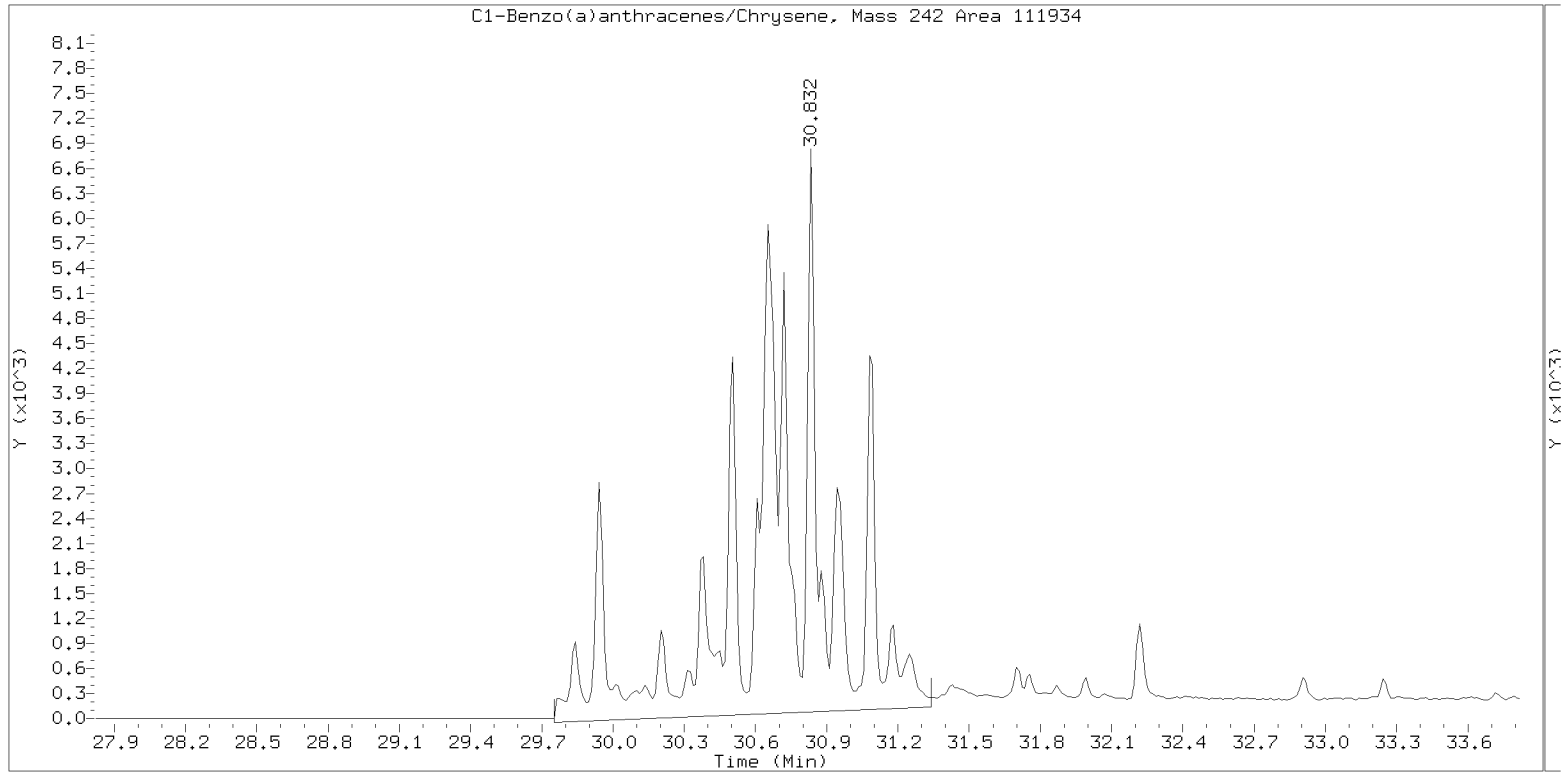
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

Lab ID: 20K0204-07

nt14.i, SIM.b\ALKYLRANGE.m, 22-DEC-2020 17:07

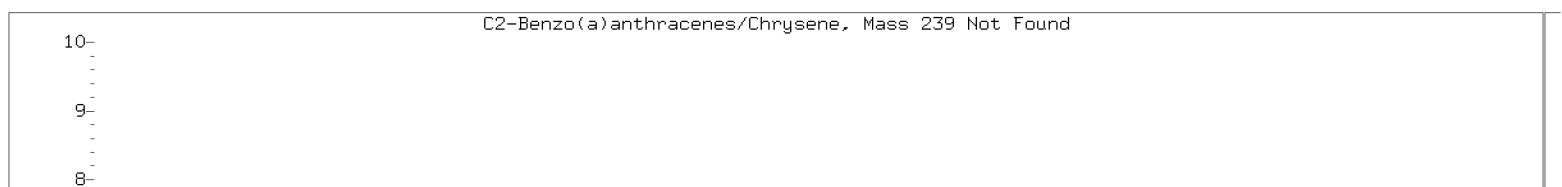
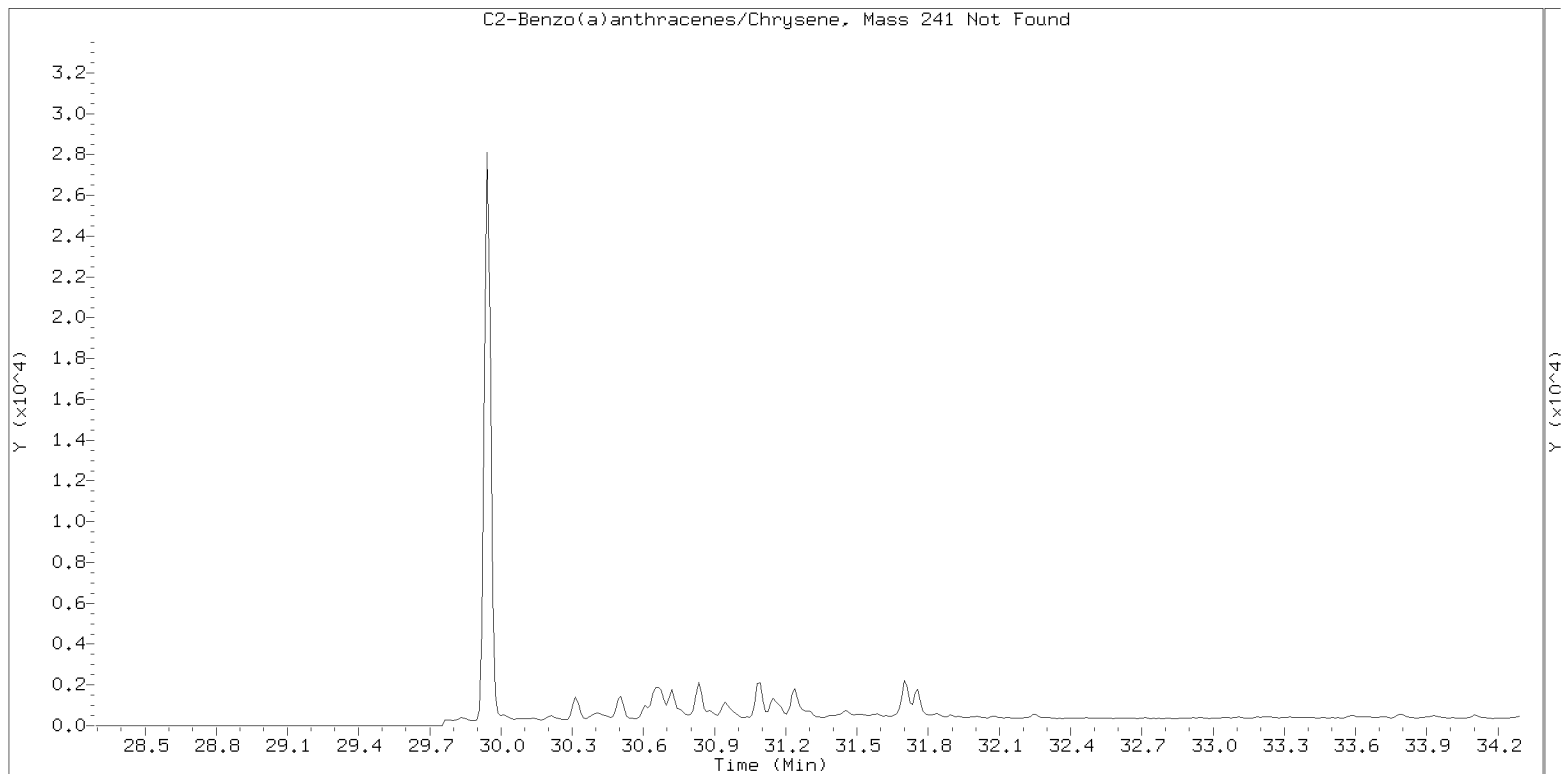
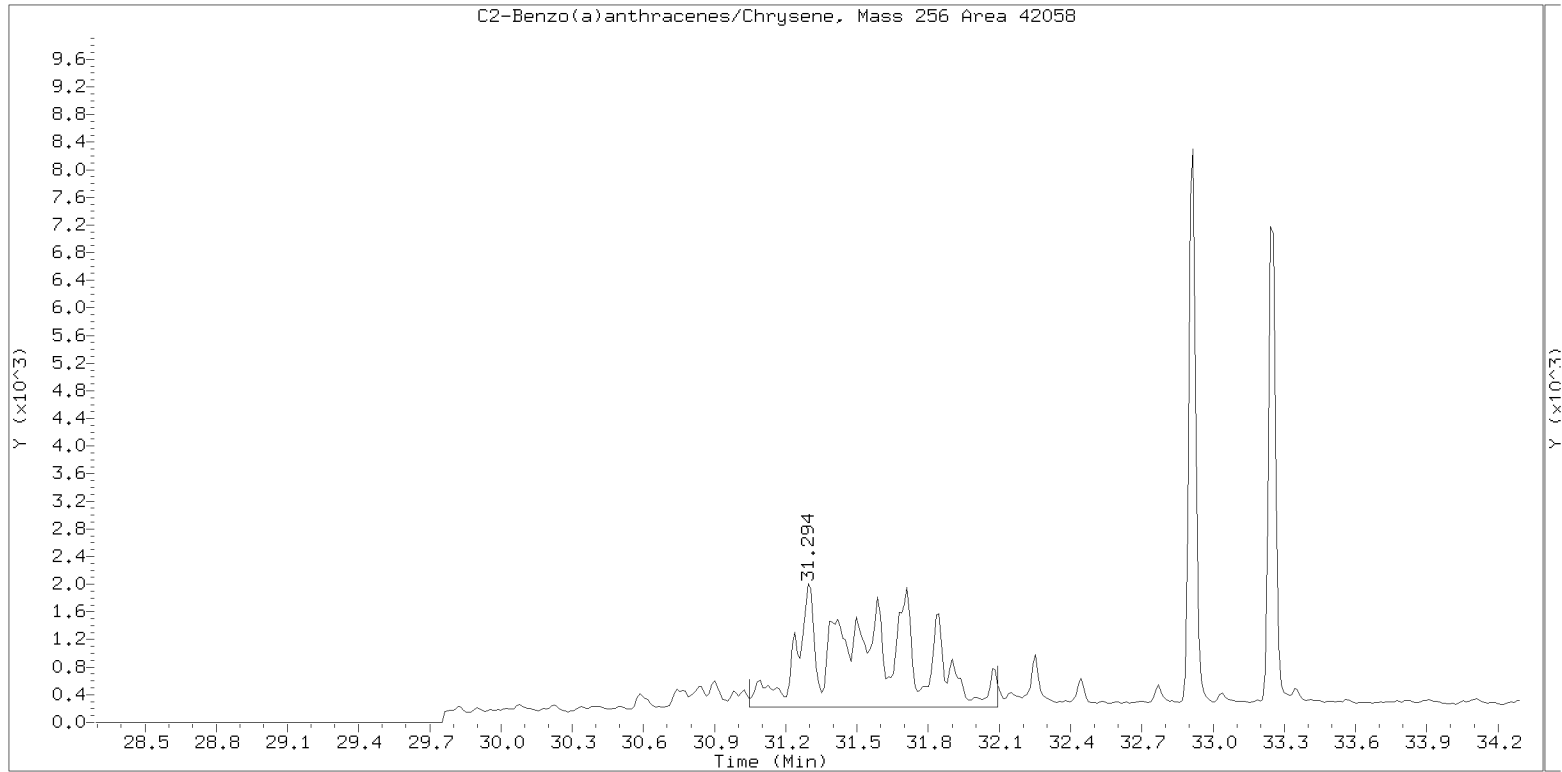




SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

Lab ID: 20K0204-07

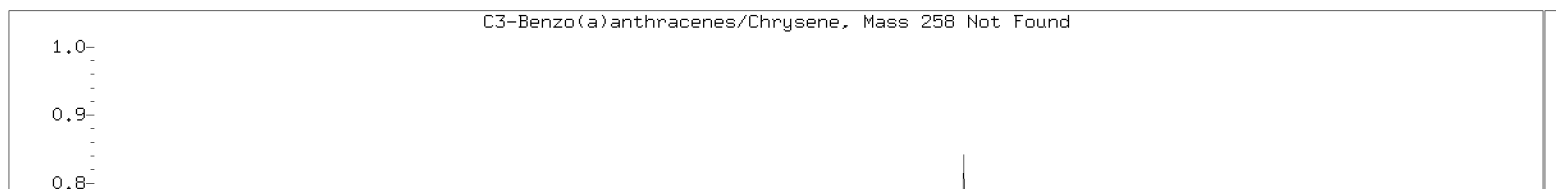
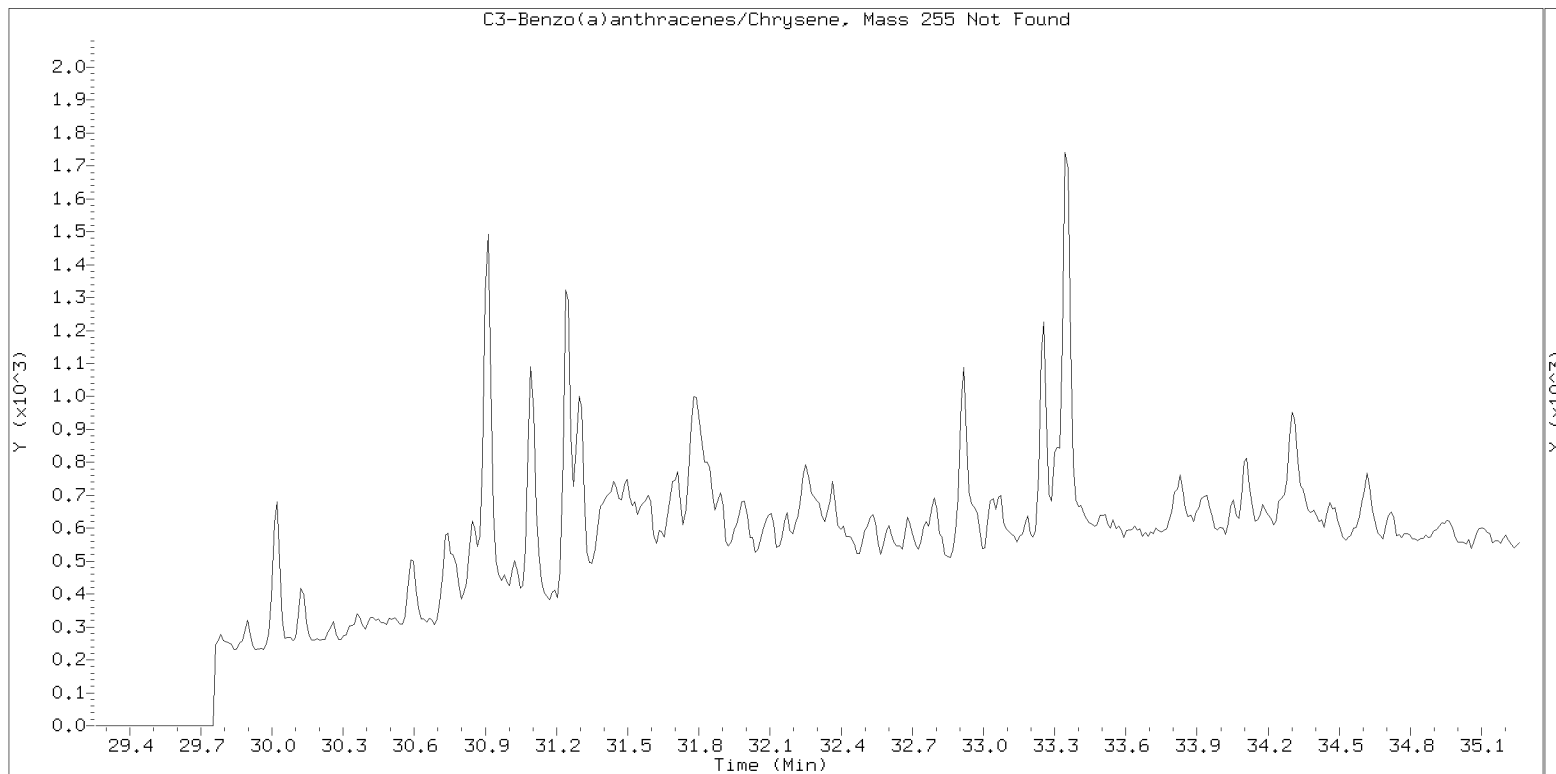
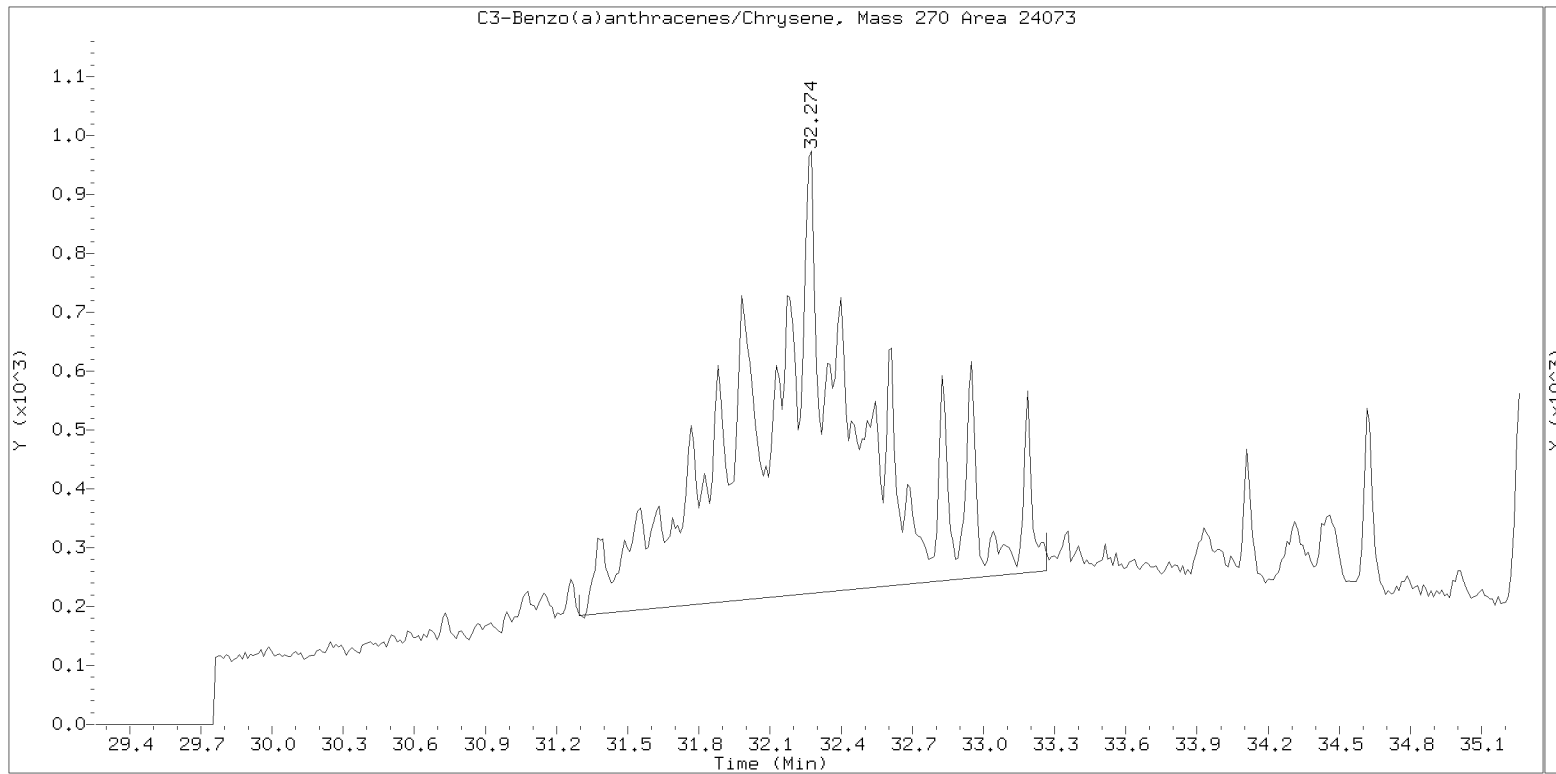
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

Lab ID: 20K0204-07

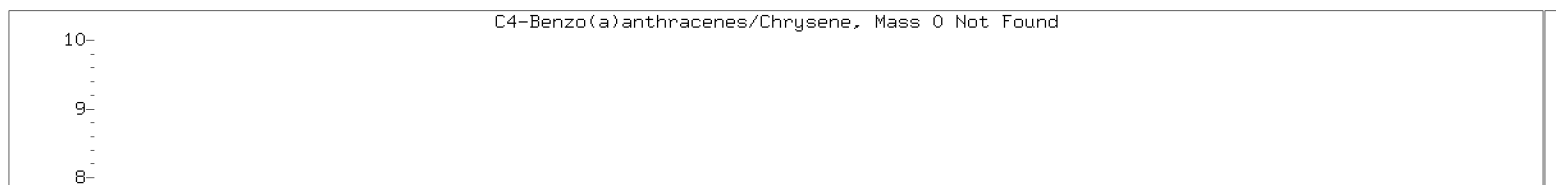
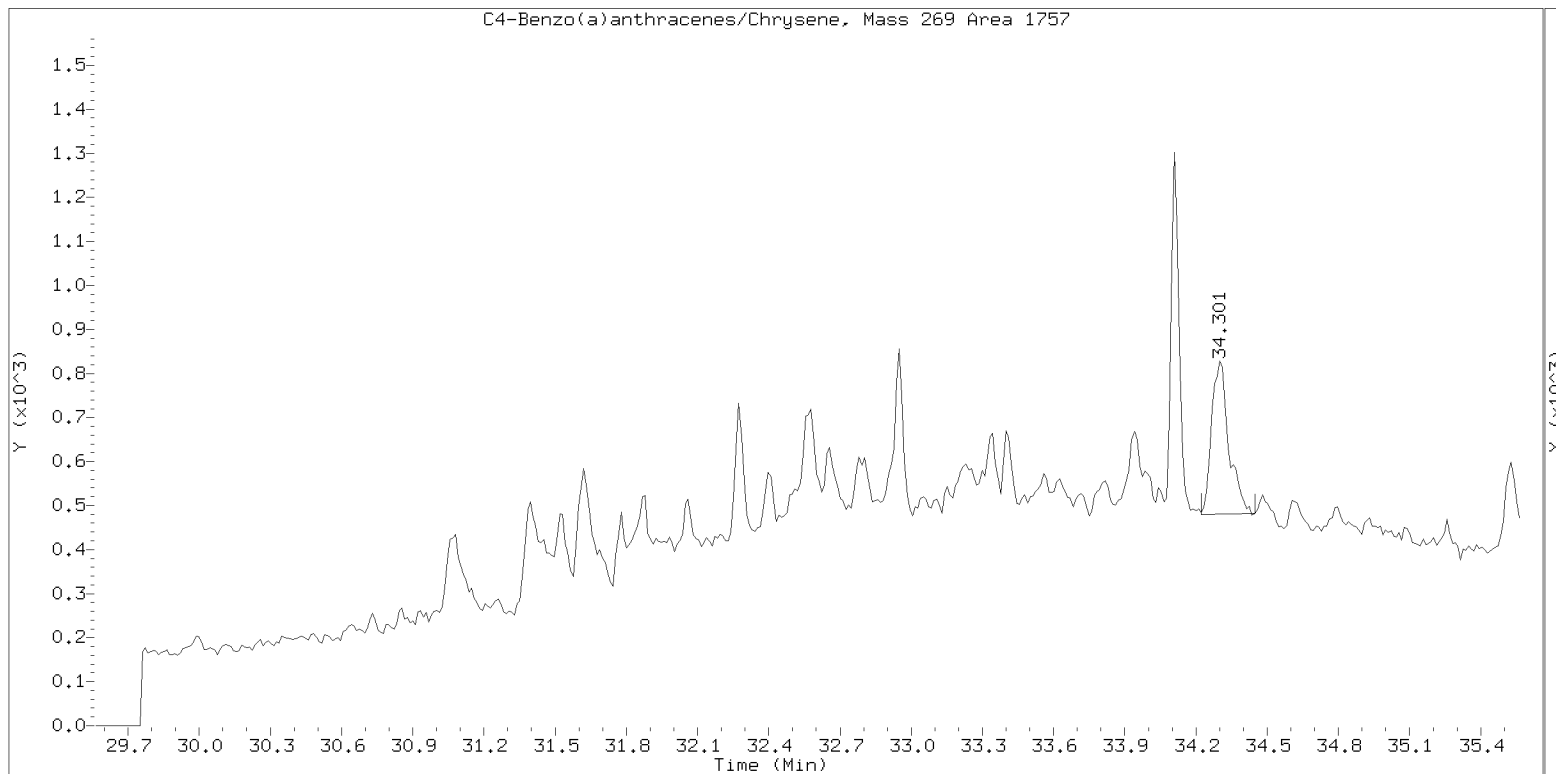
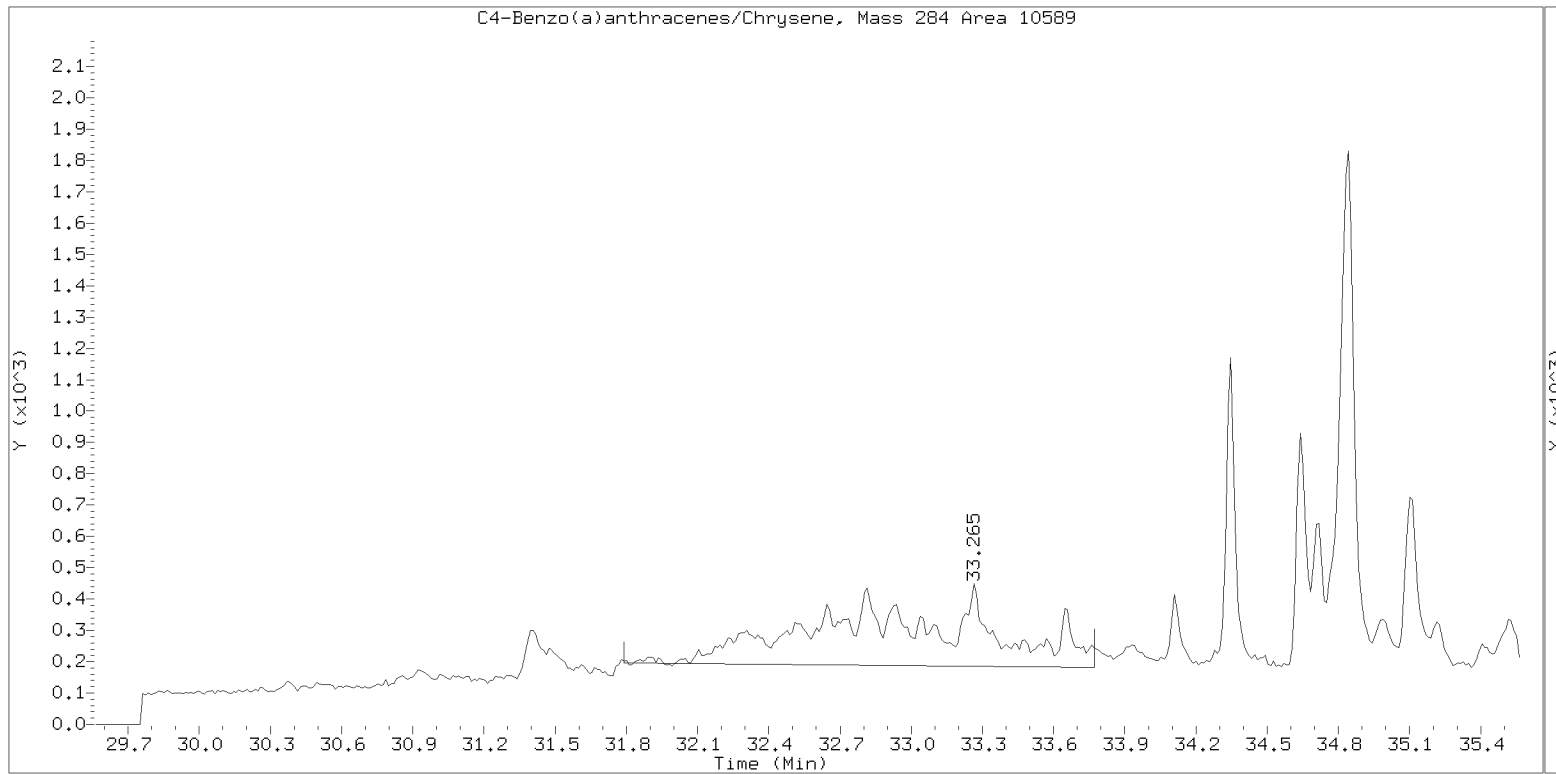
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

Lab ID: 20K0204-07

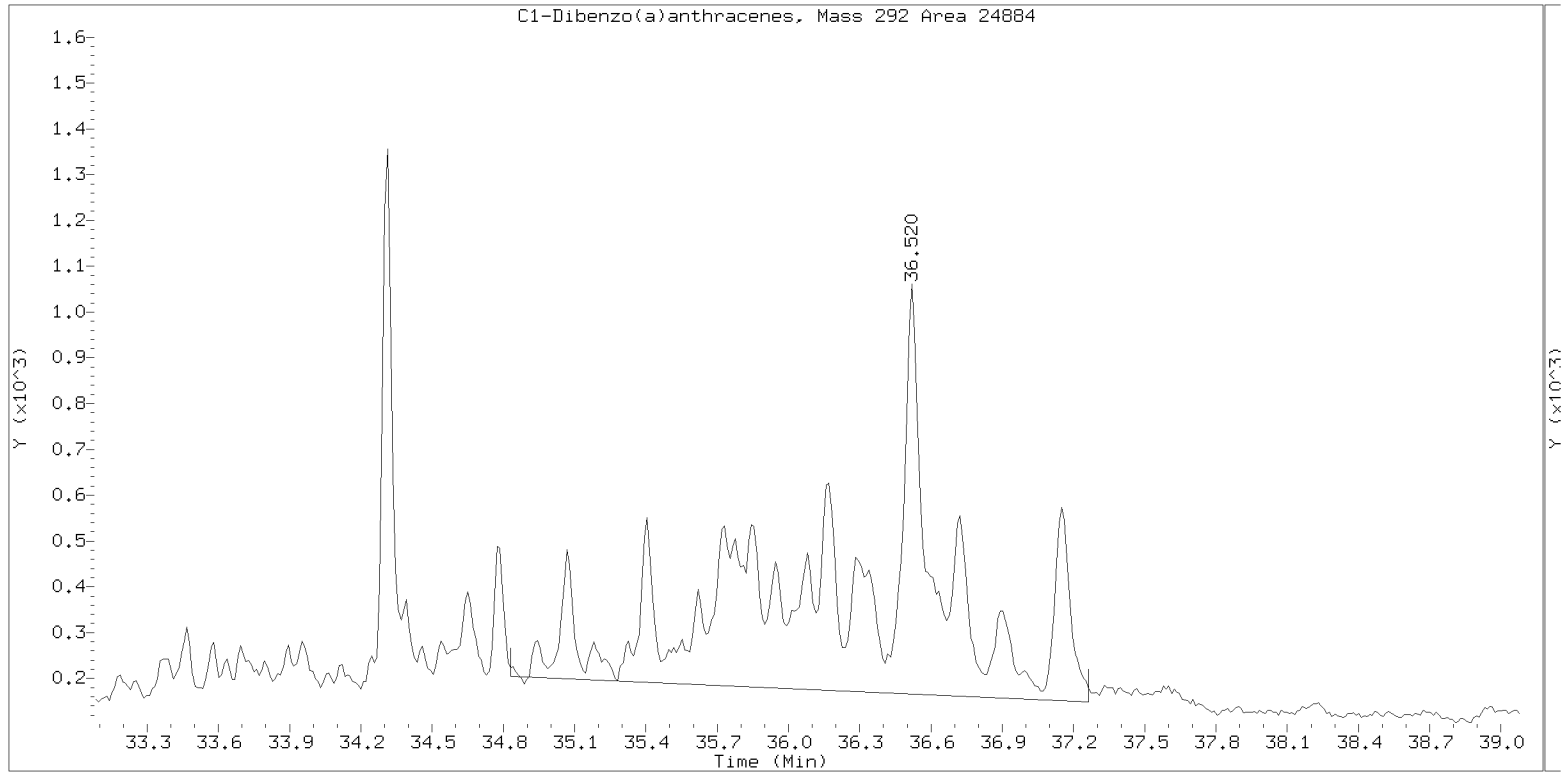
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

Lab ID: 20K0204-07

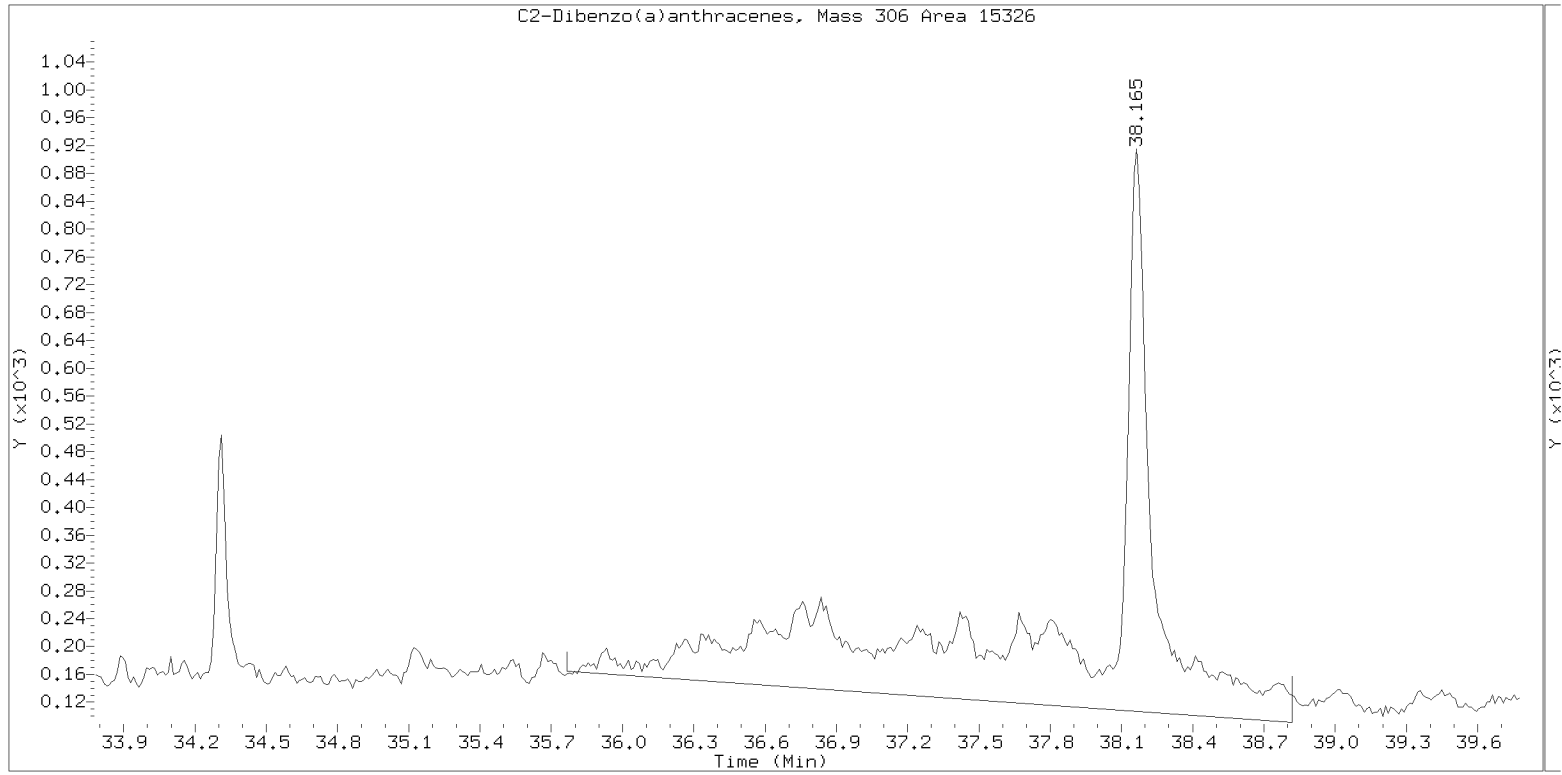
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

Lab ID: 20K0204-07

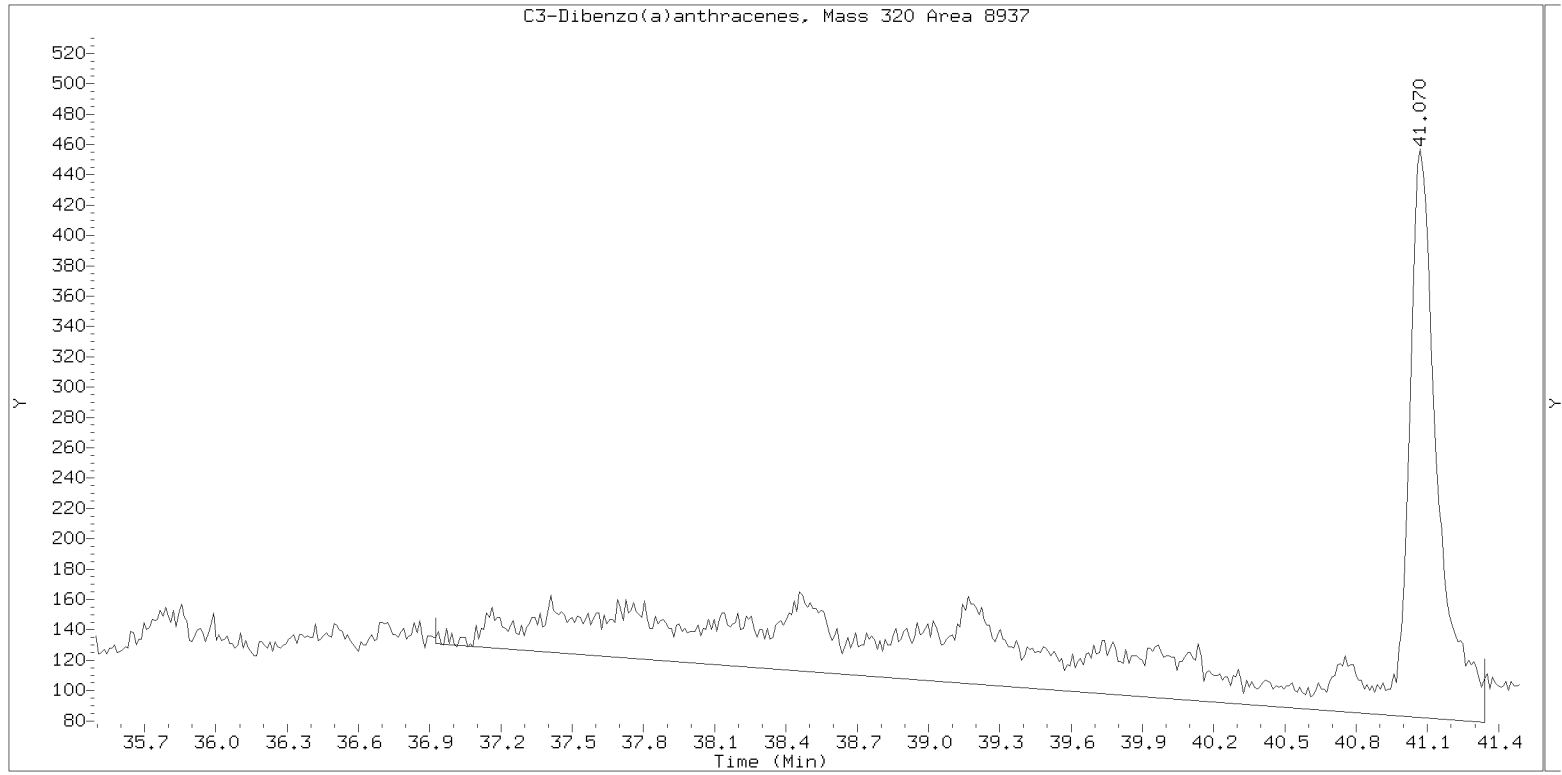
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420122000S.D

Lab ID: 20K0204-07

nt14.i, SIM.b\ALKYLRANGE.m, 22-DEC-2020 17:07





Analytical Resources, Incorporated  
Analytical Chemists and Consultants

**PREPARATION BATCH SUMMARY**  
**EPA 8270E-SIM**

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Batch: BIK0745

Batch Matrix: Solid

Preparation: EPA 3546 (Microwave)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
USMPDI-006SC-A-00-01-201110	20K0204-05	NT1420121999S.D	11/24/20 11:45	
USMPDI-006SC-A-00-01-201110	20K0204-05	NT1420121999.D	11/24/20 11:45	
USMPDI-006SC-D-02-04-201110	20K0204-07	NT1420122000S.D	11/24/20 11:45	
USMPDI-006SC-D-02-04-201110	20K0204-07	NT1420122000.D	11/24/20 11:45	
Blank	BIK0745-BLK1	NT1420121997.D	11/24/20 11:45	
Blank	BIK0745-BLK2	NT1420121997S.D	11/24/20 11:45	
LCS	BIK0745-BS1	NT1420121998.D	11/24/20 11:45	
USMPDI-006SC-D-02-04-201110	BIK0745-MS1	NT1420122001.D	11/24/20 11:45	
USMPDI-006SC-D-02-04-201110	BIK0745-MSD1	NT1420122002.D	11/24/20 11:45	

PRE-SCREEN BEFORE GPC IF EXTRACTS HAVE DARK/SOLID COLOR



Analytical Resources, Incorporated  
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BIK0745

Prepared using: EPA 3546 (Microwave)

8270E-SIM Alkyl PAH (Parents) Dual Scan in Solid  
+SIM Alkyl PAH (RANGE) Dual Scan

Matrix: Solid Date Prepared: 11/24/20 Balance ID: B14642614 Set Up By: CTO 11/24/20

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

Lab Number & Container	% Solids	Initial (g)		(REQ/Opt)	(REQ/Opt)	(REQ)	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)	Silica Gel C/U (1:1)			
20K0204-05 A	54.9	(18.21)	<u>18.21</u>	1 2 3 (1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	
20K0204-07 A	76.4	(13.09)	<u>13.11</u>	(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)	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)	Silica Gel C/U (1:1)			
BIK0745-BLK1	100.0	(10.00)	<u>10.00</u>	1 2 3 (1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	
BIK0745-BS1	100.0	(10.00)	<u>10.00</u>	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	
BIK0745-MS1	76.4	(13.09)	<u>13.10</u>	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	Use 20K0204-07
BIK0745-MSD1	76.4	(13.09)	<u>13.10</u>	(1:1) Y/N	(1:1) Y/N	(1:1)	0.5	0.5	Use 20K0204-07

Client ID verified By: [Signature] Date: 11/24/20  
Preparation Reviewed By: BH Date: 12/18/20  
Extraction Date and Time: 11/24/20 11:45





Batch: BIK0745

Prepared using: EPA 3546 (Microwave)  
8270E-SIM Alkyl PAH (Parents) Dual Scan in Solid

Prep Steps	Reagents Used	Standard ID	Surrogates & Spike Standards Used				
	Station/Reagent		Type	Vial ID / Standard ID	Vol uL	Analyst	Witness
<b>Microwave</b> 1 2 3 AR 12/24/20 Analyst/Date	Microwave		Surr	T 1000266 Exp: 01/09/2021	100µL	AR	Y
	1:1 Methylene Chloride/Acetone	I010700	15µg/ml.				
<b>Pre-GPC KD 100°C</b> <b>(No Exchange)</b> 1 2 3 4 5 6 AR 12/15/20 Analyst/Date	Methylene Chloride	I010666	Spike	15 1010207 Exp: 10/03/2021	100µL	AR	Y
	Anhydrous Sodium Sulfate	I010747	15:75µg/ml.				
	Pre-Deactivated Glass Wool	I009777	Spike	42 1008202 Exp: 03/13/2021	100µL	AR	Y
<b>Pre GPC KD</b> Analyst: AR Date: 12/15/20	Pre GPC KD		15µg/ml.				
	Methylene Chloride	I01119	(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).				
Hexane	I009769						
<b>GPC Filter Prep</b> Analyst: TWC Date: 12/15/2020	GPC Filter Prep						
	Methylene Chloride	I01119					
<b>Post-GPC KD 80°C</b> <b>Hexane Exchange</b> 2 x 20 mL 100°C 1 2 3 4 5 6 AR 12/17/20 Analyst/Date	GPC						
	Methylene Chloride	I011236					
	GPC Calibration File	LI00215-GR3					
<b>Post GPC KD</b> Analyst: AR Date: 12/17/20	Post GPC KD						
	Hexane	I009769					
<b>Pre-Cleanup TurboVap</b> 1 2 3 4 BH 12/18/20 Analyst/Date	Methylene Chloride	I01119					
	Vialing						
<b>Post-Cleanup TurboVap</b> 1 2 3 4 BH 12/18/20 Analyst/Date	Analyst: BH Date: 12/18/20						
	Silica Gel (SPE) darts	I009985					
	Methylene Chloride	I01119					
<b>Vialing</b> BH 12/18/20 Analyst/Date	Hexane	I009769					
	Tetrabutylammonium hydrogensulfate (TBAS)	N/A					
	Sodium Sulfite	N/A					



Batch: BIK0745

Prepared using: EPA 3546 (Microwave)

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

Prep Instructions	
<p>SPECIAL INSTRUCTIONS:</p> <ol style="list-style-type: none"><li>1. Weigh into beakers dry with Sodium Sulfate.</li><li>2. Transfer to microwave vessel.</li><li>3. Add DCM ONLY to the vessels (until solvent is 3 inches above soil layer after homogenization).</li><li>4. Add surr/spike.</li><li>5. Microwave on appropriate power setting determined by # of samples.</li><li>6. After microwave-re-homogenize while hot then let cool 10-15 min in Refrigerator 05. Re-homogenize while cool.</li><li>7. Decant DCM into Erlenmeyer flask with a funnel containing pre-deactivated glasswool.</li><li>8. Rinse with DCM</li><li>9. Microwave a 2nd time using 1:1 DCM/ACE.</li><li>10. Let cool and decant the solvent then empty the soil into the funnel and rinse with DCM.</li><li>11. If GPC is Req add 10mL Hexane and KD to 5mL at 100°C (NO EXCHANGE)</li><li>12. If GPC is NOT Req = KD to 5mL at 100°C. Exchange to Hexane ( 2X with 10mL) to 5mL at 100°C.</li><li>13. TurboVap.</li><li>14. Sulfur clean = Hexane transfer rinse.</li><li>15. Silica Clean-up REQ.</li><li>16. TurboVap</li><li>17. Vial in DCM.</li></ol> <p>A. Need Total Solids Y <input type="checkbox"/> N <input checked="" type="checkbox"/></p> <p>B. Archive/Freeze <input checked="" type="checkbox"/> Y <input type="checkbox"/> N</p>	

Return samples to share bin.  
Sample -07 archive/freeze.





Extraction Parameter: SIM ALKYL PMA Extraction Batch BIK0745

Total Solids Batch: BIK0715 Work Order(s): 20K0204

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)= <u>2,3,4,5,6,7,8,9,10,11,12,13</u>	<u>CTO 11/23/20</u>
<input type="checkbox"/> Standing Water Decanted (Not shared)=	
<input checked="" type="checkbox"/> Standing Water Homogenized (Shared samples)= <u>1</u>	<u>CTO 11/23/20</u>
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input type="checkbox"/> Previously Frozen =	
<input type="checkbox"/> Other (Details)=	
<b>Aqueous:</b>	
<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 <u>Y/N 01,02,3,4,5,6,8,9,10,11,12,13</u> // <u>09: not shared</u>	<u>CTO 11/23/20</u>
<input type="checkbox"/> Multiple Jars Y / N	
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	

Batch: BIK0745

Batch Comment: \*\*NONE\*\*

Project: Gasco Siltronic

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

Work Order: 20K0204

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

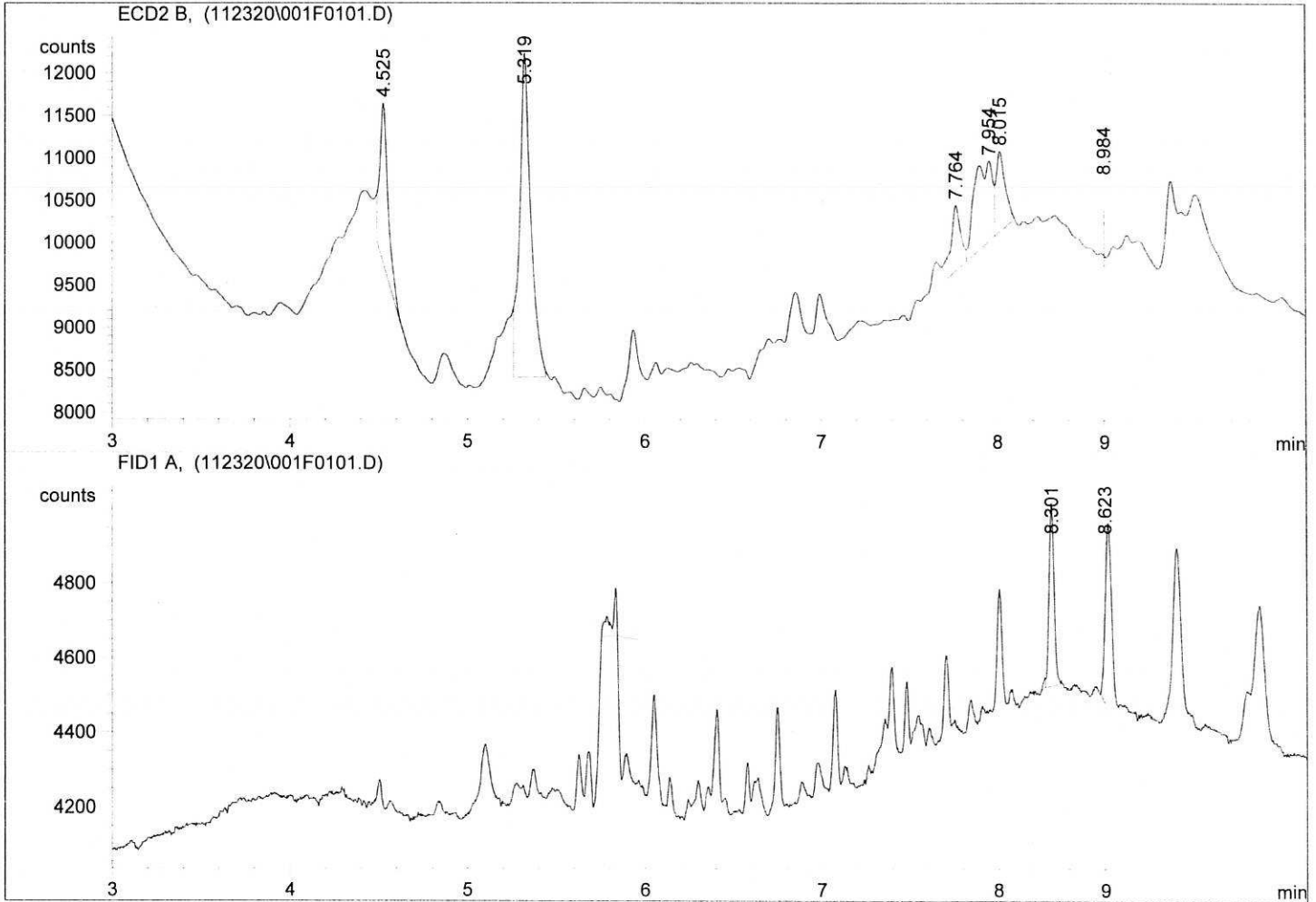
Sample: 20K0204-05

Sample Comments: \*\*NONE\*\*

Sample: 20K0204-07

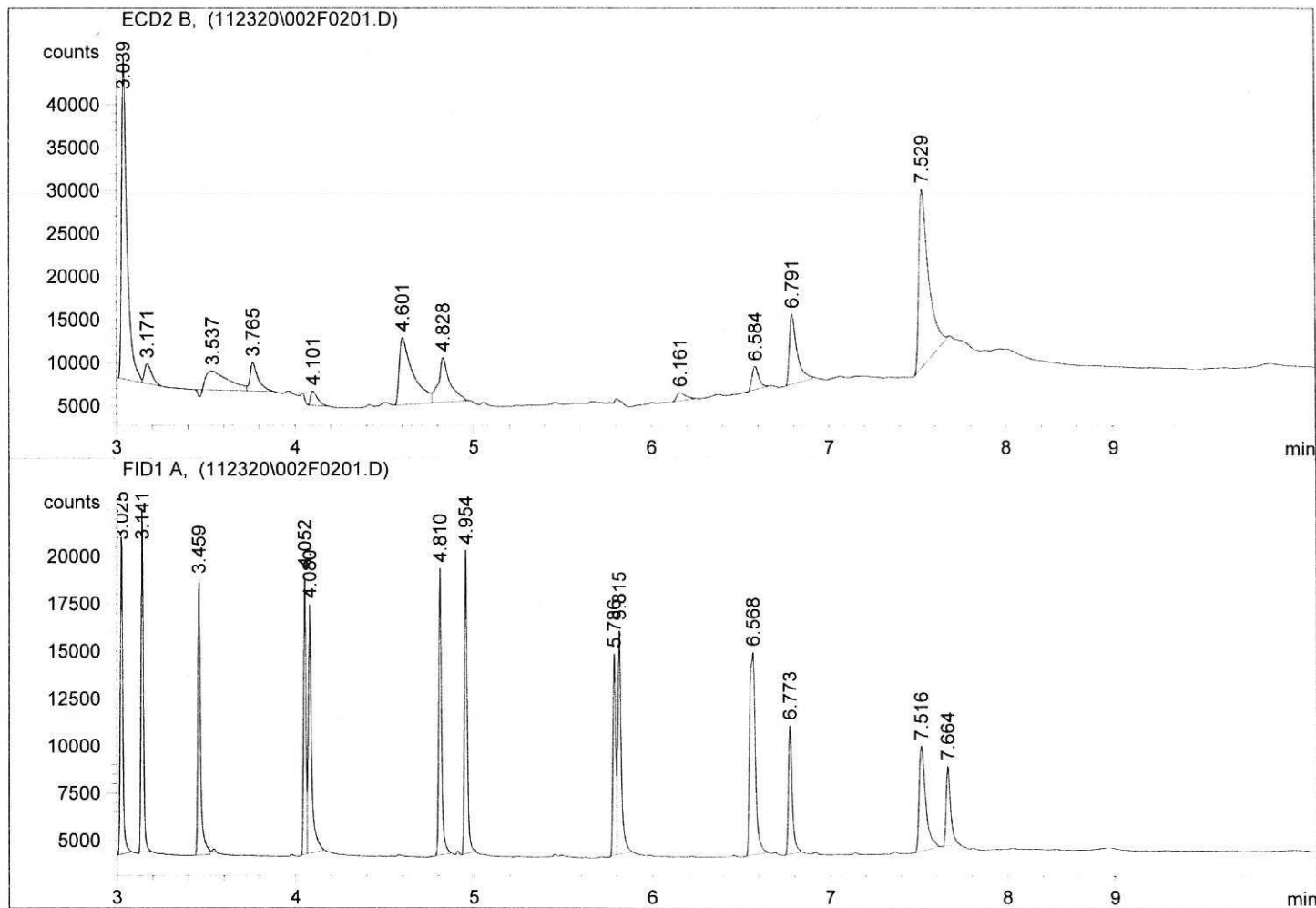
Sample Comments: \*\*NONE\*\*

=====  
Injection Date : 11/23/2020 8:38:19 PM      Seq. Line : 1  
Sample Name : DCM RINSE                      Location : Vial 1  
Acq. Operator : CTO                              Inj : 1  
   Inj Volume : 1 µl  
  
Sequence File : C:\HPCHEM\1\SEQUENCE\112320.S  
Method : C:\HPCHEM\1\METHODS\SCREEN.M  
Last changed : 9/11/2020 3:50:10 PM by JGR  
SCREEN METHOD  
=====



\*\*\* End of Report \*\*\*

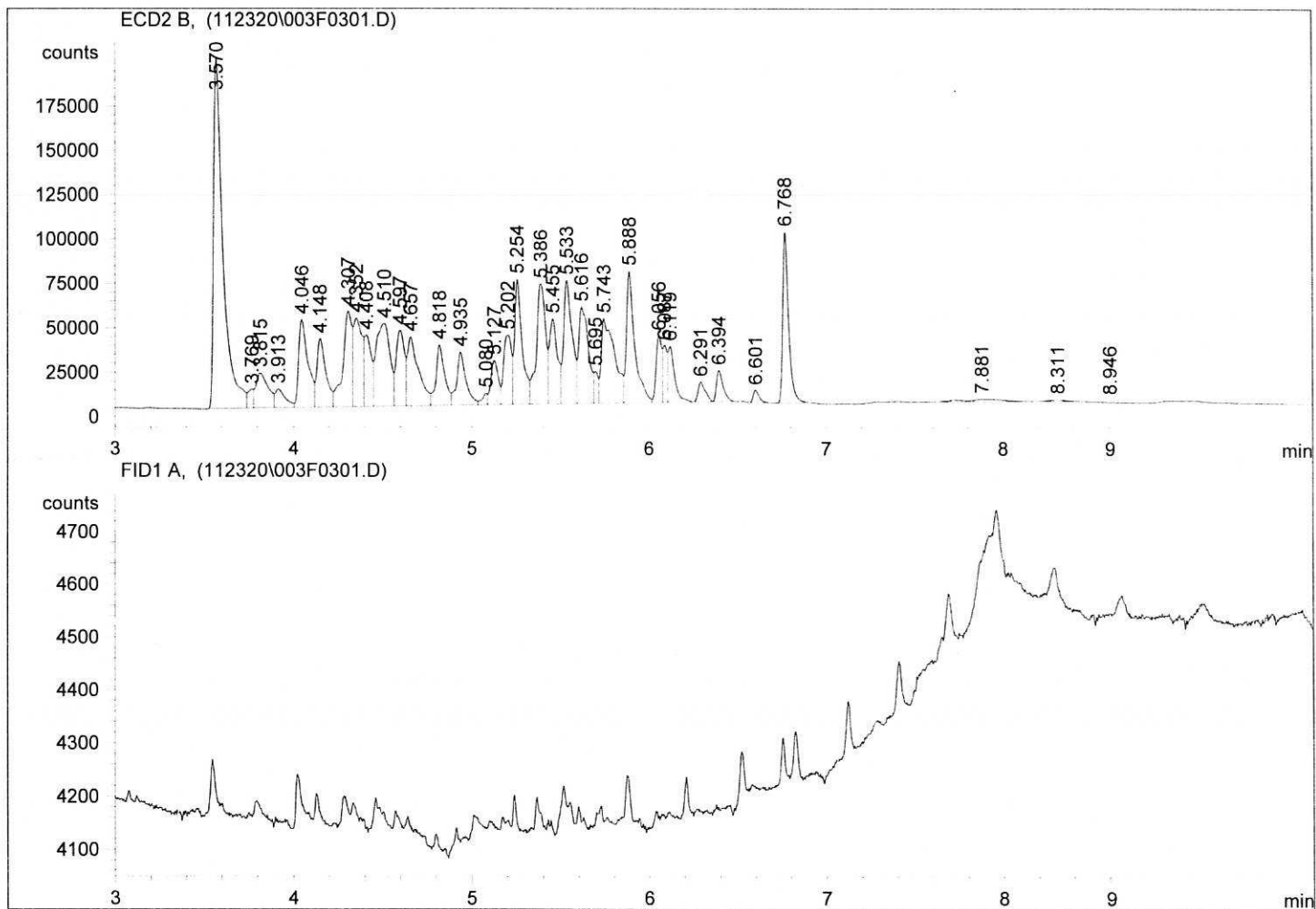
=====  
Injection Date : 11/23/2020 8:51:40 PM                   Seq. Line :    2  
Sample Name    : PNA STD 10PPM                            Location : Vial 2  
Acq. Operator  : CTO                                        Inj       :    1  
  Inj Volume : 1 µl  
  
Sequence File  : C:\HPCHEM\1\SEQUENCE\112320.S  
Method         : C:\HPCHEM\1\METHODS\SCREEN.M  
Last changed  : 9/11/2020 3:50:10 PM by JGR  
SCREEN METHOD  
=====



\*\*\* End of Report \*\*\*

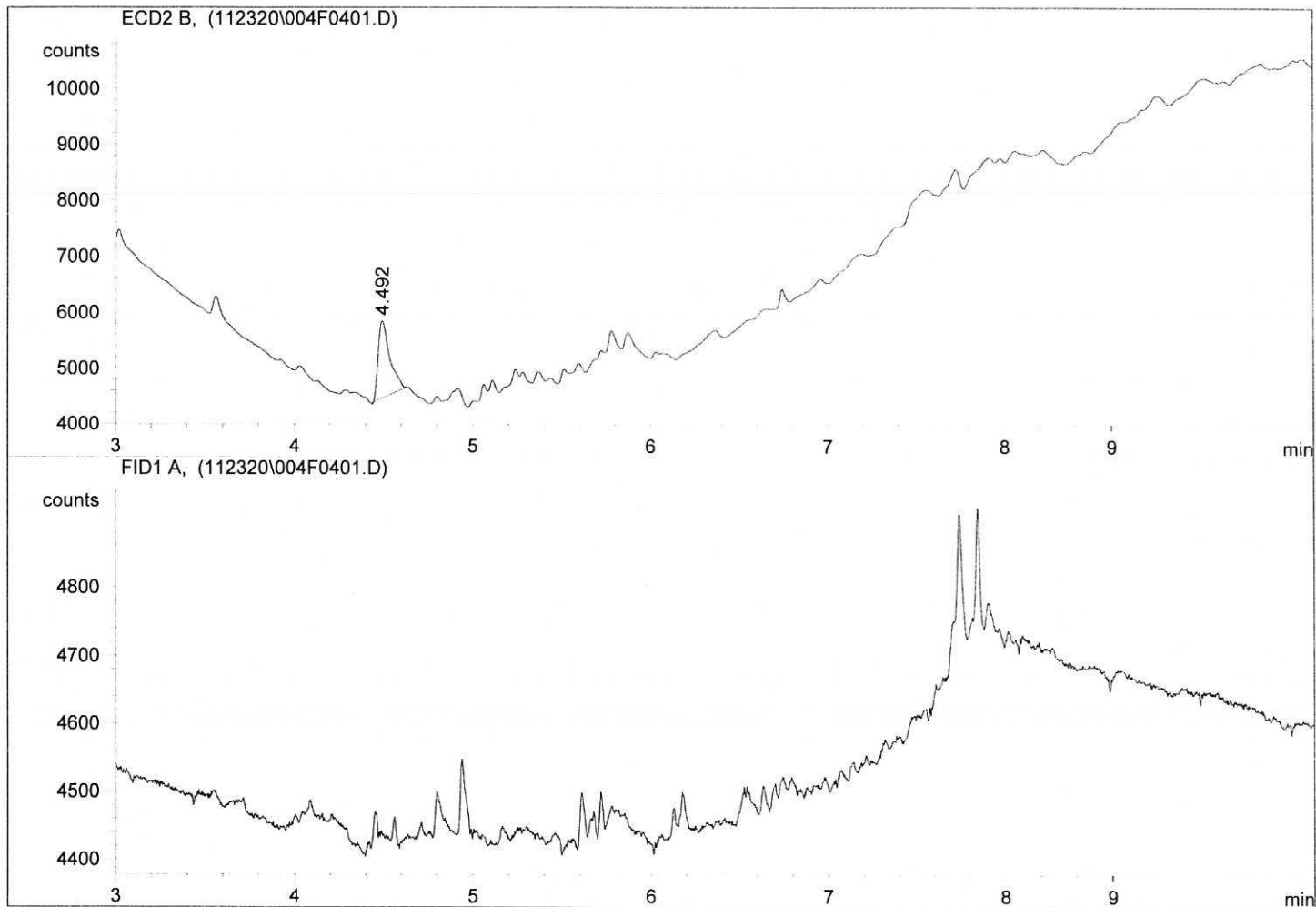


=====  
Injection Date : 11/23/2020 9:05:51 PM                   Seq. Line :    3  
Sample Name    : AR1660 1PPM                                Location : Vial 3  
Acq. Operator  : CTO   Inj :       1  
  Inj Volume : 1 µl  
  
Sequence File  : C:\HPCHEM\1\SEQUENCE\112320.S  
Method         : C:\HPCHEM\1\METHODS\SCREEN.M  
Last changed   : 9/11/2020 3:50:10 PM by JGR  
SCREEN METHOD  
=====



\*\*\* End of Report \*\*\*

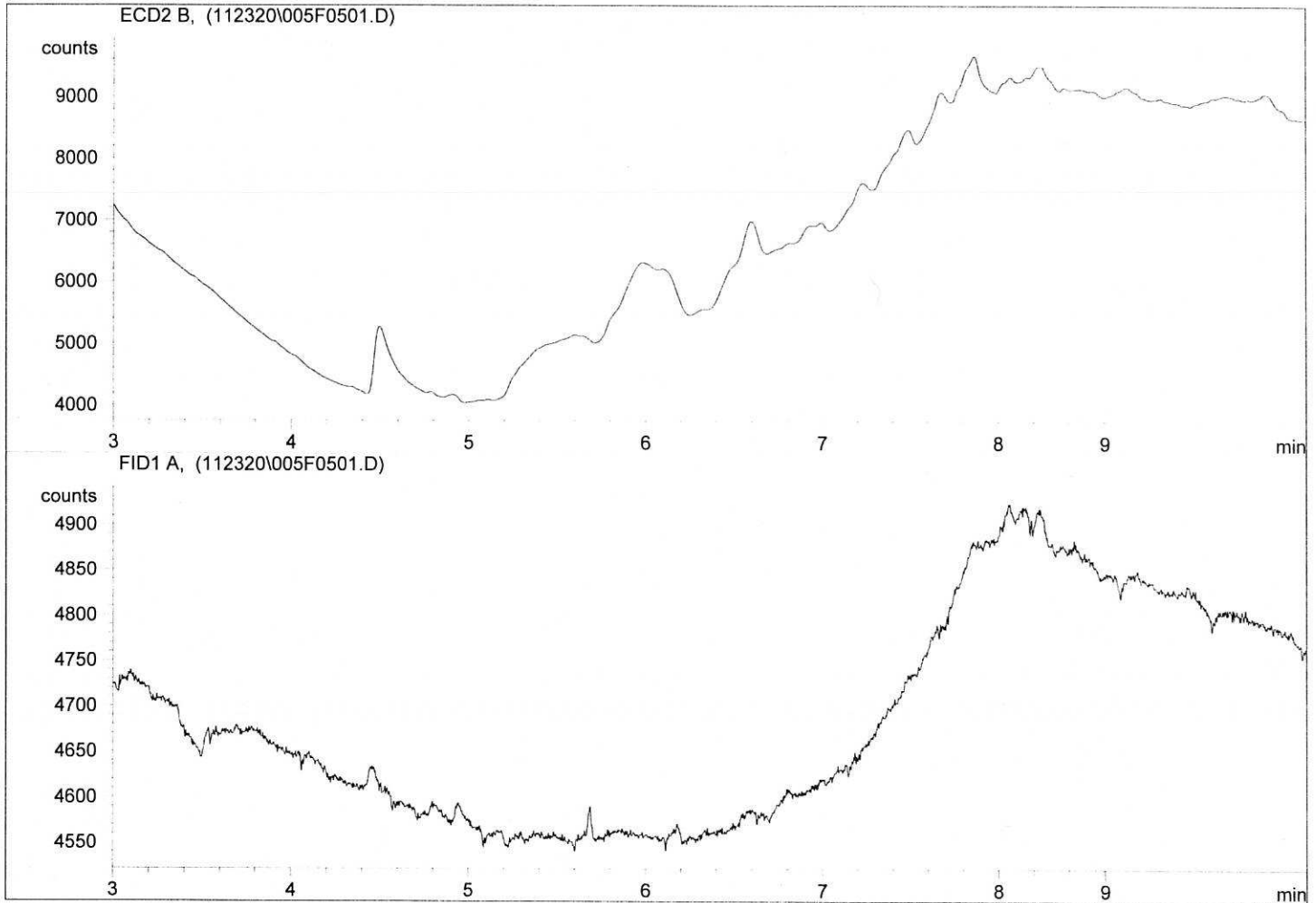
=====  
Injection Date : 11/23/2020 9:19:40 PM      Seq. Line : 4  
Sample Name : 20K0204 05                      Location : Vial 4  
Acq. Operator : CTO                            Inj : 1  
   Inj Volume : 1 µl  
  
Sequence File : C:\HPCHEM\1\SEQUENCE\112320.S  
Method : C:\HPCHEM\1\METHODS\SCREEN.M  
Last changed : 9/11/2020 3:50:10 PM by JGR  
SCREEN METHOD  
=====



\*\*\* End of Report \*\*\*



=====  
Injection Date : 11/23/2020 9:33:56 PM      Seq. Line : 5  
Sample Name : 20K0204 07                      Location : Vial 5  
Acq. Operator : CTO                            Inj : 1  
   Inj Volume : 1 µl  
  
Sequence File : C:\HPCHEM\1\SEQUENCE\112320.S  
Method : C:\HPCHEM\1\METHODS\SCREEN.M  
Last changed : 9/11/2020 3:50:10 PM by JGR  
SCREEN METHOD  
=====



\*\*\* End of Report \*\*\*



**GPC3**  
 GPC3\_BAN-PNA  
 BIK0745

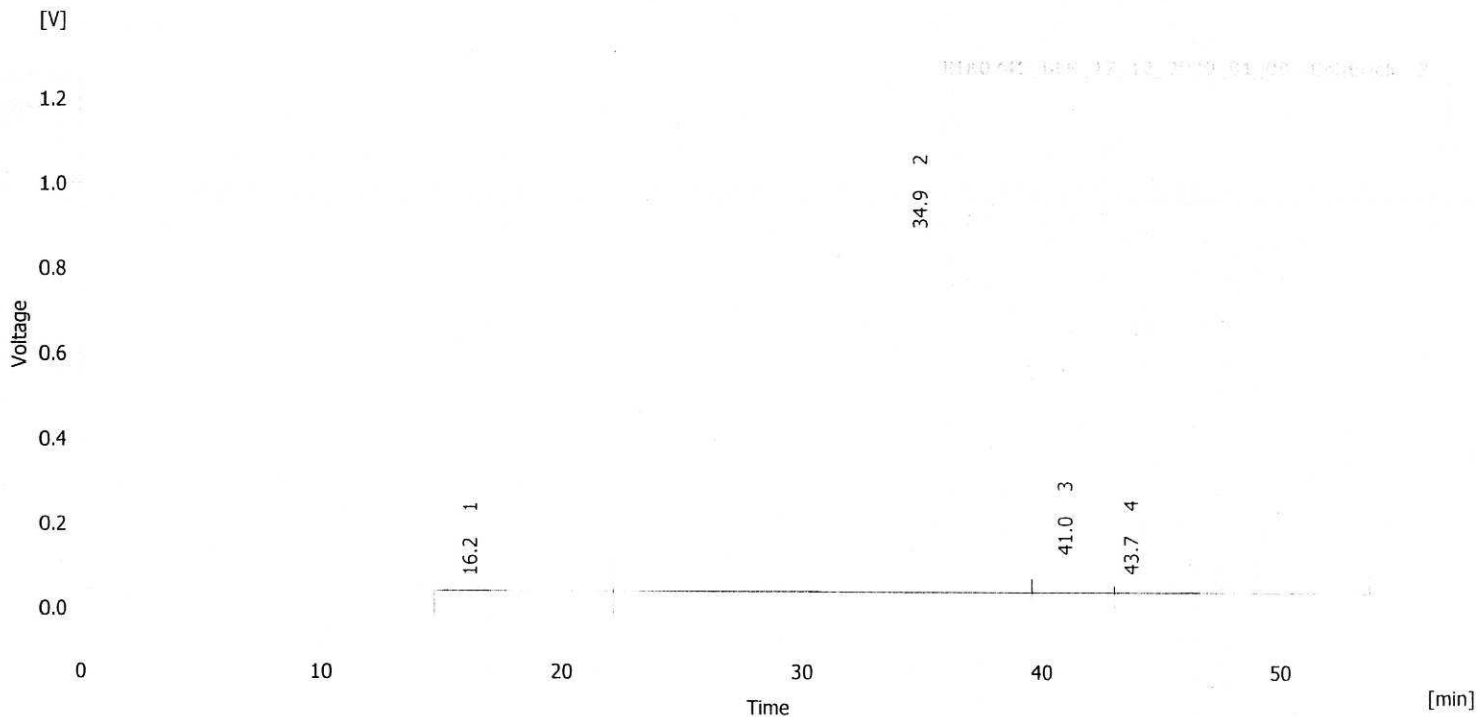
Sample Description:

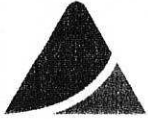
Sample ID : BIK0745  
 Sample : BLK  
 Method : GPC3\_BAN-PNA  
 Description : BAN/PNA Method  
 Created : 9/10/2019 1:23 PM

By : cct  
 Modified : 12/17/2020 1:08 AM

Time and Input Events Table (GPC3\_BAN-PNA)

Name	Type	Input				Output			
		Source	Input	Value	Units	Output Type	Output	Parameter	Store
Set_dump	Time Idle >	---	---	0.010	min	Colibrick	gpc3collect	High	<input type="checkbox"/>
Start_collect	Run Time >	---	---	22.000	min	Colibrick	gpc3collect	Low	<input type="checkbox"/>
Start_dump	Run Time >	---	---	48.000	min	Colibrick	gpc3collect	High	<input type="checkbox"/>
Next_fract	Run Time >	---	---	54.000	min	GPC3fraction	Next	---	<input type="checkbox"/>
Error-Pump-Off	Time Idle >	---	---	70.000	min	Colibrick	GPC3-Poweroff	Low	<input type="checkbox"/>





# GPC3

GPC3\_BAN-PNA  
BIK0745

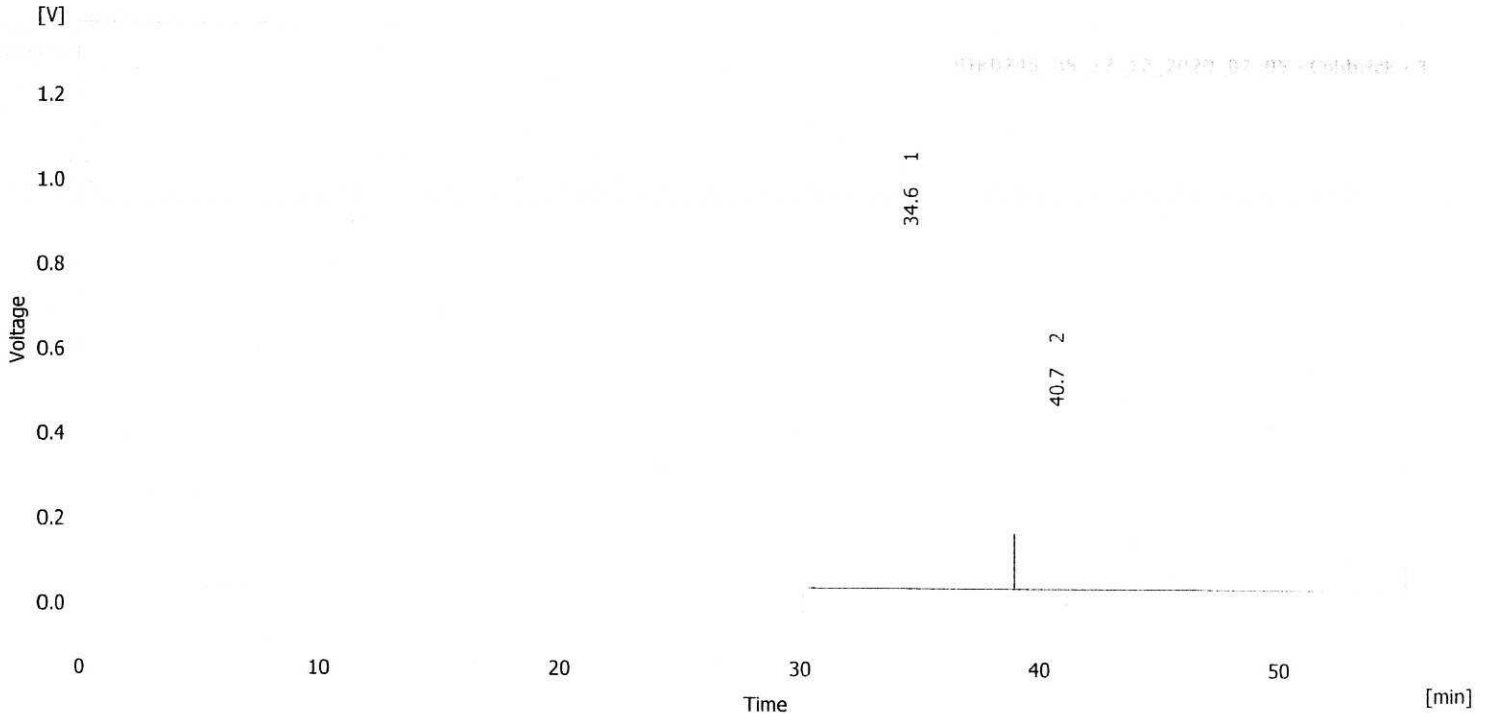
Sample Description:

Sample ID : BIK0745  
Sample : BS  
Method : GPC3\_BAN-PNA  
Description : BAN/PNA Method  
Created : 9/10/2019 1:23 PM

By : cct  
Modified : 12/17/2020 2:05 AM

Time and Input Events Table (GPC3\_BAN-PNA)

Name	Type	Input				Output			
		Source	Input	Value	Units	Output Type	Output	Parameter	Store
Set_dump	Time Idle >	---	---	0.010	min	Colibrick	gpc3collect	High	<input type="checkbox"/>
Start_collect	Run Time >	---	---	22.000	min	Colibrick	gpc3collect	Low	<input type="checkbox"/>
Start_dump	Run Time >	---	---	48.000	min	Colibrick	gpc3collect	High	<input type="checkbox"/>
Next_fract	Run Time >	---	---	54.000	min	GPC3fraction	Next	---	<input type="checkbox"/>
Error-Pump-Off	Time Idle >	---	---	70.000	min	Colibrick	GPC3-Poweroff	Low	<input type="checkbox"/>





# GPC3

GPC3\_BAN-PNA  
BIK0745

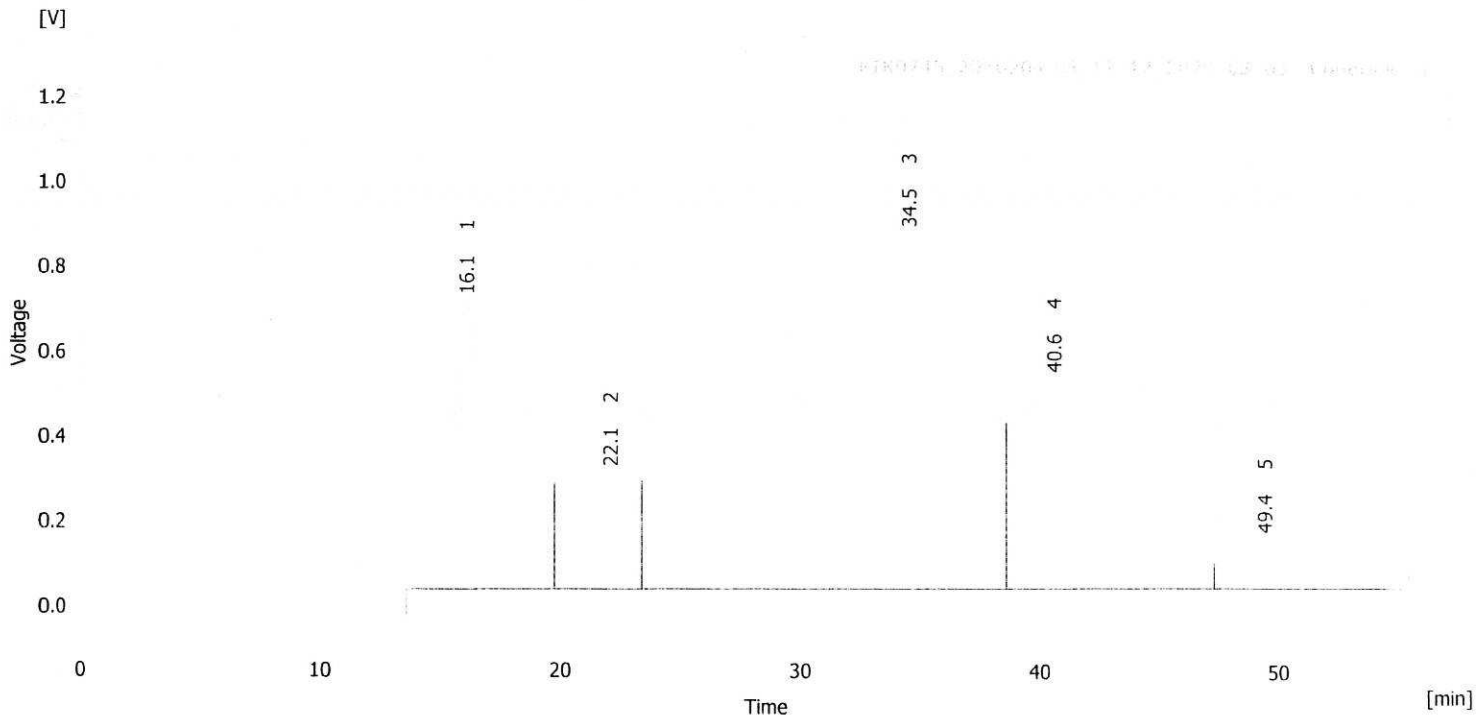
Sample Description:

Sample ID : BIK0745  
Sample : 20K0204-05  
Method : GPC3\_BAN-PNA  
Description : BAN/PNA Method  
Created : 9/10/2019 1:23 PM

By : cct  
Modified : 12/17/2020 3:03 AM

Time and Input Events Table (GPC3\_BAN-PNA)

Name	Type	Input				Output			
		Source	Input	Value	Units	Output Type	Output	Parameter	Store
Set_dump	Time Idle >	---	---	0.010	min	Colibrick	gpc3collect	High	<input type="checkbox"/>
Start_collect	Run Time >	---	---	22.000	min	Colibrick	gpc3collect	Low	<input type="checkbox"/>
Start_dump	Run Time >	---	---	48.000	min	Colibrick	gpc3collect	High	<input type="checkbox"/>
Next_fract	Run Time >	---	---	54.000	min	GPC3fraction	Next	---	<input type="checkbox"/>
Error-Pump-Off	Time Idle >	---	---	70.000	min	Colibrick	GPC3-Poweroff	Low	<input type="checkbox"/>





**GPC3**  
 GPC3\_BAN-PNA  
 BIK0745

Sample Description:

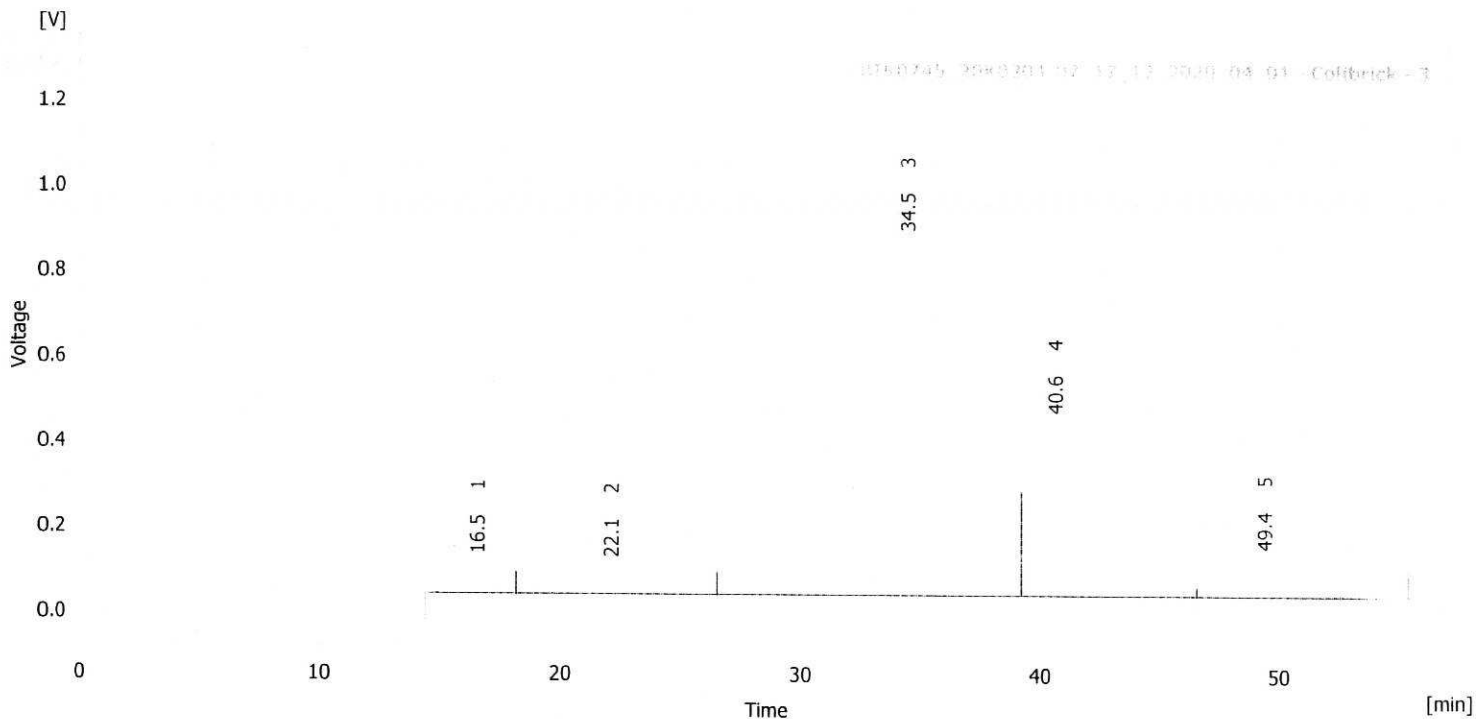
Sample ID : BIK0745  
 Sample : 20K0204-07

Method : GPC3\_BAN-PNA  
 Description : BAN/PNA Method  
 Created : 9/10/2019 1:23 PM

By : cct  
 Modified : 12/17/2020 4:01 AM

Time and Input Events Table (GPC3\_BAN-PNA)

Name	Type	Input				Output			
		Source	Input	Value	Units	Output Type	Output	Parameter	Store
Set_dump	Time Idle >	---	---	0.010	min	Colibrick	gpc3collect	High	<input type="checkbox"/>
Start_collect	Run Time >	---	---	22.000	min	Colibrick	gpc3collect	Low	<input type="checkbox"/>
Start_dump	Run Time >	---	---	48.000	min	Colibrick	gpc3collect	High	<input type="checkbox"/>
Next_fract	Run Time >	---	---	54.000	min	GPC3fraction	Next	---	<input type="checkbox"/>
Error-Pump-Off	Time Idle >	---	---	70.000	min	Colibrick	GPC3-Poweroff	Low	<input type="checkbox"/>





# GPC3

GPC3\_BAN-PNA  
BIK0745

Sample Description:

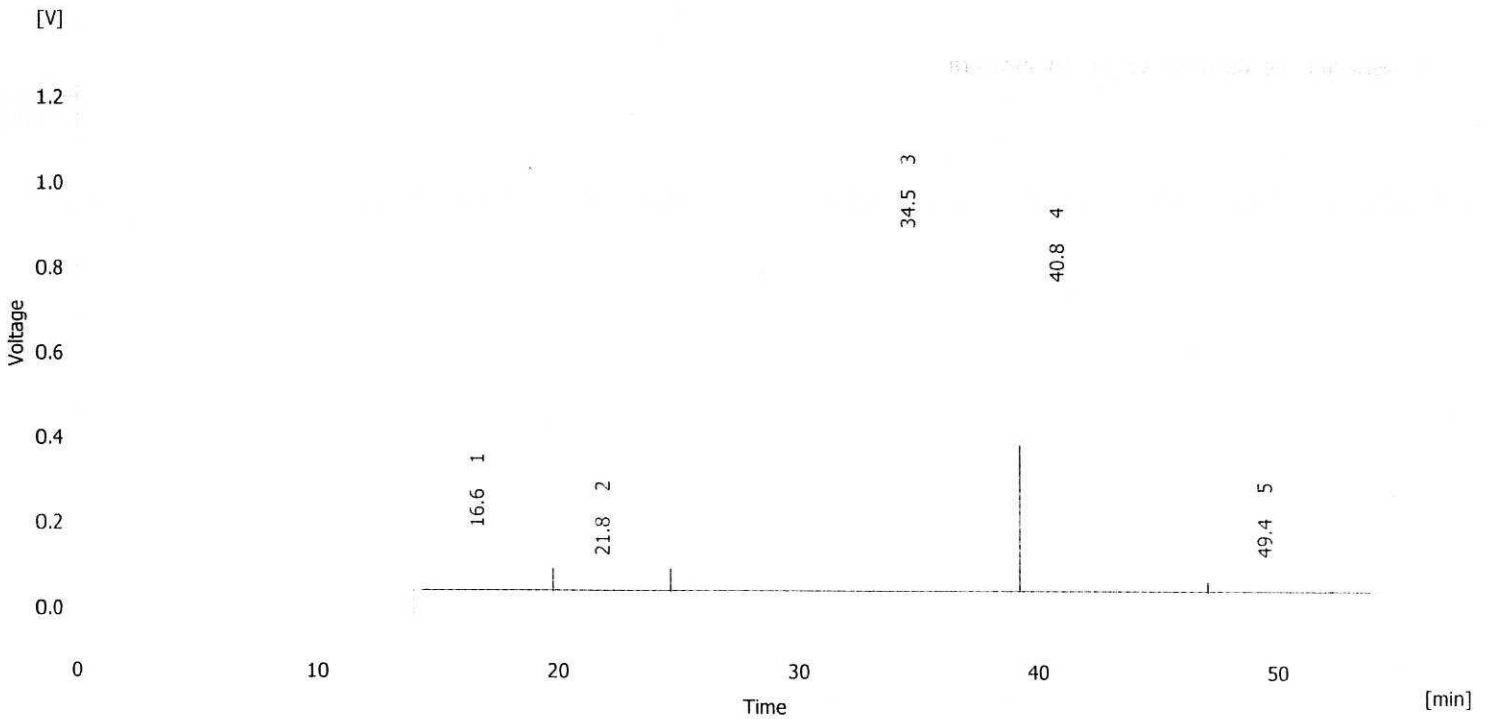
Sample ID : BIK0745  
Sample : MS

Method : GPC3\_BAN-PNA  
Description : BAN/PNA Method  
Created : 9/10/2019 1:23 PM

By : cct  
Modified : 12/17/2020 4:58 AM

Time and Input Events Table (GPC3\_BAN-PNA)

Name	Type	Input				Output			
		Source	Input	Value	Units	Output Type	Output	Parameter	Store
Set_dump	Time Idle >	---	---	0.010	min	Colibrick	gpc3collect	High	<input type="checkbox"/>
Start_collect	Run Time >	---	---	22.000	min	Colibrick	gpc3collect	Low	<input type="checkbox"/>
Start_dump	Run Time >	---	---	48.000	min	Colibrick	gpc3collect	High	<input type="checkbox"/>
Next_fract	Run Time >	---	---	54.000	min	GPC3fraction	Next	---	<input type="checkbox"/>
Error-Pump-Off	Time Idle >	---	---	70.000	min	Colibrick	GPC3-Poweroff	Low	<input type="checkbox"/>





**GPC3**  
 GPC3\_BAN-PNA  
 BIK0745

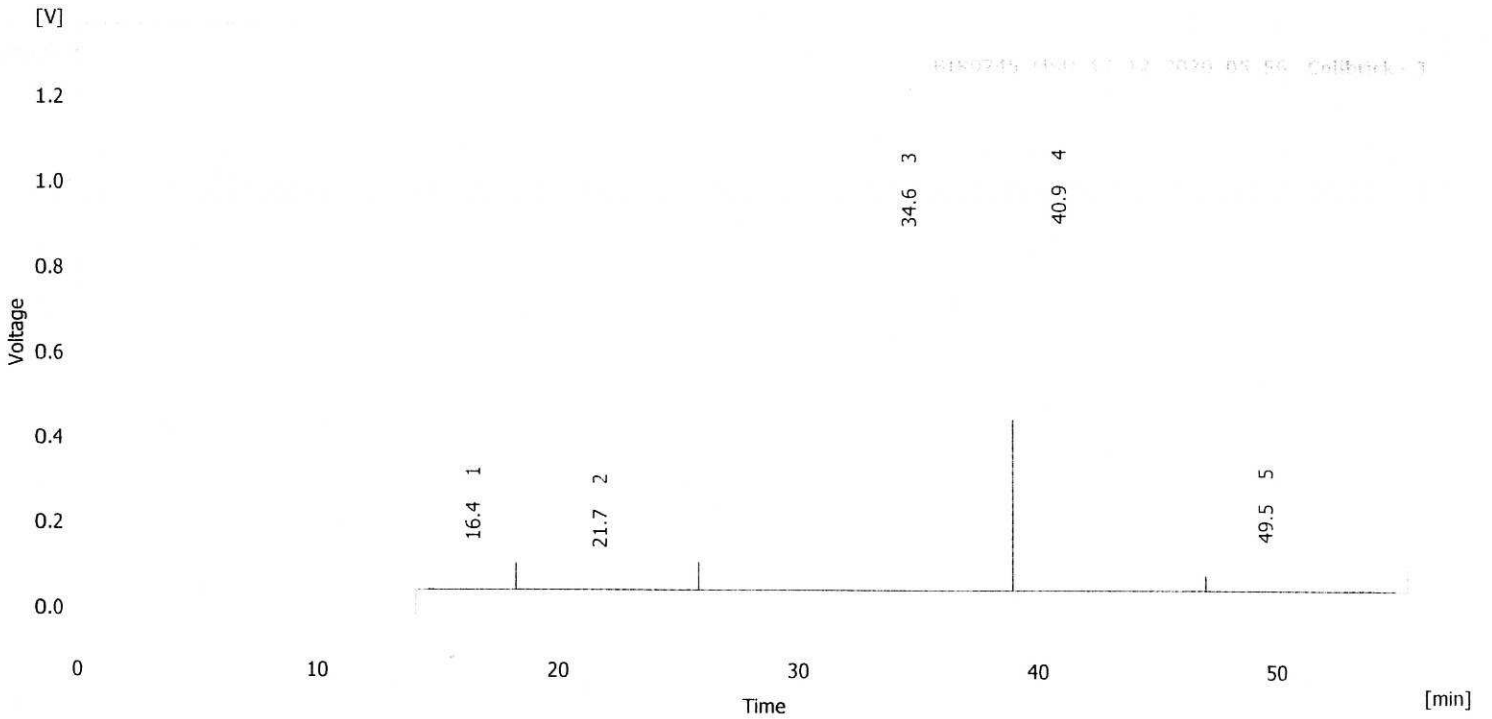
Sample Description:

Sample ID : BIK0745  
 Sample : MSD  
 Method : GPC3\_BAN-PNA  
 Description : BAN/PNA Method  
 Created : 9/10/2019 1:23 PM

By : cct  
 Modified : 12/17/2020 5:56 AM

Time and Input Events Table (GPC3\_BAN-PNA)

Name	Type	Input				Output			
		Source	Input	Value	Units	Output Type	Output	Parameter	Store
Set_dump	Time Idle >	---	---	0.010	min	Colibrick	gpc3collect	High	<input type="checkbox"/>
Start_collect	Run Time >	---	---	22.000	min	Colibrick	gpc3collect	Low	<input type="checkbox"/>
Start_dump	Run Time >	---	---	48.000	min	Colibrick	gpc3collect	High	<input type="checkbox"/>
Next_fract	Run Time >	---	---	54.000	min	GPC3fraction	Next	---	<input type="checkbox"/>
Error-Pump-Off	Time Idle >	---	---	70.000	min	Colibrick	GPC3-Poweroff	Low	<input type="checkbox"/>





## CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Cleanup Batch: CIL0177

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-006SC-A-00-01-201110	20K0204-05	NT1420121999.D	12/18/2020	
USMPDI-006SC-A-00-01-201110	20K0204-05	NT1420121999S.D	12/18/2020	
USMPDI-006SC-D-02-04-201110	20K0204-07	NT1420122000.D	12/18/2020	
USMPDI-006SC-D-02-04-201110	20K0204-07	NT1420122000S.D	12/18/2020	
Blank	BIK0745-BLK1	NT1420121997.D	12/18/2020	
Blank	BIK0745-BLK2	NT1420121997S.D	12/18/2020	
LCS	BIK0745-BS1	NT1420121998.D	12/18/2020	
Matrix Spike	BIK0745-MS1	NT1420122001.D	12/18/2020	
Matrix Spike Dup	BIK0745-MSD1	NT1420122002.D	12/18/2020	





### CLEANUP BENCH SHEET

CIL0177

Matrix: Solid

Cleanup using: Organics - EPA 3630C Silica Gel Cleanup

Printed: 12/18/2020 10:13:16AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
20K0204-05	A	USMPDI-006SC-A-00-01-20 1110	A 03	0.5	0.5	DE-SIM Alkyl PAH (Parents) Dual S	12/18/2020	BH	
20K0204-05	A	USMPDI-006SC-A-00-01-20 1110	A 04	0.5	0.5	DE-SIM Alkyl PAH (Range) Dual S	12/18/2020	BH	
20K0204-07	A	USMPDI-006SC-D-02-04-20 1110	A 03	0.5	0.5	DE-SIM Alkyl PAH (Parents) Dual S	12/18/2020	BH	
20K0204-07	A	USMPDI-006SC-D-02-04-20 1110	A 04	0.5	0.5	DE-SIM Alkyl PAH (Range) Dual S	12/18/2020	BH	
BIK0745-BLK1	-	Blank	-	0.5	0.5	-	12/18/2020	BH	
BIK0745-BLK2	-	Blank	-	0.5	0.5	-	12/18/2020	BH	
BIK0745-BS1	-	LCS	-	0.5	0.5	-	12/18/2020	BH	
BIK0745-BS2	-	LCS	-	0.5	0.5	-	12/18/2020	BH	
BIK0745-MS1	-	Matrix Spike	-	0.5	0.5	-	12/18/2020	BH	
BIK0745-MS2	-	Matrix Spike	-	0.5	0.5	-	12/18/2020	BH	
BIK0745-MSD1	-	Matrix Spike Dup	-	0.5	0.5	-	12/18/2020	BH	
BIK0745-MSD2	-	Matrix Spike Dup	-	0.5	0.5	-	12/18/2020	BH	



**Form I**  
**METHOD BLANK DATA SHEET**  
**EPA 8270E-SIM**

Blank
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Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>20K0204</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic</u>
Matrix:	<u>Solid</u>	Laboratory ID:	<u>BIK0745-BLK1</u>
Sampled:	<u>N/A</u>	File ID:	<u>NT1420121997.D</u>
Solids:		Prepared:	<u>11/24/20 11:45</u>
Batch:	<u>BIK0745</u>	Analyzed:	<u>12/22/20 14:43</u>
Instrument:	<u>NT14</u>	Preparation:	<u>EPA 3546 (Microwave)</u>
		Initial/Final:	<u>10 g / 0.5 mL</u>
		Calibration:	<u>DJ00029</u>
		Cleanups:	<u>Silica Gel</u>
		Sequence:	<u>SIL0350</u>
		Column:	<u>ZB-5MS</u>

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	0.8	J	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	0.4	J	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
	Benzofluoranthenes, Total	1	10.0	U	3.0	10.0
197-97-2	Benzo(e)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	92.4	61.6	30 - 160	



**Form I**  
**METHOD BLANK DATA SHEET**  
**EPA 8270E-SIM**

<b>Blank</b>
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Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>20K0204</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic</u>
Matrix:	<u>Solid</u>	Laboratory ID:	<u>BIK0745-BLK1</u>
Sampled:	<u>N/A</u>	Prepared:	<u>11/24/20 11:45</u>
Solids:		Preparation:	<u>EPA 3546 (Microwave)</u>
Batch:	<u>BIK0745</u>	Sequence:	<u>SIL0350</u>
Instrument:	<u>NT14</u>	Column:	<u>ZB-5MS</u>
		Cleanups:	<u>Silica Gel</u>

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
Acenaphthene-d10	150.00	94.8	63.2	30 - 160	
Phenanthrene-d10	150.00	104	69.6	30 - 160	
Chrysene-d12	150.00	107	71.5	30 - 160	
Perylene-d12	150.00	77.2	51.5	30 - 160	

Data File: \\target\share\chem3\nt14.1\20201219F.16\NT142012197.D

Date : 22-DEC-2020 14:43

Client ID:

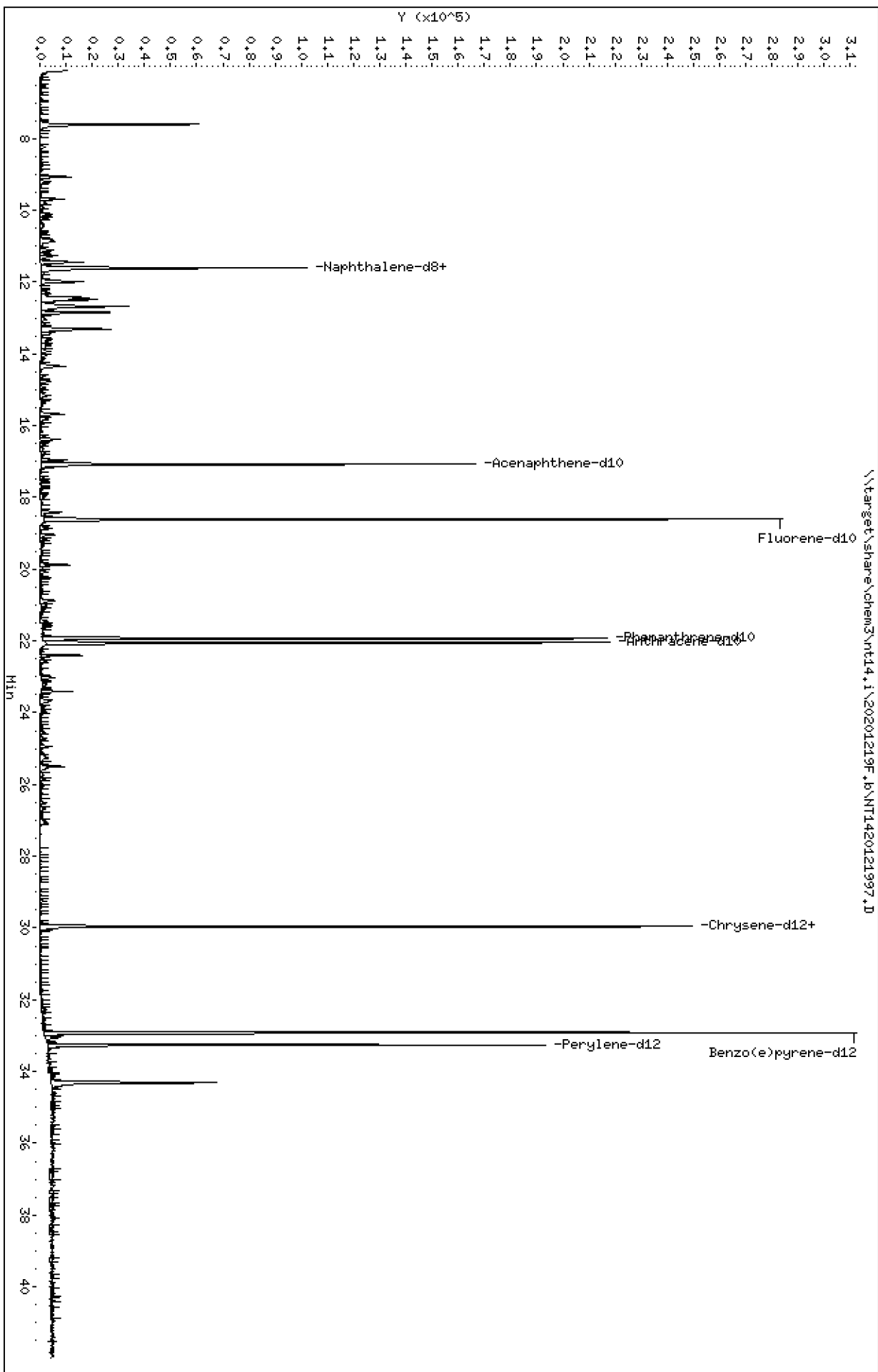
Sample Info: BIK0745-BLK1

Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25



Date : 22-DEC-2020 14:43

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BLK1

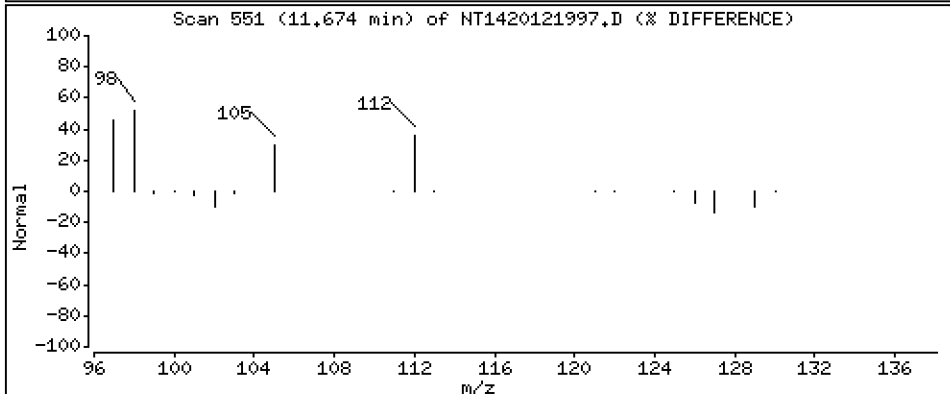
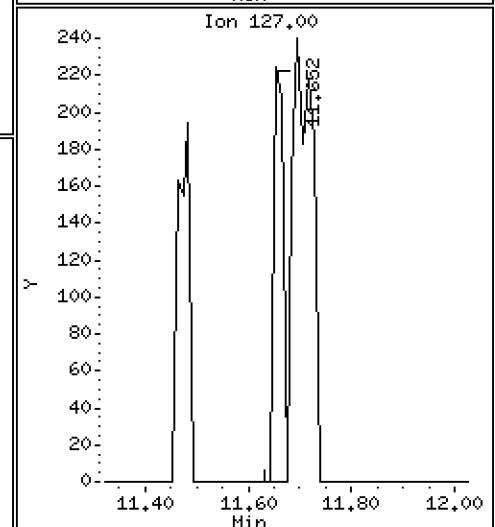
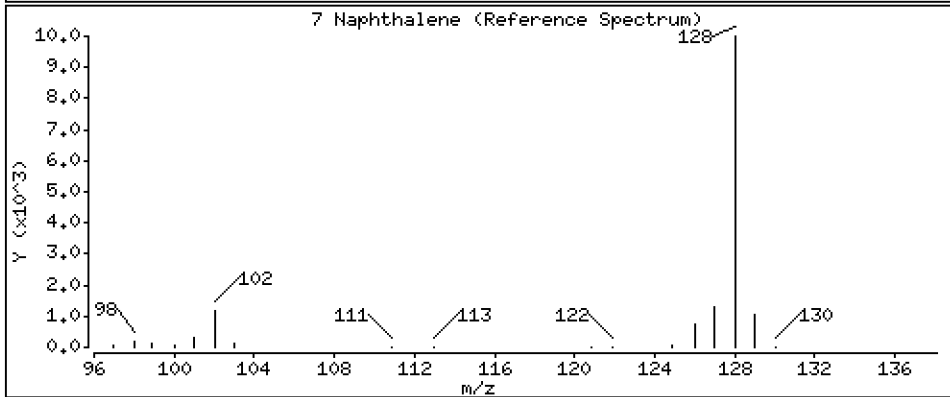
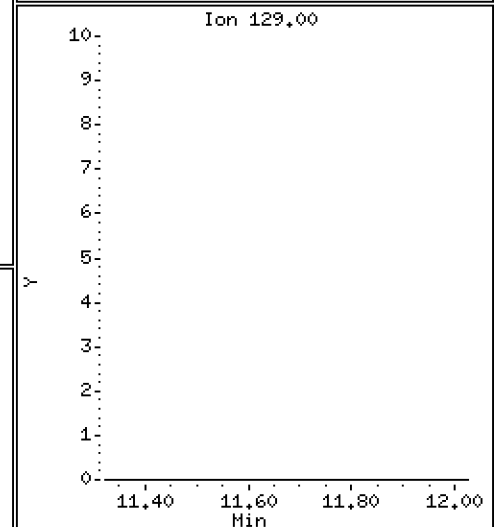
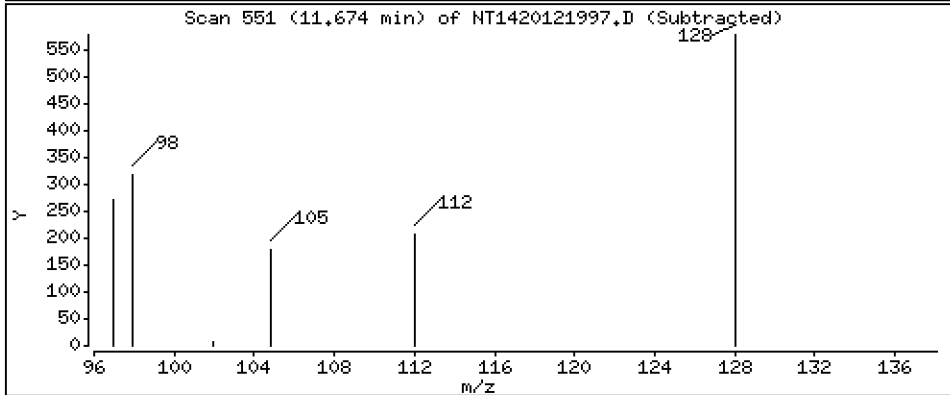
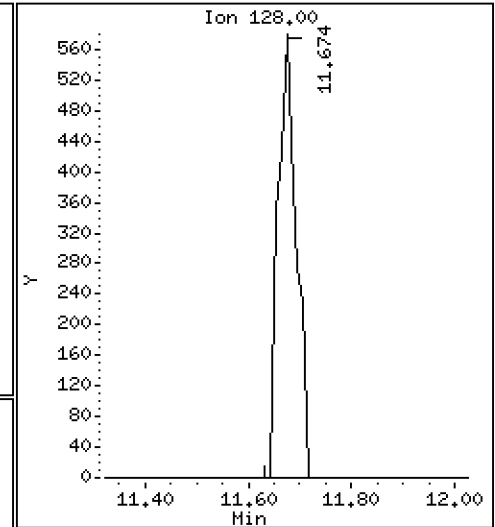
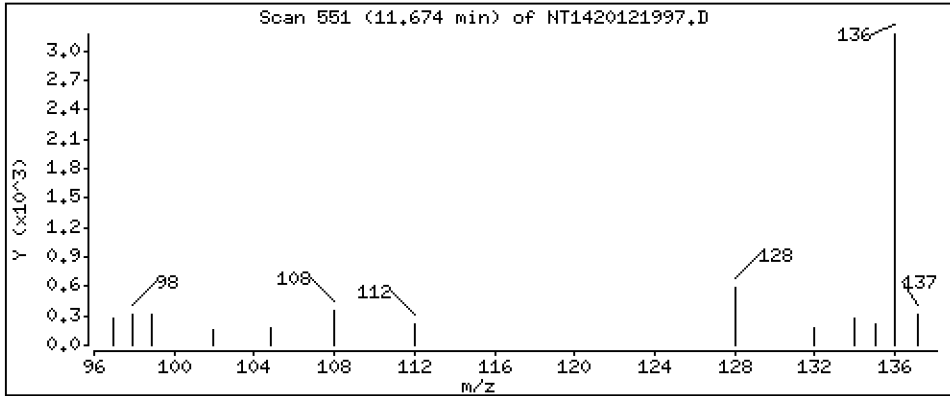
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

7 Naphthalene

Concentration: 0,01510 ug/mL



Date : 22-DEC-2020 14:43

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BLK1

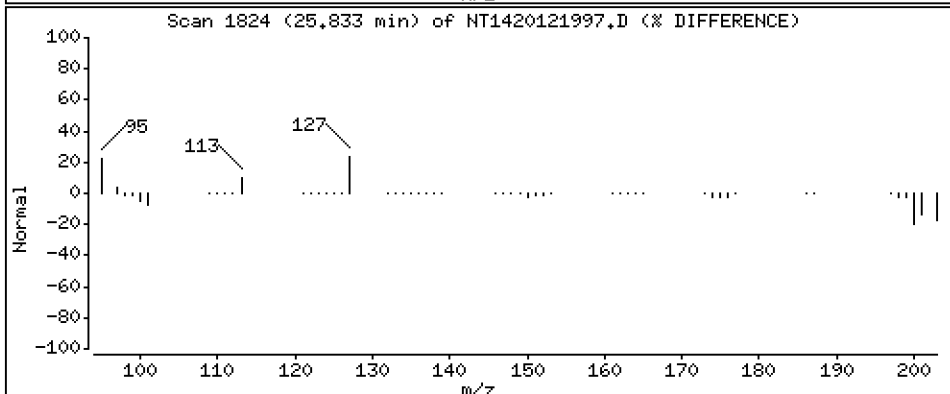
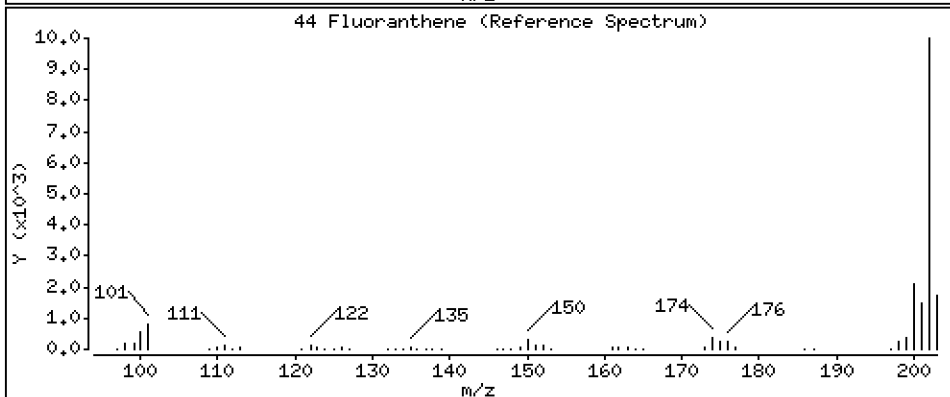
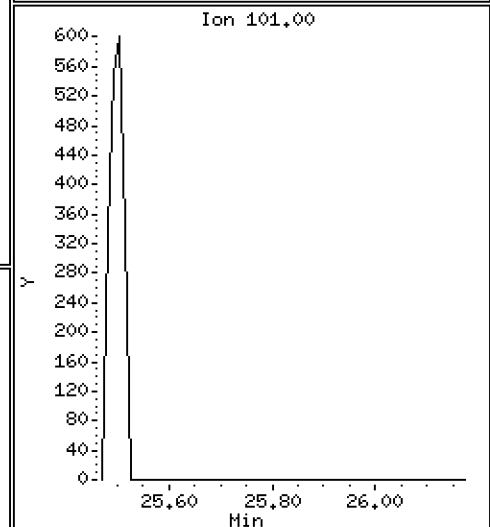
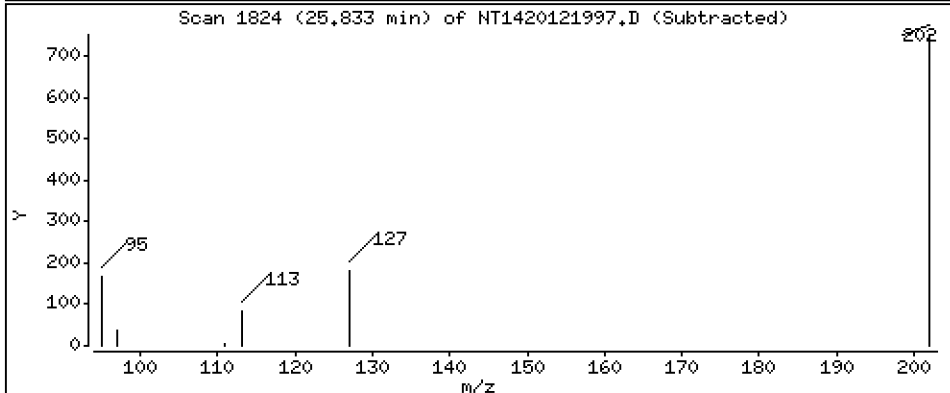
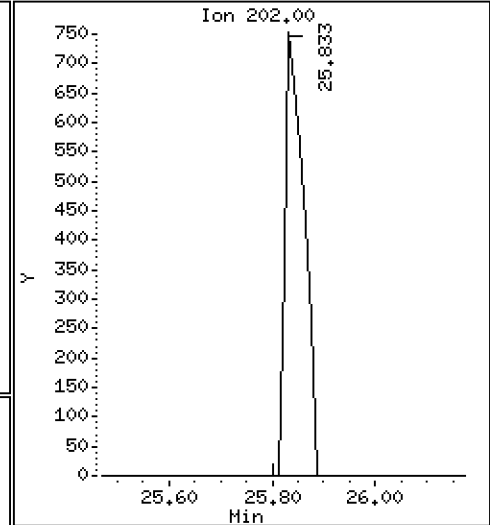
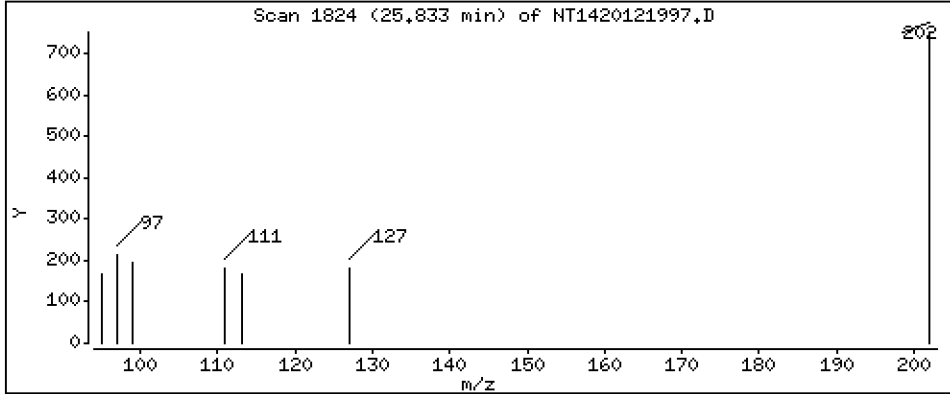
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

44 Fluoranthene

Concentration: 0,01375 ug/mL



Date : 22-DEC-2020 14:43

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BLK1

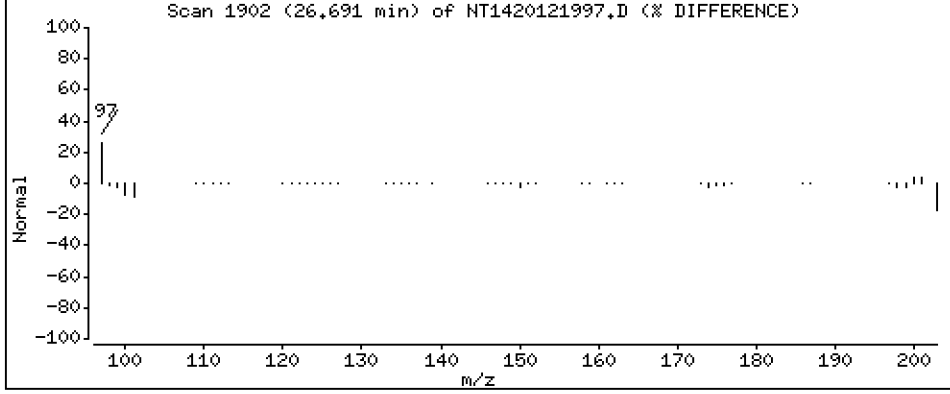
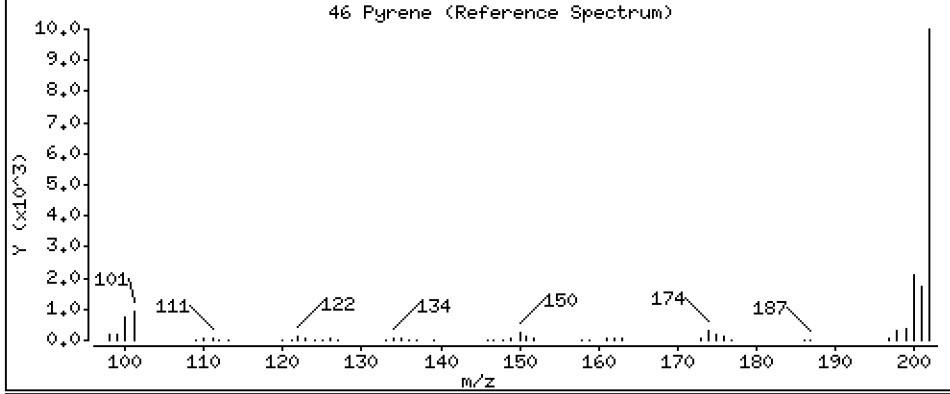
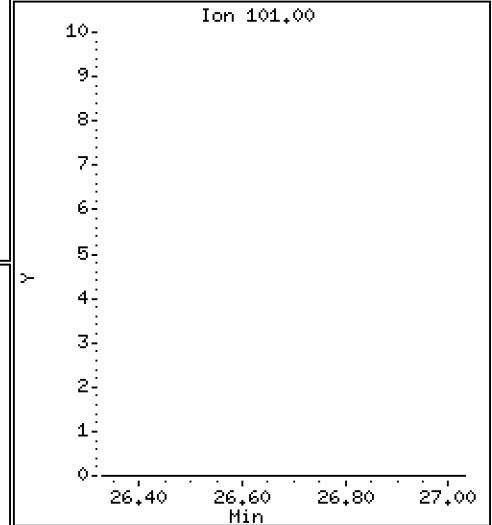
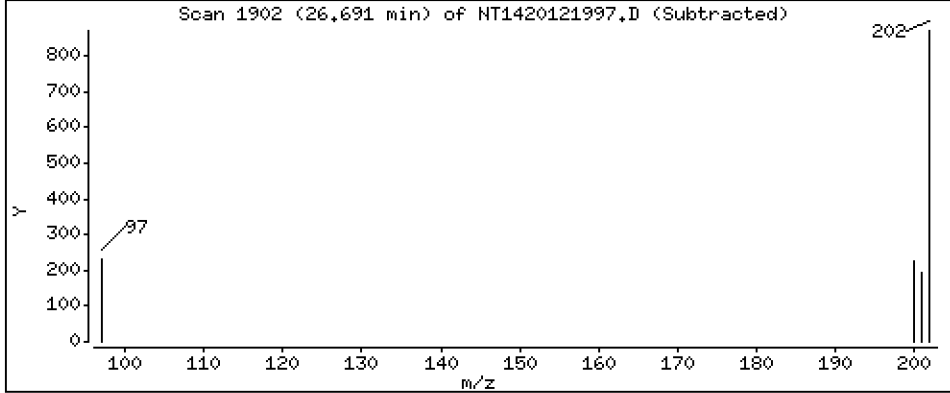
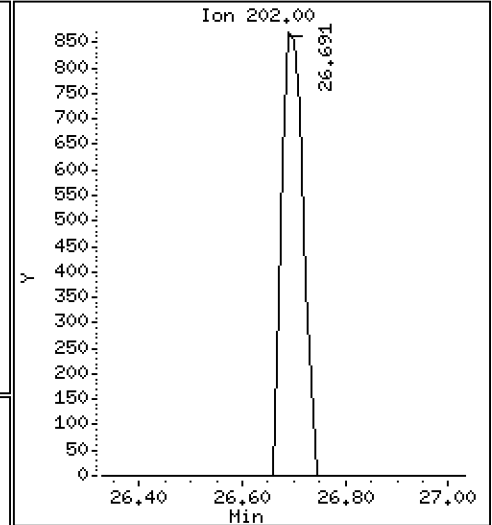
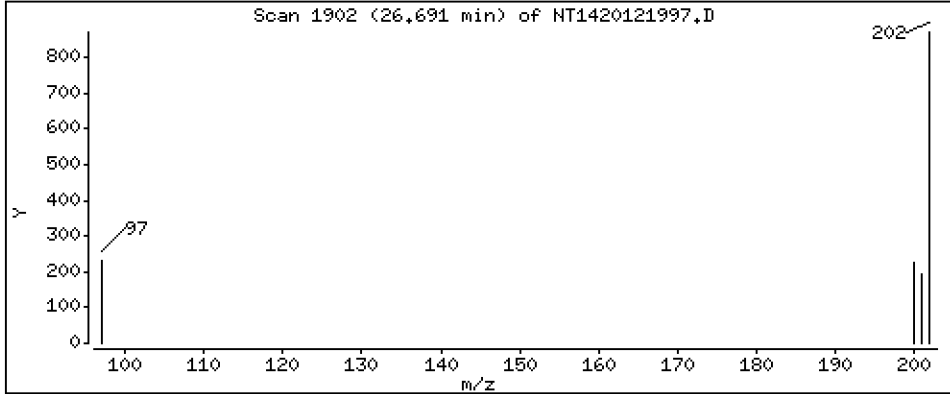
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

46 Pyrene

Concentration: 0,01712 ug/mL



Date : 22-DEC-2020 14:43

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BLK1

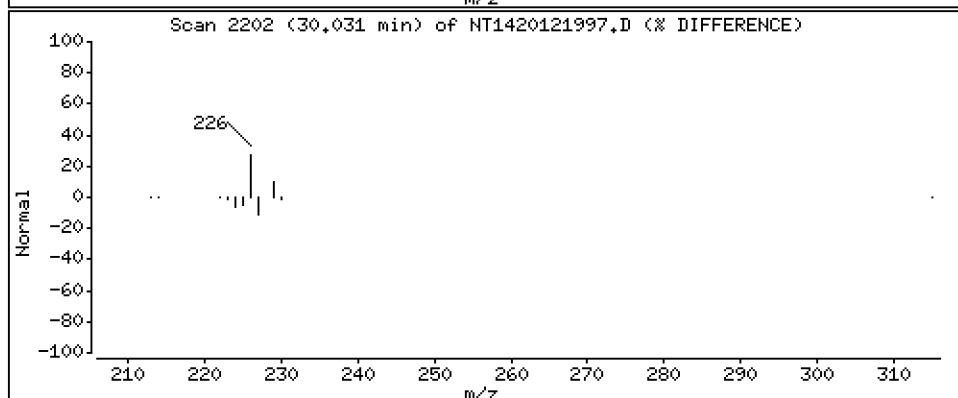
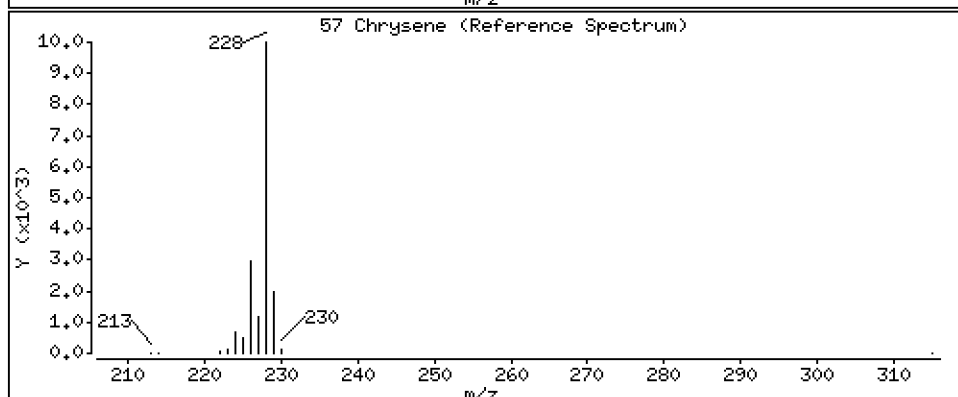
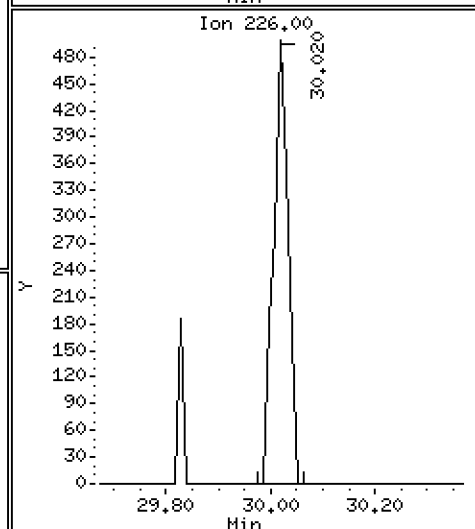
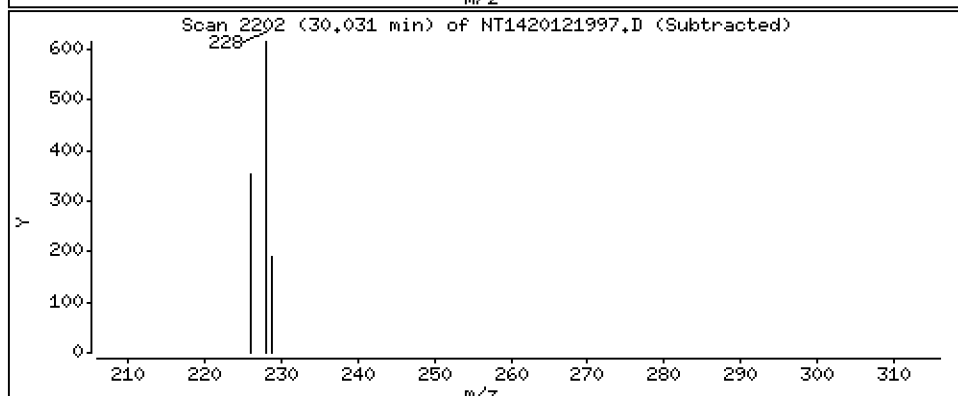
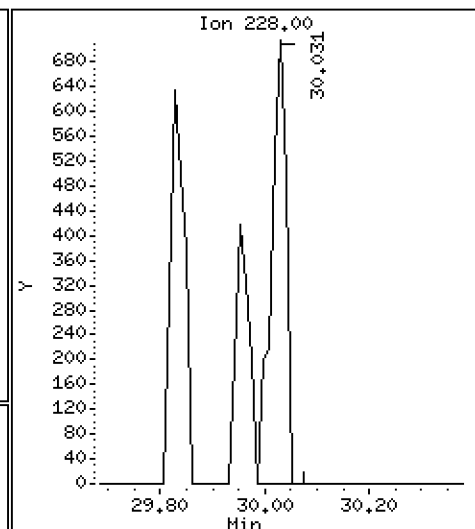
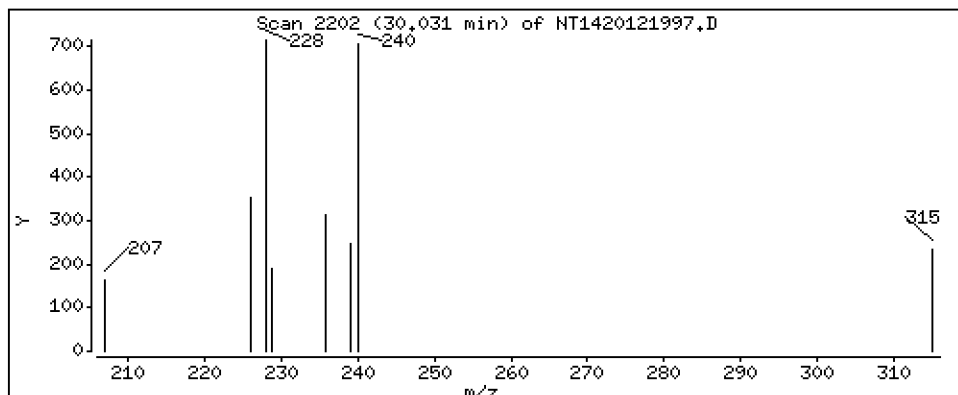
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

57 Chrysene

Concentration: 0,01026 ug/mL





Date : 22-DEC-2020 14:43

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BLK1

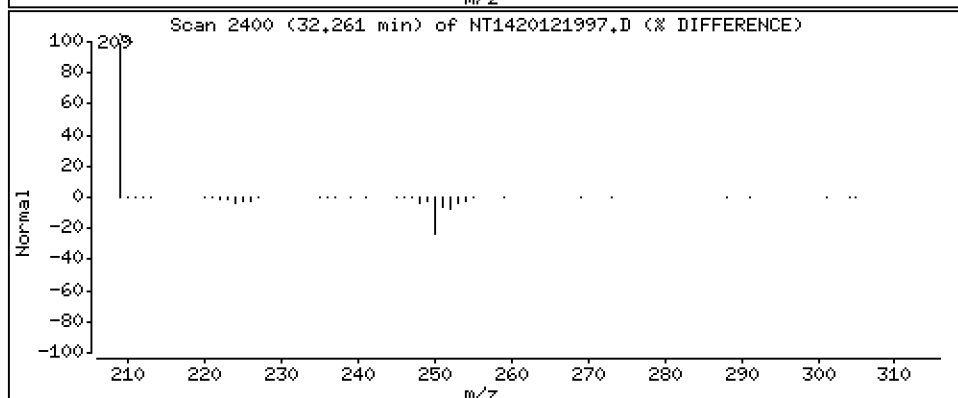
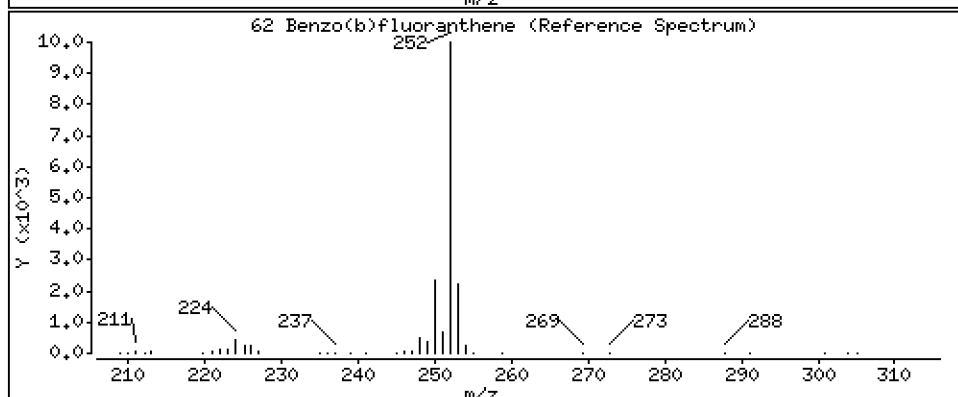
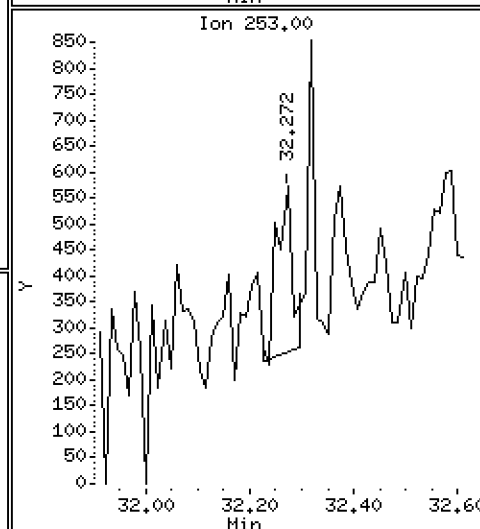
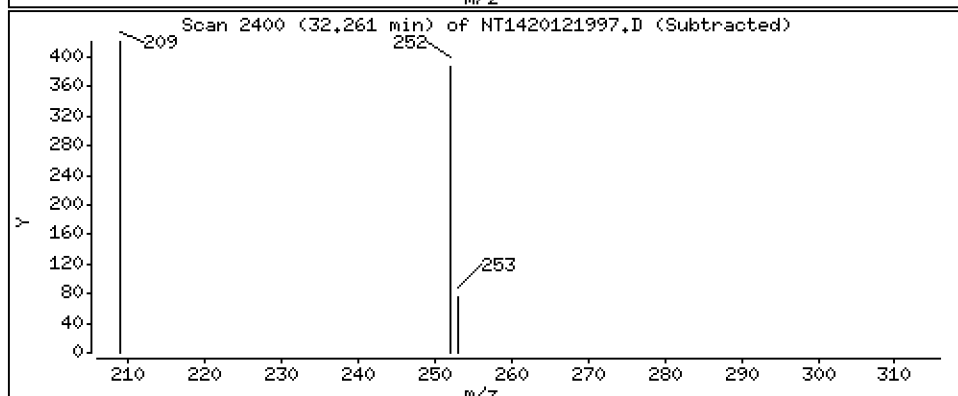
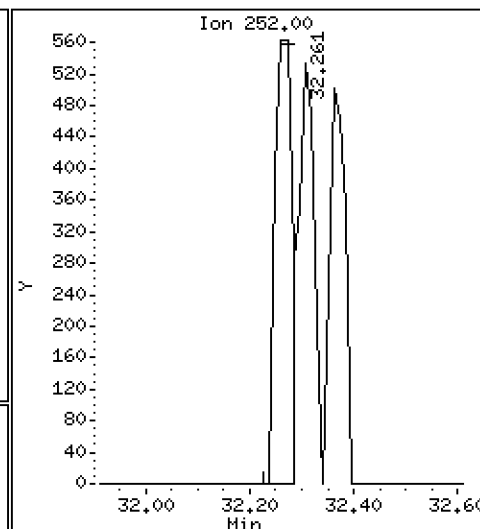
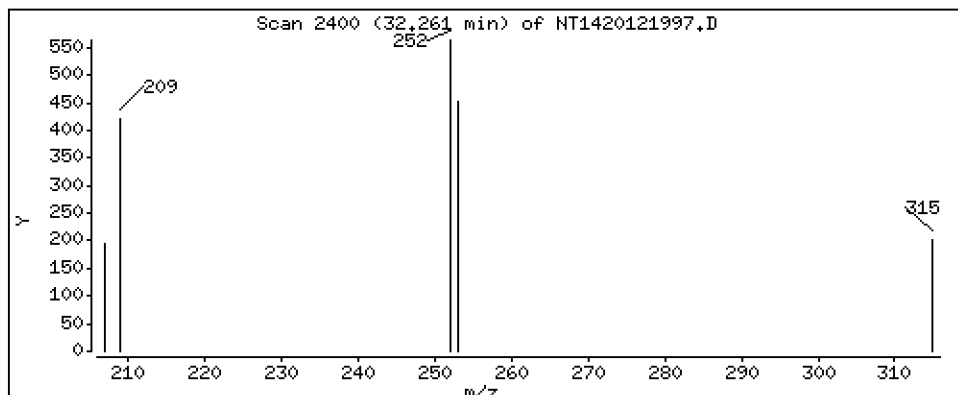
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

62 Benzo(b)fluoranthene

Concentration: 0,007548 ug/mL



Date : 22-DEC-2020 14:43

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BLK1

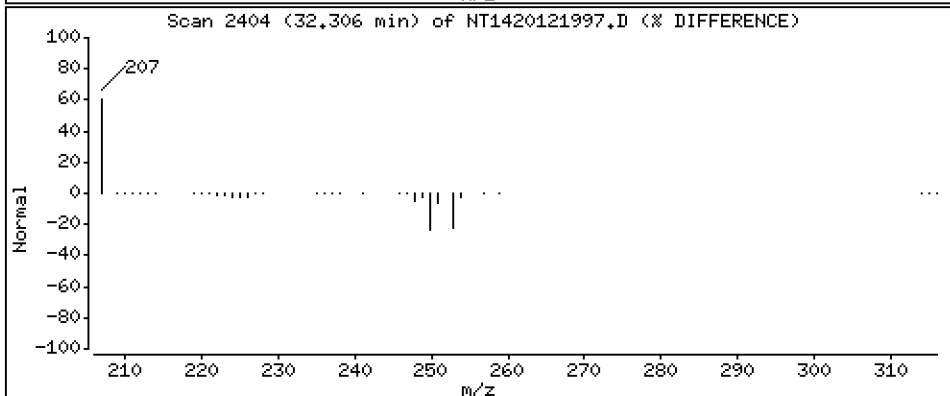
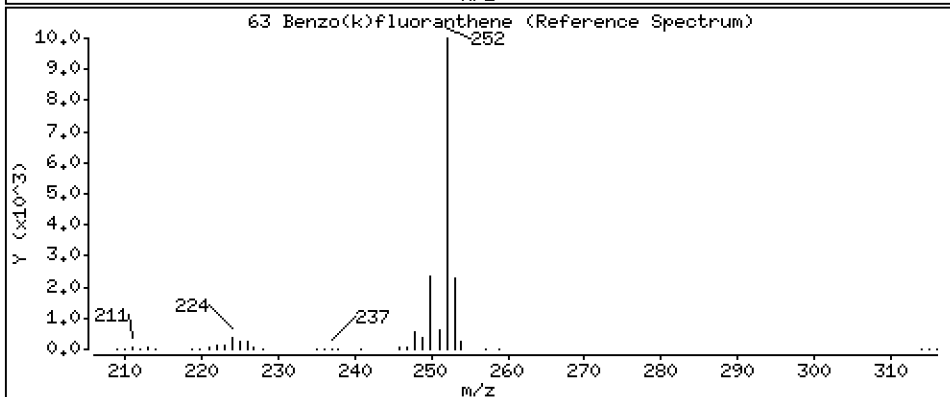
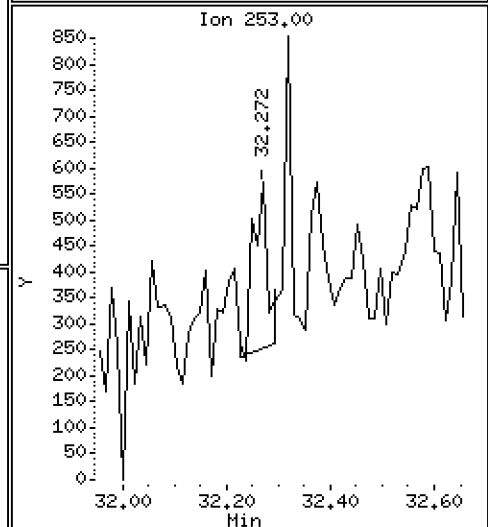
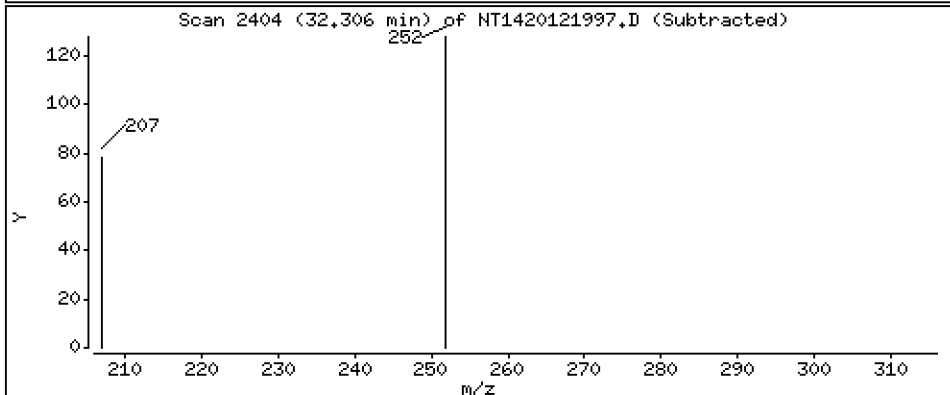
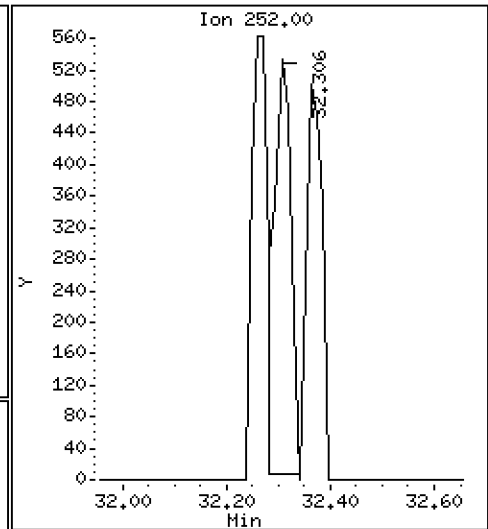
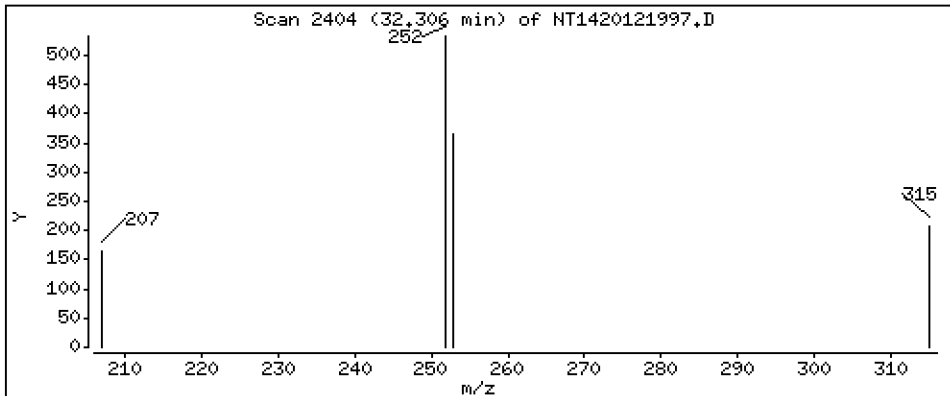
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

63 Benzo(k)fluoranthene

Concentration: 0,007464 ug/mL



Date : 22-DEC-2020 14:43

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BLK1

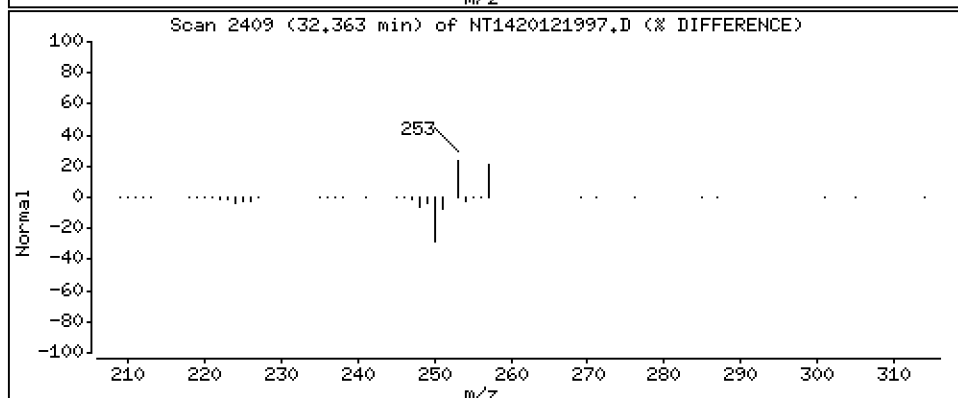
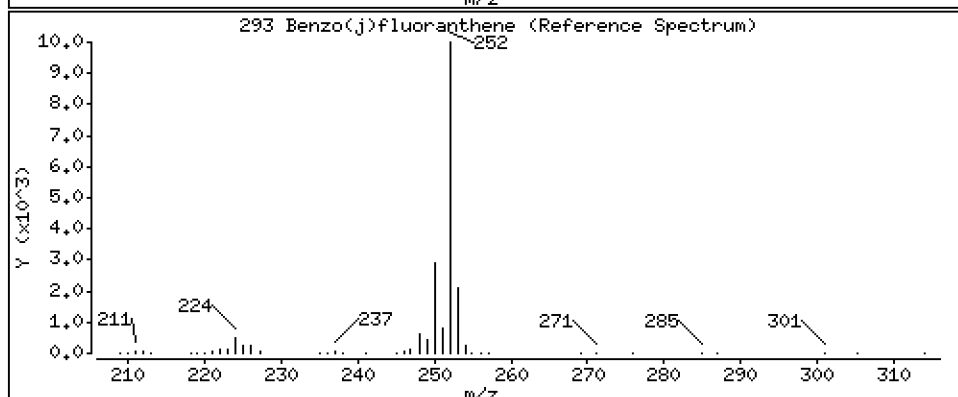
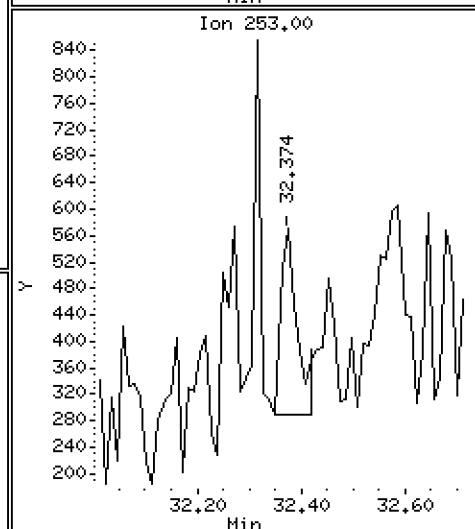
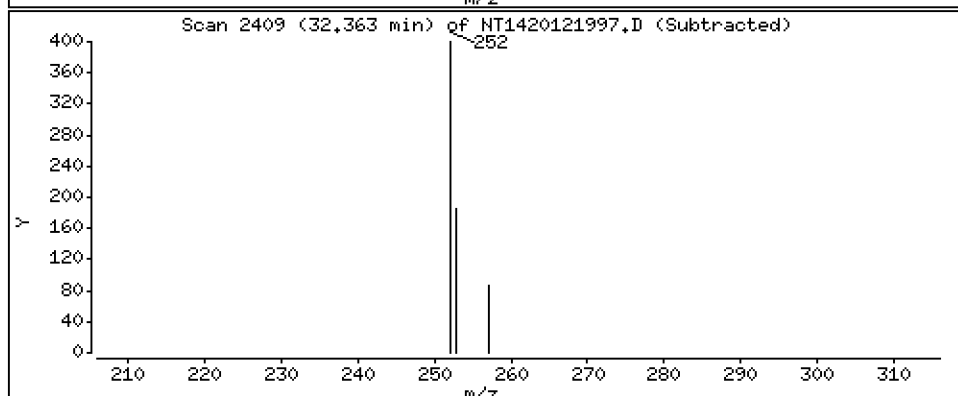
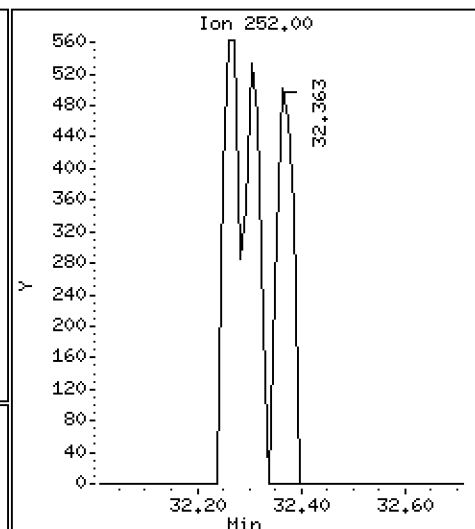
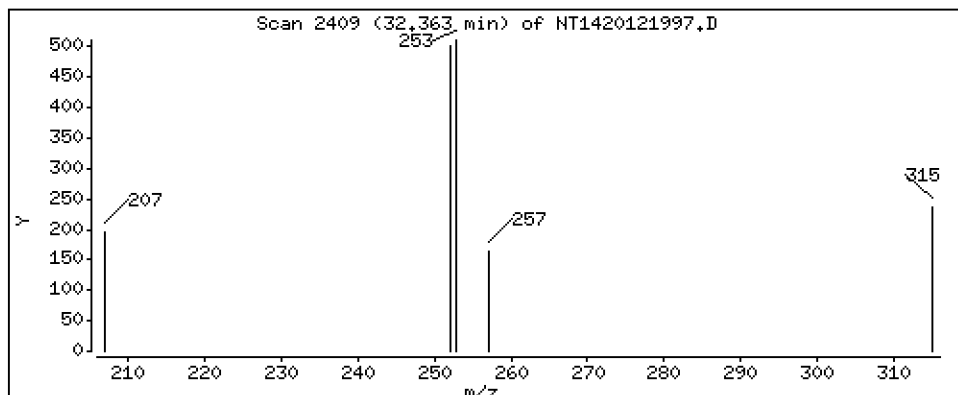
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

293 Benzo(j)fluoranthene

Concentration: 0,007414 ug/mL



Date : 22-DEC-2020 14:43

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BLK1

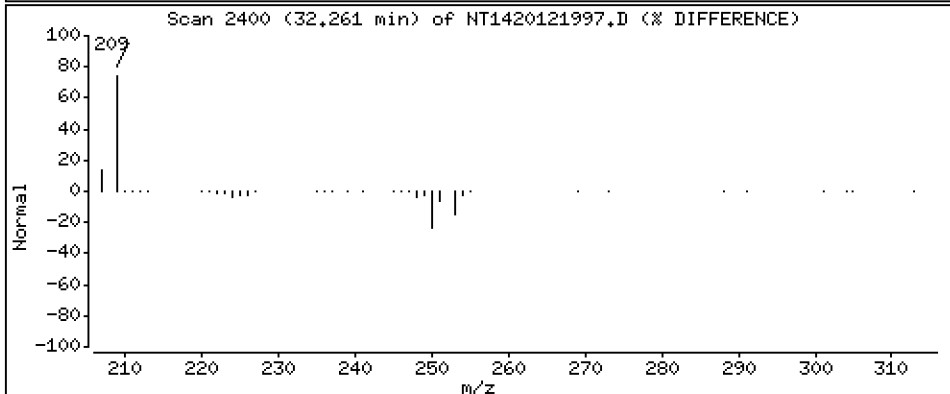
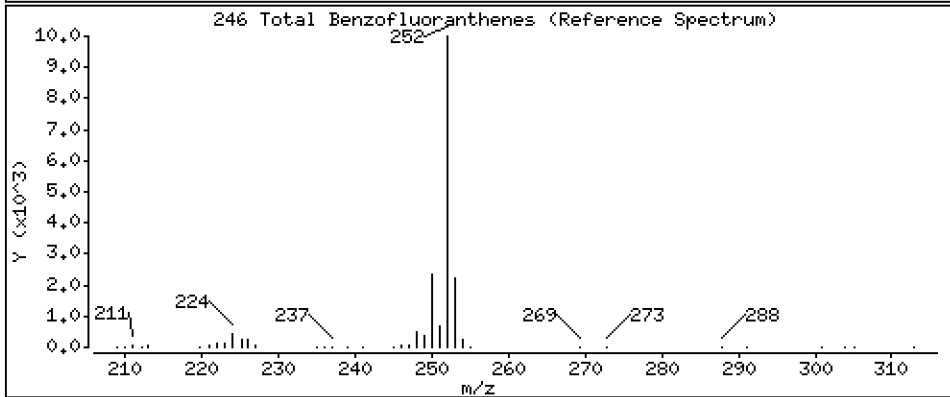
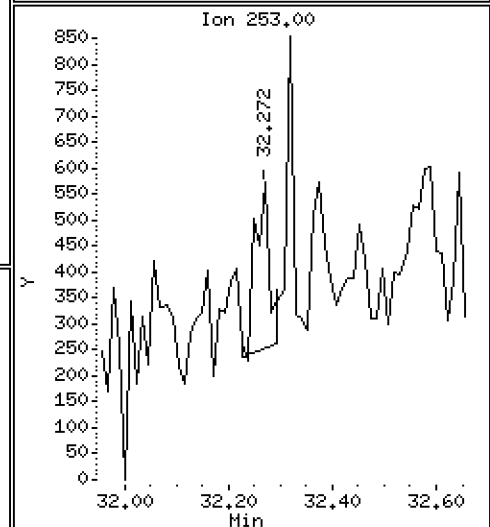
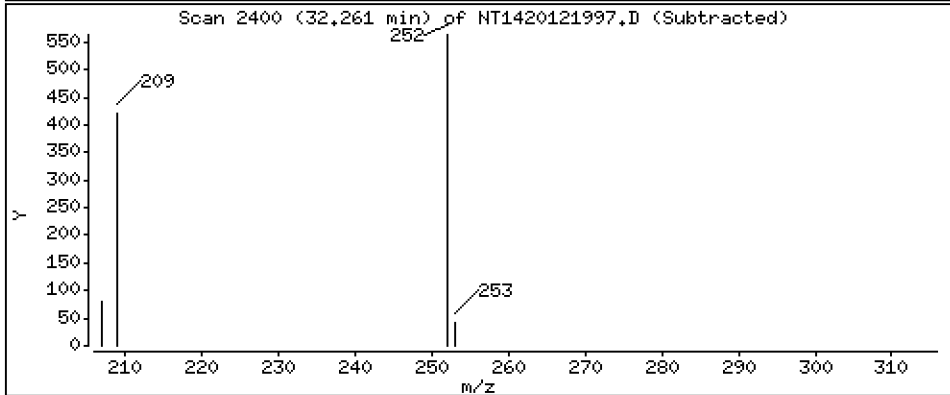
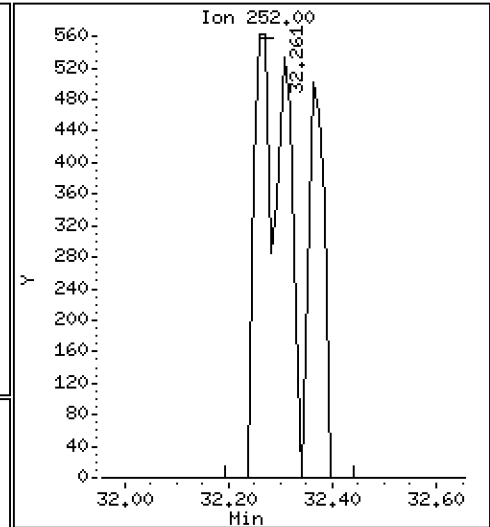
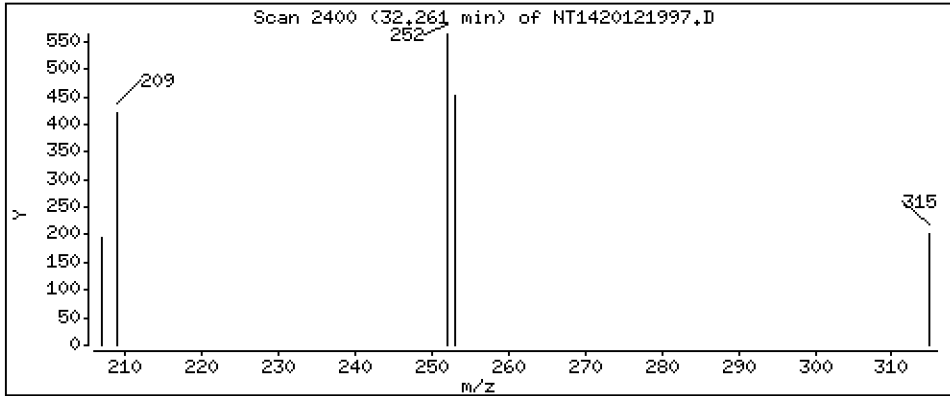
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

246 Total Benzofluoranthenes

Concentration: 0,02219 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20201219F.b\NT1420121997.D  
 Lab Smp Id: BIK0745-BLK1  
 Inj Date : 22-DEC-2020 14:43  
 Operator : VTS  
 Smp Info : BIK0745-BLK1  
 Misc Info :  
 Comment : 1ul Injection  
 Method : \\target\share\chem3\nt14.i\20201219F.b\ALKYLPNA.m  
 Meth Date : 23-Dec-2020 11:48 van  
 Cal Date : 07-OCT-2020 15:56  
 Als bottle: 83  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 4.14  
 Processing Host: VANS-202011

Inst ID: nt14.i  
 Quant Type: ISTD  
 Cal File: NT1420100708.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		11.608	11.608	(0.624)	185352	1.84777	1.848 (R)
7 Naphthalene	128		11.674	11.674	(0.627)	1515	0.01510	0.01510
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		17.070	17.070	(0.917)	114259	1.89687	1.897 (R)
22 Acenaphthene	153							
23 Dibenzofuran	168							
24 1,6,7-Trimethylnaphthalene	170							
* 25 Fluorene-d10	176		18.610	18.610	(1.000)	245845	2.00000	
26 Fluorene	166							
30 Dibenzothiophene	184							
\$ 35 Phenanthrene-d10	188		21.930	21.930	(0.995)	237395	2.08756	2.088 (R)
36 Phenanthrene	178							
* 250 Anthracene-d10	188		22.051	22.051	(1.000)	237430	2.00000	
37 Anthracene	178							
42 Carbazole	167							
43 1-Methylphenanthrene	192							
44 Fluoranthene	202		25.833	25.822	(1.172)	1996	0.01375	0.01375
46 Pyrene	202		26.690	26.679	(1.210)	2621	0.01712	0.01712
51 Naphthobenzothiophene	234							
55 Benzo(a)anthracene	228							
\$ 56 Chrysene-d12	240		29.952	29.952	(0.910)	242322	2.14501	2.145 (R)
57 Chrysene	228		30.031	30.030	(0.912)	1458	0.01026	0.01026 (M)
62 Benzo(b)fluoranthene	252		32.261	32.261	(0.980)	1219	0.00755	0.007548 (M)
63 Benzo(k)fluoranthene	252		32.306	32.306	(0.982)	1215	0.00746	0.007464 (M)
293 Benzo(j)fluoranthene	252		32.362	32.362	(0.983)	1055	0.00741	0.007414 (M)
246 Total Benzofluoranthenes	252		32.261	32.306	(0.980)	3326	0.02219	0.02219 (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		32.914	32.914	(1.000)	331337	2.00000	
64 Benzo(e)pyrene	252		Compound Not Detected.					
66 Benzo(a)pyrene	252		Compound Not Detected.					
\$ 67 Perylene-d12	264		33.263	33.252	(1.011)	211659	1.54487	1.545(R)
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: 22-DEC-2020  
 Lab File ID: NT1420121997.D Calibration Time: 09:54  
 Lab Smp Id: BIK0745-BLK1  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: VTS  
 Method File: \\target\share\chem3\nt14.i\20201219F.b\ALKYLPNA.m  
 Misc Info:

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	263433	131717	526866	245845	-6.68
250 Anthracene-d10	236791	118396	473582	237430	0.27
251 Benzo(e)pyrene-d1	338506	169253	677012	331337	-2.12

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.61	18.11	19.11	18.61	0.00
250 Anthracene-d10	22.05	21.55	22.55	22.05	0.00
251 Benzo(e)pyrene-d1	32.91	32.41	33.41	32.91	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 - NT1420121997.D

Lab ID: BIK0745-BLK1

nt14.i, 20201219F.b\ALKYLPNA.m, 22-DEC-2020 14:43

RT CO-ELUTION COMPOUNDS

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NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1420121991ICV.D

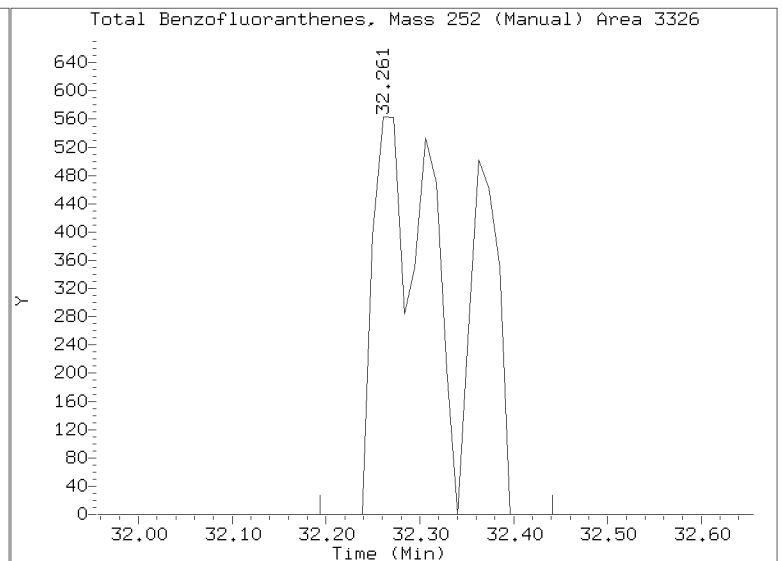
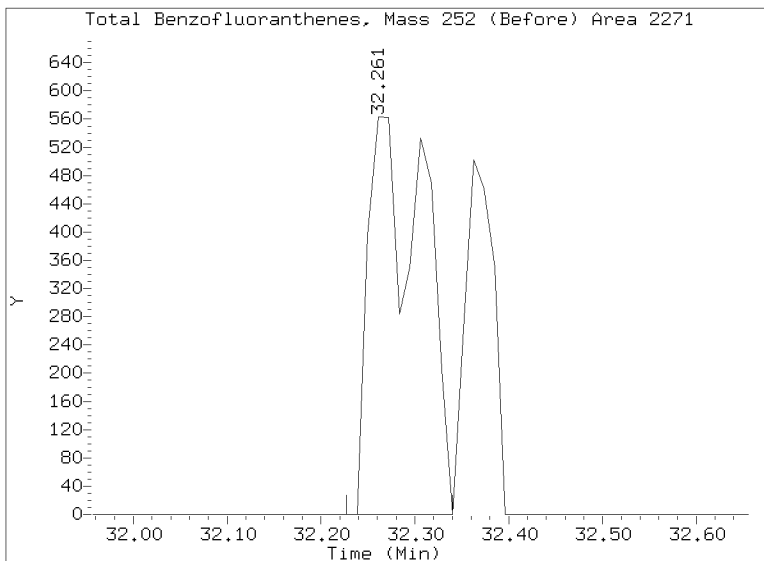
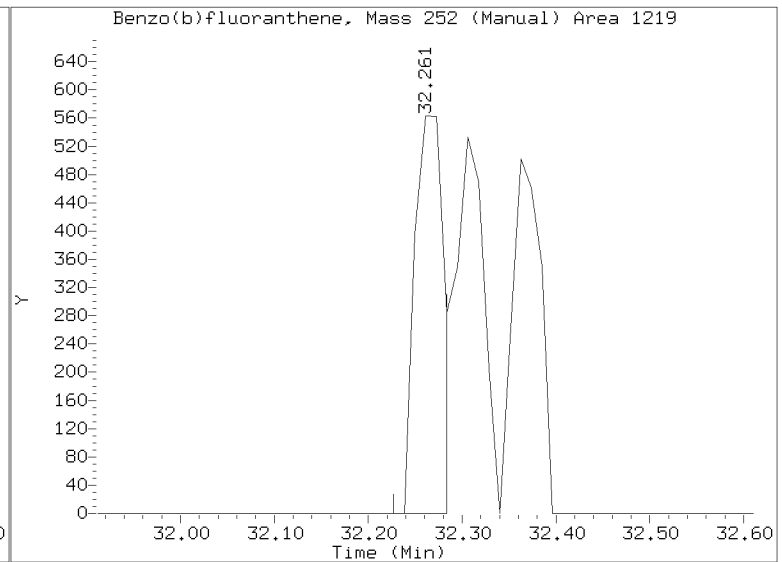
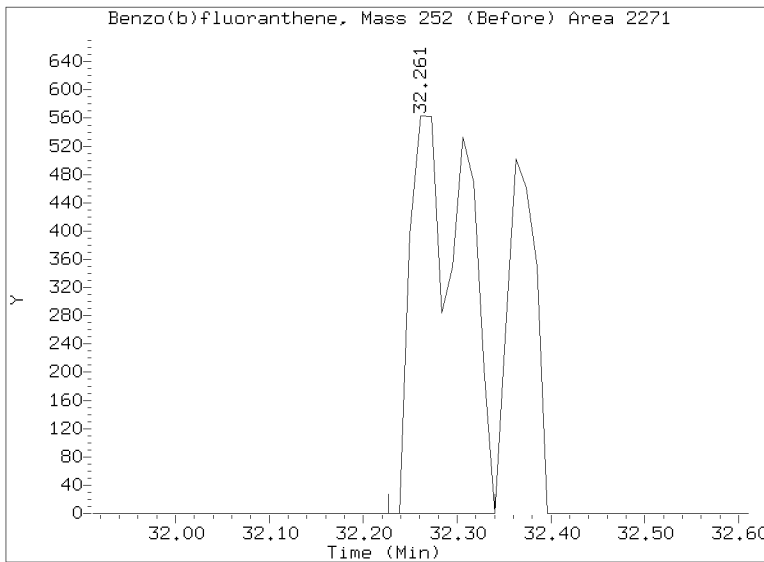
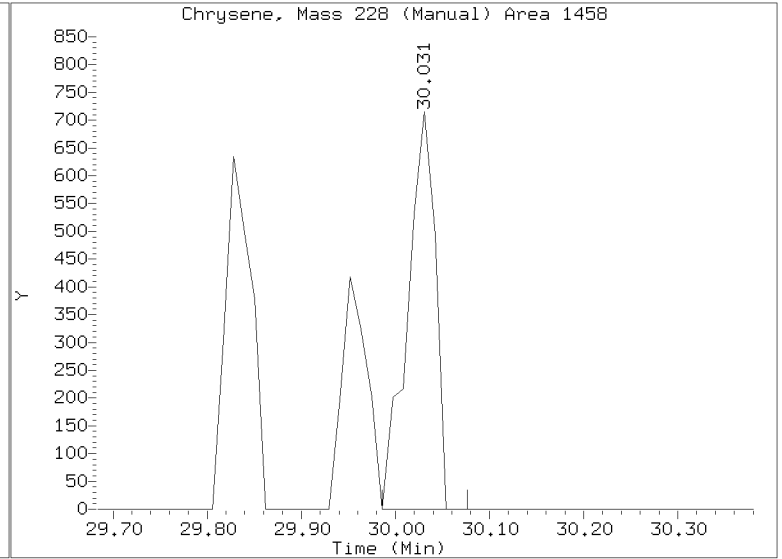
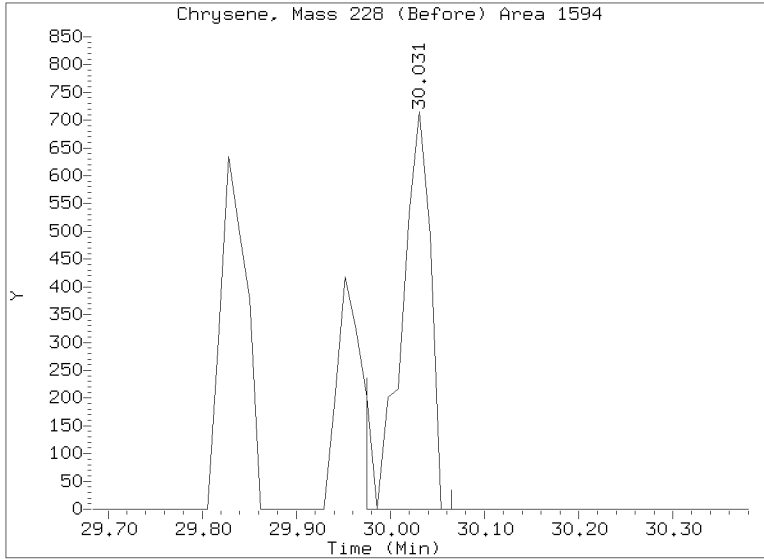
On Column LOD for nt14.i, 20201219F.b\ALKYLPNA.m, TARGETS.sub = 0.0000

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



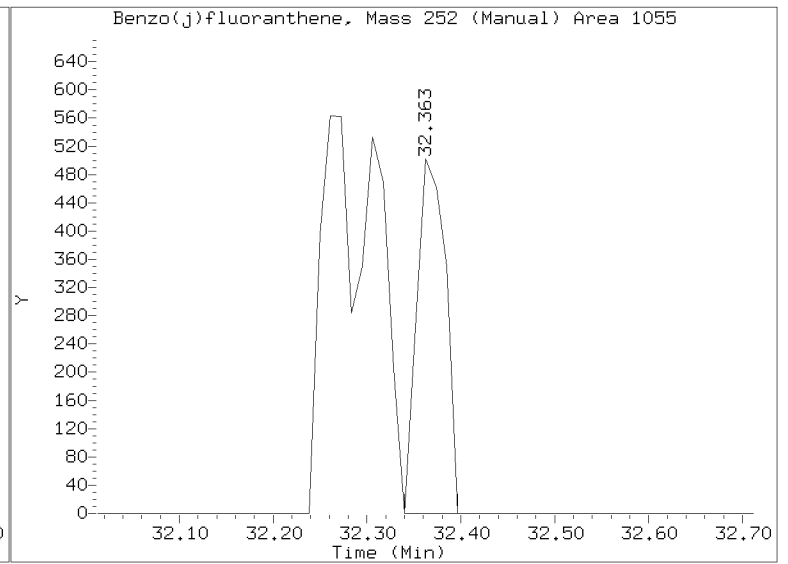
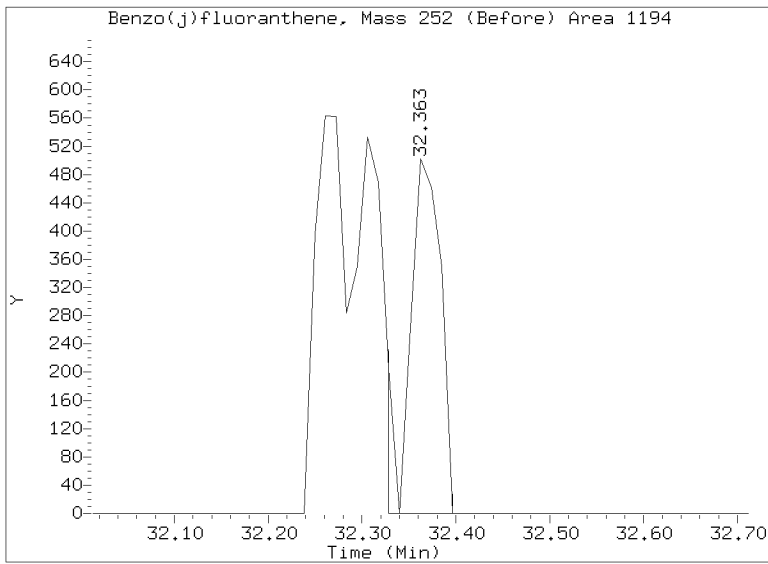
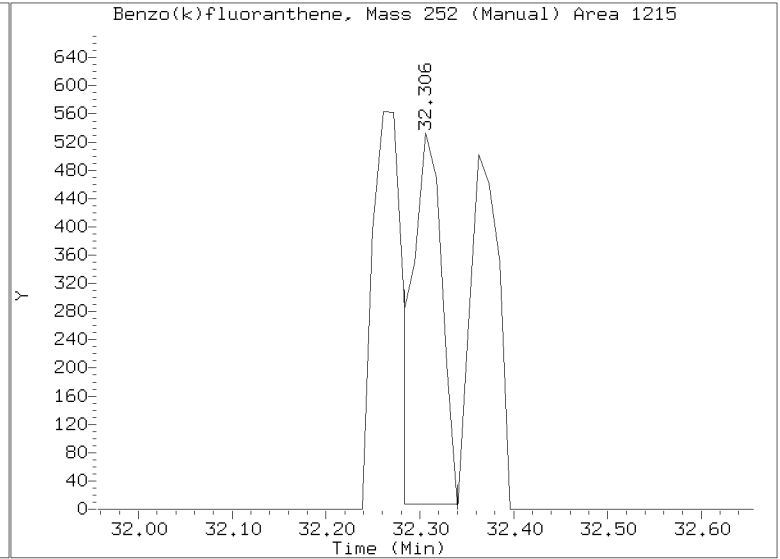
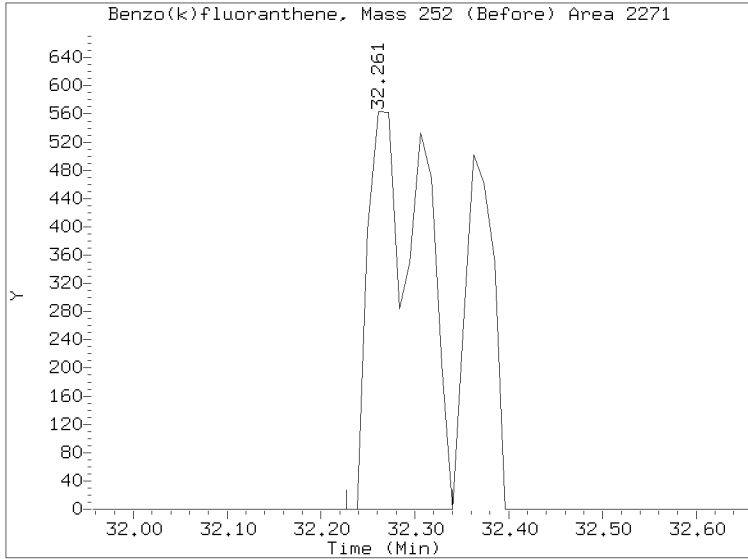
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201219F.b/NT1420121997.D  
Injection Date: 22-DEC-2020 14:43  
Lab ID:BIK0745-BLK1 Client ID:  
Report Date: 12/29/2020 13:45



# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201219F.b/NT1420121997.D  
Injection Date: 22-DEC-2020 14:43  
Lab ID:BIK0745-BLK1 Client ID:  
Report Date: 12/29/2020 13:45





Form I  
METHOD BLANK DATA SHEET  
EPA 8270E-SIM

Blank

Laboratory: Analytical Resources, Inc. SDG: 20K0204  
 Client: Anchor QEA, LLC Project: Gasco Siltronic  
 Matrix: Solid Laboratory ID: BIK0745-BLK2 File ID: NT1420121997S.D  
 Sampled: N/A Prepared: 11/24/20 11:45 Analyzed: 12/22/20 14:43  
 Solids: Preparation: EPA 3546 (Microwave) Initial/Final: 10 g / 0.5 mL  
 Batch: BIK0745 Sequence: SIL0487 Calibration: DI00041  
 Instrument: NT14 Column: ZB-5MS Cleanups: 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: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Matrix: Solid

Laboratory ID: BIK0745-BLK2

File ID: NT1420121997S.D

Sampled: N/A

Prepared: 11/24/20 11:45

Analyzed: 12/22/20 14:43

Solids: Preparation: EPA 3546 (Microwave) Initial/Final: 10 g / 0.5 mL

Batch: BIK0745 Sequence: SIL0487 Calibration: DI00041

Instrument: NT14 Column: ZB-5MS Cleanups: Silica Gel

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\20201219.1\SIH.6\NT1420121997S.D

Date : 22-DEC-2020 14:43

Client ID:

Sample Info: BIK0745-BLK2

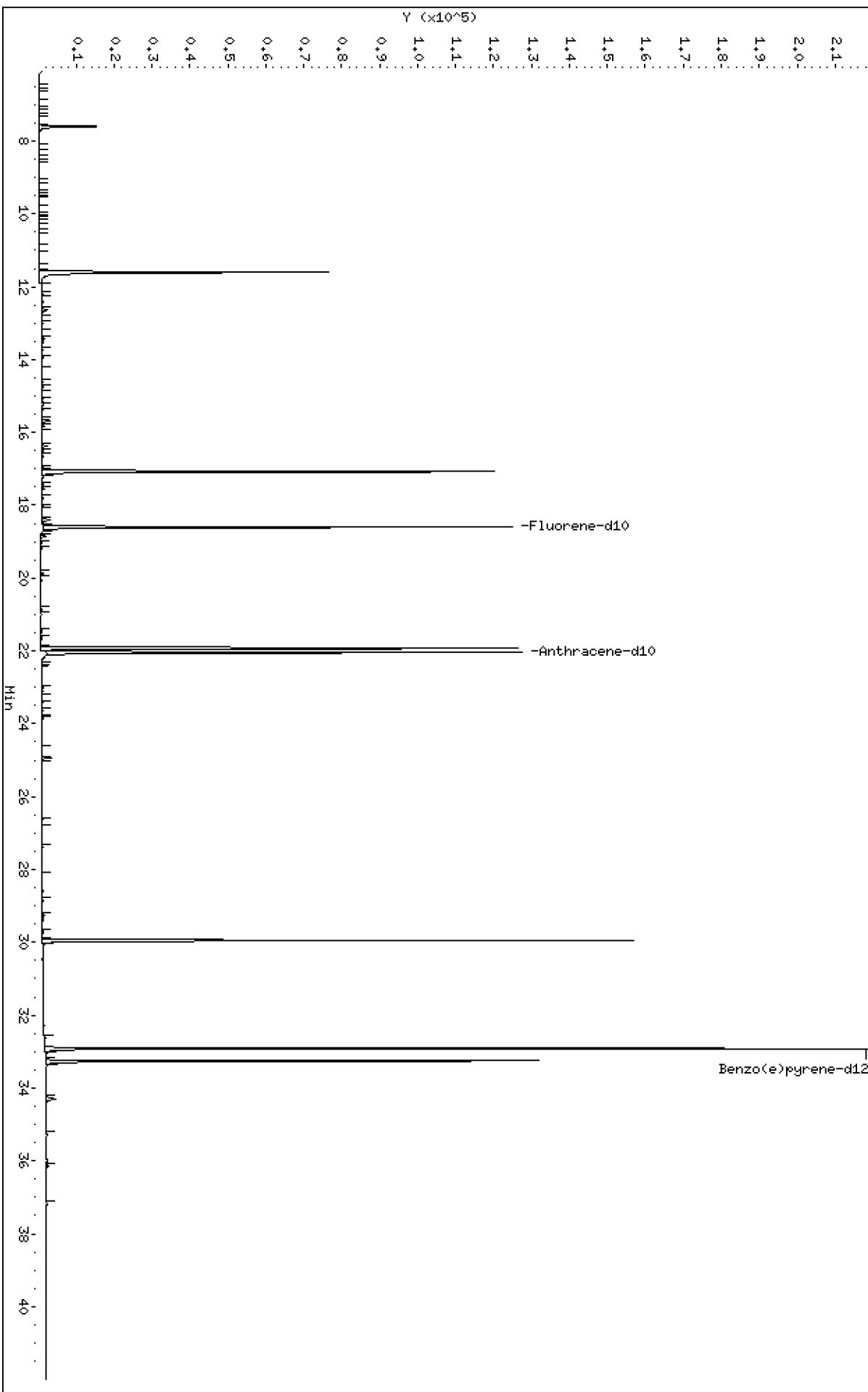
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14.1\20201219.1\SIH.6\NT1420121997S.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20201219.b\SIM.b\NT1420121997S.D  
 Lab Smp Id: BIK0745-BLK2  
 Inj Date : 22-DEC-2020 14:43  
 Operator : VTS  
 Smp Info : BIK0745-BLK2  
 Misc Info :  
 Comment : 1ul Injection  
 Method : \\target\share\chem3\nt14.i\20201219.b\SIM.b\ALKYLRANGE.m  
 Meth Date : 31-Dec-2020 11:16 yev  
 Cal Date : 17-OCT-2020 17:58  
 Als bottle: 83  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 4.14  
 Processing Host: ORGDATA102

Inst ID: nt14.i

Quant Type: ISTD  
 Cal File: NT1420101709S.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							
28 C2-Fluorenes	194							
29 C3-Fluorenes	208							
31 C1-Dibenzothiophenes	198							
* 25 Fluorene-d10	176		18.600	18.611	(1.000)	253258	2.00000	
32 C2-Dibenzothiophenes	212							
33 C3-Dibenzothiophenes	226							
34 C4-Dibenzothiophenes	240							
38 C1-Phenanthrenes/Anthracenes	192							
39 C2-Phenanthrenes/Anthracenes	206							
40 C3-Phenanthrenes/Anthracenes	220							
41 C4-Phenanthrenes/Anthracenes	234							
48 C1-Fluoranthenes/Pyrenes	216							
* 250 Anthracene-d10	188		22.041	22.052	(1.000)	269973	2.00000	
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	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
* 251 Benzo(e)pyrene-d12	264		32.916	32.915	(1.000)	375610	2.00000	
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.		
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: NT1420121997S.D  
Lab Smp Id: BIK0745-BLK2  
Analysis Type: SV  
Quant Type: ISTD  
Operator: VTS  
Method File: \\target\share\chem3\nt14.i\20201219.b\SIM.b\ALKYLRANGE.m  
Misc Info:

Calibration Date: 22-DEC-2020  
Calibration Time: 10:43  
Level:  
Sample Type:

Test Mode:  
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	258320	129160	516640	253258	-1.96
250 Anthracene-d10	266780	133390	533560	269973	1.20
251 Benzo(e)pyrene-d1	401451	200726	802902	375610	-6.44

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.61	18.11	19.11	18.60	-0.06
250 Anthracene-d10	22.05	21.55	22.55	22.04	-0.05
251 Benzo(e)pyrene-d1	32.92	32.42	33.42	32.92	0.00

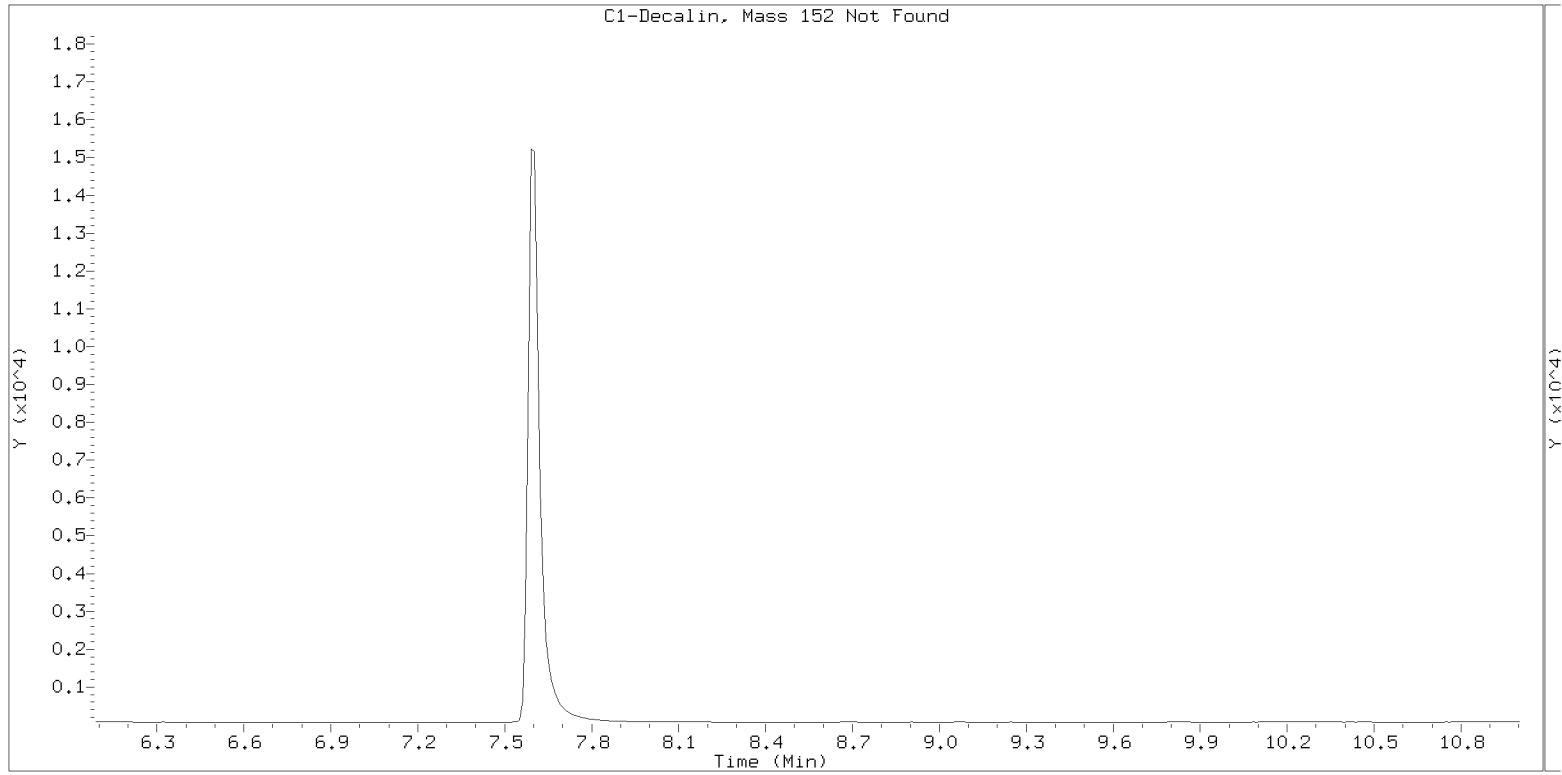
AREA UPPER LIMIT = +100% of internal standard area.  
AREA LOWER LIMIT = - 50% of internal standard area.  
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.  
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.



SIM ALKYL PNA RANGE ION WINDOWS - NT1420121997S.D

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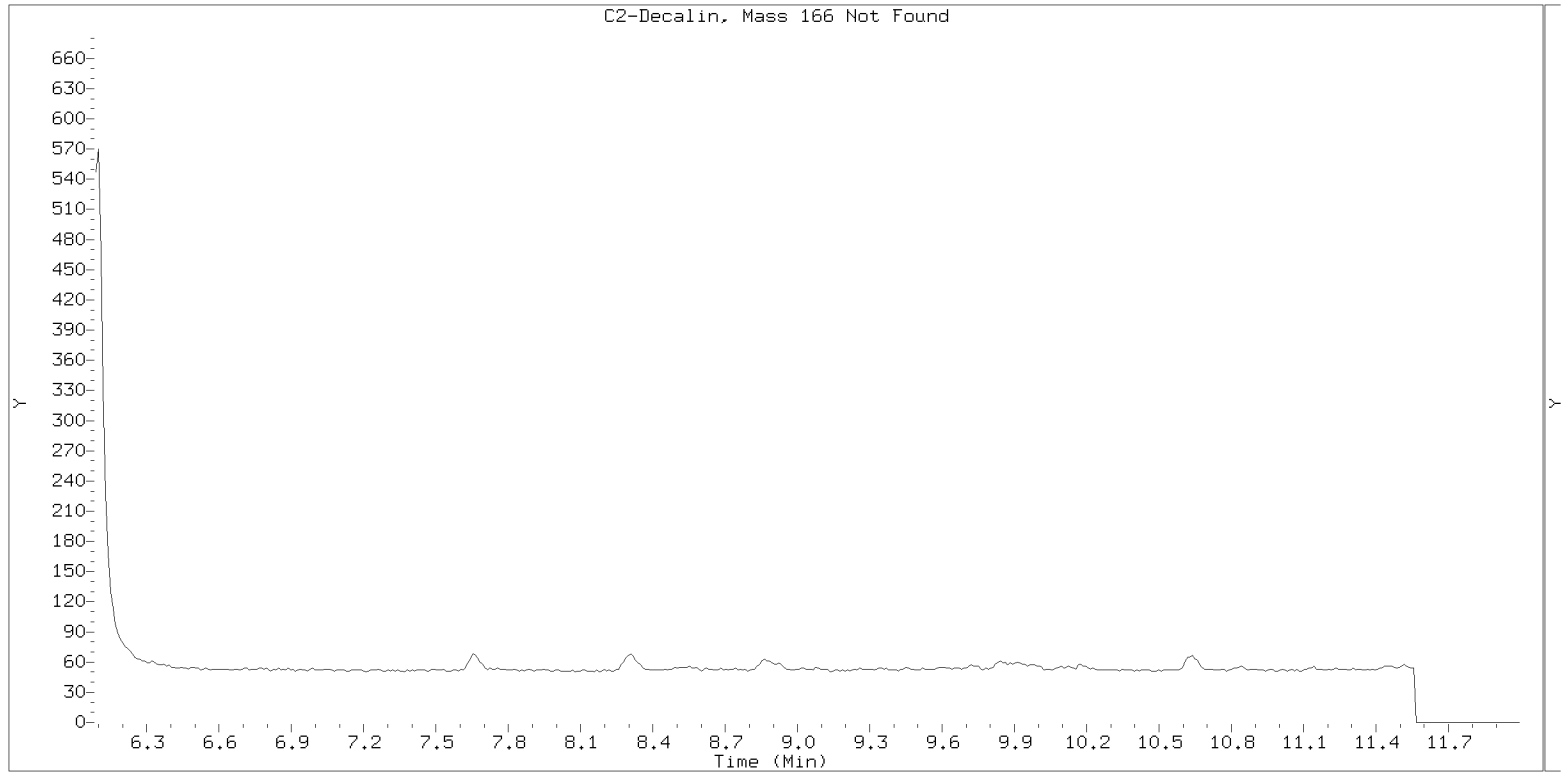
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420121997S.D

Lab ID: BIK0745-BLK2

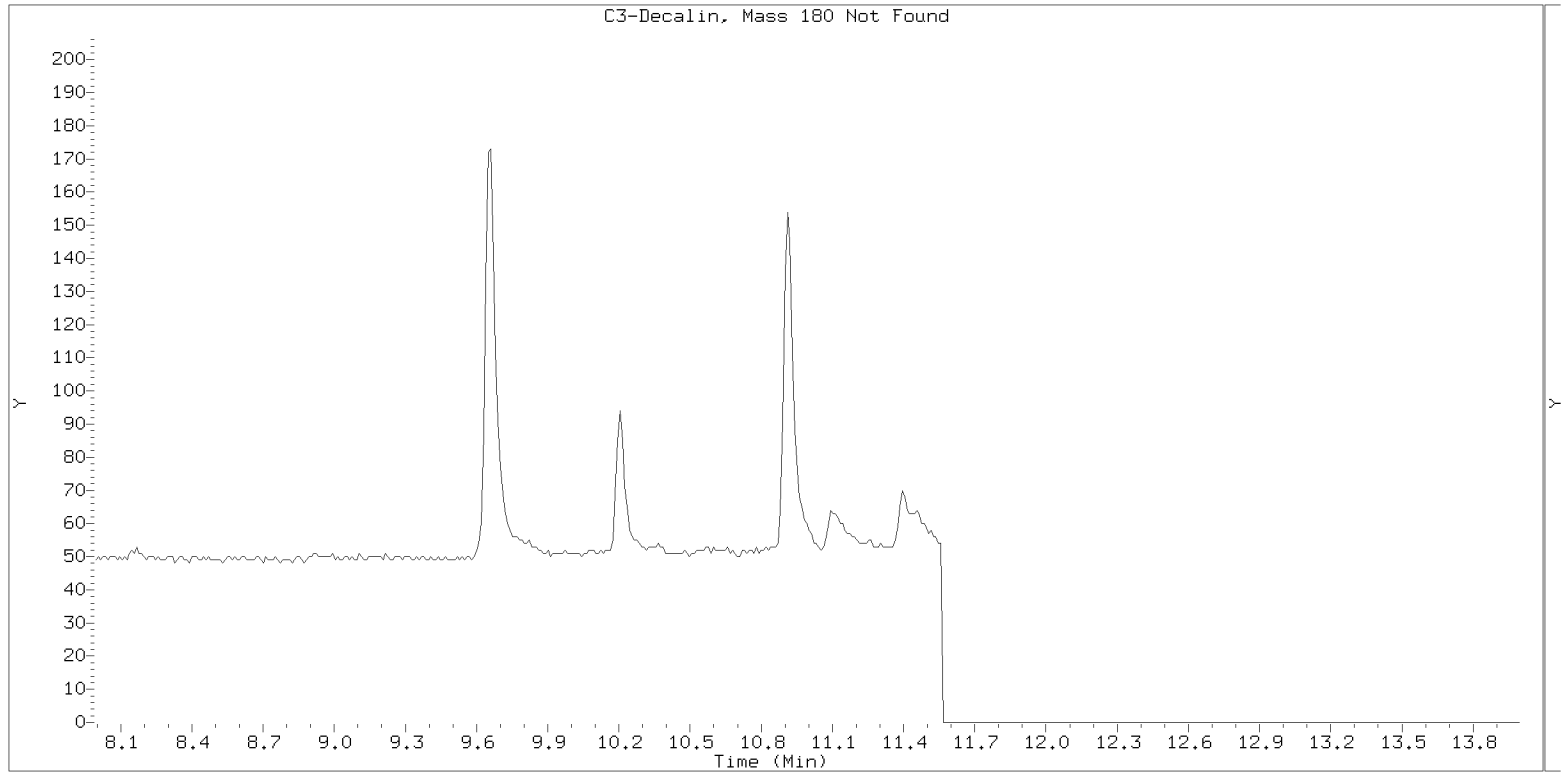
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420121997S.D

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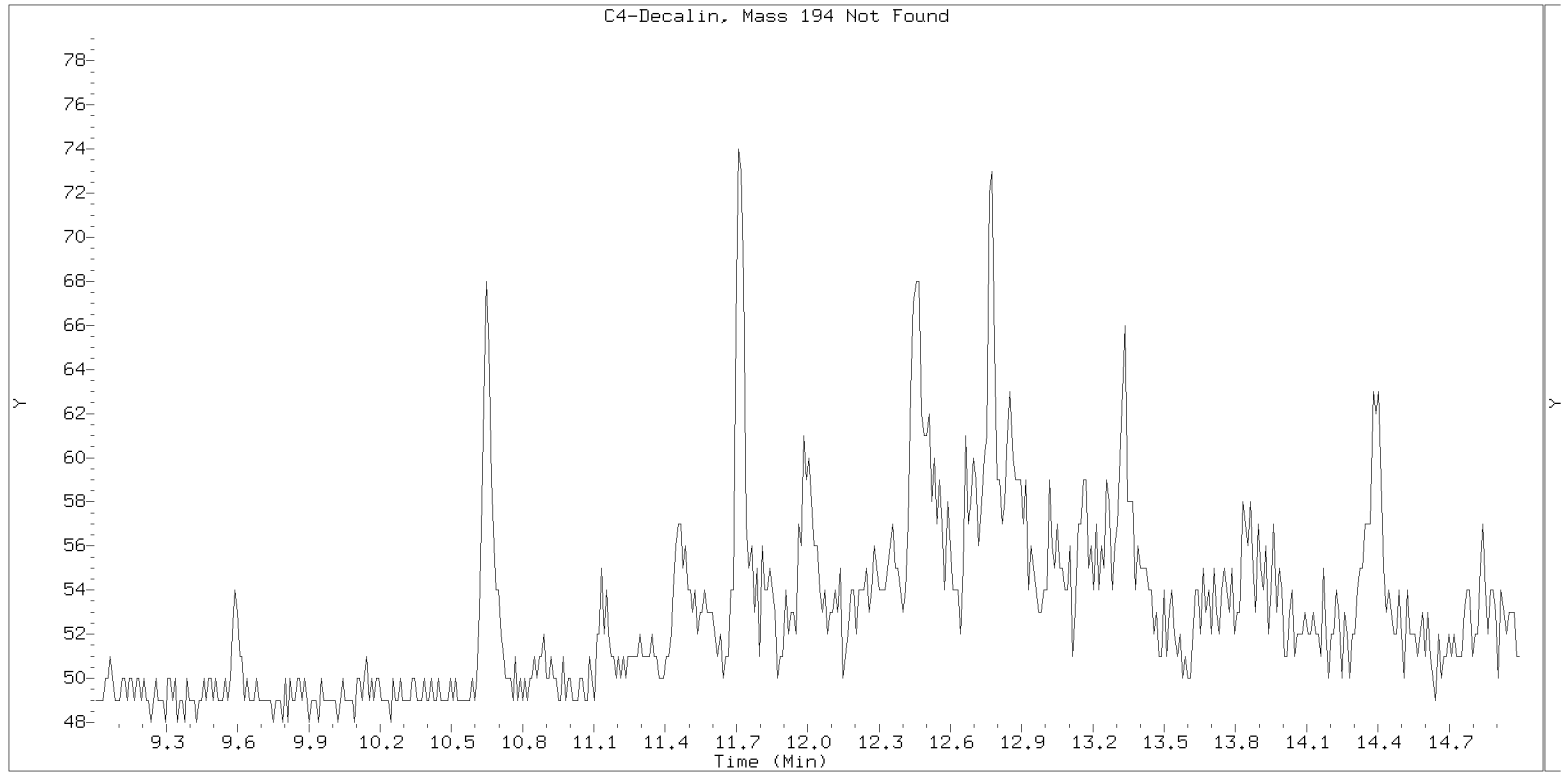
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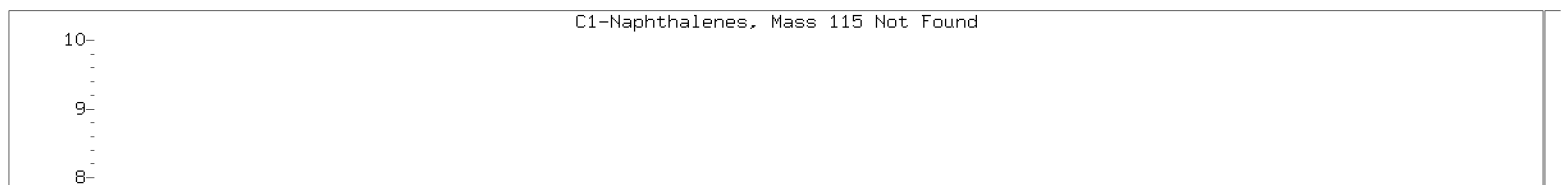
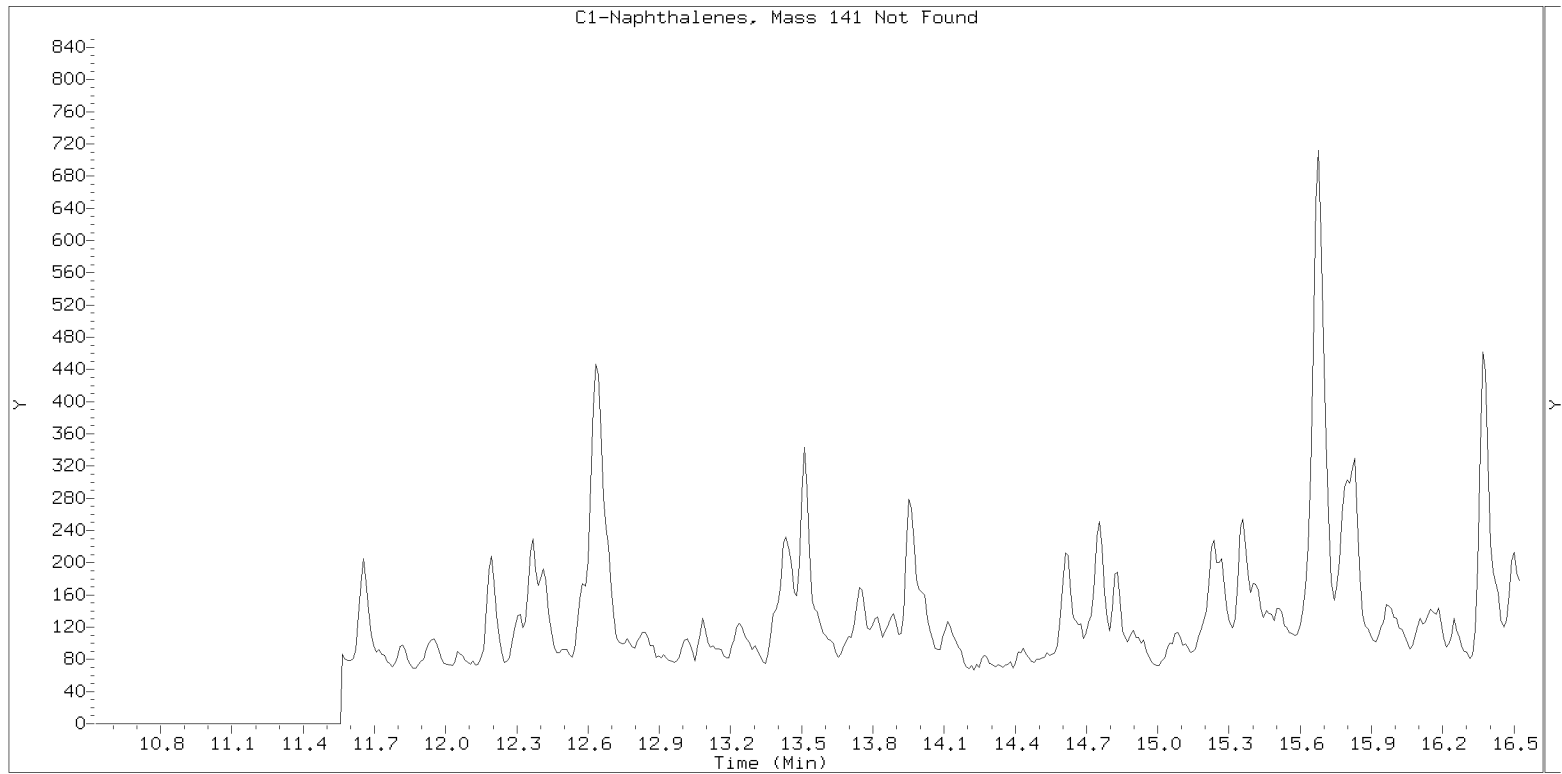
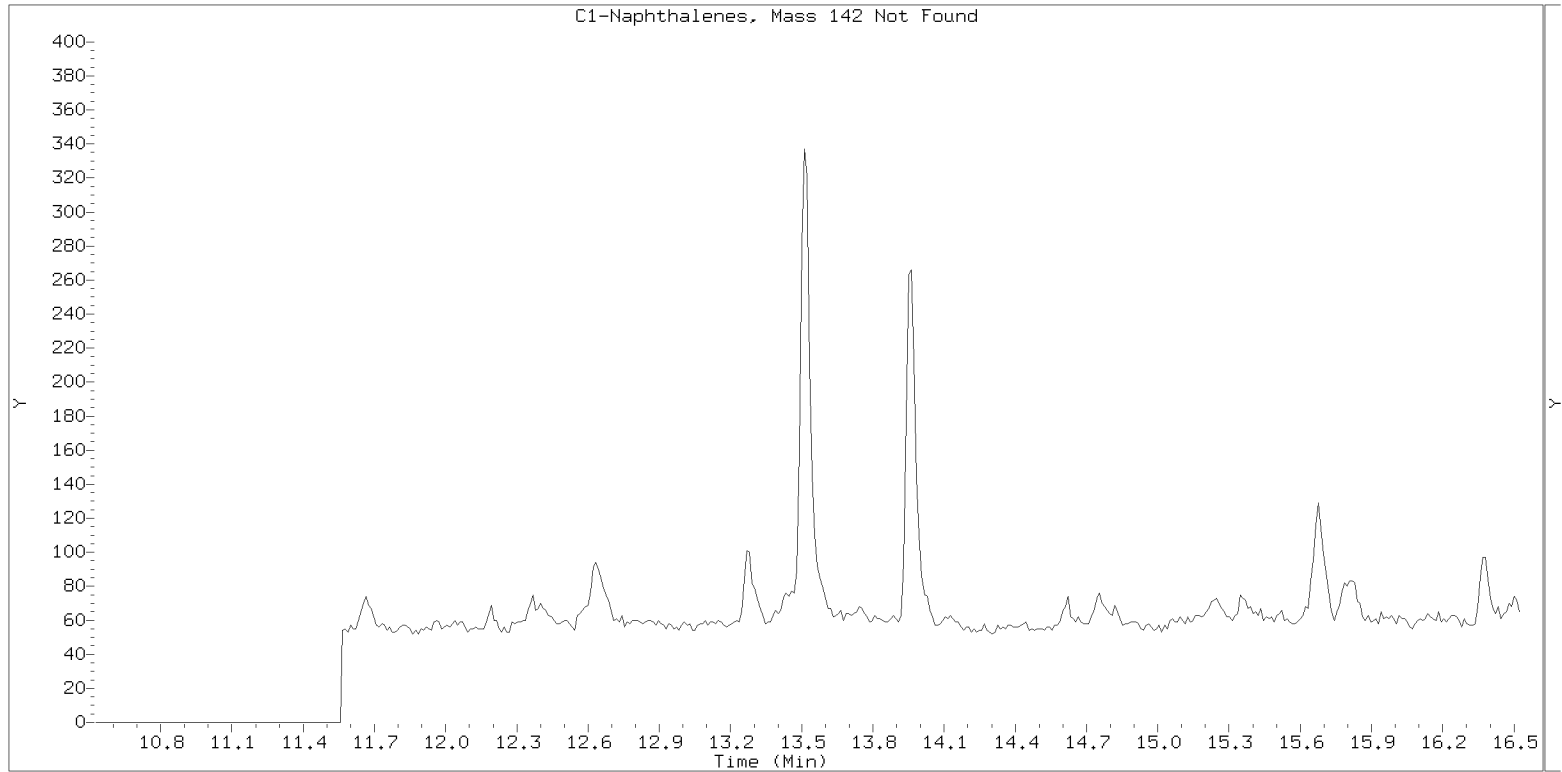
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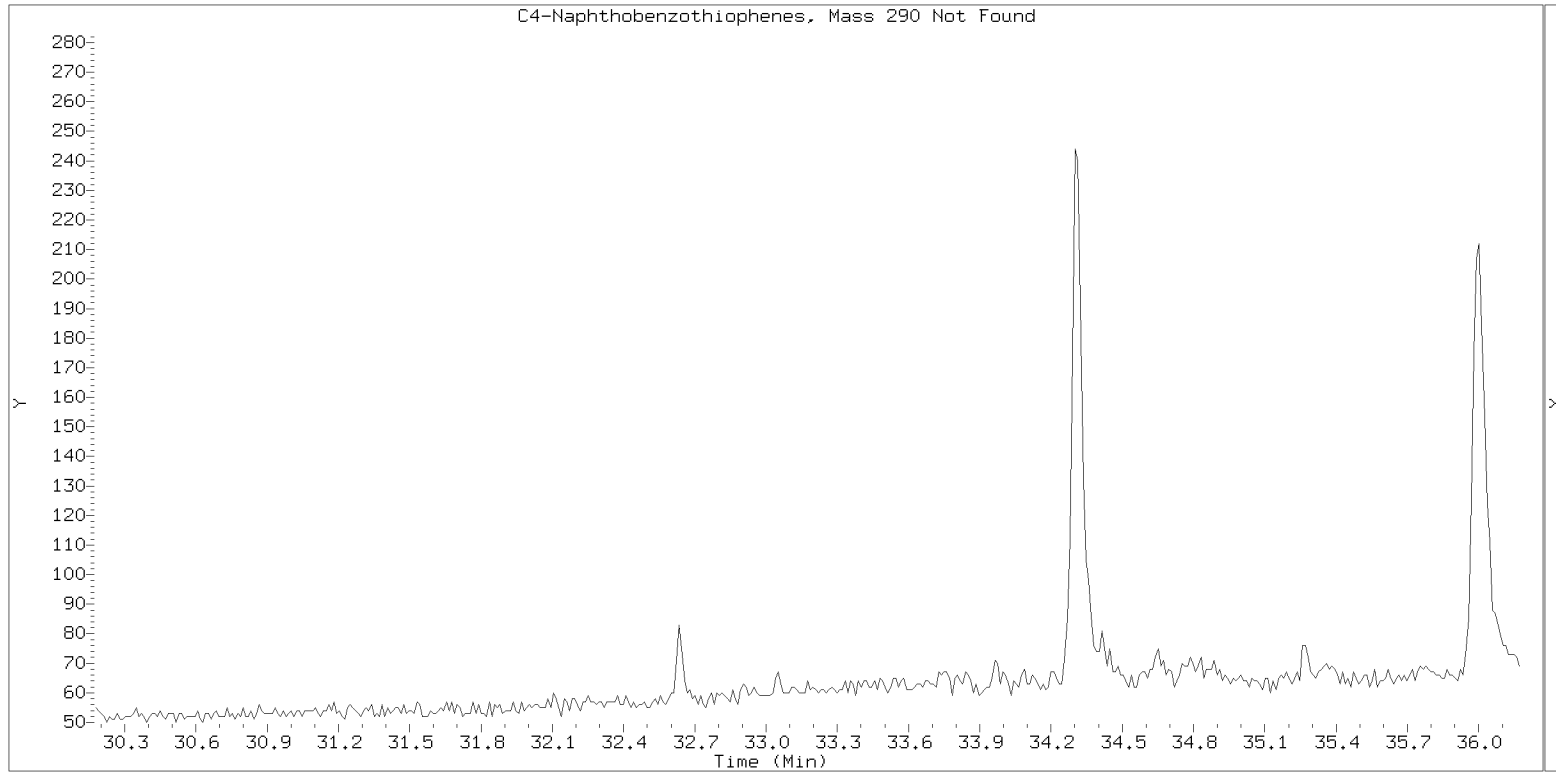
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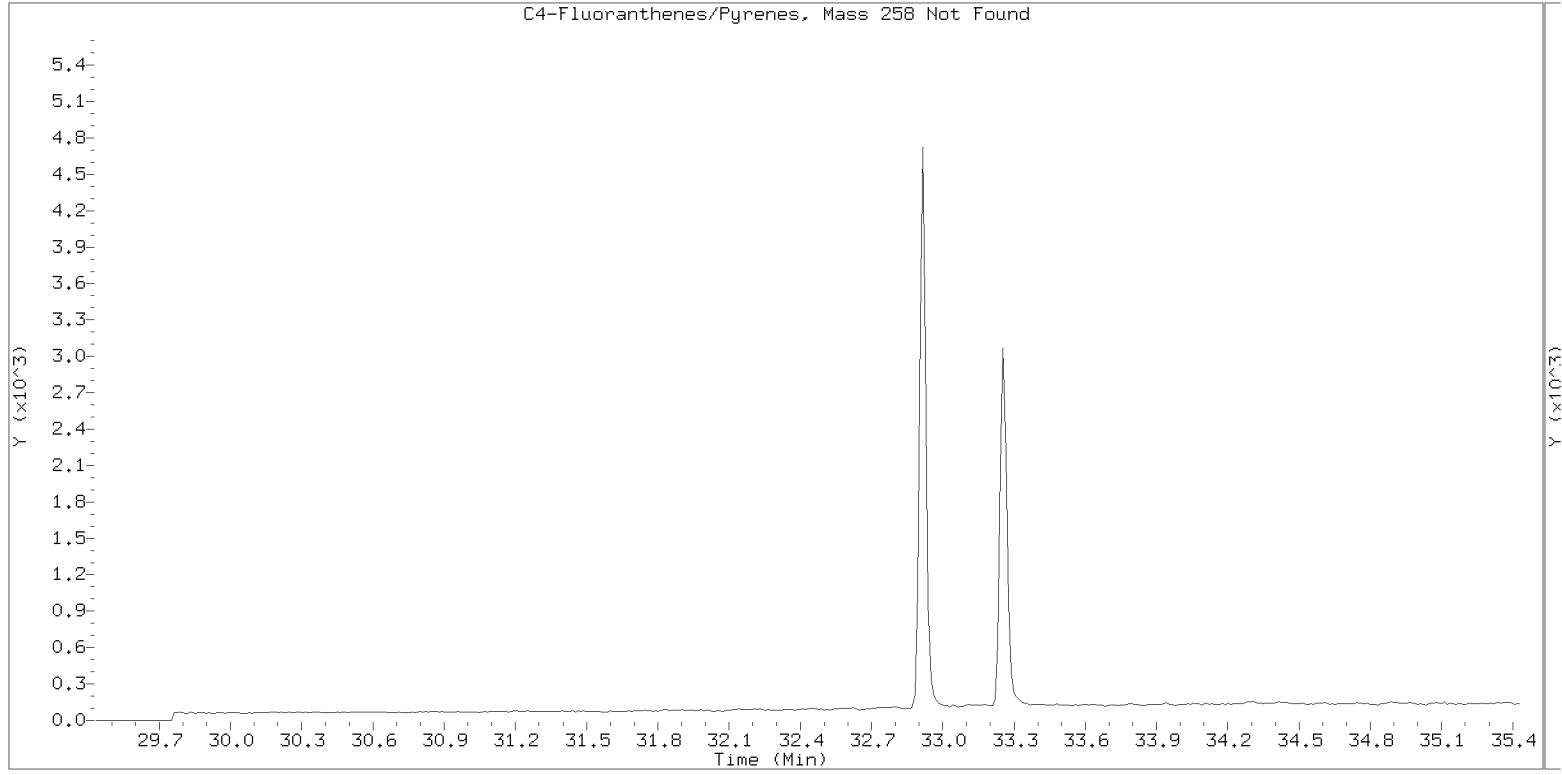
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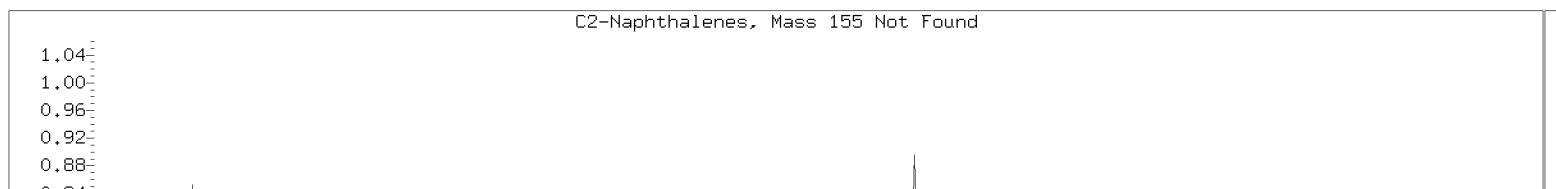
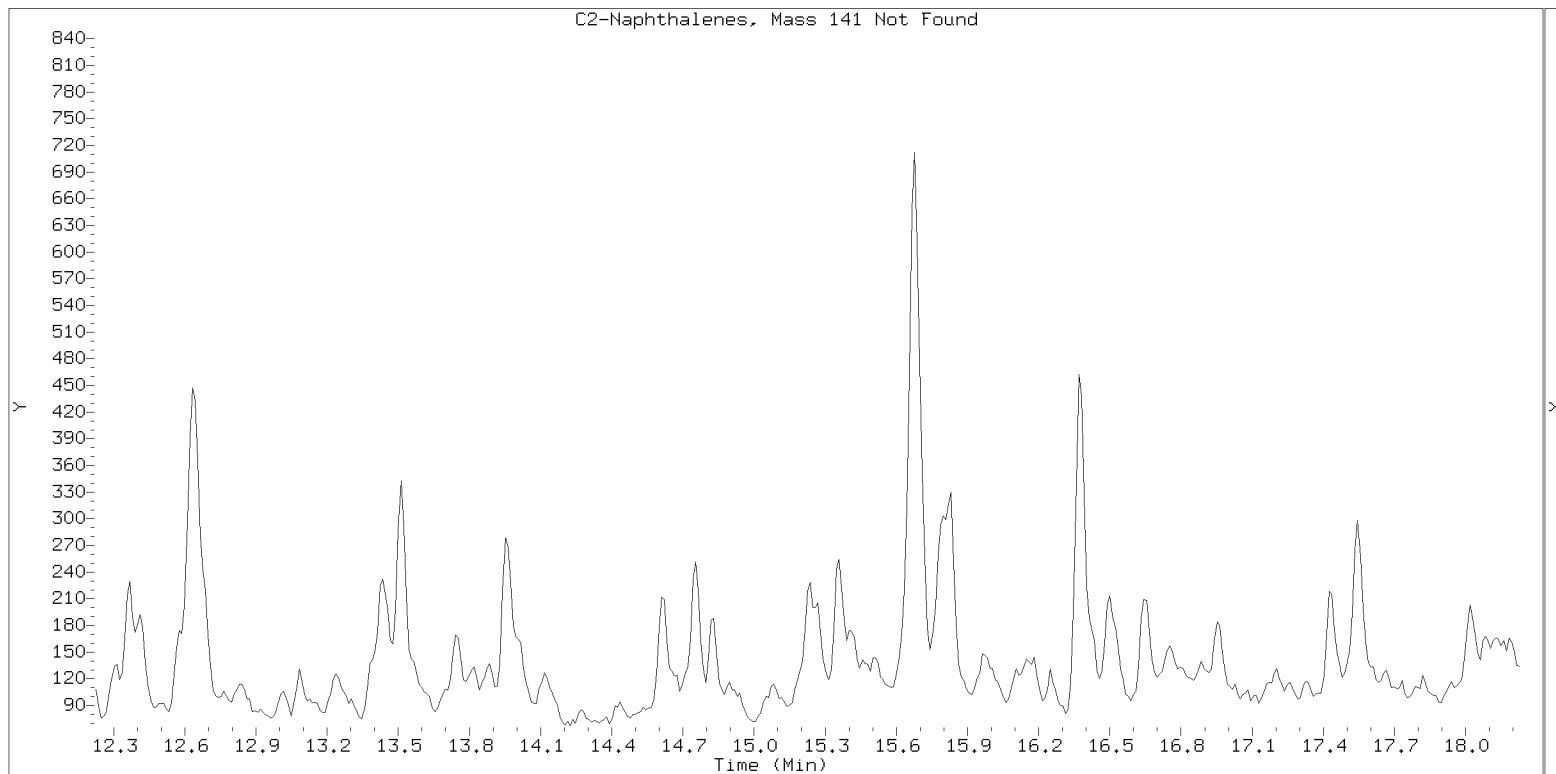
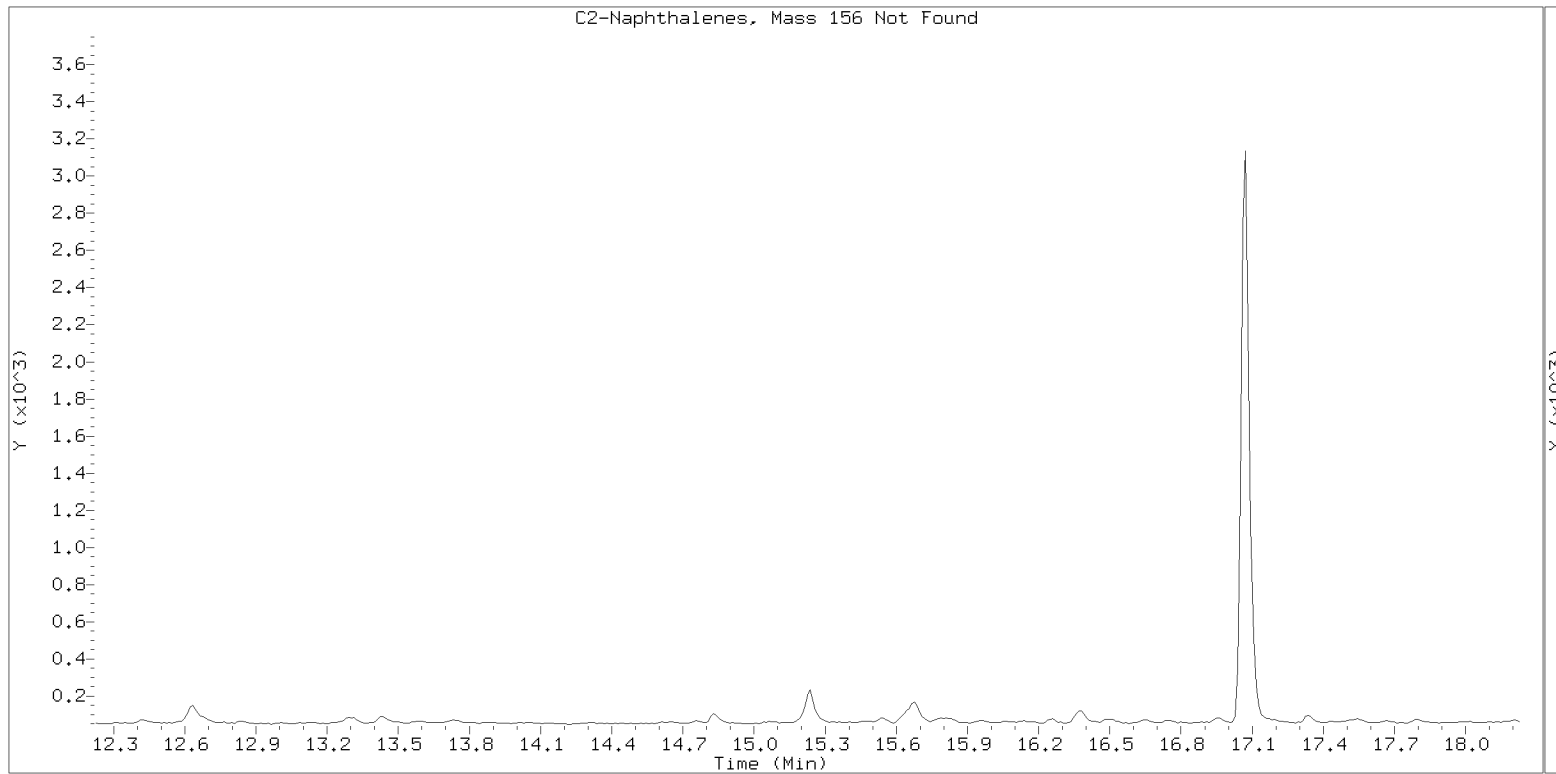
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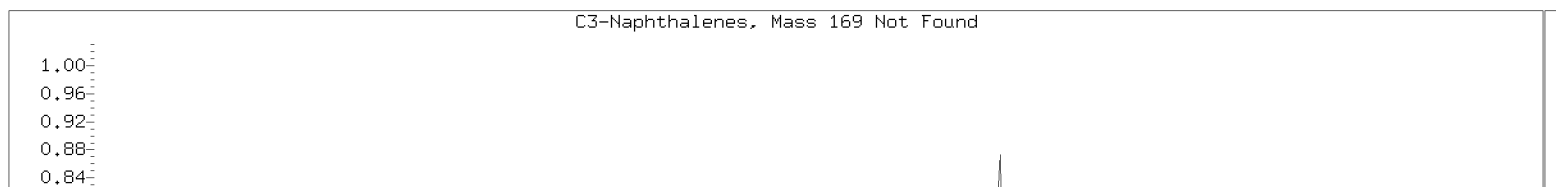
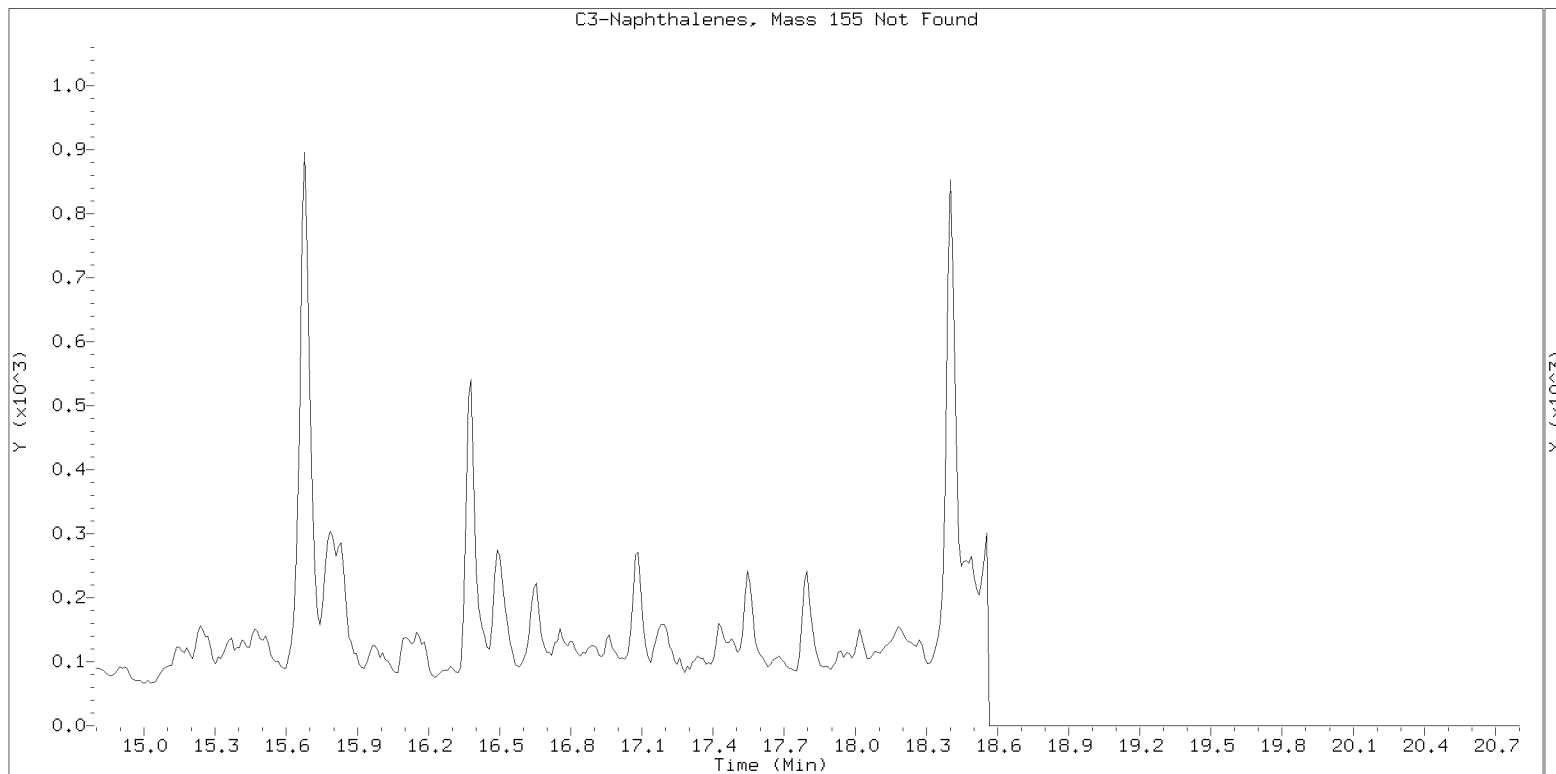
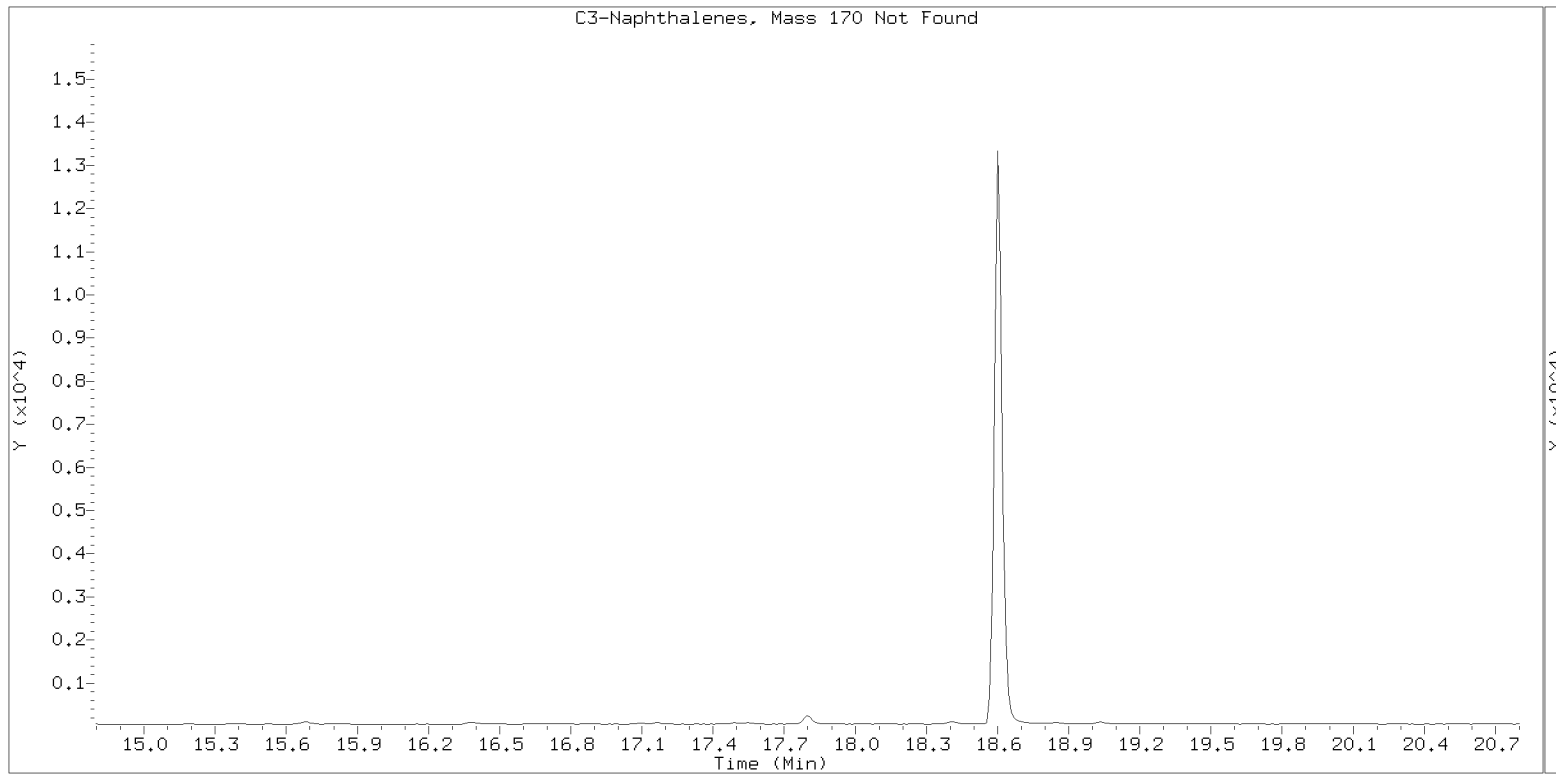




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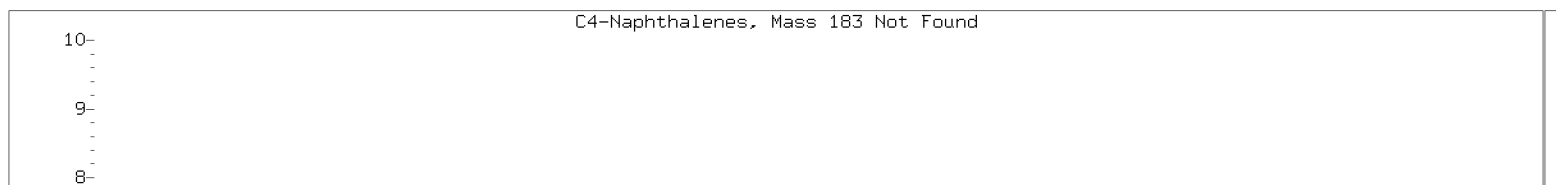
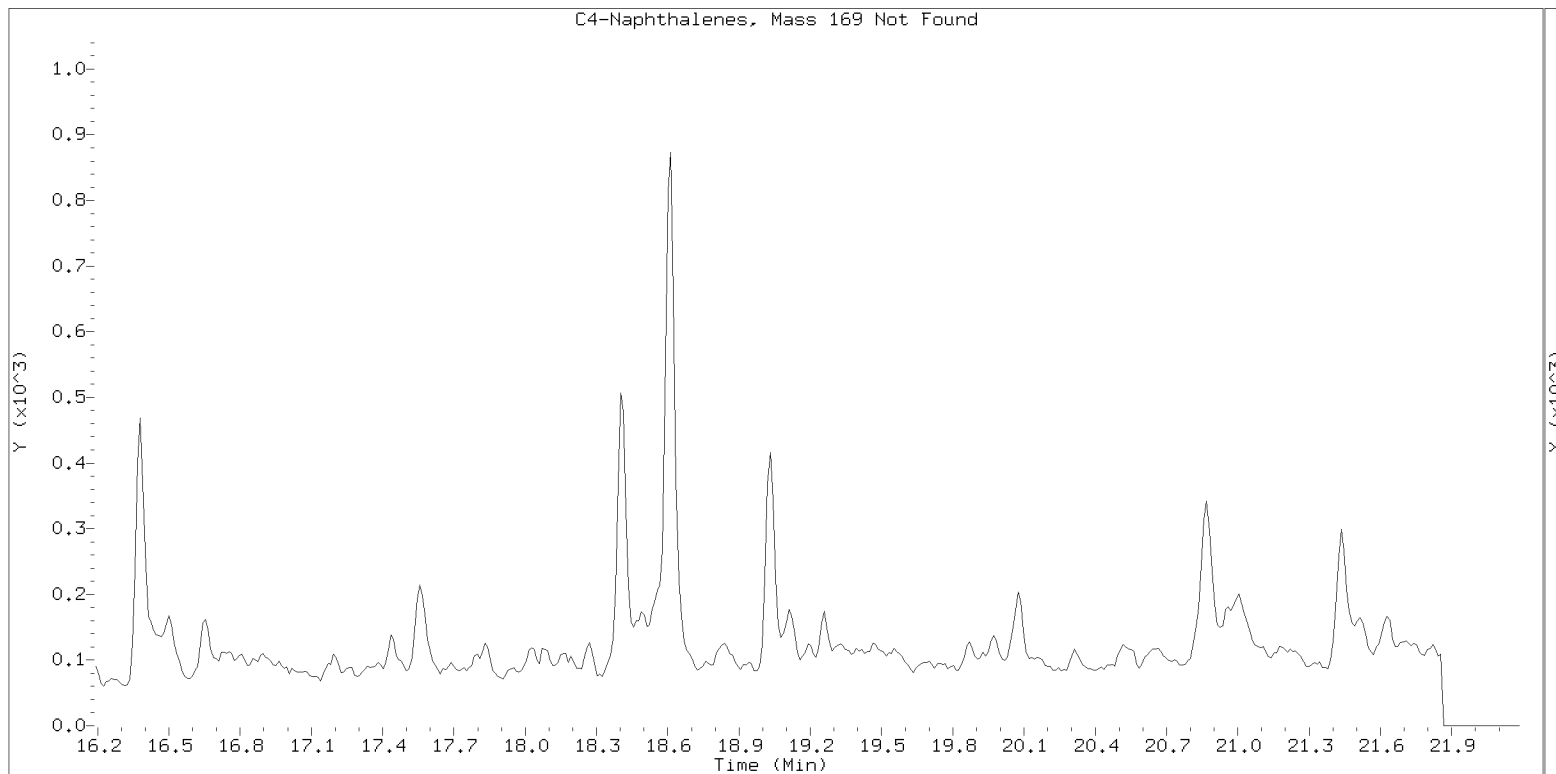
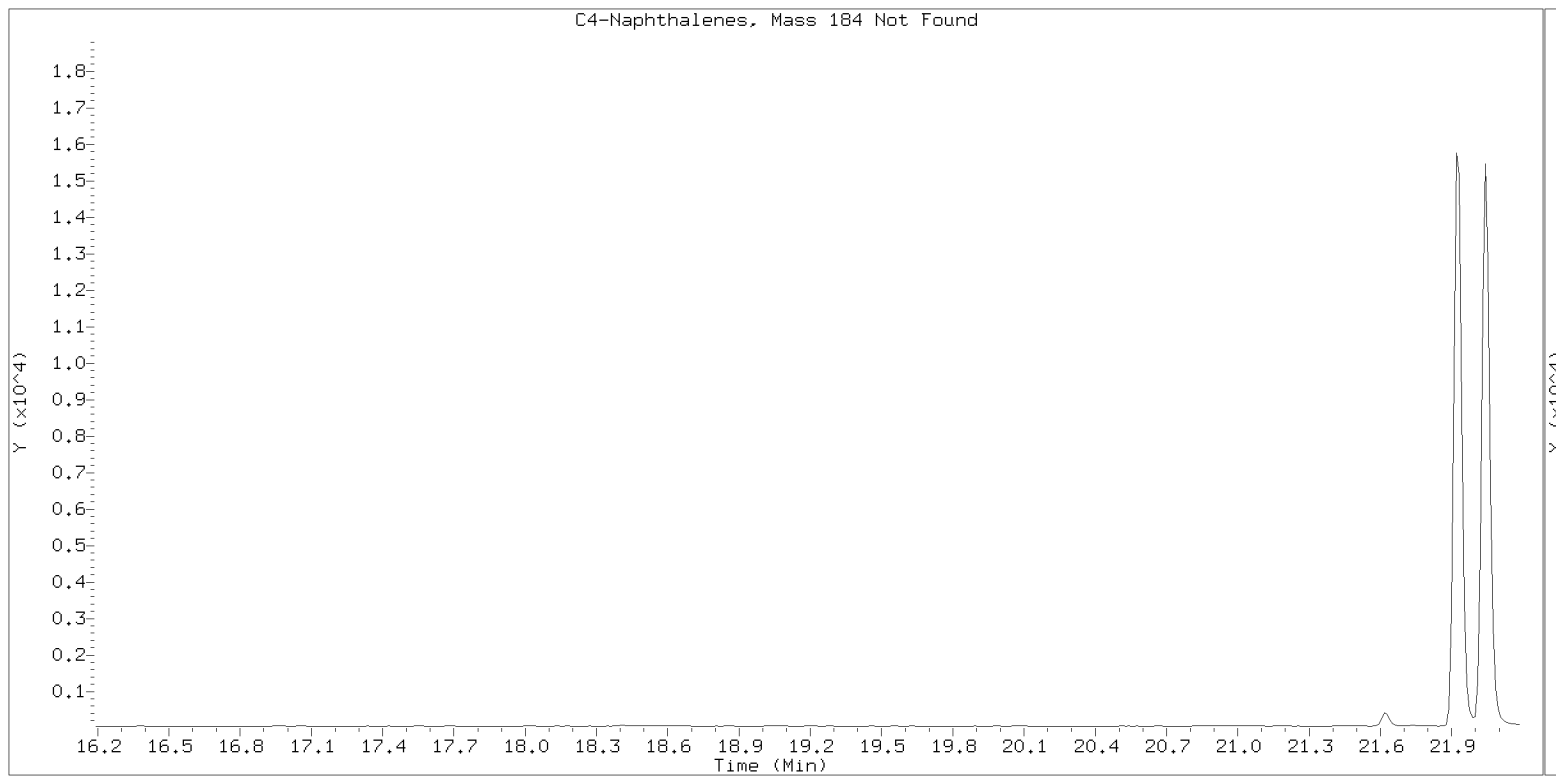
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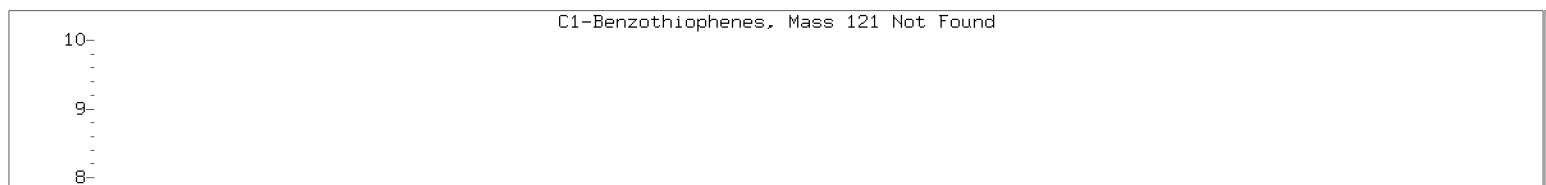
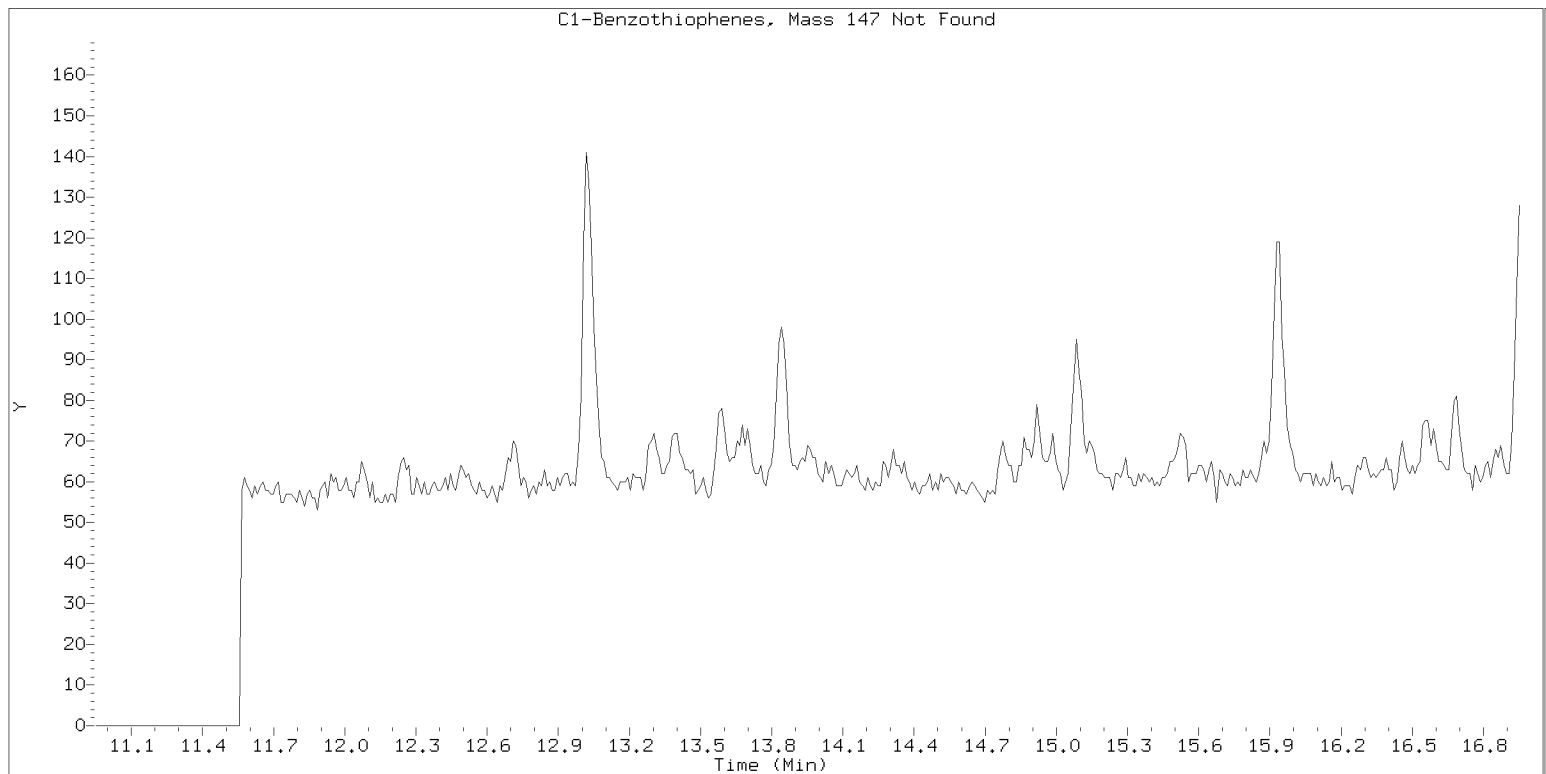
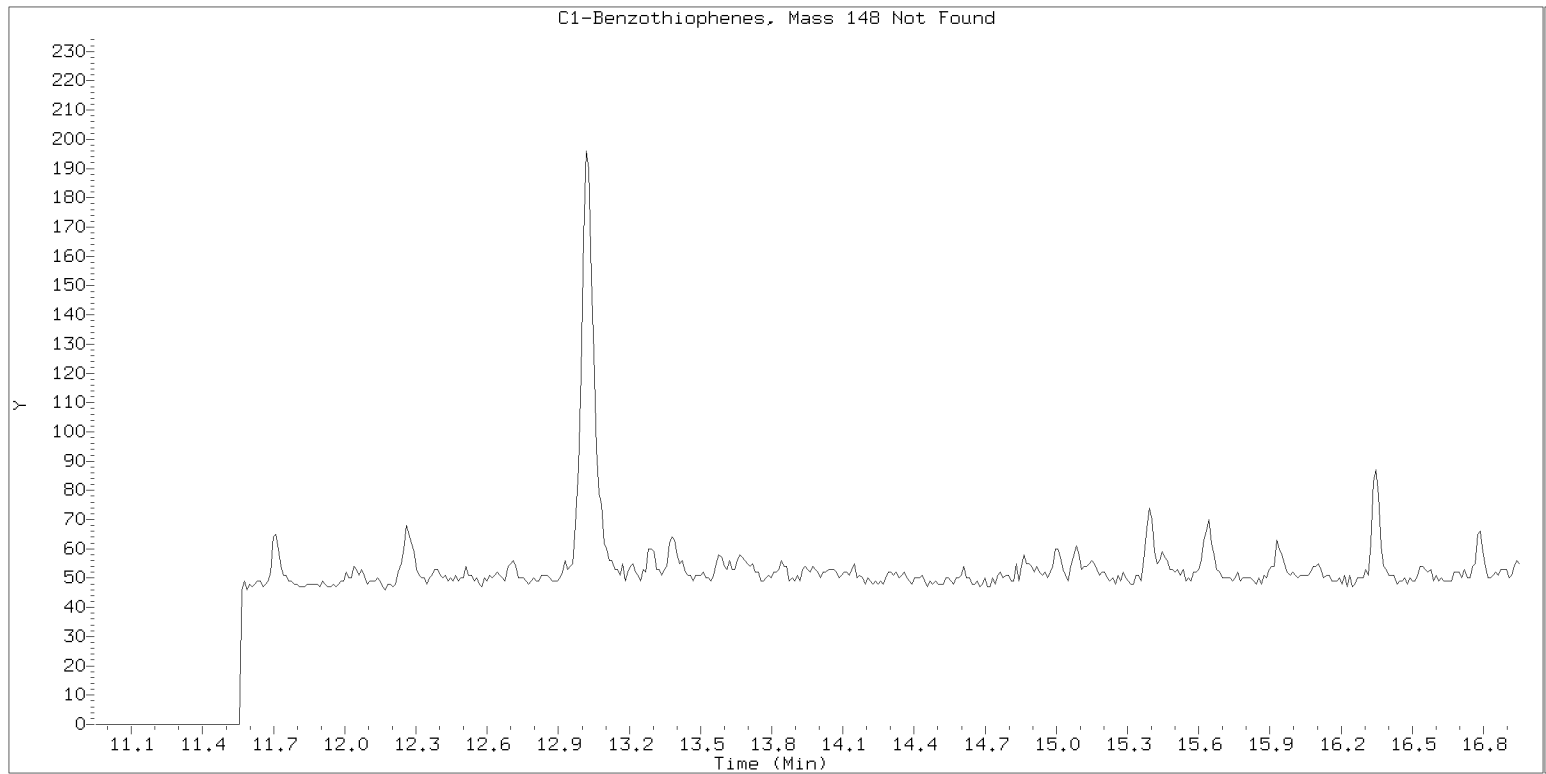
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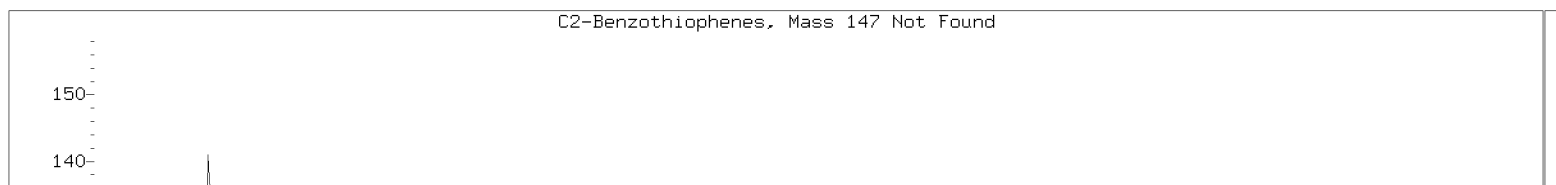
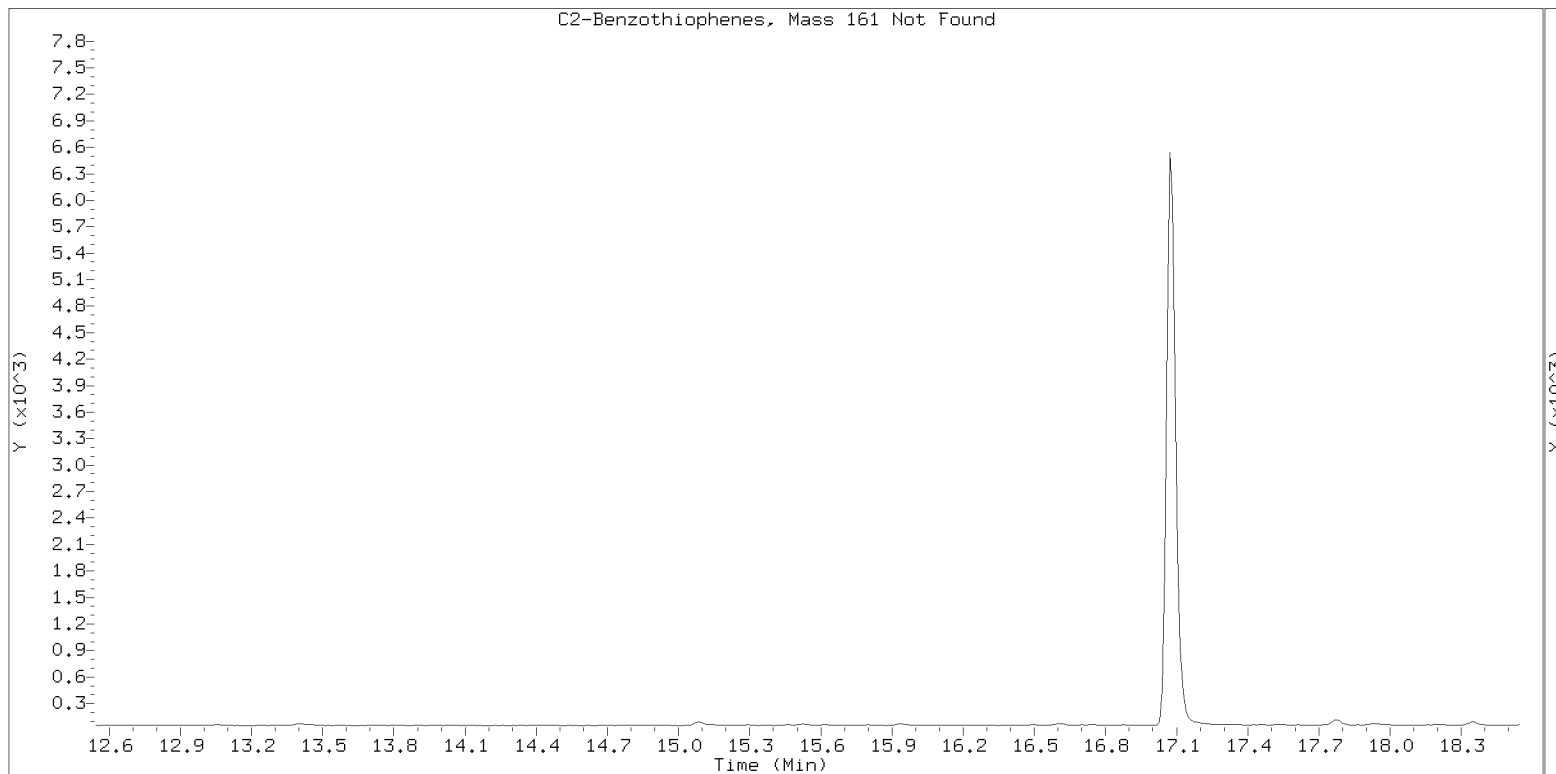
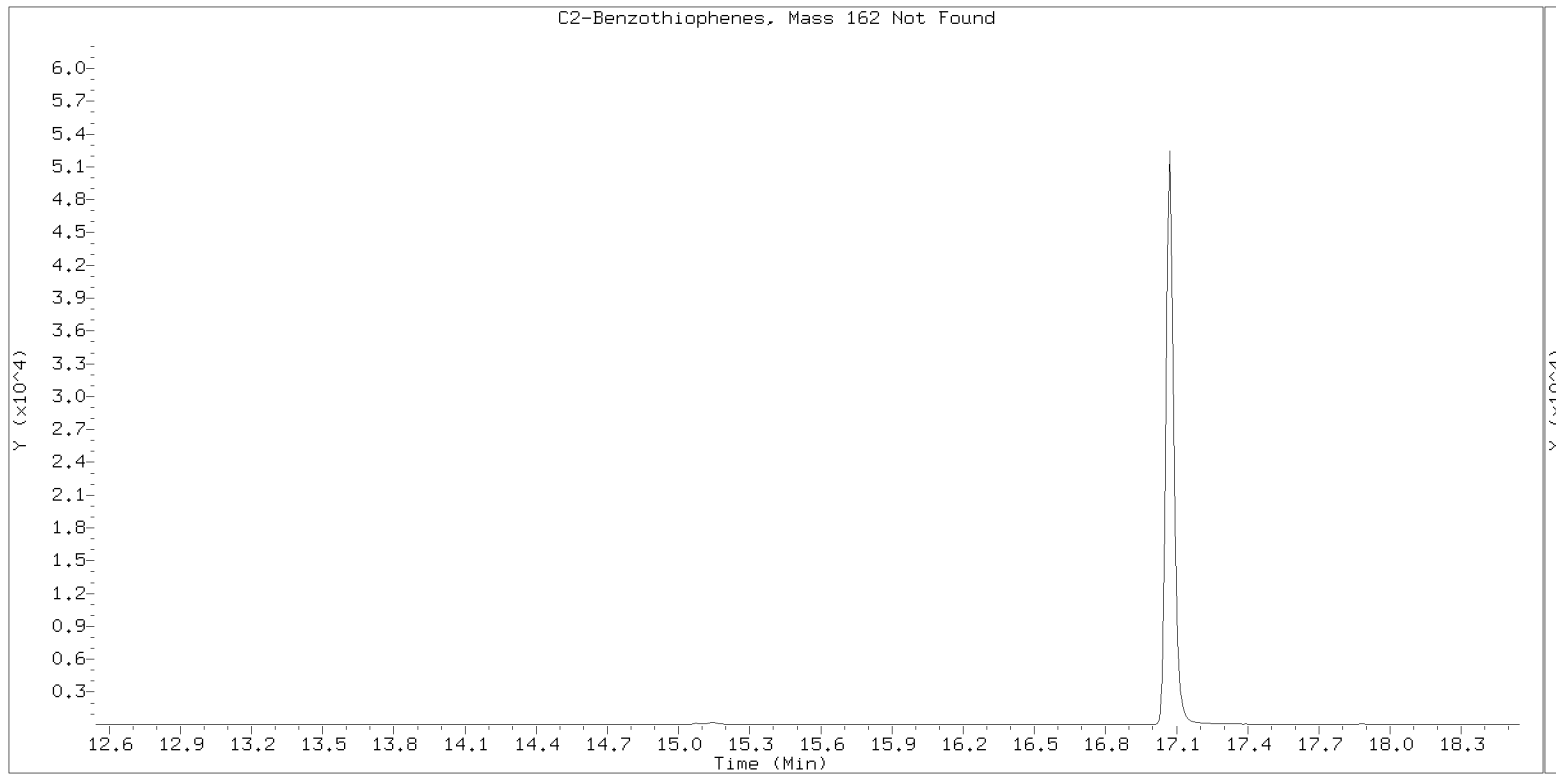
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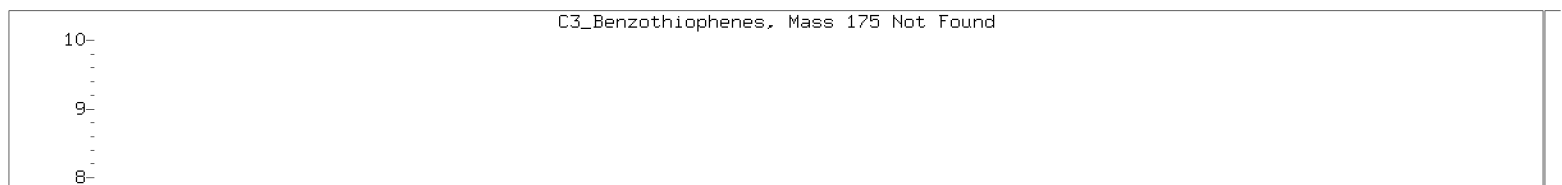
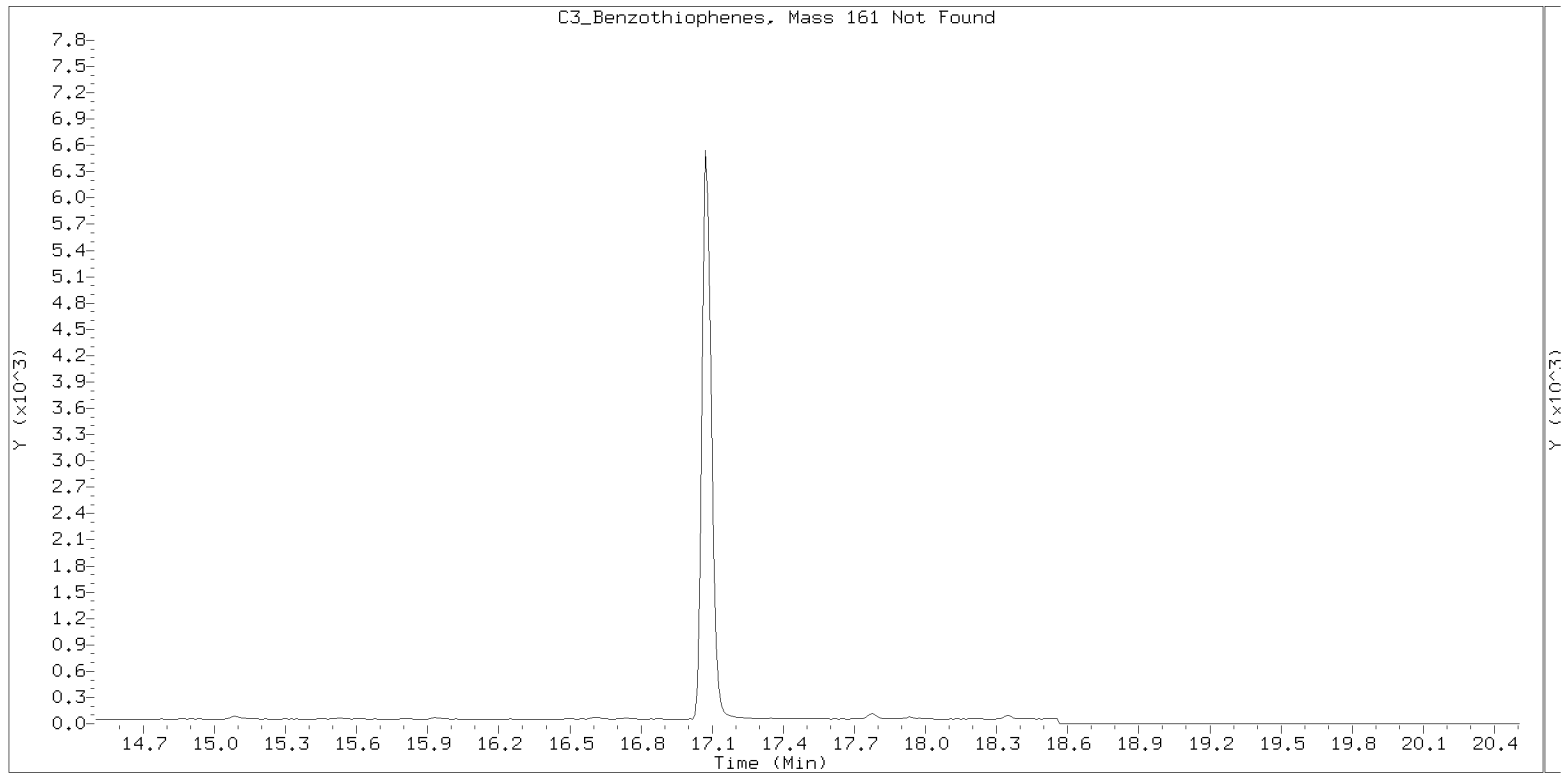
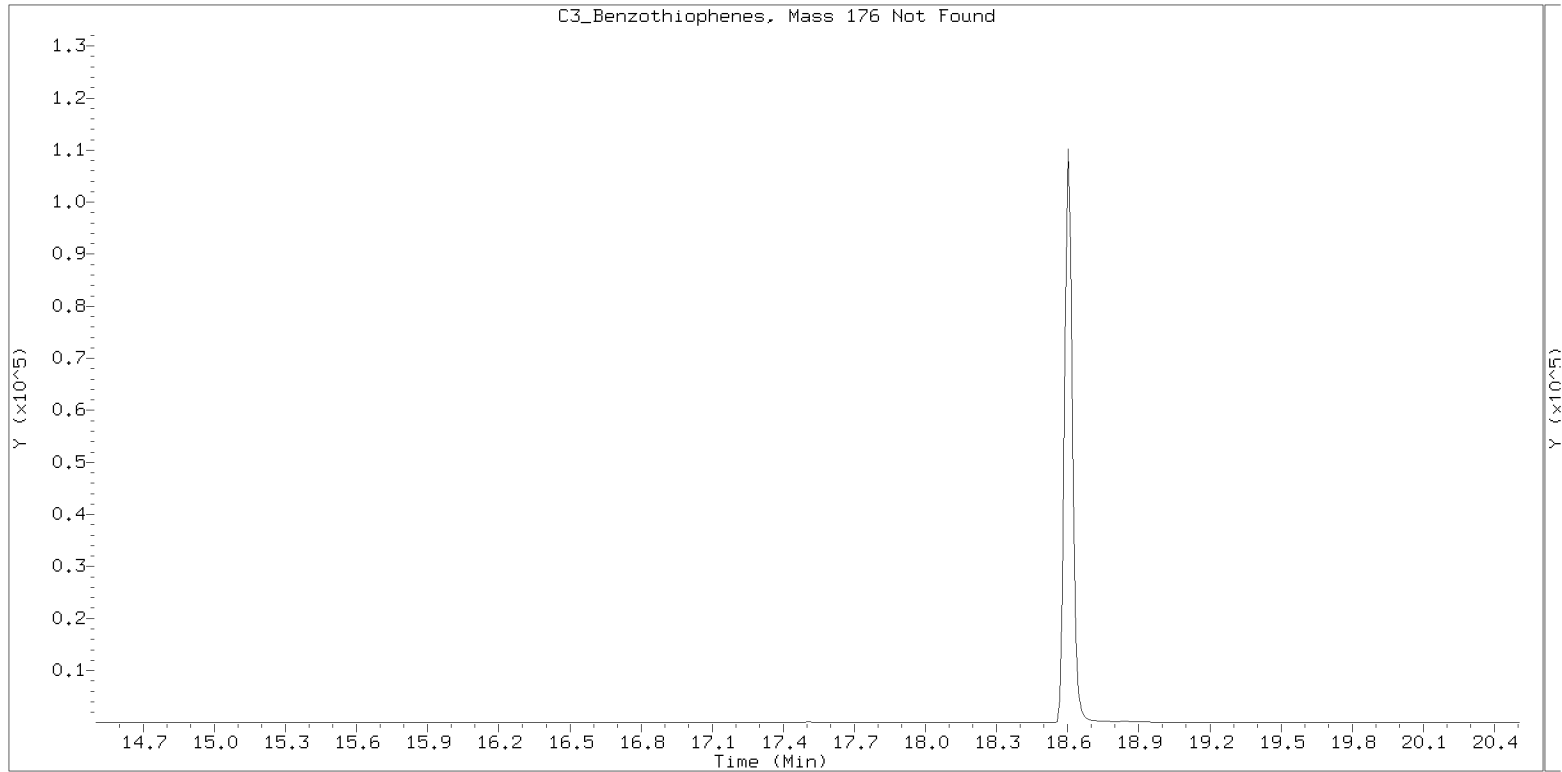
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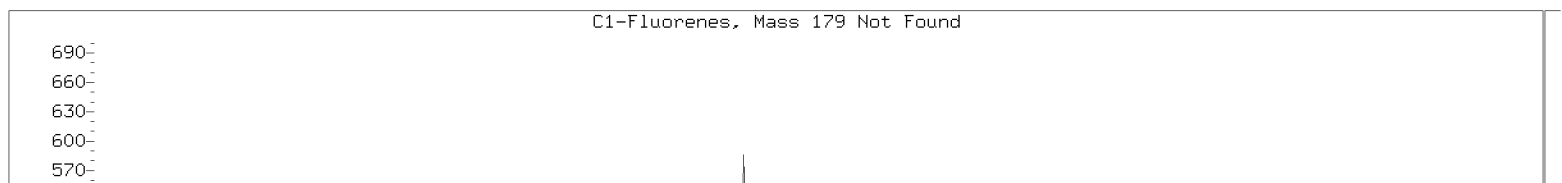
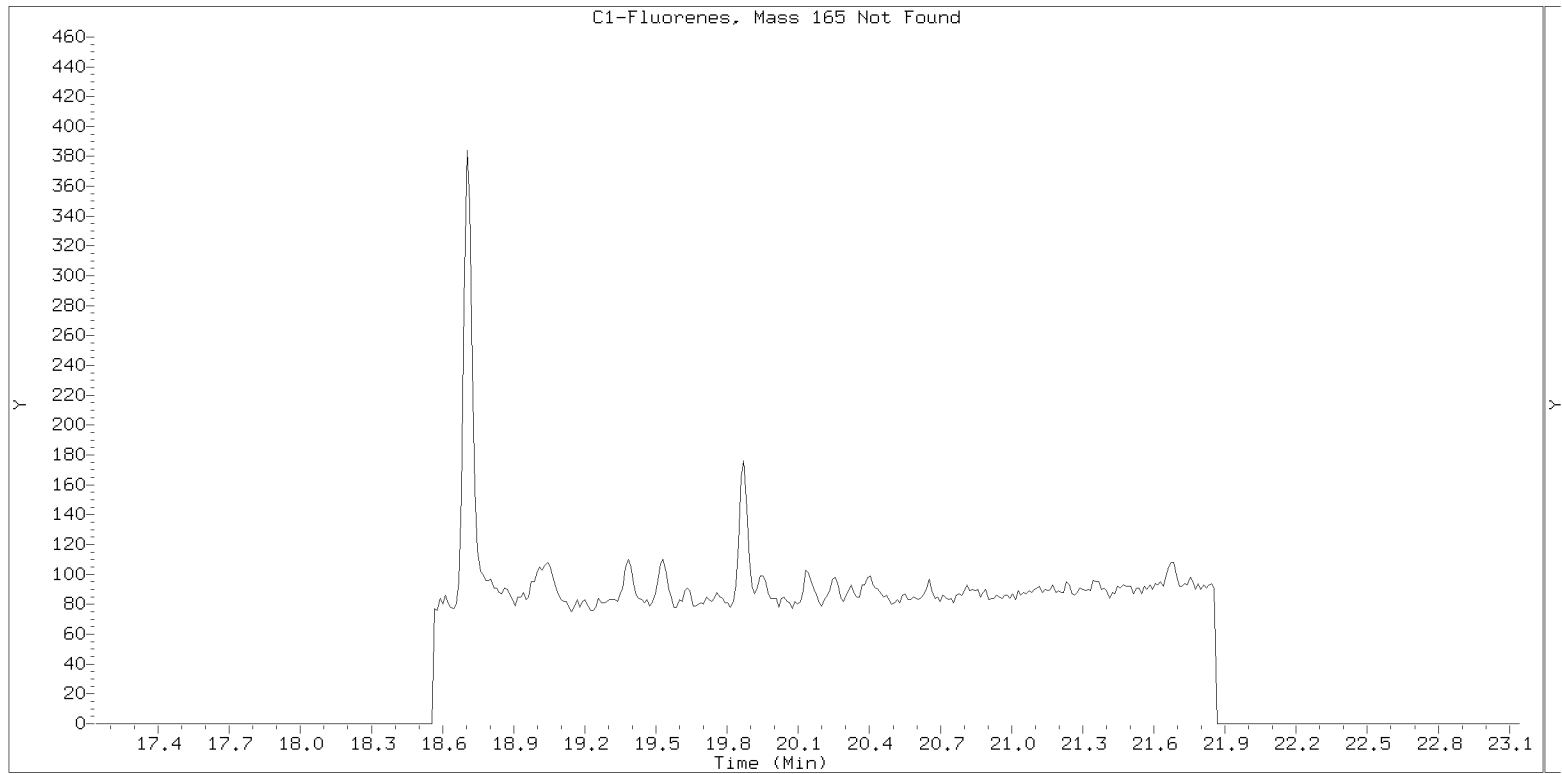
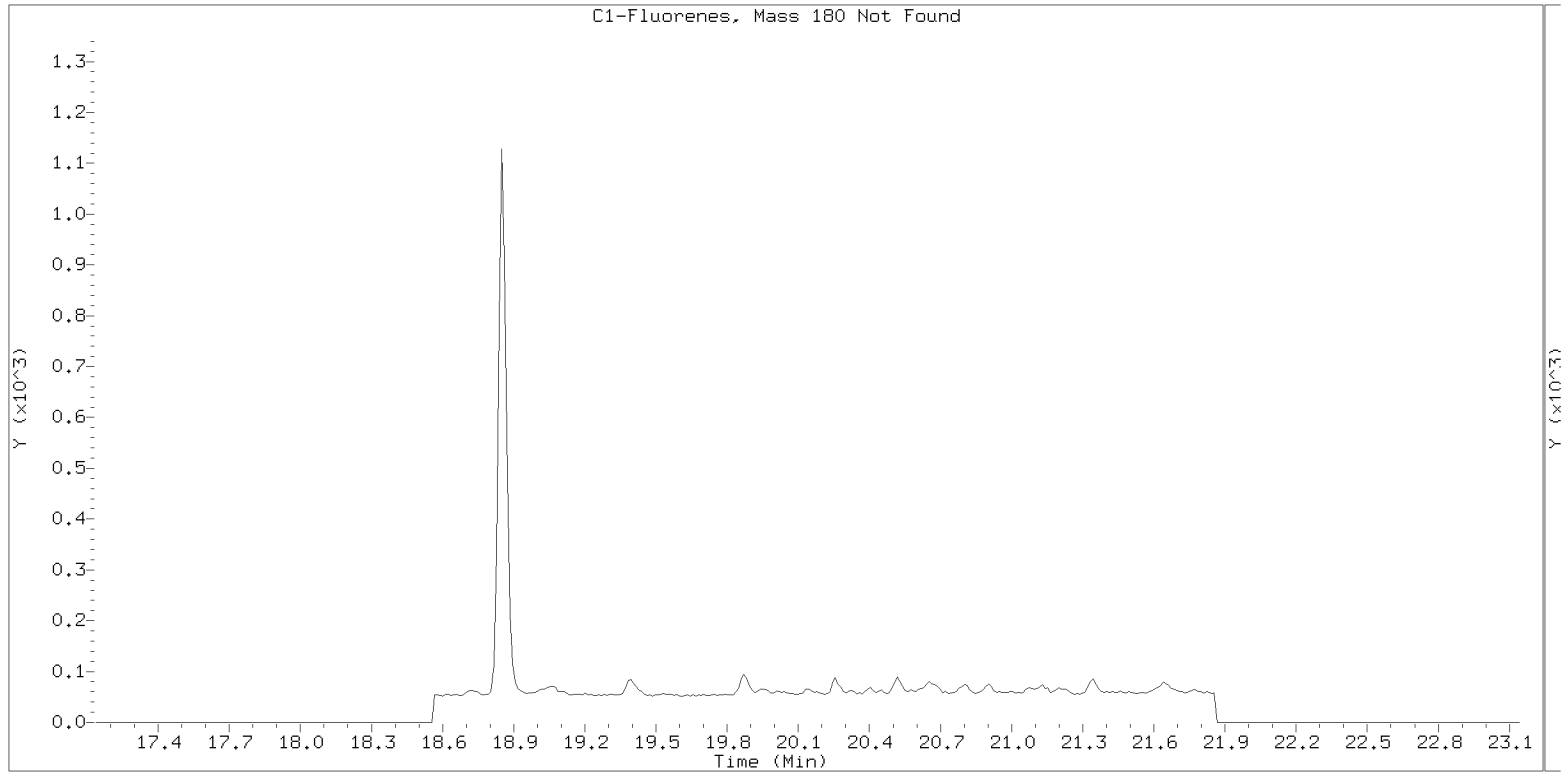
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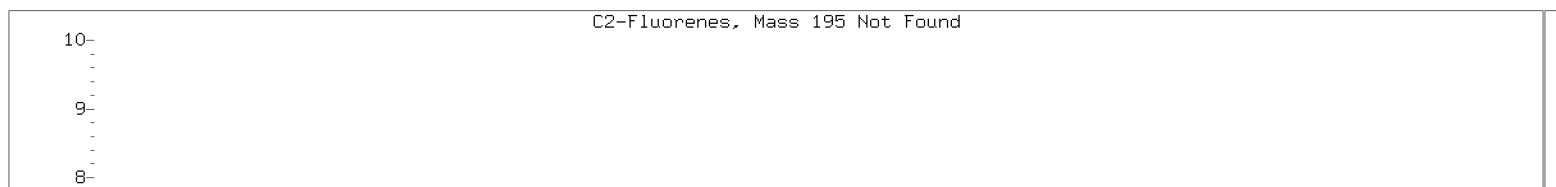
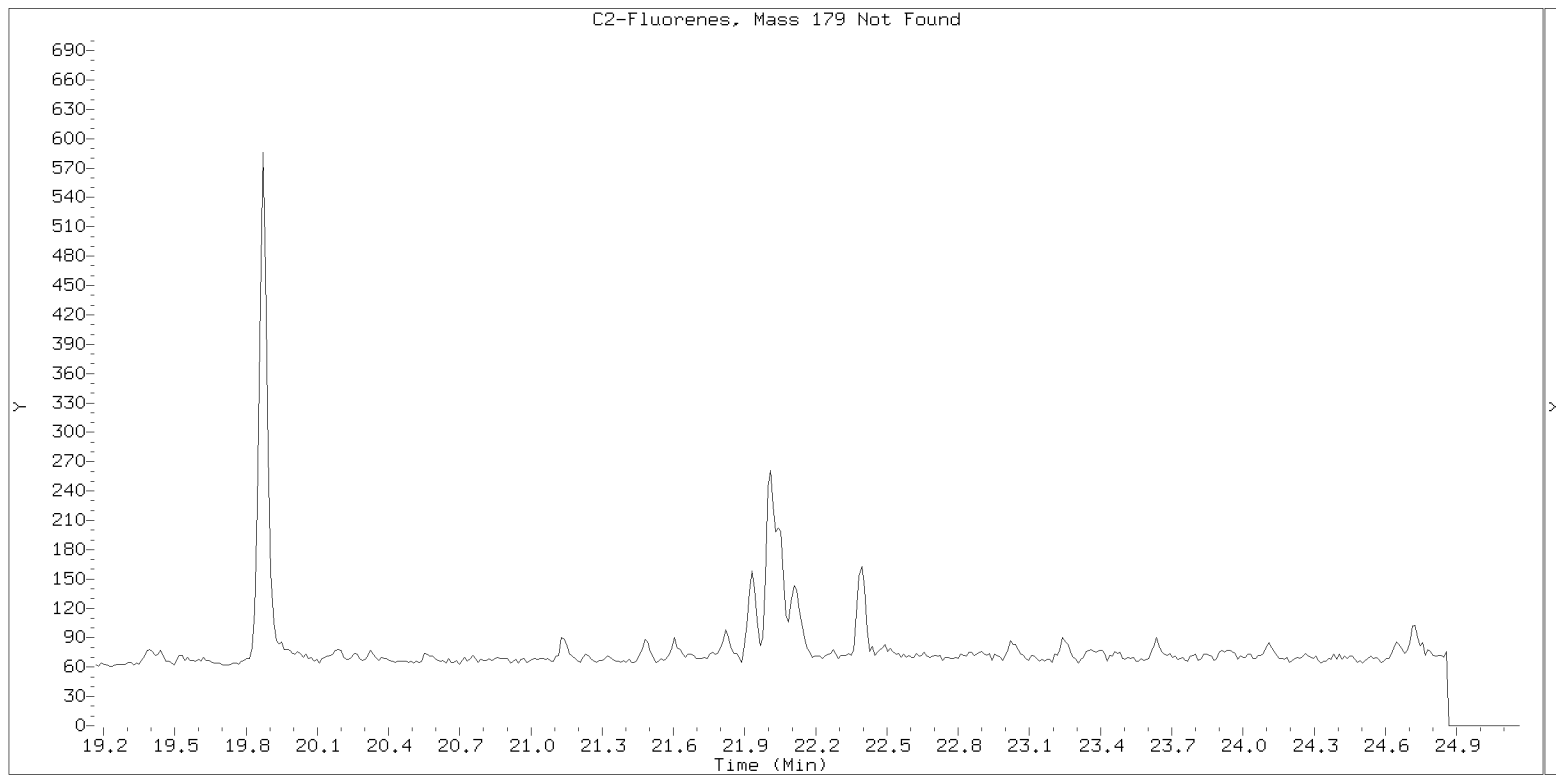
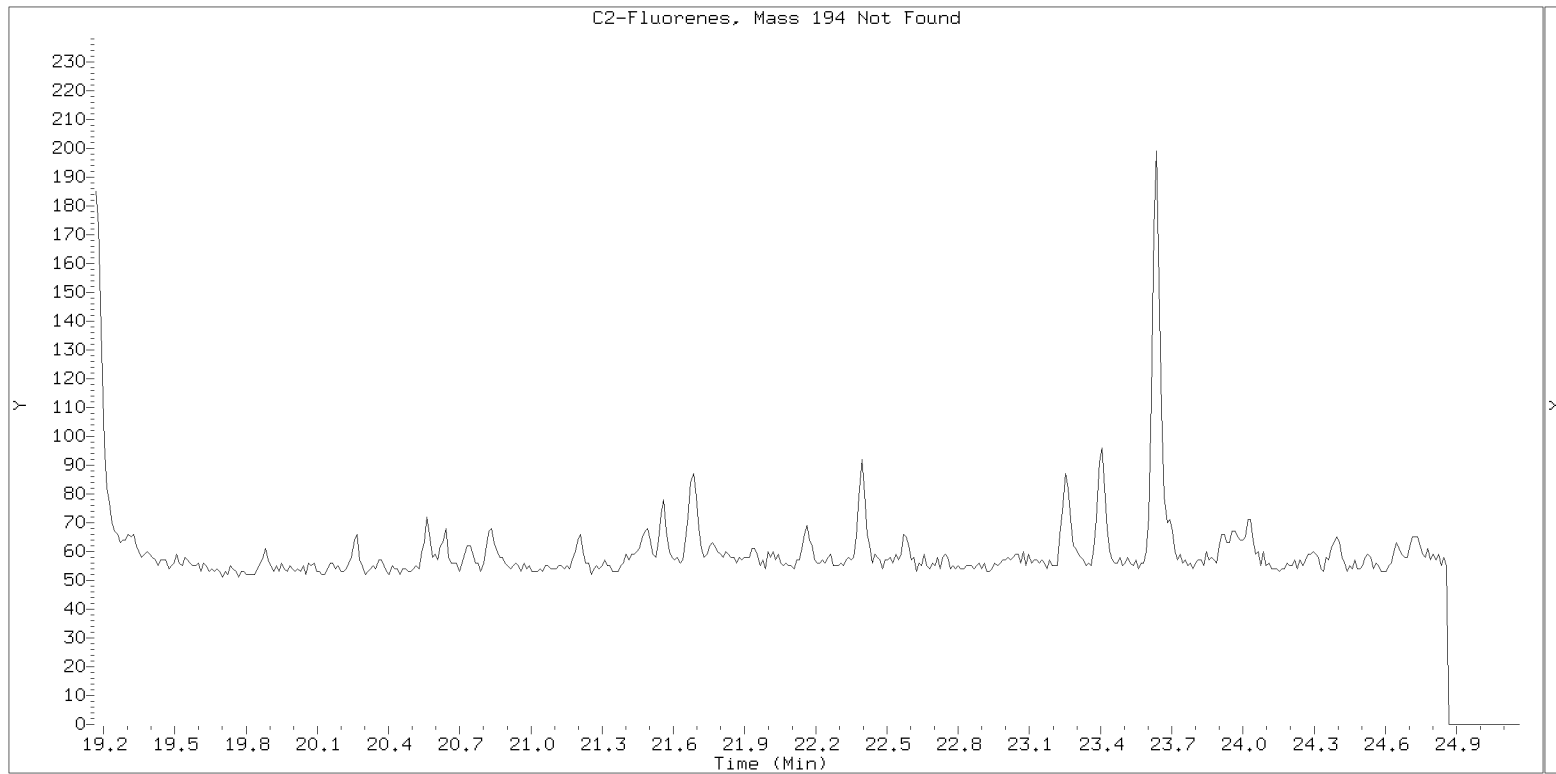
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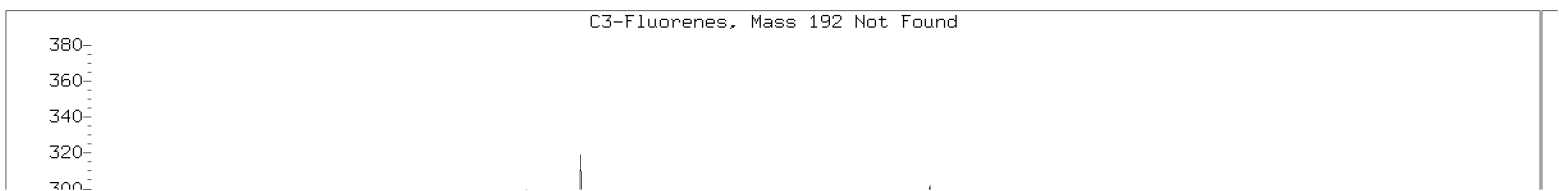
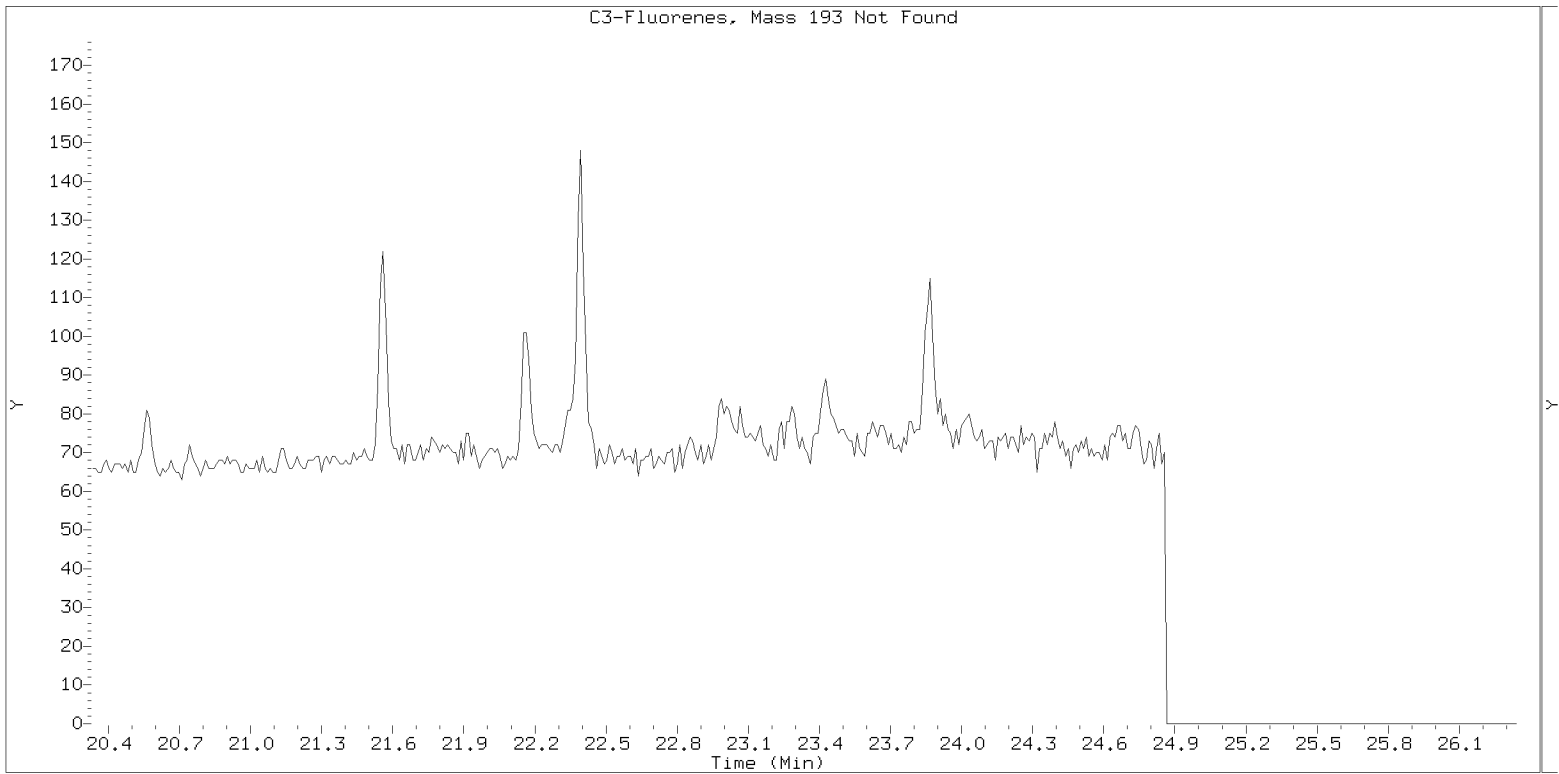
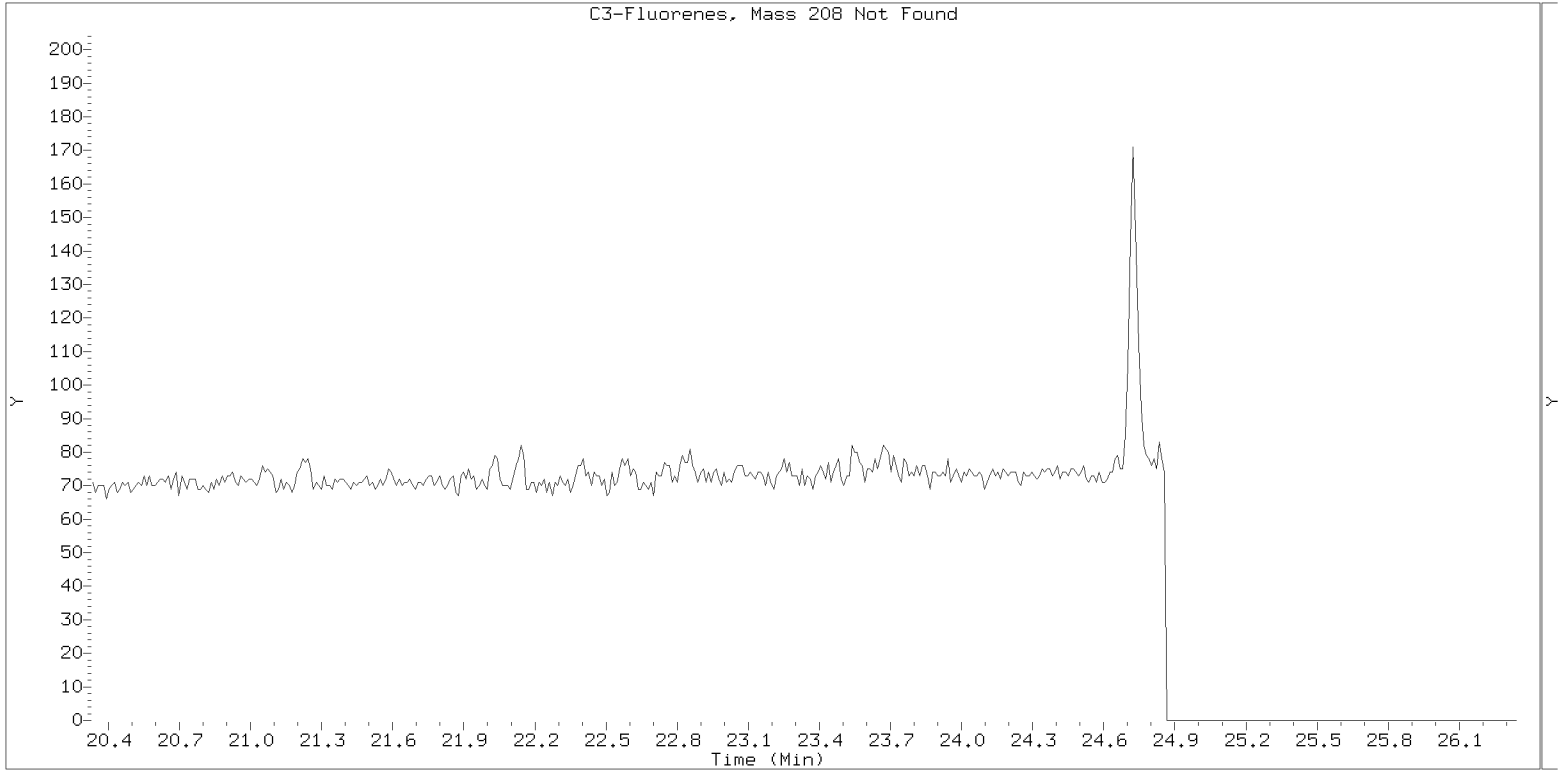
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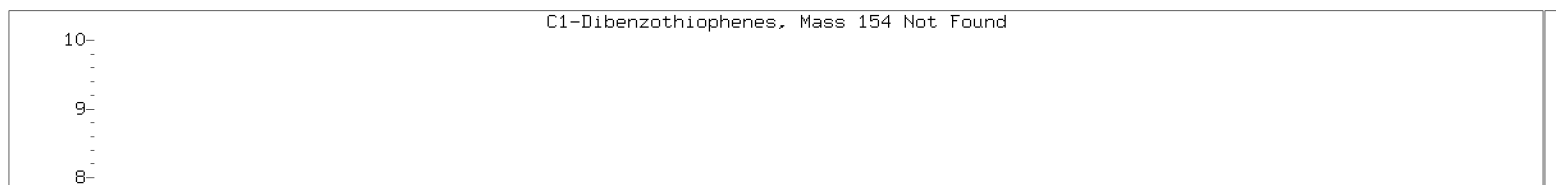
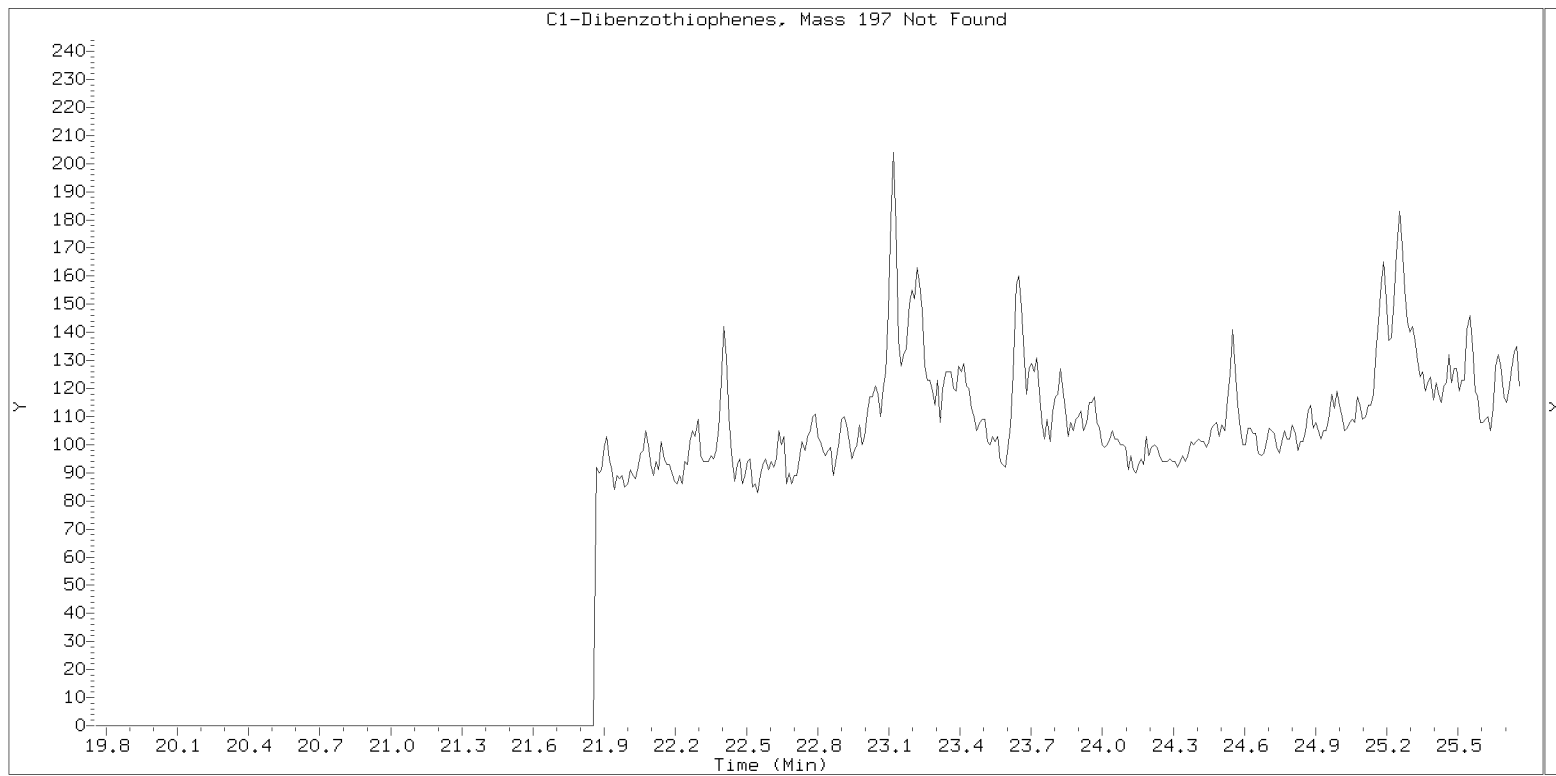
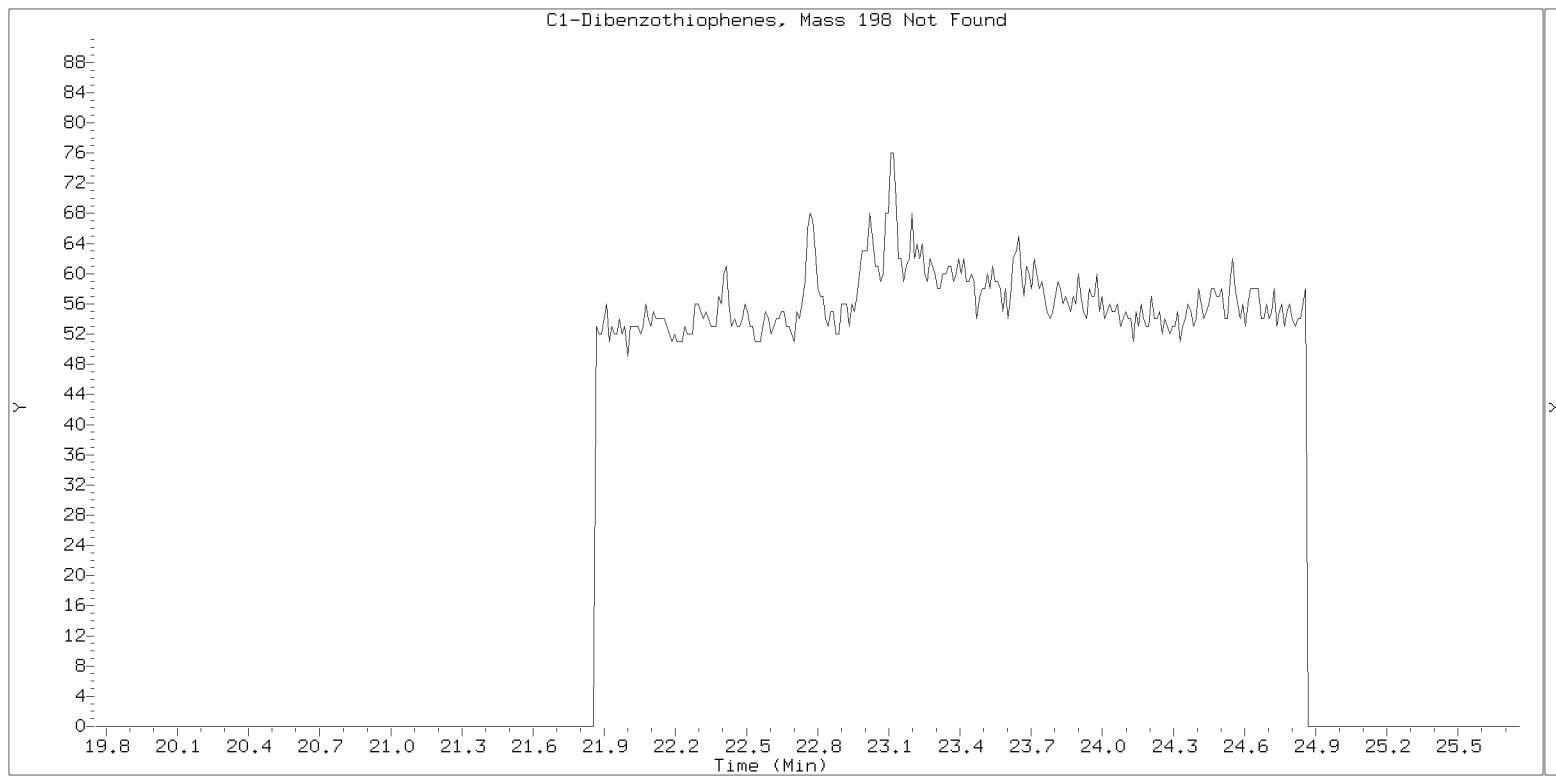




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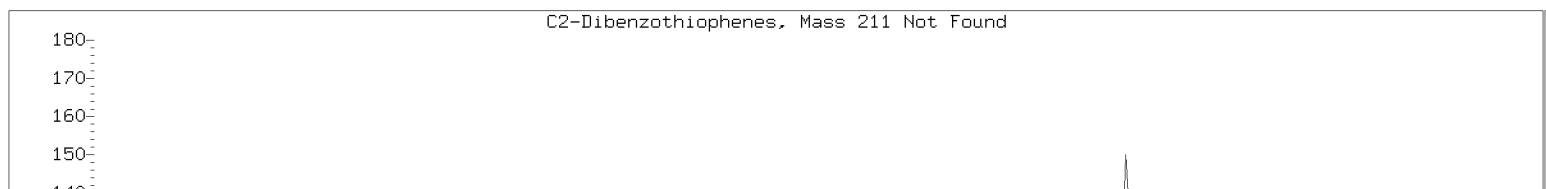
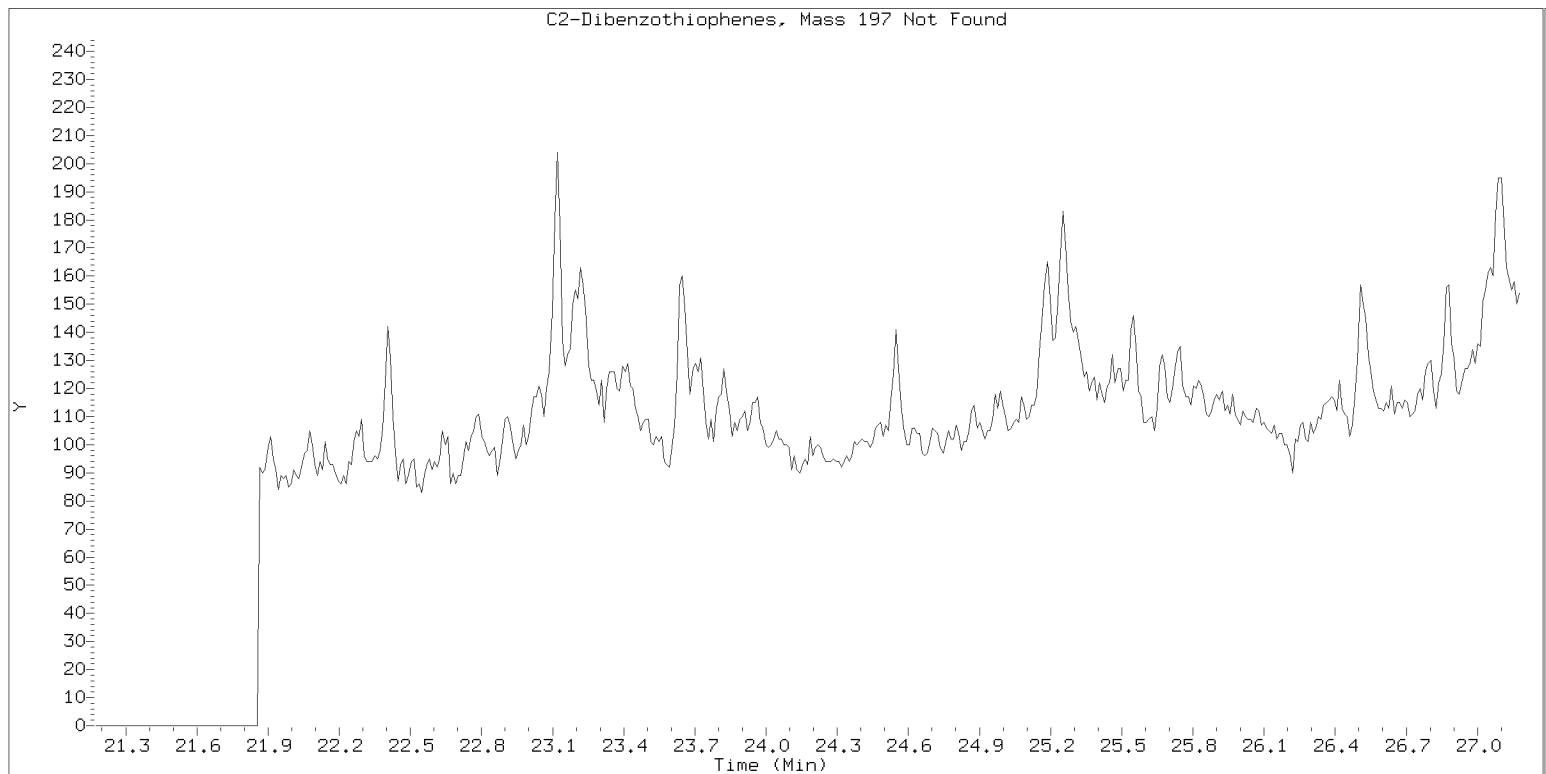
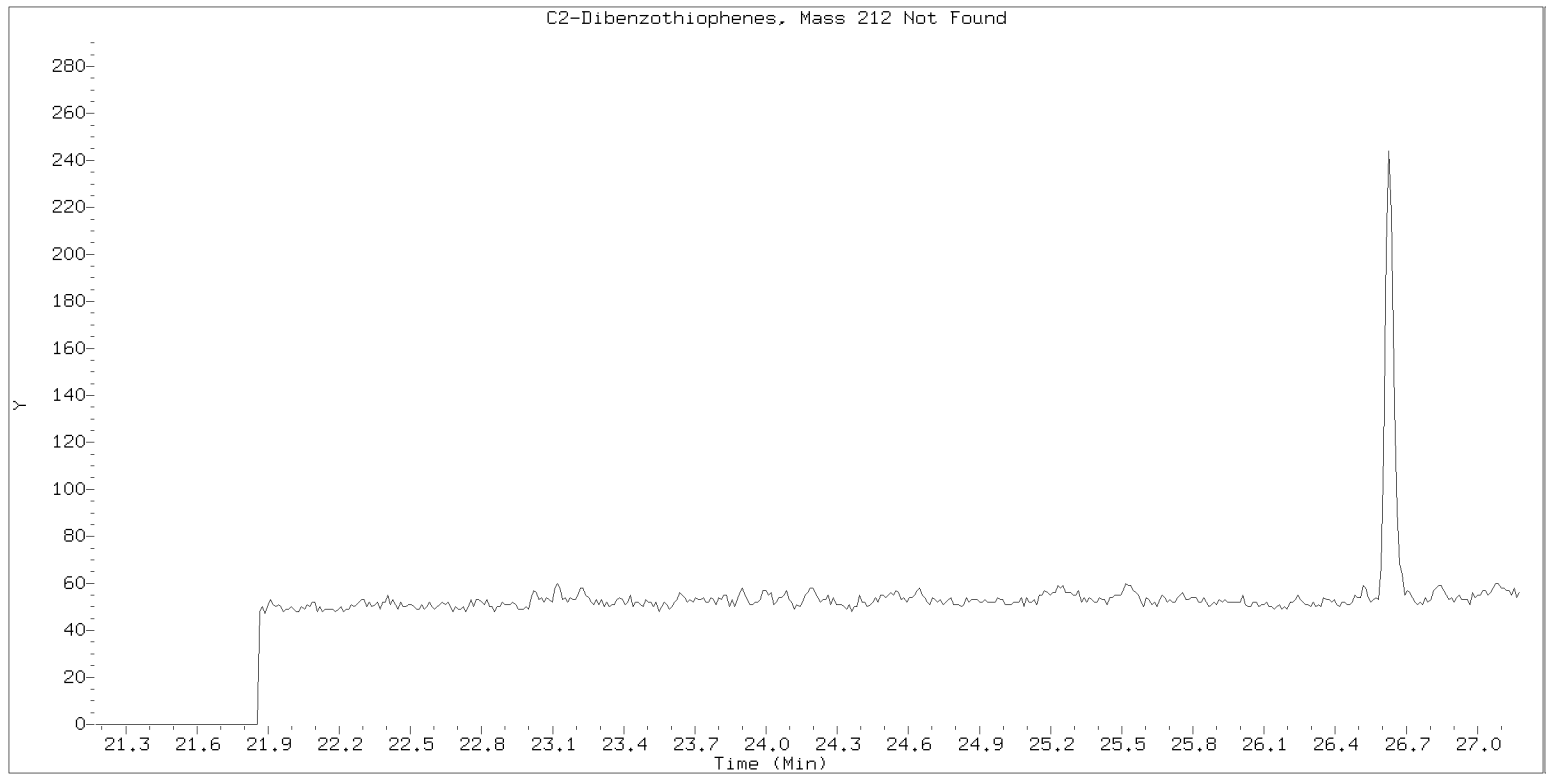
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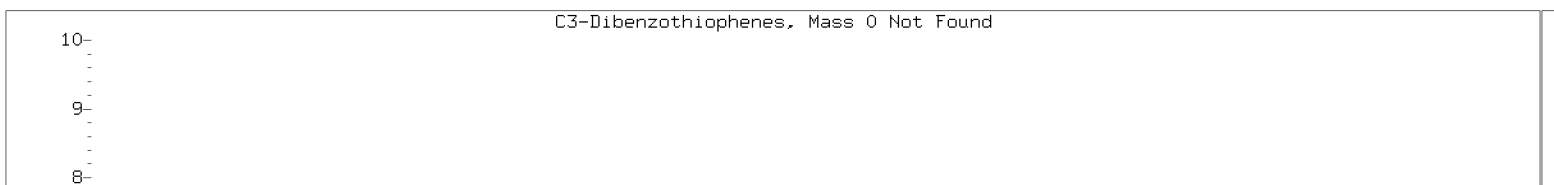
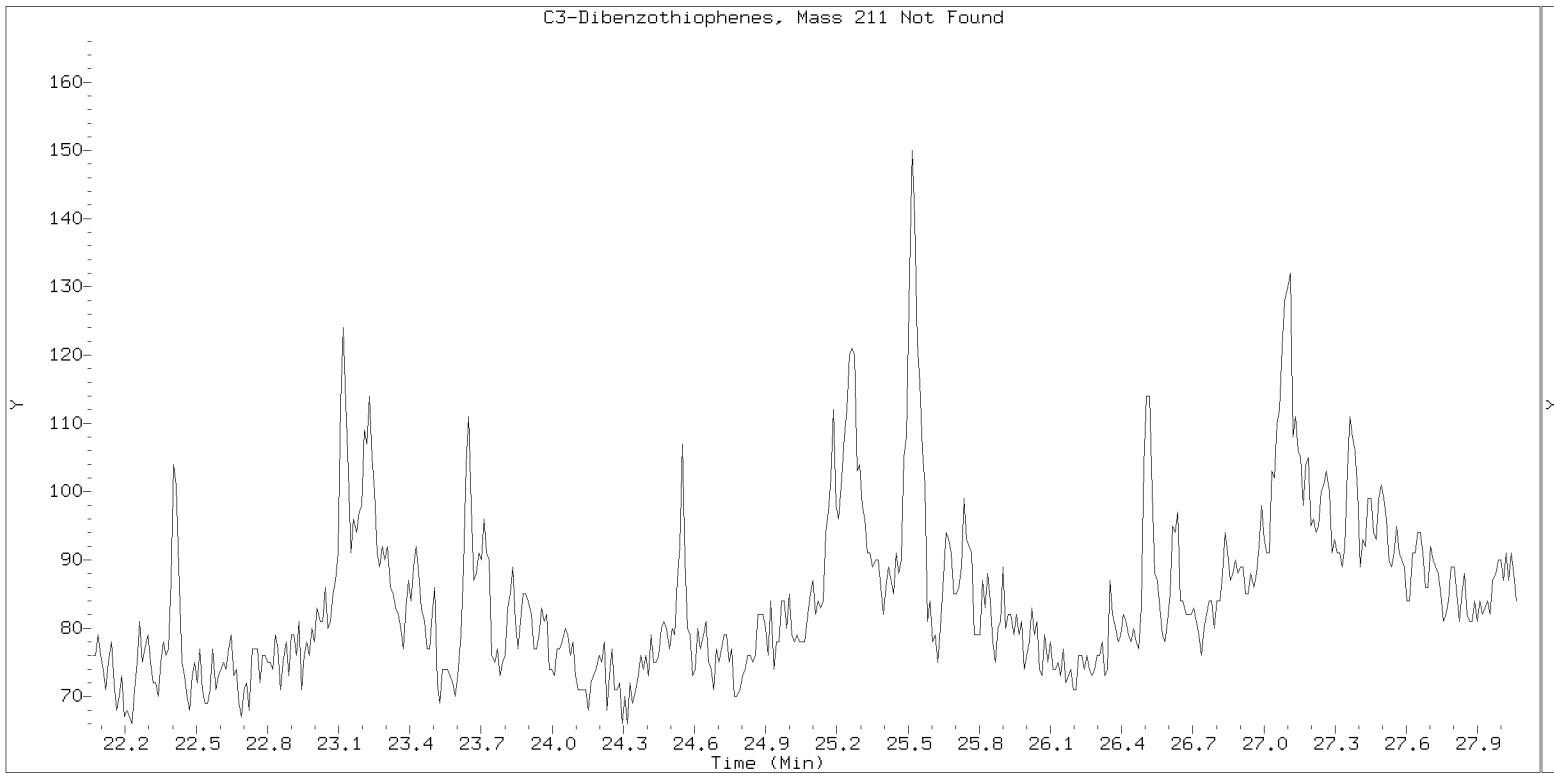
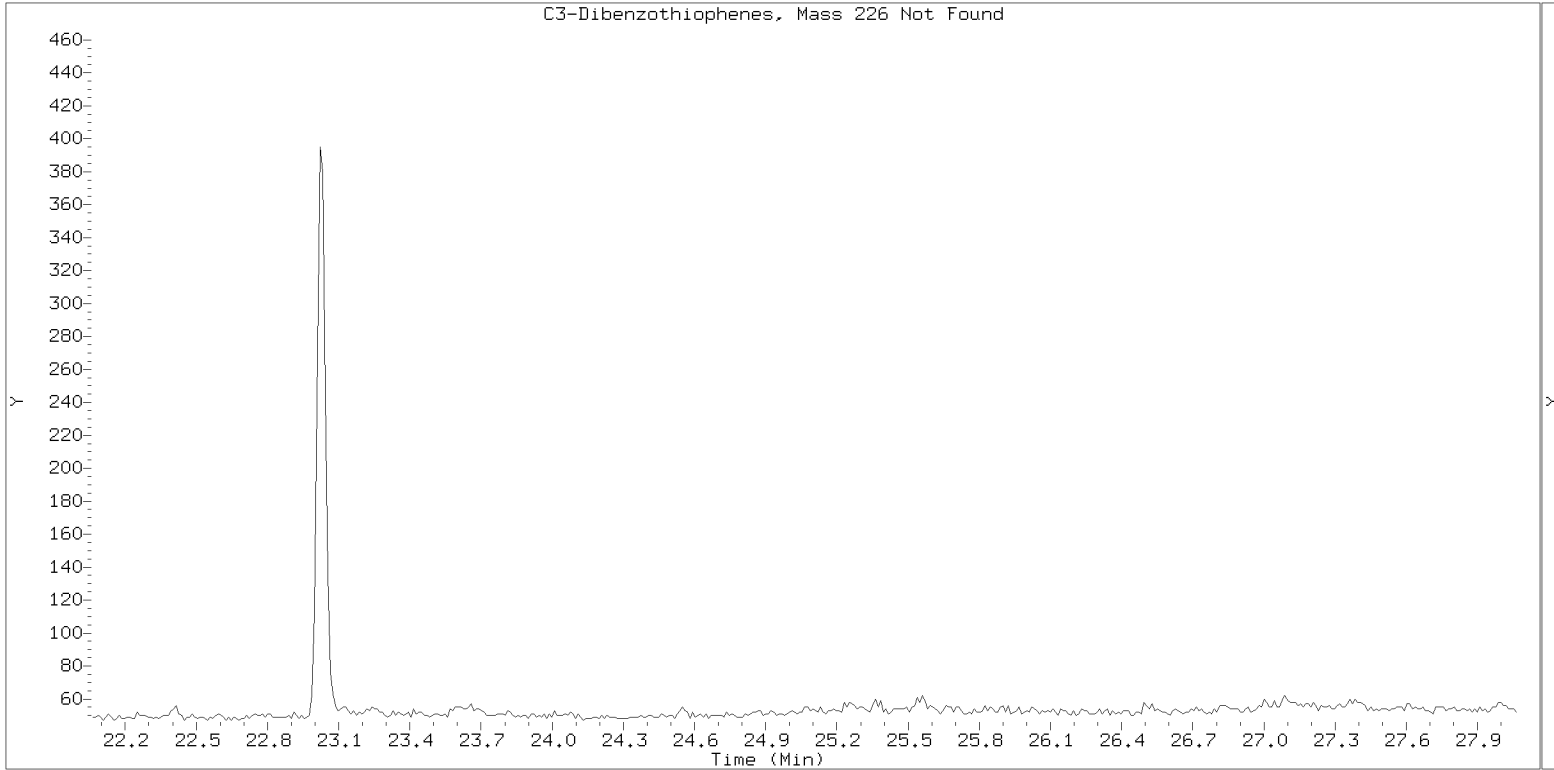
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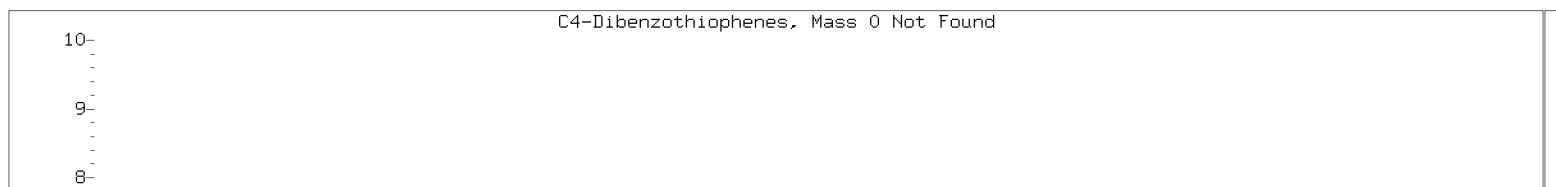
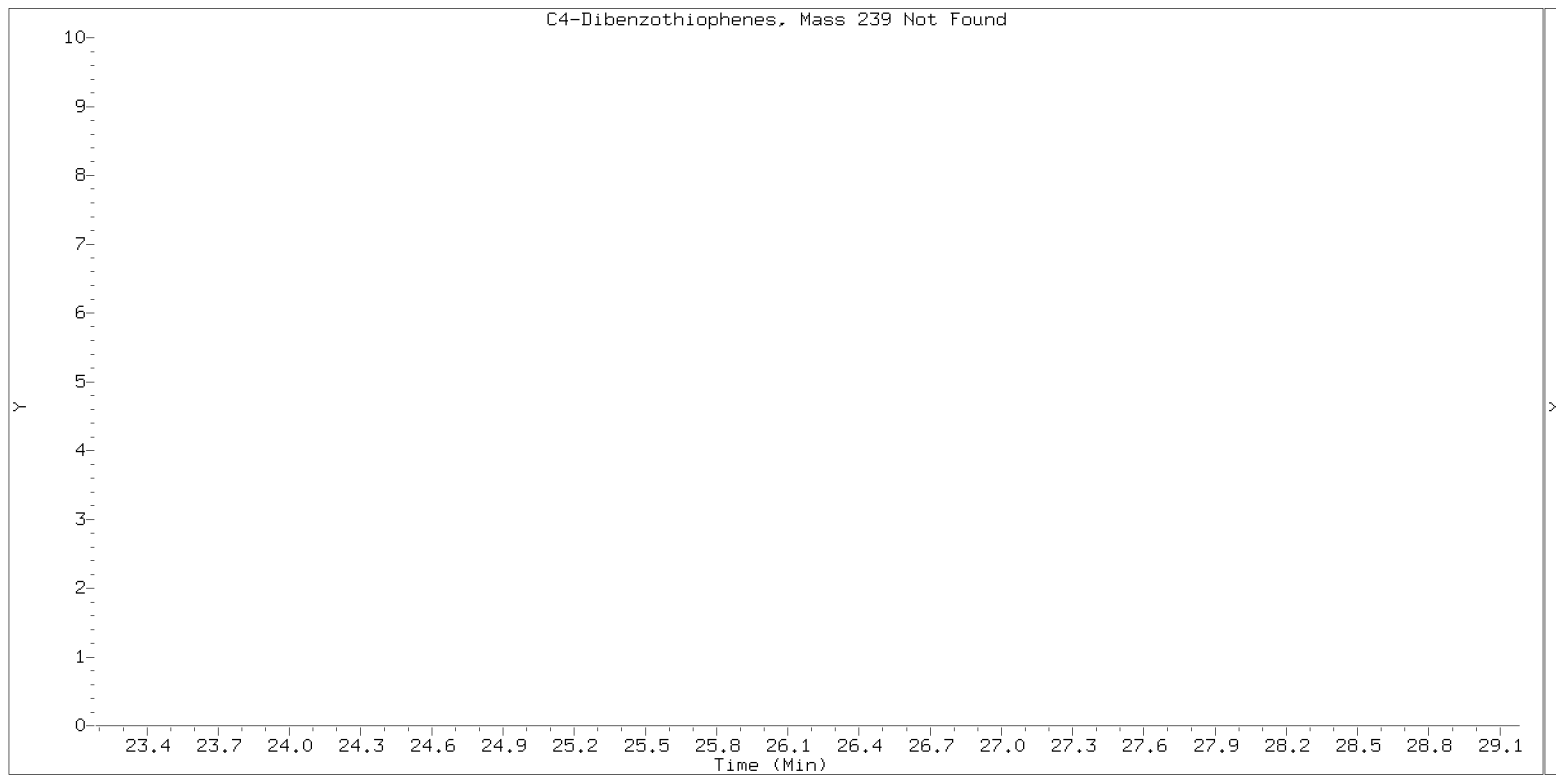
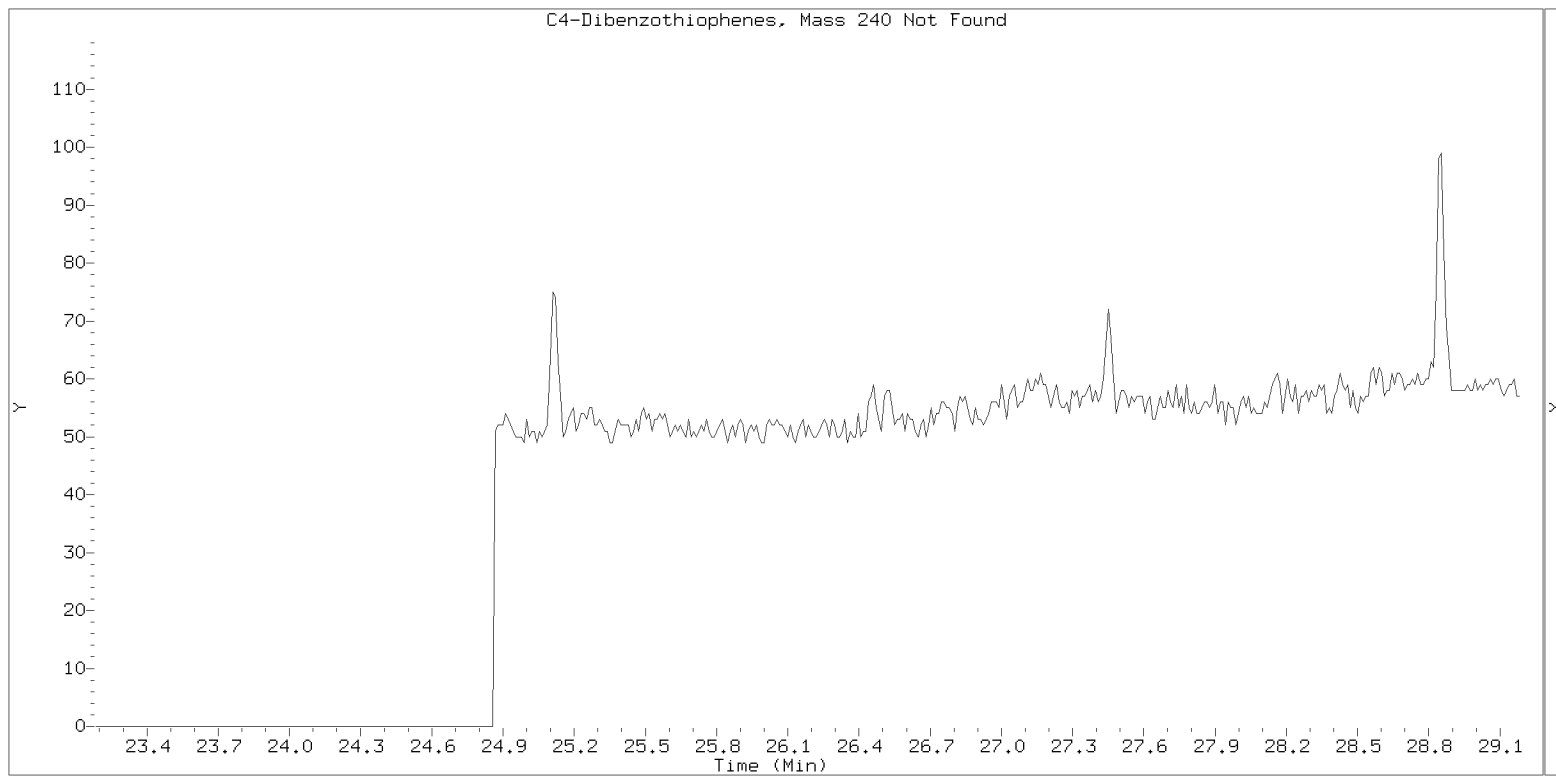
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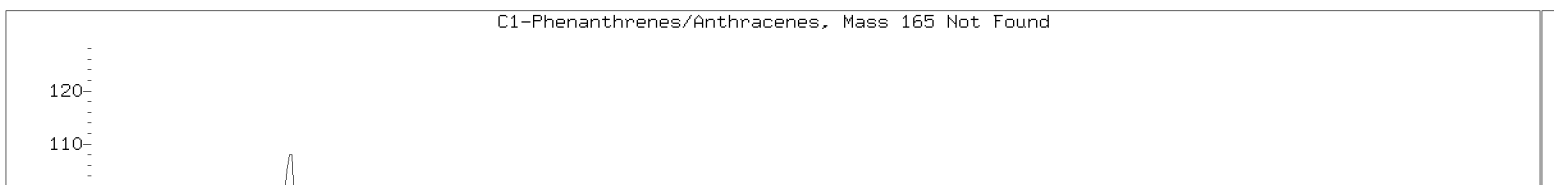
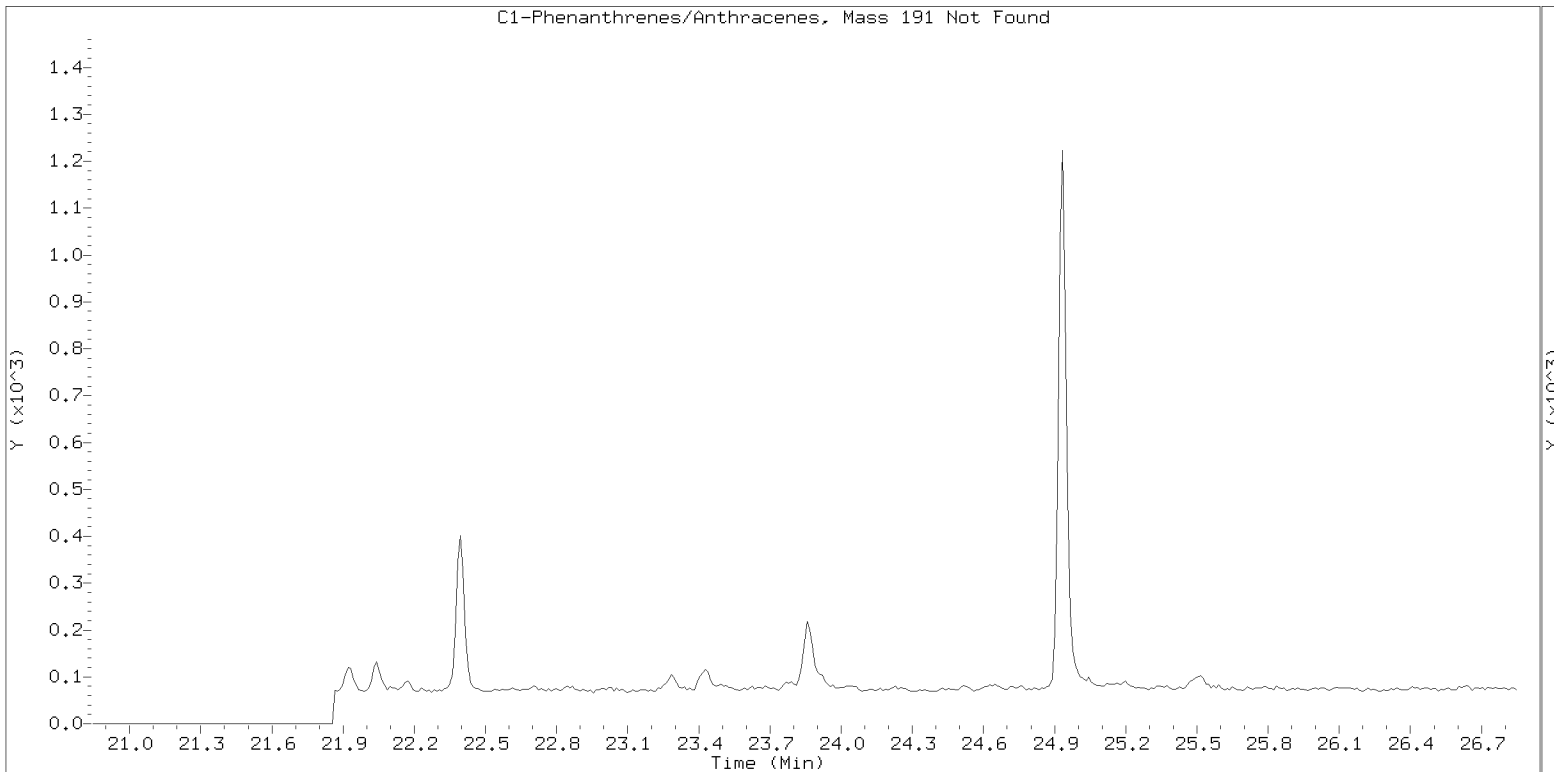
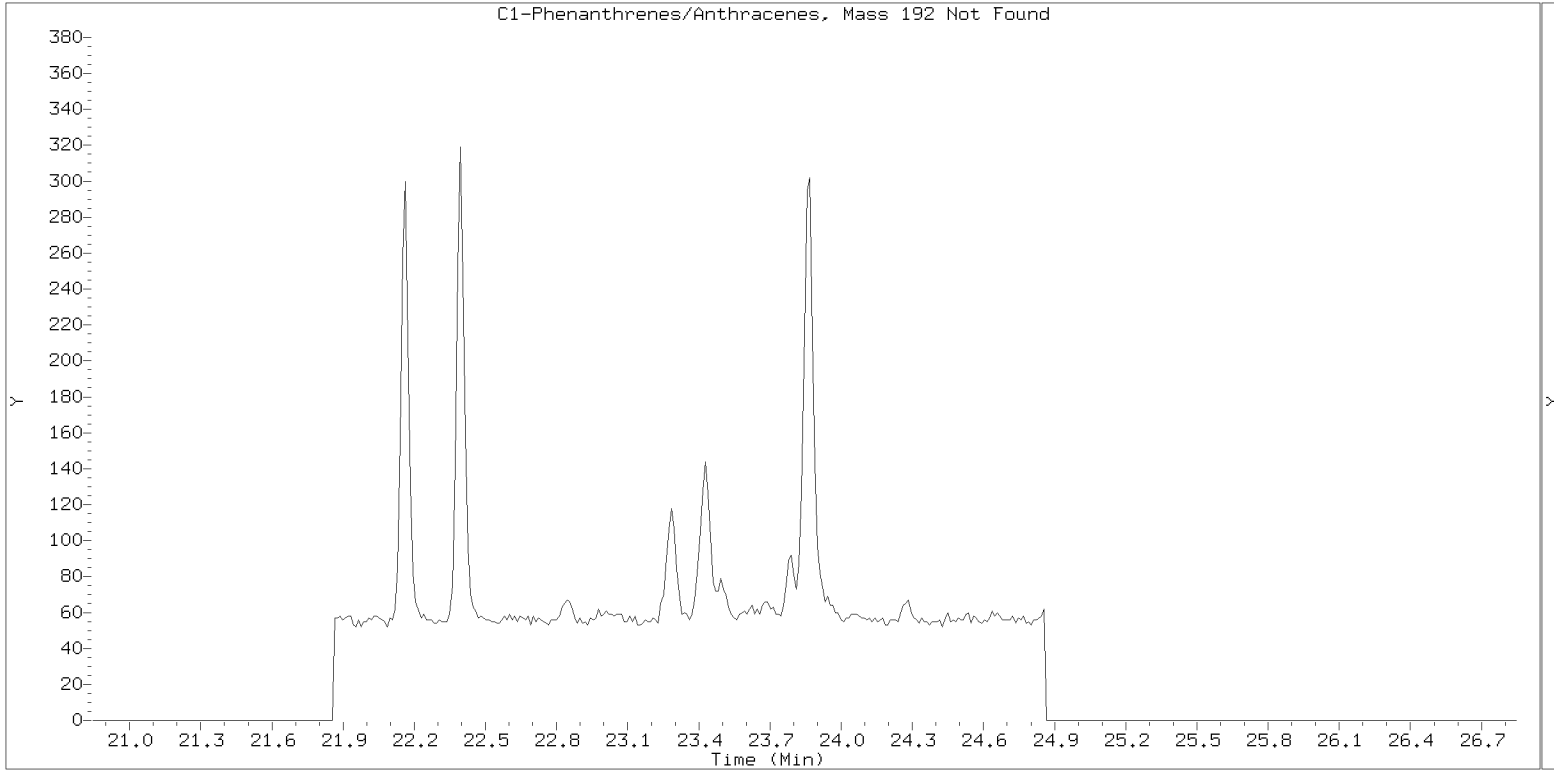
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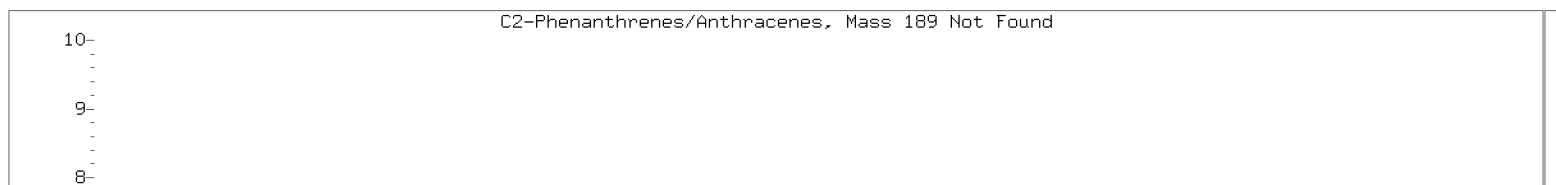
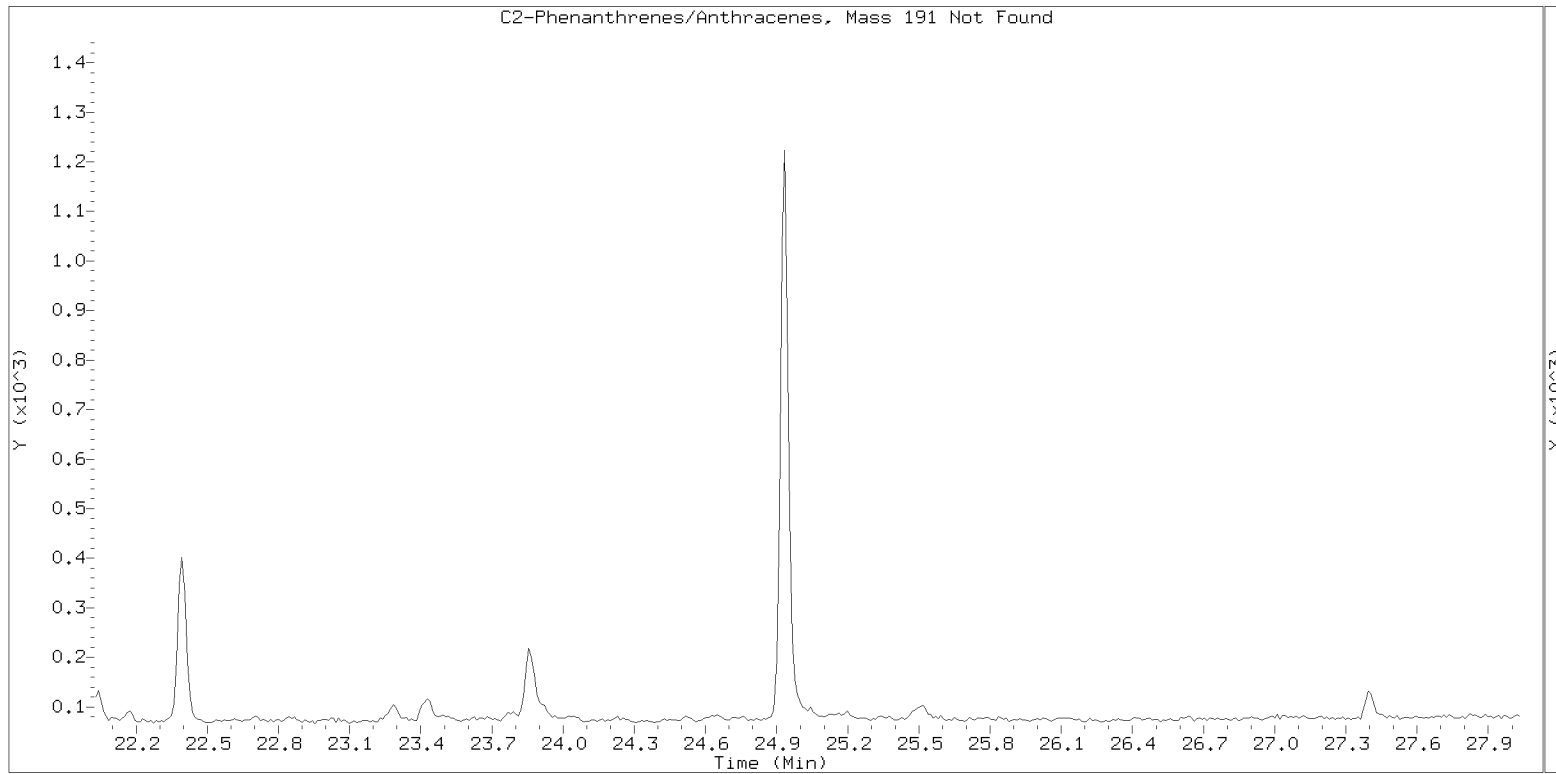
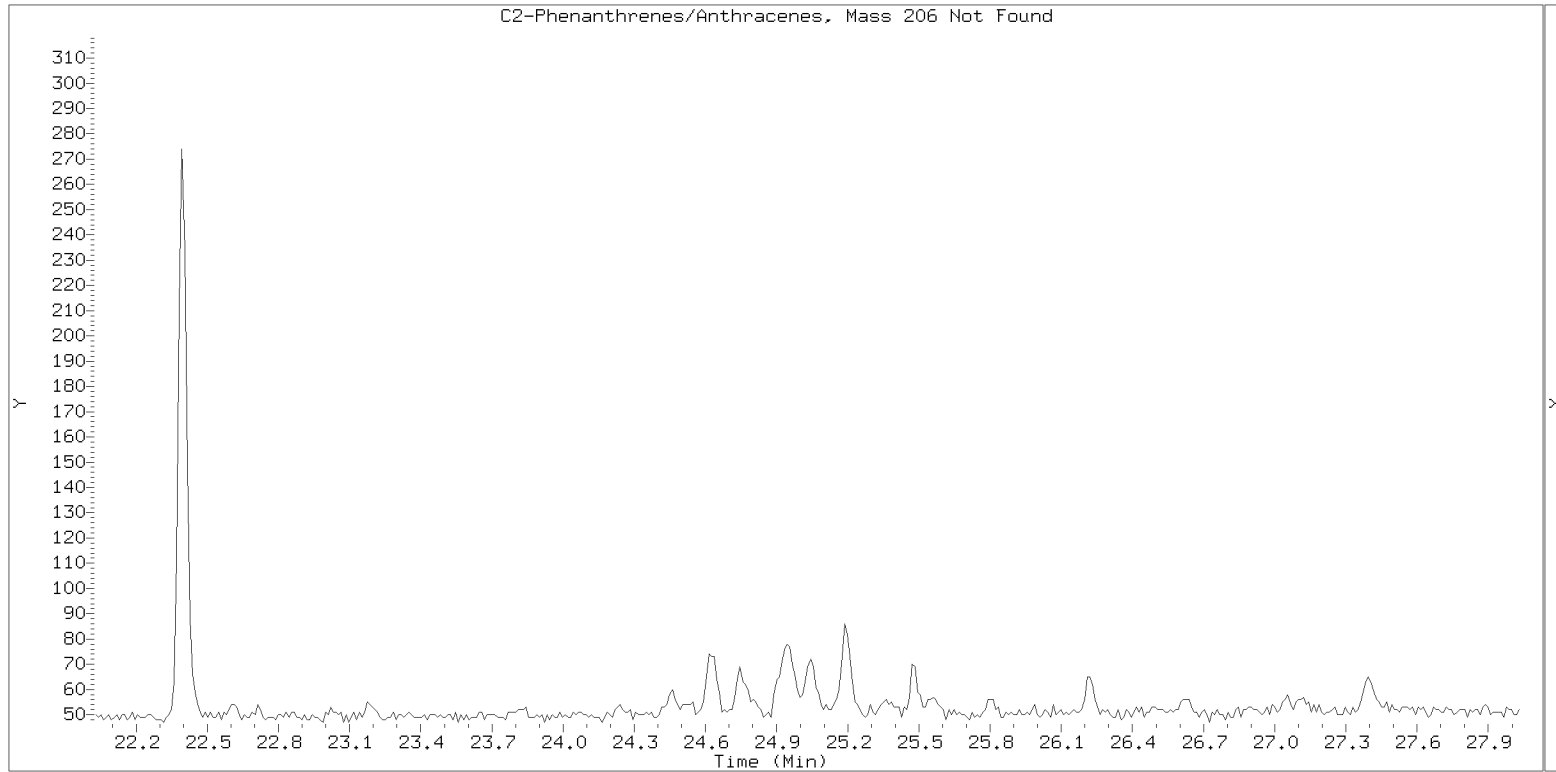
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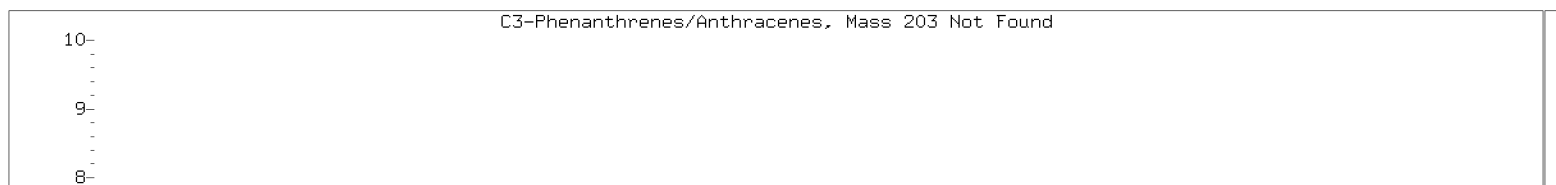
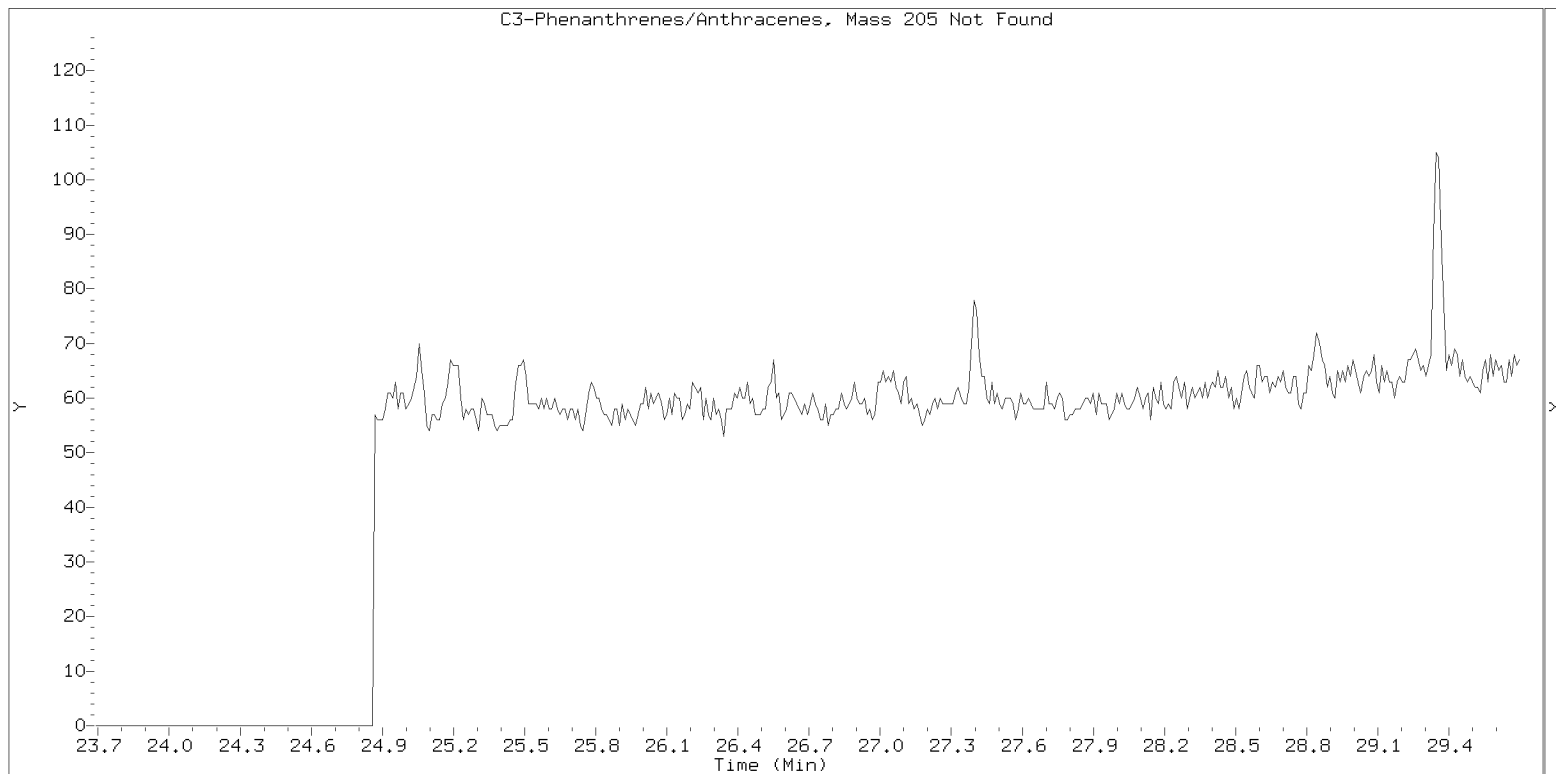
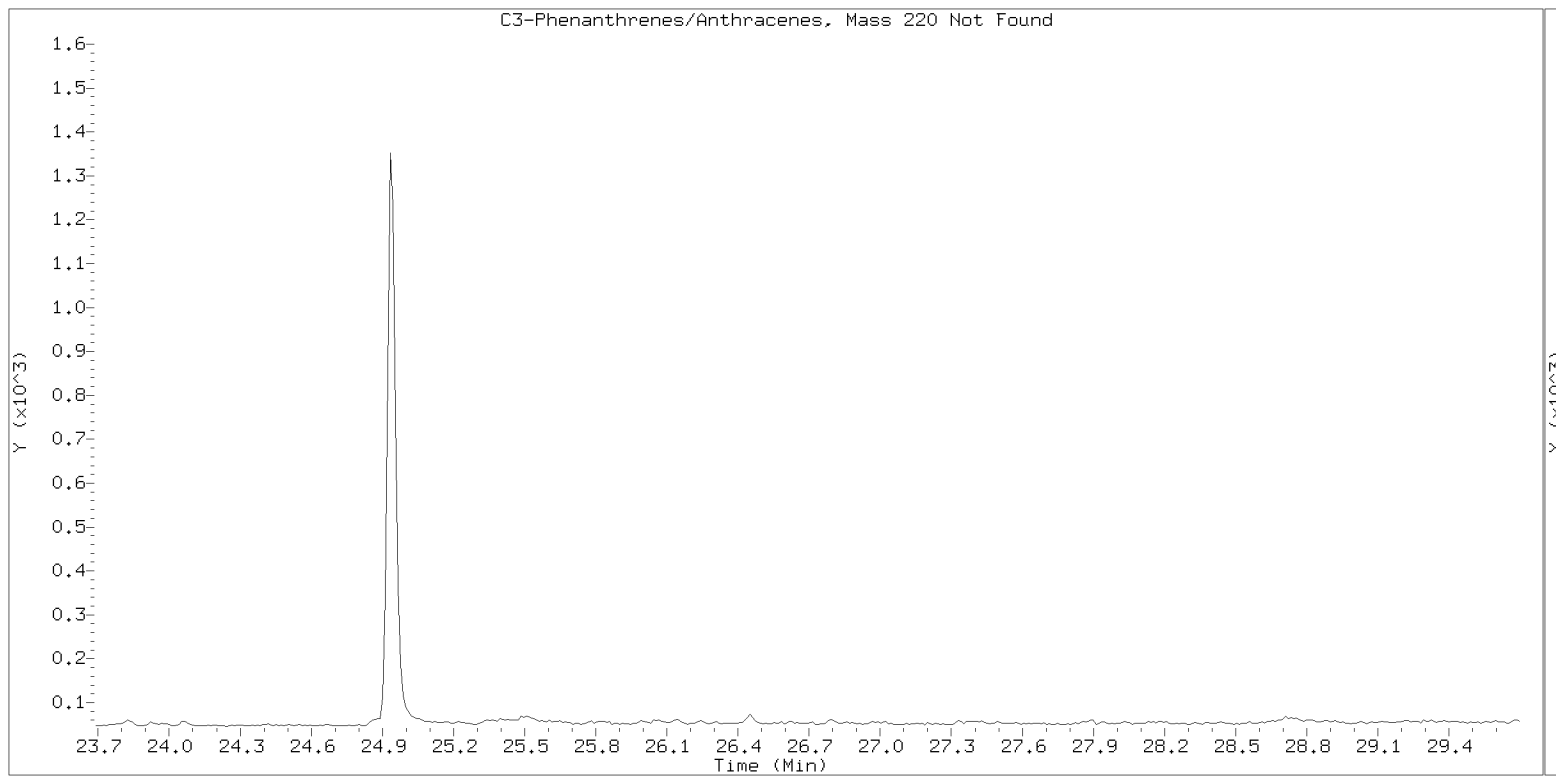
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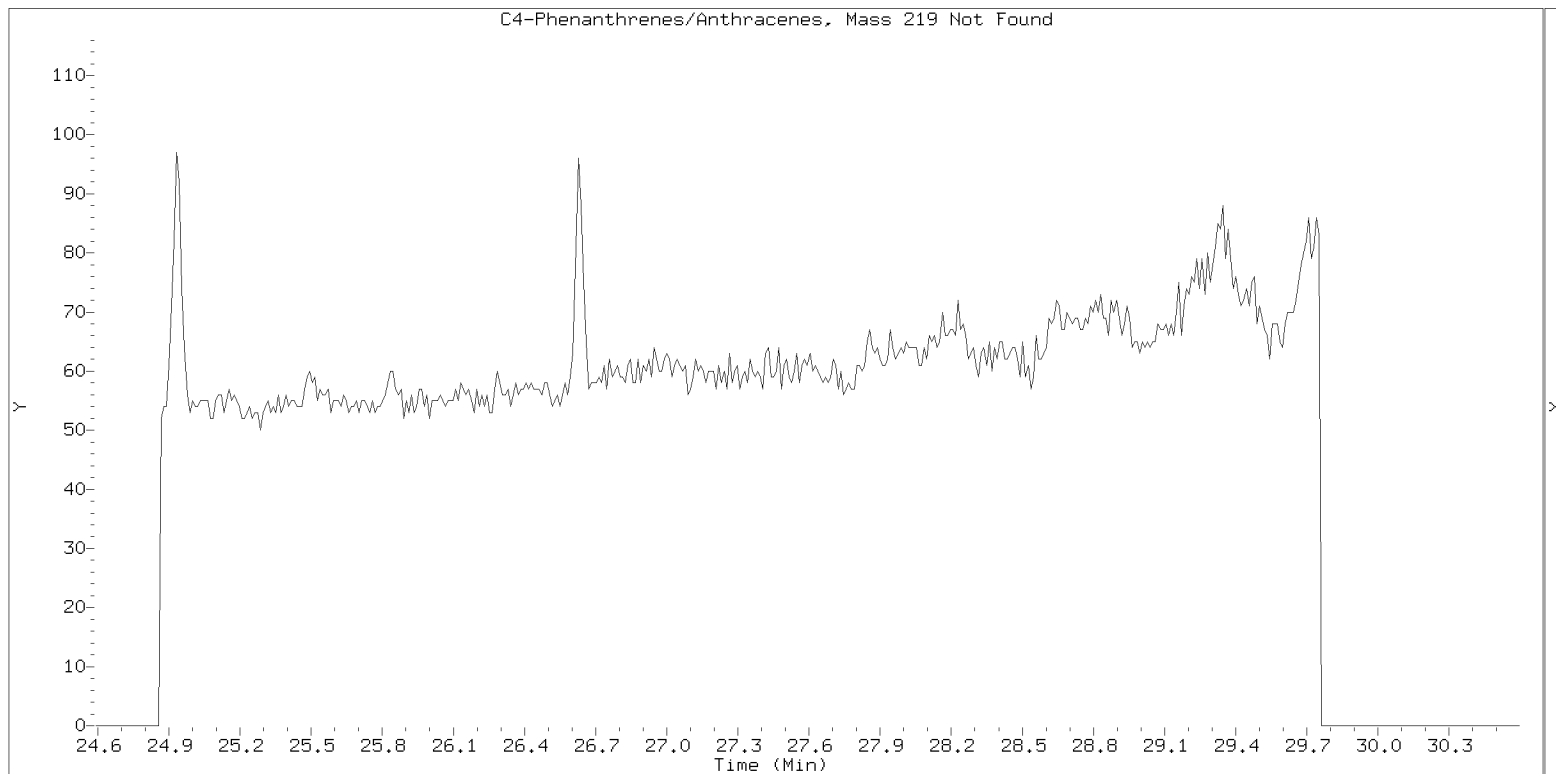
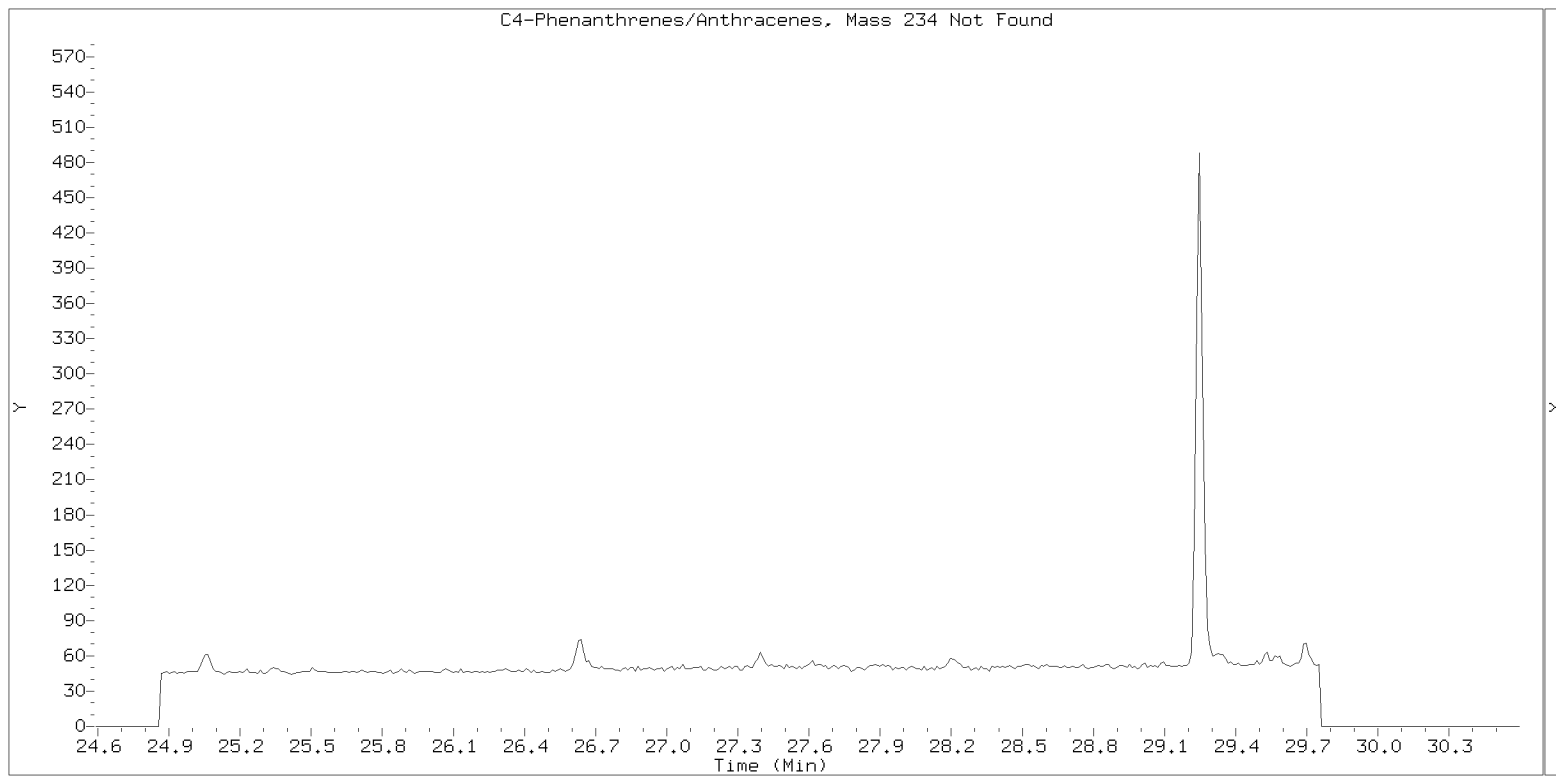
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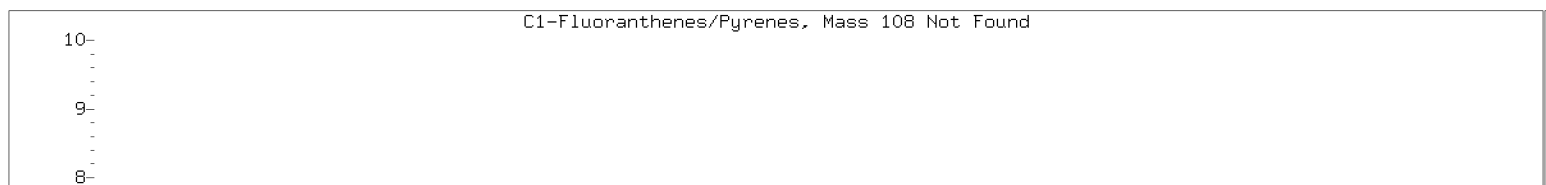
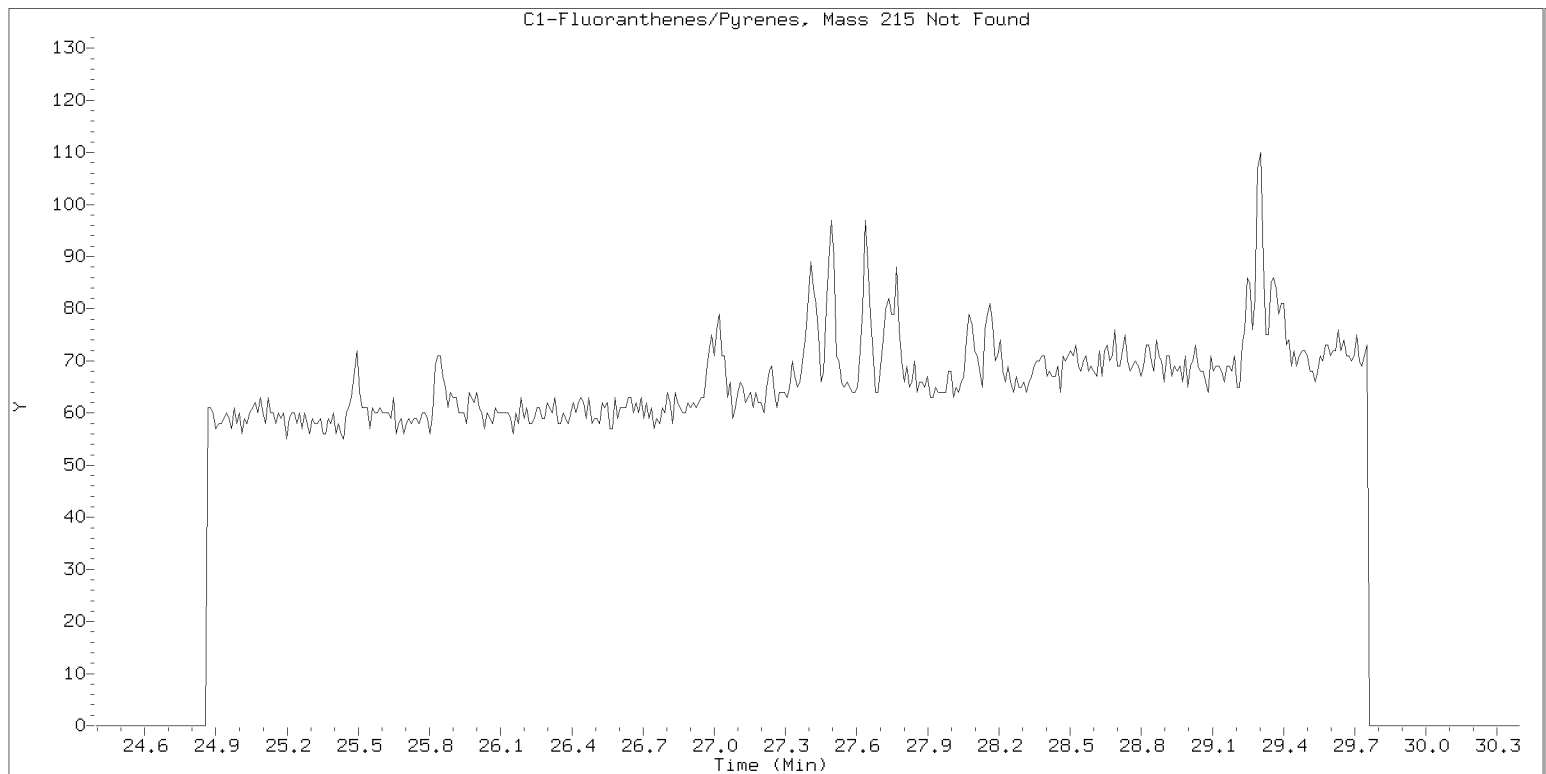
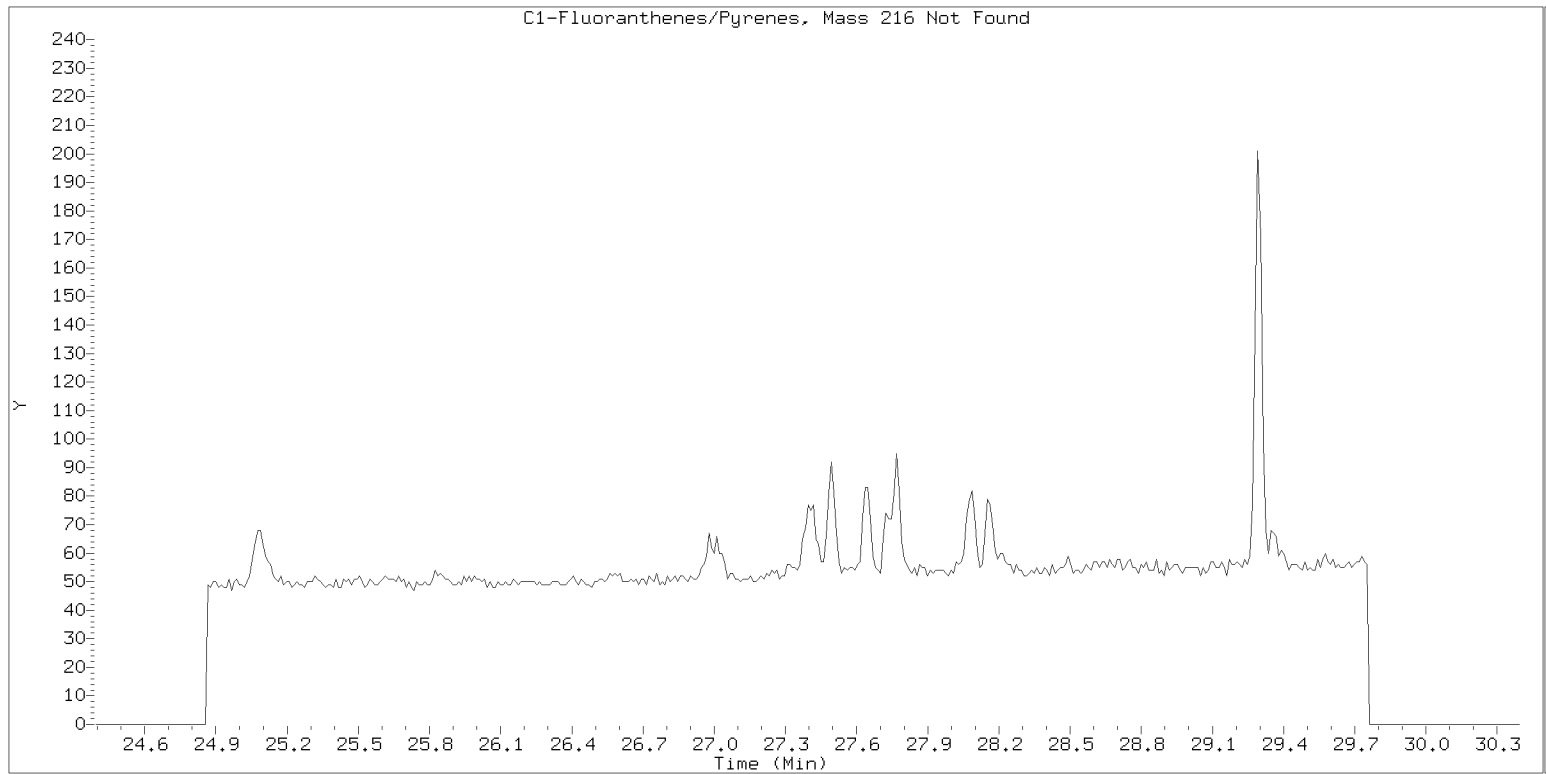




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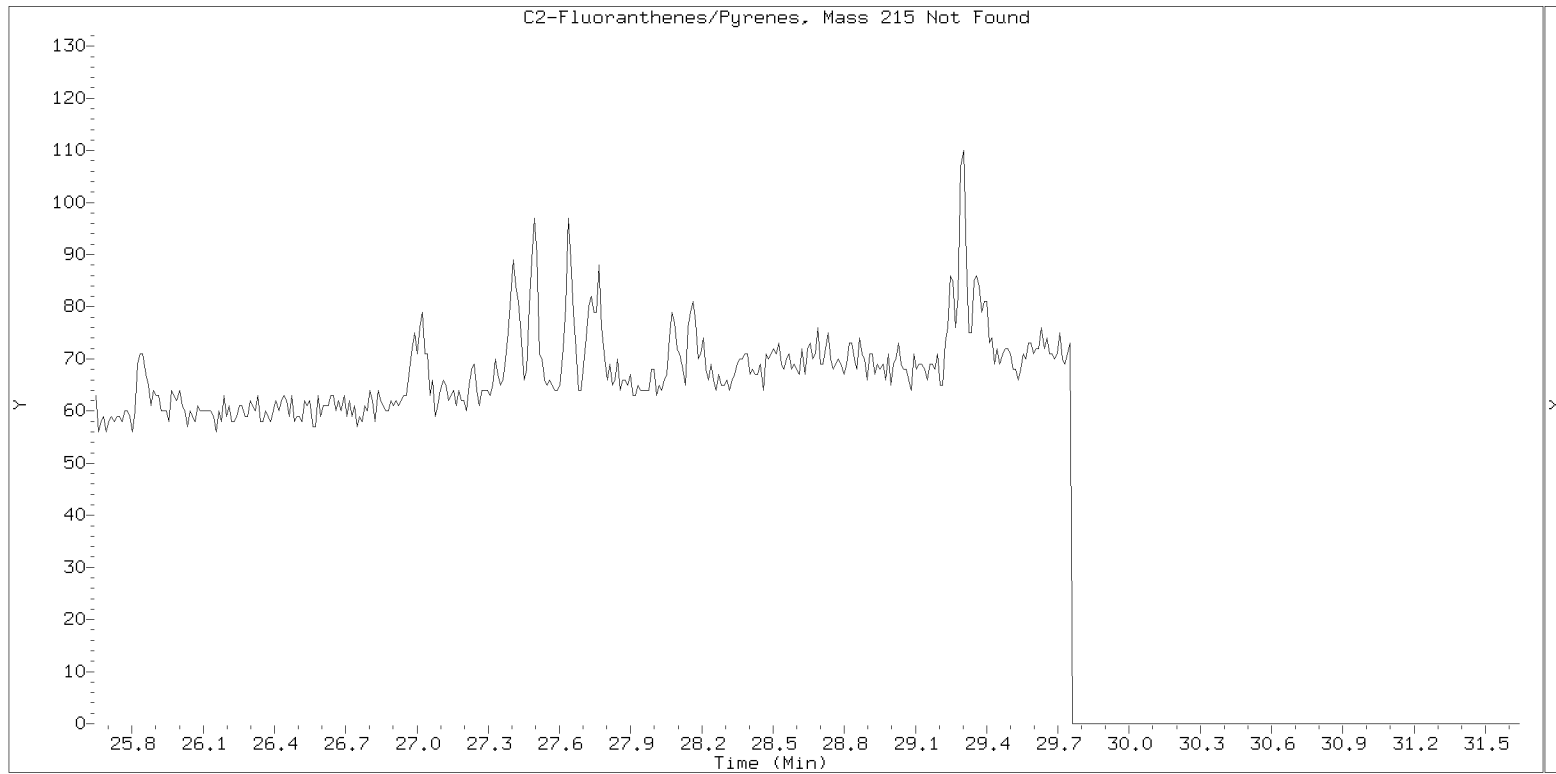
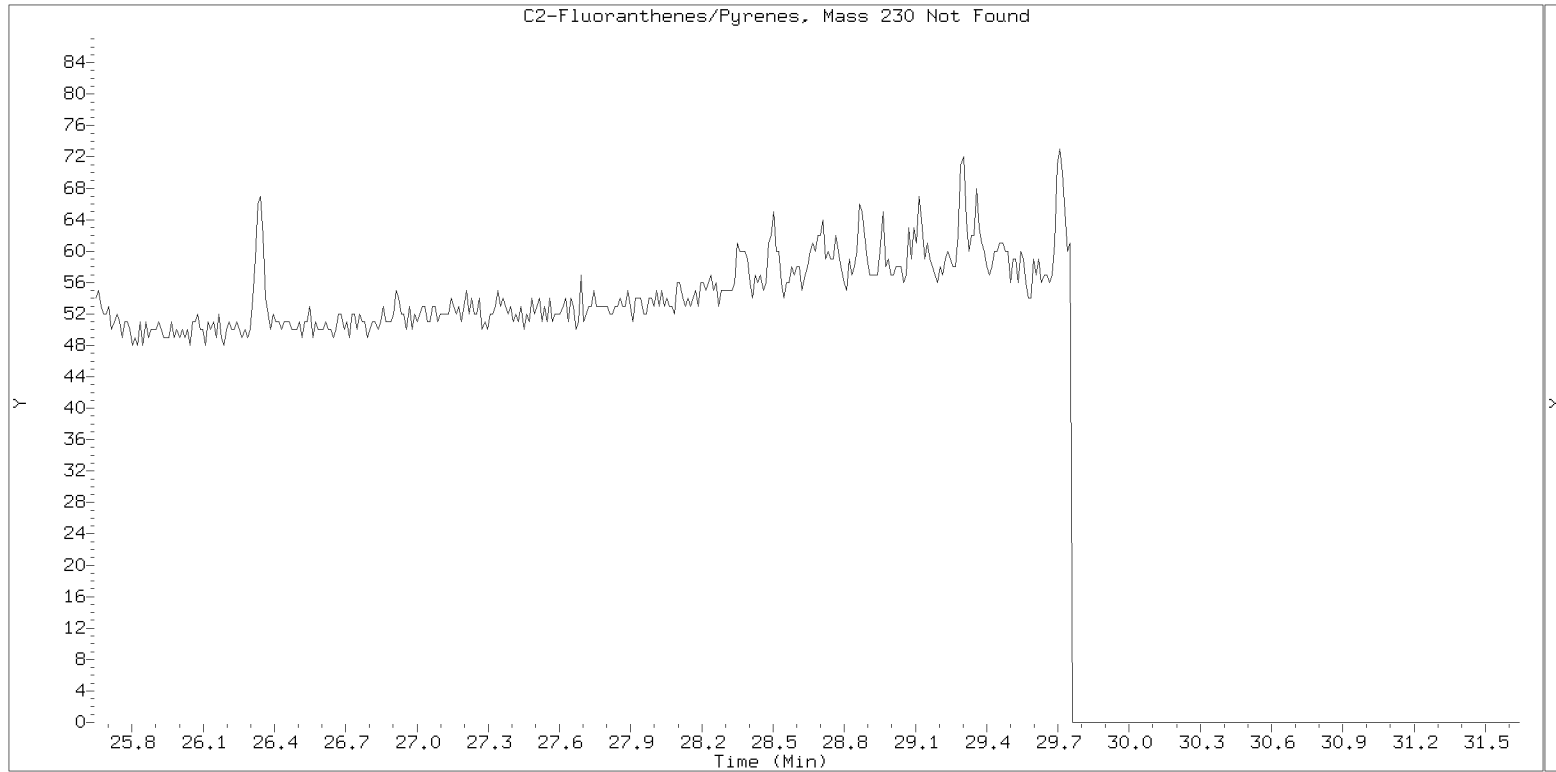
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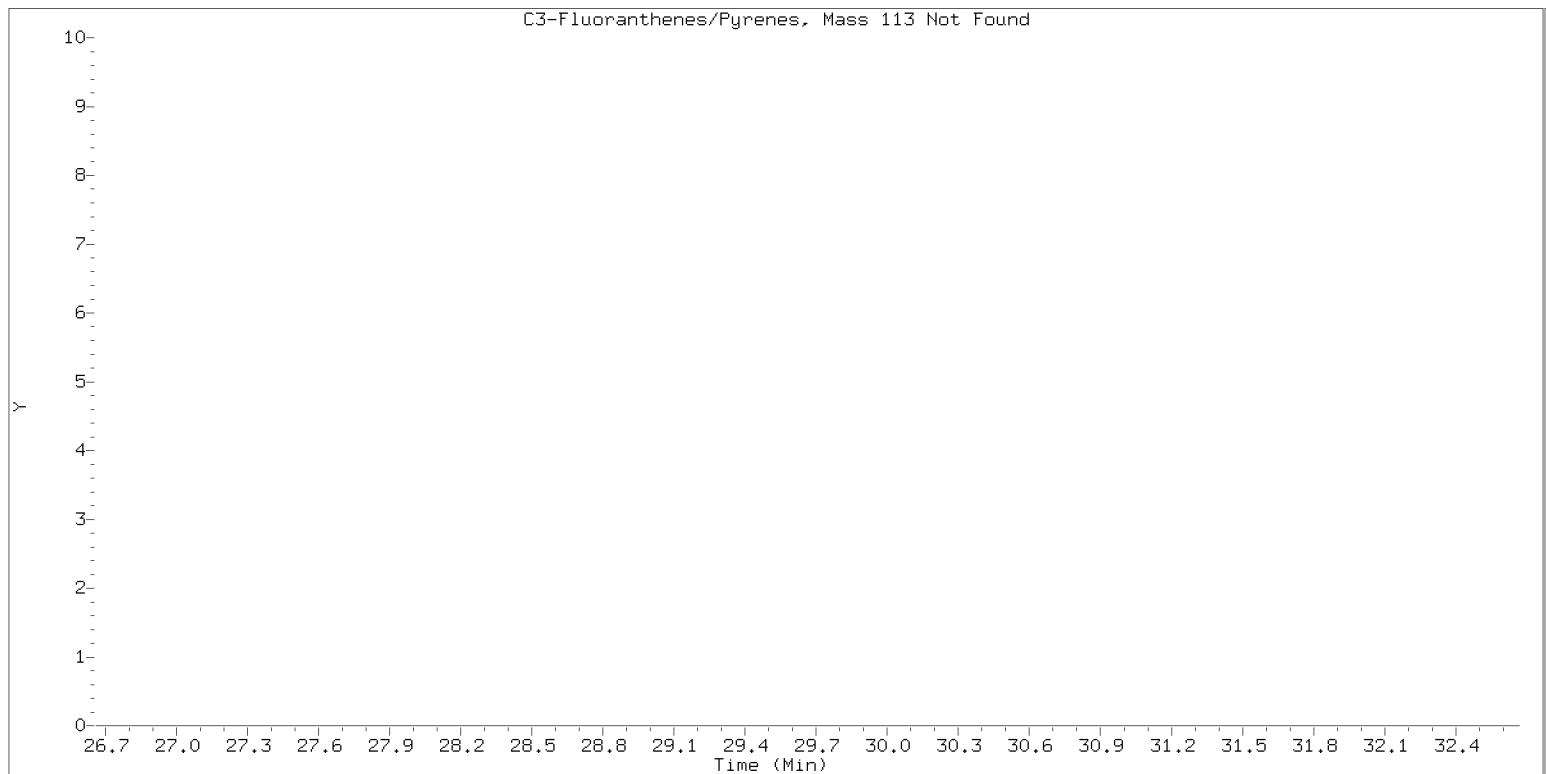
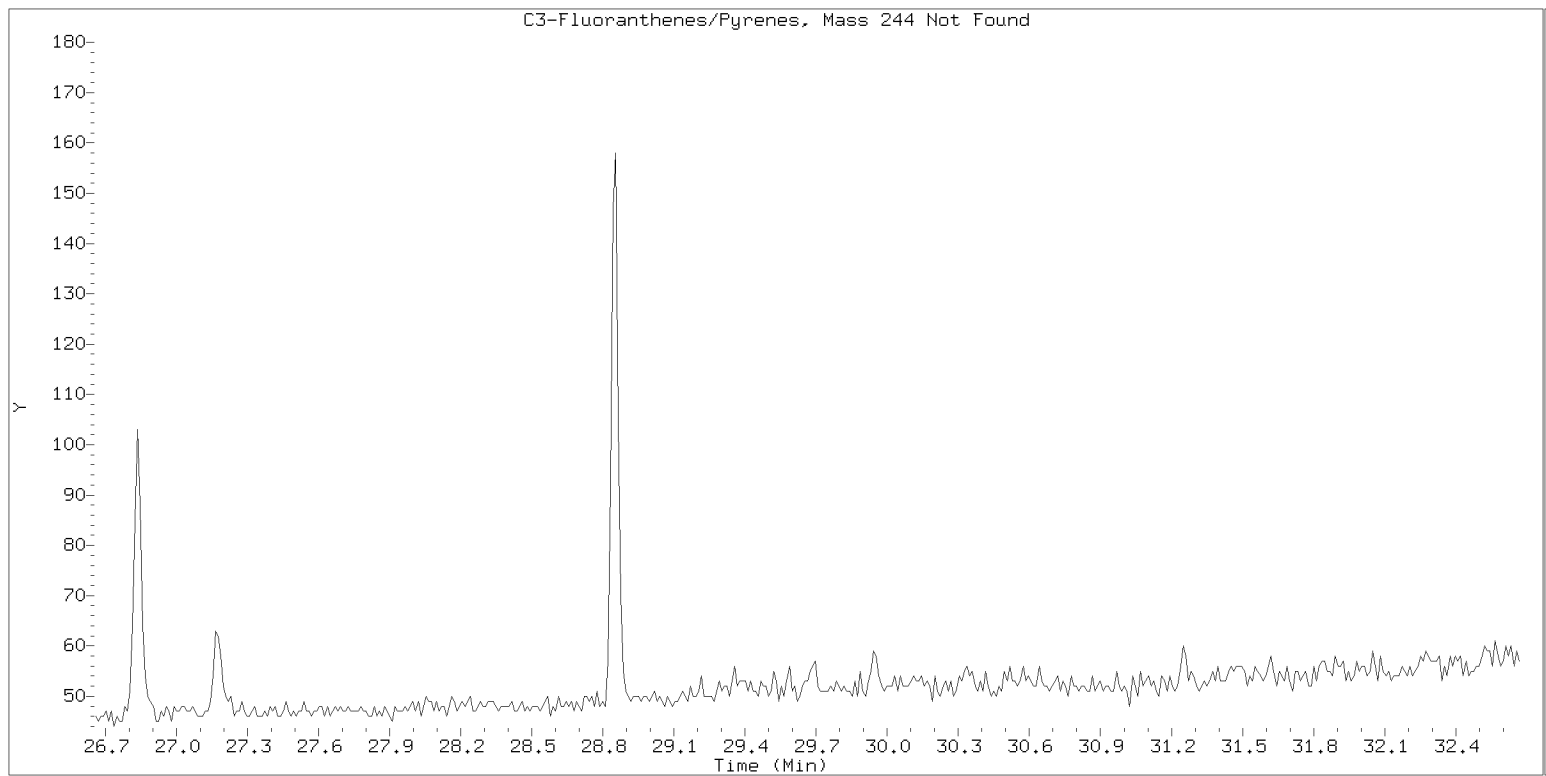
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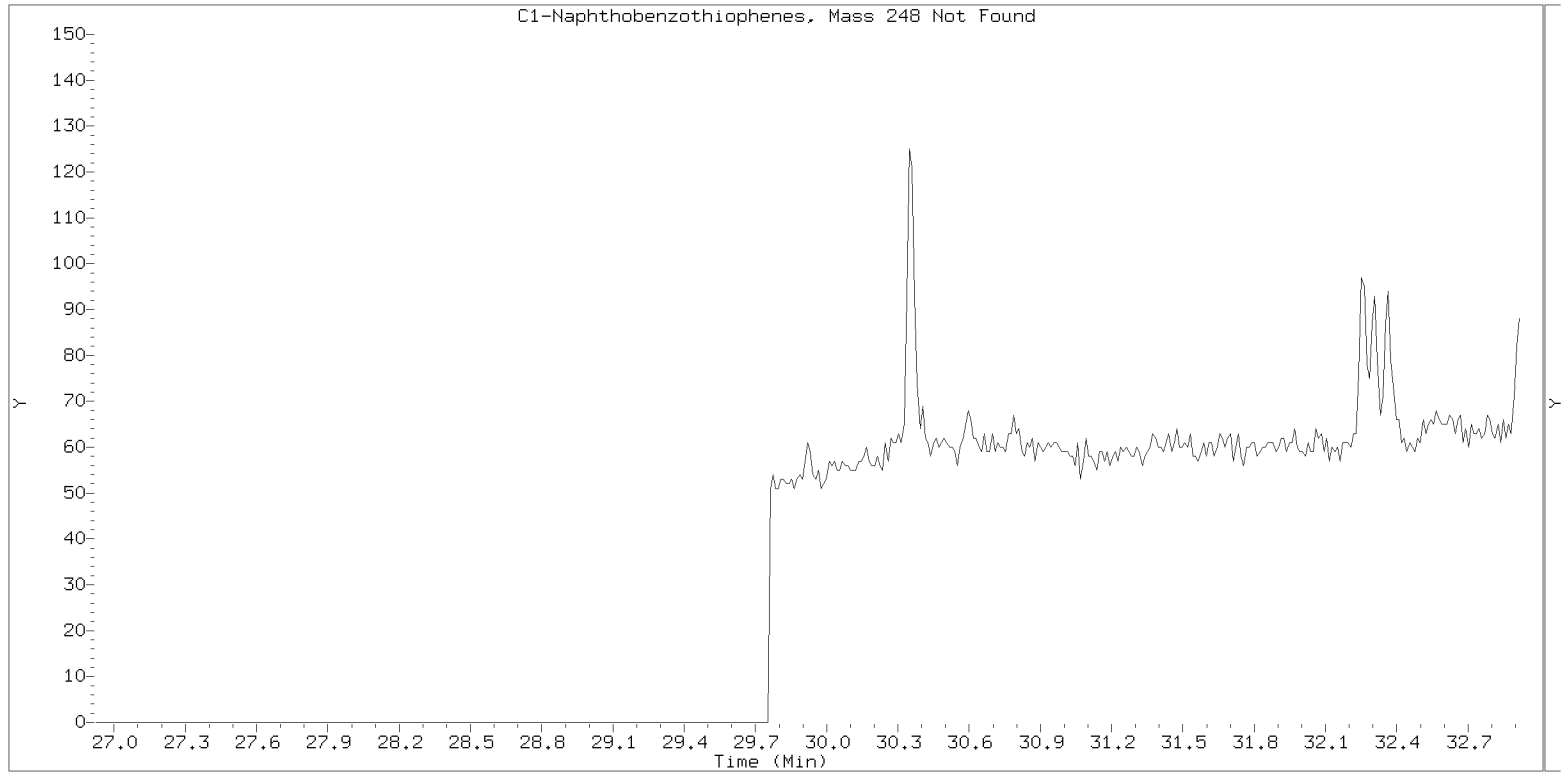
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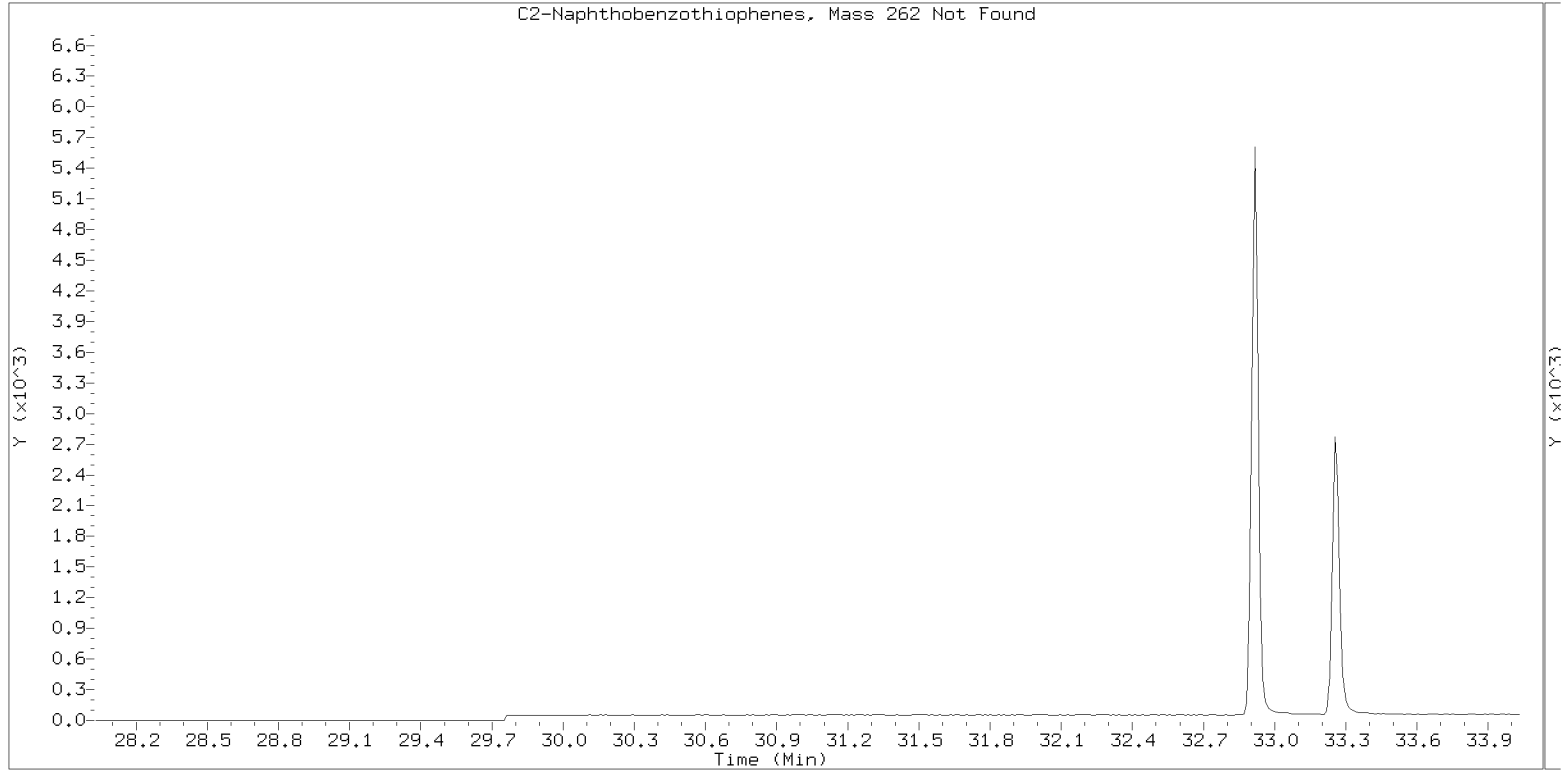
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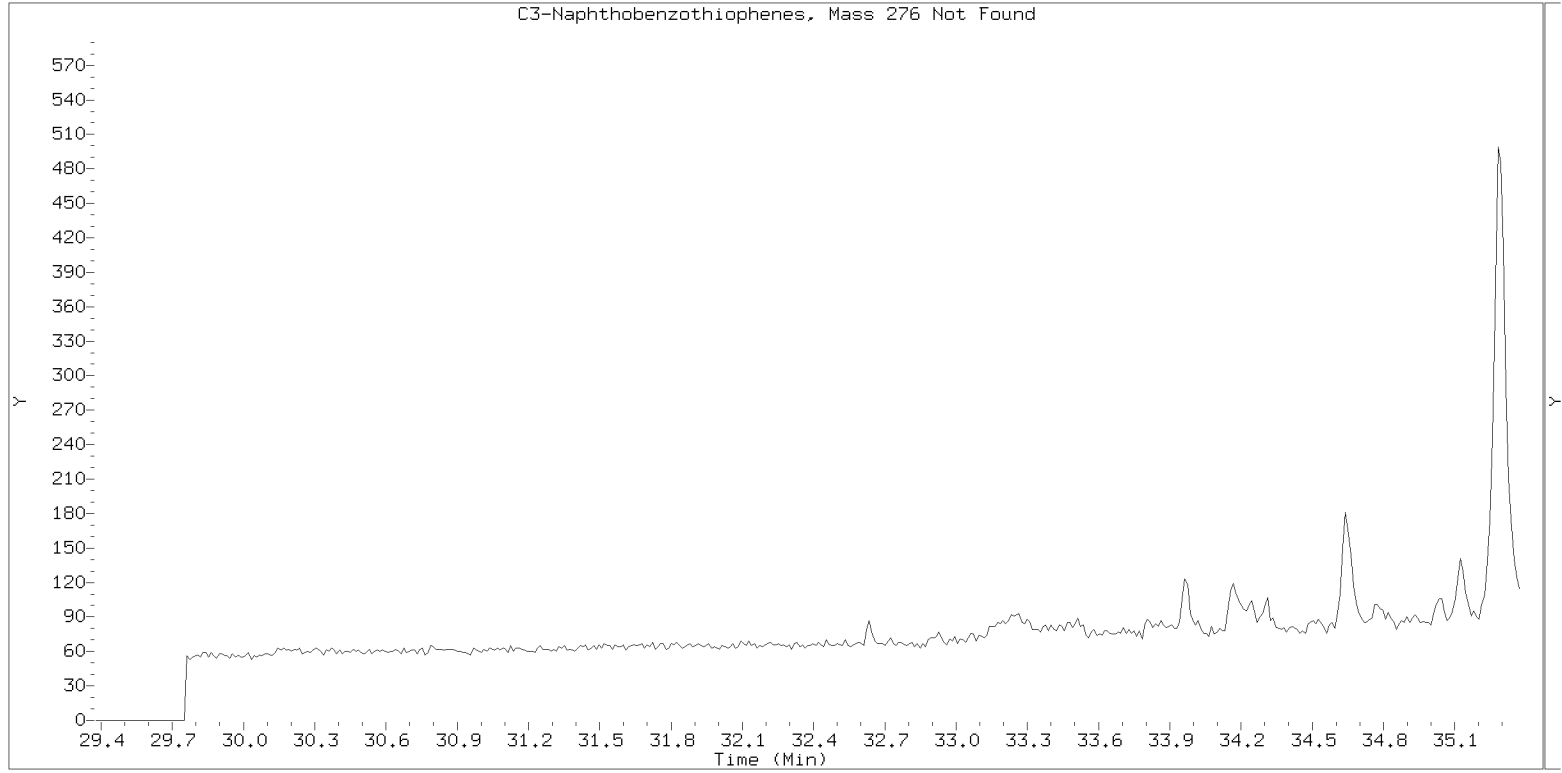
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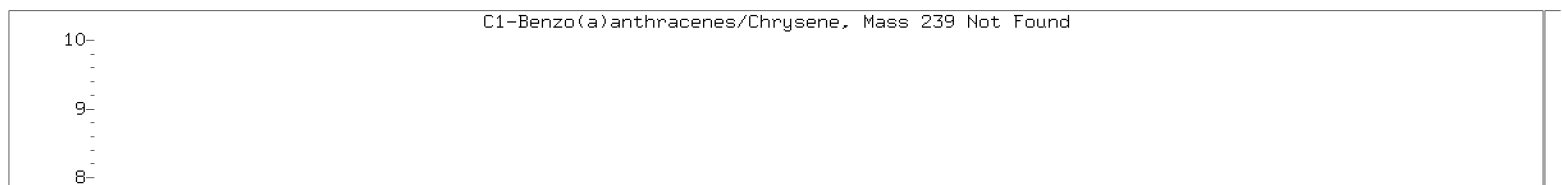
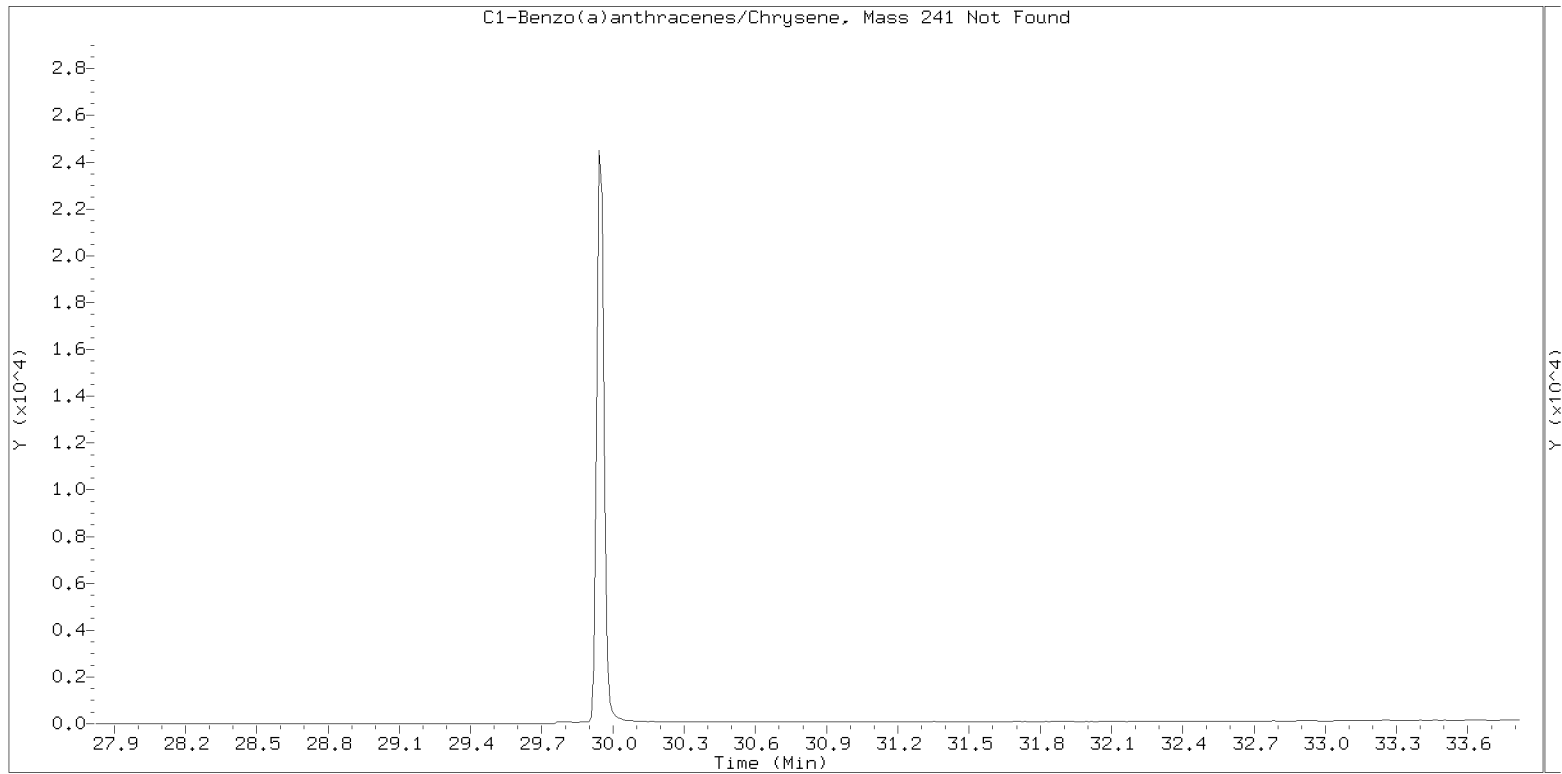
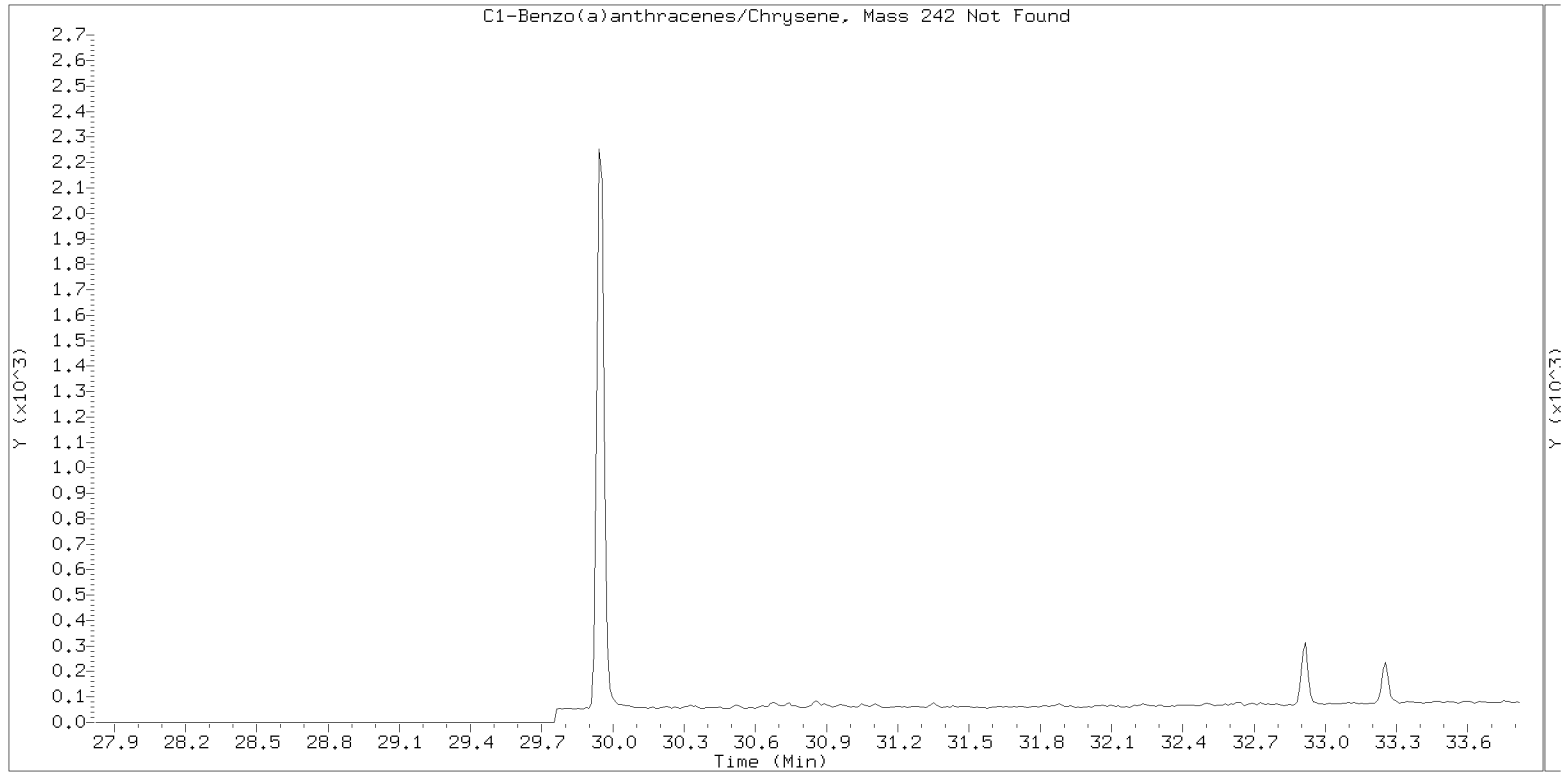
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420121997S.D

Lab ID: BIK0745-BLK2

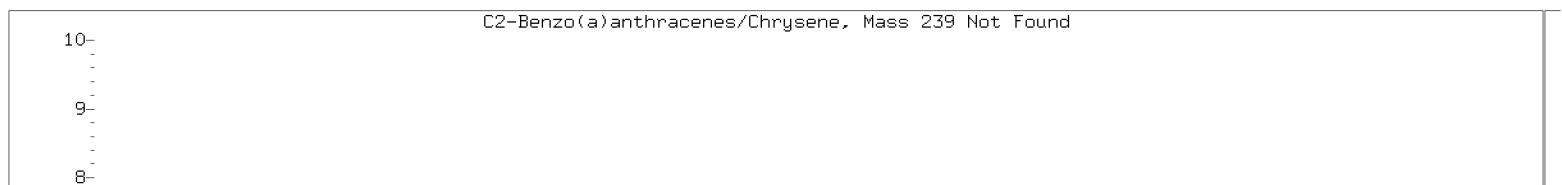
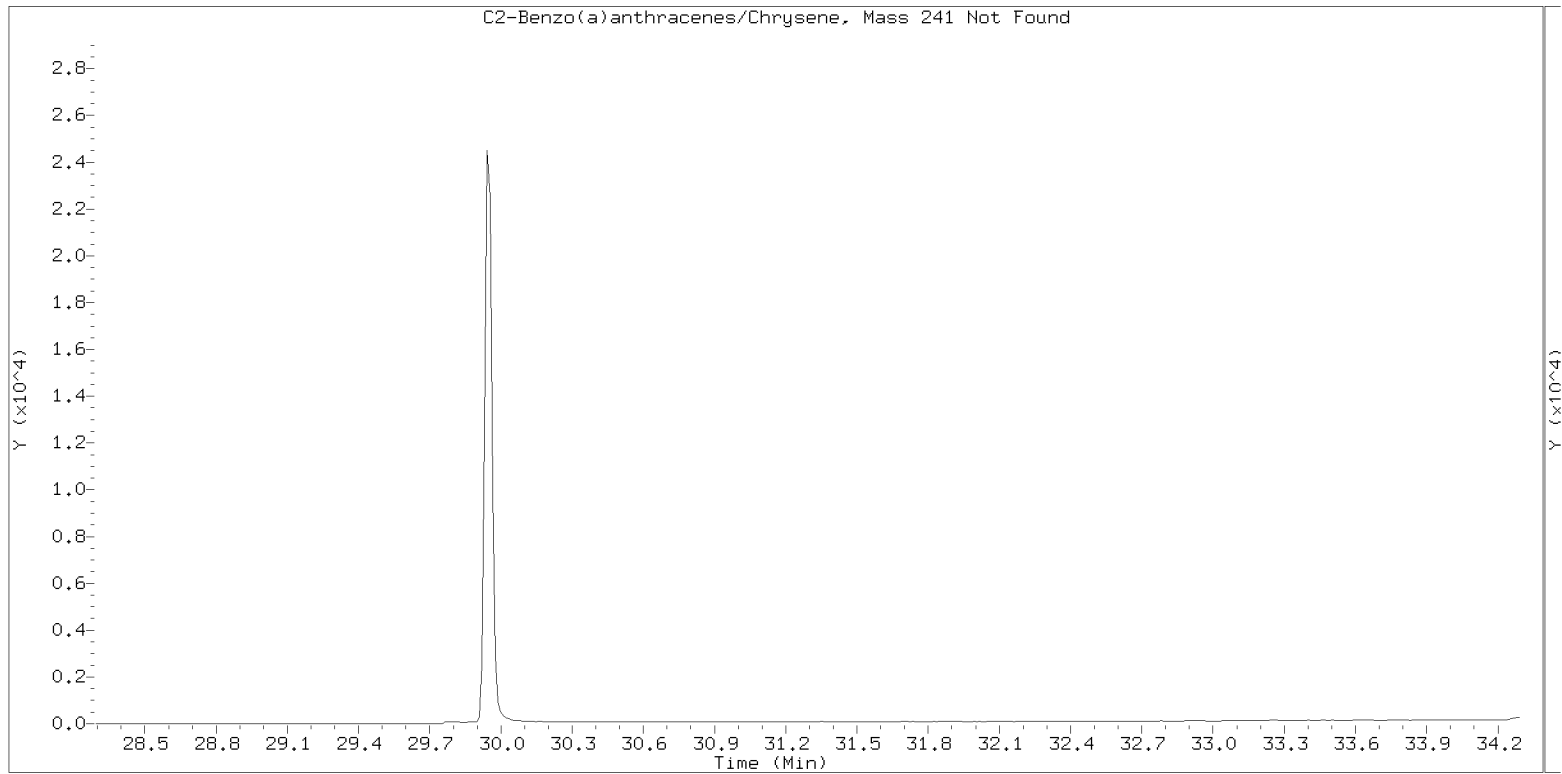
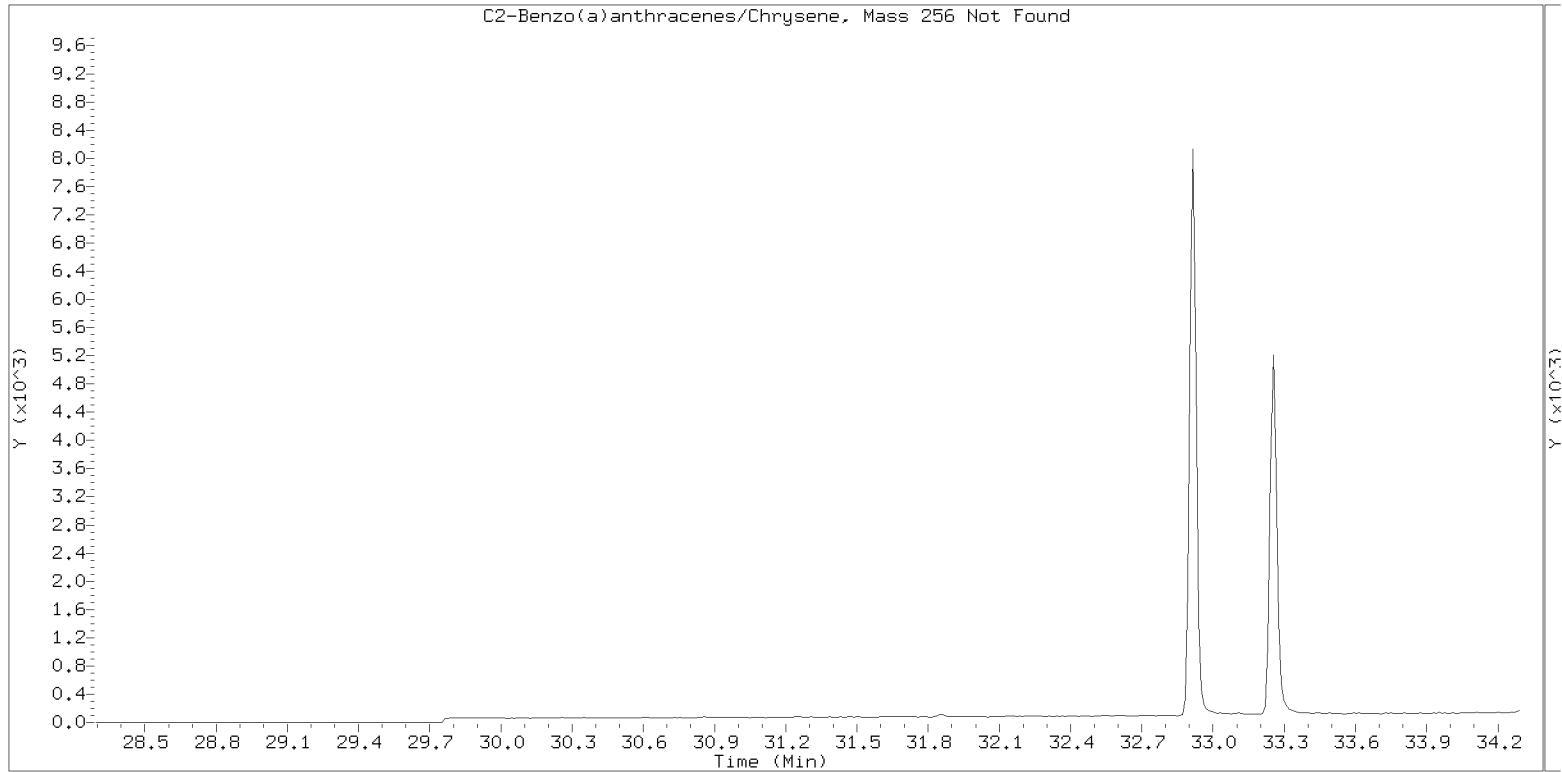
nt14.i, SIM.b\ALKYLRANGE.m, 22-DEC-2020 14:43



SIM ALKYL PNA RANGE ION WINDOWS - NT1420121997S.D

Lab ID: BIK0745-BLK2

nt14.i, SIM.b\ALKYLRANGE.m, 22-DEC-2020 14:43

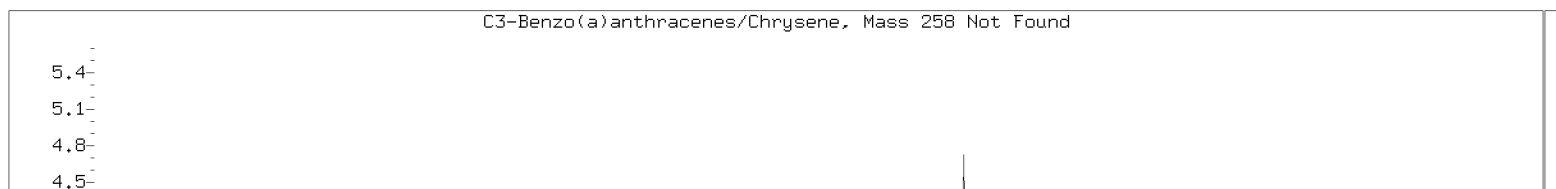
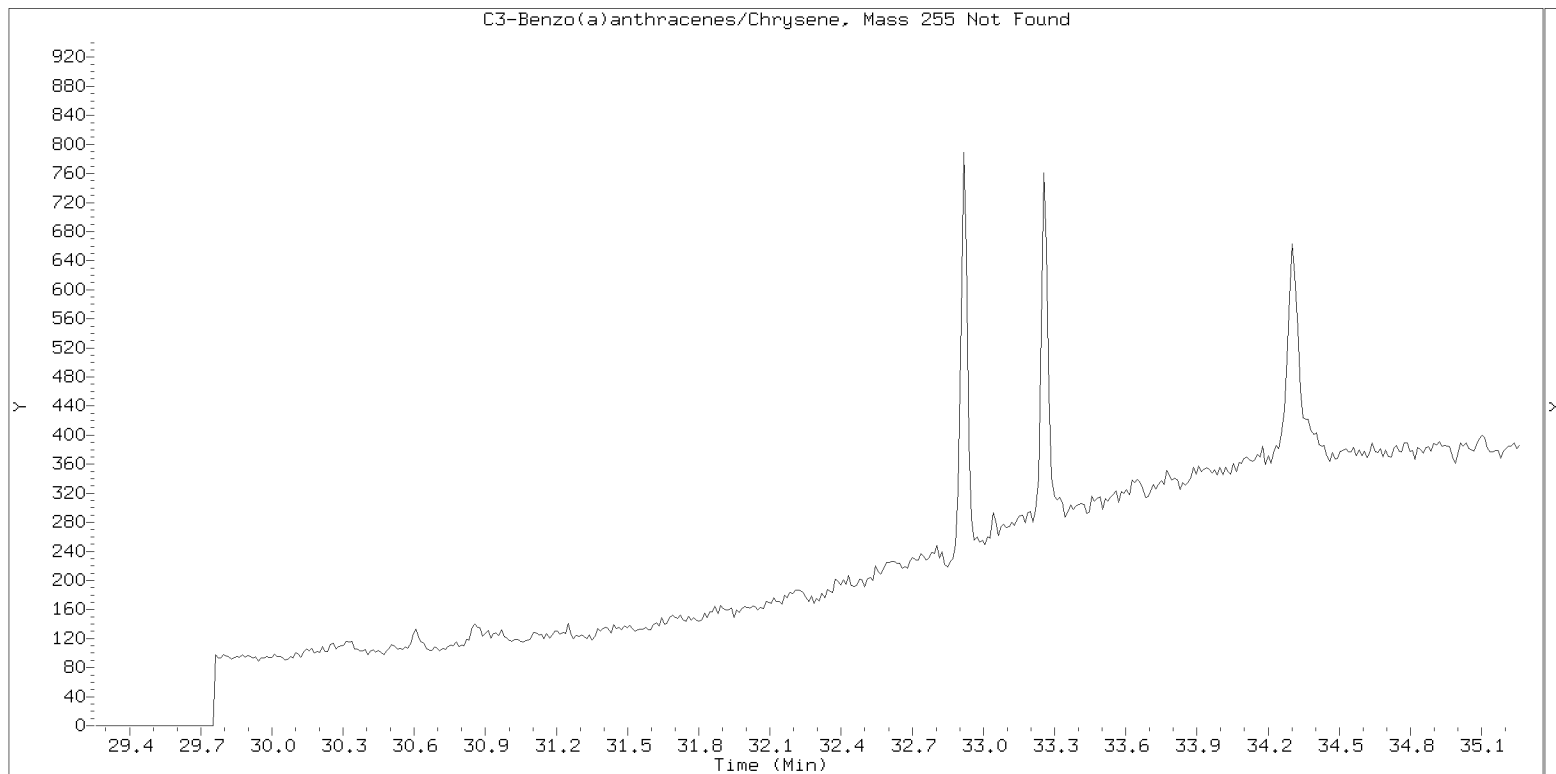
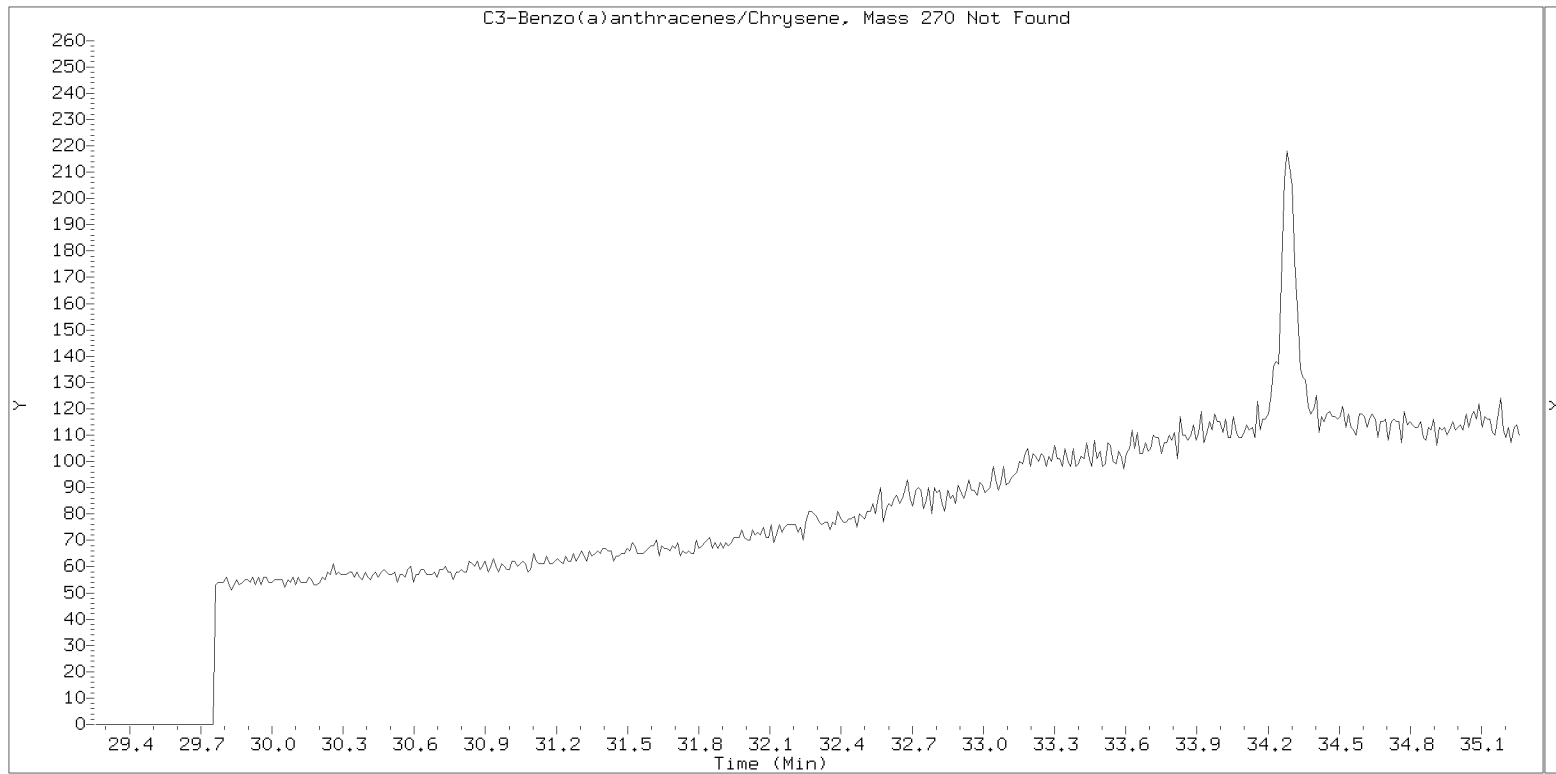




SIM ALKYL PNA RANGE ION WINDOWS - NT1420121997S.D

Lab ID: BIK0745-BLK2

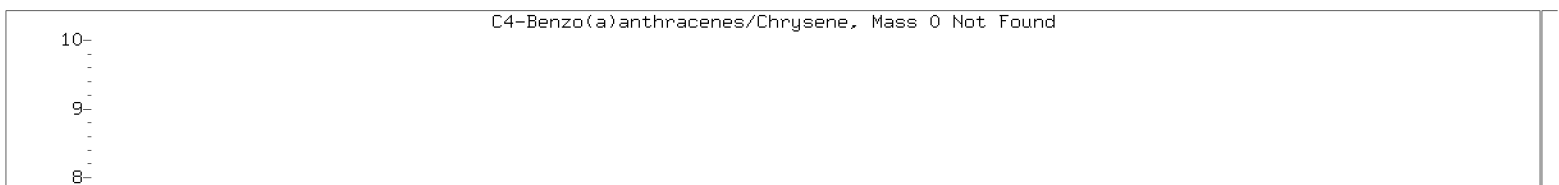
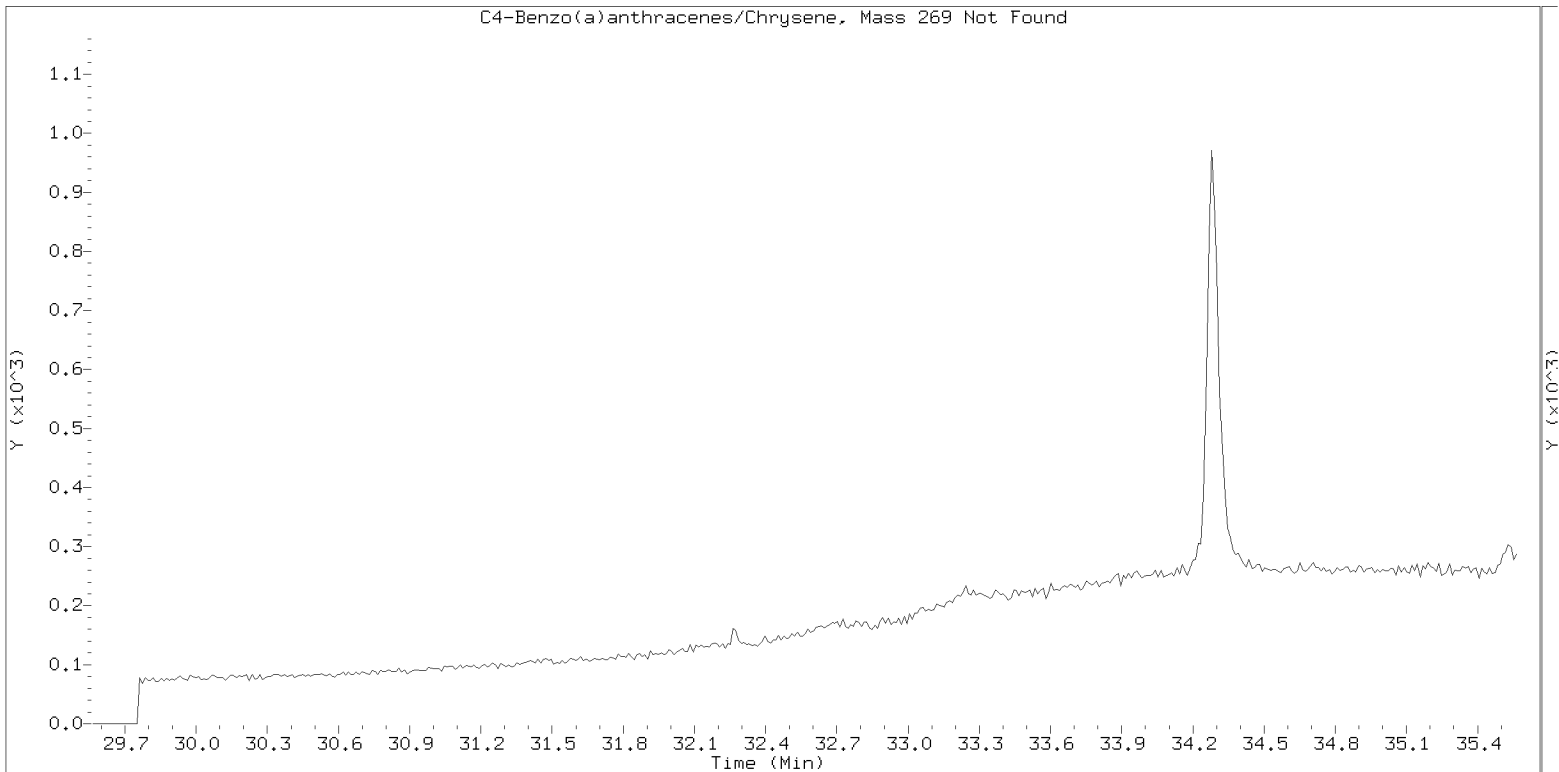
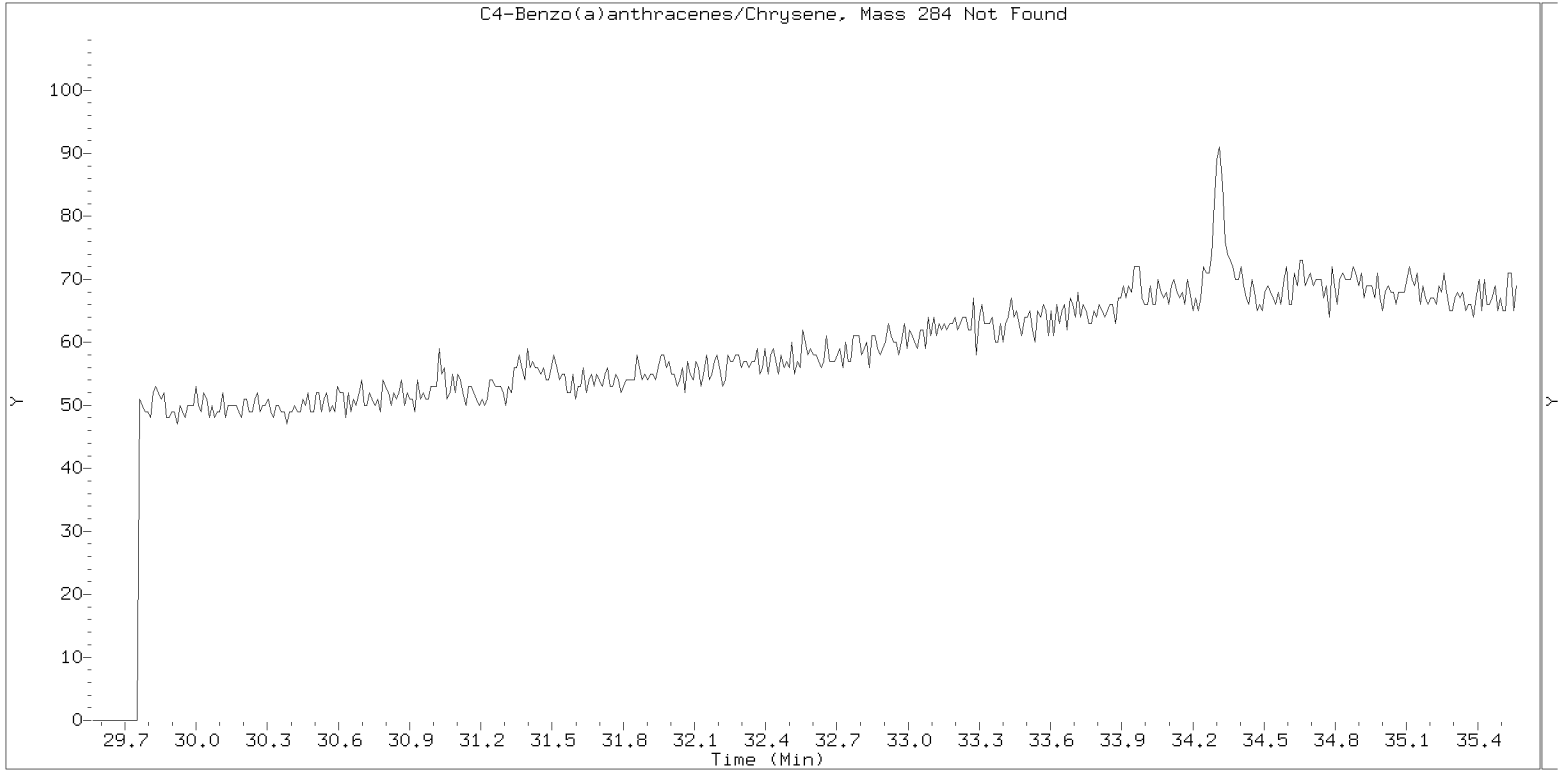
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420121997S.D

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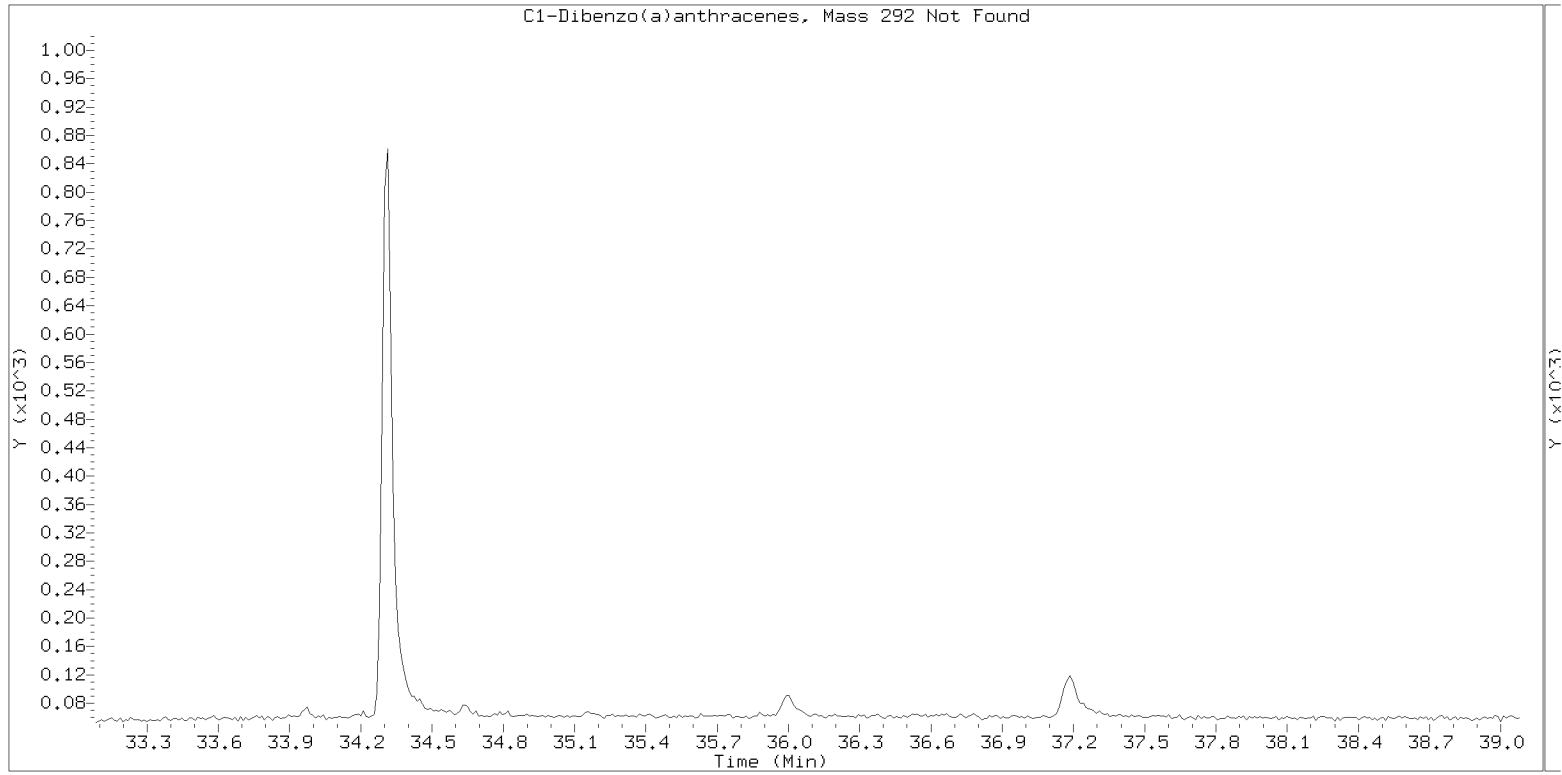
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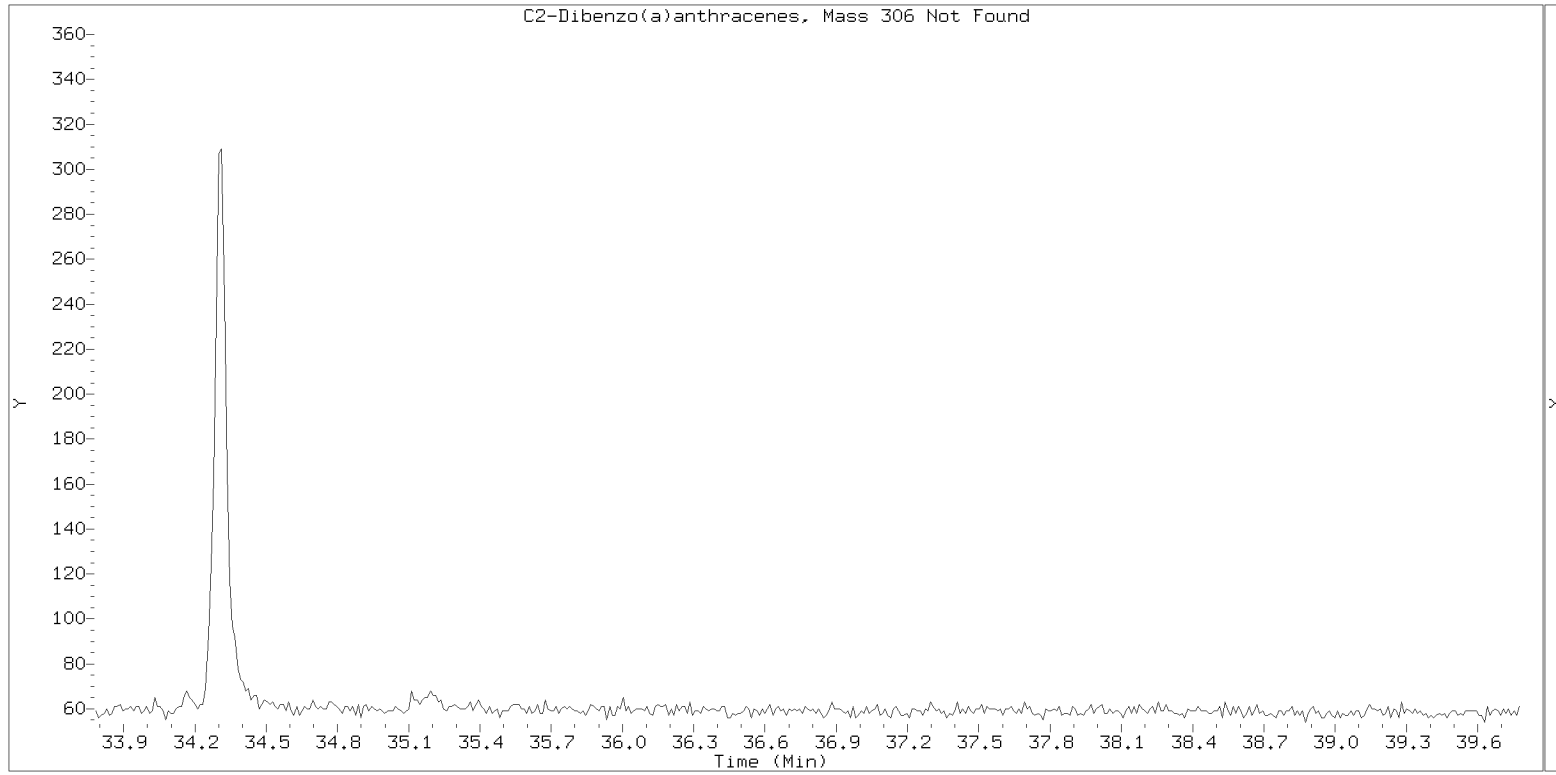
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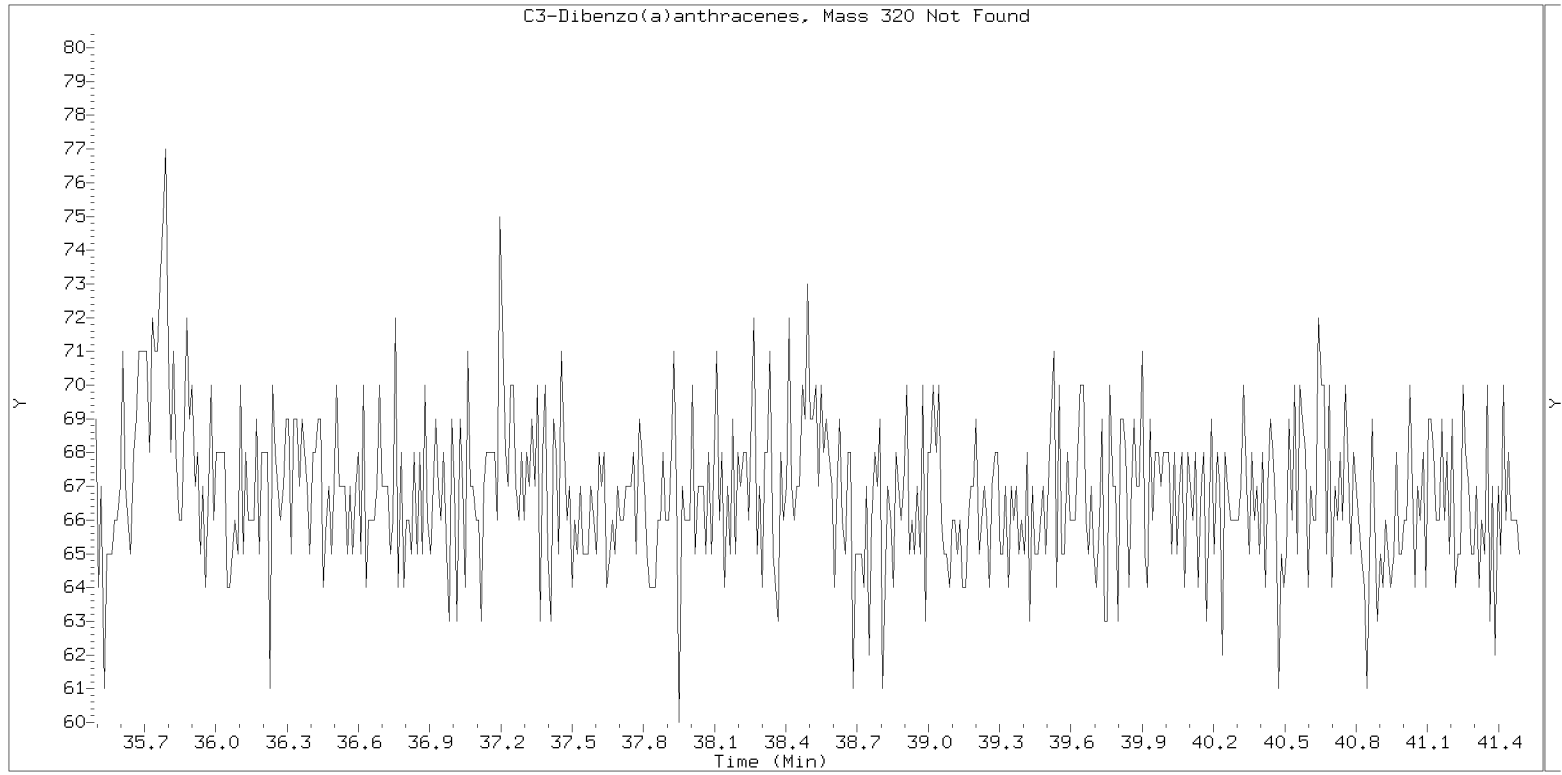
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SIM ALKYL PNA RANGE ION WINDOWS - NT1420121997S.D

Lab ID: BIK0745-BLK2

nt14.i, SIM.b\ALKYLRANGE.m, 22-DEC-2020 14:43





**LCS / LCS DUPLICATE RECOVERY**  
**EPA 8270E-SIM**

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Matrix: Solid

Analyzed: 12/22/20 15:31

Batch: BIK0745

Laboratory ID: BIK0745-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	76.9		51.2	30 - 160
cis-Decalin	150	83.3		55.6	30 - 160
Naphthalene	150	91.4		60.9	37 - 120
1-Methylnaphthalene	150	89.2		59.5	30 - 160
2-Methylnaphthalene	150	93.7		62.5	37 - 120
Biphenyl	150	91.5		61.0	30 - 160
2,6-Dimethylnaphthalene	150	97.4		64.9	30 - 160
Acenaphthylene	150	89.6		59.7	35 - 120
Acenaphthene	150	97.4		64.9	39 - 120
Dibenzofuran	150	96.5		64.4	39 - 120
2,3,5-Trimethylnaphthalene	150	102		68.3	30 - 160
Fluorene	150	100		66.7	42 - 120
Benzo(b)thiophene	150	87.7		58.4	30 - 160
Phenanthrene	150	108		71.9	47 - 120
Anthracene	150	95.4		63.6	41 - 120
Carbazole	150	114		76.0	30 - 160
1-Methylphenanthrene	150	114		75.7	30 - 160
Fluoranthene	150	118		78.7	52 - 120
Dibenzothiophene	150	101		67.1	30 - 160
Pyrene	150	117		78.3	47 - 120
Benzo(a)anthracene	150	139		92.4	47 - 120
Chrysene	150	123		82.0	51 - 120
Benzo(b)fluoranthene	150	119		79.6	35 - 127
Benzo(j)fluoranthene	150	129		86.1	40 - 120
Benzo(k)fluoranthene	150	144		95.7	37 - 129
Benzofluoranthenes, Total	450	380		84.5	46 - 120
Benzo(e)pyrene	150	130		86.6	30 - 160
Benzo(a)pyrene	150	110		73.4	44 - 120
Indeno(1,2,3-cd)pyrene	150	126		84.3	41 - 120
Dibenzo(a,h)anthracene	150	130		86.4	42 - 120
Benzo(g,h,i)perylene	150	127		84.5	37 - 120
Perylene	150	111		74.3	30 - 160
Benzo(b)naphtho(2,1-d)thiophene	150	113		75.3	30 - 160

\* Indicates values outside of QC limits



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

**LCS / LCS DUPLICATE RECOVERY**  
**EPA 8270E-SIM**

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Matrix: Solid

Analyzed: 12/22/20 15:31

Batch: BIK0745

Laboratory ID: BIK0745-BS1

Preparation: EPA 3546 (Microwave)

Sequence Name: LCS

Initial/Final: 10 g / 0.5 mL

\* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt14.1\20201219F.6\NT1420121998.D

Date: 22-DEC-2020 15:31

Client ID:

Sample Info: BIK0745-BS1

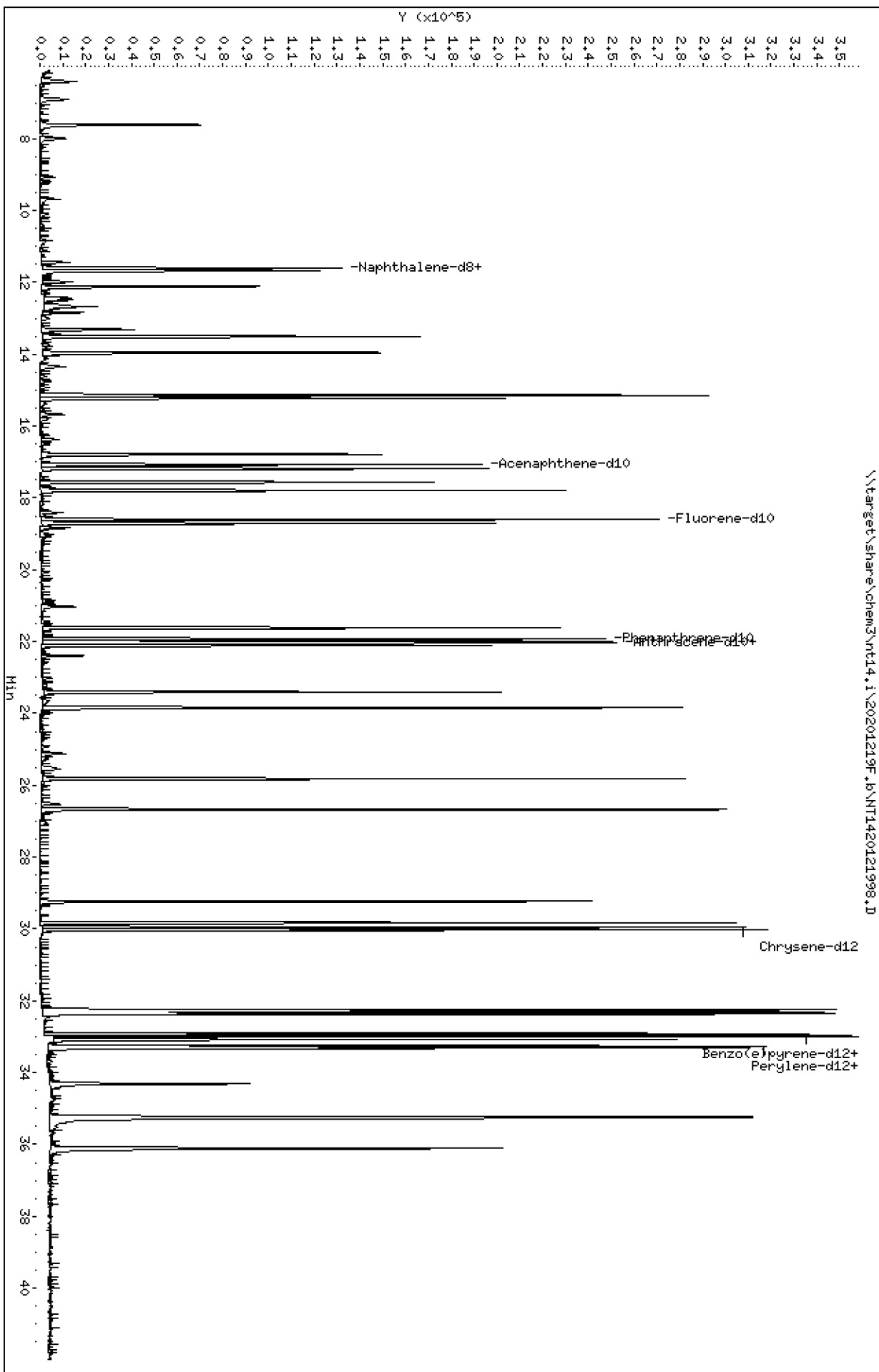
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14.1\20201219F.6\NT1420121998.D





Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

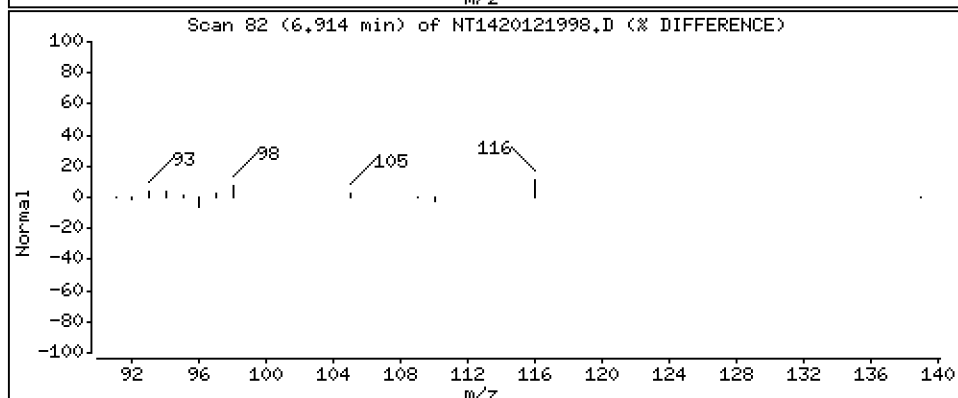
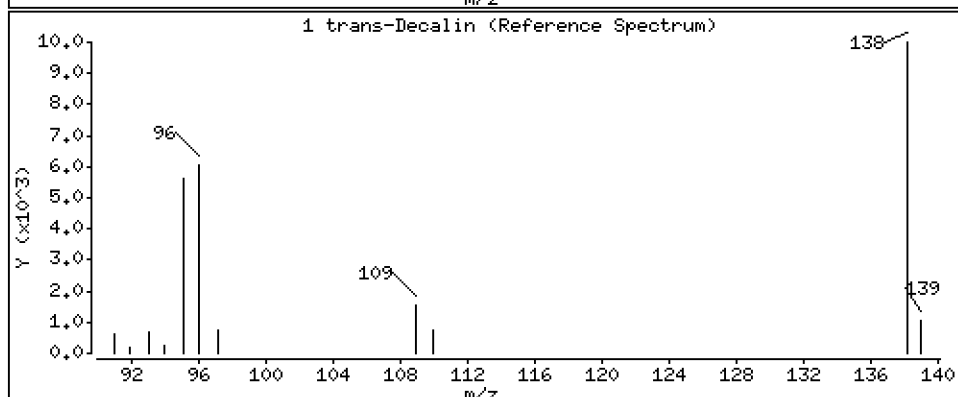
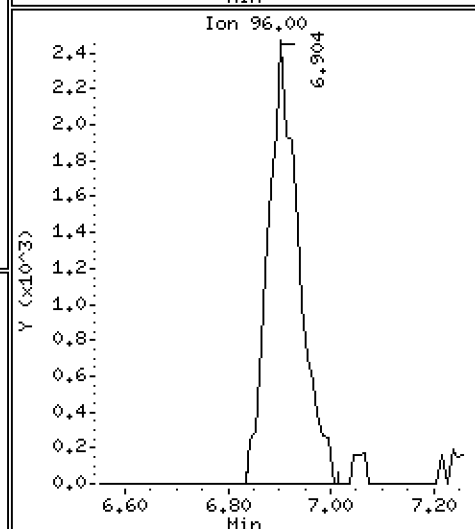
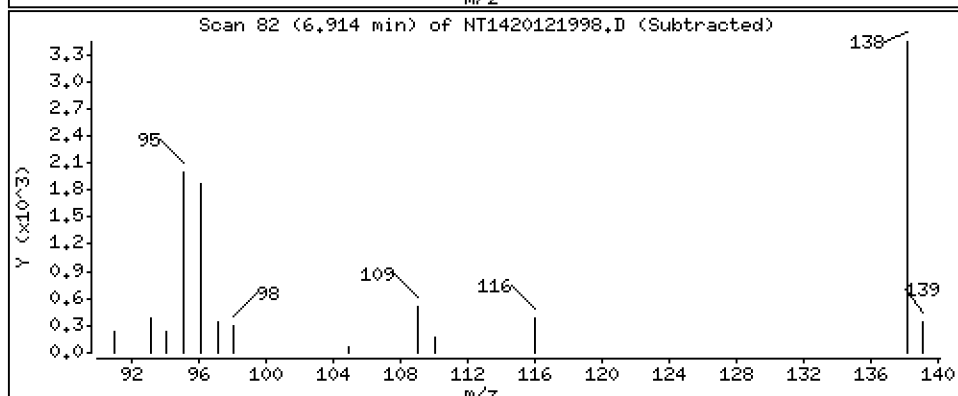
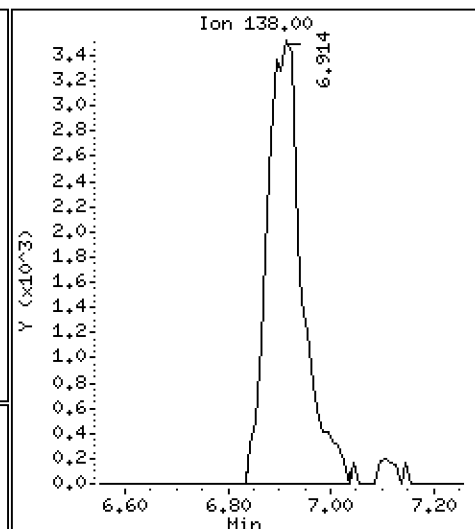
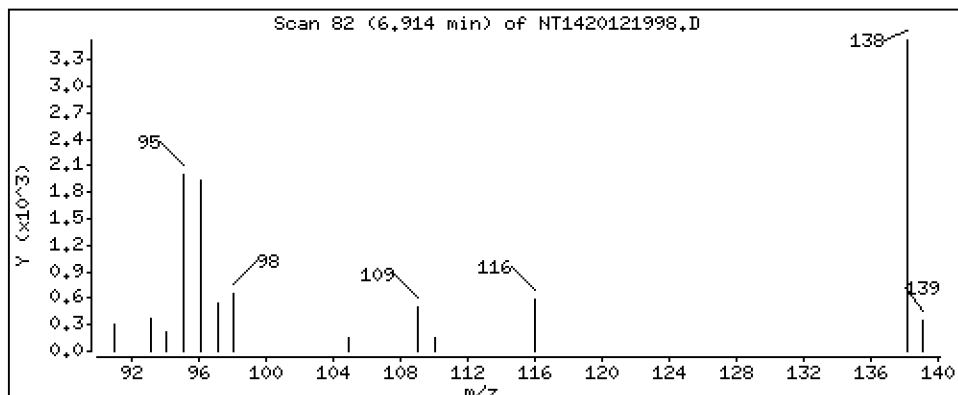
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

1 trans-Decalin

Concentration: 1,537 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

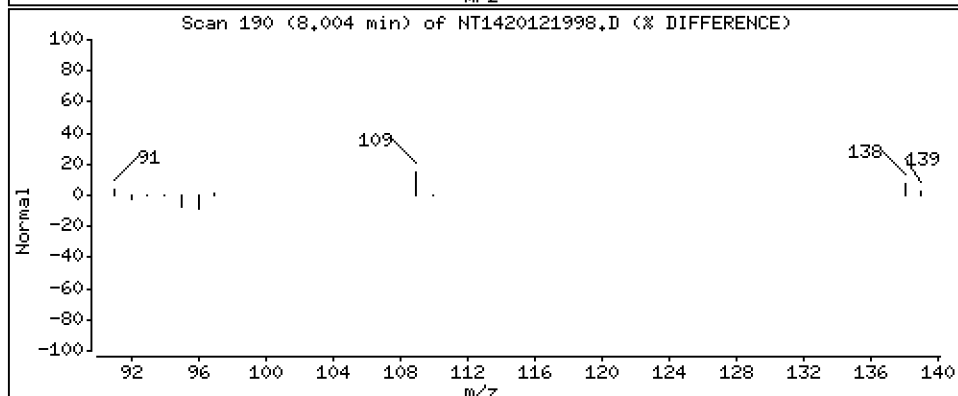
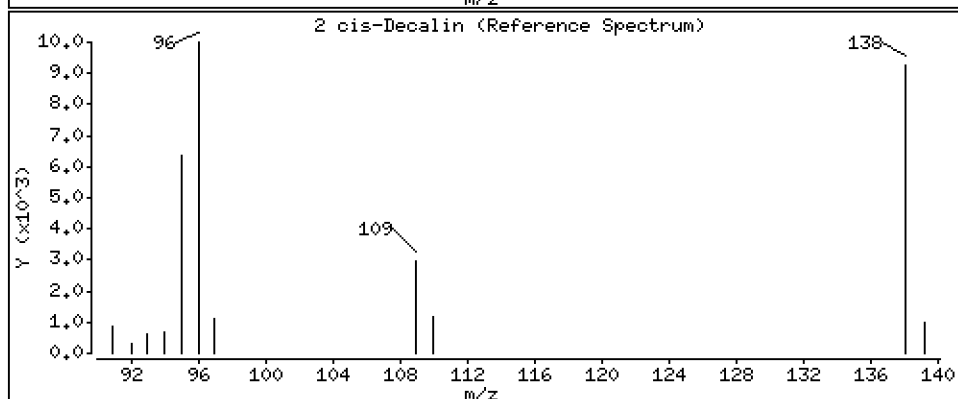
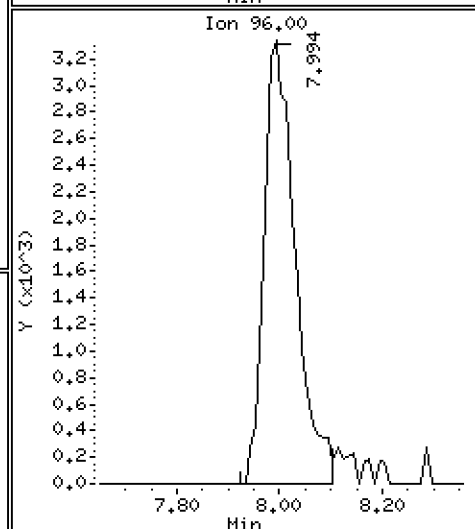
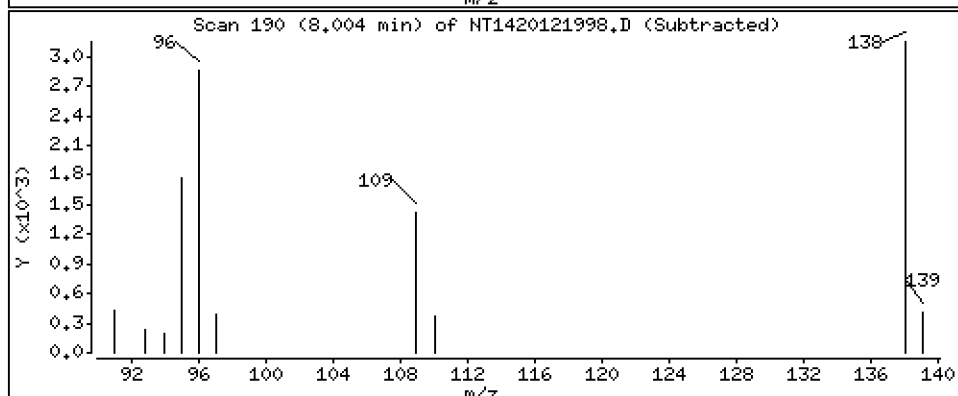
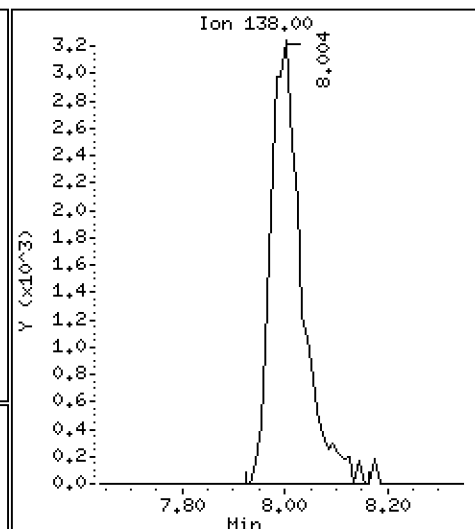
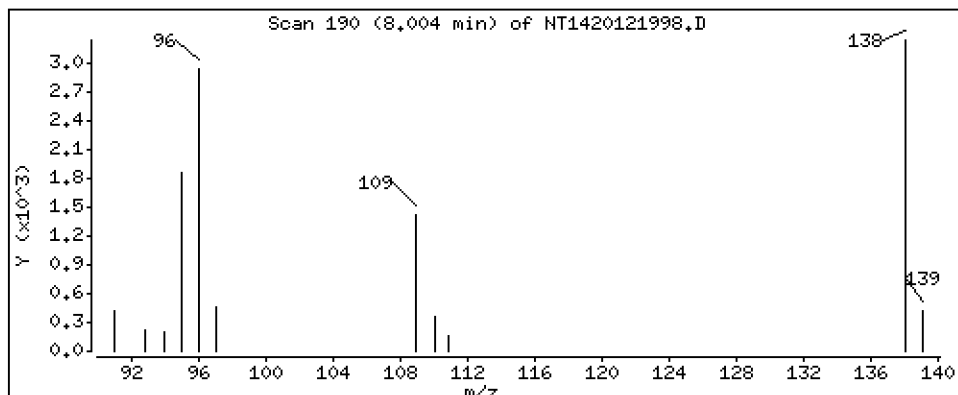
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

2 cis-Decalin

Concentration: 1.667 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

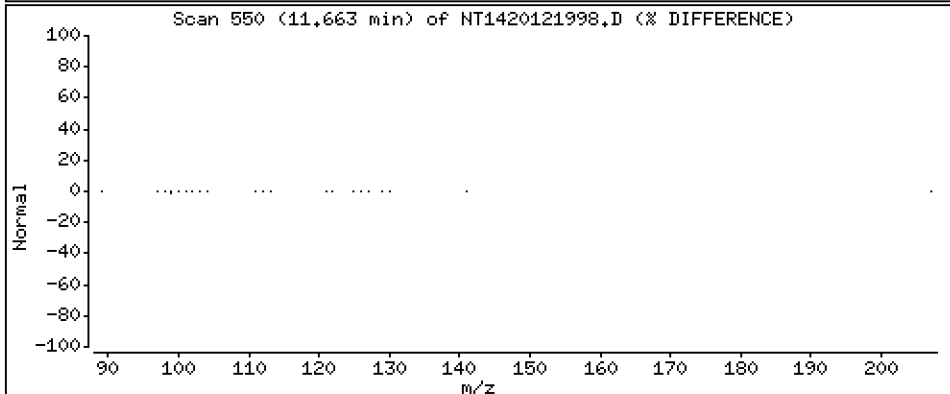
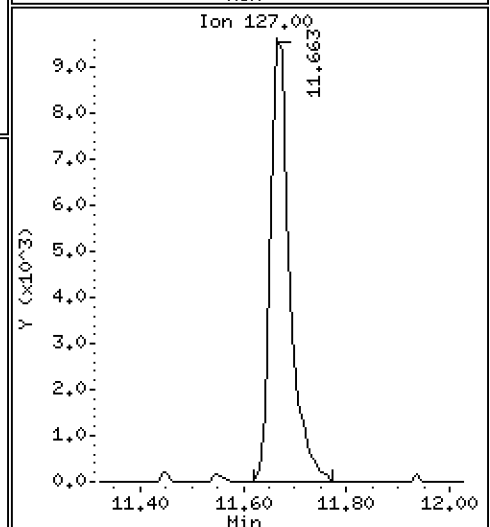
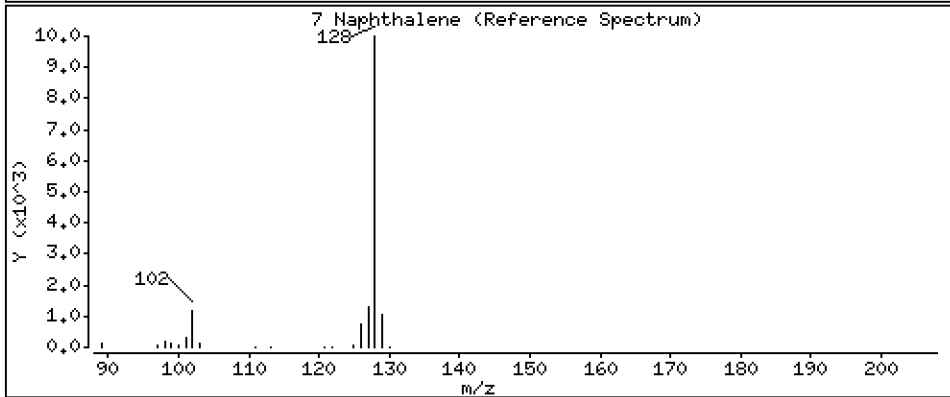
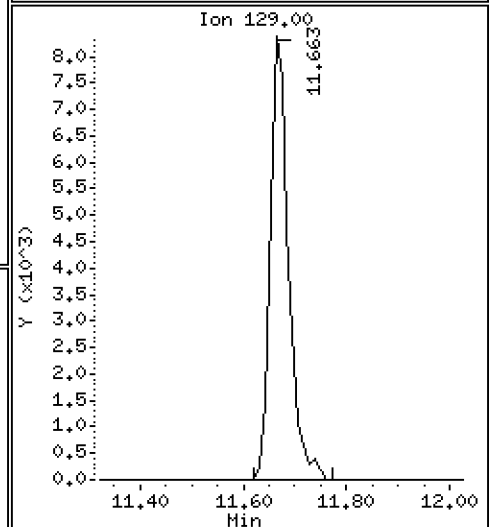
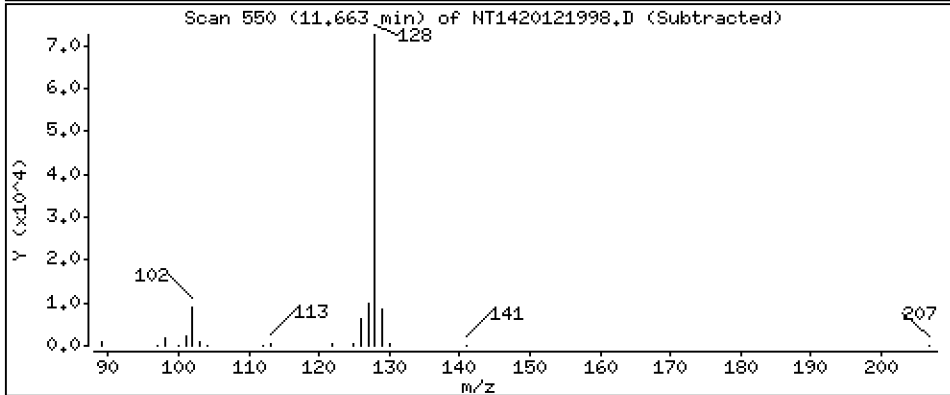
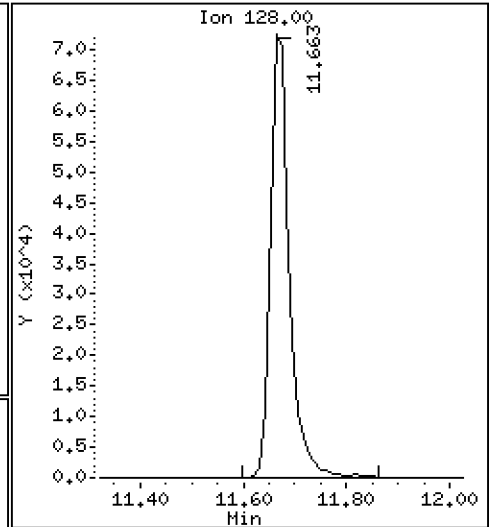
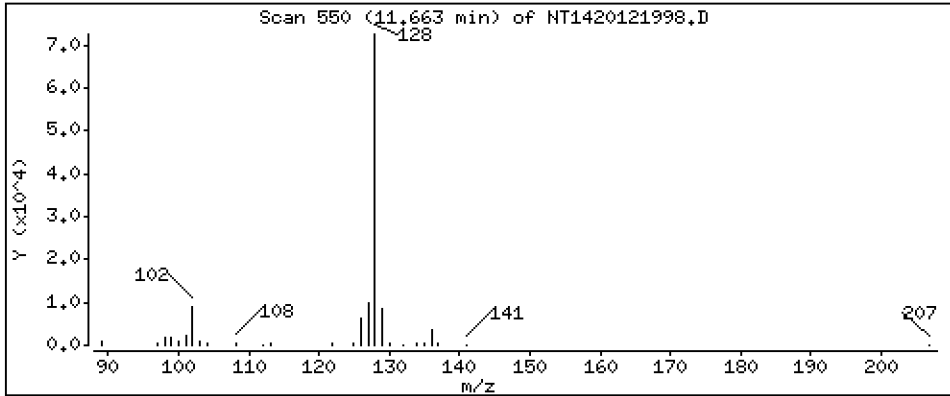
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

7 Naphthalene

Concentration: 1.828 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

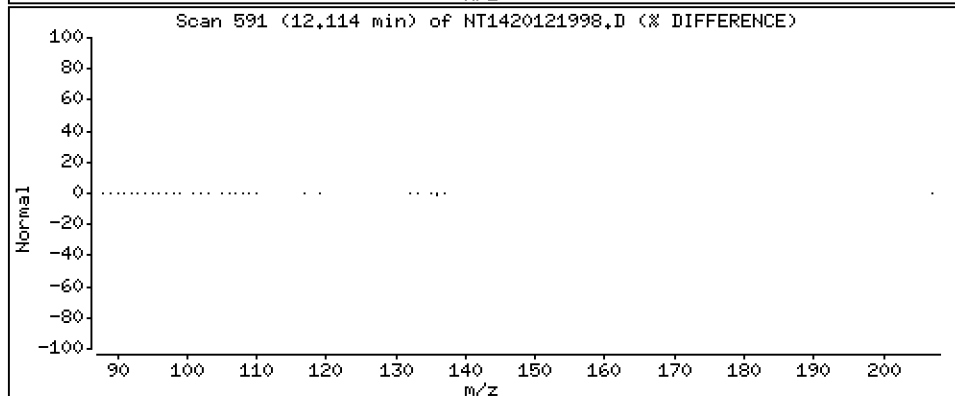
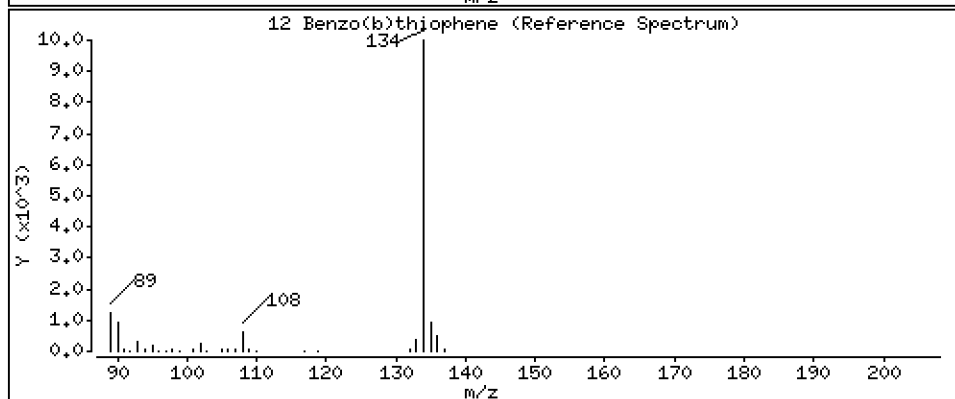
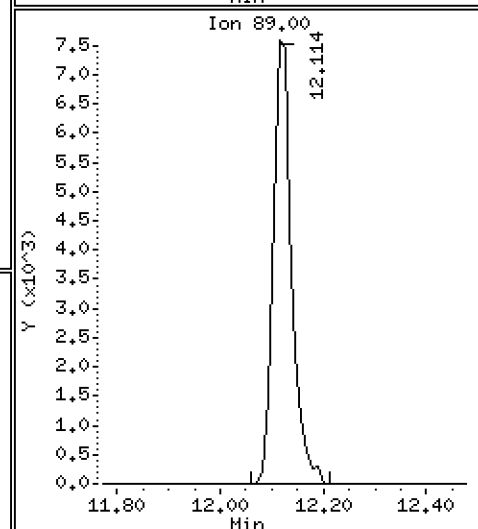
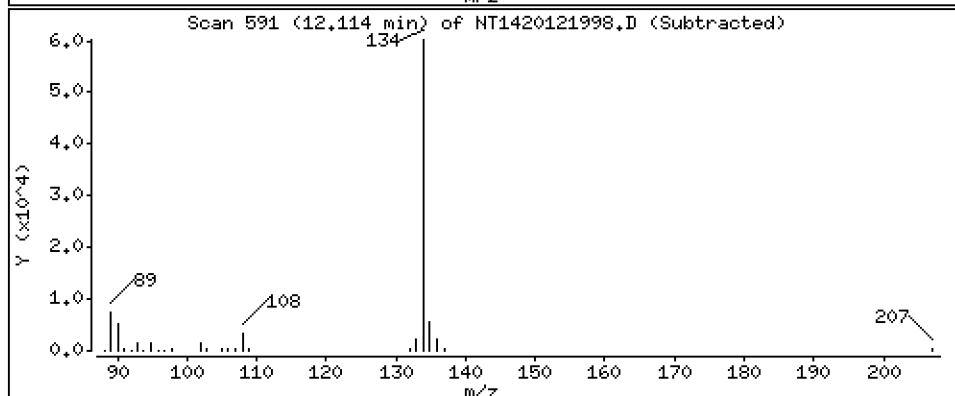
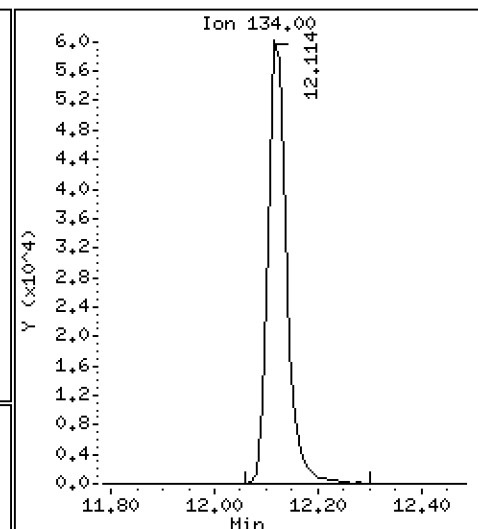
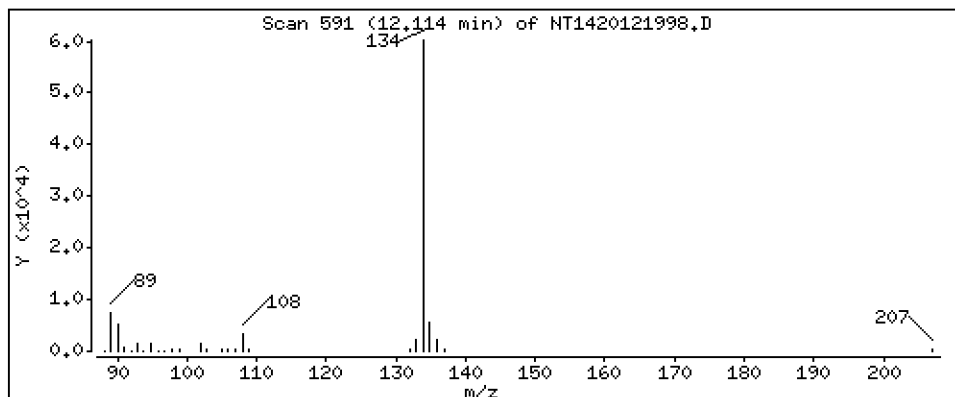
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

12 Benzo(b)thiophene

Concentration: 1,753 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

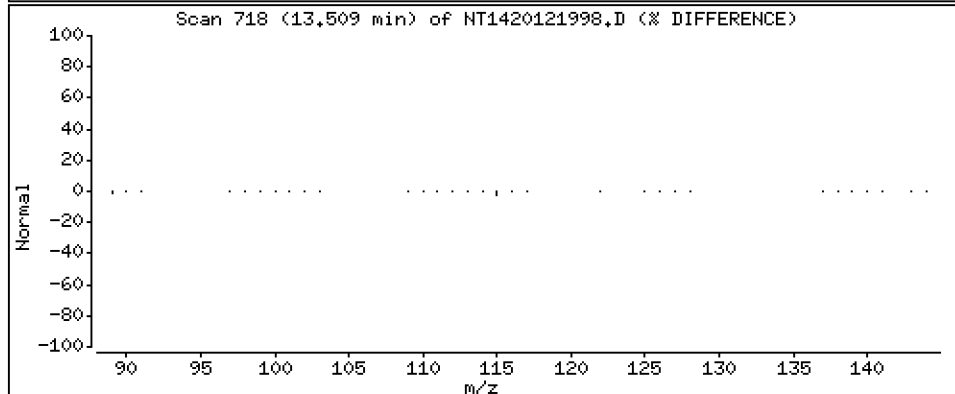
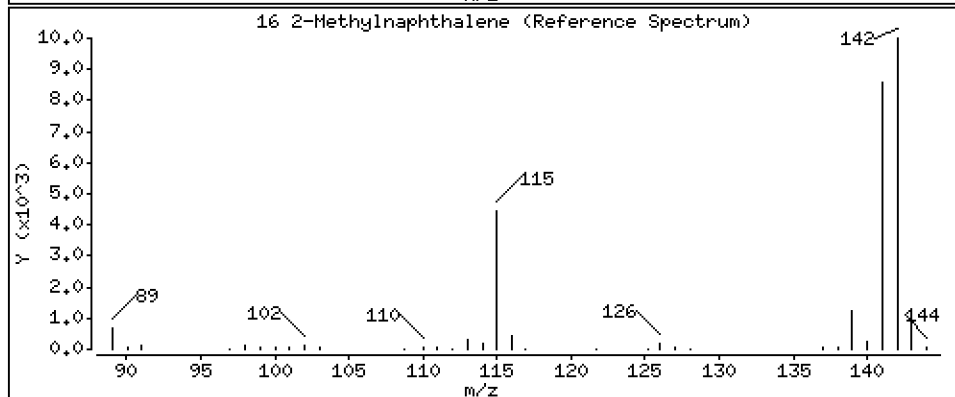
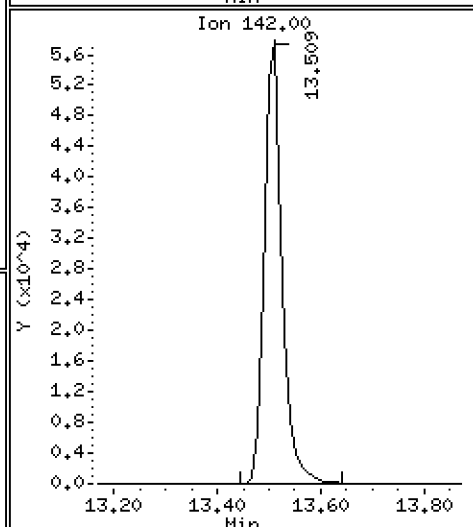
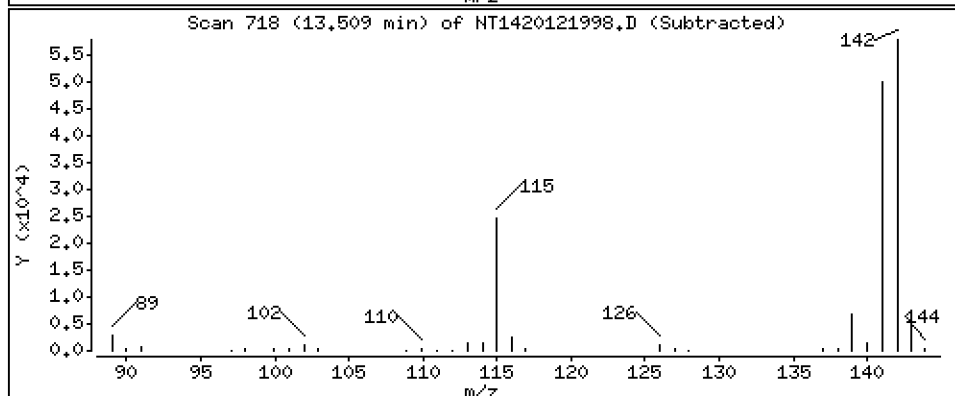
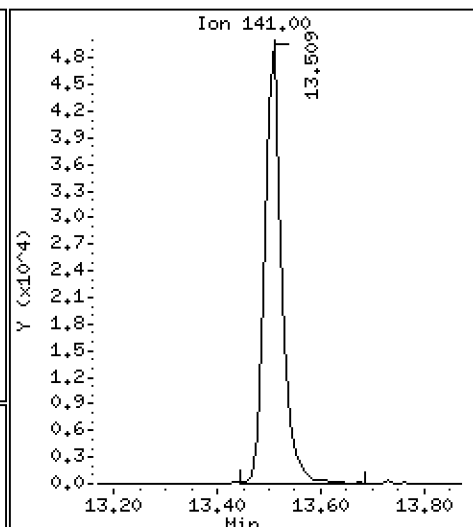
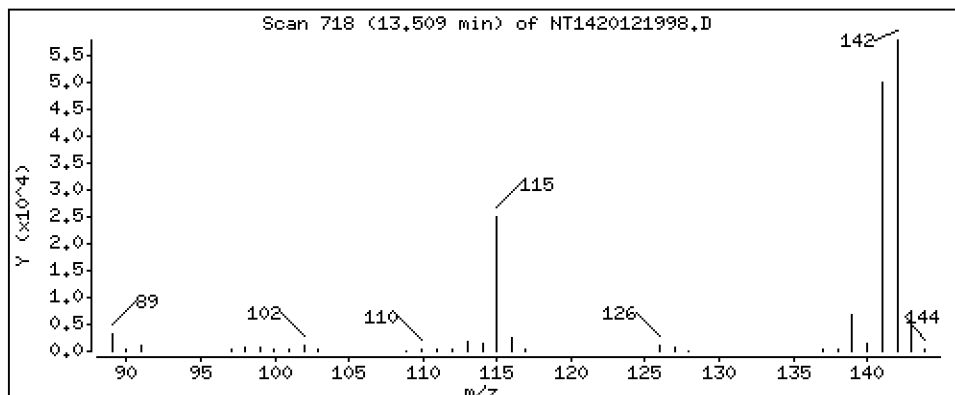
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 2-Methylnaphthalene

Concentration: 1,874 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

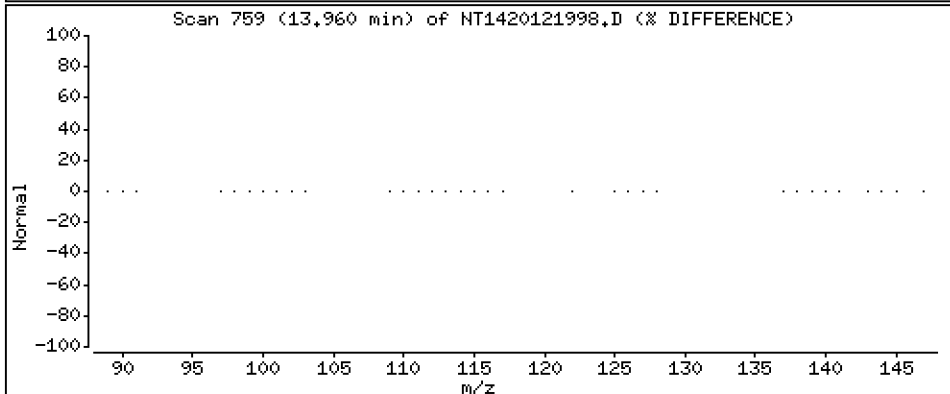
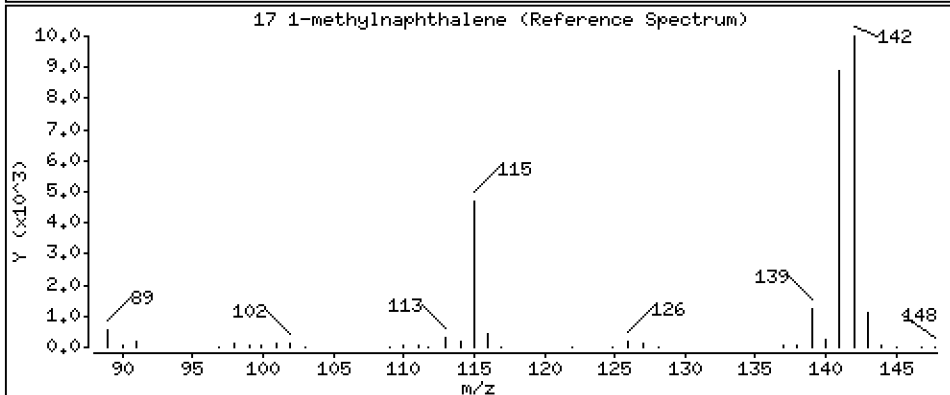
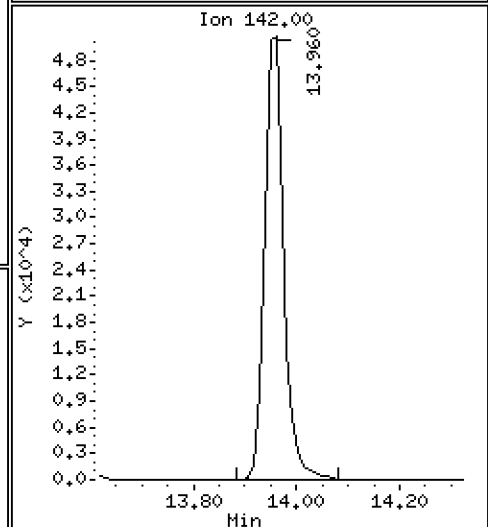
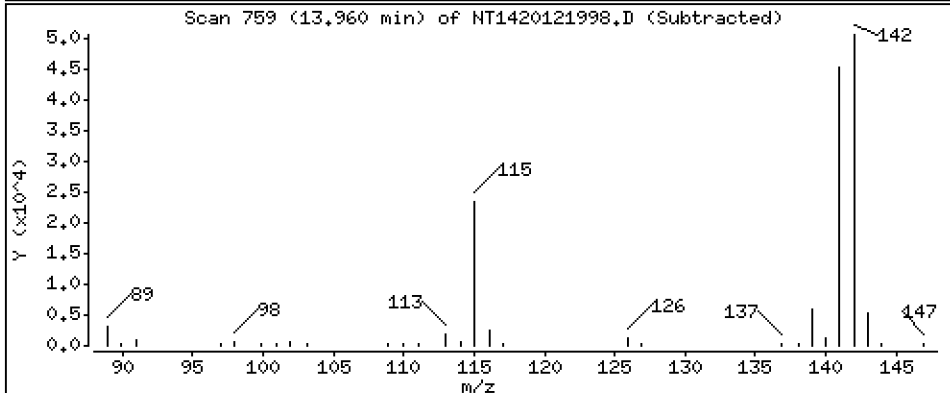
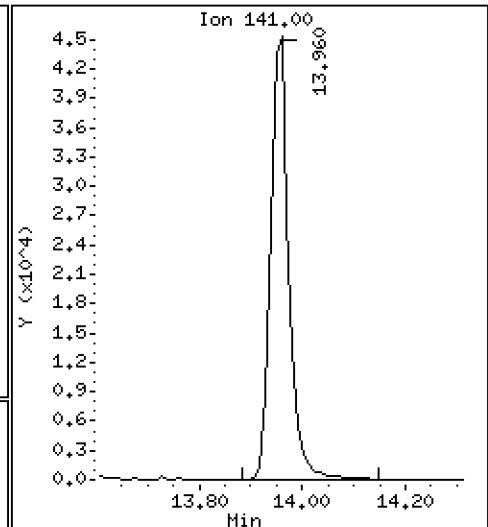
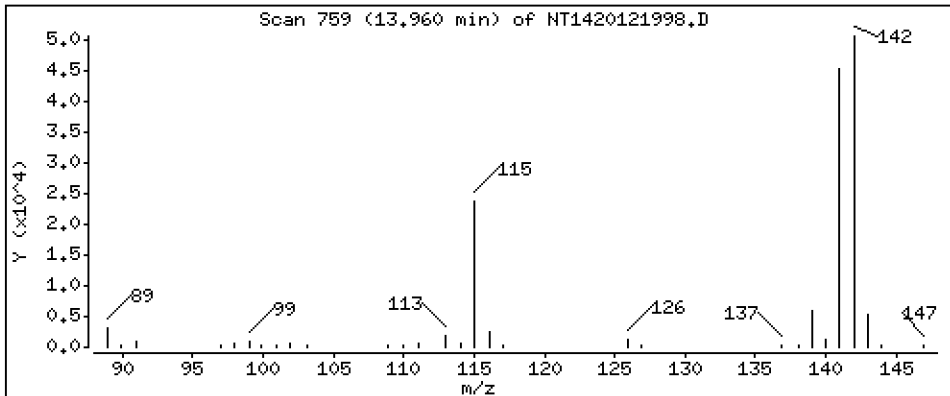
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 1-methylnaphthalene

Concentration: 1,785 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

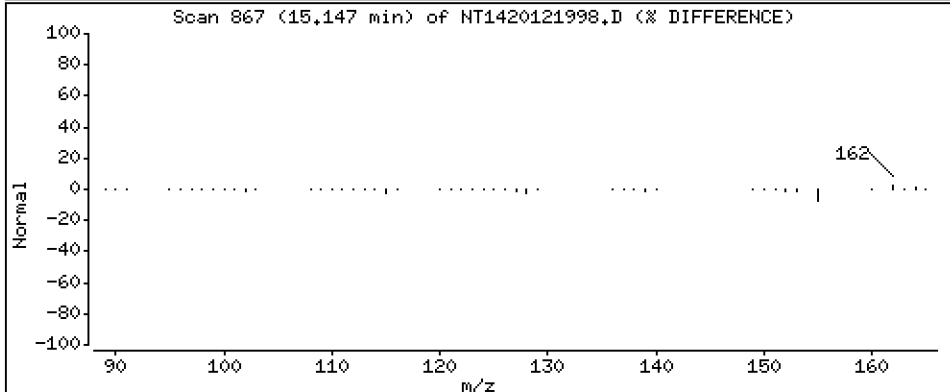
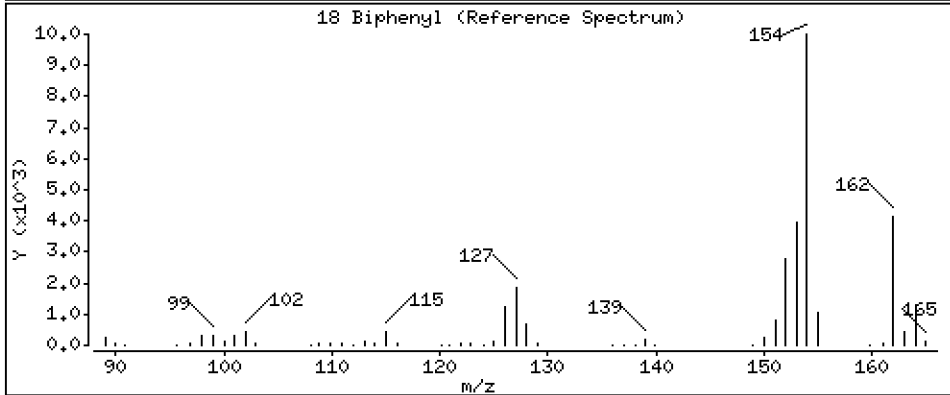
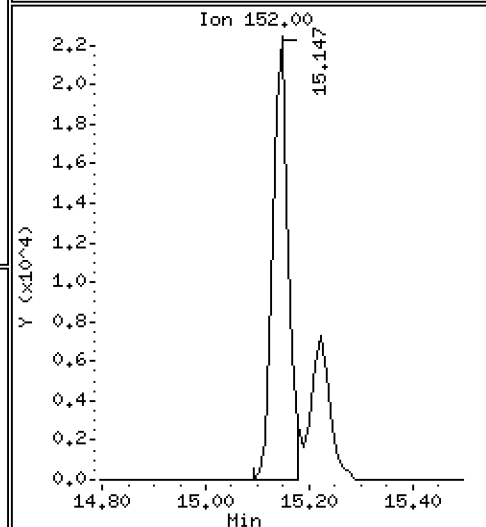
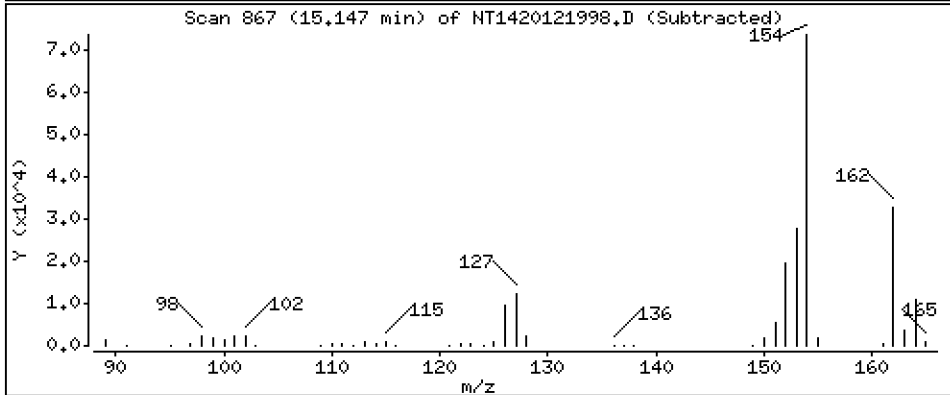
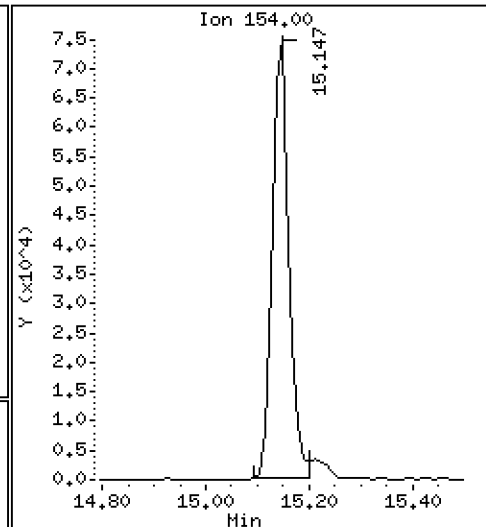
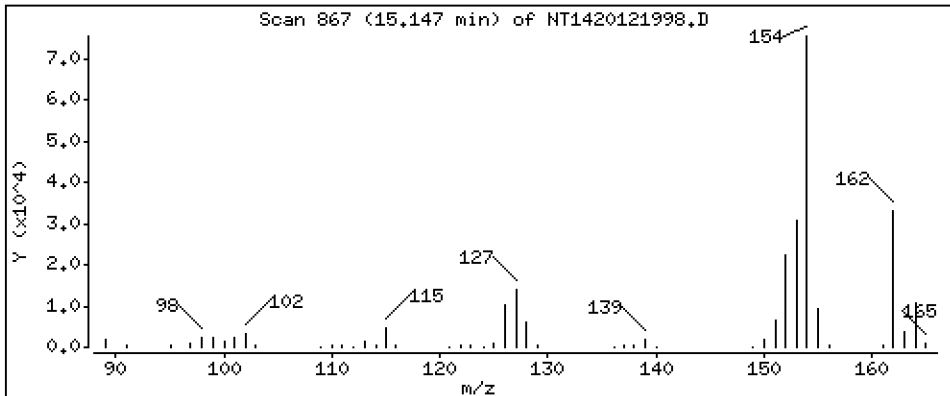
Operator: VTS

Column phase: Rxi-17Si1 MS

Column diameter: 0,25

18 Biphenyl

Concentration: 1,831 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

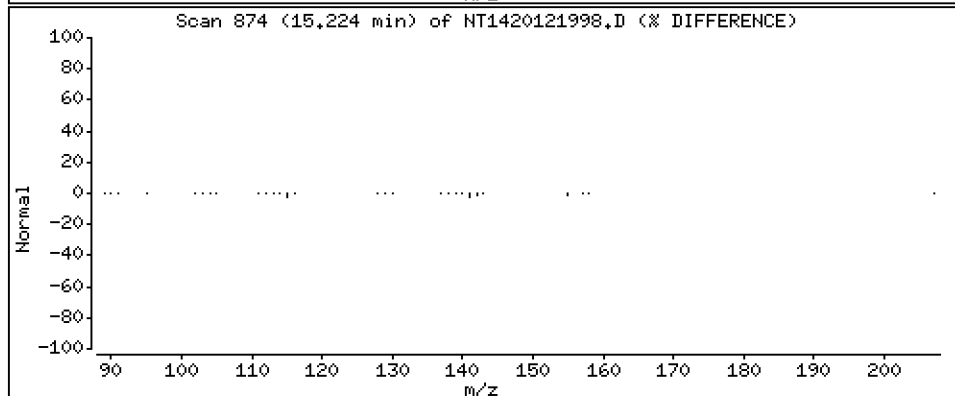
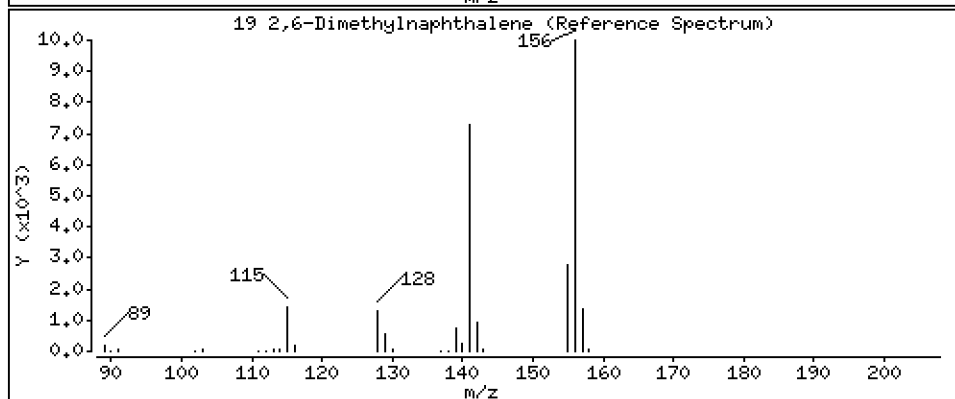
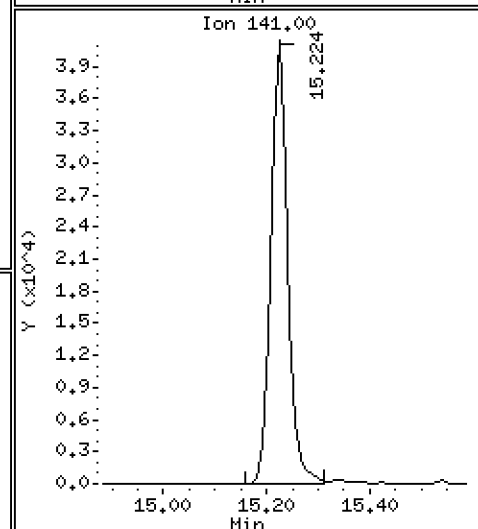
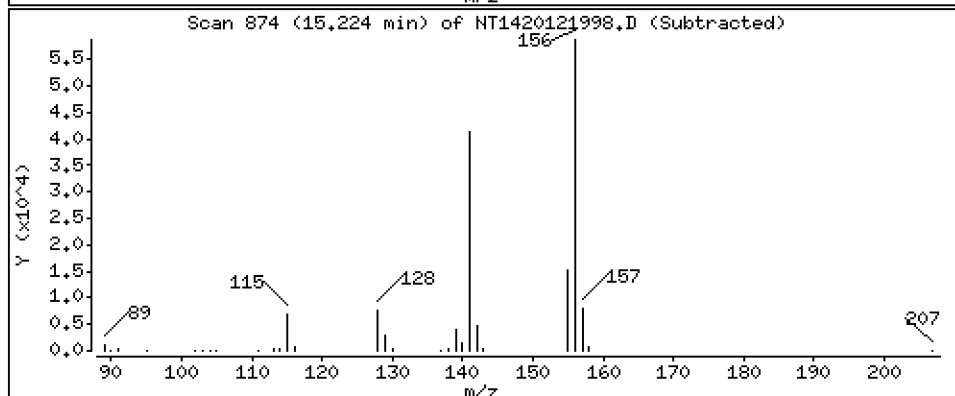
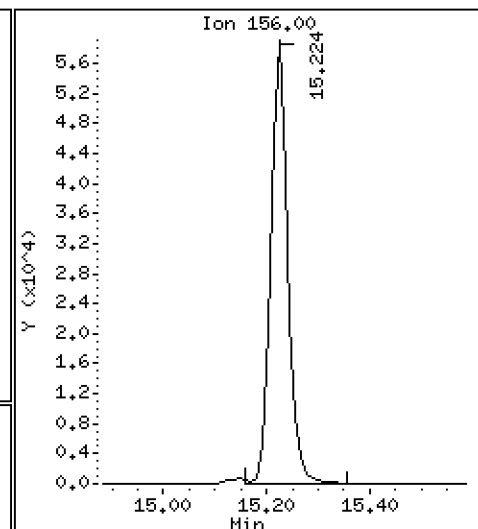
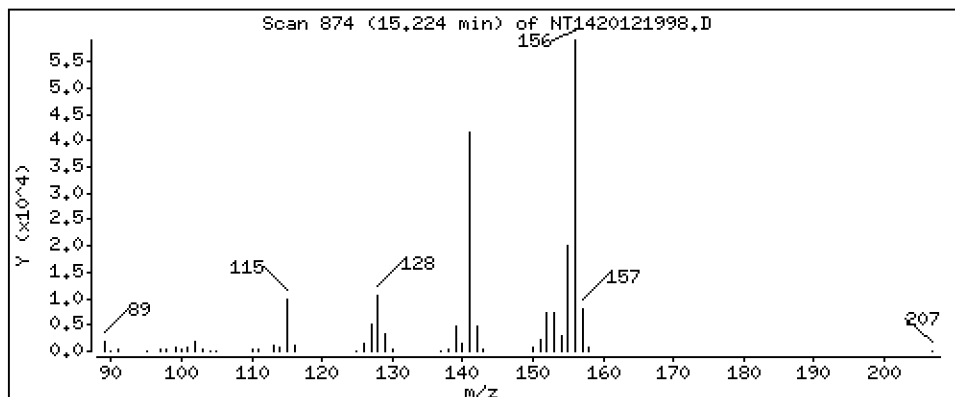
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 2,6-Dimethylnaphthalene

Concentration: 1,948 ug/mL





Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

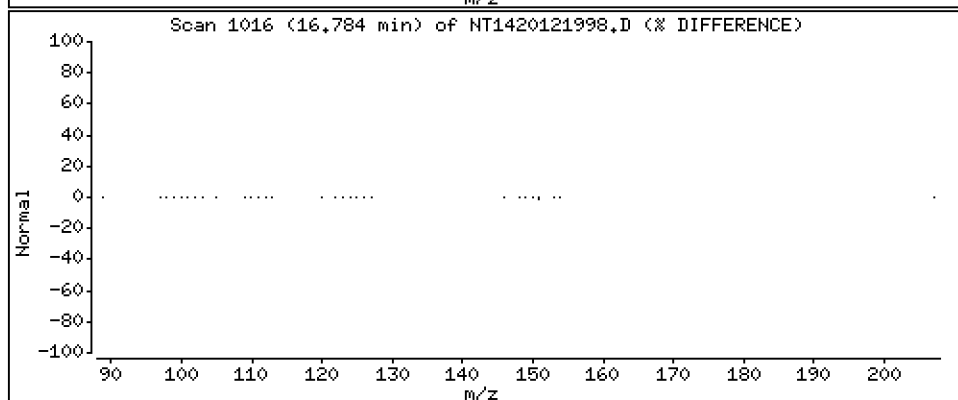
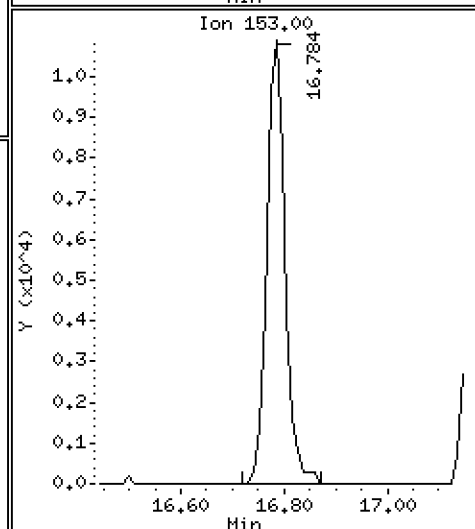
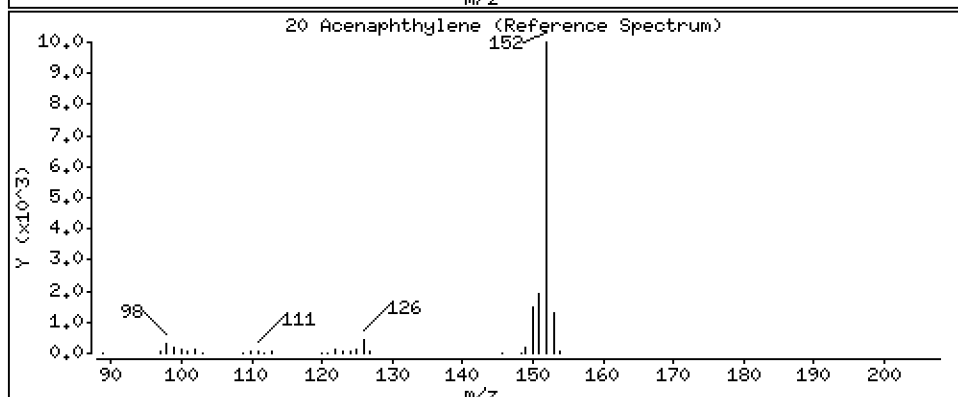
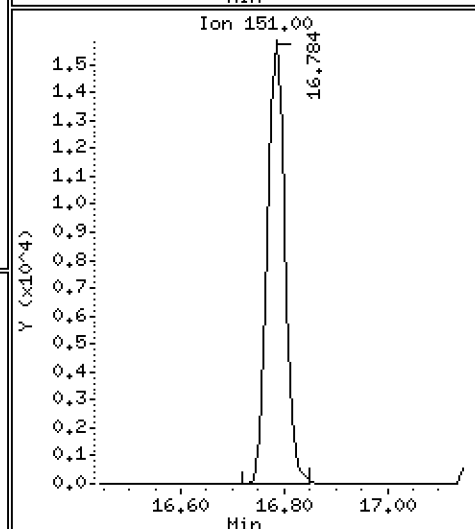
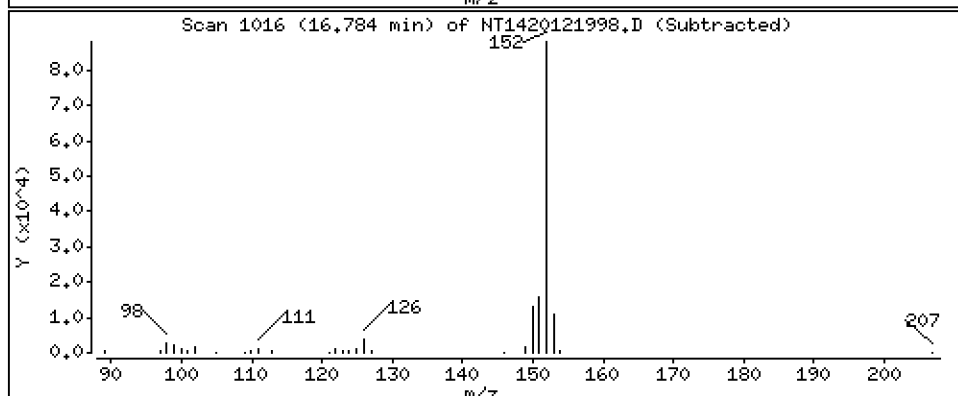
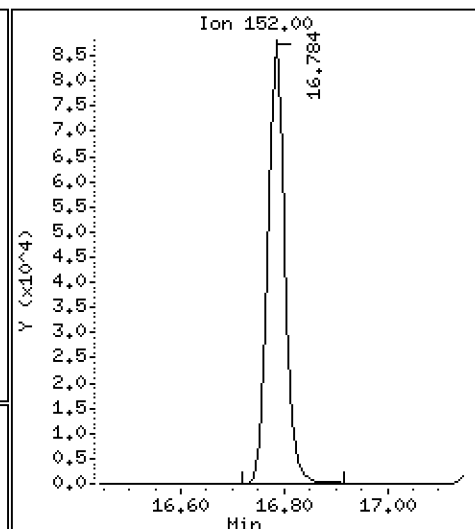
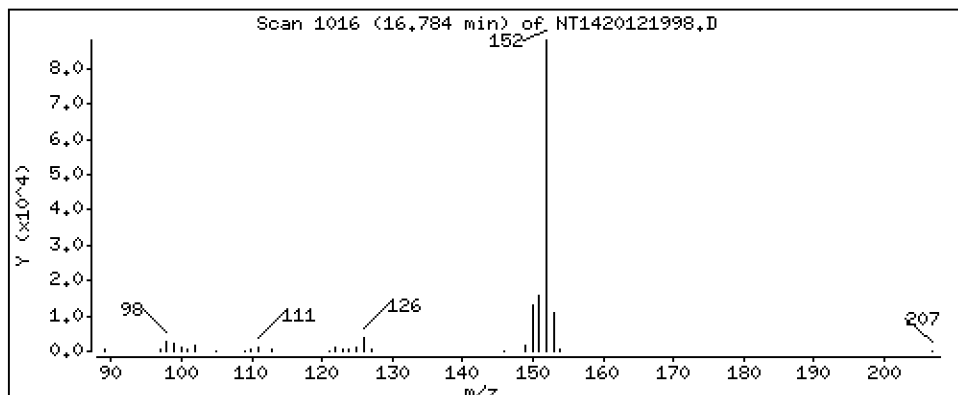
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

20 Acenaphthylene

Concentration: 1,792 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

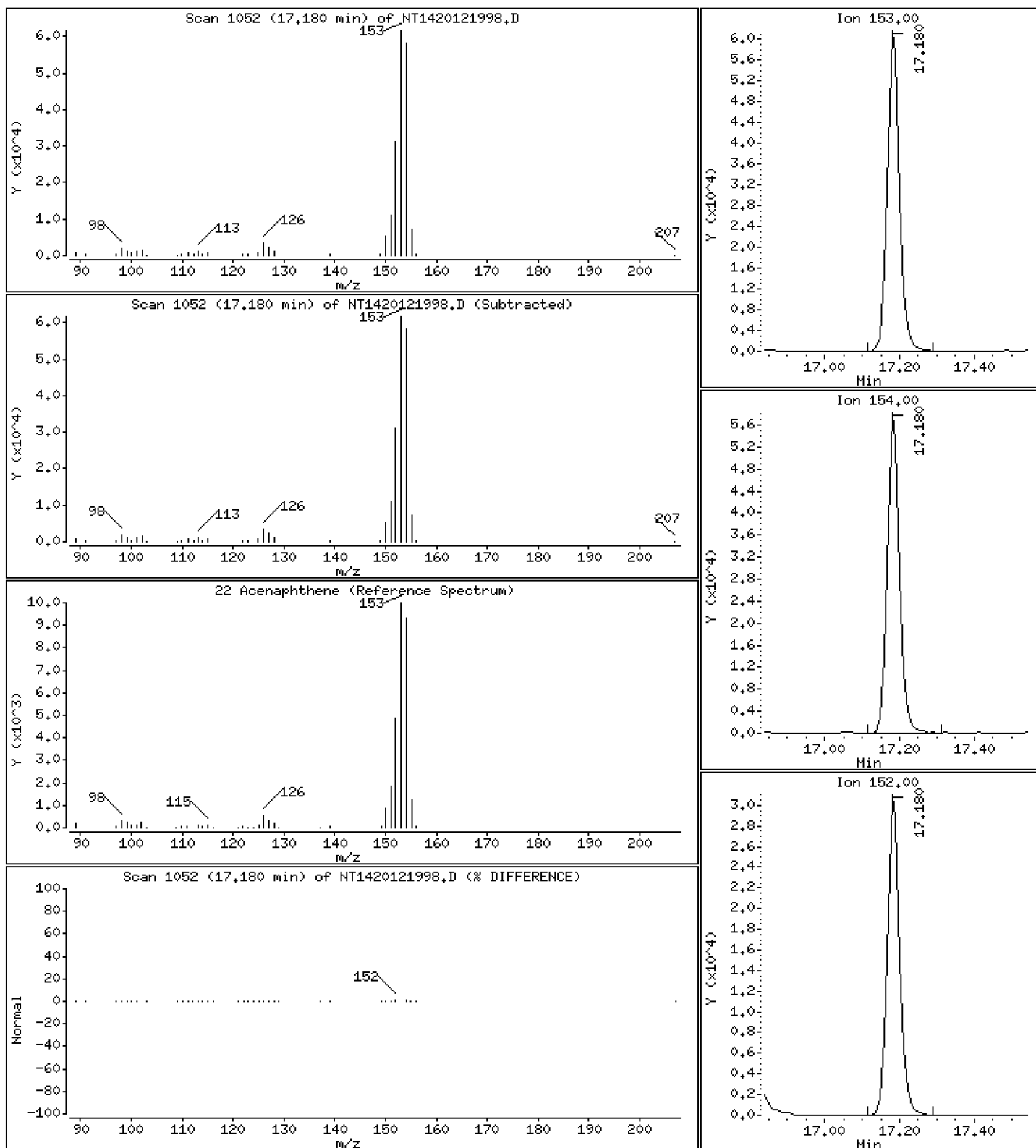
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Acenaphthene

Concentration: 1,948 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

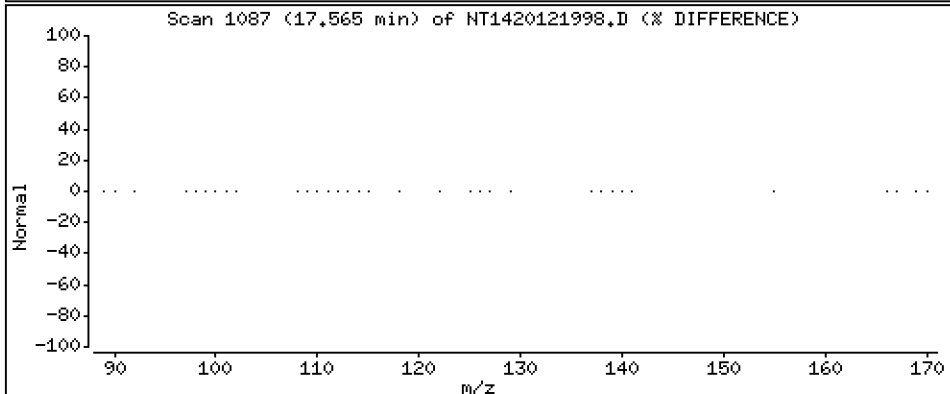
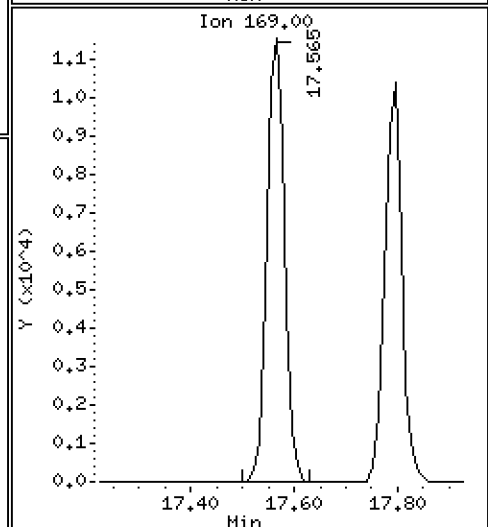
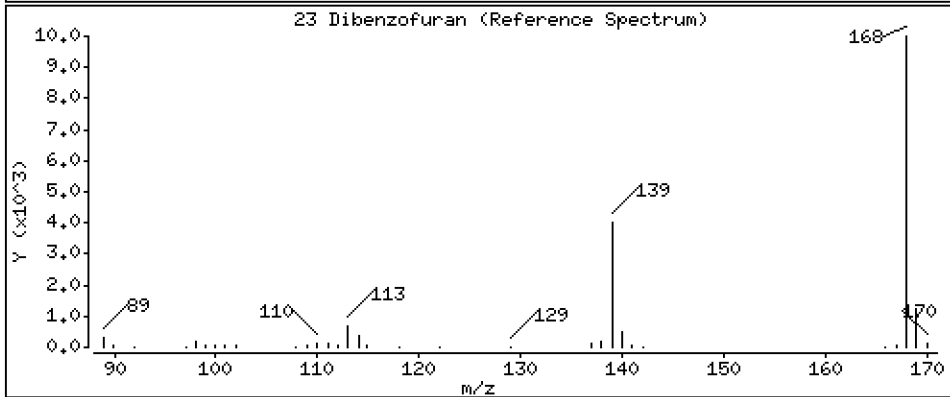
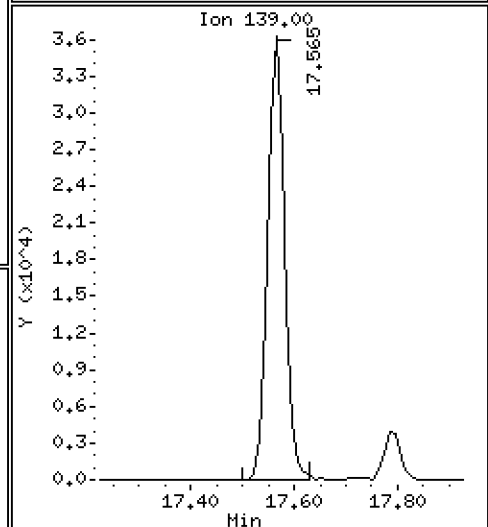
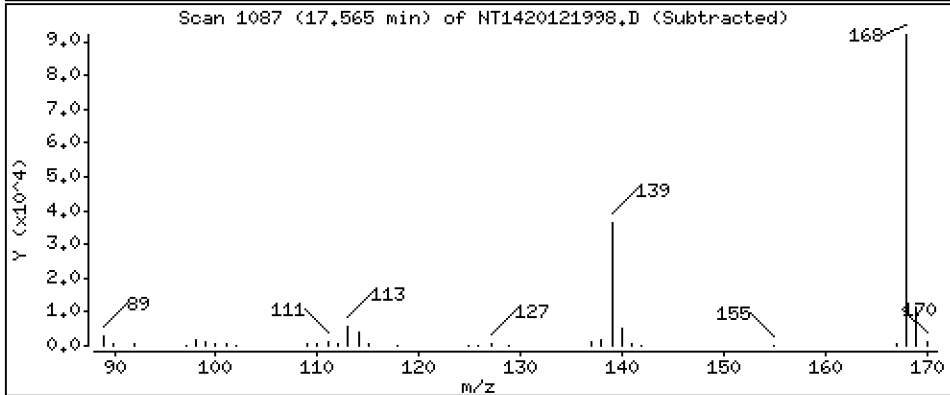
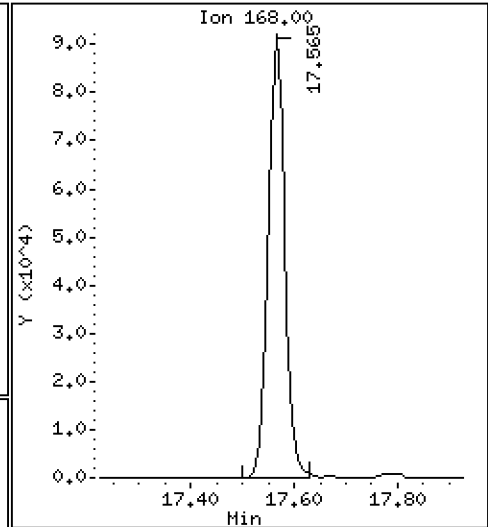
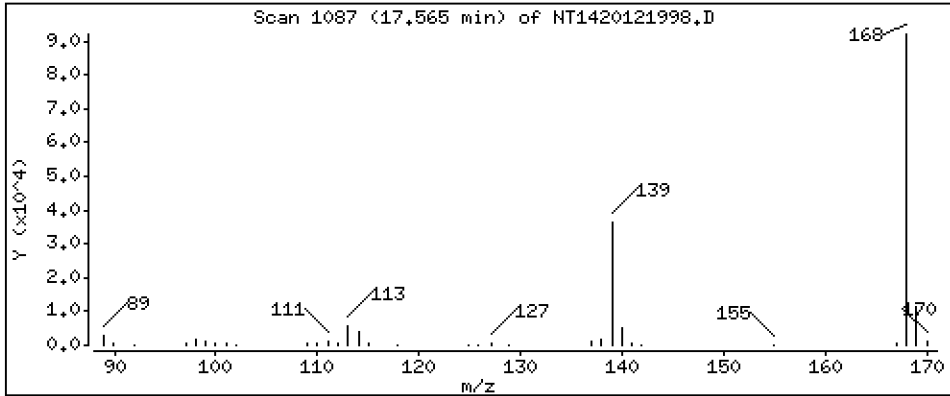
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 Dibenzofuran

Concentration: 1,931 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

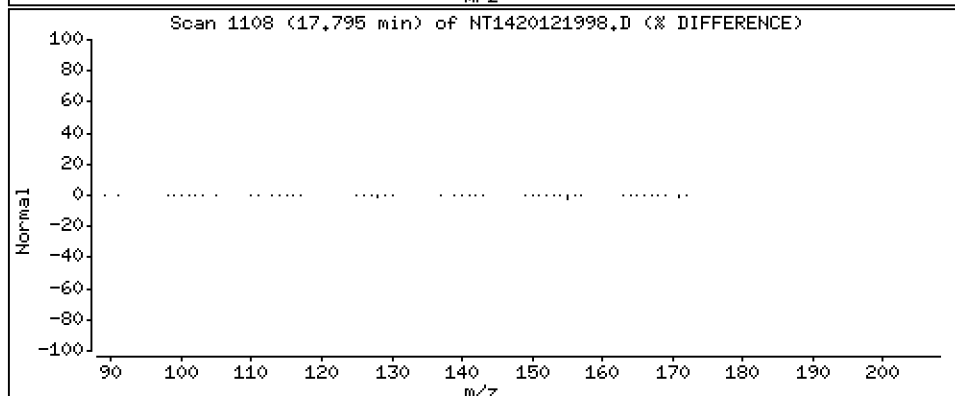
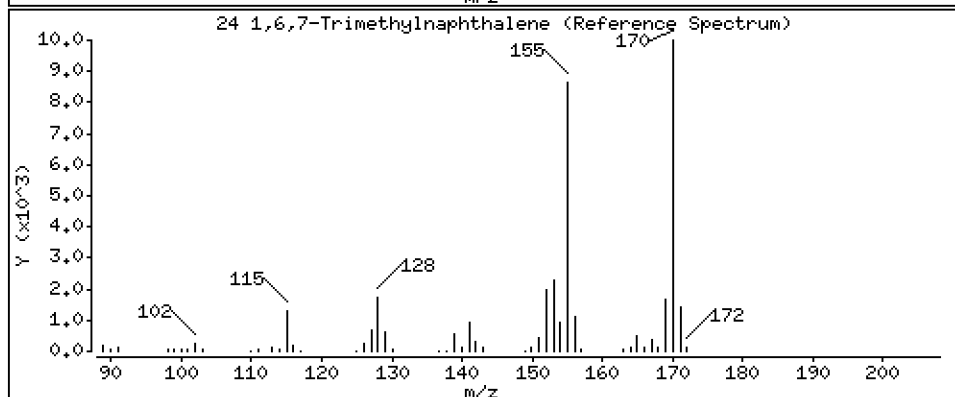
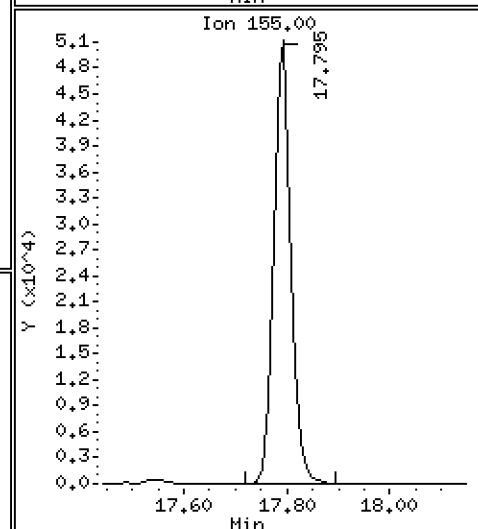
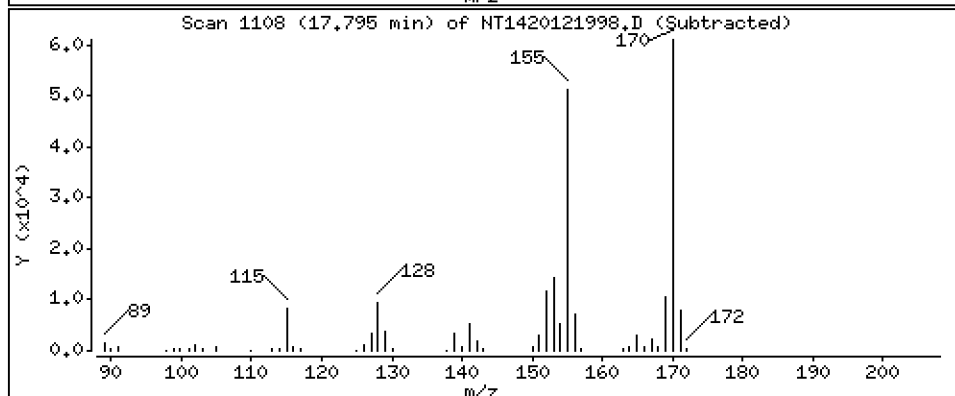
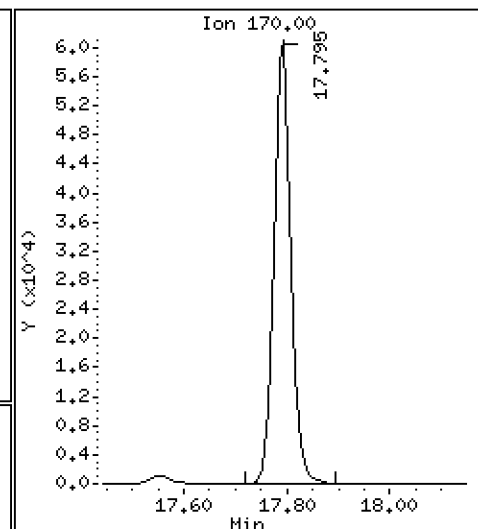
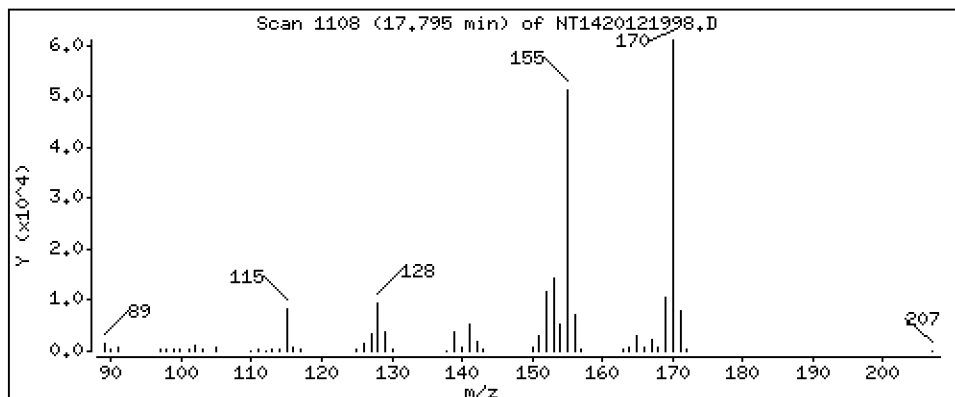
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

24 1,6,7-Trimethylnaphthalene

Concentration: 2,048 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

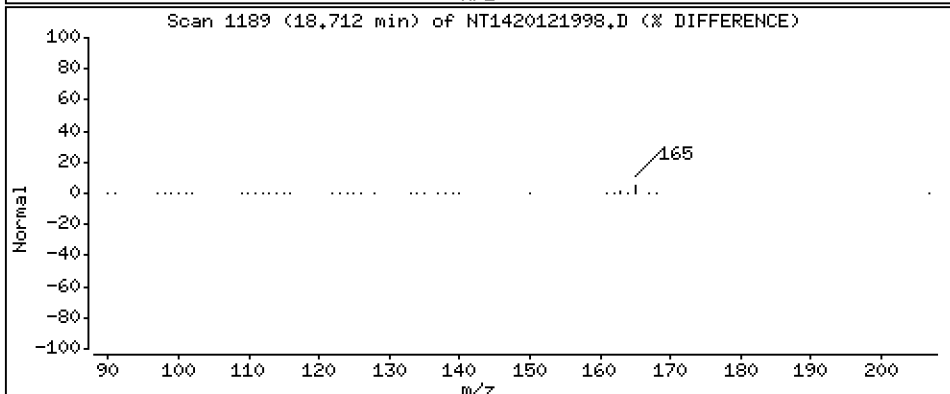
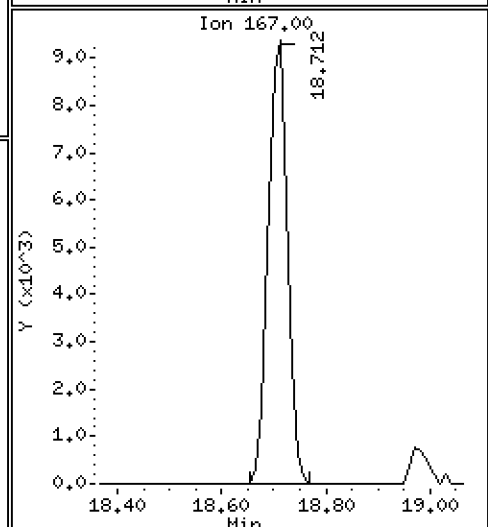
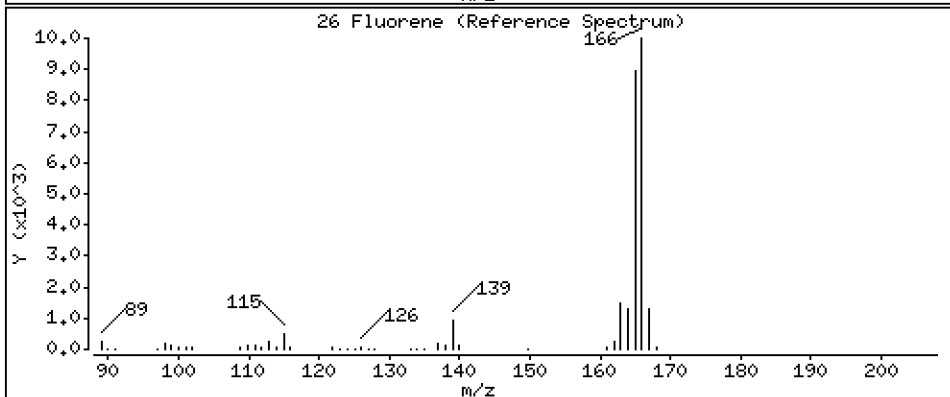
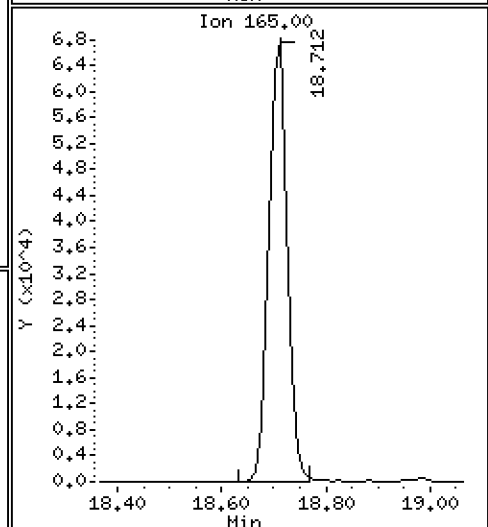
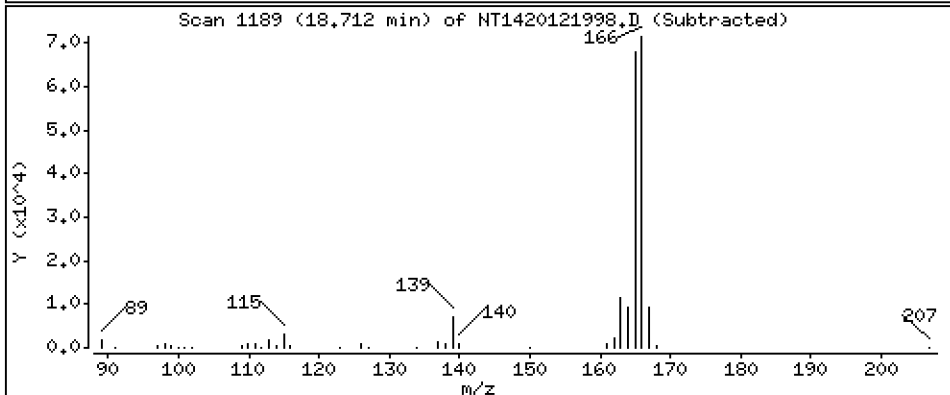
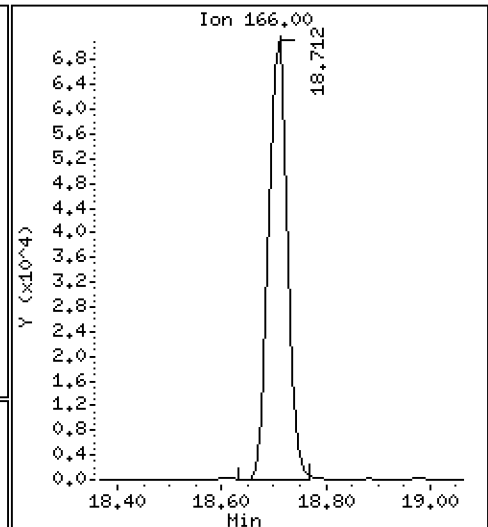
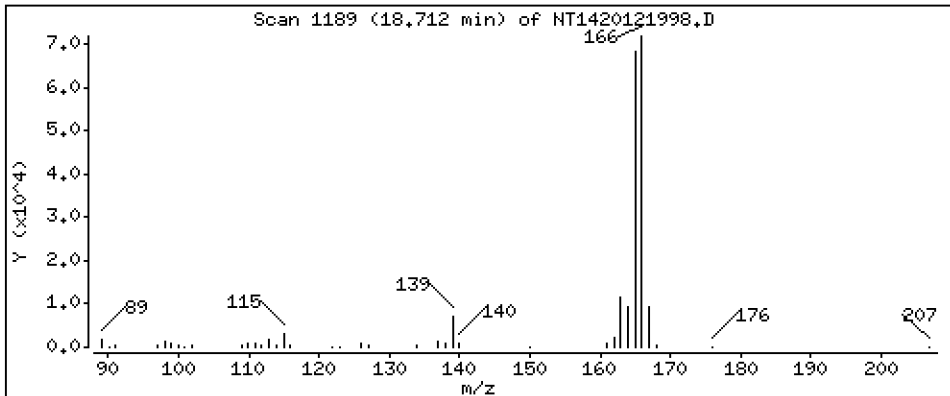
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Fluorene

Concentration: 2,000 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

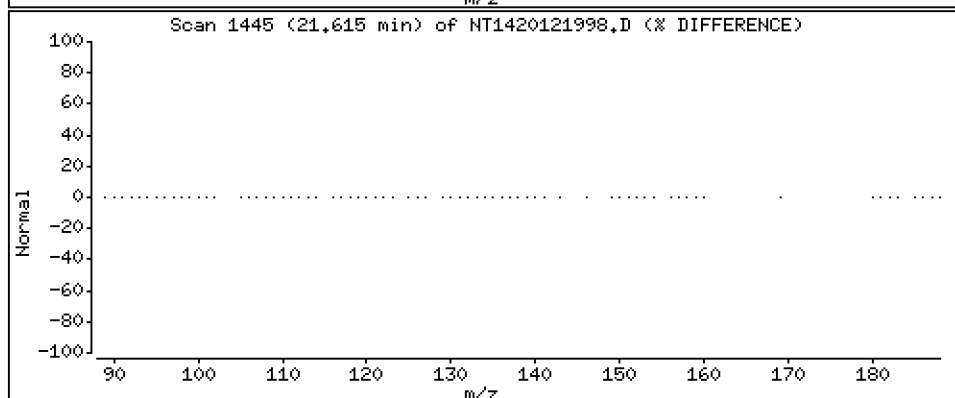
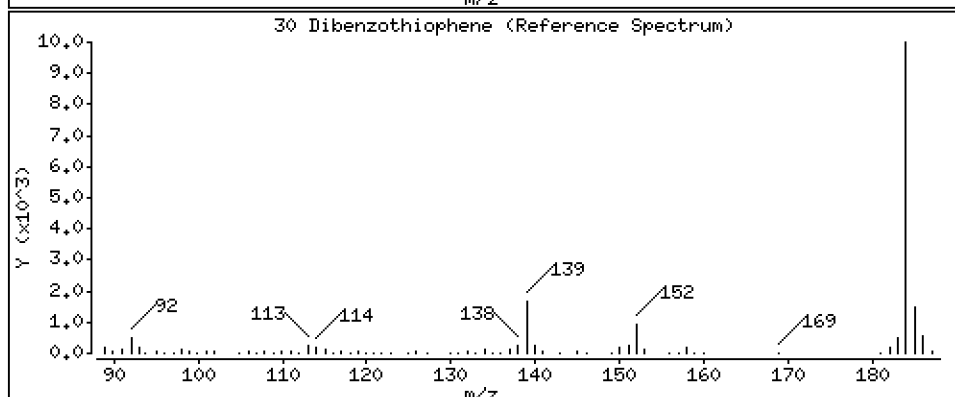
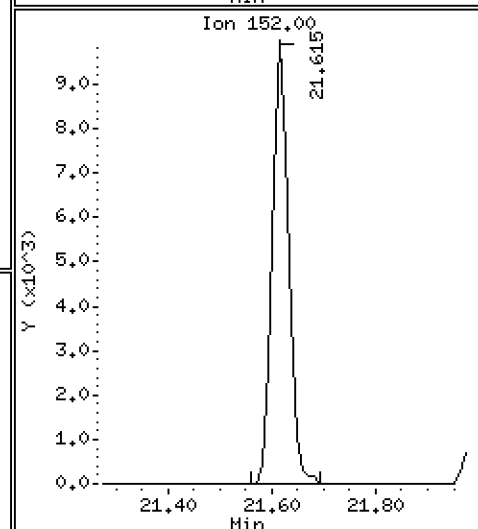
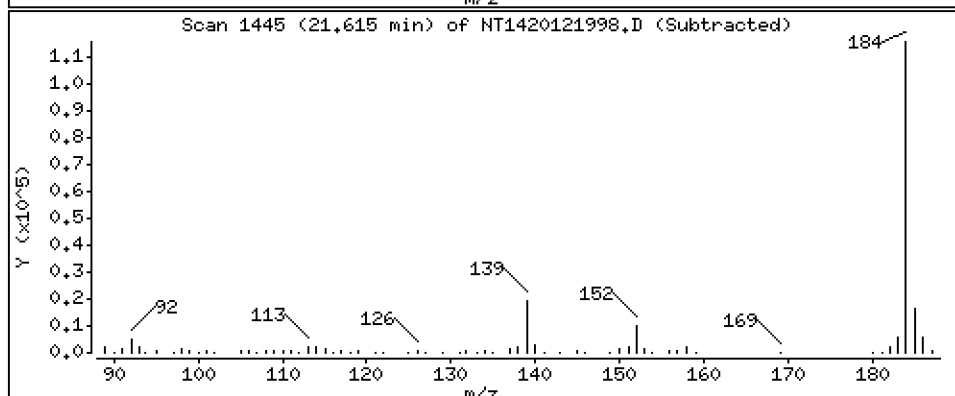
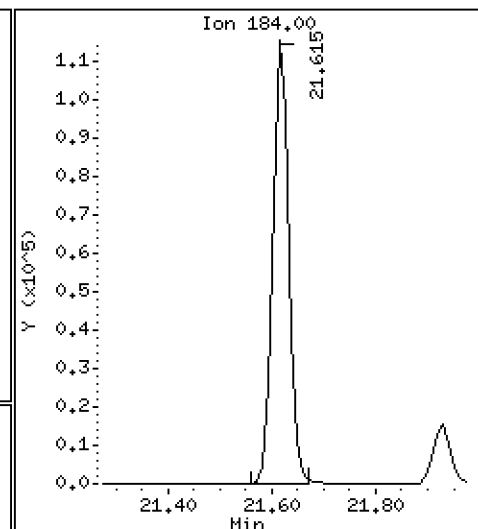
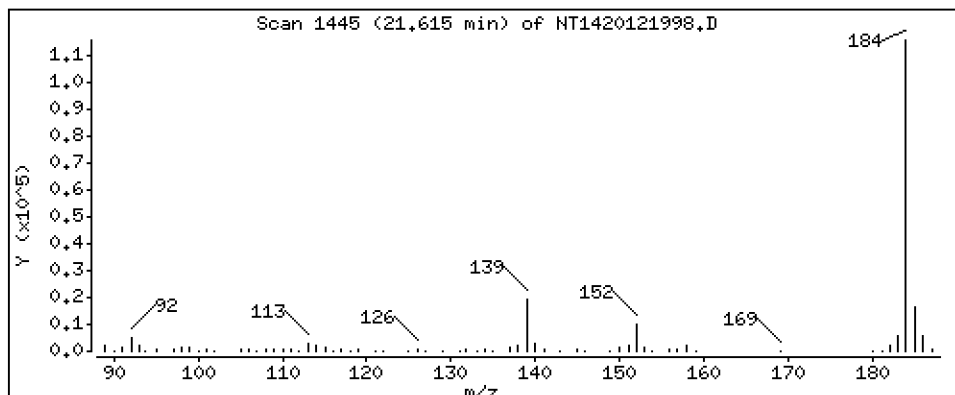
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Dibenzothiophene

Concentration: 2,013 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

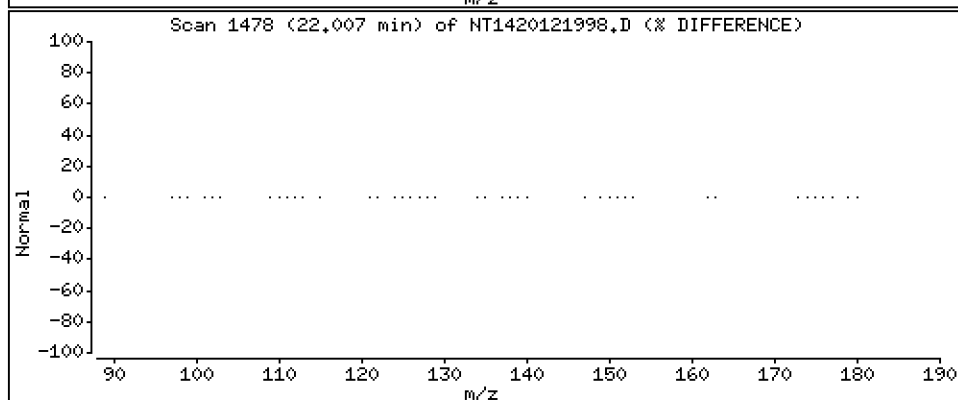
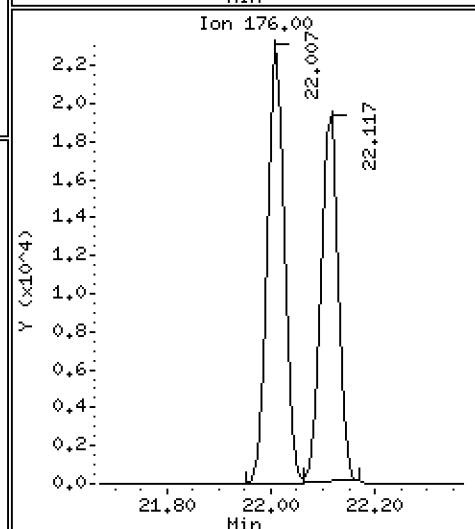
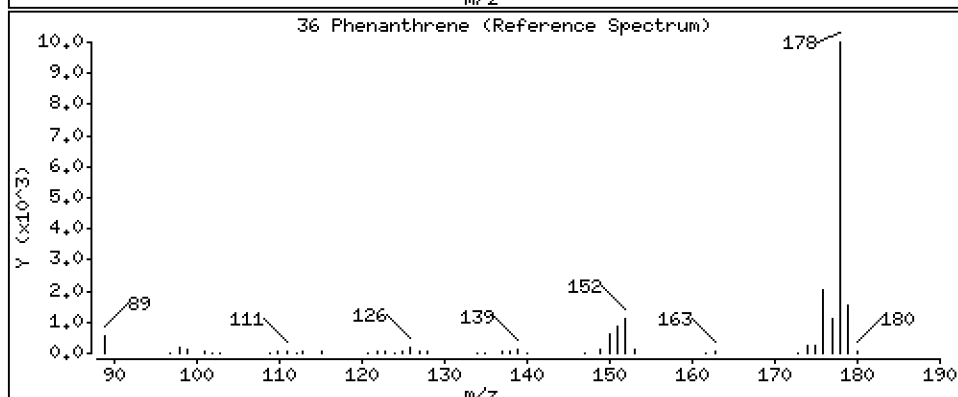
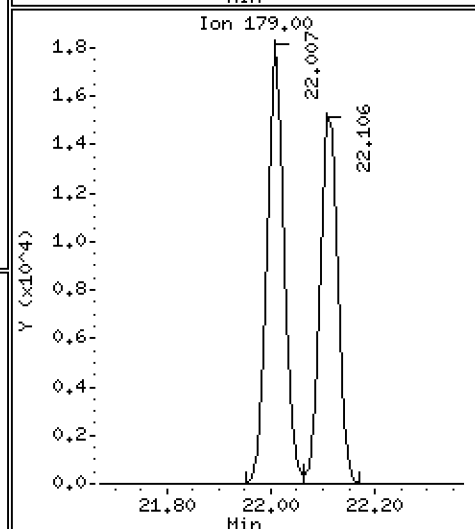
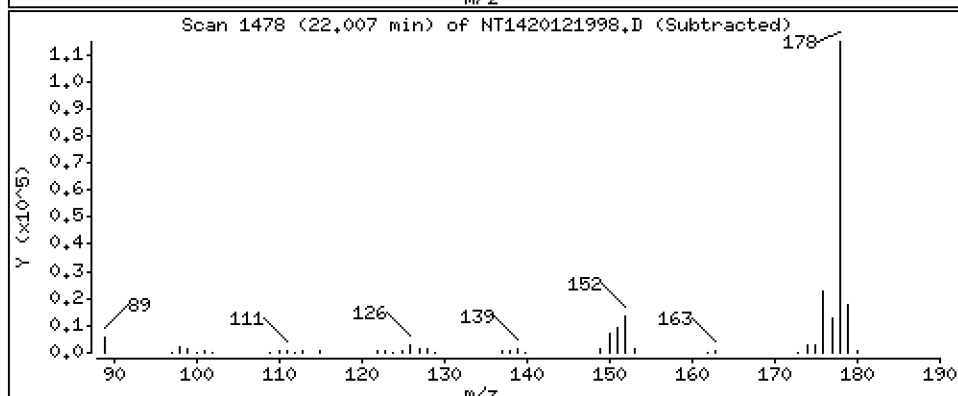
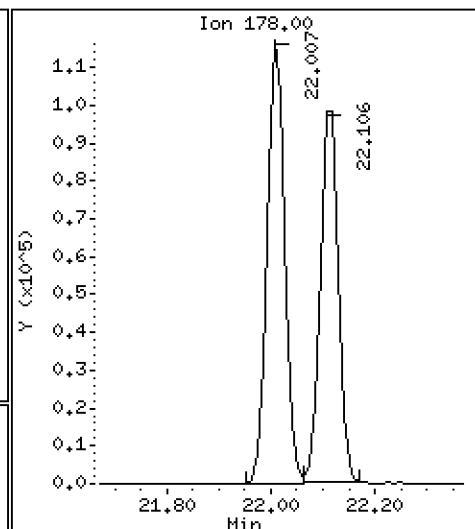
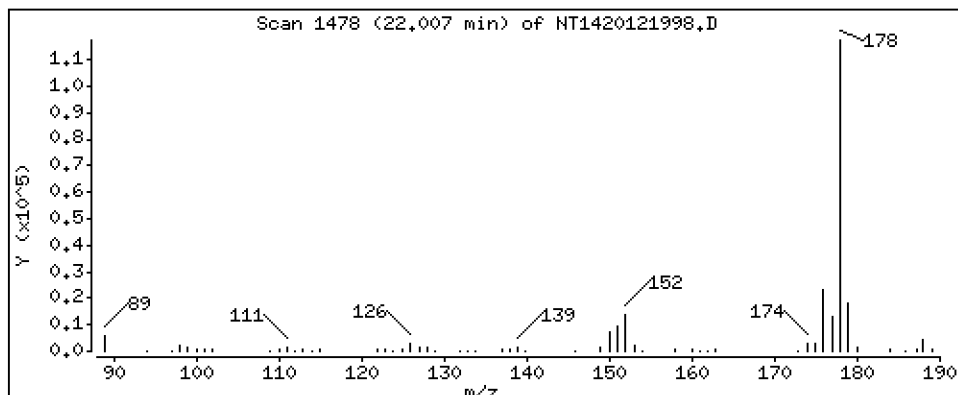
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

36 Phenanthrene

Concentration: 2,158 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

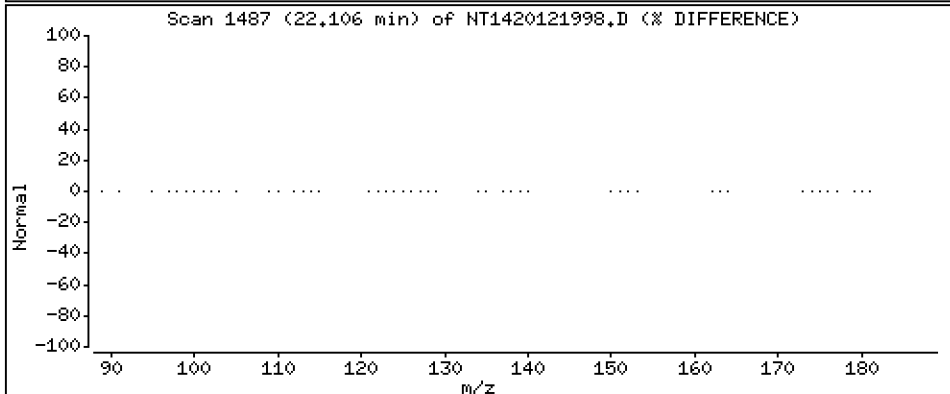
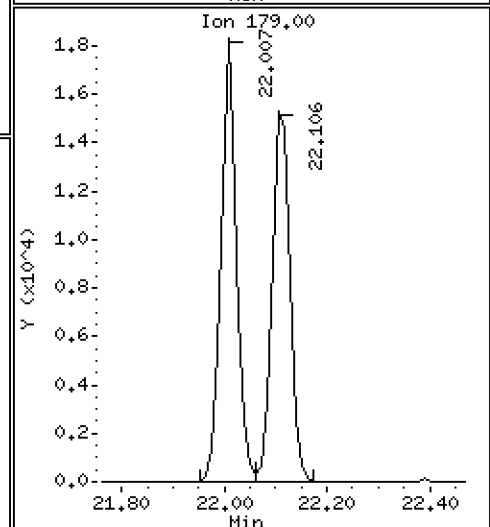
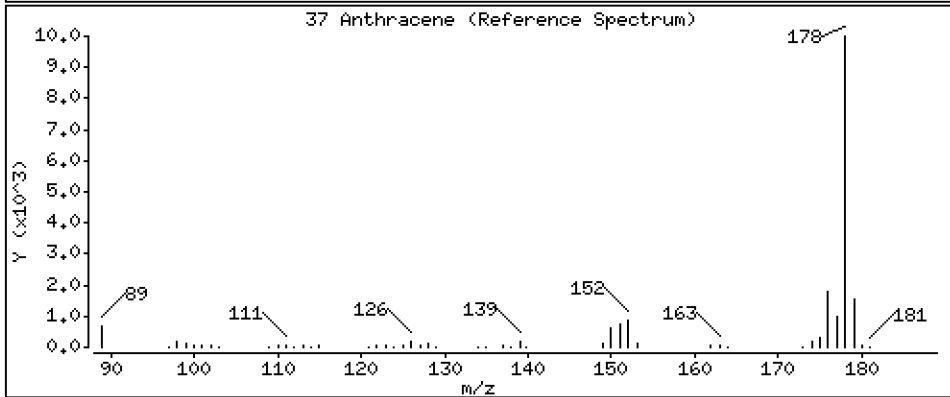
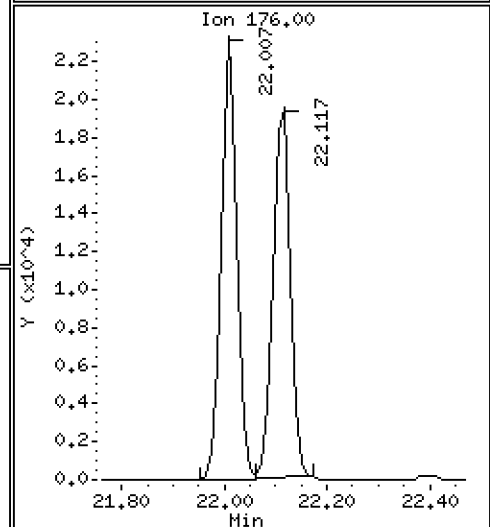
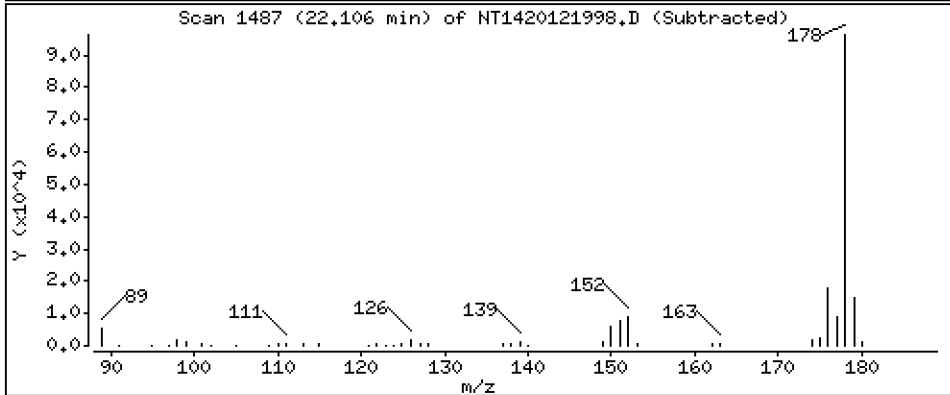
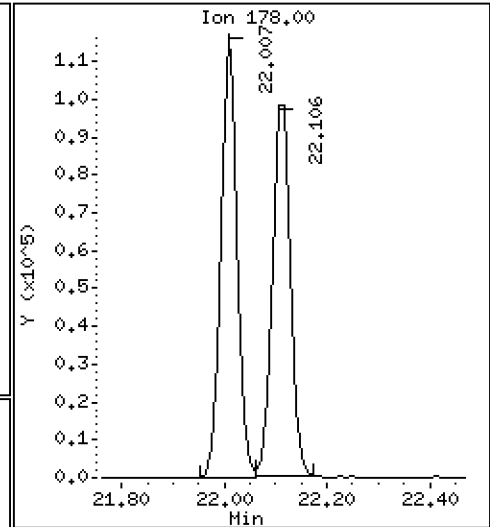
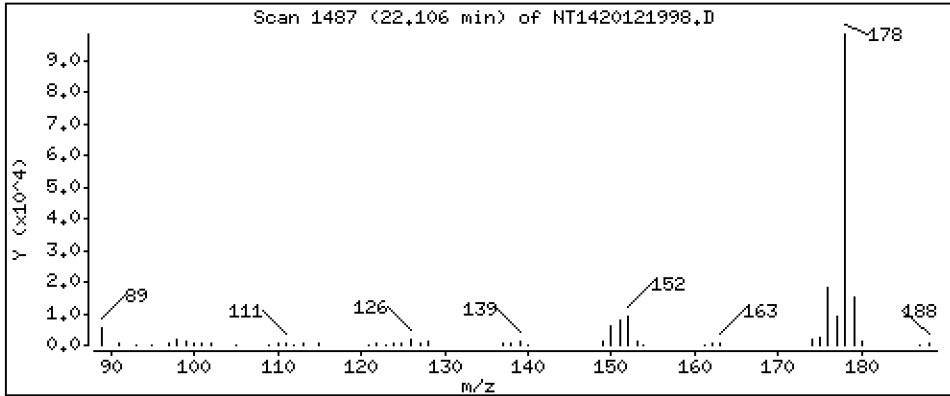
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

37 Anthracene

Concentration: 1.908 ug/mL





Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

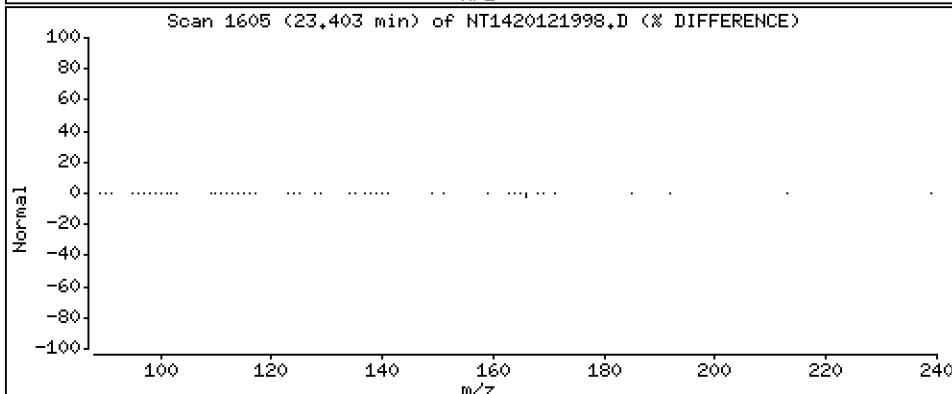
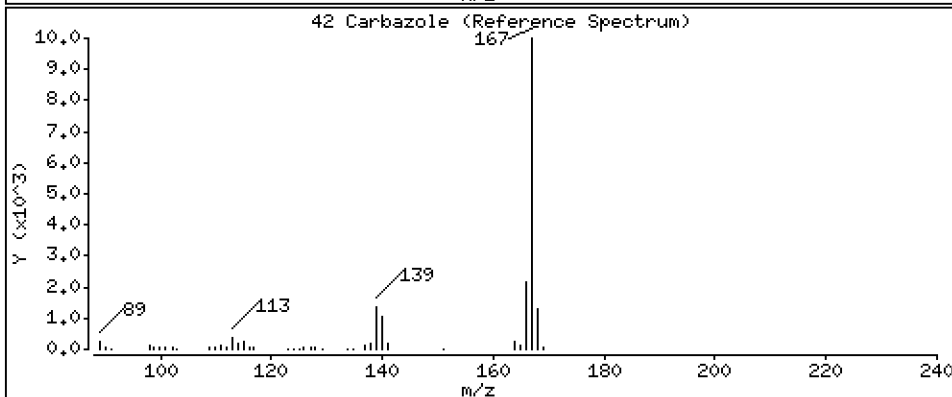
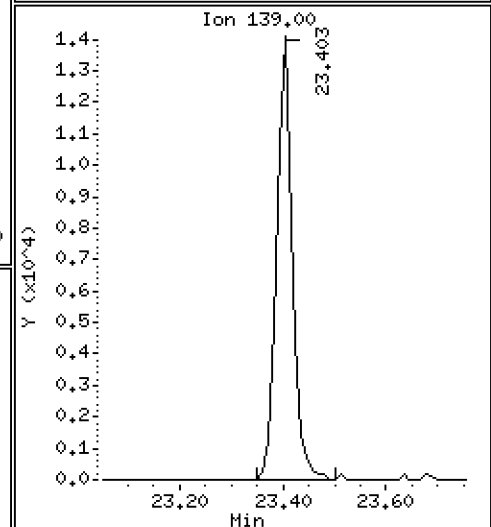
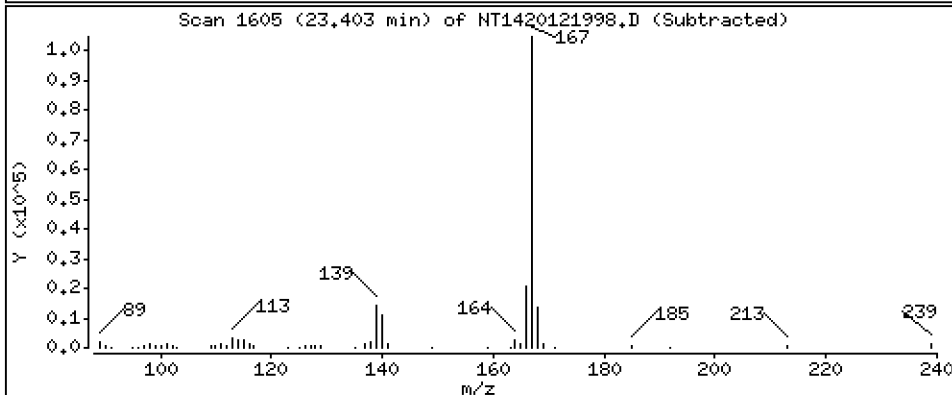
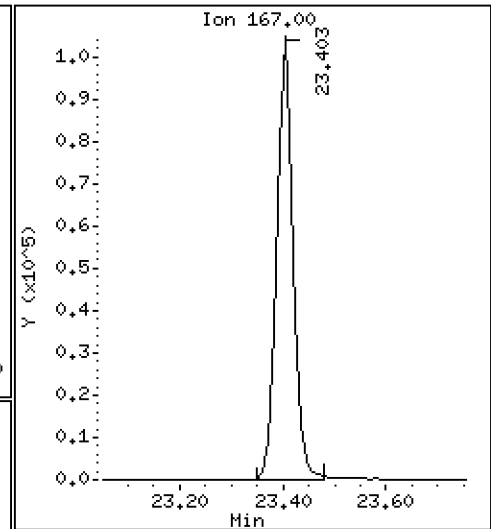
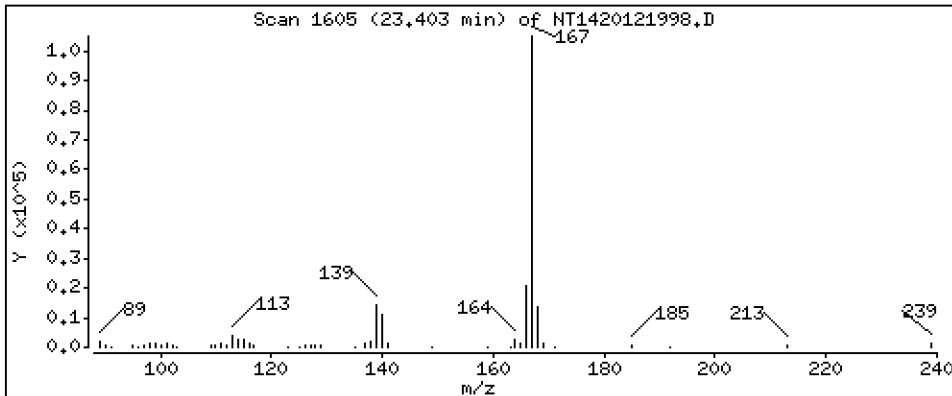
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

42 Carbazole

Concentration: 2,279 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

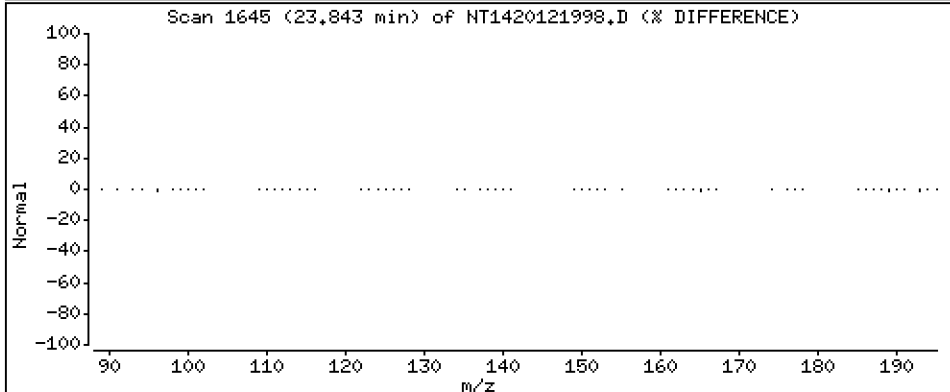
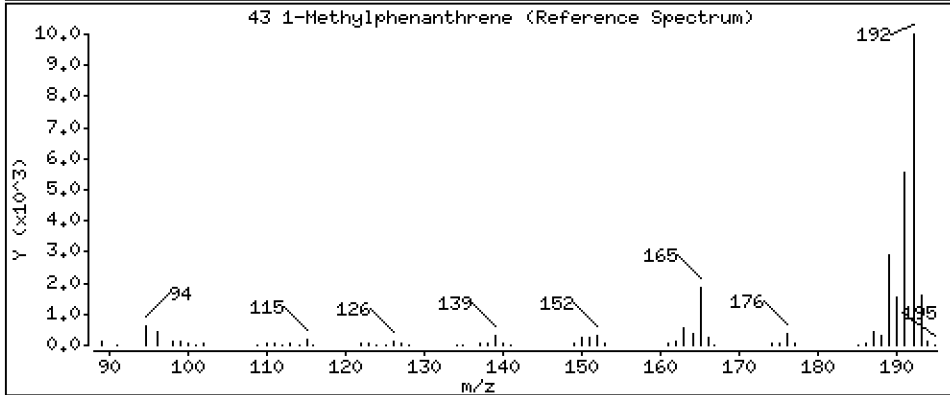
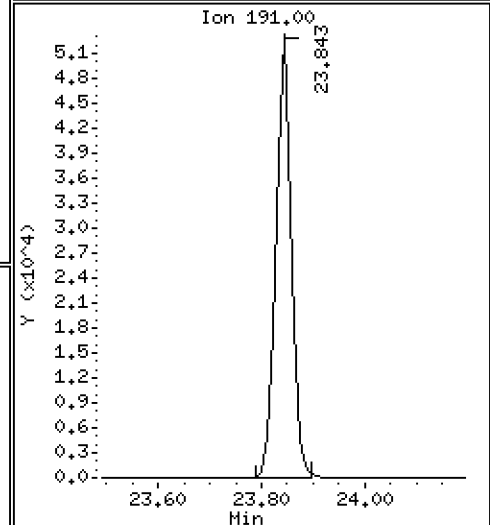
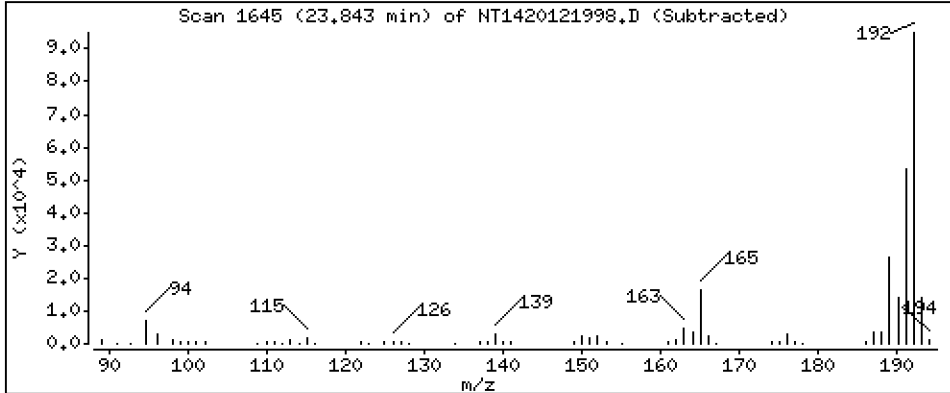
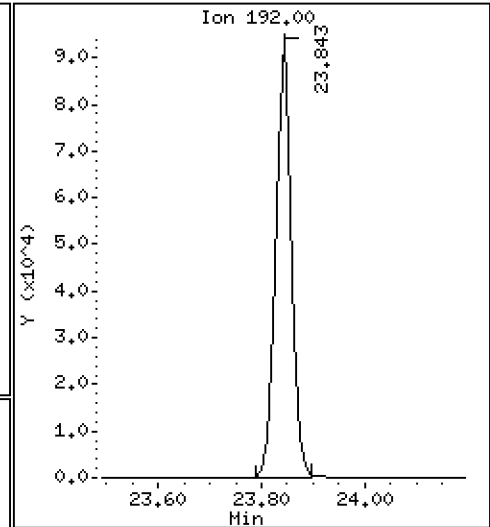
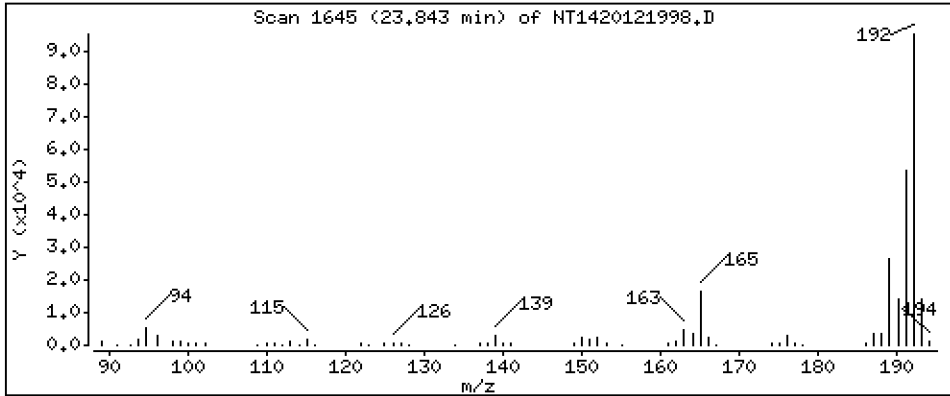
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

43 1-Methylphenanthrene

Concentration: 2,271 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

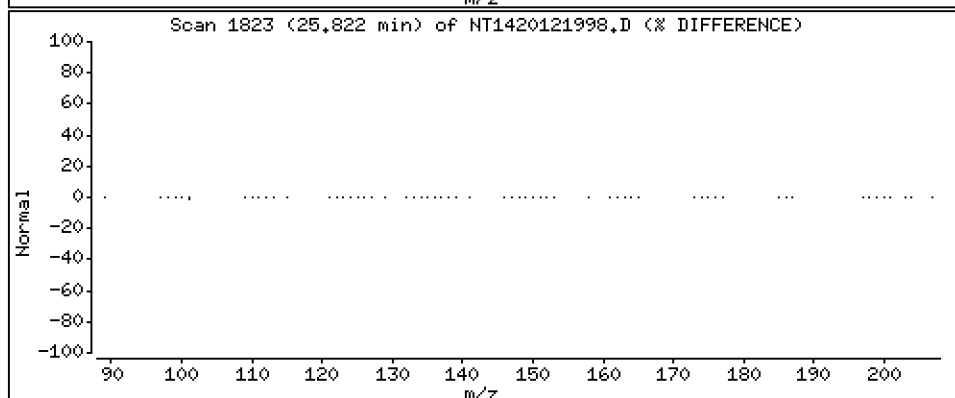
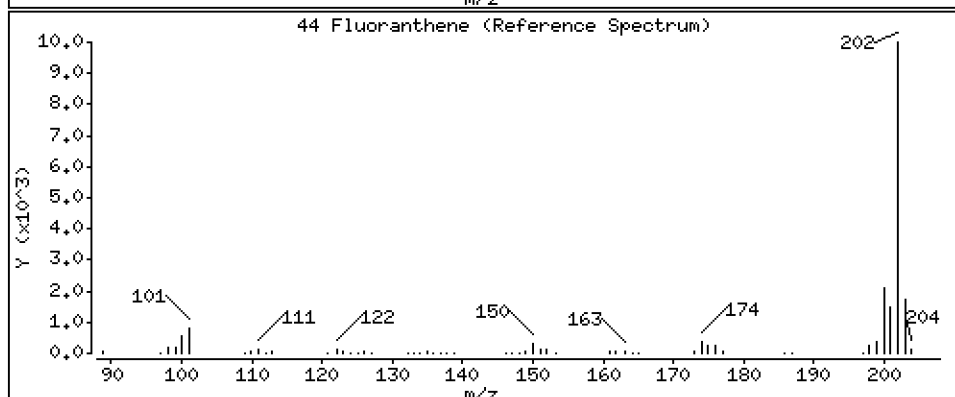
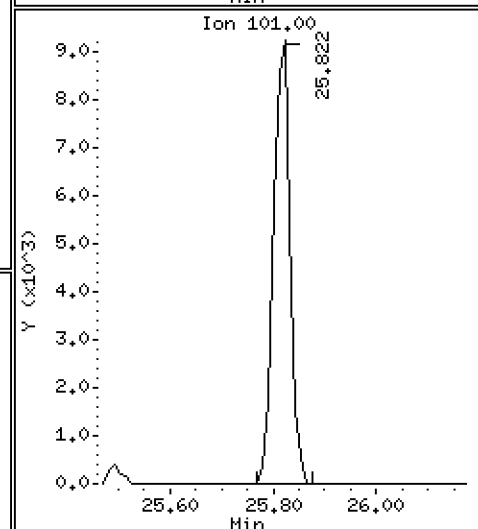
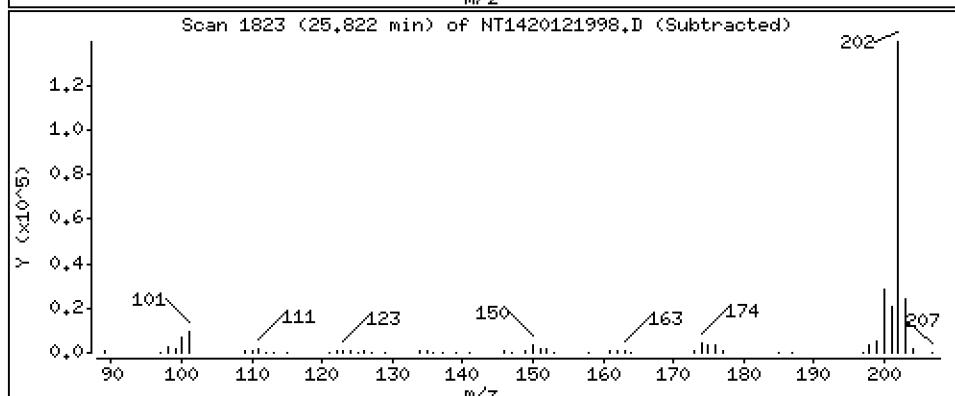
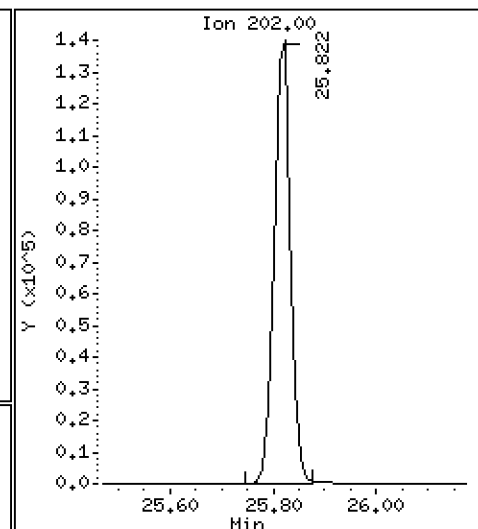
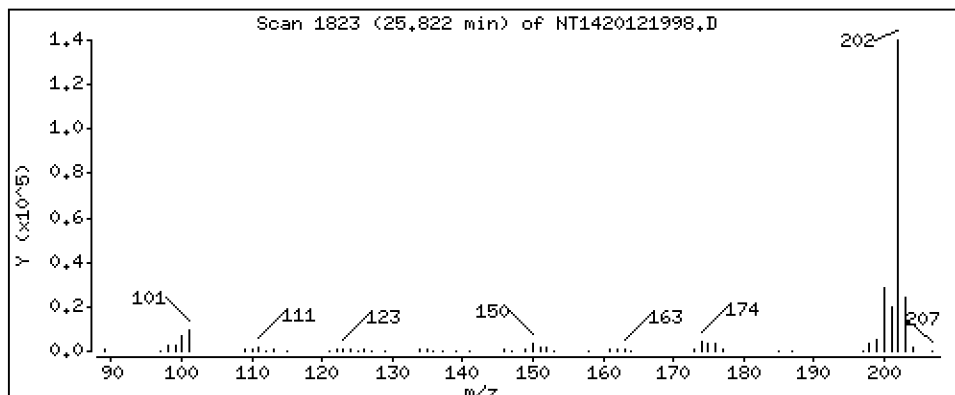
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

44 Fluoranthene

Concentration: 2,362 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

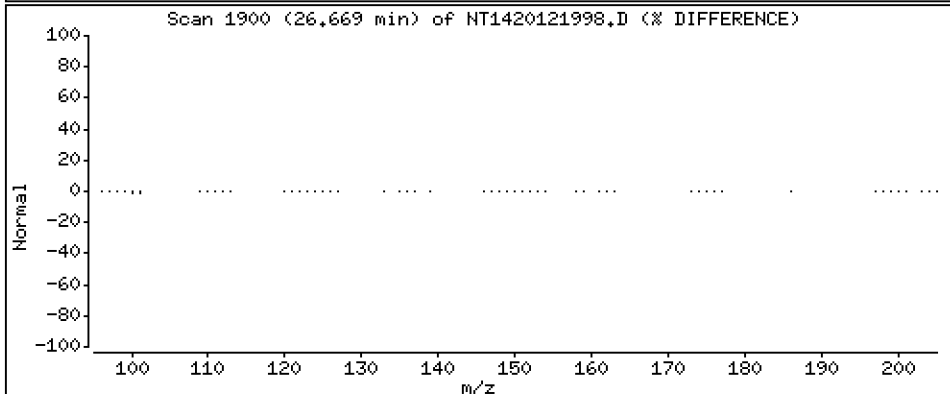
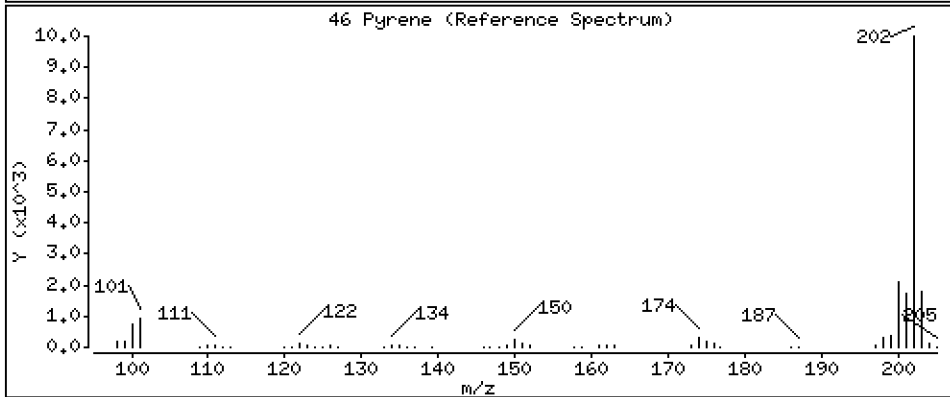
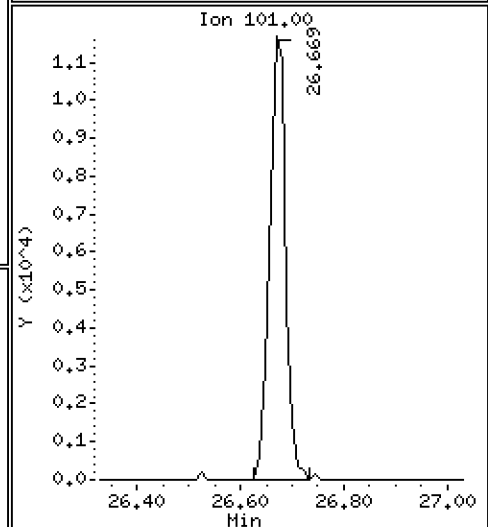
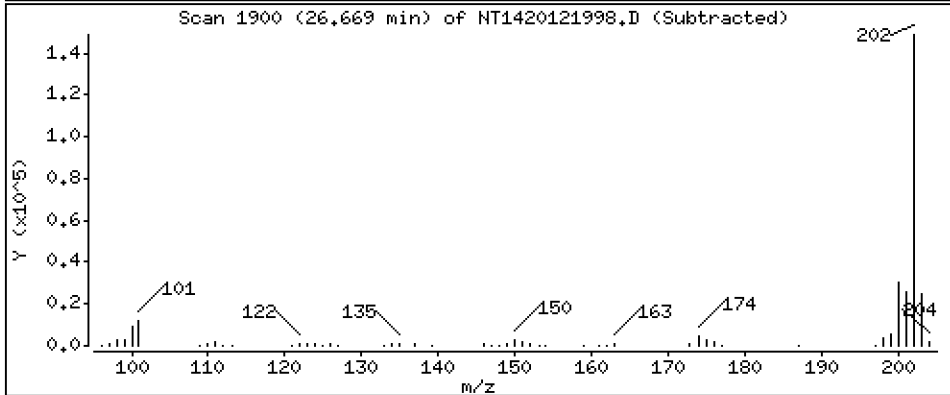
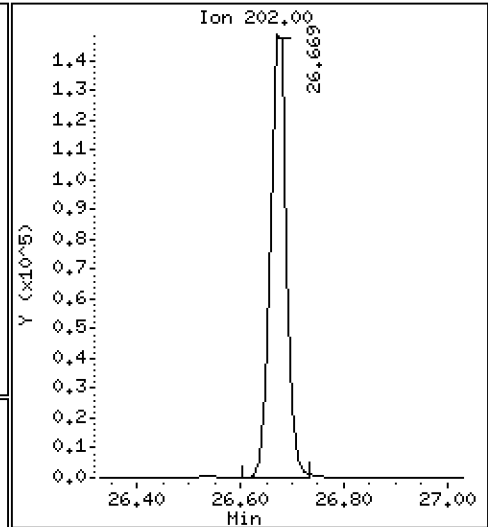
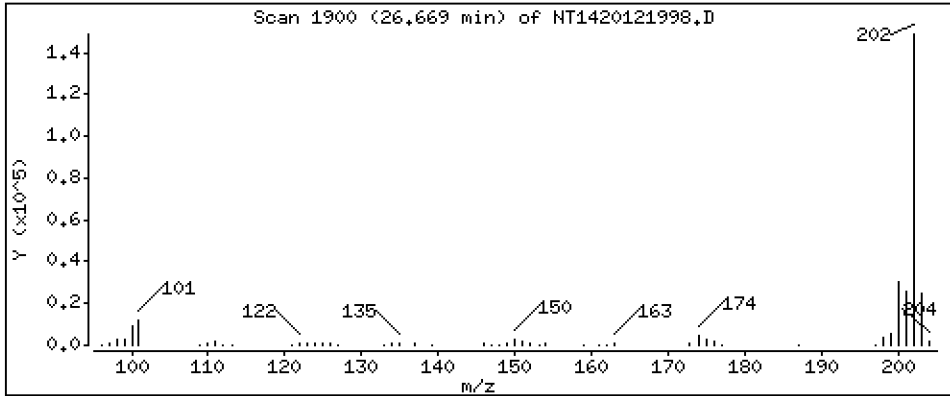
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

46 Pyrene

Concentration: 2,348 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

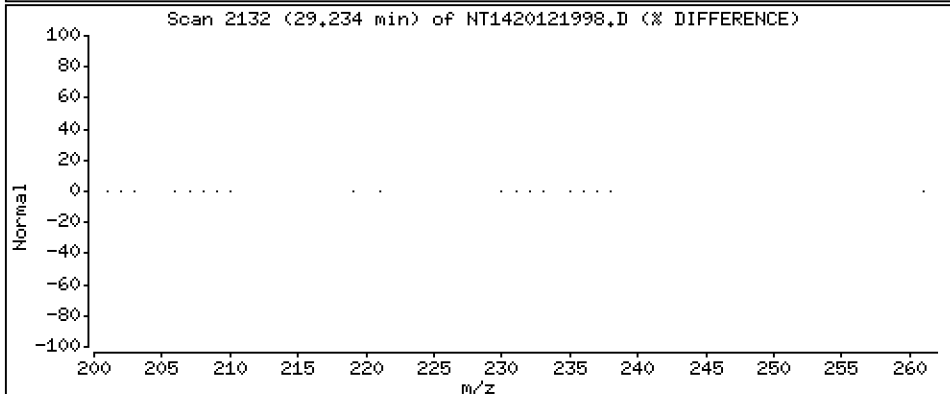
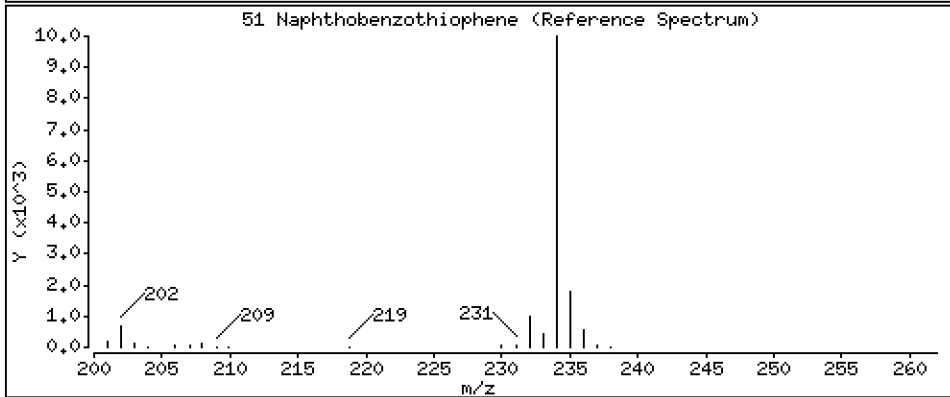
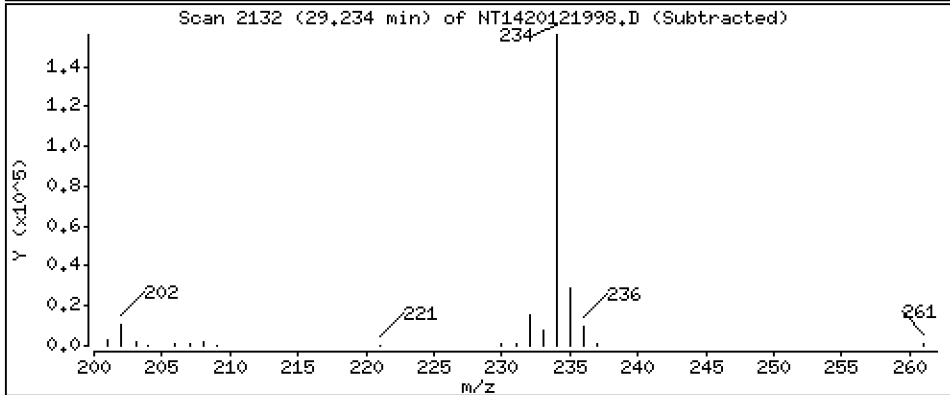
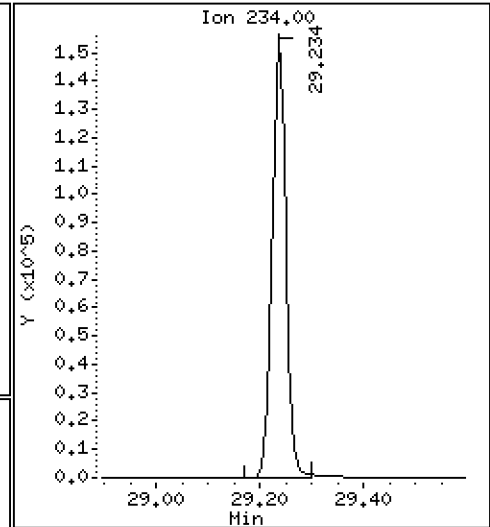
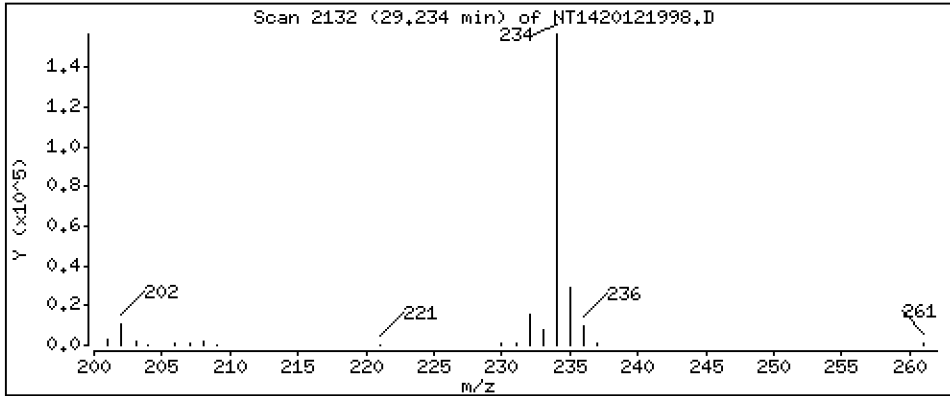
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

51 Naphthobenzothiophene

Concentration: 2,258 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

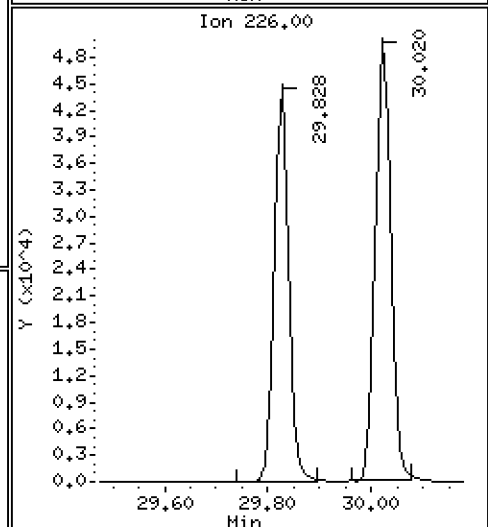
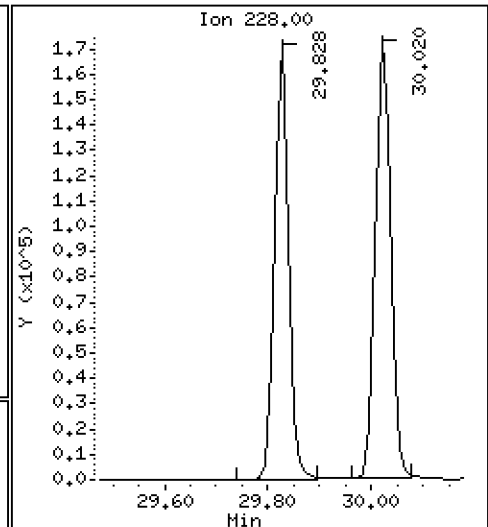
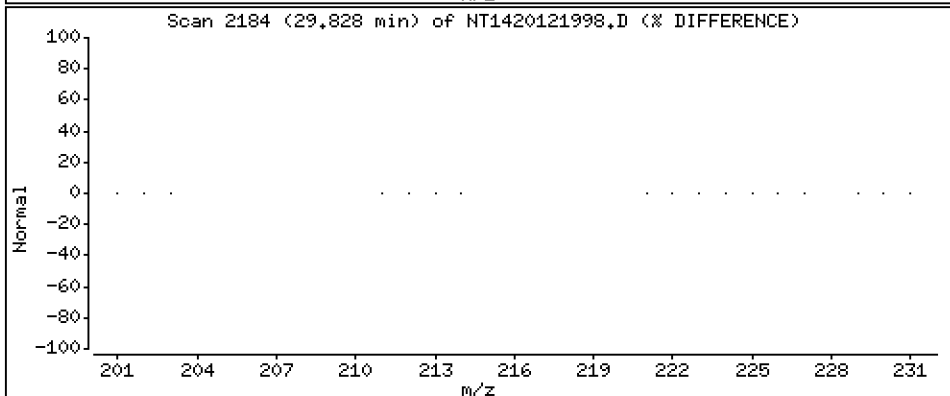
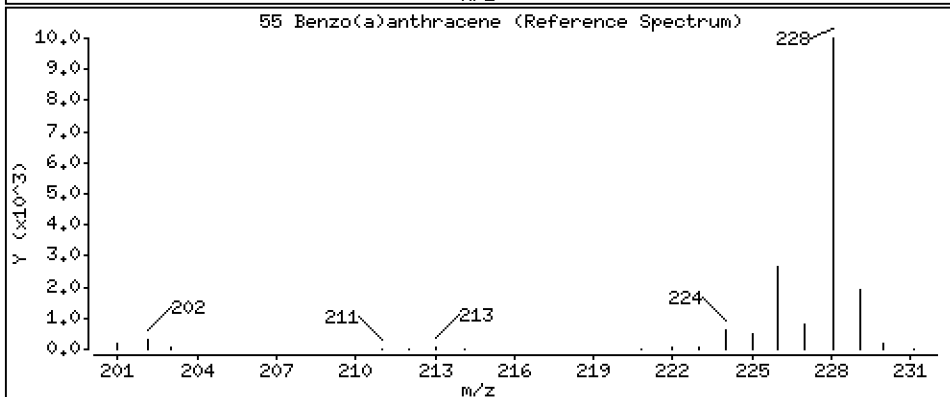
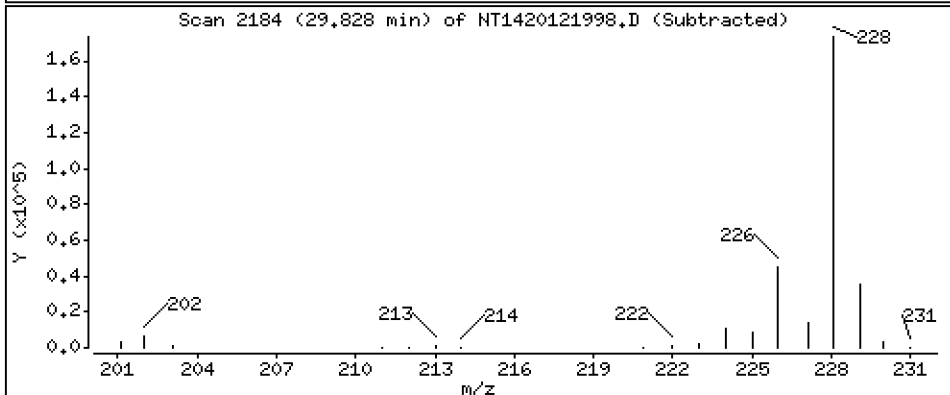
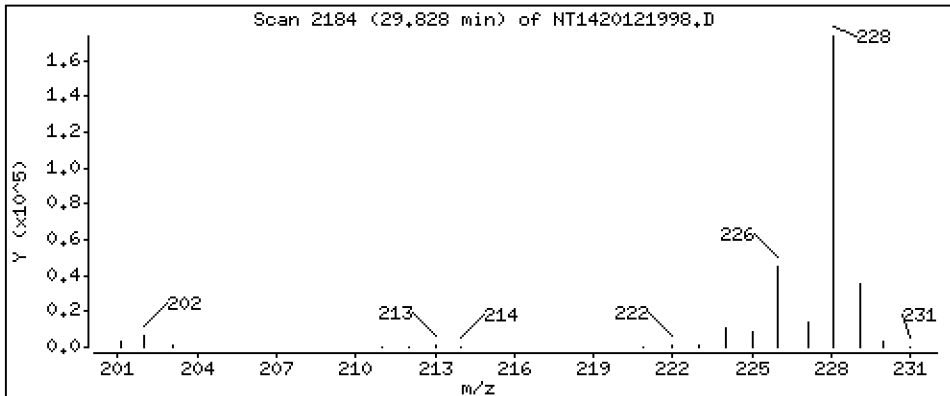
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

55 Benzo(a)anthracene

Concentration: 2,771 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

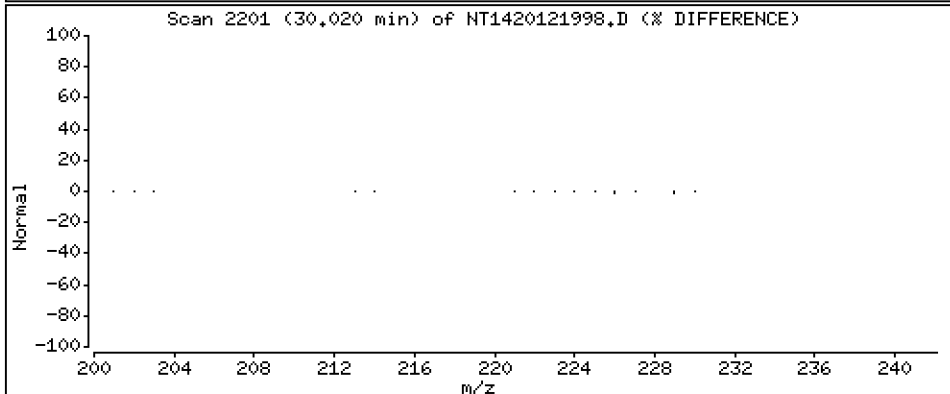
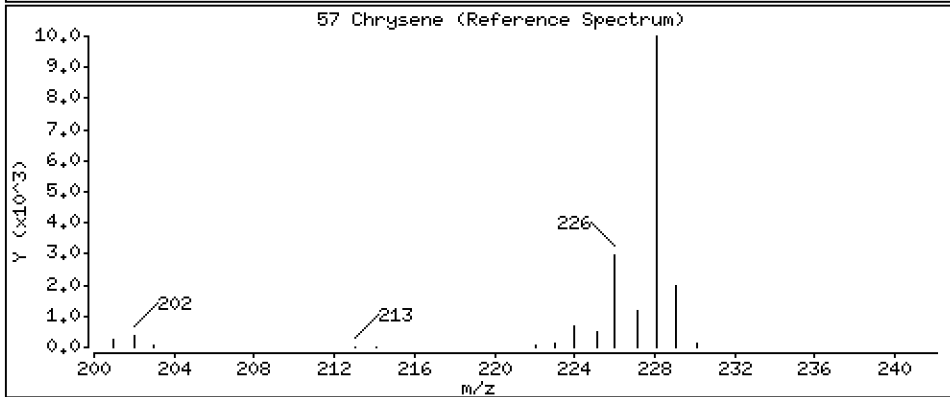
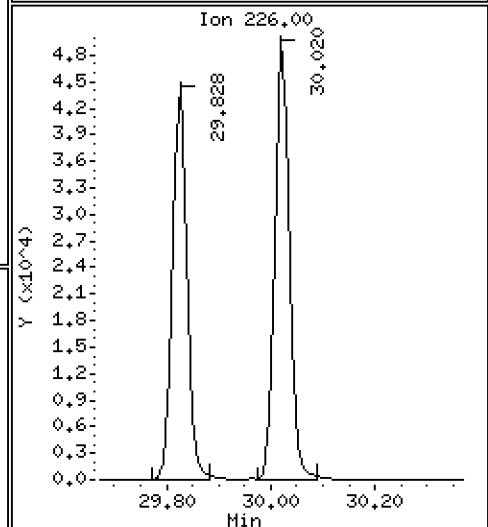
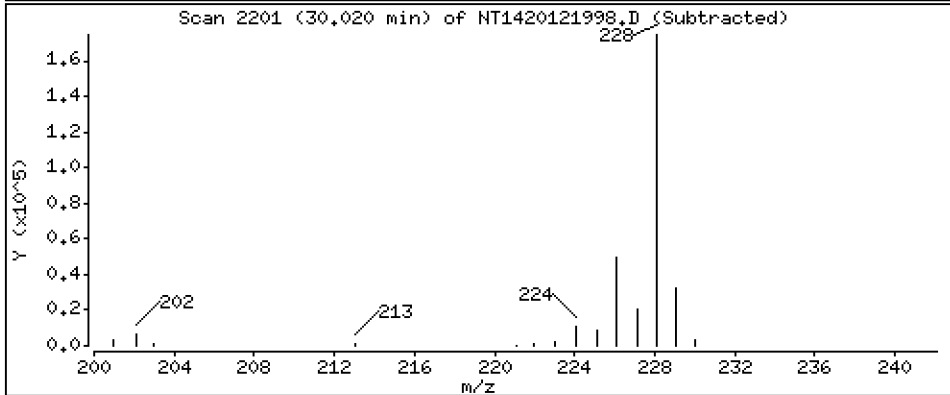
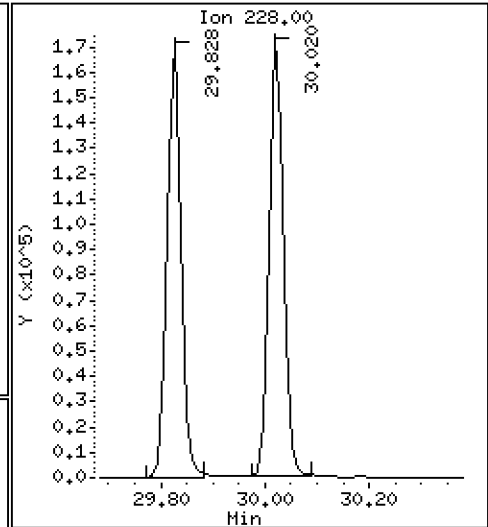
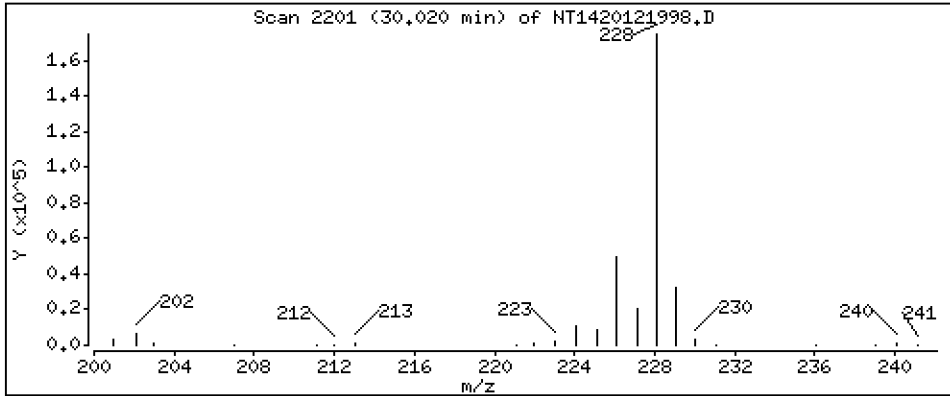
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

57 Chrysene

Concentration: 2,460 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

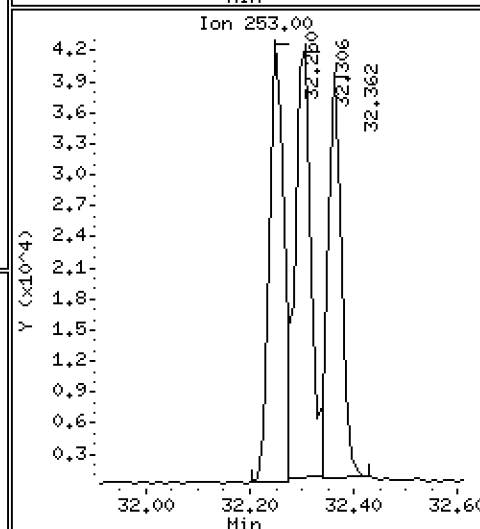
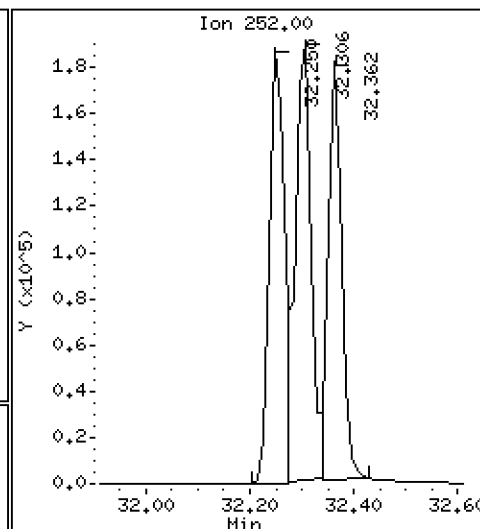
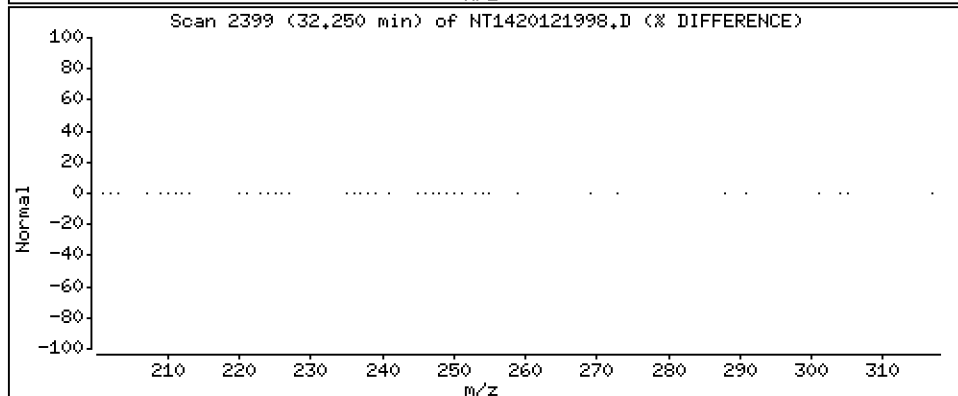
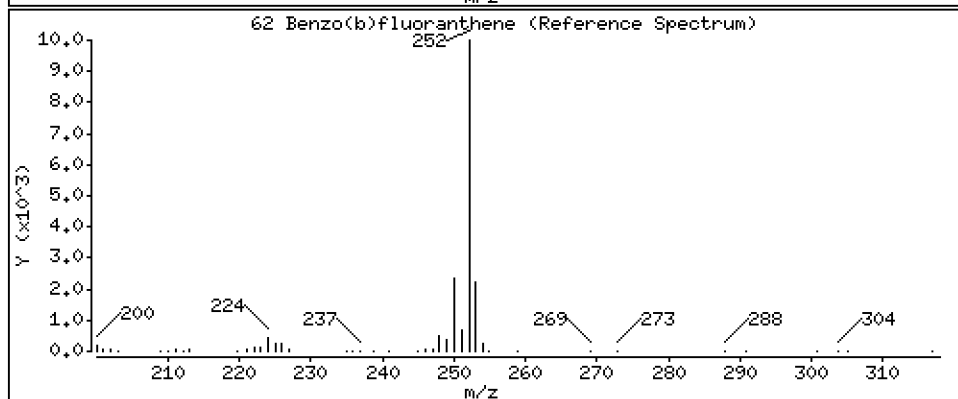
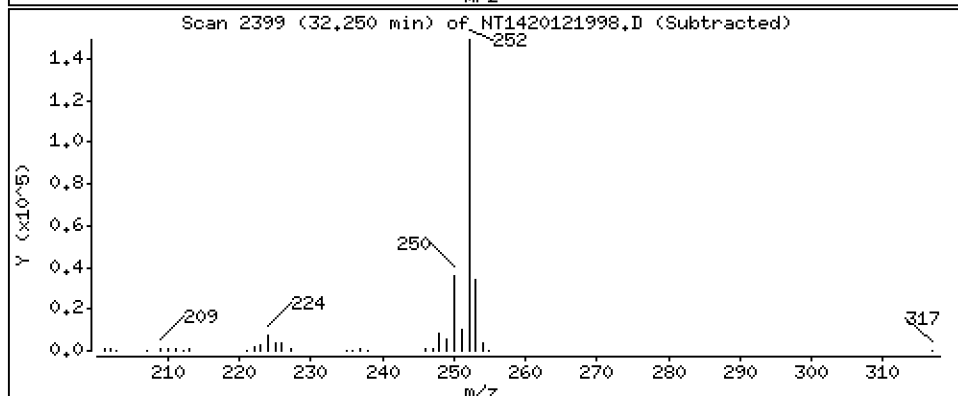
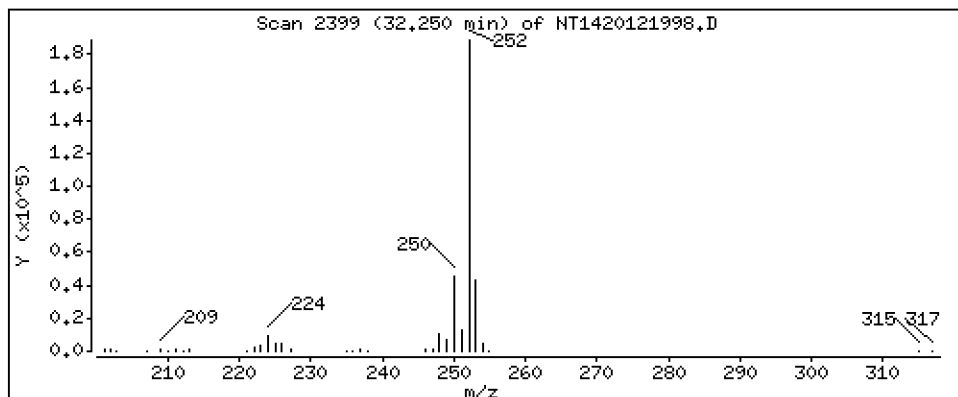
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

62 Benzo(b)fluoranthene

Concentration: 2,387 ug/mL





Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

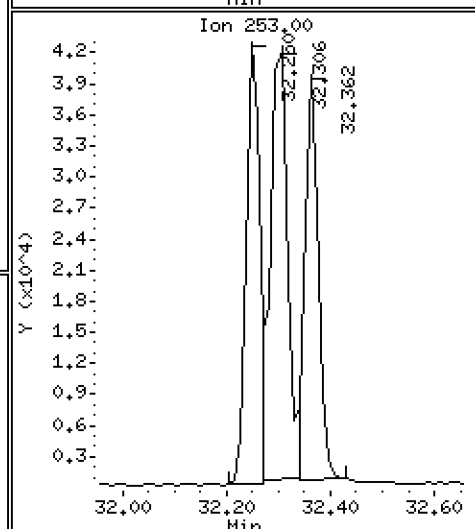
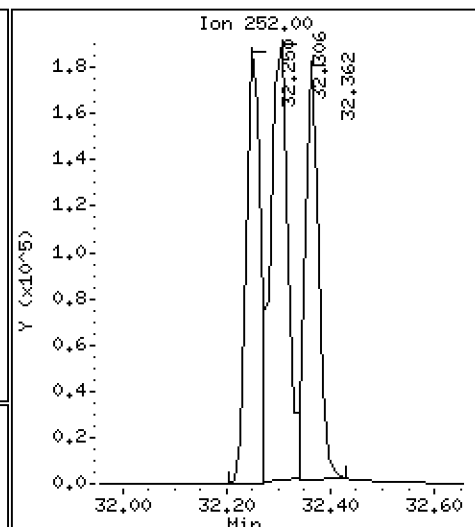
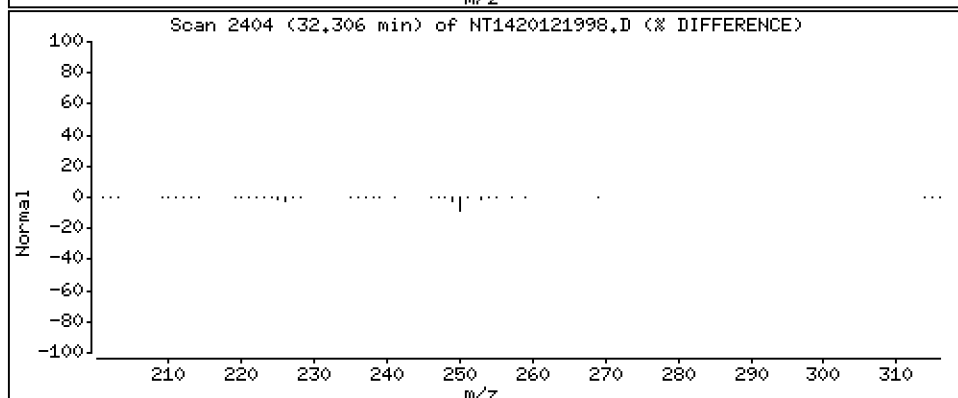
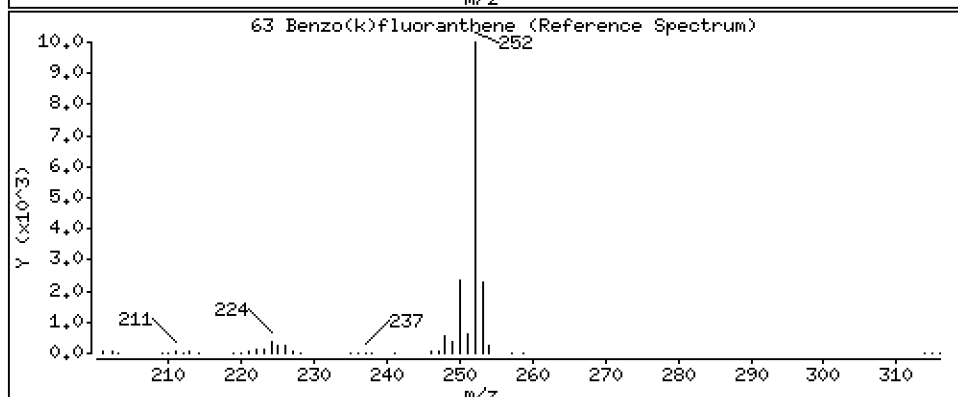
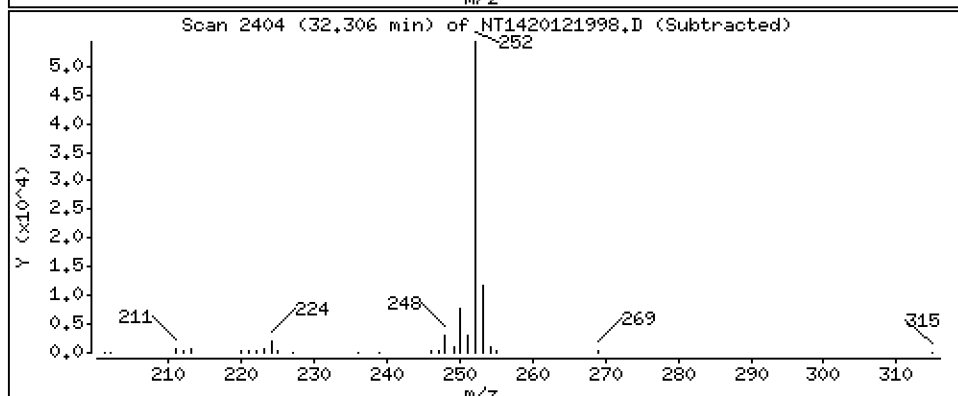
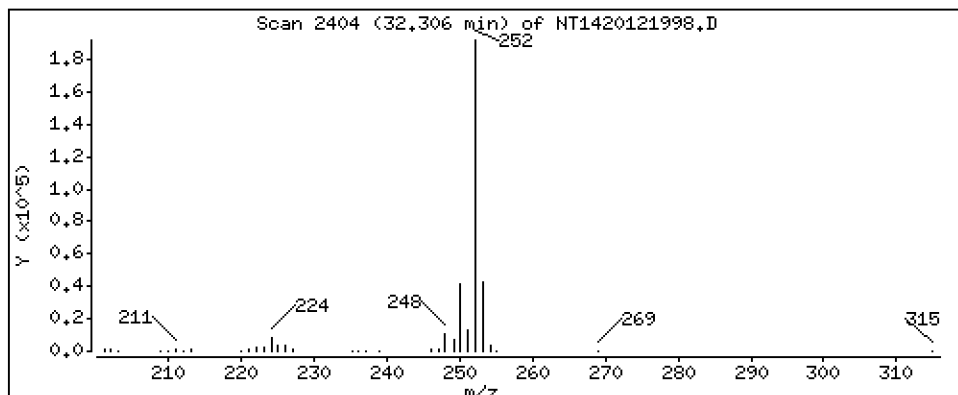
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

63 Benzo(k)fluoranthene

Concentration: 2,872 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

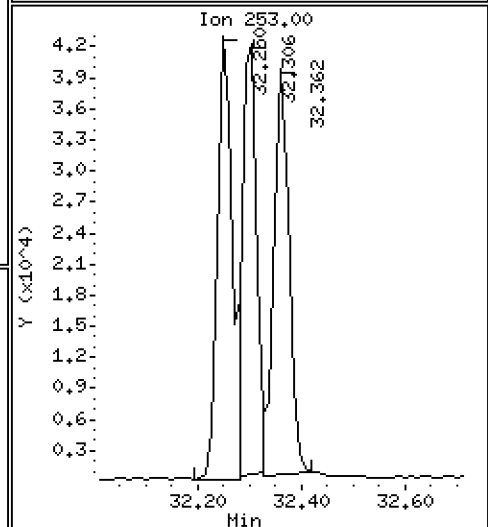
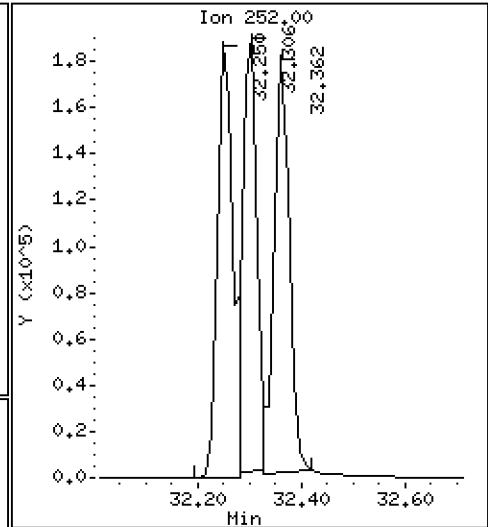
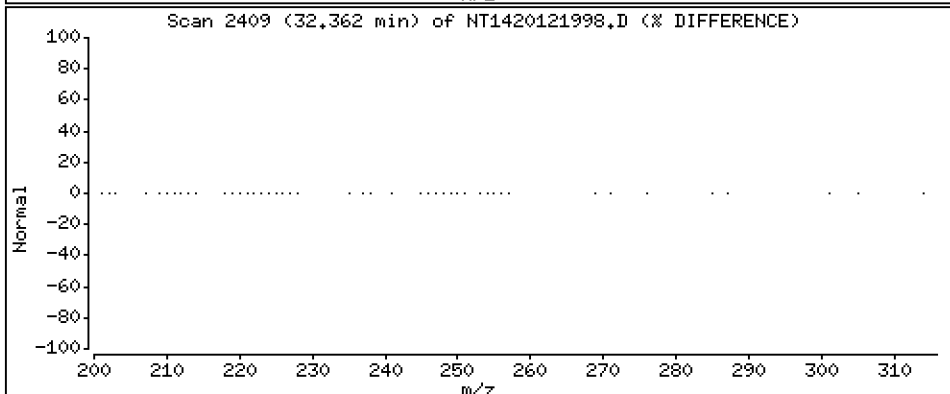
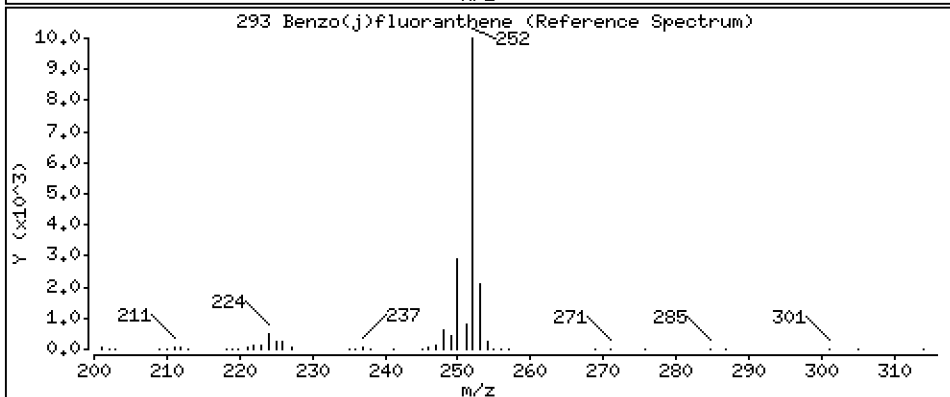
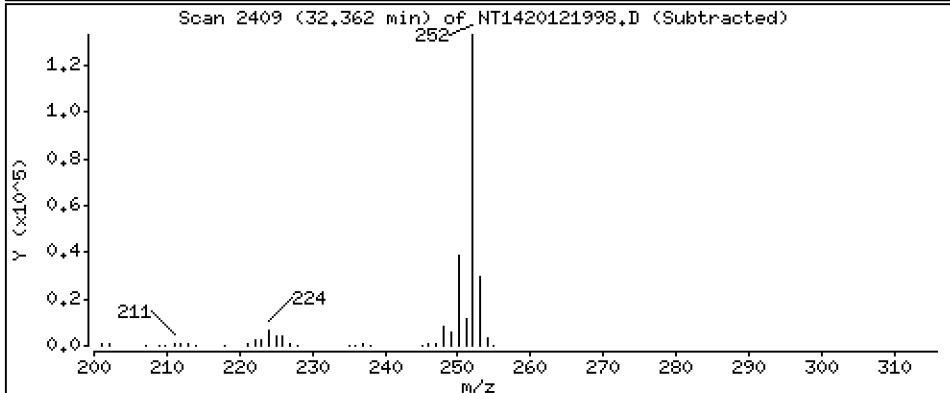
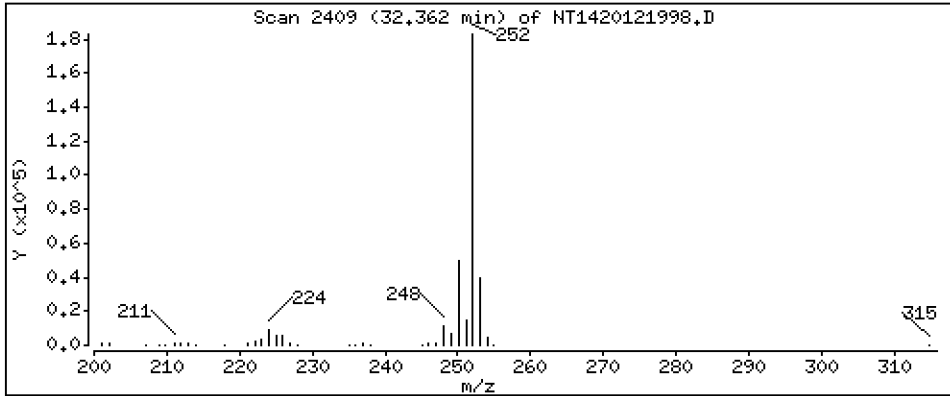
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

293 Benzo(j)fluoranthene

Concentration: 2,583 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

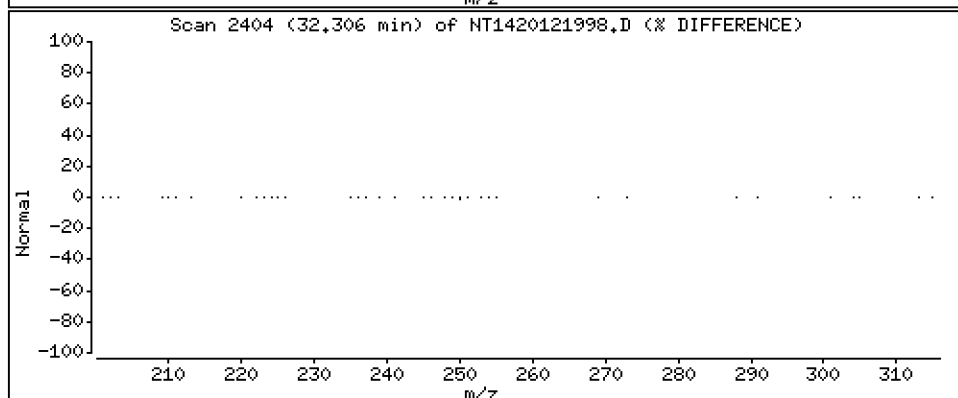
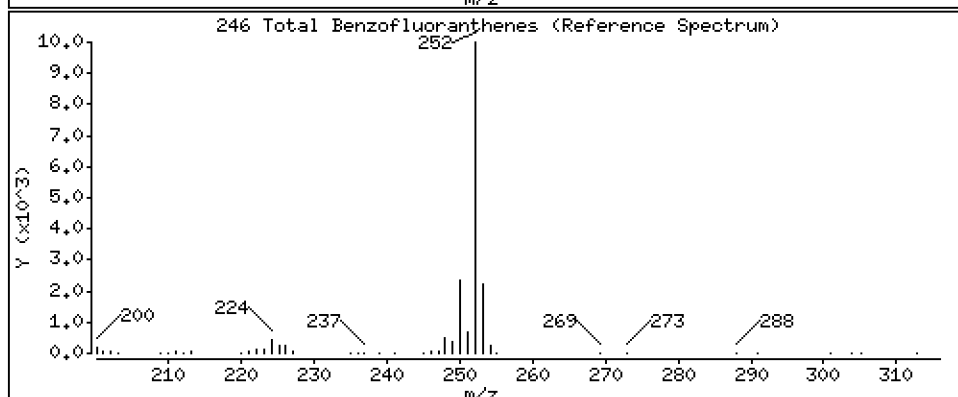
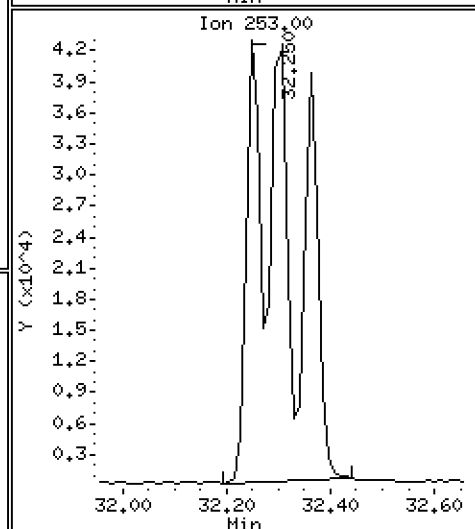
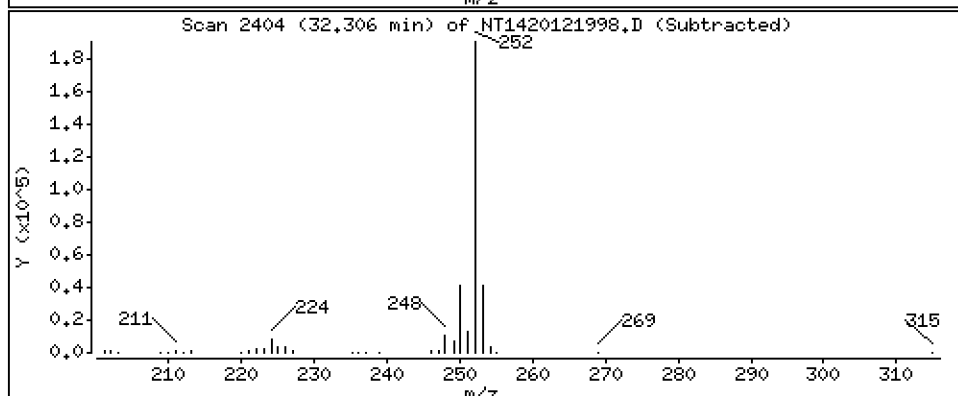
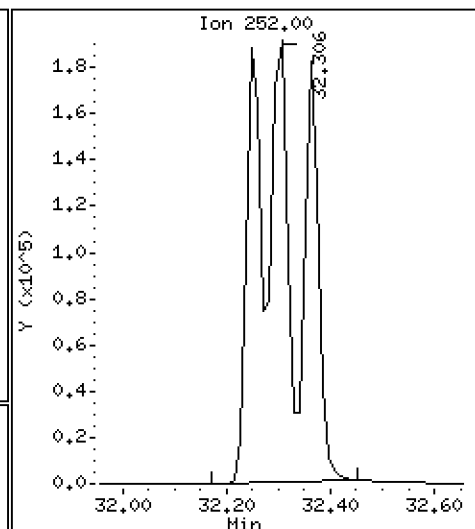
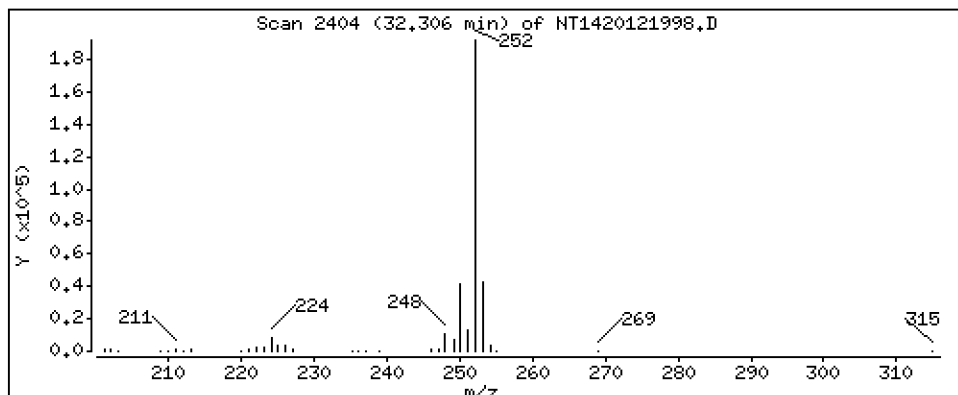
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

246 Total Benzofluoranthenes

Concentration: 7,603 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

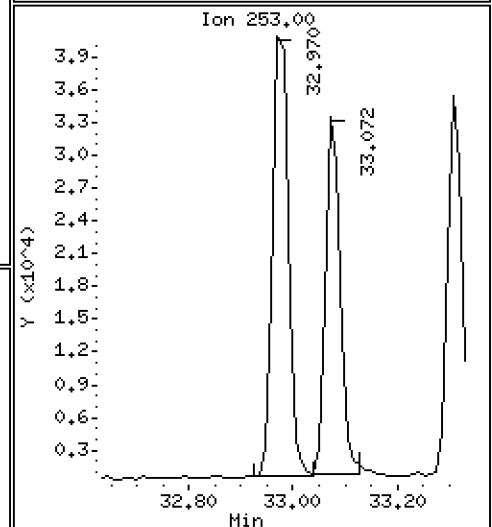
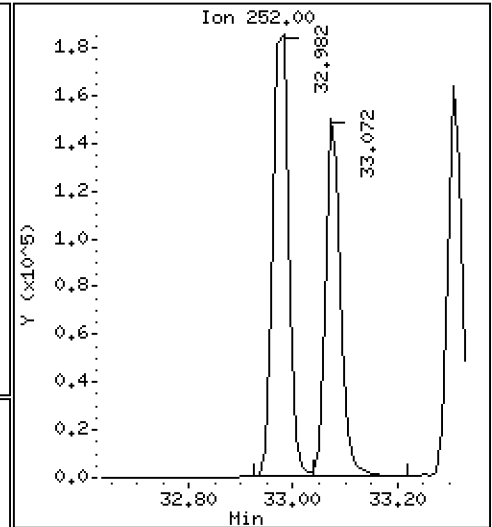
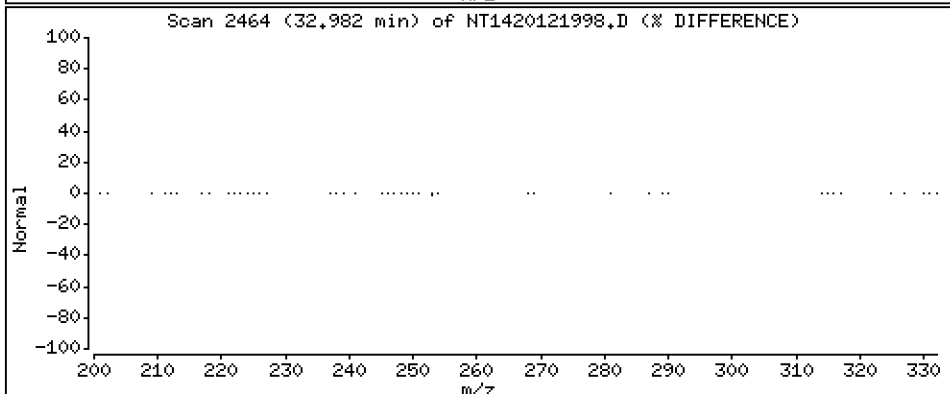
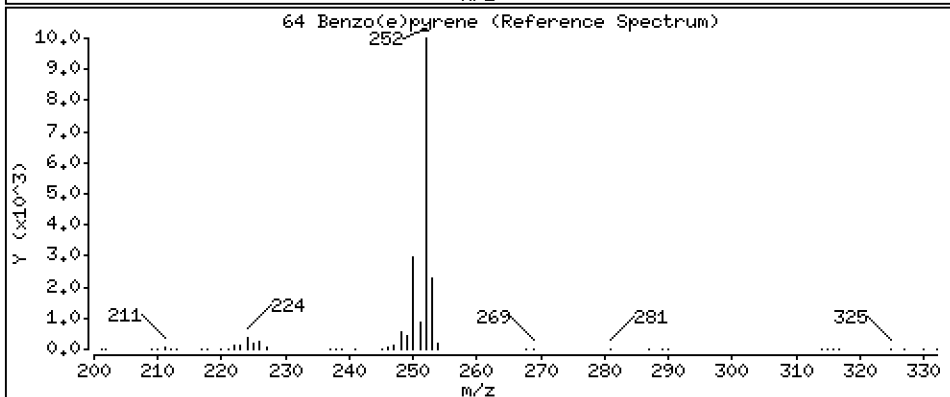
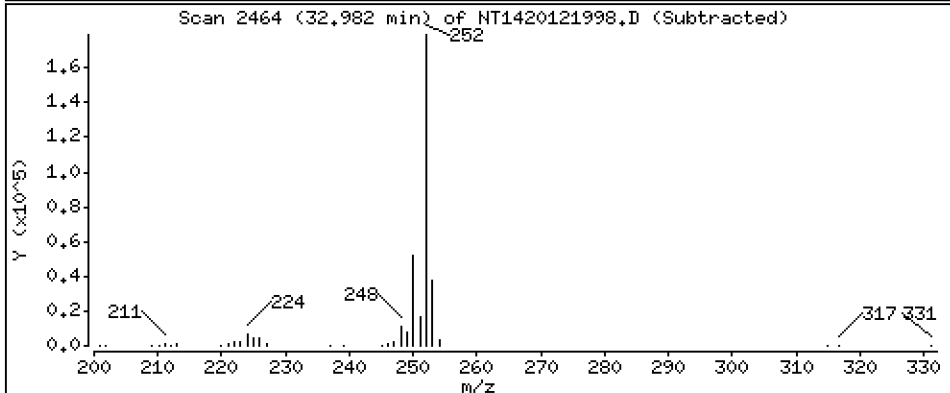
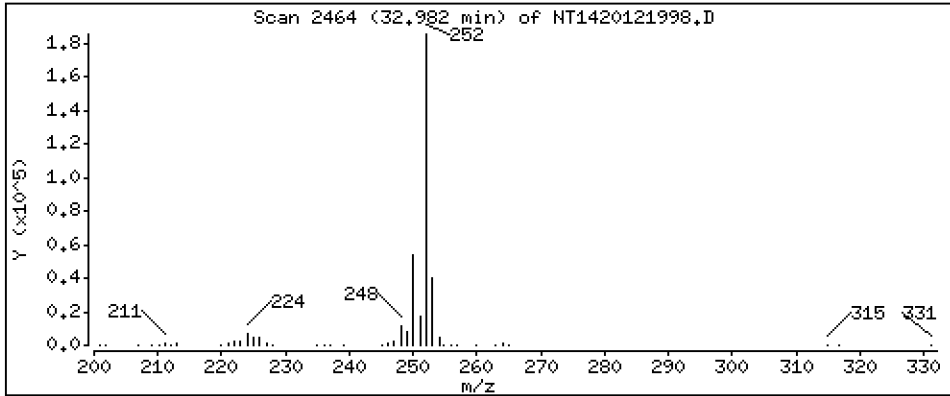
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

64 Benzo(e)pyrene

Concentration: 2,597 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

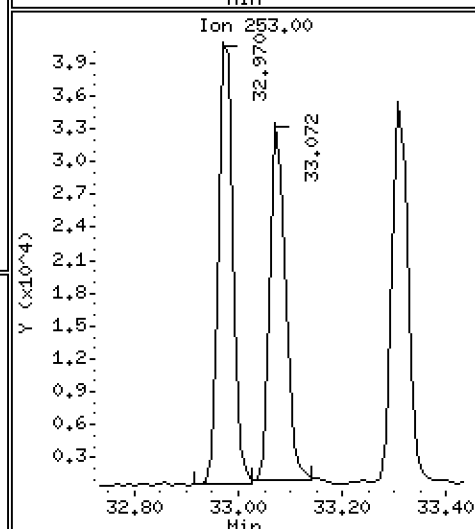
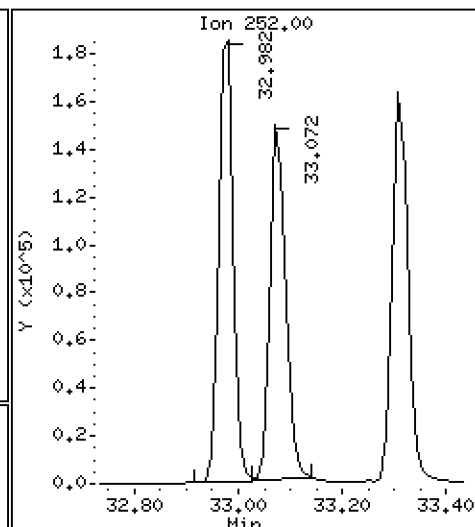
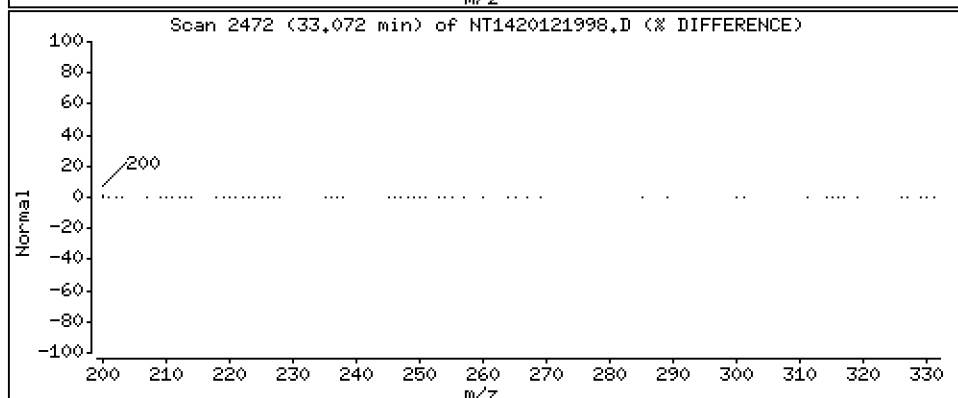
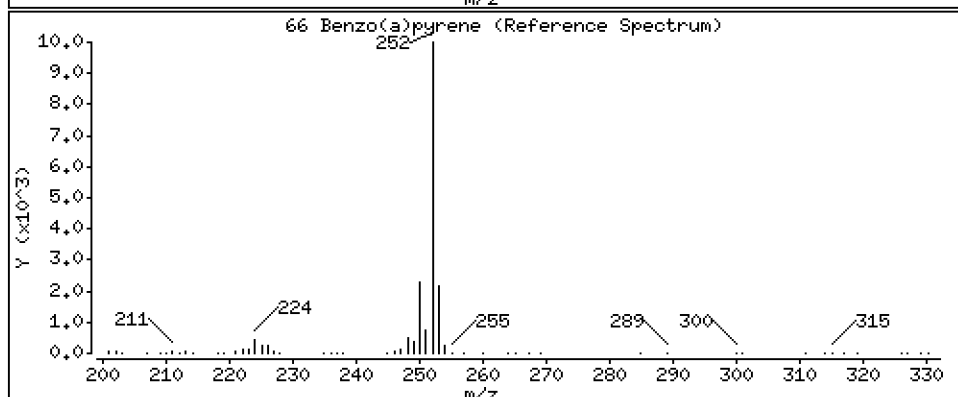
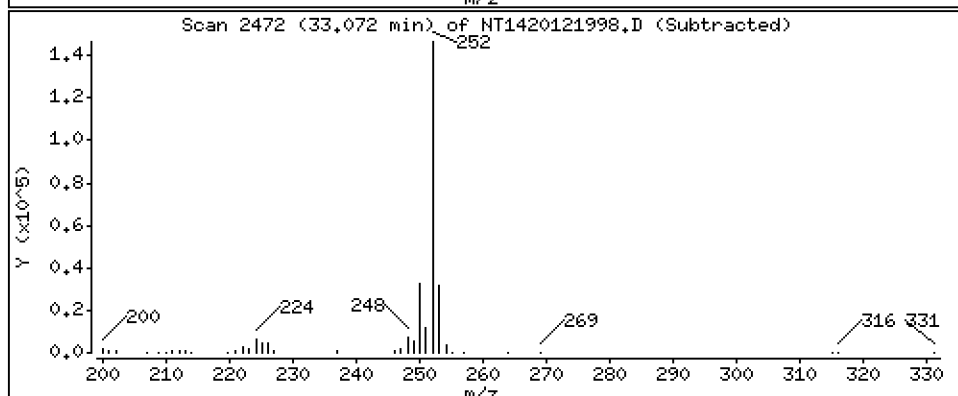
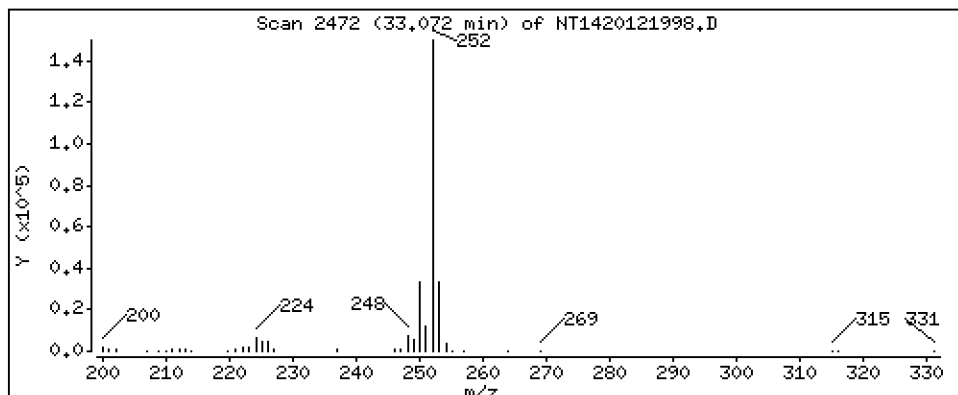
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

66 Benzo(a)pyrene

Concentration: 2,203 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

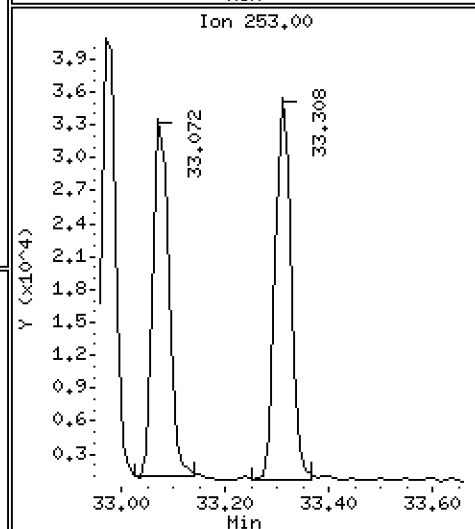
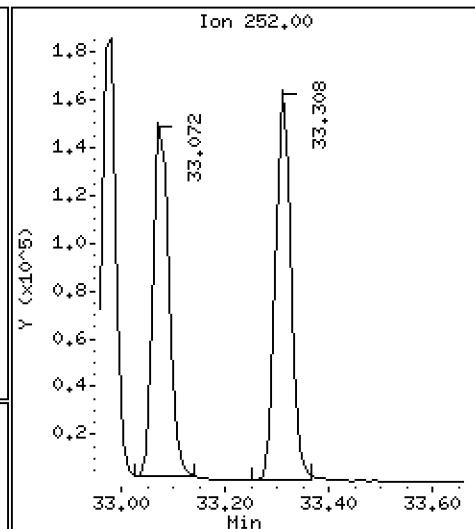
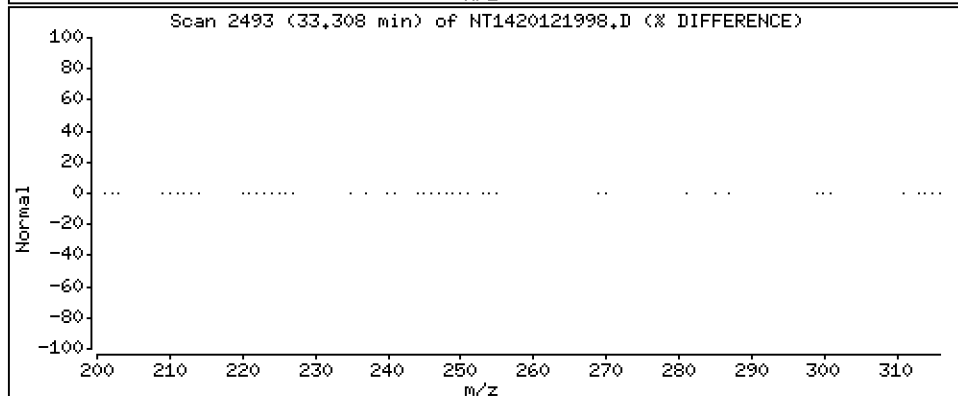
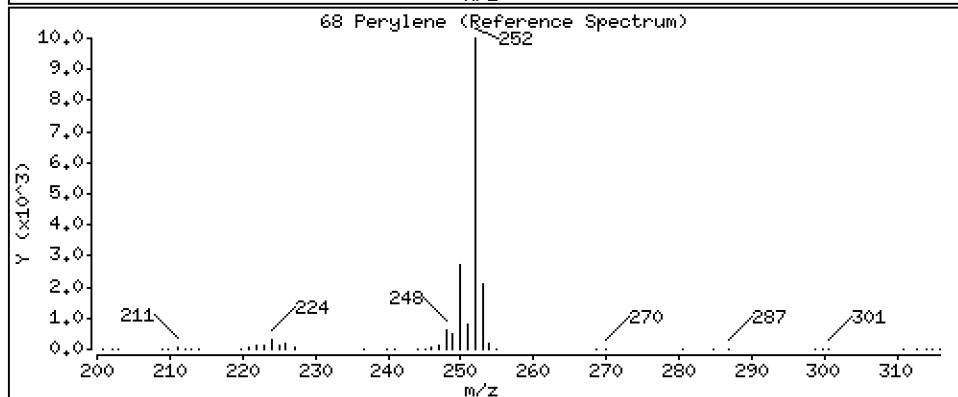
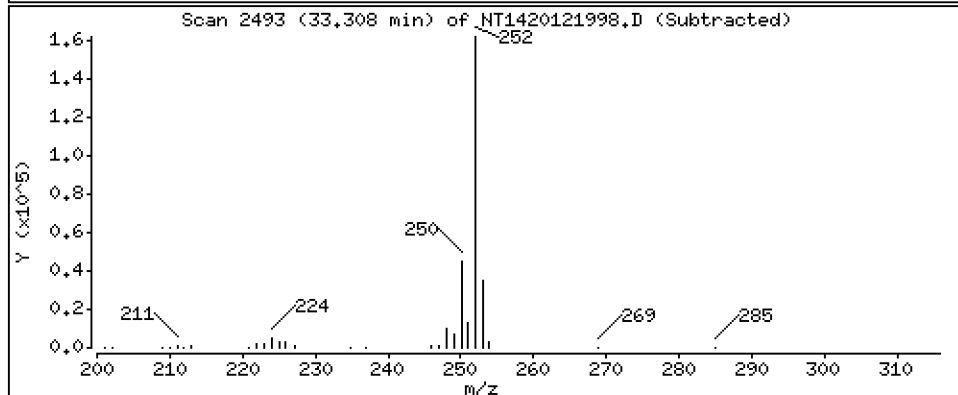
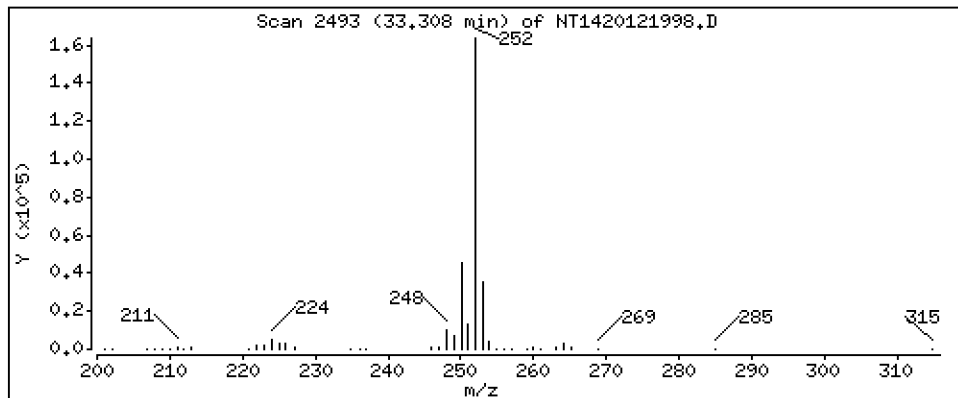
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

68 Perylene

Concentration: 2,228 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

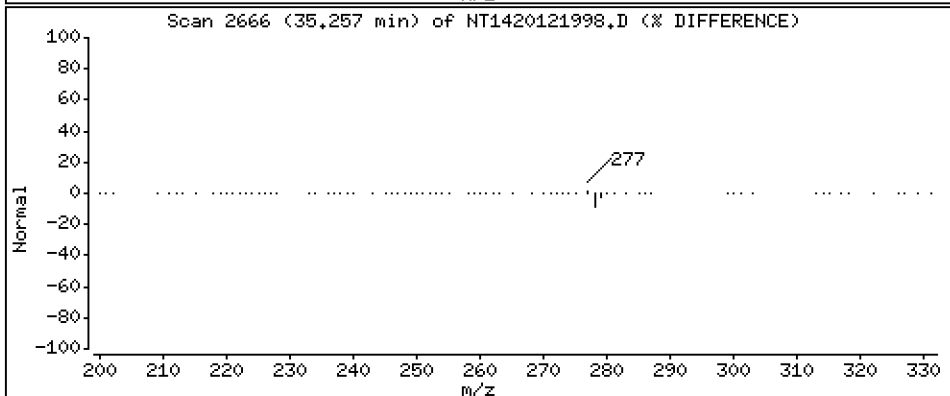
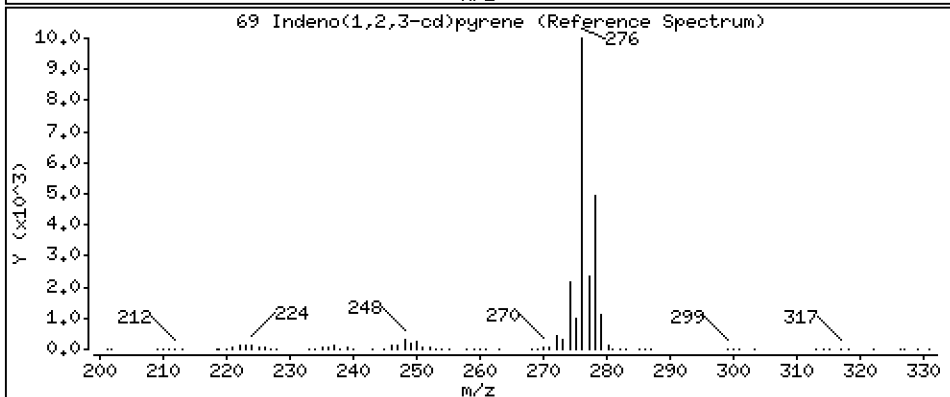
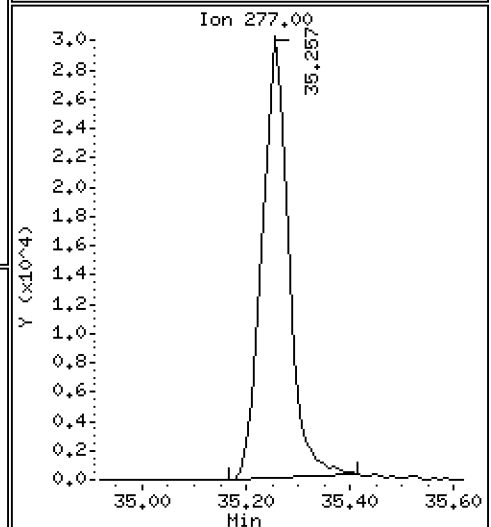
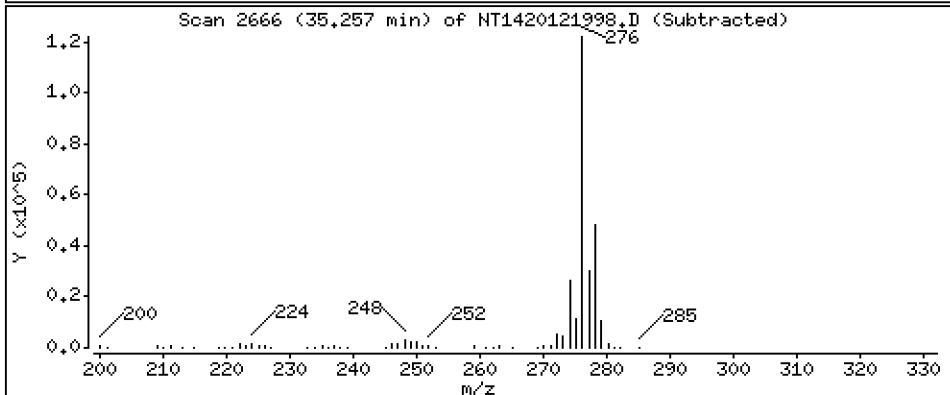
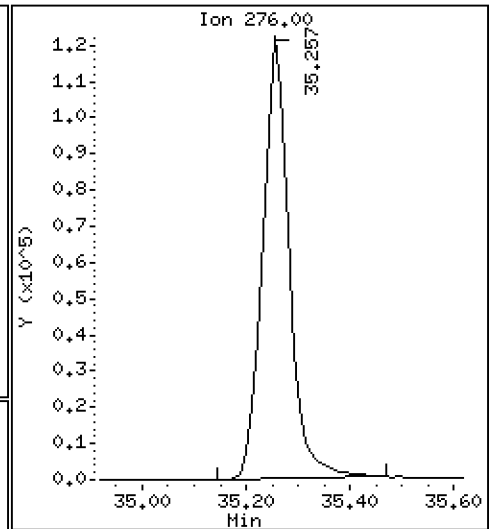
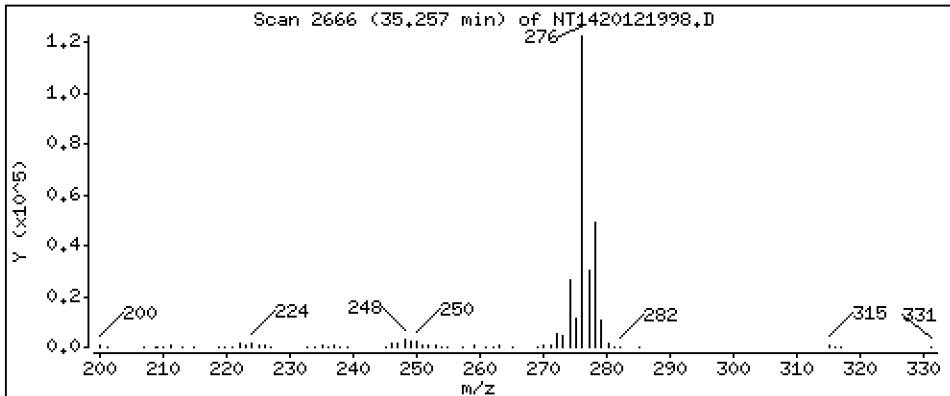
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

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

Concentration: 2,528 ug/mL



Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

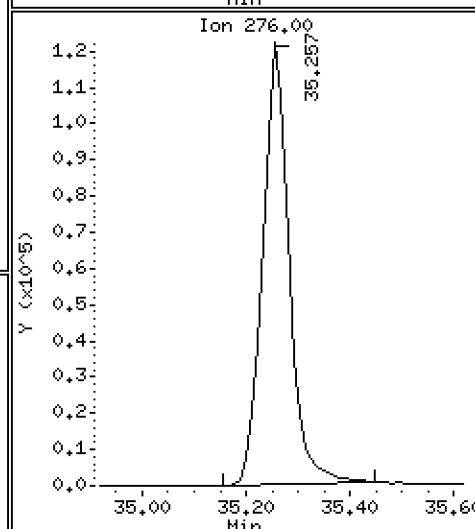
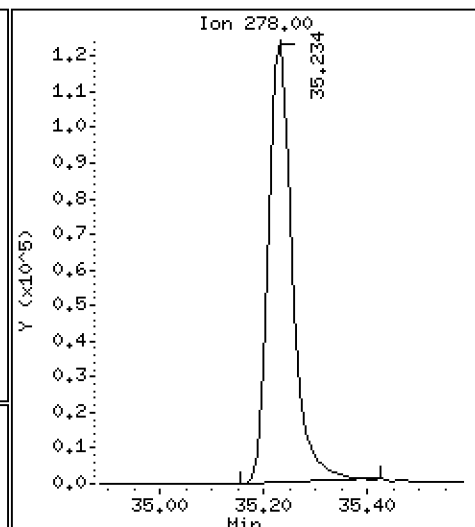
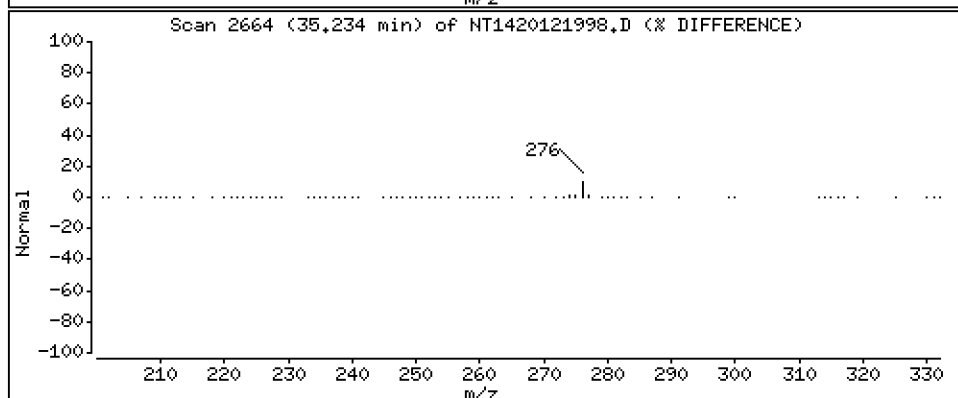
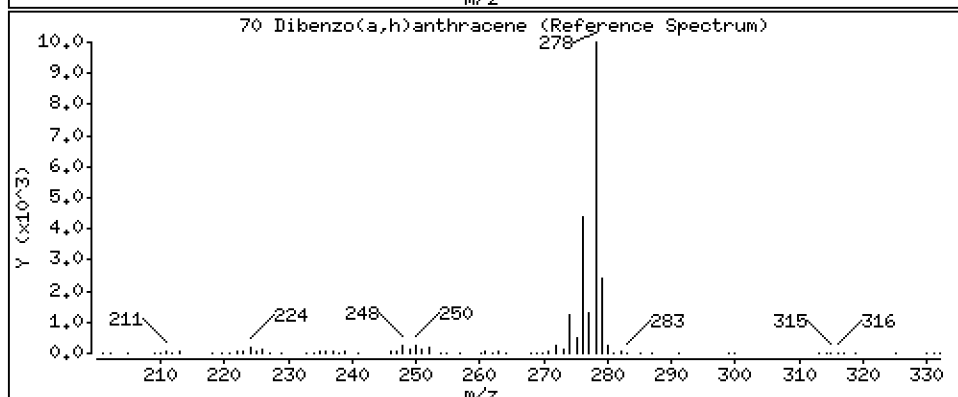
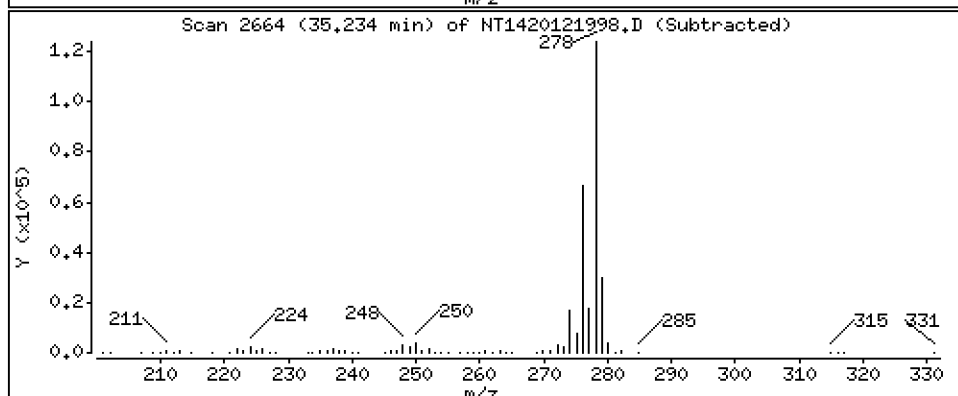
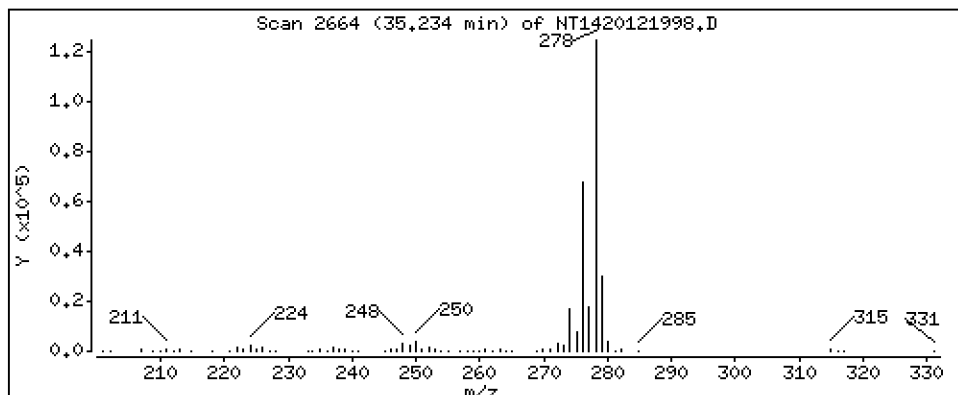
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

70 Dibenzo(a,h)anthracene

Concentration: 2,593 ug/mL





Date : 22-DEC-2020 15:31

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-BS1

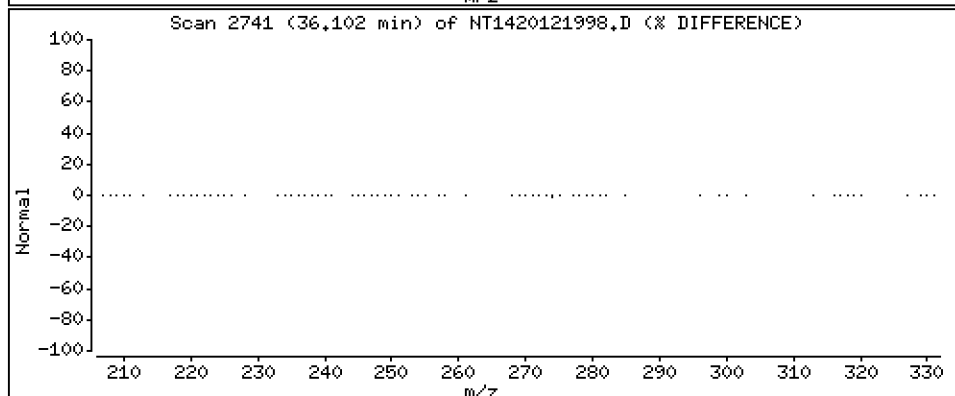
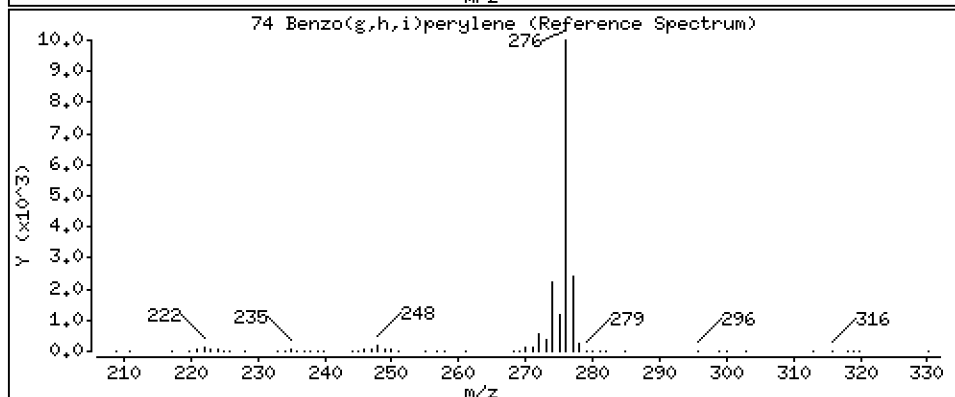
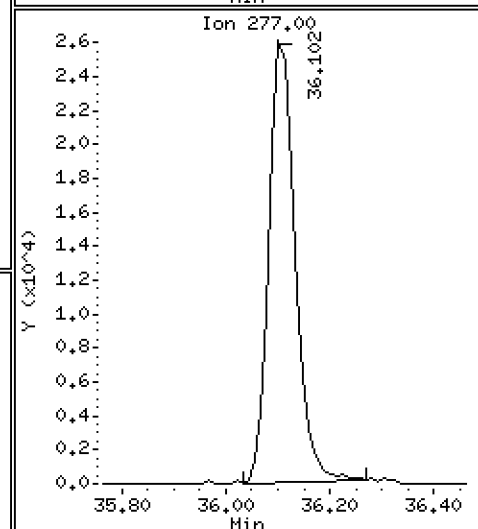
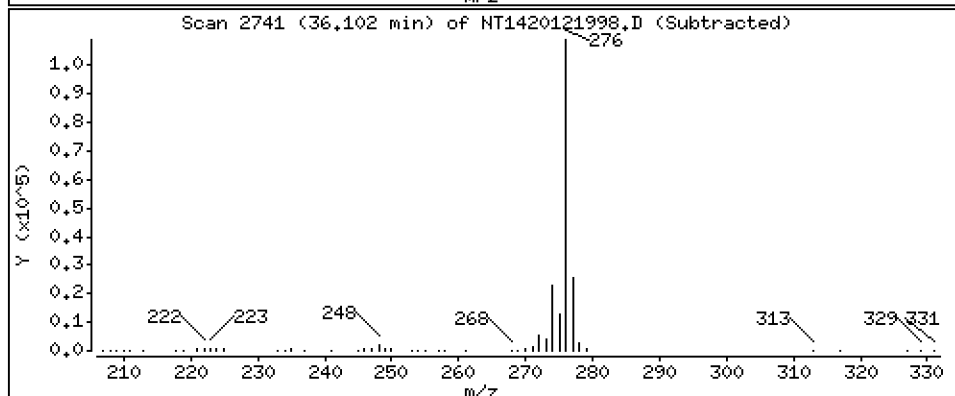
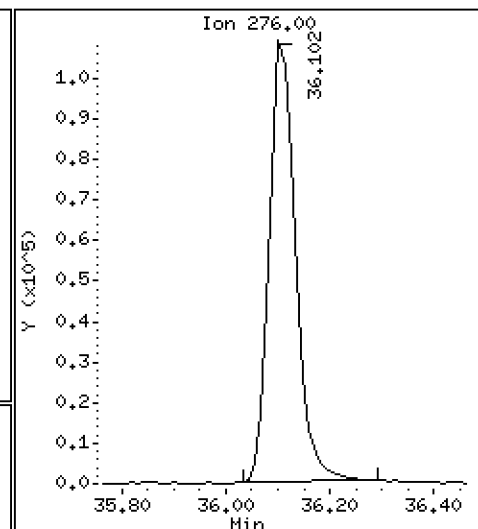
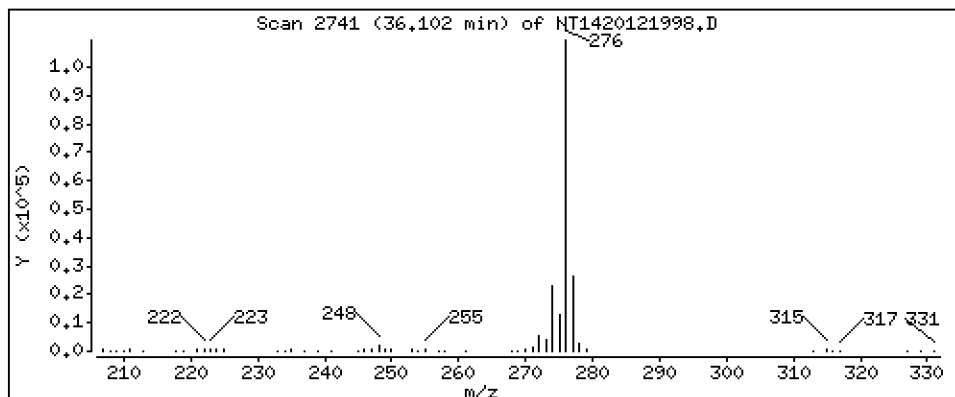
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

74 Benzo(g,h,i)perylene

Concentration: 2,534 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20201219F.b\NT1420121998.D  
 Lab Smp Id: BIK0745-BS1  
 Inj Date : 22-DEC-2020 15:31  
 Operator : VTS  
 Smp Info : BIK0745-BS1  
 Misc Info :  
 Comment : 1ul Injection  
 Method : \\target\share\chem3\nt14.i\20201219F.b\ALKYLPNA.m  
 Meth Date : 23-Dec-2020 11:48 van  
 Cal Date : 07-OCT-2020 15:56  
 Als bottle: 84  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 4.14  
 Processing Host: VANS-202011

Inst ID: nt14.i

Quant Type: ISTD  
 Cal File: NT1420100708.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		6.914	6.904	(0.372)	16764	1.53707	1.537
2 cis-Decalin	138		8.003	7.993	(0.430)	13677	1.66658	1.667
\$ 6 Naphthalene-d8	136		11.597	11.608	(0.624)	218306	2.05026	2.050 (R)
7 Naphthalene	128		11.663	11.674	(0.627)	194689	1.82760	1.828
12 Benzo(b)thiophene	134		12.113	12.135	(0.651)	156941	1.75336	1.753
16 2-Methylnaphthalene	141		13.509	13.520	(0.726)	121675	1.87372	1.874
17 1-methylnaphthalene	141		13.959	13.960	(0.751)	117465	1.78495	1.785
18 Biphenyl	154		15.146	15.146	(0.814)	178928	1.83077	1.831 (M)
19 2,6-Dimethylnaphthalene	156		15.223	15.234	(0.819)	138965	1.94765	1.948
20 Acenaphthylene	152		16.784	16.795	(0.902)	209604	1.79159	1.792
\$ 21 Acenaphthene-d10	164		17.070	17.070	(0.918)	130507	2.04115	2.041 (R)
22 Acenaphthene	153		17.179	17.191	(0.924)	149323	1.94831	1.948
23 Dibenzofuran	168		17.564	17.575	(0.944)	214655	1.93056	1.931
24 1,6,7-Trimethylnaphthalene	170		17.795	17.795	(0.957)	148134	2.04778	2.048
* 25 Fluorene-d10	176		18.598	18.610	(1.000)	260956	2.00000	
26 Fluorene	166		18.712	18.712	(1.006)	173346	1.99987	2.000
30 Dibenzothiophene	184		21.614	21.626	(1.162)	251164	2.01338	2.013
\$ 35 Phenanthrene-d10	188		21.930	21.930	(0.995)	308256	2.83129	2.831 (R)
36 Phenanthrene	178		22.007	22.018	(0.999)	271605	2.15755	2.158
* 250 Anthracene-d10	188		22.040	22.051	(1.000)	227316	2.00000	
37 Anthracene	178		22.105	22.117	(1.003)	236048	1.90795	1.908
42 Carbazole	167		23.403	23.403	(1.062)	244186	2.27917	2.279
43 1-Methylphenanthrene	192		23.842	23.843	(1.082)	209826	2.27086	2.271
44 Fluoranthene	202		25.821	25.822	(1.172)	328154	2.36187	2.362
46 Pyrene	202		26.668	26.679	(1.210)	344177	2.34751	2.348
51 Naphthobenzothiophene	234		29.234	29.245	(1.326)	301774	2.25820	2.258
55 Benzo(a)anthracene	228		29.828	29.828	(0.906)	380428	2.77088	2.771
\$ 56 Chrysene-d12	240		29.951	29.952	(0.910)	267433	2.46636	2.466 (R)
57 Chrysene	228		30.019	30.030	(0.912)	335740	2.46038	2.460
62 Benzo(b)fluoranthene	252		32.249	32.261	(0.980)	369977	2.38662	2.387
63 Benzo(k)fluoranthene	252		32.305	32.306	(0.982)	448735	2.87196	2.872
293 Benzo(j)fluoranthene	252		32.362	32.362	(0.983)	352838	2.58340	2.583
246 Total Benzofluoranthenes	252		32.305	32.306	(0.982)	1093625	7.60330	7.603 (M)

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	32.914	32.914	(1.000)	318029	2.00000	
64 Benzo(e)pyrene	252	32.981	32.981	(1.002)	368612	2.59702	2.597
66 Benzo(a)pyrene	252	33.071	33.083	(1.005)	295381	2.20263	2.203
\$ 67 Perylene-d12	264	33.252	33.252	(1.010)	300960	2.28858	2.289 (R)
68 Perylene	252	33.308	33.308	(1.012)	313770	2.22758	2.228
69 Indeno(1,2,3-cd)pyrene	276	35.256	35.268	(1.071)	419737	2.52753	2.528 (M)
70 Dibenzo(a,h)anthracene	278	35.234	35.234	(1.070)	380404	2.59277	2.593 (M)
74 Benzo(g,h,i)perylene	276	36.101	36.113	(1.097)	369749	2.53444	2.534 (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: 22-DEC-2020  
Lab File ID: NT1420121998.D Calibration Time: 09:54  
Lab Smp Id: BIK0745-BS1  
Analysis Type: SV Level:  
Quant Type: ISTD Sample Type:  
Operator: VTS  
Method File: \\target\share\chem3\nt14.i\20201219F.b\ALKYLPNA.m  
Misc Info:

Test Mode:  
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	263433	131717	526866	260956	-0.94
250 Anthracene-d10	236791	118396	473582	227316	-4.00
251 Benzo(e)pyrene-d1	338506	169253	677012	318029	-6.05

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.61	18.11	19.11	18.60	-0.06
250 Anthracene-d10	22.05	21.55	22.55	22.04	-0.05
251 Benzo(e)pyrene-d1	32.91	32.41	33.41	32.91	-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 - NT1420121998.D

Lab ID: BIK0745-BS1

nt14.i, 20201219F.b\ALKYLPNA.m, 22-DEC-2020 15:31

RT CO-ELUTION COMPOUNDS

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NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

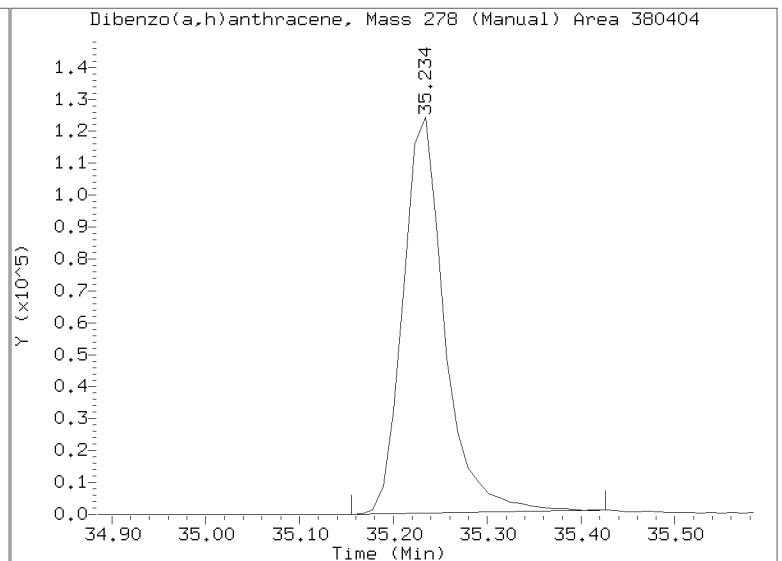
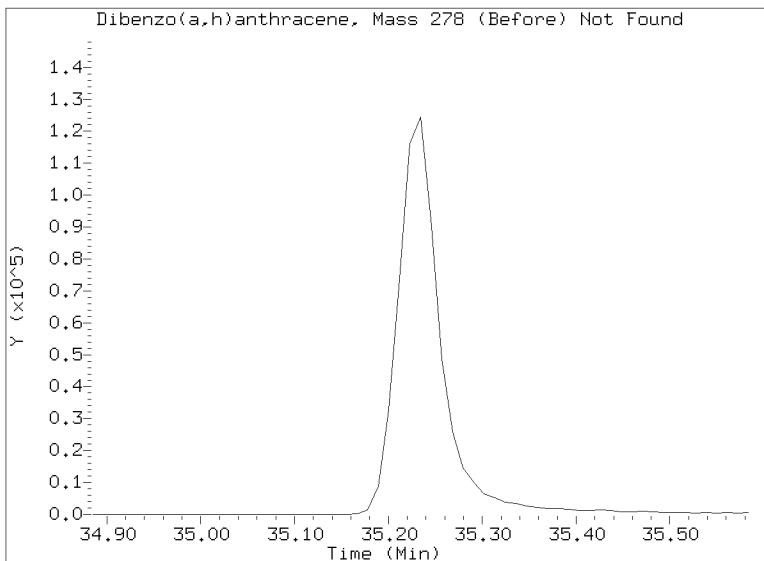
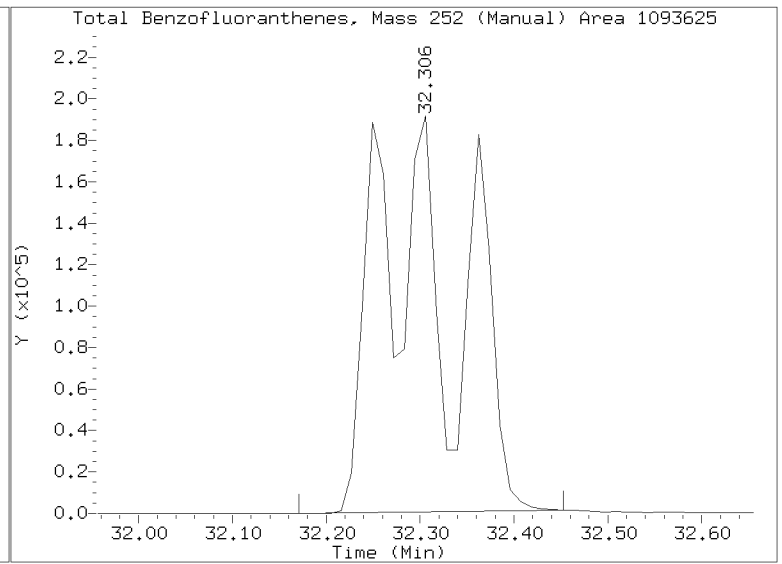
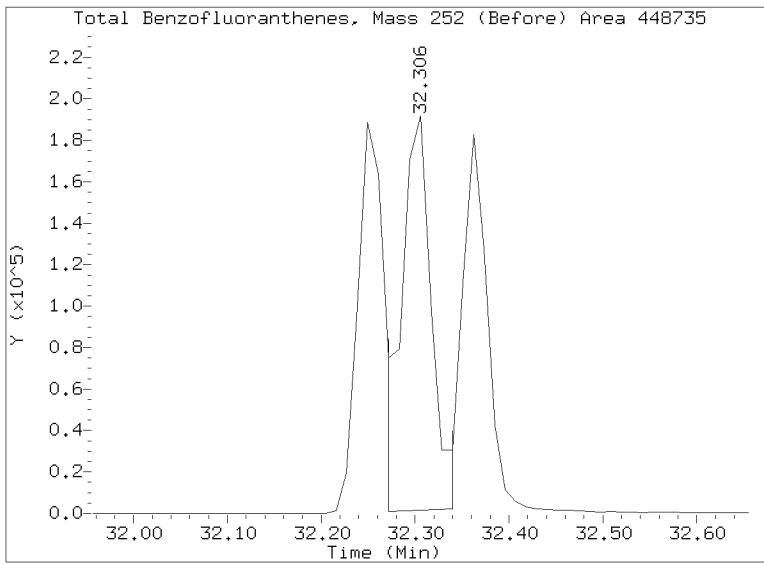
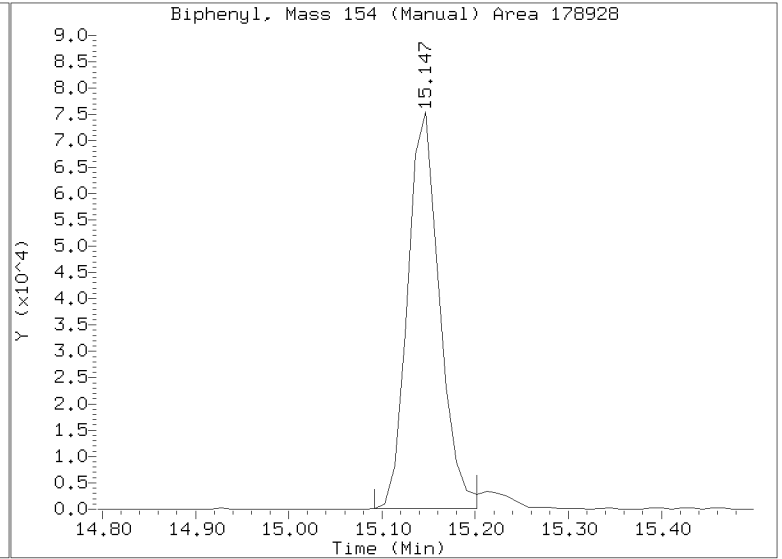
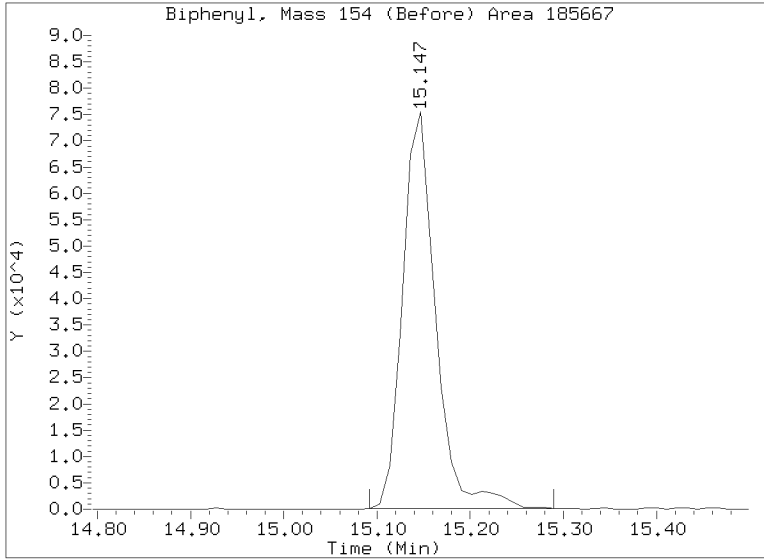
RRT check based on Ccal File: NT1420121991ICV.D

On Column LOD for nt14.i, 20201219F.b\ALKYLPNA.m, TARGETS.sub = 0.0000

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

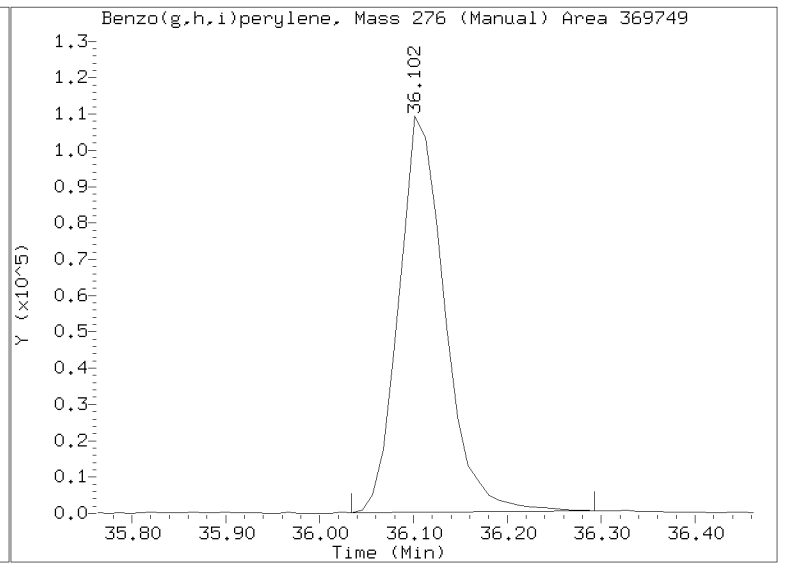
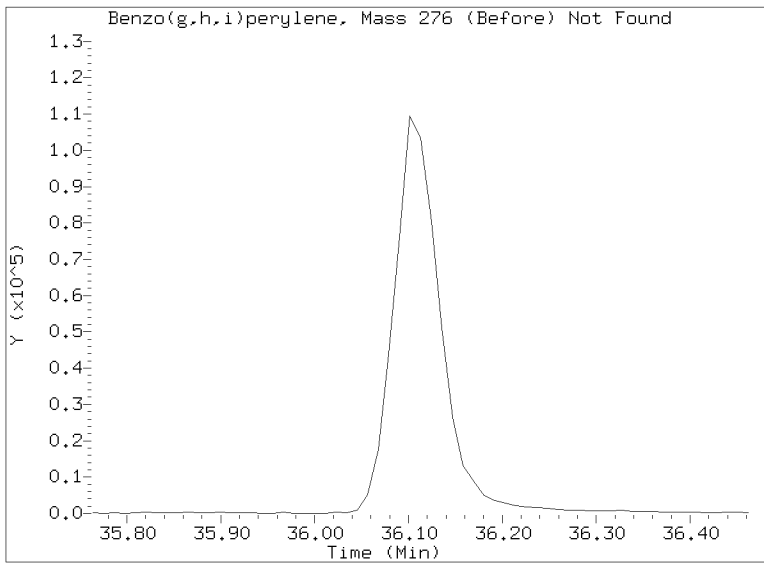
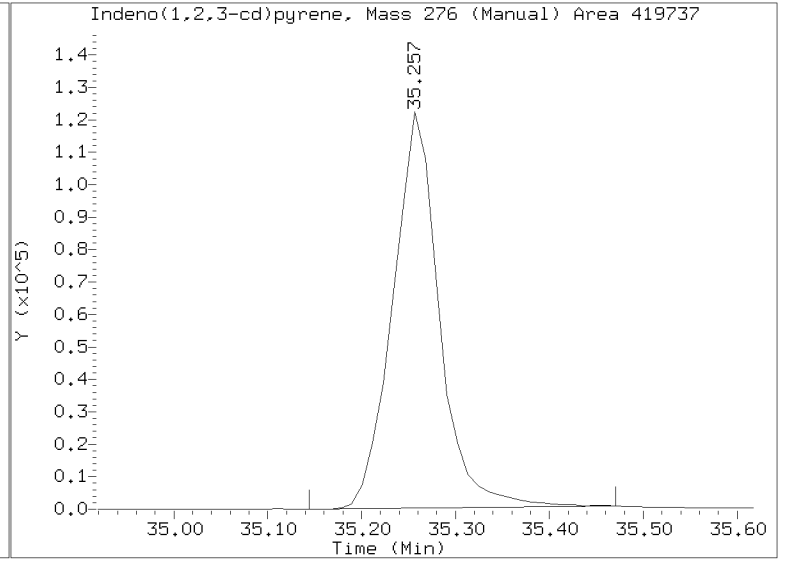
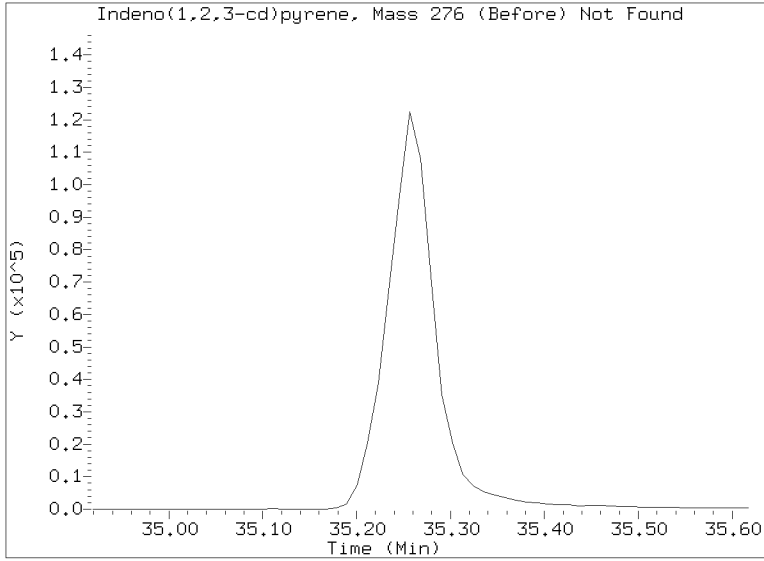
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201219F.b/NT1420121998.D  
Injection Date: 22-DEC-2020 15:31  
Lab ID:BIK0745-BS1 Client ID:  
Report Date: 12/29/2020 13:45



# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201219F.b/NT1420121998.D  
Injection Date: 22-DEC-2020 15:31  
Lab ID:BIK0745-BS1 Client ID:  
Report Date: 12/29/2020 13:45





**MS / MS DUPLICATE RECOVERY**  
**EPA 8270E-SIM**

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Matrix: Solid

Analyzed: 12/22/20 17:55

Batch: BIK0745

Laboratory ID: BIK0745-MS1

Preparation: EPA 3546 (Microwave)

Sequence Name: Matrix Spike

Initial/Final: 13.1 g / 0.5 mL

Source Sample: USMPDI-006SC-D-02-04-201110

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	Q	MS CONCENTRATION (ug/kg dry)	Q	MS % REC. #	QC LIMITS REC.
trans-Decalin	150	ND	U	84.1		56.1	30 - 160
cis-Decalin	150	ND	U	88.1		58.8	30 - 160
Naphthalene	150	28.7		110		54.1	37 - 120
1-Methylnaphthalene	150	4.6	J	96.6		61.4	30 - 160
2-Methylnaphthalene	150	8.9		101		61.4	37 - 120
Biphenyl	150	3.6	J	99.4		63.9	30 - 160
2,6-Dimethylnaphthalene	150	3.6	J	104		67.2	30 - 160
Acenaphthylene	150	6.8		102		63.6	35 - 120
Acenaphthene	150	84.1		184		67.0	39 - 120
Dibenzofuran	150	5.4		109		69.0	39 - 120
2,3,5-Trimethylnaphthalene	150	4.2	J	111		71.5	30 - 160
Fluorene	150	19.0		124		69.9	42 - 120
Benzo(b)thiophene	150	3.0	J	92.1		59.5	30 - 160
Phenanthrene	150	359		353	*	-4.09 *	47 - 120
Anthracene	150	11.7		111		66.4	41 - 120
Carbazole	150	1.9	J	117		77.0	30 - 160
1-Methylphenanthrene	150	16.9		128		74.3	30 - 160
Fluoranthene	150	213		286	*	48.1 *	52 - 120
Dibenzothiophene	150	28.0		125		64.7	30 - 160
Pyrene	150	260		319	*	39.5 *	47 - 120
Benzo(a)anthracene	150	45.1		192		98.0	47 - 120
Chrysene	150	54.2		166		74.9	51 - 120
Benzo(b)fluoranthene	150	34.3		165		87.5	35 - 127
Benzo(j)fluoranthene	150	22.8		142		79.6	40 - 120
Benzo(k)fluoranthene	150	18.8		132		75.6	37 - 129
Benzo(k)fluoranthene, Total	450	74.6		440		81.4	46 - 120
Benzo(e)pyrene	150	34.6		159		82.8	30 - 160
Benzo(a)pyrene	150	52.4		173		80.4	44 - 120
Indeno(1,2,3-cd)pyrene	150	31.0		159		85.4	41 - 120
Dibenzo(a,h)anthracene	150	4.9	J	134		86.0	42 - 120

\* Values outside of QC limits





**MS / MS DUPLICATE RECOVERY**  
**EPA 8270E-SIM**

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Matrix: Solid

Analyzed: 12/22/20 17:55

Batch: BIK0745

Laboratory ID: BIK0745-MS1

Preparation: EPA 3546 (Microwave)

Sequence Name: Matrix Spike

Initial/Final: 13.1 g / 0.5 mL

Source Sample: USMPDI-006SC-D-02-04-201110

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	Q	MS CONCENTRATION (ug/kg dry)	Q	MS % REC. #	QC LIMITS REC.
Benzo(g,h,i)perylene	150	44.8		174		86.4	37 - 120
Perylene	150	92.3		192		66.5	30 - 160
Benzo(b)naphtho(2,1-d)thiophene	150	9.1		119		73.3	30 - 160

\* Values outside of QC limits



**MS / MS DUPLICATE RECOVERY**  
**EPA 8270E-SIM**

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Matrix: Solid

Analyzed: 12/22/20 18:42

Batch: BIK0745

Laboratory ID: BIK0745-MSD1

Preparation: EPA 3546 (Microwave)

Sequence Name: Matrix Spike Dup

Initial/Final: 13.1 g / 0.5 mL

Source Sample: USMPDI-006SC-D-02-04-201110

COMPOUND	SPIKE ADDED (ug/kg dry)	MSD CONCENTRATION (ug/kg dry)	Q	MSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
trans-Decalin	150	77.1		51.4	8.73	30	30 - 160
cis-Decalin	150	81.3		54.3	8.05	30	30 - 160
Naphthalene	150	130		67.8	17.2	30	37 - 120
1-Methylnaphthalene	150	91.9		58.3	4.95	30	30 - 160
2-Methylnaphthalene	150	98.4		59.7	2.57	30	37 - 120
Biphenyl	150	93.7		60.1	5.88	30	30 - 160
2,6-Dimethylnaphthalene	150	103		66.2	1.45	30	30 - 160
Acenaphthylene	150	102		63.5	0.208	30	35 - 120
Acenaphthene	150	213		86.1	14.4	30	39 - 120
Dibenzofuran	150	103		65.4	5.06	30	39 - 120
2,3,5-Trimethylnaphthalene	150	107		68.3	4.37	30	30 - 160
Fluorene	150	129		73.7	4.48	30	42 - 120
Benzo(b)thiophene	150	86.8		55.9	5.91	30	30 - 160
Phenanthrene	150	526	*, E	112	39.5 *	30	47 - 120
Anthracene	150	119		71.4	6.45	30	41 - 120
Carbazole	150	113		74.1	3.81	30	30 - 160
1-Methylphenanthrene	150	138		80.7	7.22	30	30 - 160
Fluoranthene	150	359		97.2	22.8	30	52 - 120
Dibenzothiophene	150	137		72.9	9.28	30	30 - 160
Pyrene	150	405		96.9	23.8	30	47 - 120
Benzo(a)anthracene	150	224		119	15.3	30	47 - 120
Chrysene	150	206		101	21.2	30	51 - 120
Benzo(b)fluoranthene	150	176		94.7	6.34	30	35 - 127
Benzo(j)fluoranthene	150	162		93.0	13.2	30	40 - 120
Benzo(k)fluoranthene	150	168		99.3	23.7	30	37 - 129
Benzofluoranthenes, Total	450	496		93.7	11.8	30	46 - 120
Benzo(e)pyrene	150	188		103	17.1	30	30 - 160
Benzo(a)pyrene	150	217		110	22.9	30	44 - 120
Indeno(1,2,3-cd)pyrene	150	186		103	15.6	30	41 - 120
Dibenzo(a,h)anthracene	150	133		85.6	0.462	30	42 - 120
Benzo(g,h,i)perylene	150	215		114	20.9	30	37 - 120

\* Values outside of QC limits



**MS / MS DUPLICATE RECOVERY**  
**EPA 8270E-SIM**

Laboratory: Analytical Resources, Inc. SDG: 20K0204  
 Client: Anchor QEA, LLC Project: Gasco Siltronic  
 Matrix: Solid Analyzed: 12/22/20 18:42  
 Batch: BIK0745 Laboratory ID: BIK0745-MSD1  
 Preparation: EPA 3546 (Microwave) Sequence Name: Matrix Spike Dup  
 Initial/Final: 13.1 g / 0.5 mL Source Sample: USMPDI-006SC-D-02-04-201110

COMPOUND	SPIKE ADDED (ug/kg dry)	MSD CONCENTRATION (ug/kg dry)	Q	MSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Perylene	150	229		91.3	17.7	30	30 - 160
Benzo(b)naphtho(2,1-d)thiophene	150	125		77.5	5.14	30	30 - 160

\* Values outside of QC limits

Data File: \\target\share\chem3\nt14.1\20201219F JB\NT1420122001.D

Date : 22-DEC-2020 17:55

Client ID:

Sample Info: BIK0745-HS1

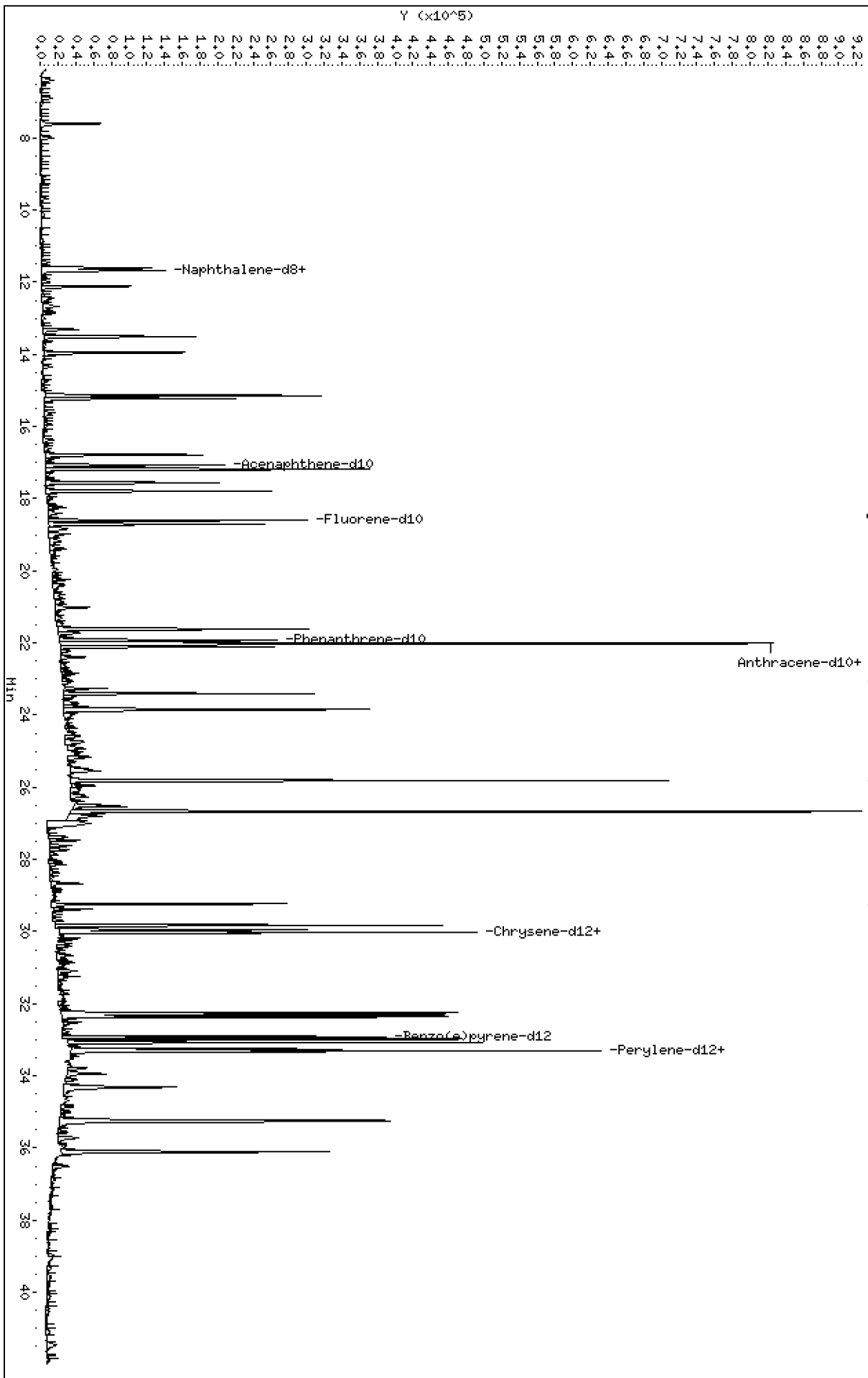
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14.1\20201219F JB\NT1420122001.D



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

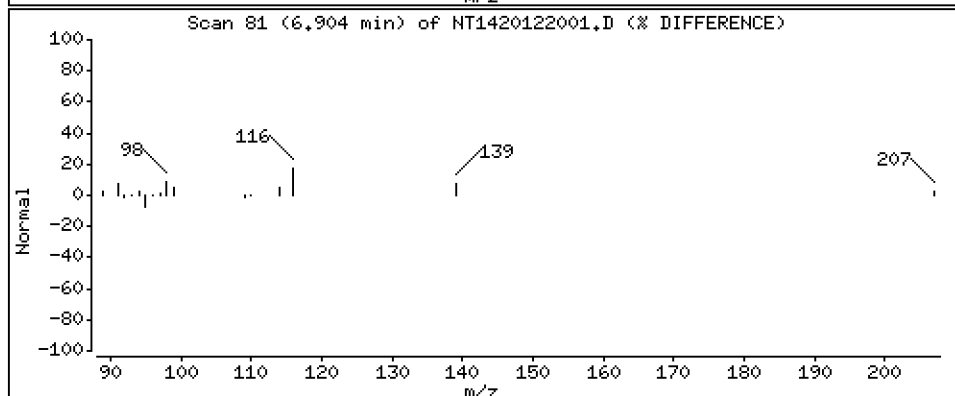
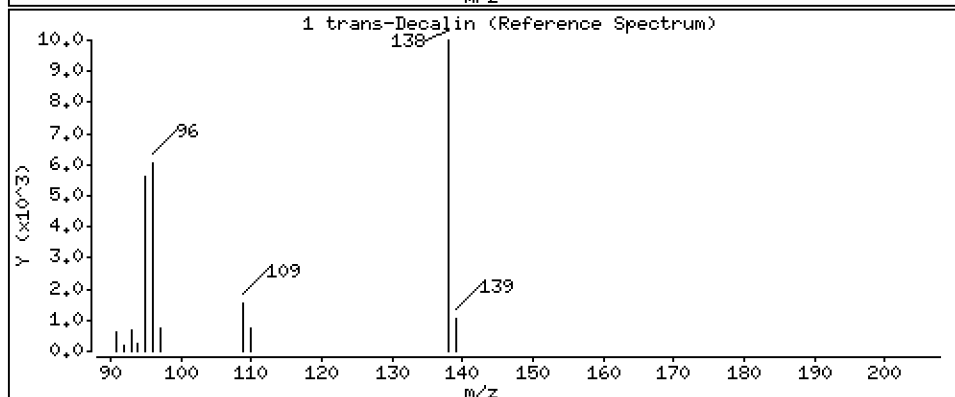
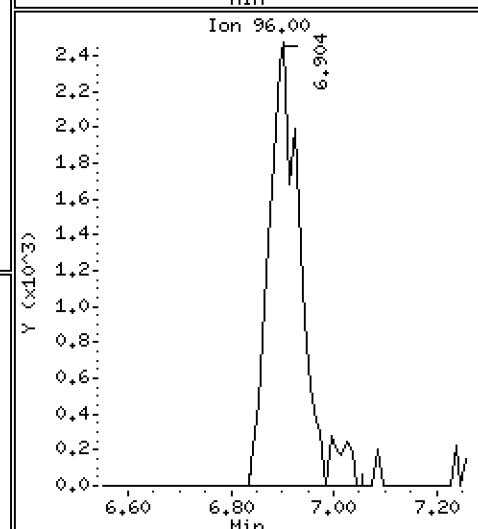
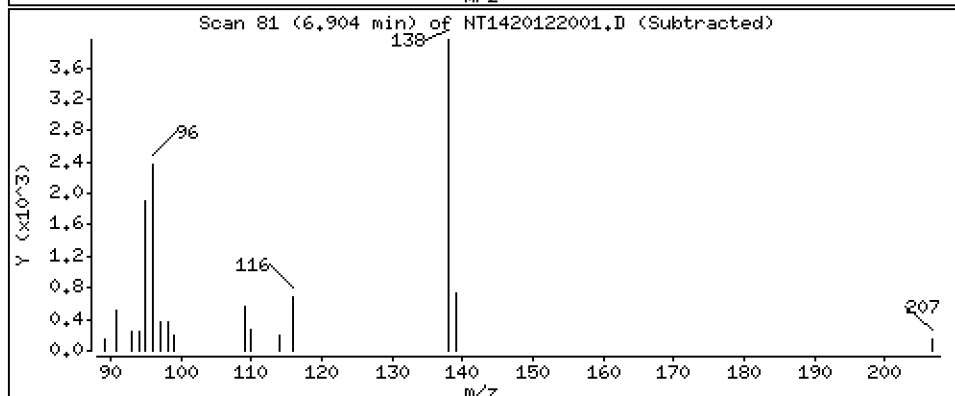
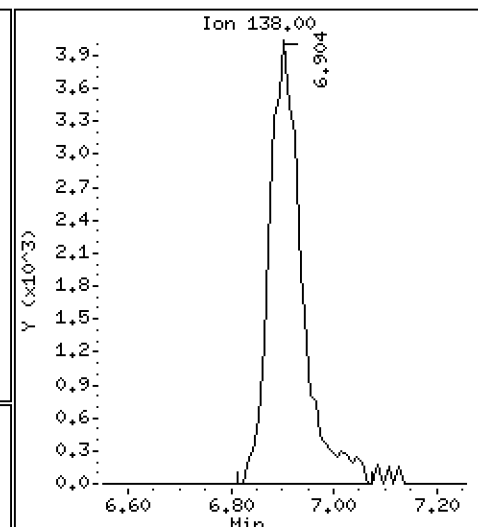
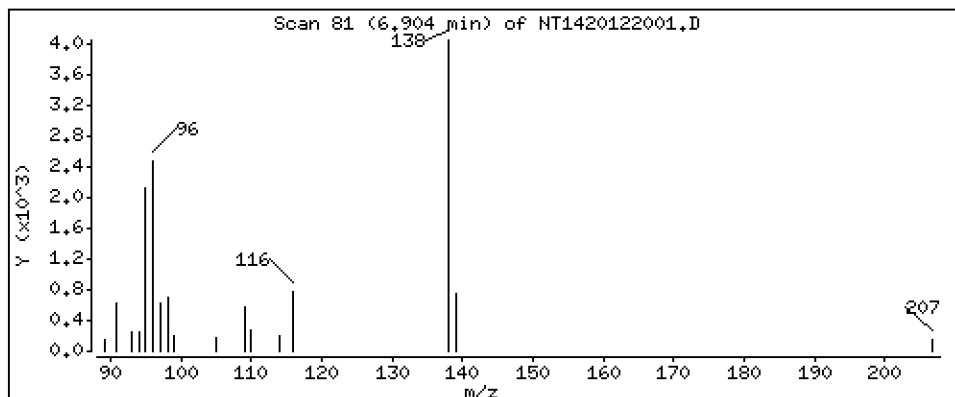
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

1 trans-Decalin

Concentration: 1.684 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

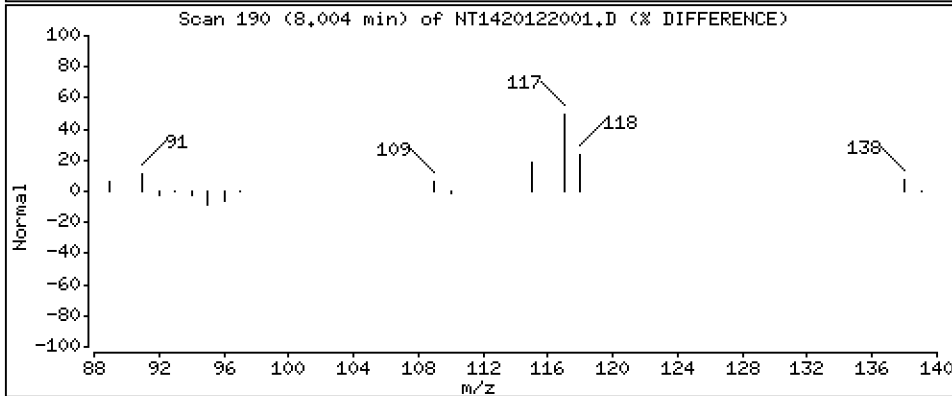
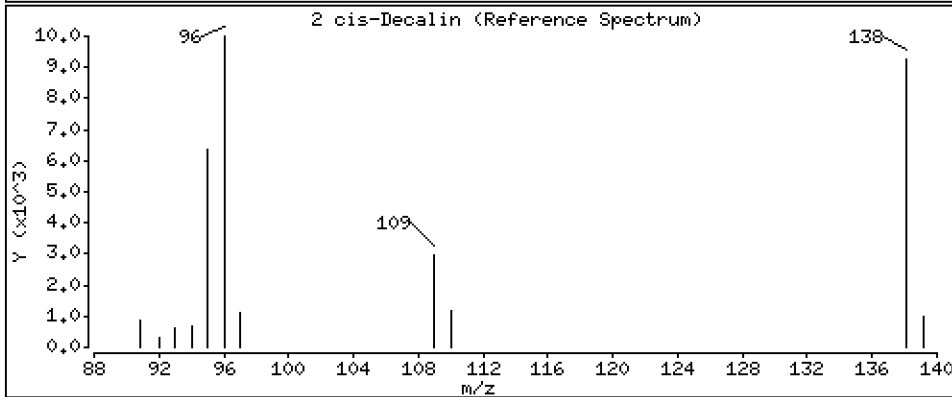
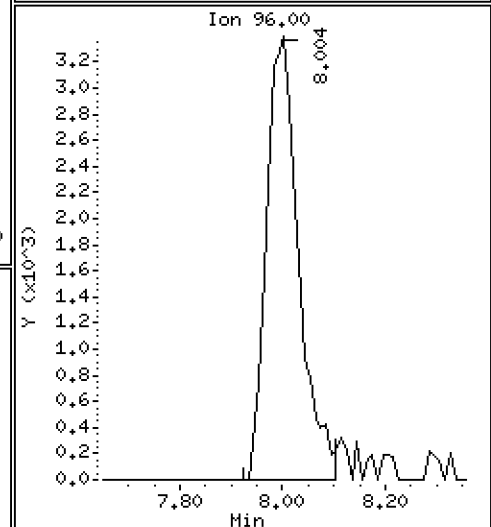
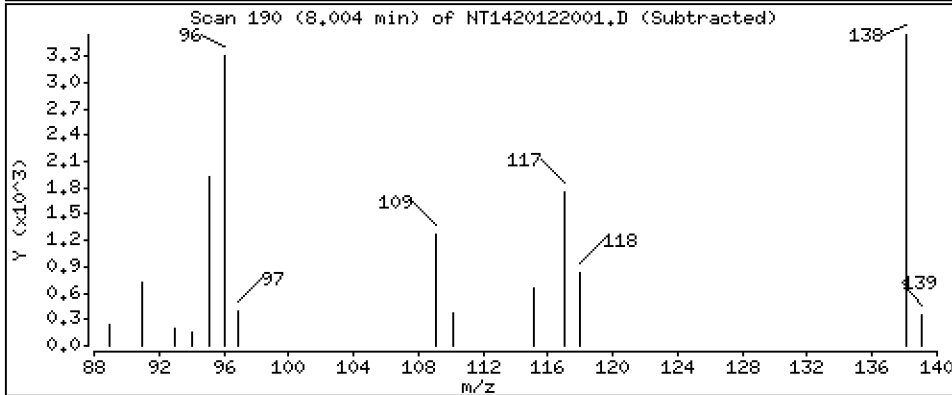
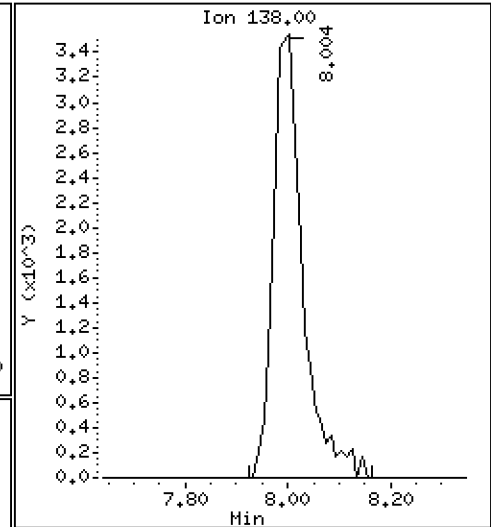
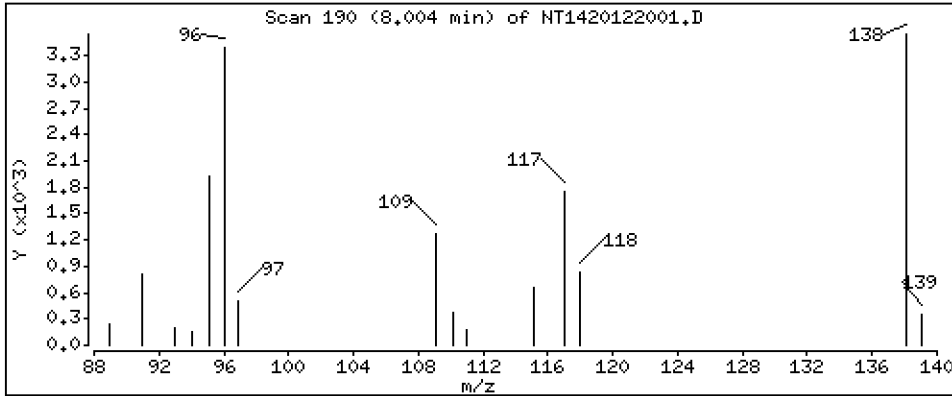
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

2 cis-Decalin

Concentration: 1.764 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

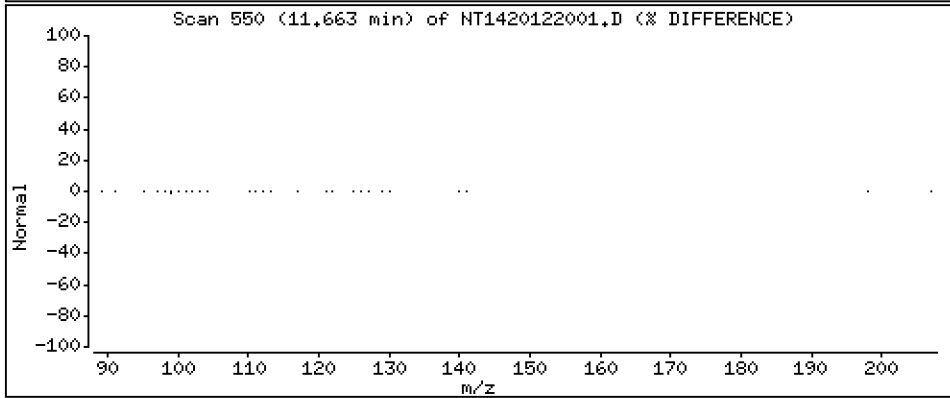
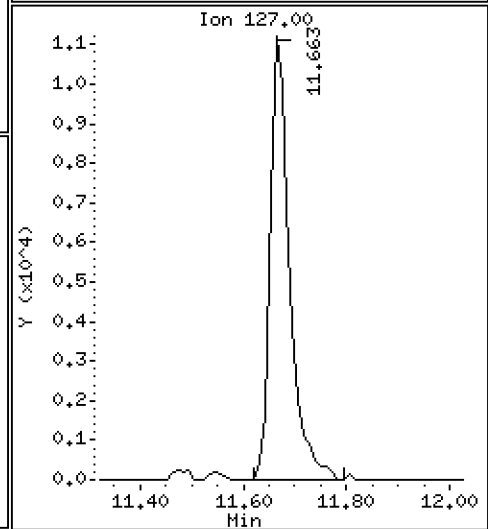
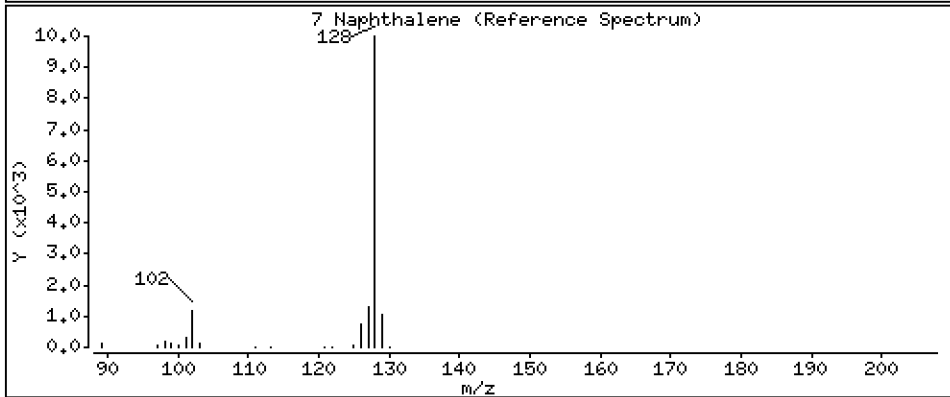
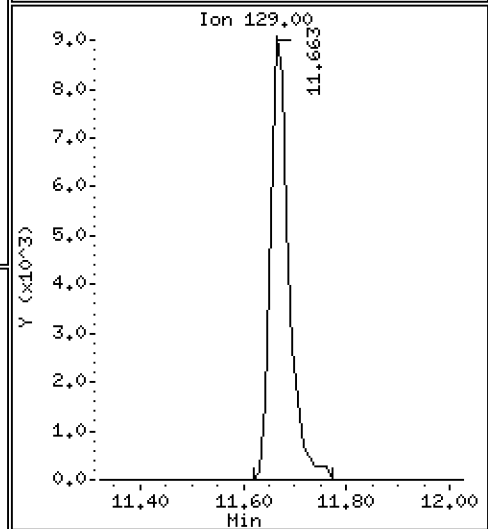
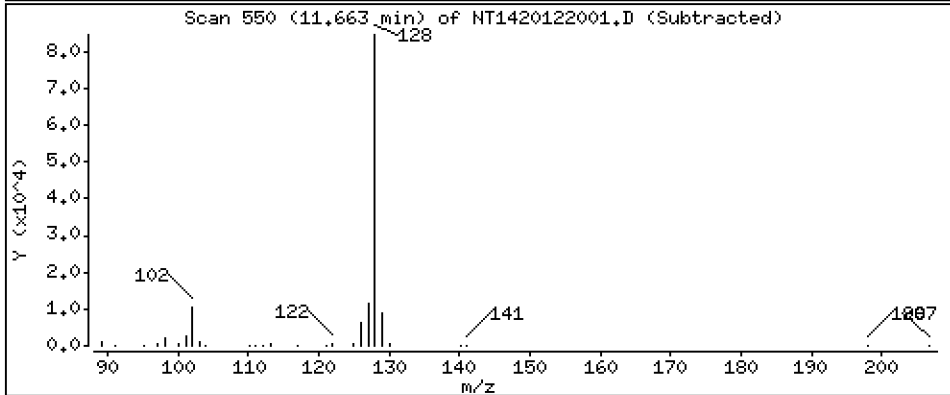
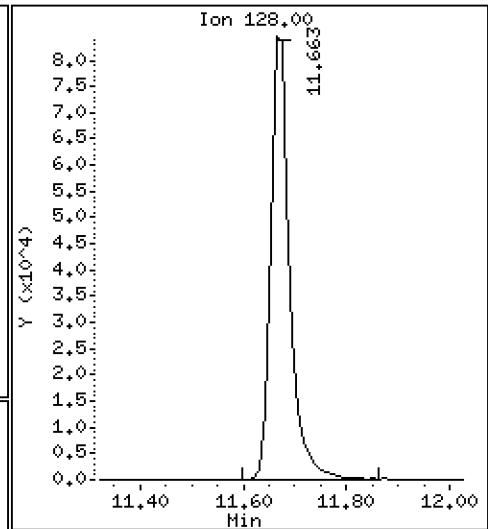
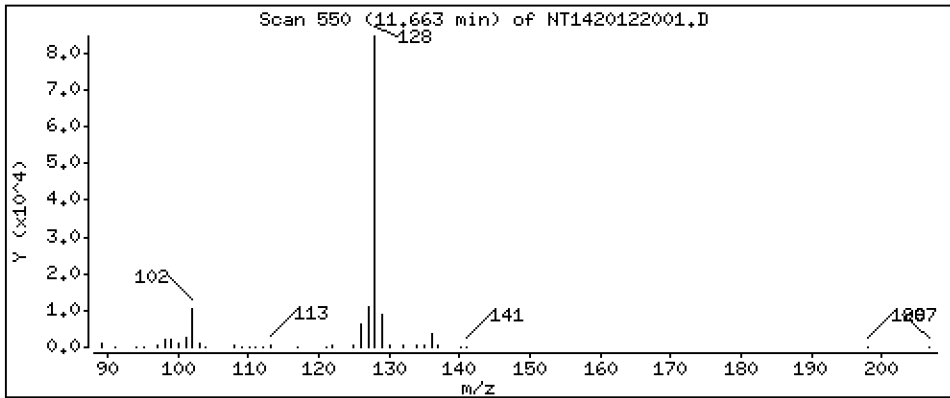
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

7 Naphthalene

Concentration: 2.196 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

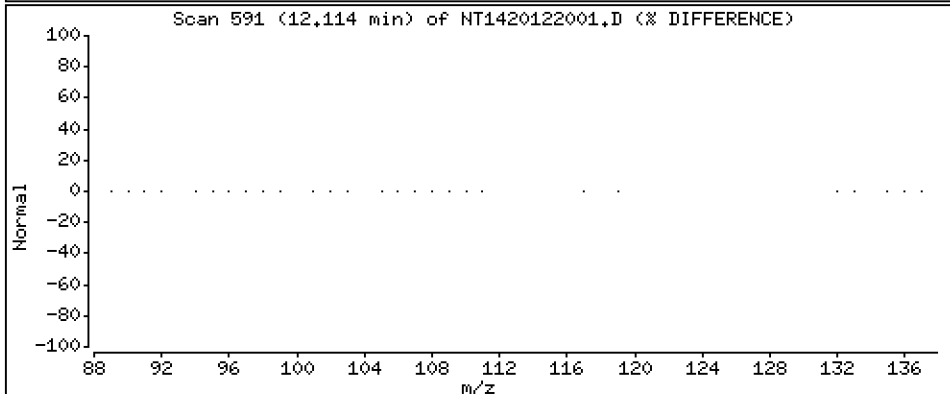
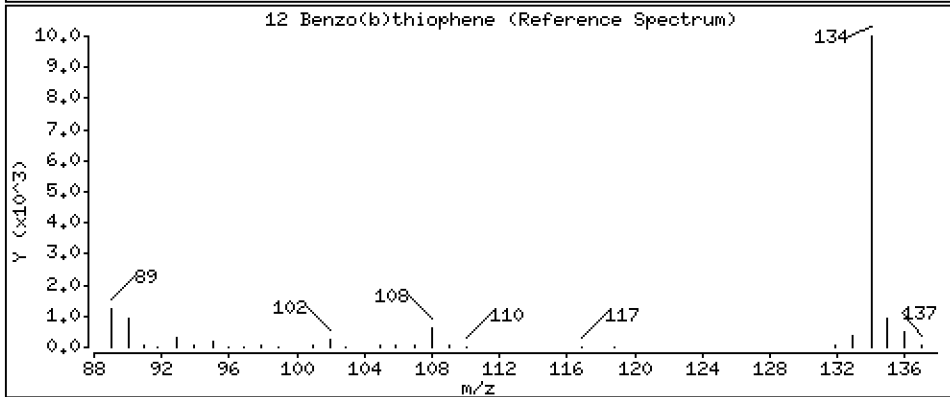
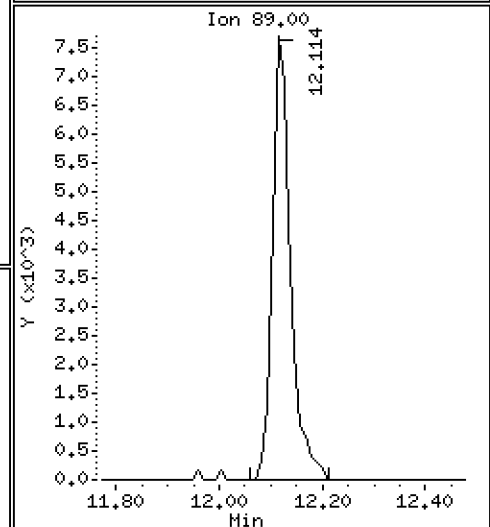
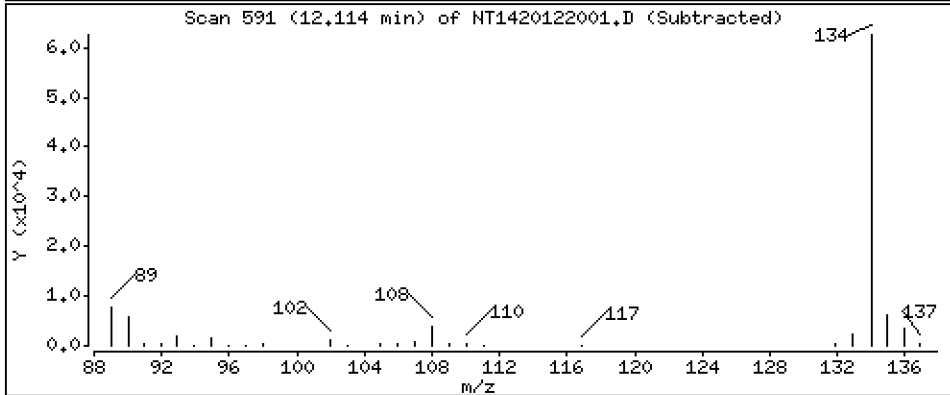
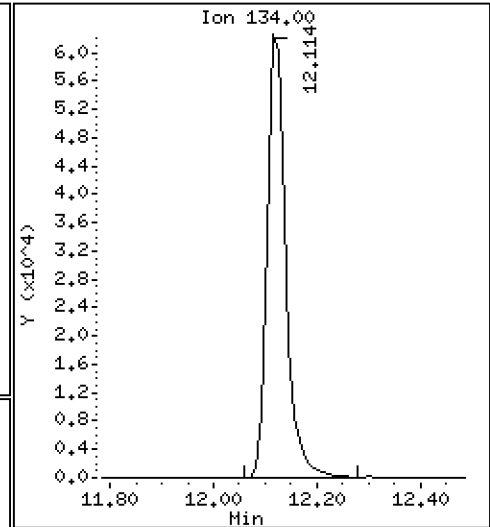
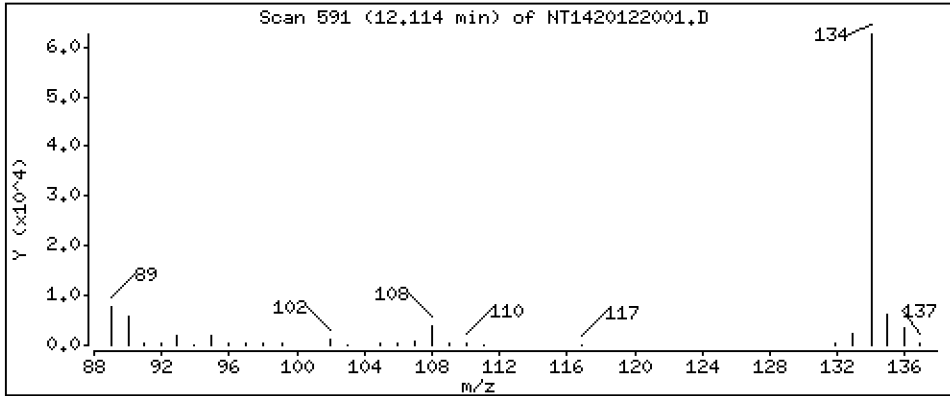
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

12 Benzo(b)thiophene

Concentration: 1,844 ug/mL





Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

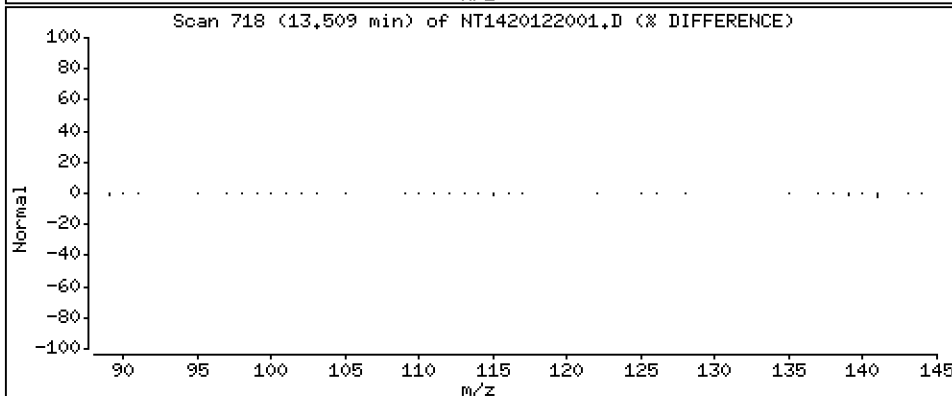
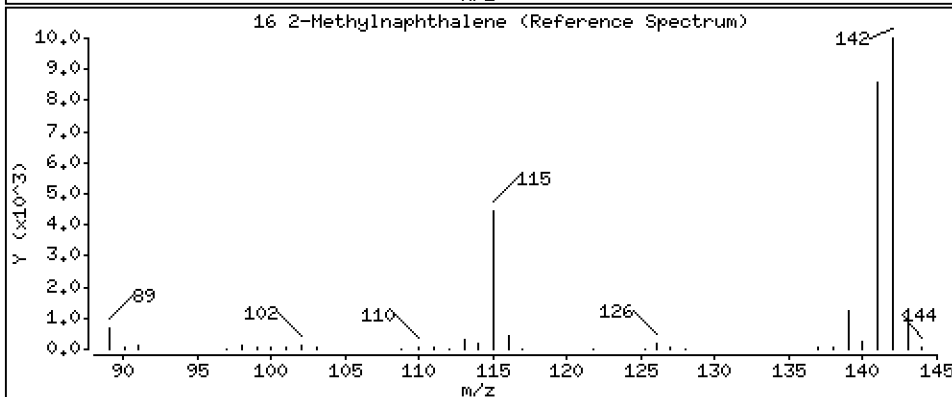
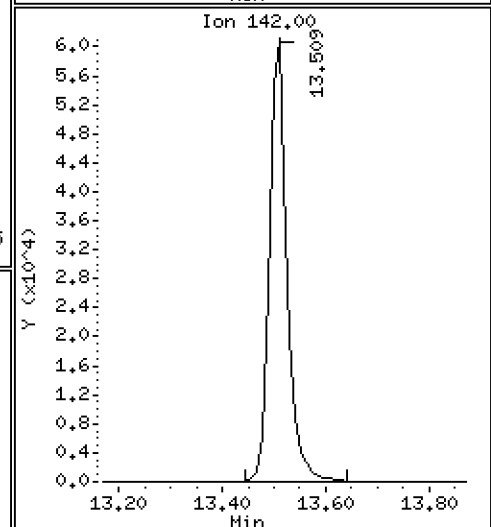
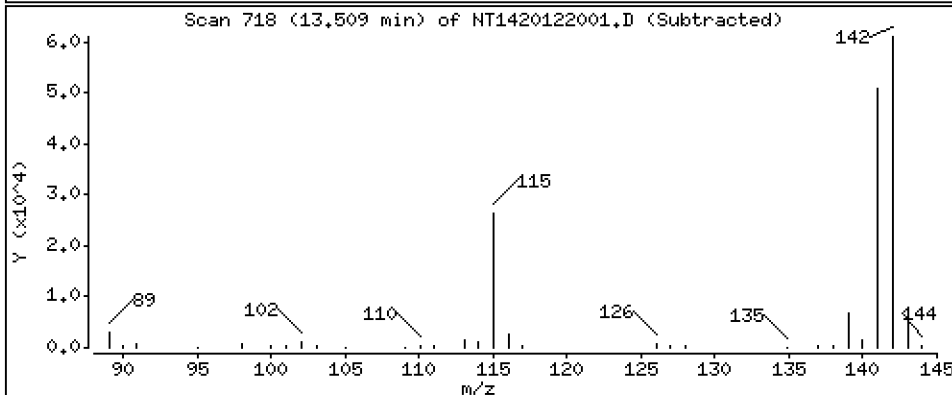
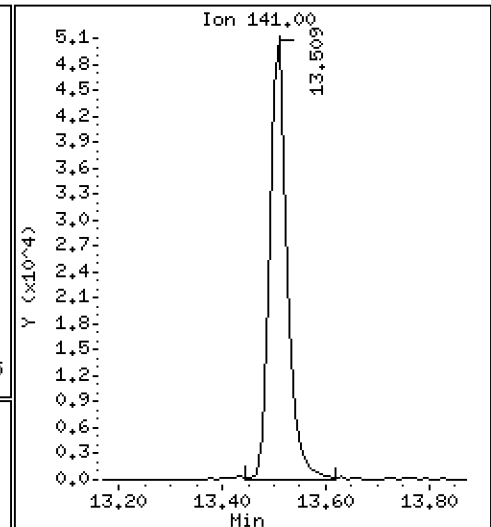
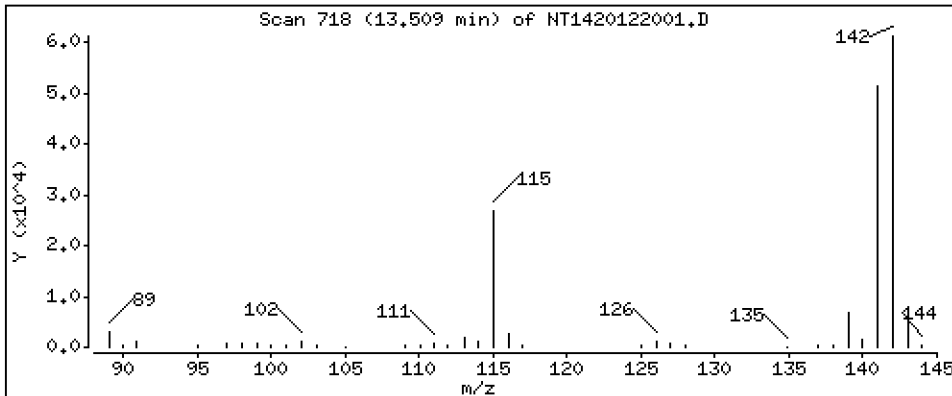
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 2-Methylnaphthalene

Concentration: 2,022 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

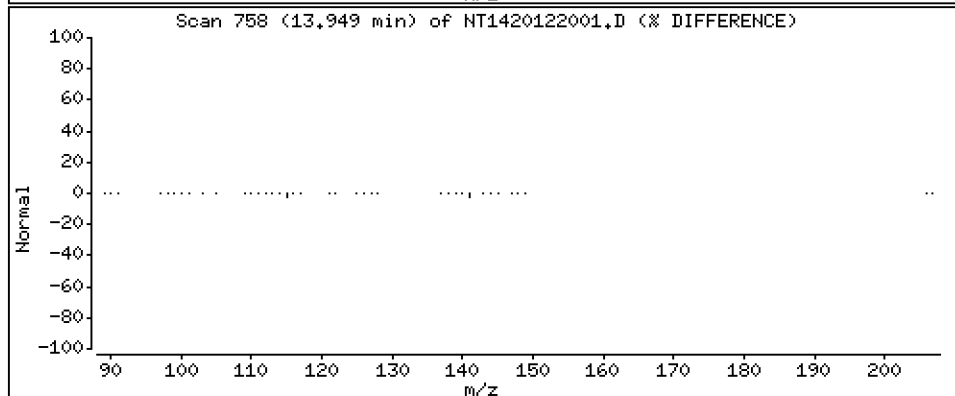
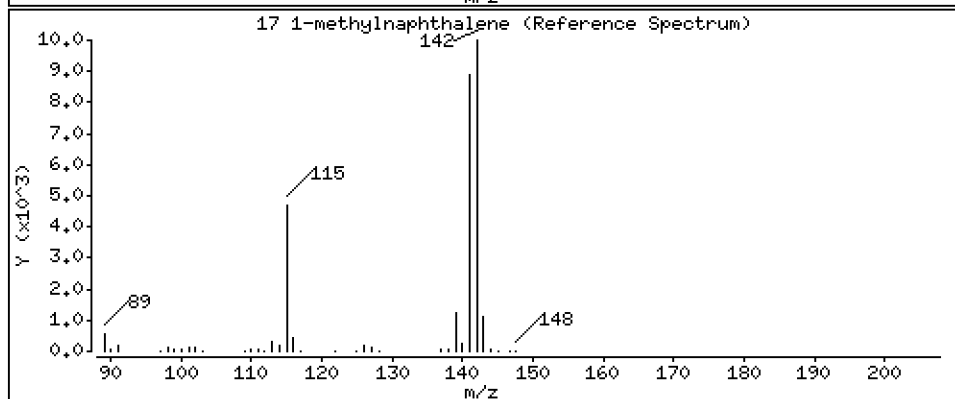
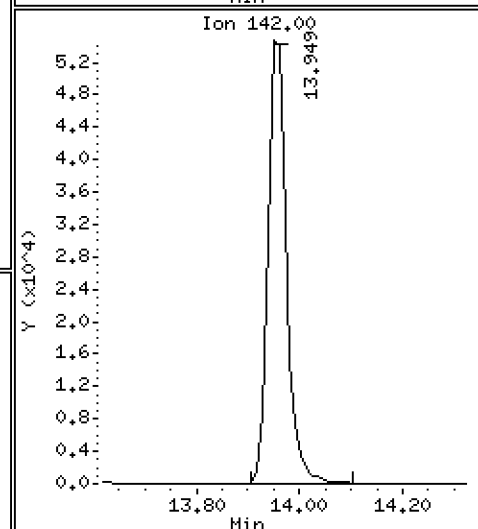
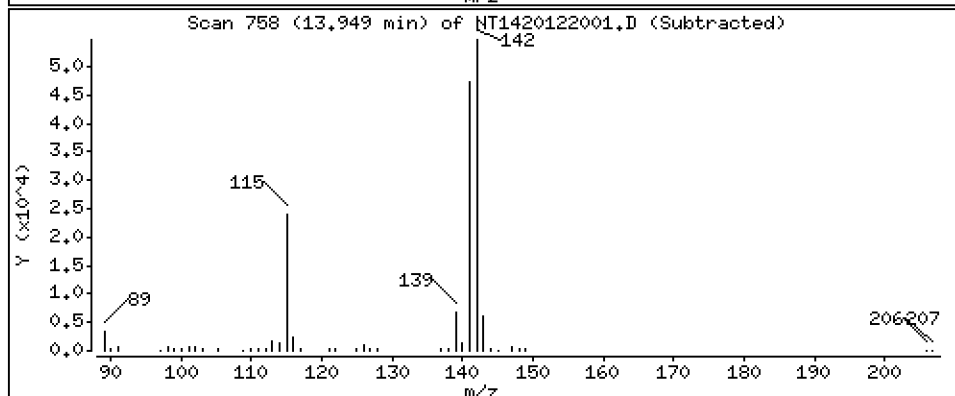
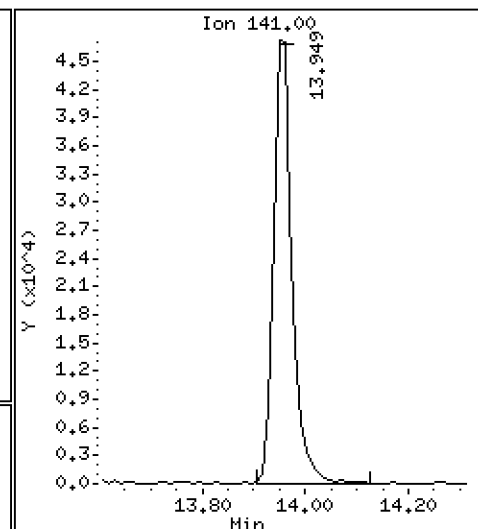
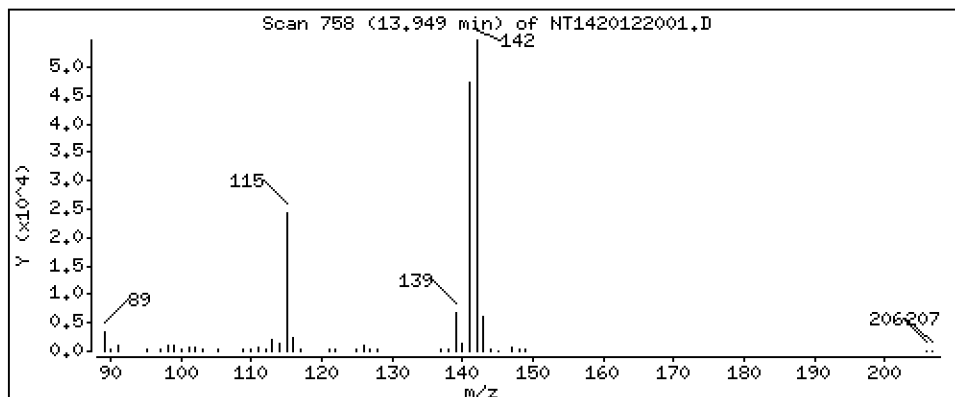
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 1-methylnaphthalene

Concentration: 1,934 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

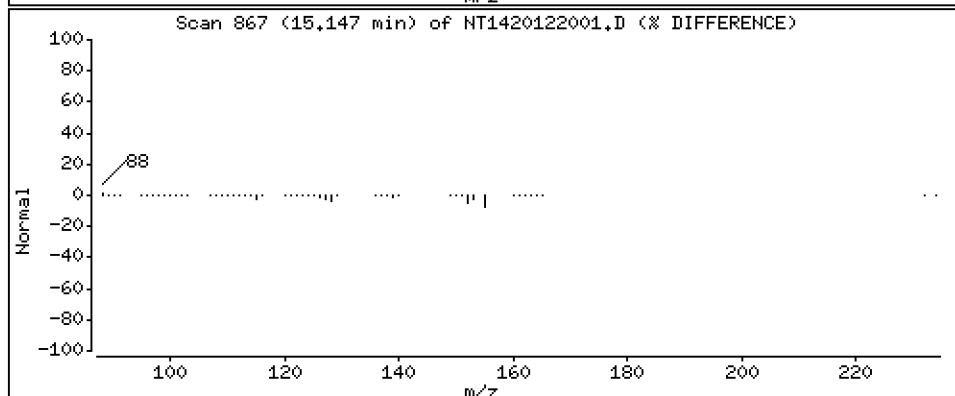
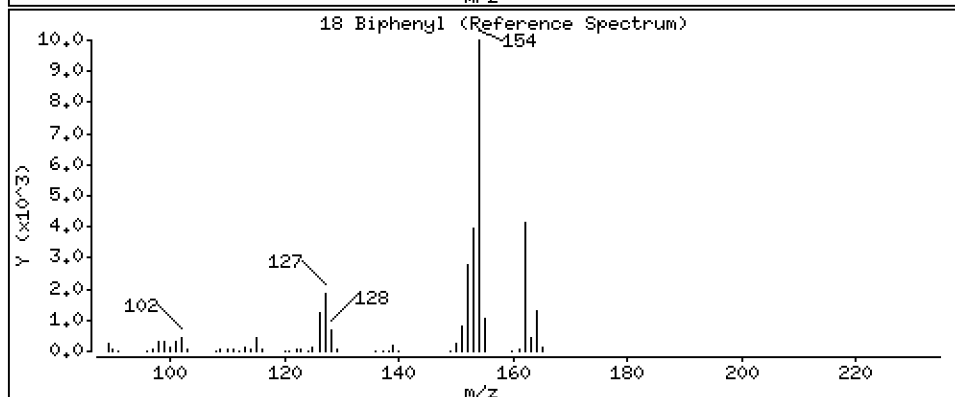
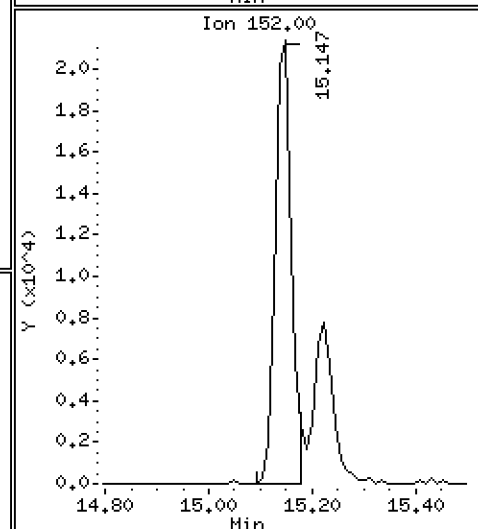
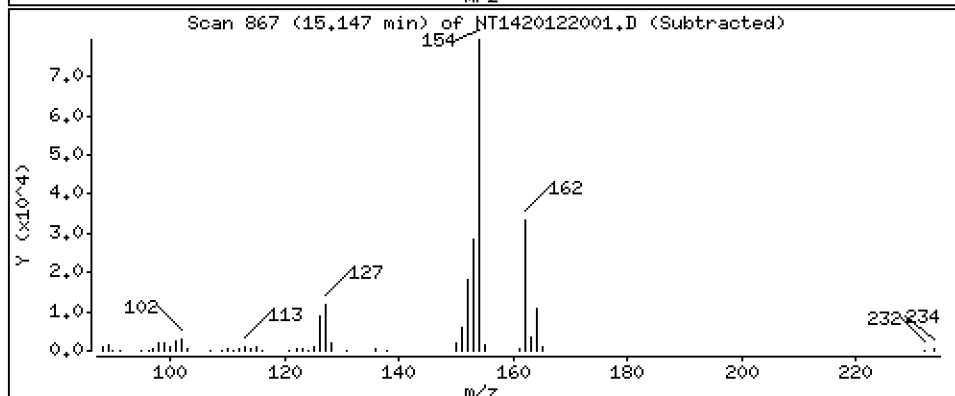
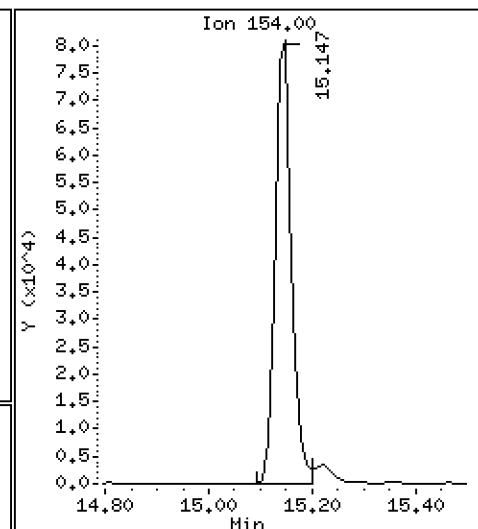
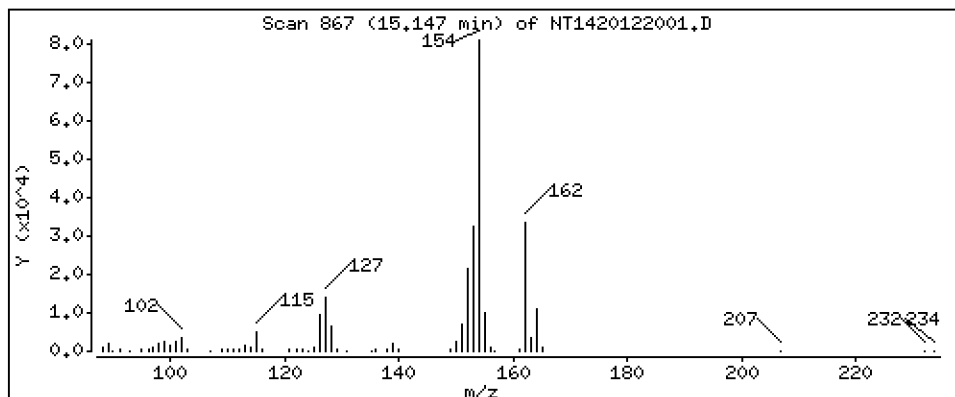
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

18 Biphenyl

Concentration: 1,989 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

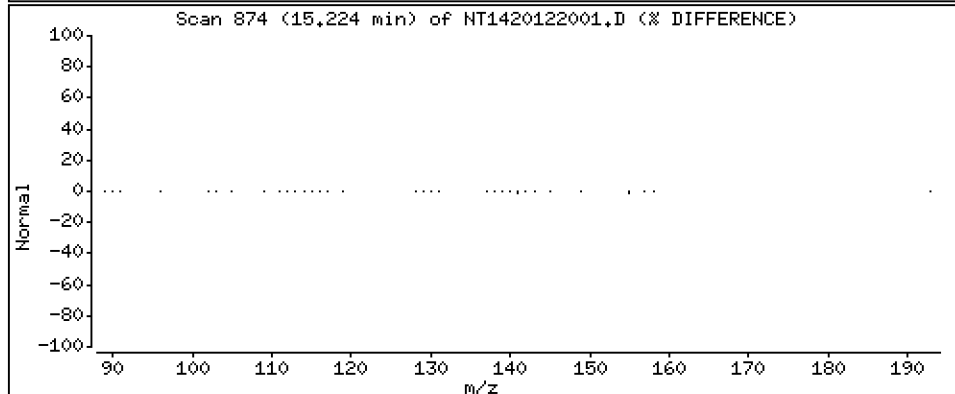
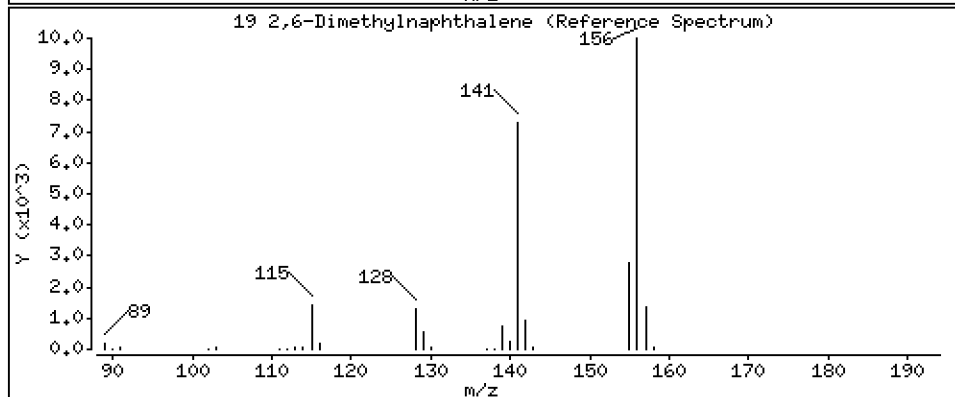
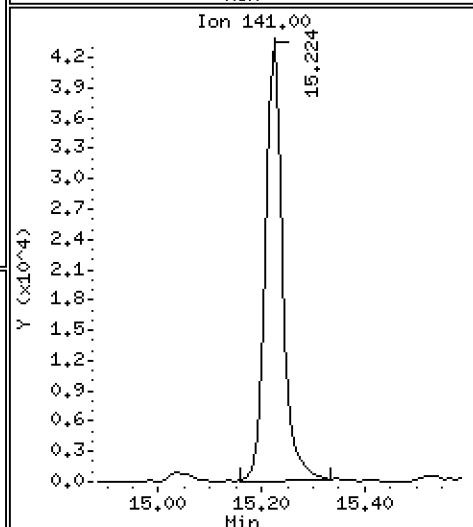
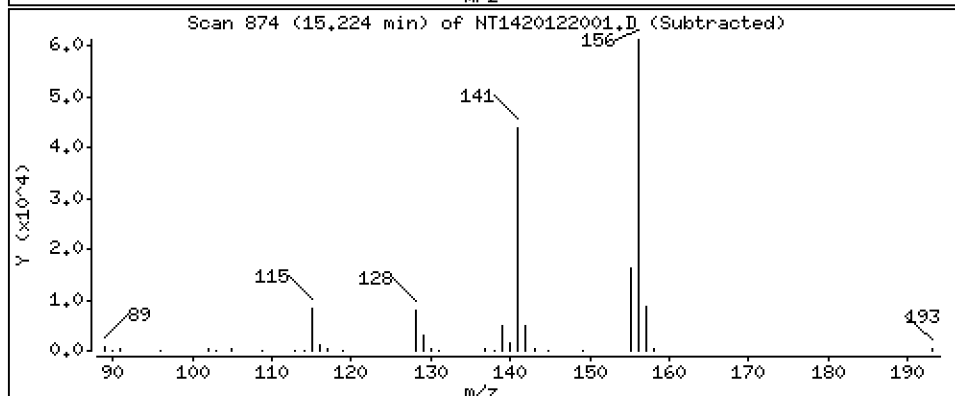
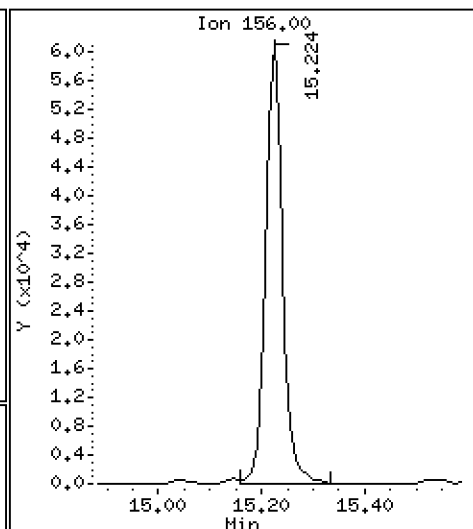
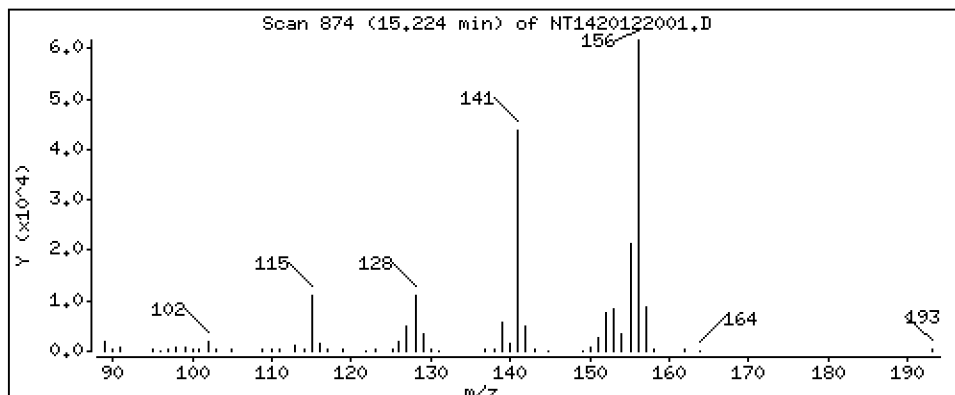
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 2,6-Dimethylnaphthalene

Concentration: 2,088 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

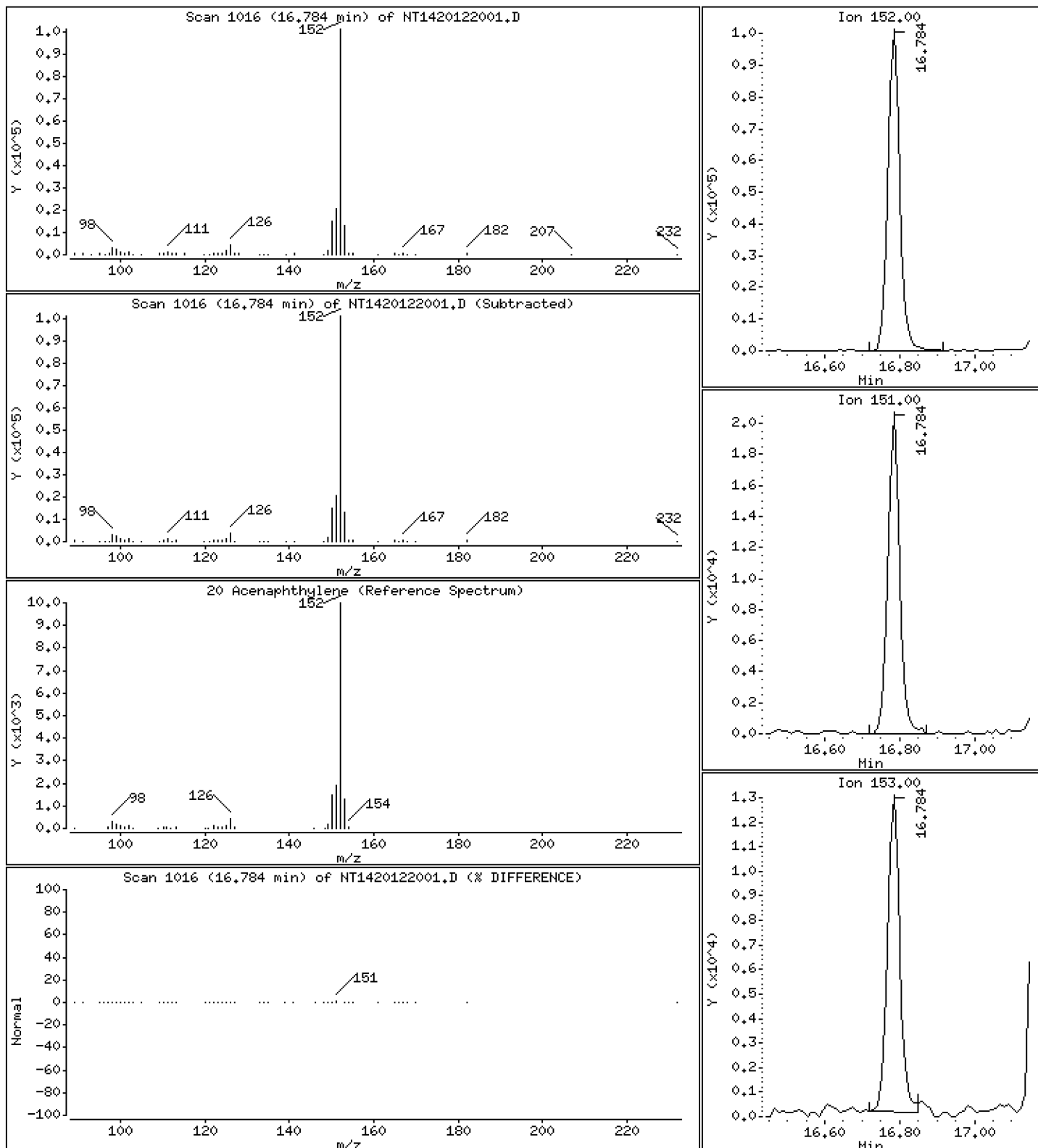
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

20 Acenaphthylene

Concentration: 2,045 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

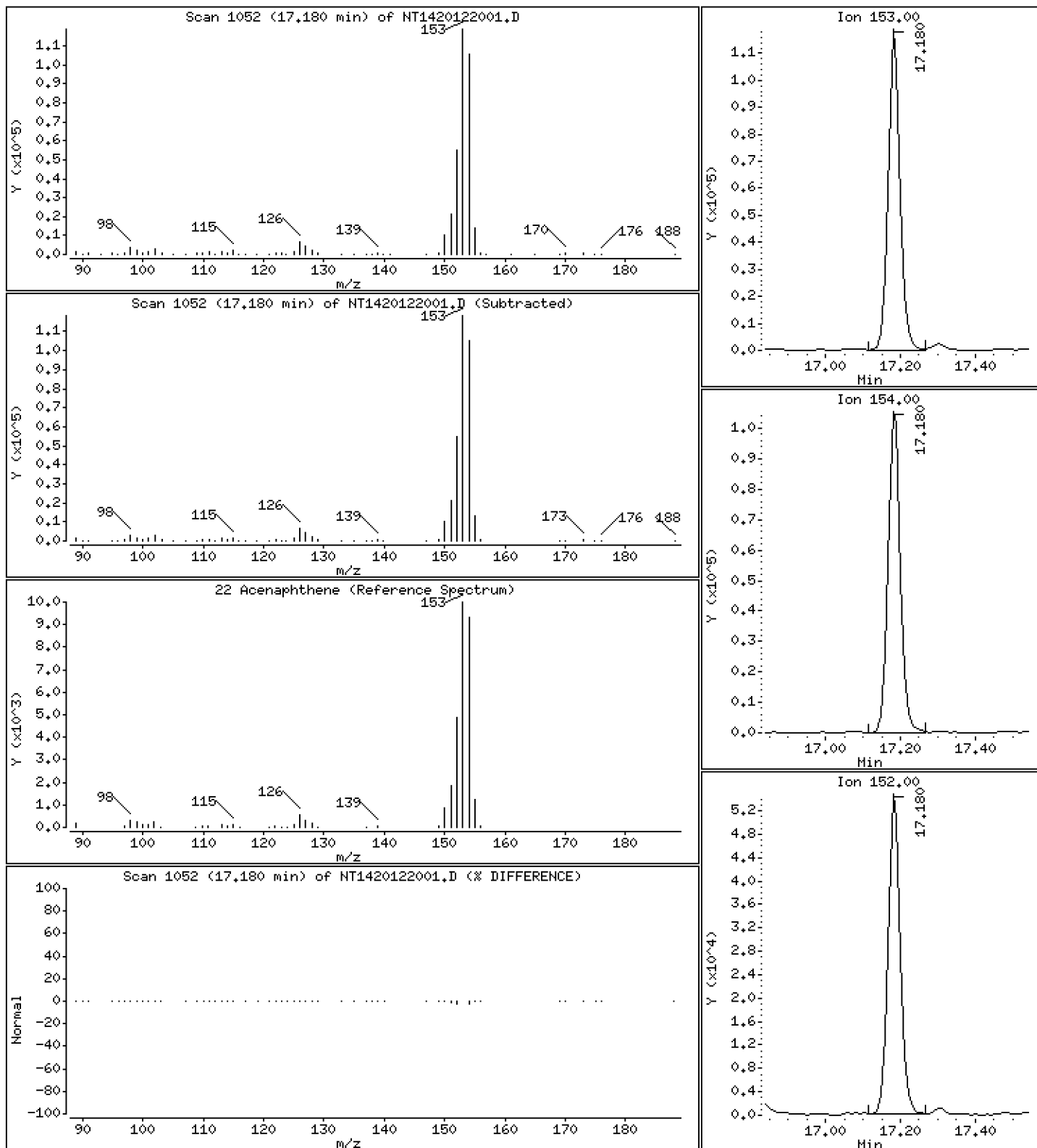
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Acenaphthene

Concentration: 3,693 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

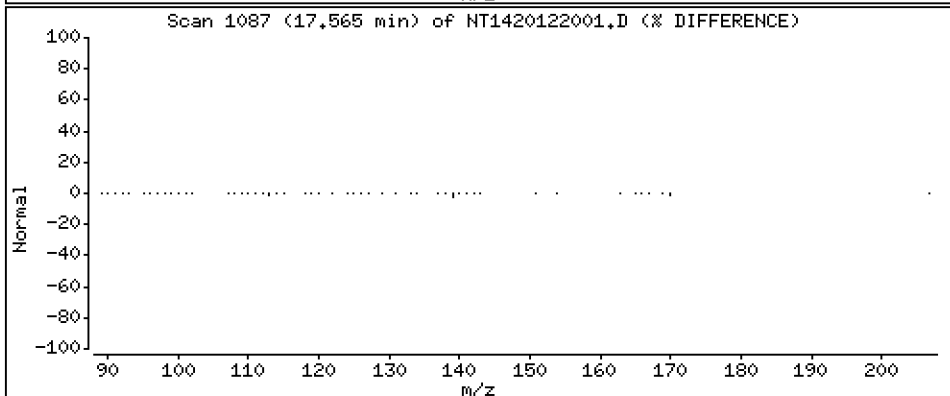
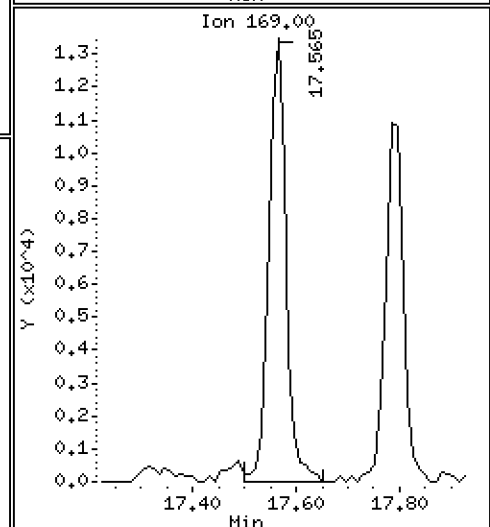
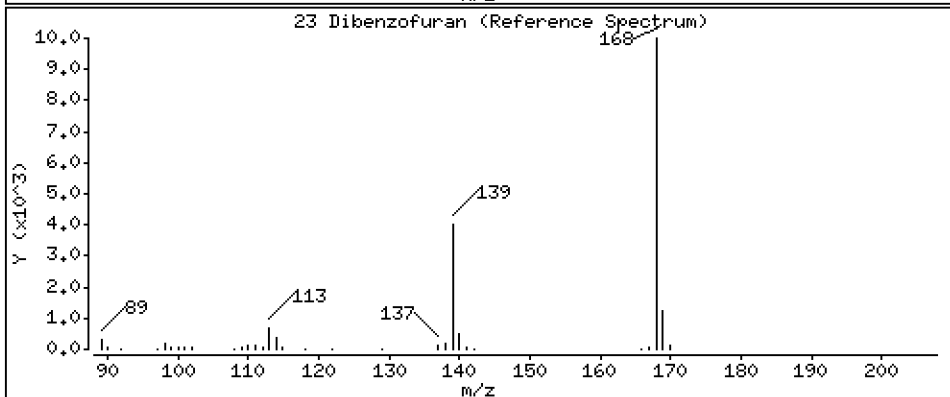
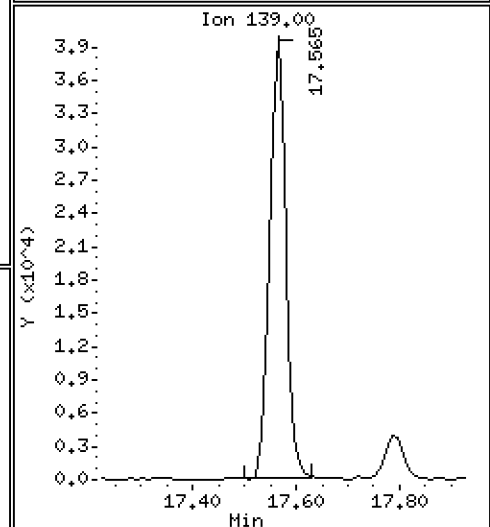
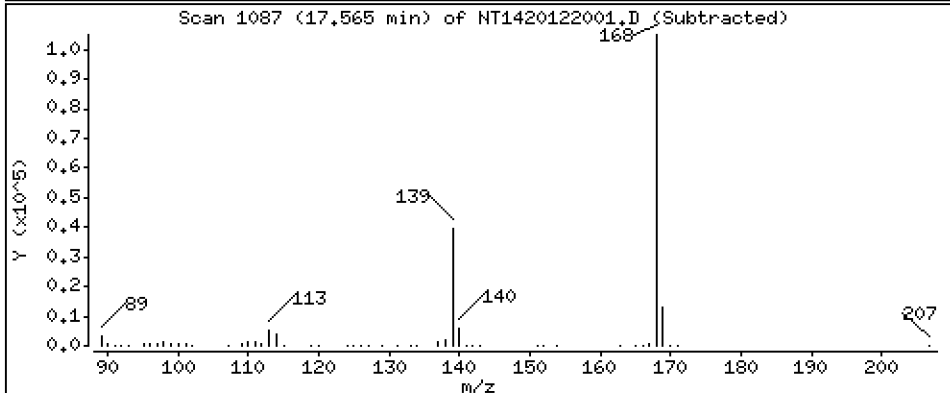
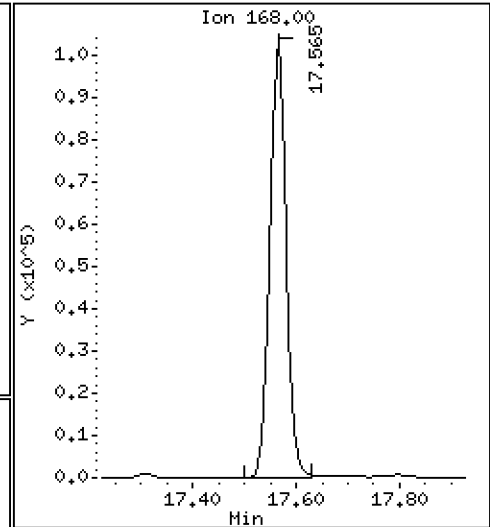
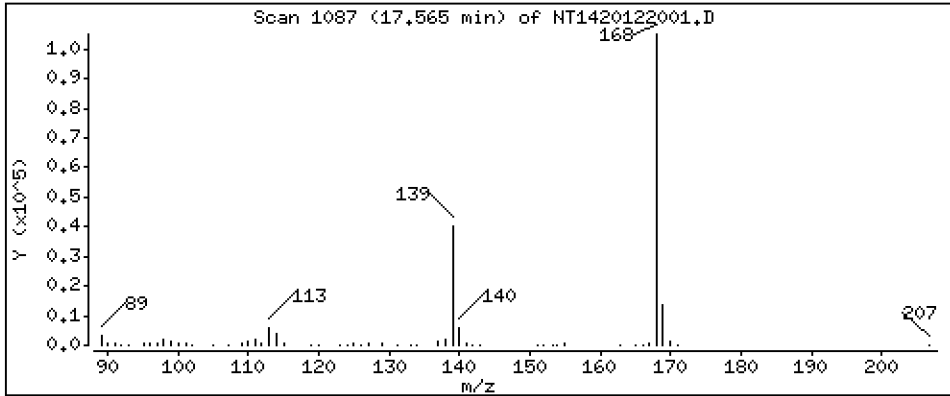
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 Dibenzofuran

Concentration: 2,177 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

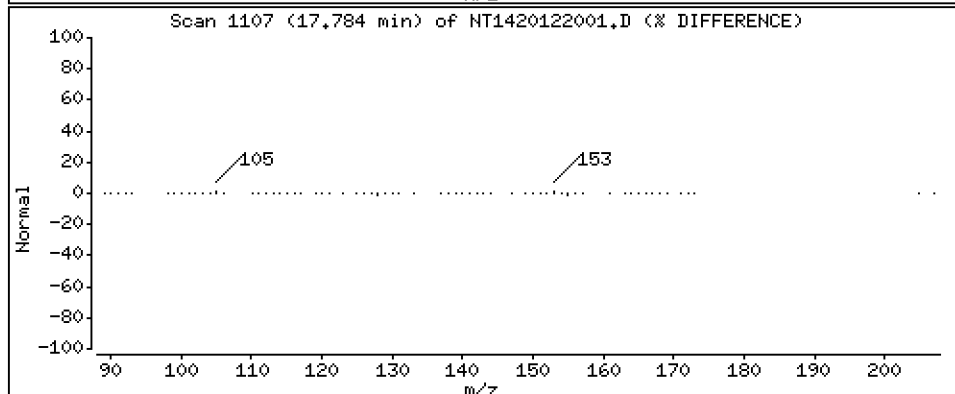
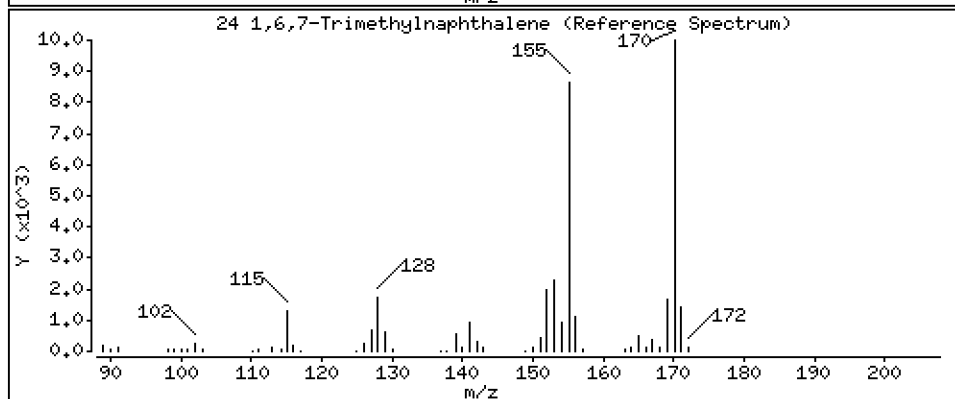
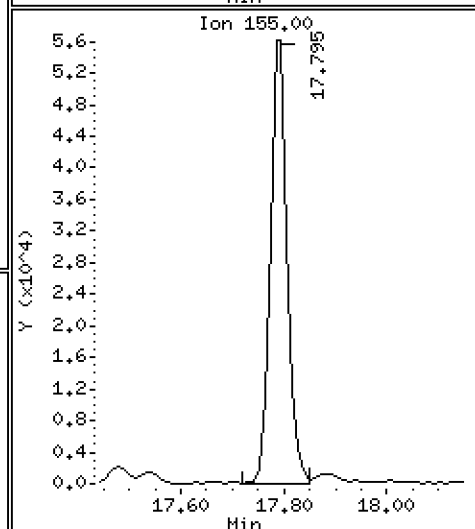
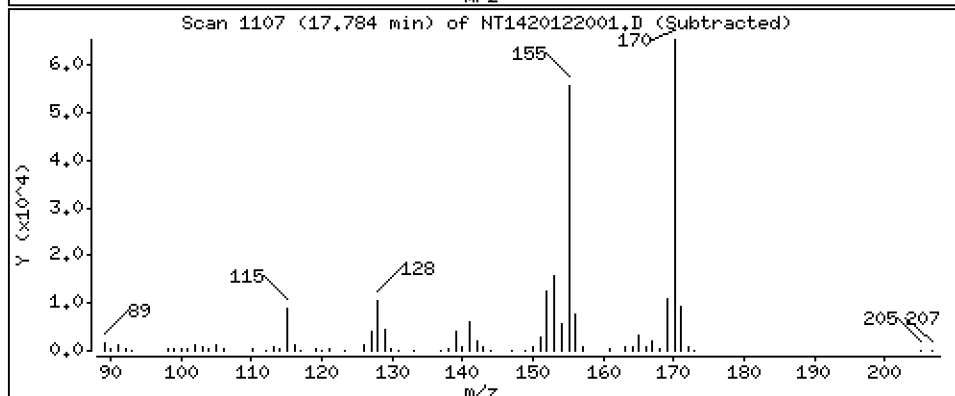
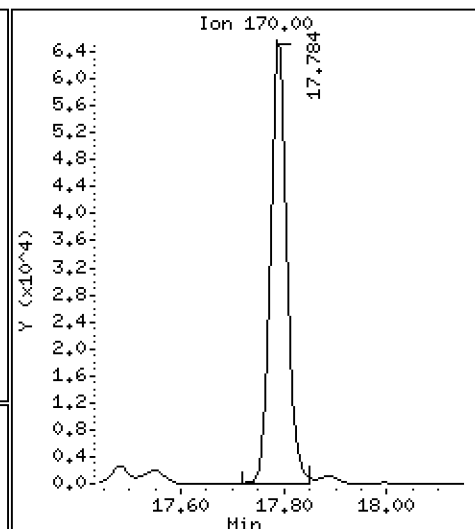
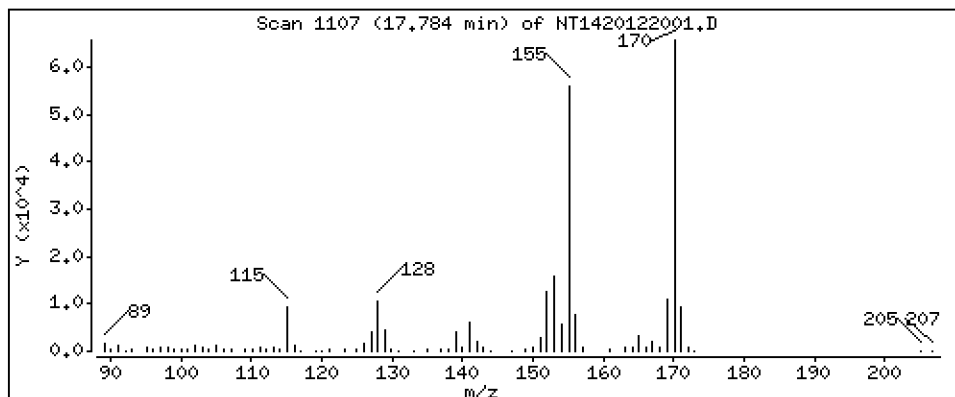
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

24 1,6,7-Trimethylnaphthalene

Concentration: 2,229 ug/mL





Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

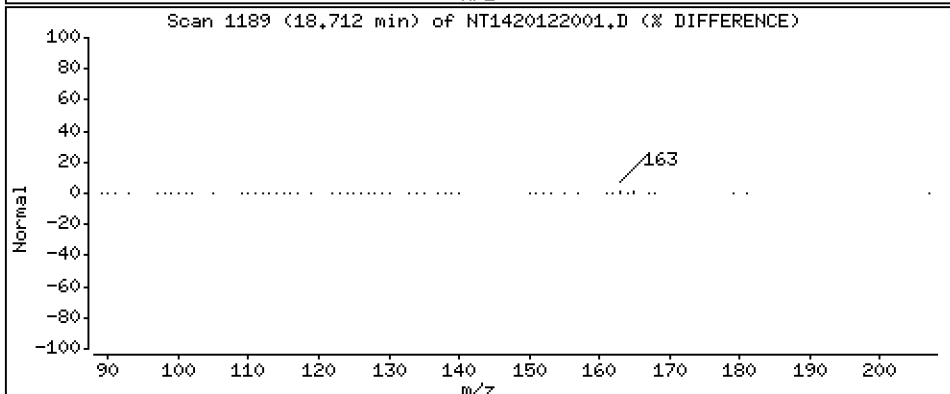
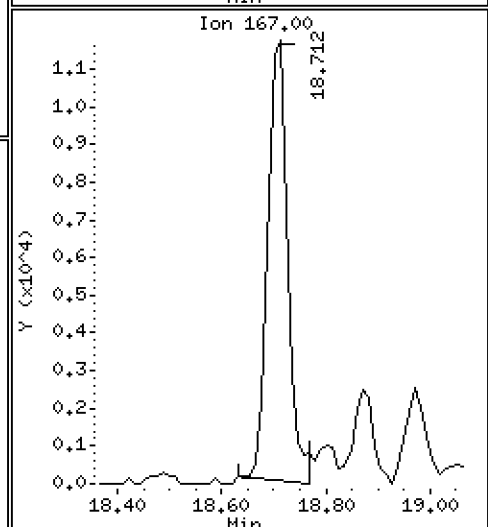
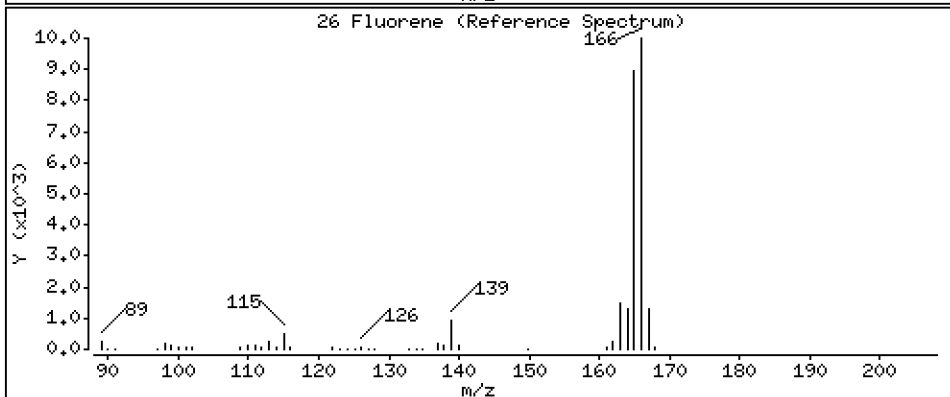
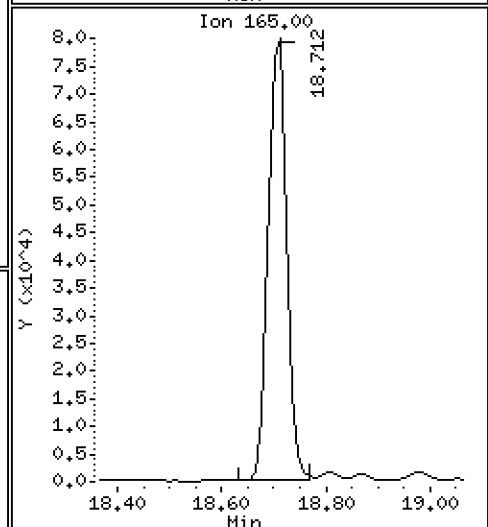
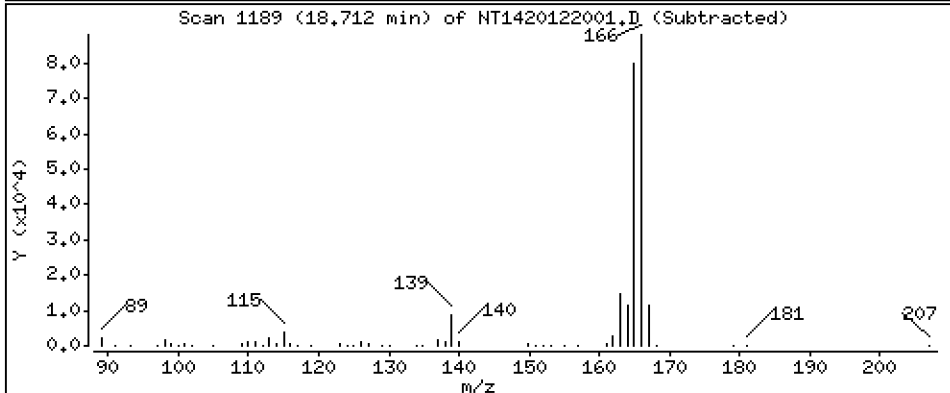
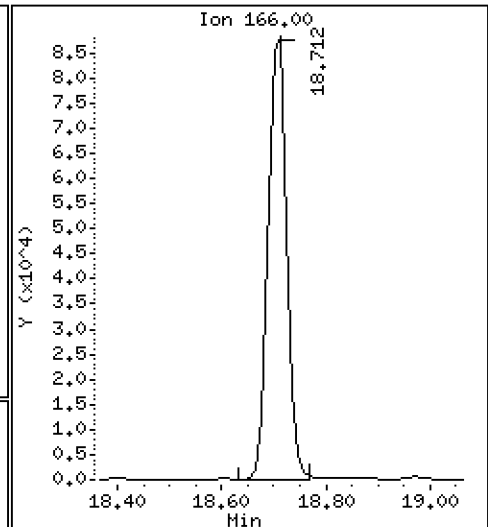
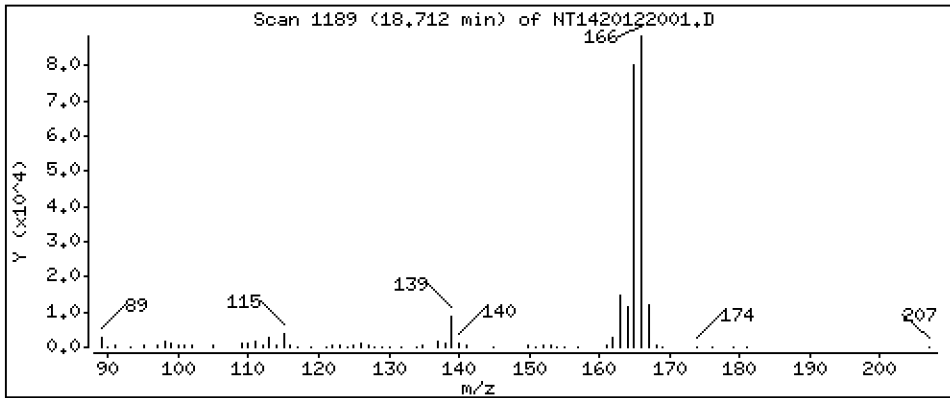
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Fluorene

Concentration: 2,478 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

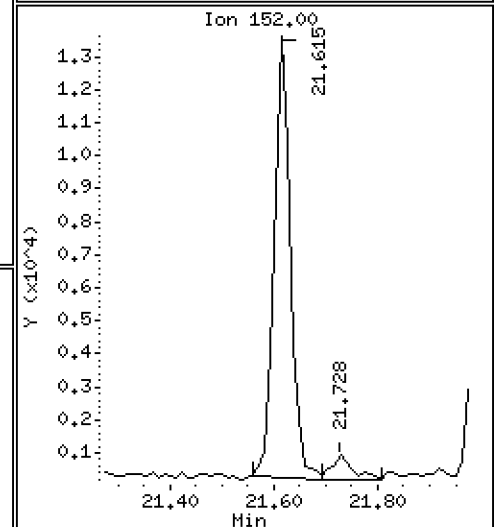
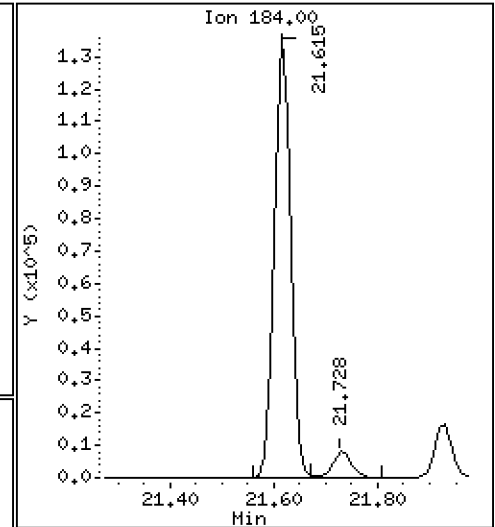
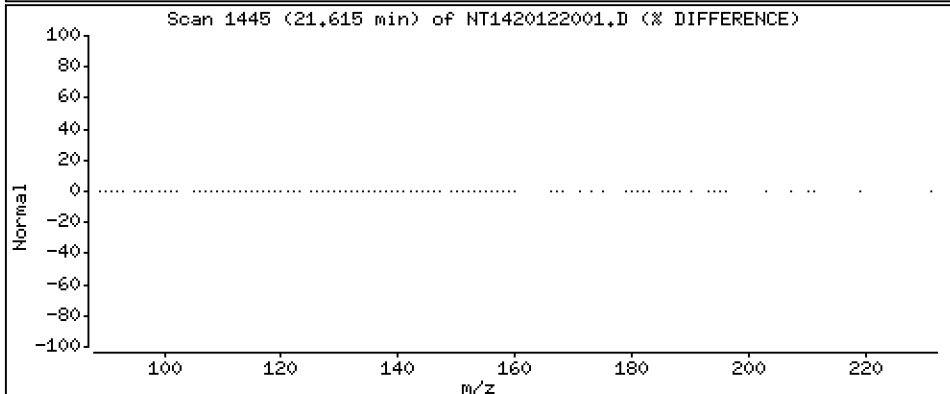
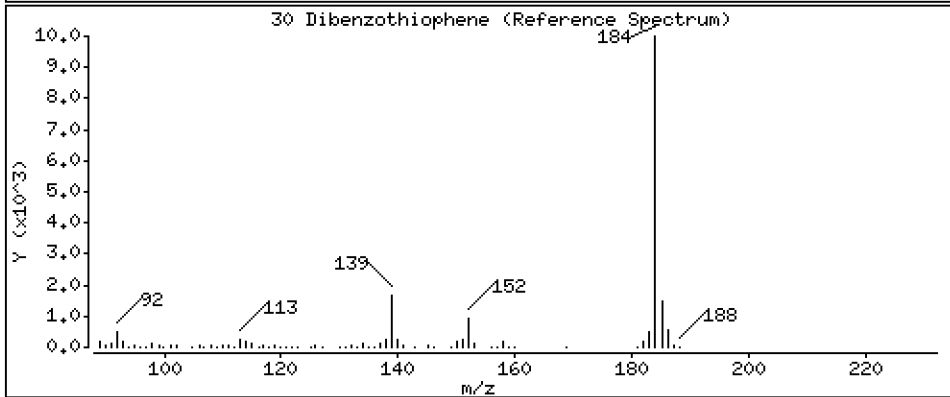
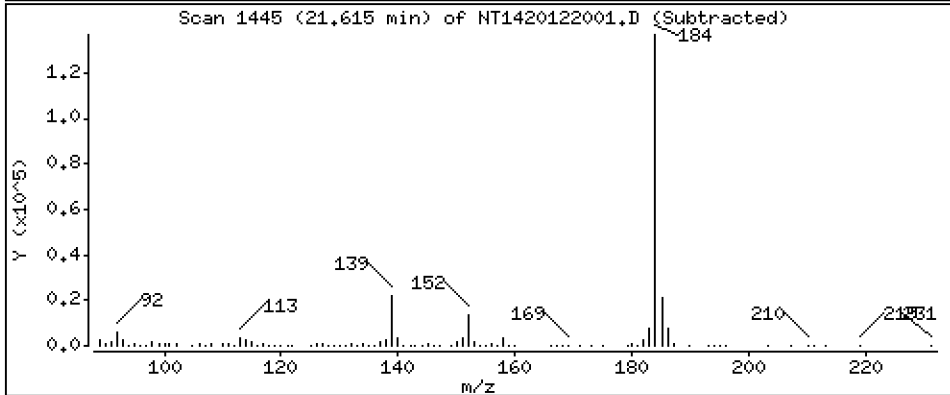
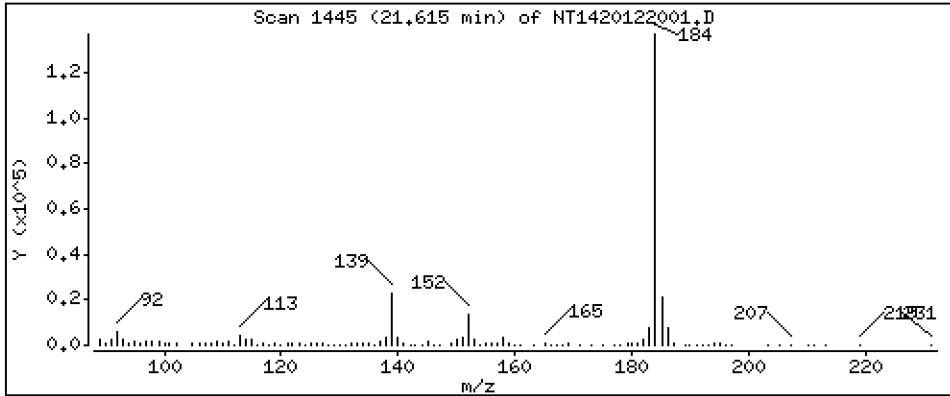
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Dibenzothiophene

Concentration: 2,502 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

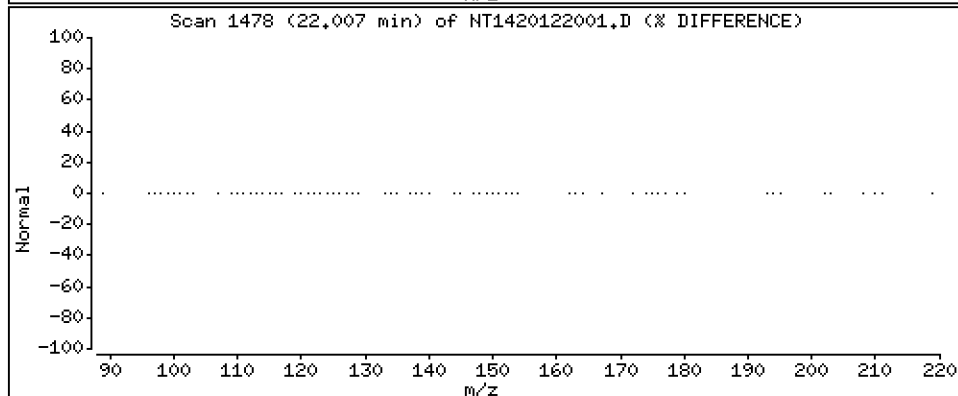
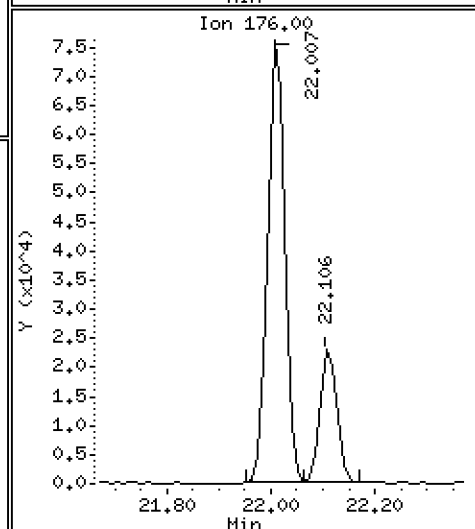
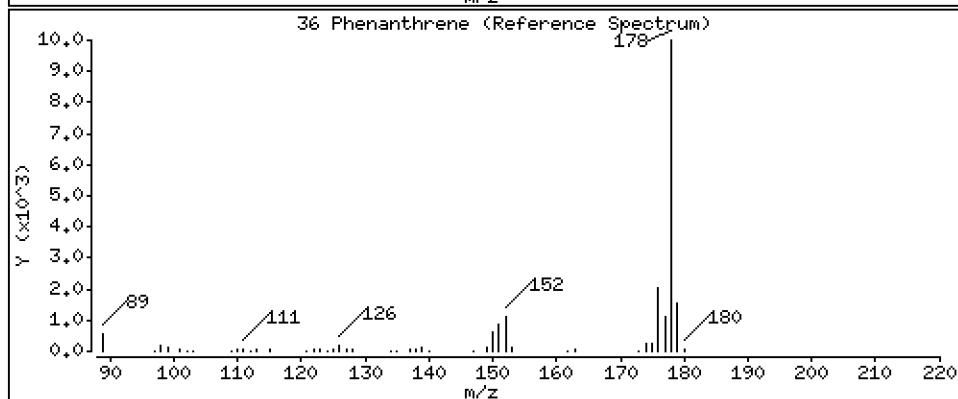
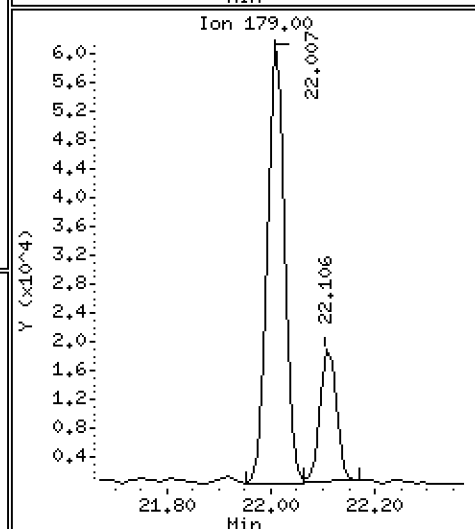
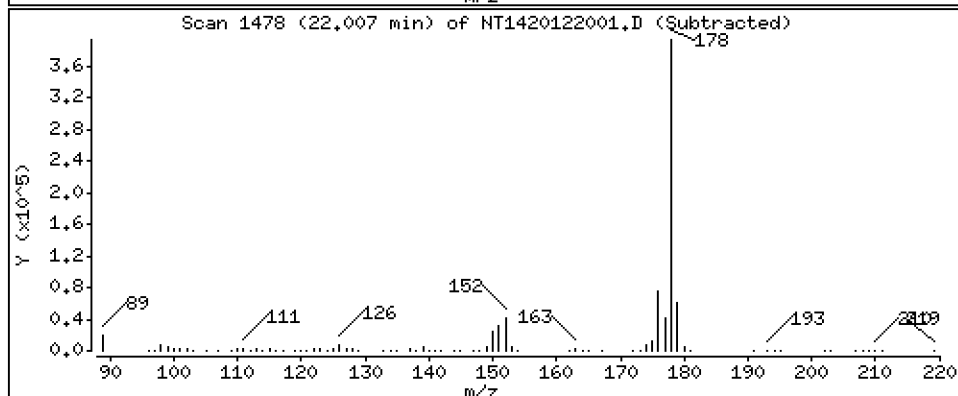
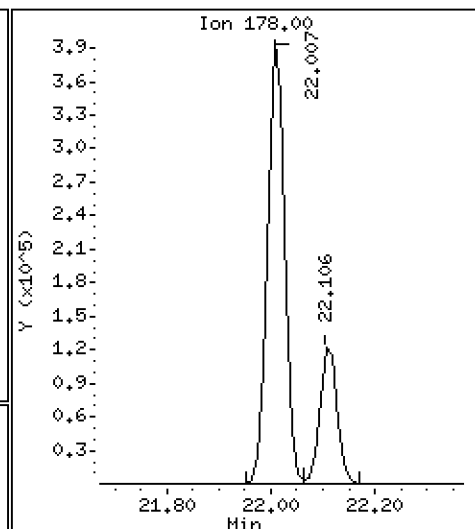
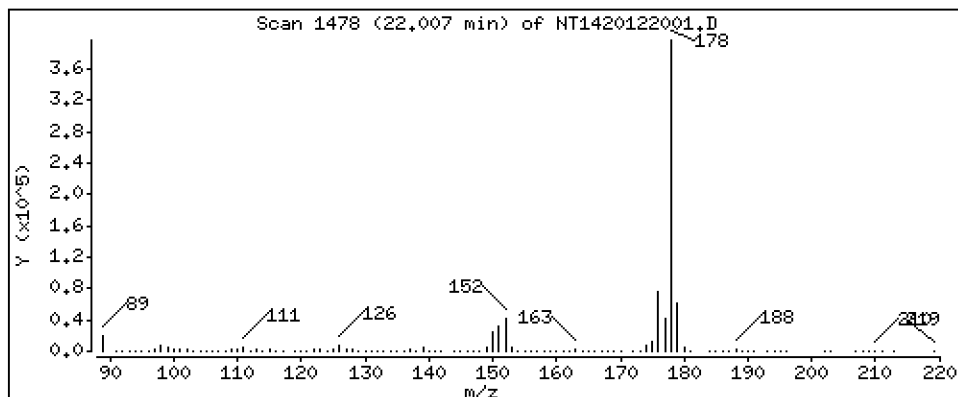
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

36 Phenanthrene

Concentration: 7,060 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

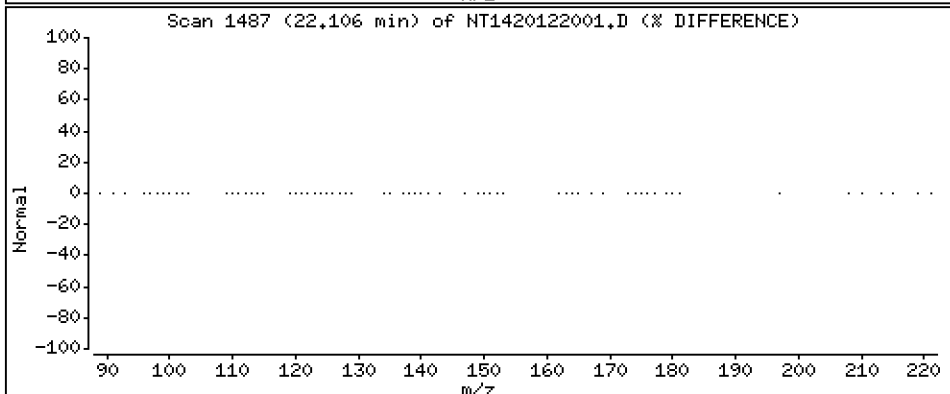
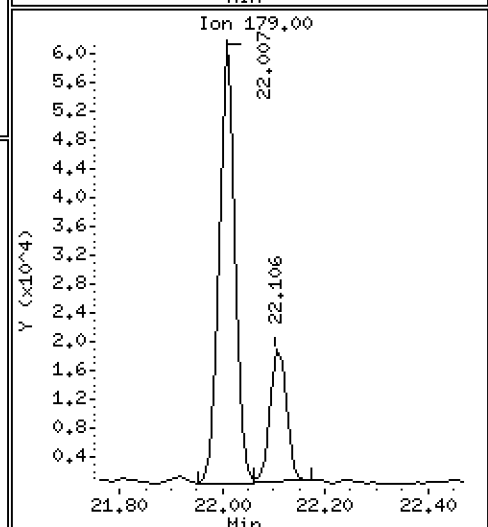
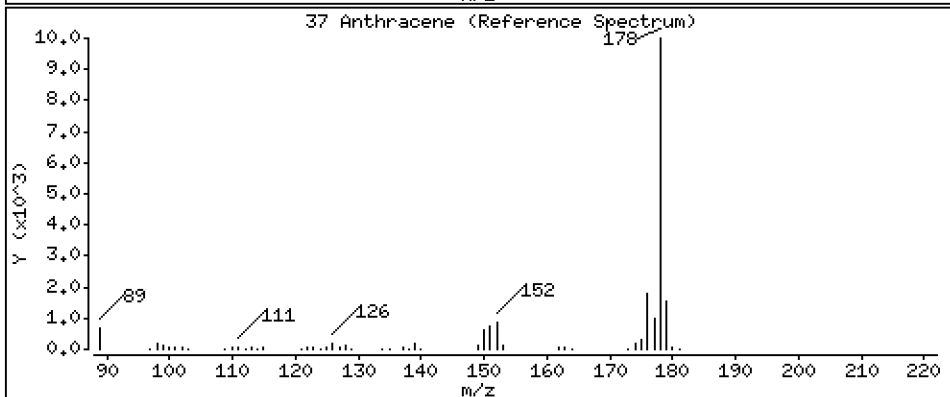
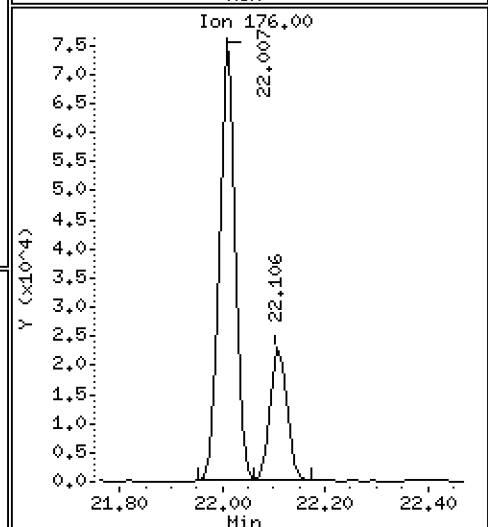
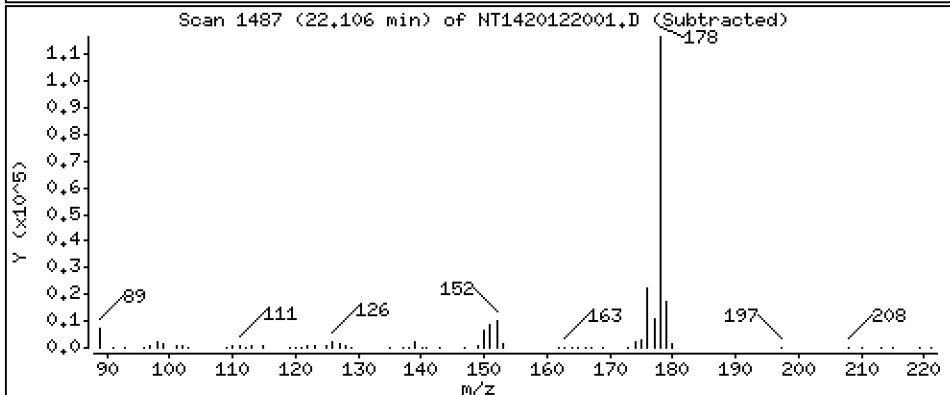
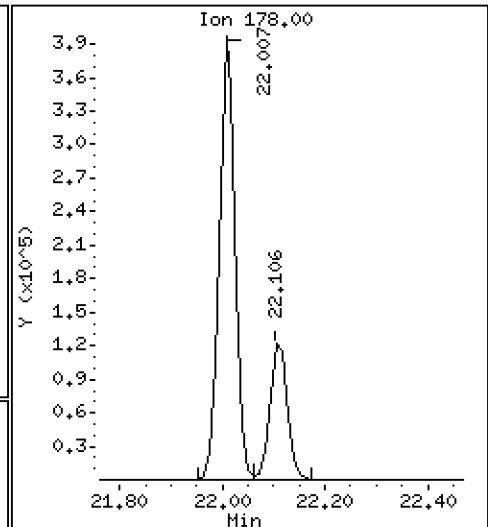
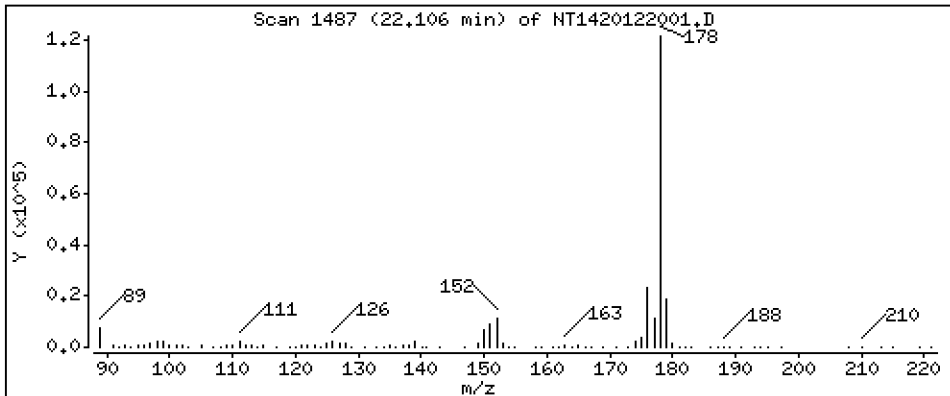
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

37 Anthracene

Concentration: 2,227 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

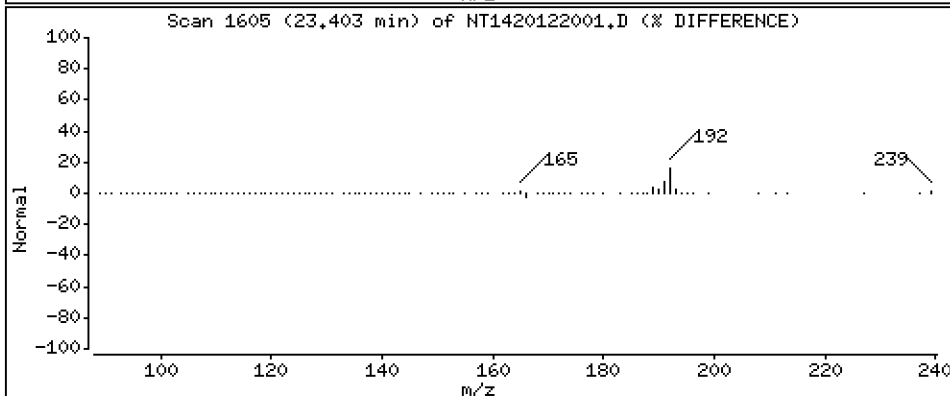
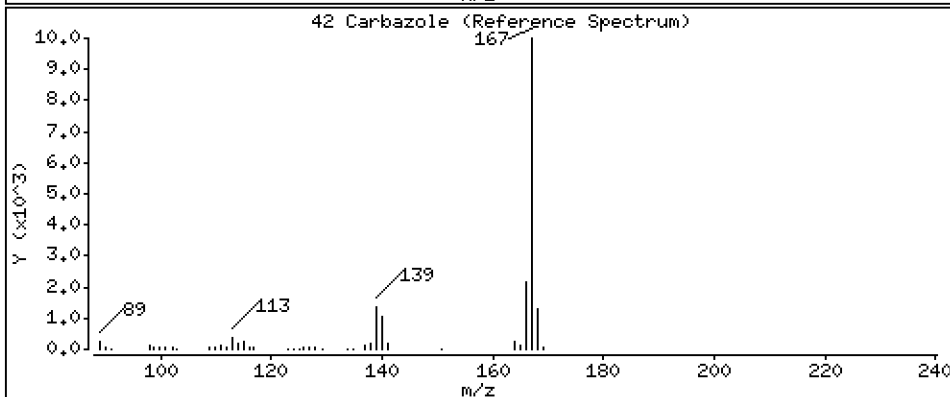
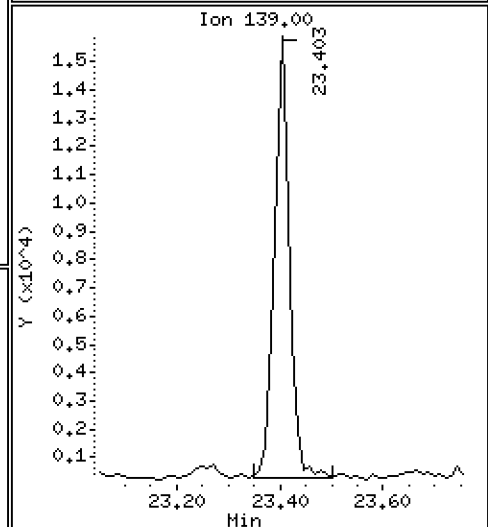
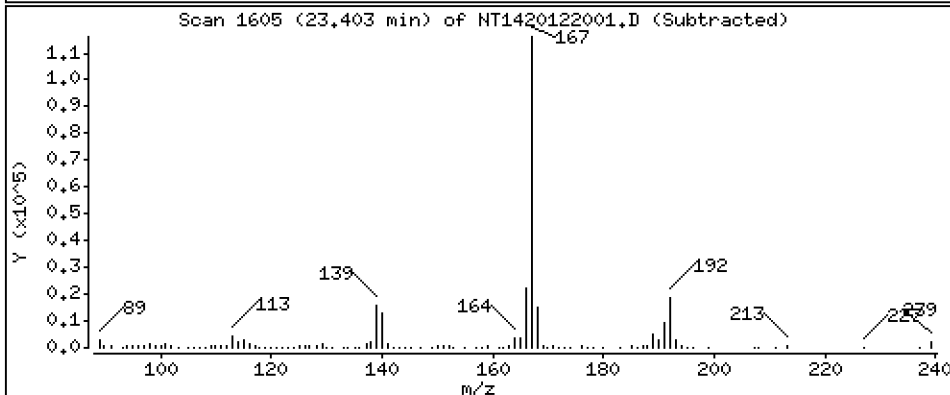
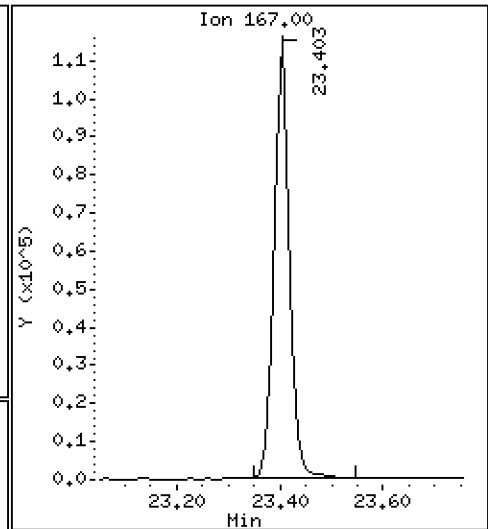
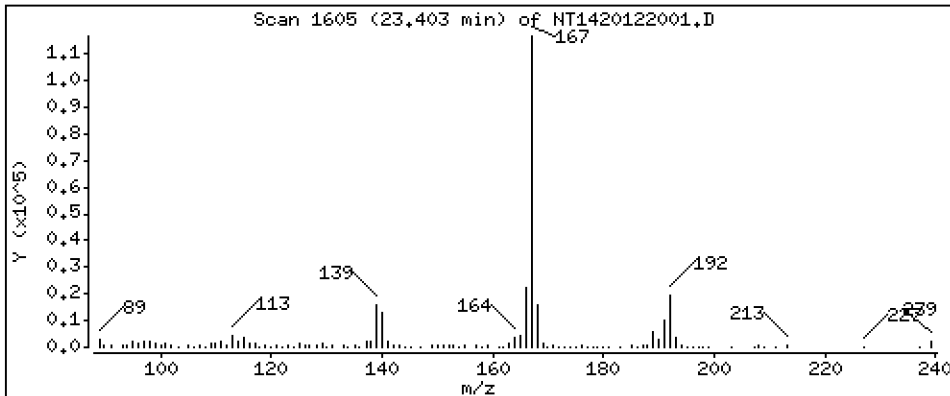
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

42 Carbazole

Concentration: 2,348 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

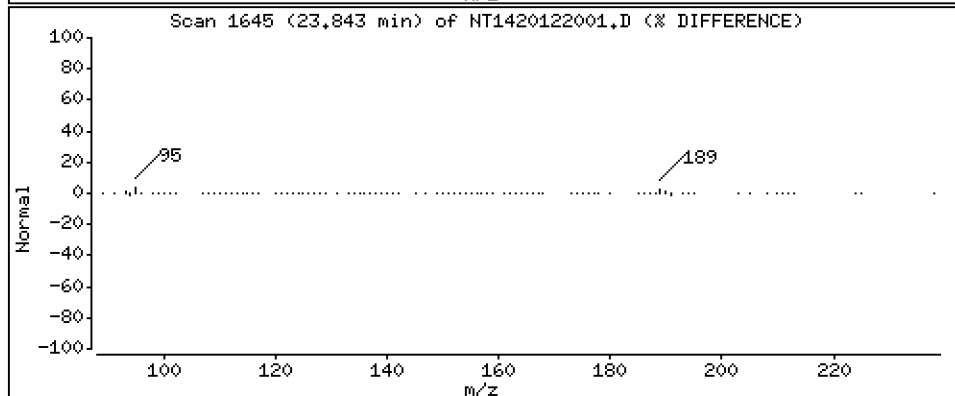
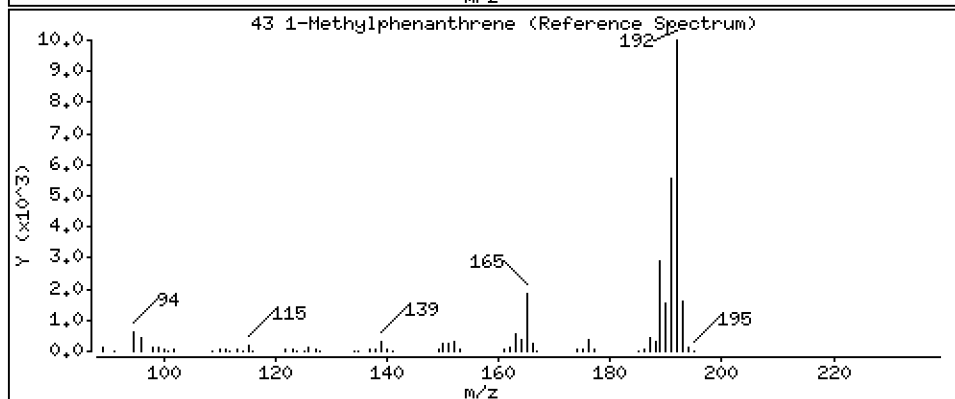
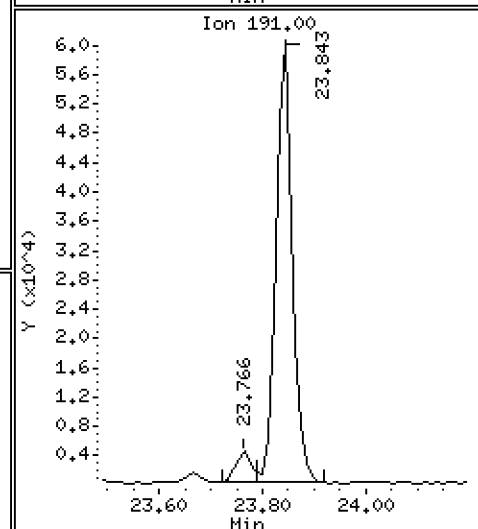
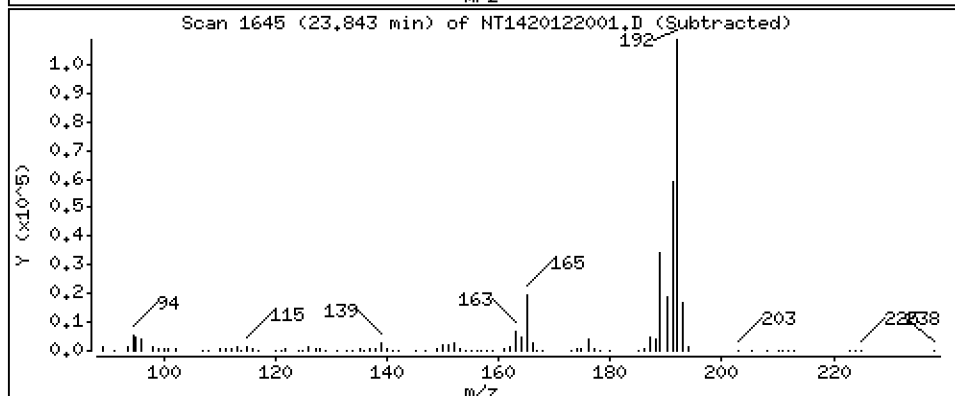
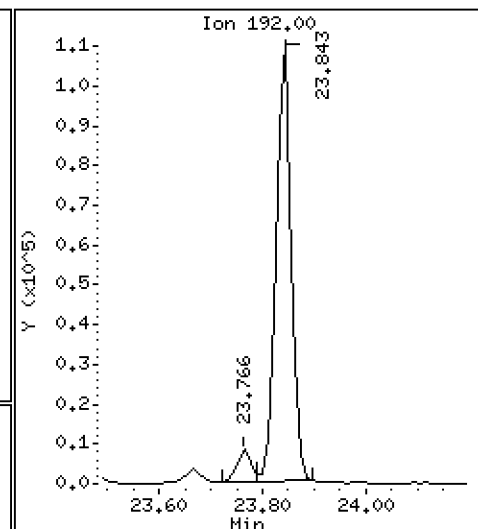
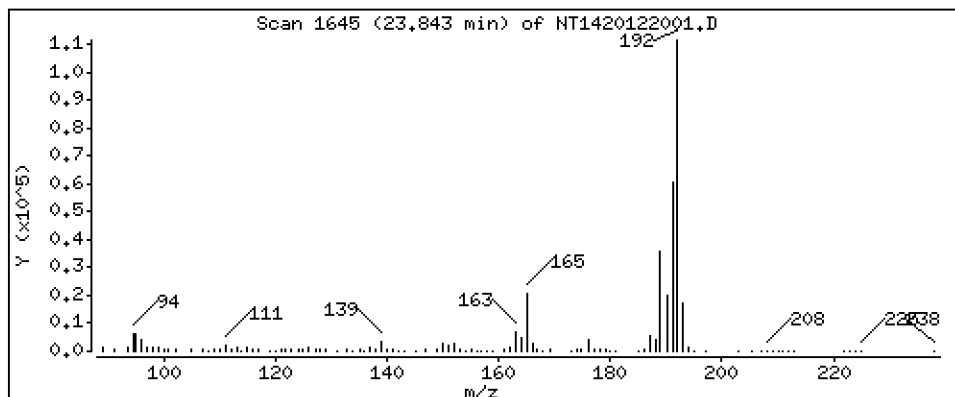
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

43 1-Methylphenanthrene

Concentration: 2,565 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

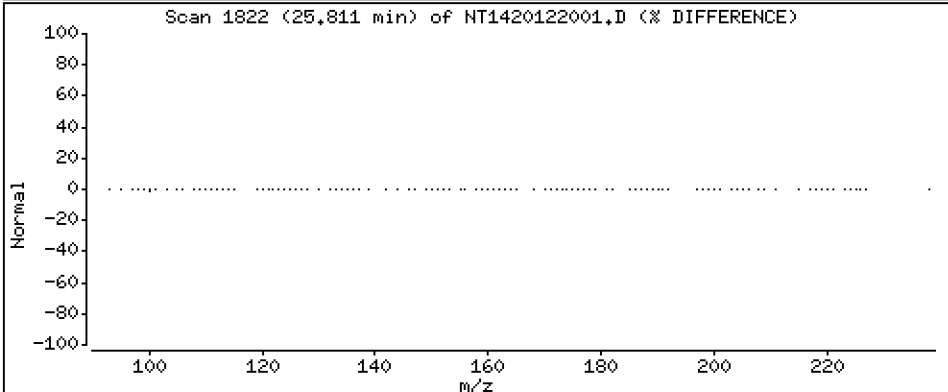
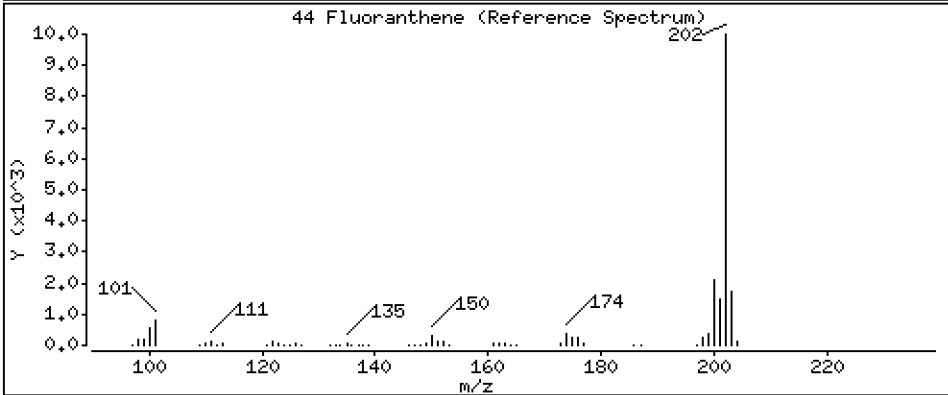
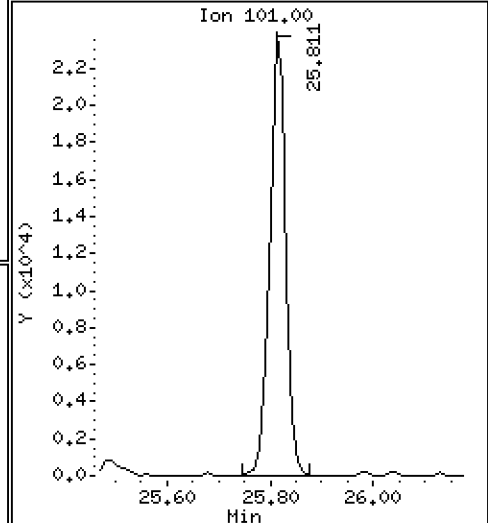
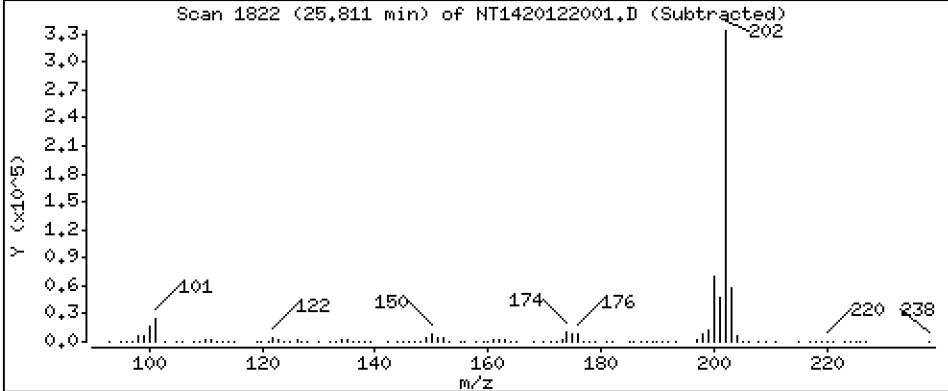
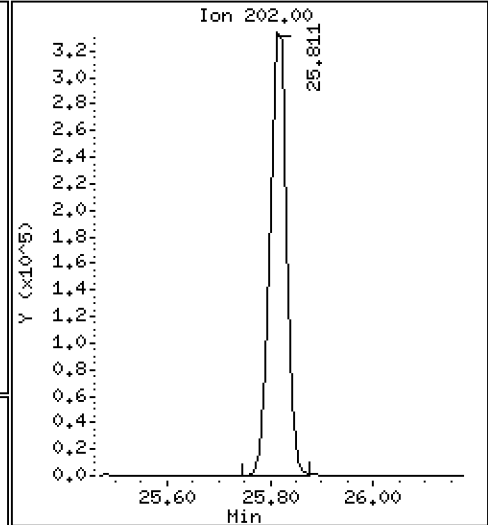
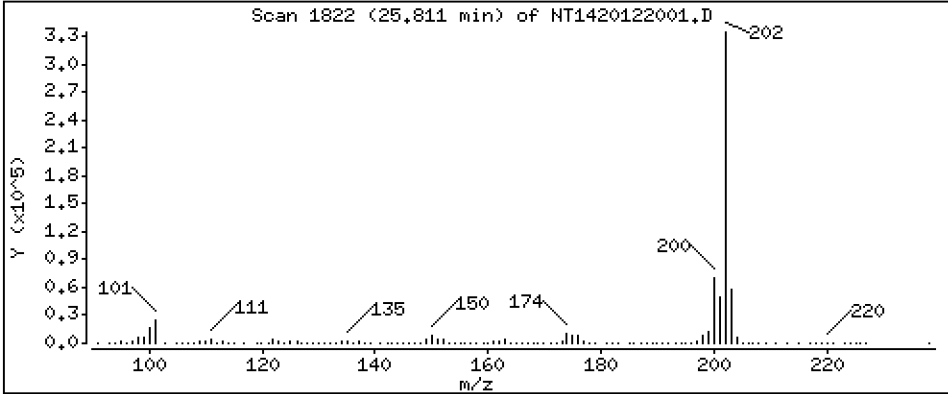
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

44 Fluoranthene

Concentration: 5,718 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

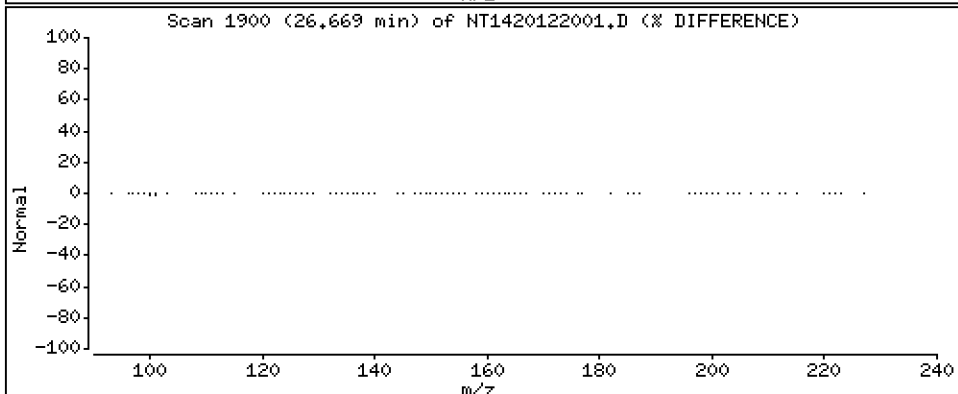
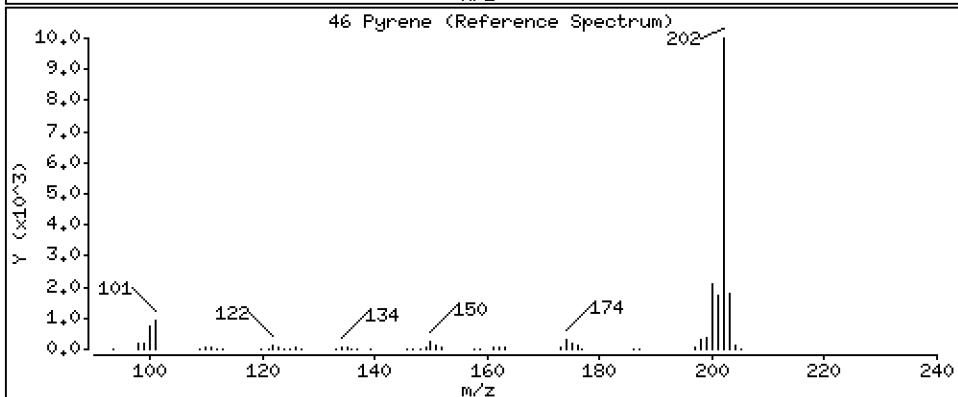
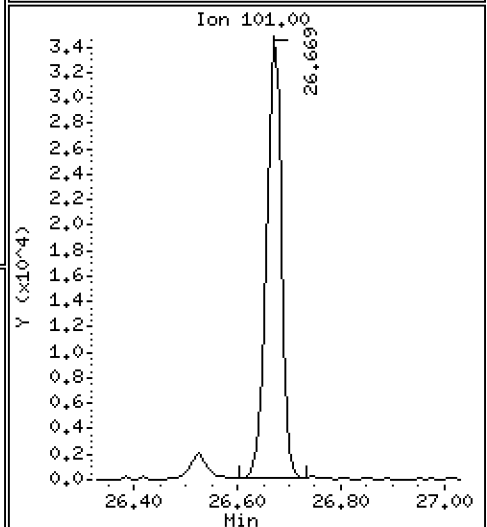
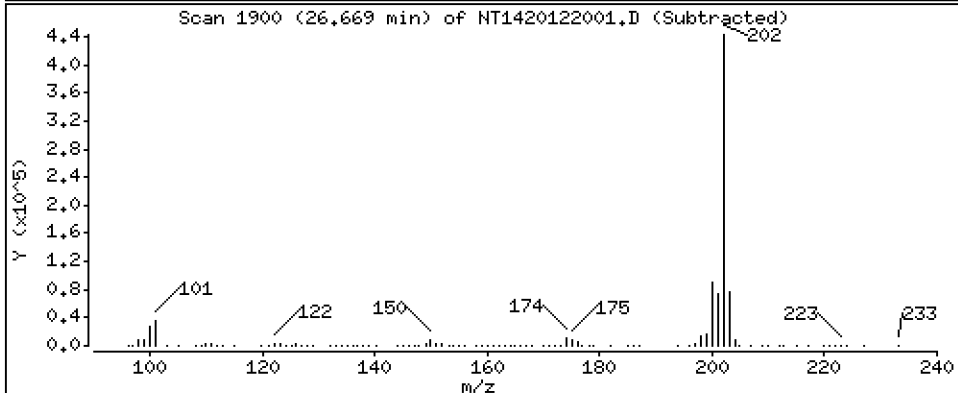
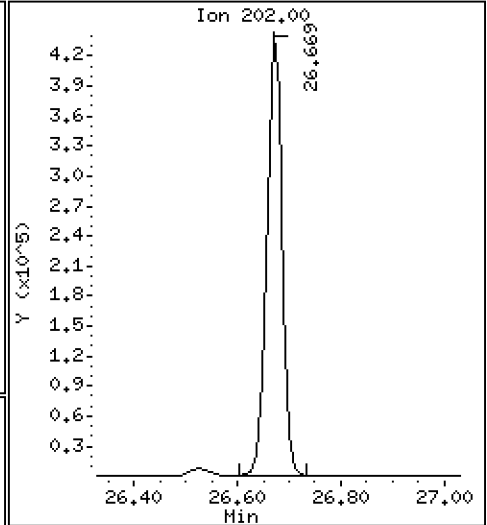
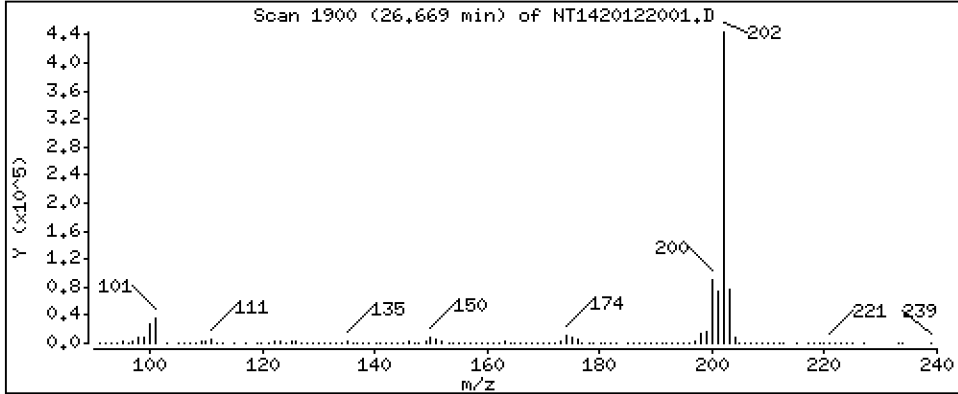
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

46 Pyrene

Concentration: 6,394 ug/mL





Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

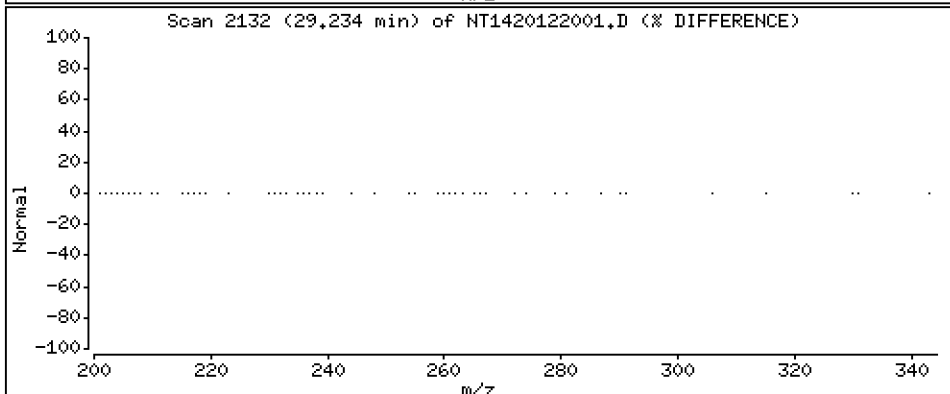
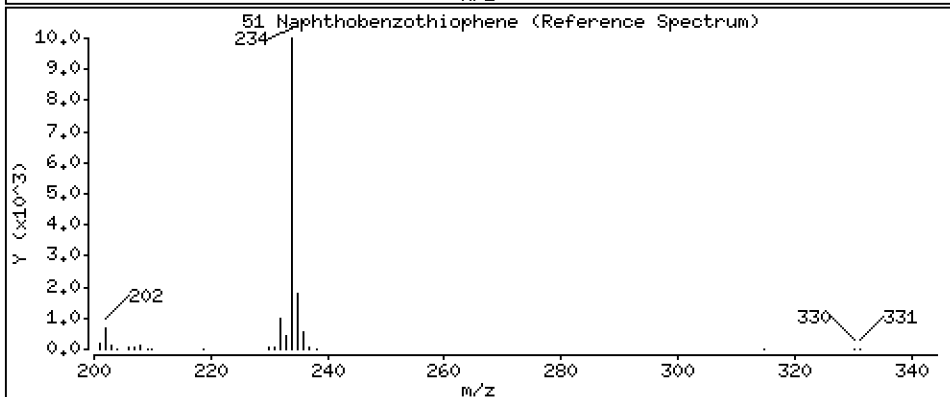
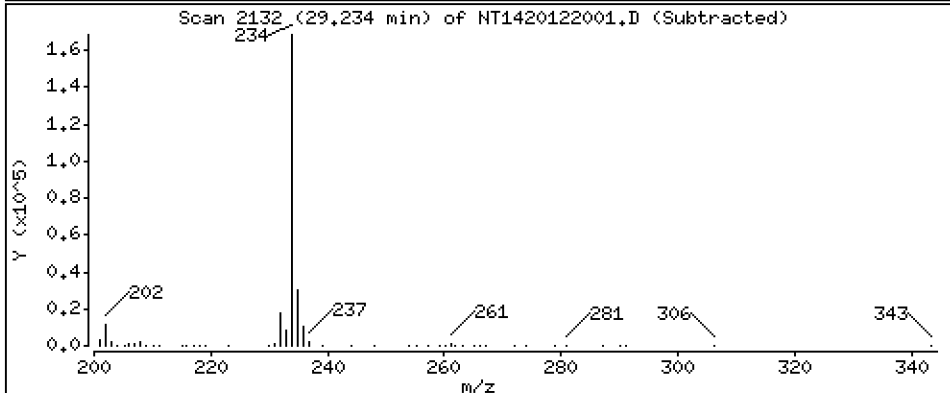
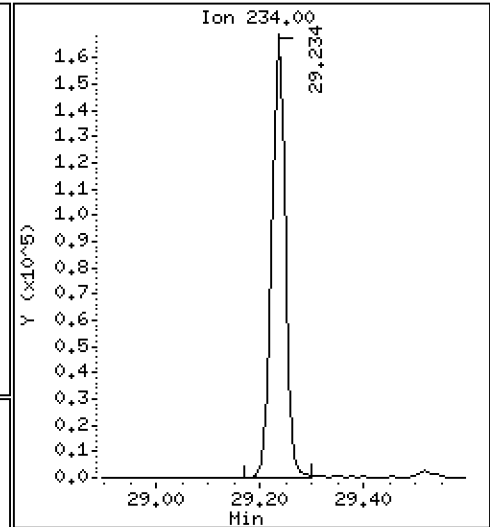
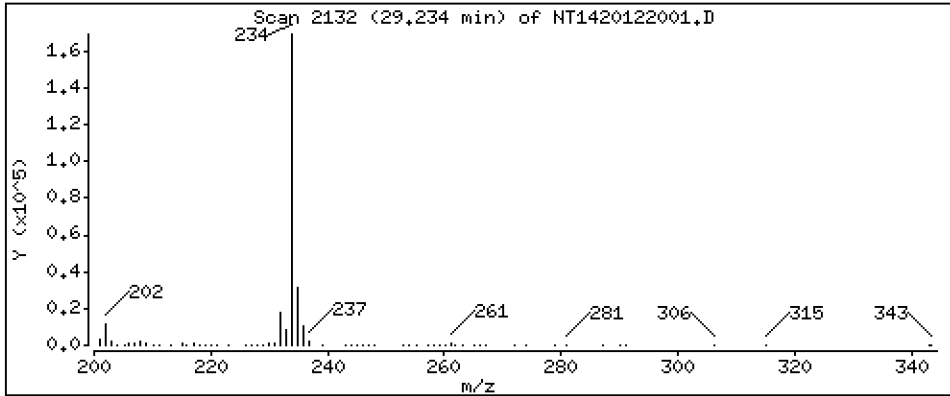
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

51 Naphthobenzothiophene

Concentration: 2,382 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

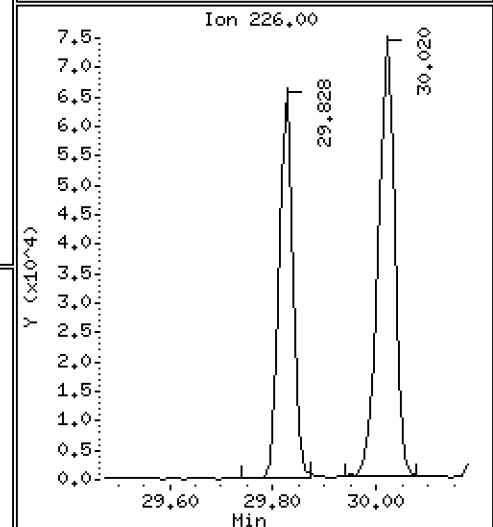
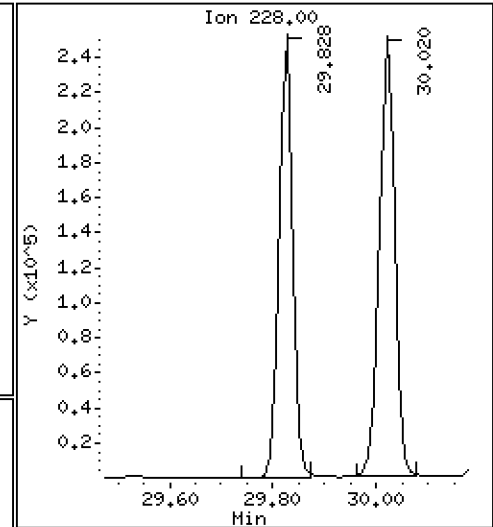
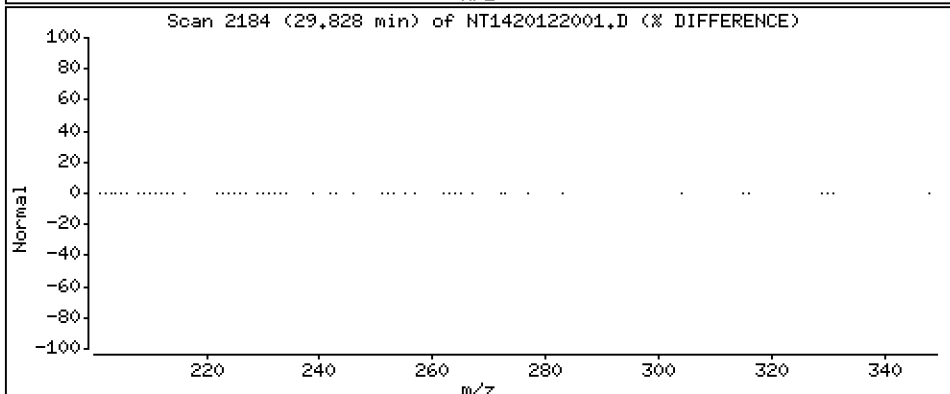
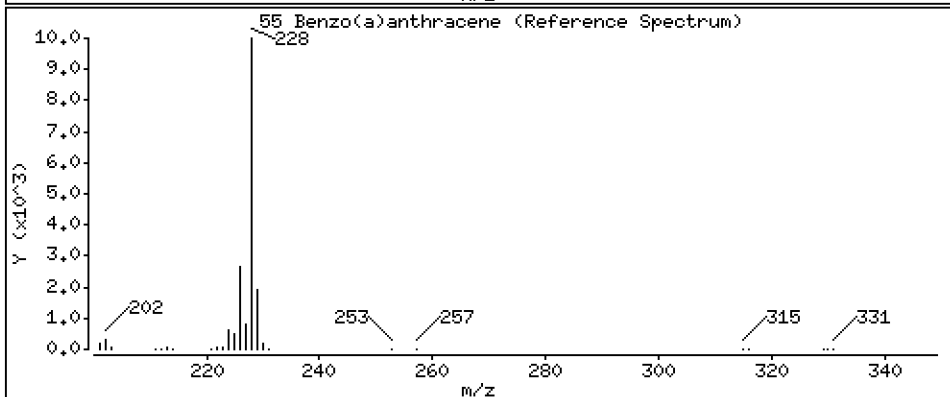
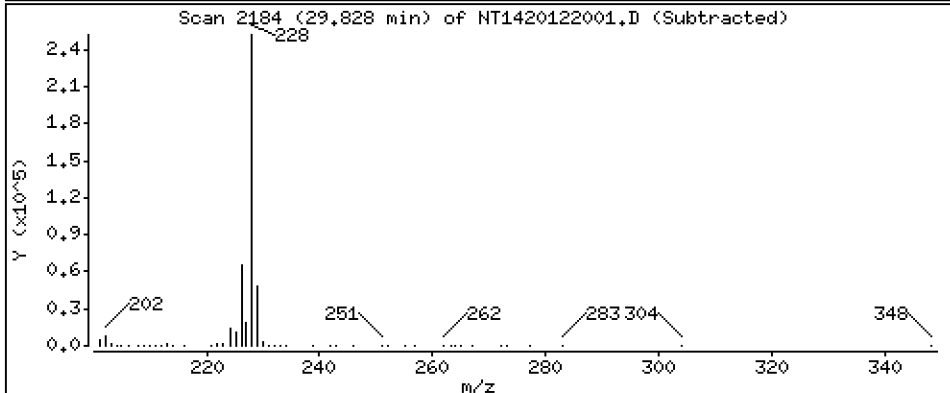
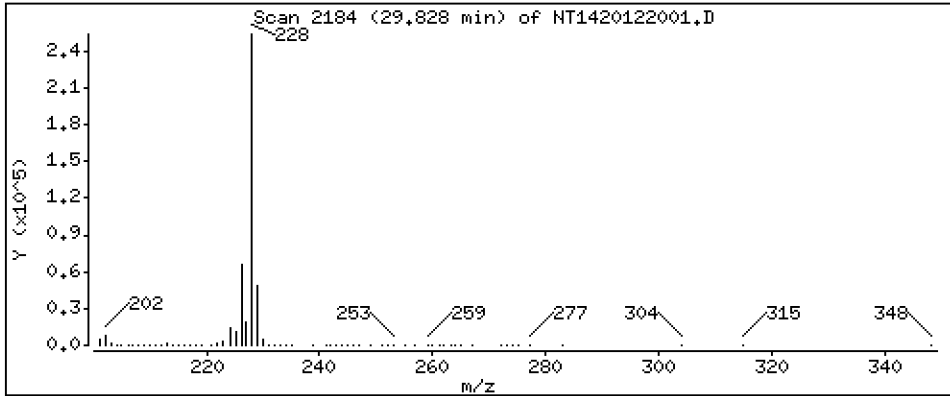
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

55 Benzo(a)anthracene

Concentration: 3,843 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

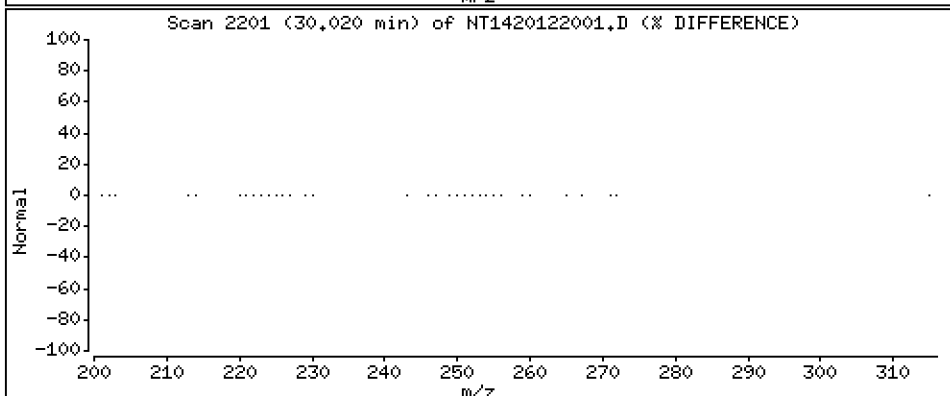
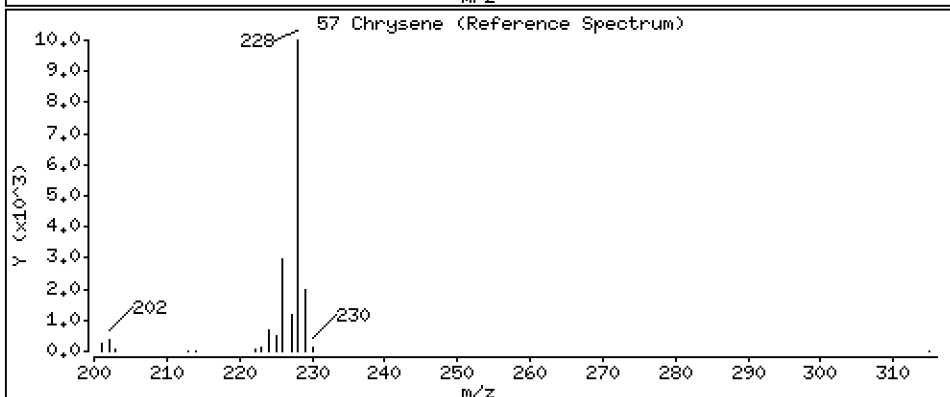
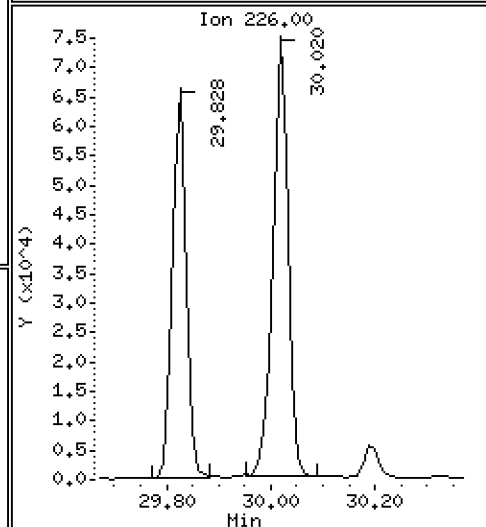
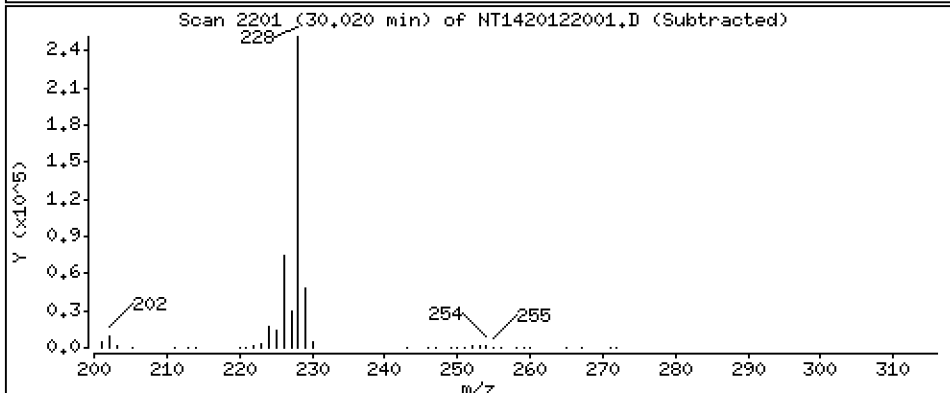
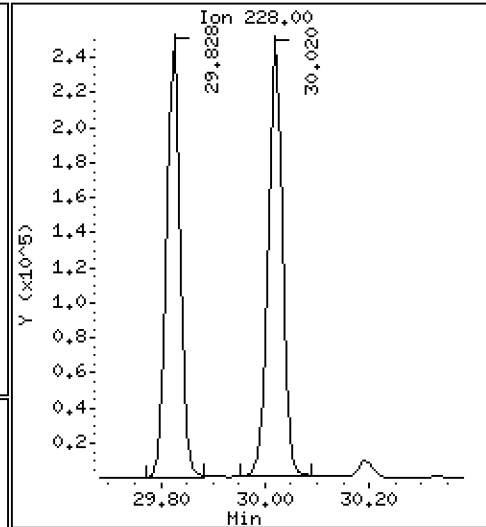
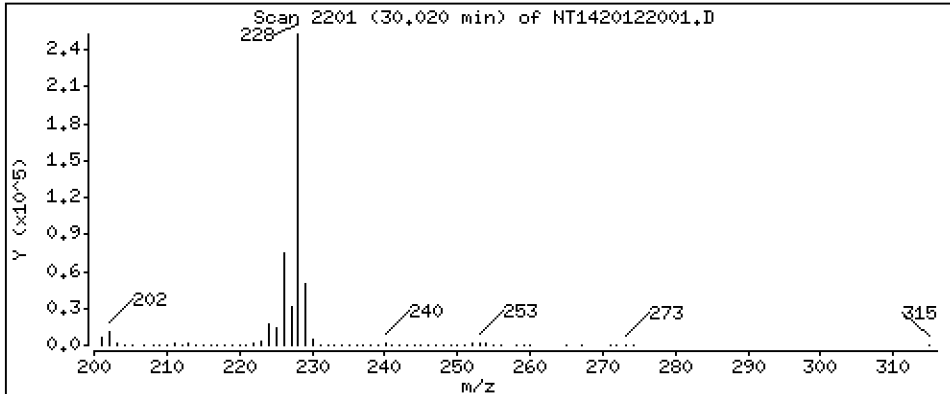
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

57 Chrysene

Concentration: 3,331 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

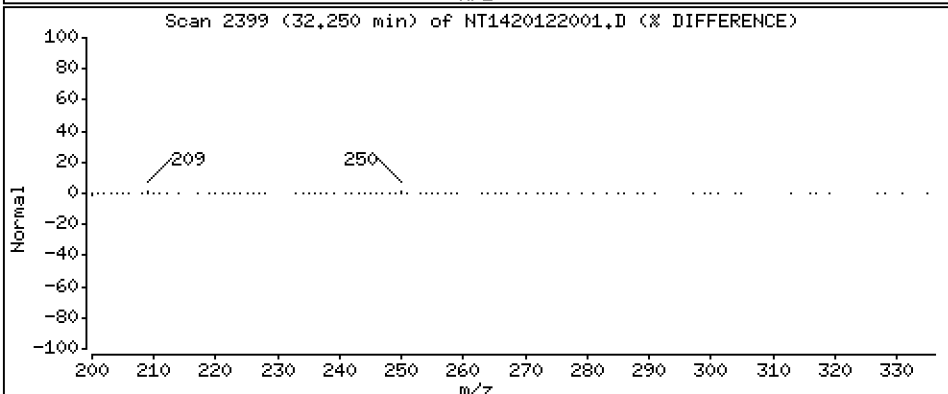
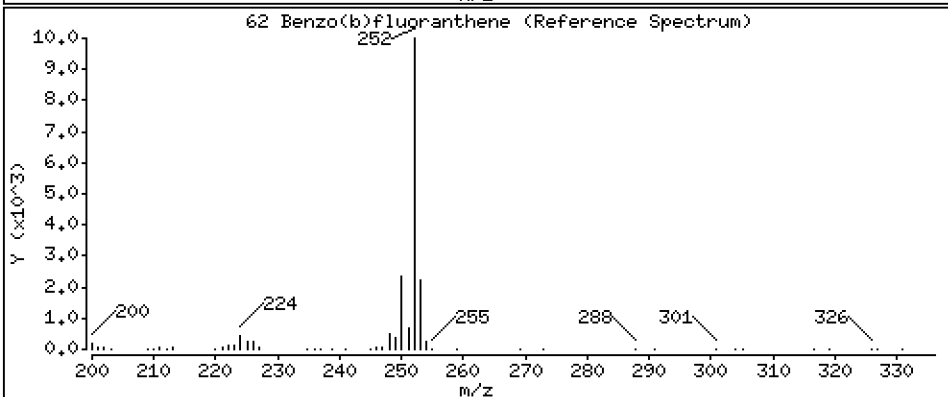
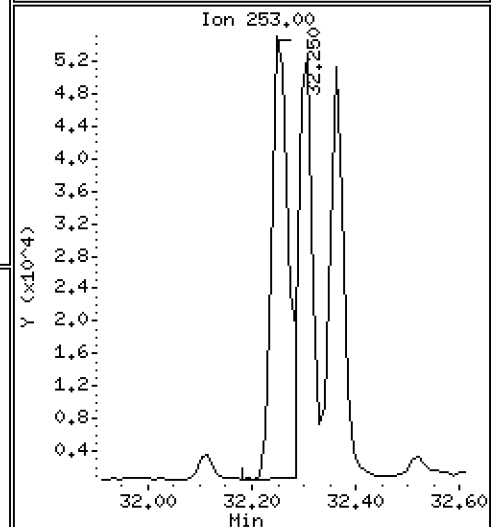
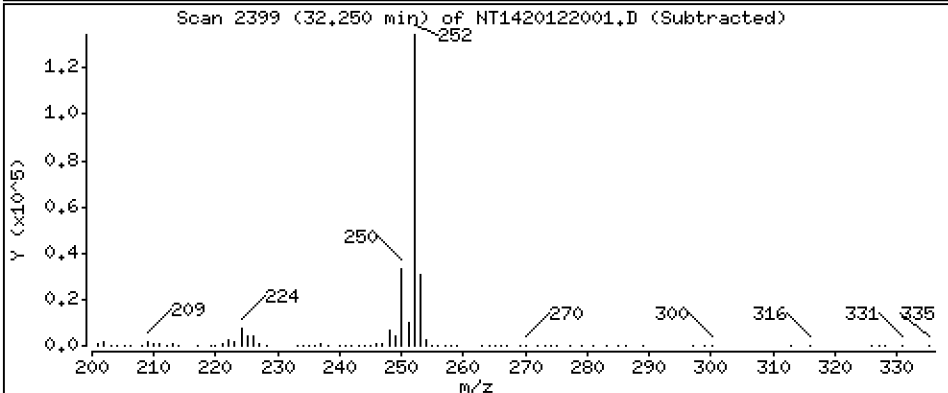
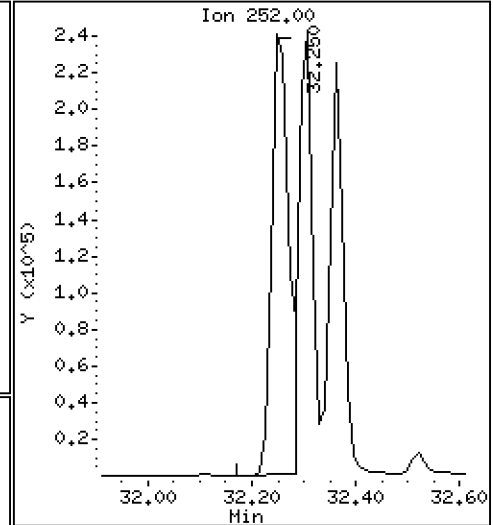
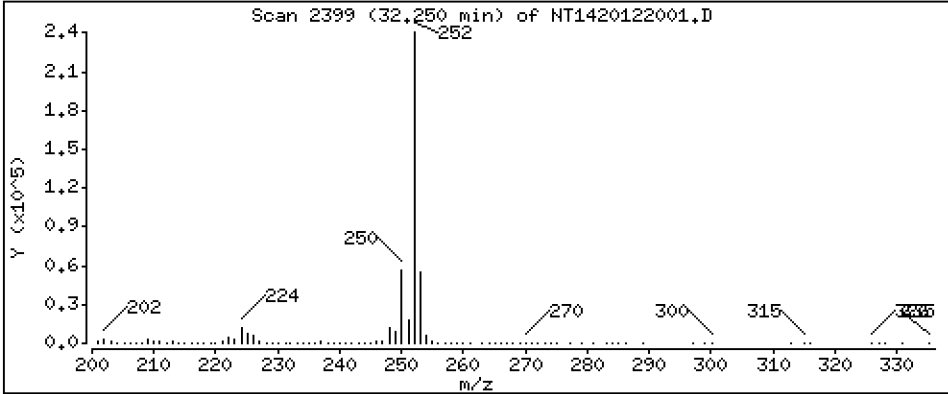
Operator: VTS

Column phase: Rxi-17Si1 MS

Column diameter: 0,25

62 Benzo(b)fluoranthene

Concentration: 3,312 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

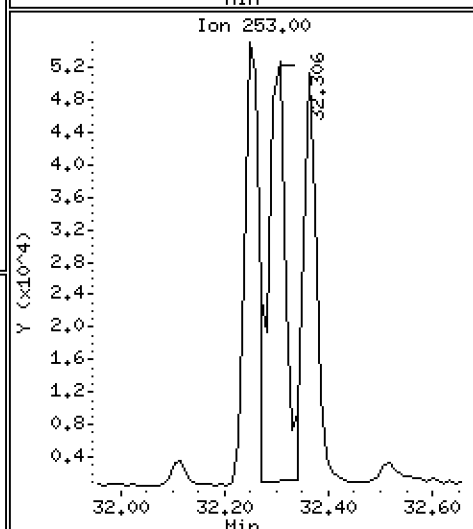
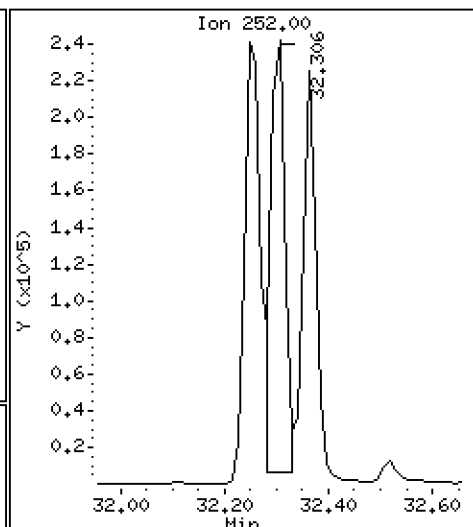
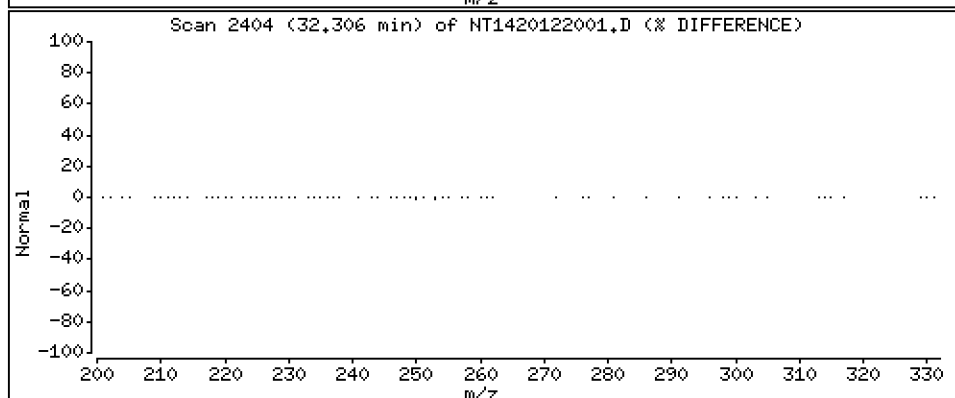
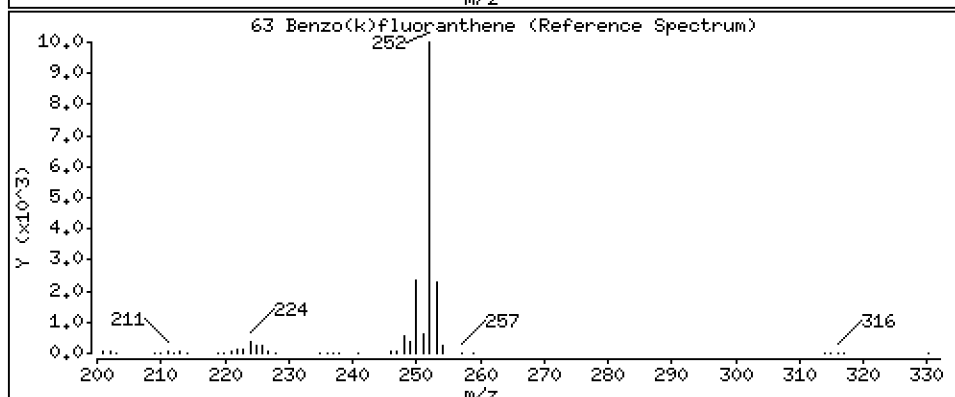
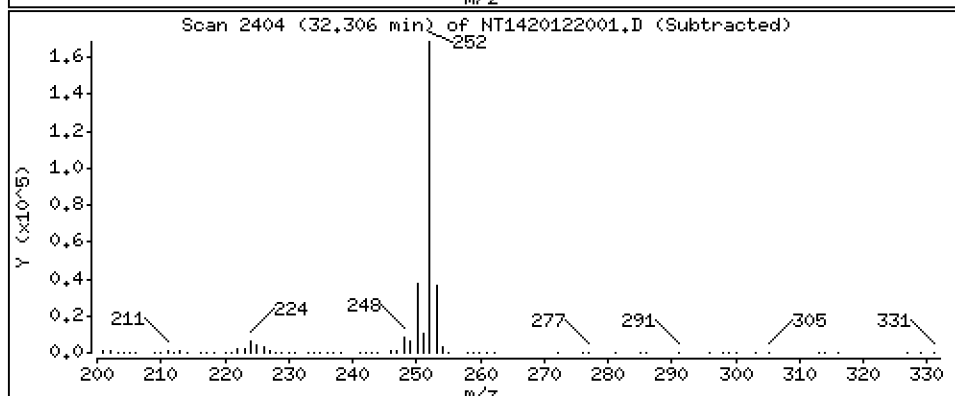
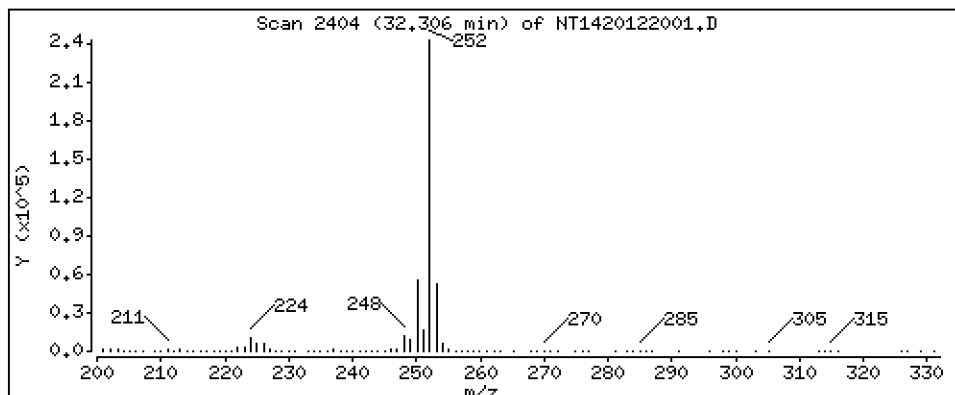
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

63 Benzo(k)fluoranthene

Concentration: 2,646 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

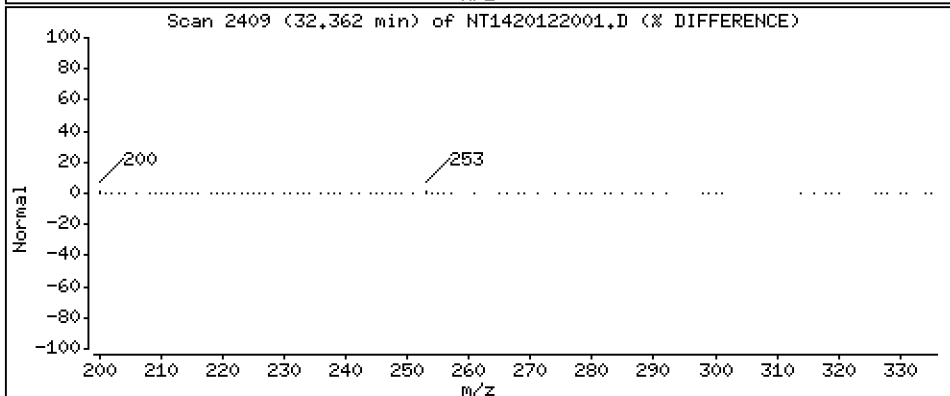
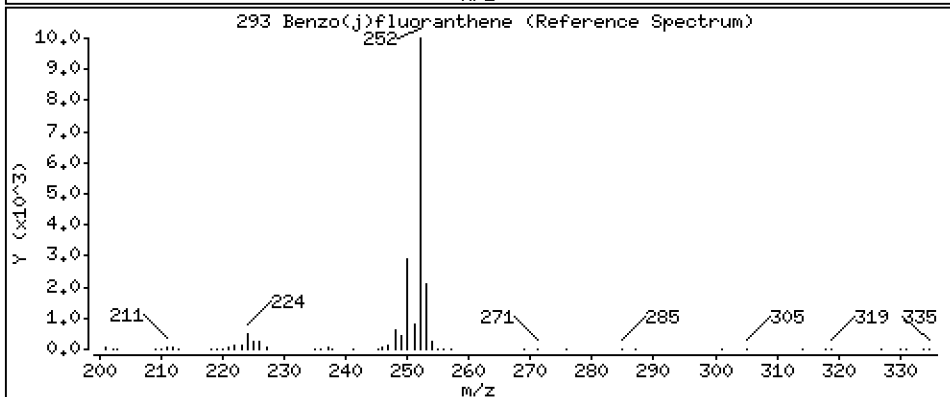
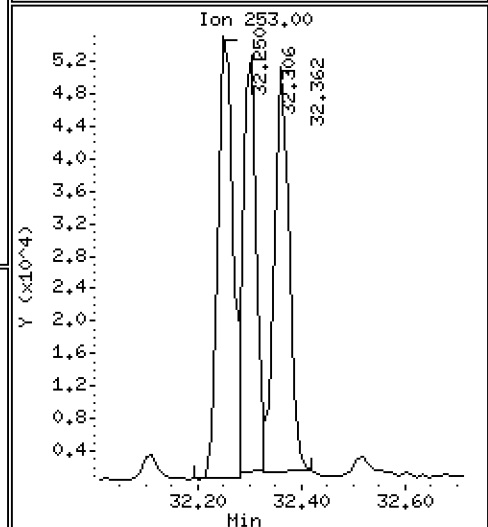
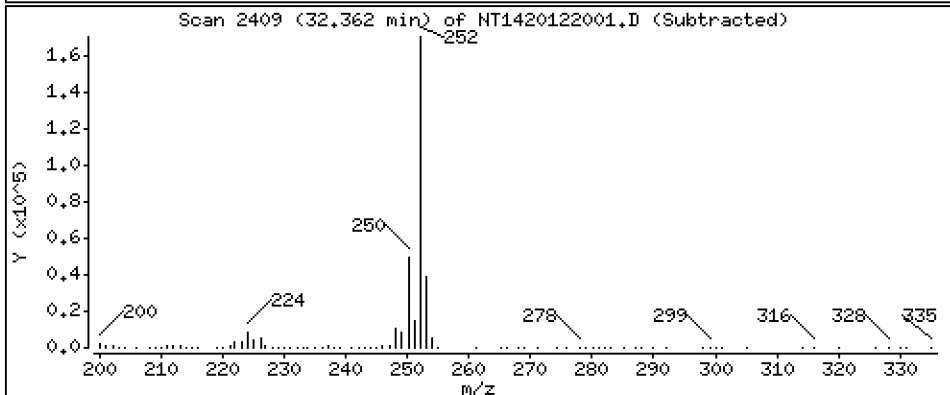
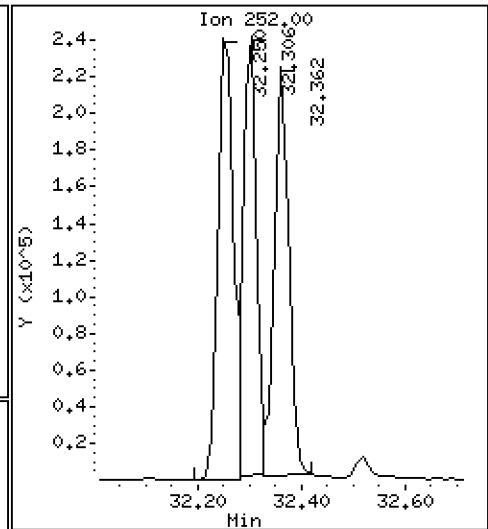
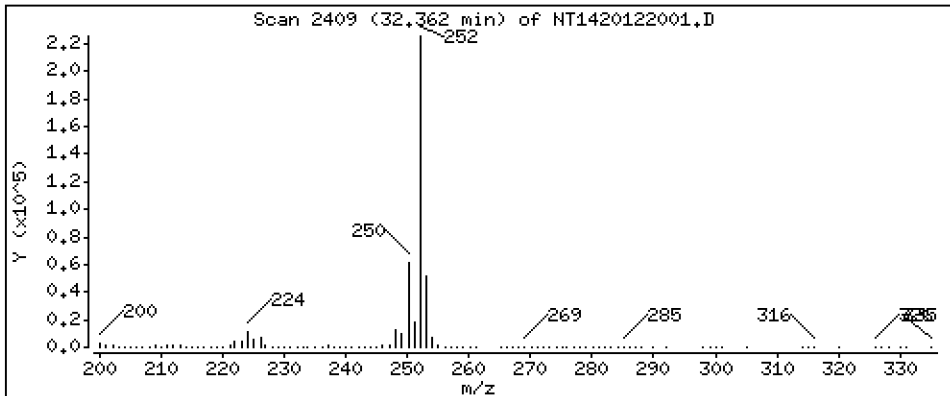
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

293 Benzo(j)fluoranthene

Concentration: 2,845 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

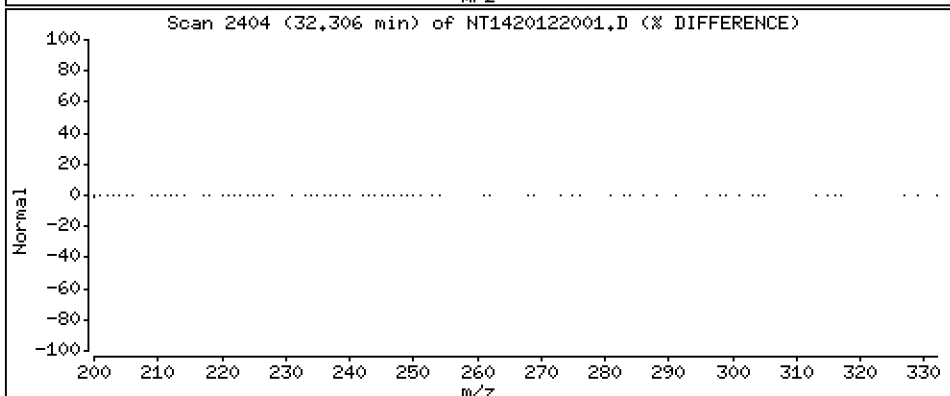
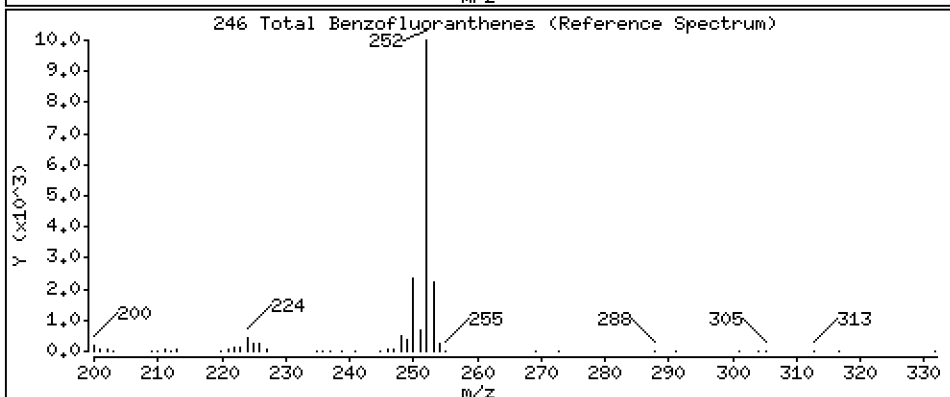
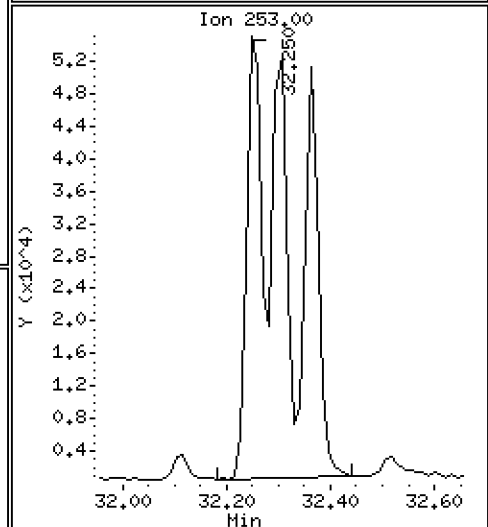
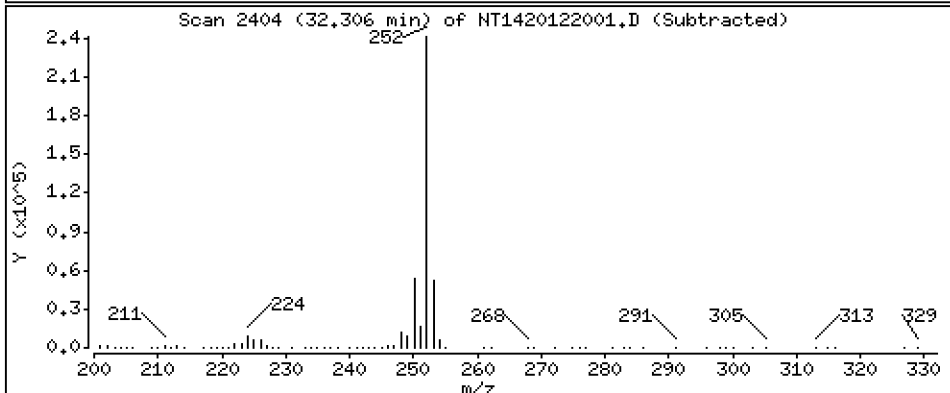
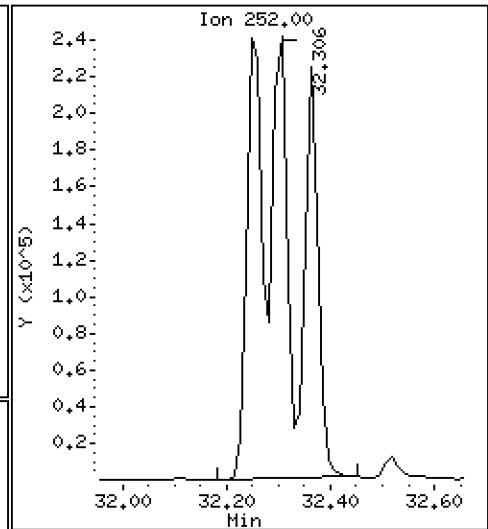
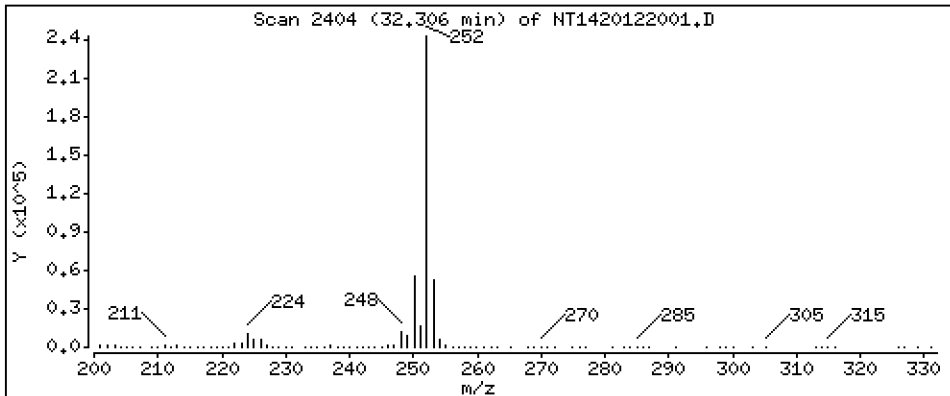
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

246 Total Benzofluoranthenes

Concentration: 8,817 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

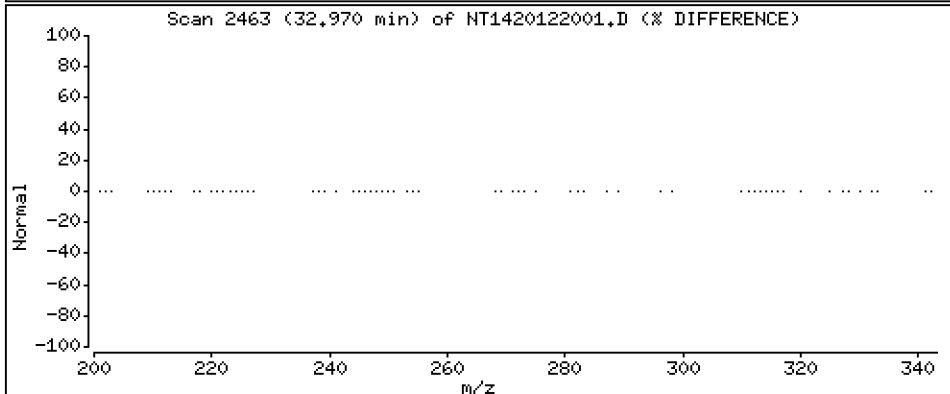
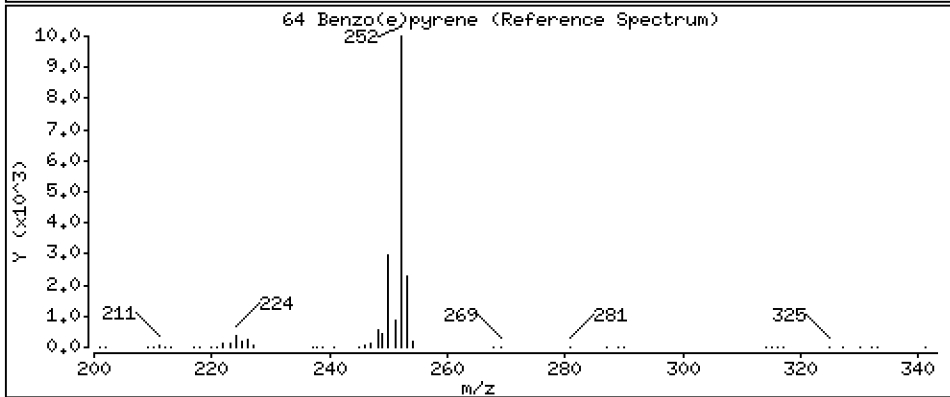
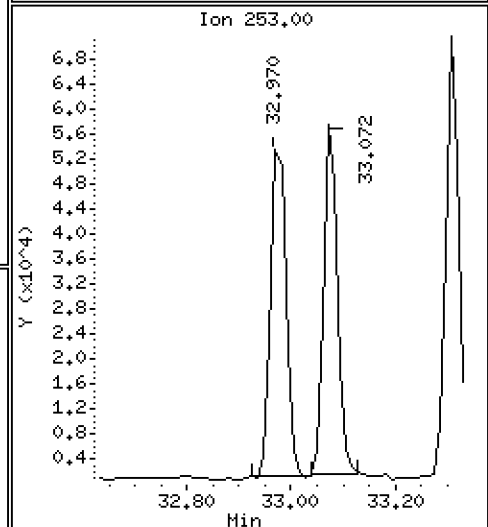
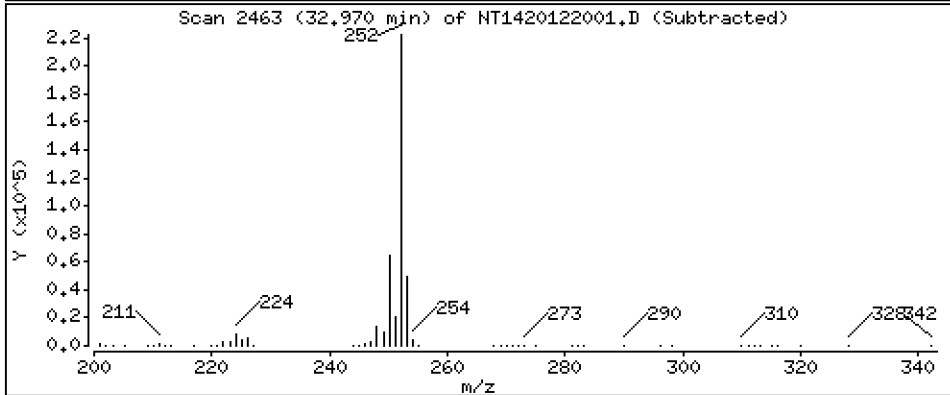
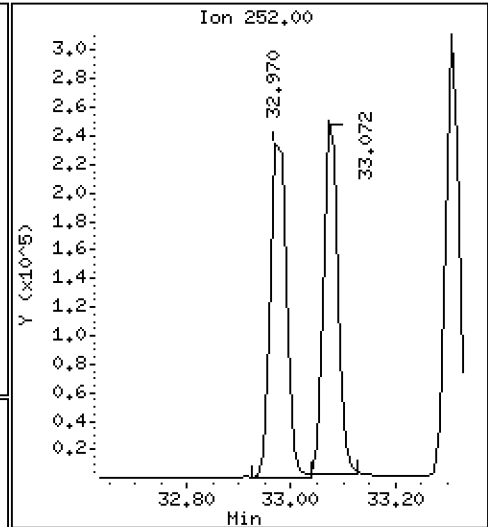
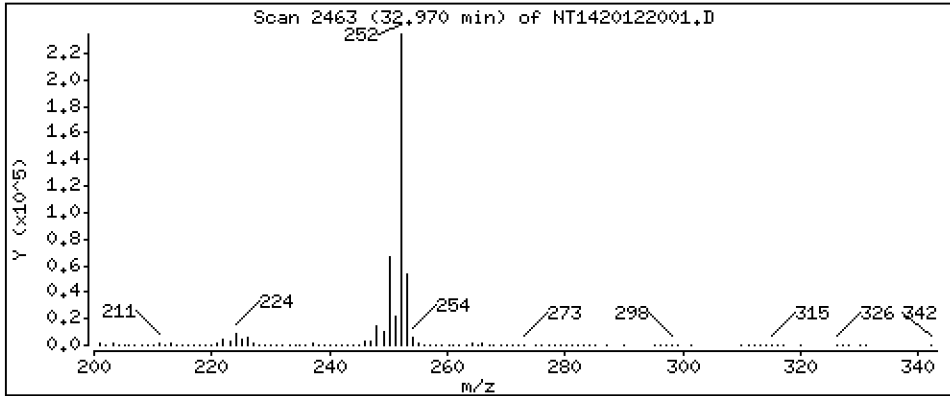
Operator: VTS

Column phase: Rxi-17Si1 MS

Column diameter: 0,25

64 Benzo(e)pyrene

Concentration: 3,178 ug/mL





Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

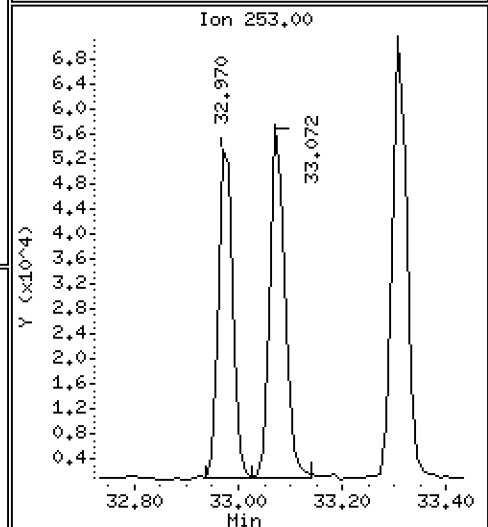
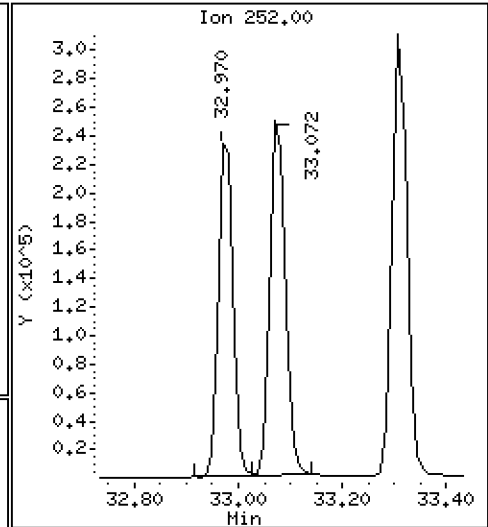
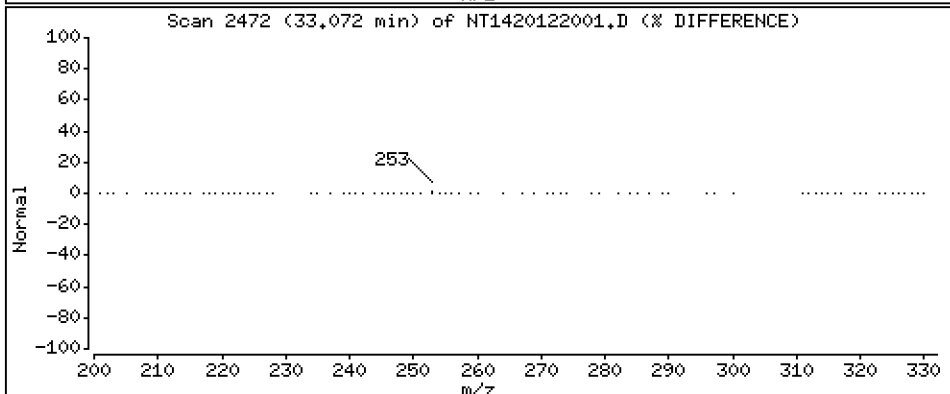
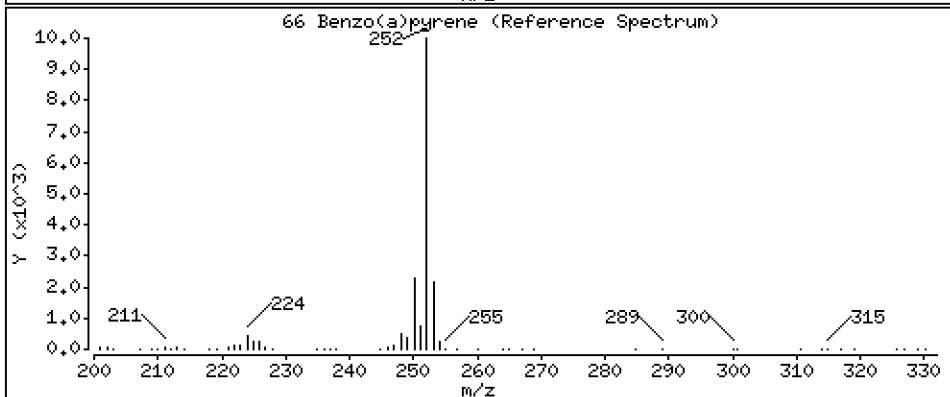
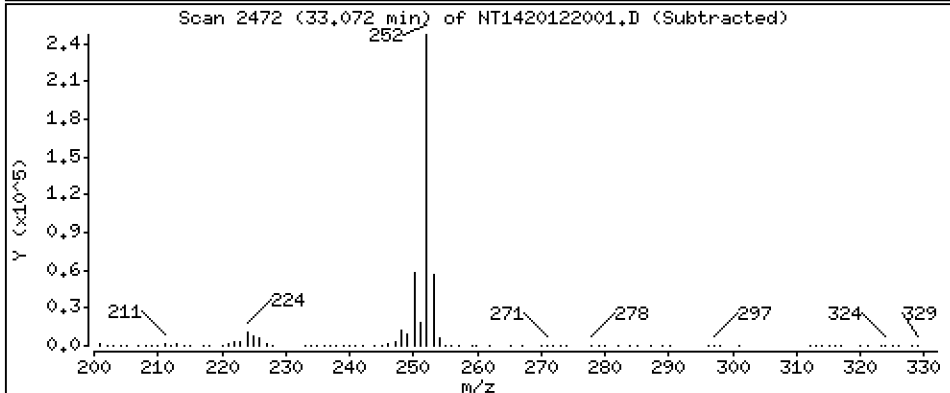
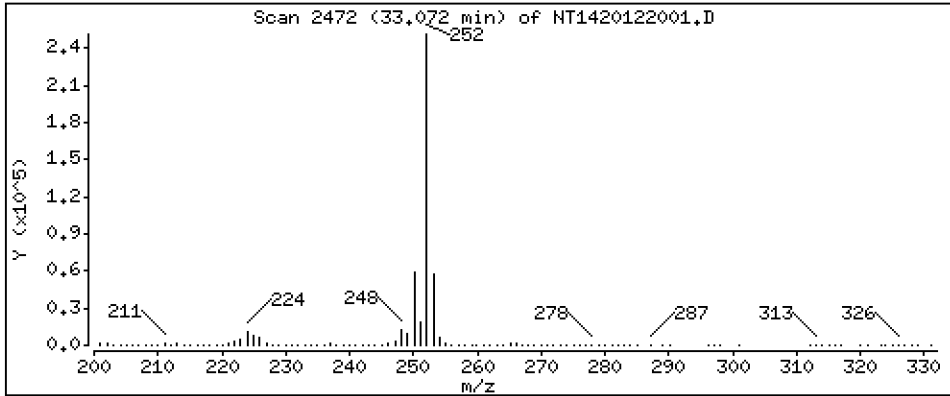
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

66 Benzo(a)pyrene

Concentration: 3,459 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

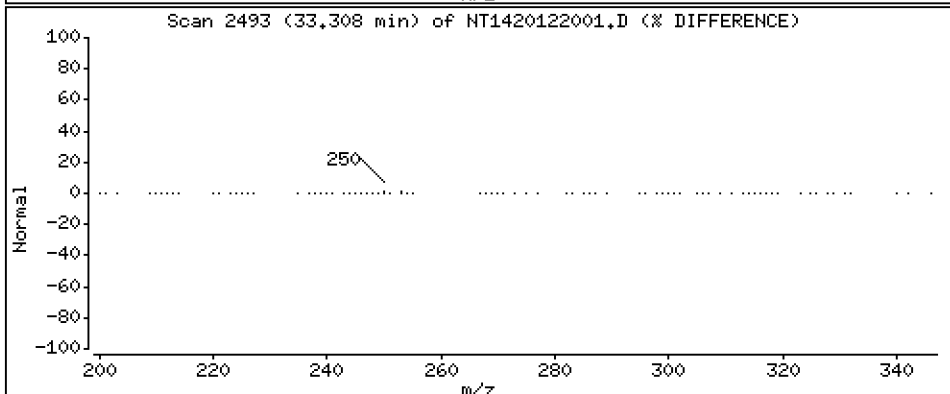
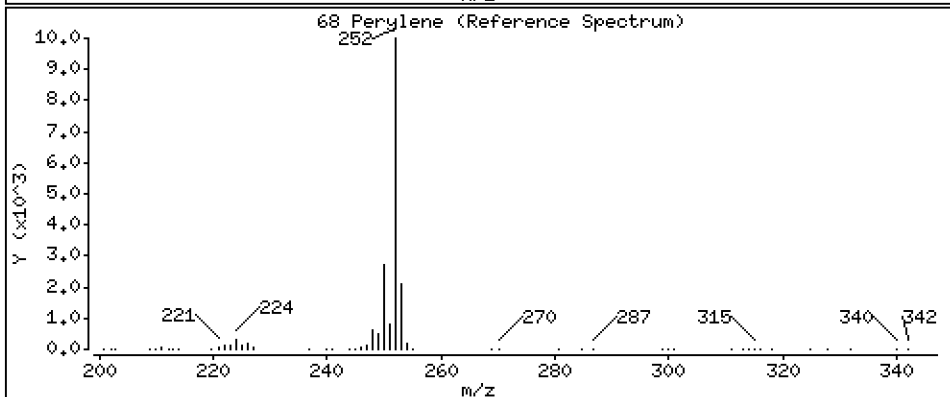
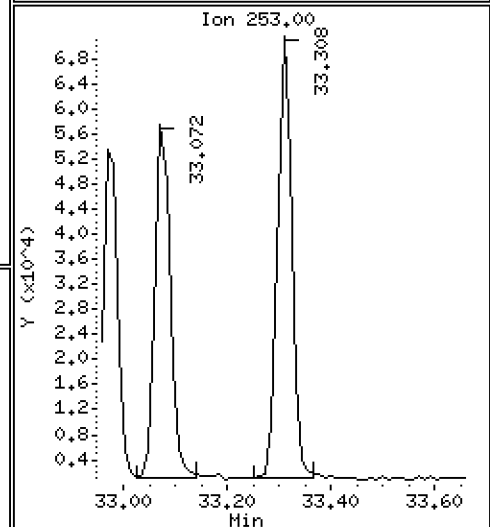
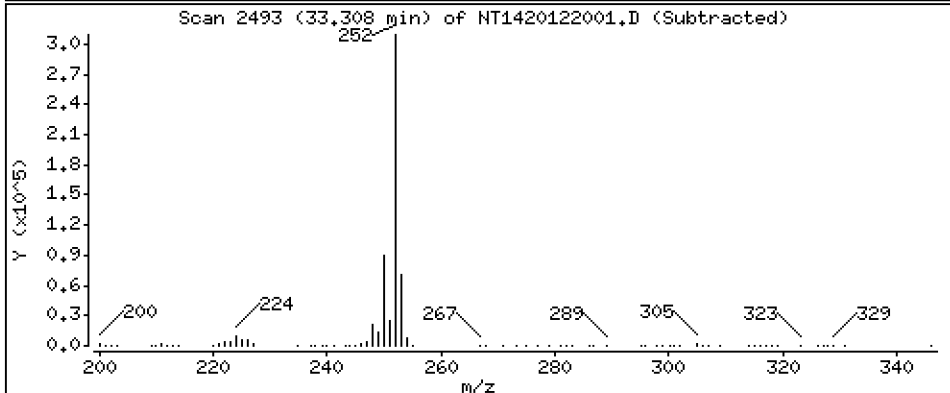
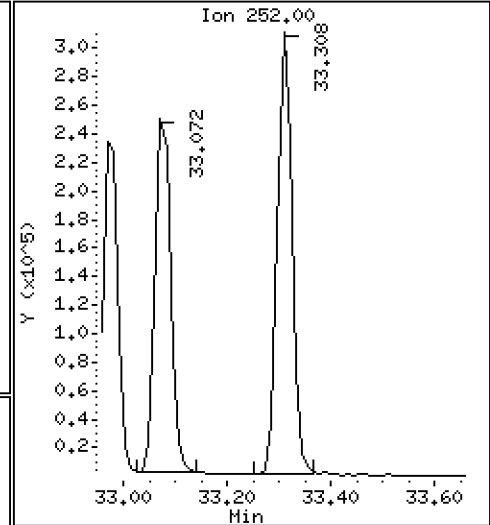
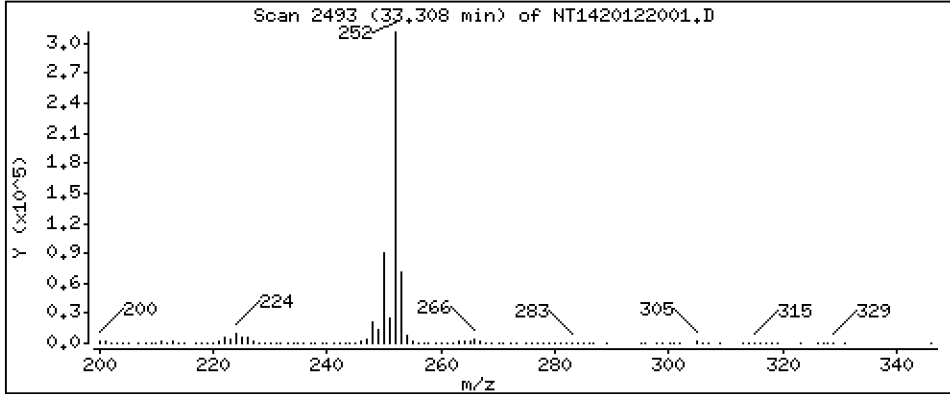
Operator: VTS

Column phase: Rxi-17Si1 MS

Column diameter: 0,25

68 Perylene

Concentration: 3,843 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

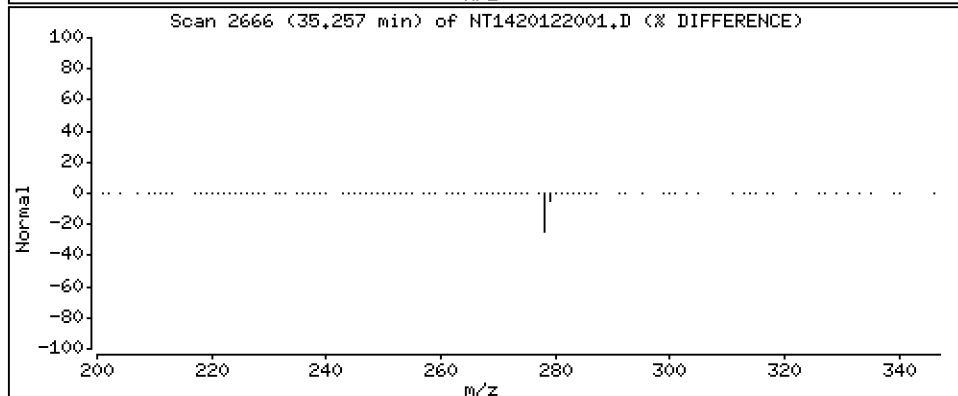
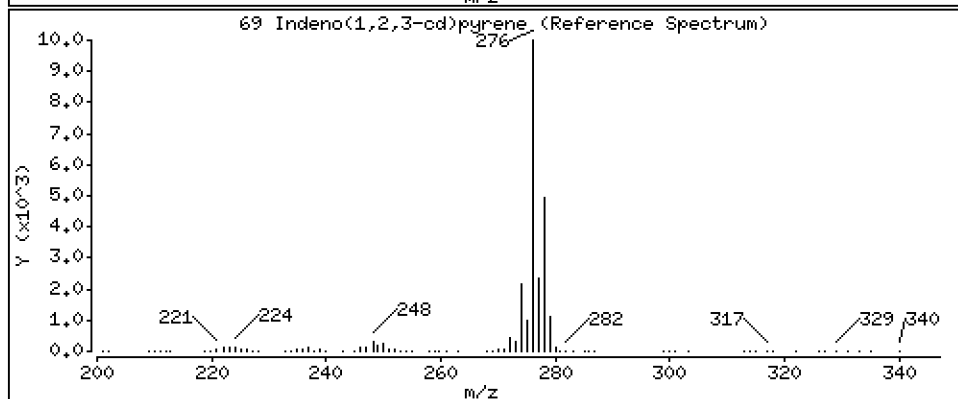
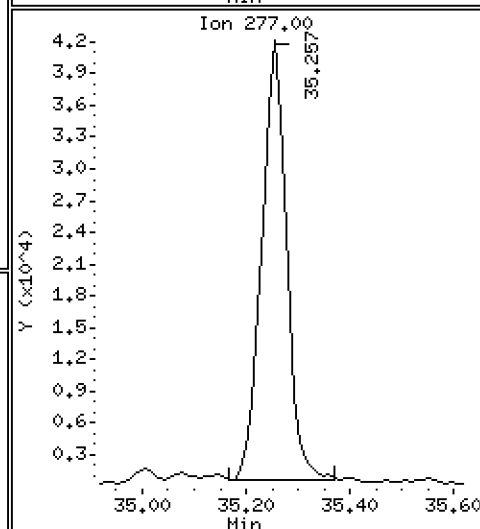
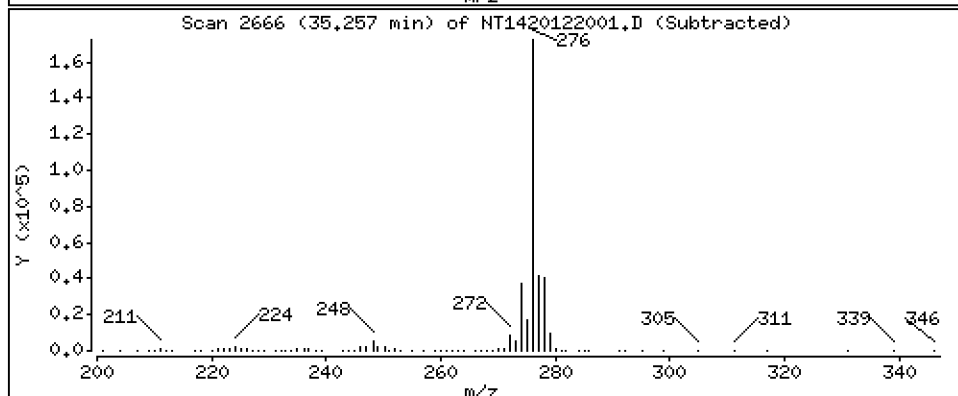
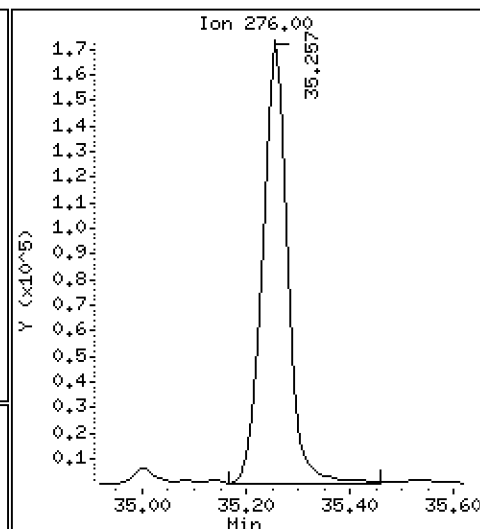
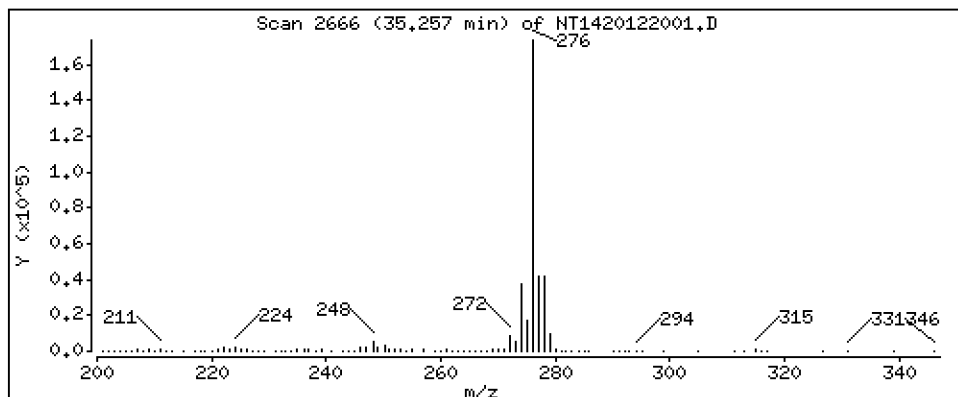
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

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

Concentration: 3,183 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

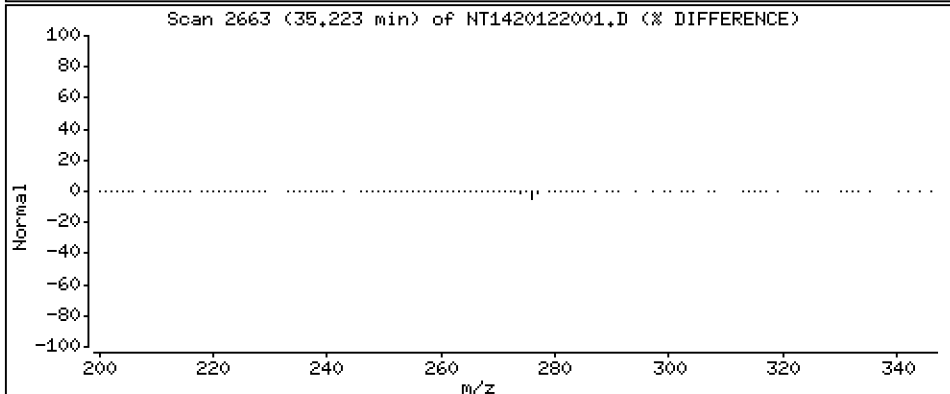
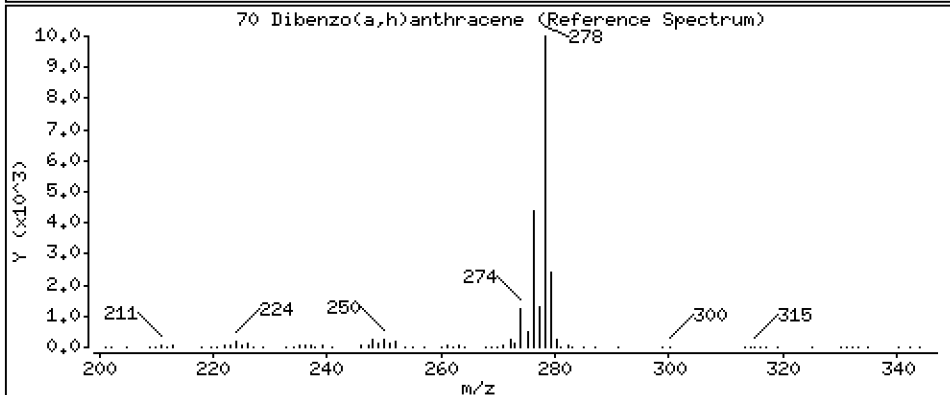
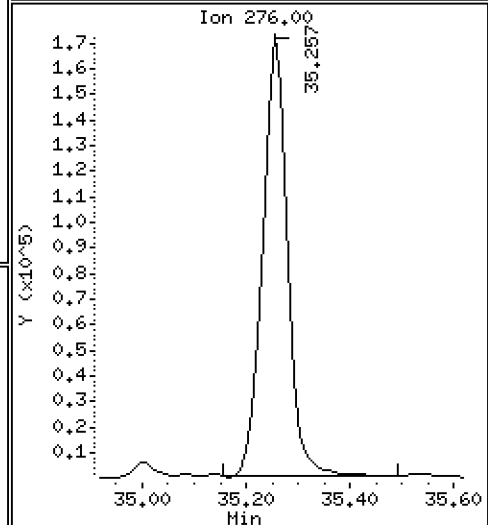
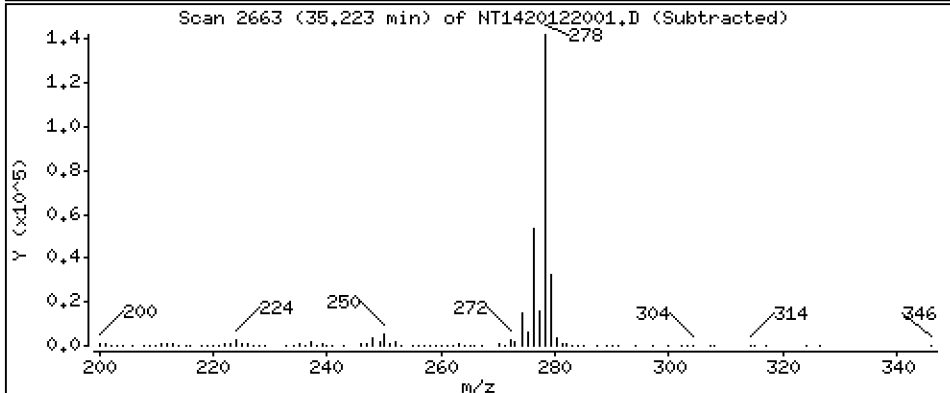
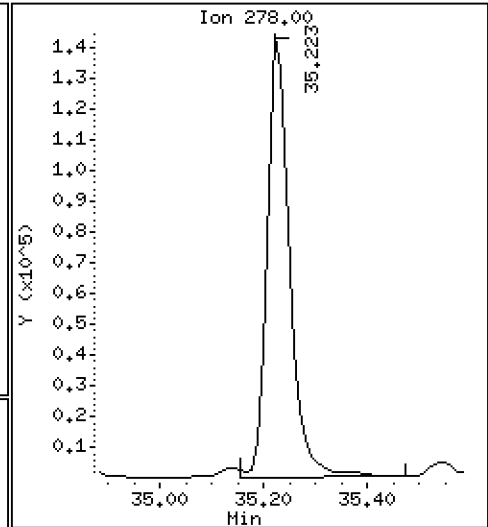
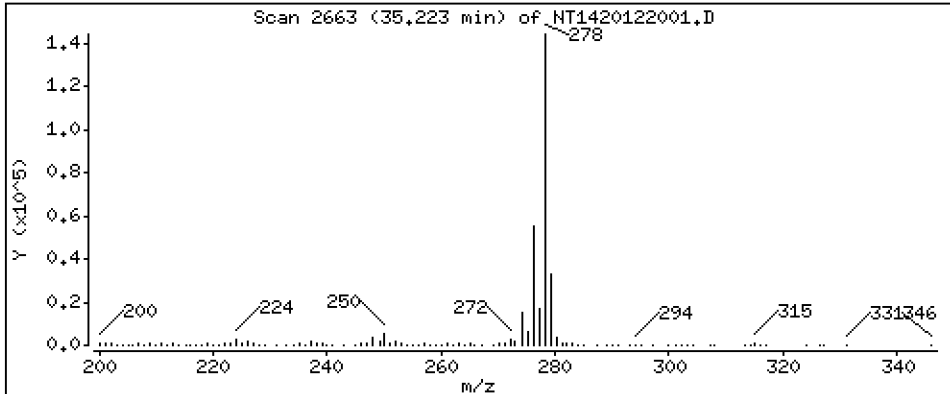
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

70 Dibenzo(a,h)anthracene

Concentration: 2,679 ug/mL



Date : 22-DEC-2020 17:55

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MS1

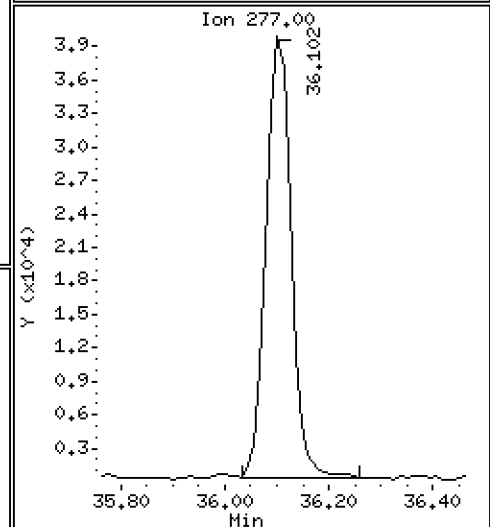
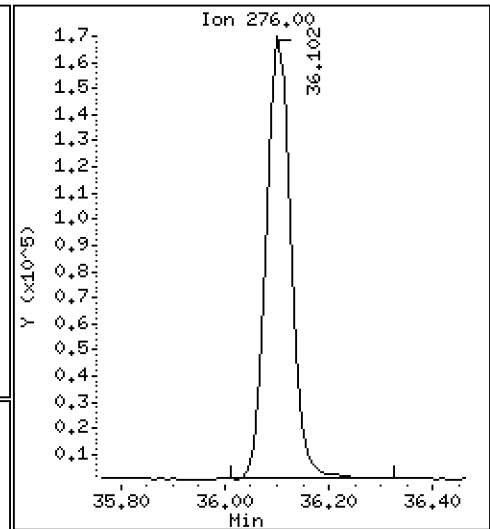
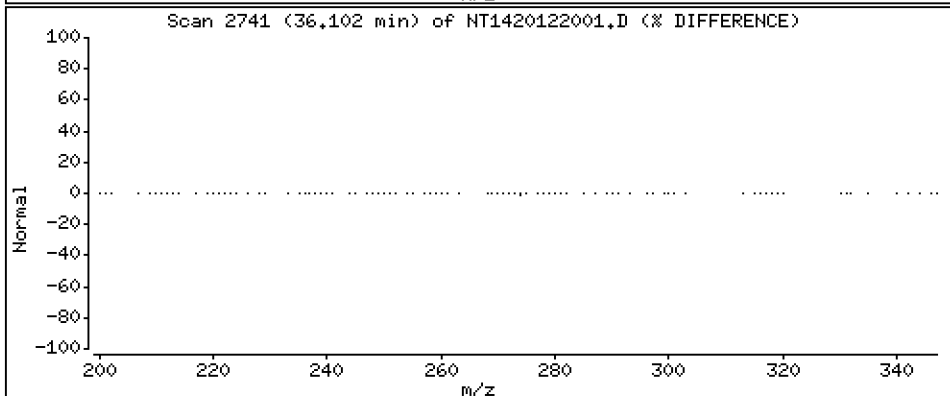
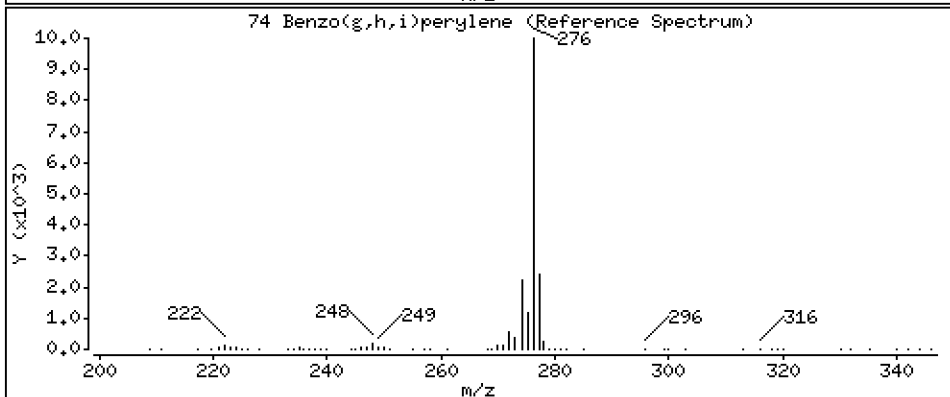
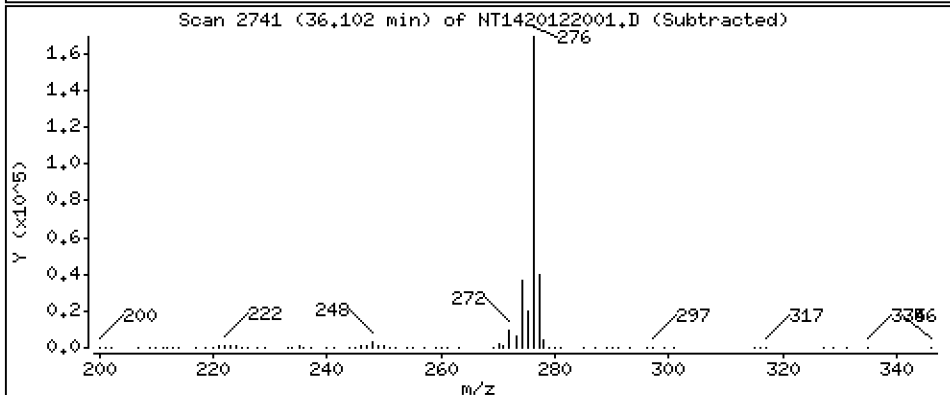
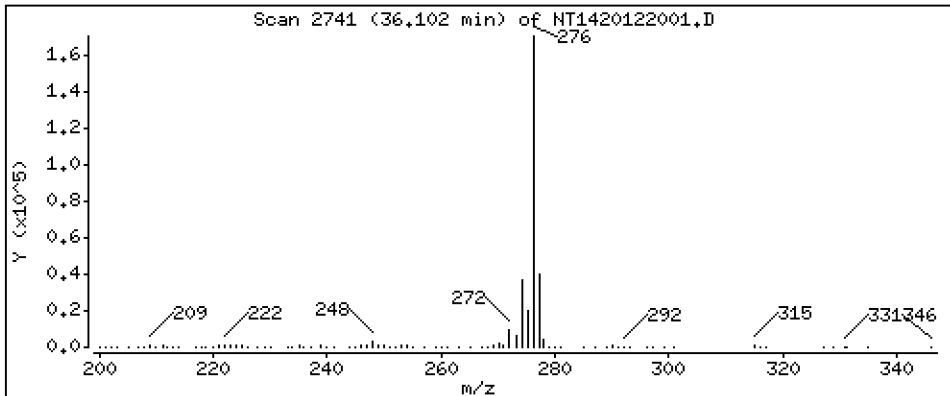
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

74 Benzo(g,h,i)perylene

Concentration: 3,489 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20201219F.b\NT1420122001.D  
 Lab Smp Id: BIK0745-MS1  
 Inj Date : 22-DEC-2020 17:55  
 Operator : VTS  
 Smp Info : BIK0745-MS1  
 Misc Info :  
 Comment : 1ul Injection  
 Method : \\target\share\chem3\nt14.i\20201219F.b\ALKYLPNA.m  
 Meth Date : 23-Dec-2020 11:48 van  
 Cal Date : 07-OCT-2020 15:56  
 Als bottle: 87  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 4.14  
 Processing Host: VANS-202011

Inst ID: nt14.i

Quant Type: ISTD  
 Cal File: NT1420100708.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		6.904	6.904	(0.371)	17950	1.68416	1.684
2 cis-Decalin	138		8.003	7.993	(0.430)	14147	1.76402	1.764
\$ 6 Naphthalene-d8	136		11.597	11.608	(0.624)	211202	2.02976	2.030 (R)
7 Naphthalene	128		11.663	11.674	(0.627)	228646	2.19637	2.196
12 Benzo(b)thiophene	134		12.113	12.135	(0.651)	161272	1.84373	1.844
16 2-Methylnaphthalene	141		13.509	13.520	(0.726)	128305	2.02185	2.022
17 1-methylnaphthalene	141		13.948	13.960	(0.750)	124175	1.93374	1.934
18 Biphenyl	154		15.146	15.146	(0.814)	190004	1.98940	1.989
19 2,6-Dimethylnaphthalene	156		15.223	15.234	(0.819)	145557	2.08757	2.088
20 Acenaphthylene	152		16.784	16.795	(0.902)	233767	2.04468	2.045
\$ 21 Acenaphthene-d10	164		17.070	17.070	(0.918)	131962	2.11199	2.112 (R)
22 Acenaphthene	153		17.179	17.191	(0.924)	276601	3.69307	3.693
23 Dibenzofuran	168		17.564	17.575	(0.944)	236537	2.17693	2.177
24 1,6,7-Trimethylnaphthalene	170		17.784	17.795	(0.956)	157581	2.22913	2.229
* 25 Fluorene-d10	176		18.598	18.610	(1.000)	255014	2.00000	
26 Fluorene	166		18.712	18.712	(1.006)	209893	2.47794	2.478
30 Dibenzothiophene	184		21.614	21.626	(1.162)	305032	2.50217	2.502
\$ 35 Phenanthrene-d10	188		21.930	21.930	(0.995)	302541	2.75048	2.750 (R)
36 Phenanthrene	178		22.007	22.018	(0.999)	897867	7.05973	7.060
* 250 Anthracene-d10	188		22.040	22.051	(1.000)	229656	2.00000	
37 Anthracene	178		22.105	22.117	(1.003)	278380	2.22718	2.227
42 Carbazole	167		23.403	23.403	(1.062)	254110	2.34763	2.348
43 1-Methylphenanthrene	192		23.842	23.843	(1.082)	239469	2.56526	2.565
44 Fluoranthene	202		25.810	25.822	(1.171)	802614	5.71790	5.718
46 Pyrene	202		26.668	26.679	(1.210)	947151	6.39436	6.394
51 Naphthobenzothiophene	234		29.234	29.245	(1.326)	321591	2.38197	2.382
55 Benzo(a)anthracene	228		29.828	29.828	(0.906)	557331	3.84305	3.843
\$ 56 Chrysene-d12	240		29.951	29.952	(0.910)	255698	2.23247	2.232 (R)
57 Chrysene	228		30.019	30.030	(0.912)	480101	3.33080	3.331
62 Benzo(b)fluoranthene	252		32.249	32.261	(0.980)	542294	3.31178	3.312 (M)
63 Benzo(k)fluoranthene	252		32.305	32.306	(0.982)	436703	2.64602	2.646 (M)
293 Benzo(j)fluoranthene	252		32.362	32.362	(0.983)	410403	2.84475	2.845
246 Total Benzofluoranthenes	252		32.305	32.306	(0.982)	1339633	8.81734	8.817 (M)

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264		32.914	32.914	(1.000)	335930	2.00000	
64 Benzo(e)pyrene	252		32.970	32.981	(1.002)	476459	3.17797	3.178
66 Benzo(a)pyrene	252		33.071	33.083	(1.005)	489973	3.45898	3.459
\$ 67 Perylene-d12	264		33.252	33.252	(1.010)	305352	2.19825	2.198 (R)
68 Perylene	252		33.308	33.308	(1.012)	571845	3.84343	3.843
69 Indeno(1,2,3-cd)pyrene	276		35.256	35.268	(1.071)	558286	3.18268	3.183
70 Dibenzo(a,h)anthracene	278		35.223	35.234	(1.070)	415206	2.67917	2.679
74 Benzo(g,h,i)perylene	276		36.101	36.113	(1.097)	537606	3.48865	3.489

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: 22-DEC-2020  
 Lab File ID: NT1420122001.D Calibration Time: 09:54  
 Lab Smp Id: BIK0745-MS1  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: VTS  
 Method File: \\target\share\chem3\nt14.i\20201219F.b\ALKYLPNA.m  
 Misc Info:

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	263433	131717	526866	255014	-3.20
250 Anthracene-d10	236791	118396	473582	229656	-3.01
251 Benzo(e)pyrene-d1	338506	169253	677012	335930	-0.76

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.61	18.11	19.11	18.60	-0.06
250 Anthracene-d10	22.05	21.55	22.55	22.04	-0.05
251 Benzo(e)pyrene-d1	32.91	32.41	33.41	32.91	-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 - NT1420122001.D

Lab ID: BIK0745-MS1

nt14.i, 20201219F.b\ALKYLPNA.m, 22-DEC-2020 17:55

RT CO-ELUTION COMPOUNDS

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NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

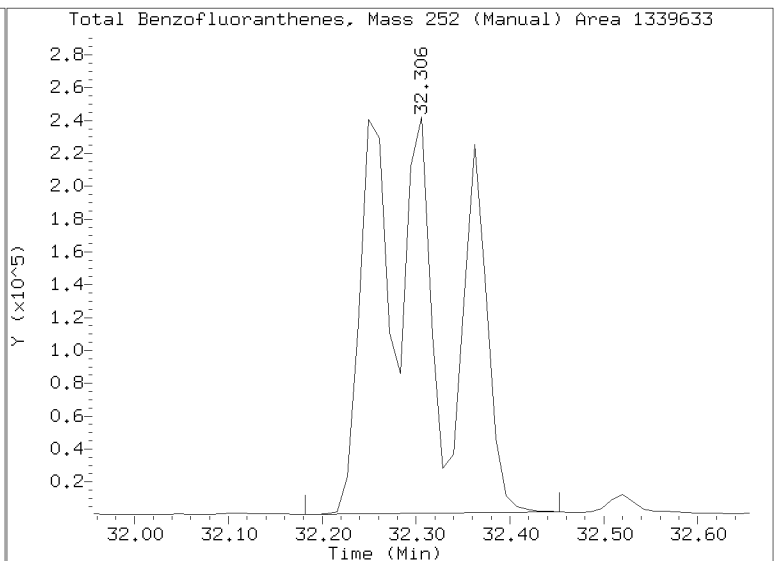
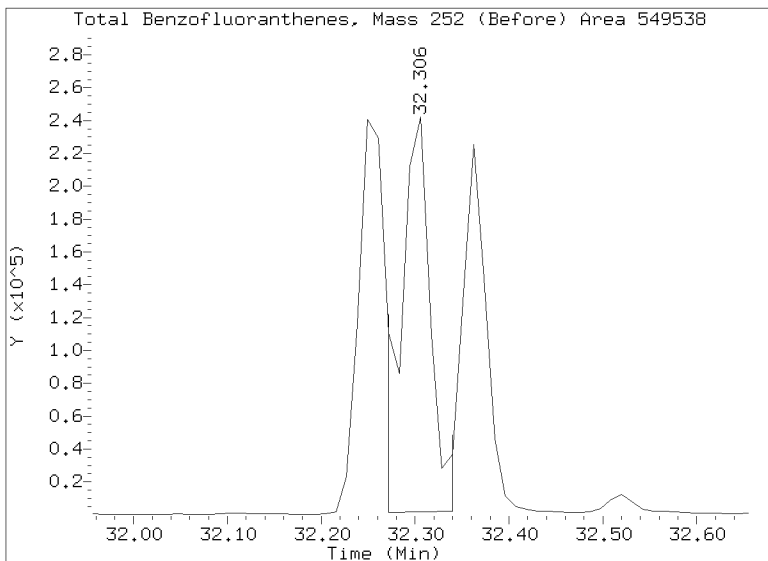
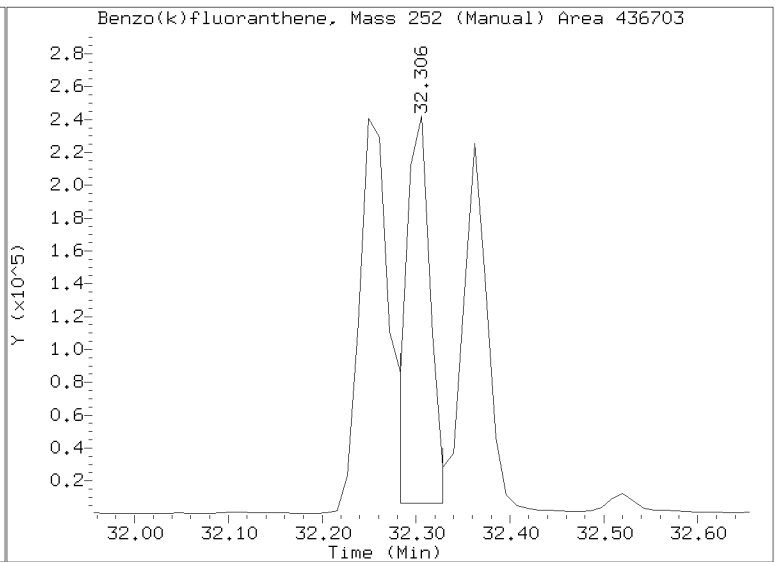
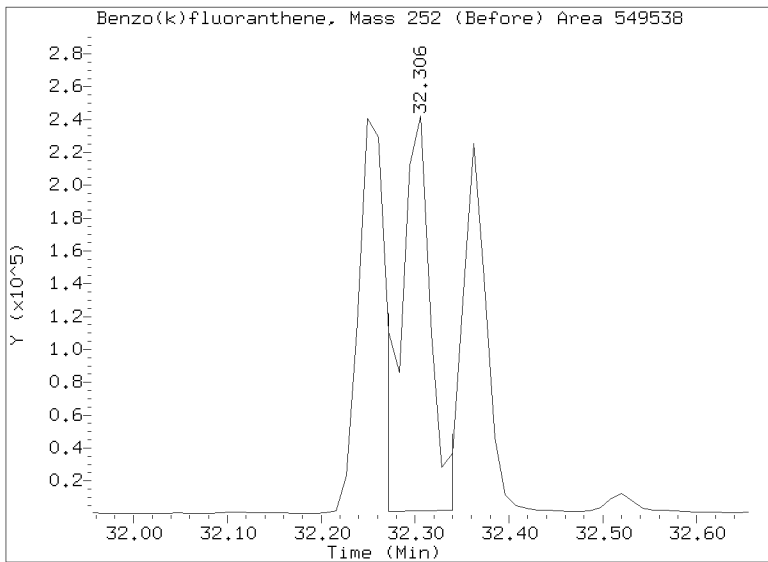
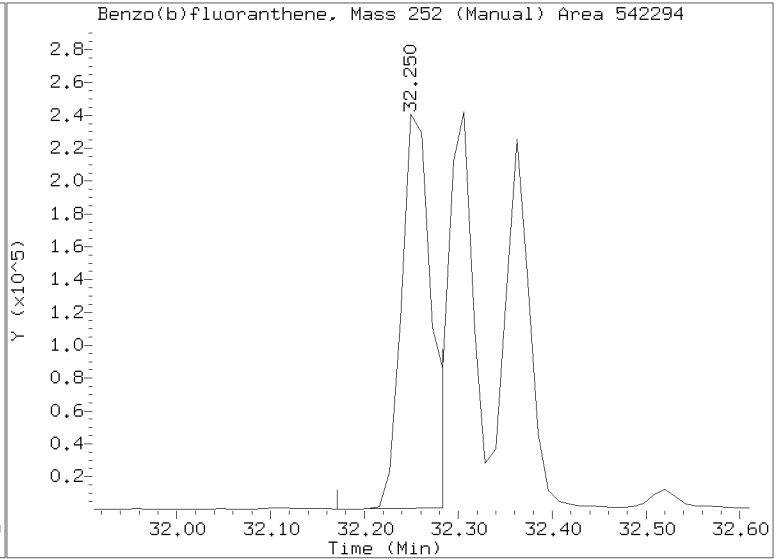
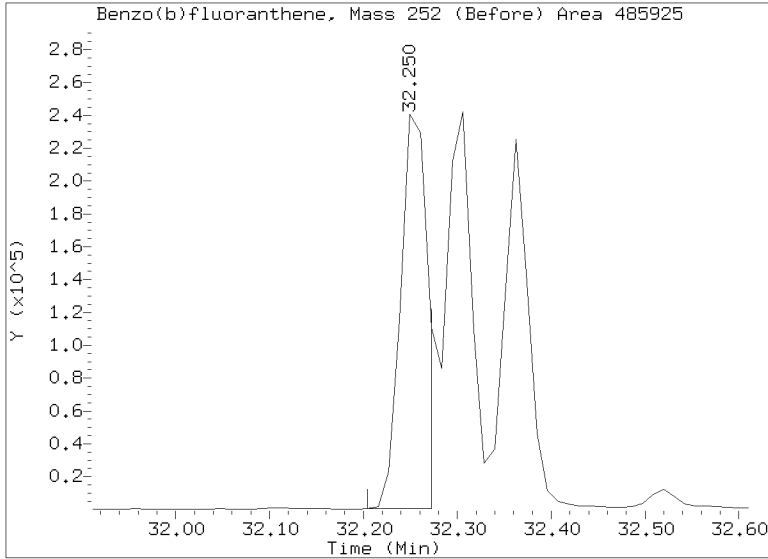
RRT check based on Ccal File: NT1420121991ICV.D

On Column LOD for nt14.i, 20201219F.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/20201219F.b/NT1420122001.D  
Injection Date: 22-DEC-2020 17:55  
Lab ID:BIK0745-MS1 Client ID:  
Report Date: 12/29/2020 13:45



Data File: \\target\share\chem3\nt14.1\20201219F JB\NT1420122002.D

Date : 22-DEC-2020 18:42

Client ID:

Sample Info: BIK0745-HSD1

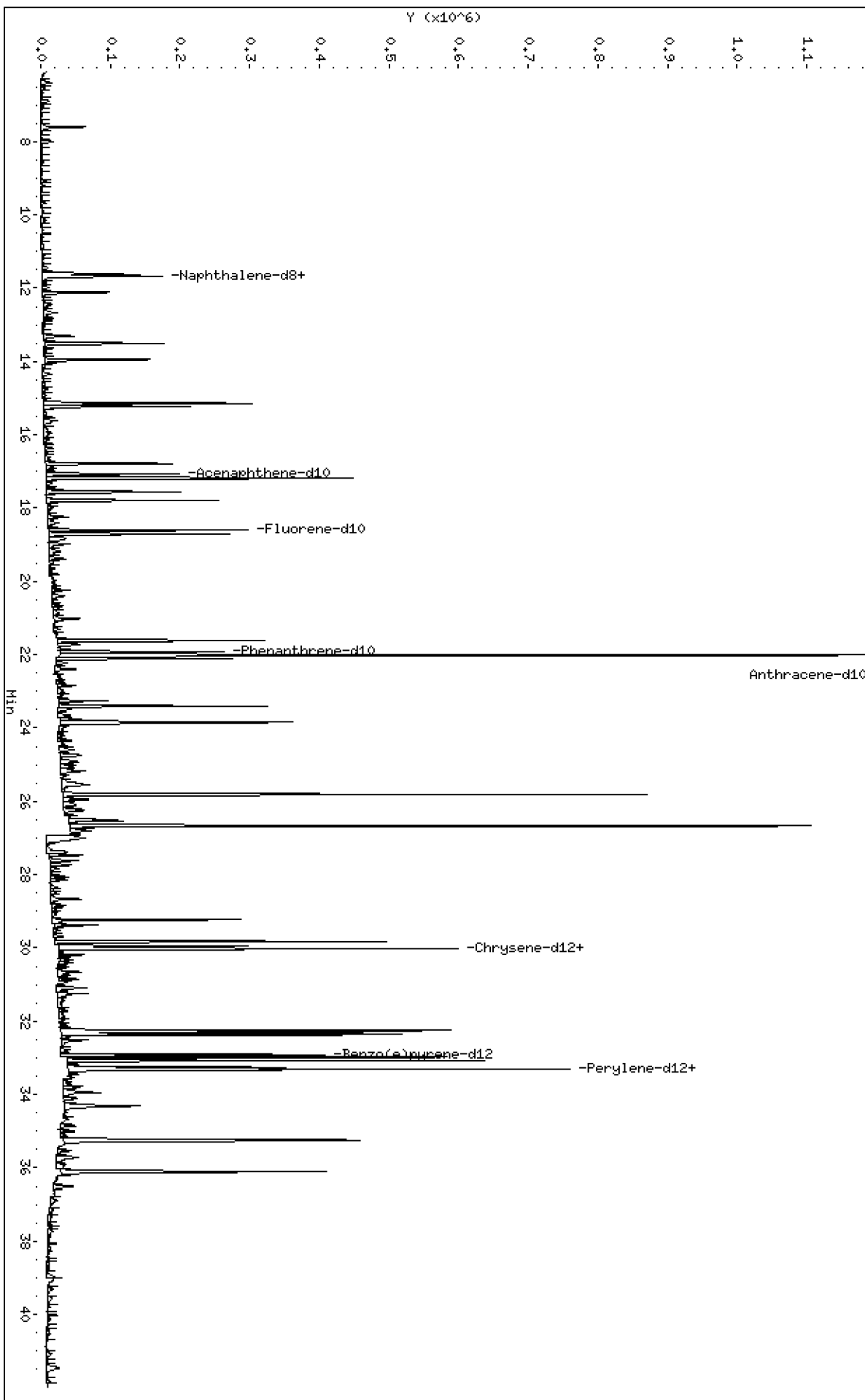
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14.1\20201219F JB\NT1420122002.D



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

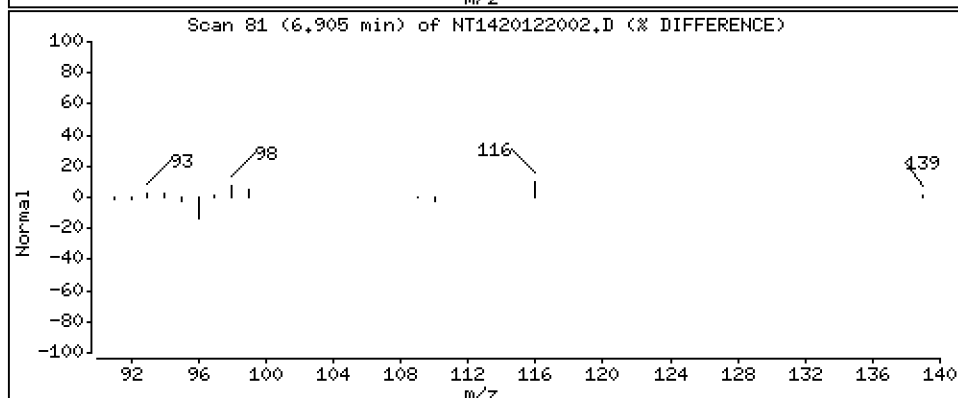
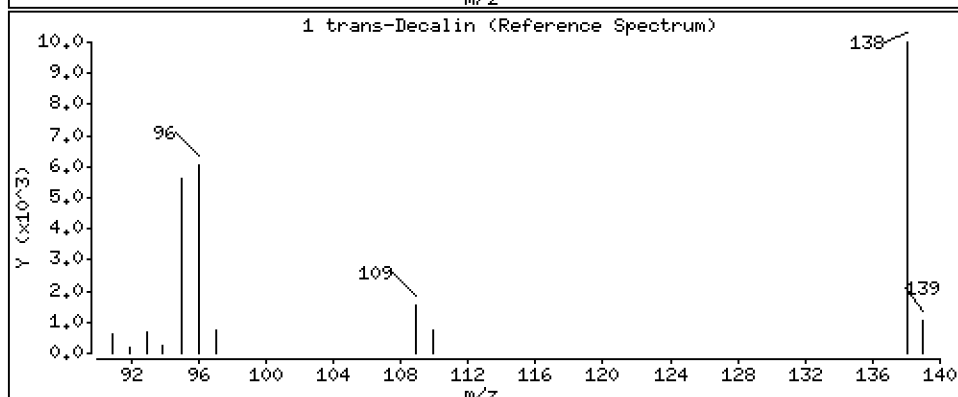
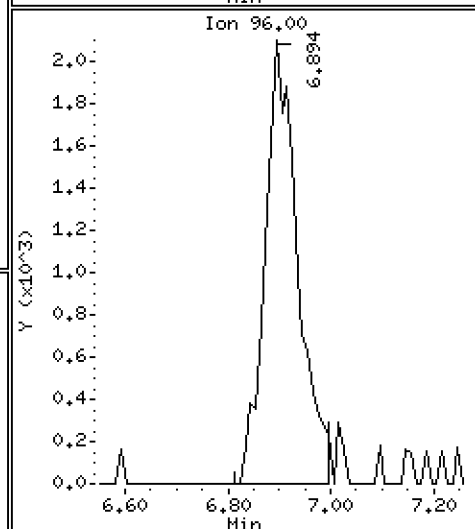
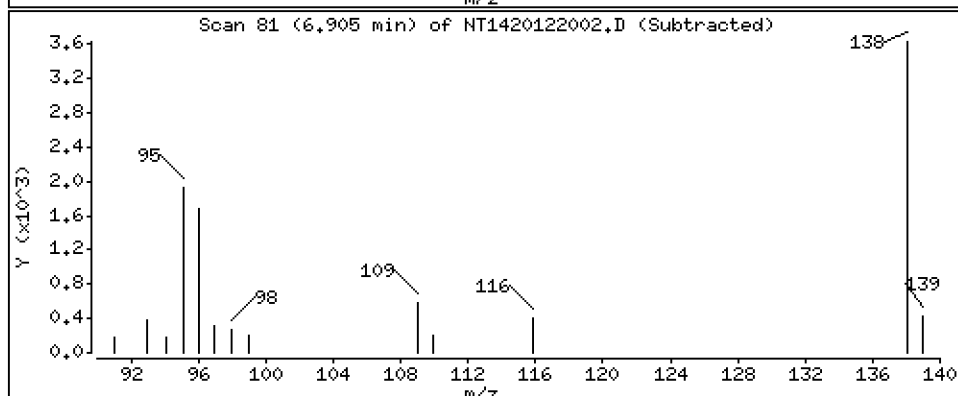
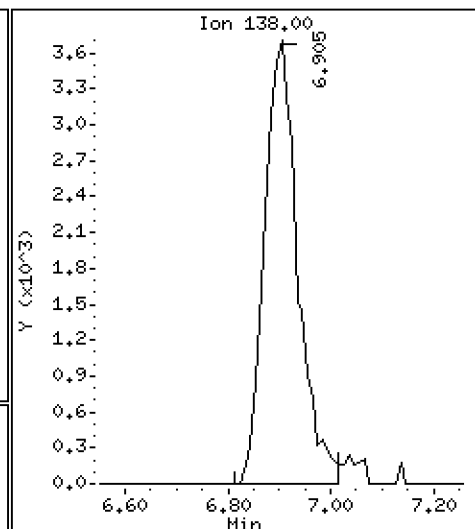
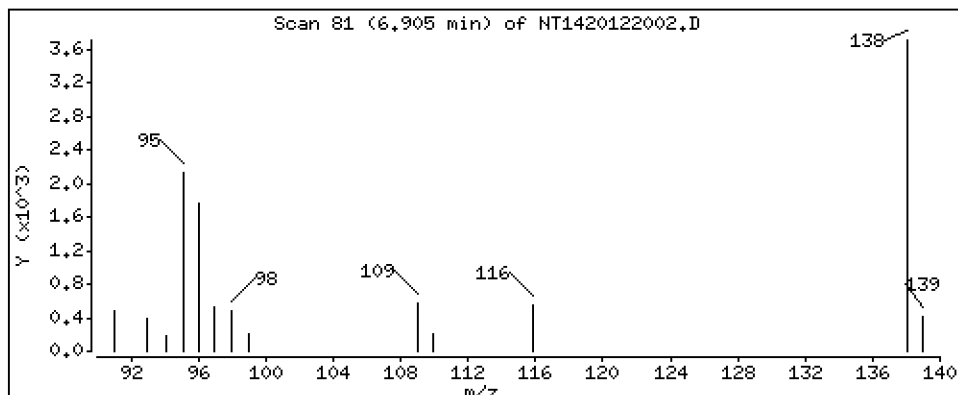
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

1 trans-Decalin

Concentration: 1,543 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

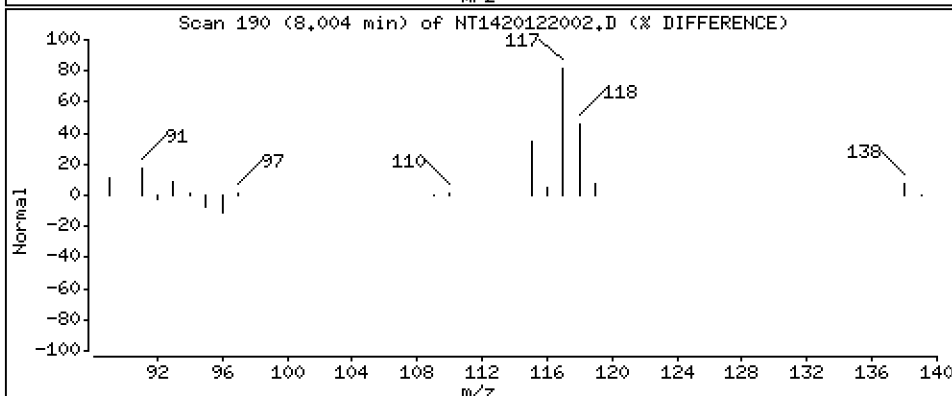
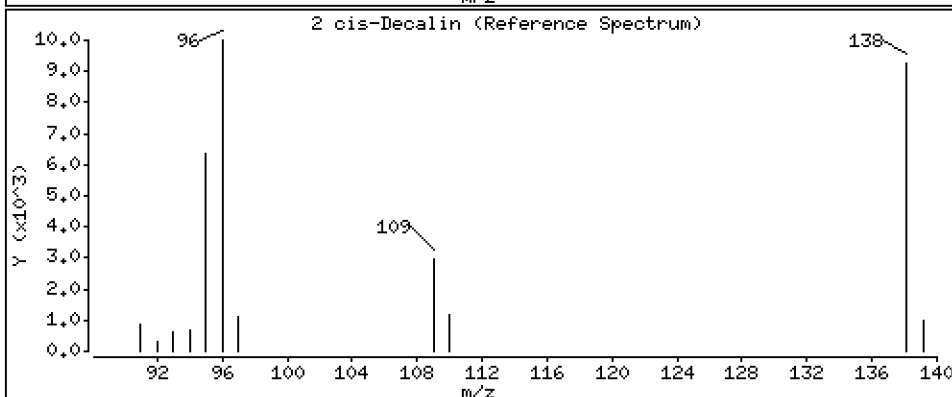
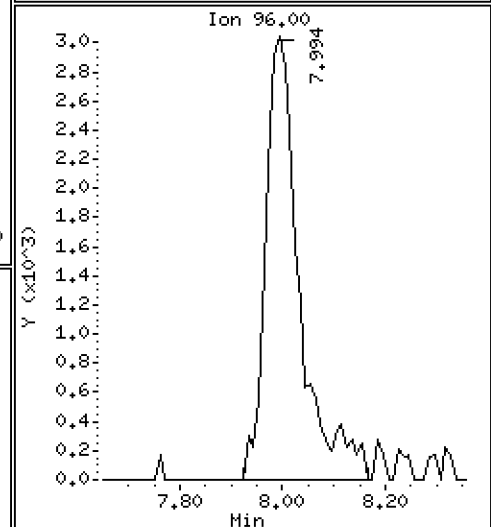
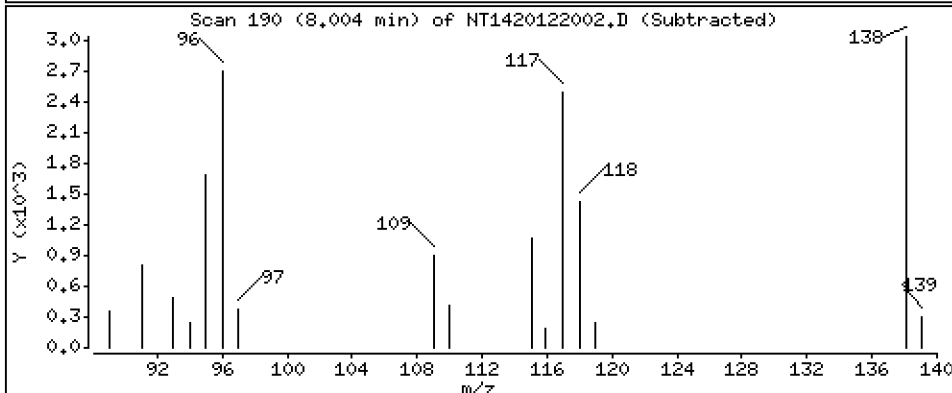
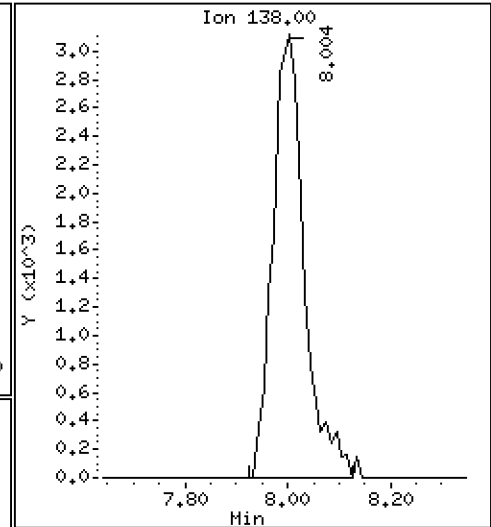
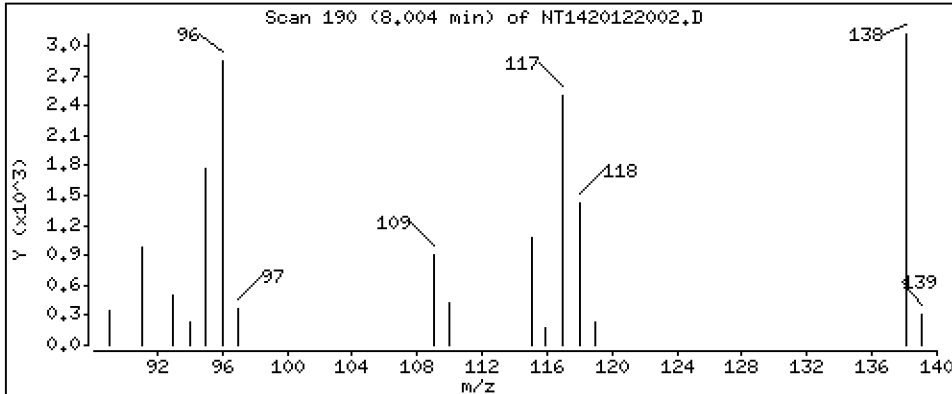
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 cis-Decalin

Concentration: 1,628 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

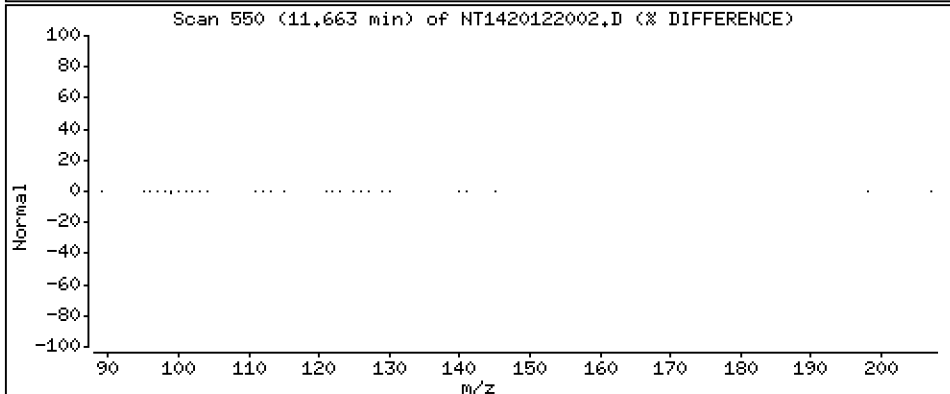
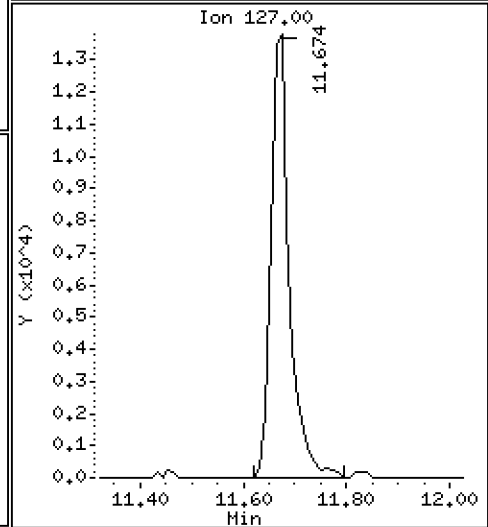
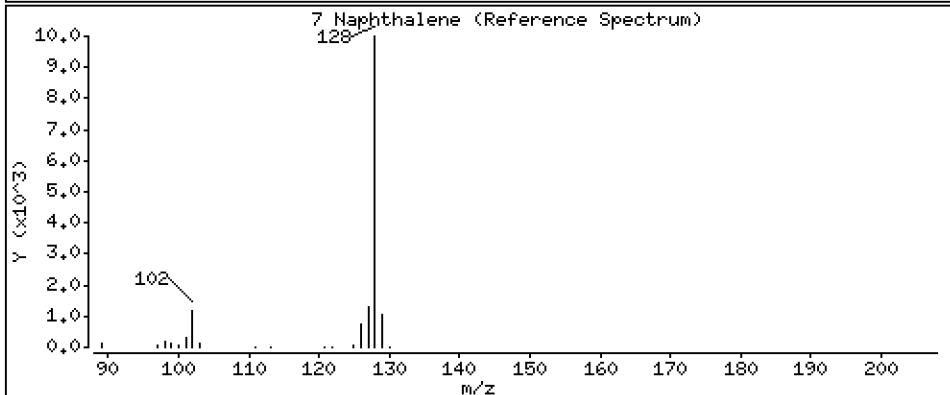
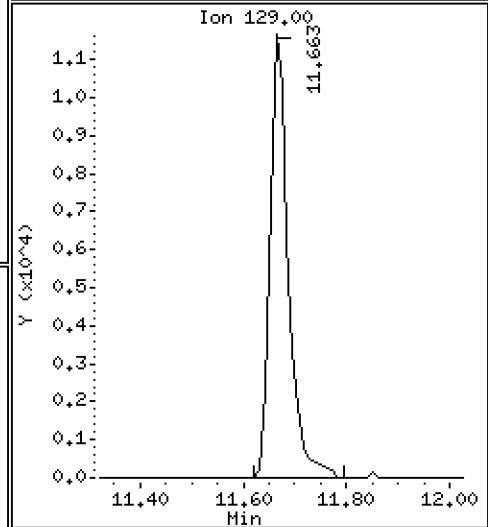
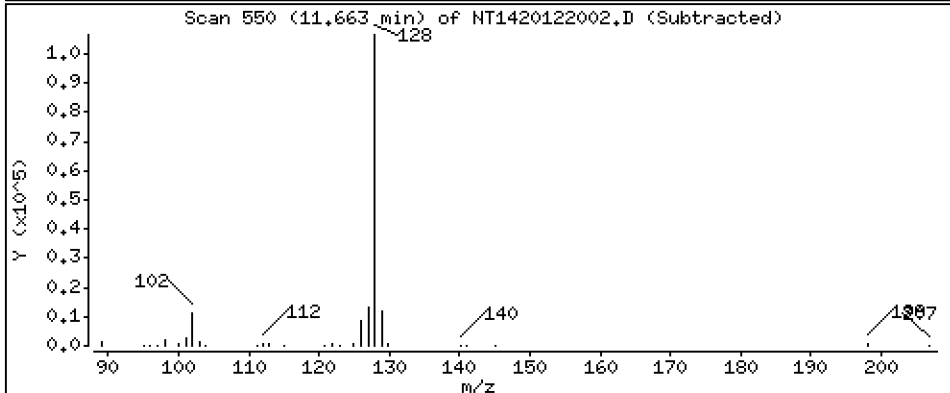
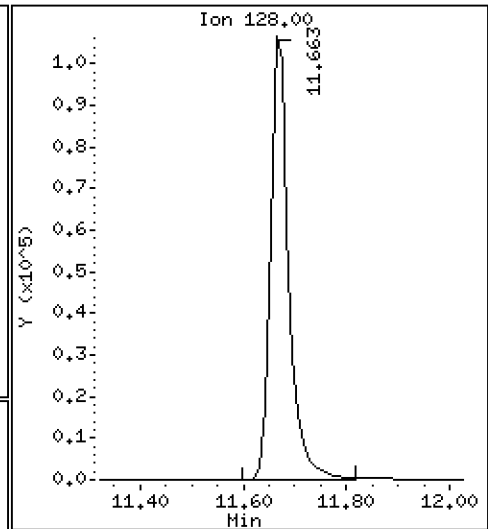
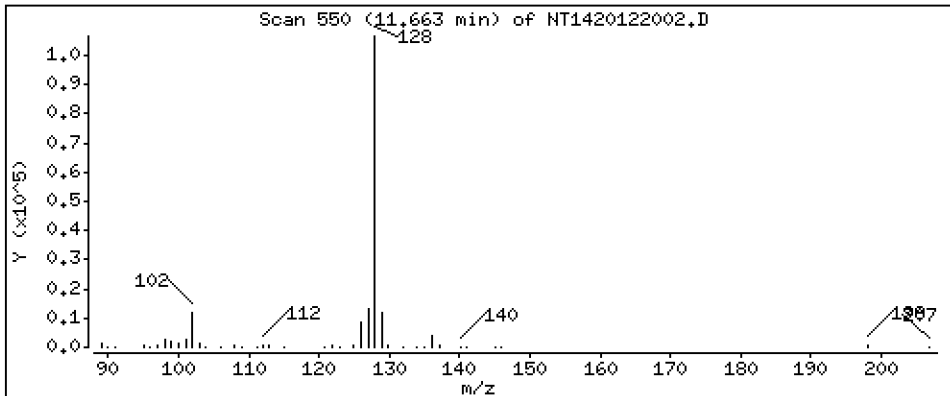
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

7 Naphthalene

Concentration: 2,609 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

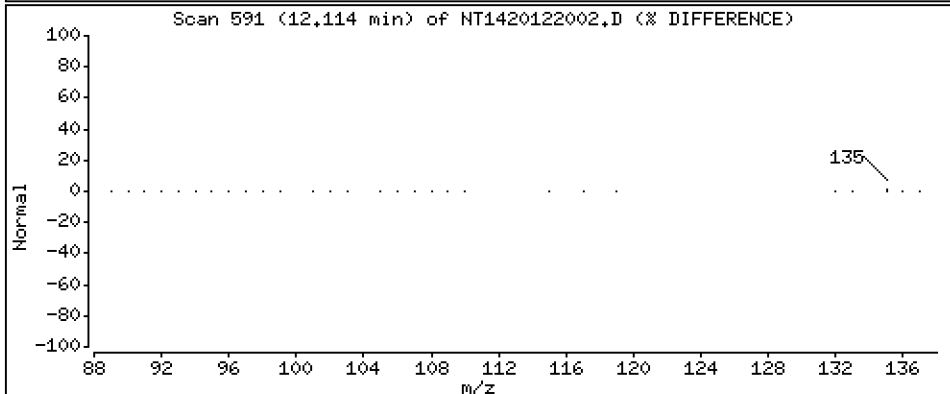
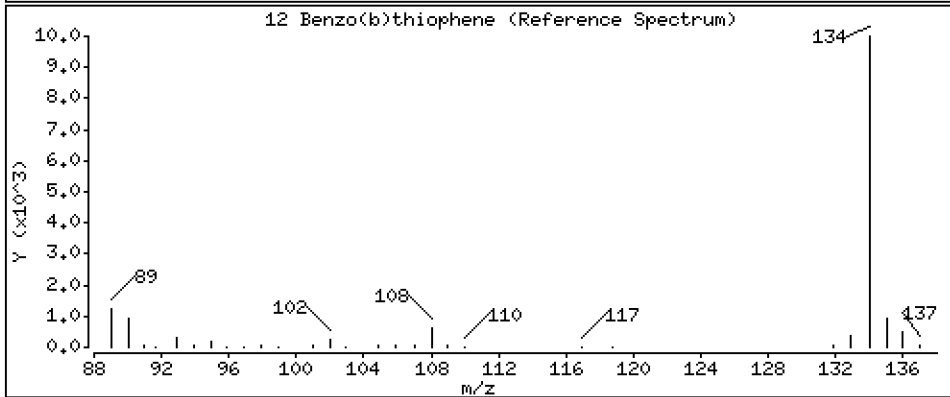
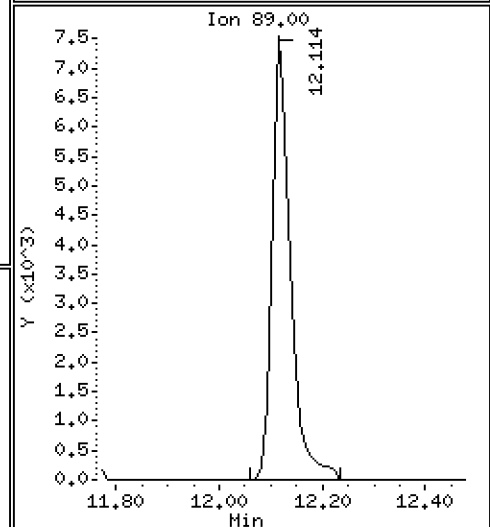
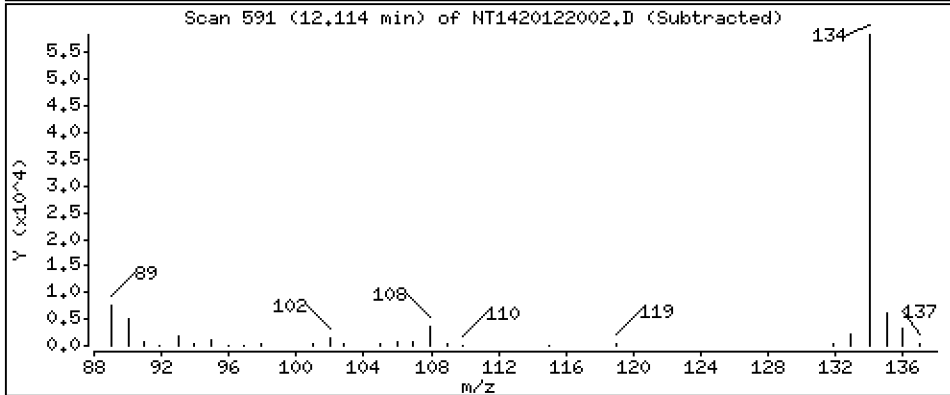
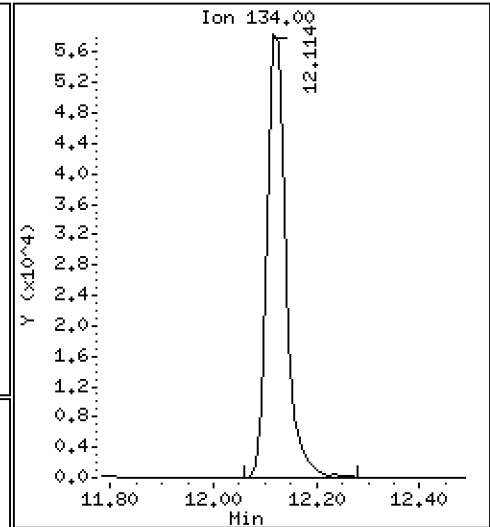
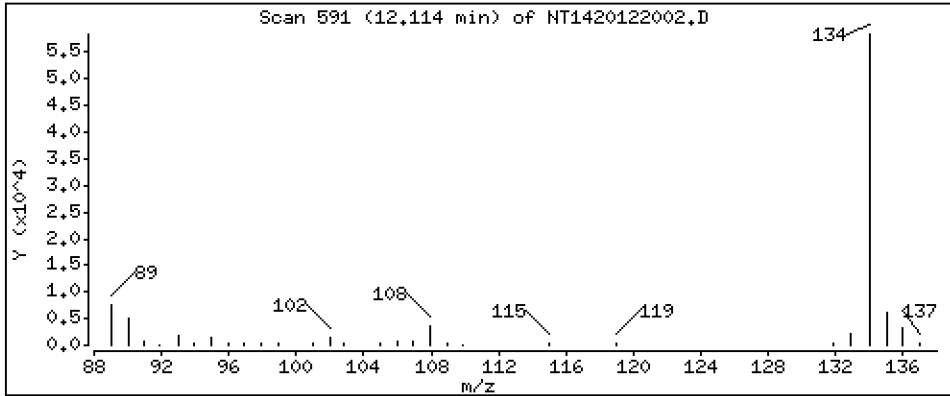
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

12 Benzo(b)thiophene

Concentration: 1,738 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

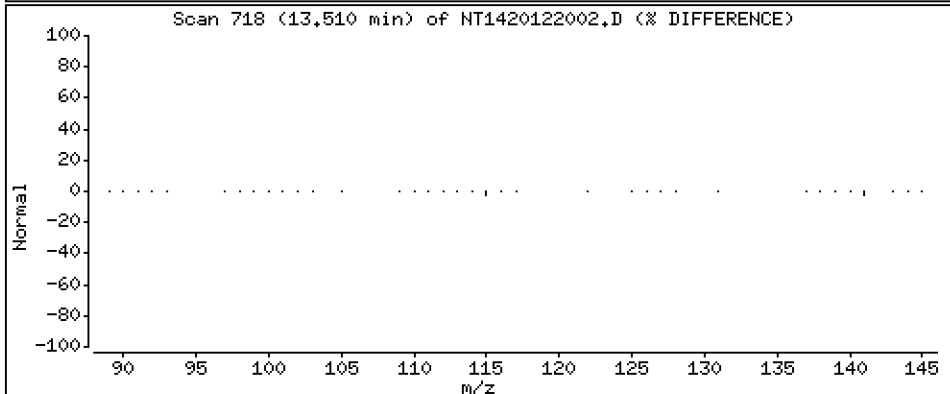
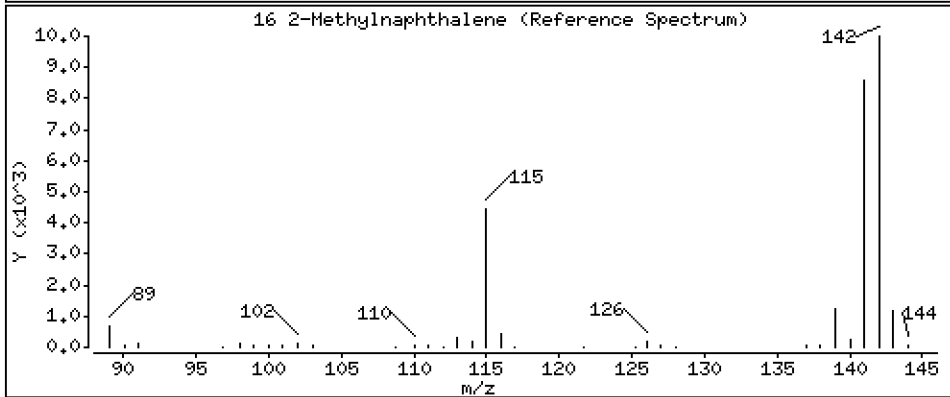
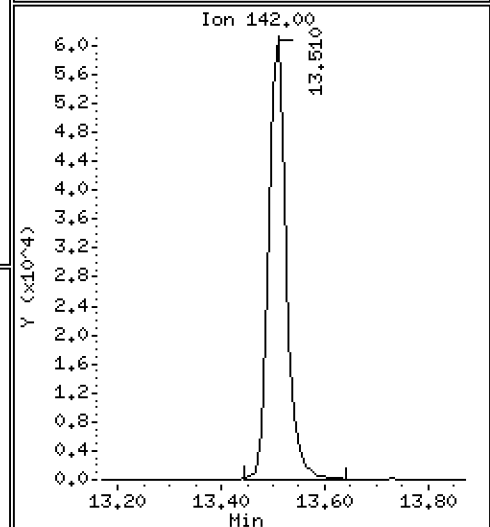
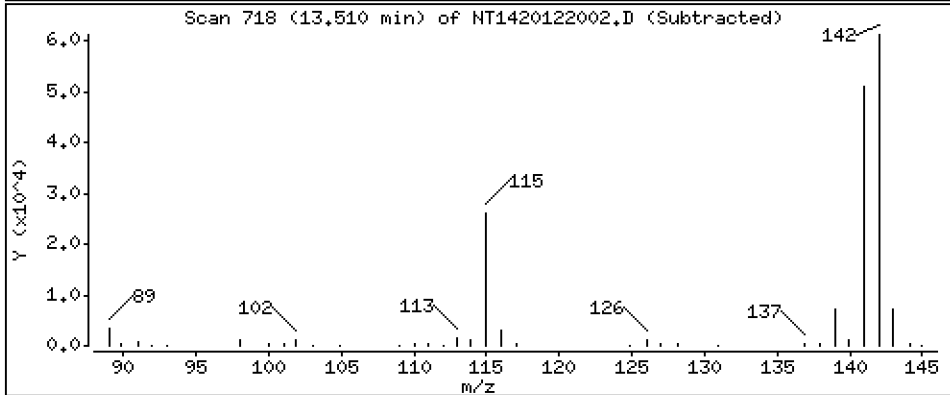
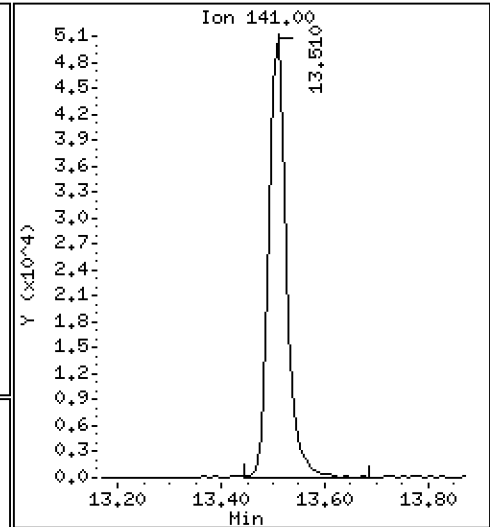
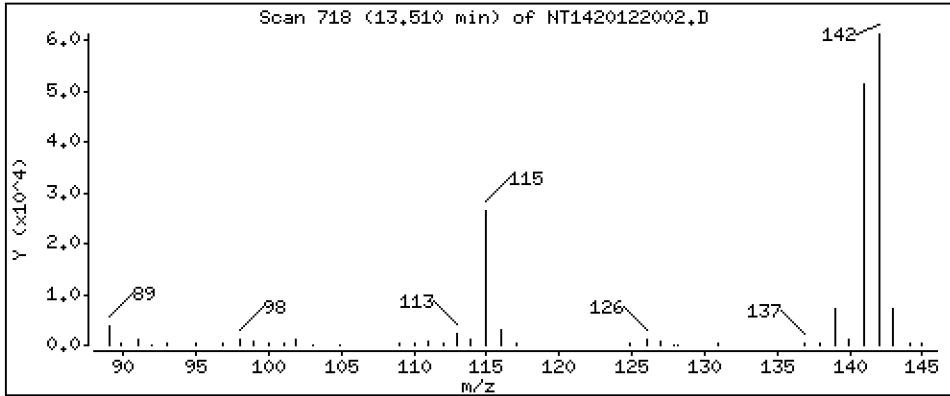
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 2-Methylnaphthalene

Concentration: 1,971 ug/mL





Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

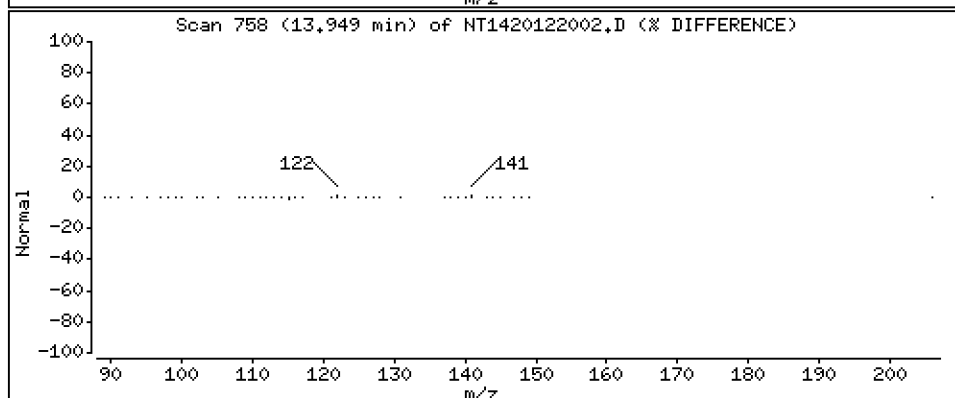
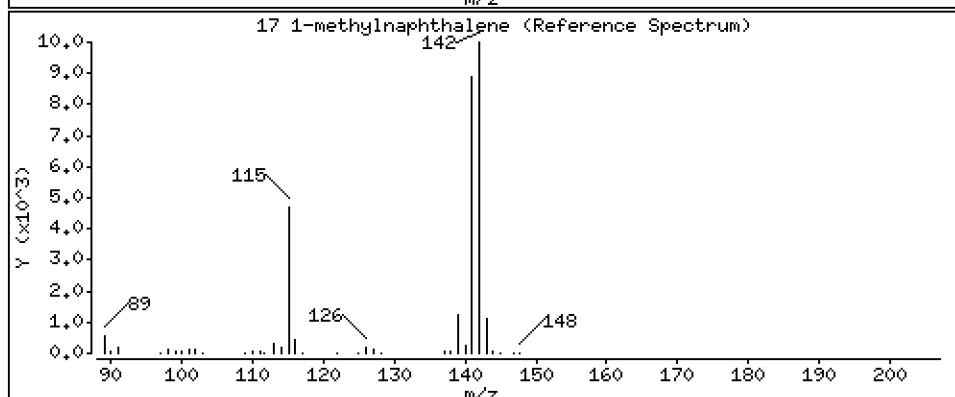
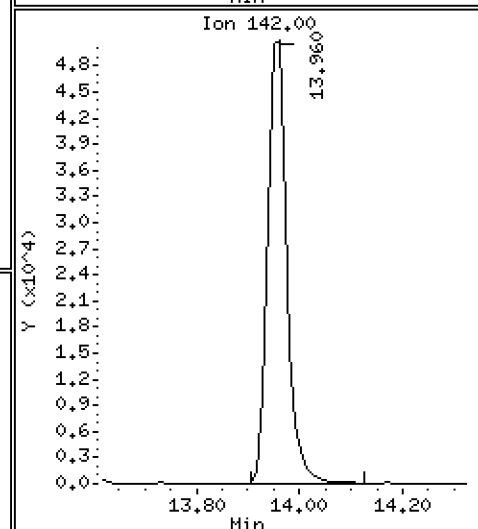
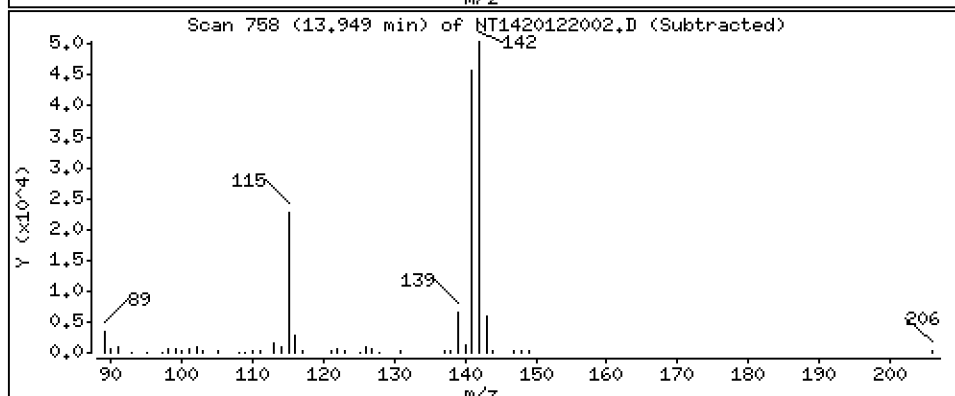
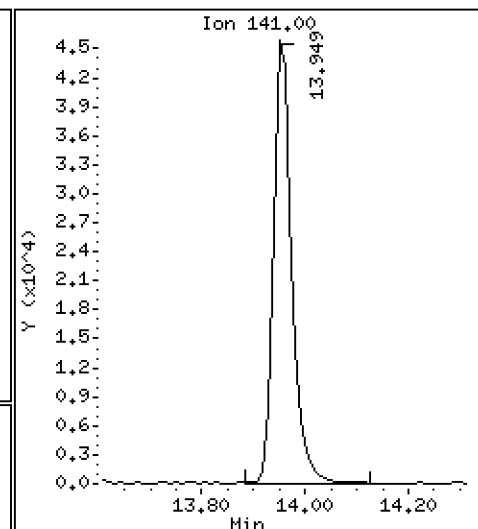
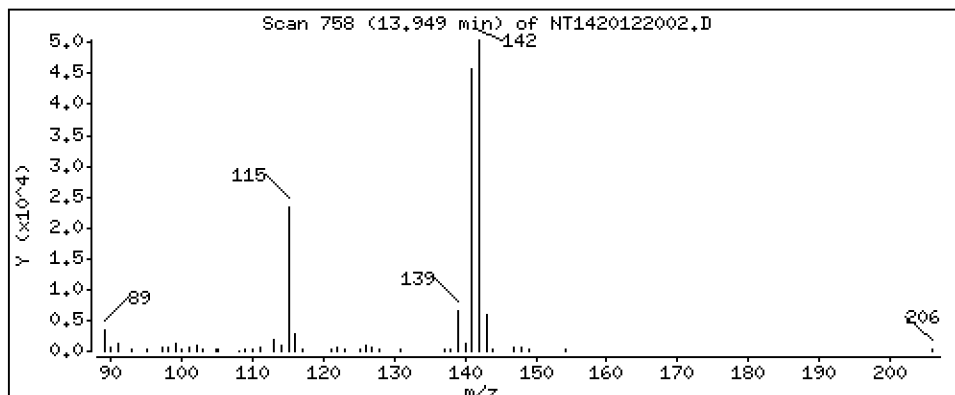
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 1-methylnaphthalene

Concentration: 1,840 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

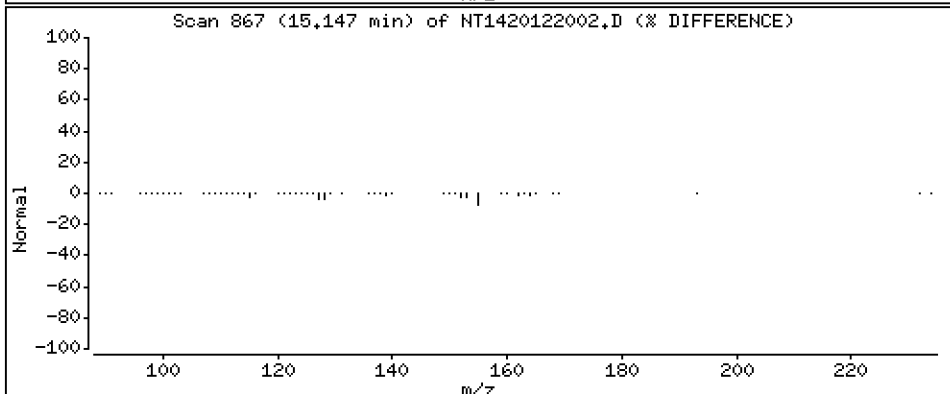
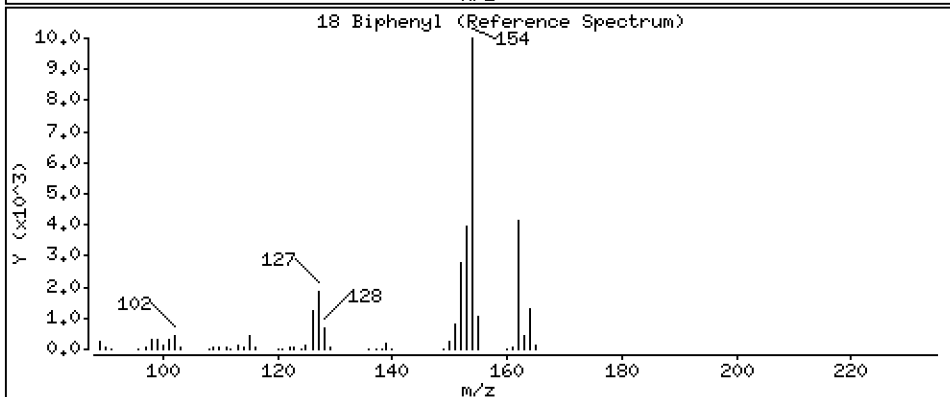
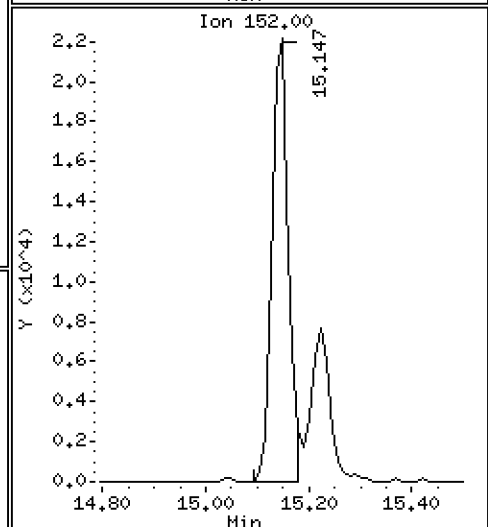
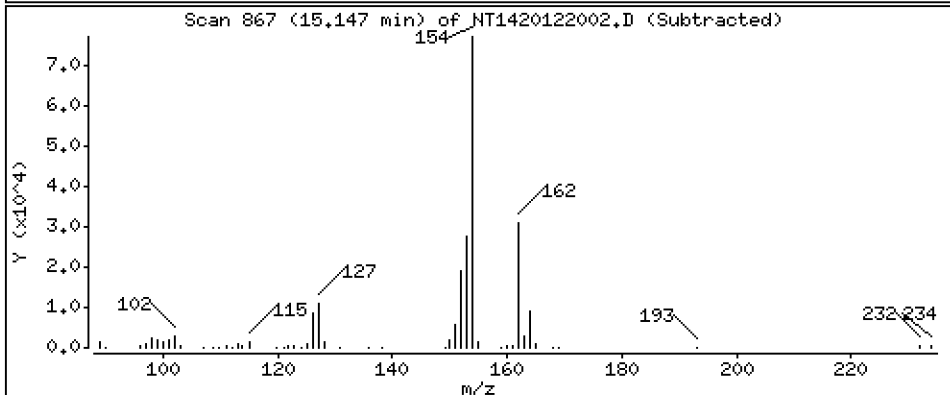
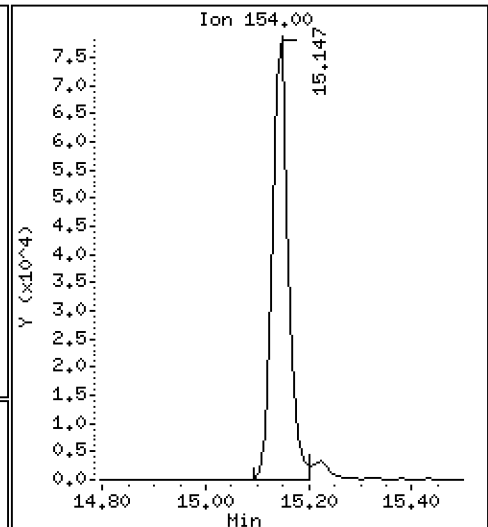
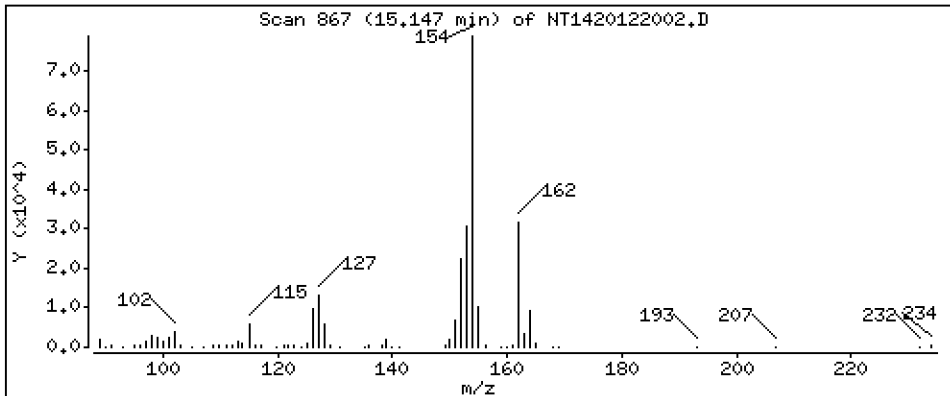
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

18 Biphenyl

Concentration: 1,876 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

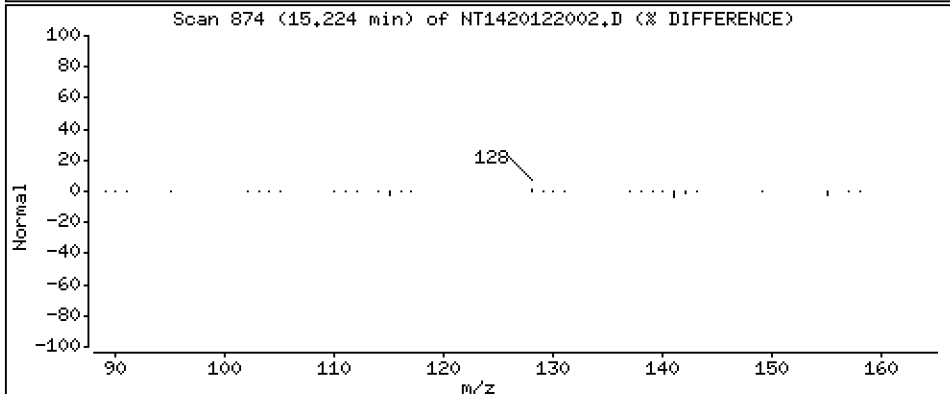
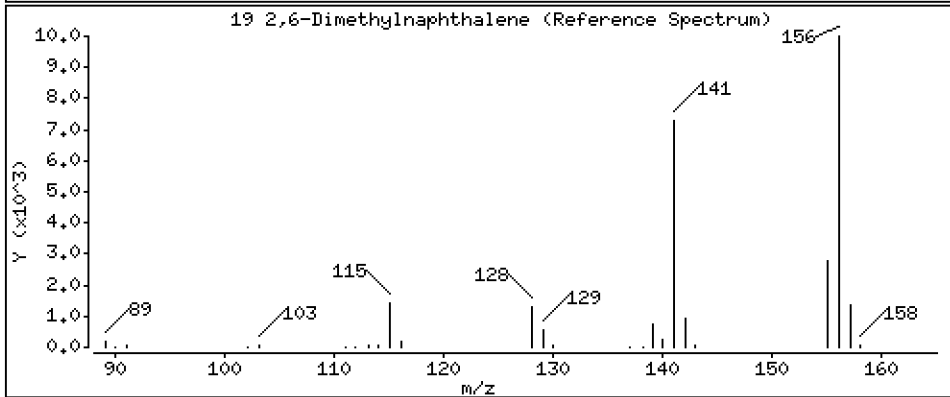
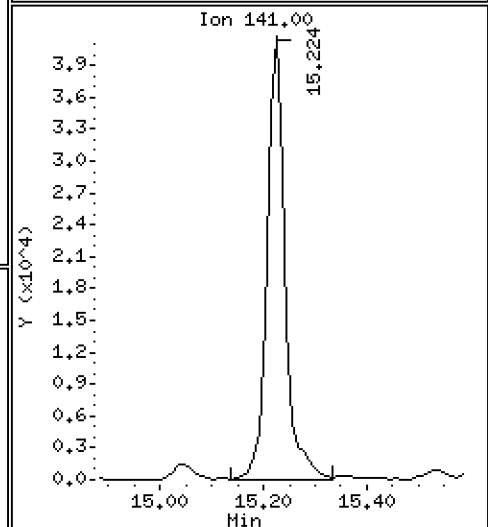
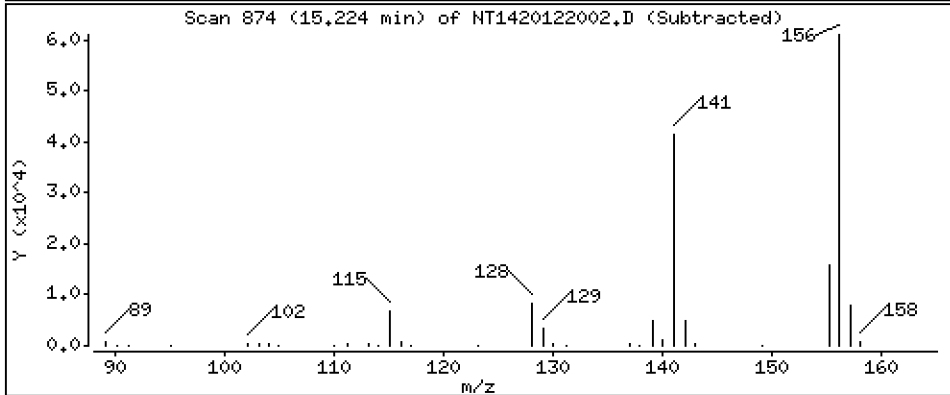
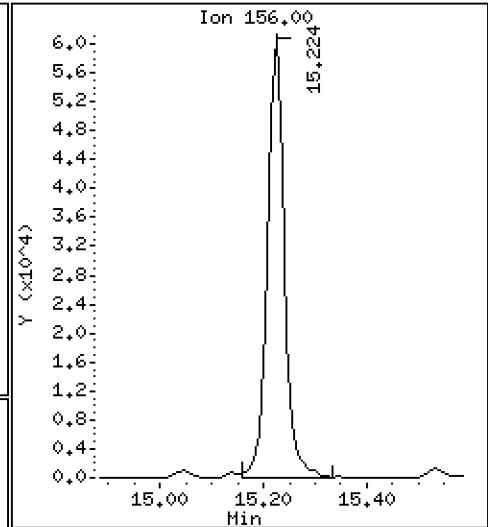
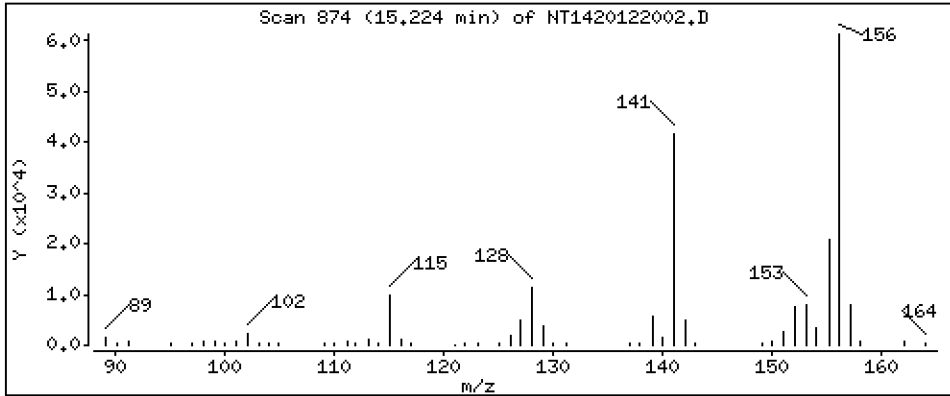
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 2,6-Dimethylnaphthalene

Concentration: 2,058 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

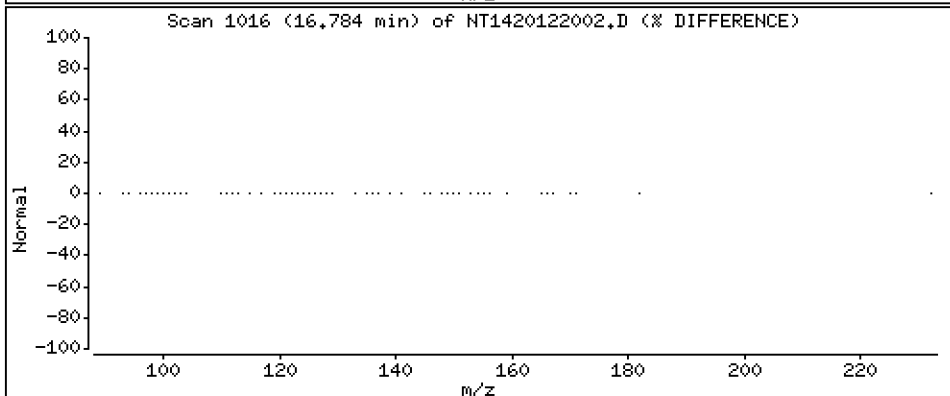
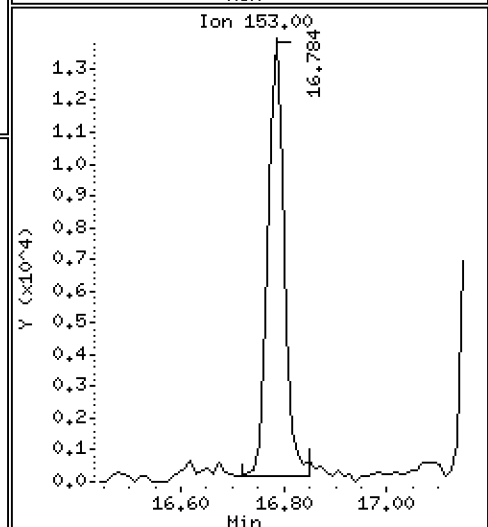
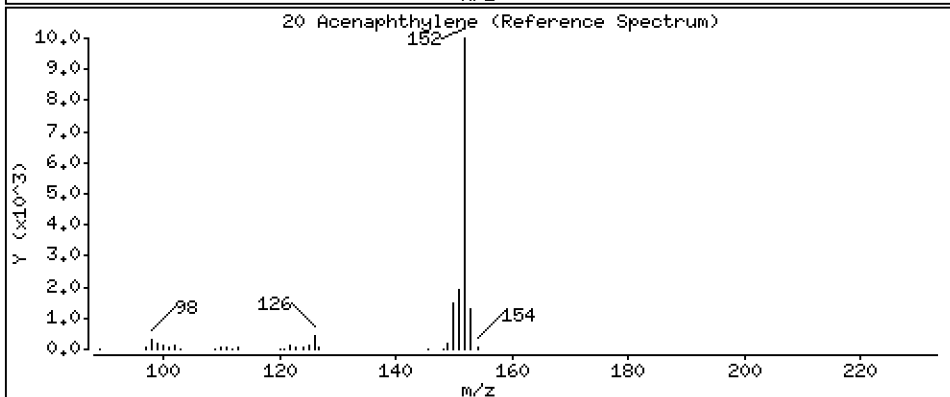
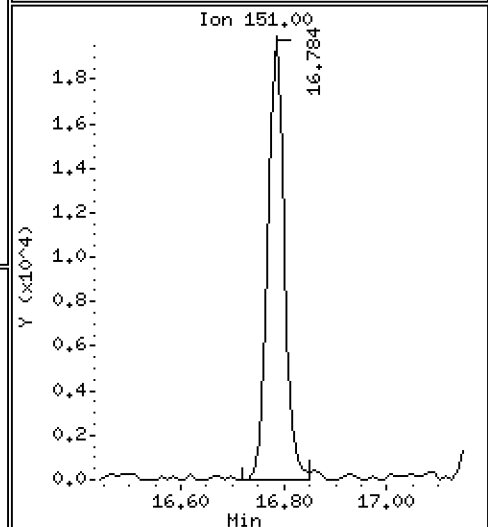
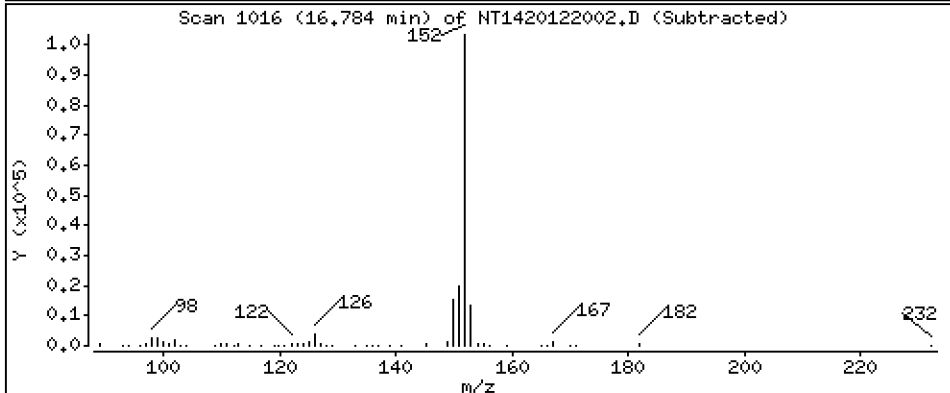
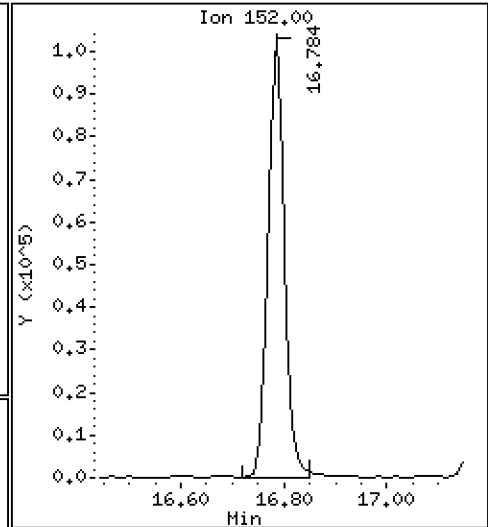
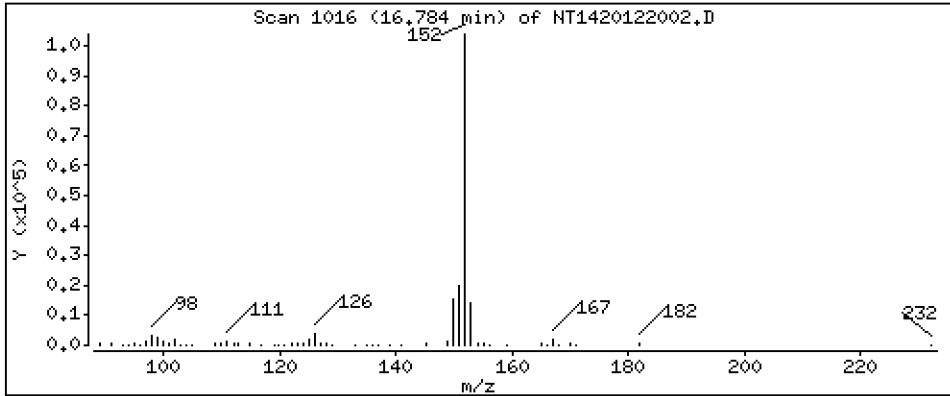
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

20 Acenaphthylene

Concentration: 2,040 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

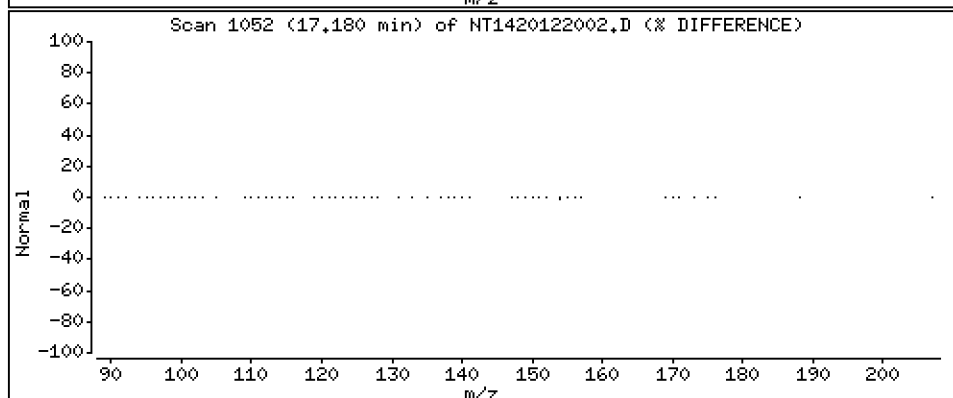
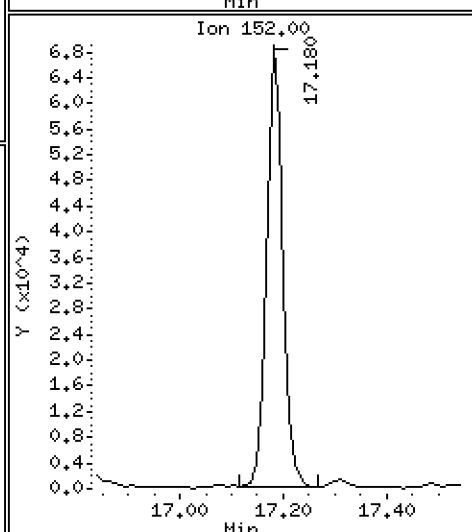
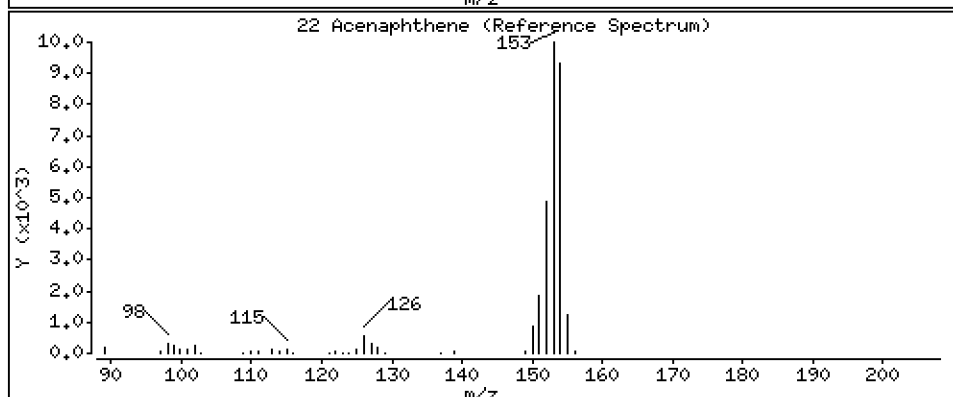
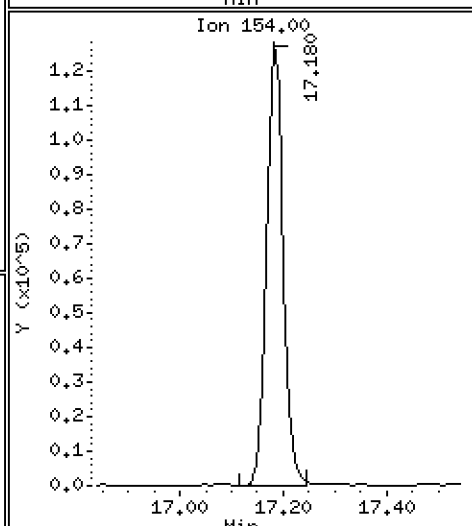
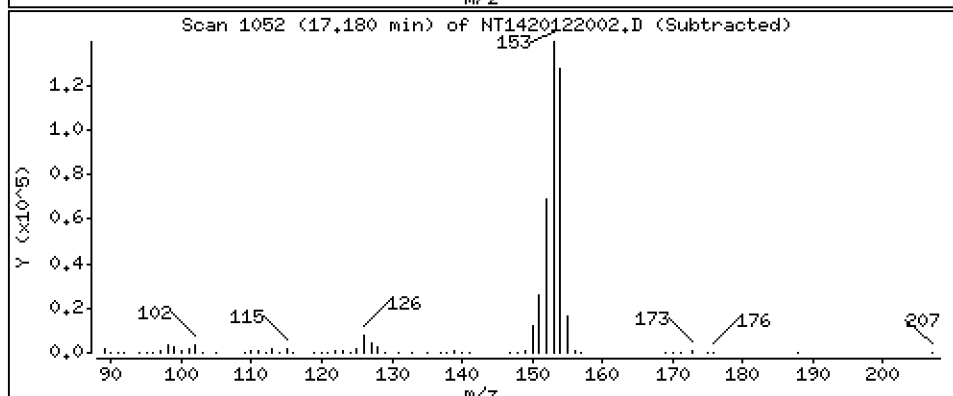
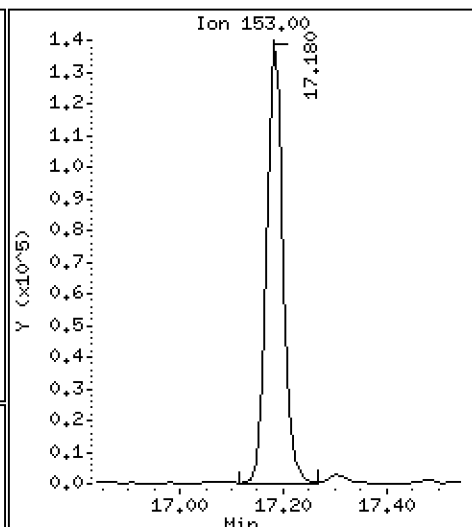
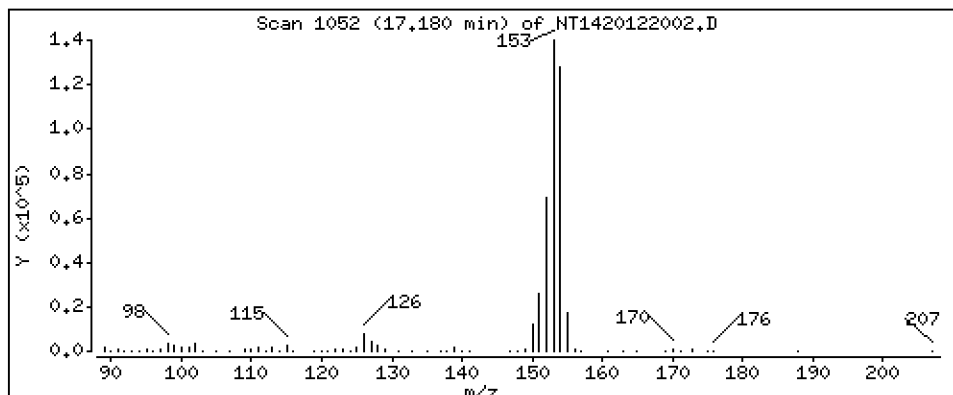
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

22 Acenaphthene

Concentration: 4,266 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

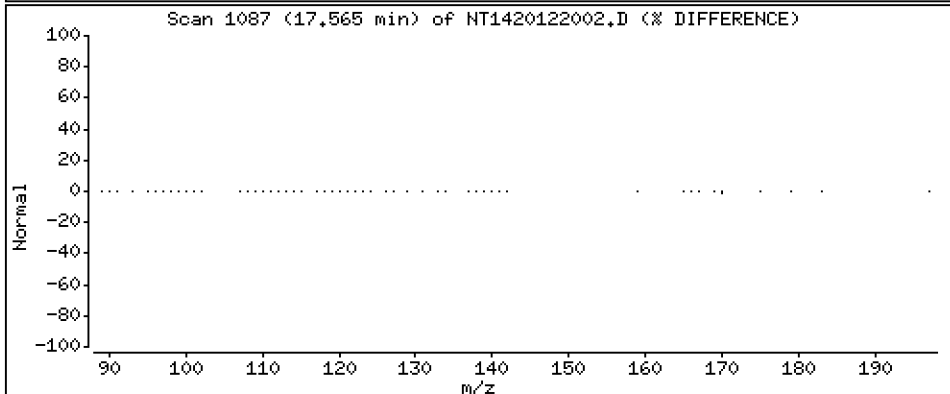
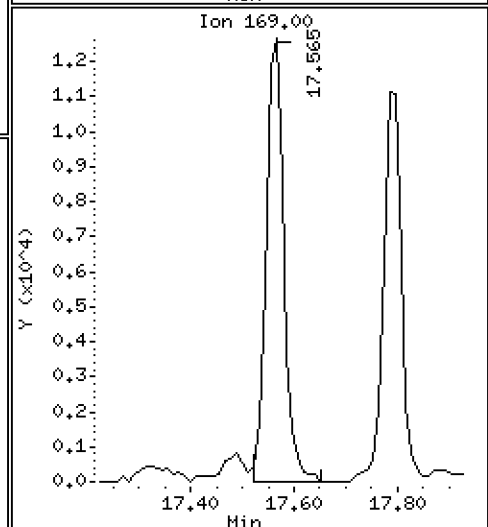
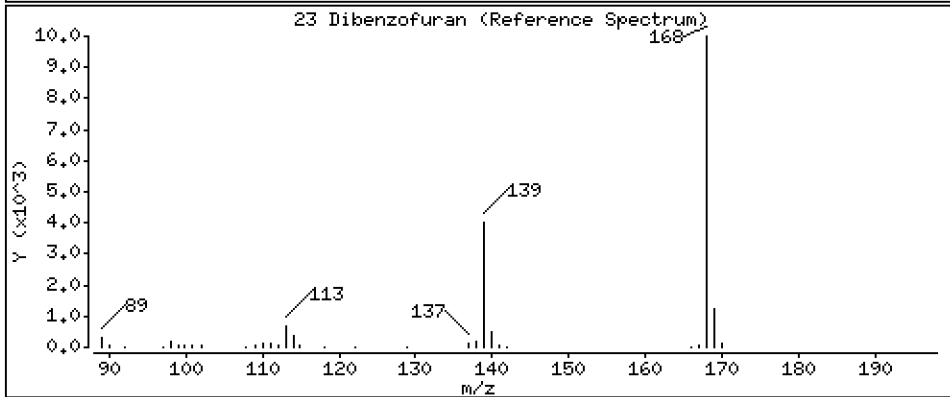
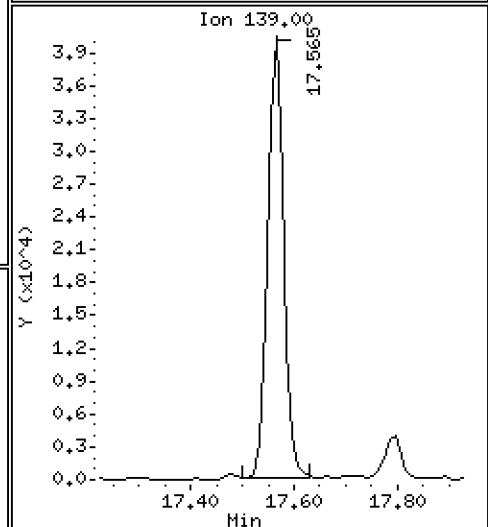
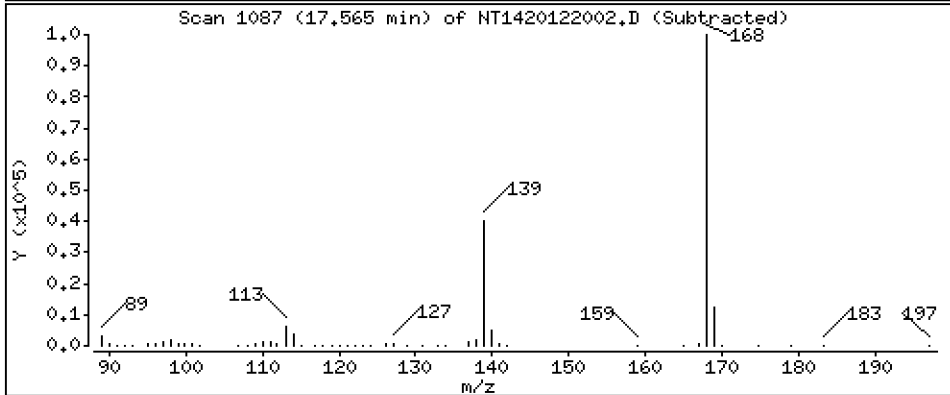
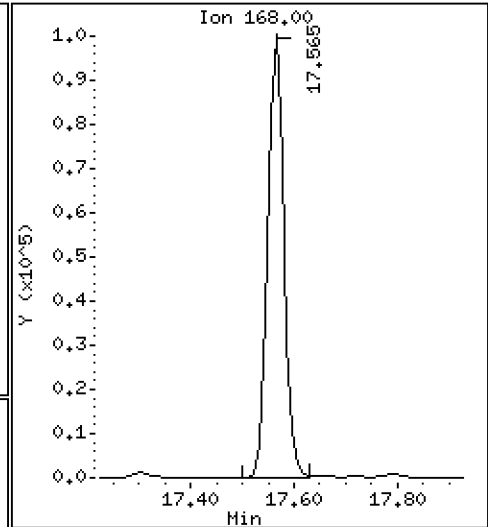
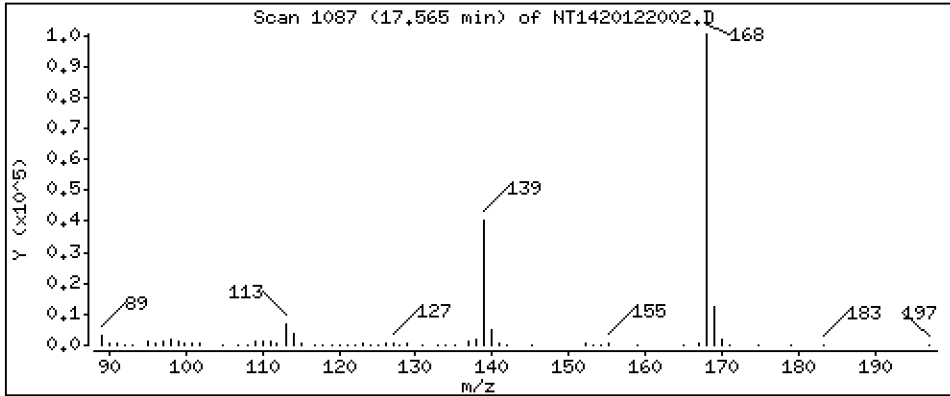
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 Dibenzofuran

Concentration: 2,070 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

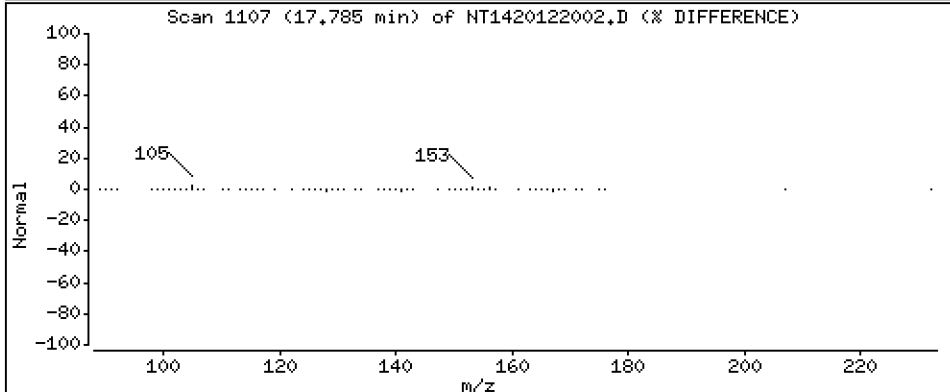
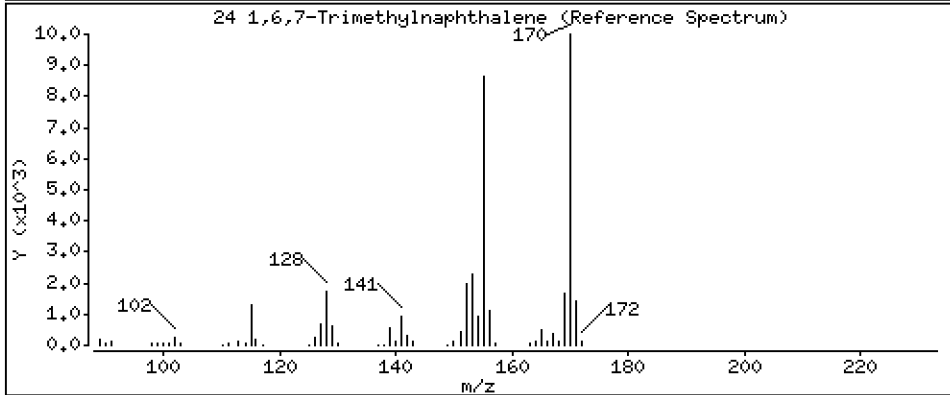
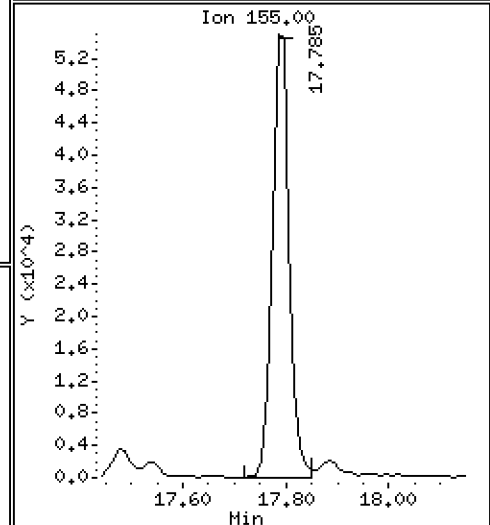
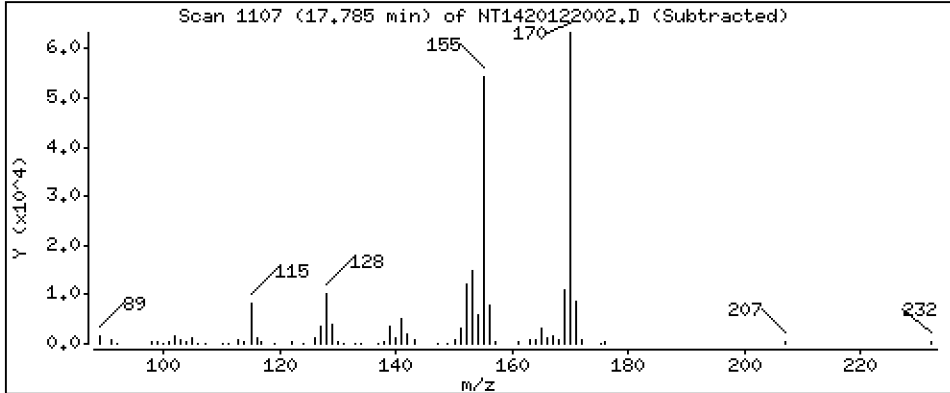
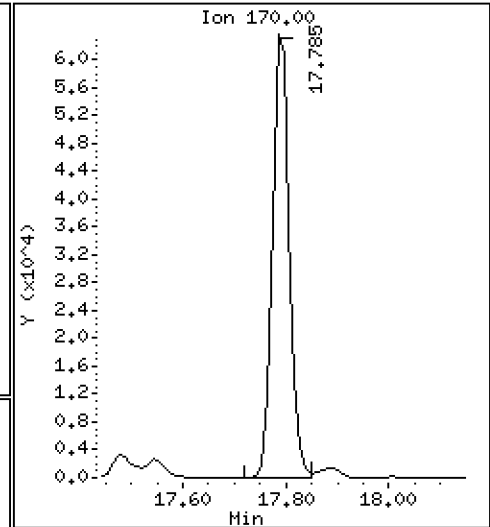
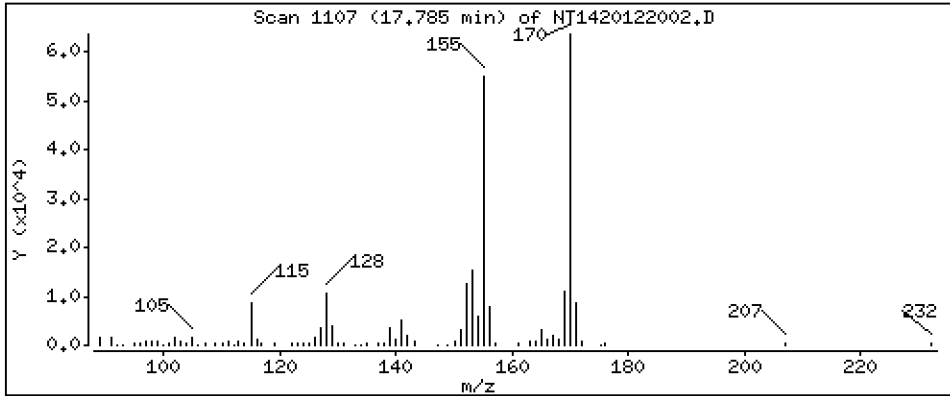
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

24 1,6,7-Trimethylnaphthalene

Concentration: 2,134 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

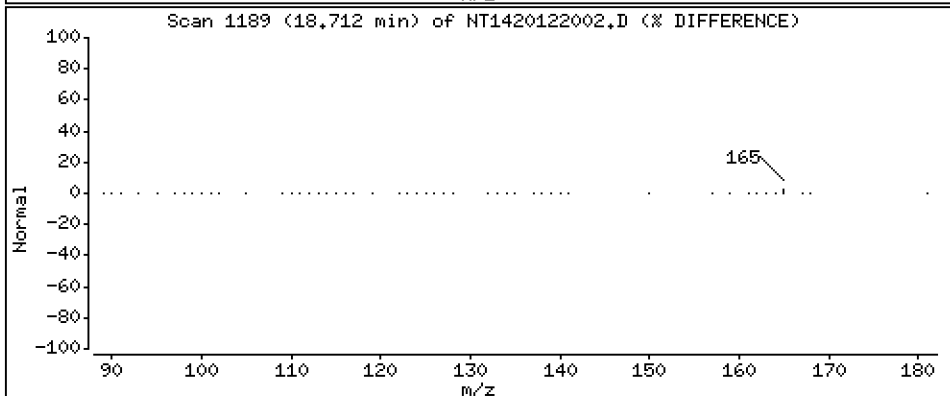
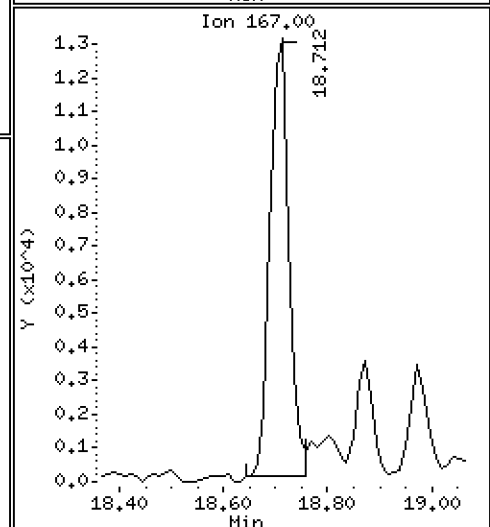
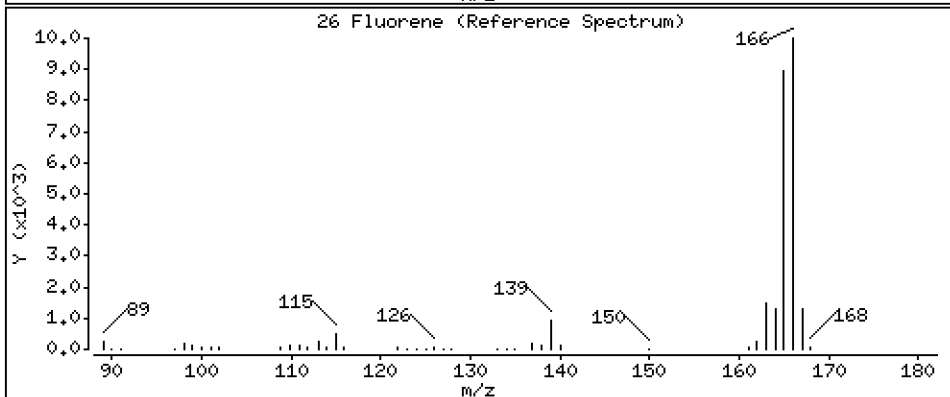
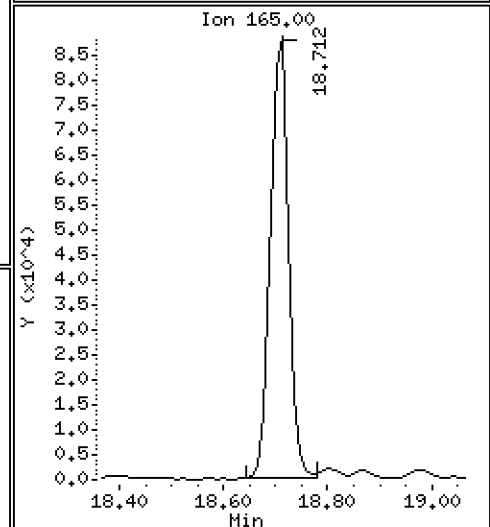
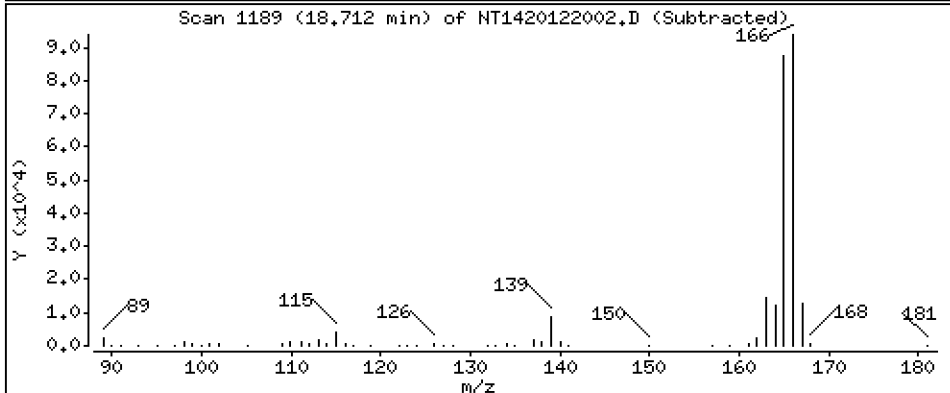
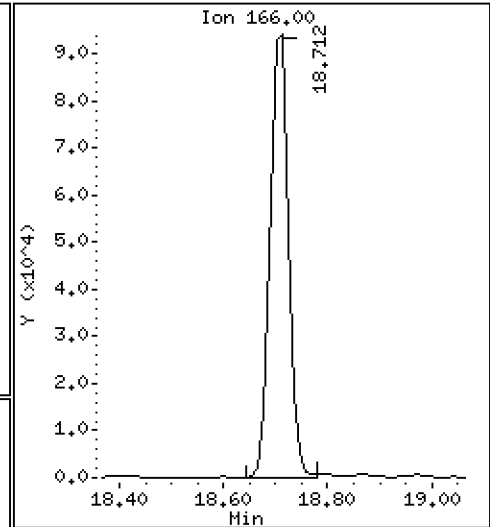
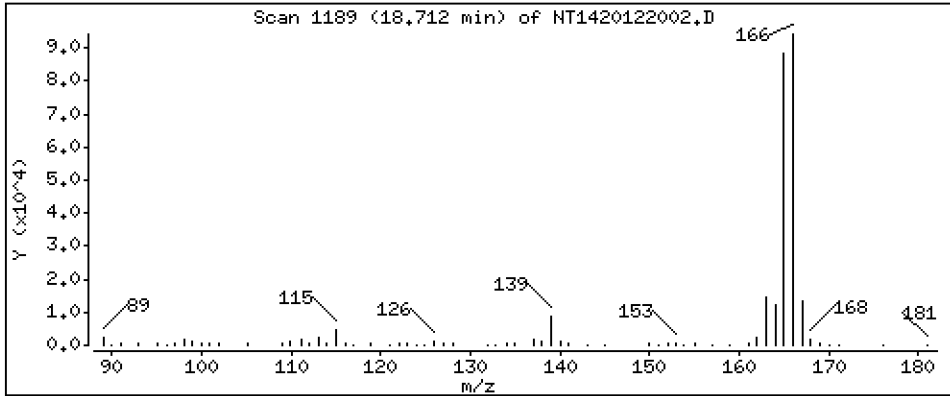
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Fluorene

Concentration: 2,591 ug/mL





Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

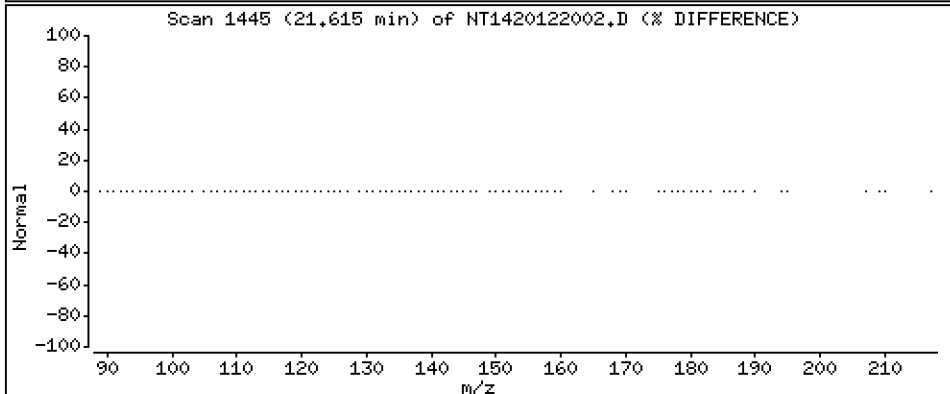
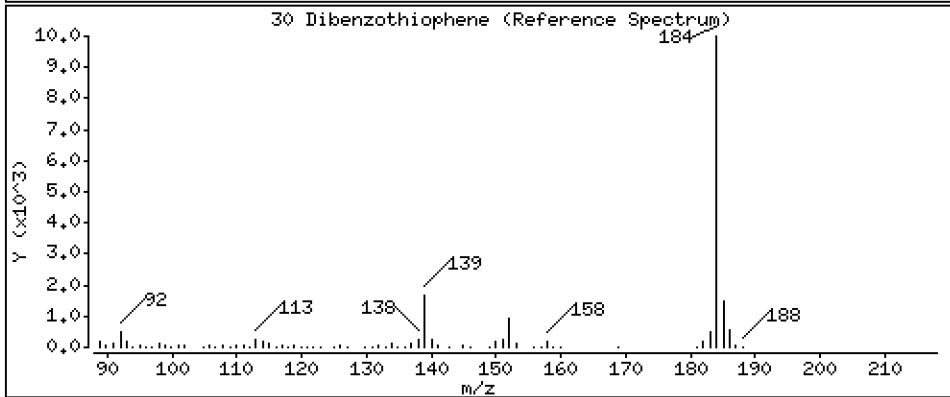
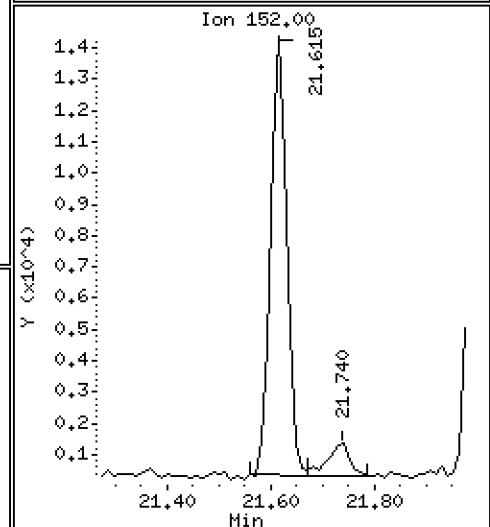
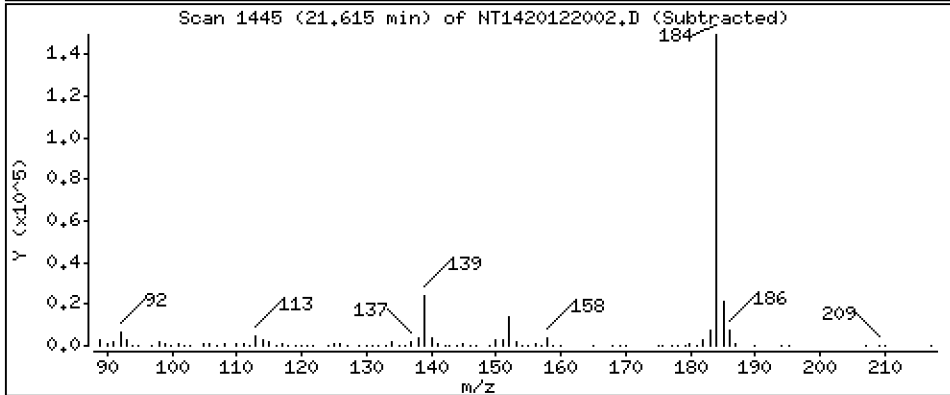
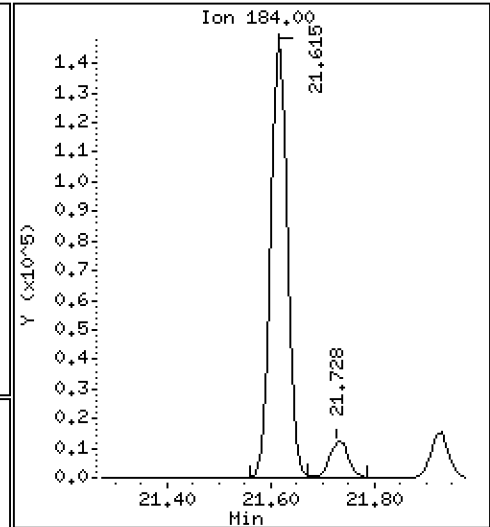
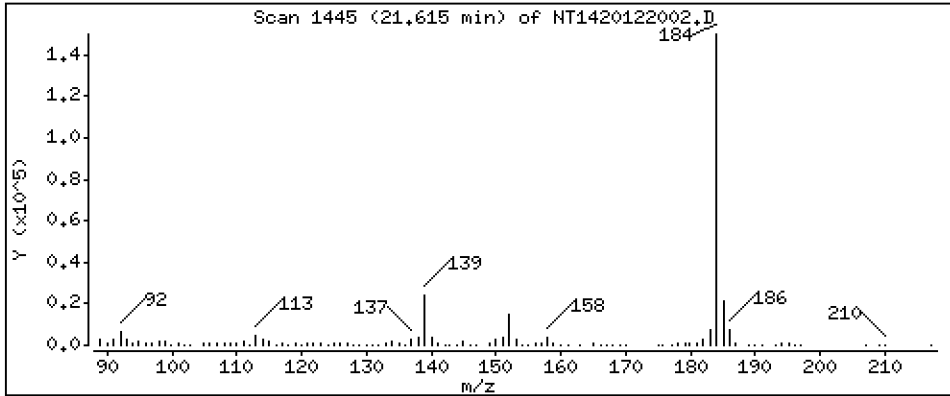
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Dibenzothiophene

Concentration: 2,746 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

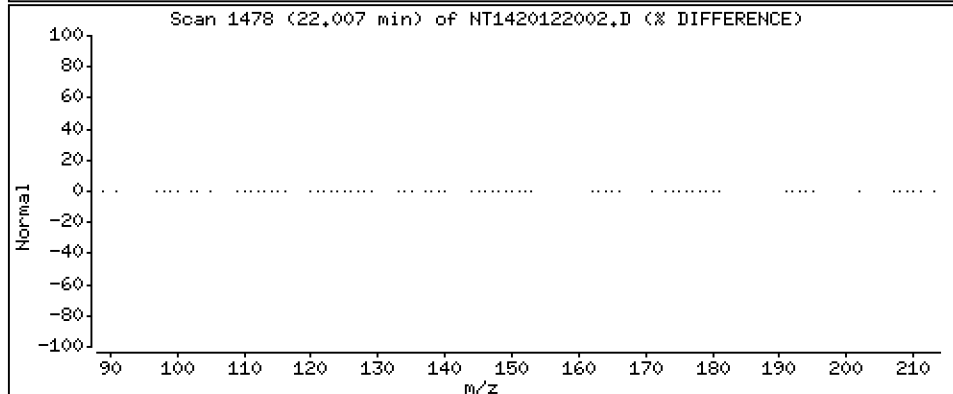
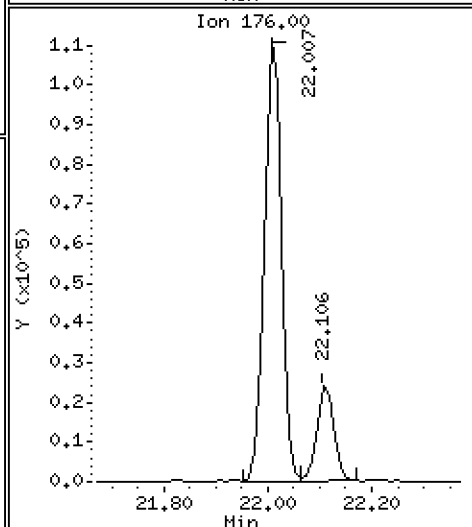
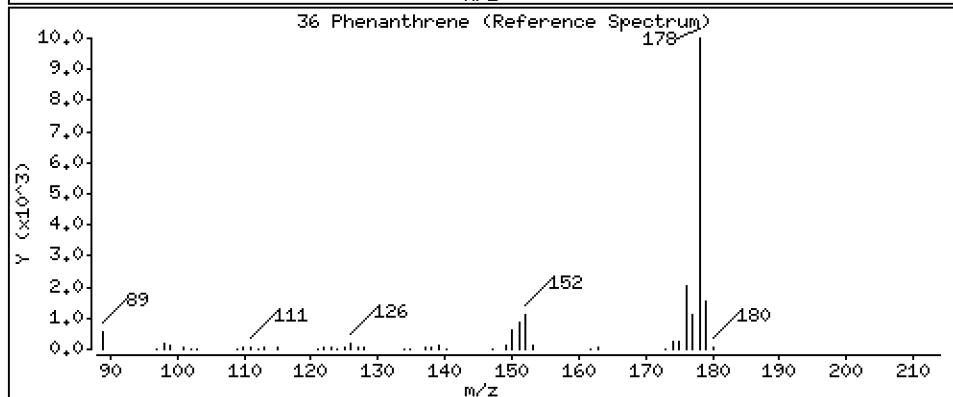
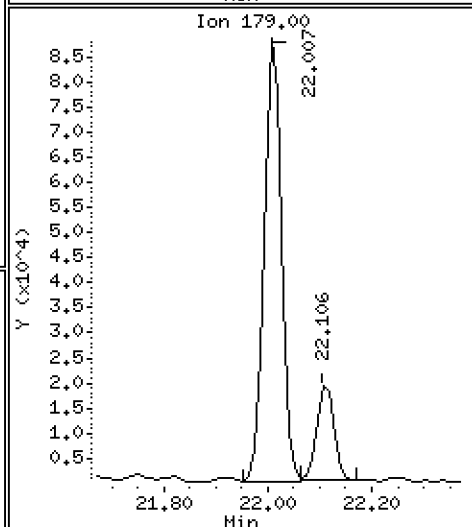
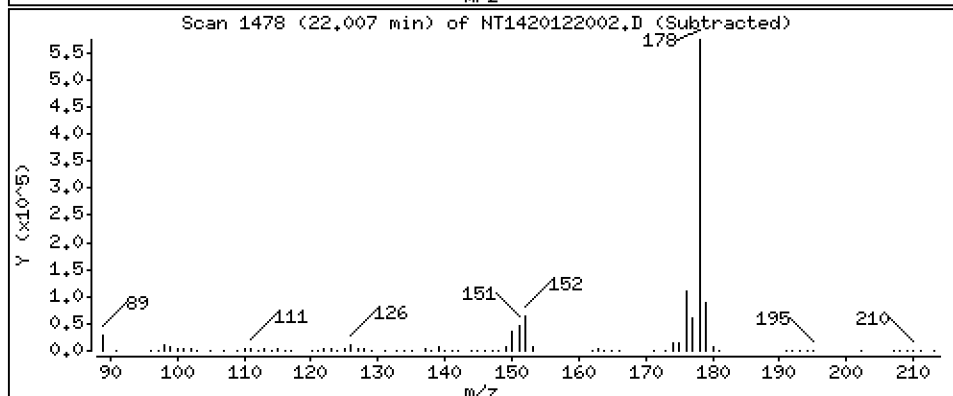
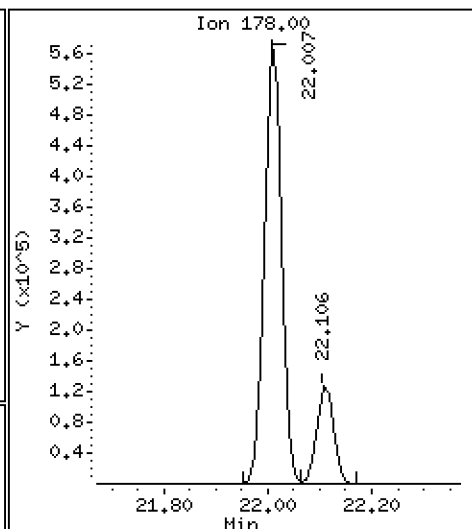
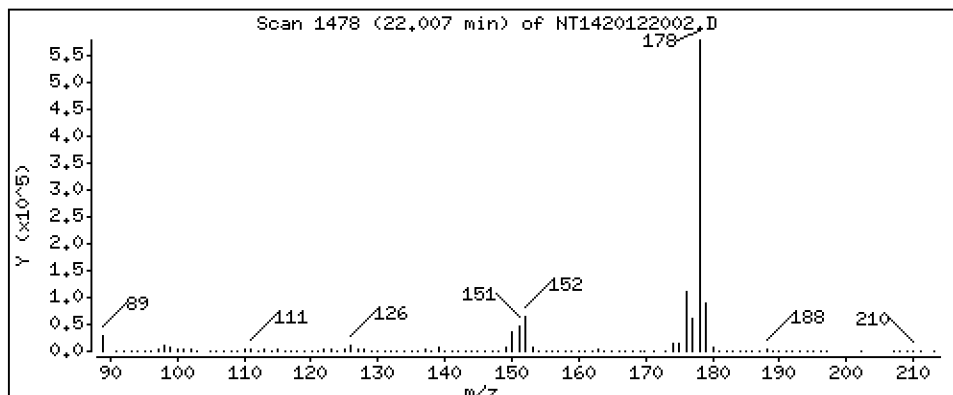
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

36 Phenanthrene

Concentration: 10,54 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

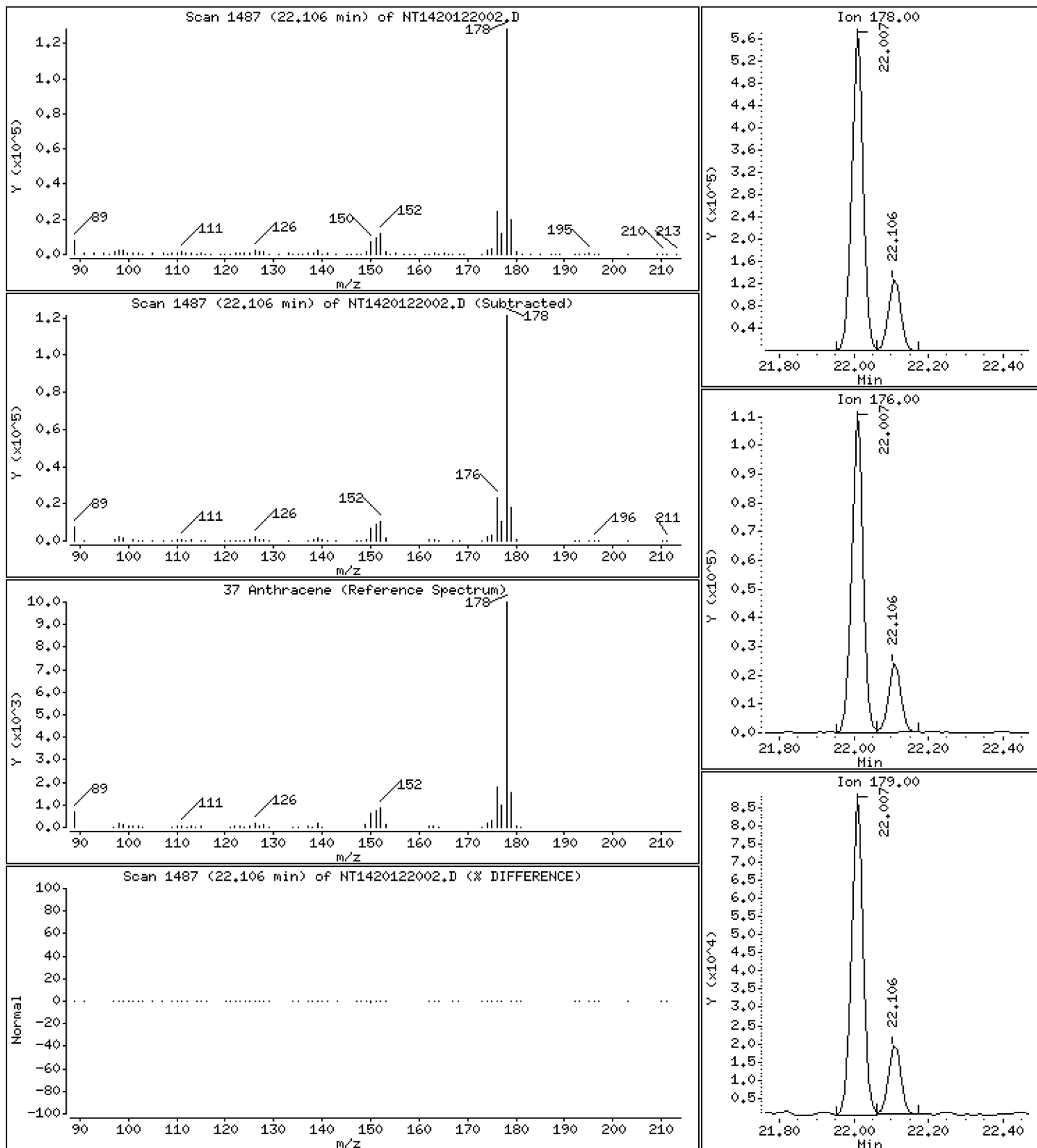
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

37 Anthracene

Concentration: 2,376 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

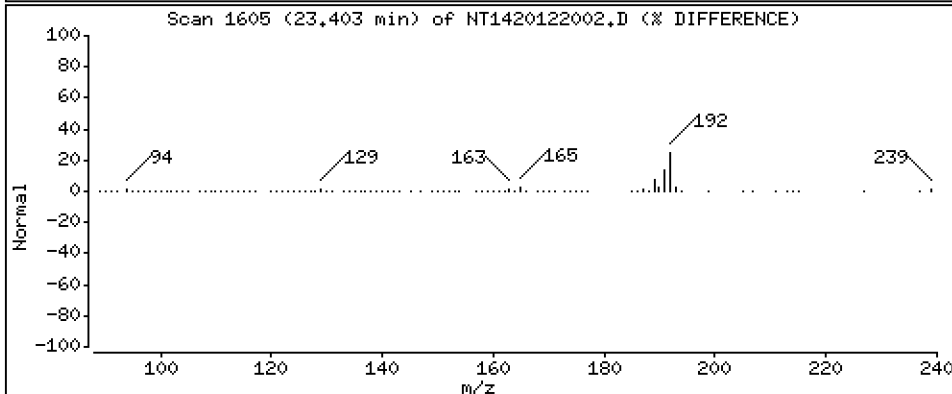
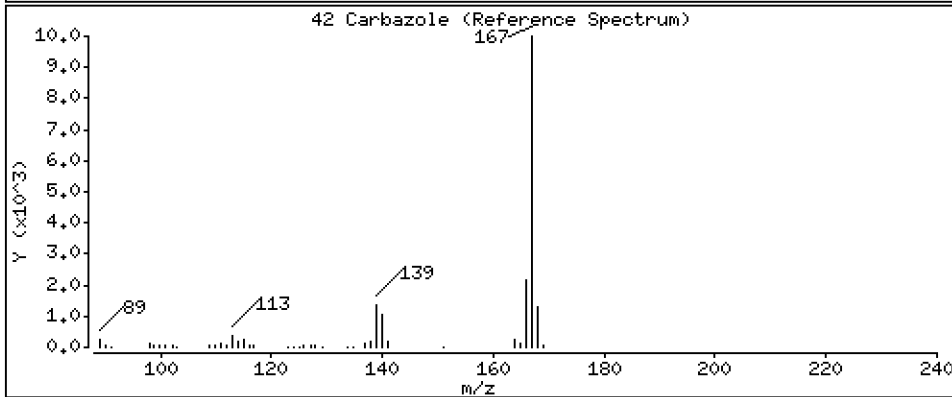
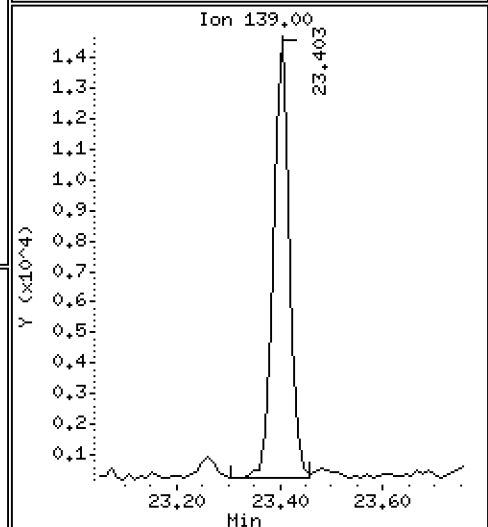
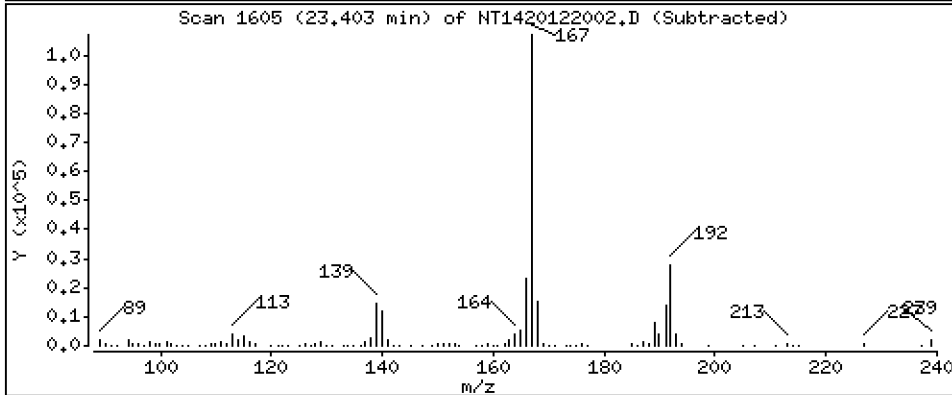
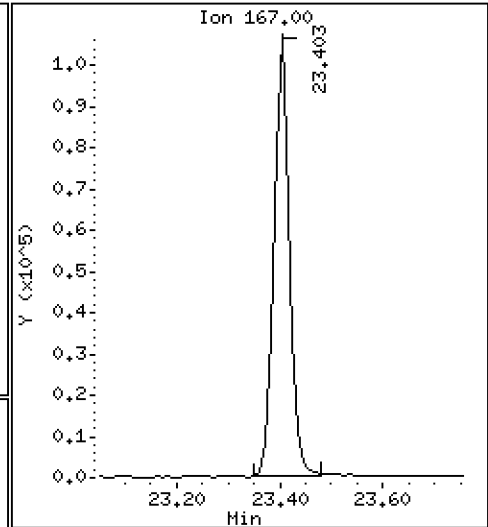
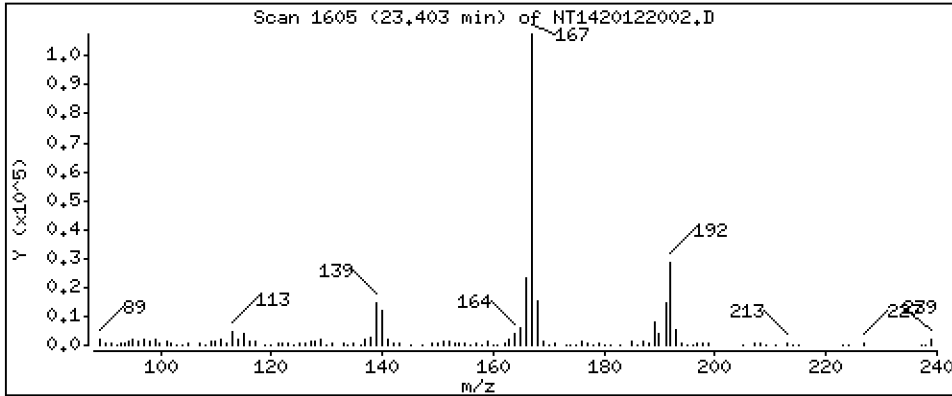
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

42 Carbazole

Concentration: 2,260 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

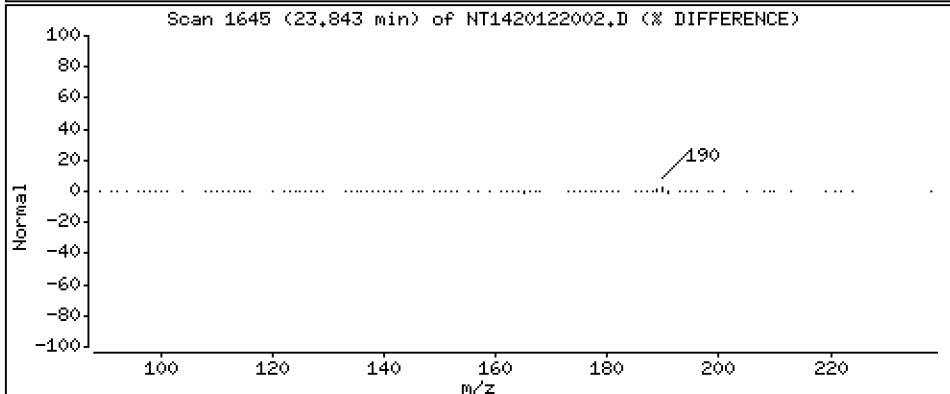
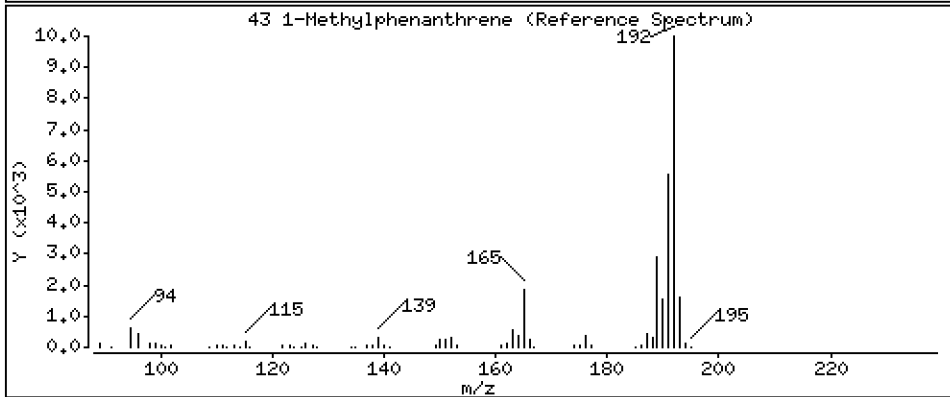
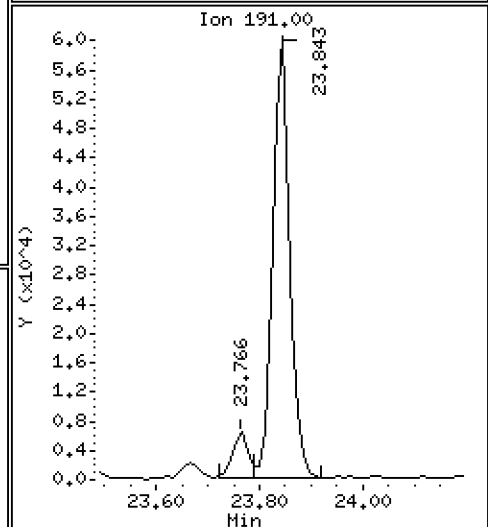
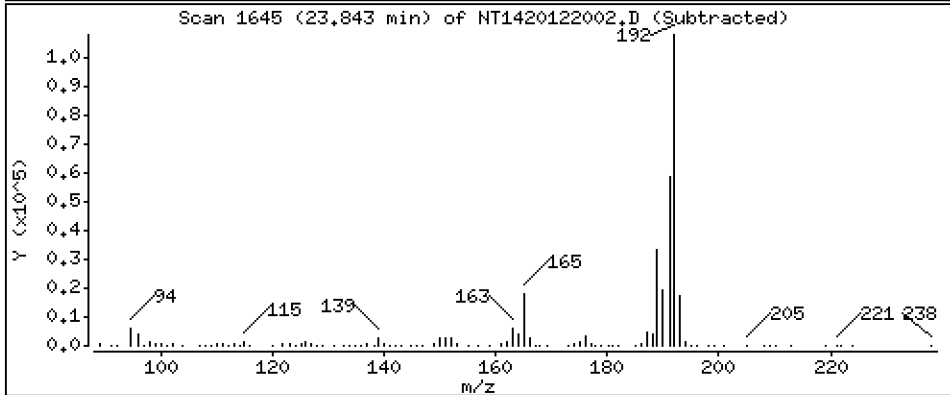
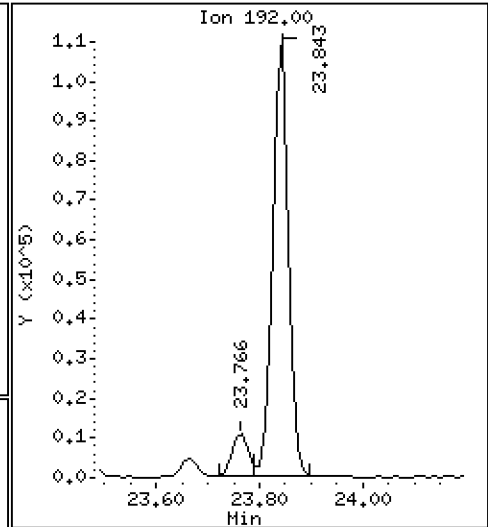
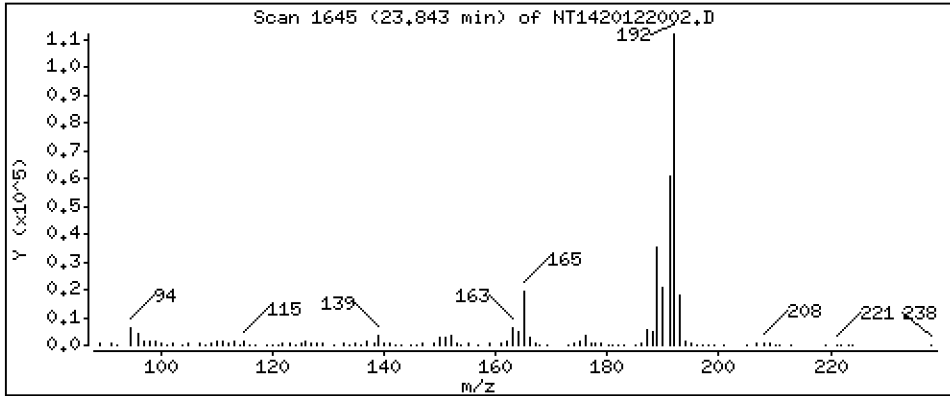
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

43 1-Methylphenanthrene

Concentration: 2,757 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

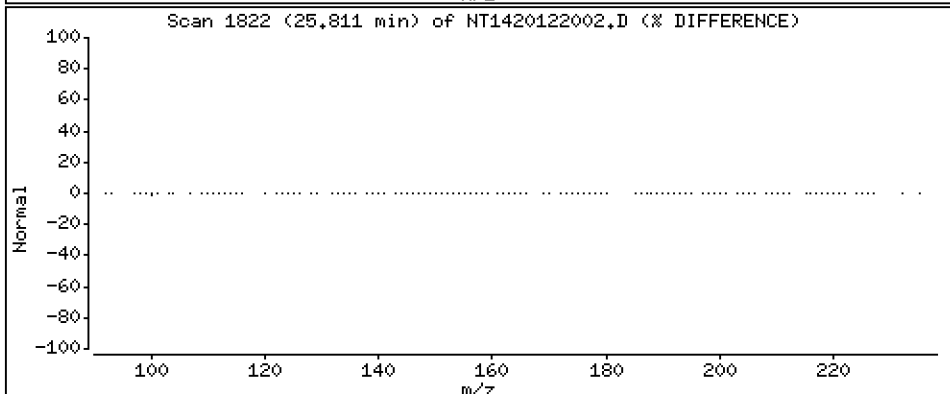
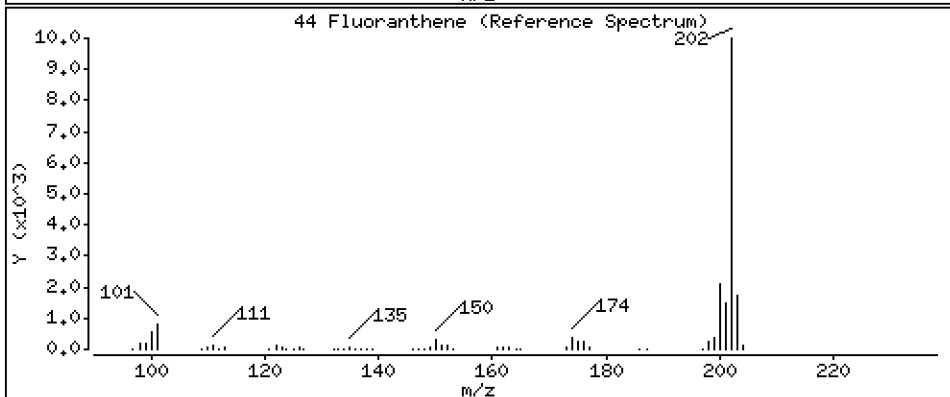
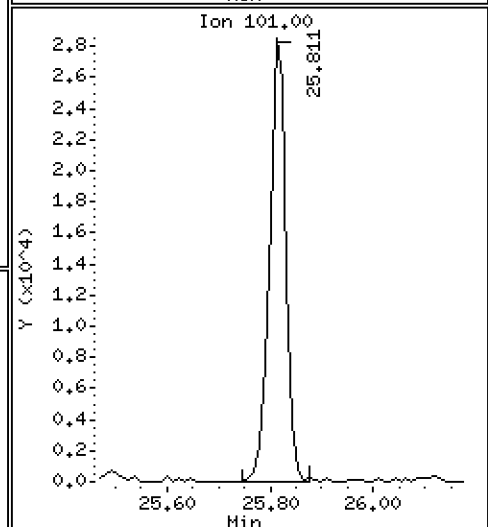
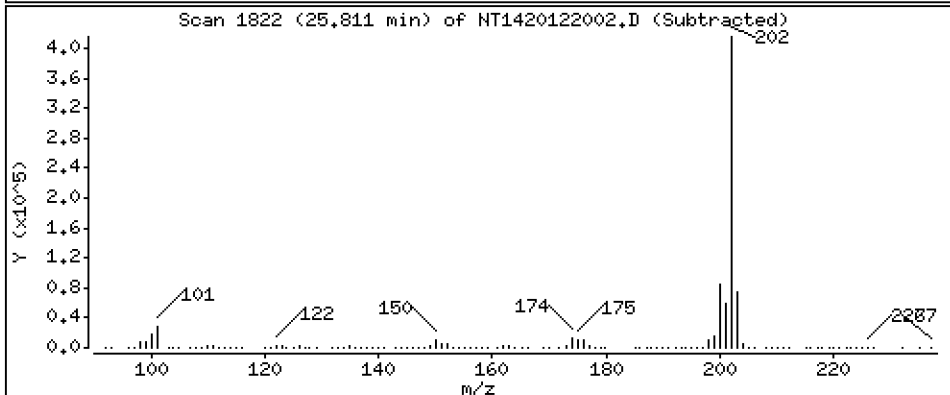
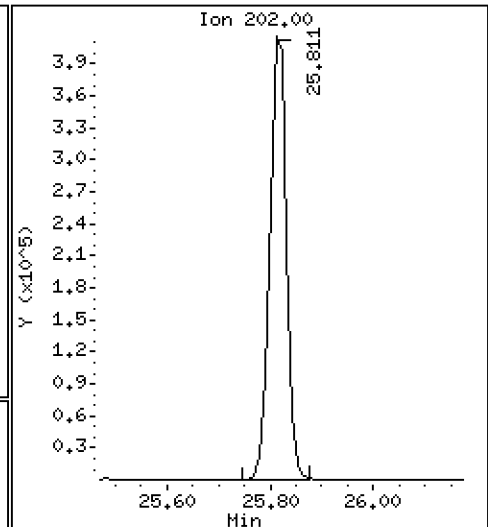
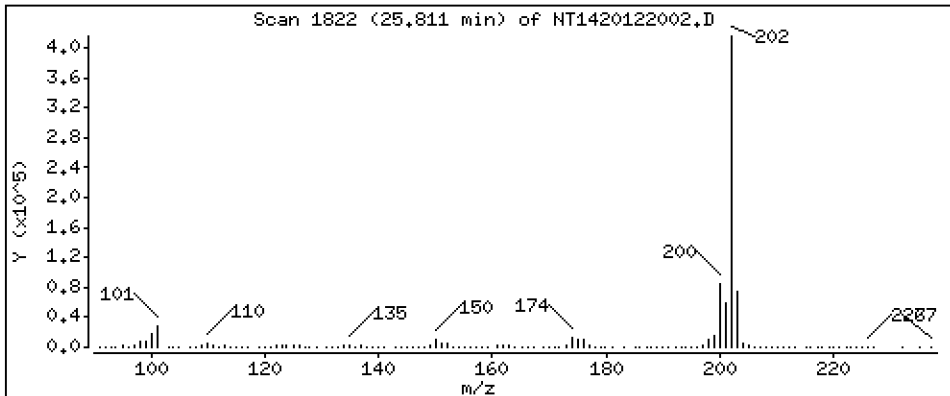
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

44 Fluoranthene

Concentration: 7,191 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

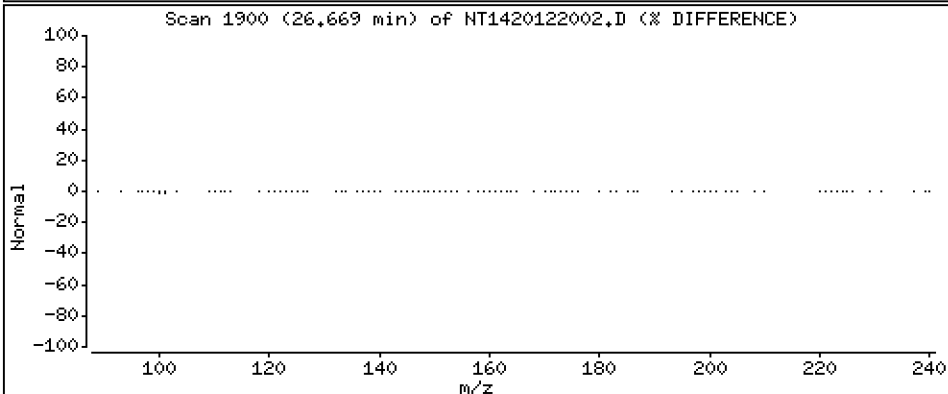
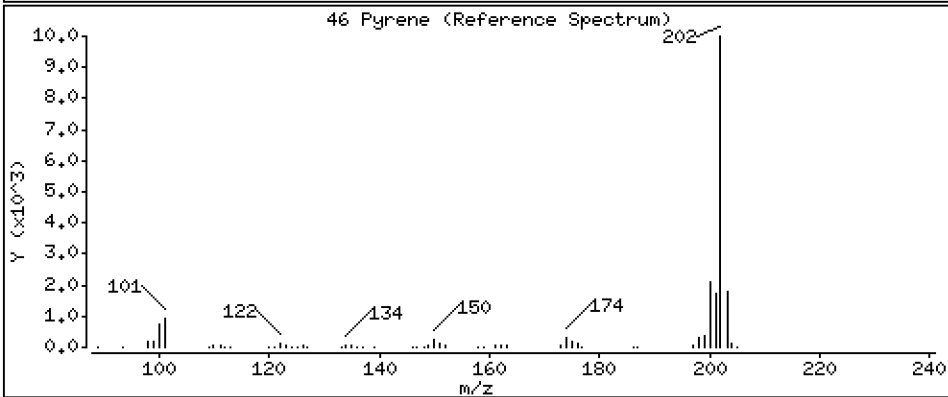
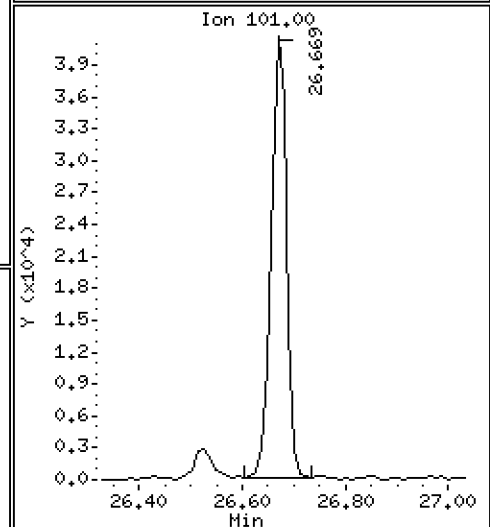
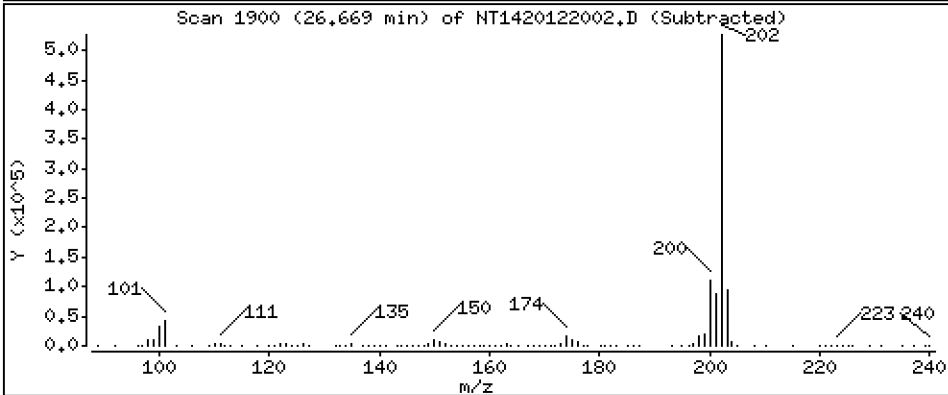
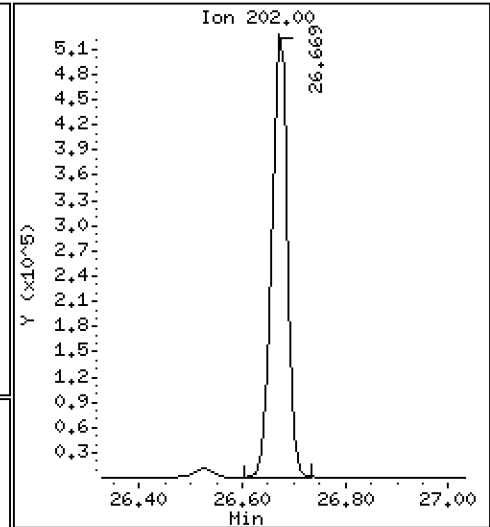
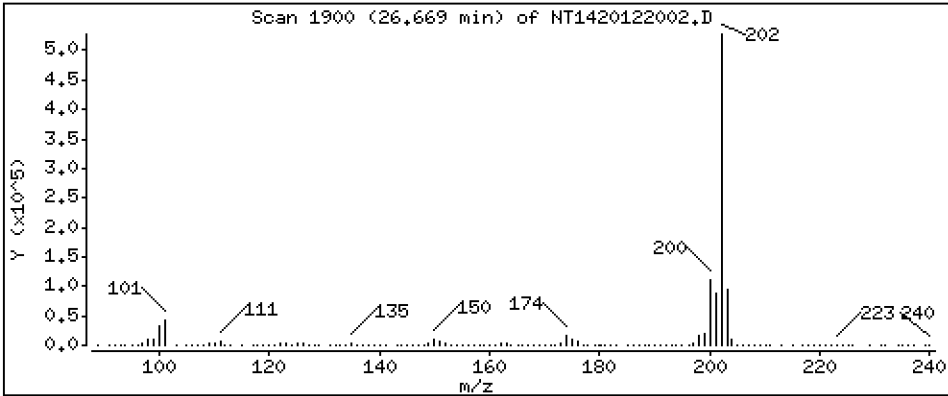
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

46 Pyrene

Concentration: 8,118 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

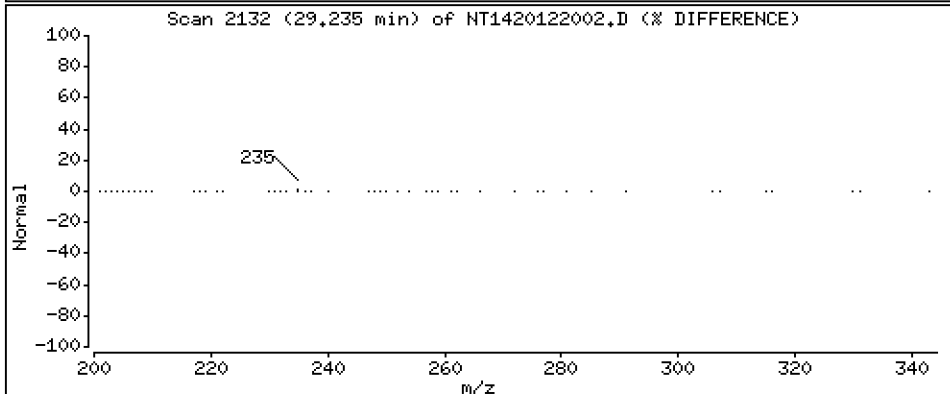
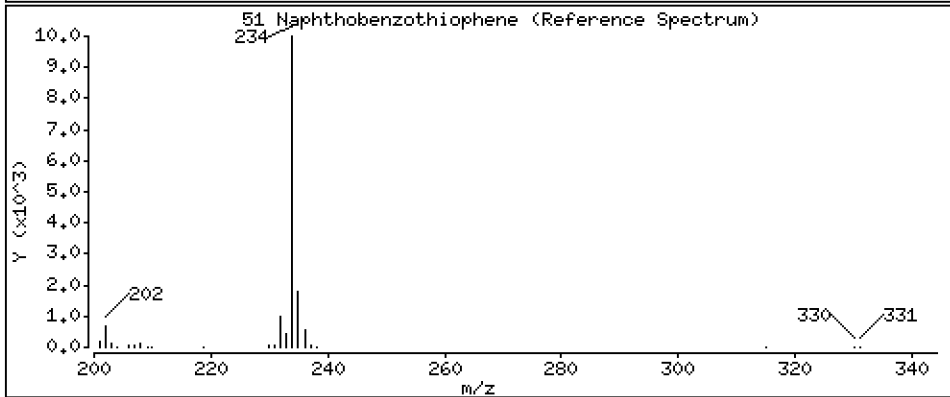
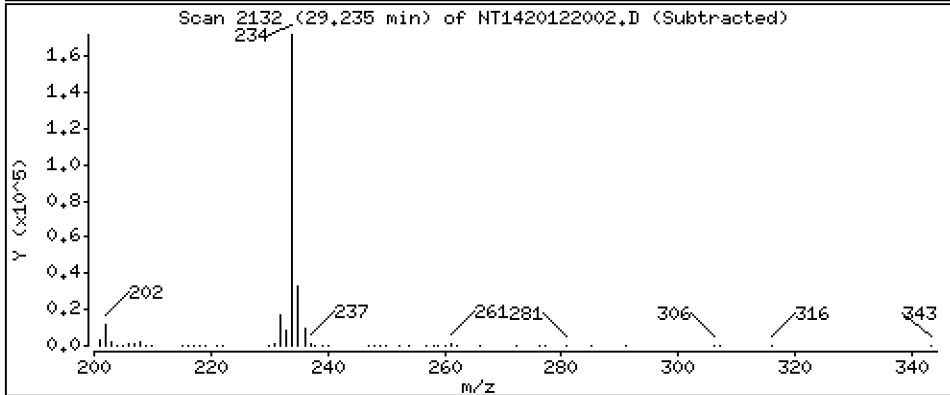
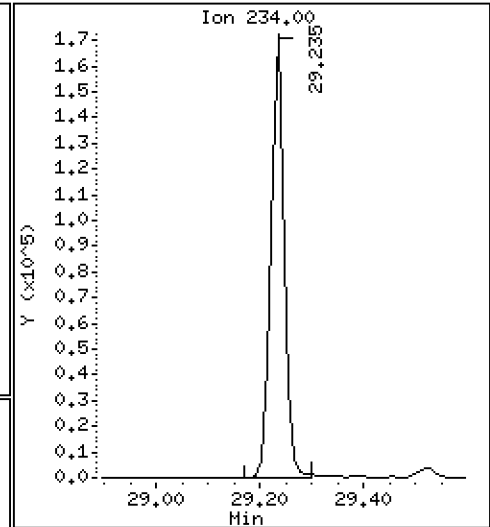
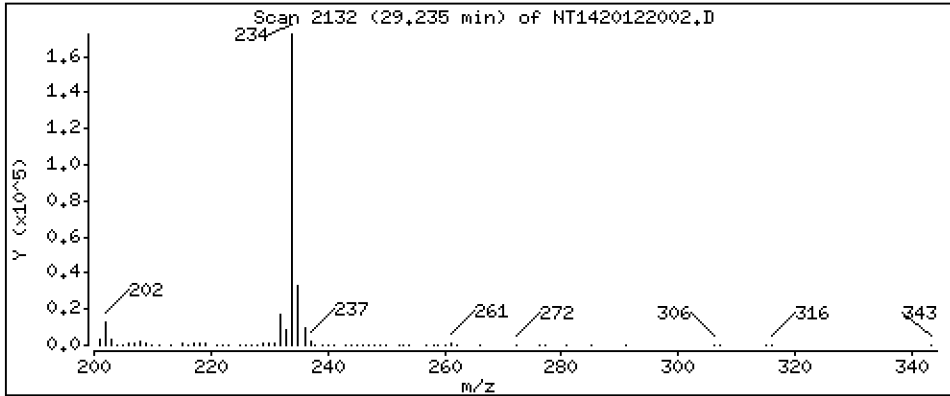
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

51 Naphthobenzothiophene

Concentration: 2,508 ug/mL





Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

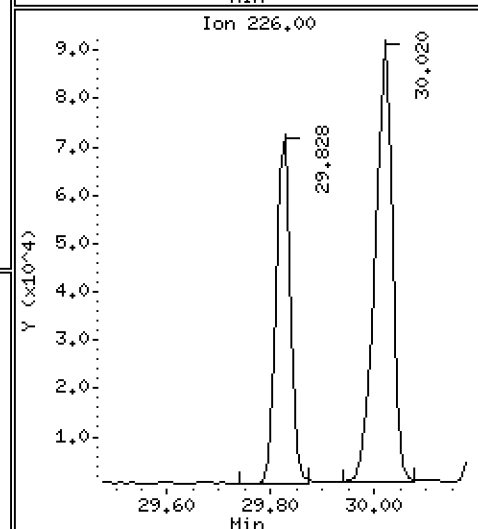
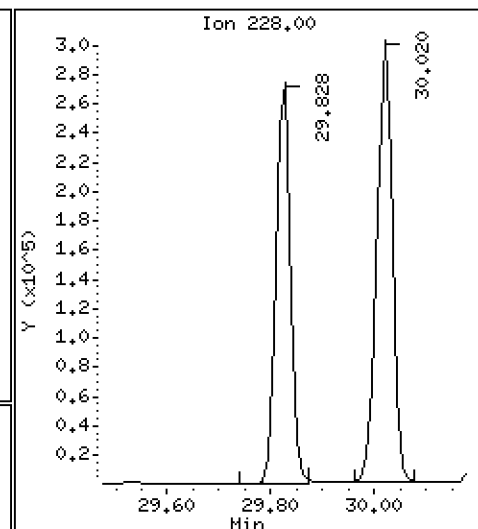
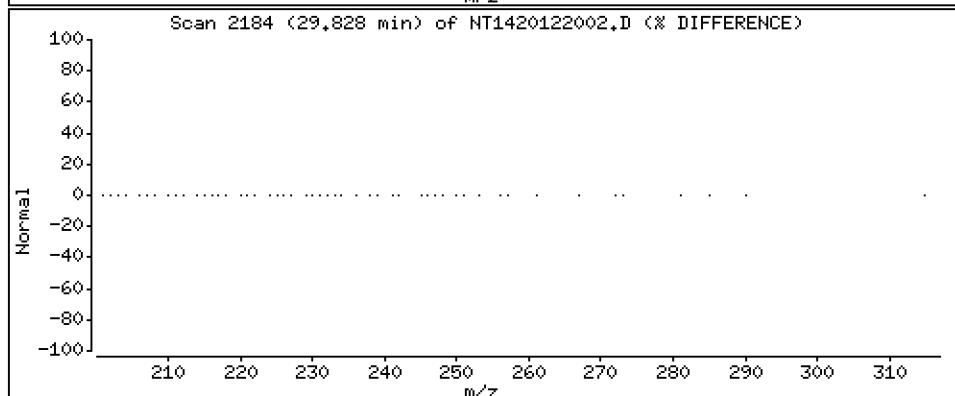
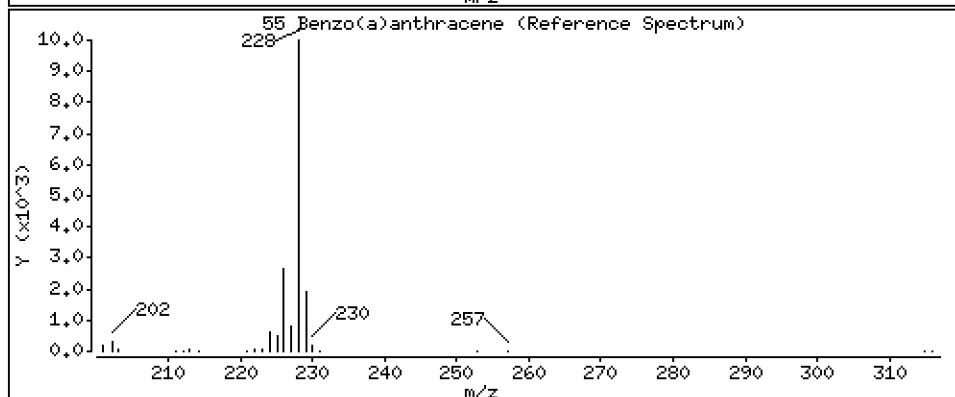
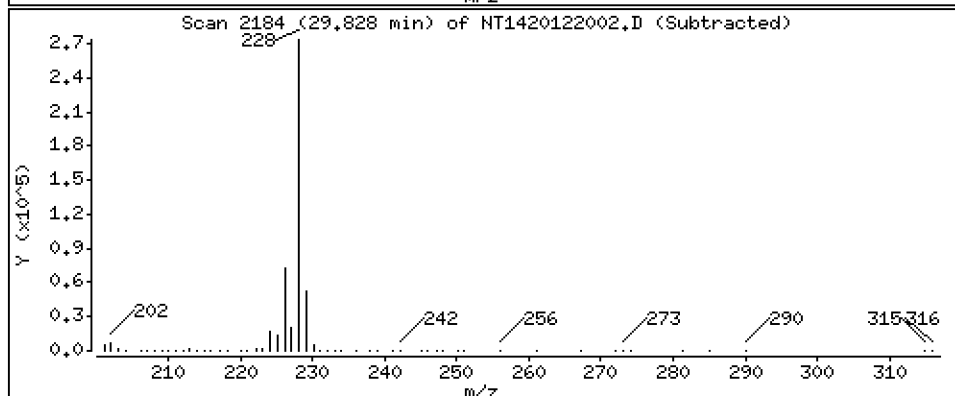
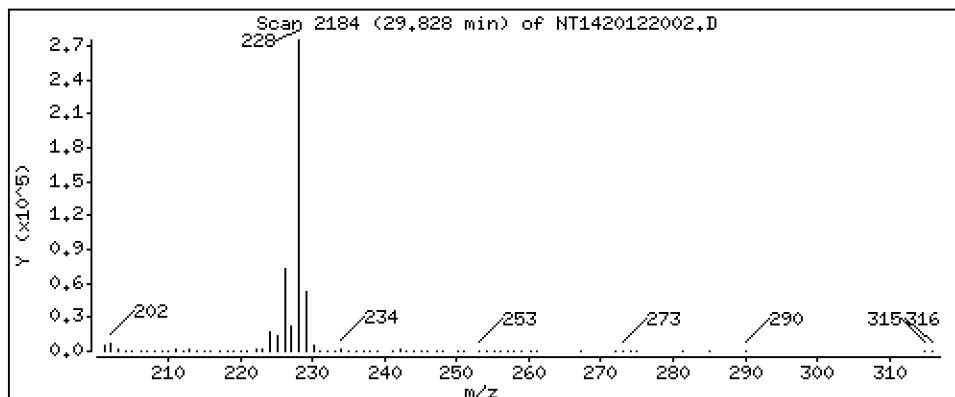
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

55 Benzo(a)anthracene

Concentration: 4,480 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

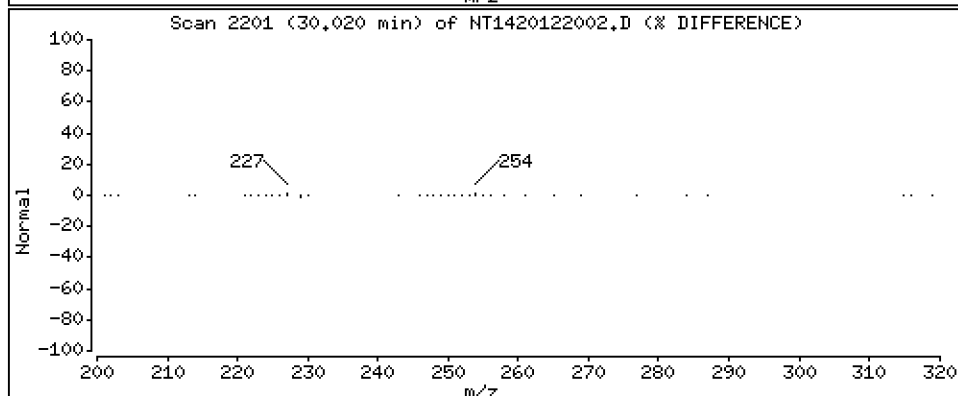
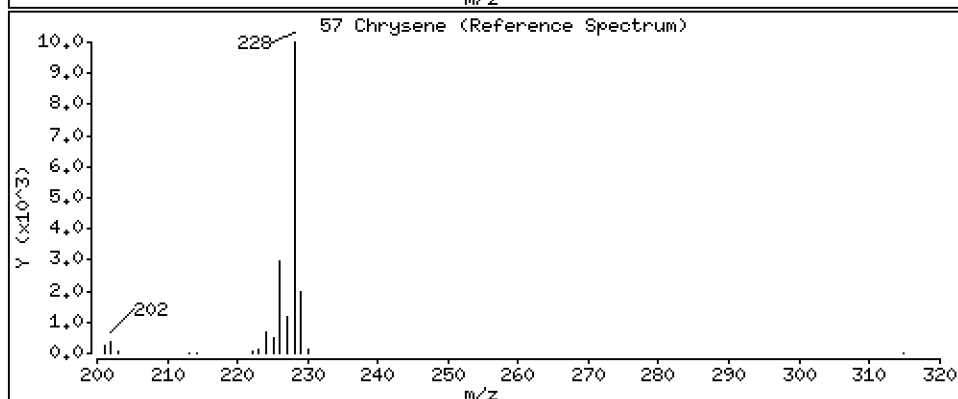
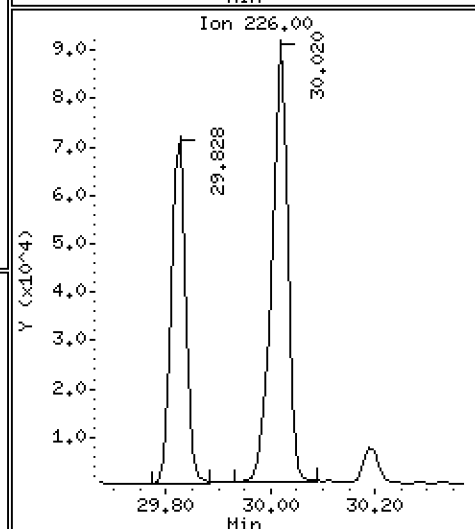
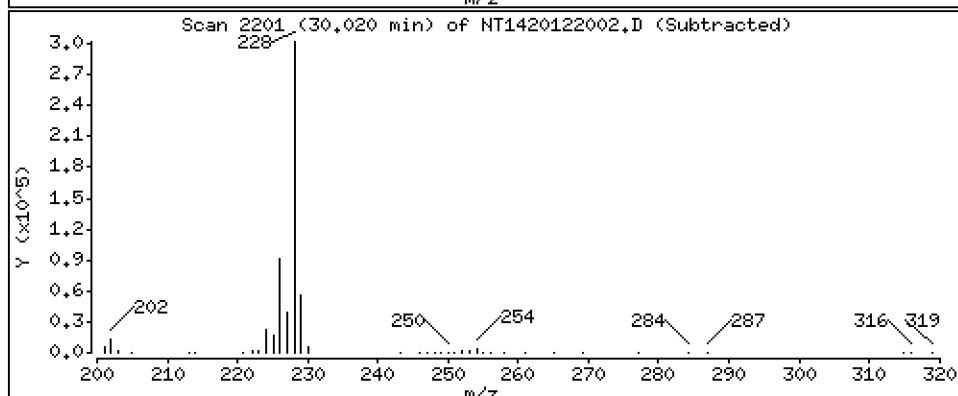
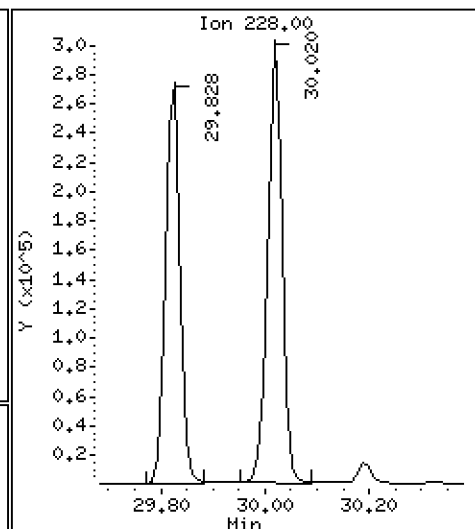
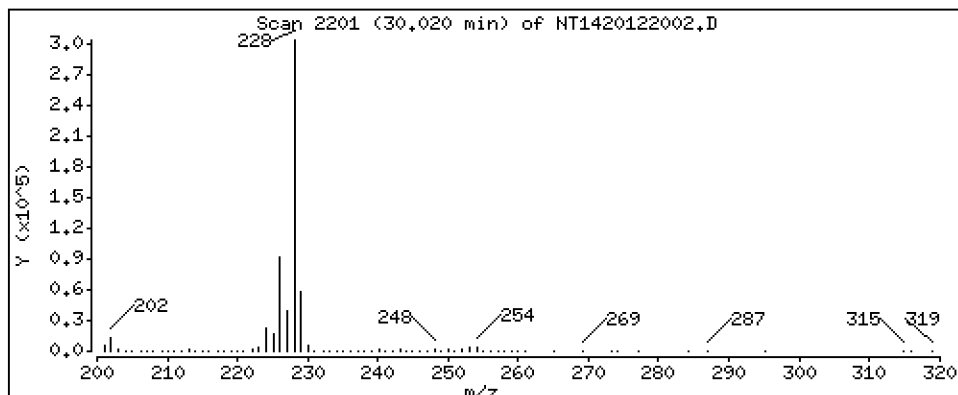
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

57 Chrysene

Concentration: 4,121 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

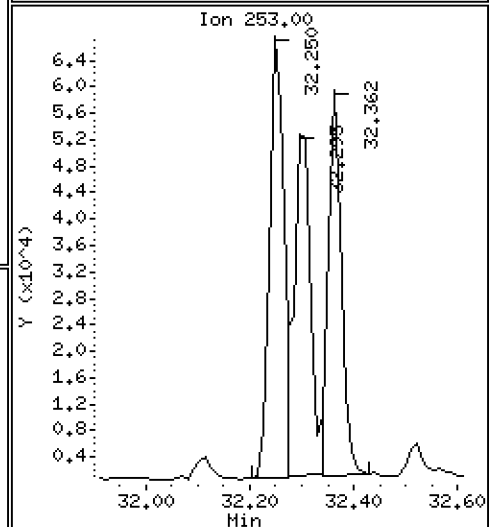
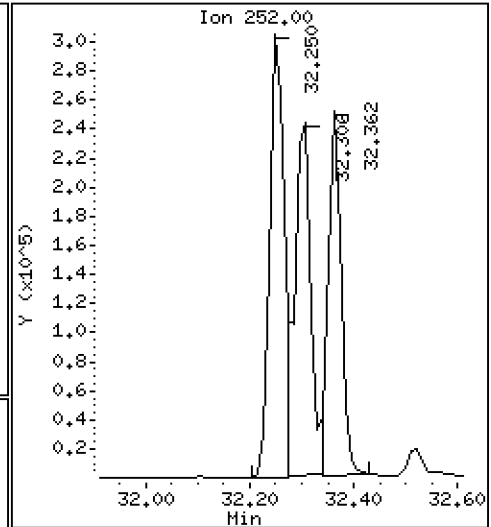
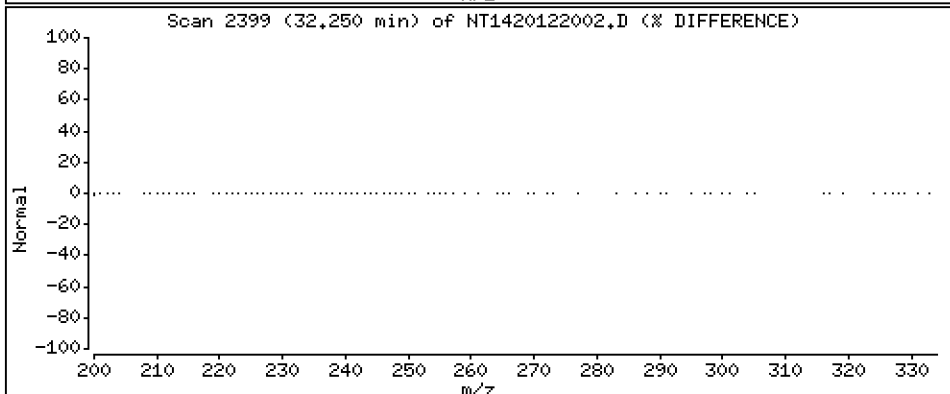
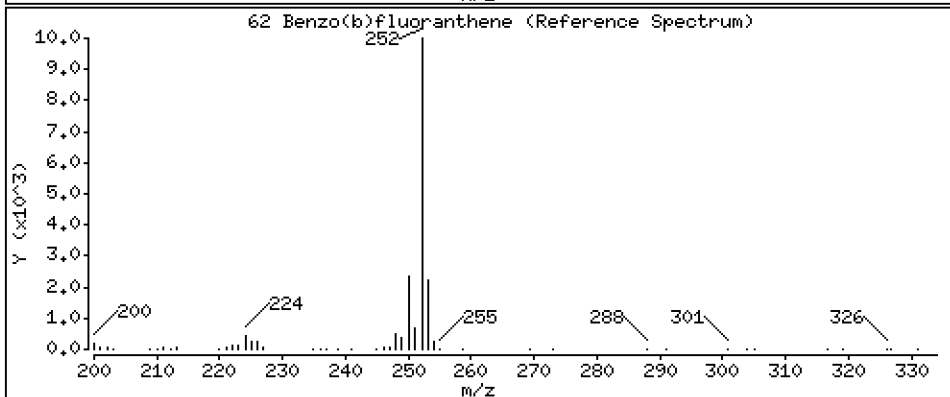
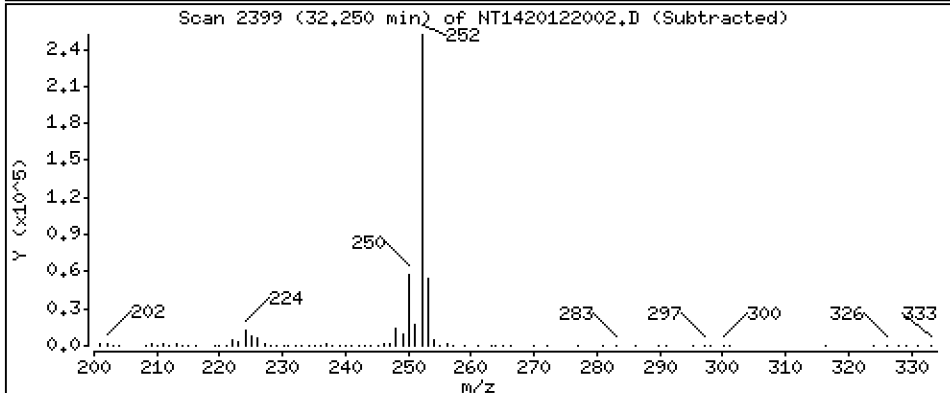
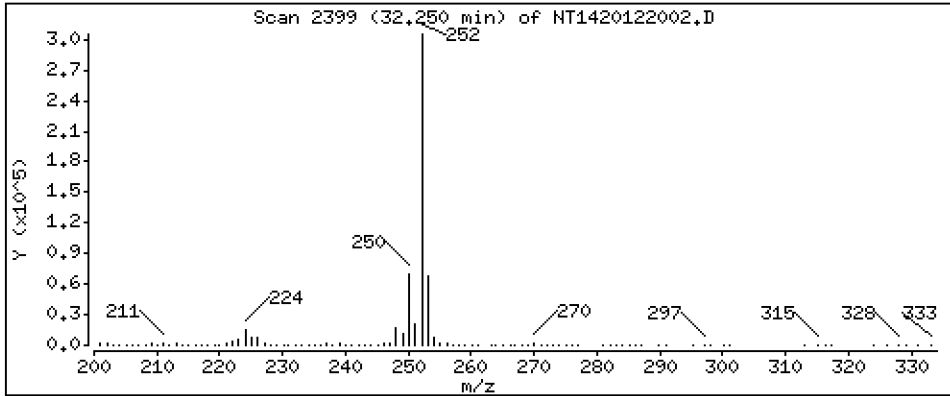
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

62 Benzo(b)fluoranthene

Concentration: 3,529 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

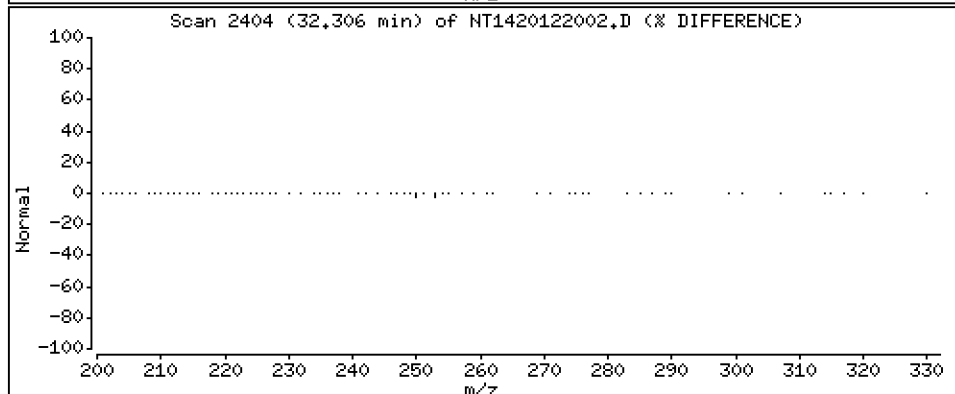
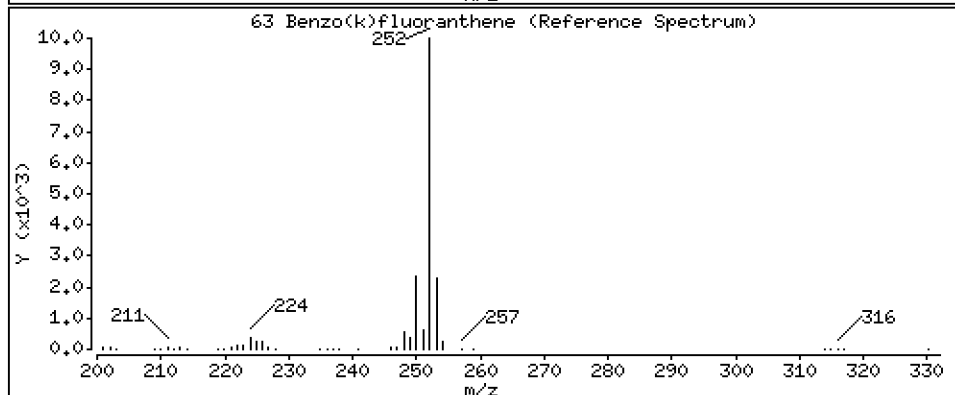
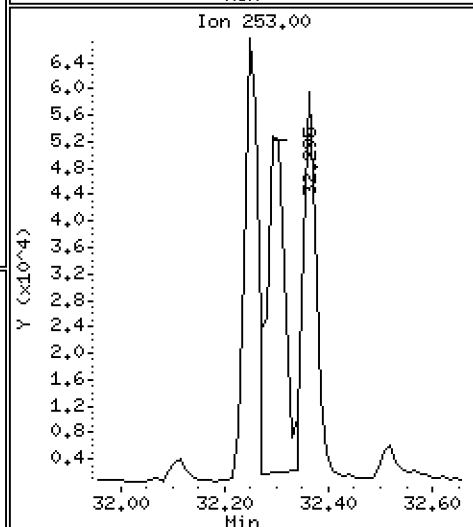
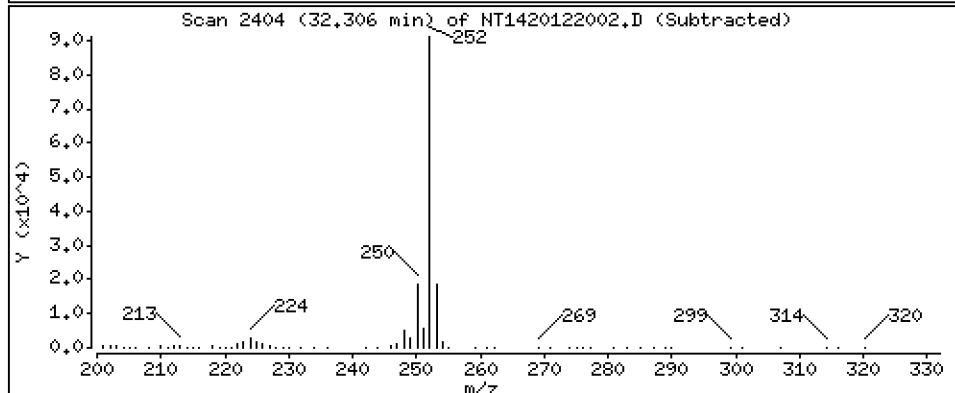
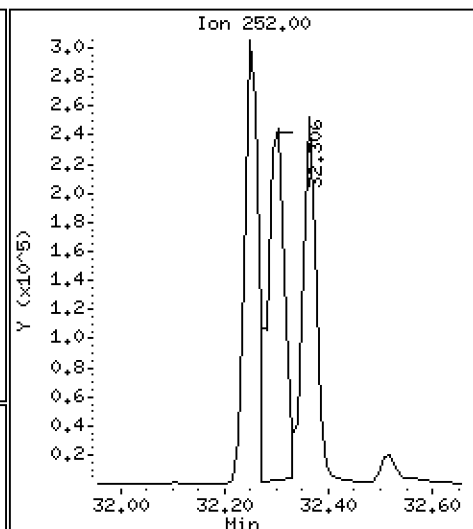
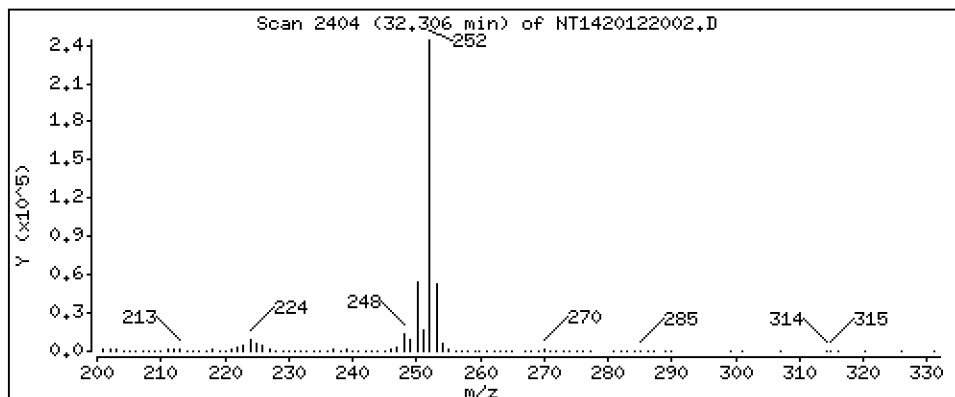
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

63 Benzo(k)fluoranthene

Concentration: 3,357 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

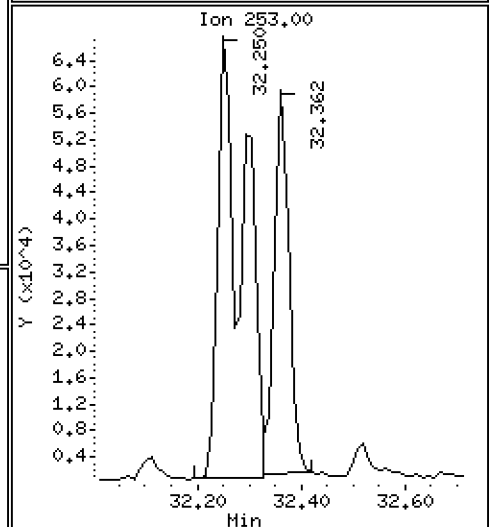
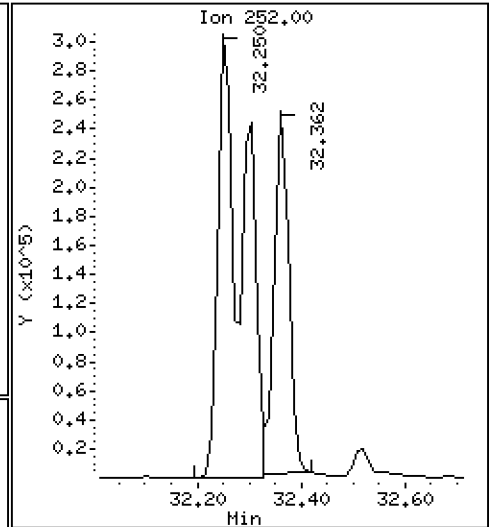
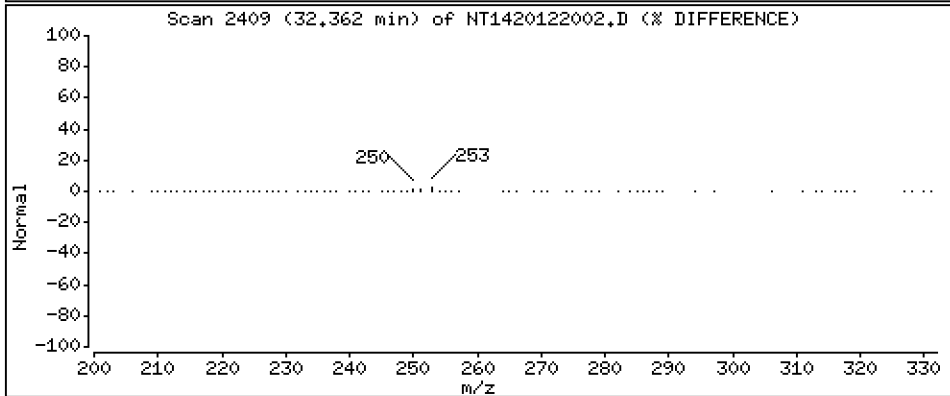
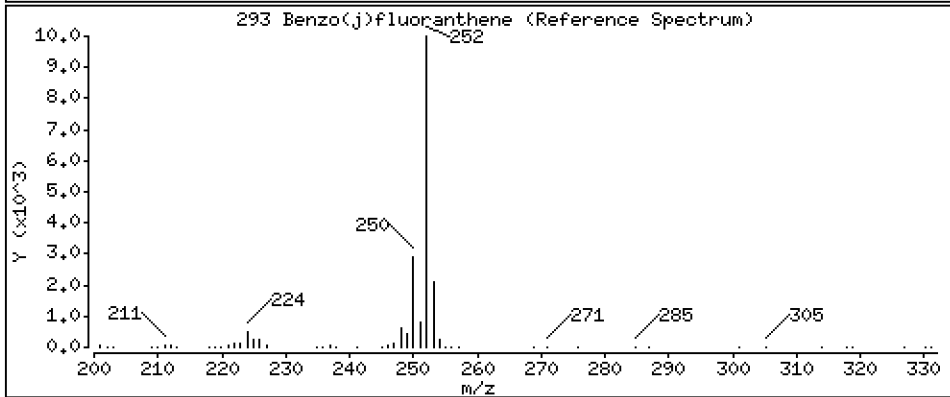
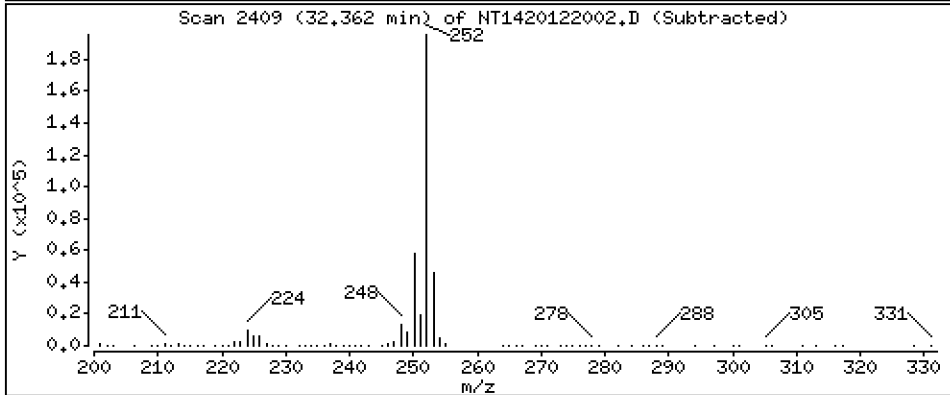
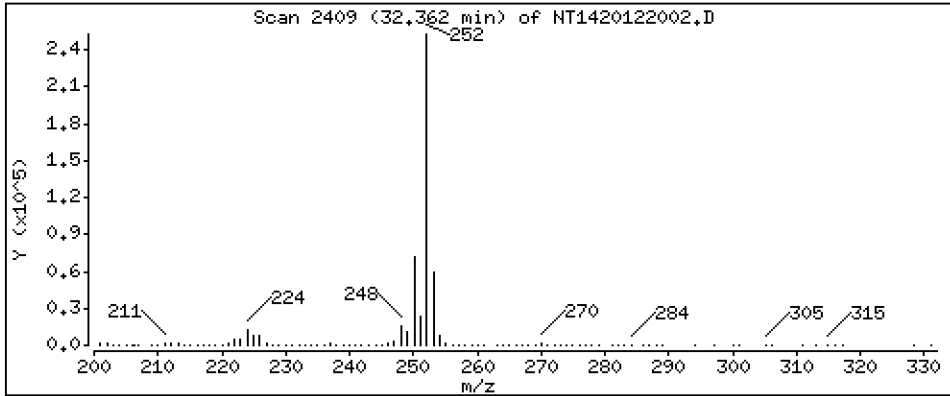
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

293 Benzo(j)fluoranthene

Concentration: 3,246 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

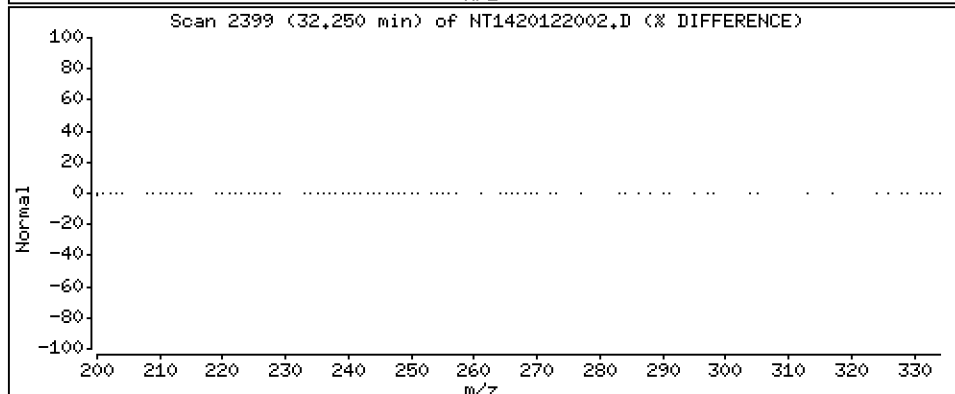
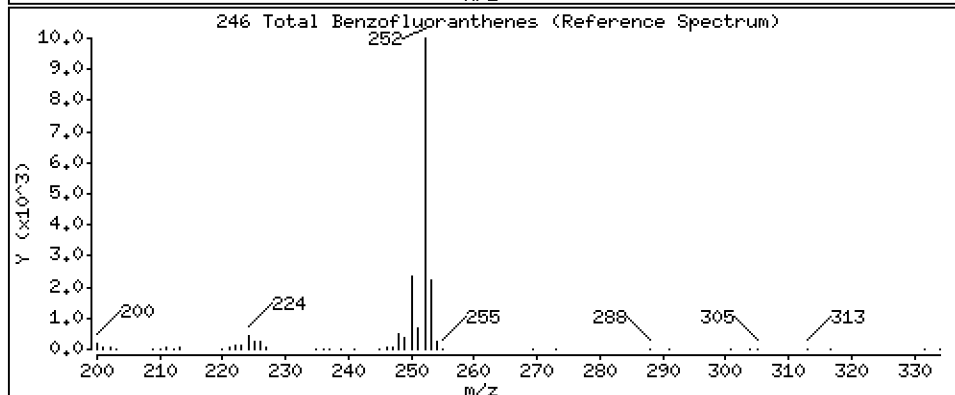
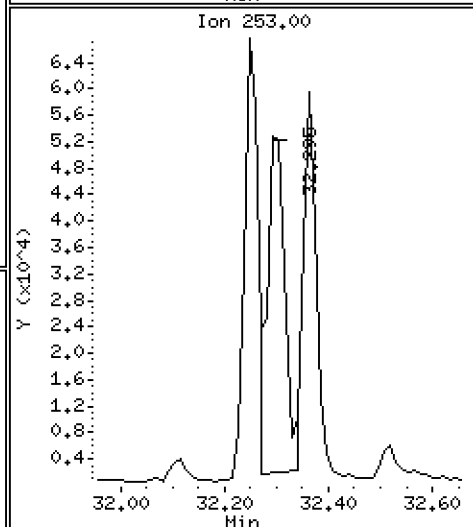
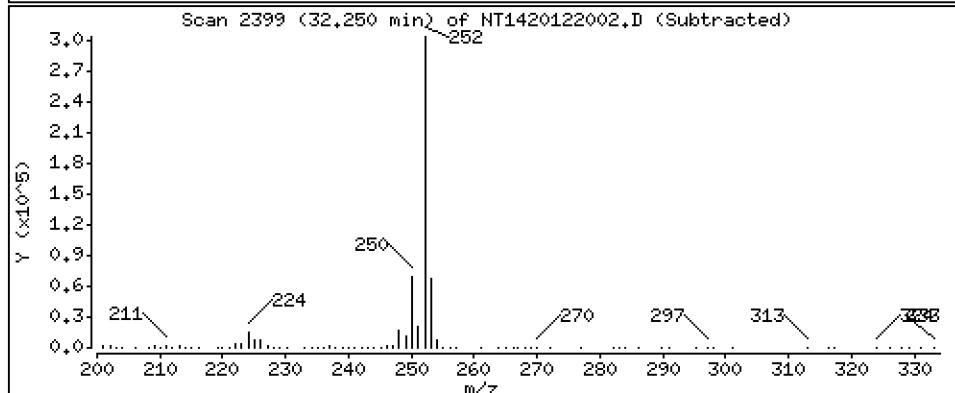
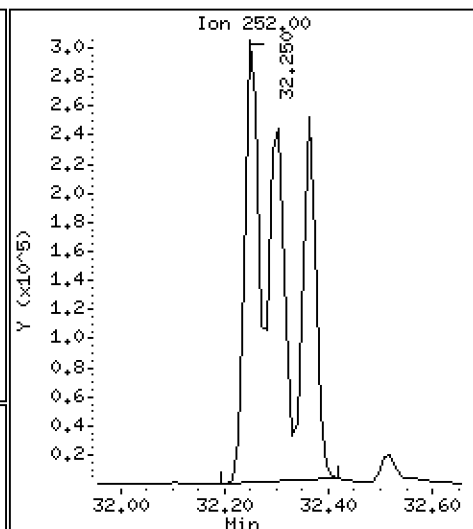
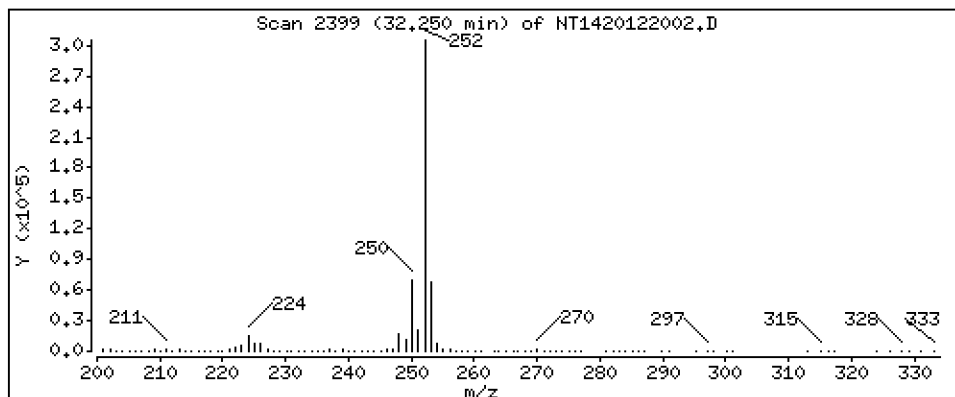
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

246 Total Benzofluoranthenes

Concentration: 9,925 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

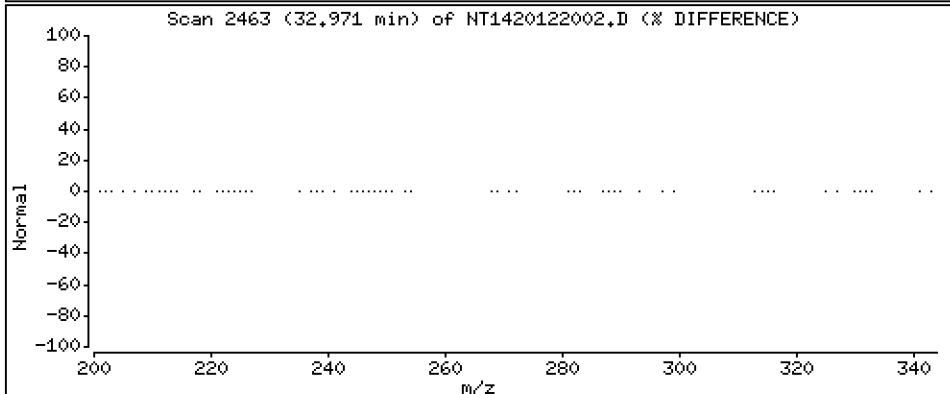
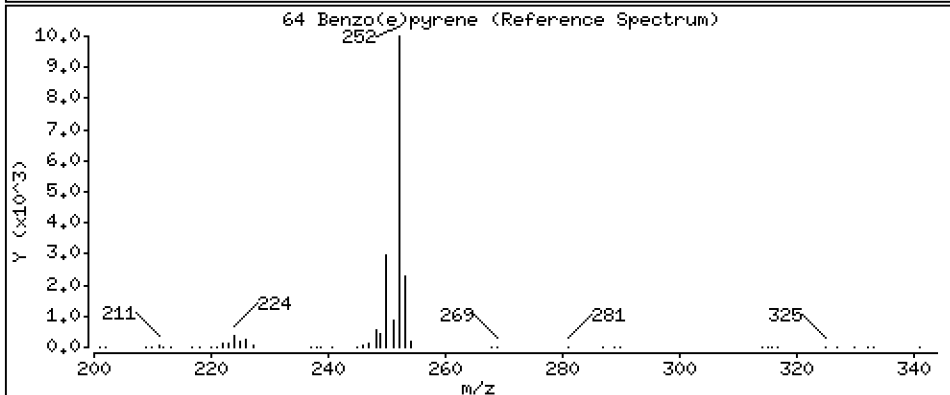
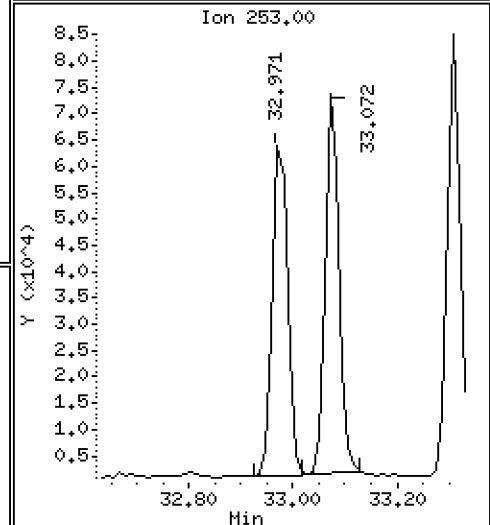
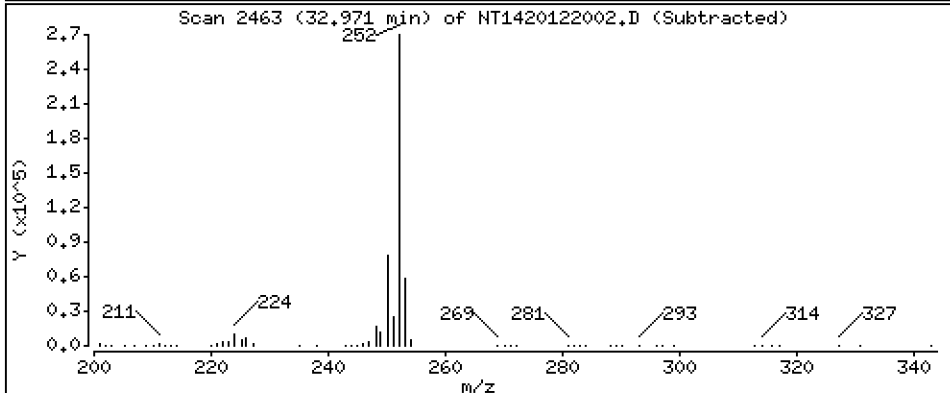
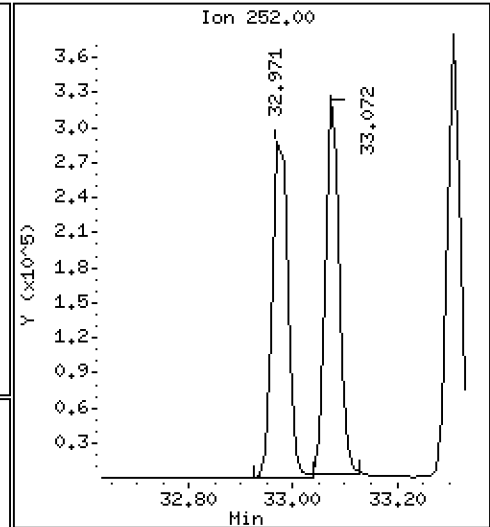
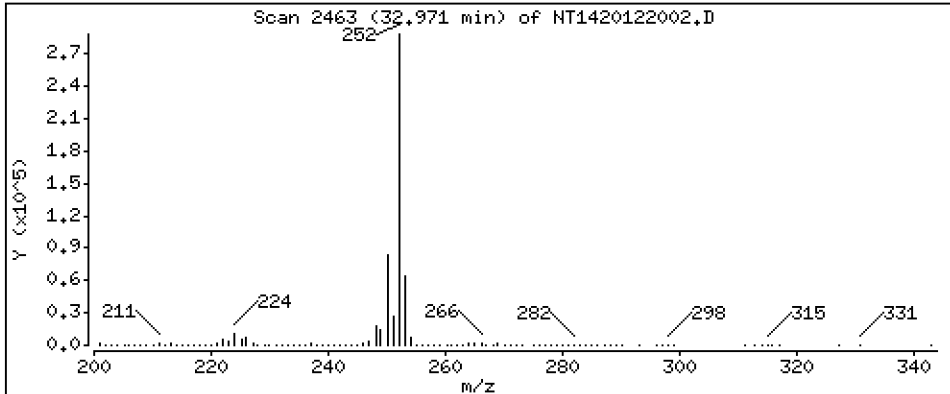
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

64 Benzo(e)pyrene

Concentration: 3,773 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

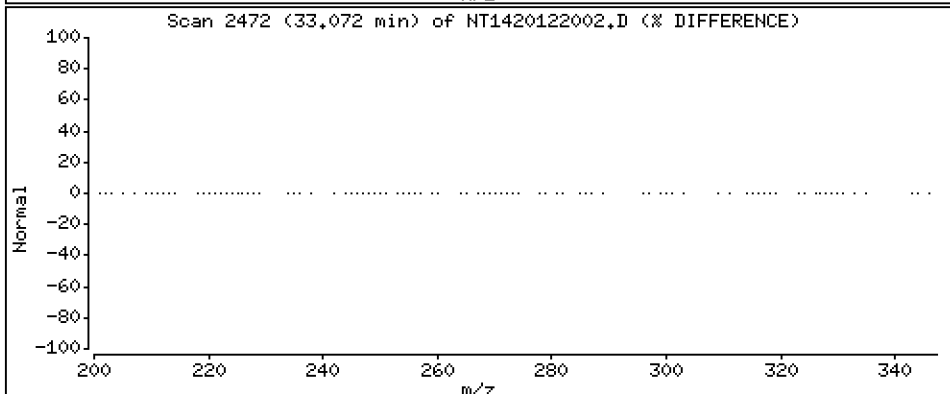
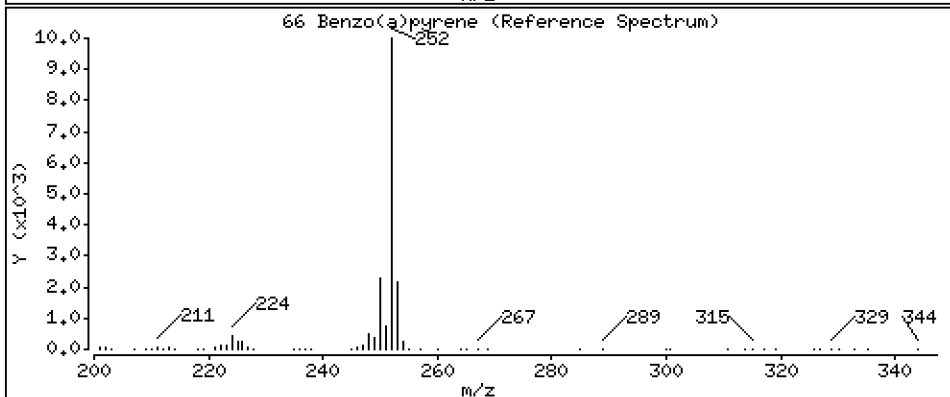
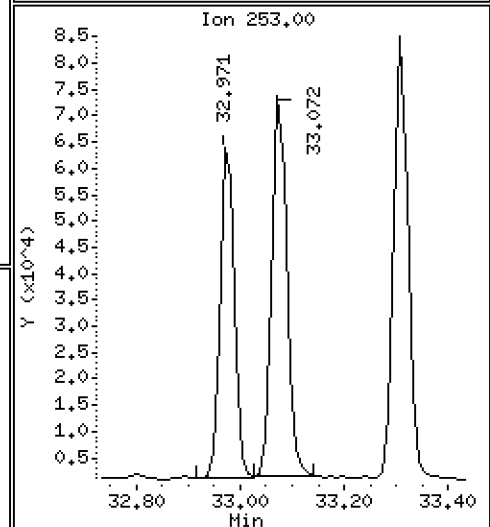
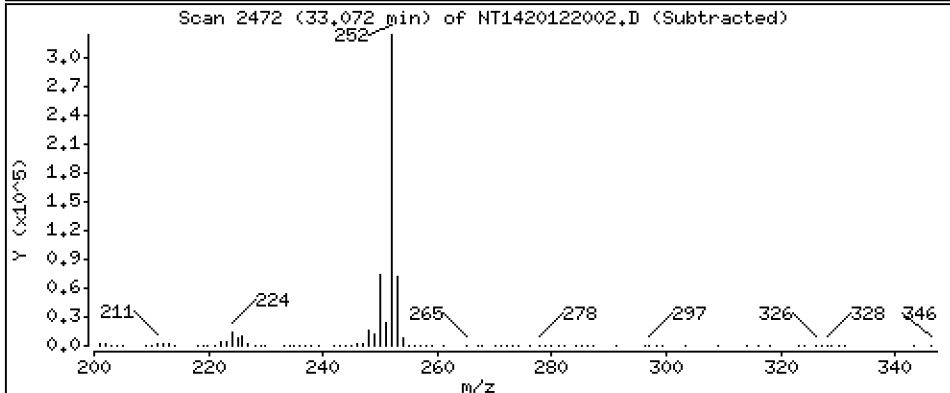
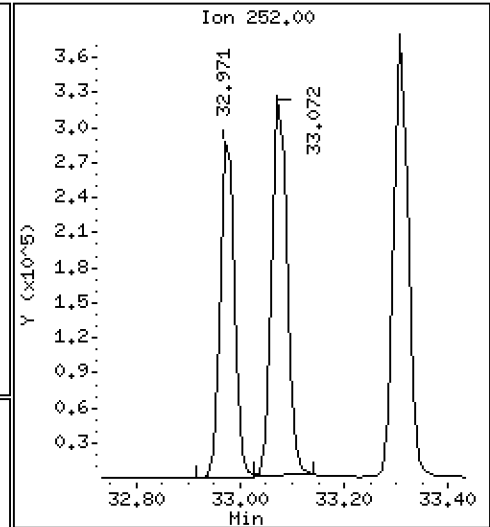
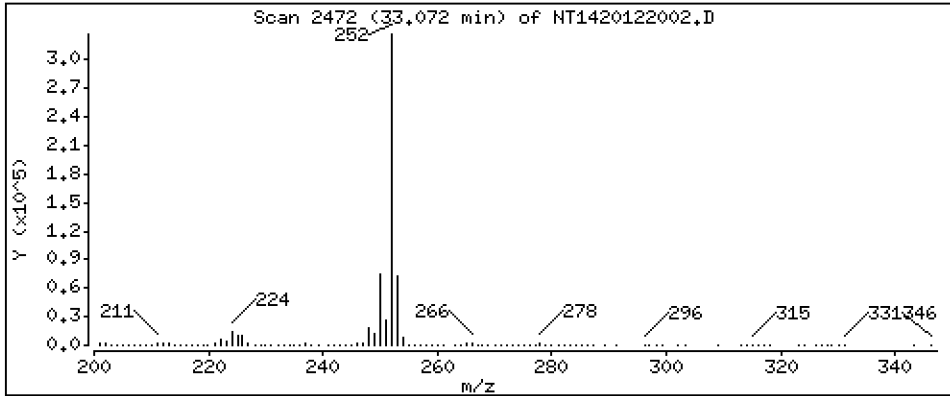
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

66 Benzo(a)pyrene

Concentration: 4,354 ug/mL





Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

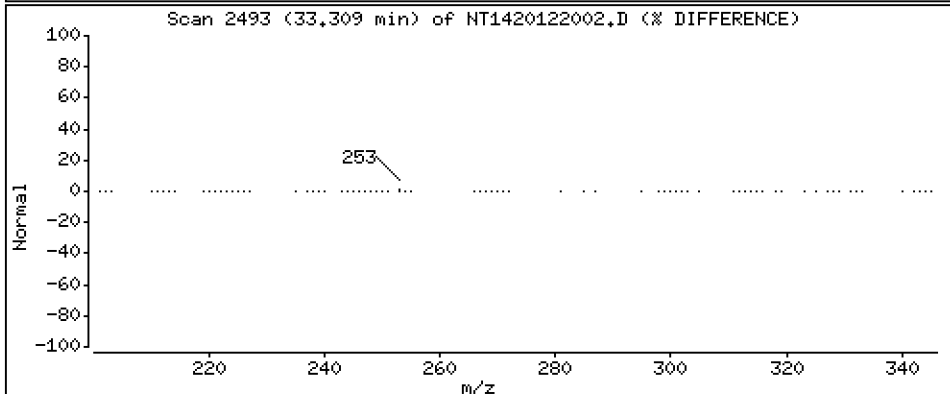
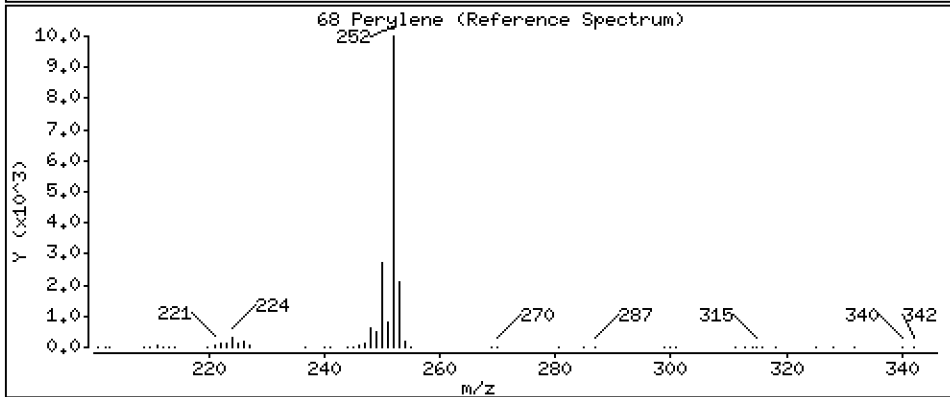
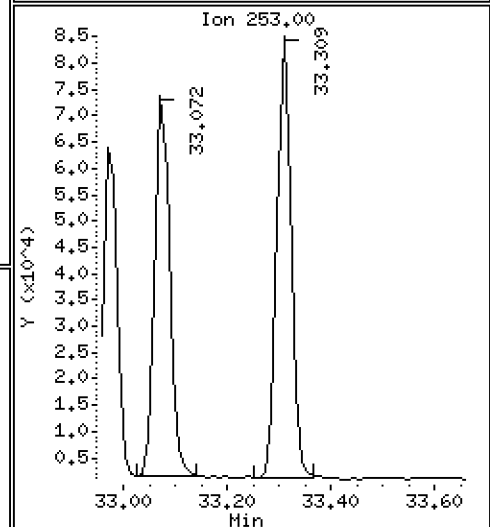
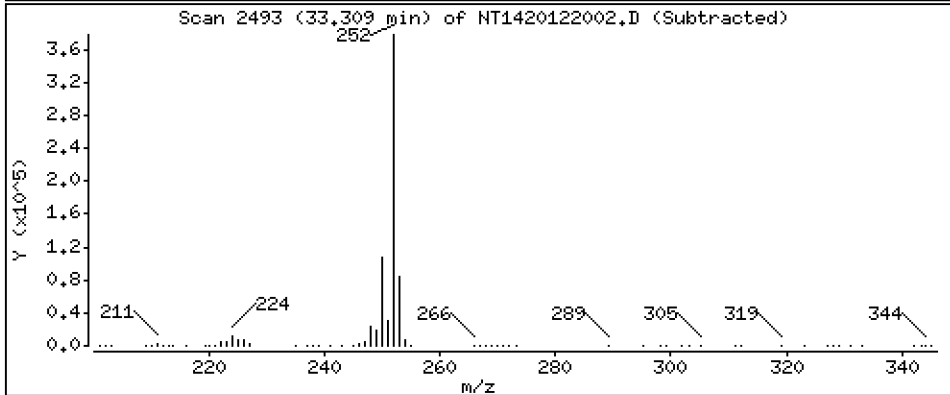
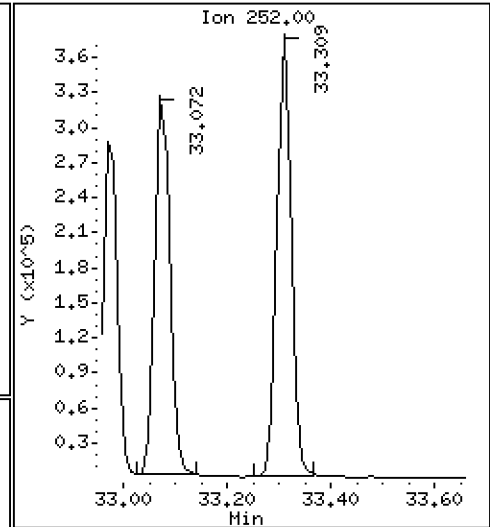
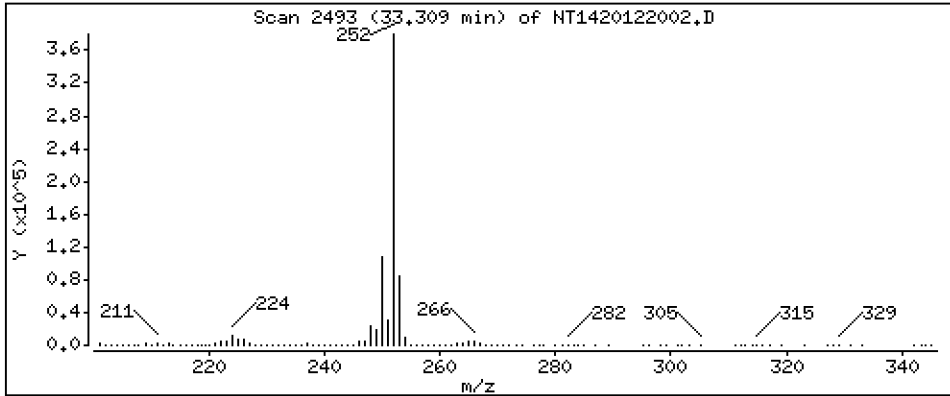
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

68 Perylene

Concentration: 4,588 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

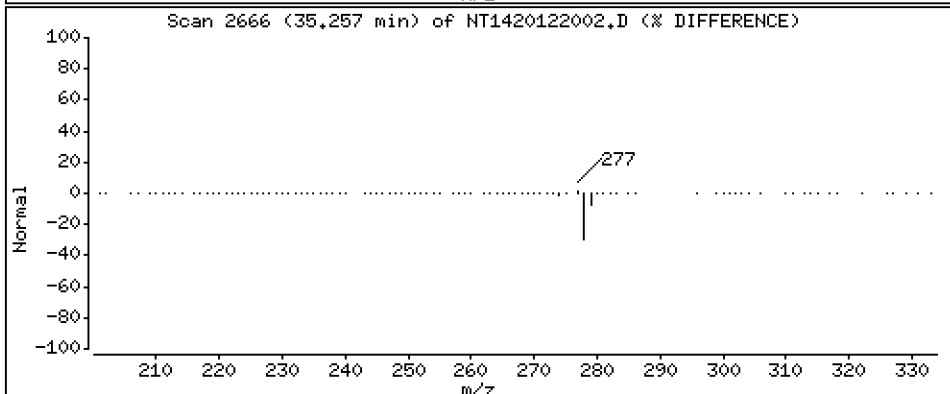
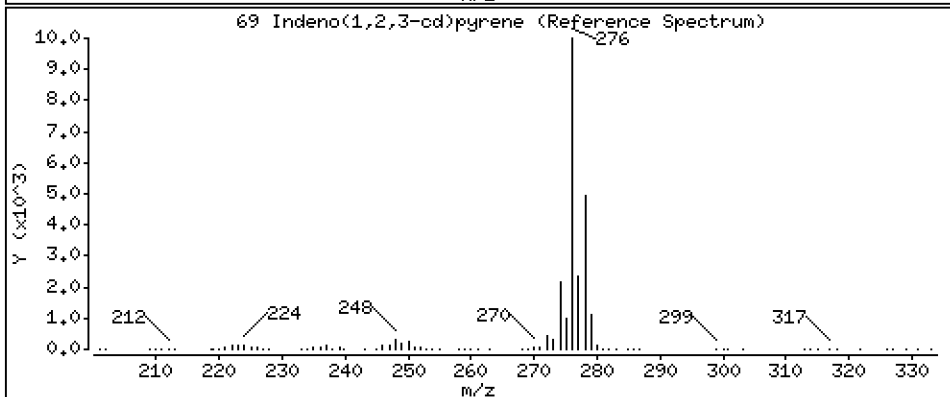
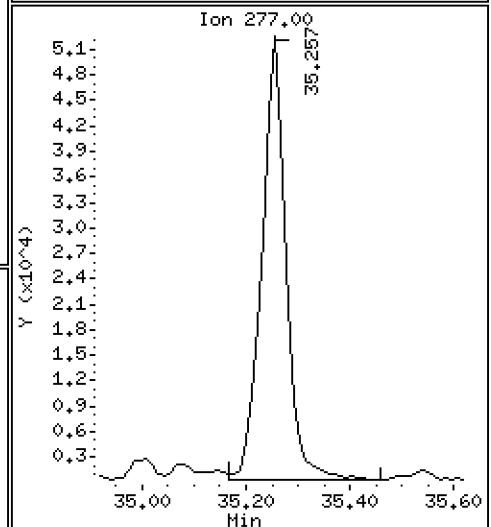
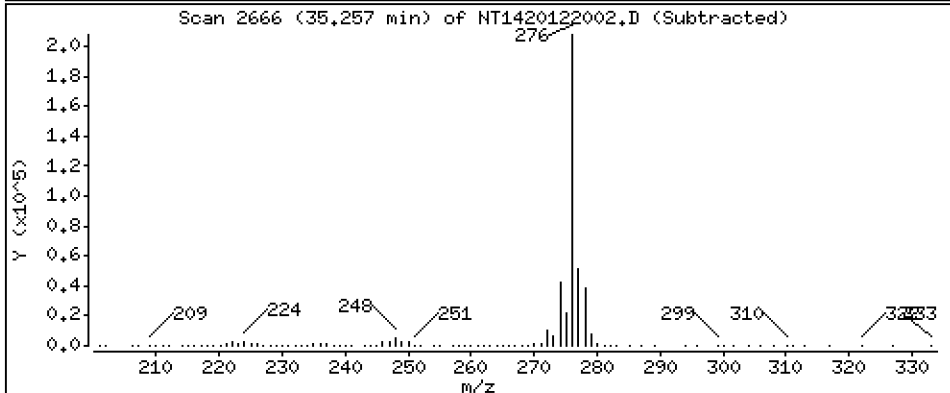
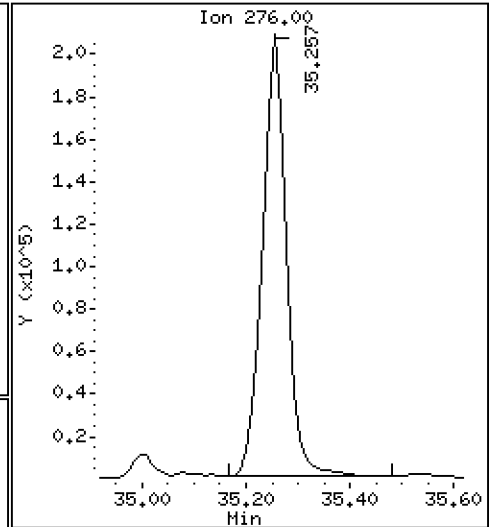
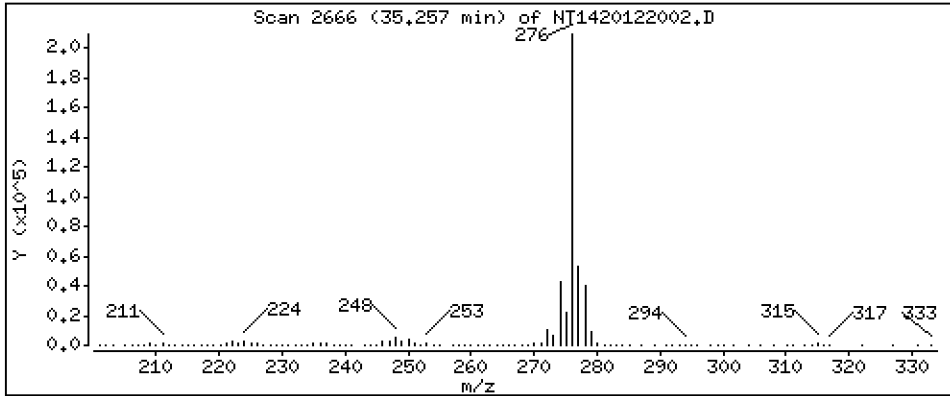
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

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

Concentration: 3,722 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

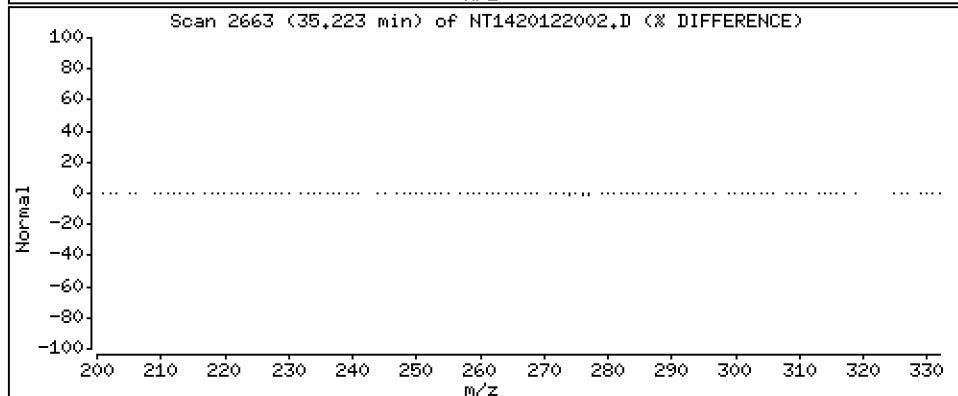
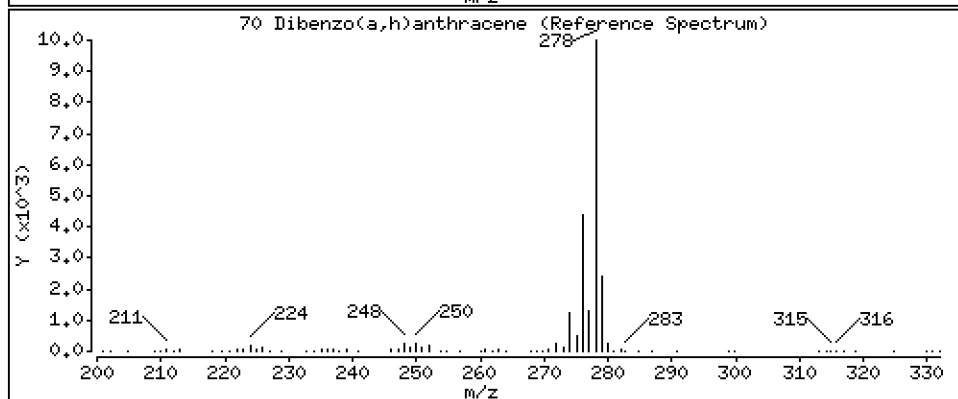
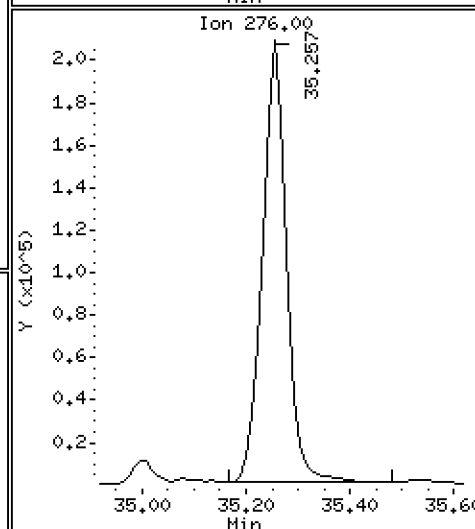
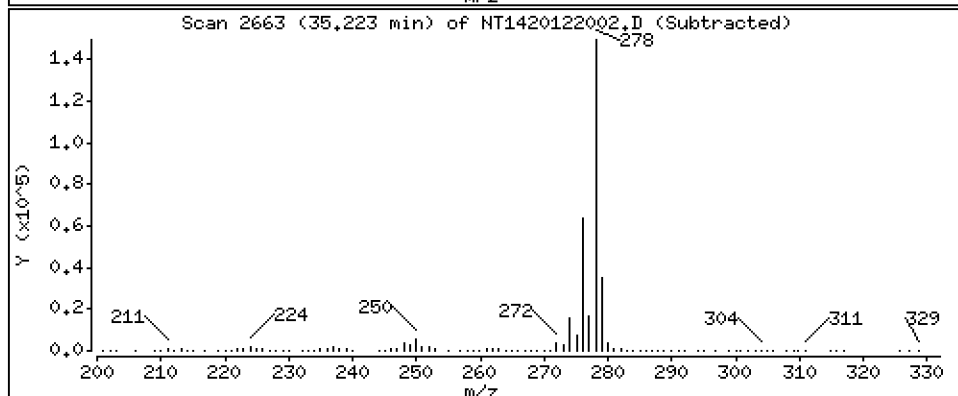
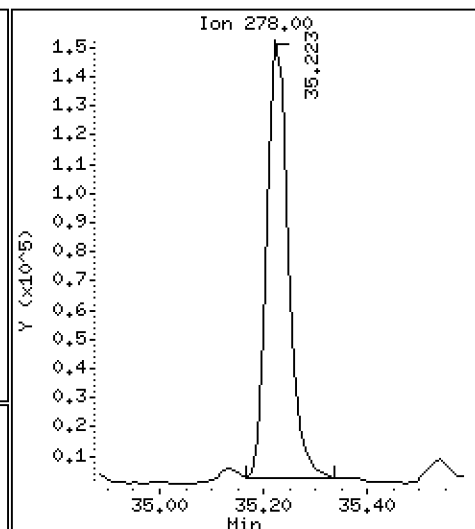
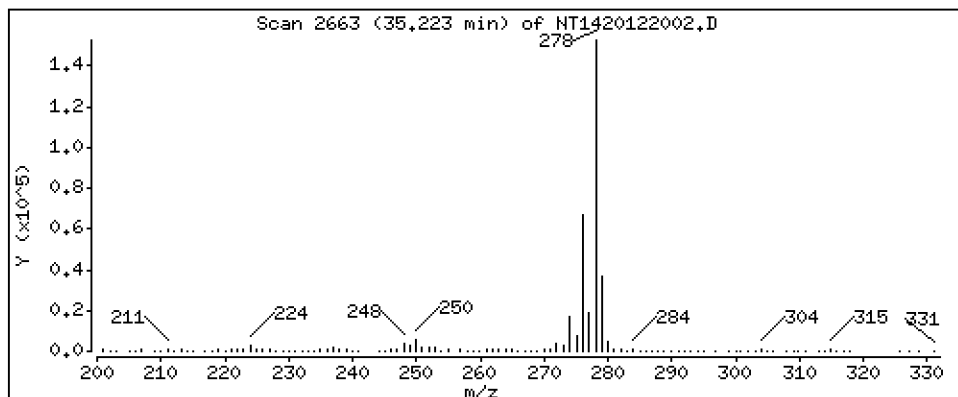
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

70 Dibenzo(a,h)anthracene

Concentration: 2,667 ug/mL



Date : 22-DEC-2020 18:42

Client ID:

Instrument: nt14.i

Sample Info: BIK0745-MSD1

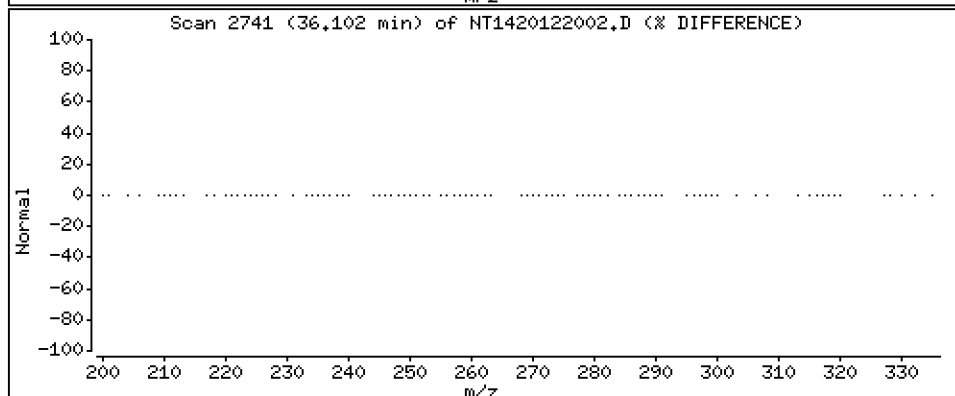
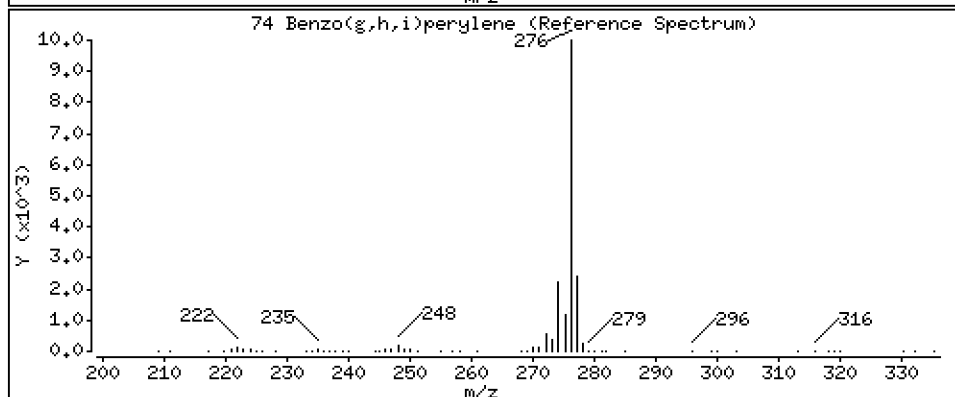
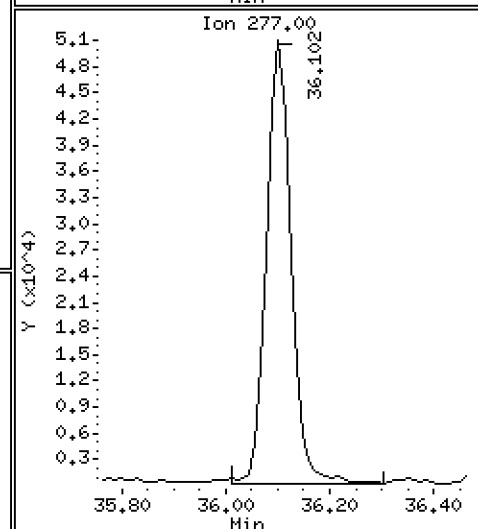
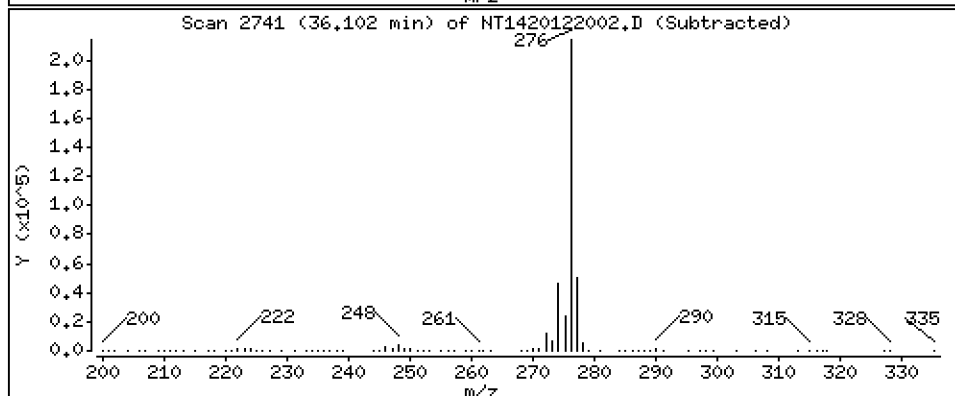
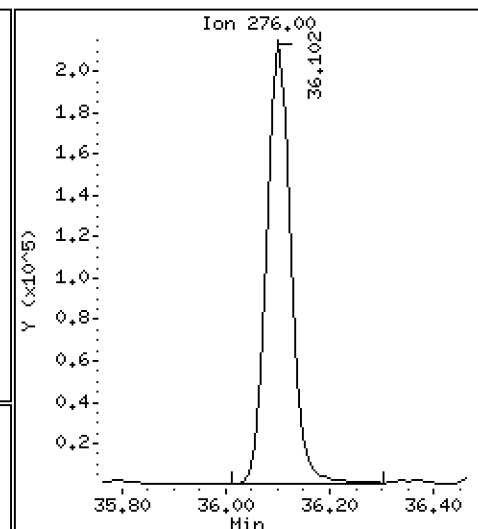
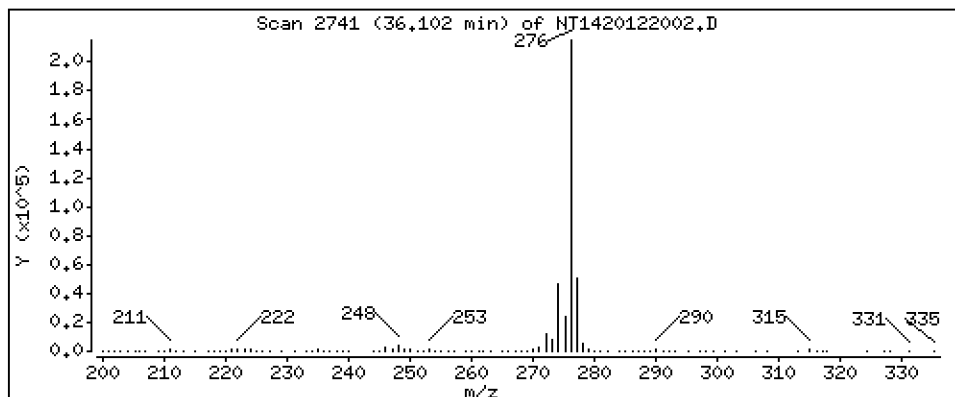
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

74 Benzo(g,h,i)perylene

Concentration: 4,304 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20201219F.b\NT1420122002.D  
 Lab Smp Id: BIK0745-MSD1  
 Inj Date : 22-DEC-2020 18:42  
 Operator : VTS  
 Smp Info : BIK0745-MSD1  
 Misc Info :  
 Comment : 1ul Injection  
 Method : \\target\share\chem3\nt14.i\20201219F.b\ALKYLPNA.m  
 Meth Date : 23-Dec-2020 11:48 van  
 Cal Date : 07-OCT-2020 15:56  
 Als bottle: 88  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 4.14  
 Processing Host: VANS-202011

Inst ID: nt14.i

Quant Type: ISTD  
 Cal File: NT1420100708.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		6.904	6.904	(0.371)	16665	1.54328	1.543
2 cis-Decalin	138		8.003	7.993	(0.430)	13224	1.62750	1.628
\$ 6 Naphthalene-d8	136		11.597	11.608	(0.624)	196812	1.86689	1.867 (R)
7 Naphthalene	128		11.663	11.674	(0.627)	275186	2.60909	2.609
12 Benzo(b)thiophene	134		12.113	12.135	(0.651)	154009	1.73782	1.738
16 2-Methylnaphthalene	141		13.509	13.520	(0.726)	126700	1.97062	1.971
17 1-methylnaphthalene	141		13.949	13.960	(0.750)	119849	1.84042	1.840
18 Biphenyl	154		15.147	15.146	(0.814)	181505	1.87572	1.876
19 2,6-Dimethylnaphthalene	156		15.223	15.234	(0.819)	145355	2.05759	2.058
20 Acenaphthylene	152		16.784	16.795	(0.902)	236353	2.04044	2.040
\$ 21 Acenaphthene-d10	164		17.070	17.070	(0.918)	125520	1.98279	1.983 (R)
22 Acenaphthene	153		17.180	17.191	(0.924)	323725	4.26610	4.266
23 Dibenzofuran	168		17.564	17.575	(0.944)	227832	2.06957	2.070
24 1,6,7-Trimethylnaphthalene	170		17.784	17.795	(0.956)	152825	2.13377	2.134
* 25 Fluorene-d10	176		18.598	18.610	(1.000)	258371	2.00000	
26 Fluorene	166		18.712	18.712	(1.006)	222400	2.59148	2.591
30 Dibenzothiophene	184		21.614	21.626	(1.162)	339134	2.74576	2.746
\$ 35 Phenanthrene-d10	188		21.930	21.930	(0.995)	290817	2.71831	2.718 (R)
36 Phenanthrene	178		22.007	22.018	(0.999)	1303344	10.5363	10.54
* 250 Anthracene-d10	188		22.040	22.051	(1.000)	223369	2.00000	
37 Anthracene	178		22.106	22.117	(1.003)	288802	2.37560	2.376
42 Carbazole	167		23.403	23.403	(1.062)	237913	2.25985	2.260
43 1-Methylphenanthrene	192		23.843	23.843	(1.082)	250355	2.75736	2.757
44 Fluoranthene	202		25.811	25.822	(1.171)	981714	7.19067	7.191
46 Pyrene	202		26.668	26.679	(1.210)	1169602	8.11841	8.118
51 Naphthobenzothiophene	234		29.234	29.245	(1.326)	329279	2.50756	2.508
55 Benzo(a)anthracene	228		29.828	29.828	(0.906)	646682	4.47968	4.480
\$ 56 Chrysene-d12	240		29.952	29.952	(0.910)	251023	2.20173	2.202 (R)
57 Chrysene	228		30.019	30.030	(0.912)	591287	4.12105	4.121
62 Benzo(b)fluoranthene	252		32.249	32.261	(0.980)	575143	3.52855	3.529
63 Benzo(k)fluoranthene	252		32.306	32.306	(0.982)	551536	3.35717	3.357 (M)
293 Benzo(j)fluoranthene	252		32.362	32.362	(0.983)	466099	3.24568	3.246
246 Total Benzofluoranthenes	252		32.249	32.306	(0.980)	1501023	9.92503	9.925 (M)

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264		32.914	32.914	(1.000)	334392	2.00000	
64 Benzo(e)pyrene	252		32.970	32.981	(1.002)	563061	3.77287	3.773
66 Benzo(a)pyrene	252		33.072	33.083	(1.005)	613862	4.35352	4.354
\$ 67 Perylene-d12	264		33.252	33.252	(1.010)	304191	2.19996	2.200 (R)
68 Perylene	252		33.308	33.308	(1.012)	679447	4.58764	4.588
69 Indeno(1,2,3-cd)pyrene	276		35.257	35.268	(1.071)	649830	3.72160	3.722
70 Dibenzo(a,h)anthracene	278		35.223	35.234	(1.070)	411398	2.66681	2.667 (M)
74 Benzo(g,h,i)perylene	276		36.101	36.113	(1.097)	660201	4.30390	4.304

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: 22-DEC-2020  
 Lab File ID: NT1420122002.D Calibration Time: 09:54  
 Lab Smp Id: BIK0745-MSD1  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: VTS  
 Method File: \\target\share\chem3\nt14.i\20201219F.b\ALKYLPNA.m  
 Misc Info:

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	263433	131717	526866	258371	-1.92
250 Anthracene-d10	236791	118396	473582	223369	-5.67
251 Benzo(e)pyrene-d1	338506	169253	677012	334392	-1.22

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.61	18.11	19.11	18.60	-0.06
250 Anthracene-d10	22.05	21.55	22.55	22.04	-0.05
251 Benzo(e)pyrene-d1	32.91	32.41	33.41	32.91	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 - NT1420122002.D

Lab ID: BIK0745-MSD1

nt14.i, 20201219F.b\ALKYLPNA.m, 22-DEC-2020 18:42

RT CO-ELUTION COMPOUNDS

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NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1420121991ICV.D

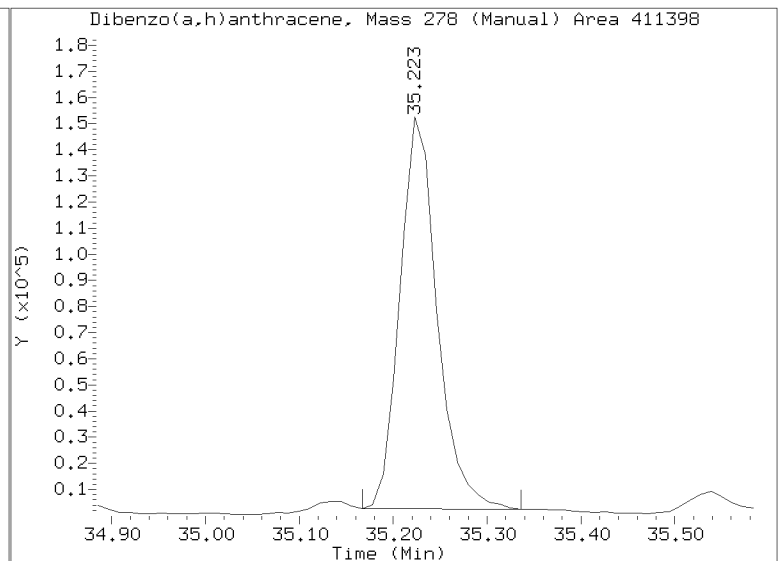
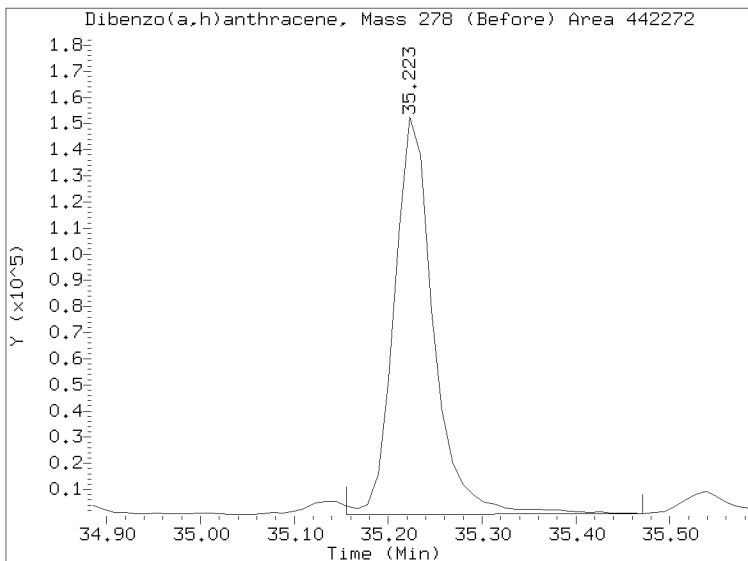
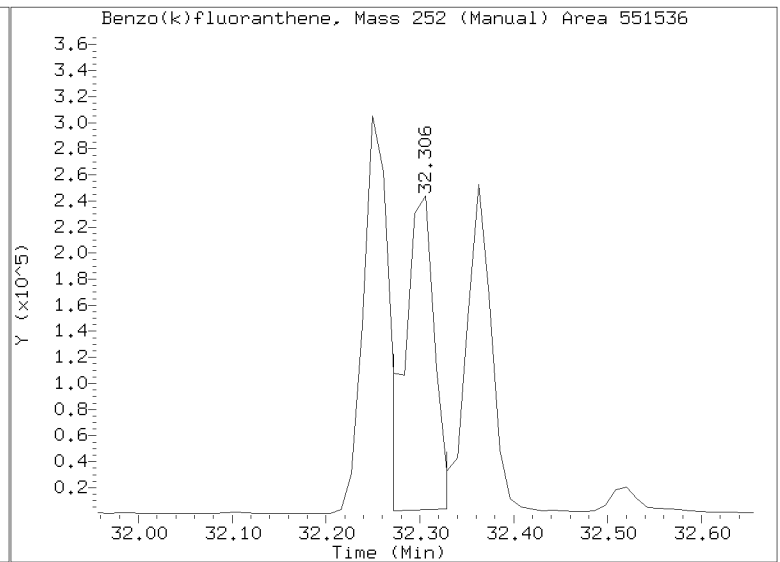
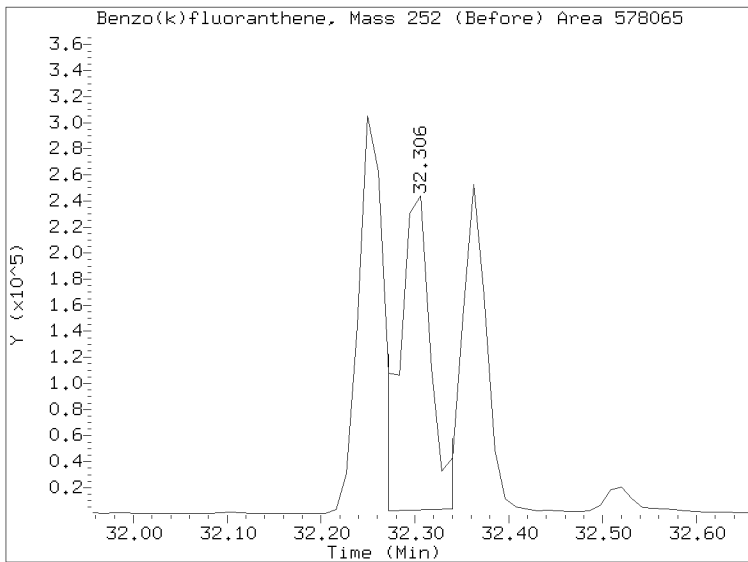
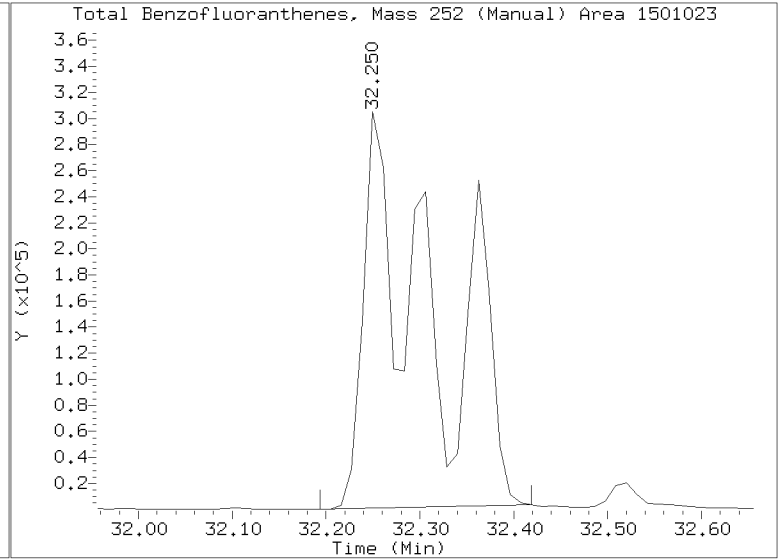
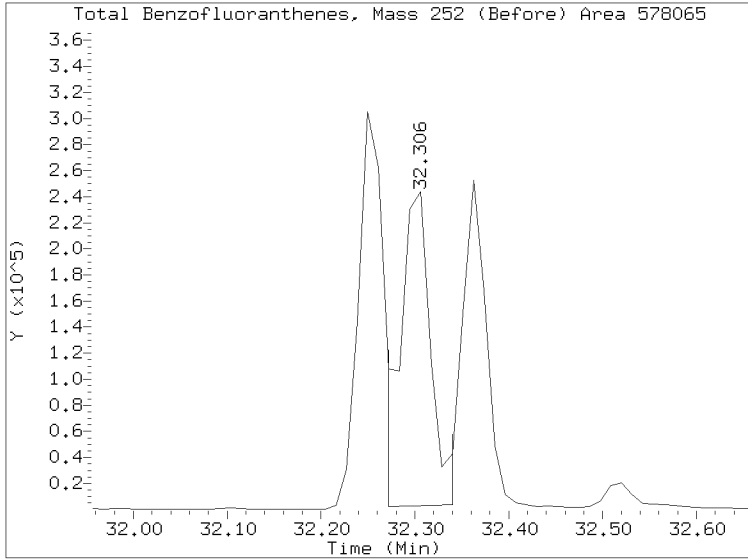
On Column LOD for nt14.i, 20201219F.b\ALKYLPNA.m, TARGETS.sub = 0.0000

\* 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/20201219F.b/NT1420122002.D  
Injection Date: 22-DEC-2020 18:42  
Lab ID:BIK0745-MSD1 Client ID:  
Report Date: 12/29/2020 13:46





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

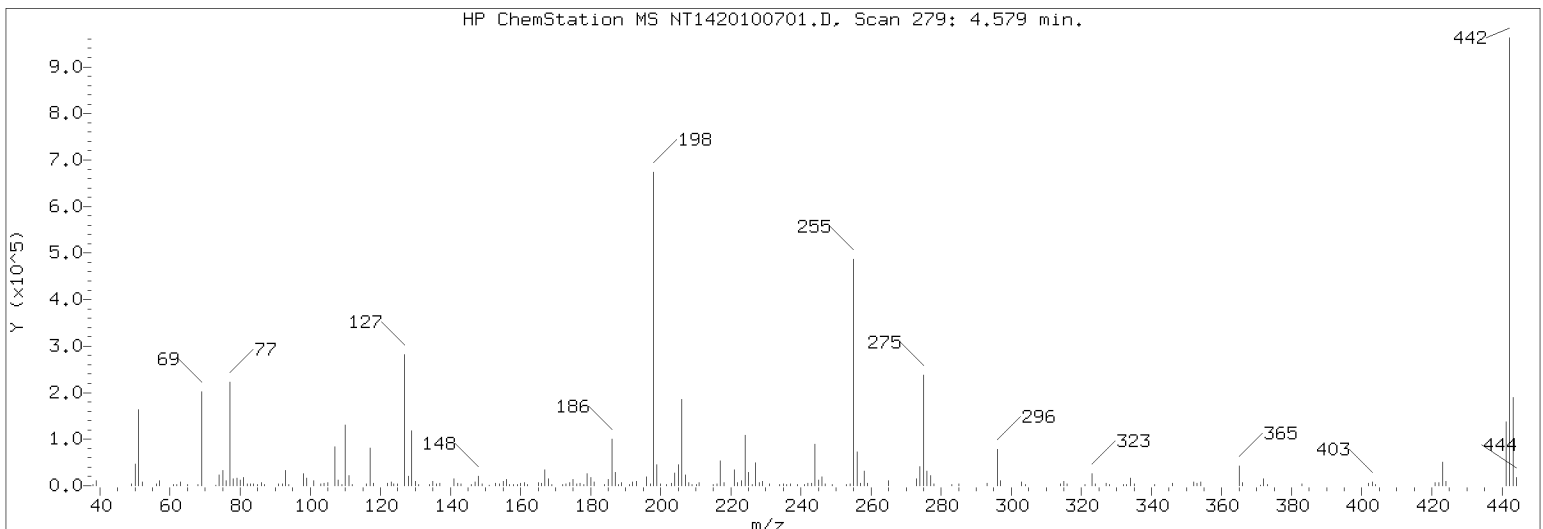
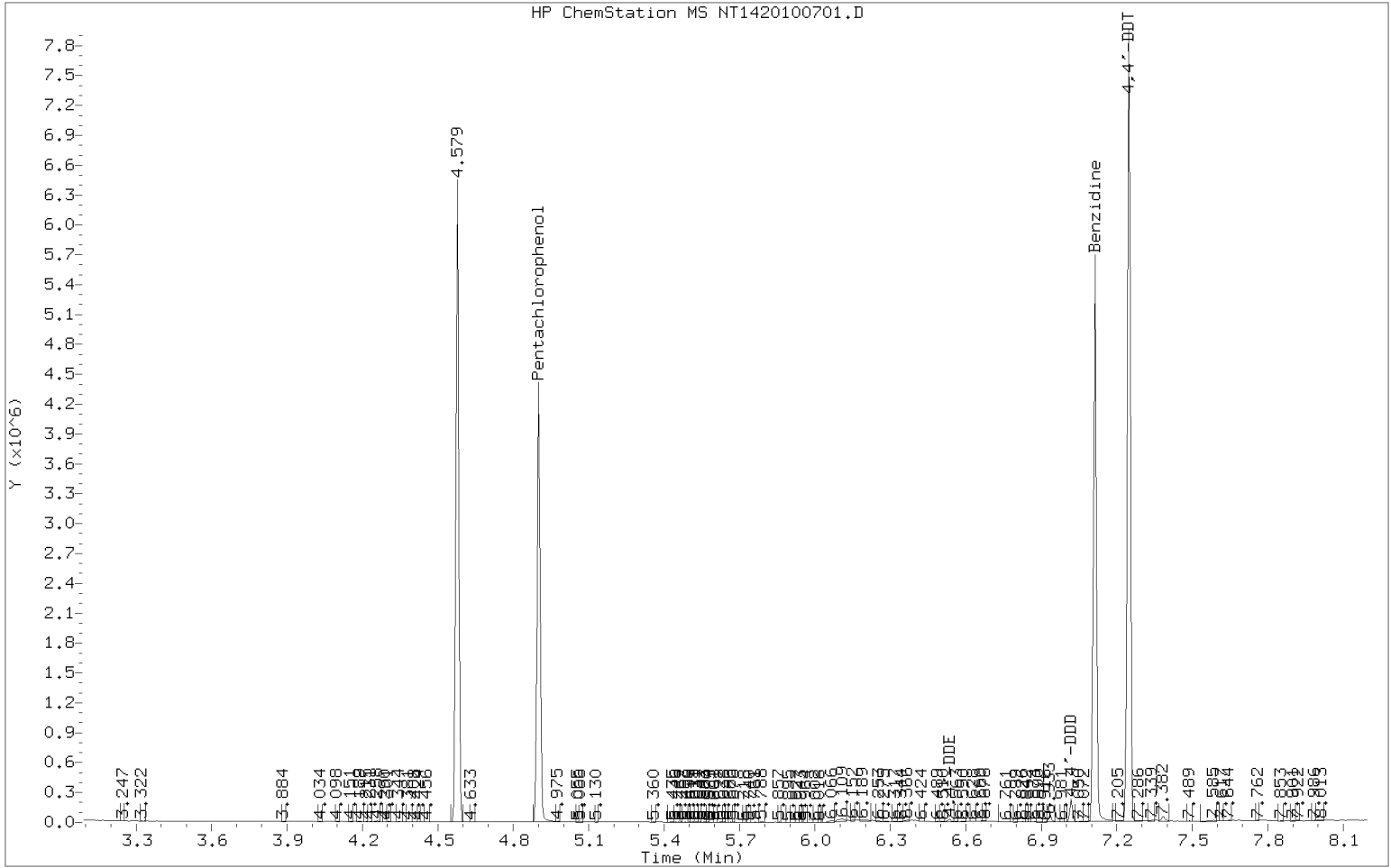
Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>20K0204</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic</u>
Lab File ID:	<u>NT1420100701.D</u>	Injection Date:	<u>10/07/20</u>
Instrument ID:	<u>NT14</u>	Injection Time:	<u>10:11</u>
Sequence:	<u>SIJ0085</u>	Lab Sample ID:	<u>SIJ0085-TUN1</u>

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
68	Less than 2% of 69	1.44	PASS
69	Less than 100% of 198	31.9	PASS
70	Less than 2% of 69	0	PASS
197	Less than 2% of 198	0.461	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.65	PASS
365	1 - 100% of 198	6.47	PASS
441	Less than 150% of 443	73.3	PASS
442	1 - 200% of 198	141	PASS
443	15 - 24% of 442	19.5	PASS
4,4'-DDD	Less than 20% of 4,4'-DDT		
4,4'-DDE	Less than 20% of		
4,4'-DDT	Base peak, 100% relative abundance		

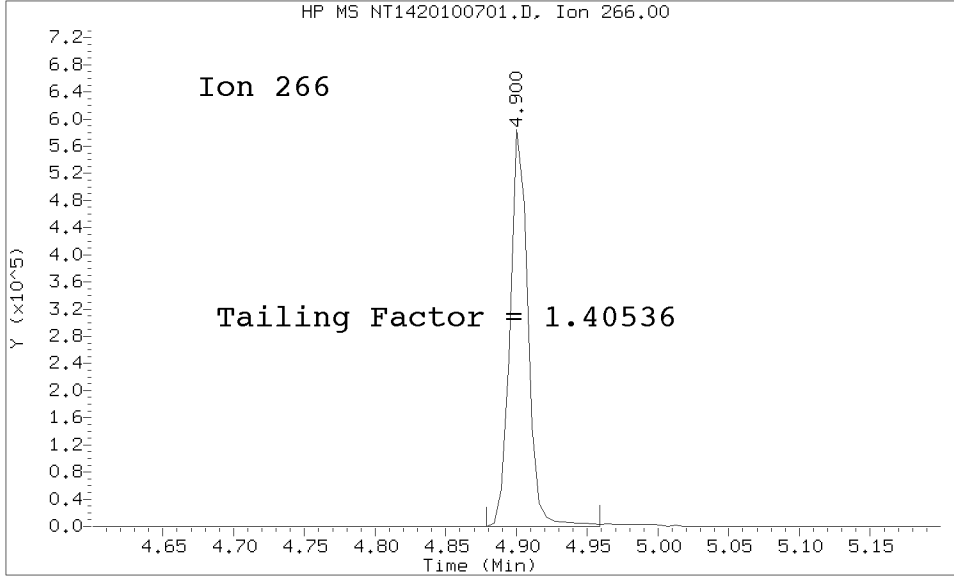
Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SIJ0085-TUN1	NT1420100701.D	10/07/2020	10:11
Cal Standard	SIJ0085-CAL4	NT1420100702.D	10/07/2020	10:24
Cal Standard	SIJ0085-CAL6	NT1420100703.D	10/07/2020	11:48
Cal Standard	SIJ0085-CAL1	NT1420100704.D	10/07/2020	12:38
Cal Standard	SIJ0085-CAL5	NT1420100705.D	10/07/2020	13:26
Cal Standard	SIJ0085-CAL2	NT1420100706.D	10/07/2020	14:17
Cal Standard	SIJ0085-CAL3	NT1420100707.D	10/07/2020	15:08
Secondary Cal Check	SIJ0085-SCV1	NT1420100709.D	10/07/2020	16:45
Initial Cal Blank	SIJ0085-ICB1	NT1420100710.D	10/07/2020	17:33
Initial Cal Check	SIJ0085-ICV1	NT1420100711.D	10/07/2020	18:22
Instrument Blank	SIJ0085-IBL1	NT1420100712.D	10/07/2020	19:11
ZZZZZ	20I0231-01RE1	NT1420100713.D	10/07/2020	19:59
ZZZZZ	20I0231-02RE1	NT1420100714.D	10/07/2020	20:48
ZZZZZ	20I0231-03RE1	NT1420100715.D	10/07/2020	21:36
ZZZZZ	20I0231-05RE1	NT1420100717.D	10/07/2020	23:13
ZZZZZ	20I0231-07RE1	NT1420100719.D	10/08/2020	0:49
ZZZZZ	20I0231-08RE1	NT1420100720.D	10/08/2020	1:38
ZZZZZ	20I0231-09RE1	NT1420100721.D	10/08/2020	2:26
ZZZZZ	20I0231-10RE1	NT1420100722.D	10/08/2020	3:14
ZZZZZ	20I0231-11RE1	NT1420100723.D	10/08/2020	4:03
Calibration Check	SIJ0085-CCV1	NT1420100724.D	10/08/2020	4:51

# DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20201007.b/NT1420100701.D/NT1420100701.D  
Method Used: \20201007.b\DFTPP8270E.m Inst: nt14  
Injection Date: 07-OCT-2020 10:11 Operator: VTS  
Sample Info: SIJ0085-TUN1 SIJ0085-TUN1  
Report Date: 10/09/2020 08:53



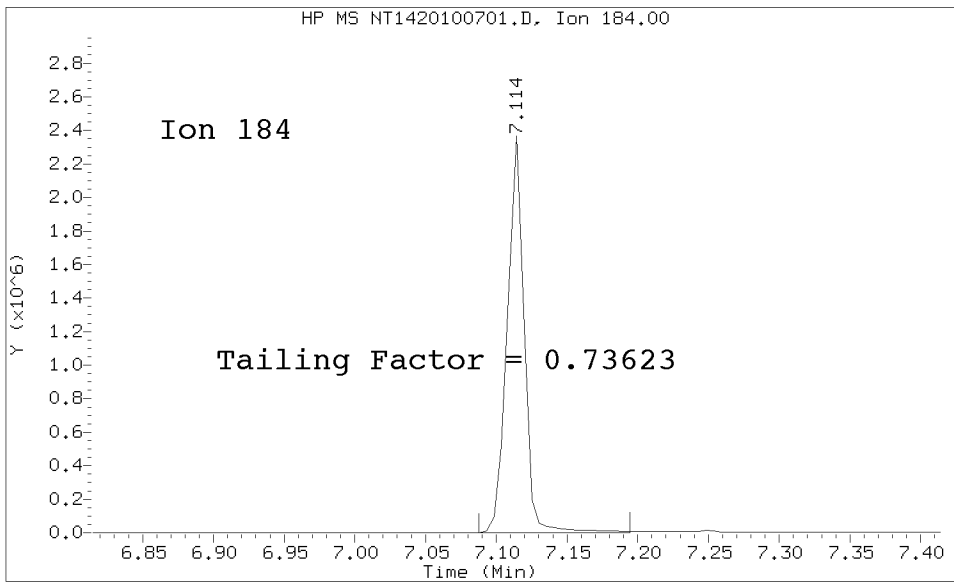
Datafile Analyzed: /20201007.b/NT1420100701.D/NT1420100701.D  
Method Used: \20201007.b\DFTPP8270E.m\sw846ddt.m Inst: nt14  
Injection Date: 07-OCT-2020 10:11 Operator: JZ  
Sample Info: SIJ0XXX-TUN1  
Report Date: 10/09/2020 08:53



Pentachlorophenol

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

Tail Factor = 1.405 Maximum Allowed = 2.0



Benzidine

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

Tail Factor = 0.736 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.4053628	2.000	PASS
Benzidine	0.7362251	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1276129			N/A
4,4-DDE	4051	0.3	20.0	PASS
4,4-DDD	44055	3.3	20.0	PASS
4,4-DDD + DDE	48106	3.6	20.0	PASS

Tuning Sample, nt14.i/20201007.b/NT1420100701.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	0.46 ( 1.44)
69	Mass 69 relative abundance	31.94
70	Less than 2.00% of mass 69	0.00 ( 0.00)
197	Less than 2.00% of mass 198	0.46
199	5.00 - 9.00% of mass 198	6.65
365	1.00 - 100.00% of mass 198	6.47
441	Less than 150.00% of mass 443	20.20 ( 73.33)
442	Less than 200.00% of mass 198	140.95
443	15.00 - 24.00% of mass 442	27.55 ( 19.55)

Data File: NT1420100701.D  
 Spectrum: Avg. Scans 278-280 ( 4.58), Background Scan 272  
 Location of Maximum: 442.00  
 Number of points: 201

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	1611	124.00	2560	192.00	6276	265.00	8748
39.00	9098	125.00	2264	193.00	7013	273.00	11379
49.00	1311	127.00	207552	196.00	13832	274.00	29256
50.00	36736	128.00	15932	197.00	2232	275.00	165312
51.00	126848	129.00	87728	198.00	484288	276.00	22296
52.00	6325	130.00	7692	199.00	32224	277.00	15785
56.00	3265	131.00	771	200.00	2133	278.00	2083
57.00	8731	134.00	2232	201.00	1677	283.00	874
61.00	700	135.00	7259	203.00	3939	285.00	2151
62.00	1786	136.00	2444	204.00	19424	293.00	3634
63.00	5960	137.00	3313	205.00	33120	296.00	57720
65.00	2324	141.00	12142	206.00	132480	297.00	7735
68.00	2223	142.00	3147	207.00	17392	303.00	6179
69.00	154688	143.00	2464	208.00	4908	304.00	859
73.00	681	146.00	1704	209.00	788	314.00	2768
74.00	17208	147.00	6505	210.00	1771	315.00	6881
75.00	25608	148.00	15223	211.00	4926	316.00	3382
76.00	8556	149.00	2441	215.00	735	321.00	838
77.00	170112	151.00	682	216.00	2464	323.00	17976
78.00	11515	153.00	3408	217.00	37960	324.00	3192
79.00	13007	154.00	2639	218.00	4860	327.00	3669
80.00	9780	155.00	7087	221.00	23352	328.00	869
81.00	13272	156.00	10365	222.00	5324	332.00	731
82.00	3125	157.00	1486	223.00	8424	333.00	733
83.00	2765	158.00	1763	224.00	78312	334.00	11934
84.00	662	159.00	1503	225.00	19896	335.00	3109
85.00	2045	160.00	4069	226.00	1790	341.00	908
86.00	5760	161.00	5581	227.00	35384	346.00	4456
87.00	1727	162.00	729	228.00	5126	352.00	5824
91.00	2838	165.00	4905	229.00	7313	353.00	3740
92.00	2840	166.00	3054	231.00	2278	354.00	5874
93.00	24904	167.00	25360	234.00	1819	365.00	31344
94.00	1429	168.00	11411	235.00	2079	366.00	4724
98.00	19440	169.00	1727	236.00	1466	371.00	678
99.00	13142	172.00	1787	237.00	2042	372.00	10553
101.00	7647	173.00	2530	239.00	719	373.00	1846
103.00	2165	174.00	5454	241.00	989	383.00	2091
104.00	4836	175.00	9785	242.00	4264	402.00	4064
105.00	4897	176.00	2246	243.00	4691	403.00	5510
106.00	697	177.00	4153	244.00	63136	404.00	1571
107.00	63464	178.00	745	245.00	8415	421.00	5059
108.00	9088	179.00	19048	246.00	14109	422.00	4905
109.00	1552	180.00	13423	247.00	2271	423.00	36056
110.00	98656	181.00	6161	249.00	1833	424.00	6636
111.00	16440	184.00	1429	253.00	750	441.00	97848
112.00	1866	185.00	10069	254.00	1955	442.00	682624
116.00	3130	186.00	71968	255.00	344640	443.00	133440
117.00	62280	187.00	20688	256.00	51192	444.00	12305
118.00	4682	188.00	1797	257.00	4076		

122.00	3721	189.00	4659	258.00	22792	
123.00	6613	191.00	1774	259.00	3624	







**INITIAL CALIBRATION DATA**  
**EPA 8270E-SIM**

Laboratory:	Analytical Resources, Inc.	SDG:	20K0204
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic
Calibration:	DI00041	Instrument:	NT14
Calibration Date:	09/08/2020	Column (1):	ZB-5MS

<b>COMPOUND</b>	<b>Mean RRF</b>	<b>RRF RSD</b>	<b>Linear COD</b>	<b>Quad COD</b>	<b>Limit Type &amp; Limit</b>	<b>Q</b>
Fluorene-d10		0.0			RSD (15)	
Anthracene-d10		0.0			RSD (15)	
Benzo(e)pyrene-d12		0.0			RSD (15)	



## INITIAL CALIBRATION DATA EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	20K0204
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic
Calibration:	DJ00029	Instrument:	NT14
Calibration Date:	10/07/2020	Column (1):	ZB-5MS

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RRF		RRF		RRF		RRF		RRF		RRF
trans-Decalin	0.1	6.976352E-02	0.25	8.246819E-02	0.5	8.208264E-02	2.5	0.0905733	5	9.006825E-02	10	8.657641E-02
cis-Decalin	0.1	5.200388E-02	0.25	5.837224E-02	0.5	6.613032E-02	2.5	6.875174E-02	5	6.640687E-02	10	6.571472E-02
Naphthalene	0.1	0.8325175	0.25	0.8114621	0.5	0.8422866	2.5	0.8242143	5	0.8148906	10	0.7732564
1-Methylnaphthalene	0.1	0.6990924	0.25	0.4788062	0.5	0.5036957	2.5	0.4942755	5	0.4916775	10	0.4684431
2-Methylnaphthalene	0.1	0.5179441	0.25	0.4655131	0.5	0.4882775	2.5	0.5121687	5	0.5128088	10	0.4894388
Biphenyl	0.1	0.7928998	0.25	0.7238304	0.5	0.7101733	2.5	0.7618376	5	0.764252	10	0.7412584
2,6-Dimethylnaphthalene	0.1	0.4989094	0.25	0.5556715	0.5	0.5636366	2.5	0.5682649	5	0.5587205	10	0.5358131
Acenaphthylene	0.1	0.9061061	0.25	0.8194818	0.5	0.8682598	2.5	0.94102	5	0.9235384	10	0.9215043
Acenaphthene	0.1	0.5895291	0.25	0.5749336	0.5	0.5757759	2.5	0.6021717	5	0.5983592	10	0.5836133
Dibenzofuran	0.1	0.857381	0.25	0.807031	0.5	0.8475917	2.5	0.8747488	5	0.8764949	10	0.8497103
2,3,5-Trimethylnaphthalene	0.1	0.5357037	0.25	0.5274009	0.5	0.5356003	2.5	0.5864214	5	0.5794769	10	0.5618775
Fluorene	0.1	0.6498208	0.25	0.644182	0.5	0.6513192	2.5	0.6915334	5	0.6880851	10	0.6609462
Benzo(b)thiophene	0.1	0.7488194	0.25	0.6836583	0.5	0.662261	2.5	0.6794853	5	0.6784908	10	0.6633111
Phenanthrene	0.1	1.173055	0.25	1.07415	0.5	1.123848	2.5	1.110139	5	1.114972	10	1.049329
Anthracene	0.1	1.246465	0.25	1.015759	0.5	1.046029	2.5	1.095193	5	1.0743	10	1.053339
Carbazole	0.1	0.9762922	0.25	0.8894007	0.5	0.9172786	2.5	0.9782606	5	0.9575252	10	0.9370706
1-Methylphenanthrene	0.1	0.7671942	0.25	0.760173	0.5	0.8136276	2.5	0.8519242	5	0.8633208	10	0.8215277
Fluoranthene	0.1	1.236035	0.25	1.121025	0.5	1.171809	2.5	1.279513	5	1.275712	10	1.250461
Dibenzothiophene	0.1	0.953192	0.25	0.9294516	0.5	0.9303191	2.5	0.9792702	5	0.984566	10	0.959691
Pyrene	0.1	1.331408	0.25	1.224148	0.5	1.213994	2.5	1.319611	5	1.329759	10	1.320801
Benzo(a)anthracene	0.1	0.8763347	0.25	0.7894445	0.5	0.7975884	2.5	0.9040921	5	0.9066241	10	0.9063876
Chrysene	0.1	0.8622567	0.25	0.8443263	0.5	0.8248472	2.5	0.8685951	5	0.8754086	10	0.8734866
Benzo(b)fluoranthene	0.1	0.9419617	0.25	0.867628	0.5	0.951131	2.5	1.028511	5	1.010929	10	1.049157
Benzo(j)fluoranthene	0.1	0.9039303	0.25	0.8109345	0.5	0.8021528	2.5	0.9013495	5	0.8522586	10	0.8828252
Benzo(k)fluoranthene	0.1	1.086033	0.25	0.9947285	0.5	0.8722978	2.5	0.9234414	5	1.030431	10	0.9886371
Benzofluoranthenes, Total	0.3	0.914016	0.75	0.8317556	1.5	0.847698	7.5	0.930595	15	0.9480758	30	0.9551231
Benzo(e)pyrene	0.1	0.8787861	0.25	0.8599351	0.5	0.8449394	2.5	0.9075786	5	0.9331093	10	0.9312596
Benzo(a)pyrene	0.1	0.8301786	0.25	0.7592582	0.5	0.7853596	2.5	0.8836344	5	0.8918164	10	0.909816



**INITIAL CALIBRATION DATA**  
**EPA 8270E-SIM**

Laboratory:	Analytical Resources, Inc.	SDG:	20K0204
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic
Calibration:	DJ00029	Instrument:	NT14
Calibration Date:	10/07/2020	Column (1):	ZB-5MS

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RRF		RRF		RRF		RRF		RRF		RRF
Indeno(1,2,3-cd)pyrene	0.1	1.037286	0.25	0.9482086	0.5	0.9597054	2.5	1.068531	5	1.122973	10	1.129377
Dibenzo(a,h)anthracene	0.1	0.8834087	0.25	0.8489253	0.5	0.8204818	2.5	0.9733234	5	0.9833202	10	1.026537
Benzo(g,h,i)perylene	0.1	0.9348177	0.25	0.8295815	0.5	0.8801328	2.5	0.9468803	5	0.956302	10	0.9570557
Perylene	0.1	0.9198292	0.25	0.793068	0.5	0.829625	2.5	0.9288907	5	0.926447	10	0.9170021
Benzo(b)naphtho(2,1-d)thiophene	0.1	1.141164	0.25	1.13533	0.5	1.132635	2.5	1.220138	5	1.229175	10	1.196144
Naphthalene-d8	0.1	0.8588382	0.25	0.7957521	0.5	0.7879639	2.5	0.835773	5	0.8220143	10	0.7959781
Acenaphthene-d10	0.1	0.4750477	0.25	0.4872288	0.5	0.4749409	2.5	0.5067184	5	0.5068475	10	0.4893936
Phenanthrene-d10	0.1	0.9252462	0.25	0.9220916	0.5	0.9563307	2.5	1.002085	5	0.9924278	10	0.9493134
Chrysene-d12	0.1	0.7660224	0.25	0.6530345	0.5	0.6647636	2.5	0.6648494	5	0.680817	10	0.6619313
Perylene-d12	0.1	0.8784359	0.25	0.7779609	0.5	0.7950146	2.5	0.8323644	5	0.8461003	10	0.8321235



## INITIAL CALIBRATION DATA EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.      SDG: 20K0204  
Client: Anchor QEA, LLC      Project: Gasco Siltronic  
Calibration: DJ00029      Instrument: NT14  
Calibration Date: 10/07/2020      Column (1): ZB-5MS

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
trans-Decalin	8.358872E-02	9.2			RSD (15)	
cis-Decalin	6.289663E-02	10.2			RSD (15)	
Naphthalene	0.8164379	2.9			RSD (15)	
1-Methylnaphthalene	0.5226651	16.7		1.0000	QCOD (0.99)	
2-Methylnaphthalene	0.4976918	4.1			RSD (15)	
Biphenyl	0.7490419	4.0			RSD (15)	
2,6-Dimethylnaphthalene	0.546836	4.8			RSD (15)	
Acenaphthylene	0.8966517	5.0			RSD (15)	
Acenaphthene	0.5873971	1.9			RSD (15)	
Dibenzofuran	0.8521596	3.0			RSD (15)	
2,3,5-Trimethylnaphthalene	0.5544134	4.5			RSD (15)	
Fluorene	0.6643144	3.1			RSD (15)	
Benzo(b)thiophene	0.6860043	4.7			RSD (15)	
Phenanthrene	1.107582	3.9			RSD (15)	
Anthracene	1.088514	7.5			RSD (15)	
Carbazole	0.942638	3.7			RSD (15)	
1-Methylphenanthrene	0.8129613	5.2			RSD (15)	
Fluoranthene	1.222426	5.2			RSD (15)	
Dibenzothiophene	0.9560816	2.4			RSD (15)	
Pyrene	1.289954	4.3			RSD (15)	
Benzo(a)anthracene	0.8634119	6.4			RSD (15)	
Chrysene	0.8581534	2.3			RSD (15)	
Benzo(b)fluoranthene	0.9748863	6.9			RSD (15)	
Benzo(j)fluoranthene	0.8589085	5.2			RSD (15)	
Benzo(k)fluoranthene	0.9825948	7.7			RSD (15)	
Benzofluoranthenes, Total	0.9045439	5.8			RSD (15)	
Benzo(e)pyrene	0.8926013	4.2			RSD (15)	
Benzo(a)pyrene	0.8433439	7.3			RSD (15)	
Indeno(1,2,3-cd)pyrene	1.044347	7.5			RSD (15)	
Dibenzo(a,h)anthracene	0.9226661	9.0			RSD (15)	
Benzo(g,h,i)perylene	0.9174617	5.6			RSD (15)	



**INITIAL CALIBRATION DATA**  
**EPA 8270E-SIM**

Laboratory:	Analytical Resources, Inc.	SDG:	20K0204
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic
Calibration:	DJ00029	Instrument:	NT14
Calibration Date:	10/07/2020	Column (1):	ZB-5MS

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Perylene	0.8858103	6.7			RSD (15)	
Benzo(b)naphtho(2,1-d)thiophene	1.175764	3.8			RSD (15)	
Naphthalene-d8	0.8160533	3.4			RSD (15)	
Acenaphthene-d10	0.4900295	2.9			RSD (15)	
Phenanthrene-d10	0.9579158	3.5			RSD (15)	
Chrysene-d12	0.681903	6.2			RSD (15)	
Perylene-d12	0.8269999	4.4			RSD (15)	



ANALYSIS SEQUENCE

SIJ0085

Instrument: NT14                      Element Column ID: I005863  
Calibration ID: DI00026              Tune File: 200104.U  
EM Voltage: 1847

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SIJ0085-TUN1	MS Tune	QC		1	I007631		
SIJ0085-CAL4	PAH 2.5	QC		2	I007920	I007919	
SIJ0085-CAL6	PAH 10	QC		3	I007921	I007919	
SIJ0085-CAL1	PAH 0.1	QC		4	I007926	I007919	
SIJ0085-CAL5	PAH 5.0	QC		5	I007922	I007919	
SIJ0085-CAL3	PAH 0.5	QC		6	I007924	I007919	
SIJ0085-CAL2	PAH 0.25	QC		7	I007925	I007919	
SIJ0085-SCV1	Secondary Cal Check	QC		8	I009393	I007919	
SIJ0085-ICB1	Initial Cal Blank	QC		9	I008041	I007919	
SIJ0085-ICV1	Initial Cal Check	QC		10	I007920	I007919	
SIJ0085-IBL1	Instrument Blank	QC		11	I008041	I007919	
20I0231-01RE1	PDI-028SC-A-07-08-191003	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	12		I007919	Added 10/5/2020 by YZ
20I0231-02RE1	PDI-028SC-A-09-10-191003	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	13		I007919	Added 10/5/2020 by YZ
20I0231-03RE1	PDI-028SC-A-10-11-191003	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	14		I007919	Added 10/5/2020 by YZ
20I0231-05RE1	PDI-069SC-A-08-09-191016	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	15		I007919	Added 10/5/2020 by YZ
20I0231-07RE1	PDI-080SC-A-00-01-200506	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	16		I007919	Added 10/5/2020 by YZ
20I0231-08RE1	PDI-081SC-A-10-11-191002	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	17		I007919	Added 10/5/2020 by YZ
20I0231-09RE1	PDI-082SC-A-04-05-191002	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	18		I007919	Added 10/5/2020 by YZ
20I0231-10RE1	PDI-082SC-A-07-08-191002	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	19		I007919	Added 10/5/2020 by YZ
20I0231-11RE1	PDI-165SC-A-02-03-200426	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	20		I007919	Added 10/5/2020 by YZ
SIJ0085-CCV1	Calibration Check	QC		21	I007920	I007919	

## INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20201007.b

Time	Filename	LabID	ClientId	DF					
1	1011	NT1420100701.D	SIJ0085-TUN1	1	NO	ISTDS	FOUND		
2	1024	NT1420100702.D	SIJ0085-CAL4	1	18.63	237050	22.07	216685	32.93 311824
3	1148	NT1420100703.D	SIJ0085-CAL6	1	18.64	243221	22.08	226778	32.94 315078
4	1238	NT1420100704.D	SIJ0085-CAL1	1	18.63	219599	22.07	199428	32.93 285553
5	1326	NT1420100705.D	SIJ0085-CAL5	1	18.63	221965	22.07	204432	32.93 290471
6	1417	NT1420100706.D	SIJ0085-CAL2	1	18.63	218460	22.07	197976	32.93 287017
7	1508	NT1420100707.D	SIJ0085-CAL3	1	18.63	217147	22.07	196660	32.93 281303
8	1556	NT1420100708.D	SIJ0085-CAL4	1	18.63	206259	22.07	189225	32.93 280633
9	1645	NT1420100709.D	SIJ0085-SCV1	1	18.63	189405	22.07	203362	32.93 288304
10	1733	NT1420100710.D	SIJ0085-ICB1	1	18.63	209569	22.07	195015	32.93 275049
11	1822	NT1420100711.D	SIJ0085-ICV1	1	18.63	209596	22.07	192407	32.93 274120
12	1911	NT1420100712.D	SIJ0085-IBL1	1	18.63	204918	22.07	190308	32.93 277914
13	1959	NT1420100713.D	20I0231-01RE1	50	18.63	216675	22.07	201347	32.93 283619
14	2048	NT1420100714.D	20I0231-02RE1	50	18.63	223226	22.07	210366	32.93 295832
15	2136	NT1420100715.D	20I0231-03RE1	50	18.63	220403	22.07	205010	32.93 294397
16	2225	NT1420100716.D	20I0231-04RE1	50	18.63	221665	22.07	207108	32.93 288287
17	2313	NT1420100717.D	20I0231-05RE1	50	18.63	213324	22.07	203945	32.93 287899
18	0001	NT1420100718.D	20I0231-06RE1	50	18.63	223960	22.07	210571	32.93 296494
19	0049	NT1420100719.D	20I0231-07RE1	25	18.63	219212	22.07	209445	32.93 289596
20	0138	NT1420100720.D	20I0231-08RE1	100	18.63	222098	22.07	213997	32.93 296812



INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20201007.b

Time	Filename	LabID	ClientId	DF						
21	0226	NT1420100721.D	20I0231-09RE1		50	18.63	230253  22.07	216448  32.93	299511	
22	0314	NT1420100722.D	20I0231-10RE1		50	18.63	222736  22.07	211749  32.93	294827	
23	0403	NT1420100723.D	20I0231-11RE1		100	18.63	220968  22.07	205977  32.93	288799	
24	0451	NT1420100724.D	SIJ0085-CCV1		1	18.63	215012  22.07	198797  32.93	275539	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20201007.b

Instrument: nt14.i Date: 07-OCT-2020

Time	Filename	LabID	DF	Manually Integrated Compounds				
1011	NT1420100701.D	SIJ0085-TUN1	1	NO MANUAL INTEGRATION				
1024	NT1420100702.D	SIJ0085-CAL4	1	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Indeno(1,2,3-cd)pyrene,	Total Benzofluoranthenes,	
1148	NT1420100703.D	SIJ0085-CAL6	1	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Total Benzofluoranthenes,	Benzo(j)fluoranthene,	
1238	NT1420100704.D	SIJ0085-CAL1	1	Benzo(k)fluoranthene,	cis-Decalin,	Total Benzofluoranthenes,	Phenanthrene-d10,	
1326	NT1420100705.D	SIJ0085-CAL5	1	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Dibenzo(a,h)anthracene,	Total Benzofluoranthenes,	Benzo(j)fluoranthene
1417	NT1420100706.D	SIJ0085-CAL2	1	Total Benzofluoranthenes,				
1508	NT1420100707.D	SIJ0085-CAL3	1	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Dibenzo(a,h)anthracene,	Total Benzofluoranthenes,	Benzo(j)fluoranthene
1556	NT1420100708.D	SIJ0085-CAL4	1	Total Benzofluoranthenes,	Phenanthrene-d10,			
1645	NT1420100709.D	SIJ0085-SCV1	1	Benzo(g,h,i)perylene,	Total Benzofluoranthenes,			
1733	NT1420100710.D	SIJ0085-ICB1	1	NO MANUAL INTEGRATION				
1822	NT1420100711.D	SIJ0085-ICV1	1	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Indeno(1,2,3-cd)pyrene,	Dibenzo(a,h)anthracene,	Total Benzofluoranthene
1911	NT1420100712.D	SIJ0085-IBL1	1	NO MANUAL INTEGRATION				
1959	NT1420100713.D	20I0231-01RE1	50	Acenaphthylene,	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	2,6-Dimethylnaphthalene,	Total Benzofluoranthenes,
				Perylene-d12,				
2048	NT1420100714.D	20I0231-02RE1	50	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Indeno(1,2,3-cd)pyrene,	Dibenzo(a,h)anthracene,	Benzo(g,h,i)perylene,
				Total Benzofluoranthenes,	Naphthalene-d8,	Phenanthrene-d10,	Perylene-d12,	
2136	NT1420100715.D	20I0231-03RE1	50	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Indeno(1,2,3-cd)pyrene,	Dibenzo(a,h)anthracene,	2,6-Dimethylnaphthalen
				Naphthalene-d8,	Phenanthrene-d10,	Perylene-d12,		
2225	NT1420100716.D	20I0231-04RE1	50	NO MANUAL INTEGRATION				
2313	NT1420100717.D	20I0231-05RE1	50	Chrysene,	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	2,6-Dimethylnaphthalene,	Total Benzofluoranthenes,
				Acenaphthene-d10,	Phenanthrene-d10,	Perylene-d12,		Napht

Instrument: nt14.i Date: 08-OCT-2020

Time	Filename	LabID	DF	Manually Integrated Compounds					
0001	NT1420100718.D	20I0231-06RE1	50	NO MANUAL INTEGRATION					
0049	NT1420100719.D	20I0231-07RE1	25	Benzo(b)fluoranthene, Total Benzofluoranthenes,	Benzo(k)fluoranthene, Phenanthrene-d10,	Dibenzo(a,h)anthracene, Perylene-d12,	Benzo(g,h,i)perylene,	Biphenyl,	2,6-Dimeth
0138	NT1420100720.D	20I0231-08RE1	100	Benzo(b)fluoranthene, Phenanthrene-d10,	Benzo(k)fluoranthene, Perylene-d12,	Dibenzo(a,h)anthracene,	Biphenyl,	2,6-Dimethylnaphthalene,	Total B
0226	NT1420100721.D	20I0231-09RE1	50	Benzo(b)fluoranthene, 2,6-Dimethylnaphthalene,	Benzo(k)fluoranthene, Benzo(b)thiophene,	Indeno(1,2,3-cd)pyrene, Total Benzofluoranthenes,	Dibenzo(a,h)anthracene, Phenanthrene-d10,	Benzo(g,h,i)perylene, Perylene-d12,	
0314	NT1420100722.D	20I0231-10RE1	50	Benzo(b)fluoranthene, Benzo(b)thiophene,	Benzo(k)fluoranthene, Total Benzofluoranthenes,	Dibenzo(a,h)anthracene, Phenanthrene-d10,	Benzo(g,h,i)perylene, Perylene-d12,	Biphenyl,	2,6-Dimeth
0403	NT1420100723.D	20I0231-11RE1	100	Benzo(b)fluoranthene, Total Benzofluoranthenes,	Benzo(k)fluoranthene, Phenanthrene-d10,	Indeno(1,2,3-cd)pyrene, Chrysene-d12,	Dibenzo(a,h)anthracene, Perylene-d12,	Benzo(g,h,i)perylene,	
0451	NT1420100724.D	SIJ0085-CCV1	1	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Indeno(1,2,3-cd)pyrene,	Total Benzofluoranthenes,	Benzo(j)fluoranthene	

Security Status Report

Date: 09-Oct-2020 11:05

NT1420100701.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100702.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100703.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100704.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100705.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100706.D	Data Locked	van,	09-Oct-2020	11:05
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NT1420100708.D	Data Locked	van,	09-Oct-2020	08:47
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NT1420100711.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100712.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100713.D	Data Locked	van,	09-Oct-2020	08:47
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NT1420100717.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100718.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100719.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100720.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100721.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100722.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100723.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100724.D	Data Locked	van,	09-Oct-2020	08:47

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-OCT-2020 10:24  
 End Cal Date : 07-OCT-2020 15:56  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : HP RTE  
 Method file : \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Last Edit : 08-Oct-2020 12:40 van

Calibration File Names:

Level 1: \\target\share\chem3\nt14.i\20201007.b\NT1420100704.D  
 Level 2: \\target\share\chem3\nt14.i\20201007.b\NT1420100706.D  
 Level 3: \\target\share\chem3\nt14.i\20201007.b\NT1420100707.D  
 Level 5: \\target\share\chem3\nt14.i\20201007.b\NT1420100702.D  
 Level 6: \\target\share\chem3\nt14.i\20201007.b\NT1420100705.D  
 Level 7: \\target\share\chem3\nt14.i\20201007.b\NT1420100703.D

Compound	0.1000000	0.2500000	0.5000000	2.5000	5.0000	10.0000	Curve	Coefficients			%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7		b	m1	m2	
1 trans-Decalin	0.06976	0.08247	0.08208	0.09057	0.09007	0.08658	AVRG		0.08359		9.17916
2 cis-Decalin	0.05200	0.05837	0.06613	0.06875	0.06641	0.06571	AVRG		0.06290		10.15863
3 C1-Decalin	++++	++++	++++	++++	++++	++++	AVRG		0.000e+000		0.000e+000 <-
4 C2-Decalin	++++	++++	++++	++++	++++	++++	AVRG		0.000e+000		0.000e+000 <-
5 C3-Decalin	++++	++++	++++	++++	++++	++++	AVRG		0.000e+000		0.000e+000 <-
247 C4-Decalin	++++	++++	++++	++++	++++	++++	AVRG		0.000e+000		0.000e+000 <-
7 Naphthalene	0.83252	0.81146	0.84229	0.82421	0.81489	0.77326	AVRG		0.81644		2.93907
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 <-
12 Benzo(b)thiophene	0.74882	0.68366	0.66226	0.67949	0.67849	0.66331	AVRG		0.68600		4.66875
13 C1-Benzothiophenes	++++	++++	++++	++++	++++	++++	AVRG		0.000e+000		0.000e+000 <-
14 C2-Benzothiophenes	++++	++++	++++	++++	++++	++++	AVRG		0.000e+000		0.000e+000 <-

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-OCT-2020 10:24  
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 Target Version : 4.14  
 Integrator : HP RTE  
 Method file : \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Last Edit : 08-Oct-2020 12:40 van

Compound	0.1000000	0.2500000	0.5000000	2.5000	5.0000	10.0000	Curve	Coefficients			%RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7		b	m1	m2	or R <sup>2</sup>
15 C3-Benzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	AVRG	0.000e+000			0.000e+000 <-
16 2-Methylnaphthalene	0.51794	0.46551	0.48828	0.51217	0.51281	0.48944	AVRG	0.49769			4.05900
17 1-methylnaphthalene	7676	13075	27344	146460	272838	569676	QUAD	0.000e+000	1.94678	0.07978	0.99995
18 Biphenyl	0.79290	0.72383	0.71017	0.76184	0.76425	0.74126	AVRG	0.74904			4.01648
19 2,6-Dimethylnaphthalene	0.49891	0.55567	0.56364	0.56826	0.55872	0.53581	AVRG	0.54684			4.75409
20 Acenaphthylene	0.90611	0.81948	0.86826	0.94102	0.92354	0.92150	AVRG	0.89665			5.02728
22 Acenaphthene	0.58953	0.57493	0.57578	0.60217	0.59836	0.58361	AVRG	0.58740			1.93764
23 Dibenzofuran	0.85738	0.80703	0.84759	0.87475	0.87649	0.84971	AVRG	0.85216			2.96556
24 1,6,7-Trimethylnaphthalene	0.53570	0.52740	0.53560	0.58642	0.57948	0.56188	AVRG	0.55441			4.52157
26 Fluorene	0.64982	0.64418	0.65132	0.69153	0.68809	0.66095	AVRG	0.66431			3.08609
27 C1-Fluorenes	+++++	+++++	+++++	+++++	+++++	+++++	AVRG	0.000e+000			0.000e+000 <-
28 C2-Fluorenes	+++++	+++++	+++++	+++++	+++++	+++++	AVRG	0.000e+000			0.000e+000 <-
29 C3-Fluorenes	+++++	+++++	+++++	+++++	+++++	+++++	AVRG	0.000e+000			0.000e+000 <-
30 Dibenzothiophene	0.95319	0.92945	0.93032	0.97927	0.98457	0.95969	AVRG	0.95608			2.44995
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 <-
36 Phenanthrene	1.17305	1.07415	1.12385	1.11014	1.11497	1.04933	AVRG	1.10758			3.85673
37 Anthracene	1.24646	1.01576	1.04603	1.09519	1.07430	1.05334	AVRG	1.08851			7.52318
38 C1-Phenanthrenes/Anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	AVRG	0.000e+000			0.000e+000 <-
39 C2-Phenanthrenes/Anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	AVRG	0.000e+000			0.000e+000 <-

ARI Labs, Inc.

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Compound	0.1000000	0.2500000	0.5000000	2.5000	5.0000	10.0000	Curve	Coefficients			%RSD
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7		b	m1	m2	or R <sup>2</sup>
40 C3-Phenanthrenes/Anthracenes	++++	++++	++++	++++	++++	++++	AVRG	0.000e+000	0.000e+000	0.000e+000	<-
41 C4-Phenanthrenes/Anthracenes	++++	++++	++++	++++	++++	++++	AVRG	0.000e+000	0.000e+000	0.000e+000	<-
42 Carbazole	0.97629	0.88940	0.91728	0.97826	0.95753	0.93707	AVRG	0.94264	3.71496	3.71496	
43 1-Methylphenanthrene	0.76719	0.76017	0.81363	0.85192	0.86332	0.82153	AVRG	0.81296	5.22143	5.22143	
44 Fluoranthene	1.23604	1.12102	1.17181	1.27951	1.27571	1.25046	AVRG	1.22243	5.16260	5.16260	
45 Pyrene-d10	++++	++++	++++	++++	++++	++++	AVRG	0.000e+000	0.000e+000	0.000e+000	<-
46 Pyrene	1.33141	1.22415	1.21399	1.31961	1.32976	1.32080	AVRG	1.28995	4.27909	4.27909	
47 Retene	++++	++++	++++	++++	++++	++++	AVRG	0.000e+000	0.000e+000	0.000e+000	<-
48 C1-Fluoranthenes/Pyrenes	++++	++++	++++	++++	++++	++++	AVRG	0.000e+000	0.000e+000	0.000e+000	<-
49 C2-Fluoranthenes/Pyrenes	++++	++++	++++	++++	++++	++++	AVRG	0.000e+000	0.000e+000	0.000e+000	<-
50 C3-Fluoranthenes/Pyrenes	++++	++++	++++	++++	++++	++++	AVRG	0.000e+000	0.000e+000	0.000e+000	<-
249 C4-Fluoranthenes/Pyrenes	++++	++++	++++	++++	++++	++++	AVRG	0.000e+000	0.000e+000	0.000e+000	<-
51 Naphthobenzothiophene	1.14116	1.13533	1.13264	1.22014	1.22918	1.19614	AVRG	1.17576	3.79015	3.79015	
52 C1-Naphthobenzothiophenes	++++	++++	++++	++++	++++	++++	AVRG	0.000e+000	0.000e+000	0.000e+000	<-
53 C2-Naphthobenzothiophenes	++++	++++	++++	++++	++++	++++	AVRG	0.000e+000	0.000e+000	0.000e+000	<-
54 C3-Naphthobenzothiophenes	++++	++++	++++	++++	++++	++++	AVRG	0.000e+000	0.000e+000	0.000e+000	<-
248 C4-Naphthobenzothiophenes	++++	++++	++++	++++	++++	++++	AVRG	0.000e+000	0.000e+000	0.000e+000	<-
55 Benzo(a)anthracene	0.87633	0.78944	0.79759	0.90409	0.90662	0.90639	AVRG	0.86341	6.41519	6.41519	
57 Chrysene	0.86226	0.84433	0.82485	0.86860	0.87541	0.87349	AVRG	0.85815	2.30669	2.30669	
58 C1-Benzo(a)anthracenes/Chryse	++++	++++	++++	++++	++++	++++	AVRG	0.000e+000	0.000e+000	0.000e+000	<-
59 C2-Benzo(a)anthracenes/Chryse	++++	++++	++++	++++	++++	++++	AVRG	0.000e+000	0.000e+000	0.000e+000	<-
60 C3-Benzo(a)anthracenes/Chryse	++++	++++	++++	++++	++++	++++	AVRG	0.000e+000	0.000e+000	0.000e+000	<-

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 07-OCT-2020 10:24  
 End Cal Date : 07-OCT-2020 15:56  
 Quant Method : ISTD  
 Target Version : 4.14  
 Integrator : HP RTE  
 Method file : \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Last Edit : 08-Oct-2020 12:40 van

Compound	0.1000000	0.2500000	0.5000000	2.5000	5.0000	10.0000	Curve	Coefficients			%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7		b	m1	m2	
61 C4-Benzo(a)anthracenes/Chryse	++++	++++	++++	++++	++++	++++	AVRG	0.000e+000			0.000e+000 <-
62 Benzo(b)fluoranthene	0.94196	0.86763	0.95113	1.02851	1.01093	1.04916	AVRG	0.97489			6.93335
293 Benzo(j)fluoranthene	0.90393	0.81093	0.80215	0.90135	0.85226	0.88283	AVRG	0.85891			5.19820
63 Benzo(k)fluoranthene	1.08603	0.99473	0.87230	0.92344	1.03043	0.98864	AVRG	0.98259			7.72874
64 Benzo(e)pyrene	0.87879	0.85994	0.84494	0.90758	0.93311	0.93126	AVRG	0.89260			4.15857
246 Total Benzofluoranthenes	0.91402	0.83176	0.84770	0.93060	0.94808	0.95512	AVRG	0.90454			5.79771
65 Benzo(a)pyrene-d12	++++	++++	++++	++++	++++	++++	AVRG	0.000e+000			0.000e+000 <-
66 Benzo(a)pyrene	0.83018	0.75926	0.78536	0.88363	0.89182	0.90982	AVRG	0.84334			7.30898
68 Perylene	0.91983	0.79307	0.82962	0.92889	0.92645	0.91700	AVRG	0.88581			6.65873
69 Indeno(1,2,3-cd)pyrene	1.03729	0.94821	0.95971	1.06853	1.12297	1.12938	AVRG	1.04435			7.47292
70 Dibenzo(a,h)anthracene	0.88341	0.84893	0.82048	0.97332	0.98332	1.02654	AVRG	0.92267			8.99694
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	0.93482	0.82958	0.88013	0.94688	0.95630	0.95706	AVRG	0.91746			5.63403
253 n-Octane	++++	++++	++++	++++	++++	++++	AVRG	0.000e+000			0.000e+000 <-
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 <-



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Compound	0.1000000	0.2500000	0.5000000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7			m1	m2	
259 n-Pentadecane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000 <-
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 <-
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 <-
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-Tetracontane	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000 <-

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Compound	0.1000000	0.2500000	0.5000000	2.5000	5.0000	10.0000	Curve	b	Coefficients		%RSD or R <sup>2</sup>
	Level 1	Level 2	Level 3	Level 5	Level 6	Level 7			m1	m2	
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	0.85884	0.79575	0.78796	0.83577	0.82201	0.79598	AVRG		0.81605		3.40440
\$ 21 Acenaphthene-d10	0.47505	0.48723	0.47494	0.50672	0.50685	0.48939	AVRG		0.49003		2.91717
\$ 35 Phenanthrene-d10	0.92525	0.92209	0.95633	1.00209	0.99243	0.94931	AVRG		0.95792		3.48405
\$ 56 Chrysene-d12	0.76602	0.65303	0.66476	0.66485	0.68082	0.66193	AVRG		0.68190		6.18505
\$ 67 Perylene-d12	0.87844	0.77796	0.79501	0.83236	0.84610	0.83212	AVRG		0.82700		4.35758

ARI Labs, Inc.

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Last Edit : 08-Oct-2020 12:40 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\20201007.b\ALKYLPNA.m  
Batch File: \\target\share\chem3\nt14.i\20201007.b  
Inst ID: nt14.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	NT1420100702	NT1420100703	NT1420100704	NT1420100705	NT1420100706	NT1420100707
INJ. DATE:	07-OCT-2020	07-OCT-2020	07-OCT-2020	07-OCT-2020	07-OCT-2020	07-OCT-2020
INJ. TIME:	10:24	11:48	12:38	13:26	14:17	15:08

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 trans-Decalin	6.925	6.925	6.935	6.935	6.935	6.935	6.935	3.935-9.935	6.931	0.005
2 cis-Decalin	8.034	8.034	8.034	8.024	8.044	8.034	8.034	5.034-11.034	8.034	0.006
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	11.641	11.652	11.641	11.641	11.641	11.641	11.641	8.641-14.641	11.643	0.004
7 Naphthalene	11.707	11.718	11.707	11.707	11.707	11.707	11.707	8.707-14.707	11.709	0.004
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	12.158	12.158	12.158	12.158	12.158	12.158	12.158	9.158-15.158	12.158	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	13.542	13.553	13.543	13.542	13.543	13.542	13.542	10.542-16.542	13.544	0.004

Reviewer 1 \_\_\_\_\_ Date: \_\_\_\_\_  
Reviewer 2 \_\_\_\_\_ Date: \_\_\_\_\_

ARI Labs, Inc.  
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
Batch File: \\target\share\chem3\nt14.i\20201007.b  
Inst ID: nt14.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
17 1-methylnaphthalene	13.993	13.993	13.993	13.993	13.993	13.993	13.993	10.993-16.993	13.993	0.000
18 Biphenyl	15.180	15.191	15.180	15.180	15.180	15.180	15.180	12.180-18.180	15.182	0.004
19 2,6-Dimethylnaphthalen	15.257	15.268	15.257	15.257	15.257	15.257	15.257	12.257-18.257	15.259	0.004
20 Acenaphthylene	16.817	16.828	16.817	16.817	16.818	16.817	16.817	13.817-19.817	16.819	0.004
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----										
21 Acenaphthene-d10	17.103	17.114	17.103	17.103	17.103	17.103	17.103	14.103-20.103	17.105	0.004
22 Acenaphthene	17.224	17.224	17.224	17.224	17.224	17.224	17.224	14.224-20.224	17.224	0.000
23 Dibenzofuran	17.598	17.609	17.598	17.598	17.598	17.598	17.598	14.598-20.598	17.599	0.004
24 1,6,7-Trimethylnaphtha	17.828	17.828	17.829	17.828	17.829	17.828	17.828	14.828-20.828	17.828	0.000
* 25 Fluorene-d10	18.633	18.644	18.633	18.633	18.633	18.633	18.633	15.633-21.633	18.635	0.005
26 Fluorene	18.746	18.746	18.746	18.746	18.746	18.746	18.746	15.746-21.746	18.746	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	21.649	21.660	21.649	21.649	21.649	21.649	21.649	18.649-24.649	21.651	0.005
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	21.963	21.974	21.963	21.963	21.963	21.963	21.963	18.963-24.963	21.965	0.004
* 250 Anthracene-d10	22.073	22.084	22.073	22.073	22.073	22.073	22.073	19.073-25.073	22.075	0.004
36 Phenanthrene	22.040	22.051	22.040	22.040	22.040	22.040	22.040	19.040-25.040	22.042	0.004
37 Anthracene	22.150	22.150	22.139	22.150	22.139	22.139	22.139	19.139-25.139	22.145	0.006

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Inst ID: nt14.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	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	23.425	23.436	23.425	23.425	23.425	23.425	23.425	20.425-26.425	23.427	0.004
43 1-Methylphenanthrene	23.876	23.887	23.876	23.876	23.876	23.876	23.876	20.876-26.876	23.878	0.004
44 Fluoranthene	25.844	25.855	25.844	25.844	25.844	25.844	25.844	22.844-28.844	25.846	0.004
45 Pyrene-d10	+++++	+++++	+++++	+++++	+++++	+++++	18.628	15.628-21.628	+++++	+++++
46 Pyrene	26.702	26.713	26.702	26.702	26.702	26.702	26.702	23.702-29.702	26.704	0.004
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	29.256	29.267	29.257	29.256	29.257	29.256	29.256	26.256-32.256	29.258	0.004
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	29.851	29.851	29.840	29.851	29.840	29.839	29.839	26.839-32.839	29.845	0.006
\$ 56 Chrysene-d12	29.974	29.975	29.963	29.975	29.963	29.963	29.974	26.974-32.974	29.969	0.006
57 Chrysene	30.042	30.053	30.042	30.042	30.042	30.042	30.042	27.042-33.042	30.044	0.005
58 C1-Benzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	31.000	28.000-34.000	+++++	+++++
59 C2-Benzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	31.800	28.800-34.800	+++++	+++++

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Inst ID: nt14.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	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	32.272	32.283	32.261	32.272	32.261	32.261	32.272	29.272-35.272	32.268	0.009
293 Benzo(j)fluoranthene	32.374	32.396	32.374	32.385	32.374	32.374	32.374	29.374-35.374	32.379	0.009
63 Benzo(k)fluoranthene	32.317	32.328	32.317	32.317	32.317	32.317	32.317	29.317-35.317	32.319	0.005
* 251 Benzo(e)pyrene-d12	32.925	32.937	32.926	32.925	32.926	32.925	32.925	29.925-35.925	32.927	0.005
64 Benzo(e)pyrene	32.993	33.004	32.993	32.993	32.982	32.993	32.993	29.993-35.993	32.993	0.007
246 Total Benzofluoranthene	32.317	32.328	32.261	32.272	32.261	32.317	32.317	29.317-35.317	32.293	0.031
65 Benzo(a)pyrene-d12	+++++	+++++	+++++	+++++	+++++	+++++	25.348	22.348-28.348	+++++	+++++
66 Benzo(a)pyrene	33.083	33.106	33.083	33.094	33.083	33.083	33.083	30.083-36.083	33.089	0.009
67 Perylene-d12	33.263	33.275	33.264	33.263	33.264	33.263	33.263	30.263-36.263	33.265	0.005
68 Perylene	33.320	33.331	33.320	33.331	33.320	33.320	33.320	30.320-36.320	33.323	0.006
69 Indeno(1,2,3-cd)pyrene	35.257	35.279	35.257	35.268	35.257	35.257	35.257	32.257-38.257	35.263	0.009
70 Dibenzo(a,h)anthracene	35.246	35.257	35.235	35.246	35.235	35.234	35.246	32.246-38.246	35.242	0.009
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	36.102	36.124	36.102	36.113	36.102	36.102	36.102	33.102-39.102	36.107	0.009
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\20201007.b\ALKYLPNA.m  
Batch File: \\target\share\chem3\nt14.i\20201007.b  
Inst ID: nt14.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	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	+++++	+++++



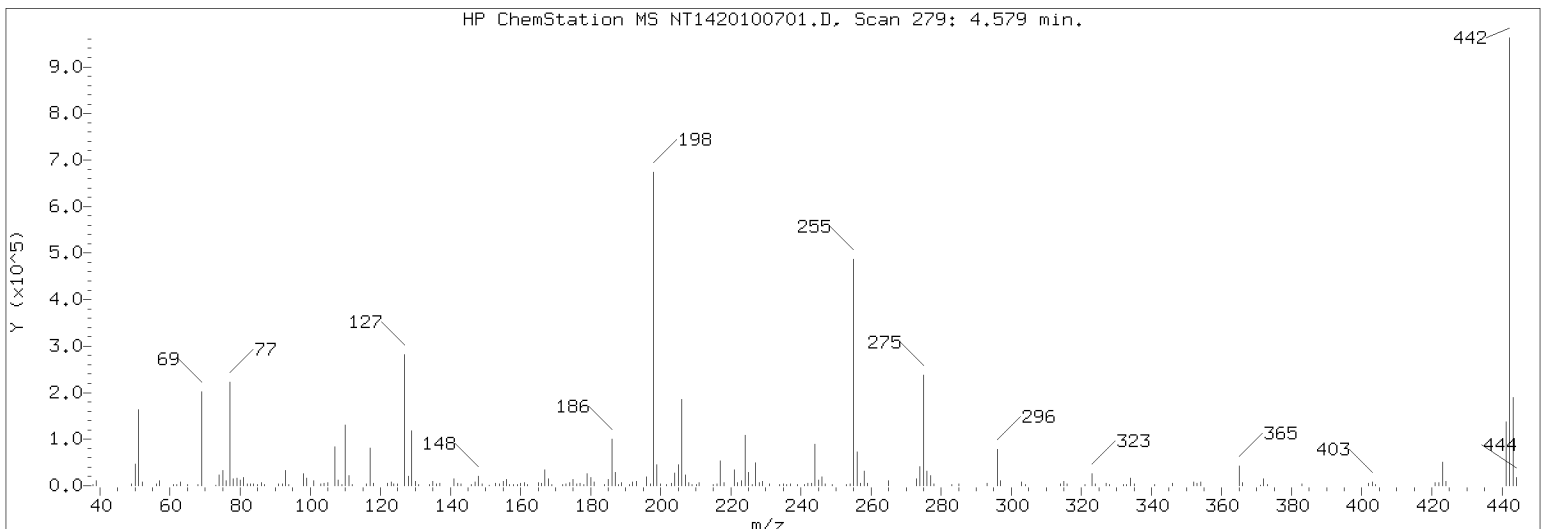
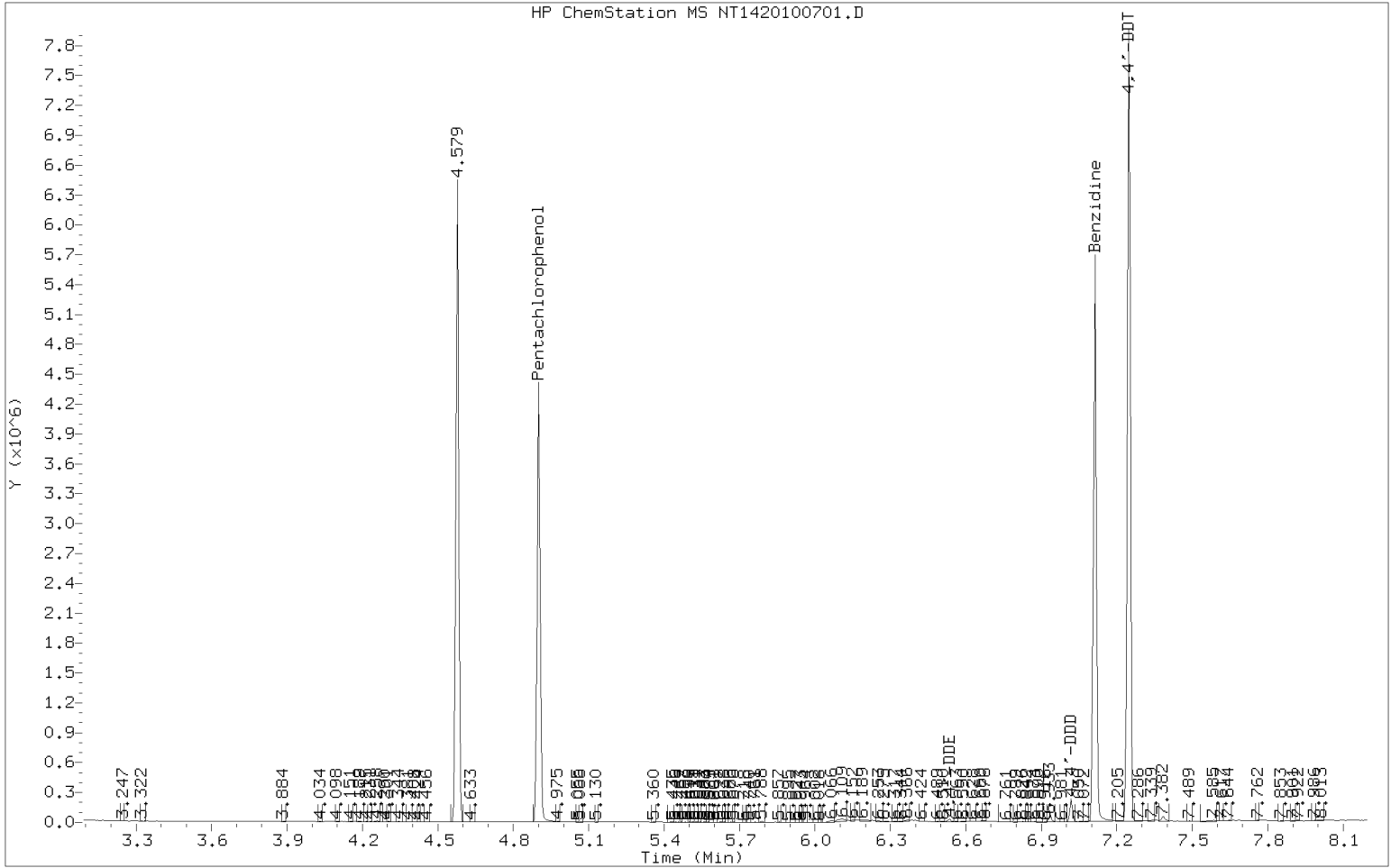
ARI Labs, Inc.  
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Batch File: \\target\share\chem3\nt14.i\20201007.b  
 Inst ID: nt14.i

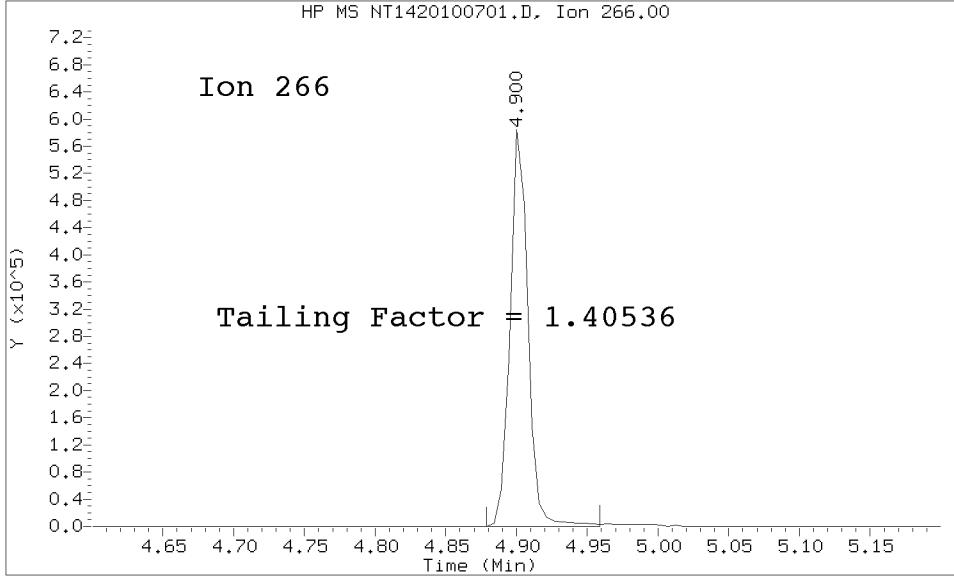
Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
283 n-Pentatriacontane	+++++	+++++	+++++	+++++	+++++	+++++	27.370	24.370-30.370	+++++	+++++
284 n-Hexatriacontane	+++++	+++++	+++++	+++++	+++++	+++++	27.936	24.936-30.936	+++++	+++++
285 n-Heptatriacontane	+++++	+++++	+++++	+++++	+++++	+++++	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: /20201007.b/NT1420100701.D/NT1420100701.D  
Method Used: \20201007.b\DFTPP8270E.m Inst: nt14  
Injection Date: 07-OCT-2020 10:11 Operator: VTS  
Sample Info: SIJ0085-TUN1 SIJ0085-TUN1  
Report Date: 10/09/2020 08:53



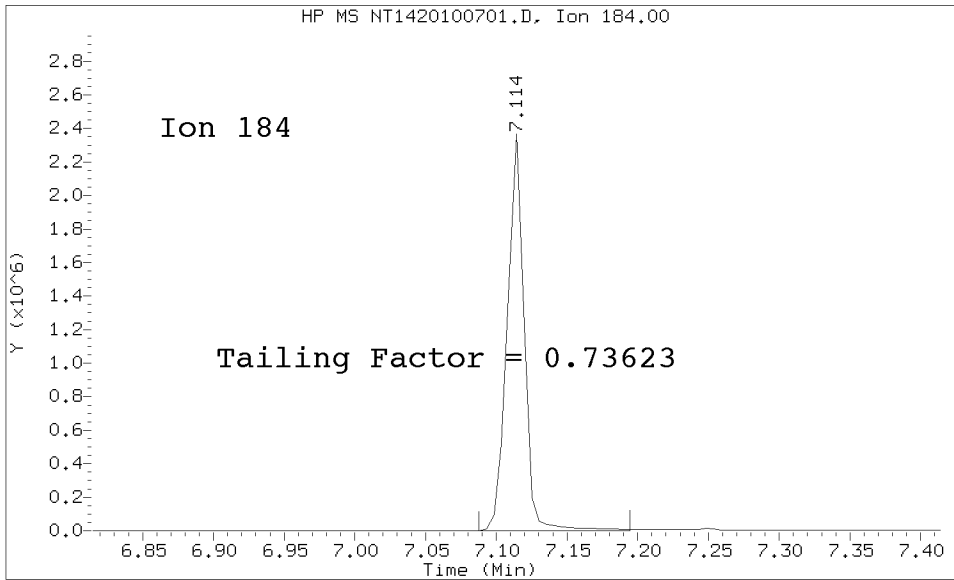
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Method Used: \20201007.b\DFTPP8270E.m\sw846ddt.m Inst: nt14  
Injection Date: 07-OCT-2020 10:11 Operator: JZ  
Sample Info: SIJ0XXX-TUN1  
Report Date: 10/09/2020 08:53



Pentachlorophenol

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

Tail Factor = 1.405 Maximum Allowed = 2.0



Benzidine

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

Tail Factor = 0.736 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.4053628	2.000	PASS
Benzidine	0.7362251	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1276129			N/A
4,4-DDE	4051	0.3	20.0	PASS
4,4-DDD	44055	3.3	20.0	PASS
4,4-DDD + DDE	48106	3.6	20.0	PASS

Tuning Sample, nt14.i/20201007.b/NT1420100701.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	0.46 ( 1.44)
69	Mass 69 relative abundance	31.94
70	Less than 2.00% of mass 69	0.00 ( 0.00)
197	Less than 2.00% of mass 198	0.46
199	5.00 - 9.00% of mass 198	6.65
365	1.00 - 100.00% of mass 198	6.47
441	Less than 150.00% of mass 443	20.20 ( 73.33)
442	Less than 200.00% of mass 198	140.95
443	15.00 - 24.00% of mass 442	27.55 ( 19.55)

Data File: NT1420100701.D  
Spectrum: Avg. Scans 278-280 ( 4.58), Background Scan 272  
Location of Maximum: 442.00  
Number of points: 201

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	1611	124.00	2560	192.00	6276	265.00	8748
39.00	9098	125.00	2264	193.00	7013	273.00	11379
49.00	1311	127.00	207552	196.00	13832	274.00	29256
50.00	36736	128.00	15932	197.00	2232	275.00	165312
51.00	126848	129.00	87728	198.00	484288	276.00	22296
52.00	6325	130.00	7692	199.00	32224	277.00	15785
56.00	3265	131.00	771	200.00	2133	278.00	2083
57.00	8731	134.00	2232	201.00	1677	283.00	874
61.00	700	135.00	7259	203.00	3939	285.00	2151
62.00	1786	136.00	2444	204.00	19424	293.00	3634
63.00	5960	137.00	3313	205.00	33120	296.00	57720
65.00	2324	141.00	12142	206.00	132480	297.00	7735
68.00	2223	142.00	3147	207.00	17392	303.00	6179
69.00	154688	143.00	2464	208.00	4908	304.00	859
73.00	681	146.00	1704	209.00	788	314.00	2768
74.00	17208	147.00	6505	210.00	1771	315.00	6881
75.00	25608	148.00	15223	211.00	4926	316.00	3382
76.00	8556	149.00	2441	215.00	735	321.00	838
77.00	170112	151.00	682	216.00	2464	323.00	17976
78.00	11515	153.00	3408	217.00	37960	324.00	3192
79.00	13007	154.00	2639	218.00	4860	327.00	3669
80.00	9780	155.00	7087	221.00	23352	328.00	869
81.00	13272	156.00	10365	222.00	5324	332.00	731
82.00	3125	157.00	1486	223.00	8424	333.00	733
83.00	2765	158.00	1763	224.00	78312	334.00	11934
84.00	662	159.00	1503	225.00	19896	335.00	3109
85.00	2045	160.00	4069	226.00	1790	341.00	908
86.00	5760	161.00	5581	227.00	35384	346.00	4456
87.00	1727	162.00	729	228.00	5126	352.00	5824
91.00	2838	165.00	4905	229.00	7313	353.00	3740
92.00	2840	166.00	3054	231.00	2278	354.00	5874
93.00	24904	167.00	25360	234.00	1819	365.00	31344
94.00	1429	168.00	11411	235.00	2079	366.00	4724
98.00	19440	169.00	1727	236.00	1466	371.00	678
99.00	13142	172.00	1787	237.00	2042	372.00	10553
101.00	7647	173.00	2530	239.00	719	373.00	1846
103.00	2165	174.00	5454	241.00	989	383.00	2091
104.00	4836	175.00	9785	242.00	4264	402.00	4064
105.00	4897	176.00	2246	243.00	4691	403.00	5510
106.00	697	177.00	4153	244.00	63136	404.00	1571
107.00	63464	178.00	745	245.00	8415	421.00	5059
108.00	9088	179.00	19048	246.00	14109	422.00	4905
109.00	1552	180.00	13423	247.00	2271	423.00	36056
110.00	98656	181.00	6161	249.00	1833	424.00	6636
111.00	16440	184.00	1429	253.00	750	441.00	97848
112.00	1866	185.00	10069	254.00	1955	442.00	682624
116.00	3130	186.00	71968	255.00	344640	443.00	133440
117.00	62280	187.00	20688	256.00	51192	444.00	12305
118.00	4682	188.00	1797	257.00	4076		

122.00	3721	189.00	4659	258.00	22792	
123.00	6613	191.00	1774	259.00	3624	

Data File: \\target\share\chem3\nt14,1\20201007.16\NT1420100702.D

Date : 07-OCT-2020 10:24

Client ID:

Sample Info: S100085-CAL4

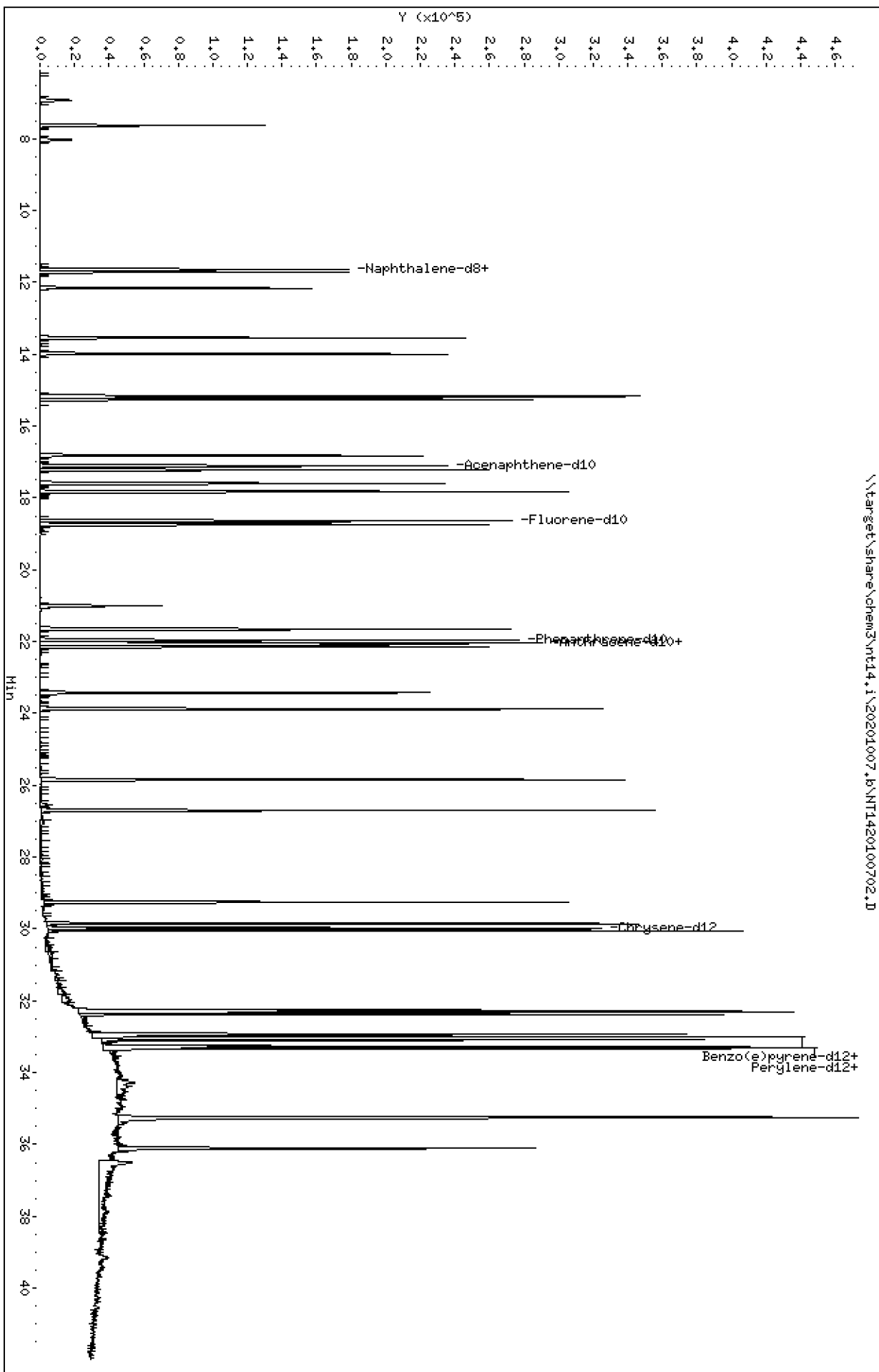
Column phase: Rxi-17S11 MS

Instrument: nt14,1

Operator: VTS

Column diameter: 0.25

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ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20201007.b\NT1420100702.D  
 Lab Smp Id: SIJ0085-CAL4  
 Inj Date : 07-OCT-2020 10:24  
 Operator : VTS  
 Smp Info : SIJ0085-CAL4  
 Misc Info :  
 Comment : 1ul Injection  
 Method : \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Meth Date : 09-Oct-2020 08:45 van  
 Cal Date : 07-OCT-2020 15:56  
 Als bottle: 2  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 4.14  
 Processing Host: VANS

Inst ID: nt14.i  
 Quant Type: ISTD  
 Cal File: NT1420100708.D  
 Calibration Sample, Level: 5  
 Compound Sublist: TARGETS.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
1 trans-Decalin	138		6.924	6.934	(0.372)	26838	2.50000	2.709
2 cis-Decalin	138		8.034	8.034	(0.431)	20372	2.50000	2.733
\$ 6 Naphthalene-d8	136		11.641	11.641	(0.625)	247650	2.50000	2.560
7 Naphthalene	128		11.707	11.707	(0.628)	244225	2.50000	2.524
12 Benzo(b)thiophene	134		12.157	12.157	(0.652)	201340	2.50000	2.476
16 2-Methylnaphthalene	141		13.542	13.542	(0.727)	151762	2.50000	2.573
17 1-methylnaphthalene	141		13.992	13.992	(0.751)	146460	2.50000	2.467
18 Biphenyl	154		15.179	15.179	(0.815)	225742	2.50000	2.543
19 2,6-Dimethylnaphthalene	156		15.256	15.256	(0.819)	168384	2.50000	2.598
20 Acenaphthylene	152		16.817	16.817	(0.903)	278836	2.50000	2.624
\$ 21 Acenaphthene-d10	164		17.103	17.103	(0.918)	150147	2.50000	2.585
22 Acenaphthene	153		17.223	17.223	(0.924)	178431	2.50000	2.563
23 Dibenzofuran	168		17.597	17.597	(0.944)	259199	2.50000	2.566
24 1,6,7-Trimethylnaphthalene	170		17.828	17.828	(0.957)	173764	2.50000	2.644
* 25 Fluorene-d10	176		18.632	18.632	(1.000)	237050	2.00000	
26 Fluorene	166		18.746	18.746	(1.006)	204910	2.50000	2.602
30 Dibenzothiophene	184		21.648	21.648	(1.162)	290170	2.50000	2.561
\$ 35 Phenanthrene-d10	188		21.963	21.963	(0.995)	271421	2.50000	2.615
36 Phenanthrene	178		22.039	22.040	(0.999)	300688	2.50000	2.506
* 250 Anthracene-d10	188		22.072	22.072	(1.000)	216685	2.00000	
37 Anthracene	178		22.149	22.138	(1.003)	296640	2.50000	2.515
42 Carbazole	167		23.425	23.425	(1.061)	264968	2.50000	2.594
43 1-Methylphenanthrene	192		23.875	23.875	(1.082)	230749	2.50000	2.620
44 Fluoranthene	202		25.843	25.843	(1.171)	346564	2.50000	2.617
46 Pyrene	202		26.701	26.701	(1.210)	357425	2.50000	2.557
51 Naphthobenzothiophene	234		29.256	29.256	(1.325)	330482	2.50000	2.594
55 Benzo(a)anthracene	228		29.850	29.839	(0.907)	352397	2.50000	2.618
\$ 56 Chrysene-d12	240		29.974	29.974	(0.910)	259145	2.50000	2.437
57 Chrysene	228		30.042	30.042	(0.912)	338561	2.50000	2.530
62 Benzo(b)fluoranthene	252		32.272	32.272	(0.980)	400893	2.50000	2.638 (M)
63 Benzo(k)fluoranthene	252		32.317	32.317	(0.982)	359939	2.50000	2.349 (M)
293 Benzo(j)fluoranthene	252		32.373	32.373	(0.983)	351328	2.50000	2.624
246 Total Benzofluoranthenes	252		32.317	32.317	(0.982)	1088182	7.50000	7.716 (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	32.925	32.925	(1.000)	311824	2.00000		
64 Benzo(e)pyrene	252	32.993	32.993	(1.002)	353756	2.50000	2.542	
66 Benzo(a)pyrene	252	33.083	33.083	(1.005)	344423	2.50000	2.619	
\$ 67 Perylene-d12	264	33.263	33.263	(1.010)	324439	2.50000	2.516	
68 Perylene	252	33.319	33.319	(1.012)	362063	2.50000	2.622	
69 Indeno(1,2,3-cd)pyrene	276	35.256	35.256	(1.071)	416492	2.50000	2.558 (M)	
70 Dibenzo(a,h)anthracene	278	35.245	35.245	(1.070)	379382	2.50000	2.637	
74 Benzo(g,h,i)perylene	276	36.101	36.101	(1.096)	369075	2.50000	2.580	

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: NT1420100702.D  
Lab Smp Id: SIJ0085-CAL4  
Analysis Type: SV  
Quant Type: ISTD  
Operator: VTS  
Method File: \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
Misc Info:

Calibration Date: 07-OCT-2020  
Calibration Time: 18:22  
Level:  
Sample Type:

Test Mode:  
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	209596	104798	419192	237050	13.10
250 Anthracene-d10	192407	96204	384814	216685	12.62
251 Benzo(e)pyrene-d1	274120	137060	548240	311824	13.75

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.63	18.13	19.13	18.63	-0.00
250 Anthracene-d10	22.07	21.57	22.57	22.07	-0.00
251 Benzo(e)pyrene-d1	32.93	32.43	33.43	32.93	-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 - NT1420100702.D

Lab ID: SIJ0085-CAL4

nt14.i, 20201007.b\ALKYLPNA.m, 07-OCT-2020 10:24

RT CO-ELUTION COMPOUNDS

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NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

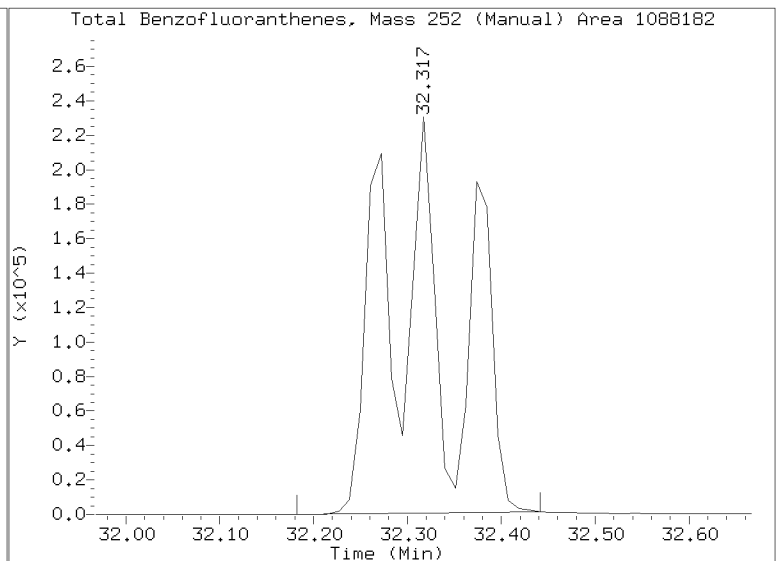
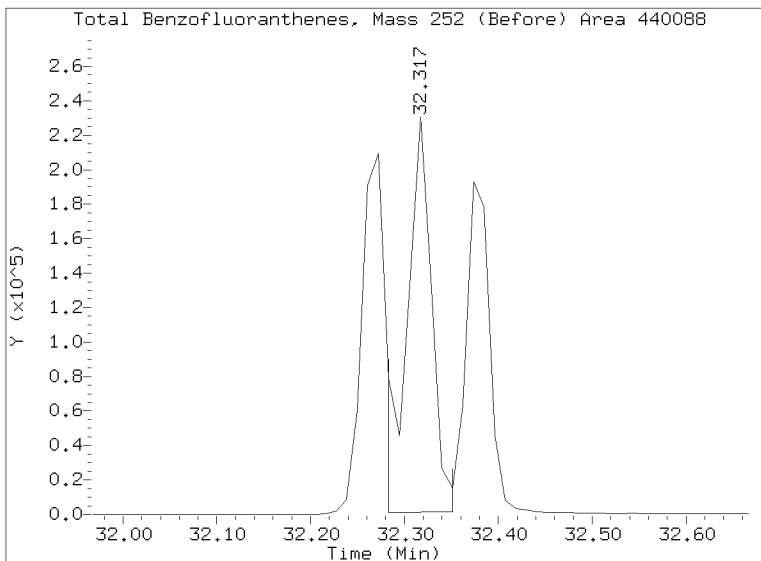
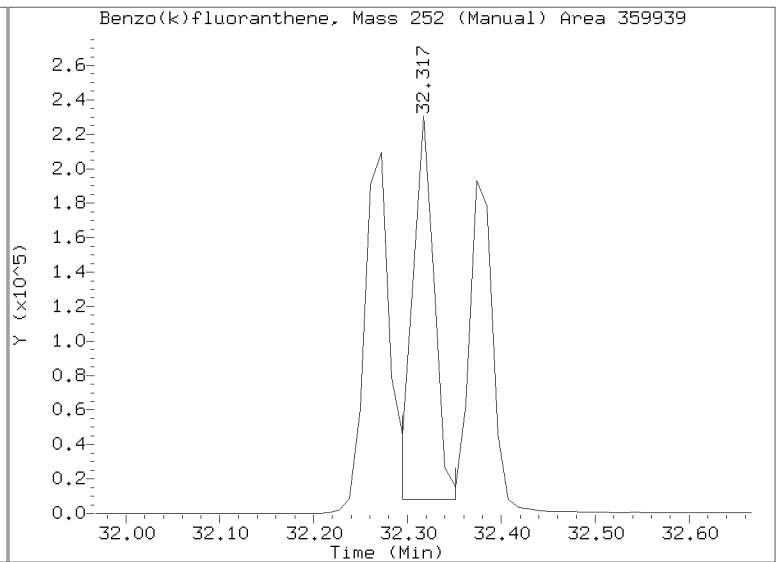
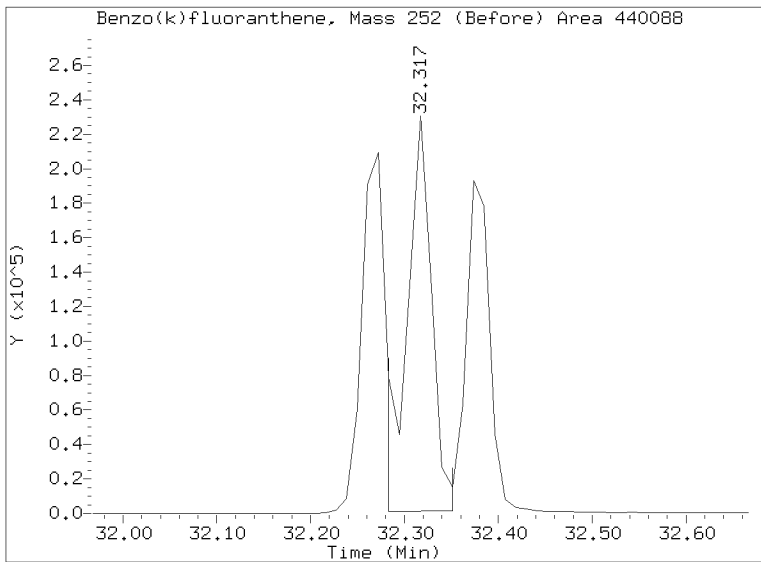
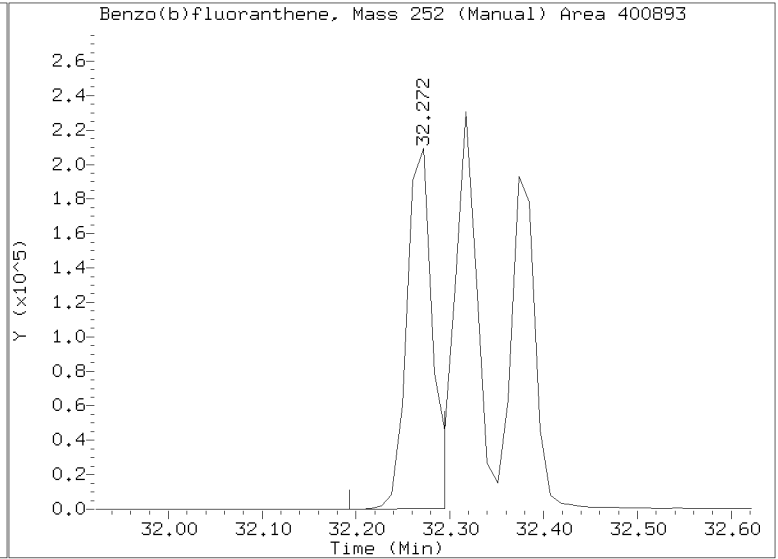
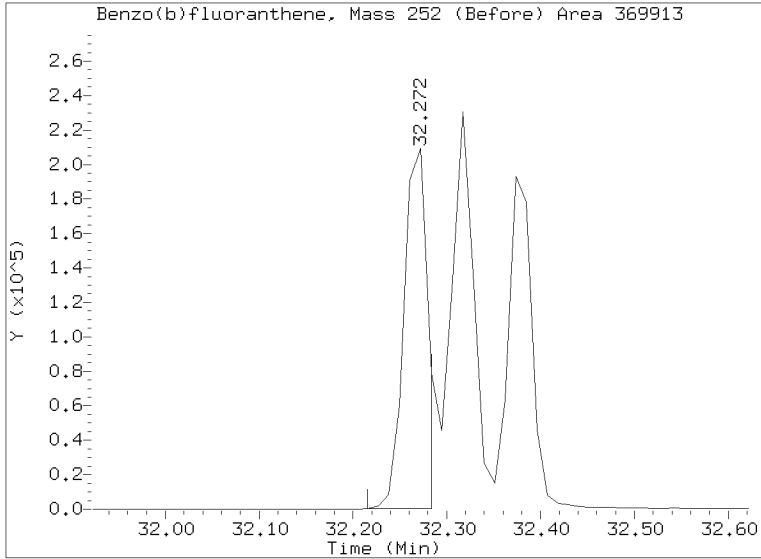
RRT check based on Ccal File: NT1420100711.D

On Column LOD for nt14.i, 20201007.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/20201007.b/NT1420100702.D  
Injection Date: 07-OCT-2020 10:24  
Lab ID:SIJ0085-CAL4 Client ID:  
Report Date: 10/09/2020 08:50



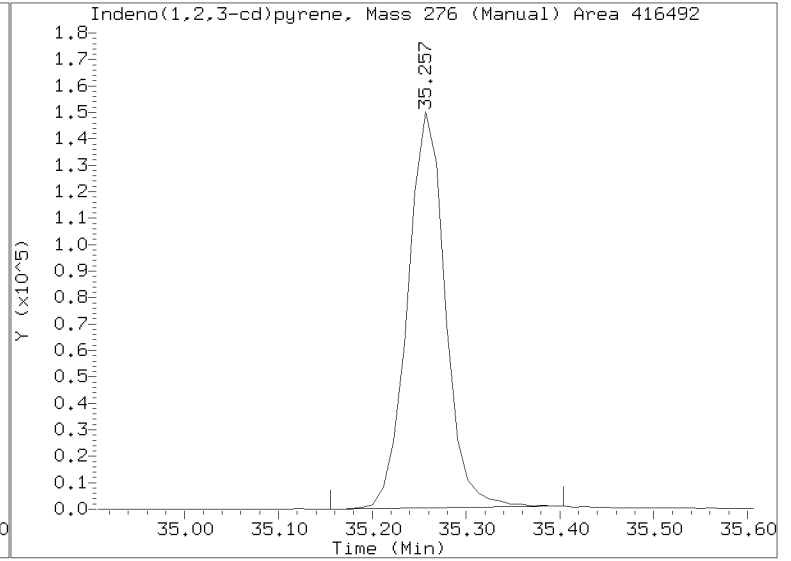
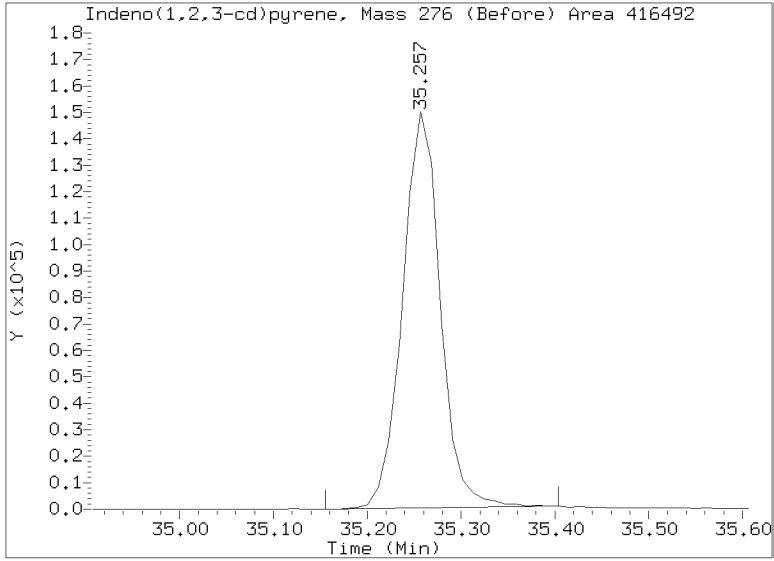
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201007.b/NT1420100702.D

Injection Date: 07-OCT-2020 10:24

Lab ID:SIJ0085-CAL4 Client ID:

Report Date: 10/09/2020 08:50



Data File: \\target\share\chem3\nt14,1\20201007,6\NT1420100703.D

Date : 07-OCT-2020 11:48

Client ID:

Sample Info: S100085-CAL6

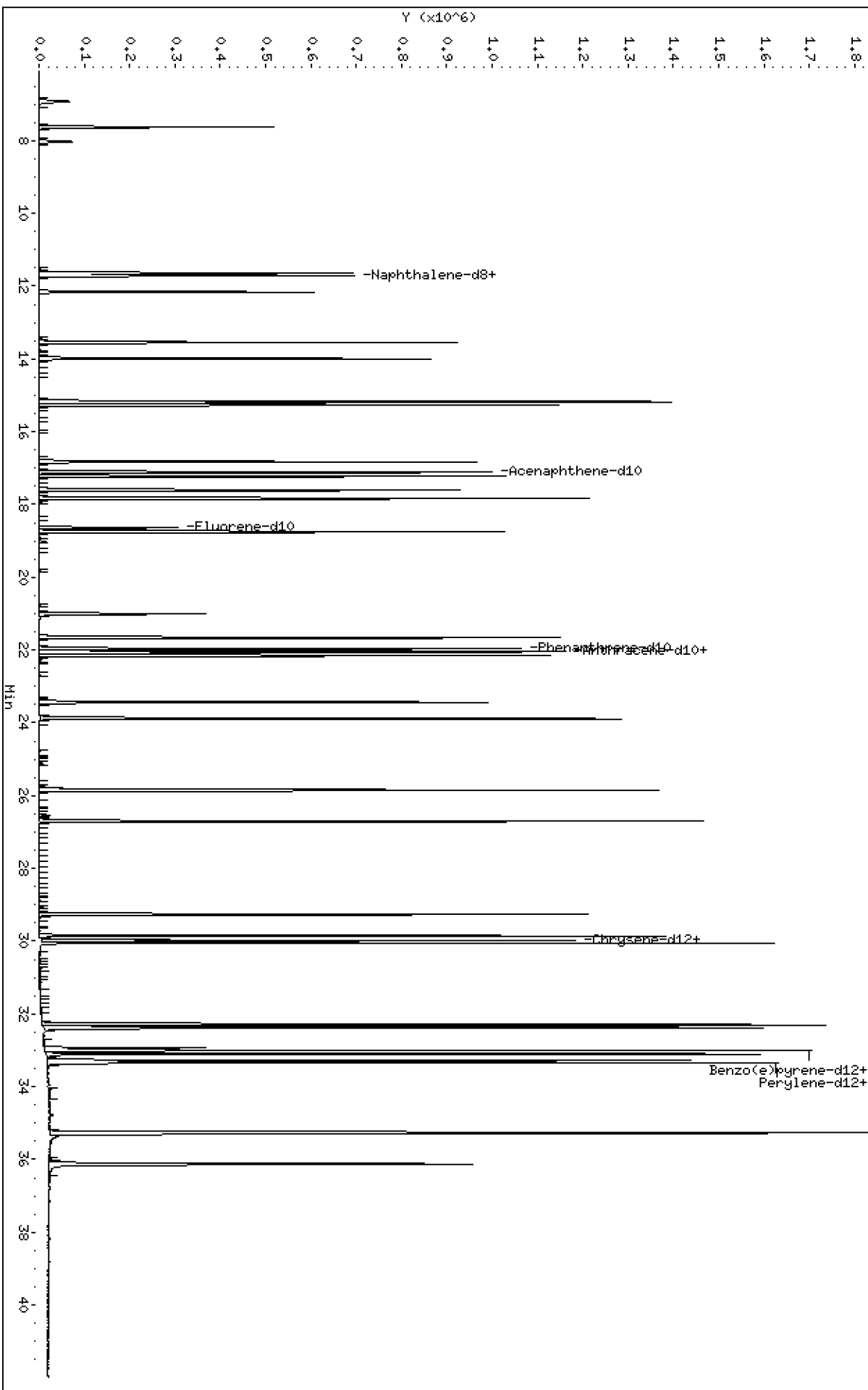
Column phase: Rxi-17S11 MS

Instrument: nt14,1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14,1\20201007,6\NT1420100703.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20201007.b\NT1420100703.D  
 Lab Smp Id: SIJ0085-CAL6  
 Inj Date : 07-OCT-2020 11:48  
 Operator : VTS  
 Smp Info : SIJ0085-CAL6  
 Misc Info :  
 Comment : 1ul Injection  
 Method : \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Meth Date : 09-Oct-2020 08:45 van  
 Cal Date : 07-OCT-2020 15:56  
 Als bottle: 3  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 4.14  
 Processing Host: VANS

Inst ID: nt14.i  
 Quant Type: ISTD  
 Cal File: NT1420100708.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	6.924	6.934	(0.371)	105286	10.0000	10.36
2 cis-Decalin	138	8.034	8.034	(0.431)	79916	10.0000	10.45
\$ 6 Naphthalene-d8	136	11.652	11.641	(0.625)	967993	10.0000	9.754
7 Naphthalene	128	11.718	11.707	(0.629)	940361	10.0000	9.471
12 Benzo(b)thiophene	134	12.157	12.157	(0.652)	806656	10.0000	9.669
16 2-Methylnaphthalene	141	13.553	13.542	(0.727)	595209	10.0000	9.834
17 1-methylnaphthalene	141	13.992	13.992	(0.751)	569676	10.0000	9.995
18 Biphenyl	154	15.190	15.179	(0.815)	901448	10.0000	9.896
19 2,6-Dimethylnaphthalene	156	15.267	15.256	(0.819)	651605	10.0000	9.798
20 Acenaphthylene	152	16.828	16.817	(0.903)	1120646	10.0000	10.28
\$ 21 Acenaphthene-d10	164	17.114	17.103	(0.918)	595154	10.0000	9.987
22 Acenaphthene	153	17.223	17.223	(0.924)	709735	10.0000	9.936
23 Dibenzofuran	168	17.608	17.597	(0.944)	1033337	10.0000	9.971
24 1,6,7-Trimethylnaphthalene	170	17.828	17.828	(0.956)	683302	10.0000	10.13
* 25 Fluorene-d10	176	18.644	18.632	(1.000)	243221	2.00000	
26 Fluorene	166	18.746	18.746	(1.005)	803780	10.0000	9.949
30 Dibenzothiophene	184	21.660	21.648	(1.162)	1167085	10.0000	10.04
\$ 35 Phenanthrene-d10	188	21.974	21.963	(0.995)	1076417	10.0000	9.910
36 Phenanthrene	178	22.051	22.040	(0.999)	1189824	10.0000	9.474
* 250 Anthracene-d10	188	22.083	22.072	(1.000)	226778	2.00000	
37 Anthracene	178	22.149	22.138	(1.003)	1194371	10.0000	9.677
42 Carbazole	167	23.436	23.425	(1.061)	1062535	10.0000	9.941
43 1-Methylphenanthrene	192	23.886	23.875	(1.082)	931522	10.0000	10.11
44 Fluoranthene	202	25.854	25.843	(1.171)	1417885	10.0000	10.23
46 Pyrene	202	26.712	26.701	(1.210)	1497643	10.0000	10.24
51 Naphthobenzothiophene	234	29.267	29.256	(1.325)	1356296	10.0000	10.17
55 Benzo(a)anthracene	228	29.850	29.839	(0.906)	1427914	10.0000	10.50
\$ 56 Chrysene-d12	240	29.974	29.974	(0.910)	1042800	10.0000	9.707
57 Chrysene	228	30.053	30.042	(0.912)	1376082	10.0000	10.18
62 Benzo(b)fluoranthene	252	32.283	32.272	(0.980)	1652832	10.0000	10.76 (M)
63 Benzo(k)fluoranthene	252	32.328	32.317	(0.982)	1557489	10.0000	10.06 (M)
293 Benzo(j)fluoranthene	252	32.396	32.373	(0.984)	1390794	10.0000	10.28 (M)
246 Total Benzofluoranthenes	252	32.328	32.317	(0.982)	4514074	30.0000	31.68 (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		32.936	32.925	(1.000)	315078	2.00000	
64 Benzo(e)pyrene	252		33.004	32.993	(1.002)	1467097	10.0000	10.43
66 Benzo(a)pyrene	252		33.105	33.083	(1.005)	1433315	10.0000	10.79
\$ 67 Perylene-d12	264		33.274	33.263	(1.010)	1310919	10.0000	10.06
68 Perylene	252		33.330	33.319	(1.012)	1444636	10.0000	10.35
69 Indeno(1,2,3-cd)pyrene	276		35.279	35.256	(1.071)	1779209	10.0000	10.81
70 Dibenzo(a,h)anthracene	278		35.256	35.245	(1.070)	1617196	10.0000	11.13
74 Benzo(g,h,i)perylene	276		36.124	36.101	(1.097)	1507736	10.0000	10.43

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 07-OCT-2020  
 Lab File ID: NT1420100703.D Calibration Time: 18:22  
 Lab Smp Id: SIJ0085-CAL6  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: VTS  
 Method File: \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Misc Info:

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	209596	104798	419192	243221	16.04
250 Anthracene-d10	192407	96204	384814	226778	17.86
251 Benzo(e)pyrene-d1	274120	137060	548240	315078	14.94

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.63	18.13	19.13	18.64	0.06
250 Anthracene-d10	22.07	21.57	22.57	22.08	0.05
251 Benzo(e)pyrene-d1	32.93	32.43	33.43	32.94	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.

REVIEW SUMMARY FOR FILE - NT1420100703.D

Lab ID: SIJ0085-CAL6

nt14.i, 20201007.b\ALKYLPNA.m, 07-OCT-2020 11:48

RT CO-ELUTION COMPOUNDS

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NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1420100711.D

On Column LOD for nt14.i, 20201007.b\ALKYLPNA.m, TARGETS.sub = 0.0000

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

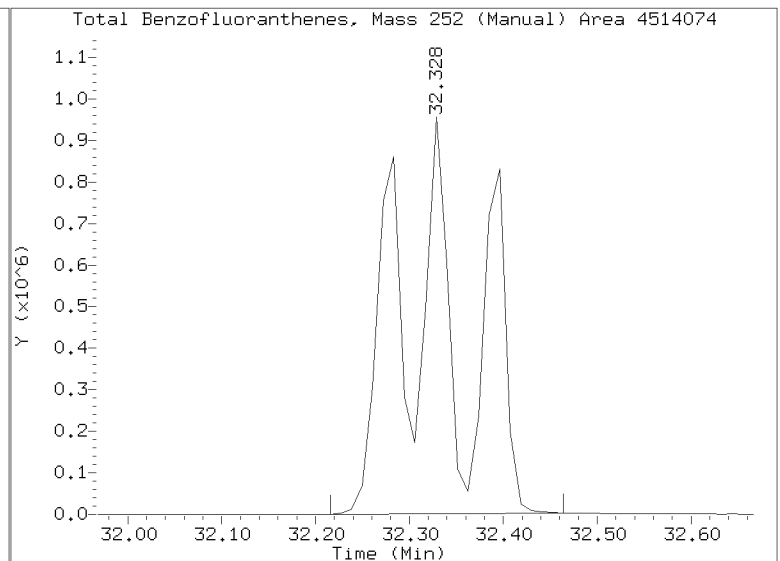
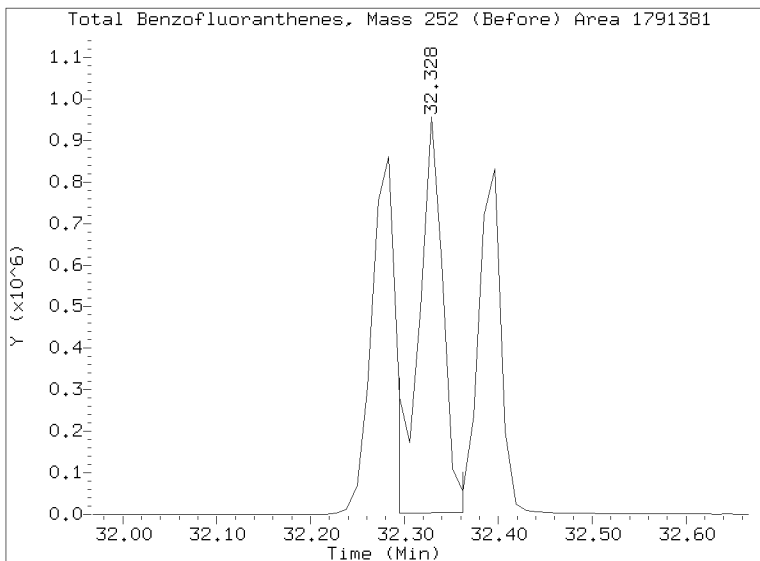
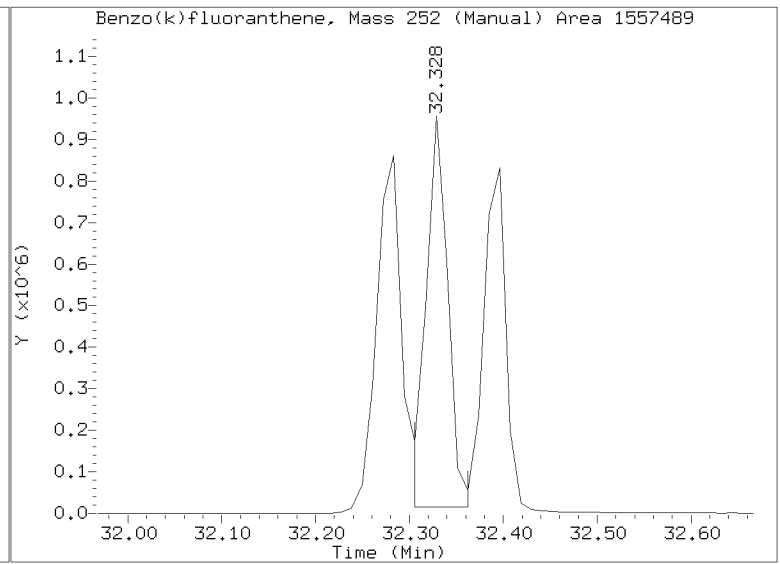
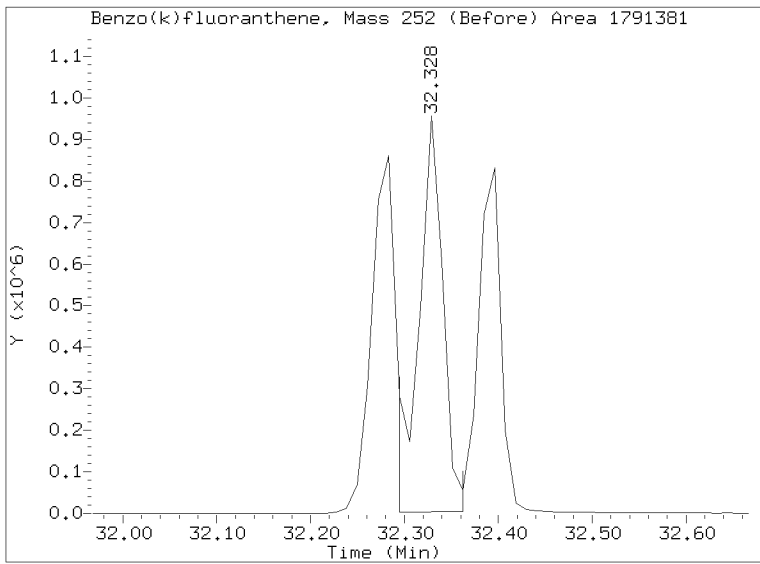
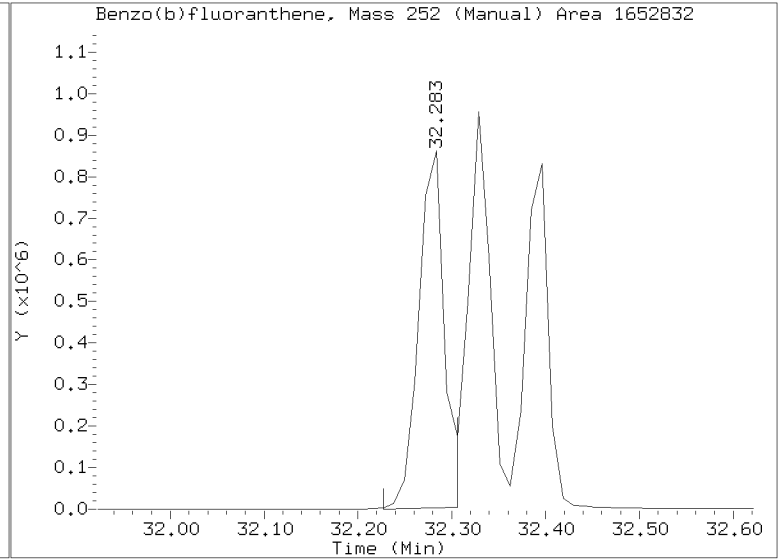
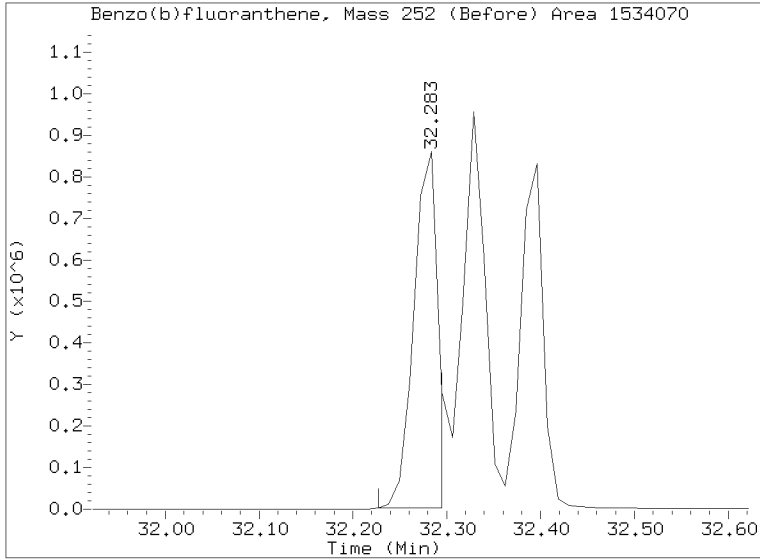
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201007.b/NT1420100703.D

Injection Date: 07-OCT-2020 11:48

Lab ID:SIJ0085-CAL6 Client ID:

Report Date: 10/09/2020 08:50



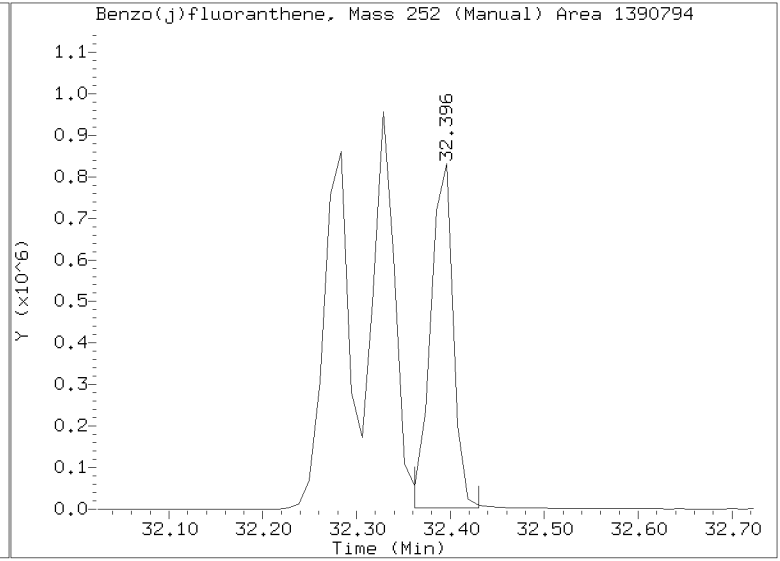
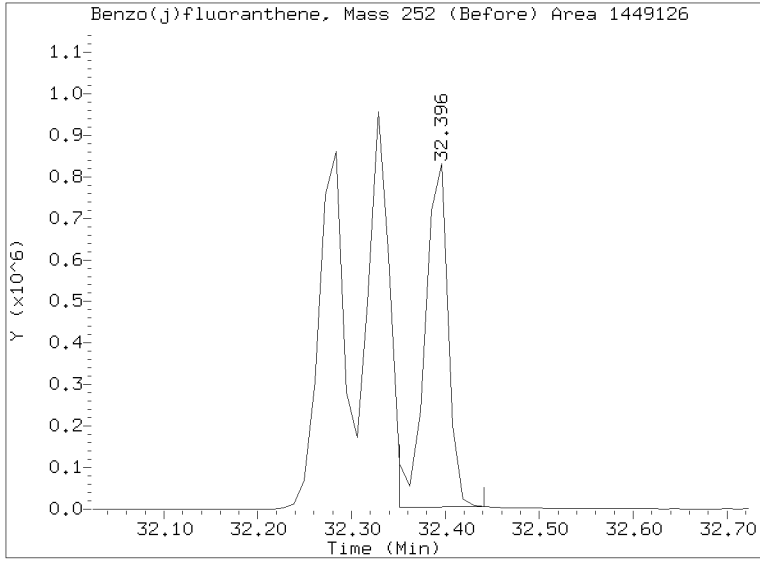
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201007.b/NT1420100703.D

Injection Date: 07-OCT-2020 11:48

Lab ID:SIJ0085-CAL6 Client ID:

Report Date: 10/09/2020 08:50



Data File: \\target\share\chem3\nt14,1\20201007,16\NT1420100704.D

Date : 07-OCT-2020 12:38

Client ID:

Sample Info: S100085-CALL

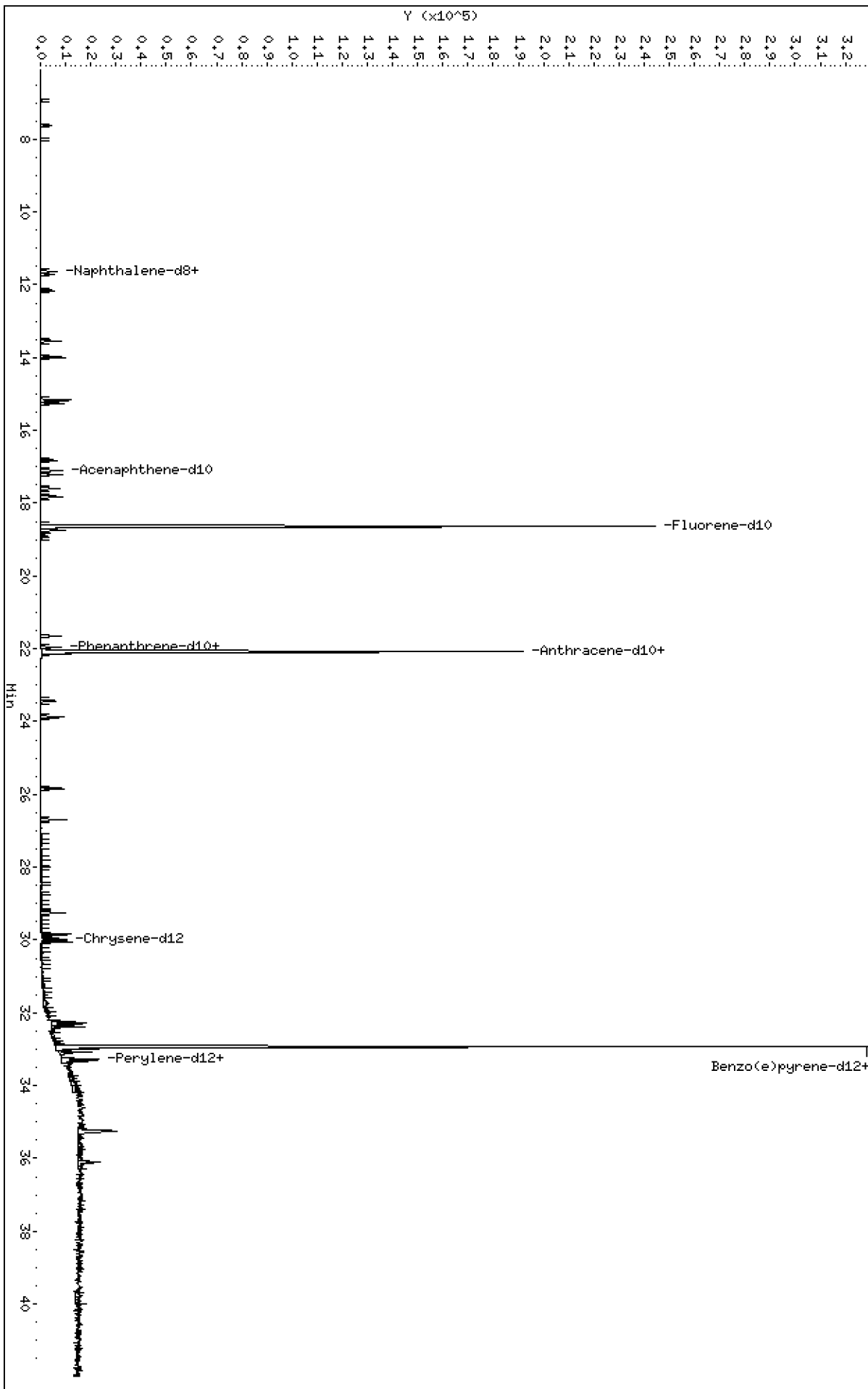
Column phase: Rxi-17S11 MS

Instrument: nt14,1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14,1\20201007,16\NT1420100704.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20201007.b\NT1420100704.D  
 Lab Smp Id: SIJ0085-CAL1  
 Inj Date : 07-OCT-2020 12:38  
 Operator : VTS  
 Smp Info : SIJ0085-CAL1  
 Misc Info :  
 Comment : 1ul Injection  
 Method : \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Meth Date : 09-Oct-2020 08:45 van  
 Cal Date : 07-OCT-2020 15:56  
 Als bottle: 4  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 4.14  
 Processing Host: VANS

Inst ID: nt14.i  
 Quant Type: ISTD  
 Cal File: NT1420100708.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	6.934	6.934	(0.372)	766	0.10000	0.08346
2 cis-Decalin	138	8.034	8.034	(0.431)	571	0.10000	0.08268 (M)
\$ 6 Naphthalene-d8	136	11.641	11.641	(0.625)	9430	0.10000	0.1052
7 Naphthalene	128	11.707	11.707	(0.628)	9141	0.10000	0.1020
12 Benzo(b)thiophene	134	12.157	12.157	(0.652)	8222	0.10000	0.1092
16 2-Methylnaphthalene	141	13.542	13.542	(0.727)	5687	0.10000	0.1041
17 1-methylnaphthalene	141	13.993	13.992	(0.751)	7676	0.10000	0.1363
18 Biphenyl	154	15.180	15.179	(0.815)	8706	0.10000	0.1059
19 2,6-Dimethylnaphthalene	156	15.256	15.256	(0.819)	5478	0.10000	0.09124
20 Acenaphthylene	152	16.817	16.817	(0.903)	9949	0.10000	0.1011
\$ 21 Acenaphthene-d10	164	17.103	17.103	(0.918)	5216	0.10000	0.09694
22 Acenaphthene	153	17.224	17.223	(0.924)	6473	0.10000	0.1004
23 Dibenzofuran	168	17.597	17.597	(0.944)	9414	0.10000	0.1006
24 1,6,7-Trimethylnaphthalene	170	17.828	17.828	(0.957)	5882	0.10000	0.09663
* 25 Fluorene-d10	176	18.632	18.632	(1.000)	219599	2.00000	
26 Fluorene	166	18.746	18.746	(1.006)	7135	0.10000	0.09782
30 Dibenzothiophene	184	21.648	21.648	(1.162)	10466	0.10000	0.09970
\$ 35 Phenanthrene-d10	188	21.963	21.963	(0.995)	9226	0.10000	0.09659 (M)
36 Phenanthrene	178	22.040	22.040	(0.999)	11697	0.10000	0.1059
* 250 Anthracene-d10	188	22.073	22.072	(1.000)	199428	2.00000	
37 Anthracene	178	22.139	22.138	(1.003)	12429	0.10000	0.1145
42 Carbazole	167	23.425	23.425	(1.061)	9735	0.10000	0.1036
43 1-Methylphenanthrene	192	23.876	23.875	(1.082)	7650	0.10000	0.09437
44 Fluoranthene	202	25.844	25.843	(1.171)	12325	0.10000	0.1011
46 Pyrene	202	26.701	26.701	(1.210)	13276	0.10000	0.1032
51 Naphthobenzothiophene	234	29.256	29.256	(1.325)	11379	0.10000	0.09706
55 Benzo(a)anthracene	228	29.839	29.839	(0.906)	12512	0.10000	0.1015
\$ 56 Chrysene-d12	240	29.963	29.974	(0.910)	10937	0.10000	0.1123
57 Chrysene	228	30.042	30.042	(0.912)	12311	0.10000	0.1005
62 Benzo(b)fluoranthene	252	32.261	32.272	(0.980)	13449	0.10000	0.09662
63 Benzo(k)fluoranthene	252	32.317	32.317	(0.982)	15506	0.10000	0.1105 (M)
293 Benzo(j)fluoranthene	252	32.373	32.373	(0.983)	12906	0.10000	0.1052
246 Total Benzofluoranthenes	252	32.261	32.317	(0.980)	39150	0.30000	0.3031 (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	32.925	32.925	(1.000)	285553	2.00000		
64 Benzo(e)pyrene	252	32.993	32.993	(1.002)	12547	0.10000	0.09845	
66 Benzo(a)pyrene	252	33.083	33.083	(1.005)	11853	0.10000	0.09844	
\$ 67 Perylene-d12	264	33.263	33.263	(1.010)	12542	0.10000	0.1062	
68 Perylene	252	33.319	33.319	(1.012)	13133	0.10000	0.1038	
69 Indeno(1,2,3-cd)pyrene	276	35.257	35.256	(1.071)	14810	0.10000	0.09932	
70 Dibenzo(a,h)anthracene	278	35.234	35.245	(1.070)	12613	0.10000	0.09575	
74 Benzo(g,h,i)perylene	276	36.101	36.101	(1.096)	13347	0.10000	0.1019	

QC Flag Legend

M - Compound response manually integrated.



ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 07-OCT-2020  
 Lab File ID: NT1420100704.D Calibration Time: 18:22  
 Lab Smp Id: SIJ0085-CAL1  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: VTS  
 Method File: \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Misc Info:

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	209596	104798	419192	219599	4.77
250 Anthracene-d10	192407	96204	384814	199428	3.65
251 Benzo(e)pyrene-d1	274120	137060	548240	285553	4.17

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.63	18.13	19.13	18.63	0.00
250 Anthracene-d10	22.07	21.57	22.57	22.07	0.00
251 Benzo(e)pyrene-d1	32.93	32.43	33.43	32.93	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 - NT1420100704.D

Lab ID: SIJ0085-CAL1

nt14.i, 20201007.b\ALKYLPNA.m, 07-OCT-2020 12:38

RT CO-ELUTION COMPOUNDS

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NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

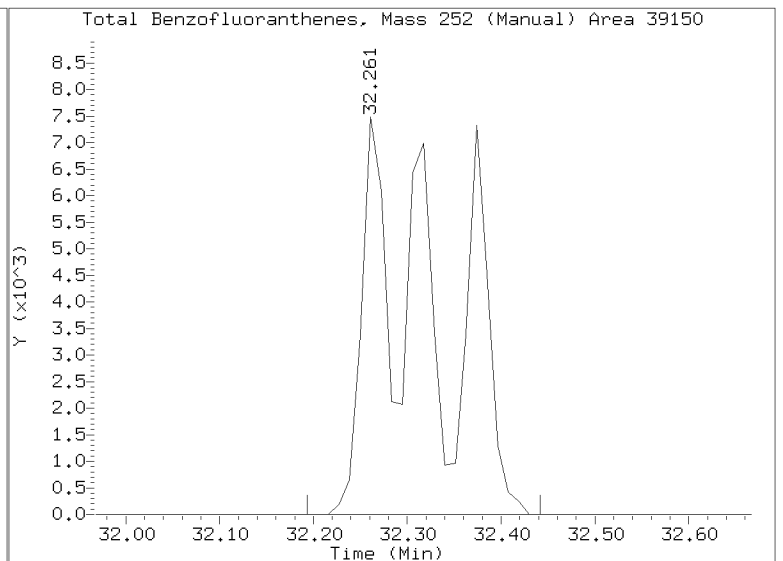
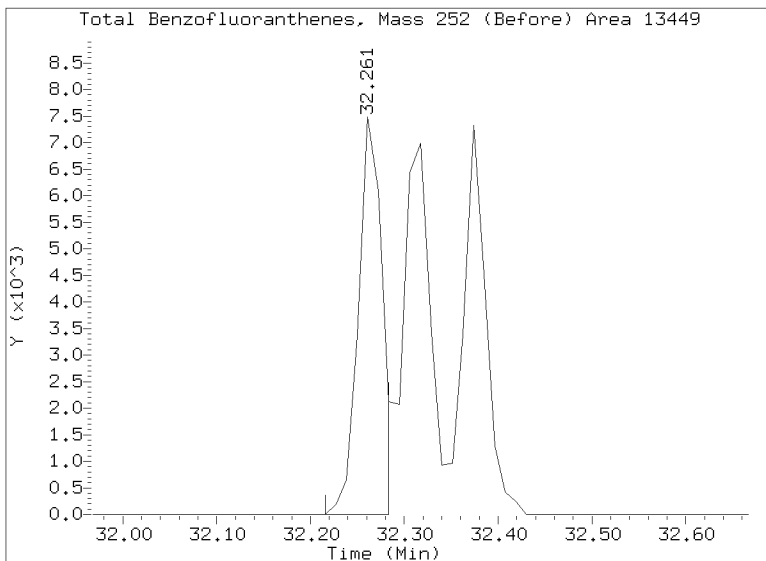
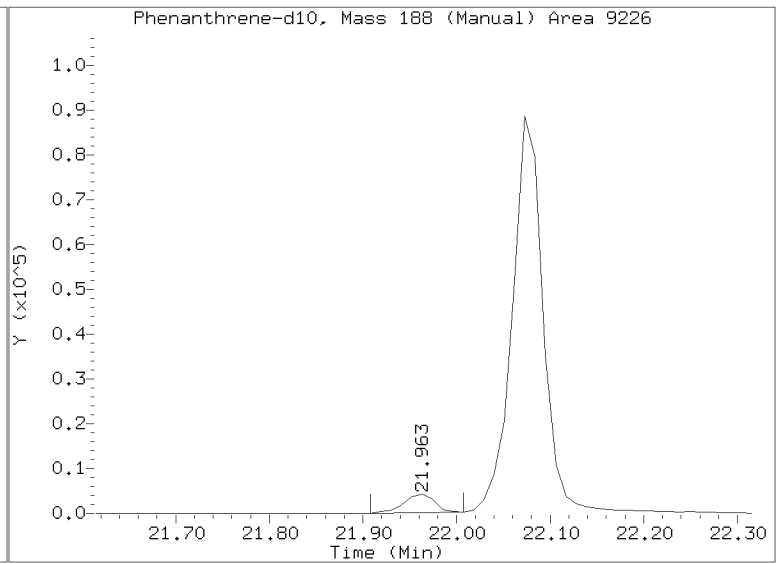
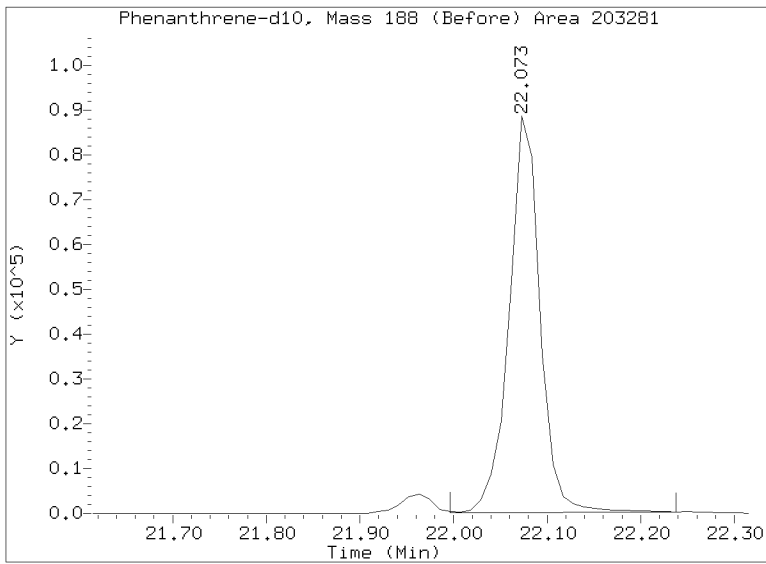
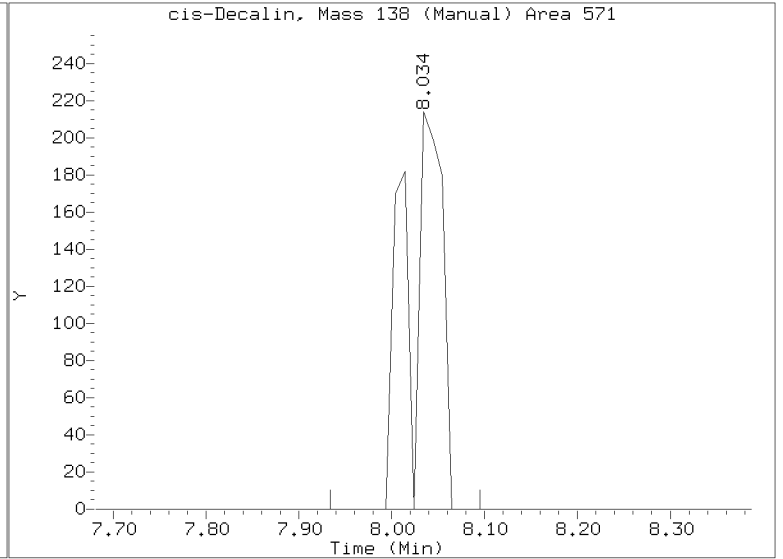
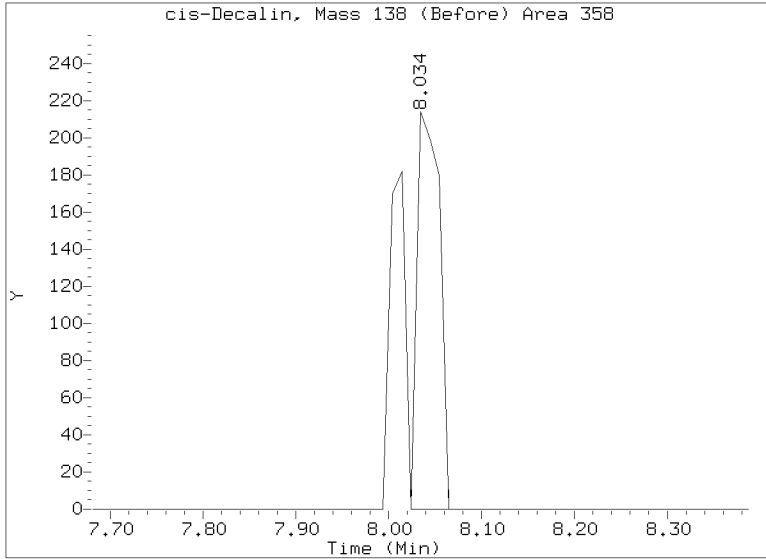
RRT check based on Ccal File: NT1420100711.D

On Column LOD for nt14.i, 20201007.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/20201007.b/NT1420100704.D  
Injection Date: 07-OCT-2020 12:38  
Lab ID:SIJ0085-CAL1 Client ID:  
Report Date: 10/09/2020 08:51



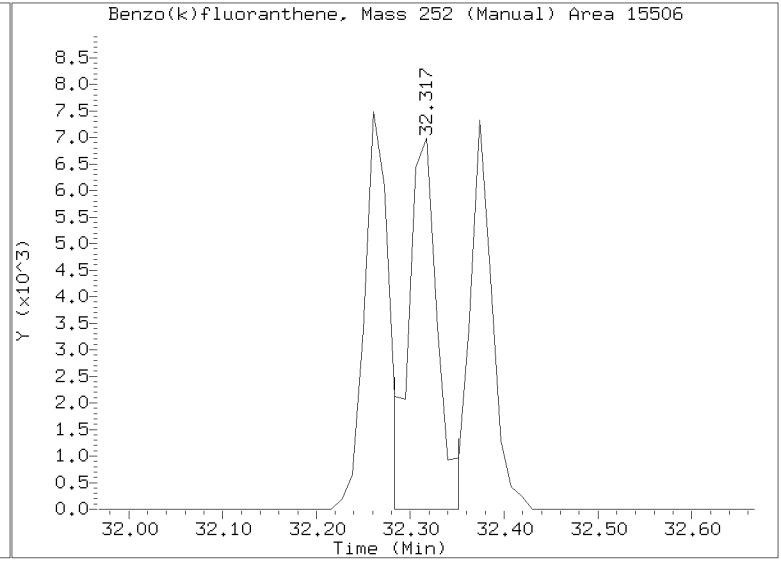
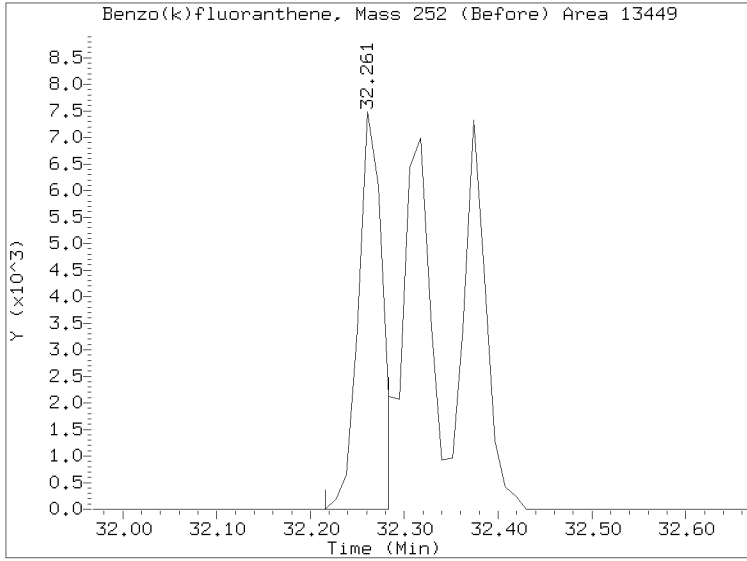
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201007.b/NT1420100704.D

Injection Date: 07-OCT-2020 12:38

Lab ID:SIJ0085-CAL1 Client ID:

Report Date: 10/09/2020 08:51



Data File: \\target\share\chem3\nt14,1\20201007,16\NT1420100705.D

Date : 07-OCT-2020 13:26

Client ID:

Sample Info: S1J0085-C015

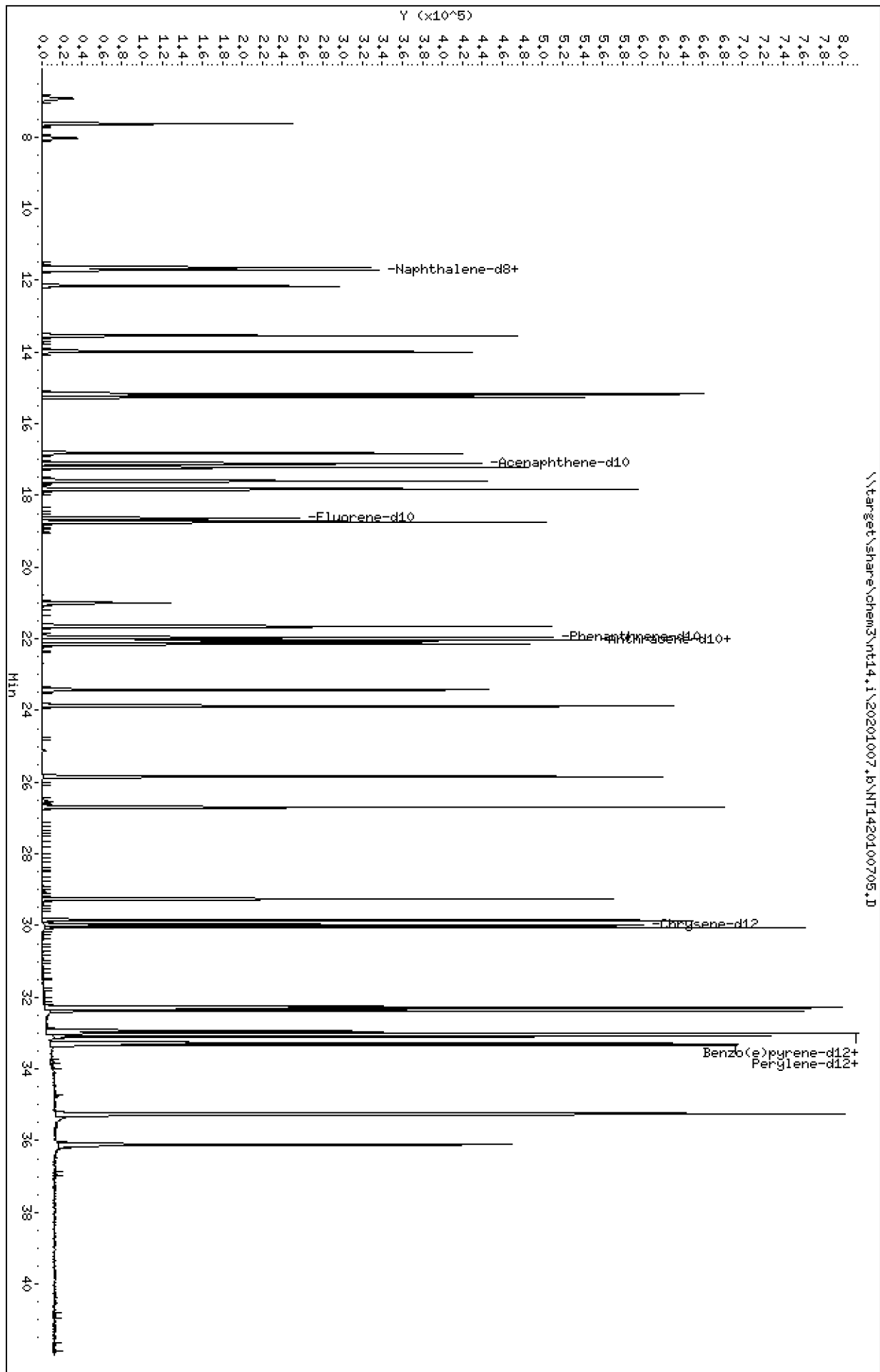
Column phase: Rxi-17S11 MS

Instrument: nt14,1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14,1\20201007,16\NT1420100705.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20201007.b\NT1420100705.D  
 Lab Smp Id: SIJ0085-CAL5  
 Inj Date : 07-OCT-2020 13:26  
 Operator : VTS  
 Smp Info : SIJ0085-CAL5  
 Misc Info :  
 Comment : 1ul Injection  
 Method : \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Meth Date : 09-Oct-2020 08:45 van  
 Cal Date : 07-OCT-2020 15:56  
 Als bottle: 5  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 4.14  
 Processing Host: VANS

Inst ID: nt14.i  
 Quant Type: ISTD  
 Cal File: NT1420100708.D  
 Calibration Sample, Level: 6  
 Compound Sublist: TARGETS.sub

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT	ON-COL
	MASS						(ug/mL)	(ug/mL)
1 trans-Decalin	138		6.934	6.934	(0.372)	49980	5.00000	5.388
2 cis-Decalin	138		8.023	8.034	(0.431)	36850	5.00000	5.279
\$ 6 Naphthalene-d8	136		11.641	11.641	(0.625)	456146	5.00000	5.037
7 Naphthalene	128		11.707	11.707	(0.628)	452193	5.00000	4.991
12 Benzo(b)thiophene	134		12.157	12.157	(0.652)	376503	5.00000	4.945
16 2-Methylnaphthalene	141		13.542	13.542	(0.727)	284564	5.00000	5.152
17 1-methylnaphthalene	141		13.992	13.992	(0.751)	272838	5.00000	5.027
18 Biphenyl	154		15.179	15.179	(0.815)	424093	5.00000	5.102
19 2,6-Dimethylnaphthalene	156		15.256	15.256	(0.819)	310041	5.00000	5.109
20 Acenaphthylene	152		16.817	16.817	(0.903)	512483	5.00000	5.150
\$ 21 Acenaphthene-d10	164		17.103	17.103	(0.918)	281256	5.00000	5.172
22 Acenaphthene	153		17.223	17.223	(0.924)	332037	5.00000	5.093
23 Dibenzofuran	168		17.597	17.597	(0.944)	486378	5.00000	5.143
24 1,6,7-Trimethylnaphthalene	170		17.828	17.828	(0.957)	321559	5.00000	5.226
* 25 Fluorene-d10	176		18.632	18.632	(1.000)	221965	2.00000	
26 Fluorene	166		18.746	18.746	(1.006)	381827	5.00000	5.179
30 Dibenzothiophene	184		21.648	21.648	(1.162)	546348	5.00000	5.149
\$ 35 Phenanthrene-d10	188		21.963	21.963	(0.995)	507210	5.00000	5.180
36 Phenanthrene	178		22.040	22.040	(0.999)	569840	5.00000	5.033
* 250 Anthracene-d10	188		22.073	22.072	(1.000)	204432	2.00000	
37 Anthracene	178		22.149	22.138	(1.003)	549053	5.00000	4.935
42 Carbazole	167		23.425	23.425	(1.061)	489372	5.00000	5.079
43 1-Methylphenanthrene	192		23.875	23.875	(1.082)	441226	5.00000	5.310
44 Fluoranthene	202		25.843	25.843	(1.171)	651991	5.00000	5.218
46 Pyrene	202		26.701	26.701	(1.210)	679613	5.00000	5.154
51 Naphthobenzothiophene	234		29.256	29.256	(1.325)	628207	5.00000	5.227
55 Benzo(a)anthracene	228		29.850	29.839	(0.907)	658370	5.00000	5.250
\$ 56 Chrysene-d12	240		29.974	29.974	(0.910)	494394	5.00000	4.992
57 Chrysene	228		30.042	30.042	(0.912)	635702	5.00000	5.101
62 Benzo(b)fluoranthene	252		32.272	32.272	(0.980)	734114	5.00000	5.185 (M)
63 Benzo(k)fluoranthene	252		32.317	32.317	(0.982)	748276	5.00000	5.243 (M)
293 Benzo(j)fluoranthene	252		32.384	32.373	(0.984)	618891	5.00000	4.961 (M)
246 Total Benzofluoranthenes	252		32.272	32.317	(0.980)	2065414	15.0000	15.72 (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	32.925	32.925	(1.000)	290471	2.00000		
64 Benzo(e)pyrene	252	32.993	32.993	(1.002)	677603	5.00000	5.227	
66 Benzo(a)pyrene	252	33.094	33.083	(1.005)	647617	5.00000	5.287	
\$ 67 Perylene-d12	264	33.263	33.263	(1.010)	614419	5.00000	5.115	
68 Perylene	252	33.330	33.319	(1.012)	672765	5.00000	5.229	
69 Indeno(1,2,3-cd)pyrene	276	35.268	35.256	(1.071)	815478	5.00000	5.376	
70 Dibenzo(a,h)anthracene	278	35.245	35.245	(1.070)	714065	5.00000	5.329(M)	
74 Benzo(g,h,i)perylene	276	36.112	36.101	(1.097)	694445	5.00000	5.212	

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 07-OCT-2020  
 Lab File ID: NT1420100705.D Calibration Time: 18:22  
 Lab Smp Id: SIJ0085-CAL5  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: VTS  
 Method File: \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Misc Info:

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	209596	104798	419192	221965	5.90
250 Anthracene-d10	192407	96204	384814	204432	6.25
251 Benzo(e)pyrene-d1	274120	137060	548240	290471	5.96

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.63	18.13	19.13	18.63	0.00
250 Anthracene-d10	22.07	21.57	22.57	22.07	0.00
251 Benzo(e)pyrene-d1	32.93	32.43	33.43	32.93	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 - NT1420100705.D

Lab ID: SIJ0085-CAL5

nt14.i, 20201007.b\ALKYLPNA.m, 07-OCT-2020 13:26

RT CO-ELUTION COMPOUNDS

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NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

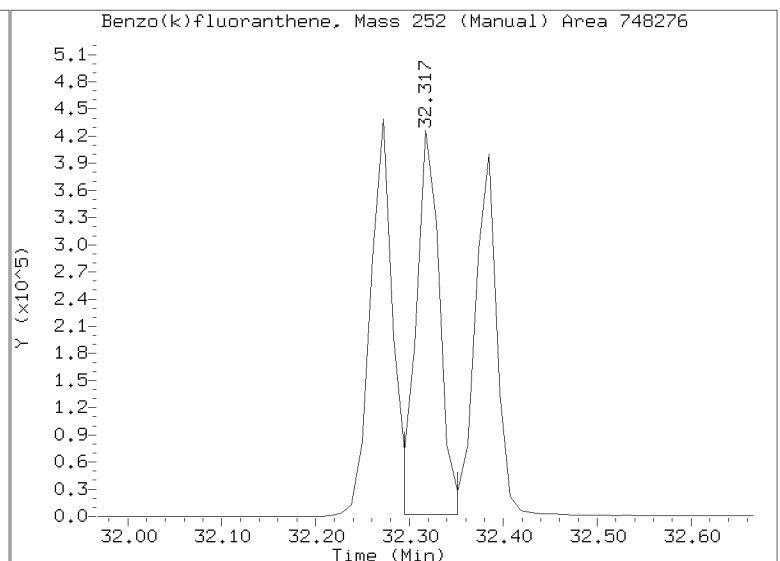
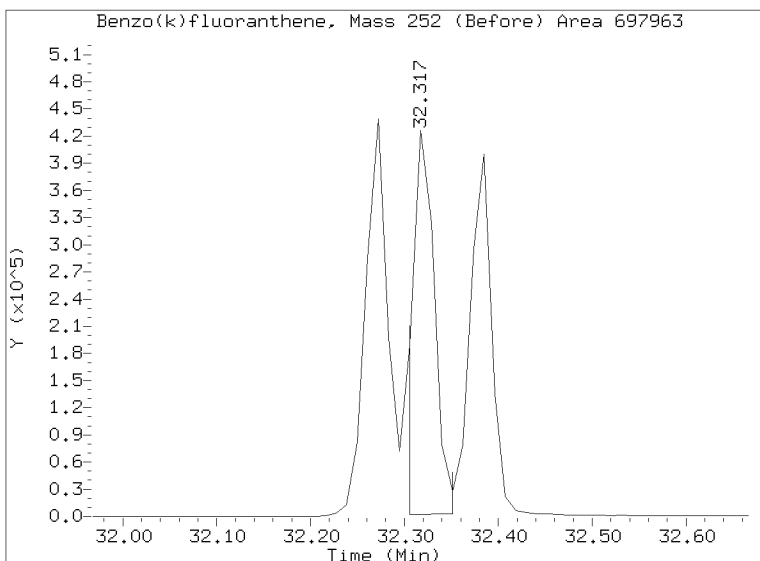
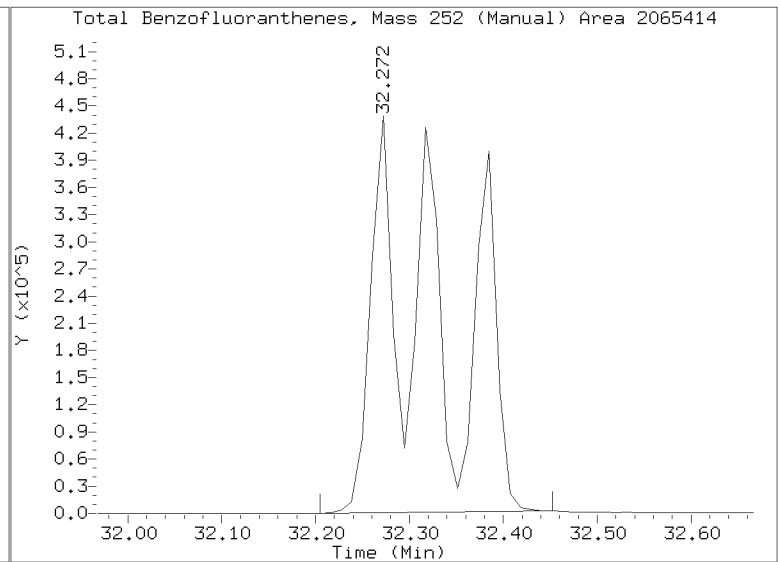
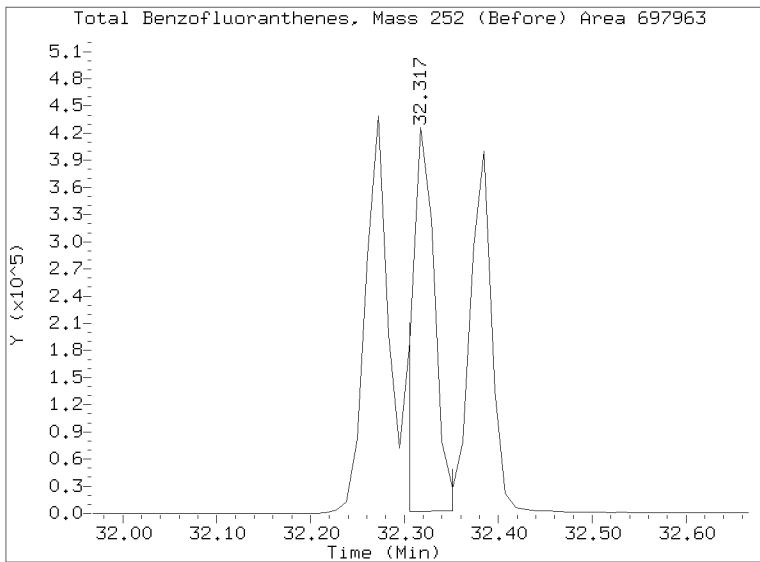
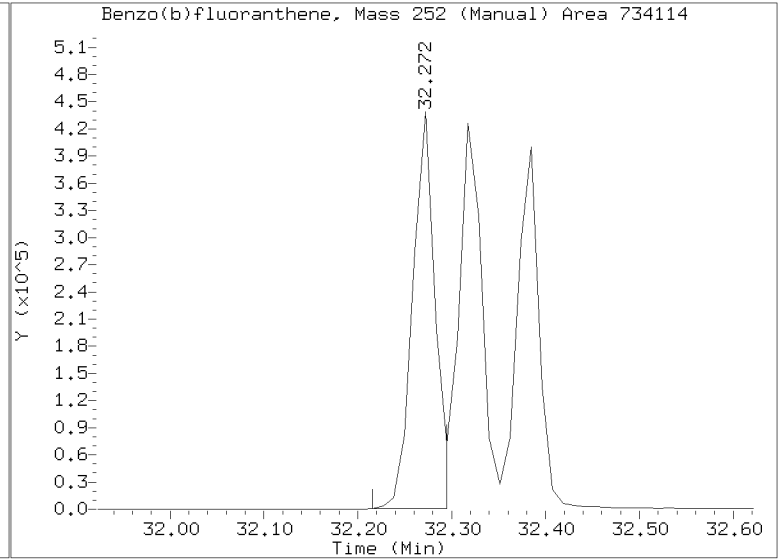
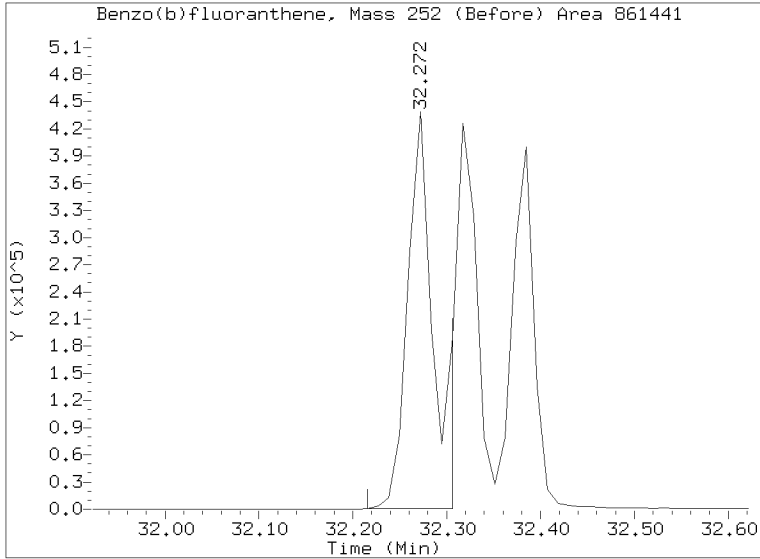
RRT check based on Ccal File: NT1420100711.D

On Column LOD for nt14.i, 20201007.b\ALKYLPNA.m, TARGETS.sub = 0.0000

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

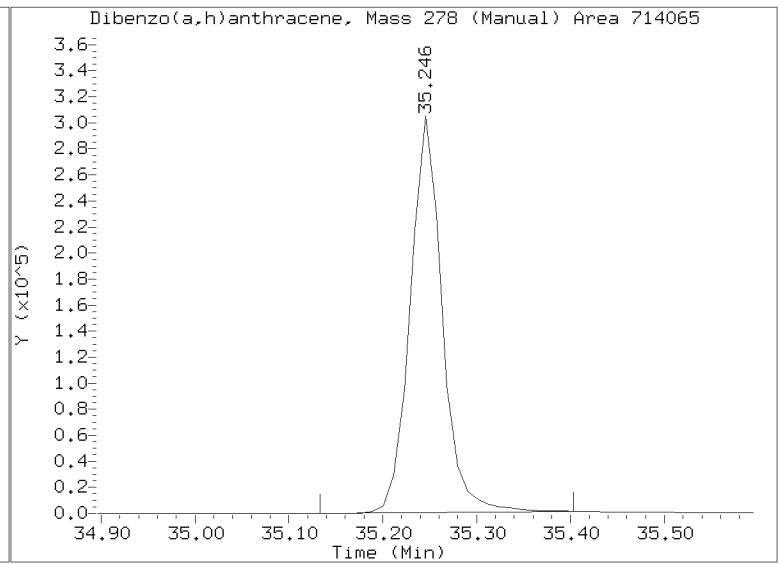
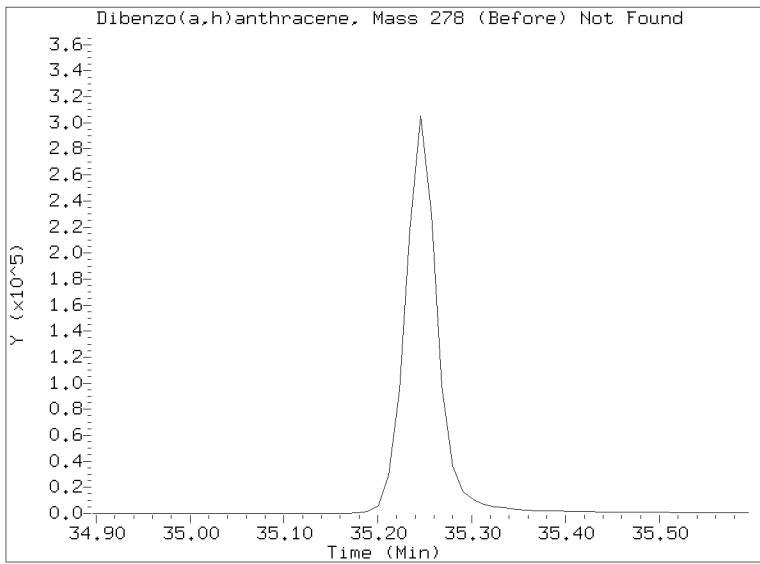
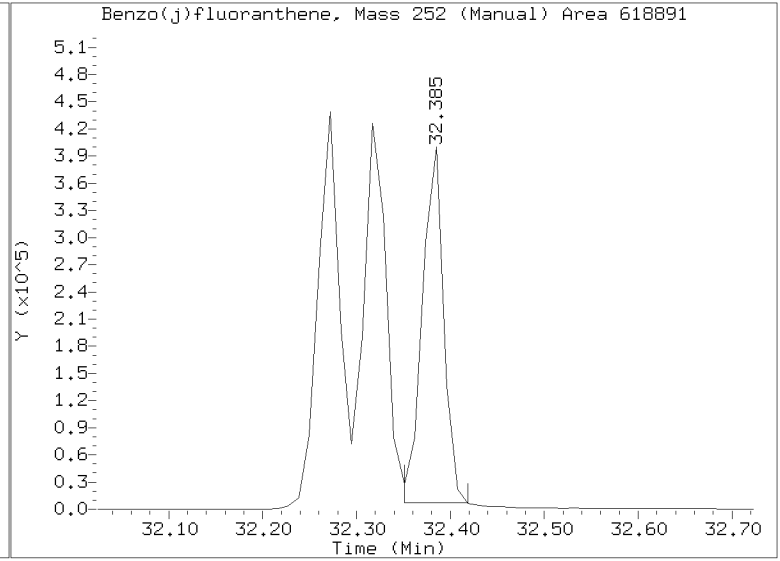
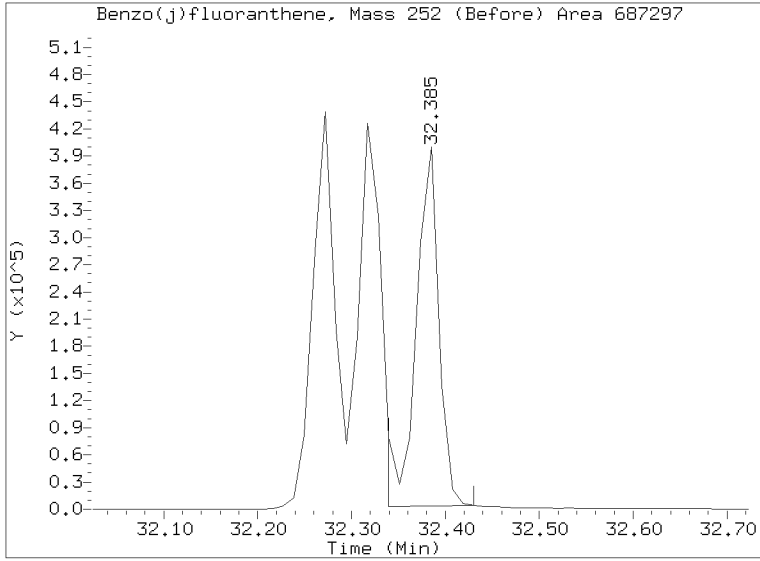
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201007.b/NT1420100705.D  
Injection Date: 07-OCT-2020 13:26  
Lab ID:SIJ0085-CAL5 Client ID:  
Report Date: 10/09/2020 08:51



# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201007.b/NT1420100705.D  
Injection Date: 07-OCT-2020 13:26  
Lab ID:SIJ0085-CAL5 Client ID:  
Report Date: 10/09/2020 08:51



Data File: \\target\share\chem3\nt14,1\20201007,6\NT1420100706.D

Date : 07-OCT-2020 14:17

Client ID:

Sample Info: S100085-CAL2

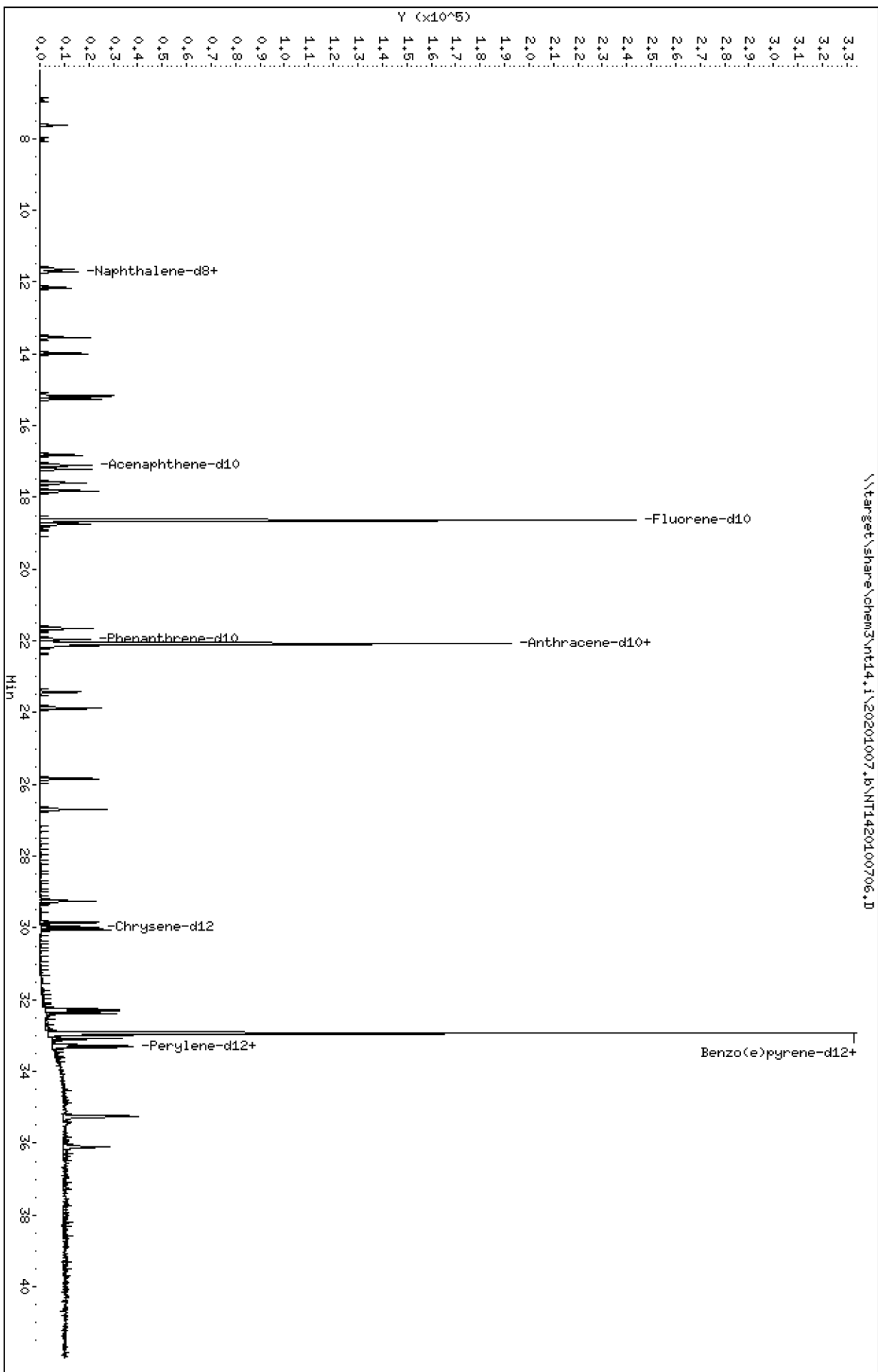
Column phase: Rxi-17S11 MS

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\20201007.b\NT1420100706.D  
 Lab Smp Id: SIJ0085-CAL2  
 Inj Date : 07-OCT-2020 14:17  
 Operator : VTS  
 Smp Info : SIJ0085-CAL2  
 Misc Info :  
 Comment : 1ul Injection  
 Method : \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Meth Date : 09-Oct-2020 08:45 van  
 Cal Date : 07-OCT-2020 15:56  
 Als bottle: 6  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 4.14  
 Processing Host: VANS

Inst ID: nt14.i  
 Quant Type: ISTD  
 Cal File: NT1420100708.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	6.934	6.934	(0.372)	2252	0.25000	0.2466
2 cis-Decalin	138	8.044	8.034	(0.432)	1594	0.25000	0.2320
\$ 6 Naphthalene-d8	136	11.641	11.641	(0.625)	21730	0.25000	0.2438
7 Naphthalene	128	11.707	11.707	(0.628)	22159	0.25000	0.2485
12 Benzo(b)thiophene	134	12.157	12.157	(0.652)	18669	0.25000	0.2491
16 2-Methylnaphthalene	141	13.542	13.542	(0.727)	12712	0.25000	0.2338
17 1-methylnaphthalene	141	13.993	13.992	(0.751)	13075	0.25000	0.2336
18 Biphenyl	154	15.180	15.179	(0.815)	19766	0.25000	0.2416
19 2,6-Dimethylnaphthalene	156	15.256	15.256	(0.819)	15174	0.25000	0.2540
20 Acenaphthylene	152	16.817	16.817	(0.903)	22378	0.25000	0.2285
\$ 21 Acenaphthene-d10	164	17.103	17.103	(0.918)	13305	0.25000	0.2486
22 Acenaphthene	153	17.224	17.223	(0.924)	15700	0.25000	0.2447
23 Dibenzofuran	168	17.597	17.597	(0.944)	22038	0.25000	0.2368
24 1,6,7-Trimethylnaphthalene	170	17.828	17.828	(0.957)	14402	0.25000	0.2378
* 25 Fluorene-d10	176	18.632	18.632	(1.000)	218460	2.00000	
26 Fluorene	166	18.746	18.746	(1.006)	17591	0.25000	0.2424
30 Dibenzothiophene	184	21.648	21.648	(1.162)	25381	0.25000	0.2430
\$ 35 Phenanthrene-d10	188	21.963	21.963	(0.995)	22819	0.25000	0.2407
36 Phenanthrene	178	22.040	22.040	(0.999)	26582	0.25000	0.2425
* 250 Anthracene-d10	188	22.073	22.072	(1.000)	197976	2.00000	
37 Anthracene	178	22.139	22.138	(1.003)	25137	0.25000	0.2333
42 Carbazole	167	23.425	23.425	(1.061)	22010	0.25000	0.2359
43 1-Methylphenanthrene	192	23.876	23.875	(1.082)	18812	0.25000	0.2338
44 Fluoranthene	202	25.844	25.843	(1.171)	27742	0.25000	0.2293
46 Pyrene	202	26.701	26.701	(1.210)	30294	0.25000	0.2372
51 Naphthobenzothiophene	234	29.256	29.256	(1.325)	28096	0.25000	0.2414
55 Benzo(a)anthracene	228	29.839	29.839	(0.906)	28323	0.25000	0.2286
\$ 56 Chrysene-d12	240	29.963	29.974	(0.910)	23429	0.25000	0.2394
57 Chrysene	228	30.042	30.042	(0.912)	30292	0.25000	0.2460
62 Benzo(b)fluoranthene	252	32.261	32.272	(0.980)	31128	0.25000	0.2225
63 Benzo(k)fluoranthene	252	32.317	32.317	(0.982)	35688	0.25000	0.2531
293 Benzo(j)fluoranthene	252	32.373	32.373	(0.983)	29094	0.25000	0.2360
246 Total Benzofluoranthenes	252	32.261	32.317	(0.980)	89523	0.75000	0.6896 (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	32.925	32.925	(1.000)	287017	2.00000		
64 Benzo(e)pyrene	252	32.981	32.993	(1.002)	30852	0.25000	0.2409	
66 Benzo(a)pyrene	252	33.083	33.083	(1.005)	27240	0.25000	0.2251	
\$ 67 Perylene-d12	264	33.263	33.263	(1.010)	27911	0.25000	0.2352	
68 Perylene	252	33.319	33.319	(1.012)	28453	0.25000	0.2238	
69 Indeno(1,2,3-cd)pyrene	276	35.257	35.256	(1.071)	34019	0.25000	0.2270	
70 Dibenzo(a,h)anthracene	278	35.234	35.245	(1.070)	30457	0.25000	0.2300	
74 Benzo(g,h,i)perylene	276	36.101	36.101	(1.096)	29763	0.25000	0.2261	

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 07-OCT-2020  
 Lab File ID: NT1420100706.D Calibration Time: 18:22  
 Lab Smp Id: SIJ0085-CAL2  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: VTS  
 Method File: \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Misc Info:

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	209596	104798	419192	218460	4.23
250 Anthracene-d10	192407	96204	384814	197976	2.89
251 Benzo(e)pyrene-d1	274120	137060	548240	287017	4.70

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.63	18.13	19.13	18.63	0.00
250 Anthracene-d10	22.07	21.57	22.57	22.07	0.00
251 Benzo(e)pyrene-d1	32.93	32.43	33.43	32.93	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 - NT1420100706.D

Lab ID: SIJ0085-CAL2

nt14.i, 20201007.b\ALKYLPNA.m, 07-OCT-2020 14:17

RT CO-ELUTION COMPOUNDS

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NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1420100711.D

On Column LOD for nt14.i, 20201007.b\ALKYLPNA.m, TARGETS.sub = 0.0000

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



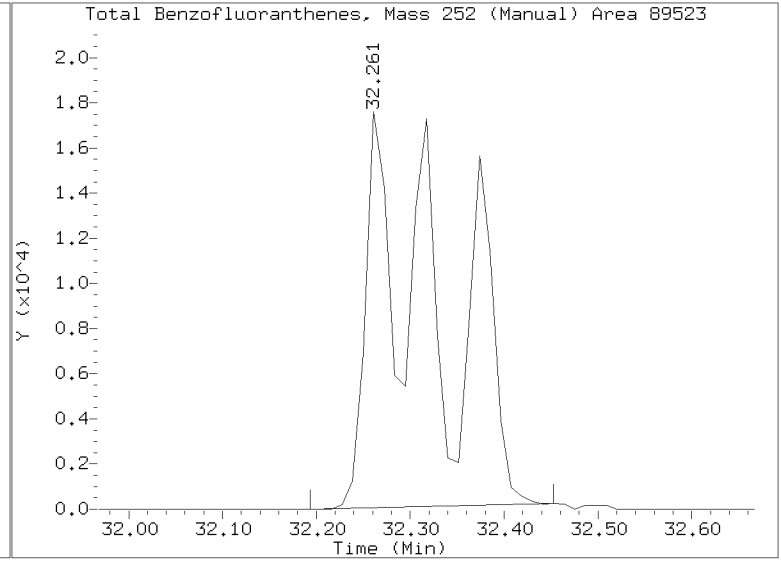
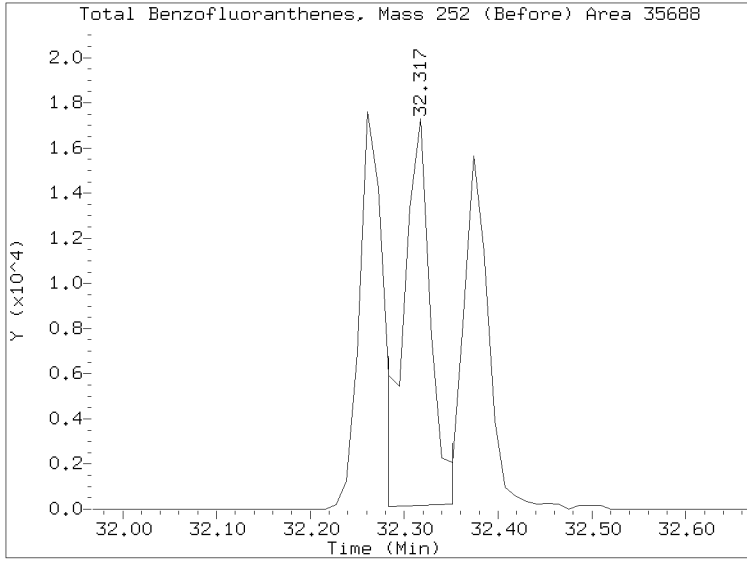
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201007.b/NT1420100706.D

Injection Date: 07-OCT-2020 14:17

Lab ID:SIJ0085-CAL2 Client ID:

Report Date: 10/09/2020 09:36



Data File: \\target\share\chem3\nt14,1\20201007,6\NT1420100707.D

Date : 07-OCT-2020 15:08

Client ID:

Sample Info: S100085-CAL3

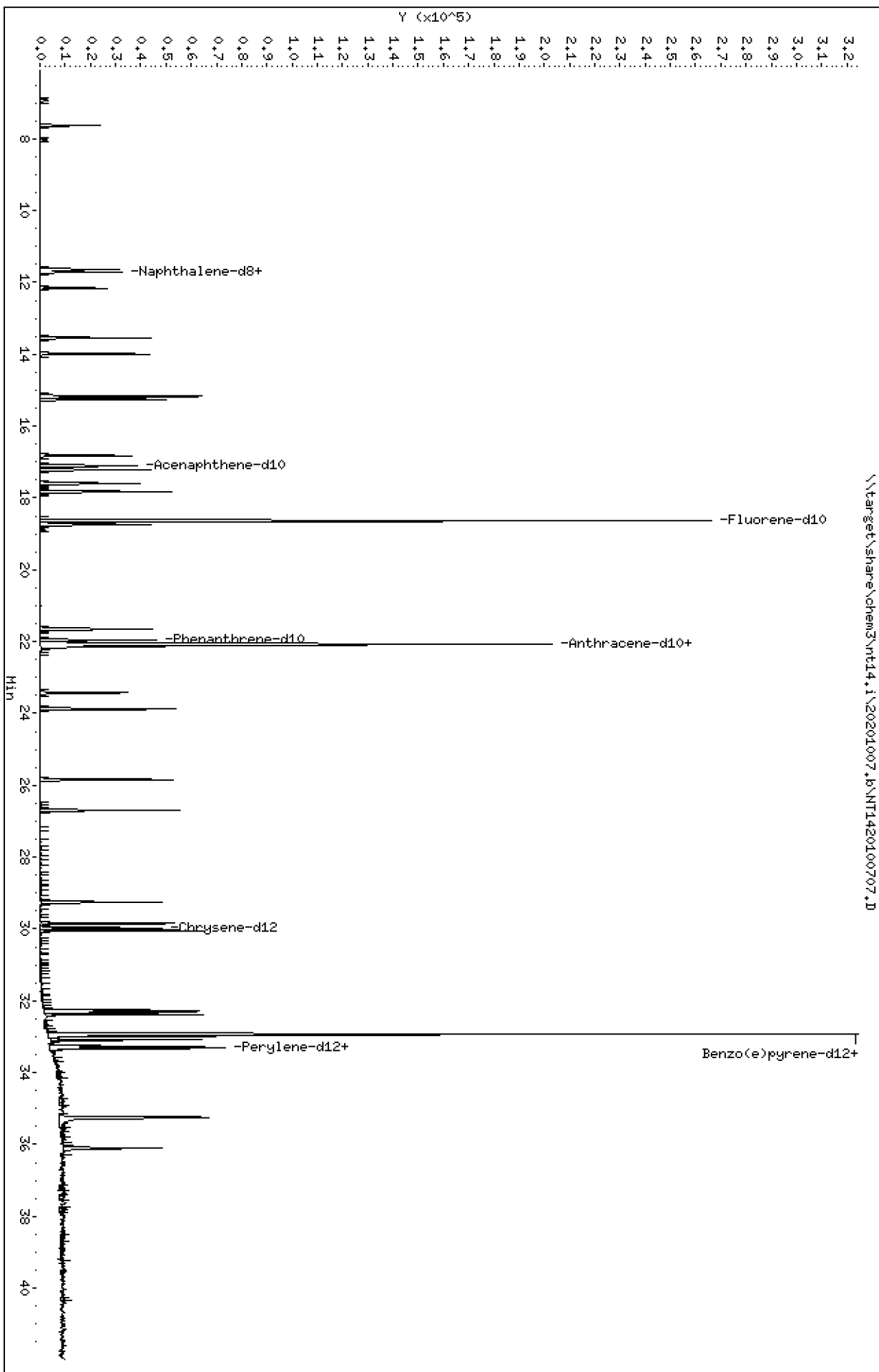
Column phase: Rxi-17S11 MS

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\20201007.b\NT1420100707.D  
 Lab Smp Id: SIJ0085-CAL3  
 Inj Date : 07-OCT-2020 15:08  
 Operator : VTS  
 Smp Info : SIJ0085-CAL3  
 Misc Info :  
 Comment : 1ul Injection  
 Method : \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Meth Date : 09-Oct-2020 08:45 van  
 Cal Date : 07-OCT-2020 15:56  
 Als bottle: 7  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 4.14  
 Processing Host: VANS

Inst ID: nt14.i  
 Quant Type: ISTD  
 Cal File: NT1420100708.D  
 Calibration Sample, Level: 3  
 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	6.934	6.934	(0.372)	4456	0.50000	0.4910
2 cis-Decalin	138	8.034	8.034	(0.431)	3590	0.50000	0.5257
\$ 6 Naphthalene-d8	136	11.641	11.641	(0.625)	42776	0.50000	0.4828
7 Naphthalene	128	11.707	11.707	(0.628)	45725	0.50000	0.5158
12 Benzo(b)thiophene	134	12.157	12.157	(0.652)	35952	0.50000	0.4827
16 2-Methylnaphthalene	141	13.542	13.542	(0.727)	26507	0.50000	0.4905
17 1-methylnaphthalene	141	13.992	13.992	(0.751)	27344	0.50000	0.4928
18 Biphenyl	154	15.179	15.179	(0.815)	38553	0.50000	0.4741
19 2,6-Dimethylnaphthalene	156	15.256	15.256	(0.819)	30598	0.50000	0.5154
20 Acenaphthylene	152	16.817	16.817	(0.903)	47135	0.50000	0.4842
\$ 21 Acenaphthene-d10	164	17.103	17.103	(0.918)	25783	0.50000	0.4846
22 Acenaphthene	153	17.223	17.223	(0.924)	31257	0.50000	0.4901
23 Dibenzofuran	168	17.597	17.597	(0.944)	46013	0.50000	0.4973
24 1,6,7-Trimethylnaphthalene	170	17.828	17.828	(0.957)	29076	0.50000	0.4830
* 25 Fluorene-d10	176	18.632	18.632	(1.000)	217147	2.00000	
26 Fluorene	166	18.746	18.746	(1.006)	35358	0.50000	0.4902
30 Dibenzothiophene	184	21.648	21.648	(1.162)	50504	0.50000	0.4865
\$ 35 Phenanthrene-d10	188	21.963	21.963	(0.995)	47018	0.50000	0.4992
36 Phenanthrene	178	22.040	22.040	(0.999)	55254	0.50000	0.5073
* 250 Anthracene-d10	188	22.072	22.072	(1.000)	196660	2.00000	
37 Anthracene	178	22.138	22.138	(1.003)	51428	0.50000	0.4805
42 Carbazole	167	23.425	23.425	(1.061)	45098	0.50000	0.4865
43 1-Methylphenanthrene	192	23.875	23.875	(1.082)	40002	0.50000	0.5004
44 Fluoranthene	202	25.843	25.843	(1.171)	57612	0.50000	0.4793
46 Pyrene	202	26.701	26.701	(1.210)	59686	0.50000	0.4706
51 Naphthobenzothiophene	234	29.256	29.256	(1.325)	55686	0.50000	0.4817
55 Benzo(a)anthracene	228	29.839	29.839	(0.906)	56091	0.50000	0.4619
\$ 56 Chrysene-d12	240	29.963	29.974	(0.910)	46750	0.50000	0.4874
57 Chrysene	228	30.042	30.042	(0.912)	58008	0.50000	0.4806
62 Benzo(b)fluoranthene	252	32.260	32.272	(0.980)	66889	0.50000	0.4878 (M)
63 Benzo(k)fluoranthene	252	32.317	32.317	(0.982)	61345	0.50000	0.4439 (M)
293 Benzo(j)fluoranthene	252	32.373	32.373	(0.983)	56412	0.50000	0.4670 (M)
246 Total Benzofluoranthenes	252	32.317	32.317	(0.982)	178845	1.50000	1.406 (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	32.925	32.925	(1.000)	281303	2.00000		
64 Benzo(e)pyrene	252	32.993	32.993	(1.002)	59421	0.50000	0.4733	
66 Benzo(a)pyrene	252	33.083	33.083	(1.005)	55231	0.50000	0.4656	
\$ 67 Perylene-d12	264	33.263	33.263	(1.010)	55910	0.50000	0.4807	
68 Perylene	252	33.319	33.319	(1.012)	58344	0.50000	0.4683	
69 Indeno(1,2,3-cd)pyrene	276	35.256	35.256	(1.071)	67492	0.50000	0.4595	
70 Dibenzo(a,h)anthracene	278	35.234	35.245	(1.070)	57701	0.50000	0.4446 (M)	
74 Benzo(g,h,i)perylene	276	36.101	36.101	(1.096)	61896	0.50000	0.4797	

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 07-OCT-2020  
 Lab File ID: NT1420100707.D Calibration Time: 18:22  
 Lab Smp Id: SIJ0085-CAL3  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: VTS  
 Method File: \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Misc Info:

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	209596	104798	419192	217147	3.60
250 Anthracene-d10	192407	96204	384814	196660	2.21
251 Benzo(e)pyrene-d1	274120	137060	548240	281303	2.62

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.63	18.13	19.13	18.63	0.00
250 Anthracene-d10	22.07	21.57	22.57	22.07	0.00
251 Benzo(e)pyrene-d1	32.93	32.43	33.43	32.93	-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 - NT1420100707.D

Lab ID: SIJ0085-CAL3

nt14.i, 20201007.b\ALKYLPNA.m, 07-OCT-2020 15:08

RT CO-ELUTION COMPOUNDS

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NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1420100711.D

On Column LOD for nt14.i, 20201007.b\ALKYLPNA.m, TARGETS.sub = 0.0000

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

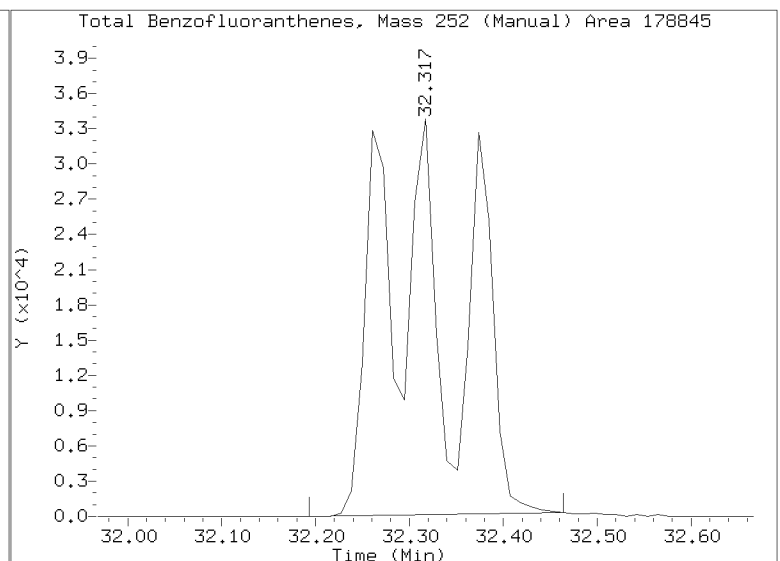
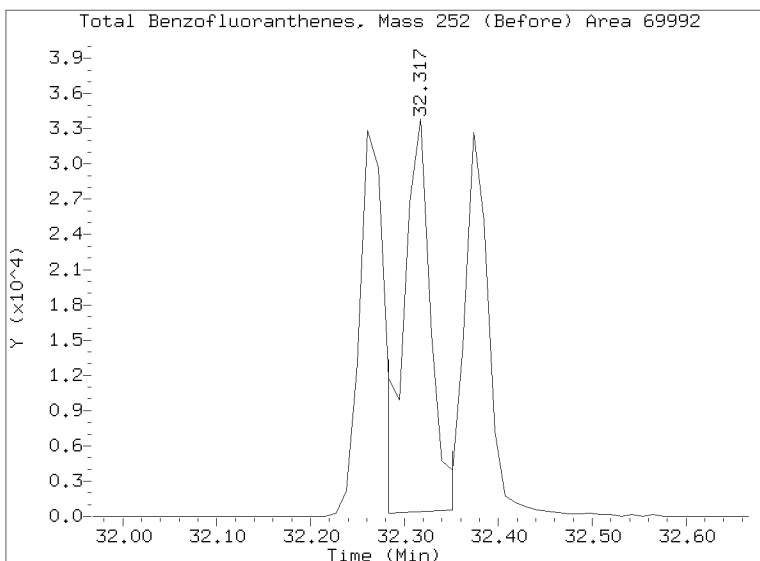
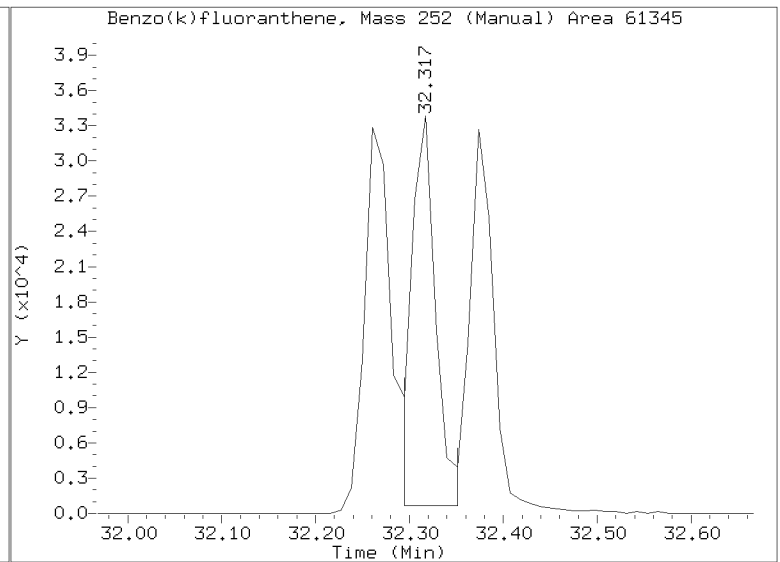
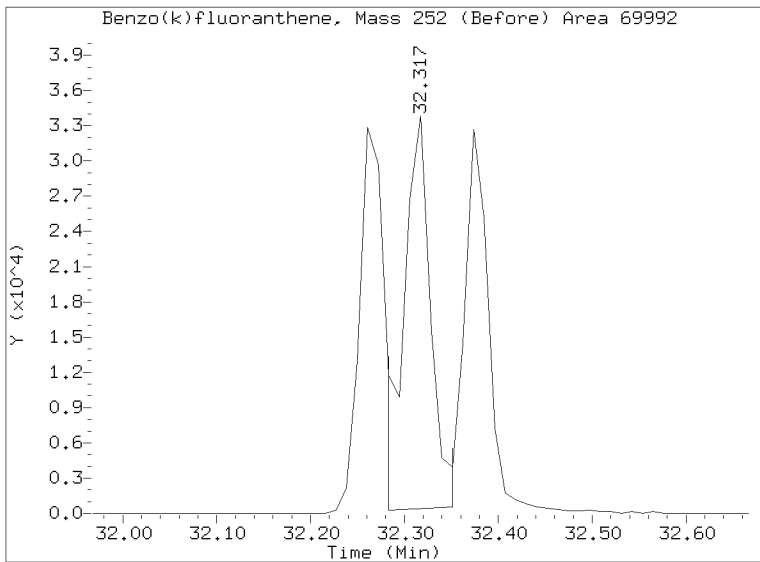
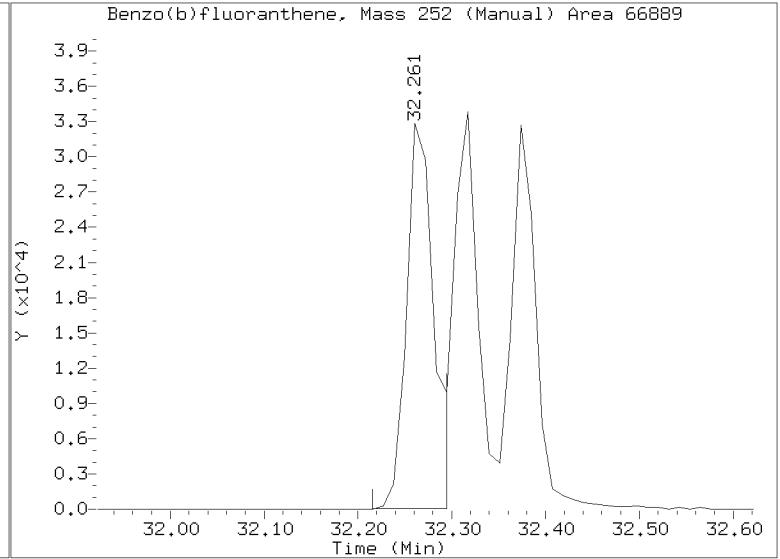
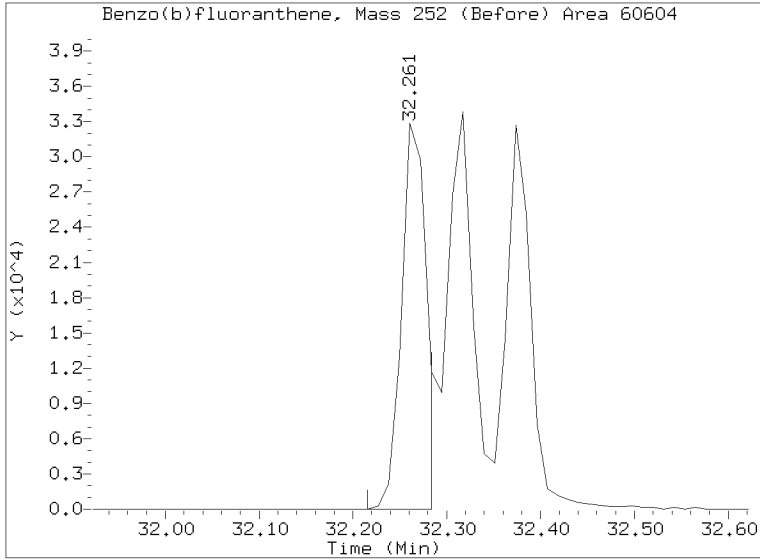
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201007.b/NT1420100707.D

Injection Date: 07-OCT-2020 15:08

Lab ID:SIJ0085-CAL3 Client ID:

Report Date: 10/09/2020 09:36



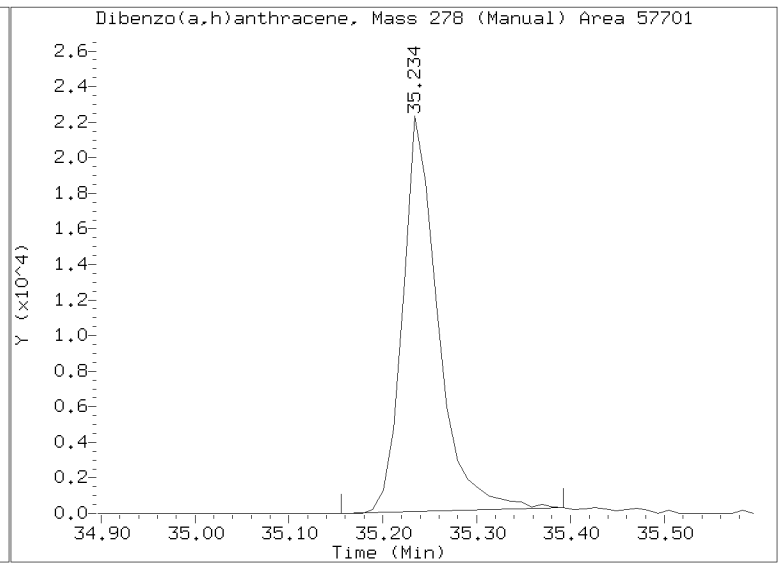
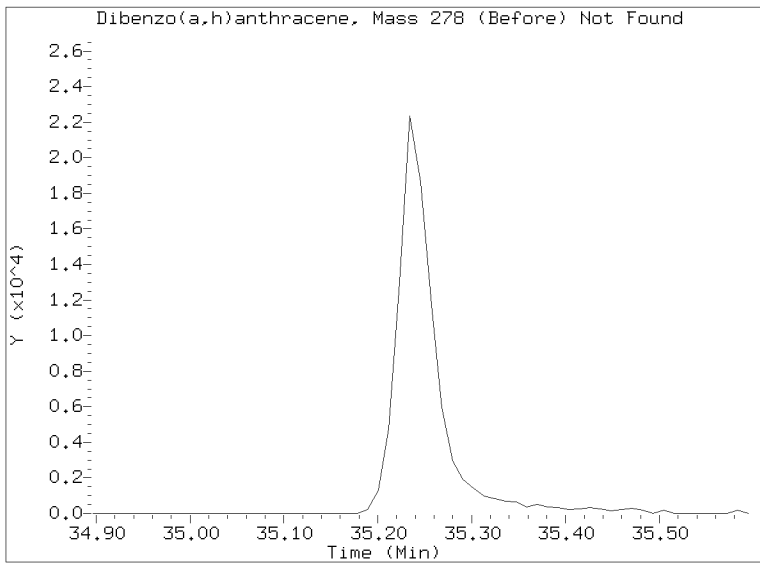
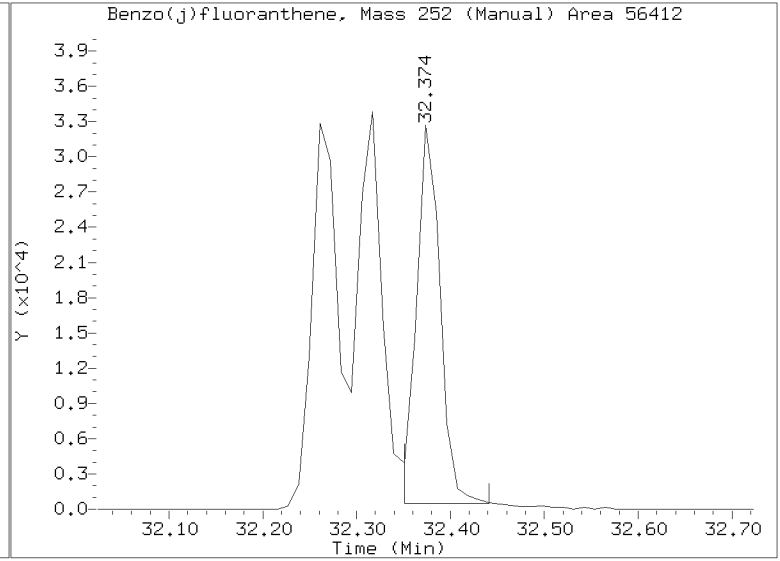
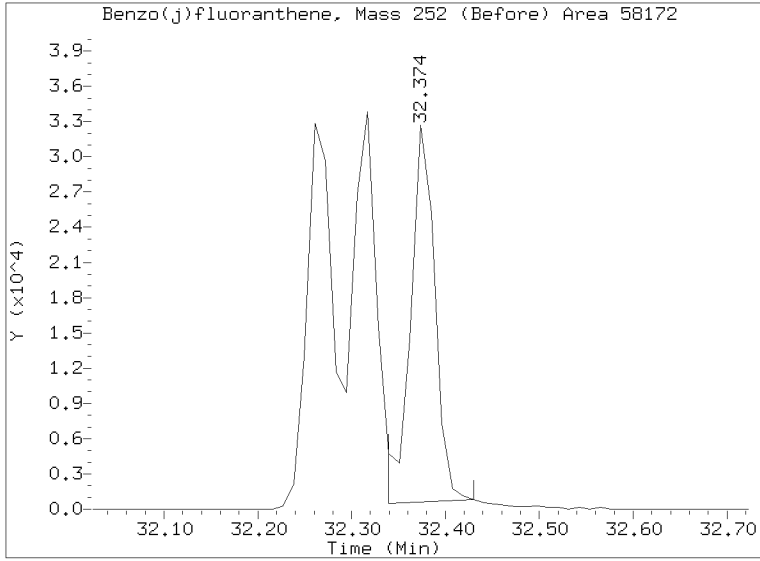
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201007.b/NT1420100707.D

Injection Date: 07-OCT-2020 15:08

Lab ID:SIJ0085-CAL3 Client ID:

Report Date: 10/09/2020 09:36





Data File: \\target\share\chem3\nt14,i\20201007,b\NT1420100709.D

Date : 07-OCT-2020 16:45

Client ID:

Sample Info: S100085-SCV1

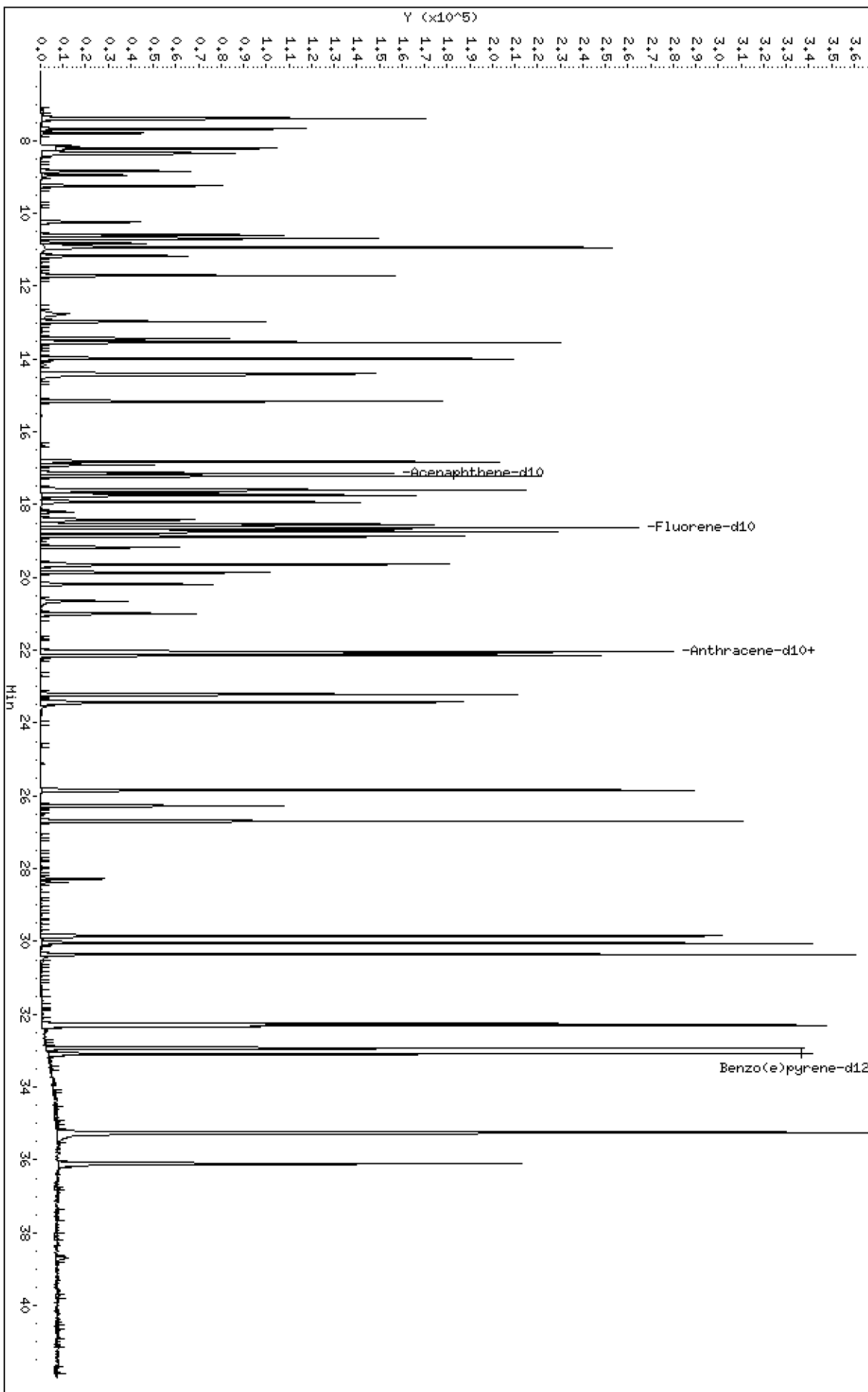
Column phase: Rxi-17S11 MS

Instrument: nt14,i

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14,i\20201007,b\NT1420100709.D



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

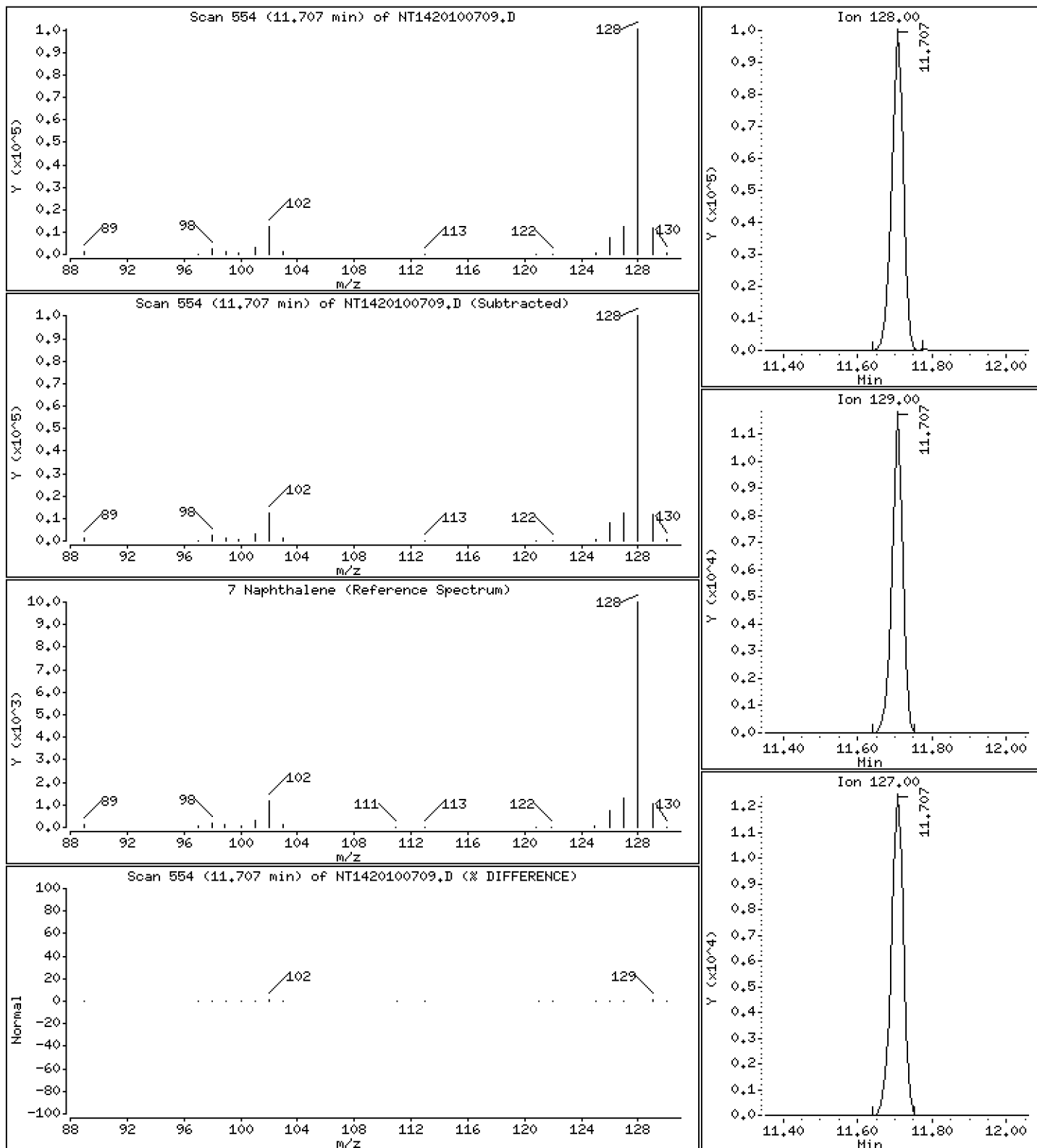
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

7 Naphthalene

Concentration: 2,757 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

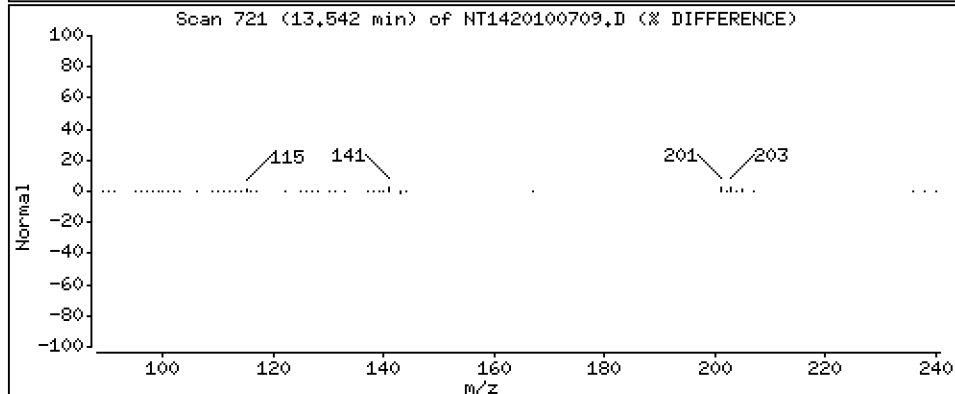
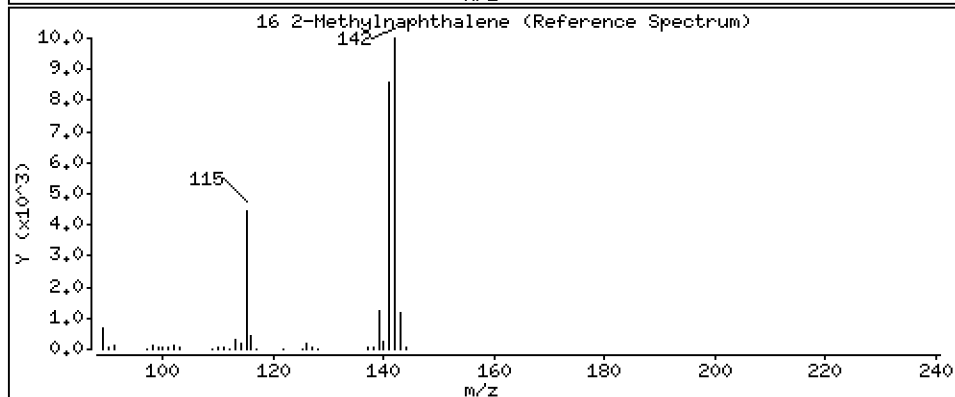
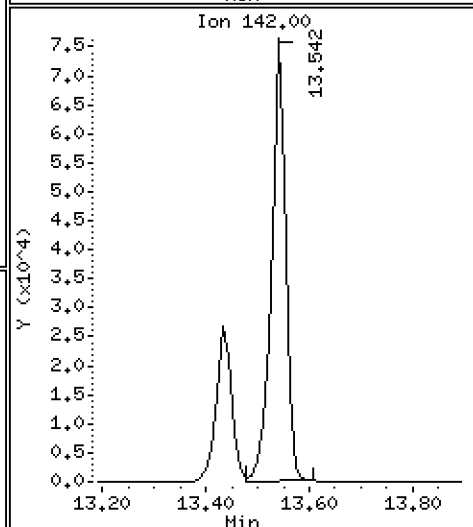
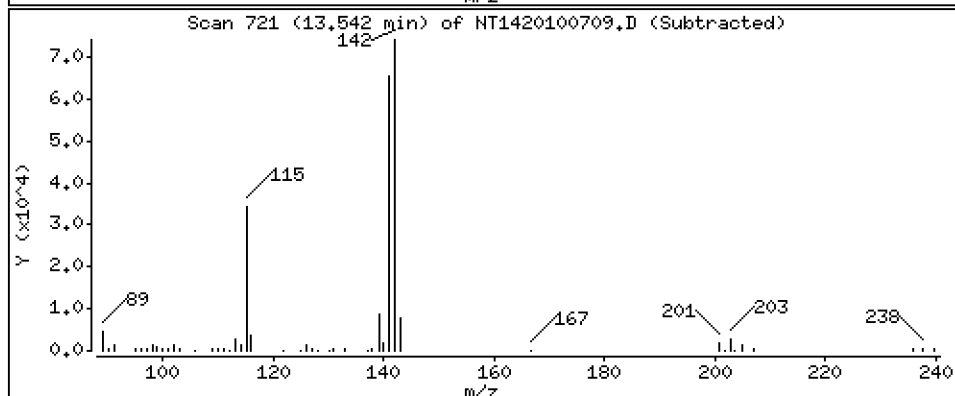
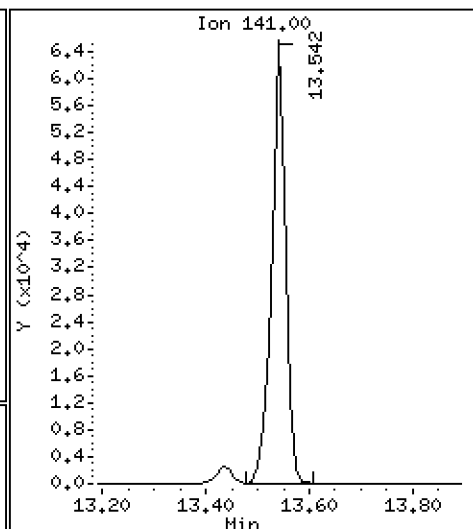
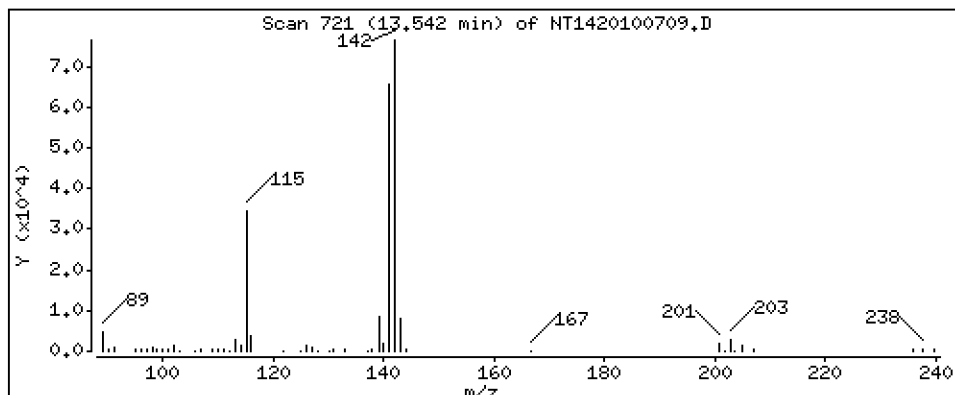
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 2-Methylnaphthalene

Concentration: 2,807 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

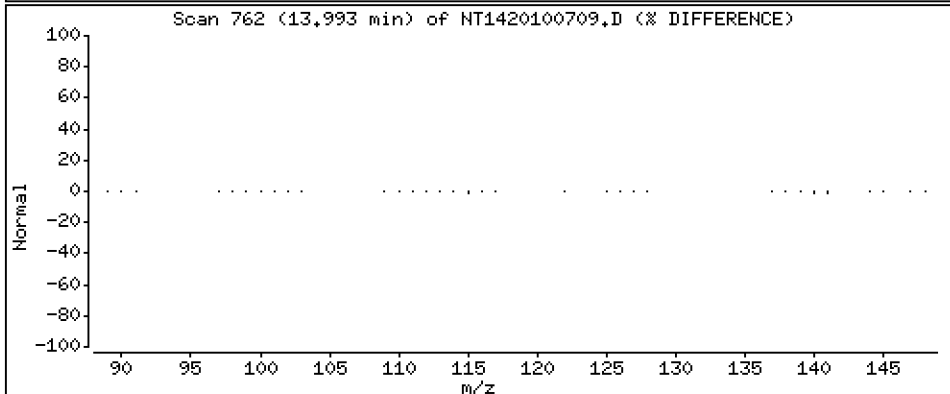
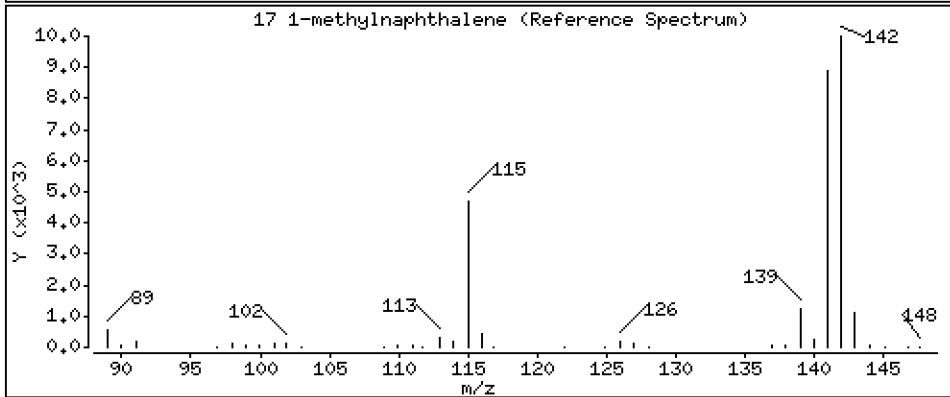
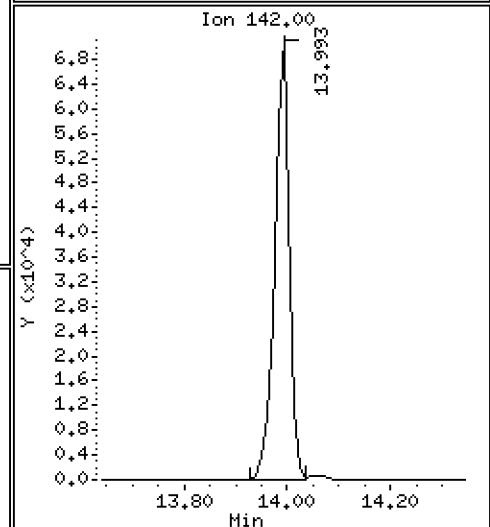
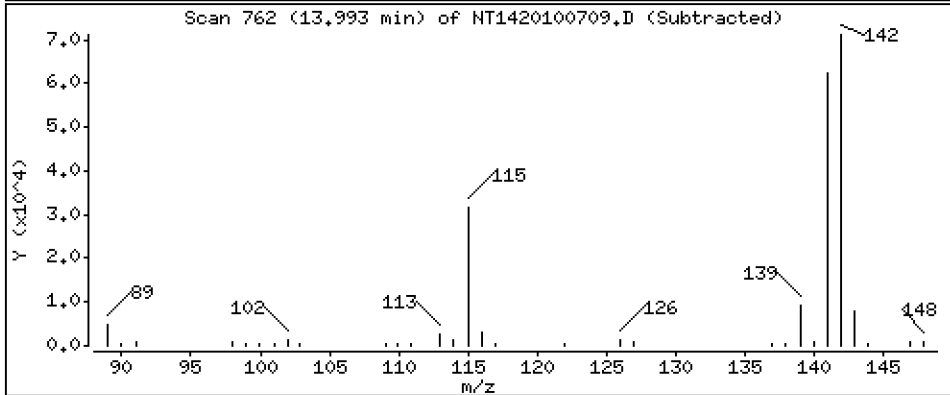
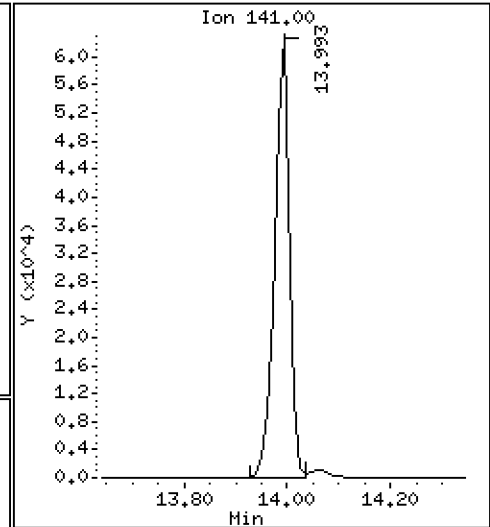
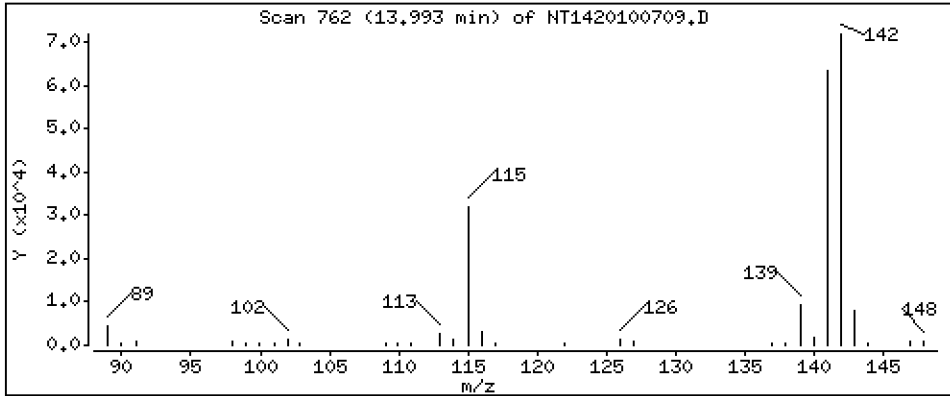
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 1-methylnaphthalene

Concentration: 2,835 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

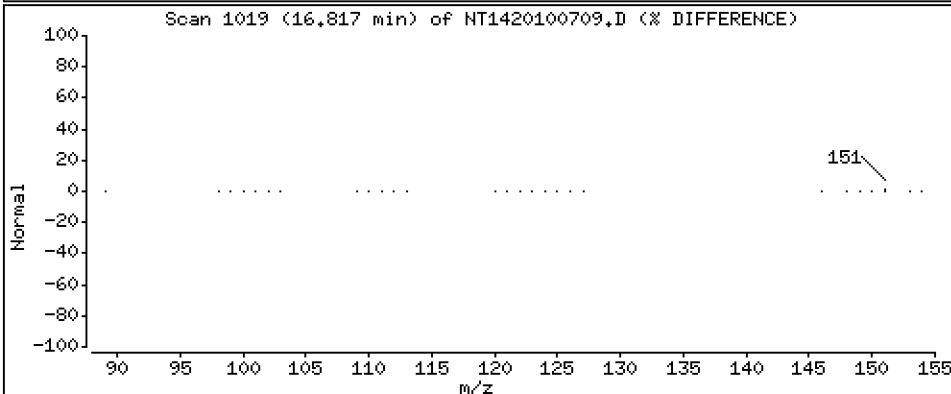
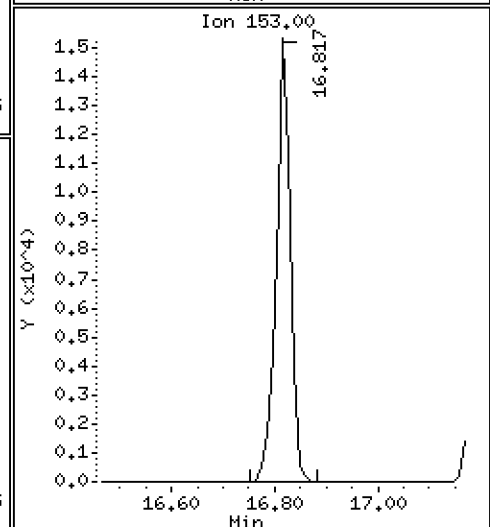
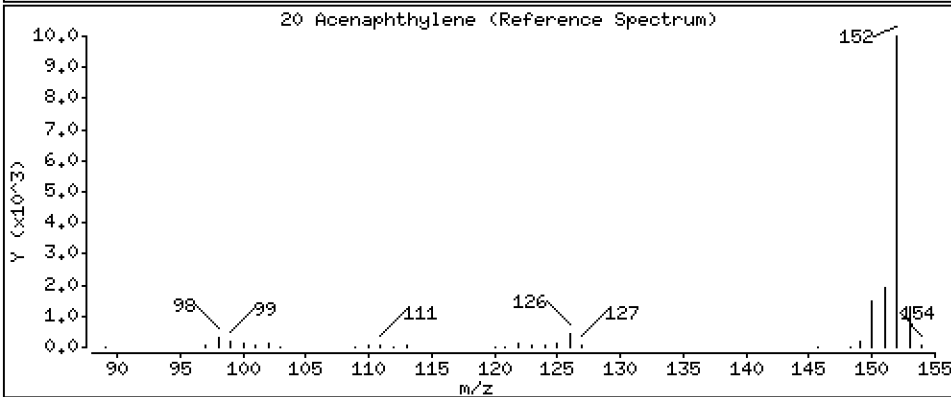
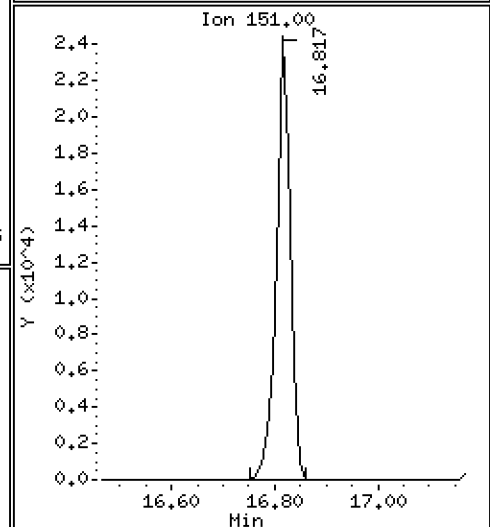
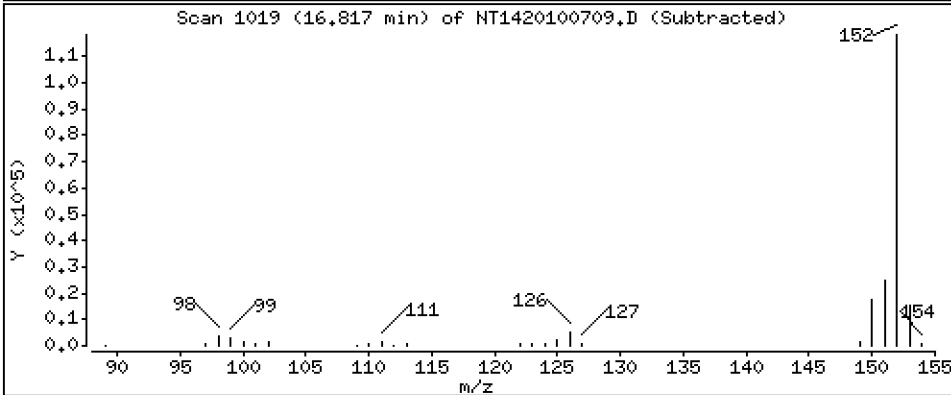
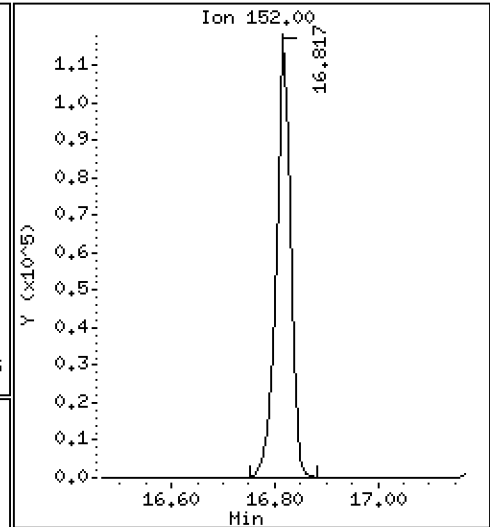
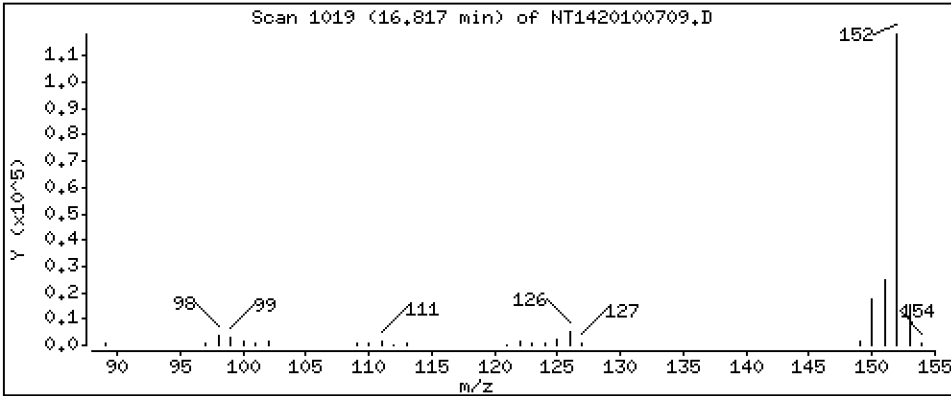
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

20 Acenaphthylene

Concentration: 2,875 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

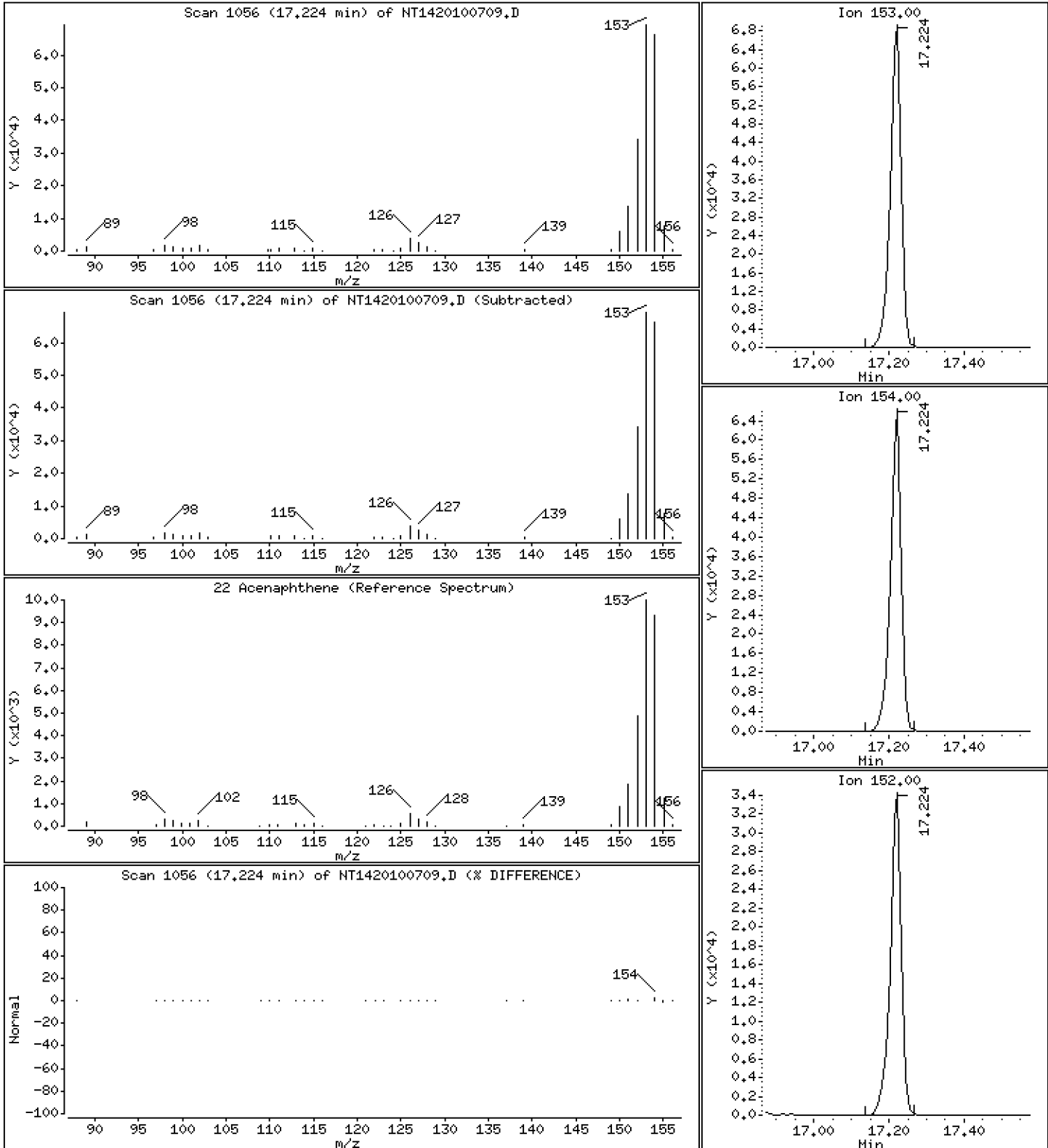
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Acenaphthene

Concentration: 2,714 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

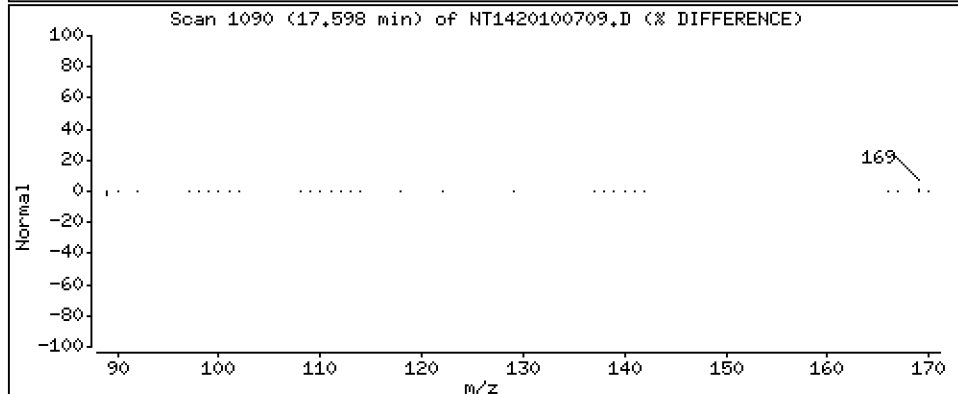
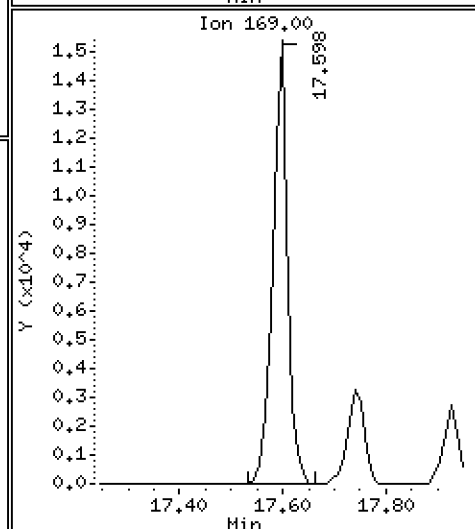
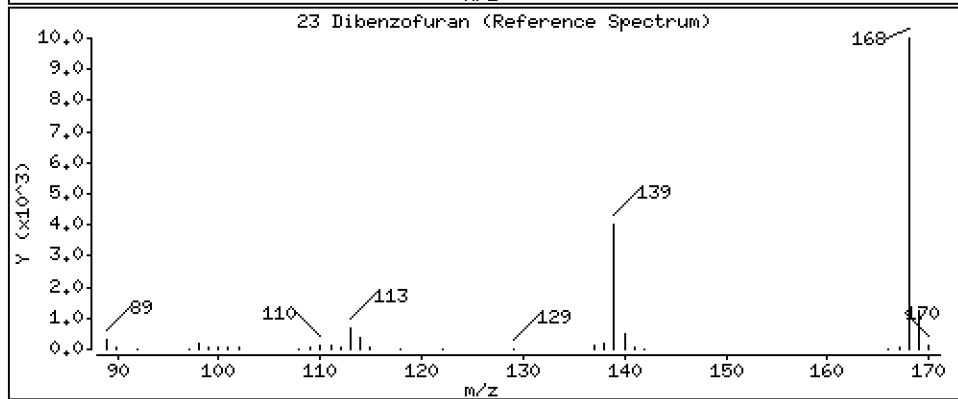
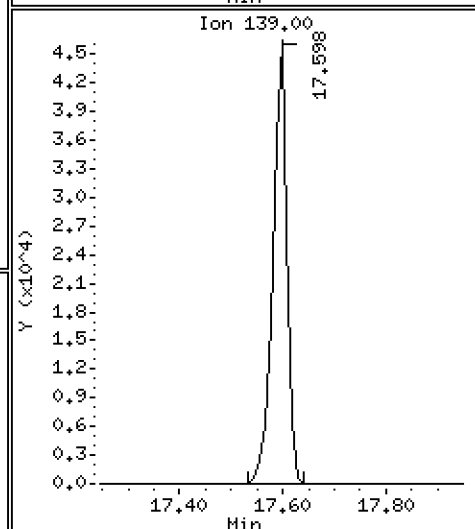
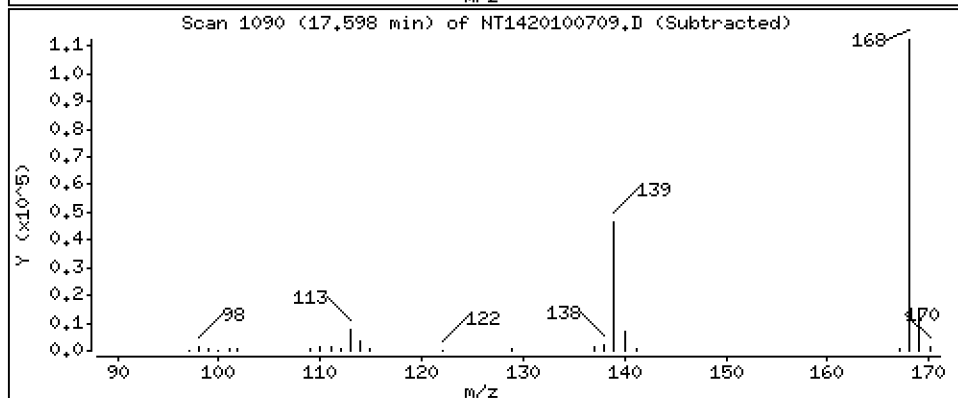
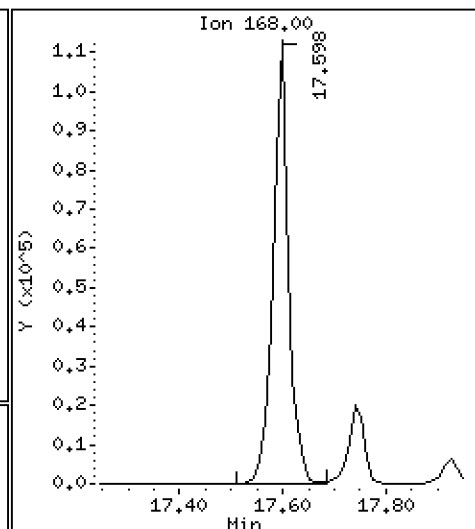
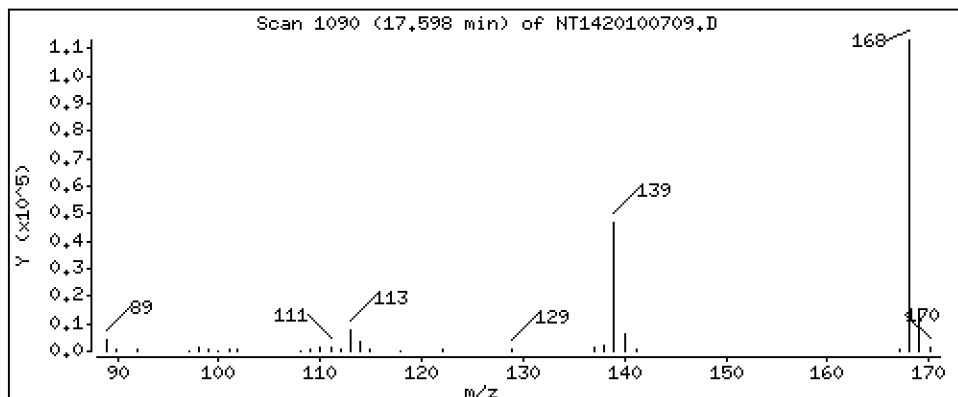
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 Dibenzofuran

Concentration: 3,090 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

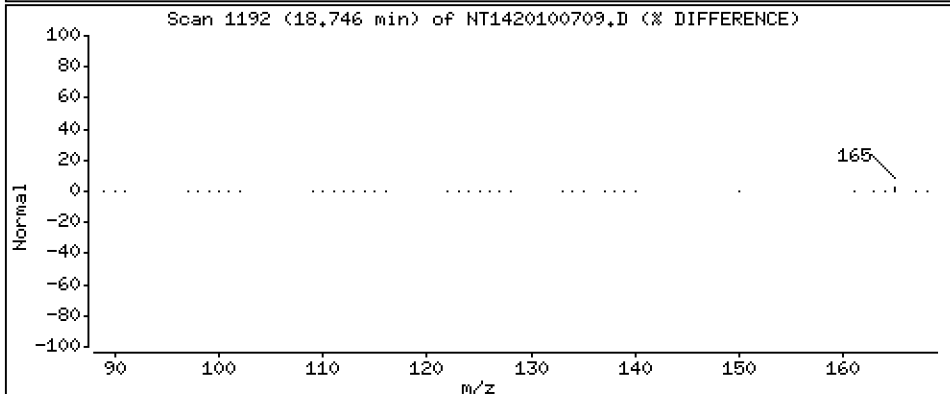
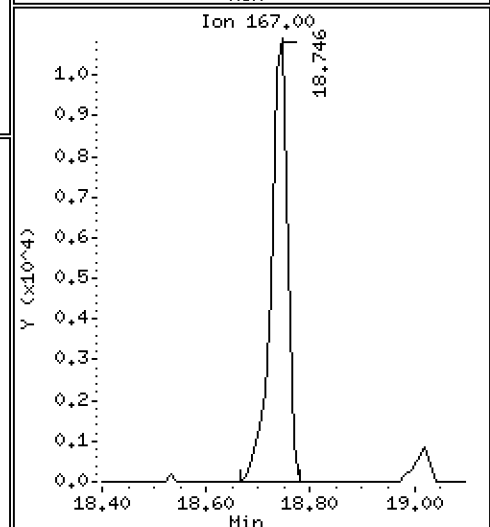
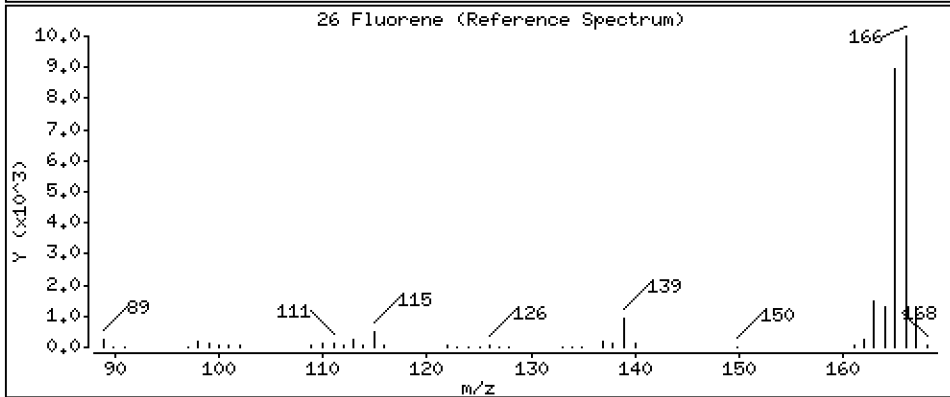
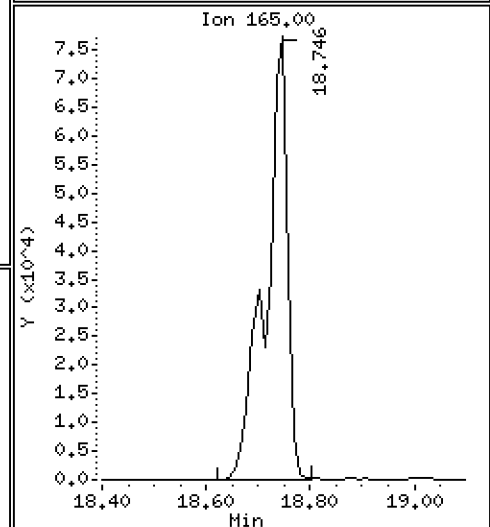
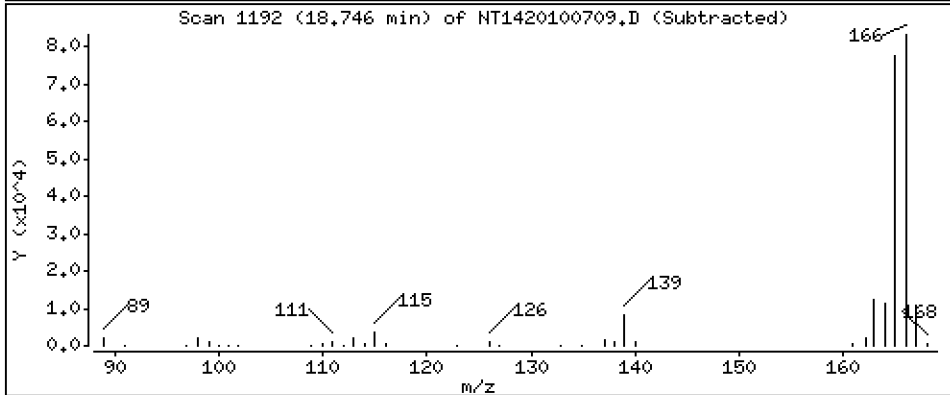
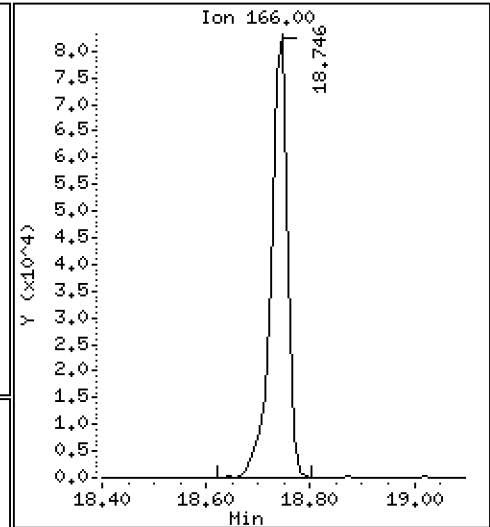
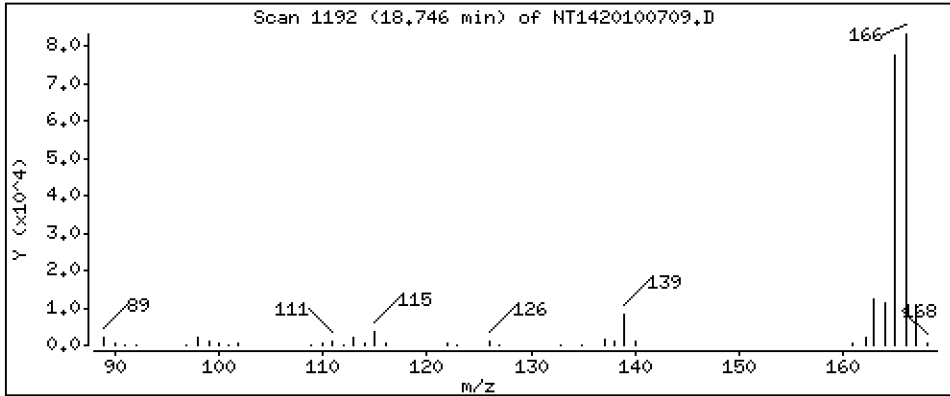
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Fluorene

Concentration: 2,967 ug/mL





Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

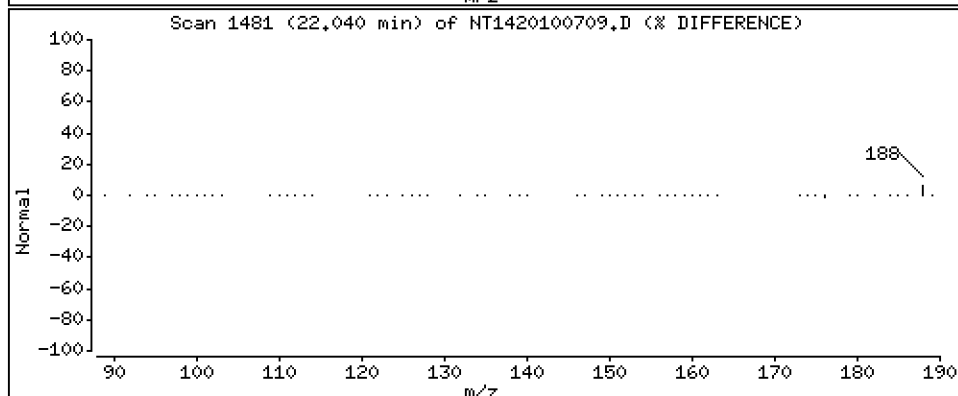
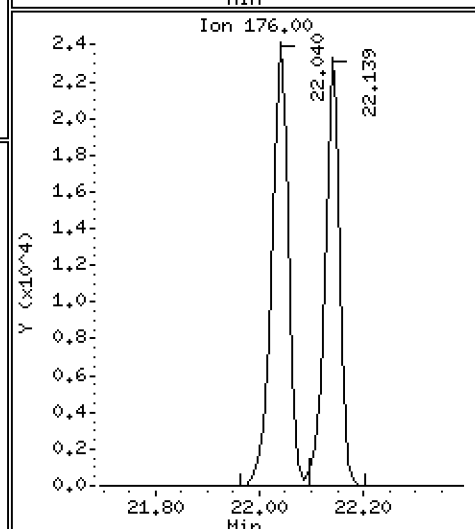
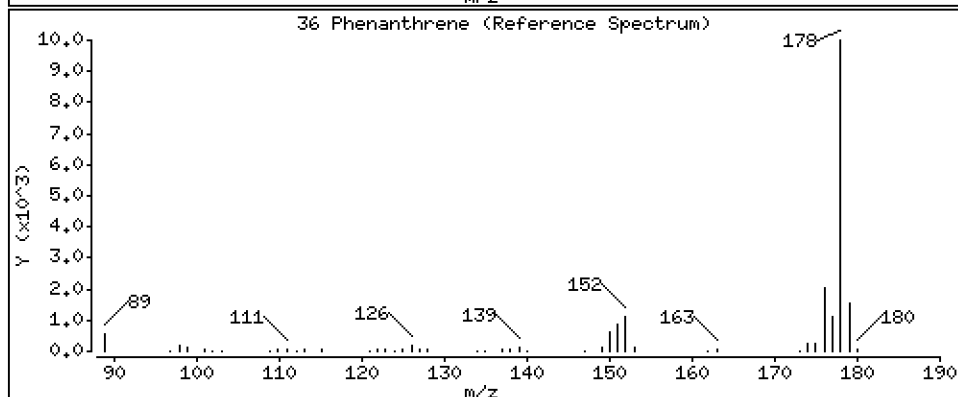
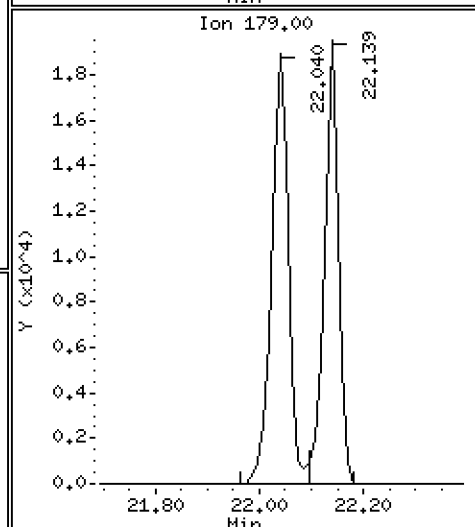
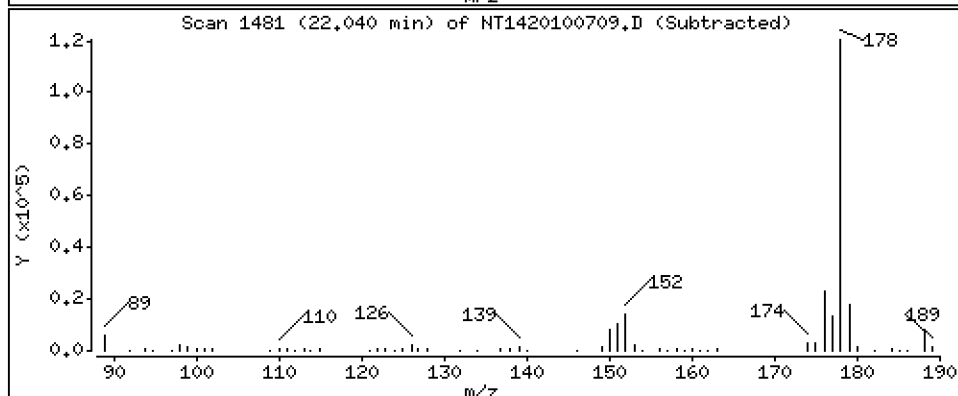
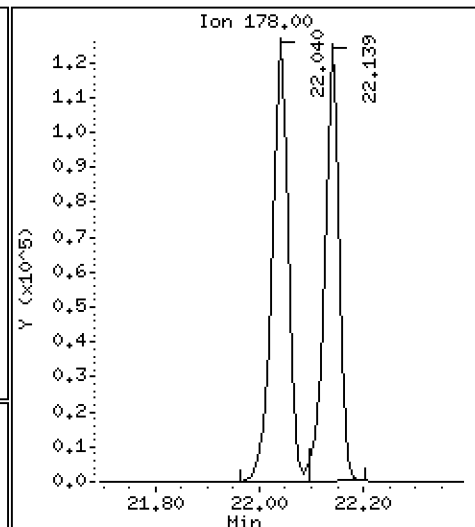
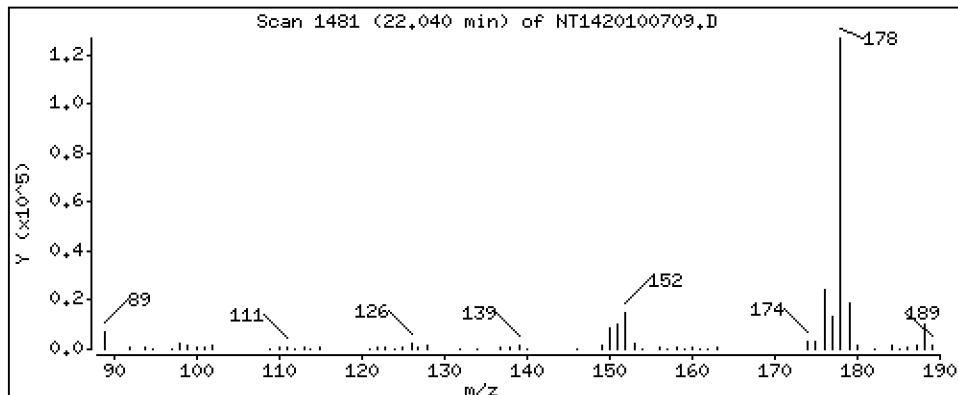
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

36 Phenanthrene

Concentration: 2,454 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

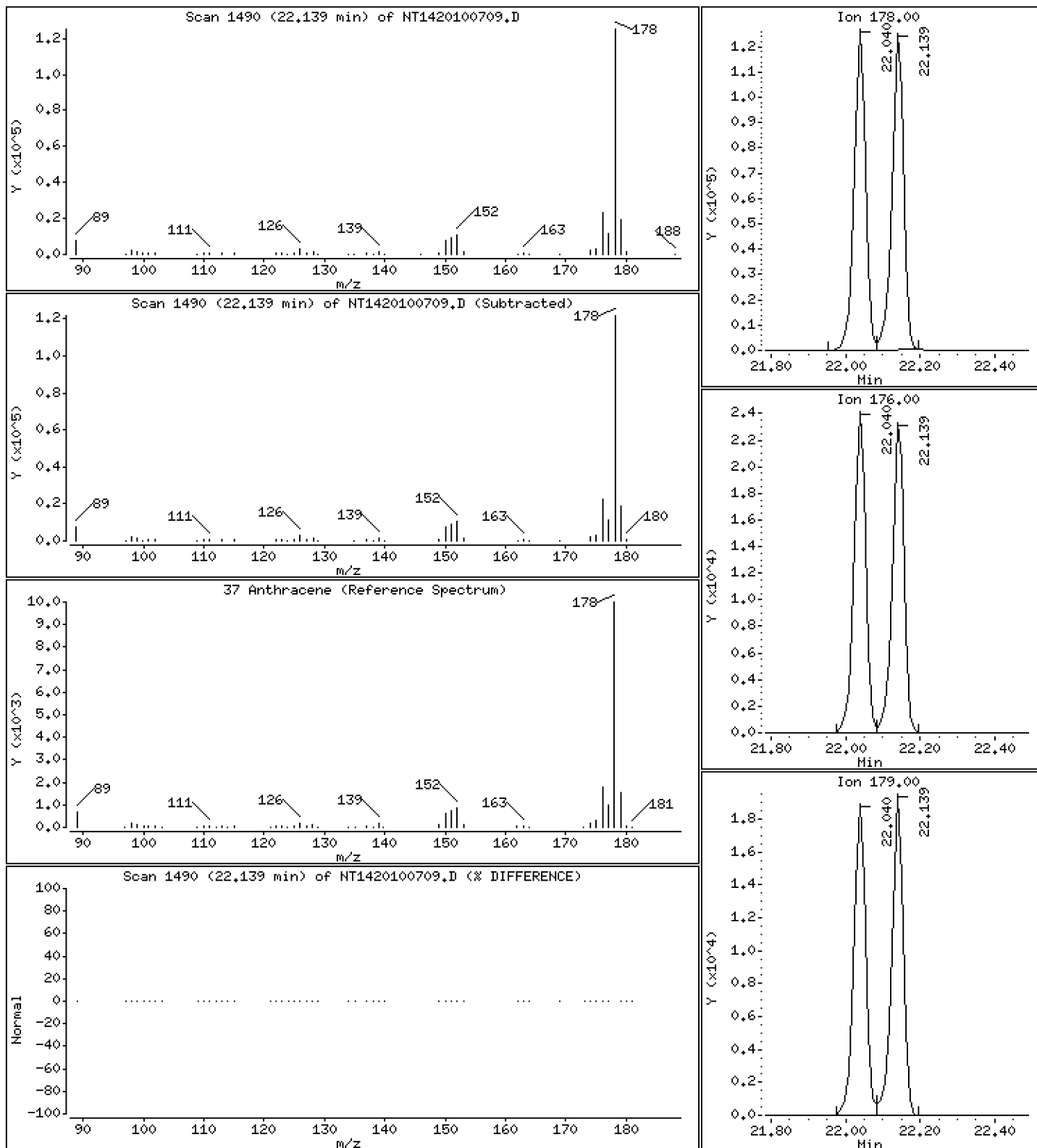
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

37 Anthracene

Concentration: 2,385 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

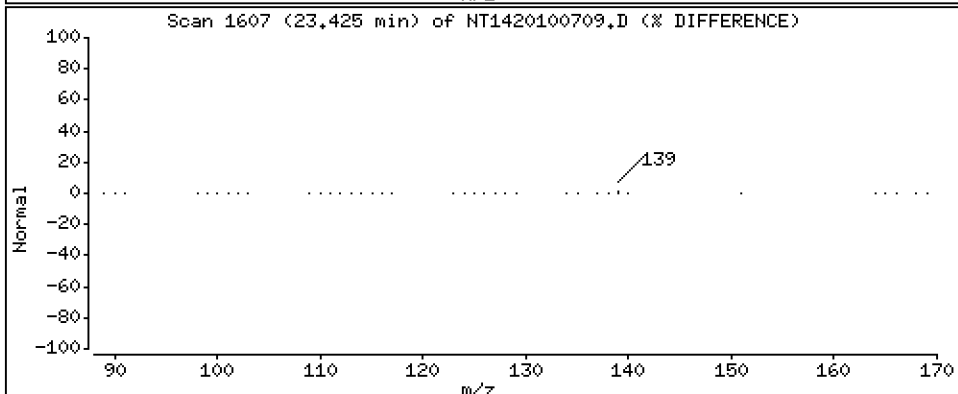
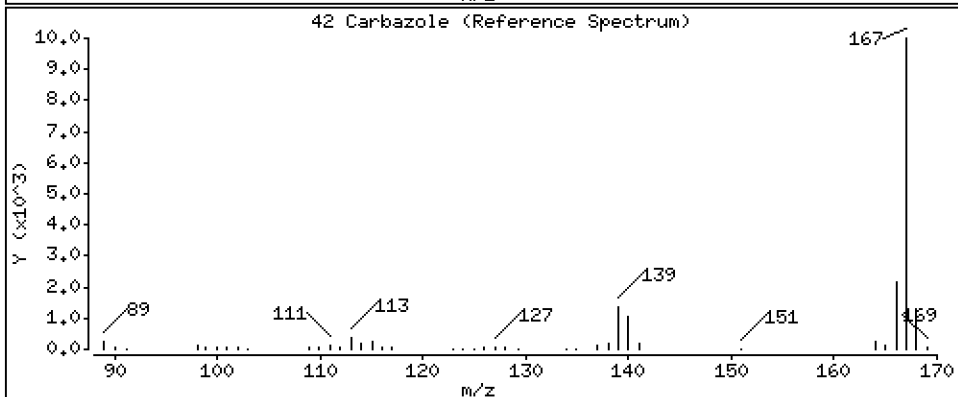
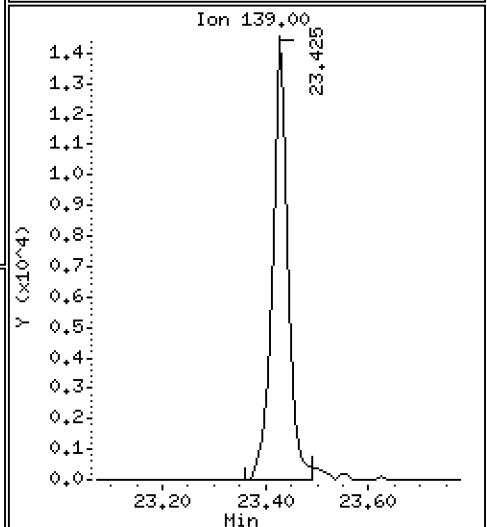
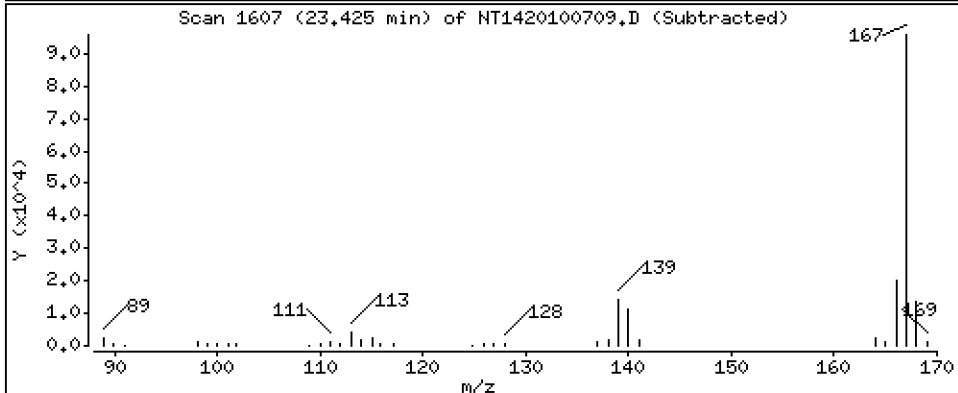
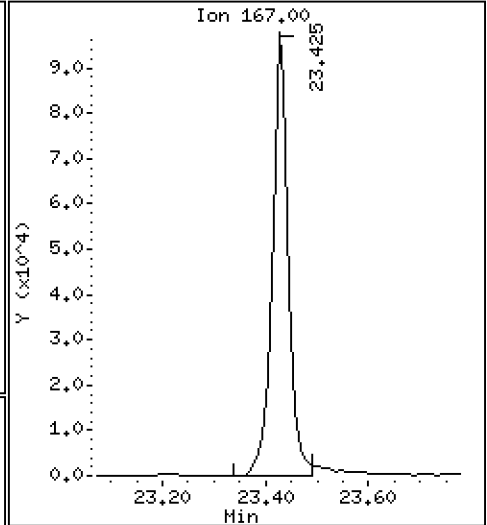
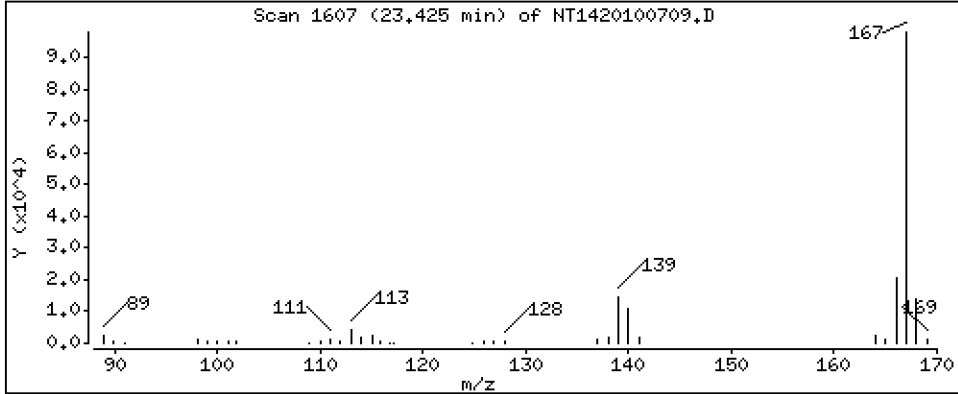
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

42 Carbazole

Concentration: 2,354 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

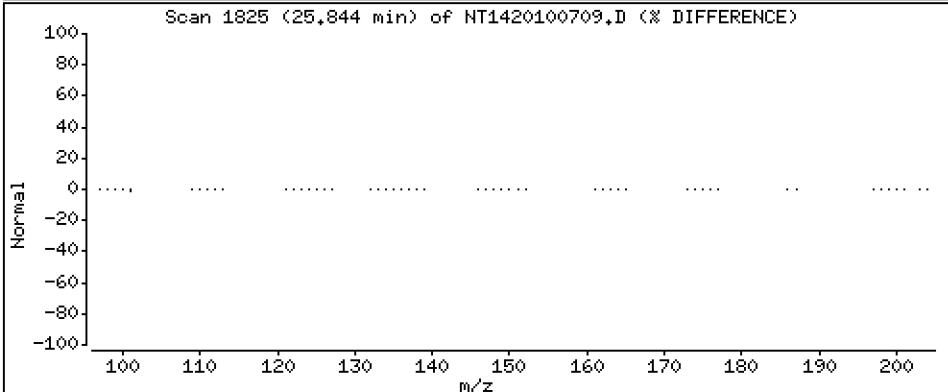
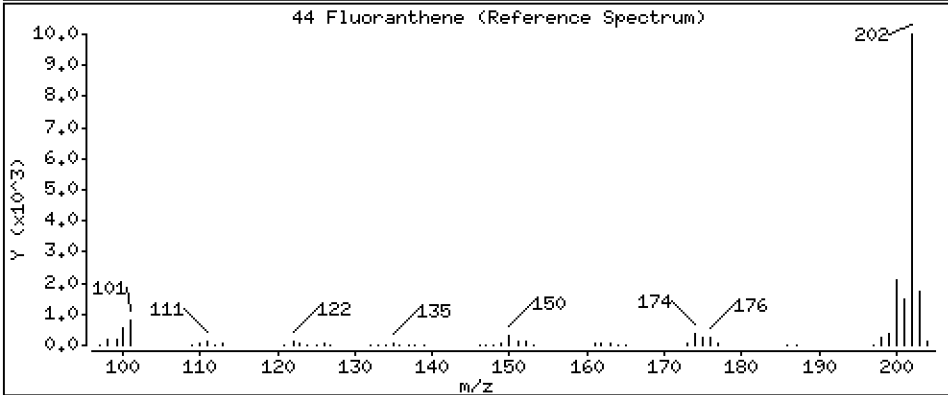
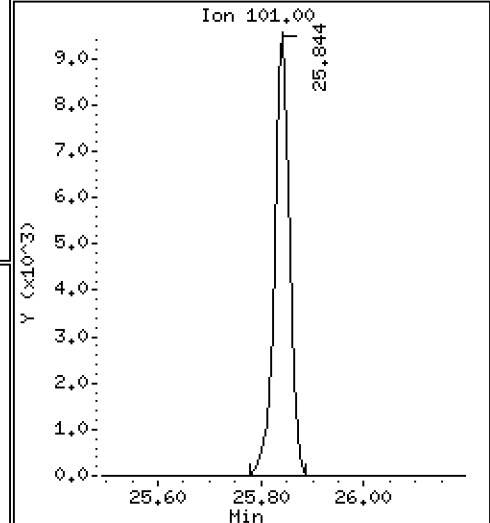
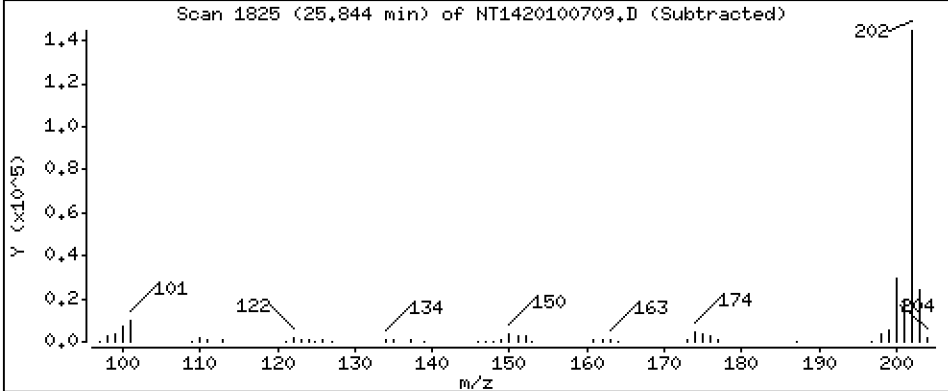
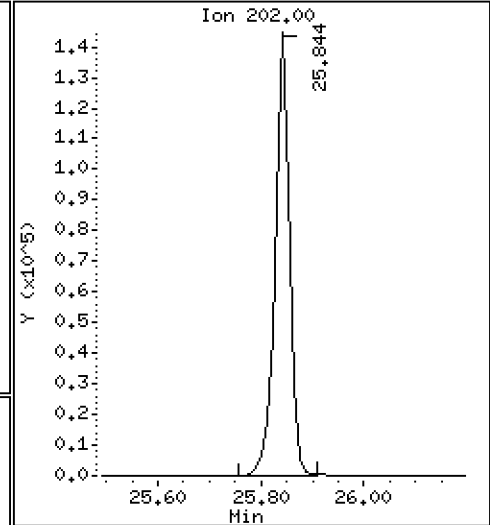
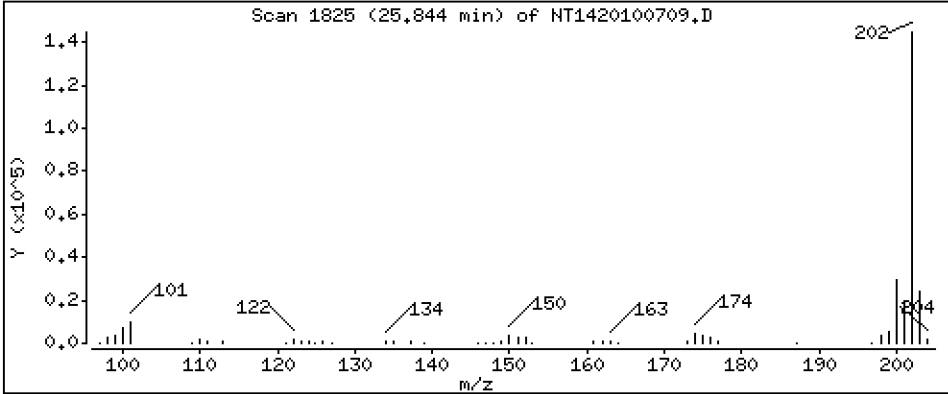
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

44 Fluoranthene

Concentration: 2,436 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

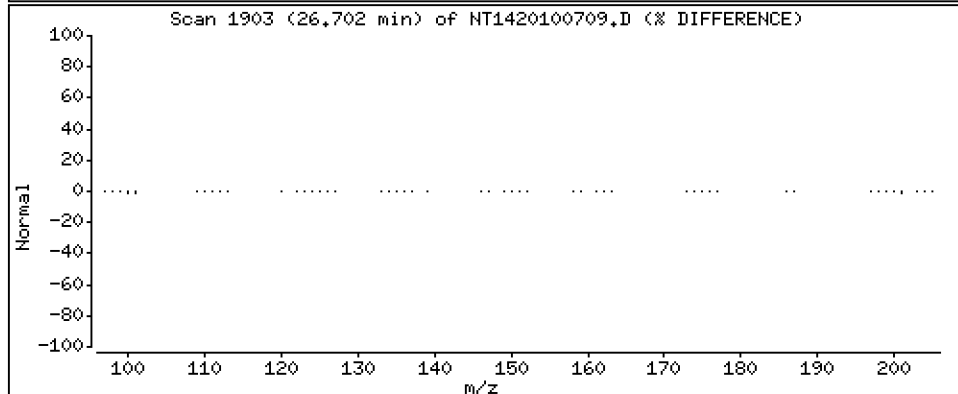
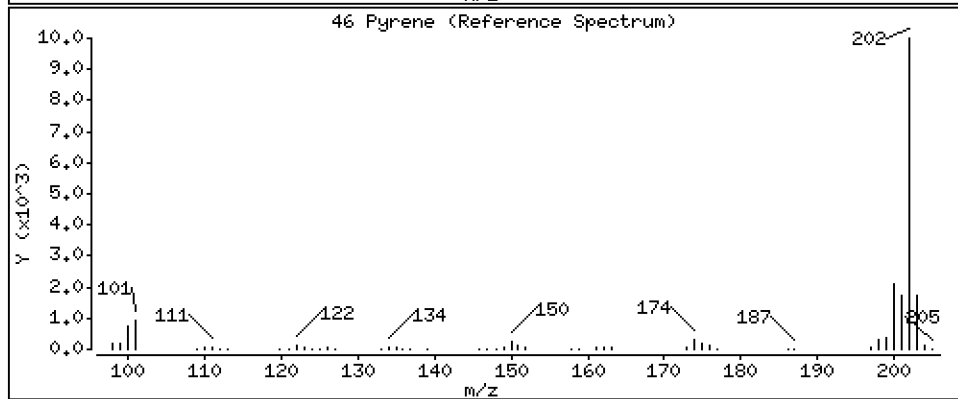
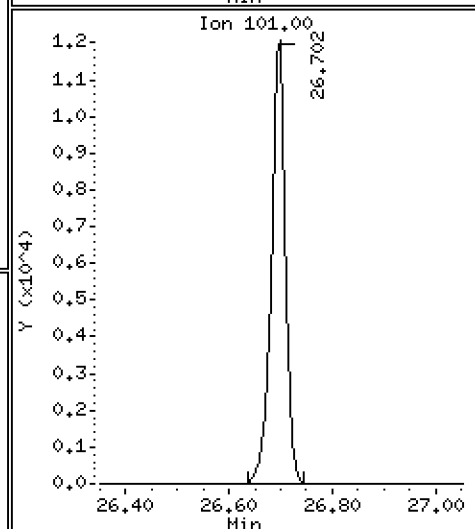
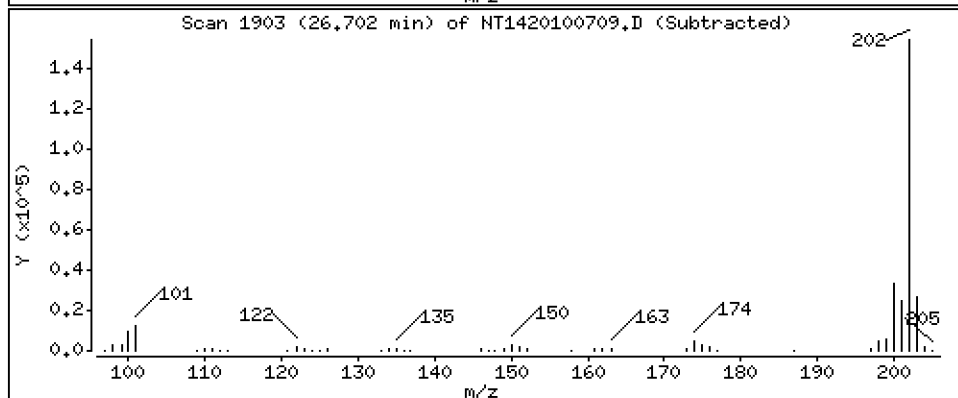
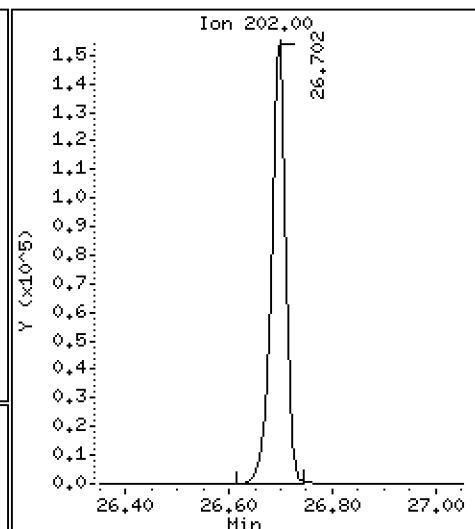
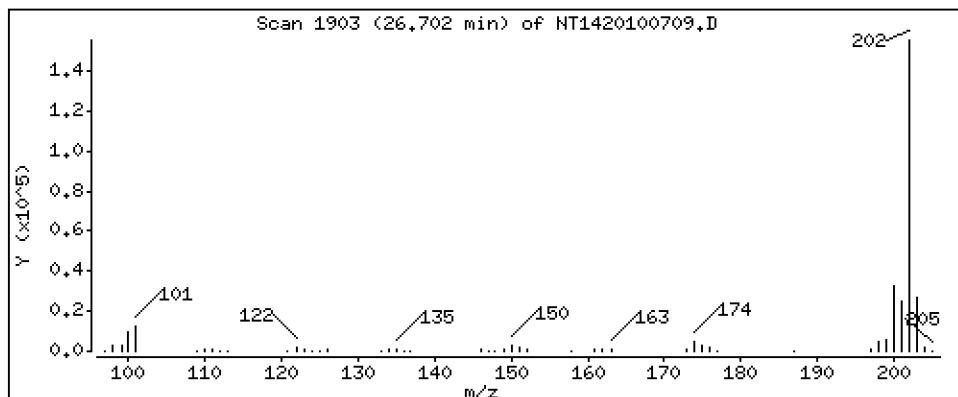
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

46 Pyrene

Concentration: 2,497 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

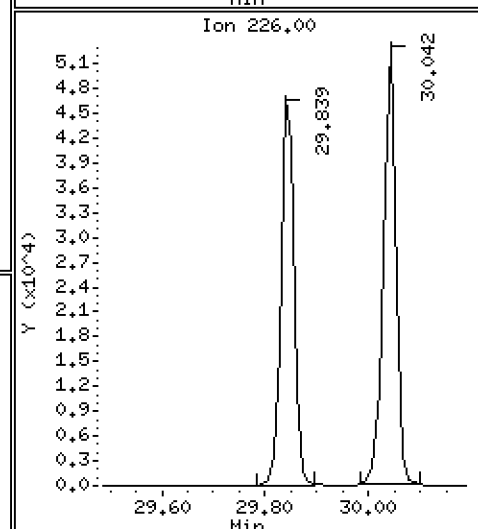
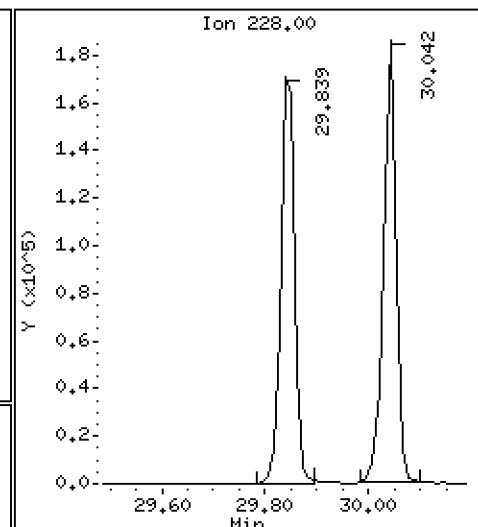
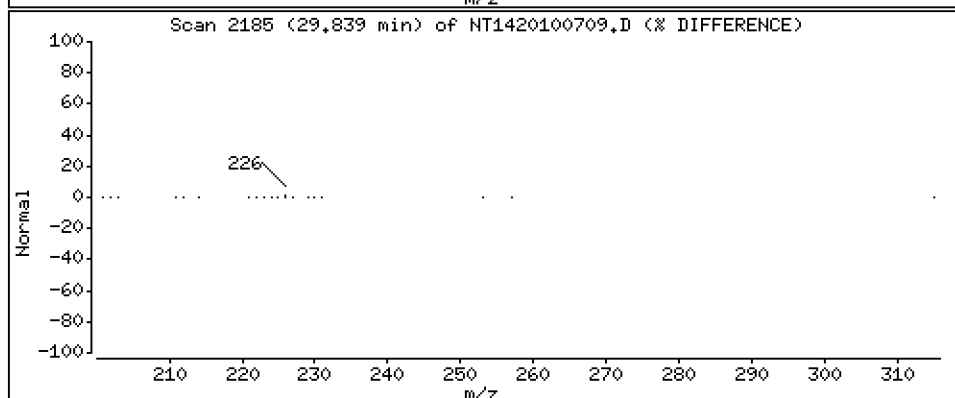
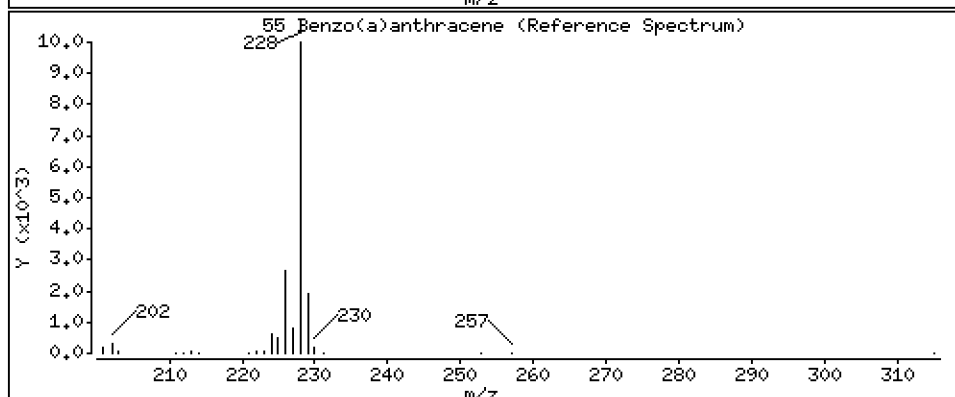
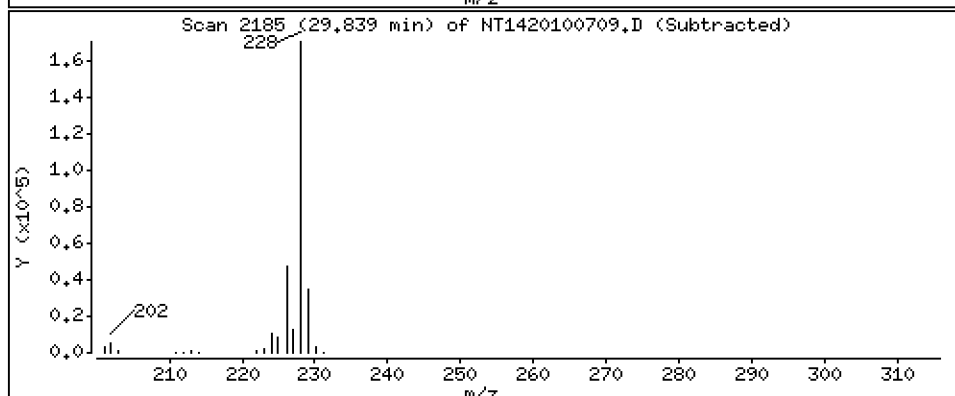
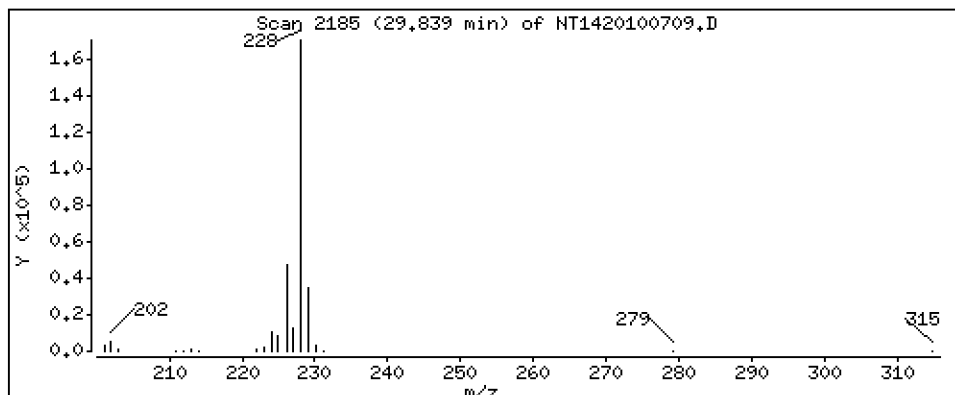
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

55 Benzo(a)anthracene

Concentration: 2,581 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

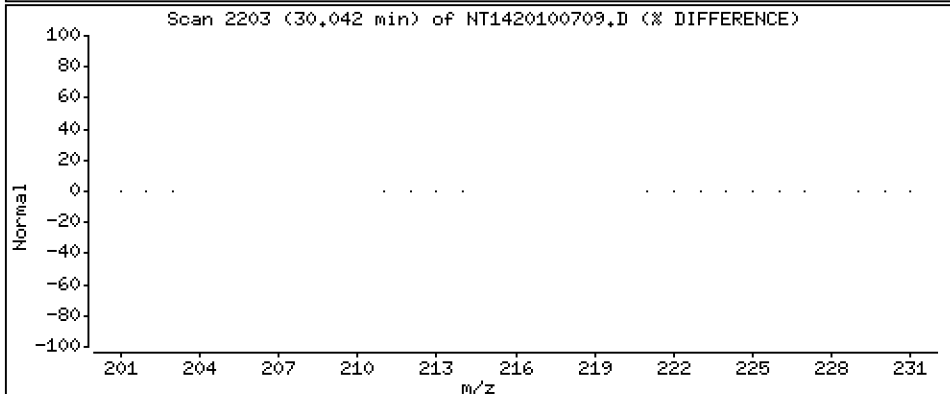
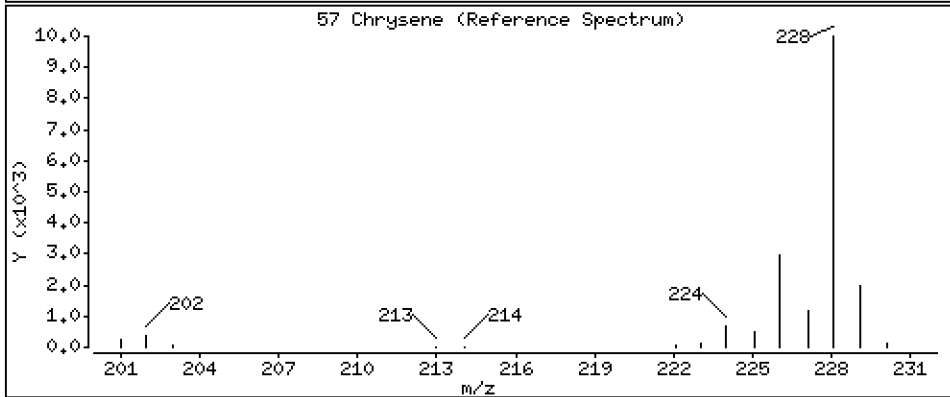
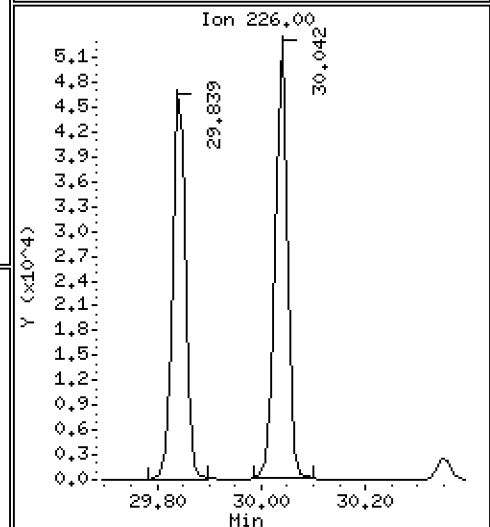
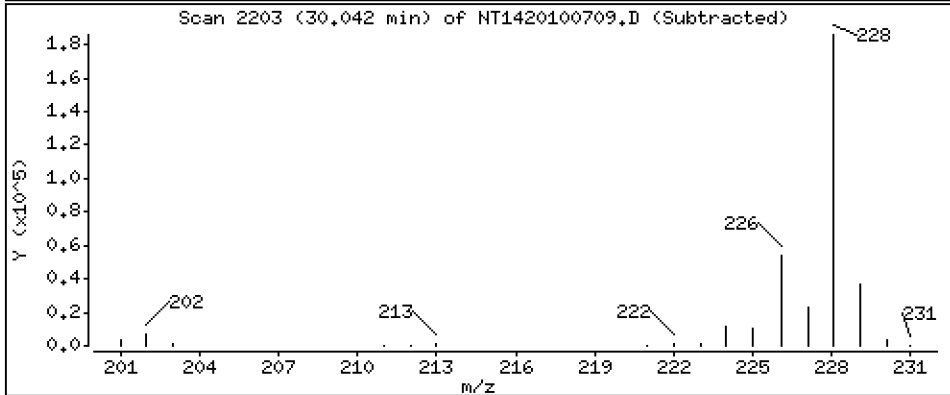
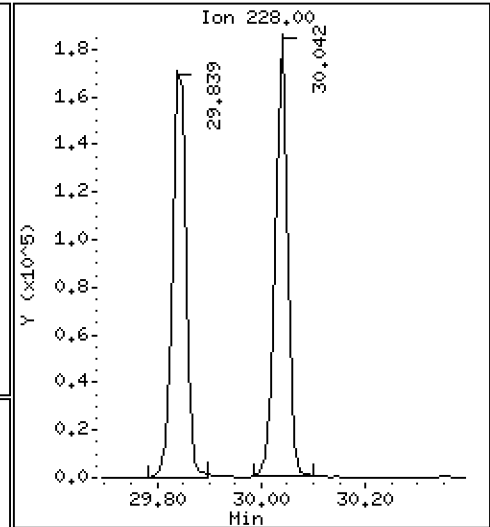
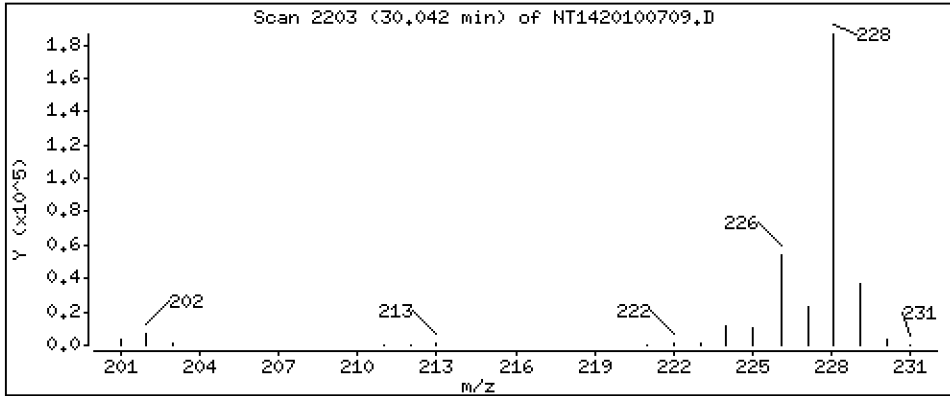
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

57 Chrysene

Concentration: 2,516 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

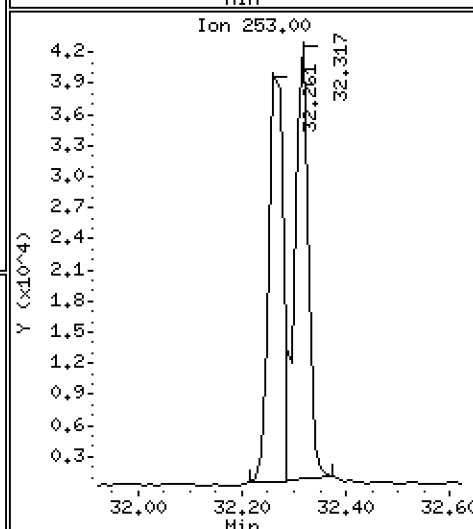
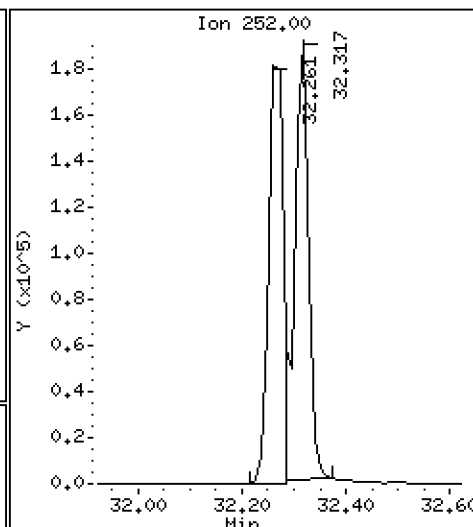
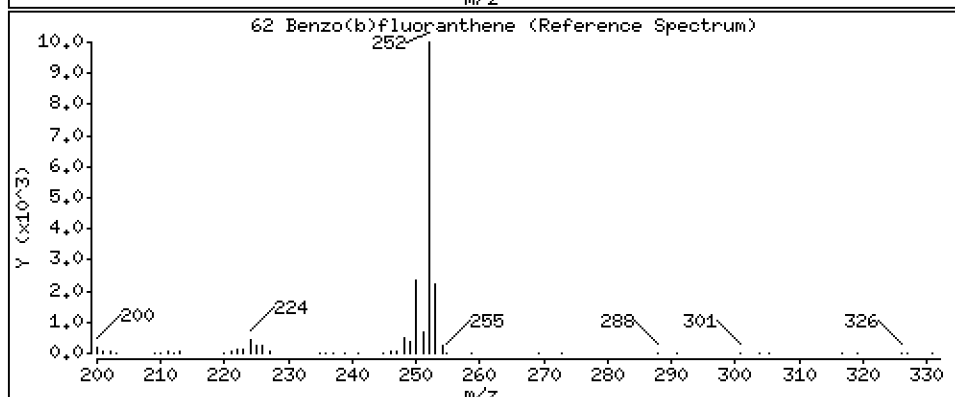
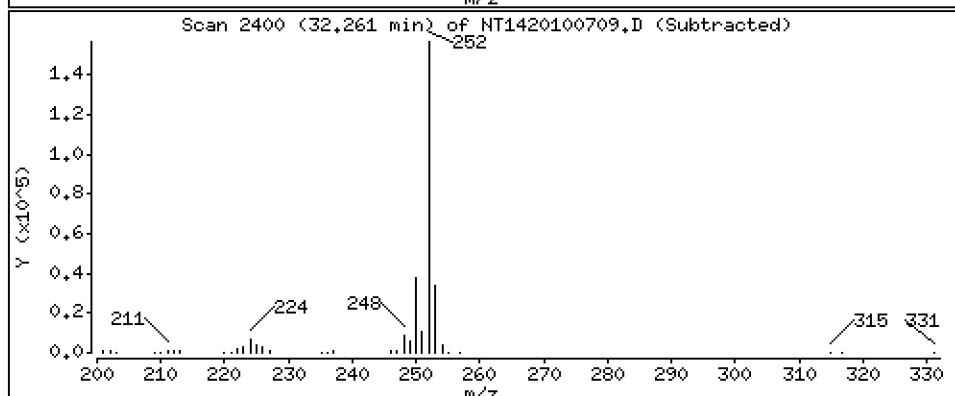
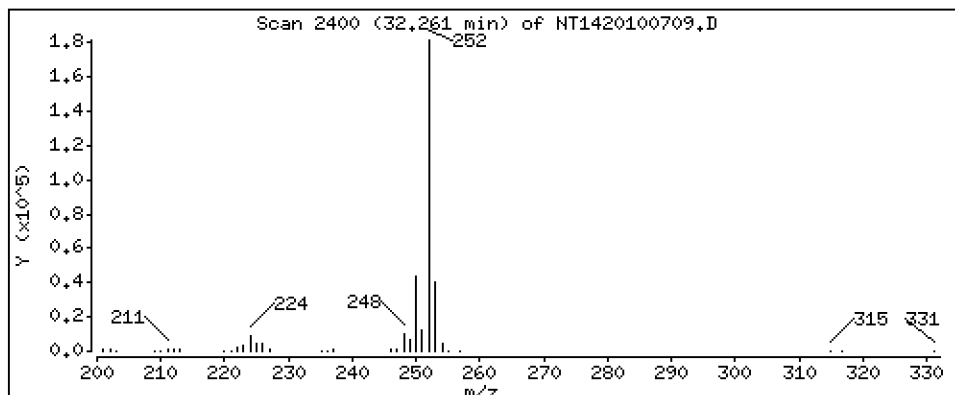
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

62 Benzo(b)fluoranthene

Concentration: 2,387 ug/mL





Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

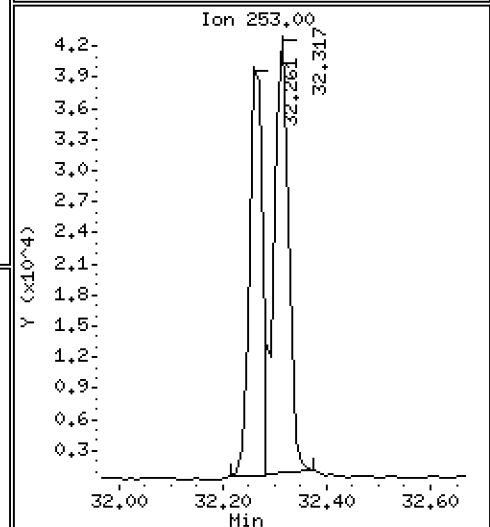
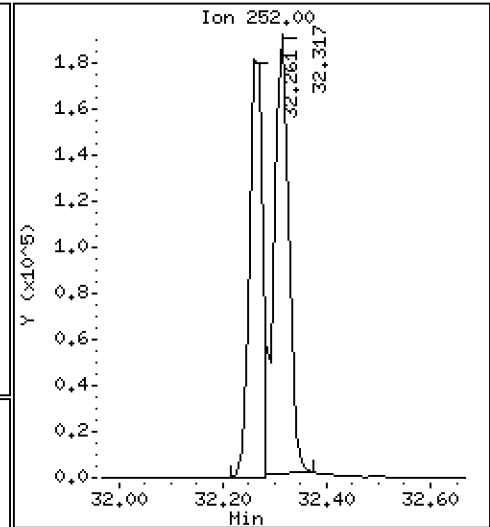
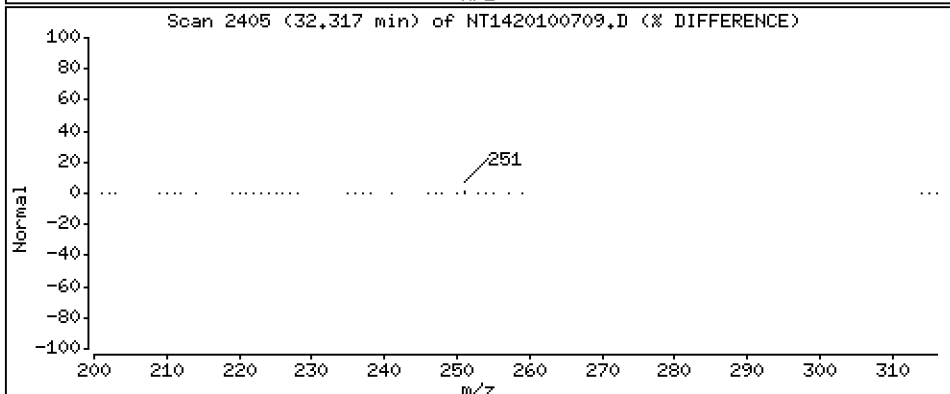
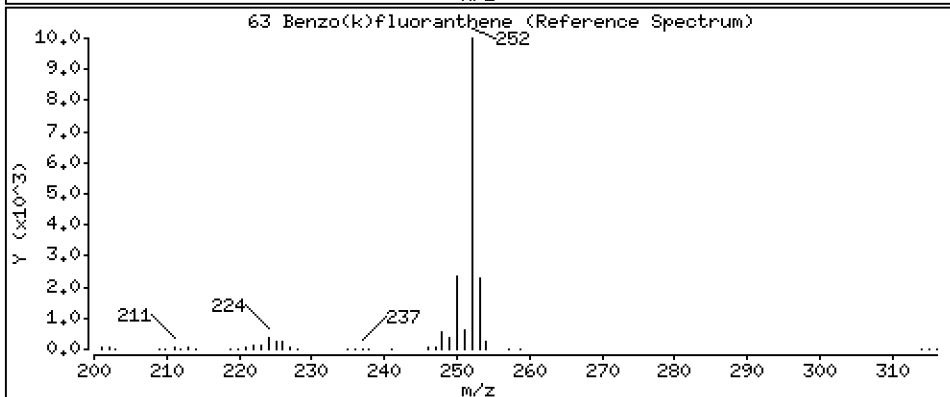
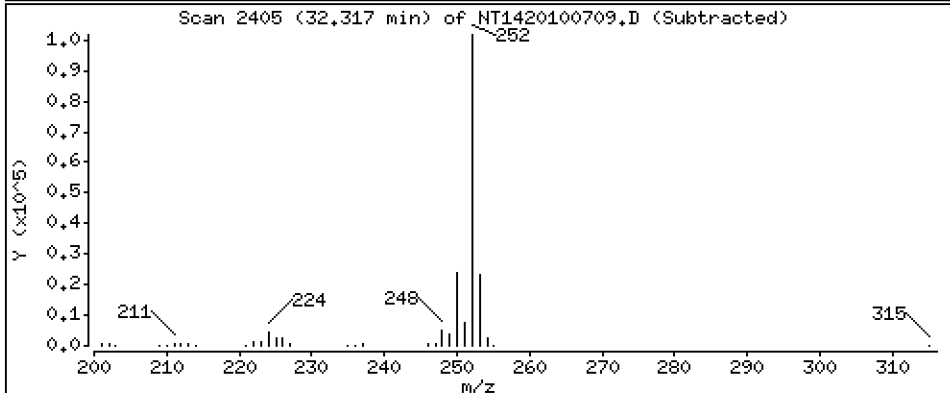
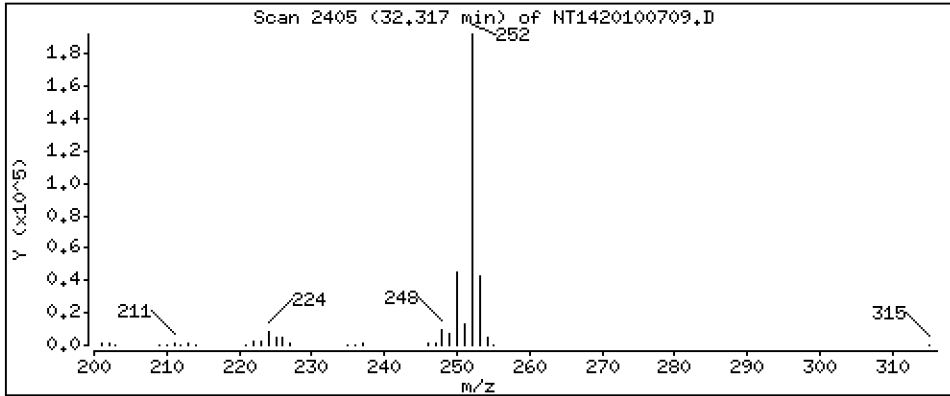
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

63 Benzo(k)fluoranthene

Concentration: 2,656 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

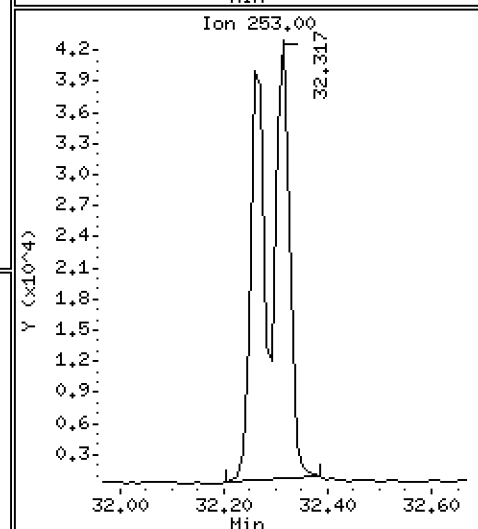
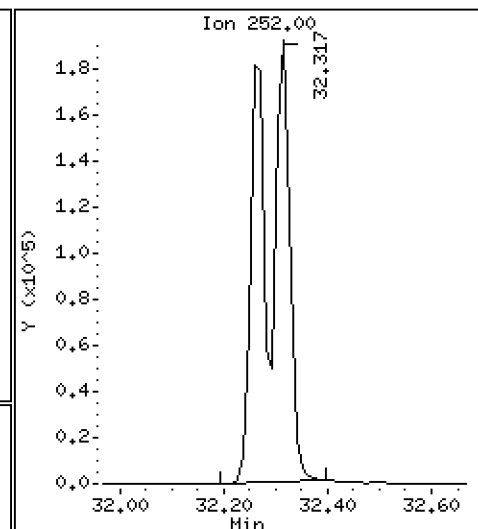
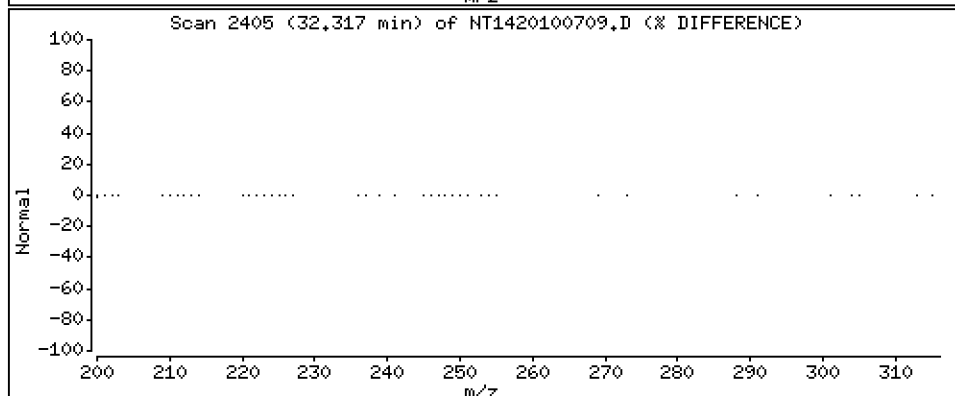
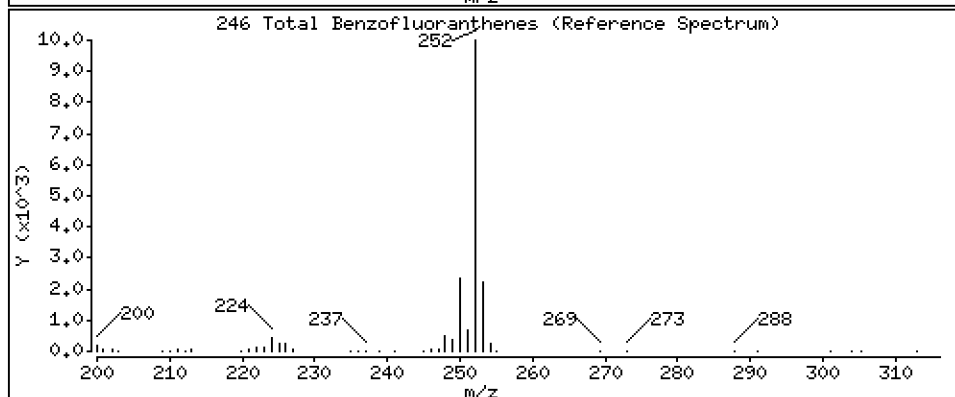
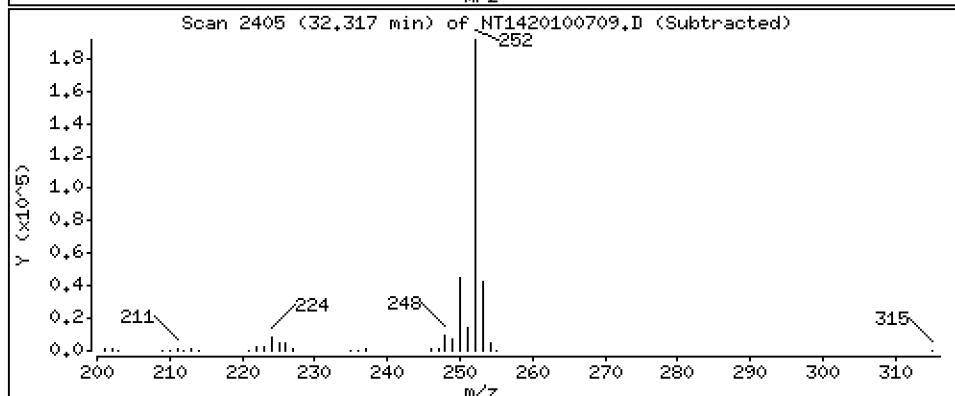
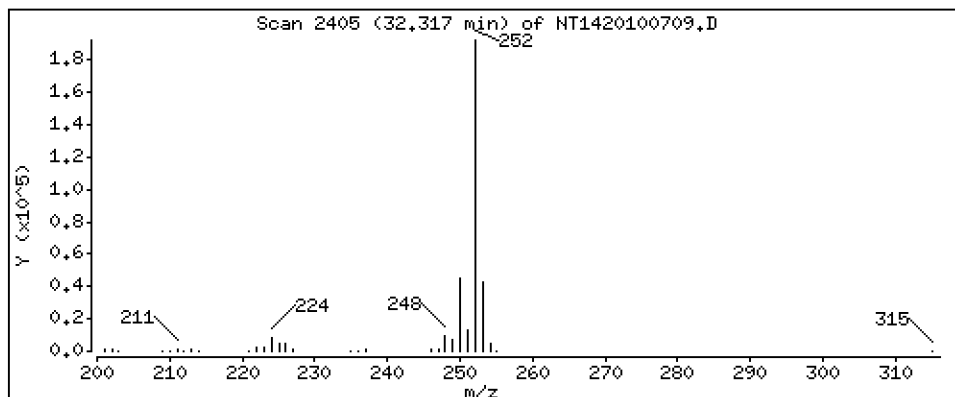
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

246 Total Benzofluoranthenes

Concentration: 5,207 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

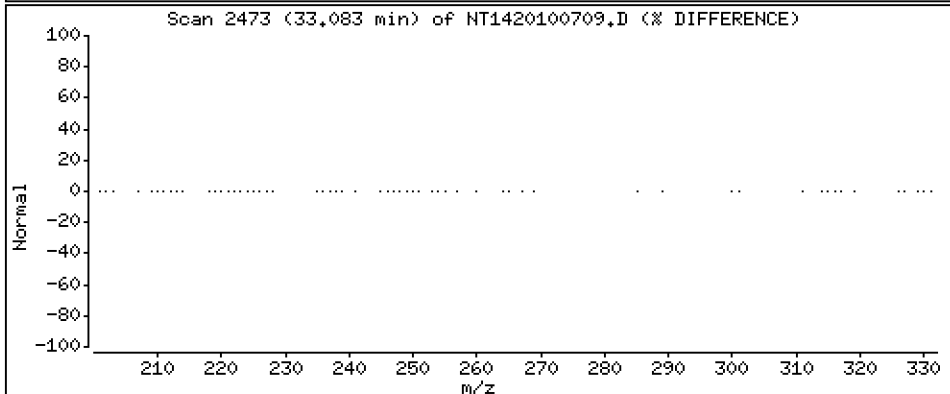
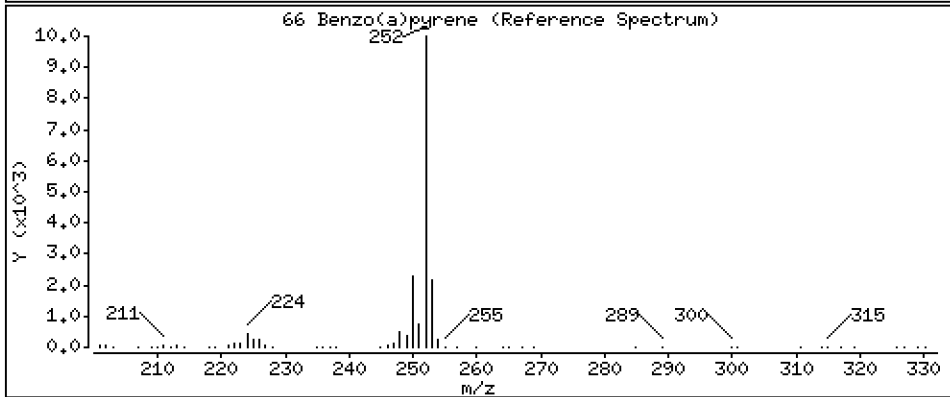
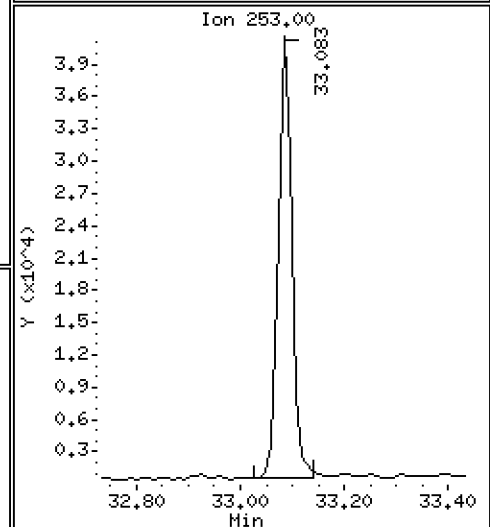
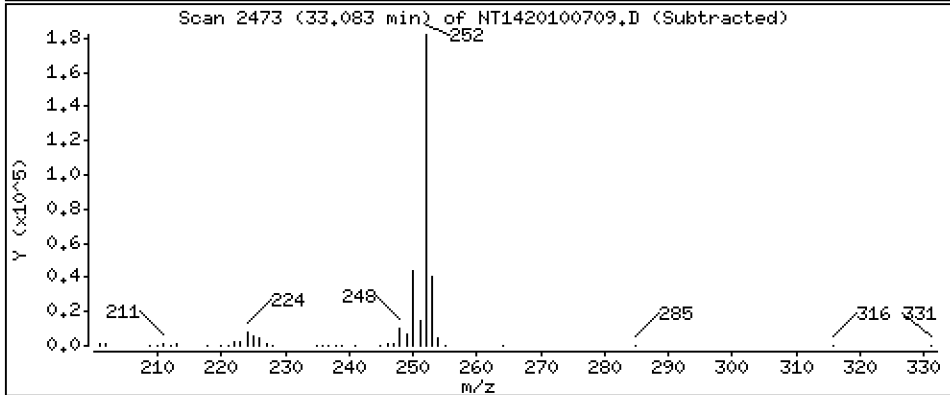
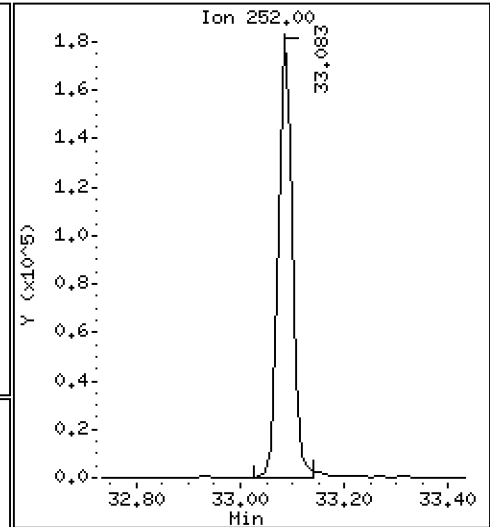
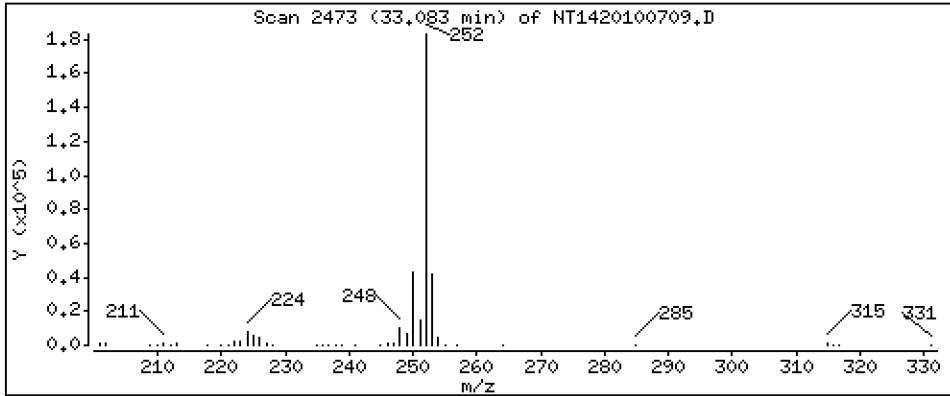
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

66 Benzo(a)pyrene

Concentration: 2,617 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

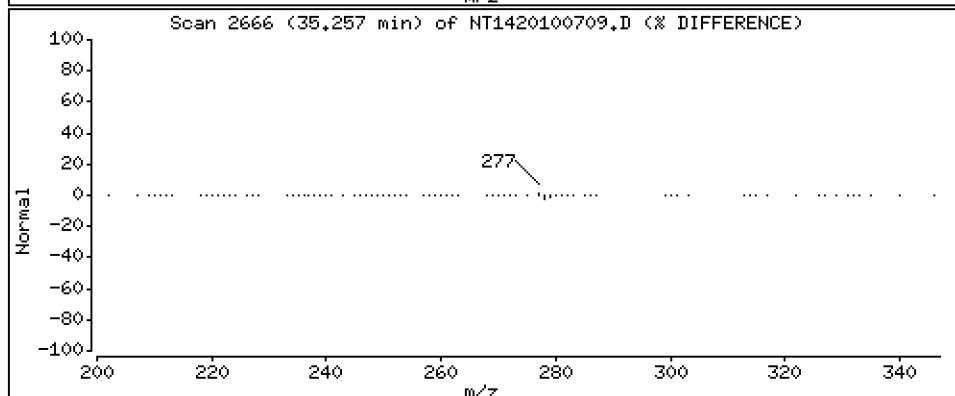
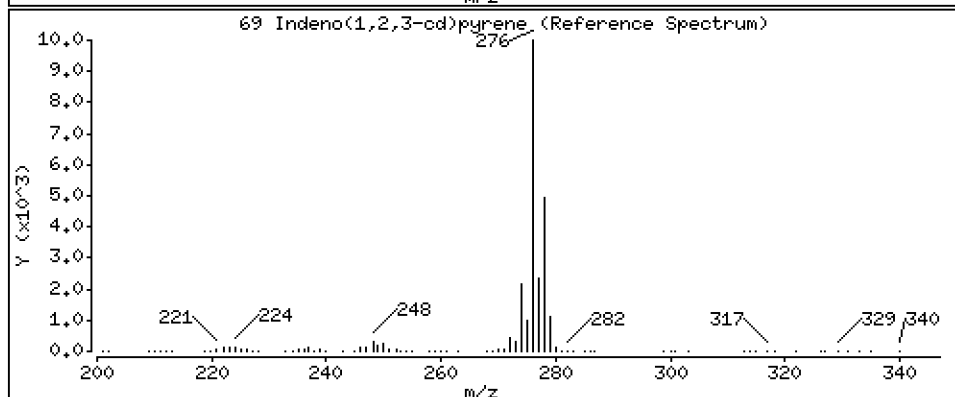
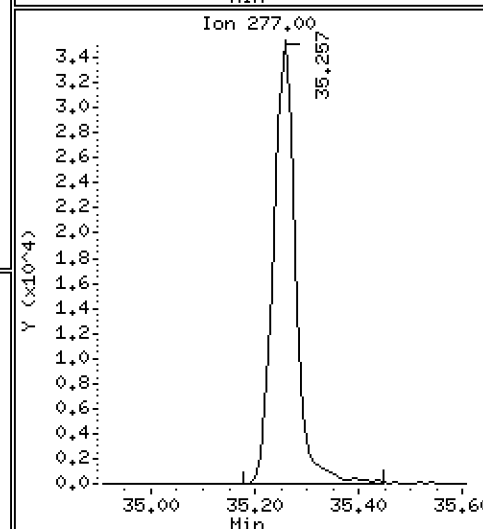
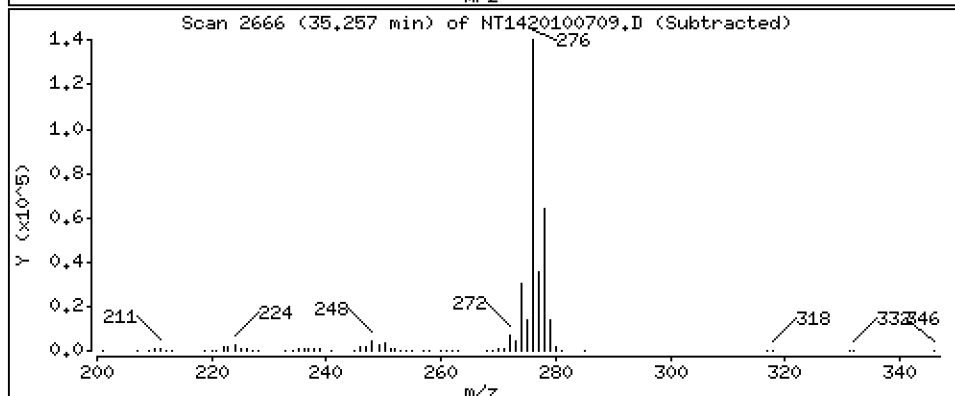
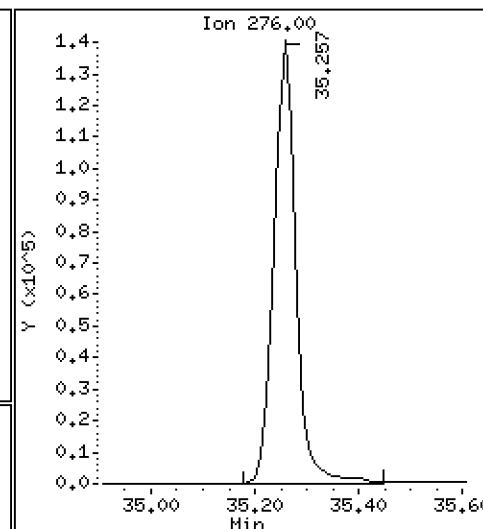
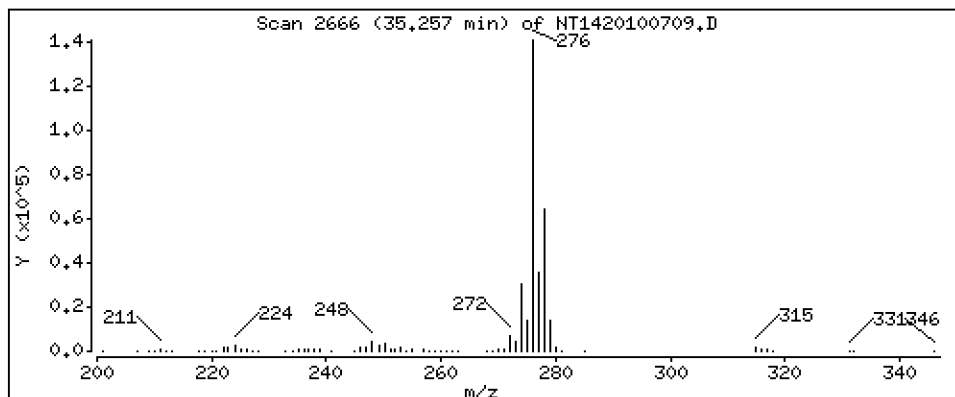
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

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

Concentration: 2,625 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

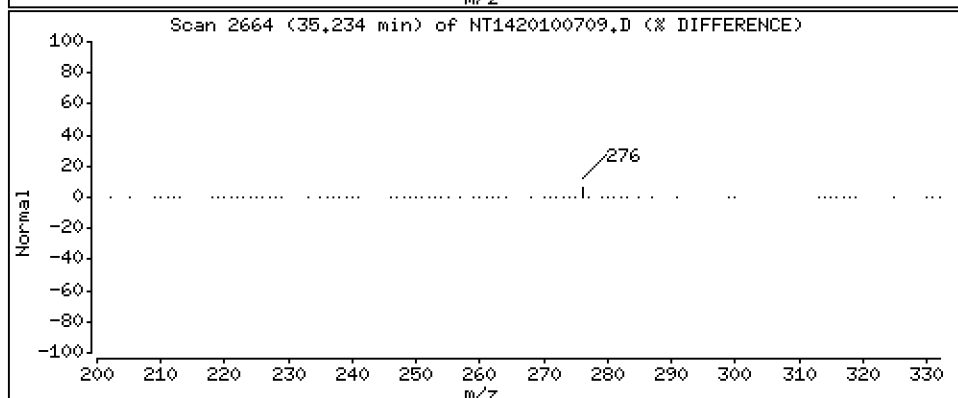
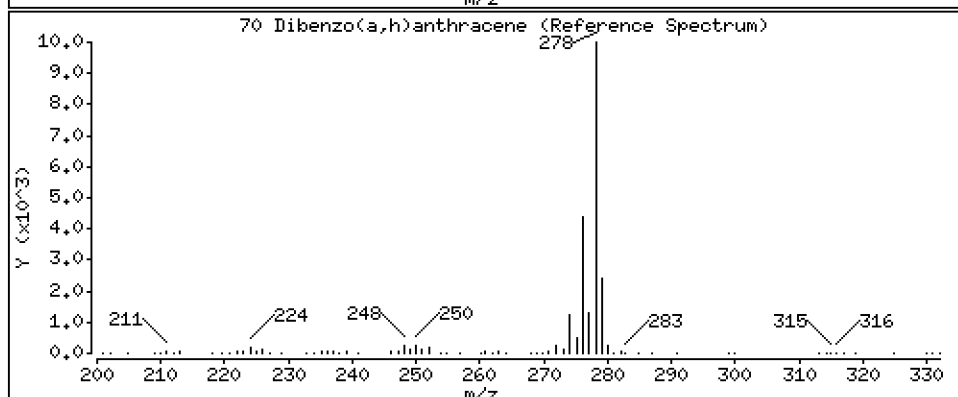
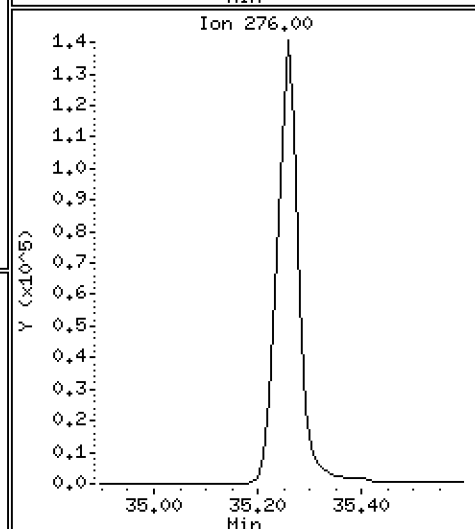
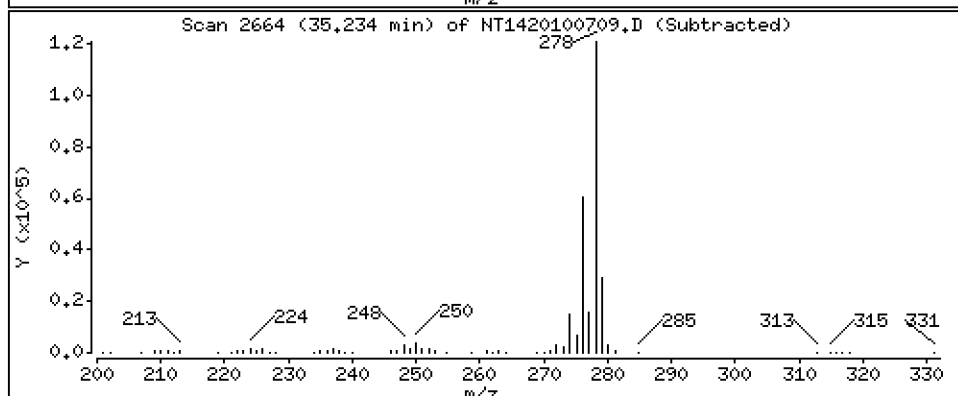
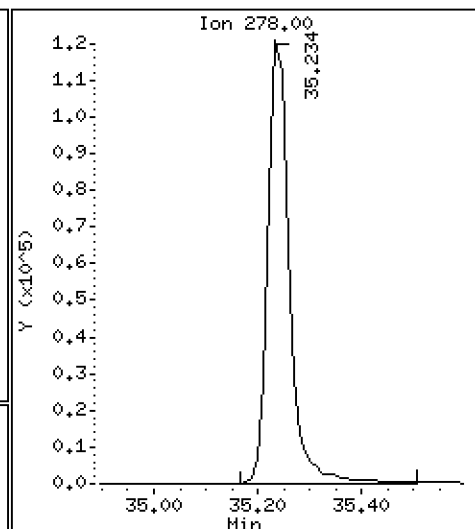
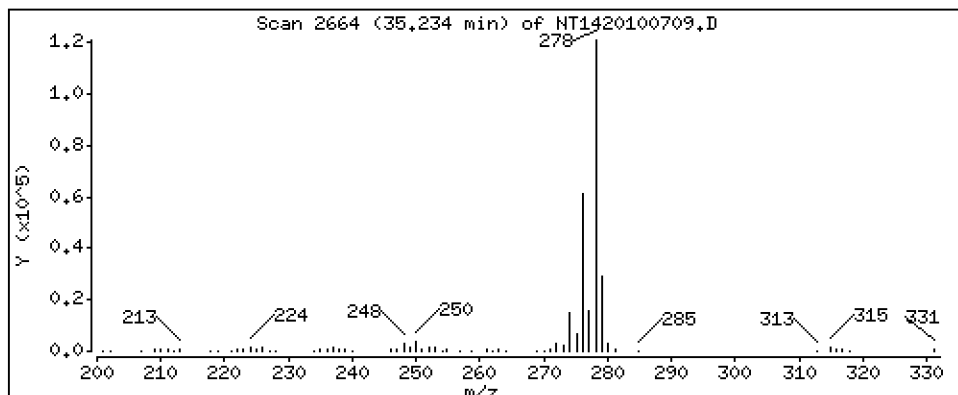
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

70 Dibenzo(a,h)anthracene

Concentration: 2,517 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

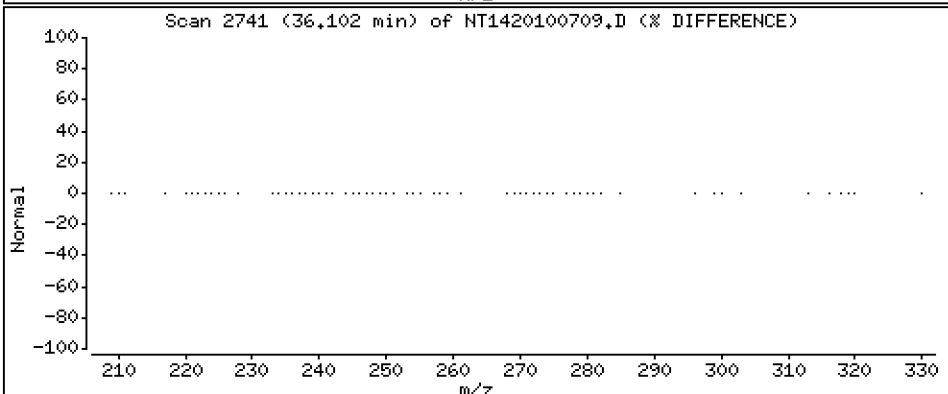
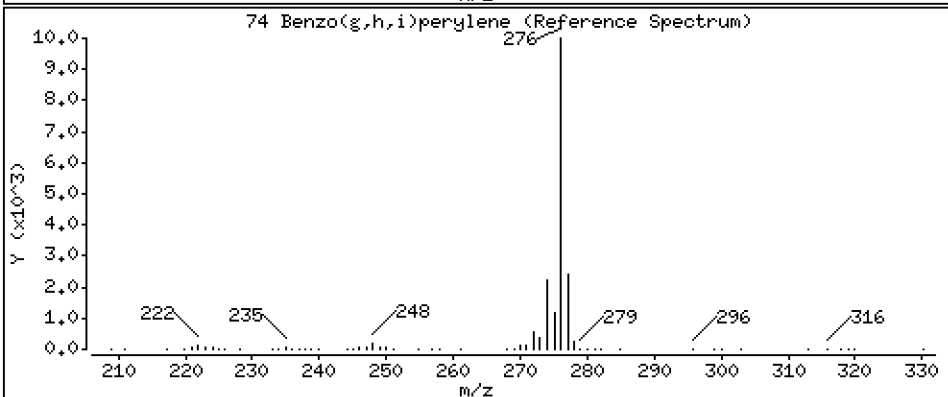
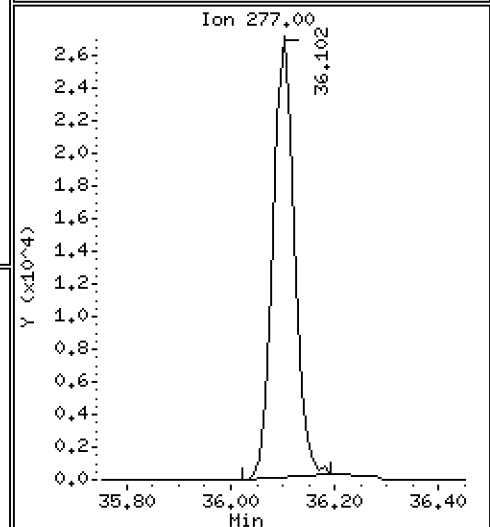
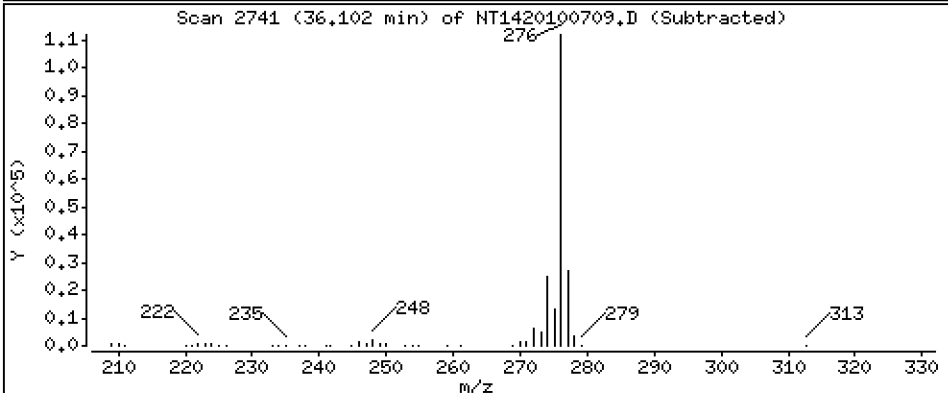
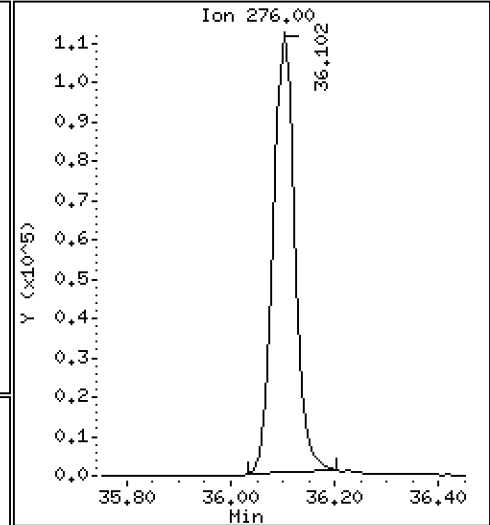
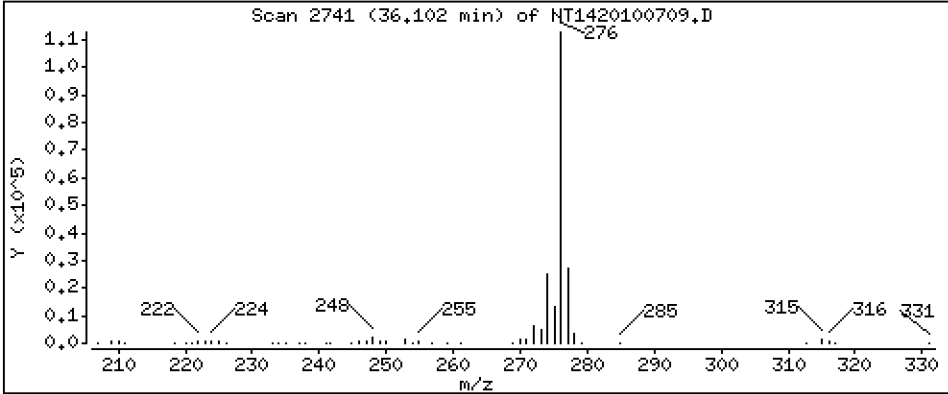
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

74 Benzo(g,h,i)perylene

Concentration: 2,329 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20201007.b\NT1420100709.D  
 Lab Smp Id: SIJ0085-SCV1  
 Inj Date : 07-OCT-2020 16:45  
 Operator : VTS  
 Smp Info : SIJ0085-SCV1  
 Misc Info :  
 Comment : 1ul Injection  
 Method : \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Meth Date : 09-Oct-2020 08:45 van  
 Cal Date : 07-OCT-2020 15:56  
 Als bottle: 9  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 4.14  
 Processing Host: VANS

Inst ID: nt14.i  
 Quant Type: ISTD  
 Cal File: NT1420100708.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							
7 Naphthalene	128		11.707	11.707	(0.628)	213173	2.75707	2.757
12 Benzo(b)thiophene	134							
16 2-Methylnaphthalene	141		13.542	13.542	(0.727)	132308	2.80714	2.807
17 1-methylnaphthalene	141		13.992	13.992	(0.751)	134040	2.83535	2.835
18 Biphenyl	154							
19 2,6-Dimethylnaphthalene	156							
20 Acenaphthylene	152		16.817	16.817	(0.903)	244094	2.87456	2.875
\$ 21 Acenaphthene-d10	164		17.135	17.103	(0.920)	20448	0.44062	0.4406(R)
22 Acenaphthene	153		17.223	17.223	(0.924)	150978	2.71407	2.714
23 Dibenzofuran	168		17.597	17.597	(0.944)	249328	3.08950	3.090
24 1,6,7-Trimethylnaphthalene	170							
* 25 Fluorene-d10	176		18.632	18.632	(1.000)	189405	2.00000	
26 Fluorene	166		18.746	18.746	(1.006)	186659	2.96697	2.967
30 Dibenzothiophene	184							
\$ 35 Phenanthrene-d10	188							
36 Phenanthrene	178		22.040	22.040	(0.999)	276406	2.45432	2.454
* 250 Anthracene-d10	188		22.072	22.072	(1.000)	203362	2.00000	
37 Anthracene	178		22.138	22.138	(1.003)	263969	2.38495	2.385
42 Carbazole	167		23.425	23.425	(1.061)	225622	2.35395	2.354
43 1-Methylphenanthrene	192							
44 Fluoranthene	202		25.843	25.843	(1.171)	302784	2.43596	2.436
46 Pyrene	202		26.701	26.701	(1.210)	327478	2.49671	2.497
51 Naphthobenzothiophene	234							
55 Benzo(a)anthracene	228		29.839	29.839	(0.906)	321298	2.58148	2.581
\$ 56 Chrysene-d12	240							
57 Chrysene	228		30.042	30.042	(0.912)	311187	2.51557	2.516
62 Benzo(b)fluoranthene	252		32.260	32.272	(0.980)	335486	2.38726	2.387
63 Benzo(k)fluoranthene	252		32.317	32.317	(0.982)	376214	2.65607	2.656
293 Benzo(j)fluoranthene	252							
246 Total Benzofluoranthenes	252		32.317	32.317	(0.982)	678991	5.20731	5.207(M)

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264		32.925	32.925	(1.000)	288304	2.00000	
64 Benzo(e)pyrene	252		Compound Not Detected.					
66 Benzo(a)pyrene	252		33.083	33.083	(1.005)	318127	2.61683	2.617
\$ 67 Perylene-d12	264		Compound Not Detected.					
68 Perylene	252		Compound Not Detected.					
69 Indeno(1,2,3-cd)pyrene	276		35.256	35.256	(1.071)	395155	2.62484	2.625
70 Dibenzo(a,h)anthracene	278		35.234	35.245	(1.070)	334739	2.51676	2.517
74 Benzo(g,h,i)perylene	276		36.101	36.101	(1.096)	307983	2.32872	2.329 (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: 07-OCT-2020  
 Lab File ID: NT1420100709.D Calibration Time: 18:22  
 Lab Smp Id: SIJ0085-SCV1  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: VTS  
 Method File: \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Misc Info:

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	209596	104798	419192	189405	-9.63
250 Anthracene-d10	192407	96204	384814	203362	5.69
251 Benzo(e)pyrene-d1	274120	137060	548240	288304	5.17

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.63	18.13	19.13	18.63	0.00
250 Anthracene-d10	22.07	21.57	22.57	22.07	0.00
251 Benzo(e)pyrene-d1	32.93	32.43	33.43	32.93	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 - NT1420100709.D

Lab ID: SIJ0085-SCV1

nt14.i, 20201007.b\ALKYLPNA.m, 07-OCT-2020 16:45

RT CO-ELUTION COMPOUNDS

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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: NT1420100711.D

On Column LOD for nt14.i, 20201007.b\ALKYLPNA.m, TARGETS.sub = 0.0000

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

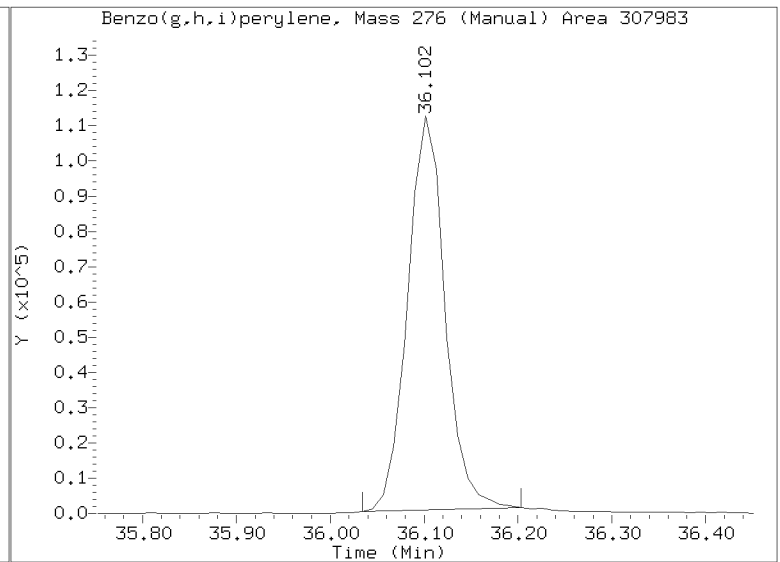
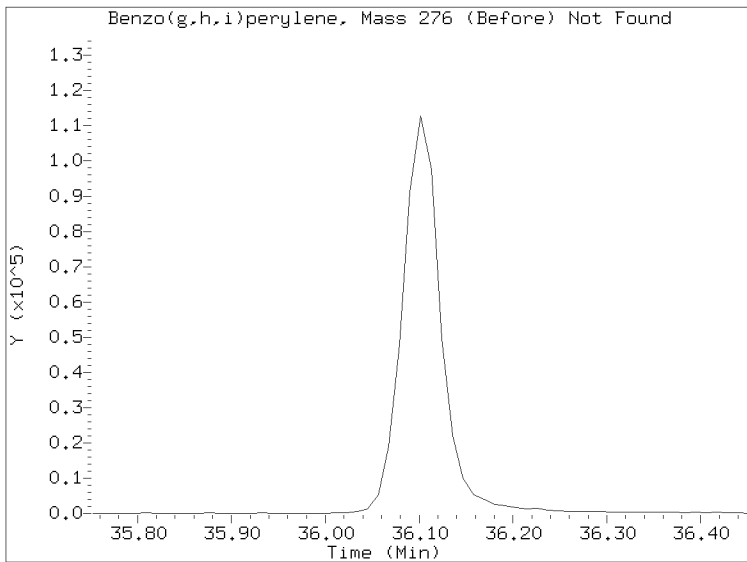
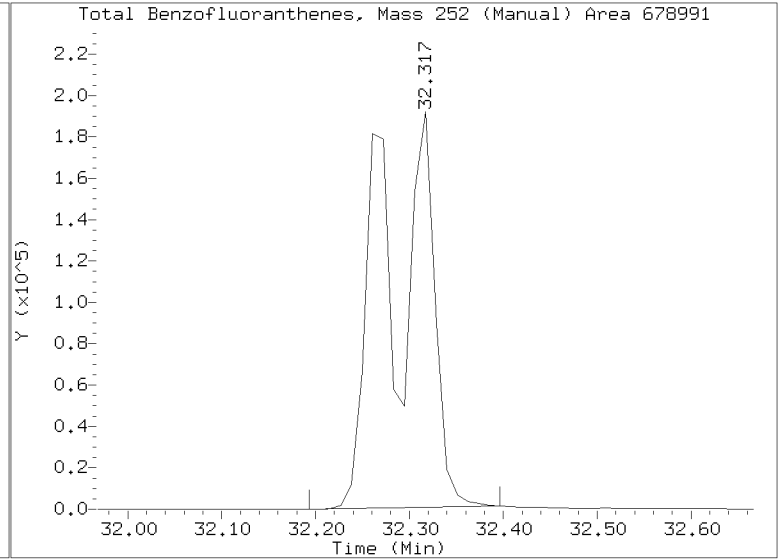
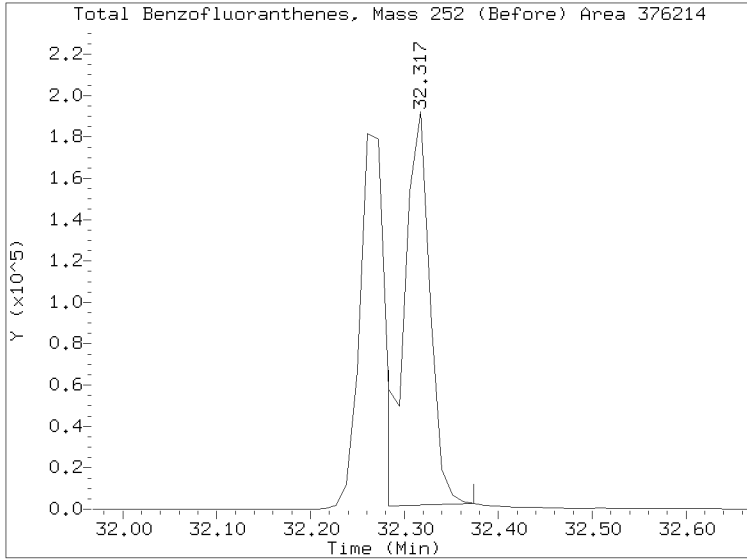
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201007.b/NT1420100709.D

Injection Date: 07-OCT-2020 16:45

Lab ID:SIJ0085-SCV1 Client ID:

Report Date: 10/09/2020 08:51



Data File: \\target\share\chem3\nt14.1\20201007.6\NT1420100710.D

Date: 07-OCT-2020 17:33

Client ID:

Sample Info: S100085-ICB1

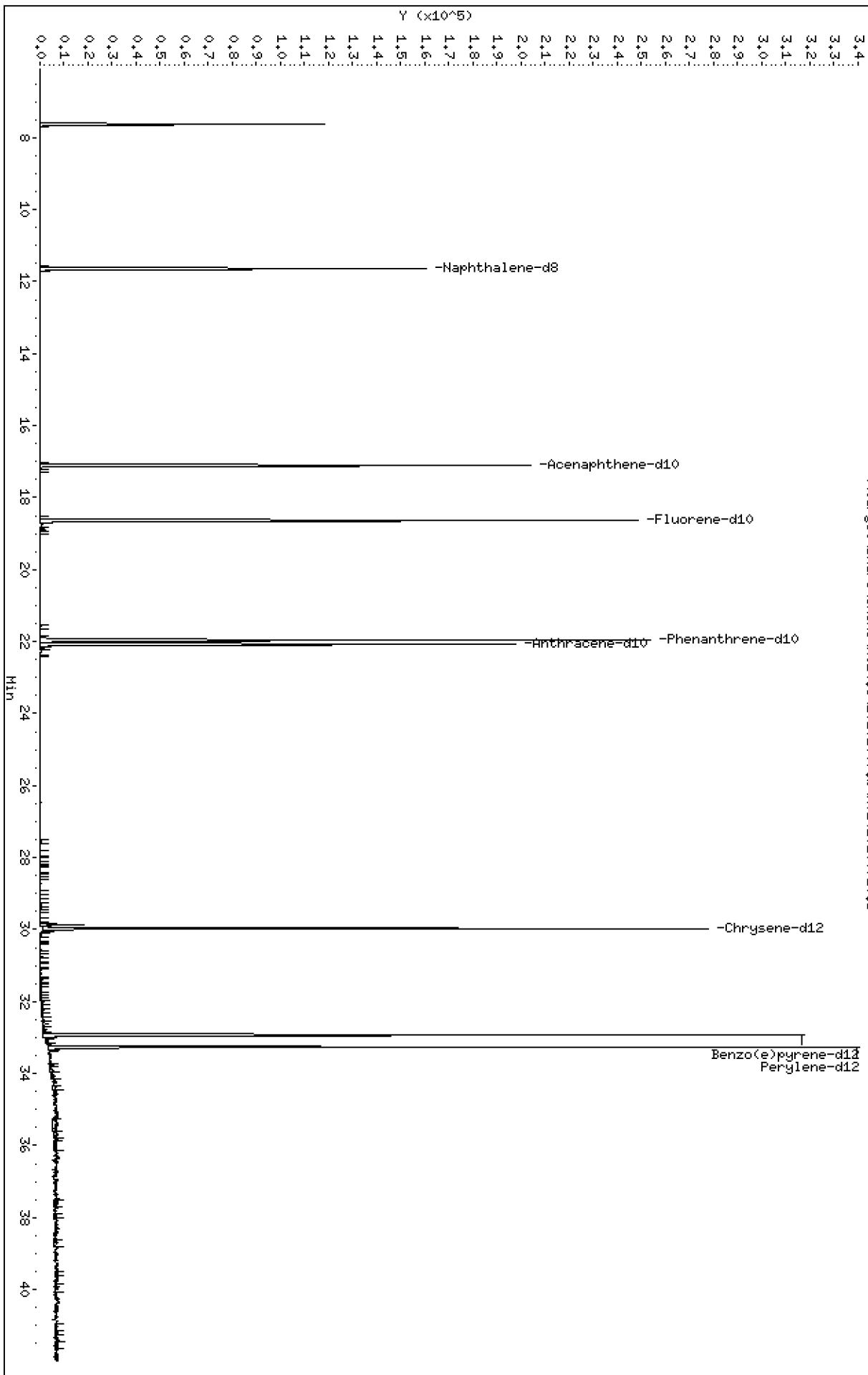
Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14.1\20201007.6\NT1420100710.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20201007.b\NT1420100710.D  
 Lab Smp Id: SIJ0085-ICB1  
 Inj Date : 07-OCT-2020 17:33  
 Operator : VTS  
 Smp Info : SIJ0085-ICB1  
 Misc Info :  
 Comment : 1ul Injection  
 Method : \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Meth Date : 09-Oct-2020 08:45 van  
 Cal Date : 07-OCT-2020 15:56  
 Als bottle: 10  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 4.14  
 Processing Host: VANS

Inst ID: nt14.i  
 Quant Type: ISTD  
 Cal File: NT1420100708.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		11.641	11.641	(0.625)	224827	2.62926	2.629(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		17.103	17.103	(0.918)	126563	2.46483	2.465(R)
22 Acenaphthene	153							
23 Dibenzofuran	168							
24 1,6,7-Trimethylnaphthalene	170							
* 25 Fluorene-d10	176		18.632	18.632	(1.000)	209569	2.00000	
26 Fluorene	166							
30 Dibenzothiophene	184							
\$ 35 Phenanthrene-d10	188		21.963	21.963	(0.995)	257418	2.75596	2.756(R)
36 Phenanthrene	178							
* 250 Anthracene-d10	188		22.073	22.072	(1.000)	195015	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		29.974	29.974	(0.910)	248251	2.64721	2.647(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	FINAL
	MASS						(ug/mL)	(ug/mL)
=====	=====		=====	=====	=====	=====	=====	=====
* 251 Benzo(e)pyrene-d12	264		32.925	32.925	(1.000)	275049	2.00000	
64 Benzo(e)pyrene	252		Compound Not Detected.					
66 Benzo(a)pyrene	252		Compound Not Detected.					
\$ 67 Perylene-d12	264		33.263	33.263	(1.010)	293187	2.57786	2.578 (R)
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.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 07-OCT-2020  
 Lab File ID: NT1420100710.D Calibration Time: 18:22  
 Lab Smp Id: SIJ0085-ICB1  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: VTS  
 Method File: \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Misc Info:

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	209596	104798	419192	209569	-0.01
250 Anthracene-d10	192407	96204	384814	195015	1.36
251 Benzo(e)pyrene-d1	274120	137060	548240	275049	0.34

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.63	18.13	19.13	18.63	0.00
250 Anthracene-d10	22.07	21.57	22.57	22.07	0.00
251 Benzo(e)pyrene-d1	32.93	32.43	33.43	32.93	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 - NT1420100710.D

Lab ID: SIJ0085-ICB1

nt14.i, 20201007.b\ALKYLPNA.m, 07-OCT-2020 17:33

RT CO-ELUTION COMPOUNDS

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NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

RRT check based on Ccal File: NT1420100711.D

On Column LOD for nt14.i, 20201007.b\ALKYLPNA.m, TARGETS.sub = 0.0000

\* 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: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Calibration: DJ00029

Laboratory ID: SIJ0085-SCV1

Sequence: SIJ0085

Sequence Name: Secondary Cal Check

Standard ID: I009393

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Naphthalene	2.5000	2.8	10.3	20.00
1-Methylnaphthalene	2.5000	2.8	13.4	20.00
2-Methylnaphthalene	2.5000	2.8	12.3	20.00
Acenaphthylene	2.5000	2.9	15.0	20.00
Acenaphthene	2.5000	2.7	8.6	20.00
Dibenzofuran	2.5000	3.1	23.6 *	20.00
Fluorene	2.5000	3.0	18.7	20.00
Phenanthrene	2.5000	2.5	-1.8	20.00
Anthracene	2.5000	2.4	-4.6	20.00
Carbazole	2.5000	2.4	-5.8	20.00
Fluoranthene	2.5000	2.4	-2.6	20.00
Pyrene	2.5000	2.5	-0.1	20.00
Benzo(a)anthracene	2.5000	2.6	3.3	20.00
Chrysene	2.5000	2.5	0.6	20.00
Benzo(b)fluoranthene	2.5000	2.4	-4.5	
Benzo(k)fluoranthene	2.5000	2.7	6.2	
Benzofluoranthenes, Total	5.0000	5.2	4.1	
Benzo(a)pyrene	2.5000	2.6	4.7	20.00
Indeno(1,2,3-cd)pyrene	2.5000	2.6	5.0	20.00
Dibenzo(a,h)anthracene	2.5000	2.5	0.7	20.00
Benzo(g,h,i)perylene	2.5000	2.3	-6.9	20.00

\* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt14,1\20201007,16\NT1420100709.D

Date : 07-OCT-2020 16:45

Client ID:

Sample Info: S100085-SCW1

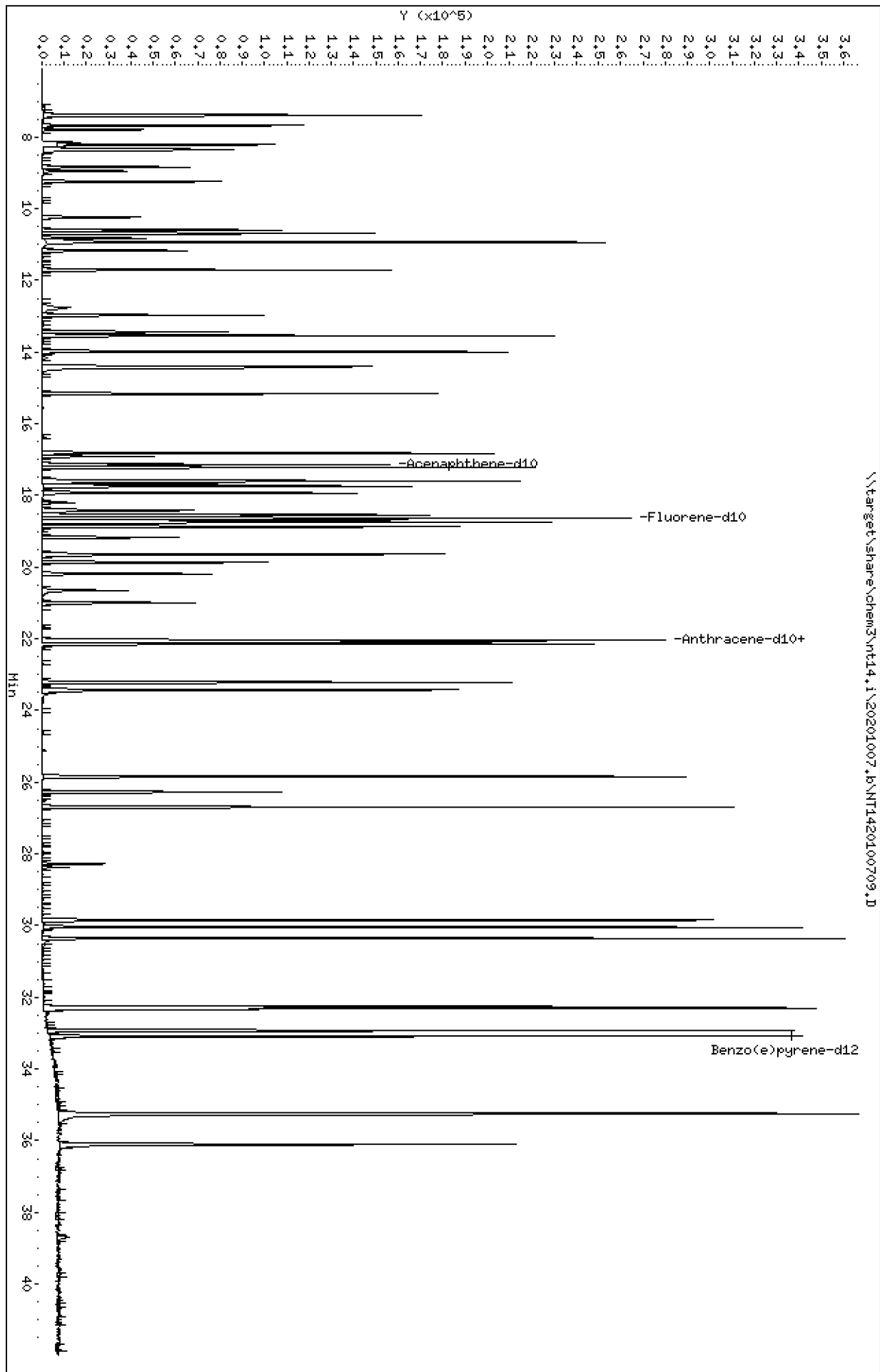
Column phase: Rxi-17S11 MS

Instrument: nt14,1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14,1\20201007,16\NT1420100709.D



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

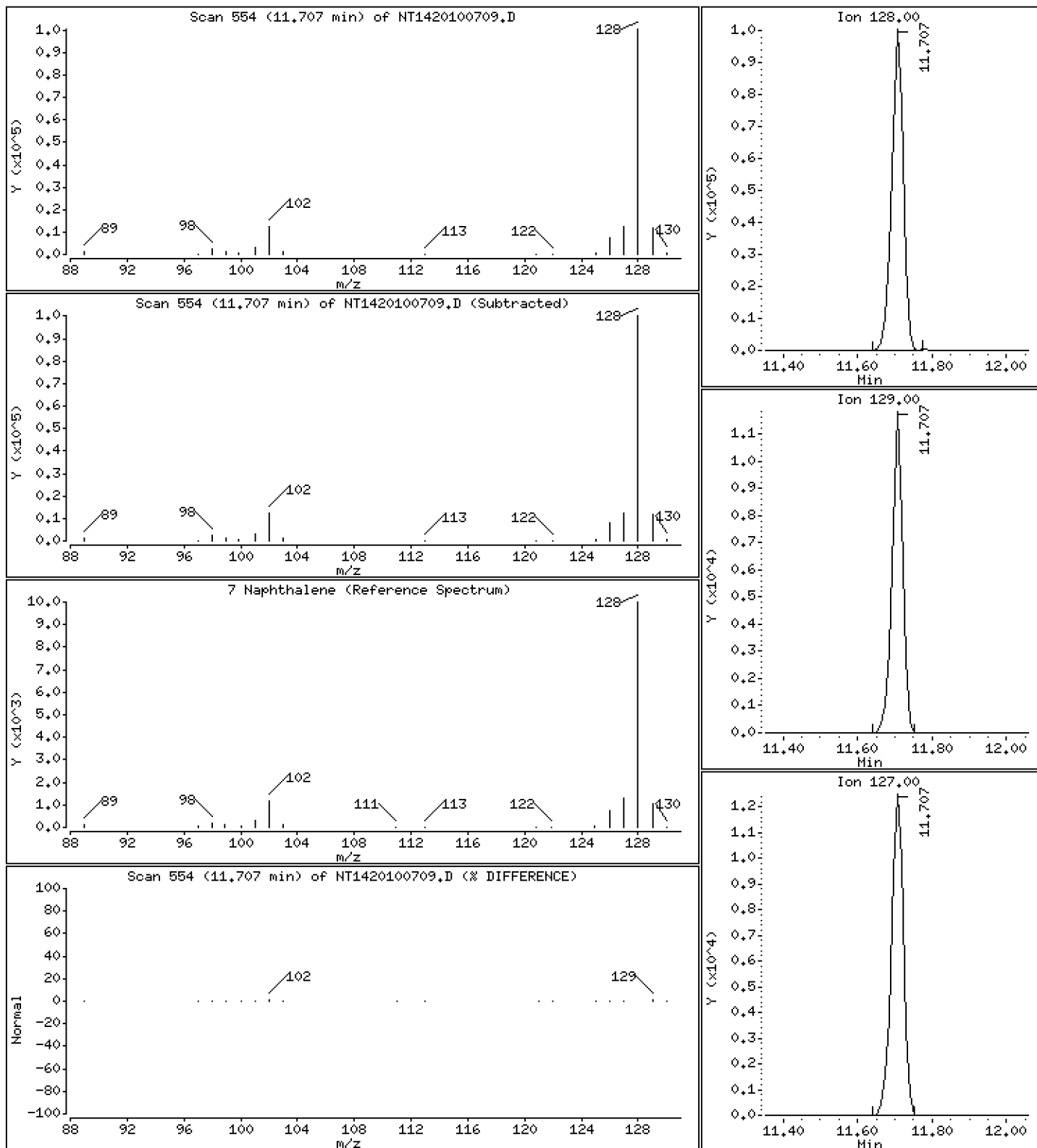
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

7 Naphthalene

Concentration: 2,757 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

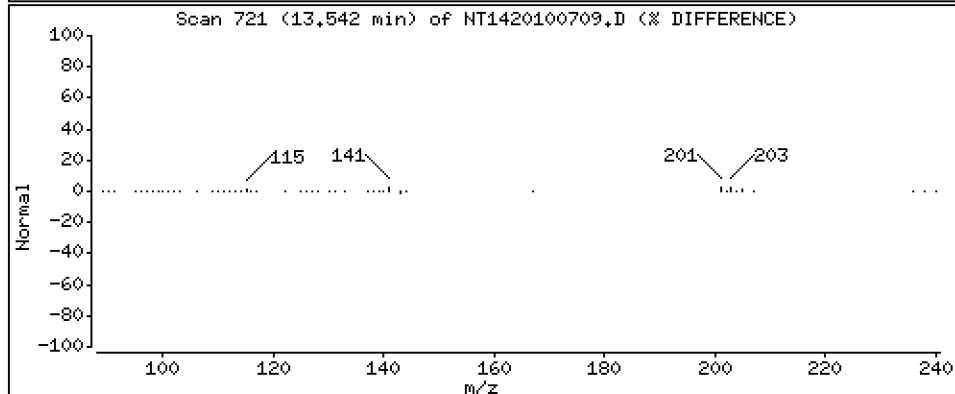
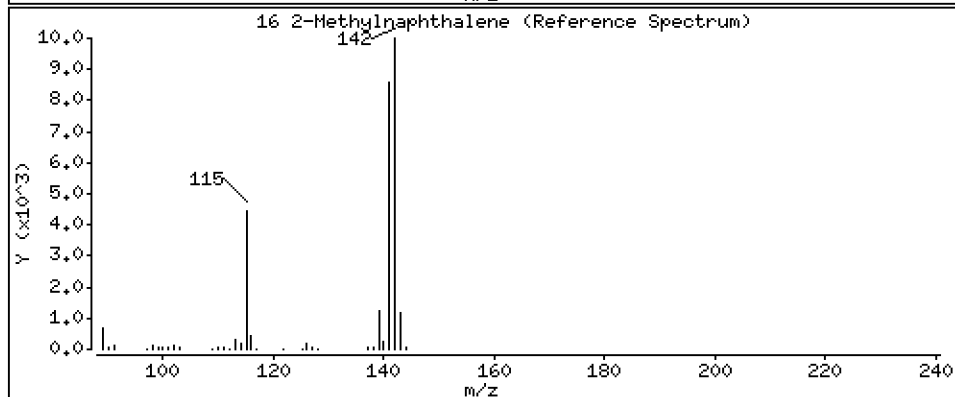
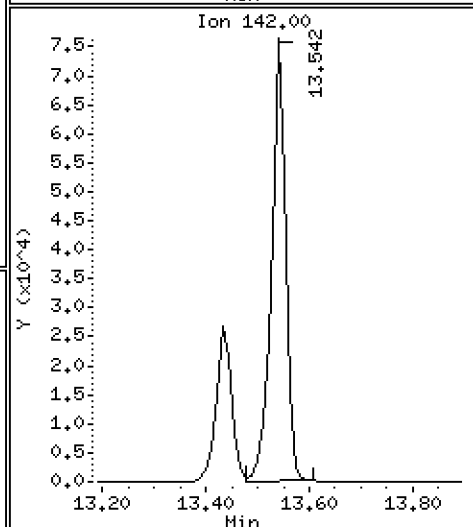
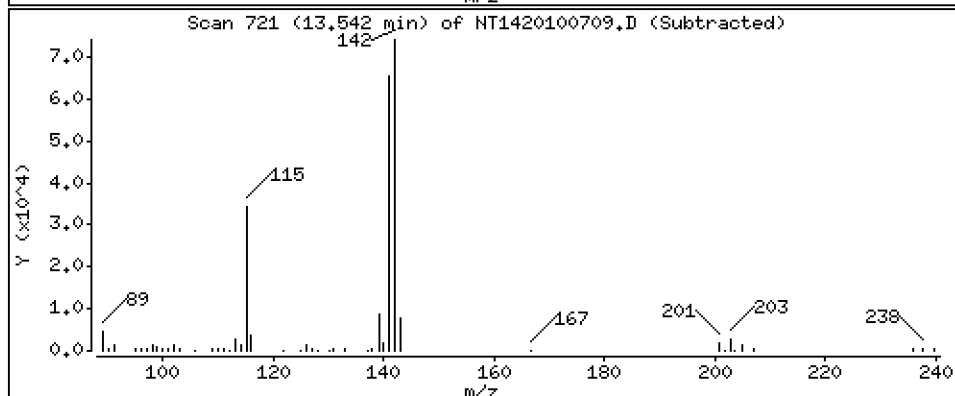
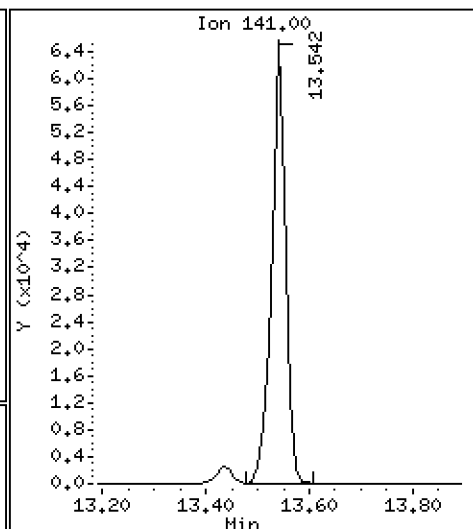
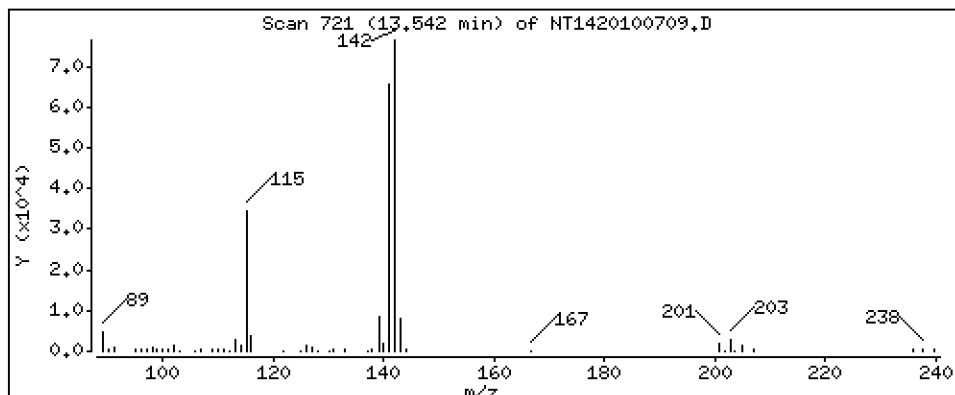
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 2-Methylnaphthalene

Concentration: 2,807 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

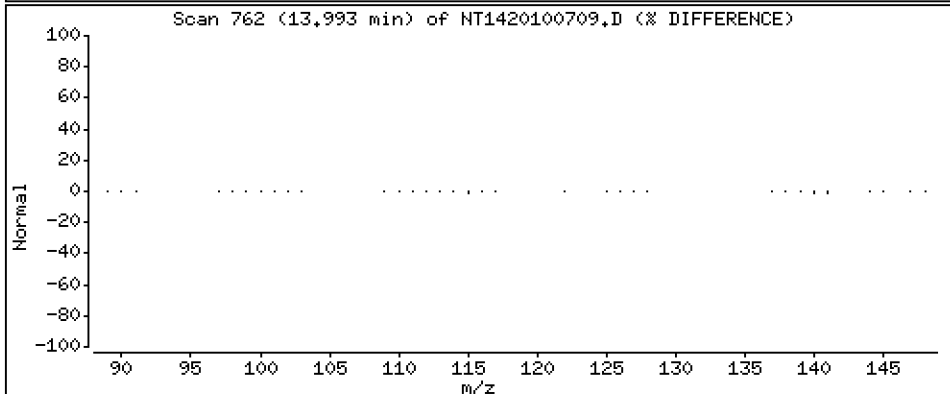
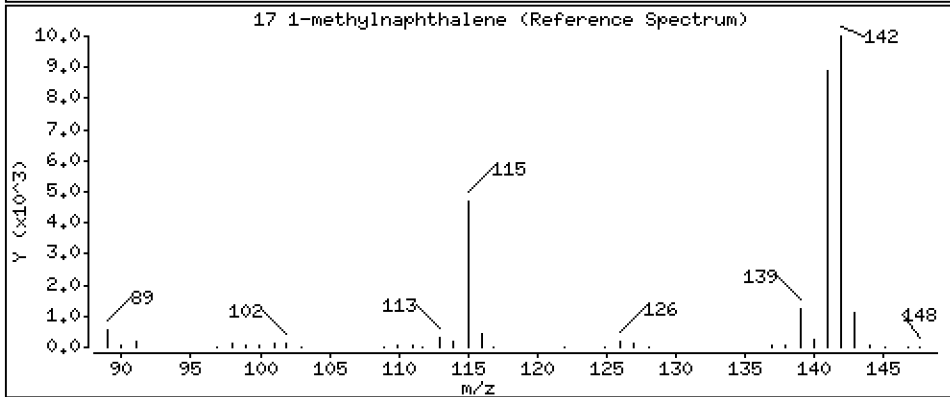
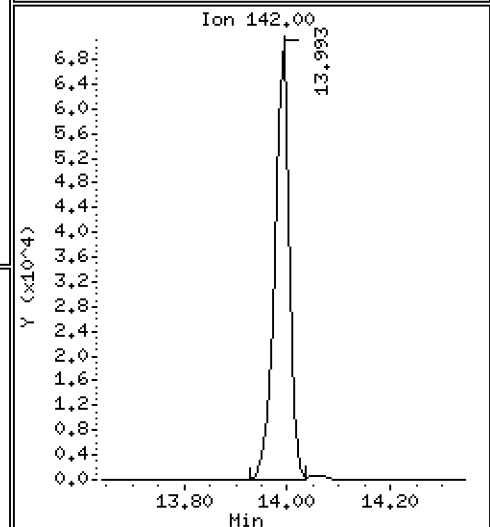
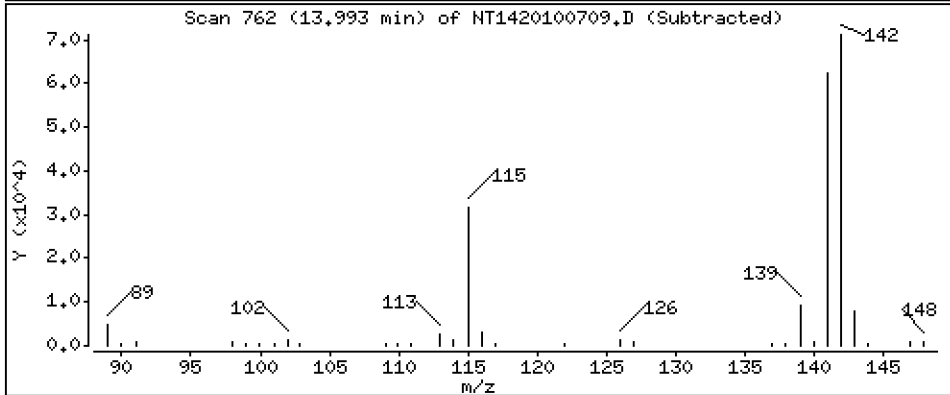
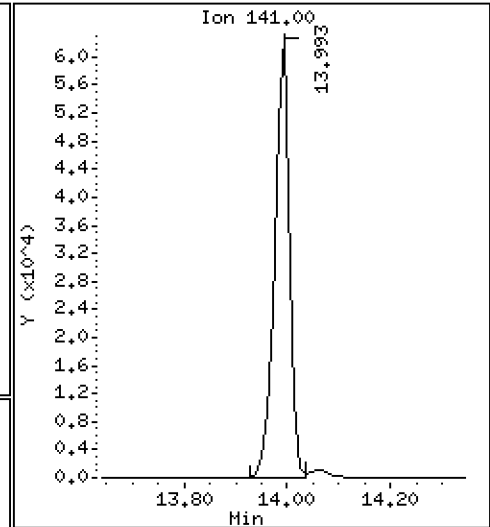
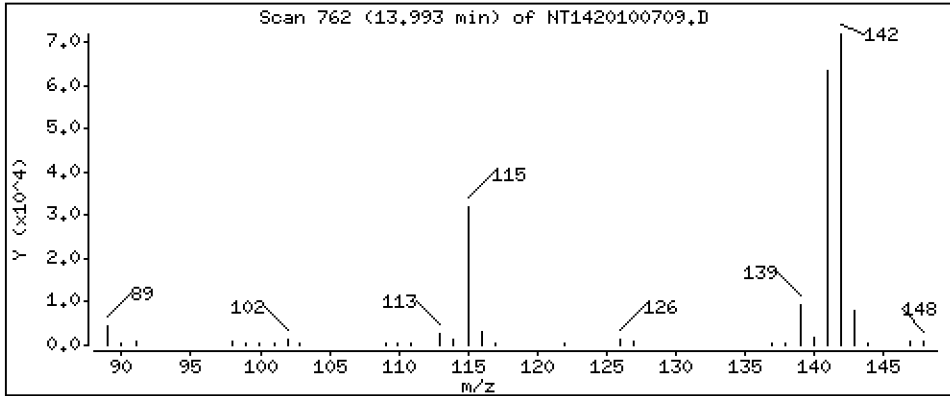
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 1-methylnaphthalene

Concentration: 2,835 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

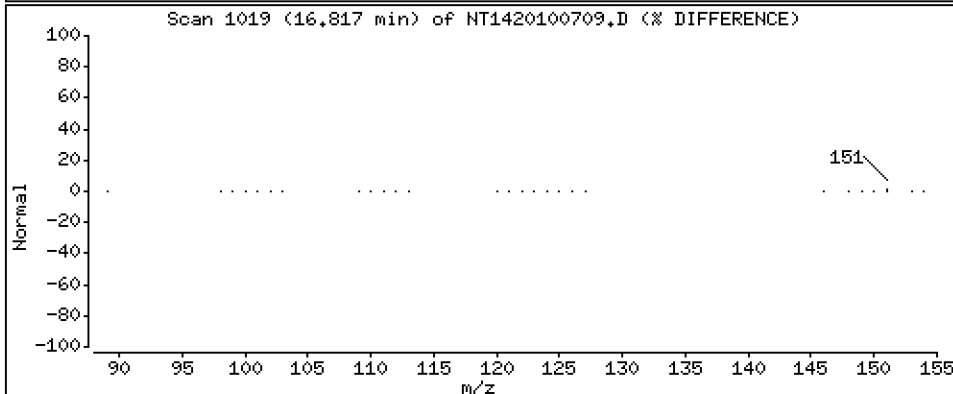
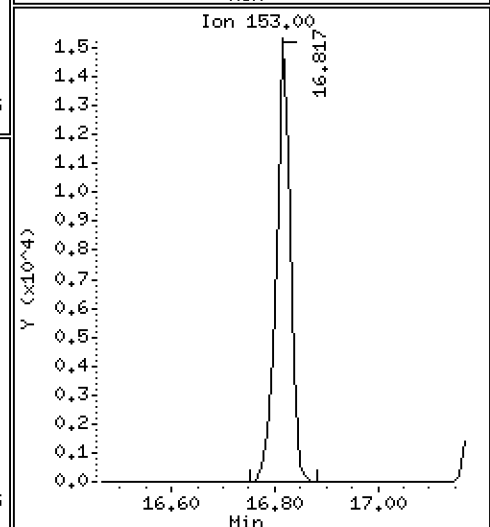
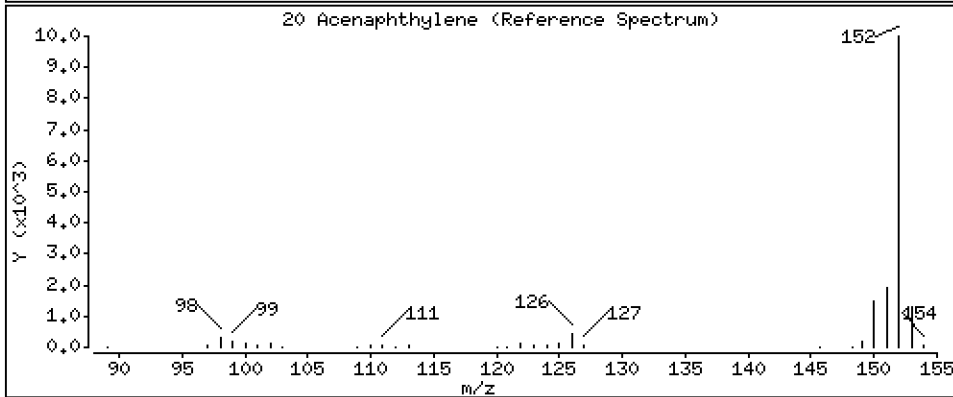
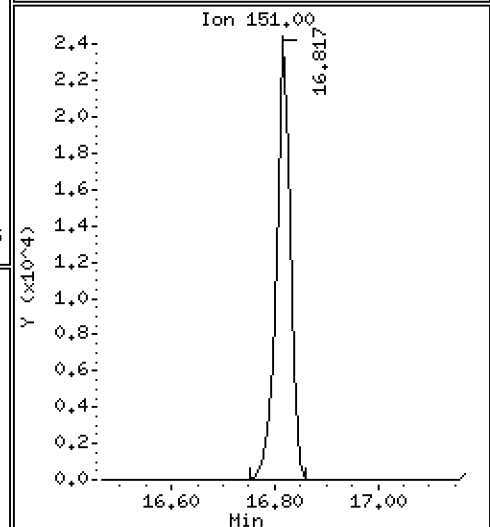
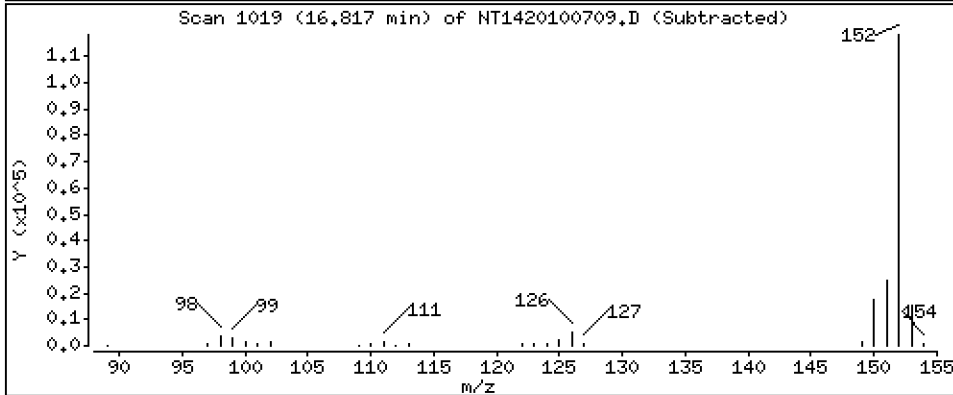
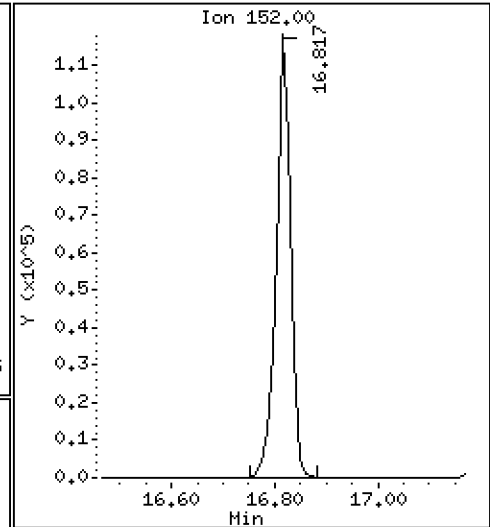
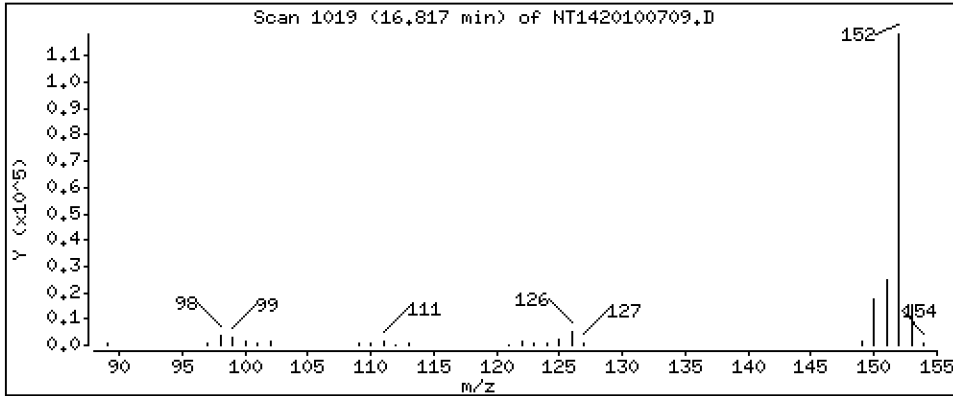
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

20 Acenaphthylene

Concentration: 2,875 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

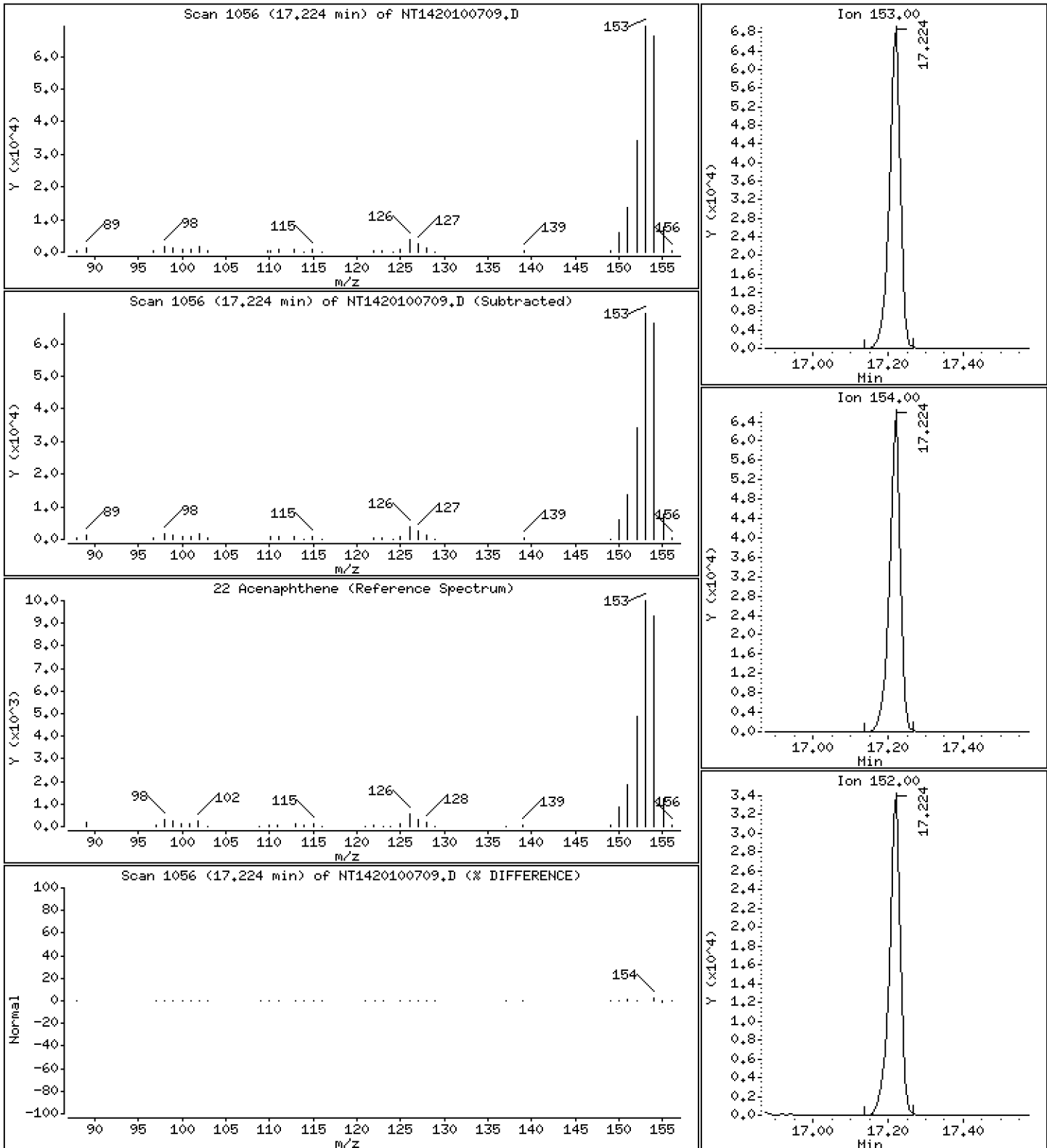
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Acenaphthene

Concentration: 2,714 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

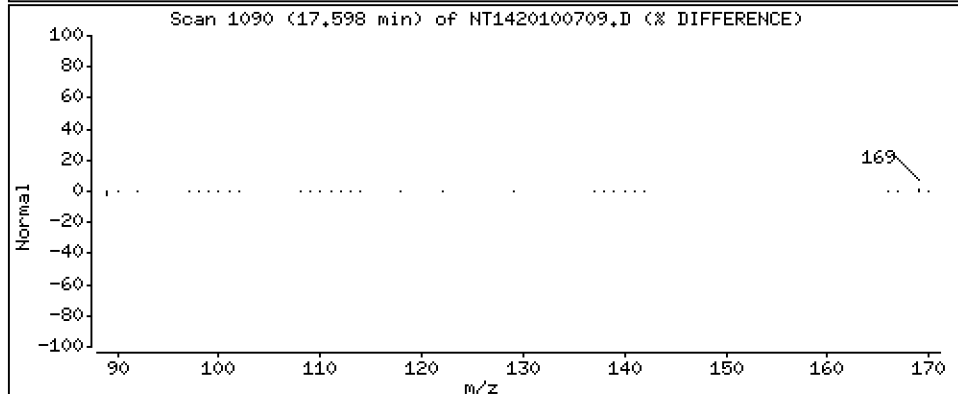
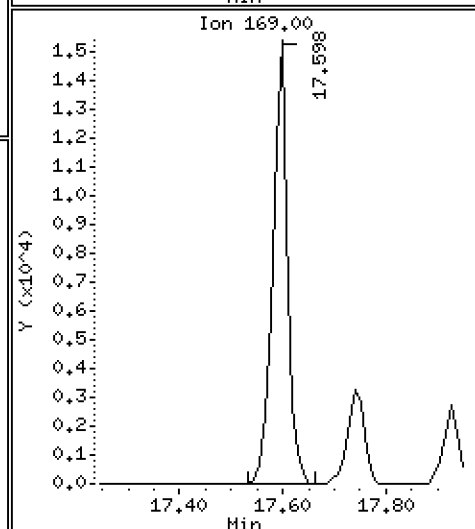
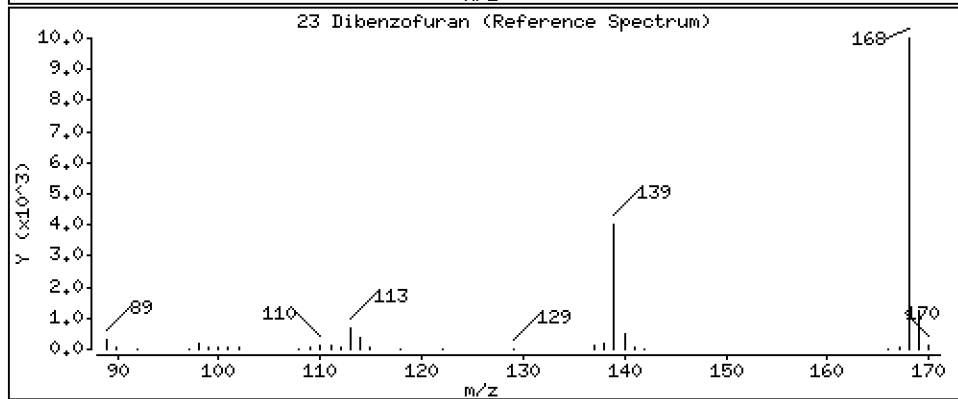
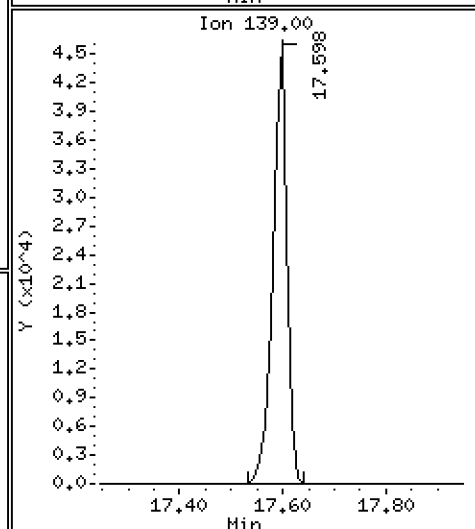
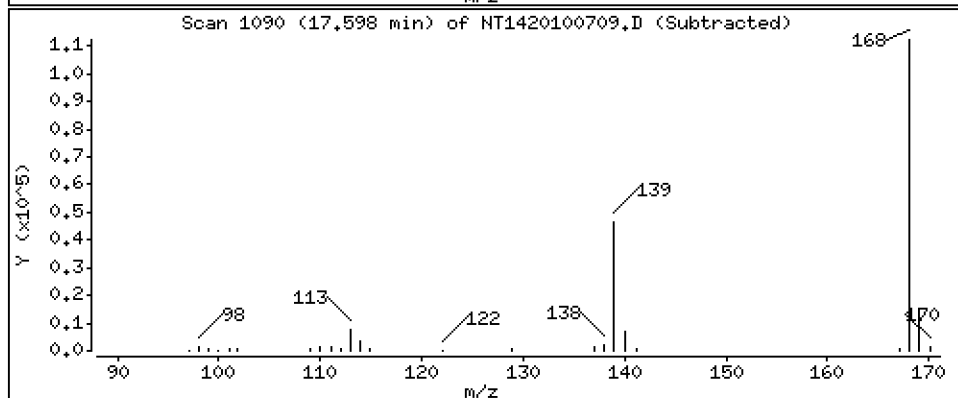
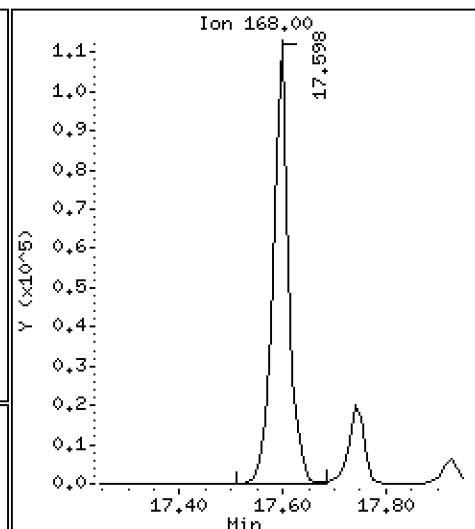
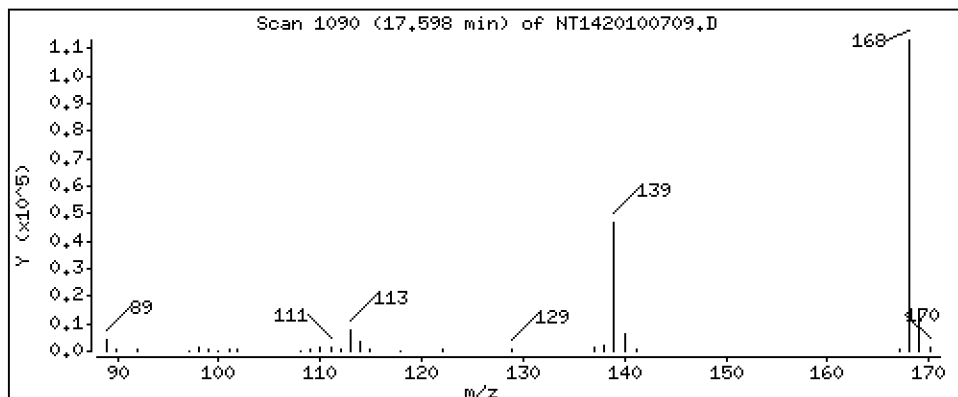
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 Dibenzofuran

Concentration: 3,090 ug/mL





Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

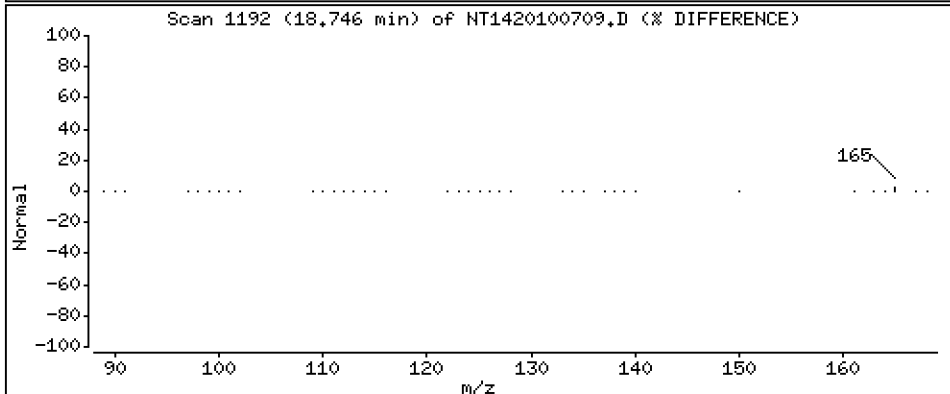
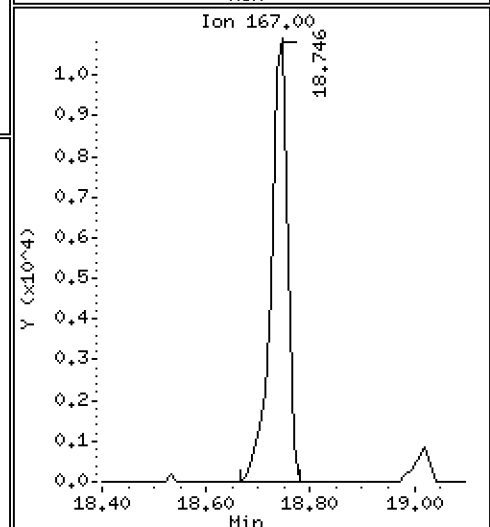
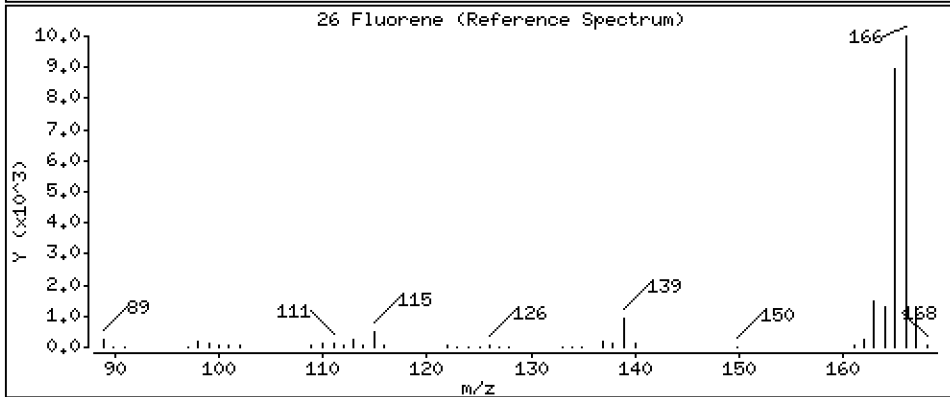
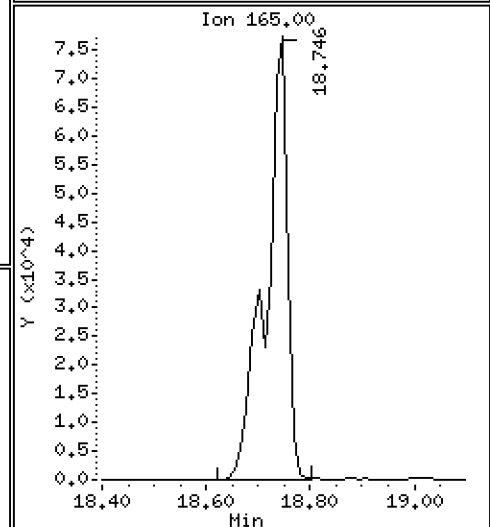
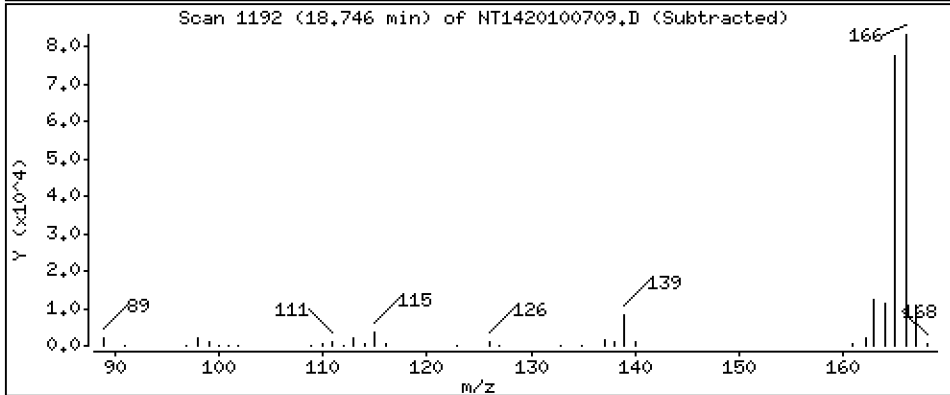
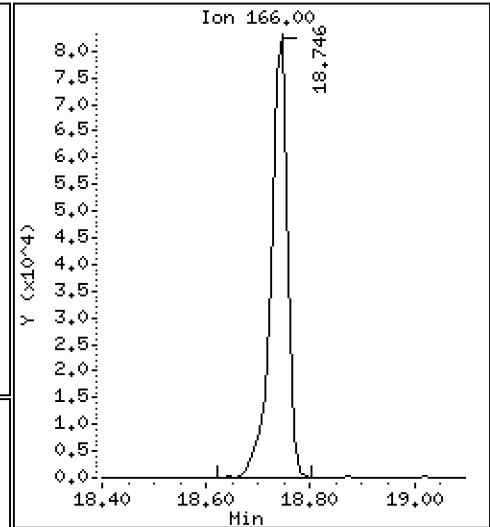
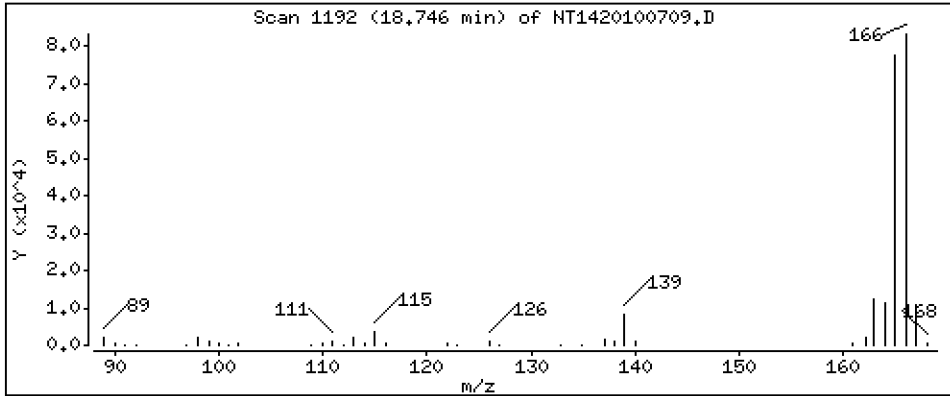
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Fluorene

Concentration: 2,967 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

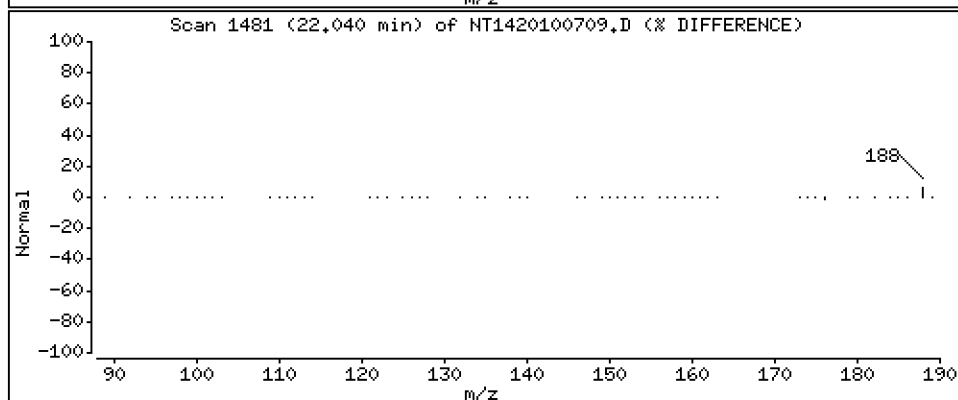
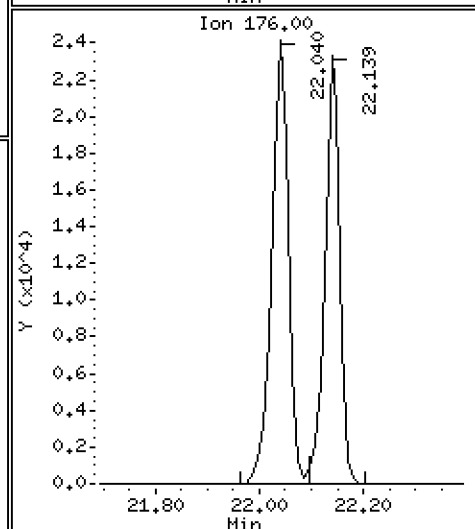
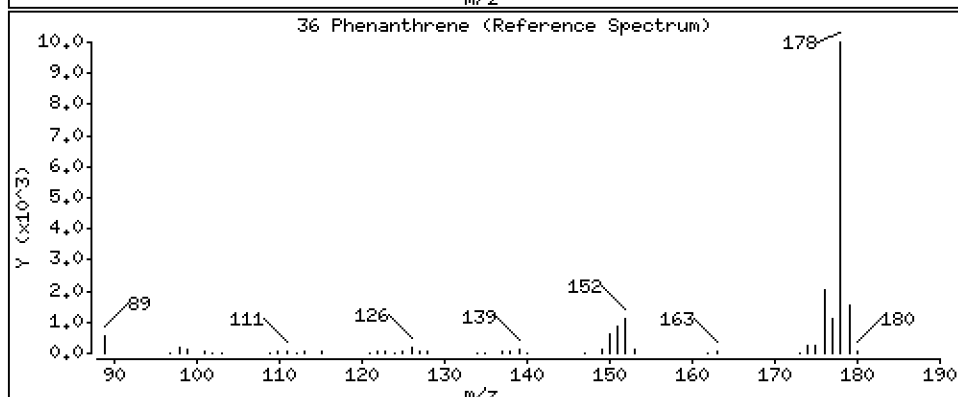
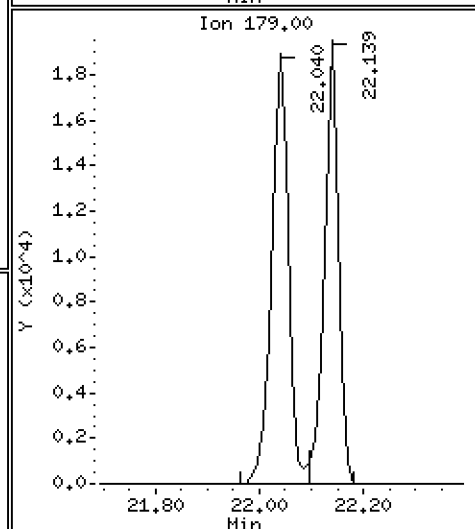
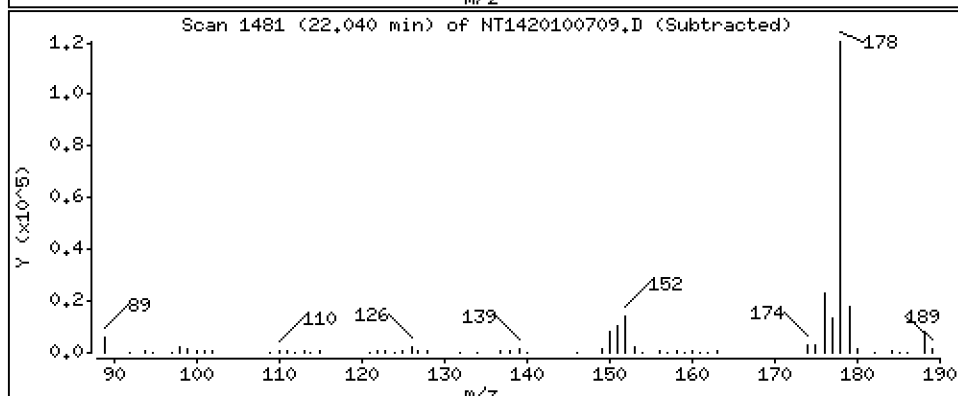
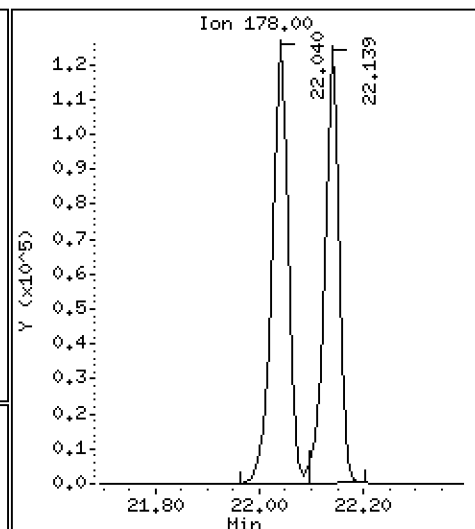
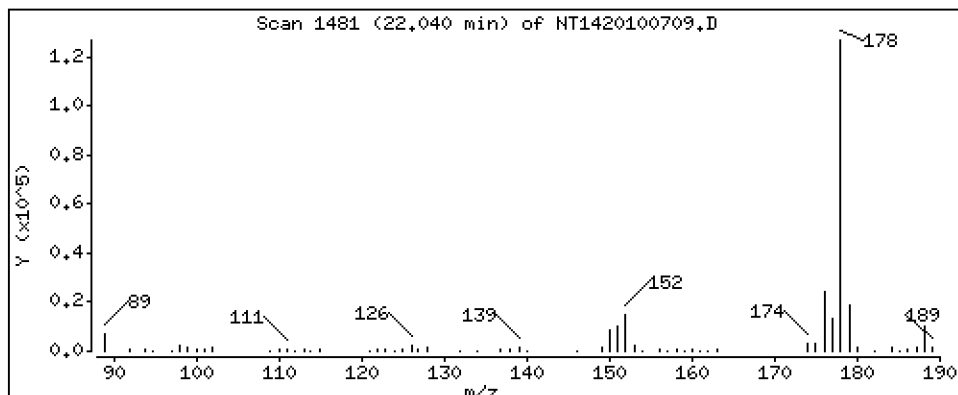
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

36 Phenanthrene

Concentration: 2,454 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

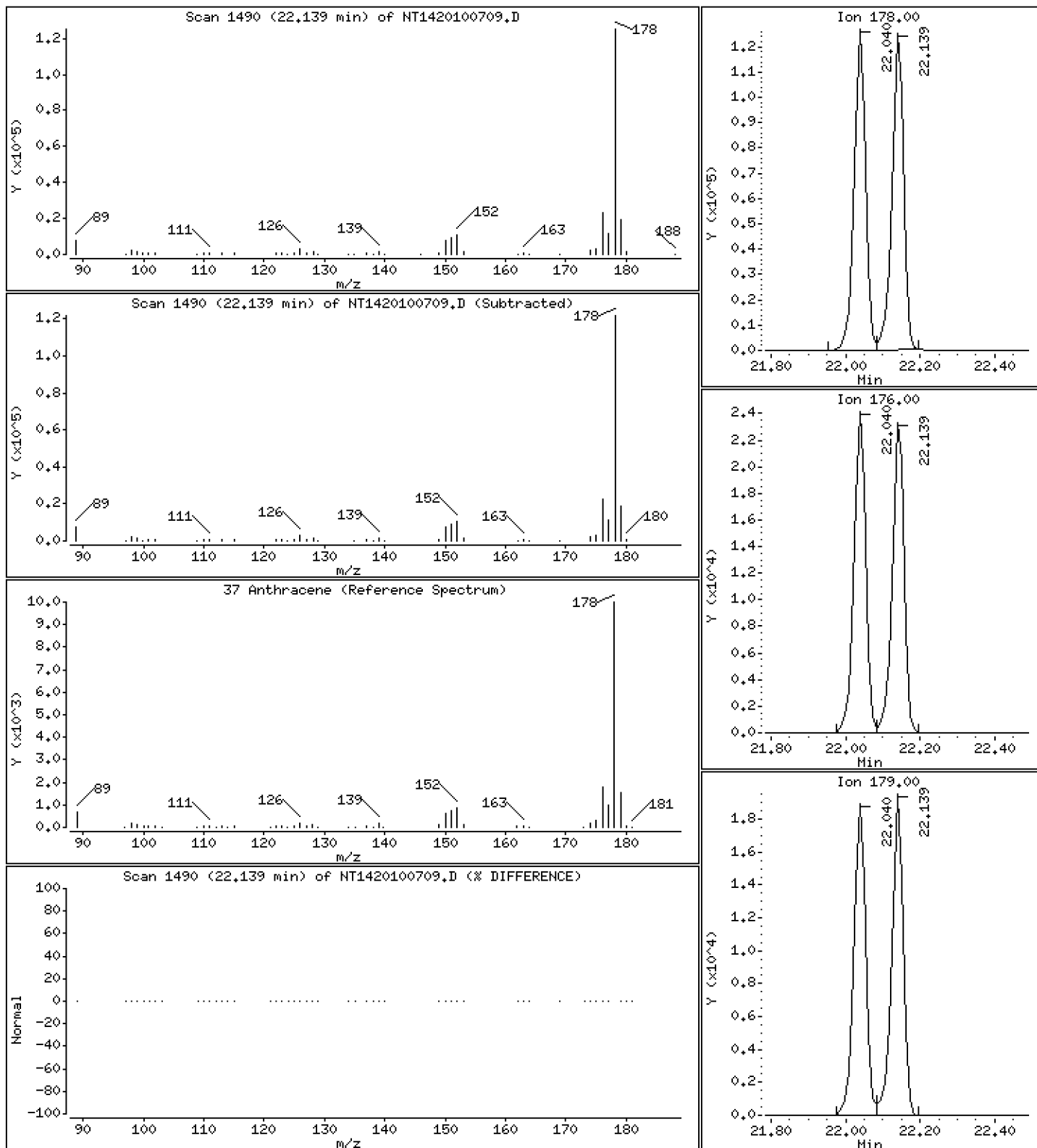
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

37 Anthracene

Concentration: 2,385 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

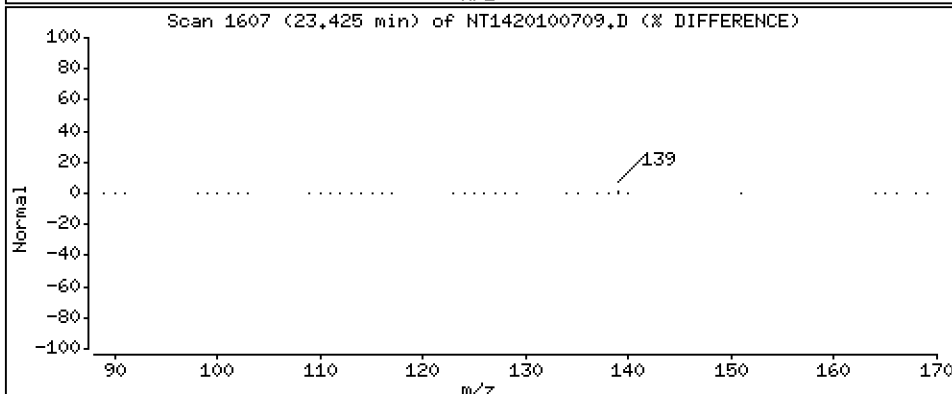
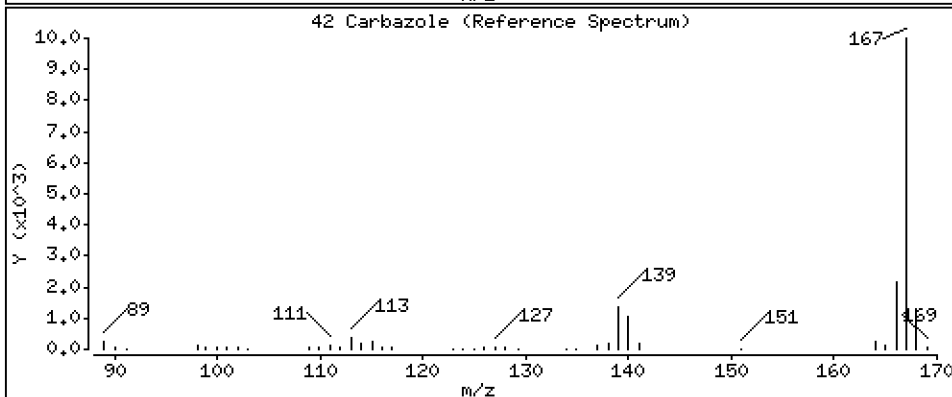
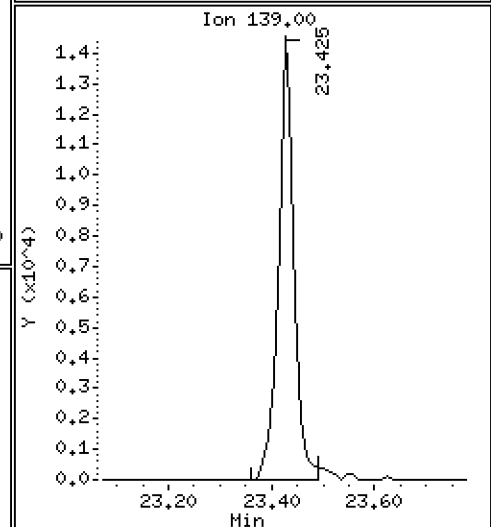
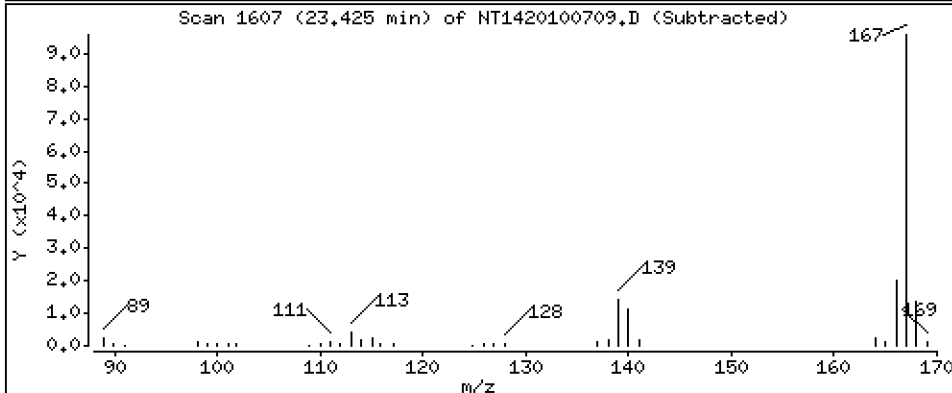
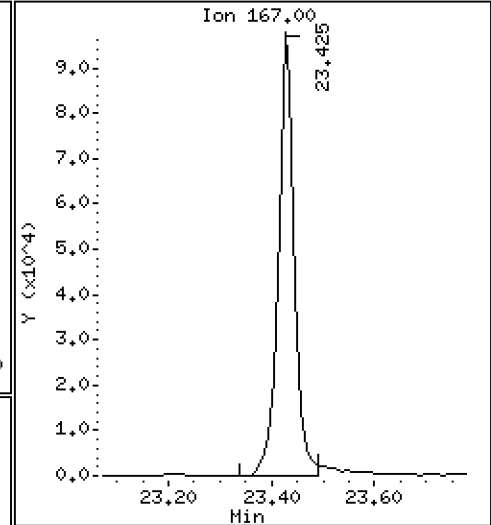
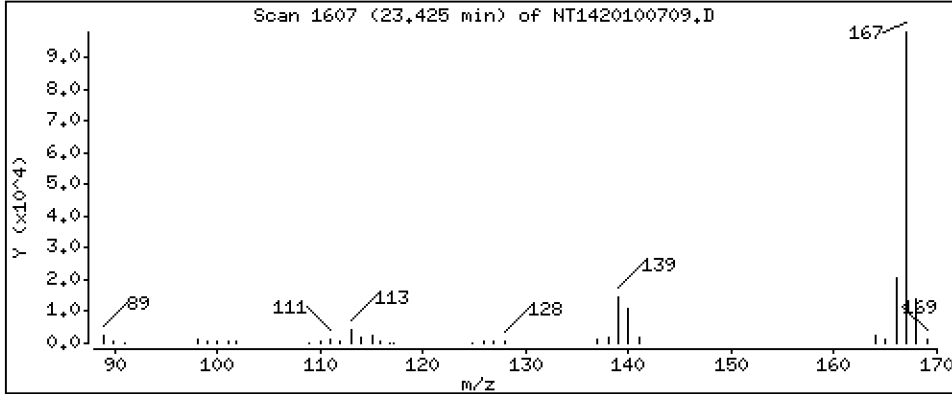
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

42 Carbazole

Concentration: 2,354 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

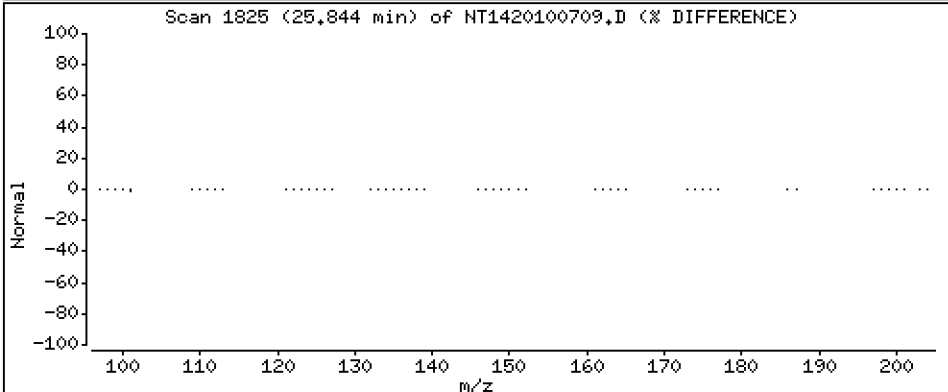
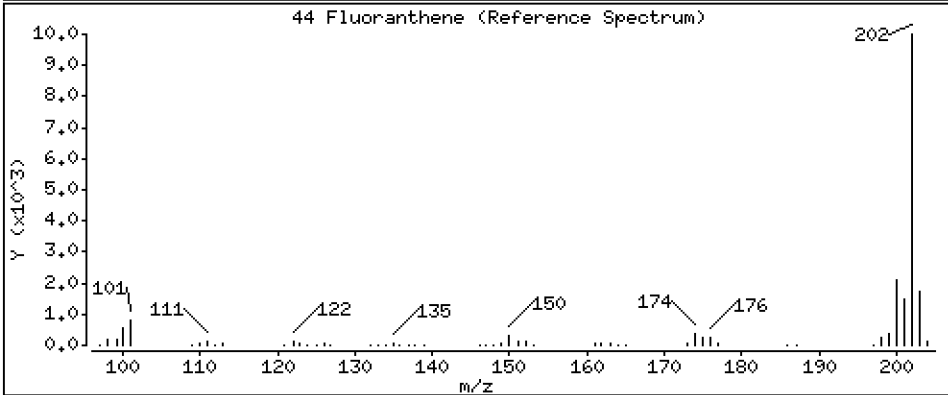
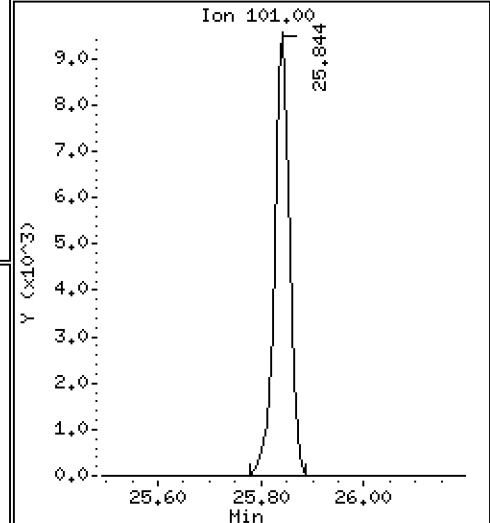
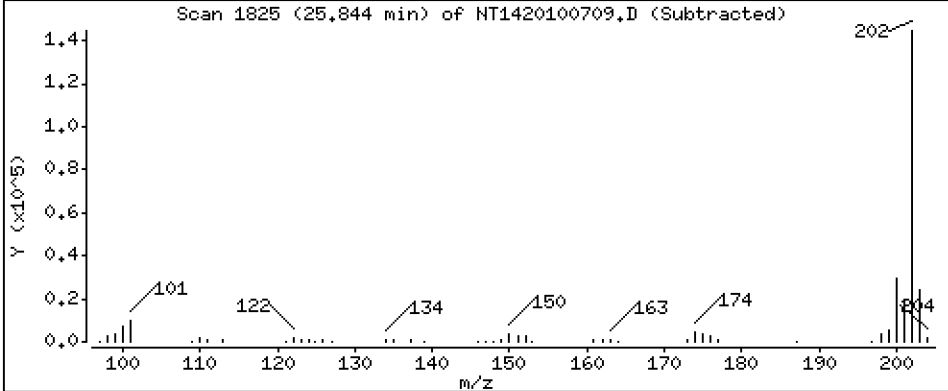
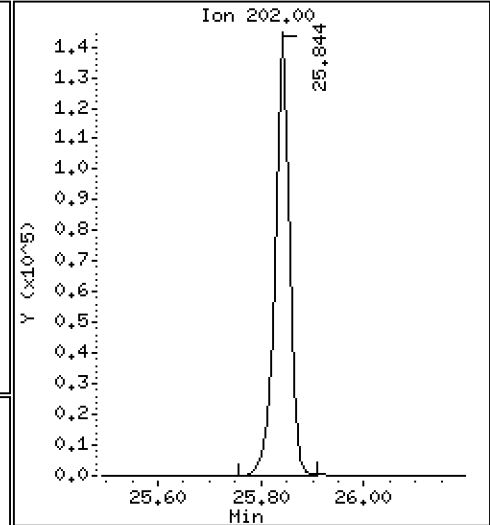
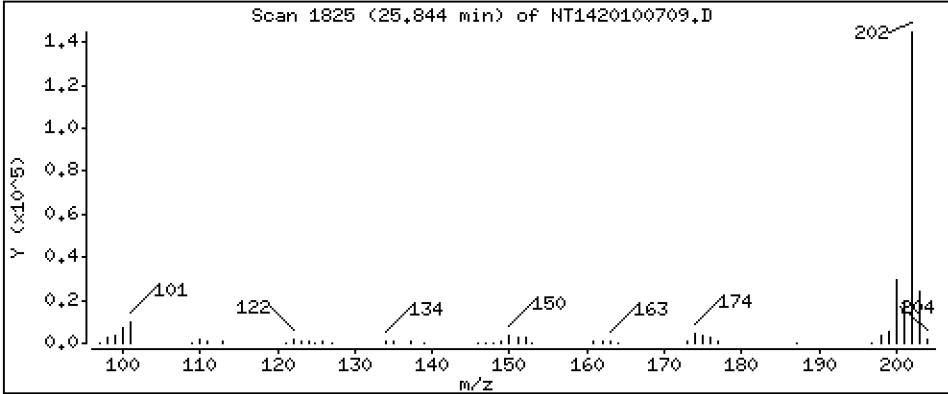
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

44 Fluoranthene

Concentration: 2,436 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

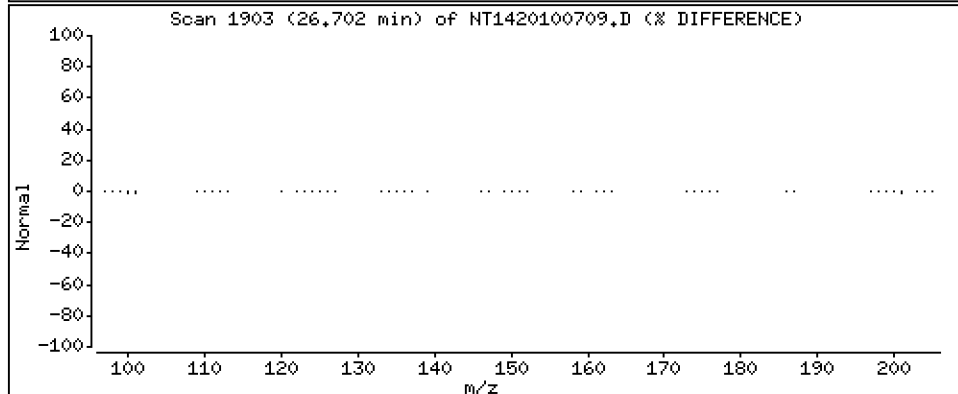
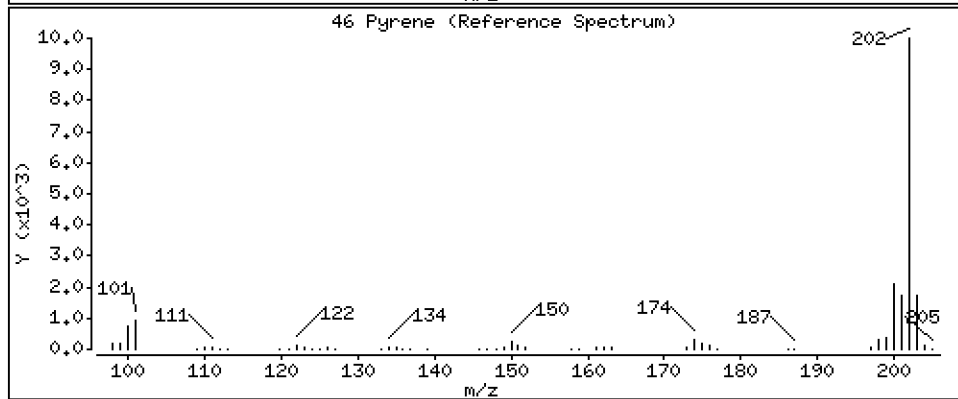
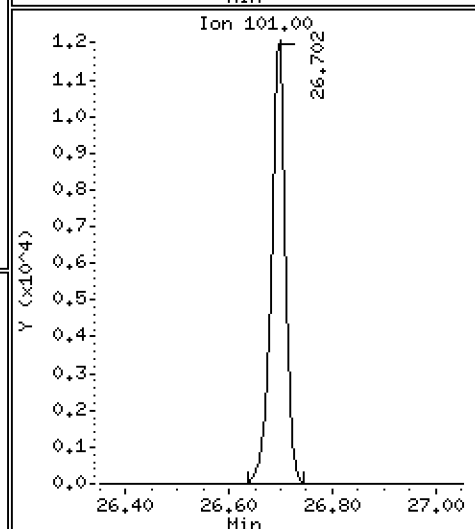
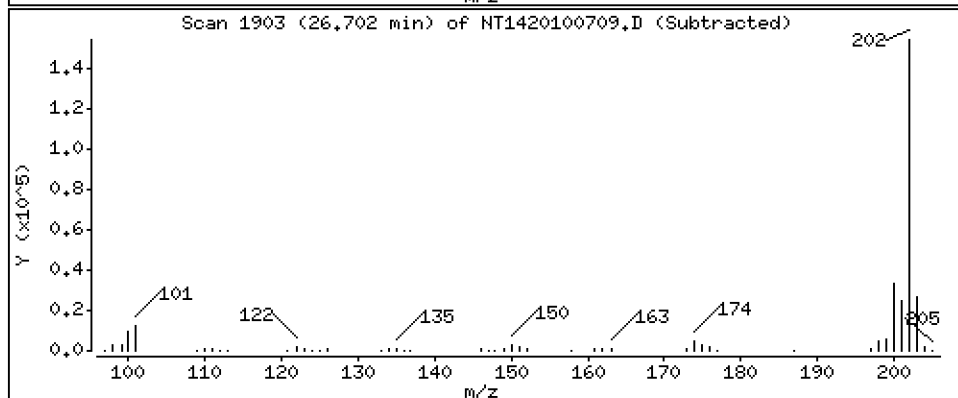
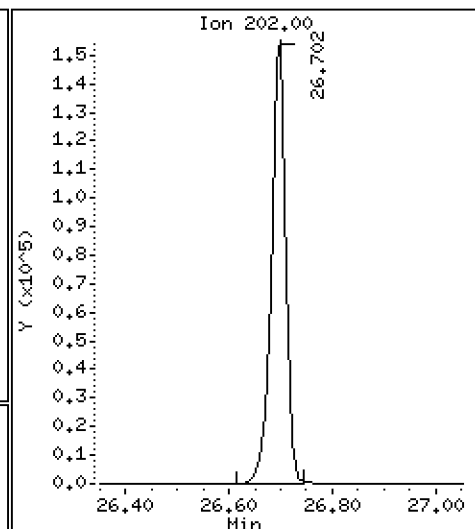
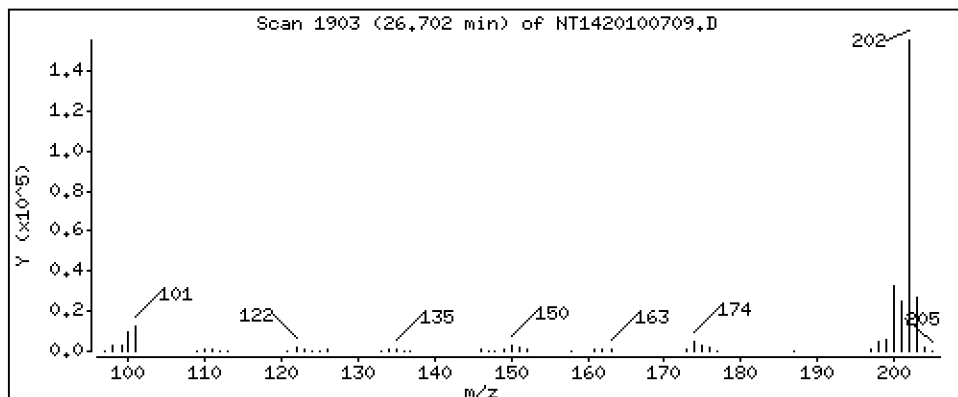
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

46 Pyrene

Concentration: 2,497 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

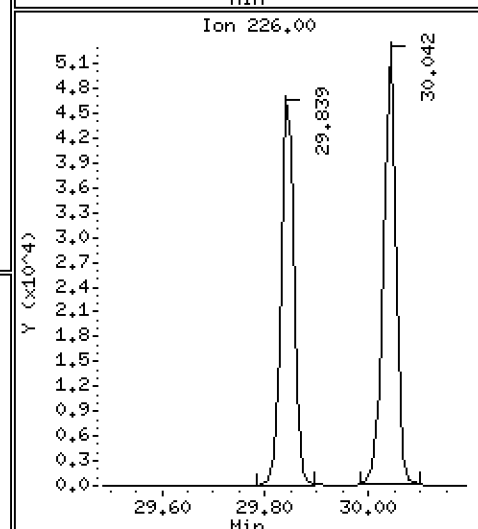
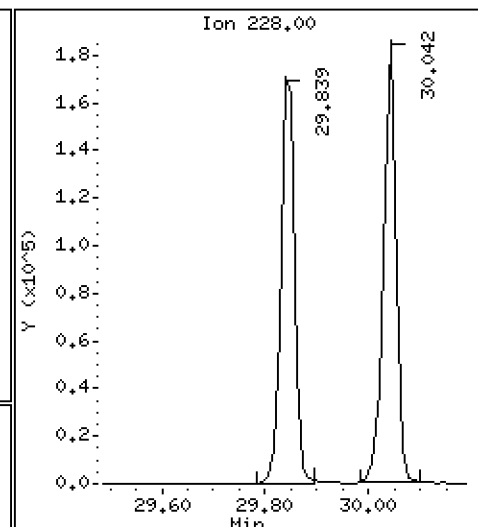
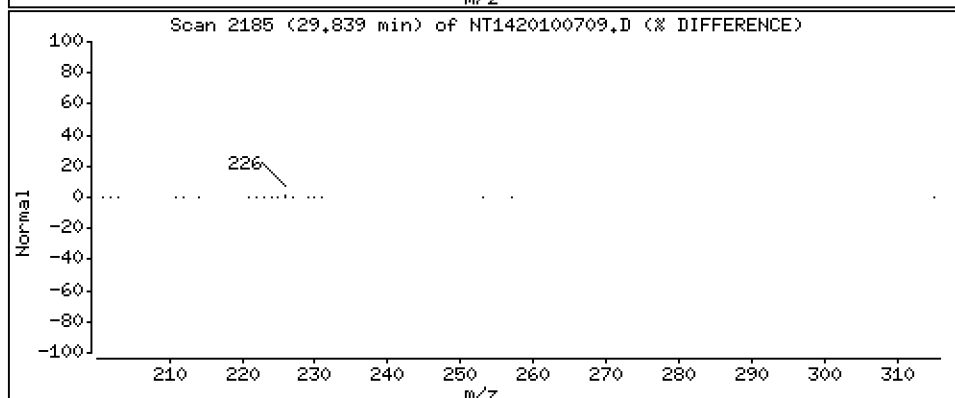
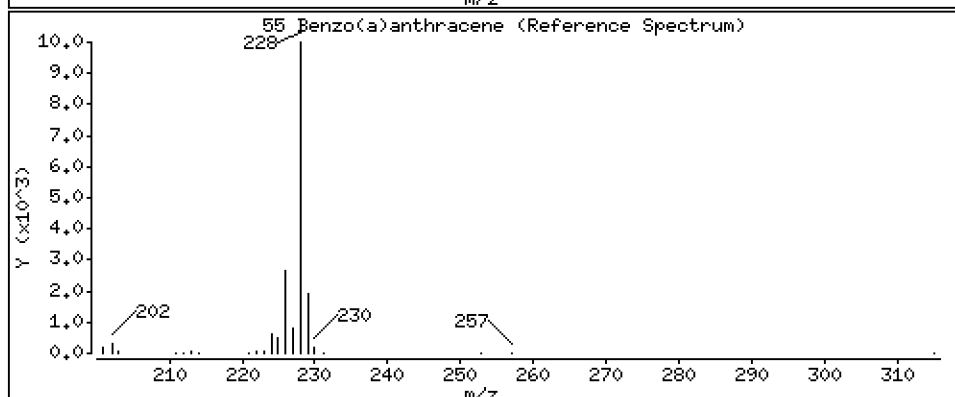
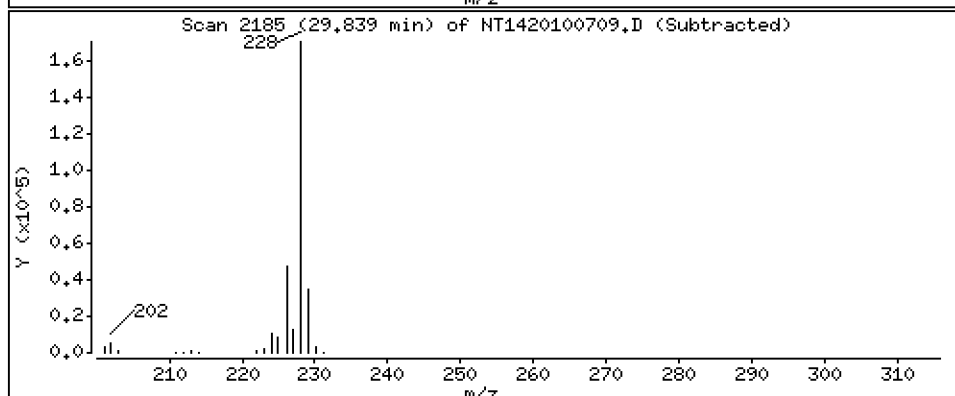
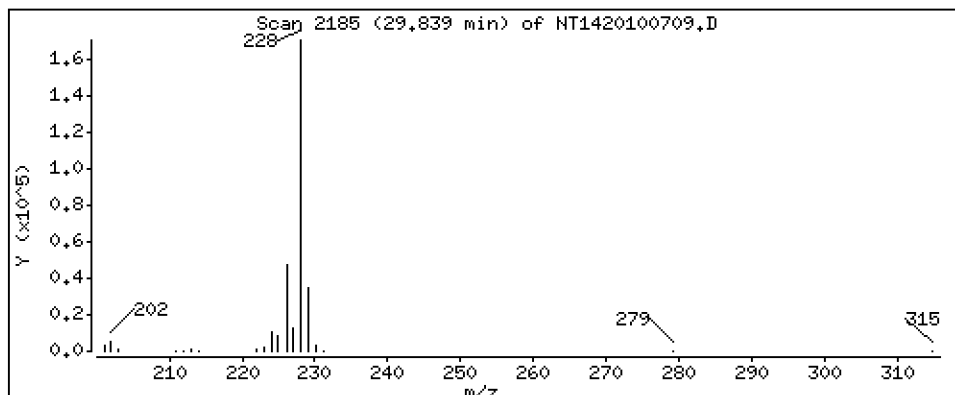
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

55 Benzo(a)anthracene

Concentration: 2,581 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

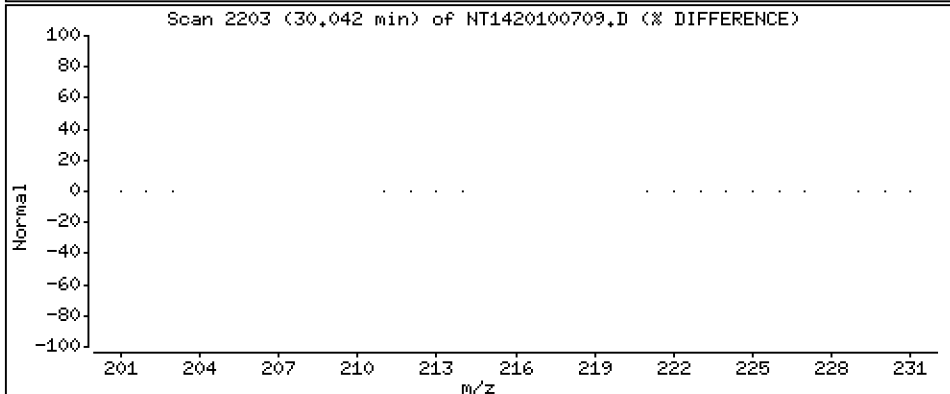
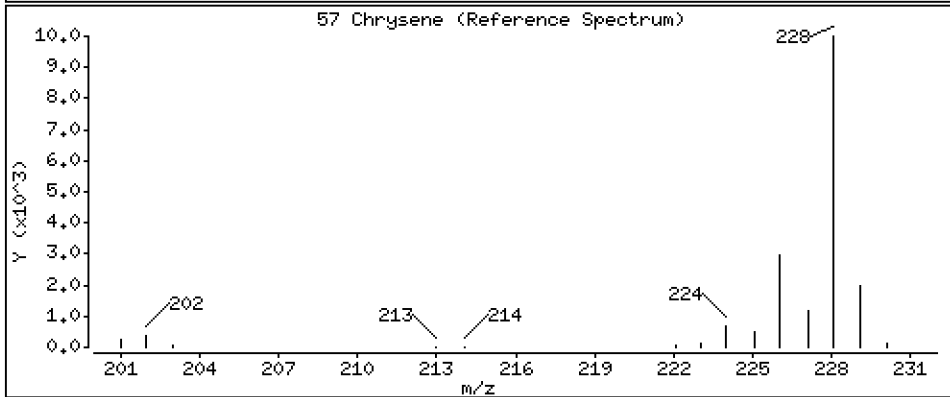
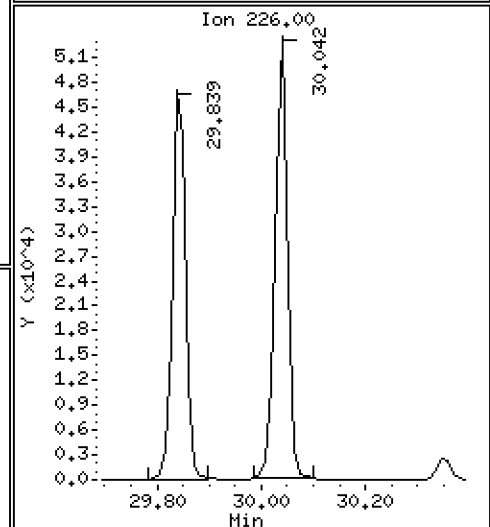
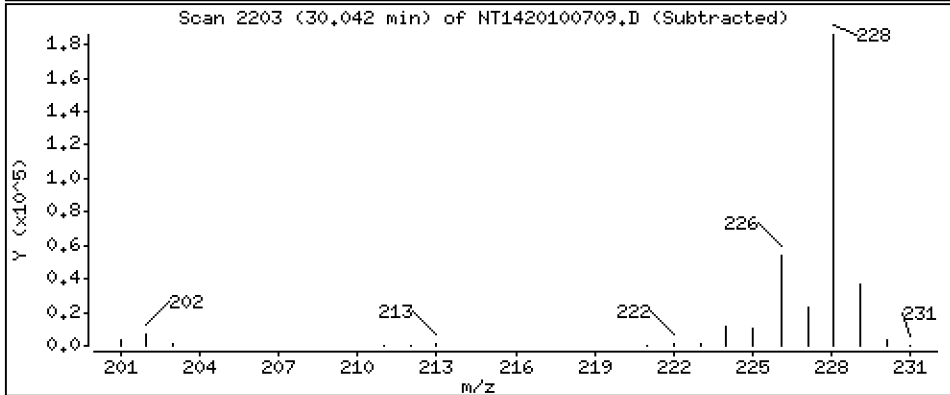
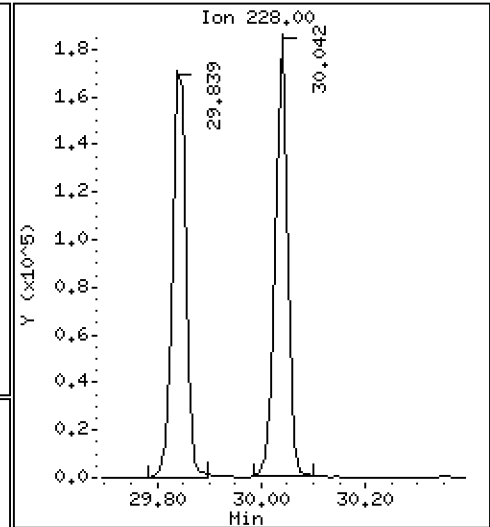
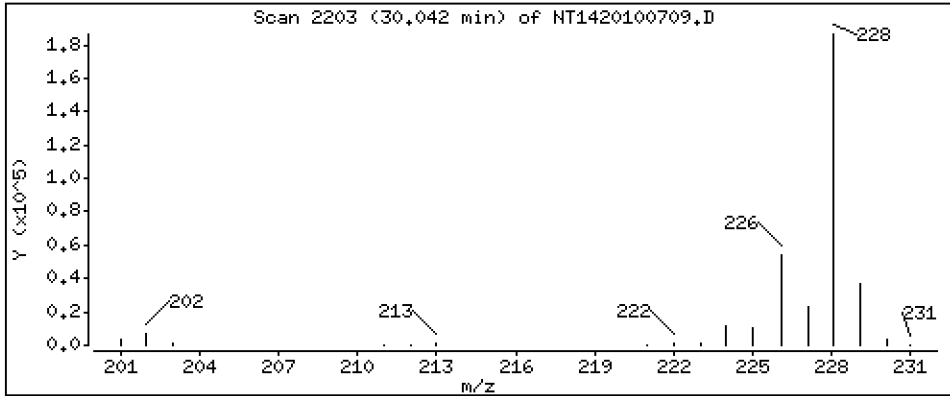
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

57 Chrysene

Concentration: 2,516 ug/mL





Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

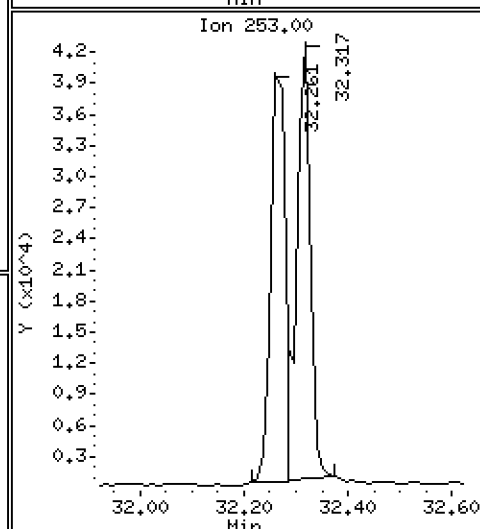
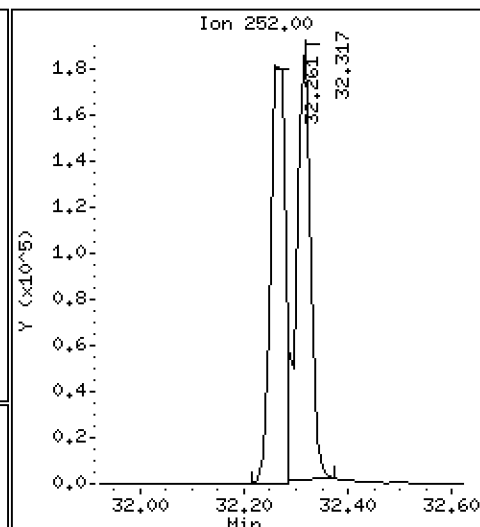
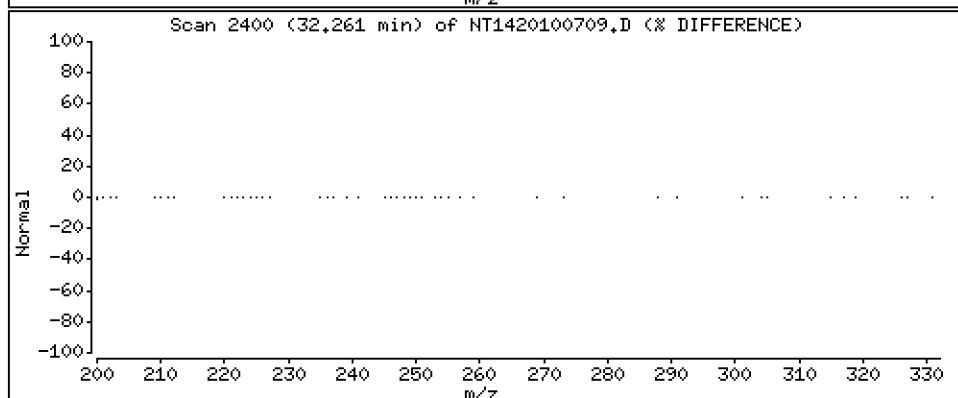
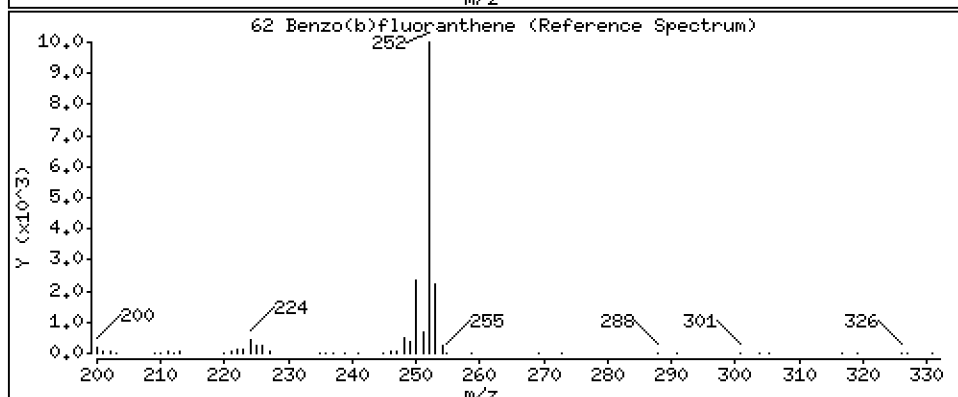
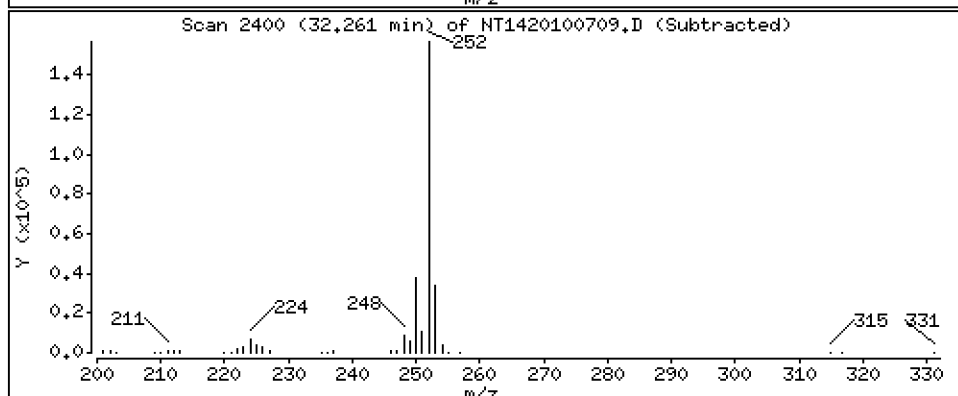
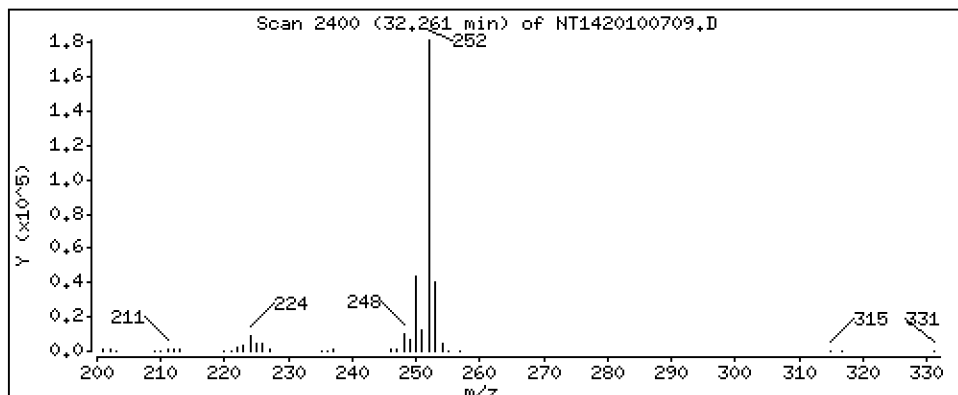
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

62 Benzo(b)fluoranthene

Concentration: 2,387 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

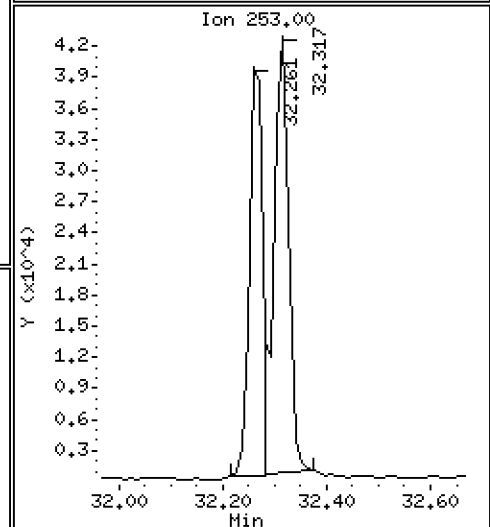
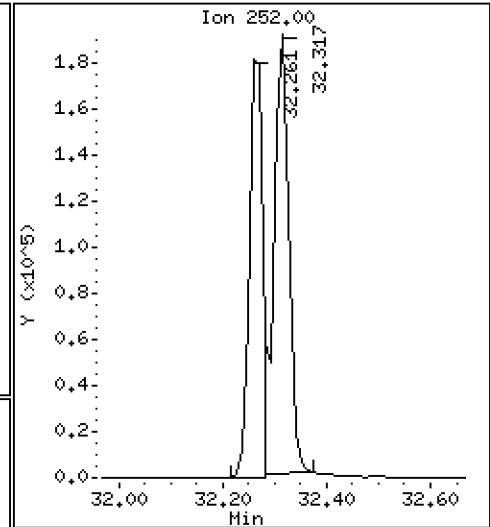
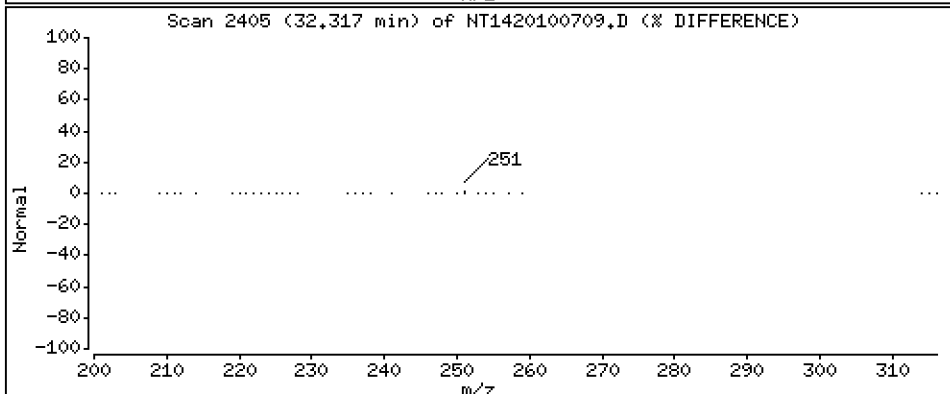
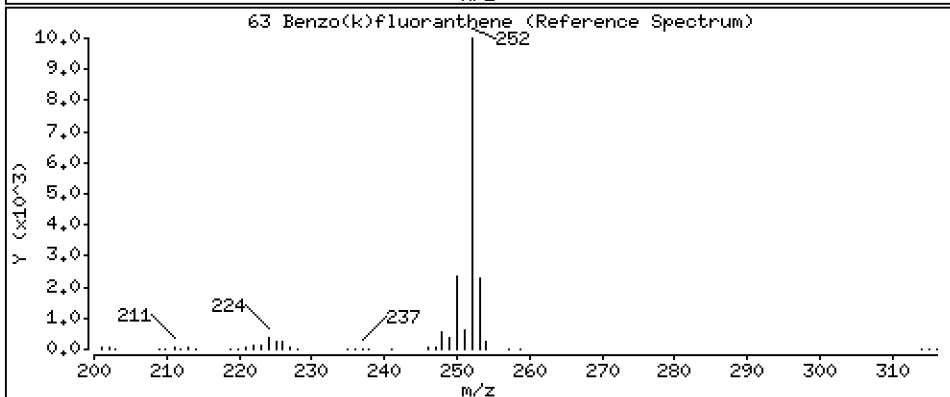
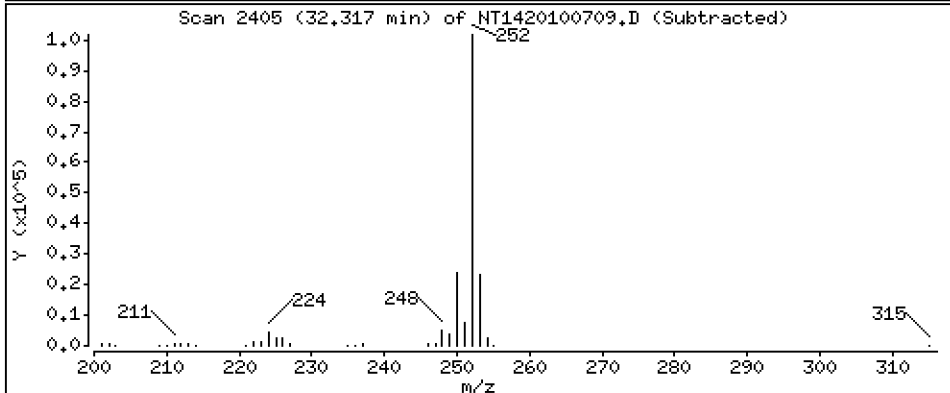
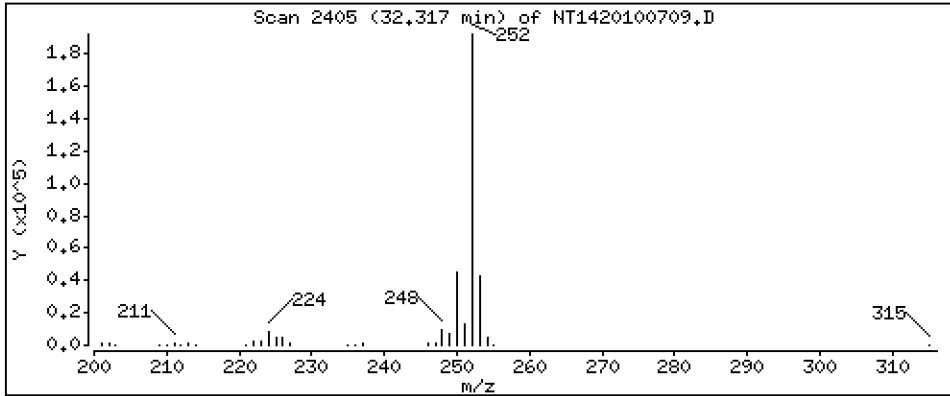
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

63 Benzo(k)fluoranthene

Concentration: 2,656 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

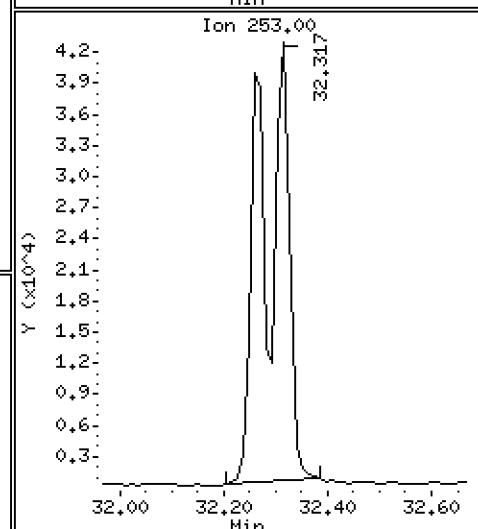
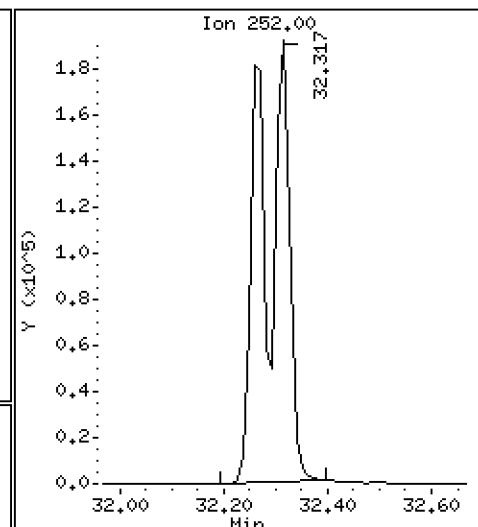
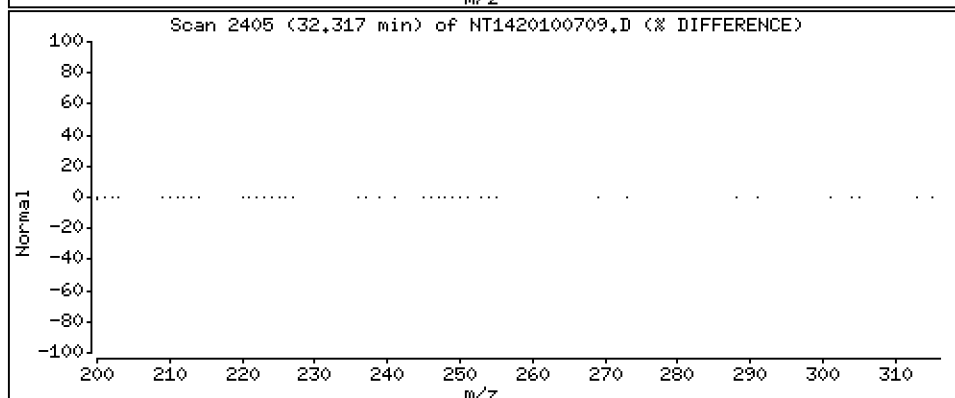
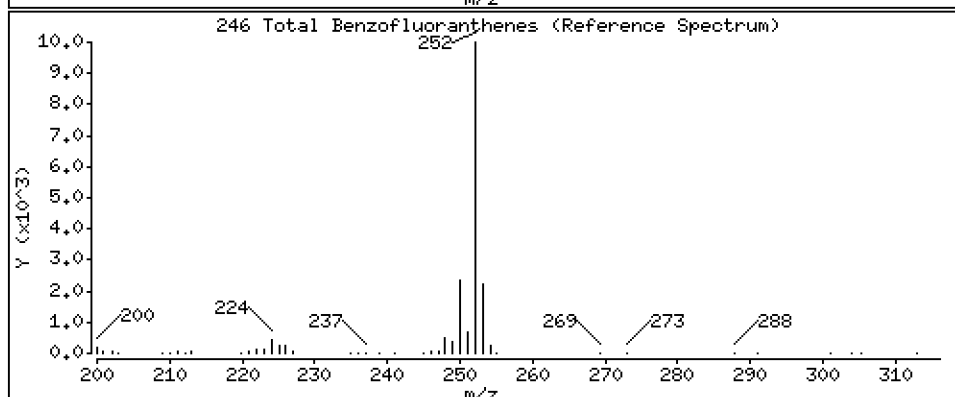
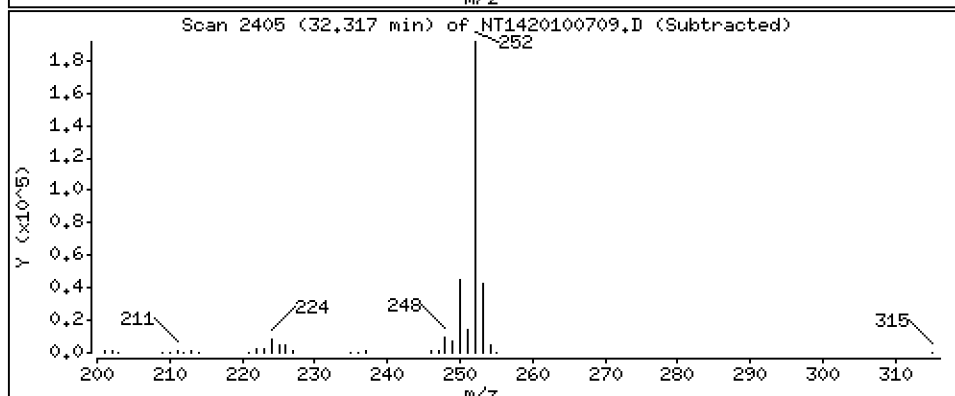
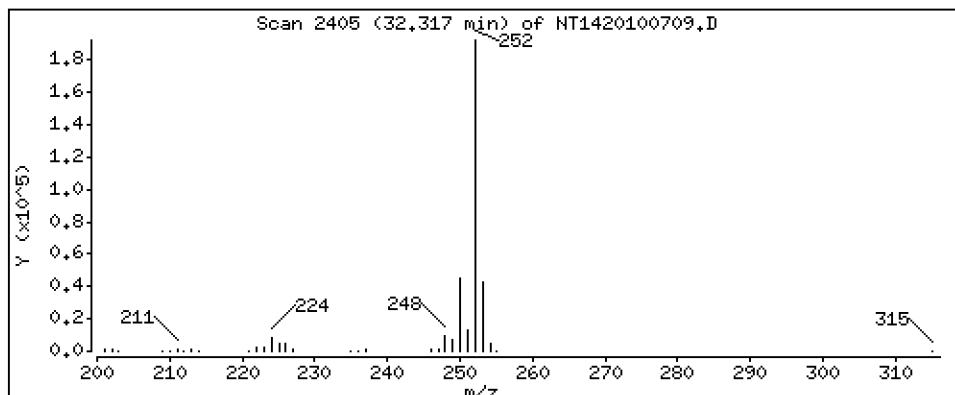
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

246 Total Benzofluoranthenes

Concentration: 5,207 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

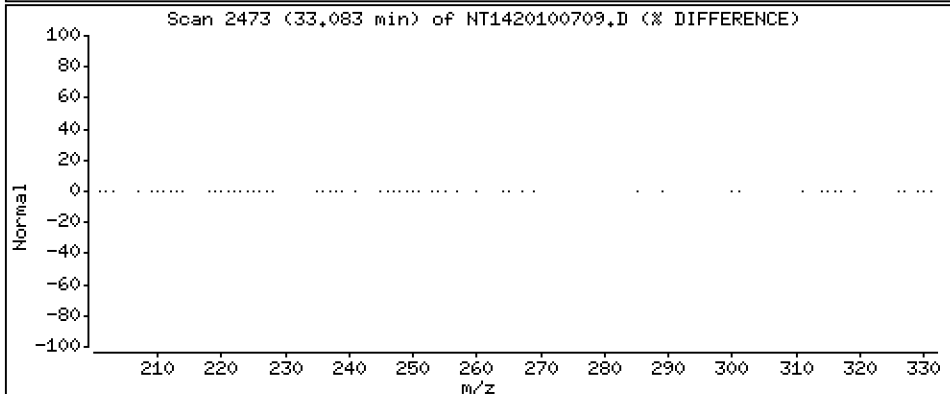
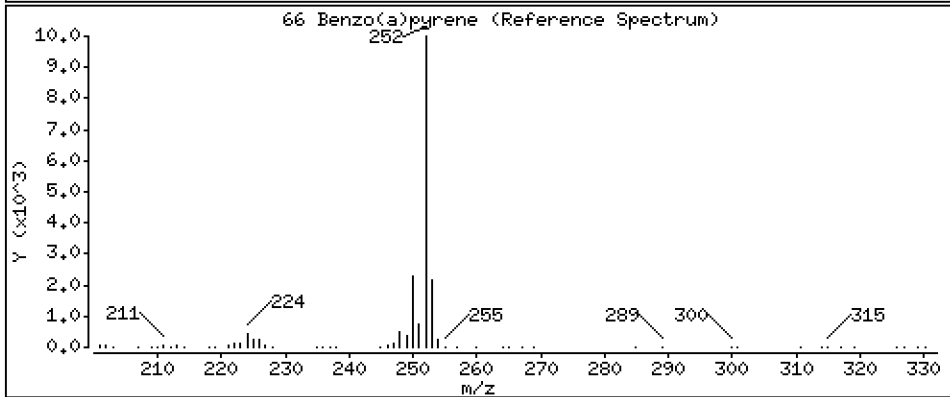
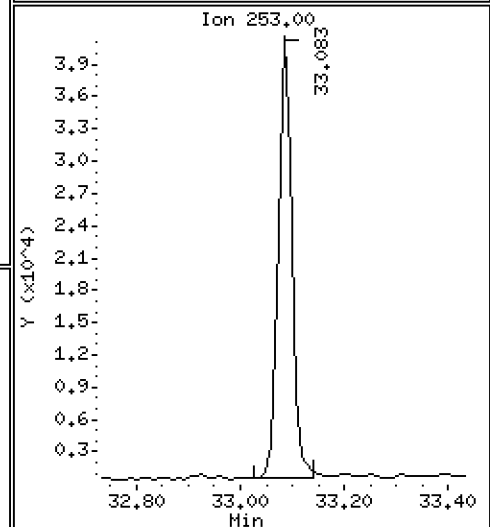
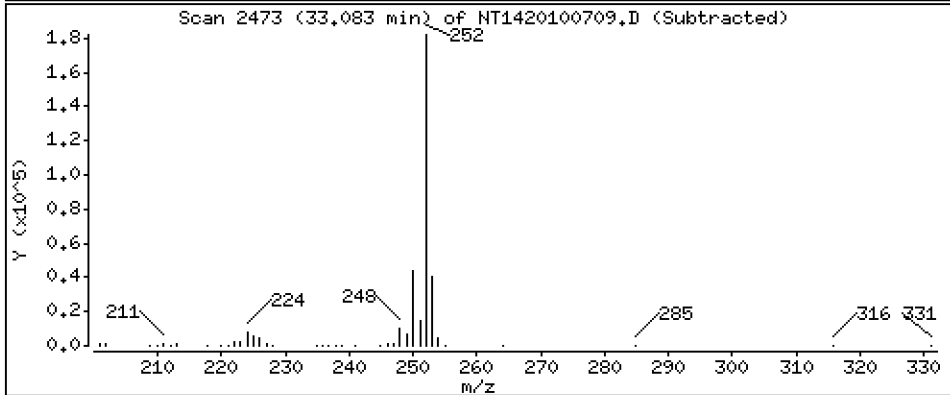
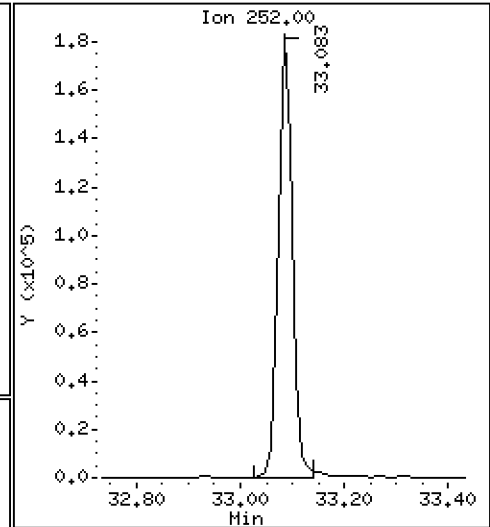
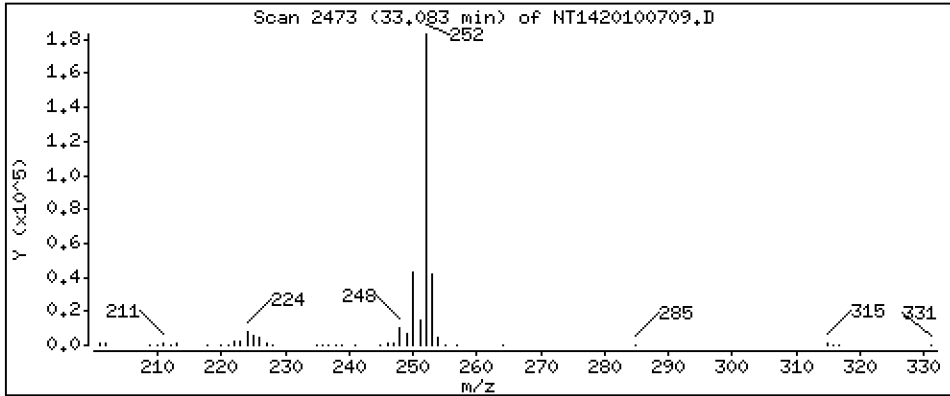
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

66 Benzo(a)pyrene

Concentration: 2,617 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

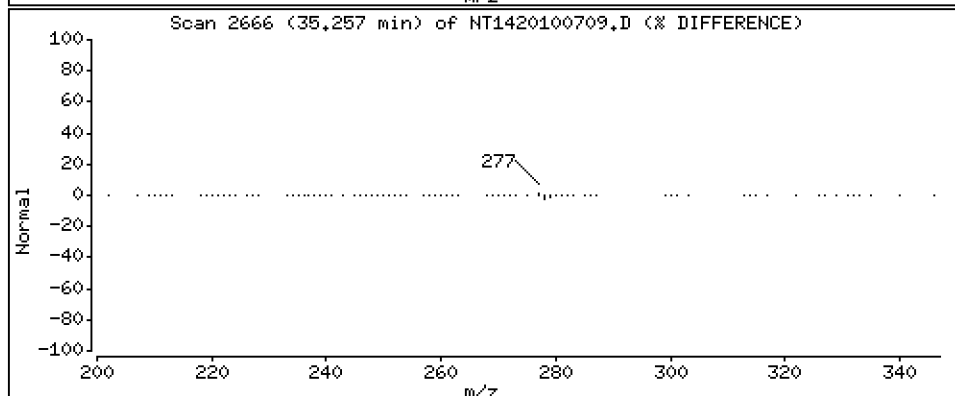
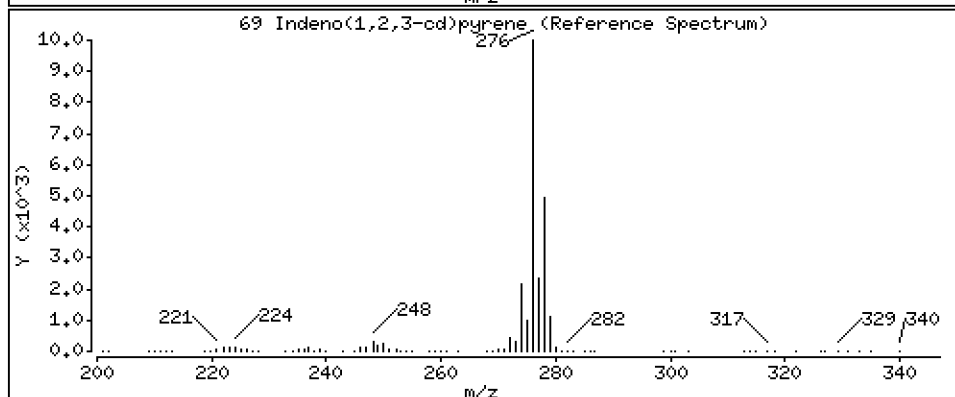
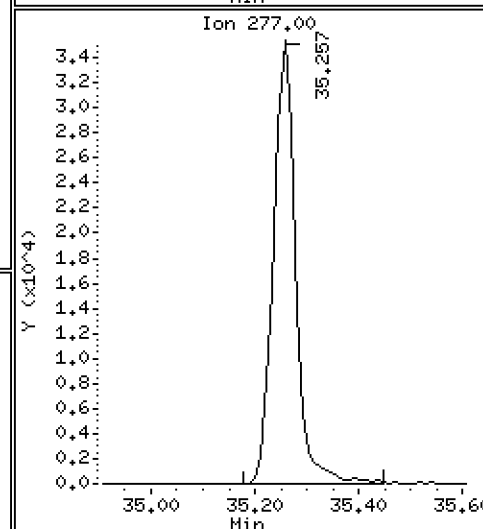
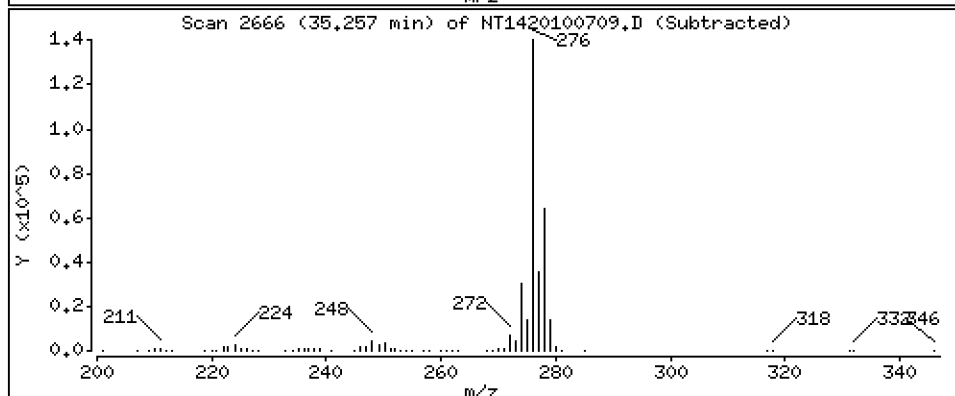
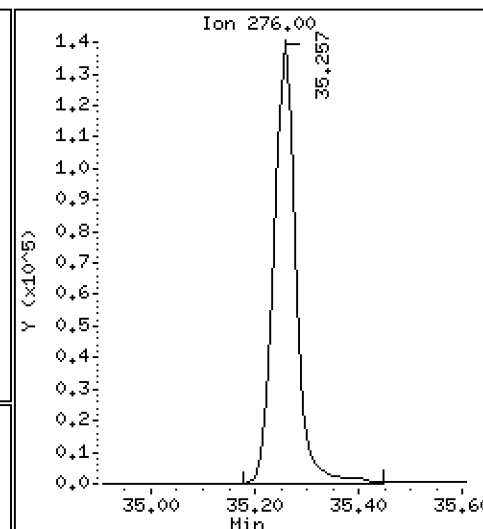
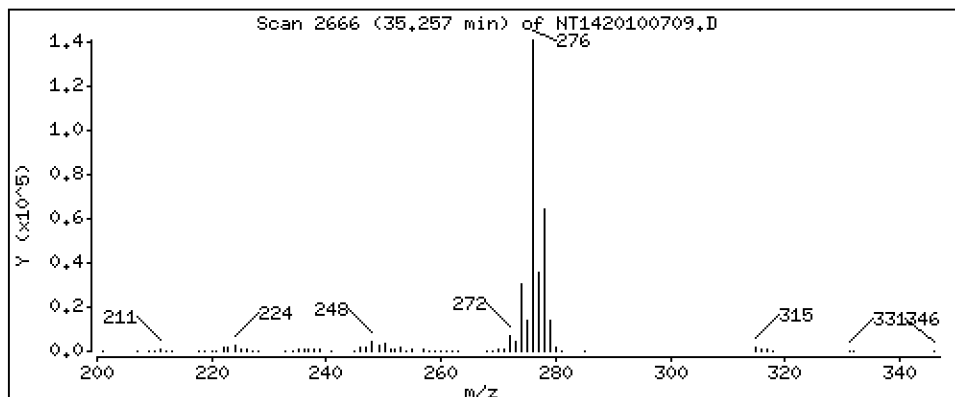
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

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

Concentration: 2,625 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

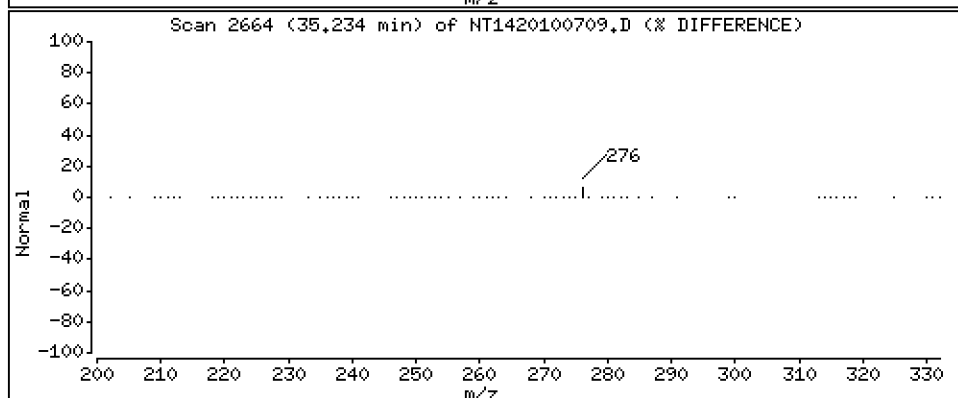
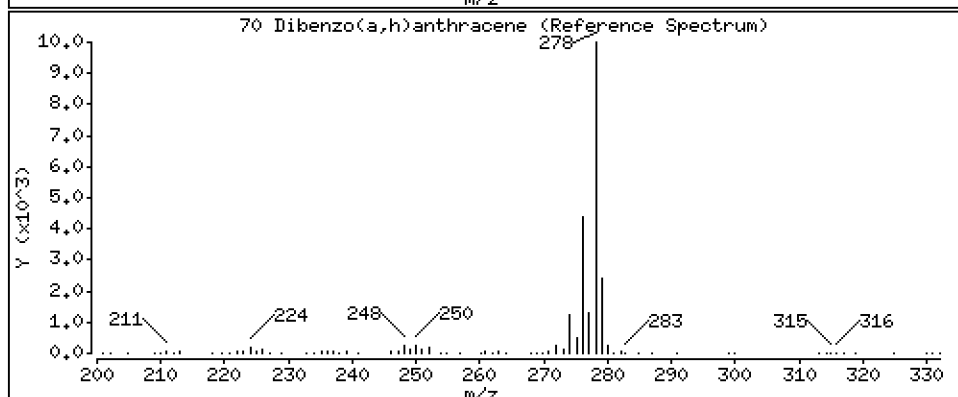
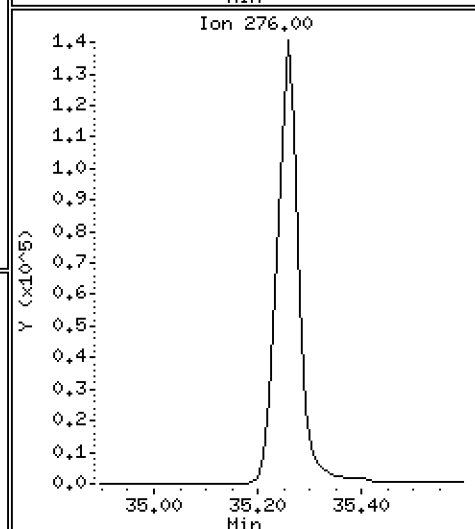
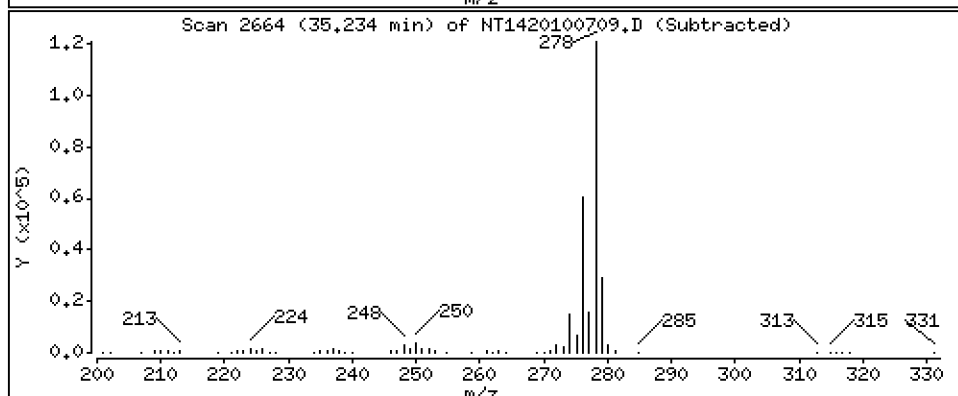
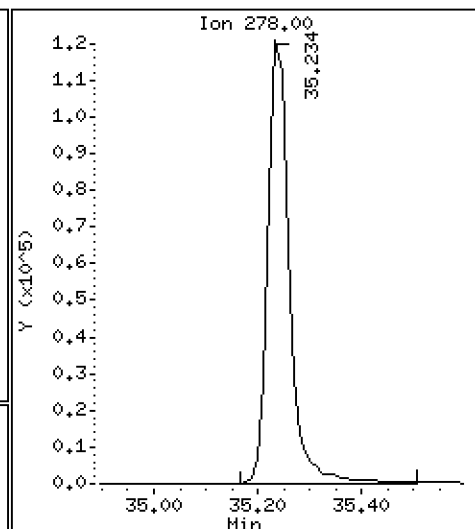
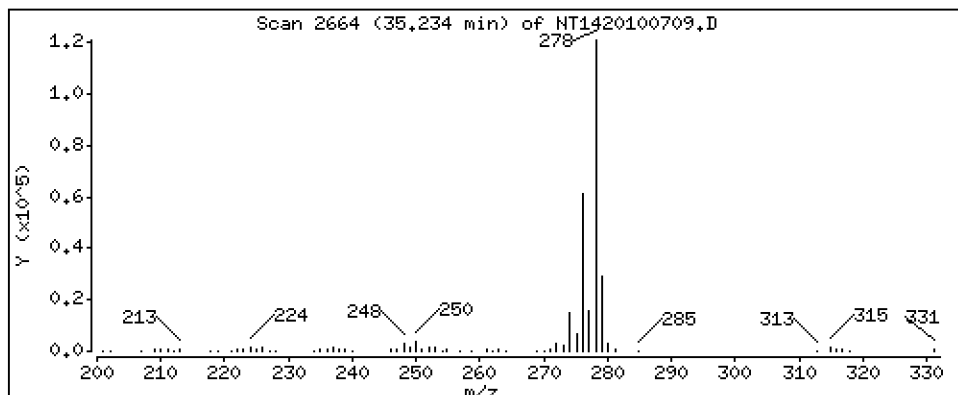
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

70 Dibenzo(a,h)anthracene

Concentration: 2,517 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

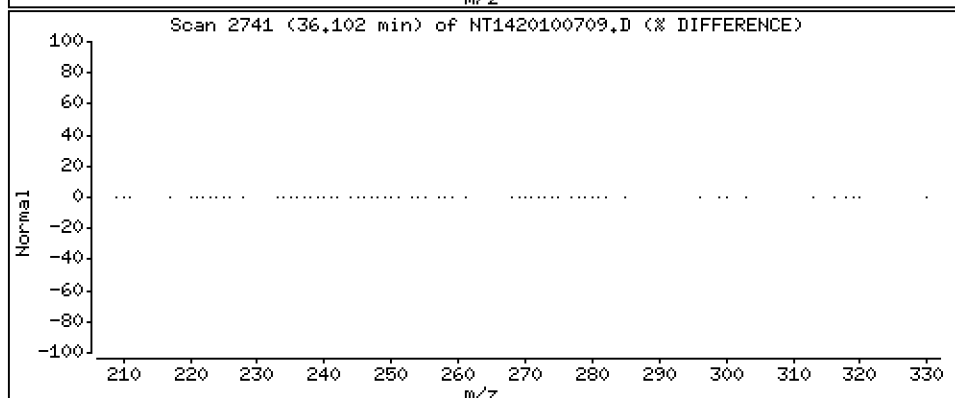
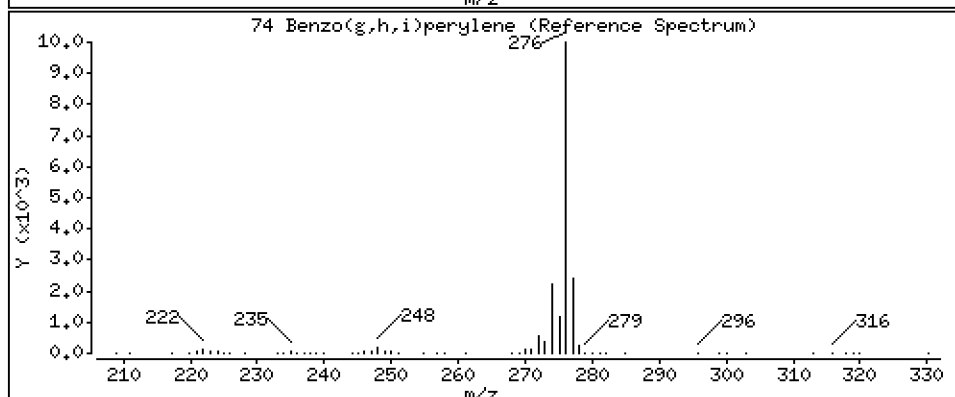
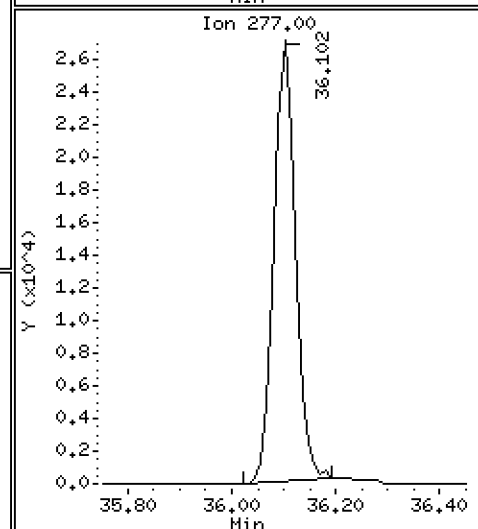
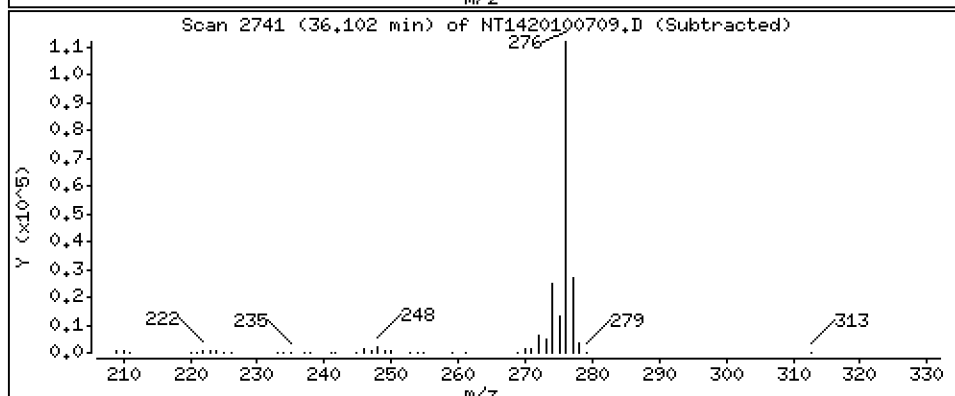
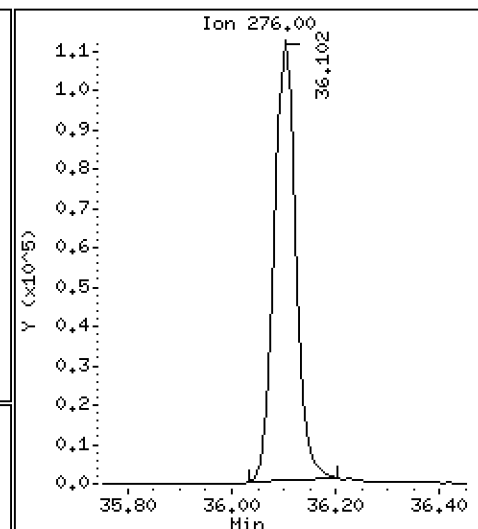
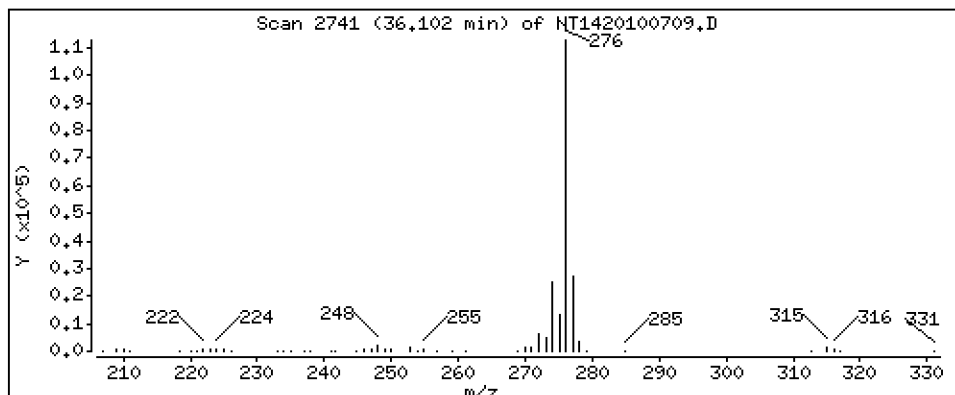
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

74 Benzo(g,h,i)perylene

Concentration: 2,329 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20201007.b\NT1420100709.D  
 Lab Smp Id: SIJ0085-SCV1  
 Inj Date : 07-OCT-2020 16:45  
 Operator : VTS  
 Smp Info : SIJ0085-SCV1  
 Misc Info :  
 Comment : 1ul Injection  
 Method : \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Meth Date : 09-Oct-2020 08:45 van  
 Cal Date : 07-OCT-2020 15:56  
 Als bottle: 9  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 4.14  
 Processing Host: VANS

Inst ID: nt14.i  
 Quant Type: ISTD  
 Cal File: NT1420100708.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							
7 Naphthalene	128		11.707	11.707	(0.628)	213173	2.75707	2.757
12 Benzo(b)thiophene	134							
16 2-Methylnaphthalene	141		13.542	13.542	(0.727)	132308	2.80714	2.807
17 1-methylnaphthalene	141		13.992	13.992	(0.751)	134040	2.83535	2.835
18 Biphenyl	154							
19 2,6-Dimethylnaphthalene	156							
20 Acenaphthylene	152		16.817	16.817	(0.903)	244094	2.87456	2.875
\$ 21 Acenaphthene-d10	164		17.135	17.103	(0.920)	20448	0.44062	0.4406(R)
22 Acenaphthene	153		17.223	17.223	(0.924)	150978	2.71407	2.714
23 Dibenzofuran	168		17.597	17.597	(0.944)	249328	3.08950	3.090
24 1,6,7-Trimethylnaphthalene	170							
* 25 Fluorene-d10	176		18.632	18.632	(1.000)	189405	2.00000	
26 Fluorene	166		18.746	18.746	(1.006)	186659	2.96697	2.967
30 Dibenzothiophene	184							
\$ 35 Phenanthrene-d10	188							
36 Phenanthrene	178		22.040	22.040	(0.999)	276406	2.45432	2.454
* 250 Anthracene-d10	188		22.072	22.072	(1.000)	203362	2.00000	
37 Anthracene	178		22.138	22.138	(1.003)	263969	2.38495	2.385
42 Carbazole	167		23.425	23.425	(1.061)	225622	2.35395	2.354
43 1-Methylphenanthrene	192							
44 Fluoranthene	202		25.843	25.843	(1.171)	302784	2.43596	2.436
46 Pyrene	202		26.701	26.701	(1.210)	327478	2.49671	2.497
51 Naphthobenzothiophene	234							
55 Benzo(a)anthracene	228		29.839	29.839	(0.906)	321298	2.58148	2.581
\$ 56 Chrysene-d12	240							
57 Chrysene	228		30.042	30.042	(0.912)	311187	2.51557	2.516
62 Benzo(b)fluoranthene	252		32.260	32.272	(0.980)	335486	2.38726	2.387
63 Benzo(k)fluoranthene	252		32.317	32.317	(0.982)	376214	2.65607	2.656
293 Benzo(j)fluoranthene	252							
246 Total Benzofluoranthenes	252		32.317	32.317	(0.982)	678991	5.20731	5.207(M)



Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
							ON-COLUMN (ug/mL)	FINAL (ug/mL)	
* 251 Benzo(e)pyrene-d12	264		32.925	32.925	(1.000)	288304	2.00000		
64 Benzo(e)pyrene	252		Compound Not Detected.						
66 Benzo(a)pyrene	252		33.083	33.083	(1.005)	318127	2.61683	2.617	
\$ 67 Perylene-d12	264		Compound Not Detected.						
68 Perylene	252		Compound Not Detected.						
69 Indeno(1,2,3-cd)pyrene	276		35.256	35.256	(1.071)	395155	2.62484	2.625	
70 Dibenzo(a,h)anthracene	278		35.234	35.245	(1.070)	334739	2.51676	2.517	
74 Benzo(g,h,i)perylene	276		36.101	36.101	(1.096)	307983	2.32872	2.329 (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: 07-OCT-2020  
 Lab File ID: NT1420100709.D Calibration Time: 18:22  
 Lab Smp Id: SIJ0085-SCV1  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: VTS  
 Method File: \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Misc Info:

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	209596	104798	419192	189405	-9.63
250 Anthracene-d10	192407	96204	384814	203362	5.69
251 Benzo(e)pyrene-d1	274120	137060	548240	288304	5.17

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.63	18.13	19.13	18.63	0.00
250 Anthracene-d10	22.07	21.57	22.57	22.07	0.00
251 Benzo(e)pyrene-d1	32.93	32.43	33.43	32.93	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 - NT1420100709.D

Lab ID: SIJ0085-SCV1

nt14.i, 20201007.b\ALKYLPNA.m, 07-OCT-2020 16:45

RT CO-ELUTION COMPOUNDS

---

NO CO-ELUTIONS

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

RRT CHECK

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

---

NONE

RRT check based on Ccal File: NT1420100711.D

On Column LOD for nt14.i, 20201007.b\ALKYLPNA.m, TARGETS.sub = 0.0000

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

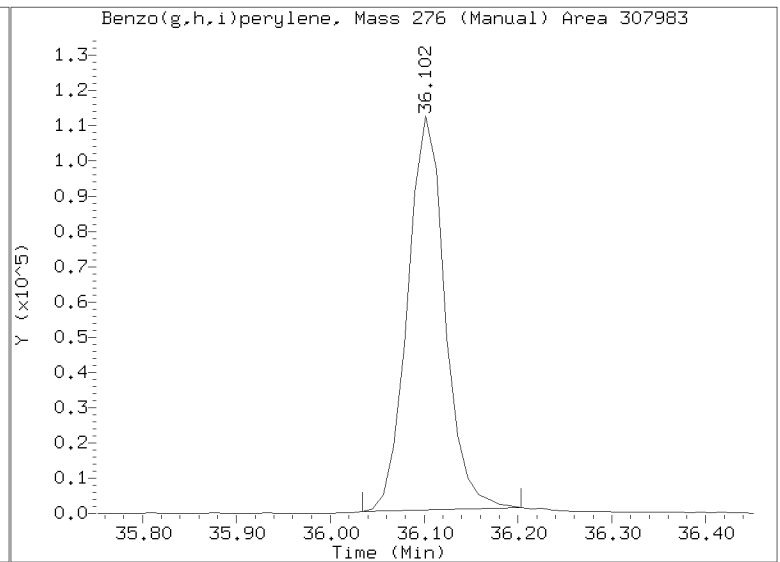
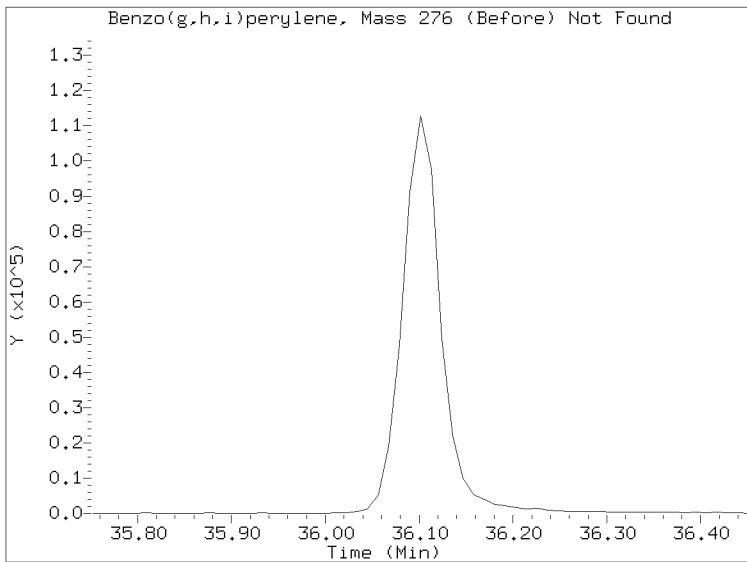
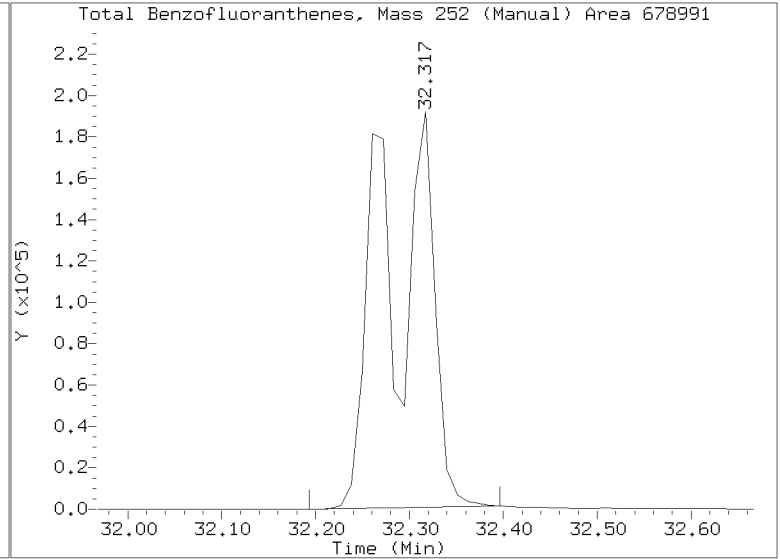
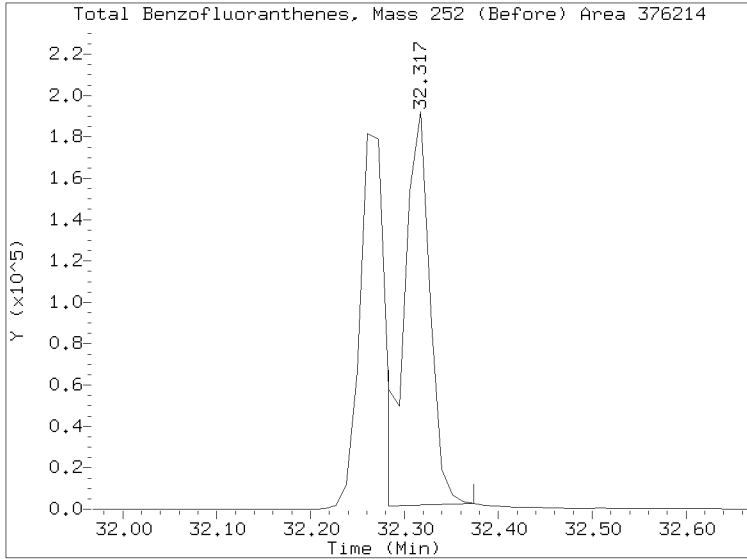
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201007.b/NT1420100709.D

Injection Date: 07-OCT-2020 16:45

Lab ID:SIJ0085-SCV1 Client ID:

Report Date: 10/09/2020 08:51





## SECOND-SOURCE CALIBRATION VERIFICATION

### EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Calibration: DJ00029

Laboratory ID: SIJ0085-SCV1

Sequence: SIJ0085

Standard ID: I009393

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Naphthalene	2.5000	2.8	10.3	20.00
1-Methylnaphthalene	2.5000	2.8	13.4	20.00
2-Methylnaphthalene	2.5000	2.8	12.3	20.00
Acenaphthylene	2.5000	2.9	15.0	20.00
Acenaphthene	2.5000	2.7	8.6	20.00
Dibenzofuran	2.5000	3.1	23.6 *	20.00
Fluorene	2.5000	3.0	18.7	20.00
Phenanthrene	2.5000	2.5	-1.8	20.00
Anthracene	2.5000	2.4	-4.6	20.00
Carbazole	2.5000	2.4	-5.8	20.00
Fluoranthene	2.5000	2.4	-2.6	20.00
Pyrene	2.5000	2.5	-0.1	20.00
Benzo(a)anthracene	2.5000	2.6	3.3	20.00
Chrysene	2.5000	2.5	0.6	20.00
Benzo(b)fluoranthene	2.5000	2.4	-4.5	
Benzo(k)fluoranthene	2.5000	2.7	6.2	
Benzofluoranthenes, Total	5.0000	5.2	4.1	
Benzo(a)pyrene	2.5000	2.6	4.7	20.00
Indeno(1,2,3-cd)pyrene	2.5000	2.6	5.0	20.00
Dibenzo(a,h)anthracene	2.5000	2.5	0.7	20.00
Benzo(g,h,i)perylene	2.5000	2.3	-6.9	20.00

\* Values outside of QC limits

Data File: \\target\share\chem3\nt14,1\20201007,16\NT1420100709.D

Date : 07-OCT-2020 16:45

Client ID:

Sample Info: S100085-SCW1

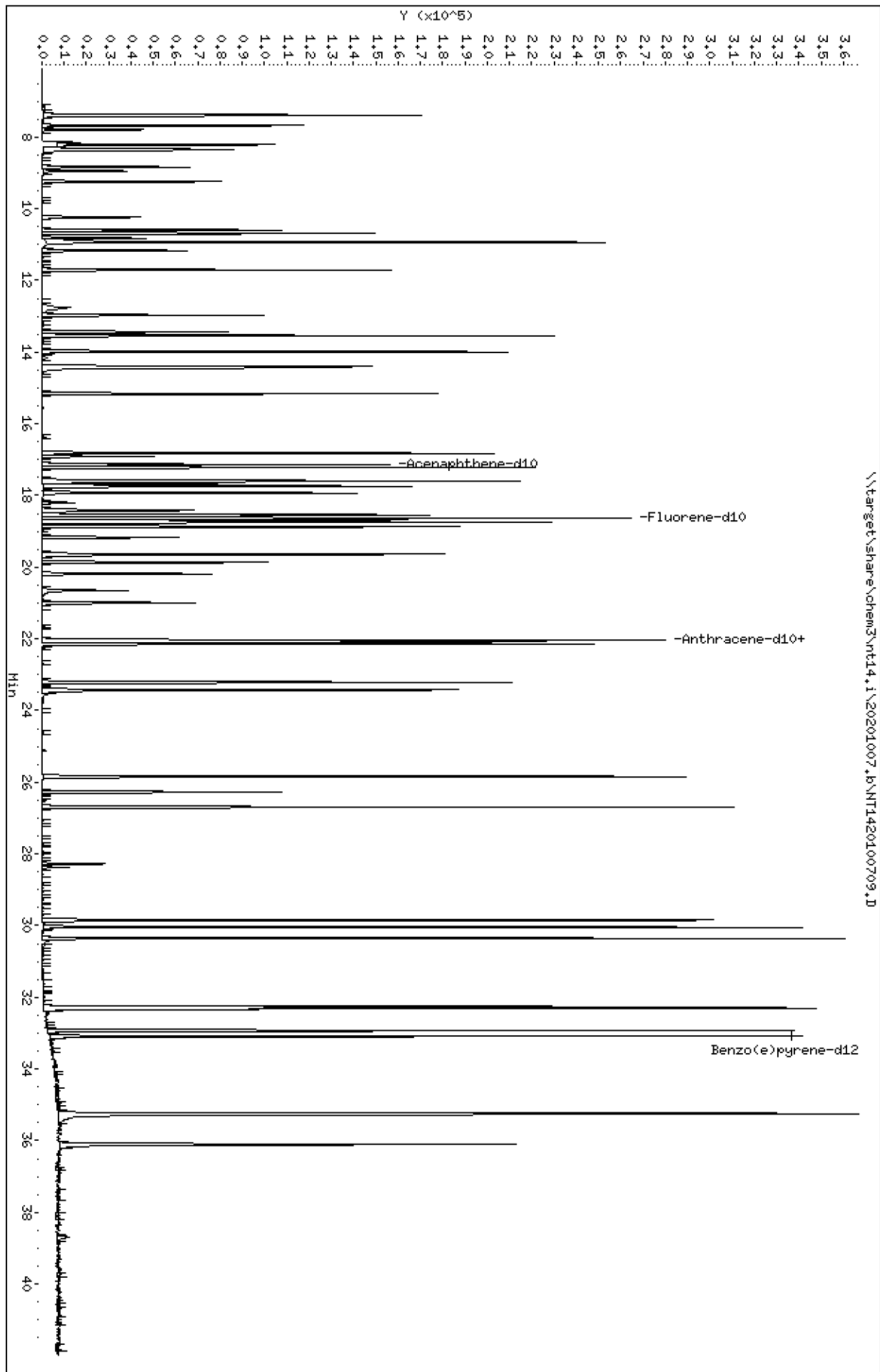
Column phase: Rxi-17S11 MS

Instrument: nt14,1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14,1\20201007,16\NT1420100709.D



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

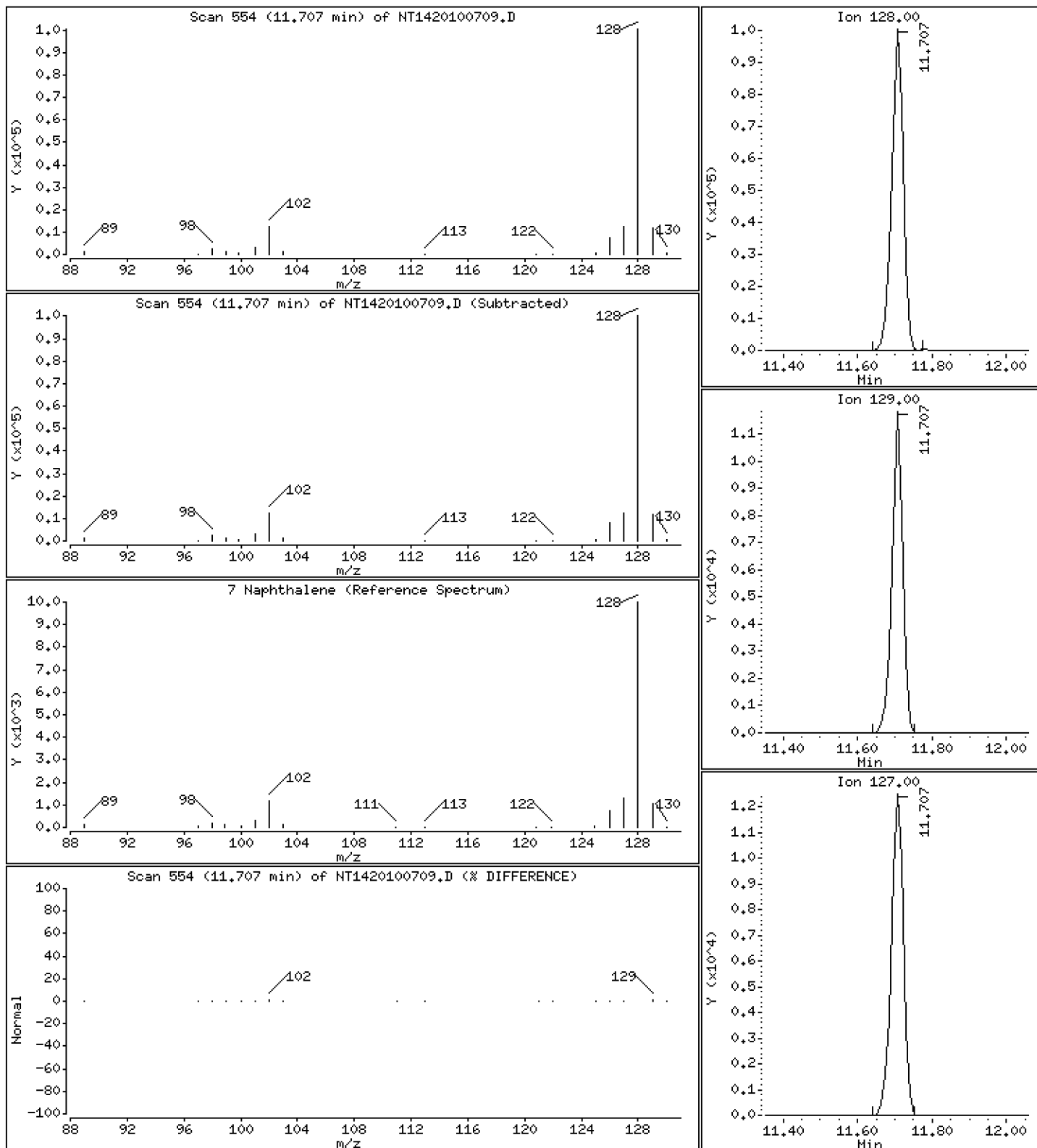
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

7 Naphthalene

Concentration: 2,757 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

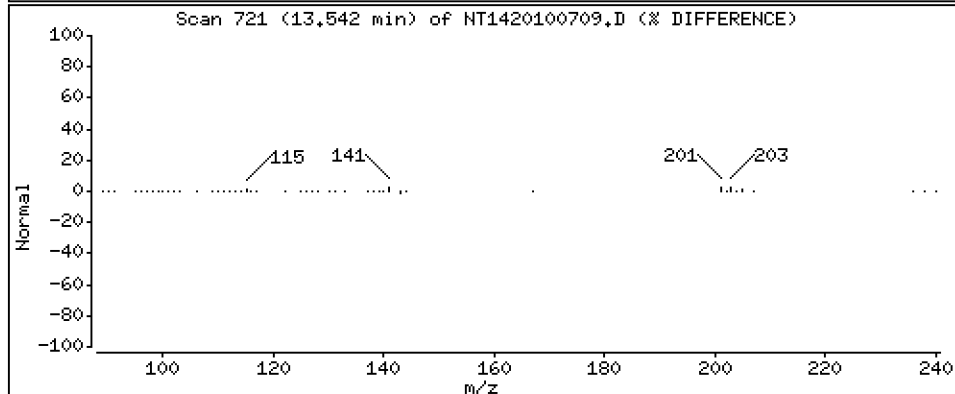
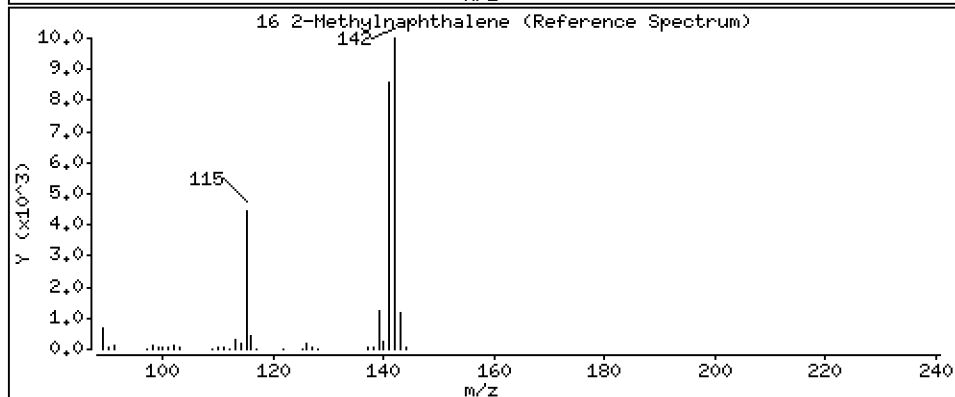
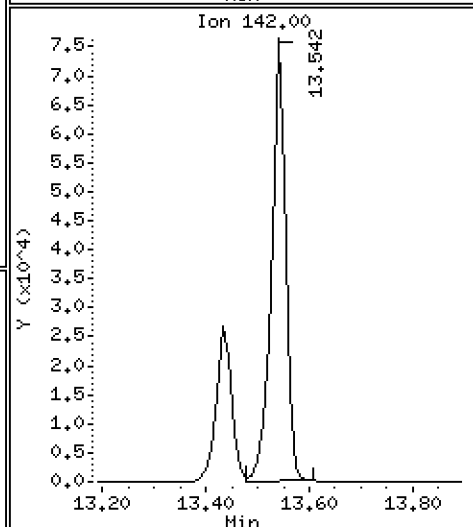
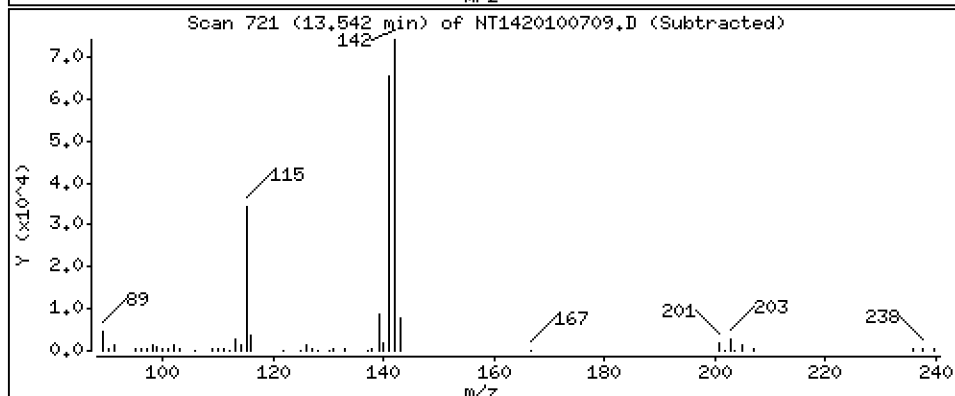
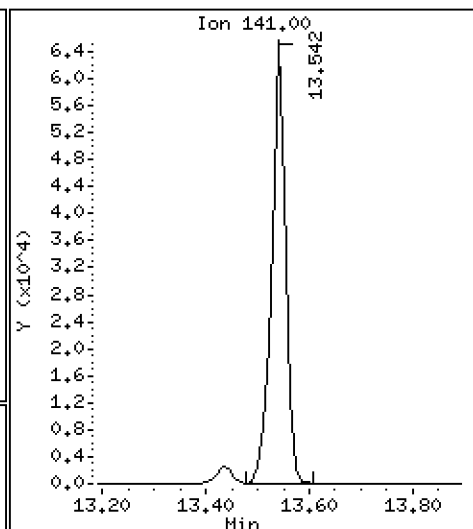
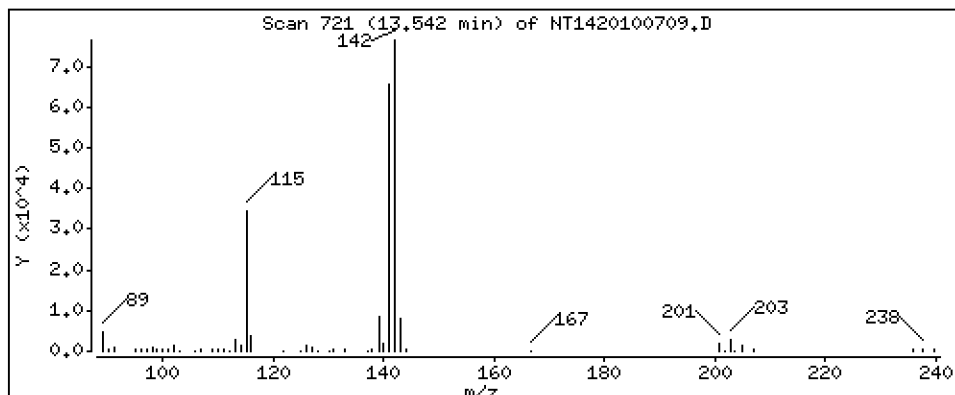
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 2-Methylnaphthalene

Concentration: 2,807 ug/mL





Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

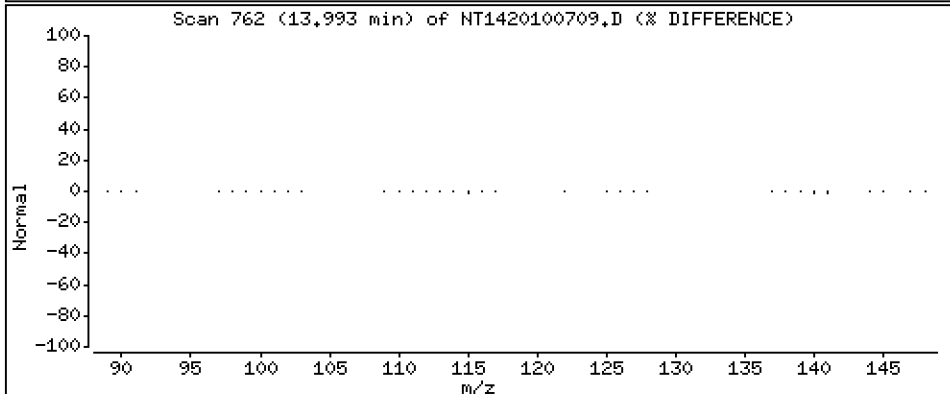
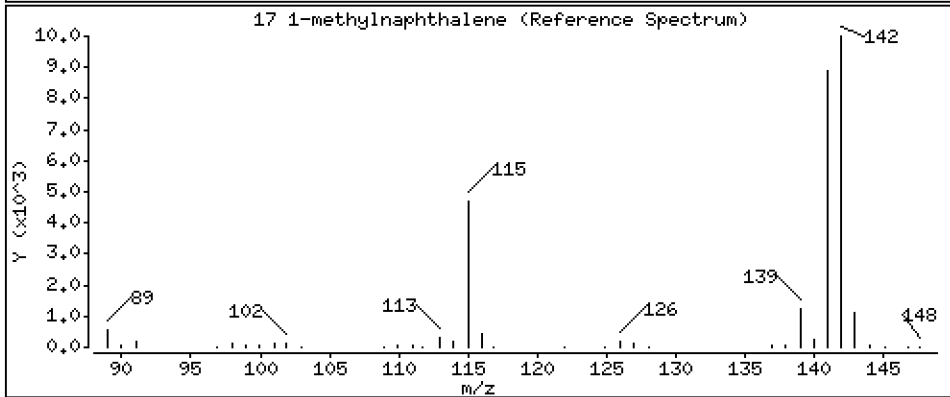
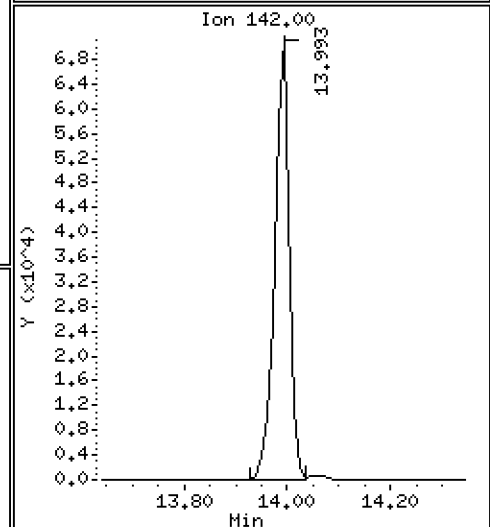
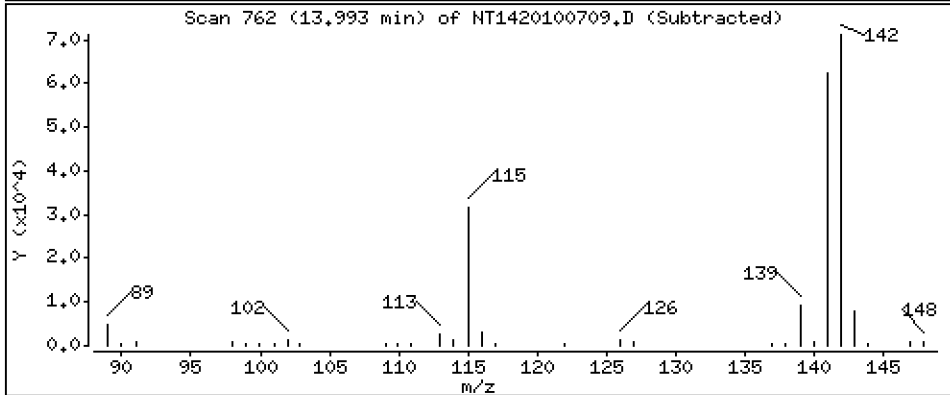
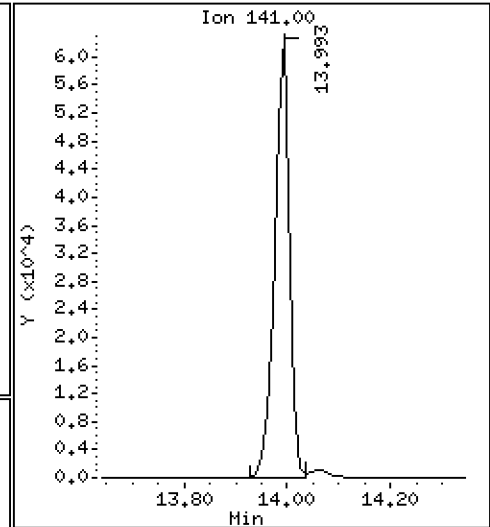
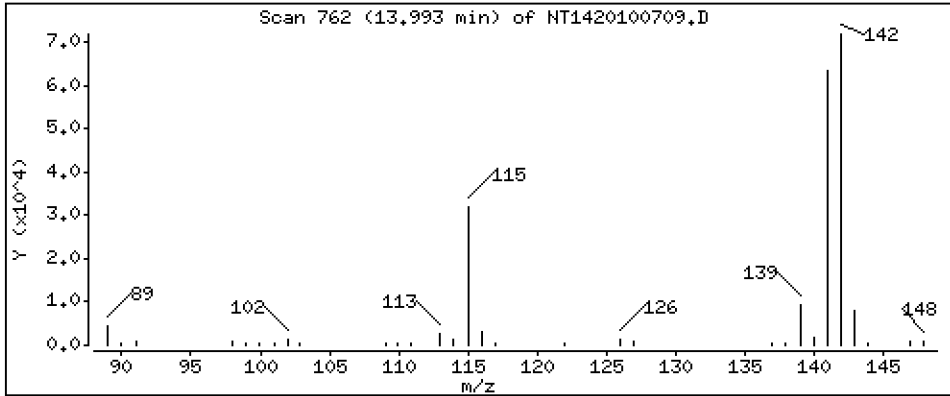
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 1-methylnaphthalene

Concentration: 2,835 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

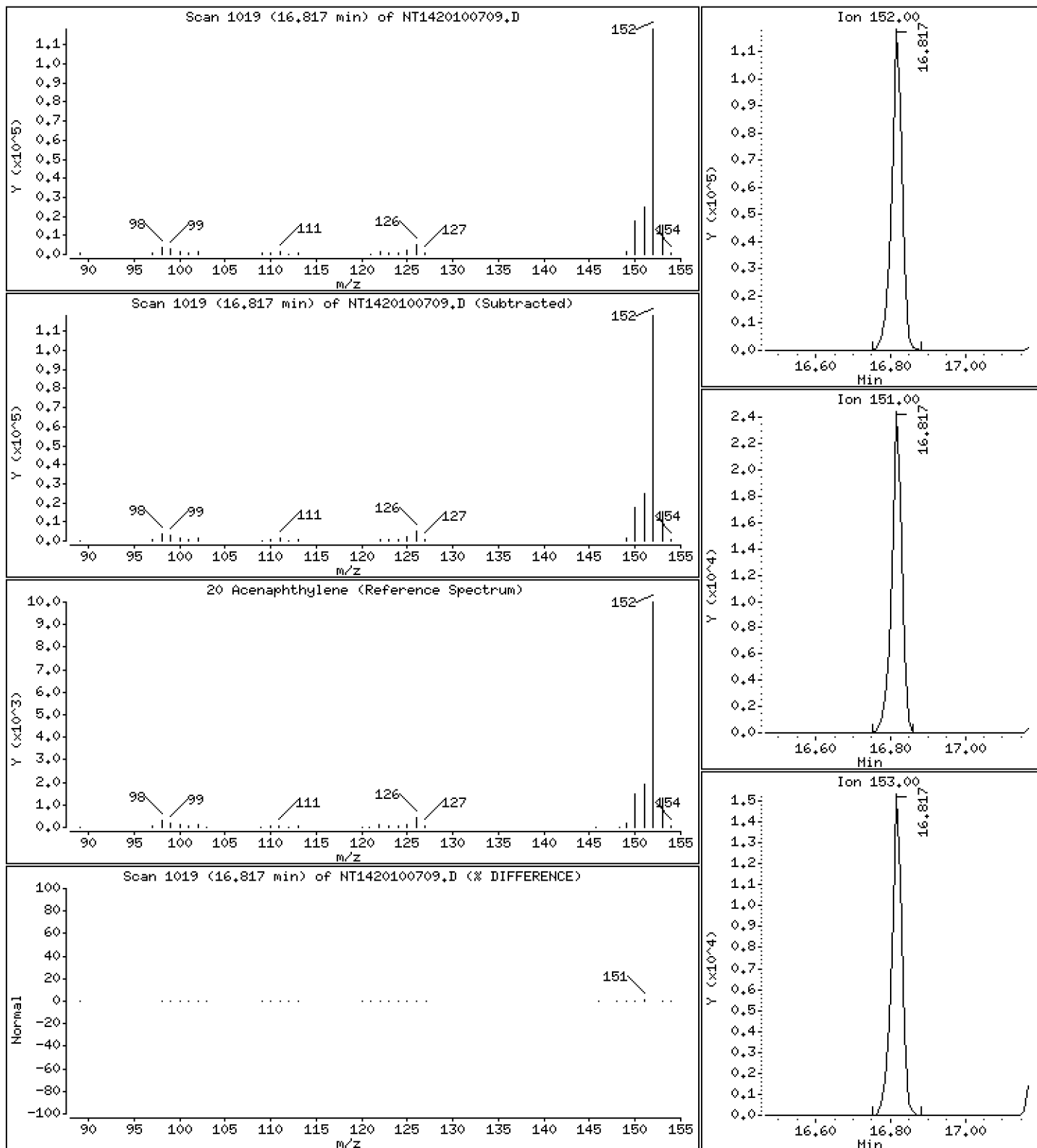
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

20 Acenaphthylene

Concentration: 2,875 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

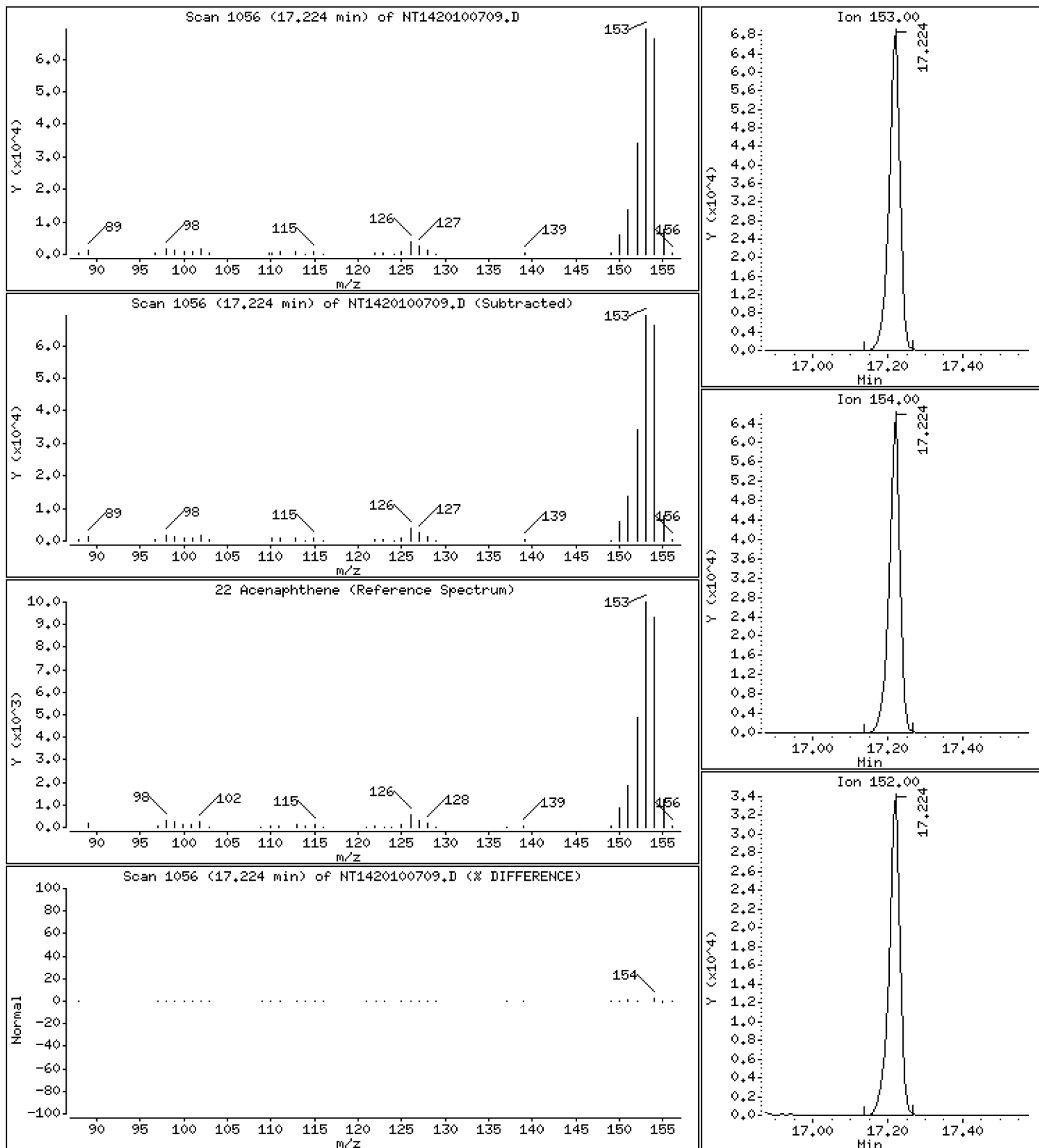
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Acenaphthene

Concentration: 2,714 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

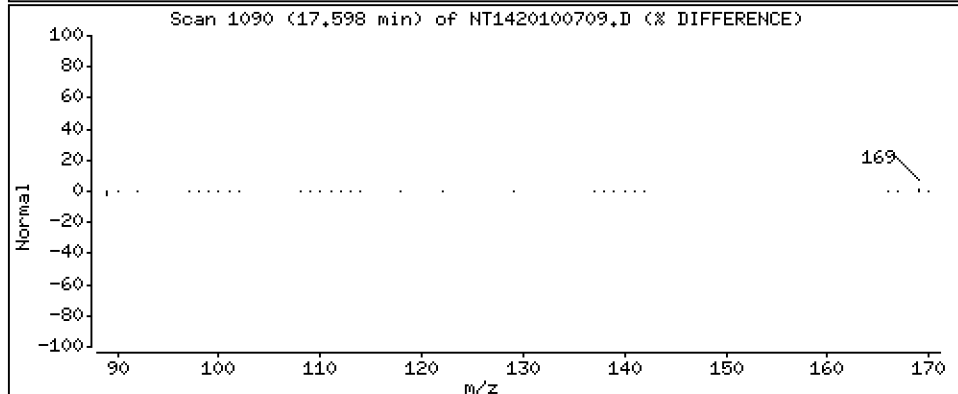
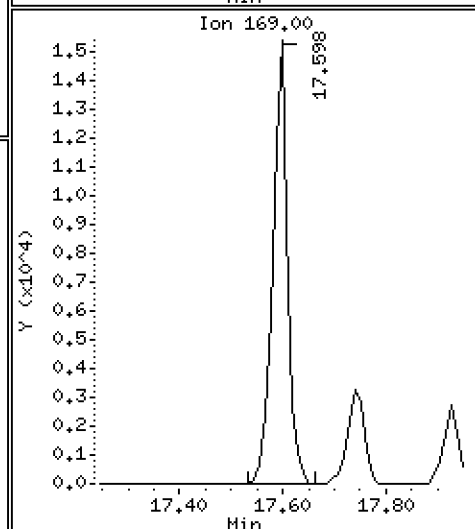
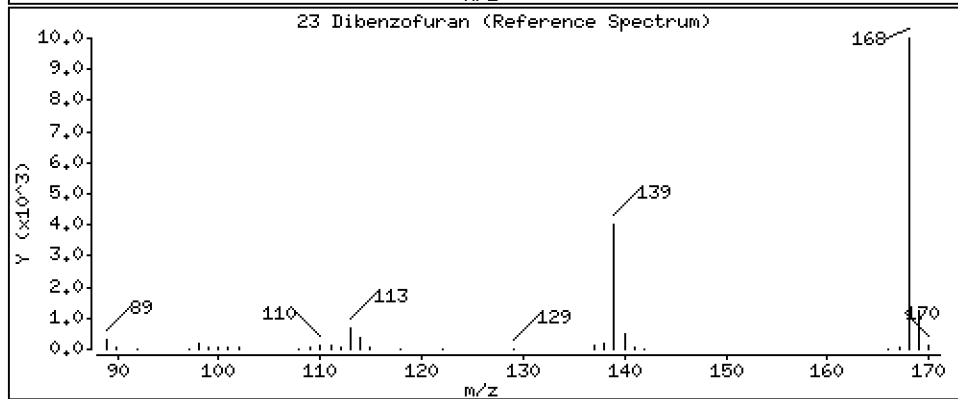
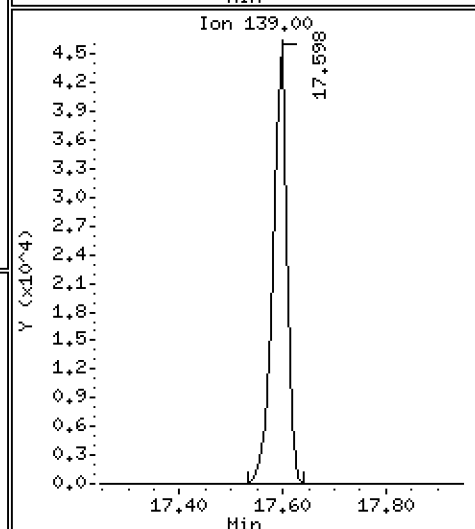
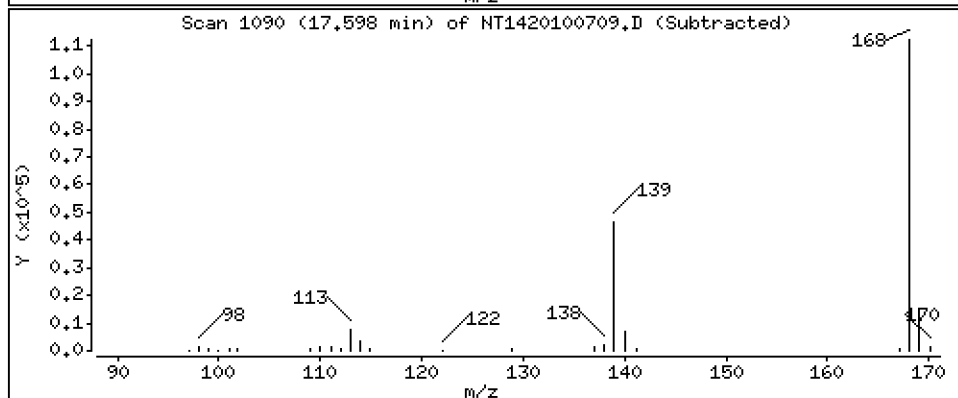
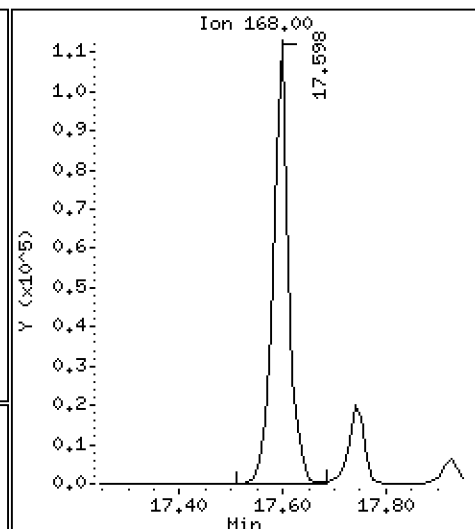
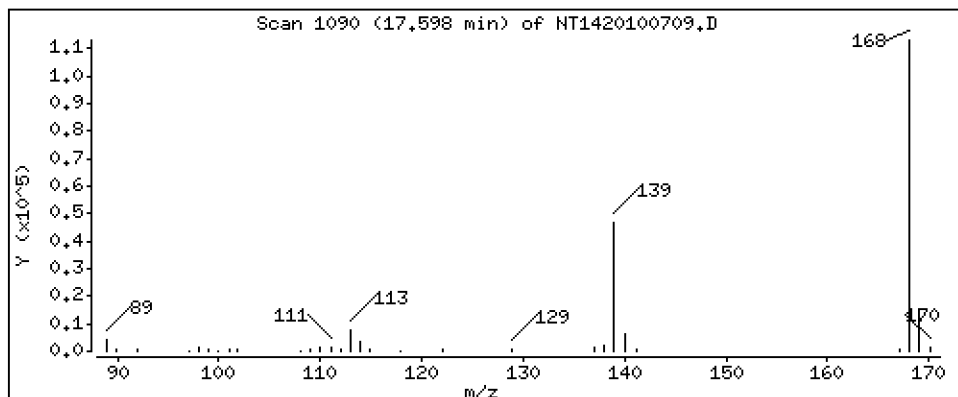
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

23 Dibenzofuran

Concentration: 3,090 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

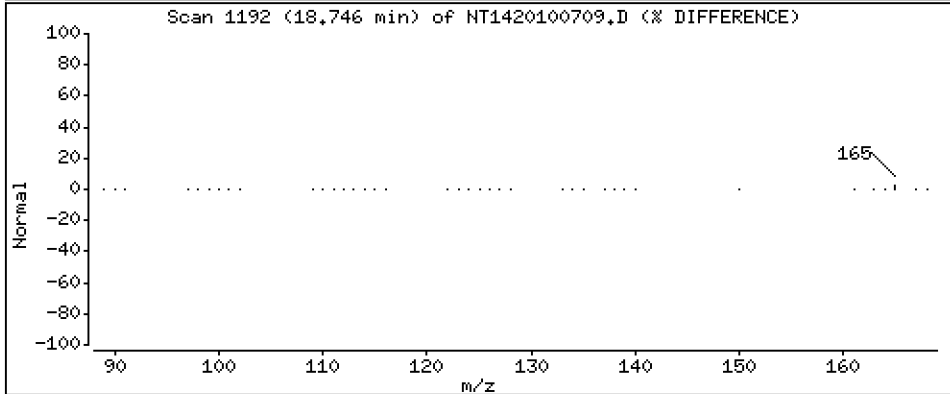
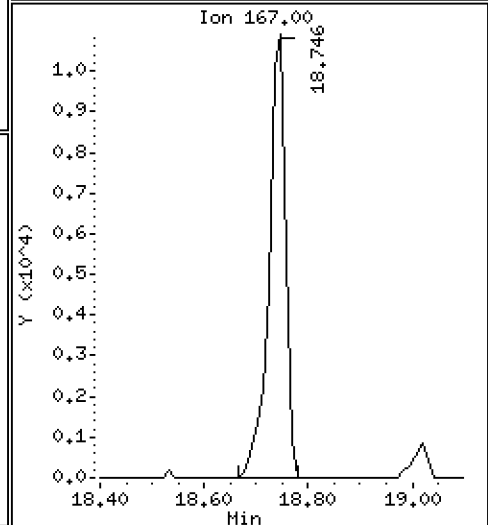
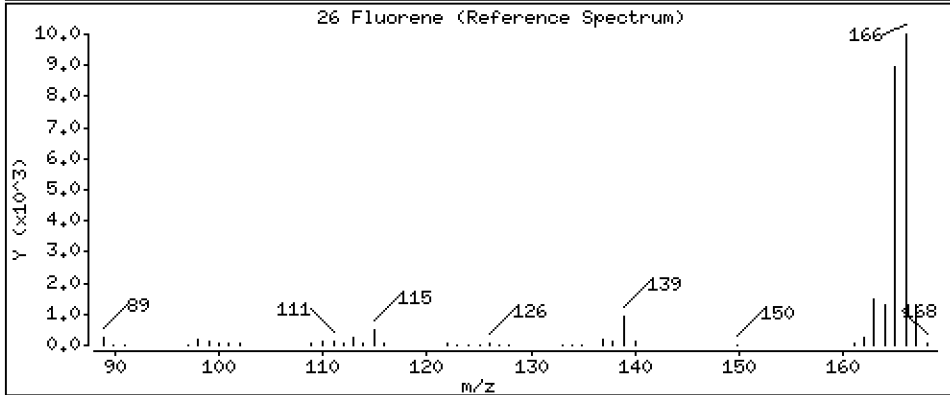
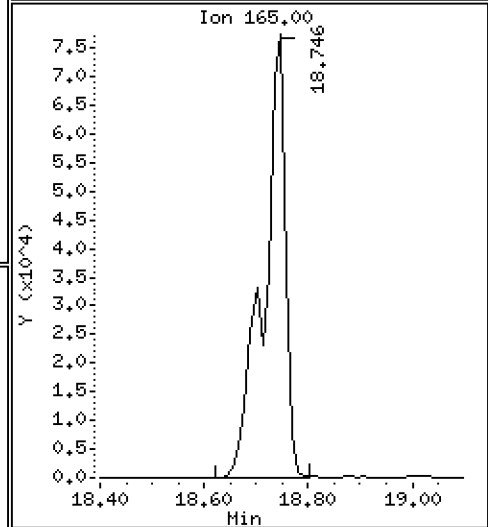
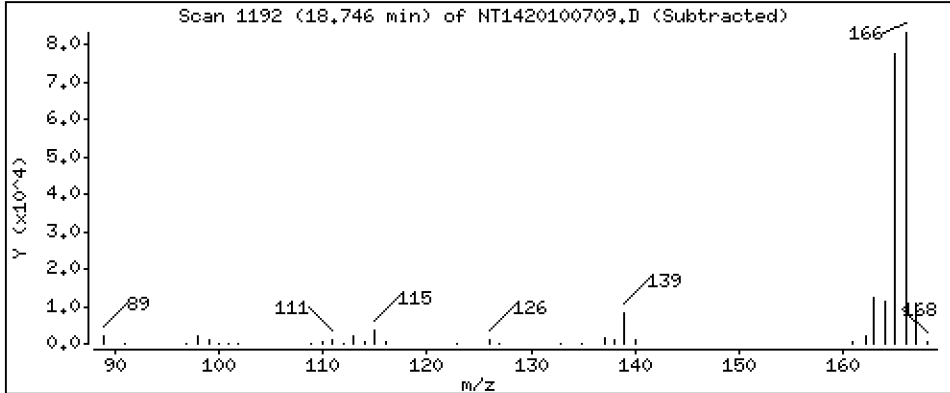
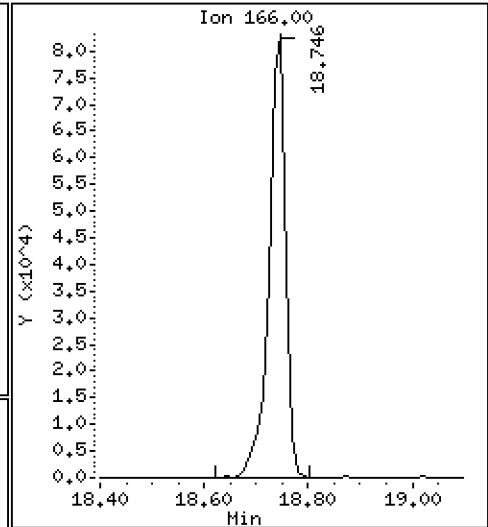
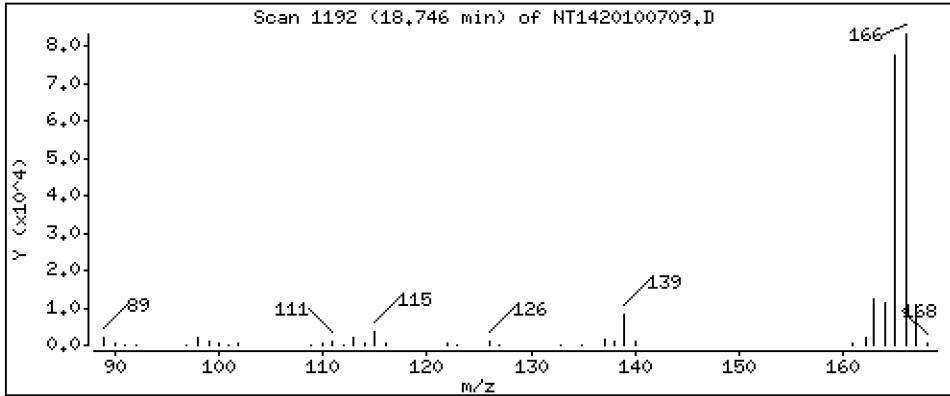
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Fluorene

Concentration: 2,967 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

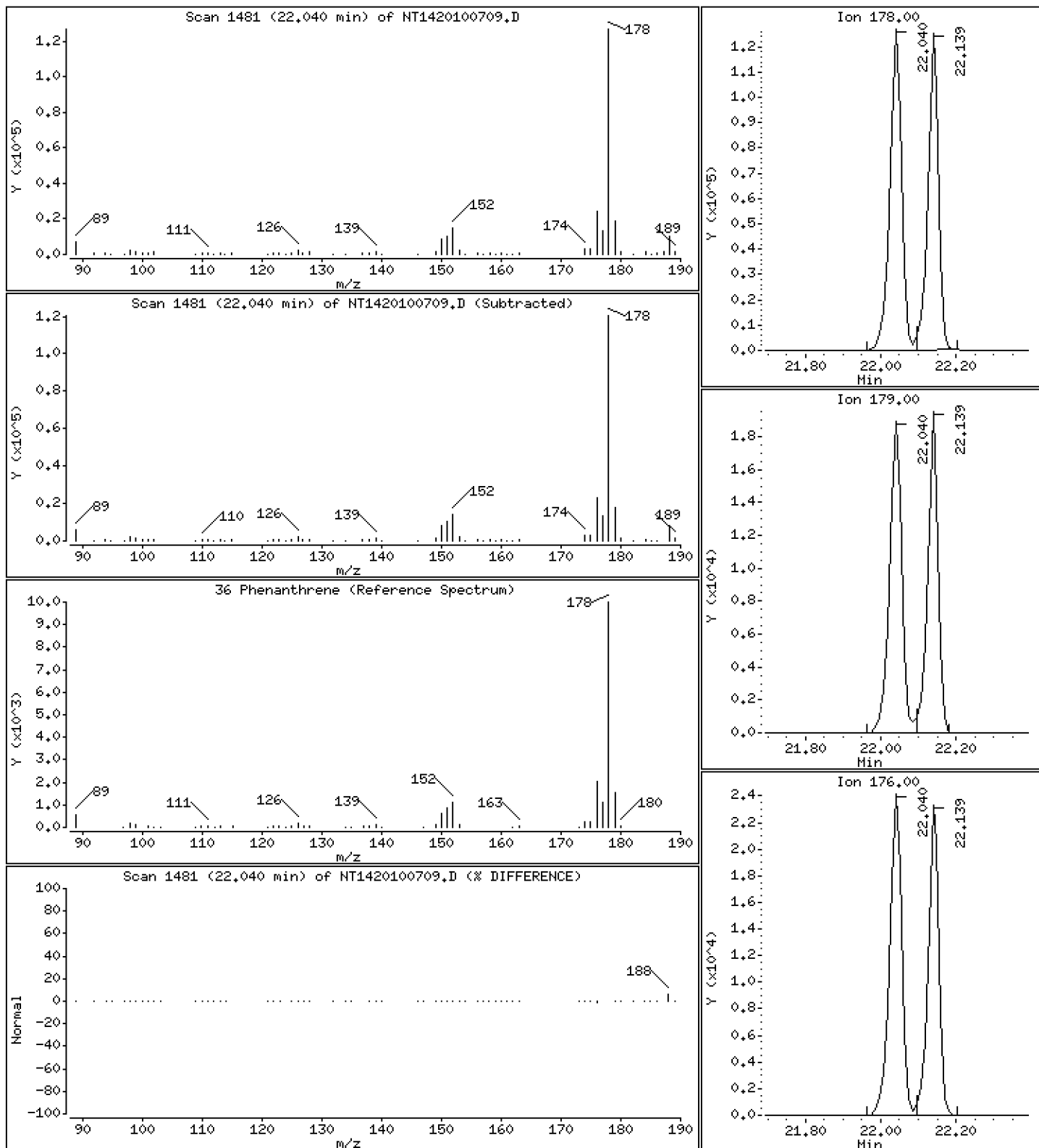
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

36 Phenanthrene

Concentration: 2,454 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

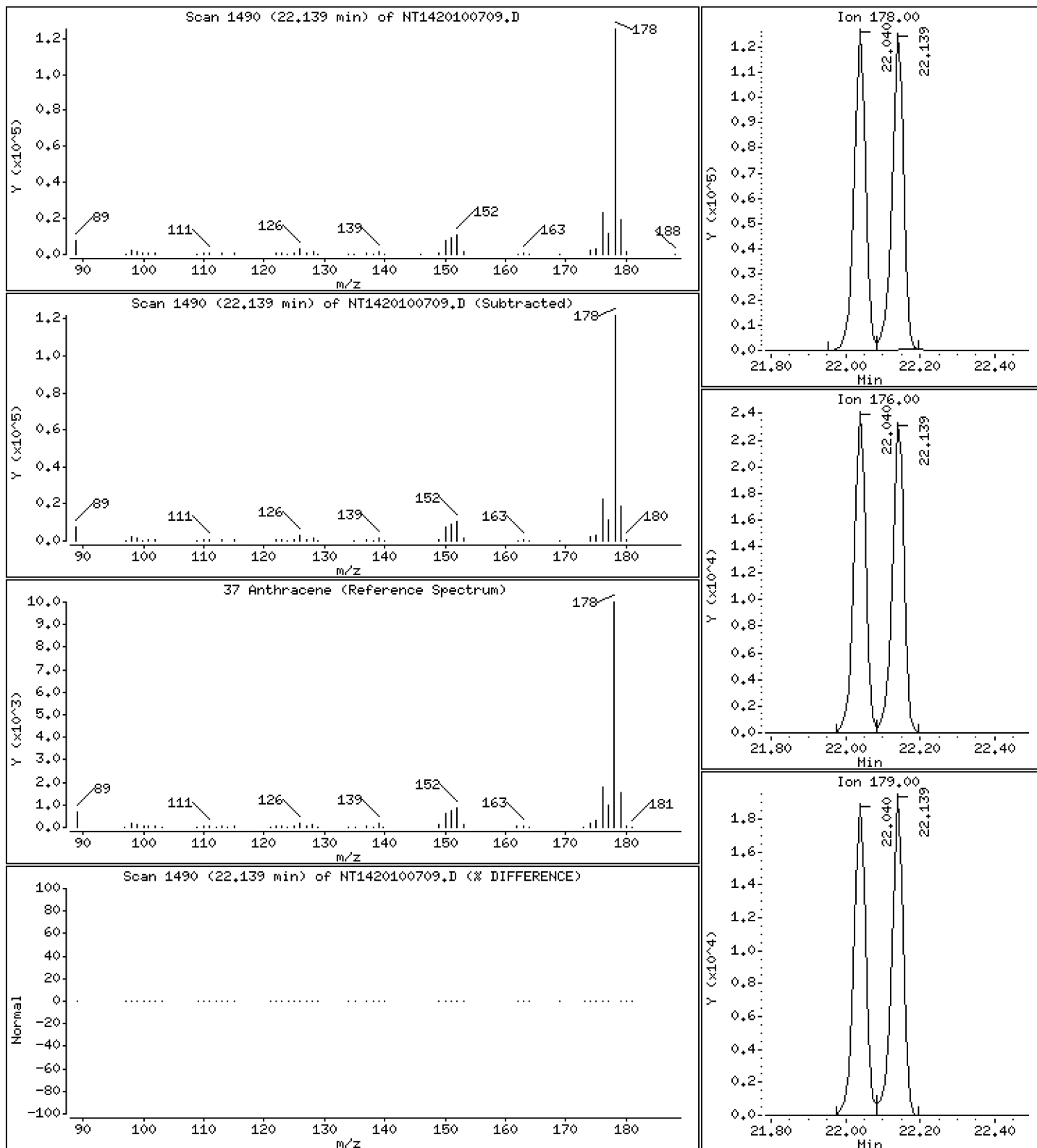
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

37 Anthracene

Concentration: 2,385 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

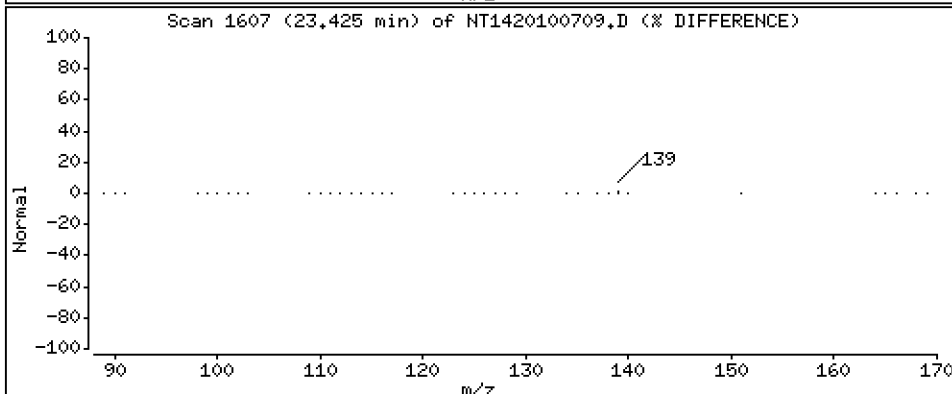
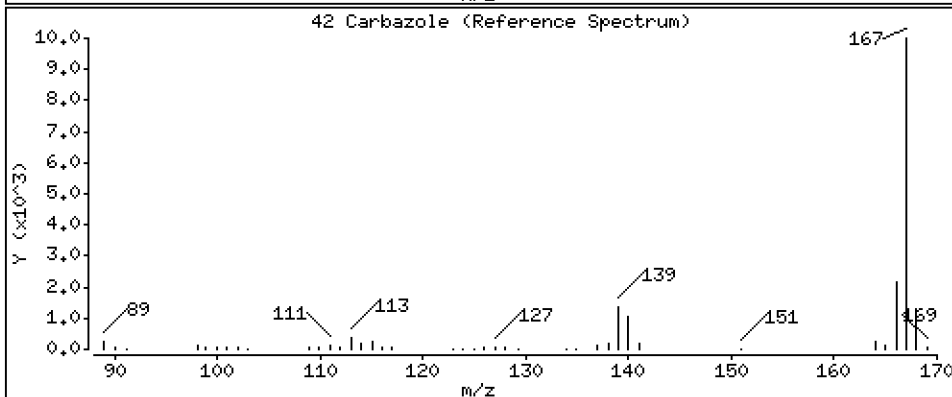
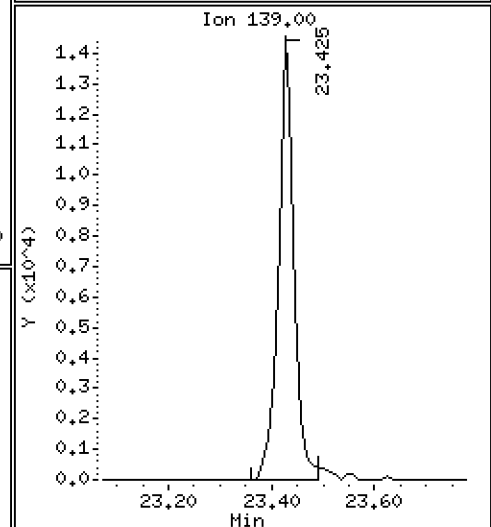
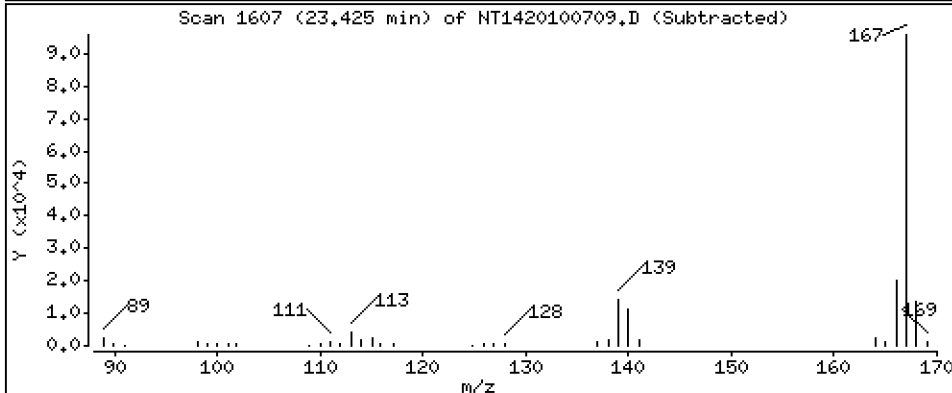
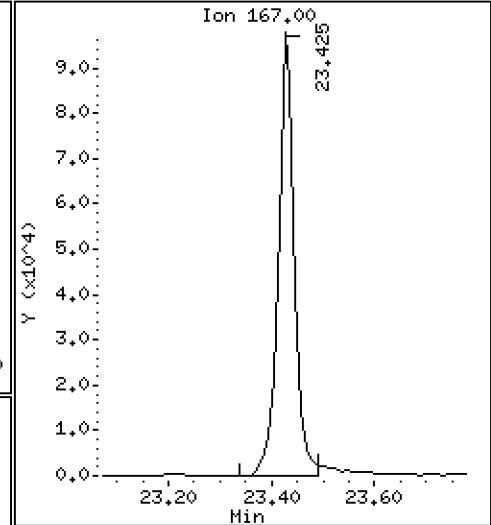
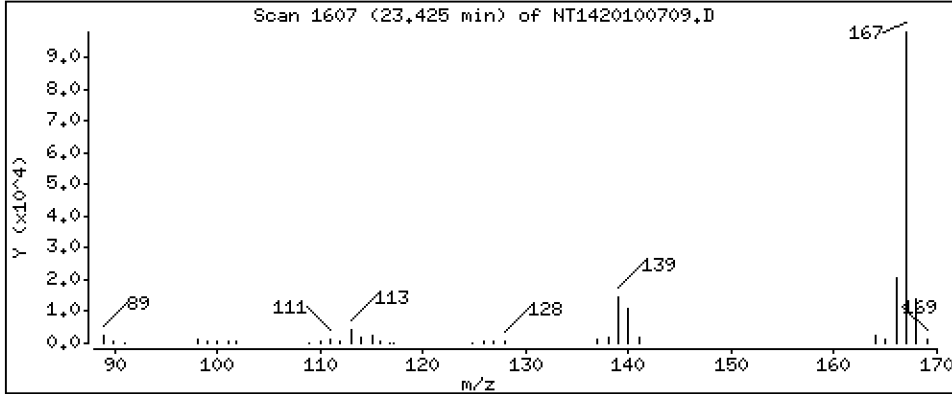
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

42 Carbazole

Concentration: 2,354 ug/mL





Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

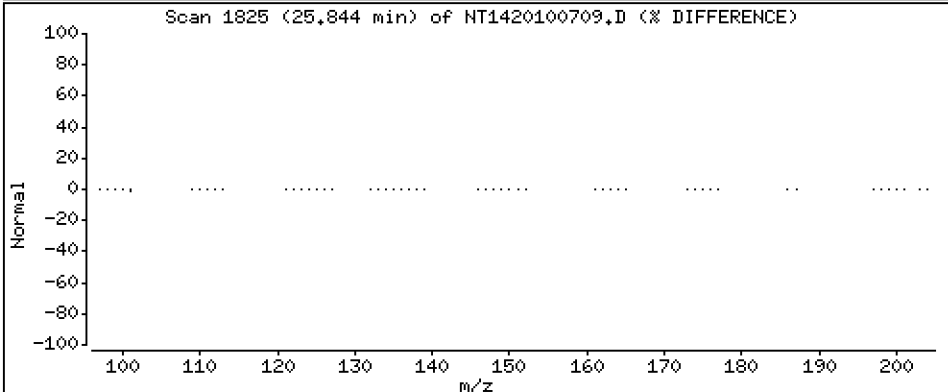
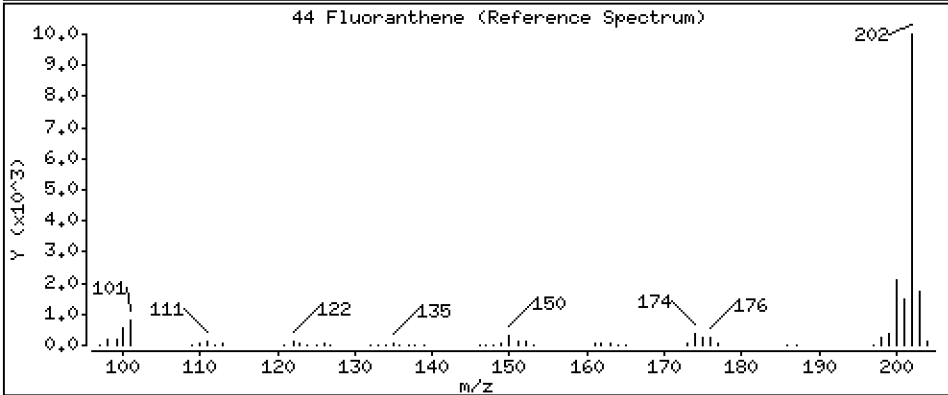
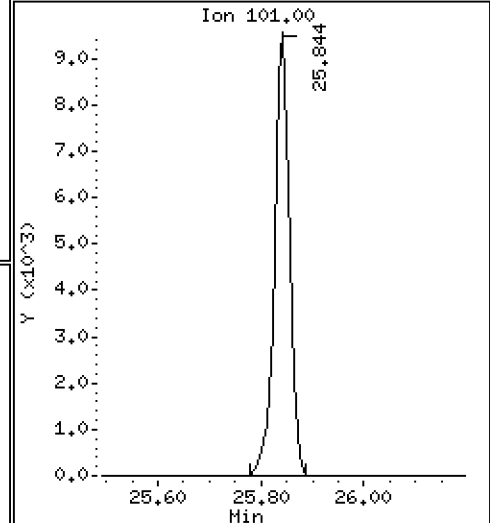
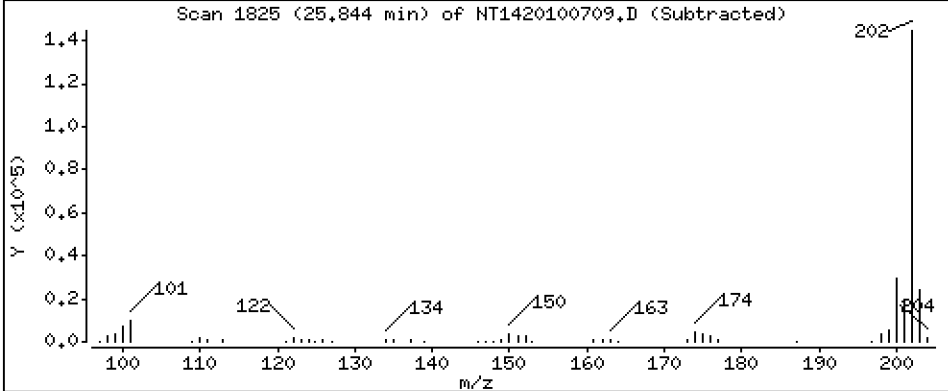
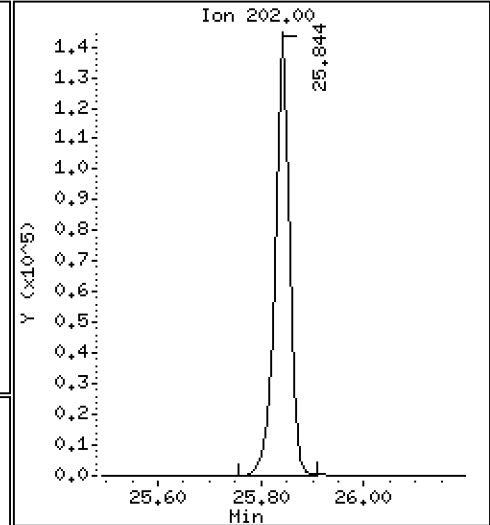
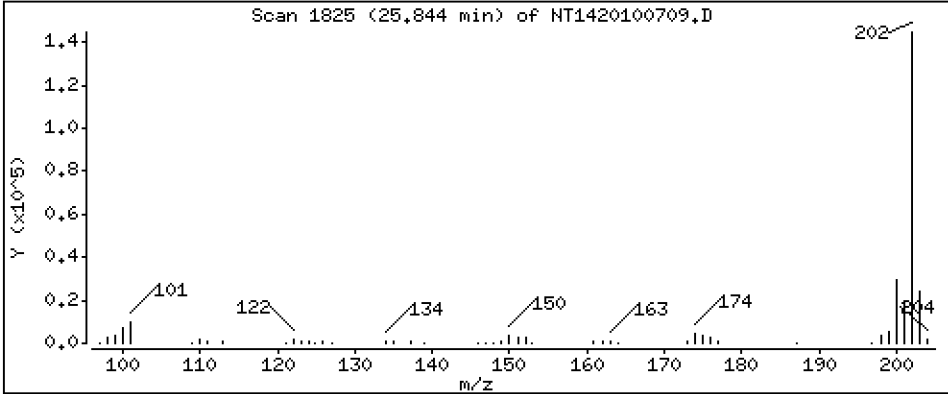
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

44 Fluoranthene

Concentration: 2,436 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

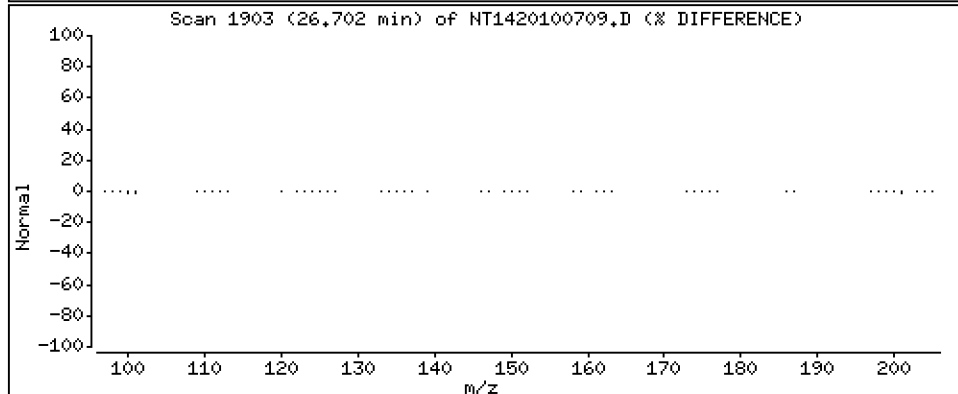
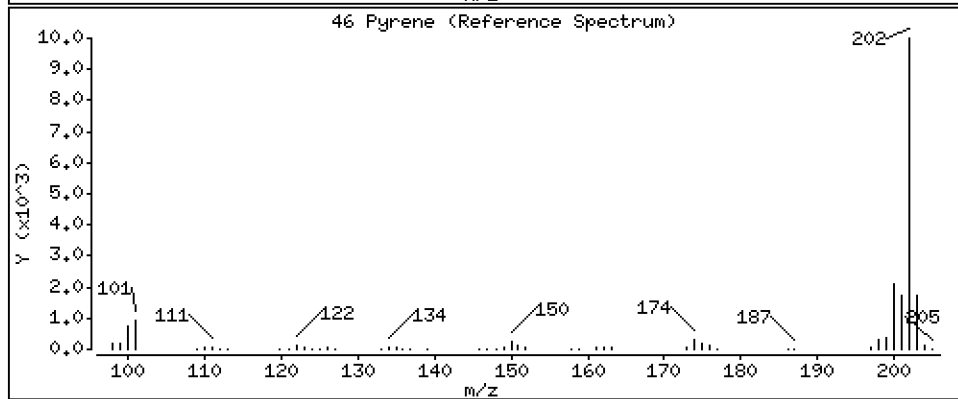
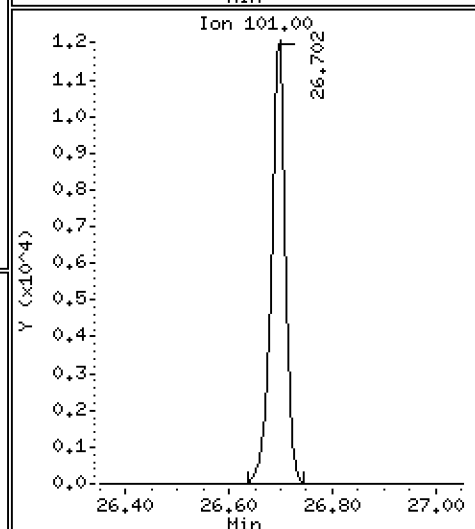
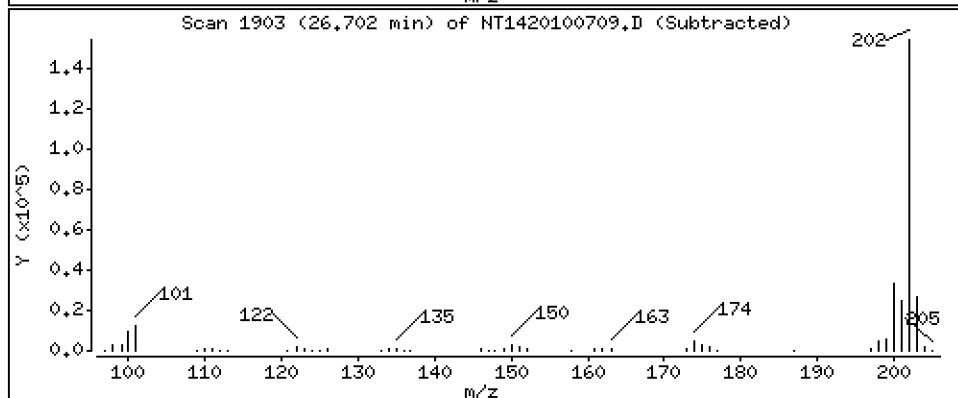
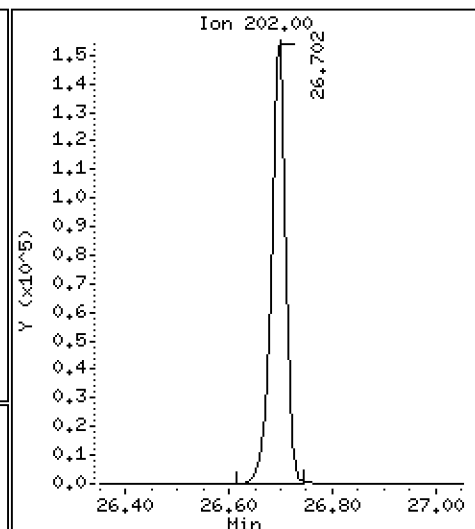
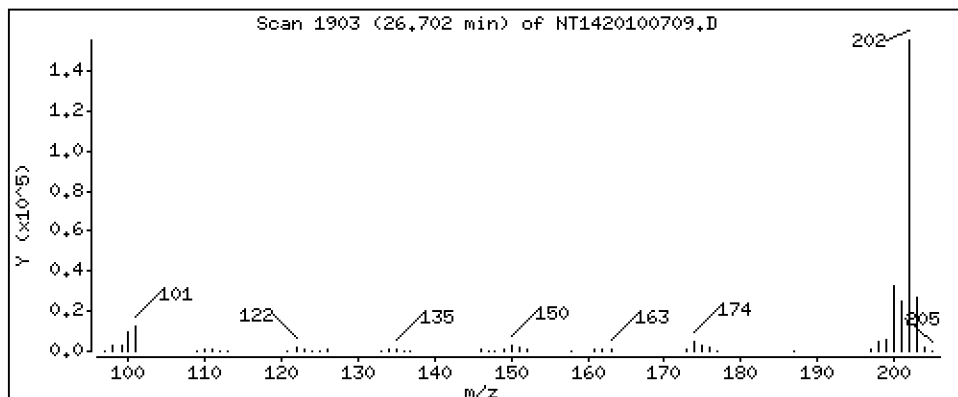
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

46 Pyrene

Concentration: 2,497 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

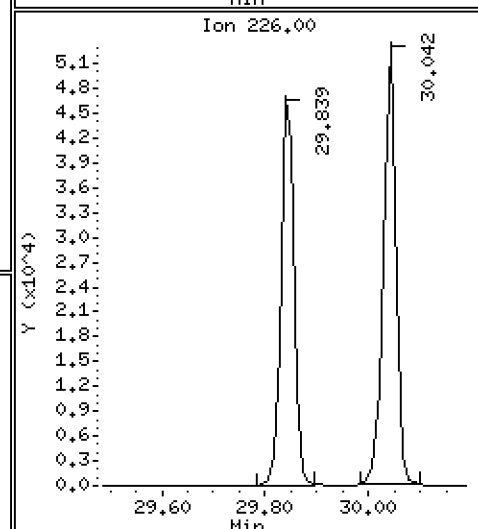
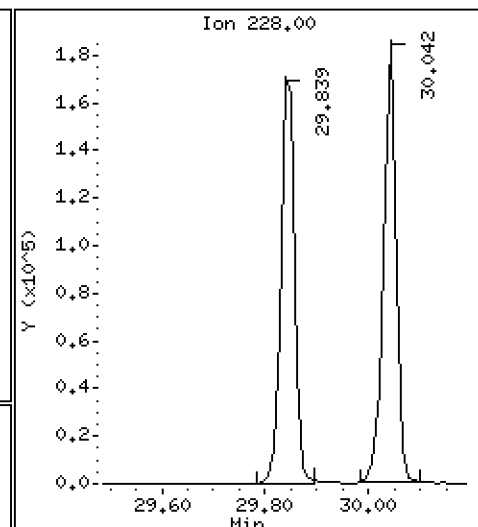
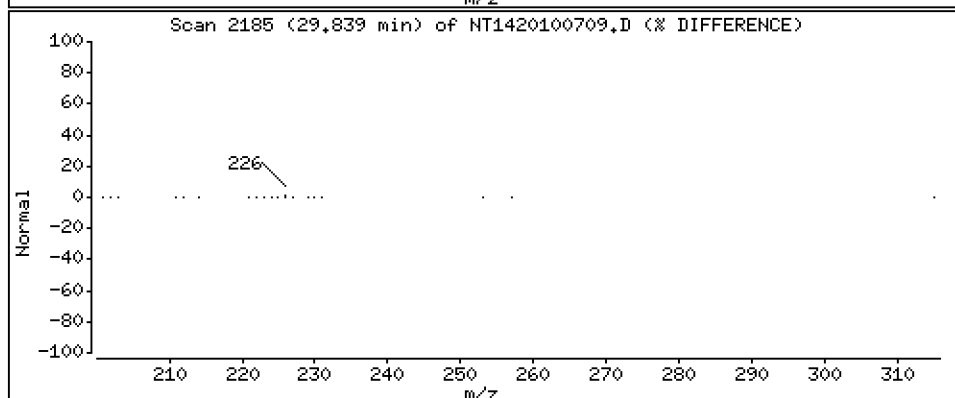
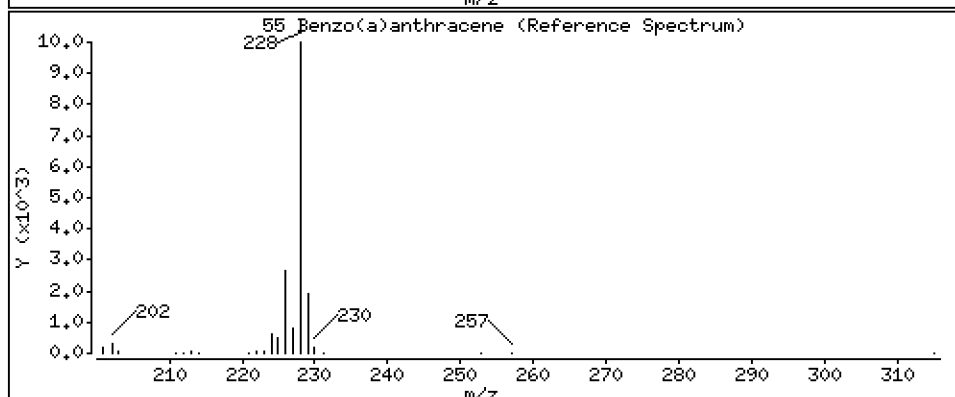
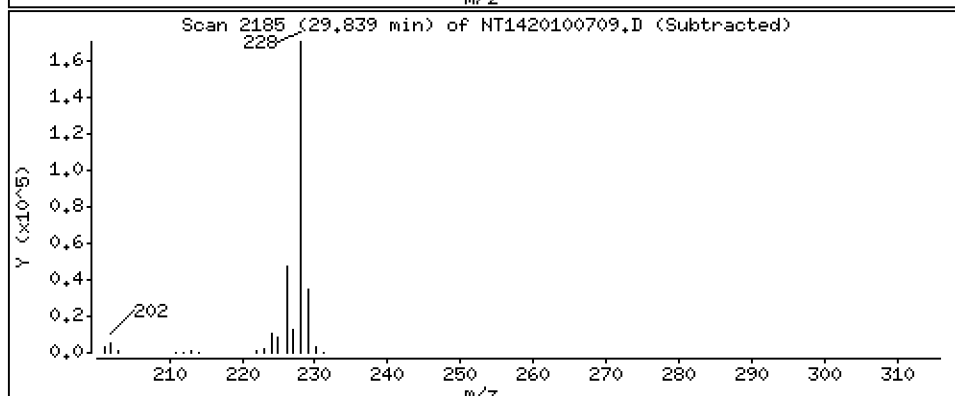
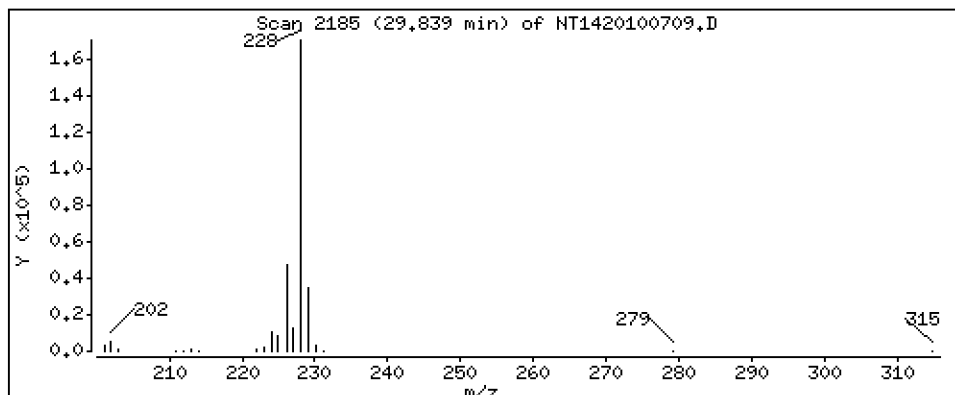
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

55 Benzo(a)anthracene

Concentration: 2,581 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

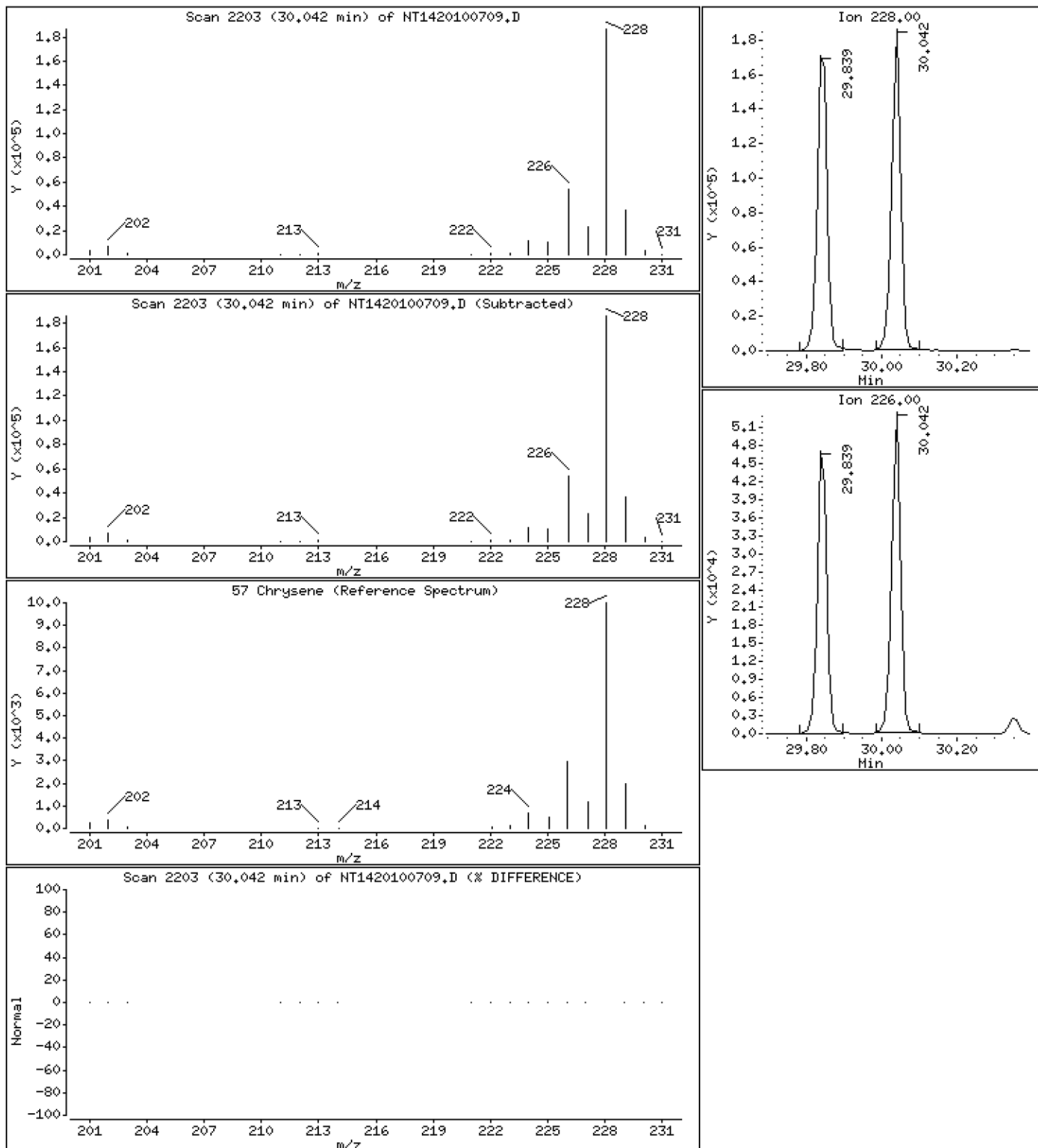
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

57 Chrysene

Concentration: 2,516 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

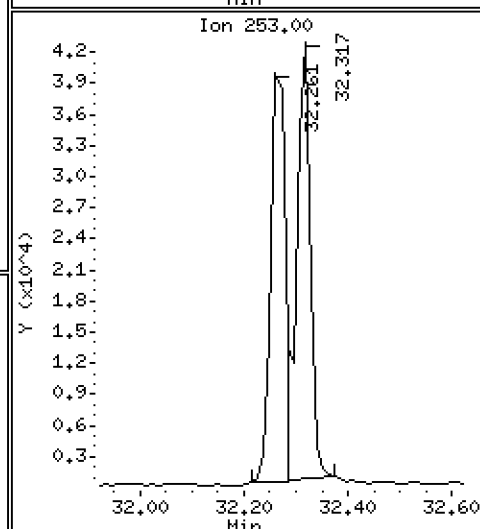
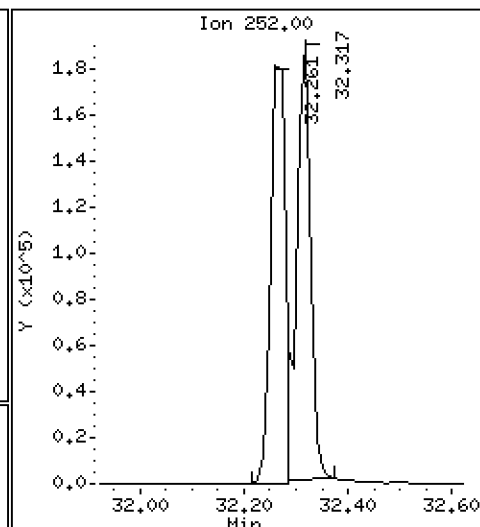
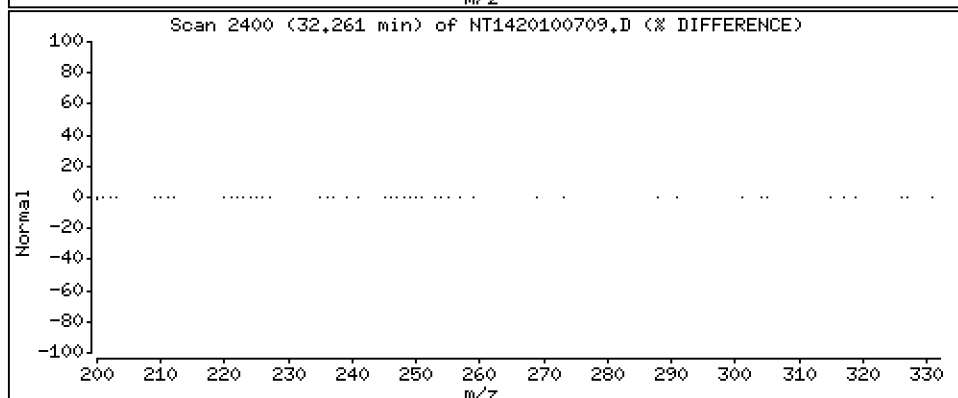
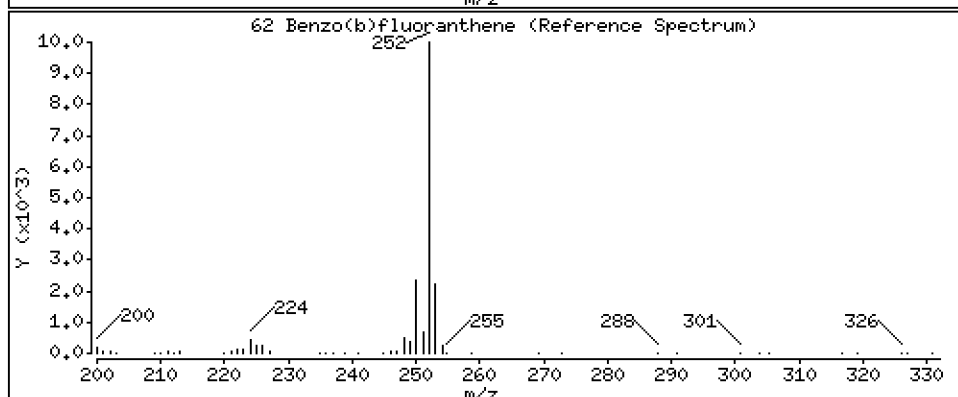
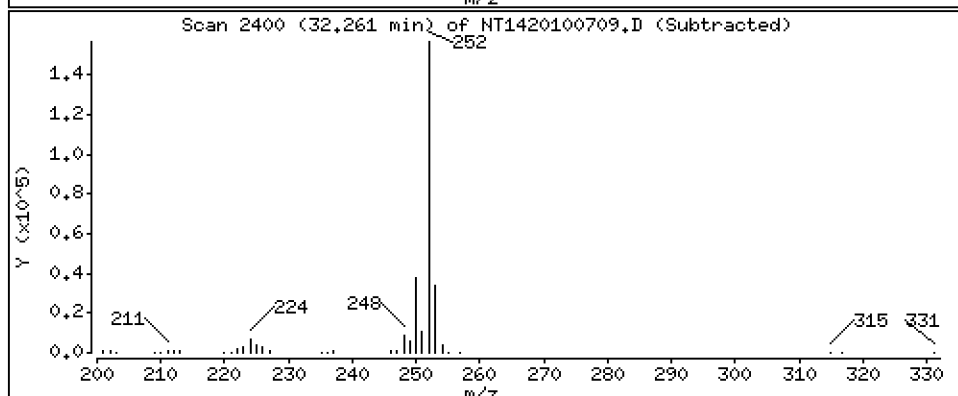
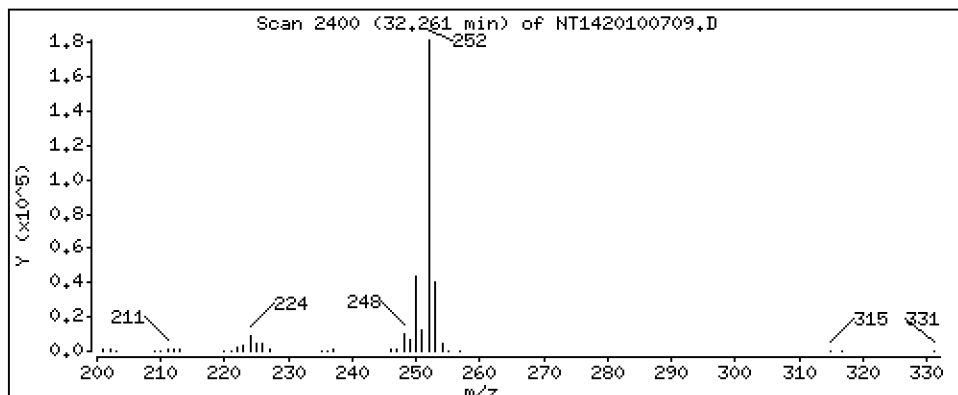
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

62 Benzo(b)fluoranthene

Concentration: 2,387 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

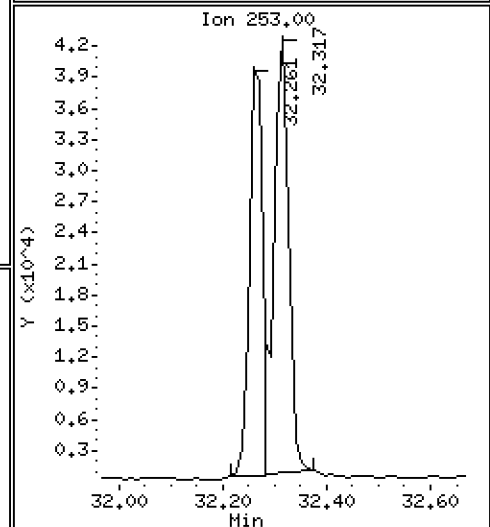
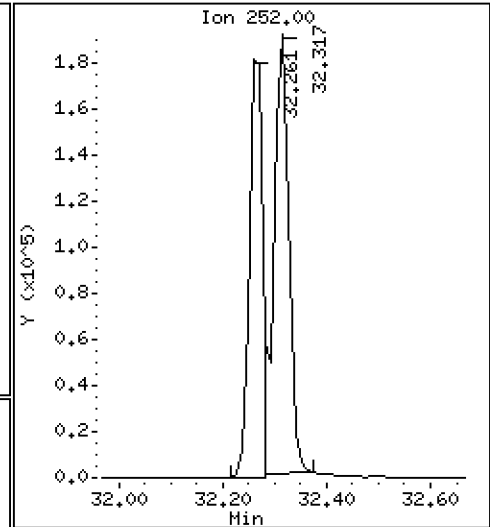
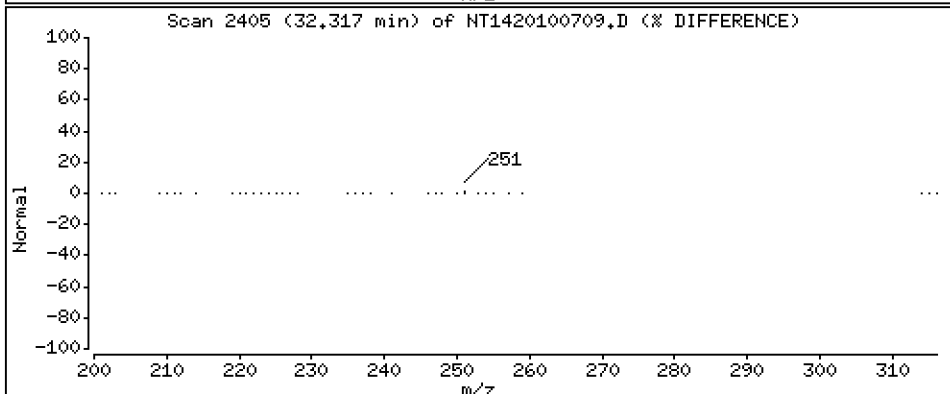
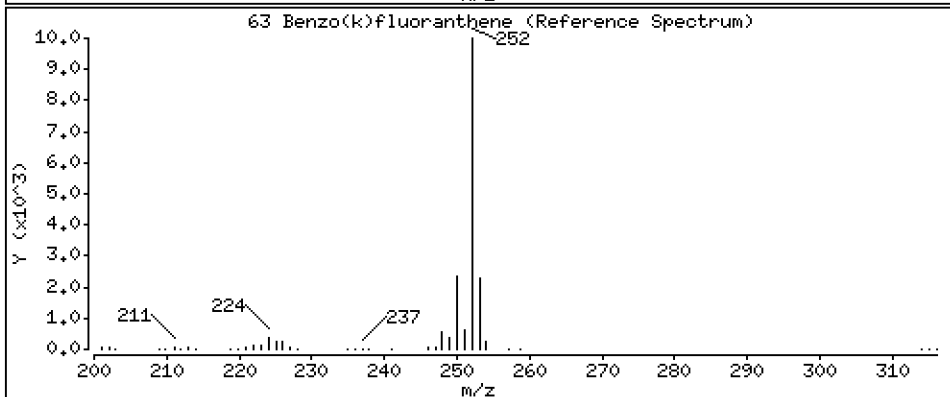
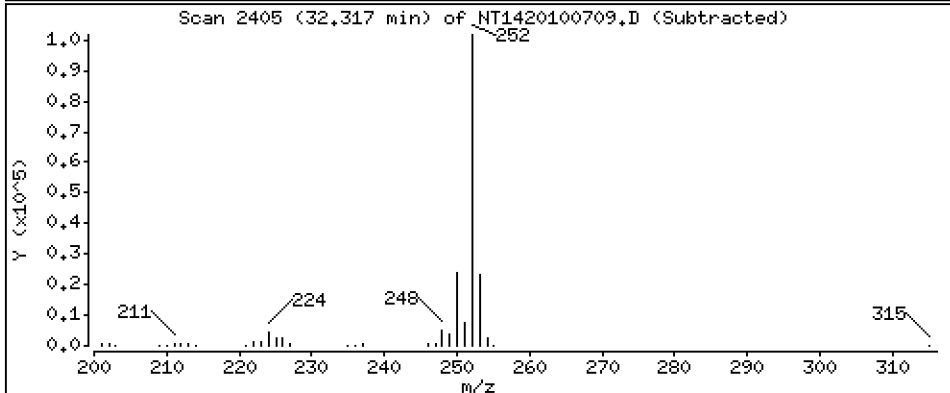
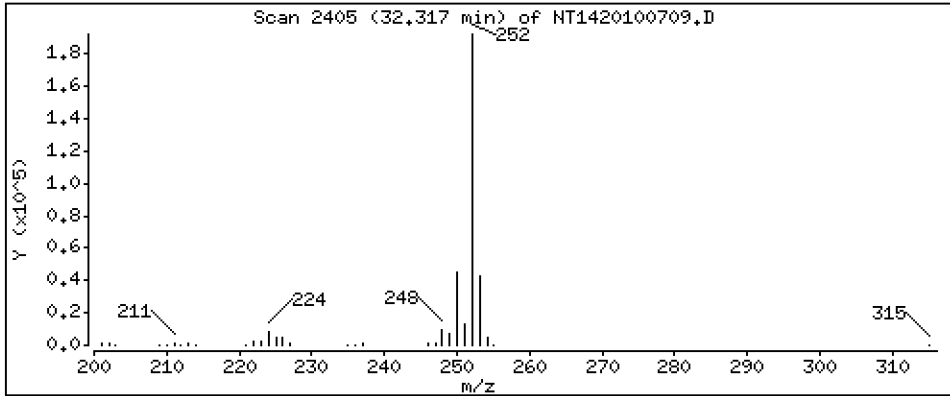
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

63 Benzo(k)fluoranthene

Concentration: 2,656 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

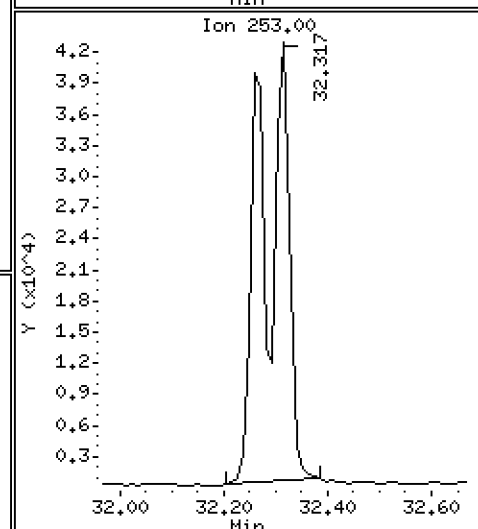
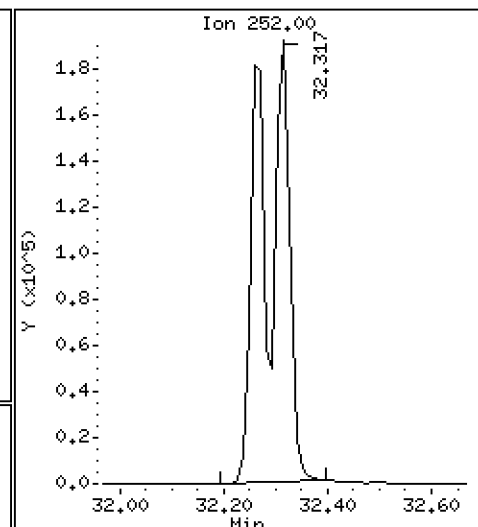
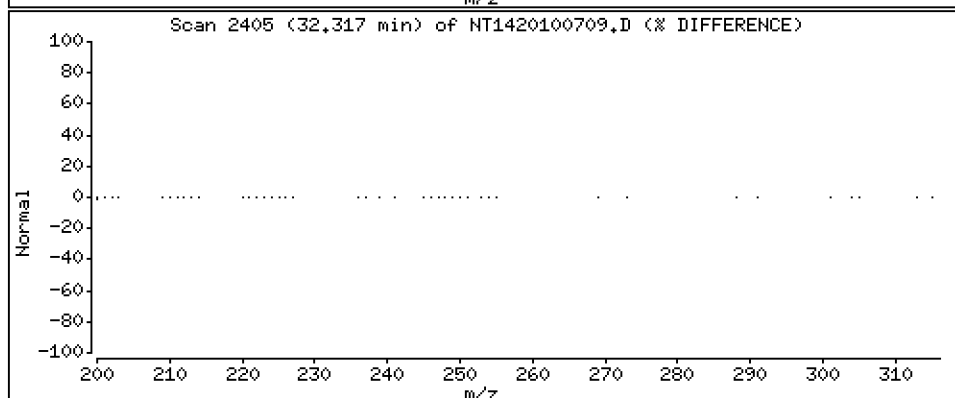
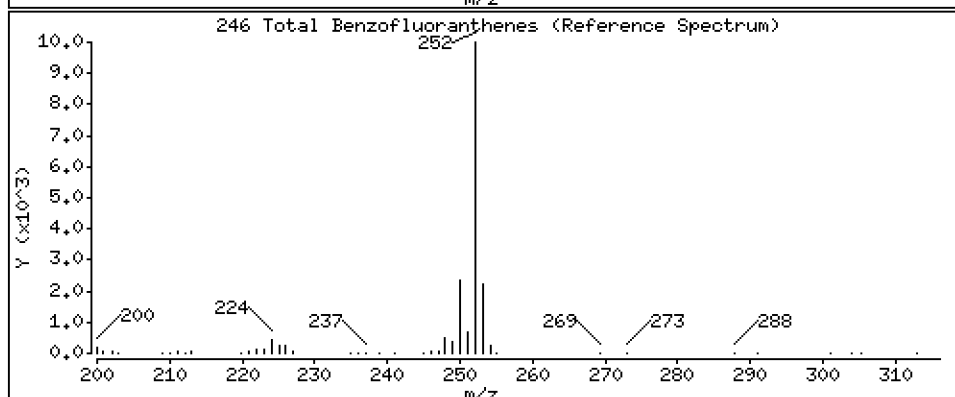
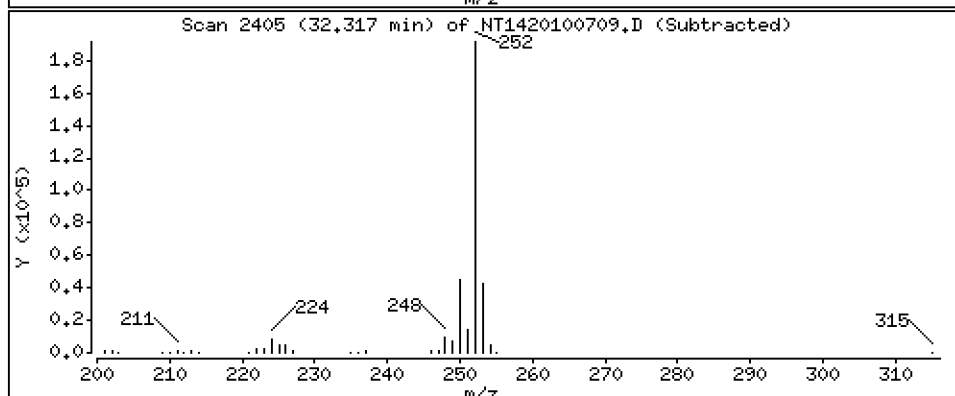
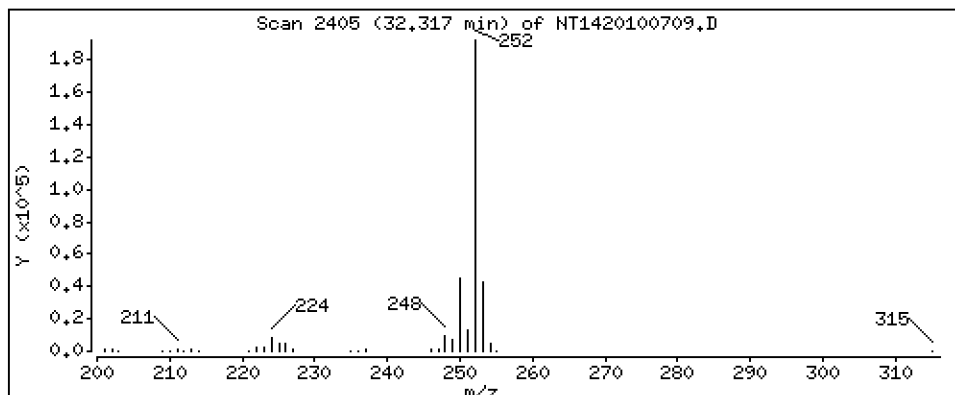
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

246 Total Benzofluoranthenes

Concentration: 5,207 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

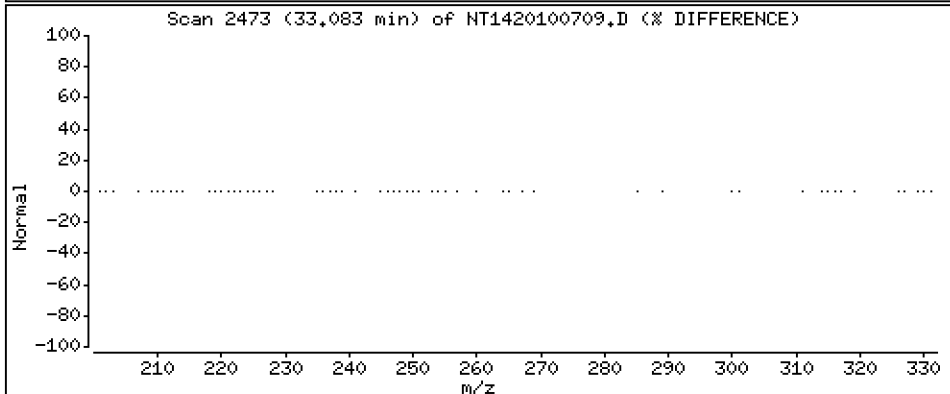
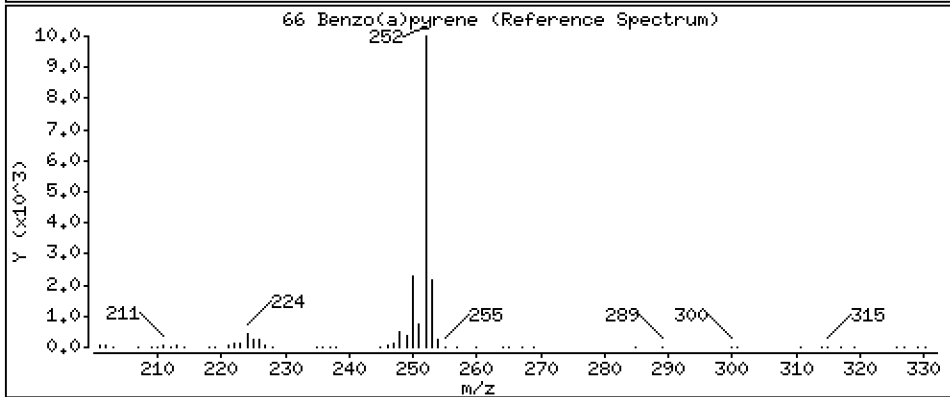
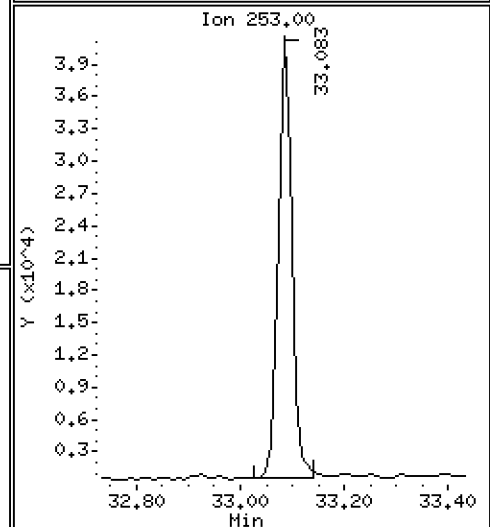
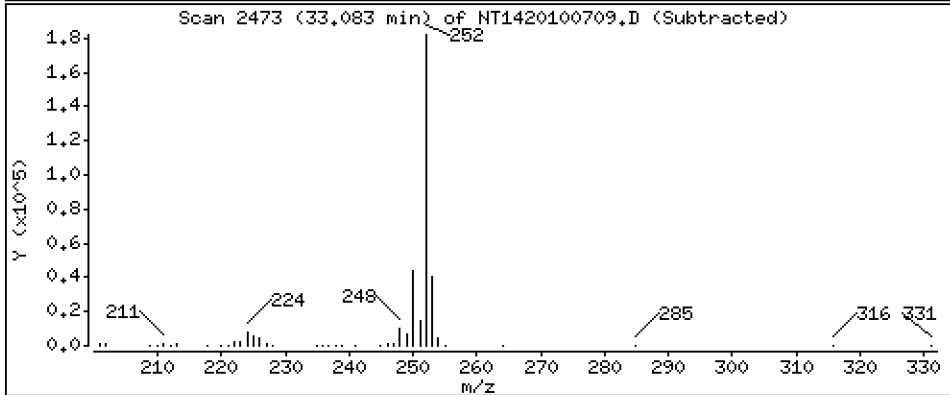
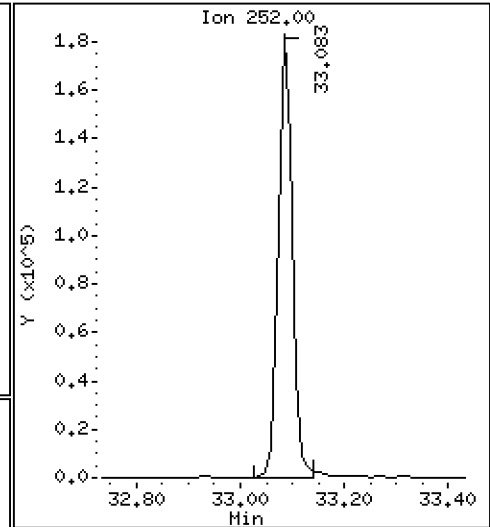
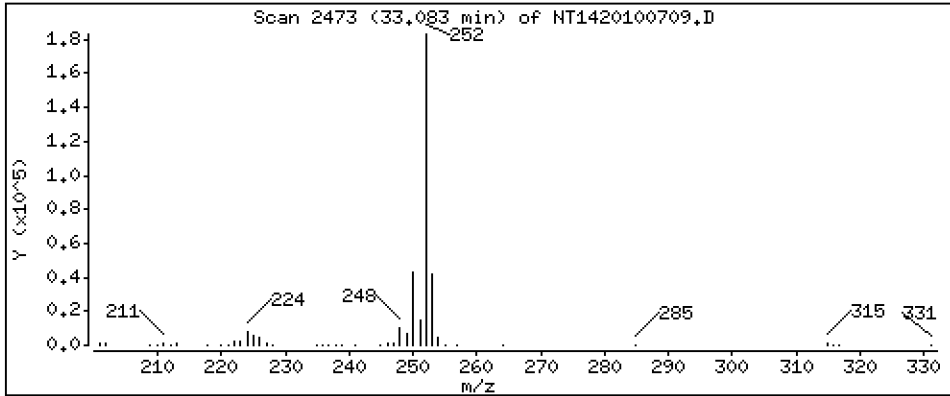
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

66 Benzo(a)pyrene

Concentration: 2,617 ug/mL





Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

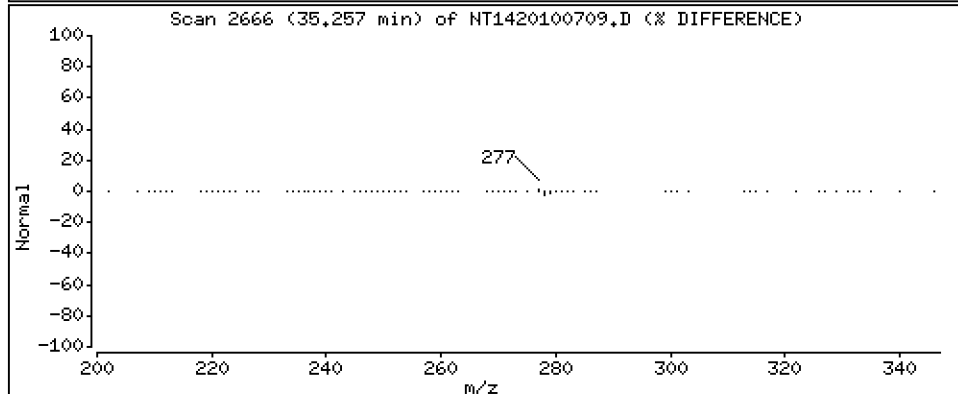
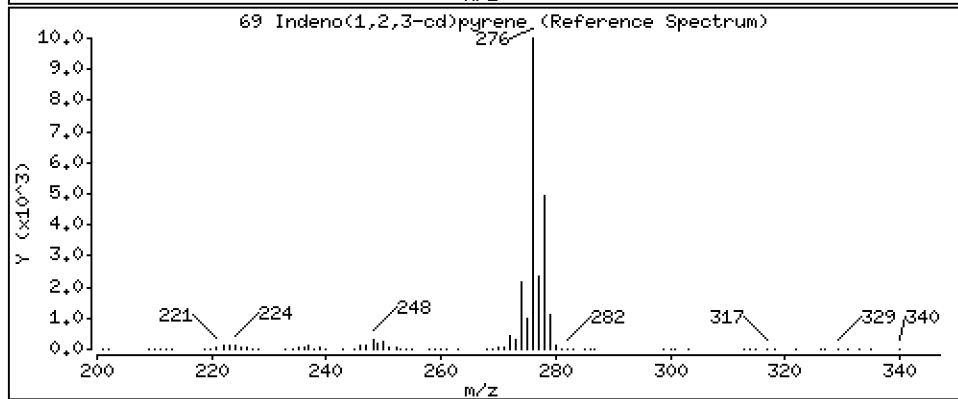
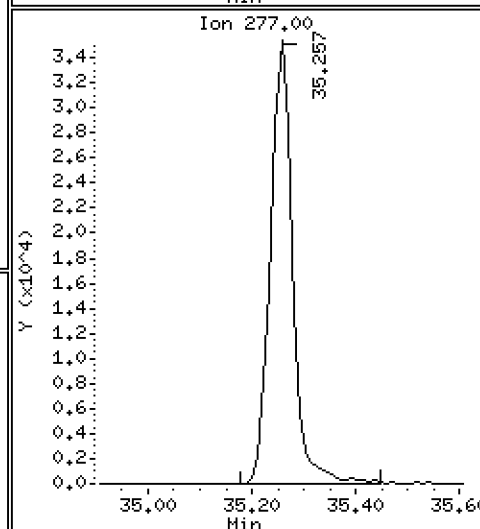
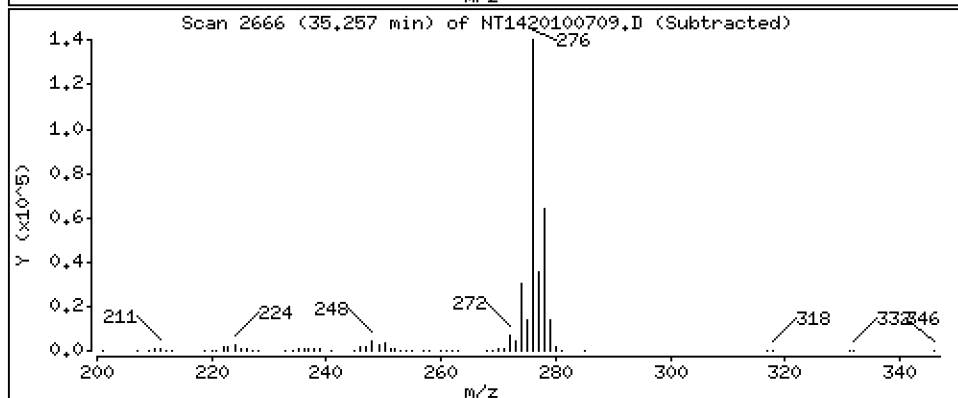
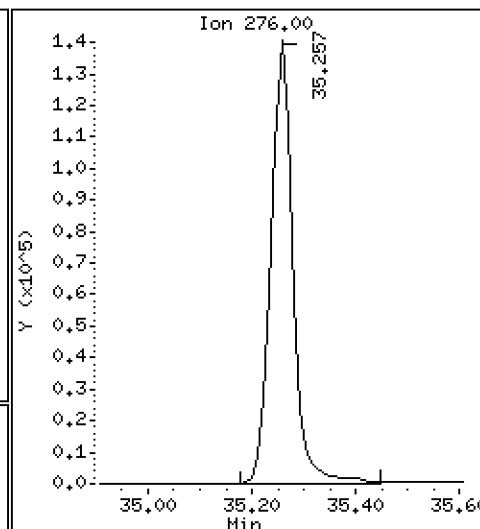
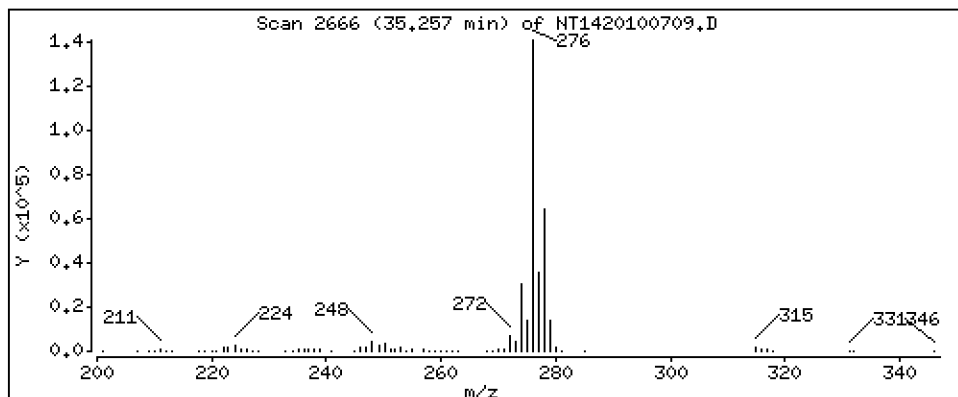
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

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

Concentration: 2,625 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

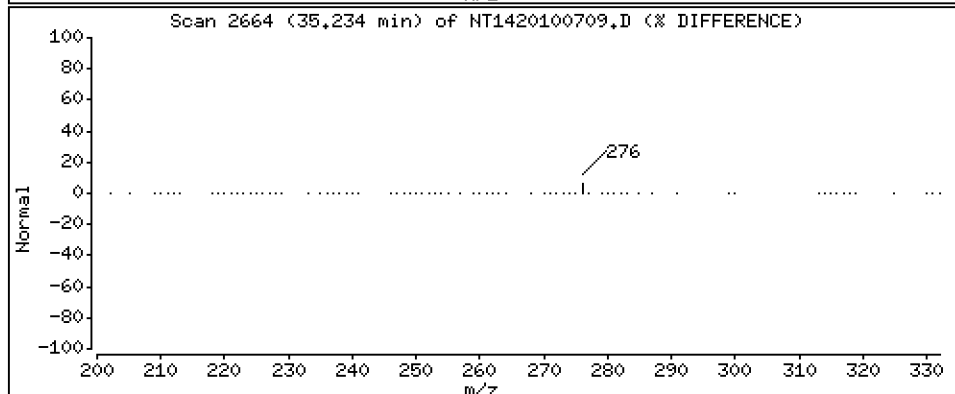
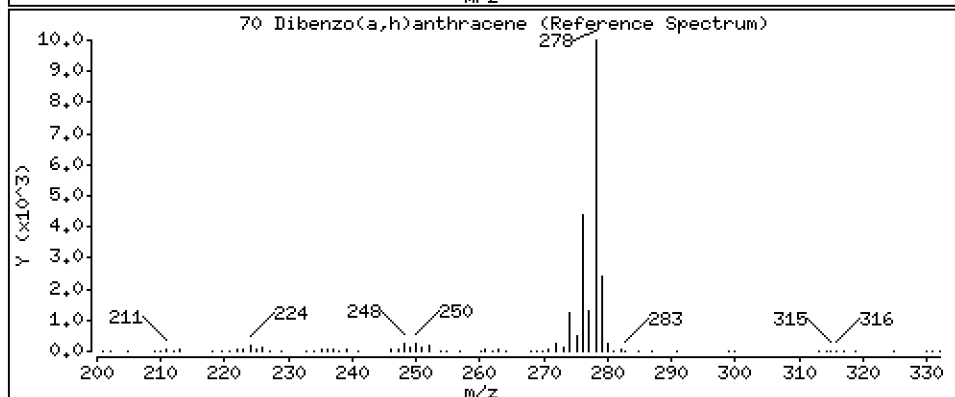
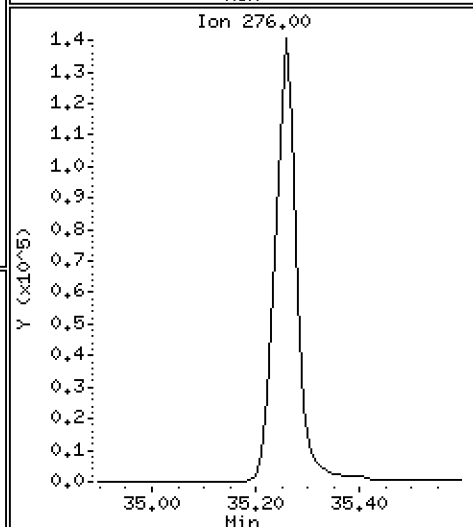
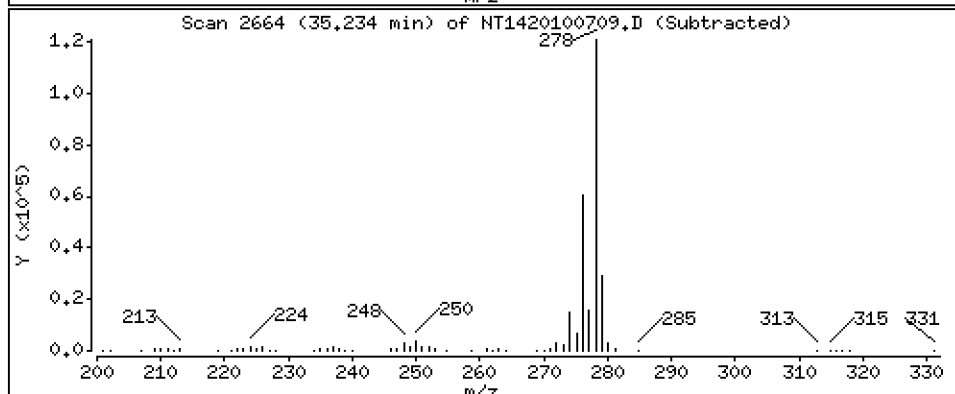
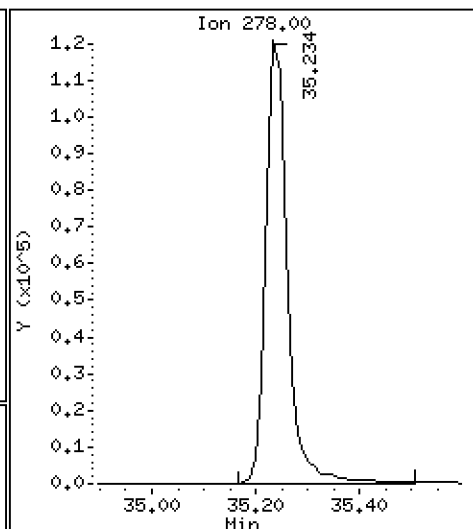
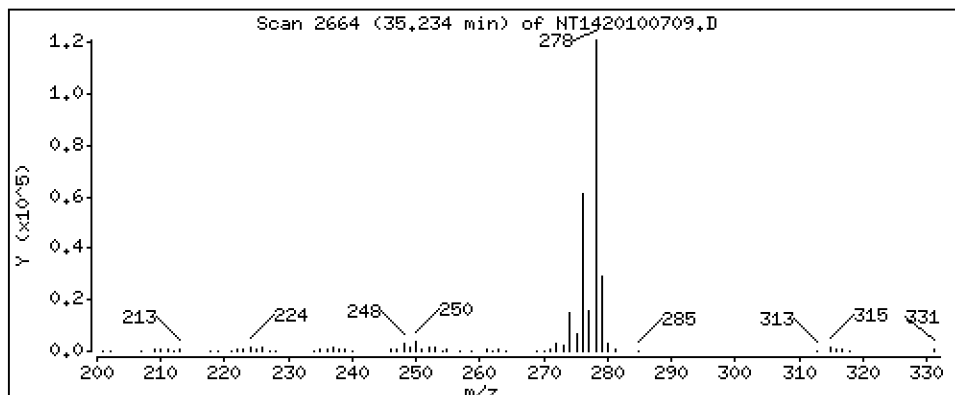
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

70 Dibenzo(a,h)anthracene

Concentration: 2,517 ug/mL



Date : 07-OCT-2020 16:45

Client ID:

Instrument: nt14.i

Sample Info: SIJ0085-SCV1

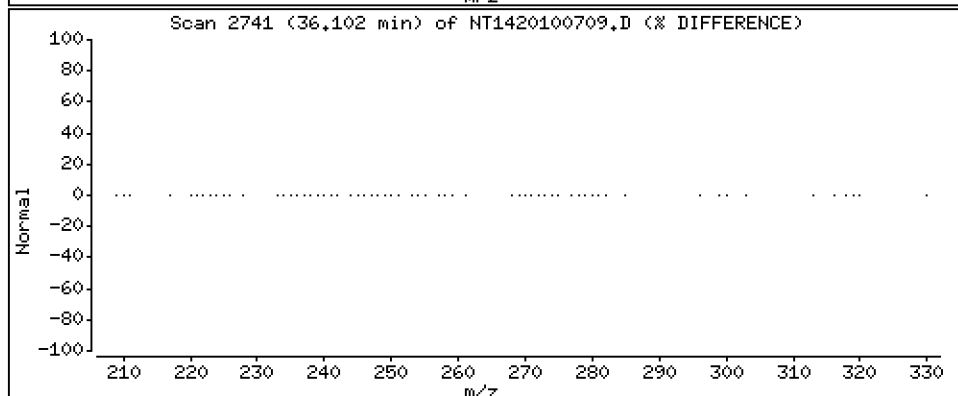
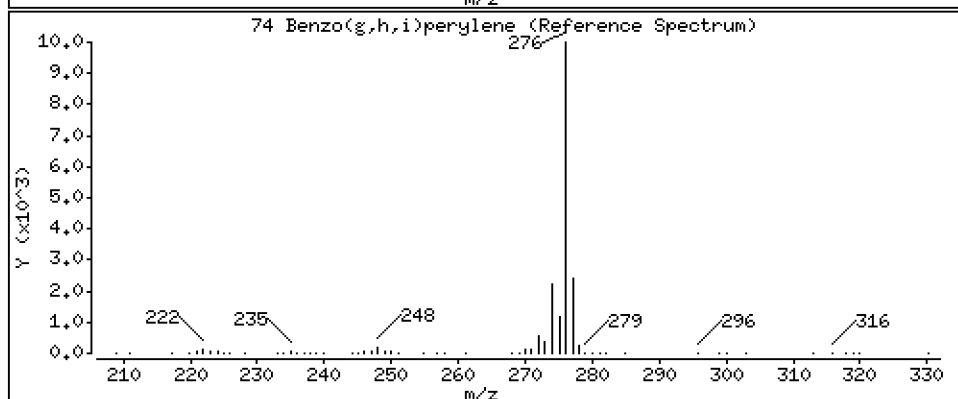
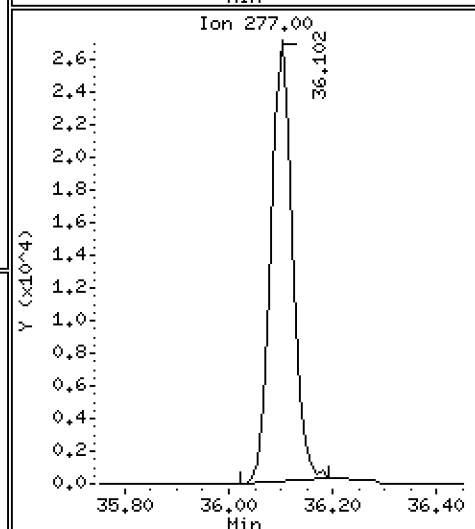
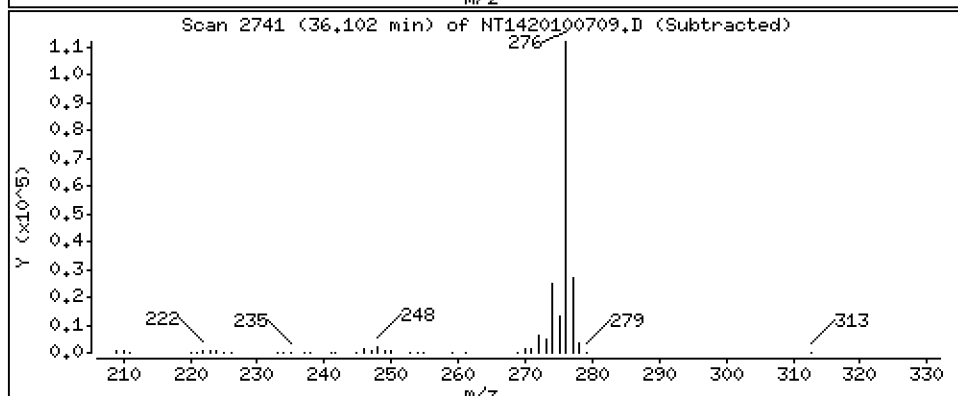
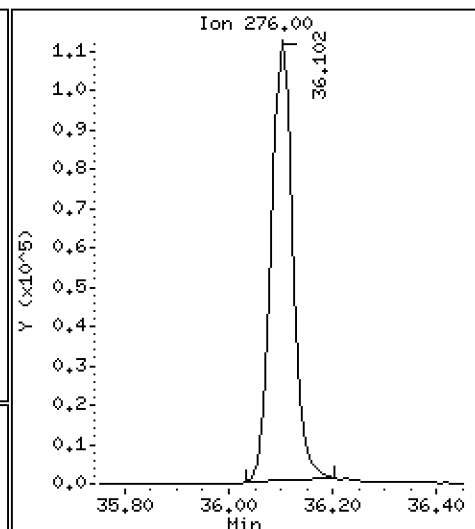
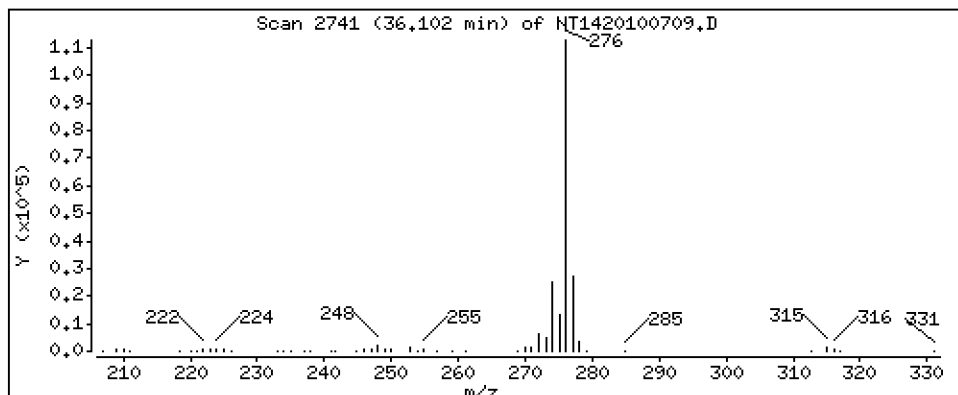
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

74 Benzo(g,h,i)perylene

Concentration: 2,329 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20201007.b\NT1420100709.D  
 Lab Smp Id: SIJ0085-SCV1  
 Inj Date : 07-OCT-2020 16:45  
 Operator : VTS  
 Smp Info : SIJ0085-SCV1  
 Misc Info :  
 Comment : 1ul Injection  
 Method : \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Meth Date : 09-Oct-2020 08:45 van  
 Cal Date : 07-OCT-2020 15:56  
 Als bottle: 9  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 4.14  
 Processing Host: VANS

Inst ID: nt14.i  
 Quant Type: ISTD  
 Cal File: NT1420100708.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							
7 Naphthalene	128		11.707	11.707	(0.628)	213173	2.75707	2.757
12 Benzo(b)thiophene	134							
16 2-Methylnaphthalene	141		13.542	13.542	(0.727)	132308	2.80714	2.807
17 1-methylnaphthalene	141		13.992	13.992	(0.751)	134040	2.83535	2.835
18 Biphenyl	154							
19 2,6-Dimethylnaphthalene	156							
20 Acenaphthylene	152		16.817	16.817	(0.903)	244094	2.87456	2.875
\$ 21 Acenaphthene-d10	164		17.135	17.103	(0.920)	20448	0.44062	0.4406(R)
22 Acenaphthene	153		17.223	17.223	(0.924)	150978	2.71407	2.714
23 Dibenzofuran	168		17.597	17.597	(0.944)	249328	3.08950	3.090
24 1,6,7-Trimethylnaphthalene	170							
* 25 Fluorene-d10	176		18.632	18.632	(1.000)	189405	2.00000	
26 Fluorene	166		18.746	18.746	(1.006)	186659	2.96697	2.967
30 Dibenzothiophene	184							
\$ 35 Phenanthrene-d10	188							
36 Phenanthrene	178		22.040	22.040	(0.999)	276406	2.45432	2.454
* 250 Anthracene-d10	188		22.072	22.072	(1.000)	203362	2.00000	
37 Anthracene	178		22.138	22.138	(1.003)	263969	2.38495	2.385
42 Carbazole	167		23.425	23.425	(1.061)	225622	2.35395	2.354
43 1-Methylphenanthrene	192							
44 Fluoranthene	202		25.843	25.843	(1.171)	302784	2.43596	2.436
46 Pyrene	202		26.701	26.701	(1.210)	327478	2.49671	2.497
51 Naphthobenzothiophene	234							
55 Benzo(a)anthracene	228		29.839	29.839	(0.906)	321298	2.58148	2.581
\$ 56 Chrysene-d12	240							
57 Chrysene	228		30.042	30.042	(0.912)	311187	2.51557	2.516
62 Benzo(b)fluoranthene	252		32.260	32.272	(0.980)	335486	2.38726	2.387
63 Benzo(k)fluoranthene	252		32.317	32.317	(0.982)	376214	2.65607	2.656
293 Benzo(j)fluoranthene	252							
246 Total Benzofluoranthenes	252		32.317	32.317	(0.982)	678991	5.20731	5.207(M)

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
							ON-COLUMN (ug/mL)	FINAL (ug/mL)	
* 251 Benzo(e)pyrene-d12	264		32.925	32.925	(1.000)	288304	2.00000		
64 Benzo(e)pyrene	252		Compound Not Detected.						
66 Benzo(a)pyrene	252		33.083	33.083	(1.005)	318127	2.61683	2.617	
\$ 67 Perylene-d12	264		Compound Not Detected.						
68 Perylene	252		Compound Not Detected.						
69 Indeno(1,2,3-cd)pyrene	276		35.256	35.256	(1.071)	395155	2.62484	2.625	
70 Dibenzo(a,h)anthracene	278		35.234	35.245	(1.070)	334739	2.51676	2.517	
74 Benzo(g,h,i)perylene	276		36.101	36.101	(1.096)	307983	2.32872	2.329 (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: 07-OCT-2020  
 Lab File ID: NT1420100709.D Calibration Time: 18:22  
 Lab Smp Id: SIJ0085-SCV1  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: VTS  
 Method File: \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Misc Info:

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	209596	104798	419192	189405	-9.63
250 Anthracene-d10	192407	96204	384814	203362	5.69
251 Benzo(e)pyrene-d1	274120	137060	548240	288304	5.17

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.63	18.13	19.13	18.63	0.00
250 Anthracene-d10	22.07	21.57	22.57	22.07	0.00
251 Benzo(e)pyrene-d1	32.93	32.43	33.43	32.93	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 - NT1420100709.D

Lab ID: SIJ0085-SCV1

nt14.i, 20201007.b\ALKYLPNA.m, 07-OCT-2020 16:45

RT CO-ELUTION COMPOUNDS

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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: NT1420100711.D

On Column LOD for nt14.i, 20201007.b\ALKYLPNA.m, TARGETS.sub = 0.0000

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

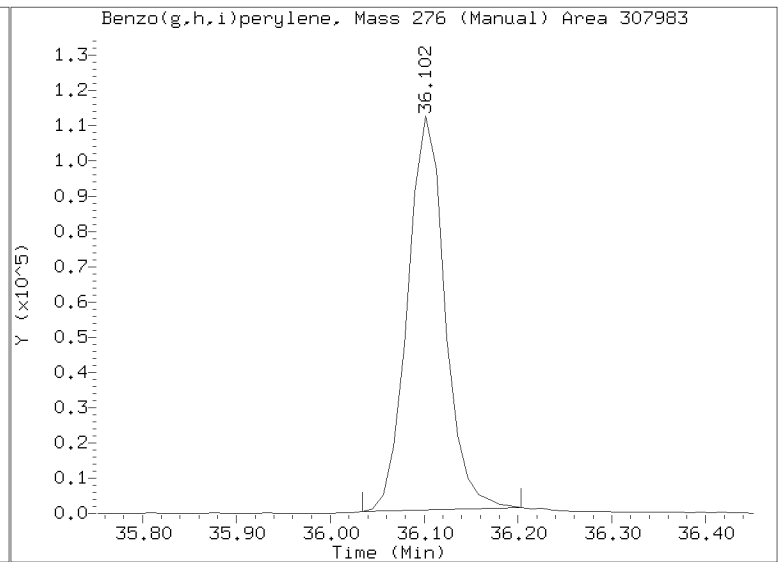
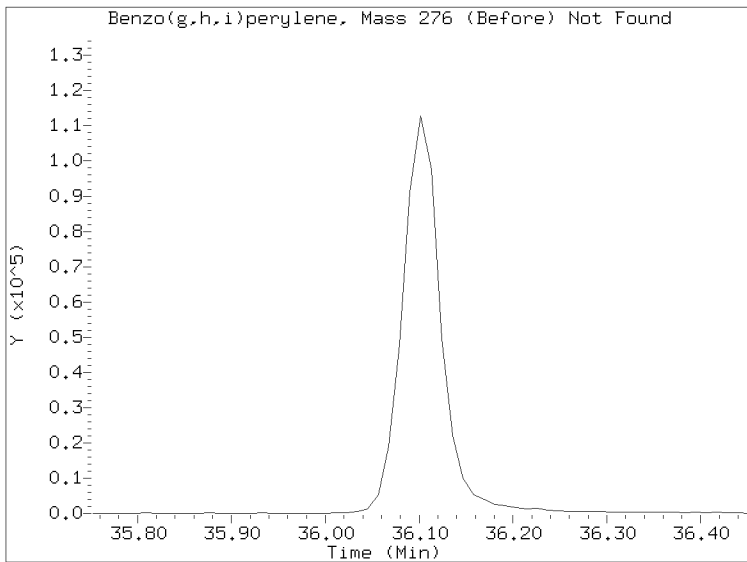
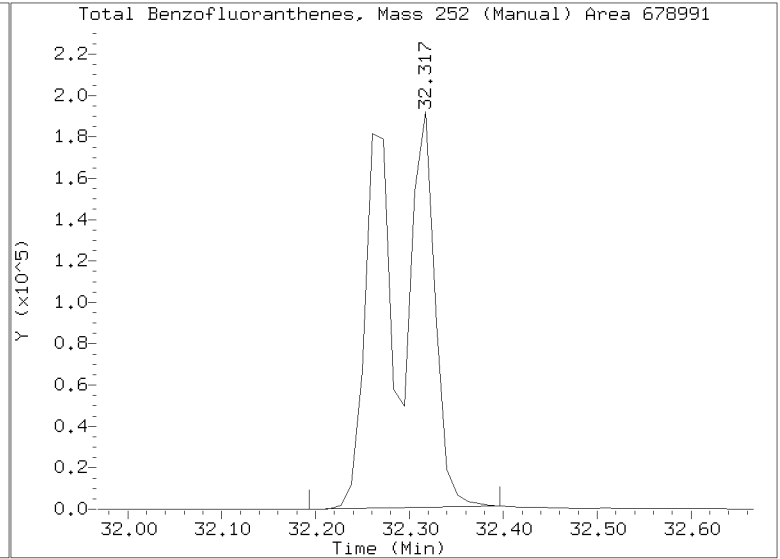
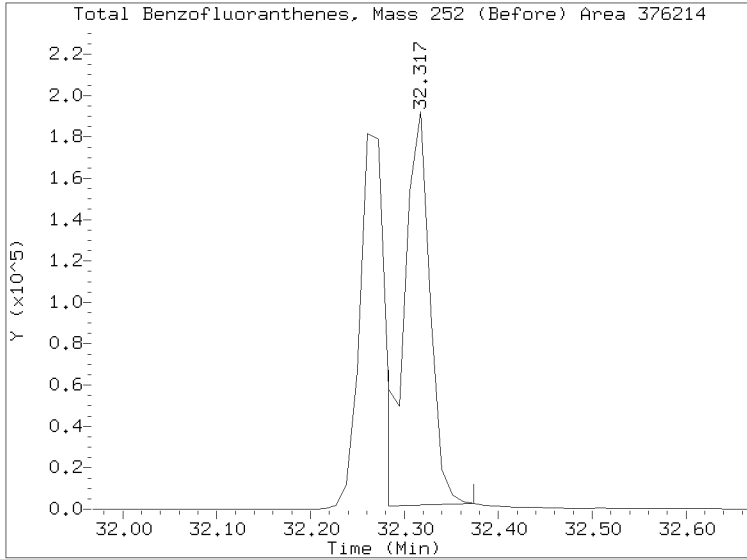
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201007.b/NT1420100709.D

Injection Date: 07-OCT-2020 16:45

Lab ID:SIJ0085-SCV1 Client ID:

Report Date: 10/09/2020 08:51







## INITIAL CALIBRATION CHECK EPA 8270E-SIM

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>20K0204</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic</u>
Instrument ID: <u>NT14</u>	Calibration: <u>DJ00029</u>
Lab File ID: <u>NT1420100711.D</u>	Calibration Date: <u>10/07/2020</u>
Sequence: <u>SIJ0085</u>	Injection Date: <u>10/07/20</u>
Lab Sample ID: <u>SIJ0085-ICV1</u>	Injection Time: <u>18:22</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	2.9	0.0835887	0.0955285		14.3	+/-20
cis-Decalin	A	2.5000	2.8	0.0628966	0.0713296		13.4	+/-20
Naphthalene	A	2.5000	2.6	0.8164379	0.8491651		4.0	+/-20
1-Methylnaphthalene	A	2.5000	2.6	0.5226651	0.5192618		3.8	+/-20
2-Methylnaphthalene	A	2.5000	2.7	0.4976918	0.5288803		6.3	+/-20
Biphenyl	A	2.5000	2.6	0.7490419	0.7738850		3.3	+/-20
2,6-Dimethylnaphthalene	A	2.5000	2.6	0.5468360	0.5738964		5.0	+/-20
Acenaphthylene	A	2.5000	2.6	0.8966517	0.9243612		3.1	+/-20
Acenaphthene	A	2.5000	2.6	0.5873971	0.6113323		4.1	+/-20
Dibenzofuran	A	2.5000	2.6	0.8521596	0.8977156		5.4	+/-20
2,3,5-Trimethylnaphthalene	A	2.5000	2.6	0.5544134	0.5829882		5.2	+/-20
Fluorene	A	2.5000	2.6	0.6643144	0.6937422		4.4	+/-20
Benzo(b)thiophene	A	2.5000	2.6	0.6860043	0.7008111		2.2	+/-20
Phenanthrene	A	2.5000	2.5	1.1075820	1.1120140		0.4	+/-20
Anthracene	A	2.5000	2.5	1.0885140	1.0878480		-0.08	+/-20
Carbazole	A	2.5000	2.6	0.9426380	0.9639982		2.3	+/-20
1-Methylphenanthrene	A	2.5000	2.6	0.8129613	0.8462769		4.1	+/-20
Fluoranthene	A	2.5000	2.5	1.2224260	1.2331190		0.9	+/-20
Dibenzothiophene	A	2.5000	2.6	0.9560816	0.9864234		3.2	+/-20
Pyrene	A	2.5000	2.5	1.2899540	1.2916370		0.1	+/-20
Benzo(a)anthracene	A	2.5000	2.5	0.8634119	0.8737341		1.2	+/-20
Chrysene	A	2.5000	2.5	0.8581534	0.8727973		1.7	+/-20
Benzo(b)fluoranthene	A	2.5000	2.5	0.9748863	0.9905005		1.6	+/-20
Benzo(j)fluoranthene	A	2.5000	2.5	0.8589085	0.8672435		1.0	+/-20
Benzo(k)fluoranthene	A	2.5000	2.5	0.9825948	0.9804553		-0.2	+/-20
Benzo(a)fluoranthene, Total	A	7.5000	7.7	0.9045439	0.9266316		2.4	+/-20
Benzo(e)pyrene	A	2.5000	2.6	0.8926013	0.9121144		2.2	+/-20
Benzo(a)pyrene	A	2.5000	2.5	0.8433439	0.8549599		1.4	+/-20
Indeno(1,2,3-cd)pyrene	A	2.5000	2.5	1.0443470	1.0404350		-0.4	+/-20
Dibenzo(a,h)anthracene	A	2.5000	2.5	0.9226661	0.9252211		0.3	+/-20
Benzo(g,h,i)perylene	A	2.5000	2.6	0.9174617	0.9596381		4.6	+/-20

\* Values outside of QC limits



## INITIAL CALIBRATION CHECK

### EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.                              SDG: 20K0204  
Client: Anchor QEA, LLC    Project: Gasco Siltronic  
Instrument ID: NT14    Calibration: DJ00029  
Lab File ID: NT1420100711.D    Calibration Date: 10/07/2020  
Sequence: SIJ0085    Injection Date: 10/07/20  
Lab Sample ID: SIJ0085-ICV1    Injection Time: 18:22  
Sequence Name: Initial Cal Check

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Perylene	A	2.5000	2.6	0.8858103	0.9126193		3.0	+/-20
Benzo(b)naphtho(2,1-d)thiophene	A	2.5000	2.6	1.1757640	1.2120270		3.1	+/-20
Naphthalene-d8	A	2.5000	2.64	0.8160533	0.8602073		5.4	+/-20
Acenaphthene-d10	A	2.5000	2.60	0.4900295	0.5103609		4.2	+/-20
Phenanthrene-d10	A	2.5000	2.62	0.9579158	1.0053270		5.0	+/-20
Chrysene-d12	A	2.5000	2.49	0.6819030	0.6789698		-0.4	+/-20
Perylene-d12	A	2.5000	2.54	0.8269999	0.8397694		1.6	+/-20

\* Values outside of QC limits

Data File: \\target\share\chem3\nt14,i\20201007,b\NT1420100711.D

Date : 07-OCT-2020 18:22

Client ID:

Sample Info: S1J0085-ICW1

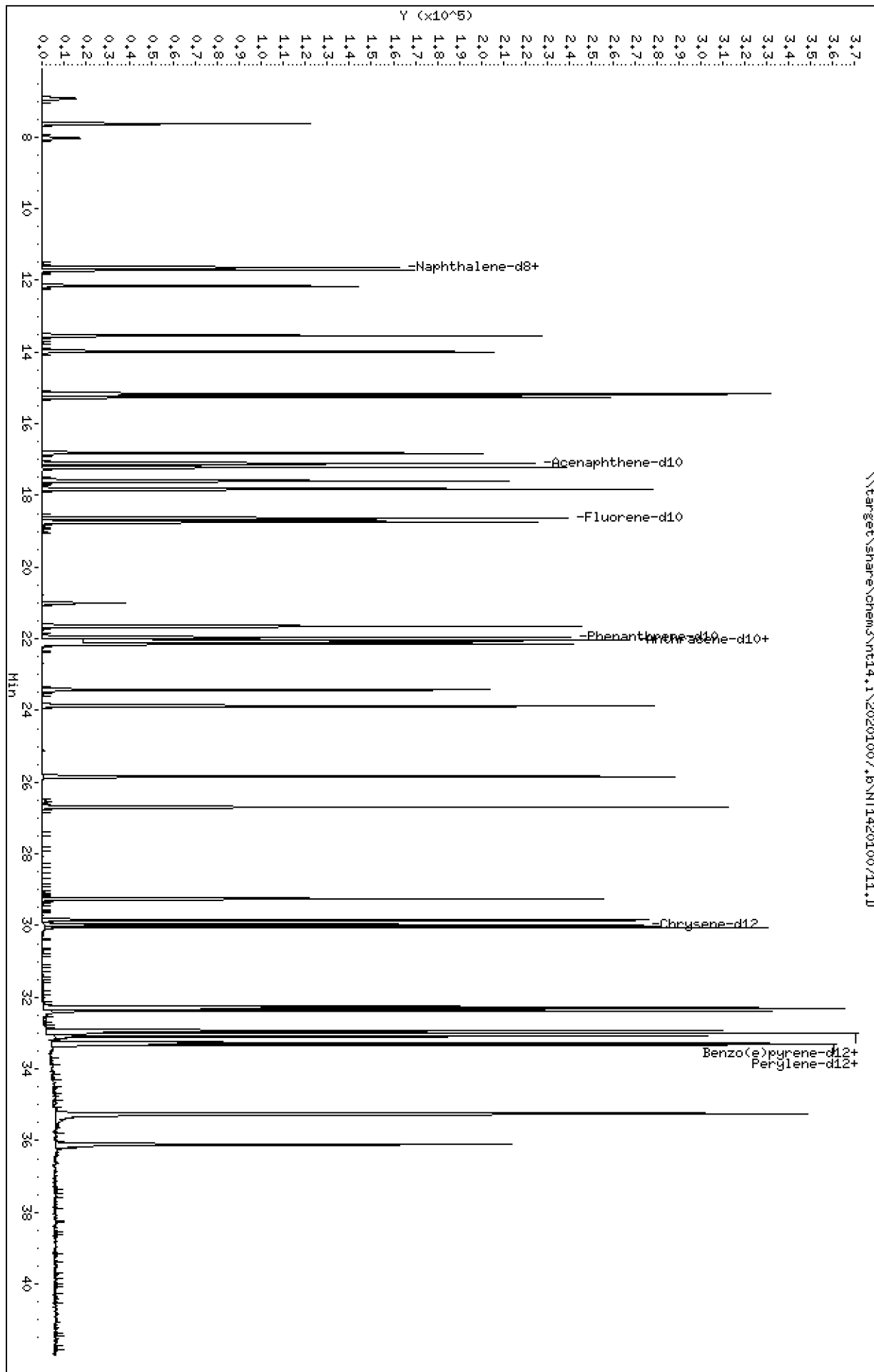
Column phase: Rxi-17S11 MS

Instrument: nt14,i

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt14,i\20201007,b\NT1420100711.D



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20201007.b\NT1420100711.D  
 Lab Smp Id: SIJ0085-ICV1  
 Inj Date : 07-OCT-2020 18:22  
 Operator : VTS  
 Smp Info : SIJ0085-ICV1  
 Misc Info :  
 Comment : 1ul Injection  
 Method : \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Meth Date : 09-Oct-2020 08:45 van  
 Cal Date : 07-OCT-2020 15:56  
 Als bottle: 2  
 Dil Factor: 1.00000  
 Integrator: HP RTE  
 Target Version: 4.14  
 Processing Host: VANS

Inst ID: nt14.i  
 Quant Type: ISTD  
 Cal File: NT1420100708.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	6.934	6.934	(0.372)	25028	2.50000	2.857
2 cis-Decalin	138	8.034	8.034	(0.431)	18688	2.50000	2.835
\$ 6 Naphthalene-d8	136	11.641	11.641	(0.625)	225370	2.50000	2.635
7 Naphthalene	128	11.707	11.707	(0.628)	222477	2.50000	2.600
12 Benzo(b)thiophene	134	12.157	12.157	(0.652)	183609	2.50000	2.554
16 2-Methylnaphthalene	141	13.542	13.542	(0.727)	138564	2.50000	2.657
17 1-methylnaphthalene	141	13.992	13.992	(0.751)	136044	2.50000	2.594
18 Biphenyl	154	15.179	15.179	(0.815)	202754	2.50000	2.583
19 2,6-Dimethylnaphthalene	156	15.256	15.256	(0.819)	150358	2.50000	2.624
20 Acenaphthylene	152	16.817	16.817	(0.903)	242178	2.50000	2.577
\$ 21 Acenaphthene-d10	164	17.103	17.103	(0.918)	133712	2.50000	2.604
22 Acenaphthene	153	17.223	17.223	(0.924)	160166	2.50000	2.602
23 Dibenzofuran	168	17.597	17.597	(0.944)	235197	2.50000	2.634
24 1,6,7-Trimethylnaphthalene	170	17.828	17.828	(0.957)	152740	2.50000	2.629
* 25 Fluorene-d10	176	18.632	18.632	(1.000)	209596	2.00000	
26 Fluorene	166	18.746	18.746	(1.006)	181757	2.50000	2.611
30 Dibenzothiophene	184	21.648	21.648	(1.162)	258438	2.50000	2.579
\$ 35 Phenanthrene-d10	188	21.963	21.963	(0.995)	241790	2.50000	2.624
36 Phenanthrene	178	22.040	22.040	(0.999)	267449	2.50000	2.510
* 250 Anthracene-d10	188	22.072	22.072	(1.000)	192407	2.00000	
37 Anthracene	178	22.138	22.138	(1.003)	261637	2.50000	2.498
42 Carbazole	167	23.425	23.425	(1.061)	231850	2.50000	2.557
43 1-Methylphenanthrene	192	23.875	23.875	(1.082)	203537	2.50000	2.602
44 Fluoranthene	202	25.843	25.843	(1.171)	296576	2.50000	2.522
46 Pyrene	202	26.701	26.701	(1.210)	310650	2.50000	2.503
51 Naphthobenzothiophene	234	29.256	29.256	(1.325)	291503	2.50000	2.577
55 Benzo(a)anthracene	228	29.839	29.839	(0.906)	299385	2.50000	2.530
\$ 56 Chrysene-d12	240	29.974	29.974	(0.910)	232649	2.50000	2.489
57 Chrysene	228	30.042	30.042	(0.912)	299064	2.50000	2.543
62 Benzo(b)fluoranthene	252	32.272	32.272	(0.980)	339395	2.50000	2.540 (M)
63 Benzo(k)fluoranthene	252	32.317	32.317	(0.982)	335953	2.50000	2.495 (M)
293 Benzo(j)fluoranthene	252	32.373	32.373	(0.983)	297161	2.50000	2.524 (M)
246 Total Benzofluoranthenes	252	32.317	32.317	(0.982)	952531	7.50000	7.683 (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	32.925	32.925	(1.000)	274120	2.00000		
64 Benzo(e)pyrene	252	32.993	32.993	(1.002)	312536	2.50000	2.555	
66 Benzo(a)pyrene	252	33.083	33.083	(1.005)	292952	2.50000	2.534	
\$ 67 Perylene-d12	264	33.263	33.263	(1.010)	287747	2.50000	2.539	
68 Perylene	252	33.319	33.319	(1.012)	312709	2.50000	2.576	
69 Indeno(1,2,3-cd)pyrene	276	35.256	35.256	(1.071)	356505	2.50000	2.491 (M)	
70 Dibenzo(a,h)anthracene	278	35.245	35.245	(1.070)	317027	2.50000	2.507 (M)	
74 Benzo(g,h,i)perylene	276	36.101	36.101	(1.096)	328820	2.50000	2.615	

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS  
 AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 07-OCT-2020  
 Lab File ID: NT1420100711.D Calibration Time: 10:24  
 Lab Smp Id: SIJ0085-ICV1  
 Analysis Type: SV Level:  
 Quant Type: ISTD Sample Type:  
 Operator: VTS  
 Method File: \\target\share\chem3\nt14.i\20201007.b\ALKYLPNA.m  
 Misc Info:

Test Mode:  
 Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	209596	104798	419192	209596	0.00
250 Anthracene-d10	192407	96204	384814	192407	0.00
251 Benzo(e)pyrene-d1	274120	137060	548240	274120	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.63	18.13	19.13	18.63	0.00
250 Anthracene-d10	22.07	21.57	22.57	22.07	0.00
251 Benzo(e)pyrene-d1	32.93	32.43	33.43	32.93	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 - NT1420100711.D

Lab ID: SIJ0085-ICV1

nt14.i, 20201007.b\ALKYLPNA.m, 07-OCT-2020 18:22

RT CO-ELUTION COMPOUNDS

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NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

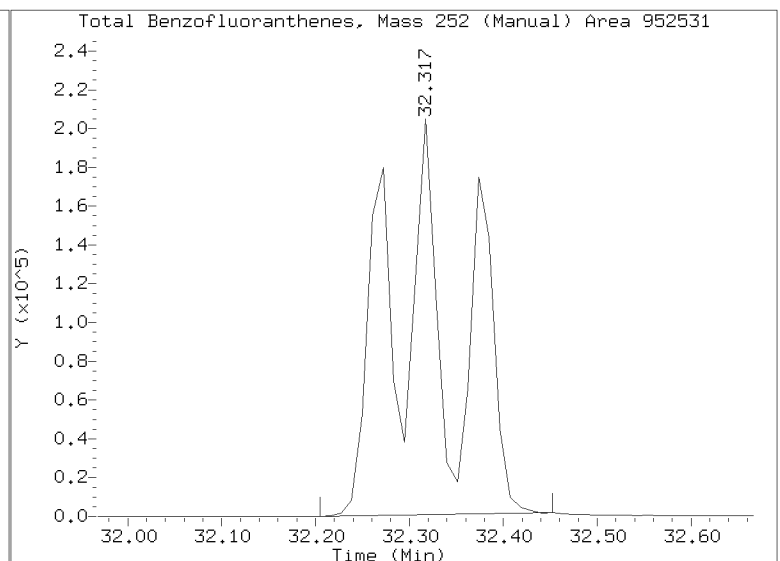
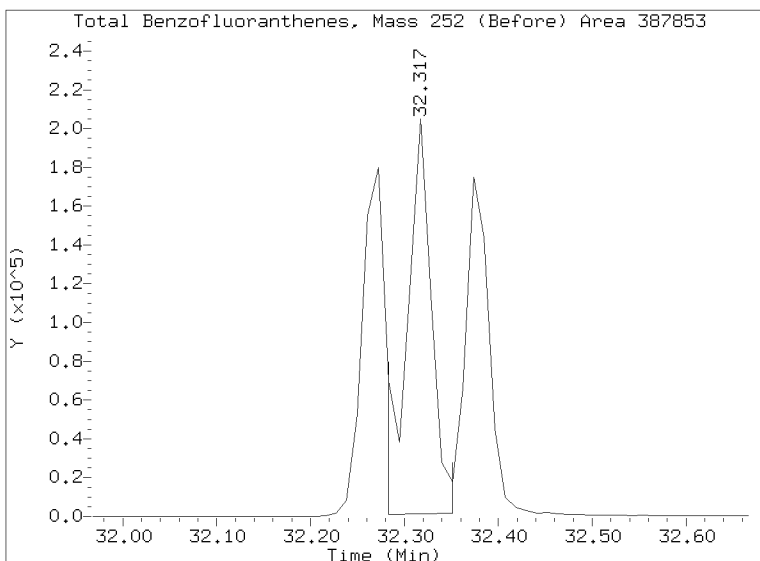
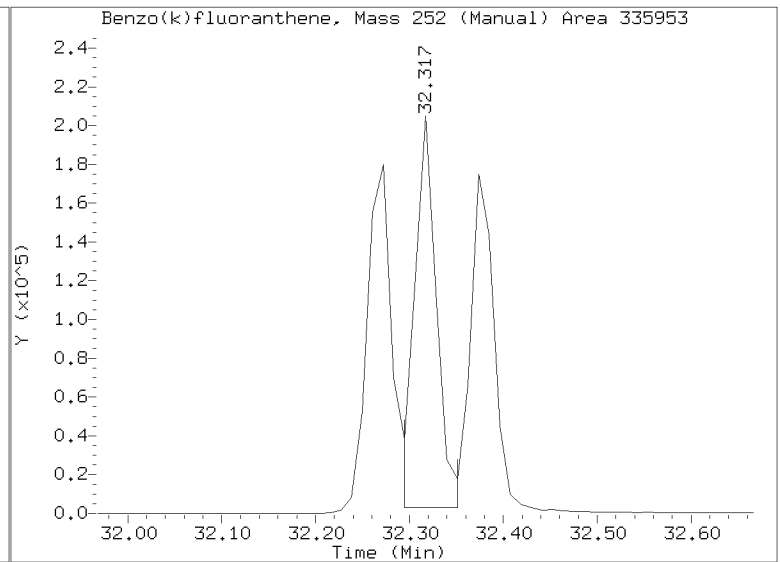
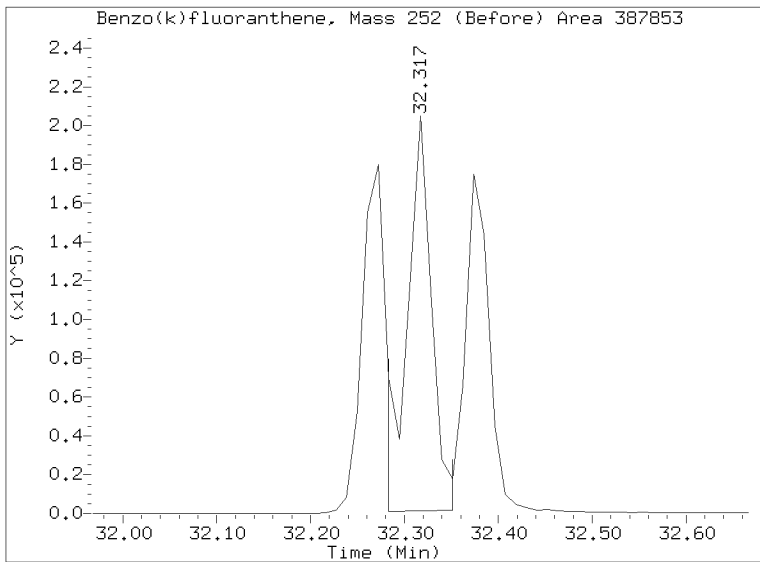
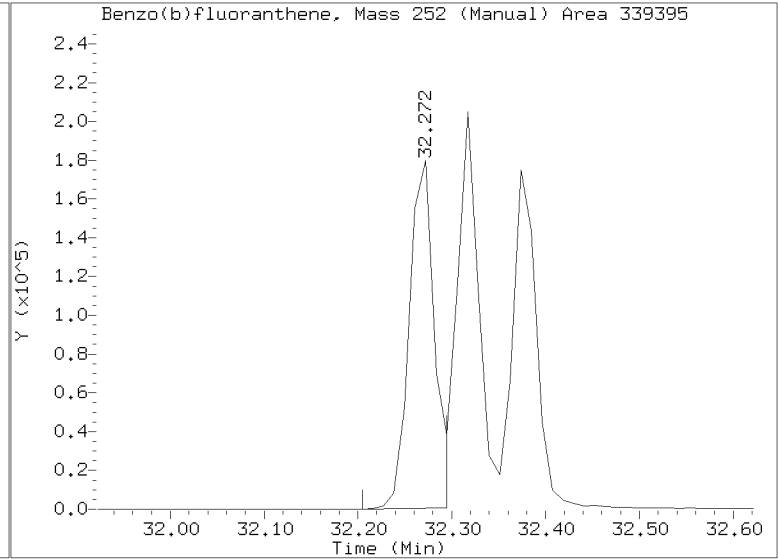
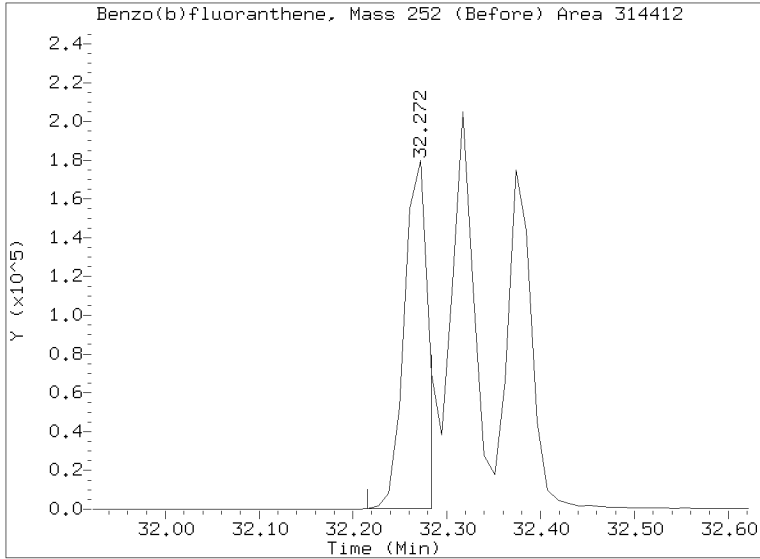
No RRT check. Ccal file.

On Column LOD for nt14.i, 20201007.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/20201007.b/NT1420100711.D  
Injection Date: 07-OCT-2020 18:22  
Lab ID:SIJ0085-ICV1 Client ID:  
Report Date: 10/09/2020 08:51





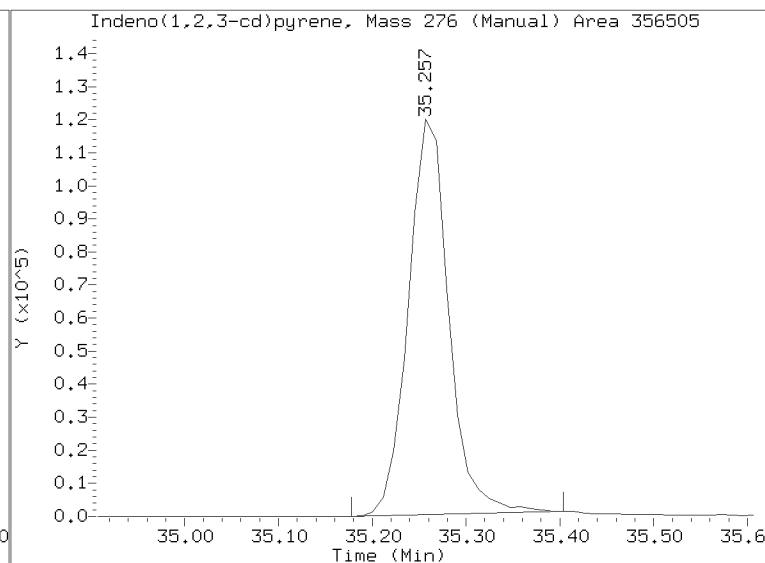
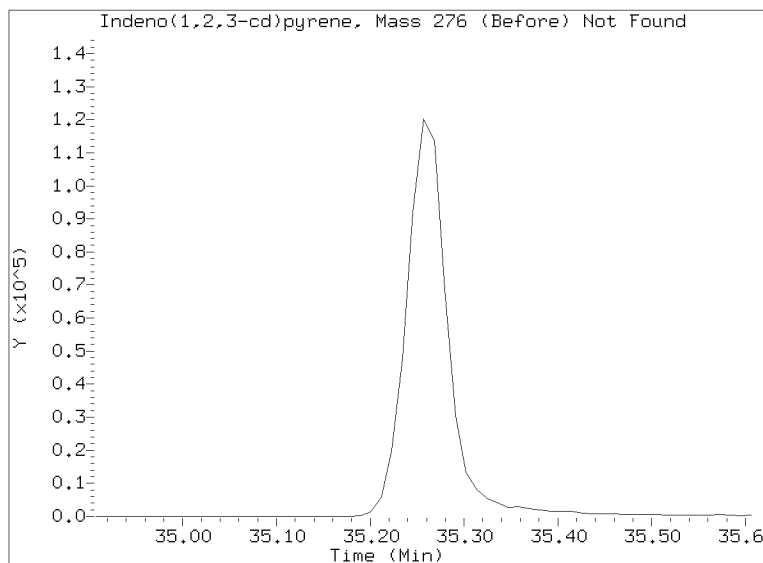
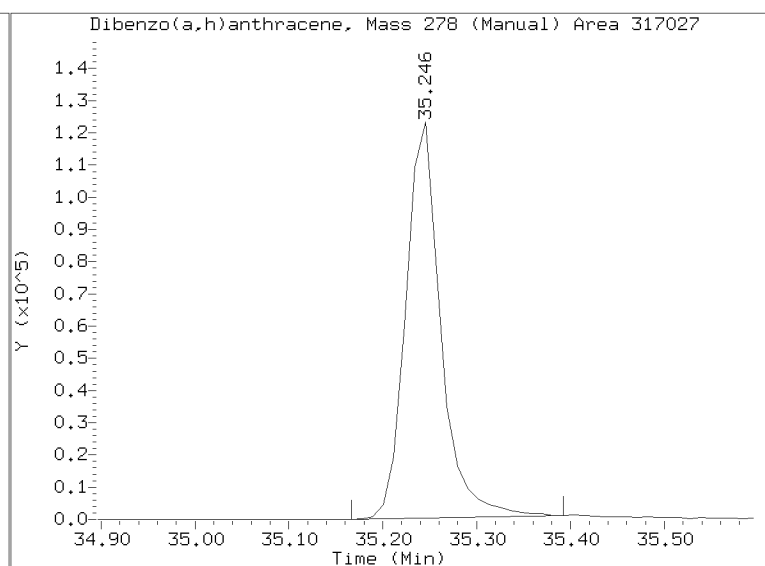
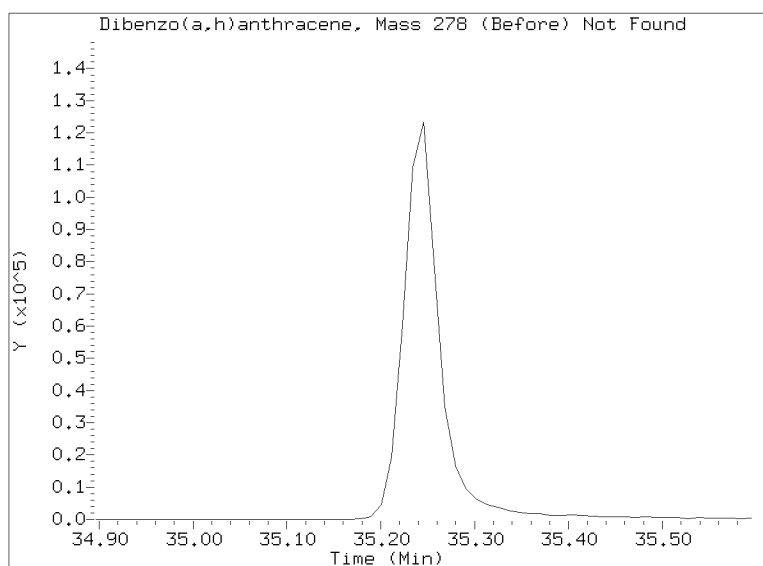
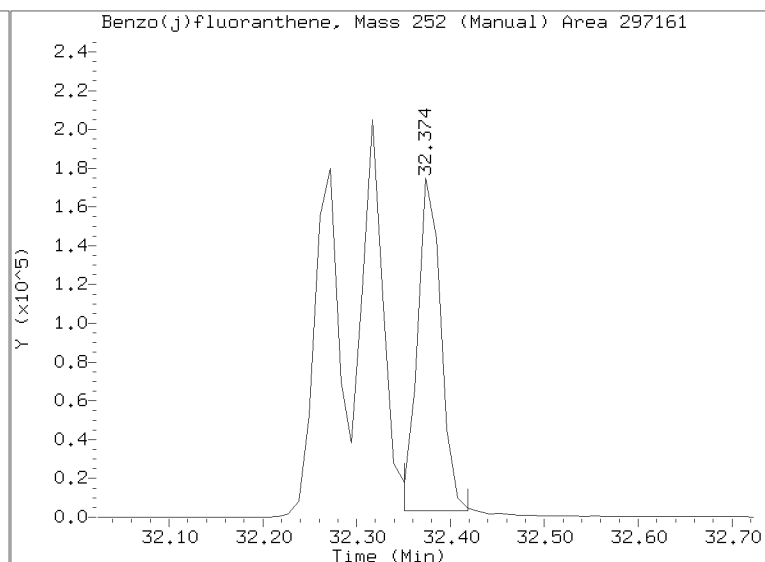
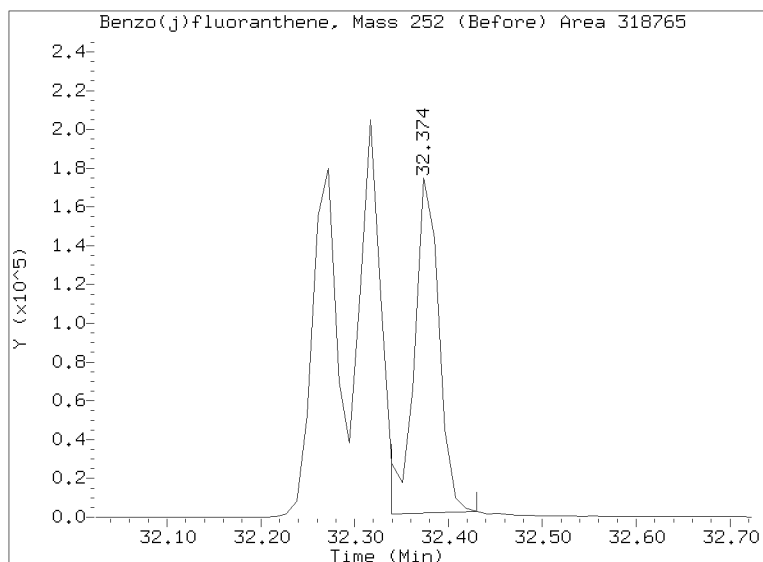
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201007.b/NT1420100711.D

Injection Date: 07-OCT-2020 18:22

Lab ID:SIJ0085-ICV1 Client ID:

Report Date: 10/09/2020 08:51



Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20201007.b

Instrument: nt14.i Date: 07-OCT-2020 Method: 20201007.b\ALKYLPNA.m

INITIAL CAL: 07-OCT-2020

Compound	%RSD or R <sup>2</sup>
-----	
NO Q-FLAGS	
-----	

ICV CAL: NT1420100711.D 07-OCT-2020 18:22

Compound	%D
-----	
NO Q-FLAGS	
-----	



## INITIAL CALIBRATION CHECK EPA 8270E-SIM

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>20K0204</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic</u>
Instrument ID: <u>NT14</u>	Calibration: <u>DJ00029</u>
Lab File ID: <u>NT1420121991ICV.D</u>	Calibration Date: <u>10/07/2020</u>
Sequence: <u>SIL0350</u>	Injection Date: <u>12/22/20</u>
Lab Sample ID: <u>SIL0350-ICV1</u>	Injection Time: <u>09:54</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	2.5	0.0835887	0.0821795		-1.7	+/-20
cis-Decalin	A	2.5000	2.5	0.0628966	0.0639768		1.7	+/-20
Naphthalene	A	2.5000	2.4	0.8164379	0.7933311		-2.8	+/-20
1-Methylnaphthalene	A	2.5000	2.4	0.5226651	0.4785490		-4.6	+/-20
2-Methylnaphthalene	A	2.5000	2.5	0.4976918	0.4900495		-1.5	+/-20
Biphenyl	A	2.5000	2.4	0.7490419	0.7091291		-5.3	+/-20
2,6-Dimethylnaphthalene	A	2.5000	2.5	0.5468360	0.5394191		-1.4	+/-20
Acenaphthylene	A	2.5000	2.5	0.8966517	0.8885295		-0.9	+/-20
Acenaphthene	A	2.5000	2.4	0.5873971	0.5716733		-2.7	+/-20
Dibenzofuran	A	2.5000	2.4	0.8521596	0.8215220		-3.6	+/-20
2,3,5-Trimethylnaphthalene	A	2.5000	2.5	0.5544134	0.5444299		-1.8	+/-20
Fluorene	A	2.5000	2.4	0.6643144	0.6474420		-2.5	+/-20
Benzo(b)thiophene	A	2.5000	2.4	0.6860043	0.6581377		-4.1	+/-20
Phenanthrene	A	2.5000	2.4	1.1075820	1.0713210		-3.3	+/-20
Anthracene	A	2.5000	2.3	1.0885140	1.0099710		-7.2	+/-20
Carbazole	A	2.5000	2.4	0.9426380	0.9066932		-3.8	+/-20
1-Methylphenanthrene	A	2.5000	2.4	0.8129613	0.7725091		-5.0	+/-20
Fluoranthene	A	2.5000	2.4	1.2224260	1.1900930		-2.6	+/-20
Dibenzothiophene	A	2.5000	2.3	0.9560816	0.8959910		-6.3	+/-20
Pyrene	A	2.5000	2.4	1.2899540	1.2459020		-3.4	+/-20
Benzo(a)anthracene	A	2.5000	2.4	0.8634119	0.8329968		-3.5	+/-20
Chrysene	A	2.5000	2.4	0.8581534	0.8194005		-4.5	+/-20
Benzo(b)fluoranthene	A	2.5000	2.6	0.9748863	1.0174330		4.4	+/-20
Benzo(j)fluoranthene	A	2.5000	2.6	0.8589085	0.8783892		2.3	+/-20
Benzo(k)fluoranthene	A	2.5000	2.6	0.9825948	1.0090950		2.7	+/-20
Benzo(a)fluoranthene, Total	A	7.5000	7.7	0.9045439	0.9312048		2.9	+/-20
Benzo(e)pyrene	A	2.5000	2.6	0.8926013	0.9312379		4.3	+/-20
Benzo(a)pyrene	A	2.5000	2.7	0.8433439	0.9216404		9.3	+/-20
Indeno(1,2,3-cd)pyrene	A	2.5000	2.4	1.0443470	1.0198440		-2.4	+/-20
Dibenzo(a,h)anthracene	A	2.5000	2.5	0.9226661	0.9302925		0.8	+/-20
Benzo(g,h,i)perylene	A	2.5000	2.3	0.9174617	0.8577337		-6.5	+/-20

\* Values outside of QC limits



**INITIAL CALIBRATION CHECK**  
**EPA 8270E-SIM**

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>20K0204</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic</u>
Instrument ID:	<u>NT14</u>	Calibration:	<u>DJ00029</u>
Lab File ID:	<u>NT1420121991ICV.D</u>	Calibration Date:	<u>10/07/2020</u>
Sequence:	<u>SIL0350</u>	Injection Date:	<u>12/22/20</u>
Lab Sample ID:	<u>SIL0350-ICV1</u>	Injection Time:	<u>09:54</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	2.7	0.8858103	0.9389092		6.0	+/-20
Benzo(b)naphtho(2,1-d)thiophene	A	2.5000	2.4	1.1757640	1.1096540		-5.6	+/-20
Naphthalene-d8	A	2.5000	2.65	0.8160533	0.8641803		5.9	+/-20
Acenaphthene-d10	A	2.5000	2.45	0.4900295	0.4810058		-1.8	+/-20
Phenanthrene-d10	A	2.5000	2.43	0.9579158	0.9307448		-2.8	+/-20
Chrysene-d12	A	2.5000	2.31	0.6819030	0.6290276		-7.8	+/-20
Perylene-d12	A	2.5000	2.52	0.8269999	0.8321649		0.6	+/-20

\* Values outside of QC limits

Data File: \\target\share\chem3\nt14.1\20201219F JB\NT142012191ICV.D

Date : 22-DEC-2020 09:54

Client ID:

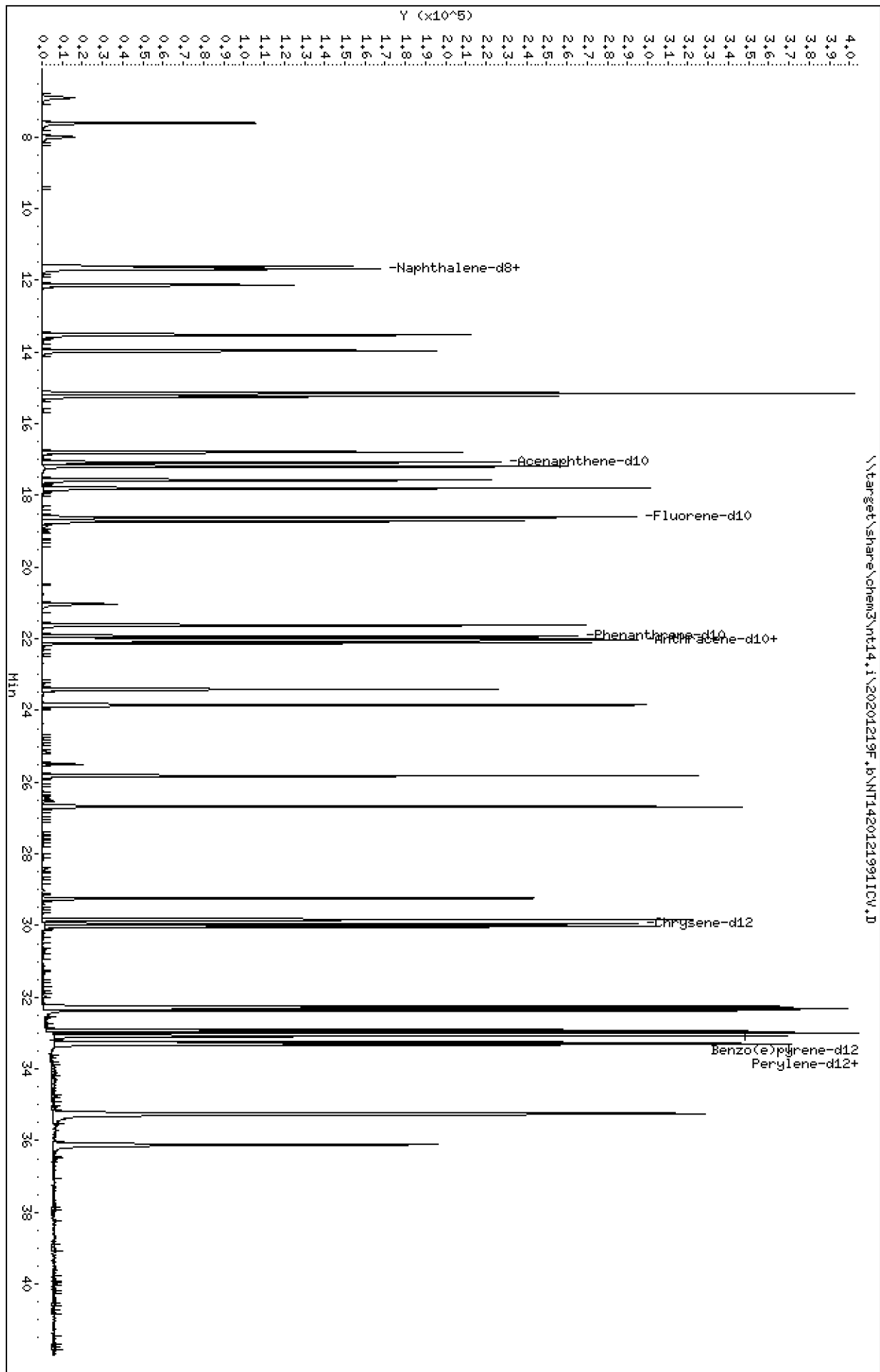
Sample Info: SIL0350-ICV1

Column phase: Rxi-17S11 MS

Instrument: nt14.1

Operator: VTS

Column diameter: 0.25



ARI Labs, Inc.

Semivolatle Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20201219F.b\NT1420121991ICV.D

Lab Smp Id: SIL0350-ICV1

Inj Date : 22-DEC-2020 09:54

Operator : VTS

Inst ID: nt14.i

Smp Info : SIL0350-ICV1

Misc Info :

Comment : 1ul Injection

Method : \\target\share\chem3\nt14.i\20201219F.b\ALKYLPNA.m

Meth Date : 23-Dec-2020 11:48 van

Quant Type: ISTD

Cal Date : 07-OCT-2020 15:56

Cal File: NT1420100708.D

Als bottle: 2

Continuing Calibration Sample

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: TARGETS.sub

Target Version: 4.14

Processing Host: VANS-202011

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
1 trans-Decalin	138	6.904	6.904	(0.371)	27061	2.50000	2.458
2 cis-Decalin	138	7.993	7.993	(0.430)	21067	2.50000	2.543
\$ 6 Naphthalene-d8	136	11.608	11.608	(0.624)	284567	2.50000	2.647
7 Naphthalene	128	11.674	11.674	(0.627)	261237	2.50000	2.429
12 Benzo(b)thiophene	134	12.135	12.135	(0.652)	216719	2.50000	2.398
16 2-Methylnaphthalene	141	13.520	13.520	(0.727)	161369	2.50000	2.462
17 1-methylnaphthalene	141	13.960	13.960	(0.750)	157582	2.50000	2.386
18 Biphenyl	154	15.146	15.146	(0.814)	233510	2.50000	2.367
19 2,6-Dimethylnaphthalene	156	15.234	15.234	(0.819)	177626	2.50000	2.466
20 Acenaphthylene	152	16.795	16.795	(0.902)	292585	2.50000	2.477
\$ 21 Acenaphthene-d10	164	17.070	17.070	(0.917)	158391	2.50000	2.454
22 Acenaphthene	153	17.191	17.191	(0.924)	188247	2.50000	2.433
23 Dibenzofuran	168	17.575	17.575	(0.944)	270520	2.50000	2.410
24 1,6,7-Trimethylnaphthalene	170	17.795	17.795	(0.956)	179276	2.50000	2.455
* 25 Fluorene-d10	176	18.610	18.610	(1.000)	263433	2.00000	
26 Fluorene	166	18.712	18.712	(1.005)	213197	2.50000	2.437
30 Dibenzothiophene	184	21.626	21.626	(1.162)	295042	2.50000	2.343
\$ 35 Phenanthrene-d10	188	21.930	21.930	(0.995)	275490	2.50000	2.429
36 Phenanthrene	178	22.018	22.018	(0.999)	317099	2.50000	2.418
* 250 Anthracene-d10	188	22.051	22.051	(1.000)	236791	2.00000	
37 Anthracene	178	22.117	22.117	(1.003)	298940	2.50000	2.320
42 Carbazole	167	23.403	23.403	(1.061)	268371	2.50000	2.405
43 1-Methylphenanthrene	192	23.843	23.843	(1.081)	228654	2.50000	2.376
44 Fluoranthene	202	25.822	25.822	(1.171)	352254	2.50000	2.434
46 Pyrene	202	26.679	26.679	(1.210)	368773	2.50000	2.415
51 Naphthobenzothiophene	234	29.245	29.245	(1.326)	328445	2.50000	2.359
55 Benzo(a)anthracene	228	29.828	29.828	(0.906)	352468	2.50000	2.412
\$ 56 Chrysene-d12	240	29.952	29.952	(0.910)	266162	2.50000	2.306
57 Chrysene	228	30.030	30.030	(0.912)	346715	2.50000	2.387
62 Benzo(b)fluoranthene	252	32.261	32.261	(0.980)	430509	2.50000	2.609 (M)
63 Benzo(k)fluoranthene	252	32.306	32.306	(0.982)	426981	2.50000	2.567 (M)
293 Benzo(j)fluoranthene	252	32.362	32.362	(0.983)	371675	2.50000	2.557
246 Total Benzofluoranthenes	252	32.306	32.306	(0.982)	1182069	7.50000	7.721 (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		32.914	32.914	(1.000)	338506	2.00000	
64 Benzo(e)pyrene	252		32.981	32.981	(1.002)	394037	2.50000	2.608
66 Benzo(a)pyrene	252		33.083	33.083	(1.005)	389976	2.50000	2.732
\$ 67 Perylene-d12	264		33.252	33.252	(1.010)	352116	2.50000	2.516
68 Perylene	252		33.308	33.308	(1.012)	397283	2.50000	2.650 (M)
69 Indeno(1,2,3-cd)pyrene	276		35.268	35.268	(1.072)	431529	2.50000	2.441 (M)
70 Dibenzo(a,h)anthracene	278		35.234	35.234	(1.070)	393637	2.50000	2.521 (M)
74 Benzo(g,h,i)perylene	276		36.113	36.113	(1.097)	362935	2.50000	2.337 (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: NT1420121991ICV.D  
Lab Smp Id: SIL0350-ICV1  
Analysis Type: SV  
Quant Type: ISTD  
Operator: VTS  
Method File: \\target\share\chem3\nt14.i\20201219F.b\ALKYLPNA.m  
Misc Info:

Calibration Date: 21-DEC-2020  
Calibration Time: 21:56  
Level:  
Sample Type:

Test Mode:  
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	263433	131717	526866	263433	0.00
250 Anthracene-d10	236791	118396	473582	236791	0.00
251 Benzo(e)pyrene-d1	338506	169253	677012	338506	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
25 Fluorene-d10	18.61	18.11	19.11	18.61	0.00
250 Anthracene-d10	22.05	21.55	22.55	22.05	0.00
251 Benzo(e)pyrene-d1	32.91	32.41	33.41	32.91	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 - NT1420121991ICV.D

Lab ID: SIL0350-ICV1

nt14.i, 20201219F.b\ALKYLPNA.m, 22-DEC-2020 09:54

RT CO-ELUTION COMPOUNDS

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NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

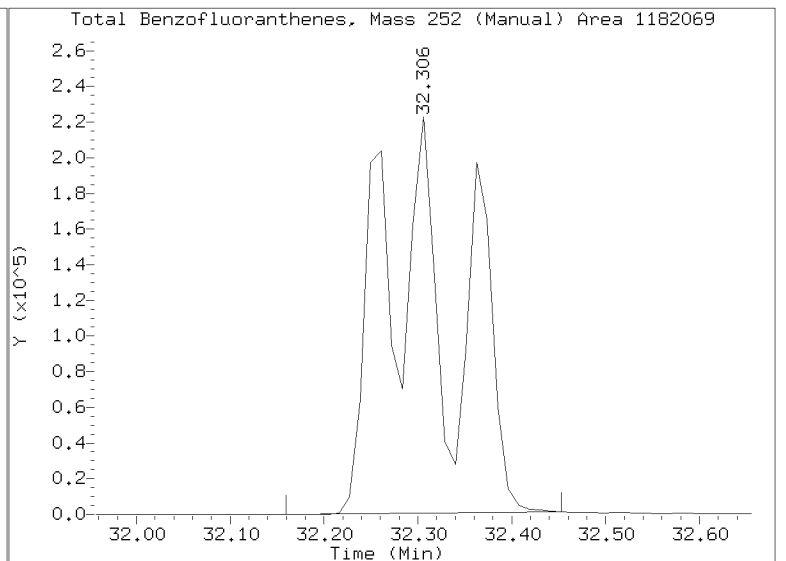
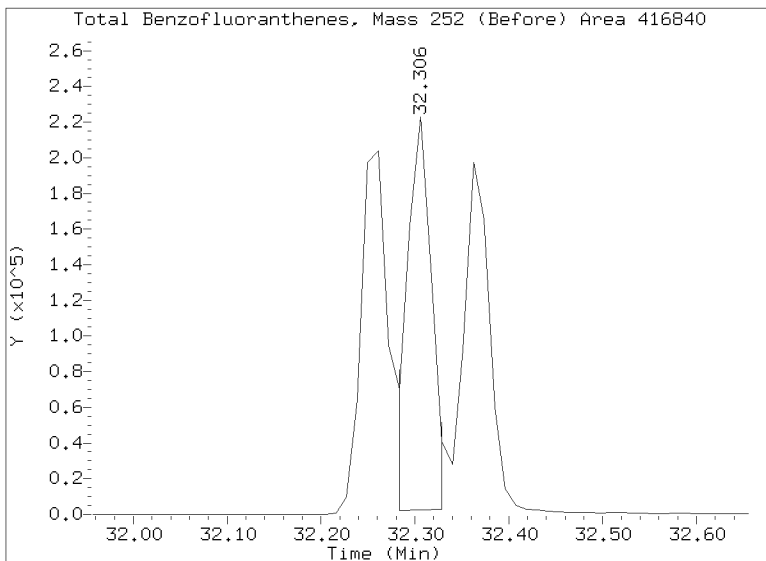
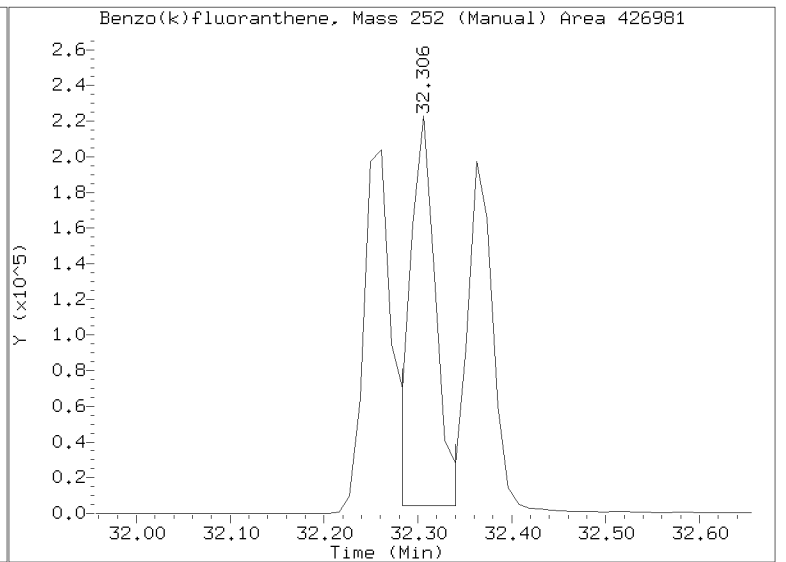
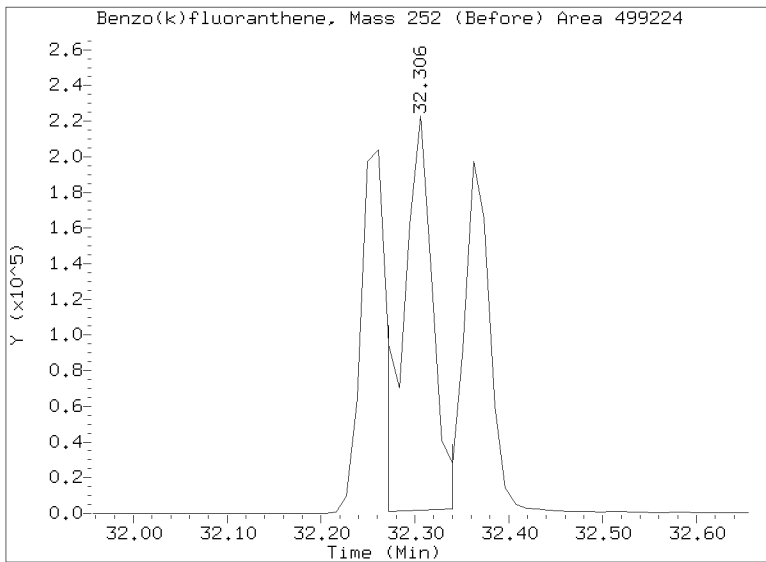
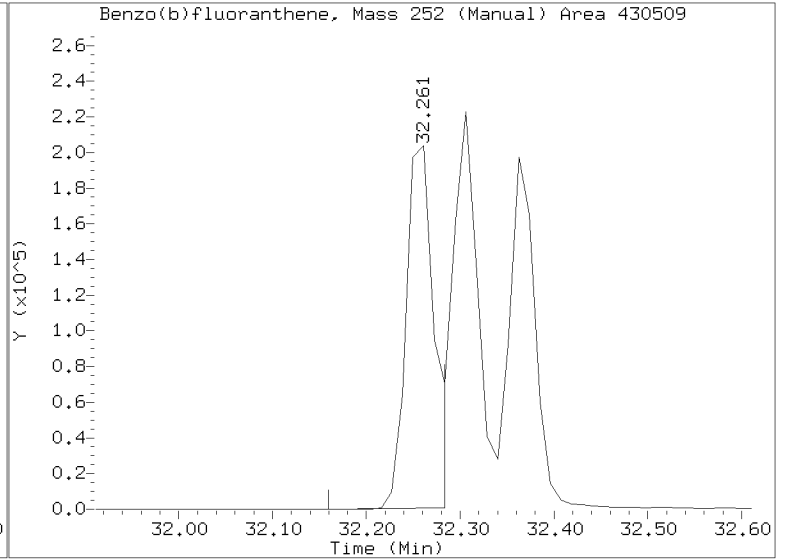
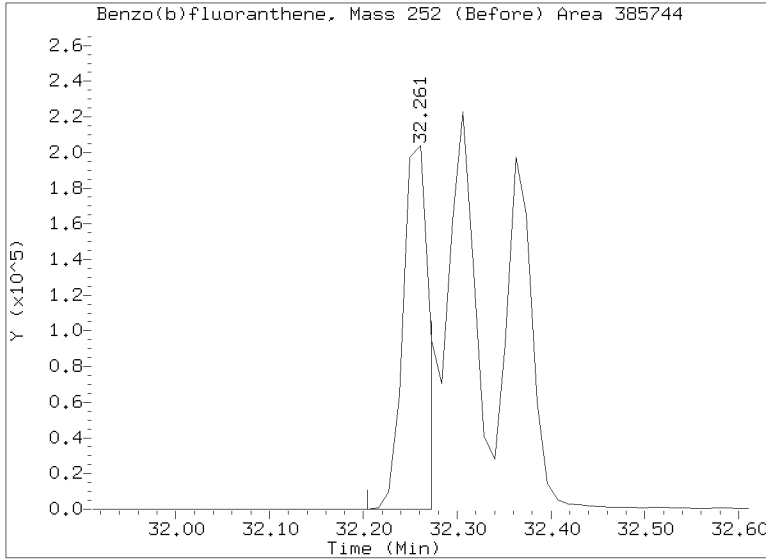
No RRT check. Ccal file.

On Column LOD for nt14.i, 20201219F.b\ALKYLPNA.m, TARGETS.sub = 0.0000

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

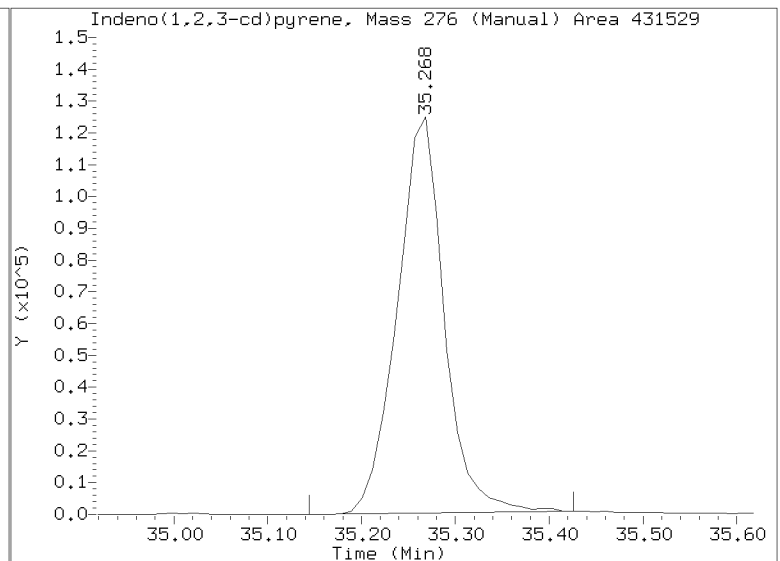
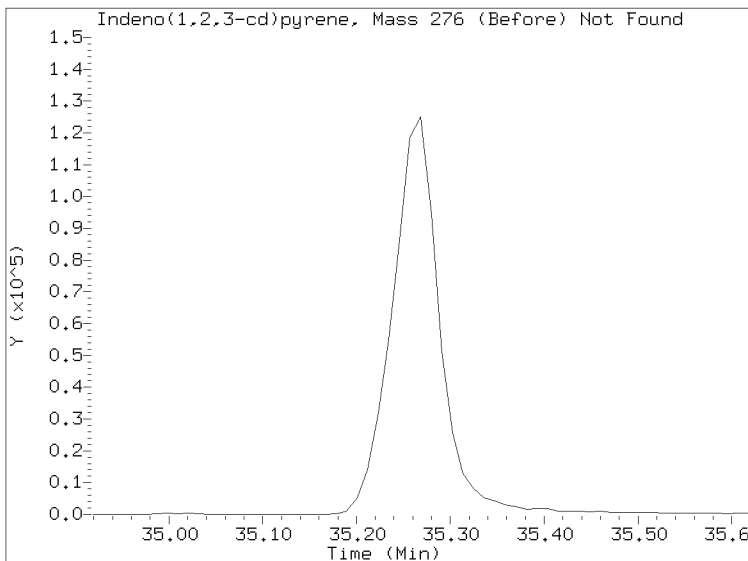
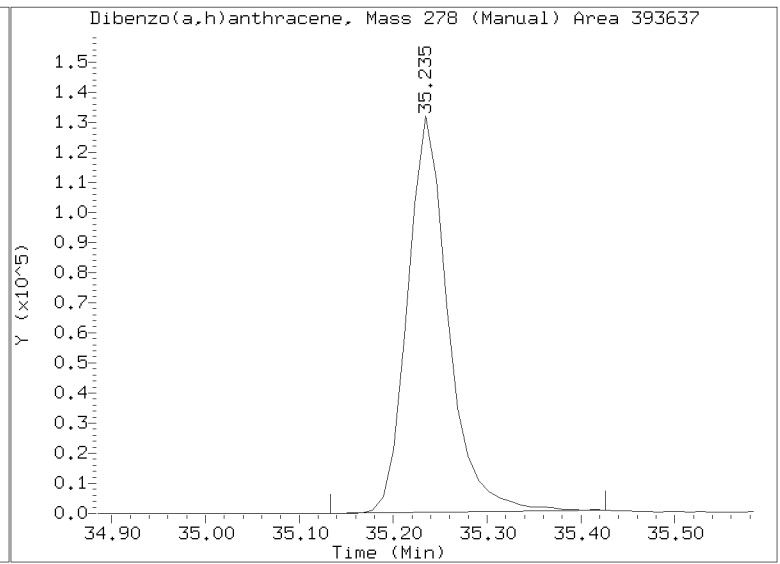
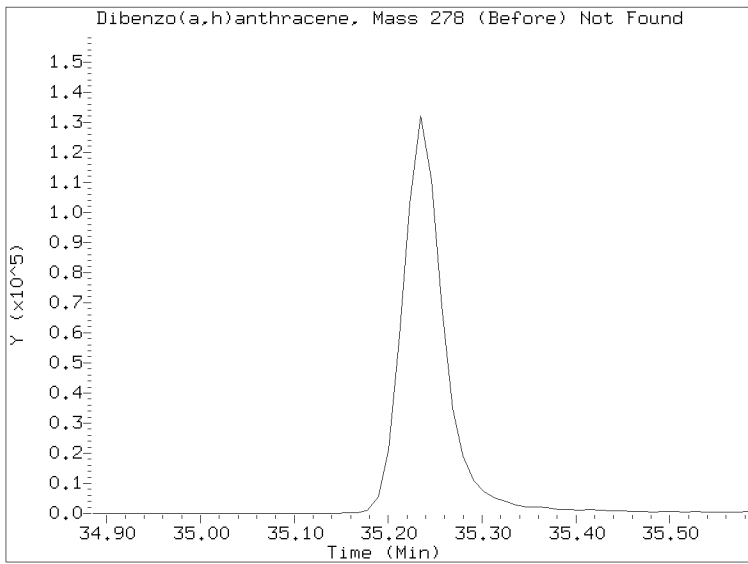
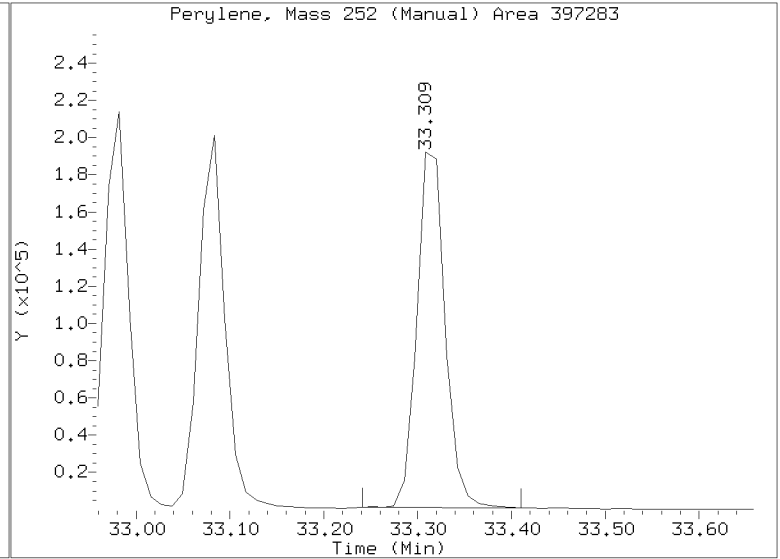
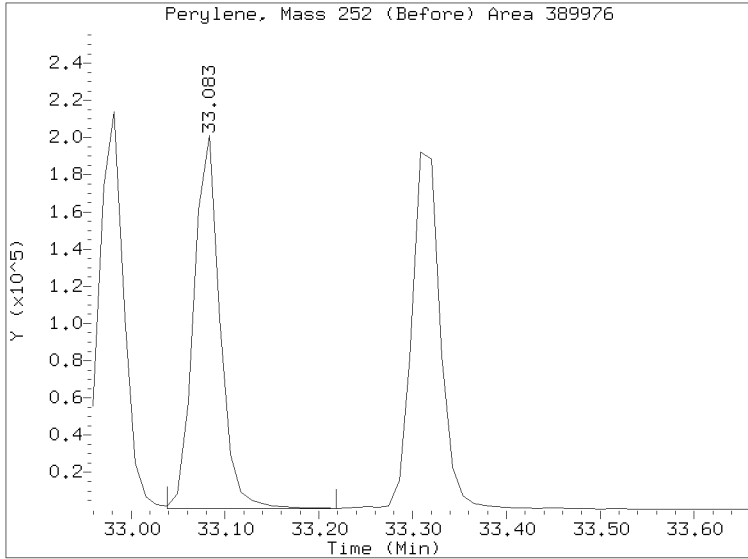
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201219F.b/NT1420121991ICV.D  
Injection Date: 22-DEC-2020 09:54  
Lab ID: SIL0350-ICV1 Client ID:  
Report Date: 12/29/2020 14:04



# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201219F.b/NT1420121991ICV.D  
Injection Date: 22-DEC-2020 09:54  
Lab ID: SIL0350-ICV1 Client ID:  
Report Date: 12/29/2020 14:04



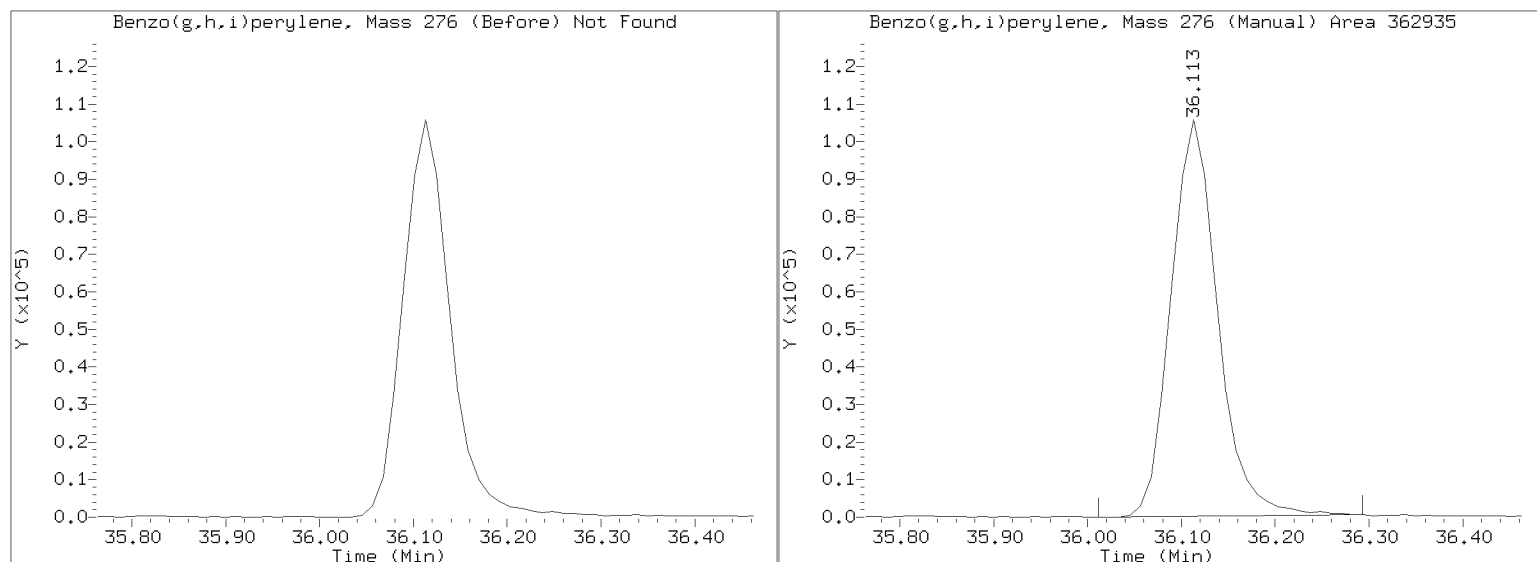
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20201219F.b/NT1420121991ICV.D

Injection Date: 22-DEC-2020 09:54

Lab ID: SIL0350-ICV1 Client ID:

Report Date: 12/29/2020 14:04



Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20201219F.b

Instrument: nt14.i Date: 22-DEC-2020 Method: 20201219F.b\ALKYLPNA.m

INITIAL CAL: 07-OCT-2020

Compound	%RSD or R <sup>2</sup>
-----	
NO Q-FLAGS	
-----	

ICV CAL: NT1420121991ICV.D 22-DEC-2020 09:54

Compound	%D
-----	
NO Q-FLAGS	
-----	



## ANALYSIS BATCH (SEQUENCE) SUMMARY

### EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 20K0204  
Client: Anchor QEA, LLC Project: Gasco Siltronic  
Sequence: SII0123 Instrument: NT14  
Calibration: DI00041

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	BIH0457-BLK2	NT1420090813S.D	Solid	09/08/20 17:29
ZZZZZ	20H0199-17	NT1420090819S.D	Solid	09/08/20 22:20
ZZZZZ	20H0199-18	NT1420090820S.D	Solid	09/08/20 23:08
ZZZZZ	20H0199-19	NT1420090821S.D	Solid	09/08/20 23:56
ZZZZZ	20H0199-20	NT1420090822S.D	Solid	09/09/20 00:44
ZZZZZ	20H0199-21	NT1420090823S.D	Solid	09/09/20 01:32
ZZZZZ	20H0199-22	NT1420090824S.D	Solid	09/09/20 02:20
ZZZZZ	20H0199-23	NT1420090825S.D	Solid	09/09/20 03:08
ZZZZZ	20H0199-24	NT1420090826S.D	Solid	09/09/20 03:56



ANALYSIS SEQUENCE

SII0123

Instrument: NT14                      Element Column ID: I005863  
Calibration ID: DI00041              Tune File: 200104.U  
EM Voltage: 1847

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SII0123-CAL1	Cal Standard	QC		1	I008041	I007919	
SII0123-ICV1	Initial Cal Check	QC		2	I008041	I007919	
BIH0457-BLK2	Blank	QC		3		I007919	
20H0199-17	BGW-PWN-SS617-08182020	8270E-SIM Alkyl PAH (Range) Dual Scan	B 03	4		I007919	
20H0199-18	BGW-PWN-SS618-08182020	8270E-SIM Alkyl PAH (Range) Dual Scan	B 03	5		I007919	
20H0199-19	BGW-PWN-SS619-08182020	8270E-SIM Alkyl PAH (Range) Dual Scan	B 03	6		I007919	
20H0199-20	BGW-PWN-SS620-08182020	8270E-SIM Alkyl PAH (Range) Dual Scan	B 03	7		I007919	
20H0199-21	BGW-PWN-SS622-08172020	8270E-SIM Alkyl PAH (Range) Dual Scan	B 03	8		I007919	
20H0199-22	BGW-ISA-SS623-08172020	8270E-SIM Alkyl PAH (Range) Dual Scan	B 03	9		I007919	
20H0199-23	BGW-ISA-SS624-08172020	8270E-SIM Alkyl PAH (Range) Dual Scan	B 03	10		I007919	
20H0199-24	BGW-ISA-SS625-08172020	8270E-SIM Alkyl PAH (Range) Dual Scan	B 03	11		I007919	

## INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20200908.b\SIM.b

Time	Filename	LabID	ClientId	DF						
1	0833	NT1420090802S.D	SII0123-ICV1		1	18.85	289587  22.30	302226  33.10	388762	
2	1729	NT1420090813S.D	BIH0457-BLK1		1	18.86	275739  22.29	276529  33.10	371336	
3	2220	NT1420090819S.D	20H0199-17		1	18.86	293372  22.30	304319  33.10	386542	
4	2308	NT1420090820S.D	20H0199-18		1	18.86	294959  22.29	312091  33.10	384541	
5	2356	NT1420090821S.D	20H0199-19		1	18.86	297461  22.29	311487  33.10	379379	
6	0044	NT1420090822S.D	20H0199-20		1	18.85	294282  22.29	305915  33.10	385519	
7	0132	NT1420090823S.D	20H0199-21		1	18.86	290472  22.29	299224  33.10	382457	
8	0220	NT1420090824S.D	20H0199-22		1	18.86	298099  22.29	310862  33.10	402719	
9	0308	NT1420090825S.D	20H0199-23		1	18.86	298076  22.29	310129  33.10	394204	
10	0356	NT1420090826S.D	20H0199-24		1	18.85	269629  22.30	273879  33.10	350684	



MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20200908.b\SIM.b

Instrument: nt14.i Date: 08-SEP-2020

Time	Filename	LabID	DF	Manually Integrated Compounds
0833	NT1420090802S.D	SII0123-ICV1	1	NO MANUAL INTEGRATION
1729	NT1420090813S.D	BIH0457-BLK1	1	C1-Naphthalenes, C2-Naphthalenes, Perylene-d12,
2220	NT1420090819S.D	20H0199-17	1	C1-Naphthalenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophen C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothioph C1-Phenanthrenes/Anthracenes, C2-Phenanthrenes/Anthracenes, C3-Phenanthrenes/Anthracenes, C4-Phenanthrenes/Ant
2308	NT1420090820S.D	20H0199-18	1	C1-Naphthalenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophen C2-Benzothiophenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophen C3-Dibenzothiophenes, C1-Phenanthrenes/Anthracenes, C2-Phenanthrenes/Anthracenes, C3-Phenanthrenes/Anthracenes
2356	NT1420090821S.D	20H0199-19	1	C1-Naphthalenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophen C1-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C1-Phenanthrenes/Anthracenes, C2-Phenanthrenes/A C4-Phenanthrenes/Anthracenes, C1-Fluoranthenes/Pyrenes, C2-Fluoranthenes/Pyrenes, C3-Fluoranthenes/Pyrenes,
0044	NT1420090822S.D	20H0199-20	1	C1-Naphthalenes, C2-Naphthalenes, C3-Naphthalenes, C1-Benzothiophenes, C1-Fluorenes, C1-Phenanthrenes/Anthracene C2-Phenanthrenes/Anthracenes, C3-Phenanthrenes/Anthracenes, C1-Fluoranthenes/Pyrenes, C2-Fluoranthenes/Pyrenes
0132	NT1420090823S.D	20H0199-21	1	C1-Naphthalenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophen C2-Benzothiophenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophen C3-Dibenzothiophenes, C1-Phenanthrenes/Anthracenes, C2-Phenanthrenes/Anthracenes, C3-Phenanthrenes/Anthracenes
0220	NT1420090824S.D	20H0199-22	1	C1-Naphthalenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Phenanthrenes/Anthracenes, C2-Phenanthrenes/Anthracenes, C3-Phenanthrenes/A C2-Fluoranthenes/Pyrenes, C1-Naphthobenzothiophenes, C1-Benzo(a)anthracenes/Chrysene, C1-Dibenzo(a)anthracenes
0308	NT1420090825S.D	20H0199-23	1	C1-Naphthalenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophen C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothioph C1-Phenanthrenes/Anthracenes, C2-Phenanthrenes/Anthracenes, C3-Phenanthrenes/Anthracenes, C4-Phenanthrenes/Ant
0356	NT1420090826S.D	20H0199-24	1	C1-Naphthalenes, C2-Naphthalenes, C3-Naphthalenes, C1-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C1-Phenanthrenes/Anthracenes, C2-Phenanthrenes/Anthracenes, C3-Phenanthrenes/Anthracenes, C1-Fluoranthenes/Pyr

Security Status Report

Date: 12-Sep-2020 14:14

NT1420090802S.D	Data Locked	van, 12-Sep-2020 14:14
NT1420090813S.D	Data Locked	van, 12-Sep-2020 14:14
NT1420090819S.D	Data Locked	van, 12-Sep-2020 14:14
NT1420090820S.D	Data Locked	van, 12-Sep-2020 14:14
NT1420090821S.D	Data Locked	van, 12-Sep-2020 14:14
NT1420090822S.D	Data Locked	van, 12-Sep-2020 14:14
NT1420090823S.D	Data Locked	van, 12-Sep-2020 14:14
NT1420090824S.D	Data Locked	van, 12-Sep-2020 14:14
NT1420090825S.D	Data Locked	van, 12-Sep-2020 14:14
NT1420090826S.D	Data Locked	van, 12-Sep-2020 14:14



## ANALYSIS BATCH (SEQUENCE) SUMMARY

### EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Sequence: SIJ0085

Instrument: NT14

Calibration: DJ00029

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SIJ0085-TUN1	NT1420100701.D	NA	10/07/20 10:11
PAH 2.5	SIJ0085-CAL4	NT1420100702.D	NA	10/07/20 10:24
PAH 10	SIJ0085-CAL6	NT1420100703.D	NA	10/07/20 11:48
PAH 0.1	SIJ0085-CAL1	NT1420100704.D	NA	10/07/20 12:38
PAH 5.0	SIJ0085-CAL5	NT1420100705.D	NA	10/07/20 13:26
PAH 0.25	SIJ0085-CAL2	NT1420100706.D	NA	10/07/20 14:17
PAH 0.5	SIJ0085-CAL3	NT1420100707.D	NA	10/07/20 15:08
Secondary Cal Check	SIJ0085-SCV1	NT1420100709.D	NA	10/07/20 16:45
Initial Cal Blank	SIJ0085-ICB1	NT1420100710.D	NA	10/07/20 17:33
Initial Cal Check	SIJ0085-ICV1	NT1420100711.D	NA	10/07/20 18:22
Instrument Blank	SIJ0085-IBL1	NT1420100712.D	NA	10/07/20 19:11
ZZZZZ	20I0231-01RE1	NT1420100713.D	Solid	10/07/20 19:59
ZZZZZ	20I0231-02RE1	NT1420100714.D	Solid	10/07/20 20:48
ZZZZZ	20I0231-03RE1	NT1420100715.D	Solid	10/07/20 21:36
ZZZZZ	20I0231-05RE1	NT1420100717.D	Solid	10/07/20 23:13
ZZZZZ	20I0231-07RE1	NT1420100719.D	Solid	10/08/20 00:49
ZZZZZ	20I0231-08RE1	NT1420100720.D	Solid	10/08/20 01:38
ZZZZZ	20I0231-09RE1	NT1420100721.D	Solid	10/08/20 02:26
ZZZZZ	20I0231-10RE1	NT1420100722.D	Solid	10/08/20 03:14
ZZZZZ	20I0231-11RE1	NT1420100723.D	Solid	10/08/20 04:03
Calibration Check	SIJ0085-CCV1	NT1420100724.D	NA	10/08/20 04:51



ANALYSIS SEQUENCE

SIJ0085

Instrument: NT14                      Element Column ID: I005863  
Calibration ID: DI00026              Tune File: 200104.U  
EM Voltage: 1847

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SIJ0085-TUN1	MS Tune	QC		1	I007631		
SIJ0085-CAL4	PAH 2.5	QC		2	I007920	I007919	
SIJ0085-CAL6	PAH 10	QC		3	I007921	I007919	
SIJ0085-CAL1	PAH 0.1	QC		4	I007926	I007919	
SIJ0085-CAL5	PAH 5.0	QC		5	I007922	I007919	
SIJ0085-CAL3	PAH 0.5	QC		6	I007924	I007919	
SIJ0085-CAL2	PAH 0.25	QC		7	I007925	I007919	
SIJ0085-SCV1	Secondary Cal Check	QC		8	I009393	I007919	
SIJ0085-ICB1	Initial Cal Blank	QC		9	I008041	I007919	
SIJ0085-ICV1	Initial Cal Check	QC		10	I007920	I007919	
SIJ0085-IBL1	Instrument Blank	QC		11	I008041	I007919	
20I0231-01RE1	PDI-028SC-A-07-08-191003	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	12		I007919	Added 10/5/2020 by YZ
20I0231-02RE1	PDI-028SC-A-09-10-191003	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	13		I007919	Added 10/5/2020 by YZ
20I0231-03RE1	PDI-028SC-A-10-11-191003	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	14		I007919	Added 10/5/2020 by YZ
20I0231-05RE1	PDI-069SC-A-08-09-191016	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	15		I007919	Added 10/5/2020 by YZ
20I0231-07RE1	PDI-080SC-A-00-01-200506	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	16		I007919	Added 10/5/2020 by YZ
20I0231-08RE1	PDI-081SC-A-10-11-191002	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	17		I007919	Added 10/5/2020 by YZ
20I0231-09RE1	PDI-082SC-A-04-05-191002	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	18		I007919	Added 10/5/2020 by YZ
20I0231-10RE1	PDI-082SC-A-07-08-191002	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	19		I007919	Added 10/5/2020 by YZ
20I0231-11RE1	PDI-165SC-A-02-03-200426	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	20		I007919	Added 10/5/2020 by YZ
SIJ0085-CCV1	Calibration Check	QC		21	I007920	I007919	

## INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20201007.b

Time	Filename	LabID	ClientId	DF					
1	1011	NT1420100701.D	SIJ0085-TUN1	1	NO	ISTDS	FOUND		
2	1024	NT1420100702.D	SIJ0085-CAL4	1	18.63	237050	22.07	216685	32.93 311824
3	1148	NT1420100703.D	SIJ0085-CAL6	1	18.64	243221	22.08	226778	32.94 315078
4	1238	NT1420100704.D	SIJ0085-CAL1	1	18.63	219599	22.07	199428	32.93 285553
5	1326	NT1420100705.D	SIJ0085-CAL5	1	18.63	221965	22.07	204432	32.93 290471
6	1417	NT1420100706.D	SIJ0085-CAL2	1	18.63	218460	22.07	197976	32.93 287017
7	1508	NT1420100707.D	SIJ0085-CAL3	1	18.63	217147	22.07	196660	32.93 281303
8	1556	NT1420100708.D	SIJ0085-CAL4	1	18.63	206259	22.07	189225	32.93 280633
9	1645	NT1420100709.D	SIJ0085-SCV1	1	18.63	189405	22.07	203362	32.93 288304
10	1733	NT1420100710.D	SIJ0085-ICB1	1	18.63	209569	22.07	195015	32.93 275049
11	1822	NT1420100711.D	SIJ0085-ICV1	1	18.63	209596	22.07	192407	32.93 274120
12	1911	NT1420100712.D	SIJ0085-IBL1	1	18.63	204918	22.07	190308	32.93 277914
13	1959	NT1420100713.D	20I0231-01RE1	50	18.63	216675	22.07	201347	32.93 283619
14	2048	NT1420100714.D	20I0231-02RE1	50	18.63	223226	22.07	210366	32.93 295832
15	2136	NT1420100715.D	20I0231-03RE1	50	18.63	220403	22.07	205010	32.93 294397
16	2225	NT1420100716.D	20I0231-04RE1	50	18.63	221665	22.07	207108	32.93 288287
17	2313	NT1420100717.D	20I0231-05RE1	50	18.63	213324	22.07	203945	32.93 287899
18	0001	NT1420100718.D	20I0231-06RE1	50	18.63	223960	22.07	210571	32.93 296494
19	0049	NT1420100719.D	20I0231-07RE1	25	18.63	219212	22.07	209445	32.93 289596
20	0138	NT1420100720.D	20I0231-08RE1	100	18.63	222098	22.07	213997	32.93 296812

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20201007.b

Time	Filename	LabID	ClientId	DF						
21	0226	NT1420100721.D	20I0231-09RE1		50	18.63	230253  22.07	216448  32.93	299511	
22	0314	NT1420100722.D	20I0231-10RE1		50	18.63	222736  22.07	211749  32.93	294827	
23	0403	NT1420100723.D	20I0231-11RE1		100	18.63	220968  22.07	205977  32.93	288799	
24	0451	NT1420100724.D	SIJ0085-CCV1		1	18.63	215012  22.07	198797  32.93	275539	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20201007.b

Instrument: nt14.i Date: 07-OCT-2020

Time	Filename	LabID	DF	Manually Integrated Compounds				
1011	NT1420100701.D	SIJ0085-TUN1	1	NO MANUAL INTEGRATION				
1024	NT1420100702.D	SIJ0085-CAL4	1	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Indeno(1,2,3-cd)pyrene,	Total Benzofluoranthenes,	
1148	NT1420100703.D	SIJ0085-CAL6	1	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Total Benzofluoranthenes,	Benzo(j)fluoranthene,	
1238	NT1420100704.D	SIJ0085-CAL1	1	Benzo(k)fluoranthene,	cis-Decalin,	Total Benzofluoranthenes,	Phenanthrene-d10,	
1326	NT1420100705.D	SIJ0085-CAL5	1	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Dibenzo(a,h)anthracene,	Total Benzofluoranthenes,	Benzo(j)fluoranthene
1417	NT1420100706.D	SIJ0085-CAL2	1	Total Benzofluoranthenes,				
1508	NT1420100707.D	SIJ0085-CAL3	1	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Dibenzo(a,h)anthracene,	Total Benzofluoranthenes,	Benzo(j)fluoranthene
1556	NT1420100708.D	SIJ0085-CAL4	1	Total Benzofluoranthenes,	Phenanthrene-d10,			
1645	NT1420100709.D	SIJ0085-SCV1	1	Benzo(g,h,i)perylene,	Total Benzofluoranthenes,			
1733	NT1420100710.D	SIJ0085-ICB1	1	NO MANUAL INTEGRATION				
1822	NT1420100711.D	SIJ0085-ICV1	1	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Indeno(1,2,3-cd)pyrene,	Dibenzo(a,h)anthracene,	Total Benzofluoranthene
1911	NT1420100712.D	SIJ0085-IBL1	1	NO MANUAL INTEGRATION				
1959	NT1420100713.D	20I0231-01RE1	50	Acenaphthylene,	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	2,6-Dimethylnaphthalene,	Total Benzofluoranthenes,
				Perylene-d12,				
2048	NT1420100714.D	20I0231-02RE1	50	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Indeno(1,2,3-cd)pyrene,	Dibenzo(a,h)anthracene,	Benzo(g,h,i)perylene,
				Total Benzofluoranthenes,	Naphthalene-d8,	Phenanthrene-d10,	Perylene-d12,	
2136	NT1420100715.D	20I0231-03RE1	50	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Indeno(1,2,3-cd)pyrene,	Dibenzo(a,h)anthracene,	2,6-Dimethylnaphthalen
				Naphthalene-d8,	Phenanthrene-d10,	Perylene-d12,		
2225	NT1420100716.D	20I0231-04RE1	50	NO MANUAL INTEGRATION				
2313	NT1420100717.D	20I0231-05RE1	50	Chrysene,	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	2,6-Dimethylnaphthalene,	Total Benzofluoranthenes,
				Acenaphthene-d10,	Phenanthrene-d10,	Perylene-d12,	Napht	

Instrument: nt14.i Date: 08-OCT-2020

Time	Filename	LabID	DF	Manually Integrated Compounds					
0001	NT1420100718.D	20I0231-06RE1	50	NO MANUAL INTEGRATION					
0049	NT1420100719.D	20I0231-07RE1	25	Benzo(b)fluoranthene, Total Benzofluoranthenes,	Benzo(k)fluoranthene, Phenanthrene-d10,	Dibenzo(a,h)anthracene, Perylene-d12,	Benzo(g,h,i)perylene,	Biphenyl,	2,6-Dimeth
0138	NT1420100720.D	20I0231-08RE1	100	Benzo(b)fluoranthene, Phenanthrene-d10,	Benzo(k)fluoranthene, Perylene-d12,	Dibenzo(a,h)anthracene,	Biphenyl,	2,6-Dimethylnaphthalene,	Total B
0226	NT1420100721.D	20I0231-09RE1	50	Benzo(b)fluoranthene, 2,6-Dimethylnaphthalene,	Benzo(k)fluoranthene, Benzo(b)thiophene,	Indeno(1,2,3-cd)pyrene, Total Benzofluoranthenes,	Dibenzo(a,h)anthracene, Phenanthrene-d10,	Benzo(g,h,i)perylene, Perylene-d12,	
0314	NT1420100722.D	20I0231-10RE1	50	Benzo(b)fluoranthene, Benzo(b)thiophene,	Benzo(k)fluoranthene, Total Benzofluoranthenes,	Dibenzo(a,h)anthracene, Phenanthrene-d10,	Benzo(g,h,i)perylene, Perylene-d12,	Biphenyl,	2,6-Dimeth
0403	NT1420100723.D	20I0231-11RE1	100	Benzo(b)fluoranthene, Total Benzofluoranthenes,	Benzo(k)fluoranthene, Phenanthrene-d10,	Indeno(1,2,3-cd)pyrene, Chrysene-d12,	Dibenzo(a,h)anthracene, Perylene-d12,	Benzo(g,h,i)perylene,	
0451	NT1420100724.D	SIJ0085-CCV1	1	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Indeno(1,2,3-cd)pyrene,	Total Benzofluoranthenes,	Benzo(j)fluoranthene	



Security Status Report

Date: 09-Oct-2020 11:05

NT1420100701.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100702.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100703.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100704.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100705.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100706.D	Data Locked	van,	09-Oct-2020	11:05
NT1420100707.D	Data Locked	van,	09-Oct-2020	11:05
NT1420100708.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100709.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100710.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100711.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100712.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100713.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100714.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100715.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100716.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100717.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100718.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100719.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100720.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100721.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100722.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100723.D	Data Locked	van,	09-Oct-2020	08:47
NT1420100724.D	Data Locked	van,	09-Oct-2020	08:47



Analytical Resources, Incorporated  
Analytical Chemists and Consultants

Sequence: \_\_\_\_\_  
Analyst: \_\_\_\_\_

**Extract Dilution Bench Sheet**  
 SITS 0085  
 VJS  
 Date: 10/7/2020

Sample ID	Primary Dilution				Secondary Dilution			
	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor
20T0231-1, 2, 3, 4, 5 6, 8, 10	10	DCM	490	50				
20T0231-7	20	DCM	480	25				
20T0231-8, 11	5	DCM	495	100				



## ANALYSIS BATCH (SEQUENCE) SUMMARY

### EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Sequence: SIL0350

Instrument: NT14

Calibration: DJ00029

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Initial Cal Check	SIL0350-ICV1	NT1420121991ICV.D	NA	12/22/20 09:54
Low Cal Check	SIL0350-LCV1	NT1420121992.D	NA	12/22/20 10:43
Instrument Blank	SIL0350-IBL1	NT1420121993.D	NA	12/22/20 11:31
<i>ZZZZZ</i>	20K0203-29	NT1420121994.D	Solid	12/22/20 12:19
Blank	BIK0745-BLK1	NT1420121997.D	Solid	12/22/20 14:43
LCS	BIK0745-BS1	NT1420121998.D	Solid	12/22/20 15:31
USMPDI-006SC-A-00-01-201110	20K0204-05	NT1420121999.D	Solid	12/22/20 16:19
USMPDI-006SC-D-02-04-201110	20K0204-07	NT1420122000.D	Solid	12/22/20 17:07
USMPDI-006SC-D-02-04-201110	BIK0745-MS1	NT1420122001.D	Solid	12/22/20 17:55
USMPDI-006SC-D-02-04-201110	BIK0745-MSD1	NT1420122002.D	Solid	12/22/20 18:42
<i>ZZZZZ</i>	20K0285-01RE1	NT1420122003.D	Solid	12/22/20 19:30
<i>ZZZZZ</i>	20K0285-02RE1	NT1420122004.D	Solid	12/22/20 20:18
<i>ZZZZZ</i>	20K0191-01RE1	NT1420122005.D	Solid	12/22/20 21:05
Calibration Check	SIL0350-CCV1	NT1420122006.D	NA	12/22/20 21:53



ANALYSIS SEQUENCE

SIL0350

Instrument: NT14                      Element Column ID: I005863  
Calibration ID: DJ00029              Tune File: 200104.U  
EM Voltage: 1906

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SIL0350-ICV1	Initial Cal Check	QC		1	I007920	I007919	
SIL0350-LCV1	Low Cal Check	QC		2	I007926	I007919	
SIL0350-IBL1	Instrument Blank	QC		3	I008041	I007919	
20K0203-29	SMPDI-1057SC-B-06-08-2011	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 03	4		I007919	
BIK0703-MS1	Matrix Spike	QC		5		I007919	
BIK0703-MSD1	Matrix Spike Dup	QC		6		I007919	
BIK0745-BLK1	Blank	QC		7		I007919	
BIK0745-BS1	LCS	QC		8		I007919	
20K0204-05	SMPDI-006SC-A-00-01-2011	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 03	9		I007919	
20K0204-07	SMPDI-006SC-D-02-04-2011	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 03	10		I007919	
BIK0745-MS1	Matrix Spike	QC		11		I007919	
BIK0745-MSD2	Matrix Spike Dup	QC		12		I007919	
20K0285-01RE1	SMPDI-009SC-A-00-01-2011	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 01	13		I007919	Added 12/22/2020 by VTS
20K0285-02RE1	SMPDI-009SC-A-03-04-2011	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 01	14		I007919	Added 12/22/2020 by VTS
20K0191-01RE1	SMPDI-042SC-A-00-01-2011	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 03	15		I007919	Added 12/22/2020 by VTS
SIL0350-CCV1	Calibration Check	QC		16	I007920	I007919	

## INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20201219F.b

Time	Filename	LabID	ClientId	DF						
1	0954	NT1420121991ICV.D	SIL0350-ICV1		1	18.61	263433  22.05	236791  32.91	338506	
2	1043	NT1420121992.D	SIL0350-LCV1		1	18.62	244522  22.06	229859  32.93	356311	
3	1131	NT1420121993.D	SIL0350-IBL1		1	18.62	248230  22.06	245130  32.93	343356	
4	1219	NT1420121994.D	20K0203-29		1	18.60	265469  22.05	229523  32.91	345427	
5	1307	NT1420121995.D	BIK0703-MS1		1	18.60	258884  22.04	222768  32.91	326816	
6	1355	NT1420121996.D	BIK0703-MSD1		1	18.60	262183  22.04	227359  32.91	325105	
7	1443	NT1420121997.D	BIK0745-BLK1		1	18.61	245845  22.05	237430  32.91	331337	
8	1531	NT1420121998.D	BIK0745-BS1		1	18.60	260956  22.04	227316  32.91	318029	
9	1619	NT1420121999.D	20K0204-05		1	18.60	260262  22.04	228799  32.91	336901	
10	1707	NT1420122000.D	20K0204-07		1	18.60	265502  22.04	227133  32.91	330127	
11	1755	NT1420122001.D	BIK0745-MS1		1	18.60	255014  22.04	229656  32.91	335930	
12	1842	NT1420122002.D	BIK0745-MSD1		1	18.60	258371  22.04	223369  32.91	334392	
13	1930	NT1420122003.D	20K0285-01RE1		100	18.61	252577  22.05	222063  32.91	329652	
14	2018	NT1420122004.D	20K0285-02RE1		50	18.61	235998  22.05	222011  32.91	318333	
15	2105	NT1420122005.D	20K0191-01RE1		3	18.60	266940  22.04	236309  32.91	355733	
16	2153	NT1420122006.D	SIL0350-CCV1		1	18.61	254467  22.05	239193  32.91	347159	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20201219F.b

Instrument: nt14.i Date: 22-DEC-2020

Time	Filename	LabID	DF	Manually Integrated Compounds					
0954	NT1420121991ICV.D	SIL0350-ICV1	1	Benzo(b)fluoranthene, Total Benzofluoranthenes,	Benzo(k)fluoranthene,	Indeno(1,2,3-cd)pyrene,	Dibenzo(a,h)anthracene,	Benzo(g,h,i)perylene	
1043	NT1420121992.D	SIL0350-LCV1	1	Dibenzo(a,h)anthracene,	cis-Decalin,	Total Benzofluoranthenes,	Phenanthrene-d10,		
1131	NT1420121993.D	SIL0350-IBL1	1	Naphthalene-d8,					
1219	NT1420121994.D	20K0203-29	1	Acenaphthylene, Benzo(g,h,i)perylene,	Carbazole, 1-methylnaphthalene,	Benzo(b)fluoranthene, Benzo(k)fluoranthene,	Indeno(1,2,3-cd)pyrene, 2,6-Dimethylnaphthalene,	Dibenzo(a,h)anthracene, Total Benzofluoranthenes,	Benzo(j)fluoro
1307	NT1420121995.D	BIK0703-MS1	1	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Indeno(1,2,3-cd)pyrene,	Dibenzo(a,h)anthracene,	Total Benzofluoranth	
1355	NT1420121996.D	BIK0703-MSD1	1	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Total Benzofluoranthenes,	Benzo(j)fluoranthene,		
1443	NT1420121997.D	BIK0745-BLK1	1	Chrysene,	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Total Benzofluoranthenes,	Benzo(j)fluoranthene,	
1531	NT1420121998.D	BIK0745-BS1	1	Indeno(1,2,3-cd)pyrene,	Dibenzo(a,h)anthracene,	Benzo(g,h,i)perylene,	Biphenyl,	Total Benzofluoranthenes,	
1619	NT1420121999.D	20K0204-05	1	2-Methylnaphthalene, Benzo(g,h,i)perylene,	Acenaphthylene, 1-methylnaphthalene,	Benzo(b)fluoranthene, Biphenyl,	Benzo(k)fluoranthene, 1-Methylphenanthrene,	Indeno(1,2,3-cd)pyrene, 2,6-Dimethylnaphthalene,	Diben To
1707	NT1420122000.D	20K0204-07	1	Anthracene, 1-Methylphenanthrene,	Carbazole, 2,6-Dimethylnaphthalene,	Benzo(b)fluoranthene, Benzo(k)fluoranthene,	Dibenzo(a,h)anthracene, Total Benzofluoranthenes,	Biphenyl,	
1755	NT1420122001.D	BIK0745-MS1	1	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Total Benzofluoranthenes,			
1842	NT1420122002.D	BIK0745-MSD1	1	Benzo(k)fluoranthene,	Dibenzo(a,h)anthracene,	Total Benzofluoranthenes,			
1930	NT1420122003.D	20K0285-01RE1	100	Fluorene, Dibenzothiophene, Perylene-d12,	Benzo(b)fluoranthene, 1-Methylphenanthrene,	Benzo(k)fluoranthene, 2,6-Dimethylnaphthalene,	Indeno(1,2,3-cd)pyrene, Total Benzofluoranthenes,	Dibenzo(a,h)anthracene, Benzo(j)fluoro	
2018	NT1420122004.D	20K0285-02RE1	50	Fluorene, Biphenyl, Perylene-d12,	Benzo(b)fluoranthene, 2,6-Dimethylnaphthalene,	Benzo(k)fluoranthene, Total Benzofluoranthenes,	Indeno(1,2,3-cd)pyrene, Benzo(j)fluoranthene,	Dibenzo(a,h)anthracene, Naphthalene-d8,	Benzo(g, Phe
2105	NT1420122005.D	20K0191-01RE1	3	Acenaphthylene, Total Benzofluoranthenes,	Benzo(b)fluoranthene,	Benzo(k)fluoranthene,	Dibenzo(a,h)anthracene,	1-Methylphenanthrene,	2,6-
2153	NT1420122006.D	SIL0350-CCV1	1	Benzo(k)fluoranthene,	Indeno(1,2,3-cd)pyrene,	Dibenzo(a,h)anthracene,	Total Benzofluoranthenes,		

Security Status Report

Date: 29-Dec-2020 13:50

NT1420121991ICV.D	Data Locked	van,	29-Dec-2020	13:50
NT1420121992.D	Data Locked	van,	29-Dec-2020	13:50
NT1420121993.D	Data Locked	van,	29-Dec-2020	13:50
NT1420121994.D	Data Locked	van,	29-Dec-2020	13:50
NT1420121995.D	Data Locked	van,	29-Dec-2020	13:50
NT1420121996.D	Data Locked	van,	29-Dec-2020	13:50
NT1420121997.D	Data Locked	van,	29-Dec-2020	13:50
NT1420121998.D	Data Locked	van,	29-Dec-2020	13:50
NT1420121999.D	Data Locked	van,	29-Dec-2020	13:50
NT1420122000.D	Data Locked	van,	29-Dec-2020	13:50
NT1420122001.D	Data Locked	van,	29-Dec-2020	13:50
NT1420122002.D	Data Locked	van,	29-Dec-2020	13:50
NT1420122003.D	Data Locked	van,	29-Dec-2020	13:50
NT1420122004.D	Data Locked	van,	29-Dec-2020	13:50
NT1420122005.D	Data Locked	van,	29-Dec-2020	13:50
NT1420122006.D	Data Locked	van,	29-Dec-2020	13:50





Analytical Resources, Incorporated  
Analytical Chemists and Consultants

# Extract Dilution Bench Sheet

Sequence: SILO350

Analyst: VB

Date: 12-21-2020

Sample ID	Primary Dilution				Secondary Dilution			
	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor
20K0285-1	5	DCM	495	100				
20K0285-2	10	DCM	490	50				
20K0191-1	100	DCM	200	3				





## **ANALYSIS BATCH (SEQUENCE) SUMMARY**

### **EPA 8270E-SIM**

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Sequence: SIL0487

Instrument: NT14

Calibration: DI00041

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Instrument Blank	SIL0487-IBL1	NT1420121993S.D	NA	12/22/20 11:31
ZZZZZ	20K0203-29	NT1420121994S.D	Solid	12/22/20 12:19
Blank	BIK0745-BLK2	NT1420121997S.D	Solid	12/22/20 14:43
USMPDI-006SC-A-00-01-201110	20K0204-05	NT1420121999S.D	Solid	12/22/20 16:19
USMPDI-006SC-D-02-04-201110	20K0204-07	NT1420122000S.D	Solid	12/22/20 17:07



ANALYSIS SEQUENCE

SIL0487

Instrument: NT14                      Element Column ID: I005863  
Calibration ID: DI00041              Tune File: 200104U  
EM Voltage: 1906

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SIL0487-ICV1	Initial Cal Check	QC		1	I008041	I007919	
SIL0487-IBL1	Instrument Blank	QC		2	I008041	I007919	
20K0203-29	SMPDI-1057SC-B-06-08-2011	8270E-SIM Alkyl PAH (Range) Dual Scan	A 04	3		I007919	
BIK0745-BLK2	Blank	QC		4		I007919	
20K0204-05	SMPDI-006SC-A-00-01-2011	8270E-SIM Alkyl PAH (Range) Dual Scan	A 04	5		I007919	
20K0204-07	SMPDI-006SC-D-02-04-2011	8270E-SIM Alkyl PAH (Range) Dual Scan	A 04	6		I007919	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20201219.b\SIM.b

ARI Job No.: SILO Method: SIM.b\ALKYLRANGE.m Instrument: nt14.i Date: 22-DEC-2020

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0954	NT1420121991S.D	SIL0487-ICV1		1	NO MANUAL INTEGRATION
1043	NT1420121992S.D	SIL0487-ICV1		1	NO MANUAL INTEGRATION
1131	NT1420121993S.D	SIL0487-IBL1		1	NO MANUAL INTEGRATION
1219	NT1420121994S.D	20K0203-29		1	C2-Decalin, C3-Decalin, C4-Decalin, C1-Naphthalenes, C4-Naphthobenzothiophenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C4-Dibenzothiophenes, C1-Phenanthrenes/Anthracenes
1307	NT1420121995S.D	BIK0703-MS1		1	NO MANUAL INTEGRATION
1355	NT1420121996S.D	BIK0703-MSD1		1	NO MANUAL INTEGRATION
1443	NT1420121997S.D	BIK0745-BLK2		1	NO MANUAL INTEGRATION
1531	NT1420121998S.D	BIK0745-BS1		1	NO MANUAL INTEGRATION
1619	NT1420121999S.D	20K0204-05		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, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C4-Dibenzothiophenes,
1707	NT1420122000S.D	20K0204-07		1	C2-Decalin, C3-Decalin, C4-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, C4-Dibenzothiophenes, C1-Phenanthren

## INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20201219.b\SIM.b

Time	Filename	LabID	ClientId	DF						
1	0954	NT1420121991S.D	SIL0487-ICV1		1	18.60	258151  22.04	267736  32.92	391135	
2	1043	NT1420121992S.D	SIL0487-ICV1		1	18.61	258320  22.05	266780  32.92	401451	
3	1131	NT1420121993S.D	SIL0487-IBL1		1	18.61	260169  22.05	284037  32.92	389346	
4	1219	NT1420121994S.D	20K0203-29		1	18.60	251154  22.04	262910  32.92	396756	
5	1307	NT1420121995S.D	BIK0703-MS1		1	18.60	247065  22.04	254929  32.92	369054	
6	1355	NT1420121996S.D	BIK0703-MSD1		1	18.60	247675  22.04	258820  32.92	372260	
7	1443	NT1420121997S.D	BIK0745-BLK2		1	18.60	253258  22.04	269973  32.92	375610	
8	1531	NT1420121998S.D	BIK0745-BS1		1	18.60	246854  22.04	257154  32.92	366495	
9	1619	NT1420121999S.D	20K0204-05		1	18.60	246867  22.04	260877  32.92	383683	
10	1707	NT1420122000S.D	20K0204-07		1	18.60	248067  22.04	258695  32.92	375768	

Security Status Report

Date: 31-Dec-2020 11:40

NT1420121991S.D	Data Locked	yev, 31-
NT1420121992S.D	Data Locked	yev, 31-
NT1420121993S.D	Data Locked	yev, 31-
NT1420121994S.D	Data Locked	yev, 31-
NT1420121995S.D	Data Locked	yev, 31-
NT1420121996S.D	Data Locked	yev, 31-
NT1420121997S.D	Data Locked	yev, 31-
NT1420121998S.D	Data Locked	yev, 31-
NT1420121999S.D	Data Locked	yev, 31-
NT1420122000S.D	Data Locked	yev, 31-



## SURROGATE RECOVERY AND RT SUMMARY

### EPA 8270E-SIM

Laboratory: <u>Analytical Resources, Inc.</u>	SDG/WO: <u>20K0204</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic</u>
Sequence: <u>SIJ0085</u>	Instrument: <u>NT14</u>
Calibration: <u>DJ00029</u>	Calibration Date: <u>10/07/2020</u>

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
<b>SIJ0085-ICB1 (Solid)</b>								
Lab File ID: NT1420100710.D				Analyzed: 10/07/20 17:33				
Naphthalene-d8	2.5000	105	30 - 160	11.641	11.64283	-0.0018	N/A	
Acenaphthene-d10	2.5000	98.6	30 - 160	17.103	17.10483	-0.0018	N/A	
Phenanthrene-d10	2.5000	110	30 - 160	21.963	21.96483	-0.0018	N/A	
Chrysene-d12	2.5000	106	30 - 160	29.974	29.9685	0.0055	N/A	
Perylene-d12	2.5000	103	30 - 160	33.263	33.26483	-0.0018	N/A	
<b>SIJ0085-ICV1 (Solid)</b>								
Lab File ID: NT1420100711.D				Analyzed: 10/07/20 18:22				
Naphthalene-d8	2.5000	105	80 - 120	11.641	11.64283	-0.0018	N/A	
Acenaphthene-d10	2.5000	104	80 - 120	17.103	17.10483	-0.0018	N/A	
Phenanthrene-d10	2.5000	105	80 - 120	21.963	21.96483	-0.0018	N/A	
Chrysene-d12	2.5000	99.6	80 - 120	29.974	29.9685	0.0055	N/A	
Perylene-d12	2.5000	102	80 - 120	33.263	33.26483	-0.0018	N/A	
<b>SIJ0085-CCV1 (Solid)</b>								
Lab File ID: NT1420100724.D				Analyzed: 10/08/20 04:51				
Naphthalene-d8	2.5000	105	50 - 150	11.641	11.64283	-0.0018	N/A	
Acenaphthene-d10	2.5000	102	50 - 150	17.103	17.10483	-0.0018	N/A	
Phenanthrene-d10	2.5000	103	50 - 150	21.952	21.96483	-0.0128	N/A	
Chrysene-d12	2.5000	101	50 - 150	29.963	29.9685	-0.0055	N/A	
Perylene-d12	2.5000	100	50 - 150	33.263	33.26483	-0.0018	N/A	



## SURROGATE RECOVERY AND RT SUMMARY

### EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG/WO: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Sequence: SIL0350

Instrument: NT14

Calibration: DJ00029

Calibration Date: 10/07/2020

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
<b>SIL0350-ICV1 (Solid)</b> Lab File ID: NT1420121991ICV.D Analyzed: 12/22/20 09:54								
Naphthalene-d8	2.5000	106	80 - 120	11.608	11.64283	-0.0348	N/A	
Acenaphthene-d10	2.5000	98.2	80 - 120	17.07	17.10483	-0.0348	N/A	
Phenanthrene-d10	2.5000	97.2	80 - 120	21.93	21.96483	-0.0348	N/A	
Chrysene-d12	2.5000	92.2	80 - 120	29.952	29.9685	-0.0165	N/A	
Perylene-d12	2.5000	101	80 - 120	33.252	33.26483	-0.0128	N/A	
<b>SIL0350-LCV1 (Solid)</b> Lab File ID: NT1420121992.D Analyzed: 12/22/20 10:43								
Naphthalene-d8	0.10000	107	0 - 200	11.674	11.64283	0.0312	N/A	
Acenaphthene-d10	0.10000	99.8	0 - 200	17.092	17.10483	-0.0128	N/A	
Phenanthrene-d10	0.10000	85.1	0 - 200	21.952	21.96483	-0.0128	N/A	
Chrysene-d12	0.10000	96.8	0 - 200	29.963	29.9685	-0.0055	N/A	
Perylene-d12	0.10000	111	0 - 200	33.263	33.26483	-0.0018	N/A	
<b>SIL0350-IBL1 (Solid)</b> Lab File ID: NT1420121993.D Analyzed: 12/22/20 11:31								
Naphthalene-d8	2.5000	121	30 - 160	11.619	11.64283	-0.0238	N/A	
Acenaphthene-d10	2.5000	112	30 - 160	17.081	17.10483	-0.0238	N/A	
Phenanthrene-d10	2.5000	111	30 - 160	21.941	21.96483	-0.0238	N/A	
Chrysene-d12	2.5000	110	30 - 160	29.952	29.9685	-0.0165	N/A	
Perylene-d12	2.5000	117	30 - 160	33.263	33.26483	-0.0018	N/A	
<b>BIK0745-BLK1 (Solid)</b> Lab File ID: NT1420121997.D Analyzed: 12/22/20 14:43								
Naphthalene-d8	150.00	61.6	30 - 160	11.608	11.64283	-0.0348	N/A	
Acenaphthene-d10	150.00	63.2	30 - 160	17.07	17.10483	-0.0348	N/A	
Phenanthrene-d10	150.00	69.6	30 - 160	21.93	21.96483	-0.0348	N/A	
Chrysene-d12	150.00	71.5	30 - 160	29.952	29.9685	-0.0165	N/A	
Perylene-d12	150.00	51.5	30 - 160	33.263	33.26483	-0.0018	N/A	
<b>BIK0745-BS1 (Solid)</b> Lab File ID: NT1420121998.D Analyzed: 12/22/20 15:31								
Naphthalene-d8	150.00	68.3	30 - 160	11.597	11.64283	-0.0458	N/A	
Acenaphthene-d10	150.00	68.0	30 - 160	17.07	17.10483	-0.0348	N/A	
Phenanthrene-d10	150.00	94.4	30 - 160	21.93	21.96483	-0.0348	N/A	
Chrysene-d12	150.00	82.2	30 - 160	29.951	29.9685	-0.0175	N/A	
Perylene-d12	150.00	76.3	30 - 160	33.252	33.26483	-0.0128	N/A	



**SURROGATE RECOVERY AND RT SUMMARY**  
**EPA 8270E-SIM**

Laboratory: Analytical Resources, Inc.  
Client: Anchor QEA, LLC  
Sequence: SIL0350  
Calibration: DJ00029

SDG/WO: 20K0204  
Project: Gasco Siltronic  
Instrument: NT14  
Calibration Date: 10/07/2020

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
<b>20K0204-05 (Solid)</b> Lab File ID: NT1420121999.D Analyzed: 12/22/20 16:19								
Naphthalene-d8	149.99	62.7	30 - 160	11.597	11.64283	-0.0458	N/A	
Acenaphthene-d10	149.99	69.0	30 - 160	17.07	17.10483	-0.0348	N/A	
Phenanthrene-d10	149.99	90.1	30 - 160	21.93	21.96483	-0.0348	N/A	
Chrysene-d12	149.99	69.3	30 - 160	29.952	29.9685	-0.0165	N/A	
Perylene-d12	149.99	73.3	30 - 160	33.252	33.26483	-0.0128	N/A	
<b>20K0204-07 (Solid)</b> Lab File ID: NT1420122000.D Analyzed: 12/22/20 17:07								
Naphthalene-d8	149.72	59.2	30 - 160	11.608	11.64283	-0.0348	N/A	
Acenaphthene-d10	149.72	62.6	30 - 160	17.07	17.10483	-0.0348	N/A	
Phenanthrene-d10	149.72	87.9	30 - 160	21.93	21.96483	-0.0348	N/A	
Chrysene-d12	149.72	73.1	30 - 160	29.951	29.9685	-0.0175	N/A	
Perylene-d12	149.72	72.3	30 - 160	33.252	33.26483	-0.0128	N/A	
<b>BIK0745-MS1 (Solid)</b> Lab File ID: NT1420122001.D Analyzed: 12/22/20 17:55								
Naphthalene-d8	149.83	67.7	30 - 160	11.597	11.64283	-0.0458	N/A	
Acenaphthene-d10	149.83	70.4	30 - 160	17.07	17.10483	-0.0348	N/A	
Phenanthrene-d10	149.83	91.7	30 - 160	21.93	21.96483	-0.0348	N/A	
Chrysene-d12	149.83	74.4	30 - 160	29.951	29.9685	-0.0175	N/A	
Perylene-d12	149.83	73.3	30 - 160	33.252	33.26483	-0.0128	N/A	
<b>BIK0745-MSD1 (Solid)</b> Lab File ID: NT1420122002.D Analyzed: 12/22/20 18:42								
Naphthalene-d8	149.83	62.2	30 - 160	11.597	11.64283	-0.0458	N/A	
Acenaphthene-d10	149.83	66.1	30 - 160	17.07	17.10483	-0.0348	N/A	
Phenanthrene-d10	149.83	90.6	30 - 160	21.93	21.96483	-0.0348	N/A	
Chrysene-d12	149.83	73.4	30 - 160	29.952	29.9685	-0.0165	N/A	
Perylene-d12	149.83	73.3	30 - 160	33.252	33.26483	-0.0128	N/A	
<b>SIL0350-CCV1 (Solid)</b> Lab File ID: NT1420122006.D Analyzed: 12/22/20 21:53								
Naphthalene-d8	2.5000	113	50 - 150	11.608	11.64283	-0.0348	N/A	
Acenaphthene-d10	2.5000	103	50 - 150	17.07	17.10483	-0.0348	N/A	
Phenanthrene-d10	2.5000	95.6	50 - 150	21.93	21.96483	-0.0348	N/A	
Chrysene-d12	2.5000	91.4	50 - 150	29.952	29.9685	-0.0165	N/A	
Perylene-d12	2.5000	98.6	50 - 150	33.252	33.26483	-0.0128	N/A	





## INTERNAL STANDARD AREA AND RT SUMMARY EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor OEA, LLC

Project: Gasco Siltronic

Sequence: SIJ0085

Instrument: NT14

Calibration: DJ00029

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
<b>Secondary Cal Check (SIJ0085-SCV1)</b>		(Solid)	Lab File ID: NT1420100709.D			Analyzed: 10/07/20 16:45			
Fluorene-d10	189405	18.632	237050	18.632	80	50 - 200	0.000	+/-0.50	
Anthracene-d10	203362	22.072	216685	22.072	94	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	288304	32.925	311824	32.925	92	50 - 200	0.000	+/-0.50	
<b>Initial Cal Blank (SIJ0085-ICB1)</b>		(Solid)	Lab File ID: NT1420100710.D			Analyzed: 10/07/20 17:33			
Fluorene-d10	209569	18.632	237050	18.632	88	50 - 200	0.000	+/-0.50	
Anthracene-d10	195015	22.073	216685	22.072	90	50 - 200	0.001	+/-0.50	
Benzo(e)pyrene-d12	275049	32.925	311824	32.925	88	50 - 200	0.000	+/-0.50	
<b>Initial Cal Check (SIJ0085-ICV1)</b>		(Solid)	Lab File ID: NT1420100711.D			Analyzed: 10/07/20 18:22			
Fluorene-d10	209596	18.632	237050	18.632	88	50 - 200	0.000	+/-0.50	
Anthracene-d10	192407	22.072	216685	22.072	89	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	274120	32.925	311824	32.925	88	50 - 200	0.000	+/-0.50	



## INTERNAL STANDARD AREA AND RT SUMMARY EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.  
Client: Anchor OEA, LLC  
Sequence: SIL0350

SDG: 20K0204  
Project: Gasco Siltronic  
Instrument: NT14  
Calibration: DJ00029

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
<b>Initial Cal Check (SIL0350-ICV1)</b>		(Solid)	Lab File ID: NT1420121991ICV.D			Analyzed: 12/22/20 09:54			
Fluorene-d10	263433	18.61	263433	18.61	100	50 - 200	0.000	+/-0.50	
Anthracene-d10	236791	22.051	236791	22.051	100	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	338506	32.914	338506	32.914	100	50 - 200	0.000	+/-0.50	
<b>Low Cal Check (SIL0350-LCV1)</b>		(Solid)	Lab File ID: NT1420121992.D			Analyzed: 12/22/20 10:43			
Fluorene-d10	244522	18.621	263433	18.61	93	50 - 200	0.011	+/-0.50	
Anthracene-d10	229859	22.062	236791	22.051	97	50 - 200	0.011	+/-0.50	
Benzo(e)pyrene-d12	356311	32.925	338506	32.914	105	50 - 200	0.011	+/-0.50	
<b>Instrument Blank (SIL0350-IBL1)</b>		(Solid)	Lab File ID: NT1420121993.D			Analyzed: 12/22/20 11:31			
Fluorene-d10	248230	18.621	263433	18.61	94	50 - 200	0.011	+/-0.50	
Anthracene-d10	245130	22.062	236791	22.051	104	50 - 200	0.011	+/-0.50	
Benzo(e)pyrene-d12	343356	32.925	338506	32.914	101	50 - 200	0.011	+/-0.50	
<b>Blank (BIK0745-BLK1)</b>		(Solid)	Lab File ID: NT1420121997.D			Analyzed: 12/22/20 14:43			
Fluorene-d10	245845	18.61	263433	18.61	93	50 - 200	0.000	+/-0.50	
Anthracene-d10	237430	22.051	236791	22.051	100	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	331337	32.914	338506	32.914	98	50 - 200	0.000	+/-0.50	
<b>LCS (BIK0745-BS1)</b>		(Solid)	Lab File ID: NT1420121998.D			Analyzed: 12/22/20 15:31			
Fluorene-d10	260956	18.598	263433	18.61	99	50 - 200	-0.012	+/-0.50	
Anthracene-d10	227316	22.04	236791	22.051	96	50 - 200	-0.011	+/-0.50	
Benzo(e)pyrene-d12	318029	32.914	338506	32.914	94	50 - 200	0.000	+/-0.50	
<b>USMPDI-006SC-A-00-01-201110 (20K0204-05)</b>		(Solid)	Lab File ID: NT1420121999.D			Analyzed: 12/22/20 16:19			
Fluorene-d10	260262	18.598	263433	18.61	99	50 - 200	-0.012	+/-0.50	
Anthracene-d10	228799	22.04	236791	22.051	97	50 - 200	-0.011	+/-0.50	
Benzo(e)pyrene-d12	336901	32.914	338506	32.914	100	50 - 200	0.000	+/-0.50	
<b>USMPDI-006SC-D-02-04-201110 (20K0204-07)</b>		(Solid)	Lab File ID: NT1420122000.D			Analyzed: 12/22/20 17:07			
Fluorene-d10	265502	18.598	263433	18.61	101	50 - 200	-0.012	+/-0.50	
Anthracene-d10	227133	22.04	236791	22.051	96	50 - 200	-0.011	+/-0.50	
Benzo(e)pyrene-d12	330127	32.914	338506	32.914	98	50 - 200	0.000	+/-0.50	
<b>Matrix Spike (BIK0745-MS1)</b>		(Solid)	Lab File ID: NT1420122001.D			Analyzed: 12/22/20 17:55			
Fluorene-d10	255014	18.598	263433	18.61	97	50 - 200	-0.012	+/-0.50	
Anthracene-d10	229656	22.04	236791	22.051	97	50 - 200	-0.011	+/-0.50	
Benzo(e)pyrene-d12	335930	32.914	338506	32.914	99	50 - 200	0.000	+/-0.50	



## INTERNAL STANDARD AREA AND RT SUMMARY EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor OEA, LLC

Project: Gasco Siltronic

Sequence: SIL0350

Instrument: NT14

Calibration: DJ00029

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
<b>Matrix Spike Dup (BIK0745-MSD1)</b>		(Solid)	Lab File ID: NT1420122002.D			Analyzed: 12/22/20 18:42			
Fluorene-d10	258371	18.598	263433	18.61	98	50 - 200	-0.012	+/-0.50	
Anthracene-d10	223369	22.04	236791	22.051	94	50 - 200	-0.011	+/-0.50	
Benzo(e)pyrene-d12	334392	32.914	338506	32.914	99	50 - 200	0.000	+/-0.50	



**INTERNAL STANDARD AREA AND RT SUMMARY**  
**EPA 8270E-SIM**

Laboratory: Analytical Resources, Inc.  
Client: Anchor OEA, LLC  
Sequence: SIL0487

SDG: 20K0204  
Project: Gasco Siltronic  
Instrument: NT14  
Calibration: DI00041

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
<b>Instrument Blank (SIL0487-IBL1 )</b>		(Solid)	Lab File ID: NT1420121993S.D			Analyzed: 12/22/20 11:31			
Fluorene-d10	260169	18.611	258151	18.6	101	50 - 200		+/-0.50	
Anthracene-d10	284037	22.052	267736	22.041	106	50 - 200		+/-0.50	
Benzo(e)pyrene-d12	389346	32.915	391135	32.916	100	50 - 200		+/-0.50	
<b>Blank (BIK0745-BLK2 )</b>		(Solid)	Lab File ID: NT1420121997S.D			Analyzed: 12/22/20 14:43			
Fluorene-d10	253258	18.6	258151	18.6	98	50 - 200		+/-0.50	
Anthracene-d10	269973	22.041	267736	22.041	101	50 - 200		+/-0.50	
Benzo(e)pyrene-d12	375610	32.916	391135	32.916	96	50 - 200		+/-0.50	
<b>USMPDI-006SC-A-00-01-201110 (20K0204-05 )</b>		(Solid)	Lab File ID: NT1420121999S.D			Analyzed: 12/22/20 16:19			
Fluorene-d10	246867	18.6	258151	18.6	96	50 - 200		+/-0.50	
Anthracene-d10	260877	22.041	267736	22.041	97	50 - 200		+/-0.50	
Benzo(e)pyrene-d12	383683	32.915	391135	32.916	98	50 - 200		+/-0.50	
<b>USMPDI-006SC-D-02-04-201110 (20K0204-07 )</b>		(Solid)	Lab File ID: NT1420122000S.D			Analyzed: 12/22/20 17:07			
Fluorene-d10	248067	18.6	258151	18.6	96	50 - 200		+/-0.50	
Anthracene-d10	258695	22.041	267736	22.041	97	50 - 200		+/-0.50	
Benzo(e)pyrene-d12	375768	32.915	391135	32.916	96	50 - 200		+/-0.50	



## HOLDING TIME SUMMARY

Analysis: EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

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-006SC-A-00-01-201110 20K0204-05	11/10/20 09:25	11/12/20 10:20	11/24/20 11:45	14	14	12/22/20 16:19	28	40	
USMPDI-006SC-A-00-01-201110 20K0204-05	11/10/20 09:25	11/12/20 10:20	11/24/20 11:45	14	14	12/22/20 16:19	28	40	
USMPDI-006SC-D-02-04-201110 20K0204-07	11/10/20 09:05	11/12/20 10:20	11/24/20 11:45	14	14	12/22/20 17:07	28	40	
USMPDI-006SC-D-02-04-201110 20K0204-07	11/10/20 09:05	11/12/20 10:20	11/24/20 11:45	14	14	12/22/20 17:07	28	40	
Matrix Spike BIK0745-MS1	11/10/20 09:05	11/12/20 10:20	11/24/20 11:45	14	14	12/22/20 17:55	28	40	
Matrix Spike Dup BIK0745-MSD1	11/10/20 09:05	11/12/20 10:20	11/24/20 11:45	14	14	12/22/20 18:42	28	40	

\* Indicates hold time exceedance.



## METHOD DETECTION AND REPORTING LIMITS

### EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor OEA, LLC

Project: Gasco Siltronic

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(a)fluoranthenes, Total	3.0	10.0	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



## METHOD DETECTION AND REPORTING LIMITS

### EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor OEA, LLC

Project: Gasco Siltronic

Matrix: Solid

Instrument: NT14

Analyte	MDL	RL	Units
C4-Decalins	0.5	5.0	ug/kg
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



Form I  
ORGANIC ANALYSIS DATA SHEET  
NWTPH-Dx  
TPH (Extractables)

Laboratory: Analytical Resources, Inc.  
Client: Anchor OEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-05 A SDG: 20K0204  
Sampled: 11/10/20 09:25 Prepared: 11/24/20 11:50 File ID: 420K2970.D  
% Solids: 54.03 Preparation: EPA 3546 (Microwave) Analyzed: 11/30/20 21:22  
Batch: BIK0744 Sequence: SIL0065 Initial/Final: 10.04 g Wet / 10 mL  
Instrument: FID4 Column: RTX-1 Calibration: DA00022

CAS NO.	COMPOUND	DILUTION	CONC: (mg/kg dry)	Q	DL	RL
DRO	Diesel Range Organics (C12-C24)	1	92.2	U	37.5	92.2
RRO	Motor Oil Range Organics (C24-C38)	1	241		38.7	184

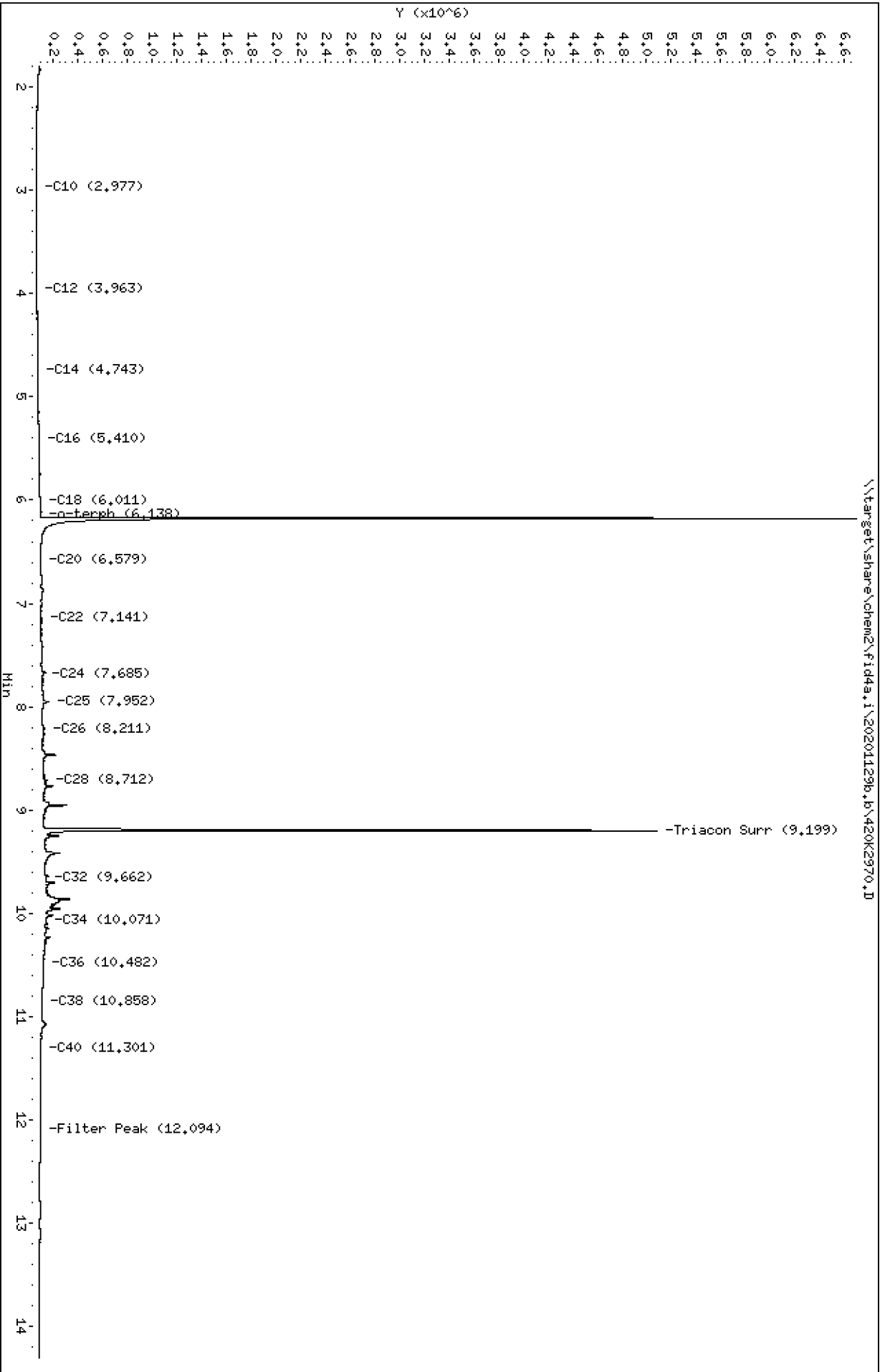
SURROGATES	ADDED: (mg/kg dry)	FOUND: (mg/kg dry)	% REC	QC LIMITS	Q
o-Terphenyl	103.69	47.2	45.5	50 - 150	*



Data File: \\target\share\chem2\fid4a.i\20201129b.b\420K2970.D  
Date: 30-NOV-2020 21:22  
Client ID:  
Sample Info: 20K0204-05

Column phase: RTX-1

Instrument: fid4a.i  
Operator: JGR/CTO  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201129b.b/420K2970.D  
Method: 20201129b.b\FID4TPH.m  
Instrument: fid4a.i, JGR/CTO  
Report Date: 12/04/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: 20K0204-05  
Client ID:  
Injection: 30-NOV-2020 21:22  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

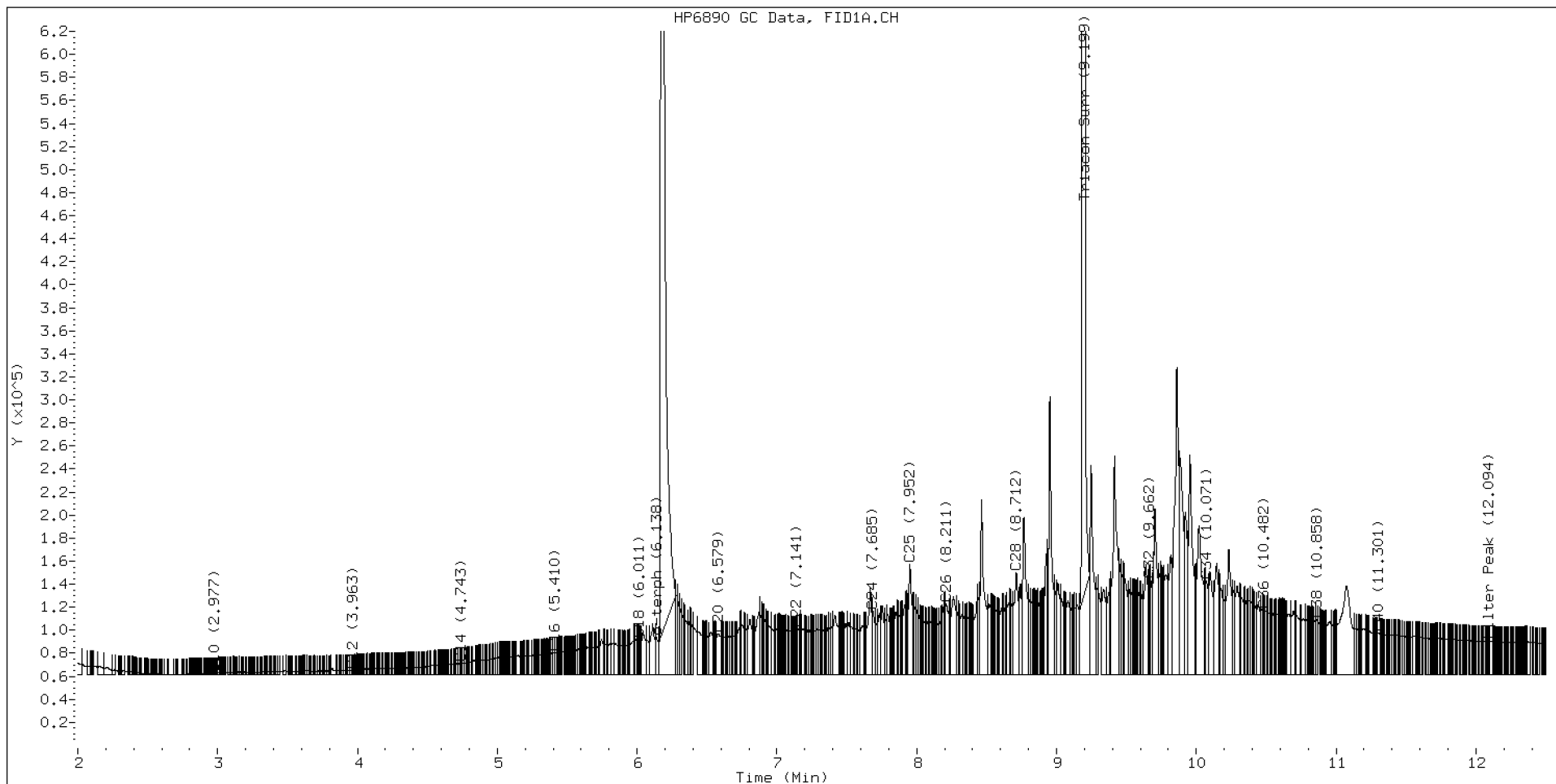
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.920	0.006	13191	14685	WATPHD	(C12-C24)	5794838	36.4
C10	2.977	-0.002	1223	468	WATPHM	(C24-C38)	13251152	131.0
C12	3.963	-0.000	4117	3254	AK102	(C10-C25)	6418768	32.8
C14	4.743	-0.003	9760	3404	AK103	(C25-C36)	11705548	159.9
C16	5.410	-0.002	19023	6627	OR.DIES	(C10-C28)	9587070	48.9
C18	6.011	0.000	30646	18169				
C20	6.579	-0.002	35690	66568	JET-A	(C10-C18)	1968174	11.9
C22	7.141	-0.003	39892	25588				
C24	7.685	-0.007	55590	82059				
C25	7.952	-0.008	95875	150610				
C26	8.211	-0.010	61492	105391				
C28	8.712	-0.013	88730	195212				
C32	9.662	0.009	82015	48209				
C34	10.071	-0.005	81235	109690				
Filter Peak	12.094	-0.003	29137	17445	BUNKERC	(C10-C38)	19206346	486.5
C36	10.482	0.004	56163	22330				
C38	10.858	-0.007	47546	35331				
C40	11.301	-0.001	36289	48443				
o-terph	6.177	-0.021	6602577	5236835				
Triacon Surr	9.199	-0.031	4948402	3985088	NAS DIES	(C10-C24)	5955194	30.5

Range Times: NW Diesel(3.964 - 7.692) AK102(2.98 - 7.96) Jet A(2.98 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.96 - 10.48) OR Diesel(2.98 - 8.73)

Surrogate	Area	Amount
o-Terphenyl	5236835	25.6 M
Triacontane	3985088	26.9 M

M Indicates the peak was manually integrated

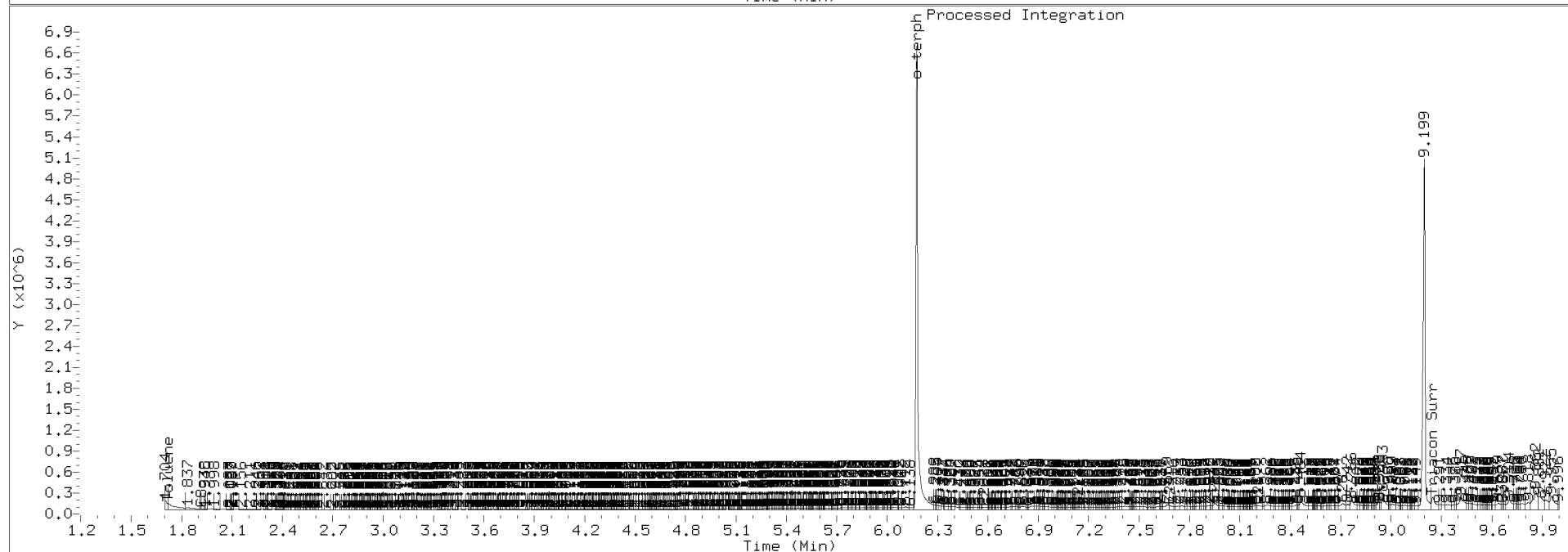
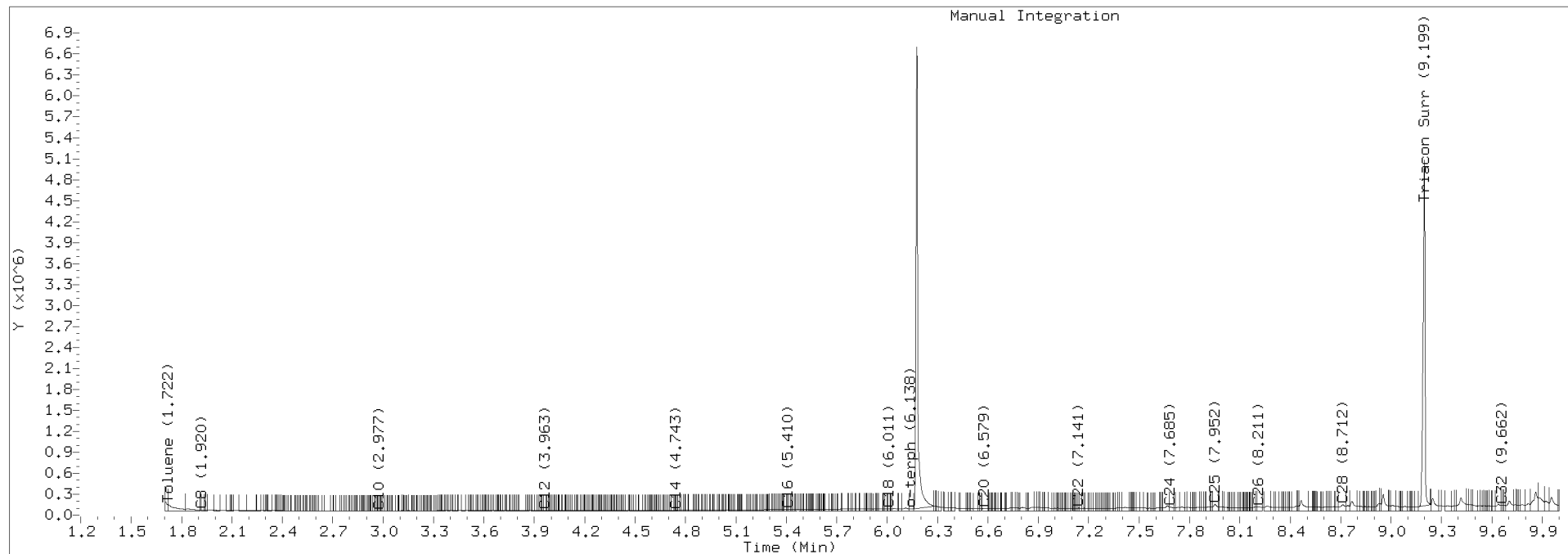
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20201129b.b/420K2970.D Injection: 30-NOV-2020 21:22

Lab ID:20K0204-05





Form I  
ORGANIC ANALYSIS DATA SHEET  
NWTPH-Dx  
TPH (Extractables)

Laboratory: Analytical Resources, Inc.  
Client: Anchor OEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-05RE1 A SDG: 20K0204  
Sampled: 11/10/20 09:25 Prepared: 11/24/20 11:50 File ID: 420L0442.D  
% Solids: 54.03 Preparation: EPA 3546 (Microwave) Analyzed: 12/05/20 00:15  
Batch: BIK0744 Sequence: SIL0055 Initial/Final: 10.04 g Wet / 10 mL  
Instrument: FID4 Column: RTX-1 Calibration: DA00022

CAS NO.	COMPOUND	DILUTION	CONC: (mg/kg dry)	Q	DL	RL
DRO	Diesel Range Organics (C12-C24)	1	92.2	U	37.5	92.2
RRO	Motor Oil Range Organics (C24-C38)	1	184	U	38.7	184

SURROGATES	ADDED: (mg/kg dry)	FOUND: (mg/kg dry)	% REC	QC LIMITS	Q
o-Terphenyl	103.69	36.7	35.4	50 - 150	*

Data File: \\target\share\chem2\fid4a,1\20201204,b\42010442.D

Date: 05-DEC-2020 00:15

Client ID:

Sample Info: 20K0204-05

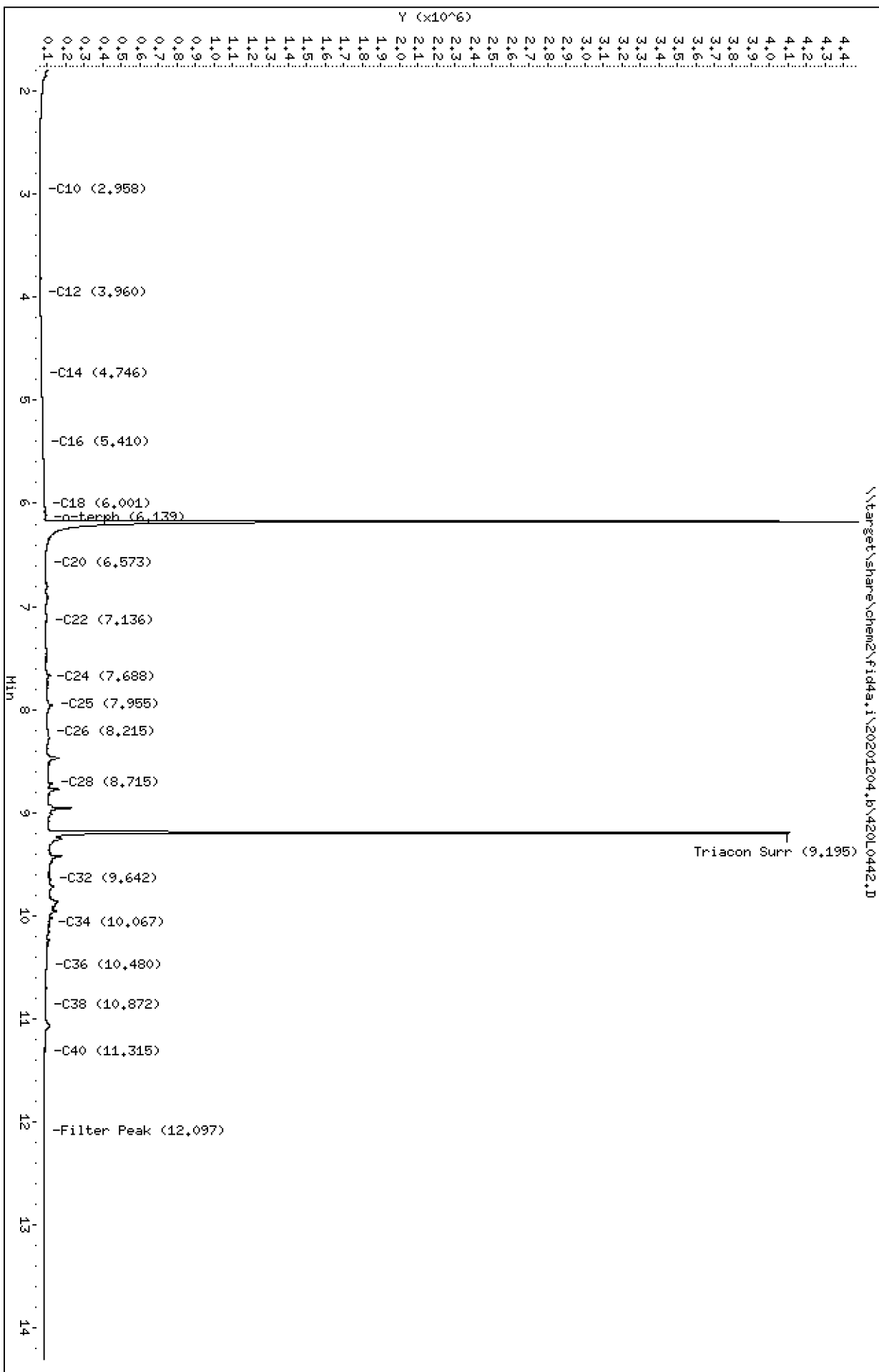
Column phase: RTX-1

Instrument: fid4a,1

Operator: JGR/CTO/VTS

Column diameter: 0.25

Page 1



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201204.b/420L0442.D  
Method: 20201204.b\FID4TPH.m  
Instrument: fid4a.i, JGR/CTO/VTS  
Report Date: 12/05/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: 20K0204-05RE1  
Client ID:  
Injection: 05-DEC-2020 00:15  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

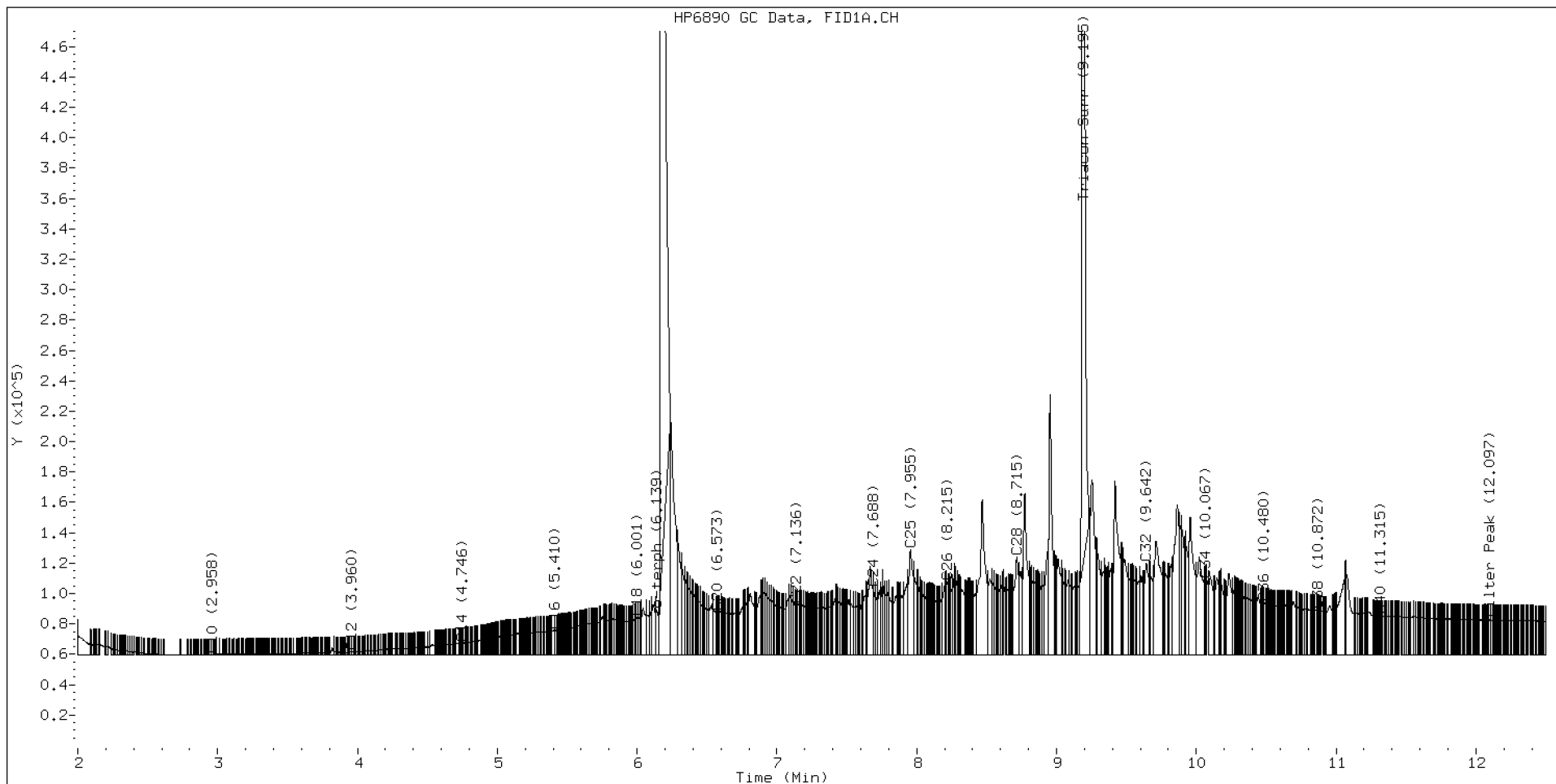
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.851	-0.012	34563	144054	WATPHD	(C12-C24)	5425552	34.1
C10	2.958	-0.002	402	210	WATPHM	(C24-C38)	9060934	89.6
C12	3.960	0.001	2223	754	AK102	(C10-C25)	5847237	29.9
C14	4.746	0.000	7999	3583	AK103	(C25-C36)	8027850	109.7
C16	5.410	-0.002	16268	4863	OR.DIES	(C10-C28)	8141378	41.5
C18	6.001	-0.004	24908	19710				
C20	6.573	-0.002	28502	5692	JET-A	(C10-C18)	1604974	9.7
C22	7.136	0.000	33447	11621				
C24	7.688	0.003	43900	42917				
C25	7.955	0.003	69376	144594				
C26	8.215	0.002	48116	48705				
C28	8.715	-0.002	64722	135597				
C32	9.642	-0.003	60304	117879				
C34	10.067	-0.003	49675	27178				
Filter Peak	12.097	-0.001	23358	19735	BUNKERC	(C10-C38)	14556461	368.7
C36	10.480	0.003	34425	15464				
C38	10.872	0.002	30058	14977				
C40	11.315	-0.002	26128	14294				
o-terph	6.175	-0.015	4367320	4067154				
Triacon Surr	9.195	-0.027	3985149	3240793	NAS DIES	(C10-C24)	5495527	28.2

Range Times: NW Diesel(3.959 - 7.685) AK102(2.96 - 7.95) Jet A(2.96 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.95 - 10.48) OR Diesel(2.96 - 8.72)

Surrogate	Area	Amount
o-Terphenyl	4067154	19.9 M
Triacontane	3240793	21.8 M

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020

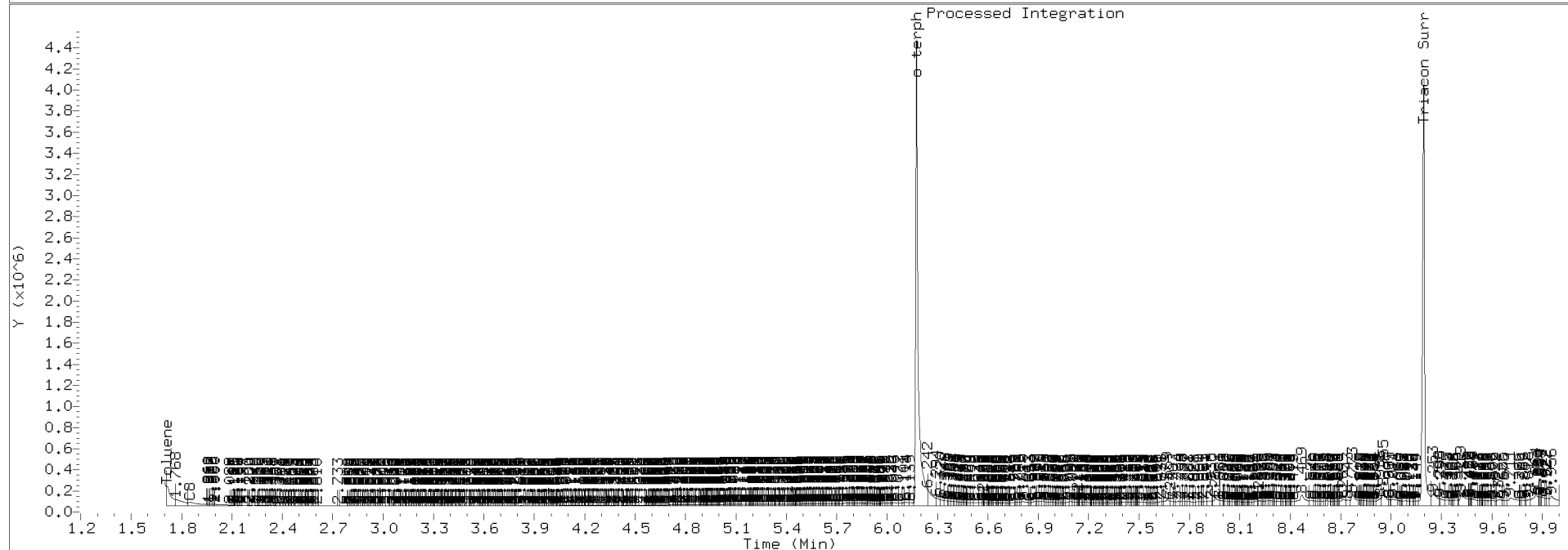
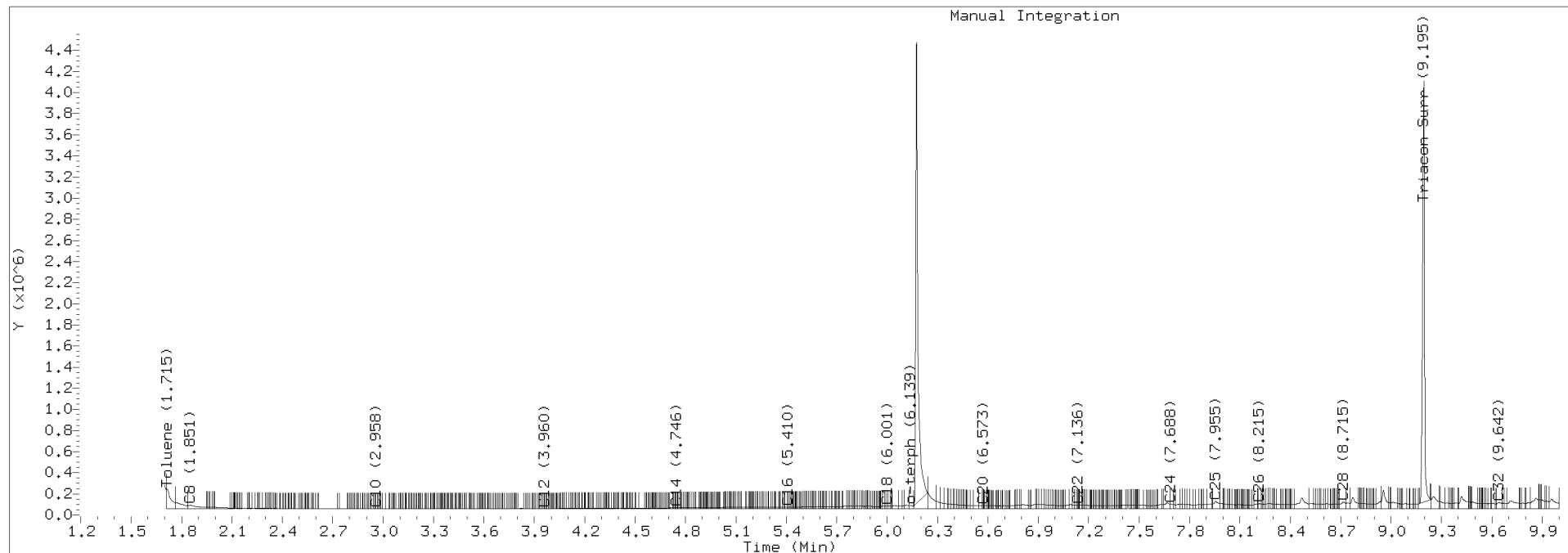




TPH Manual Integrations Report

Datafile: FID4A, 20201204.b/420L0442.D Injection: 05-DEC-2020 00:15

Lab ID:20K0204-05RE1





Form I  
ORGANIC ANALYSIS DATA SHEET  
NWTPH-Dx  
TPH (Extractables)

Laboratory: Analytical Resources, Inc.  
Client: Anchor OEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-07 A SDG: 20K0204  
Sampled: 11/10/20 09:05 Prepared: 11/24/20 11:50 File ID: 420K2943.D  
% Solids: 76.41 Preparation: EPA 3546 (Microwave) Analyzed: 11/30/20 07:51  
Batch: BIK0744 Sequence: SIK0411 Initial/Final: 10.02 g Wet / 10 mL  
Instrument: FID4 Column: RTX-1 Calibration: DA00022

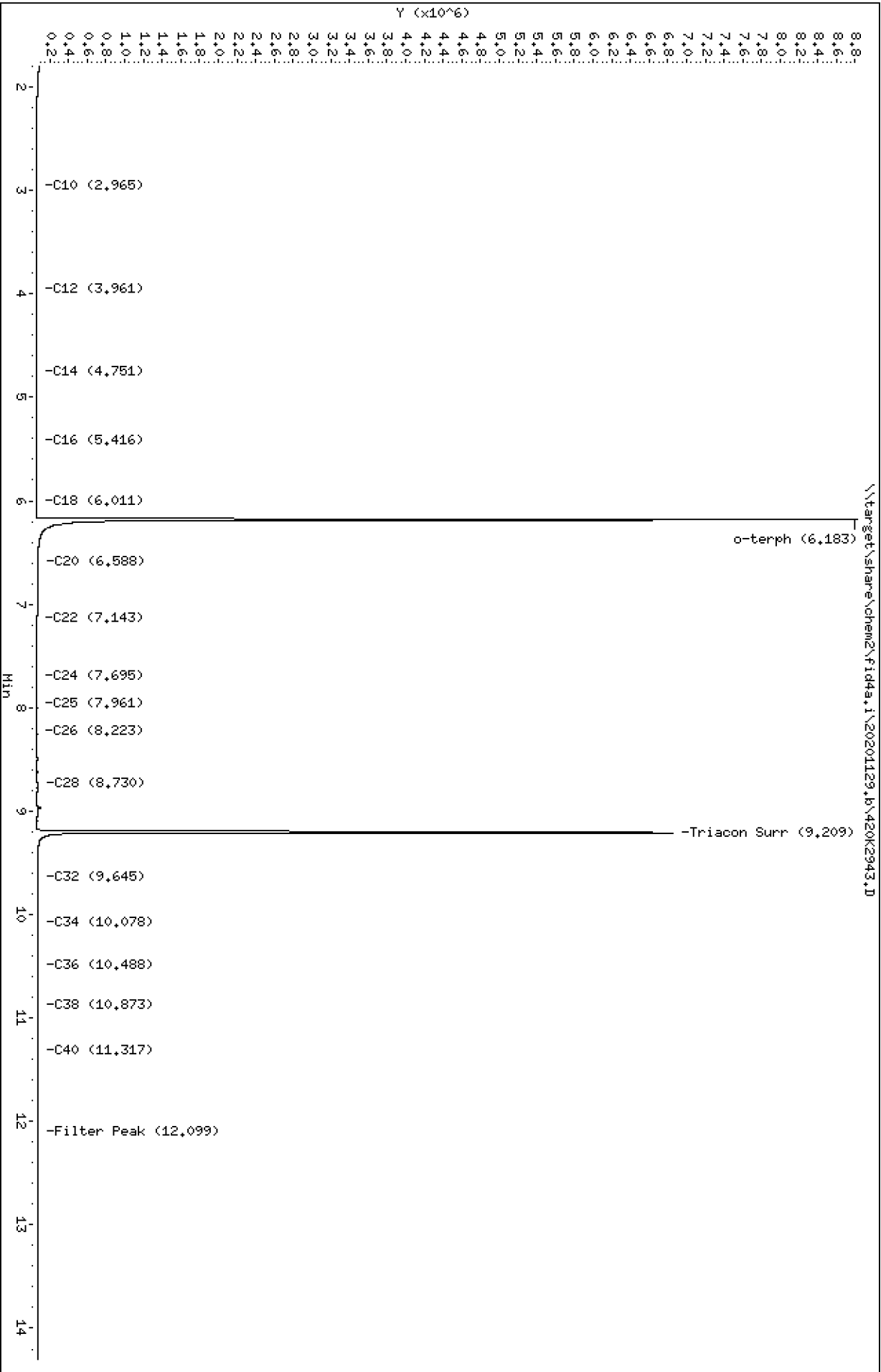
CAS NO.	COMPOUND	DILUTION	CONC: (mg/kg dry)	Q	DL	RL
DRO	Diesel Range Organics (C12-C24)	1	65.3	U	26.6	65.3
RRO	Motor Oil Range Organics (C24-C38)	1	131	U	27.4	131

SURROGATES	ADDED: (mg/kg dry)	FOUND: (mg/kg dry)	% REC	QC LIMITS	Q
o-Terphenyl	73.469	51.7	70.4	50 - 150	

Data File: \\target\share\chem2\fid4a,1\20201129,b\420K2943.D  
Date: 30-NOV-2020 07:51  
Client ID:  
Sample Info: 20K0204-07

Column phase: RTX-1

Instrument: fid4a,1  
Operator: JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201129.b/420K2943.D  
Method: 20201129.b\FID4TPH.m  
Instrument: fid4a.i, JGR  
Report Date: 11/30/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: 20K0204-07  
Client ID:  
Injection: 30-NOV-2020 07:51  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

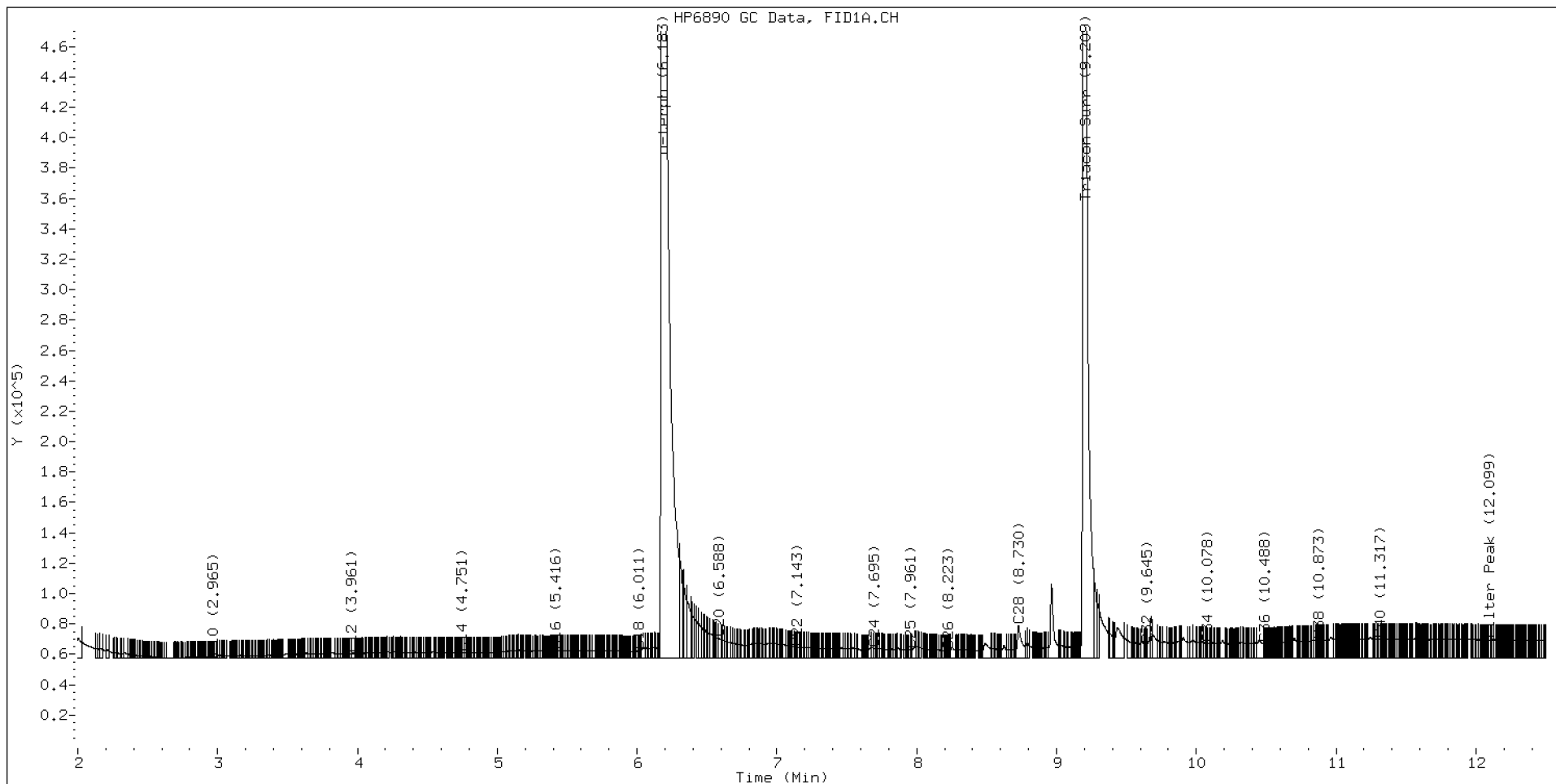
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.909	0.038	14573	8709	WATPHD	(C12-C24)	1393775	8.7
C10	2.965	-0.005	834	388	WATPHM	(C24-C38)	1567815	15.5
C12	3.961	-0.002	2958	584	AK102	(C10-C25)	1564986	8.0
C14	4.751	0.003	3496	522	AK103	(C25-C36)	1274295	17.4
C16	5.416	0.002	4590	1585	OR.DIES	(C10-C28)	1862887	9.5
C18	6.011	-0.001	4731	1876				
C20	6.588	0.005	12828	15414	JET-A	(C10-C18)	581603	3.5
C22	7.143	-0.001	7095	3869				
C24	7.695	0.002	6410	3159				
C25	7.961	-0.001	5540	2971				
C26	8.223	0.000	5094	1014				
C28	8.730	0.003	21437	45515				
C32	9.645	-0.011	9220	2284				
C34	10.078	-0.001	9638	2400				
Filter Peak	12.099	0.001	11968	6551	BUNKERC	(C10-C38)	3086369	78.2
C36	10.488	0.006	9635	2880				
C38	10.873	0.001	11551	2878				
C40	11.317	0.003	12266	6718				
o-terph	6.183	-0.015	8766351	8108048				
Triacon Surr	9.209	-0.022	6796151	7016493	NAS DIES	(C10-C24)	1518553	7.8

Range Times: NW Diesel(3.964 - 7.693) AK102(2.97 - 7.96) Jet A(2.97 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.96 - 10.48) OR Diesel(2.97 - 8.73)

Surrogate	Area	Amount
o-Terphenyl	8108048	39.6
Triacontane	7016493	47.3

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020





## PREPARATION BATCH SUMMARY

### NWTPH-Dx

Laboratory: Analytical Resources, Inc. SDG: 20K0204  
Client: Anchor QEA, LLC Project: Gasco Siltronic  
Batch: BIK0744 Batch Matrix: Solid Preparation: EPA 3546 (Microwave)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
USMPDI-006SC-A-00-01-201110	20K0204-05	420K2970.D	11/24/20 11:50	
USMPDI-006SC-A-00-01-201110	20K0204-05RE1	420L0442.D	11/24/20 11:50	Added 12/5/2020 by VTS
USMPDI-006SC-D-02-04-201110	20K0204-07	420K2943.D	11/24/20 11:50	
Blank	BIK0744-BLK1	420K2940.D	11/24/20 11:50	
LCS	BIK0744-BS1	420K2941.D	11/24/20 11:50	
USMPDI-006SC-D-02-04-201110	BIK0744-MS1	420K2944.D	11/24/20 11:50	
USMPDI-006SC-D-02-04-201110	BIK0744-MSD1	420K2945.D	11/24/20 11:50	



Batch: BIK0744

Prepared using: EPA 3546 (Microwave)

TPH NW (Extractables) in Solid

Matrix: Solid

Date Prepared: 11/24/20

Balance ID: B146462614

Set Up By: CTO 11/24/20

Analysis: TPH NW (Extractables)

Lab Number & Container	Initial (g)		Acid C/U (1:10) (1mL) Y/N	Silica Gel C/U (1mL) Y/N	Final Effective Vol (mL)	Vol to Lab	Extraction Comments
	Target Wet: 10 (Wet)	Actual					
20K0204-05 A	(10.000)	10.04	(1mL) Y/N	(1mL) Y/N	10	1.0	
20K0204-07 A	(10.000)	10.02	(1mL) Y/N	(1mL) Y/N	10	1.0	

Batch QC

Lab Number	Initial (g)		Acid C/U (1:10) (1mL) Y/N	Silica Gel C/U (1mL) Y/N	Final Effective Vol (mL)	Vol to Lab	Extraction Comments
	Target Wet: 10 (Wet)	Actual					
BIK0744-BLK1	(10.000)	10.00	(1mL) Y/N	(1mL) Y/N	10	1.0	
BIK0744-BS1	(10.000)	10.00	(1mL) Y/N	(1mL) Y/N	10	1.0	
BIK0744-MS1	(10.000)	10.00	(1mL) Y/N	(1mL) Y/N	10	1.0	Use 20K0204-07
BIK0744-MSD1	(10.000)	10.00	(1mL) Y/N	(1mL) Y/N	10	1.0	Use 20K0204-07

11/24/20

Client ID verified By

Date

BH

Preparation Reviewed By

11/25/20

Date

11/24/20 11:54

Extraction Date and Time





Batch: BIK0744

Prepared using: EPA 3546 (Microwave)

TPH NW (Extractables) in Solid

Prep Steps	Reagents Used	Surrogates & Spike Standards Used
<b>Microwave</b> 1 2 3 Analyst/Date: DAP 11/24/20	<b>Station/Reagent</b> <b>Standard ID</b> <b>Microwave</b> Analyst: DAP MS      Date: 11/24/20	<b>Type</b> <b>Vial ID / Standard ID</b> <b>Vol uL</b> <b>Analyst</b> <b>Witness</b> <b>Surrogate</b> P      1009825      500uL      DAP      Y Exp: 04/17/2021 1125µg/mL
	Methylene Chloride      I010666	<b>Spike</b> H      1009822      1000uL      DAP      Y Exp: 04/20/2021 15000µg/mL
<b>TurboVap</b> 1 2 3 4 5 Analyst/Date: BH 11/25/20	Anhydrous Sodium Sulfate      I010747 Neutral Glass Wool      I010379	(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).
	<b>Vialing</b> Analyst: BH      Date: 11/25/20	
<b>Vialing</b> Analyst/Date: BH 11/25/20	Methylene Chloride      I010666	
	<del>Concentrated Sulfuric Acid</del> <del>90% Ethanol</del>	





Batch: BIK0744

Prepared using: EPA 3546 (Microwave)

TPH NW (Extractables) in Solid

Prep Instructions	
<p>SPECIAL INSTRUCTIONS:</p> <ol style="list-style-type: none"><li>1. Weigh into 100mL beakers-dry with Sodium Sulfate.</li><li>2. Transfer to microwave vessel.</li><li>3. Add DCM to the vessel until the solvent is 1" above soil layer after homogenization.</li><li>4. Add surr/spike.</li><li>5. Microwave on appropriate power setting determined by # of samples.</li><li>6. After microwave-Re-homogenize while hot then let cool 15 min. in R-05. Re-homogenize while cool.</li><li>7. Collect into turbo tube with small funnel containing neutral glasswool and 1" sodium sulfate.</li><li>8. Add (2) 10mL DCM rinses to vessel and transfer to turbo tube.</li><li>9. TurboVap.</li><li>10. Acid/Silica Clean-up Y <input type="checkbox"/> N <input checked="" type="checkbox"/></li><li>11. TurboVap.</li><li>12. Vial in DCM.</li></ol> <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>	



Extraction Parameter: TPH Extraction Batch BK0744

Total Solids Batch: BK0715 Work Order(s): 2010204

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)= <u>2,3,4,5,6,7,8,9,10,11,12,13</u>	<u>CTO 11/23/20</u>
<input type="checkbox"/> Standing Water Decanted (Not shared)=	
<input checked="" type="checkbox"/> Standing Water Homogenized (Shared samples)= <u>/</u>	<u>CTO 11/23/20</u>
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input type="checkbox"/> Previously Frozen =	
<input type="checkbox"/> Other (Details)=	
<b>Aqueous:</b>	
<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 <u>Y/N</u> <u>01,02,3,4,5,6,8,9,10,11,12,13</u> <u>9=not shared</u>	<u>CTO 11/23/20</u>
<input type="checkbox"/> Multiple Jars Y / N	
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	

Batch: BIK0744

Batch Comment: \*\*NONE\*\*

Project: Gasco Siltronic

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

Work Order:20K0204

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

Sample: 20K0204-05

Sample Comments: \*\*NONE\*\*

Sample: 20K0204-07

Sample Comments: \*\*NONE\*\*



**Form I**  
**METHOD BLANK DATA SHEET**  
**NWTPH-Dx**

Blank
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Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>20K0204</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic</u>
Matrix:	<u>Solid</u>	Laboratory ID:	<u>BIK0744-BLK1</u>
Sampled:	<u>N/A</u>	Prepared:	<u>11/24/20 11:50</u>
Solids:		Preparation:	<u>EPA 3546 (Microwave)</u>
Batch:	<u>BIK0744</u>	Sequence:	<u>SIK0411</u>
Instrument:	<u>FID4</u>	Column:	<u>RTX-1</u>
		File ID:	<u>420K2940.D</u>
		Analyzed:	<u>11/30/20 06:51</u>
		Initial/Final:	<u>10 g / 10 mL</u>
		Calibration:	<u>DA00022</u>

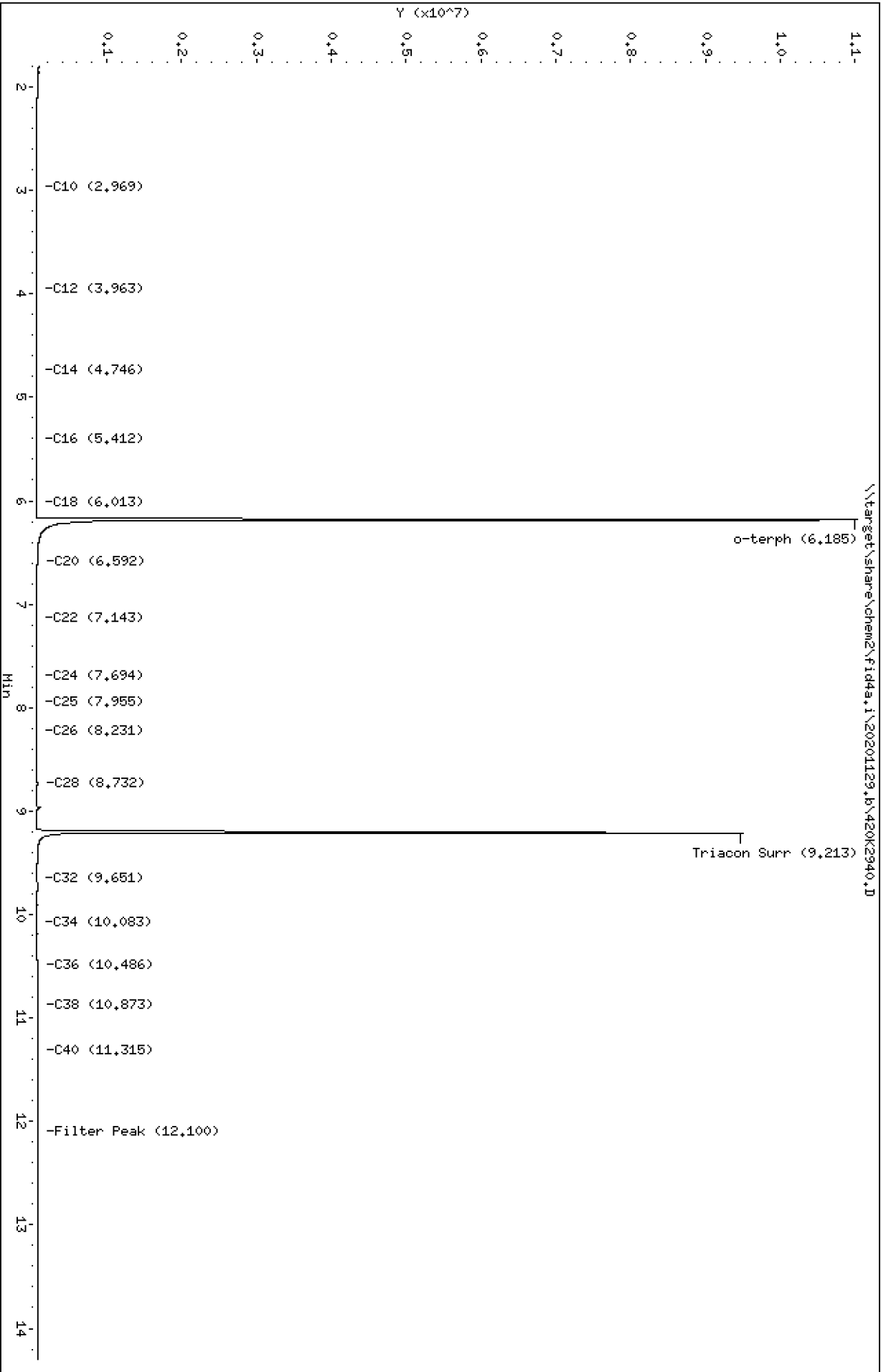
CAS NO.	COMPOUND	DILUTION	CONC: (mg/kg wet)	Q	DL	RL
DRO	Diesel Range Organics (C12-C24)	1	50.0	U	20.3	50.0
RRO	Motor Oil Range Organics (C24-C38)	1	100	U	21.0	100

SURROGATES	ADDED: (mg/kg wet)	FOUND: (mg/kg wet)	% REC	QC LIMITS	Q
o-Terphenyl	56.250	49.9	88.7	50 - 150	

Data File: \\target\share\chem2\fid4a,1\20201129,6\420K2940.D  
Date: 30-NOV-2020 06:51  
Client ID:  
Sample Info: BIK0744-BLK1

Column phase: RTX-1

Instrument: fid4a,1  
Operator: JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201129.b/420K2940.D  
Method: 20201129.b\FID4TPH.m  
Instrument: fid4a.i, JGR  
Report Date: 11/30/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: BIK0744-BLK1  
Client ID:  
Injection: 30-NOV-2020 06:51  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

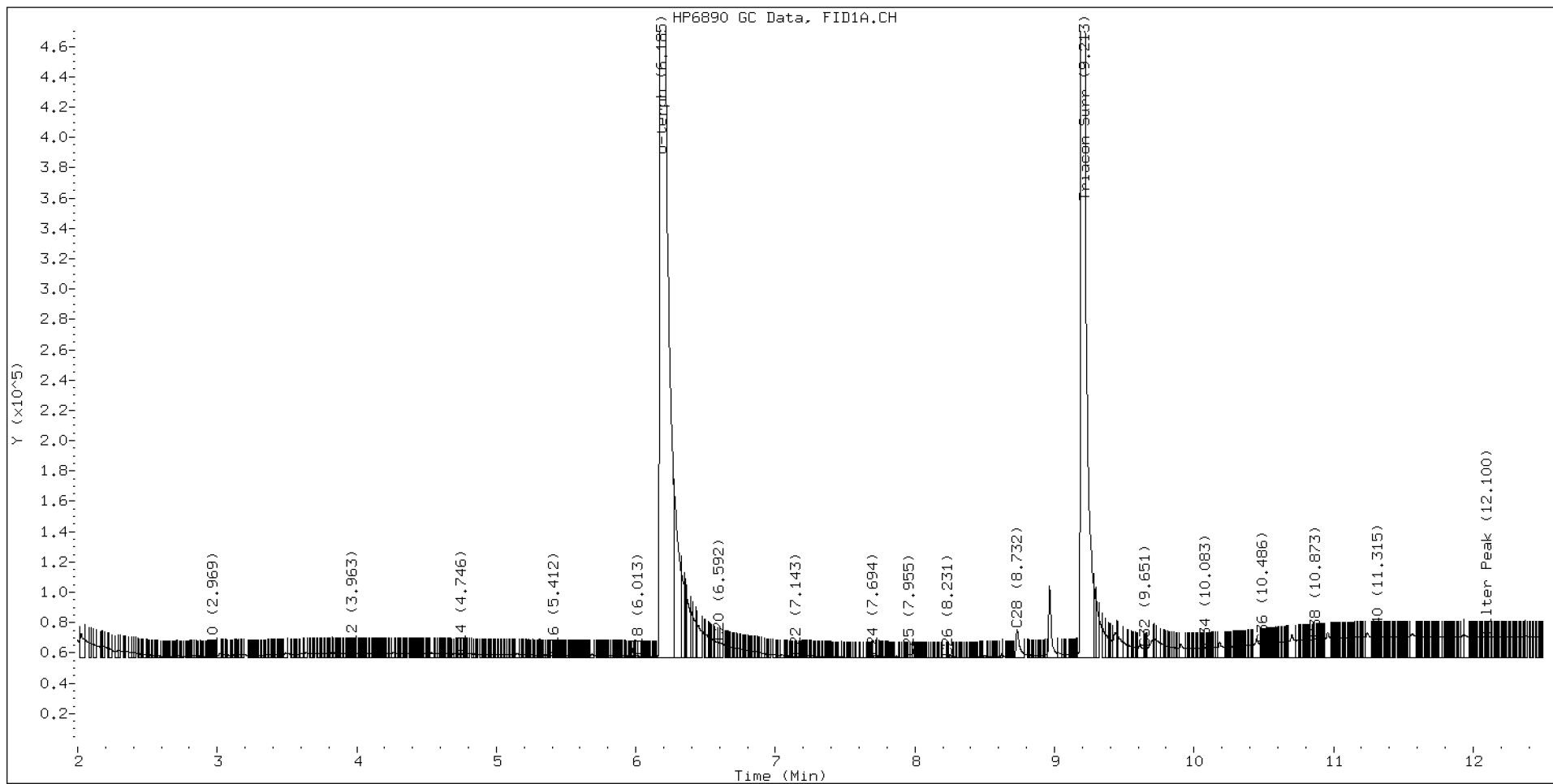
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.865	-0.006	33220	95982	WATPHD	(C12-C24)	972090	6.1
C10	2.969	-0.000	1303	922	WATPHM	(C24-C38)	1070122	10.6
C12	3.963	-0.001	3092	921	AK102	(C10-C25)	1111806	5.7
C14	4.746	-0.002	2651	654	AK103	(C25-C36)	815485	11.1
C16	5.412	-0.002	1887	998	OR.DIES	(C10-C28)	1168938	6.0
C18	6.013	0.001	1227	240				
C20	6.592	0.009	10254	7514	JET-A	(C10-C18)	384726	2.3
C22	7.143	-0.000	1145	222				
C24	7.694	0.001	812	320				
C25	7.955	-0.006	338	138				
C26	8.231	0.008	261	100				
C28	8.732	0.005	18514	33881				
C32	9.651	-0.005	6111	2129				
C34	10.083	0.005	6751	5249				
Filter Peak	12.100	0.002	13910	5553	BUNKERC	(C10-C38)	2176171	55.1
C36	10.486	0.004	9345	2325				
C38	10.873	0.000	12545	8094				
C40	11.315	0.001	13934	3475				
o-terph	6.185	-0.013	10978572	10221235				
Triacon Surr	9.213	-0.018	9458074	9407939	NAS DIES	(C10-C24)	1106049	5.7

Range Times: NW Diesel(3.964 - 7.693) AK102(2.97 - 7.96) Jet A(2.97 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.96 - 10.48) OR Diesel(2.97 - 8.73)

Surrogate	Area	Amount
o-Terphenyl	10221235	49.9
Triacontane	9407939	63.4

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020





**LCS / LCS DUPLICATE RECOVERY**  
**NWTPH-Dx**

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>20K0204</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>11/30/20 07:11</u>
Batch:	<u>BIK0744</u>	Laboratory ID:	<u>BIK0744-BS1</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>LCS</u>
Initial/Final:	<u>10 g / 10 mL</u>		

COMPOUND	SPIKE ADDED (mg/kg wet)	LCS CONCENTRATION (mg/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
Diesel Range Organics (C12-C24)	1500	1280		85.3	63 - 120

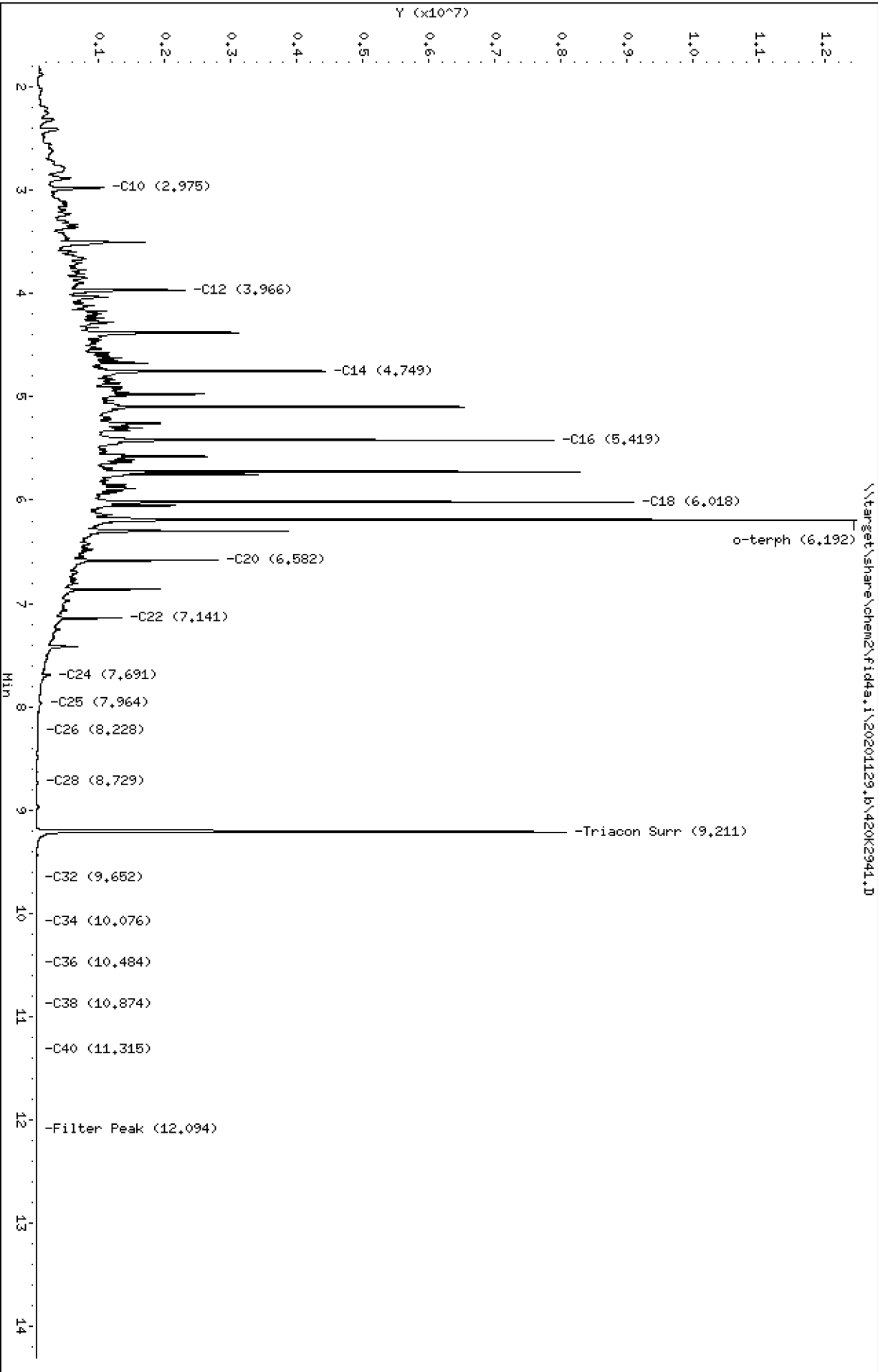
\* Indicates values outside of QC limits



Data File: \\target\share\chem2\fid4a,1\20201129,b\420K2941.D  
Date: 30-NOV-2020 07:11  
Client ID:  
Sample Info: BIK0744-BS1

Column phase: RTX-1

Instrument: fid4a,1  
Operator: JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201129.b/420K2941.D  
Method: 20201129.b\FID4TPH.m  
Instrument: fid4a.i, JGR  
Report Date: 11/30/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: BIK0744-BS1  
Client ID:  
Injection: 30-NOV-2020 07:11  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

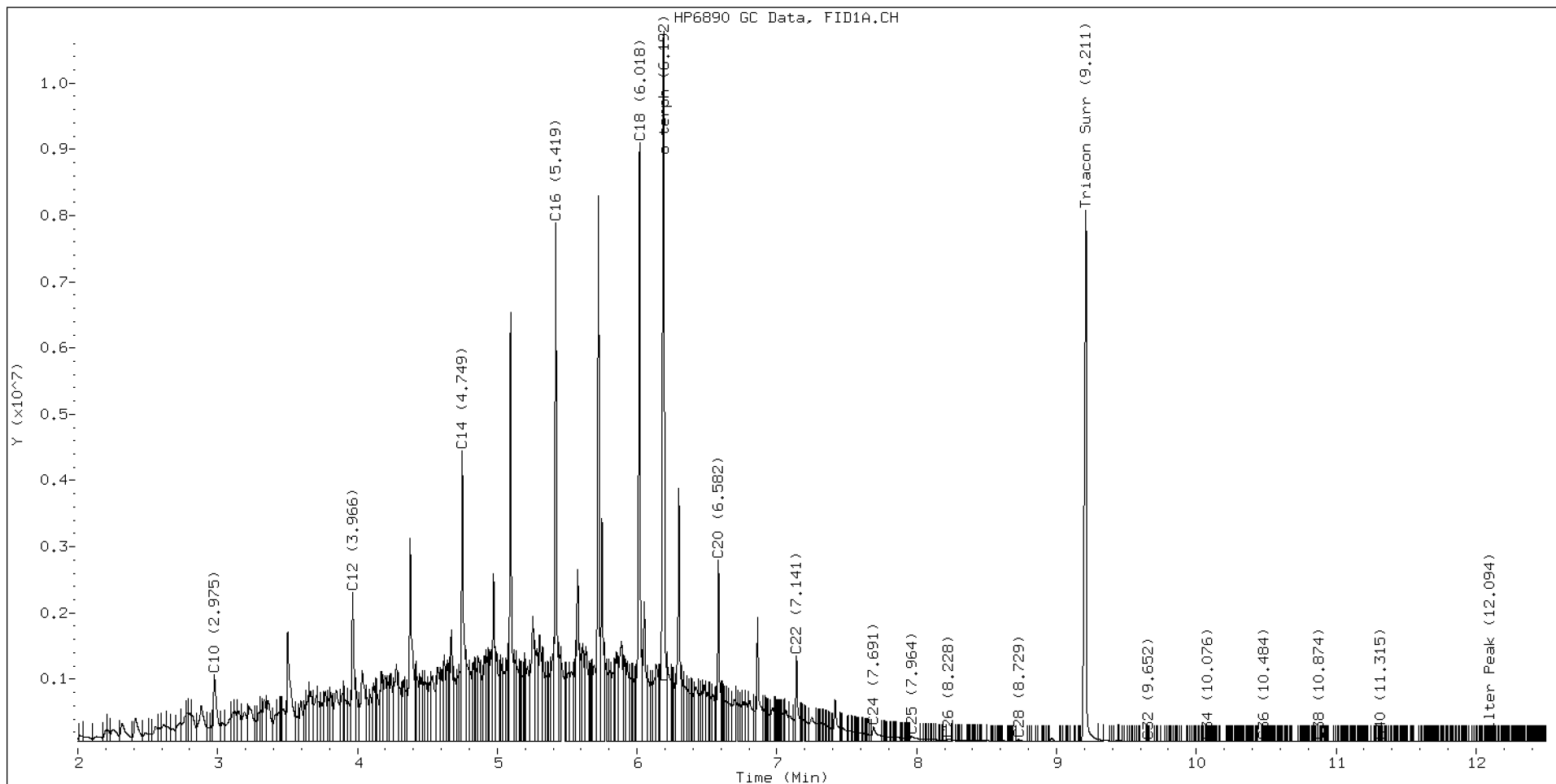
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.883	0.011	93757	165921	WATPHD	(C12-C24)	203855151	1279.4
C10	2.975	0.006	1012222	1738424	WATPHM	(C24-C38)	1936227	19.1
C12	3.966	0.002	2243223	2868324	AK102	(C10-C25)	238008263	1217.5
C14	4.749	0.001	4383173	5222140	AK103	(C25-C36)	1281463	17.5
C16	5.419	0.005	7826313	6818907	OR.DIES	(C10-C28)	238958343	1219.2
C18	6.018	0.006	9043659	8743328				
C20	6.582	-0.001	2741672	2776955	JET-A	(C10-C18)	184570624	1112.9
C22	7.141	-0.003	1294566	1389911				
C24	7.691	-0.002	214273	537843				
C25	7.964	0.002	79205	242769				
C26	8.228	0.005	31189	54943				
C28	8.729	0.001	26411	51535				
C32	9.652	-0.004	1495	442				
C34	10.076	-0.003	1188	573				
Filter Peak	12.094	-0.004	6908	2051	BUNKERC	(C10-C38)	239390491	6064.0
C36	10.484	0.002	3044	1800				
C38	10.874	0.001	5403	3484				
C40	11.315	0.001	6806	2708				
o-terph	6.192	-0.006	11483388	9699664				
Triacon Surr	9.211	-0.019	8020523	8607717	NAS DIES	(C10-C24)	237454264	1216.8

Range Times: NW Diesel(3.964 - 7.693) AK102(2.97 - 7.96) Jet A(2.97 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.96 - 10.48) OR Diesel(2.97 - 8.73)

Surrogate	Area	Amount
o-Terphenyl	9699664	47.4 M
Triacontane	8607717	58.0

M Indicates the peak was manually integrated

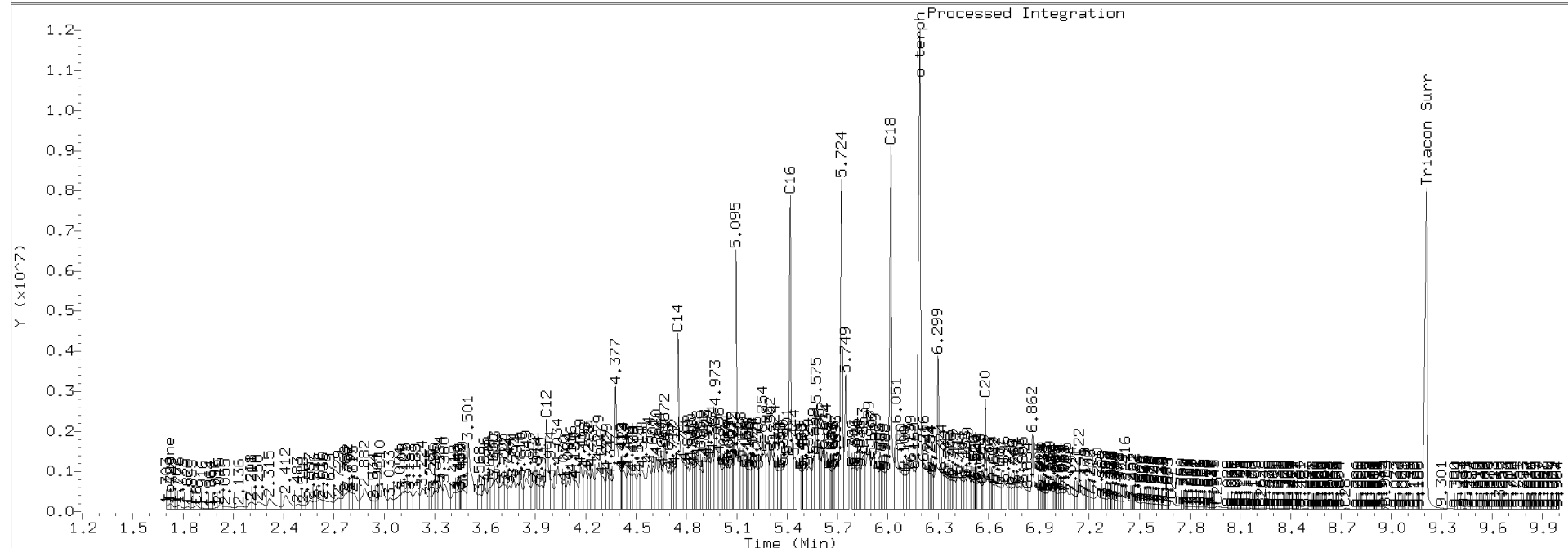
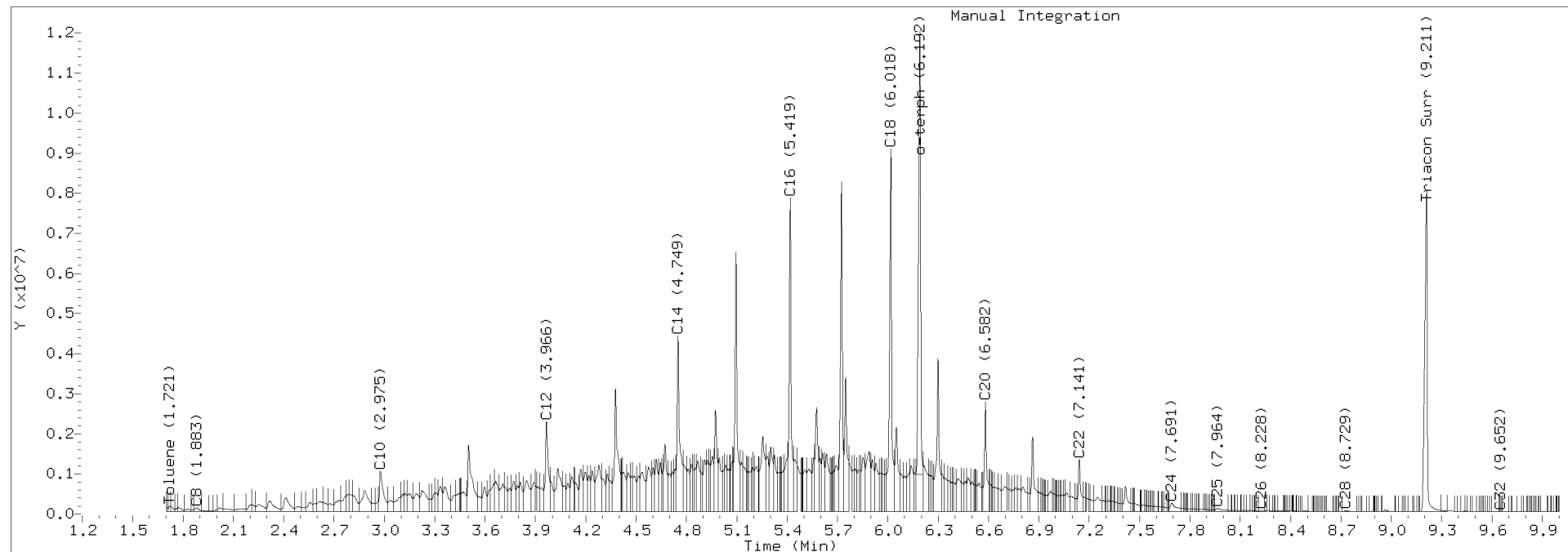
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20201129.b/420K2941.D Injection: 30-NOV-2020 07:11

Lab ID:BIK0744-BS1





**MS / MS DUPLICATE RECOVERY**  
**NWTPH-Dx**

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Matrix: Solid

Analyzed: 11/30/20 08:12

Batch: BIK0744

Laboratory ID: BIK0744-MS1

Preparation: EPA 3546 (Microwave)

Sequence Name: Matrix Spike

Initial/Final: 10 g / 10 mL

Source Sample: USMPDI-006SC-D-02-04-201110

COMPOUND	SPIKE ADDED (mg/kg dry)	SAMPLE CONCENTRATION (mg/kg dry)	Q	MS CONCENTRATION (mg/kg dry)	Q	MS % REC. #	QC LIMITS REC.
Diesel Range Organics (C12-C24)	1960	ND	U	1790		91.1	63 - 120

\* Values outside of QC limits



**MS / MS DUPLICATE RECOVERY**  
**NWTPH-Dx**

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Matrix: Solid

Analyzed: 11/30/20 08:32

Batch: BIK0744

Laboratory ID: BIK0744-MSD1

Preparation: EPA 3546 (Microwave)

Sequence Name: Matrix Spike Dup

Initial/Final: 10 g / 10 mL

Source Sample: USMPDI-006SC-D-02-04-201110

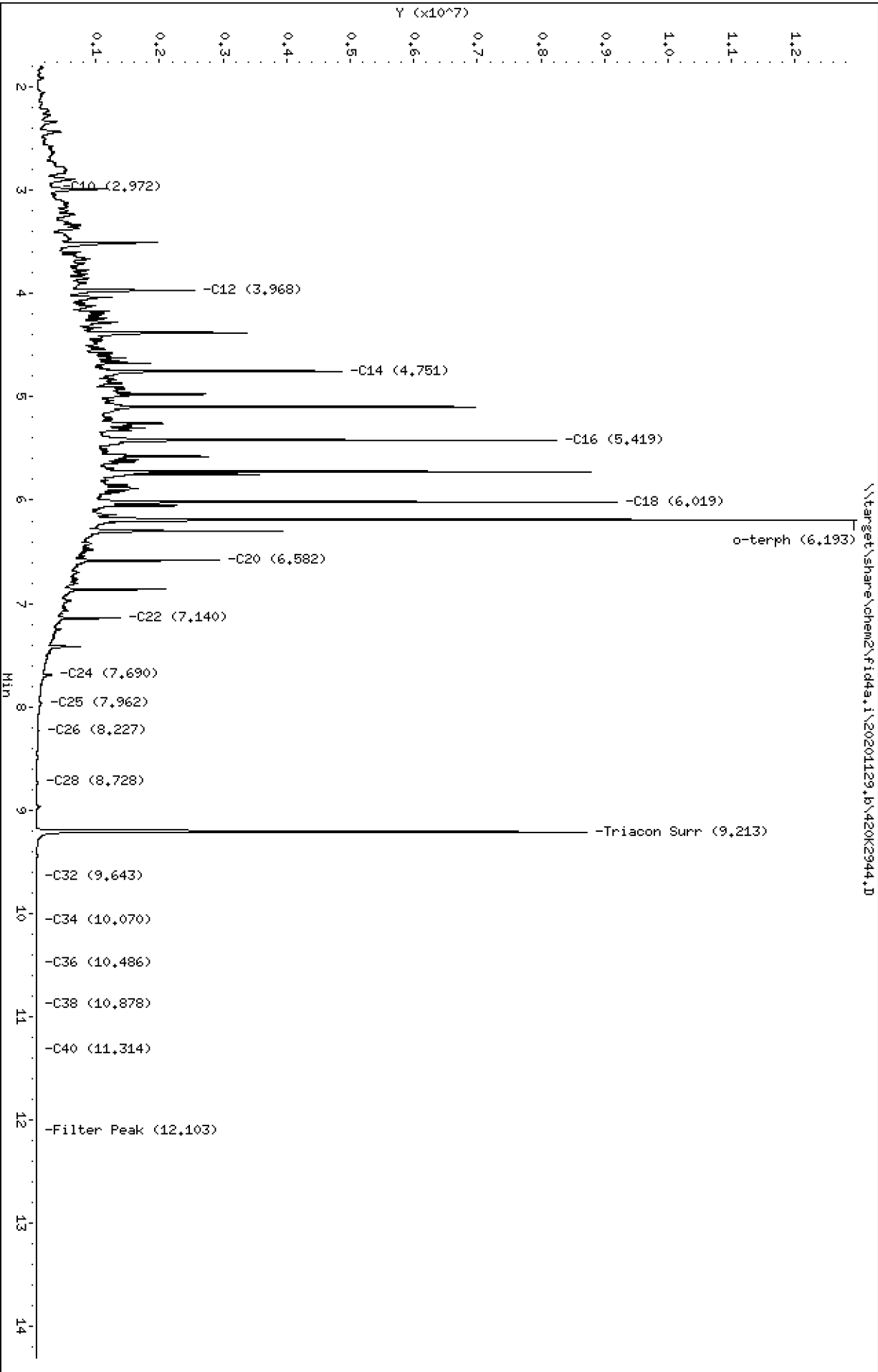
COMPOUND	SPIKE ADDED (mg/kg dry)	MSD CONCENTRATION (mg/kg dry)	Q	MSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Diesel Range Organics (C12-C24)	1960	1910		97.5	6.80	30	63 - 120

\* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20201129,b\420K2944.D  
Date: 30-NOV-2020 08:12  
Client ID:  
Sample Info: BIK0744-HSI

Column phase: RTX-1

Instrument: fid4a,1  
Operator: JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201129.b/420K2944.D  
Method: 20201129.b\FID4TPH.m  
Instrument: fid4a.i, JGR  
Report Date: 11/30/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: BIK0744-MS1  
Client ID:  
Injection: 30-NOV-2020 08:12  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.867	-0.004	69220	127029	WATPHD	(C12-C24)	217691722	1366.2
C10	2.972	0.002	275706	233882	WATPHM	(C24-C38)	1964845	19.4
C12	3.968	0.004	2483453	3128498	AK102	(C10-C25)	255118169	1305.0
C14	4.751	0.003	4806479	4818454	AK103	(C25-C36)	1348204	18.4
C16	5.419	0.006	8172074	8756827	OR.DIES	(C10-C28)	256121164	1306.7
C18	6.019	0.007	9132654	9394043				
C20	6.582	-0.001	2881275	3091124	JET-A	(C10-C18)	198509695	1196.9
C22	7.140	-0.004	1329463	1518364				
C24	7.690	-0.003	235910	510160				
C25	7.962	0.001	87249	224103				
C26	8.227	0.004	33854	67536				
C28	8.728	0.001	31114	51338				
C32	9.643	-0.013	1198	493				
C34	10.070	-0.009	438	178				
Filter Peak	12.103	0.005	2248	1312	BUNKERC	(C10-C38)	256500642	6497.4
C36	10.486	0.004	596	233				
C38	10.878	0.006	1830	885				
C40	11.314	-0.000	2299	1133				
o-terph	6.193	-0.005	11894158	10476727				
Triacon Surr	9.213	-0.018	8657972	9307845	NAS DIES	(C10-C24)	254535797	1304.3

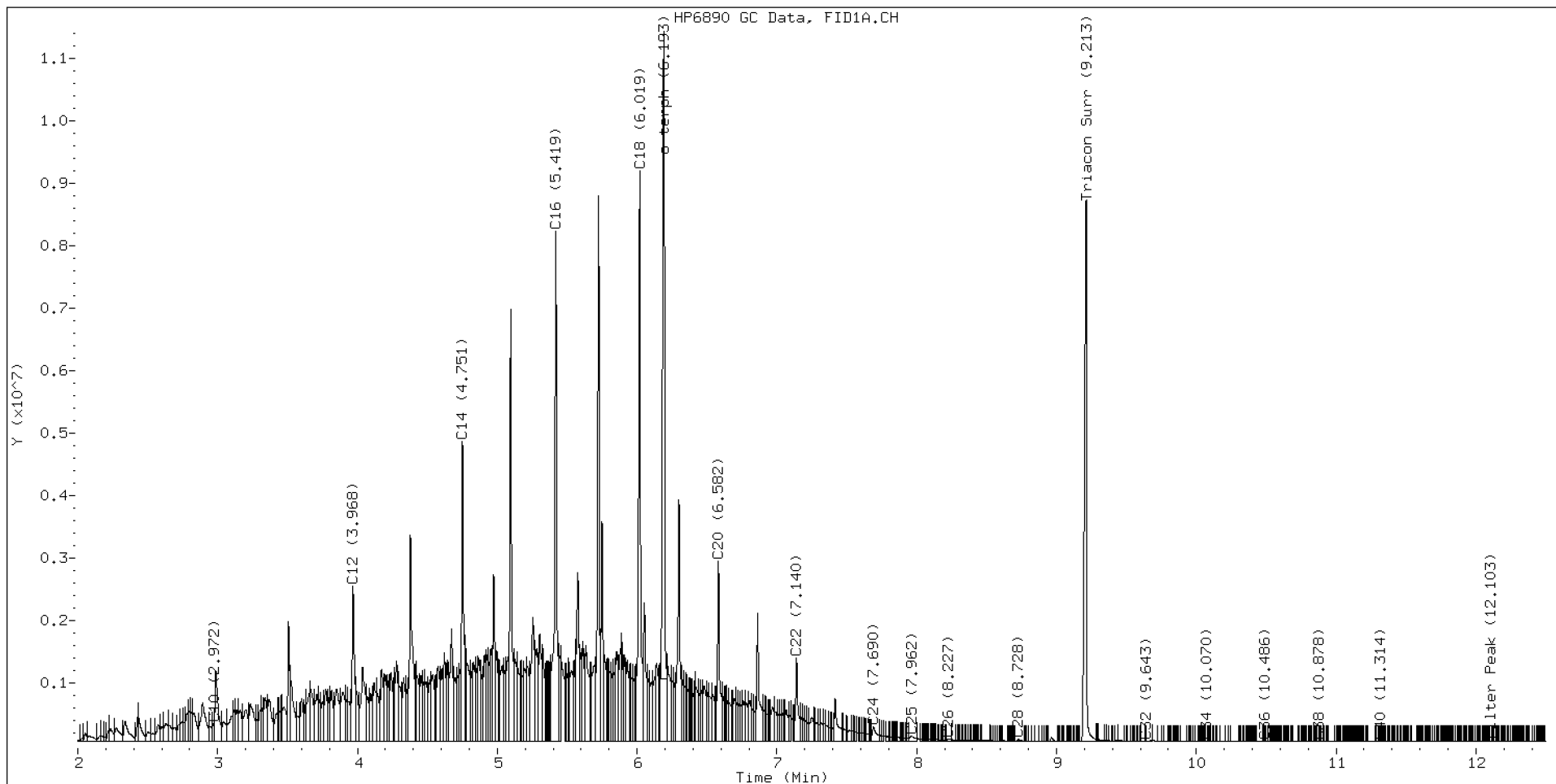
Range Times: NW Diesel(3.964 - 7.693) AK102(2.97 - 7.96) Jet A(2.97 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.96 - 10.48) OR Diesel(2.97 - 8.73)

Surrogate	Area	Amount
o-Terphenyl	10476727	51.2 M
Triacontane	9307845	62.7

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020

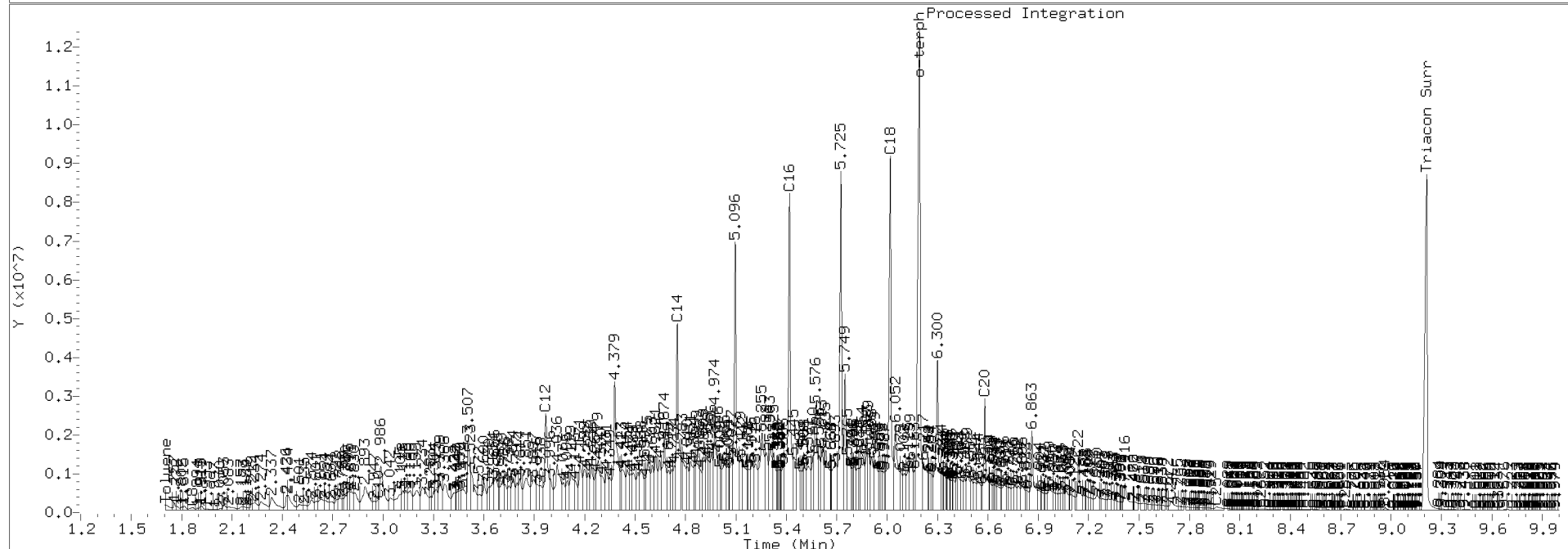
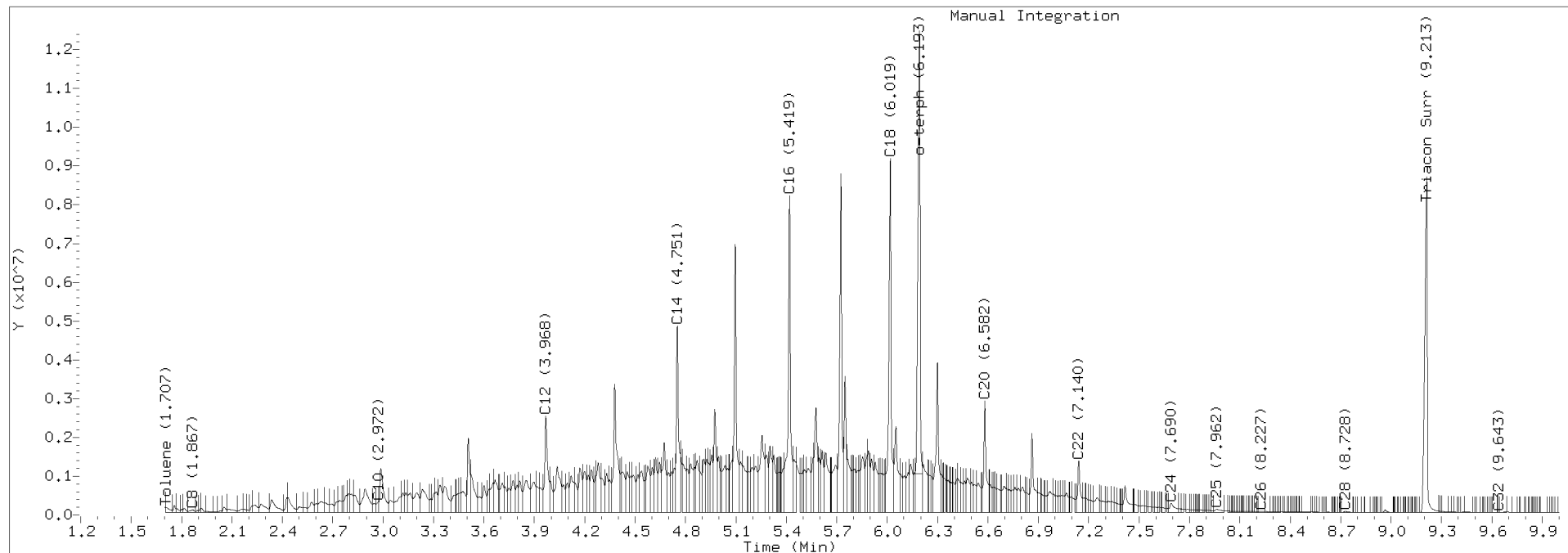




TPH Manual Integrations Report

Datafile: FID4A, 20201129.b/420K2944.D Injection: 30-NOV-2020 08:12

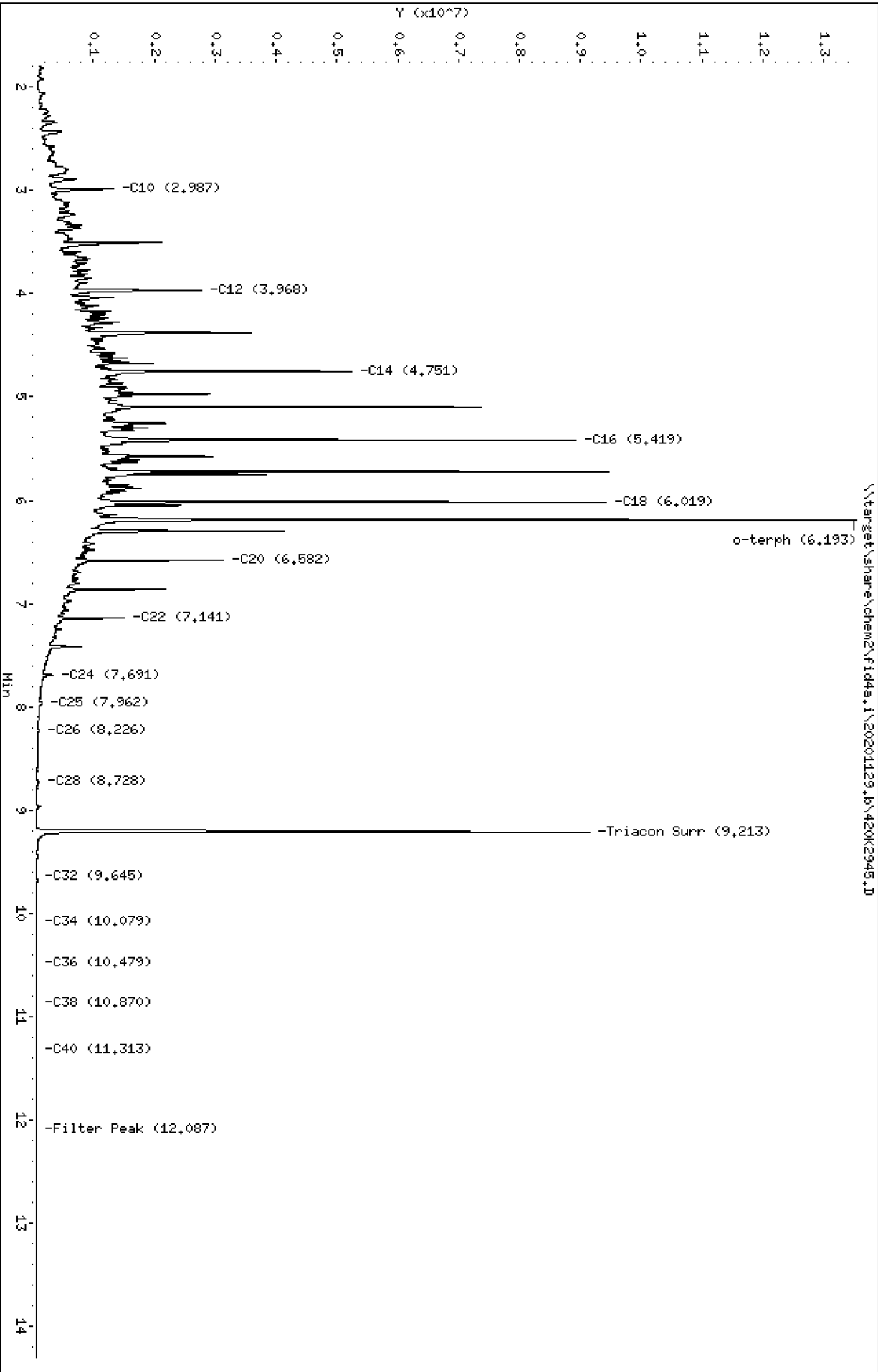
Lab ID:BIK0744-MS1



Data File: \\target\share\chem2\fid4a,1\20201129,b\420K2945.D  
Date: 30-NOV-2020 08:32  
Client ID:  
Sample Info: BIK0744-HSD1

Column phase: RTX-1

Instrument: fid4a,1  
Operator: JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201129.b/420K2945.D  
Method: 20201129.b\FID4TPH.m  
Instrument: fid4a.i, JGR  
Report Date: 11/30/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: BIK0744-MSD1  
Client ID:  
Injection: 30-NOV-2020 08:32  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

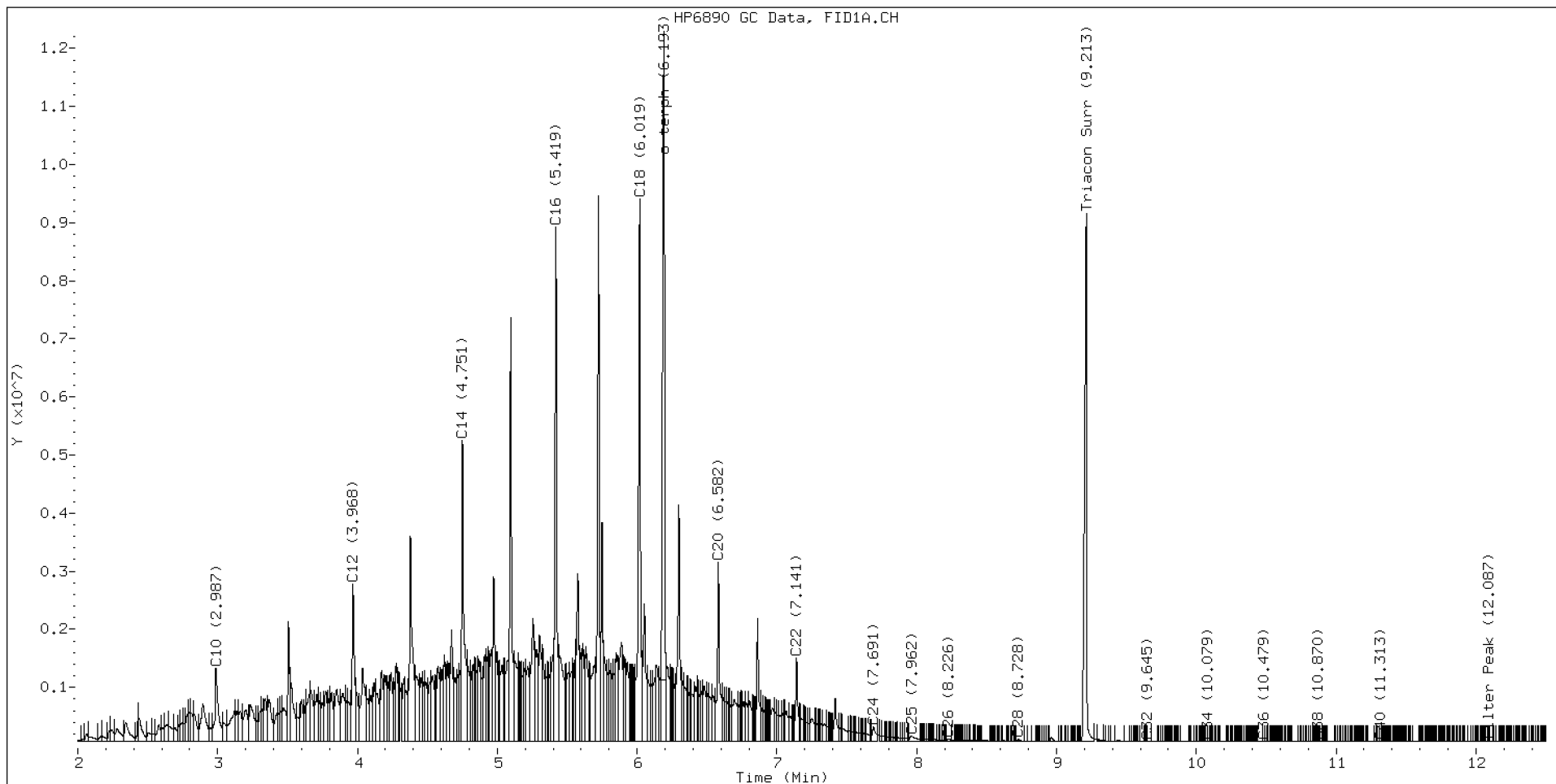
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.873	0.002	67786	110395	WATPHD	(C12-C24)	233007335	1462.4
C10	2.987	0.017	1264518	2244949	WATPHM	(C24-C38)	2885158	28.5
C12	3.968	0.004	2709246	3276356	AK102	(C10-C25)	272764272	1395.3
C14	4.751	0.003	5180249	5989296	AK103	(C25-C36)	2054189	28.1
C16	5.419	0.005	8853995	7851239	OR.DIES	(C10-C28)	274130837	1398.6
C18	6.019	0.007	9351957	9997491				
C20	6.582	-0.001	3080922	3453036	JET-A	(C10-C18)	211778953	1276.9
C22	7.141	-0.003	1441697	1517352				
C24	7.691	-0.002	260879	468788				
C25	7.962	0.000	95587	303210				
C26	8.226	0.003	41465	79016				
C28	8.728	0.000	36012	69828				
C32	9.645	-0.010	5129	1733				
C34	10.079	0.000	3752	927				
Filter Peak	12.087	-0.011	3623	1805	BUNKERC	(C10-C38)	274909443	6963.8
C36	10.479	-0.003	3484	2199				
C38	10.870	-0.002	4346	1508				
C40	11.313	-0.000	4735	3964				
o-terph	6.193	-0.005	12415523	11030181				
Triacon Surr	9.213	-0.017	9086831	9637908	NAS DIES	(C10-C24)	272024284	1393.9

Range Times: NW Diesel(3.964 - 7.693) AK102(2.97 - 7.96) Jet A(2.97 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.96 - 10.48) OR Diesel(2.97 - 8.73)

Surrogate	Area	Amount
o-Terphenyl	11030181	53.9 M
Triacontane	9637908	65.0

M Indicates the peak was manually integrated

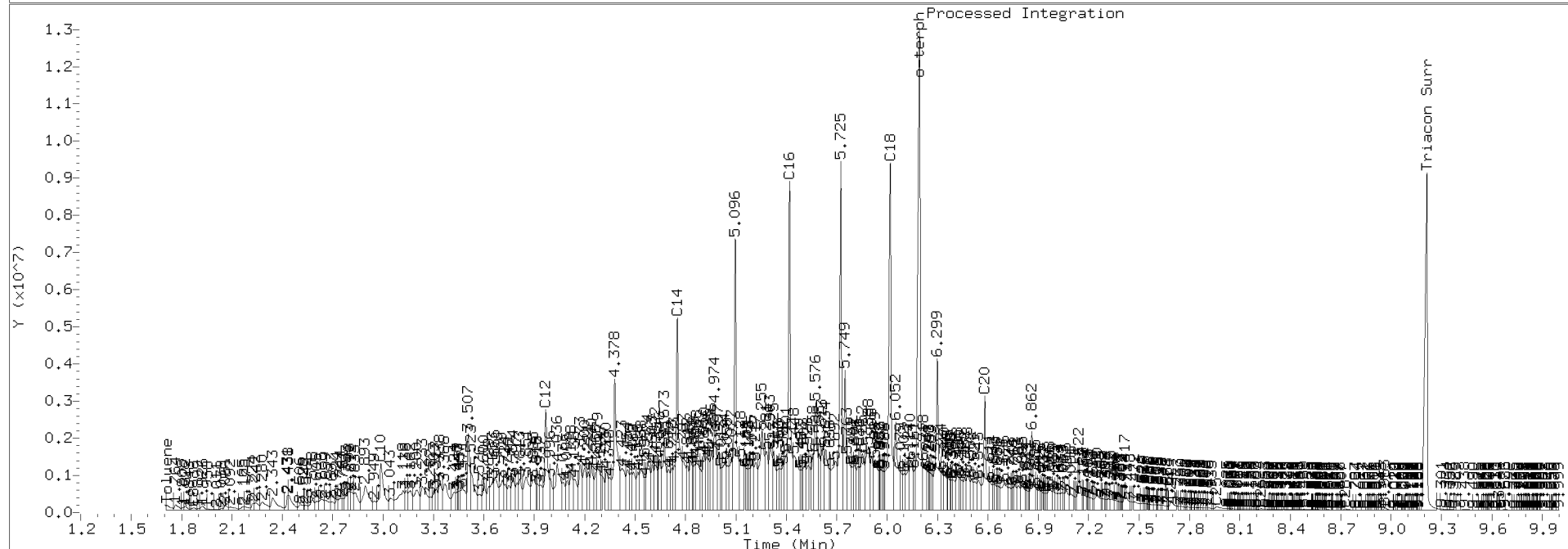
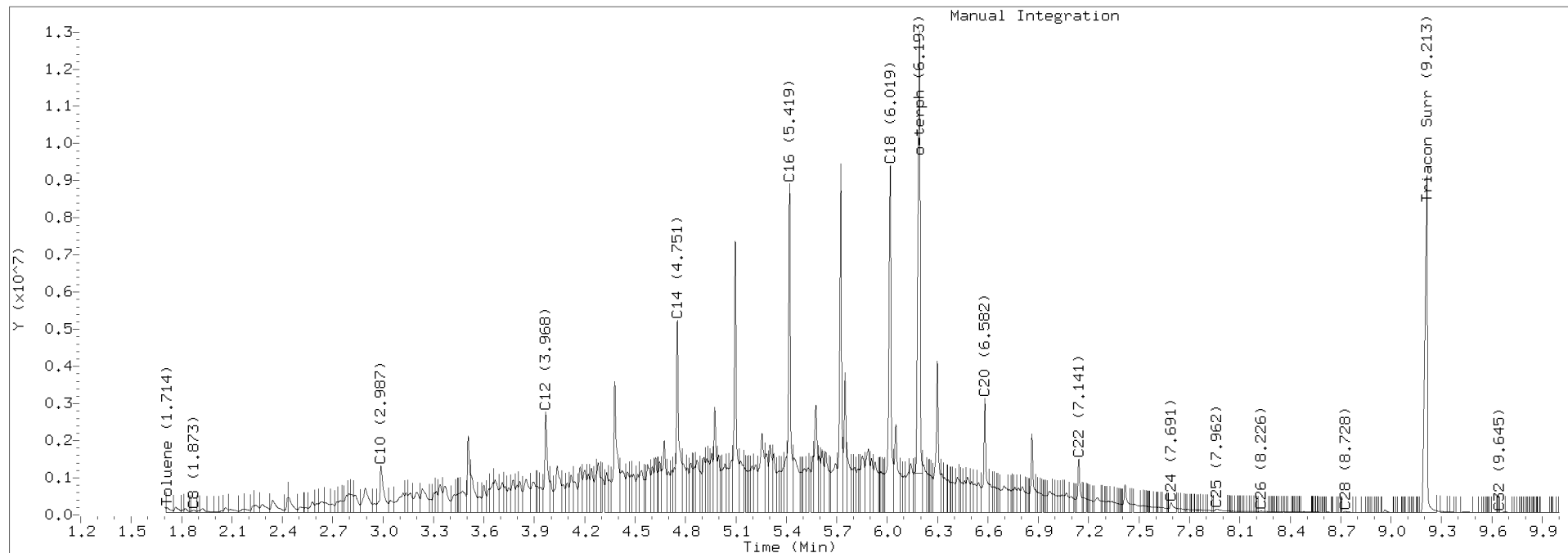
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20201129.b/420K2945.D Injection: 30-NOV-2020 08:32

Lab ID:BIK0744-MSD1





## INITIAL CALIBRATION DATA

### NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	20K0204
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic
Calibration:	CJ00089	Instrument:	FID4
Calibration Date:	10/29/2019	Column (1):	RTX-1

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Diesel Range Organics (C12-C24)	50	182114.3	100	162168.4	250	151655.3	500	152220	1000	153066.8	2500	154795.4
o-Terphenyl	9	207237.8	18	202348.9	45	199293.8	90	202627.8	180	206915.5	450	209787.6



## INITIAL CALIBRATION DATA NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	20K0204
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic
Calibration:	CJ00089	Instrument:	FID4
Calibration Date:	10/29/2019	Column (1):	RTX-1

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RF		RF		RF		RF		RF		RF
Motor Oil Range Organics (C24-C38)	100	135784.6	250	138615.1	500	128616.3	1000	130458.6	2500	132749.3	5000	129568.6





## INITIAL CALIBRATION DATA NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	20K0204
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic
Calibration:	CJ00089	Instrument:	FID4
Calibration Date:	10/29/2019	Column (1):	RTX-1

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Diesel Range Organics (C12-C24)	159336.7	7.4			RSD (20)	
Motor Oil Range Organics (C24-C38)	132632.1	2.9			RSD (20)	
o-Terphenyl	204701.9	1.9			RSD (20)	



ANALYSIS SEQUENCE

Printed: 10/30/2019 7:24:06AM

SHJ0406

Instrument: FID4      Element Column ID: G004925  
Calibration ID: CJ00089

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SHJ0406-IBL1	Retention Time Standard	QC		1	H006806		
SHJ0406-IBL2	Instrument Blank	QC		2	H007457		
SHJ0406-CAL1	DIESEL 50	QC		3	H010495		
SHJ0406-CAL2	DIESEL 100	QC		4	H010496		
SHJ0406-CAL3	DIESEL 250	QC		5	H010497		
SHJ0406-CAL4	DIESEL 500	QC		6	H010498		
SHJ0406-CAL5	DIESEL 1000	QC		7	H010499		
SHJ0406-CAL6	DIESEL 2500	QC		8	H009367		
SHJ0406-SCV1	DIESEL SCV	QC		9	H008294		
SHJ0406-CAL7	MOIL 100	QC		10	H008395		
SHJ0406-CAL8	MOIL 250	QC		11	H008396		
SHJ0406-CAL9	MOIL 500	QC		12	H008397		
SHJ0406-CALA	MOIL 1000	QC		13	H007659		
SHJ0406-CALB	MOIL 2500	QC		14	H008398		
SHJ0406-CALC	MOIL 5000	QC		15	H007458		
SHJ0406-SCV2	MOIL SCV	QC		16	H008399		
SHJ0406-CALD	AK103 100	QC		17	H010478		
SHJ0406-CALE	AK103 250	QC		18	H010479		
SHJ0406-CALF	AK103 500	QC		19	H010480		
SHJ0406-CALG	AK103 1000	QC		20	H010481		
SHJ0406-CALH	AK103 2500	QC		21	H010482		
SHJ0406-CALI	AK103 5000	QC		22	H008608		



Analytical Resources, Incorporated  
Analytical Chemists and Consultants

ANALYSIS SEQUENCE

Printed: 10/30/2019 7:24:06AM

SHJ0406

Instrument: FID4      Element Column ID: G004925  
Calibration ID: CJ00089

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SHJ0406-SCV3	AK103 SCV	QC		23	H008400		

## GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20191025.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	25-OCT-2019	11:37	419J2501.D	1	RINSE	
2	25-OCT-2019	11:55	419J2502.D	1	RINSE	
3	25-OCT-2019	12:30	419J2503.D	1	RINSE	
4	25-OCT-2019	12:51	419J2504.D	1	RINSE	
5	25-OCT-2019	13:11	419J2505.D	1	SHJ0406-IBL1	
6	25-OCT-2019	13:31	419J2506.D	1	SHJ0406-IBL2	
7	25-OCT-2019	13:52	419J2507.D	1	SHJ0406-CAL1	
8	25-OCT-2019	14:12	419J2508.D	1	SHJ0406-CAL2	
9	25-OCT-2019	14:32	419J2509.D	1	SHJ0406-CAL3	
10	25-OCT-2019	14:53	419J2510.D	1	SHJ0406-CAL4	
11	25-OCT-2019	15:13	419J2511.D	1	SHJ0406-CAL5	
12	25-OCT-2019	15:32	419J2512.D	1	SHJ0406-CAL6	
13	25-OCT-2019	15:52	419J2513.D	1	SHJ0406-SCV1	
14	25-OCT-2019	16:12	419J2514.D	1	SHJ0406-CAL7	
15	25-OCT-2019	16:33	419J2515.D	1	SHJ0406-CAL8	
16	25-OCT-2019	16:53	419J2516.D	1	SHJ0406-CAL9	
17	25-OCT-2019	17:13	419J2517.D	1	SHJ0406-CALA	
18	25-OCT-2019	17:34	419J2518.D	1	SHJ0406-CALB	
19	25-OCT-2019	17:54	419J2519.D	1	SHJ0406-CALC	
20	25-OCT-2019	18:14	419J2520.D	1	SHJ0406-SCV2	
21	25-OCT-2019	18:35	419J2521.D	1	SHJ0406-CALD	
22	25-OCT-2019	18:55	419J2522.D	1	SHJ0406-CALE	
23	25-OCT-2019	19:15	419J2523.D	1	SHJ0406-CALF	
24	25-OCT-2019	19:34	419J2524.D	1	SHJ0406-CALG	
25	25-OCT-2019	19:54	419J2525.D	1	SHJ0406-CALH	
26	25-OCT-2019	20:15	419J2526.D	1	SHJ0406-CALI	
27	25-OCT-2019	20:35	419J2527.D	1	SHJ0406-SCV3	
28	25-OCT-2019	20:55	419J2528.D	1	SHJ0406-ICV1	
29	25-OCT-2019	21:16	419J2529.D	1	SHJ0406-ICV2	
30	25-OCT-2019	21:36	419J2530.D	1	BHJ0711-BLK1	
31	25-OCT-2019	21:56	419J2531.D	1	BHJ0711-BS1	
32	25-OCT-2019	22:16	419J2532.D	1	19J0373-01	
33	25-OCT-2019	22:35	419J2533.D	1	19J0373-02	
34	25-OCT-2019	22:55	419J2534.D	1	19J0373-03	
35	25-OCT-2019	23:16	419J2535.D	1	19J0373-04	
36	25-OCT-2019	23:36	419J2536.D	1	19J0373-05	
37	25-OCT-2019	23:57	419J2537.D	1	19J0373-06	
38	26-OCT-2019	00:17	419J2538.D	1	19J0373-07	
39	26-OCT-2019	00:37	419J2539.D	1	19J0373-08	
40	26-OCT-2019	00:58	419J2540.D	1	SHJ0406-CCV1	
41	26-OCT-2019	01:18	419J2541.D	1	SHJ0406-CCV2	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20191025.b

ARI Job No.: RINS Method: FID4TPH.m Instrument: fid4a.i Date: 25-OCT-2019

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1137	419J2501.D	RINSE		1	NO MANUAL INTEGRATION
1155	419J2502.D	RINSE		1	NO MANUAL INTEGRATION
1230	419J2503.D	RINSE		1	NO MANUAL INTEGRATION
1251	419J2504.D	RINSE		1	NO MANUAL INTEGRATION
1311	419J2505.D	SHJ0406-IBL1		1	NO MANUAL INTEGRATION
1331	419J2506.D	SHJ0406-IBL2		1	NO MANUAL INTEGRATION
1352	419J2507.D	SHJ0406-CAL1		1	NO MANUAL INTEGRATION
1412	419J2508.D	SHJ0406-CAL2		1	o-terph,
1432	419J2509.D	SHJ0406-CAL3		1	NO MANUAL INTEGRATION
1453	419J2510.D	SHJ0406-CAL4		1	o-terph,
1513	419J2511.D	SHJ0406-CAL5		1	o-terph,
1532	419J2512.D	SHJ0406-CAL6		1	o-terph,
1552	419J2513.D	SHJ0406-SCV1		1	NO MANUAL INTEGRATION
1612	419J2514.D	SHJ0406-CAL7		1	Triacon Surr,
1633	419J2515.D	SHJ0406-CAL8		1	Triacon Surr,
1653	419J2516.D	SHJ0406-CAL9		1	Triacon Surr,
1713	419J2517.D	SHJ0406-CALA		1	Triacon Surr,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20191025.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1734	419J2518.D	SHJ0406-CALB		1	Triacon Surr,
1754	419J2519.D	SHJ0406-CALC		1	Triacon Surr,
1814	419J2520.D	SHJ0406-SCV2		1	Triacon Surr,
1835	419J2521.D	SHJ0406-CALD		1	Triacon Surr,
1855	419J2522.D	SHJ0406-CALE		1	Triacon Surr,
1915	419J2523.D	SHJ0406-CALF		1	Triacon Surr,
1934	419J2524.D	SHJ0406-CALG		1	Triacon Surr,
1954	419J2525.D	SHJ0406-CALH		1	Triacon Surr,
2015	419J2526.D	SHJ0406-CALI		1	Triacon Surr,
2035	419J2527.D	SHJ0406-SCV3		1	Triacon Surr,
2055	419J2528.D	SHJ0406-ICV1		1	o-terph,
2116	419J2529.D	SHJ0406-ICV2		1	Triacon Surr,
2136	419J2530.D	BHJ0711-BLK1		1	NO MANUAL INTEGRATION
2156	419J2531.D	BHJ0711-BS1		1	o-terph,
2216	419J2532.D	19J0373-01		1	Triacon Surr,
2235	419J2533.D	19J0373-02		1	NO MANUAL INTEGRATION
2255	419J2534.D	19J0373-03		1	Triacon Surr,
2316	419J2535.D	19J0373-04		1	Triacon Surr,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20191025.b

Time	Filename	LabID	ClientID	DF	Manually Integrated Compounds
2336	419J2536.D	19J0373-05	1	o-terph,	Triacon Surr,
2357	419J2537.D	19J0373-06	1	Triacon Surr,	
0017	419J2538.D	19J0373-07	1	Triacon Surr,	
0037	419J2539.D	19J0373-08	1	Triacon Surr,	
0058	419J2540.D	SHJ0406-CCV1	1	o-terph,	
0118	419J2541.D	SHJ0406-CCV2	1	Triacon Surr,	

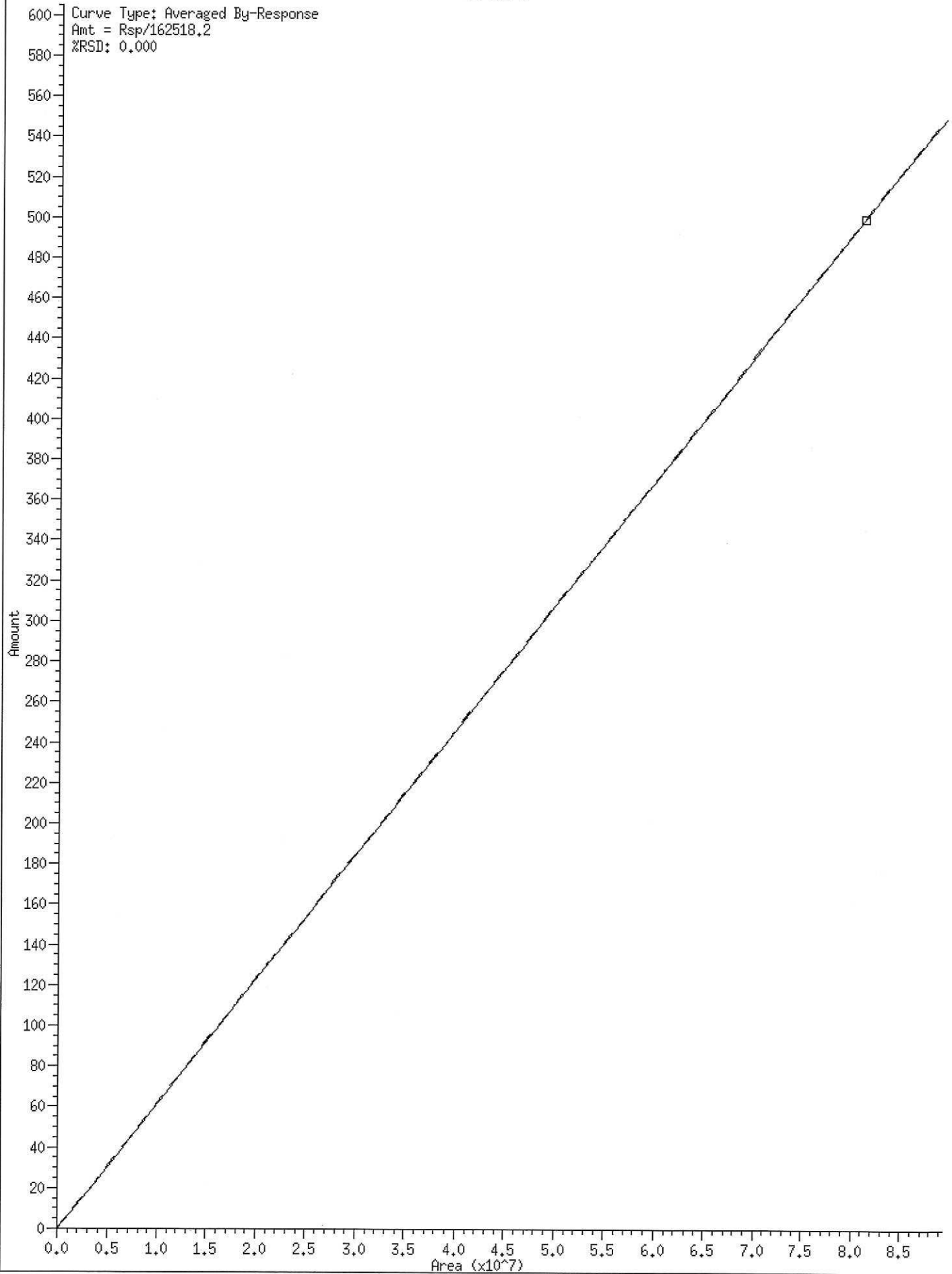
Security Status Report

Date: 30-Oct-2019 07:25

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419J2511.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2512.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2513.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2514.D	Data Locked	j rains, 30-Oct-2019 07:20
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419J2520.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2521.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2522.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2523.D	Data Locked	j rains, 30-Oct-2019 07:20
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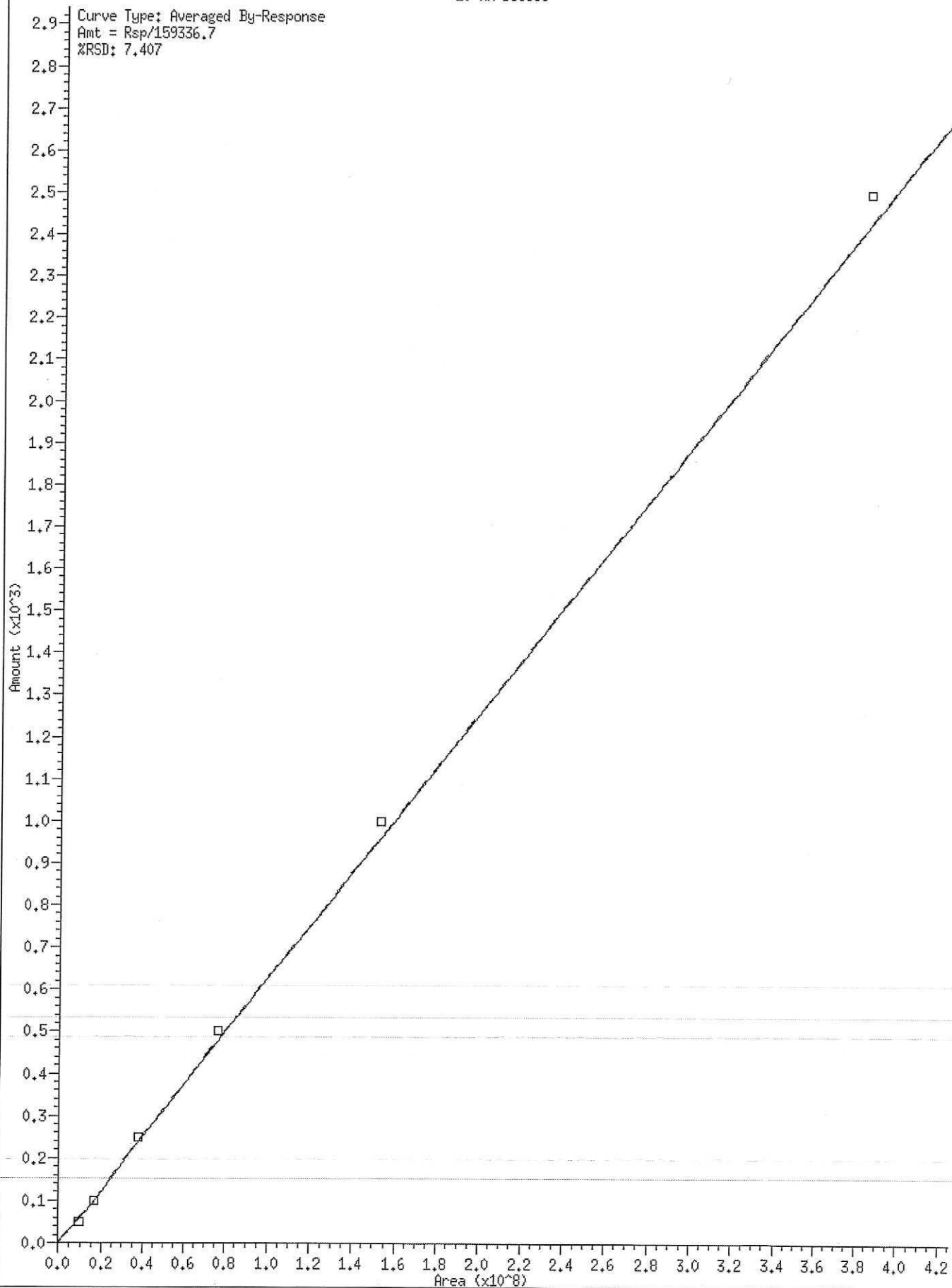


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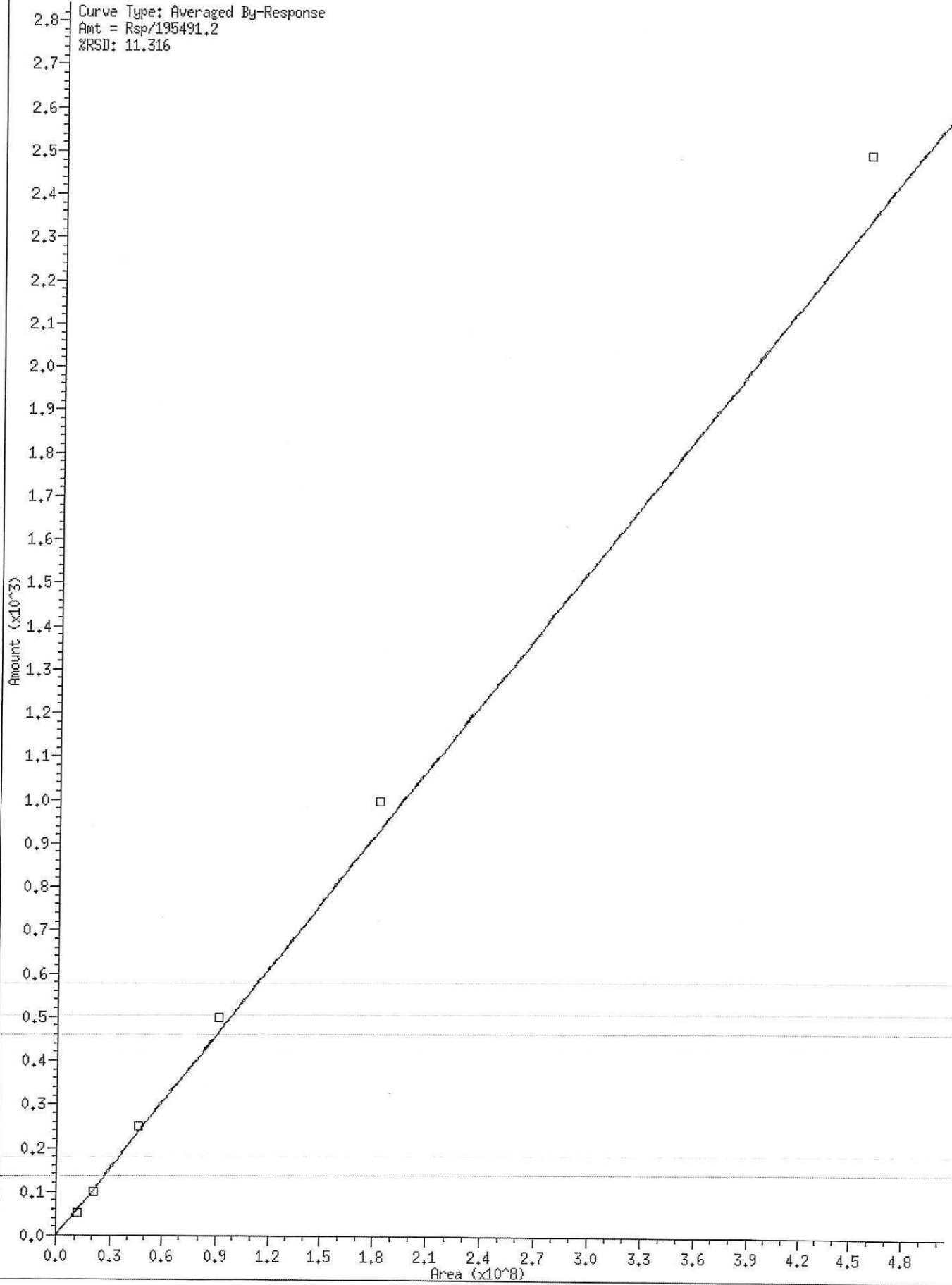


29 MW Diesel

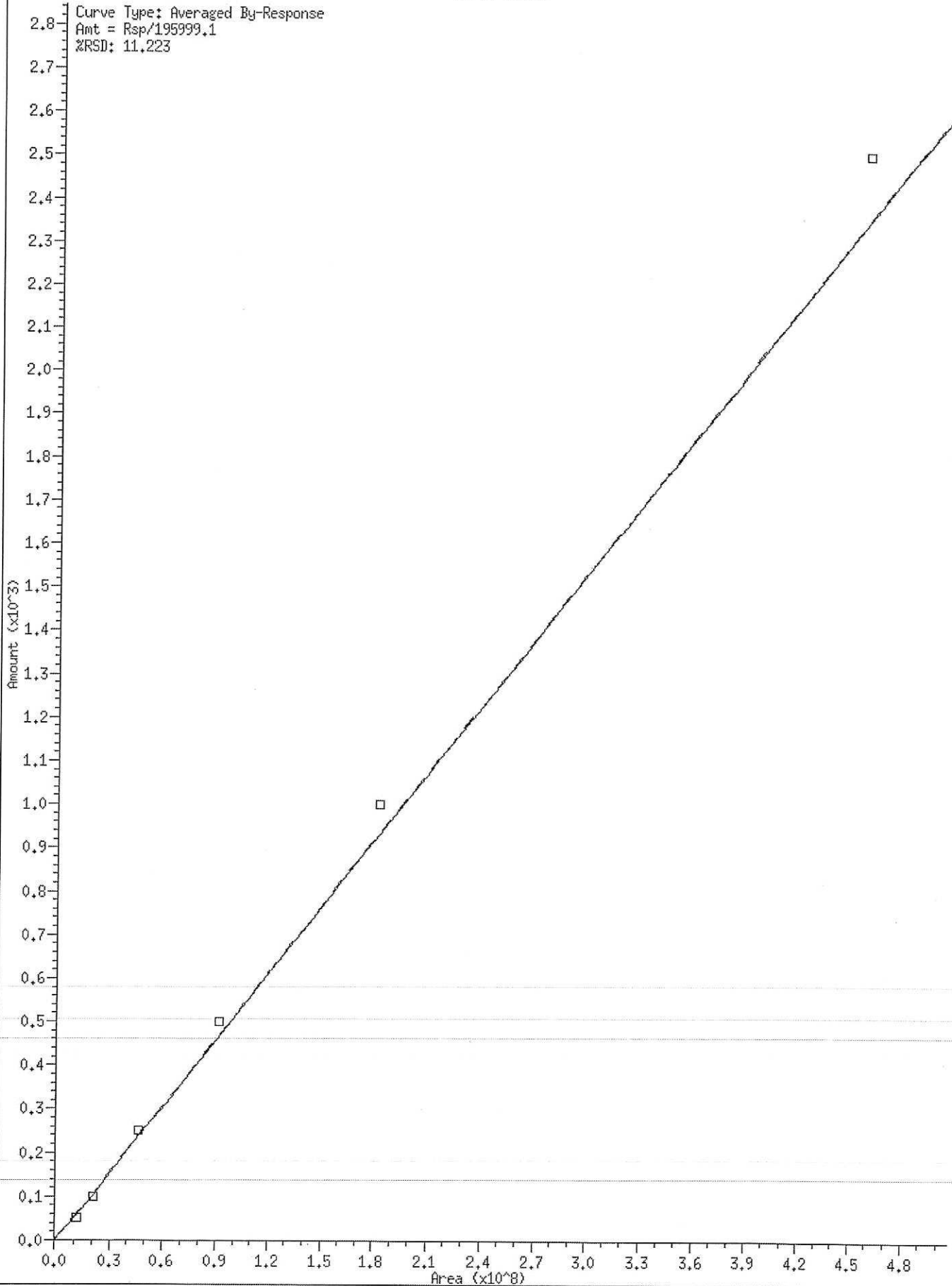
Curve Type: Averaged By-Response  
Amt = Rsp/159336.7  
%RSD: 7.407



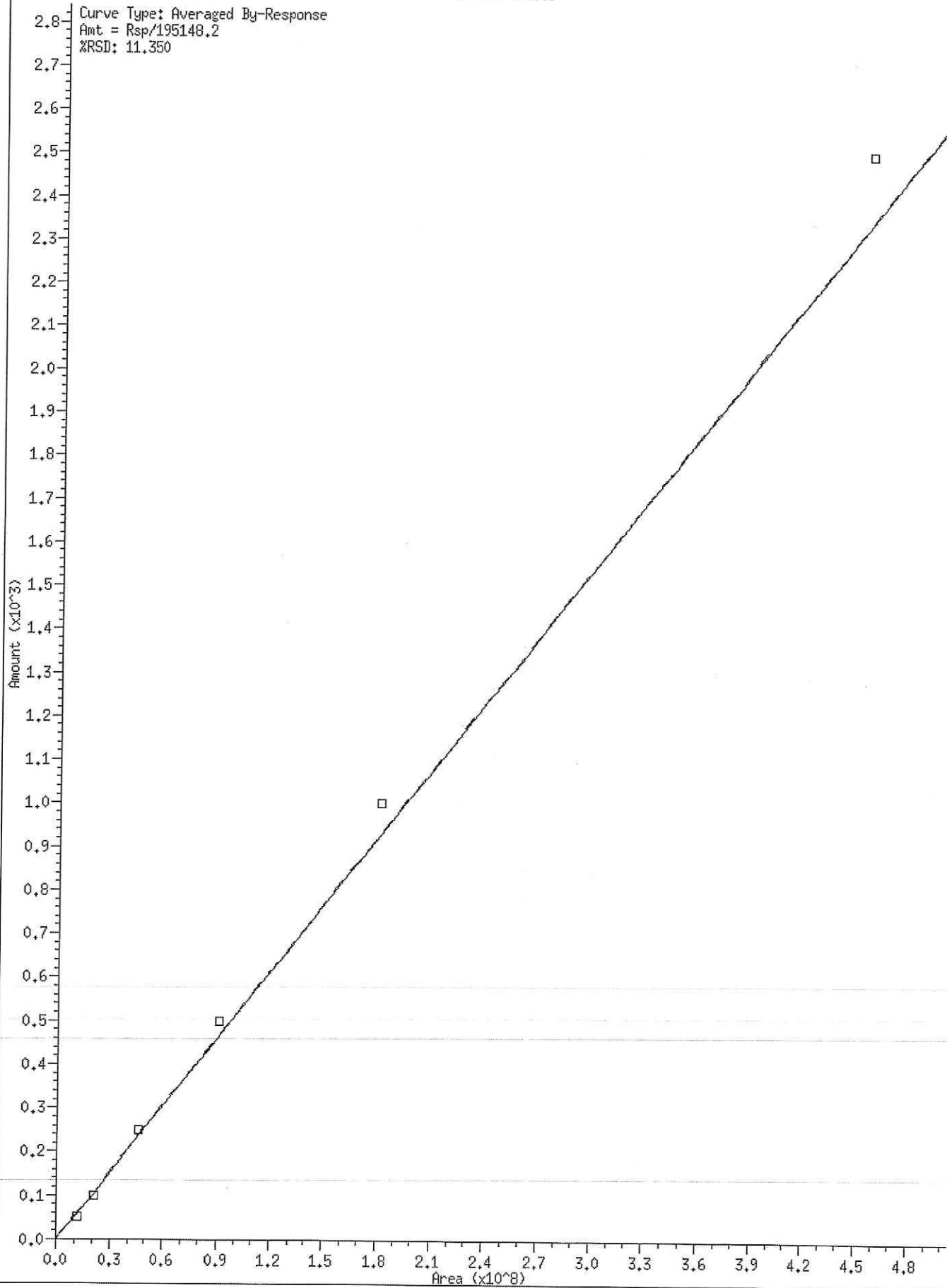
Curve Type: Averaged By-Response  
Amt = Rsp/195491.2  
%RSD: 11.316



Curve Type: Averaged By-Response  
Amt = Rsp/195999.1  
%RSD: 11.223

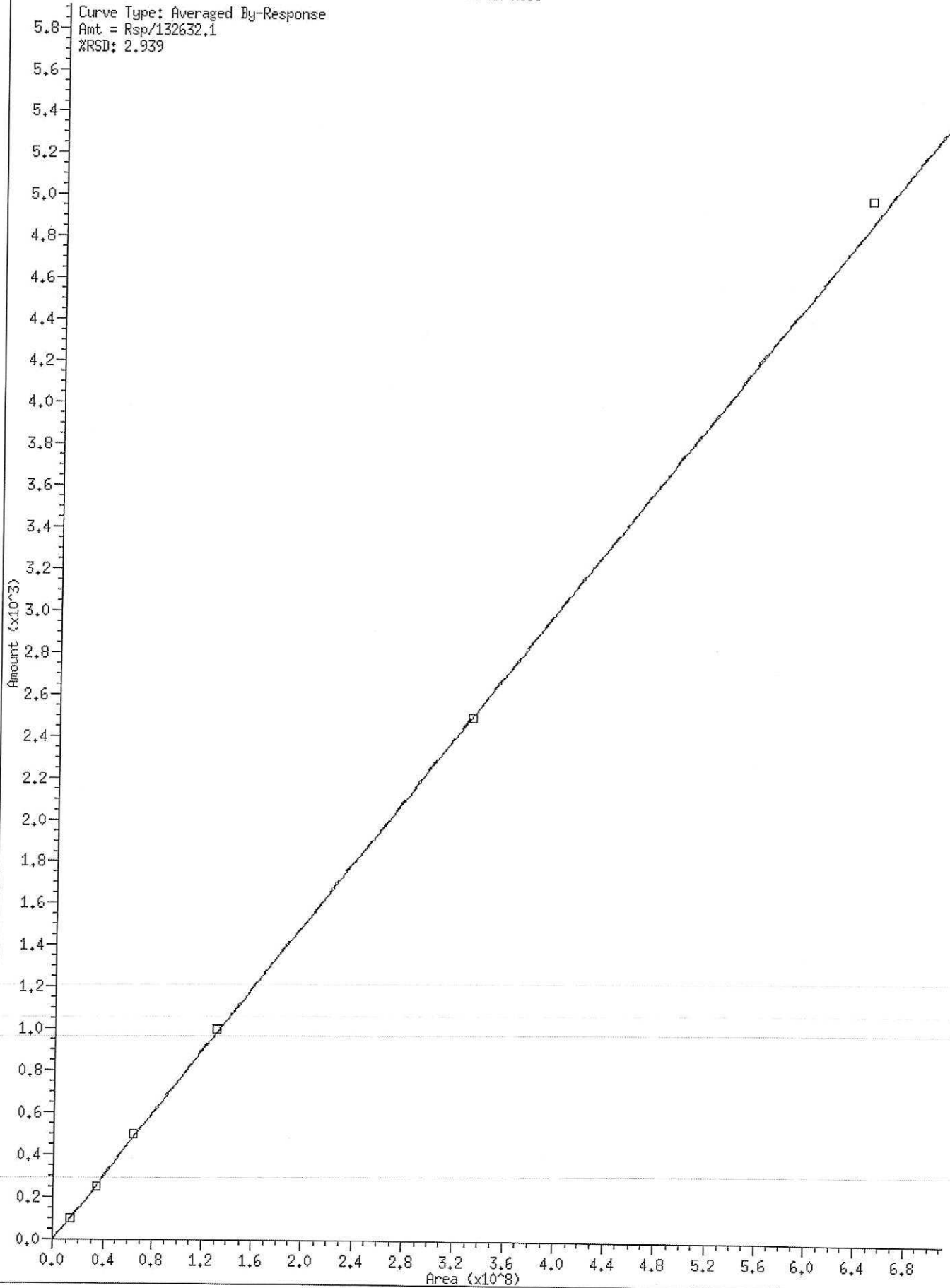


Curve Type: Averaged By-Response  
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%RSD: 11.350

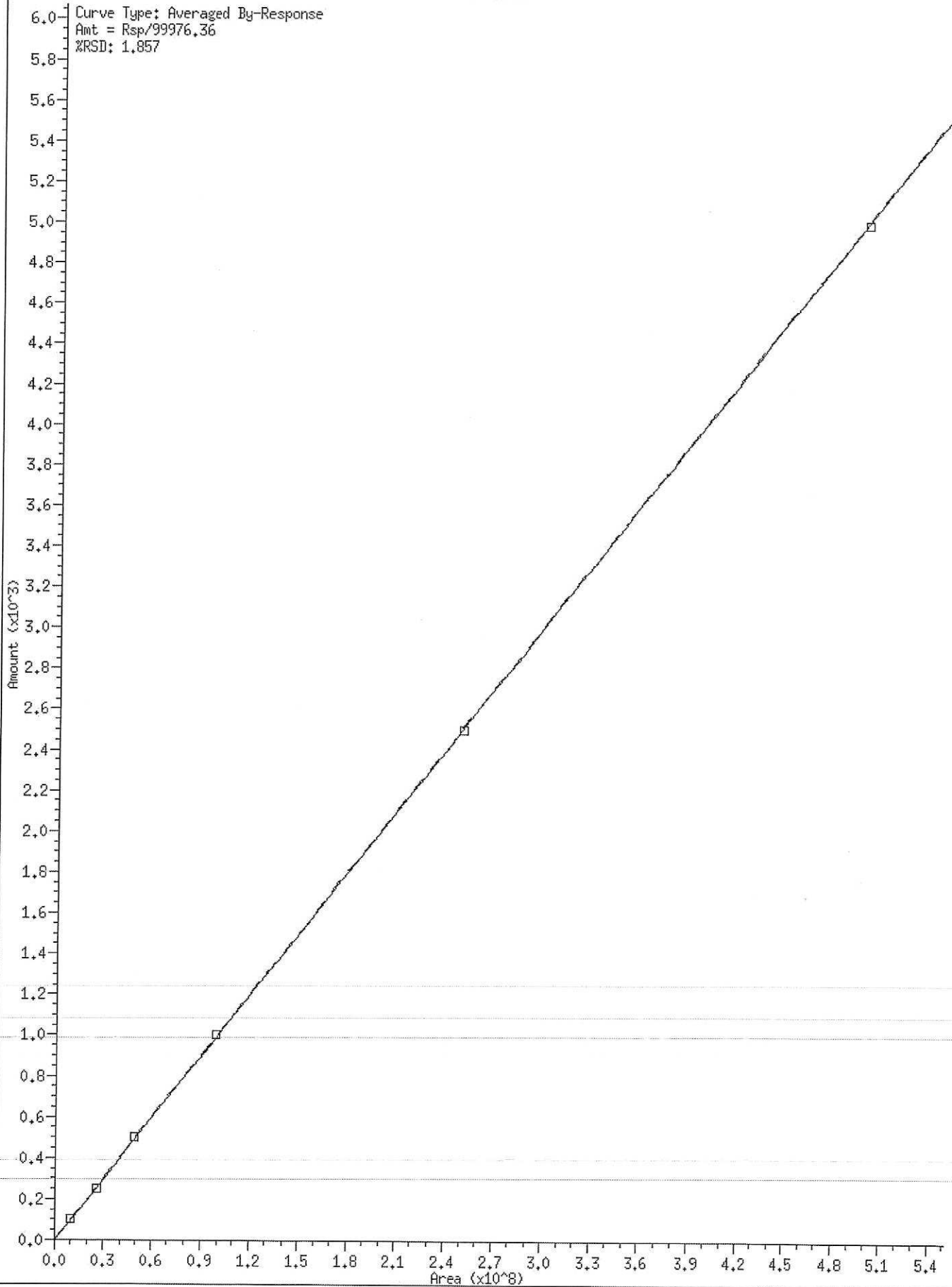


30 NW Moil

Curve Type: Averaged By-Response  
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%RSD: 2.939

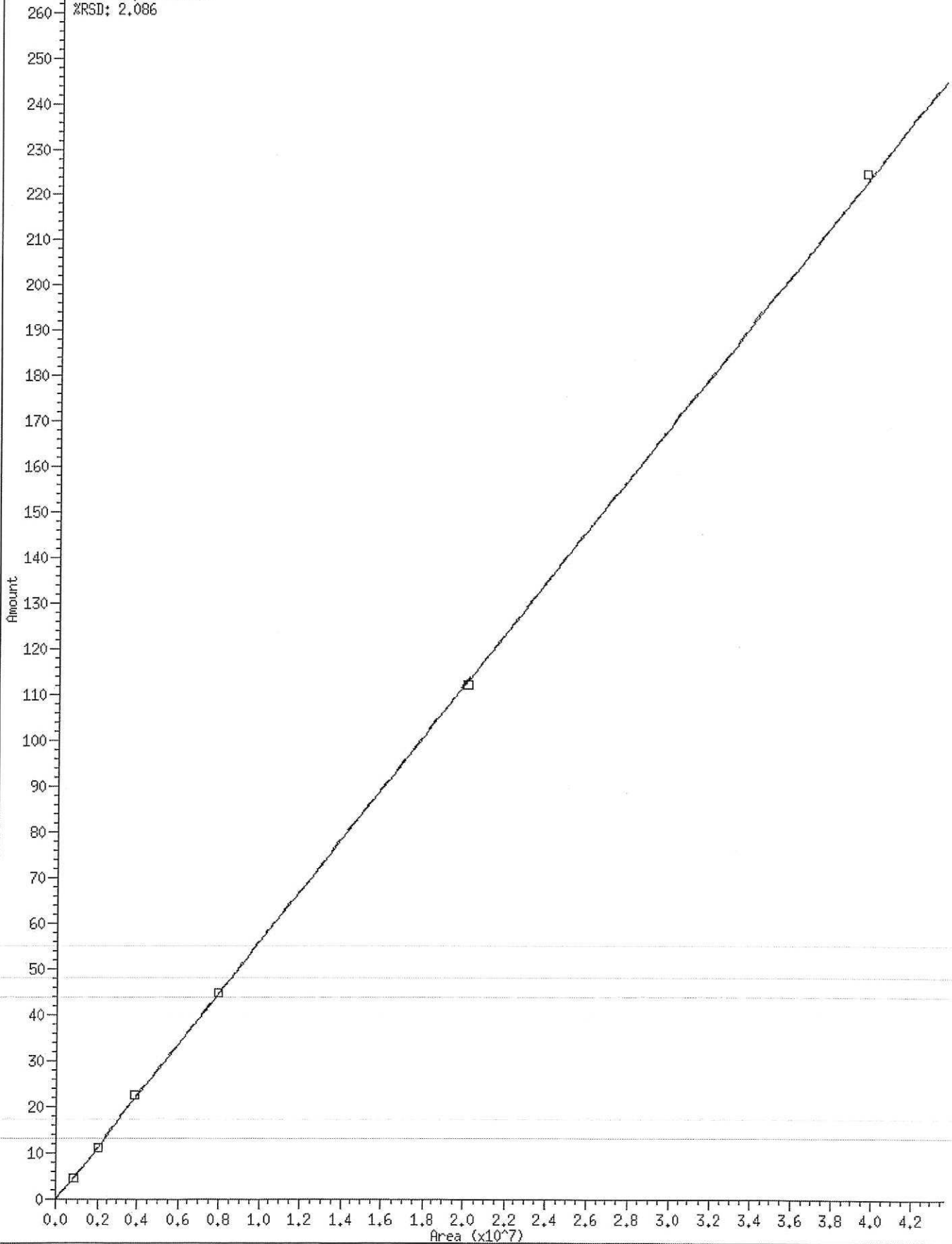


Curve Type: Averaged By-Response  
Amt = Rsp/99976,36  
%RSD: 1,857



15 Triacon Surr

Curve Type: Averaged By-Response  
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%RSD: 2.086



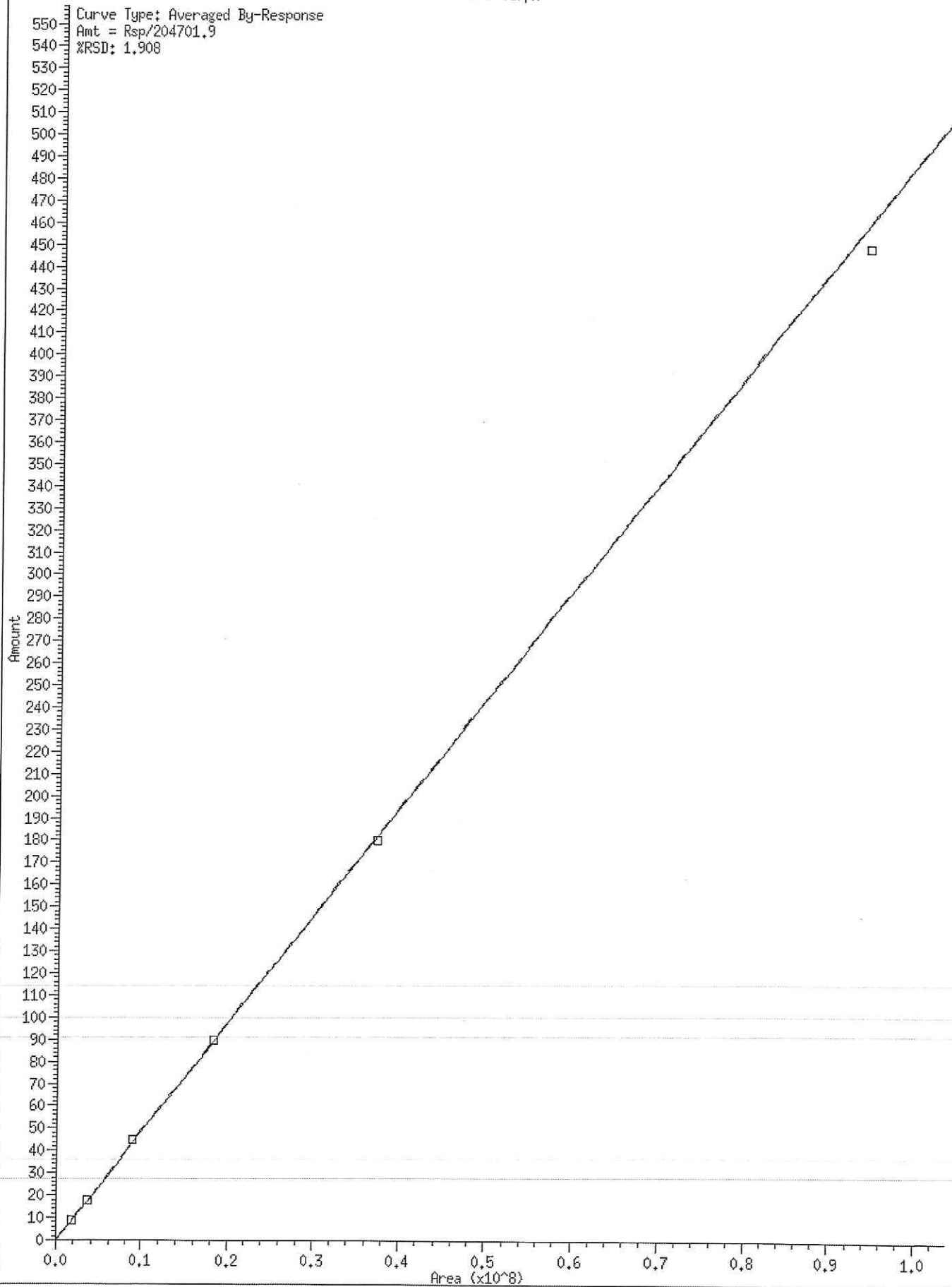


\* 8 o-terph

Curve Type: Averaged By-Response

Amt = Rsp/204701.9

%RSD: 1.908



Data File: \\target\share\chem2\fid4a.i\20191025.b\419J2505.D

Date: 25-OCT-2019 13:11

Client ID:

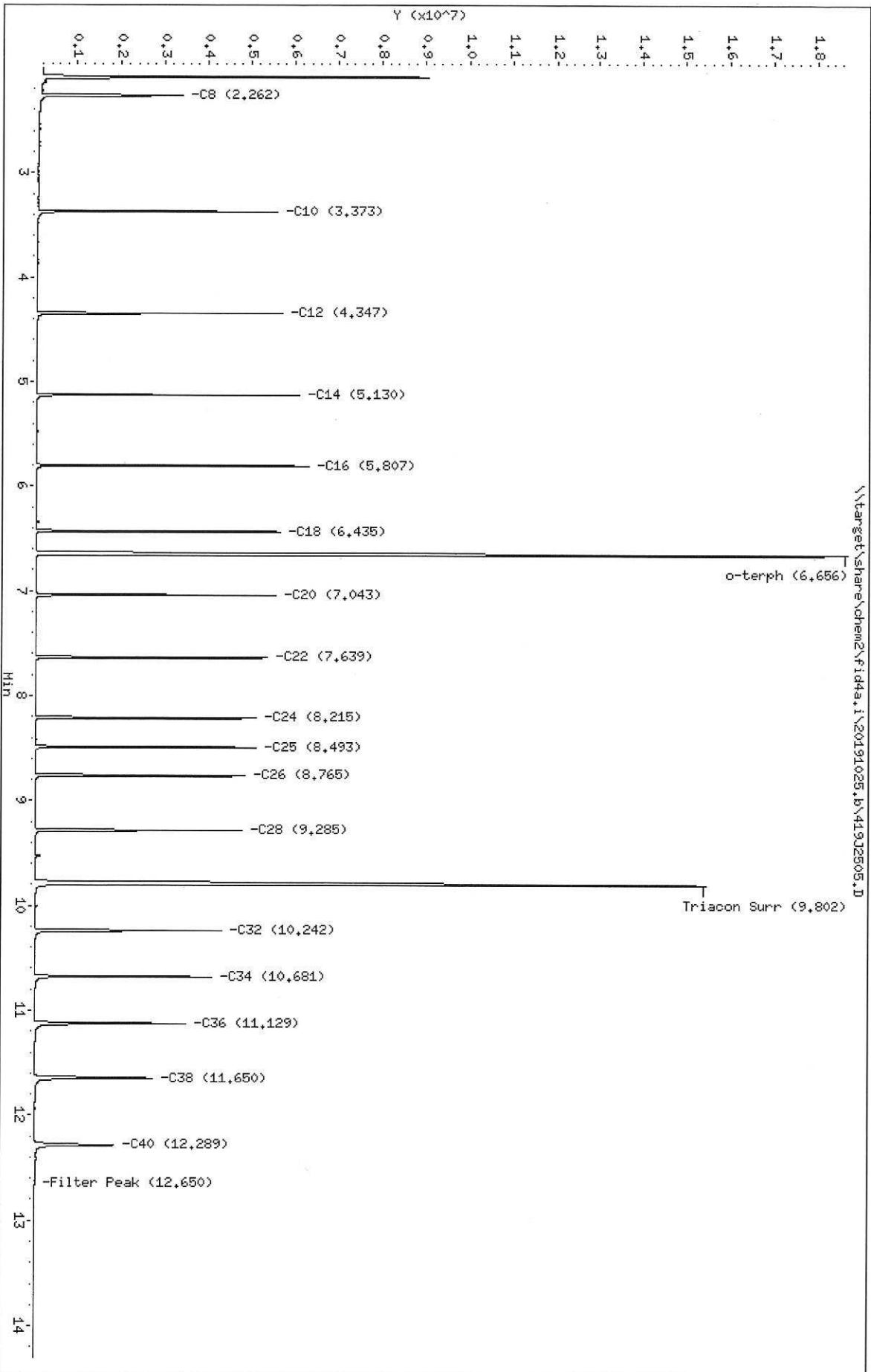
Sample Info: SH00406-IBL1

Column phase: RTX-1

Instrument: fid4a.i

Operator: CTO/SH/VTS/JGR

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2505.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-IBL1  
Client ID:  
Injection: 25-OCT-2019 13:11  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.262	0.000	3356579	3932199	WATPHD	(C12-C24)	22628592	142.0
C10	3.373	0.000	5539104	3757340	WATPHM	(C24-C38)	26475519	199.6
C12	4.347	0.000	5663708	3683615	AK102	(C10-C25)	30812271	157.6
C14	5.130	0.000	6079967	3652238	AK103	(C25-C36)	22405219	224.1
C16	5.807	0.000	6277766	3707382	OR.DIES	(C10-C28)	41957167	214.1
C18	6.435	0.000	5635635	3612752				
C20	7.043	0.000	5539938	3702605				
C22	7.639	0.000	5339005	3727404				
C24	8.215	0.000	5097157	3674684				
C25	8.493	0.000	5111690	3698652				
C26	8.765	0.000	4851792	3662117				
C28	9.285	0.000	4782484	3718632				
C32	10.242	0.000	4326930	3643795				
C34	10.681	0.000	4092240	3584940				
Filter Peak	12.650	0.000	16931	63954	CREOSOT	(C12-C22)	18936204	4854.3
C36	11.129	0.000	3493562	3625484				
C38	11.650	0.000	2741525	3745220				
C40	12.289	0.000	1889635	2977724				
o-terph	6.656	0.000	18648694	20337624				
Triacon Surr	9.802	0.000	15433087	21196653	NAS DIES	(C10-C24)	30787335	157.8

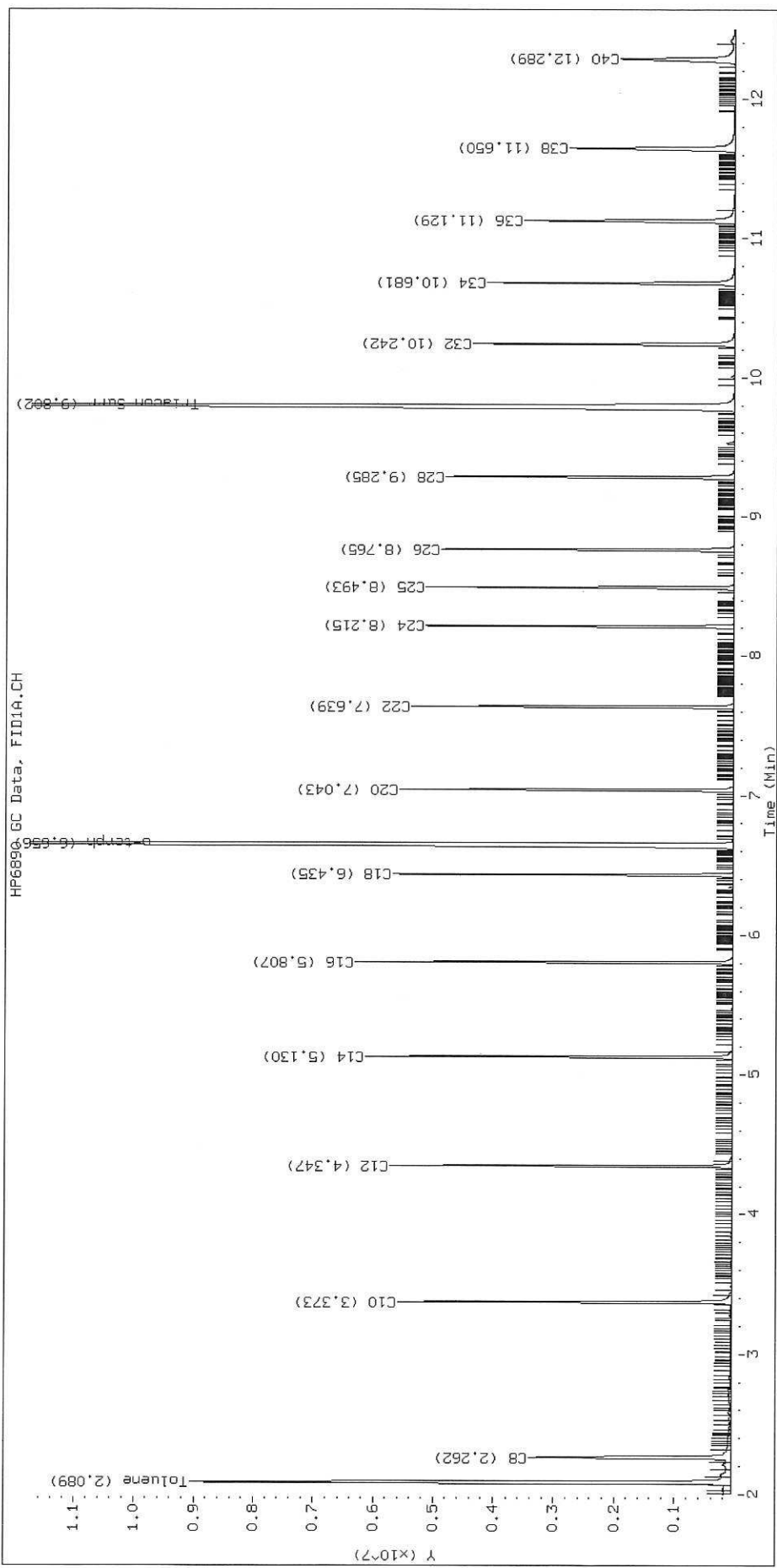
Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

Surrogate	Area	Amount
o-Terphenyl	20337624	99.4
Triacontane	21196653	119.1

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

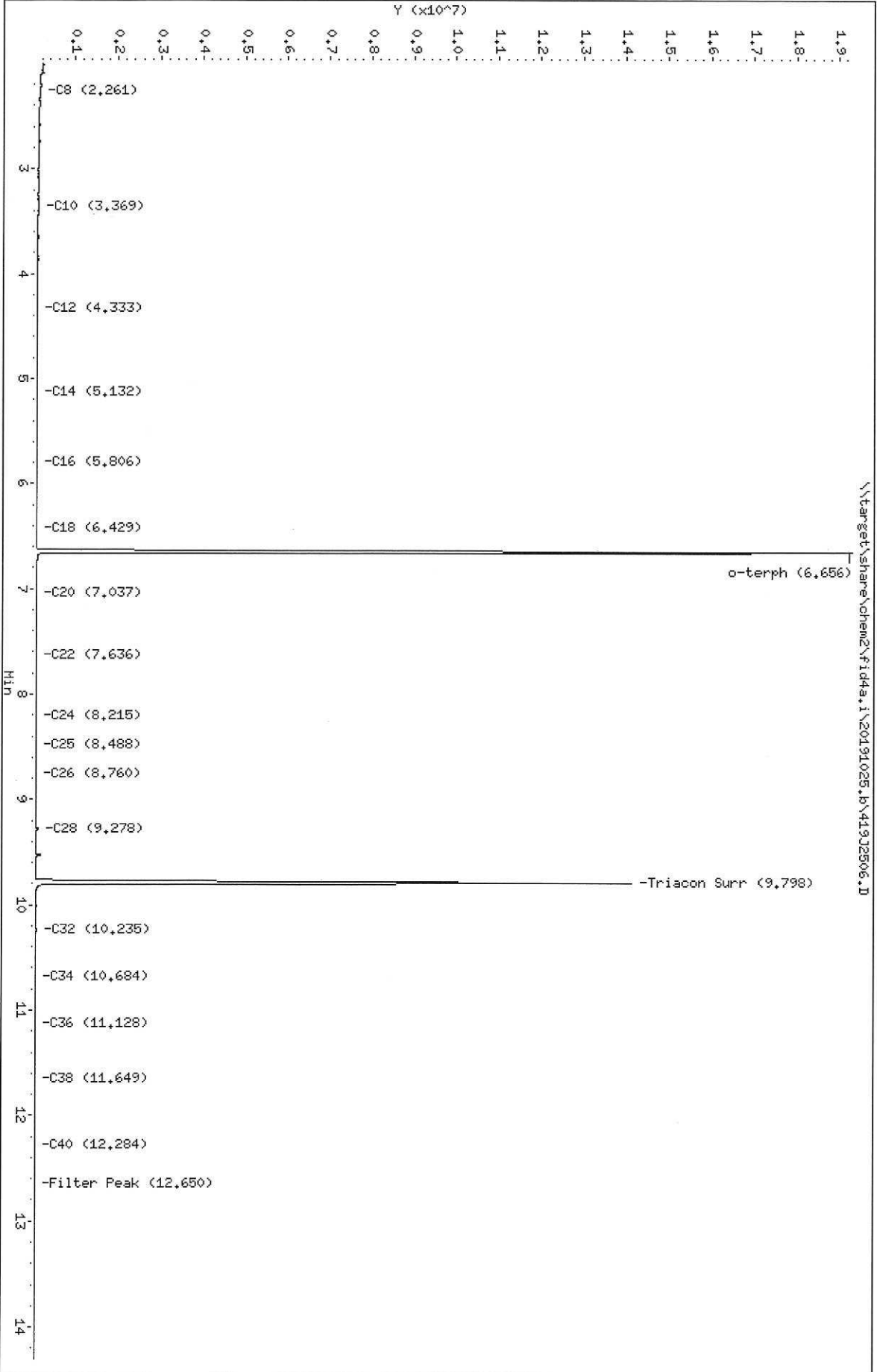
Datafile: FID4A, 20191025.b/419J2505.D SHJ0406-IBL1



Data File: \\target\share\chem2\fid4a.i\20191025.b\419J2506.D  
Date: 25-OCT-2019 13:31  
Client ID:  
Sample Info: SHJ0406-IBL2

Column phase: RTX-1

Instrument: fid4a.i  
Operator: CTG/SH/VTS/JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2506.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-IBL2  
Client ID:  
Injection: 25-OCT-2019 13:31  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.261	-0.001	72509	76139	WATPHD	(C12-C24)	658319	4.1
C10	3.369	-0.004	30567	51207	WATPHM	(C24-C38)	758430	5.7
C12	4.333	-0.014	10639	19318	AK102	(C10-C25)	1520072	7.8
C14	5.132	0.003	5359	3169	AK103	(C25-C36)	566941	5.7
C16	5.806	-0.002	4115	5242	OR.DIES	(C10-C28)	1655230	8.4
C18	6.429	-0.006	2667	2060				
C20	7.037	-0.006	2150	2136				
C22	7.636	-0.002	7003	7700				
C24	8.215	0.000	1821	532				
C25	8.488	-0.005	1855	1750				
C26	8.760	-0.005	1926	1661				
C28	9.278	-0.007	68571	64137				
C32	10.235	-0.007	43108	83259				
C34	10.684	0.003	2246	1101				
Filter Peak	12.650	-0.001	8815	2632	CREOSOT	(C12-C22)	608888	156.1
C36	11.128	-0.001	4708	2306				
C38	11.649	-0.001	6915	2738				
C40	12.284	-0.005	8323	7406				
o-terph	6.656	-0.001	19264239	20580998				
Triacon Surr	9.798	-0.004	14079902	17993211	NAS DIES	(C10-C24)	1505820	7.7

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

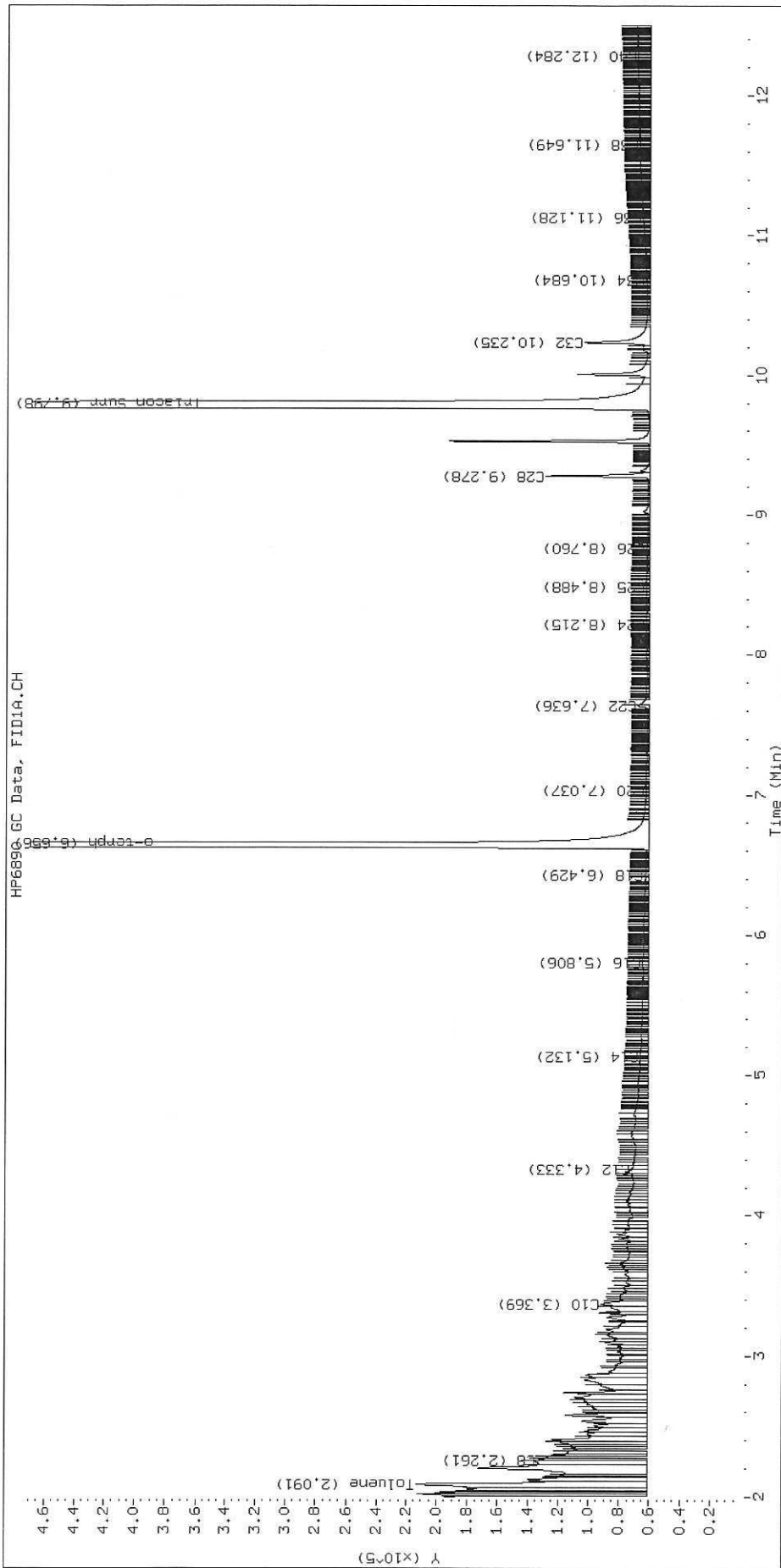
Surrogate	Area	Amount
o-Terphenyl	20580998	100.5
Triacontane	17993211	101.1

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2506.D SHJ0406-IBL2

HP6890 GC Data, FID1A.CH



Data File: \\target\share\chem2\fid4a.i\20191025.b\41932507.D

Date: 25-OCT-2019 13:52

Client ID:

Sample Info: SHJ0406-CLL1

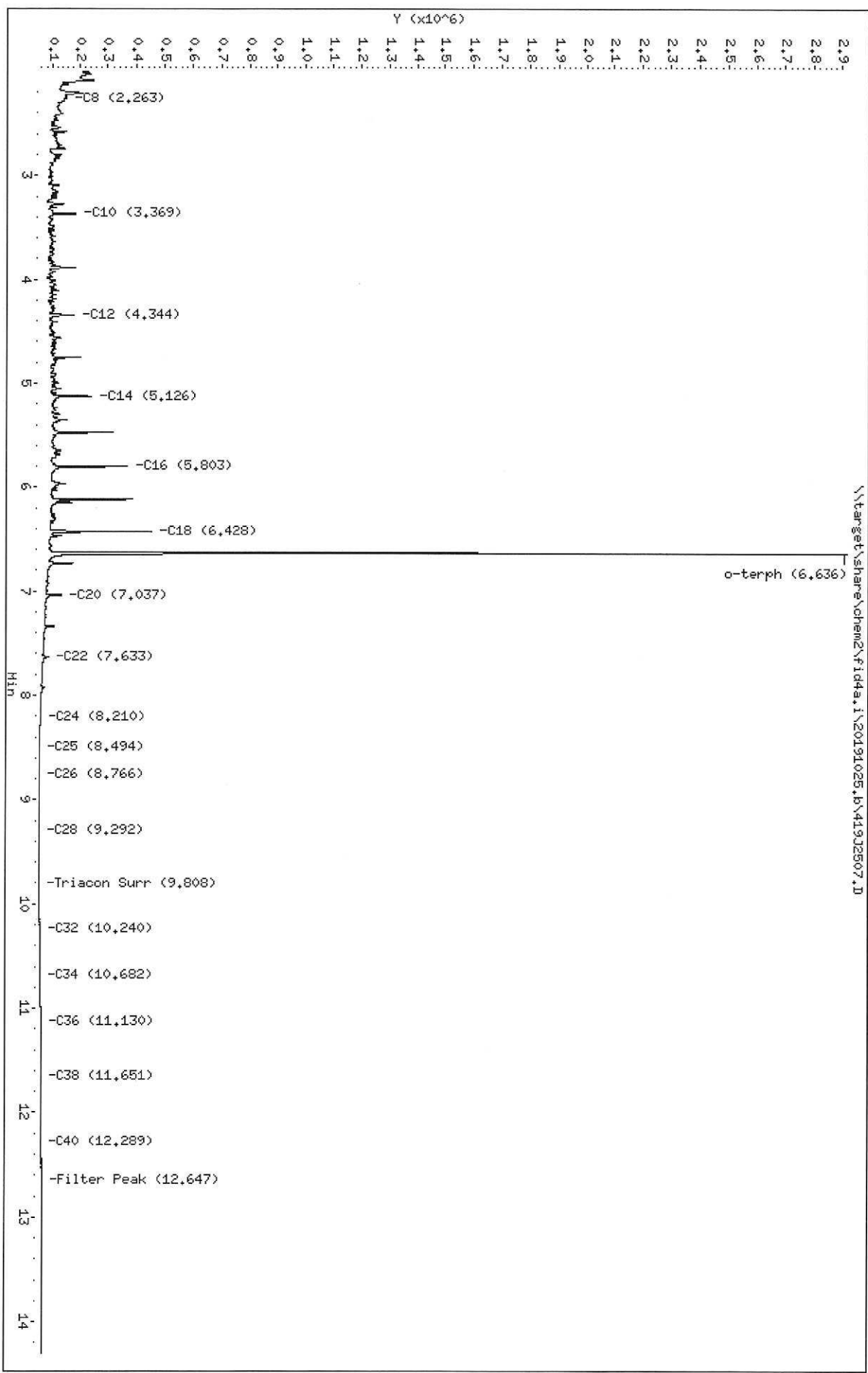
Column phase: RTX-1

Instrument: fid4a.i

Operator: CTD/SH/VTS/JGR

Column diameter: 0.25

\\target\share\chem2\fid4a.i\20191025.b\41932507.D





Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2507.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CAL1  
Client ID:  
Injection: 25-OCT-2019 13:52  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.263	0.001	94181	68499	WATPHD	(C12-C24)	9105717	57.1
C10	3.369	-0.004	130777	159818	WATPHM	(C24-C38)	651398	4.9
C12	4.344	-0.003	124752	202412	AK102	(C10-C25)	11867629	60.7
C14	5.126	-0.003	188715	181186	AK103	(C25-C36)	363608	3.6
C16	5.803	-0.004	314329	331178	OR.DIES	(C10-C28)	11884580	60.6
C18	6.428	-0.007	400639	334718				
C20	7.037	-0.006	83282	126537				
C22	7.633	-0.006	34959	59242				
C24	8.210	-0.005	6227	12090				
C25	8.494	0.001	1850	2300				
C26	8.766	0.001	428	167				
C28	9.292	0.007	424	156				
C32	10.240	-0.002	2740	1341				
C34	10.682	0.001	5209	2827				
Filter Peak	12.647	-0.003	12268	7963	CREOSOT	(C12-C22)	8913896	2285.1
C36	11.130	0.001	8291	3309				
C38	11.651	0.001	10488	3653				
C40	12.289	0.000	11687	5838				
o-terph	6.636	-0.021	2823547	1865140				
Triacon Surr	9.808	0.006	1874	1287	NAS DIES	(C10-C24)	11851657	60.7

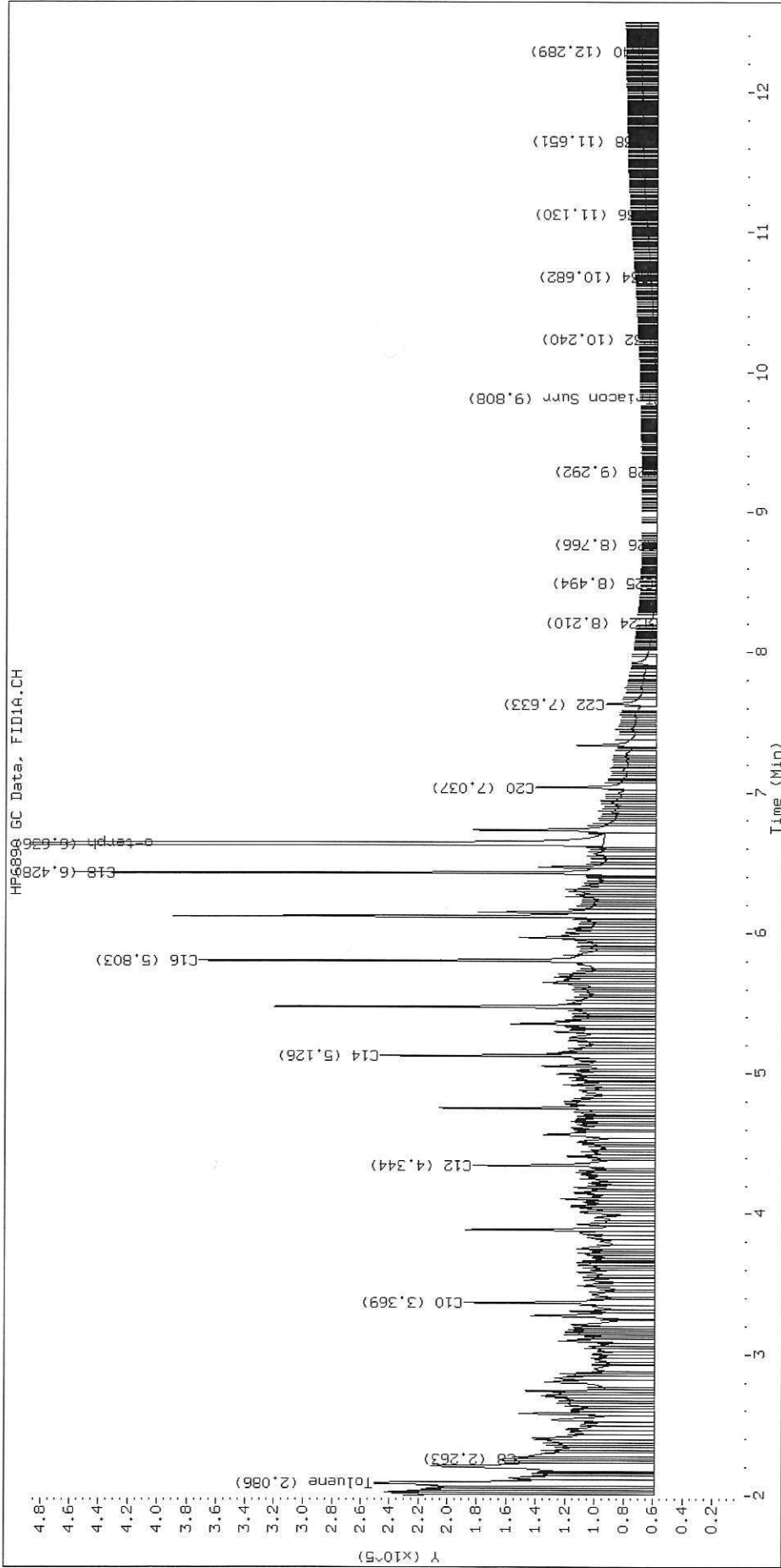
Range Times: NW Diesel (4.347 - 8.215) AK102 (3.37 - 8.49) Jet A (3.37 - 6.43)  
NW M.Oil (8.21 - 11.65) AK103 (8.49 - 11.13) OR Diesel (3.37 - 9.29)

Surrogate	Area	Amount
o-Terphenyl	1865140	9.1
Triacontane	1287	0.0

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2507.D SHJ0406-CALL



ARI Labs, Inc.  
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem2\fid4a.i\20191025.b\FID4TTPH.m  
Batch File: \\target\share\chem2\fid4a.i\20191025.b  
Inst ID: fid4a.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RTI	RT WINDOW	AVG RT	STD DEV
1 Toluene	2.086	2.091	2.092	2.084	2.085	2.093	2.089	1.989-2.189	2.089	0.004
38 NewCpnd_31	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
35 Mineral Oil	+++++	+++++	+++++	+++++	+++++	+++++	1.015	0.965-1.065	+++++	+++++
41 Mineral Spirits	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
2 C8	2.263	2.252	2.253	2.254	2.254	2.254	2.262	2.162-2.362	2.255	0.004
3 C10	3.369	3.367	3.368	3.368	3.368	3.371	3.373	3.323-3.423	3.368	0.001
4 C12	4.344	4.344	4.344	4.344	4.346	4.351	4.347	4.297-4.397	4.345	0.003
5 C14	5.126	5.126	5.126	5.127	5.129	5.137	5.130	5.080-5.180	5.128	0.004
6 C16	5.803	5.802	5.803	5.805	5.809	5.818	5.807	5.757-5.857	5.807	0.006
7 C18	6.428	6.429	6.431	6.434	6.439	6.452	6.435	6.385-6.485	6.435	0.009
8 o-terph	6.636	6.640	6.646	6.655	6.669	6.696	6.656	6.606-6.706	6.657	0.023
9 C20	7.037	7.036	7.036	7.037	7.040	7.047	7.043	6.993-7.093	7.039	0.004
10 C22	7.633	7.631	7.631	7.631	7.633	7.637	7.639	7.589-7.689	7.633	0.002
11 C24	8.210	8.209	8.208	8.207	8.207	8.207	8.215	8.165-8.265	8.208	0.001
12 C25	8.494	8.489	8.488	8.485	8.486	8.485	8.493	8.443-8.543	8.488	0.003
13 C26	8.766	8.762	8.761	8.759	8.758	8.756	8.765	8.715-8.815	8.760	0.004
14 C28	9.292	9.288	9.287	9.281	9.279	9.279	9.285	9.235-9.335	9.284	0.005

Reviewer 1 \_\_\_\_\_ Date: \_\_\_\_\_  
Reviewer 2 \_\_\_\_\_ Date: \_\_\_\_\_

ARI Labs, Inc.  
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem2\fid4a.i\20191025.b\FID4TPH.m  
 Batch File: \\target\share\chem2\fid4a.i\20191025.b  
 Inst ID: fid4a.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RTI	RT WINDOW	AVG RT	STD DEV
15 Triacon Surr	9.808	9.805	9.803	9.798	9.806	9.800	9.802	9.752-9.852	9.803	0.004
16 C32	10.240	10.242	10.248	10.245	10.243	10.242	10.242	10.192-10.292	10.243	0.003
17 C34	10.682	10.678	10.683	10.684	10.687	10.677	10.681	10.631-10.731	10.682	0.004
18 Filter Peak	12.647	12.646	12.650	12.646	12.649	12.650	12.650	12.550-12.750	12.648	0.002
19 C36	11.130	11.127	11.127	11.131	11.127	11.129	11.129	11.079-11.179	11.128	0.002
20 C38	11.651	11.646	11.648	11.653	11.653	11.651	11.650	11.600-11.700	11.650	0.003
21 C40	12.289	12.291	12.292	12.287	12.283	12.288	12.289	12.239-12.339	12.288	0.003
29 NW Diesel	+++++	+++++	+++++	+++++	+++++	+++++	0.899	0.849-0.949	+++++	+++++
37 ACresote	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
34 Jet A	+++++	+++++	+++++	+++++	+++++	+++++	1.024	0.974-1.074	+++++	+++++
30 NW Moil	+++++	+++++	+++++	+++++	+++++	+++++	0.885	0.835-0.935	+++++	+++++
31 NW AK102	+++++	+++++	+++++	+++++	+++++	+++++	0.803	0.753-0.853	+++++	+++++
32 Bunker C	+++++	+++++	+++++	+++++	+++++	+++++	0.812	0.762-0.862	+++++	+++++
33 AK103	+++++	+++++	+++++	+++++	+++++	+++++	1.344	1.294-1.394	+++++	+++++
36 ABunker C	+++++	+++++	+++++	+++++	+++++	+++++	0.985	0.935-1.035	+++++	+++++
39 OR Diesel	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
40 NAS Diesel	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++

ARI Labs, Inc.  
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem2\fid4a.i\20191025.b\FID4TPH.m  
 Batch File: \\target\share\chem2\fid4a.i\20191025.b  
 Inst ID: fid4a.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT06	RT06	RT06	
FILENAME:	419J2514	419J2515	419J2516	419J2517	419J2518	419J2519	419J2519	419J2519	419J2519	
INJ. DATE:	25-OCT-2019	25-OCT-2019	25-OCT-2019	25-OCT-2019	25-OCT-2019	25-OCT-2019	25-OCT-2019	25-OCT-2019	25-OCT-2019	
INJ. TIME:	16:12	16:33	16:53	17:13	17:34	17:54	17:54	17:54	17:54	
Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Toluene	2.092	2.092	2.092	2.093	2.092	2.092	2.089	1.989-2.189	2.092	0.000
38 NewCpnd_31	+++++	+++++	+++++	+++++	+++++	+++++	+++++	0.950-1.050	+++++	+++++
35 Mineral Oil	+++++	+++++	+++++	+++++	+++++	+++++	1.015	0.965-1.065	+++++	+++++
41 Mineral Spirits	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
2 C8	2.263	2.262	2.263	2.263	2.250	2.251	2.262	2.162-2.362	2.259	0.007
3 C10	3.376	3.377	3.376	3.376	3.371	3.369	3.373	3.323-3.423	3.374	0.003
4 C12	4.368	4.332	4.334	4.333	4.343	4.344	4.347	4.297-4.397	4.342	0.014
5 C14	5.134	5.134	5.125	5.127	5.126	5.126	5.130	5.080-5.180	5.129	0.004
6 C16	5.805	5.808	5.805	5.803	5.802	5.802	5.807	5.757-5.857	5.804	0.002
7 C18	6.435	6.432	6.439	6.428	6.427	6.427	6.435	6.385-6.485	6.431	0.005
8 o-terph	6.651	6.657	6.659	6.633	6.655	6.656	6.656	6.606-6.706	6.652	0.009
9 C20	7.038	7.038	7.036	7.048	7.051	7.035	7.043	6.993-7.093	7.041	0.006
10 C22	7.642	7.644	7.632	7.632	7.632	7.633	7.639	7.589-7.689	7.636	0.005
11 C24	8.214	8.212	8.215	8.217	8.215	8.219	8.215	8.165-8.265	8.215	0.002
12 C25	8.500	8.497	8.500	8.495	8.491	8.490	8.493	8.443-8.543	8.495	0.004
13 C26	8.760	8.767	8.760	8.769	8.765	8.770	8.765	8.715-8.815	8.765	0.005
14 C28	9.288	9.294	9.277	9.280	9.285	9.281	9.285	9.235-9.335	9.284	0.006

Reviewer 1 \_\_\_\_\_ Date: \_\_\_\_\_  
 Reviewer 2 \_\_\_\_\_ Date: \_\_\_\_\_

ARI Labs, Inc.  
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem2\fid4a.i\20191025.b\FID4TPH.m  
Batch File: \\target\share\chem2\fid4a.i\20191025.b  
Inst ID: fid4a.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
15 Triacon Surr	9.771	9.775	9.791	9.790	9.809	9.836	9.802	9.752-9.852	9.794	0.025
16 C32	10.243	10.233	10.235	10.238	10.249	10.237	10.242	10.192-10.292	10.239	0.006
17 C34	10.679	10.680	10.682	10.681	10.679	10.683	10.681	10.631-10.731	10.681	0.002
18 Filter Peak	12.652	12.648	12.655	12.648	12.650	12.666	12.650	12.550-12.750	12.653	0.007
19 C36	11.126	11.134	11.129	11.132	11.125	11.132	11.129	11.079-11.179	11.129	0.004
20 C38	11.652	11.650	11.655	11.651	11.649	11.647	11.650	11.600-11.700	11.651	0.002
21 C40	12.297	12.292	12.291	12.291	12.289	12.283	12.289	12.239-12.339	12.291	0.005
29 NW Diesel	+++++	+++++	+++++	+++++	+++++	+++++	0.899	0.849-0.949	+++++	+++++
37 ACresote	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
34 Jet A	+++++	+++++	+++++	+++++	+++++	+++++	1.024	0.974-1.074	+++++	+++++
30 NW Moil	+++++	+++++	+++++	+++++	+++++	+++++	0.885	0.835-0.935	+++++	+++++
31 NW AK102	+++++	+++++	+++++	+++++	+++++	+++++	0.803	0.753-0.853	+++++	+++++
32 Bunker C	+++++	+++++	+++++	+++++	+++++	+++++	0.812	0.762-0.862	+++++	+++++
33 AK103	+++++	+++++	+++++	+++++	+++++	+++++	1.344	1.294-1.394	+++++	+++++
36 ABunker C	+++++	+++++	+++++	+++++	+++++	+++++	0.985	0.935-1.035	+++++	+++++
39 OR Diesel	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++
40 NAS Diesel	+++++	+++++	+++++	+++++	+++++	+++++	1.000	0.950-1.050	+++++	+++++

Data File: \\target\share\chem2\fid4a.i\20191025.b\419J2508.D

Date: 25-OCT-2019 14:12

Client ID:

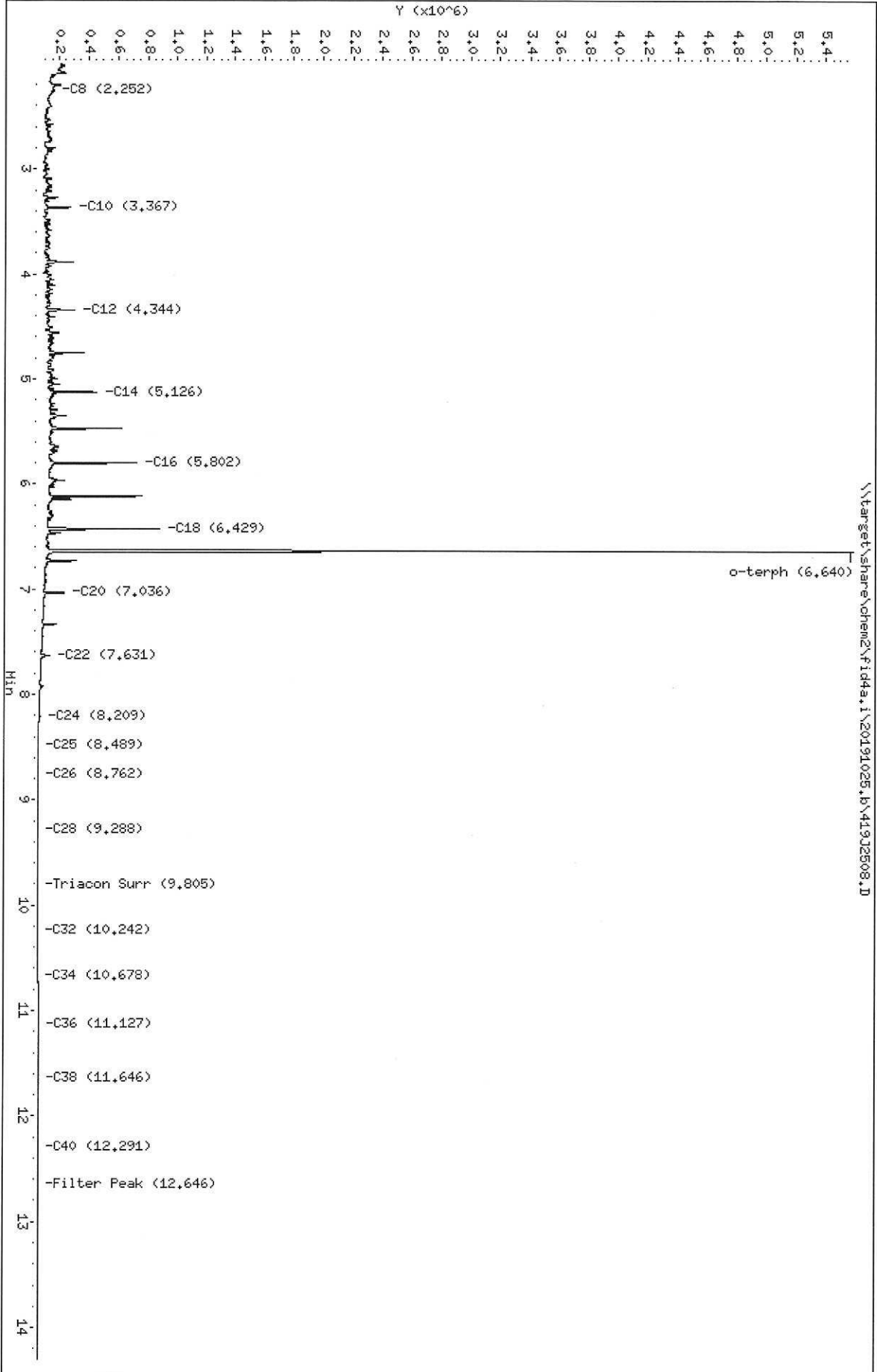
Sample Info: SHJ0406-CAL2

Column phase: RTX-1

Instrument: fid4a.i

Operator: CT0/SH/VTS/JGR

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2508.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CAL2  
Client ID:  
Injection: 25-OCT-2019 14:12  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	2.252	-0.010	100789	199426	WATPHD	(C12-C24)	16216844	101.8
C10	3.367	-0.006	219354	239129	WATPHM	(C24-C38)	605463	4.6
C12	4.344	-0.003	250355	355289	AK102	(C10-C25)	20356499	104.1
C14	5.126	-0.004	400436	340538	AK103	(C25-C36)	329685	3.3
C16	5.802	-0.005	670430	513156	OR.DIES	(C10-C28)	20386032	104.0
C18	6.429	-0.006	830433	585845				
C20	7.036	-0.007	189557	206229				
C22	7.631	-0.007	81567	107164				
C24	8.209	-0.006	13975	32117				
C25	8.489	-0.004	4286	7117				
C26	8.762	-0.002	1237	1115				
C28	9.288	0.003	364	105				
C32	10.242	0.000	2184	855				
C34	10.678	-0.003	4506	5051				
Filter Peak	12.646	-0.005	11019	4947	CREOSOT	(C12-C22)	15825625	4056.9
C36	11.127	-0.002	7155	1771				
C38	11.646	-0.004	9240	6899				
C40	12.291	0.002	10430	5163				
o-terph	6.640	-0.017	5468385	3642280				
Triacon Surr	9.805	0.003	1078	368	NAS DIES	(C10-C24)	20331247	104.2

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

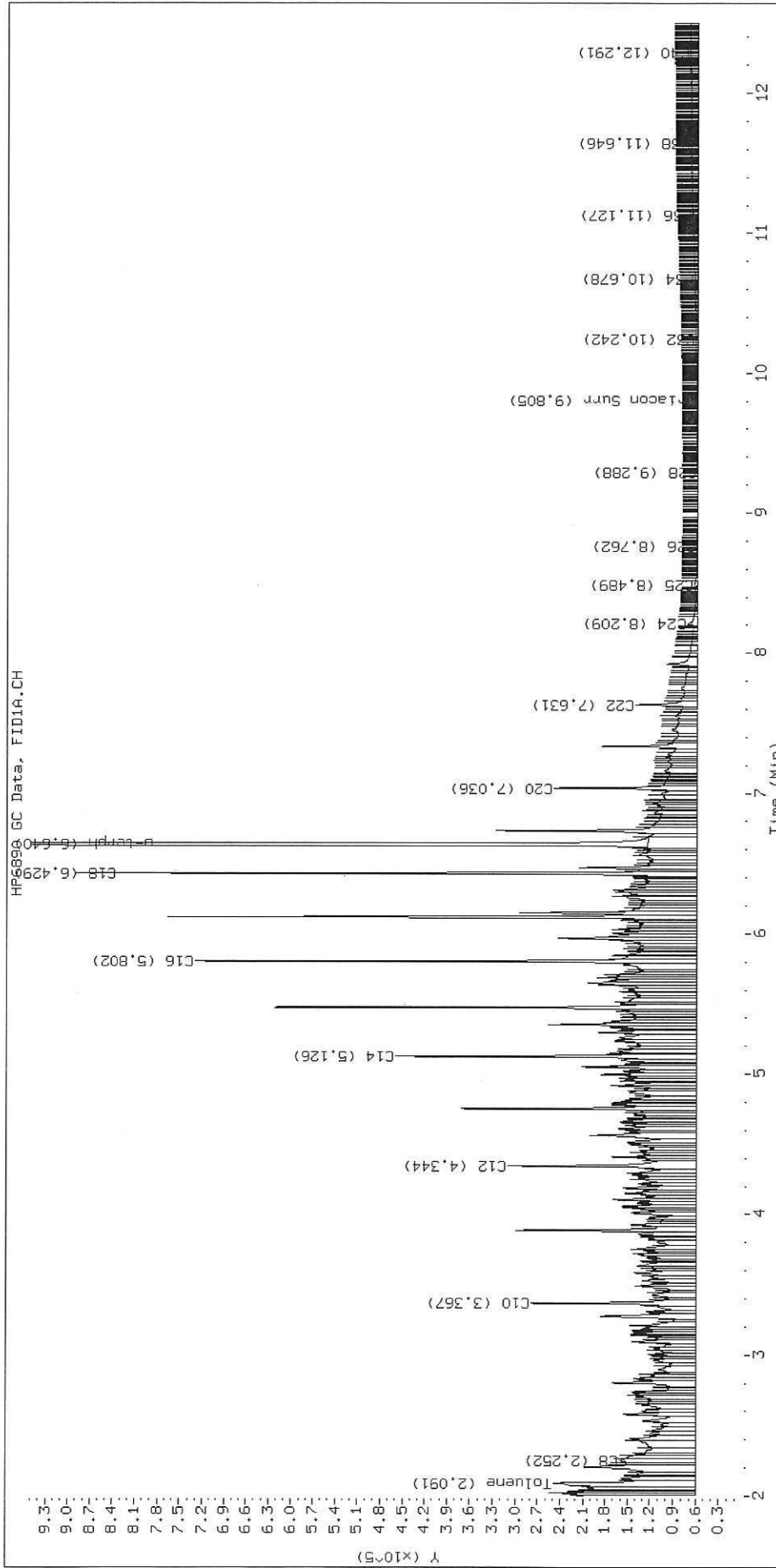
Surrogate	Area	Amount
o-Terphenyl	3642280	17.8 M
Triacontane	368	0.0

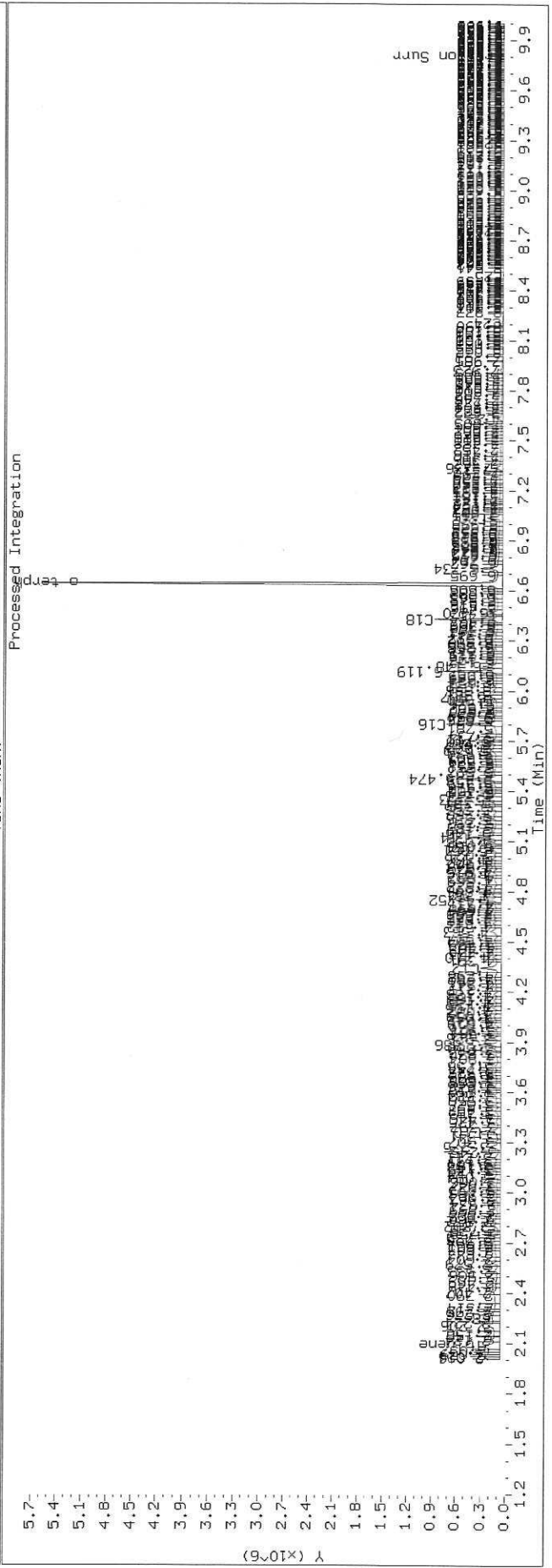
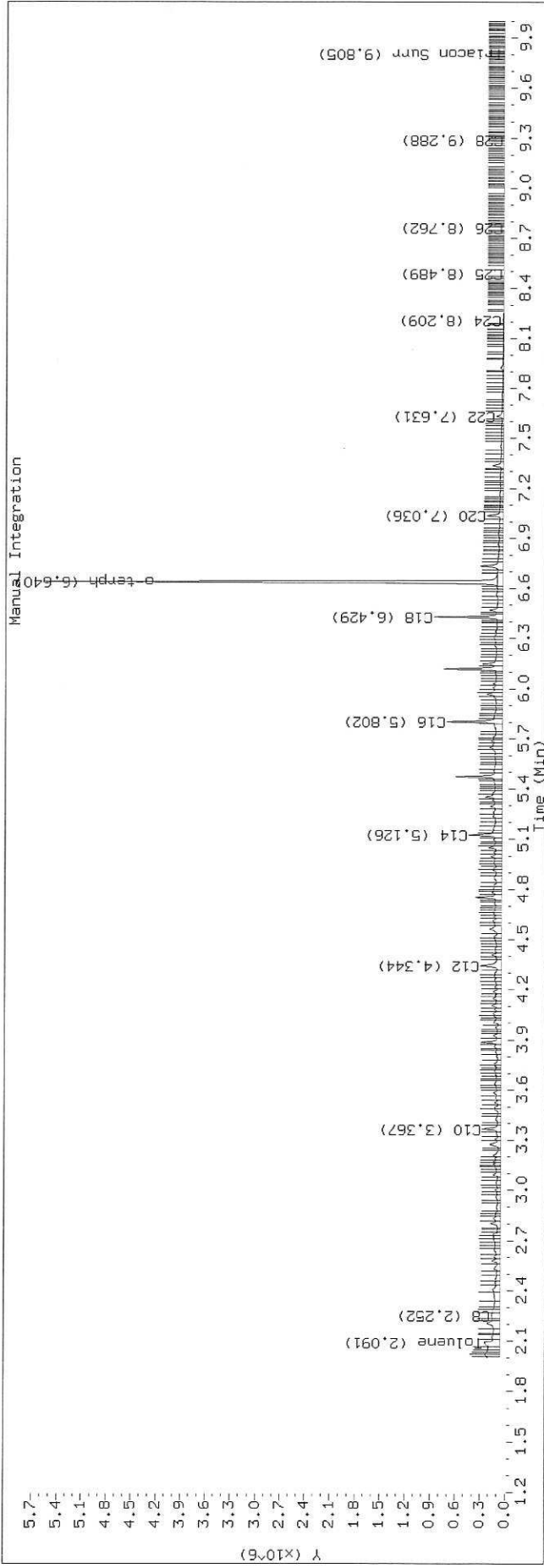
M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019



Datafile: FID4A, 20191025.b/419J2508.D SHJ0406-CAL2

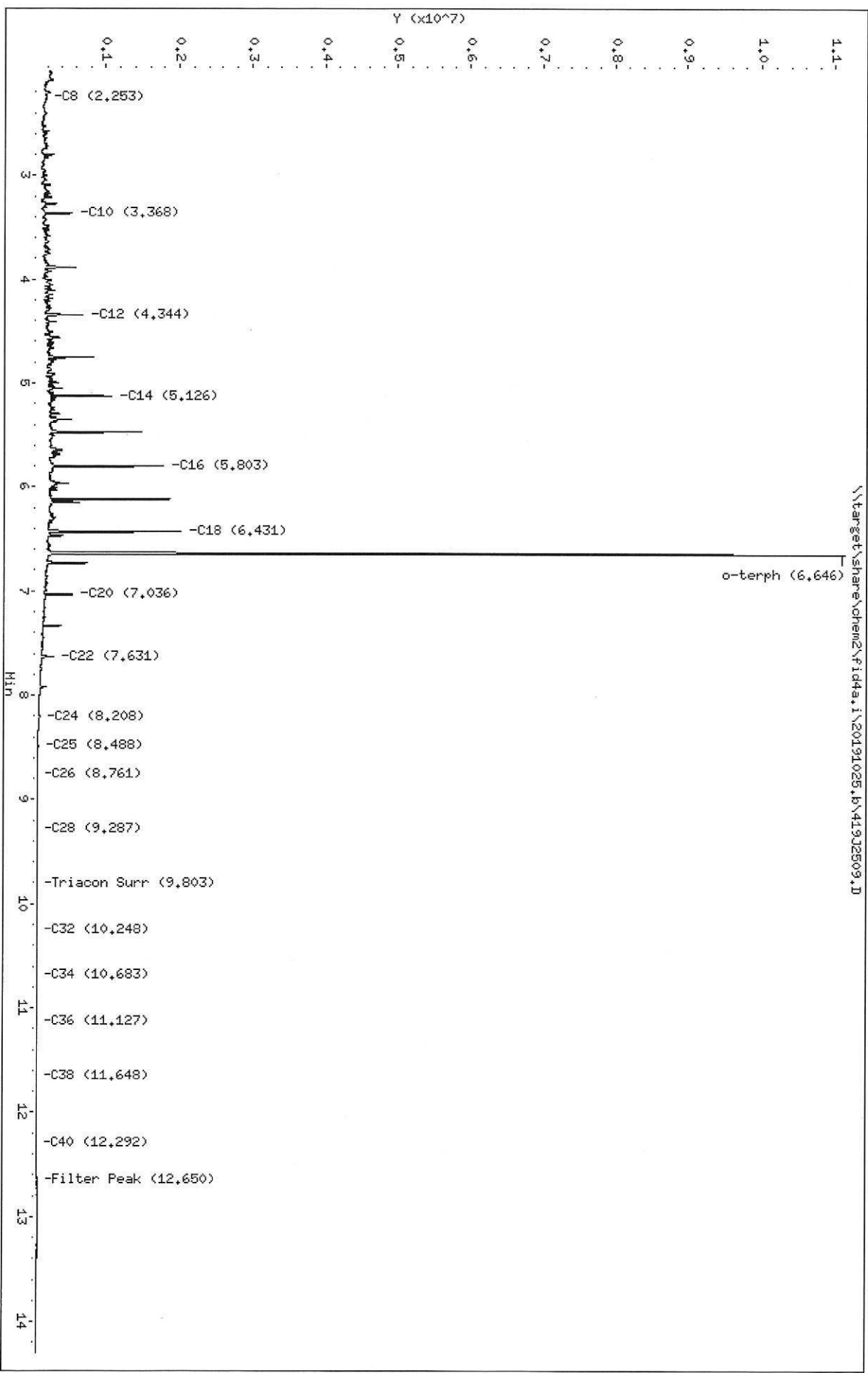




Data File: \\target\share\chem2\fid4a.i\20191025.b\419J2509.D  
Date: 25-OCT-2019 14:32  
Client ID:  
Sample Info: SHJ0406-CAL3

Column phase: RTX-1

Instrument: fid4a.i  
Operator: CTO/SH/VTS/JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2509.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CAL3  
Client ID:  
Injection: 25-OCT-2019 14:32  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	2.253	-0.009	118722	240565	WATPHD	(C12-C24)	37913827	237.9
C10	3.368	-0.005	483544	476749	WATPHM	(C24-C38)	575858	4.3
C12	4.344	-0.003	627626	779062	AK102	(C10-C25)	46188702	236.3
C14	5.126	-0.004	1022309	790022	AK103	(C25-C36)	284914	2.8
C16	5.803	-0.004	1736531	1218478	OR.DIES	(C10-C28)	46284811	236.1
C18	6.431	-0.004	1970150	1409422				
C20	7.036	-0.007	509531	494893				
C22	7.631	-0.008	243435	281583				
C24	8.208	-0.007	43836	95774				
C25	8.488	-0.005	13614	32431				
C26	8.761	-0.004	4384	8919				
C28	9.287	0.001	605	214				
C32	10.248	0.006	1381	707				
C34	10.683	0.001	3151	1389				
Filter Peak	12.650	-0.000	9358	3271	CREOSOT	(C12-C22)	36811374	9436.7
C36	11.127	-0.002	5536	1099				
C38	11.648	-0.002	7679	4193				
C40	12.292	0.003	8799	4362				
o-terph	6.646	-0.010	10937727	8968221				
Triacon Surr	9.803	0.001	295	103	NAS DIES	(C10-C24)	46106144	236.3

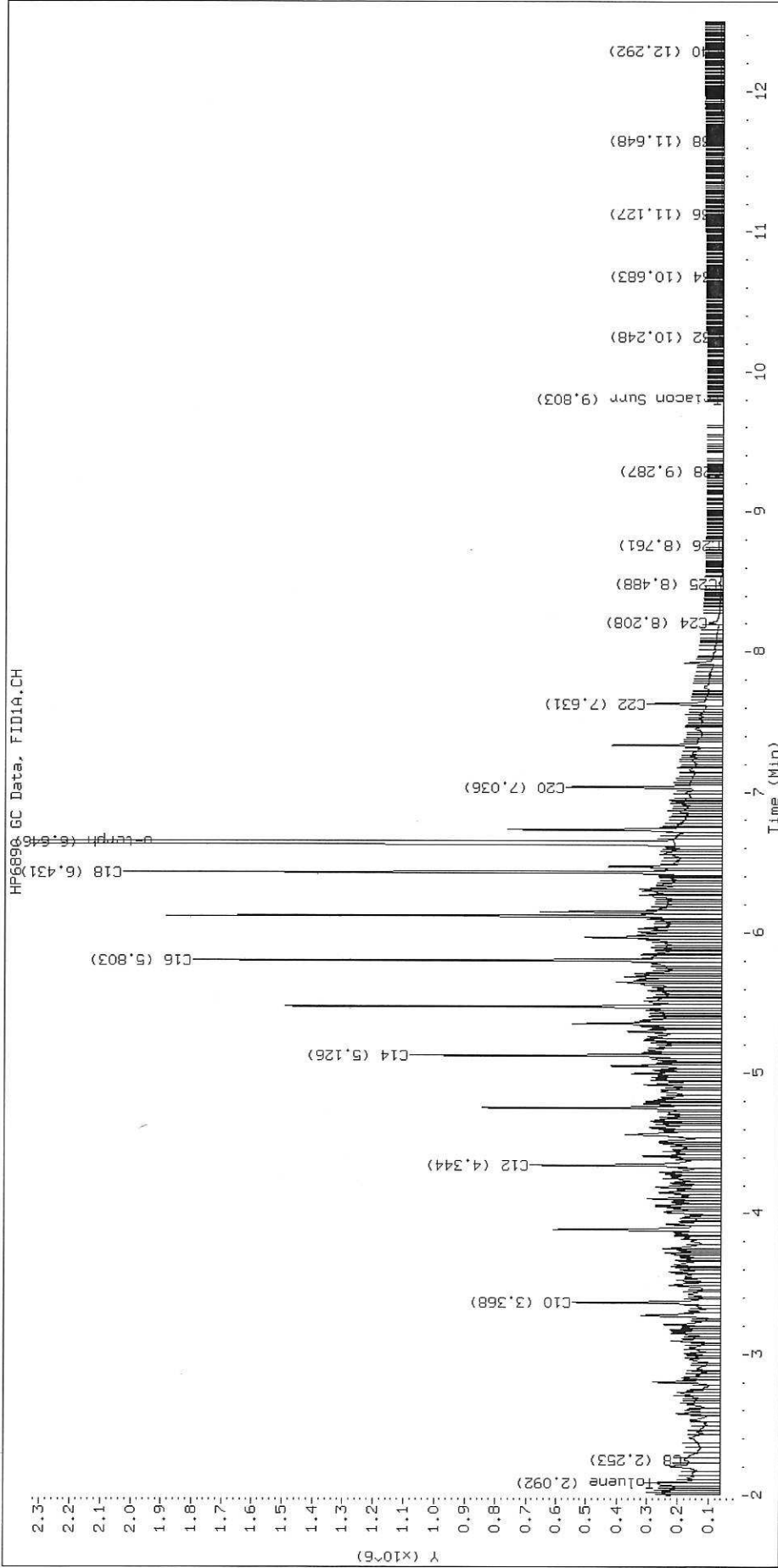
Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

Surrogate	Area	Amount
o-Terphenyl	8968221	43.8
Triacontane	103	0.0

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2509.D SHJ0406-CAL3



Data File: \\target\share\chem2\fid4a.i\20191025.b\419J2510.D

Date: 25-OCT-2019 14:53

Client ID:

Sample Info: SHJ0406-CAL4

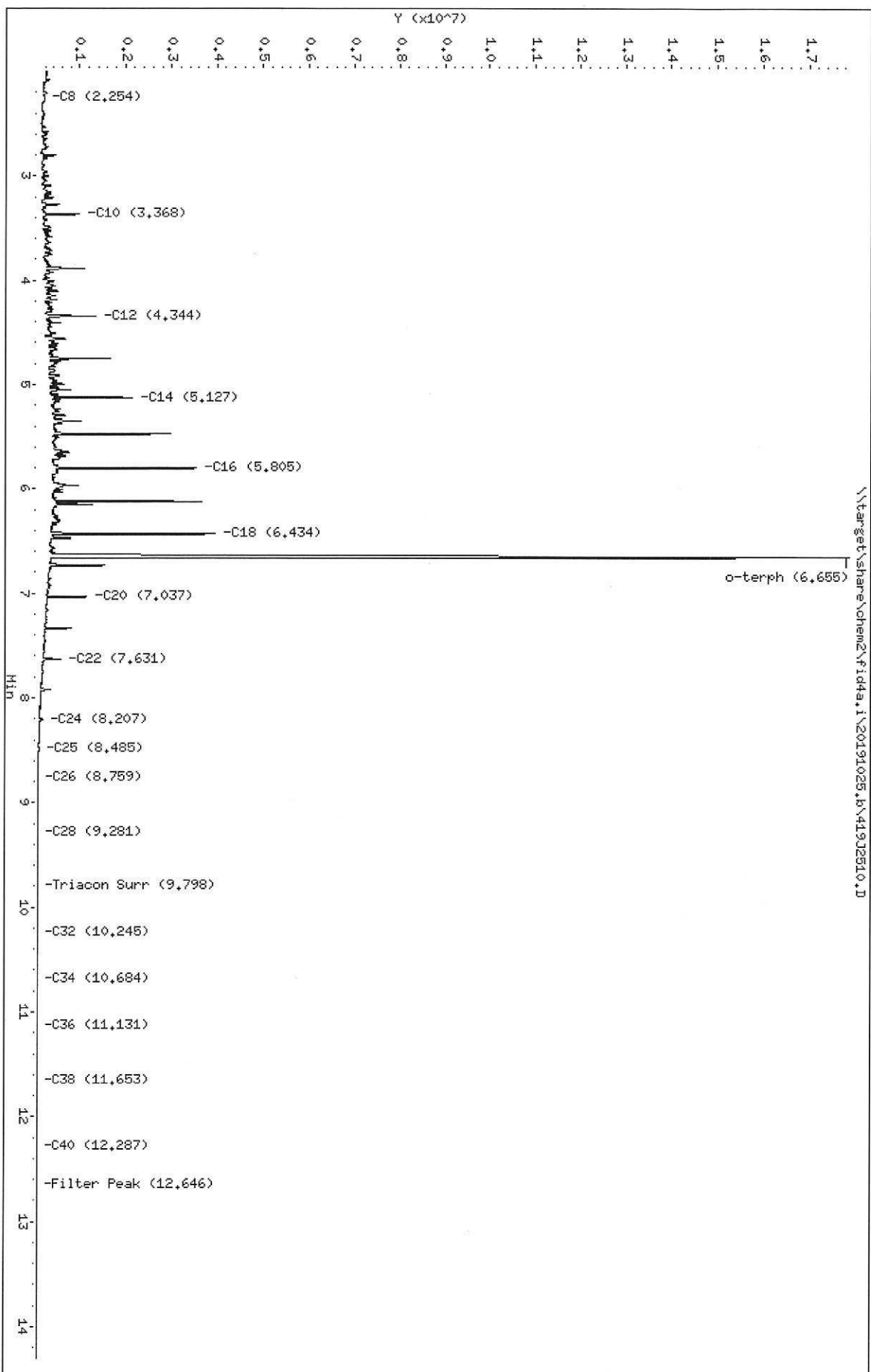
Column phase: RTX-1

Instrument: fid4a.i

Operator: CTD/SH/WTS/JGR

Column diameter: 0.25

Page 1



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2510.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CAL4  
Client ID:  
Injection: 25-OCT-2019 14:53  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.254	-0.009	133720	272365	WATPHD	(C12-C24)	76110005	477.7
C10	3.368	-0.005	913330	831182	WATPHM	(C24-C38)	747310	5.6
C12	4.344	-0.004	1278885	1502773	AK102	(C10-C25)	90903979	465.0
C14	5.127	-0.003	2082835	1580085	AK103	(C25-C36)	436439	4.4
C16	5.805	-0.002	3492654	2476612	OR.DIES	(C10-C28)	91160529	465.1
C18	6.434	-0.001	3902008	2902073				
C20	7.037	-0.006	1095165	935641				
C22	7.631	-0.008	544650	574105				
C24	8.207	-0.008	109625	202080				
C25	8.485	-0.008	35990	71794				
C26	8.759	-0.006	12661	25763				
C28	9.281	-0.004	1585	1856				
C32	10.245	0.003	1048	453				
C34	10.684	0.002	3071	1964				
Filter Peak	12.646	-0.004	3825	2093	CREOSOT	(C12-C22)	73861119	18934.4
C36	11.131	0.002	4915	3154				
C38	11.653	0.003	5457	2692				
C40	12.287	-0.002	4261	1483				
o-terph	6.655	-0.001	17508754	18236498				
Triacon Surr	9.798	-0.004	325	112	NAS DIES	(C10-C24)	90741143	465.0

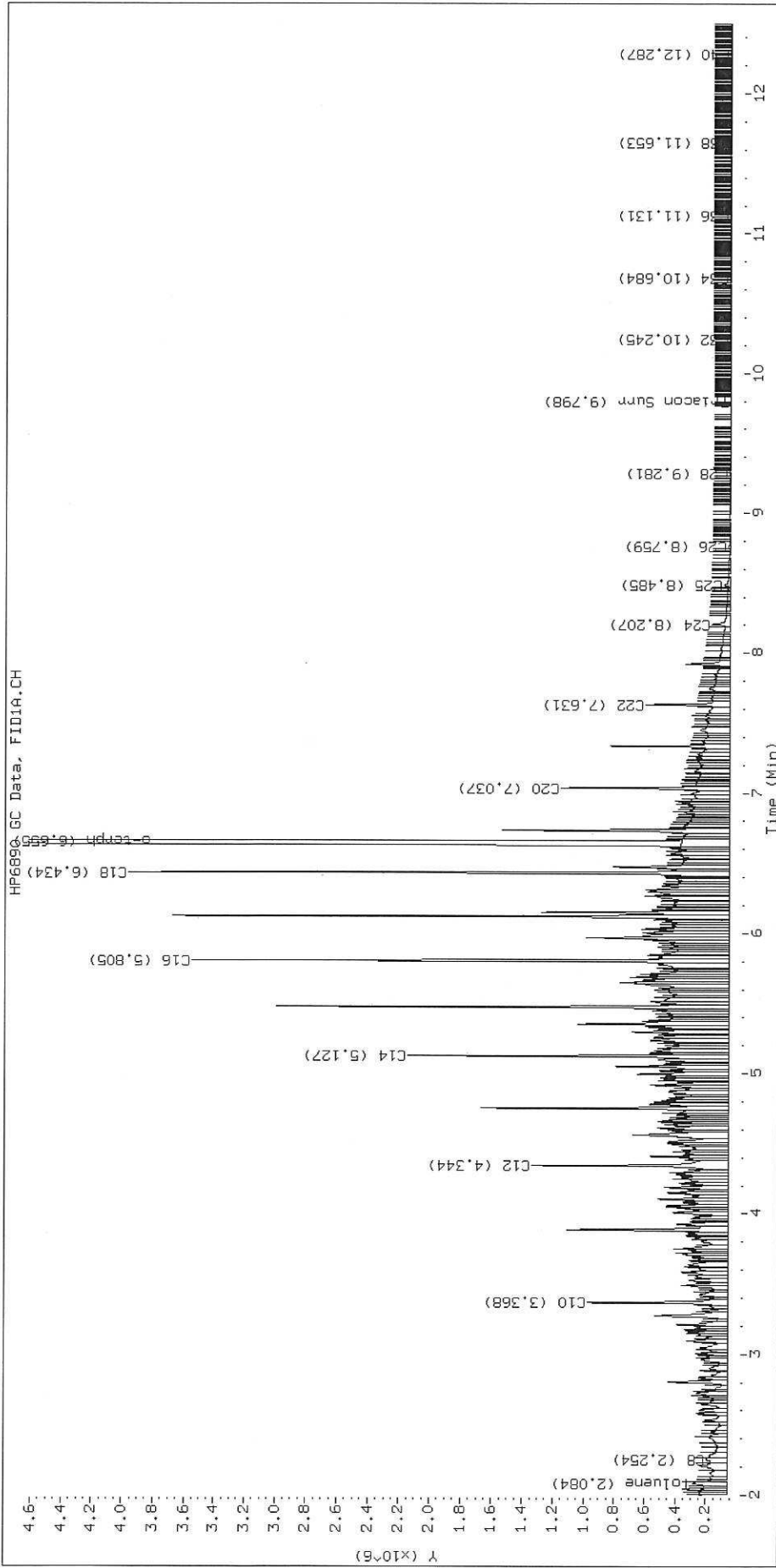
Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

Surrogate	Area	Amount
o-Terphenyl	18236498	89.1 M
Triacotane	112	0.0

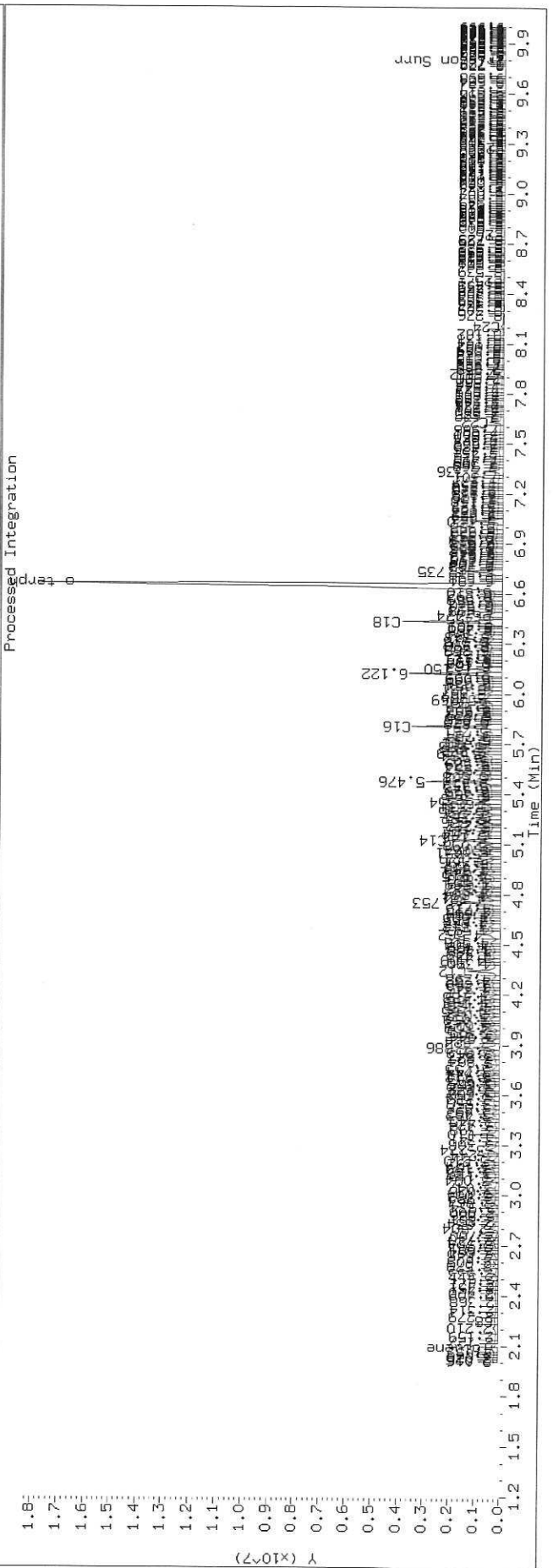
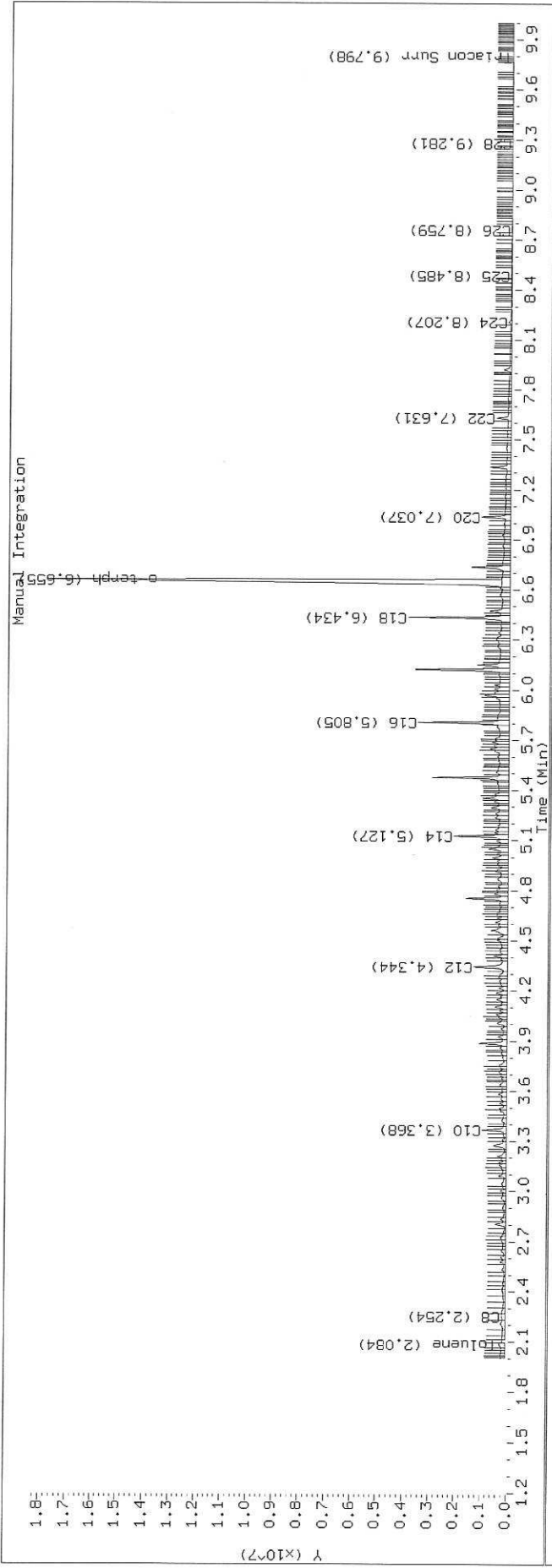
M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.q/419J2510.D SHJ0406-CAL4



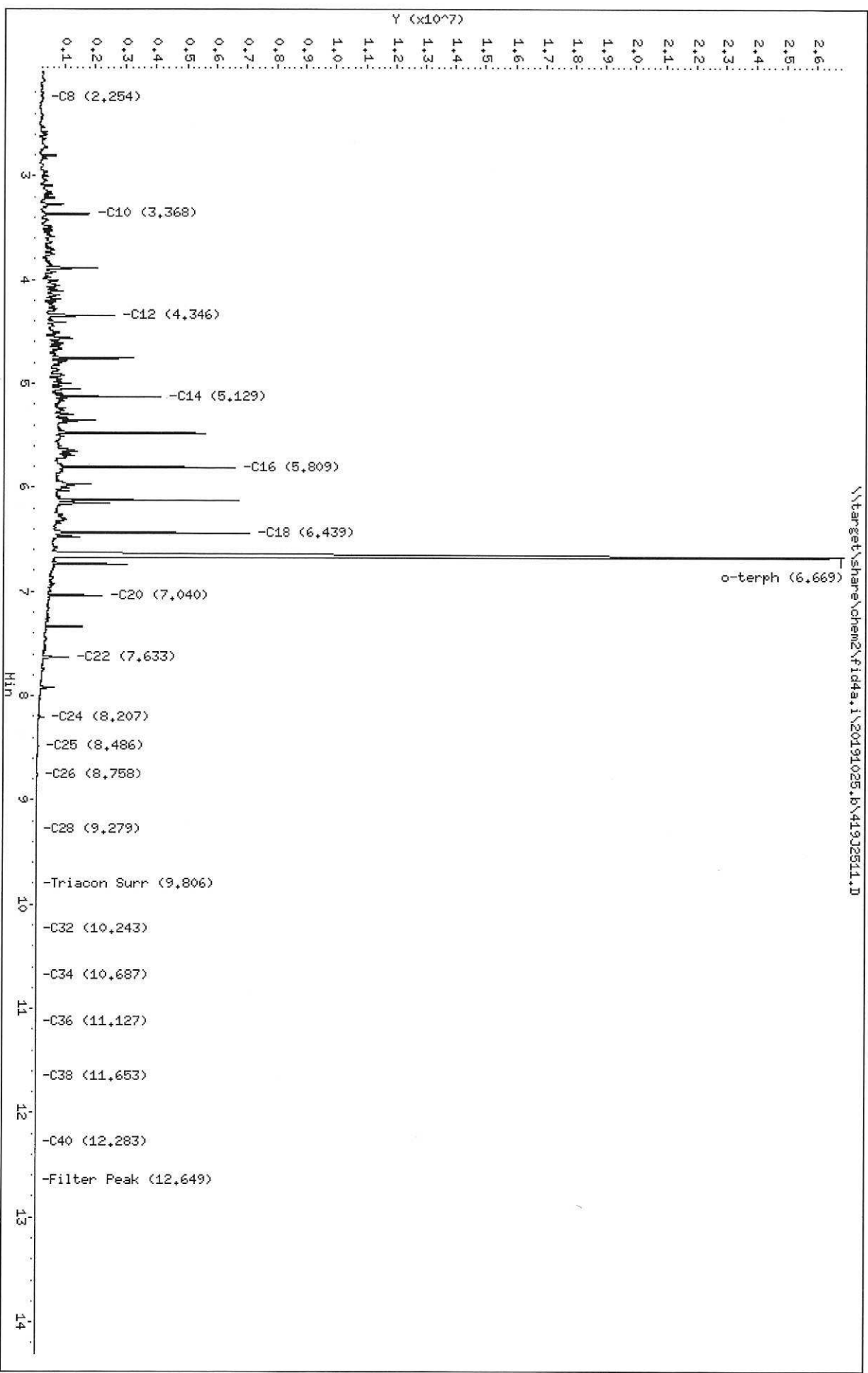




Data File: \\target\share\chem2\fid4a.i\20191025.b\41932511.D  
Date: 25-OCT-2019 15:13  
Client ID:  
Sample Info: SHJ0406-CALS

Column phase: RTX-1

Instrument: fid4a.i  
Operator: CTO/SH/VTS/JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2511.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CALS  
Client ID:  
Injection: 25-OCT-2019 15:13  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.254	-0.008	179896	310888	WATPHD	(C12-C24)	153066747	960.6
C10	3.368	-0.005	1739085	1592987	WATPHM	(C24-C38)	1270800	9.6
C12	4.346	-0.001	2582378	2992597	AK102	(C10-C25)	181956494	930.8
C14	5.129	-0.000	4119910	3175625	AK103	(C25-C36)	821445	8.2
C16	5.809	0.002	6560457	4974499	OR.DIES	(C10-C28)	182680399	932.0
C18	6.439	0.005	7062206	6028122				
C20	7.040	-0.003	2215368	1892870				
C22	7.633	-0.006	1144174	997771				
C24	8.207	-0.008	250003	385382				
C25	8.486	-0.007	89395	162170				
C26	8.758	-0.007	33365	80915				
C28	9.279	-0.006	6648	16116				
C32	10.243	0.001	219	113				
C34	10.687	0.005	471	169				
Filter Peak	12.649	-0.001	3299	1299	CREOSOT	(C12-C22)	148274267	38010.4
C36	11.127	-0.002	1506	512				
C38	11.653	0.003	2117	932				
C40	12.283	-0.006	2712	1056				
o-terph	6.669	0.013	26284682	37244787				
Triacon Surr	9.806	0.004	1398	1069	NAS DIES	(C10-C24)	181561688	930.4

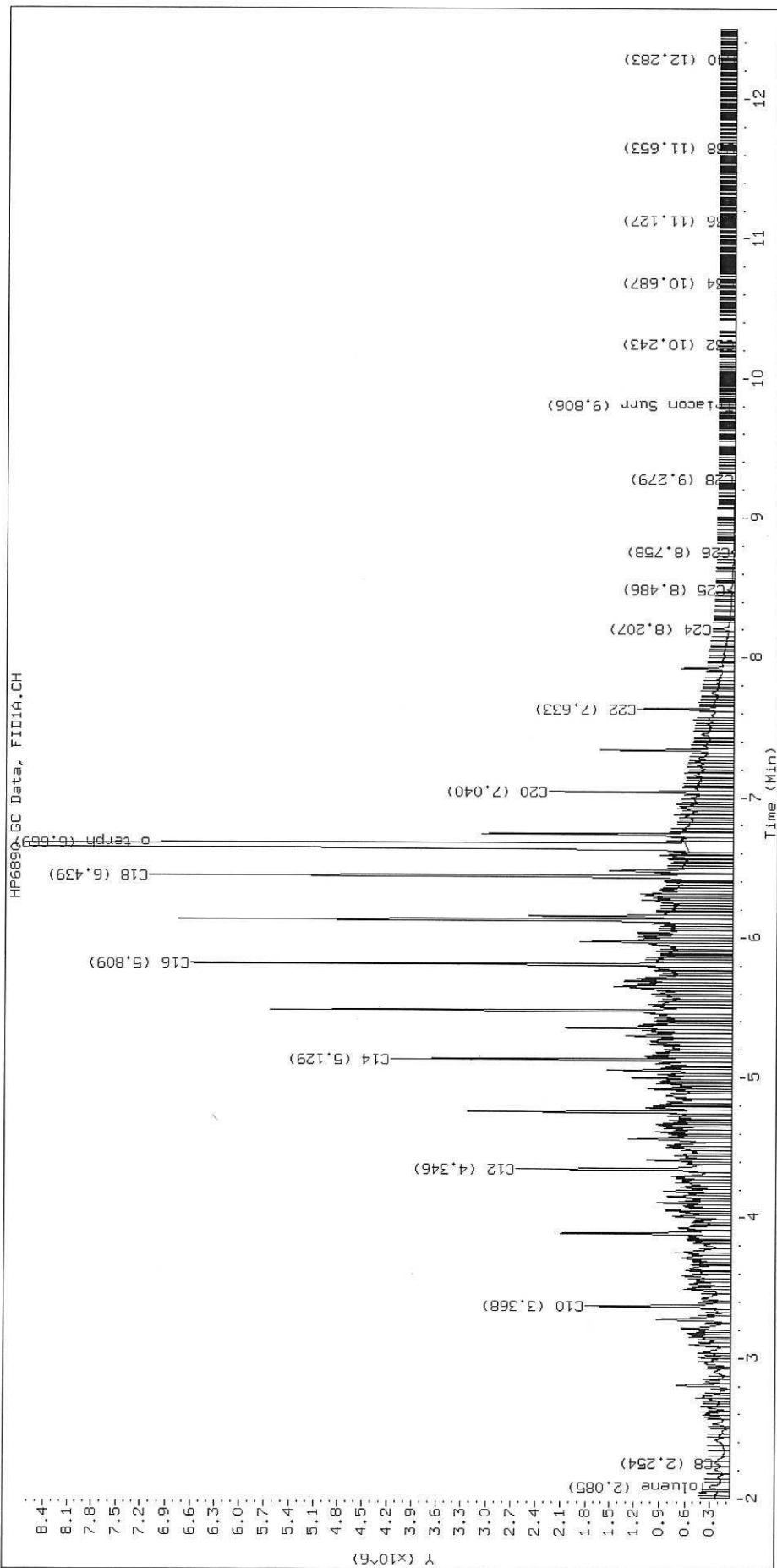
Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

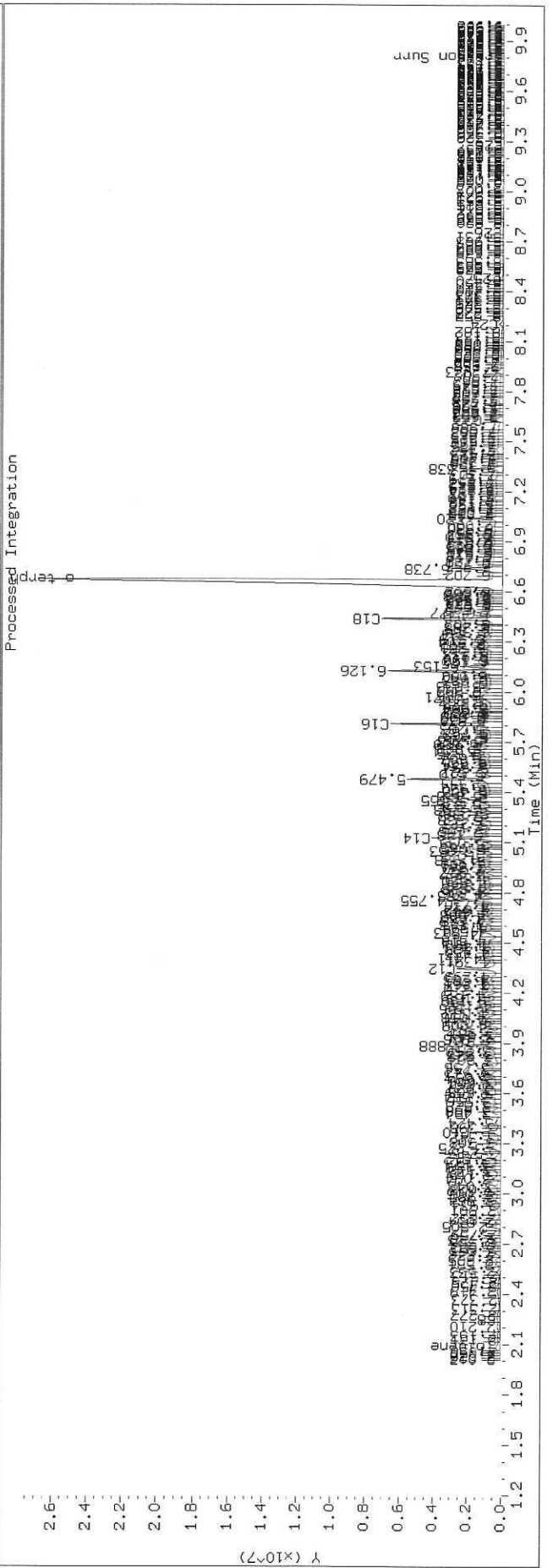
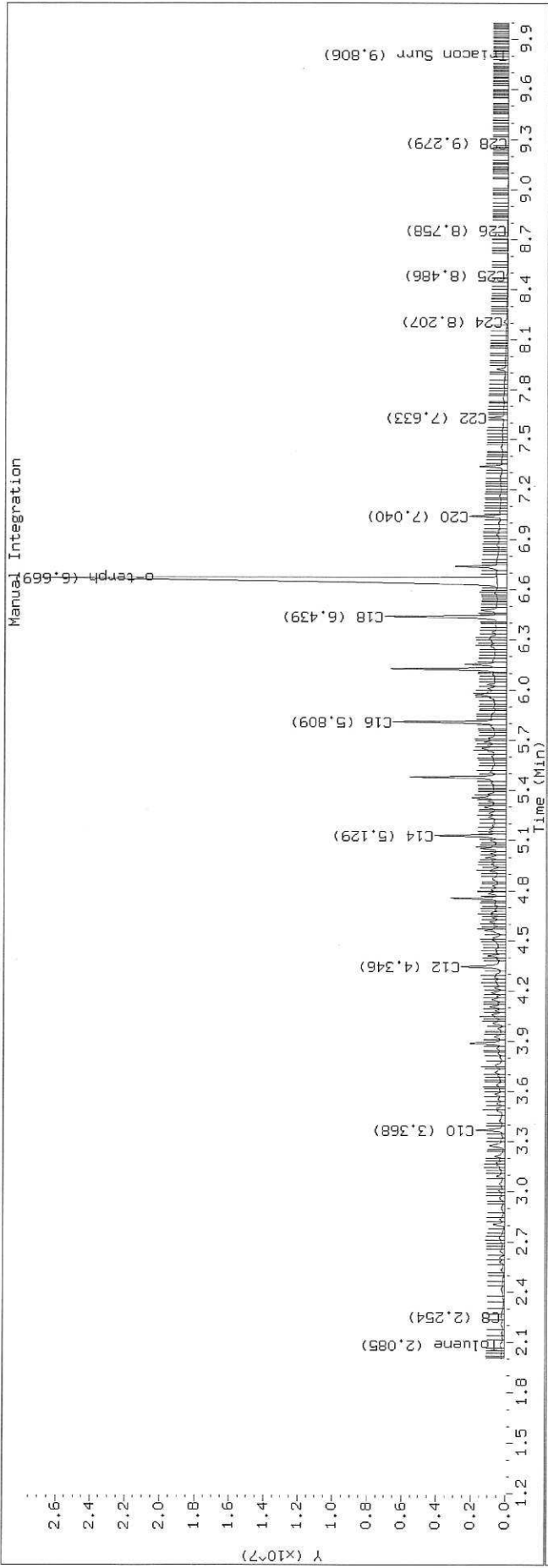
Surrogate	Area	Amount
o-Terphenyl	37244787	181.9 M
Triacontane	1069	0.0

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2511.D SHJ0406-CAL5





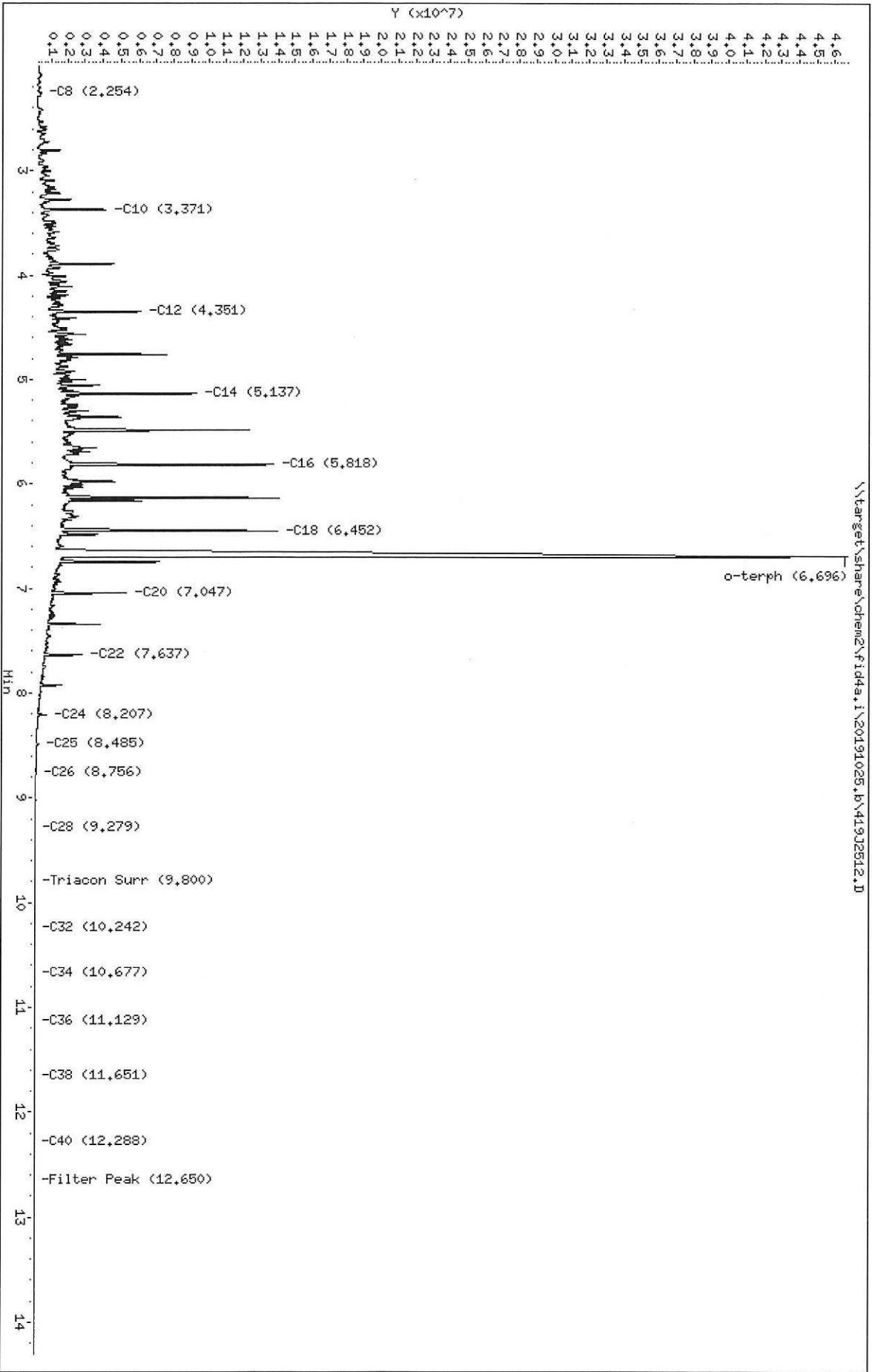
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Date: 25-OCT-2019 15:32

Client ID:  
Sample Info: SHJ0406-CAL6

Column phase: RTX-1

Instrument: fid4a.i

Operator: CTO/SH/VTS/JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2512.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CAL6  
Client ID:  
Injection: 25-OCT-2019 15:32  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	2.254	-0.008	310597	486343	WATPHD	(C12-C24)	386988567	2428.7
C10	3.371	-0.002	4067321	3926897	WATPHM	(C24-C38)	3326156	25.1
C12	4.351	0.004	6051560	7536066	AK102	(C10-C25)	458776536	2346.8
C14	5.137	0.007	9257057	8197076	AK103	(C25-C36)	2148648	21.5
C16	5.818	0.011	13762212	12844924	OR.DIES	(C10-C28)	460755382	2350.8
C18	6.452	0.017	13977204	16316405				
C20	7.047	0.004	5292354	4776661				
C22	7.637	-0.002	2821591	2512756				
C24	8.207	-0.007	692936	731199				
C25	8.485	-0.008	261257	416815				
C26	8.756	-0.009	100686	191231				
C28	9.279	-0.006	17823	35082				
C32	10.242	-0.001	483	193				
C34	10.677	-0.004	847	428				
Filter Peak	12.650	-0.001	5215	3893	CREOSOT	(C12-C22)	374231679	95935.0
C36	11.129	0.000	2243	1721				
C38	11.651	0.001	3497	1043				
C40	12.288	-0.001	4517	2473				
o-terph	6.696	0.039	45134516	94404433				
Triacon Surr	9.800	-0.002	2320	892	NAS DIES	(C10-C24)	457687210	2345.3

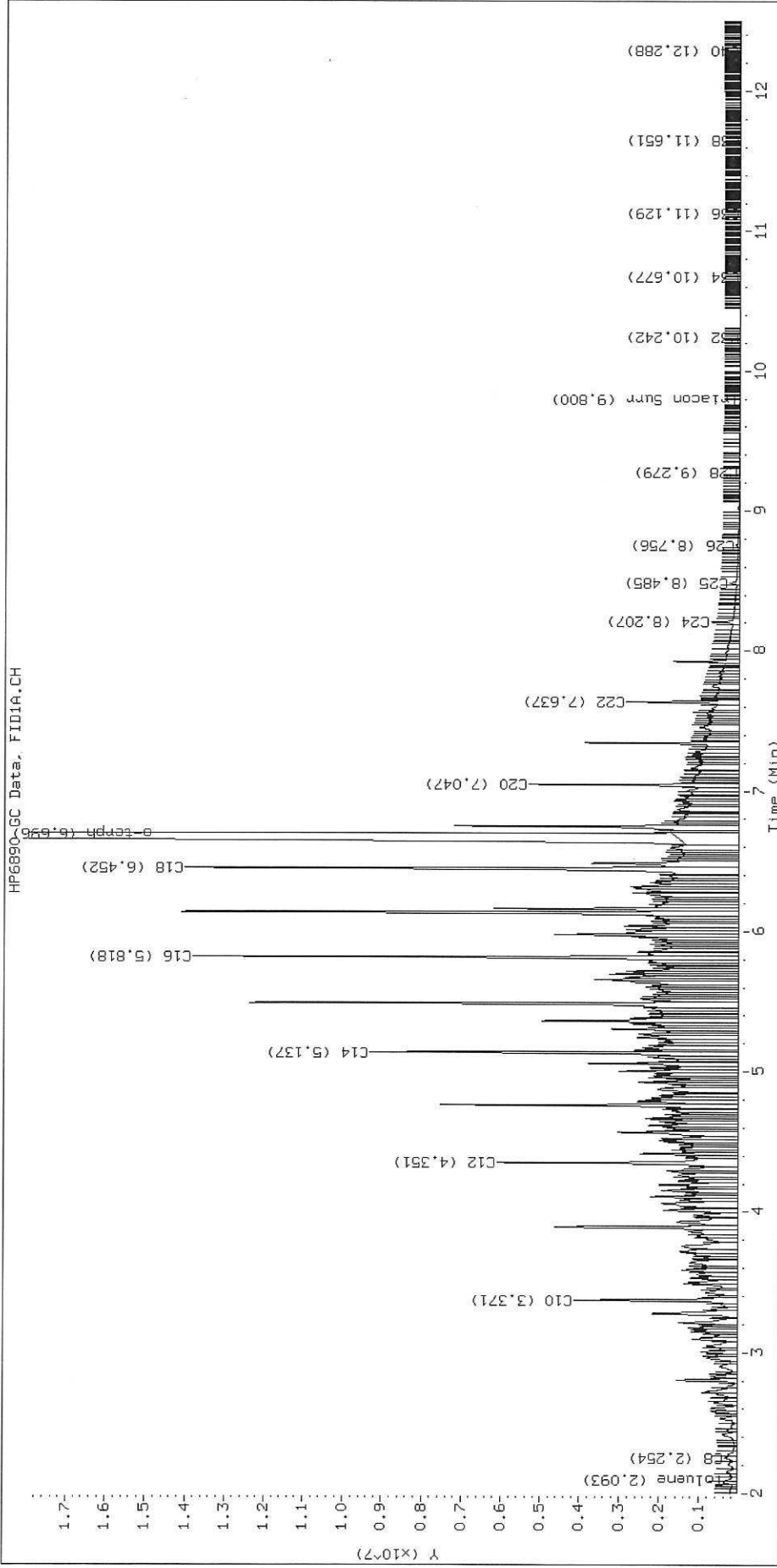
Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

Surrogate	Area	Amount
o-Terphenyl	94404433	461.2 M
Triacotane	892	0.0

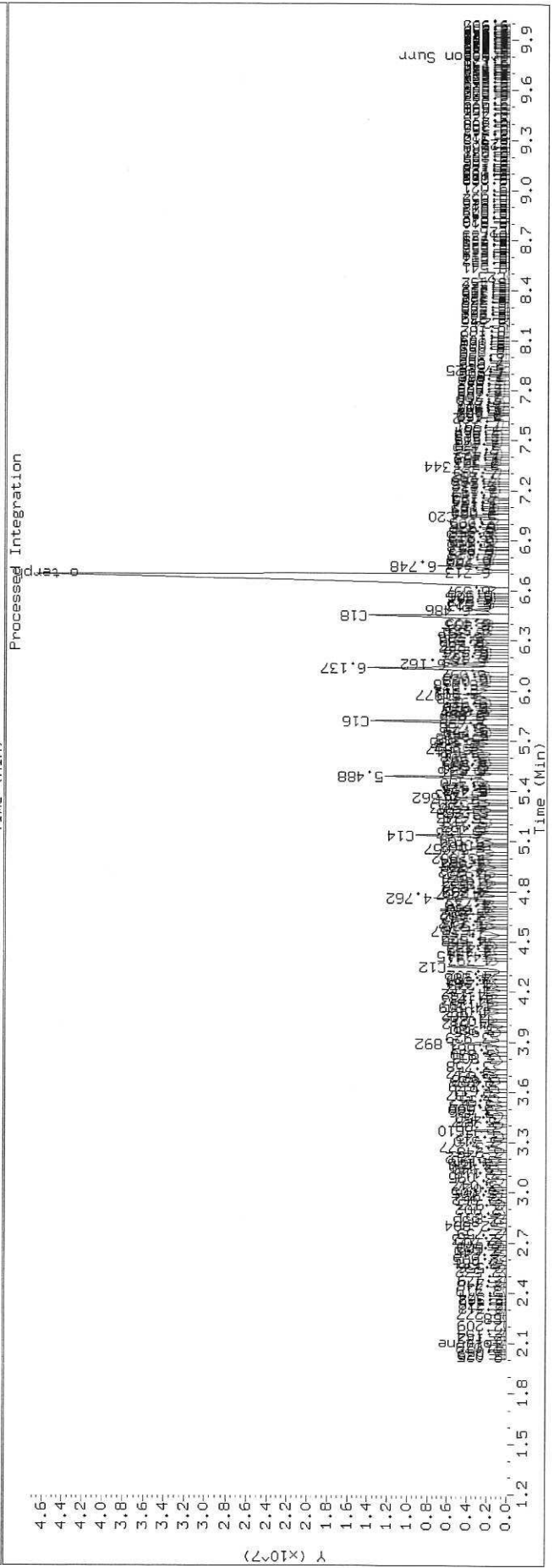
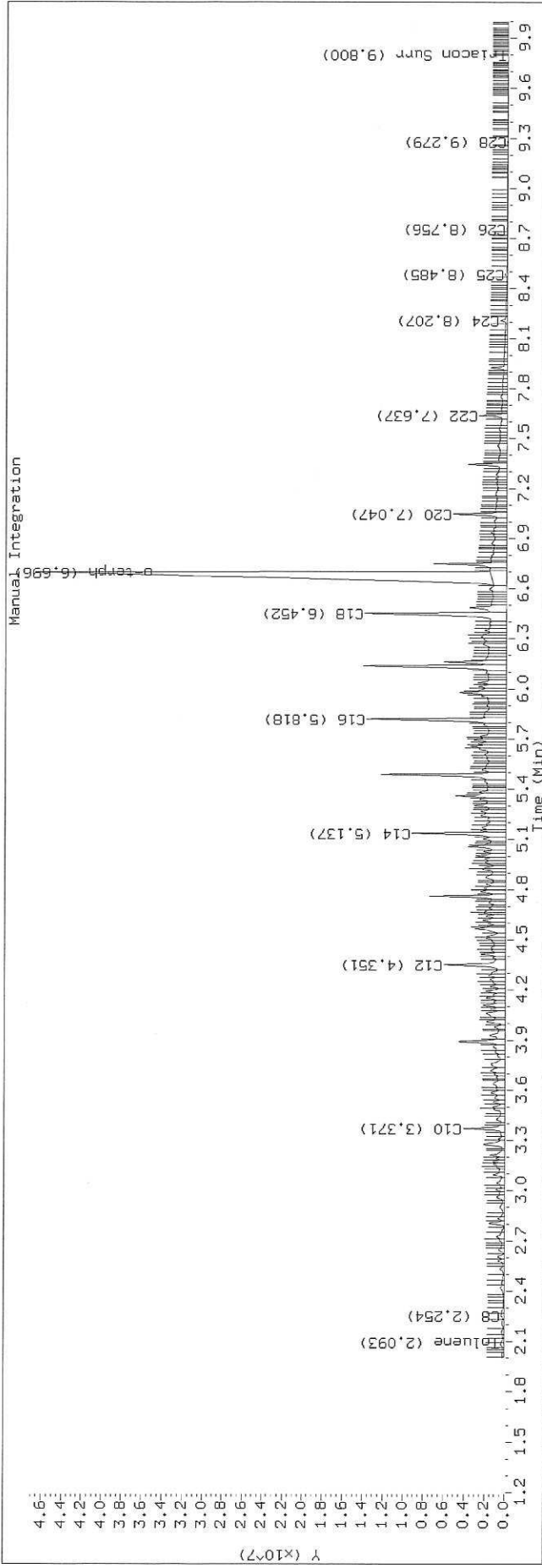
M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2512.D SHJ0406-CAL6

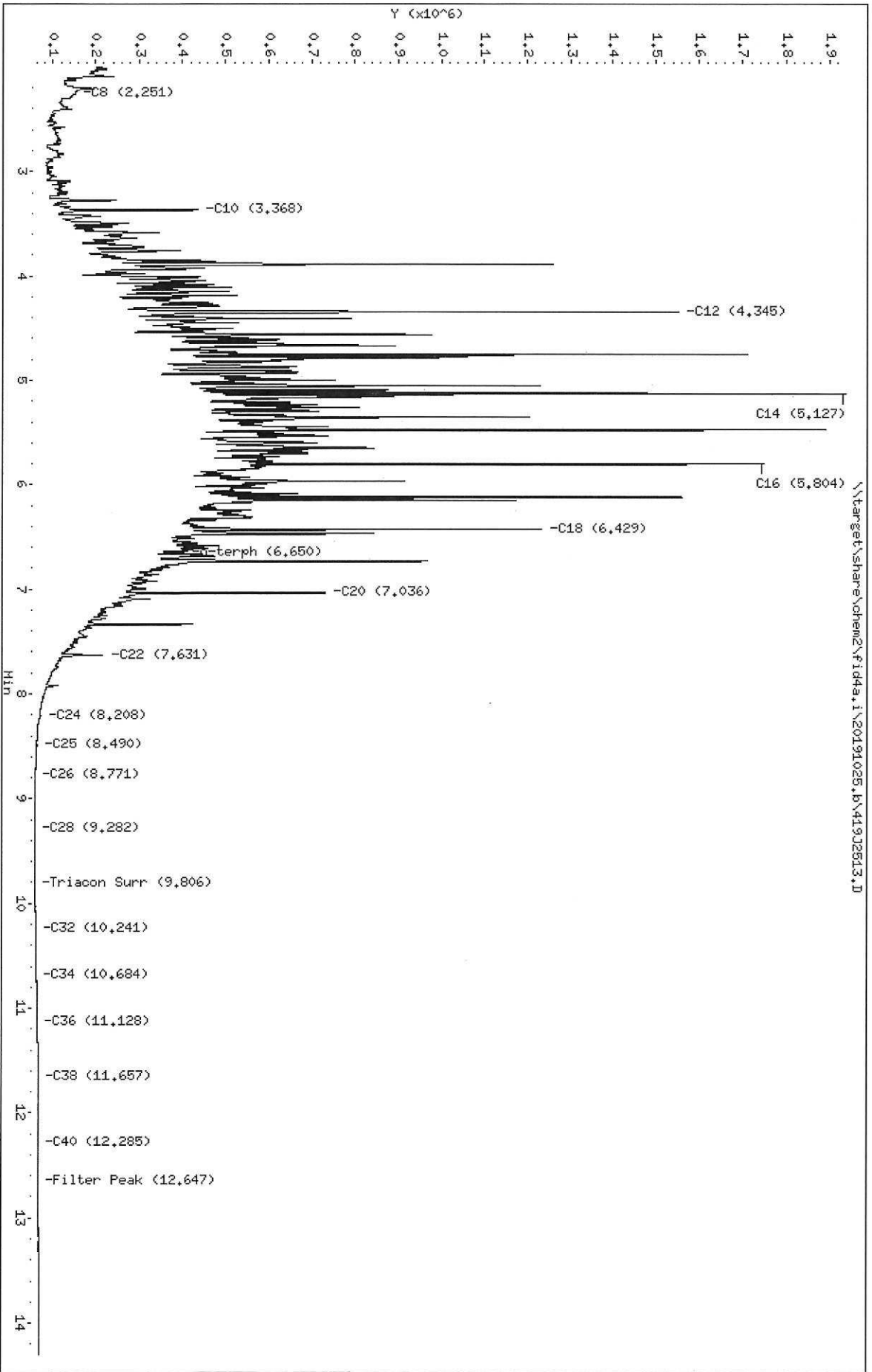






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 Date: 25-OCT-2019 15:52  
 Client ID:  
 Sample Info: SHJ0406-SCV1  
 Column phase: RTX-1

Instrument: fid4a.i  
 Operator: CTD/SH/MTS/JGR  
 Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2513.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-SCV1  
Client ID:  
Injection: 25-OCT-2019 15:52  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.251	-0.011	94961	147864	WATPHD	(C12-C24)	81454017	511.2
C10	3.368	-0.005	379319	401979	WATPHM	(C24-C38)	639731	4.8
C12	4.345	-0.002	1496096	1990616	AK102	(C10-C25)	97704414	499.8
C14	5.127	-0.002	1881566	1510979	AK103	(C25-C36)	332991	3.3
C16	5.804	-0.003	1693335	1468242	OR.DIES	(C10-C28)	97755450	498.8
C18	6.429	-0.006	1178327	1173671				
C20	7.036	-0.007	676475	771884				
C22	7.631	-0.008	162529	245982				
C24	8.208	-0.007	16269	46701				
C25	8.490	-0.003	4835	8168				
C26	8.771	0.006	1378	465				
C28	9.282	-0.003	218	122				
C32	10.241	-0.001	2076	410				
C34	10.684	0.003	4334	2137				
Filter Peak	12.647	-0.003	10515	4189	CREOSOT	(C12-C22)	80554511	20650.3
C36	11.128	-0.001	6869	2744				
C38	11.657	0.008	8764	3056				
C40	12.285	-0.004	9988	4995				
o-terph	6.650	-0.007	347314	350999				
Triacon Surr	9.806	0.003	1146	388	NAS DIES	(C10-C24)	97645351	500.4

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

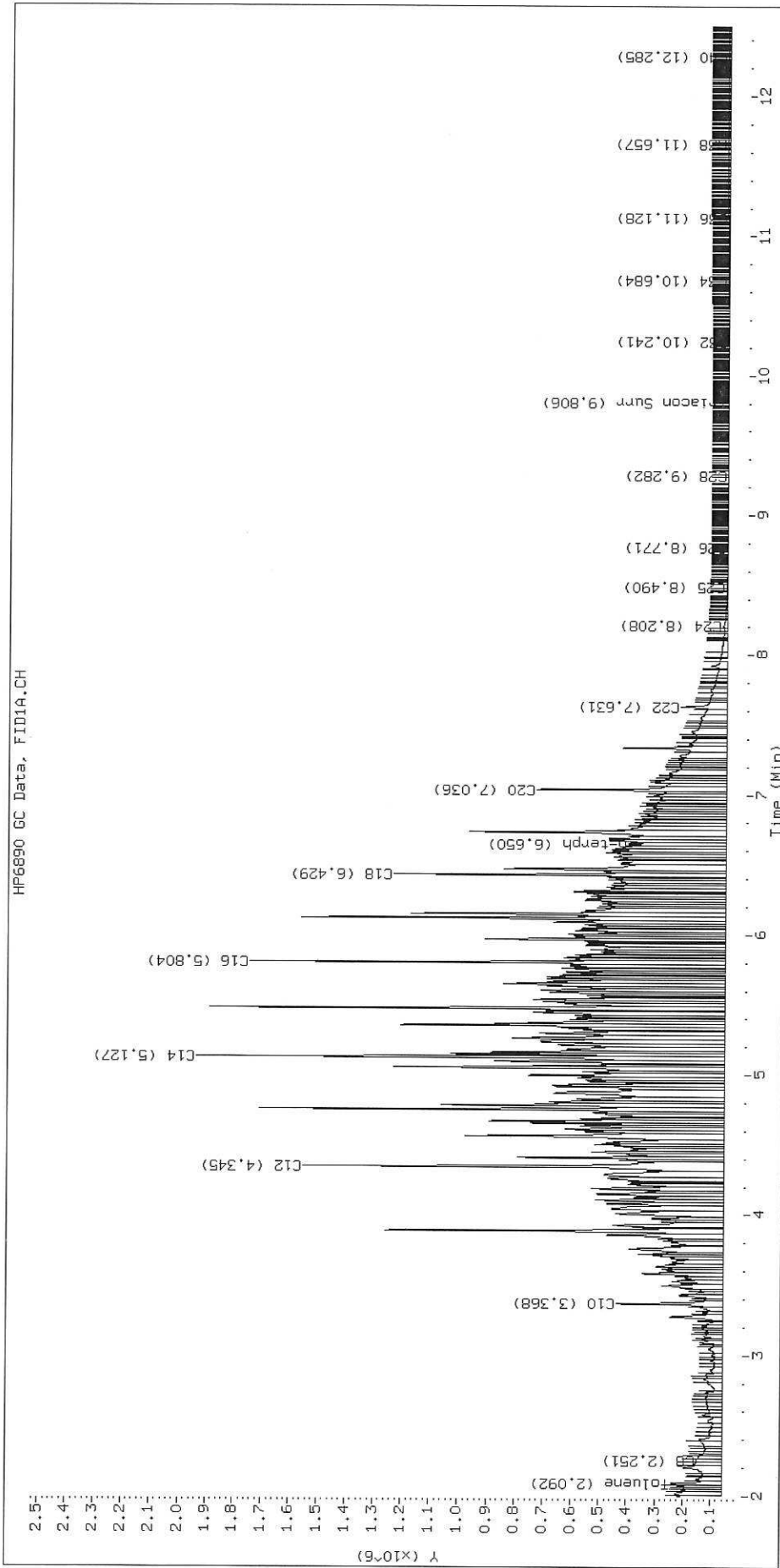
Surrogate	Area	Amount
o-Terphenyl	350999	1.7
Triacotane	388	0.0

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2513.D SHJ0406-SCV1

HF6890 GC Data, FID1A.CH



Data File: \\target\share\chem2\fid4a.i\20191025.b\41932514.D

Date : 25-OCT-2019 16:12

Client ID:

Sample Info: SH00406-CAL7

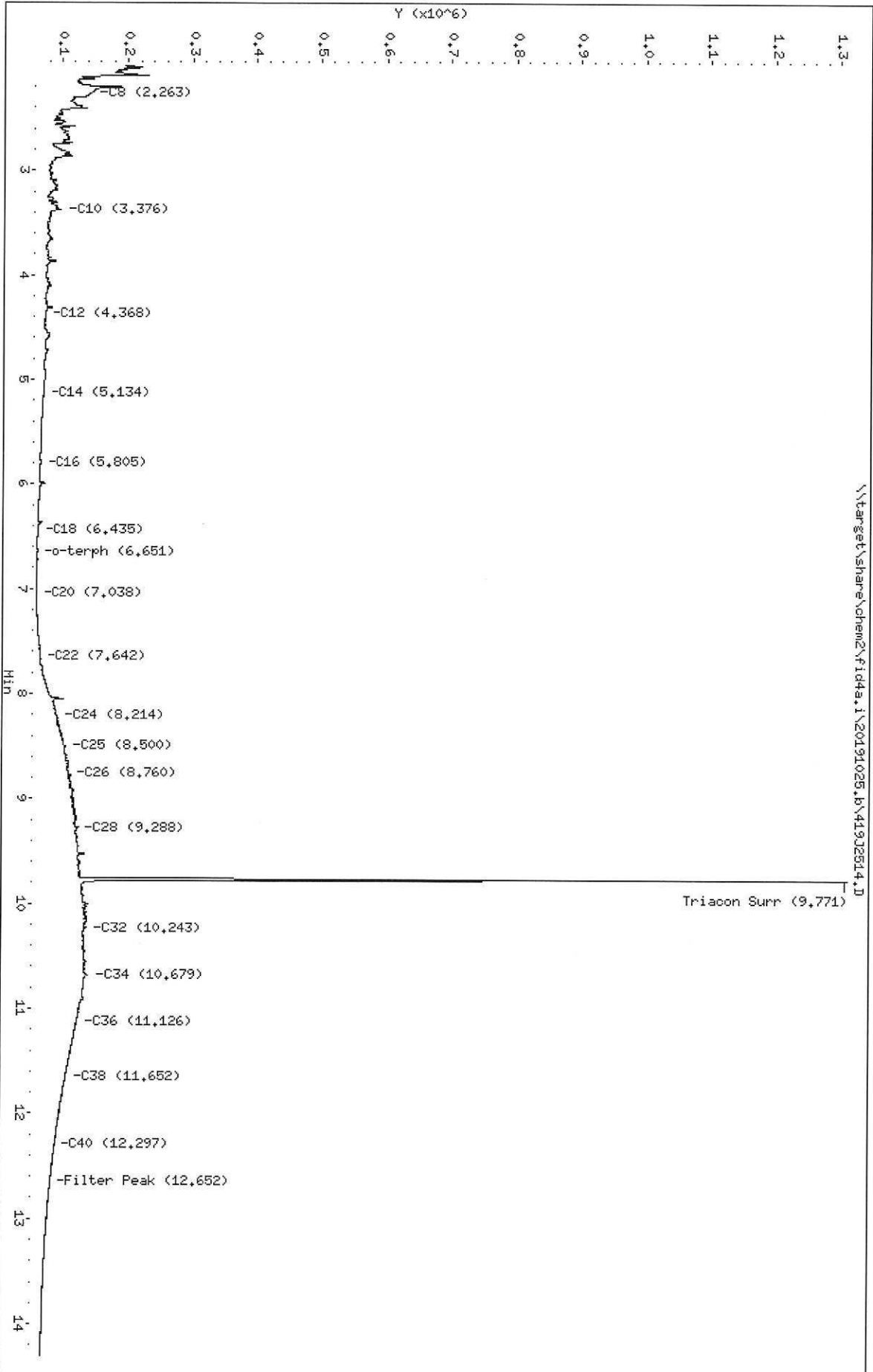
Column phase: RTX-1

Instrument: fid4a.i

Operator: CTO/SH/VTS/JGR

Column diameter: 0.25

Page 1



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2514.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CAL7  
Client ID:  
Injection: 25-OCT-2019 16:12  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.263	0.001	85024	58523	WATPHD	(C12-C24)	1690231	10.6
C10	3.376	0.003	37002	76813	WATPHM	(C24-C38)	13578464	102.4
C12	4.368	0.021	13222	16848	AK102	(C10-C25)	3173344	16.2
C14	5.134	0.004	9789	3901	AK103	(C25-C36)	11330395	113.3
C16	5.805	-0.002	5337	2891	OR.DIES	(C10-C28)	6258620	31.9
C18	6.435	0.000	1861	887				
C20	7.038	-0.005	431	243				
C22	7.642	0.003	6248	1558				
C24	8.214	-0.001	36357	52641				
C25	8.500	0.007	49017	43098				
C26	8.760	-0.005	55671	27607				
C28	9.288	0.003	67768	33791				
C32	10.243	0.001	81940	56823				
C34	10.679	-0.002	85222	51016				
Filter Peak	12.652	0.002	27566	19236	CREOSOT	(C12-C22)	959454	246.0
C36	11.126	-0.003	69343	27714				
C38	11.652	0.002	52690	33941				
C40	12.297	0.009	34497	15508				
o-terph	6.651	-0.006	941	547				
Triacon Surr	9.771	-0.031	1179904	816812	NAS DIES	(C10-C24)	2749900	14.1

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

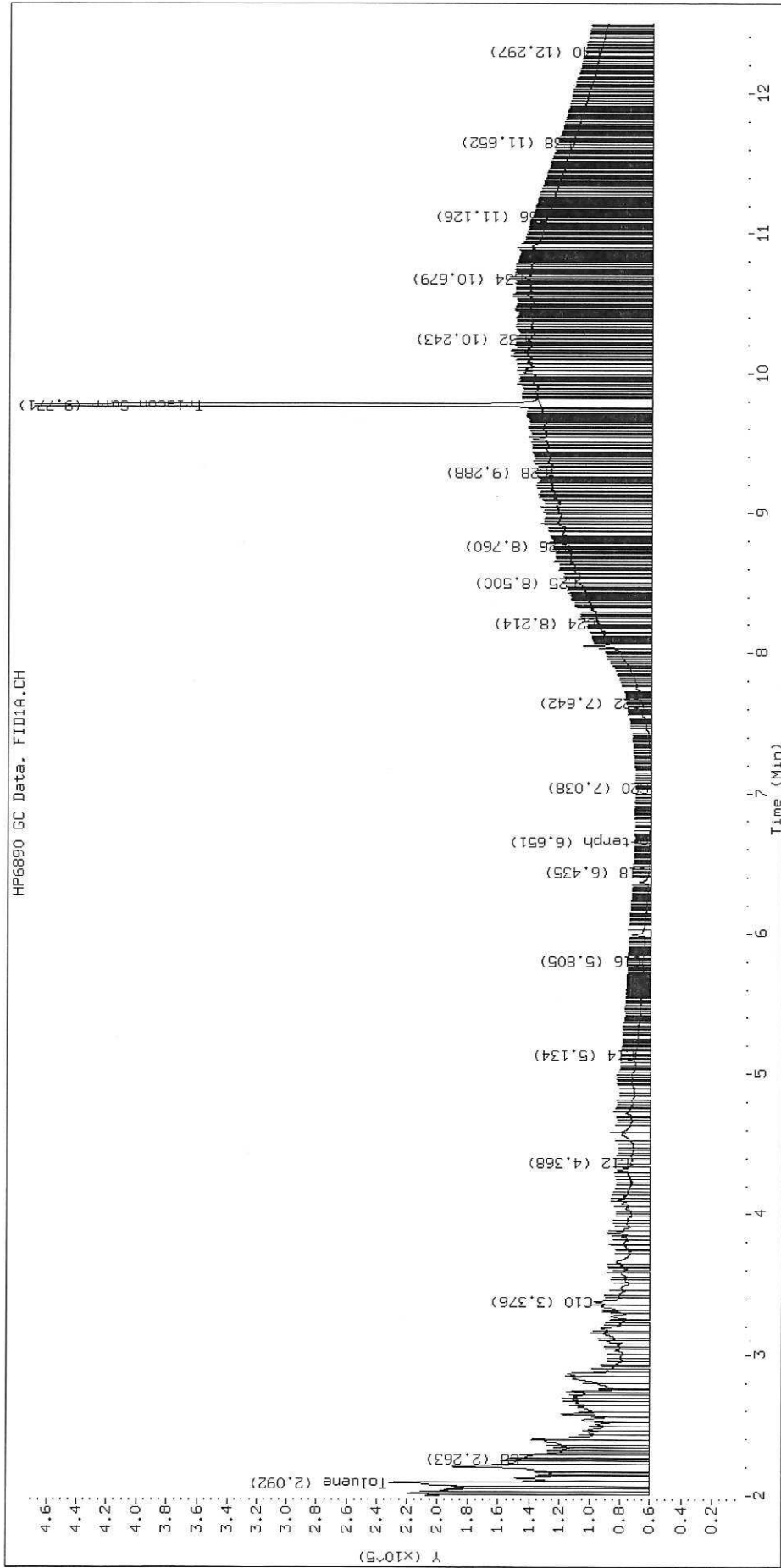
Surrogate	Area	Amount
o-Terphenyl	547	0.0
Triacontane	816812	4.6 M

M Indicates the peak was manually integrated

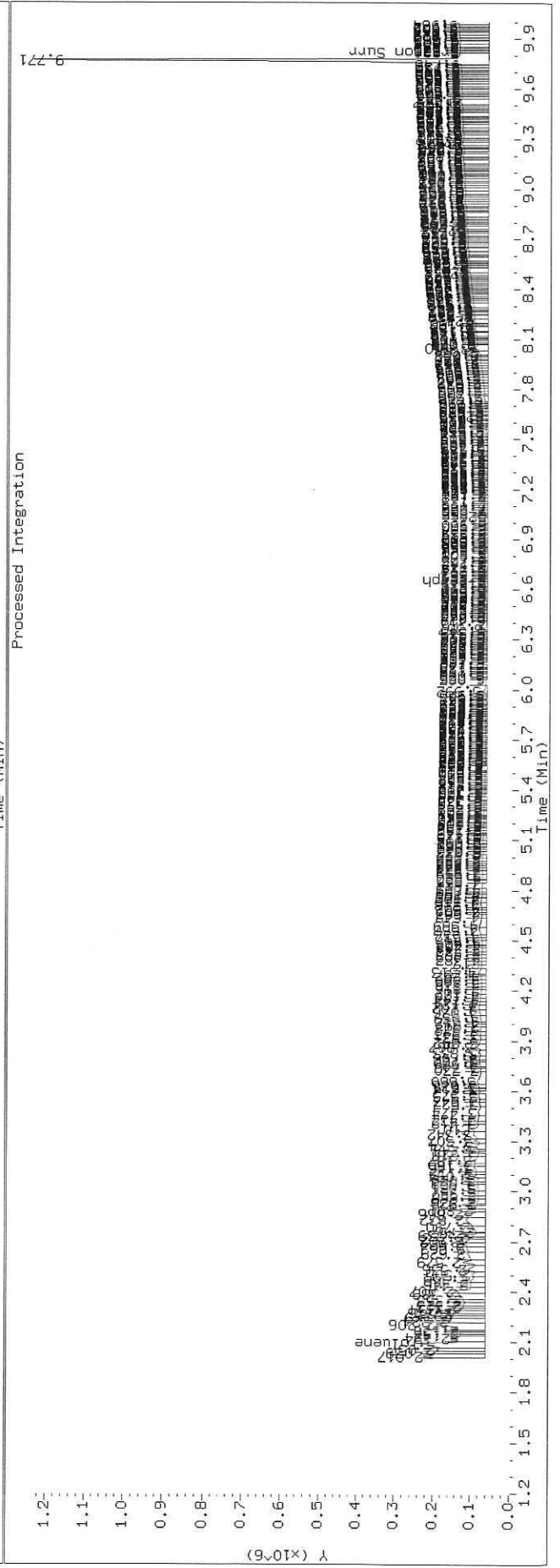
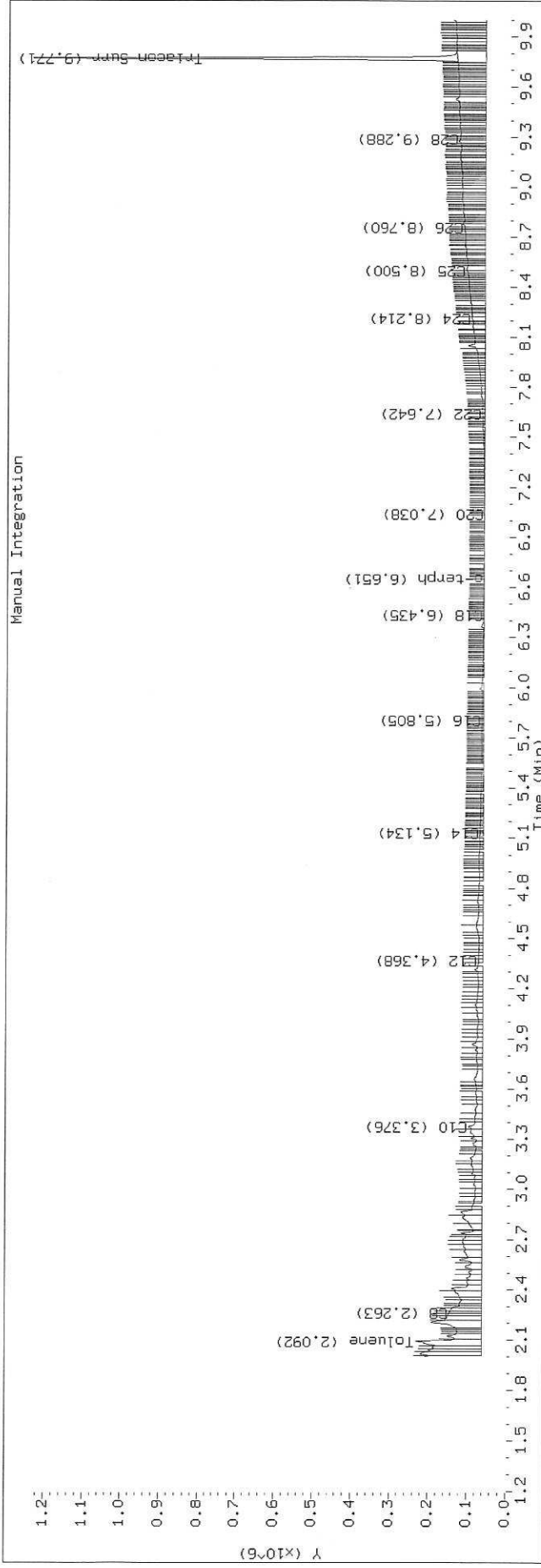
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2514.D SHJ0406-CAL7

HP6890 GC Data, FID1A.CH



TPH Manual Integrations Report  
 Datafile: FID4A, 20191025.b/419J2514.D Injection: 25-OCT-2019 16:12  
 Lab ID: SHJ0406-CAL7





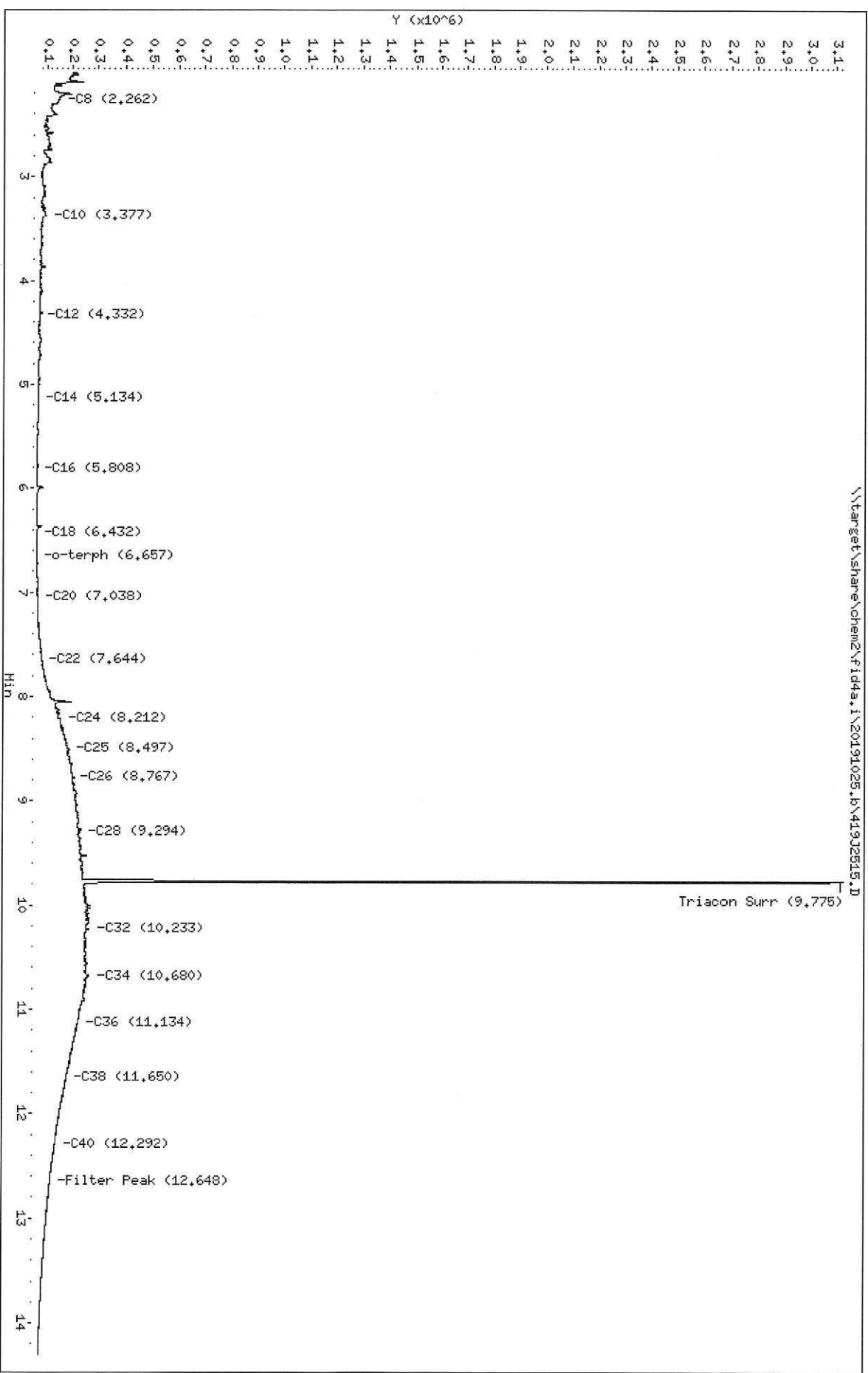
Data File: \\target\share\chem2\fid4a.i\20191025.b\419J2515.D  
Date: 25-OCT-2019 16:33  
Client ID:  
Sample Info: SHJ0406-CAL8

Instrument: fid4a.i

Column phase: RTX-1

Operator: CTO/SH/VTS/JGR  
Column diameter: 0.25

\\target\share\chem2\fid4a.i\20191025.b\419J2515.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2515.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CAL8  
Client ID:  
Injection: 25-OCT-2019 16:33  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.262	0.000	86050	63363	WATPHD	(C12-C24)	2977110	18.7
C10	3.377	0.004	37018	79239	WATPHM	(C24-C38)	34653776	261.3
C12	4.332	-0.015	11427	15714	AK102	(C10-C25)	5054179	25.9
C14	5.134	0.004	5154	2057	AK103	(C25-C36)	29175058	291.8
C16	5.808	0.001	2486	1818	OR.DIES	(C10-C28)	13169508	67.2
C18	6.432	-0.002	1168	783				
C20	7.038	-0.005	3772	4551				
C22	7.644	0.005	20883	5211				
C24	8.212	-0.002	97111	92984				
C25	8.497	0.004	127743	100149				
C26	8.767	0.003	144937	36089				
C28	9.294	0.009	174099	155043				
C32	10.233	-0.009	209275	335982				
C34	10.680	-0.001	211521	464774				
Filter Peak	12.648	-0.002	60945	24237	CREOSOT	(C12-C22)	985245	252.6
C36	11.134	0.005	168788	75681				
C38	11.650	0.000	122780	30685				
C40	12.292	0.003	80017	15993				
o-terph	6.657	0.001	951	796				
Triacon Surr	9.775	-0.027	2879377	2052387	NAS DIES	(C10-C24)	3922564	20.1

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

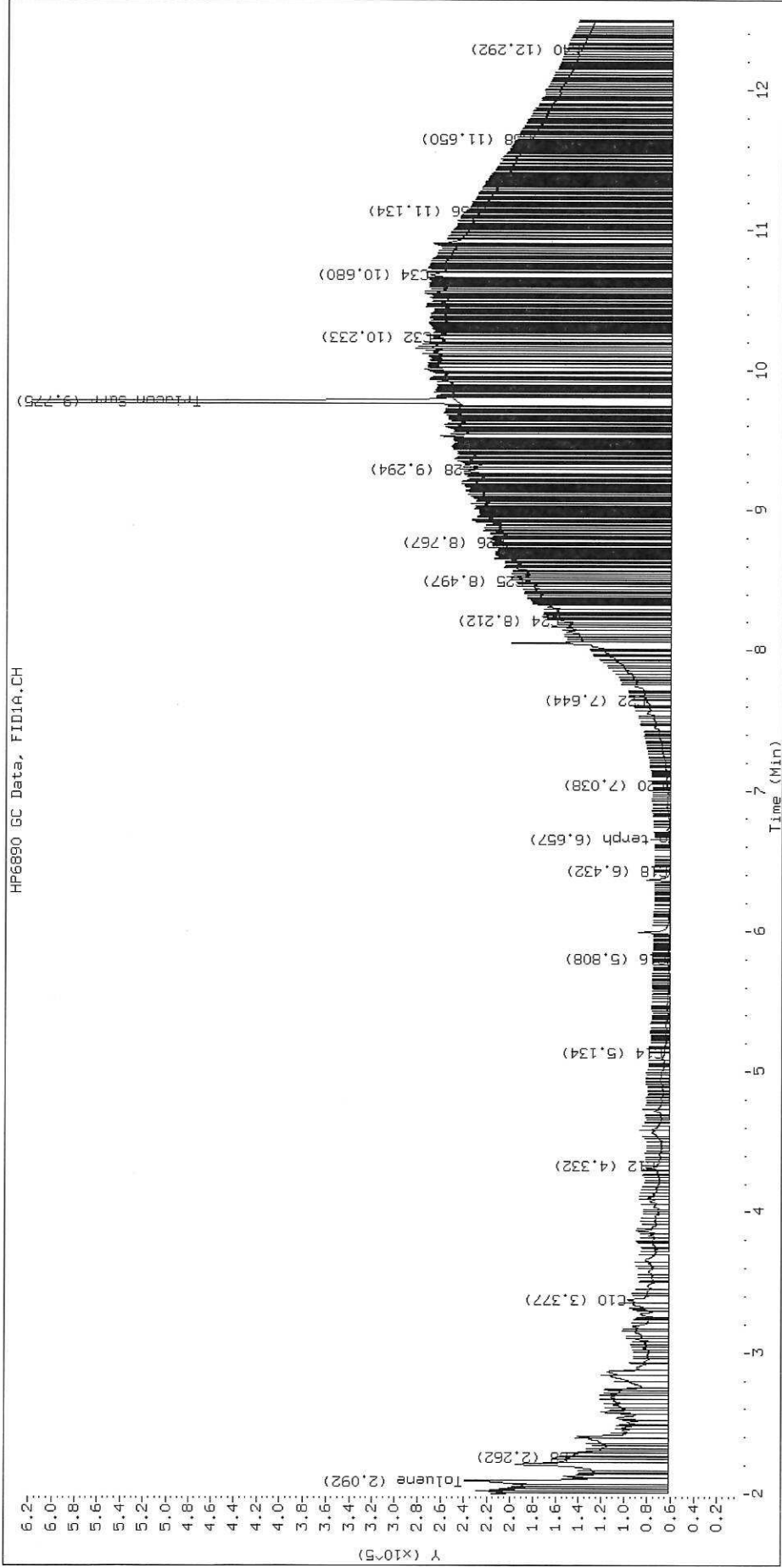
Surrogate	Area	Amount
o-Terphenyl	796	0.0
Triacontane	2052387	11.5 M

M Indicates the peak was manually integrated

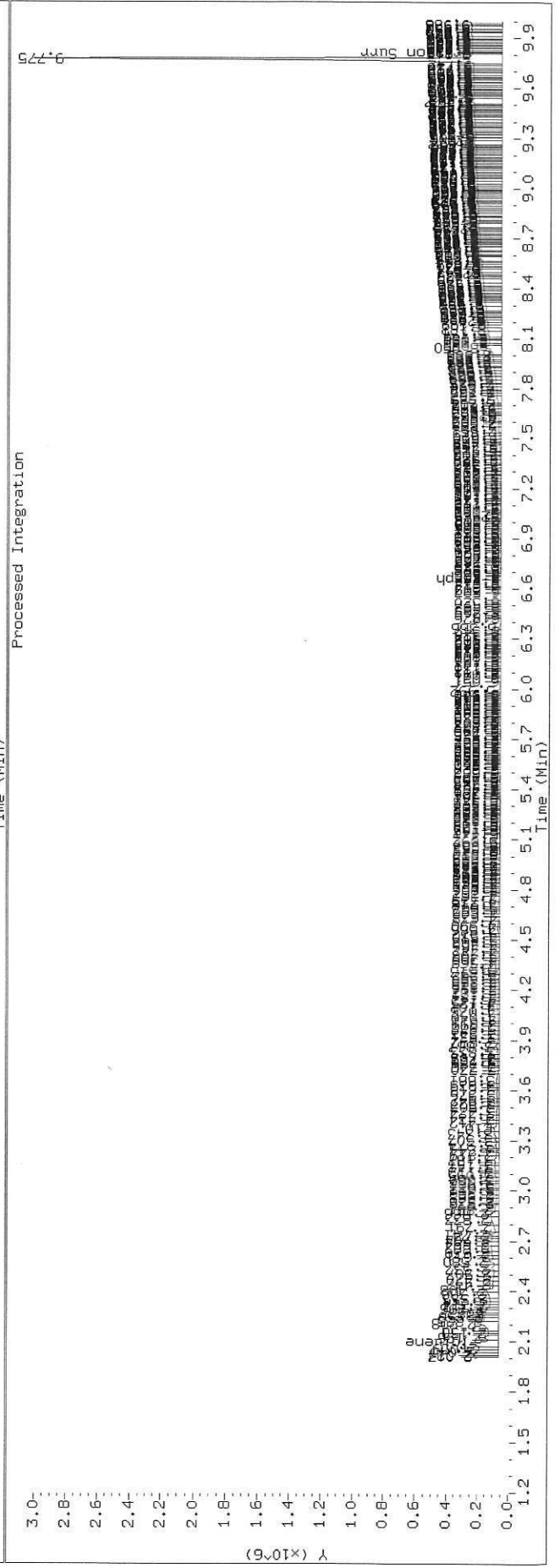
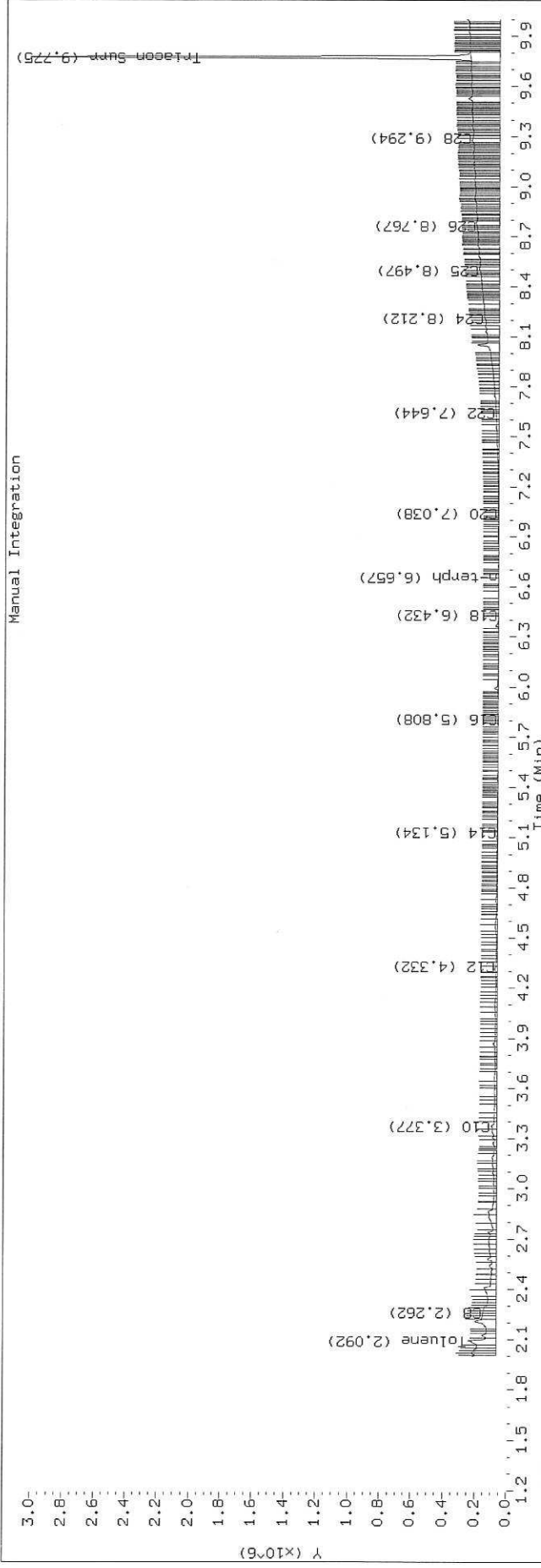
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2515.D SHJ0406-CAL8

HP6890 GC Data, FID1A.CH



TPH Manual Integrations Report  
 Datafile: FID4A, 20191025.b/419J2515.D Injection: 25-OCT-2019 16:33  
 Lab ID: SHJ0406-CAL8



Data File: \\target\share\chem2\fid4a.i\20191025.b\419J2516.D

Date: 25-OCT-2019 16:53

Client ID:

Sample Info: SHJ0406-CAL9

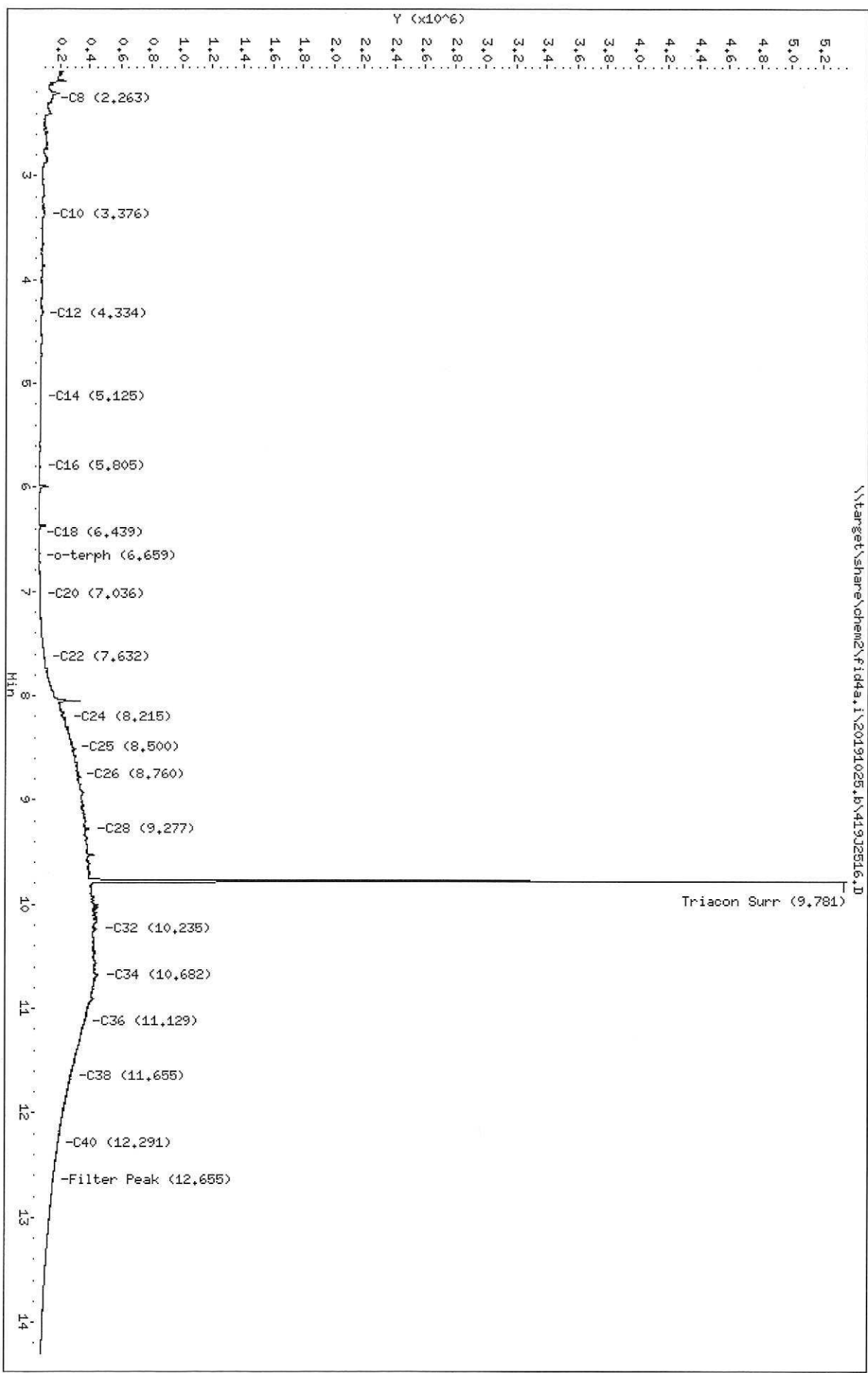
Column Phase: RTX-1

Instrument: fid4a.i

Operator: CTO/SH/VTS/JGR

Column diameter: 0.25

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Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2516.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CAL9  
Client ID:  
Injection: 25-OCT-2019 16:53  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.263	0.001	85054	58529	WATPHD	(C12-C24)	5661873	35.5
C10	3.376	0.003	38337	74763	WATPHM	(C24-C38)	64308153	484.9
C12	4.334	-0.013	14490	20832	AK102	(C10-C25)	8794999	45.0
C14	5.125	-0.004	9491	6950	AK103	(C25-C36)	54037059	540.5
C16	5.805	-0.002	4594	3625	OR.DIES	(C10-C28)	23868061	121.8
C18	6.439	0.004	1696	642				
C20	7.036	-0.007	7504	9871				
C22	7.632	-0.007	42646	55918				
C24	8.215	0.001	187247	321321				
C25	8.500	0.007	242499	189952				
C26	8.760	-0.005	272862	175979				
C28	9.277	-0.008	344800	562248				
C32	10.235	-0.007	399681	717669				
C34	10.682	0.001	410565	682394				
Filter Peak	12.655	0.004	112959	178875	CREOSOT	(C12-C22)	1771420	454.1
C36	11.129	-0.000	318612	63696				
C38	11.655	0.005	227739	158292				
C40	12.291	0.002	146308	65396				
o-terph	6.659	0.002	1793	1646				
Triacon Surr	9.781	-0.021	4947832	3881047	NAS DIES	(C10-C24)	6718189	34.4

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

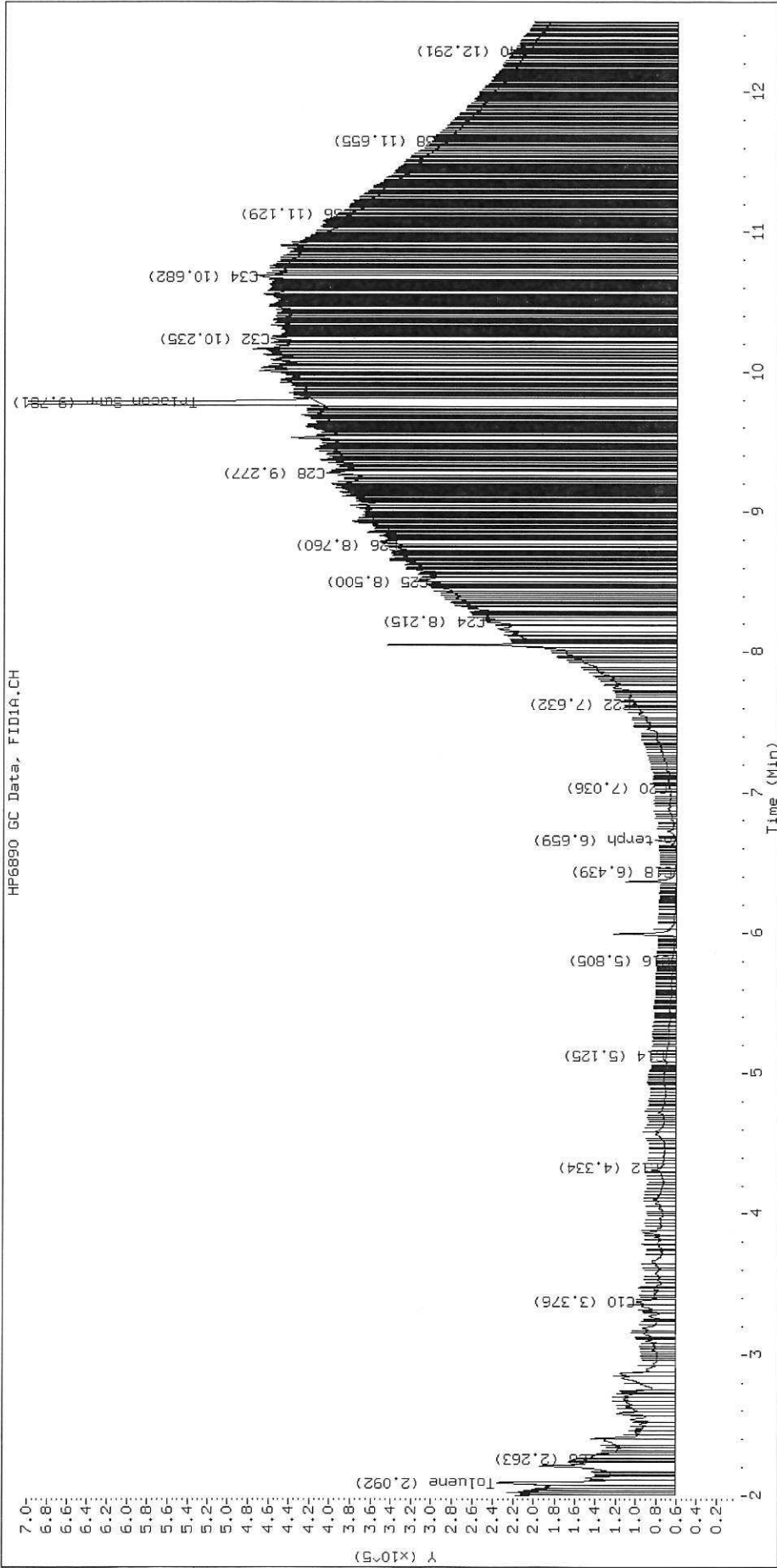
Surrogate	Area	Amount
o-Terphenyl	1646	0.0
Triacontane	3881047	21.8 M

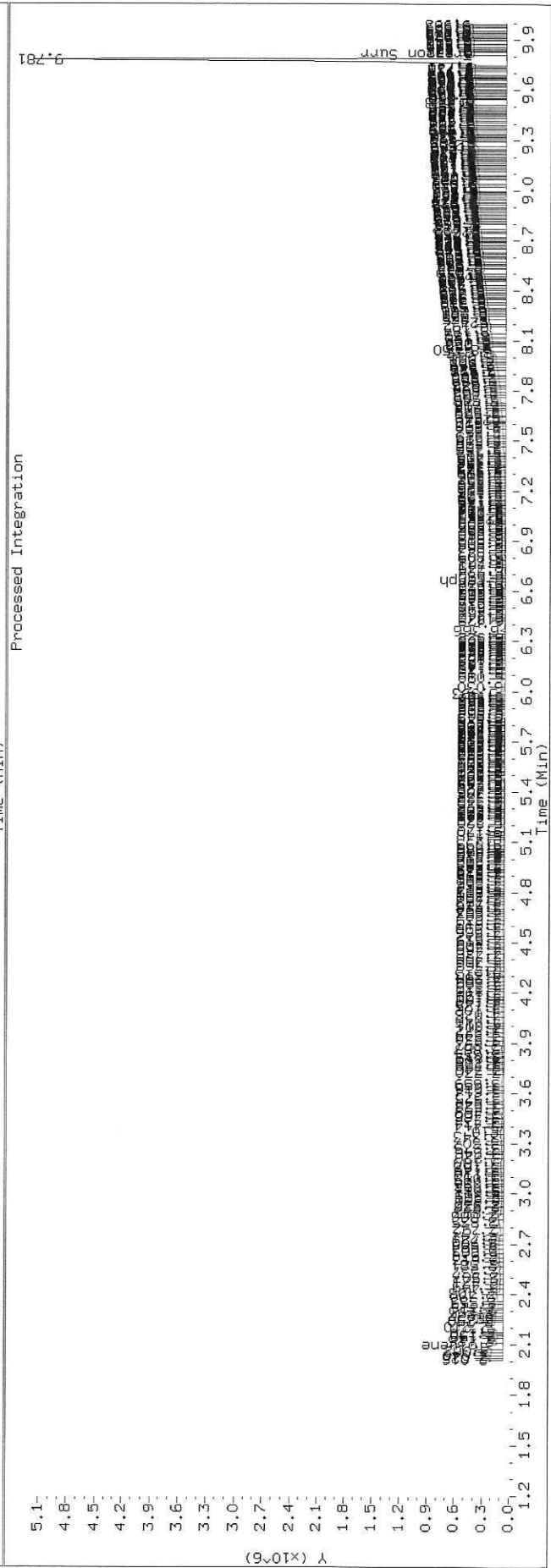
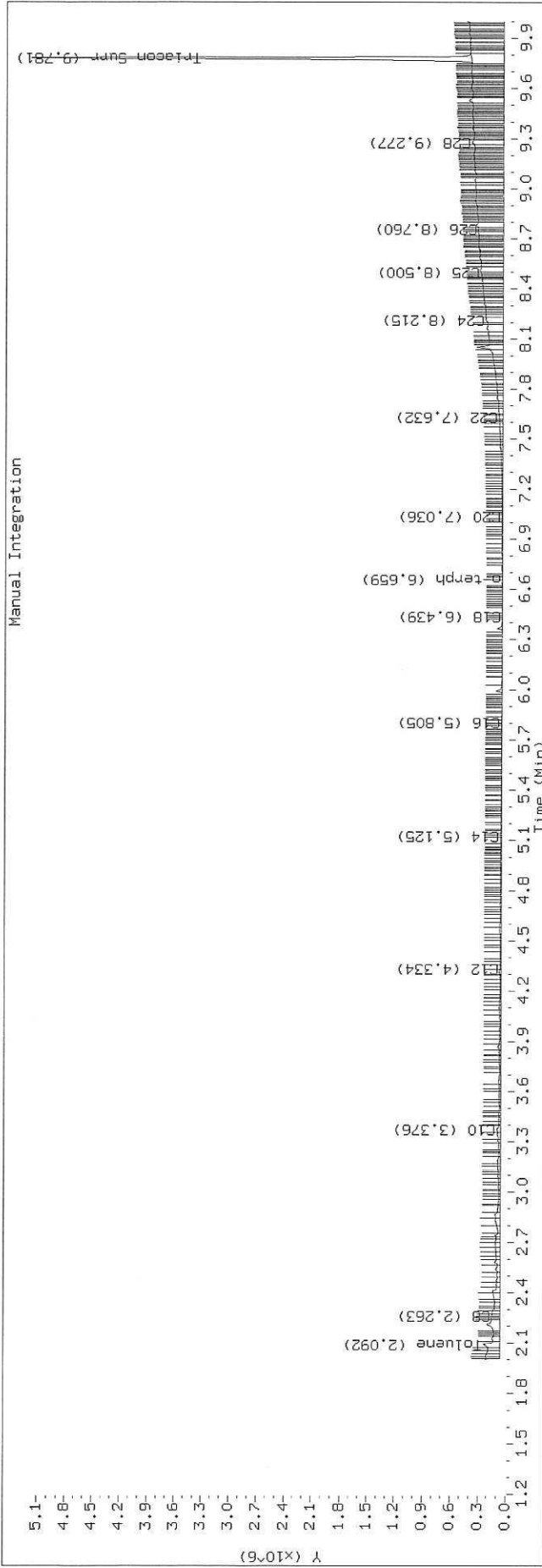
M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2516.D SHJ0406-CAL9

HP6890 GC Data, FID1A.CH







Data File: \\target\share\chem2\Fid4a.I\20191025.b\419J2517.D

Date: 25-OCT-2019 17:13

Client ID:

Sample Info: SHJ0406-CLLA

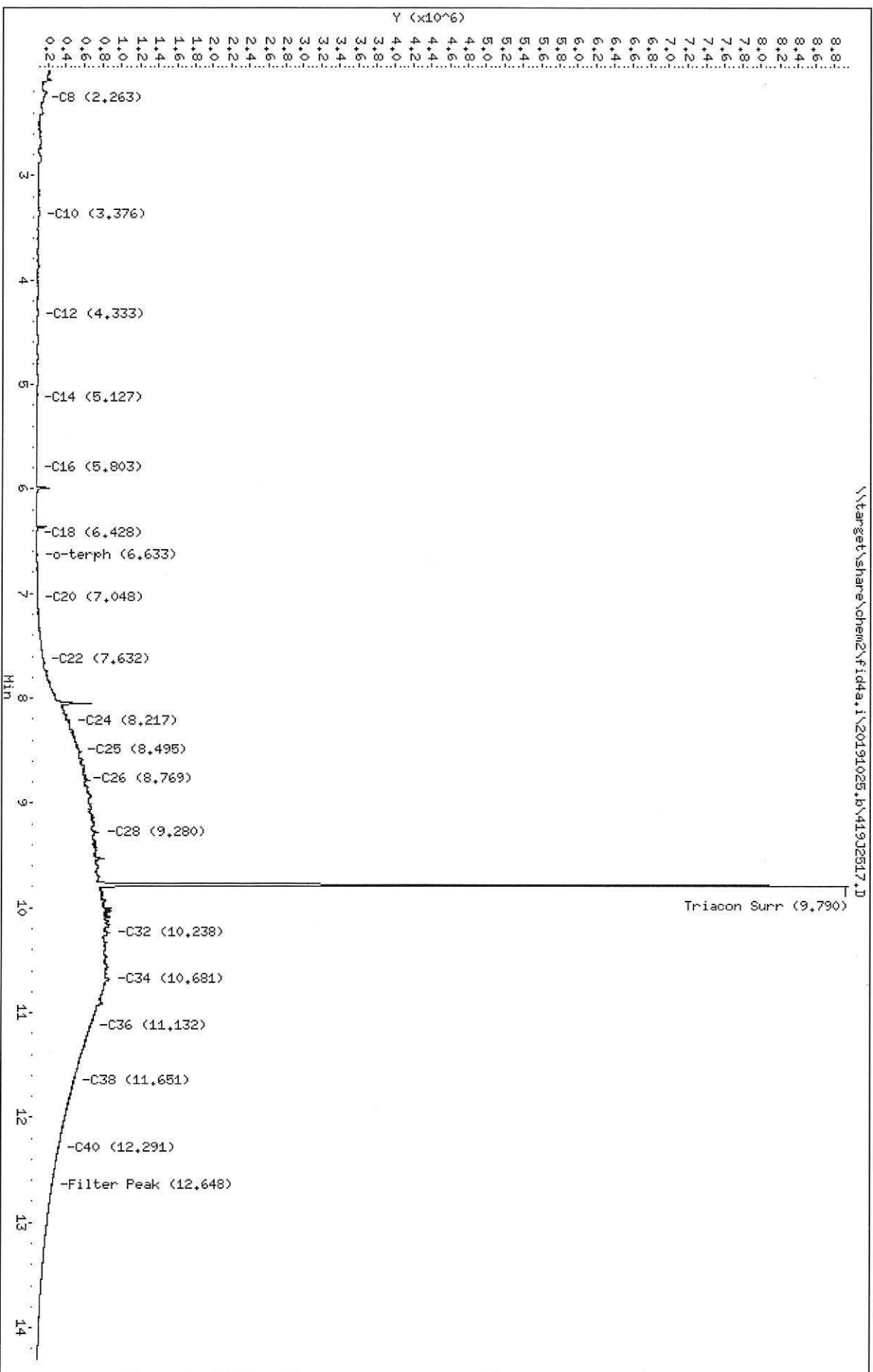
Column phase: RTX-1

Instrument: fid4a.i

Operator: CTO/SH/VTS/JGR

Column diameter: 0.25

\\target\share\chem2\Fid4a.I\20191025.b\419J2517.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2517.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CALA  
Client ID:  
Injection: 25-OCT-2019 17:13  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	2.263	0.001	78760	49973	WATPHD	(C12-C24)	11050301	69.4
C10	3.376	0.003	33282	53155	WATPHM	(C24-C38)	130458600	983.6
C12	4.333	-0.014	8330	11675	AK102	(C10-C25)	16134883	82.5
C14	5.127	-0.003	6869	8015	AK103	(C25-C36)	110338631	1103.6
C16	5.803	-0.004	4269	6183	OR.DIES	(C10-C28)	47155868	240.6
C18	6.428	-0.006	4035	4694				
C20	7.048	0.005	16630	12336				
C22	7.632	-0.007	93050	108452				
C24	8.217	0.002	386378	321791				
C25	8.495	0.002	491396	292213				
C26	8.769	0.005	557751	166690				
C28	9.280	-0.005	695698	804868				
C32	10.238	-0.005	823126	997439				
C34	10.681	-0.000	821771	761528				
Filter Peak	12.648	-0.002	202612	170825	CREOSOT	(C12-C22)	2854310	731.7
C36	11.132	0.003	625826	249171				
C38	11.651	0.001	444433	177367				
C40	12.291	0.002	276466	164427				
o-terph	6.633	-0.023	11730	15135				
Triacon Surr	9.790	-0.012	8190520	7927188	NAS DIES	(C10-C24)	11670623	59.8

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

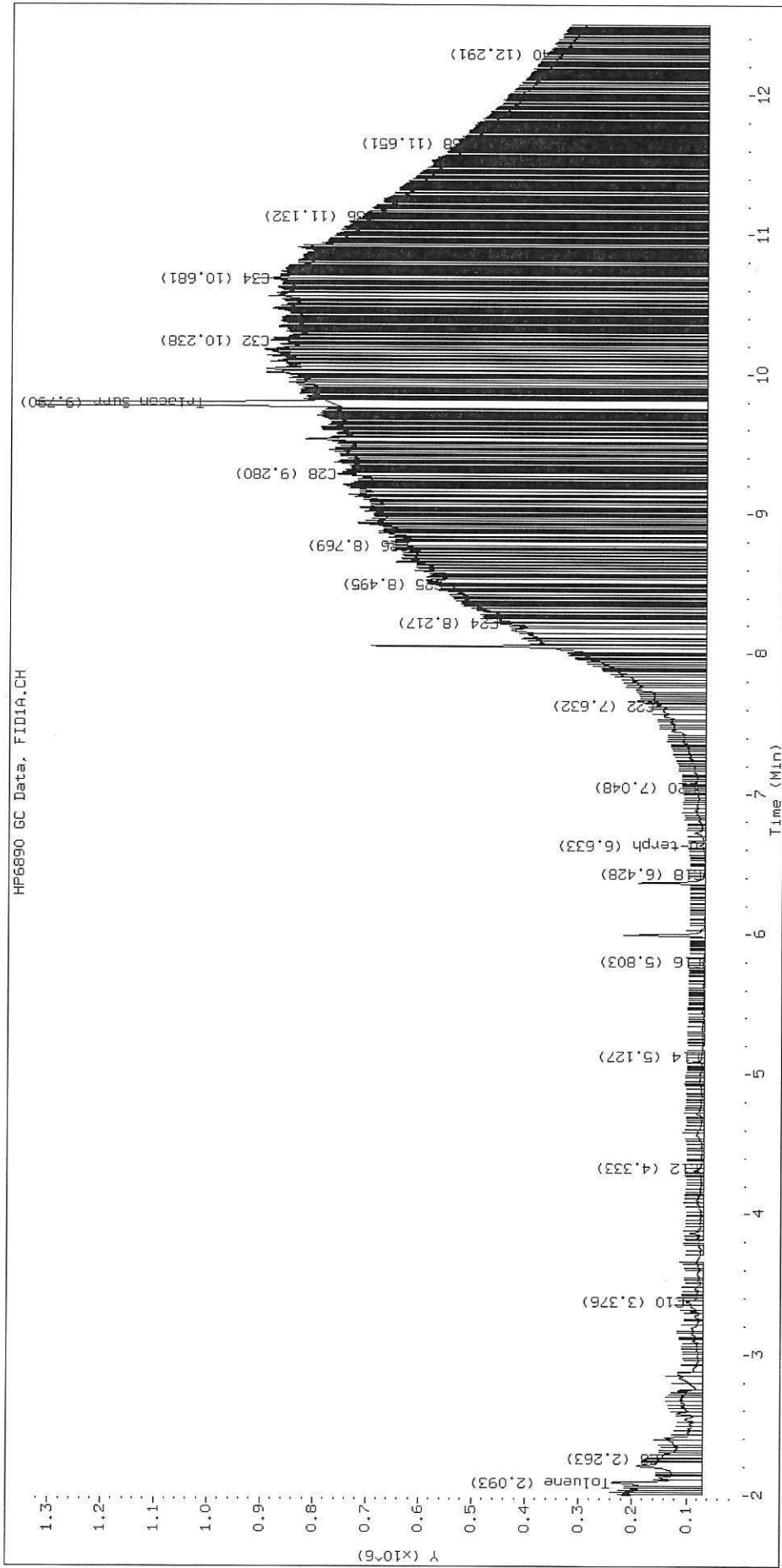
Surrogate	Area	Amount
o-Terphenyl	15135	0.1
Triacontane	7927188	44.5 M

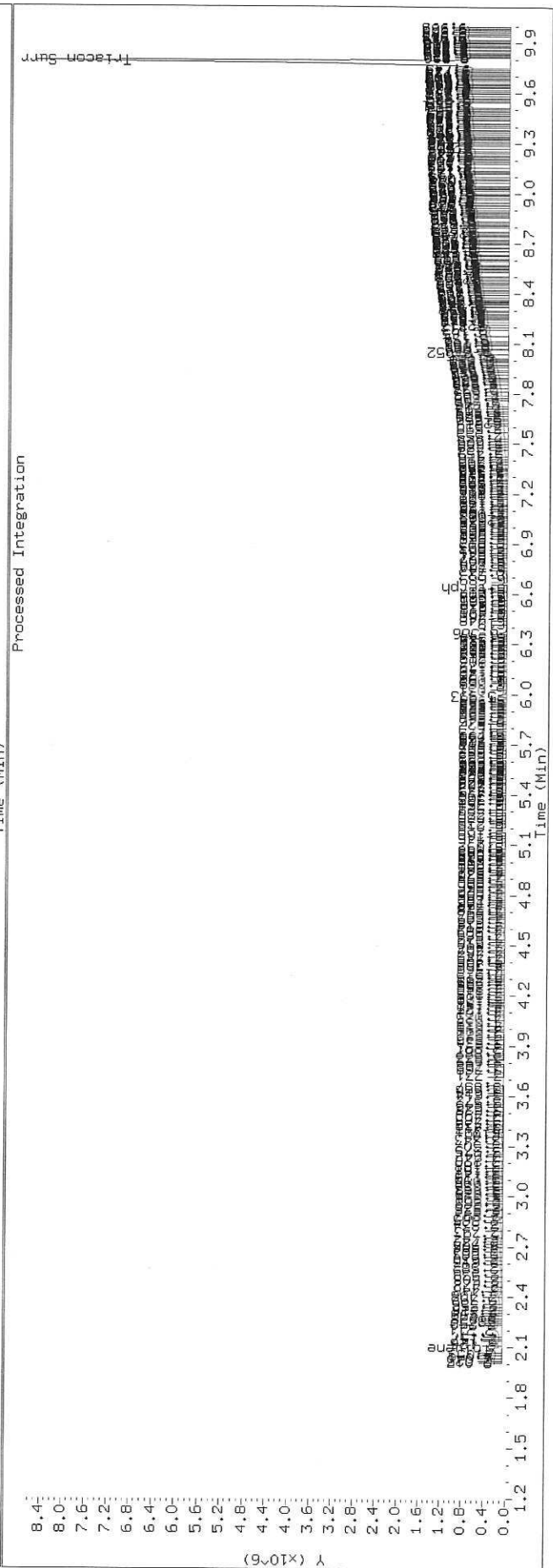
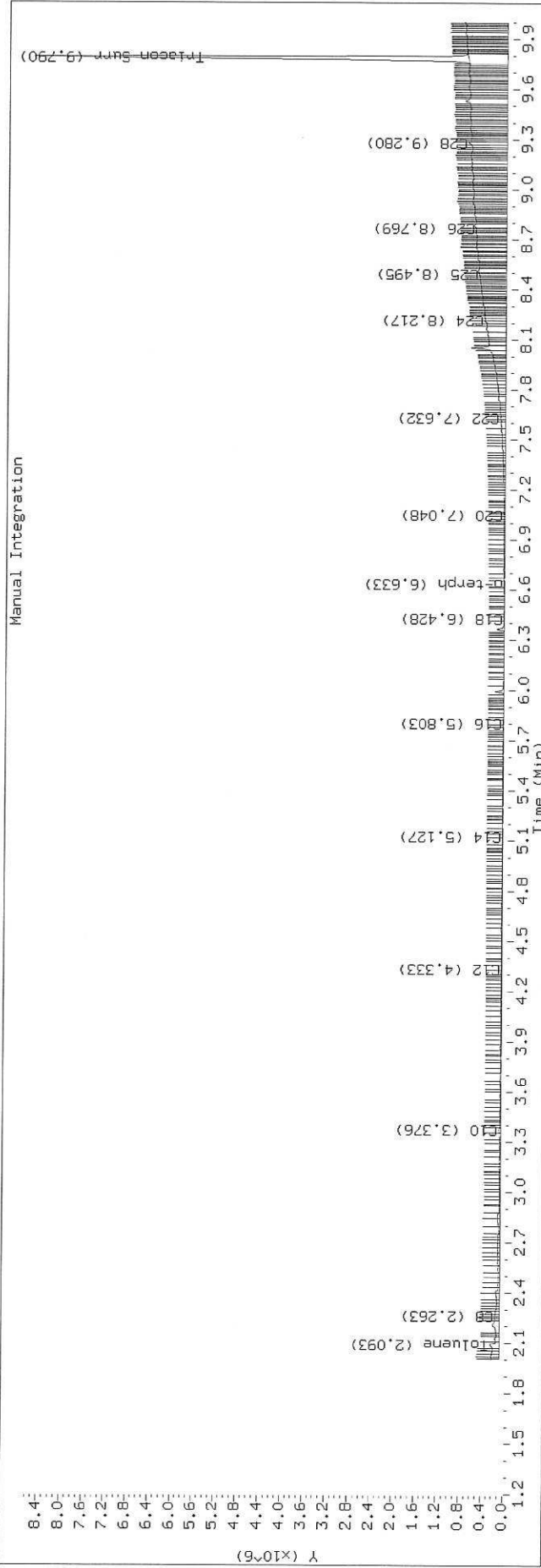
M - Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2517.D SHJ0406-CALA

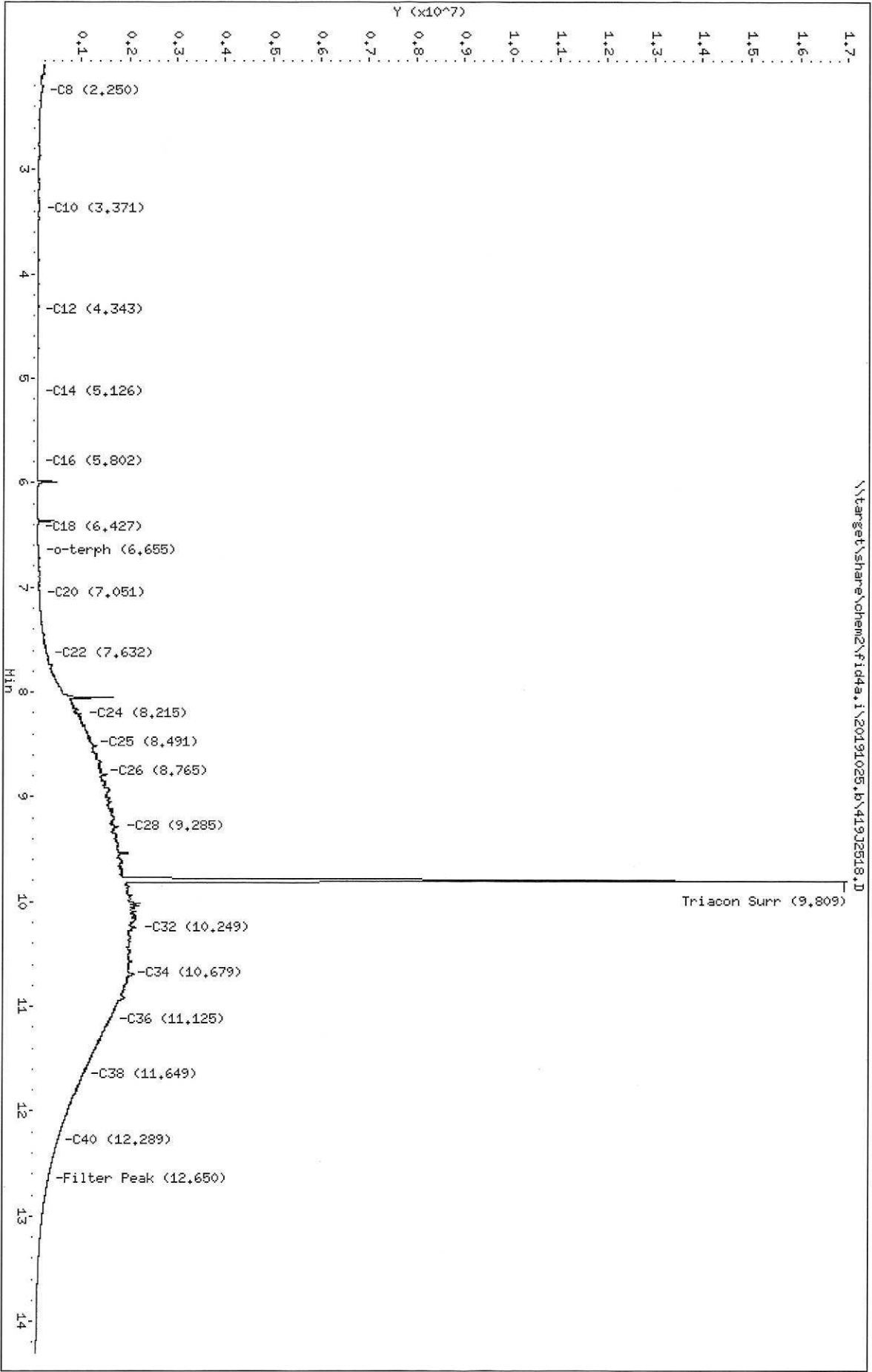
HF6890 GC Data, FID1A.CH





Data File: \\target\share\chem2\fid4a.1\20191025.b\419J2518.D  
Date: 25-OCT-2019 17:34  
Client ID:  
Sample Info: SHJ0406-CALB  
Column phase: RTX-1

Instrument: fid4a.1  
Operator: CTD/SH/VTS/JCR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b\419J2518.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CALB  
Client ID:  
Injection: 25-OCT-2019 17:34  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.250	-0.012	77817	116710	WATPHD	(C12-C24)	27251753	171.0
C10	3.371	-0.002	31760	39598	WATPHM	(C24-C38)	331873325	2502.2
C12	4.343	-0.004	6520	6156	AK102	(C10-C25)	38872526	198.8
C14	5.126	-0.004	7874	9340	AK103	(C25-C36)	281447225	2815.1
C16	5.802	-0.005	7984	9771	OR.DIES	(C10-C28)	115893490	591.3
C18	6.427	-0.007	14076	14289				
C20	7.051	0.008	46537	34495				
C22	7.632	-0.007	235207	295349				
C24	8.215	0.000	955047	900361				
C25	8.491	-0.002	1184503	236628				
C26	8.765	0.000	1401067	1730192				
C28	9.285	-0.001	1743563	2775911				
C32	10.249	0.007	2106415	3055227				
C34	10.679	-0.002	1974576	1267121				
Filter Peak	12.650	-0.001	278159	124338	CREOSOT	(C12-C22)	6708937	1719.8
C36	11.125	-0.004	1581807	1021345				
C38	11.649	-0.001	1027941	256759				
C40	12.289	0.000	486929	193205				
o-terph	6.655	-0.002	18811	15731				
Triacon Surr	9.809	0.007	15056726	20120024	NAS DIES	(C10-C24)	27786026	142.4

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

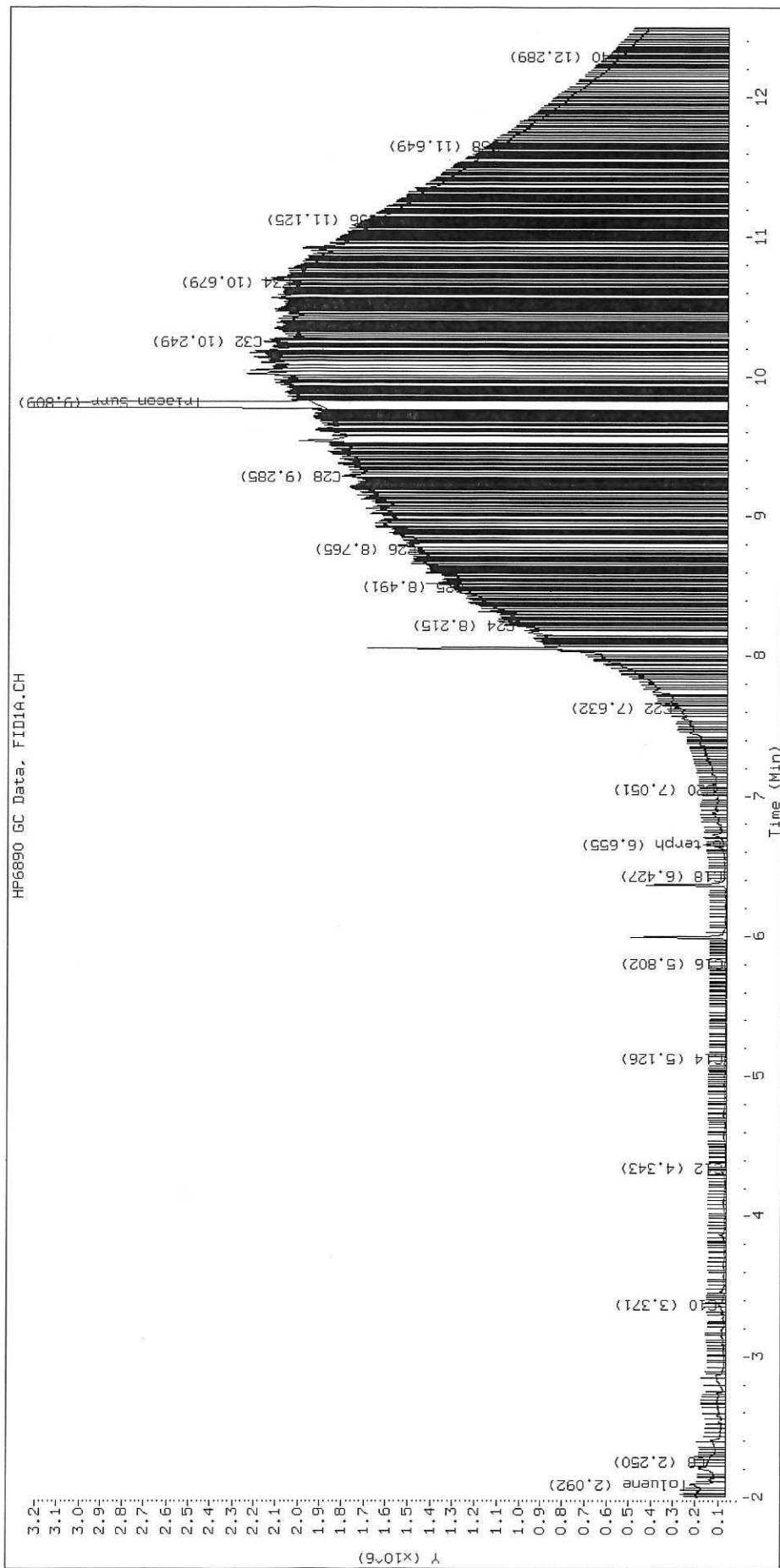
Surrogate	Area	Amount
o-Terphenyl	15731	0.1
Triacontane	20120024	113.0 M

M Indicates the peak was manually integrated

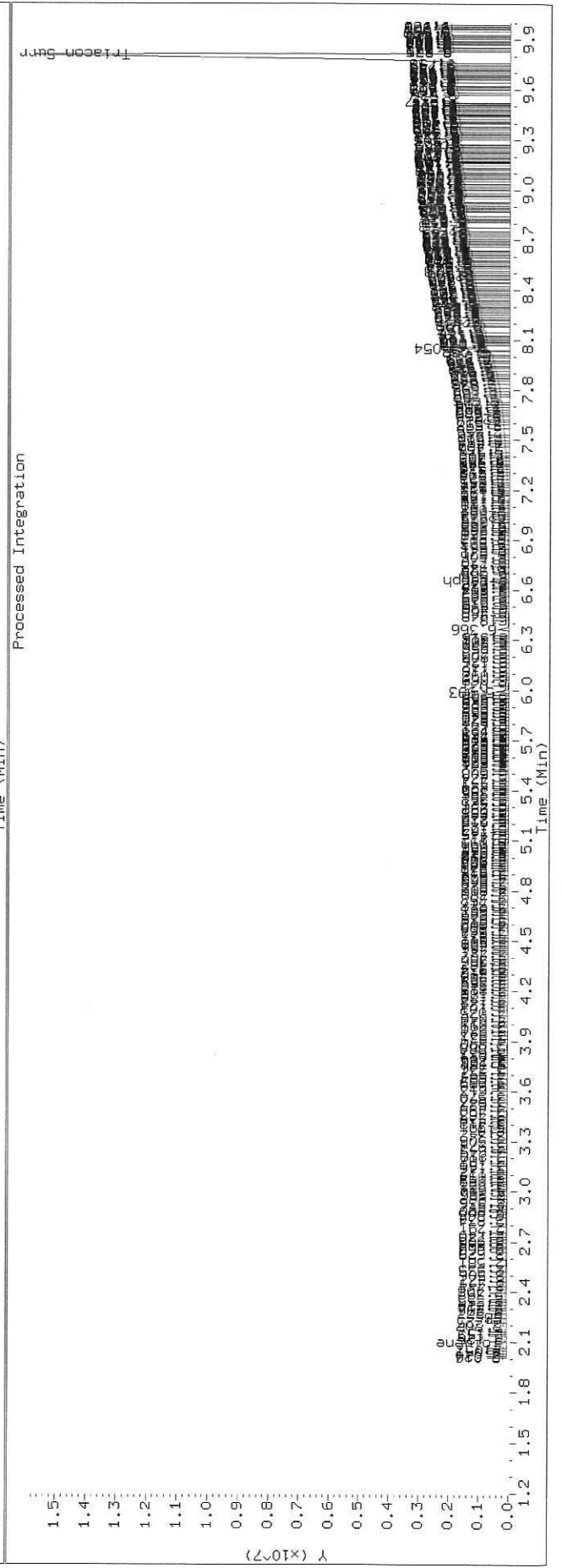
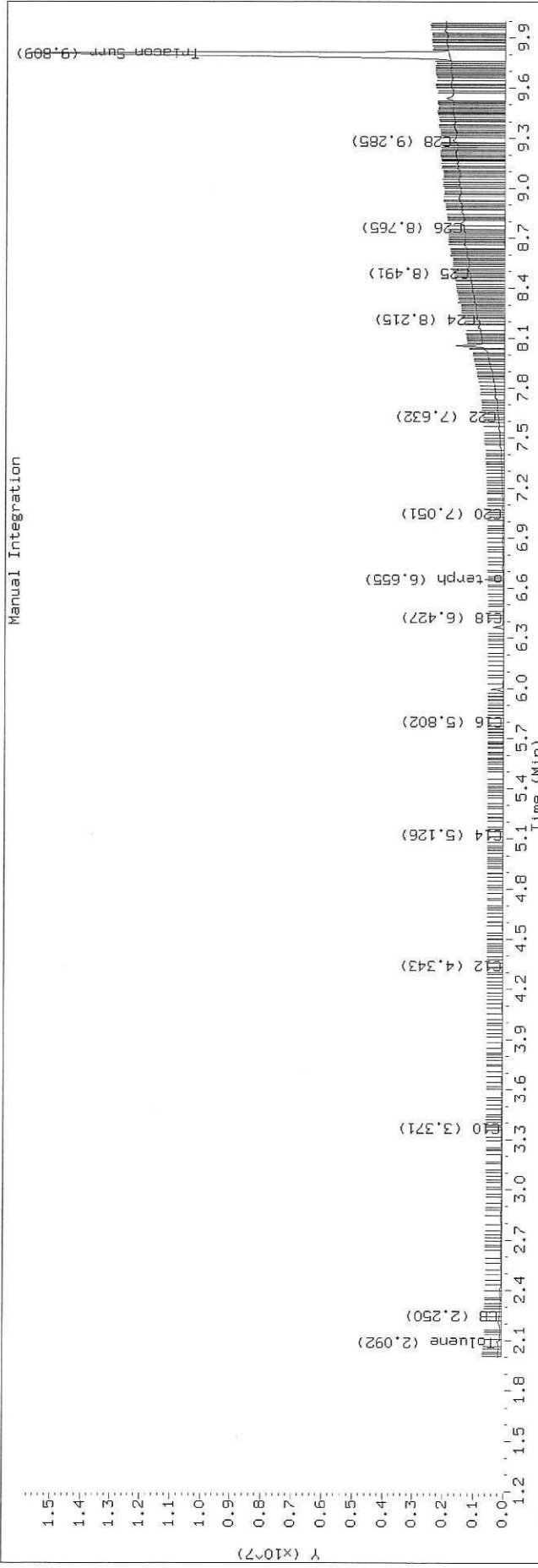
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2518.D SHJ0406-CALB

HP6890 GC Data, FID1A.CH



TPH Manual Integrations Report  
 Datafile: FID4A, 20191025.b/419J2518.D Injection: 25-OCT-2019 17:34  
 Lab ID: SHJ0406-CALB

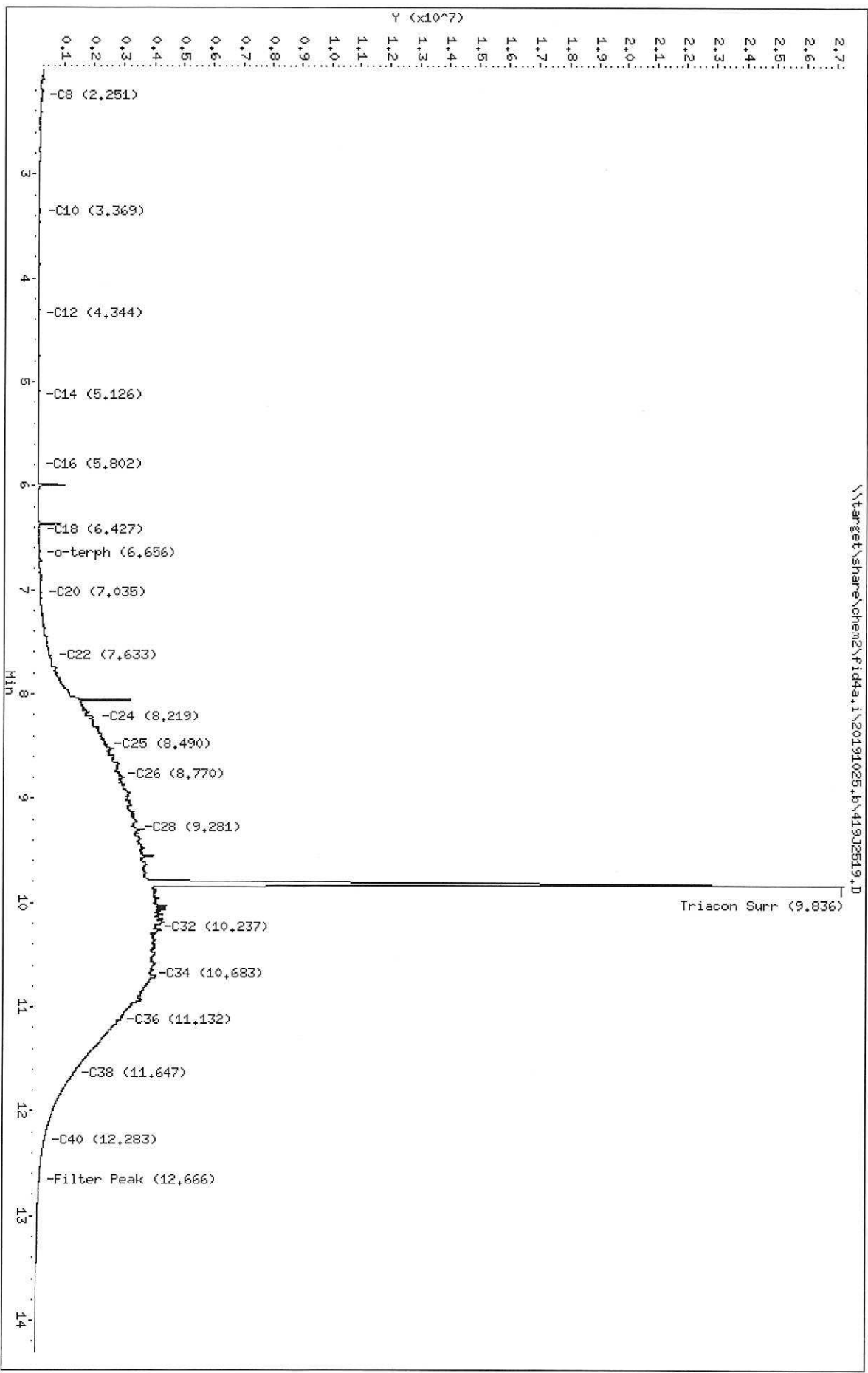




Data File: \\target\share\chem2\fid4a.1\20191025.b\419J2519.D  
Date: 25-OCT-2019 17:54  
Client ID:  
Sample Info: SHJ0406-CALC

Column phase: RTX-1

Instrument: fid4a.1  
Operator: CTD/SH/VTS/JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b\419J2519.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CALC  
Client ID:  
Injection: 25-OCT-2019 17:54  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	2.251	-0.011	83410	131526	WATPHD	(C12-C24)	54951988	344.9
C10	3.369	-0.004	40067	53627	WATPHM	(C24-C38)	647842842	4884.5
C12	4.344	-0.003	8504	8688	AK102	(C10-C25)	79702569	407.7
C14	5.126	-0.004	19567	26129	AK103	(C25-C36)	565644605	5657.8
C16	5.802	-0.006	21777	24178	OR.DIES	(C10-C28)	235116720	1199.6
C18	6.427	-0.008	35077	33036				
C20	7.035	-0.008	119620	119856				
C22	7.633	-0.006	481948	602675				
C24	8.219	0.004	1952483	1661789				
C25	8.490	-0.003	2383743	592688				
C26	8.770	0.005	2837167	1694204				
C28	9.281	-0.005	3377335	3333438				
C32	10.237	-0.006	4076731	3428537				
C34	10.683	0.002	3869795	1544856				
Filter Peak	12.666	0.015	116179	102746	CREOSOT	(C12-C22)	14260161	3655.6
C36	11.132	0.003	2846055	707761				
C38	11.647	-0.002	1313112	715795				
C40	12.283	-0.006	302346	281489				
o-terph	6.656	-0.001	43010	66343				
Triacon Surr	9.836	0.034	23293566	39698048	NAS DIES	(C10-C24)	55485985	284.3

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

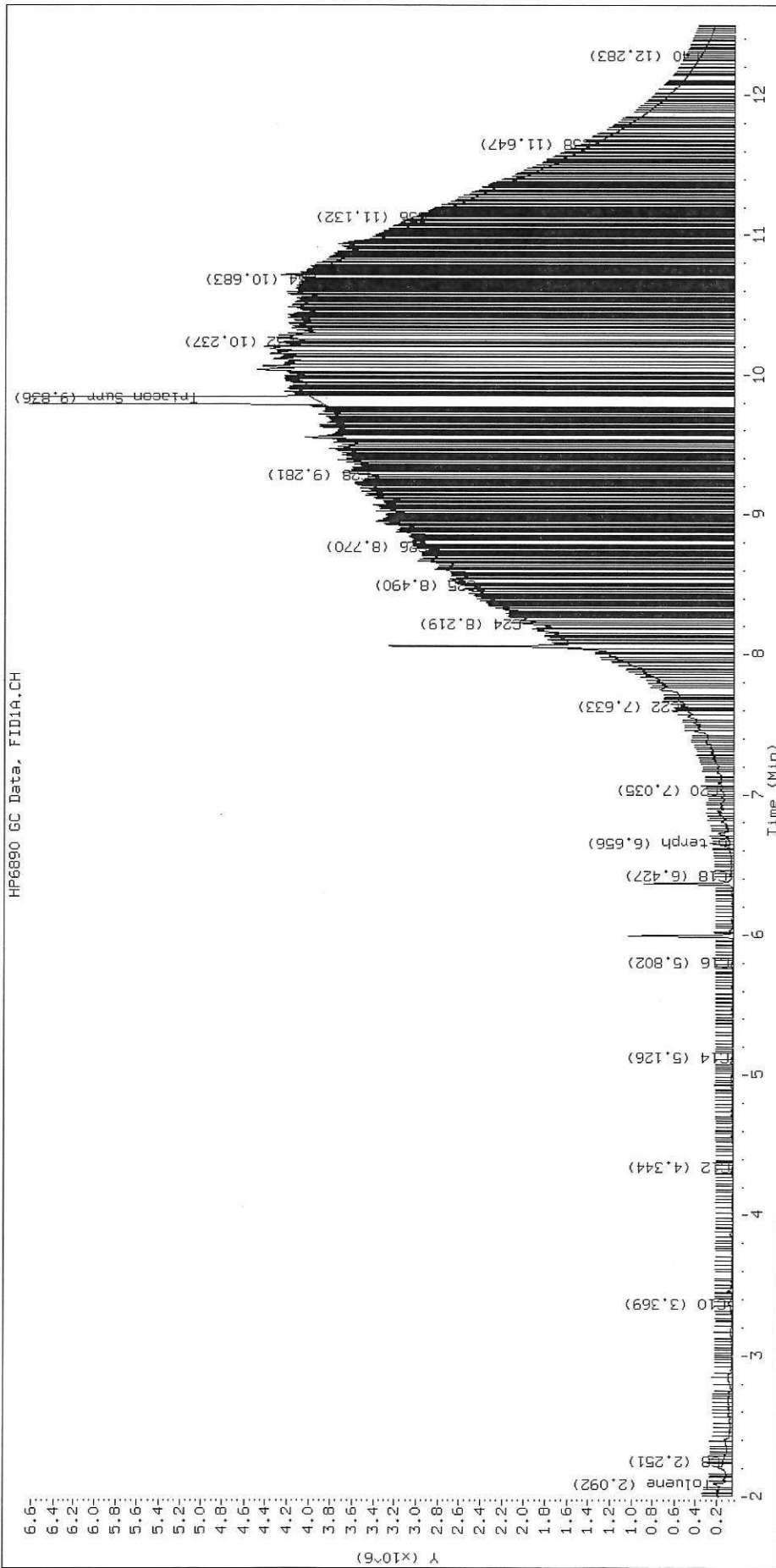
Surrogate	Area	Amount
o-Terphenyl	66343	0.3
Triacotane	39698048	223.0 M

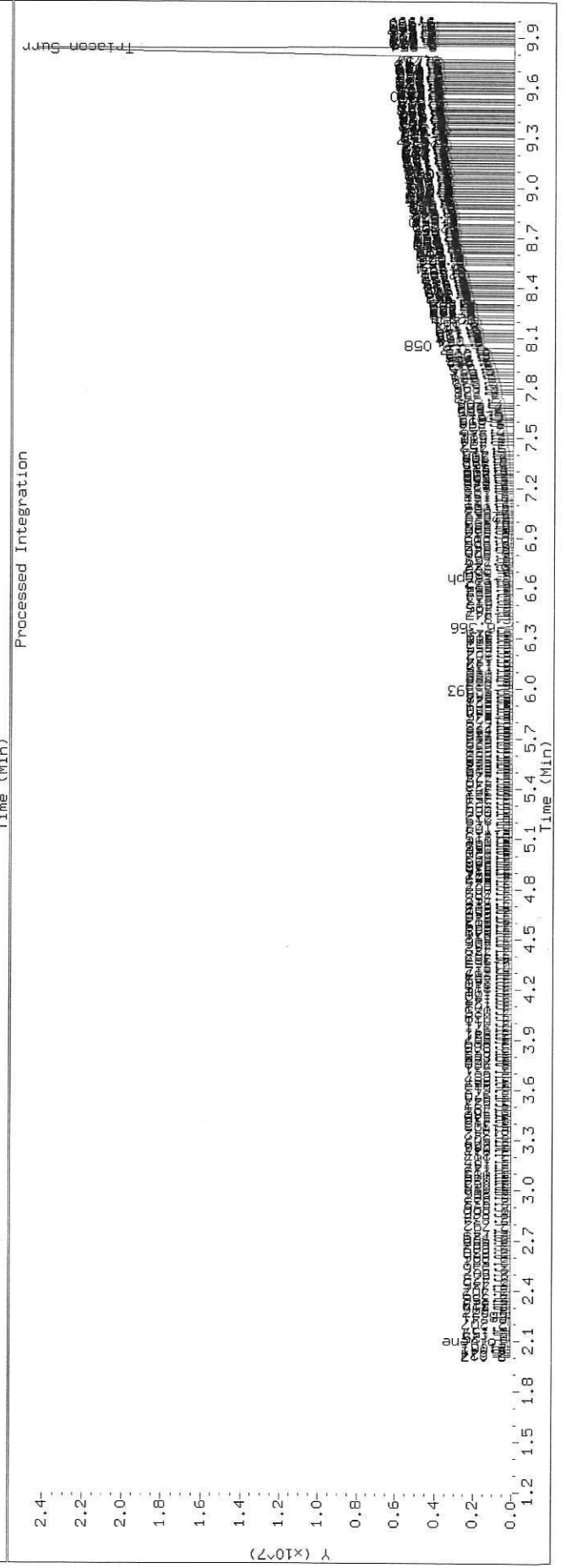
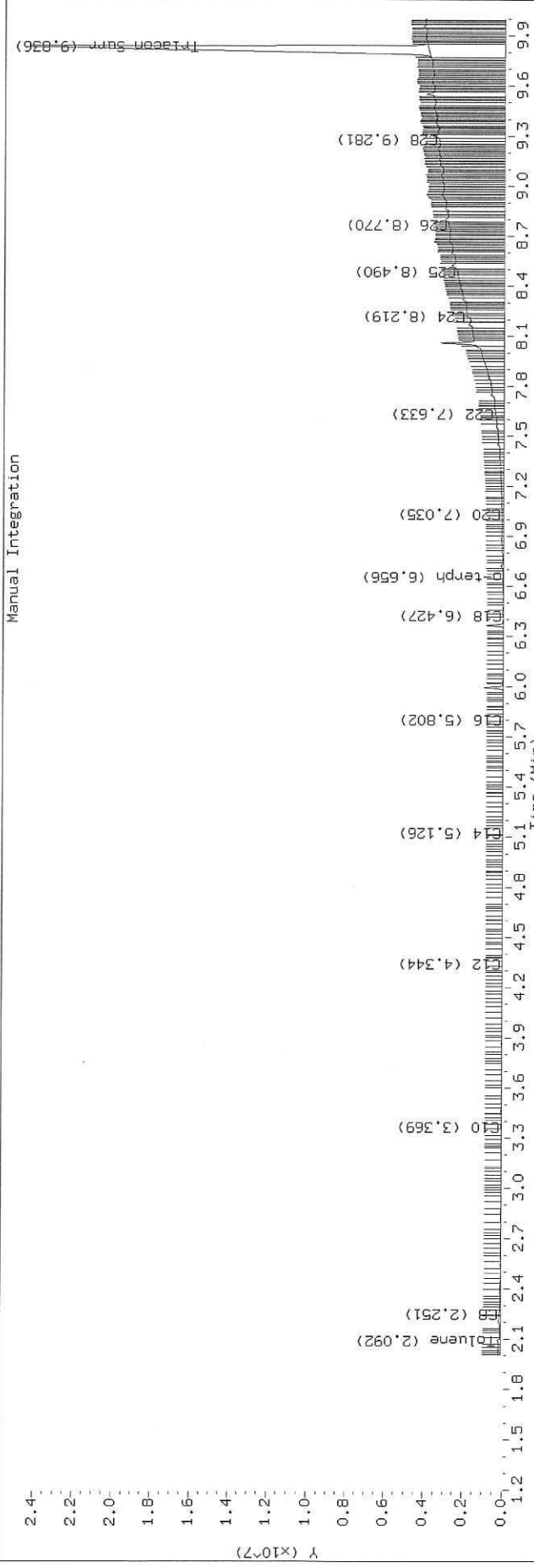
M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2519.D SHJ0406-CALC

HP6890 GC Data, FID1A.CH





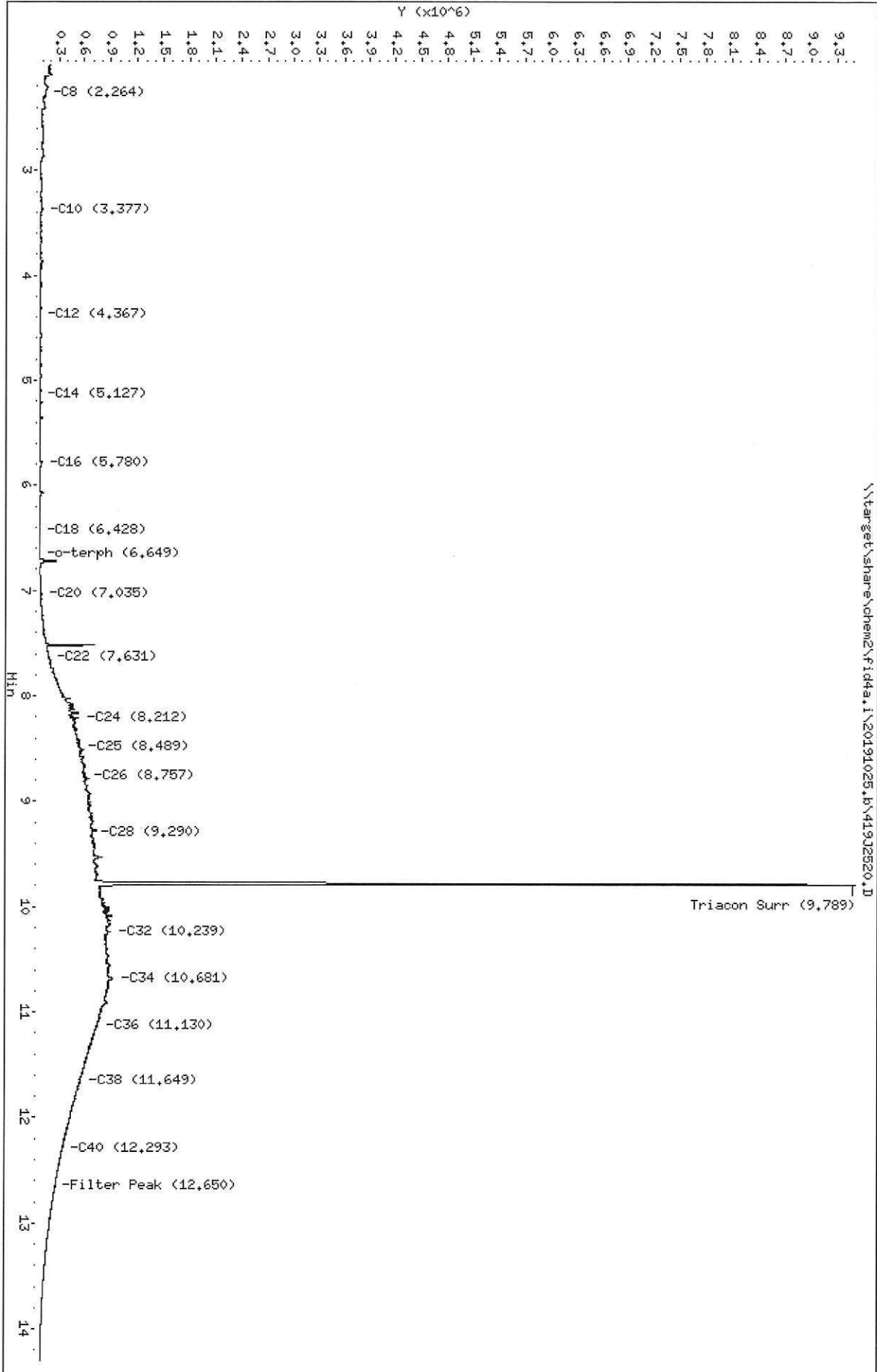
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Date: 25-OCT-2019 18:14  
Client ID:  
Sample Info: SHJ0406-SCV2

Instrument: fid4a.1

Column phase: RTX-1

Operator: CTO/SH/VTS/JGR  
Column diameter: 0.25

\\target\share\chem2\fid4a.1\20191025.0\419J2520.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2520.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-SCV2  
Client ID:  
Injection: 25-OCT-2019 18:14  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.264	0.002	61386	42202	WATPHD	(C12-C24)	14006466	87.9
C10	3.377	0.004	28038	52387	WATPHM	(C24-C38)	135195593	1019.3
C12	4.367	0.020	3146	3151	AK102	(C10-C25)	18822986	96.3
C14	5.127	-0.003	4143	4458	AK103	(C25-C36)	113030798	1130.6
C16	5.780	-0.027	35494	74348	OR.DIES	(C10-C28)	49340102	251.7
C18	6.428	-0.007	6156	6874				
C20	7.035	-0.008	26093	30304				
C22	7.631	-0.008	127794	247657				
C24	8.212	-0.003	471017	746279				
C25	8.489	-0.004	491516	98217				
C26	8.757	-0.008	557900	550938				
C28	9.290	0.005	640615	223711				
C32	10.239	-0.004	847729	1306304				
C34	10.681	-0.000	865603	764427				
Filter Peak	12.650	-0.000	213232	84835	CREOSOT	(C12-C22)	3605357	924.2
C36	11.130	0.001	692159	413129				
C38	11.649	-0.001	503231	200454				
C40	12.293	0.004	305287	287895				
o-terph	6.649	-0.008	4022	3699				
Triacon Surr	9.789	-0.013	8762887	8519530	NAS DIES	(C10-C24)	14444503	74.0

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

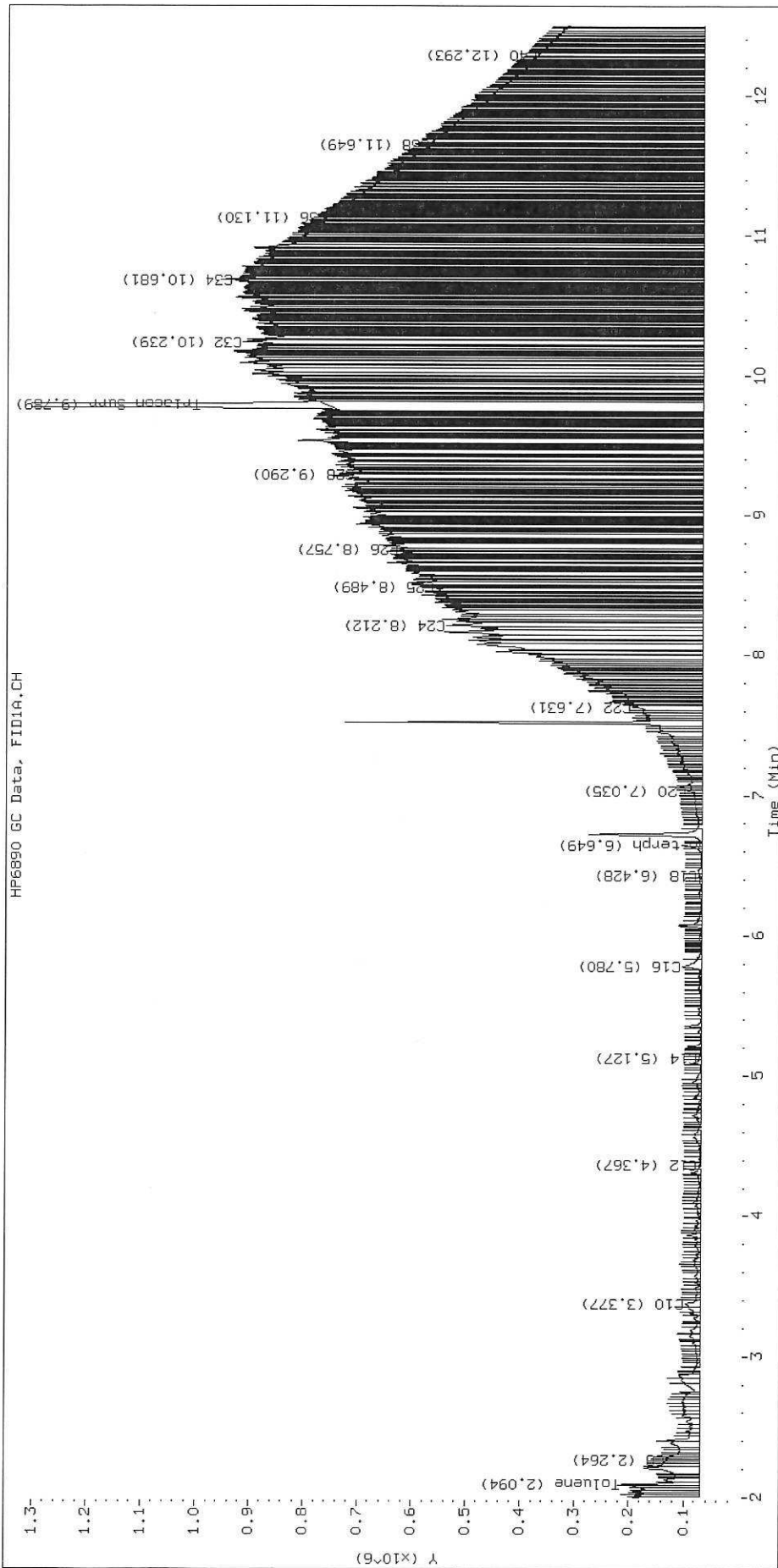
Surrogate	Area	Amount
o-Terphenyl	3699	0.0
Triacontane	8519530	47.9 M

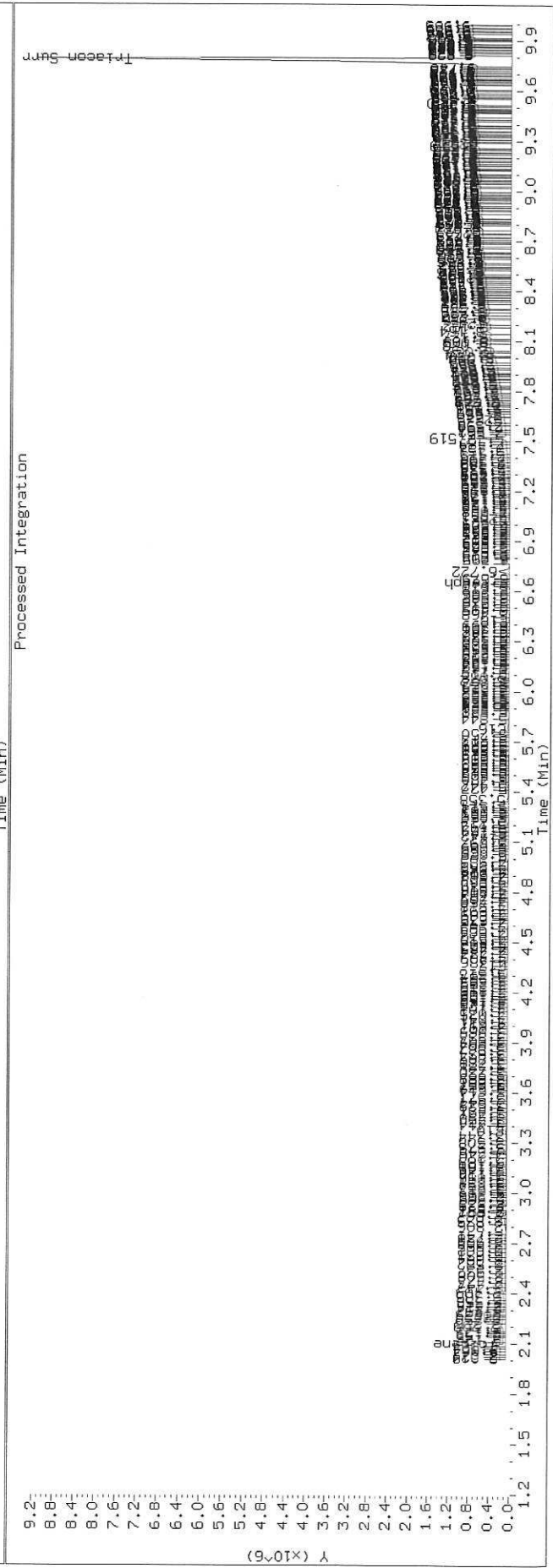
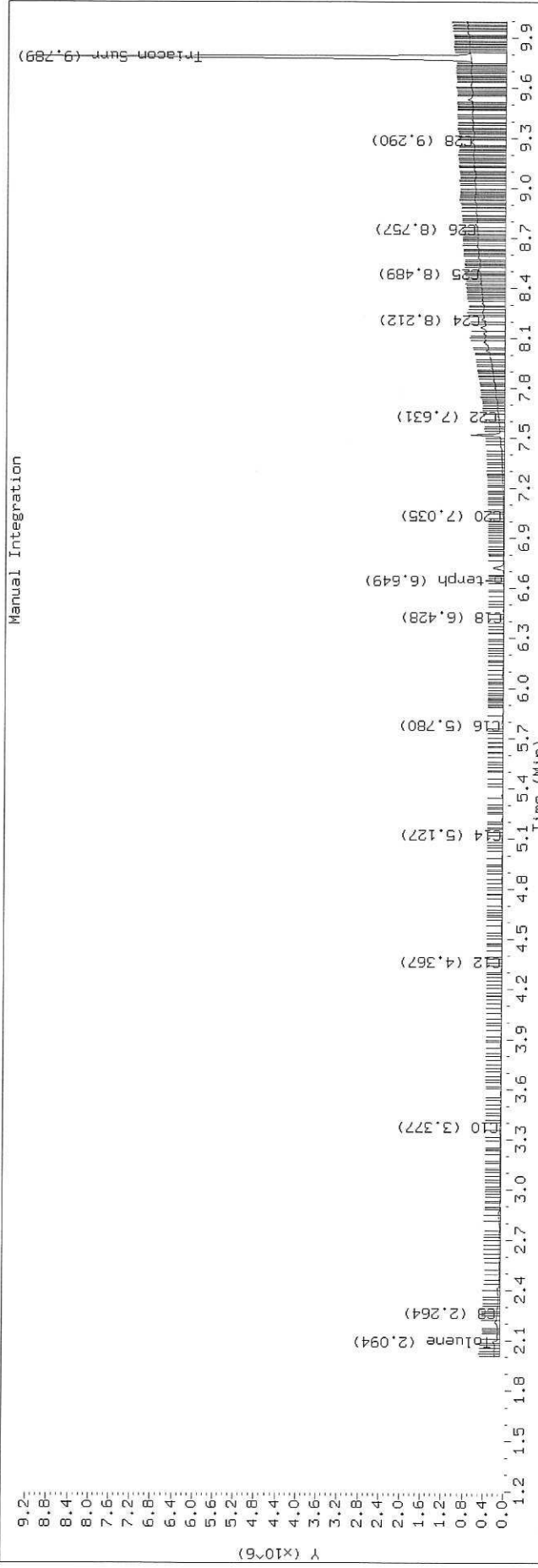
M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2520.D SHJ0406-SCV2

HP6890 GC Data, FID1A.CH







Data File: \\target\share\chem2\Fidda.i\20191025.b\41932521.D

Date : 25-OCT-2019 18:35

Client ID:

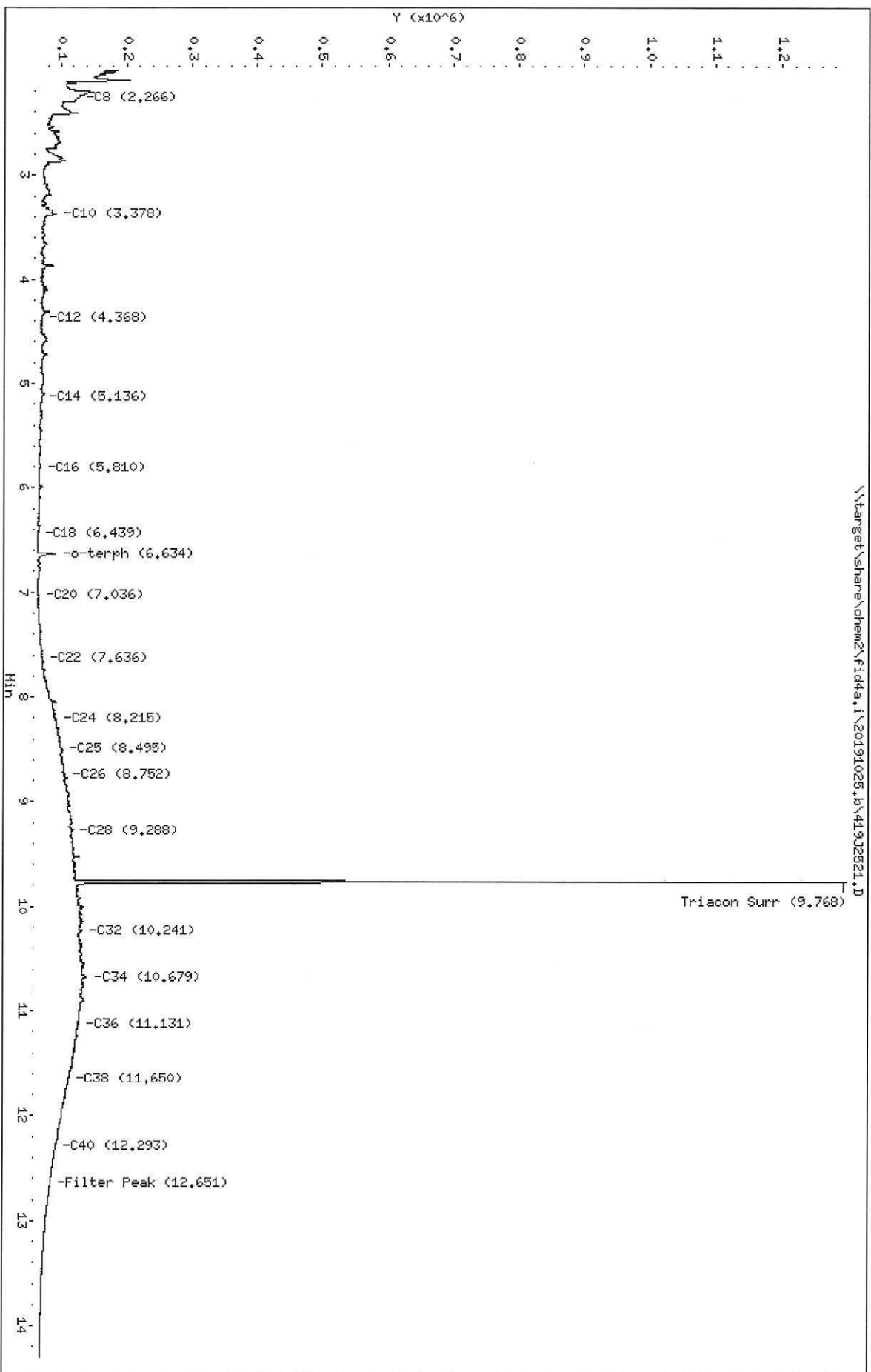
Sample Info: SH00406-CALD

Column phase: RTX-1

Instrument: fidda.i

Operator: CTO/SH/VTS/JGR

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2521.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CALD  
Client ID:  
Injection: 25-OCT-2019 18:35  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.266	0.003	63130	43308	WATPHD	(C12-C24)	1323968	8.3
C10	3.378	0.005	28879	54645	WATPHM	(C24-C38)	12086307	91.1
C12	4.368	0.021	6558	8293	AK102	(C10-C25)	2265512	11.6
C14	5.136	0.007	6204	3069	AK103	(C25-C36)	9919700	99.2
C16	5.810	0.003	3258	3063	OR.DIES	(C10-C28)	4756055	24.3
C18	6.439	0.004	920	449				
C20	7.036	-0.007	1277	1180				
C22	7.636	-0.003	8777	15968				
C24	8.215	0.000	31726	51380				
C25	8.495	0.002	39977	33338				
C26	8.752	-0.012	45255	53640				
C28	9.288	0.003	56620	22552				
C32	10.241	-0.002	70490	38594				
C34	10.679	-0.002	78226	83978				
Filter Peak	12.651	0.000	22108	8817	CREOSOT	(C12-C22)	689259	176.7
C36	11.131	0.002	66508	16608				
C38	11.650	0.000	52851	23597				
C40	12.293	0.004	31673	31207				
o-terph	6.634	-0.022	28829	34405				
Triacon Surr	9.768	-0.034	1173387	818277	NAS DIES	(C10-C24)	1907173	9.8

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

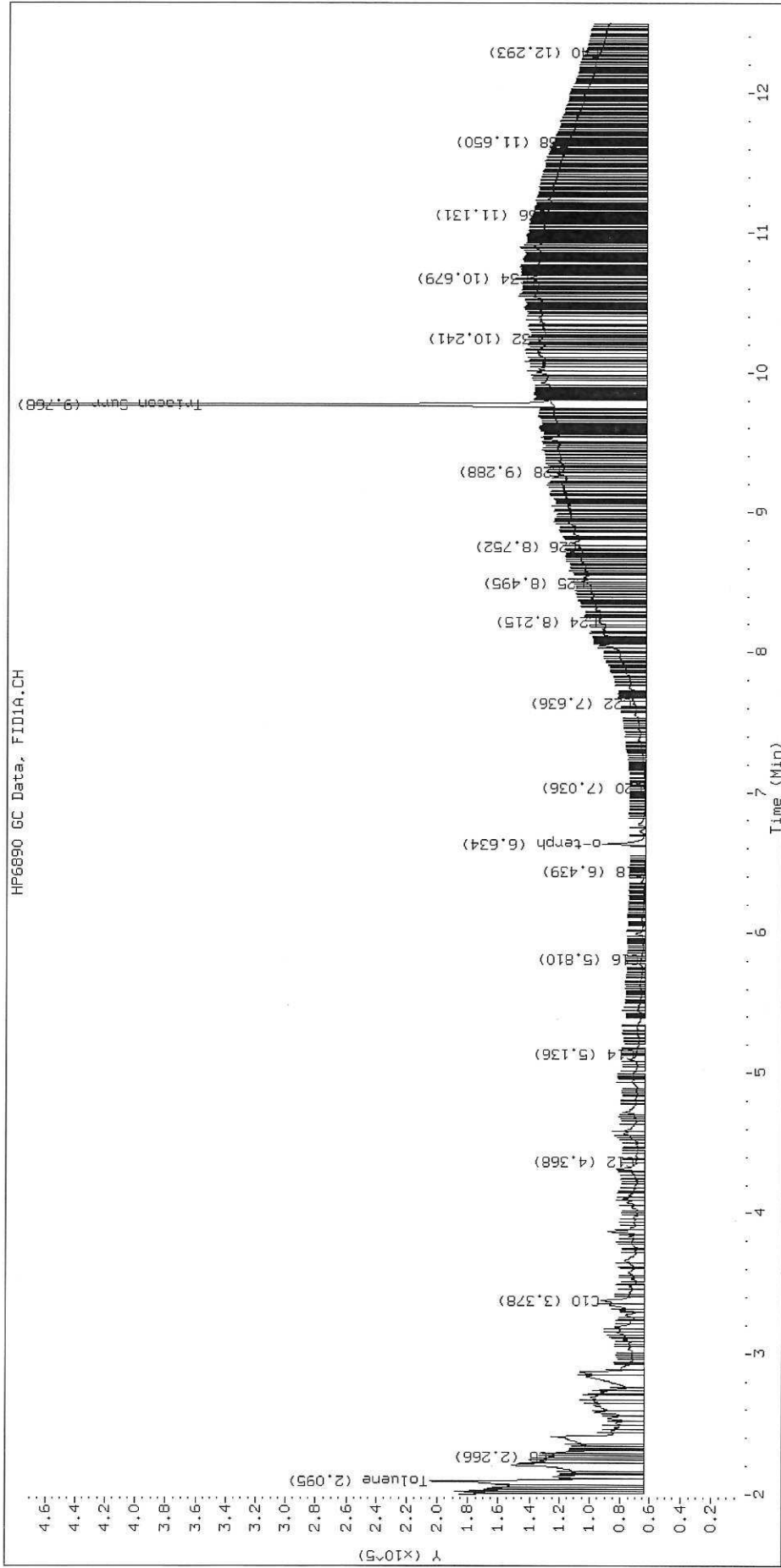
Surrogate	Area	Amount
o-Terphenyl	34405	0.2
Triacontane	818277	4.6 M

M Indicates the peak was manually integrated

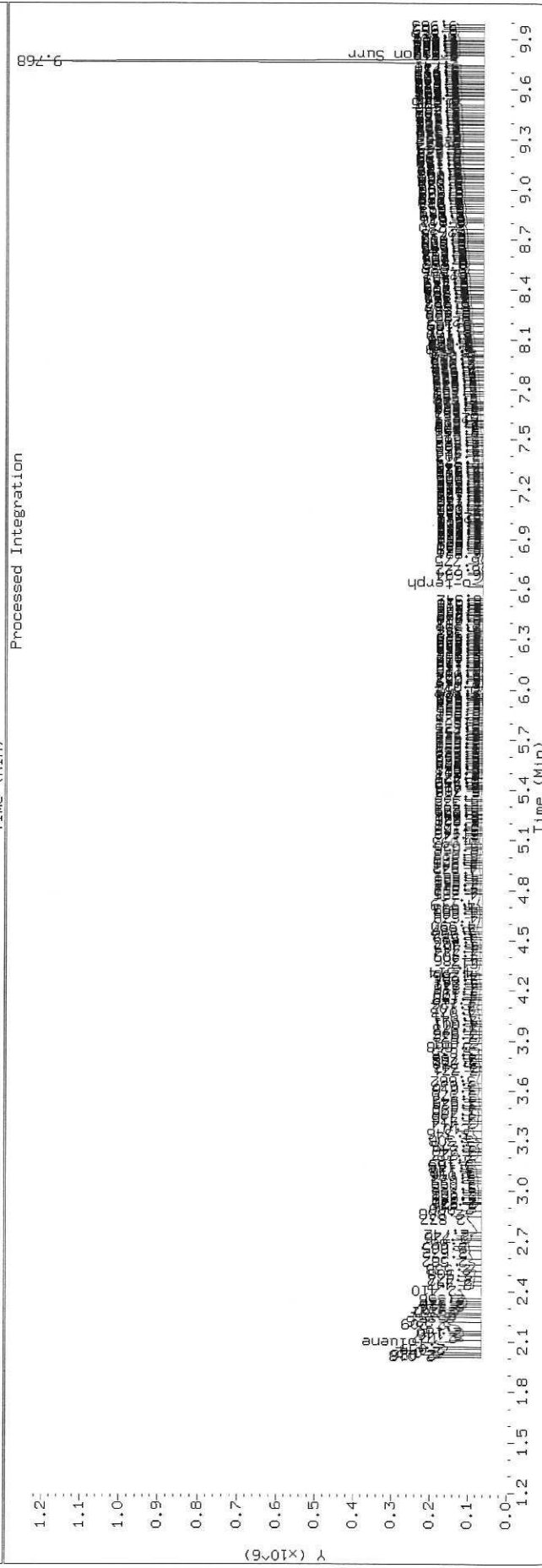
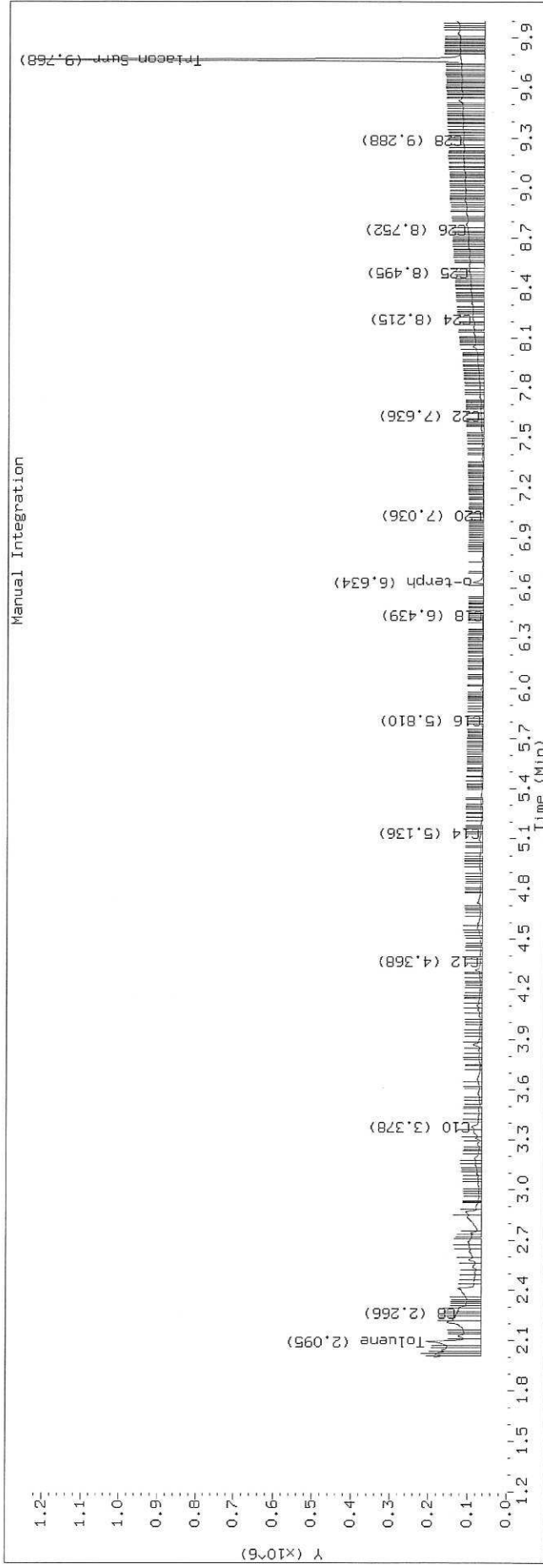
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2521.D SHJ0406-CALD

HP6890 GC Data, FID1A.CH



TPH Manual Integrations Report  
 Datafile: FID4A, 20191025.b/419J2521.D Injection: 25-OCT-2019 18:35  
 Lab ID: SHJ0406-CALD



Data File: \\target\share\chem2\fid4a.i\20191025.b\41932522.D

Date: 25-OCT-2019 18:55

Client ID:

Sample Info: SHJ0406-CALE

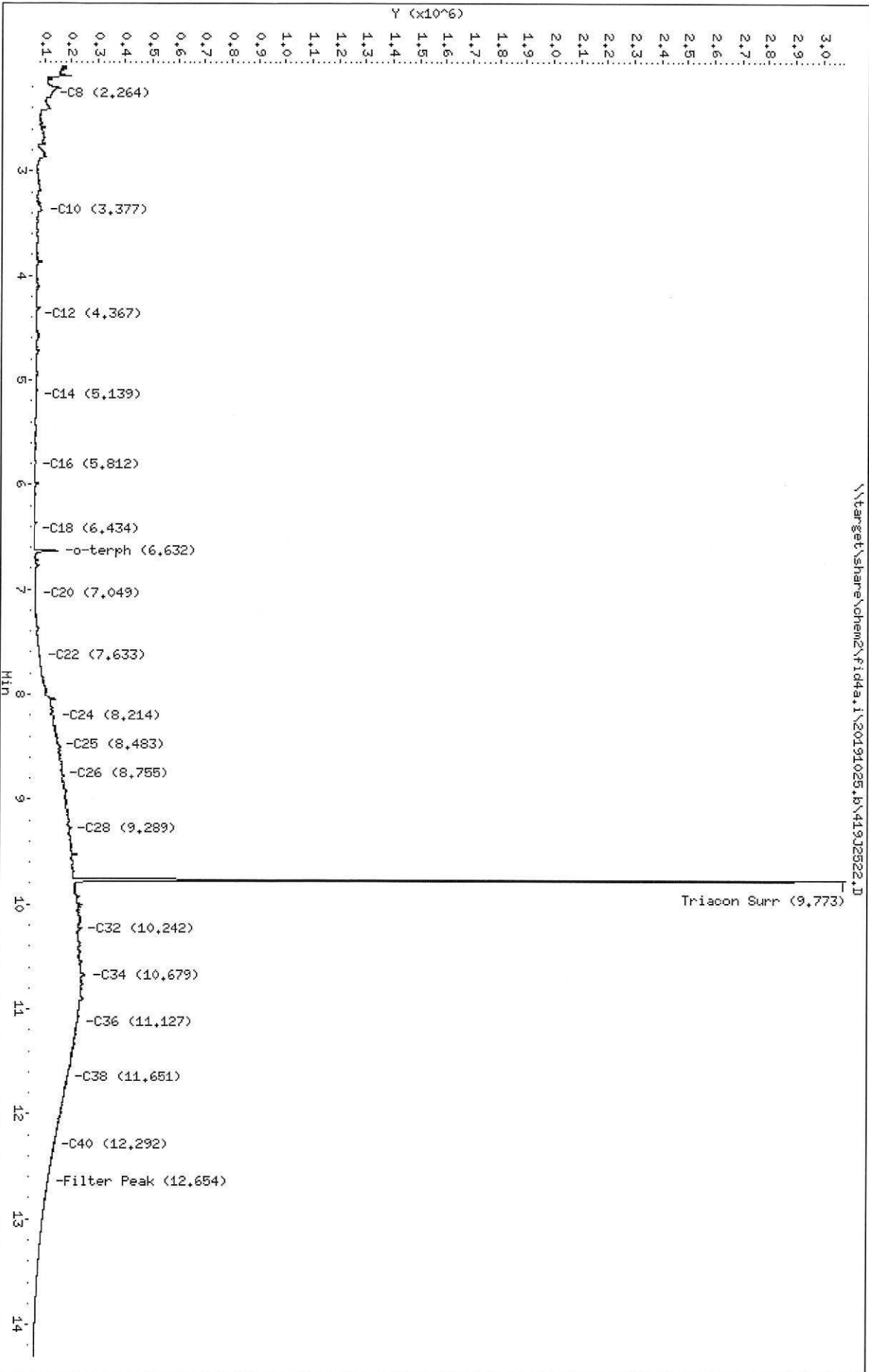
Column phase: RTX-1

Instrument: fid4a.i

Operator: CTO/SH/VTS/JGR

Column diameter: 0.25

Page 1



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2522.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CALE  
Client ID:  
Injection: 25-OCT-2019 18:55  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.264	0.002	61078	41904	WATPHD	(C12-C24)	2795528	17.5
C10	3.377	0.004	26802	52996	WATPHM	(C24-C38)	31324226	236.2
C12	4.367	0.019	5459	4798	AK102	(C10-C25)	4178110	21.4
C14	5.139	0.010	4962	3160	AK103	(C25-C36)	25813764	258.2
C16	5.812	0.005	2520	1321	OR.DIES	(C10-C28)	10680396	54.5
C18	6.434	-0.000	1311	882				
C20	7.049	0.006	4759	2820				
C22	7.633	-0.005	24172	52812				
C24	8.214	-0.001	79717	62122				
C25	8.483	-0.010	96553	61766				
C26	8.755	-0.010	114382	67845				
C28	9.289	0.004	142997	64203				
C32	10.242	0.000	182878	81971				
C34	10.679	-0.002	200985	321864				
Filter Peak	12.654	0.004	63611	28452	CREOSOT	(C12-C22)	1041017	266.9
C36	11.127	-0.001	175707	78840				
C38	11.651	0.001	139085	55402				
C40	12.292	0.004	88908	61716				
o-terph	6.632	-0.024	91544	90689				
Triacon Surr	9.773	-0.029	2869605	2058184	NAS DIES	(C10-C24)	3295502	16.9

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

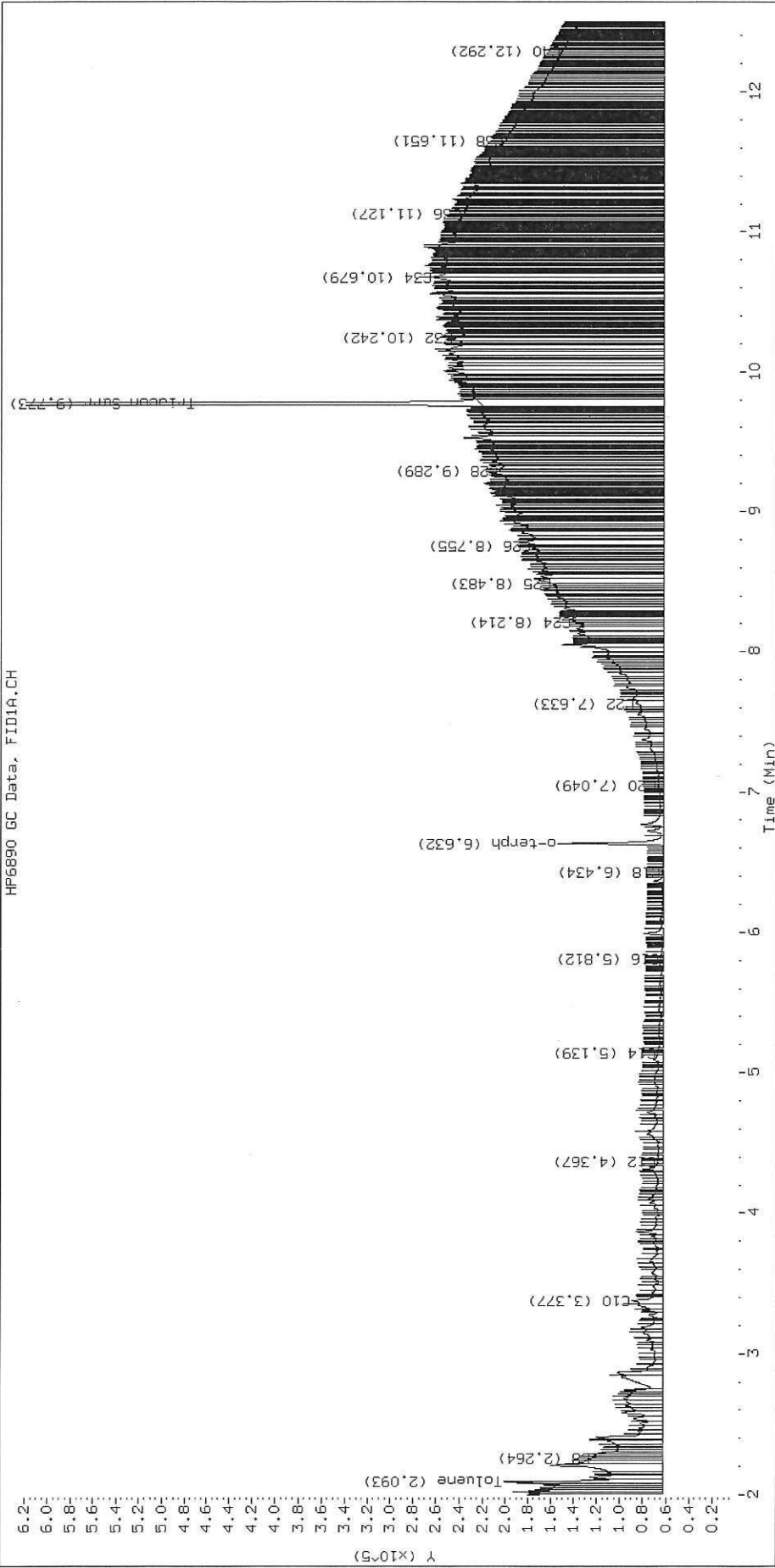
Surrogate	Area	Amount
o-Terphenyl	90689	0.4
Triacotane	2058184	11.6 M

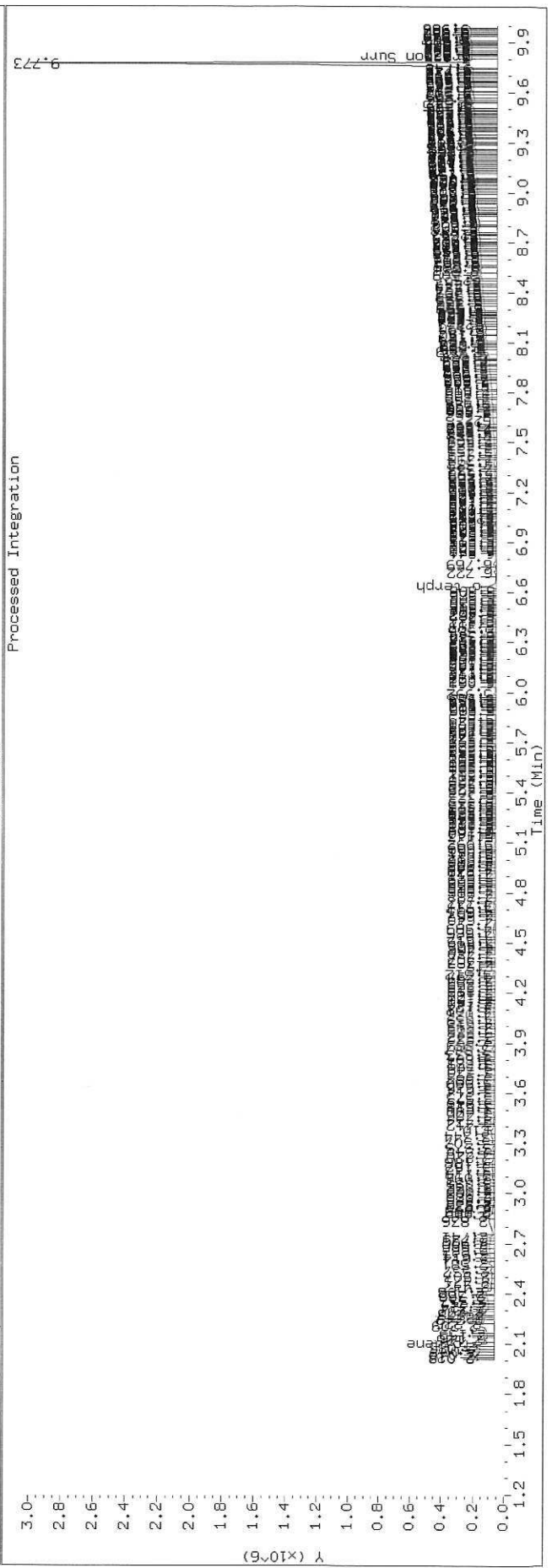
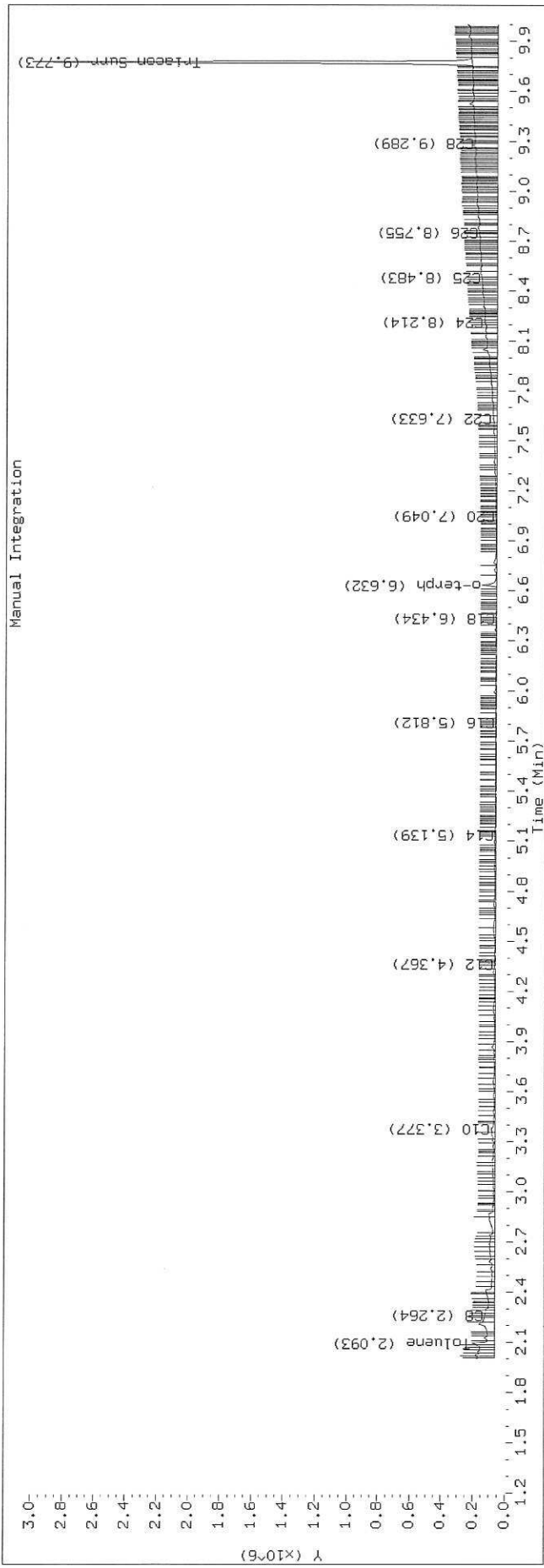
M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2522.D SHJ0406-CALE

HF6890 GC Data, FID1A.CH







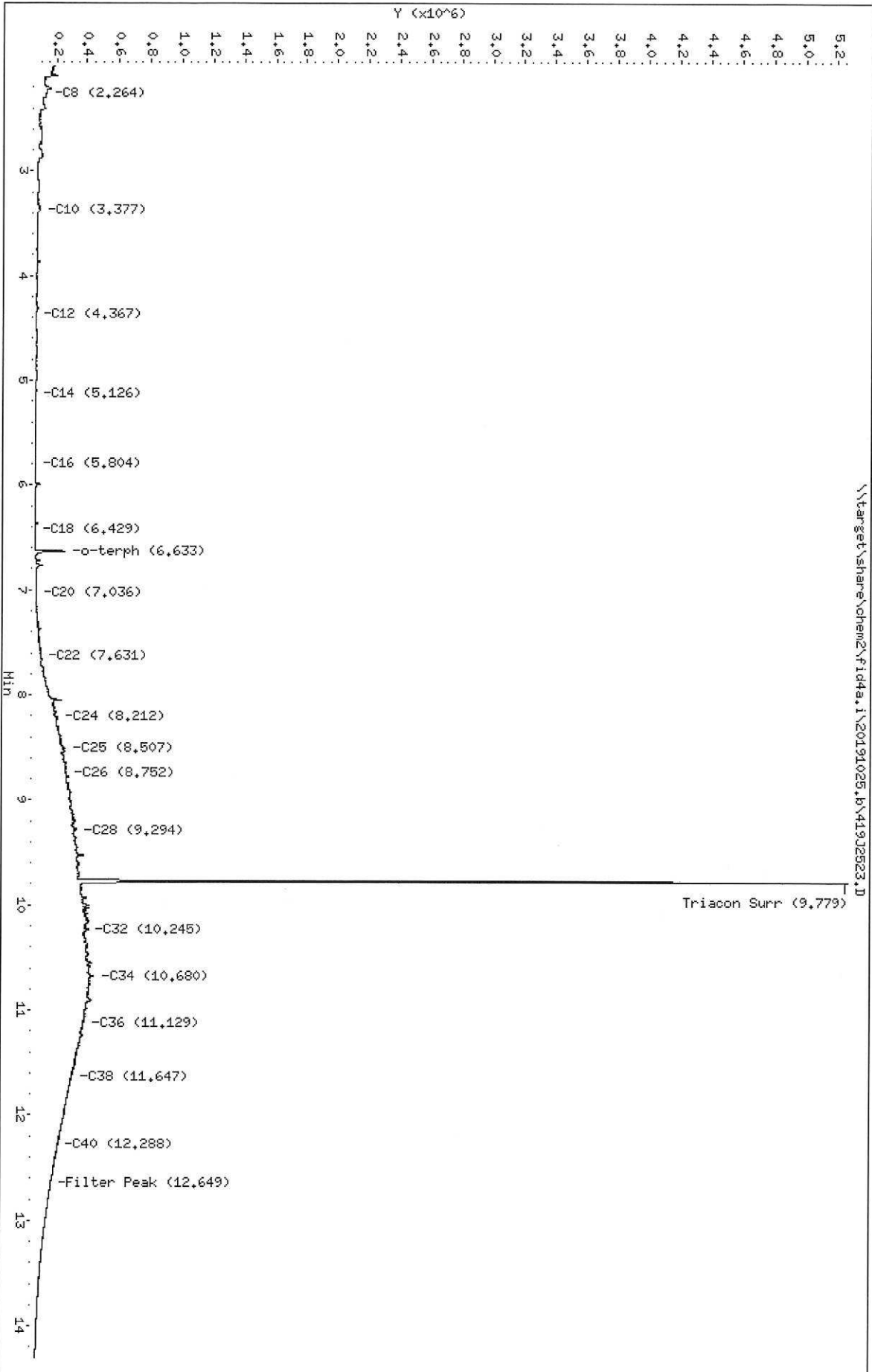
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Date : 25-OCT-2019 19:15

Client ID:  
Sample Info: SHJ0406-CALF

Column phase: RTX-1

Instrument: fid4a.i

Operator: CTO/SH/VTS/JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2523.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CALF  
Client ID:  
Injection: 25-OCT-2019 19:15  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.264	0.002	65663	48530	WATPHD	(C12-C24)	5014916	31.5
C10	3.377	0.004	28749	58345	WATPHM	(C24-C38)	59779944	450.7
C12	4.367	0.020	3969	3466	AK102	(C10-C25)	7200245	36.8
C14	5.126	-0.004	3228	1712	AK103	(C25-C36)	49058982	490.7
C16	5.804	-0.004	2893	3236	OR.DIES	(C10-C28)	19724552	100.6
C18	6.429	-0.005	2246	2256				
C20	7.036	-0.007	10796	11147				
C22	7.631	-0.008	48129	85760				
C24	8.212	-0.003	157019	245696				
C25	8.507	0.014	210068	574409				
C26	8.752	-0.013	221185	294582				
C28	9.294	0.008	276194	178596				
C32	10.245	0.003	351165	209719				
C34	10.680	-0.001	394703	898701				
Filter Peak	12.649	-0.002	125409	50077	CREOSOT	(C12-C22)	1560946	400.2
C36	11.129	-0.000	332260	99465				
C38	11.647	-0.003	258943	64646				
C40	12.288	-0.001	170438	84522				
o-terph	6.633	-0.024	198416	176995				
Triacon Surr	9.779	-0.024	4910254	3941895	NAS DIES	(C10-C24)	5534721	28.4

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

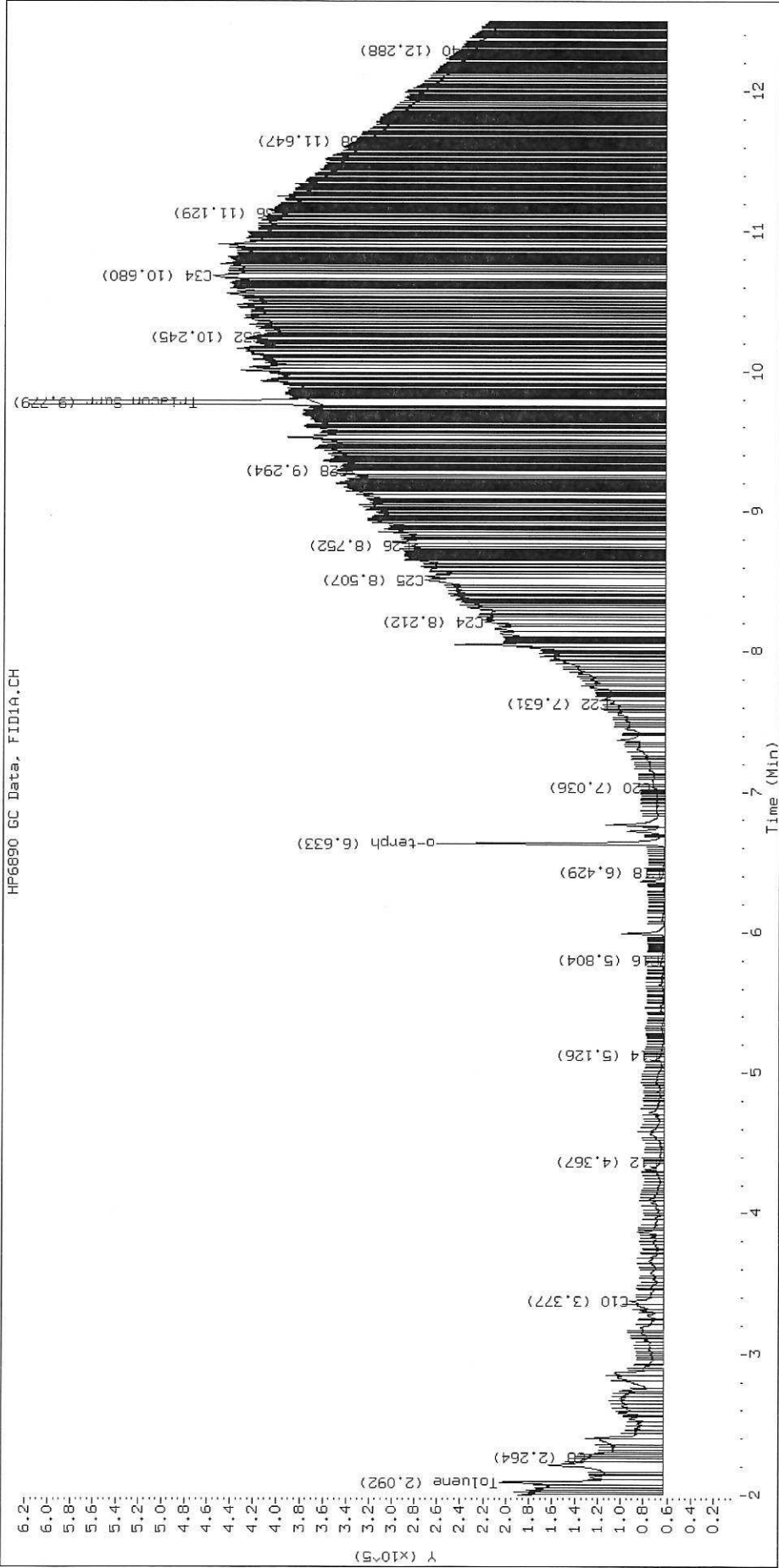
Surrogate	Area	Amount
o-Terphenyl	176995	0.9
Triacotane	3941895	22.1 M

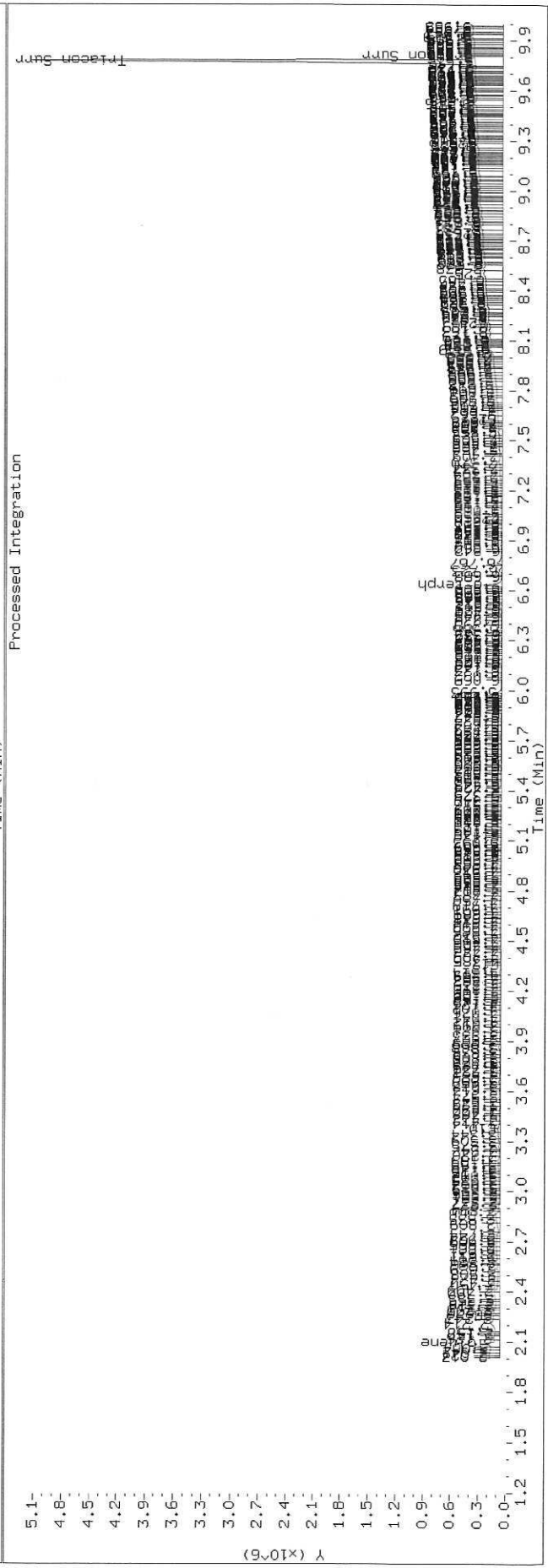
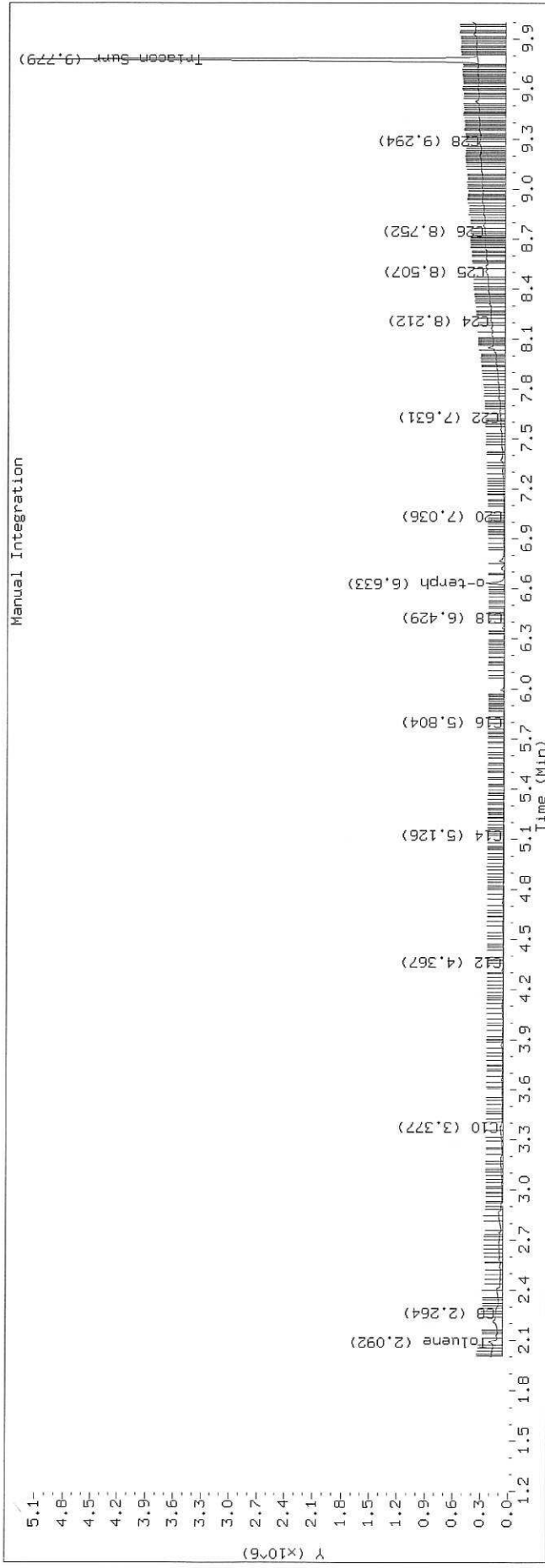
M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2523.D SHJ0406-CALF

HF6890 GC Data, FID1A.CH





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Date: 25-OCT-2019 19:34

Client ID:

Sample Info: SH00406-CALG

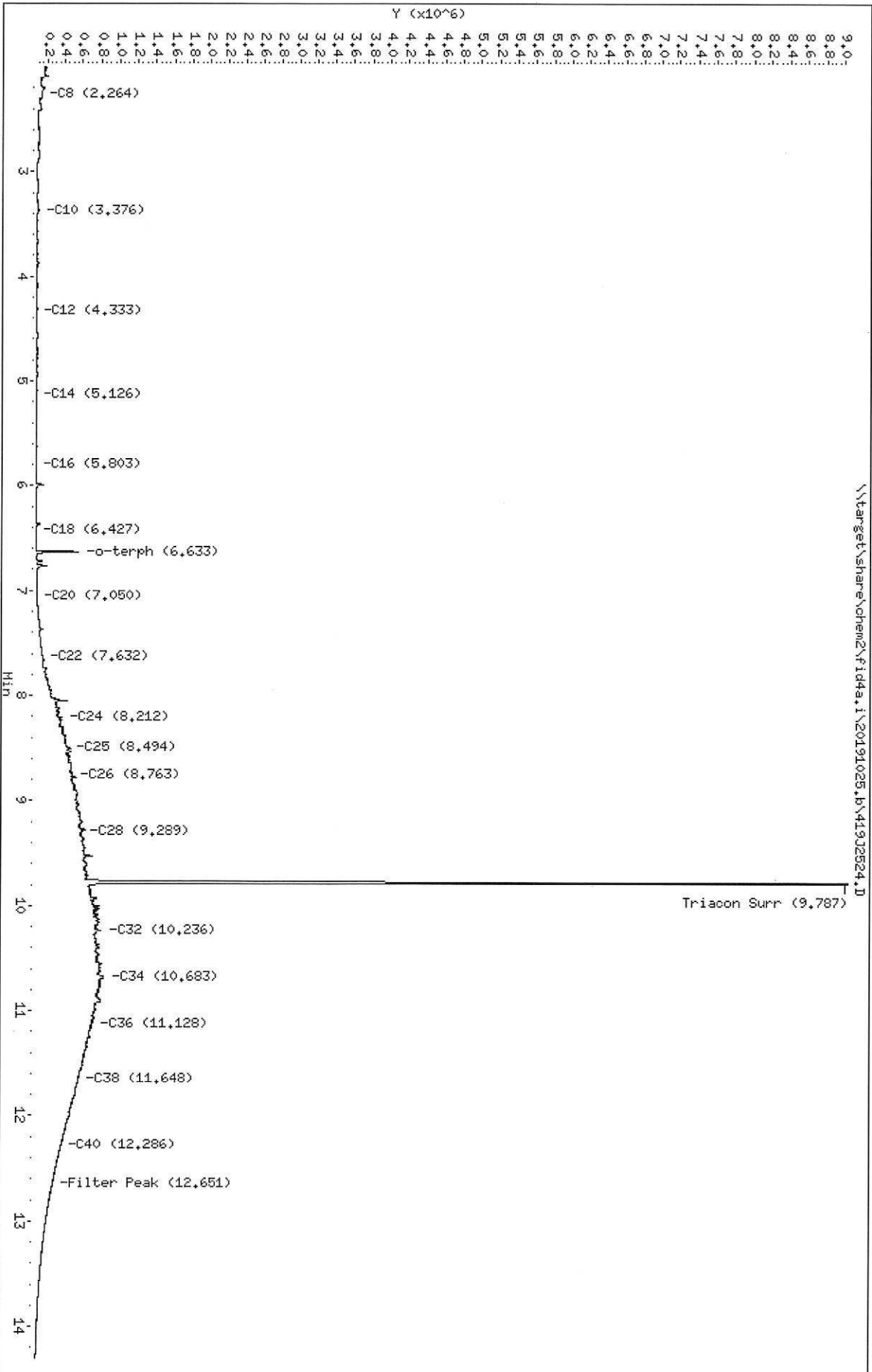
Column phase: RTX-1

Instrument: fid4a.i

Operator: CT0/SH/VTS/JGR

Column diameter: 0.25

Page 1



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2524.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CALG  
Client ID:  
Injection: 25-OCT-2019 19:34  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.264	0.002	59182	43398	WATPHD	(C12-C24)	9693002	60.8
C10	3.376	0.003	26004	47549	WATPHM	(C24-C38)	119379277	900.1
C12	4.333	-0.015	5078	6418	AK102	(C10-C25)	13482675	69.0
C14	5.126	-0.004	4037	3451	AK103	(C25-C36)	98534931	985.6
C16	5.803	-0.004	5499	6876	OR.DIES	(C10-C28)	38197703	194.9
C18	6.427	-0.008	4829	4807				
C20	7.050	0.007	20128	16414				
C22	7.632	-0.007	95273	191460				
C24	8.212	-0.003	309198	497796				
C25	8.494	0.001	394056	249031				
C26	8.763	-0.001	429806	171737				
C28	9.289	0.004	544145	135929				
C32	10.236	-0.006	748503	1187882				
C34	10.683	0.001	785420	196129				
Filter Peak	12.651	0.000	222539	110925	CREOSOT	(C12-C22)	2913792	747.0
C36	11.128	-0.000	665475	297953				
C38	11.648	-0.001	517415	384389				
C40	12.286	-0.003	322103	175432				
o-terph	6.633	-0.024	489788	368237				
Triacon Surr	9.787	-0.015	8362676	7933666	NAS DIES	(C10-C24)	10069630	51.6

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

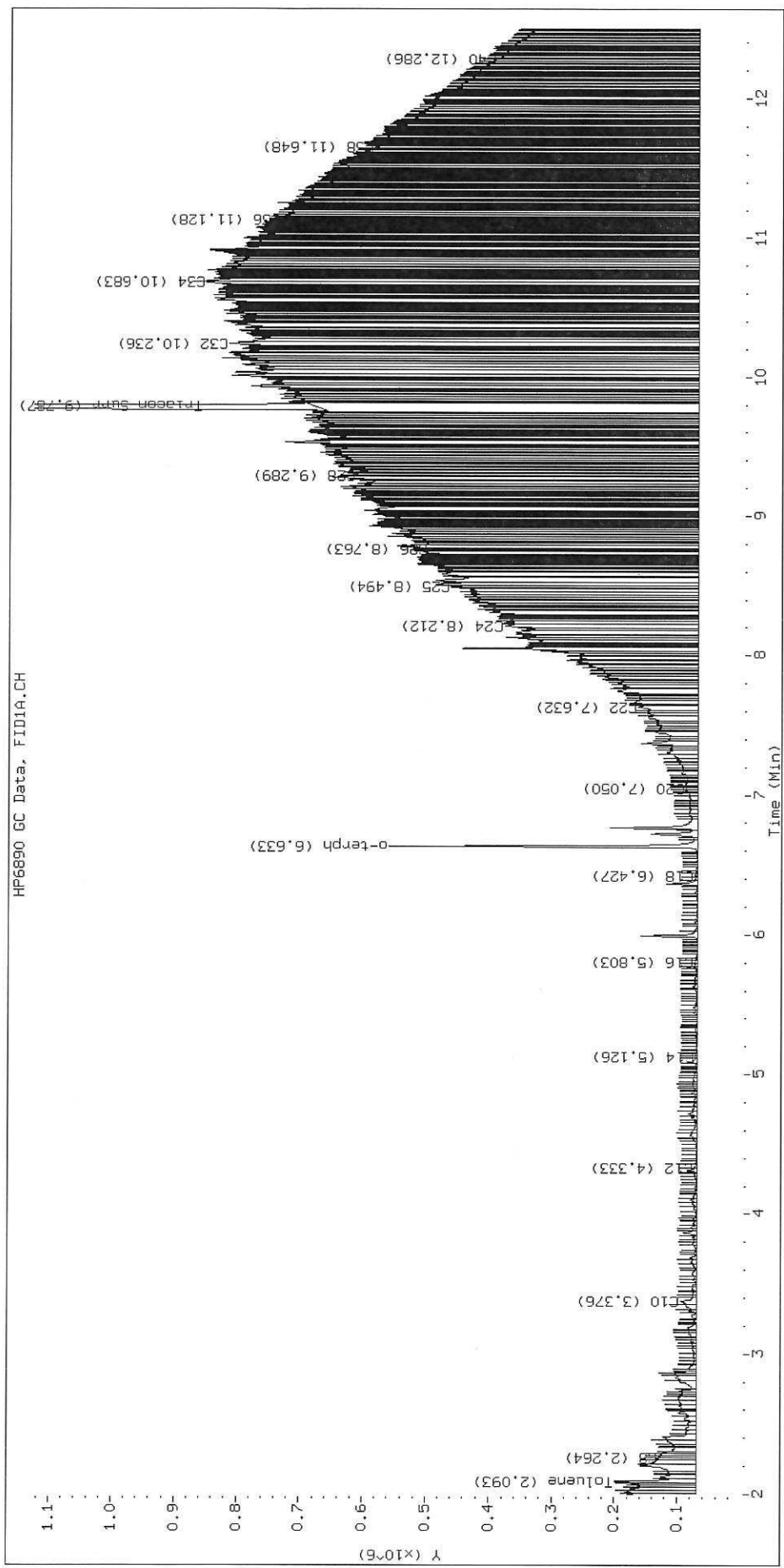
Surrogate	Area	Amount
o-Terphenyl	368237	1.8
Triacotane	7933666	44.6 M

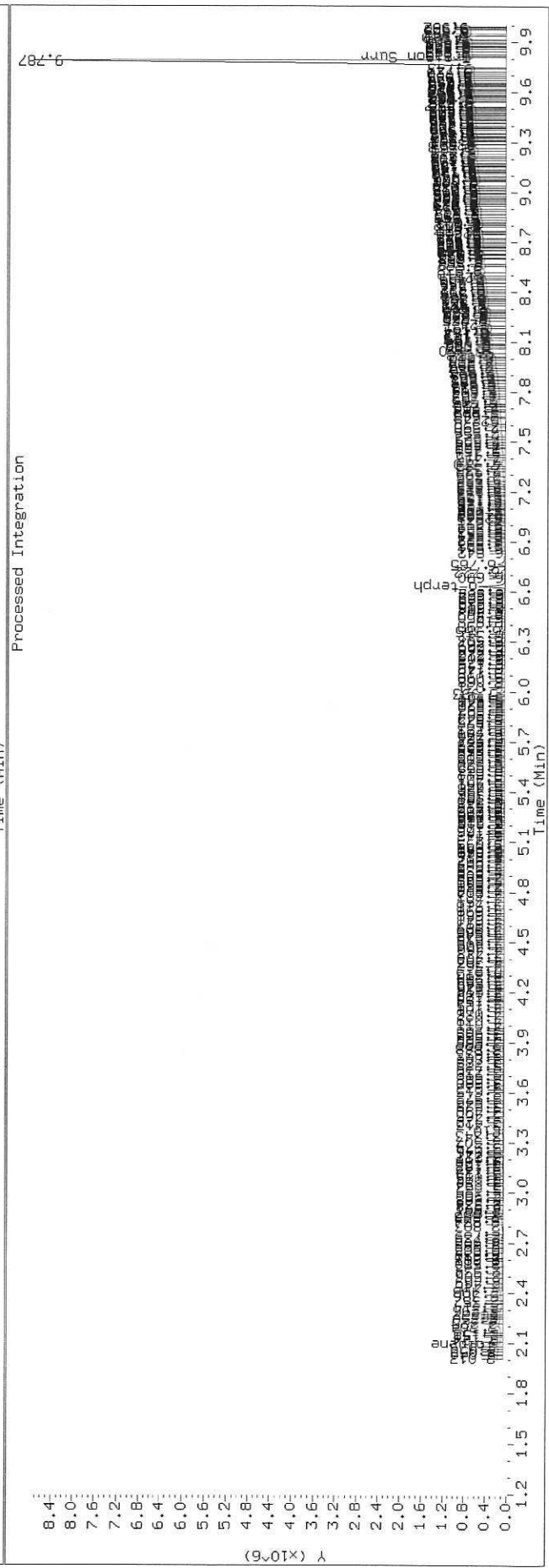
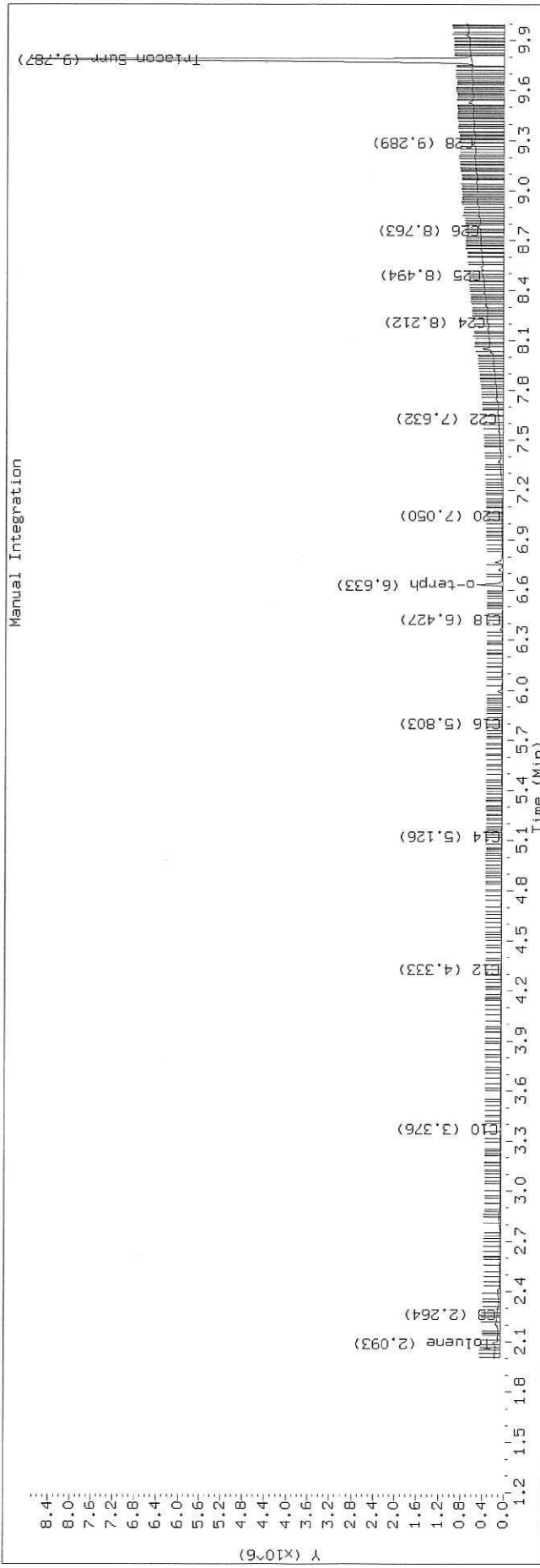
M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2524.D SHJ0406-CALG

HP6890 GC Data, FID1A.CH







Data File: \\target\share\chem2\Fid4a.i\20191025\_b\419J2525.D

Date : 25-OCT-2019 19:54

Client ID:

Sample Info: SH30406-CLLH

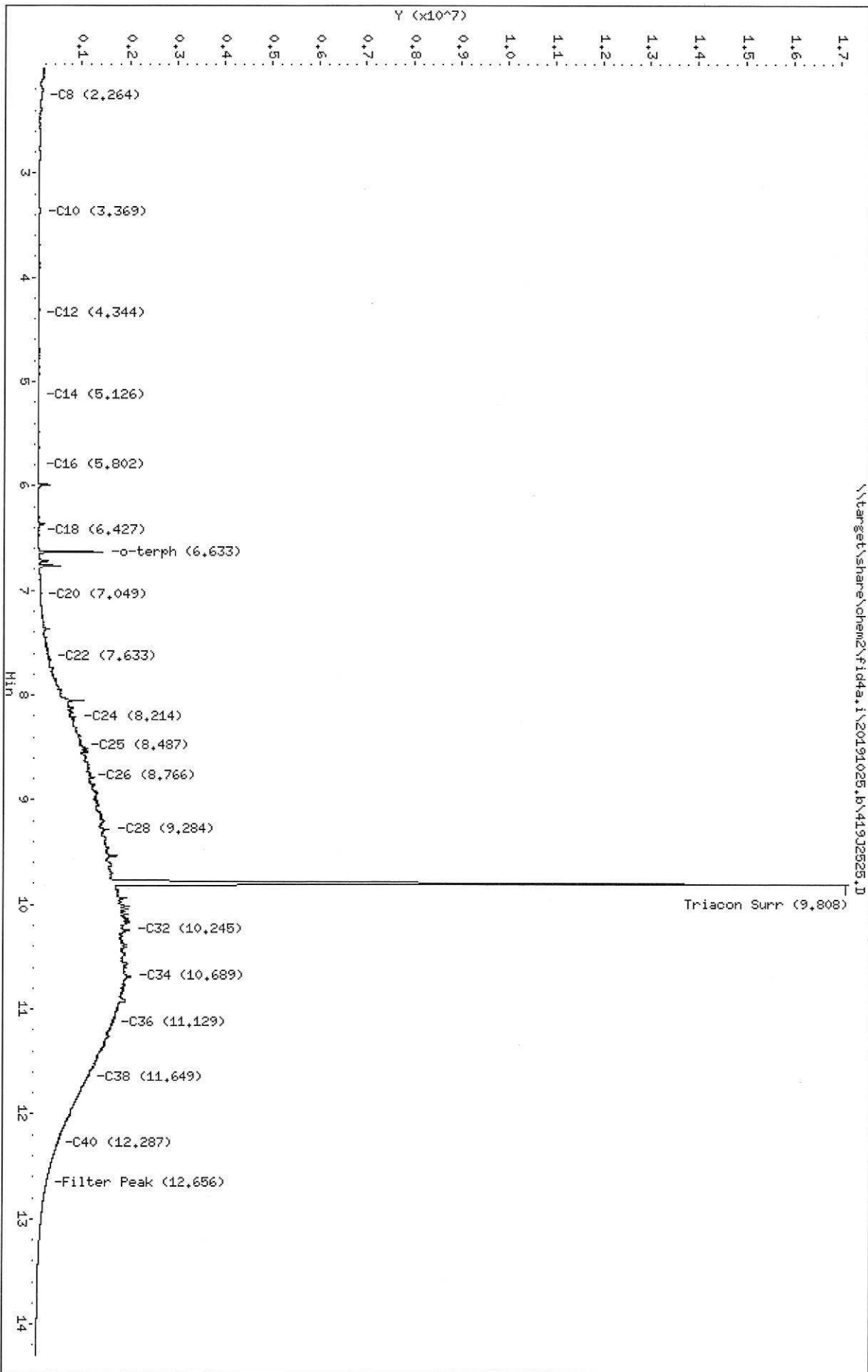
Column phase: RTX-1

Instrument: fid4a.i

Operator: CTD/SH/VTS/JGR

Column diameter: 0.25

\\target\share\chem2\Fid4a.i\20191025\_b\419J2525.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2525.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CALH  
Client ID:  
Injection: 25-OCT-2019 19:54  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.264	0.002	56415	38567	WATPHD	(C12-C24)	26301815	165.1
C10	3.369	-0.003	27712	41157	WATPHM	(C24-C38)	301341214	2272.0
C12	4.344	-0.003	5882	6952	AK102	(C10-C25)	35690614	182.6
C14	5.126	-0.003	7507	9244	AK103	(C25-C36)	251232894	2512.9
C16	5.802	-0.005	13222	14374	OR.DIES	(C10-C28)	99037801	505.3
C18	6.427	-0.008	19180	20067				
C20	7.049	0.006	65385	59588				
C22	7.633	-0.006	263262	368137				
C24	8.214	-0.001	822366	1422767				
C25	8.487	-0.006	962652	426588				
C26	8.766	0.002	1133629	505360				
C28	9.284	-0.002	1509428	2436681				
C32	10.245	0.003	1957482	3059346				
C34	10.689	0.008	1976148	4422245				
Filter Peak	12.656	0.006	231984	148698	CREOSOT	(C12-C22)	8248980	2114.6
C36	11.129	-0.000	1621407	646645				
C38	11.649	-0.000	1113973	443976				
C40	12.287	-0.002	466123	386816				
o-terph	6.633	-0.024	1387955	962768				
Triacon Surr	9.808	0.006	15482951	20436973	NAS DIES	(C10-C24)	26712775	136.9

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

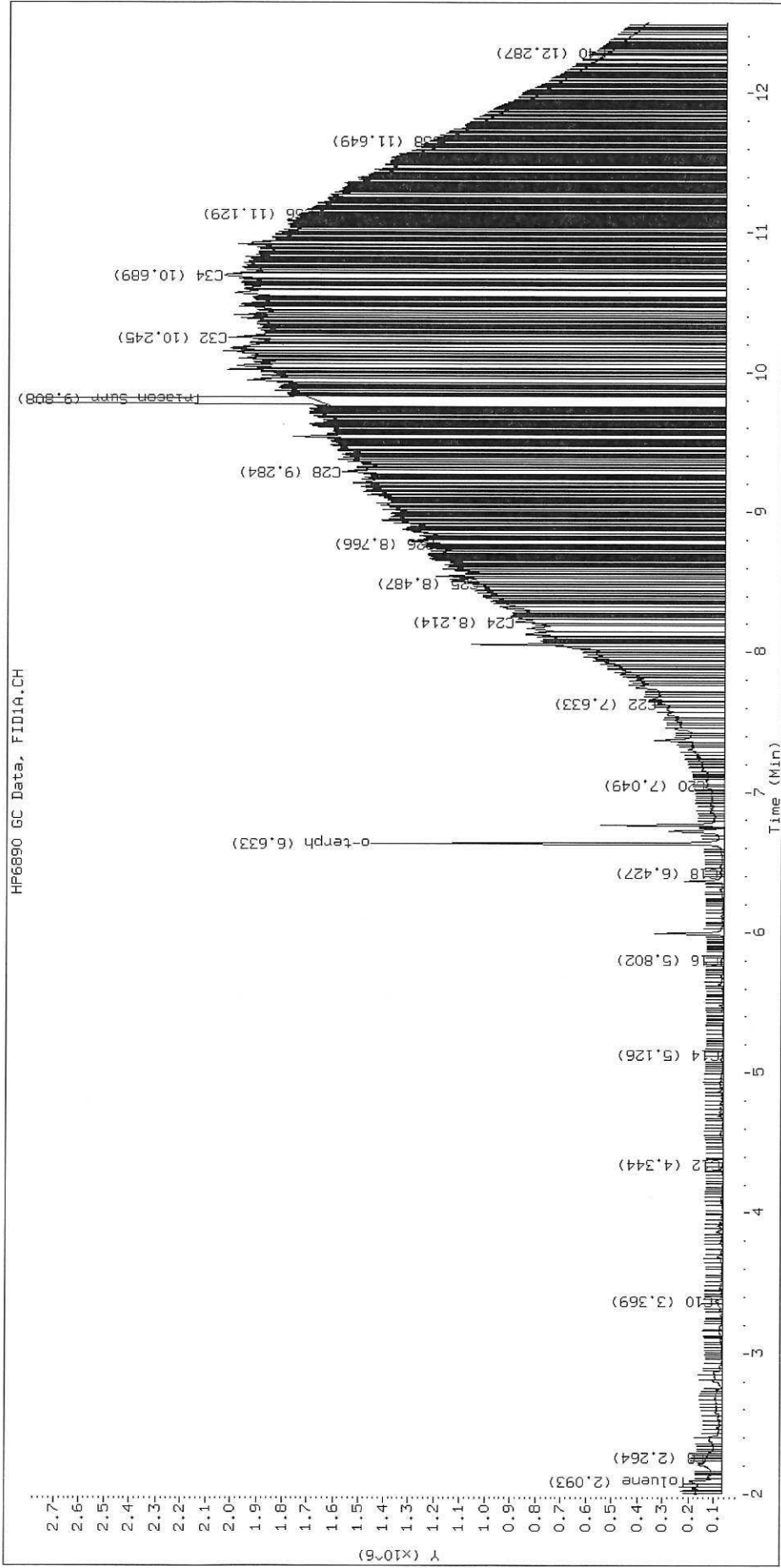
Surrogate	Area	Amount
o-Terphenyl	962768	4.7
Triacontane	20436973	114.8 M

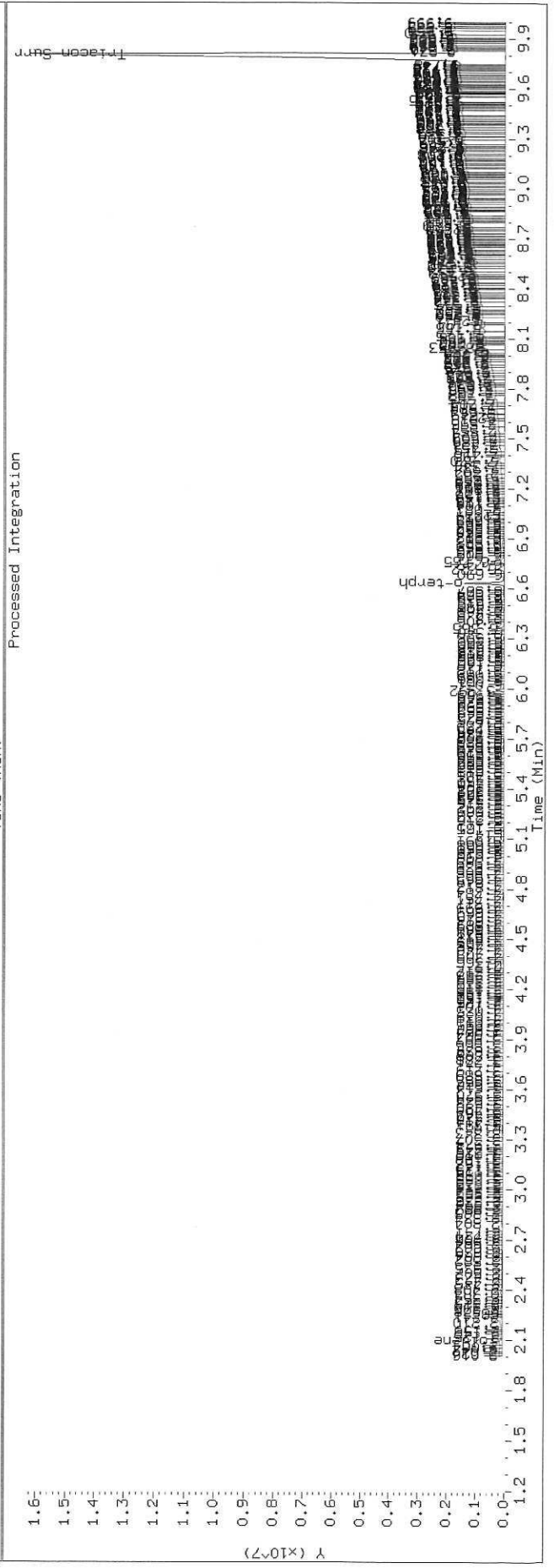
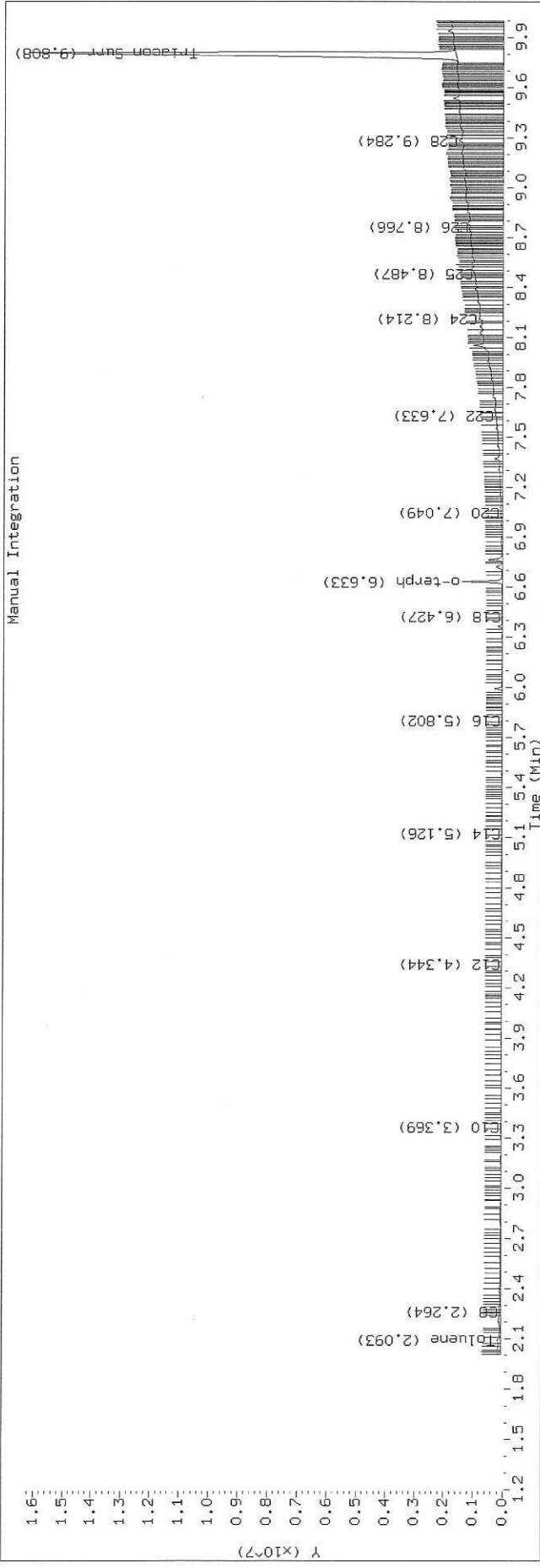
M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2525.D SHJ0406-CALH

HP6890 GC Data, FID1A.CH

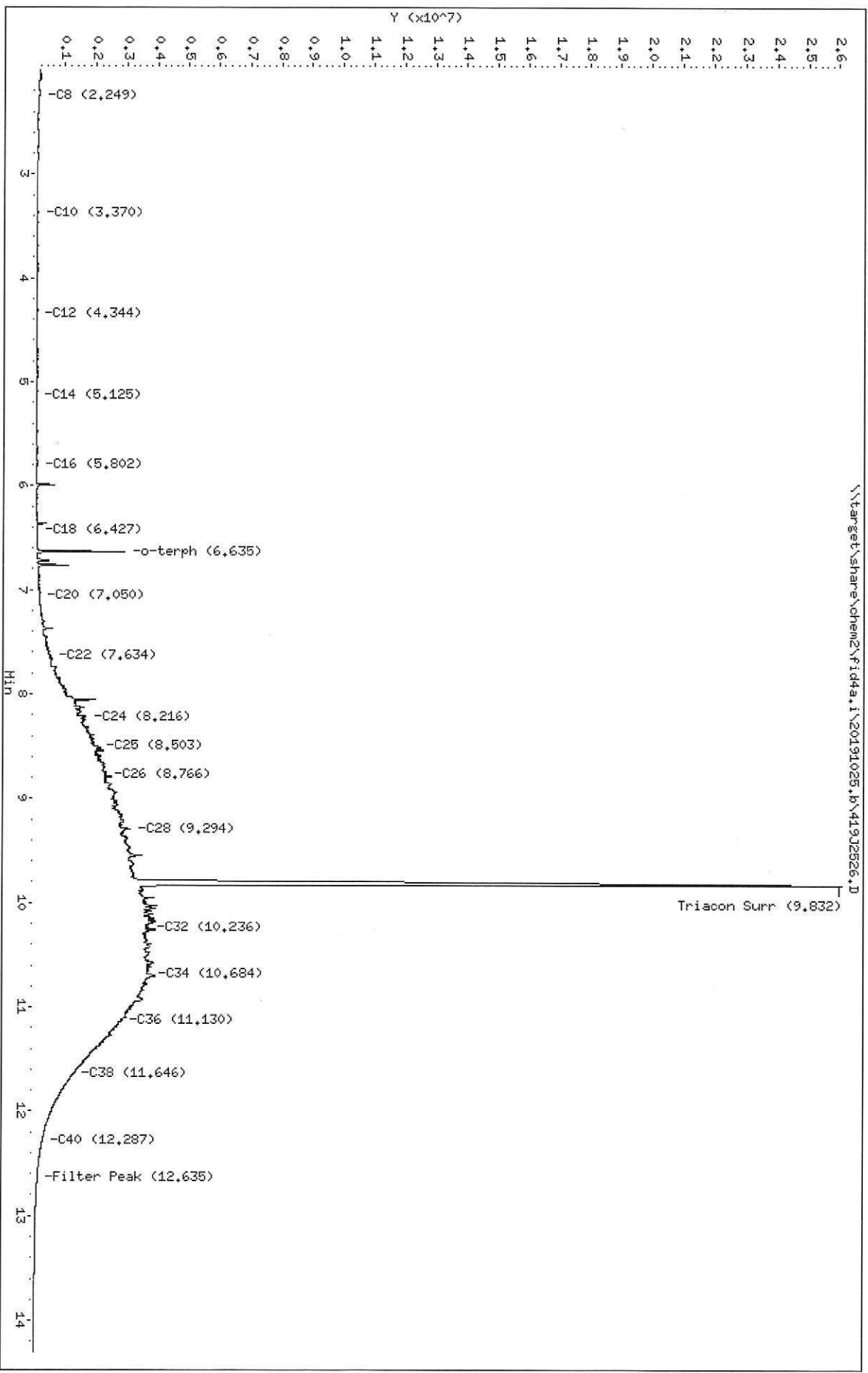




Data File: \\target\share\chem2\fid4a.1\20191025.B\419J2526.D  
Date : 25-OCT-2019 20:15  
Client ID:  
Sample Info: SHJ0406-CALI

Column phase: RTX-1

Instrument: fid4a.1  
Operator: CT0/SH/NTS/JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2526.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CALI  
Client ID:  
Injection: 25-OCT-2019 20:15  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.249	-0.013	68157	97437	WATPHD	(C12-C24)	53373864	335.0
C10	3.370	-0.003	37579	47410	WATPHM	(C24-C38)	579217404	4367.1
C12	4.344	-0.003	10600	10459	AK102	(C10-C25)	72516526	370.9
C14	5.125	-0.004	18160	20643	AK103	(C25-C36)	501300122	5014.2
C16	5.802	-0.005	31467	33333	OR.DIES	(C10-C28)	201523108	1028.2
C18	6.427	-0.008	46016	47297				
C20	7.050	0.007	139853	120986				
C22	7.634	-0.005	536997	729929				
C24	8.216	0.002	1657695	1800915				
C25	8.503	0.010	2055767	2566063				
C26	8.766	0.002	2309434	1601749				
C28	9.294	0.008	3108955	5845567				
C32	10.236	-0.006	3694253	3475497				
C34	10.684	0.002	3746349	1670889				
Filter Peak	12.635	-0.015	125409	273331	CREOSOT	(C12-C22)	16636154	4264.7
C36	11.130	0.002	2854299	995118				
C38	11.646	-0.003	1329722	1616024				
C40	12.287	-0.002	293577	286952				
o-terph	6.635	-0.022	2904255	1975795				
Triacon Surr	9.832	0.030	22638379	40251878	NAS DIES	(C10-C24)	53915002	276.3

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

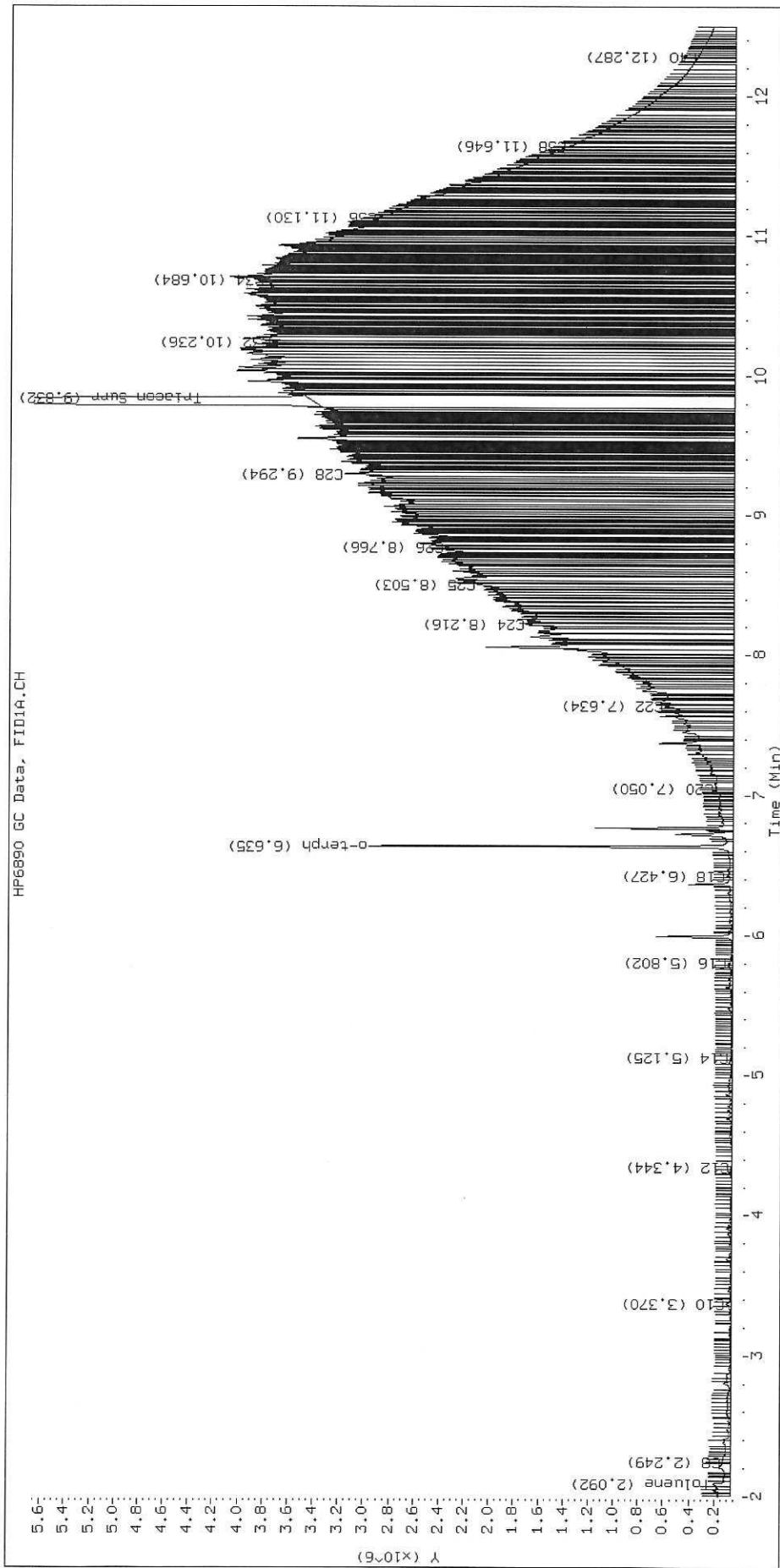
Surrogate	Area	Amount
o-Terphenyl	1975795	9.7
Triacontane	40251878	226.2 M

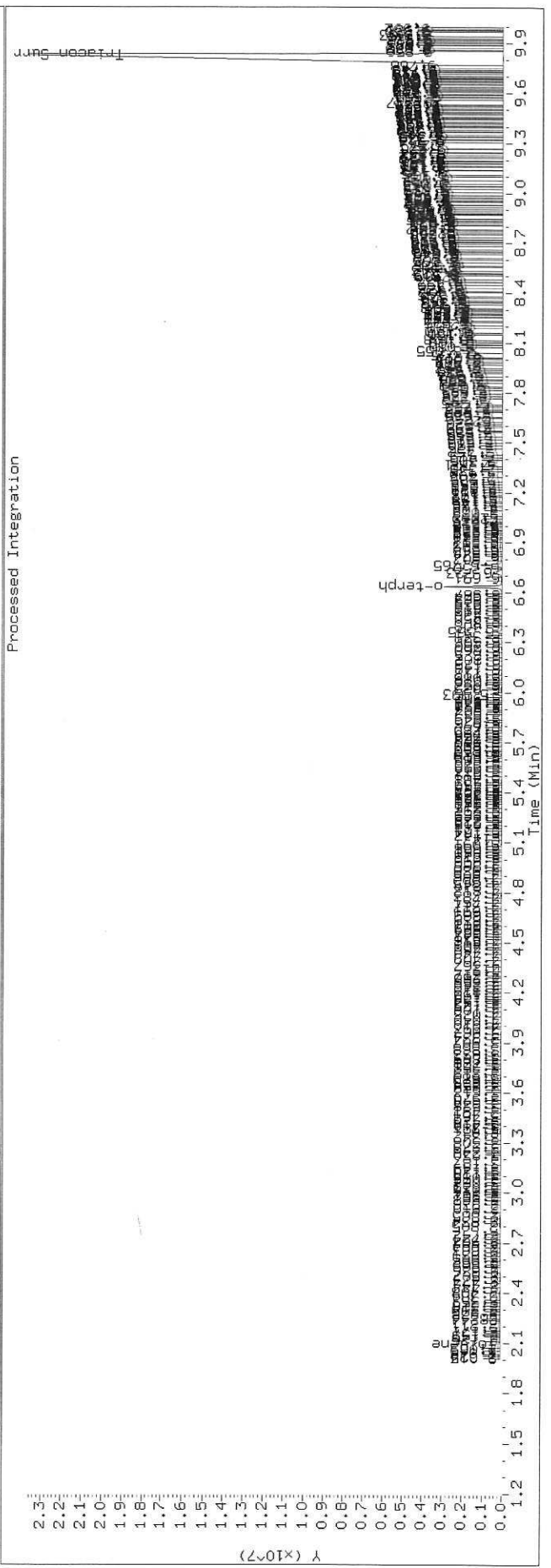
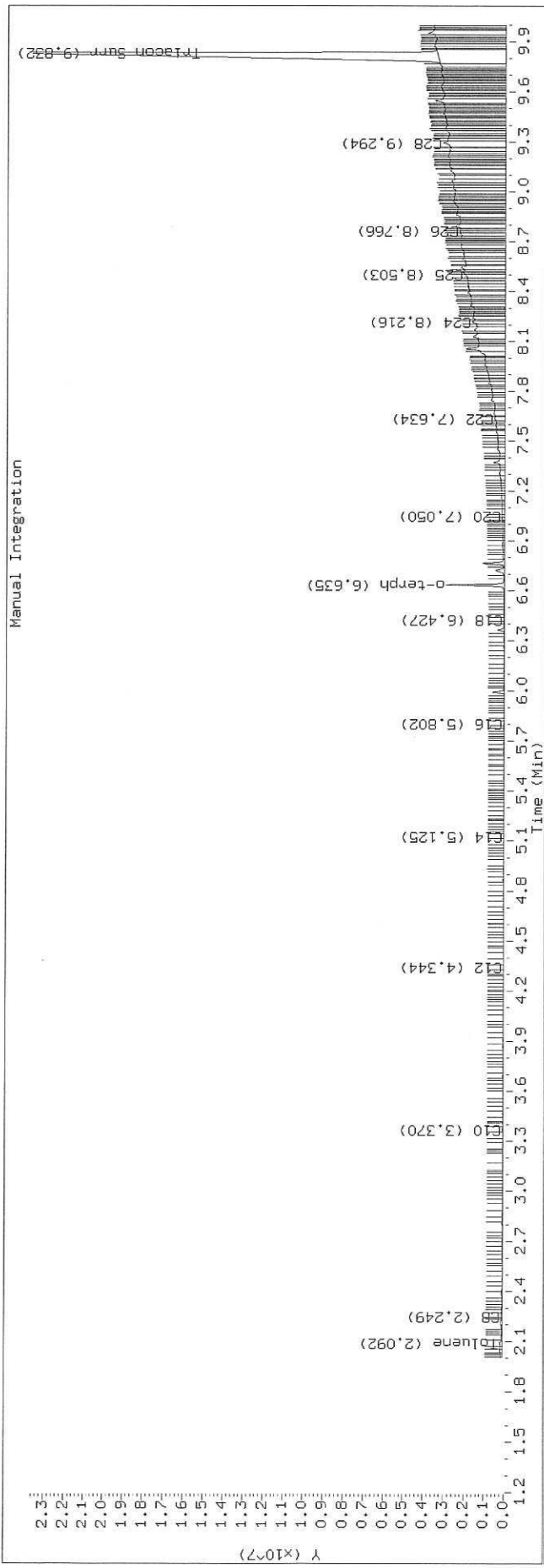
M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2526.D SHJ0406-CALI

HP6890 GC Data, FID1A.CH



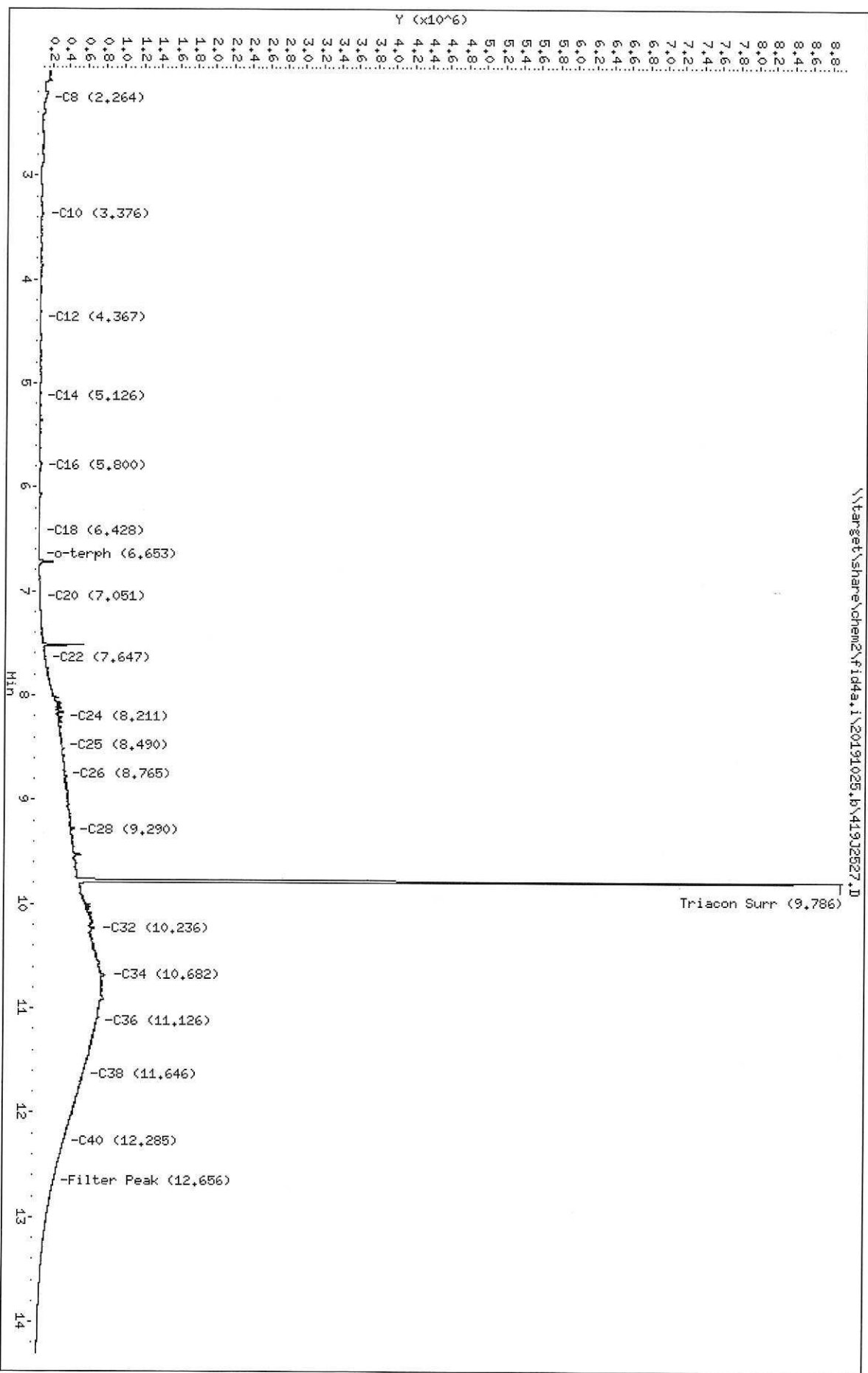




Data File: \\target\share\chem2\fid4a.i\20191025.b\419J2527.D  
 Date : 25-OCT-2019 20:35  
 Client ID:  
 Sample Info: SHJ0406-SCV3

Column phase: RTX-1

Instrument: fid4a.i  
 Operator: CTO/SH/VTS/JGR  
 Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2527.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-SCV3  
Client ID:  
Injection: 25-OCT-2019 20:35  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	2.264	0.002	53471	36749	WATPHD	(C12-C24)	9151453	57.4
C10	3.376	0.003	25610	47191	WATPHM	(C24-C38)	105205257	793.2
C12	4.367	0.020	4177	4443	AK102	(C10-C25)	12217213	62.5
C14	5.126	-0.003	5782	7745	AK103	(C25-C36)	83900022	839.2
C16	5.800	-0.007	18027	25221	OR.DIES	(C10-C28)	30254236	154.4
C18	6.428	-0.007	5074	5462				
C20	7.051	0.008	15134	10036				
C22	7.647	0.008	76708	26745				
C24	8.211	-0.004	290822	446061				
C25	8.490	-0.003	283476	98752				
C26	8.765	0.000	315420	126036				
C28	9.290	0.004	395912	118500				
C32	10.236	-0.006	661365	1079458				
C34	10.682	0.001	769683	230477				
Filter Peak	12.656	0.006	214849	128159	CREOSOT	(C12-C22)	2946608	755.4
C36	11.126	-0.002	688686	308098				
C38	11.646	-0.004	543124	322331				
C40	12.285	-0.004	325522	178450				
o-terph	6.653	-0.003	2619	2570				
Triacon Surr	9.786	-0.016	8421327	7592281	NAS DIES	(C10-C24)	9621264	49.3

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

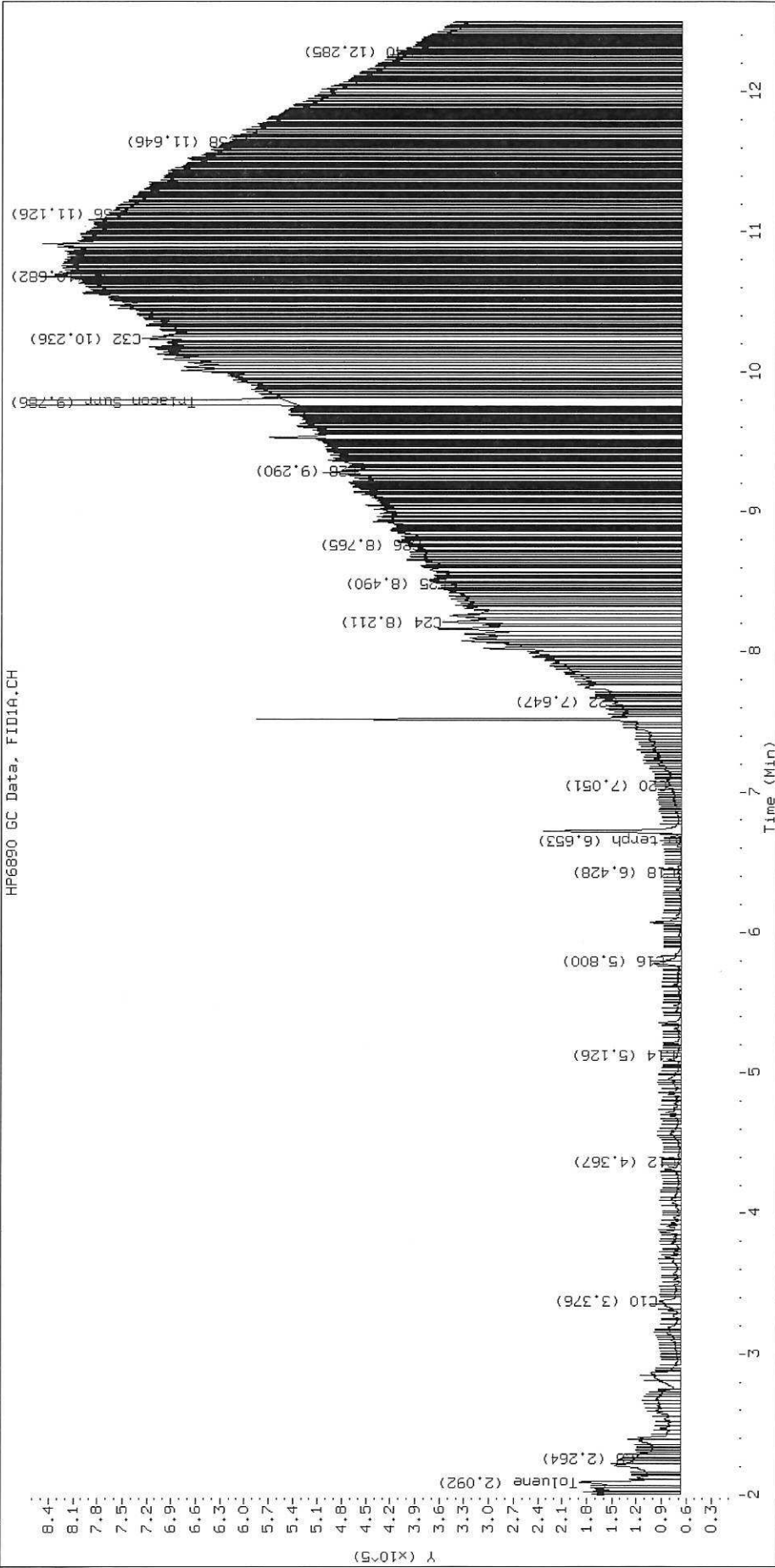
Surrogate	Area	Amount
o-Terphenyl	2570	0.0
Triacontane	7592281	42.7 M

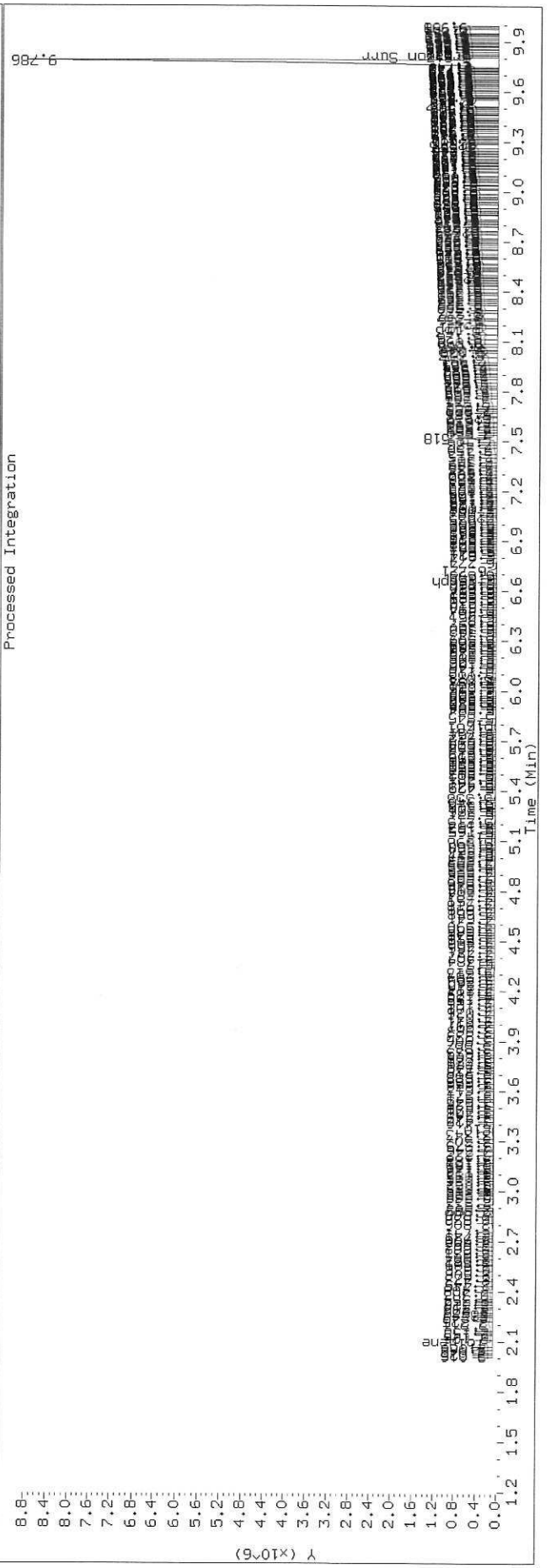
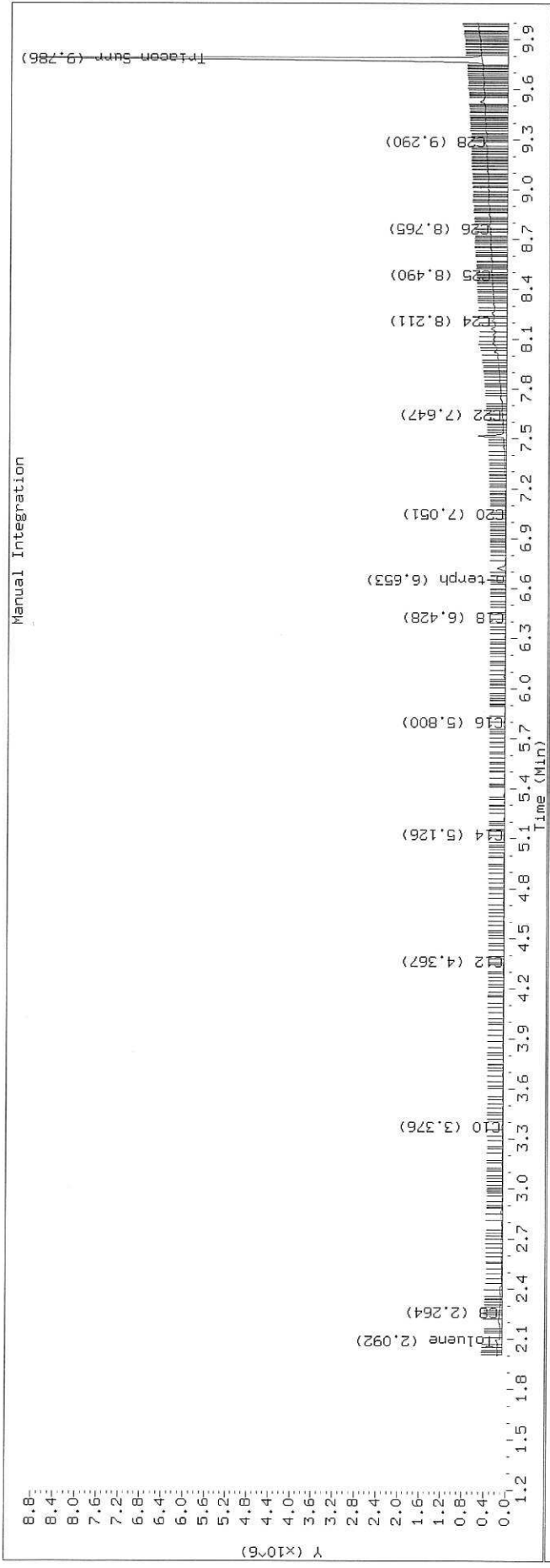
M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2527.D SHJ0406-SCV3

HP6890 GC Data, FID1A.CH





Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191119.b/419K1907.D  
Method: 20191119.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 11/20/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHK0260-ICV3  
Client ID:  
Injection: 19-NOV-2019 15:10  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.258	-0.008	251291	294712	WATPHD	(C12-C24)	42051010	263.9
C10	3.371	-0.003	4406335	3424876	WATPHM	(C24-C38)	496216	3.7
C12	4.346	-0.001	4634910	4478760	AK102	(C10-C25)	82254431	420.8
C14	5.126	-0.002	3015617	2044036	AK103	(C25-C36)	286196	2.9
C16	5.801	-0.005	604553	490104	OR.DIES	(C10-C28)	82288476	419.8
C18	6.426	-0.007	88855	83248				
C20	7.035	-0.006	27599	35934	JET-A	(C10-C18)	81259124	500.0
C22	7.631	-0.006	14833	25191				
C24	8.208	-0.005	6203	10027				
C25	8.490	-0.002	3298	4254				
C26	8.761	-0.002	1681	2107				
C28	9.291	0.006	225	122				
C32	10.242	0.000	1787	779				
C34	10.677	-0.003	4152	2235				
Filter Peak	12.648	0.002	7181	4285	CREOSOT	(C12-C22)	41927190	817.4
C36	11.126	0.000	5955	3830				
C38	11.639	-0.004	6373	4434				
C40	12.278	0.002	7499	4100				
o-terph	6.651	-0.002	16020002	16763037				
Triacon Surr	9.804	0.002	747	319	NAS DIES	(C10-C24)	82236143	421.4

Range Times: NW Diesel(4.346 - 8.213) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.64) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

Surrogate	Area	Amount
o-Terphenyl	16763037	81.9
Triacontane	319	0.0

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
JetA	162518.2	20-NOV-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	51292.5	15-NOV-2019

Data File: \\target\share\chem2\fid4a.i\20191119.b\419K1907.D

Date: 19-NOV-2019 15:10

Client ID:

Sample Info: SHK0260-ICV3

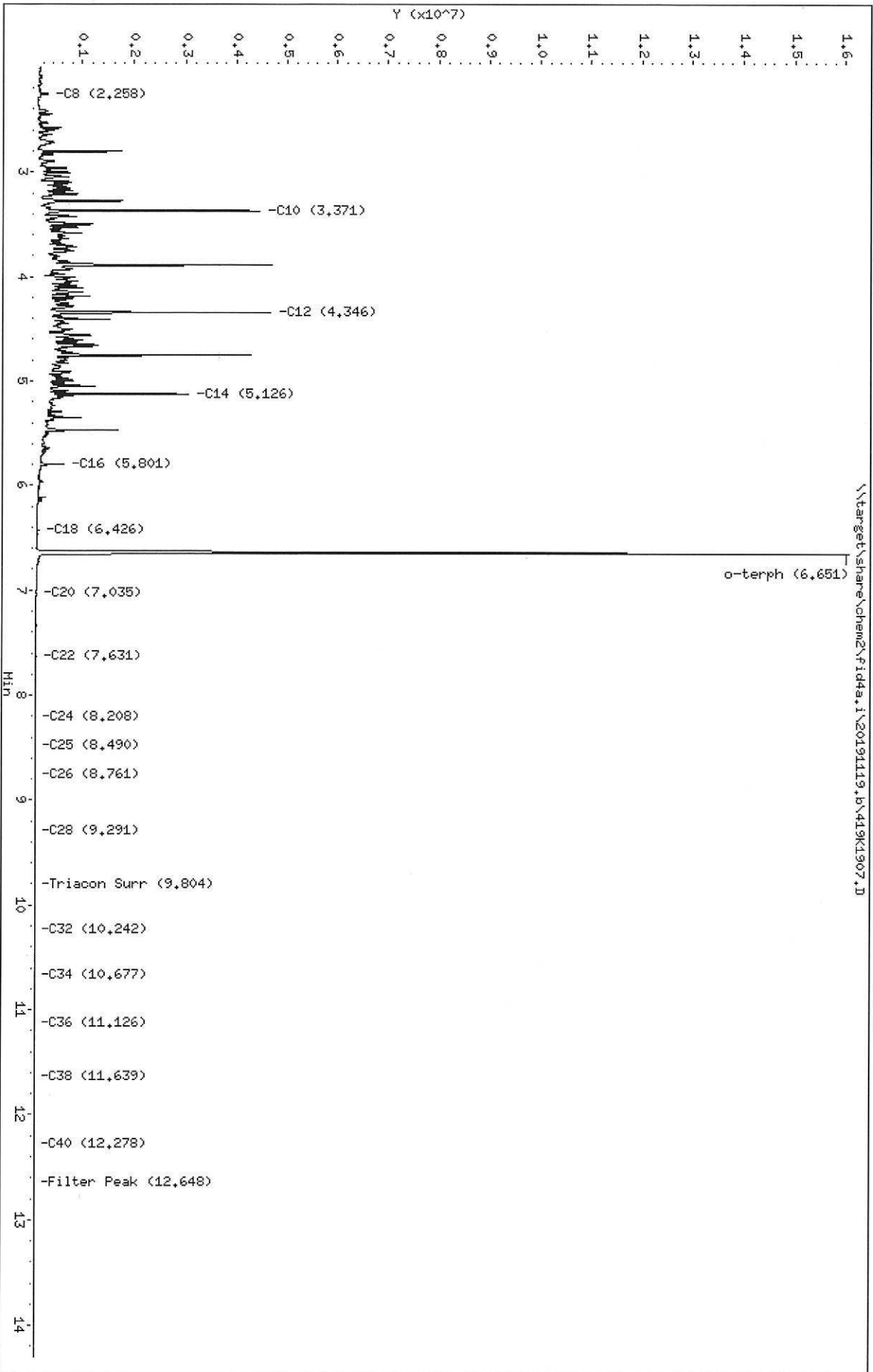
Column phase: RTX-1

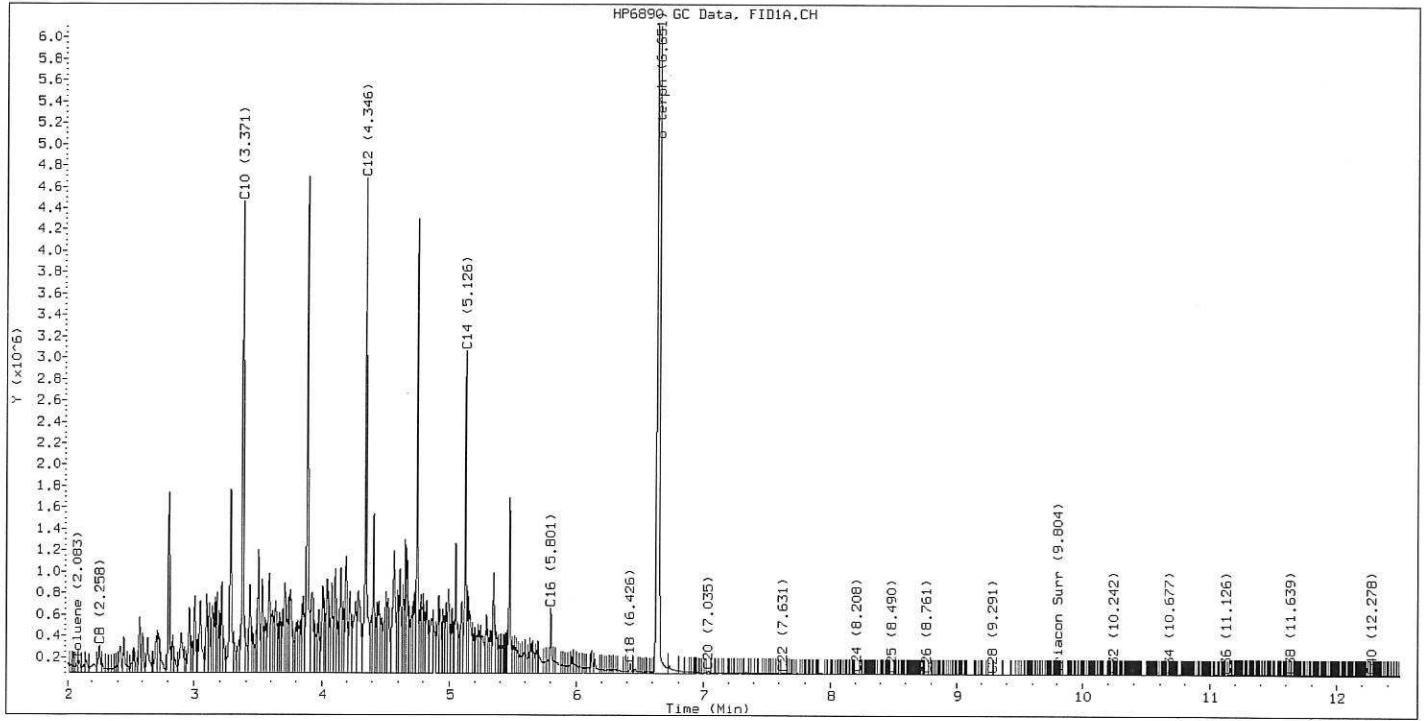
Instrument: fid4a.i

Operator: CT0

Column diameter: 0.25

Page 1







## INITIAL CALIBRATION DATA NWTPH-Dx

Laboratory: Analytical Resources, Inc. SDG: 20K0204  
Client: Anchor QEA, LLC Project: Gasco Siltronic  
Calibration: DA00022 Instrument: FID4  
Calibration Date: 10/25/2019 Column (1): RTX-1

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Diesel Range Organics (C12-C24)	50	182114.3	100	162168.4	250	151655.3	500	152220	1000	153066.8	2500	154795.4
o-Terphenyl	9	207237.8	18	202348.9	45	199293.8	90	202627.8	180	206915.5	450	209787.6

















## INITIAL CALIBRATION DATA NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	20K0204
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic
Calibration:	DA00022	Instrument:	FID4
Calibration Date:	10/25/2019	Column (1):	RTX-1

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Diesel Range Organics (C12-C24)	159336.7	7.4			RSD (20)	
Diesel Range Organics (C12-C24)	159336.7	7.4			RSD (20)	
Motor Oil Range Organics (C24-C38)	101166	4.8			RSD (20)	
o-Terphenyl	204701.9	1.9			RSD (20)	



ANALYSIS SEQUENCE

Printed: 10/30/2019 7:24:06AM

SHJ0406

Instrument: FID4      Element Column ID: G004925  
Calibration ID: CJ00089

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SHJ0406-IBL1	Retention Time Standard	QC		1	H006806		
SHJ0406-IBL2	Instrument Blank	QC		2	H007457		
SHJ0406-CAL1	DIESEL 50	QC		3	H010495		
SHJ0406-CAL2	DIESEL 100	QC		4	H010496		
SHJ0406-CAL3	DIESEL 250	QC		5	H010497		
SHJ0406-CAL4	DIESEL 500	QC		6	H010498		
SHJ0406-CAL5	DIESEL 1000	QC		7	H010499		
SHJ0406-CAL6	DIESEL 2500	QC		8	H009367		
SHJ0406-SCV1	DIESEL SCV	QC		9	H008294		
SHJ0406-CAL7	MOIL 100	QC		10	H008395		
SHJ0406-CAL8	MOIL 250	QC		11	H008396		
SHJ0406-CAL9	MOIL 500	QC		12	H008397		
SHJ0406-CALA	MOIL 1000	QC		13	H007659		
SHJ0406-CALB	MOIL 2500	QC		14	H008398		
SHJ0406-CALC	MOIL 5000	QC		15	H007458		
SHJ0406-SCV2	MOIL SCV	QC		16	H008399		
SHJ0406-CALD	AK103 100	QC		17	H010478		
SHJ0406-CALE	AK103 250	QC		18	H010479		
SHJ0406-CALF	AK103 500	QC		19	H010480		
SHJ0406-CALG	AK103 1000	QC		20	H010481		
SHJ0406-CALH	AK103 2500	QC		21	H010482		
SHJ0406-CALI	AK103 5000	QC		22	H008608		





Analytical Resources, Incorporated  
Analytical Chemists and Consultants

ANALYSIS SEQUENCE

Printed: 10/30/2019 7:24:06AM

SHJ0406

Instrument: FID4      Element Column ID: G004925  
Calibration ID: CJ00089

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SHJ0406-SCV3	AK103 SCV	QC		23	H008400		

## GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20191025.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	25-OCT-2019 11:37	419J2501.D	1	RINSE	
2	25-OCT-2019 11:55	419J2502.D	1	RINSE	
3	25-OCT-2019 12:30	419J2503.D	1	RINSE	
4	25-OCT-2019 12:51	419J2504.D	1	RINSE	
5	25-OCT-2019 13:11	419J2505.D	1	SHJ0406-IBL1	
6	25-OCT-2019 13:31	419J2506.D	1	SHJ0406-IBL2	
7	25-OCT-2019 13:52	419J2507.D	1	SHJ0406-CAL1	
8	25-OCT-2019 14:12	419J2508.D	1	SHJ0406-CAL2	
9	25-OCT-2019 14:32	419J2509.D	1	SHJ0406-CAL3	
10	25-OCT-2019 14:53	419J2510.D	1	SHJ0406-CAL4	
11	25-OCT-2019 15:13	419J2511.D	1	SHJ0406-CAL5	
12	25-OCT-2019 15:32	419J2512.D	1	SHJ0406-CAL6	
13	25-OCT-2019 15:52	419J2513.D	1	SHJ0406-SCV1	
14	25-OCT-2019 16:12	419J2514.D	1	SHJ0406-CAL7	
15	25-OCT-2019 16:33	419J2515.D	1	SHJ0406-CAL8	
16	25-OCT-2019 16:53	419J2516.D	1	SHJ0406-CAL9	
17	25-OCT-2019 17:13	419J2517.D	1	SHJ0406-CALA	
18	25-OCT-2019 17:34	419J2518.D	1	SHJ0406-CALB	
19	25-OCT-2019 17:54	419J2519.D	1	SHJ0406-CALC	
20	25-OCT-2019 18:14	419J2520.D	1	SHJ0406-SCV2	
21	25-OCT-2019 18:35	419J2521.D	1	SHJ0406-CALD	
22	25-OCT-2019 18:55	419J2522.D	1	SHJ0406-CALE	
23	25-OCT-2019 19:15	419J2523.D	1	SHJ0406-CALF	
24	25-OCT-2019 19:34	419J2524.D	1	SHJ0406-CALG	
25	25-OCT-2019 19:54	419J2525.D	1	SHJ0406-CALH	
26	25-OCT-2019 20:15	419J2526.D	1	SHJ0406-CALI	
27	25-OCT-2019 20:35	419J2527.D	1	SHJ0406-SCV3	
28	25-OCT-2019 20:55	419J2528.D	1	SHJ0406-ICV1	
29	25-OCT-2019 21:16	419J2529.D	1	SHJ0406-ICV2	
30	25-OCT-2019 21:36	419J2530.D	1	BHJ0711-BLK1	
31	25-OCT-2019 21:56	419J2531.D	1	BHJ0711-BS1	
32	25-OCT-2019 22:16	419J2532.D	1	19J0373-01	
33	25-OCT-2019 22:35	419J2533.D	1	19J0373-02	
34	25-OCT-2019 22:55	419J2534.D	1	19J0373-03	
35	25-OCT-2019 23:16	419J2535.D	1	19J0373-04	
36	25-OCT-2019 23:36	419J2536.D	1	19J0373-05	
37	25-OCT-2019 23:57	419J2537.D	1	19J0373-06	
38	26-OCT-2019 00:17	419J2538.D	1	19J0373-07	
39	26-OCT-2019 00:37	419J2539.D	1	19J0373-08	
40	26-OCT-2019 00:58	419J2540.D	1	SHJ0406-CCV1	
41	26-OCT-2019 01:18	419J2541.D	1	SHJ0406-CCV2	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20191025.b

ARI Job No.: RINS Method: FID4TPH.m Instrument: fid4a.i Date: 25-OCT-2019

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1137	419J2501.D	RINSE		1	NO MANUAL INTEGRATION
1155	419J2502.D	RINSE		1	NO MANUAL INTEGRATION
1230	419J2503.D	RINSE		1	NO MANUAL INTEGRATION
1251	419J2504.D	RINSE		1	NO MANUAL INTEGRATION
1311	419J2505.D	SHJ0406-IBL1		1	NO MANUAL INTEGRATION
1331	419J2506.D	SHJ0406-IBL2		1	NO MANUAL INTEGRATION
1352	419J2507.D	SHJ0406-CAL1		1	NO MANUAL INTEGRATION
1412	419J2508.D	SHJ0406-CAL2		1	o-terph,
1432	419J2509.D	SHJ0406-CAL3		1	NO MANUAL INTEGRATION
1453	419J2510.D	SHJ0406-CAL4		1	o-terph,
1513	419J2511.D	SHJ0406-CAL5		1	o-terph,
1532	419J2512.D	SHJ0406-CAL6		1	o-terph,
1552	419J2513.D	SHJ0406-SCV1		1	NO MANUAL INTEGRATION
1612	419J2514.D	SHJ0406-CAL7		1	Triacon Surr,
1633	419J2515.D	SHJ0406-CAL8		1	Triacon Surr,
1653	419J2516.D	SHJ0406-CAL9		1	Triacon Surr,
1713	419J2517.D	SHJ0406-CALA		1	Triacon Surr,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20191025.b

Time	Filename	LabID	ClientID	DF	Manually Integrated Compounds
1734	419J2518.D	SHJ0406-CALB		1	Triacon Surr,
1754	419J2519.D	SHJ0406-CALC		1	Triacon Surr,
1814	419J2520.D	SHJ0406-SCV2		1	Triacon Surr,
1835	419J2521.D	SHJ0406-CALD		1	Triacon Surr,
1855	419J2522.D	SHJ0406-CALE		1	Triacon Surr,
1915	419J2523.D	SHJ0406-CALF		1	Triacon Surr,
1934	419J2524.D	SHJ0406-CALG		1	Triacon Surr,
1954	419J2525.D	SHJ0406-CALH		1	Triacon Surr,
2015	419J2526.D	SHJ0406-CALI		1	Triacon Surr,
2035	419J2527.D	SHJ0406-SCV3		1	Triacon Surr,
2055	419J2528.D	SHJ0406-ICV1		1	o-terph,
2116	419J2529.D	SHJ0406-ICV2		1	Triacon Surr,
2136	419J2530.D	BHJ0711-BLK1		1	NO MANUAL INTEGRATION
2156	419J2531.D	BHJ0711-BS1		1	o-terph,
2216	419J2532.D	19J0373-01		1	Triacon Surr,
2235	419J2533.D	19J0373-02		1	NO MANUAL INTEGRATION
2255	419J2534.D	19J0373-03		1	Triacon Surr,
2316	419J2535.D	19J0373-04		1	Triacon Surr,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20191025.b

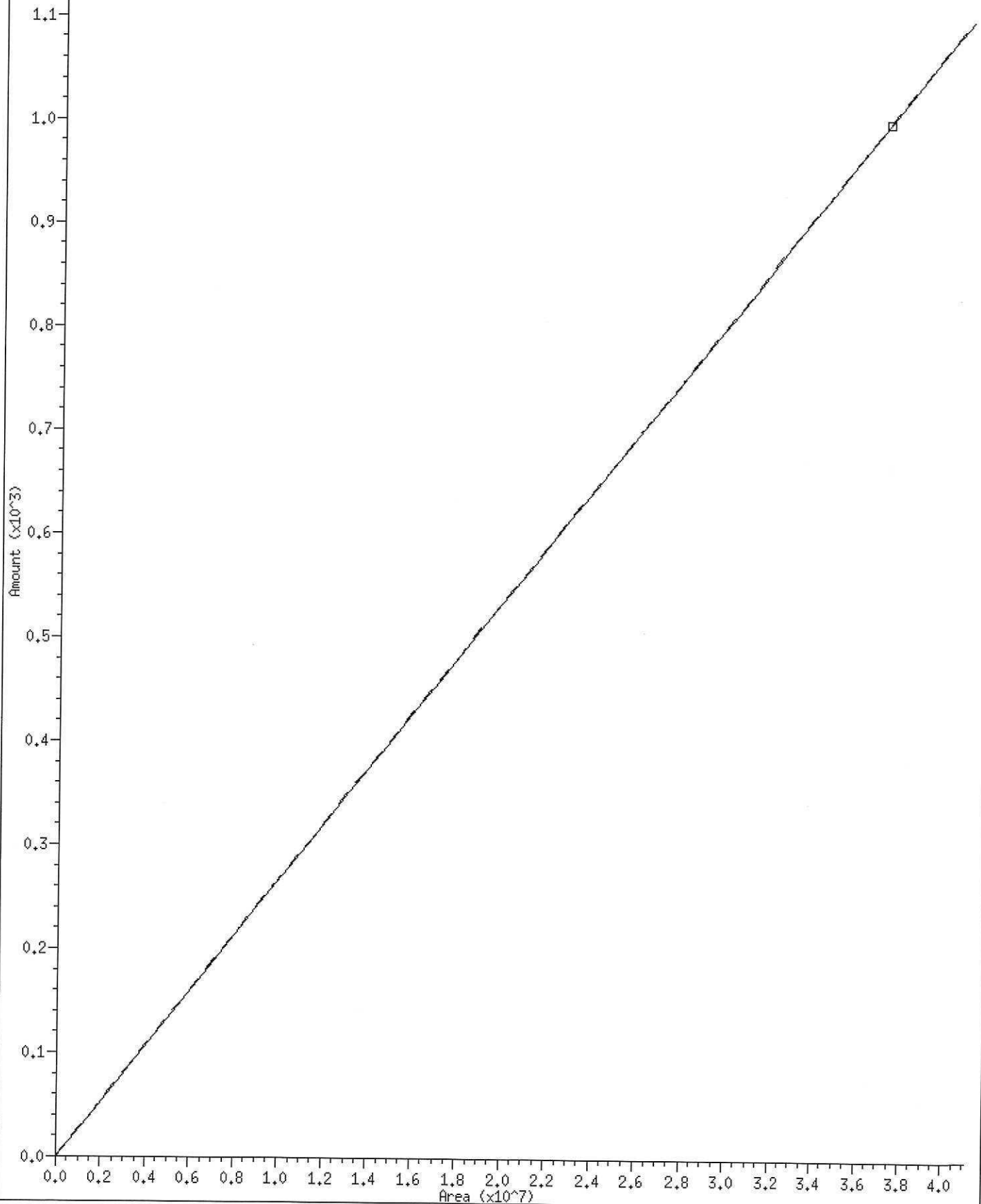
Time	Filename	LabID	ClientID	DF	Manually Integrated Compounds
2336	419J2536.D	19J0373-05	1	o-terph,	Triacon Surr,
2357	419J2537.D	19J0373-06	1	Triacon Surr,	
0017	419J2538.D	19J0373-07	1	Triacon Surr,	
0037	419J2539.D	19J0373-08	1	Triacon Surr,	
0058	419J2540.D	SHJ0406-CCV1	1	o-terph,	
0118	419J2541.D	SHJ0406-CCV2	1	Triacon Surr,	

Security Status Report

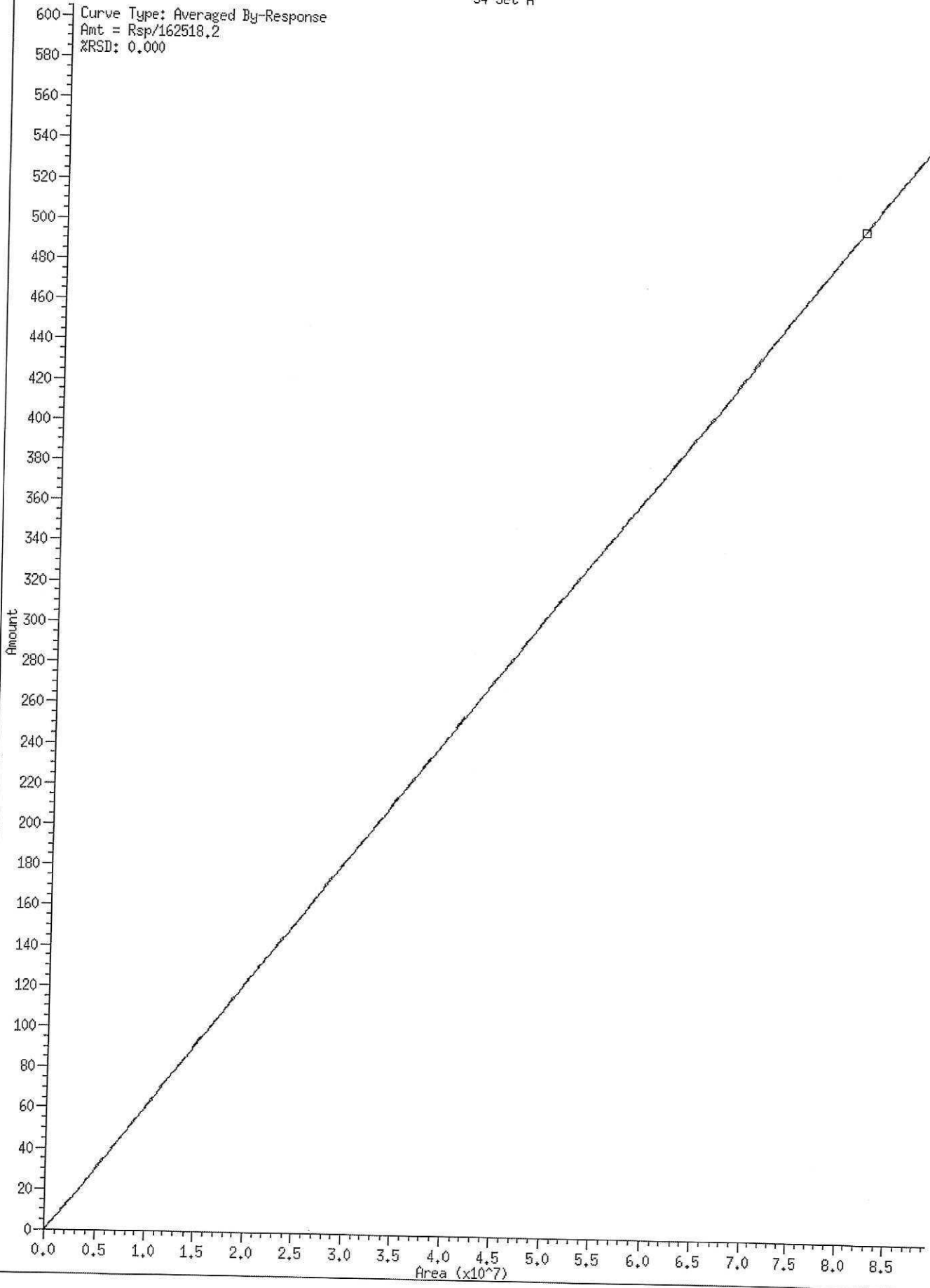
Date: 30-Oct-2019 07:25

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419J2509.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2510.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2511.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2512.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2513.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2514.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2515.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2516.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2517.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2518.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2519.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2520.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2521.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2522.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2523.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2524.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2525.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2526.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2527.D	Data Locked	j rains, 30-Oct-2019 07:20

Curve Type: Averaged By-Response  
Amt = Rsp/37368,56  
%RSD: 0,000



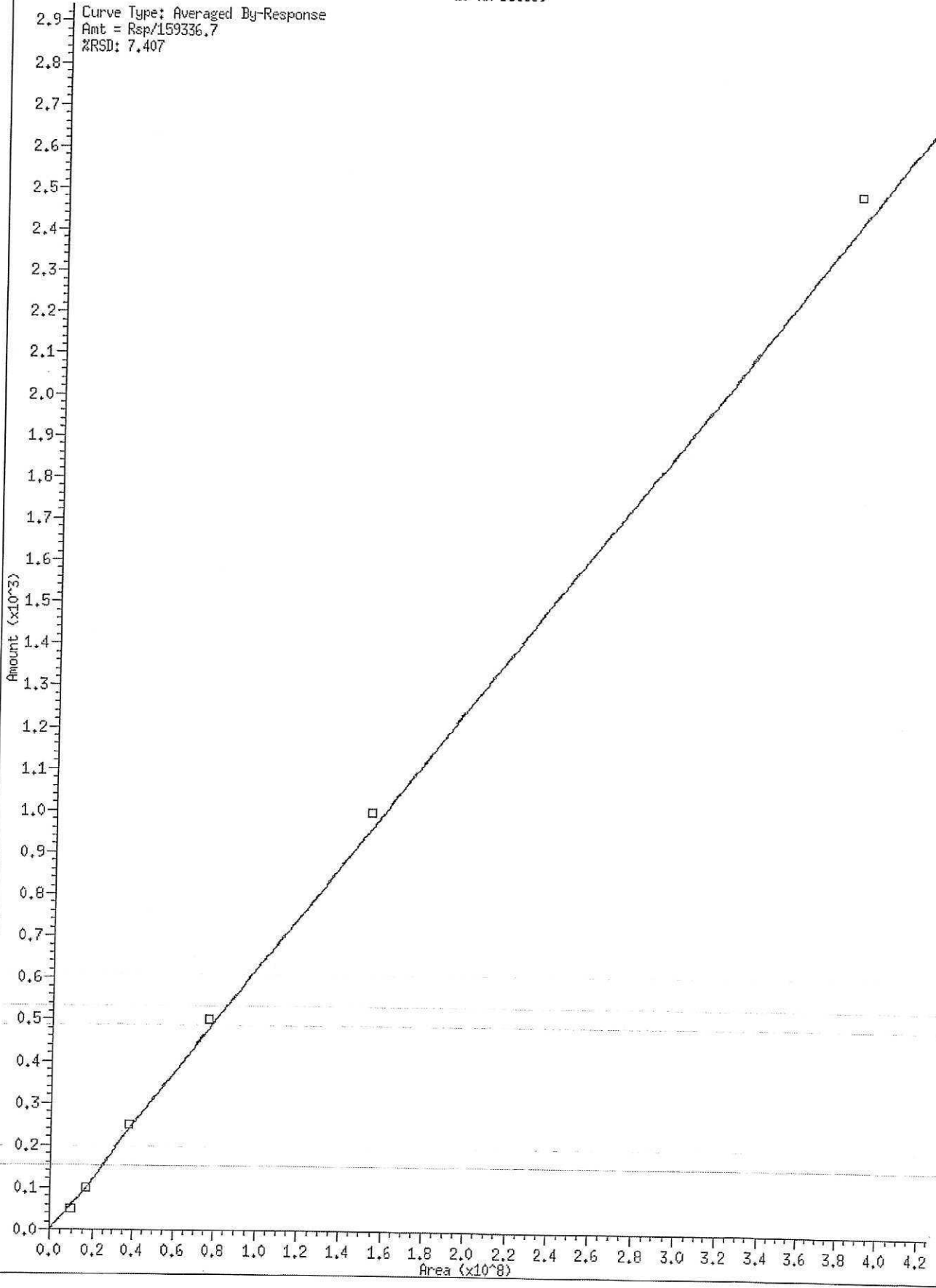
Curve Type: Averaged By-Response  
Amt = Resp/162518.2  
%RSD: 0.000





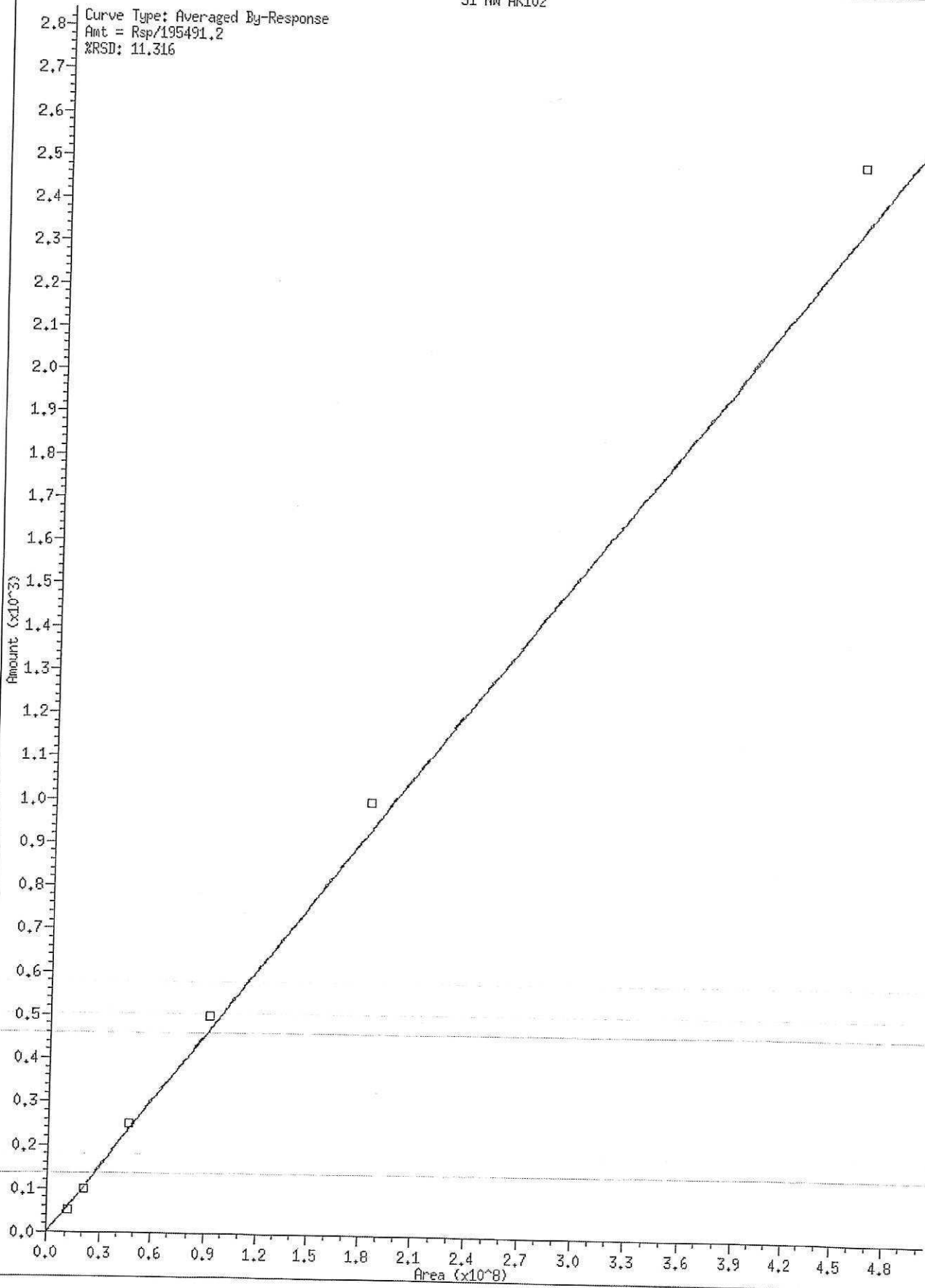
29 NM Diesel

Curve Type: Averaged By-Response  
Amt = Rsp/159336.7  
%RSD: 7.407



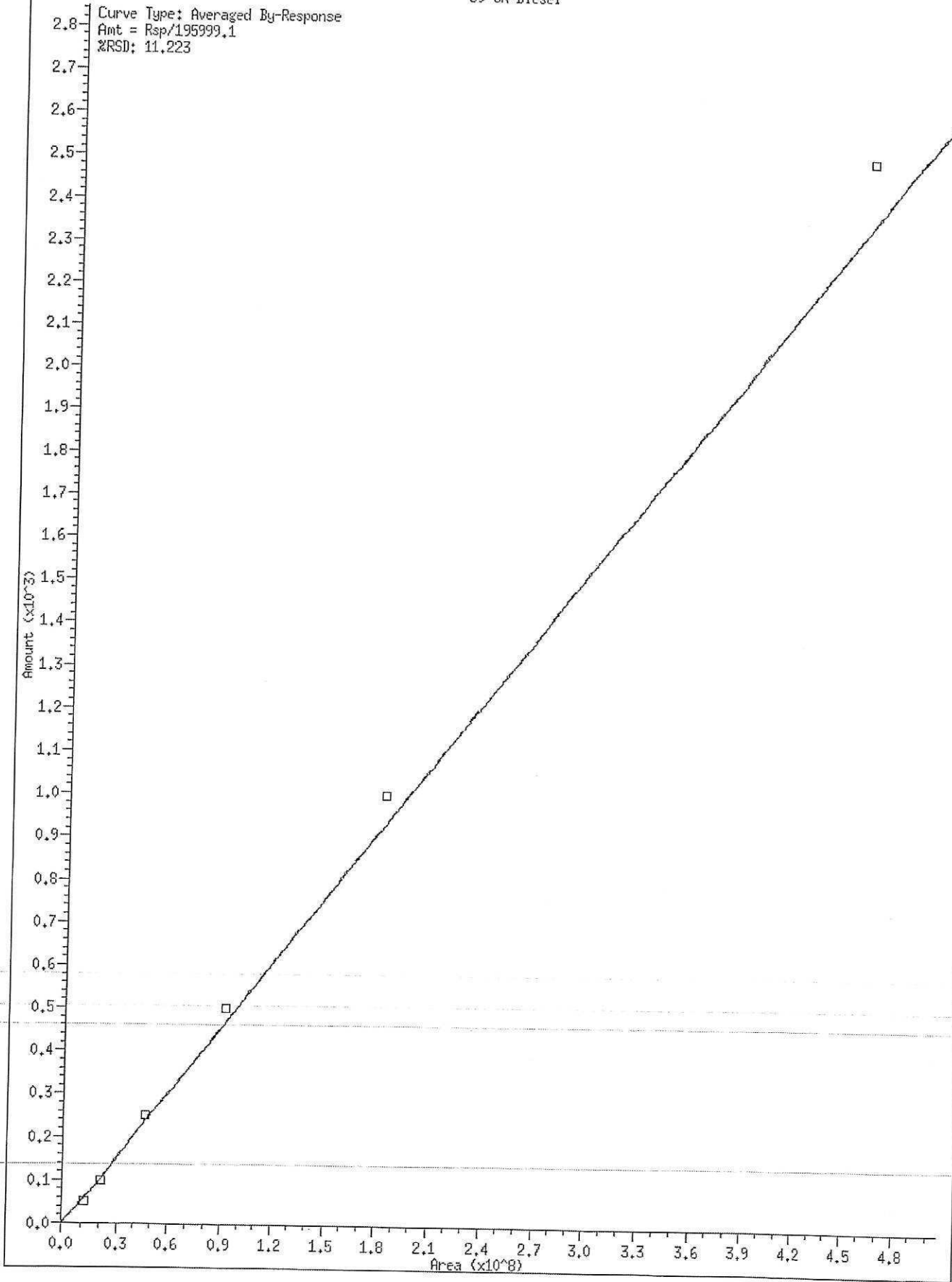
31 NW AK102

Curve Type: Averaged By-Response  
Amt = Rsp/195491.2  
%RSD: 11.316



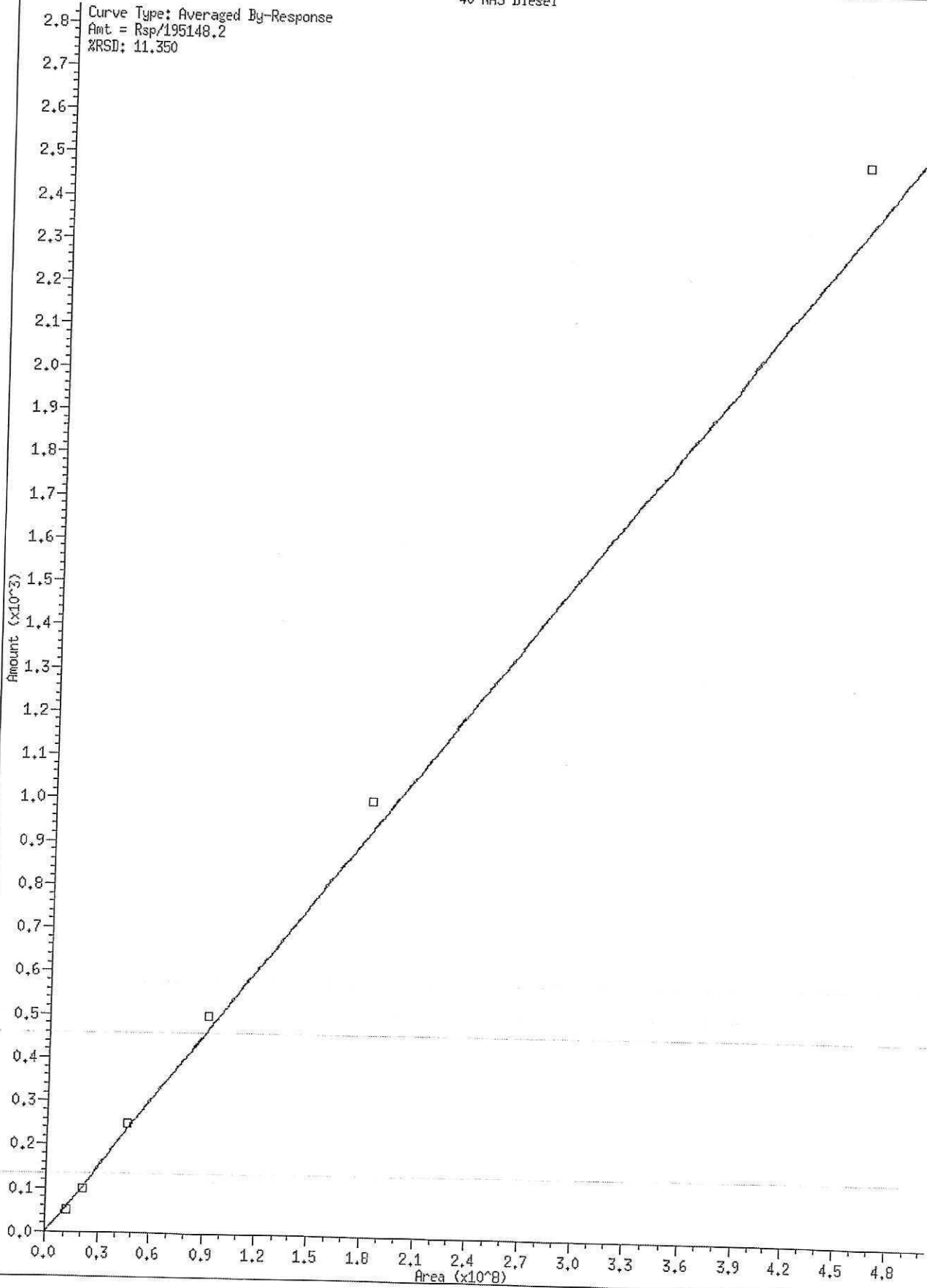
39 OR Diesel

Curve Type: Averaged By-Response  
Amt = Rsp/195999,1  
%RSD: 11,223



40 MAS Diesel

Curve Type: Averaged By-Response  
Amt = Rsp/195148.2  
%RSD: 11.350



30 NM Moil

Curve Type: Averaged By-Response

Amt = Rsp/132632.1

%RSD: 2.939

Amount (x10<sup>3</sup>)

0.0

0.2

0.4

0.6

0.8

1.0

1.2

1.4

1.6

1.8

2.0

2.2

2.4

2.6

2.8

3.0

3.2

3.4

3.6

3.8

4.0

4.2

4.4

4.6

4.8

5.0

5.2

5.4

5.6

5.8

Area (x10<sup>8</sup>)

0.0

0.4

0.8

1.2

1.6

2.0

2.4

2.8

3.2

3.6

4.0

4.4

4.8

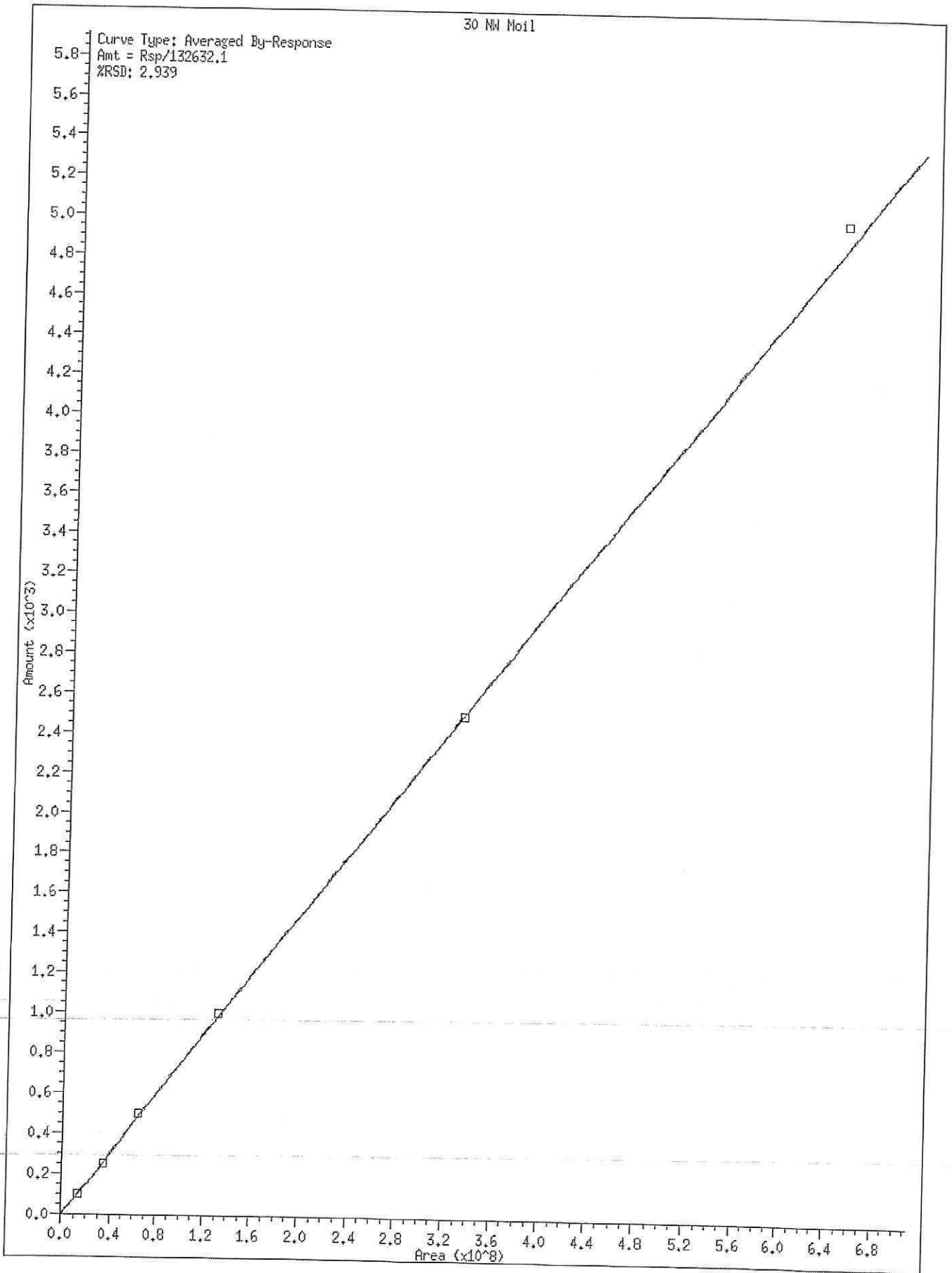
5.2

5.6

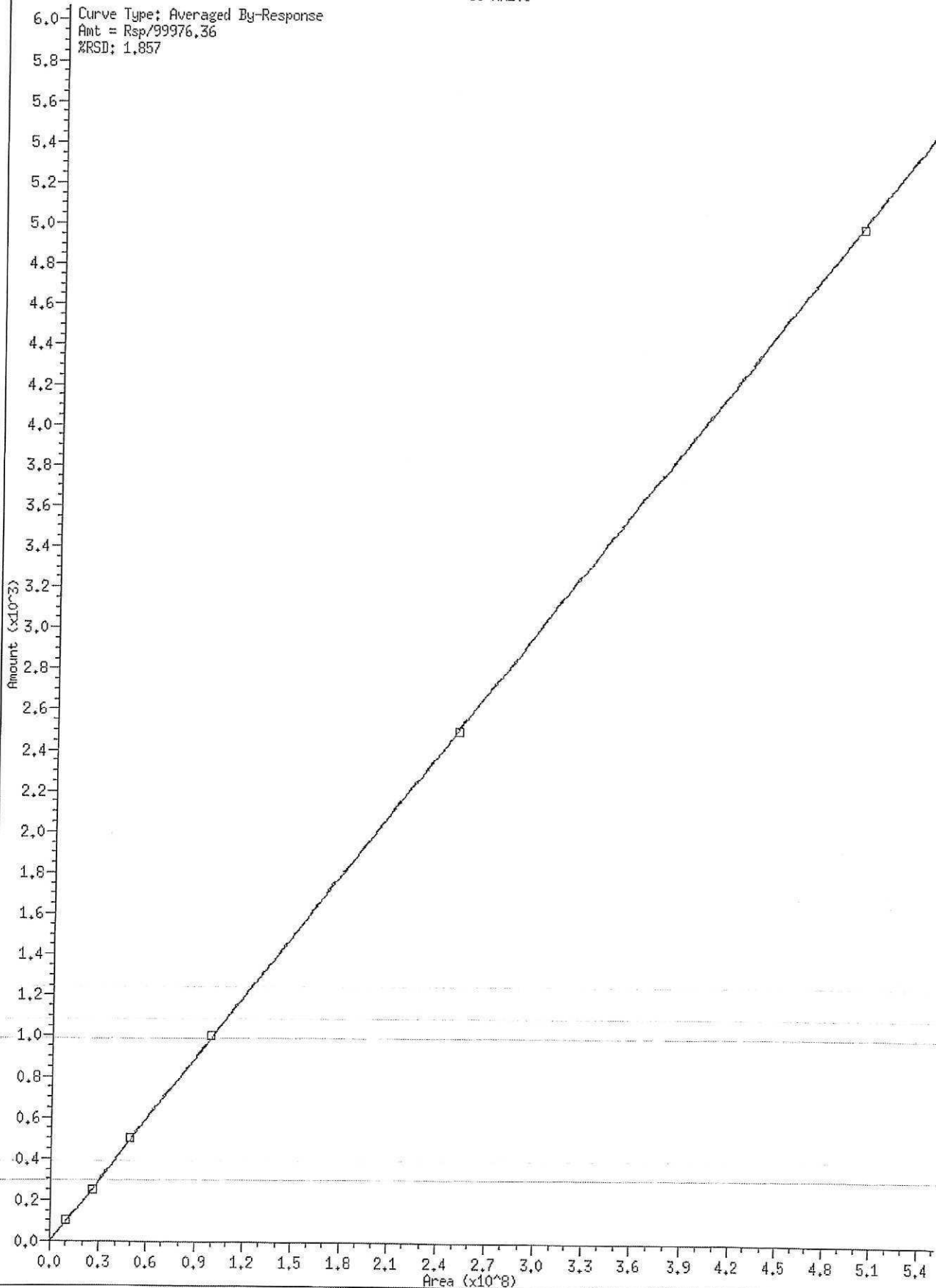
6.0

6.4

6.8

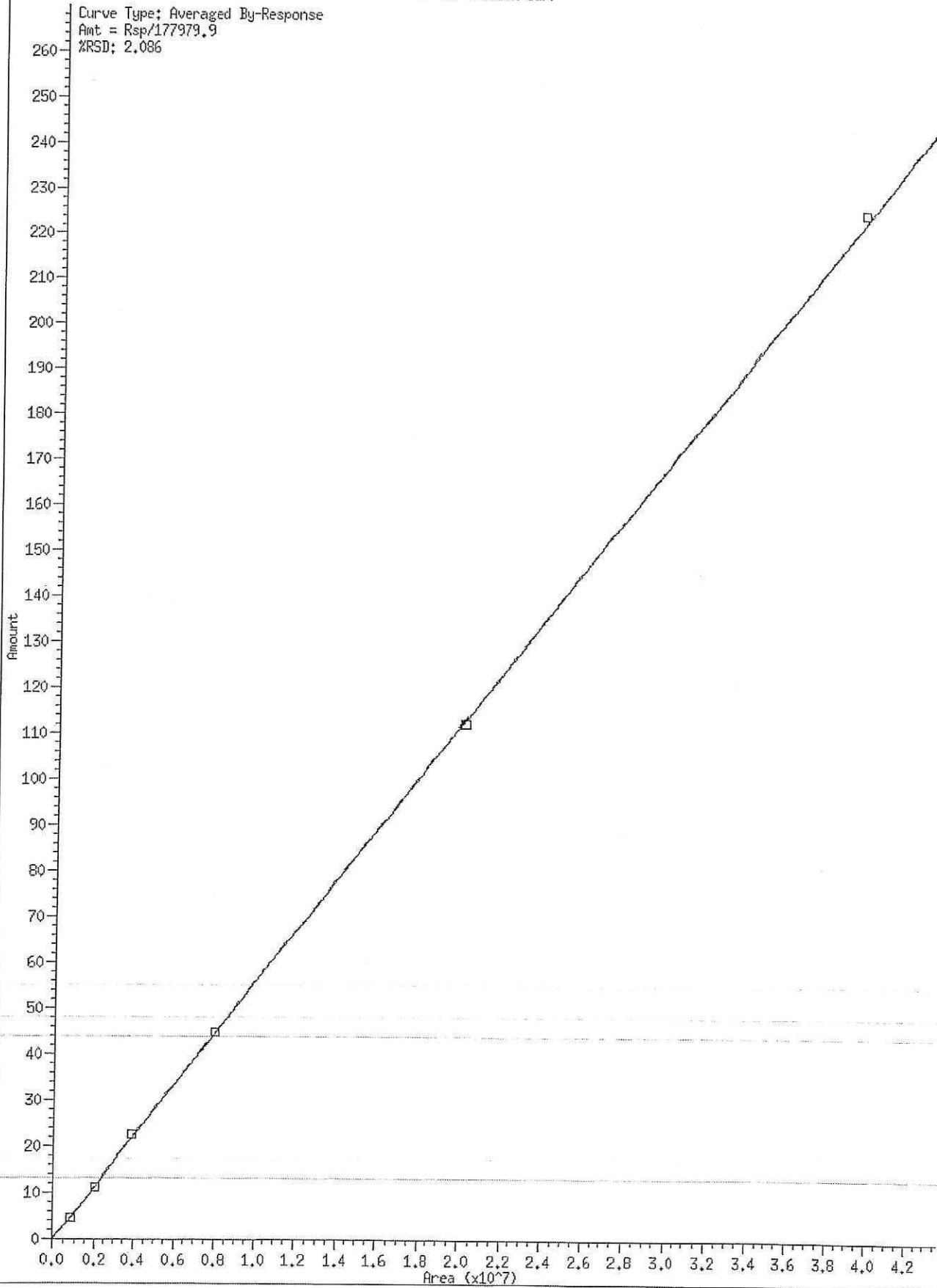


Curve Type: Averaged By-Response  
Amt = Rsp/99976,36  
%RSD: 1,857



\* 15 Triacon Surr

Curve Type: Averaged By-Response  
Amt = Rsp/177979.9  
%RSD: 2.086



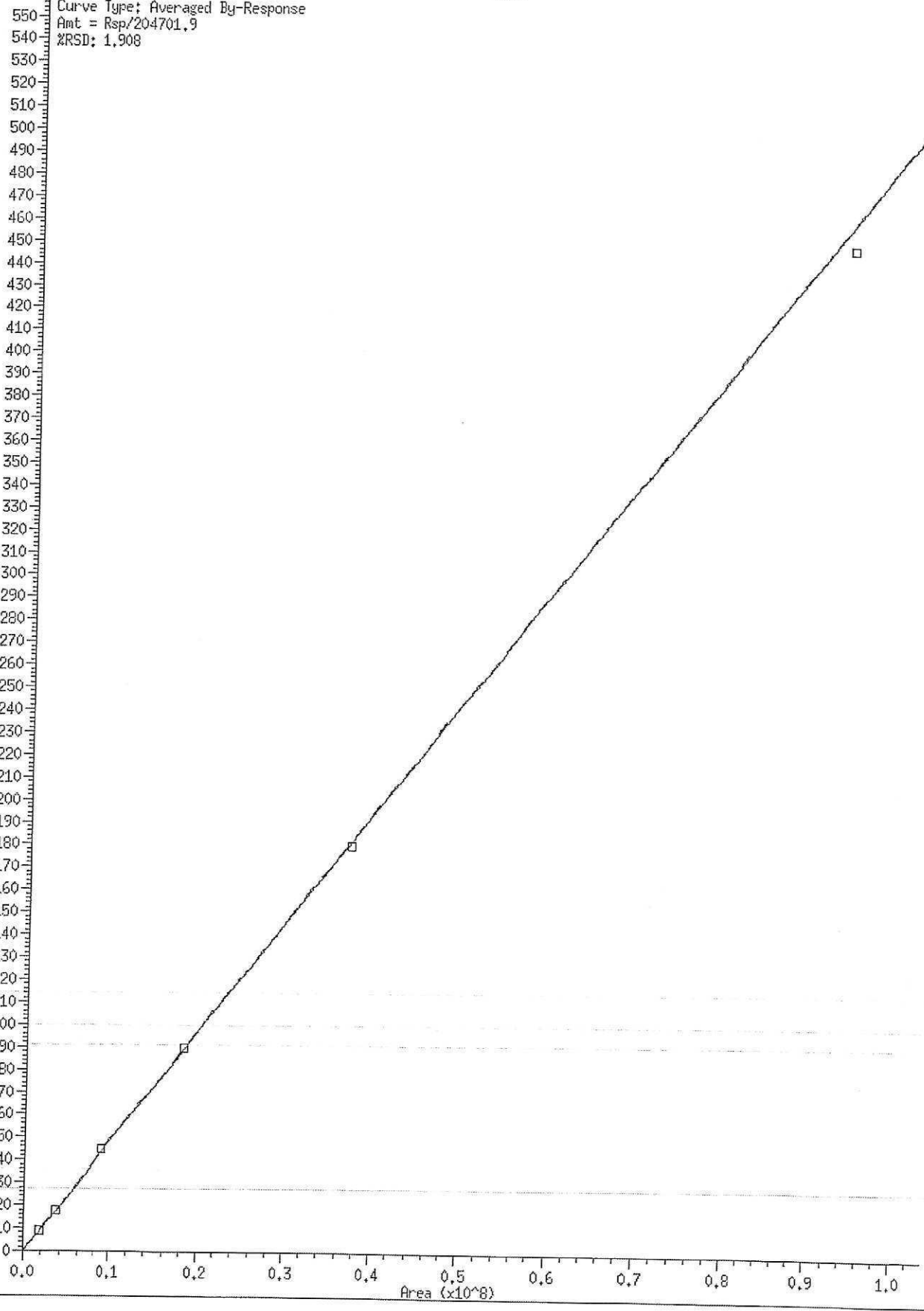
\* 8 o-terph

Curve Type: Averaged By-Response

Amt = Rsp/204701,9

%RSD: 1,908

Amount





ARI Labs, Inc.  
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem2\fid4a.i\20191025.b\FID4TPH.m  
Batch File: \\target\share\chem2\fid4a.i\20191025.b  
Inst ID: fid4a.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	419J2507	419J2508	419J2509	419J2510	419J2511	419J2512
INJ. DATE:	25-OCT-2019	25-OCT-2019	25-OCT-2019	25-OCT-2019	25-OCT-2019	25-OCT-2019
INJ. TIME:	13:52	14:12	14:32	14:53	15:13	15:32

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Toluene	2.086	2.091	2.092	2.084	2.085	2.093	2.089	1.989-2.189	2.089	0.004
38 NewCpnd_31	++++	++++	++++	++++	++++	++++	1.000	0.950-1.050	++++	++++
35 Mineral Oil	++++	++++	++++	++++	++++	++++	1.015	0.965-1.065	++++	++++
41 Mineral Spirits	++++	++++	++++	++++	++++	++++	1.000	0.950-1.050	++++	++++
2 C8	2.263	2.252	2.253	2.254	2.254	2.254	2.262	2.162-2.362	2.255	0.004
3 C10	3.369	3.367	3.368	3.368	3.368	3.371	3.373	3.323-3.423	3.368	0.001
4 C12	4.344	4.344	4.344	4.344	4.346	4.351	4.347	4.297-4.397	4.345	0.003
5 C14	5.126	5.126	5.126	5.127	5.129	5.137	5.130	5.080-5.180	5.128	0.004
6 C16	5.803	5.802	5.803	5.805	5.809	5.818	5.807	5.757-5.857	5.807	0.006
7 C18	6.428	6.429	6.431	6.434	6.439	6.452	6.435	6.385-6.485	6.435	0.009
8 o-terph	6.636	6.640	6.646	6.655	6.669	6.696	6.656	6.606-6.706	6.657	0.023
9 C20	7.037	7.036	7.036	7.037	7.040	7.047	7.043	6.993-7.093	7.039	0.004
10 C22	7.633	7.631	7.631	7.631	7.633	7.637	7.639	7.589-7.689	7.633	0.002
11 C24	8.210	8.209	8.208	8.207	8.207	8.207	8.215	8.165-8.265	8.208	0.001
12 C25	8.494	8.489	8.488	8.485	8.486	8.485	8.493	8.443-8.543	8.488	0.003
13 C26	8.766	8.762	8.761	8.759	8.758	8.756	8.765	8.715-8.815	8.760	0.004
14 C28	9.292	9.288	9.287	9.281	9.279	9.279	9.285	9.235-9.335	9.284	0.005

Reviewer 1 \_\_\_\_\_ Date: \_\_\_\_\_  
Reviewer 2 \_\_\_\_\_ Date: \_\_\_\_\_

ARI Labs, Inc.  
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem2\fid4a.i\20191025.b\FID4TPH.m  
Batch File: \\target\share\chem2\fid4a.i\20191025.b  
Inst ID: fid4a.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
15 Triacon Surr	9.808	9.805	9.803	9.798	9.806	9.800	9.802	9.752-9.852	9.803	0.004
16 C32	10.240	10.242	10.248	10.245	10.243	10.242	10.242	10.192-10.292	10.243	0.003
17 C34	10.682	10.678	10.683	10.684	10.687	10.677	10.681	10.631-10.731	10.682	0.004
18 Filter Peak	12.647	12.646	12.650	12.646	12.649	12.650	12.650	12.550-12.750	12.648	0.002
19 C36	11.130	11.127	11.127	11.131	11.127	11.129	11.129	11.079-11.179	11.128	0.002
20 C38	11.651	11.646	11.648	11.653	11.653	11.651	11.650	11.600-11.700	11.650	0.003
21 C40	12.289	12.291	12.292	12.287	12.283	12.288	12.289	12.239-12.339	12.288	0.003
29 NW Diesel	++++	++++	++++	++++	++++	++++	0.899	0.849-0.949	++++	++++
37 ACreosote	++++	++++	++++	++++	++++	++++	1.000	0.950-1.050	++++	++++
34 Jet A	++++	++++	++++	++++	++++	++++	1.024	0.974-1.074	++++	++++
30 NW Moil	++++	++++	++++	++++	++++	++++	0.885	0.835-0.935	++++	++++
31 NW AK102	++++	++++	++++	++++	++++	++++	0.803	0.753-0.853	++++	++++
32 Bunker C	++++	++++	++++	++++	++++	++++	0.812	0.762-0.862	++++	++++
33 AK103	++++	++++	++++	++++	++++	++++	1.344	1.294-1.394	++++	++++
36 ABunker C	++++	++++	++++	++++	++++	++++	0.985	0.935-1.035	++++	++++
39 OR Diesel	++++	++++	++++	++++	++++	++++	1.000	0.950-1.050	++++	++++
40 NAS Diesel	++++	++++	++++	++++	++++	++++	1.000	0.950-1.050	++++	++++

ARI Labs, Inc.  
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem2\fid4a.i\20191025.b\FID4TPH.m  
Batch File: \\target\share\chem2\fid4a.i\20191025.b  
Inst ID: fid4a.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	419J2514	419J2515	419J2516	419J2517	419J2518	419J2519
INJ. DATE:	25-OCT-2019	25-OCT-2019	25-OCT-2019	25-OCT-2019	25-OCT-2019	25-OCT-2019
INJ. TIME:	16:12	16:33	16:53	17:13	17:34	17:54

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 Toluene	2.092	2.092	2.092	2.093	2.092	2.092	2.089	1.989-2.189	2.092	0.000
38 NewCpnd_31	++++	++++	++++	++++	++++	++++	1.000	0.950-1.050	++++	++++
35 Mineral Oil	++++	++++	++++	++++	++++	++++	1.015	0.965-1.065	++++	++++
41 Mineral Spirits	++++	++++	++++	++++	++++	++++	1.000	0.950-1.050	++++	++++
2 C8	2.263	2.262	2.263	2.263	2.250	2.251	2.262	2.162-2.362	2.259	0.007
3 C10	3.376	3.377	3.376	3.376	3.371	3.369	3.373	3.323-3.423	3.374	0.003
4 C12	4.368	4.332	4.334	4.333	4.343	4.344	4.347	4.297-4.397	4.342	0.014
5 C14	5.134	5.134	5.125	5.127	5.126	5.126	5.130	5.080-5.180	5.129	0.004
6 C16	5.805	5.808	5.805	5.803	5.802	5.802	5.807	5.757-5.857	5.804	0.002
7 C18	6.435	6.432	6.439	6.428	6.427	6.427	6.435	6.385-6.485	6.431	0.005
8 o-terph	6.651	6.657	6.659	6.633	6.655	6.656	6.656	6.606-6.706	6.652	0.009
9 C20	7.038	7.038	7.036	7.048	7.051	7.035	7.043	6.993-7.093	7.041	0.006
10 C22	7.642	7.644	7.632	7.632	7.632	7.633	7.639	7.589-7.689	7.636	0.005
11 C24	8.214	8.212	8.215	8.217	8.215	8.219	8.215	8.165-8.265	8.215	0.002
12 C25	8.500	8.497	8.500	8.495	8.491	8.490	8.493	8.443-8.543	8.495	0.004
13 C26	8.760	8.767	8.760	8.769	8.765	8.770	8.765	8.715-8.815	8.765	0.005
14 C28	9.288	9.294	9.277	9.280	9.285	9.281	9.285	9.235-9.335	9.284	0.006

Reviewer 1 \_\_\_\_\_ Date: \_\_\_\_\_  
Reviewer 2 \_\_\_\_\_ Date: \_\_\_\_\_

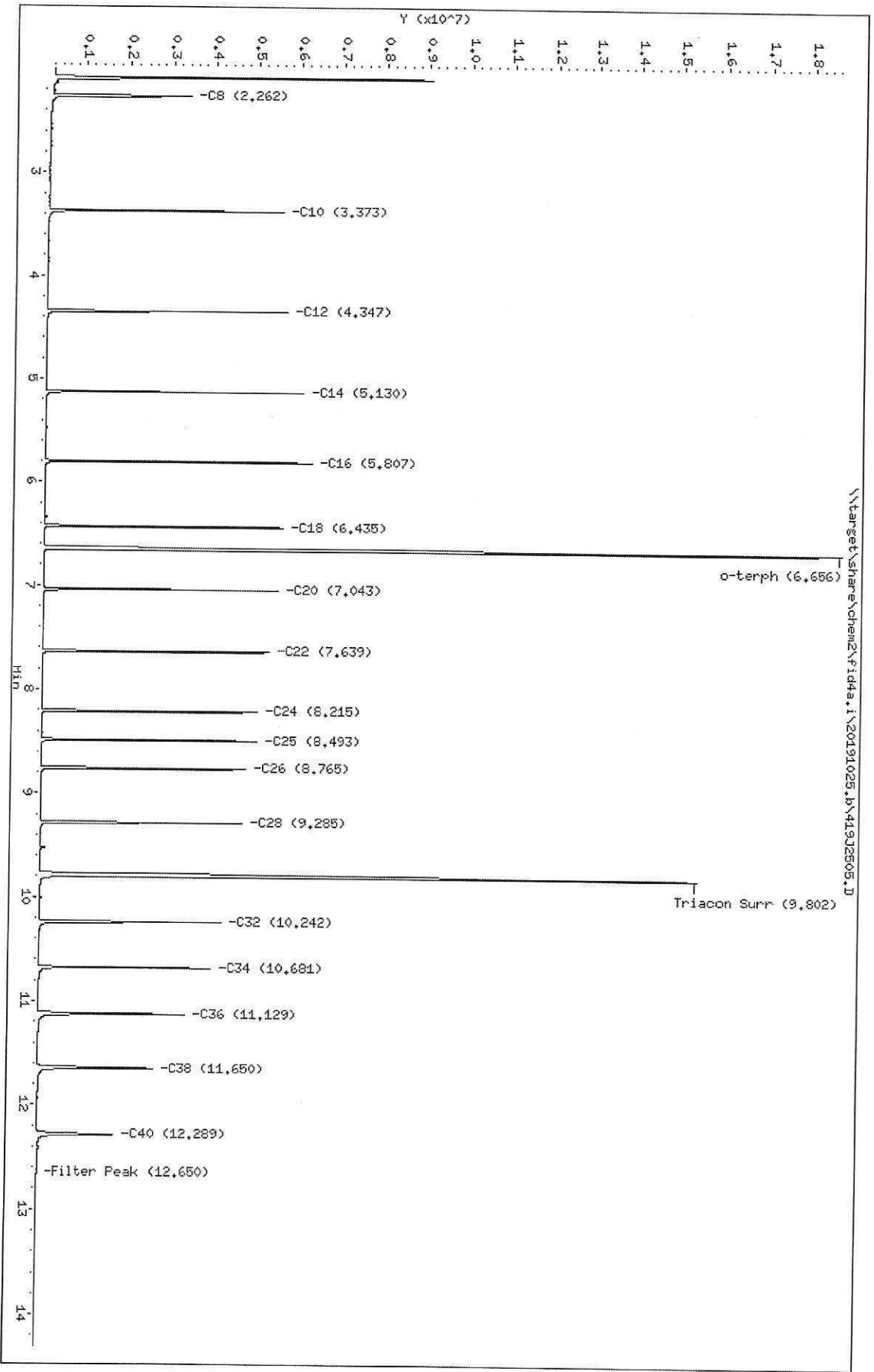
ARI Labs, Inc.  
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem2\fid4a.i\20191025.b\FID4TPH.m  
Batch File: \\target\share\chem2\fid4a.i\20191025.b  
Inst ID: fid4a.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
15 Triacon Surr	9.771	9.775	9.781	9.790	9.809	9.836	9.802	9.752-9.852	9.794	0.025
16 C32	10.243	10.233	10.235	10.238	10.249	10.237	10.242	10.192-10.292	10.239	0.006
17 C34	10.679	10.680	10.682	10.681	10.679	10.683	10.681	10.631-10.731	10.681	0.002
18 Filter Peak	12.652	12.648	12.655	12.648	12.650	12.666	12.650	12.550-12.750	12.653	0.007
19 C36	11.126	11.134	11.129	11.132	11.125	11.132	11.129	11.079-11.179	11.129	0.004
20 C38	11.652	11.650	11.655	11.651	11.649	11.647	11.650	11.600-11.700	11.651	0.002
21 C40	12.297	12.292	12.291	12.291	12.289	12.283	12.289	12.239-12.339	12.291	0.005
29 NW Diesel	++++	++++	++++	++++	++++	++++	0.899	0.849-0.949	++++	++++
37 ACroosote	++++	++++	++++	++++	++++	++++	1.000	0.950-1.050	++++	++++
34 Jet A	++++	++++	++++	++++	++++	++++	1.024	0.974-1.074	++++	++++
30 NW Moil	++++	++++	++++	++++	++++	++++	0.885	0.835-0.935	++++	++++
31 NW AK102	++++	++++	++++	++++	++++	++++	0.803	0.753-0.853	++++	++++
32 Bunker C	++++	++++	++++	++++	++++	++++	0.812	0.762-0.862	++++	++++
33 AK103	++++	++++	++++	++++	++++	++++	1.344	1.294-1.394	++++	++++
36 ABunker C	++++	++++	++++	++++	++++	++++	0.985	0.935-1.035	++++	++++
39 OR Diesel	++++	++++	++++	++++	++++	++++	1.000	0.950-1.050	++++	++++
40 NAS Diesel	++++	++++	++++	++++	++++	++++	1.000	0.950-1.050	++++	++++

Data File: \\target\share\chem2\fid4a.i\20191025.b\419J2505.D  
Date : 25-OCT-2019 13:11  
Client ID:  
Sample Info: SHJ0406-1BL1  
Column Phase: RTX-1

Instrument: fid4a.i  
Operator: CTG/SH/VTS/JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2505.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-IBL1  
Client ID:  
Injection: 25-OCT-2019 13:11  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	2.262	0.000	3356579	3932199	WATPHD	(C12-C24)	22628592	142.0
C10	3.373	0.000	5539104	3757340	WATPHM	(C24-C38)	26475519	199.6
C12	4.347	0.000	5663708	3683615	AK102	(C10-C25)	30812271	157.6
C14	5.130	0.000	6079967	3652238	AK103	(C25-C36)	22405219	224.1
C16	5.807	0.000	6277766	3707382	OR.DIES	(C10-C28)	41957167	214.1
C18	6.435	0.000	5635635	3612752				
C20	7.043	0.000	5539938	3702605				
C22	7.639	0.000	5339005	3727404				
C24	8.215	0.000	5097157	3674684				
C25	8.493	0.000	5111690	3698652				
C26	8.765	0.000	4851792	3662117				
C28	9.285	0.000	4782484	3718632				
C32	10.242	0.000	4326930	3643795				
C34	10.681	0.000	4092240	3584940				
Filter Peak	12.650	0.000	16931	63954	CREOSOT	(C12-C22)	18936204	4854.3
C36	11.129	0.000	3493562	3625484				
C38	11.650	0.000	2741525	3745220				
C40	12.289	0.000	1889635	2977724				
o-terph	6.656	0.000	18648694	20337624				
Triacon Surr	9.802	0.000	15433087	21196653	NAS DIES	(C10-C24)	30787335	157.8

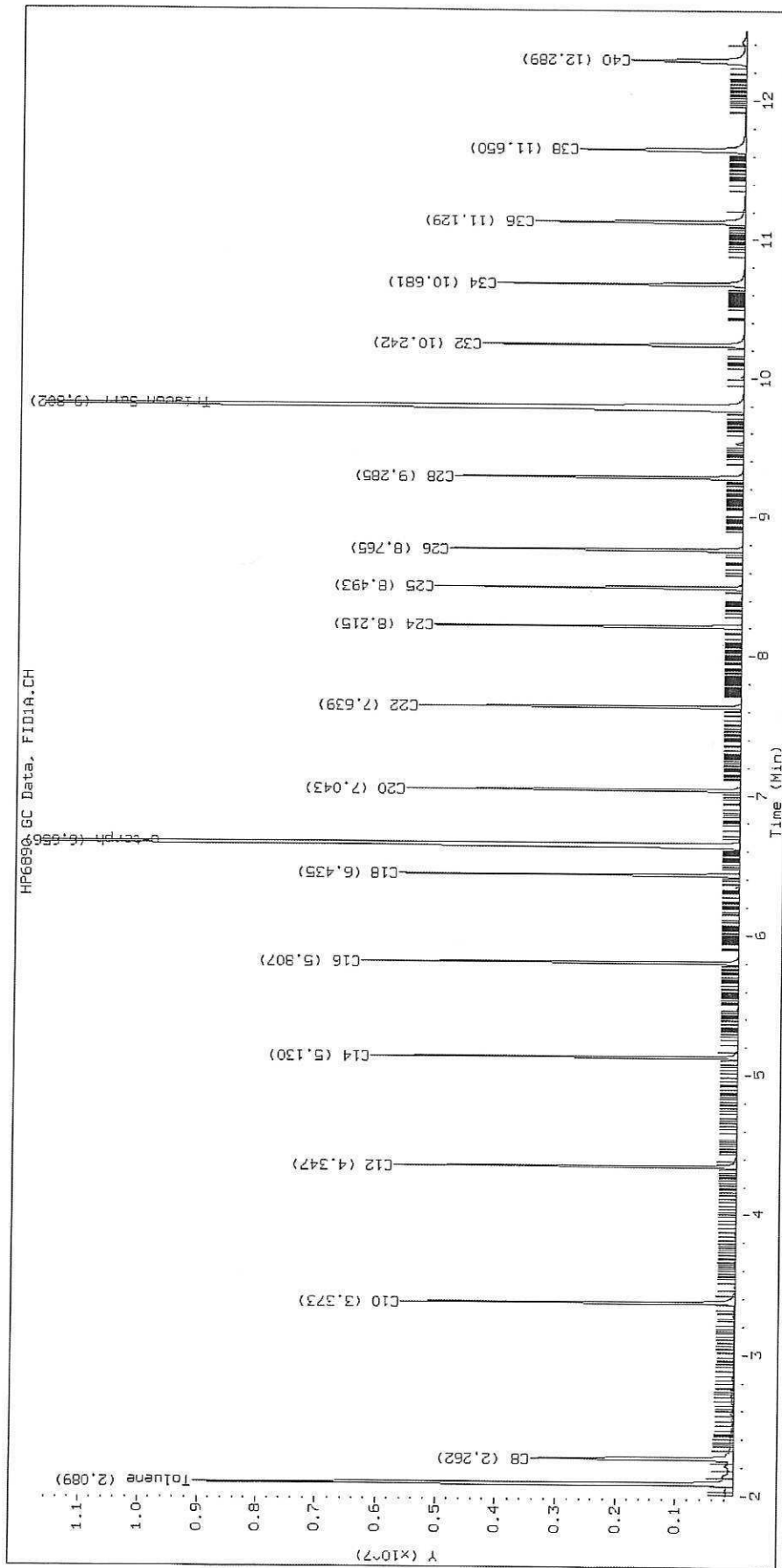
Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

Surrogate	Area	Amount
o-Terphenyl	20337624	99.4
Triacantane	21196653	119.1

M Indicates the peak was manually integrated

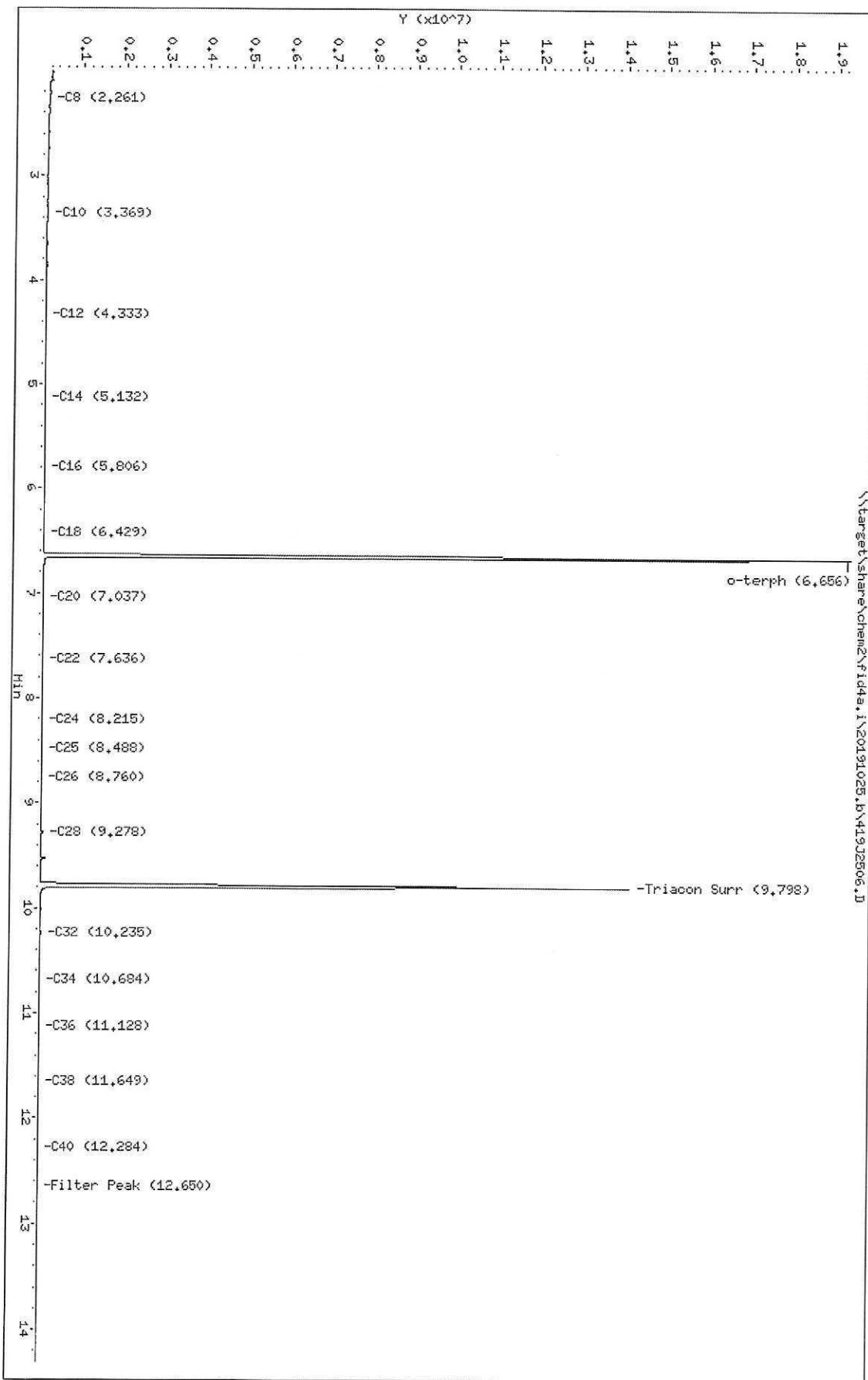
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419JZ505.D SHJ0406-IBL1



Data File: \\target\share\chem2\fid4a.i\20191025.B\419J2506.D  
Date : 25-OCT-2019 13:31  
Client ID:  
Sample Info: SHJ0406-IBL2  
Column Phase: RTX-1

Instrument: fid4a.i  
Operator: CTO/SH/VTS/JGR  
Column diameter: 0.25





Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2506.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-IBL2  
Client ID:  
Injection: 25-OCT-2019 13:31  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	2.261	-0.001	72509	76139	WATPHD	(C12-C24)	658319	4.1
C10	3.369	-0.004	30567	51207	WATPHM	(C24-C38)	758430	5.7
C12	4.333	-0.014	10639	19318	AK102	(C10-C25)	1520072	7.8
C14	5.132	0.003	5359	3169	AK103	(C25-C36)	566941	5.7
C16	5.806	-0.002	4115	5242	OR.DIES	(C10-C28)	1655230	8.4
C18	6.429	-0.006	2667	2060				
C20	7.037	-0.006	2150	2136				
C22	7.636	-0.002	7003	7700				
C24	8.215	0.000	1821	532				
C25	8.488	-0.005	1855	1750				
C26	8.760	-0.005	1926	1661				
C28	9.278	-0.007	68571	64137				
C32	10.235	-0.007	43108	83259				
C34	10.684	0.003	2246	1101				
Filter Peak	12.650	-0.001	8815	2632	CREOSOT	(C12-C22)	608888	156.1
C36	11.128	-0.001	4708	2306				
C38	11.649	-0.001	6915	2738				
C40	12.284	-0.005	8323	7406				
o-terph	6.656	-0.001	19264239	20580998				
Triacon Surr	9.798	-0.004	14079902	17993211	NAS DIES	(C10-C24)	1505820	7.7

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

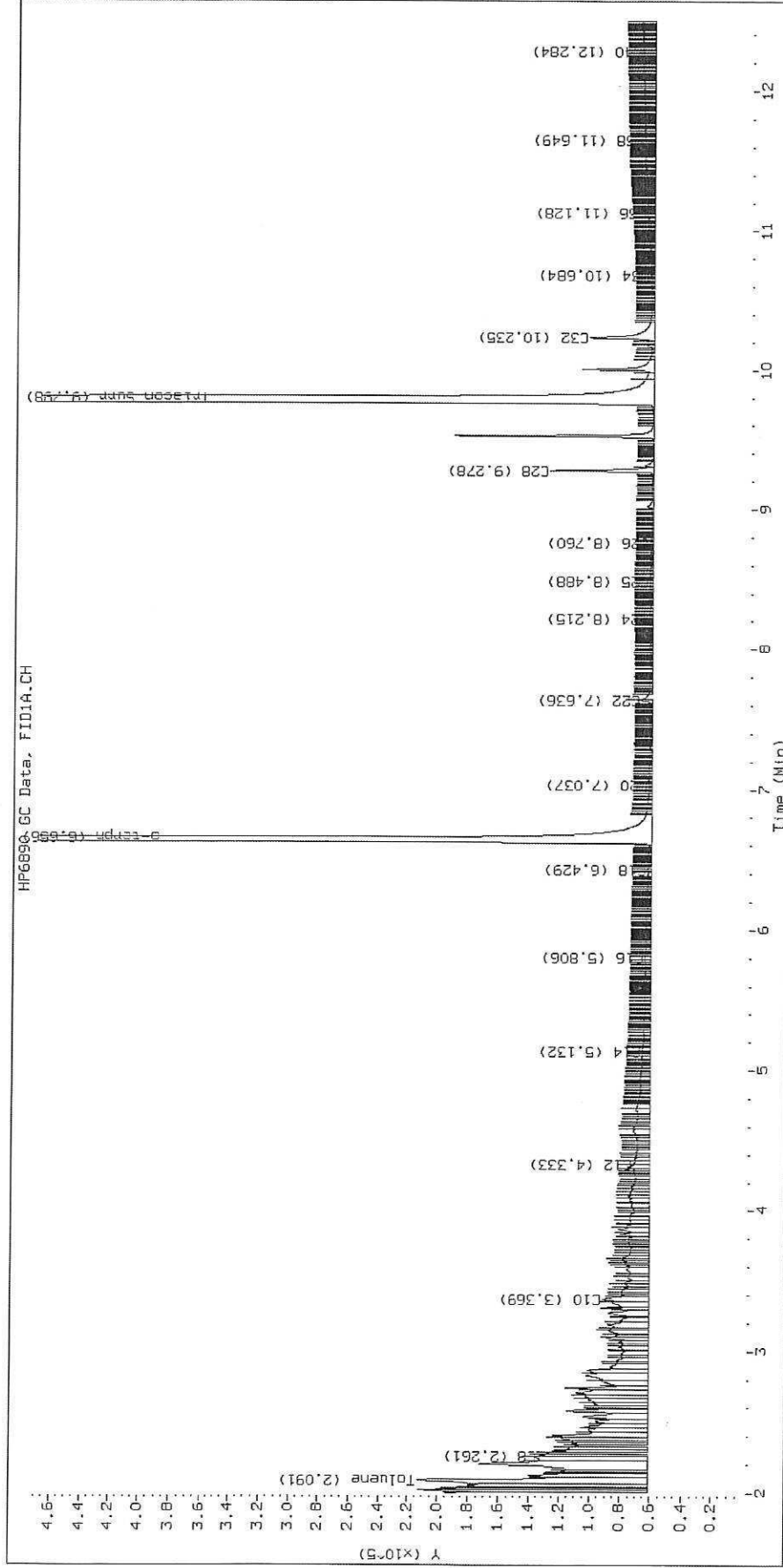
Surrogate	Area	Amount
o-Terphenyl	20580998	100.5
Triacotane	17993211	101.1

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

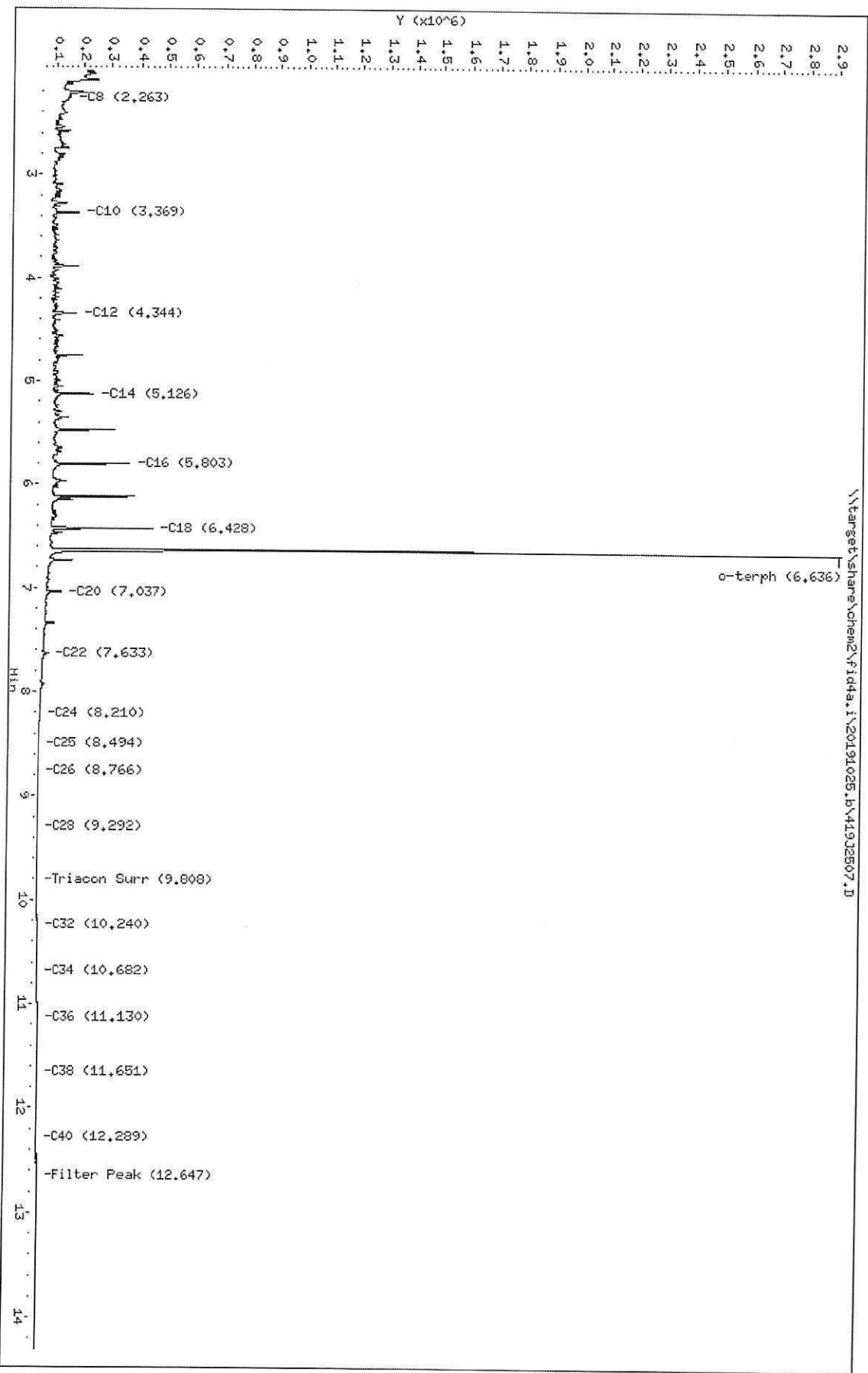
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SHJ0406-IBL2



Data File: \\Narset\share\chem2\fid4a.i\20191025.b\419J2507.D  
Date: 25-OCT-2019 13:52  
Client ID:  
Sample Info: SHJ0406-CAL1  
Column phase: RTX-1

Instrument: fid4a.i  
Operator: CTU/SH/VTS/JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2507.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CAL1  
Client ID:  
Injection: 25-OCT-2019 13:52  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS								
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.263	0.001	94181	68499	WATPHD	(C12-C24)	9105717	57.1
C10	3.369	-0.004	130777	159818	WATPHM	(C24-C38)	651398	4.9
C12	4.344	-0.003	124752	202412	AK102	(C10-C25)	11867629	60.7
C14	5.126	-0.003	188715	181186	AK103	(C25-C36)	363608	3.6
C16	5.803	-0.004	314329	331178	OR.DIES	(C10-C28)	11884580	60.6
C18	6.428	-0.007	400639	334718				
C20	7.037	-0.006	83282	126537				
C22	7.633	-0.006	34959	59242				
C24	8.210	-0.005	6227	12090				
C25	8.494	0.001	1850	2300				
C26	8.766	0.001	428	167				
C28	9.292	0.007	424	156				
C32	10.240	-0.002	2740	1341				
C34	10.682	0.001	5209	2827				
Filter Peak	12.647	-0.003	12268	7963	CREOSOT	(C12-C22)	8913896	2285.1
C36	11.130	0.001	8291	3309				
C38	11.651	0.001	10488	3653				
C40	12.289	0.000	11687	5838				
o-terph	6.636	-0.021	2823547	1865140				
Triacon Surr	9.808	0.006	1874	1287	NAS DIES	(C10-C24)	11851657	60.7

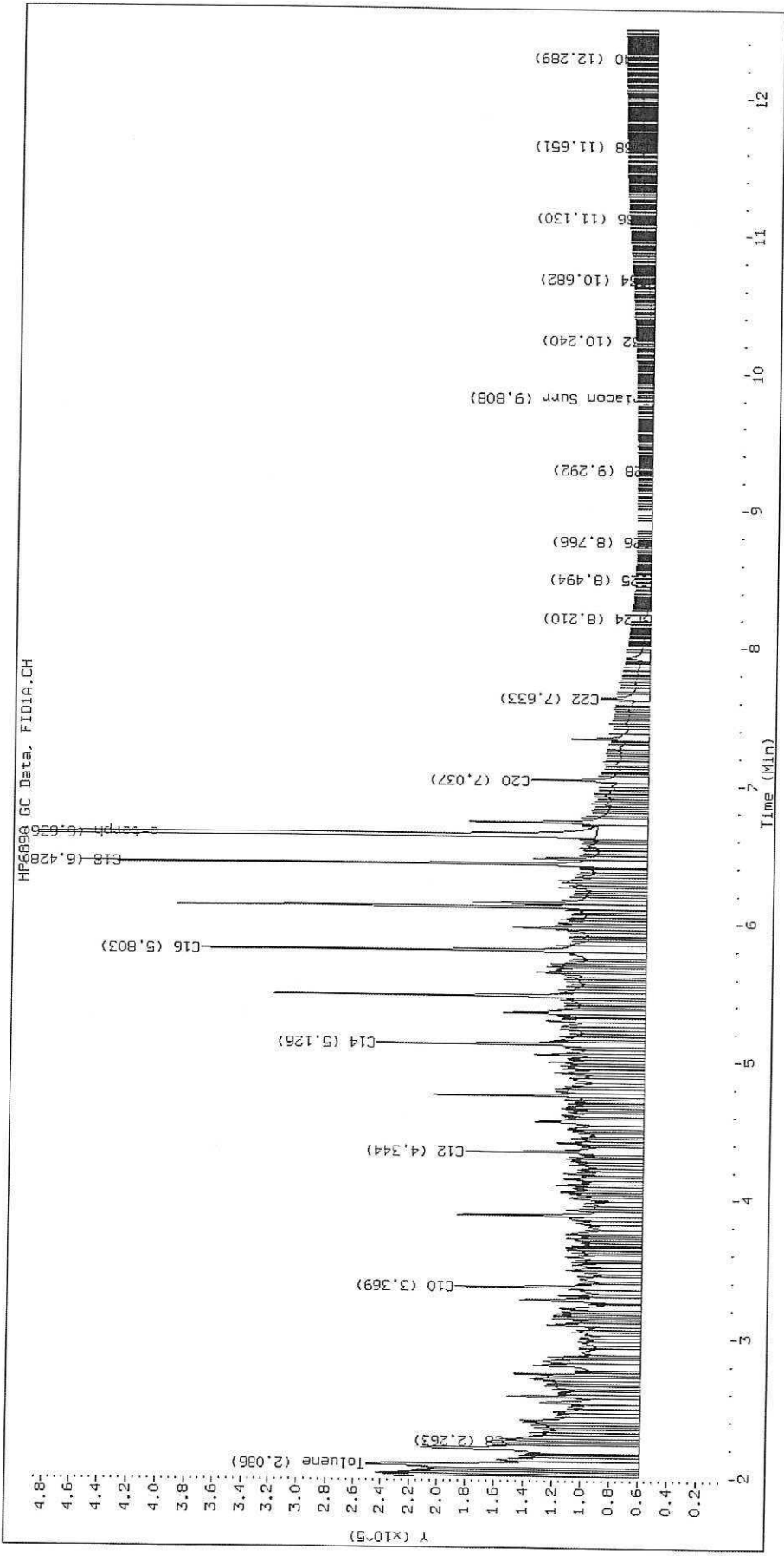
Range Times: NW Diesel (4.347 - 8.215) AK102 (3.37 - 8.49) Jet A (3.37 - 6.43)  
NW M.Oil (8.21 - 11.65) AK103 (8.49 - 11.13) OR Diesel (3.37 - 9.29)

Surrogate	Area	Amount
o-Terphenyl	1865140	9.1
Triacotane	1287	0.0

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2507.D SHJ0406-CALI



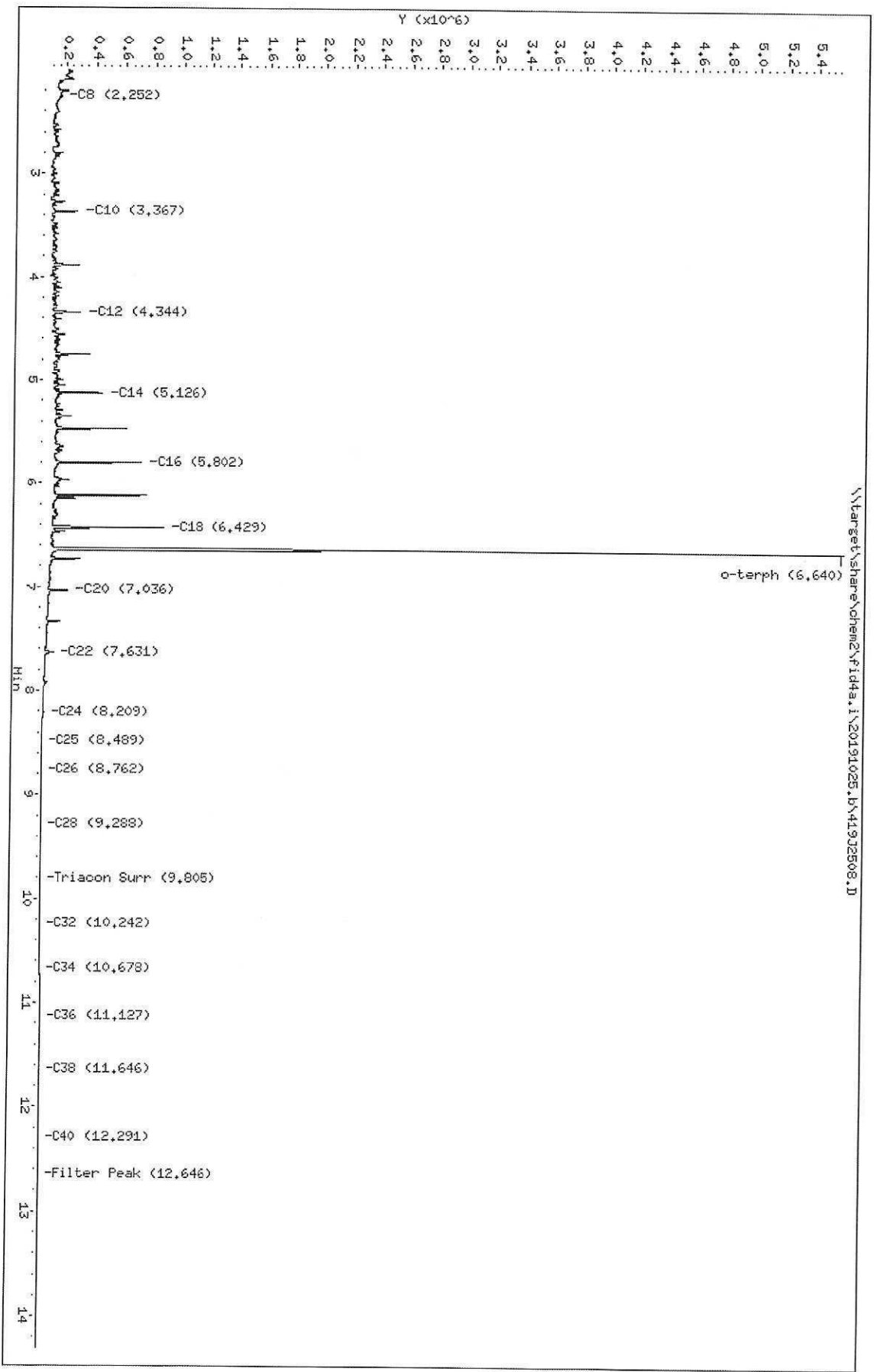
Data File: \\target\share\chem2\fid4a.i\20191025.B\419J2508.D  
Date : 25-OCT-2019 14:12

Client ID:  
Sample Info: SHJ0406-CAL2

Column phase: RTX-1

Instrument: fid4a.i

Operator: CTO/SH/VTS/JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2508.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CAL2  
Client ID:  
Injection: 25-OCT-2019 14:12  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	2.252	-0.010	100789	199426	WATPHD	(C12-C24)	16216844	101.8
C10	3.367	-0.006	219354	239129	WATPHM	(C24-C38)	605463	4.6
C12	4.344	-0.003	250355	355289	AK102	(C10-C25)	20356499	104.1
C14	5.126	-0.004	400436	340538	AK103	(C25-C36)	329685	3.3
C16	5.802	-0.005	670430	513156	OR.DIES	(C10-C28)	20386032	104.0
C18	6.429	-0.006	830433	585845				
C20	7.036	-0.007	189557	206229				
C22	7.631	-0.007	81567	107164				
C24	8.209	-0.006	13975	32117				
C25	8.489	-0.004	4286	7117				
C26	8.762	-0.002	1237	1115				
C28	9.288	0.003	364	105				
C32	10.242	0.000	2184	855				
C34	10.678	-0.003	4506	5051				
Filter Peak	12.646	-0.005	11019	4947	CREOSOT	(C12-C22)	15825625	4056.9
C36	11.127	-0.002	7155	1771				
C38	11.646	-0.004	9240	6899				
C40	12.291	0.002	10430	5163				
o-terph	6.640	-0.017	5468385	3642280				
Triacon Surr	9.805	0.003	1078	368	NAS DIES	(C10-C24)	20331247	104.2

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

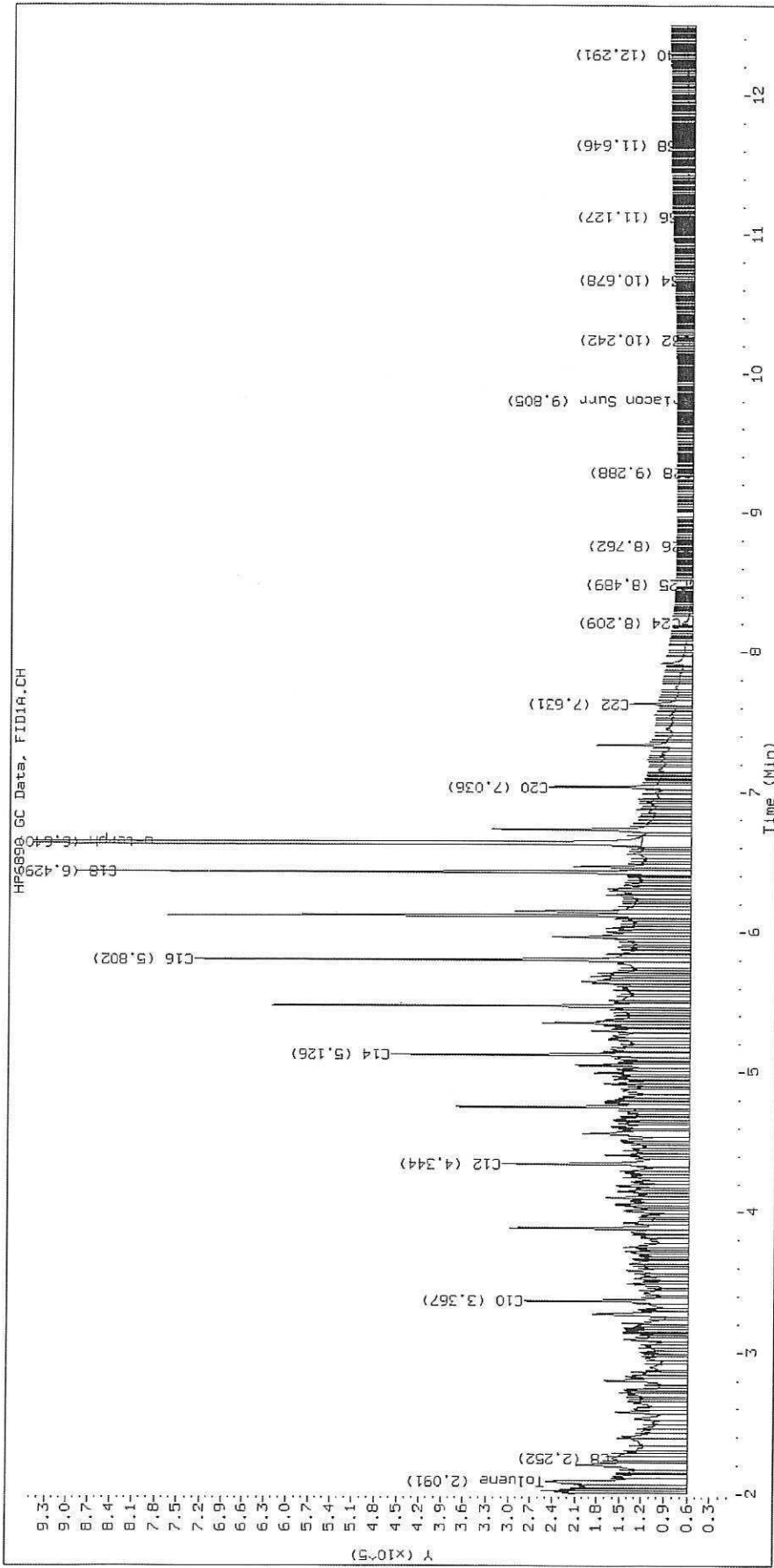
Surrogate	Area	Amount
o-Terphenyl	3642280	17.8 M
Triacotane	368	0.0

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

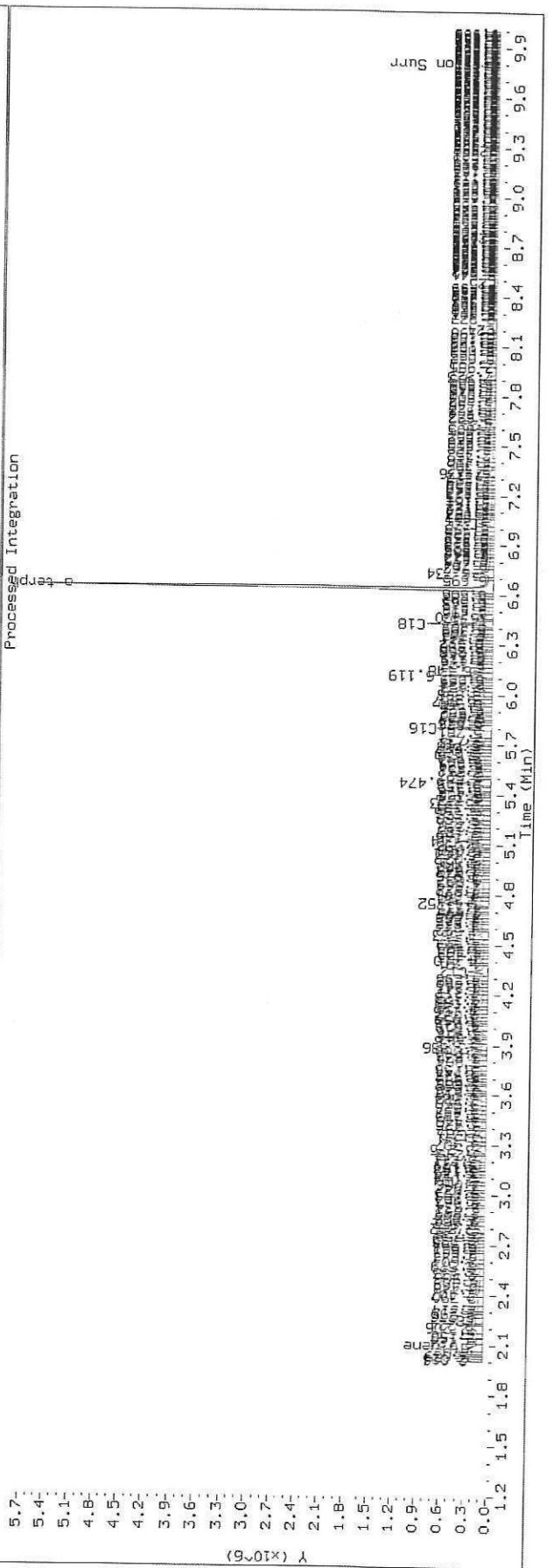
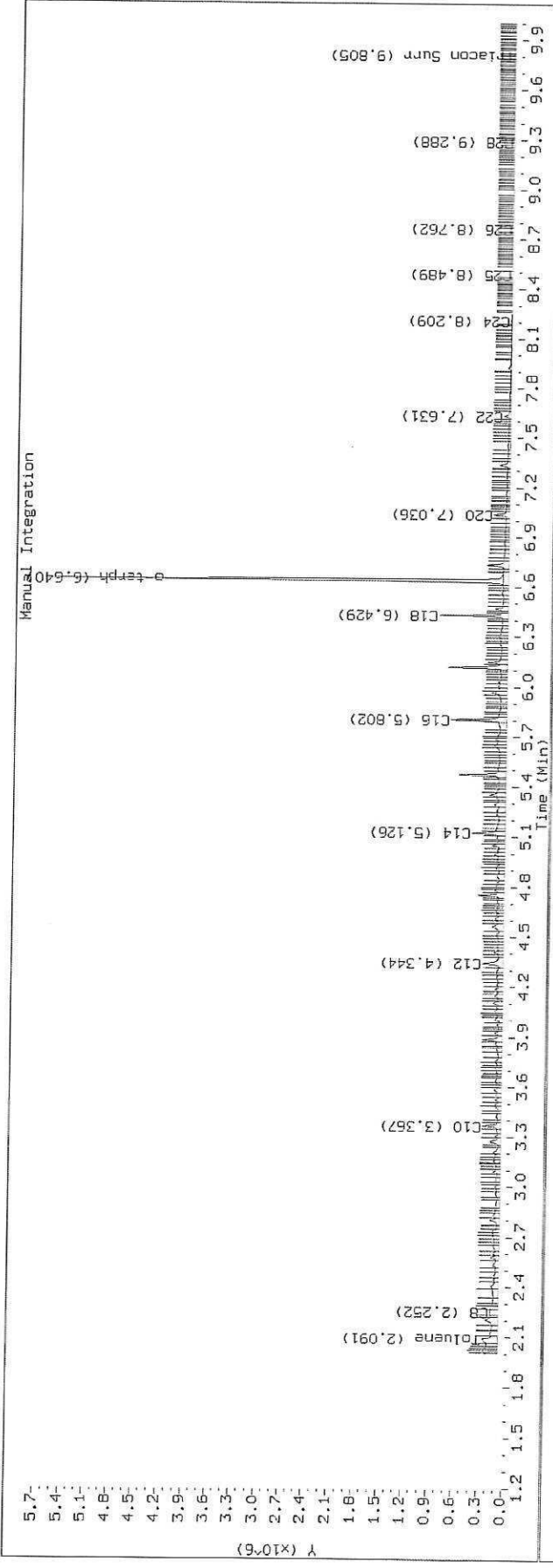
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SHJ0406-CAL2



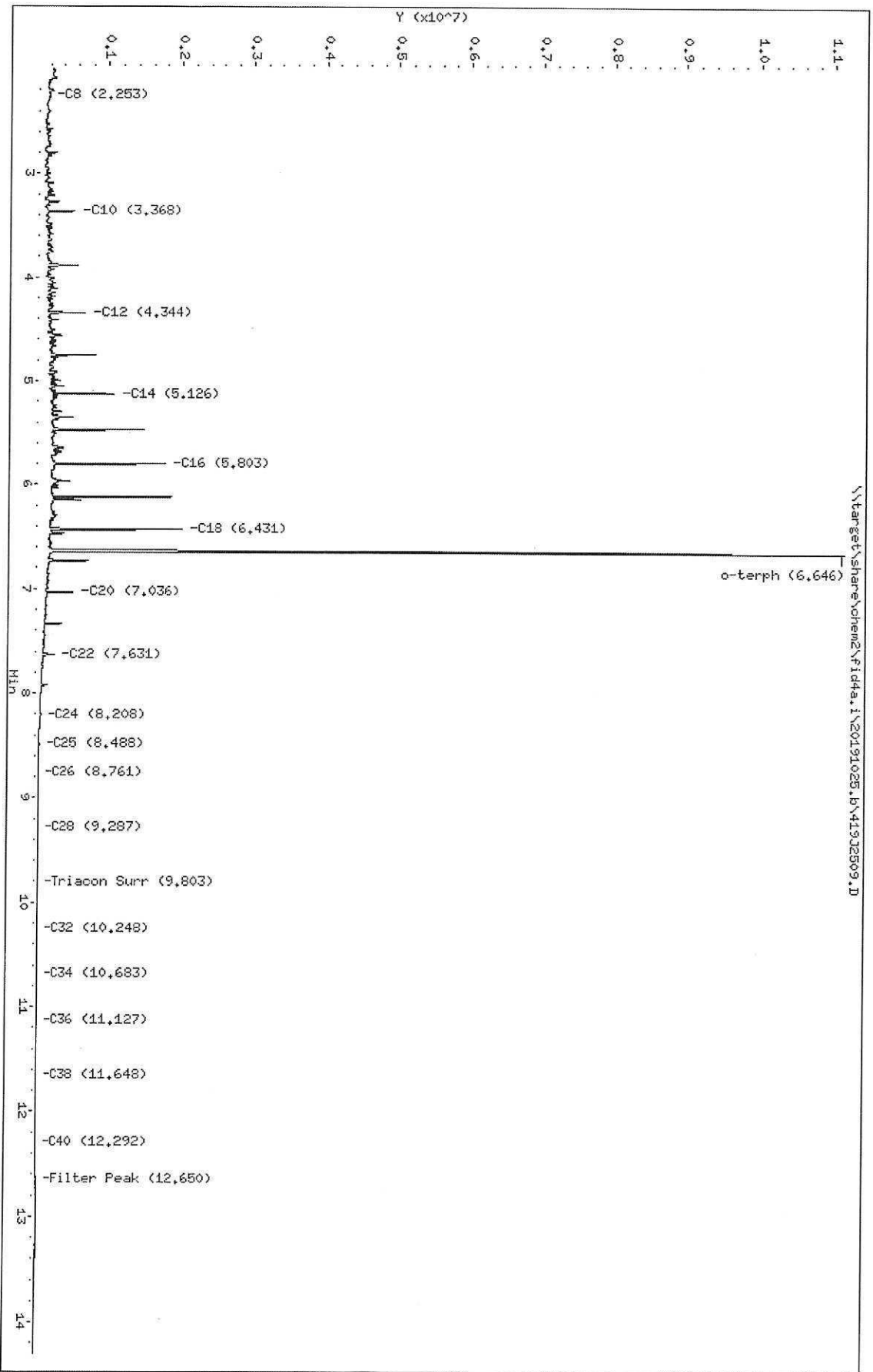


TPH Manual Integrations Report  
 Datafile: FID4A, 20191025.b/419J2508.D Injection: 25-OCT-2019 14:12  
 Lab ID: SHJ0406-CAL2



Data File: \\target\share\chem2\Fid4a.1\20191025.B\41912509.D  
Date: 25-OCT-2019 14:32  
Client ID:  
Sample Info: SHJ0406-CAL3  
Column phase: RTX-1

Instrument: FID4a.1  
Operator: CTO/SH/VTS/JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2509.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CAL3  
Client ID:  
Injection: 25-OCT-2019 14:32  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS								
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	2.253	-0.009	118722	240565	WATPHD	(C12-C24)	37913827	237.9
C10	3.368	-0.005	483544	476749	WATPHM	(C24-C38)	575858	4.3
C12	4.344	-0.003	627626	779062	AK102	(C10-C25)	46188702	236.3
C14	5.126	-0.004	1022309	790022	AK103	(C25-C36)	284914	2.8
C16	5.803	-0.004	1736531	1218478	OR.DIES	(C10-C28)	46284811	236.1
C18	6.431	-0.004	1970150	1409422				
C20	7.036	-0.007	509531	494893				
C22	7.631	-0.008	243435	281583				
C24	8.208	-0.007	43836	95774				
C25	8.488	-0.005	13614	32431				
C26	8.761	-0.004	4384	8919				
C28	9.287	0.001	605	214				
C32	10.248	0.006	1381	707				
C34	10.683	0.001	3151	1389				
Filter Peak	12.650	-0.000	9358	3271	CREOSOT	(C12-C22)	36811374	9436.7
C36	11.127	-0.002	5536	1099				
C38	11.648	-0.002	7679	4193				
C40	12.292	0.003	8799	4362				
o-terph	6.646	-0.010	10937727	8968221				
Triacon Surr	9.803	0.001	295	103	NAS DIES	(C10-C24)	46106144	236.3

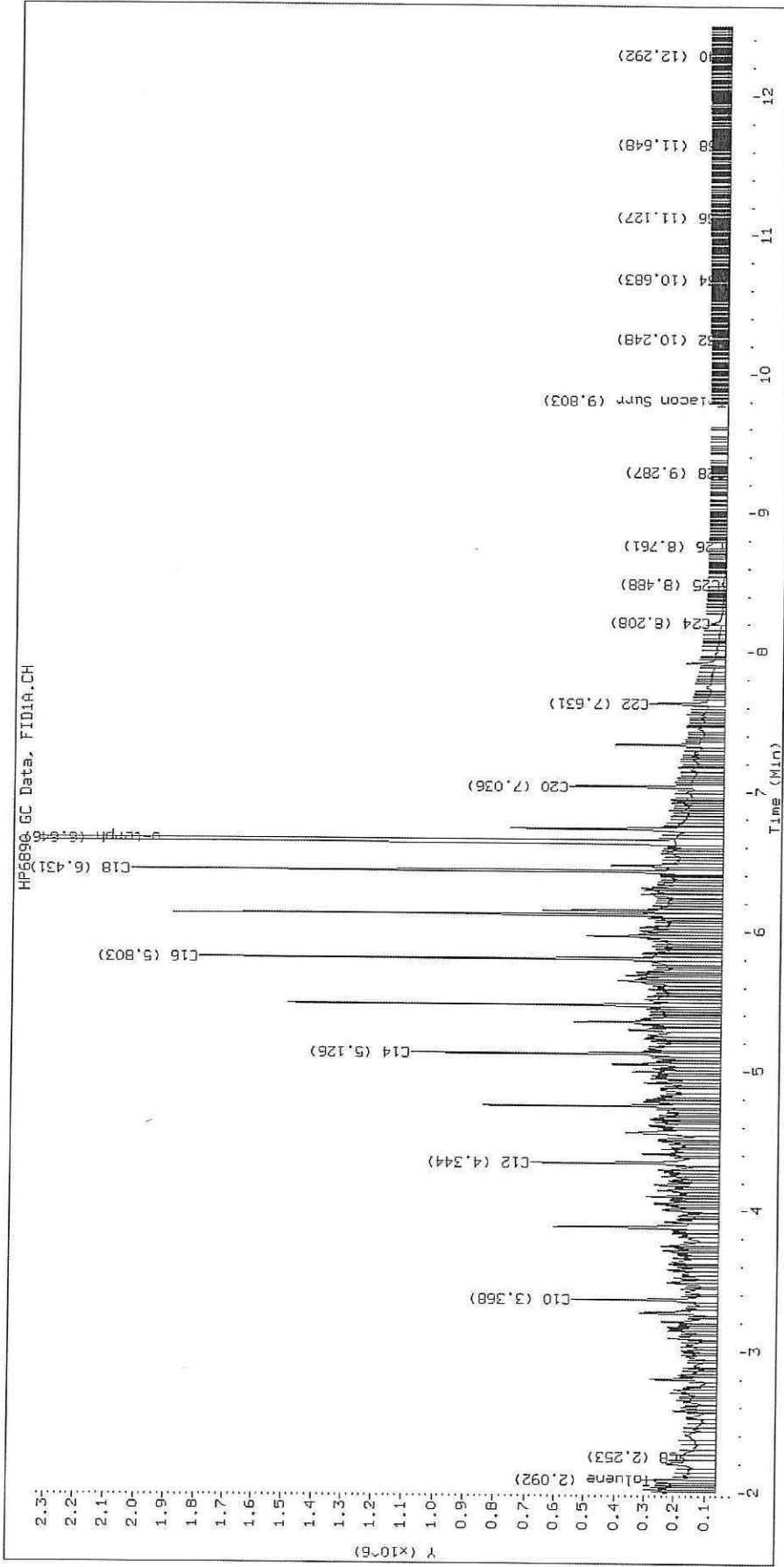
Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

Surrogate	Area	Amount
o-Terphenyl	8968221	43.8
Triacontane	103	0.0

M Indicates the peak was manually integrated

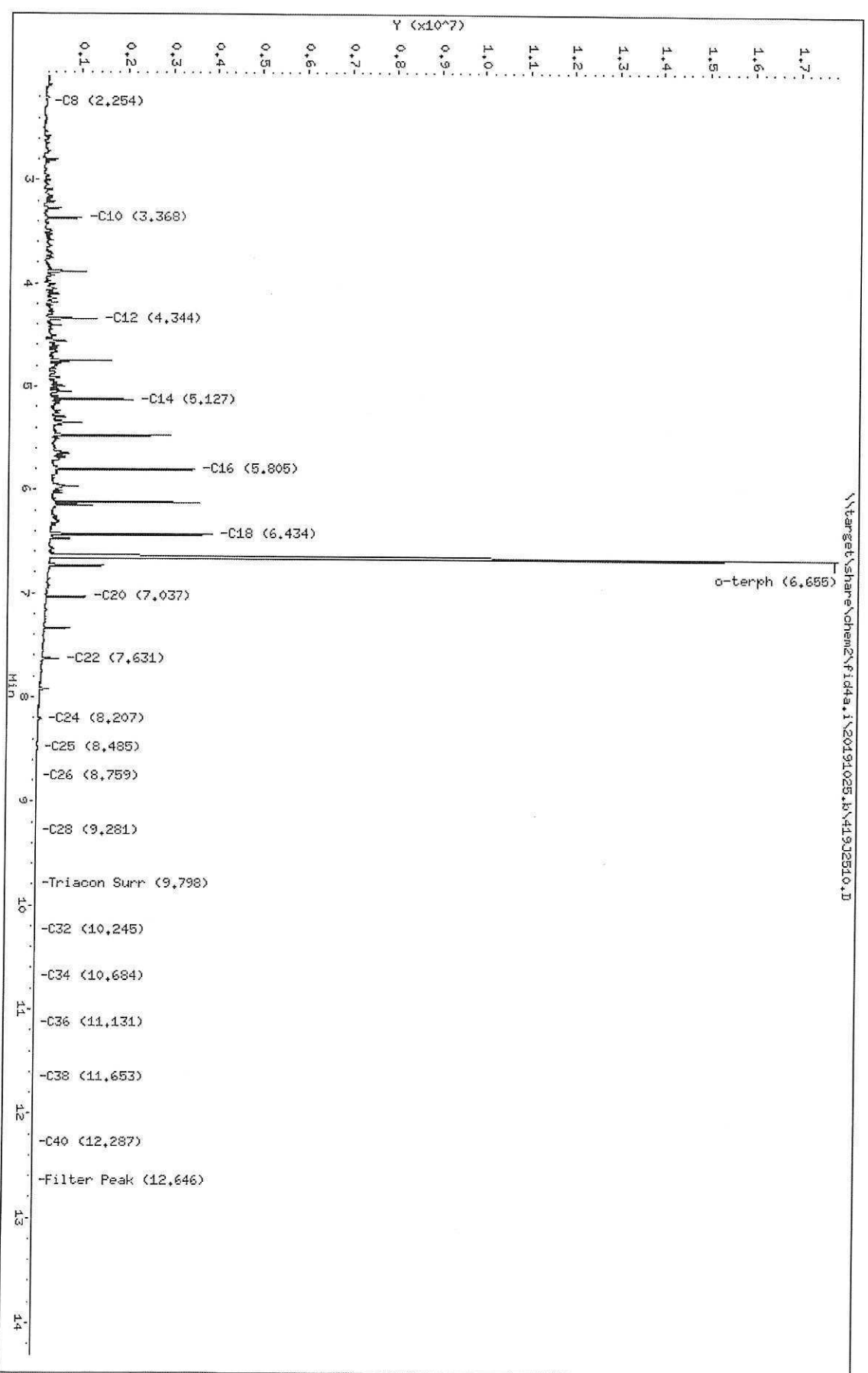
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2509.D SHJ0406-CAL3



Data File: \\target\shane\chem2\Fid4a.i\20191025.b\4192510.D  
Date: 25-OCT-2019 14:53  
Client ID:  
Sample Info: SH30406-CRL4  
Column phase: RTX-1

Instrument: fid4a.i  
Operator: CTO/SH/VTS/JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b\419J2510.D

Method: 20191025.b\FID4TPH.m

Instrument: fid4a.i, CTO/SH/VTS/JGR

Report Date: 10/30/2019

Macro: 09-SEP-2019

Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CAL4

Client ID:

Injection: 25-OCT-2019 14:53

Dilution Factor: 1

RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	2.254	-0.009	133720	272365	WATPHD	(C12-C24)	76110005	477.7
C10	3.368	-0.005	913330	831182	WATPHM	(C24-C38)	747310	5.6
C12	4.344	-0.004	1278885	1502773	AK102	(C10-C25)	90903979	465.0
C14	5.127	-0.003	2082835	1580085	AK103	(C25-C36)	436439	4.4
C16	5.805	-0.002	3492654	2476612	OR.DIES	(C10-C28)	91160529	465.1
C18	6.434	-0.001	3902008	2902073				
C20	7.037	-0.006	1095165	935641				
C22	7.631	-0.008	544650	574105				
C24	8.207	-0.008	109625	202080				
C25	8.485	-0.008	35990	71794				
C26	8.759	-0.006	12661	25763				
C28	9.281	-0.004	1585	1856				
C32	10.245	0.003	1048	453				
C34	10.684	0.002	3071	1964				
Filter Peak	12.646	-0.004	3825	2093	CREOSOT	(C12-C22)	73861119	18934.4
C36	11.131	0.002	4915	3154				
C38	11.653	0.003	5457	2692				
C40	12.287	-0.002	4261	1483				
o-terph	6.655	-0.001	17508754	18236498				
Triacon Surr	9.798	-0.004	325	112	NAS DIES	(C10-C24)	90741143	465.0

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
 NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

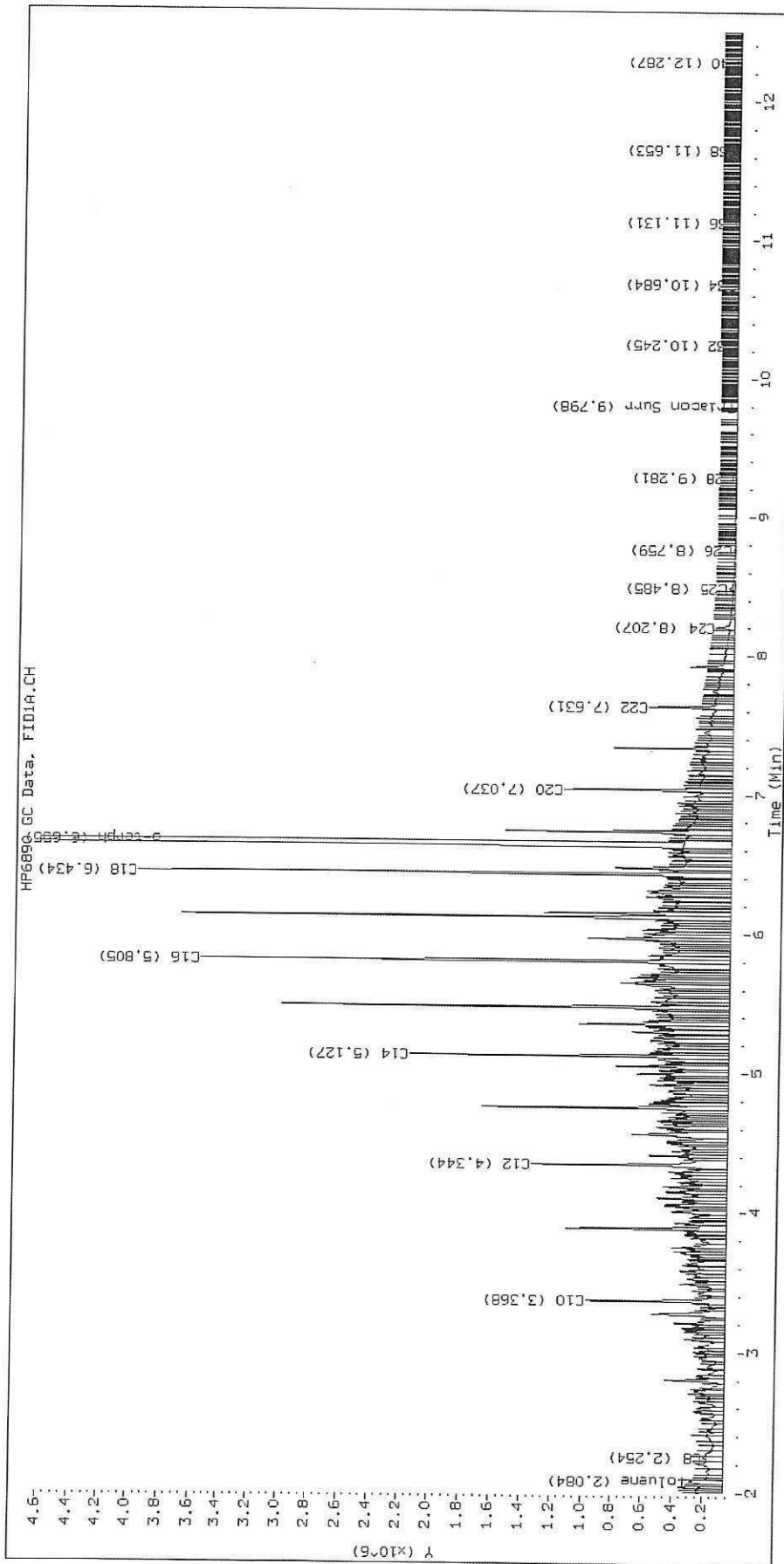
Surrogate	Area	Amount
o-Terphenyl	18236498	89.1 M
Triacantane	112	0.0

M Indicates the peak was manually integrated

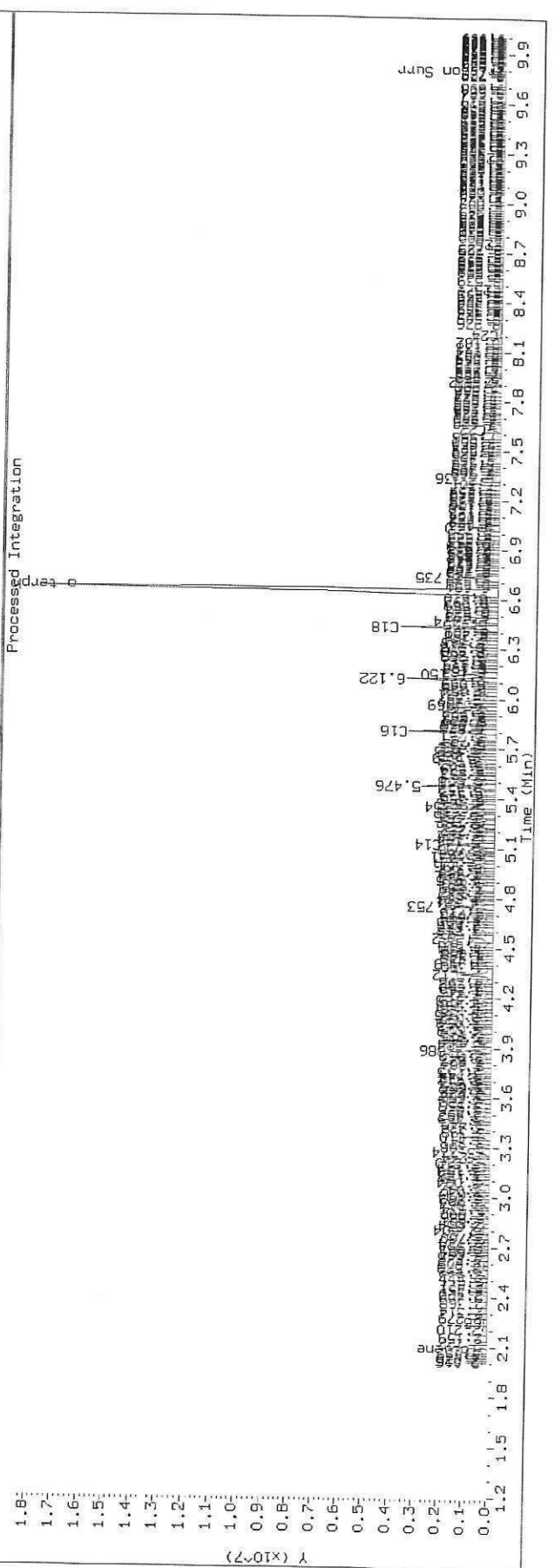
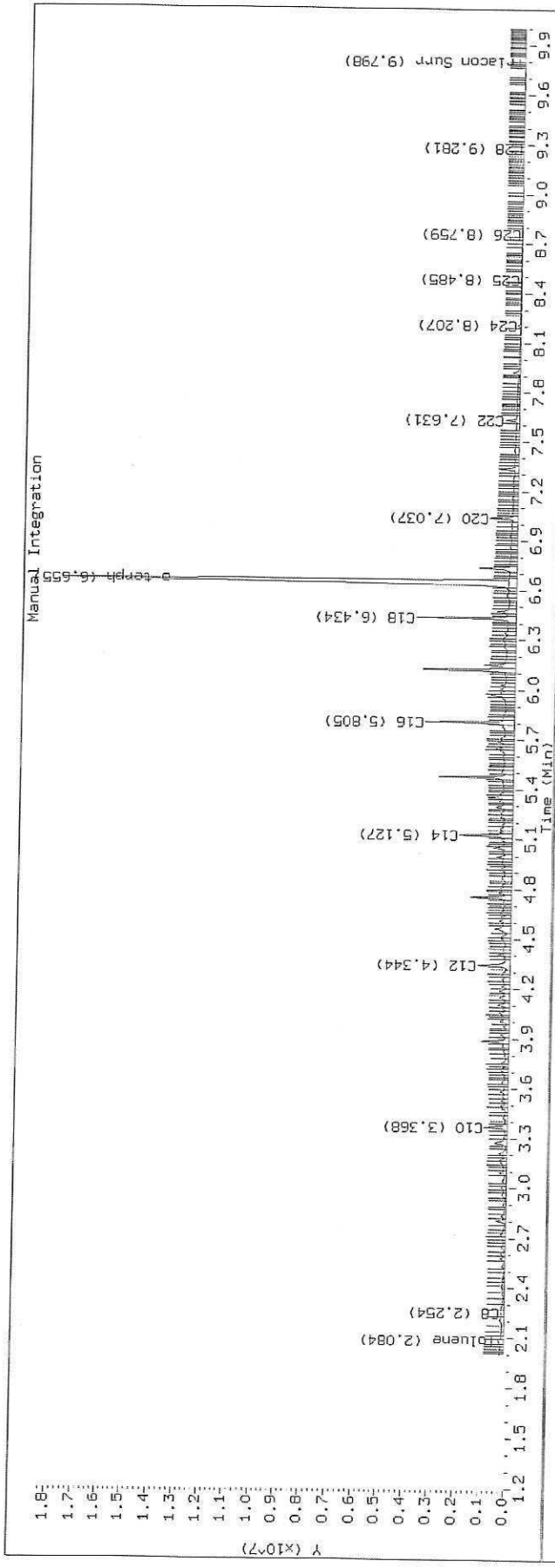
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2510.D

SHJ0406-CAL4



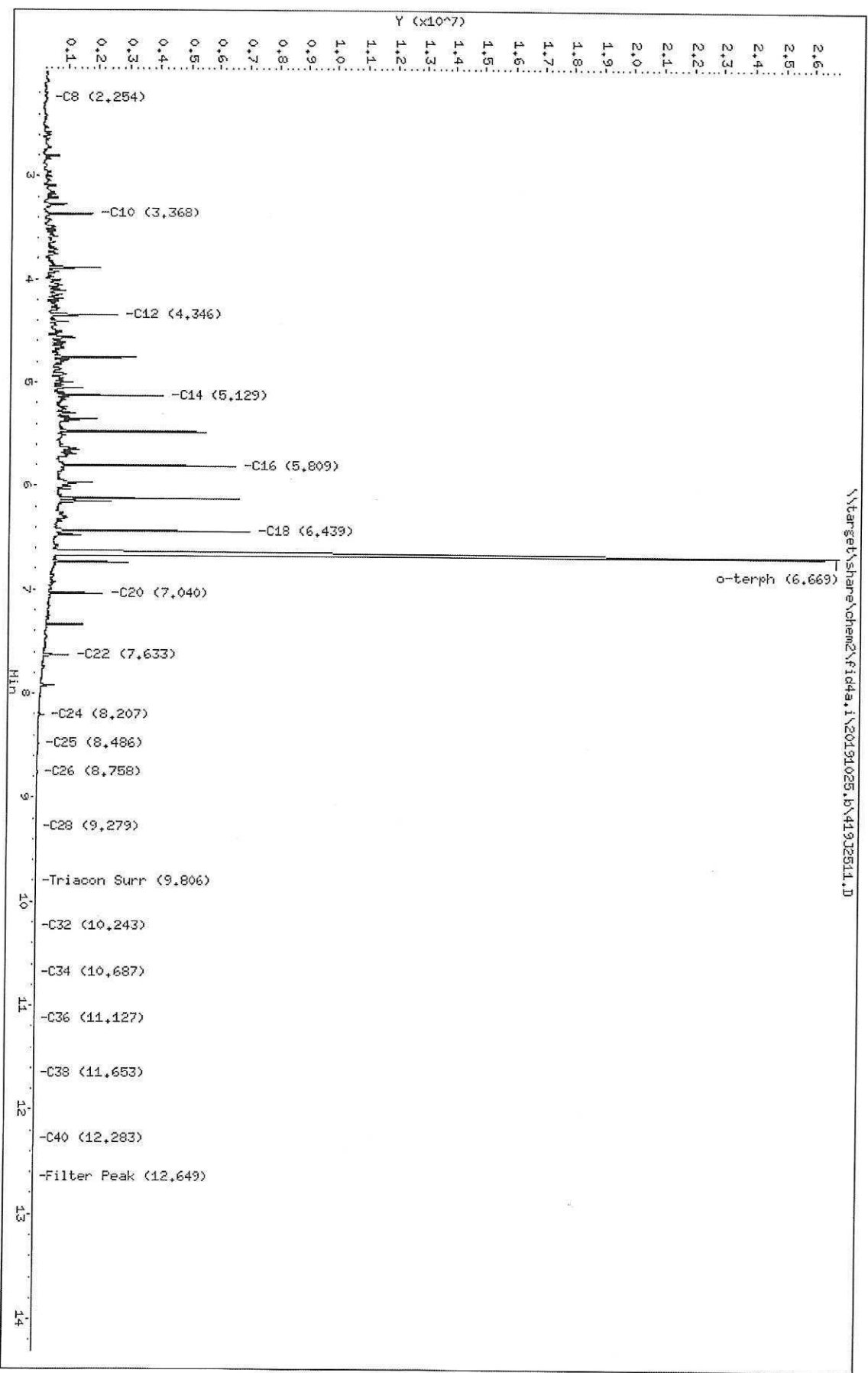
TPH Manual Integrations Report  
 Datafile: FID4A, 20191025.b/419J2510.D Injection: 25-OCT-2019 14:53  
 Lab ID: SH0406-CAL4





Data File: \\barger\share\chem2\fid4a.1\20191025.bv419J2511.D  
 Date : 25-OCT-2019 15:13  
 Client ID:  
 Sample Info: SHJ0406-CAL5  
 Column phase: RTX-1

Instrument: fid4a.1  
 Operator: CTU/SH/VTS/JCR  
 Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2511.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CAL5  
Client ID:  
Injection: 25-OCT-2019 15:13  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS								
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	2.254	-0.008	179896	310888	WATPHD	(C12-C24)	153066747	960.6
C10	3.368	-0.005	1739085	1592987	WATPHM	(C24-C38)	1270800	9.6
C12	4.346	-0.001	2582378	2992597	AK102	(C10-C25)	181956494	930.8
C14	5.129	-0.000	4119910	3175625	AK103	(C25-C36)	821445	8.2
C16	5.809	0.002	6560457	4974499	OR.DIES	(C10-C28)	182680399	932.0
C18	6.439	0.005	7062206	6028122				
C20	7.040	-0.003	2215368	1892870				
C22	7.633	-0.006	1144174	997771				
C24	8.207	-0.008	250003	385382				
C25	8.486	-0.007	89395	162170				
C26	8.758	-0.007	33365	80915				
C28	9.279	-0.006	6648	16116				
C32	10.243	0.001	219	113				
C34	10.687	0.005	471	169				
Filter Peak	12.649	-0.001	3299	1299	CREOSOT	(C12-C22)	148274267	38010.4
C36	11.127	-0.002	1506	512				
C38	11.653	0.003	2117	932				
C40	12.283	-0.006	2712	1056				
o-terph	6.669	0.013	26284682	37244787				
Triacon Surr	9.806	0.004	1398	1069	NAS DIES	(C10-C24)	181561688	930.4

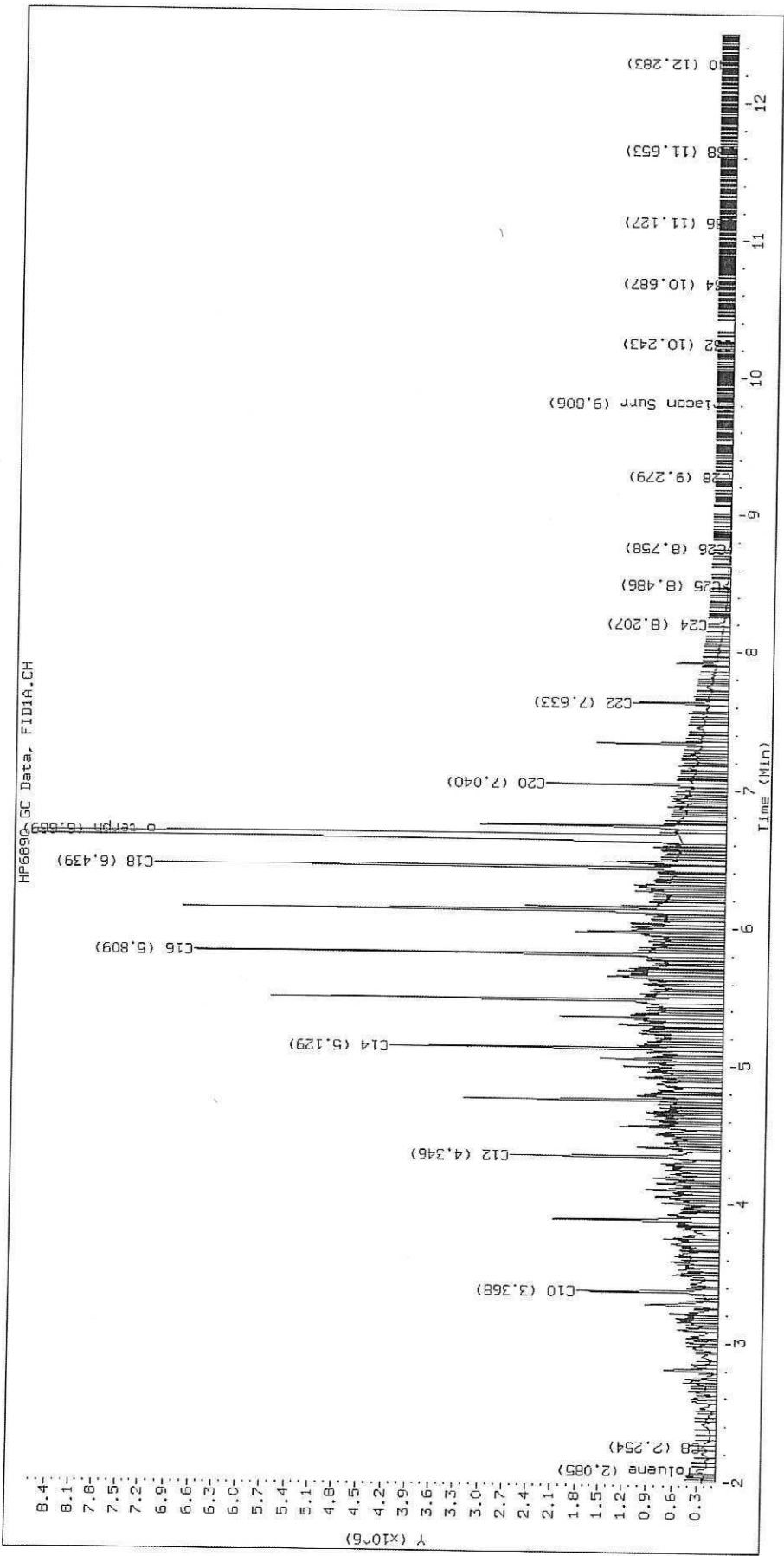
Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

Surrogate	Area	Amount
o-Terphenyl	37244787	181.9 M
Triacotane	1069	0.0

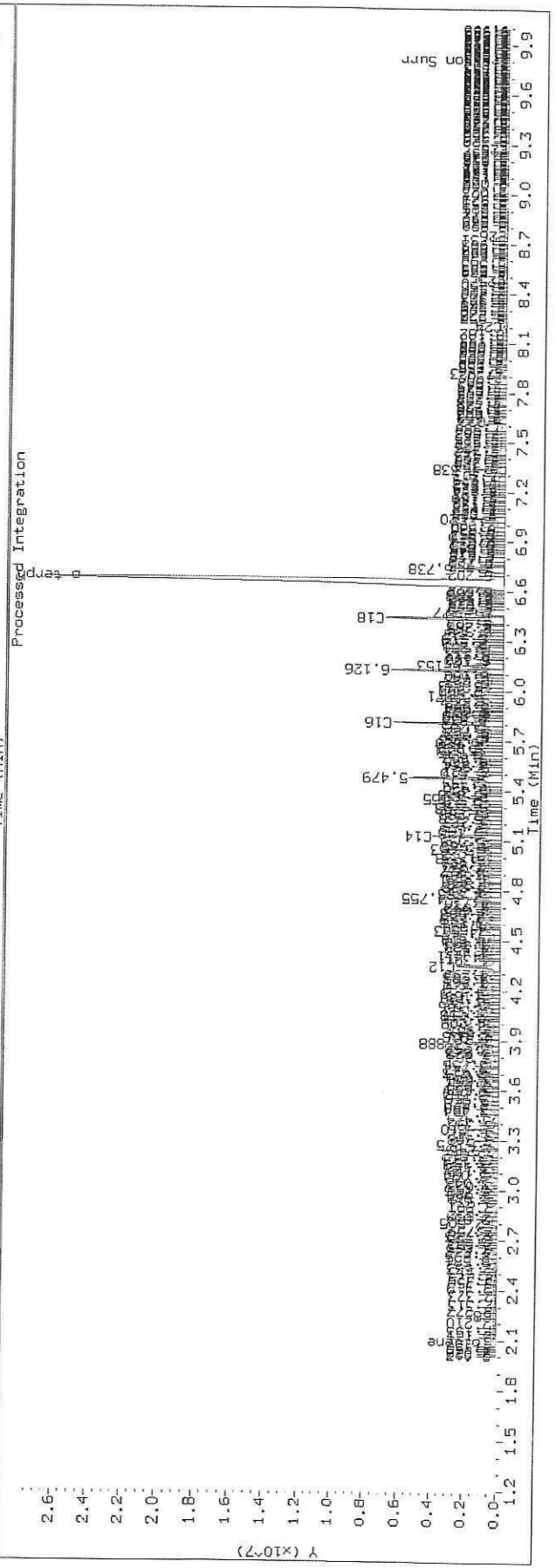
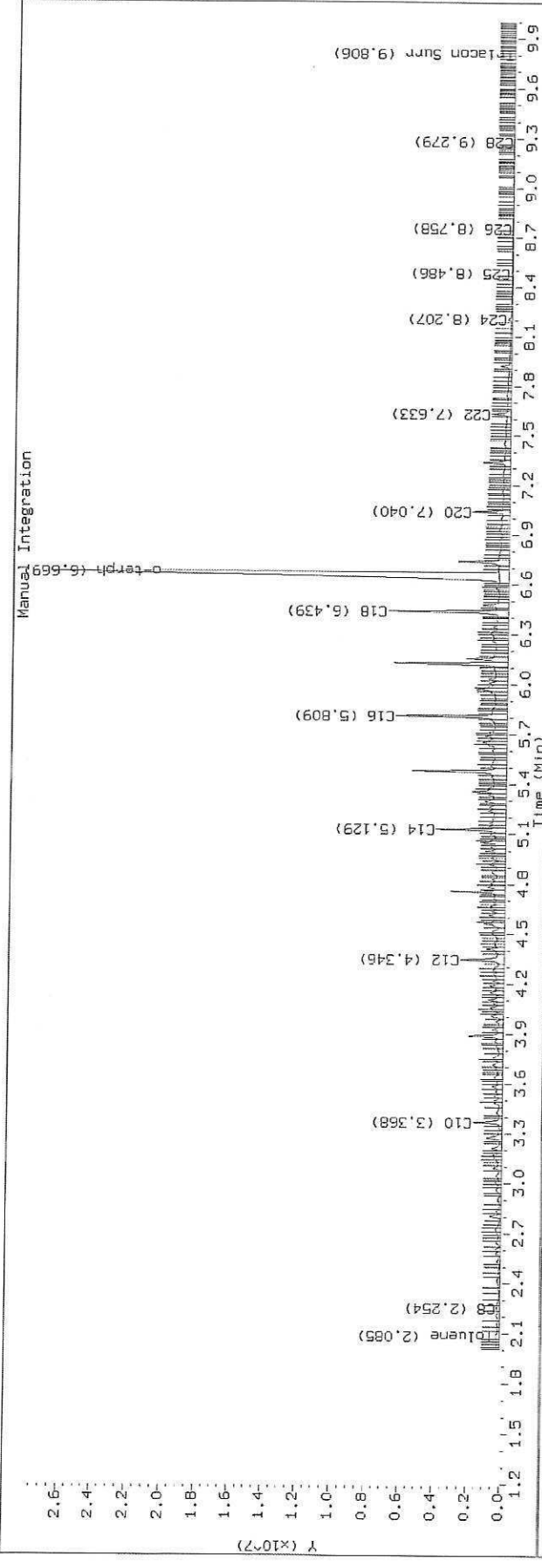
M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2511.D SHJ0406-CAL5

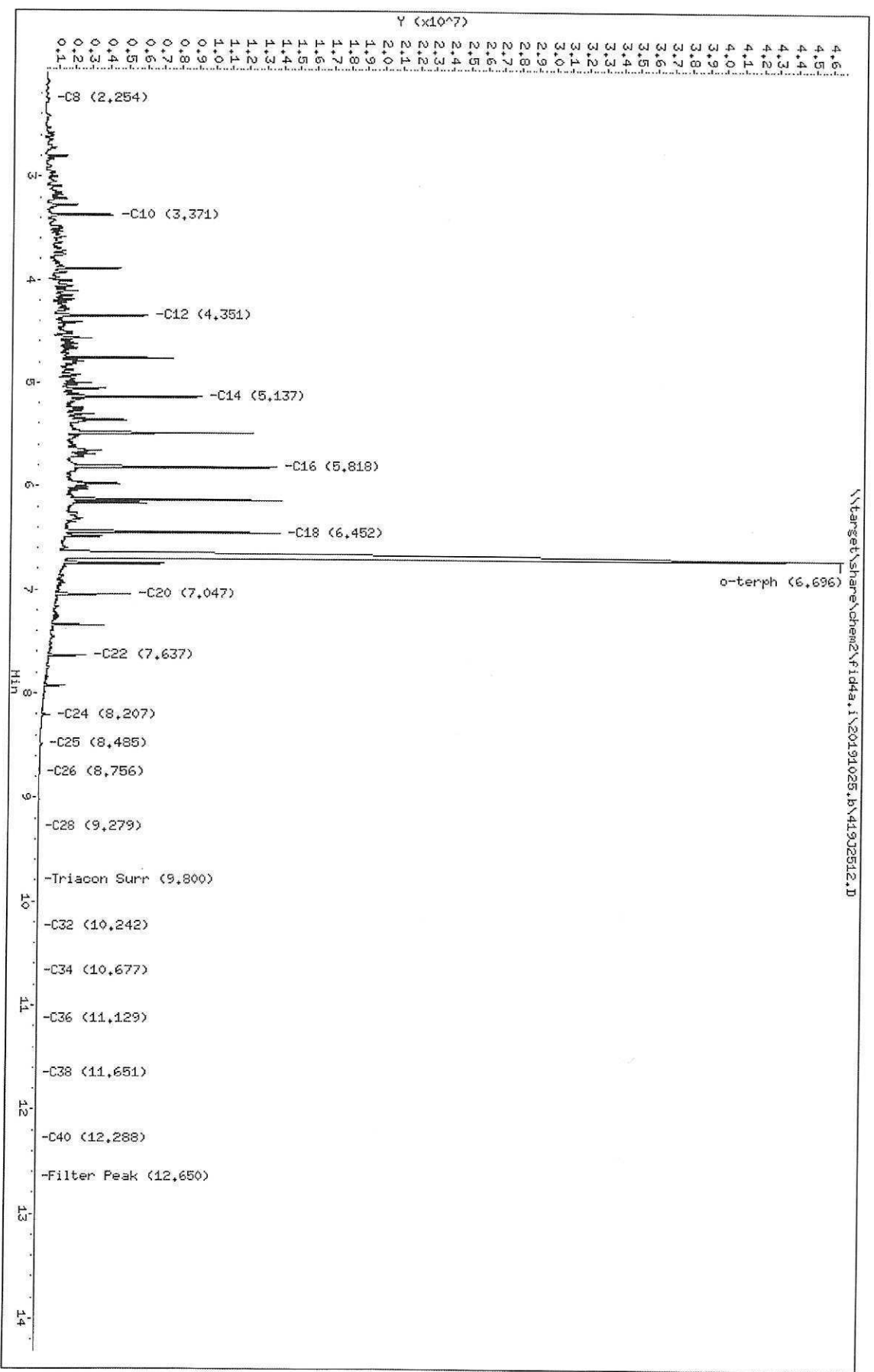


Datafile: FID4A, 20191025.b/419J2511.D Injection: 25-OCT-2019 15:13  
 Lab ID: SHJ0406-CAL5



Data File: \\target\shane\chem2\Fid4a.I\20191025.BV419J2512.D  
 Date: 25-OCT-2019 15:32  
 Client ID:  
 Sample Info: SH00406-CHL6  
 Column phase: RTX-1

Instrument: fid4a.i  
 Operator: CTO/SH/VTS/JGR  
 Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2512.D

ARI ID: SHJ0406-CAL6

Method: 20191025.b\FID4TPH.m

Client ID:

Instrument: fid4a.l, CTO/SH/VTS/JGR

Injection: 25-OCT-2019 15:32

Report Date: 10/30/2019

Dilution Factor: 1

Macro: 09-SEP-2019

RT Std: 419H1603.D

Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	2.254	-0.008	310597	486343	WATPHD	(C12-C24)	386988567	2428.7
C10	3.371	-0.002	4067321	3926897	WATPHM	(C24-C38)	3326156	25.1
C12	4.351	0.004	6051560	7536066	AK102	(C10-C25)	458776536	2346.8
C14	5.137	0.007	9257057	8197076	AK103	(C25-C36)	2148648	21.5
C16	5.818	0.011	13762212	12844924	OR.DIES	(C10-C28)	460755382	2350.8
C18	6.452	0.017	13977204	16316405				
C20	7.047	0.004	5292354	4776661				
C22	7.637	-0.002	2821591	2512756				
C24	8.207	-0.007	692936	731199				
C25	8.485	-0.008	261257	416815				
C26	8.756	-0.009	100686	191231				
C28	9.279	-0.006	17823	35082				
C32	10.242	-0.001	483	193				
C34	10.677	-0.004	847	428				
Filter Peak	12.650	-0.001	5215	3893	CREOSOT	(C12-C22)	374231679	95935.0
C36	11.129	0.000	2243	1721				
C38	11.651	0.001	3497	1043				
C40	12.288	-0.001	4517	2473				
o-terph	6.696	0.039	45134516	94404433				
Triacon Surr	9.800	-0.002	2320	892	NAS DIES	(C10-C24)	457687210	2345.3

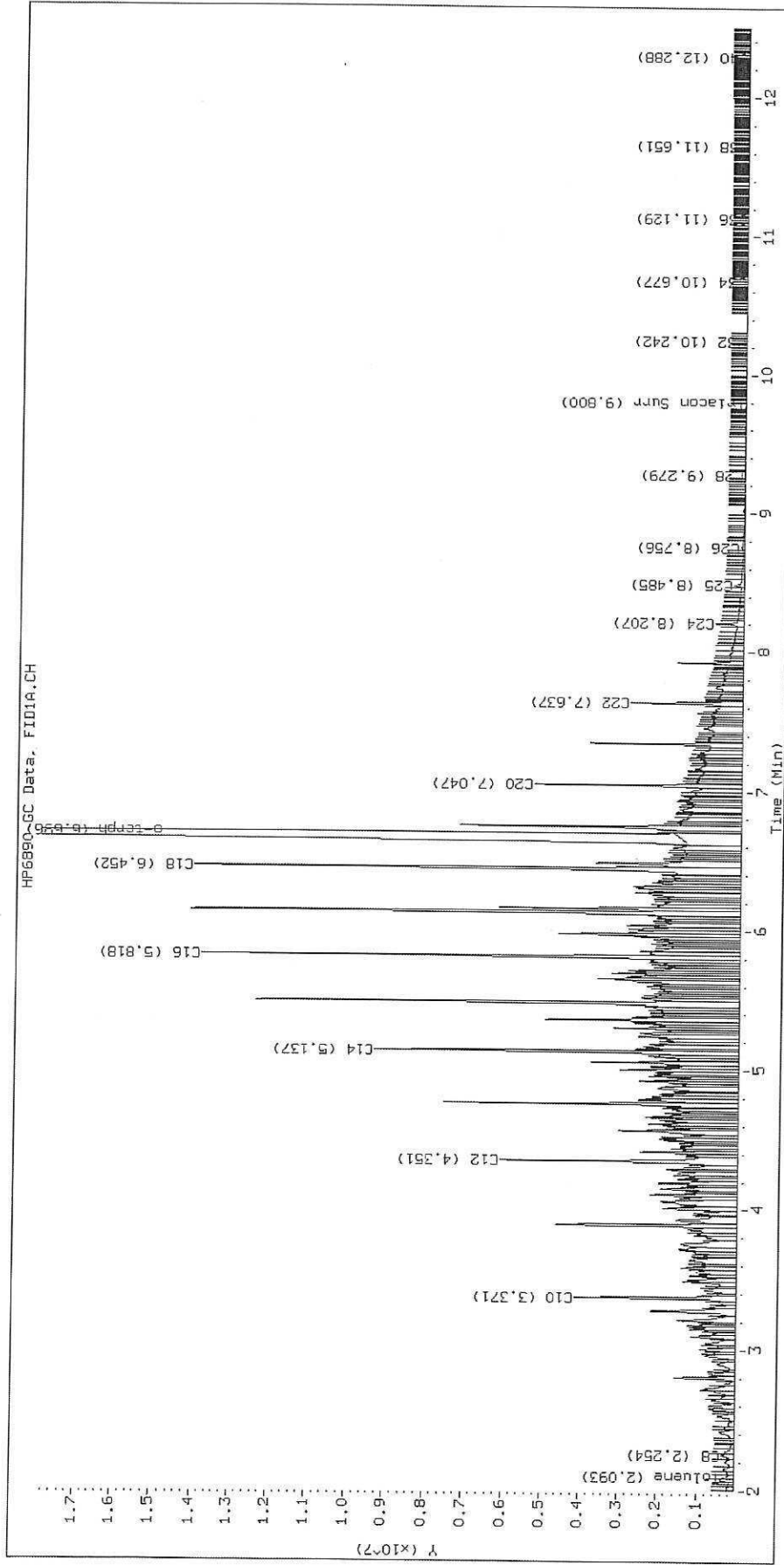
Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

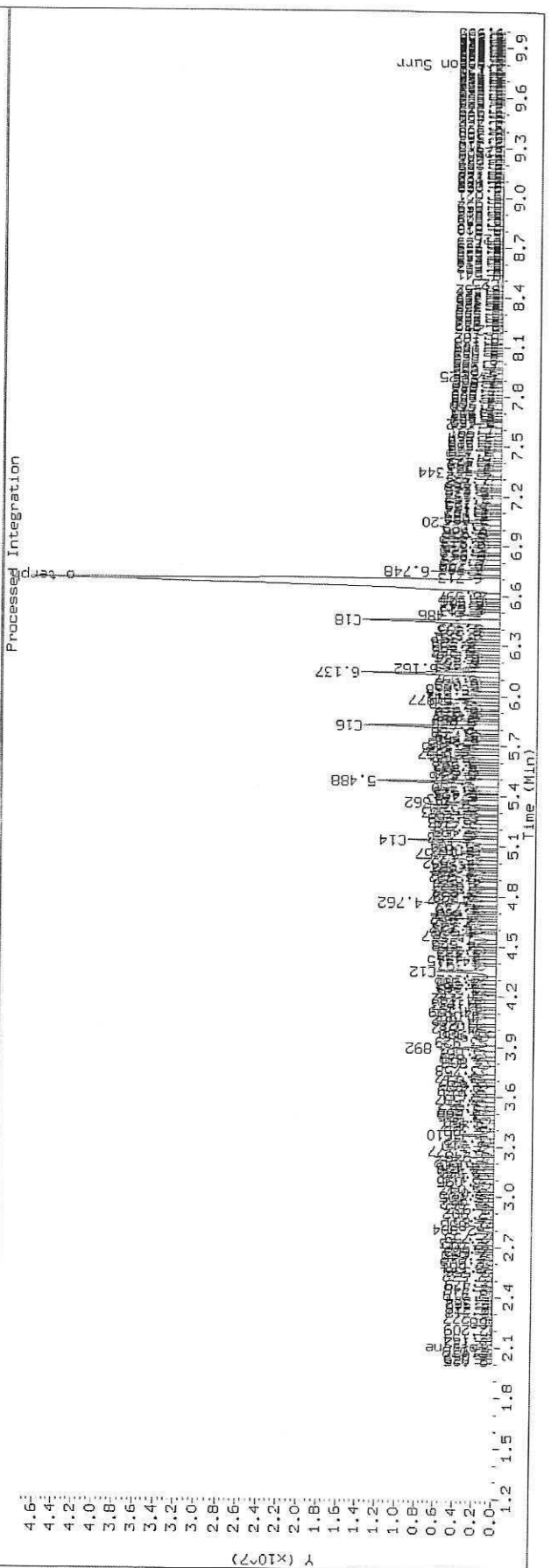
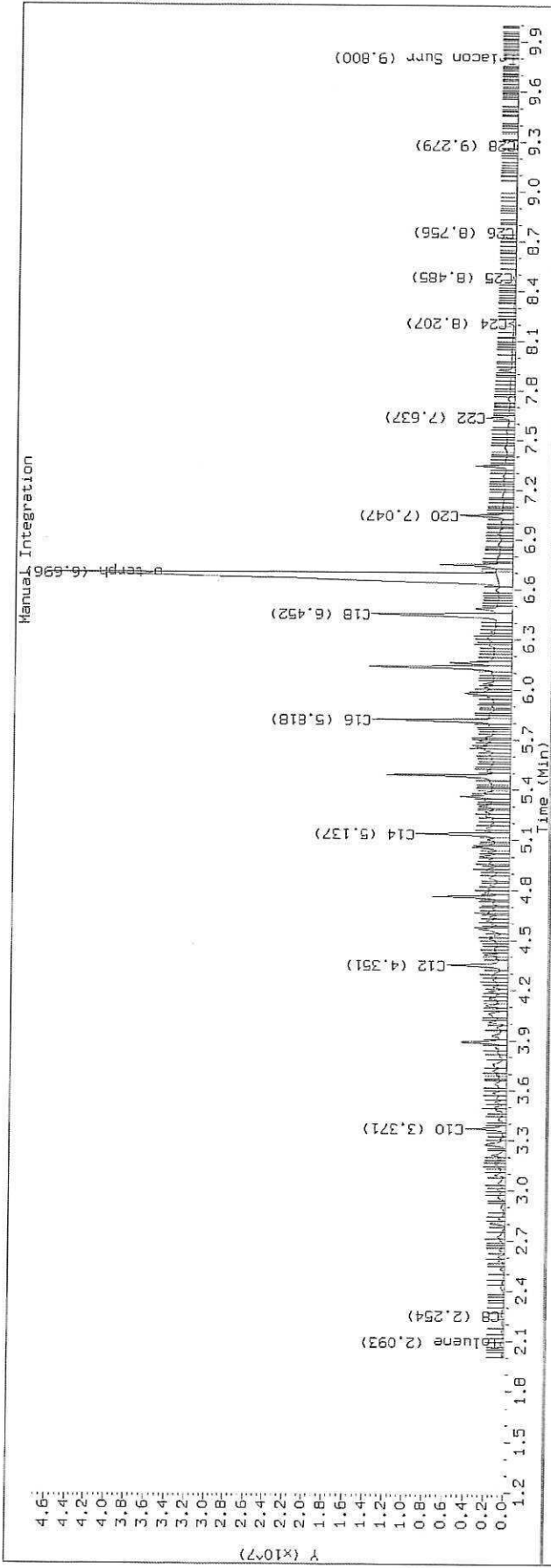
Surrogate	Area	Amount
o-Terphenyl	94404433	461.2 M
Triacontane	892	0.0

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2512.D SHJ0406-CAL6

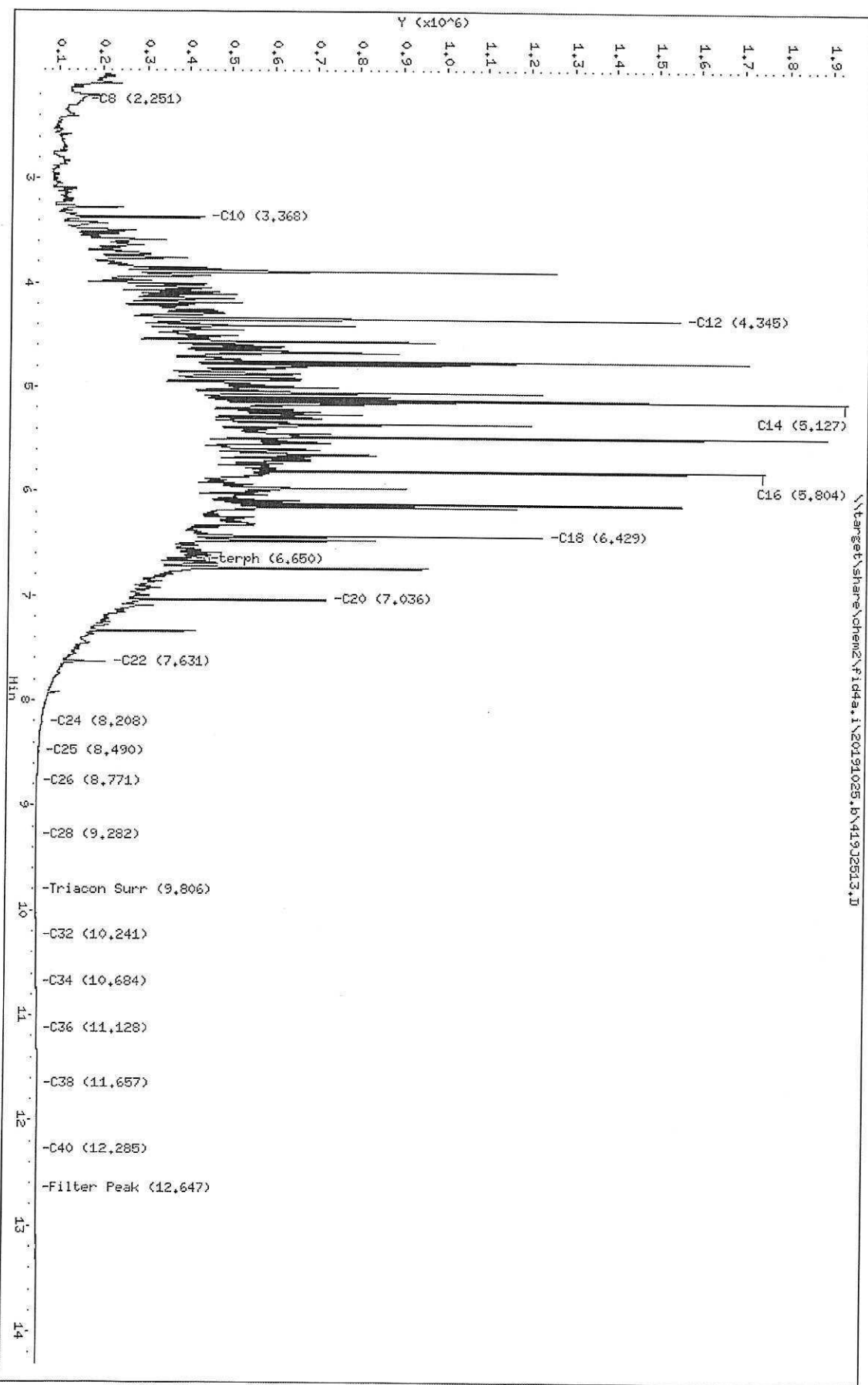






Data File: \\target\share\chem2\fid4a.i\20191025.B\419J2513.D  
Date: 25-OCT-2019 15:52  
Client ID:  
Sample Info: SH30406-SCW1  
Column phase: RTX-1

Instrument: fid4a.i  
Operator: CTD/SH/VTS/JCR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2513.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-SCV1  
Client ID:  
Injection: 25-OCT-2019 15:52  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS								
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.251	-0.011	94961	147864	WATPHD	(C12-C24)	81454017	511.2
C10	3.368	-0.005	379319	401979	WATPHM	(C24-C38)	639731	4.8
C12	4.345	-0.002	1496096	1990616	AK102	(C10-C25)	97704414	499.8
C14	5.127	-0.002	1881566	1510979	AK103	(C25-C36)	332991	3.3
C16	5.804	-0.003	1693335	1468242	OR.DIES	(C10-C28)	97755450	498.8
C18	6.429	-0.006	1178327	1173671				
C20	7.036	-0.007	676475	771884				
C22	7.631	-0.008	162529	245982				
C24	8.208	-0.007	16269	46701				
C25	8.490	-0.003	4835	8168				
C26	8.771	0.006	1378	465				
C28	9.282	-0.003	218	122				
C32	10.241	-0.001	2076	410				
C34	10.684	0.003	4334	2137				
Filter Peak	12.647	-0.003	10515	4189	CREOSOT	(C12-C22)	80554511	20650.3
C36	11.128	-0.001	6869	2744				
C38	11.657	0.008	8764	3056				
C40	12.285	-0.004	9988	4995				
o-terph	6.650	-0.007	347314	350999				
Triacon Surr	9.806	0.003	1146	388	NAS DIES	(C10-C24)	97645351	500.4

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

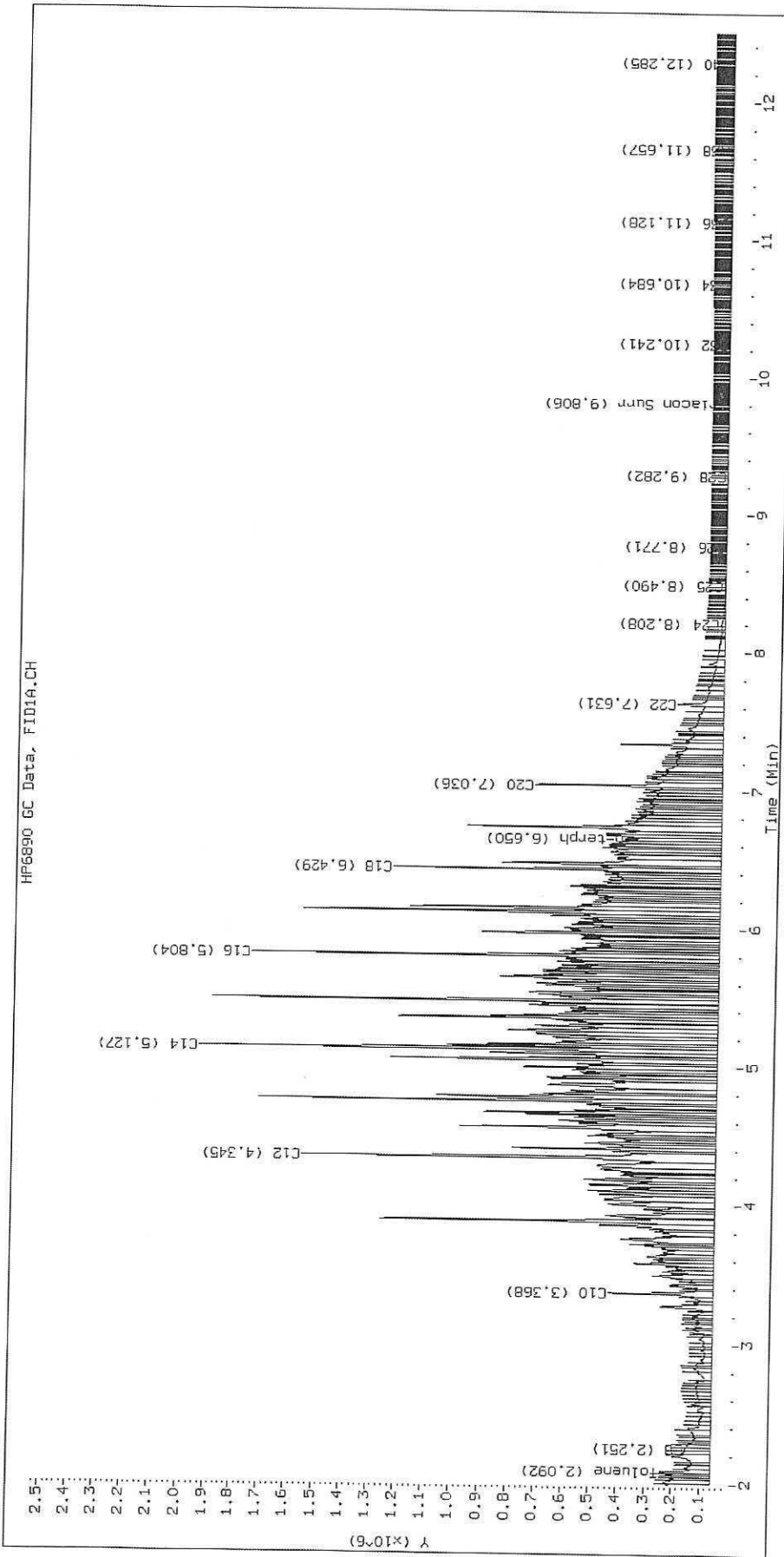
Surrogate	Area	Amount
o-Terphenyl	350999	1.7
Triacotane	388	0.0

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

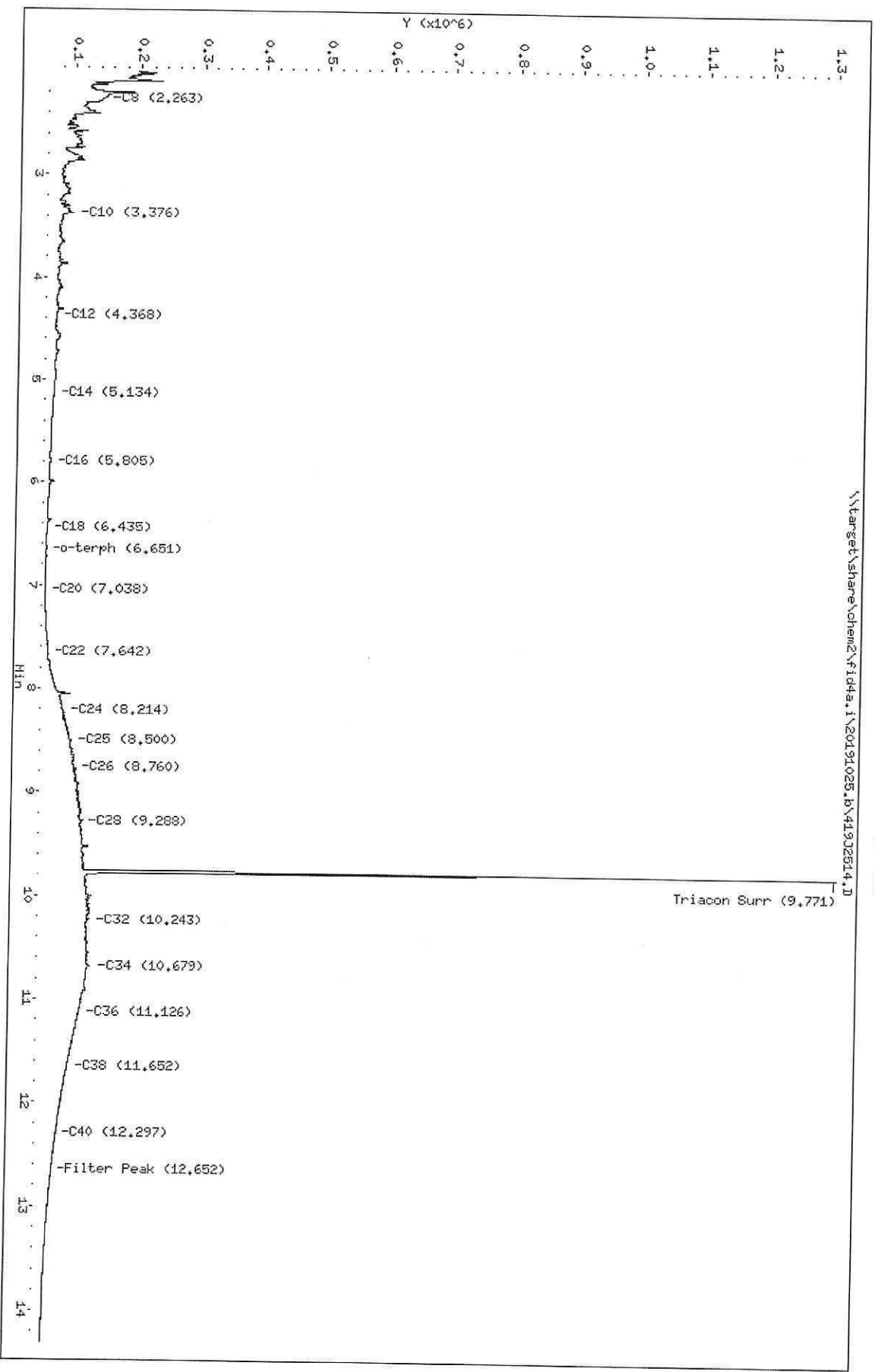
Datafile: FID4A, 20191025.b/419J2513.D SHJ0406-SCVI

HP6890 GC Data, FID1A.CH



Data File: \\target\share\chem2\fid4a.1\20191025.1\41932514.D  
Date : 25-OCT-2019 16:12  
Client ID:  
Sample Info: SHJ0406-CAL7  
Column phase: RTX-1

Instrument: fid4a.1  
Operator: CT0/SH/VTS/JCR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2514.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CAL7  
Client ID:  
Injection: 25-OCT-2019 16:12  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.263	0.001	85024	58523	WATPHD	(C12-C24)	1690231	10.6
C10	3.376	0.003	37002	76813	WATPHM	(C24-C38)	13578464	102.4
C12	4.368	0.021	13222	16848	AK102	(C10-C25)	3173344	16.2
C14	5.134	0.004	9789	3901	AK103	(C25-C36)	11330395	113.3
C16	5.805	-0.002	5337	2891	OR.DIES	(C10-C28)	6258620	31.9
C18	6.435	0.000	1861	887				
C20	7.038	-0.005	431	243				
C22	7.642	0.003	6248	1558				
C24	8.214	-0.001	36357	52641				
C25	8.500	0.007	49017	43098				
C26	8.760	-0.005	55671	27607				
C28	9.288	0.003	67768	33791				
C32	10.243	0.001	81940	56823				
C34	10.679	-0.002	85222	51016				
Filter Peak	12.652	0.002	27566	19236	CREOSOT	(C12-C22)	959454	246.0
C36	11.126	-0.003	69343	27714				
C38	11.652	0.002	52690	33941				
C40	12.297	0.009	34497	15508				
o-terph	6.651	-0.006	941	547				
Triacon Surr	9.771	-0.031	1179904	816812	NAS DIES	(C10-C24)	2749900	14.1

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

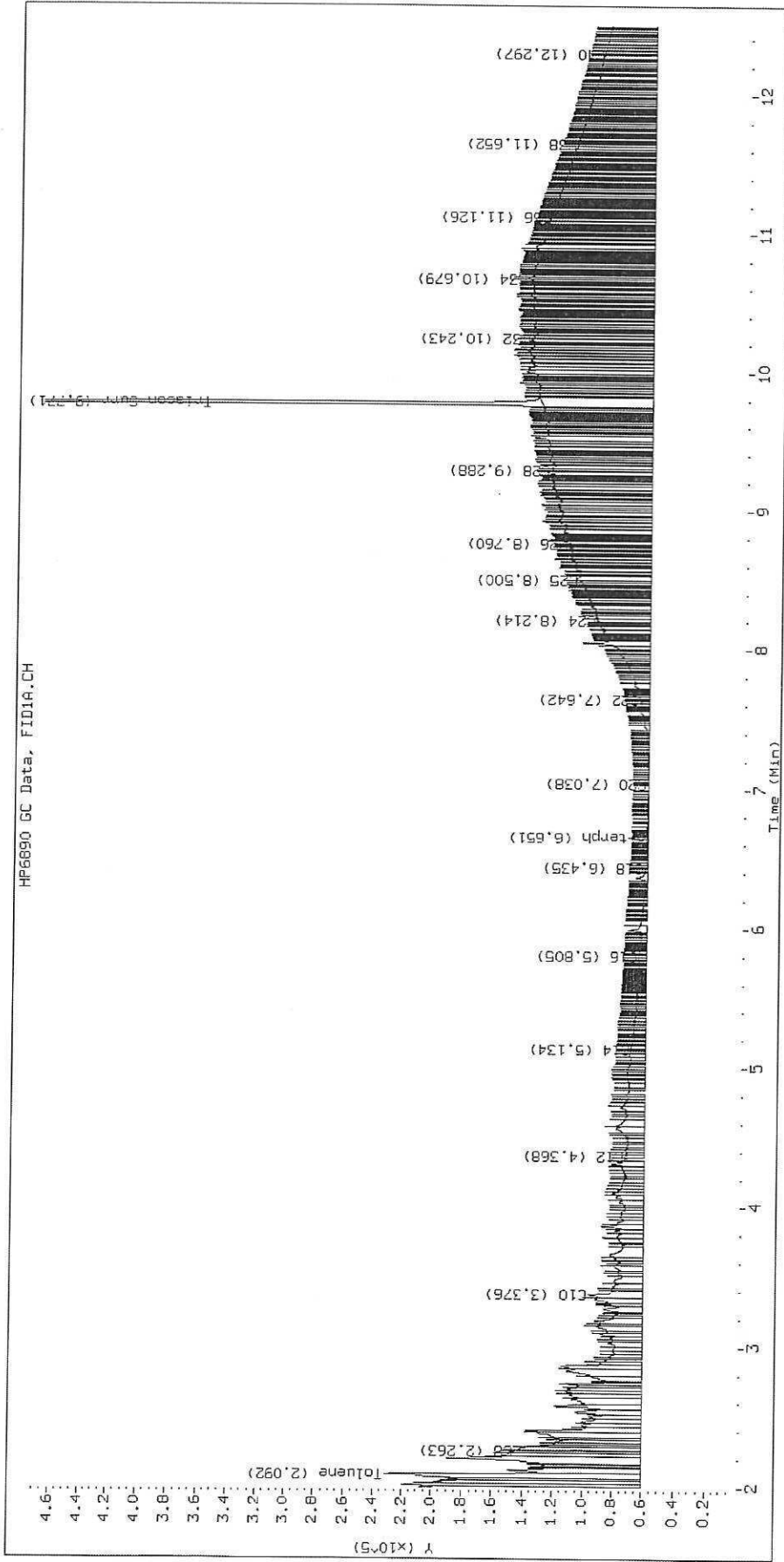
Surrogate	Area	Amount
o-Terphenyl	547	0.0
Triacotane	816812	4.6 M

M Indicates the peak was manually integrated

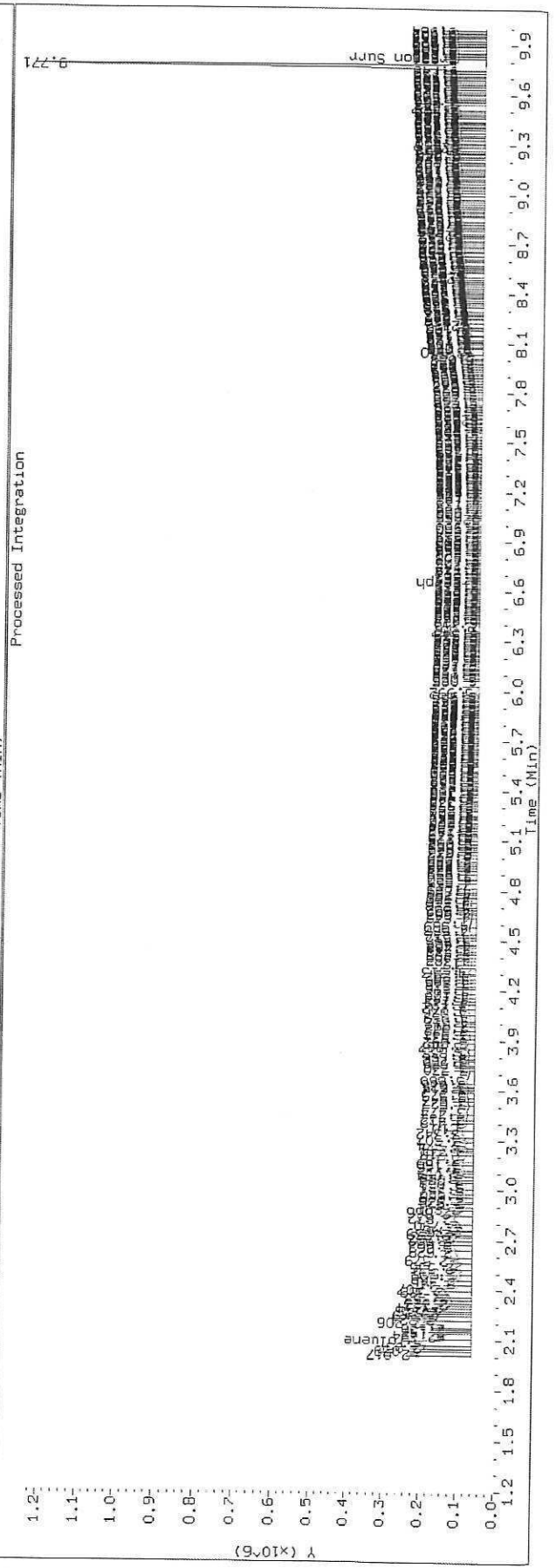
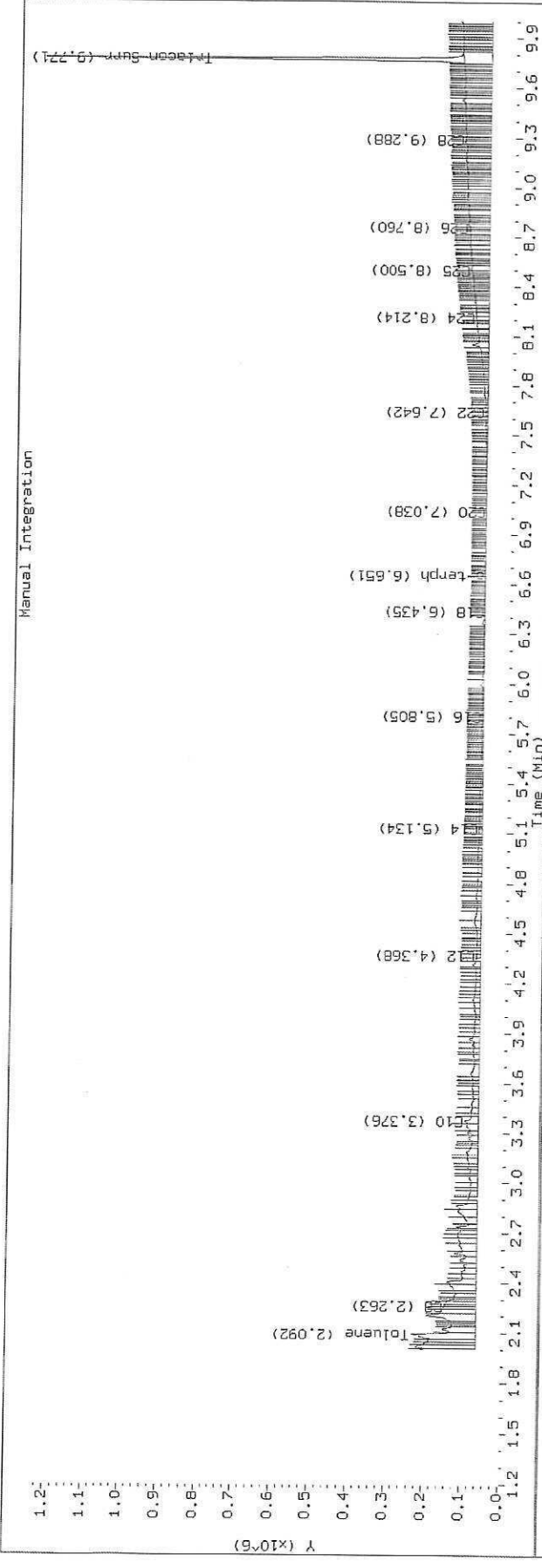
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2514.D SHJ0406-CAL7

HP6890 GC Data, FID1A.CH

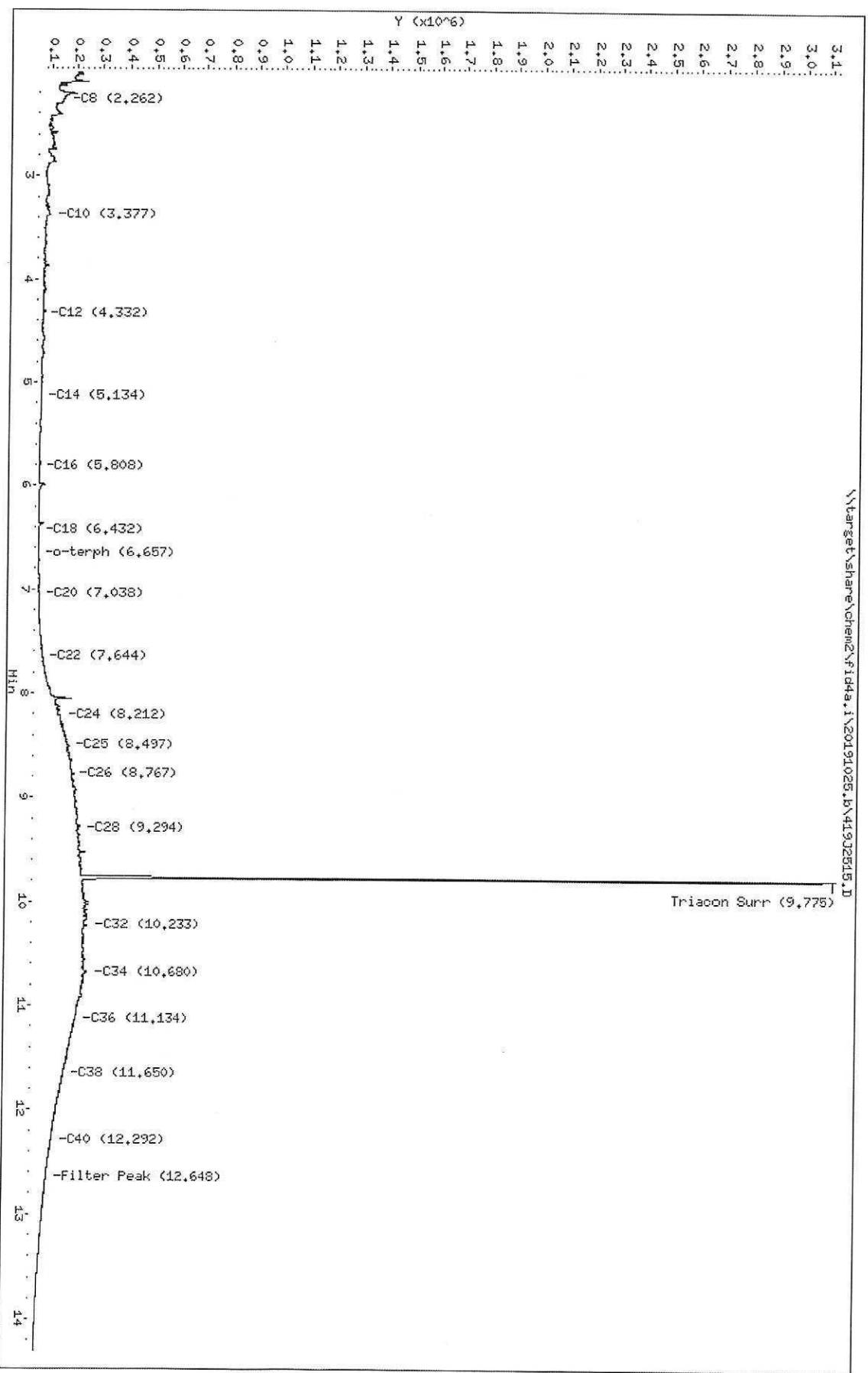


Datafile: FID4A, 20191025.b/419J2514.D Injection: 25-OCT-2019 16:12  
 Lab ID: SHJ0406-CAL7



Data File: \\target\share\chem2\fid4a.i\20191026.bv41932615.D  
 Date : 26-OCT-2019 16:33  
 Client ID:  
 Sample Inlet: SHJ0406-CAL8  
 Column phase: RTX-1

Instrument: fid4a.i  
 Operator: CTD/SH/VTS/JCR  
 Column diameter: 0.25





Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2515.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CAL8  
Client ID:  
Injection: 25-OCT-2019 16:33  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	2.262	0.000	86050	63363	WATPHD	(C12-C24)	2977110	18.7
C10	3.377	0.004	37018	79239	WATPHM	(C24-C38)	34653776	261.3
C12	4.332	-0.015	11427	15714	AK102	(C10-C25)	5054179	25.9
C14	5.134	0.004	5154	2057	AK103	(C25-C36)	29175058	291.8
C16	5.808	0.001	2486	1818	OR.DIES	(C10-C28)	13169508	67.2
C18	6.432	-0.002	1168	783				
C20	7.038	-0.005	3772	4551				
C22	7.644	0.005	20883	5211				
C24	8.212	-0.002	97111	92984				
C25	8.497	0.004	127743	100149				
C26	8.767	0.003	144937	36089				
C28	9.294	0.009	174099	155043				
C32	10.233	-0.009	209275	335982				
C34	10.680	-0.001	211521	464774				
Filter Peak	12.648	-0.002	60945	24237	CREOSOT	(C12-C22)	985245	252.6
C36	11.134	0.005	168788	75681				
C38	11.650	0.000	122780	30685				
C40	12.292	0.003	80017	15993				
o-terph	6.657	0.001	951	796				
Triacon Surr	9.775	-0.027	2879377	2052387	NAS DIES	(C10-C24)	3922564	20.1

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

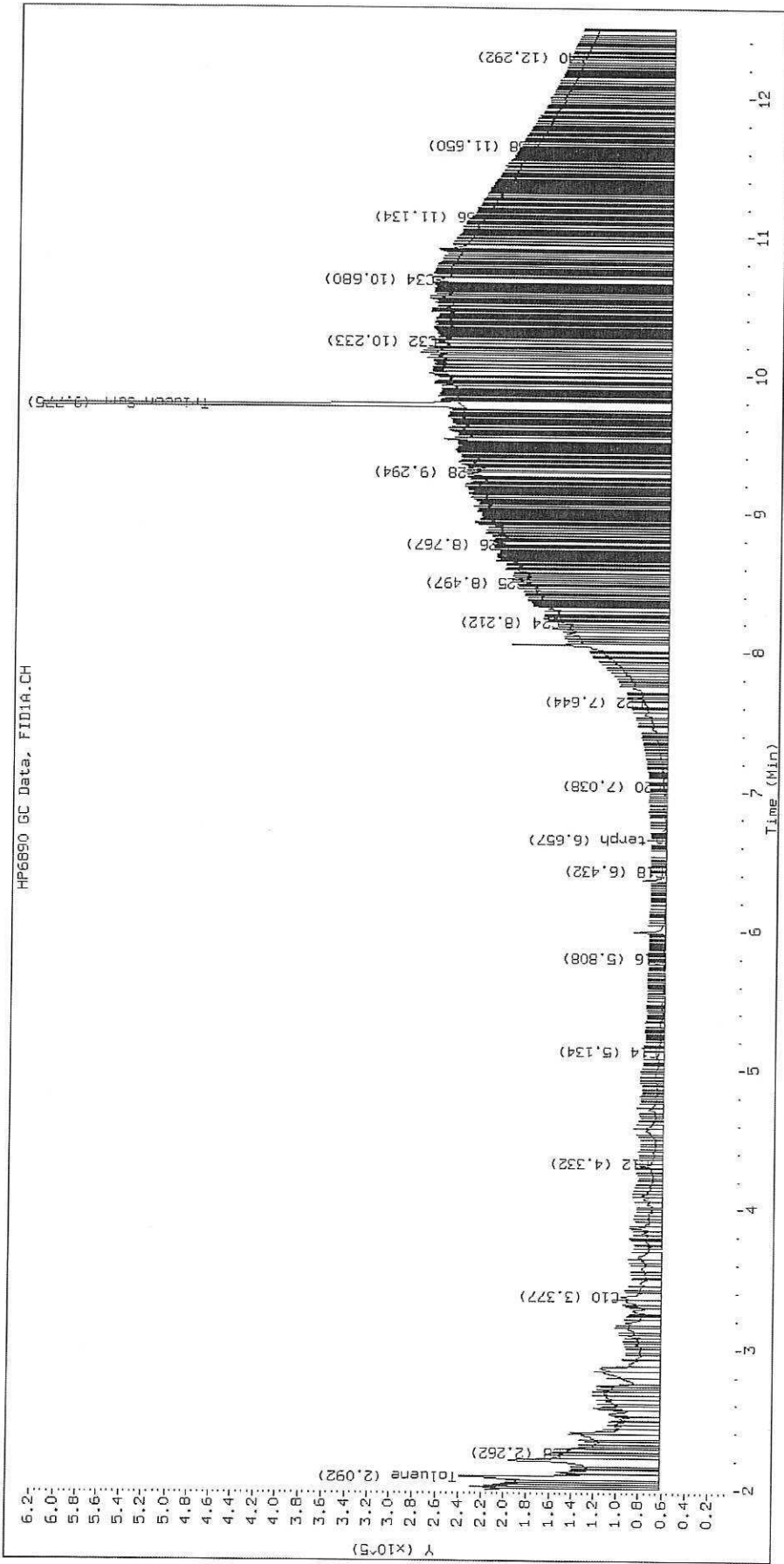
Surrogate	Area	Amount
o-Terphenyl	796	0.0
Triacotane	2052387	11.5 M

M Indicates the peak was manually integrated

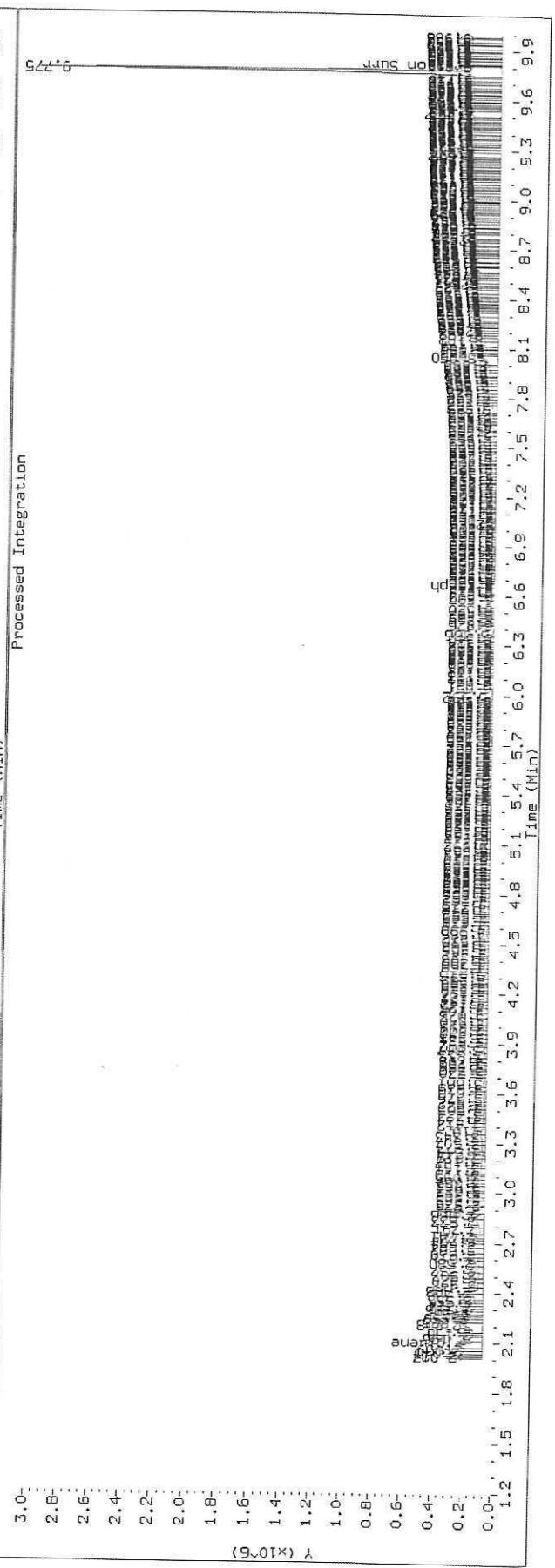
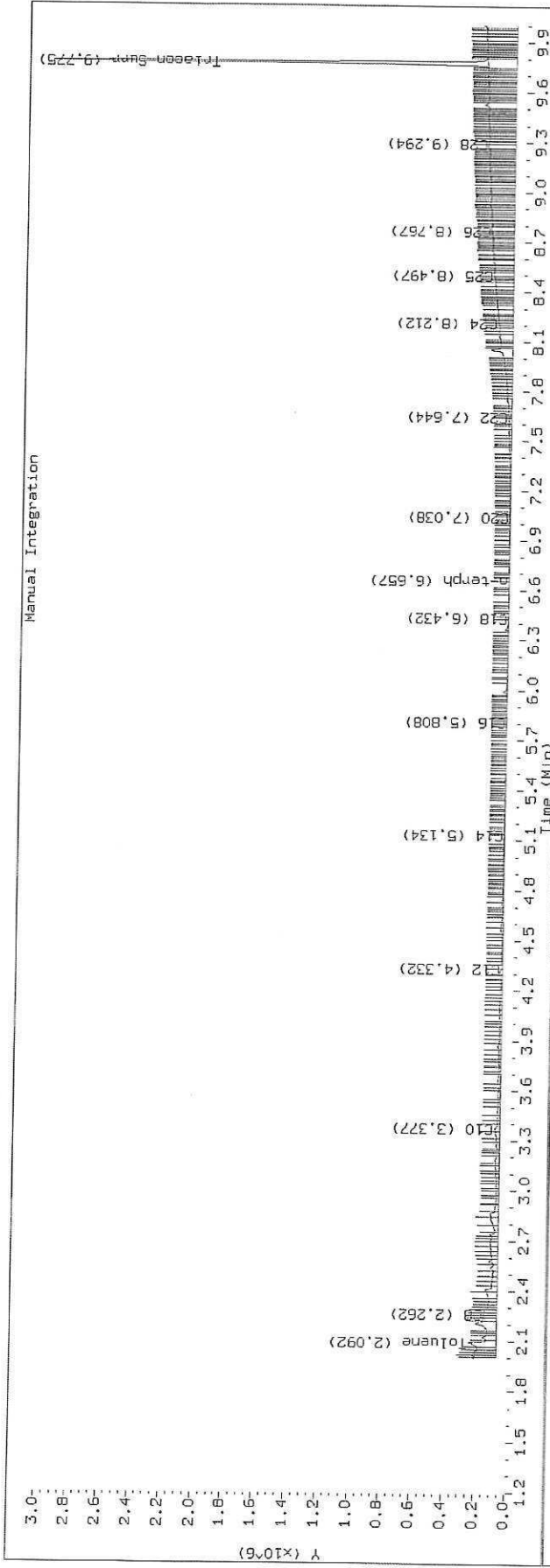
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2515.D SHJ0406-CAL8

HP6890 GC Data, FID1A.CH

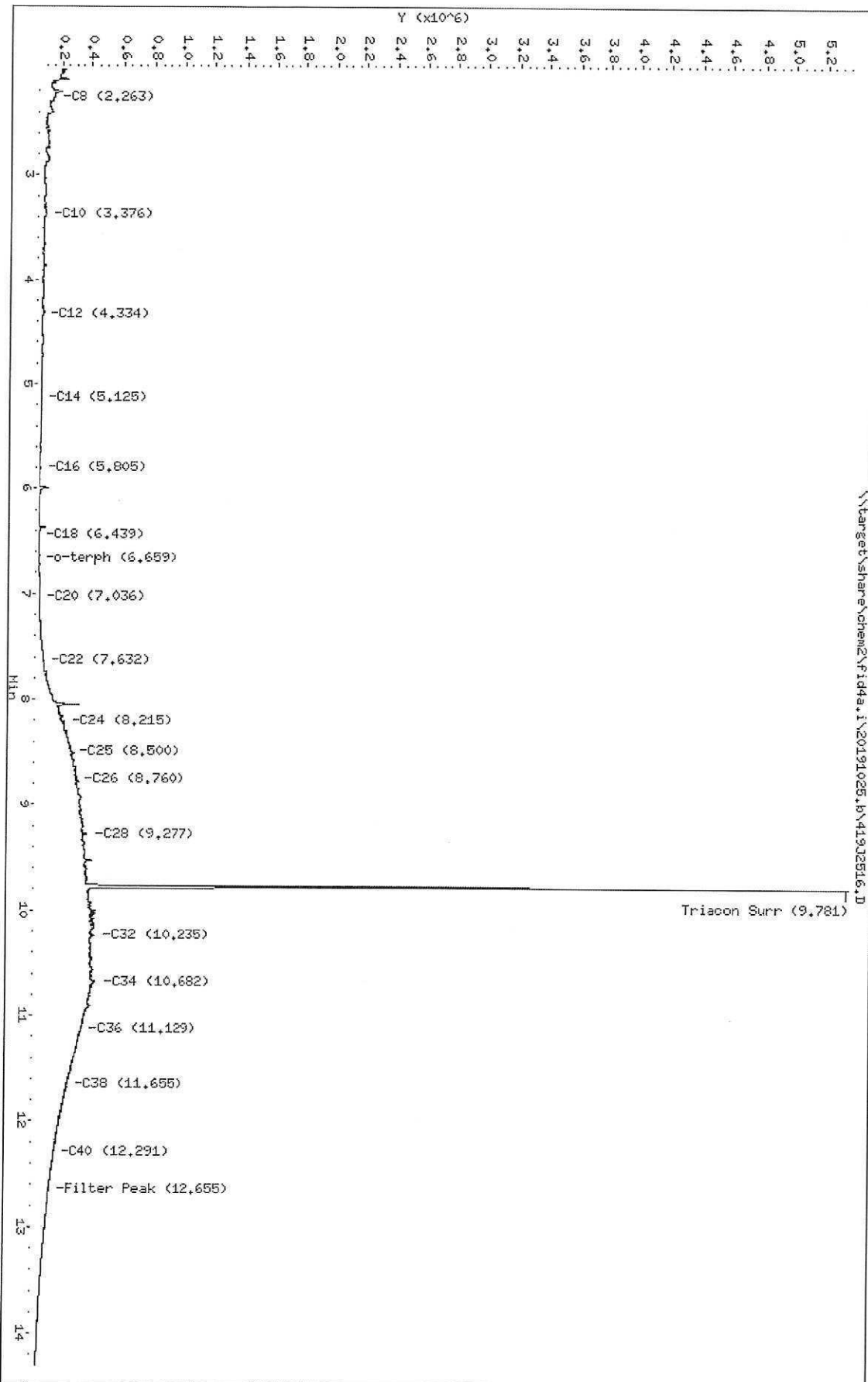


TPH Manual Integrations Report  
 Datafile: FID4A, 20191025.b/419J2515.D Injection: 25-OCT-2019 16:33  
 Lab ID: SHJ0406-CAL8



Data File: \\target\share\chem2\fid4a.i\20191025.B\419J2516.D  
Date: 25-OCT-2019 16:53  
Client ID:  
Sample Info: SHJ0406-CAL9  
Column Phase: RTX-1

Instrument: fid4a.i  
Operator: CTO/SH/VTS/JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2516.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CAL9  
Client ID:  
Injection: 25-OCT-2019 16:53  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.263	0.001	85054	58529	WATPHD	(C12-C24)	5661873	35.5
C10	3.376	0.003	38337	74763	WATPHM	(C24-C38)	64308153	484.9
C12	4.334	-0.013	14490	20832	AK102	(C10-C25)	8794999	45.0
C14	5.125	-0.004	9491	6950	AK103	(C25-C36)	54037059	540.5
C16	5.805	-0.002	4594	3625	OR.DIES	(C10-C28)	23868061	121.8
C18	6.439	0.004	1696	642				
C20	7.036	-0.007	7504	9871				
C22	7.632	-0.007	42646	55918				
C24	8.215	0.001	187247	321321				
C25	8.500	0.007	242499	189952				
C26	8.760	-0.005	272862	175979				
C28	9.277	-0.008	344800	562248				
C32	10.235	-0.007	399681	717669				
C34	10.682	0.001	410565	682394				
Filter Peak	12.655	0.004	112959	178875	CREOSOT	(C12-C22)	1771420	454.1
C36	11.129	-0.000	318612	63696				
C38	11.655	0.005	227739	158292				
C40	12.291	0.002	146308	65396				
o-terph	6.659	0.002	1793	1646				
Triacon Surr	9.781	-0.021	4947832	3881047	NAS DIES	(C10-C24)	6718189	34.4

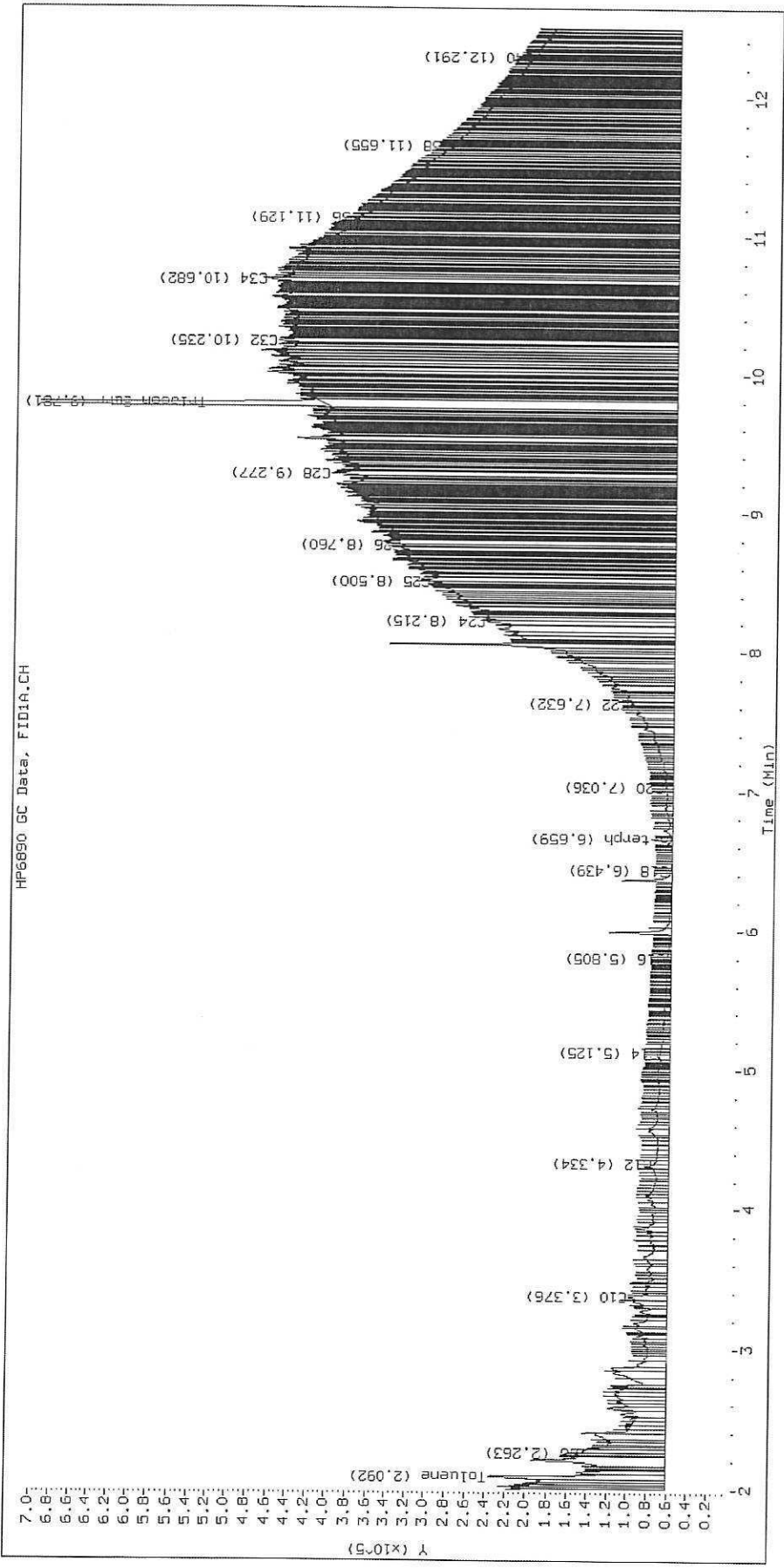
Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

Surrogate	Area	Amount
o-Terphenyl	1646	0.0
Triacontane	3881047	21.8 M

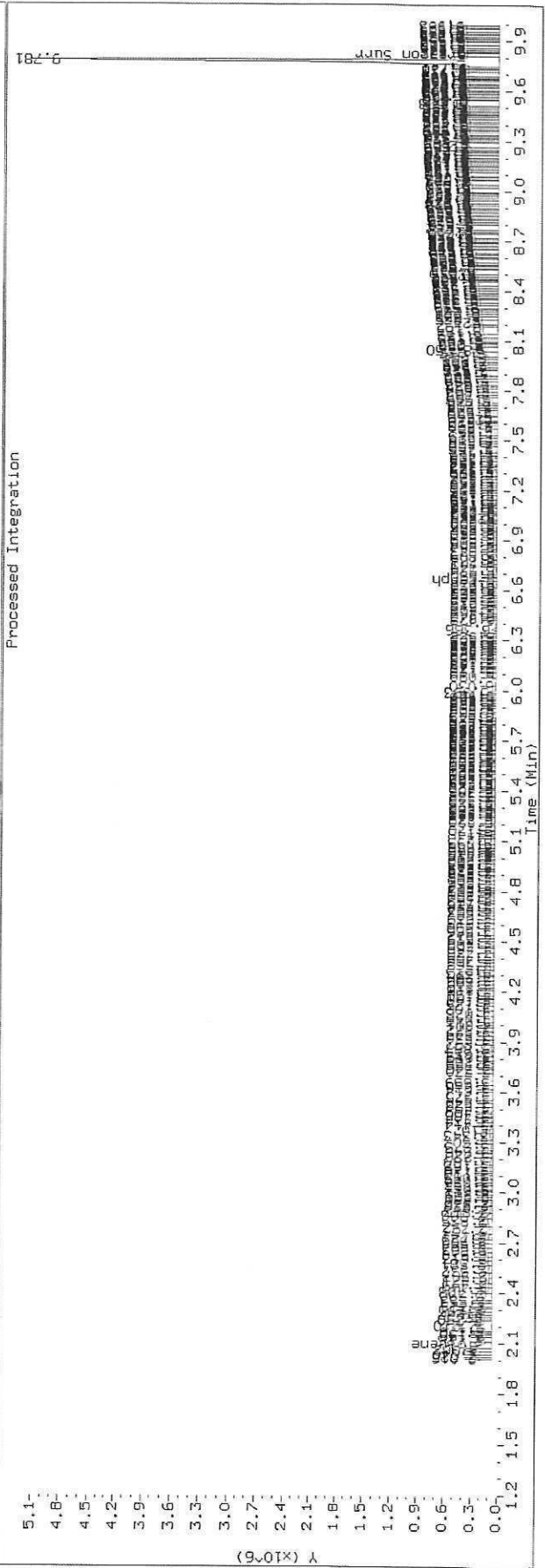
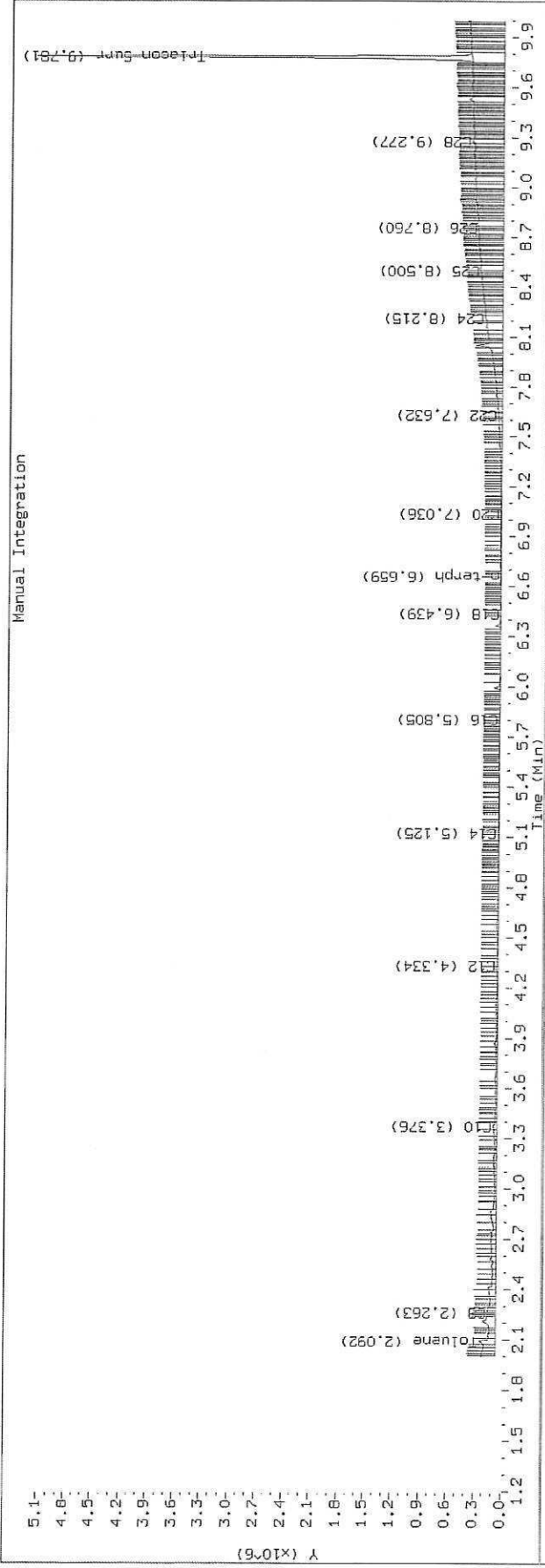
M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2516.D SHJ0406-CAL9

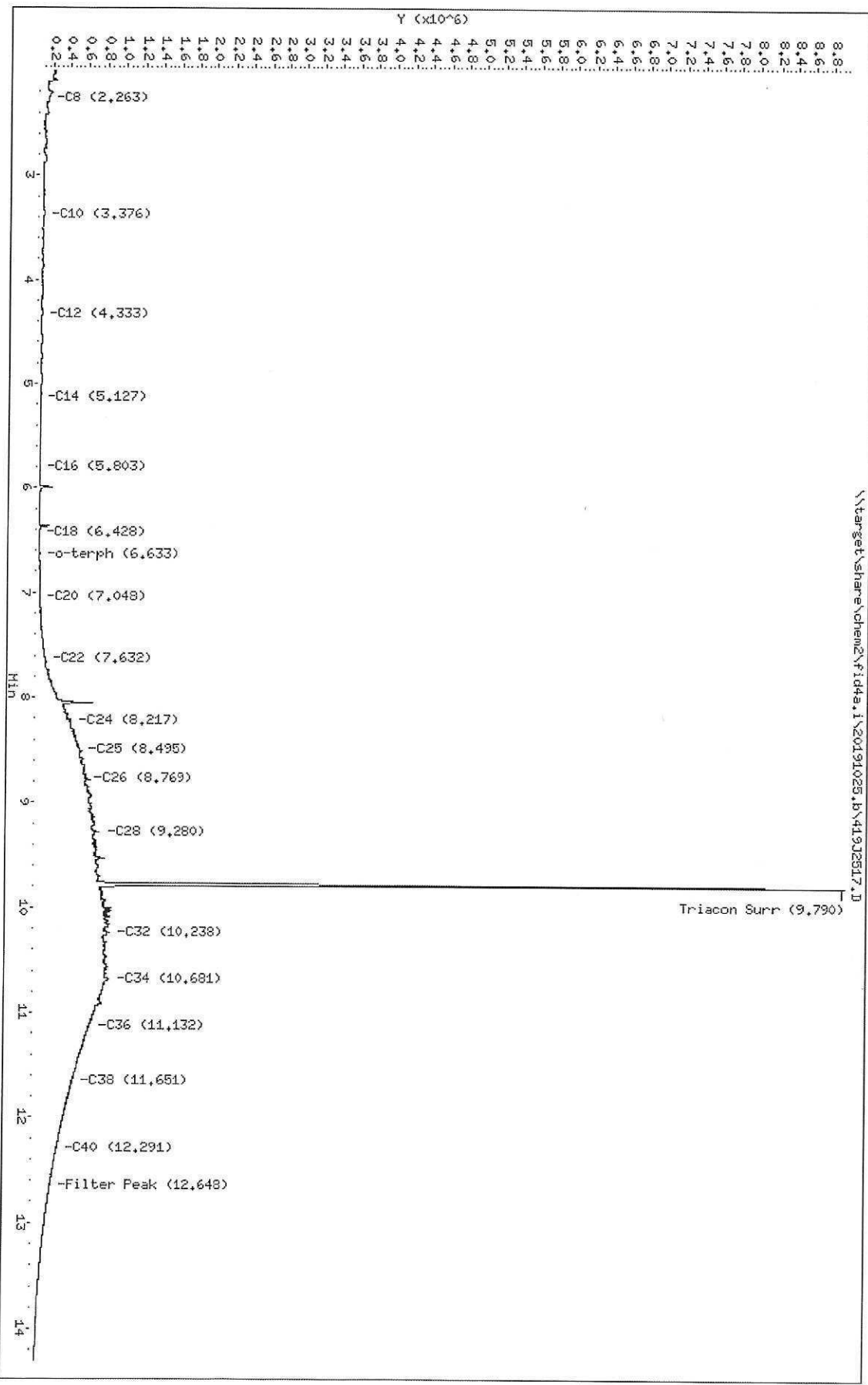


TPH Manual Integrations Report  
 Datafile: FID4A, 20191025.b/419J2516.D Injection: 25-OCT-2019 16:53  
 Lab ID:SHJ0406-CAL9



Data File: \\target\share\chem2\f1d4a.1\20191025.b\419J2517.D  
 Date : 25-OCT-2019 17:13  
 Client ID:  
 Sample Info: SHJ0406-CALLA  
 Column phase: RTX-1

Instrument: f1d4a.i  
 Operator: CTG/SH/VTS/JGR  
 Column diameter: 0.25





Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2517.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CALA  
Client ID:  
Injection: 25-OCT-2019 17:13  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	2.263	0.001	78760	49973	WATPHD	(C12-C24)	11050301	69.4
C10	3.376	0.003	33282	53155	WATPHM	(C24-C38)	130458600	983.6
C12	4.333	-0.014	8330	11675	AK102	(C10-C25)	16134883	82.5
C14	5.127	-0.003	6869	8015	AK103	(C25-C36)	110338631	1103.6
C16	5.803	-0.004	4269	6183	OR.DIES	(C10-C28)	47155868	240.6
C18	6.428	-0.006	4035	4694				
C20	7.048	0.005	16630	12336				
C22	7.632	-0.007	93050	108452				
C24	8.217	0.002	386378	321791				
C25	8.495	0.002	491396	292213				
C26	8.769	0.005	557751	166690				
C28	9.280	-0.005	695698	804868				
C32	10.238	-0.005	823126	997439				
C34	10.681	-0.000	821771	761528				
Filter Peak	12.648	-0.002	202612	170825	CREOSOT	(C12-C22)	2854310	731.7
C36	11.132	0.003	625826	249171				
C38	11.651	0.001	444433	177367				
C40	12.291	0.002	276466	164427				
o-terph	6.633	-0.023	11730	15135				
Triacon Surr	9.790	-0.012	8190520	7927188	NAS DIES	(C10-C24)	11670623	59.8

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

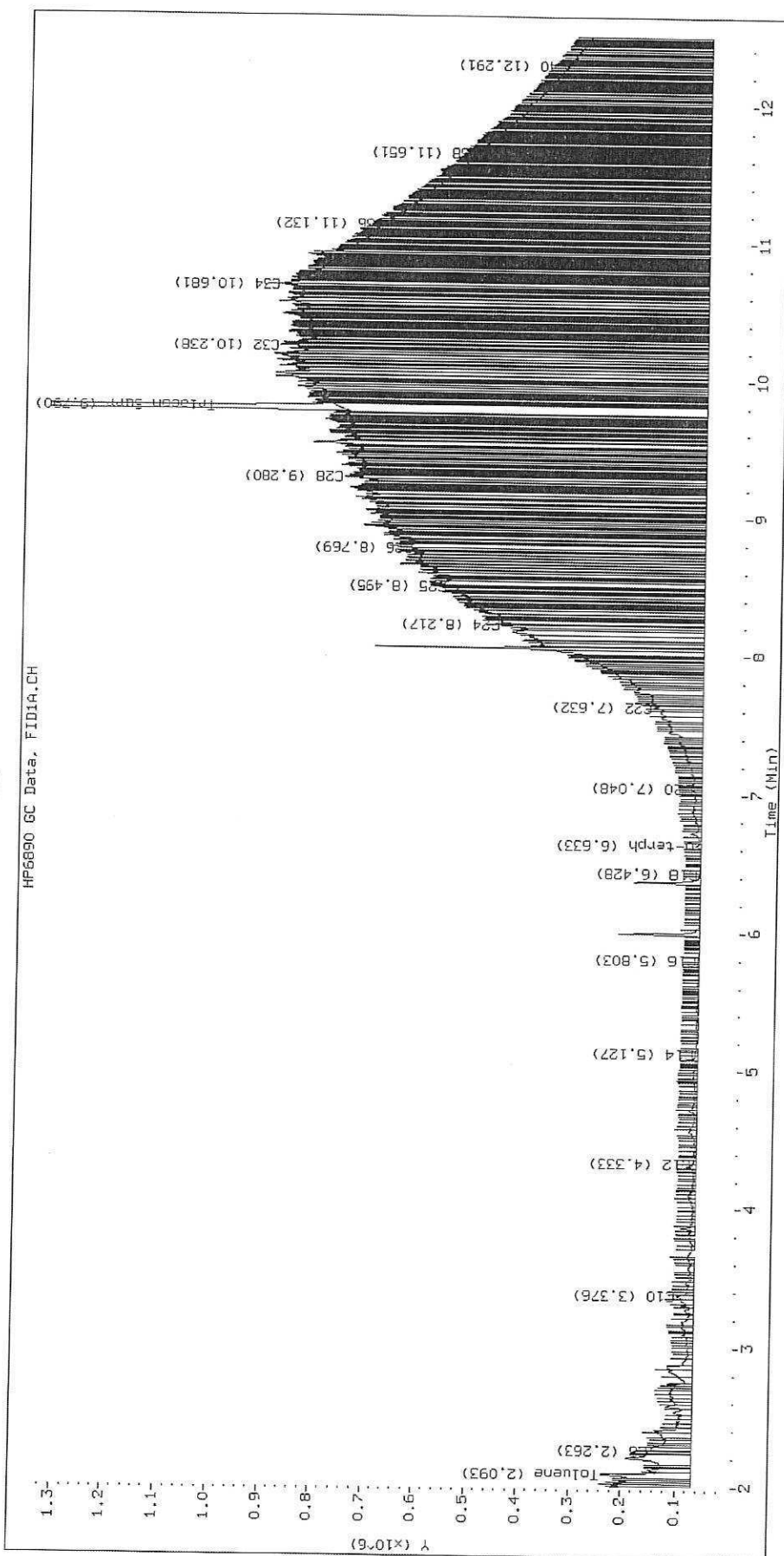
Surrogate	Area	Amount
o-Terphenyl	15135	0.1
Triacotane	7927188	44.5 M

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

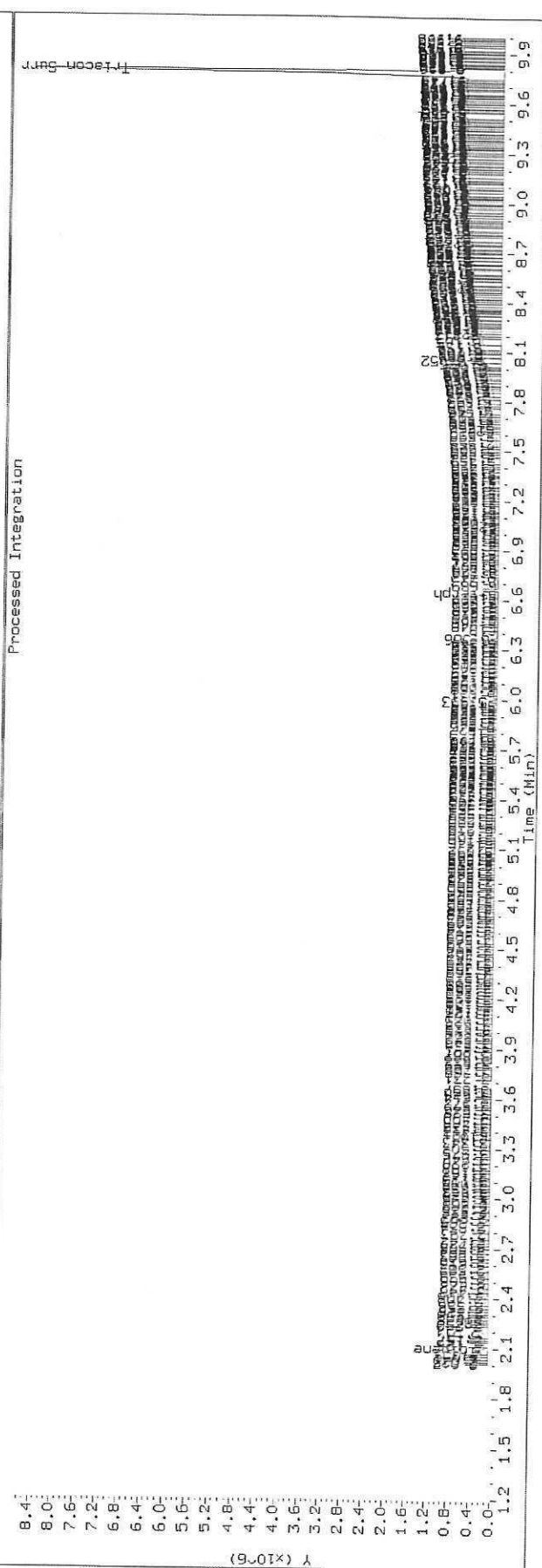
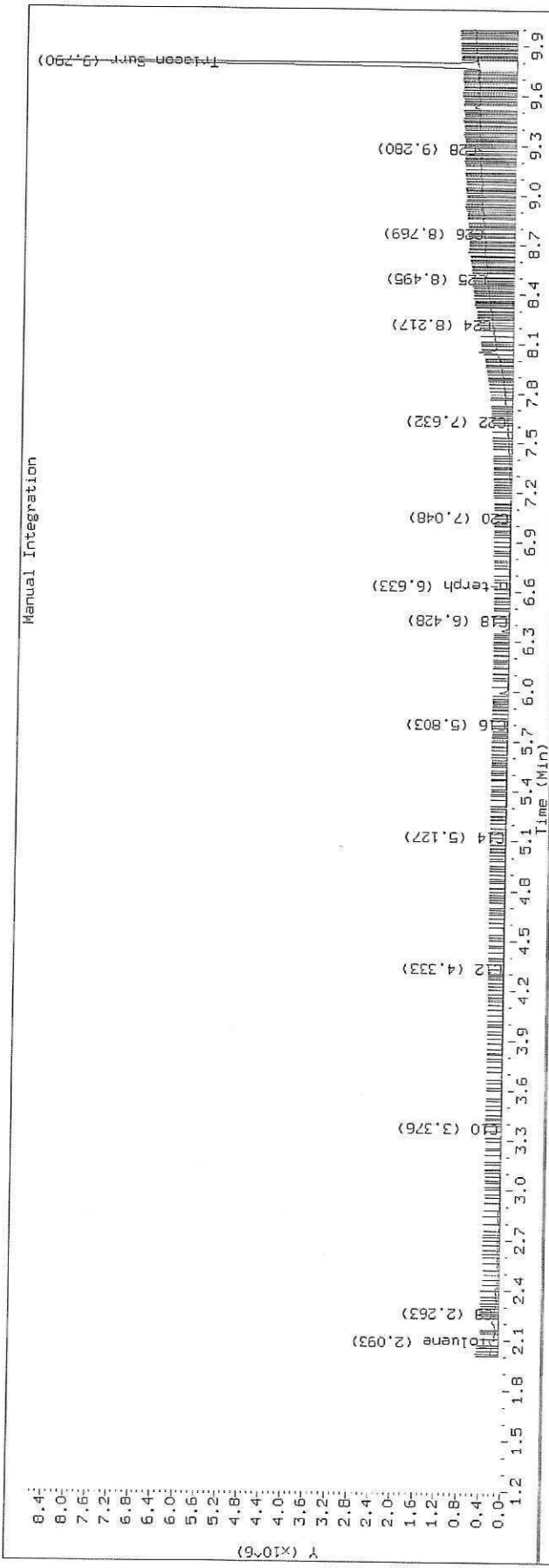
Datafile: FID4A, 20191025.b/419J2517.D

SHJ0406-CALA



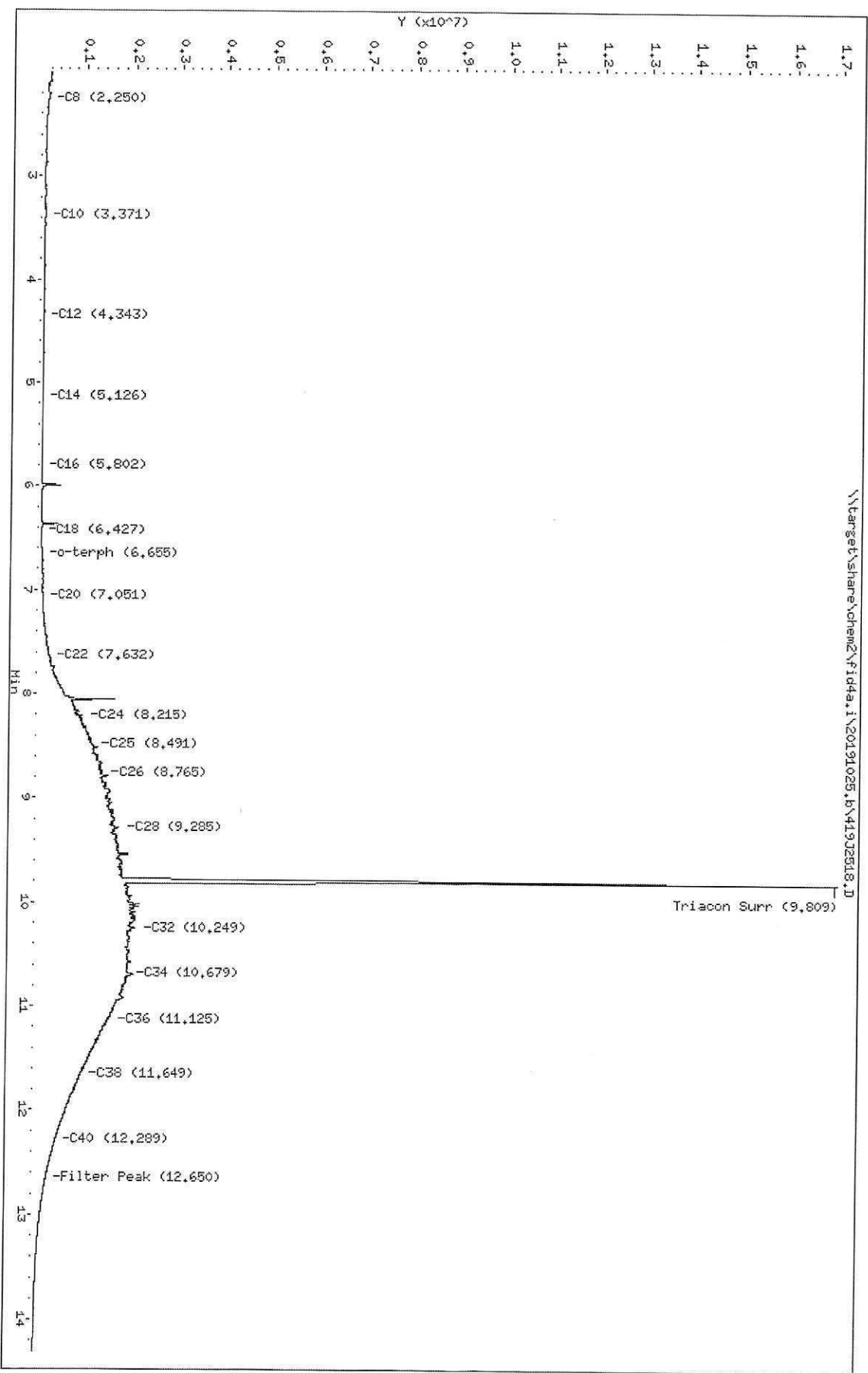
HF6890 GC Data, FID1A.CH

TPH Manual Integrations Report  
 Datafile: FID4A, 20191025.b/419J2517.D Injection: 25-OCT-2019 17:13  
 Lab ID: SHJ0406-CALA



Data File: \\target\share\chem2\fid4a.i\20191025.b\419J2518.D  
Date: 25-OCT-2019 17:34  
Client ID:  
Sample Info: SHJ0406-CALB  
Column phase: RTX-1

Instrument: fid4a.i  
Operator: CTG/SH/VTS/JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2518.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CALB  
Client ID:  
Injection: 25-OCT-2019 17:34  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.250	-0.012	77817	116710	WATPHD	(C12-C24)	27251753	171.0
C10	3.371	-0.002	31760	39598	WATPHM	(C24-C38)	331873325	2502.2
C12	4.343	-0.004	6520	6156	AK102	(C10-C25)	38872526	198.8
C14	5.126	-0.004	7874	9340	AK103	(C25-C36)	281447225	2815.1
C16	5.802	-0.005	7984	9771	OR.DIES	(C10-C28)	115893490	591.3
C18	6.427	-0.007	14076	14289				
C20	7.051	0.008	46537	34495				
C22	7.632	-0.007	235207	295349				
C24	8.215	0.000	955047	900361				
C25	8.491	-0.002	1184503	236628				
C26	8.765	0.000	1401067	1730192				
C28	9.285	-0.001	1743563	2775911				
C32	10.249	0.007	2106415	3055227				
C34	10.679	-0.002	1974576	1267121				
Filter Peak	12.650	-0.001	278159	124338	CREOSOT	(C12-C22)	6708937	1719.8
C36	11.125	-0.004	1581807	1021345				
C38	11.649	-0.001	1027941	256759				
C40	12.289	0.000	486929	193205				
o-terph	6.655	-0.002	18811	15731				
Triacon Surr	9.809	0.007	15056726	20120024	NAS DIES	(C10-C24)	27786026	142.4

Range Times: NW Diesel (4.347 - 8.215) AK102 (3.37 - 8.49) Jet A (3.37 - 6.43)  
NW M.Oil (8.21 - 11.65) AK103 (8.49 - 11.13) OR Diesel (3.37 - 9.29)

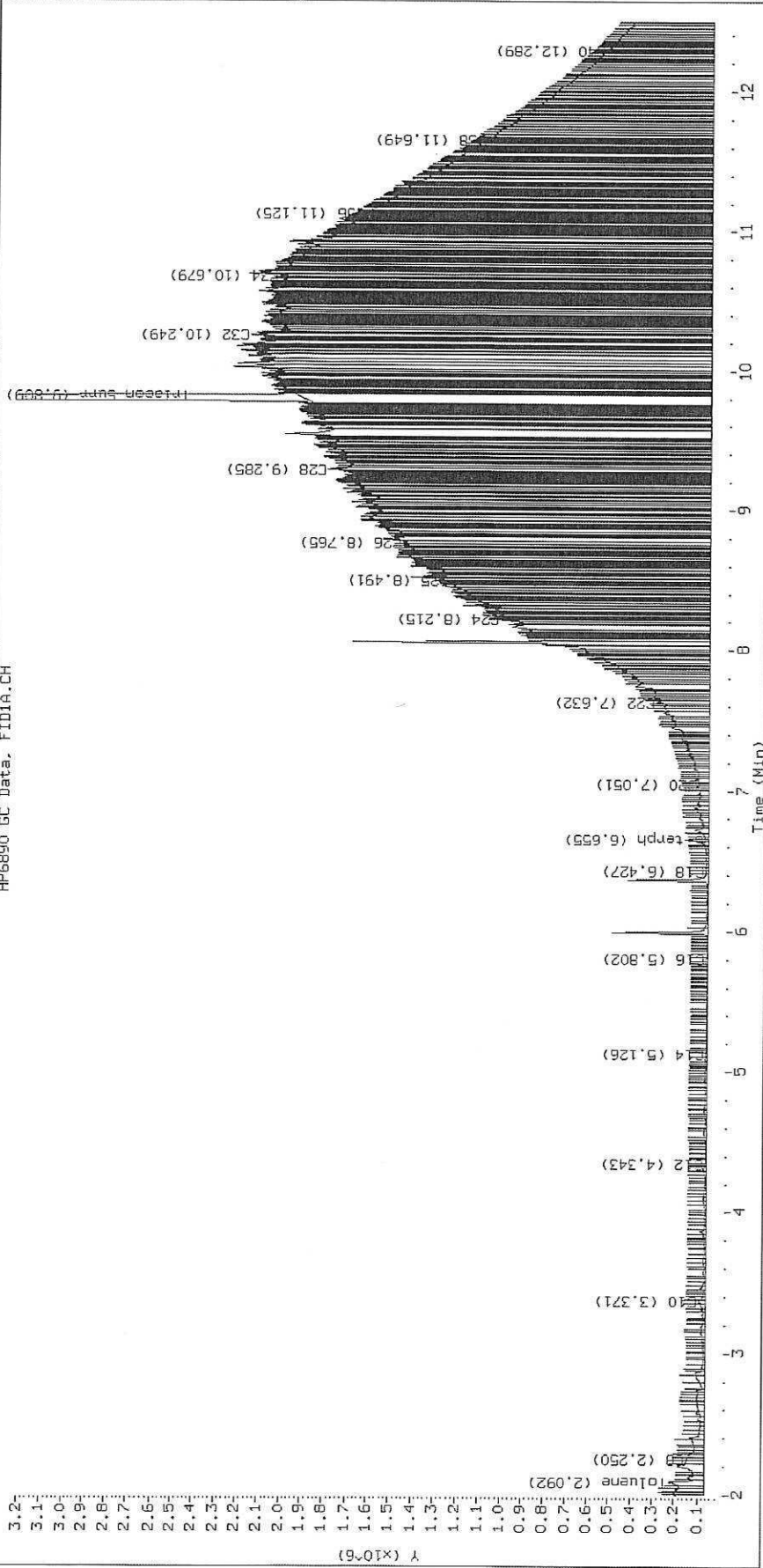
Surrogate	Area	Amount
o-Terphenyl	15731	0.1
Triacontane	20120024	113.0 M

M Indicates the peak was manually integrated

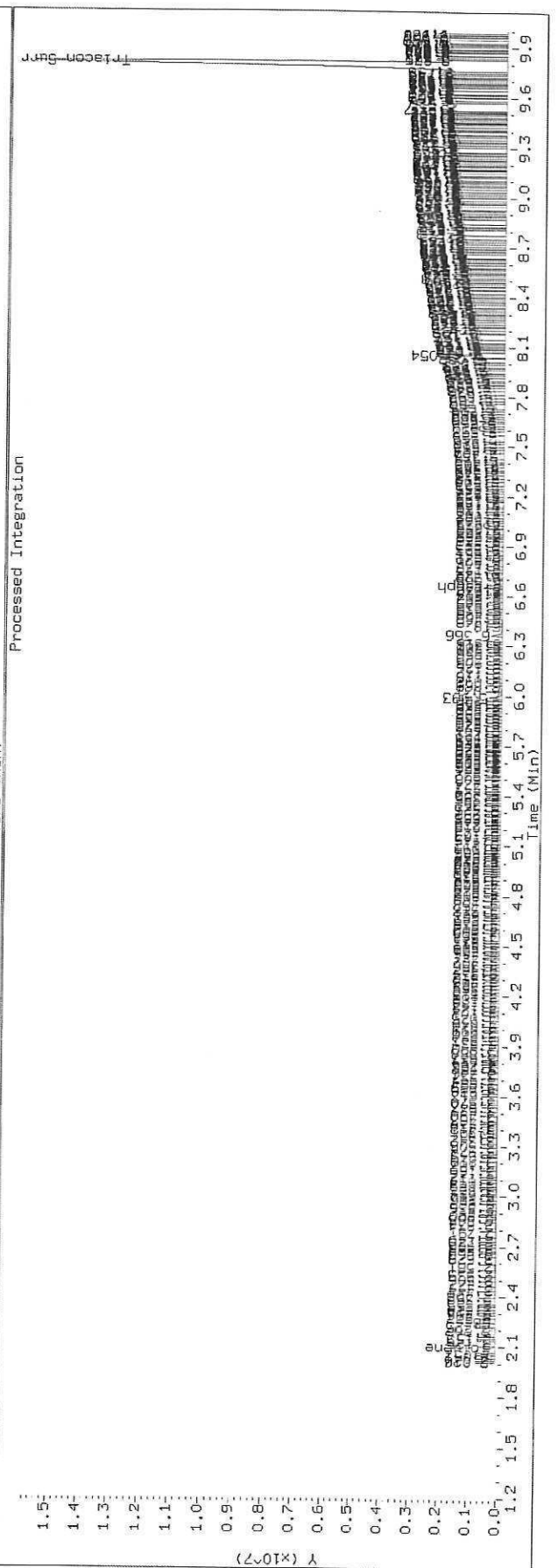
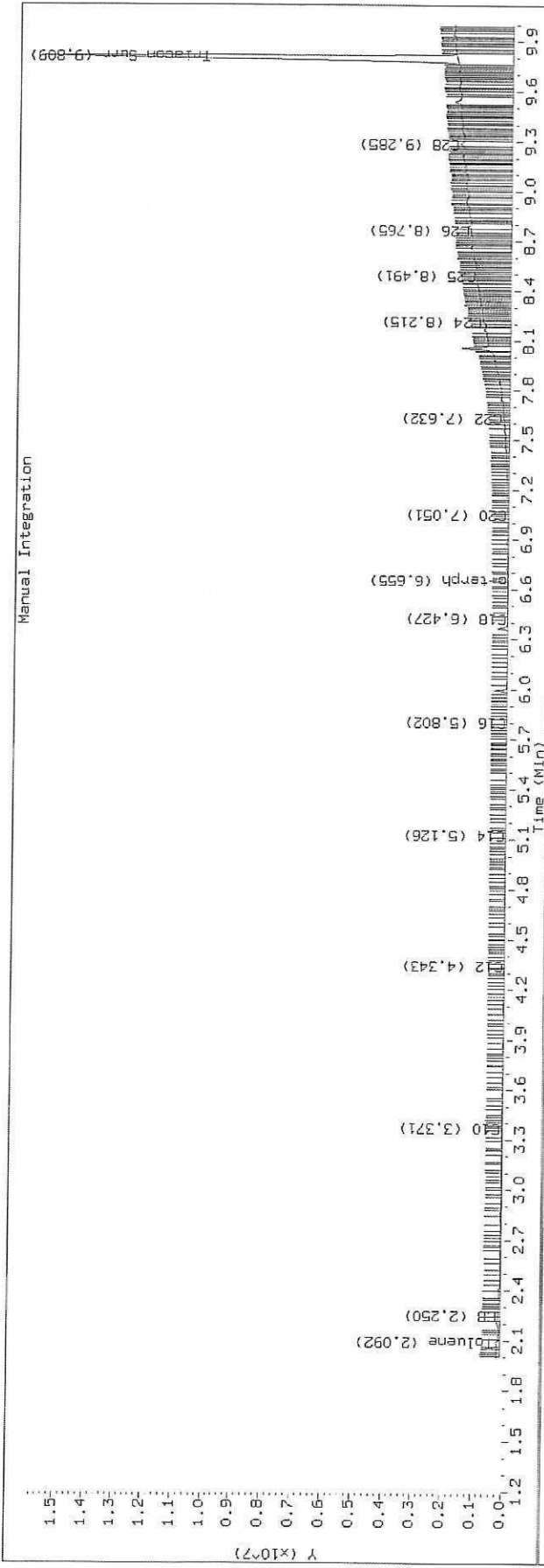
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2518.D SHJ0406-CALB

HP6890 GC Data, FID1A.CH

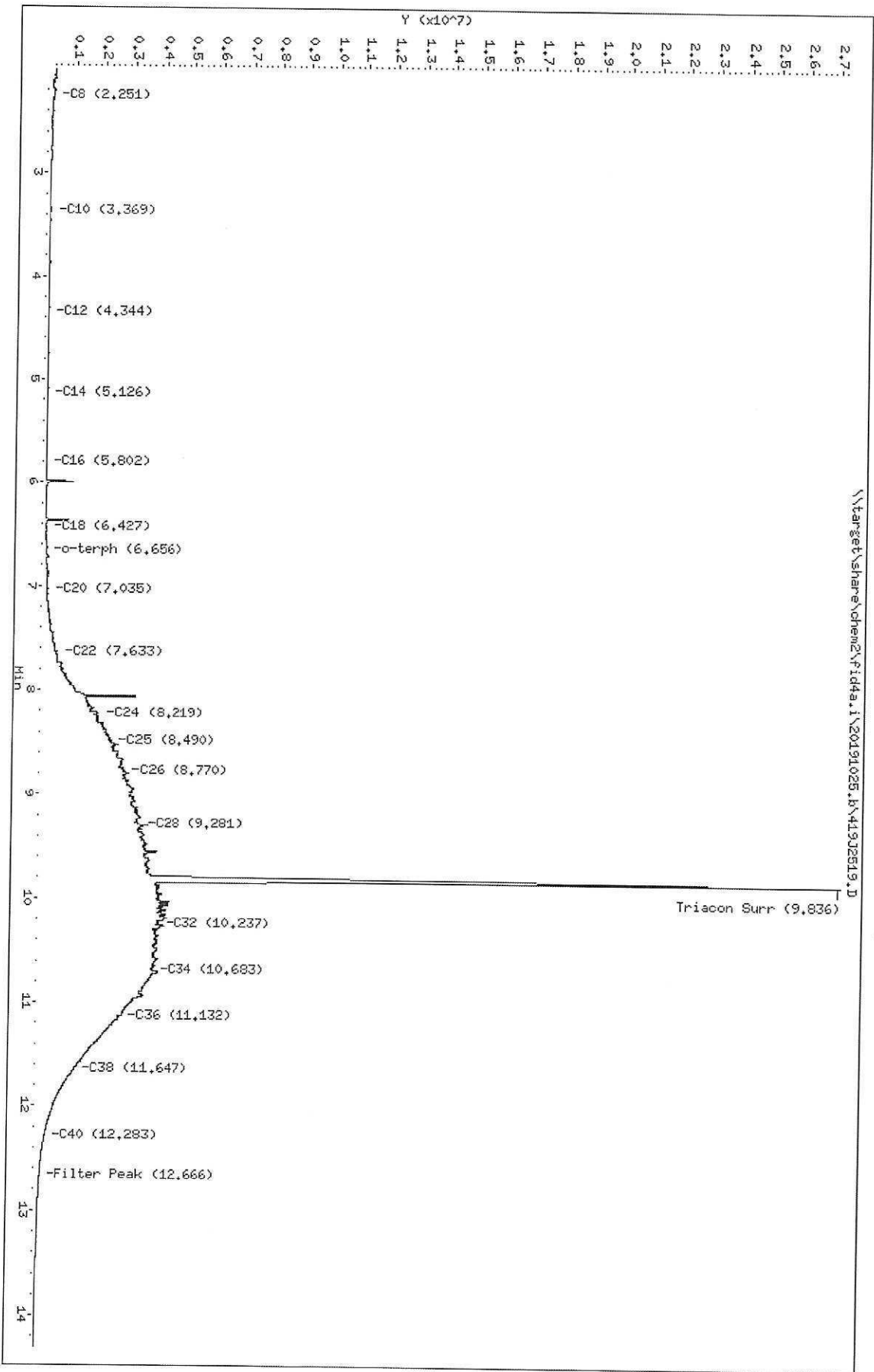


TPH Manual Integrations Report  
 Datafile: FID4A, 20191025.b/419J2518.D Injection: 25-OCT-2019 17:34  
 Lab ID: SHJ0406-CALB



Data File: \\target\share\chem2\fid4a.i\20191025.bv419J2519.D  
 Date: 25-OCT-2019 17:54  
 Client ID:  
 Sample Info: SHJ0408-CALC  
 Column phase: RTX-1

Instrument: fid4a.i  
 Operator: CT0/SH/VTS/JCR  
 Column diameter: 0.25





Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2519.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CALC  
Client ID:  
Injection: 25-OCT-2019 17:54  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS								
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	2.251	-0.011	83410	131526	WATPHD	(C12-C24)	54951988	344.9
C10	3.369	-0.004	40067	53627	WATPHM	(C24-C38)	647842842	4884.5
C12	4.344	-0.003	8504	8688	AK102	(C10-C25)	79702569	407.7
C14	5.126	-0.004	19567	26129	AK103	(C25-C36)	565644605	5657.8
C16	5.802	-0.006	21777	24178	OR.DIES	(C10-C28)	235116720	1199.6
C18	6.427	-0.008	35077	33036				
C20	7.035	-0.008	119620	119856				
C22	7.633	-0.006	481948	602675				
C24	8.219	0.004	1952483	1661789				
C25	8.490	-0.003	2383743	592688				
C26	8.770	0.005	2837167	1694204				
C28	9.281	-0.005	3377335	3333438				
C32	10.237	-0.006	4076731	3428537				
C34	10.683	0.002	3869795	1544856				
Filter Peak	12.666	0.015	116179	102746	CREOSOT	(C12-C22)	14260161	3655.6
C36	11.132	0.003	2846055	707761				
C38	11.647	-0.002	1313112	715795				
C40	12.283	-0.006	302346	281489				
o-terph	6.656	-0.001	43010	66343				
Triacon Surr	9.836	0.034	23293566	39698048	NAS DIES	(C10-C24)	55485985	284.3

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

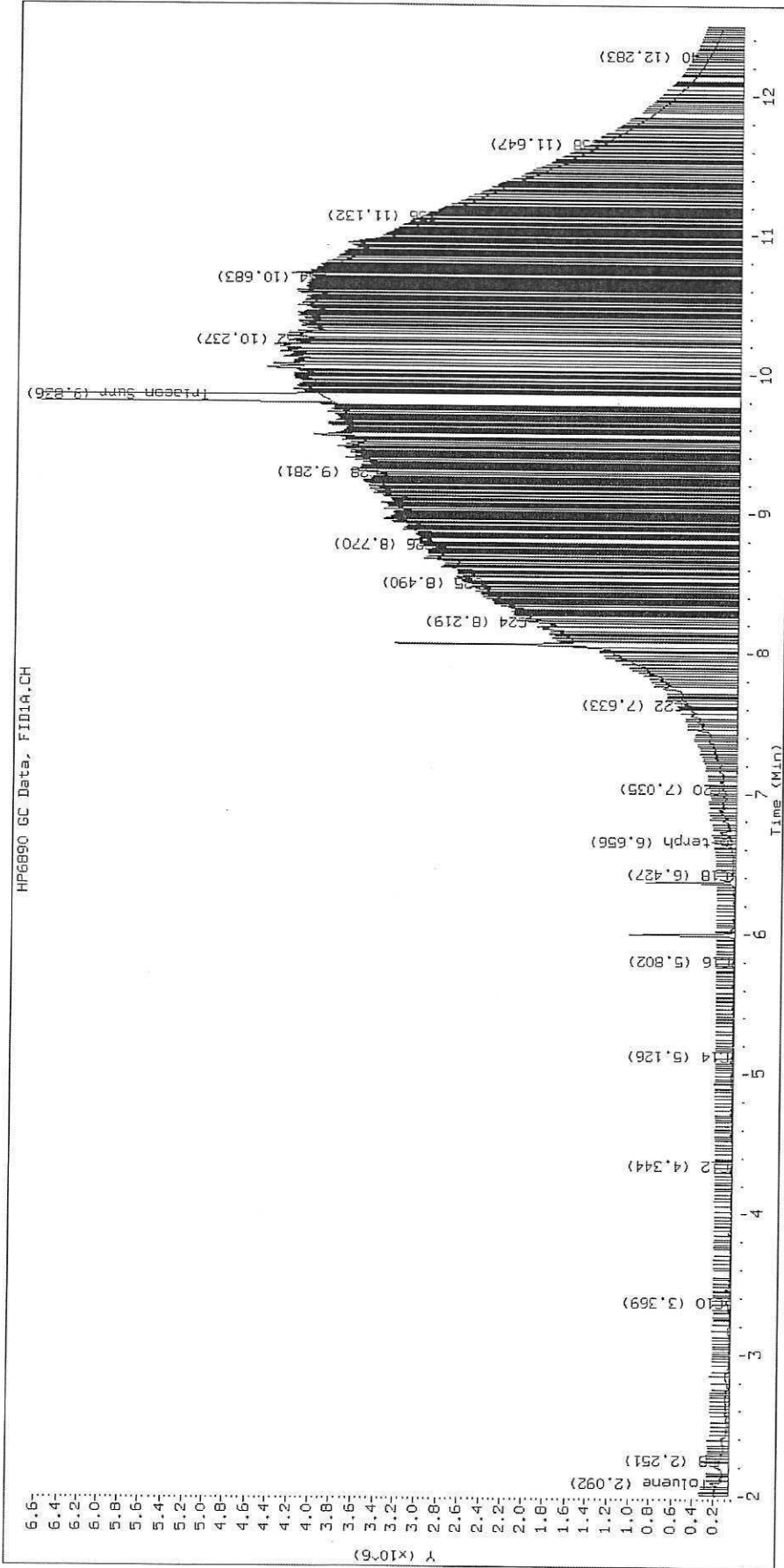
Surrogate	Area	Amount
o-Terphenyl	66343	0.3
Triacotane	39698048	223.0 M

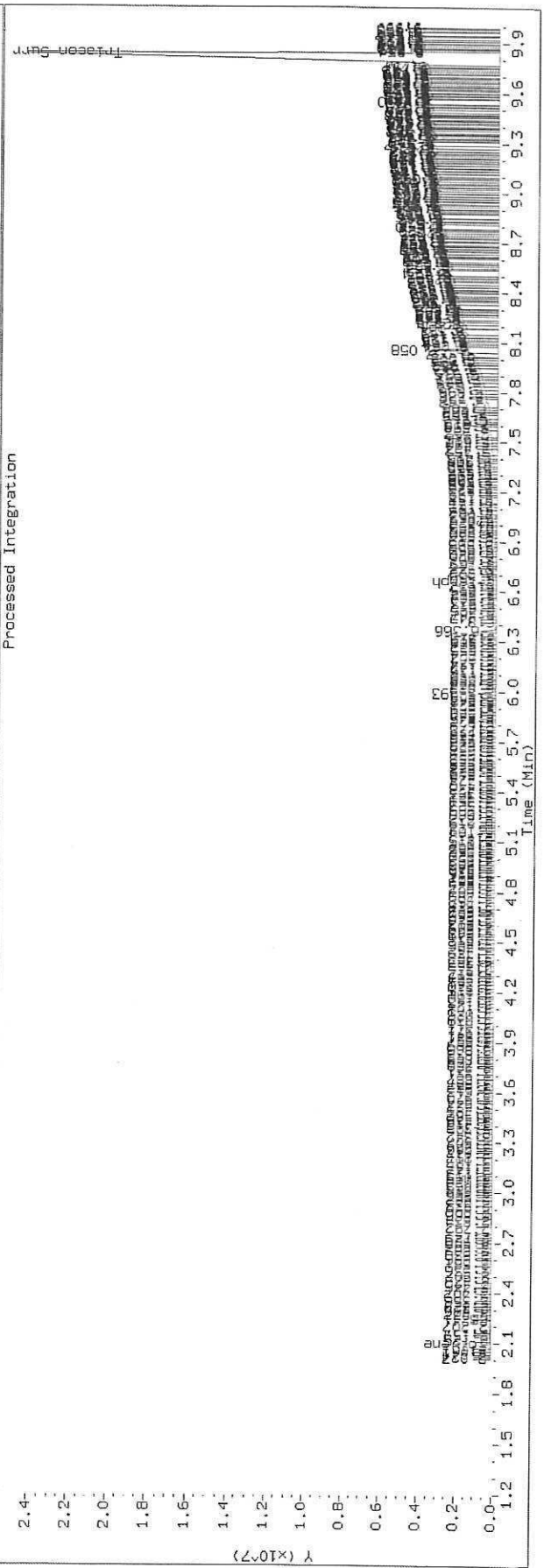
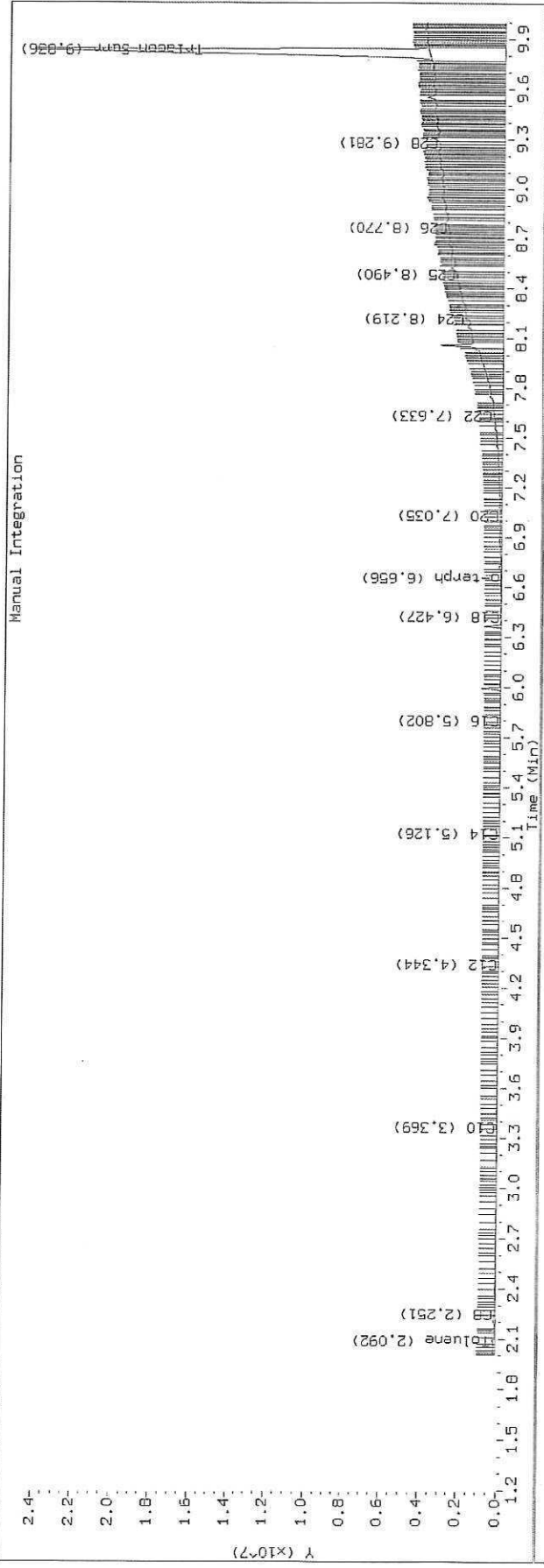
M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A\_ 20191025.b/419J2519.D SHJ0406-CALC

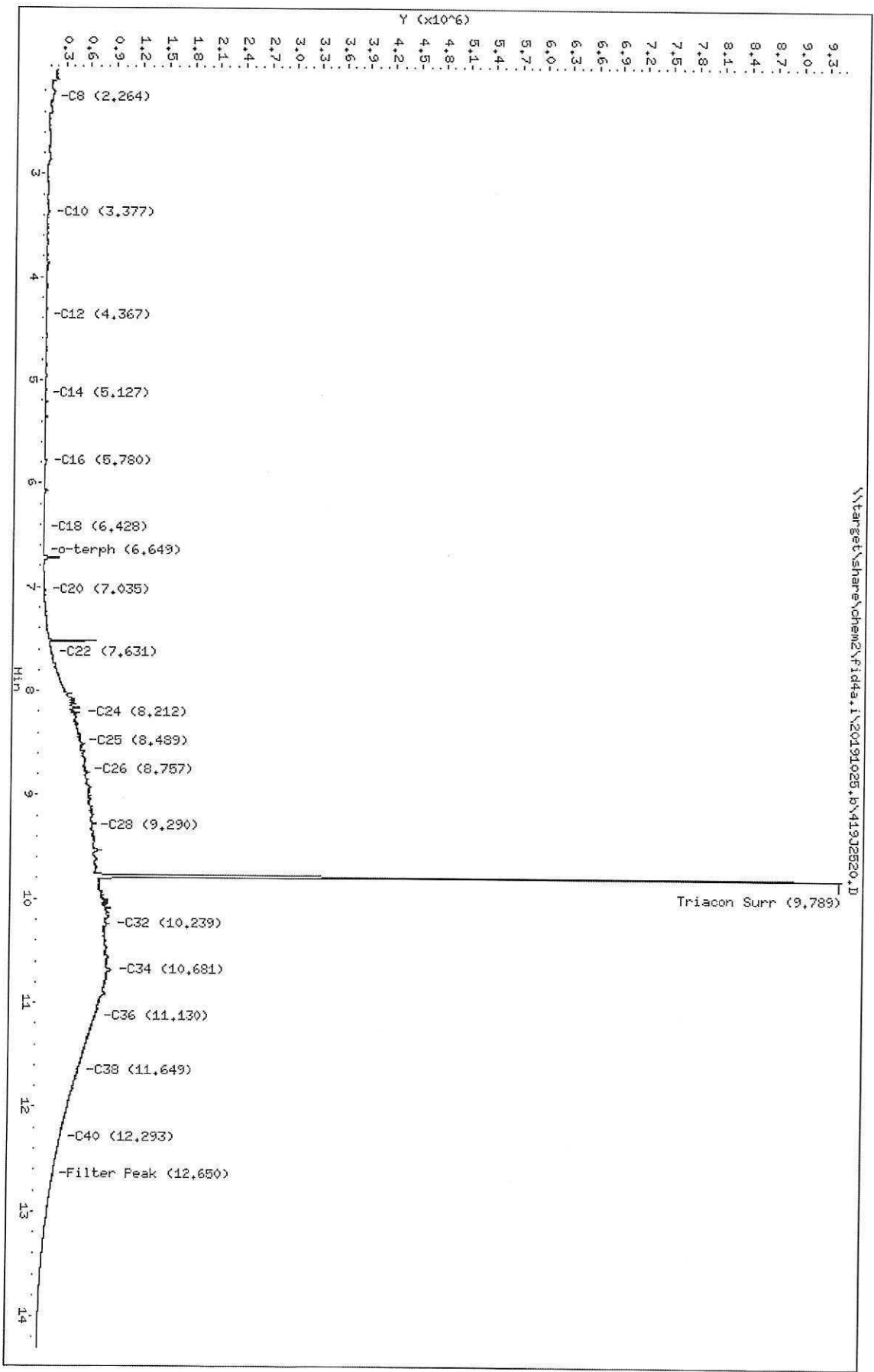
HP6890 GC Data, FID1A.CH





Data File: \\target\share\chem2\fid4a.i\20191025.b\419J2520.D  
Date : 25-OCT-2019 18:14  
Client ID:  
Sample Info: SHJ0406-SCV2  
Column phase: RTX-1

Instrument: fid4a.i  
Operator: CTO/SH/MTS/JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2520.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-SCV2  
Client ID:  
Injection: 25-OCT-2019 18:14  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.264	0.002	61386	42202	WATPHD	(C12-C24)	14006466	87.9
C10	3.377	0.004	28038	52387	WATPHM	(C24-C38)	135195593	1019.3
C12	4.367	0.020	3146	3151	AK102	(C10-C25)	18822986	96.3
C14	5.127	-0.003	4143	4458	AK103	(C25-C36)	113030798	1130.6
C16	5.780	-0.027	35494	74348	OR.DIES	(C10-C28)	49340102	251.7
C18	6.428	-0.007	6156	6874				
C20	7.035	-0.008	26093	30304				
C22	7.631	-0.008	127794	247657				
C24	8.212	-0.003	471017	746279				
C25	8.489	-0.004	491516	98217				
C26	8.757	-0.008	557900	550938				
C28	9.290	0.005	640615	223711				
C32	10.239	-0.004	847729	1306304				
C34	10.681	-0.000	865603	764427				
Filter Peak	12.650	-0.000	213232	84835	CREOSOT	(C12-C22)	3605357	924.2
C36	11.130	0.001	692159	413129				
C38	11.649	-0.001	503231	200454				
C40	12.293	0.004	305287	287895				
o-terph	6.649	-0.008	4022	3699				
Triacon Surr	9.789	-0.013	8762887	8519530	NAS DIES	(C10-C24)	14444503	74.0

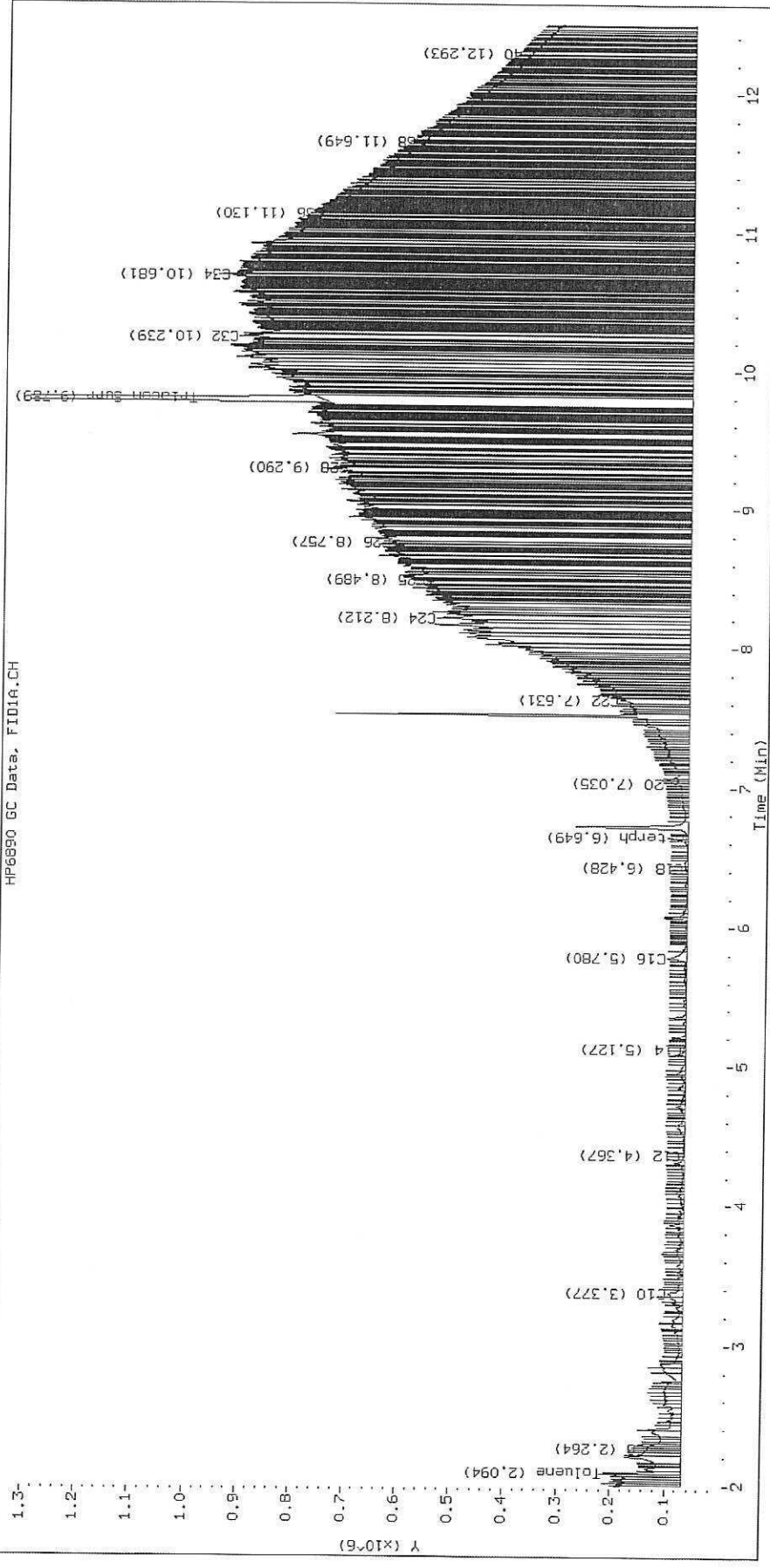
Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

Surrogate	Area	Amount
o-Terphenyl	3699	0.0
Triacontane	8519530	47.9 M

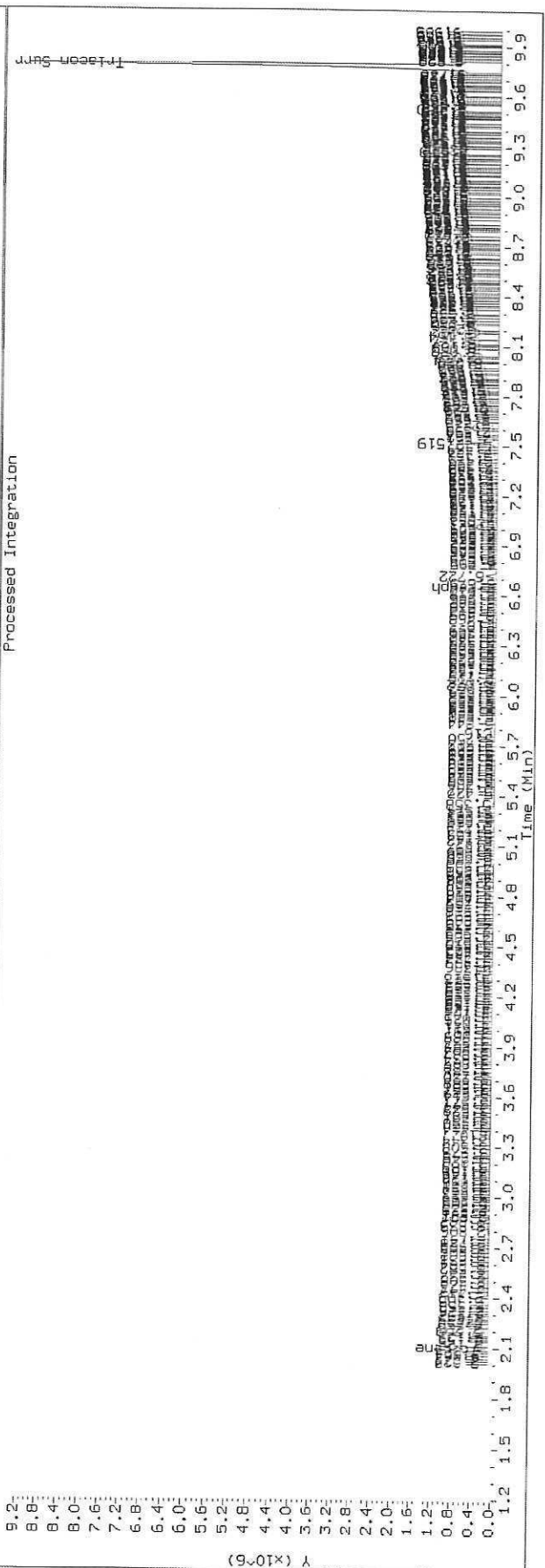
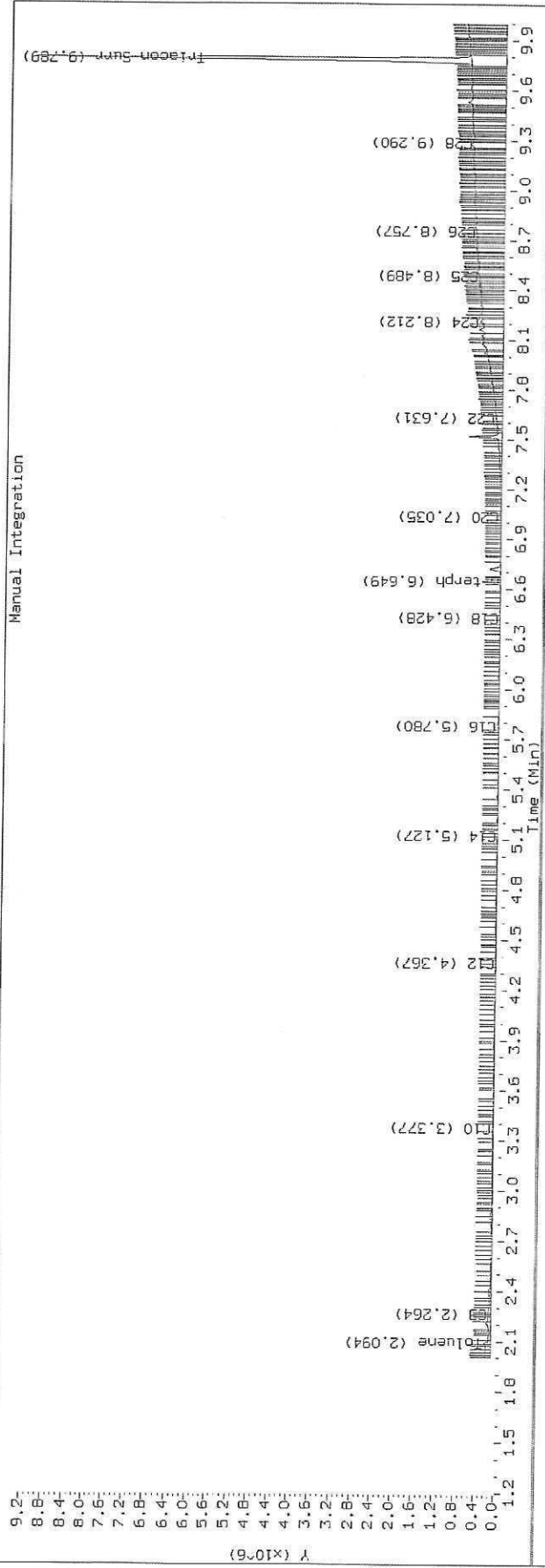
M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2520.D SHJ0406-SCV2

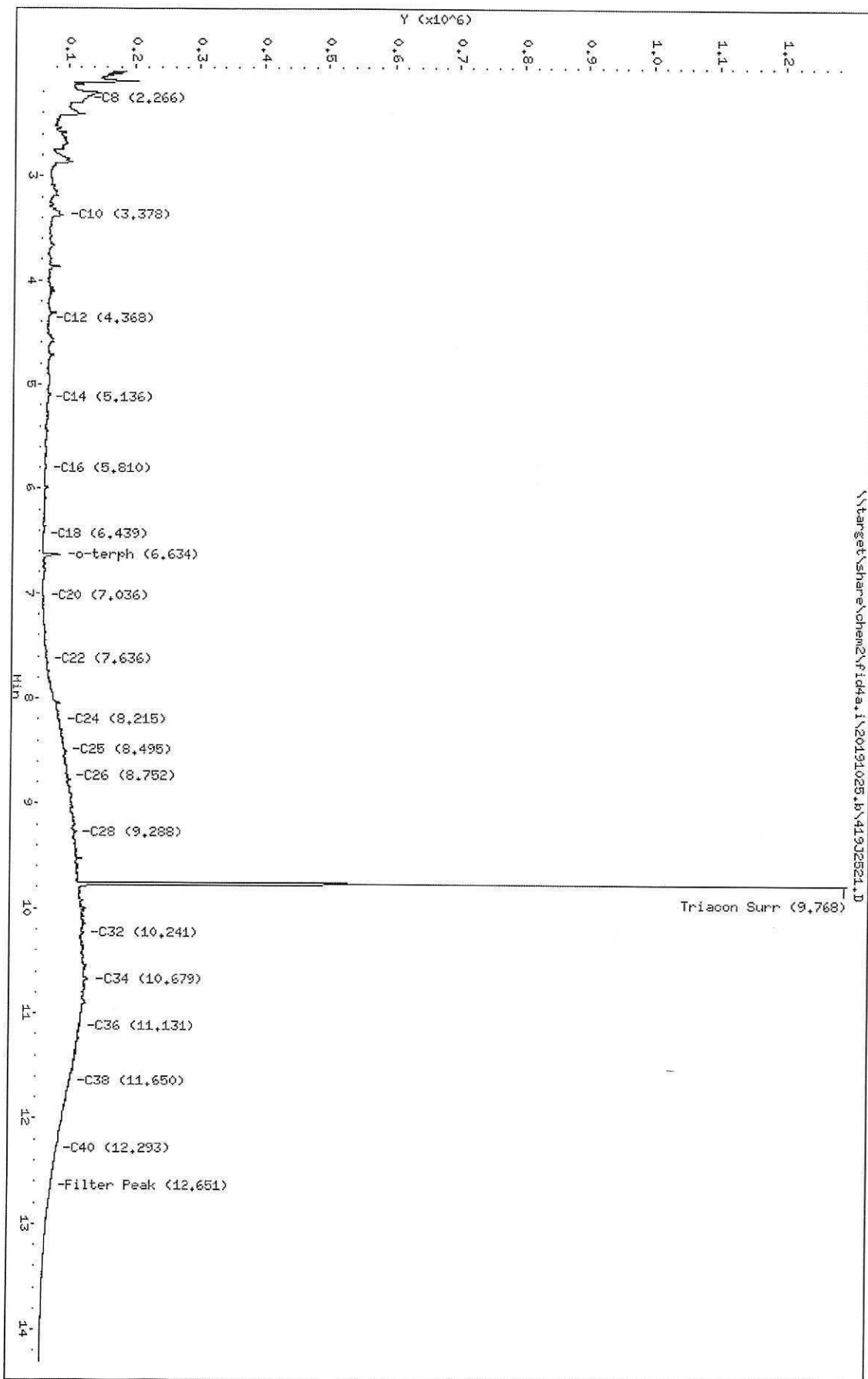


TPH Manual Integrations Report  
 Datafile: FID4A, 20191025.b/419J2520.D Injection: 25-OCT-2019 18:14  
 Lab ID: SHJ0406-SCV2



Data File: \\target\share\chem2\fid4a.i\20191025.b\41932521.D  
Date : 25-OCT-2019 18:35  
Client ID:  
Sample Info: SHJ0406-CALLD  
Column phase: RTX-1

Instrument: fid4a.i  
Operator: CTO/SH/VTS/JGR  
Column diameter: 0.25





Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2521.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CALD  
Client ID:  
Injection: 25-OCT-2019 18:35  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	2.266	0.003	63130	43308	WATPHD	(C12-C24)	1323968	8.3
C10	3.378	0.005	28879	54645	WATPHM	(C24-C38)	12086307	91.1
C12	4.368	0.021	6558	8293	AK102	(C10-C25)	2265512	11.6
C14	5.136	0.007	6204	3069	AK103	(C25-C36)	9919700	99.2
C16	5.810	0.003	3258	3063	OR.DIES	(C10-C28)	4756055	24.3
C18	6.439	0.004	920	449				
C20	7.036	-0.007	1277	1180				
C22	7.636	-0.003	8777	15968				
C24	8.215	0.000	31726	51380				
C25	8.495	0.002	39977	33338				
C26	8.752	-0.012	45255	53640				
C28	9.288	0.003	56620	22552				
C32	10.241	-0.002	70490	38594				
C34	10.679	-0.002	78226	83978				
Filter Peak	12.651	0.000	22108	8817	CREOSOT	(C12-C22)	689259	176.7
C36	11.131	0.002	66508	16608				
C38	11.650	0.000	52851	23597				
C40	12.293	0.004	31673	31207				
o-terph	6.634	-0.022	28829	34405				
Triacon Surr	9.768	-0.034	1173387	818277	NAS DIES	(C10-C24)	1907173	9.8

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

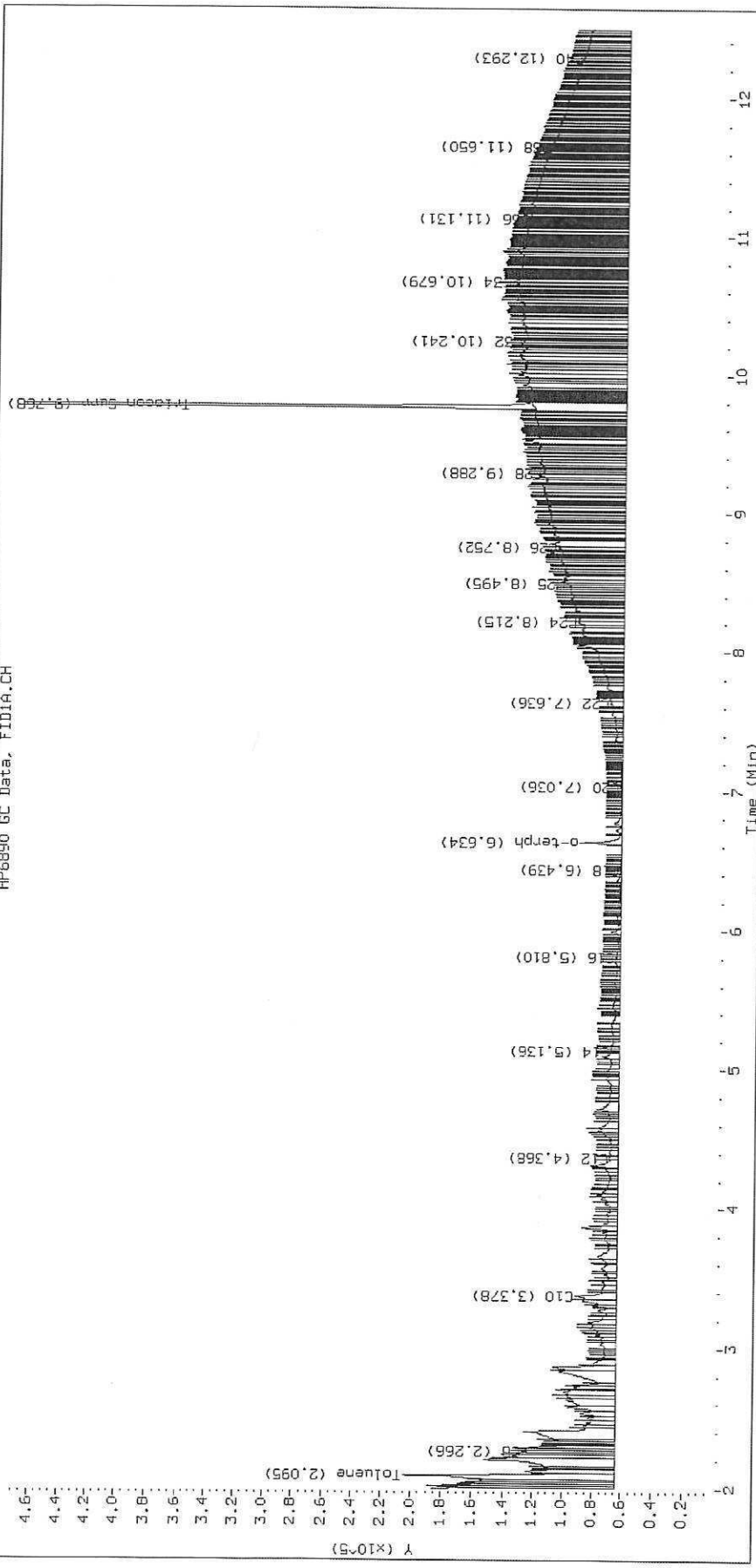
Surrogate	Area	Amount
o-Terphenyl	34405	0.2
Triacotane	818277	4.6 M

M Indicates the peak was manually integrated

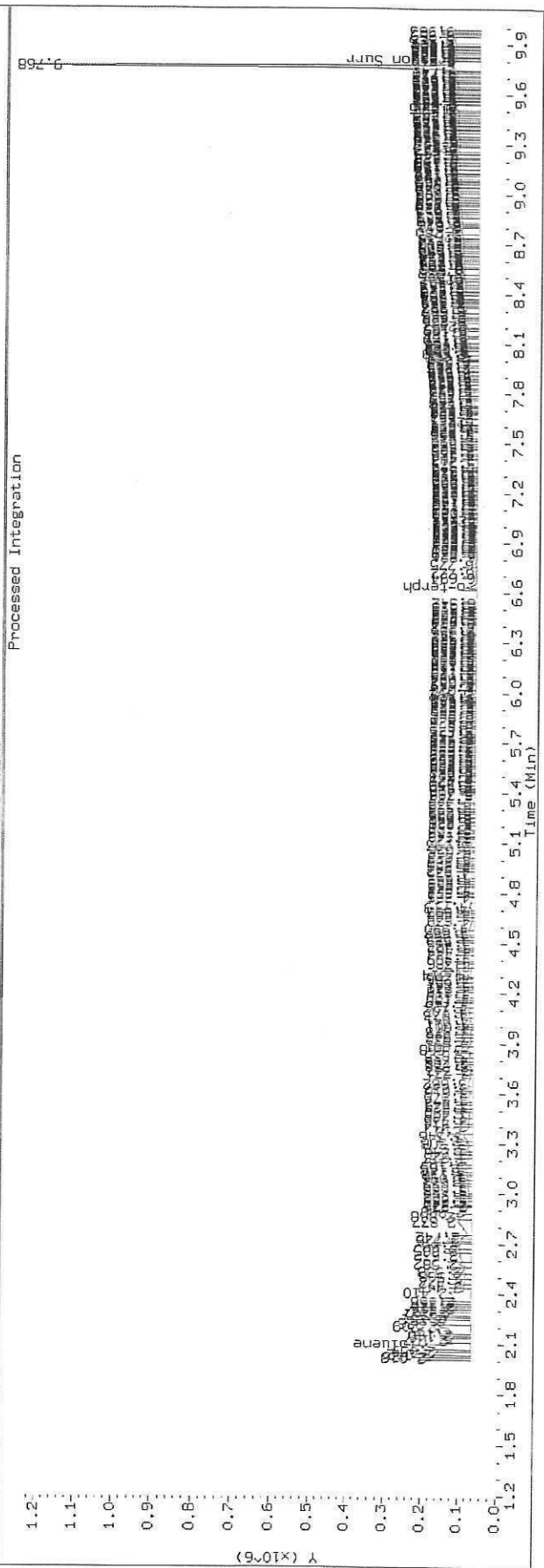
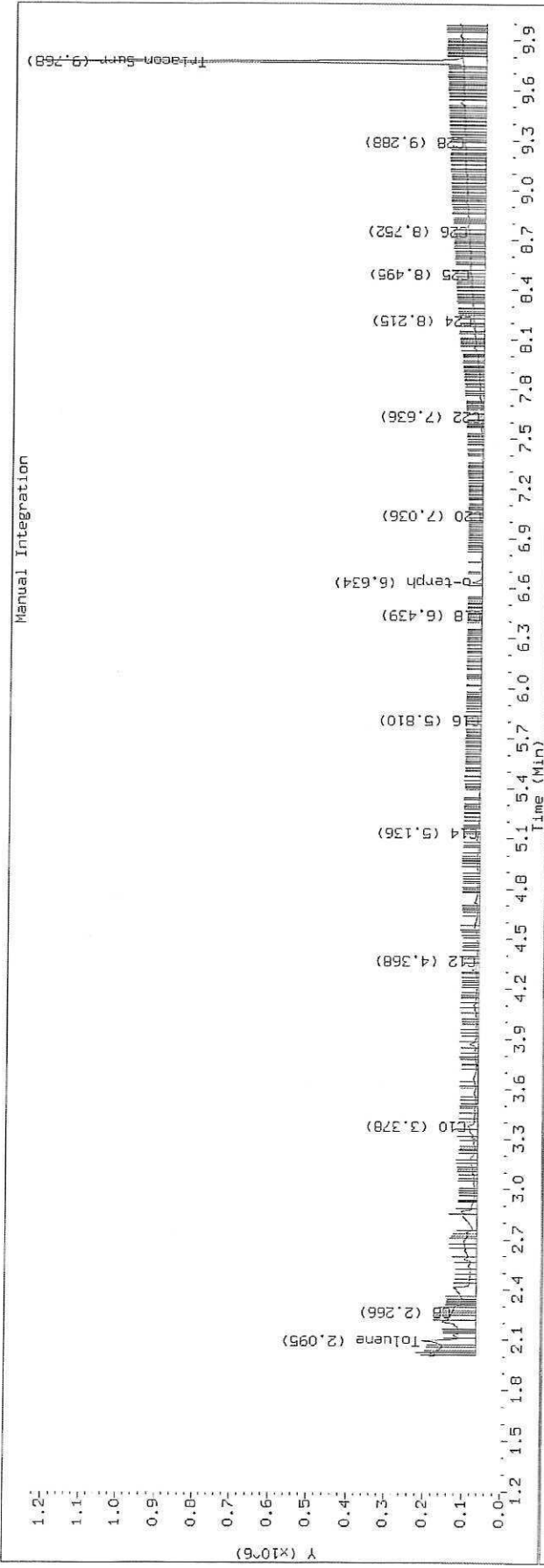
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2521.D SHJ0406-CALD

HP6890 GC Data, FID1A.CH

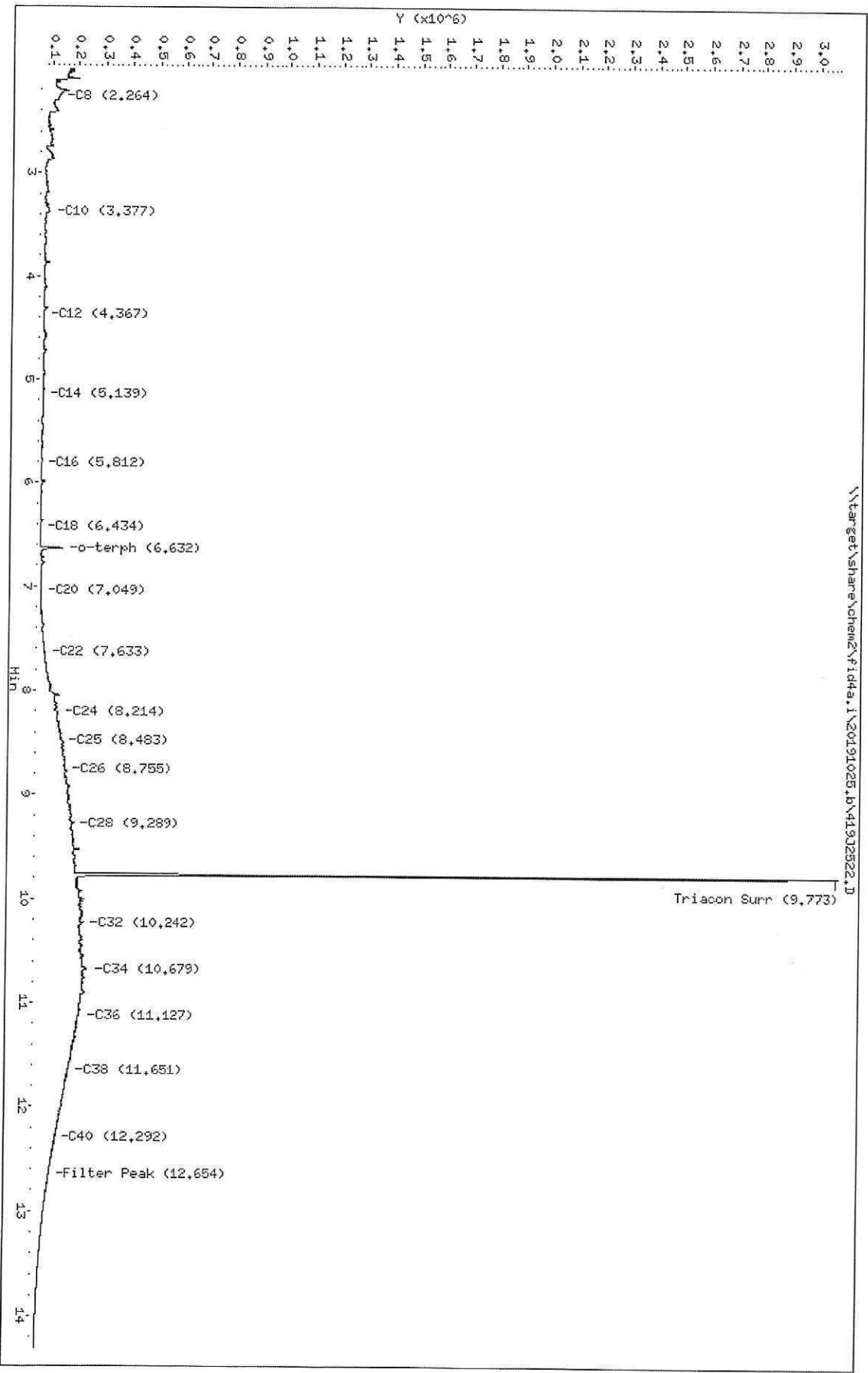


TPH Manual Integrations Report  
 Datafile: FID4A, 20191025.b/419J2521.D Injection: 25-OCT-2019 18:35  
 Lab ID: SHJ0406-CALD



Data File: \\target\share\chem2\Fid4a.1\20191025.B\41912522.D  
Date : 25-OCT-2019 18:55  
Client ID:  
Sample Info: SHJ0406-CALC  
Column phase: RTX-1

Instrument: fid4a.i  
Operator: CTO/SH/VTS/JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2522.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CALE  
Client ID:  
Injection: 25-OCT-2019 18:55  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.264	0.002	61078	41904	WATPHD	(C12-C24)	2795528	17.5
C10	3.377	0.004	26802	52996	WATPHM	(C24-C38)	31324226	236.2
C12	4.367	0.019	5459	4798	AK102	(C10-C25)	4178110	21.4
C14	5.139	0.010	4962	3160	AK103	(C25-C36)	25813764	258.2
C16	5.812	0.005	2520	1321	OR.DIES	(C10-C28)	10680396	54.5
C18	6.434	-0.000	1311	882				
C20	7.049	0.006	4759	2820				
C22	7.633	-0.005	24172	52812				
C24	8.214	-0.001	79717	62122				
C25	8.483	-0.010	96553	61766				
C26	8.755	-0.010	114382	67845				
C28	9.289	0.004	142997	64203				
C32	10.242	0.000	182878	81971				
C34	10.679	-0.002	200985	321864				
Filter Peak	12.654	0.004	63611	28452	CREOSOT	(C12-C22)	1041017	266.9
C36	11.127	-0.001	175707	78840				
C38	11.651	0.001	139085	55402				
C40	12.292	0.004	88908	61716				
o-terph	6.632	-0.024	91544	90689				
Triacon Surr	9.773	-0.029	2869605	2058184	NAS DIES	(C10-C24)	3295502	16.9

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

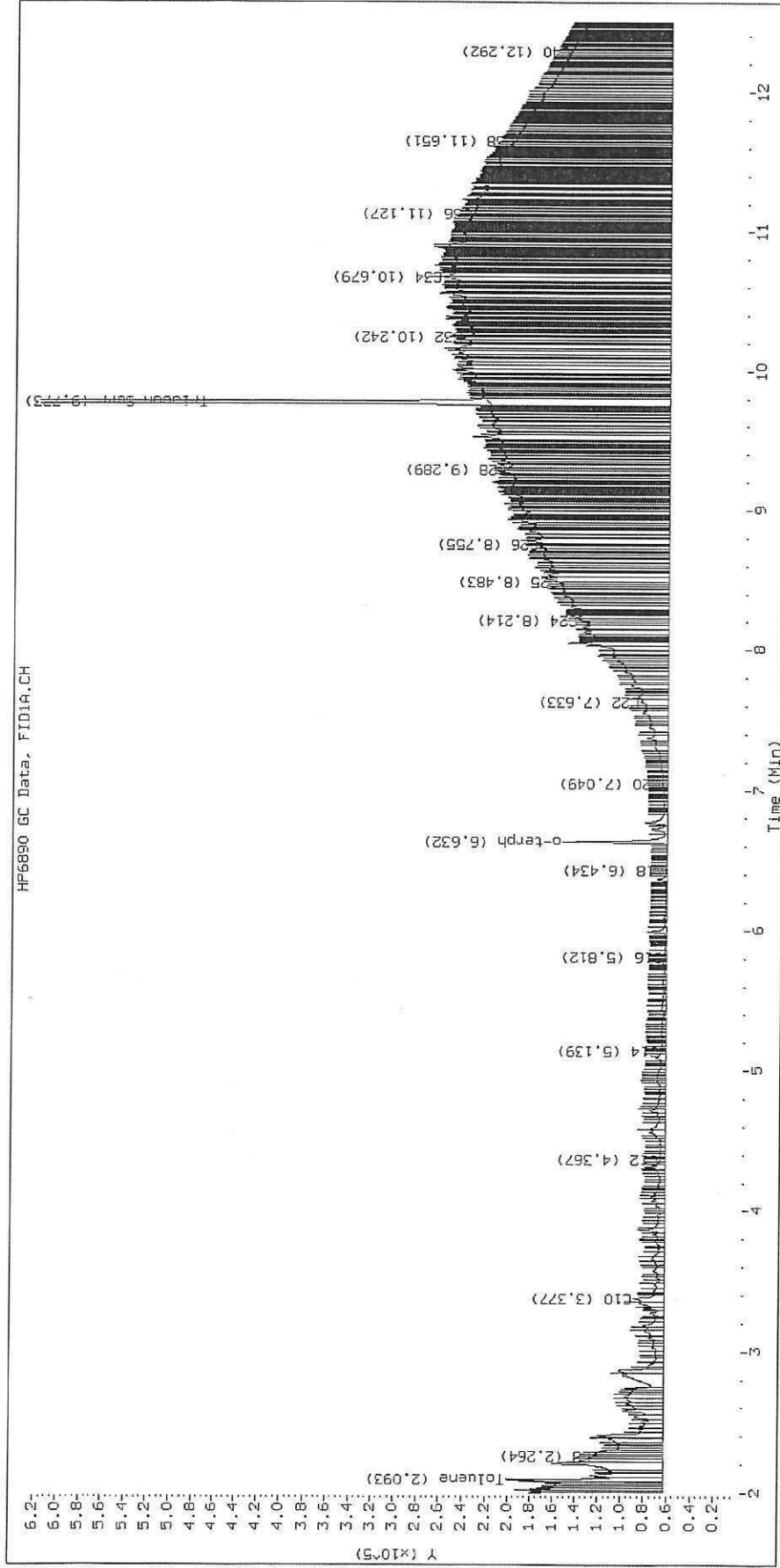
Surrogate	Area	Amount
o-Terphenyl	90689	0.4
Triacotane	2058184	11.6 M

M Indicates the peak was manually integrated

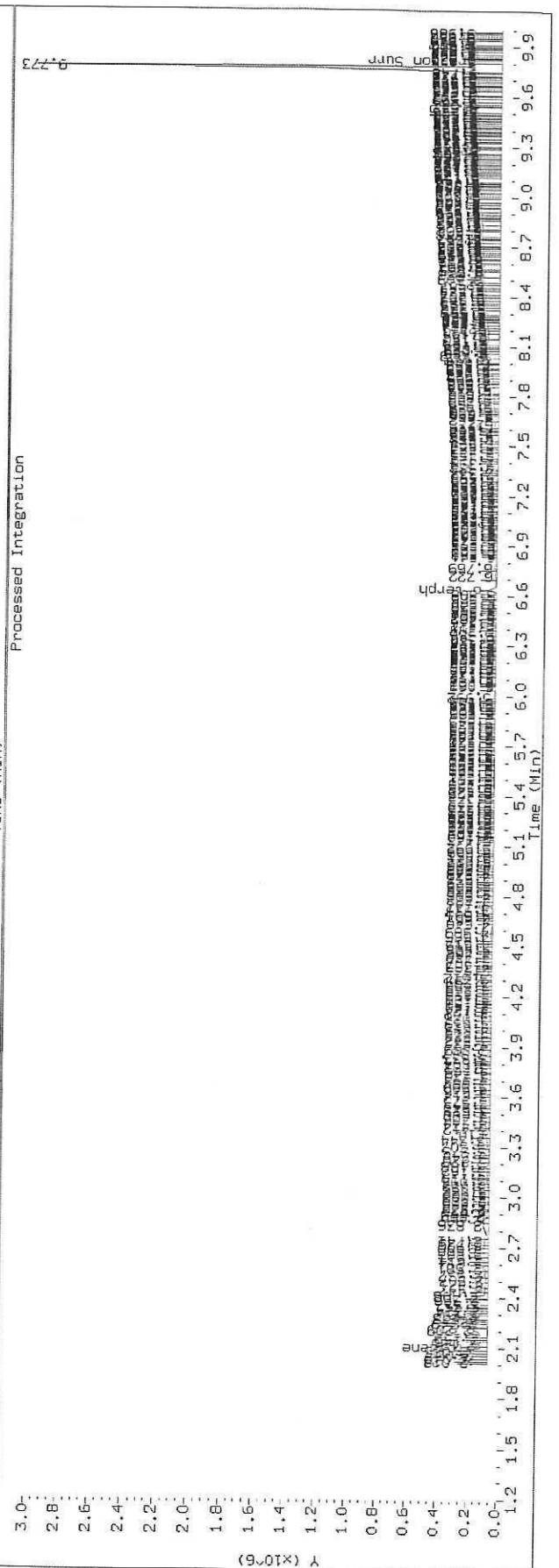
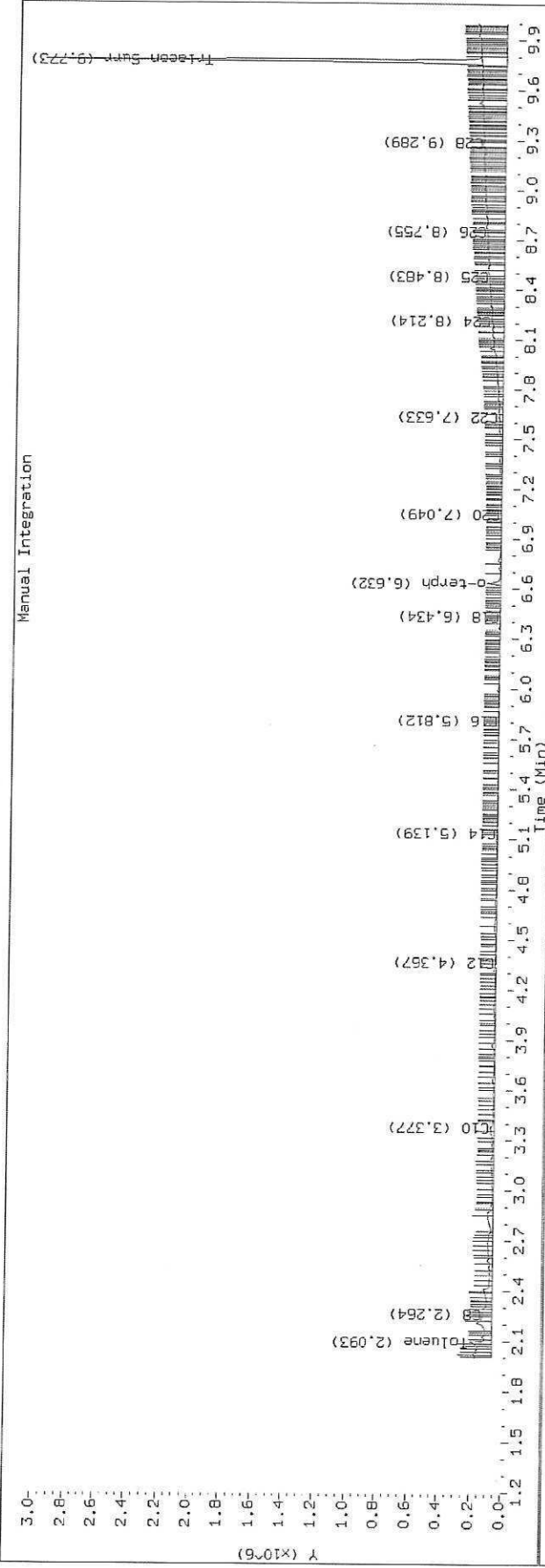
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2522.D SHJ0406-CALE

HP6890 GC Data, FID1A.CH

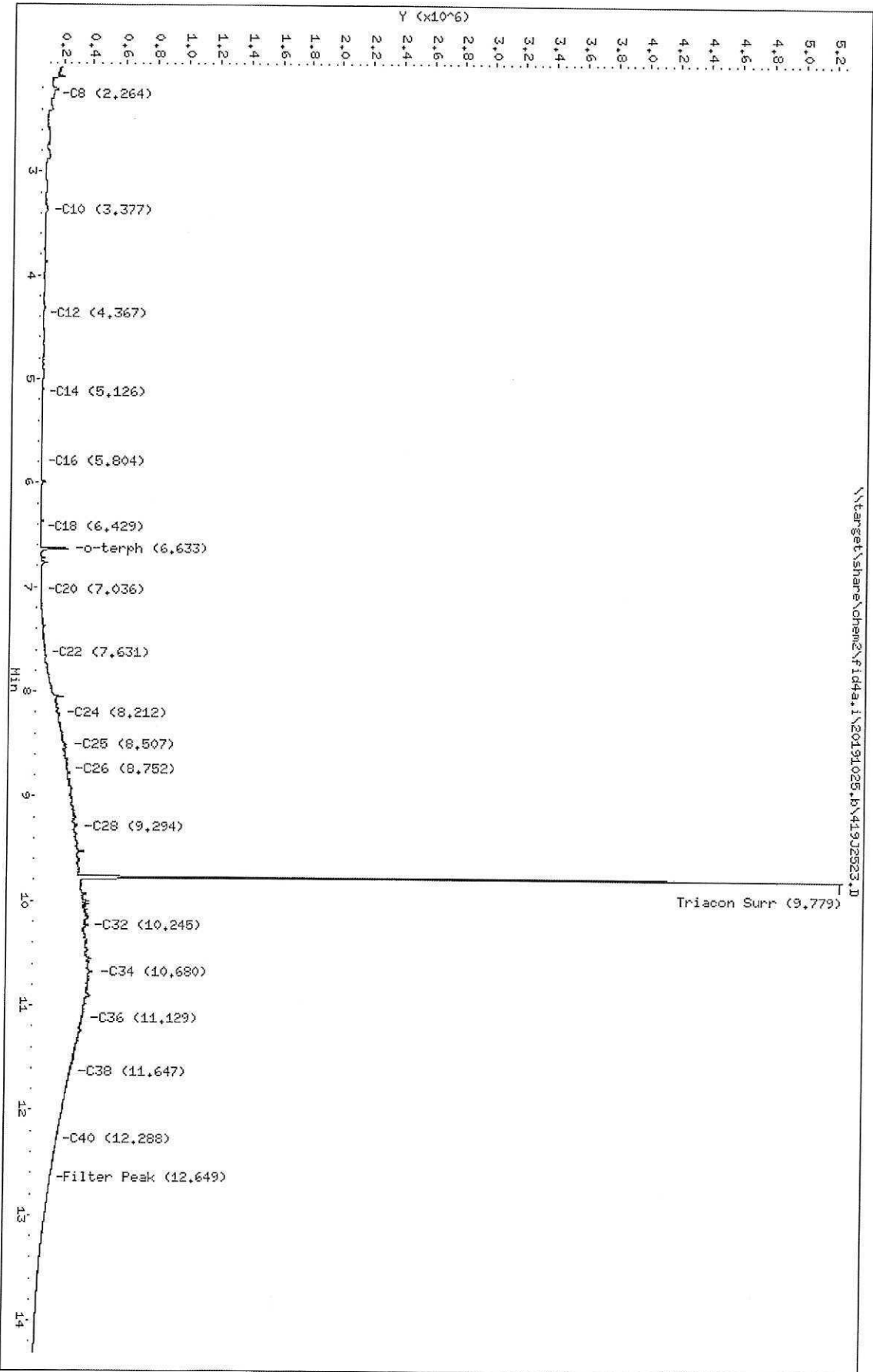


TPH Manual Integrations Report  
 Datafile: FID4A, 20191025.b/419J2522.D Injection: 25-OCT-2019 18:55  
 Lab ID: SHJ0406-CALE



Data File: \\target\share\chem2\Fid4a.I\20191025.B\419J2523.D  
 Date : 25-OCT-2019 19:15  
 Client ID:  
 Sample Info: SHJ0406-QALLF  
 Column phase: RTX-1

Instrument: fid4a.i  
 Operator: CTO/SH/VTS/JGR  
 Column diameter: 0.25





Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2523.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CALF  
Client ID:  
Injection: 25-OCT-2019 19:15  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS								
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.264	0.002	65663	48530	WATPHD	(C12-C24)	5014916	31.5
C10	3.377	0.004	28749	58345	WATPHM	(C24-C38)	59779944	450.7
C12	4.367	0.020	3969	3466	AK102	(C10-C25)	7200245	36.8
C14	5.126	-0.004	3228	1712	AK103	(C25-C36)	49058982	490.7
C16	5.804	-0.004	2893	3236	OR.DIES	(C10-C28)	19724552	100.6
C18	6.429	-0.005	2246	2256				
C20	7.036	-0.007	10796	11147				
C22	7.631	-0.008	48129	85760				
C24	8.212	-0.003	157019	245696				
C25	8.507	0.014	210068	574409				
C26	8.752	-0.013	221185	294582				
C28	9.294	0.008	276194	178596				
C32	10.245	0.003	351165	209719				
C34	10.680	-0.001	394703	898701				
Filter Peak	12.649	-0.002	125409	50077	CREOSOT	(C12-C22)	1560946	400.2
C36	11.129	-0.000	332260	99465				
C38	11.647	-0.003	258943	64646				
C40	12.288	-0.001	170438	84522				
o-terph	6.633	-0.024	198416	176995				
Triacon Surr	9.779	-0.024	4910254	3941895	NAS DIES	(C10-C24)	5534721	28.4

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

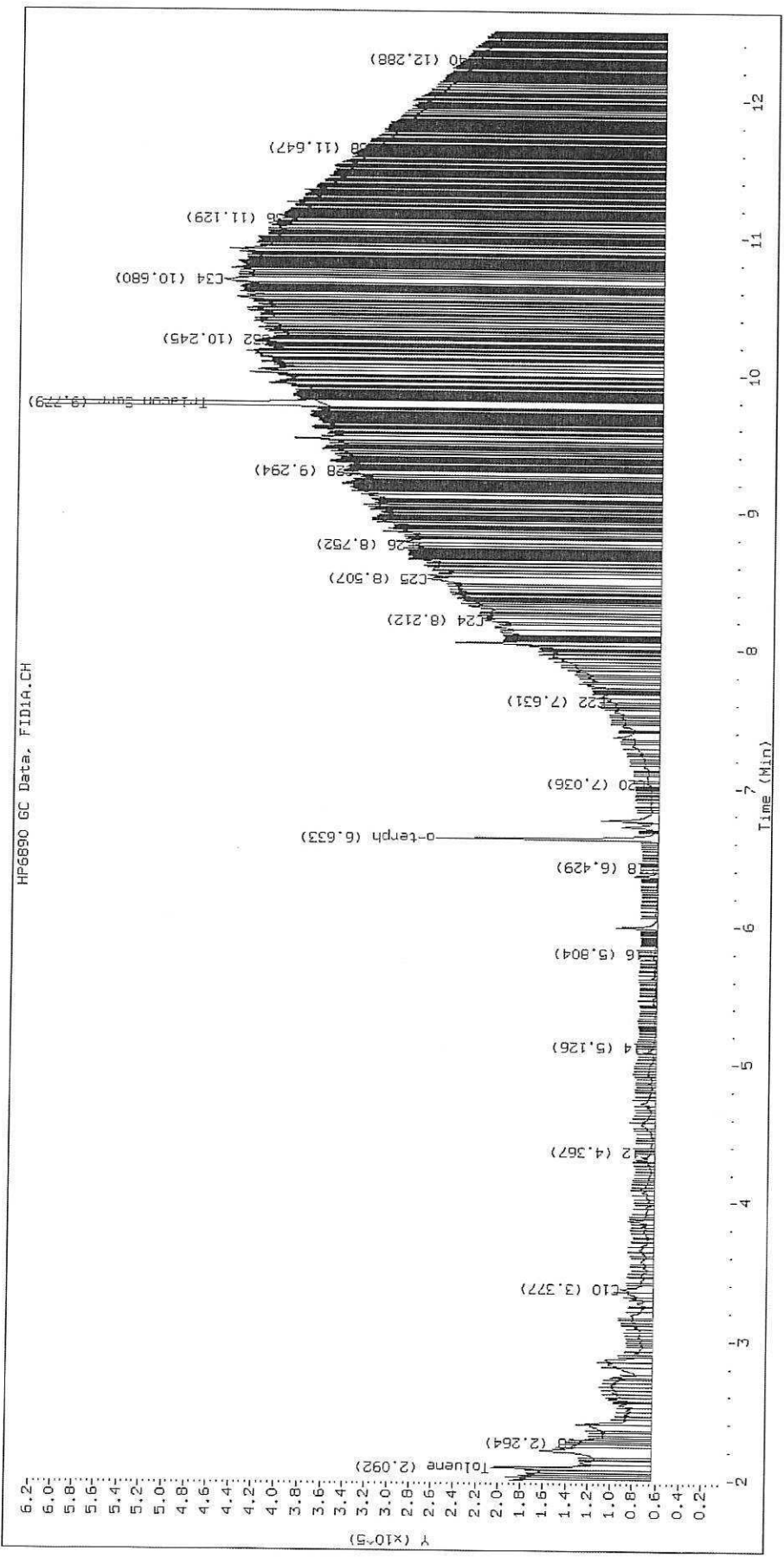
Surrogate	Area	Amount
o-Terphenyl	176995	0.9
Triacotane	3941895	22.1 M

M Indicates the peak was manually integrated

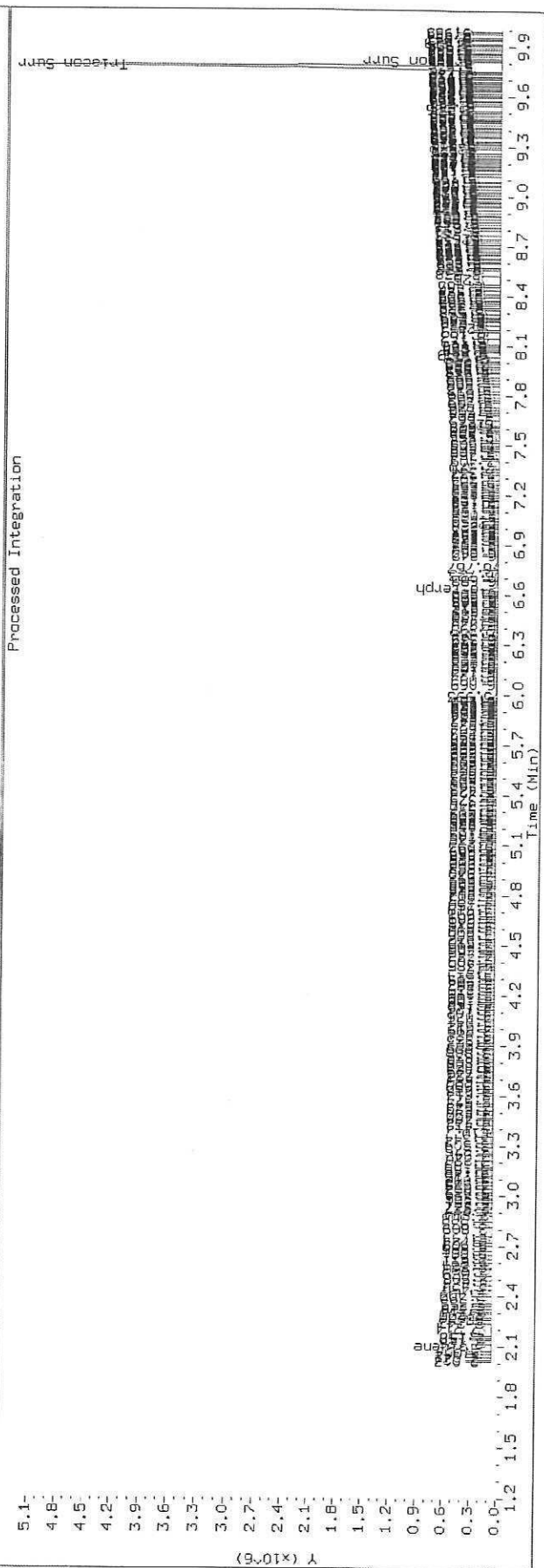
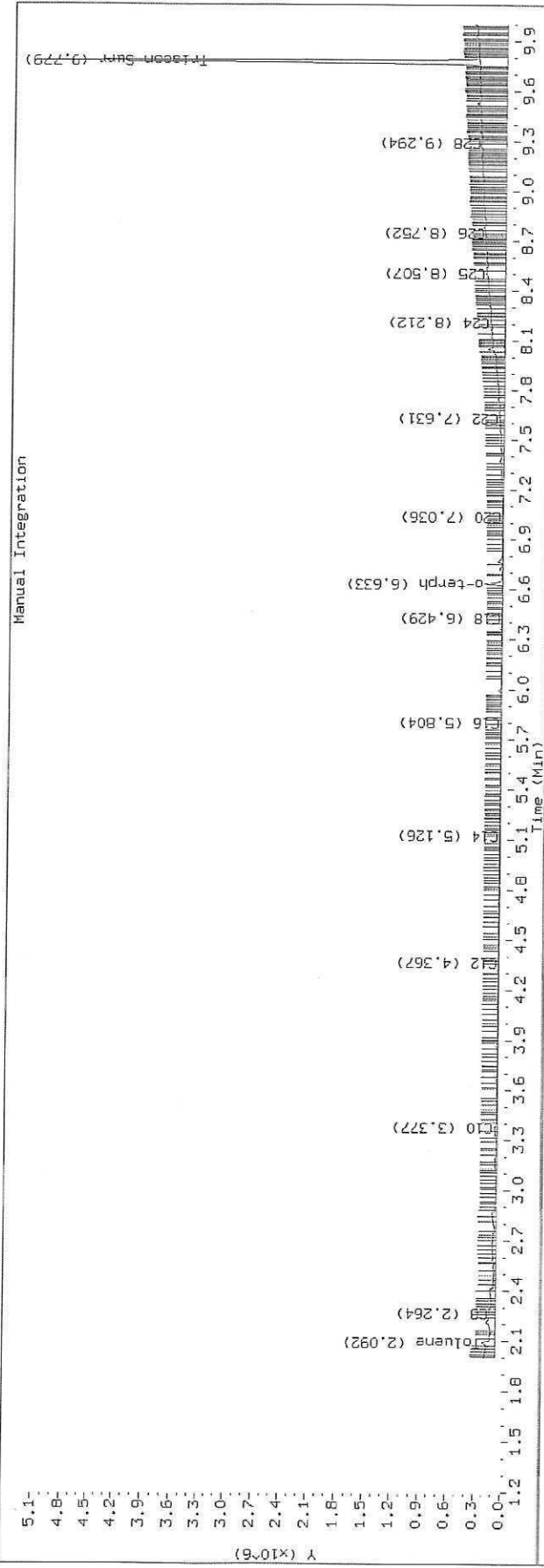
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2523.D SHJ0406-CALF

HF6890 GC Data, FID1A.CH

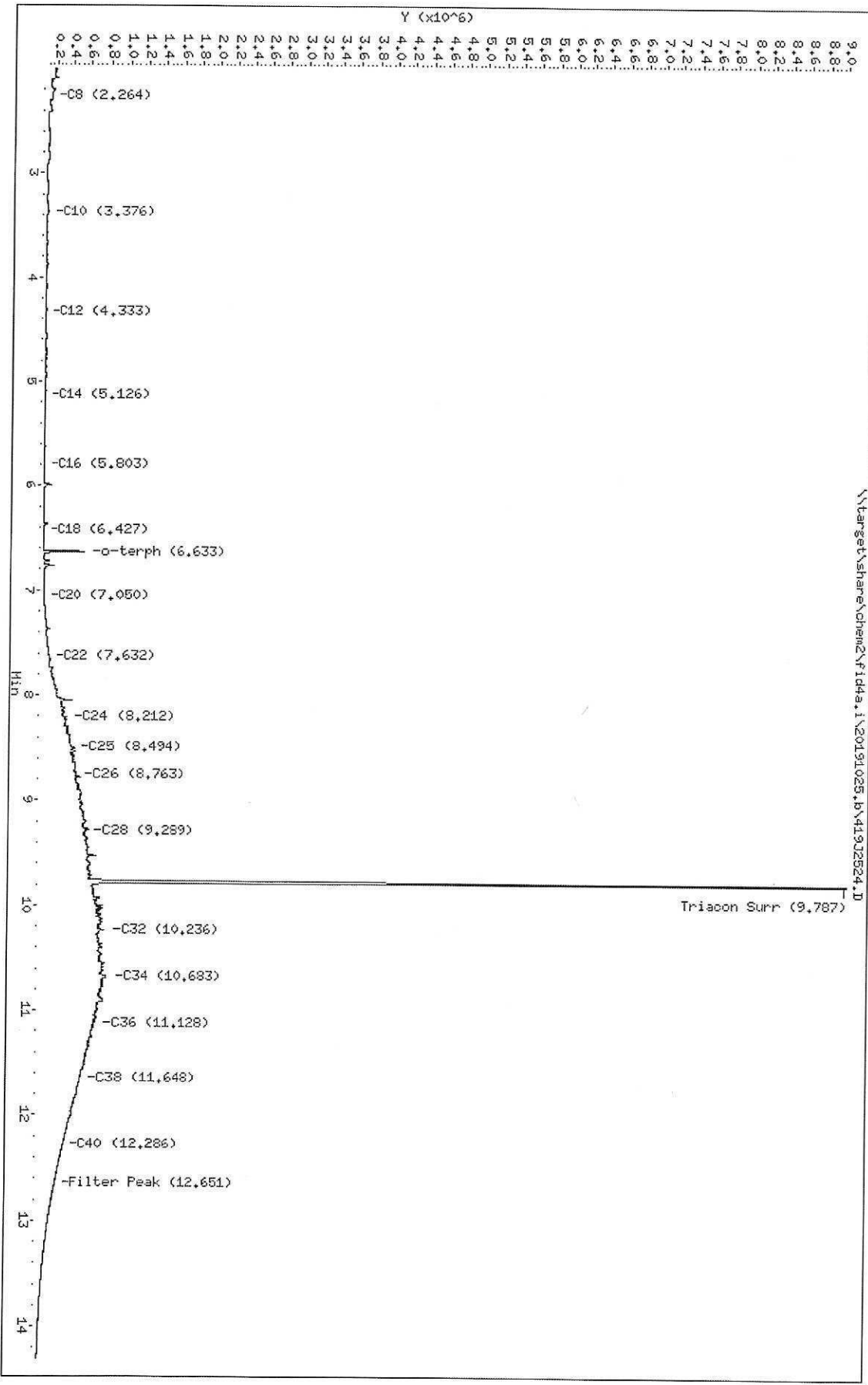


TPH Manual Integrations Report  
 Datafile: FID4A, 20191025.b/419J2523.D Injection: 25-OCT-2019 19:15  
 Lab ID: SHJ0406-CALF



Data File: \\target\share\chem2\fid4a.i\20191025.b\41932524.D  
 Date : 25-OCT-2019 19:34  
 Client ID:  
 Sample Info: SHJ0406-CALLS  
 Column phase: RTX-1

Instrument: fid4a.i  
 Operator: CTD/SH/YTS/JGR  
 Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2524.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CALG  
Client ID:  
Injection: 25-OCT-2019 19:34  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	2.264	0.002	59182	43398	WATPHD	(C12-C24)	9693002	60.8
C10	3.376	0.003	26004	47549	WATPHM	(C24-C38)	119379277	900.1
C12	4.333	-0.015	5078	6418	AK102	(C10-C25)	13482675	69.0
C14	5.126	-0.004	4037	3451	AK103	(C25-C36)	98534931	985.6
C16	5.803	-0.004	5499	6876	OR.DIES	(C10-C28)	38197703	194.9
C18	6.427	-0.008	4829	4807				
C20	7.050	0.007	20128	16414				
C22	7.632	-0.007	95273	191460				
C24	8.212	-0.003	309198	497796				
C25	8.494	0.001	394056	249031				
C26	8.763	-0.001	429806	171737				
C28	9.289	0.004	544145	135929				
C32	10.236	-0.006	748503	1187882				
C34	10.683	0.001	785420	196129				
Filter Peak	12.651	0.000	222539	110925	CREOSOT	(C12-C22)	2913792	747.0
C36	11.128	-0.000	665475	297953				
C38	11.648	-0.001	517415	384389				
C40	12.286	-0.003	322103	175432				
o-terph	6.633	-0.024	489788	368237				
Triacon Surr	9.787	-0.015	8362676	7933666	NAS DIES	(C10-C24)	10069630	51.6

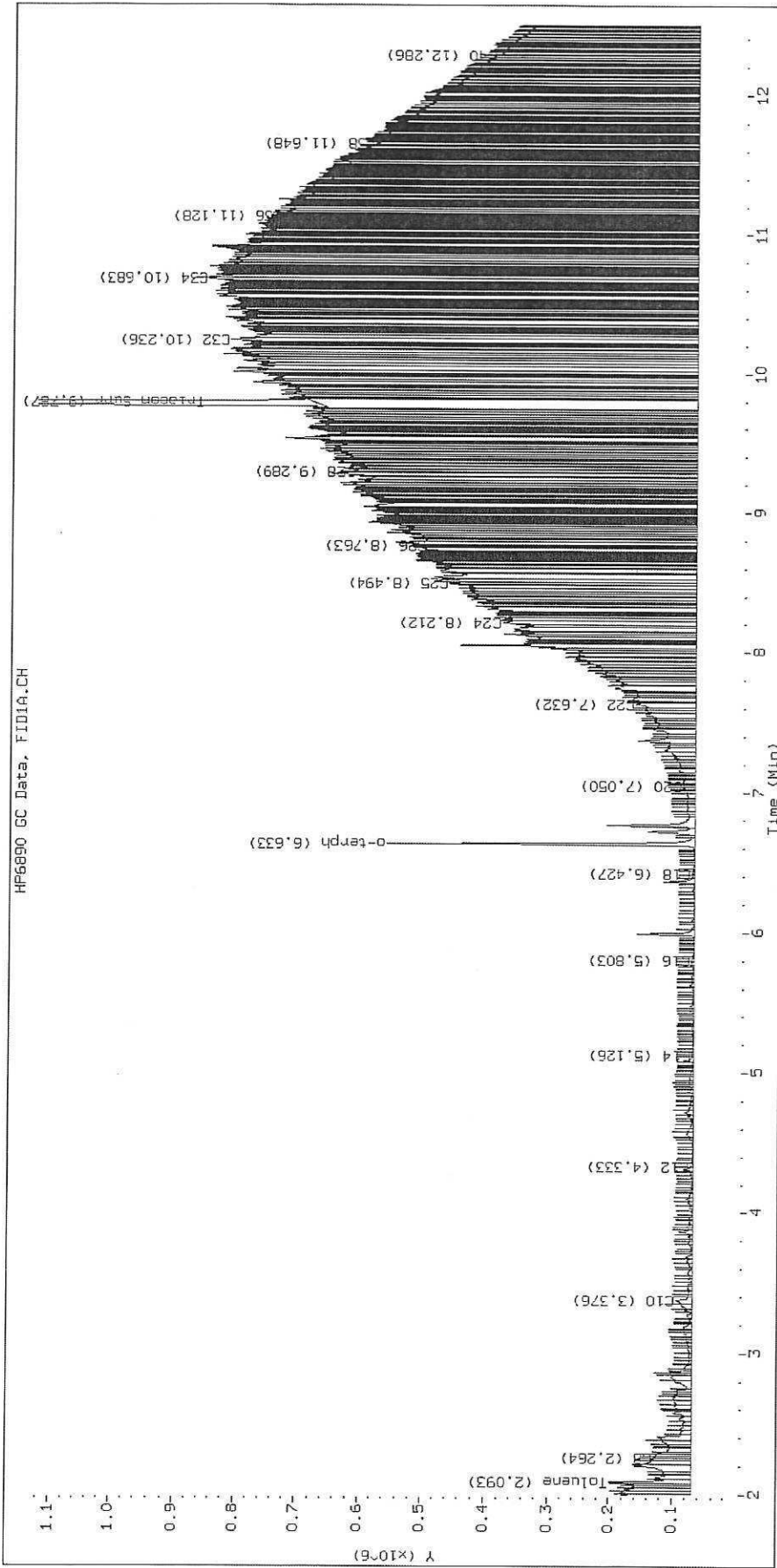
Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

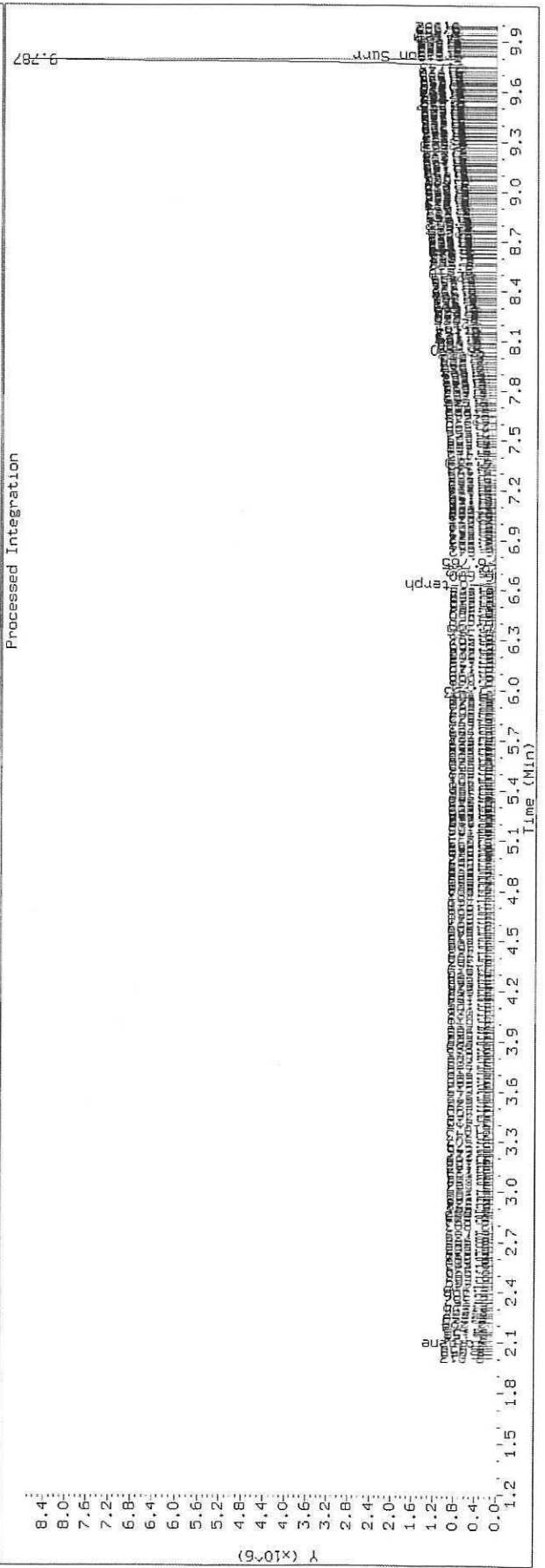
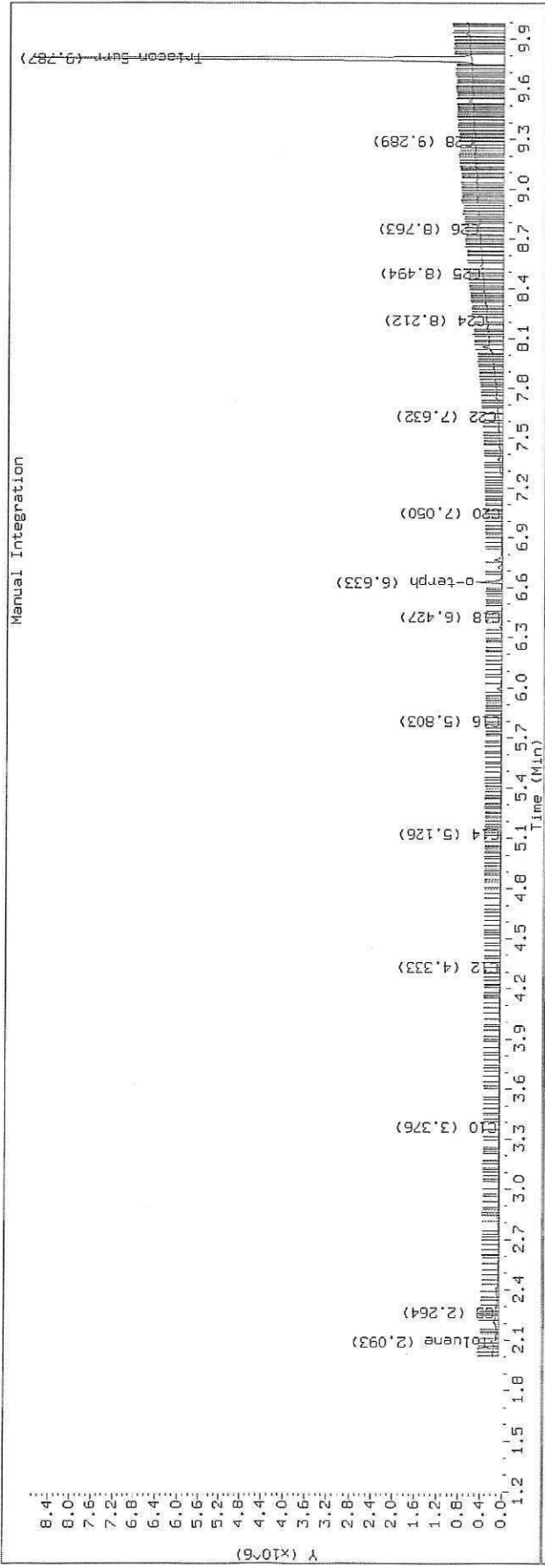
Surrogate	Area	Amount
o-Terphenyl	368237	1.8
Triacontane	7933666	44.6 M

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

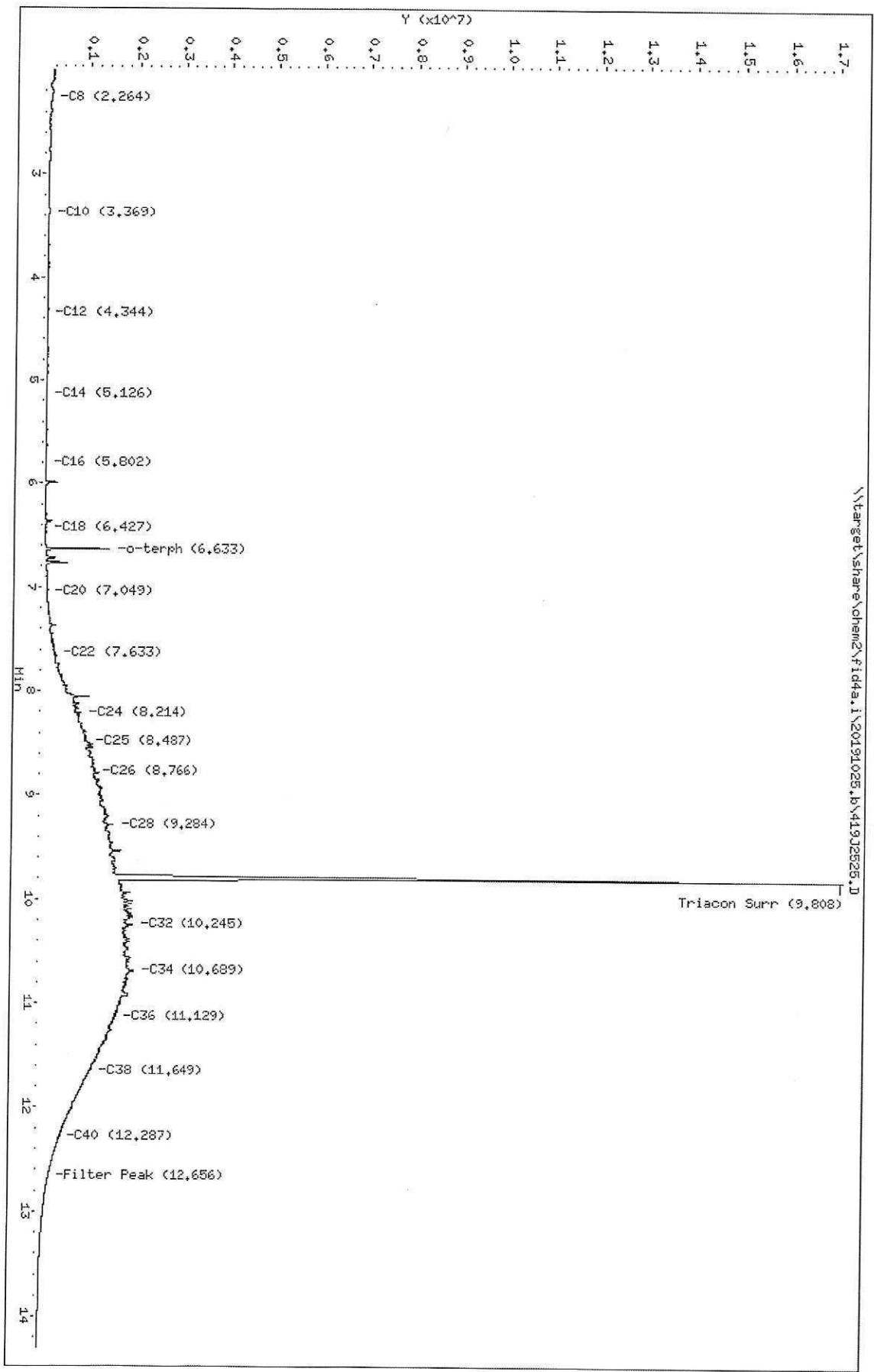
Datafile: FID4A, 20191025.b/419J2524.D SHJ0406-CALG





Data File: \\karger\share\chem2\fid4a.1\20191025.1b\419J2525.D  
Date : 25-OCT-2019 19:54  
Client ID:  
Sample Info: SHJ0406-CALH  
Column phase: RTX-1

Instrument: fid4a.i  
Operator: CTO/SH/VTS/JGR  
Column diameter: 0.25





Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2525.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CALH  
Client ID:  
Injection: 25-OCT-2019 19:54  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.264	0.002	56415	38567	WATPHD	(C12-C24)	26301815	165.1
C10	3.369	-0.003	27712	41157	WATPHM	(C24-C38)	301341214	2272.0
C12	4.344	-0.003	5882	6952	AK102	(C10-C25)	35690614	182.6
C14	5.126	-0.003	7507	9244	AK103	(C25-C36)	251232894	2512.9
C16	5.802	-0.005	13222	14374	OR.DIES	(C10-C28)	99037801	505.3
C18	6.427	-0.008	19180	20067				
C20	7.049	0.006	65385	59588				
C22	7.633	-0.006	263262	368137				
C24	8.214	-0.001	822366	1422767				
C25	8.487	-0.006	962652	426588				
C26	8.766	0.002	1133629	505360				
C28	9.284	-0.002	1509428	2436681				
C32	10.245	0.003	1957482	3059346				
C34	10.689	0.008	1976148	4422245				
Filter Peak	12.656	0.006	231984	148698	CREOSOT	(C12-C22)	8248980	2114.6
C36	11.129	-0.000	1621407	646645				
C38	11.649	-0.000	1113973	443976				
C40	12.287	-0.002	466123	386816				
o-terph	6.633	-0.024	1387955	962768				
Triacon Surr	9.808	0.006	15482951	20436973	NAS DIES	(C10-C24)	26712775	136.9

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

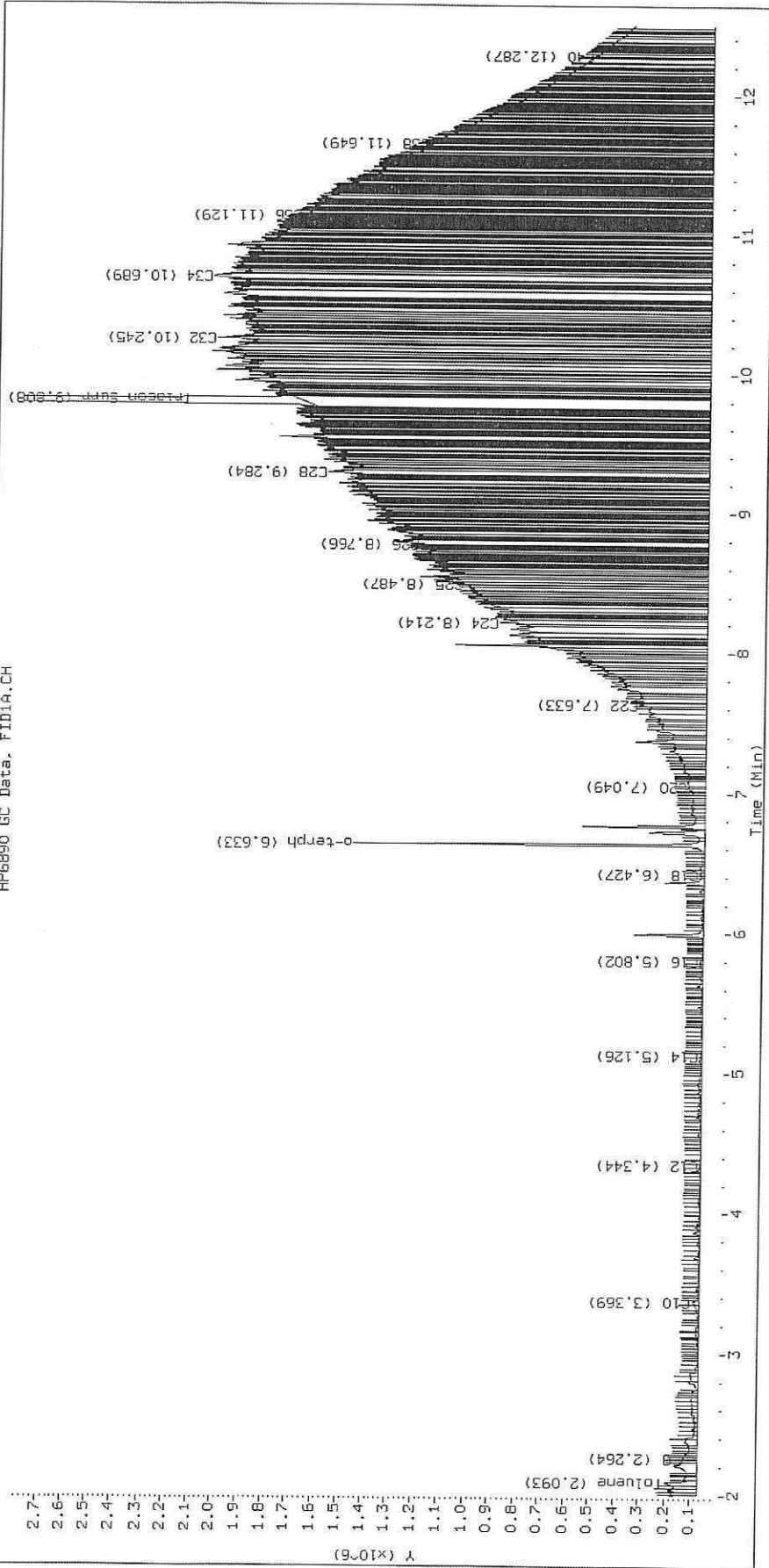
Surrogate	Area	Amount
o-Terphenyl	962768	4.7
Triacotane	20436973	114.8 M

M Indicates the peak was manually integrated

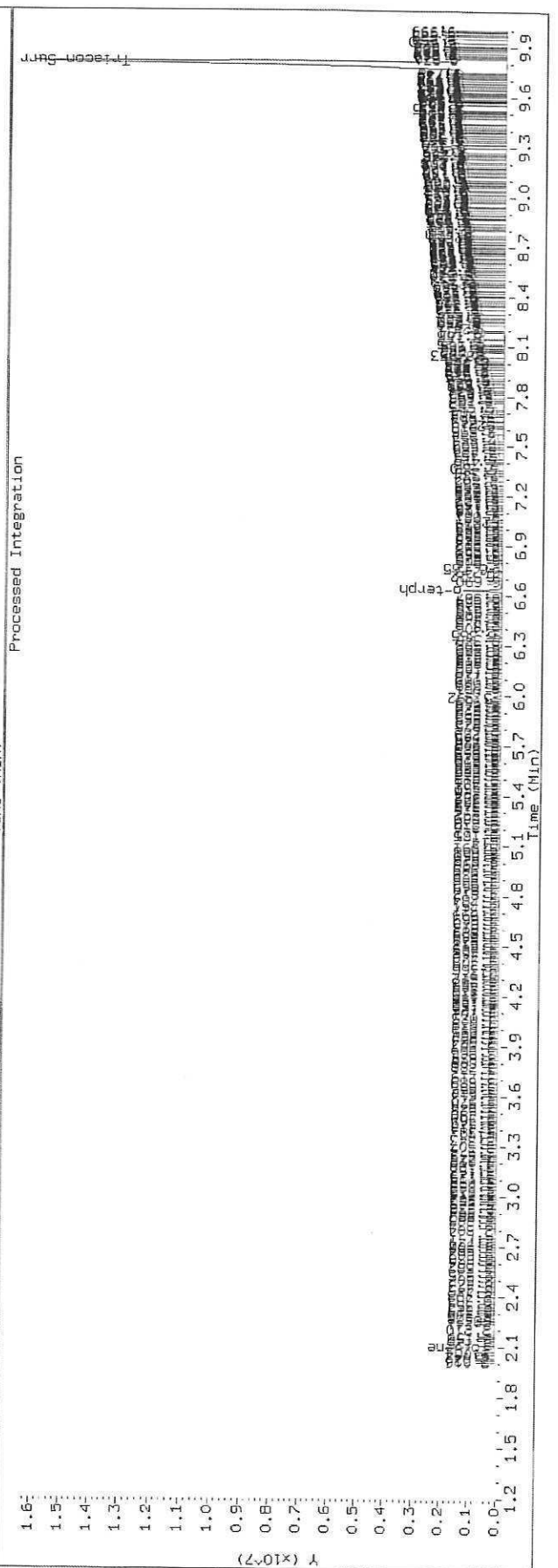
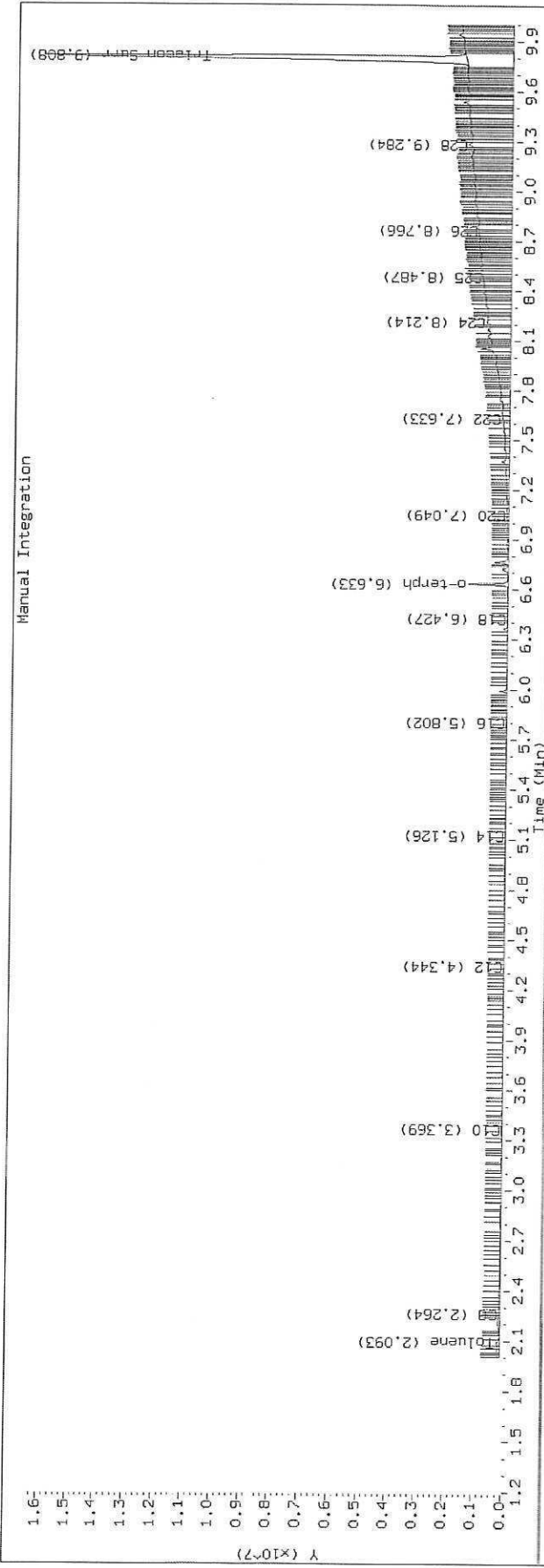
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2525.D SHJ0406-CALH

HF6890 GC Data, FID1A.CH



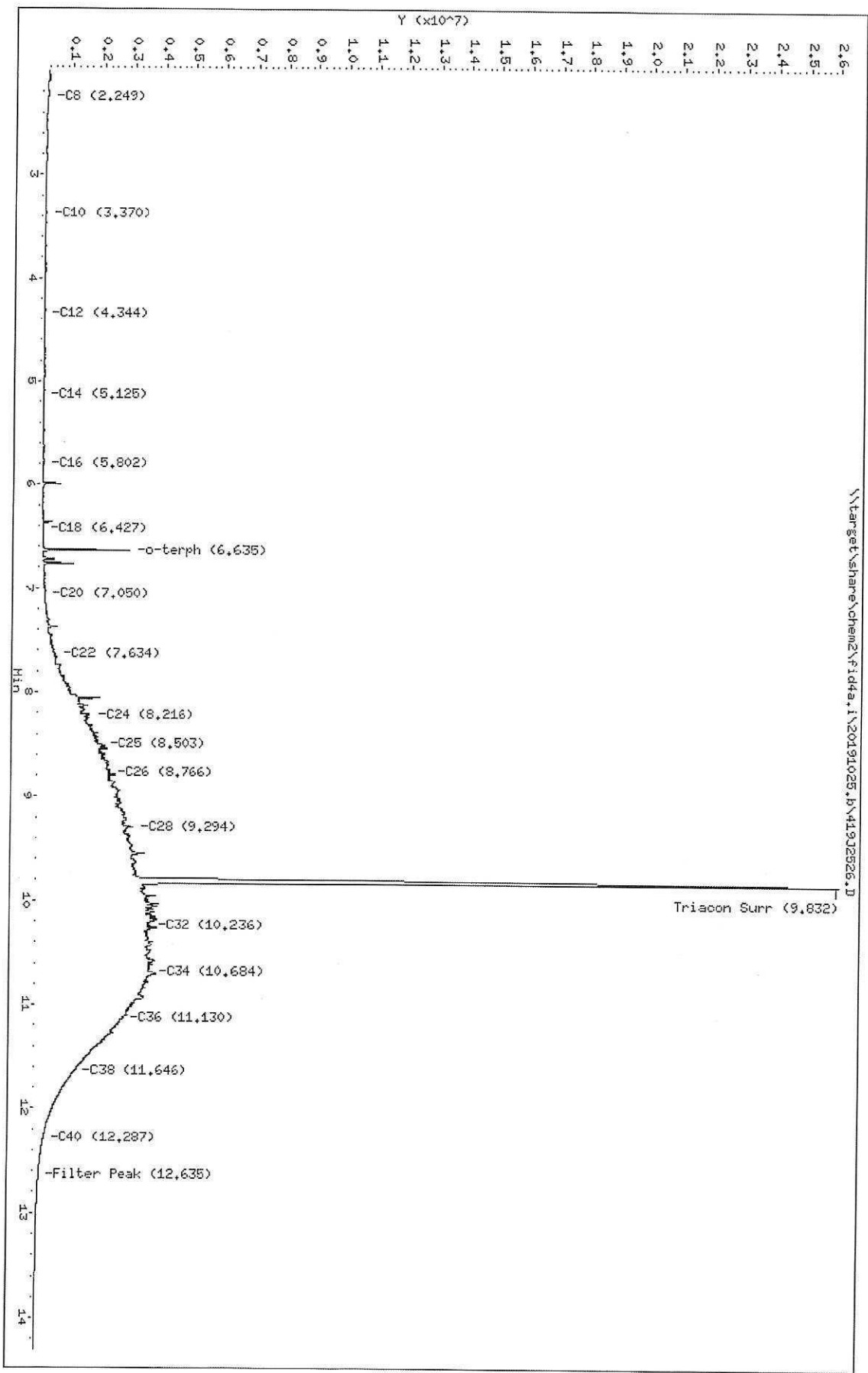
TPH Manual Integrations Report  
 Datafile: FID4A, 20191025.b/419U2525.D Injection: 25-OCT-2019 19:54  
 Lab ID: SHJ0406-CALH



Data File: \\target\share\chem2\fid4a.i\20191025.b\419J2526.D  
Date: 25-OCT-2019 20:15  
Client ID:  
Sample Info: SHJ0406-CALI

Column phase: RTX-1

Instrument: fid4a.i  
Operator: CTO/SH/VTS/JDR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2526.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-CALI  
Client ID:  
Injection: 25-OCT-2019 20:15  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.249	-0.013	68157	97437	WATPHD	(C12-C24)	53373864	335.0
C10	3.370	-0.003	37579	47410	WATPHM	(C24-C38)	579217404	4367.1
C12	4.344	-0.003	10600	10459	AK102	(C10-C25)	72516526	370.9
C14	5.125	-0.004	18160	20643	AK103	(C25-C36)	501300122	5014.2
C16	5.802	-0.005	31467	33333	OR.DIES	(C10-C28)	201523108	1028.2
C18	6.427	-0.008	46016	47297				
C20	7.050	0.007	139853	120986				
C22	7.634	-0.005	536997	729929				
C24	8.216	0.002	1657695	1800915				
C25	8.503	0.010	2055767	2566063				
C26	8.766	0.002	2309434	1601749				
C28	9.294	0.008	3108955	5845567				
C32	10.236	-0.006	3694253	3475497				
C34	10.684	0.002	3746349	1670889				
Filter Peak	12.635	-0.015	125409	273331	CREOSOT	(C12-C22)	16636154	4264.7
C36	11.130	0.002	2854299	995118				
C38	11.646	-0.003	1329722	1616024				
C40	12.287	-0.002	293577	286952				
o-terph	6.635	-0.022	2904255	1975795				
Triacon Surr	9.832	0.030	22638379	40251878	NAS DIES	(C10-C24)	53915002	276.3

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

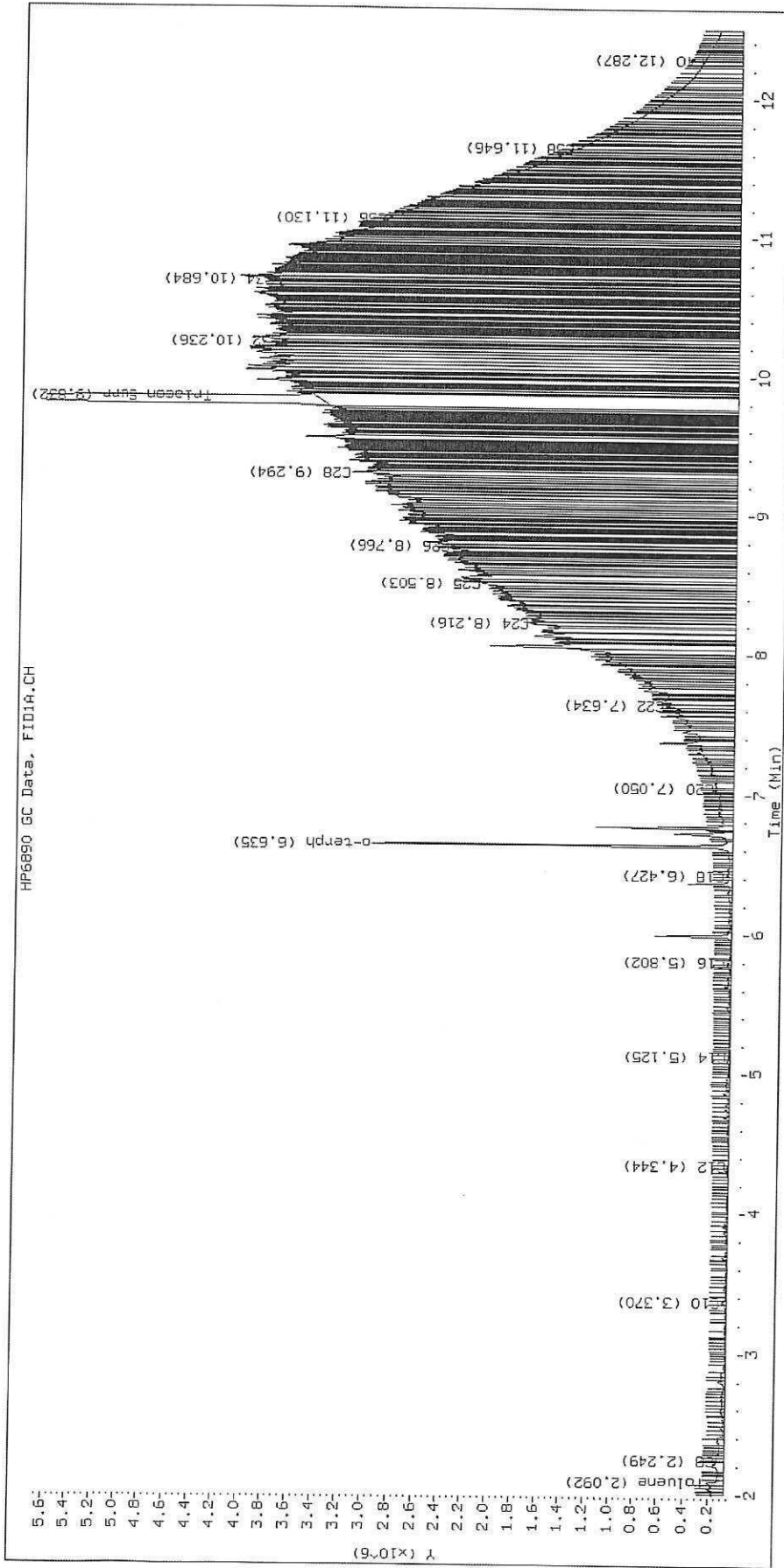
Surrogate	Area	Amount
o-Terphenyl	1975795	9.7
Triacontane	40251878	226.2 M

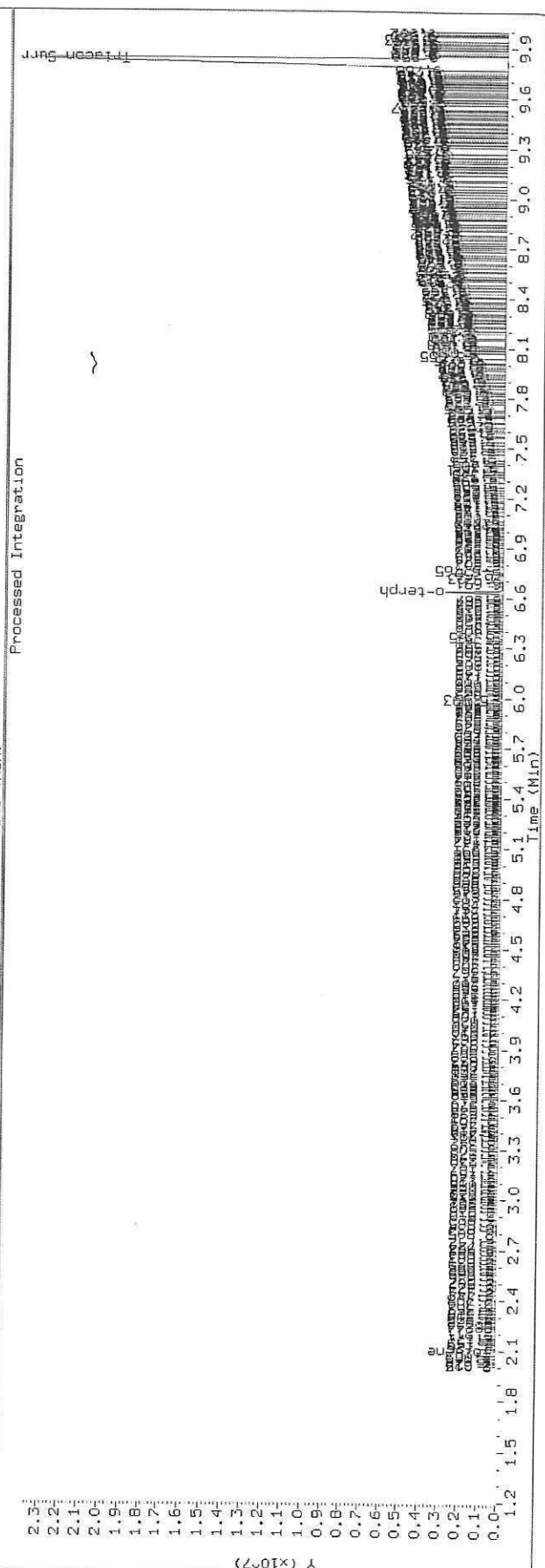
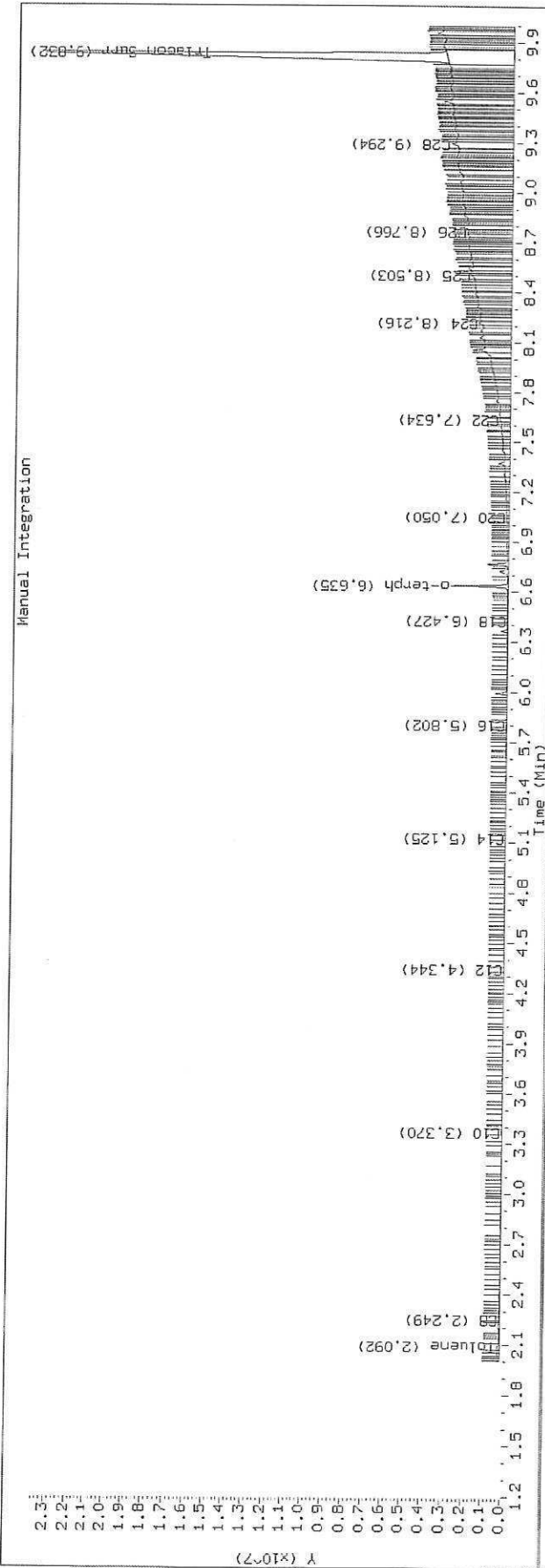
M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/419J2526.D SHJ0406-CALI

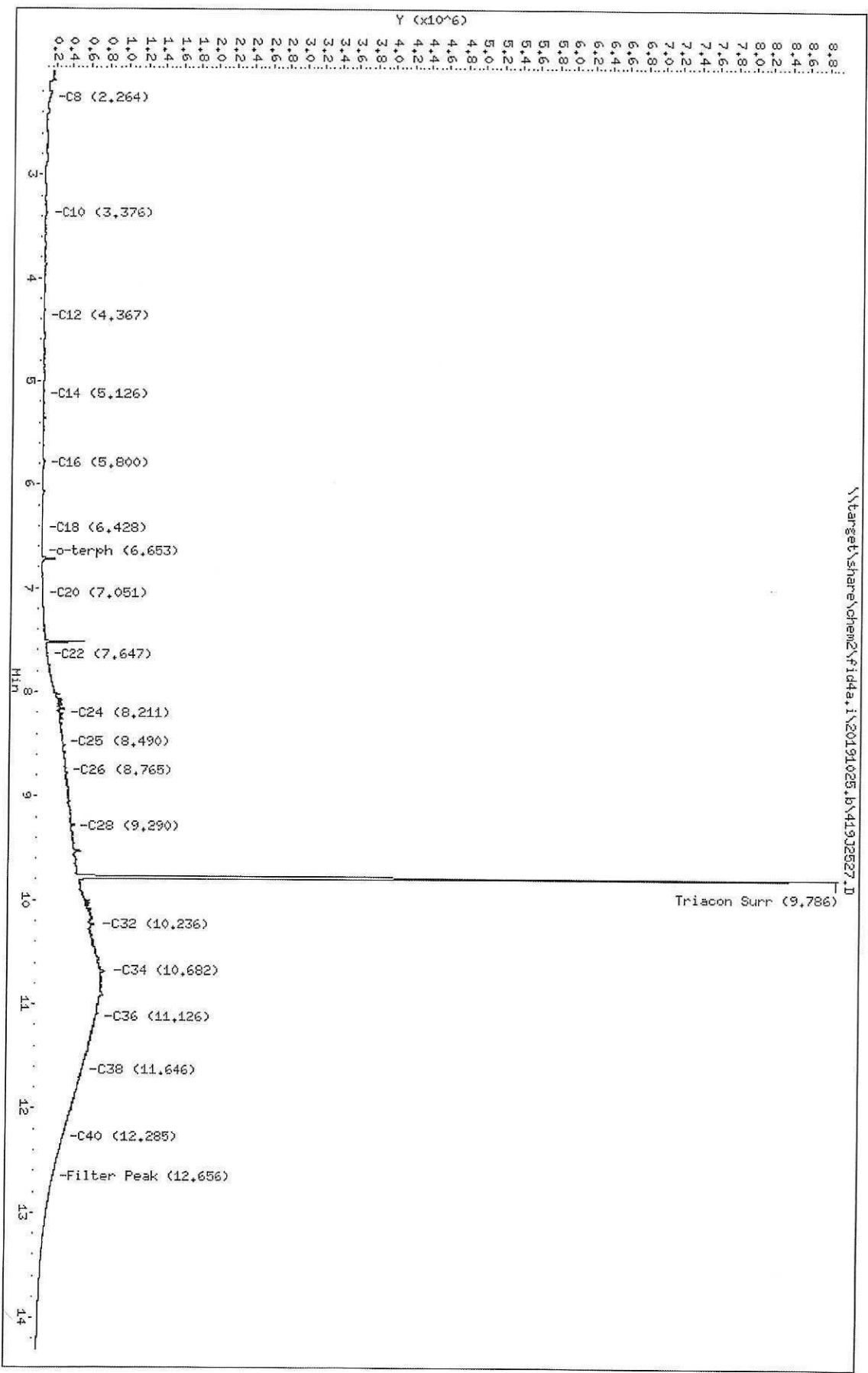
HP6890 GC Data, FID1A.CH





Data File: \\target\share\chem2\fid4a.i\20191025.b\419J2527.D  
 Date: 25-OCT-2019 20:35  
 Client ID:  
 Sample Info: SHJ0406-SCV3  
 Column phase: RTX-1

Instrument: fid4a.i  
 Operator: CT0/SH/VTS/JGR  
 Column diameter: 0.25





Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2527.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-SCV3  
Client ID:  
Injection: 25-OCT-2019 20:35  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	2.264	0.002	53471	36749	WATPHD	(C12-C24)	9151453	57.4
C10	3.376	0.003	25610	47191	WATPHM	(C24-C38)	105205257	793.2
C12	4.367	0.020	4177	4443	AK102	(C10-C25)	12217213	62.5
C14	5.126	-0.003	5782	7745	AK103	(C25-C36)	83900022	839.2
C16	5.800	-0.007	18027	25221	OR.DIES	(C10-C28)	30254236	154.4
C18	6.428	-0.007	5074	5462				
C20	7.051	0.008	15134	10036				
C22	7.647	0.008	76708	26745				
C24	8.211	-0.004	290822	446061				
C25	8.490	-0.003	283476	98752				
C26	8.765	0.000	315420	126036				
C28	9.290	0.004	395912	118500				
C32	10.236	-0.006	661365	1079458				
C34	10.682	0.001	769683	230477				
Filter Peak	12.656	0.006	214849	128159	CREOSOT	(C12-C22)	2946608	755.4
C36	11.126	-0.002	688686	308098				
C38	11.646	-0.004	543124	322331				
C40	12.285	-0.004	325522	178450				
o-terph	6.653	-0.003	2619	2570				
Triacon Surr	9.786	-0.016	8421327	7592281	NAS DIES	(C10-C24)	9621264	49.3

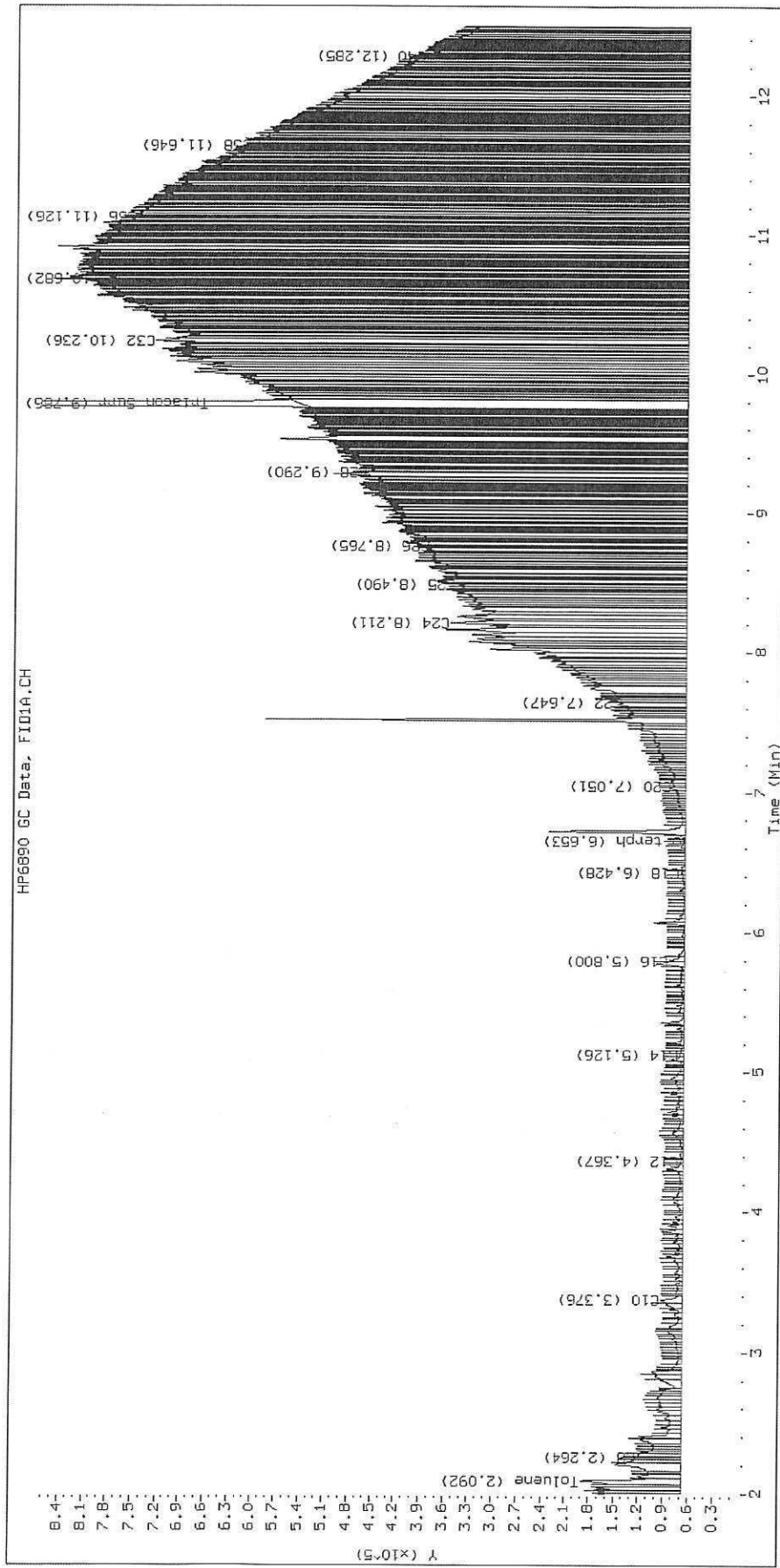
Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

Surrogate	Area	Amount
o-Terphenyl	2570	0.0
Triacotane	7592281	42.7 M

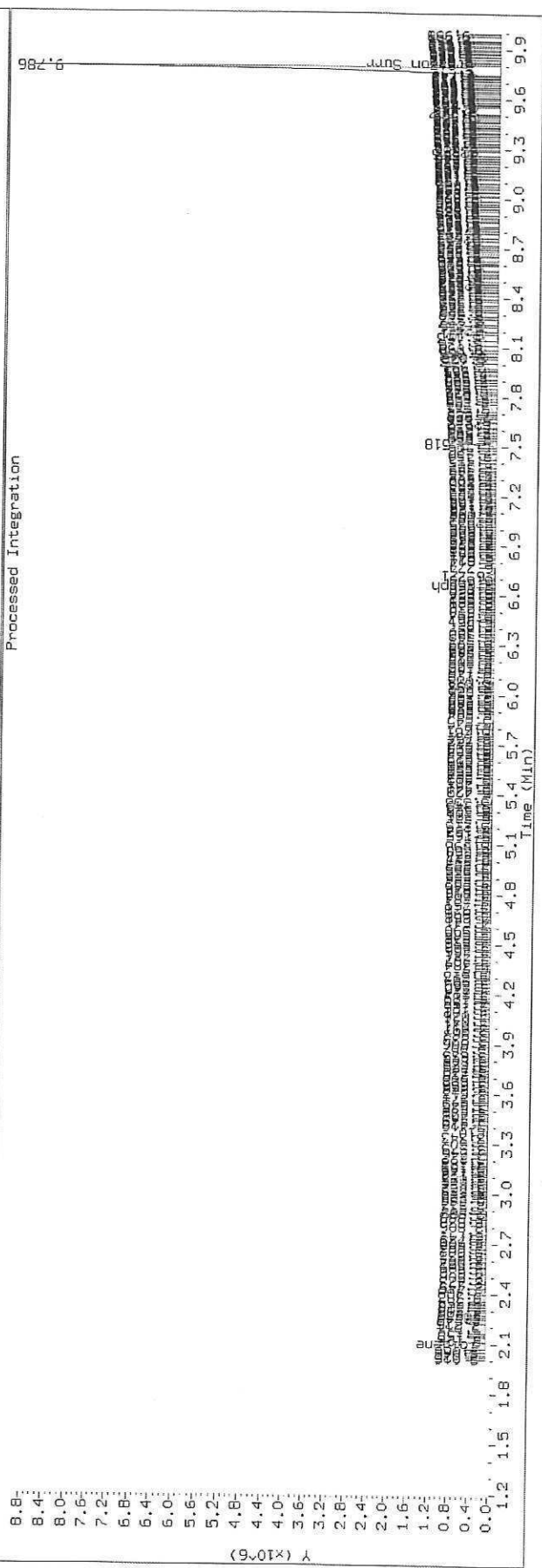
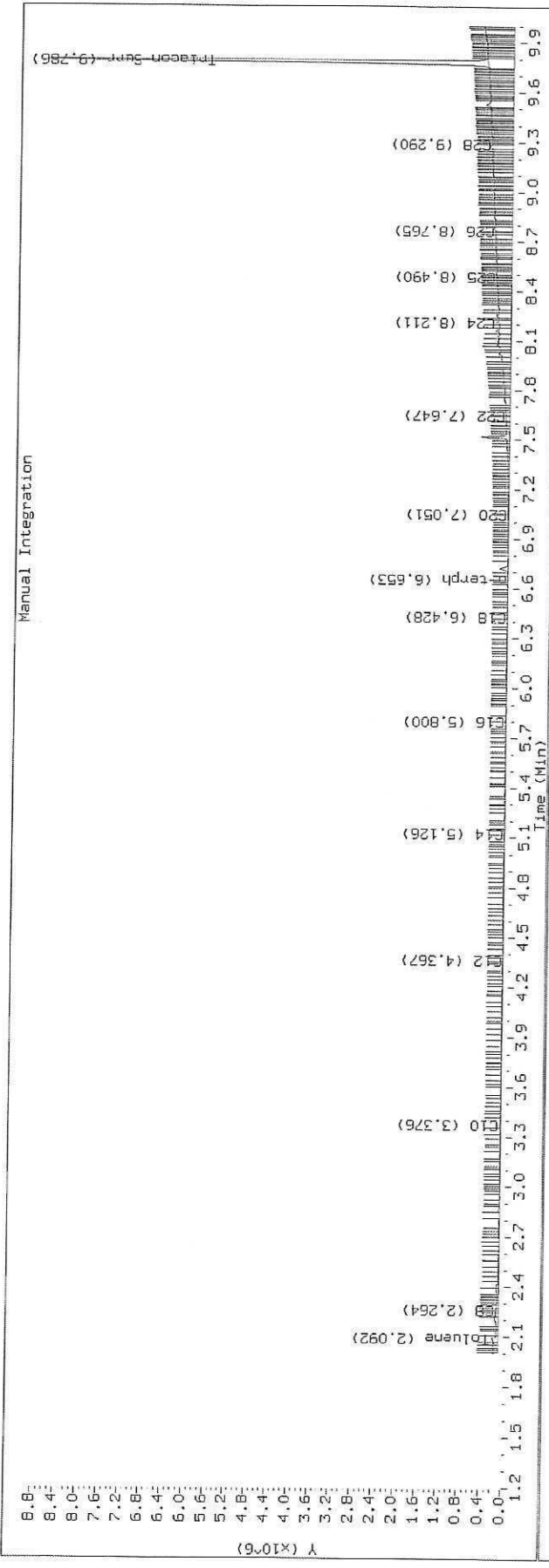
M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019

Datafile: FID4A, 20191025.b/41902527.D SHJ0406-SCV3



TPH Manual Integrations Report  
 Datafile: FID4A, 20191025.b/419J2527.D Injection: 25-OCT-2019 20:35  
 Lab ID: SHJ0406-SCV3



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191119.b/419K1907.D  
Method: 20191119.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 11/20/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHK0260-ICV3  
Client ID:  
Injection: 19-NOV-2019 15:10  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.258	-0.008	251291	294712	WATPHD	(C12-C24)	42051010	263.9
C10	3.371	-0.003	4406335	3424876	WATPHM	(C24-C38)	496216	3.7
C12	4.346	-0.001	4634910	4478760	AK102	(C10-C25)	82254431	420.8
C14	5.126	-0.002	3015617	2044036	AK103	(C25-C36)	286196	2.9
C16	5.801	-0.005	604553	490104	OR.DIES	(C10-C28)	82288476	419.8
C18	6.426	-0.007	88855	83248				
C20	7.035	-0.006	27599	35934	JET-A	(C10-C18)	81259124	500.0
C22	7.631	-0.006	14833	25191				
C24	8.208	-0.005	6203	10027				
C25	8.490	-0.002	3298	4254				
C26	8.761	-0.002	1681	2107				
C28	9.291	0.006	225	122				
C32	10.242	0.000	1787	779				
C34	10.677	-0.003	4152	2235				
Filter Peak	12.648	0.002	7181	4285	CREOSOT	(C12-C22)	41927190	817.4
C36	11.126	0.000	5955	3830				
C38	11.639	-0.004	6373	4434				
C40	12.278	0.002	7499	4100				
o-terph	6.651	-0.002	16020002	16763037				
Triacon Surr	9.804	0.002	747	319	NAS DIES	(C10-C24)	82236143	421.4

Range Times: NW Diesel(4.346 - 8.213) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.64) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

Surrogate	Area	Amount
o-Terphenyl	16763037	81.9
Triacotane	319	0.0

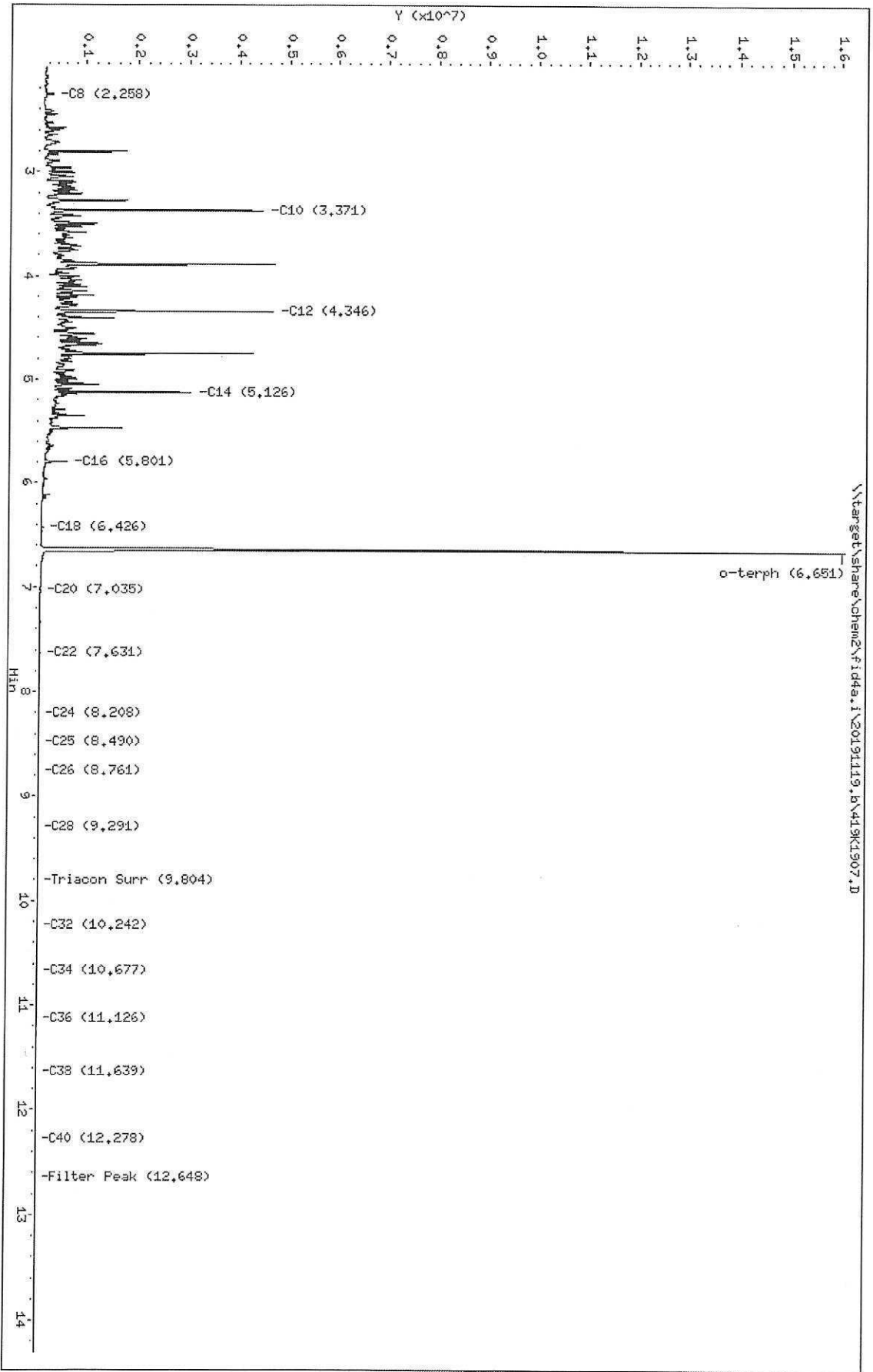
M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
JetA	162518.2	20-NOV-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	51292.5	15-NOV-2019

Data File: \\target\share\chem2\fid4a.i\20191119.B\419K1307.D  
Date: 19-NOV-2019 15:10  
Client ID:  
Sample Info: SHK0260-ICV3

Column phases: RTX-1

Instrument: fid4a.i  
Operator: CTD  
Column diameter: 0.25



Data File: \\target\share\chem2\fid4a,1\20200107\_b\42040707.D

Date: 07-JAN-2020 10:42

Client ID:

Sample Info: SIR0065-ICV3

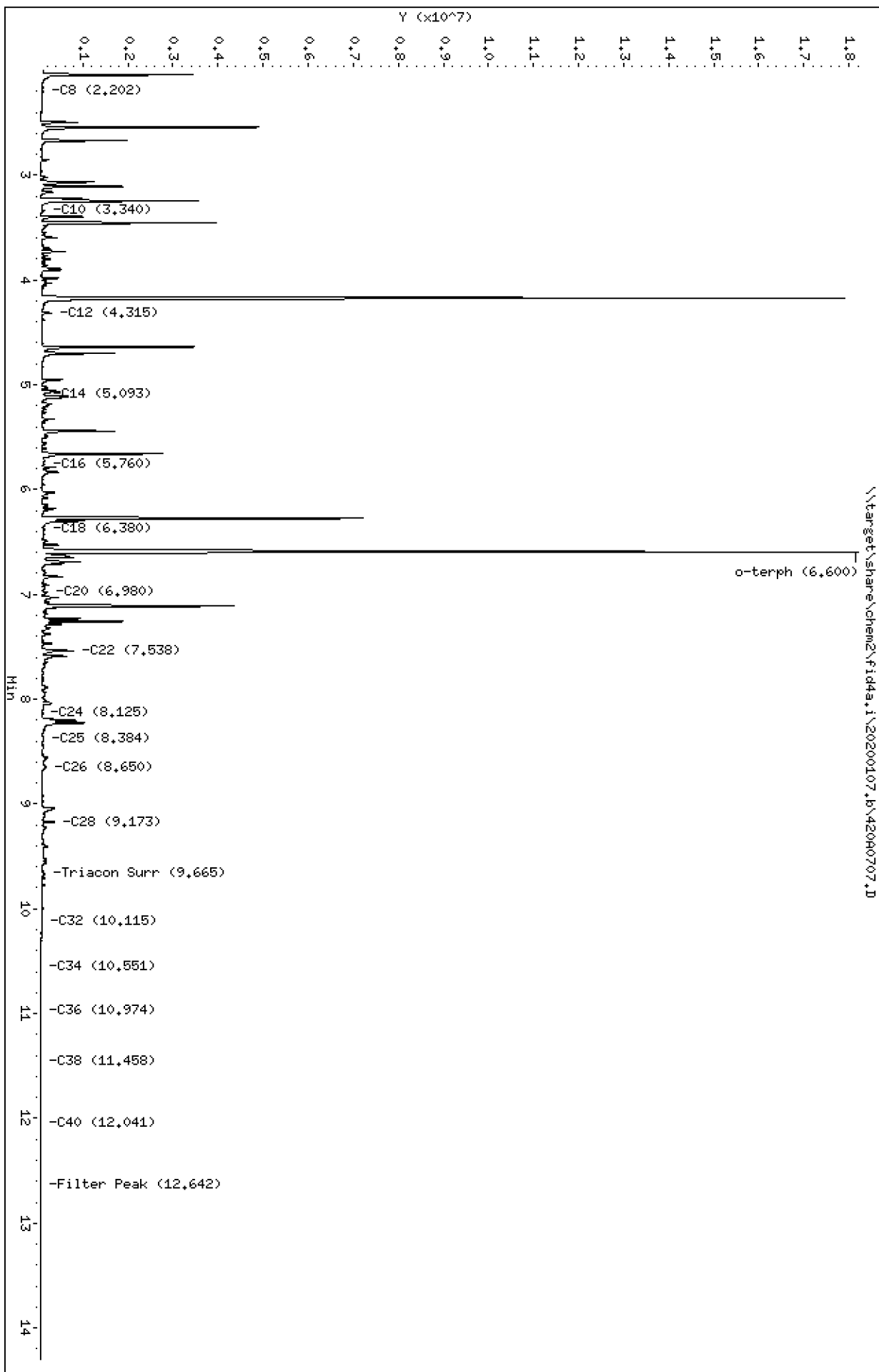
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

Page 1



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200107.b/420A0707.D  
Method: 20200107.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 01/08/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SIA0065-ICV3  
Client ID:  
Injection: 07-JAN-2020 10:42  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.202	-0.016	48618	163148	WATPHD	(C12-C24)	39749068	249.5
C10	3.340	-0.003	90097	100393	WATPHM	(C24-C38)	8921905	67.3
C12	4.315	-0.003	247325	289347	AK102	(C10-C25)	67305313	344.3
C14	5.093	-0.003	88277	57691	AK103	(C25-C36)	6259973	62.6
C16	5.760	-0.005	76989	75637	OR.DIES	(C10-C28)	70713708	360.8
C18	6.380	-0.002	84390	113269				
C20	6.980	0.003	144985	120115	JET-A	(C10-C18)	47725210	293.7
C22	7.538	-0.024	728303	910269				
C24	8.125	-0.002	43865	44718				
C25	8.384	-0.017	65153	88015				
C26	8.650	-0.017	124266	355575				
C28	9.173	-0.007	310713	322767				
C32	10.115	-0.005	18488	10140				
C34	10.551	-0.003	12121	8350				
Filter Peak	12.642	-0.014	5310	3162	CREOSOT	(C12-C22)	37368560	1000.0
C36	10.974	-0.004	10765	7465				
C38	11.458	0.001	10672	2663				
C40	12.041	-0.000	6716	3626				
o-terph	6.600	0.002	18150486	20216219				
Triacon Surr	9.665	-0.021	100173	177367	NAS DIES	(C10-C24)	64884221	332.5

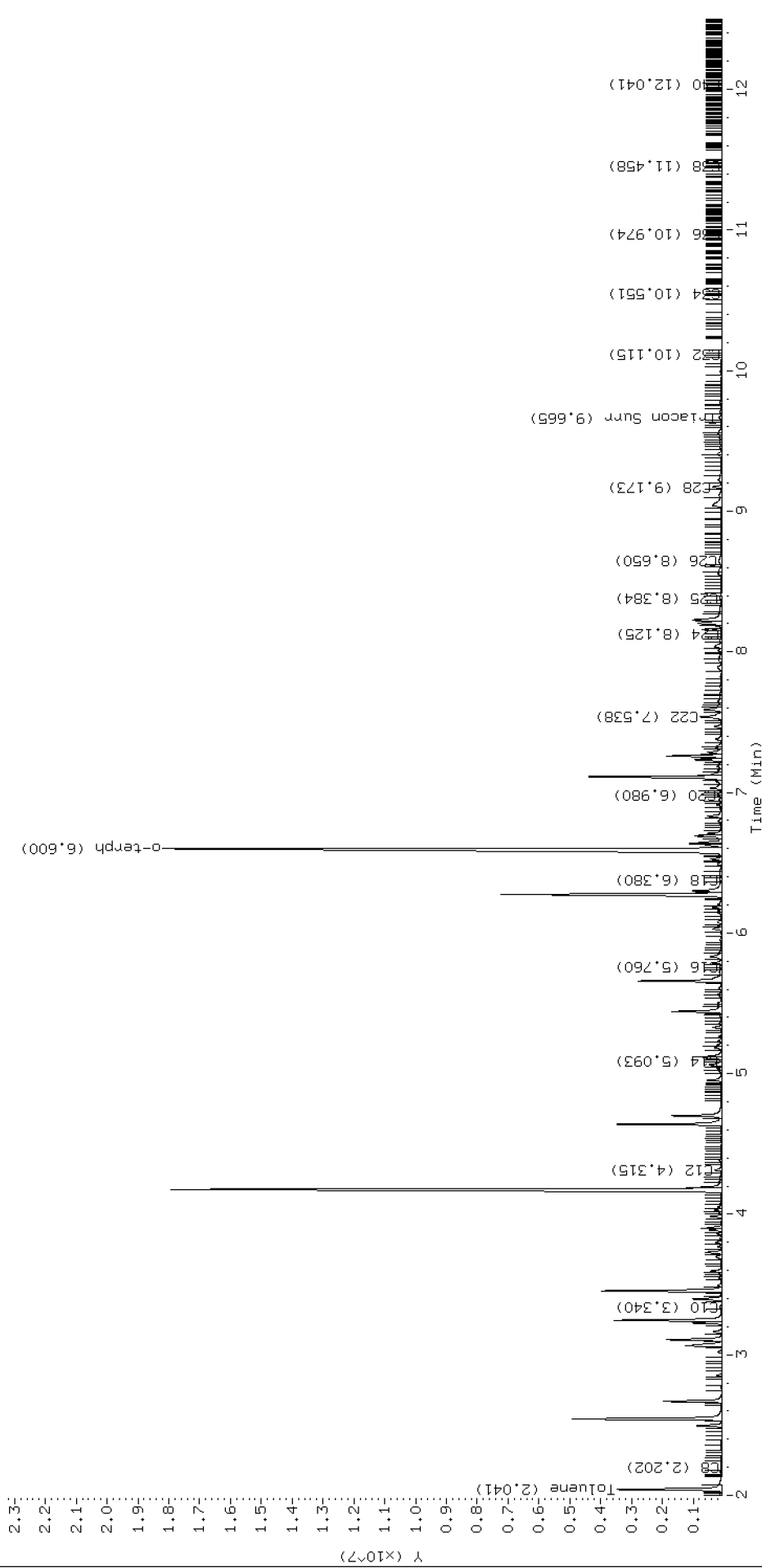
Range Times: NW Diesel(4.318 - 8.127) AK102(3.34 - 8.40) Jet A(3.34 - 6.38)  
NW M.Oil(8.13 - 11.46) AK103(8.40 - 10.98) OR Diesel(3.34 - 9.18)

Surrogate	Area	Amount
o-Terphenyl	20216219	98.8
Triacontane	177367	1.0

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
JetA	162518.2	20-NOV-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	37368.6	15-NOV-2019

HP6890 GC Data, FID1A.CH







## GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20200313b.b

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1	13-MAR-2020	13:19	420C1310.D	1	RINSE	
2	13-MAR-2020	13:38	420C1311.D	1	RINSE	
3	13-MAR-2020	13:58	420C1312.D	1	SEQ-IBL1	
4	13-MAR-2020	14:17	420C1313.D	1	SEQ-IBL2	
5	13-MAR-2020	14:37	420C1314.D	1	SEQ-CAL1	
6	13-MAR-2020	14:56	420C1315.D	1	SEQ-CAL2	
7	13-MAR-2020	15:15	420C1316.D	1	SEQ-CAL3	
8	13-MAR-2020	15:35	420C1317.D	1	SEQ-CAL4	
9	13-MAR-2020	15:54	420C1318.D	1	SEQ-CAL5	
10	13-MAR-2020	16:13	420C1319.D	1	SEQ-CAL6	
11	13-MAR-2020	16:33	420C1320.D	1	SEQ-SCV1	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20200313b.b

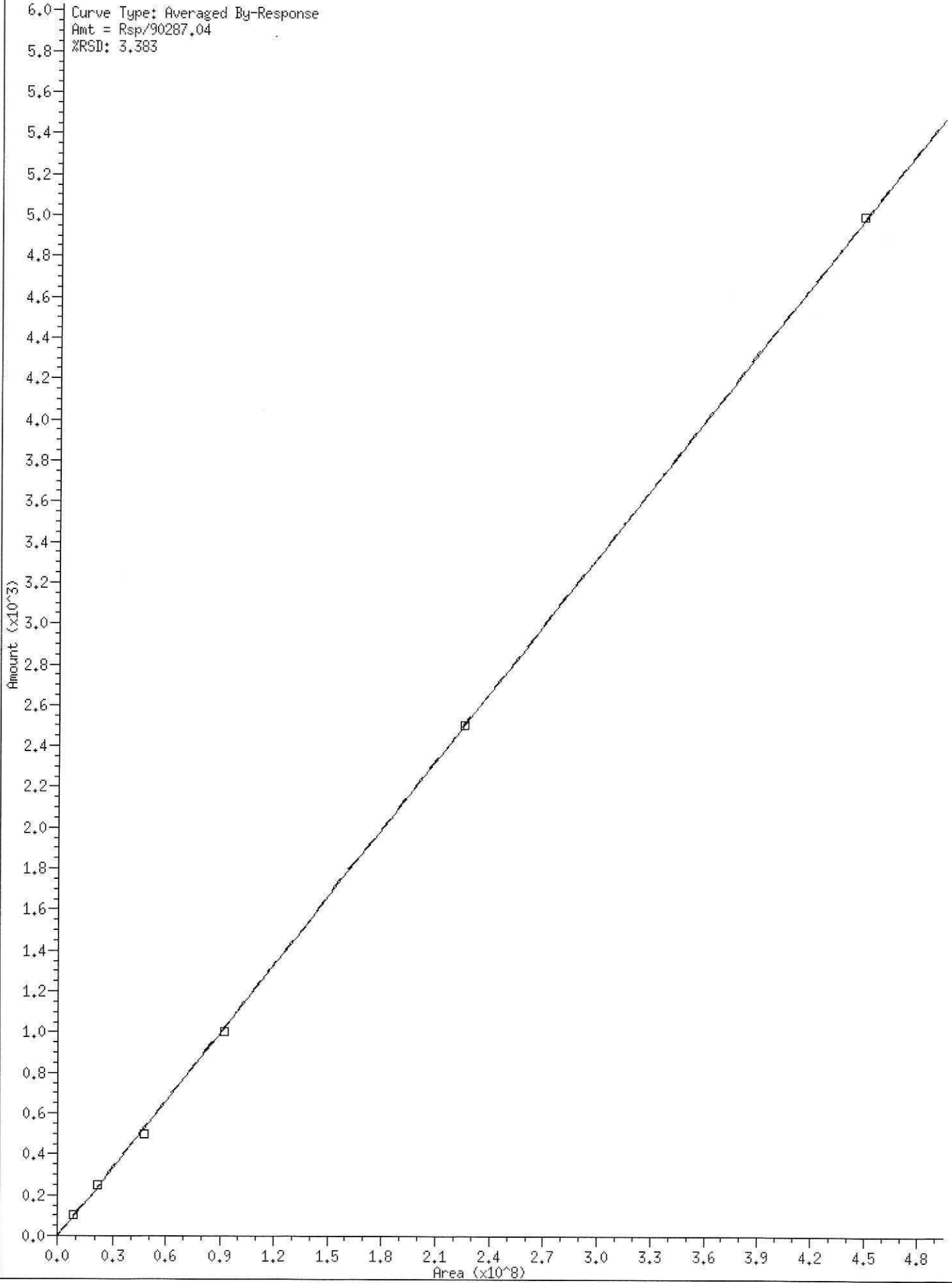
ARI Job No.: RINS Method: b\FID4TPH.m Instrument: fid4a.i Date: 13-MAR-2020

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1319	420C1310.D	RINSE		1	NO MANUAL INTEGRATION
1338	420C1311.D	RINSE		1	NO MANUAL INTEGRATION
1358	420C1312.D	SEQ-IBL1		1	C14, C16, C40,
1417	420C1313.D	SEQ-IBL2		1	NO MANUAL INTEGRATION
1437	420C1314.D	SEQ-CAL1		1	C20, o-terph,
1456	420C1315.D	SEQ-CAL2		1	o-terph,
1515	420C1316.D	SEQ-CAL3		1	o-terph,
1535	420C1317.D	SEQ-CAL4		1	o-terph,
1554	420C1318.D	SEQ-CAL5		1	o-terph,
1613	420C1319.D	SEQ-CAL6		1	o-terph,
1633	420C1320.D	SEQ-SCV1		1	o-terph,

Security Status Report

Date: 16-Mar-2020 10:37

420C1310.D	Data Locked	christopher, 16-Mar-2020 10:37
420C1311.D	Data Locked	christopher, 16-Mar-2020 10:37
420C1312.D	Data Locked	christopher, 16-Mar-2020 10:37
420C1313.D	Data Locked	christopher, 16-Mar-2020 10:37
420C1314.D	Data Locked	christopher, 16-Mar-2020 10:37
420C1315.D	Data Locked	christopher, 16-Mar-2020 10:37
420C1316.D	Data Locked	christopher, 16-Mar-2020 10:37
420C1317.D	Data Locked	christopher, 16-Mar-2020 10:37
420C1318.D	Data Locked	christopher, 16-Mar-2020 10:37
420C1319.D	Data Locked	christopher, 16-Mar-2020 10:37
420C1320.D	Data Locked	christopher, 16-Mar-2020 10:37



Data File: \\target\share\chem2\fid4a,i\20200313b,b\420C1312.D

Date: 13-MAR-2020 13:58

Client ID:

Sample Info: SEQ-IBL1

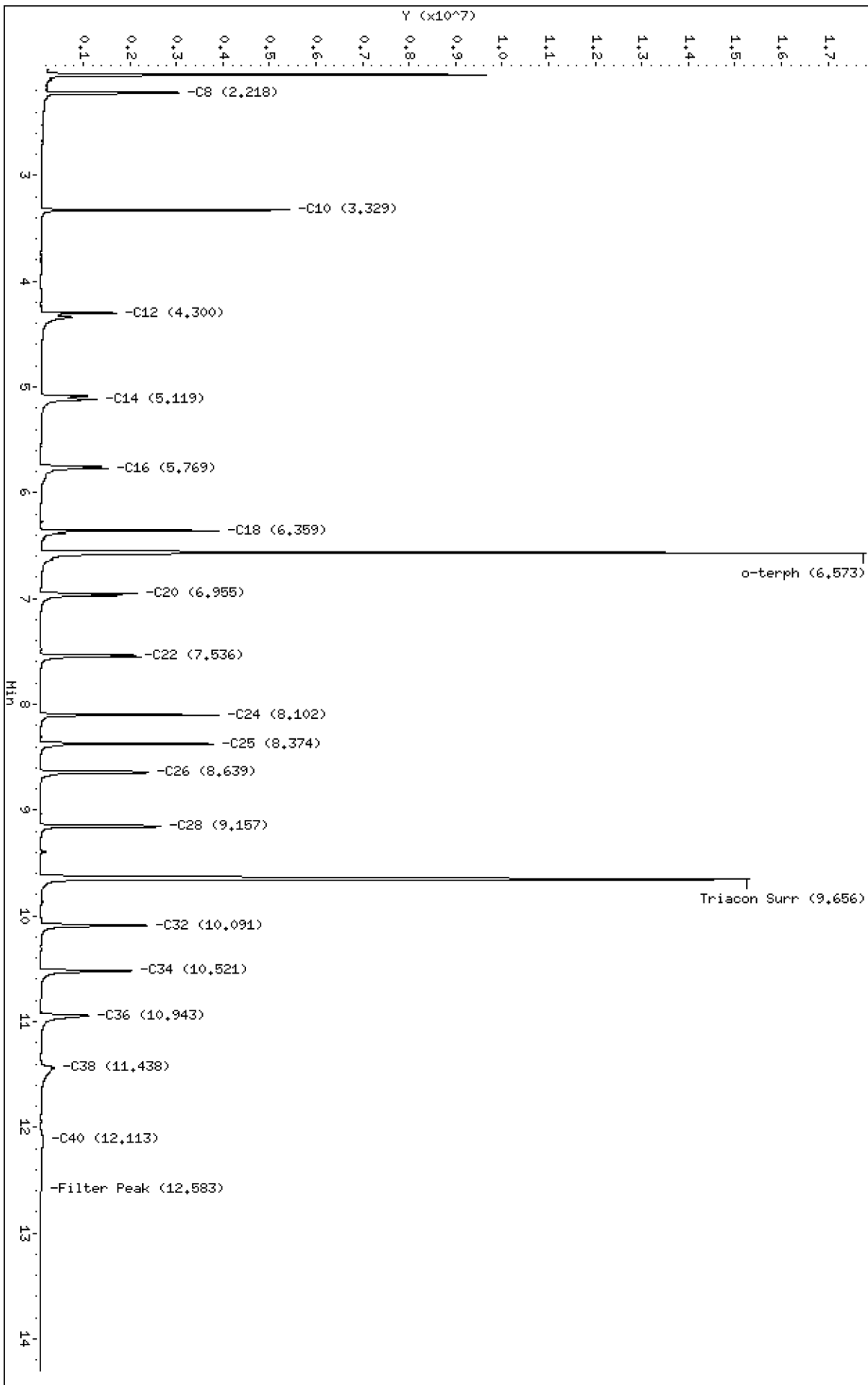
Column phase: RTX-1

Instrument: fid4a,1

Operator: JGR/CTO

Column diameter: 0.25

\\target\share\chem2\fid4a,i\20200313b,b\420C1312.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200313b.b/420C1312.D  
Method: 20200313b.b\FID4TPH.m  
Instrument: fid4a.i, JGR/CTO  
Report Date: 03/16/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-IBL1  
Client ID:  
Injection: 13-MAR-2020 13:58  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

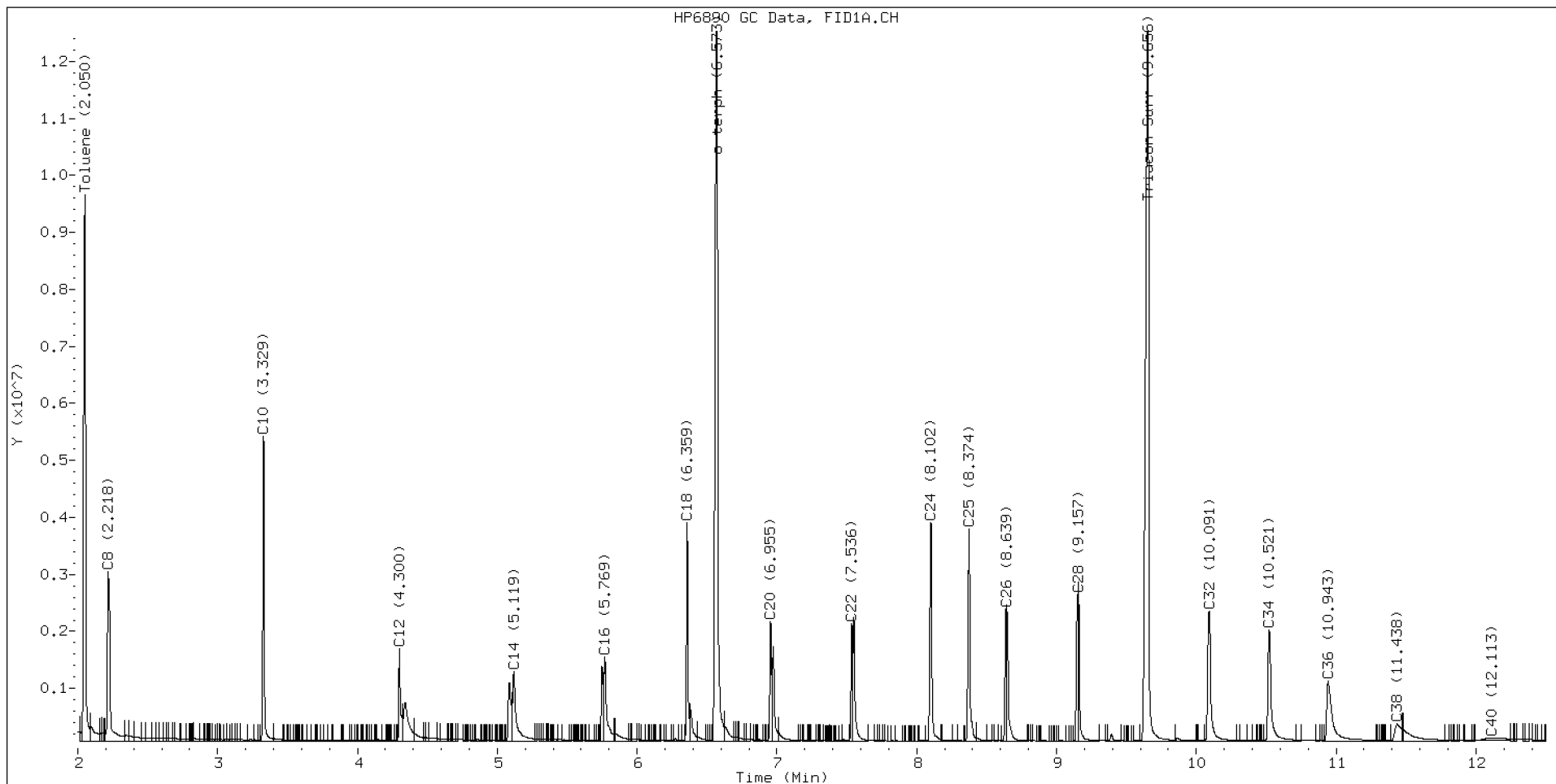
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.218	0.000	2976230	4258439	WATPHD	(C12-C24)	25653686	161.0
C10	3.329	0.000	5344126	3820334	WATPHM	(C24-C38)	24648964	185.8
C12	4.300	0.000	1627839	1465465	AK102	(C10-C25)	33671106	172.2
C14	5.119	0.000	1211179	2316863	AK103	(C25-C36)	22381765	223.9
C16	5.769	0.000	1467779	2055226	OR.DIES	(C10-C28)	45134921	230.3
C18	6.359	0.000	3826171	2734269				
C20	6.955	0.000	2088529	1719914	JET-A	(C10-C18)	20940040	128.8
C22	7.536	0.000	2056324	1623779				
C24	8.102	0.000	3838521	3671153				
C25	8.374	0.000	3714467	3687728				
C26	8.639	0.000	2319360	1780980				
C28	9.157	0.000	2575228	1984332				
C32	10.091	0.000	2278132	3706147				
C34	10.521	0.000	1957102	3424532				
Filter Peak	12.583	0.000	15498	11459	BUNKERC	(C10-C38)	58214945	644.8
C36	10.943	0.000	1054808	3160882				
C38	11.438	0.000	297596	868760				
C40	12.113	0.000	42933	427810				
o-terph	6.573	0.000	17734649	19762248				
Triacon Surr	9.656	0.000	15228657	21480068	NAS DIES	(C10-C24)	33565981	172.0

Range Times: NW Diesel(4.300 - 8.102) AK102(3.33 - 8.37) Jet A(3.33 - 6.36)  
NW M.Oil(8.10 - 11.44) AK103(8.37 - 10.94) OR Diesel(3.33 - 9.16)

Surrogate	Area	Amount
o-Terphenyl	19762248	96.5
Triacontane	21480068	120.7

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
JetA	162518.2	20-NOV-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	90287.0	13-MAR-2020

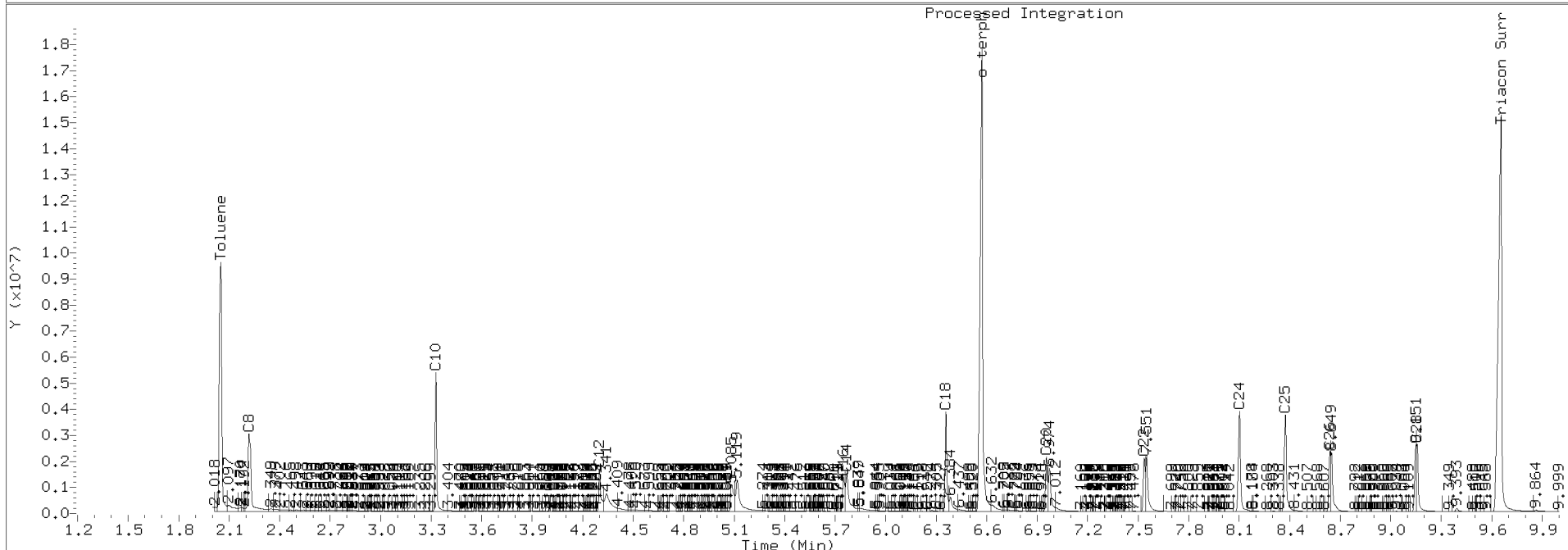
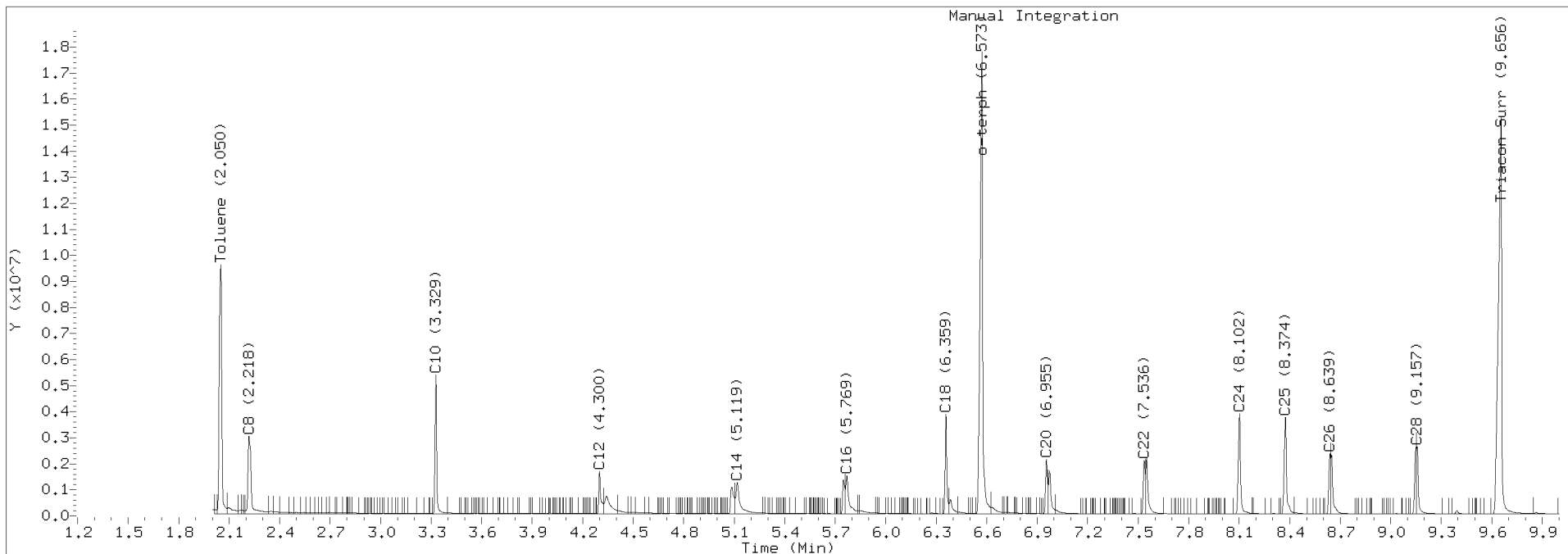




TPH Manual Integrations Report

Datafile: FID4A, 20200313b.b/420C1312.D Injection: 13-MAR-2020 13:58

Lab ID:SEQ-IBL1



Data File: \\target\share\chem2\fid4a,1\20200313b,bv420C1313.D  
Date: 13-MAR-2020 14:17

Client ID:

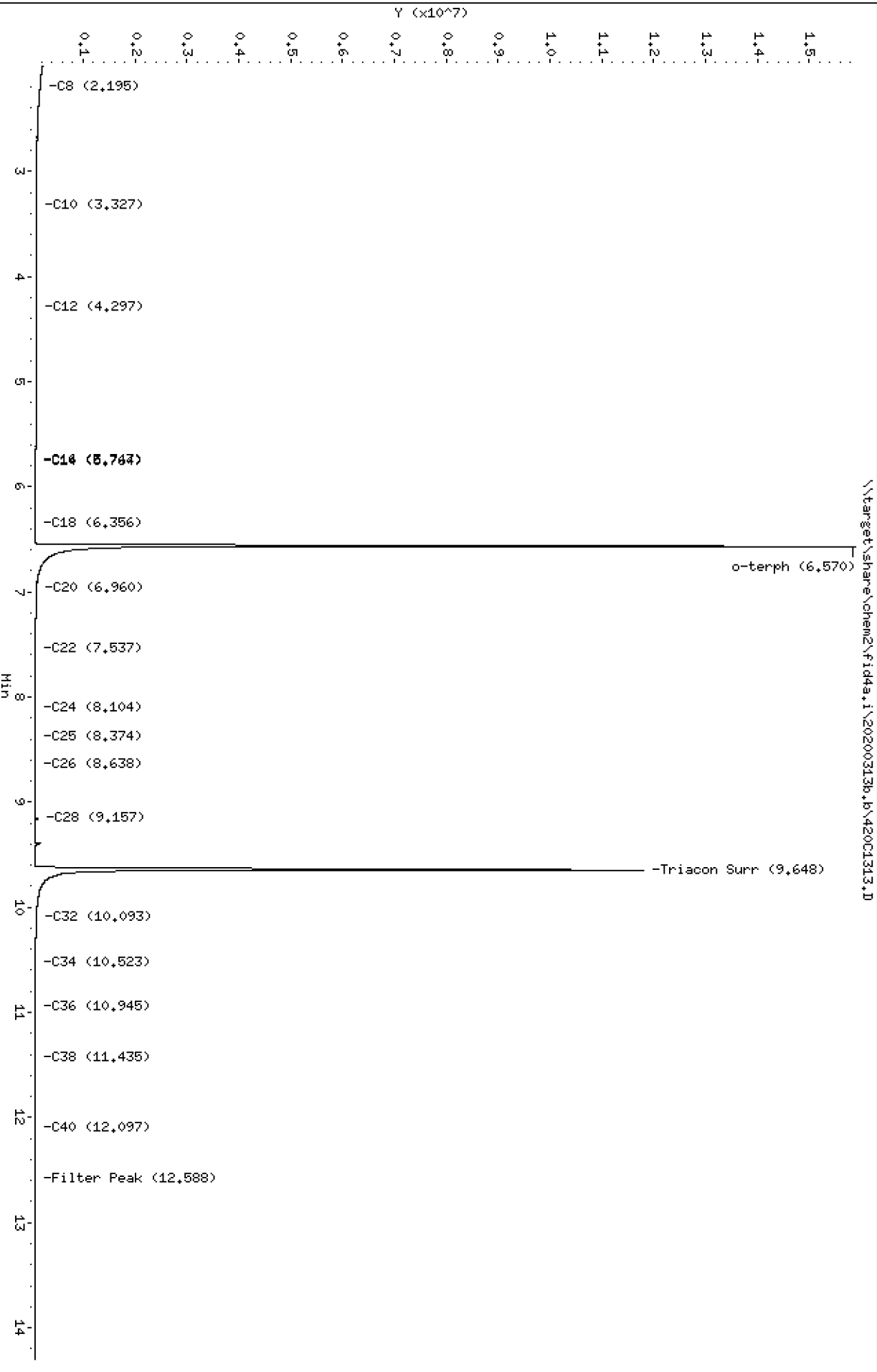
Sample Info: SEQ-IBL2

Column phase: RTX-1

Instrument: fid4a,1

Operator: JGR/CTO

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200313b.b/420C1313.D  
Method: 20200313b.b\FID4TPH.m  
Instrument: fid4a.i, JGR/CTO  
Report Date: 03/16/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-IBL2  
Client ID:  
Injection: 13-MAR-2020 14:17  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

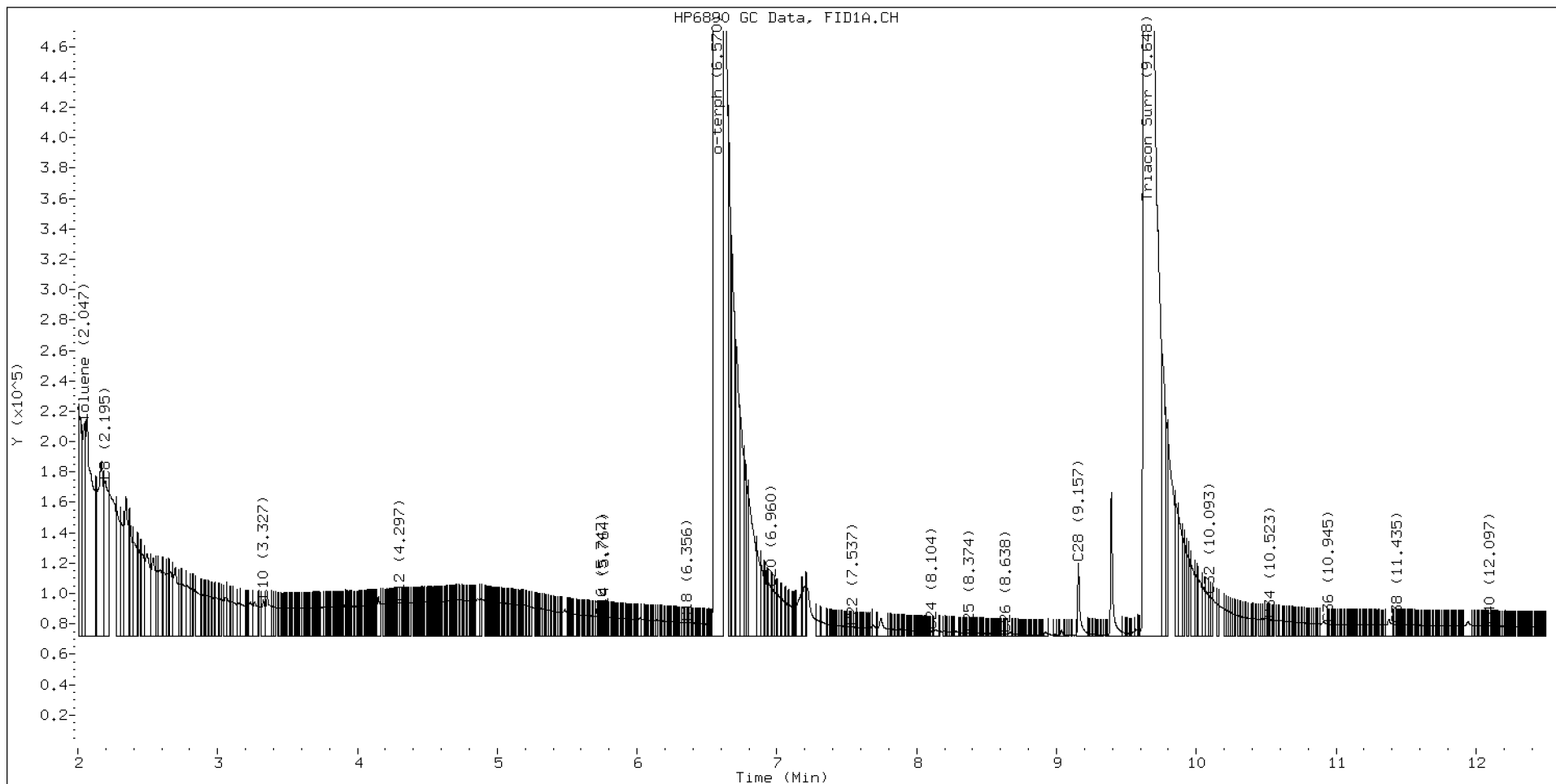
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.195	-0.023	101964	220885	WATPHD	(C12-C24)	4394210	27.6
C10	3.327	-0.002	23471	39087	WATPHM	(C24-C38)	1967673	14.8
C12	4.297	-0.003	21590	18255	AK102	(C10-C25)	5527366	28.3
C14	5.764	0.646	12422	5561	AK103	(C25-C36)	1745508	17.5
C16	5.747	-0.023	12369	2467	OR.DIES	(C10-C28)	5623934	28.7
C18	6.356	-0.003	8501	4208				
C20	6.960	0.005	31175	16901	JET-A	(C10-C18)	2939860	18.1
C22	7.537	0.001	5711	4529				
C24	8.104	0.002	2800	1652				
C25	8.374	-0.000	1751	510				
C26	8.638	-0.001	937	696				
C28	9.157	-0.000	47642	54613				
C32	10.093	0.002	26114	21739				
C34	10.523	0.002	10438	2073				
Filter Peak	12.588	0.006	5962	3842	BUNKERC	(C10-C38)	7477104	82.8
C36	10.945	0.002	7658	3422				
C38	11.435	-0.003	7168	3926				
C40	12.097	-0.015	6296	3463				
o-terph	6.570	-0.003	15826099	17209481				
Triacon Surr	9.648	-0.008	11725247	15722765	NAS DIES	(C10-C24)	5509432	28.2

Range Times: NW Diesel(4.300 - 8.102) AK102(3.33 - 8.37) Jet A(3.33 - 6.36)  
NW M.Oil(8.10 - 11.44) AK103(8.37 - 10.94) OR Diesel(3.33 - 9.16)

Surrogate	Area	Amount
o-Terphenyl	17209481	84.1
Triacontane	15722765	88.3

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
JetA	162518.2	20-NOV-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	90287.0	13-MAR-2020





ANALYSIS SEQUENCE

SID0108

Instrument: FID4  
Calibration ID: DA00022

Printed: 4/20/2020 7:51:03AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SID0108-IBL1	QC		1		H010802			
SID0108-IBL2	QC		2		I000651			
SID0108-CAL1	QC		3		I003251			
SID0108-CAL2	QC		4		I003252			
SID0108-CAL3	QC		5		I003253			
SID0108-CAL4	QC		6		I003254			
SID0108-CAL5	QC		7		I003255			
SID0108-CAL6	QC		8		I003037			
SID0108-SCV1	QC		9		I003274			

\_\_\_\_\_  
Samples Loaded By                          Date

\_\_\_\_\_  
Data Processed By                          Date

## GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20200408.b

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2	08-APR-2020	08:37	420D0802.D	1	RINSE	
3	08-APR-2020	08:56	420D0803.D	1	RINSE	
4	08-APR-2020	09:16	420D0804.D	1	RINSE	
5	08-APR-2020	09:35	420D0805.D	1	SEQ-IBL1	
6	08-APR-2020	09:54	420D0806.D	1	SEQ-IBL2	
7	08-APR-2020	10:14	420D0807.D	1	SEQ-CAL1	
8	08-APR-2020	10:33	420D0808.D	1	SEQ-CAL2	
9	08-APR-2020	10:53	420D0809.D	1	SEQ-CAL3	
10	08-APR-2020	11:12	420D0810.D	1	SEQ-CAL4	
11	08-APR-2020	11:32	420D0811.D	1	SEQ-CAL5	
12	08-APR-2020	11:51	420D0812.D	1	SEQ-CAL6	
13	08-APR-2020	12:11	420D0813.D	1	SEQ-SCV1	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20200408.b

ARI Job No.: RINS Method: FID4TPH.m Instrument: fid4a.i Date: 08-APR-2020

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0818	420D0801.D	RINSE		1	NO MANUAL INTEGRATION
0837	420D0802.D	RINSE		1	NO MANUAL INTEGRATION
0856	420D0803.D	RINSE		1	NO MANUAL INTEGRATION
0916	420D0804.D	RINSE		1	NO MANUAL INTEGRATION
0935	420D0805.D	SEQ-IBL1		1	NO MANUAL INTEGRATION
0954	420D0806.D	SEQ-IBL2		1	NO MANUAL INTEGRATION
1014	420D0807.D	SEQ-CAL1		1	Triacon Surr,
1033	420D0808.D	SEQ-CAL2		1	Triacon Surr,
1053	420D0809.D	SEQ-CAL3		1	Triacon Surr,
1112	420D0810.D	SEQ-CAL4		1	Triacon Surr,
1132	420D0811.D	SEQ-CAL5		1	Triacon Surr,
1151	420D0812.D	SEQ-CAL6		1	Triacon Surr,
1211	420D0813.D	SEQ-SCV1		1	Triacon Surr,

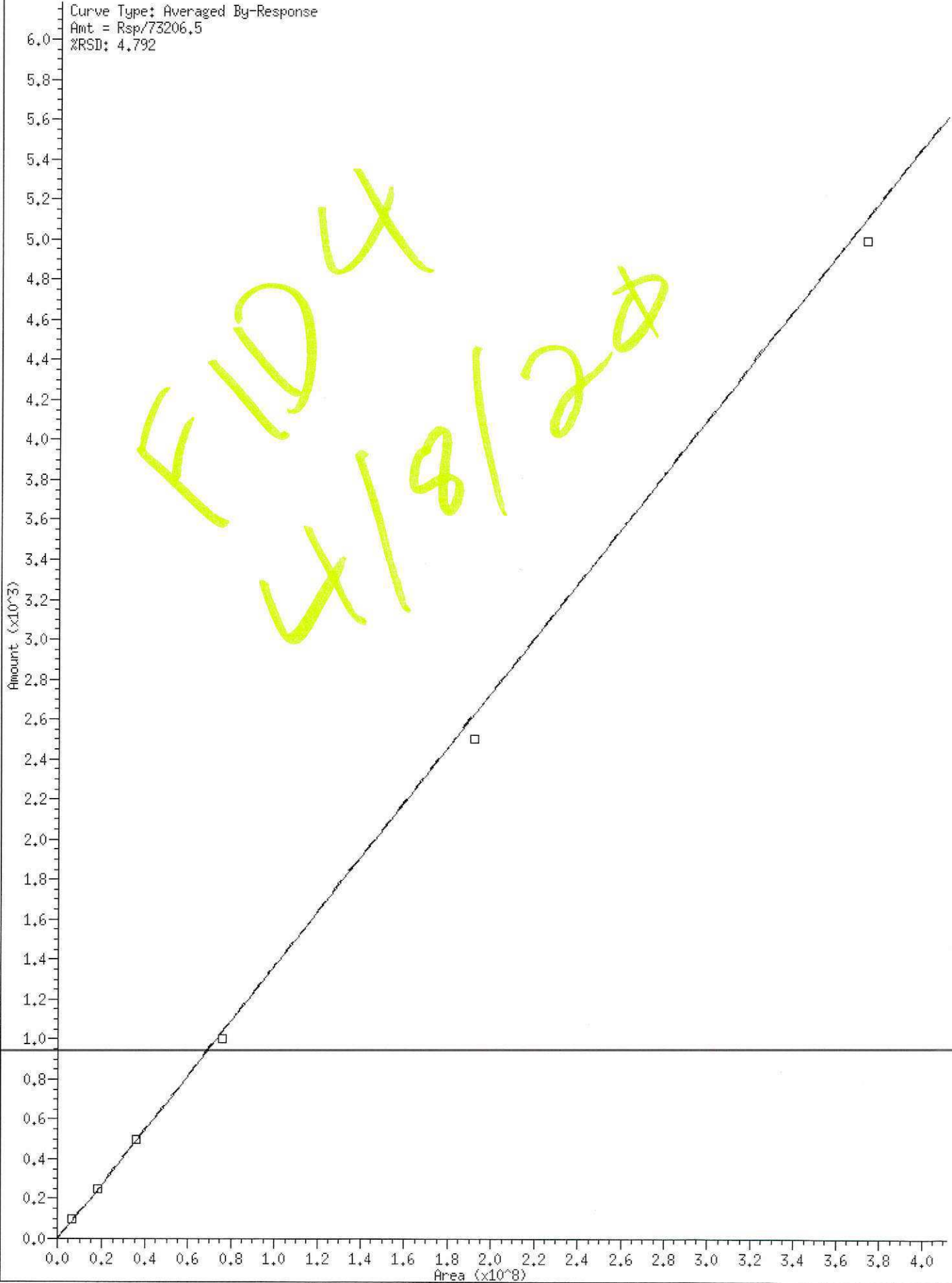
Security Status Report

Date: 20-Apr-2020 07:47

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420D0802.D	Data Locked	christopher, 20-Apr-2020 07:45
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Curve Type: Averaged By-Response  
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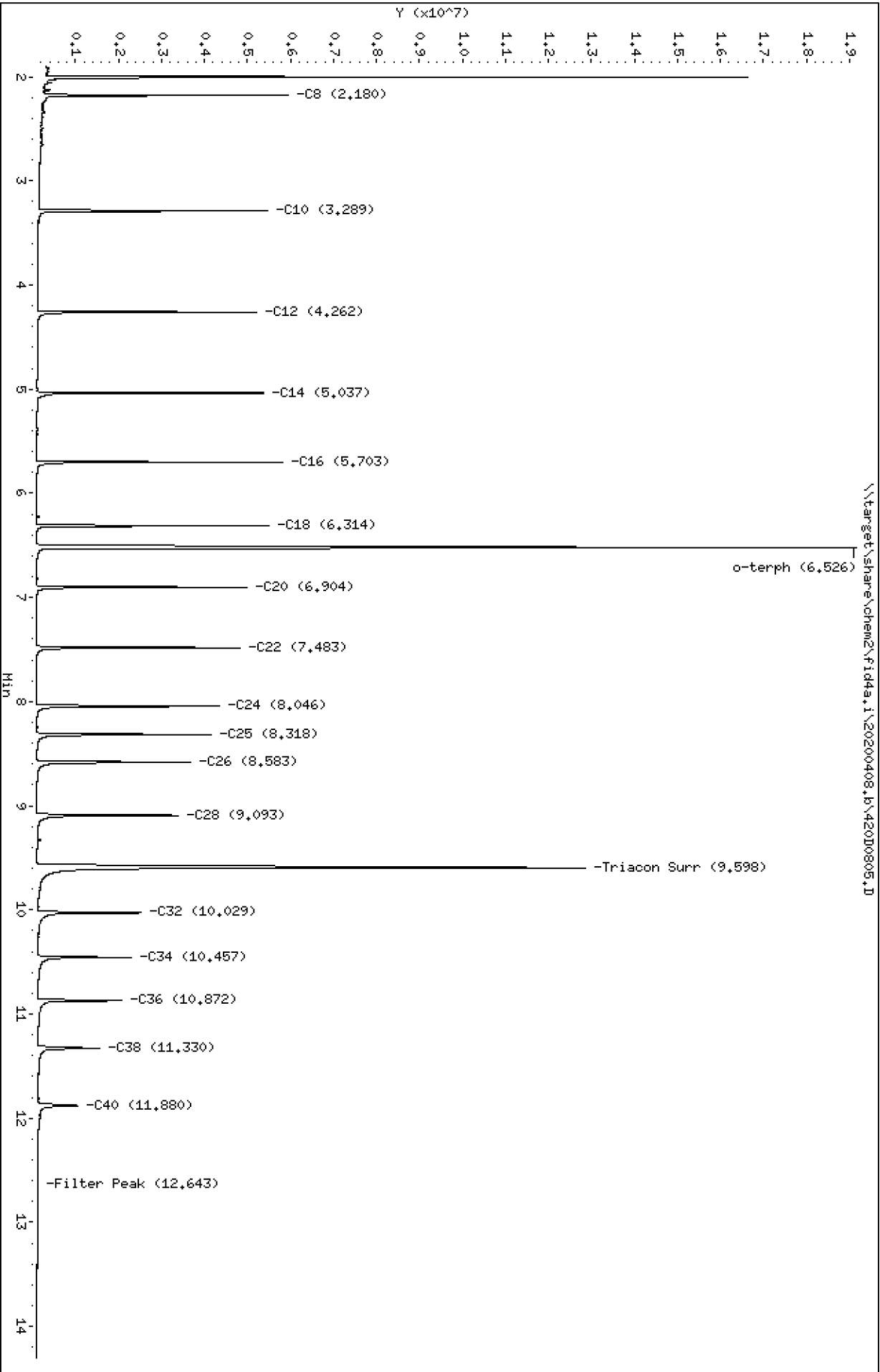


Data File: \\target\share\chem2\fid4a,1\20200408\_b\42010805.D  
Date: 08-APR-2020 09:35  
Client ID:  
Sample Info: SEQ-IBL1

Instrument: fid4a,1

Column phase: RTX-1

Operator: CTO  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200408.b/420D0805.D  
Method: 20200408.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 04/20/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-IBL1  
Client ID:  
Injection: 08-APR-2020 09:35  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

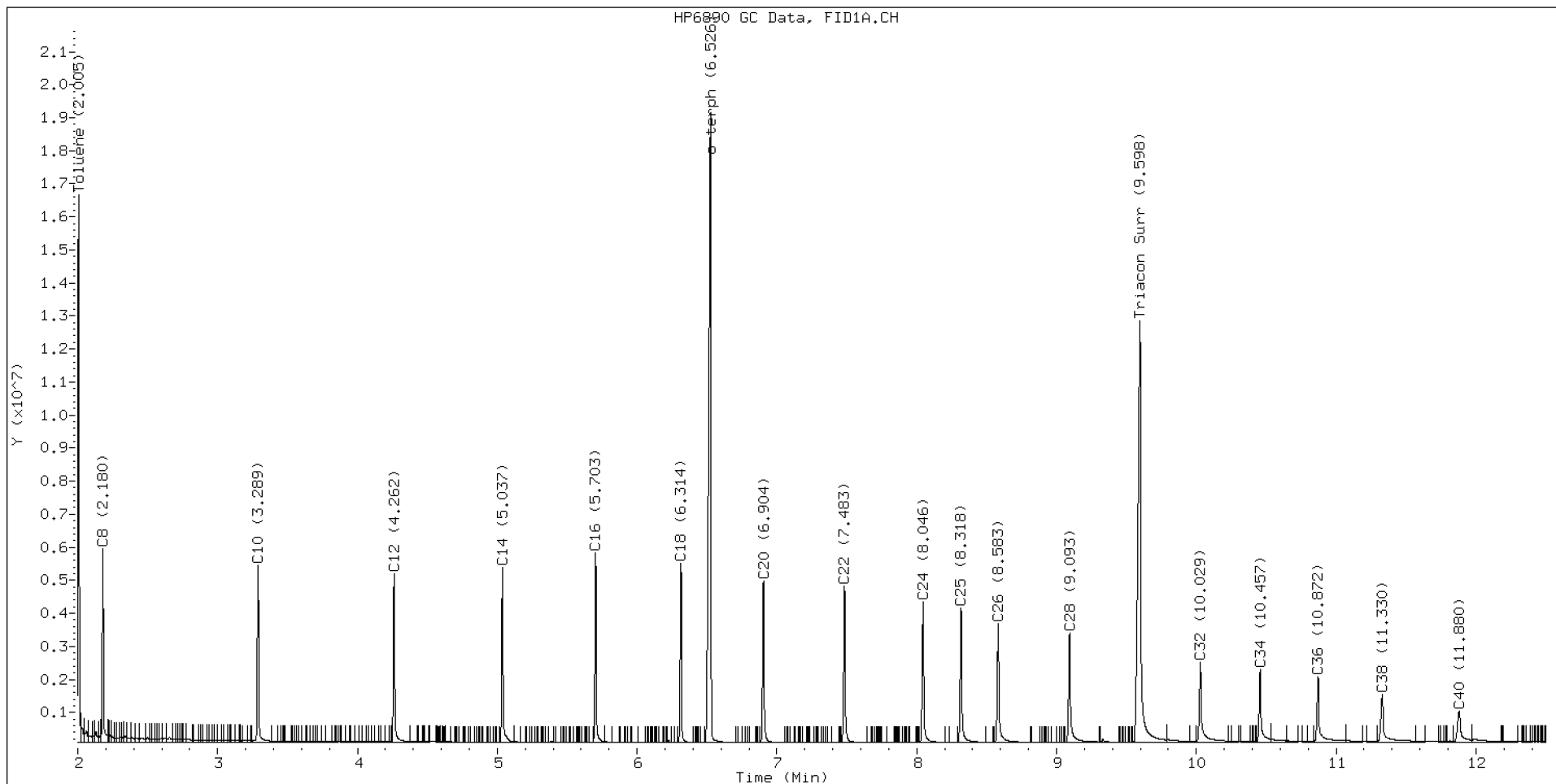
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.180	0.000	5854578	3880900	WATPHD	(C12-C24)	23844320	149.6
C10	3.289	0.000	5366559	4126403	WATPHM	(C24-C38)	25592918	193.0
C12	4.262	0.000	5124561	3862358	AK102	(C10-C25)	33609761	171.9
C14	5.037	0.000	5288886	3763422	AK103	(C25-C36)	22232777	303.7
C16	5.703	0.000	5732523	3728447	OR.DIES	(C10-C28)	44736298	228.2
C18	6.314	0.000	5411782	3657526				
C20	6.904	0.000	4900797	3740470	JET-A	(C10-C18)	22288154	137.1
C22	7.483	0.000	4744655	3709257				
C24	8.046	0.000	4260497	3629044				
C25	8.318	0.000	4069494	3709557				
C26	8.583	0.000	3584730	3671884				
C28	9.093	0.000	3305135	3592573				
C32	10.029	0.000	2427612	3418058				
C34	10.457	0.000	2206236	2535109				
Filter Peak	12.643	0.000	24370	14568	CREOSOT	(C12-C22)	20184280	489.5
C36	10.872	0.000	1991705	2941804				
C38	11.330	0.000	1466266	2825666				
C40	11.880	0.000	962855	1921380				
o-terph	6.526	0.000	19078927	20504006				
Triacon Surr	9.598	0.000	12764177	20099945	NAS DIES	(C10-C24)	33554764	171.9

Range Times: NW Diesel(4.262 - 8.046) AK102(3.29 - 8.32) Jet A(3.29 - 6.31)  
NW M.Oil(8.05 - 11.33) AK103(8.32 - 10.87) OR Diesel(3.29 - 9.09)

Surrogate	Area	Amount
o-Terphenyl	20504006	100.2
Triacontane	20099945	112.9

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	162518.2	20-NOV-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	41237.8	30-MAR-2020



Data File: \\target\share\chem2\fid4a,1\20200408\_b\420D0806.D

Date: 08-APR-2020 09:54

Client ID:

Sample Info: SEQ-IBL2

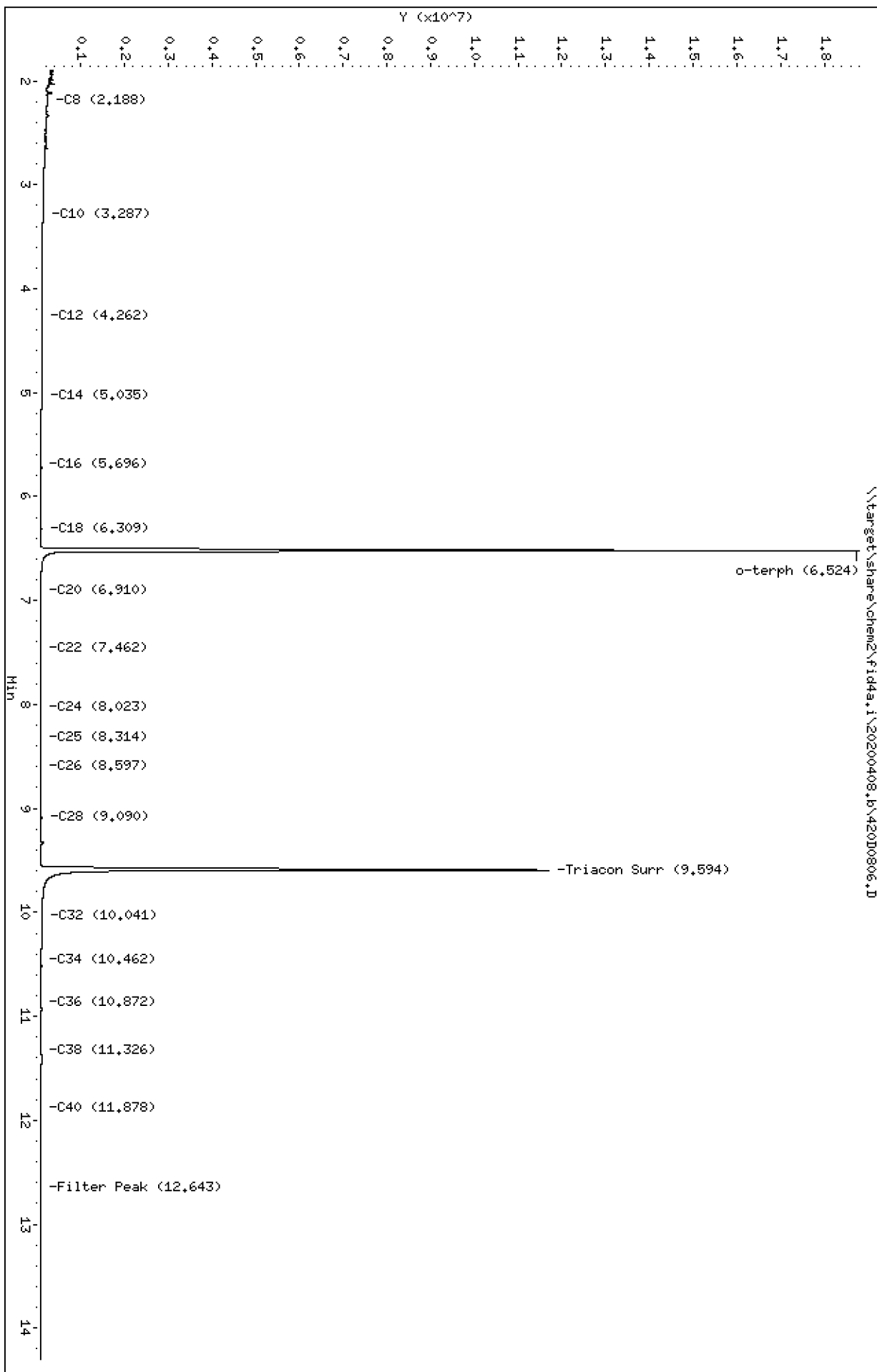
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

Page 1



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200408.b/420D0806.D  
Method: 20200408.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 04/20/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-IBL2  
Client ID:  
Injection: 08-APR-2020 09:54  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

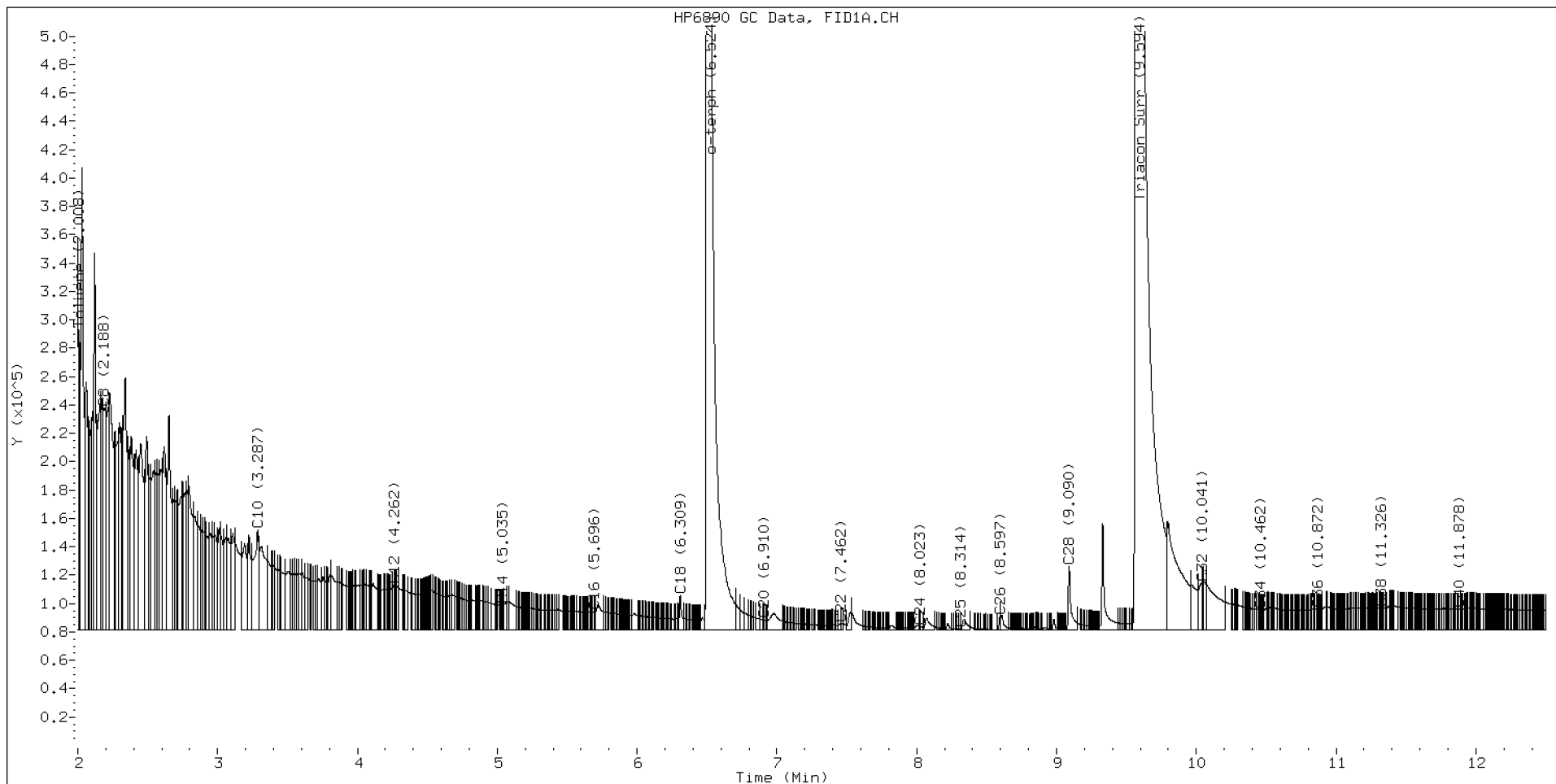
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.188	0.008	156546	216359	WATPHD	(C12-C24)	2059708	12.9
C10	3.287	-0.002	70586	177016	WATPHM	(C24-C38)	2023092	15.3
C12	4.262	-0.001	31694	27721	AK102	(C10-C25)	4136621	21.2
C14	5.035	-0.002	17658	7042	AK103	(C25-C36)	1615485	22.1
C16	5.696	-0.007	12809	8245	OR.DIES	(C10-C28)	4264948	21.8
C18	6.309	-0.005	24517	27940				
C20	6.910	0.006	6999	5164	JET-A	(C10-C18)	3753376	23.1
C22	7.462	-0.022	4699	4900				
C24	8.023	-0.022	2331	3320				
C25	8.314	-0.004	531	126				
C26	8.597	0.013	9349	6545				
C28	9.090	-0.003	44536	62849				
C32	10.041	0.012	33011	55502				
C34	10.462	0.005	14086	9836				
Filter Peak	12.643	0.000	14153	3524	CREOSOT	(C12-C22)	1999313	48.5
C36	10.872	0.000	14385	7864				
C38	11.326	-0.004	15213	8324				
C40	11.878	-0.002	14557	10126				
o-terph	6.524	-0.002	18718308	20250783				
Triacon Surr	9.594	-0.004	11617864	16294307	NAS DIES	(C10-C24)	4126955	21.1

Range Times: NW Diesel(4.262 - 8.046) AK102(3.29 - 8.32) Jet A(3.29 - 6.31)  
NW M.Oil(8.05 - 11.33) AK103(8.32 - 10.87) OR Diesel(3.29 - 9.09)

Surrogate	Area	Amount
o-Terphenyl	20250783	98.9
Triacontane	16294307	91.6

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	162518.2	20-NOV-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	41237.8	30-MAR-2020



Data File: \\target\share\chem2\fid4a,1\20200408\_b\42010807.D  
Date: 08-APR-2020 10:14

Client ID:

Sample Info: SEQ-CALL

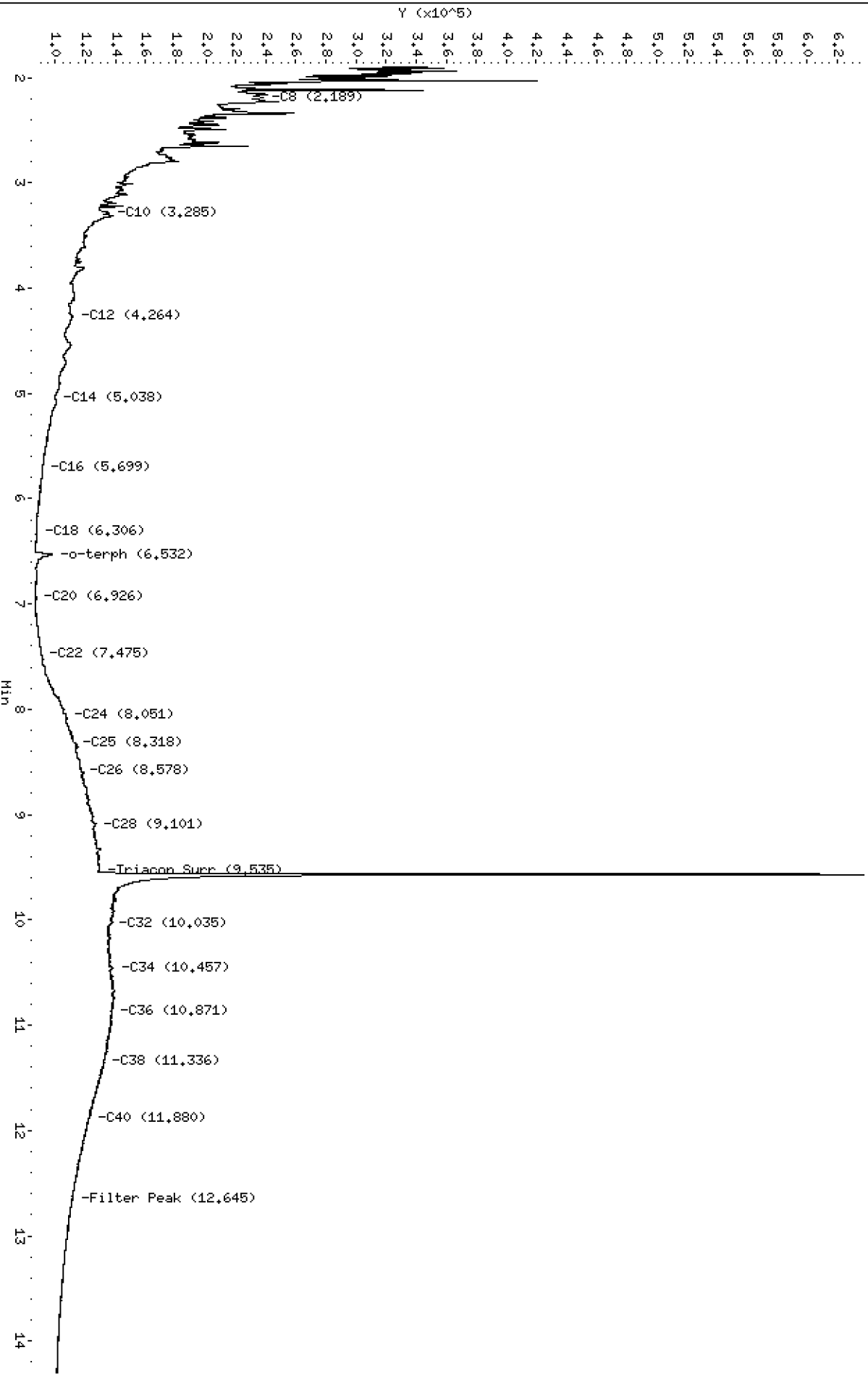
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

\\target\share\chem2\fid4a,1\20200408\_b\42010807.D





Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200408.b/420D0807.D  
Method: 20200408.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 04/20/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-CAL1  
Client ID:  
Injection: 08-APR-2020 10:14  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

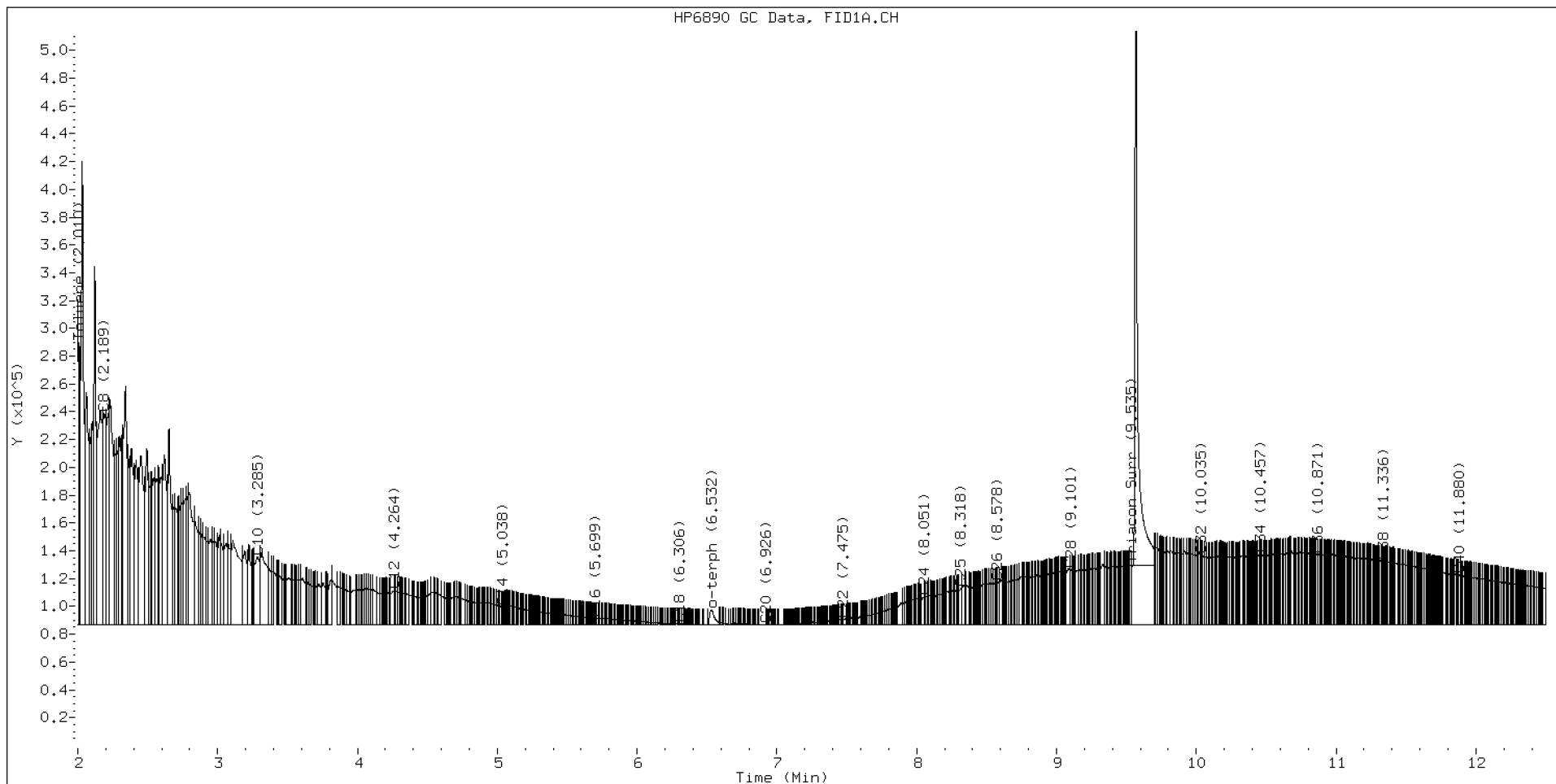
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.189	0.009	152083	238009	WATPHD	(C12-C24)	1535455	9.6
C10	3.285	-0.004	49113	104559	WATPHM	(C24-C38)	8187148	61.7
C12	4.264	0.002	24631	8600	AK102	(C10-C25)	3445901	17.6
C14	5.038	0.001	13117	3929	AK103	(C25-C36)	6705828	91.6
C16	5.699	-0.004	4845	2404	OR.DIES	(C10-C28)	5120557	26.1
C18	6.306	-0.008	853	562				
C20	6.926	0.022	403	144	JET-A	(C10-C18)	2755712	17.0
C22	7.475	-0.008	3796	753				
C24	8.051	0.006	20077	24027				
C25	8.318	-0.000	26103	25417				
C26	8.578	-0.005	30795	28994				
C28	9.101	0.007	39800	29577				
C32	10.035	0.006	50014	24947				
C34	10.457	-0.000	51363	30680				
Filter Peak	12.645	0.002	24706	12307	CREOSOT	(C12-C22)	1140595	27.7
C36	10.871	-0.000	50437	10078				
C38	11.336	0.007	45528	18190				
C40	11.880	-0.000	36310	26801				
o-terph	6.532	0.007	11031	27133				
Triacon Surr	9.568	-0.030	508463	647323	NAS DIES	(C10-C24)	3228669	16.5

Range Times: NW Diesel(4.262 - 8.046) AK102(3.29 - 8.32) Jet A(3.29 - 6.31)  
NW M.Oil(8.05 - 11.33) AK103(8.32 - 10.87) OR Diesel(3.29 - 9.09)

Surrogate	Area	Amount
o-Terphenyl	27133	0.1
Triacontane	647323	3.6 M

M Indicates the peak was manually integrated

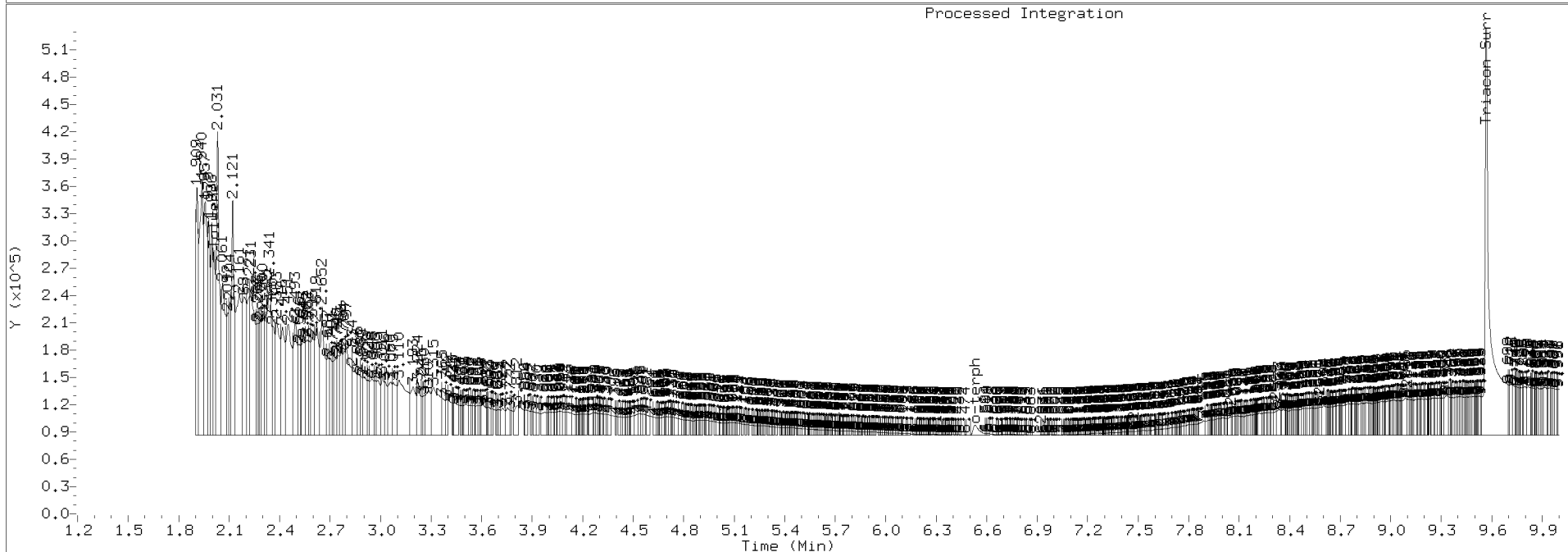
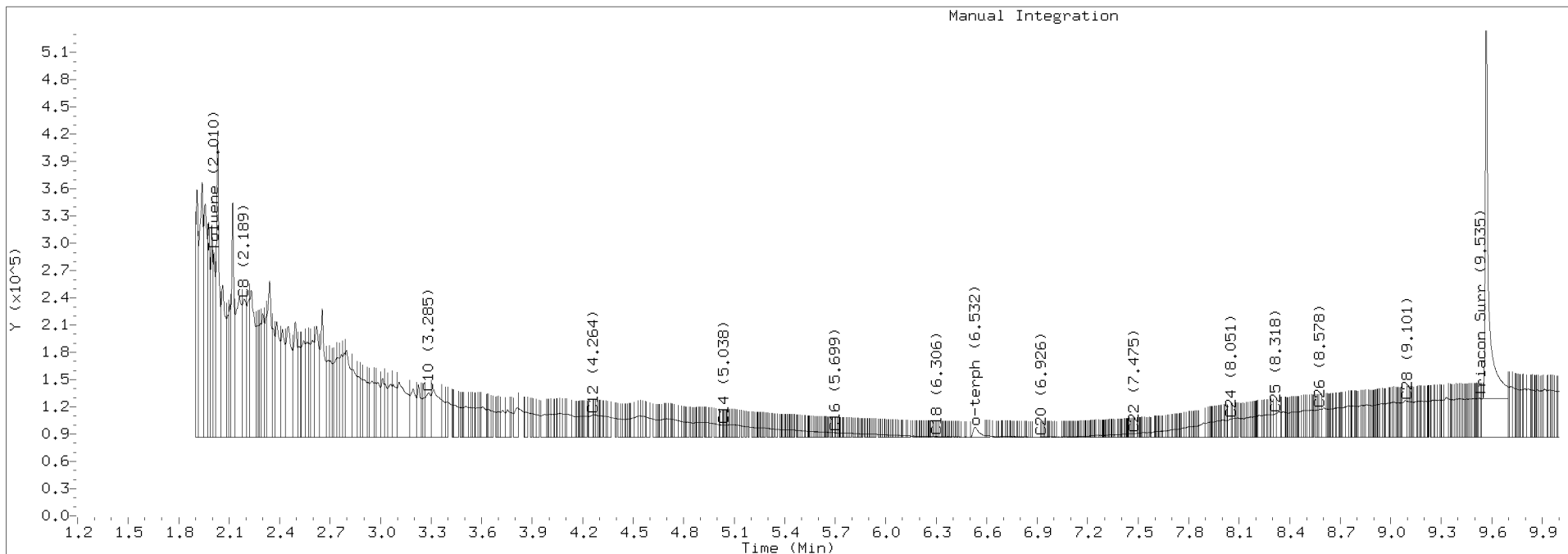
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	162518.2	20-NOV-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	41237.8	30-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20200408.b/420D0807.D Injection: 08-APR-2020 10:14

Lab ID:SEQ-CAL1



Data File: \\target\share\chem2\fid4a,1\20200408\_b\42010808.D  
Date : 08-APR-2020 10:33

Client ID:  
Sample Info: SEQ-CAL2

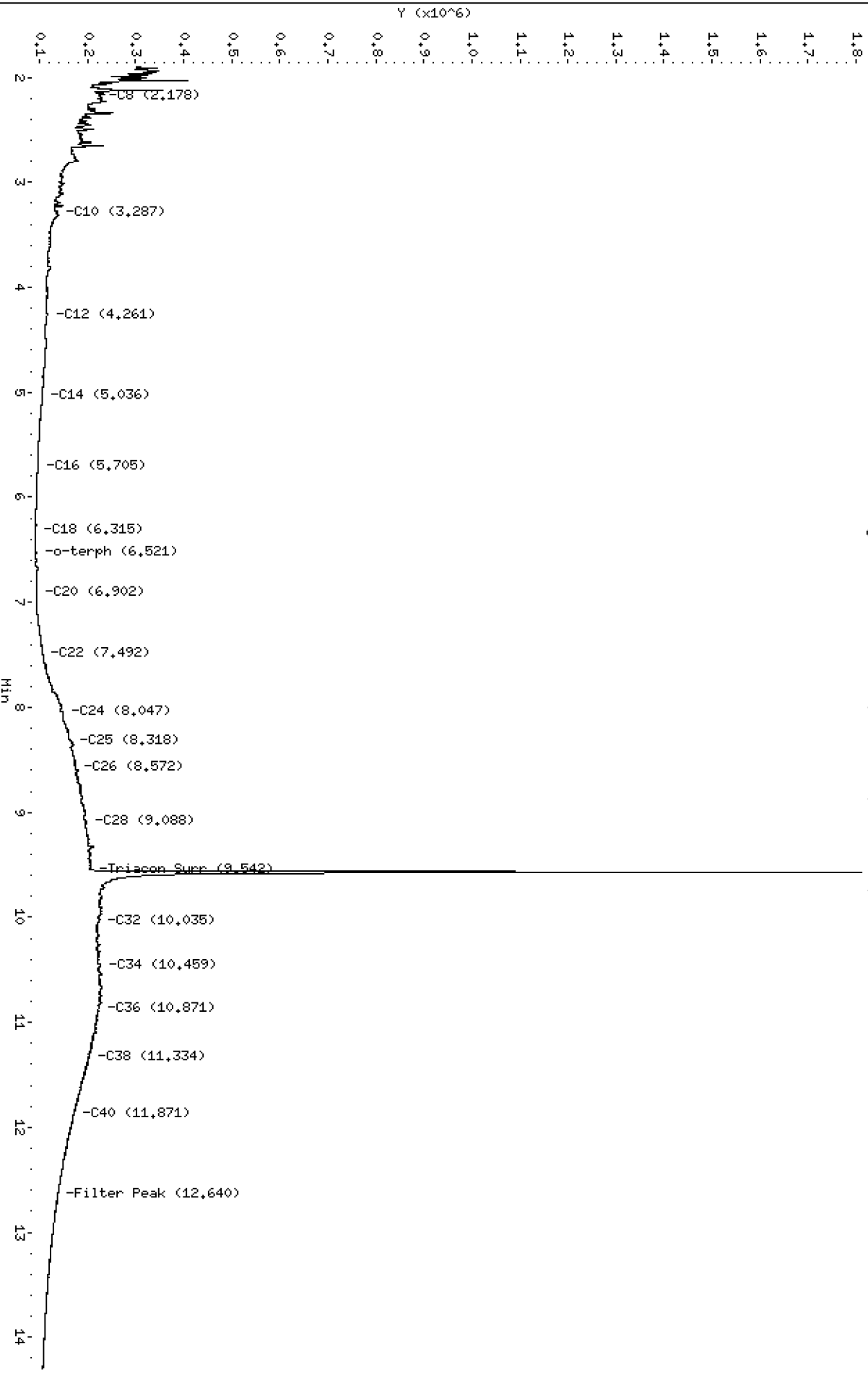
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

\\target\share\chem2\fid4a,1\20200408\_b\42010808.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200408.b/420D0808.D  
Method: 20200408.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 04/20/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-CAL2  
Client ID:  
Injection: 08-APR-2020 10:33  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

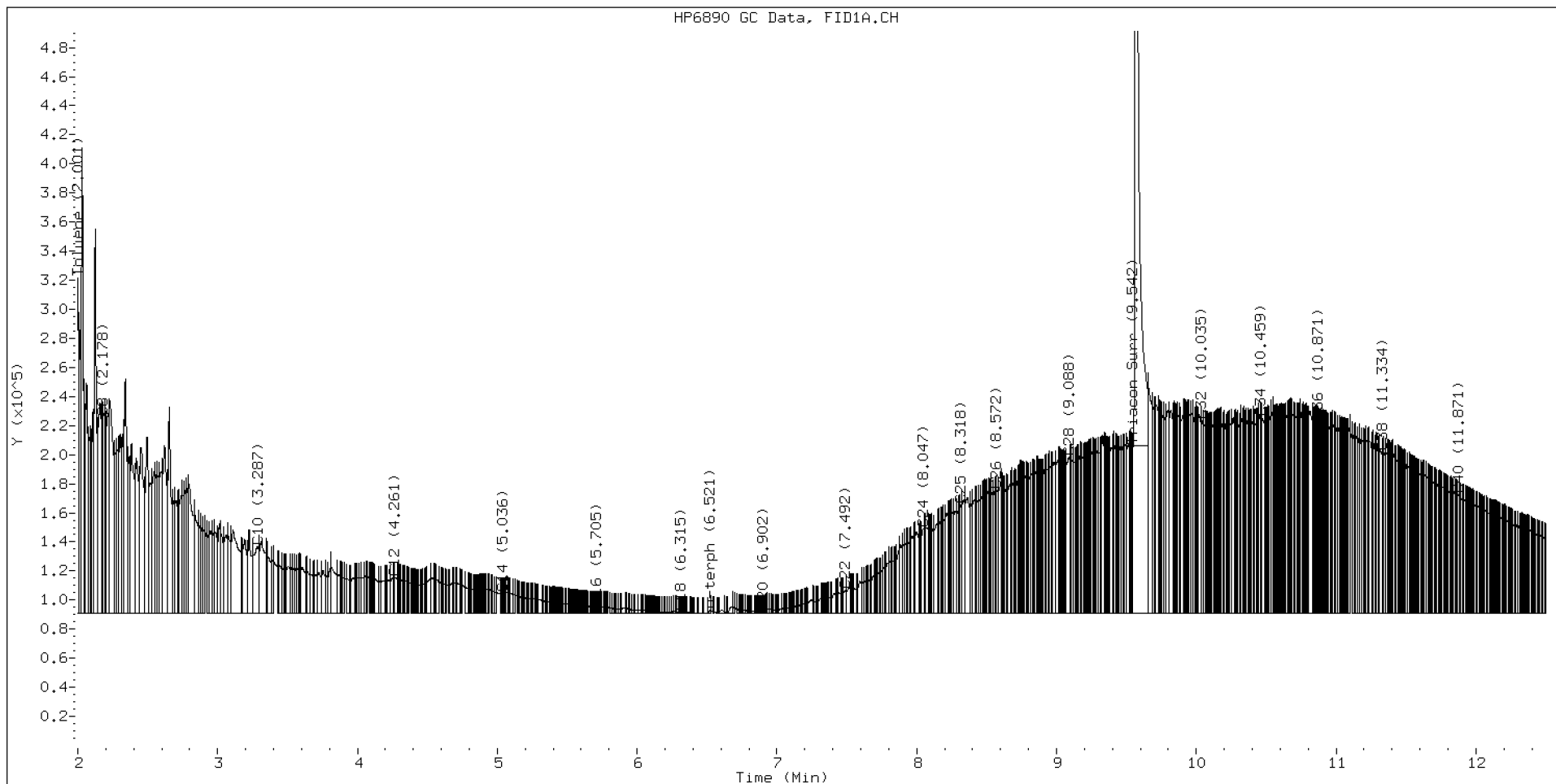
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.178	-0.002	134647	73580	WATPHD	(C12-C24)	2623184	16.5
C10	3.287	-0.002	46105	122146	WATPHM	(C24-C38)	21976708	165.7
C12	4.261	-0.002	24803	7411	AK102	(C10-C25)	4928461	25.2
C14	5.036	-0.002	13595	4064	AK103	(C25-C36)	18150509	247.9
C16	5.705	0.002	4392	1091	OR.DIES	(C10-C28)	9615128	49.1
C18	6.315	0.001	704	324				
C20	6.902	-0.002	1947	564	JET-A	(C10-C18)	2725859	16.8
C22	7.492	0.008	15580	19522				
C24	8.047	0.001	58155	84697				
C25	8.318	-0.001	74518	58671				
C26	8.572	-0.012	84650	75814				
C28	9.088	-0.006	107472	173683				
C32	10.035	0.006	132361	33044				
C34	10.459	0.002	134858	26944				
Filter Peak	12.640	-0.003	47344	30546	CREOSOT	(C12-C22)	1399069	33.9
C36	10.871	-0.001	131911	72256				
C38	11.334	0.004	111289	44355				
C40	11.871	-0.009	81830	69040				
o-terph	6.521	-0.005	2000	1847				
Triacon Surr	9.571	-0.027	1605783	1635426	NAS DIES	(C10-C24)	4280523	21.9

Range Times: NW Diesel(4.262 - 8.046) AK102(3.29 - 8.32) Jet A(3.29 - 6.31)  
NW M.Oil(8.05 - 11.33) AK103(8.32 - 10.87) OR Diesel(3.29 - 9.09)

Surrogate	Area	Amount
o-Terphenyl	1847	0.0
Triacontane	1635426	9.2 M

M Indicates the peak was manually integrated

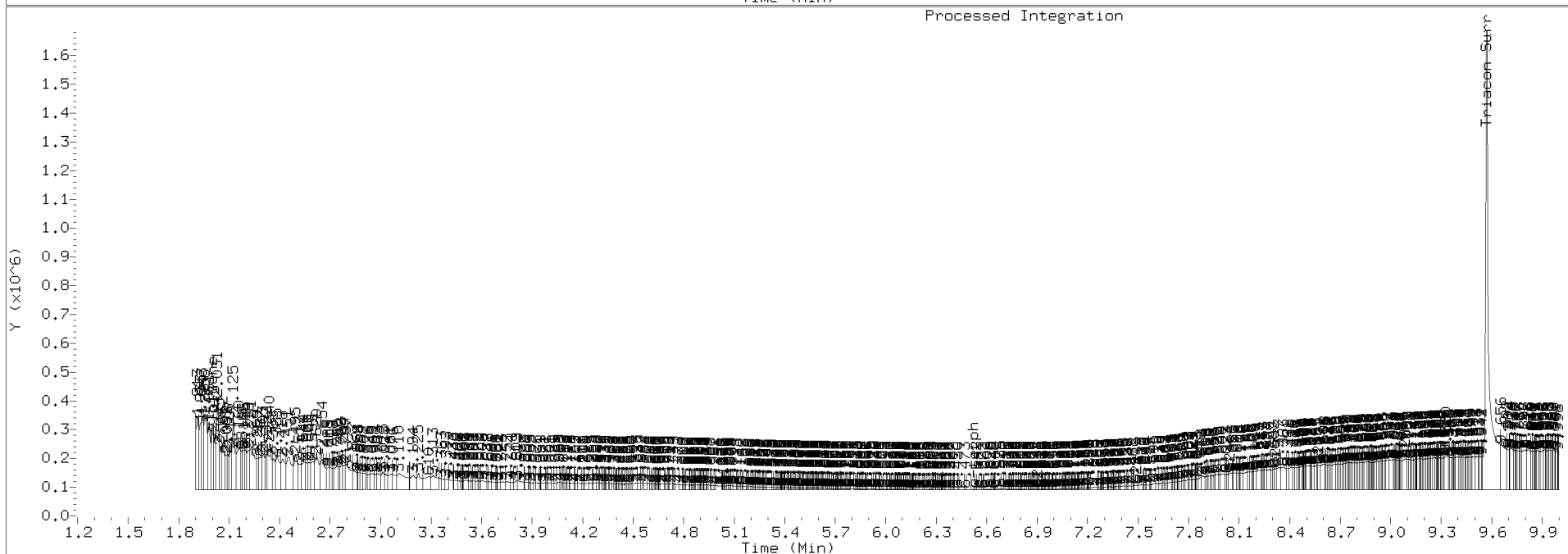
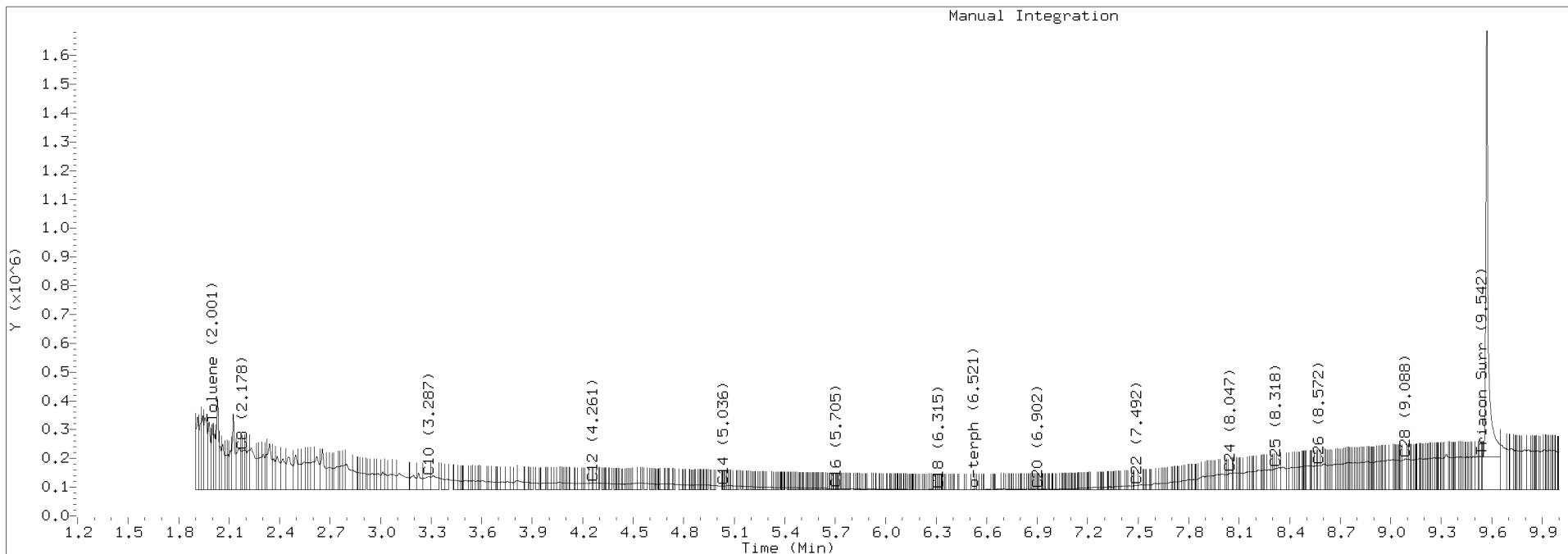
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	162518.2	20-NOV-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	41237.8	30-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20200408.b/420D0808.D Injection: 08-APR-2020 10:33

Lab ID:SEQ-CAL2



Data File: \\target\share\chem2\fid4a,1\20200408\_b\420D0809.D

Date: 08-APR-2020 10:53

Client ID:

Sample Info: SEQ-CAL3

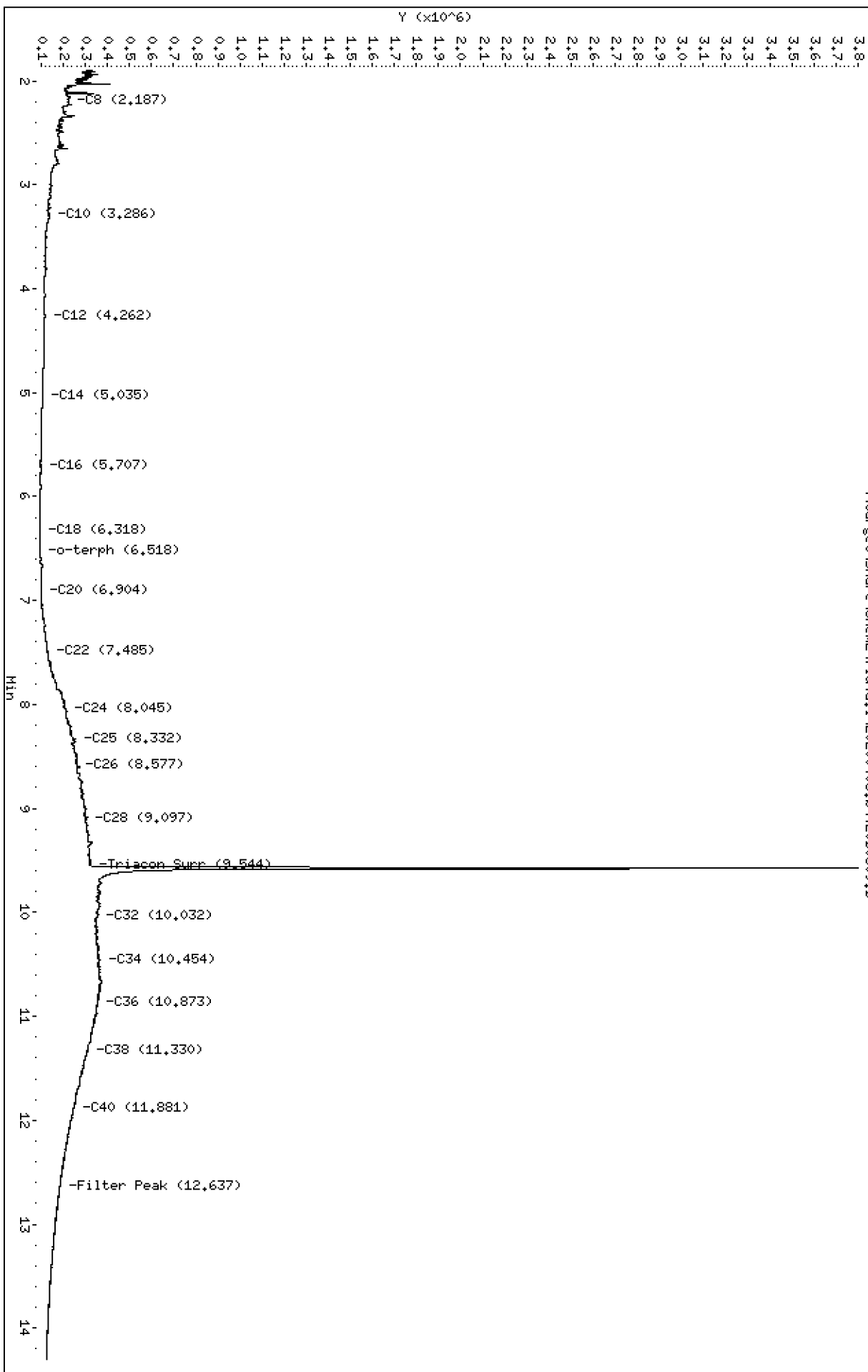
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

\\target\share\chem2\fid4a,1\20200408\_b\420D0809.D





Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200408.b/420D0809.D  
Method: 20200408.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 04/20/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-CAL3  
Client ID:  
Injection: 08-APR-2020 10:53  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

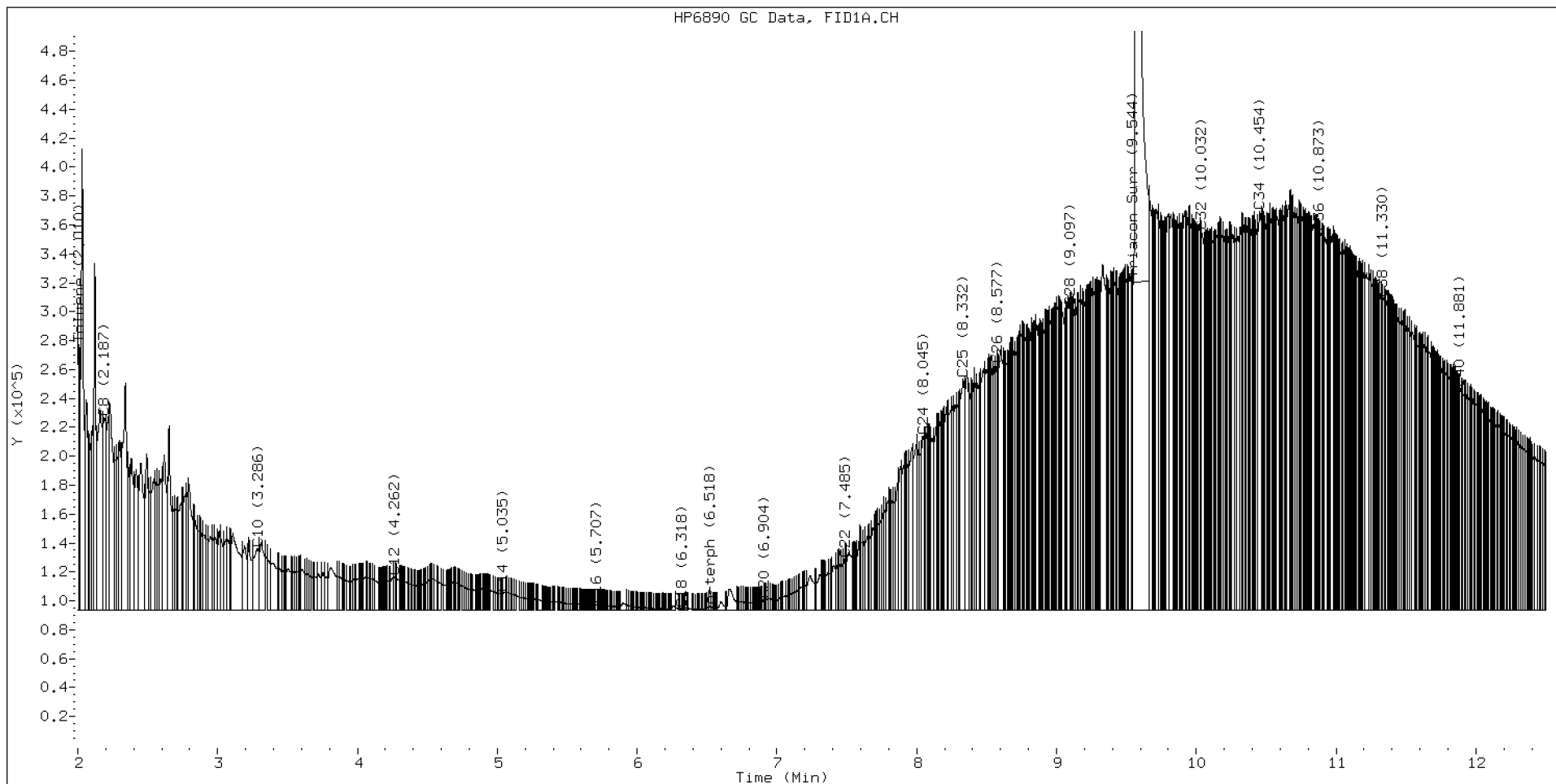
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.187	0.008	132882	207304	WATPHD	(C12-C24)	4342009	27.3
C10	3.286	-0.003	42399	113652	WATPHM	(C24-C38)	43844245	330.6
C12	4.262	-0.001	22449	12283	AK102	(C10-C25)	7087402	36.3
C14	5.035	-0.002	11190	3340	AK103	(C25-C36)	36073165	492.8
C16	5.707	0.004	3267	2527	OR.DIES	(C10-C28)	16362271	83.5
C18	6.318	0.004	681	133				
C20	6.904	0.000	6652	3976	JET-A	(C10-C18)	2369101	14.6
C22	7.485	0.002	34909	34936				
C24	8.045	-0.001	120276	161719				
C25	8.332	0.013	159437	386100				
C26	8.577	-0.007	169330	100501				
C28	9.097	0.003	209523	62632				
C32	10.032	0.003	261757	91098				
C34	10.454	-0.003	275210	390226				
Filter Peak	12.637	-0.006	90381	62764	CREOSOT	(C12-C22)	1706405	41.4
C36	10.873	0.002	261055	143153				
C38	11.330	0.000	214958	53639				
C40	11.881	0.001	152861	45740				
o-terph	6.518	-0.007	2459	1835				
Triacon Surr	9.577	-0.022	3480038	3443389	NAS DIES	(C10-C24)	5836700	29.9

Range Times: NW Diesel(4.262 - 8.046) AK102(3.29 - 8.32) Jet A(3.29 - 6.31)  
NW M.Oil(8.05 - 11.33) AK103(8.32 - 10.87) OR Diesel(3.29 - 9.09)

Surrogate	Area	Amount
o-Terphenyl	1835	0.0
Triacontane	3443389	19.3 M

M Indicates the peak was manually integrated

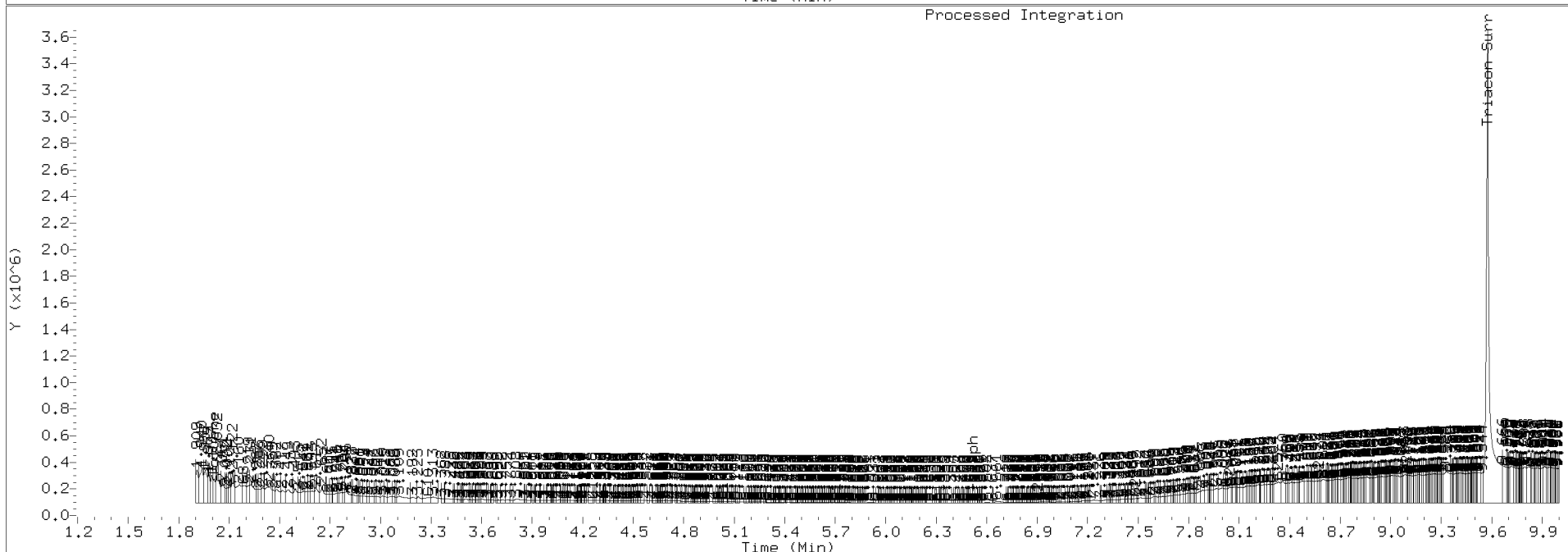
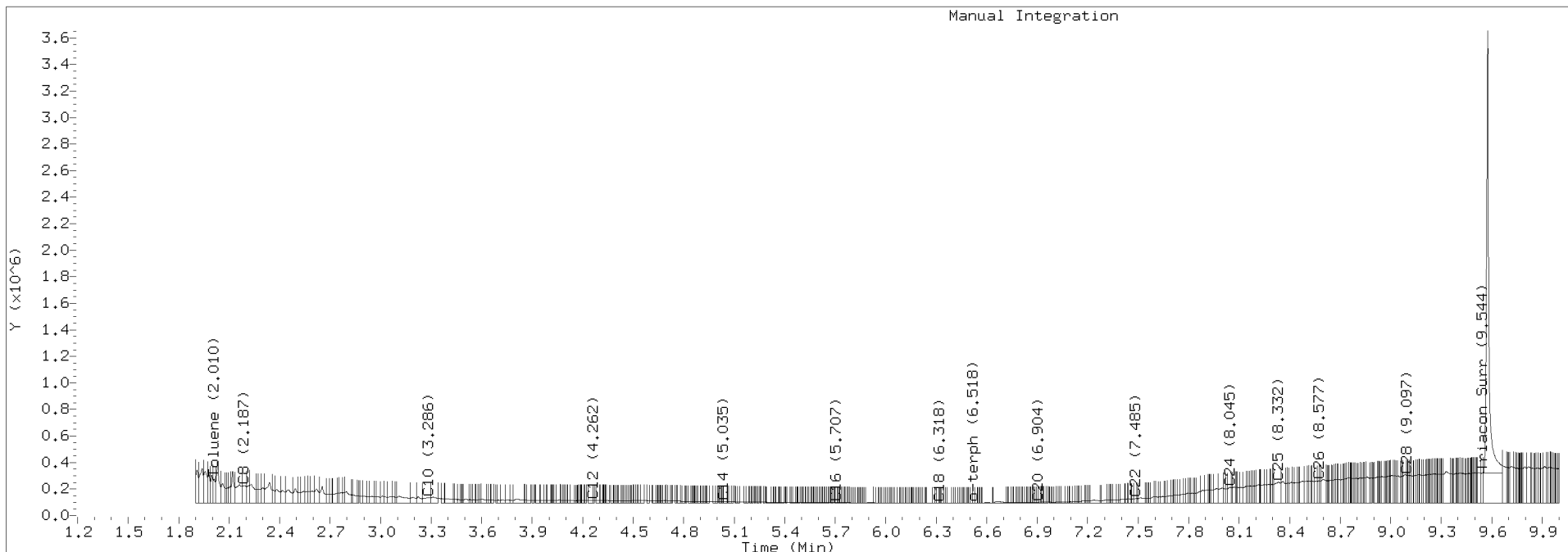
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	162518.2	20-NOV-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	41237.8	30-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20200408.b/420D0809.D Injection: 08-APR-2020 10:53

Lab ID:SEQ-CAL3



Data File: \\target\share\chem2\fid4a,1\20200408\_b\42010810.D  
Date: 08-APR-2020 11:12

Client ID:

Sample Info: SEQ-CAL4

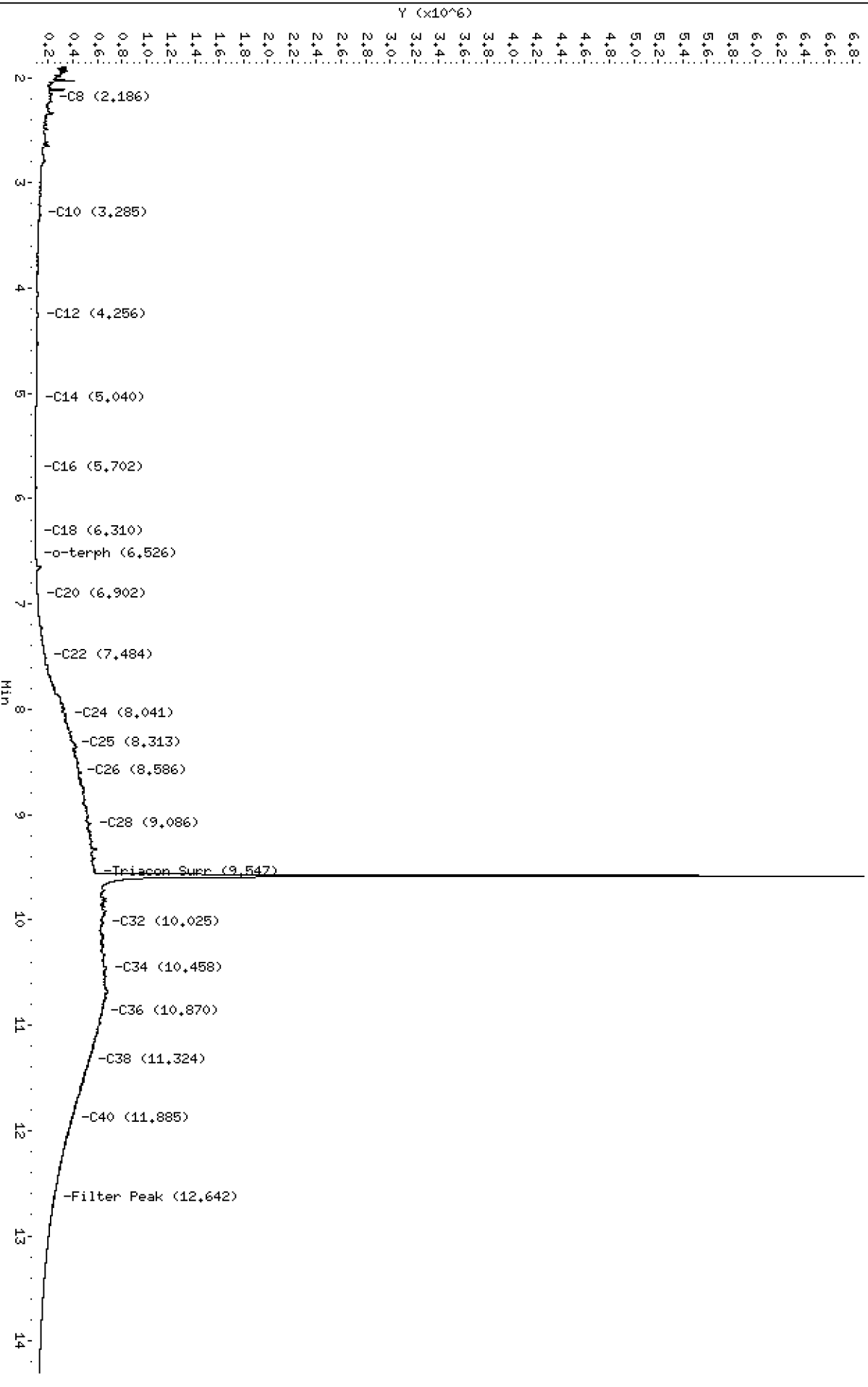
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

\\target\share\chem2\fid4a,1\20200408\_b\42010810.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200408.b/420D0810.D  
Method: 20200408.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 04/20/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-CAL4  
Client ID:  
Injection: 08-APR-2020 11:12  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

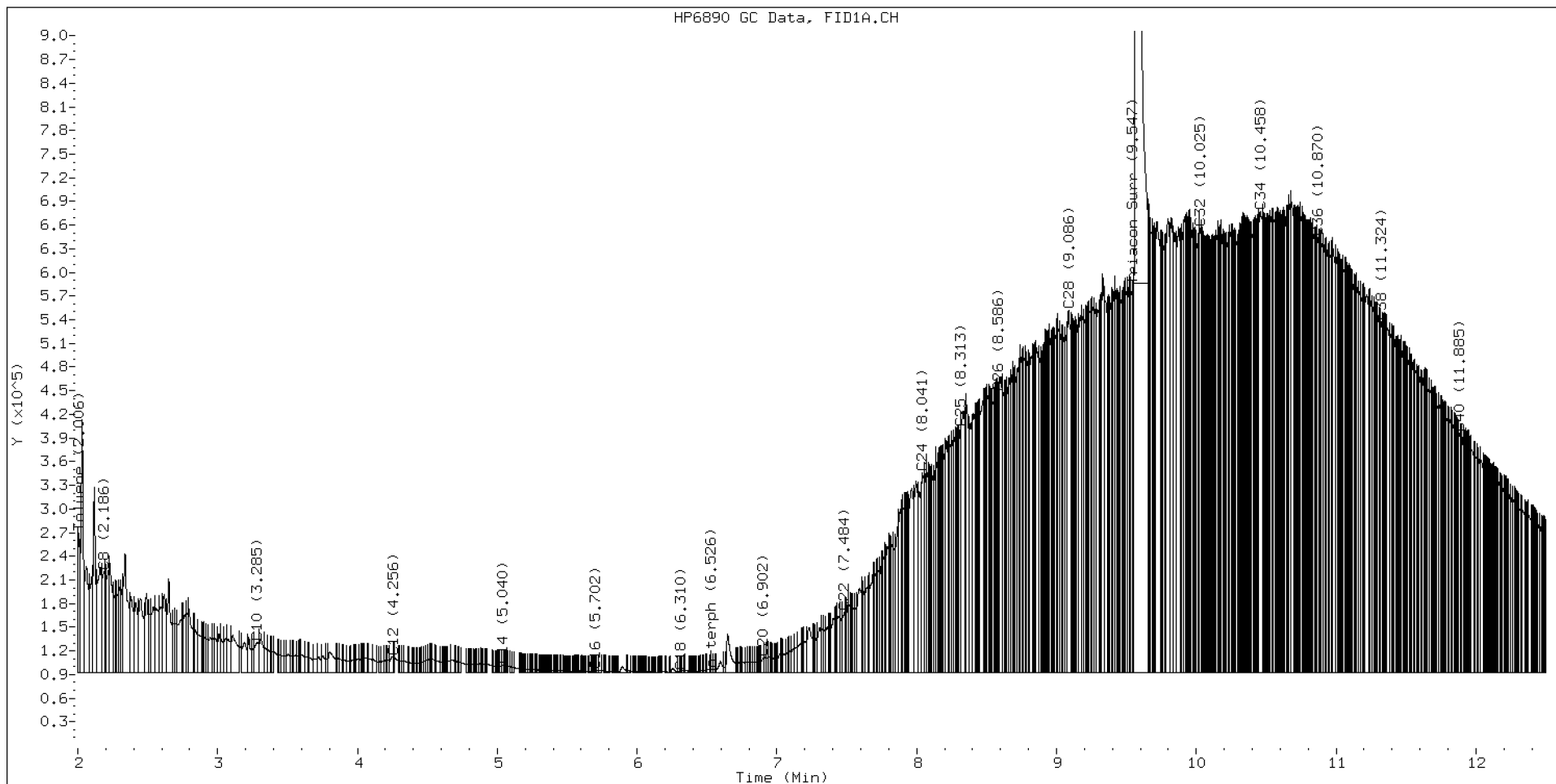
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.186	0.006	128234	148626	WATPHD	(C12-C24)	7988871	50.1
C10	3.285	-0.004	38172	74427	WATPHM	(C24-C38)	91762086	691.9
C12	4.256	-0.006	19290	11388	AK102	(C10-C25)	11765512	60.2
C14	5.040	0.003	8973	3968	AK103	(C25-C36)	75818758	1035.7
C16	5.702	-0.001	2111	1115	OR.DIES	(C10-C28)	31382092	160.1
C18	6.310	-0.004	1425	541				
C20	6.902	-0.002	17908	16066	JET-A	(C10-C18)	1797246	11.1
C22	7.484	0.001	76596	83679				
C24	8.041	-0.004	252638	326752				
C25	8.313	-0.005	310545	242222				
C26	8.586	0.003	355023	176377				
C28	9.086	-0.007	458742	774018				
C32	10.025	-0.004	563176	363288				
C34	10.458	0.001	584411	838839				
Filter Peak	12.642	-0.001	154787	92080	CREOSOT	(C12-C22)	2517795	61.1
C36	10.870	-0.001	551148	355915				
C38	11.324	-0.006	444543	374976				
C40	11.885	0.005	302889	255171				
o-terph	6.526	0.001	3457	1149				
Triacon Surr	9.585	-0.014	6299099	7009097	NAS DIES	(C10-C24)	9175138	47.0

Range Times: NW Diesel(4.262 - 8.046) AK102(3.29 - 8.32) Jet A(3.29 - 6.31)  
NW M.Oil(8.05 - 11.33) AK103(8.32 - 10.87) OR Diesel(3.29 - 9.09)

Surrogate	Area	Amount
o-Terphenyl	1149	0.0
Triacontane	7009097	39.4 M

M Indicates the peak was manually integrated

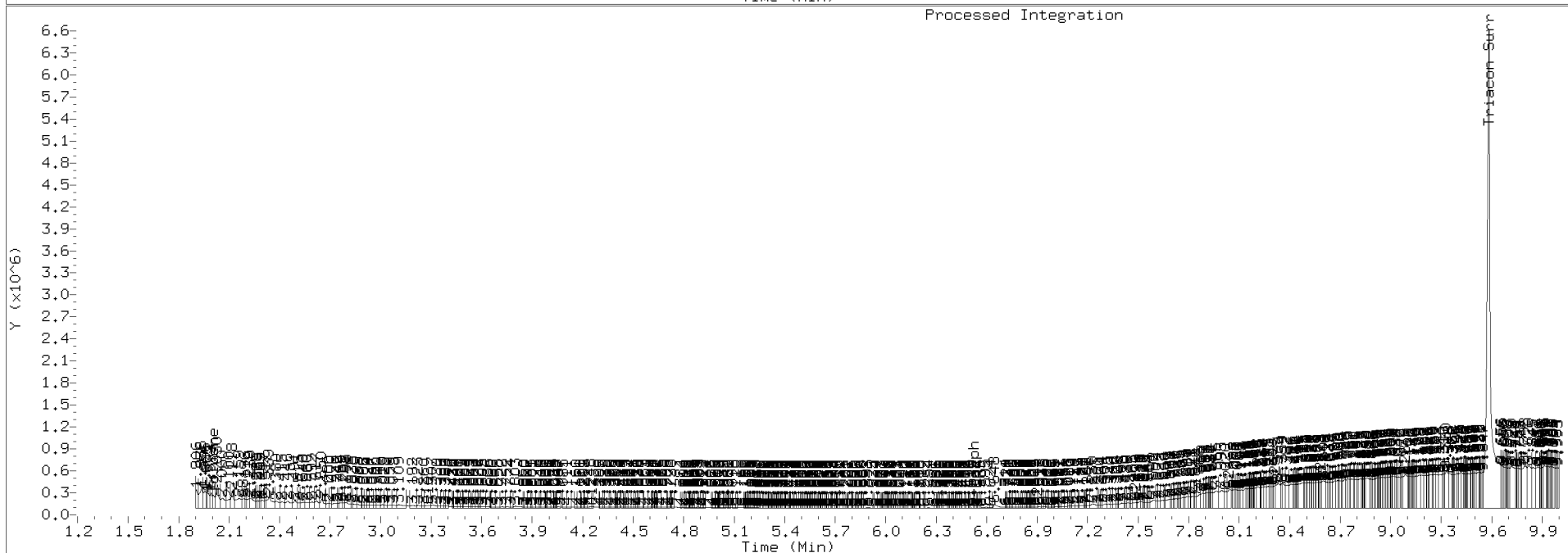
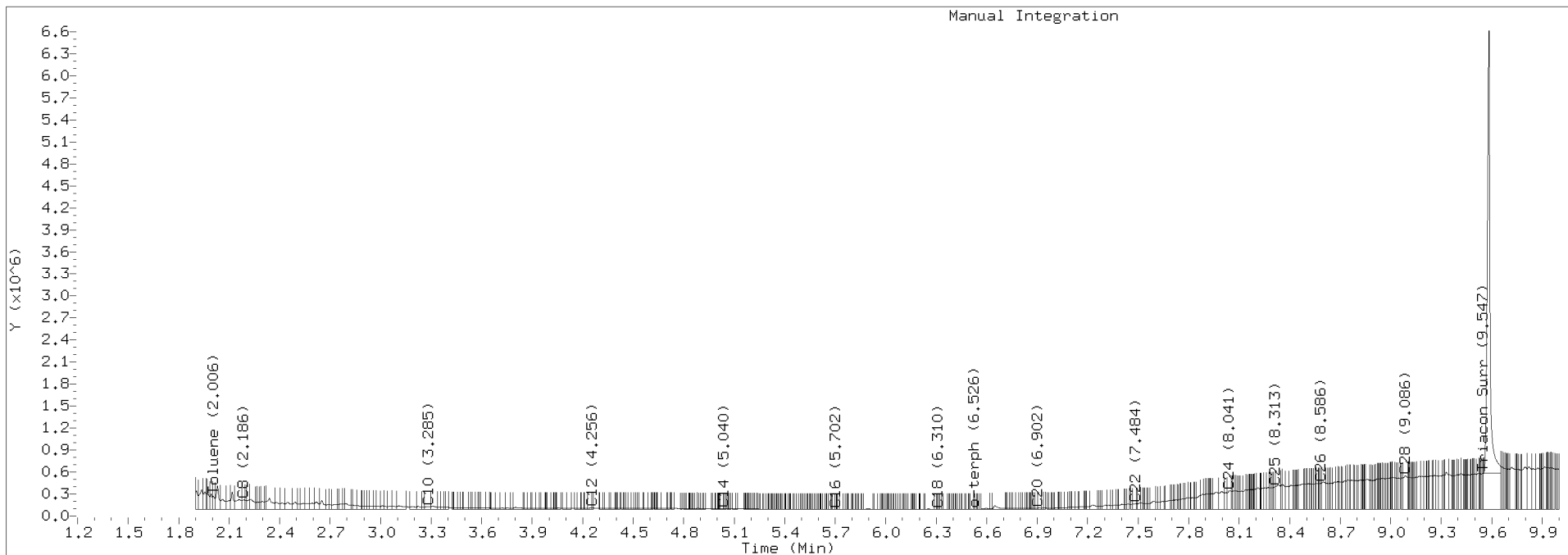
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	162518.2	20-NOV-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	41237.8	30-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20200408.b/420D0810.D Injection: 08-APR-2020 11:12

Lab ID:SEQ-CAL4



Data File: \\target\share\chem2\fid4a,1\20200408.b\420D0811.D

Date : 08-APR-2020 11:32

Client ID:

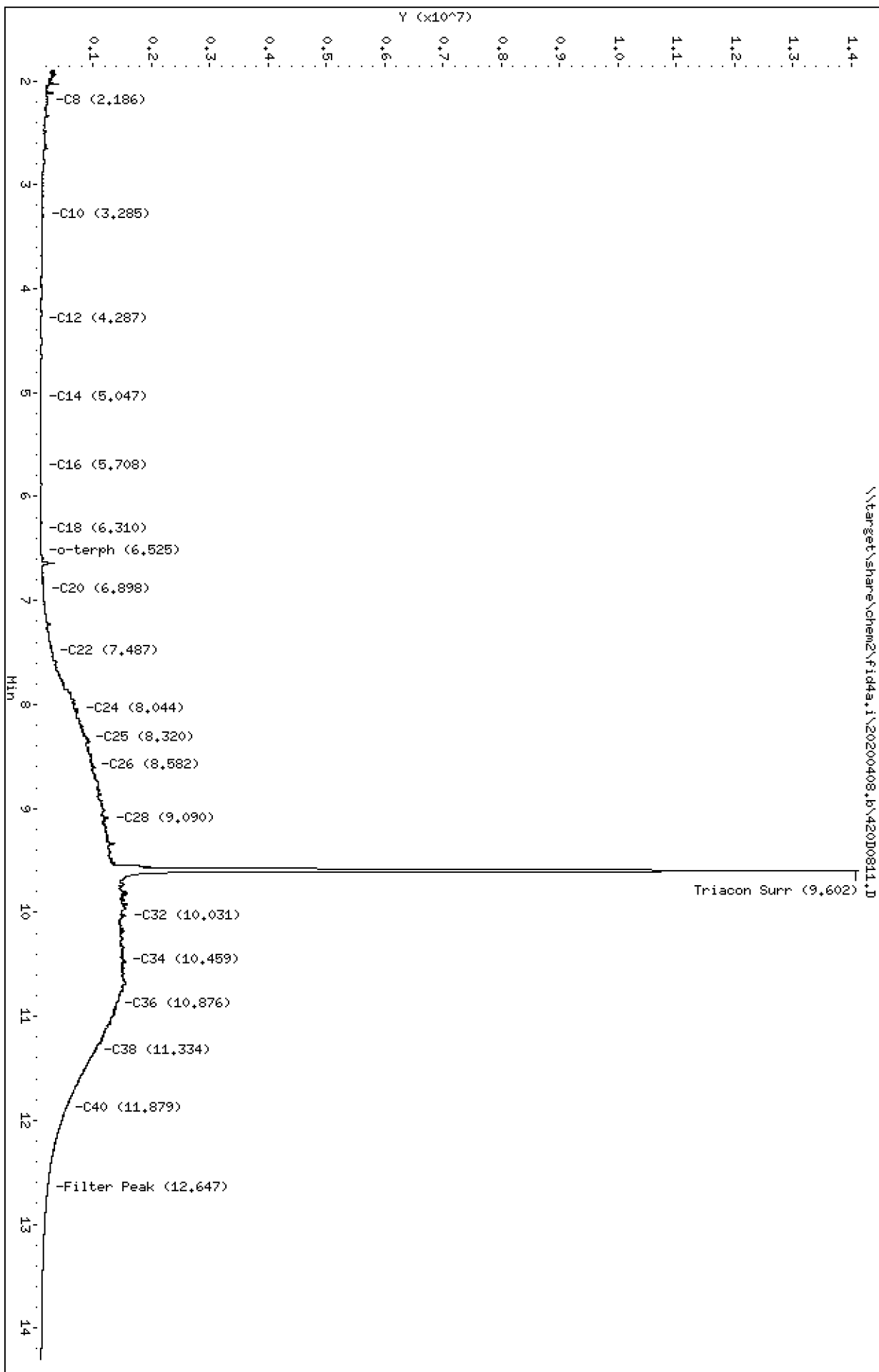
Sample Info: SEQ-CALS

Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25





Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200408.b/420D0811.D  
Method: 20200408.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 04/20/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-CAL5  
Client ID:  
Injection: 08-APR-2020 11:32  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

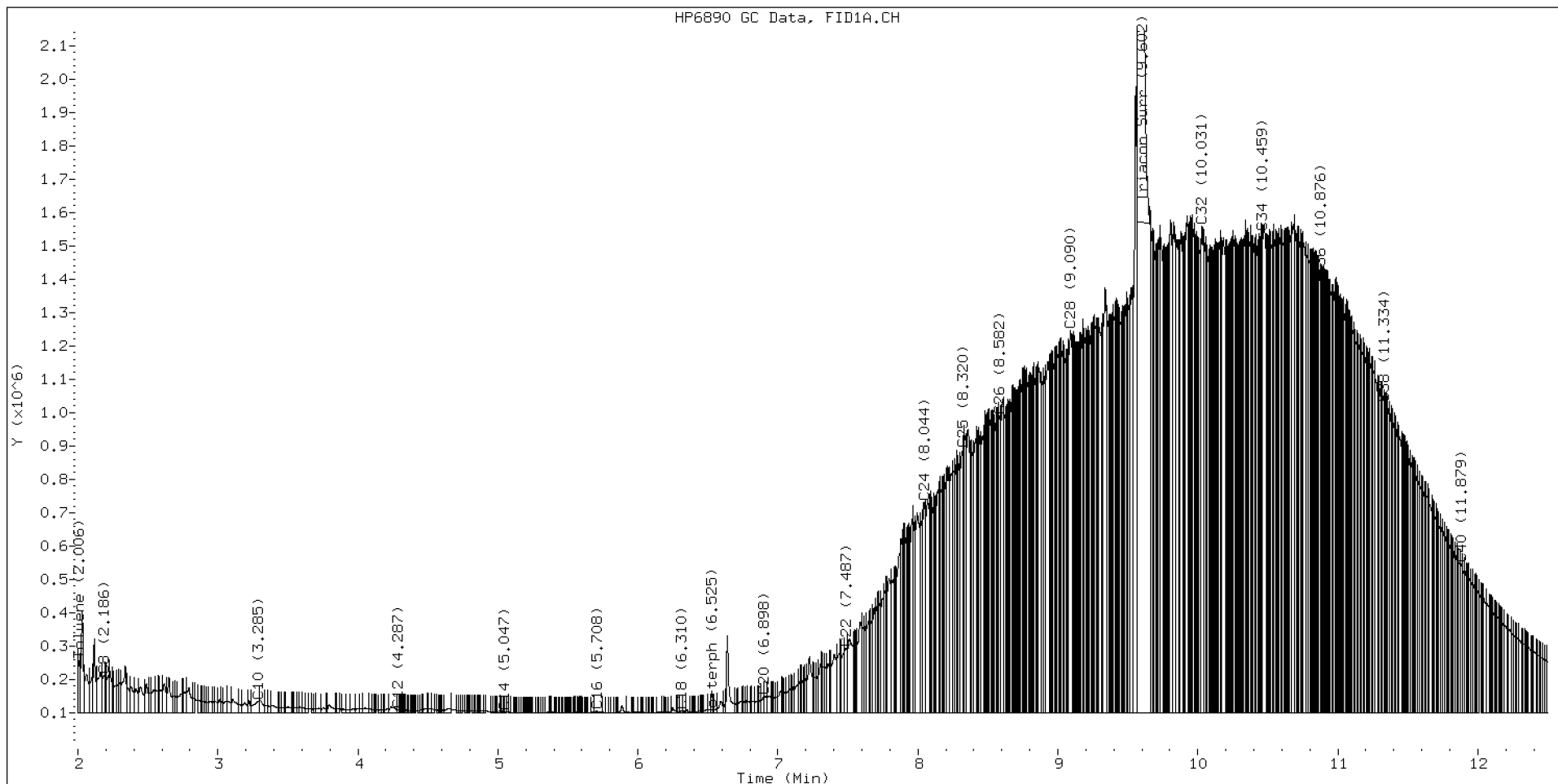
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.186	0.006	113560	125040	WATPHD	(C12-C24)	19771771	124.1
C10	3.285	-0.004	36541	95337	WATPHM	(C24-C38)	227849225	1717.9
C12	4.287	0.024	10394	7178	AK102	(C10-C25)	27372288	140.0
C14	5.047	0.009	4777	3830	AK103	(C25-C36)	191958289	2622.1
C16	5.708	0.004	6173	14774	OR.DIES	(C10-C28)	76383536	389.7
C18	6.310	-0.004	7574	8190				
C20	6.898	-0.006	50377	68943	JET-A	(C10-C18)	1465725	9.0
C22	7.487	0.004	195618	285006				
C24	8.044	-0.002	633495	967446				
C25	8.320	0.002	789714	921627				
C26	8.582	-0.001	892143	574635				
C28	9.090	-0.003	1146036	1667580				
C32	10.031	0.002	1460342	1849029				
C34	10.459	0.001	1442041	715490				
Filter Peak	12.647	0.004	121440	172075	CREOSOT	(C12-C22)	5678297	137.7
C36	10.876	0.004	1305970	520950				
C38	11.334	0.004	930225	554909				
C40	11.879	-0.001	446132	330870				
o-terph	6.525	-0.001	10861	10718				
Triacon Surr	9.602	0.004	12555669	16658090	NAS DIES	(C10-C24)	20733131	106.2

Range Times: NW Diesel(4.262 - 8.046) AK102(3.29 - 8.32) Jet A(3.29 - 6.31)  
NW M.Oil(8.05 - 11.33) AK103(8.32 - 10.87) OR Diesel(3.29 - 9.09)

Surrogate	Area	Amount
o-Terphenyl	10718	0.1
Triacontane	16658090	93.6 M

M Indicates the peak was manually integrated

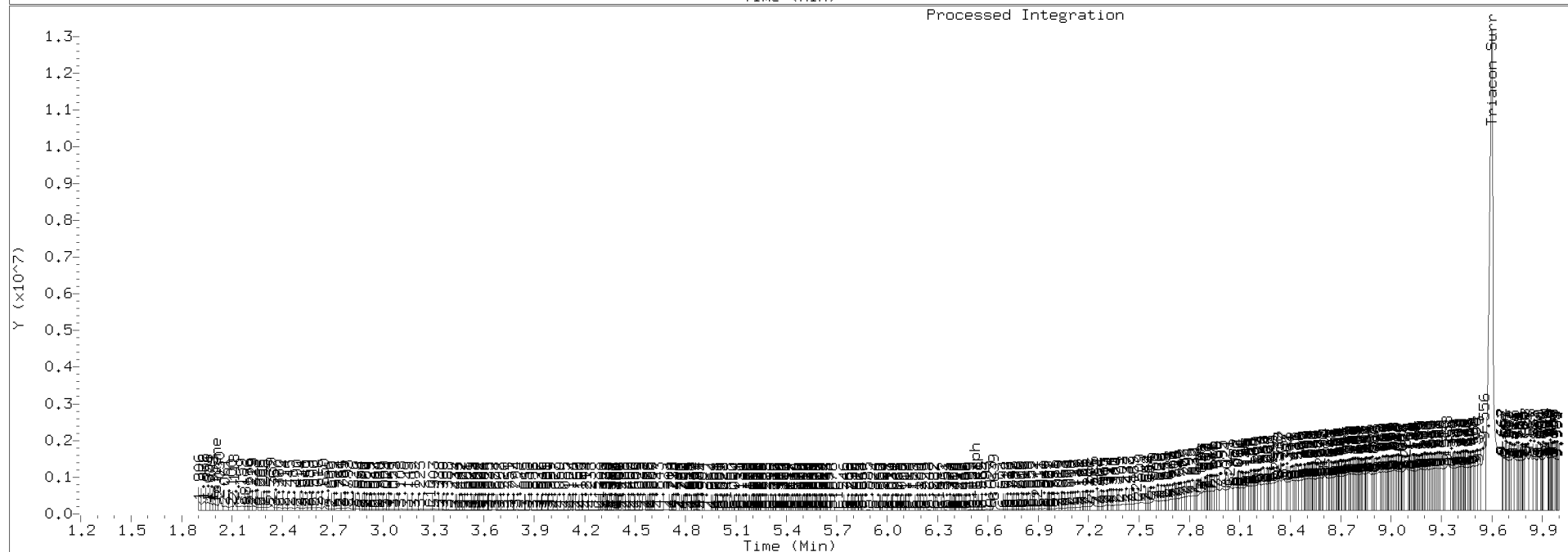
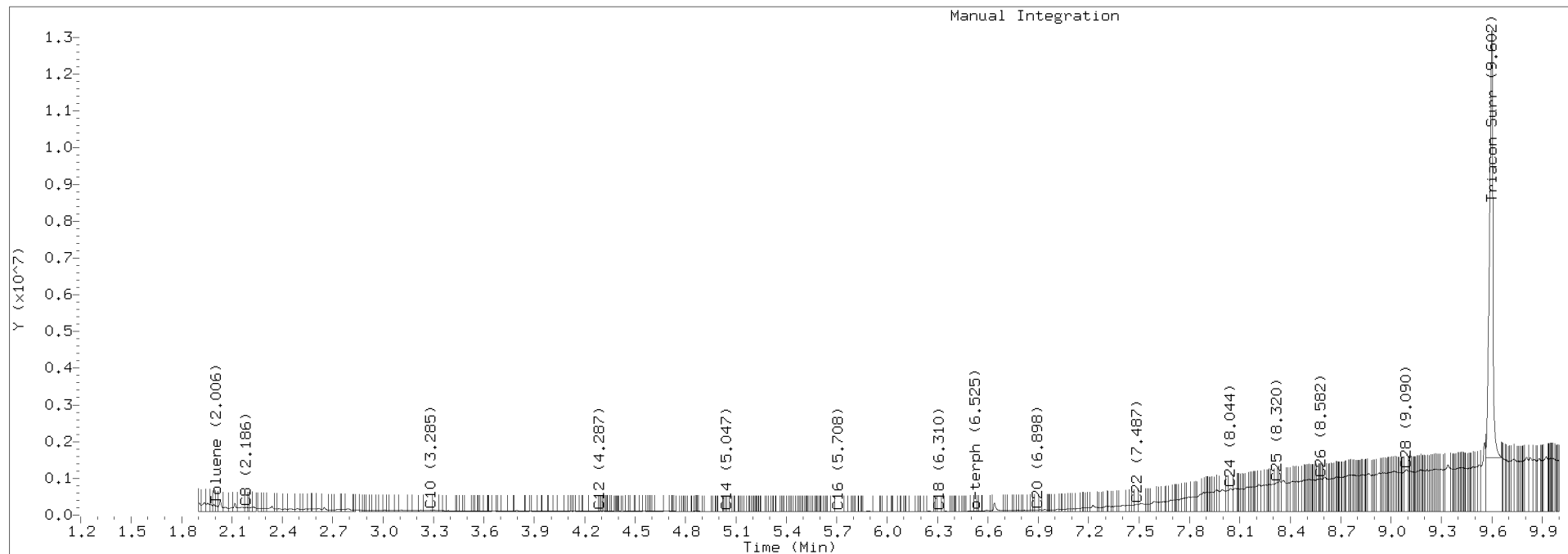
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	162518.2	20-NOV-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	41237.8	30-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20200408.b/420D0811.D Injection: 08-APR-2020 11:32

Lab ID:SEQ-CAL5



Data File: \\target\share\chem2\fid4a,1\20200408\_b\42010812.D

Date : 08-APR-2020 11:51

Client ID:

Sample Info: SED-CAL6

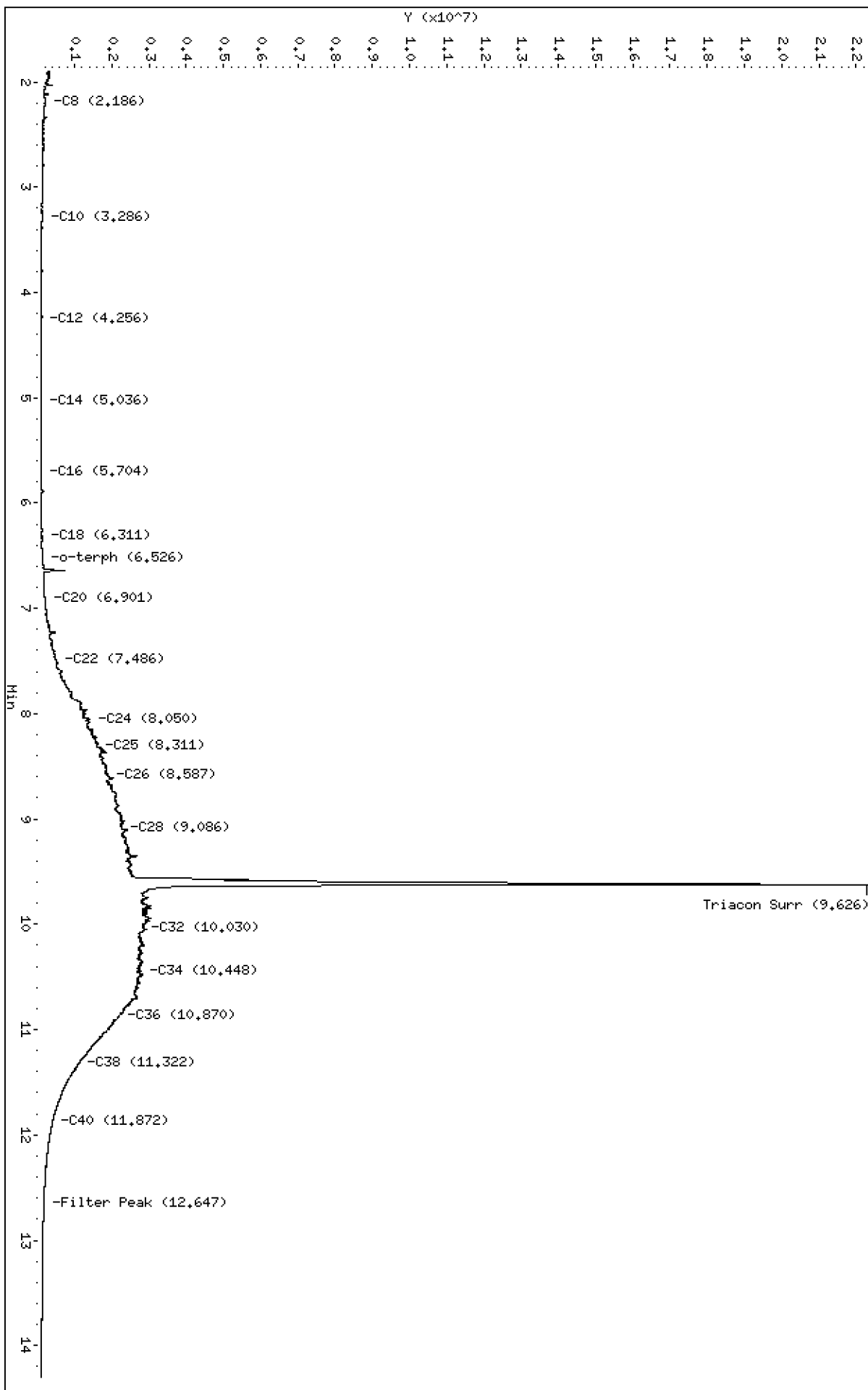
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

\\target\share\chem2\fid4a,1\20200408\_b\42010812.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200408.b/420D0812.D  
Method: 20200408.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 04/20/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-CAL6  
Client ID:  
Injection: 08-APR-2020 11:51  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

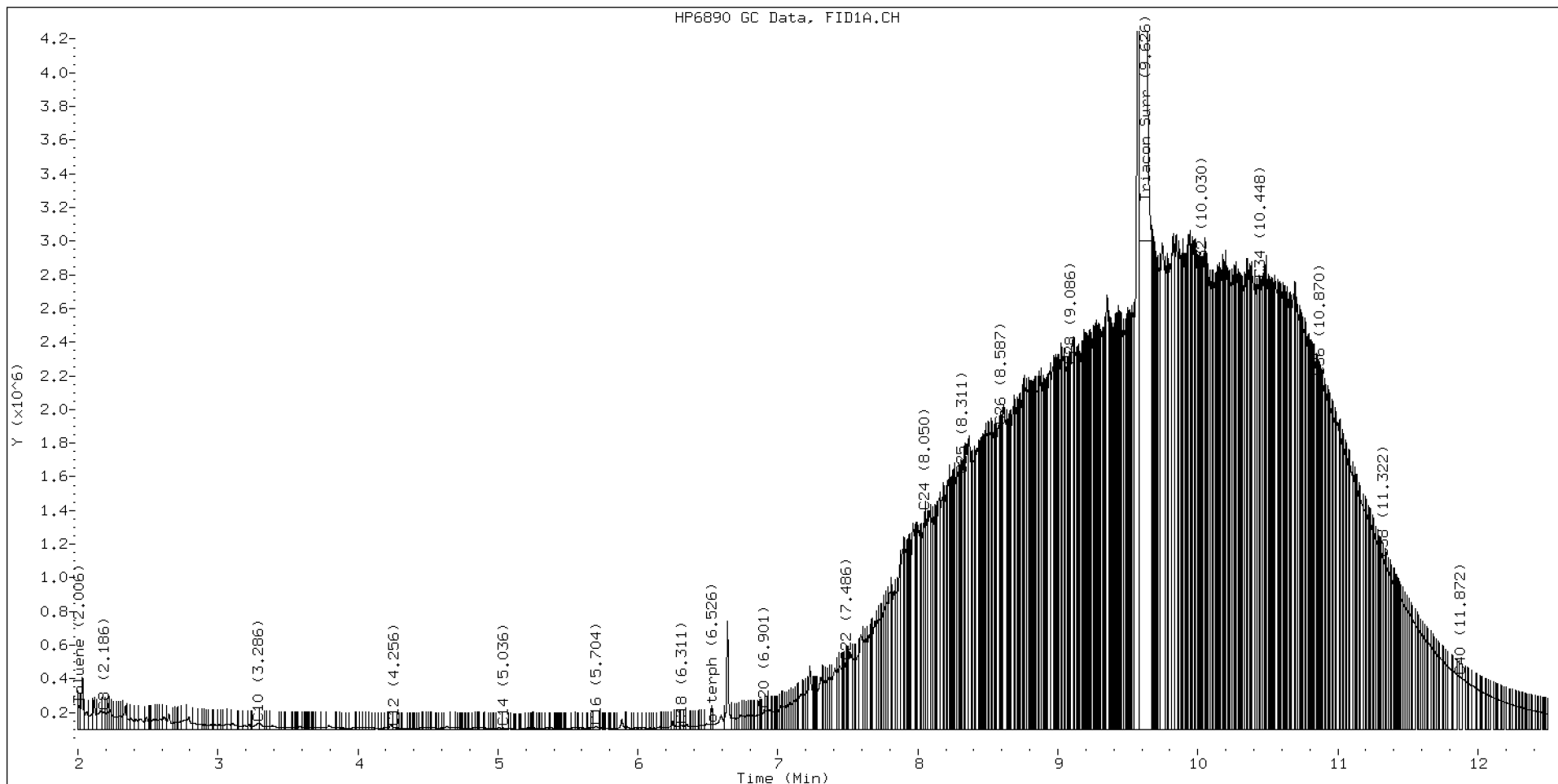
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.186	0.006	104064	109223	WATPHD	(C12-C24)	40416857	253.7
C10	3.286	-0.003	36956	80325	WATPHM	(C24-C38)	424850865	3203.2
C12	4.256	-0.007	12507	16346	AK102	(C10-C25)	54410917	278.3
C14	5.036	-0.001	8003	15931	AK103	(C25-C36)	374151503	5110.9
C16	5.704	0.001	16810	29811	OR.DIES	(C10-C28)	152172505	776.4
C18	6.311	-0.003	24372	26022				
C20	6.901	-0.003	112613	157357	JET-A	(C10-C18)	1722106	10.6
C22	7.486	0.002	399638	286806				
C24	8.050	0.004	1290743	1158755				
C25	8.311	-0.007	1510553	527958				
C26	8.587	0.004	1796919	714430				
C28	9.086	-0.007	2157837	862033				
C32	10.030	0.001	2725510	951638				
C34	10.448	-0.009	2673996	2899255				
Filter Peak	12.647	0.004	73309	79546	CREOSOT	(C12-C22)	11787364	285.8
C36	10.870	-0.002	2091703	1355589				
C38	11.322	-0.008	1014606	947975				
C40	11.872	-0.008	311238	395324				
o-terph	6.526	0.001	31009	30512				
Triacon Surr	9.626	0.028	19358318	32512150	NAS DIES	(C10-C24)	41151308	210.9

Range Times: NW Diesel(4.262 - 8.046) AK102(3.29 - 8.32) Jet A(3.29 - 6.31)  
NW M.Oil(8.05 - 11.33) AK103(8.32 - 10.87) OR Diesel(3.29 - 9.09)

Surrogate	Area	Amount
o-Terphenyl	30512	0.1
Triacontane	32512150	182.7 M

M Indicates the peak was manually integrated

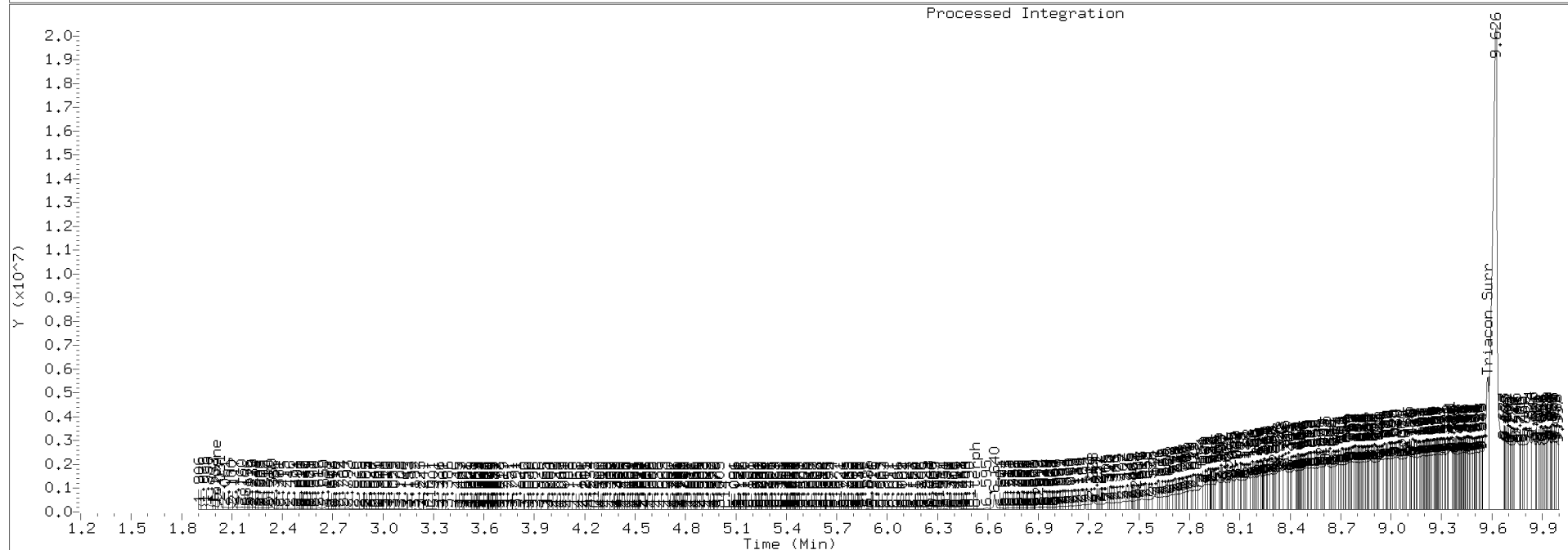
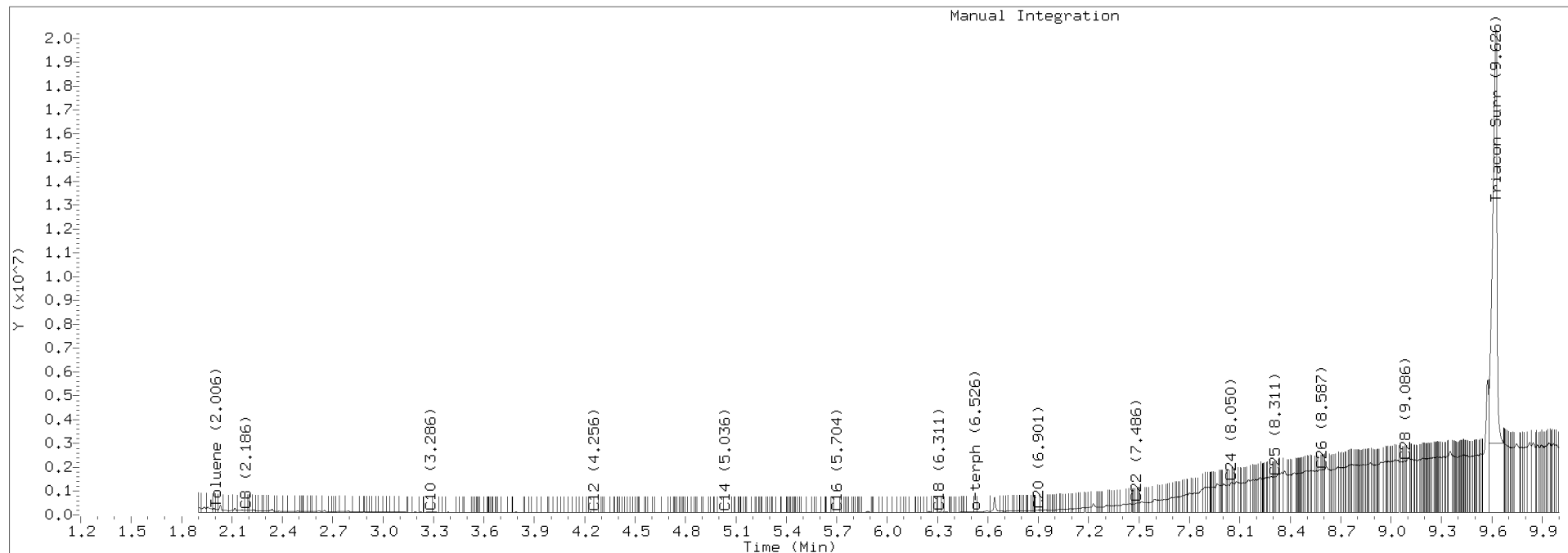
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	162518.2	20-NOV-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	41237.8	30-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20200408.b/420D0812.D Injection: 08-APR-2020 11:51

Lab ID:SEQ-CAL6





ANALYSIS SEQUENCE

SIE0162

Instrument: FID4  
Calibration ID: DA00022

Printed: 5/20/2020 8:39:25AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SIE0162-IBL1	QC		1		H010802			
SIE0162-IBL2	QC		2		I000651			
SIE0162-ICV1	QC		3		I002687			
SIE0162-ICV2	QC		4		H010706			
BIE0305-BLK1	QC		5					
BIE0305-BS1	QC		6					
BIE0305-BSD1	QC		7					
20E0185-01	PH NW (Extractables) low lev	A 02	8				The Boeing Company [Auburn]	
SIE0162-CCV1	QC		9		I002687			
SIE0162-CCV2	QC		10		H010706			
SIE0162-CAL1	QC		11		H011231			
BIE0254-BLK1	QC		12					
BIE0254-BS1	QC		13					
BIE0254-BSD1	QC		14					
20E0096-02	PH NW (Extractables) low lev	A 01	15				The Boeing Company	
20E0096-04	PH NW (Extractables) low lev	A 01	16				The Boeing Company	
20E0096-06	PH NW (Extractables) low lev	A 01	17				The Boeing Company	
20E0096-08	PH NW (Extractables) low lev	A 01	18				The Boeing Company	
20E0096-10	PH NW (Extractables) low lev	A 01	19				The Boeing Company	
20E0096-12	PH NW (Extractables) low lev	A 01	20				The Boeing Company	
20E0096-14	PH NW (Extractables) low lev	A 01	21				The Boeing Company	

Samples Loaded By \_\_\_\_\_ Date \_\_\_\_\_

Data Processed By \_\_\_\_\_ Date \_\_\_\_\_





ANALYSIS SEQUENCE

SIE0162

Instrument: FID4  
Calibration ID: DA00022

Printed: 5/20/2020 8:39:25AM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
20E0096-16	PH NW (Extractables) low lev	A 01	22				The Boeing Company	
BIE0254-MS1	QC		23					
BIE0254-MSD1	QC		24					
SIE0162-CCV3	QC		25		I002687			
SIE0162-CCV4	QC		26		H010706			
SIE0162-CCV5	QC		27		H011231			
20E0096-18	PH NW (Extractables) low lev	A 01	28				The Boeing Company	
20E0096-20	PH NW (Extractables) low lev	A 01	29				The Boeing Company	
20E0096-22	PH NW (Extractables) low lev	A 01	30				The Boeing Company	
BIE0248-BLK1	QC		31					
BIE0248-BS1	QC		32					
BIE0248-BSD1	QC		33					
20E0096-01	PH NW (Extractables) low lev	A 01	34				The Boeing Company	
20E0096-03	PH NW (Extractables) low lev	A 01	35				The Boeing Company	
20E0096-05	PH NW (Extractables) low lev	A 01	36				The Boeing Company	
20E0096-07	PH NW (Extractables) low lev	A 01	37				The Boeing Company	
20E0096-09	PH NW (Extractables) low lev	A 01	38				The Boeing Company	
SIE0162-CCV6	QC		39		I002687			
SIE0162-CCV7	QC		40		H010706			
SIE0162-CCV8	QC		41		H011231			
20E0096-11	PH NW (Extractables) low lev	A 01	42				The Boeing Company	

Samples Loaded By

Date

Data Processed By

Date



**ANALYSIS SEQUENCE**

**SIE0162**

Instrument: FID4  
Calibration ID: DA00022

**Printed: 5/20/2020 8:39:25AM**

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
20E0096-13	PH NW (Extractables) low lev	A 01	43				The Boeing Company	
20E0096-15	PH NW (Extractables) low lev	A 01	44				The Boeing Company	
BIE0248-MS1	QC		45					
BIE0248-MSD1	QC		46					
20E0096-17	PH NW (Extractables) low lev	B 01	47				The Boeing Company	
20E0096-19	PH NW (Extractables) low lev	A 01	48				The Boeing Company	
20E0096-21	PH NW (Extractables) low lev	A 01	49				The Boeing Company	
BIE0282-BLK1	QC		50					
BIE0282-BS1	QC		51					
BIE0282-BSD1	QC		52					
20E0151-01	PH NW (Extractables) low lev	F 01	53				The Boeing Company [North Boeing Field]	
20E0160-01	PH NW (Extractables) low lev	C 01	54				Davis Wire Corporation	
SIE0162-CCV9	QC		55		I002687			
SIE0162-CCVA	QC		56		H010706			
SIE0162-CCVB	QC		57		H011231			

\_\_\_\_\_  
Samples Loaded By                          Date

\_\_\_\_\_  
Data Processed By                          Date

## GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20200519.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	19-MAY-2020	06:44	420E1901.D	1	RINSE	
2	19-MAY-2020	07:03	420E1902.D	1	RINSE	
3	19-MAY-2020	07:23	420E1903.D	1	SIE0162-IBL1	
4	19-MAY-2020	07:42	420E1904.D	1	SIE0162-IBL2	
5	19-MAY-2020	08:02	420E1905.D	1	SIE0162-ICV1	
6	19-MAY-2020	08:21	420E1906.D	1	SIE0162-ICV2	
7	19-MAY-2020	08:41	420E1907.D	1	BIE0305-BLK1	
8	19-MAY-2020	09:00	420E1908.D	1	BIE0305-BS1	
9	19-MAY-2020	09:20	420E1909.D	1	BIE0305-BSD1	
10	19-MAY-2020	09:39	420E1910.D	1	20E0185-01	
11	19-MAY-2020	09:59	420E1911.D	1	SIE0162-CCV1	
12	19-MAY-2020	10:19	420E1912.D	1	SIE0162-CCV2	
13	19-MAY-2020	11:05	420E1913.D	1	SIE0162-CAL1	
14	19-MAY-2020	11:24	420E1914.D	1	BIE0254-BLK1	
15	19-MAY-2020	11:44	420E1915.D	1	BIE0254-BS1	
16	19-MAY-2020	12:03	420E1916.D	1	BIE0254-BSD1	
17	19-MAY-2020	12:23	420E1917.D	1	20E0096-02	
18	19-MAY-2020	12:43	420E1918.D	1	20E0096-04	
19	19-MAY-2020	13:02	420E1919.D	1	20E0096-06	
20	19-MAY-2020	13:22	420E1920.D	1	20E0096-08	
21	19-MAY-2020	13:42	420E1921.D	1	20E0096-10	
22	19-MAY-2020	14:01	420E1922.D	1	20E0096-12	
23	19-MAY-2020	14:21	420E1923.D	1	20E0096-14	
24	19-MAY-2020	14:41	420E1924.D	1	20E0096-16	
25	19-MAY-2020	15:00	420E1925.D	1	BIE0254-MS1	
26	19-MAY-2020	15:20	420E1926.D	1	BIE0254-MSD1	
27	19-MAY-2020	15:40	420E1927.D	1	SIE0162-CCV3	
28	19-MAY-2020	15:59	420E1928.D	1	SIE0162-CCV4	
29	19-MAY-2020	16:19	420E1929.D	1	SIE0162-CCV5	
30	19-MAY-2020	16:39	420E1930.D	1	20E0096-18	
31	19-MAY-2020	16:58	420E1931.D	1	20E0096-20	
32	19-MAY-2020	17:18	420E1932.D	1	20E0096-22	
33	19-MAY-2020	17:37	420E1933.D	1	BIE0248-BLK1	
34	19-MAY-2020	17:57	420E1934.D	1	BIE0248-BS1	
35	19-MAY-2020	18:16	420E1935.D	1	BIE0248-BSD1	
36	19-MAY-2020	18:36	420E1936.D	1	20E0096-01	
37	19-MAY-2020	18:55	420E1937.D	1	20E0096-03	
38	19-MAY-2020	19:15	420E1938.D	1	20E0096-05	
39	19-MAY-2020	19:34	420E1939.D	1	20E0096-07	
40	19-MAY-2020	19:54	420E1940.D	1	20E0096-09	
41	19-MAY-2020	20:13	420E1941.D	1	SIE0162-CCV6	
42	19-MAY-2020	20:33	420E1942.D	1	SIE0162-CCV7	
43	19-MAY-2020	20:52	420E1943.D	1	SIE0162-CCV8	
44	19-MAY-2020	21:12	420E1944.D	1	20E0096-11	
45	19-MAY-2020	21:31	420E1945.D	1	20E0096-13	
46	19-MAY-2020	21:50	420E1946.D	1	20E0096-15	
47	19-MAY-2020	22:10	420E1947.D	1	BIE0248-MS1	
48	19-MAY-2020	22:29	420E1948.D	1	BIE0248-MSD1	
49	19-MAY-2020	22:49	420E1949.D	1	20E0096-17	
50	20-MAY-2020	23:08	420E1950.D	1	20E0096-19	

## GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20200519.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
51	20-MAY-2020	23:28	420E1951.D	1	20E0096-21	
52	20-MAY-2020	23:47	420E1952.D	1	BIE0282-BLK1	
53	20-MAY-2020	00:07	420E1953.D	1	BIE0282-BS1	
54	20-MAY-2020	00:26	420E1954.D	1	BIE0282-BSD1	
55	20-MAY-2020	00:46	420E1955.D	1	20E0151-01	
56	20-MAY-2020	01:05	420E1956.D	1	20E0160-01	
57	20-MAY-2020	01:25	420E1957.D	1	SIE0162-CCV9	
58	20-MAY-2020	01:44	420E1958.D	1	SIE0162-CCVA	
59	20-MAY-2020	02:03	420E1959.D	1	SIE0162-CCVB	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20200519.b

ARI Job No.: RINS Method: FID4TPH.m Instrument: fid4a.i Date: 19-MAY-2020

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0644	420E1901.D	RINSE		1	o-terph,
0703	420E1902.D	RINSE		1	Triacon Surr,
0723	420E1903.D	SIE0162-IBL1		1	NO MANUAL INTEGRATION
0742	420E1904.D	SIE0162-IBL2		1	NO MANUAL INTEGRATION
0802	420E1905.D	SIE0162-ICV1		1	o-terph,
0821	420E1906.D	SIE0162-ICV2		1	Triacon Surr,
0841	420E1907.D	BIE0305-BLK1		1	NO MANUAL INTEGRATION
0900	420E1908.D	BIE0305-BS1		1	o-terph,
0920	420E1909.D	BIE0305-BSD1		1	o-terph,
0939	420E1910.D	20E0185-01		1	NO MANUAL INTEGRATION
0959	420E1911.D	SIE0162-CCV1		1	o-terph,
1019	420E1912.D	SIE0162-CCV2		1	Triacon Surr,
1105	420E1913.D	SIE0162-CAL1		1	NO MANUAL INTEGRATION
1124	420E1914.D	BIE0254-BLK1		1	NO MANUAL INTEGRATION
1144	420E1915.D	BIE0254-BS1		1	o-terph,
1203	420E1916.D	BIE0254-BSD1		1	o-terph,
1223	420E1917.D	20E0096-02		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20200519.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1243	420E1918.D	20E0096-04	1		NO MANUAL INTEGRATION
1302	420E1919.D	20E0096-06	1		NO MANUAL INTEGRATION
1322	420E1920.D	20E0096-08	1		NO MANUAL INTEGRATION
1342	420E1921.D	20E0096-10	1		NO MANUAL INTEGRATION
1401	420E1922.D	20E0096-12	1		o-terph,
1421	420E1923.D	20E0096-14	1		NO MANUAL INTEGRATION
1441	420E1924.D	20E0096-16	1		NO MANUAL INTEGRATION
1500	420E1925.D	BIE0254-MS1	1		o-terph,
1520	420E1926.D	BIE0254-MSD1	1		o-terph,
1540	420E1927.D	SIE0162-CCV3	1		o-terph,
1559	420E1928.D	SIE0162-CCV4	1		Triacon Surr,
1619	420E1929.D	SIE0162-CCV5	1		NO MANUAL INTEGRATION
1639	420E1930.D	20E0096-18	1		NO MANUAL INTEGRATION
1658	420E1931.D	20E0096-20	1		NO MANUAL INTEGRATION
1718	420E1932.D	20E0096-22	1		NO MANUAL INTEGRATION
1737	420E1933.D	BIE0248-BLK1	1		NO MANUAL INTEGRATION
1757	420E1934.D	BIE0248-BS1	1		o-terph,
1816	420E1935.D	BIE0248-BSD1	1		o-terph,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20200519.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1836	420E1936.D	20E0096-01	1		NO MANUAL INTEGRATION
1855	420E1937.D	20E0096-03	1		NO MANUAL INTEGRATION
1915	420E1938.D	20E0096-05	1		o-terph,
1934	420E1939.D	20E0096-07	1		NO MANUAL INTEGRATION
1954	420E1940.D	20E0096-09	1		NO MANUAL INTEGRATION
2013	420E1941.D	SIE0162-CCV6	1		o-terph,
2033	420E1942.D	SIE0162-CCV7	1		Triacon Surr,
2052	420E1943.D	SIE0162-CCV8	1		NO MANUAL INTEGRATION
2112	420E1944.D	20E0096-11	1		o-terph,
2131	420E1945.D	20E0096-13	1		NO MANUAL INTEGRATION
2150	420E1946.D	20E0096-15	1		NO MANUAL INTEGRATION
2210	420E1947.D	BIE0248-MS1	1		o-terph,
2229	420E1948.D	BIE0248-MSD1	1		o-terph,
2249	420E1949.D	20E0096-17	1		NO MANUAL INTEGRATION
2308	420E1950.D	20E0096-19	1		o-terph,
2328	420E1951.D	20E0096-21	1		NO MANUAL INTEGRATION
2347	420E1952.D	BIE0282-BLK1	1		NO MANUAL INTEGRATION
0007	420E1953.D	BIE0282-BS1	1		o-terph,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20200519.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0026	420E1954.D	BIE0282-BSD1		1	o-terph,
0046	420E1955.D	20E0151-01		1	NO MANUAL INTEGRATION
0105	420E1956.D	20E0160-01		1	o-terph,
0125	420E1957.D	SIE0162-CCV9		1	o-terph,
0144	420E1958.D	SIE0162-CCVA		1	Triacon Surr,
0203	420E1959.D	SIE0162-CCVB		1	NO MANUAL INTEGRATION

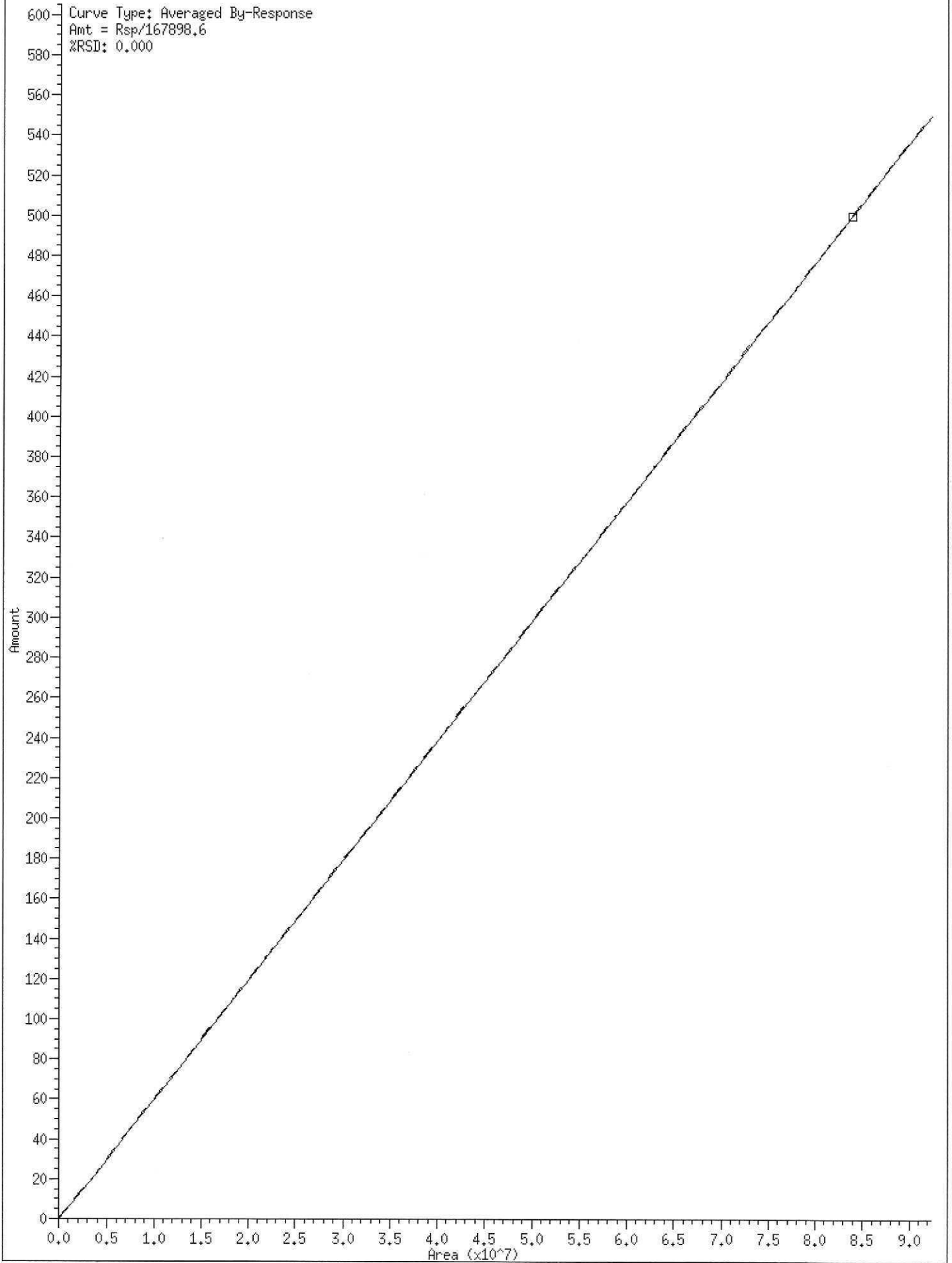


Security Status Report

Date: 20-May-2020 08:42

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420E1902.D	Data Locked	christopher,	19-May-2020	11:37
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420E1909.D	Data Locked	christopher,	19-May-2020	11:37
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420E1916.D	Data Locked	christopher,	20-May-2020	08:20
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420E1927.D	Data Locked	christopher,	20-May-2020	08:20
420E1928.D	Data Locked	christopher,	20-May-2020	08:20
420E1929.D	Data Locked	christopher,	20-May-2020	08:20
420E1930.D	Data Locked	christopher,	20-May-2020	08:20
420E1931.D	Data Locked	christopher,	20-May-2020	08:20
420E1932.D	Data Locked	christopher,	20-May-2020	08:20
420E1933.D	Data Locked	christopher,	20-May-2020	08:20
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420E1941.D	Data Locked	christopher,	20-May-2020	08:20
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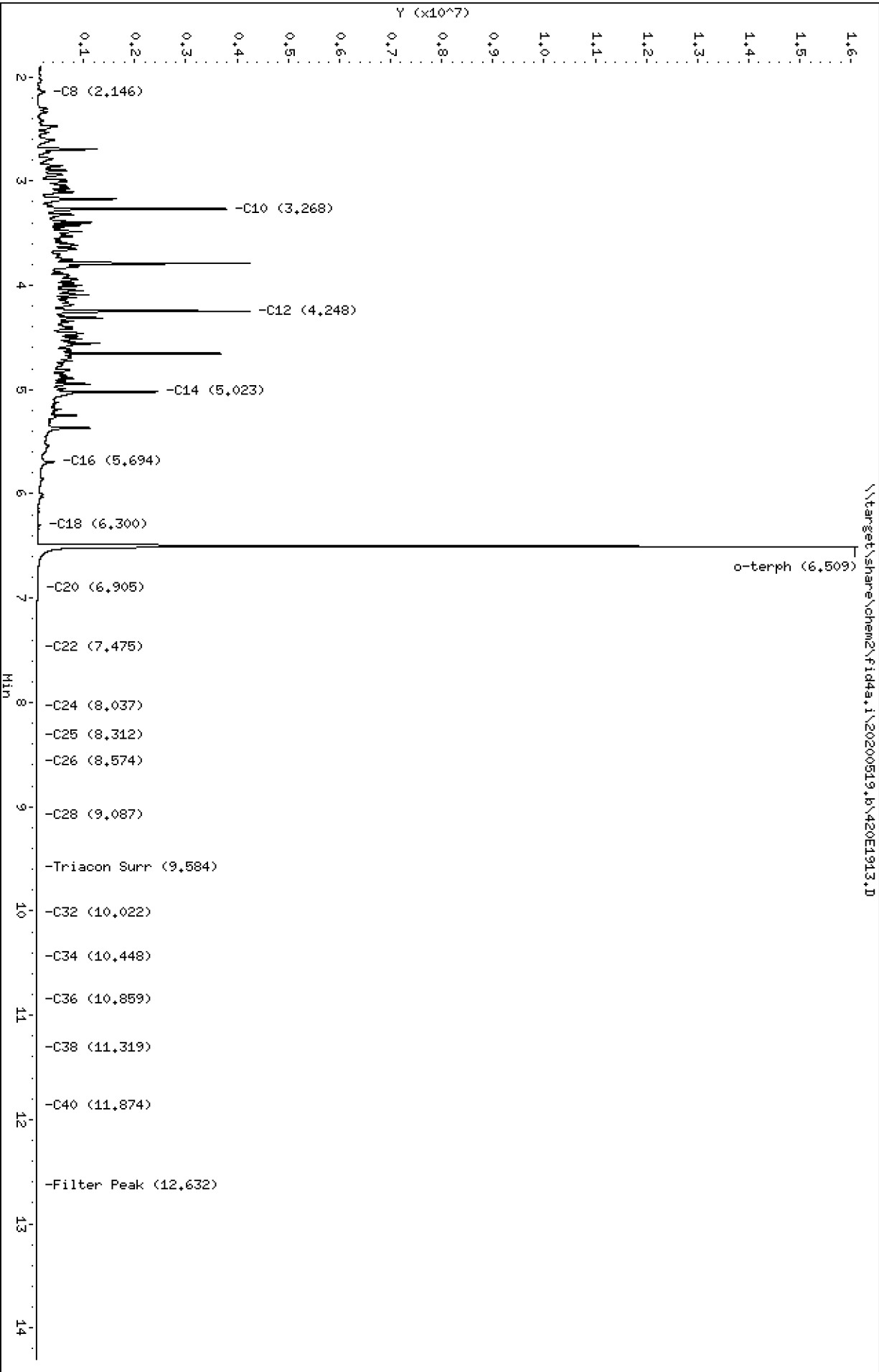
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Data File: \\target\share\chem2\fid4a,1\20200519\_b\420E1913.D  
Date: 19-May-2020 11:05  
Client ID:  
Sample Info: SIE0162-CAL1

Column phase: RTX-1

Instrument: fid4a,1  
Operator: CTO  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200519.b/420E1913.D  
Method: 20200519.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 05/20/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SIE0162-CAL1  
Client ID:  
Injection: 19-MAY-2020 11:05  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

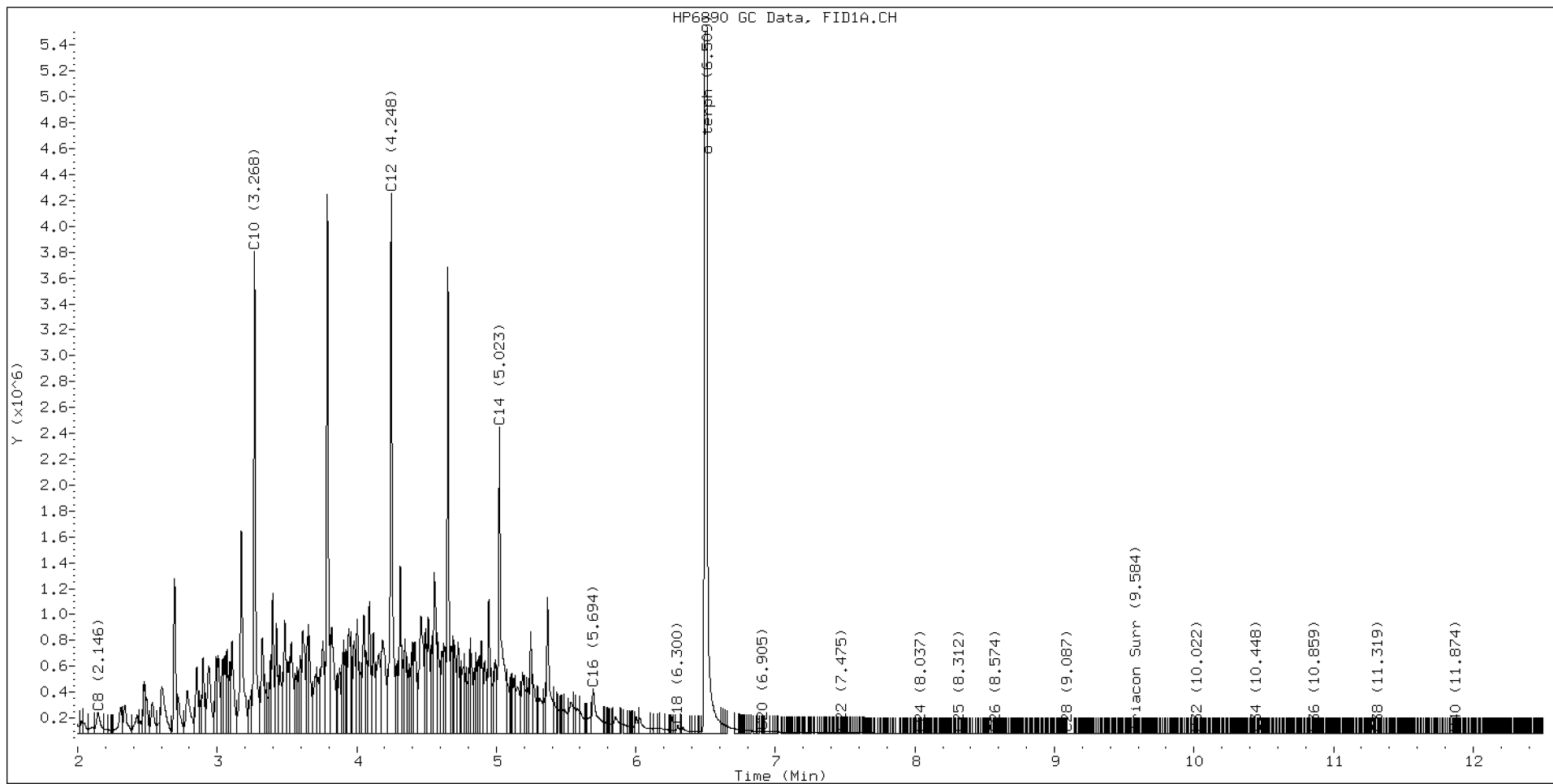
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.146	-0.014	162537	351667	WATPHD	(C12-C24)	43793314	274.8
C10	3.268	-0.006	3727060	3670074	WATPHM	(C24-C38)	298844	2.3
C12	4.248	-0.001	4175422	4596909	AK102	(C10-C25)	84977552	434.7
C14	5.023	-0.002	2366943	3478731	AK103	(C25-C36)	181563	2.5
C16	5.694	0.002	346661	872220	OR.DIES	(C10-C28)	85015601	433.8
C18	6.300	-0.002	67502	81701				
C20	6.905	0.012	18076	12457	JET-A	(C10-C18)	83949325	500.0
C22	7.475	0.003	7015	3124				
C24	8.037	0.002	2567	632				
C25	8.312	0.005	1720	641				
C26	8.574	0.002	577	179				
C28	9.087	0.004	278	137				
C32	10.022	0.002	985	413				
C34	10.448	-0.000	2249	1187				
Filter Peak	12.632	0.002	3646	2855	CREOSOT	(C12-C22)	43649163	1058.5
C36	10.859	-0.001	3434	1815				
C38	11.319	0.004	4203	2291				
C40	11.874	0.007	4118	1219				
o-terph	6.509	-0.003	16049011	17223619				
Triacon Surr	9.584	-0.003	924	375	NAS DIES	(C10-C24)	84956580	435.3

Range Times: NW Diesel(4.249 - 8.035) AK102(3.27 - 8.31) Jet A(3.27 - 6.30)  
NW M.Oil(8.03 - 11.32) AK103(8.31 - 10.86) OR Diesel(3.27 - 9.08)

Surrogate	Area	Amount
o-Terphenyl	17223619	84.1
Triacontane	375	0.0

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	167898.6	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	41237.8	30-MAR-2020





ANALYSIS SEQUENCE

SIF0018

Instrument: FID4  
Calibration ID: DA00022

Printed: 6/2/2020 12:49:08PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SIF0018-IBL1	QC		1		H010802			
SIF0018-IBL2	QC		2		I000651			
SIF0018-CAL1	QC		3		I004752			
SIF0018-CAL2	QC		4		I004753			
SIF0018-CAL3	QC		5		I004754			
SIF0018-CAL4	QC		6		I004755			
SIF0018-CAL5	QC		7		I004756			
SIF0018-CAL6	QC		8		I003778			
SIF0018-SCV1	QC		9		I004757			

\_\_\_\_\_  
Samples Loaded By    Date

\_\_\_\_\_  
Data Processed By    Date

## GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20200602.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	02-JUN-2020	07:40	420F0201.D	1	RINSE	
2	02-JUN-2020	07:59	420F0202.D	1	RINSE	
3	02-JUN-2020	08:19	420F0203.D	1	SIF0018-IBL1	
4	02-JUN-2020	08:38	420F0204.D	1	SIF0018-IBL2	
5	02-JUN-2020	08:58	420F0205.D	1	SIF0018-CAL1	
6	02-JUN-2020	09:17	420F0206.D	1	SIF0018-CAL2	
7	02-JUN-2020	09:37	420F0207.D	1	SIF0018-CAL3	
8	02-JUN-2020	09:56	420F0208.D	1	SIF0018-CAL4	
9	02-JUN-2020	10:16	420F0209.D	1	SIF0018-CAL5	
10	02-JUN-2020	10:36	420F0210.D	1	SIF0018-CAL6	
11	02-JUN-2020	10:55	420F0211.D	1	SIF0018-SCV1	



MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20200602.b

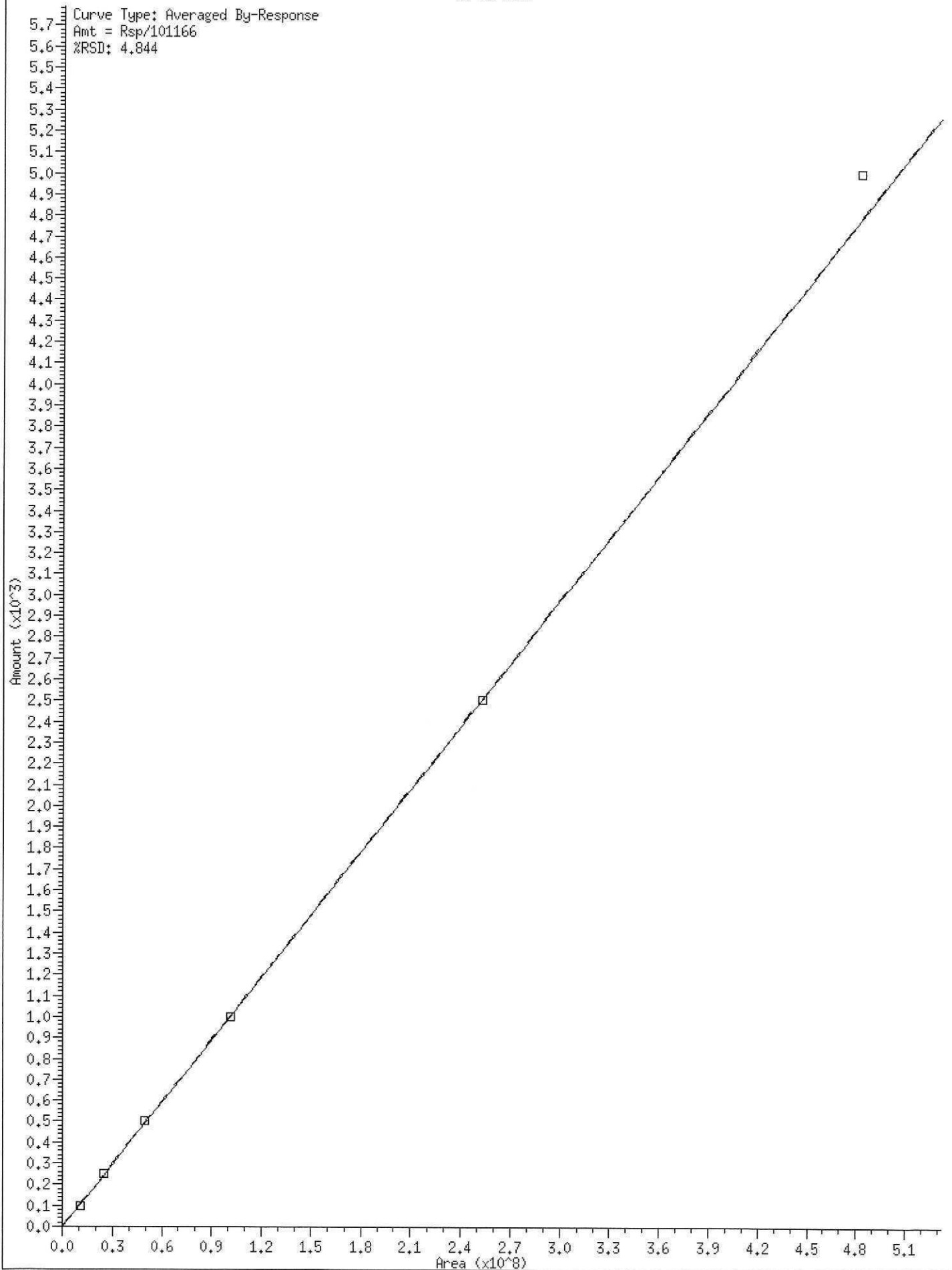
ARI Job No.: RINS Method: FID4TPH.m Instrument: fid4a.i Date: 02-JUN-2020

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
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0759	420F0202.D	RINSE		1	NO MANUAL INTEGRATION
0819	420F0203.D	SIF0018-IBL1		1	NO MANUAL INTEGRATION
0838	420F0204.D	SIF0018-IBL2		1	NO MANUAL INTEGRATION
0858	420F0205.D	SIF0018-CAL1		1	Triacon Surr,
0917	420F0206.D	SIF0018-CAL2		1	Triacon Surr,
0937	420F0207.D	SIF0018-CAL3		1	Triacon Surr,
0956	420F0208.D	SIF0018-CAL4		1	Triacon Surr,
1016	420F0209.D	SIF0018-CAL5		1	Triacon Surr,
1036	420F0210.D	SIF0018-CAL6		1	Triacon Surr,
1055	420F0211.D	SIF0018-SCV1		1	Triacon Surr,

Security Status Report

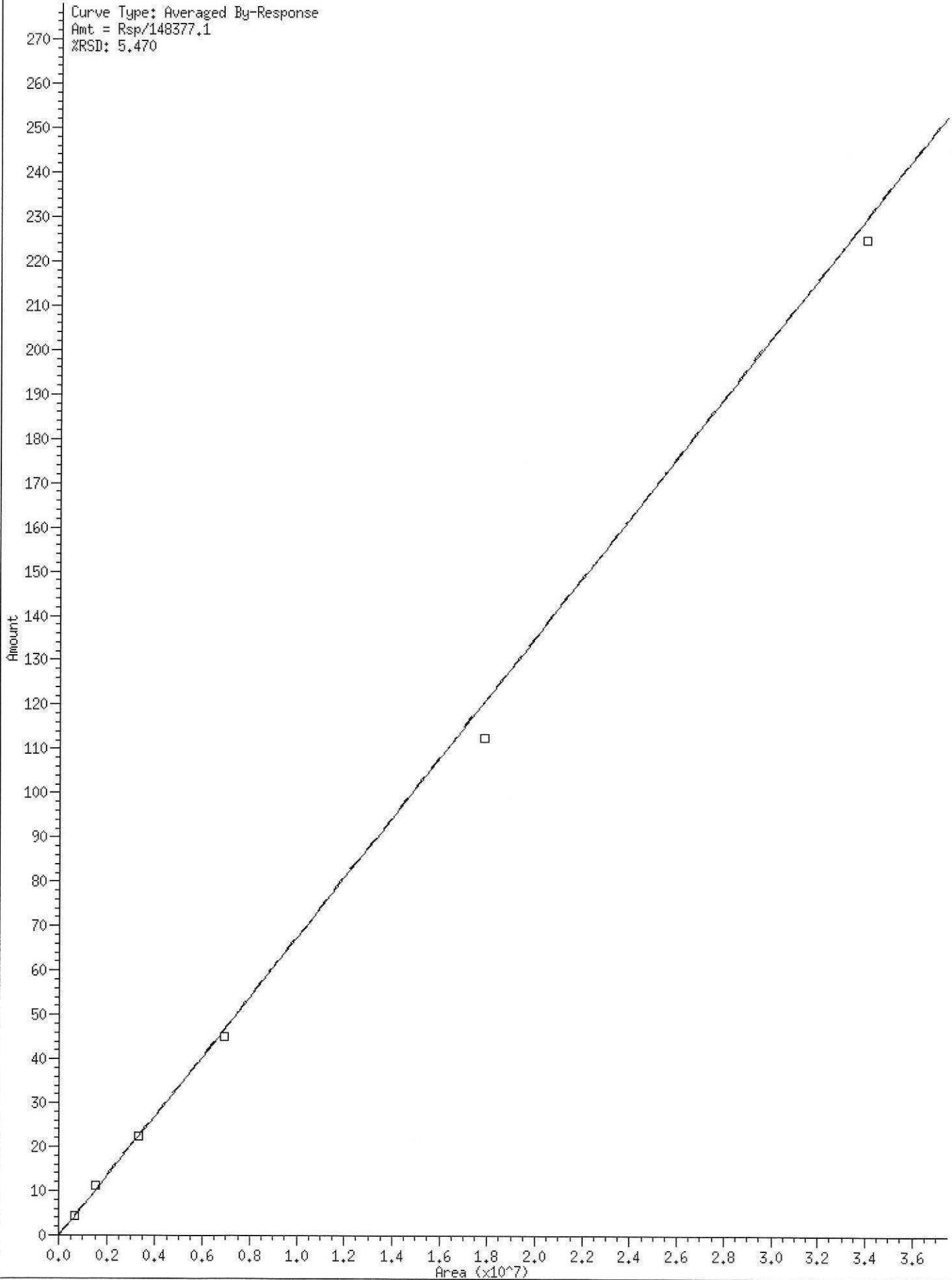
Date: 02-Jun-2020 12:52

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420F0204.D	Data Locked	christopher, 02-Jun-2020 12:51
420F0205.D	Data Locked	christopher, 02-Jun-2020 12:51
420F0206.D	Data Locked	christopher, 02-Jun-2020 12:51
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420F0208.D	Data Locked	christopher, 02-Jun-2020 12:51
420F0209.D	Data Locked	christopher, 02-Jun-2020 12:51
420F0210.D	Data Locked	christopher, 02-Jun-2020 12:51
420F0211.D	Data Locked	christopher, 02-Jun-2020 12:51



\* 15 Triacon Surr

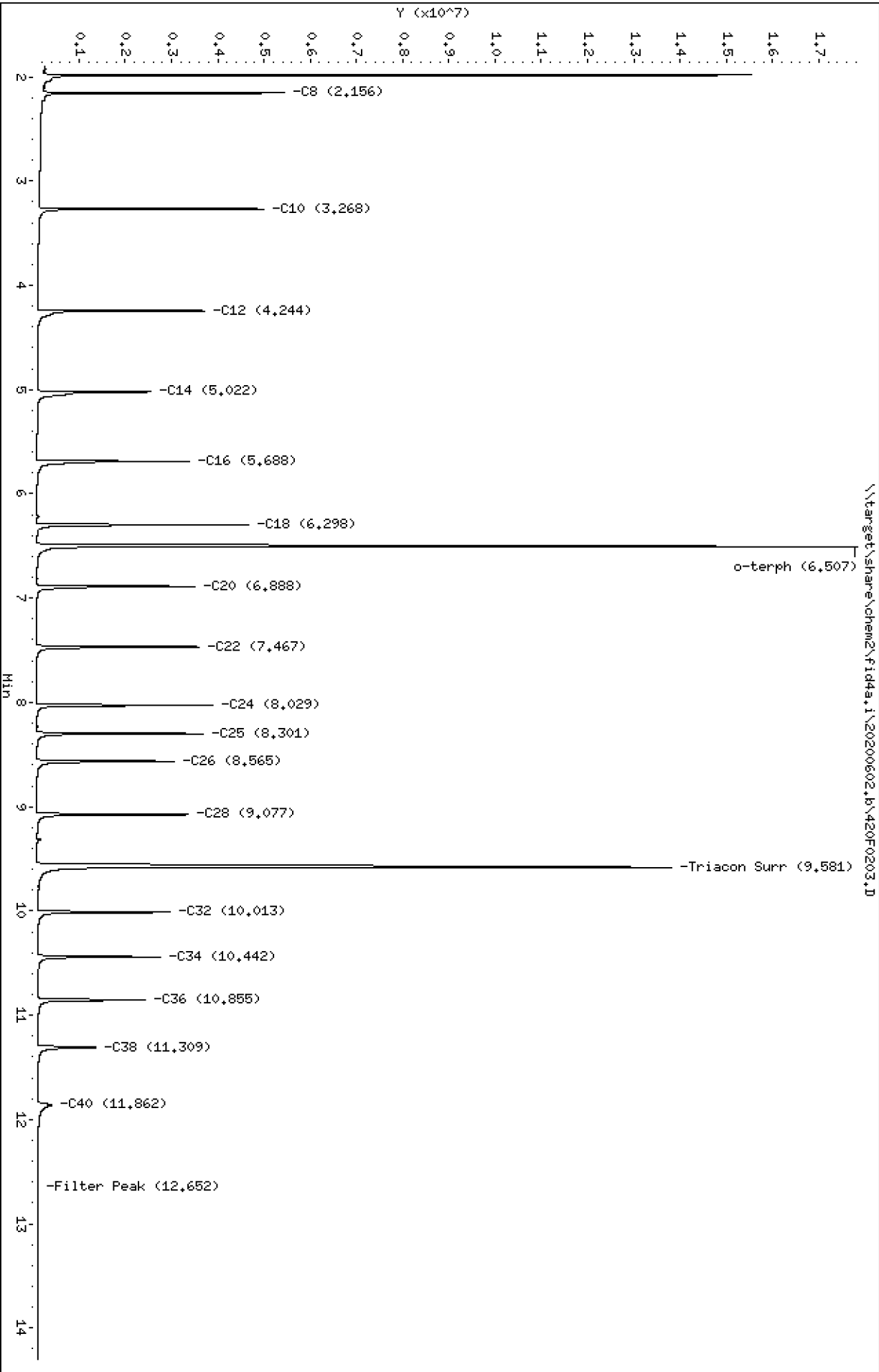
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%RSD: 5,470



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Date : 02-JUN-2020 08:19  
Client ID:  
Sample Info: SIF0018-IBL1

Column phase: RTX-1

Instrument: fid4a,1  
Operator: CTO  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200602.b/420F0203.D  
Method: 20200602.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 06/02/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SIF0018-IBL1  
Client ID:  
Injection: 02-JUN-2020 08:19  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

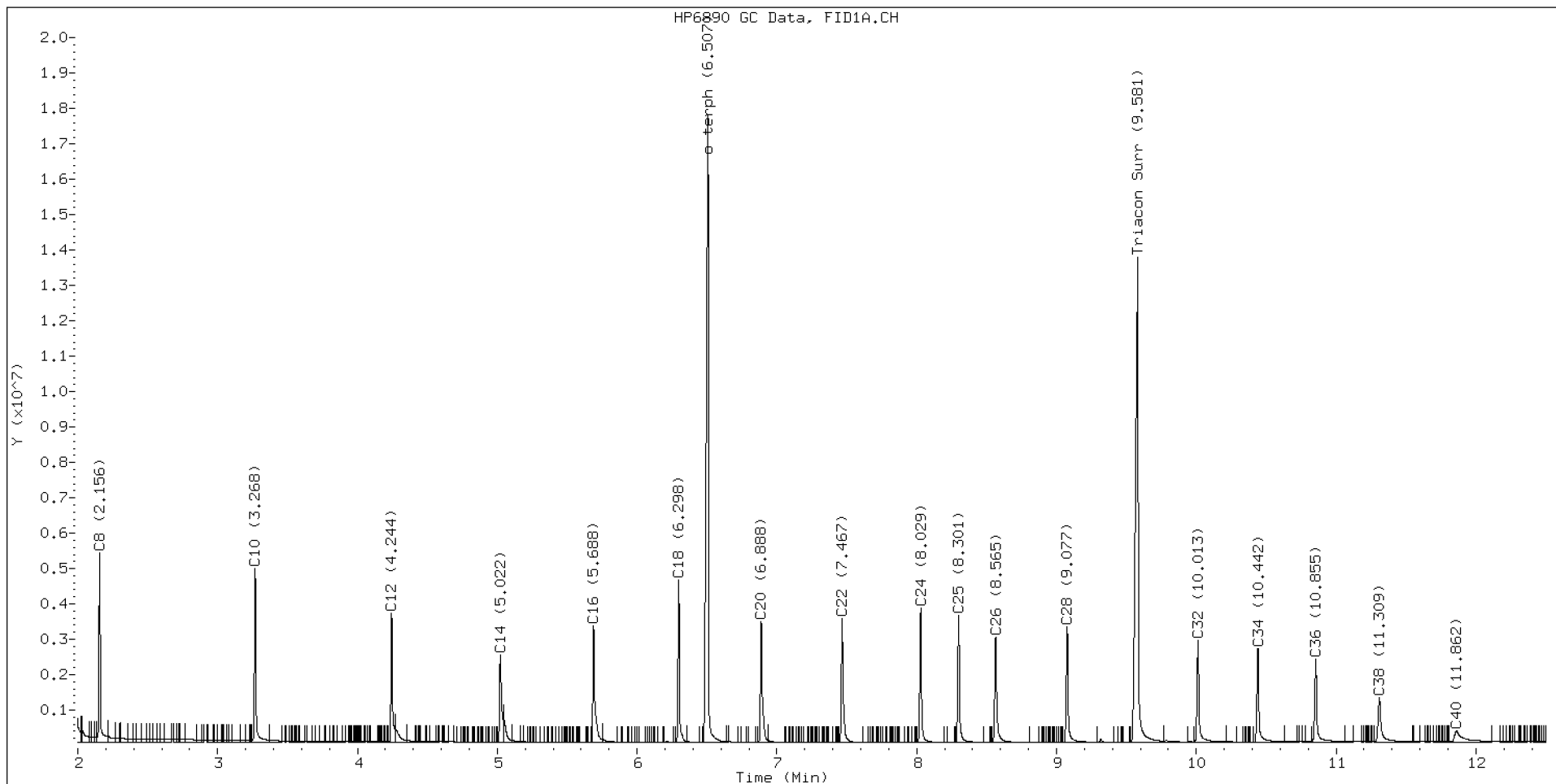
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.156	0.000	5355192	4028421	WATPHD	(C12-C24)	22818714	143.2
C10	3.268	0.000	4929332	4012342	WATPHM	(C24-C38)	23499770	232.3
C12	4.244	0.000	3648375	2898492	AK102	(C10-C25)	32299571	165.2
C14	5.022	0.000	2469047	2611753	AK103	(C25-C36)	20714599	283.0
C16	5.688	0.000	3293885	3376329	OR.DIES	(C10-C28)	42576768	217.2
C18	6.298	0.000	4585796	3403299				
C20	6.888	0.000	3419868	3390012	JET-A	(C10-C18)	21587777	128.6
C22	7.467	0.000	3501351	3461600				
C24	8.029	0.000	3816488	3373518				
C25	8.301	0.000	3598800	3438765				
C26	8.565	0.000	2983968	3399421				
C28	9.077	0.000	3266476	3362299				
C32	10.013	0.000	2880768	3301828				
C34	10.442	0.000	2669792	3096709				
Filter Peak	12.652	0.000	21186	7385	CREOSOT	(C12-C22)	19416290	470.8
C36	10.855	0.000	2366492	3017794				
C38	11.309	0.000	1282280	2537029				
C40	11.862	0.000	332084	1739109				
o-terph	6.507	0.000	17759087	19250772				
Triacon Surr	9.581	0.000	13722128	19528338	NAS DIES	(C10-C24)	32267307	165.3

Range Times: NW Diesel(4.244 - 8.029) AK102(3.27 - 8.30) Jet A(3.27 - 6.30)  
NW M.Oil(8.03 - 11.31) AK103(8.30 - 10.86) OR Diesel(3.27 - 9.08)

Surrogate	Area	Amount
o-Terphenyl	19250772	94.0
Triacontane	19528338	131.6

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	167898.6	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	41237.8	30-MAR-2020



Data File: \\target\share\chem2\fid4a,1\20200602,b\420F0204.D

Date : 02-JUN-2020 08:38

Client ID:

Sample Info: SIF0018-IBL2

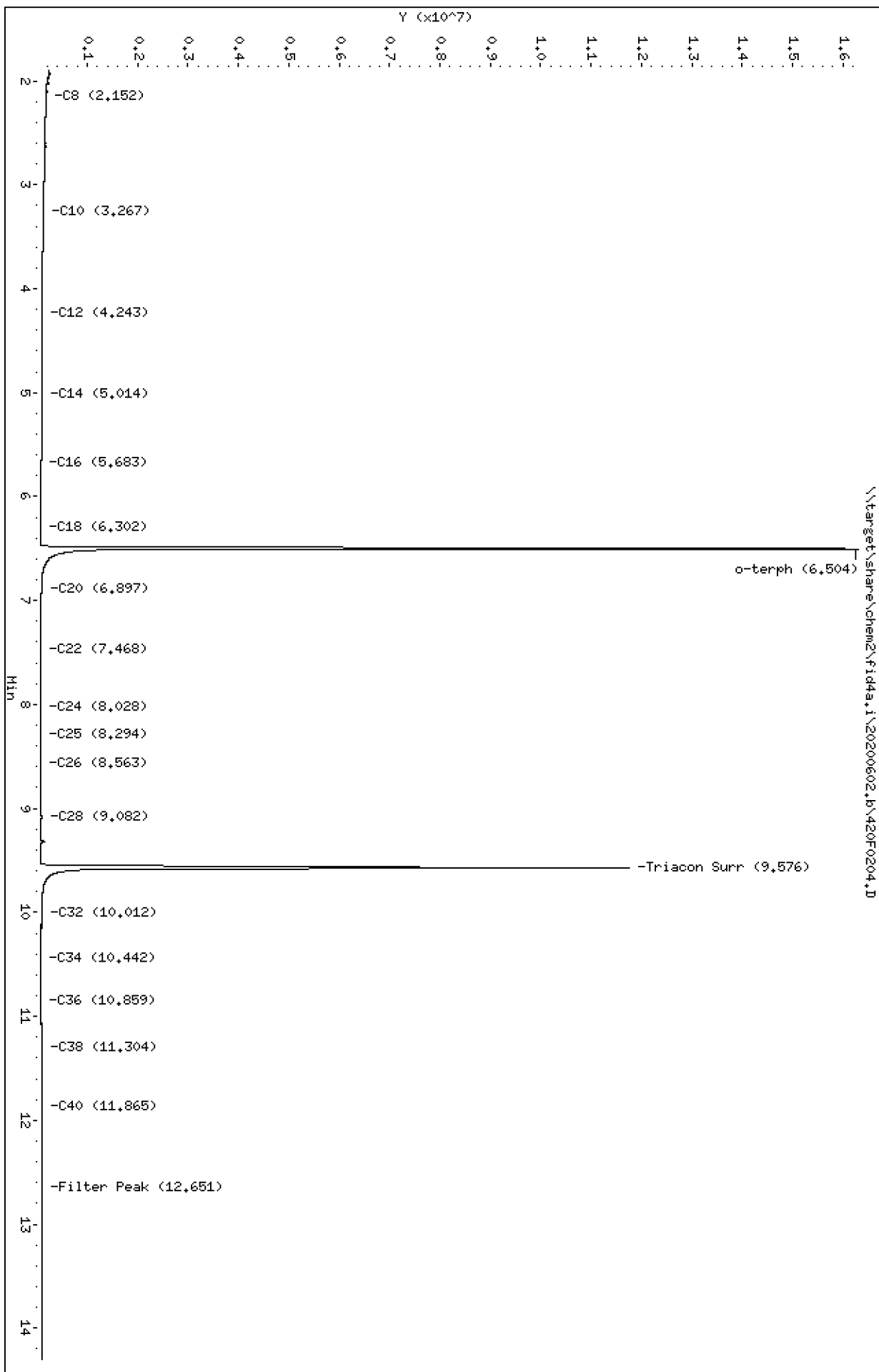
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

Page 1





Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200602.b/420F0204.D  
Method: 20200602.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 06/02/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SIF0018-IBL2  
Client ID:  
Injection: 02-JUN-2020 08:38  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

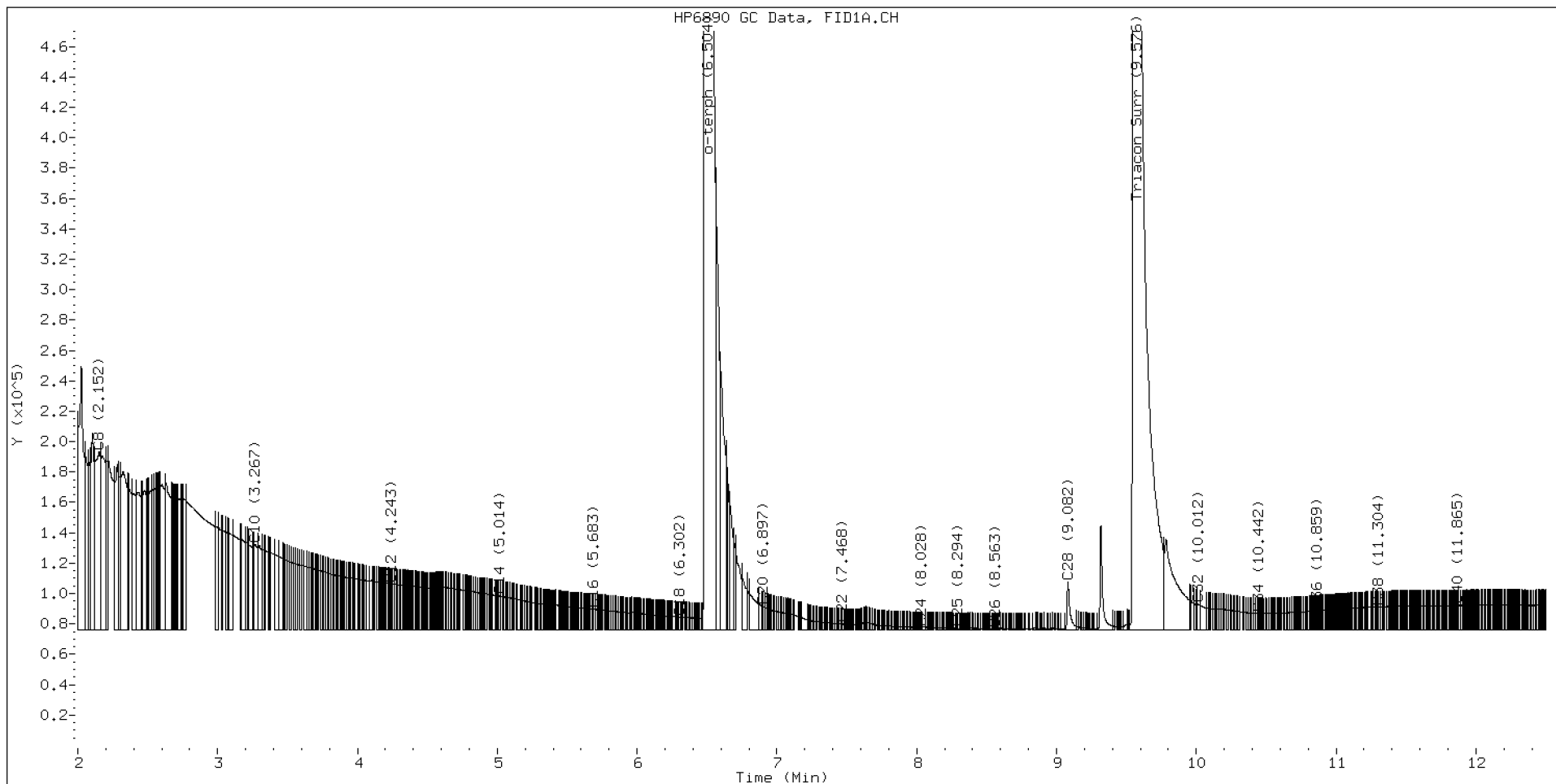
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.152	-0.003	116720	322381	WATPHD	(C12-C24)	3533716	22.2
C10	3.267	-0.001	56124	109426	WATPHM	(C24-C38)	1474603	14.6
C12	4.243	-0.001	30150	13517	AK102	(C10-C25)	5497571	28.1
C14	5.014	-0.008	22108	20838	AK103	(C25-C36)	1111901	15.2
C16	5.683	-0.005	13417	7376	OR.DIES	(C10-C28)	5561088	28.4
C18	6.302	0.004	8282	6554				
C20	6.897	0.008	15268	9037	JET-A	(C10-C18)	3852356	22.9
C22	7.468	0.002	3677	2659				
C24	8.028	-0.001	1288	376				
C25	8.294	-0.007	805	727				
C26	8.563	-0.002	378	139				
C28	9.082	0.005	31186	44237				
C32	10.012	-0.001	16600	15536				
C34	10.442	-0.000	10597	4224				
Filter Peak	12.651	-0.001	16079	8841	CREOSOT	(C12-C22)	3469521	84.1
C36	10.859	0.004	12136	4837				
C38	11.304	-0.005	14999	9721				
C40	11.865	0.003	15845	9483				
o-terph	6.504	-0.003	16231603	17734069				
Triacon Surr	9.576	-0.005	11669958	15560412	NAS DIES	(C10-C24)	5488260	28.1

Range Times: NW Diesel(4.244 - 8.029) AK102(3.27 - 8.30) Jet A(3.27 - 6.30)  
NW M.Oil(8.03 - 11.31) AK103(8.30 - 10.86) OR Diesel(3.27 - 9.08)

Surrogate	Area	Amount
o-Terphenyl	17734069	86.6
Triacontane	15560412	104.9

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	167898.6	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	41237.8	30-MAR-2020

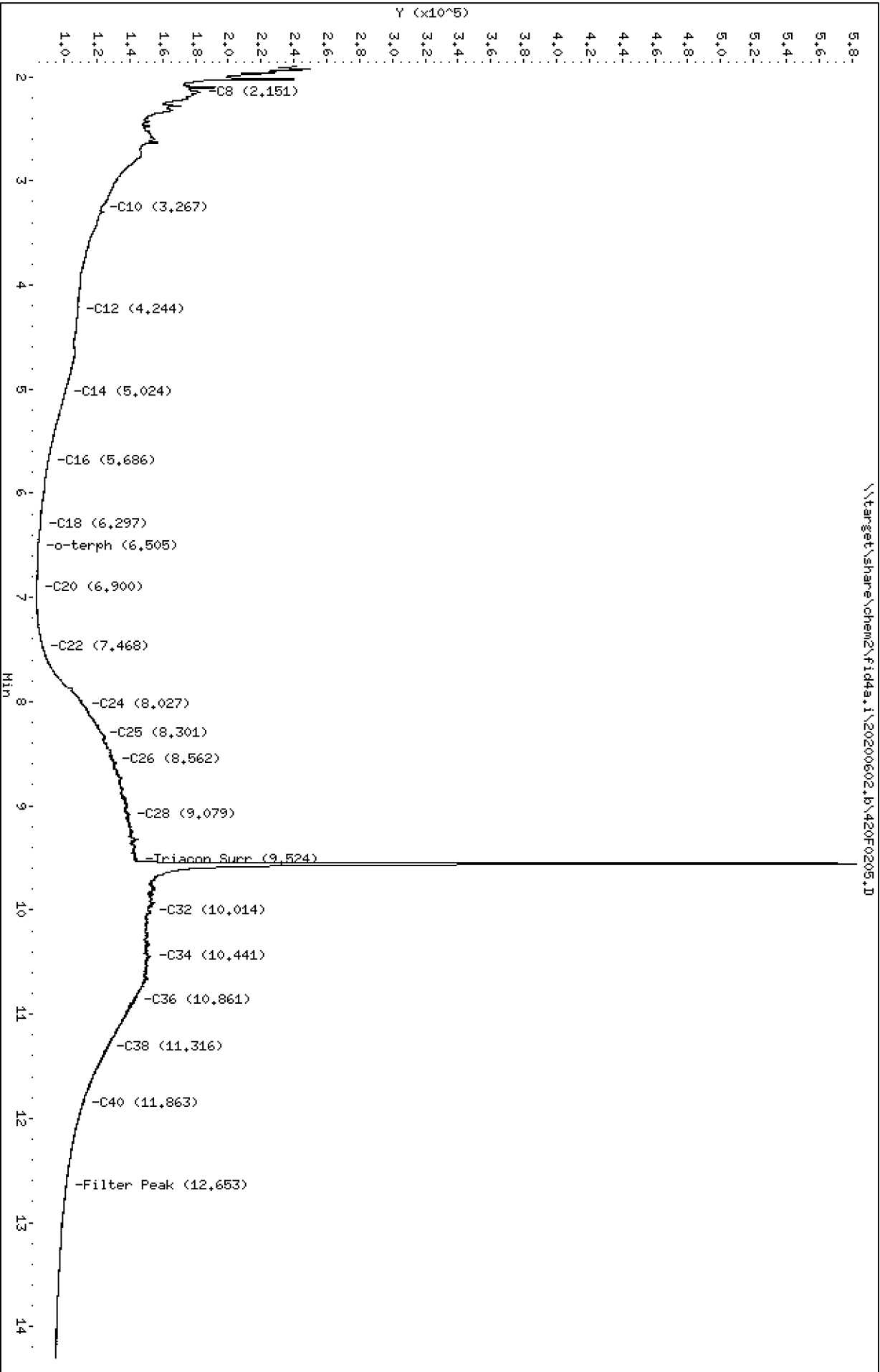


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Date: 02-JUN-2020 08:58  
Client ID:  
Sample Info: SIF0018-CAL1

Instrument: fid4a,1

Column phase: RTX-1

Operator: CTO  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200602.b/420F0205.D  
Method: 20200602.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 06/02/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SIF0018-CAL1  
Client ID:  
Injection: 02-JUN-2020 08:58  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

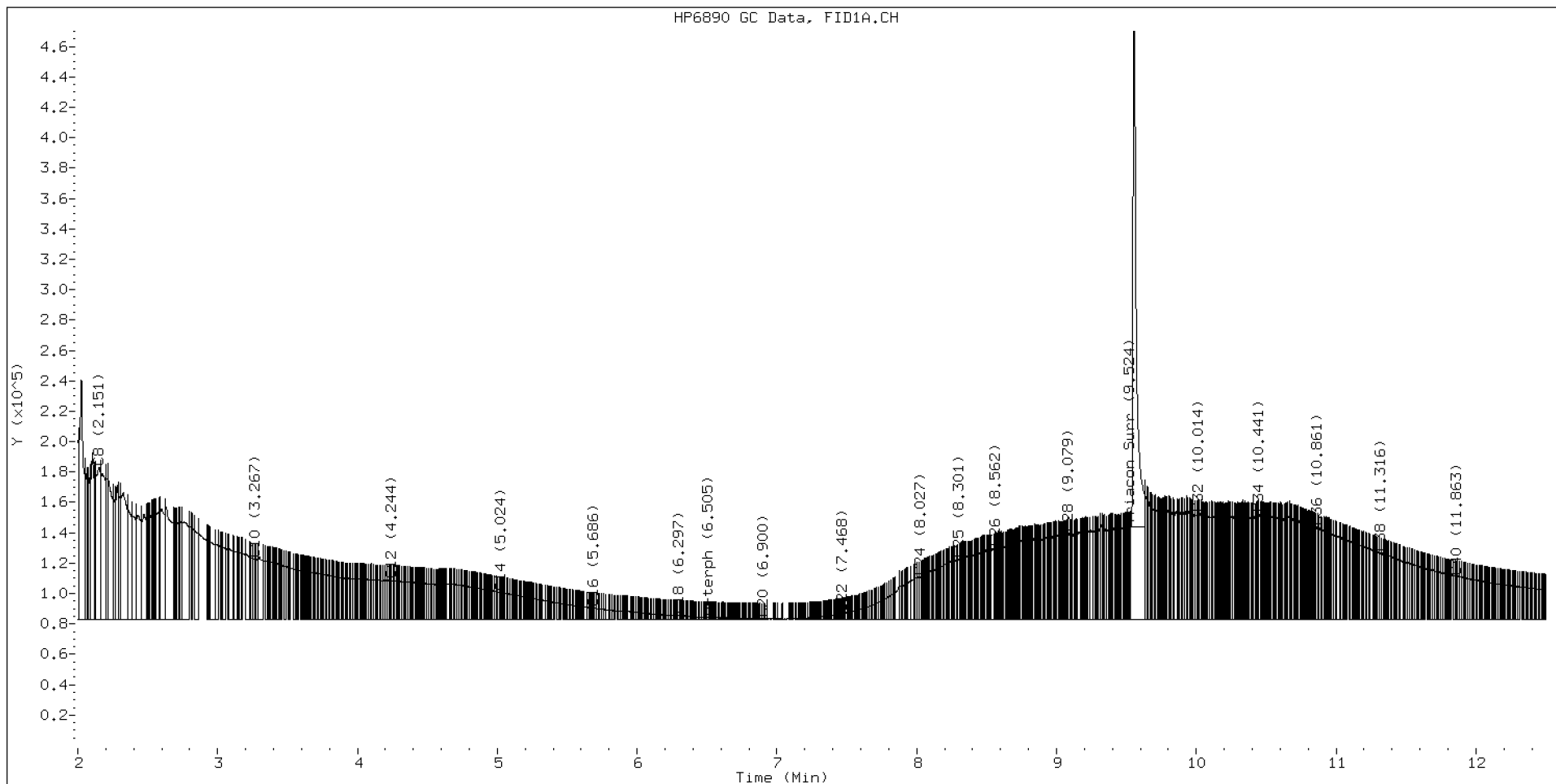
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.151	-0.005	99980	217759	WATPHD	(C12-C24)	2058424	12.9
C10	3.267	-0.001	39589	29601	WATPHM	(C24-C38)	11047515	109.2
C12	4.244	-0.001	25508	17793	AK102	(C10-C25)	4072327	20.8
C14	5.024	0.003	17563	10459	AK103	(C25-C36)	9356465	127.8
C16	5.686	-0.002	7220	3247	OR.DIES	(C10-C28)	6554980	33.4
C18	6.297	-0.001	2600	2106				
C20	6.900	0.012	302	196	JET-A	(C10-C18)	3118295	18.6
C22	7.468	0.001	3759	1459				
C24	8.027	-0.002	28105	24801				
C25	8.301	0.000	39391	25449				
C26	8.562	-0.003	47032	11725				
C28	9.079	0.003	56481	28105				
C32	10.014	0.002	69879	38102				
C34	10.441	-0.001	69476	34247				
Filter Peak	12.653	0.001	18229	12666	CREOSOT	(C12-C22)	1520804	36.9
C36	10.861	0.006	60542	41919				
C38	11.316	0.007	43480	28015				
C40	11.863	0.001	28191	8434				
o-terph	6.505	-0.001	1238	750				
Triacon Surr	9.554	-0.026	438731	632528	NAS DIES	(C10-C24)	3725496	19.1

Range Times: NW Diesel(4.244 - 8.029) AK102(3.27 - 8.30) Jet A(3.27 - 6.30)  
NW M.Oil(8.03 - 11.31) AK103(8.30 - 10.86) OR Diesel(3.27 - 9.08)

Surrogate	Area	Amount
o-Terphenyl	750	0.0
Triacontane	632528	4.3 M

M Indicates the peak was manually integrated

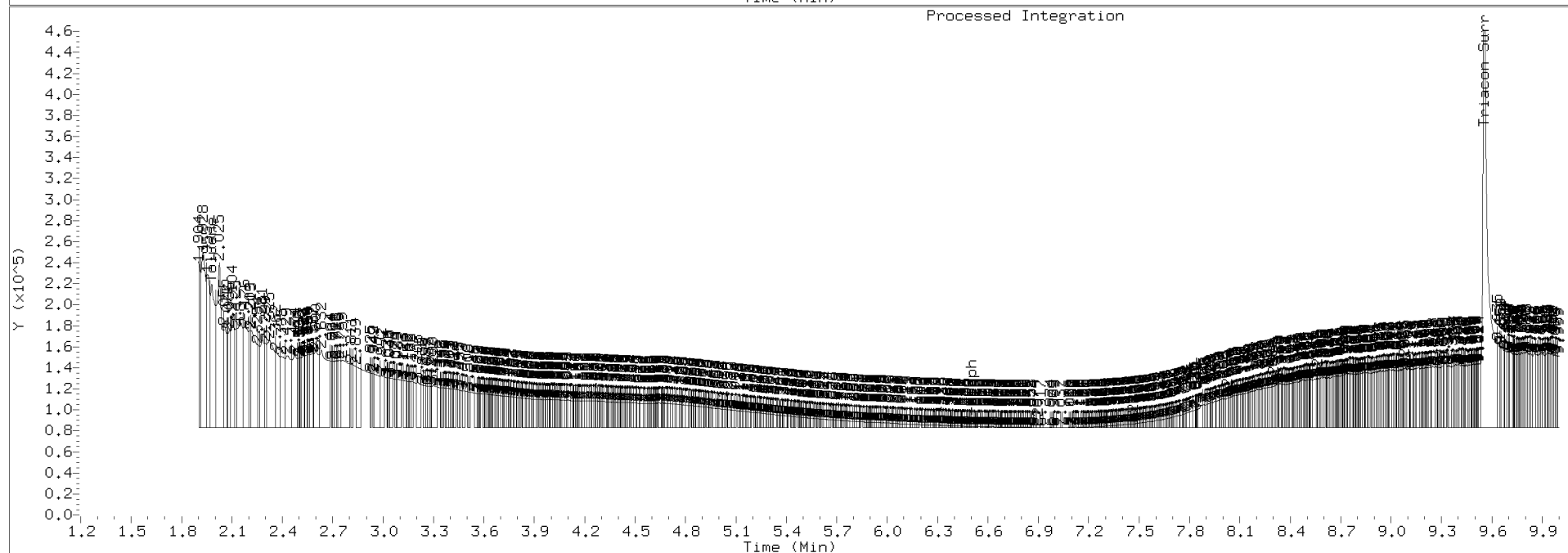
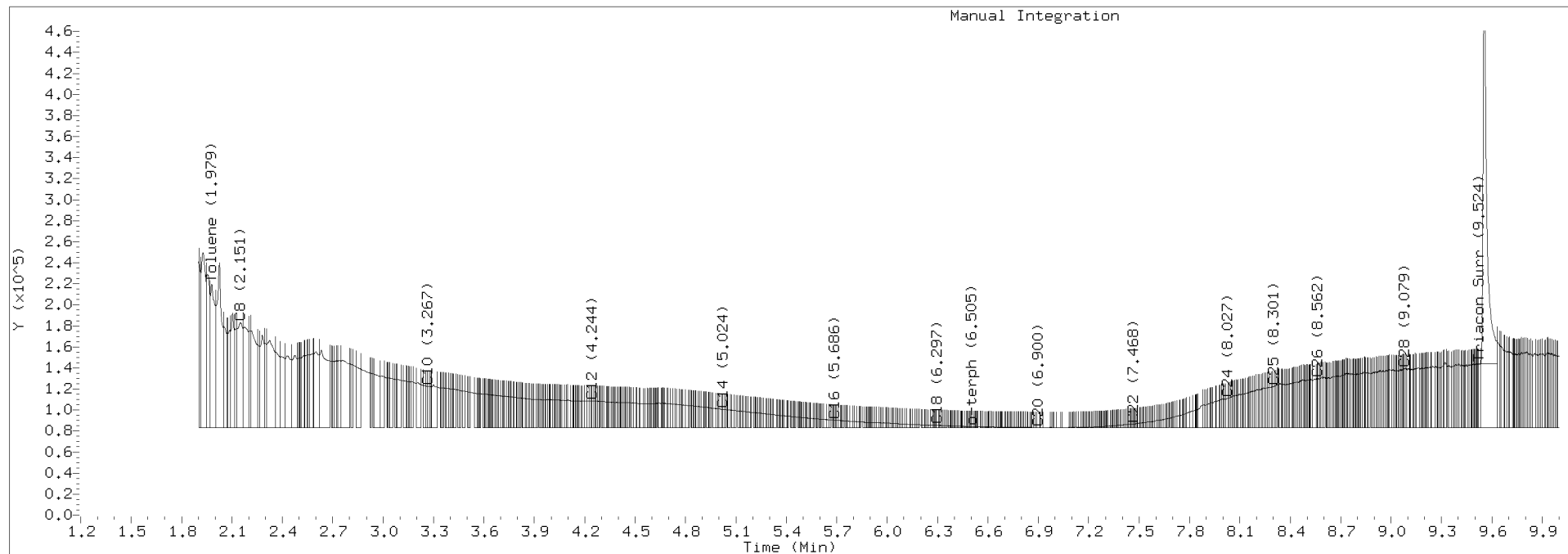
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	167898.6	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	41237.8	30-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20200602.b/420F0205.D Injection: 02-JUN-2020 08:58

Lab ID:SIF0018-CAL1



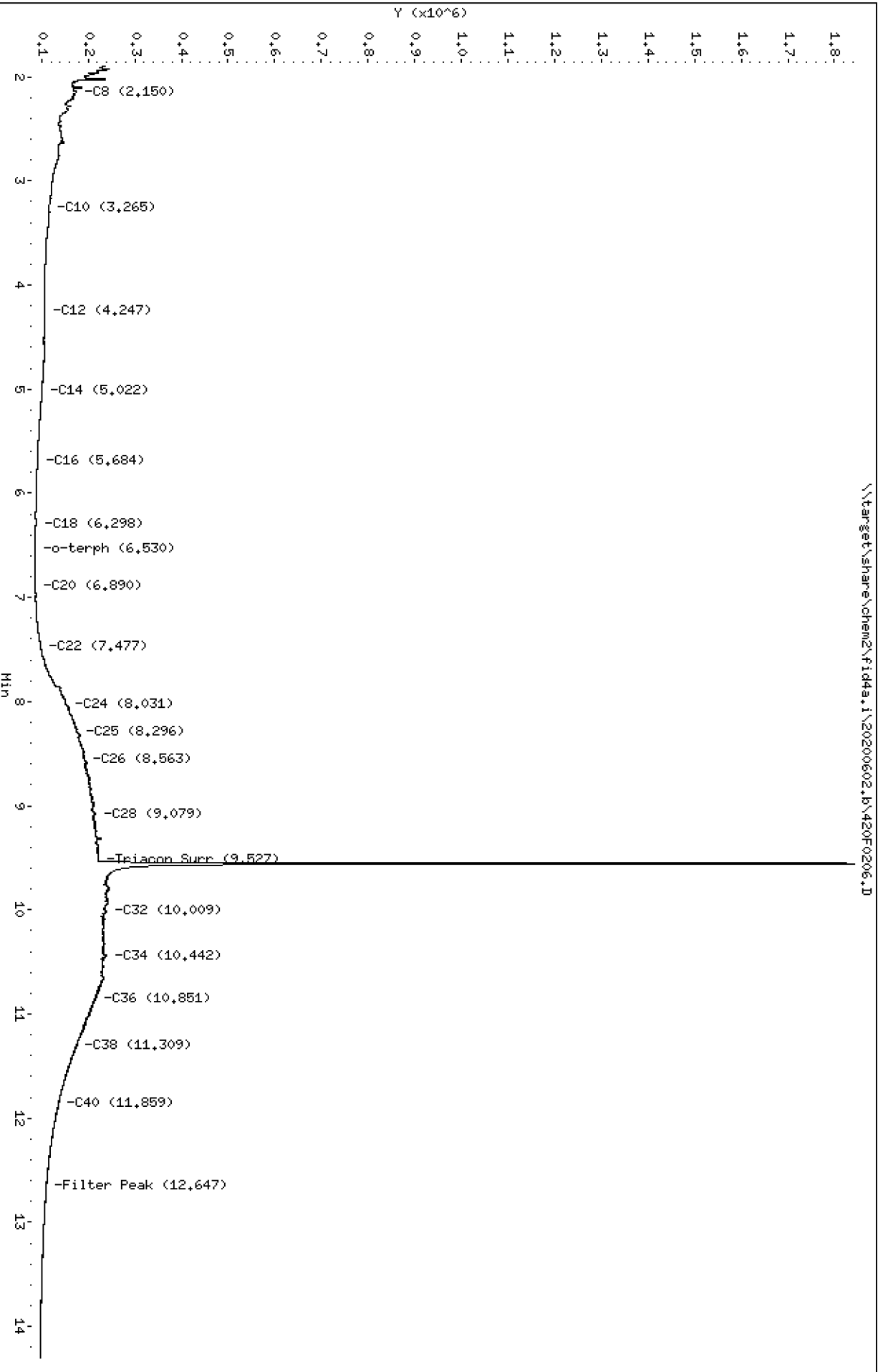
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Date : 02-JUN-2020 09:17  
Client ID:  
Sample Info: SIF0018-CAL2

Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200602.b/420F0206.D  
Method: 20200602.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 06/02/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SIF0018-CAL2  
Client ID:  
Injection: 02-JUN-2020 09:17  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.150	-0.006	89858	185422	WATPHD	(C12-C24)	2712070	17.0
C10	3.265	-0.003	30146	13534	WATPHM	(C24-C38)	24525710	242.4
C12	4.247	0.002	20913	5217	AK102	(C10-C25)	4830477	24.7
C14	5.022	0.000	14927	5202	AK103	(C25-C36)	21012310	287.0
C16	5.684	-0.004	5316	3160	OR.DIES	(C10-C28)	10587317	54.0
C18	6.298	-0.001	1804	867				
C20	6.890	0.002	868	325	JET-A	(C10-C18)	2431354	14.5
C22	7.477	0.010	11963	10299				
C24	8.031	0.002	68912	56553				
C25	8.296	-0.005	90908	49681				
C26	8.563	-0.002	106529	37089				
C28	9.079	0.002	128296	51107				
C32	10.009	-0.003	153736	84024				
C34	10.442	0.000	152153	67959				
Filter Peak	12.647	-0.005	24724	15926	CREOSOT	(C12-C22)	1339051	32.5
C36	10.851	-0.004	129949	77218				
C38	11.309	0.000	88878	57220				
C40	11.859	-0.002	51003	42869				
o-terph	6.530	0.023	286	110				
Triacon Surr	9.553	-0.027	1618248	1548362	NAS DIES	(C10-C24)	4003518	20.5

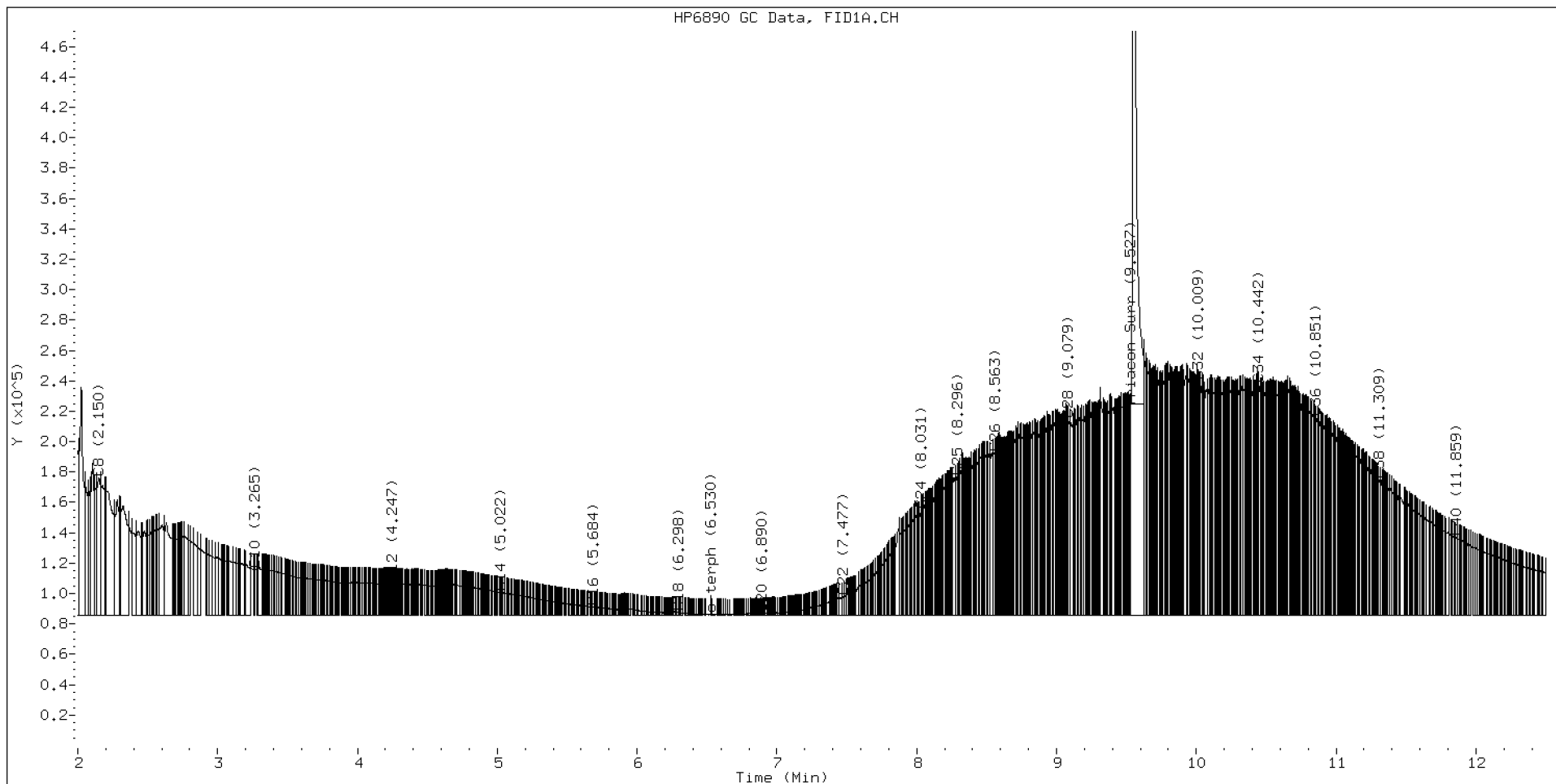
Range Times: NW Diesel(4.244 - 8.029) AK102(3.27 - 8.30) Jet A(3.27 - 6.30)  
NW M.Oil(8.03 - 11.31) AK103(8.30 - 10.86) OR Diesel(3.27 - 9.08)

Surrogate	Area	Amount
o-Terphenyl	110	0.0
Triacontane	1548362	10.4 M

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	167898.6	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	41237.8	30-MAR-2020

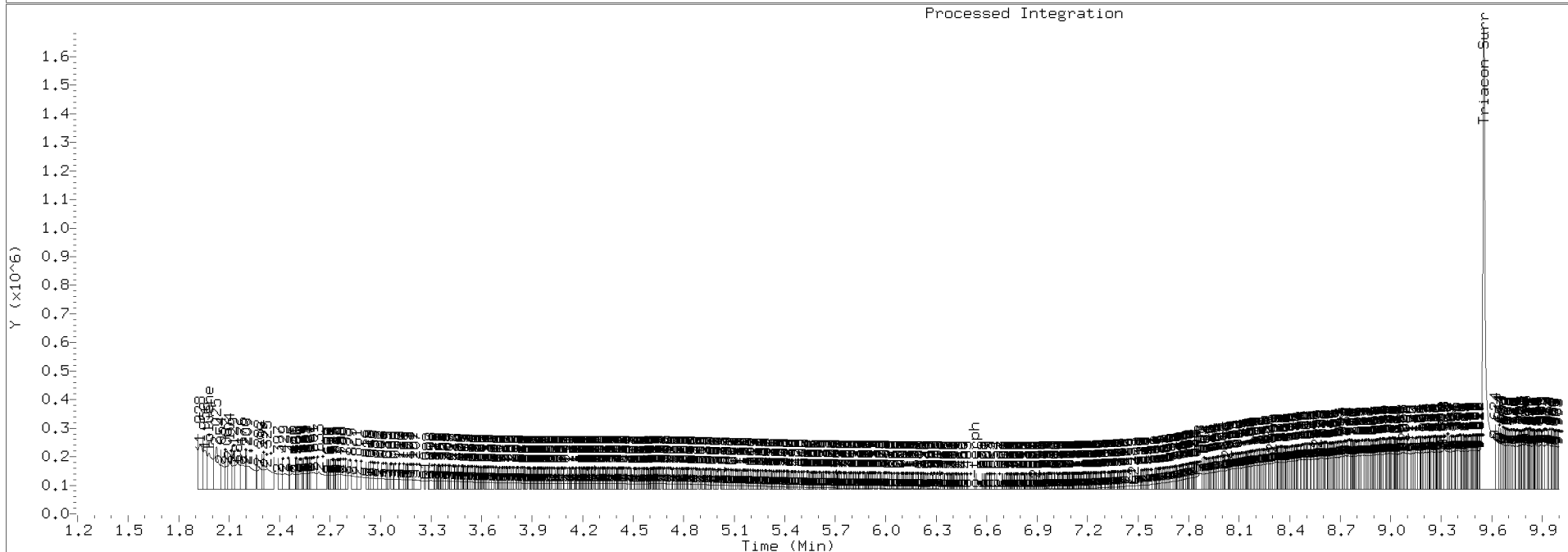
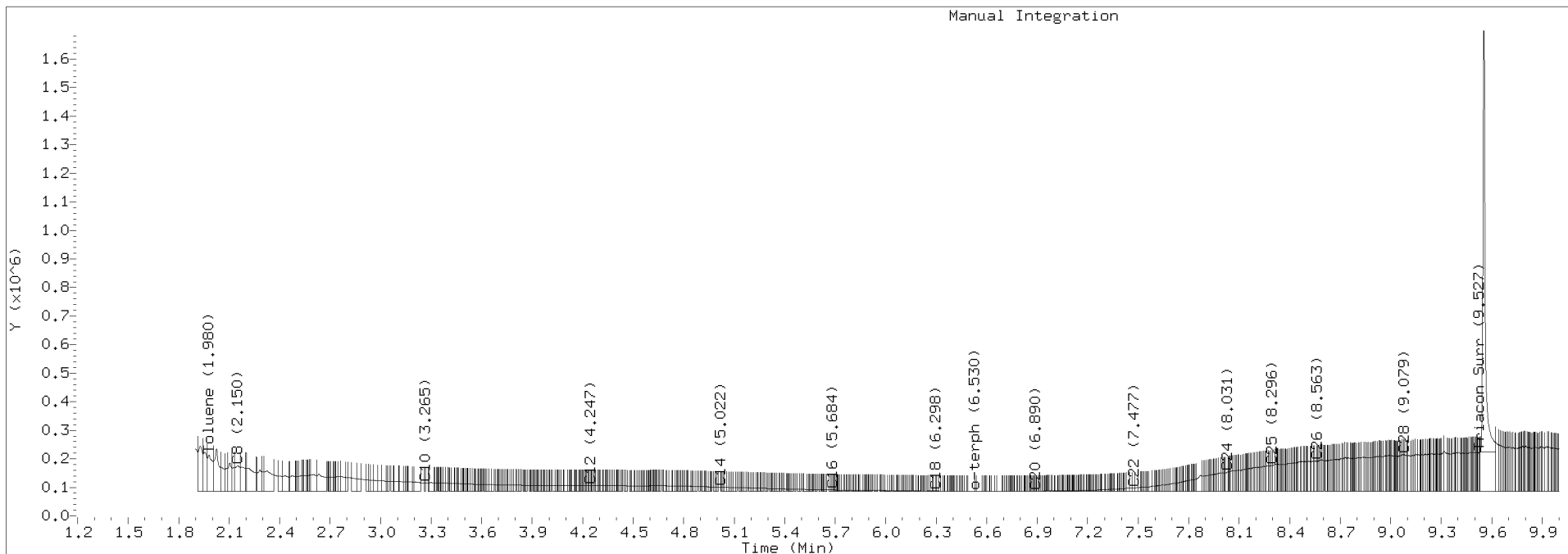




TPH Manual Integrations Report

Datafile: FID4A, 20200602.b/420F0206.D Injection: 02-JUN-2020 09:17

Lab ID:SIF0018-CAL2



Data File: \\target\share\chem2\fid4a,1\20200602\_b\420F0207.D

Date : 02-JUN-2020 09:37

Client ID:

Sample Info: SIF0018-CAL3

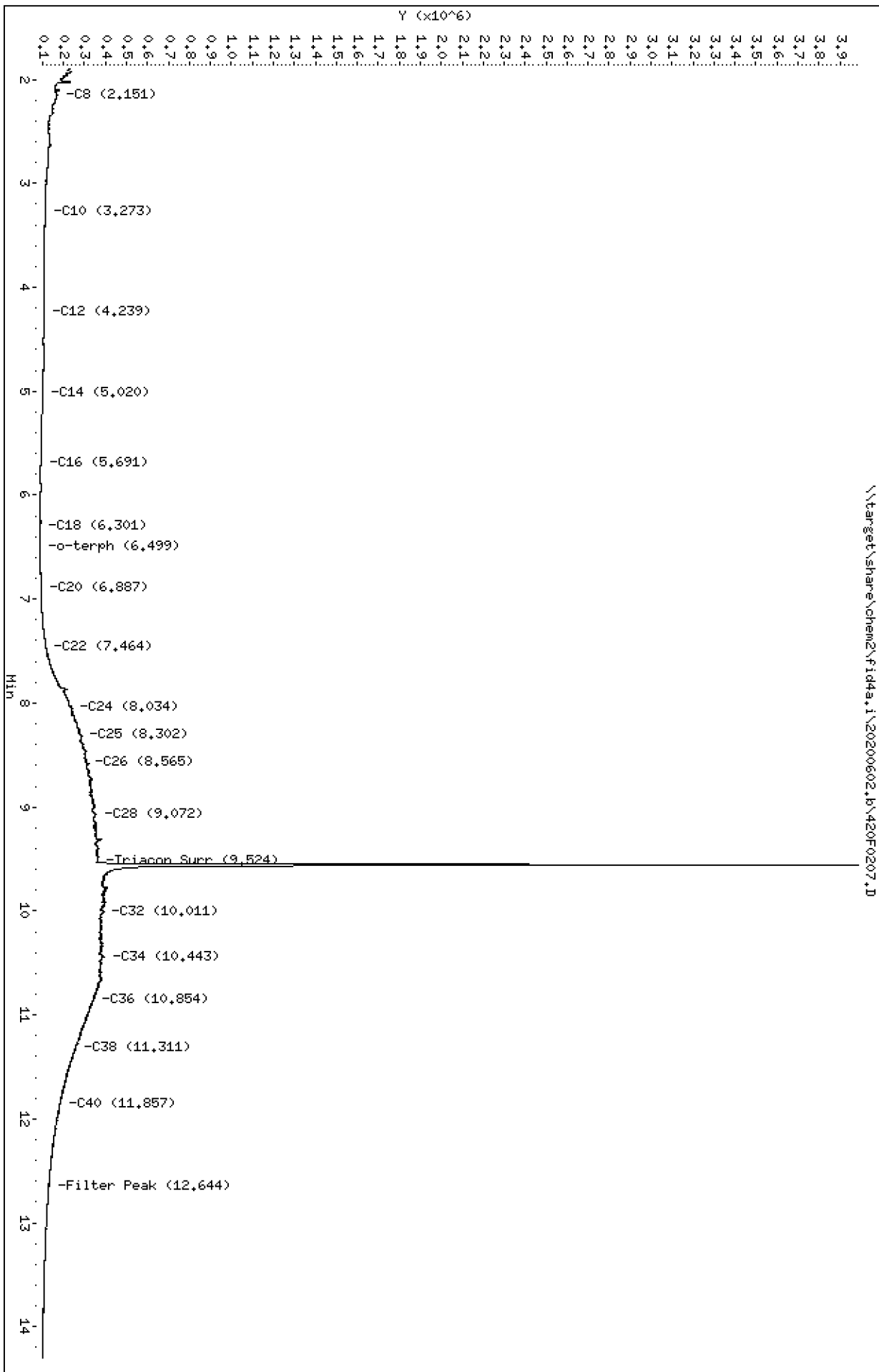
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

\\target\share\chem2\fid4a,1\20200602\_b\420F0207.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200602.b/420F0207.D  
Method: 20200602.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 06/02/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SIF0018-CAL3  
Client ID:  
Injection: 02-JUN-2020 09:37  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

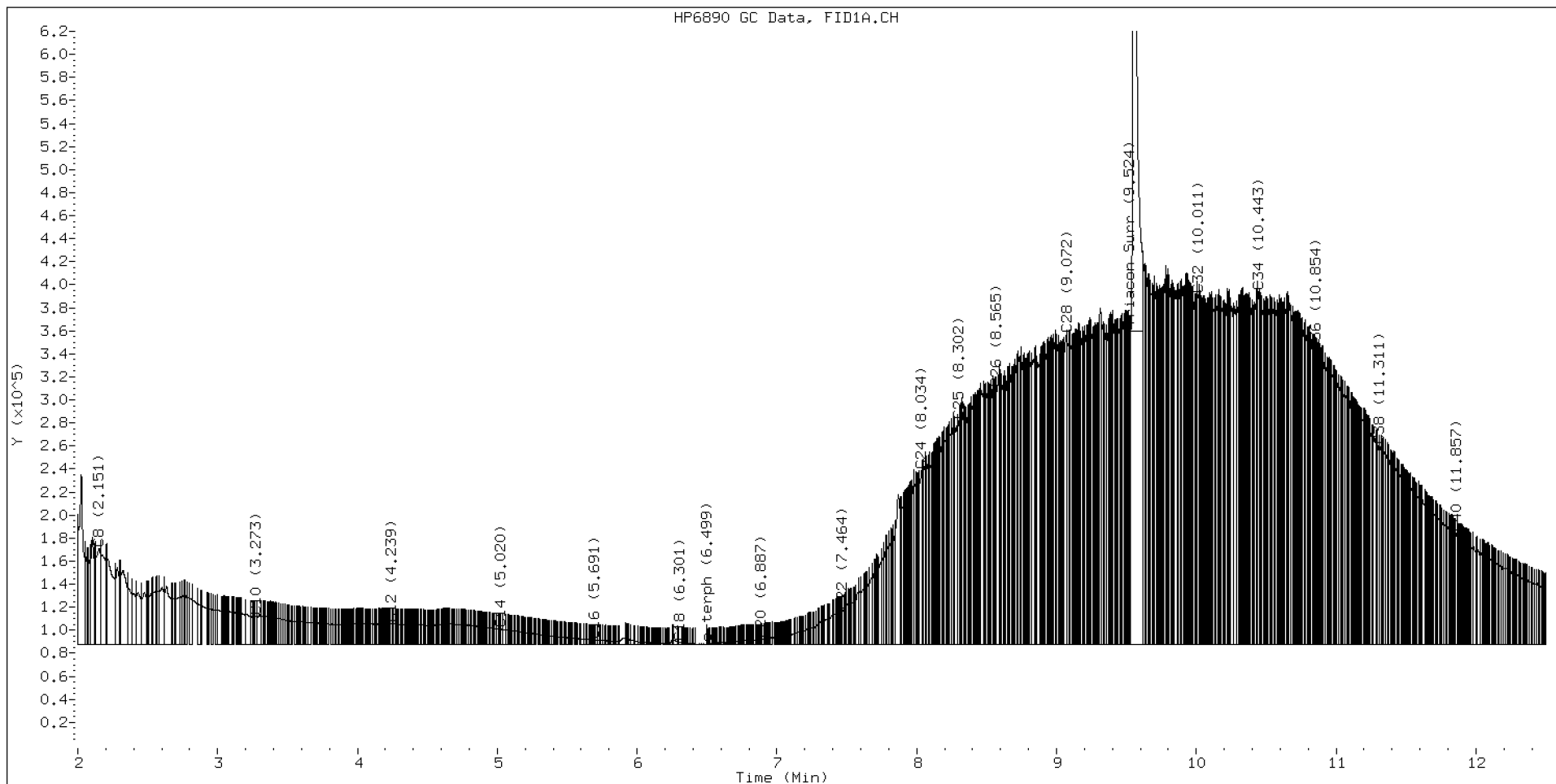
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.151	-0.005	83340	181737	WATPHD	(C12-C24)	4669475	29.3
C10	3.273	0.004	24124	29803	WATPHM	(C24-C38)	49486995	489.2
C12	4.239	-0.005	17851	9766	AK102	(C10-C25)	7430681	38.0
C14	5.020	-0.001	13143	9087	AK103	(C25-C36)	42295515	577.8
C16	5.691	0.003	3577	1419	OR.DIES	(C10-C28)	19434570	99.2
C18	6.301	0.003	1747	1733				
C20	6.887	-0.001	3928	772	JET-A	(C10-C18)	2089833	12.4
C22	7.464	-0.003	28742	14145				
C24	8.034	0.005	150683	195060				
C25	8.302	0.001	193725	142733				
C26	8.565	0.000	222104	154233				
C28	9.072	-0.005	269216	379539				
C32	10.011	-0.001	303243	166080				
C34	10.443	0.001	305814	210777				
Filter Peak	12.644	-0.008	43077	59185	CREOSOT	(C12-C22)	1595428	38.7
C36	10.854	-0.001	253799	113868				
C38	11.311	0.002	172045	186385				
C40	11.857	-0.005	96077	71008				
o-terph	6.499	-0.008	250	102				
Triacon Surr	9.559	-0.022	3627992	3323417	NAS DIES	(C10-C24)	5759449	29.5

Range Times: NW Diesel(4.244 - 8.029) AK102(3.27 - 8.30) Jet A(3.27 - 6.30)  
NW M.Oil(8.03 - 11.31) AK103(8.30 - 10.86) OR Diesel(3.27 - 9.08)

Surrogate	Area	Amount
o-Terphenyl	102	0.0
Triacontane	3323417	22.4 M

M Indicates the peak was manually integrated

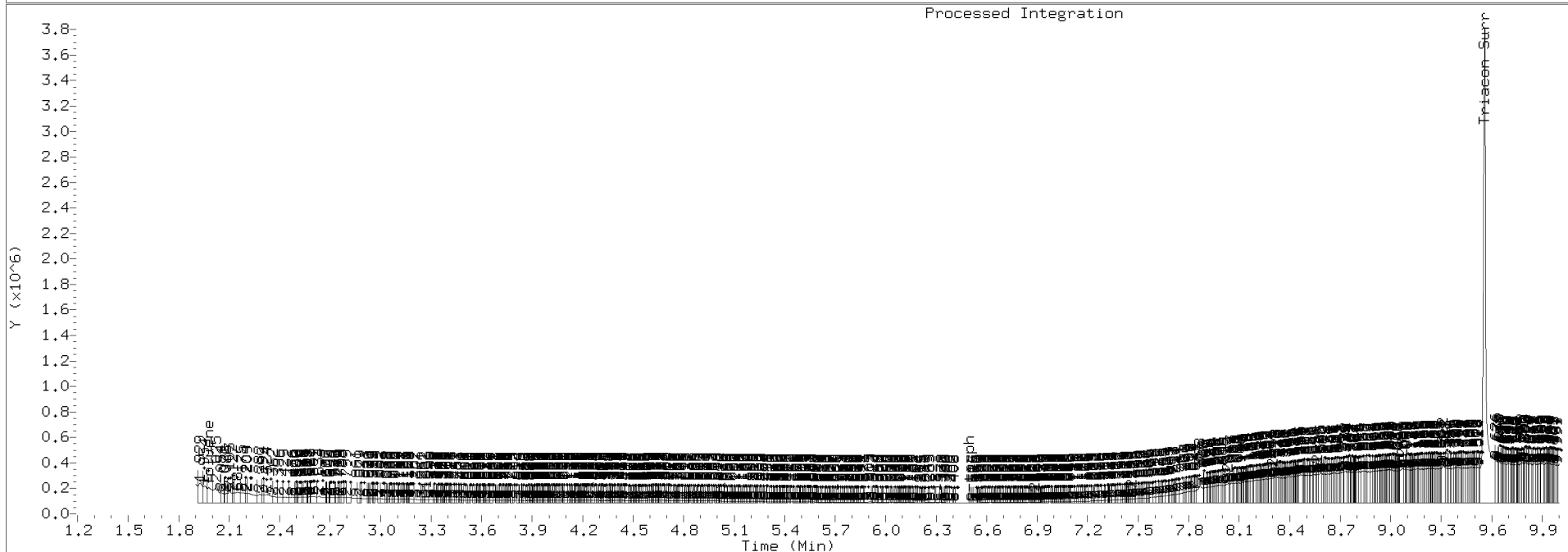
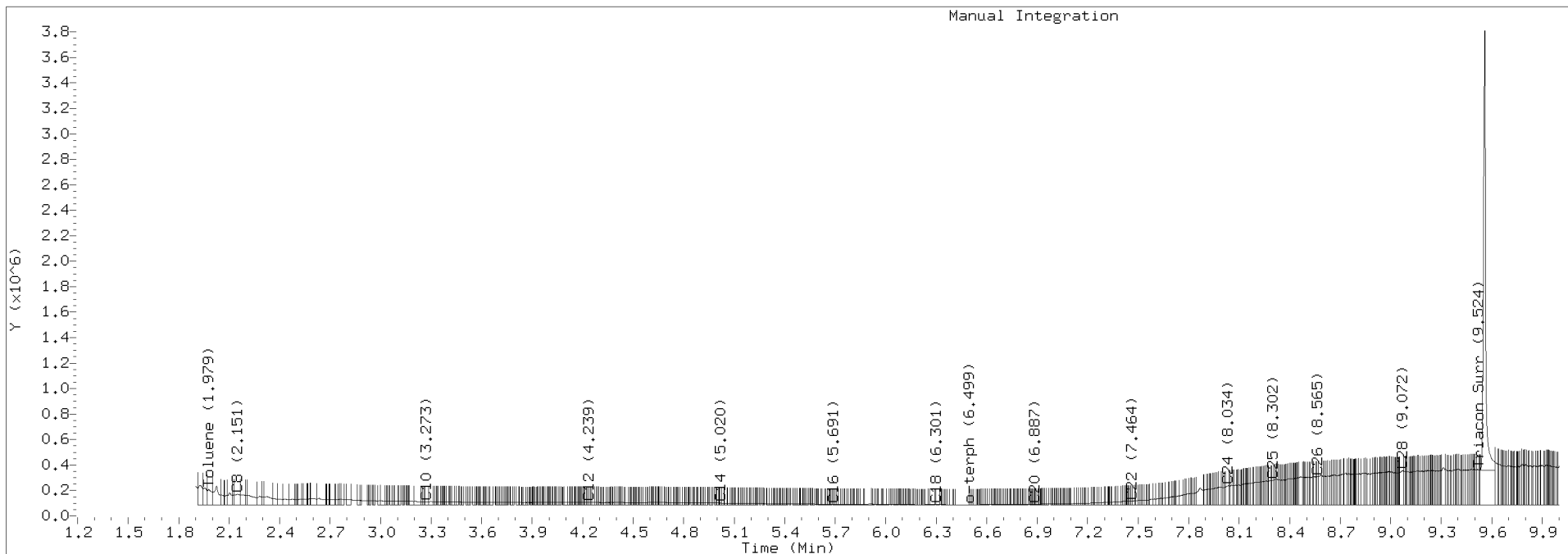
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	167898.6	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	41237.8	30-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20200602.b/420F0207.D Injection: 02-JUN-2020 09:37

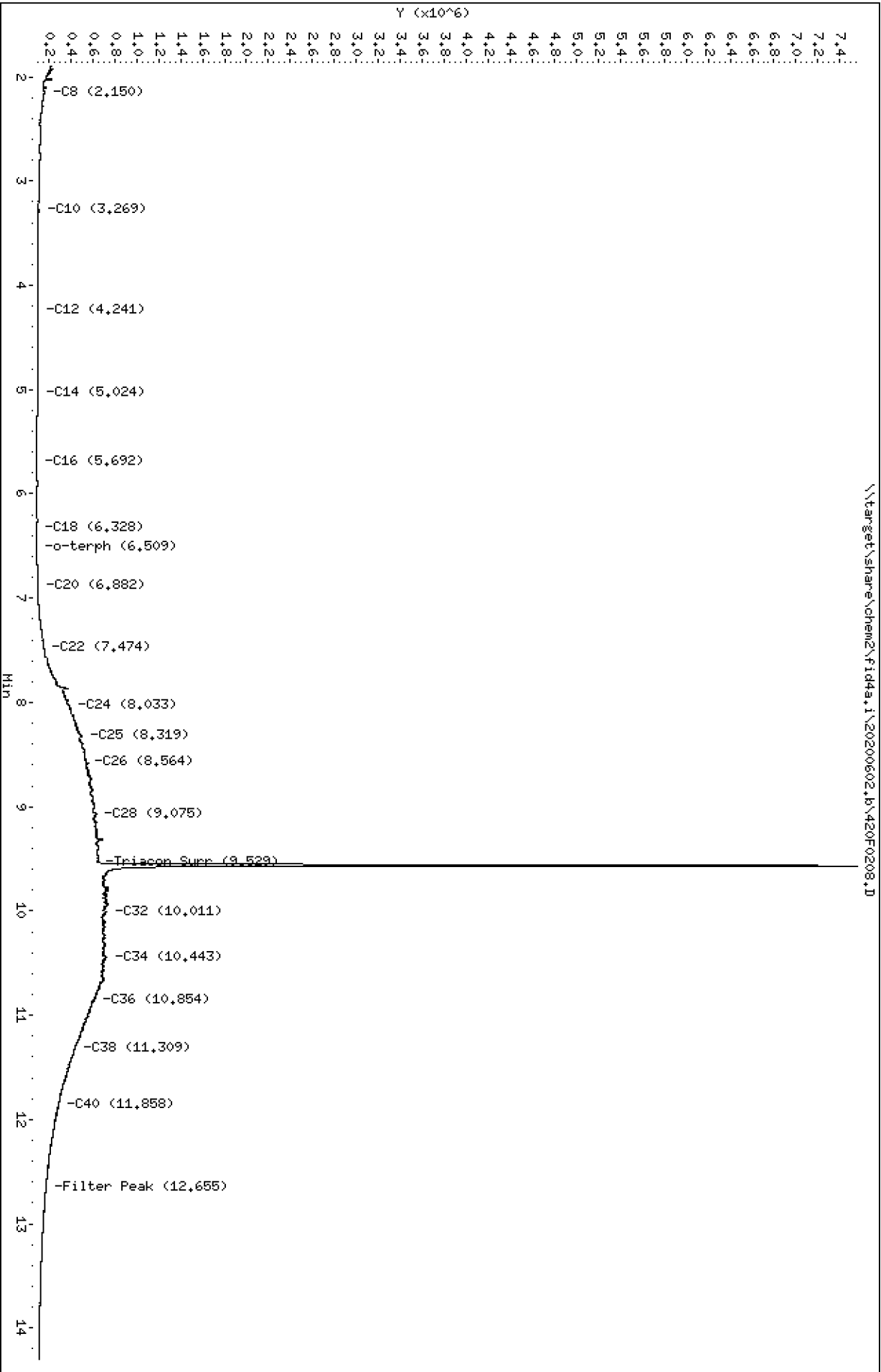
Lab ID:SIF0018-CAL3



Data File: \\target\share\chem2\fid4a,1\20200602\_b\420F0208.D  
Date : 02-JUN-2020 09:56  
Client ID:  
Sample Info: SIF0018-CAL4

Column phase: RTX-1

Instrument: fid4a,1  
Operator: CTO  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200602.b/420F0208.D  
Method: 20200602.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 06/02/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SIF0018-CAL4  
Client ID:  
Injection: 02-JUN-2020 09:56  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.150	-0.006	74771	134338	WATPHD	(C12-C24)	8555448	53.7
C10	3.269	0.001	18936	30862	WATPHM	(C24-C38)	101521093	1003.5
C12	4.241	-0.003	13823	8198	AK102	(C10-C25)	12841862	65.7
C14	5.024	0.002	10299	9083	AK103	(C25-C36)	86804393	1185.7
C16	5.692	0.004	1790	930	OR.DIES	(C10-C28)	37125765	189.4
C18	6.328	0.029	1582	935				
C20	6.882	-0.006	11147	11817	JET-A	(C10-C18)	1615268	9.6
C22	7.474	0.008	67672	77092				
C24	8.033	0.004	306185	439125				
C25	8.319	0.018	416111	1127058				
C26	8.564	-0.001	451269	313667				
C28	9.075	-0.001	539909	295930				
C32	10.011	-0.001	639854	440607				
C34	10.443	0.001	639844	540147				
Filter Peak	12.655	0.004	86624	68681	CREOSOT	(C12-C22)	2251661	54.6
C36	10.854	-0.001	524868	130805				
C38	11.309	-0.001	353422	105615				
C40	11.858	-0.004	204852	161643				
o-terph	6.509	0.002	1937	664				
Triacon Surr	9.567	-0.014	6918042	6925867	NAS DIES	(C10-C24)	9387862	48.1

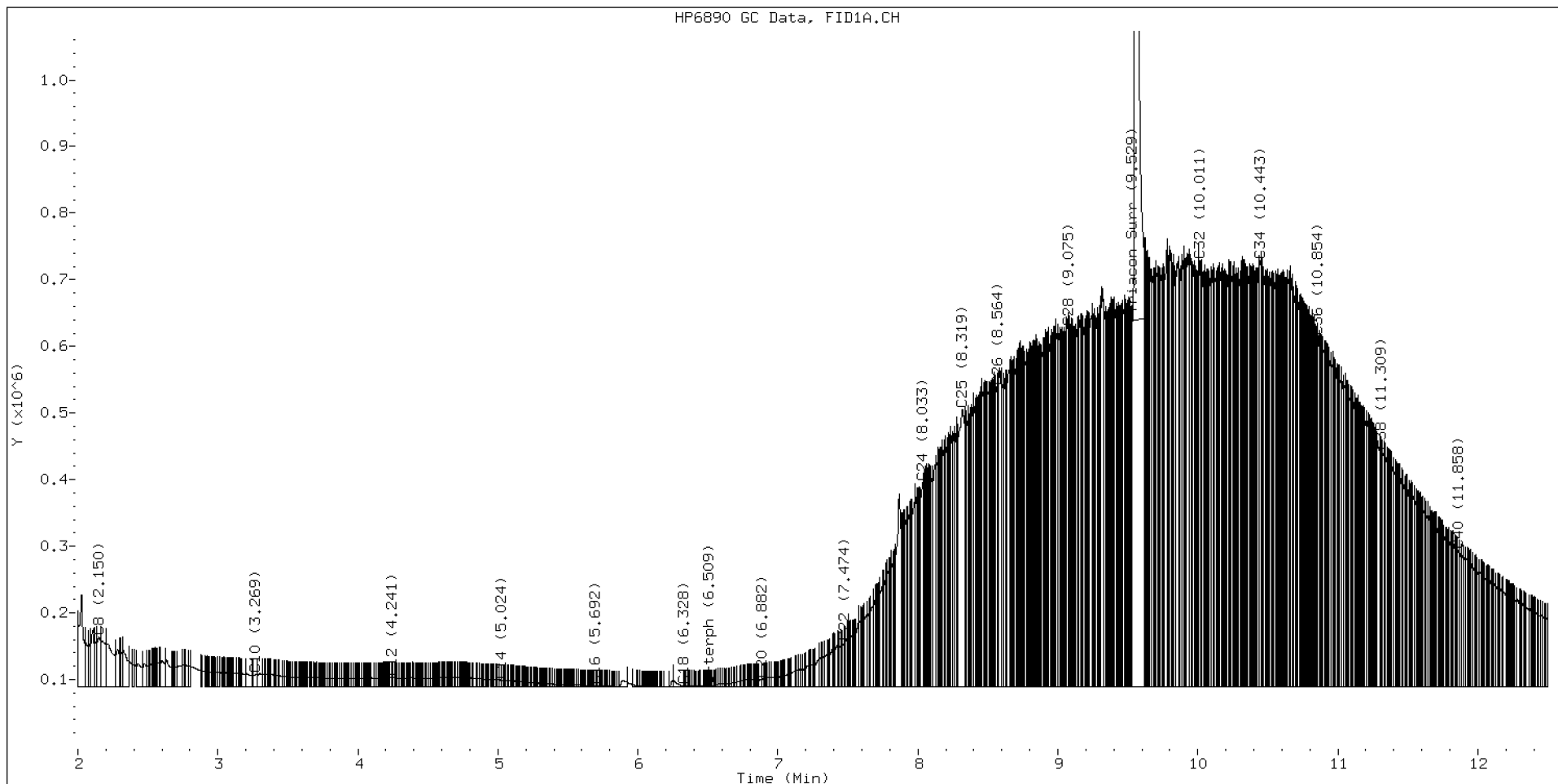
Range Times: NW Diesel(4.244 - 8.029) AK102(3.27 - 8.30) Jet A(3.27 - 6.30)  
NW M.Oil(8.03 - 11.31) AK103(8.30 - 10.86) OR Diesel(3.27 - 9.08)

Surrogate	Area	Amount
o-Terphenyl	664	0.0
Triacontane	6925867	46.7 M

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	167898.6	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	41237.8	30-MAR-2020

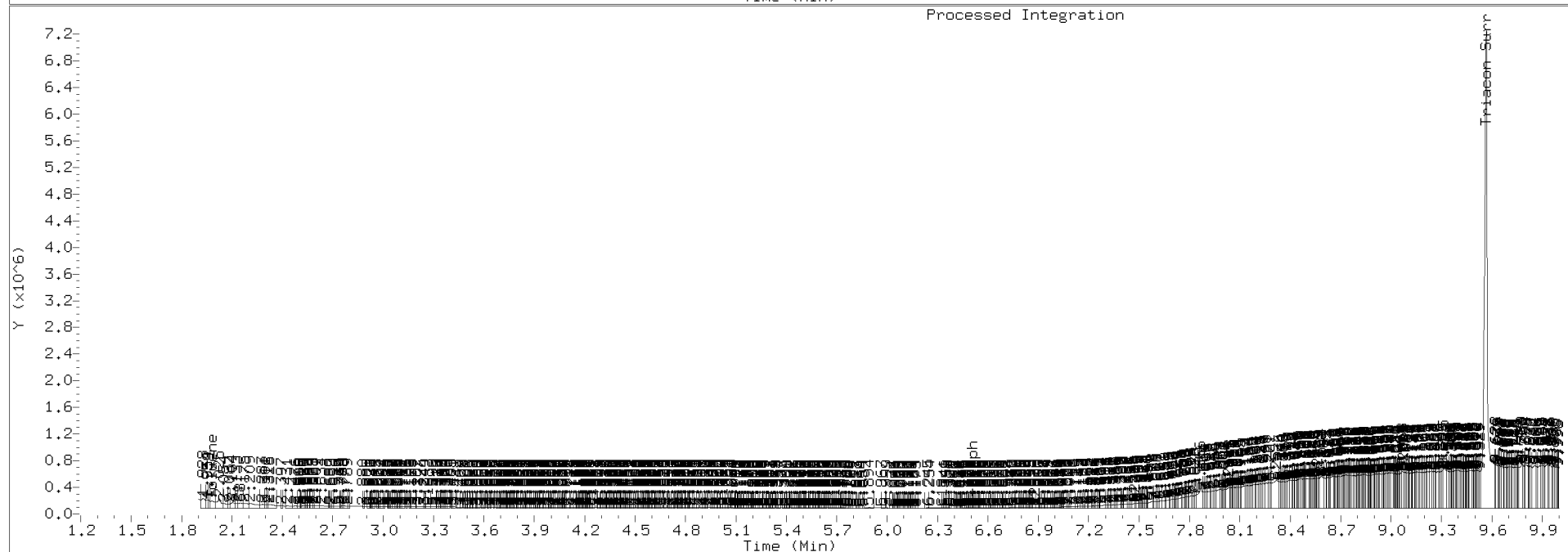
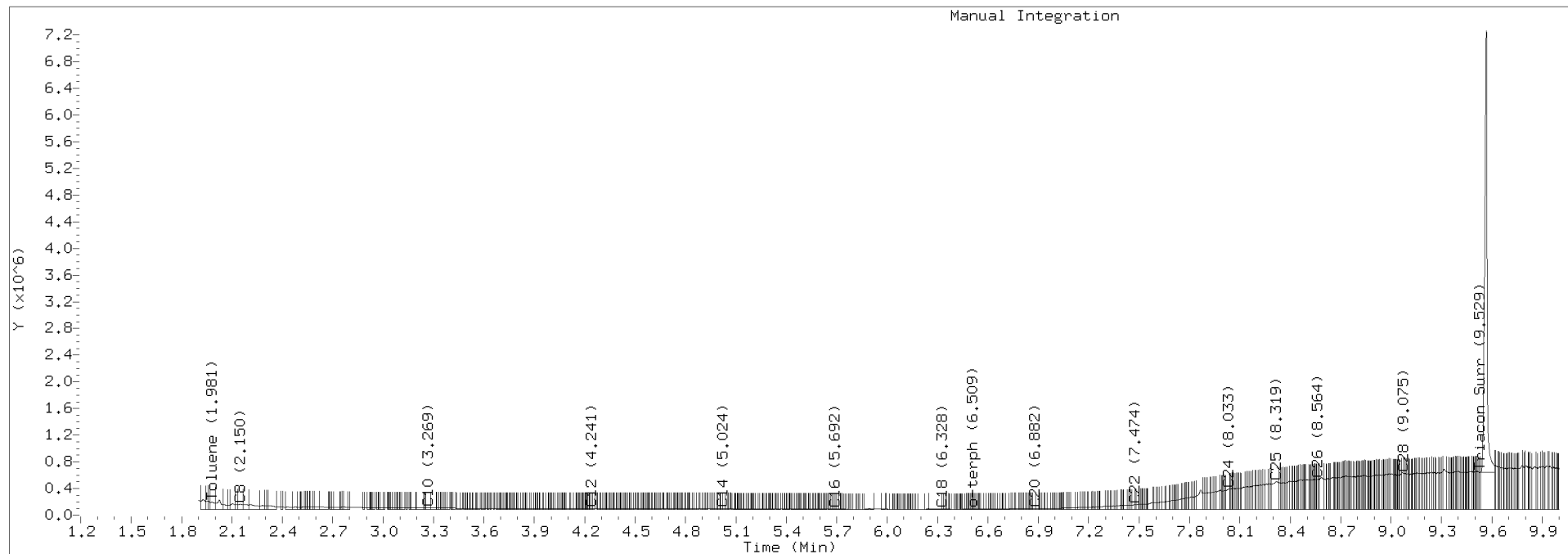




TPH Manual Integrations Report

Datafile: FID4A, 20200602.b/420F0208.D Injection: 02-JUN-2020 09:56

Lab ID:SIF0018-CAL4

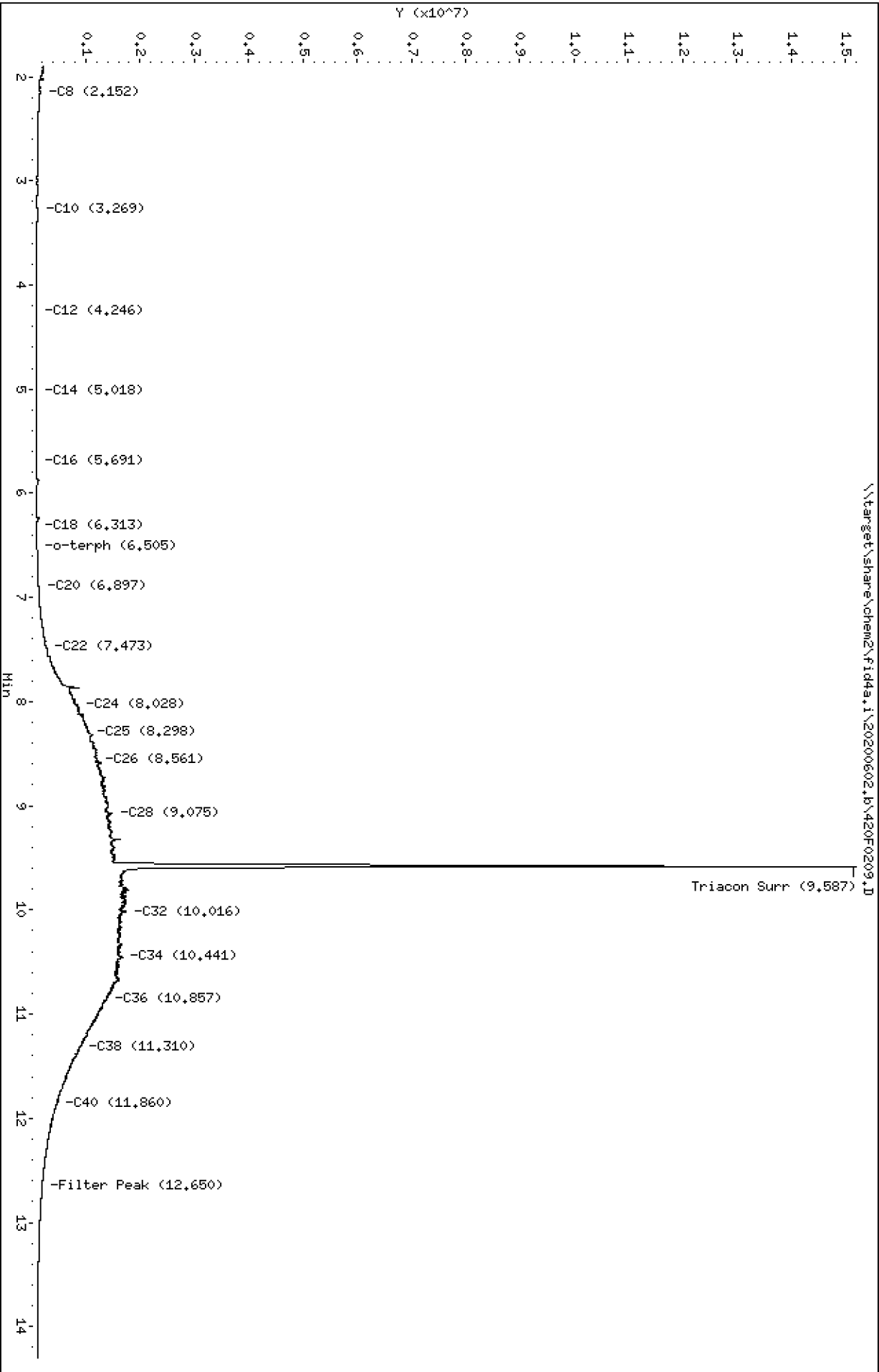


Data File: \\target\share\chem2\fid4a,1\20200602\_b\420F0209.D  
Date: 02-JUN-2020 10:16  
Client ID:  
Sample Info: SIF0018-CAL5

Instrument: fid4a,1

Column phase: RTX-1

Operator: CTO  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200602.b/420F0209.D  
Method: 20200602.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 06/02/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SIF0018-CAL5  
Client ID:  
Injection: 02-JUN-2020 10:16  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

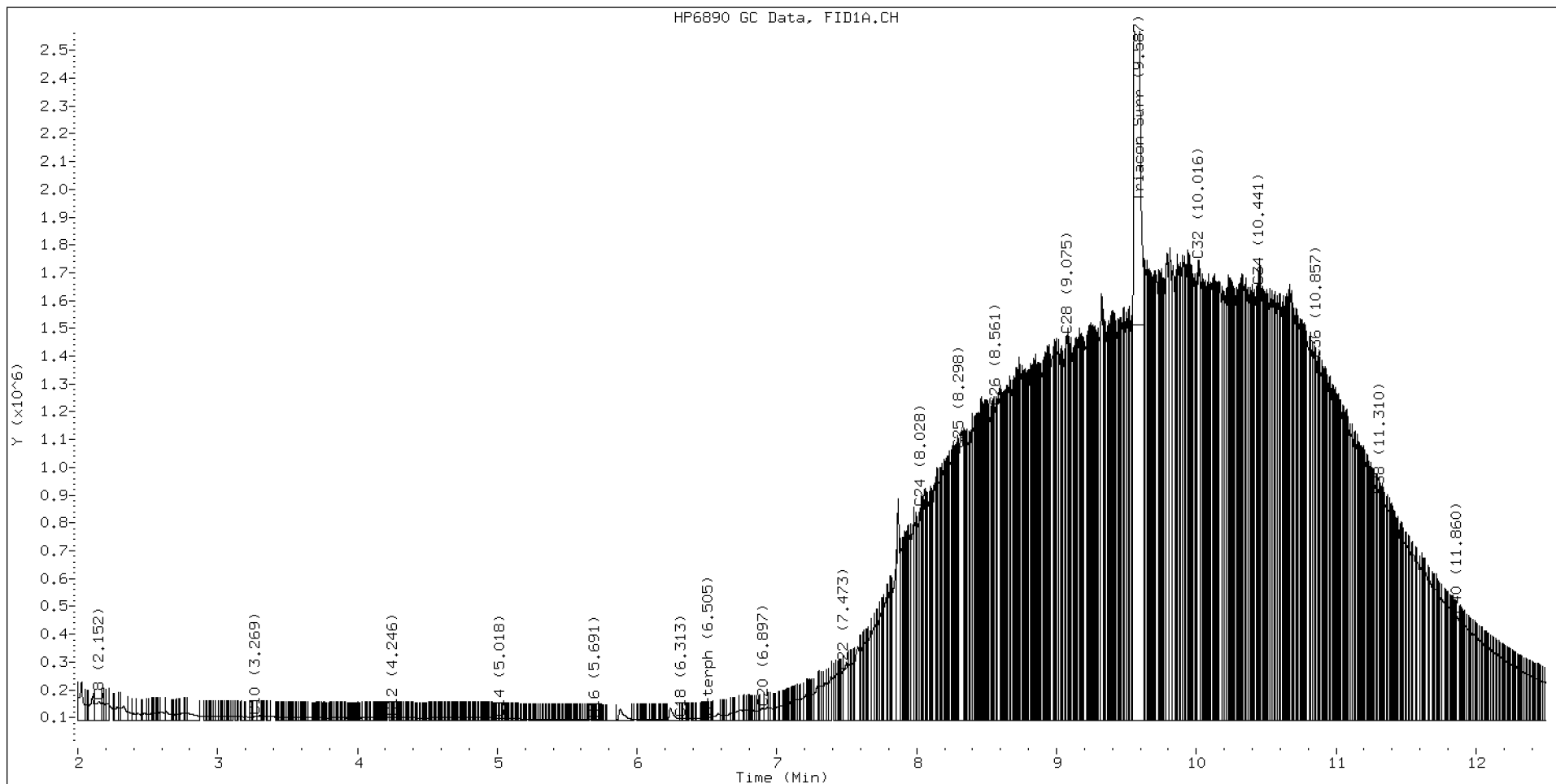
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.152	-0.004	67731	187221	WATPHD	(C12-C24)	20822485	130.7
C10	3.269	0.000	15304	22992	WATPHM	(C24-C38)	252817754	2499.0
C12	4.246	0.002	8746	2596	AK102	(C10-C25)	30167989	154.3
C14	5.018	-0.004	7386	6763	AK103	(C25-C36)	216864710	2962.4
C16	5.691	0.003	1016	400	OR.DIES	(C10-C28)	91347766	466.1
C18	6.313	0.015	5888	3404				
C20	6.897	0.009	42706	72168	JET-A	(C10-C18)	1226841	7.3
C22	7.473	0.006	175100	153872				
C24	8.028	-0.001	763007	660412				
C25	8.298	-0.003	971912	386849				
C26	8.561	-0.004	1127303	613889				
C28	9.075	-0.002	1382437	951882				
C32	10.016	0.004	1653735	2165722				
C34	10.441	-0.000	1559614	615531				
Filter Peak	12.650	-0.001	105709	42002	CREOSOT	(C12-C22)	4802696	116.5
C36	10.857	0.002	1298073	1024006				
C38	11.310	0.001	808749	281747				
C40	11.860	-0.001	376098	494366				
o-terph	6.505	-0.001	10128	3504				
Triacon Surr	9.587	0.006	13686611	17883640	NAS DIES	(C10-C24)	21349343	109.4

Range Times: NW Diesel(4.244 - 8.029) AK102(3.27 - 8.30) Jet A(3.27 - 6.30)  
NW M.Oil(8.03 - 11.31) AK103(8.30 - 10.86) OR Diesel(3.27 - 9.08)

Surrogate	Area	Amount
o-Terphenyl	3504	0.0
Triacontane	17883640	120.5 M

M Indicates the peak was manually integrated

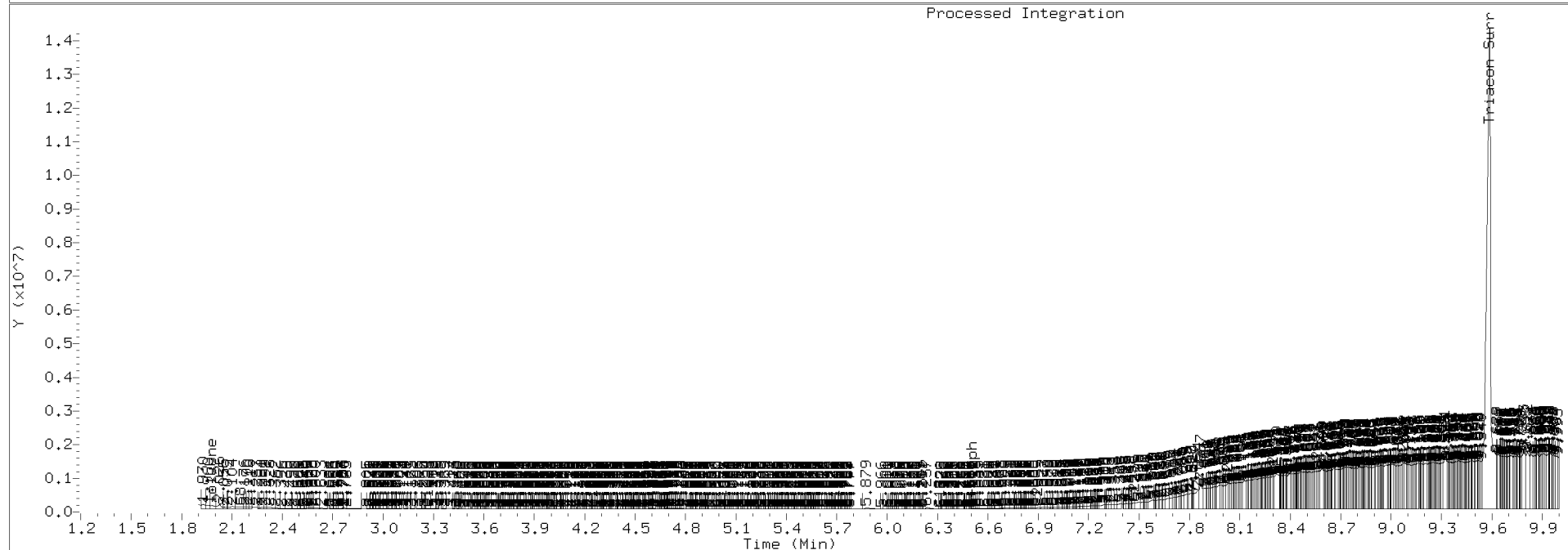
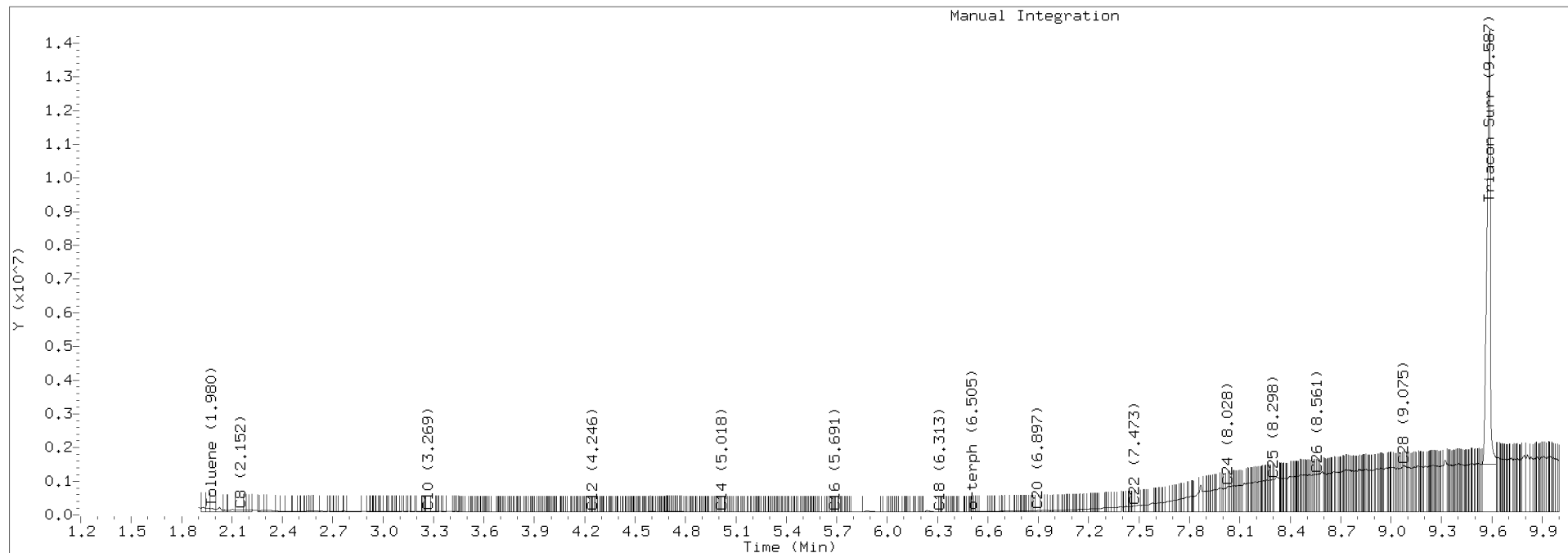
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	167898.6	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	41237.8	30-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20200602.b/420F0209.D Injection: 02-JUN-2020 10:16

Lab ID:SIF0018-CAL5



Data File: \\target\share\chem2\fid4a,1\20200602\_b\420F0210.D

Date : 02-JUN-2020 10:36

Client ID:

Sample Info: SIF0018-CAL6

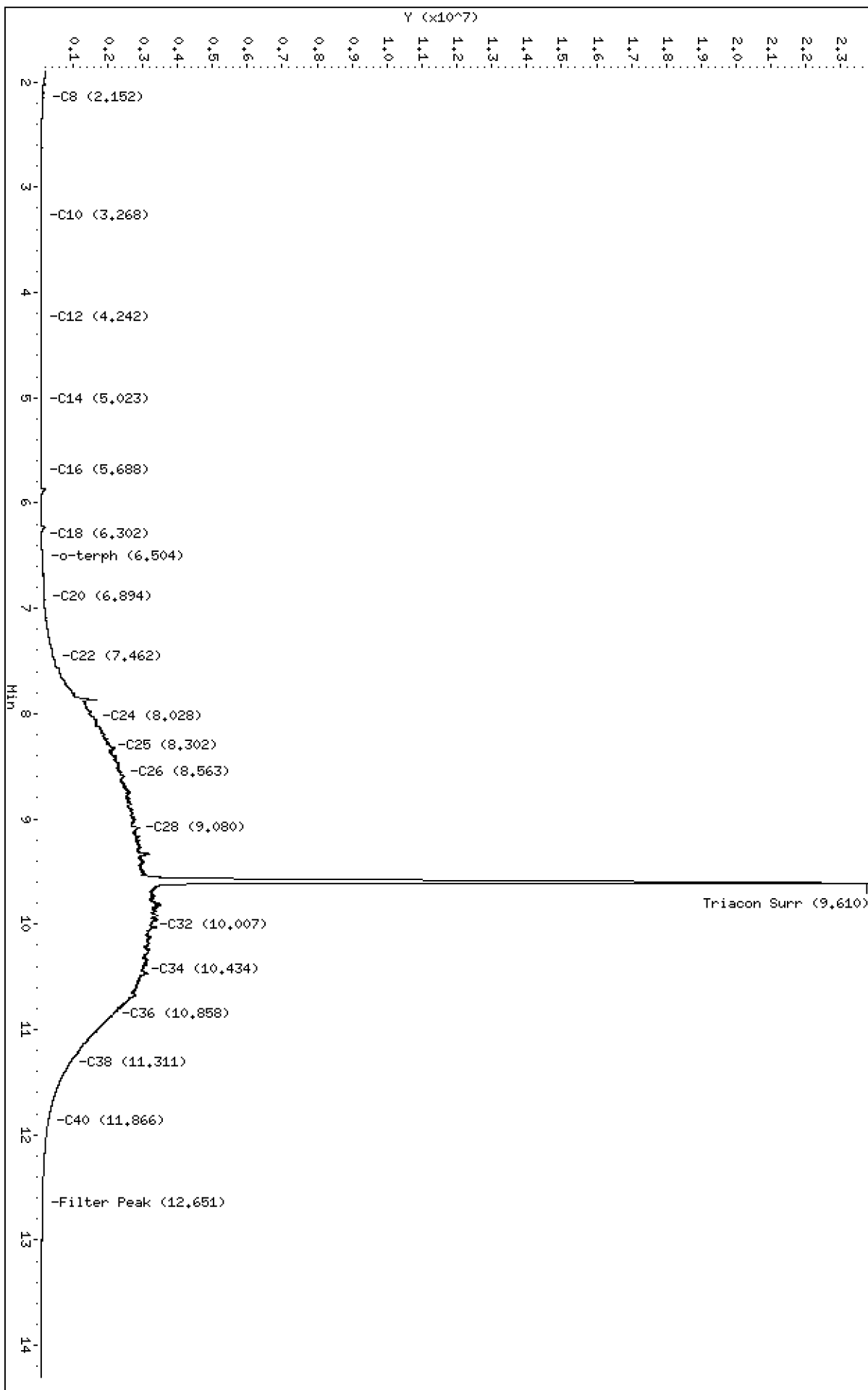
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

\\target\share\chem2\fid4a,1\20200602\_b\420F0210.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200602.b/420F0210.D  
Method: 20200602.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 06/02/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SIF0018-CAL6  
Client ID:  
Injection: 02-JUN-2020 10:36  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.152	-0.004	59759	152130	WATPHD	(C12-C24)	42097067	264.2
C10	3.268	-0.000	10906	13309	WATPHM	(C24-C38)	483979490	4784.0
C12	4.242	-0.002	3837	2144	AK102	(C10-C25)	60128324	307.6
C14	5.023	0.001	5263	2575	AK103	(C25-C36)	432878704	5913.1
C16	5.688	-0.000	5016	3894	OR.DIES	(C10-C28)	184154148	939.6
C18	6.302	0.004	14889	15133				
C20	6.894	0.006	90358	170510	JET-A	(C10-C18)	1118951	6.7
C22	7.462	-0.004	348837	170286				
C24	8.028	-0.001	1514675	949832				
C25	8.302	0.001	1962082	1344009				
C26	8.563	-0.002	2289043	1251416				
C28	9.080	0.003	2750480	953261				
C32	10.007	-0.005	3143736	1251600				
C34	10.434	-0.008	2911308	1732712				
Filter Peak	12.651	-0.000	36927	34124	CREOSOT	(C12-C22)	10157950	246.3
C36	10.858	0.003	2076086	2039708				
C38	11.311	0.001	852892	501049				
C40	11.866	0.004	208322	233733				
o-terph	6.504	-0.003	25014	7430				
Triacon Surr	9.610	0.029	20463550	34084629	NAS DIES	(C10-C24)	42231077	216.4

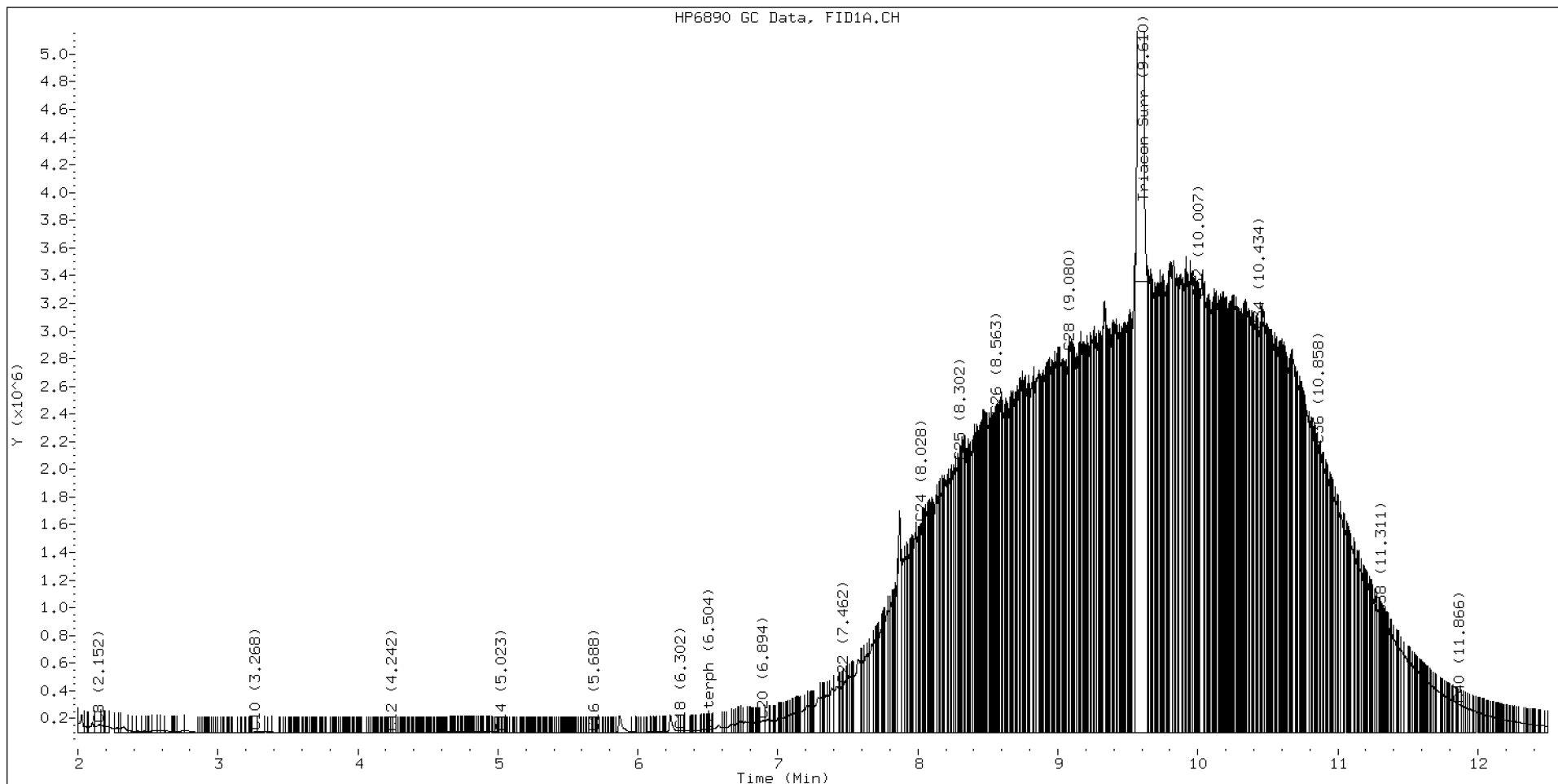
Range Times: NW Diesel(4.244 - 8.029) AK102(3.27 - 8.30) Jet A(3.27 - 6.30)  
NW M.Oil(8.03 - 11.31) AK103(8.30 - 10.86) OR Diesel(3.27 - 9.08)

Surrogate	Area	Amount
o-Terphenyl	7430	0.0
Triacontane	34084629	229.7 M

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	167898.6	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	41237.8	30-MAR-2020

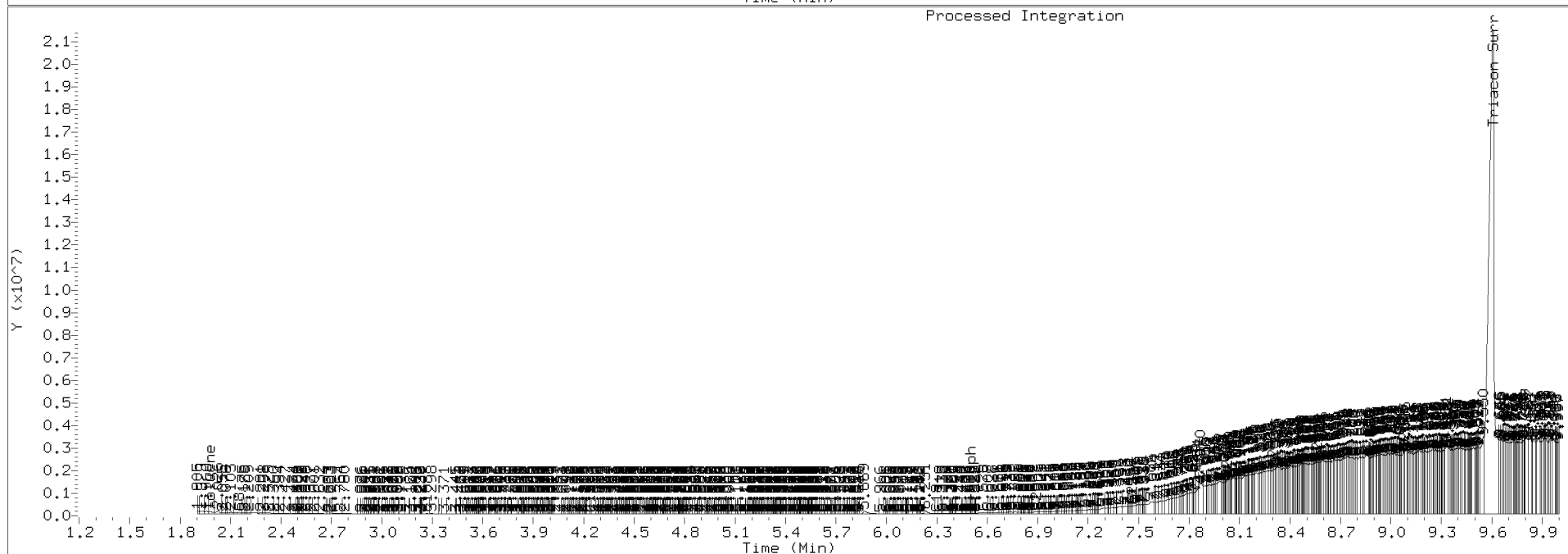
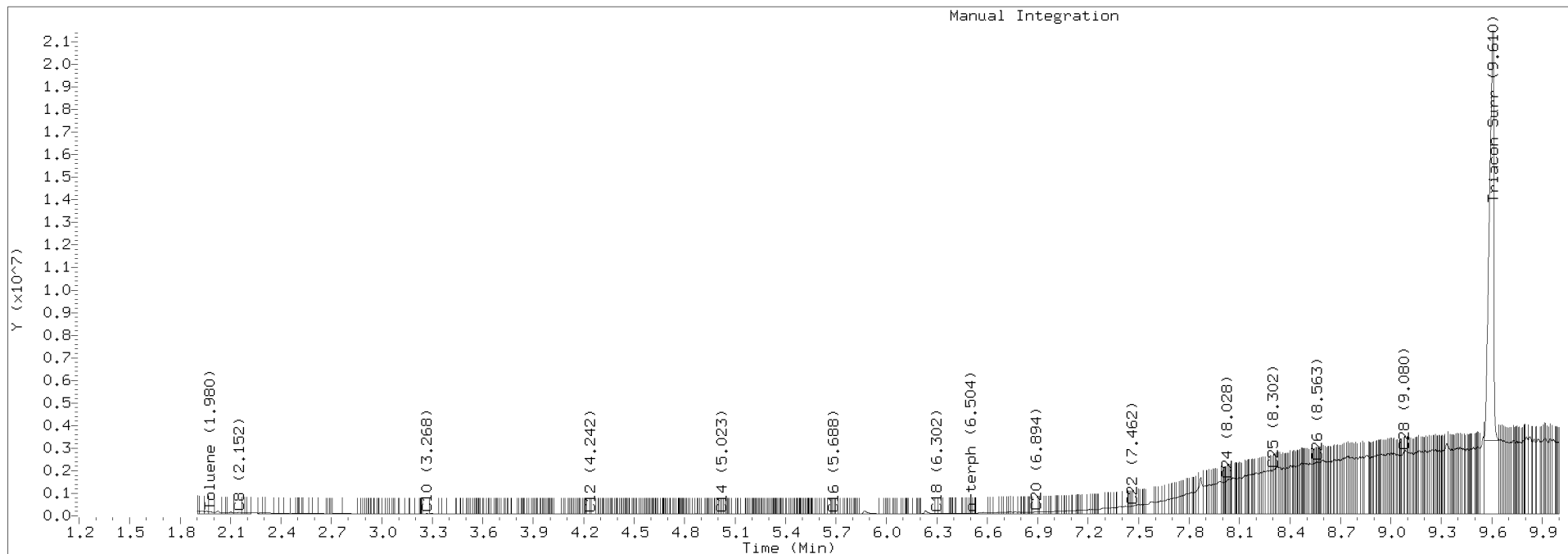




TPH Manual Integrations Report

Datafile: FID4A, 20200602.b/420F0210.D Injection: 02-JUN-2020 10:36

Lab ID:SIF0018-CAL6



Data File: \\target\share\chem2\fid4a,1\20200602\_b\420F0211.D

Date : 02-JUN-2020 10:55

Client ID:

Sample Info: SIF0018-SCV1

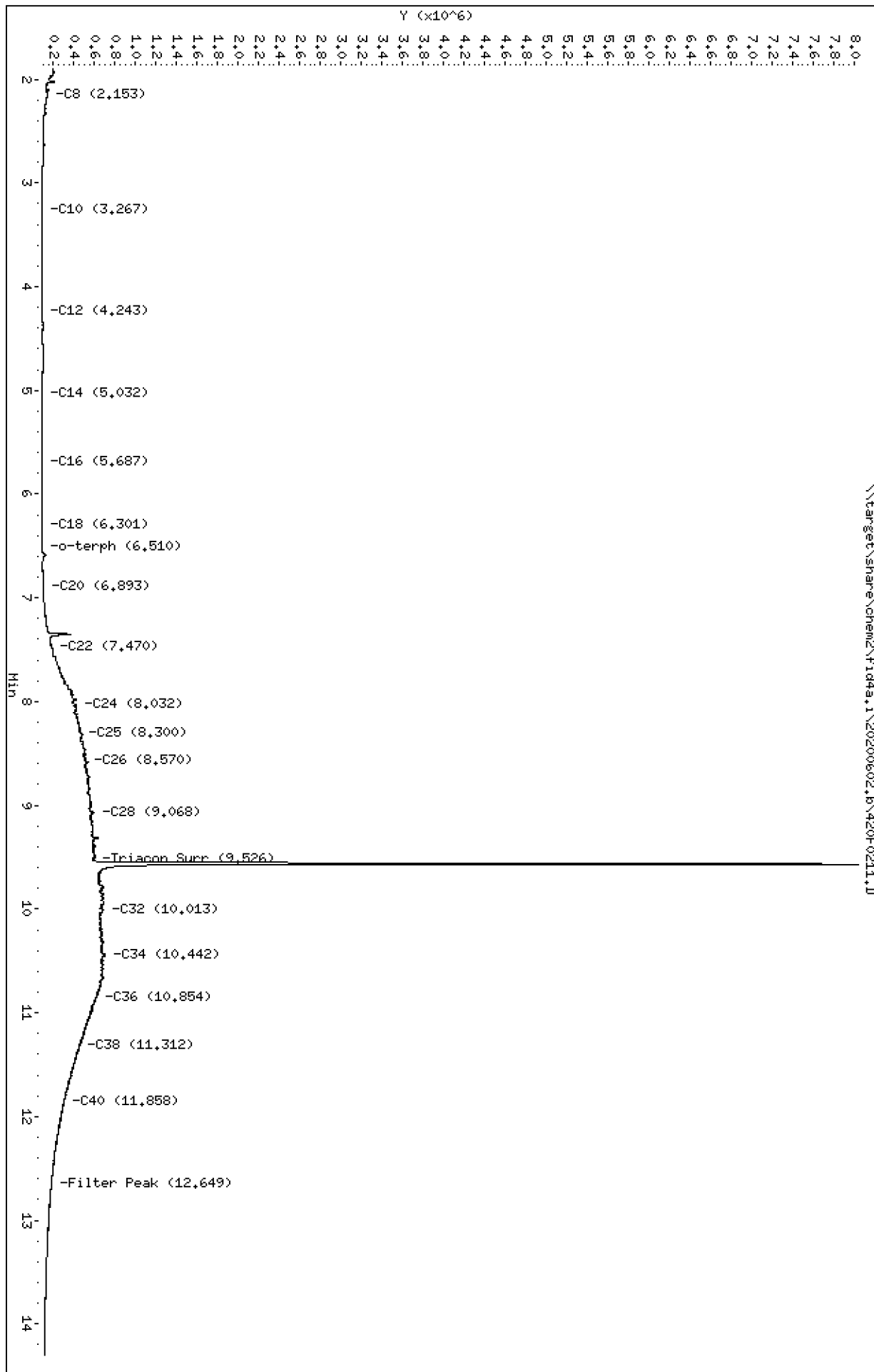
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

\\target\share\chem2\fid4a,1\20200602\_b\420F0211.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200602.b/420F0211.D  
Method: 20200602.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 06/02/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SIF0018-SCV1  
Client ID:  
Injection: 02-JUN-2020 10:55  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

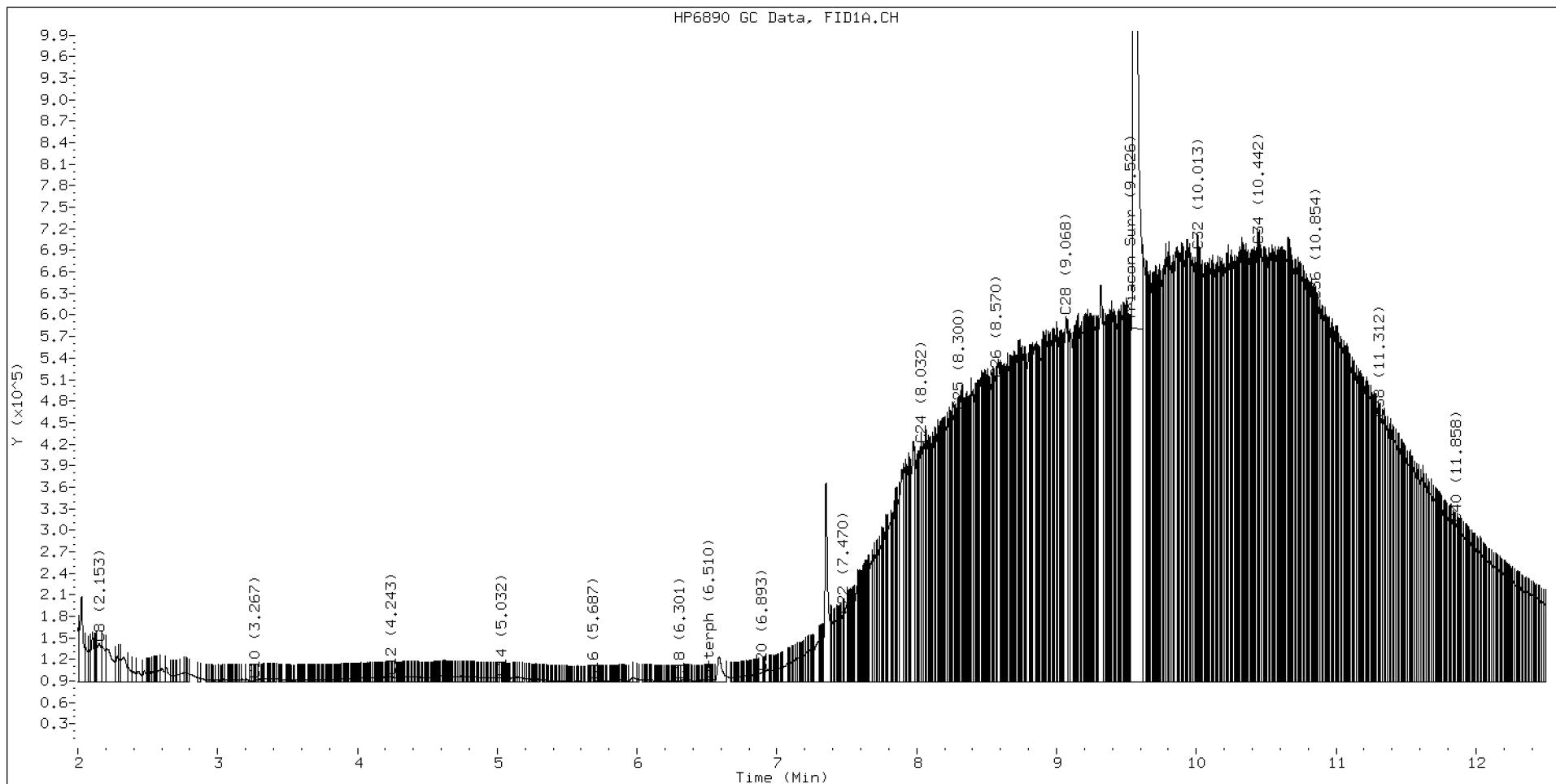
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.153	-0.003	53793	112352	WATPHD	(C12-C24)	10130617	63.6
C10	3.267	-0.001	3184	1798	WATPHM	(C24-C38)	96339891	952.3
C12	4.243	-0.001	6309	3433	AK102	(C10-C25)	13696411	70.1
C14	5.032	0.010	5041	1965	AK103	(C25-C36)	81704578	1116.1
C16	5.687	-0.002	418	225	OR.DIES	(C10-C28)	36730595	187.4
C18	6.301	0.002	1584	1331				
C20	6.893	0.005	13152	18749	JET-A	(C10-C18)	637720	3.8
C22	7.470	0.003	92369	58795				
C24	8.032	0.002	330875	354349				
C25	8.300	-0.001	376891	169098				
C26	8.570	0.005	421264	147085				
C28	9.068	-0.008	508527	807405				
C32	10.013	0.001	600890	237363				
C34	10.442	0.001	608272	242751				
Filter Peak	12.649	-0.003	94447	119849	CREOSOT	(C12-C22)	2566539	62.2
C36	10.854	-0.001	530087	263622				
C38	11.312	0.002	366594	183102				
C40	11.858	-0.003	220172	173259				
o-terph	6.510	0.003	2949	1966				
Triacon Surr	9.567	-0.013	7460477	7161172	NAS DIES	(C10-C24)	10346316	53.0

Range Times: NW Diesel(4.244 - 8.029) AK102(3.27 - 8.30) Jet A(3.27 - 6.30)  
NW M.Oil(8.03 - 11.31) AK103(8.30 - 10.86) OR Diesel(3.27 - 9.08)

Surrogate	Area	Amount
o-Terphenyl	1966	0.0
Triacontane	7161172	48.3 M

M Indicates the peak was manually integrated

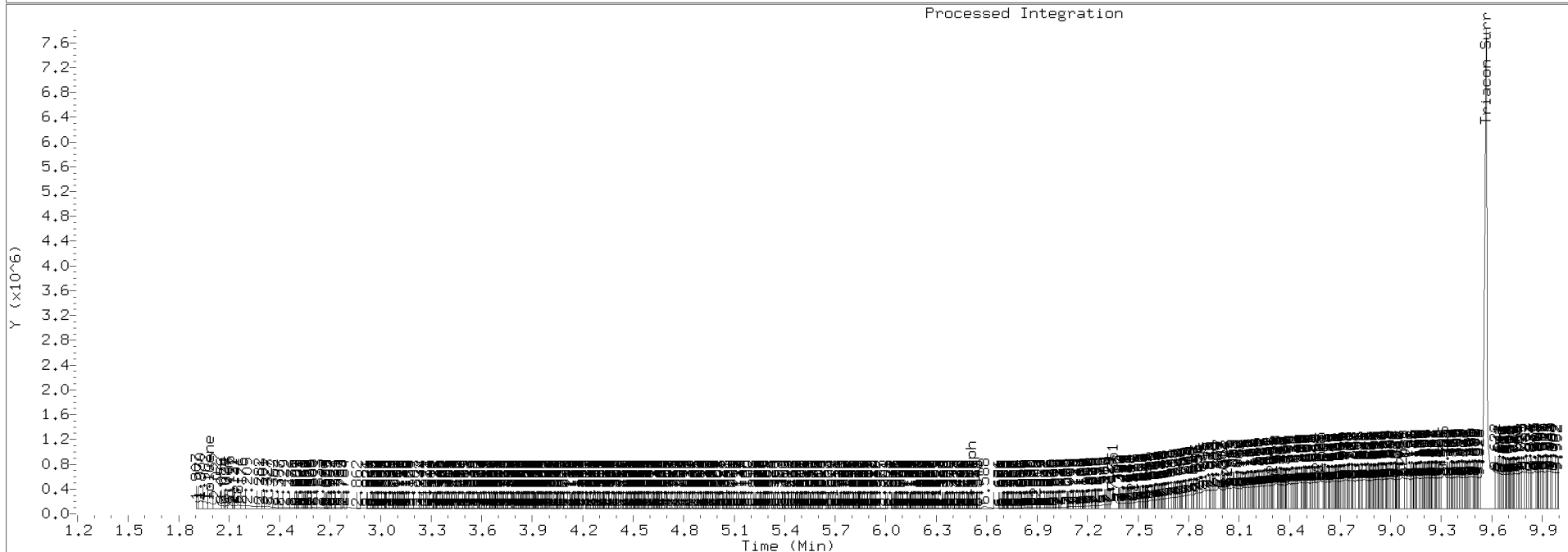
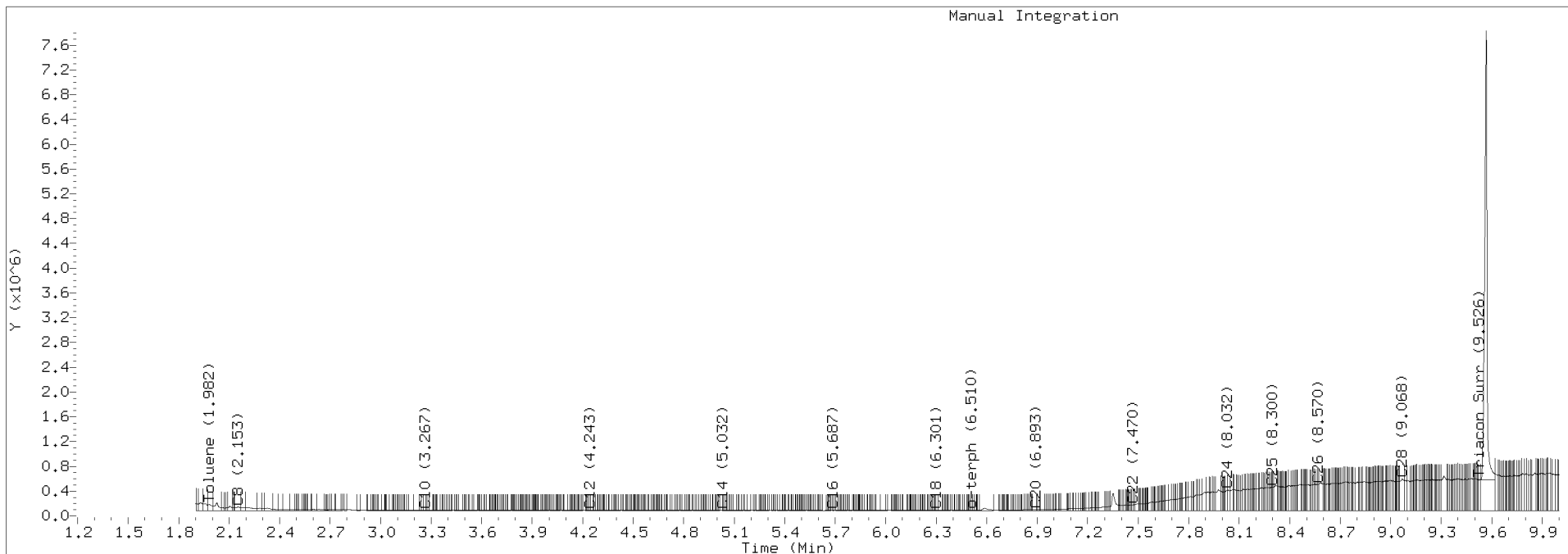
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	167898.6	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	41237.8	30-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20200602.b/420F0211.D Injection: 02-JUN-2020 10:55

Lab ID:SIF0018-SCV1





## GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20200810.b

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1	10-AUG-2020	08:11	420H1001.D	1	RINSE	
2	10-AUG-2020	08:30	420H1002.D	1	RINSE	
3	10-AUG-2020	08:50	420H1003.D	1	SEQ-IBL1	
4	10-AUG-2020	09:10	420H1004.D	1	SEQ-IBL2	
5	10-AUG-2020	09:30	420H1005.D	1	SEQ-ICV1	
6	10-AUG-2020	09:49	420H1006.D	1	SEQ-ICV2	
7	10-AUG-2020	10:09	420H1007.D	1	I006965	
8	10-AUG-2020	11:44	420H1008.D	1	SEQ-CAL1	
9	10-AUG-2020	12:03	420H1009.D	1	SEQ-CAL2	
10	10-AUG-2020	12:23	420H1010.D	1	SEQ-CAL3	
11	10-AUG-2020	12:43	420H1011.D	1	SEQ-CAL4	
12	10-AUG-2020	13:02	420H1012.D	1	SEQ-CAL5	
13	10-AUG-2020	13:22	420H1013.D	1	SEQ-CAL6	
14	10-AUG-2020	15:15	420H1014.D	1	BIH0129-BLK1	
15	10-AUG-2020	15:34	420H1015.D	1	BIH0129-BS1	
16	10-AUG-2020	15:54	420H1016.D	1	20H0053-01	
17	10-AUG-2020	16:14	420H1017.D	1	20H0058-01	
18	10-AUG-2020	16:34	420H1018.D	1	20H0058-02	
19	10-AUG-2020	16:53	420H1019.D	1	20H0058-03	
20	10-AUG-2020	17:13	420H1020.D	1	20H0060-01	
21	10-AUG-2020	17:33	420H1021.D	1	20H0060-02	
22	10-AUG-2020	17:52	420H1022.D	1	20H0060-03	
23	10-AUG-2020	18:12	420H1023.D	1	BIH0058-BLK1	
24	10-AUG-2020	18:32	420H1024.D	1	BIH0058-BS1	
25	10-AUG-2020	18:52	420H1025.D	1	20G0289-03	
26	10-AUG-2020	19:11	420H1026.D	1	20G0291-01	
27	10-AUG-2020	19:31	420H1027.D	1	SEQ-CCV1	
28	10-AUG-2020	19:51	420H1028.D	1	SEQ-CCV2	
29	10-AUG-2020	20:11	420H1029.D	1	SEQ-ICV3	
30	10-AUG-2020	20:30	420H1030.D	1	BIH0100-BLK1	
31	10-AUG-2020	20:50	420H1031.D	1	BIH0100-BS1	
32	10-AUG-2020	21:10	420H1032.D	1	BIH0100-BSD1	
33	10-AUG-2020	21:29	420H1033.D	1	20G0287-01	
34	10-AUG-2020	21:49	420H1034.D	1	BIH0100-MS1	
35	10-AUG-2020	22:09	420H1035.D	1	BIH0100-MSD1	
36	10-AUG-2020	22:28	420H1036.D	1	BIH0113-BLK1	
37	10-AUG-2020	22:48	420H1037.D	1	BIH0113-BS1	
38	10-AUG-2020	23:08	420H1038.D	1	BIH0113-BSD1	
39	10-AUG-2020	23:27	420H1039.D	1	20H0047-01	
40	10-AUG-2020	23:47	420H1040.D	1	20H0047-02	
41	11-AUG-2020	00:06	420H1041.D	1	20H0047-03	
42	11-AUG-2020	00:26	420H1042.D	1	SEQ-CCV3	
43	11-AUG-2020	00:46	420H1043.D	1	SEQ-CCV4	
44	11-AUG-2020	01:05	420H1044.D	1	SEQ-CCV5	
45	11-AUG-2020	01:25	420H1045.D	1	BIH0166-BLK1	
46	11-AUG-2020	01:44	420H1046.D	1	BIH0166-BS1	
47	11-AUG-2020	02:04	420H1047.D	1	BIH0166-BSD1	
48	11-AUG-2020	02:23	420H1048.D	1	20H0082-01	
49	11-AUG-2020	02:43	420H1049.D	1	BIH0166-MS1	
50	11-AUG-2020	03:03	420H1050.D	1	BIH0166-MSD1	



## GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20200810.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
51	11-AUG-2020	03:22	420H1051.D	1	20H0082-02	
52	11-AUG-2020	03:42	420H1052.D	1	20H0082-03	
53	11-AUG-2020	04:01	420H1053.D	1	20H0082-04	
54	11-AUG-2020	04:21	420H1054.D	1	20H0082-05	
55	11-AUG-2020	04:40	420H1055.D	1	20H0082-06	
56	11-AUG-2020	05:00	420H1056.D	1	20H0082-07	
57	11-AUG-2020	05:19	420H1057.D	1	20H0082-08	
58	11-AUG-2020	05:39	420H1058.D	1	20H0082-09	
59	11-AUG-2020	05:58	420H1059.D	1	SEQ-CCV6	
60	11-AUG-2020	06:18	420H1060.D	1	SEQ-CCV7	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20200810.b

ARI Job No.: RINS Method: FID4TPH.m Instrument: fid4a.i Date: 10-AUG-2020

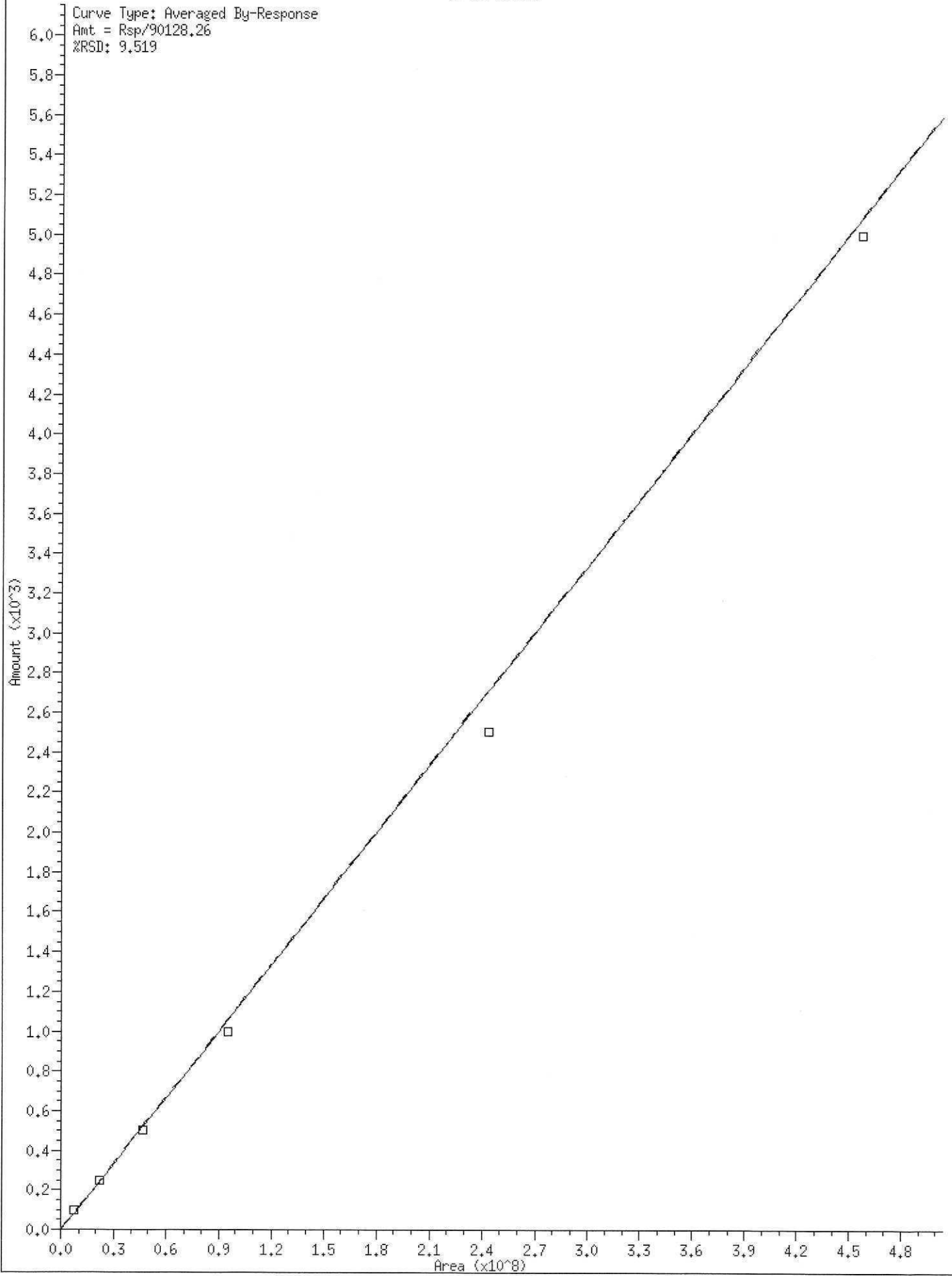
Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0811	420H1001.D	RINSE		1	NO MANUAL INTEGRATION
0830	420H1002.D	RINSE		1	NO MANUAL INTEGRATION
0850	420H1003.D	SEQ-IBL1		1	NO MANUAL INTEGRATION
0910	420H1004.D	SEQ-IBL2		1	NO MANUAL INTEGRATION
0930	420H1005.D	SEQ-ICV1		1	NO MANUAL INTEGRATION
0949	420H1006.D	SEQ-ICV2		1	NO MANUAL INTEGRATION
1009	420H1007.D	I006965		1	NO MANUAL INTEGRATION
1144	420H1008.D	SEQ-CAL1		1	NO MANUAL INTEGRATION
1203	420H1009.D	SEQ-CAL2		1	o-terph,
1223	420H1010.D	SEQ-CAL3		1	o-terph,
1243	420H1011.D	SEQ-CAL4		1	o-terph,
1302	420H1012.D	SEQ-CAL5		1	o-terph,
1322	420H1013.D	SEQ-CAL6		1	o-terph,

Security Status Report

Date: 10-Aug-2020 15:38

420H1001.D	Data Locked	christopher, 10-Aug-2020 15:38
420H1002.D	Data Locked	christopher, 10-Aug-2020 15:38
420H1003.D	Data Locked	christopher, 10-Aug-2020 15:38
420H1004.D	Data Locked	christopher, 10-Aug-2020 15:38
420H1005.D	Data Locked	christopher, 10-Aug-2020 15:38
420H1006.D	Data Locked	christopher, 10-Aug-2020 15:38
420H1007.D	Data Locked	christopher, 10-Aug-2020 15:38
420H1008.D	Data Locked	christopher, 10-Aug-2020 15:38
420H1009.D	Data Locked	christopher, 10-Aug-2020 15:38
420H1010.D	Data Locked	christopher, 10-Aug-2020 15:38
420H1011.D	Data Locked	christopher, 10-Aug-2020 15:38
420H1012.D	Data Locked	christopher, 10-Aug-2020 15:38
420H1013.D	Data Locked	christopher, 10-Aug-2020 15:38

Curve Type: Averaged By-Response  
Amt = Rsp/90128.26  
%RSD: 9.519

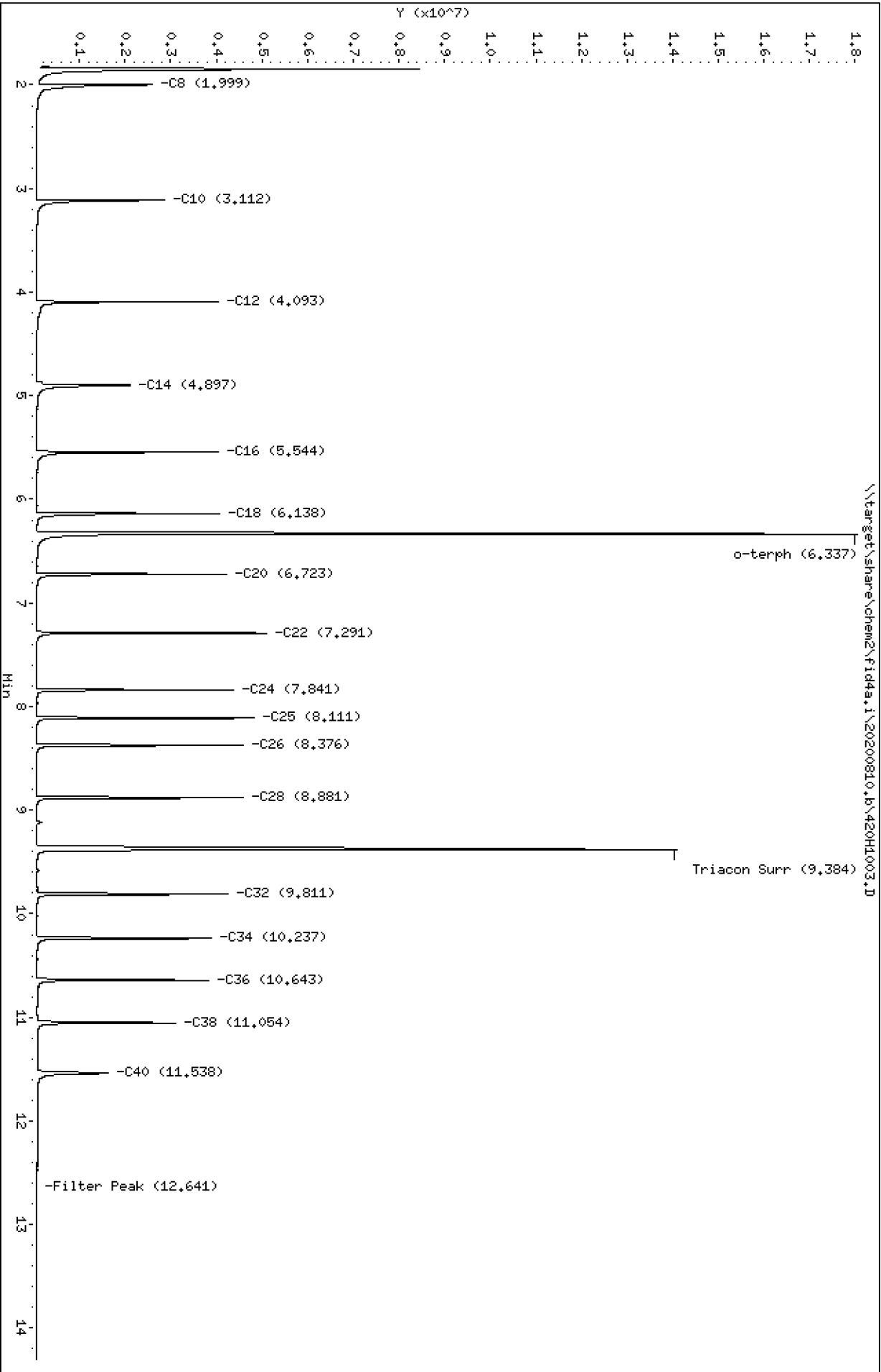


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Date: 10-AUG-2020 08:50  
Client ID:  
Sample Info: SEQ-IBL1

Instrument: fid4a,1

Column phase: RTX-1

Operator: CTO  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200810.b/420H1003.D  
Method: 20200810.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 08/10/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-IBL1  
Client ID:  
Injection: 10-AUG-2020 08:50  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

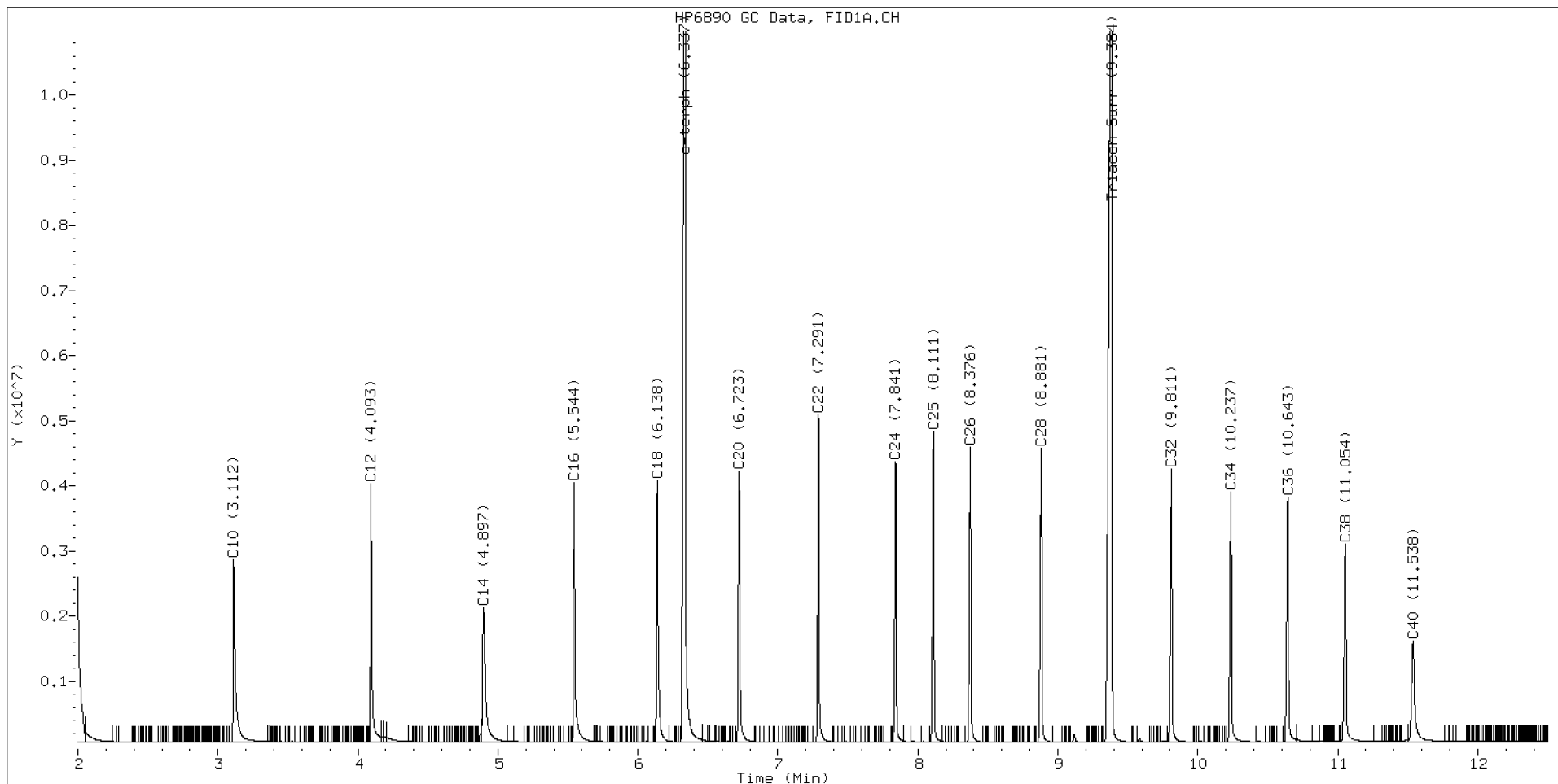
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.999	0.000	2540721	3264726	WATPHD	(C12-C24)	22306304	140.0
C10	3.112	0.000	2810194	3442755	WATPHM	(C24-C38)	26298631	260.0
C12	4.093	0.000	3978222	2976186	AK102	(C10-C25)	29087658	148.8
C14	4.897	0.000	2063035	3357028	AK103	(C25-C36)	22563075	308.2
C16	5.544	0.000	3983822	3466435	OR.DIES	(C10-C28)	40321674	205.7
C18	6.138	0.000	4016286	3502383				
C20	6.723	0.000	4164481	3619197	JET-A	(C10-C18)	18085569	107.7
C22	7.291	0.000	5031917	3645250				
C24	7.841	0.000	4315294	3204971				
C25	8.111	0.000	4771856	3679162				
C26	8.376	0.000	4526404	3716371				
C28	8.881	0.000	4514102	3764243				
C32	9.811	0.000	4195592	3775835				
C34	10.237	0.000	3847931	3544071				
Filter Peak	12.641	0.000	14794	6644	CREOSOT	(C12-C22)	19024422	211.1
C36	10.643	0.000	3772310	3456667				
C38	11.054	0.000	3044407	3312686				
C40	11.538	0.000	1563052	2782086				
o-terph	6.337	0.000	17989088	19759793				
Triacon Surr	9.384	0.000	14032526	21215524	NAS DIES	(C10-C24)	28998485	148.6

Range Times: NW Diesel(4.093 - 7.841) AK102(3.11 - 8.11) Jet A(3.11 - 6.14)  
NW M.Oil(7.84 - 11.05) AK103(8.11 - 10.64) OR Diesel(3.11 - 8.88)

Surrogate	Area	Amount
o-Terphenyl	19759793	96.5
Triacontane	21215524	143.0

M Indicates the peak was manually integrated

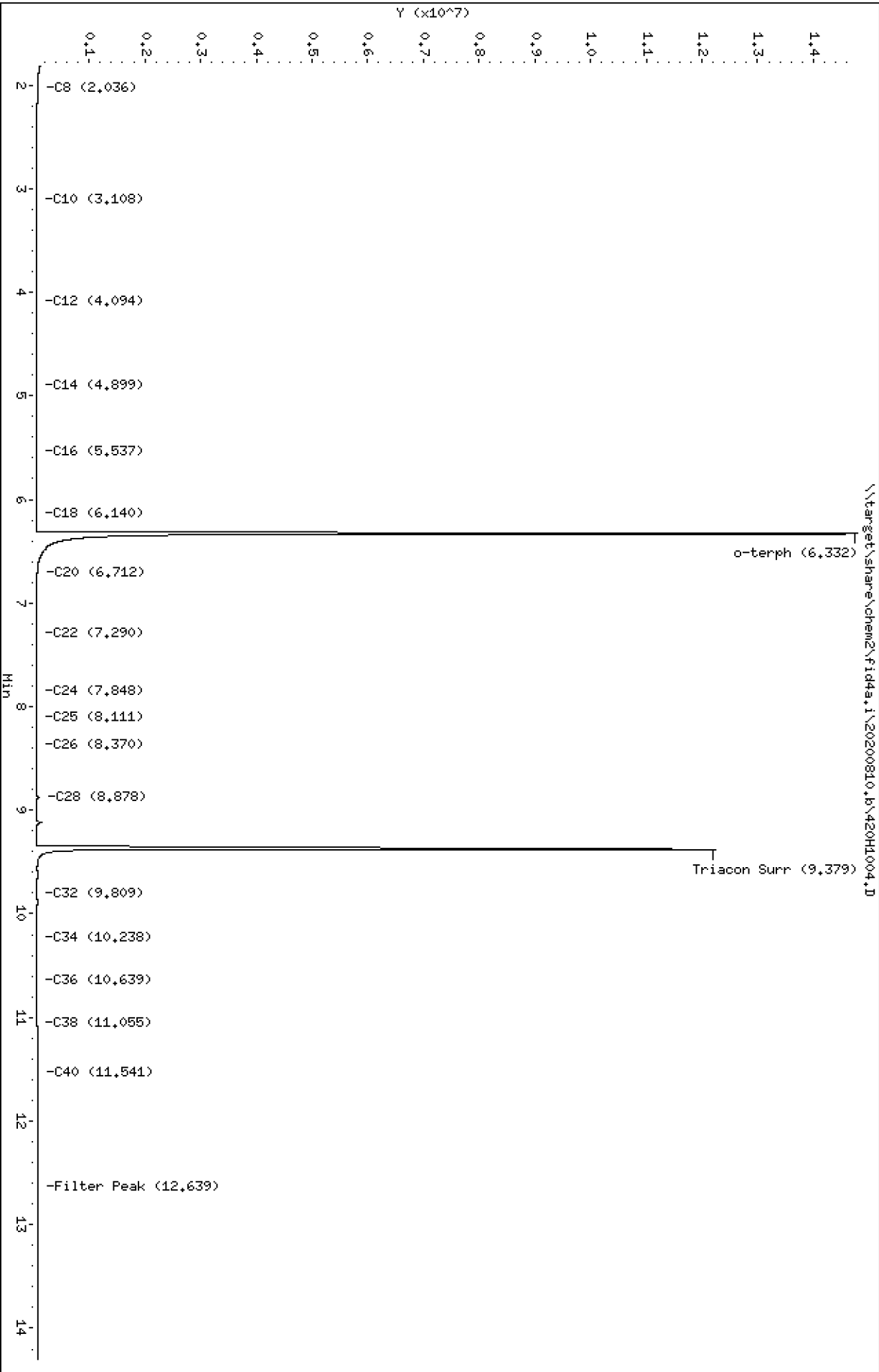
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	167898.6	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	90128.3	30-MAR-2020



Data File: \\target\share\chem2\fid4a,1\20200810\_b\420H1004.D  
Date: 10-AUG-2020 09:10  
Client ID:  
Sample Info: SEQ-IBL2

Column phase: RTX-1

Instrument: fid4a,1  
Operator: CTO  
Column diameter: 0.25





Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200810.b/420H1004.D  
Method: 20200810.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 08/10/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-IBL2  
Client ID:  
Injection: 10-AUG-2020 09:10  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

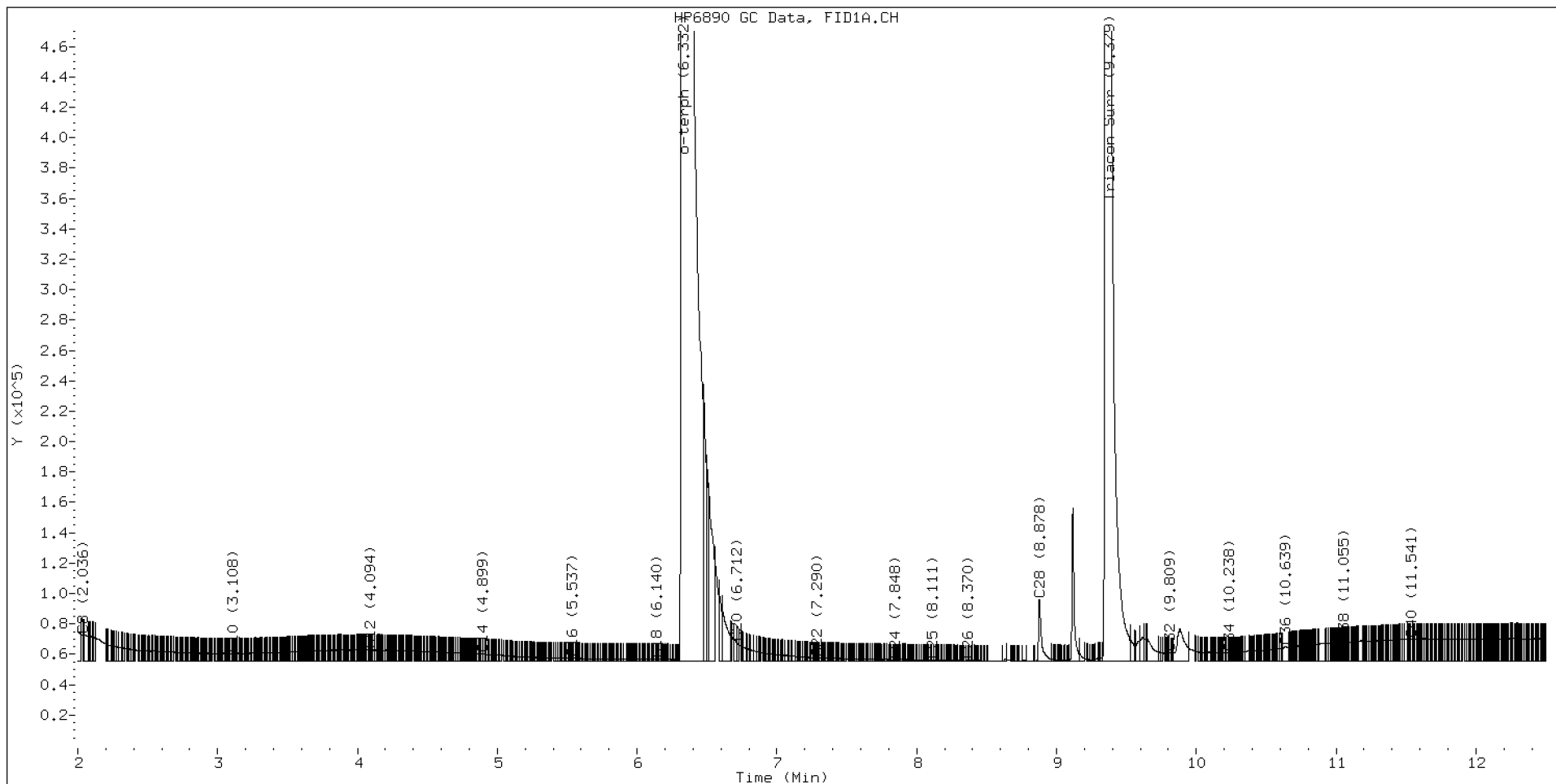
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.036	0.037	17008	10175	WATPHD	(C12-C24)	1331558	8.4
C10	3.108	-0.005	5021	2233	WATPHM	(C24-C38)	996053	9.8
C12	4.094	0.001	7426	3680	AK102	(C10-C25)	1724501	8.8
C14	4.899	0.001	4565	910	AK103	(C25-C36)	714743	9.8
C16	5.537	-0.007	2052	1468	OR.DIES	(C10-C28)	1799717	9.2
C18	6.140	0.002	1105	606				
C20	6.712	-0.011	12436	11107	JET-A	(C10-C18)	777990	4.6
C22	7.290	-0.000	2229	1416				
C24	7.848	0.006	1012	430				
C25	8.111	-0.000	658	573				
C26	8.370	-0.005	358	107				
C28	8.878	-0.004	40640	60459				
C32	9.809	-0.001	5465	5260				
C34	10.238	0.000	5599	2503				
Filter Peak	12.639	-0.001	14778	9572	CREOSOT	(C12-C22)	1289747	14.3
C36	10.639	-0.005	9656	22858				
C38	11.055	0.001	12241	5462				
C40	11.541	0.003	14617	10157				
o-terph	6.332	-0.005	14738078	18875440				
Triacon Surr	9.379	-0.005	12182512	16667134	NAS DIES	(C10-C24)	1715942	8.8

Range Times: NW Diesel(4.093 - 7.841) AK102(3.11 - 8.11) Jet A(3.11 - 6.14)  
NW M.Oil(7.84 - 11.05) AK103(8.11 - 10.64) OR Diesel(3.11 - 8.88)

Surrogate	Area	Amount
o-Terphenyl	18875440	92.2
Triacontane	16667134	112.3

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	167898.6	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	90128.3	30-MAR-2020



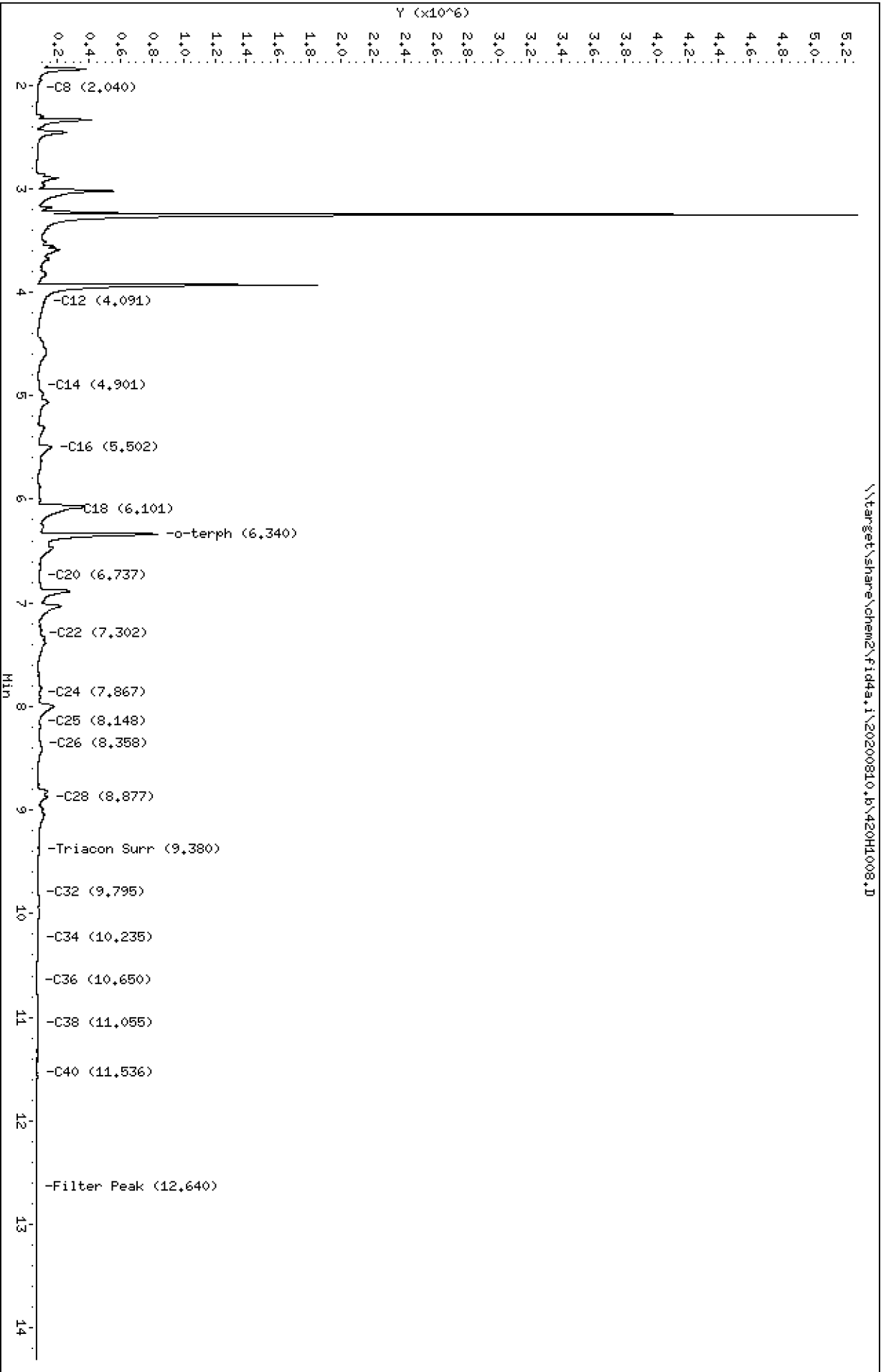
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Date: 10-AUG-2020 11:44  
Client ID:  
Sample Info: SEQ-CALL

Instrument: fid4a,1

Page 1

Column phase: RTX-1

Operator: CTO  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200810.b/420H1008.D  
Method: 20200810.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 08/10/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-CAL1  
Client ID:  
Injection: 10-AUG-2020 11:44  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

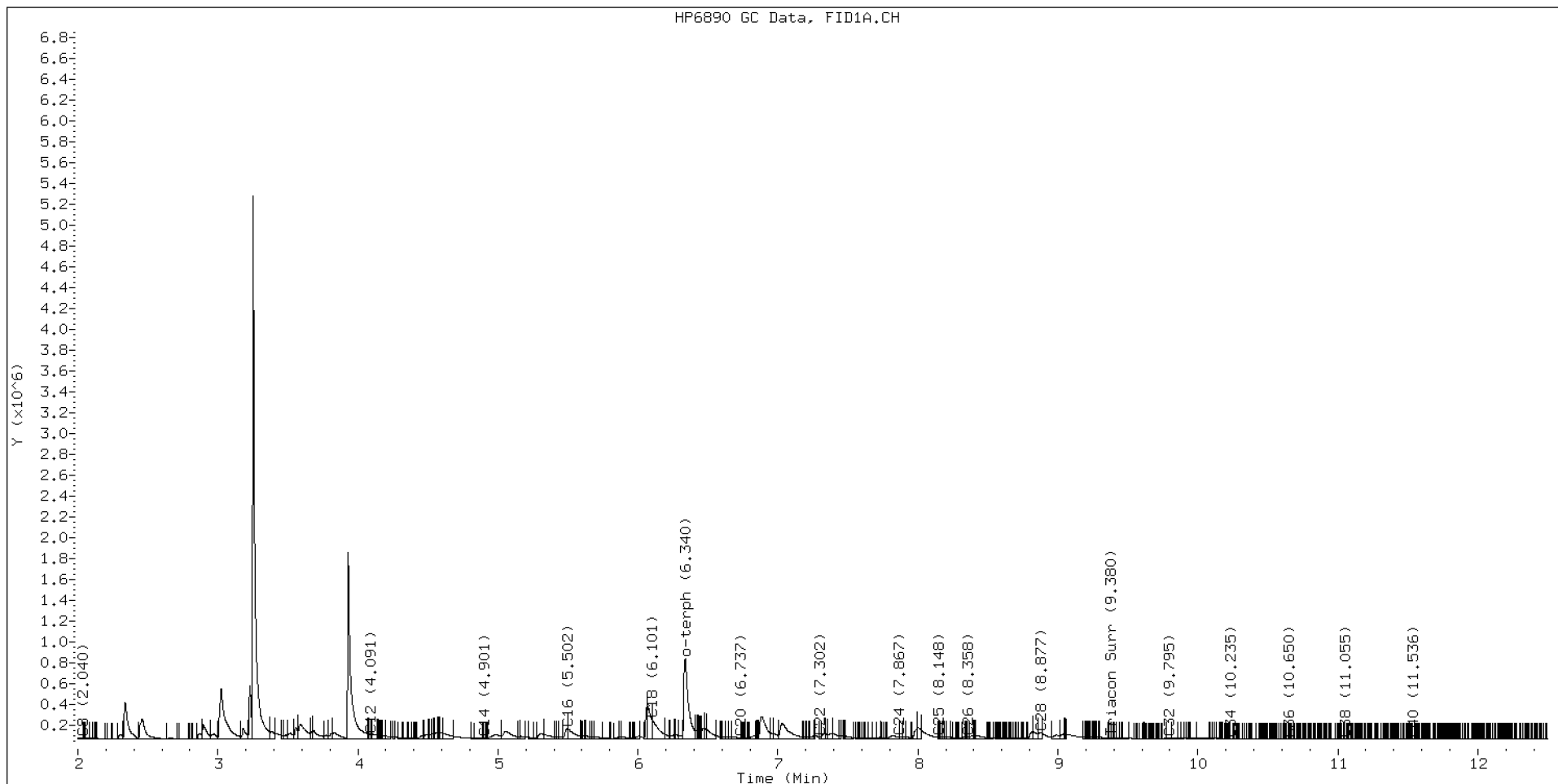
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.040	0.041	9503	2838	WATPHD	(C12-C24)	8080791	50.7
C10	----				WATPHM	(C24-C38)	2579077	25.5
C12	4.091	-0.003	48194	23669	AK102	(C10-C25)	19525938	99.9
C14	4.901	0.004	17148	14774	AK103	(C25-C36)	2056688	28.1
C16	5.502	-0.042	98467	314876	OR.DIES	(C10-C28)	20511038	104.6
C18	6.101	-0.037	189826	593277				
C20	6.737	0.014	14982	5936	JET-A	(C10-C18)	15329343	91.3
C22	7.302	0.012	27302	26565				
C24	7.867	0.026	21147	7324				
C25	8.148	0.037	19796	7876				
C26	8.358	-0.018	27281	17420				
C28	8.877	-0.004	67902	107454				
C32	9.795	-0.016	12040	22767				
C34	10.235	-0.003	7524	8634				
Filter Peak	12.640	-0.001	3106	1077	CREOSOT	(C12-C22)	7382186	81.9
C36	10.650	0.007	3324	1958				
C38	11.055	0.001	5084	2761				
C40	11.536	-0.002	4406	4074				
o-terph	6.340	0.002	772053	1761409				
Triacon Surr	9.380	-0.004	14077	10247	NAS DIES	(C10-C24)	19109345	97.9

Range Times: NW Diesel(4.093 - 7.841) AK102(3.11 - 8.11) Jet A(3.11 - 6.14)  
NW M.Oil(7.84 - 11.05) AK103(8.11 - 10.64) OR Diesel(3.11 - 8.88)

Surrogate	Area	Amount
o-Terphenyl	1761409	8.6
Triacontane	10247	0.1

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	167898.6	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	90128.3	30-MAR-2020



Data File: \\target\share\chem2\fid4a,1\20200810\_b\420H1009.D  
Date: 10-AUG-2020 12:03

Client ID:

Sample Info: SEQ-CAL2

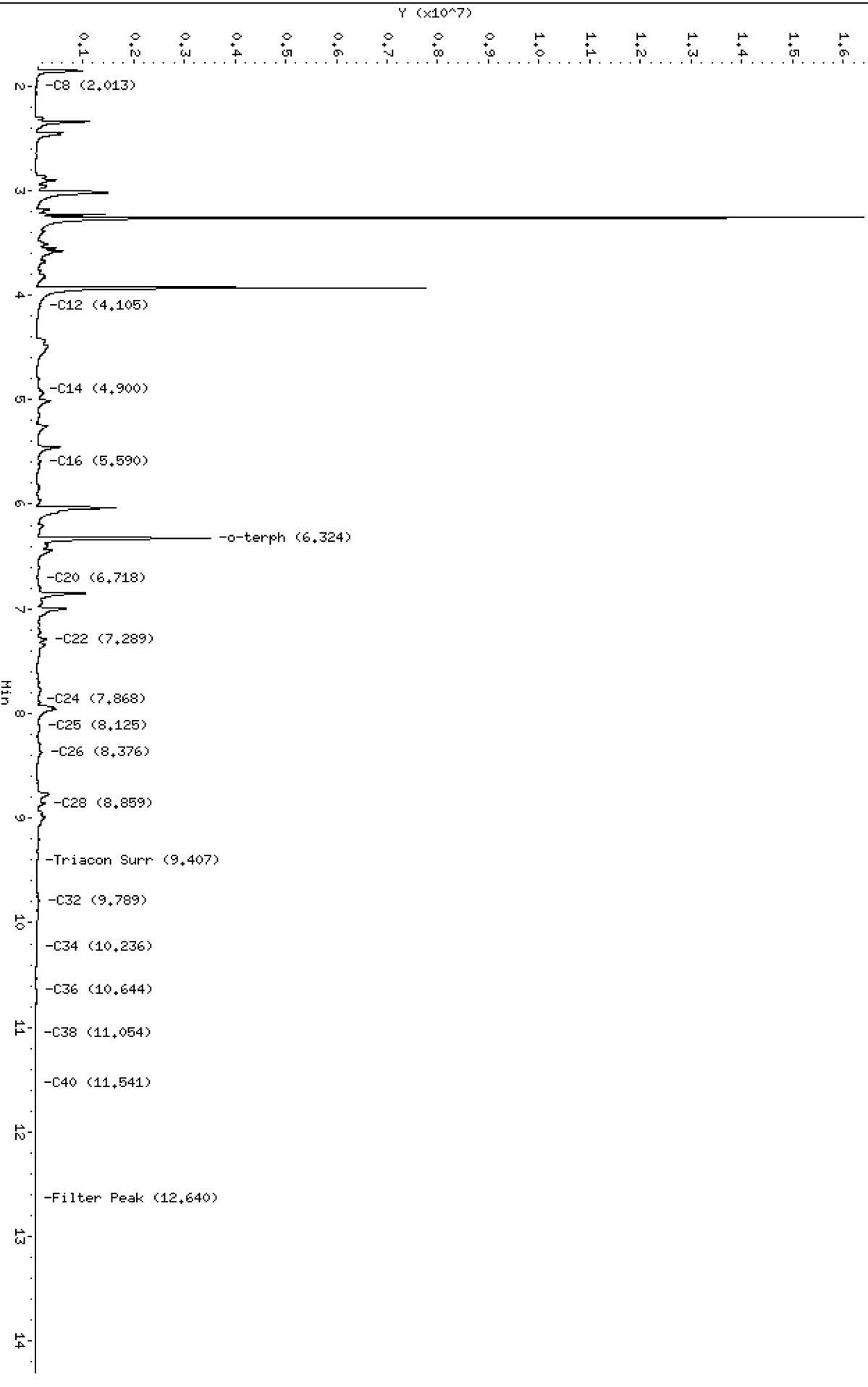
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

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Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200810.b/420H1009.D  
Method: 20200810.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 08/10/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-CAL2  
Client ID:  
Injection: 10-AUG-2020 12:03  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

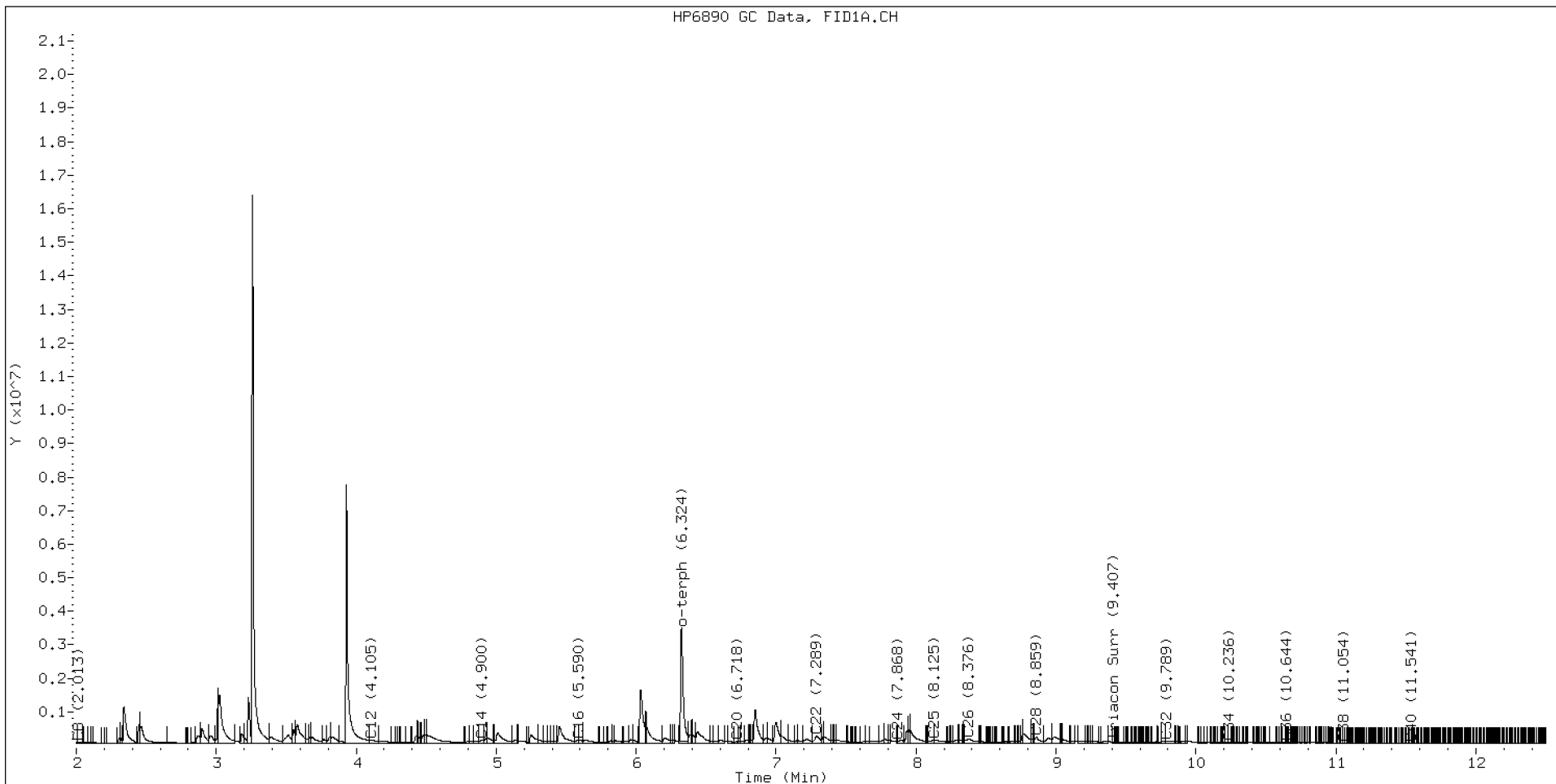
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.013	0.014	13752	23396	WATPHD	(C12-C24)	24094230	151.2
C10	----				WATPHM	(C24-C38)	9822291	97.1
C12	4.105	0.012	97213	295971	AK102	(C10-C25)	55662092	284.7
C14	4.900	0.003	96654	172578	AK103	(C25-C36)	7689863	105.0
C16	5.590	0.046	100512	127761	OR.DIES	(C10-C28)	59384249	303.0
C18	----							
C20	6.718	-0.005	43007	69493	JET-A	(C10-C18)	42803912	254.9
C22	7.289	-0.001	213953	504363				
C24	7.868	0.026	51518	25580				
C25	8.125	0.014	87057	179953				
C26	8.376	0.000	125029	524631				
C28	8.859	-0.023	181002	435693				
C32	9.789	-0.022	68586	223761				
C34	10.236	-0.001	21356	24080				
Filter Peak	12.640	-0.000	3549	1227	CREOSOT	(C12-C22)	22100398	245.2
C36	10.644	0.001	13989	3478				
C38	11.054	-0.000	9429	6073				
C40	11.541	0.003	5623	1672				
o-terph	6.324	-0.013	3394533	4330623				
Triacon Surr	9.407	0.023	36620	30128	NAS DIES	(C10-C24)	53743053	275.4

Range Times: NW Diesel(4.093 - 7.841) AK102(3.11 - 8.11) Jet A(3.11 - 6.14)  
NW M.Oil(7.84 - 11.05) AK103(8.11 - 10.64) OR Diesel(3.11 - 8.88)

Surrogate	Area	Amount
o-Terphenyl	4330623	21.2 M
Triacontane	30128	0.2

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	167898.6	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	90128.3	30-MAR-2020

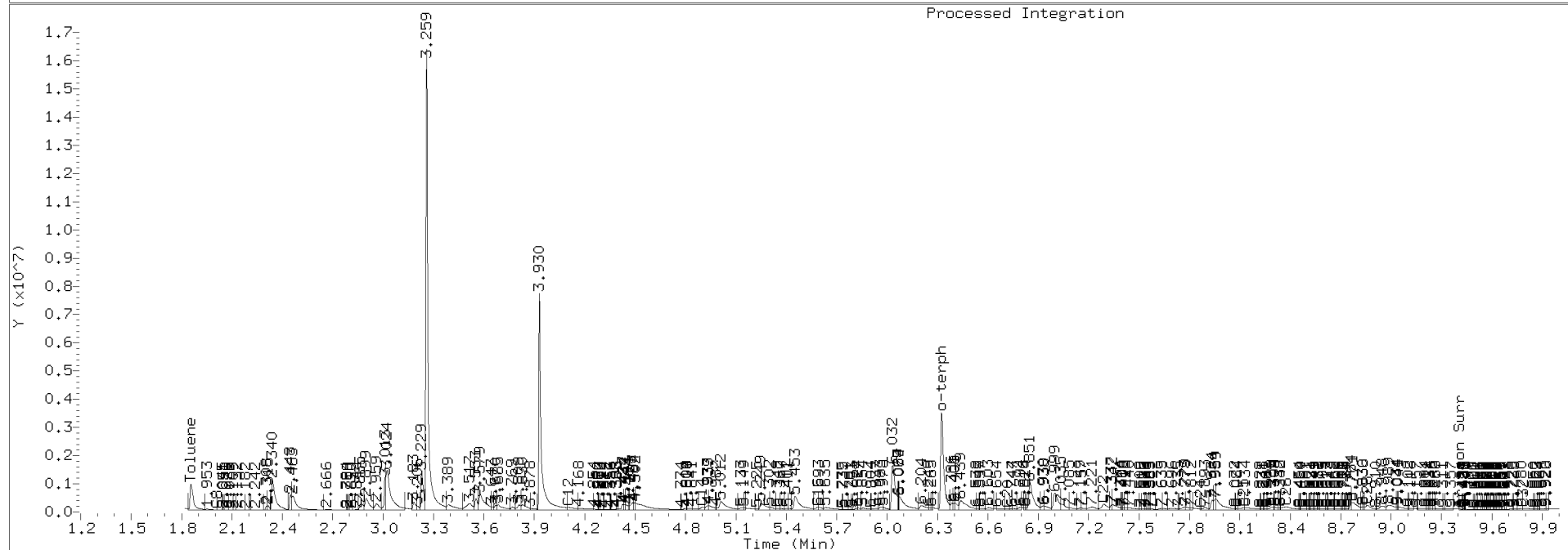
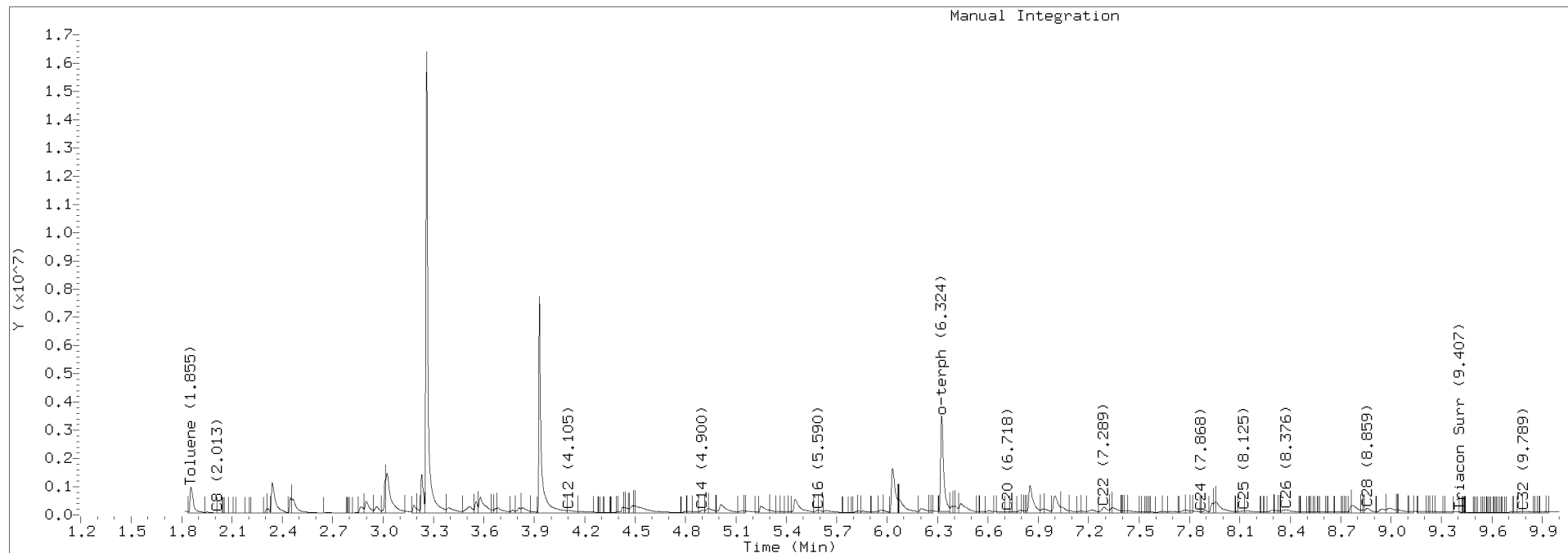




TPH Manual Integrations Report

Datafile: FID4A, 20200810.b/420H1009.D Injection: 10-AUG-2020 12:03

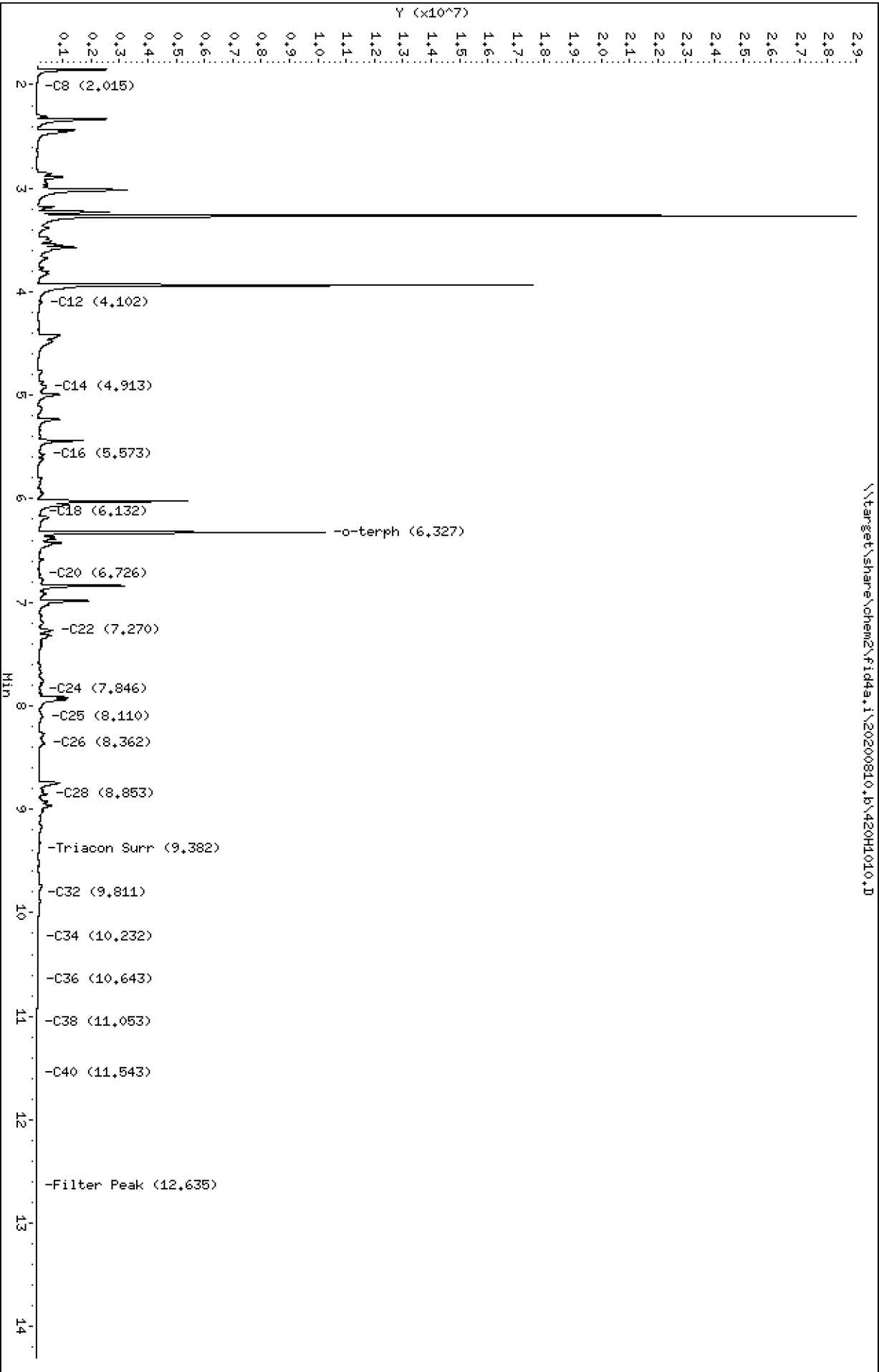
Lab ID:SEQ-CAL2



Data File: \\target\share\chem2\fid4a,1\20200810\_b\420H1010.D  
Date: 10-AUG-2020 12:23  
Client ID:  
Sample Info: SEQ-CAL3

Column phase: RTX-1

Instrument: fid4a,1  
Operator: CTO  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200810.b/420H1010.D  
Method: 20200810.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 08/10/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-CAL3  
Client ID:  
Injection: 10-AUG-2020 12:23  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

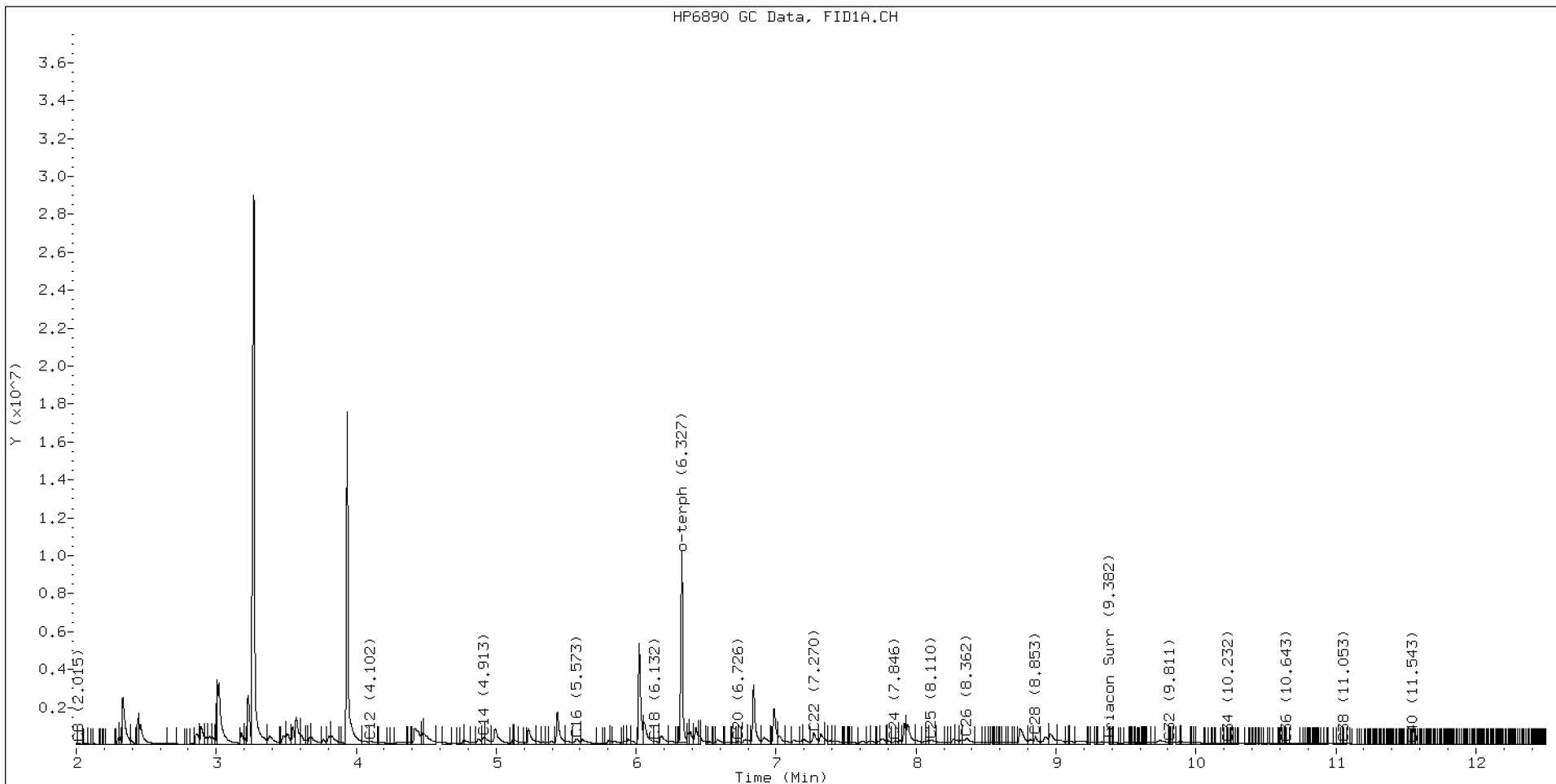
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.015	0.016	17846	36273	WATPHD	(C12-C24)	51259340	321.7
C10	----				WATPHM	(C24-C38)	22066522	218.1
C12	4.102	0.009	179685	448519	AK102	(C10-C25)	116587134	596.4
C14	4.913	0.016	356259	456272	AK103	(C25-C36)	17746552	242.4
C16	5.573	0.029	271020	584987	OR.DIES	(C10-C28)	125538937	640.5
C18	6.132	-0.006	140882	269530				
C20	6.726	0.003	136775	134046	JET-A	(C10-C18)	90127540	536.8
C22	7.270	-0.021	606173	1140185				
C24	7.846	0.004	128041	176452				
C25	8.110	-0.001	221035	545483				
C26	8.362	-0.014	297442	1027684				
C28	8.853	-0.028	403064	641655				
C32	9.811	0.000	99788	29846				
C34	10.232	-0.006	46152	43534				
Filter Peak	12.635	-0.006	3882	1909	CREOSOT	(C12-C22)	47014203	521.6
C36	10.643	0.000	38763	9675				
C38	11.053	-0.001	17467	8707				
C40	11.543	0.005	8291	3696				
o-terph	6.327	-0.010	10095175	9317090				
Triacon Surr	9.382	-0.002	75592	22548	NAS DIES	(C10-C24)	112694191	577.5

Range Times: NW Diesel(4.093 - 7.841) AK102(3.11 - 8.11) Jet A(3.11 - 6.14)  
NW M.Oil(7.84 - 11.05) AK103(8.11 - 10.64) OR Diesel(3.11 - 8.88)

Surrogate	Area	Amount
o-Terphenyl	9317090	45.5 M
Triacontane	22548	0.2

M Indicates the peak was manually integrated

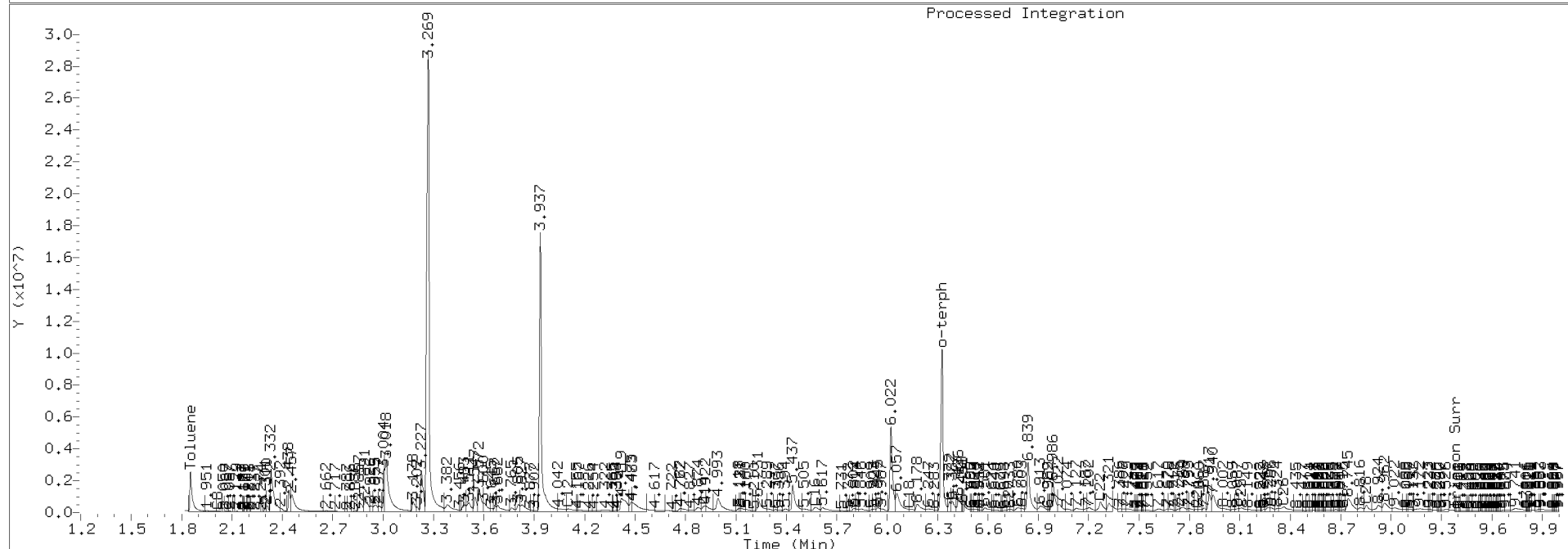
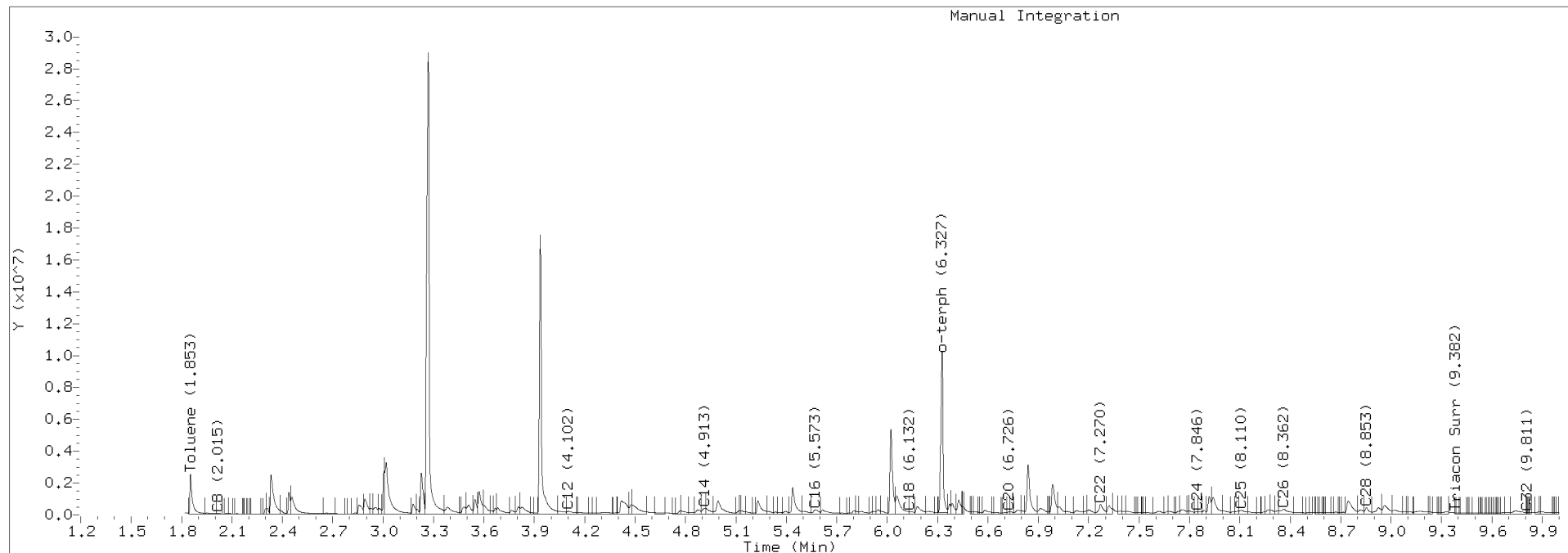
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	167898.6	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	90128.3	30-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20200810.b/420H1010.D Injection: 10-AUG-2020 12:23

Lab ID:SEQ-CAL3



Data File: \\target\share\chem2\fid4a,1\20200810\_b\420H1011.D  
Date: 10-AUG-2020 12:43

Client ID:  
Sample Info: SEQ-CAL4

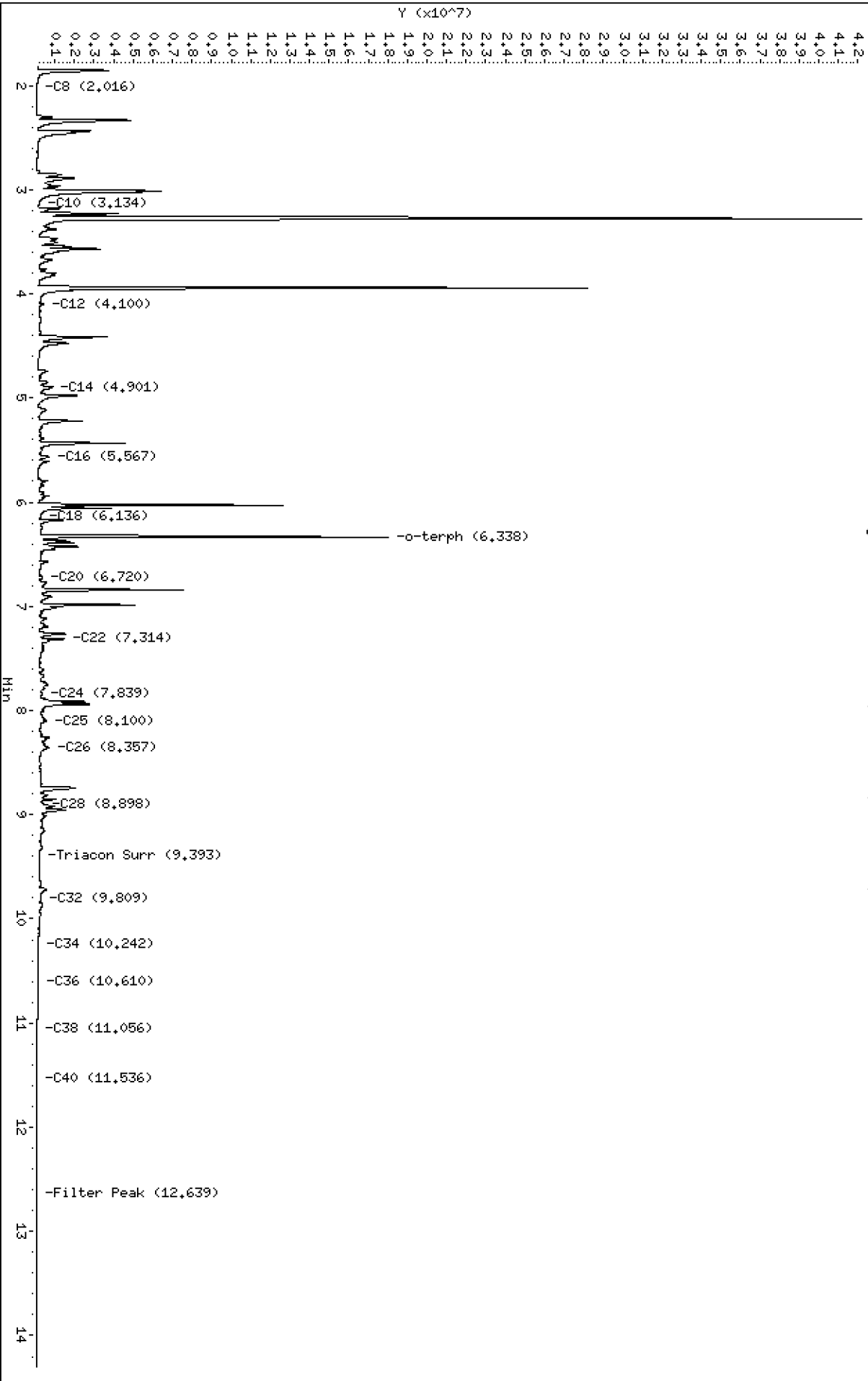
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

\\target\share\chem2\fid4a,1\20200810\_b\420H1011.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200810.b/420H1011.D  
Method: 20200810.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 08/10/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-CAL4  
Client ID:  
Injection: 10-AUG-2020 12:43  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

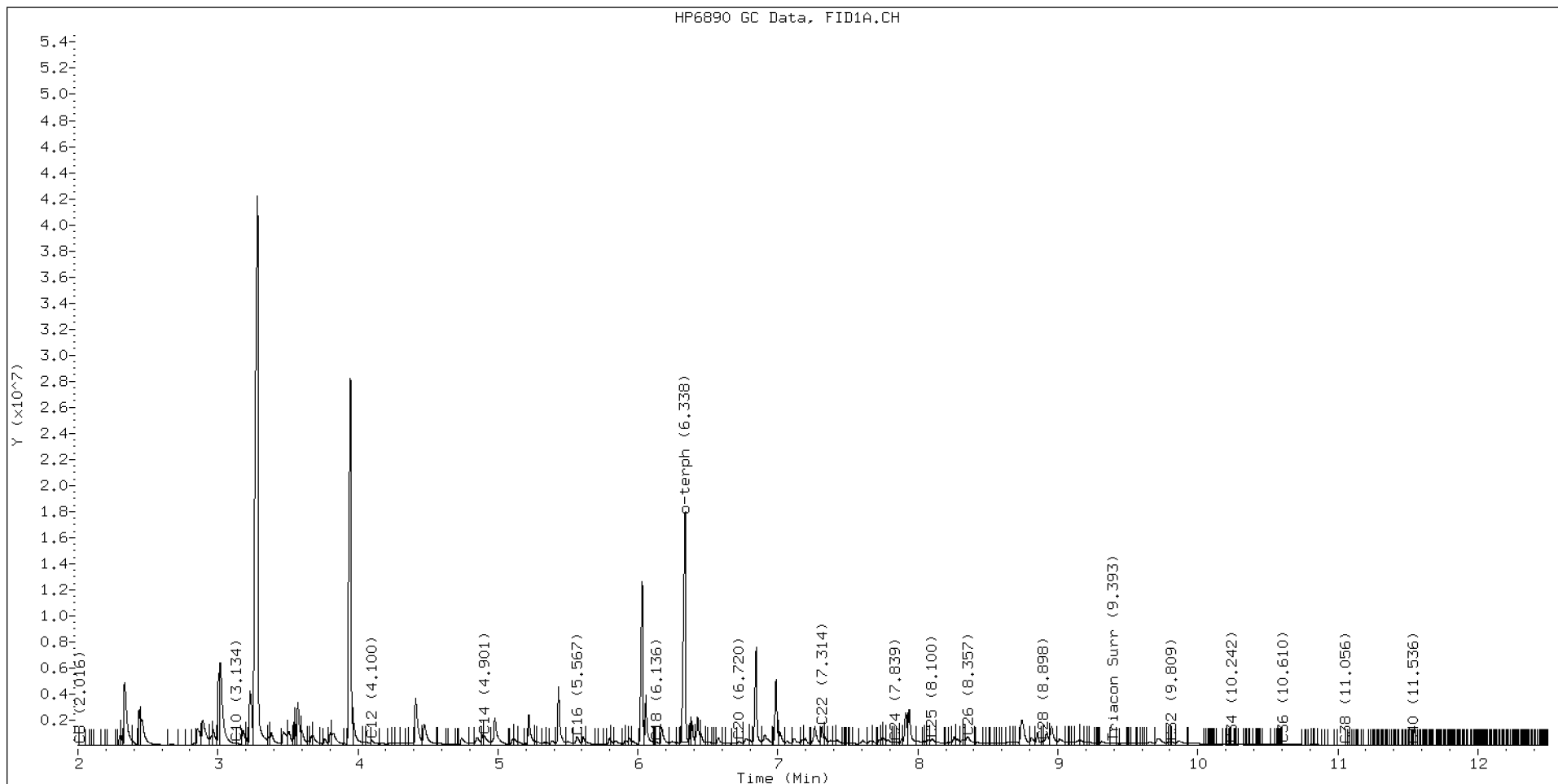
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.016	0.017	24926	59167	WATPHD	(C12-C24)	103926698	652.2
C10	3.134	0.022	150444	235035	WATPHM	(C24-C38)	45820283	452.9
C12	4.100	0.007	374328	737397	AK102	(C10-C25)	235546622	1204.9
C14	4.901	0.004	751227	1307415	AK103	(C25-C36)	37291444	509.4
C16	5.567	0.023	643749	1189010	OR.DIES	(C10-C28)	254051179	1296.2
C18	6.136	-0.002	231616	350832				
C20	6.720	-0.003	299567	566605	JET-A	(C10-C18)	181572311	1081.4
C22	7.314	0.023	1420953	1498483				
C24	7.839	-0.003	259197	166369				
C25	8.100	-0.011	495518	989810				
C26	8.357	-0.019	638808	1623602				
C28	8.898	0.016	333560	331673				
C32	9.809	-0.002	229023	124533				
C34	10.242	0.005	88773	91037				
Filter Peak	12.639	-0.001	2788	1651	CREOSOT	(C12-C22)	95404139	1058.5
C36	10.610	-0.033	86162	550400				
C38	11.056	0.002	27157	25166				
C40	11.536	-0.002	10651	4226				
o-terph	6.338	0.001	17707002	18789469				
Triacon Surr	9.393	0.009	169162	447494	NAS DIES	(C10-C24)	227630229	1166.4

Range Times: NW Diesel(4.093 - 7.841) AK102(3.11 - 8.11) Jet A(3.11 - 6.14)  
NW M.Oil(7.84 - 11.05) AK103(8.11 - 10.64) OR Diesel(3.11 - 8.88)

Surrogate	Area	Amount
o-Terphenyl	18789469	91.8 M
Triacontane	447494	3.0

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	167898.6	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	90128.3	30-MAR-2020

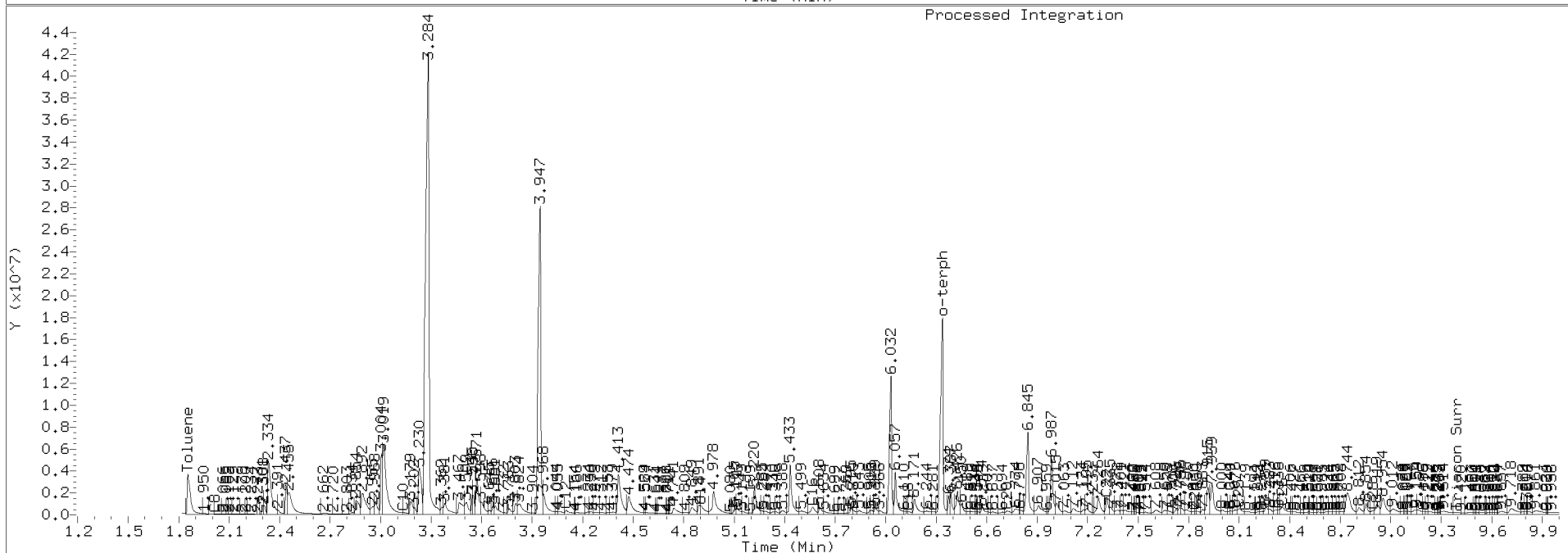
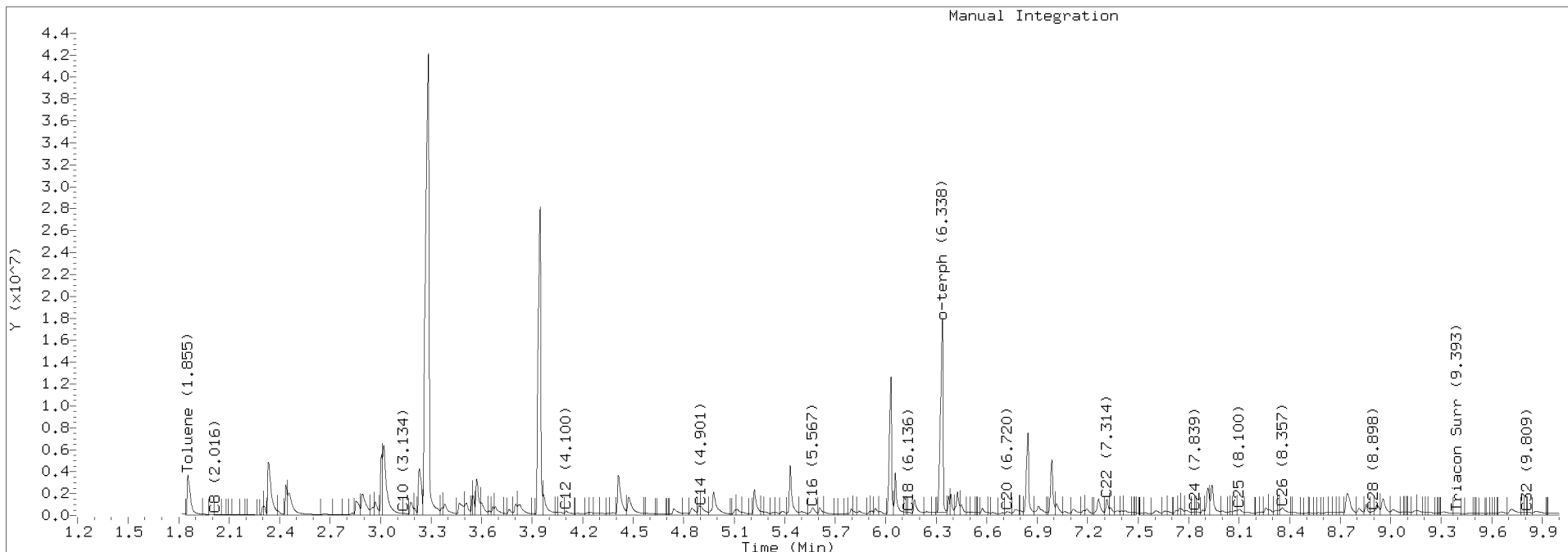




TPH Manual Integrations Report

Datafile: FID4A, 20200810.b/420H1011.D Injection: 10-AUG-2020 12:43

Lab ID:SEQ-CAL4



Data File: \\target\share\chem2\fid4a,1\20200810\_b\420H1012.D  
Date: 10-AUG-2020 13:02

Client ID:

Sample Info: SEQ-CALS

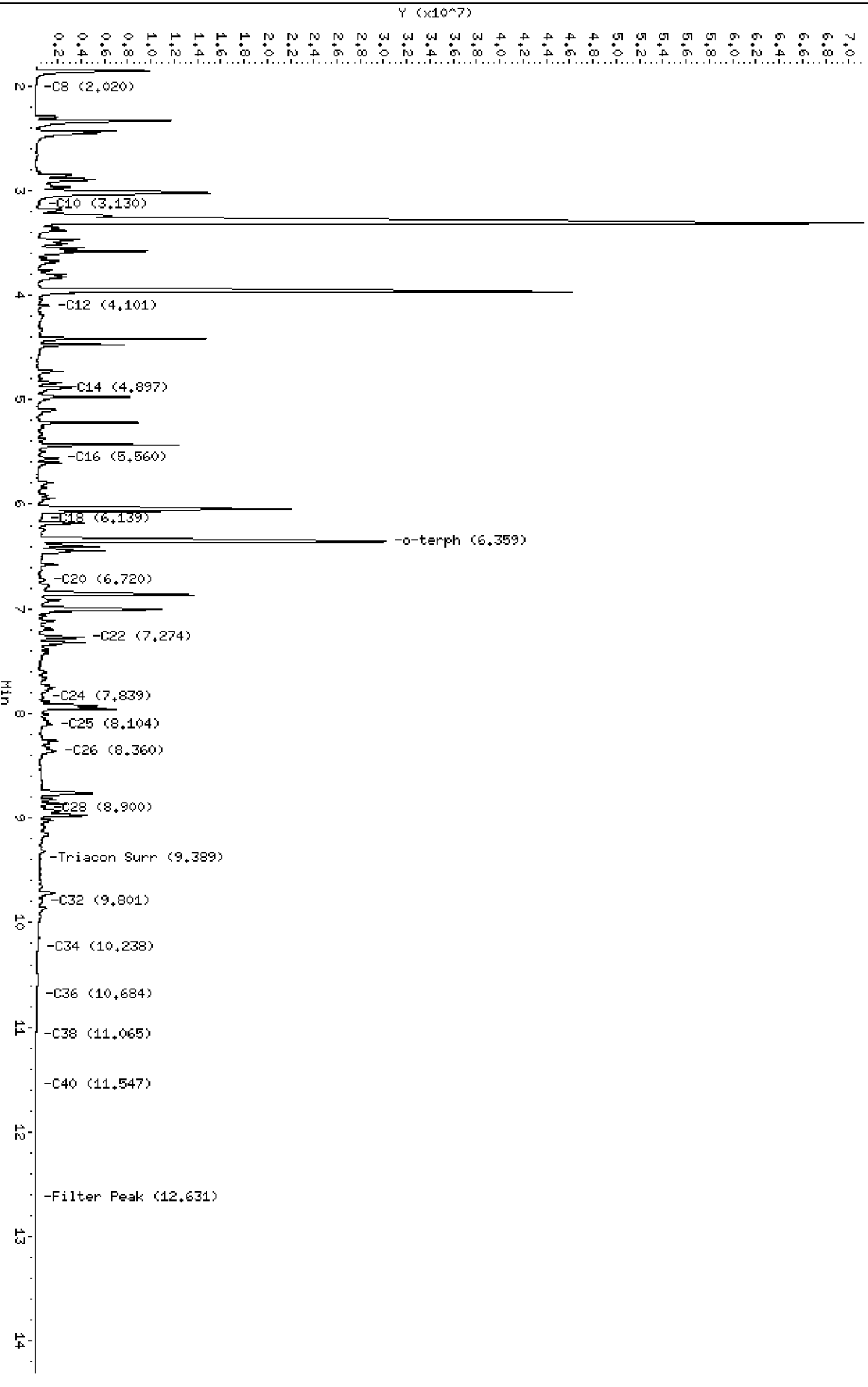
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

\\target\share\chem2\fid4a,1\20200810\_b\420H1012.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200810.b/420H1012.D  
Method: 20200810.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 08/10/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-CAL5  
Client ID:  
Injection: 10-AUG-2020 13:02  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

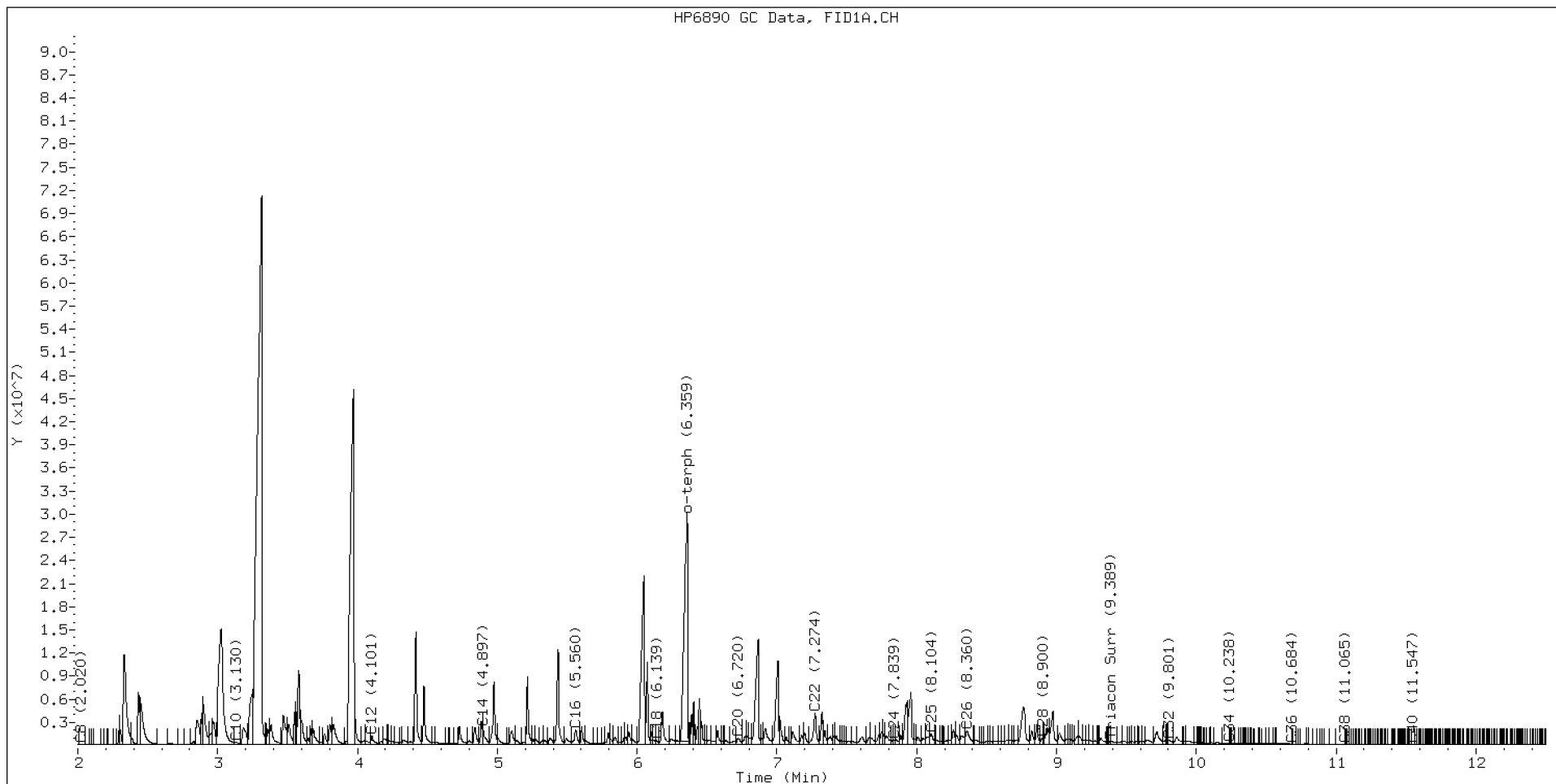
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.020	0.021	52370	125836	WATPHD	(C12-C24)	268023483	1682.1
C10	3.130	0.018	317129	695453	WATPHM	(C24-C38)	117269407	1159.2
C12	4.101	0.008	1186747	1663447	AK102	(C10-C25)	600790147	3073.2
C14	4.897	-0.000	2168738	2784429	AK103	(C25-C36)	95264608	1301.3
C16	5.560	0.016	1984017	3122013	OR.DIES	(C10-C28)	644811716	3289.9
C18	6.139	0.001	562391	706347				
C20	6.720	-0.003	826278	1411340	JET-A	(C10-C18)	461462580	2748.5
C22	7.274	-0.017	4123124	6213742				
C24	7.839	-0.003	669495	624603				
C25	8.104	-0.008	1393399	2367433				
C26	8.360	-0.016	1824142	4074782				
C28	8.900	0.018	833163	754960				
C32	9.801	-0.009	606450	1103529				
C34	10.238	0.001	193616	76806				
Filter Peak	12.631	-0.009	7657	6760	CREOSOT	(C12-C22)	243658159	2703.5
C36	10.684	0.041	121011	48208				
C38	11.065	0.011	57098	25623				
C40	11.547	0.009	26888	36992				
o-terph	6.359	0.021	29618277	48519579				
Triacon Surr	9.389	0.005	451742	414470	NAS DIES	(C10-C24)	580343650	2973.9

Range Times: NW Diesel(4.093 - 7.841) AK102(3.11 - 8.11) Jet A(3.11 - 6.14)  
NW M.Oil(7.84 - 11.05) AK103(8.11 - 10.64) OR Diesel(3.11 - 8.88)

Surrogate	Area	Amount
o-Terphenyl	48519579	237.0 M
Triacontane	414470	2.8

M Indicates the peak was manually integrated

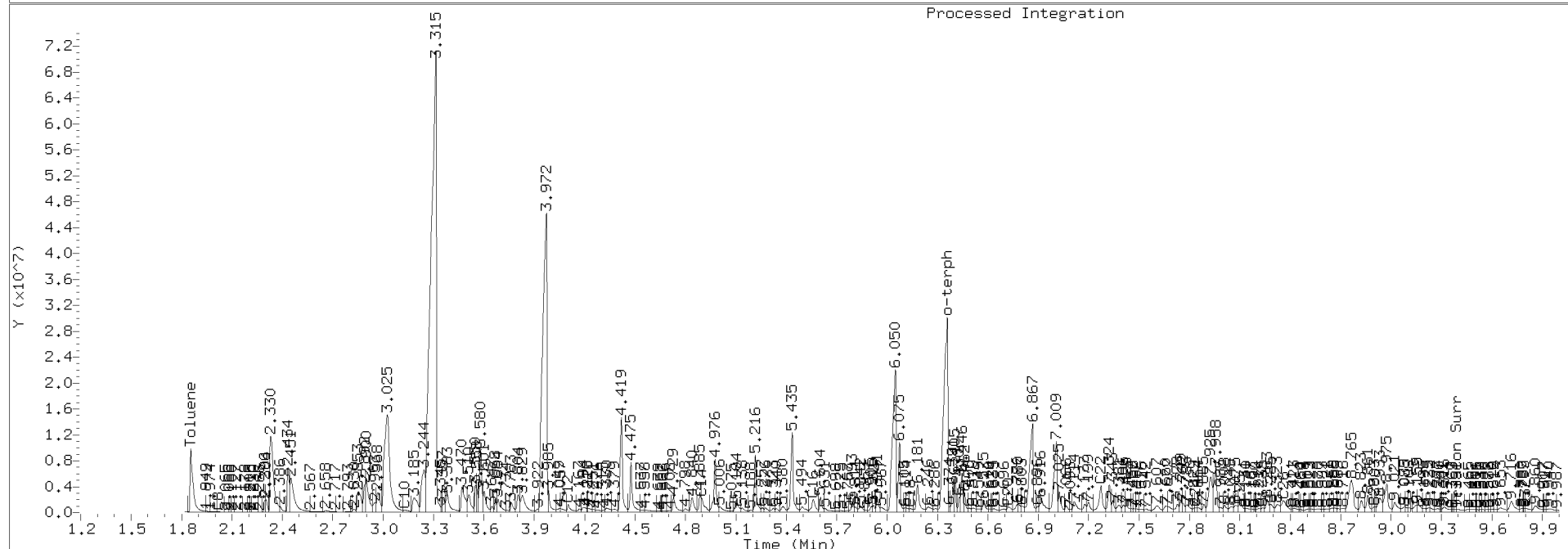
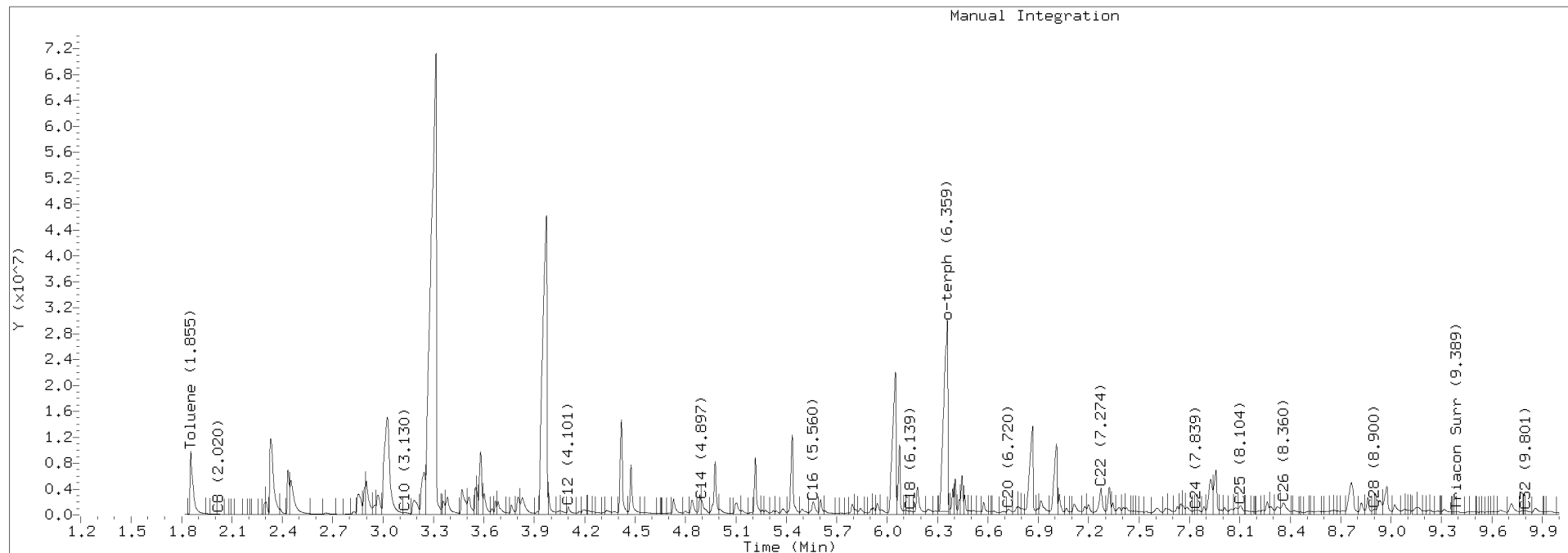
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	167898.6	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	90128.3	30-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20200810.b/420H1012.D Injection: 10-AUG-2020 13:02

Lab ID:SEQ-CAL5



Data File: \\target\share\chem2\fid4a,1\20200810,b\420H1013.D  
Date: 10-AUG-2020 13:22

Client ID:

Sample Info: SEQ-CAL6

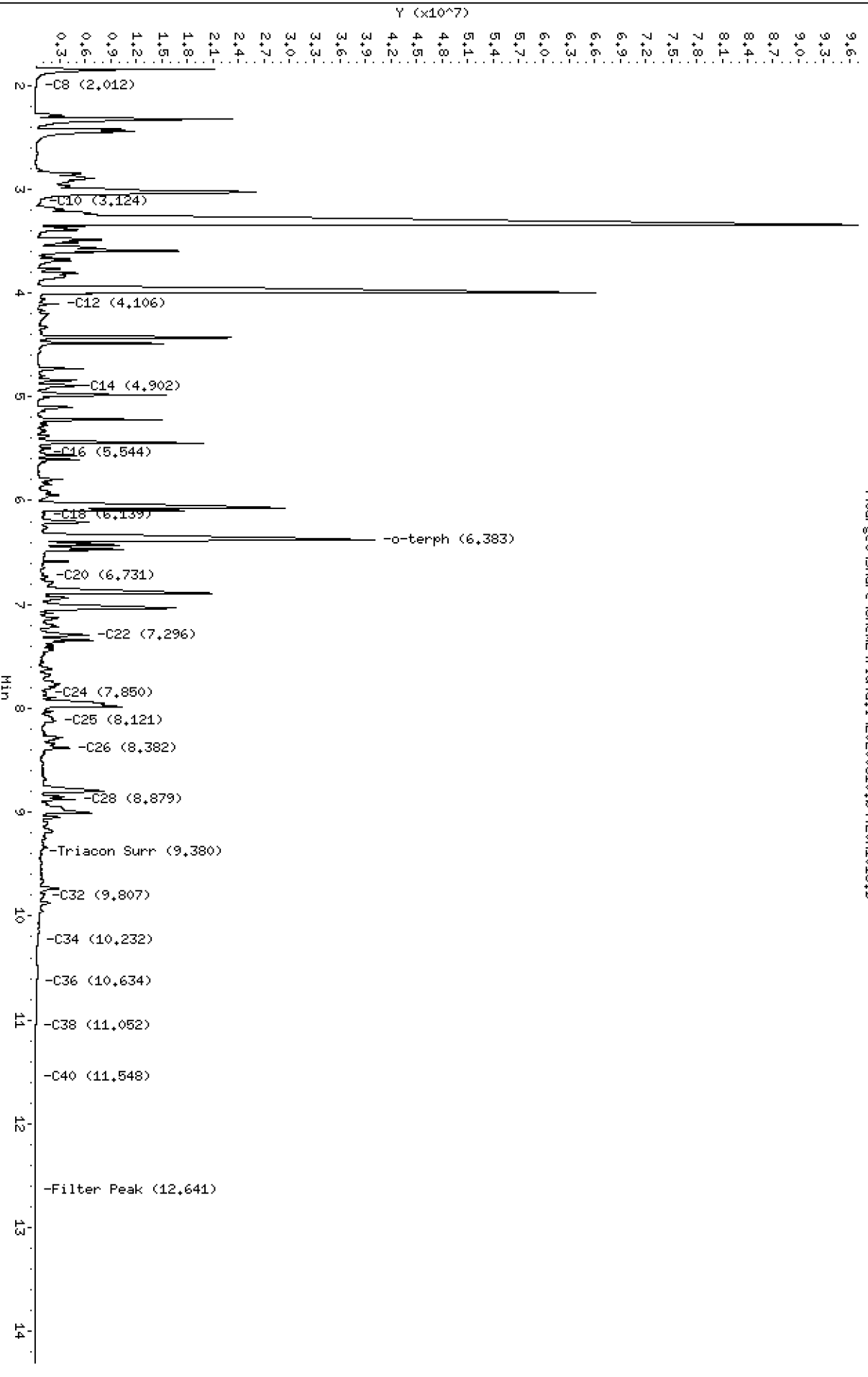
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

\\target\share\chem2\fid4a,1\20200810,b\420H1013.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200810.b/420H1013.D  
Method: 20200810.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 08/10/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-CAL6  
Client ID:  
Injection: 10-AUG-2020 13:22  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

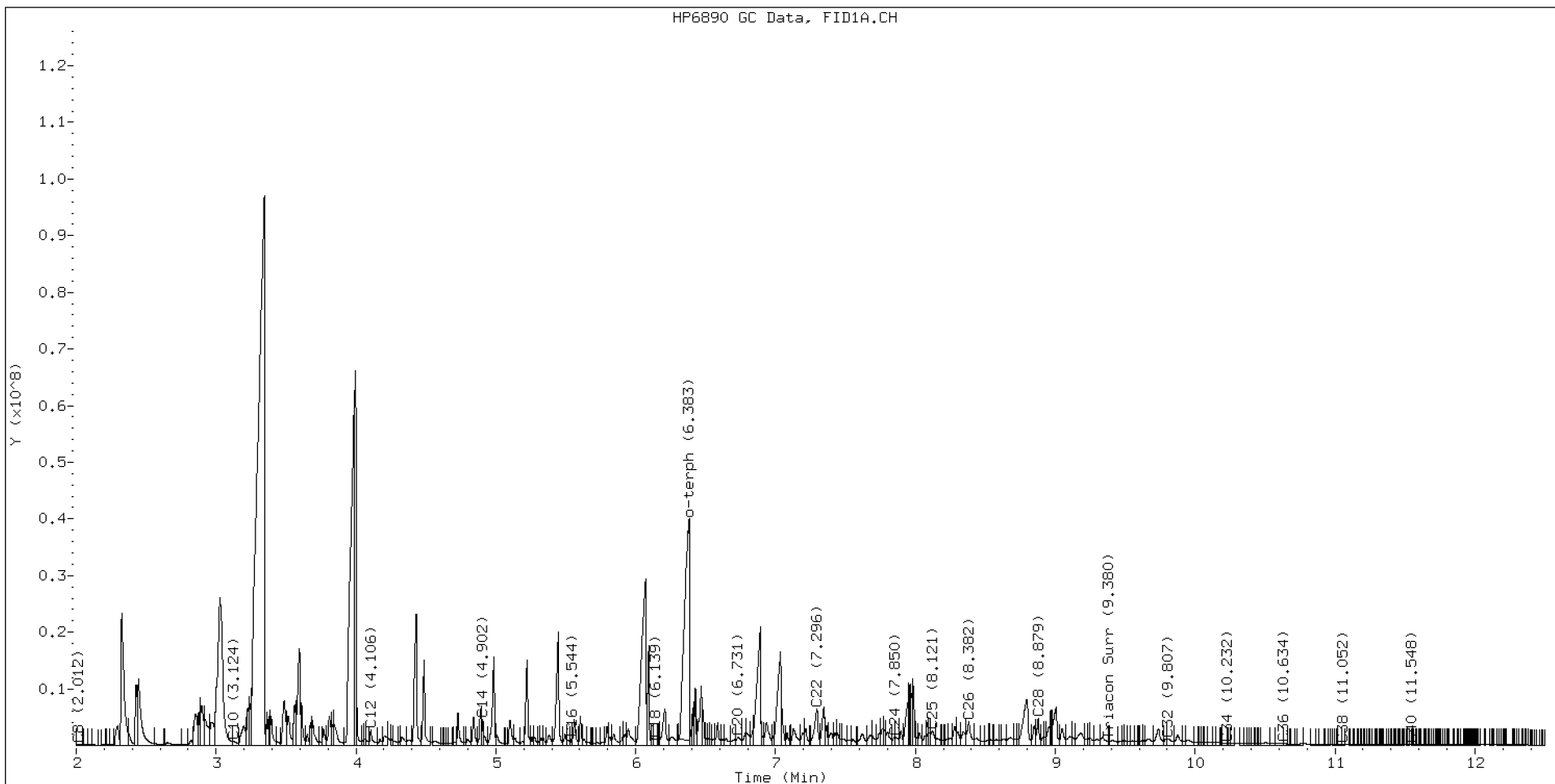
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.012	0.013	95463	213698	WATPHD	(C12-C24)	510718478	3205.3
C10	3.124	0.012	658048	1310273	WATPHM	(C24-C38)	217018558	2145.2
C12	4.106	0.013	2689100	3210487	AK102	(C10-C25)	1154977604	5908.1
C14	4.902	0.005	4529096	3169210	AK103	(C25-C36)	174815307	2388.0
C16	5.544	0.000	1186254	882489	OR.DIES	(C10-C28)	1241149517	6332.4
C18	6.139	0.000	1097209	1614733				
C20	6.731	0.008	1395502	2758564	JET-A	(C10-C18)	878617104	5233.0
C22	7.296	0.005	6358775	11740148				
C24	7.850	0.009	1319296	1273820				
C25	8.121	0.010	2507724	4067646				
C26	8.382	0.006	4064229	7597038				
C28	8.879	-0.003	4657449	5361411				
C32	9.807	-0.004	1046694	2394813				
C34	10.232	-0.005	290793	72598				
Filter Peak	12.641	0.000	7890	3140	CREOSOT	(C12-C22)	458251561	5084.4
C36	10.634	-0.009	213530	321534				
C38	11.052	-0.002	80686	94358				
C40	11.548	0.010	35419	22895				
o-terph	6.383	0.045	38995622	94112864				
Triacon Surr	9.380	-0.004	670067	426371	NAS DIES	(C10-C24)	1115021496	5713.7

Range Times: NW Diesel(4.093 - 7.841) AK102(3.11 - 8.11) Jet A(3.11 - 6.14)  
NW M.Oil(7.84 - 11.05) AK103(8.11 - 10.64) OR Diesel(3.11 - 8.88)

Surrogate	Area	Amount
o-Terphenyl	94112864	459.8 M
Triacontane	426371	2.9

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	167898.6	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	90128.3	30-MAR-2020

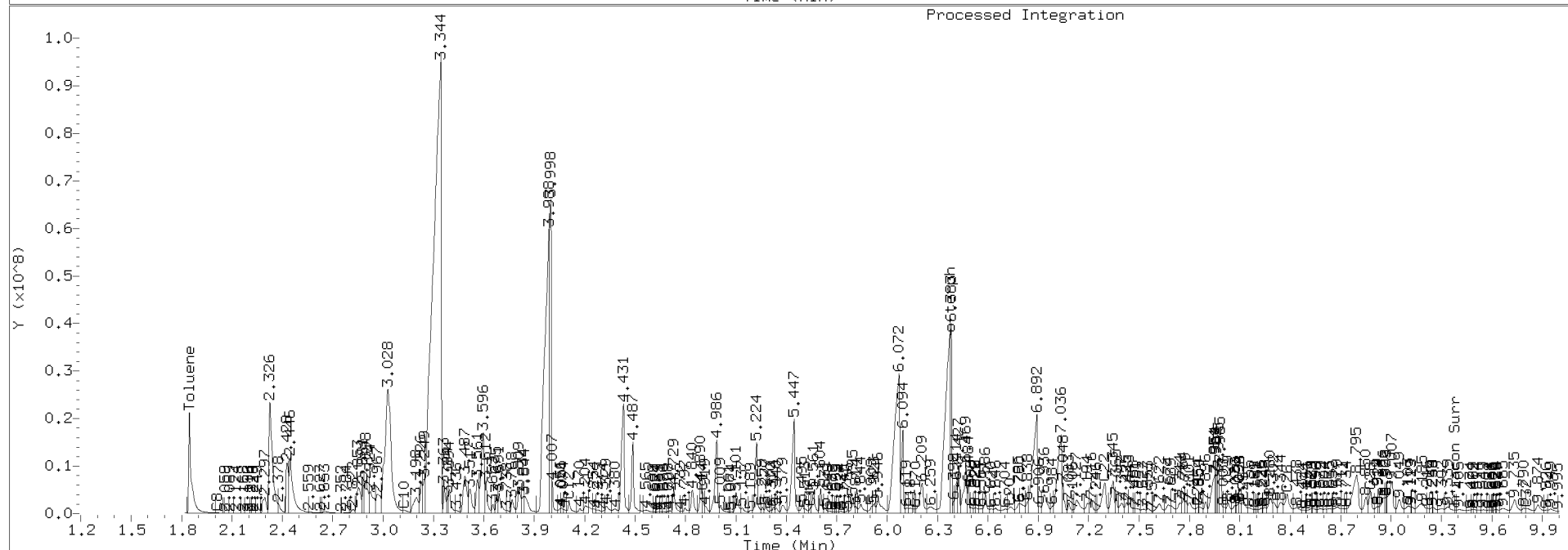
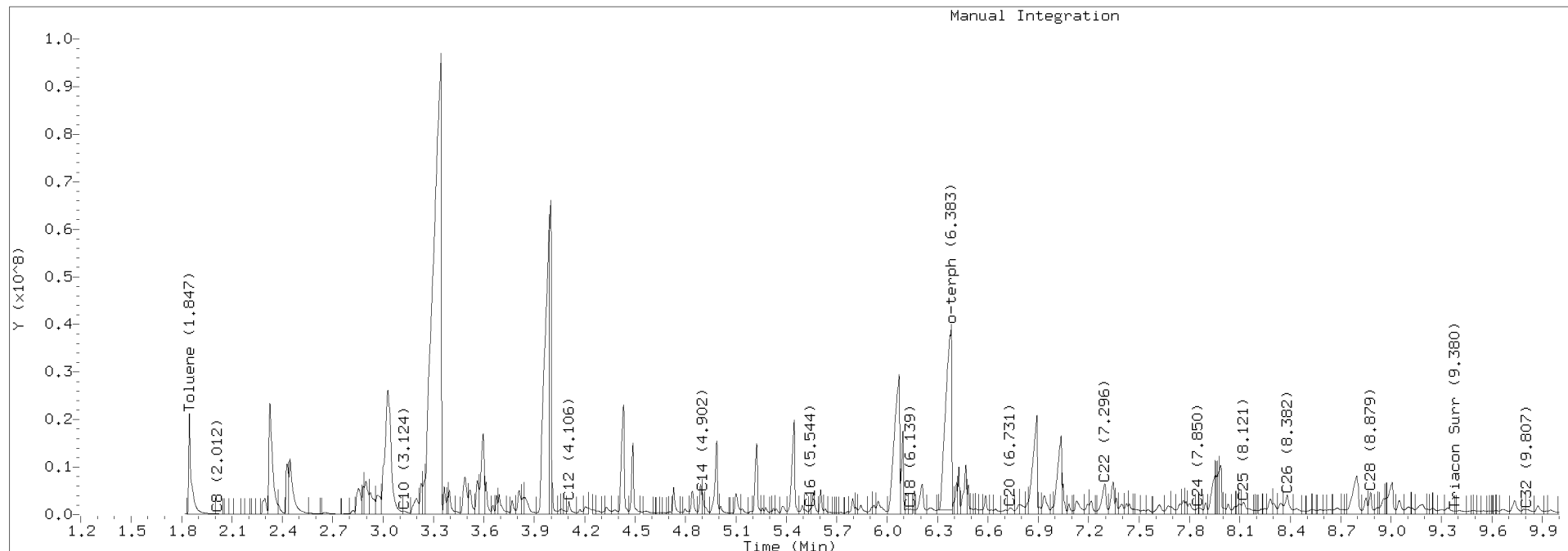




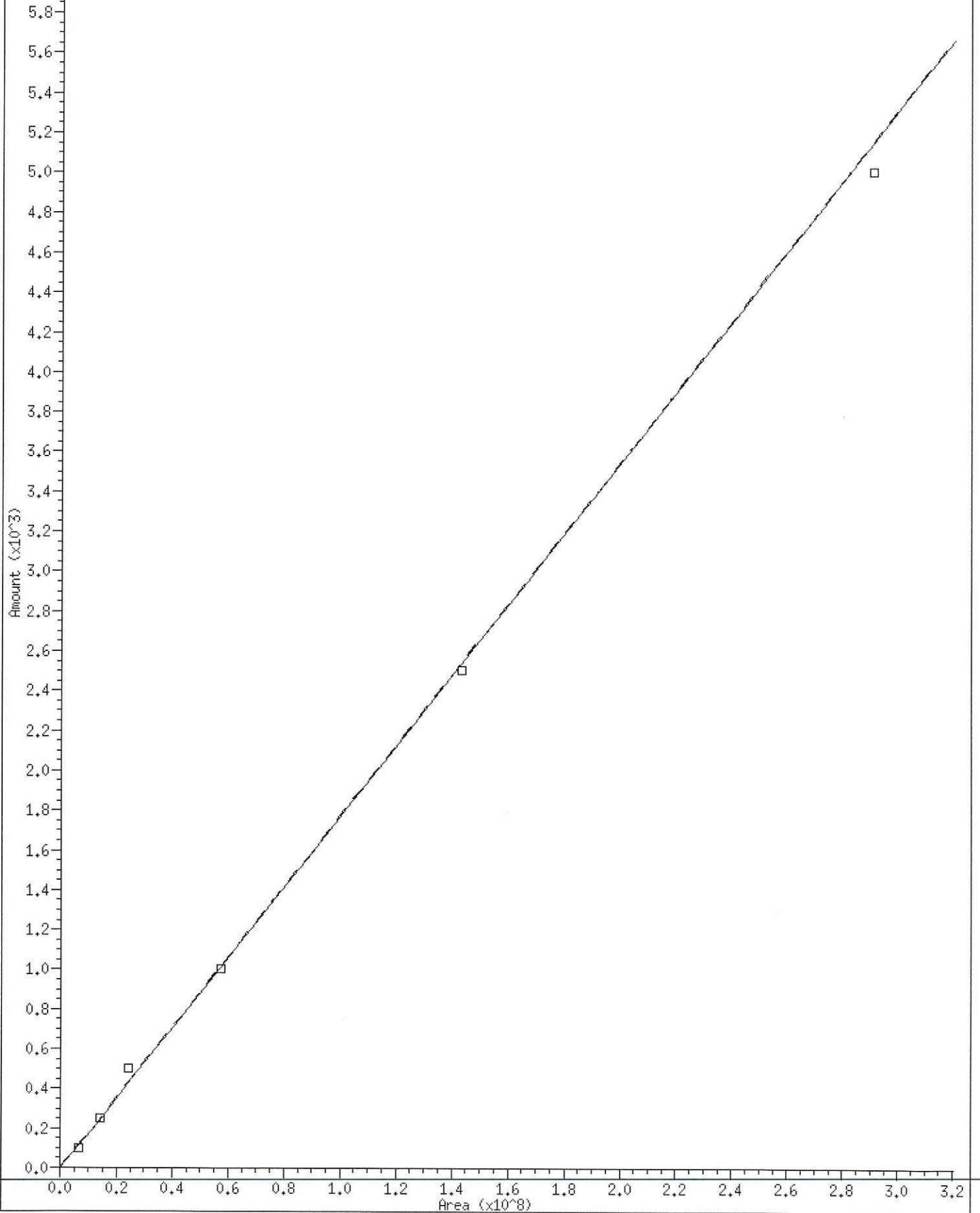
TPH Manual Integrations Report

Datafile: FID4A, 20200810.b/420H1013.D Injection: 10-AUG-2020 13:22

Lab ID:SEQ-CAL6



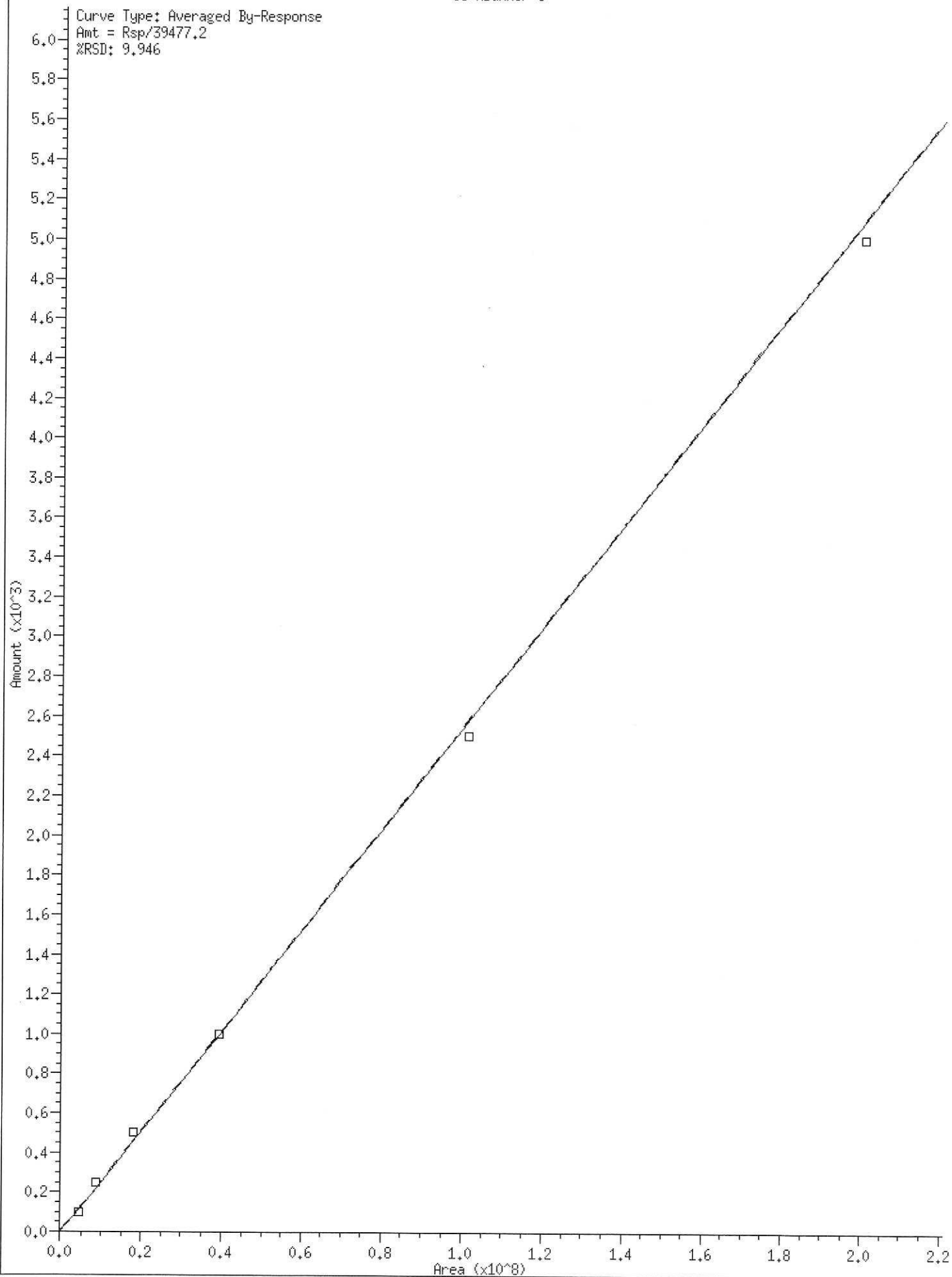
Curve Type: Averaged By-Response  
Amt = Rsp/56572.1  
%RSD: 8.647



Curve Type: Averaged By-Response

Amt = Rsp/39477.2

%RSD: 9.946





**SECOND-SOURCE CALIBRATION VERIFICATION**  
**NWTPH-Dx**

**Laboratory:** Analytical Resources, Inc.

**SDG:** 20K0204

**Client:** Anchor QEA, LLC

**Project:** Gasco Siltronic

**Calibration:** CJ00089

**Laboratory ID:** SHJ0406-SCV1

**Sequence:** SHJ0406

**Sequence Name:** DIESEL SCV

**Standard ID:** H008294

<b>ANALYTE</b>	<b>EXPECTED (mg/L)</b>	<b>FOUND (mg/L)</b>	<b>% DRIFT</b>	<b>QC LIMIT</b>
Diesel Range Organics (C12-C24)	500.00	511	2.2	30.00

\* Indicates values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20191025\_b\41932513.D

Date: 25-OCT-2019 15:52

Client ID:

Sample Info: SH00406-SCV1

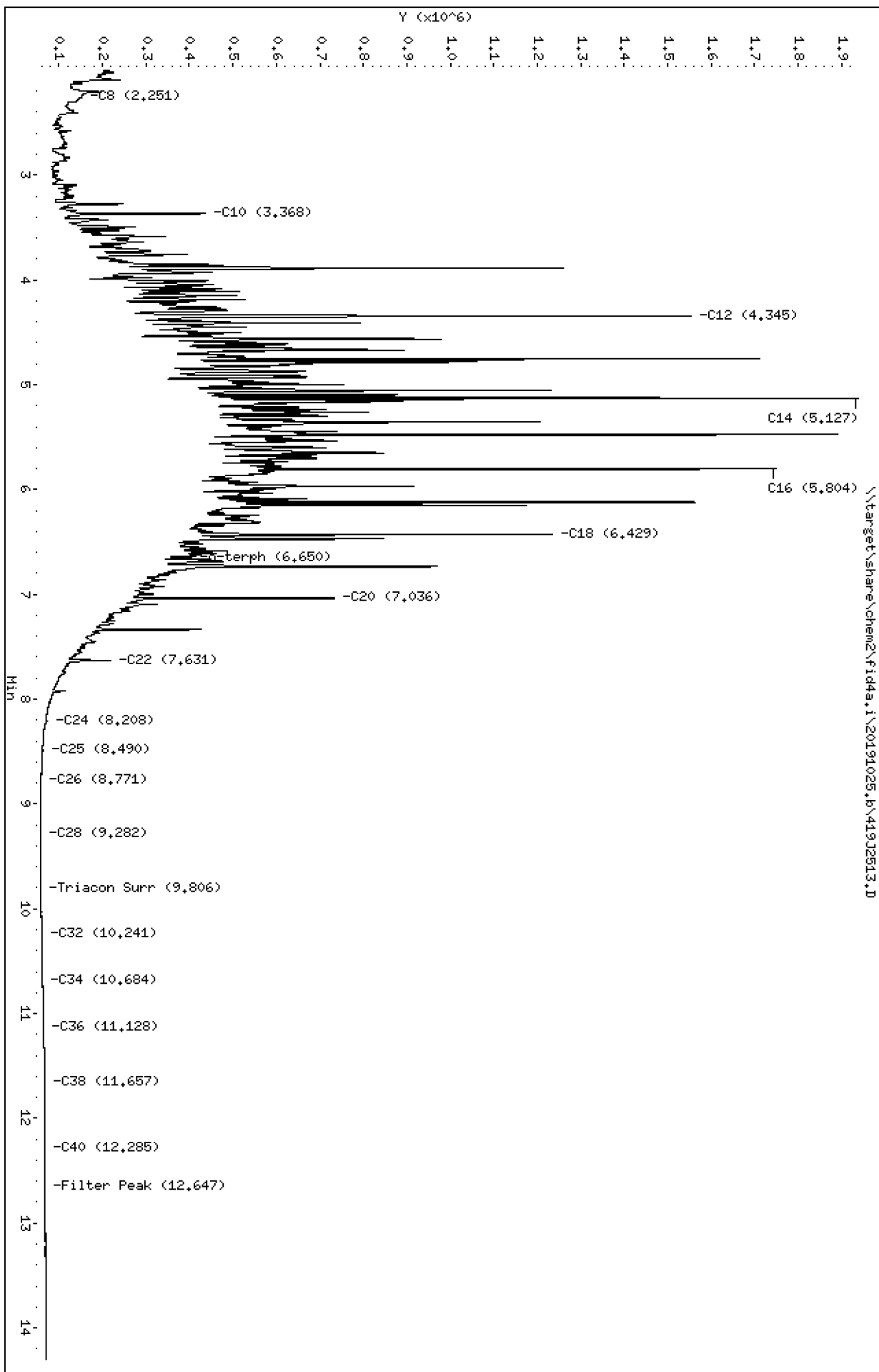
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO/SH/VTS/JGR

Column diameter: 0.25

Page 1



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2513.D  
Method: 20191025.b\FID4TPH.m  
Instrument: fid4a.i, CTO/SH/VTS/JGR  
Report Date: 10/30/2019  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SHJ0406-SCV1  
Client ID:  
Injection: 25-OCT-2019 15:52  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

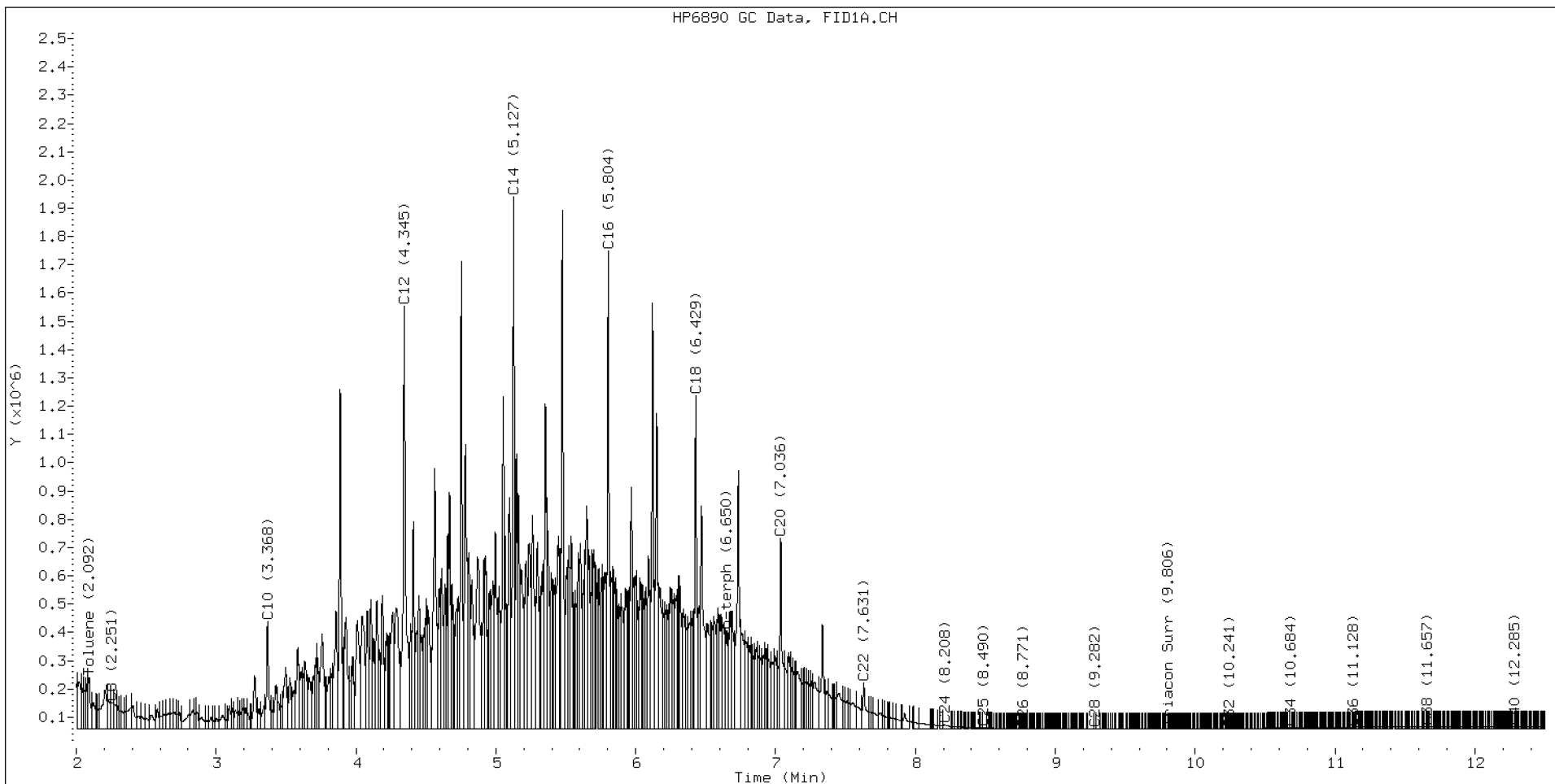
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.251	-0.011	94961	147864	WATPHD	(C12-C24)	81454017	511.2
C10	3.368	-0.005	379319	401979	WATPHM	(C24-C38)	639731	4.8
C12	4.345	-0.002	1496096	1990616	AK102	(C10-C25)	97704414	499.8
C14	5.127	-0.002	1881566	1510979	AK103	(C25-C36)	332991	3.3
C16	5.804	-0.003	1693335	1468242	OR.DIES	(C10-C28)	97755450	498.8
C18	6.429	-0.006	1178327	1173671				
C20	7.036	-0.007	676475	771884				
C22	7.631	-0.008	162529	245982				
C24	8.208	-0.007	16269	46701				
C25	8.490	-0.003	4835	8168				
C26	8.771	0.006	1378	465				
C28	9.282	-0.003	218	122				
C32	10.241	-0.001	2076	410				
C34	10.684	0.003	4334	2137				
Filter Peak	12.647	-0.003	10515	4189	CREOSOT	(C12-C22)	80554511	20650.3
C36	11.128	-0.001	6869	2744				
C38	11.657	0.008	8764	3056				
C40	12.285	-0.004	9988	4995				
o-terph	6.650	-0.007	347314	350999				
Triacon Surr	9.806	0.003	1146	388	NAS DIES	(C10-C24)	97645351	500.4

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

Surrogate	Area	Amount
o-Terphenyl	350999	1.7
Triacontane	388	0.0

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019





**SECOND-SOURCE CALIBRATION VERIFICATION**  
**NWTPH-Dx**

**Laboratory:** Analytical Resources, Inc.

**SDG:** 20K0204

**Client:** Anchor QEA, LLC

**Project:** Gasco Siltronic

**Calibration:** CJ00089

**Laboratory ID:** SHJ0406-SCV2

**Sequence:** SHJ0406

**Sequence Name:** MOIL SCV

**Standard ID:** H008399

<b>ANALYTE</b>	<b>EXPECTED (mg/L)</b>	<b>FOUND (mg/L)</b>	<b>% DRIFT</b>	<b>QC LIMIT</b>
Motor Oil Range Organics (C24-C38)	1000.0	1020	1.9	30.00

\* Indicates values outside of QC limits



Data File: \\target\share\chem2\fid4a,1\20191025,6\419J2520.D

Date: 25-OCT-2019 18:14

Client ID:

Sample Info: SHJ0406-SCV2

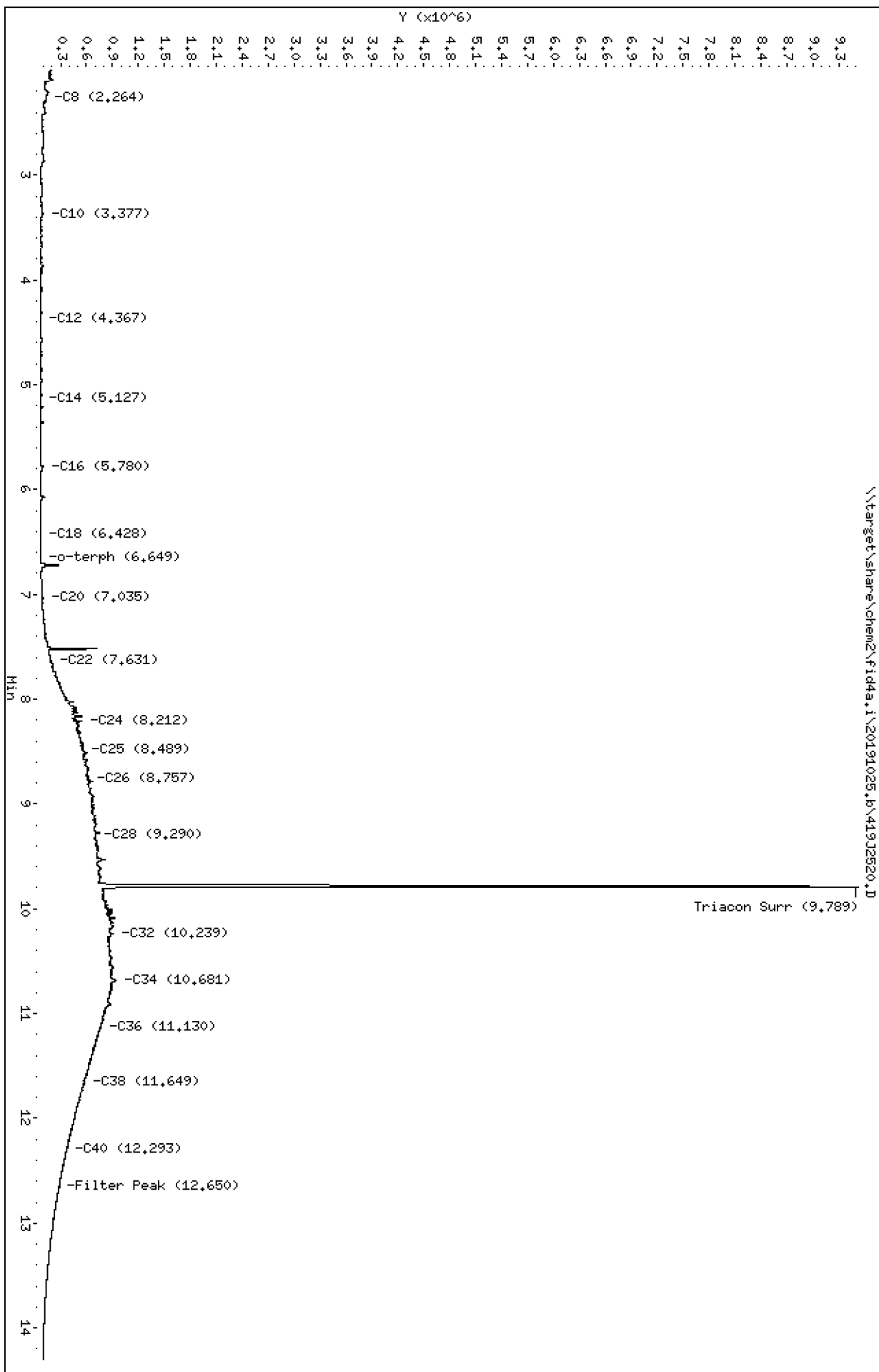
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO/SH/VTS/JGR

Column diameter: 0.25

Page 1



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20191025.b/419J2520.D

ARI ID: SHJ0406-SCV2

Method: 20191025.b\FID4TPH.m

Client ID:

Instrument: fid4a.i, CTO/SH/VTS/JGR

Injection: 25-OCT-2019 18:14

Report Date: 10/30/2019

Dilution Factor: 1

Macro: 09-SEP-2019

RT Std: 419H1603.D

Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

FID:4A RESULTS

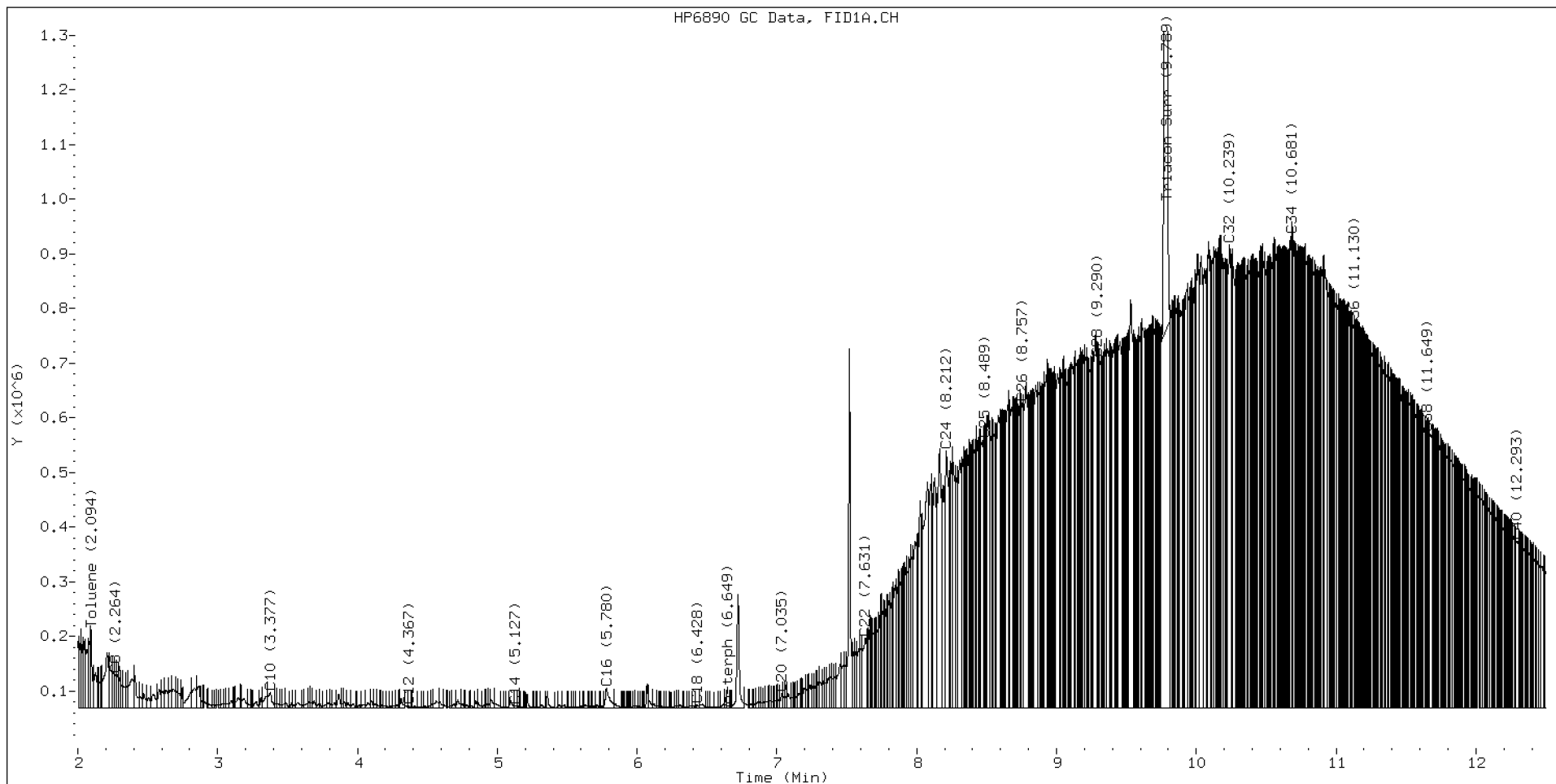
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.264	0.002	61386	42202	WATPHD	(C12-C24)	14006466	87.9
C10	3.377	0.004	28038	52387	WATPHM	(C24-C38)	135195593	1019.3
C12	4.367	0.020	3146	3151	AK102	(C10-C25)	18822986	96.3
C14	5.127	-0.003	4143	4458	AK103	(C25-C36)	113030798	1130.6
C16	5.780	-0.027	35494	74348	OR.DIES	(C10-C28)	49340102	251.7
C18	6.428	-0.007	6156	6874				
C20	7.035	-0.008	26093	30304				
C22	7.631	-0.008	127794	247657				
C24	8.212	-0.003	471017	746279				
C25	8.489	-0.004	491516	98217				
C26	8.757	-0.008	557900	550938				
C28	9.290	0.005	640615	223711				
C32	10.239	-0.004	847729	1306304				
C34	10.681	-0.000	865603	764427				
Filter Peak	12.650	-0.000	213232	84835	CREOSOT	(C12-C22)	3605357	924.2
C36	11.130	0.001	692159	413129				
C38	11.649	-0.001	503231	200454				
C40	12.293	0.004	305287	287895				
o-terph	6.649	-0.008	4022	3699				
Triacon Surr	9.789	-0.013	8762887	8519530	NAS DIES	(C10-C24)	14444503	74.0

Range Times: NW Diesel(4.347 - 8.215) AK102(3.37 - 8.49) Jet A(3.37 - 6.43)  
 NW M.Oil(8.21 - 11.65) AK103(8.49 - 11.13) OR Diesel(3.37 - 9.29)

Surrogate	Area	Amount
o-Terphenyl	3699	0.0
Triacontane	8519530	47.9 M

M Indicates the peak was manually integrated

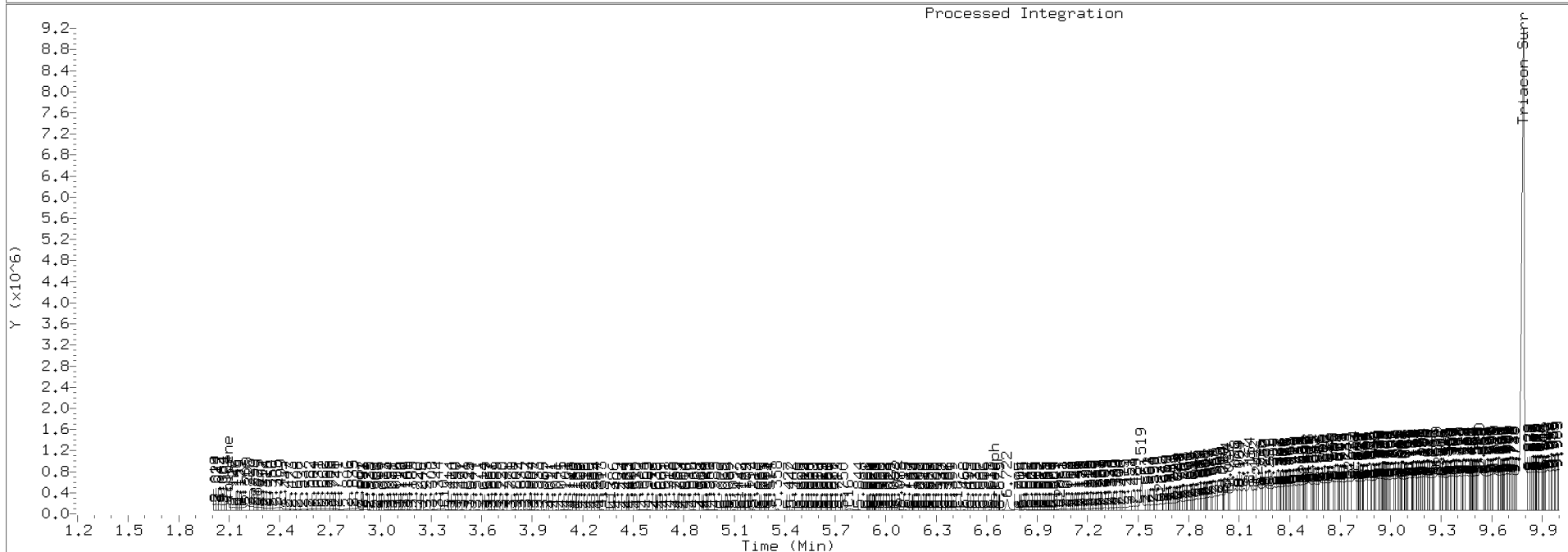
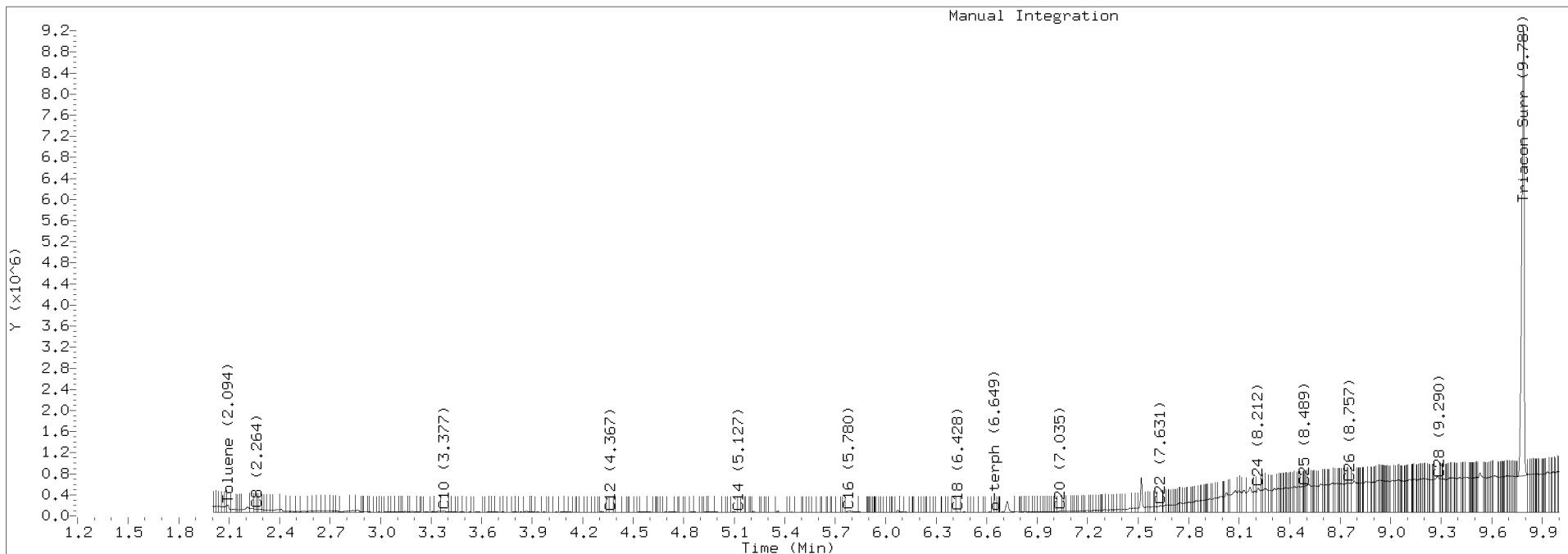
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	177979.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	132632.1	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	99976.4	25-OCT-2019
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	6149.8	07-OCT-2019
Creosote	3900.9	08-OCT-2019



TPH Manual Integrations Report

Datafile: FID4A, 20191025.b/419J2520.D Injection: 25-OCT-2019 18:14

Lab ID:SHJ0406-SCV2





**SECOND-SOURCE CALIBRATION VERIFICATION**  
**NWTPH-Dx**

**Laboratory:** Analytical Resources, Inc.

**SDG:** 20K0204

**Client:** Anchor QEA, LLC

**Project:** Gasco Siltronic

**Calibration:** DA00022

**Laboratory ID:** SIF0018-SCV1

**Sequence:** SIF0018

**Sequence Name:** MOIL SCV

**Standard ID:** I004757

<b>ANALYTE</b>	<b>EXPECTED (mg/L)</b>	<b>FOUND (mg/L)</b>	<b>% DRIFT</b>	<b>QC LIMIT</b>
Motor Oil Range Organics (C24-C38)	1000.0	952	-4.8	30.00

\* Indicates values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20200602\_b\420F0211.D

Date : 02-JUN-2020 10:55

Client ID:

Sample Info: SIF0018-SCV1

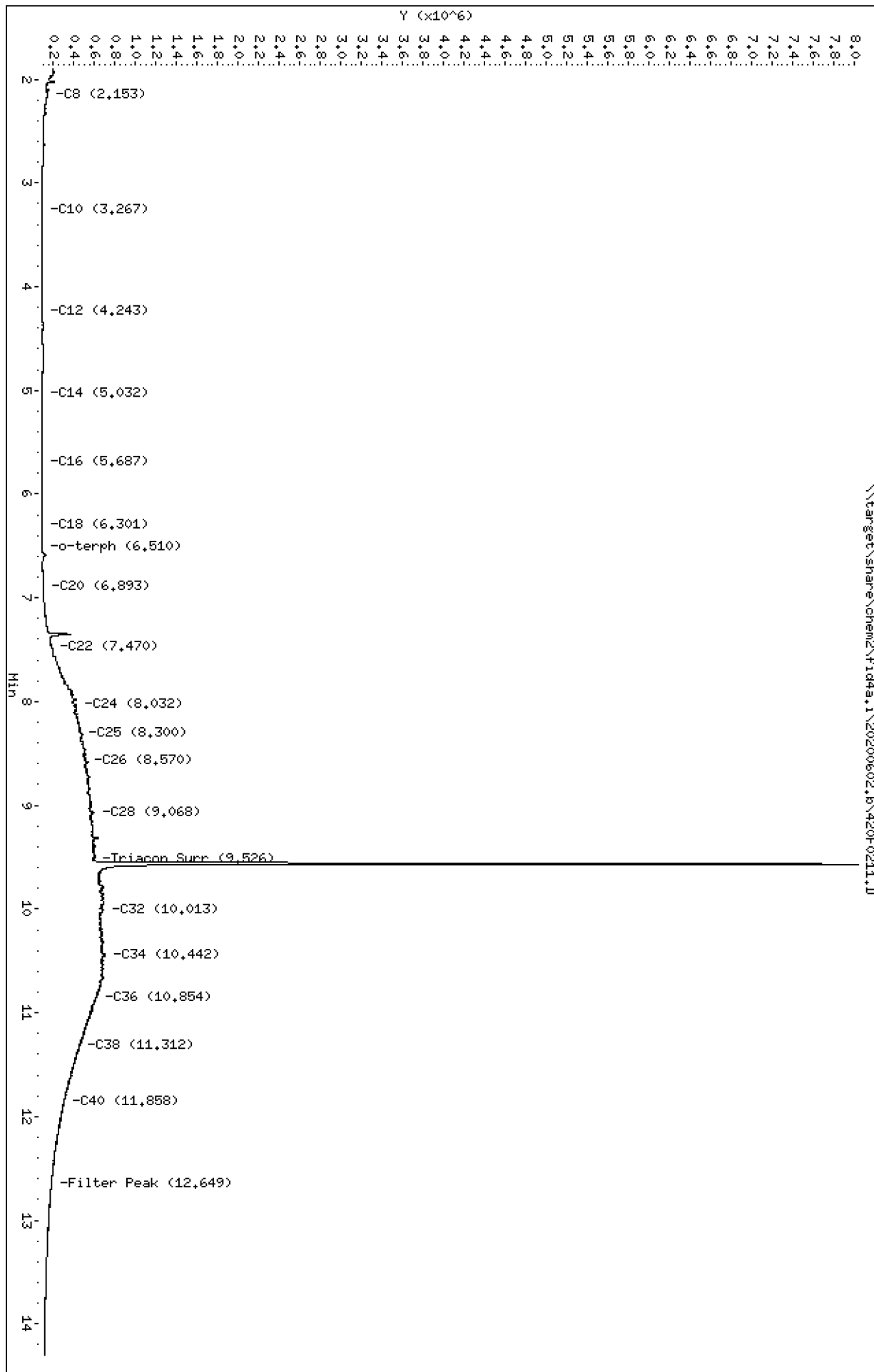
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

\\target\share\chem2\fid4a,1\20200602\_b\420F0211.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200602.b/420F0211.D  
Method: 20200602.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 06/02/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SIF0018-SCV1  
Client ID:  
Injection: 02-JUN-2020 10:55  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

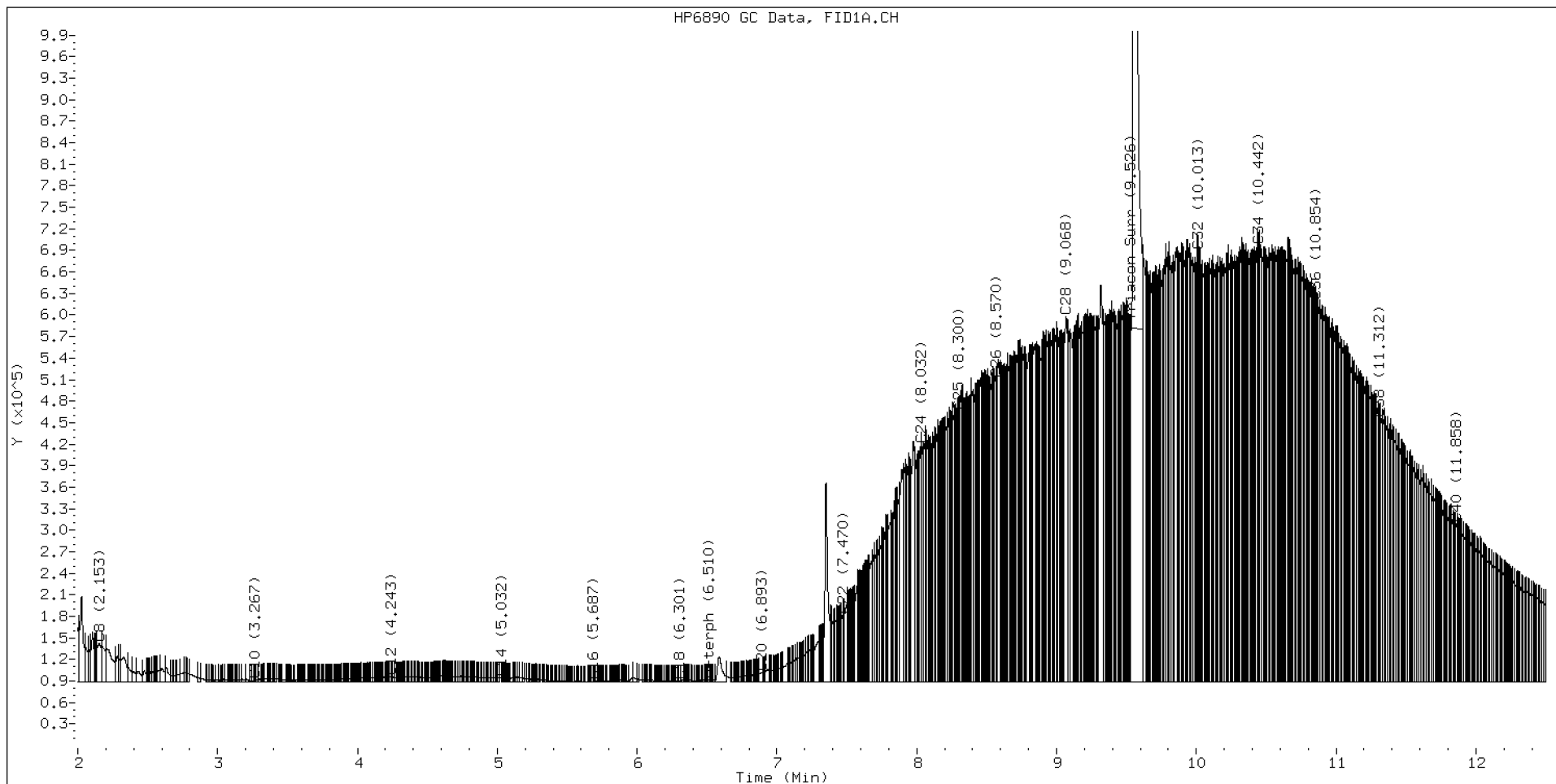
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	2.153	-0.003	53793	112352	WATPHD	(C12-C24)	10130617	63.6
C10	3.267	-0.001	3184	1798	WATPHM	(C24-C38)	96339891	952.3
C12	4.243	-0.001	6309	3433	AK102	(C10-C25)	13696411	70.1
C14	5.032	0.010	5041	1965	AK103	(C25-C36)	81704578	1116.1
C16	5.687	-0.002	418	225	OR.DIES	(C10-C28)	36730595	187.4
C18	6.301	0.002	1584	1331				
C20	6.893	0.005	13152	18749	JET-A	(C10-C18)	637720	3.8
C22	7.470	0.003	92369	58795				
C24	8.032	0.002	330875	354349				
C25	8.300	-0.001	376891	169098				
C26	8.570	0.005	421264	147085				
C28	9.068	-0.008	508527	807405				
C32	10.013	0.001	600890	237363				
C34	10.442	0.001	608272	242751				
Filter Peak	12.649	-0.003	94447	119849	CREOSOT	(C12-C22)	2566539	62.2
C36	10.854	-0.001	530087	263622				
C38	11.312	0.002	366594	183102				
C40	11.858	-0.003	220172	173259				
o-terph	6.510	0.003	2949	1966				
Triacon Surr	9.567	-0.013	7460477	7161172	NAS DIES	(C10-C24)	10346316	53.0

Range Times: NW Diesel(4.244 - 8.029) AK102(3.27 - 8.30) Jet A(3.27 - 6.30)  
NW M.Oil(8.03 - 11.31) AK103(8.30 - 10.86) OR Diesel(3.27 - 9.08)

Surrogate	Area	Amount
o-Terphenyl	1966	0.0
Triacontane	7161172	48.3 M

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	167898.6	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	41237.8	30-MAR-2020

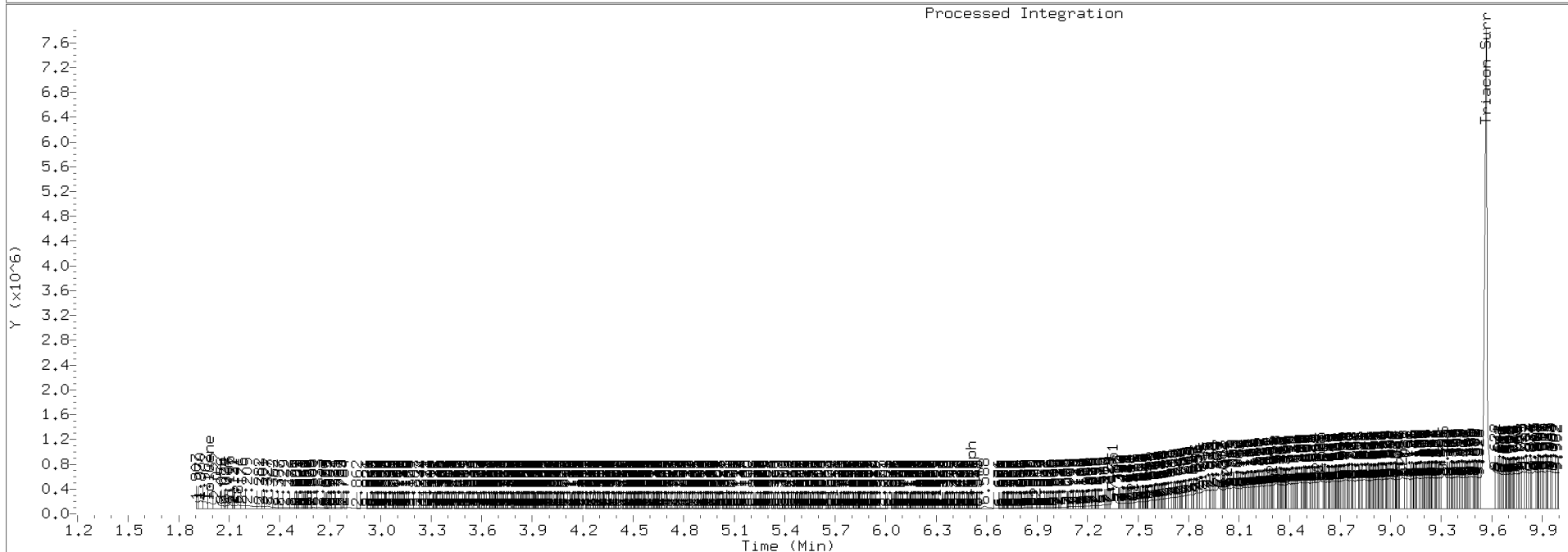
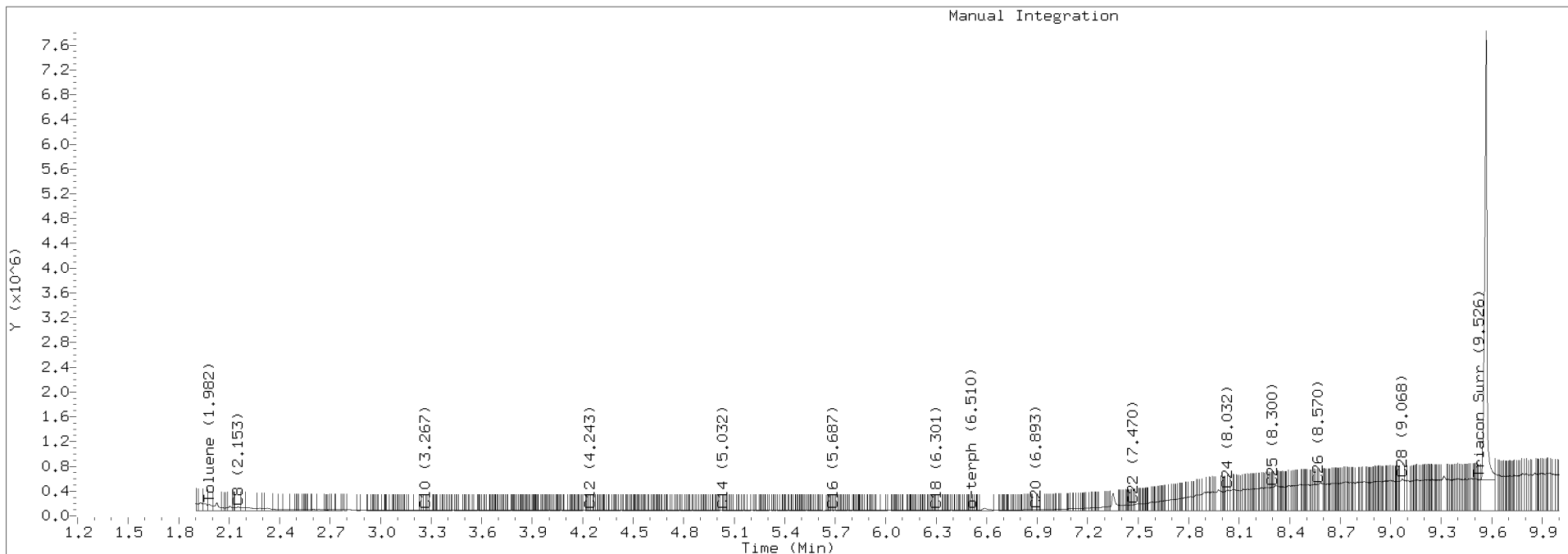




TPH Manual Integrations Report

Datafile: FID4A, 20200602.b/420F0211.D Injection: 02-JUN-2020 10:55

Lab ID:SIF0018-SCV1





## INITIAL CALIBRATION CHECK

### NWTPH-Dx

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>20K0204</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic</u>
Instrument ID:	<u>FID4</u>	Calibration:	<u>DA00022</u>
Lab File ID:	<u>420H1405.D</u>	Calibration Date:	<u>10/25/2019</u>
Sequence:	<u>SIH0165</u>	Injection Date:	<u>08/14/20</u>
Lab Sample ID:	<u>SIH0165-ICV1</u>	Injection Time:	<u>09:22</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	452	159336.7000	143929.7000		-9.7	+/-15
o-Terphenyl	A	90.000	79.7	204701.9000	181200.4000		-11.4	+/-15

\* Values outside of QC limits

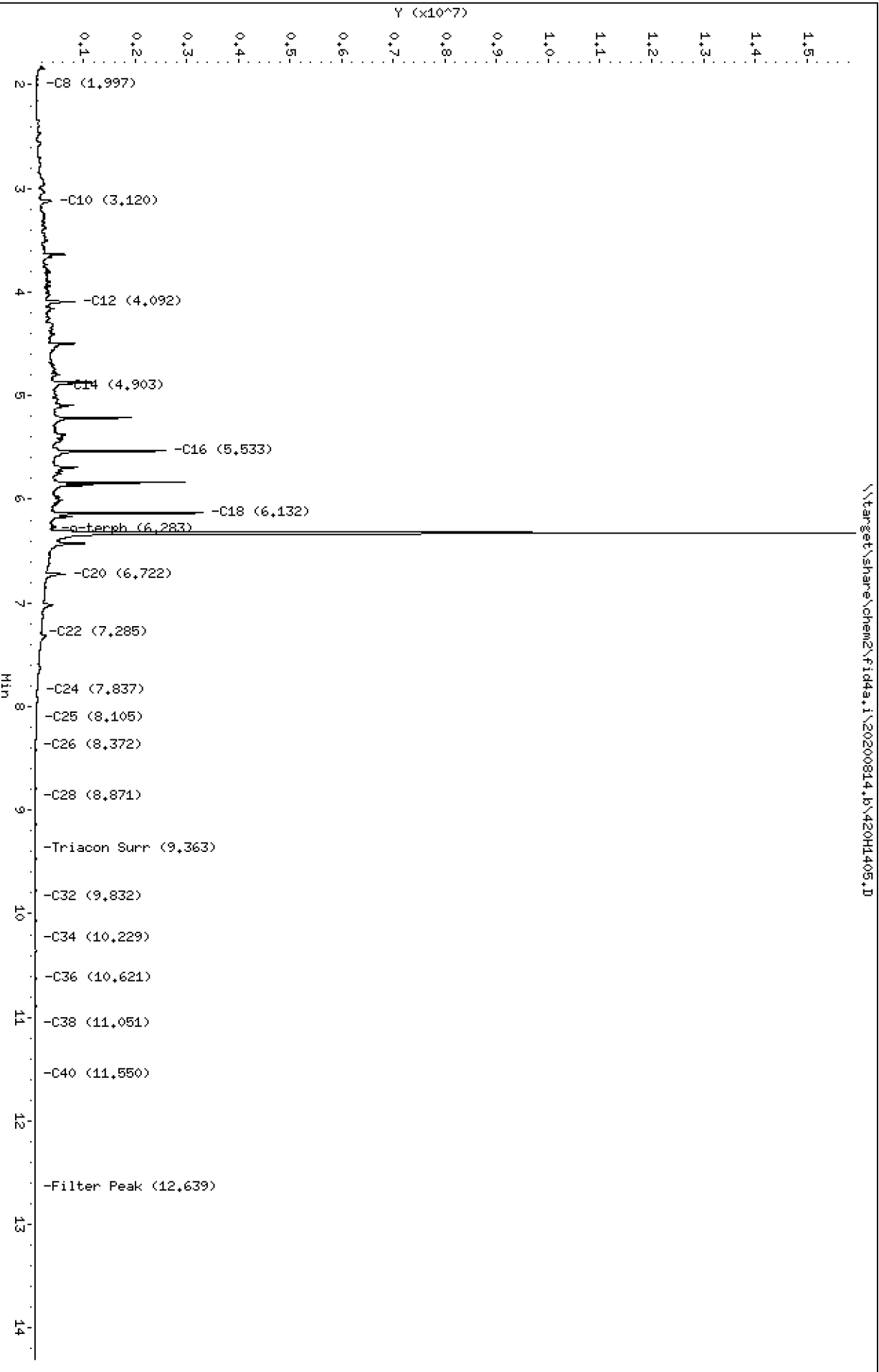
Data File: \\target\share\chem2\fid4a,1\20200814,b\420H1405.D  
Date: 14-AUG-2020 09:22  
Client ID:  
Sample Info: SEQ-ICV1

Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200814.b/420H1405.D  
Method: 20200814.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 08/24/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-ICV1  
Client ID:  
Injection: 14-AUG-2020 09:22  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

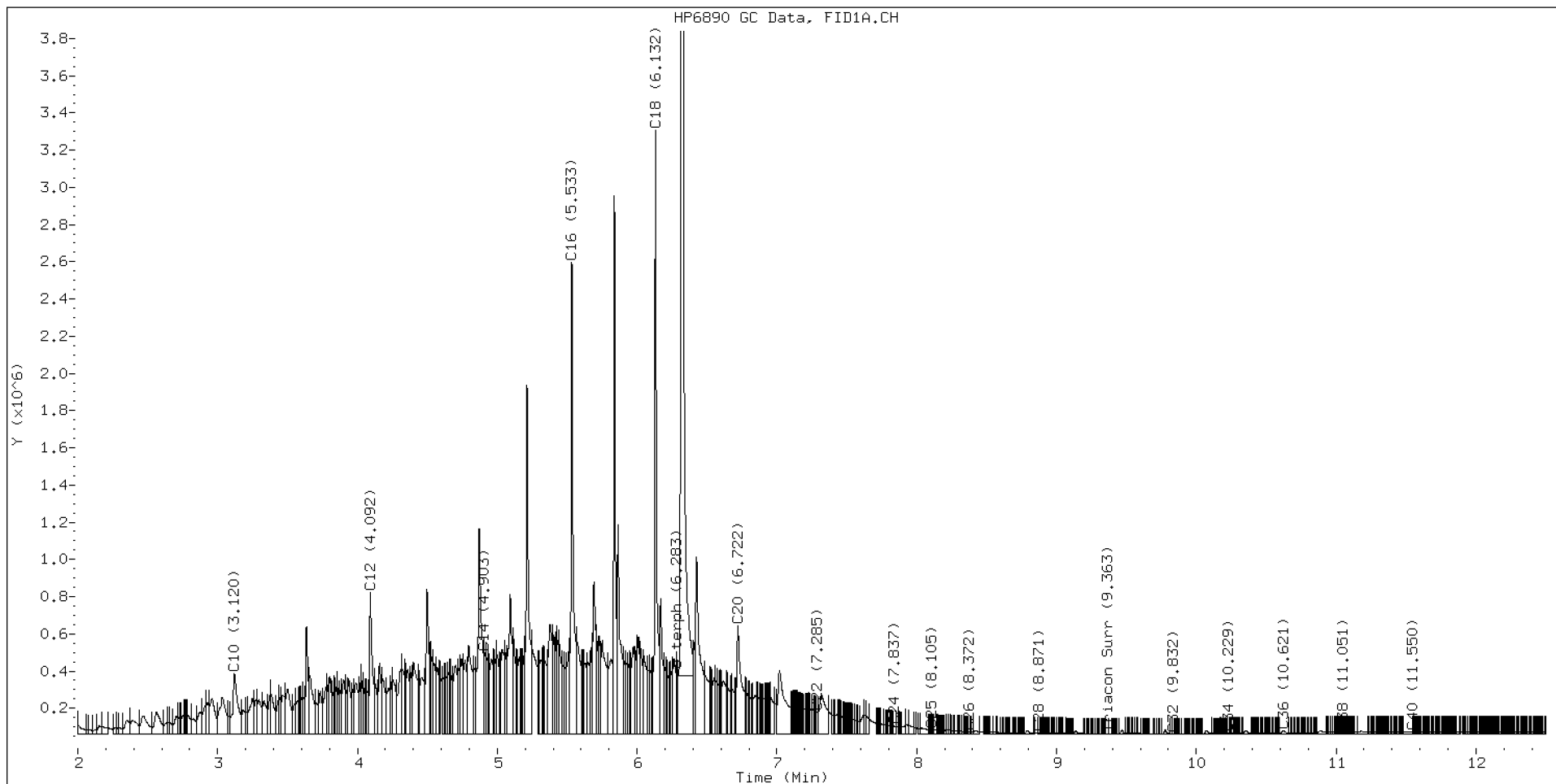
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.997	0.005	40843	33627	WATPHD	(C12-C24)	71964855	451.7
C10	3.120	0.014	325072	797990	WATPHM	(C24-C38)	1266216	12.5
C12	4.092	0.004	762319	1032736	AK102	(C10-C25)	85535496	437.5
C14	4.903	0.007	433964	108282	AK103	(C25-C36)	721257	9.9
C16	5.533	-0.006	2534947	2843734	OR.DIES	(C10-C28)	85979845	438.7
C18	6.132	-0.001	3241659	3021147				
C20	6.722	0.001	579946	1361381	JET-A	(C10-C18)	66259303	399.5
C22	7.285	-0.002	118208	75763				
C24	7.837	0.000	40860	41994				
C25	8.105	-0.002	21635	11645				
C26	8.372	0.002	11121	7081				
C28	8.871	-0.006	3180	2563				
C32	9.832	0.024	787	464				
C34	10.229	-0.003	1539	966				
Filter Peak	12.639	0.003	9157	2736	CREOSOT	(C12-C22)	70189113	778.8
C36	10.621	-0.016	16397	34426				
C38	11.051	-0.001	7695	3810				
C40	11.550	0.003	9095	2723				
o-terph	6.329	-0.001	15571273	16308043				
Triacon Surr	9.363	-0.016	1148	1070	NAS DIES	(C10-C24)	85166215	436.4

Range Times: NW Diesel(4.087 - 7.837) AK102(3.11 - 8.11) Jet A(3.11 - 6.13)  
NW M.Oil(7.84 - 11.05) AK103(8.11 - 10.64) OR Diesel(3.11 - 8.88)

Surrogate	Area	Amount
o-Terphenyl	16308043	79.7 M
Triacontane	1070	0.0

M Indicates the peak was manually integrated

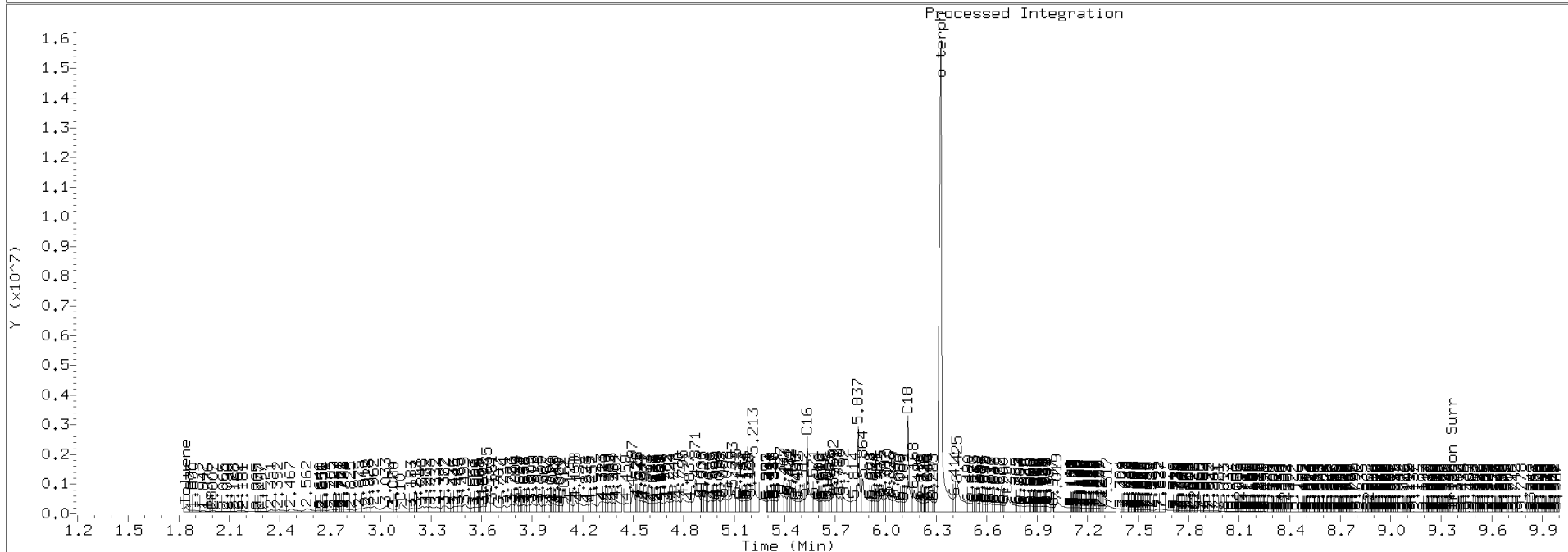
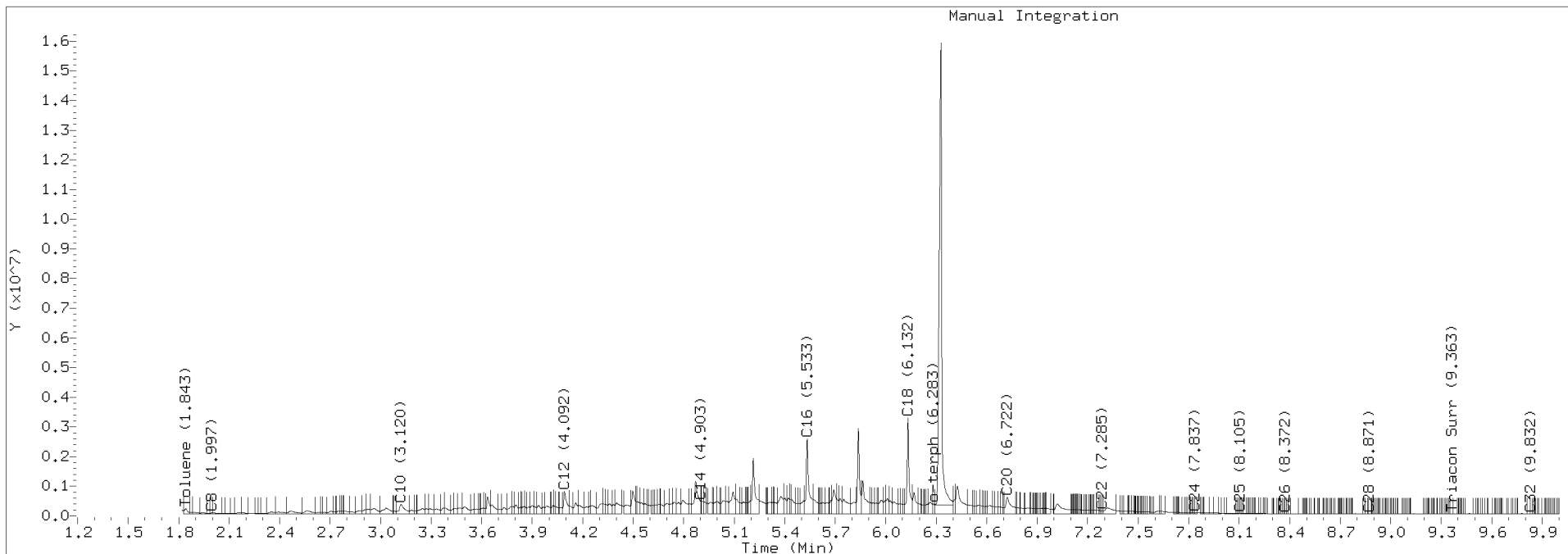
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	90128.3	30-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20200814.b/420H1405.D Injection: 14-AUG-2020 09:22

Lab ID:SEQ-ICV1





## INITIAL CALIBRATION CHECK

NWTPH-Dx

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>20K0204</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic</u>
Instrument ID:	<u>FID4</u>	Calibration:	<u>DA00022</u>
Lab File ID:	<u>420H1406.D</u>	Calibration Date:	<u>10/25/2019</u>
Sequence:	<u>SIH0165</u>	Injection Date:	<u>08/14/20</u>
Lab Sample ID:	<u>SIH0165-ICV2</u>	Injection Time:	<u>09:42</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	949	101166.0000	95960.3100		-5.2	+/-15

\* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20200814,b\420H1406.D  
Date: 14-AUG-2020 09:42

Client ID:  
Sample Info: SEQ-ICV2

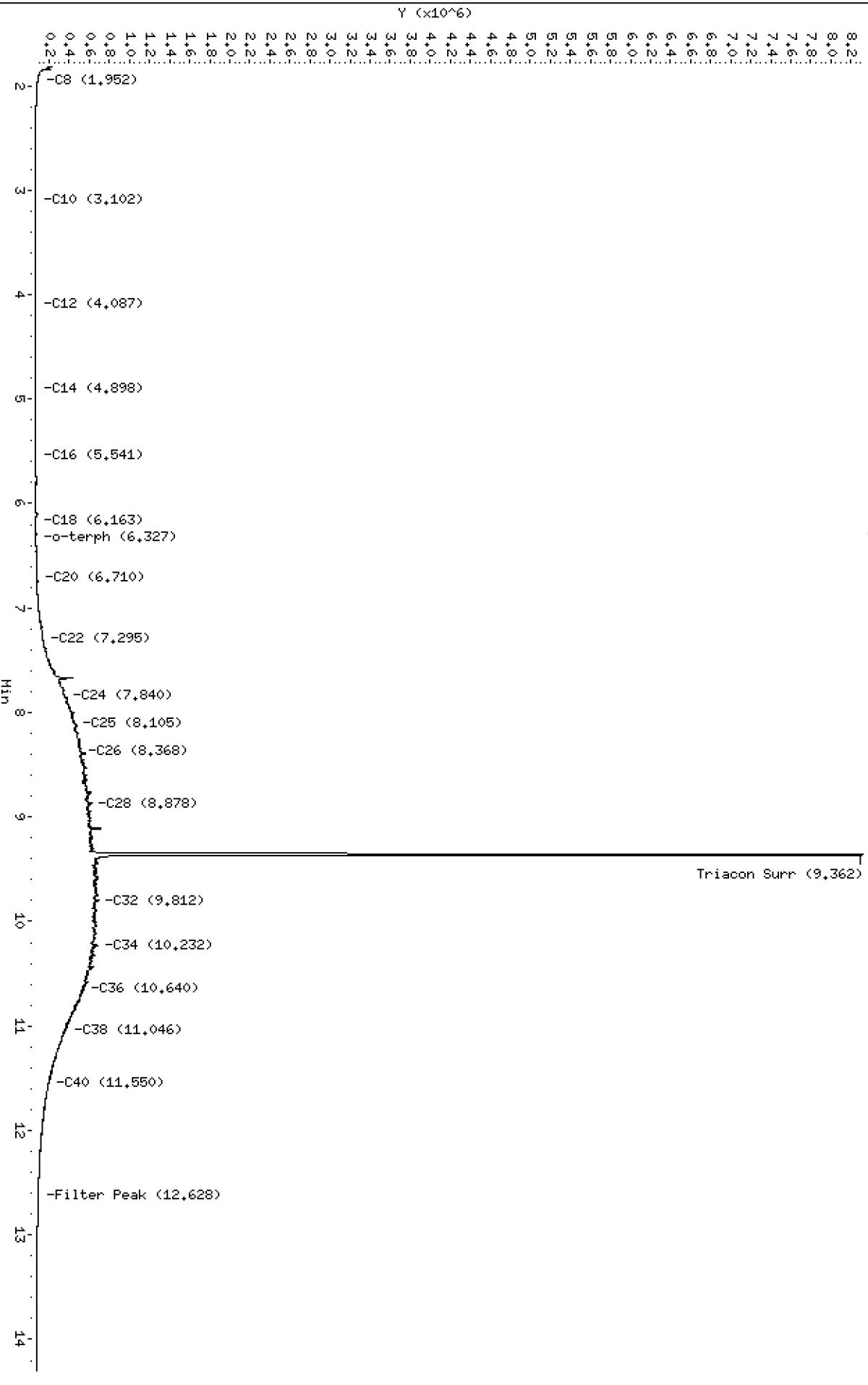
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

\\target\share\chem2\fid4a,1\20200814,b\420H1406.D





Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200814.b/420H1406.D  
Method: 20200814.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 08/24/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-ICV2  
Client ID:  
Injection: 14-AUG-2020 09:42  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

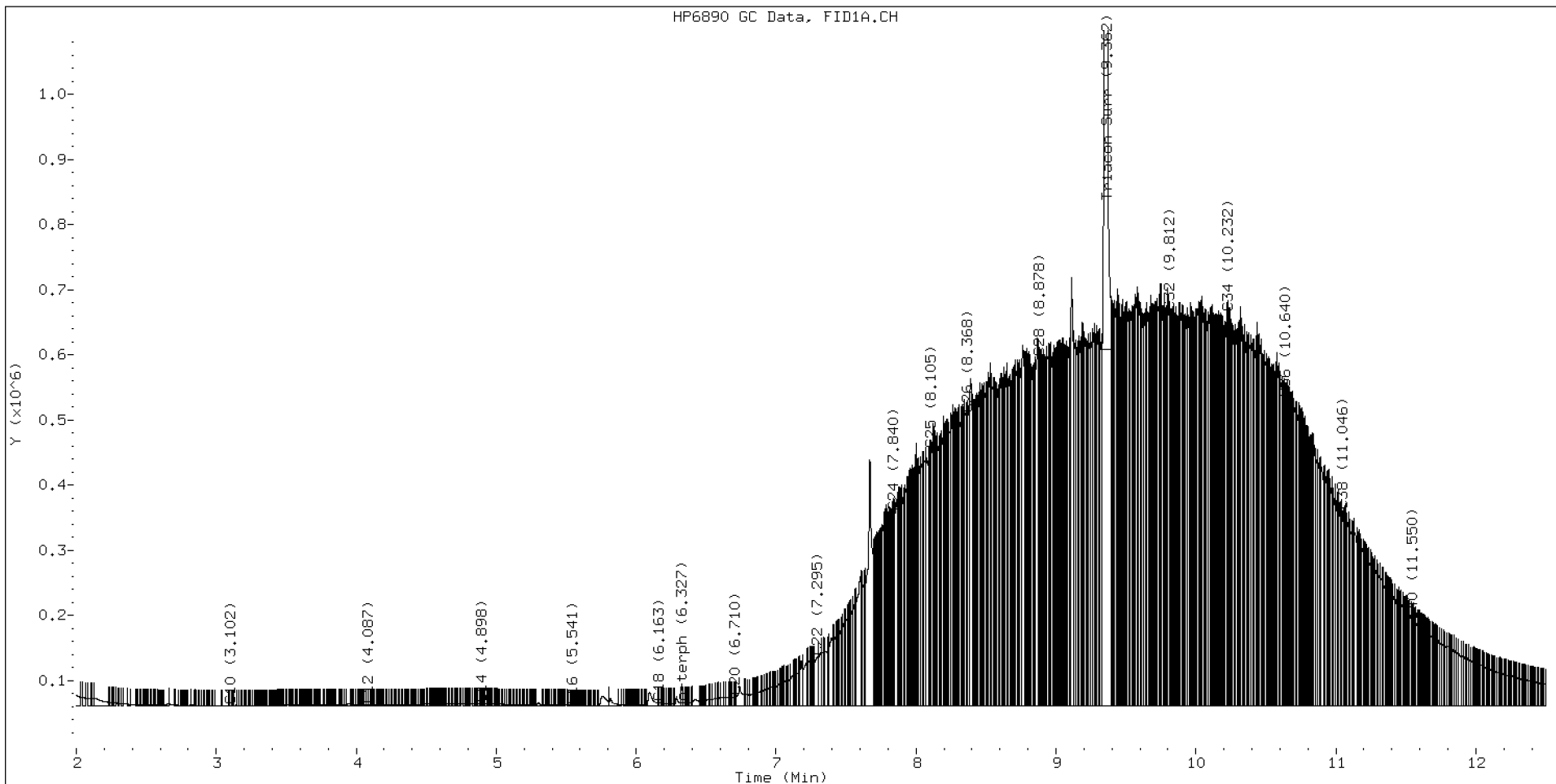
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.952	-0.040	27354	110814	WATPHD	(C12-C24)	8523012	53.5
C10	3.102	-0.003	255	112	WATPHM	(C24-C38)	95960311	948.5
C12	4.087	0.000	2131	1346	AK102	(C10-C25)	11966648	61.2
C14	4.898	0.002	3194	2177	AK103	(C25-C36)	83706743	1143.4
C16	5.541	0.002	1038	632	OR.DIES	(C10-C28)	36398609	185.7
C18	6.163	0.030	4516	2215				
C20	6.710	-0.011	14096	9040	JET-A	(C10-C18)	432804	2.6
C22	7.295	0.008	75479	100922				
C24	7.840	0.003	297736	162736				
C25	8.105	-0.002	394411	214332				
C26	8.368	-0.002	447994	199611				
C28	8.878	0.002	535084	186033				
C32	9.812	0.005	605145	418061				
C34	10.232	0.000	604345	298395				
Filter Peak	12.628	-0.008	28457	21262	CREOSOT	(C12-C22)	2078742	23.1
C36	10.640	0.003	472588	118020				
C38	11.046	-0.006	299292	202630				
C40	11.550	0.003	130300	25939				
o-terph	6.327	-0.002	4981	3653				
Triacon Surr	9.362	-0.017	7713313	6999831	NAS DIES	(C10-C24)	8620055	44.2

Range Times: NW Diesel(4.087 - 7.837) AK102(3.11 - 8.11) Jet A(3.11 - 6.13)  
NW M.Oil(7.84 - 11.05) AK103(8.11 - 10.64) OR Diesel(3.11 - 8.88)

Surrogate	Area	Amount
o-Terphenyl	3653	0.0
Triacontane	6999831	47.2 M

M Indicates the peak was manually integrated

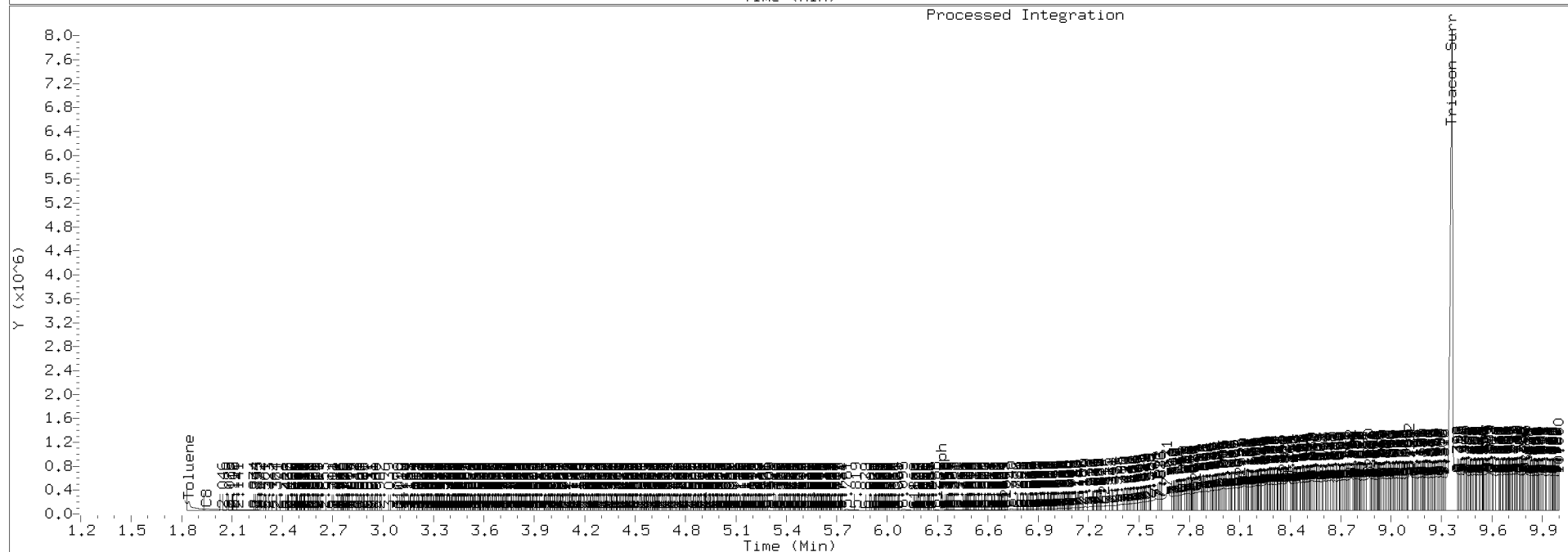
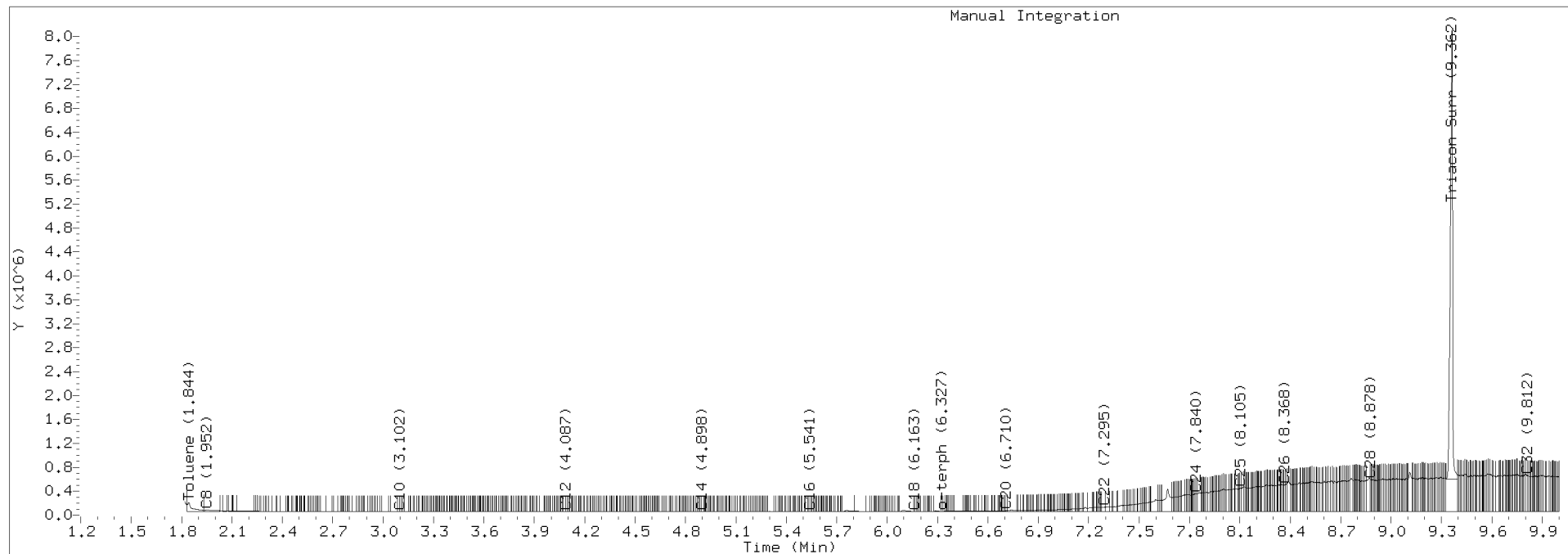
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	90128.3	30-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20200814.b/420H1406.D Injection: 14-AUG-2020 09:42

Lab ID:SEQ-ICV2





## INITIAL CALIBRATION CHECK

### NWTPH-Dx

Laboratory: Analytical Resources, Inc.                      SDG: 20K0204  
Client: Anchor QEA, LLC    Project: Gasco Siltronic  
Instrument ID: FID4    Calibration: DA00022  
Lab File ID: 420H1407.D    Calibration Date: 10/25/2019  
Sequence: SIH0165    Injection Date: 08/14/20  
Lab Sample ID: SIH0165-ICV3                                      Injection Time: 10:01  
Sequence Name: CREOSOTE ICV

COMPOUND	TYPE	CONC. (mg/L)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
o-Terphenyl	A	90.000	87.4	204701.9000	198864.8000		-2.9	+/-15

\* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20200814,b\420H1407.D  
Date: 14-AUG-2020 10:01

Client ID:

Sample Info: SEQ-ICV3

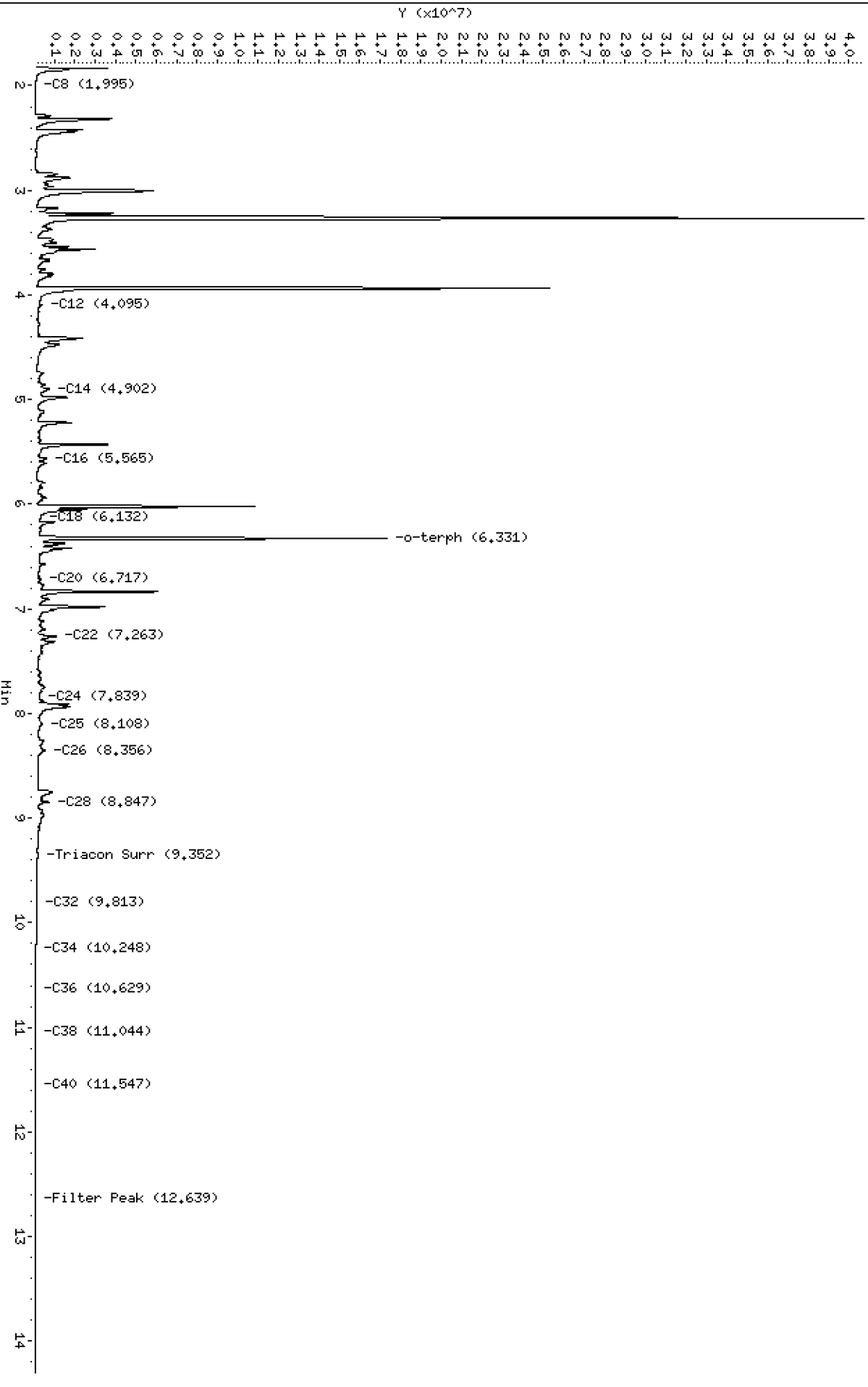
Column phase: RTX-1

Instrument: fid4a,1

Operator: CTO

Column diameter: 0.25

\\target\share\chem2\fid4a,1\20200814,b\420H1407.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200814.b/420H1407.D  
Method: 20200814.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 08/24/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-ICV3  
Client ID:  
Injection: 14-AUG-2020 10:01  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

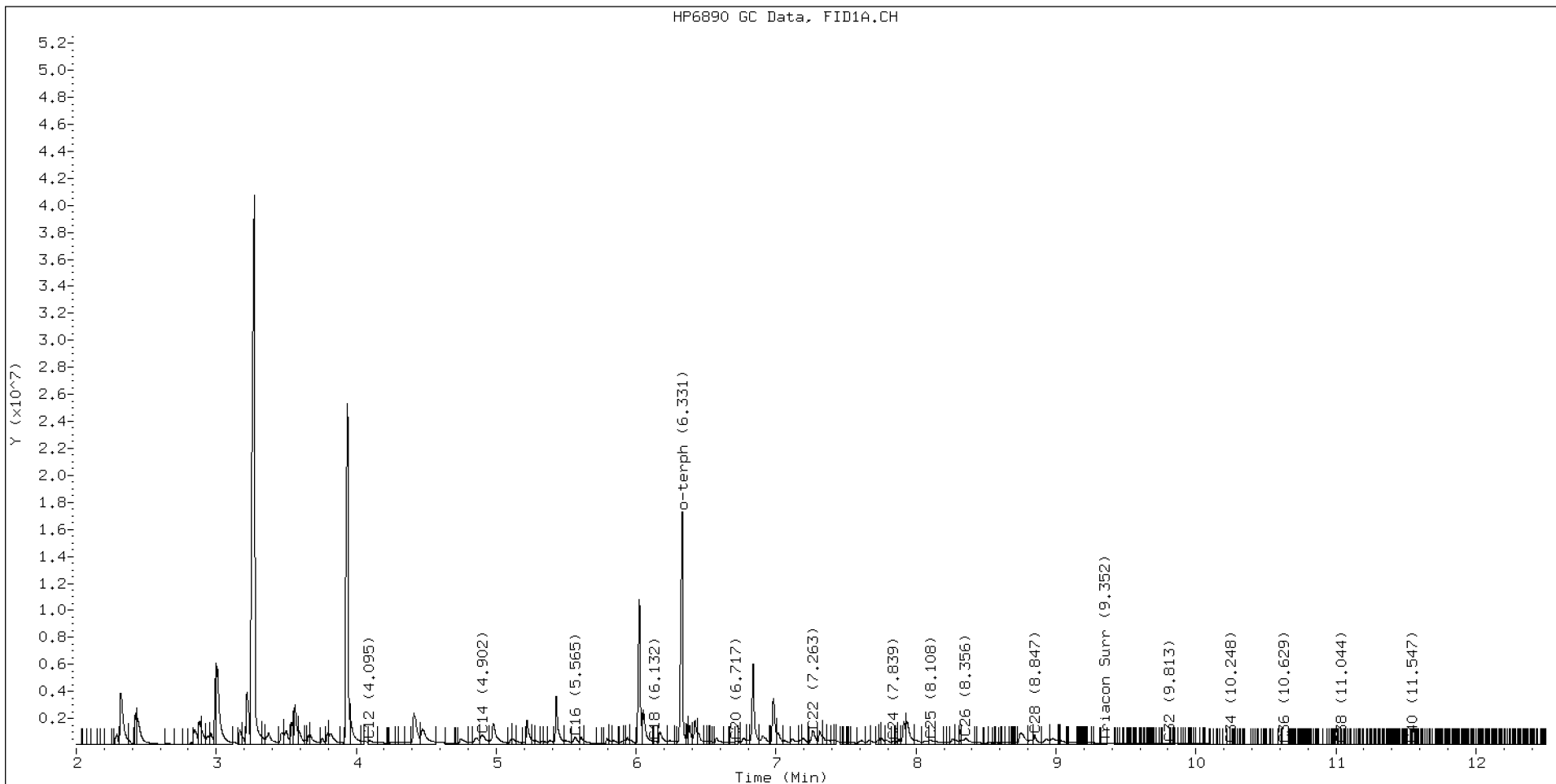
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.995	0.003	22887	55158	WATPHD	(C12-C24)	92828242	582.6
C10	----				WATPHM	(C24-C38)	26861032	265.5
C12	4.095	0.008	349995	800879	AK102	(C10-C25)	210603257	1077.3
C14	4.902	0.005	666284	1890511	AK103	(C25-C36)	20444376	279.3
C16	5.565	0.025	549111	1124692	OR.DIES	(C10-C28)	222677683	1136.1
C18	6.132	-0.001	250901	386399				
C20	6.717	-0.004	257524	297197	JET-A	(C10-C18)	164715487	993.2
C22	7.263	-0.024	1047046	2032919				
C24	7.839	0.002	208540	262238				
C25	8.108	0.001	320836	813365				
C26	8.356	-0.015	466637	1653208				
C28	8.847	-0.029	666562	1184662				
C32	9.813	0.006	83137	231165				
C34	10.248	0.016	30043	17822				
Filter Peak	12.639	0.003	3214	1594	CREOSOT	(C12-C22)	86419480	958.8
C36	10.629	-0.008	16478	42743				
C38	11.044	-0.007	11170	9935				
C40	11.547	-0.000	6136	2129				
o-terph	6.331	0.001	17243823	17897827				
Triacon Surr	9.352	-0.026	119154	254054	NAS DIES	(C10-C24)	204463147	1047.7

Range Times: NW Diesel(4.087 - 7.837) AK102(3.11 - 8.11) Jet A(3.11 - 6.13)  
NW M.Oil(7.84 - 11.05) AK103(8.11 - 10.64) OR Diesel(3.11 - 8.88)

Surrogate	Area	Amount
o-Terphenyl	17897827	87.4
Triacontane	254054	1.7

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	90128.3	30-MAR-2020





## INITIAL CALIBRATION CHECK

### NWTPH-Dx

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>20K0204</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic</u>
Instrument ID:	<u>FID4</u>	Calibration:	<u>DA00022</u>
Lab File ID:	<u>420K2905.D</u>	Calibration Date:	<u>10/25/2019</u>
Sequence:	<u>SIK0411</u>	Injection Date:	<u>11/29/20</u>
Lab Sample ID:	<u>SIK0411-ICV1</u>	Injection Time:	<u>16:25</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	459	159336.7000	146332.9000		-8.2	+/-15
o-Terphenyl	A	90.000	81.4	204701.9000	185047.8000		-9.6	+/-15

\* Values outside of QC limits

\* Values outside of QC limits



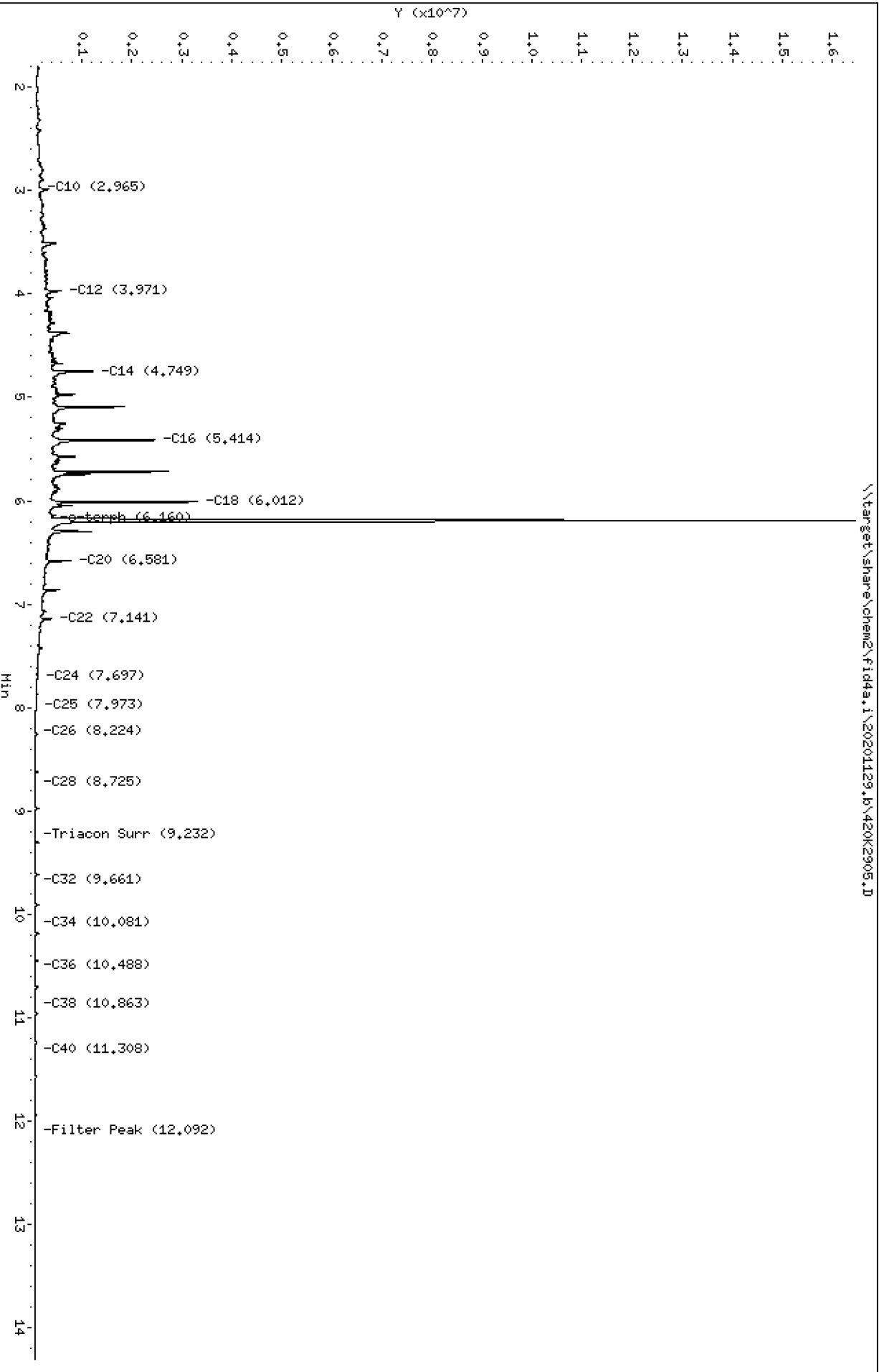
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Date: 29-NOV-2020 16:25  
Client ID:  
Sample Info: SEQ-ICV1

Instrument: fid4a,1

Page 1

Column phase: RTX-1

Operator: JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201129.b/420K2905.D  
Method: 20201129.b\FID4TPH.m  
Instrument: fid4a.i, JGR  
Report Date: 11/30/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-ICV1  
Client ID:  
Injection: 29-NOV-2020 16:25  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

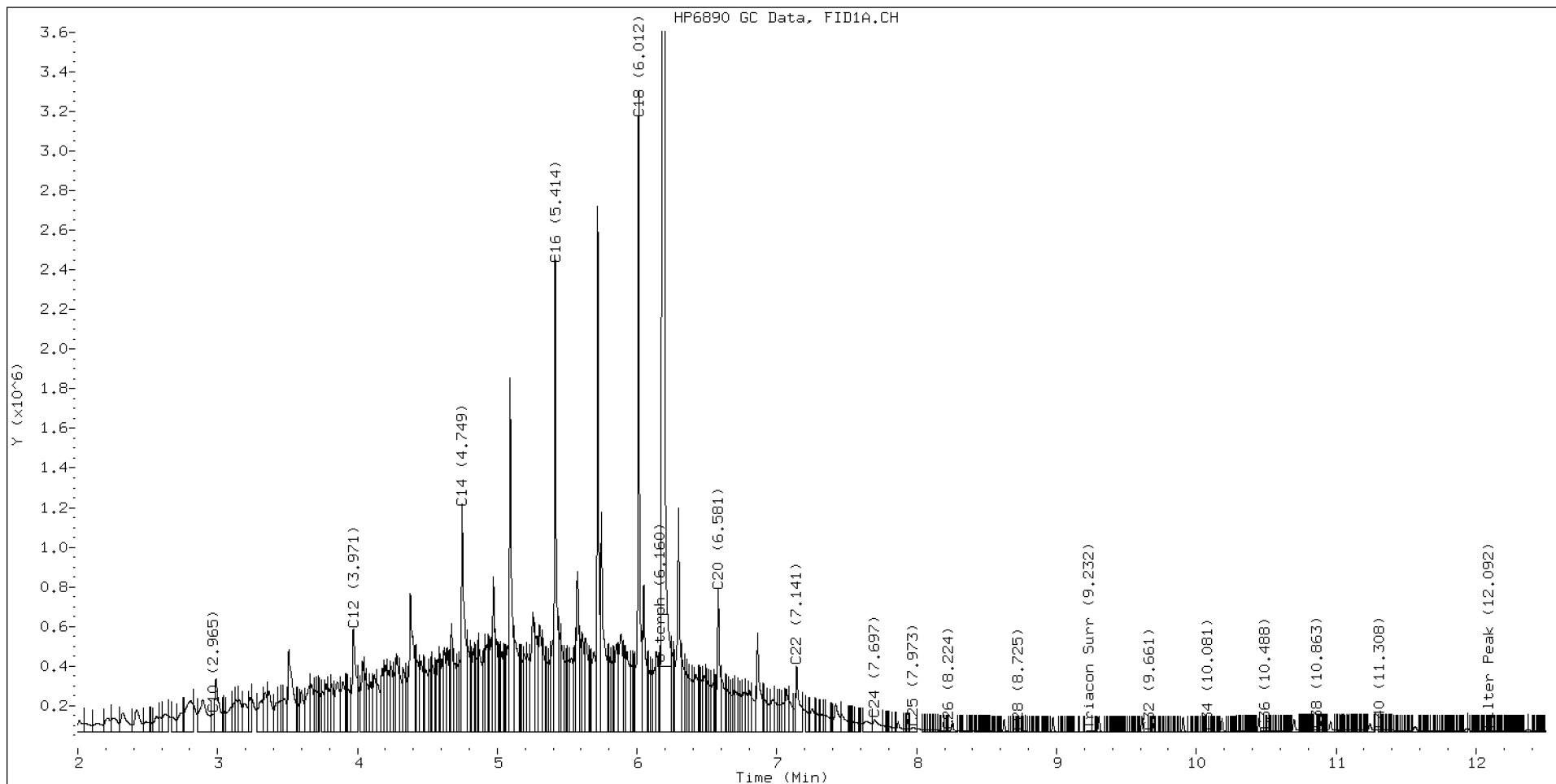
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.877	0.005	48399	168226	WATPHD	(C12-C24)	73166468	459.2
C10	2.965	-0.005	87109	107823	WATPHM	(C24-C38)	1254259	12.4
C12	3.971	0.007	560104	986189	AK102	(C10-C25)	84372203	431.6
C14	4.749	0.001	1221255	1740263	AK103	(C25-C36)	824881	11.3
C16	5.414	0.000	2422069	2319105	OR.DIES	(C10-C28)	84769742	432.5
C18	6.012	-0.000	3330794	2946388				
C20	6.581	-0.002	752910	948813	JET-A	(C10-C18)	65085282	392.4
C22	7.141	-0.003	338070	578521				
C24	7.697	0.004	65013	211368				
C25	7.973	0.012	22403	56036				
C26	8.224	0.001	7889	1958				
C28	8.725	-0.002	1724	679				
C32	9.661	0.005	677	376				
C34	10.081	0.002	1661	1108				
Filter Peak	12.092	-0.006	9875	5888	BUNKERC	(C10-C38)	85370771	2162.5
C36	10.488	0.006	4495	2876				
C38	10.863	-0.010	7735	2299				
C40	11.308	-0.005	9767	5330				
o-terph	6.196	-0.002	16061238	16654300				
Triacon Surr	9.232	0.001	4817	10693	NAS DIES	(C10-C24)	84116513	431.0

Range Times: NW Diesel(3.964 - 7.693) AK102(2.97 - 7.96) Jet A(2.97 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.96 - 10.48) OR Diesel(2.97 - 8.73)

Surrogate	Area	Amount
o-Terphenyl	16654300	81.4 M
Triacontane	10693	0.1

M Indicates the peak was manually integrated

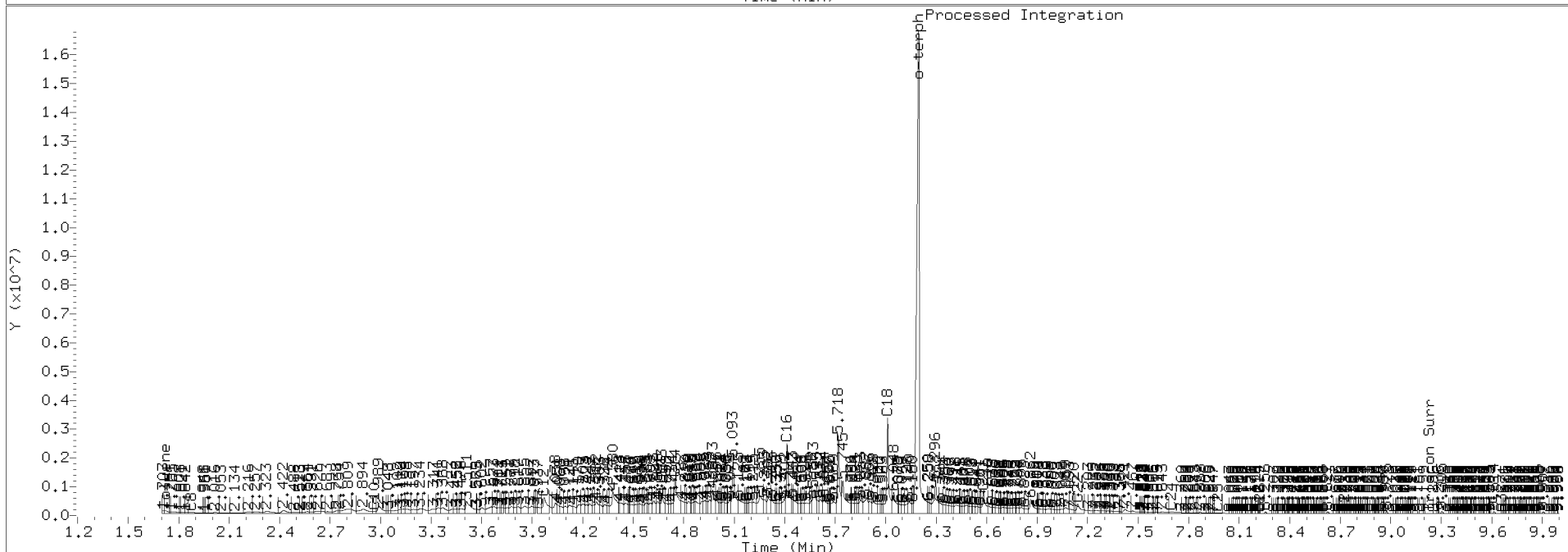
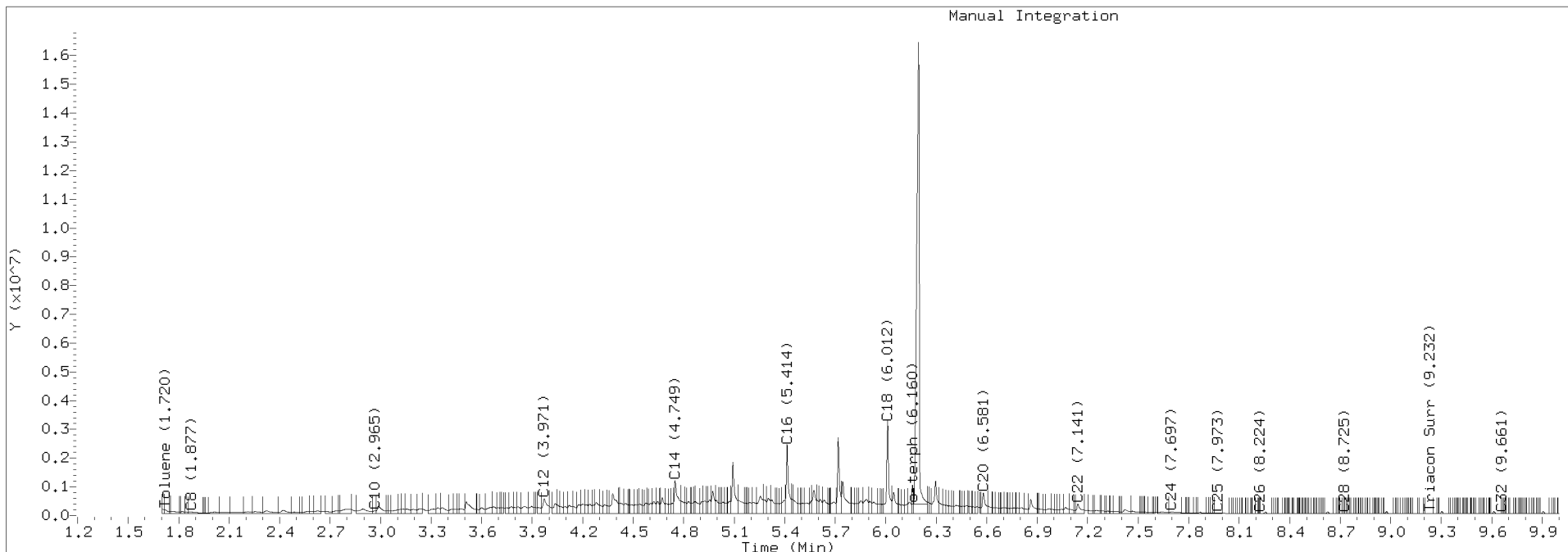
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20201129.b/420K2905.D Injection: 29-NOV-2020 16:25

Lab ID:SEQ-ICV1





## INITIAL CALIBRATION CHECK

### NWTPH-Dx

Laboratory: Analytical Resources, Inc. SDG: 20K0204  
Client: Anchor QEA, LLC Project: Gasco Siltronic  
Instrument ID: FID4 Calibration: DA00022  
Lab File ID: 420K2906.D Calibration Date: 10/25/2019  
Sequence: SIK0411 Injection Date: 11/29/20  
Lab Sample ID: SIK0411-ICV2 Injection Time: 19:25  
Sequence Name: MOIL ICV

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	959	101166.0000	96995.7400		-4.1	+/-15

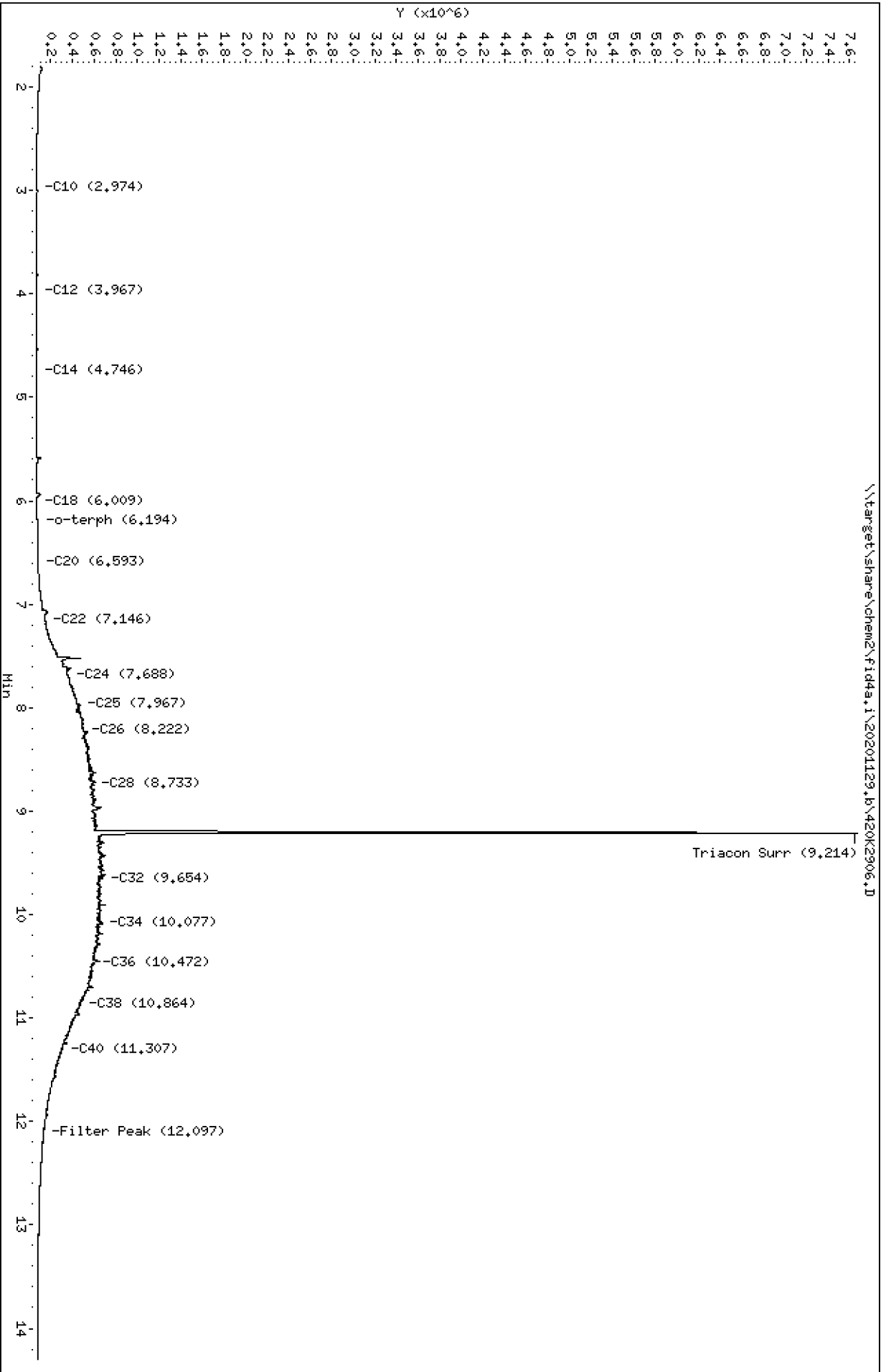
\* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20201129,b\420K2906.D  
Date: 29-NOV-2020 19:25  
Client ID:  
Sample Info: SEQ-ICV2

Instrument: fid4a,1

Column phase: RTX-1

Operator: JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201129.b/420K2906.D  
Method: 20201129.b\FID4TPH.m  
Instrument: fid4a.i, JGR  
Report Date: 11/30/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-ICV2  
Client ID:  
Injection: 29-NOV-2020 19:25  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

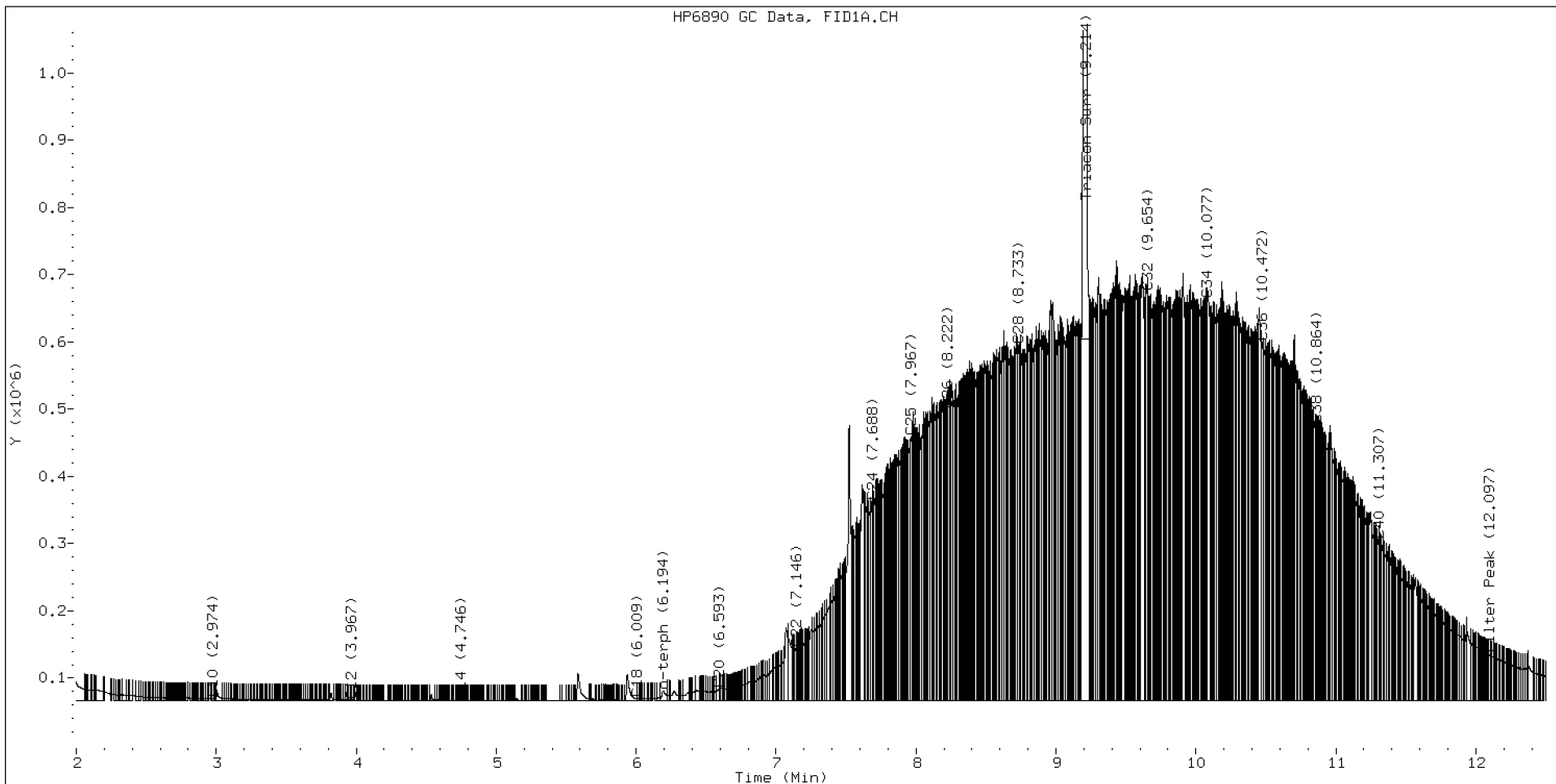
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.824	-0.047	56481	269118	WATPHD	(C12-C24)	8443152	53.0
C10	2.974	0.005	3712	3614	WATPHM	(C24-C38)	96995745	958.8
C12	3.967	0.003	1202	237	AK102	(C10-C25)	11954613	61.2
C14	4.746	-0.002	845	282	AK103	(C25-C36)	82747857	1130.3
C16	----				OR.DIES	(C10-C28)	35413186	180.7
C18	6.009	-0.003	3238	2671				
C20	6.593	0.010	17724	20684	JET-A	(C10-C18)	369533	2.2
C22	7.146	0.002	78699	15705				
C24	7.688	-0.005	296306	146422				
C25	7.967	0.006	392042	326542				
C26	8.222	-0.001	432138	64723				
C28	8.733	0.006	529289	338483				
C32	9.654	-0.001	607422	327063				
C34	10.077	-0.002	597394	267503				
Filter Peak	12.097	-0.001	69367	47658	BUNKERC	(C10-C38)	105587687	2674.6
C36	10.472	-0.010	534086	552924				
C38	10.864	-0.008	411631	162223				
C40	11.307	-0.007	239508	117282				
o-terph	6.194	-0.004	14571	31694				
Triacon Surr	9.214	-0.017	7068342	6614830	NAS DIES	(C10-C24)	8591942	44.0

Range Times: NW Diesel(3.964 - 7.693) AK102(2.97 - 7.96) Jet A(2.97 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.96 - 10.48) OR Diesel(2.97 - 8.73)

Surrogate	Area	Amount
o-Terphenyl	31694	0.2
Triacontane	6614830	44.6 M

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020

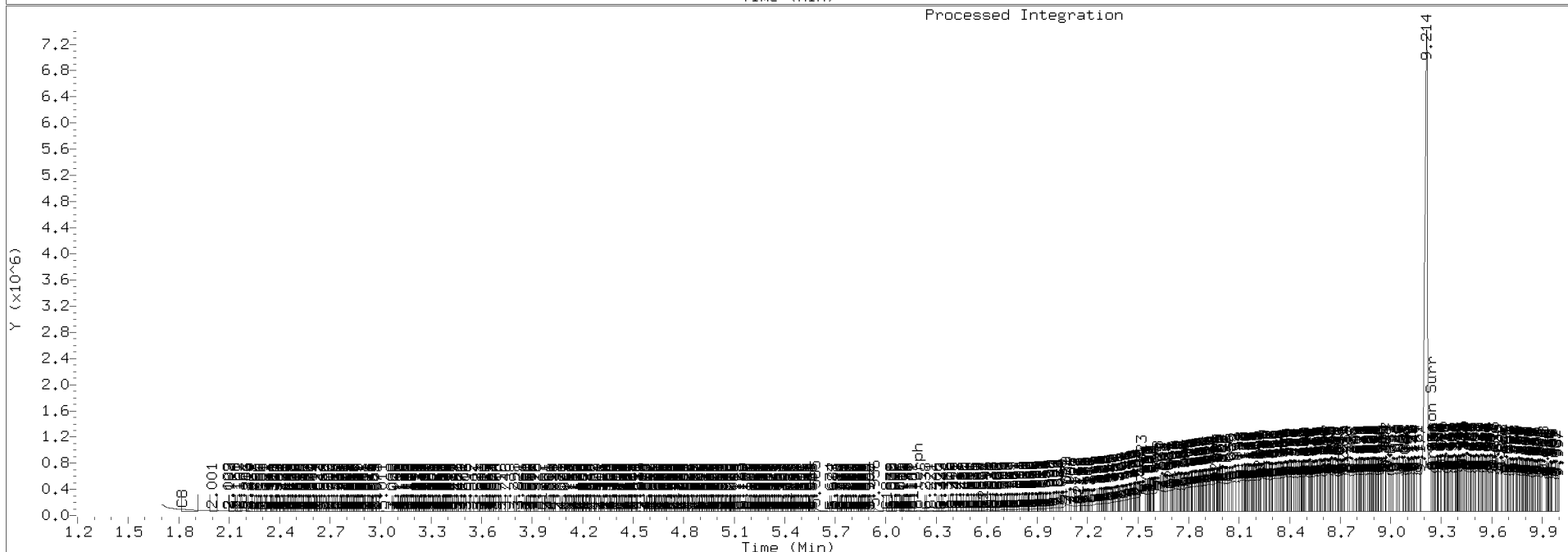
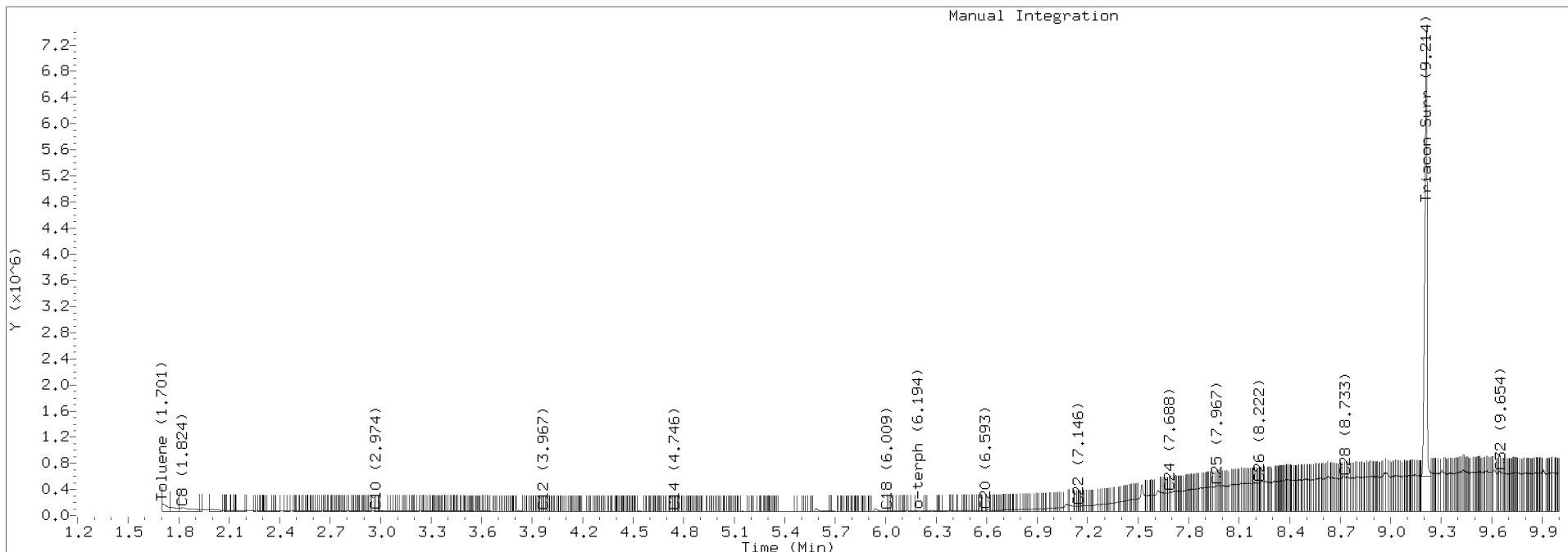




TPH Manual Integrations Report

Datafile: FID4A, 20201129.b/420K2906.D Injection: 29-NOV-2020 19:25

Lab ID:SEQ-ICV2





Data File: \\target\share\chem2\fid4a,1\20201204,b\420L0403.D

Date : 04-DEC-2020 11:06

Client ID:

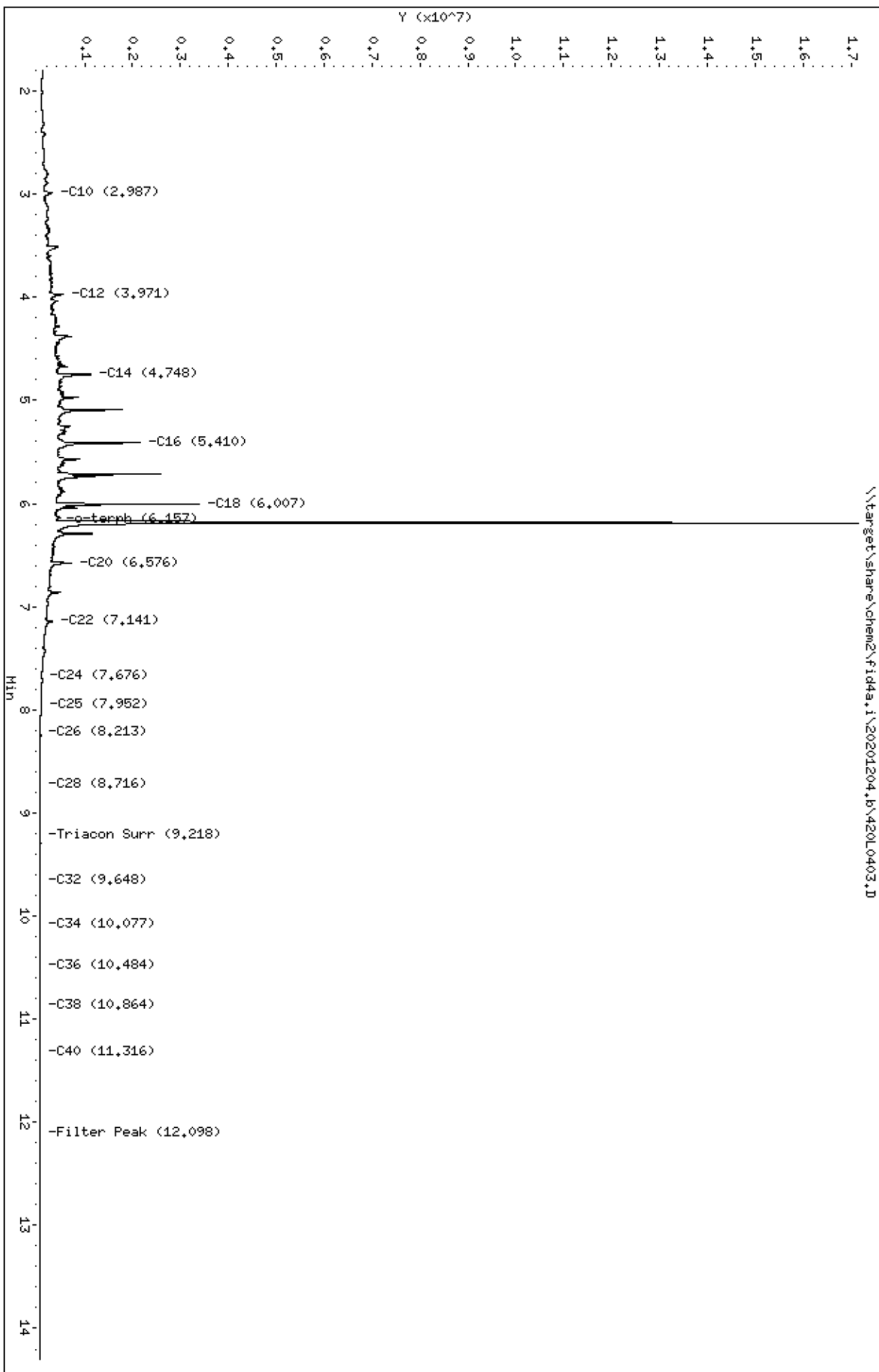
Sample Info: SIL0055-ICV1

Column phase: RTX-1

Instrument: fid4a,1

Operator: JGR/CTO/VTS

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201204.b/420L0403.D  
Method: 20201204.b\FID4TPH.m  
Instrument: fid4a.i, JGR/CTO/VTS  
Report Date: 12/05/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SIL0055-ICV1  
Client ID:  
Injection: 04-DEC-2020 11:06  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

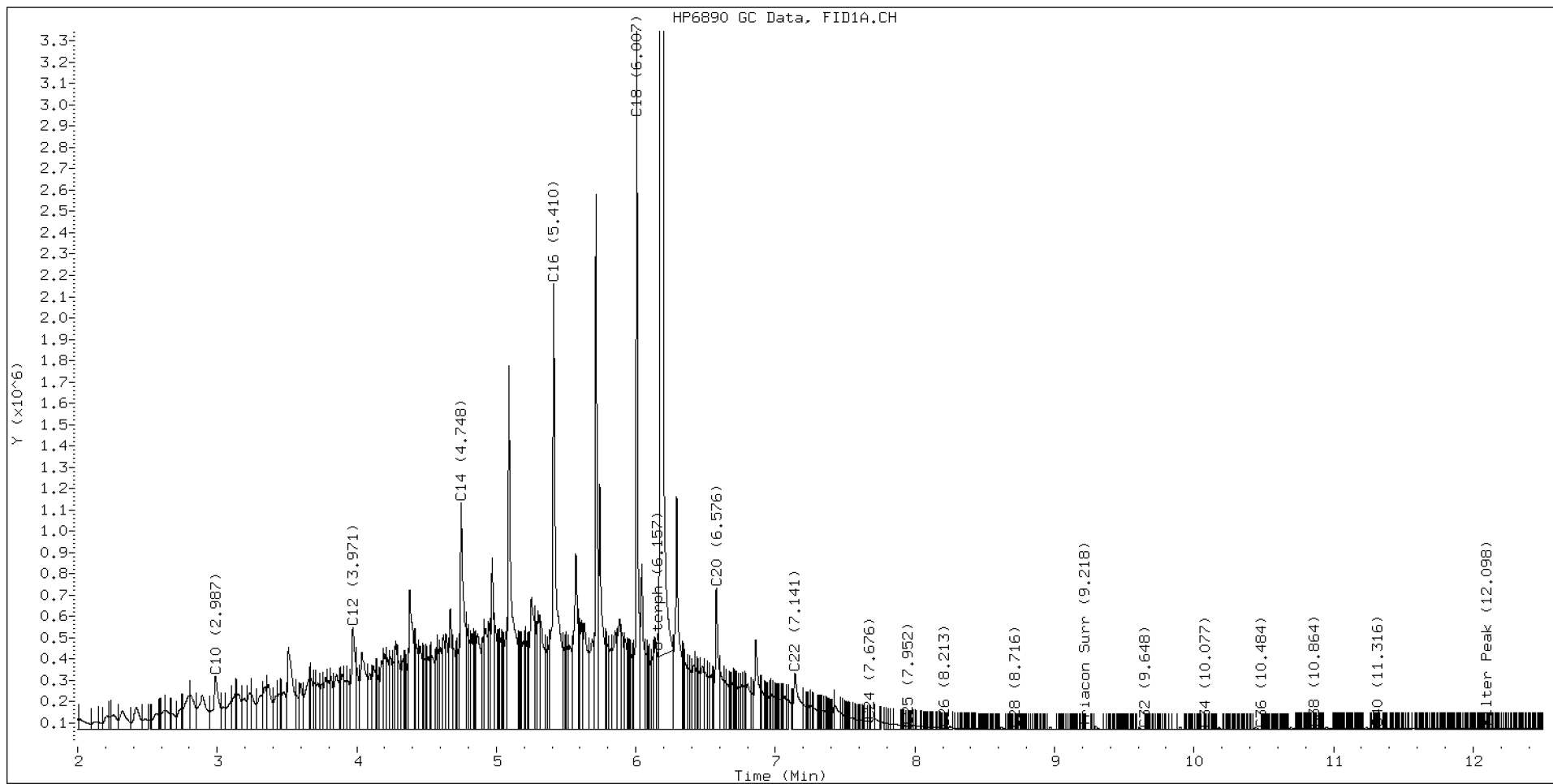
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.851	-0.013	69007	250953	WATPHD	(C12-C24)	75953571	476.7
C10	2.987	0.027	252637	711710	WATPHM	(C24-C38)	876368	8.7
C12	3.971	0.013	480772	862691	AK102	(C10-C25)	88278495	451.6
C14	4.748	0.002	1067559	1886303	AK103	(C25-C36)	569470	7.8
C16	5.410	-0.001	2095046	4038294	OR.DIES	(C10-C28)	88660807	452.4
C18	6.007	0.002	3325862	3002303				
C20	6.576	0.002	664296	976811	JET-A	(C10-C18)	68715666	414.3
C22	7.141	0.004	264298	711755				
C24	7.676	-0.010	39372	23272				
C25	7.952	-0.001	17386	6928				
C26	8.213	-0.001	8369	2077				
C28	8.716	-0.001	2207	746				
C32	9.648	0.003	754	266				
C34	10.077	0.007	654	205				
Filter Peak	12.098	0.000	6558	1636	BUNKERC	(C10-C38)	88946943	2253.1
C36	10.484	0.008	2762	678				
C38	10.864	-0.006	4998	1964				
C40	11.316	-0.001	6379	3474				
o-terph	6.192	0.002	16734997	17379770				
Triacon Surr	9.218	-0.003	455	170	NAS DIES	(C10-C24)	88070575	451.3

Range Times: NW Diesel(3.959 - 7.685) AK102(2.96 - 7.95) Jet A(2.96 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.95 - 10.48) OR Diesel(2.96 - 8.72)

Surrogate	Area	Amount
o-Terphenyl	17379770	84.9 M
Triacontane	170	0.0

M Indicates the peak was manually integrated

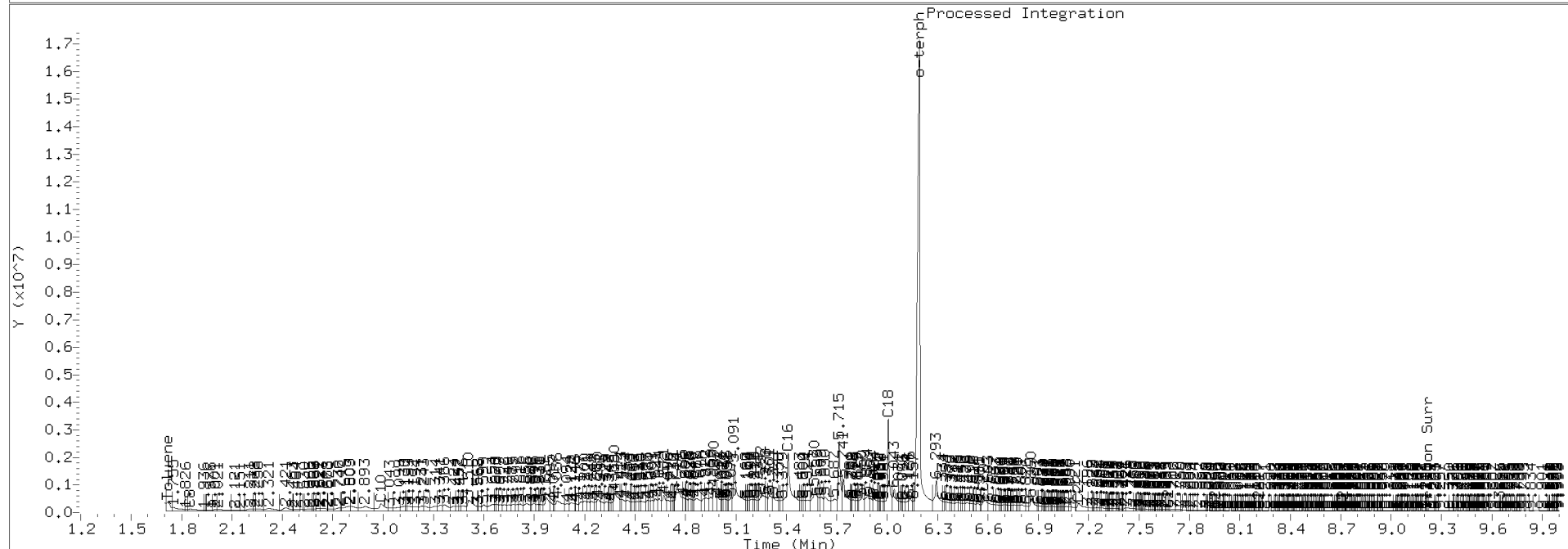
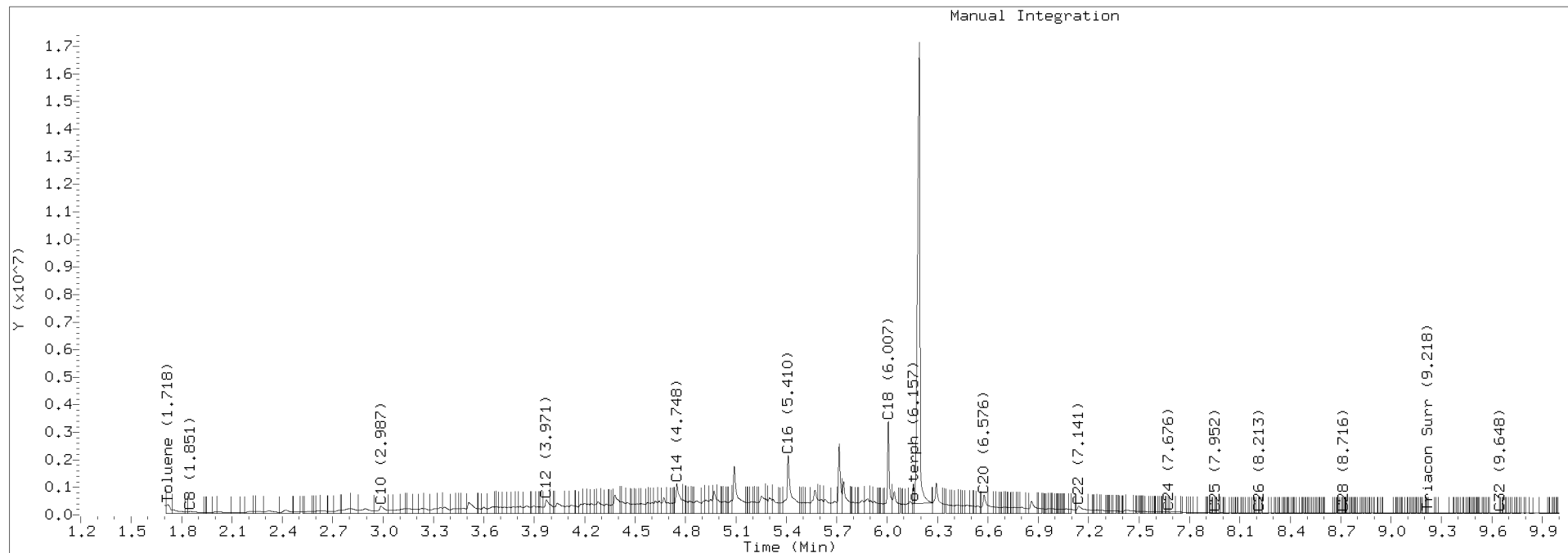
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20201204.b/420L0403.D Injection: 04-DEC-2020 11:06

Lab ID: SIL0055-ICV1





Data File: \\target\share\chem2\fid4a,1\20201204,b\420L0404.D

Date: 04-DEC-2020 11:26

Client ID:

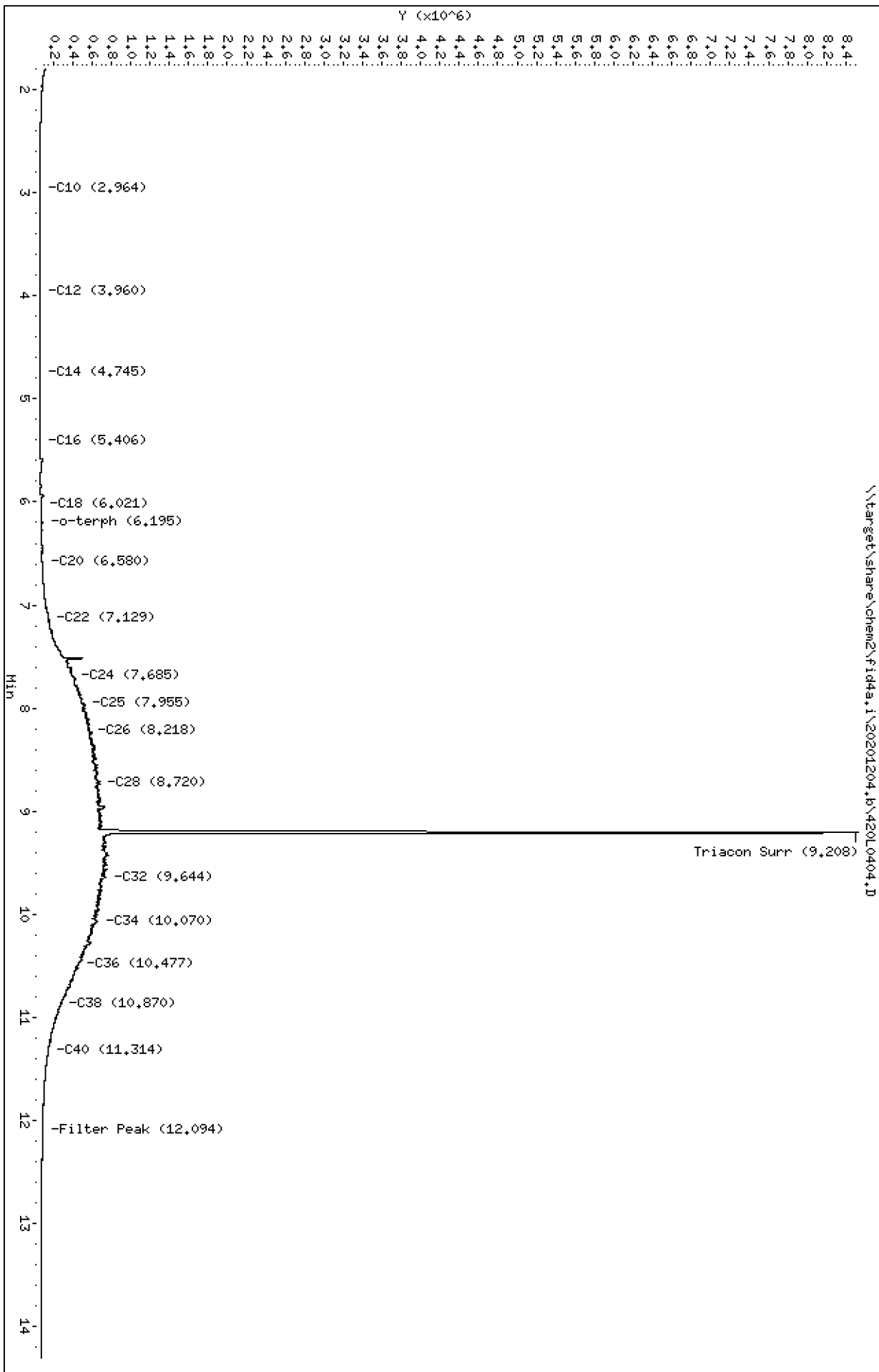
Sample Info: SIL0055-ICV2

Column phase: RTX-1

Instrument: fid4a,1

Operator: JGR/CTO/VTS

Column diameter: 0.25





Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201204.b/420L0404.D  
Method: 20201204.b\FID4TPH.m  
Instrument: fid4a.i, JGR/CTO/VTS  
Report Date: 12/05/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SIL0055-ICV2  
Client ID:  
Injection: 04-DEC-2020 11:26  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

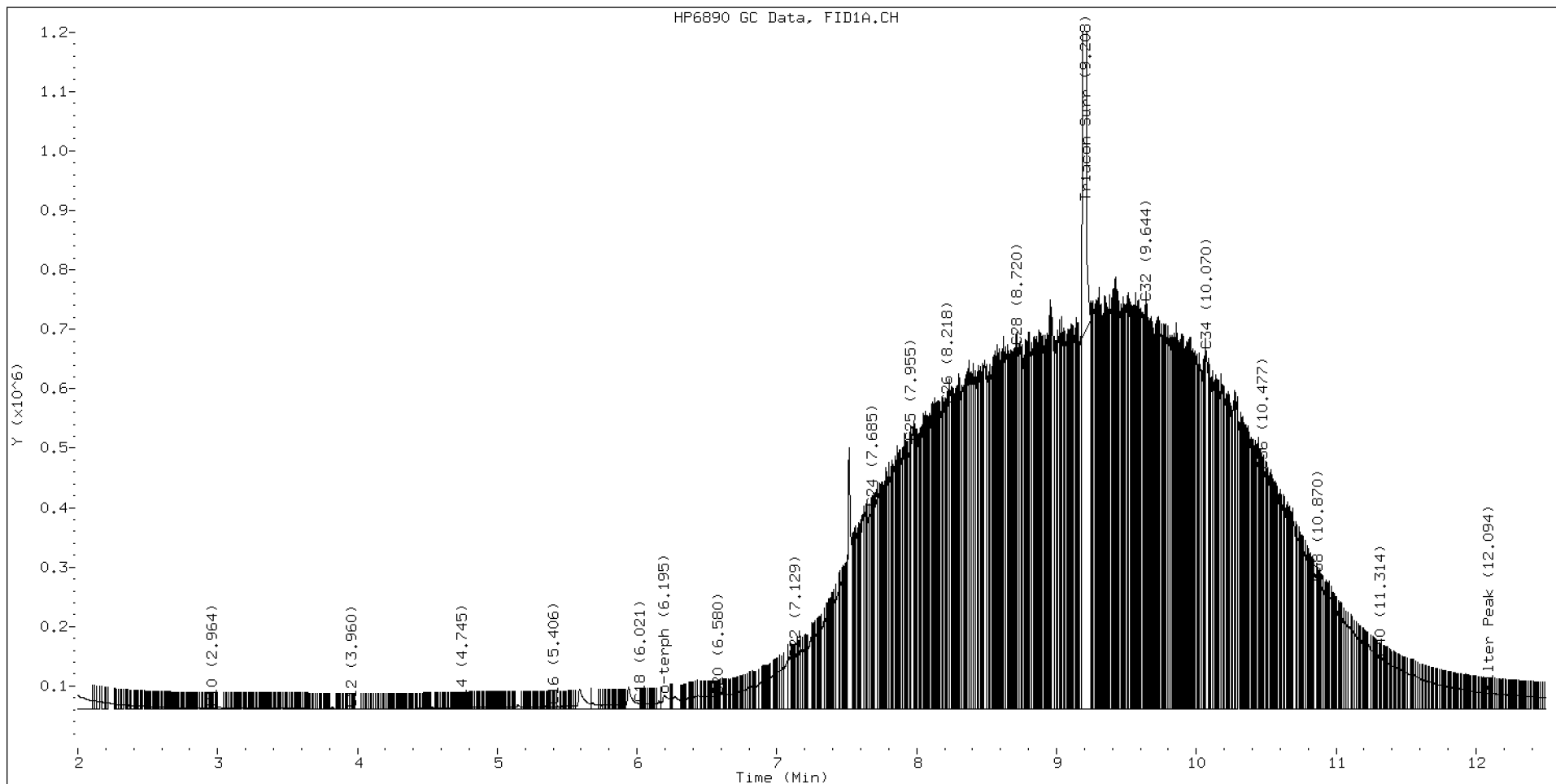
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.852	-0.011	41764	219987	WATPHD	(C12-C24)	10083434	63.3
C10	2.964	0.004	2078	1229	WATPHM	(C24-C38)	99771199	986.2
C12	3.960	0.001	327	183	AK102	(C10-C25)	14108611	72.2
C14	4.745	-0.001	2857	704	AK103	(C25-C36)	89032214	1216.2
C16	5.406	-0.005	4698	2759	OR.DIES	(C10-C28)	41322107	210.8
C18	6.021	0.016	9403	2813				
C20	6.580	0.005	21907	11869	JET-A	(C10-C18)	646098	3.9
C22	7.129	-0.007	84604	46213				
C24	7.685	-0.001	338842	151228				
C25	7.955	0.002	448977	111440				
C26	8.218	0.004	511117	227063				
C28	8.720	0.002	609965	421922				
C32	9.644	-0.001	682526	368840				
C34	10.070	0.000	603472	612017				
Filter Peak	12.094	-0.004	26787	13306	BUNKERC	(C10-C38)	109944662	2785.0
C36	10.477	0.001	400813	119808				
C38	10.870	0.000	212992	116050				
C40	11.314	-0.003	86003	25622				
o-terph	6.195	0.005	22684	73570				
Triacon Surr	9.208	-0.013	7833421	7521742	NAS DIES	(C10-C24)	10173463	52.1

Range Times: NW Diesel(3.959 - 7.685) AK102(2.96 - 7.95) Jet A(2.96 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.95 - 10.48) OR Diesel(2.96 - 8.72)

Surrogate	Area	Amount
o-Terphenyl	73570	0.4
Triacontane	7521742	50.7 M

M Indicates the peak was manually integrated

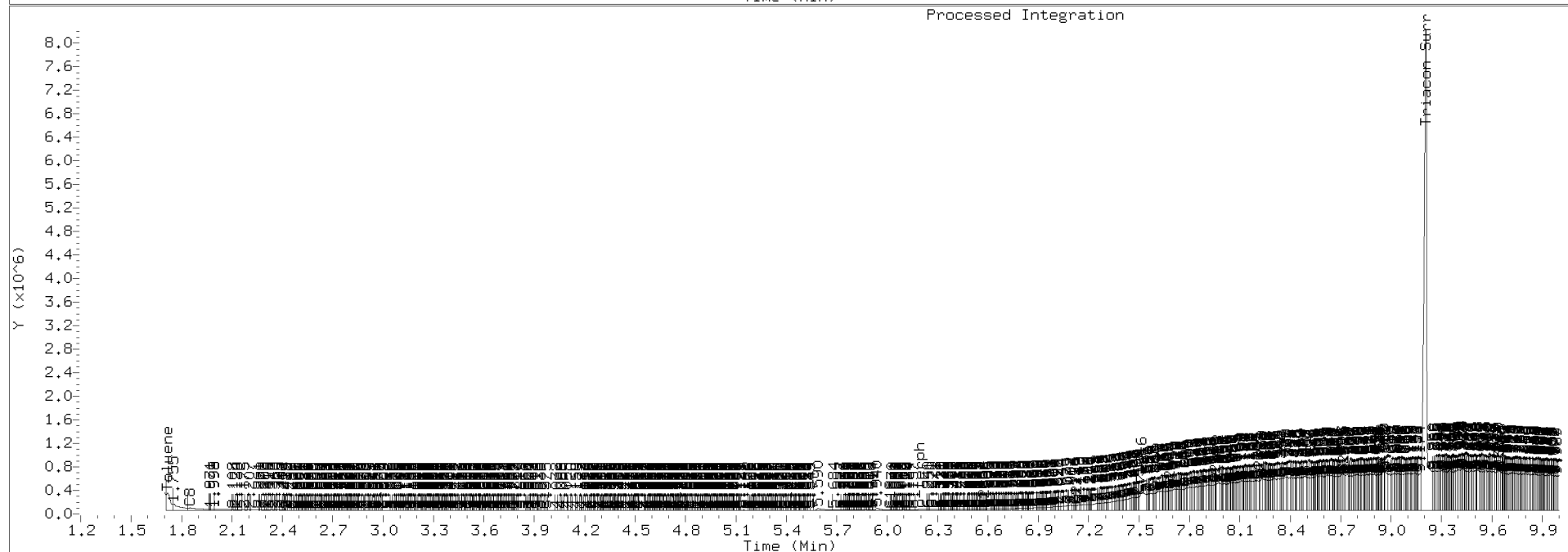
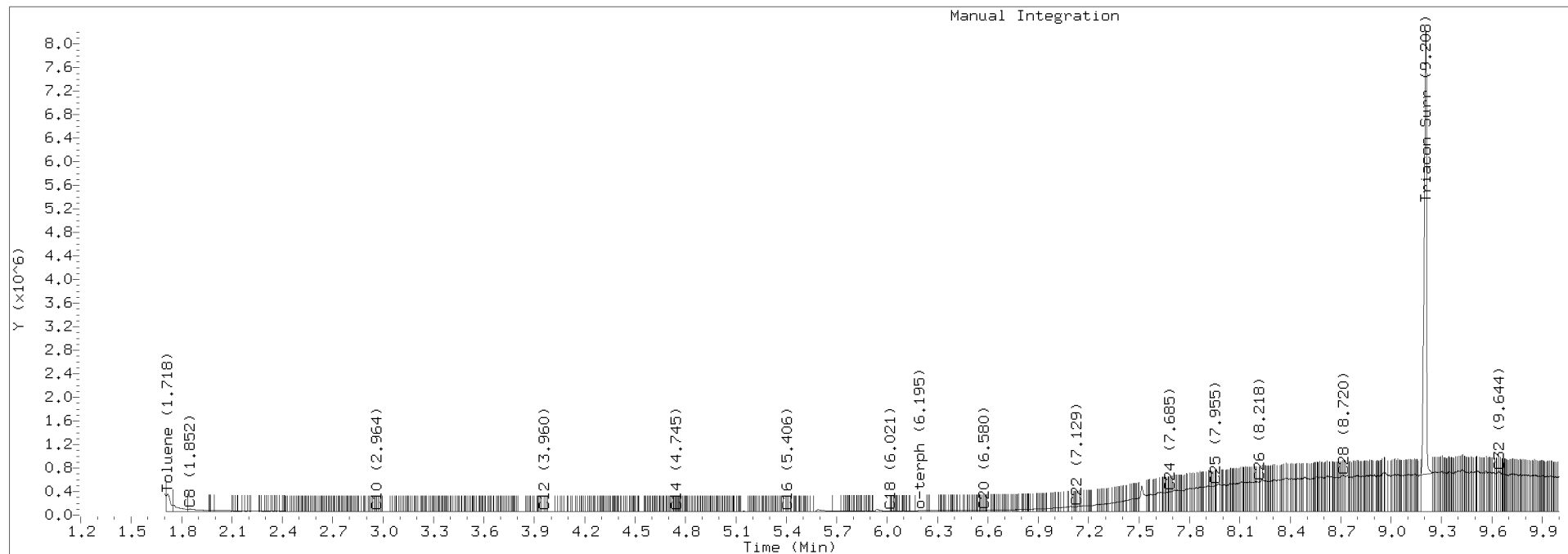
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20201204.b/420L0404.D Injection: 04-DEC-2020 11:26

Lab ID: SIL0055-ICV2





## INITIAL CALIBRATION CHECK

### NWTPH-Dx

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>20K0204</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic</u>
Instrument ID:	<u>FID4</u>	Calibration:	<u>DA00022</u>
Lab File ID:	<u>420K2963.D</u>	Calibration Date:	<u>10/25/2019</u>
Sequence:	<u>SIL0065</u>	Injection Date:	<u>11/30/20</u>
Lab Sample ID:	<u>SIL0065-ICV1</u>	Injection Time:	<u>19:01</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	564	159336.7000	179738.6000		12.8	+/-15
o-Terphenyl	A	90.000	101	204701.9000	230274.8000		12.4	+/-15

\* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20201129b.b\420K2963.D

Date: 30-NOV-2020 19:01

Client ID:

Sample Info: SIL0065-ICV1

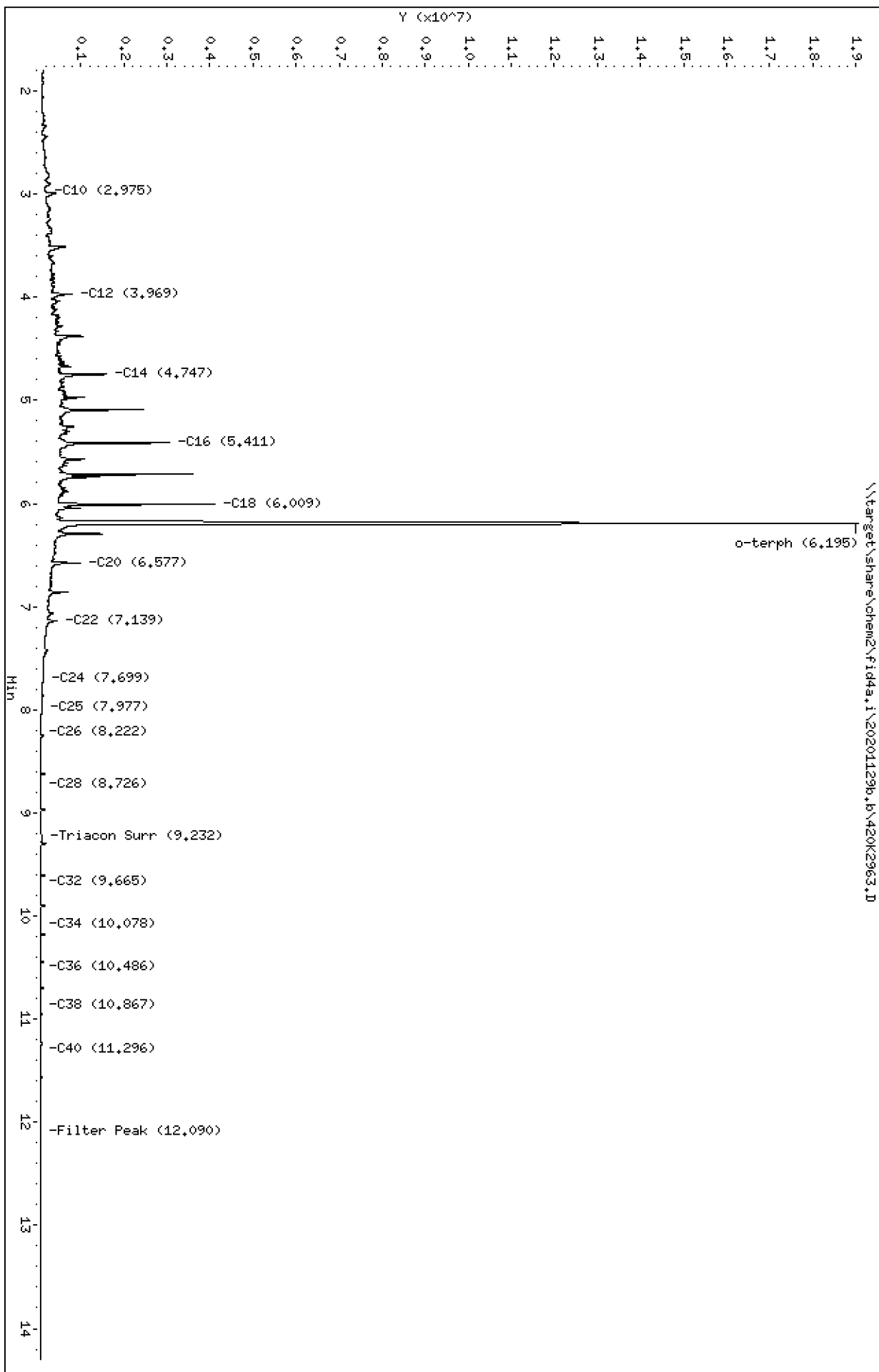
Column phase: RTX-1

Instrument: fid4a.1

Operator: JGR/CTO

Column diameter: 0.25

Page 1



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201129b.b/420K2963.D  
Method: 20201129b.b\FID4TPH.m  
Instrument: fid4a.i, JGR/CTO  
Report Date: 12/04/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SIL0065-ICV1  
Client ID:  
Injection: 30-NOV-2020 19:01  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

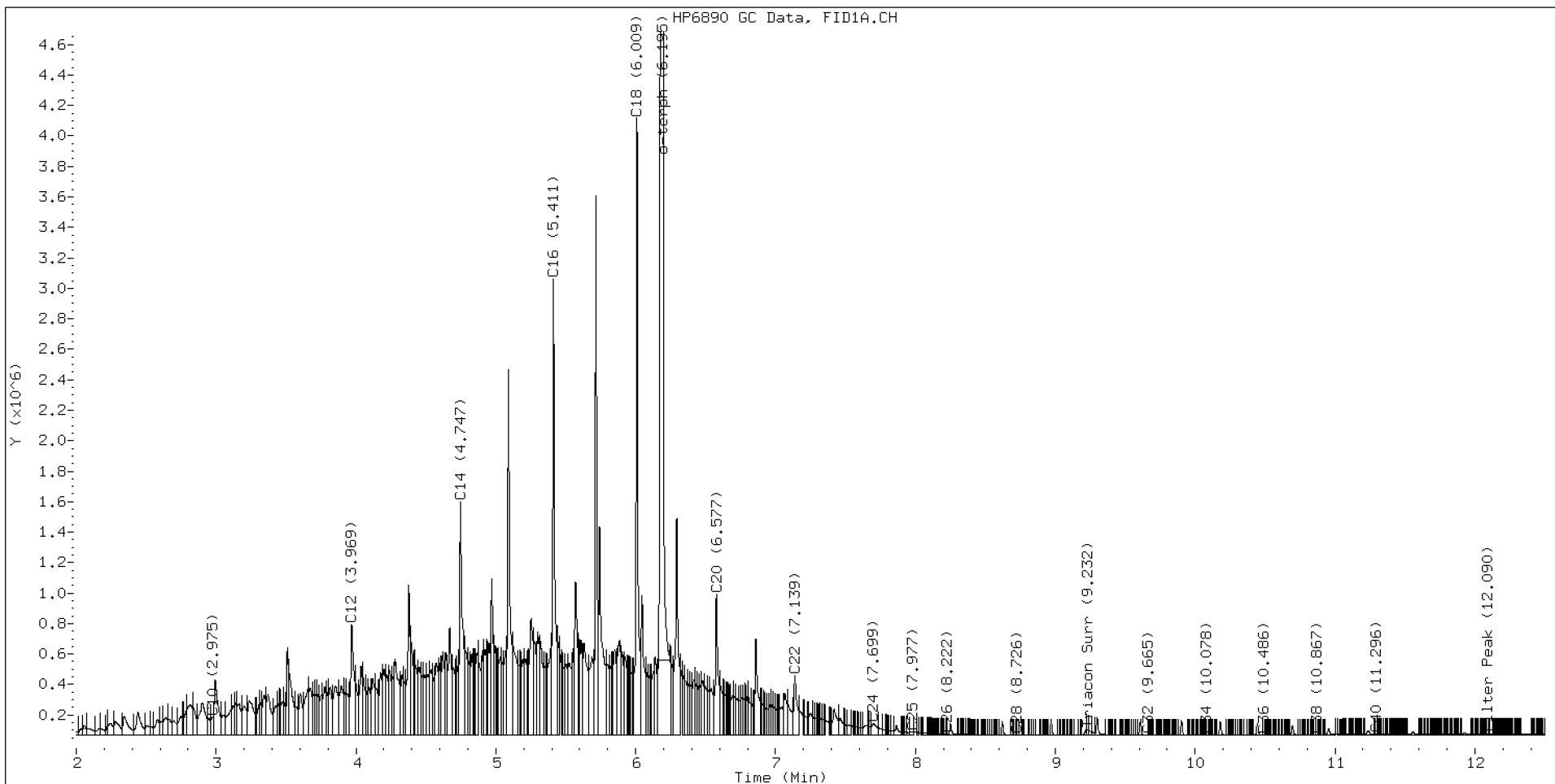
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.922	0.008	62851	115250	WATPHD	(C12-C24)	89869309	564.0
C10	2.975	-0.003	118583	133245	WATPHM	(C24-C38)	1603663	15.9
C12	3.969	0.006	725990	1182351	AK102	(C10-C25)	105164853	538.0
C14	4.747	0.001	1534139	2280994	AK103	(C25-C36)	1191170	16.3
C16	5.411	-0.001	2992479	3181494	OR.DIES	(C10-C28)	105660761	539.1
C18	6.009	-0.002	4055580	3624219				
C20	6.577	-0.004	924312	1195871	JET-A	(C10-C18)	81643822	492.3
C22	7.139	-0.005	388619	672378				
C24	7.699	0.007	76874	190769				
C25	7.977	0.018	24907	40537				
C26	8.222	0.001	8631	1711				
C28	8.726	0.001	2108	609				
C32	9.665	0.013	880	444				
C34	10.078	0.002	950	184				
Filter Peak	12.090	-0.007	6238	5213	BUNKERC	(C10-C38)	106503179	2697.8
C36	10.486	0.008	3314	2642				
C38	10.867	0.002	5059	2992				
C40	11.296	-0.006	6428	5042				
o-terph	6.195	-0.003	18500871	20724730				
Triacon Surr	9.232	0.002	36851	36096	NAS DIES	(C10-C24)	104899516	537.5

Range Times: NW Diesel(3.964 - 7.692) AK102(2.98 - 7.96) Jet A(2.98 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.96 - 10.48) OR Diesel(2.98 - 8.73)

Surrogate	Area	Amount
o-Terphenyl	20724730	101.2 M
Triacontane	36096	0.2

M Indicates the peak was manually integrated

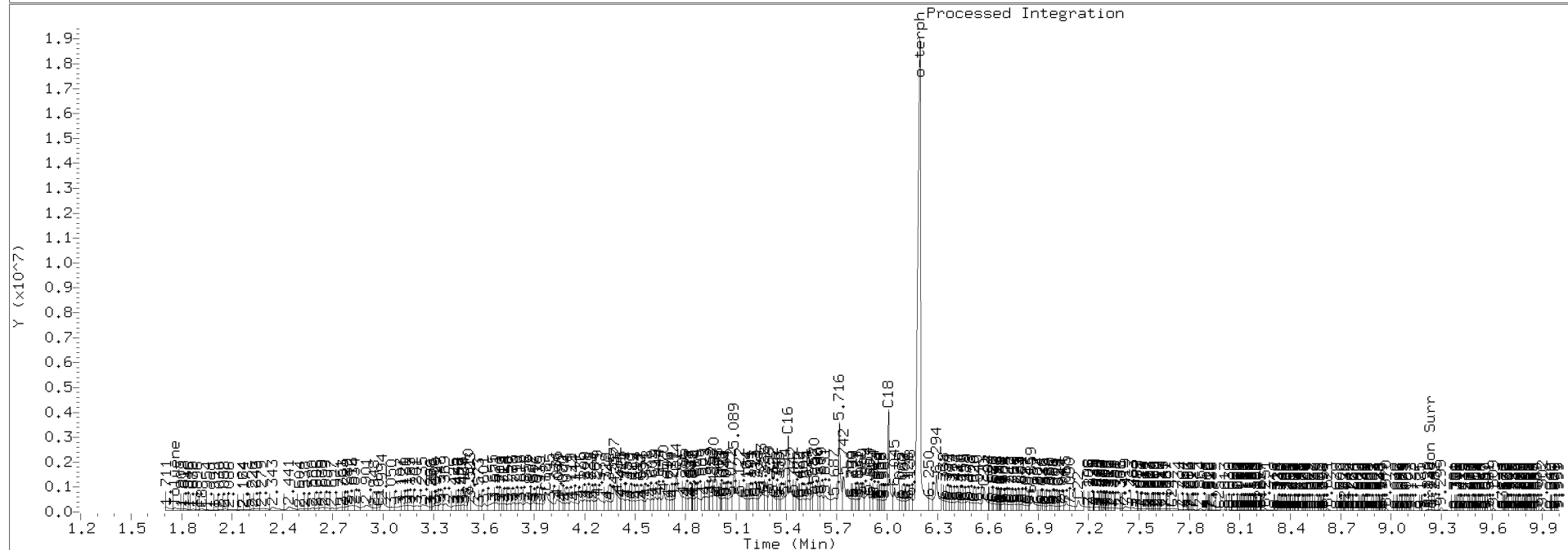
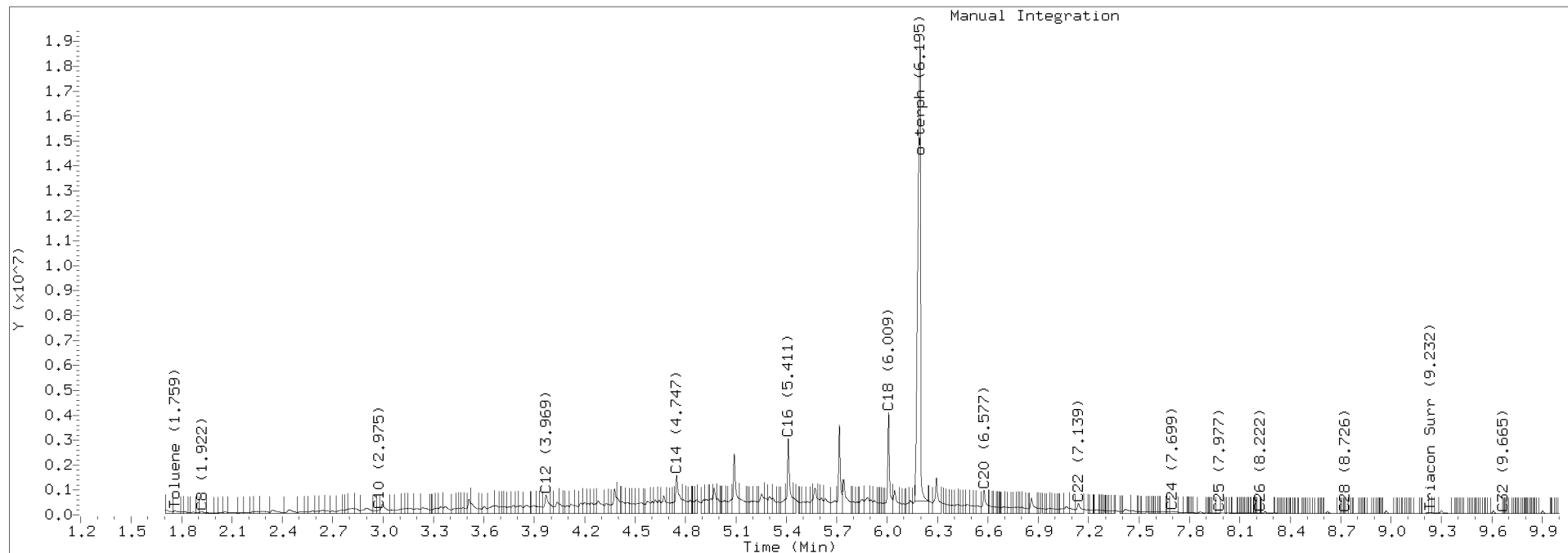
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20201129b.b/420K2963.D Injection: 30-NOV-2020 19:01

Lab ID: SIL0065-ICV1







## INITIAL CALIBRATION CHECK

### NWTPH-Dx

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>20K0204</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic</u>
Instrument ID: <u>FID4</u>	Calibration: <u>DA00022</u>
Lab File ID: <u>420K2964.D</u>	Calibration Date: <u>10/25/2019</u>
Sequence: <u>SIL0065</u>	Injection Date: <u>11/30/20</u>
Lab Sample ID: <u>SIL0065-ICV2</u>	Injection Time: <u>19:22</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	1050	101166.0000	105804.1000		4.6	+/-15

\* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20201129b.b\420K2964.D

Date: 30-NOV-2020 19:22

Client ID:

Sample Info: SIL0065-ICV2

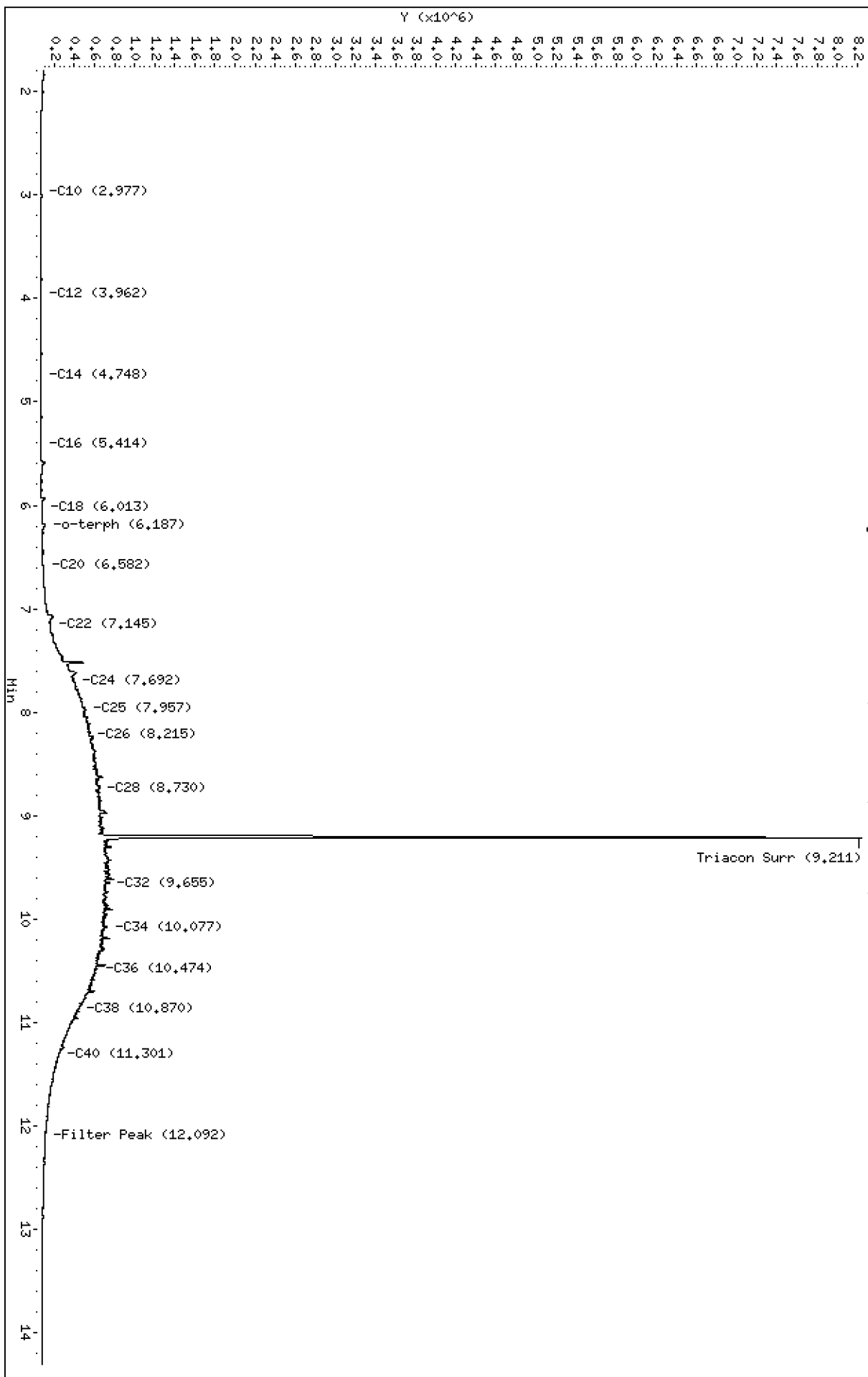
Column phase: RTX-1

Instrument: fid4a.i

Operator: JGR/CTO

Column diameter: 0.25

\\target\share\chem2\fid4a.i\20201129b.b\420K2964.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201129b.b/420K2964.D  
Method: 20201129b.b\FID4TPH.m  
Instrument: fid4a.i, JGR/CTO  
Report Date: 12/04/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SIL0065-ICV2  
Client ID:  
Injection: 30-NOV-2020 19:22  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

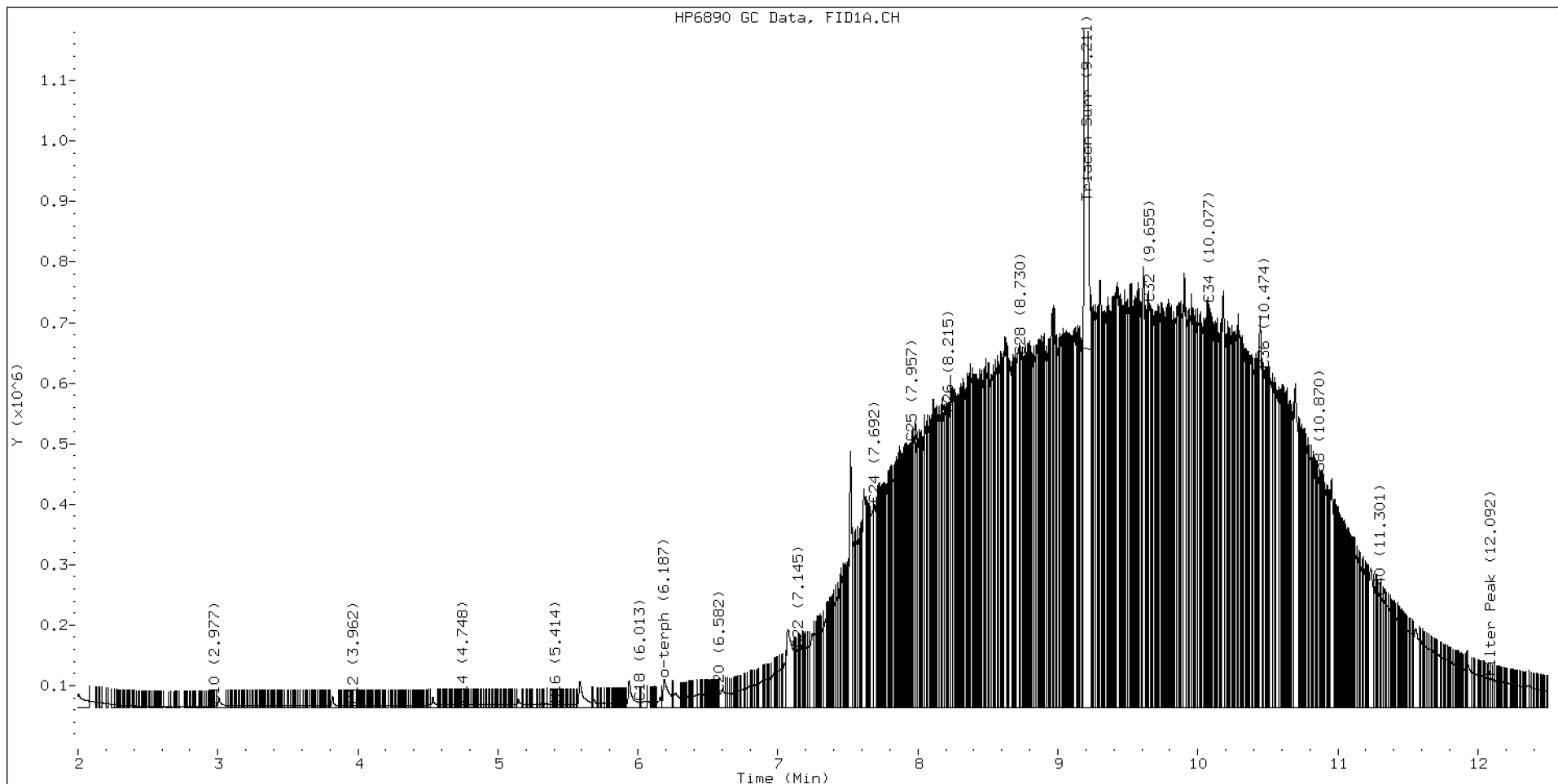
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.918	0.005	18400	52495	WATPHD	(C12-C24)	10288443	64.6
C10	2.977	-0.001	2269	1915	WATPHM	(C24-C38)	105804060	1045.8
C12	3.962	-0.001	2529	748	AK102	(C10-C25)	14348820	73.4
C14	4.748	0.002	4689	2992	AK103	(C25-C36)	91577750	1251.0
C16	5.414	0.002	4927	2665	OR.DIES	(C10-C28)	40747131	207.9
C18	6.013	0.003	8240	4879				
C20	6.582	0.001	21052	15317	JET-A	(C10-C18)	860160	5.2
C22	7.145	0.001	95507	33239				
C24	7.692	-0.000	335726	426063				
C25	7.957	-0.002	435877	213503				
C26	8.215	-0.006	485579	288699				
C28	8.730	0.005	578904	259325				
C32	9.655	0.002	667236	492049				
C34	10.077	0.001	665121	392412				
Filter Peak	12.092	-0.005	47866	41723	BUNKERC	(C10-C38)	116268177	2945.2
C36	10.474	-0.004	557210	356762				
C38	10.870	0.005	371860	165784				
C40	11.301	-0.001	181466	80681				
o-terph	6.187	-0.011	46413	119267				
Triacon Surr	9.211	-0.019	7587381	7325610	NAS DIES	(C10-C24)	10464116	53.6

Range Times: NW Diesel(3.964 - 7.692) AK102(2.98 - 7.96) Jet A(2.98 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.96 - 10.48) OR Diesel(2.98 - 8.73)

Surrogate	Area	Amount
o-Terphenyl	119267	0.6
Triacontane	7325610	49.4 M

M Indicates the peak was manually integrated

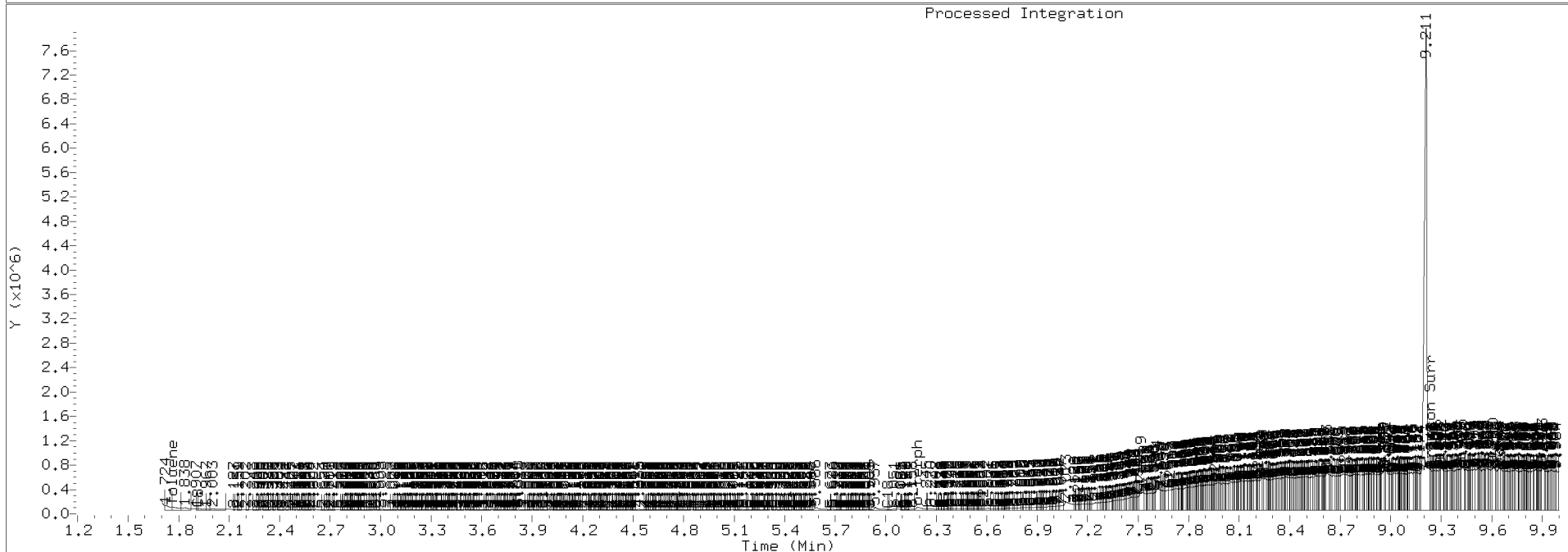
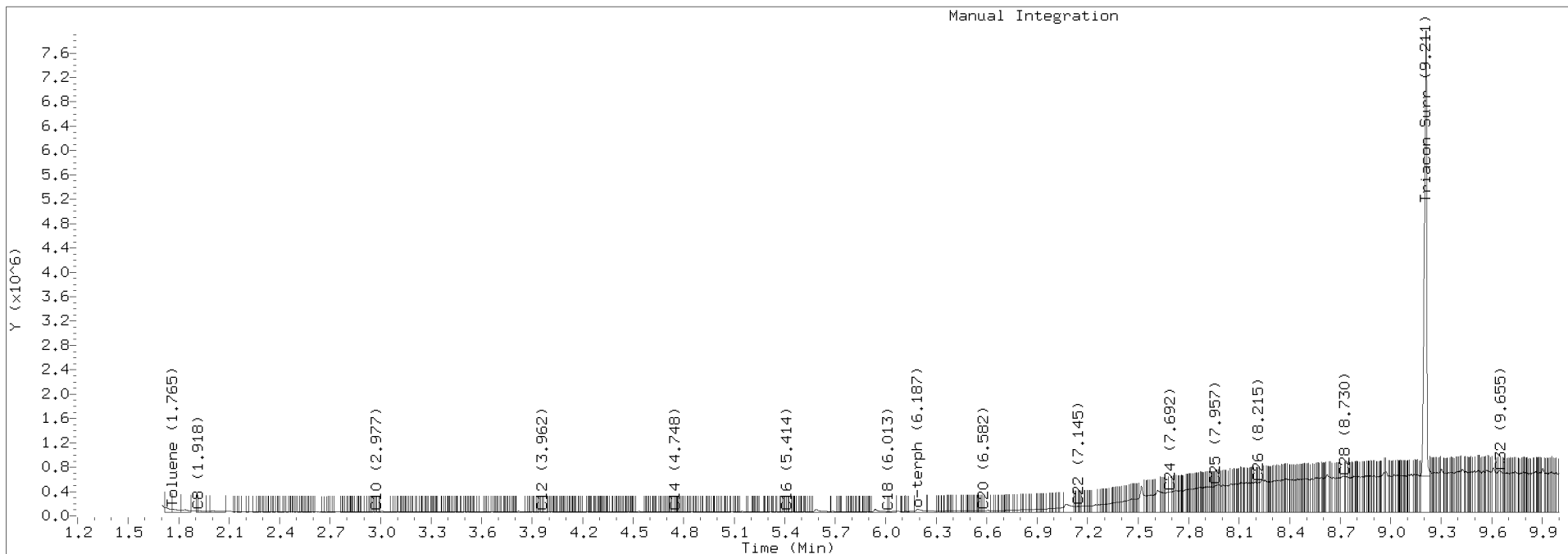
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20201129b.b/420K2964.D Injection: 30-NOV-2020 19:22

Lab ID: SIL0065-ICV2





**CONTINUING CALIBRATION CHECK**  
**NWTPH-Dx**

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>20K0204</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic</u>
Instrument ID:	<u>FID4</u>	Calibration:	<u>DA00022</u>
Lab File ID:	<u>420H1413.D</u>	Calibration Date:	<u>10/25/2019</u>
Sequence:	<u>SIH0165</u>	Injection Date:	<u>08/14/20</u>
Lab Sample ID:	<u>SIH0165-CCV1</u>	Injection Time:	<u>11:59</u>
Sequence Name:	<u>DIESEL CCV</u>		

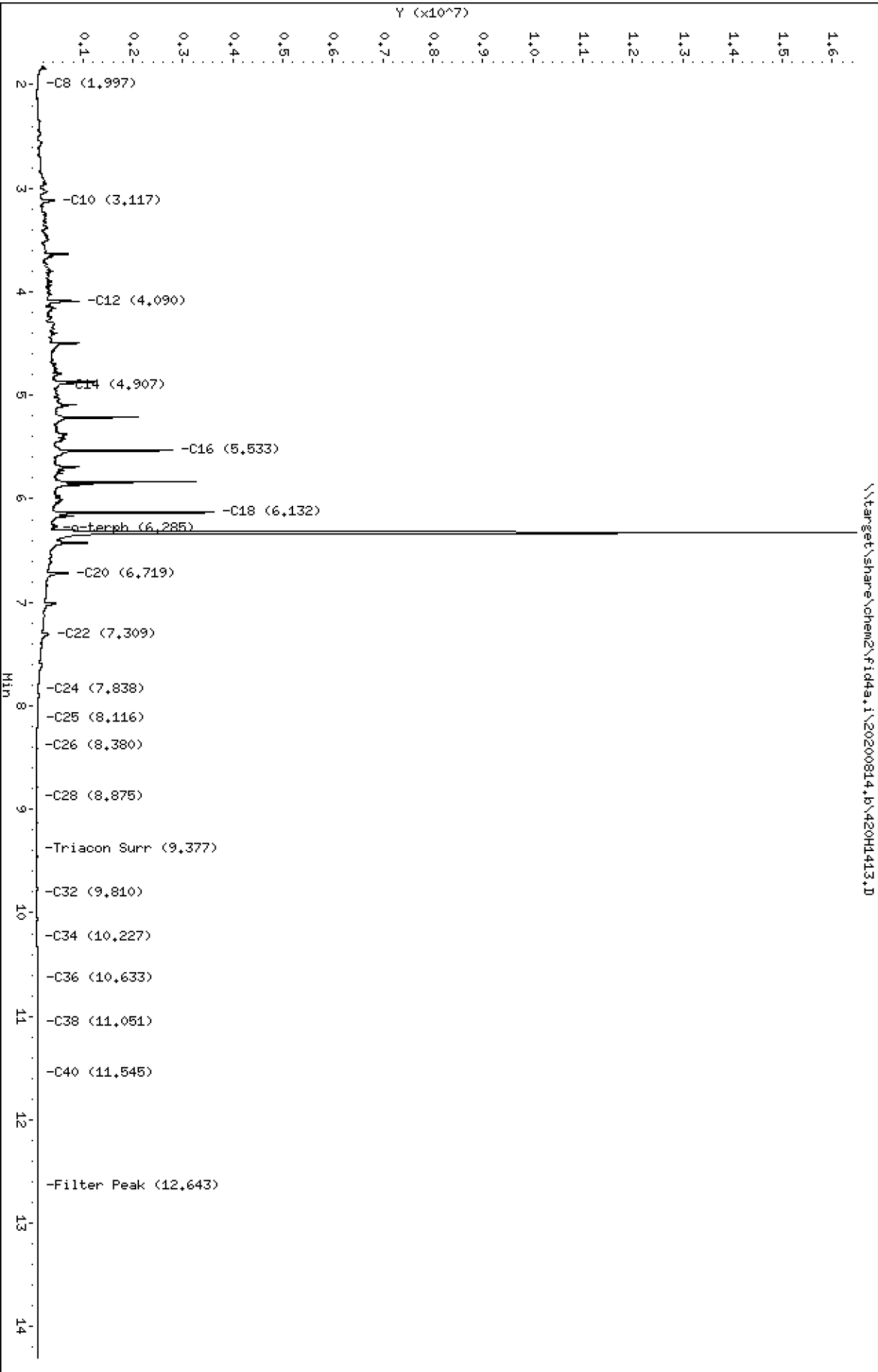
COMPOUND	TYPE	CONC. (mg/L)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Diesel Range Organics (C12-C24)	A	500.00	481	159336.7	153209.9		-3.8	+/-15
o-Terphenyl	A	90.000	79.3	204701.9	180393.1		-11.9	+/-15

\* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20200814,b\420H1413.D  
Date: 14-AUG-2020 11:59  
Client ID:  
Sample Info: SEQ-CCV1

Column phase: RTX-1

Instrument: fid4a,1  
Operator: CTO  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20200814.b/420H1413.D  
Method: 20200814.b\FID4TPH.m  
Instrument: fid4a.i, CTO  
Report Date: 08/24/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-CCV1  
Client ID:  
Injection: 14-AUG-2020 11:59  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.997	0.005	33555	26527	WATPHD	(C12-C24)	76604959	480.8
C10	3.117	0.011	360980	800884	WATPHM	(C24-C38)	2087736	20.6
C12	4.090	0.003	858002	1109180	AK102	(C10-C25)	90098220	460.9
C14	4.907	0.011	444696	641926	AK103	(C25-C36)	1192714	16.3
C16	5.533	-0.006	2733195	3097613	OR.DIES	(C10-C28)	90414159	461.3
C18	6.132	-0.001	3552120	3129904				
C20	6.719	-0.001	636483	1325665	JET-A	(C10-C18)	69968294	421.9
C22	7.309	0.022	248019	872467				
C24	7.838	0.001	39892	19883				
C25	8.116	0.009	16354	7274				
C26	8.380	0.009	7066	4723				
C28	8.875	-0.001	410	108				
C32	9.810	0.003	6271	1564				
C34	10.227	-0.005	10941	7550				
Filter Peak	12.643	0.007	25373	20242	CREOSOT	(C12-C22)	74914962	831.2
C36	10.633	-0.004	19294	9569				
C38	11.051	-0.001	25145	5023				
C40	11.545	-0.002	23988	7180				
o-terph	6.330	0.000	15978088	16235384				
Triacon Surr	9.377	-0.001	1405	784	NAS DIES	(C10-C24)	89766551	460.0

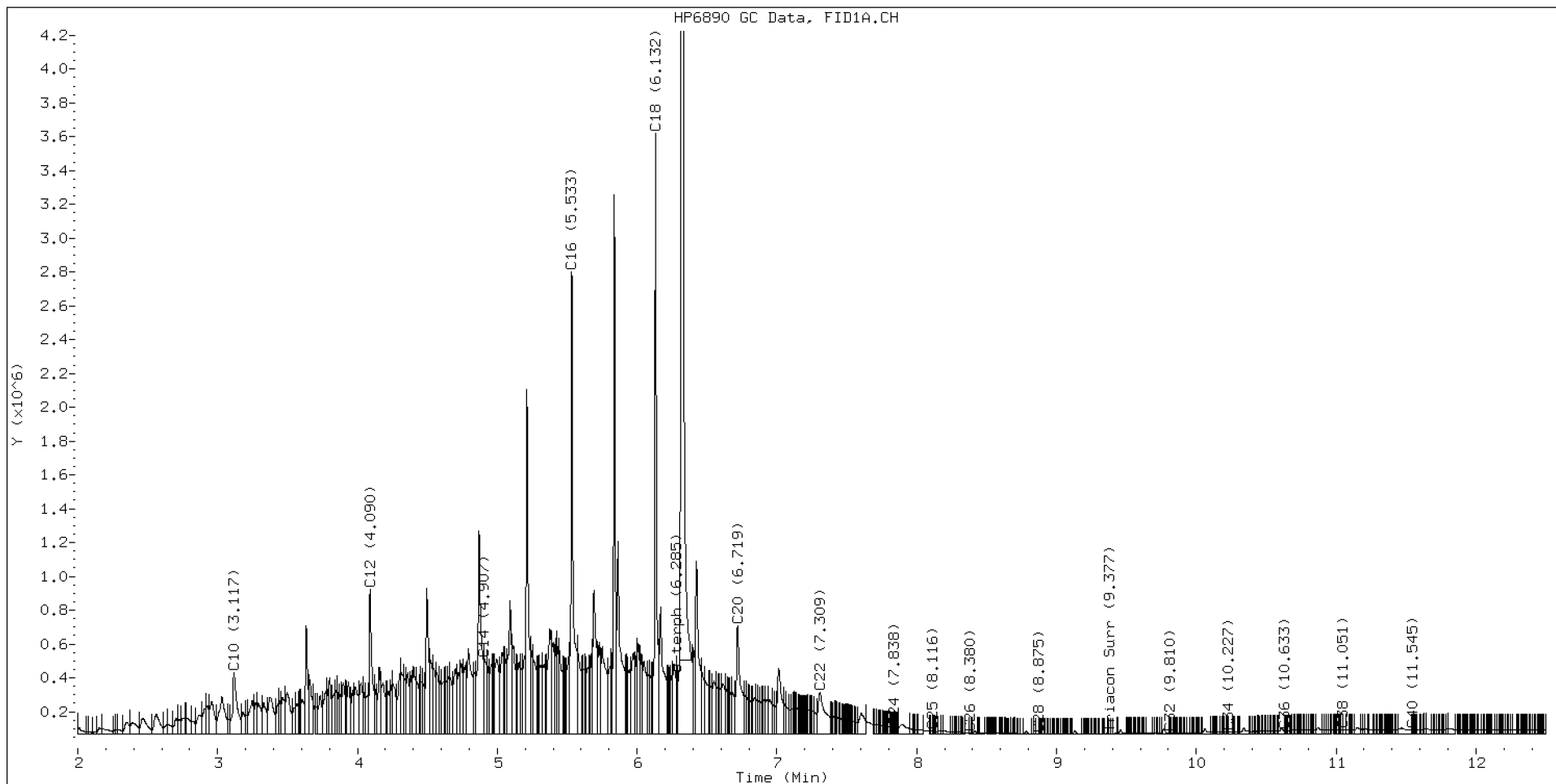
Range Times: NW Diesel(4.087 - 7.837) AK102(3.11 - 8.11) Jet A(3.11 - 6.13)  
NW M.Oil(7.84 - 11.05) AK103(8.11 - 10.64) OR Diesel(3.11 - 8.88)

Surrogate	Area	Amount
o-Terphenyl	16235384	79.3 M
Triacontane	784	0.0

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	90128.3	30-MAR-2020

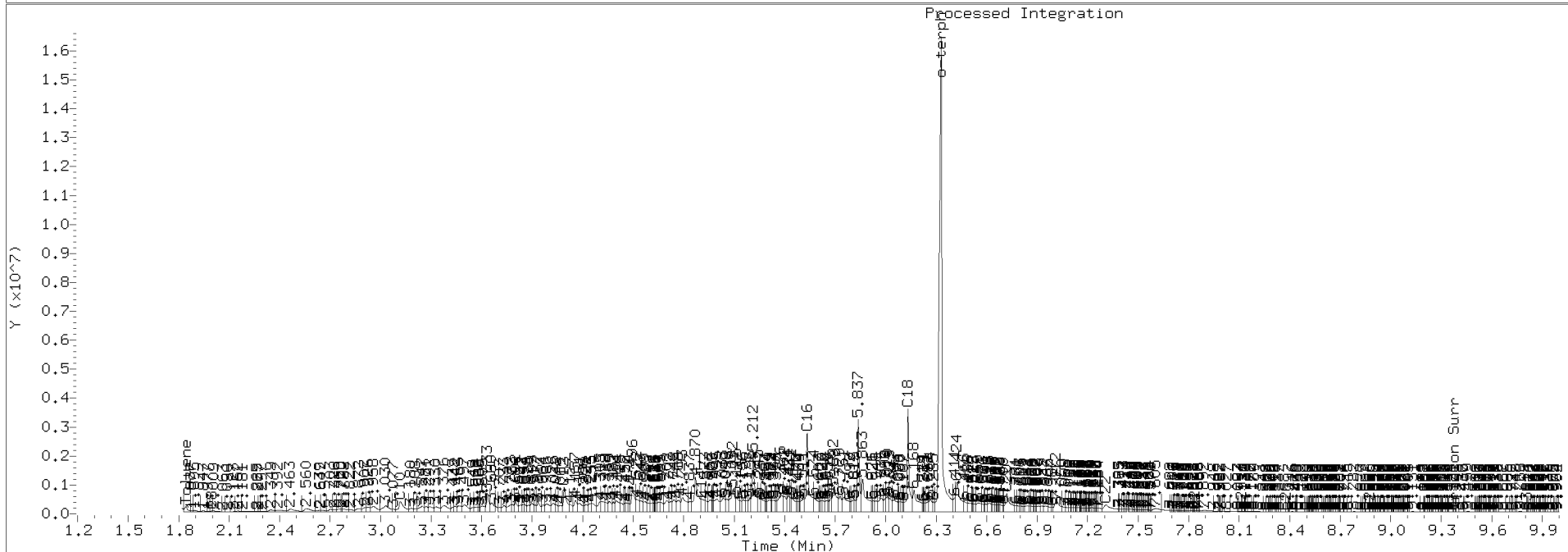
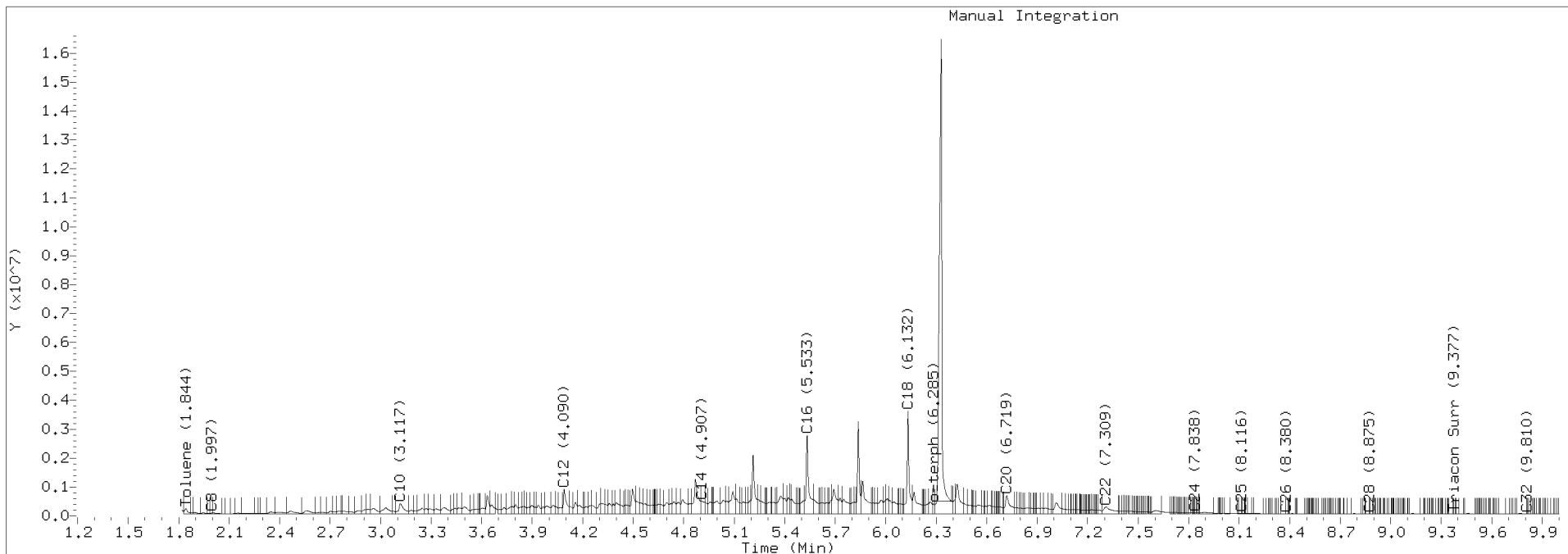




TPH Manual Integrations Report

Datafile: FID4A, 20200814.b/420H1413.D Injection: 14-AUG-2020 11:59

Lab ID:SEQ-CCV1



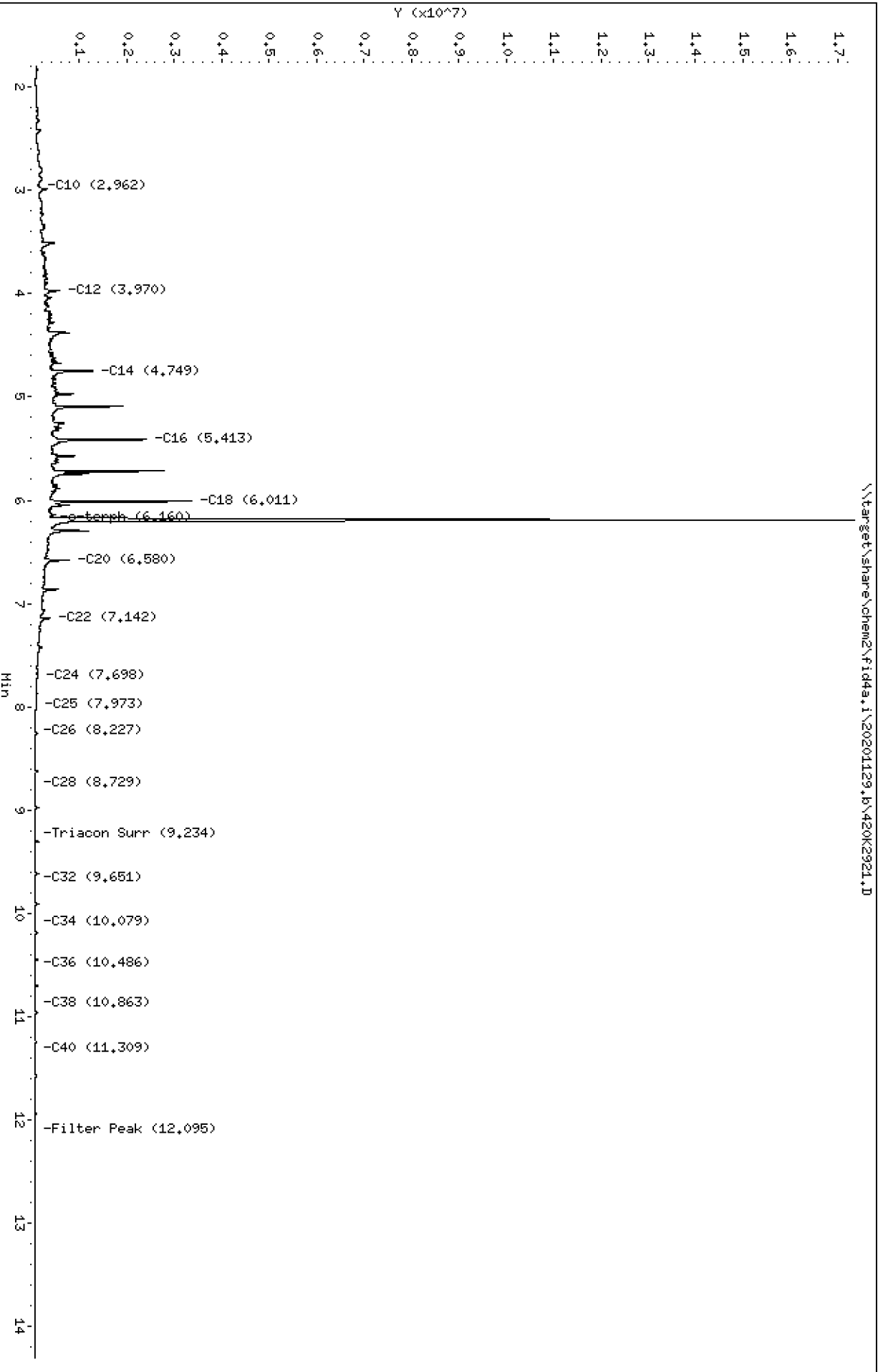


Data File: \\target\share\chem2\fid4a,1\20201129,b\420K2921.D  
Date: 30-NOV-2020 00:27  
Client ID:  
Sample Info: SEQ-CV1

Instrument: fid4a,1

Column phase: RTX-1

Operator: JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201129.b/420K2921.D  
Method: 20201129.b\FID4TPH.m  
Instrument: fid4a.i, JGR  
Report Date: 11/30/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-CCV1  
Client ID:  
Injection: 30-NOV-2020 00:27  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

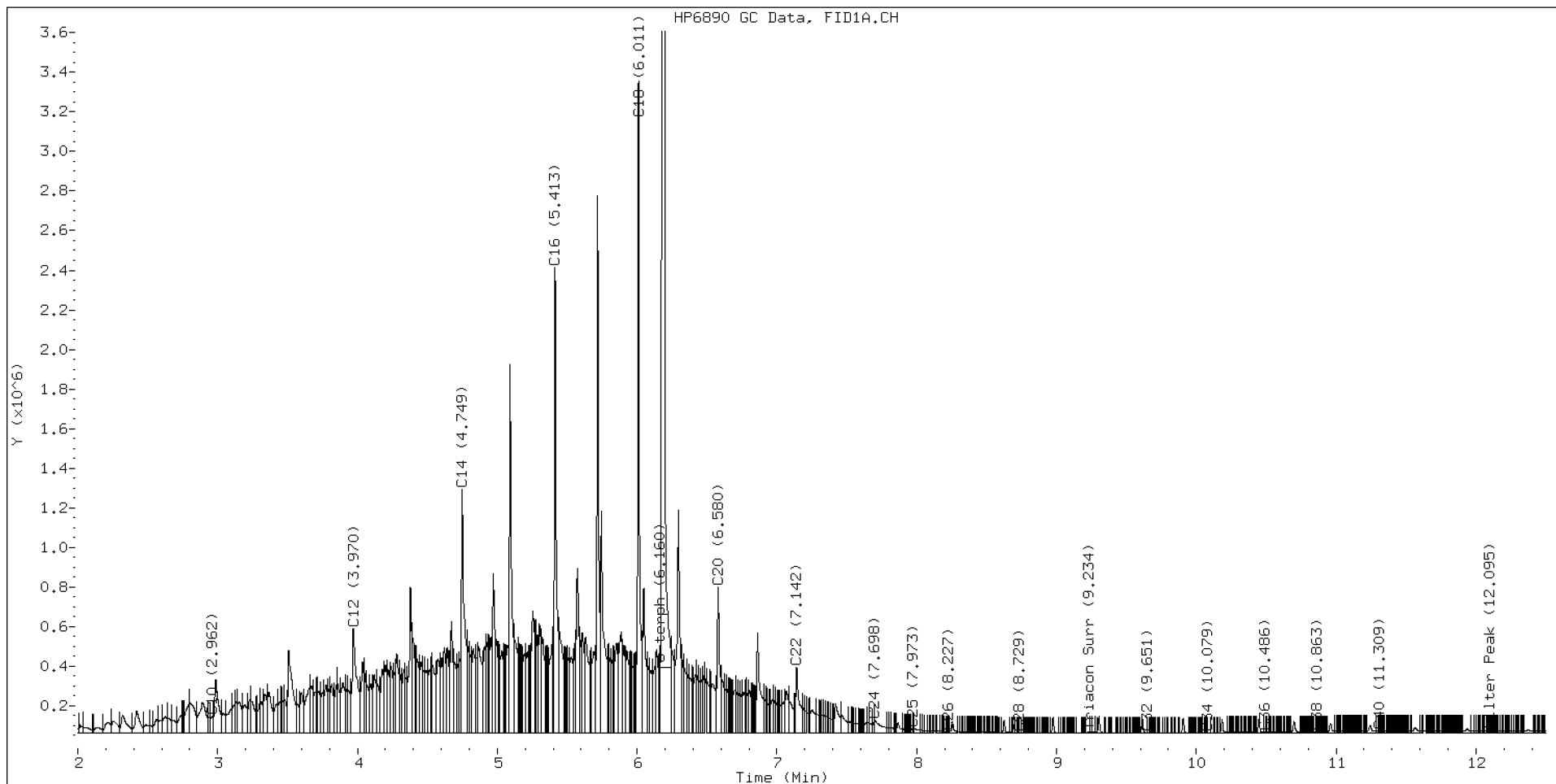
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.884	0.013	42732	78842	WATPHD	(C12-C24)	73188080	459.3
C10	2.962	-0.007	83680	95441	WATPHM	(C24-C38)	1315151	13.0
C12	3.970	0.006	527200	1228780	AK102	(C10-C25)	84939647	434.5
C14	4.749	0.001	1229802	1719809	AK103	(C25-C36)	924801	12.6
C16	5.413	-0.001	2348486	2372057	OR.DIES	(C10-C28)	85359444	435.5
C18	6.011	-0.001	3293816	2904071				
C20	6.580	-0.003	738126	972189	JET-A	(C10-C18)	65750625	396.4
C22	7.142	-0.002	332840	607899				
C24	7.698	0.005	61387	50076				
C25	7.973	0.012	20683	20133				
C26	8.227	0.004	7327	3248				
C28	8.729	0.002	1695	409				
C32	9.651	-0.005	1155	753				
C34	10.079	0.000	1776	673				
Filter Peak	12.095	-0.003	8637	1726	BUNKERC	(C10-C38)	86055846	2179.9
C36	10.486	0.004	5097	3520				
C38	10.863	-0.009	7622	4178				
C40	11.309	-0.005	9092	4983				
o-terph	6.195	-0.003	16954351	16911058				
Triacon Surr	9.234	0.004	5205	5348	NAS DIES	(C10-C24)	84740695	434.2

Range Times: NW Diesel(3.964 - 7.693) AK102(2.97 - 7.96) Jet A(2.97 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.96 - 10.48) OR Diesel(2.97 - 8.73)

Surrogate	Area	Amount
o-Terphenyl	16911058	82.6 M
Triacontane	5348	0.0

M Indicates the peak was manually integrated

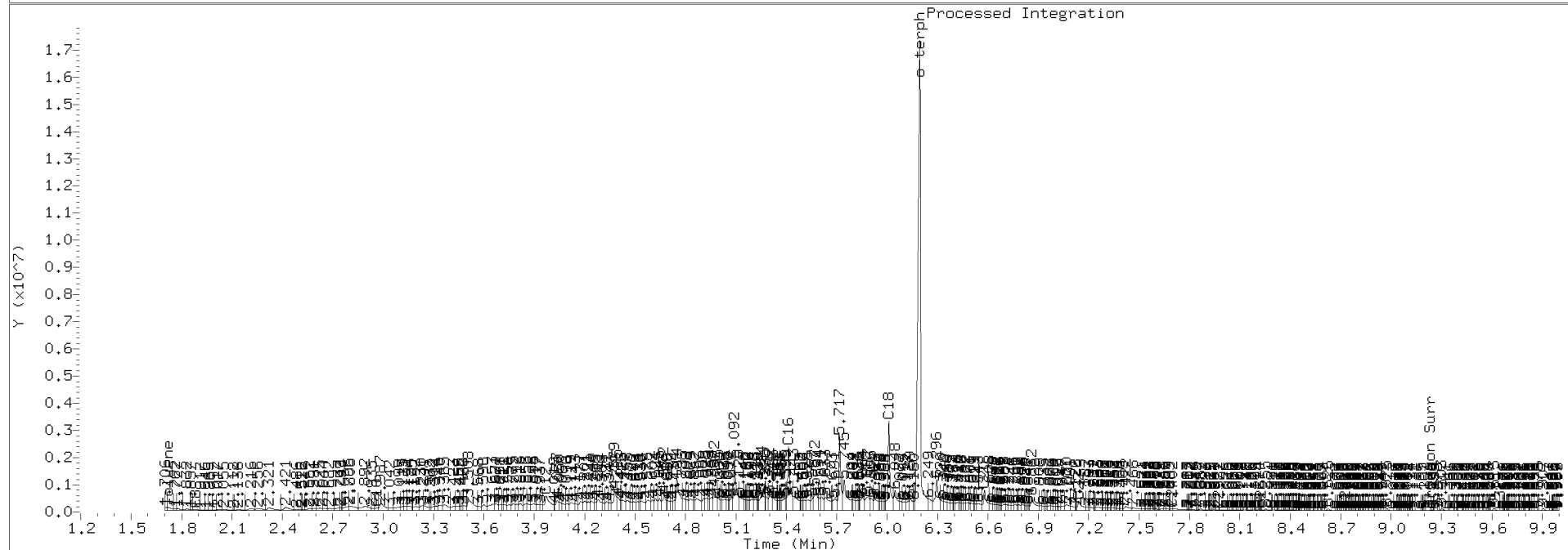
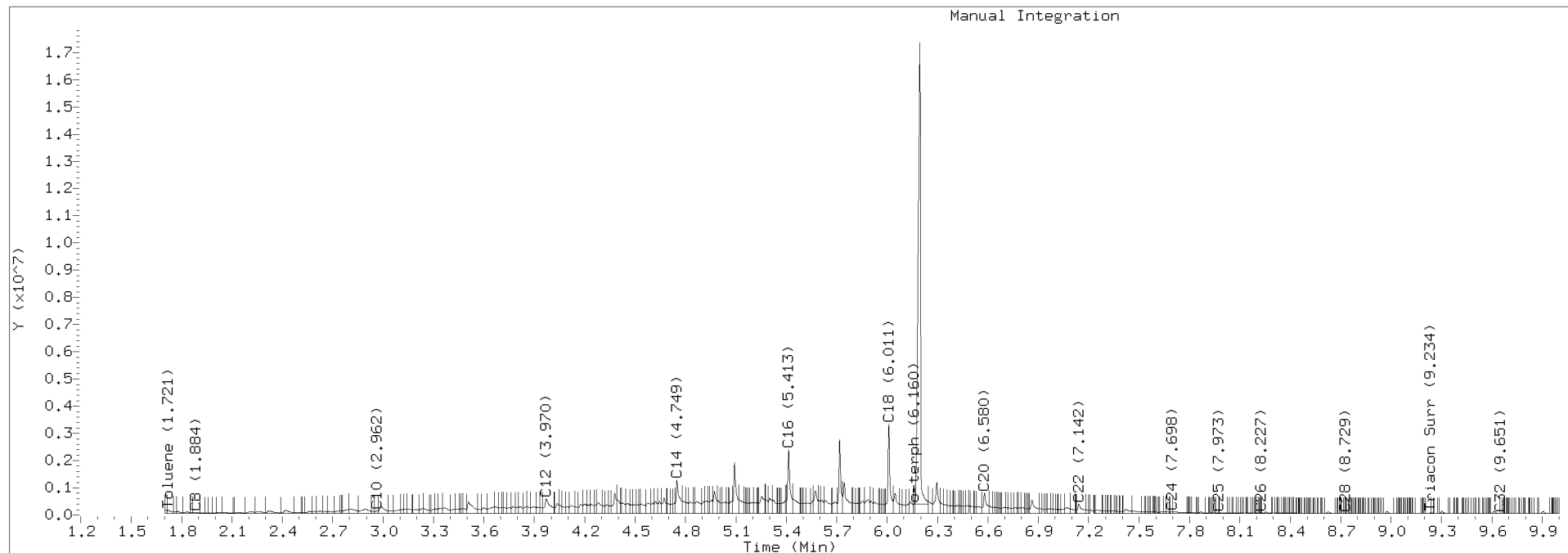
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20201129.b/420K2921.D Injection: 30-NOV-2020 00:27

Lab ID:SEQ-CCV1





## CONTINUING CALIBRATION CHECK NWTPH-Dx

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>20K0204</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic</u>
Instrument ID: <u>FID4</u>	Calibration: <u>DA00022</u>
Lab File ID: <u>420K2922.D</u>	Calibration Date: <u>10/25/2019</u>
Sequence: <u>SIK0411</u>	Injection Date: <u>11/30/20</u>
Lab Sample ID: <u>SIK0411-CCV2</u>	Injection Time: <u>00:47</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	1060	101166	107641.3		6.4	+/-15

\* Values outside of QC limits



Data File: \\target\share\chem2\fid4a,1\20201129,b\420K2922.D  
Date: 30-NOV-2020 00:47

Client ID:

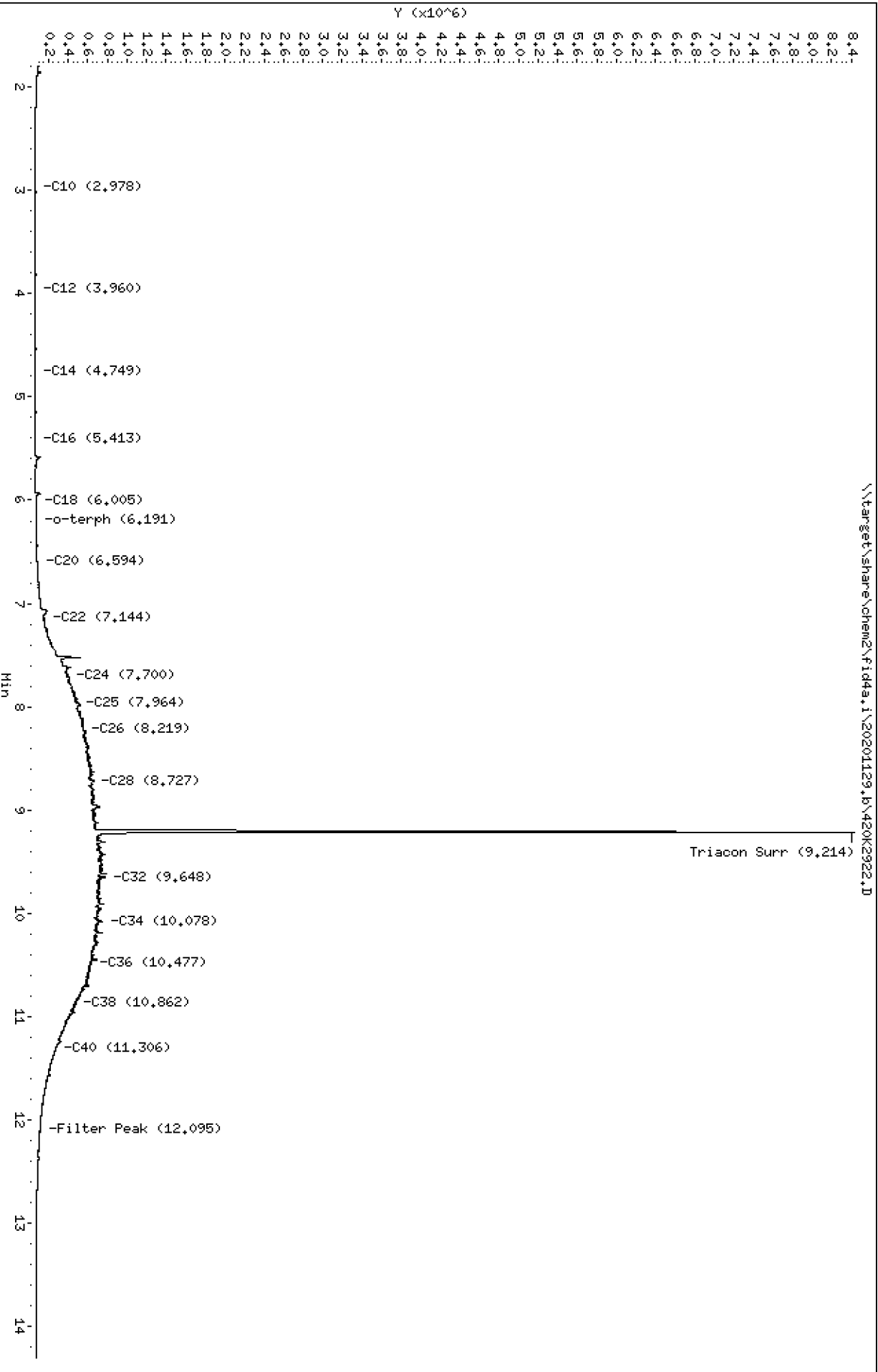
Sample Info: SEQ-CCV2

Column phase: RTX-1

Instrument: fid4a,1

Operator: JGR

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201129.b/420K2922.D  
Method: 20201129.b\FID4TPH.m  
Instrument: fid4a.i, JGR  
Report Date: 11/30/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-CCV2  
Client ID:  
Injection: 30-NOV-2020 00:47  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

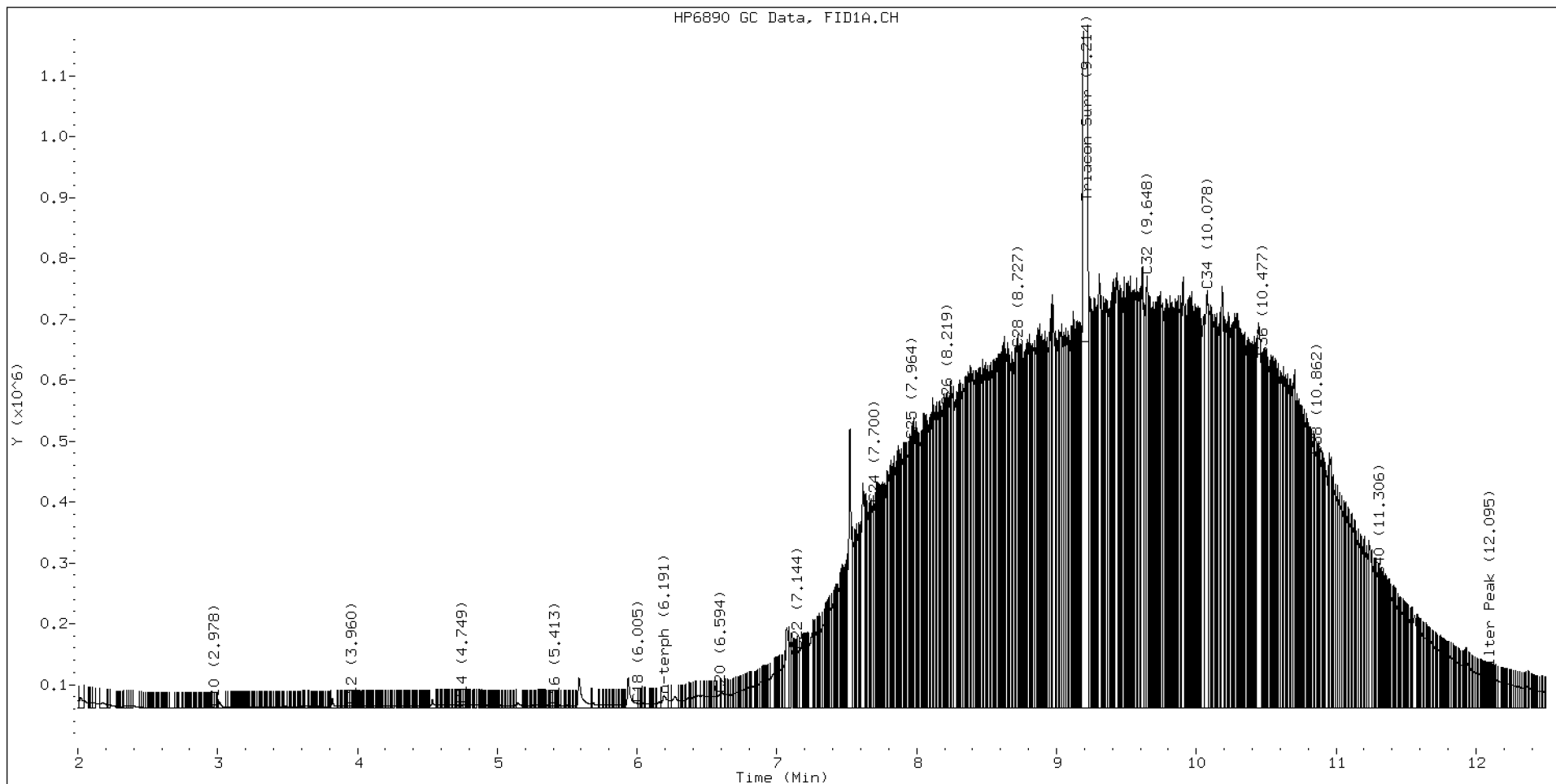
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.859	-0.012	50983	107057	WATPHD	(C12-C24)	10295676	64.6
C10	2.978	0.008	1422	1196	WATPHM	(C24-C38)	107641286	1064.0
C12	3.960	-0.004	3473	2218	AK102	(C10-C25)	14334362	73.3
C14	4.749	0.001	5061	3497	AK103	(C25-C36)	92529218	1263.9
C16	5.413	-0.001	4884	1692	OR.DIES	(C10-C28)	40717615	207.7
C18	6.005	-0.007	8104	7385				
C20	6.594	0.011	23625	33437	JET-A	(C10-C18)	880485	5.3
C22	7.144	-0.000	94873	73885				
C24	7.700	0.007	335341	248010				
C25	7.964	0.003	440038	216467				
C26	8.219	-0.004	495653	295300				
C28	8.727	-0.000	591087	204415				
C32	9.648	-0.008	710202	881609				
C34	10.078	-0.001	687064	1176406				
Filter Peak	12.095	-0.003	49371	12325	BUNKERC	(C10-C38)	118116698	2992.0
C36	10.477	-0.005	576704	398603				
C38	10.862	-0.010	413804	82462				
C40	11.306	-0.008	215572	74801				
o-terph	6.191	-0.007	20533	49517				
Triacon Surr	9.214	-0.017	7768177	7363708	NAS DIES	(C10-C24)	10475412	53.7

Range Times: NW Diesel(3.964 - 7.693) AK102(2.97 - 7.96) Jet A(2.97 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.96 - 10.48) OR Diesel(2.97 - 8.73)

Surrogate	Area	Amount
o-Terphenyl	49517	0.2
Triacontane	7363708	49.6 M

M Indicates the peak was manually integrated

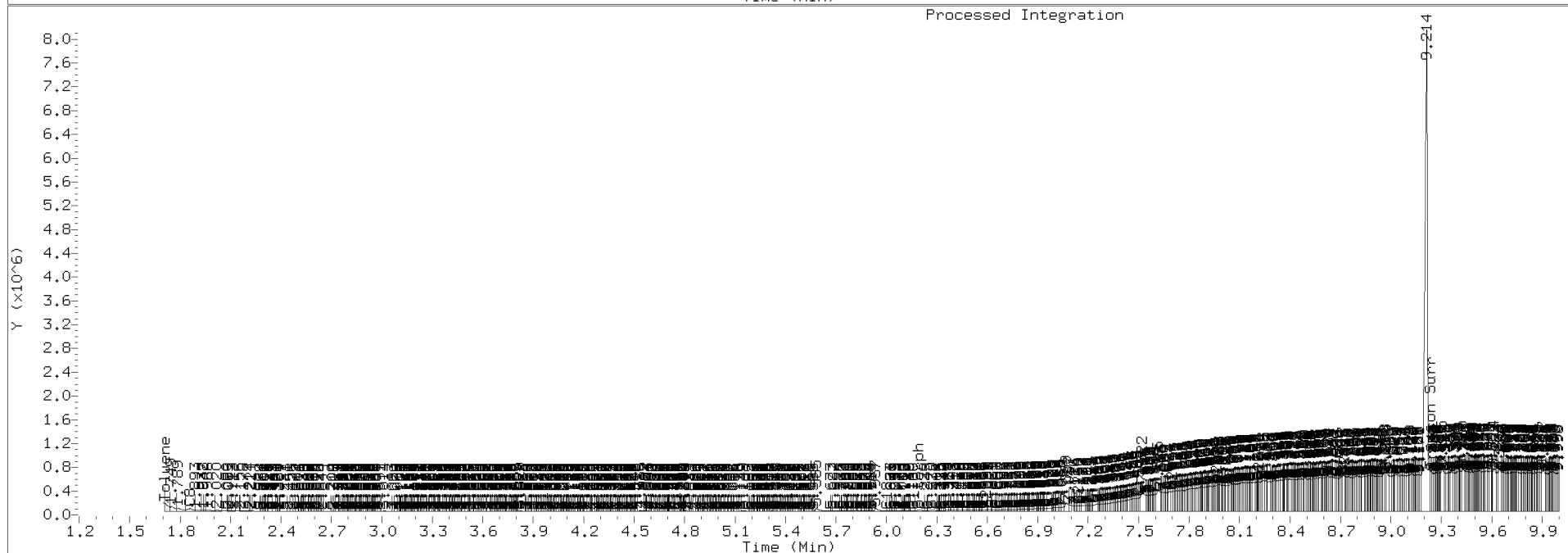
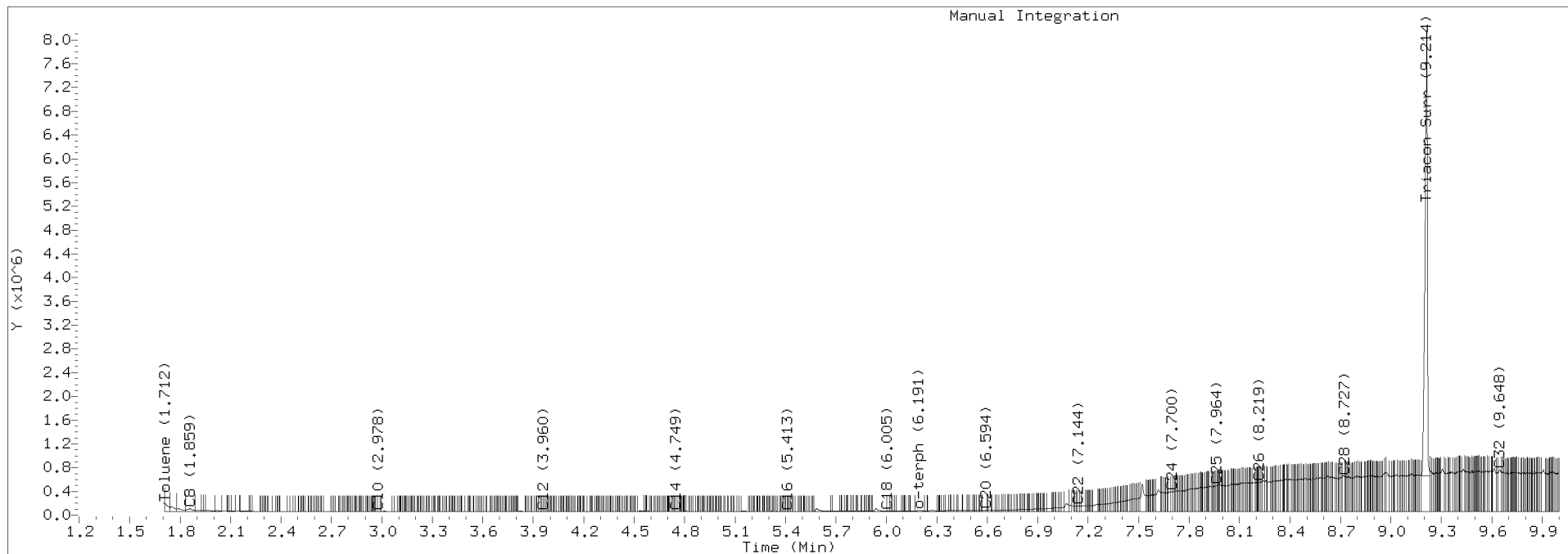
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20201129.b/420K2922.D Injection: 30-NOV-2020 00:47

Lab ID:SEQ-CCV2





## CONTINUING CALIBRATION CHECK NWTPH-Dx

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>20K0204</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic</u>
Instrument ID:	<u>FID4</u>	Calibration:	<u>DA00022</u>
Lab File ID:	<u>420K2933.D</u>	Calibration Date:	<u>10/25/2019</u>
Sequence:	<u>SIK0411</u>	Injection Date:	<u>11/30/20</u>
Lab Sample ID:	<u>SIK0411-CCV3</u>	Injection Time:	<u>04:29</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	462	159336.7	147052.4		-7.7	+/-15
o-Terphenyl	A	90.000	84.4	204701.9	191956.2		-6.2	+/-15

\* Values outside of QC limits

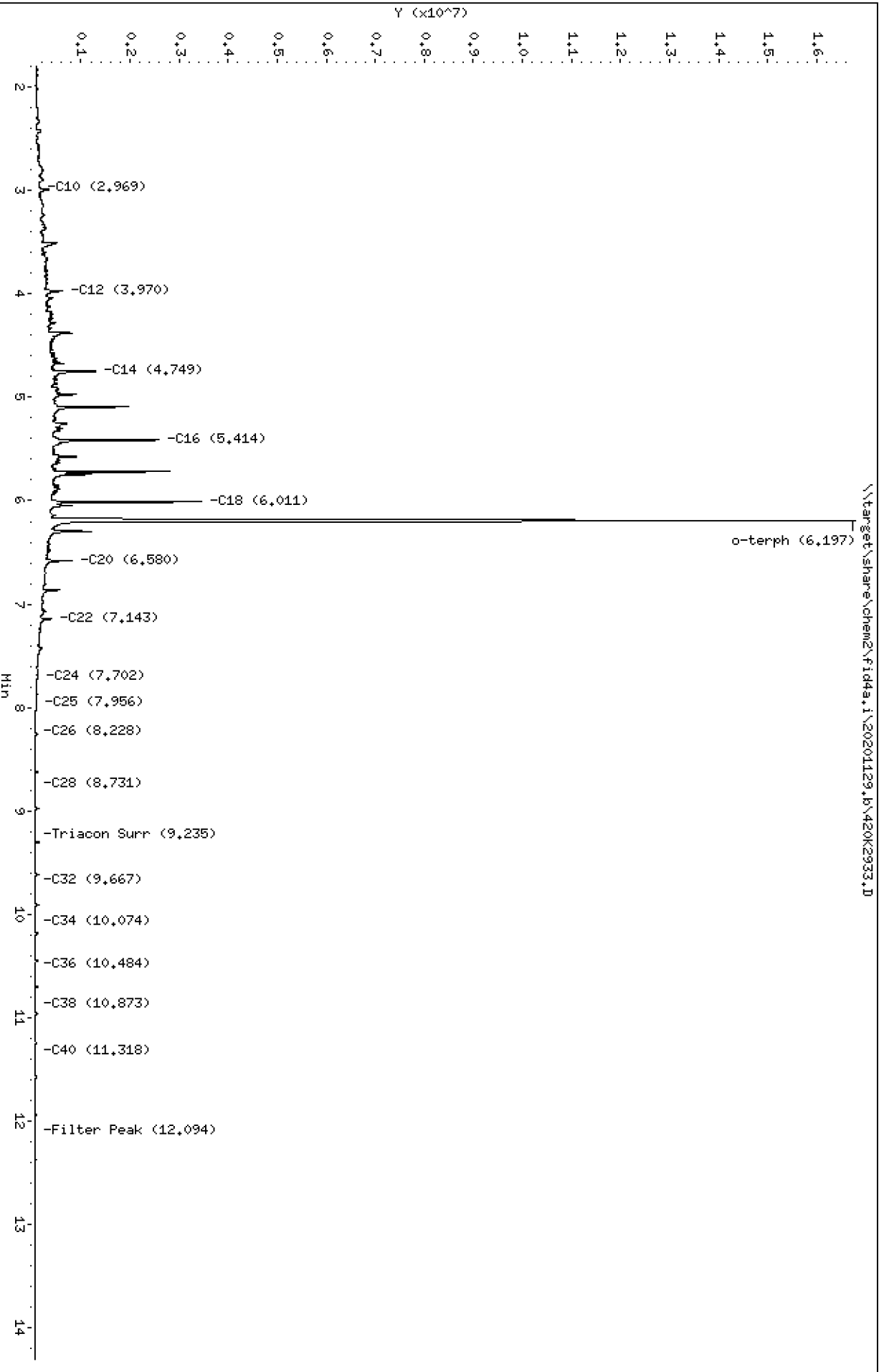
Data File: \\target\share\chem2\fid4a,1\20201129,b\420K2933.D  
Date: 30-NOV-2020 04:29  
Client ID:  
Sample Info: SEQ-CCV3

Instrument: fid4a,1

Page 1

Column phase: RTX-1

Operator: JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201129.b/420K2933.D  
Method: 20201129.b\FID4TPH.m  
Instrument: fid4a.i, JGR  
Report Date: 11/30/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-CCV3  
Client ID:  
Injection: 30-NOV-2020 04:29  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

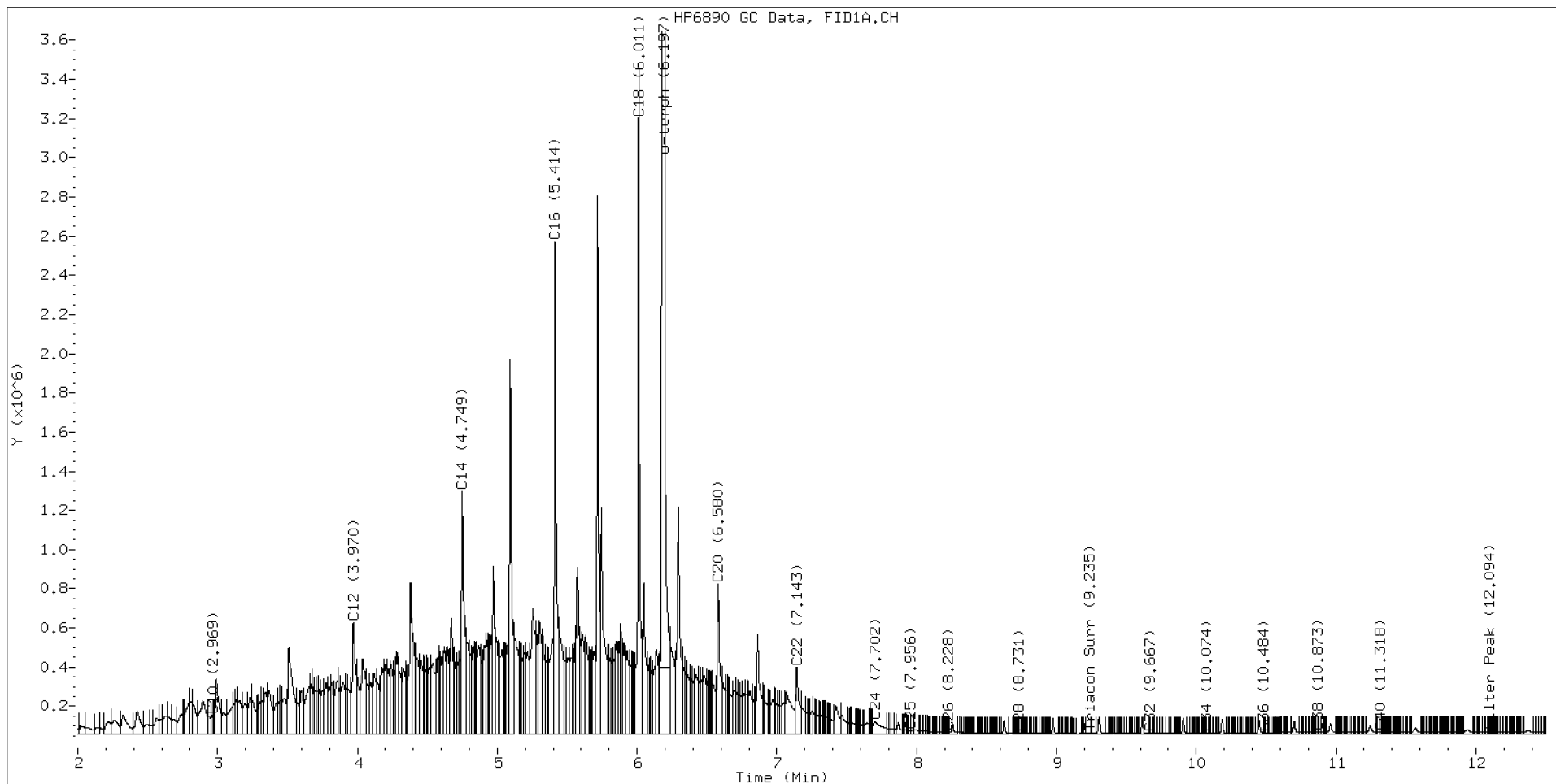
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.859	-0.012	31901	28298	WATPHD	(C12-C24)	73526193	461.5
C10	2.969	-0.001	91544	31904	WATPHM	(C24-C38)	1283411	12.7
C12	3.970	0.006	567511	919160	AK102	(C10-C25)	85790170	438.8
C14	4.749	0.001	1233929	1781117	AK103	(C25-C36)	906294	12.4
C16	5.414	-0.000	2513072	2450791	OR.DIES	(C10-C28)	86189906	439.7
C18	6.011	-0.001	3393410	3106068				
C20	6.580	-0.003	762658	1014901	JET-A	(C10-C18)	66737557	402.4
C22	7.143	-0.001	339876	522783				
C24	7.702	0.009	60356	257767				
C25	7.956	-0.005	15001	9648				
C26	8.228	0.005	6633	1964				
C28	8.731	0.004	1497	492				
C32	9.667	0.011	797	338				
C34	10.074	-0.005	1763	432				
Filter Peak	12.094	-0.004	8742	3487	BUNKERC	(C10-C38)	86887237	2200.9
C36	10.484	0.002	5112	3253				
C38	10.873	0.001	7767	5394				
C40	11.318	0.004	9258	7309				
o-terph	6.197	-0.001	16389199	17276065				
Triacon Surr	9.235	0.005	5266	7234	NAS DIES	(C10-C24)	85603826	438.7

Range Times: NW Diesel(3.964 - 7.693) AK102(2.97 - 7.96) Jet A(2.97 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.96 - 10.48) OR Diesel(2.97 - 8.73)

Surrogate	Area	Amount
o-Terphenyl	17276065	84.4 M
Triacontane	7234	0.0

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020

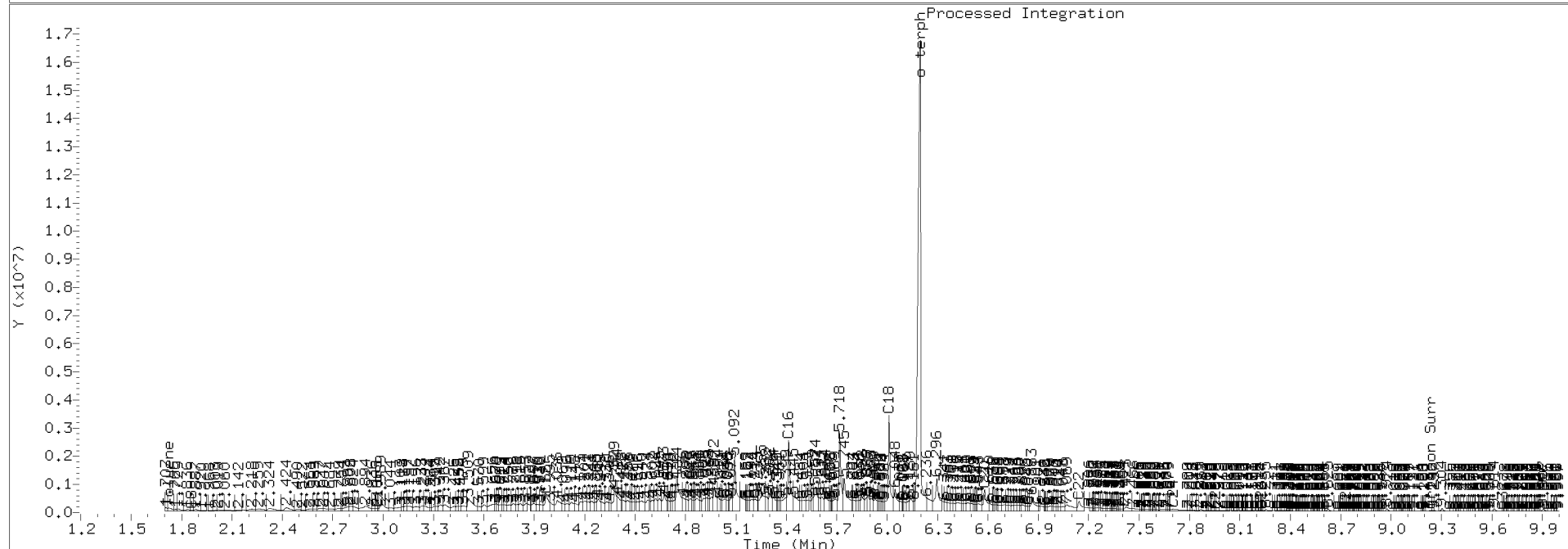
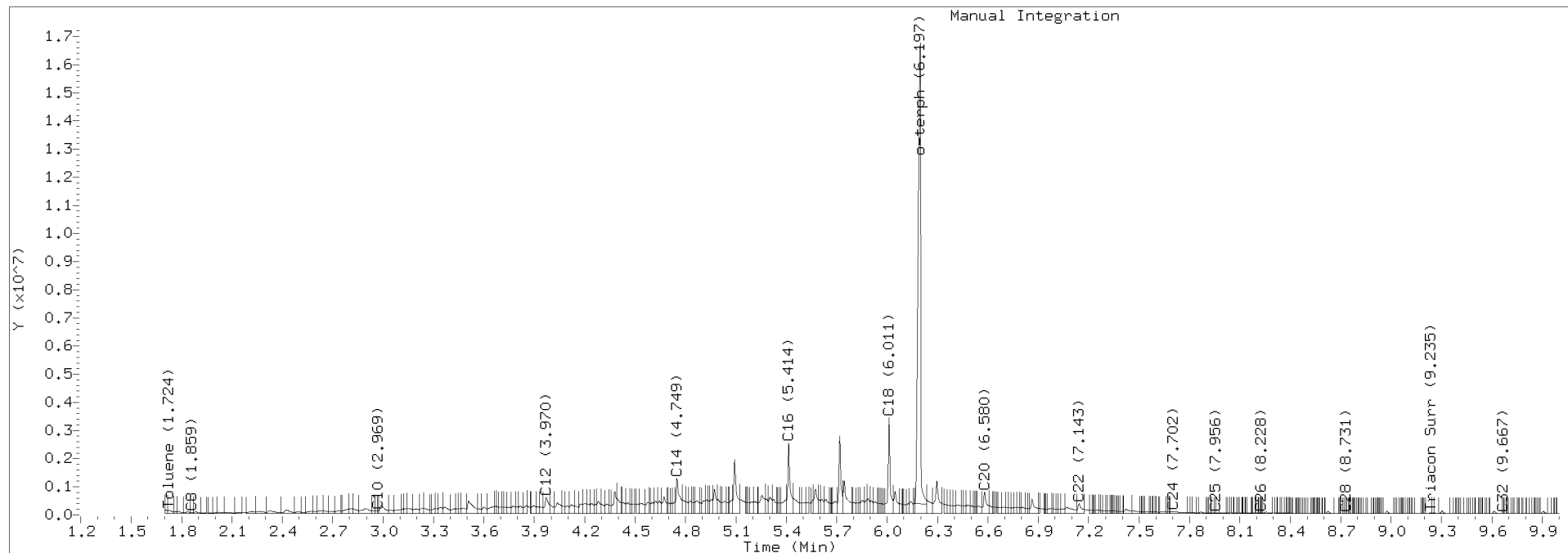




TPH Manual Integrations Report

Datafile: FID4A, 20201129.b/420K2933.D Injection: 30-NOV-2020 04:29

Lab ID:SEQ-CCV3





Data File: \\target\share\chem2\fid4a,1\20201129,8\420K2934.D  
Date: 30-NOV-2020 04:49

Client ID:  
Sample Info: SEQ-CCV4

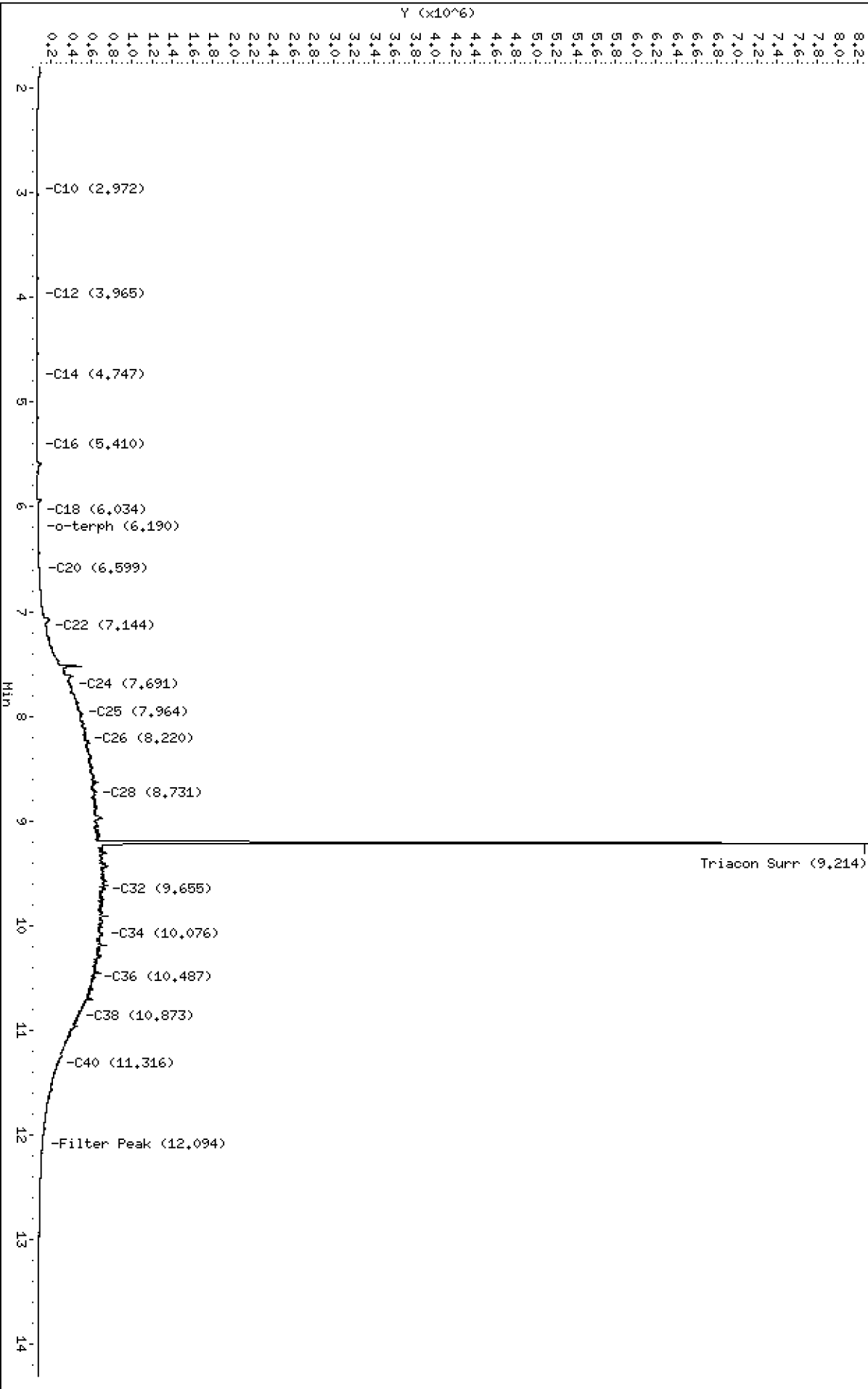
Column phase: RTX-1

Instrument: fid4a,1

Operator: JGR

Column diameter: 0.25

\\target\share\chem2\fid4a,1\20201129,8\420K2934.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201129.b/420K2934.D  
Method: 20201129.b\FID4TPH.m  
Instrument: fid4a.i, JGR  
Report Date: 11/30/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-CCV4  
Client ID:  
Injection: 30-NOV-2020 04:49  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

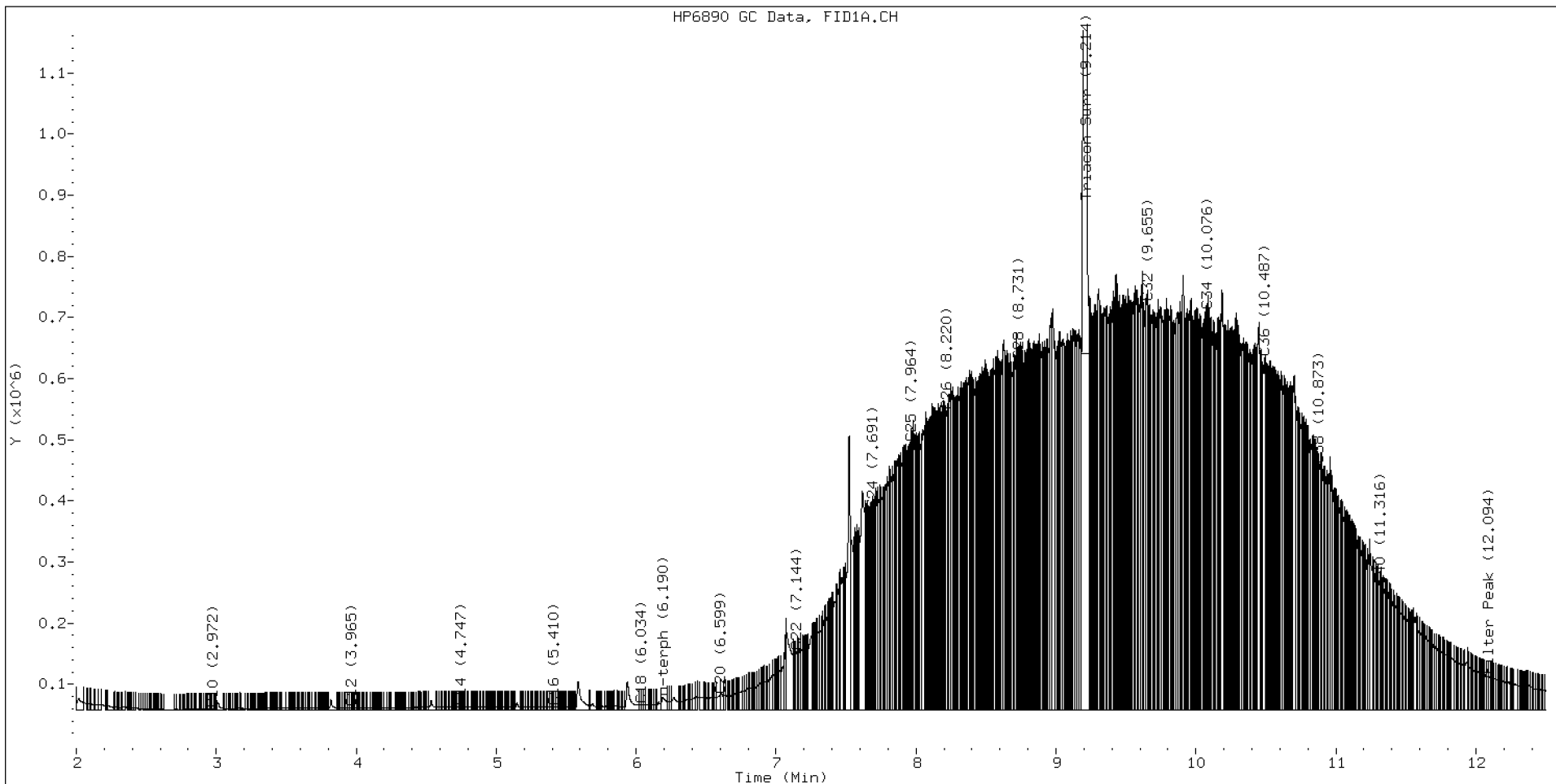
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.853	-0.018	41780	104814	WATPHD	(C12-C24)	10170688	63.8
C10	2.972	0.003	1071	651	WATPHM	(C24-C38)	105643767	1044.3
C12	3.965	0.001	3062	1787	AK102	(C10-C25)	14117911	72.2
C14	4.747	-0.001	4651	2536	AK103	(C25-C36)	90693317	1238.9
C16	5.410	-0.004	4458	1967	OR.DIES	(C10-C28)	40125575	204.7
C18	6.034	0.022	7537	7696				
C20	6.599	0.016	23648	40342	JET-A	(C10-C18)	825837	5.0
C22	7.144	0.000	94224	82361				
C24	7.691	-0.002	325912	113074				
C25	7.964	0.003	435140	276540				
C26	8.220	-0.003	487855	455745				
C28	8.731	0.003	570230	142165				
C32	9.655	-0.001	666261	264547				
C34	10.076	-0.002	652354	225734				
Filter Peak	12.094	-0.004	53798	37209	BUNKERC	(C10-C38)	115976742	2937.8
C36	10.487	0.005	575086	531200				
C38	10.873	0.001	399977	258094				
C40	11.316	0.003	201704	50128				
o-terph	6.190	-0.008	19664	46301				
Triacon Surr	9.214	-0.017	7654141	7270751	NAS DIES	(C10-C24)	10332975	52.9

Range Times: NW Diesel(3.964 - 7.693) AK102(2.97 - 7.96) Jet A(2.97 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.96 - 10.48) OR Diesel(2.97 - 8.73)

Surrogate	Area	Amount
o-Terphenyl	46301	0.2
Triacontane	7270751	49.0 M

M Indicates the peak was manually integrated

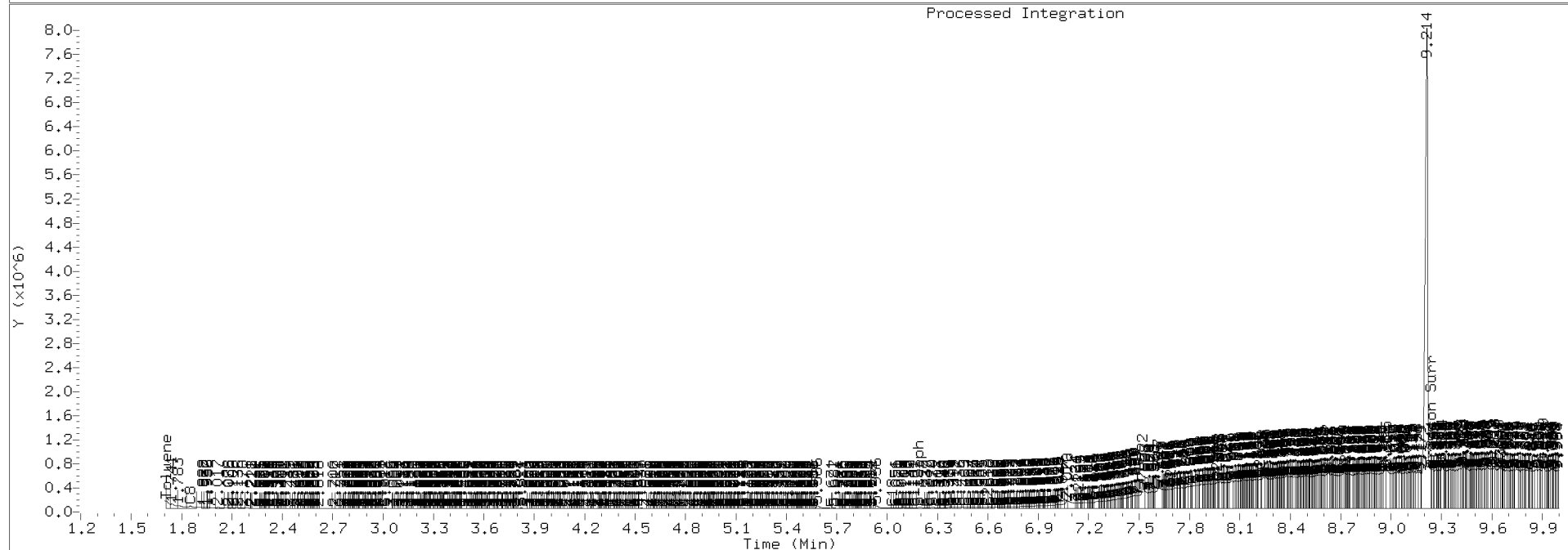
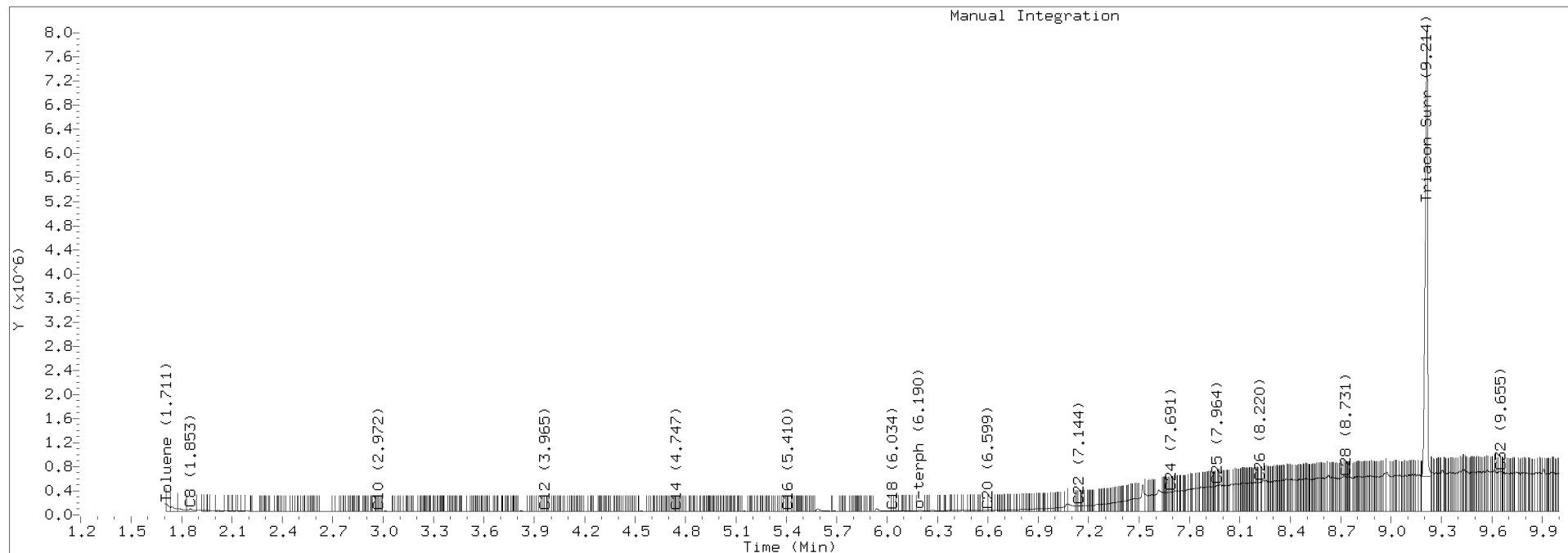
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20201129.b/420K2934.D Injection: 30-NOV-2020 04:49

Lab ID:SEQ-CCV4





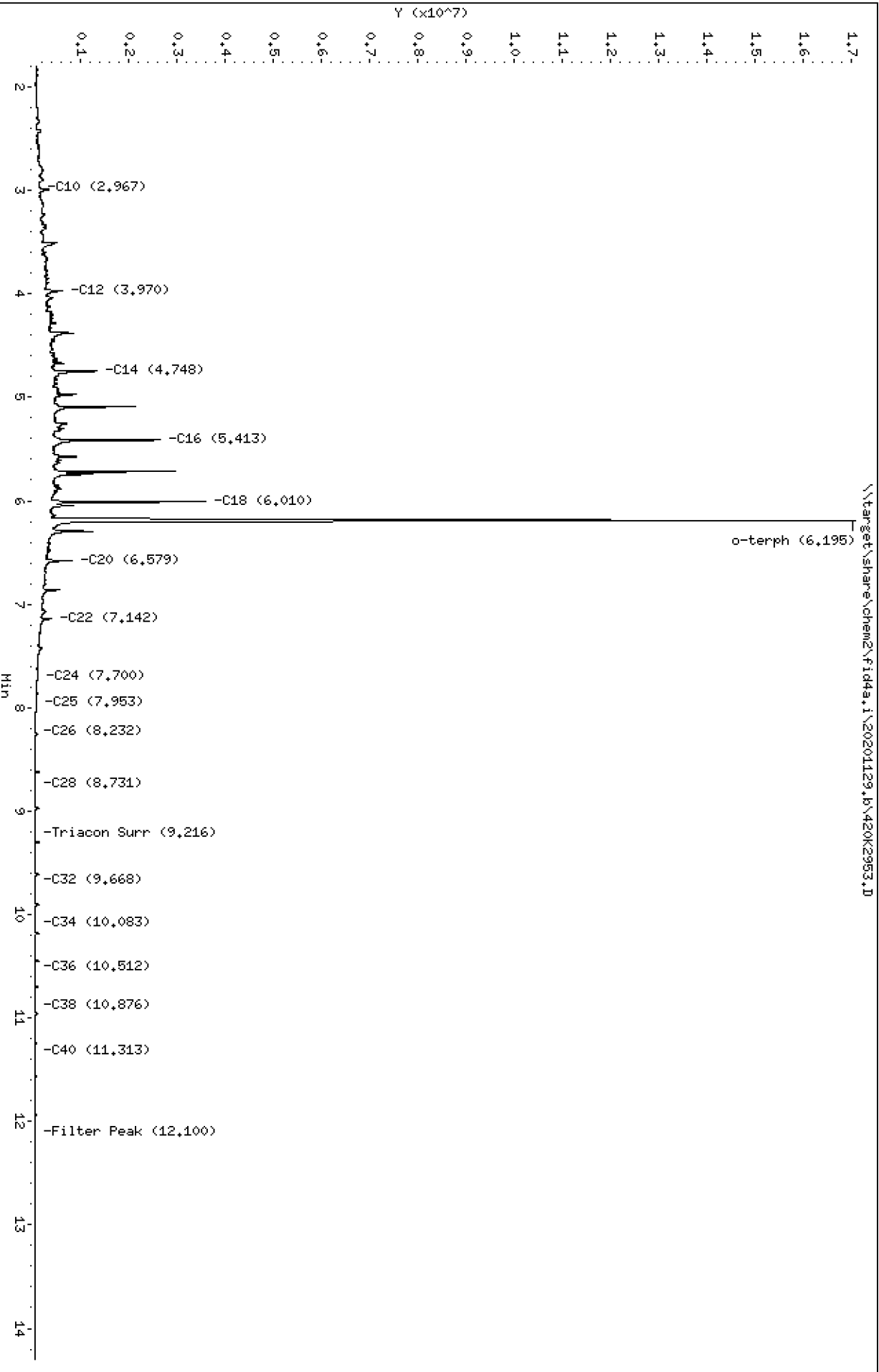
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Date: 30-NOV-2020 11:14  
Client ID:  
Sample Info: SEQ-CV5

Instrument: fid4a,1

Page 1

Column phase: RTX-1

Operator: JGR  
Column diameter: 0.25





Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201129.b/420K2953.D  
Method: 20201129.b\FID4TPH.m  
Instrument: fid4a.i, JGR  
Report Date: 11/30/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-CCV5  
Client ID:  
Injection: 30-NOV-2020 11:14  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

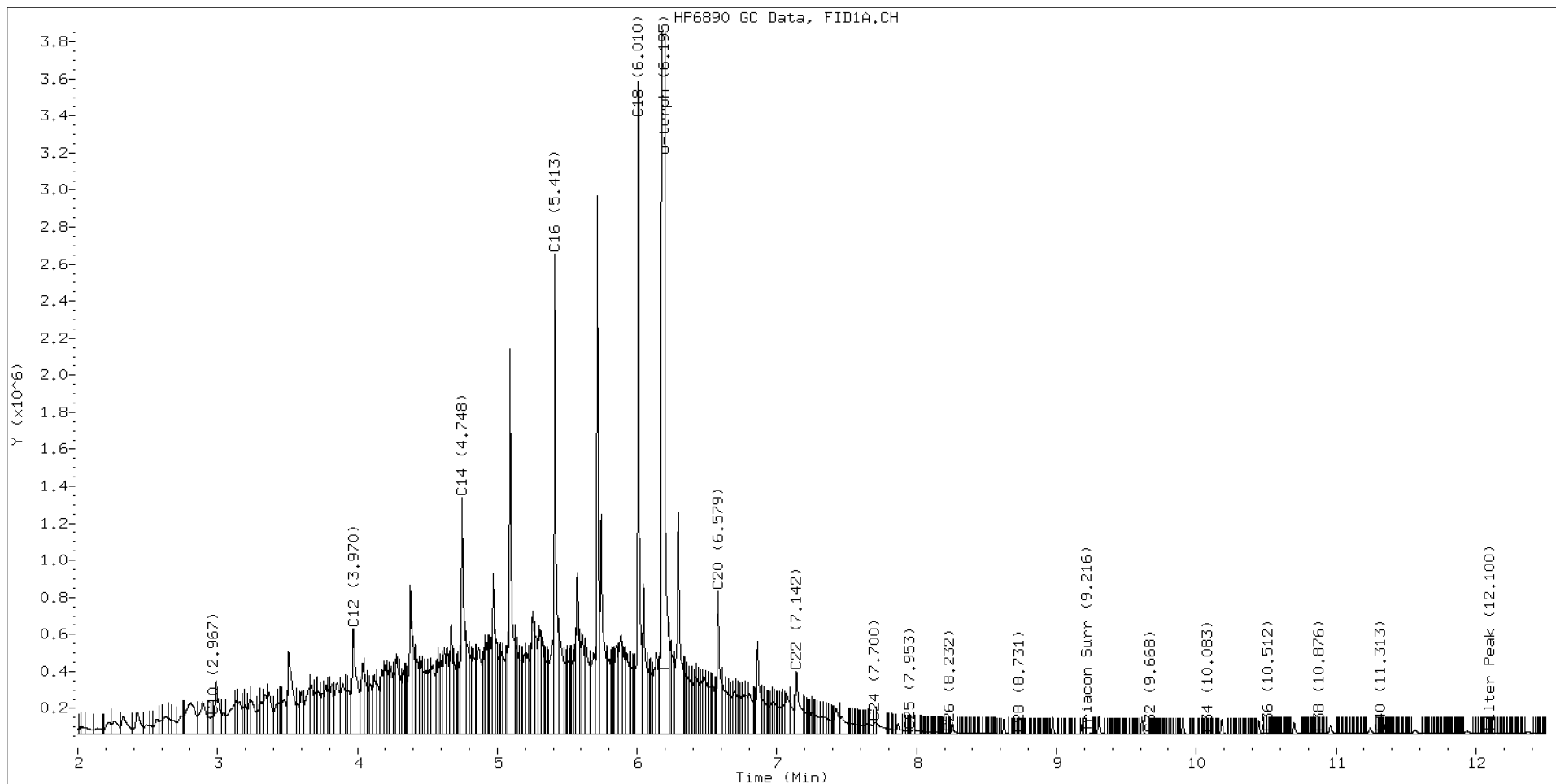
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.858	-0.014	31754	28084	WATPHD	(C12-C24)	77577392	486.9
C10	2.967	-0.003	95652	103773	WATPHM	(C24-C38)	1288930	12.7
C12	3.970	0.006	570123	1324446	AK102	(C10-C25)	90432302	462.6
C14	4.748	-0.000	1277287	1869859	AK103	(C25-C36)	975708	13.3
C16	5.413	-0.001	2590435	2508962	OR.DIES	(C10-C28)	90882656	463.7
C18	6.010	-0.002	3527198	3114914				
C20	6.579	-0.004	768325	1045752	JET-A	(C10-C18)	69947784	421.8
C22	7.142	-0.002	336181	689988				
C24	7.700	0.007	62719	85855				
C25	7.953	-0.008	16209	4840				
C26	8.232	0.009	7434	2578				
C28	8.731	0.004	1719	486				
C32	9.668	0.012	713	206				
C34	10.083	0.005	1311	485				
Filter Peak	12.100	0.002	6749	5015	BUNKERC	(C10-C38)	91562968	2319.4
C36	10.512	0.030	3278	2274				
C38	10.876	0.004	5763	2000				
C40	11.313	-0.000	6815	3043				
o-terph	6.195	-0.003	16662476	17784850				
Triacon Surr	9.216	-0.015	802	256	NAS DIES	(C10-C24)	90274038	462.6

Range Times: NW Diesel(3.964 - 7.693) AK102(2.97 - 7.96) Jet A(2.97 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.96 - 10.48) OR Diesel(2.97 - 8.73)

Surrogate	Area	Amount
o-Terphenyl	17784850	86.9 M
Triacontane	256	0.0

M Indicates the peak was manually integrated

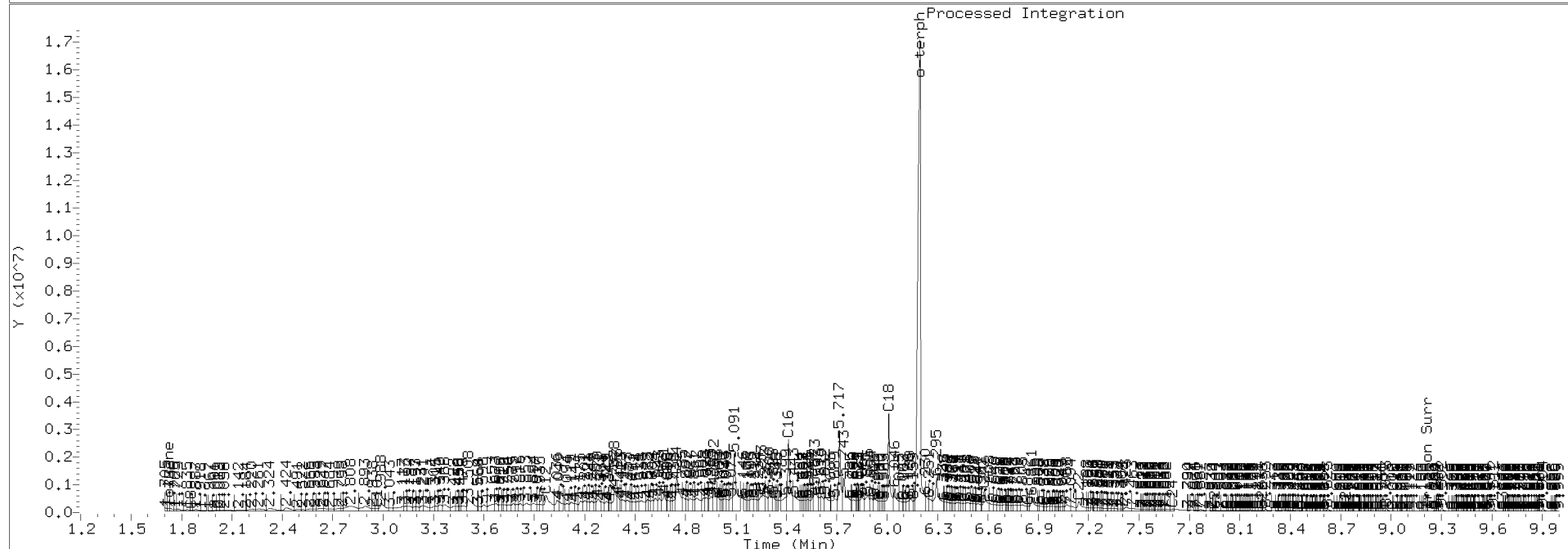
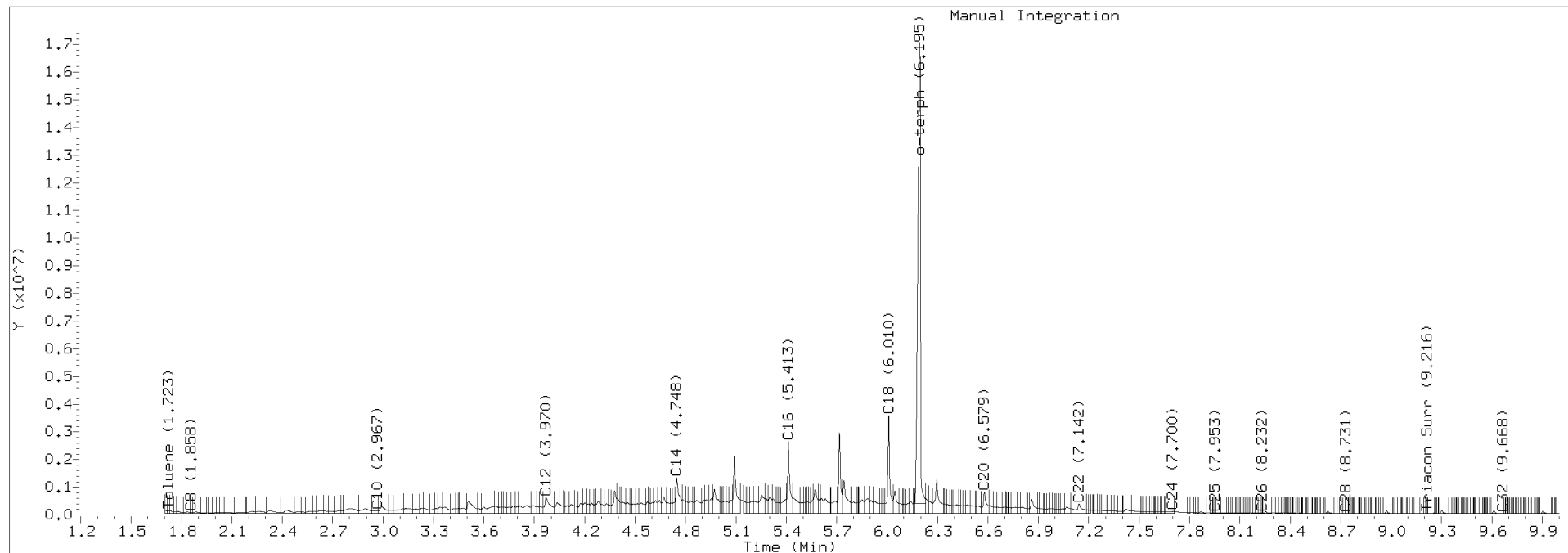
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20201129.b/420K2953.D Injection: 30-NOV-2020 11:14

Lab ID:SEQ-CCV5





## CONTINUING CALIBRATION CHECK

### NWTPH-Dx

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>20K0204</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic</u>
Instrument ID: <u>FID4</u>	Calibration: <u>DA00022</u>
Lab File ID: <u>420K2954.D</u>	Calibration Date: <u>10/25/2019</u>
Sequence: <u>SIK0411</u>	Injection Date: <u>11/30/20</u>
Lab Sample ID: <u>SIK0411-CCV6</u>	Injection Time: <u>11:34</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	1130	101166	113997.2		12.7	+/-15

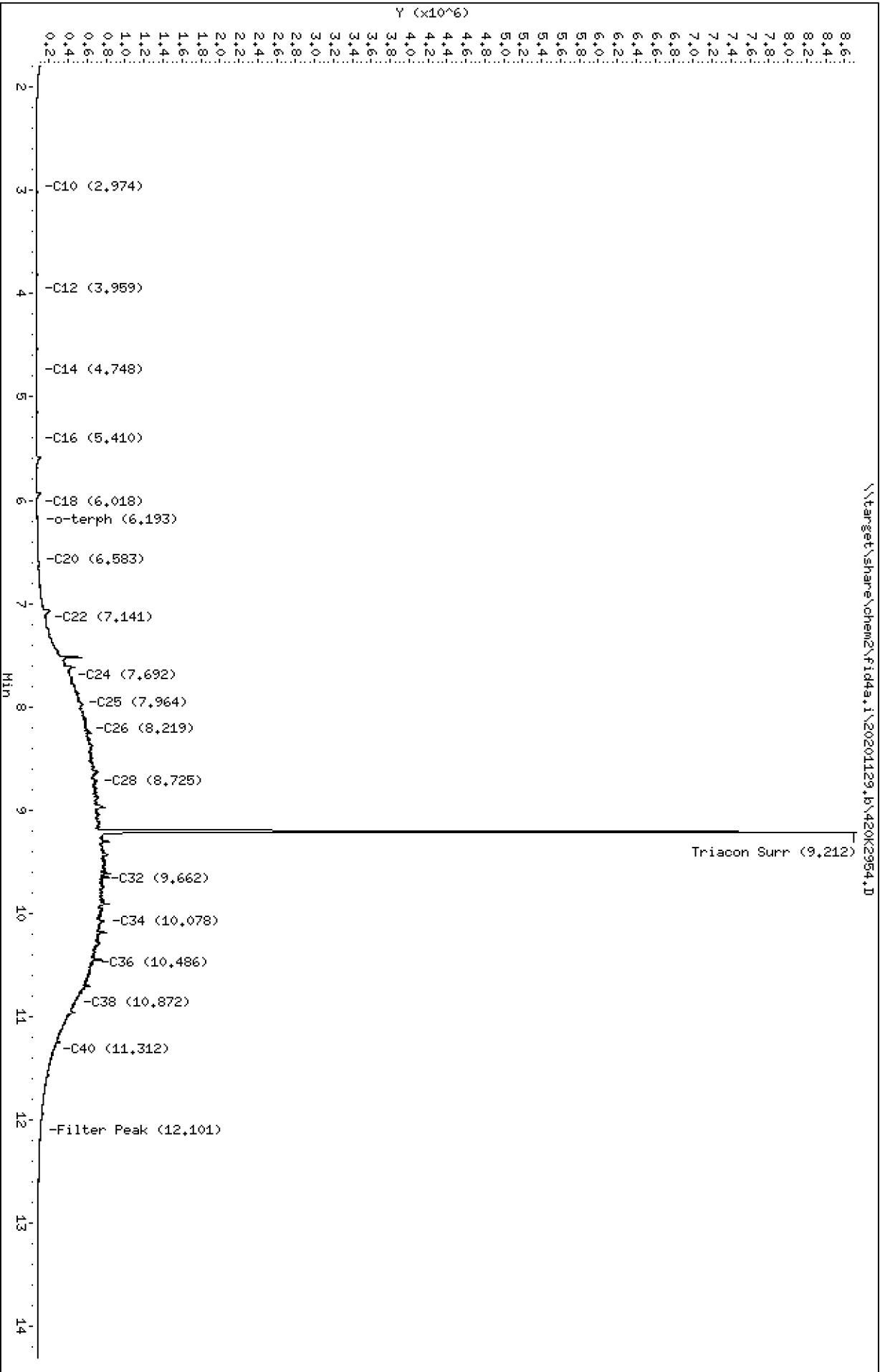
\* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20201129,6\420K2954.D  
Date: 30-NOV-2020 11:34  
Client ID:  
Sample Info: SEQ-OCW6

Instrument: fid4a,1

Column phase: RTX-1

Operator: JGR  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201129.b/420K2954.D  
Method: 20201129.b\FID4TPH.m  
Instrument: fid4a.i, JGR  
Report Date: 11/30/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-CCV6  
Client ID:  
Injection: 30-NOV-2020 11:34  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

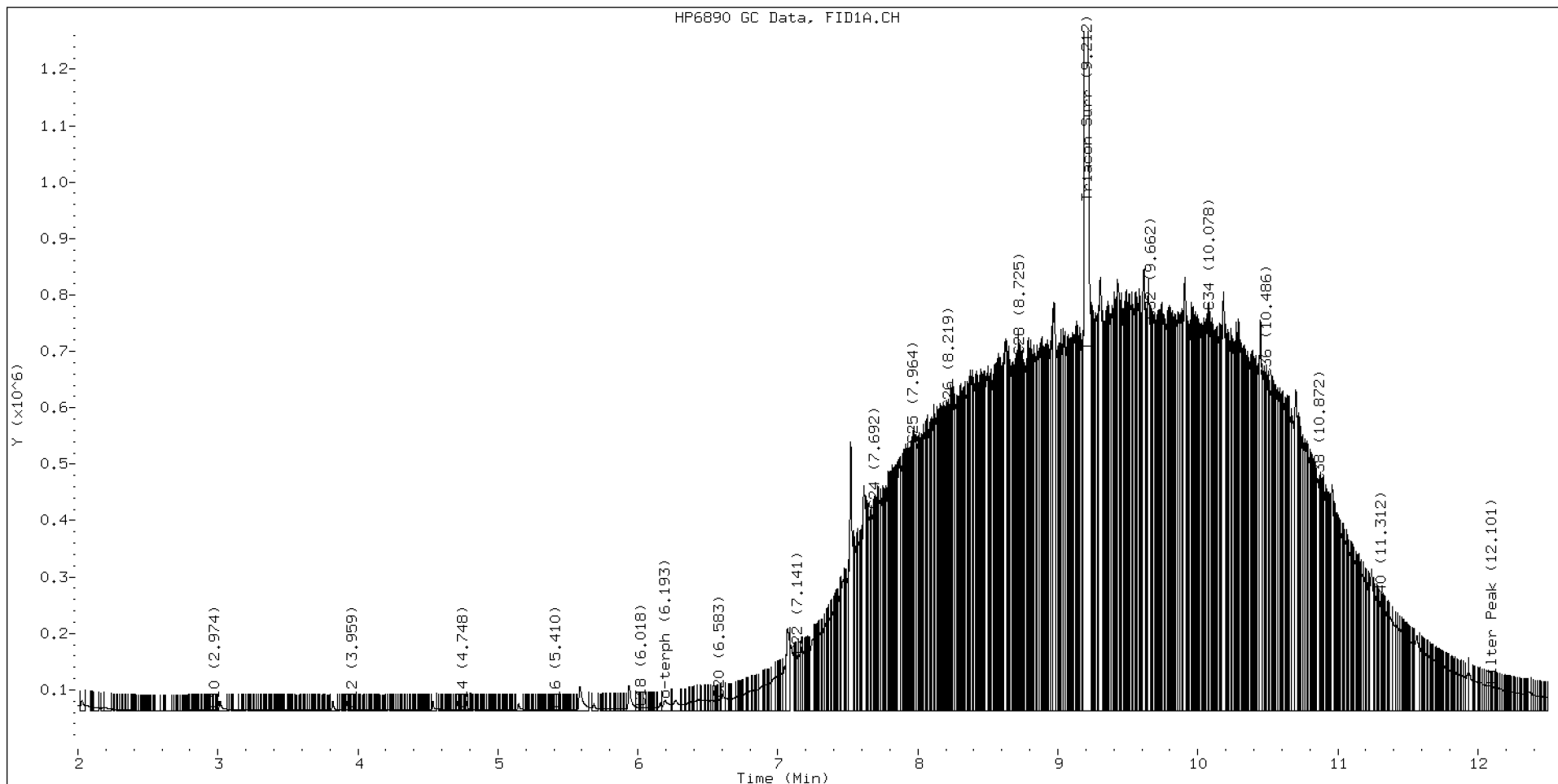
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.872	0.001	35867	61994	WATPHD	(C12-C24)	10267796	64.4
C10	2.974	0.004	2694	1943	WATPHM	(C24-C38)	113997179	1126.8
C12	3.959	-0.005	1570	1335	AK102	(C10-C25)	14644558	74.9
C14	4.748	0.000	2904	2510	AK103	(C25-C36)	98545203	1346.1
C16	5.410	-0.004	2582	2106	OR.DIES	(C10-C28)	43054035	219.7
C18	6.018	0.006	5380	1329				
C20	6.583	0.000	20055	15245	JET-A	(C10-C18)	585507	3.5
C22	7.141	-0.003	98255	52591				
C24	7.692	-0.001	355528	106076				
C25	7.964	0.003	471063	279733				
C26	8.219	-0.004	532435	236776				
C28	8.725	-0.002	628492	218619				
C32	9.662	0.006	691450	137893				
C34	10.078	-0.001	708681	245557				
Filter Peak	12.101	0.003	42635	12649	BUNKERC	(C10-C38)	124394767	3151.1
C36	10.486	0.004	589171	262737				
C38	10.872	-0.001	403793	139410				
C40	11.312	-0.002	189370	120731				
o-terph	6.193	-0.005	19025	51268				
Triacon Surr	9.212	-0.018	8015942	7874508	NAS DIES	(C10-C24)	10397588	53.3

Range Times: NW Diesel(3.964 - 7.693) AK102(2.97 - 7.96) Jet A(2.97 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.96 - 10.48) OR Diesel(2.97 - 8.73)

Surrogate	Area	Amount
o-Terphenyl	51268	0.3
Triacontane	7874508	53.1 M

M Indicates the peak was manually integrated

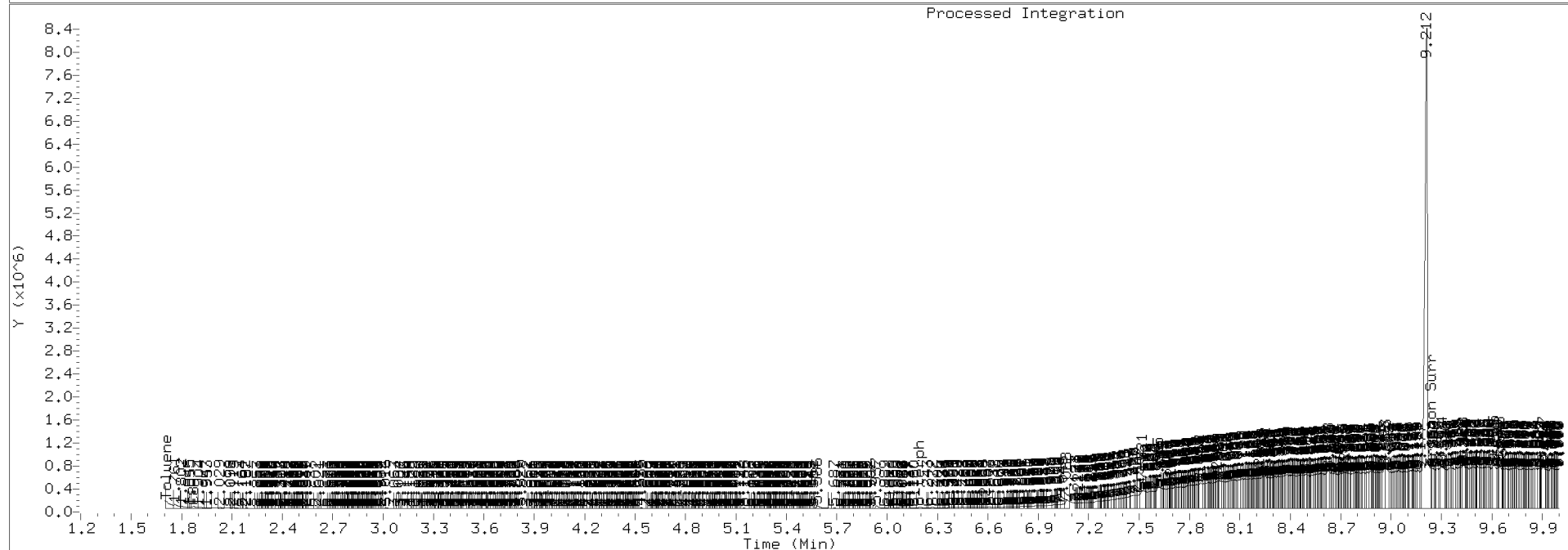
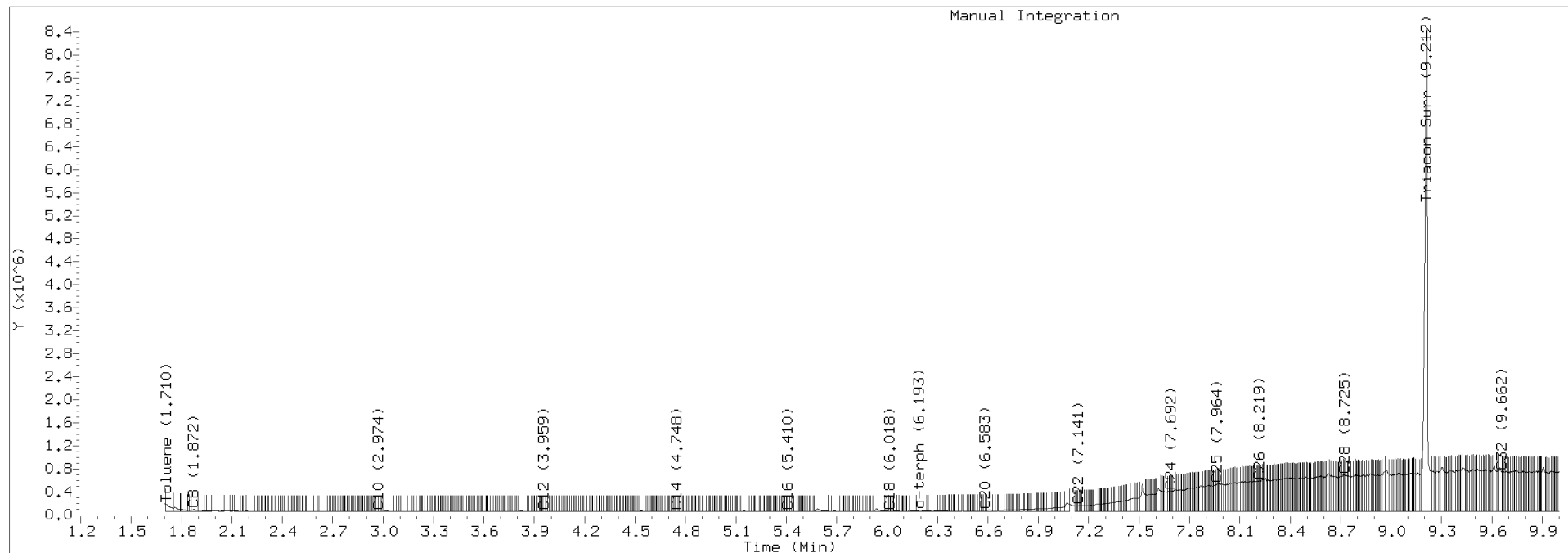
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20201129.b/420K2954.D Injection: 30-NOV-2020 11:34

Lab ID:SEQ-CCV6







## CONTINUING CALIBRATION CHECK NWTPH-Dx

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>20K0204</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic</u>
Instrument ID:	<u>FID4</u>	Calibration:	<u>DA00022</u>
Lab File ID:	<u>420K2956.D</u>	Calibration Date:	<u>10/25/2019</u>
Sequence:	<u>SIK0411</u>	Injection Date:	<u>11/30/20</u>
Lab Sample ID:	<u>SIK0411-CCV7</u>	Injection Time:	<u>14:42</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	481	159336.7	153191.6		-3.9	+/-15
o-Terphenyl	A	90.000	90.0	204701.9	204621.7		0.0	+/-15

\* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20201129,b\420K2956.D  
Date: 30-NOV-2020 14:42

Client ID:

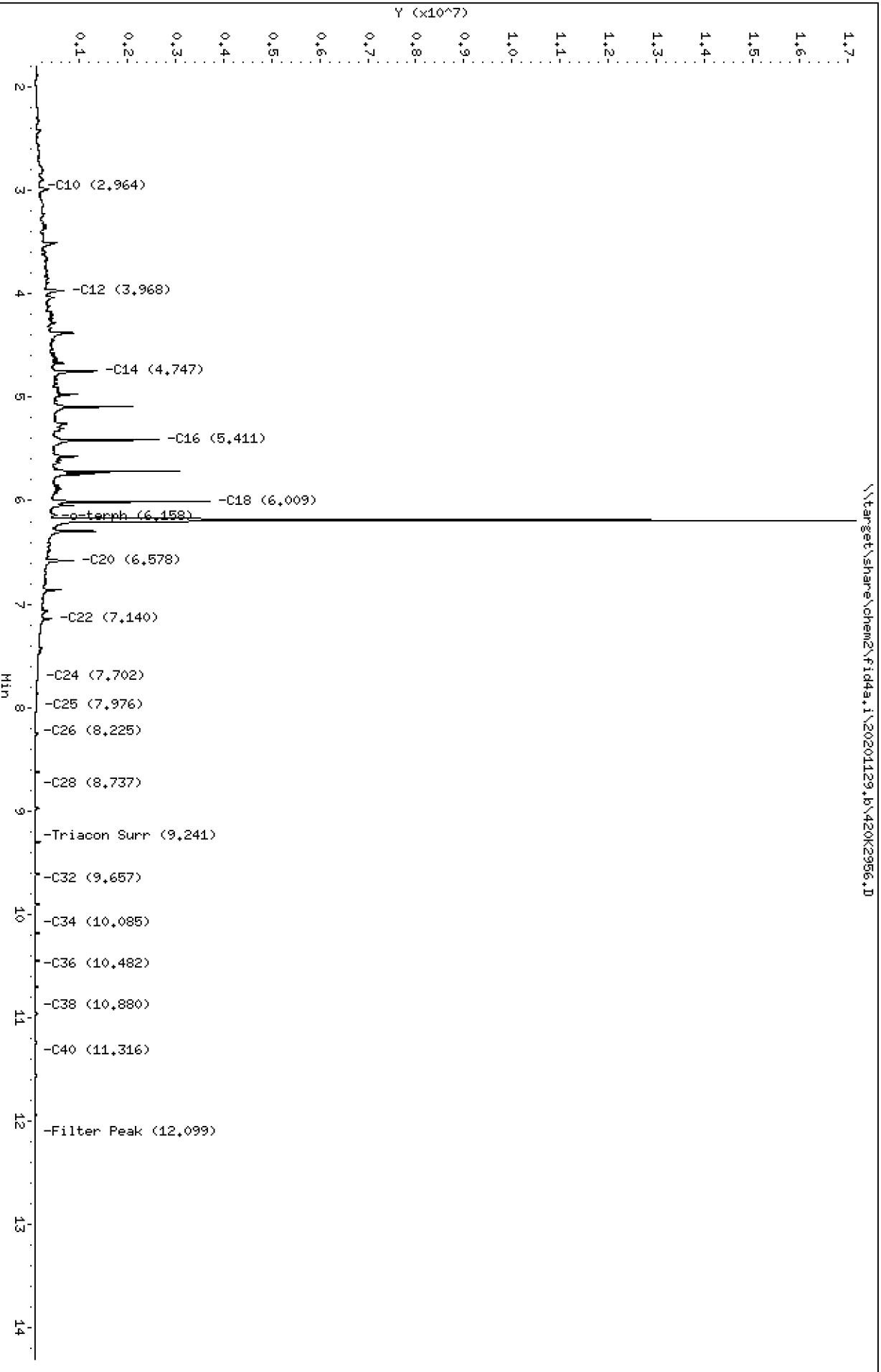
Sample Info: SEQ-CCV7

Column phase: RTX-1

Instrument: fid4a,1

Operator: JGR

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201129.b/420K2956.D  
Method: 20201129.b\FID4TPH.m  
Instrument: fid4a.i, JGR  
Report Date: 11/30/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-CCV7  
Client ID:  
Injection: 30-NOV-2020 14:42  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

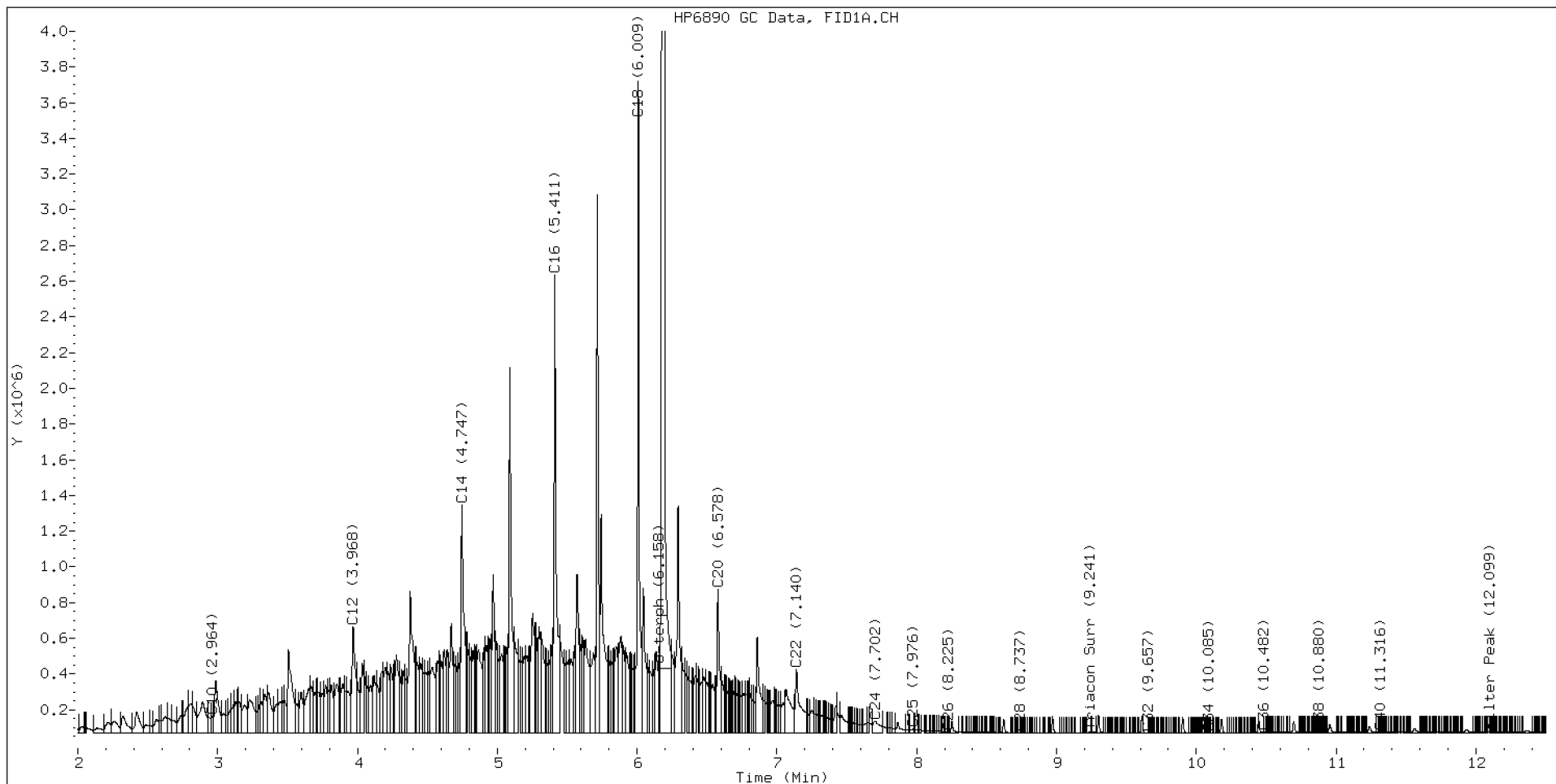
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.859	-0.012	27544	26308	WATPHD	(C12-C24)	76595819	480.7
C10	2.964	-0.006	93152	101851	WATPHM	(C24-C38)	1394764	13.8
C12	3.968	0.004	596985	1007053	AK102	(C10-C25)	89526406	458.0
C14	4.747	-0.001	1279630	1842164	AK103	(C25-C36)	998053	13.6
C16	5.411	-0.002	2567810	2866821	OR.DIES	(C10-C28)	89973228	459.0
C18	6.009	-0.003	3652684	3167368				
C20	6.578	-0.005	806243	974826	JET-A	(C10-C18)	69312234	417.9
C22	7.140	-0.004	356662	921820				
C24	7.702	0.009	67558	226861				
C25	7.976	0.014	21871	27707				
C26	8.225	0.002	8027	2781				
C28	8.737	0.010	2154	2086				
C32	9.657	0.002	775	249				
C34	10.085	0.006	1358	691				
Filter Peak	12.099	0.001	7411	5500	BUNKERC	(C10-C38)	90689544	2297.3
C36	10.482	0.000	4176	3772				
C38	10.880	0.008	6262	3417				
C40	11.316	0.003	7536	3364				
o-terph	6.195	-0.003	16732004	18415948				
Triacon Surr	9.241	0.011	4813	5299	NAS DIES	(C10-C24)	89294779	457.6

Range Times: NW Diesel(3.964 - 7.693) AK102(2.97 - 7.96) Jet A(2.97 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.96 - 10.48) OR Diesel(2.97 - 8.73)

Surrogate	Area	Amount
o-Terphenyl	18415948	90.0 M
Triacontane	5299	0.0

M Indicates the peak was manually integrated

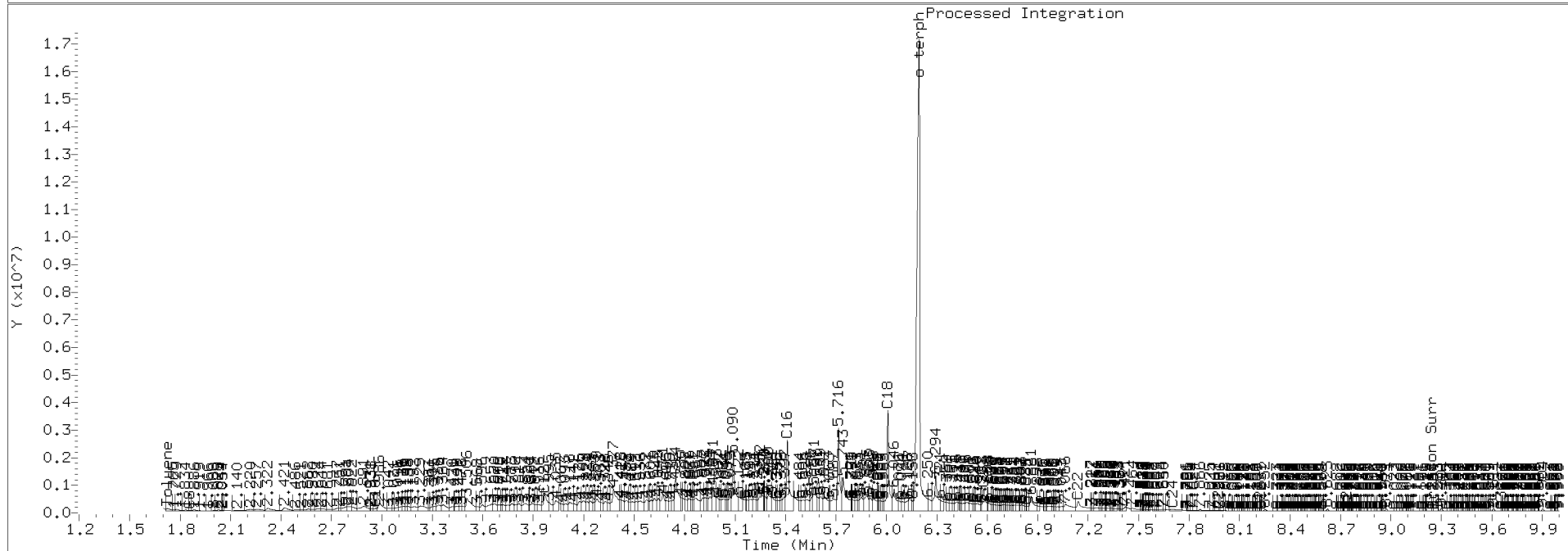
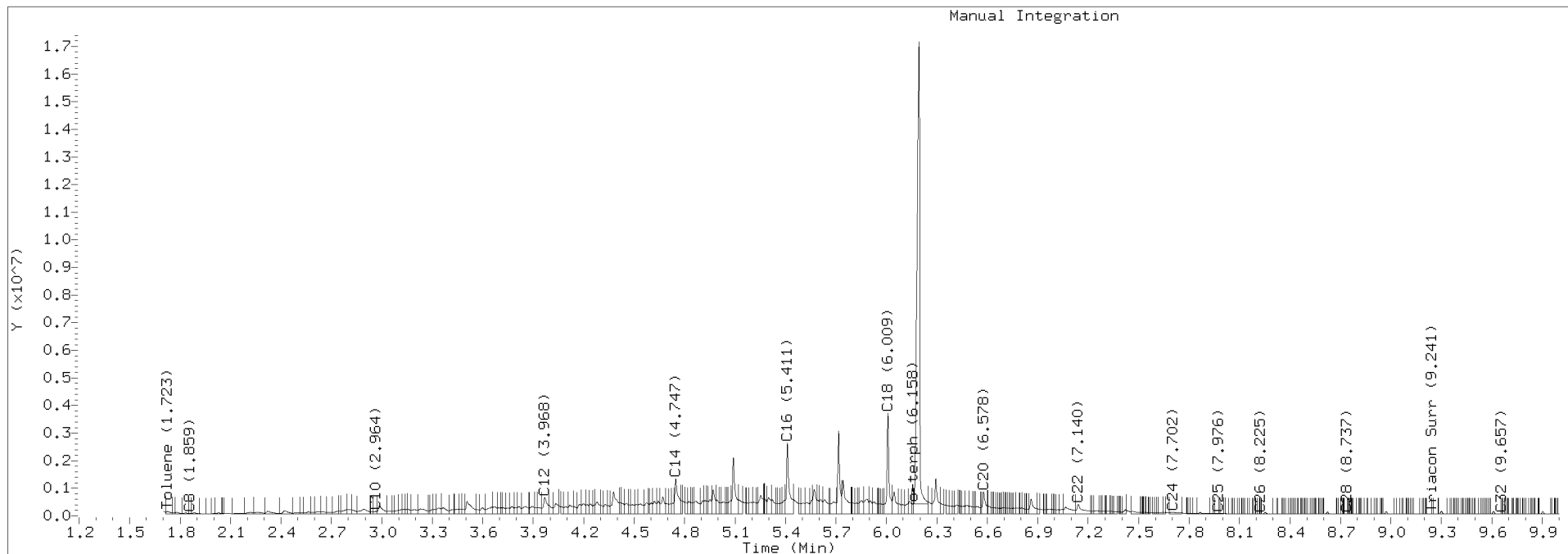
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20201129.b/420K2956.D Injection: 30-NOV-2020 14:42

Lab ID:SEQ-CCV7





## CONTINUING CALIBRATION CHECK NWTPH-Dx

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>20K0204</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic</u>
Instrument ID: <u>FID4</u>	Calibration: <u>DA00022</u>
Lab File ID: <u>420K2957.D</u>	Calibration Date: <u>10/25/2019</u>
Sequence: <u>SIK0411</u>	Injection Date: <u>11/30/20</u>
Lab Sample ID: <u>SIK0411-CCV8</u>	Injection Time: <u>15:02</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	1020	101166	103285.5		2.1	+/-15

\* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20201129,8\420K2957.D  
Date: 30-NOV-2020 15:02

Client ID:

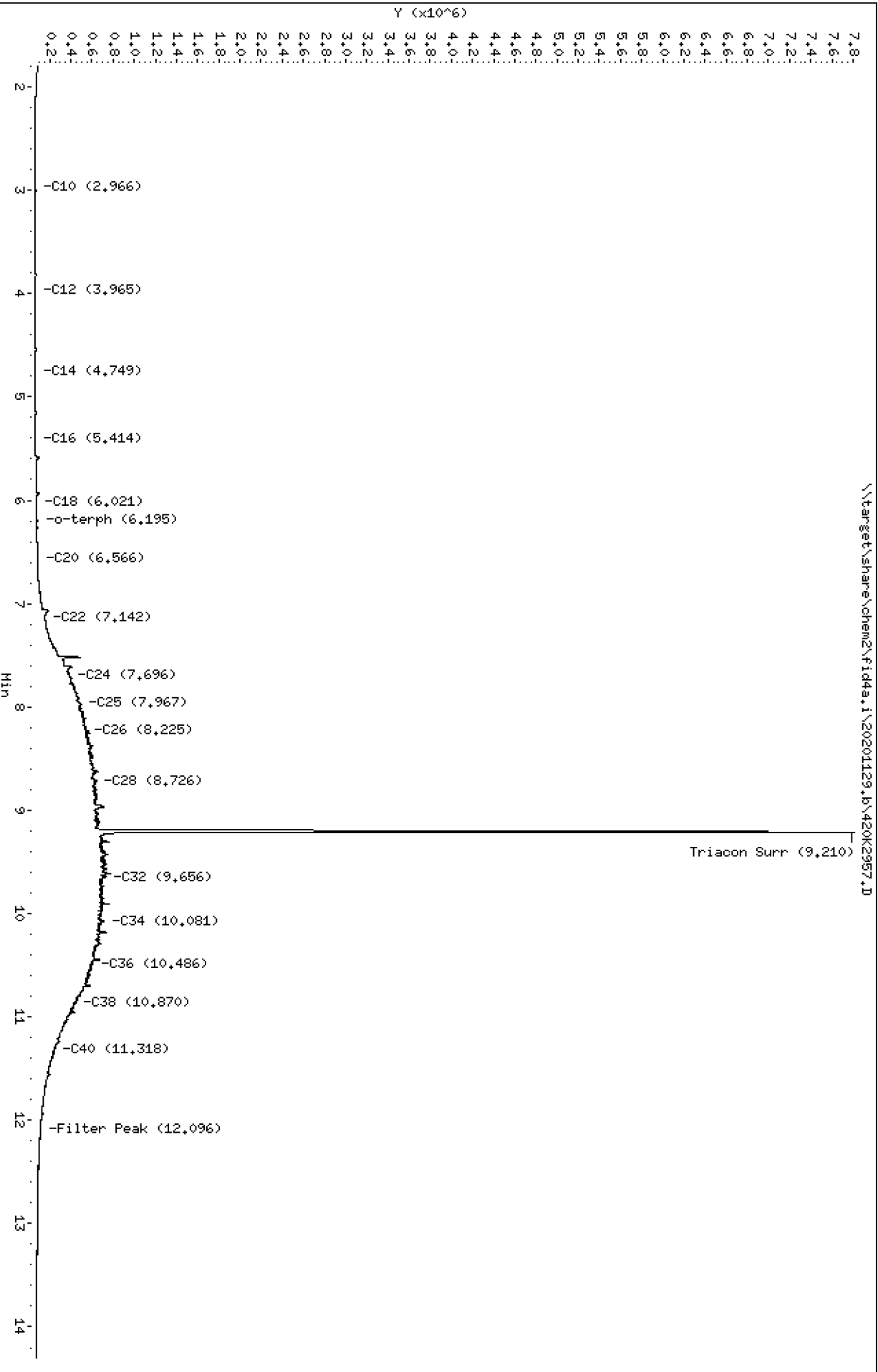
Sample Info: SEQ-OCV8

Column phase: RTX-1

Instrument: fid4a,1

Operator: JGR

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201129.b/420K2957.D  
Method: 20201129.b\FID4TPH.m  
Instrument: fid4a.i, JGR  
Report Date: 11/30/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SEQ-CCV8  
Client ID:  
Injection: 30-NOV-2020 15:02  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.837	-0.034	29418	117360	WATPHD	(C12-C24)	10453140	65.6
C10	2.966	-0.003	1815	801	WATPHM	(C24-C38)	103285457	1021.0
C12	3.965	0.001	3747	2028	AK102	(C10-C25)	14445556	73.9
C14	4.749	0.001	5553	3866	AK103	(C25-C36)	88907640	1214.5
C16	5.414	0.000	6111	3618	OR.DIES	(C10-C28)	40314478	205.7
C18	6.021	0.009	9190	3653				
C20	6.566	-0.017	21072	17755	JET-A	(C10-C18)	1007256	6.1
C22	7.142	-0.002	93225	46168				
C24	7.696	0.002	329711	276646				
C25	7.967	0.006	433246	444729				
C26	8.225	0.002	486128	214435				
C28	8.726	-0.002	569489	169954				
C32	9.656	0.000	658464	417920				
C34	10.081	0.002	647121	256271				
Filter Peak	12.096	-0.002	51524	25456	BUNKERC	(C10-C38)	113932380	2886.0
C36	10.486	0.004	549823	190349				
C38	10.870	-0.002	372665	129825				
C40	11.318	0.004	182907	72339				
o-terph	6.195	-0.003	20610	40449				
Triacon Surr	9.210	-0.020	7164677	7119504	NAS DIES	(C10-C24)	10646923	54.6

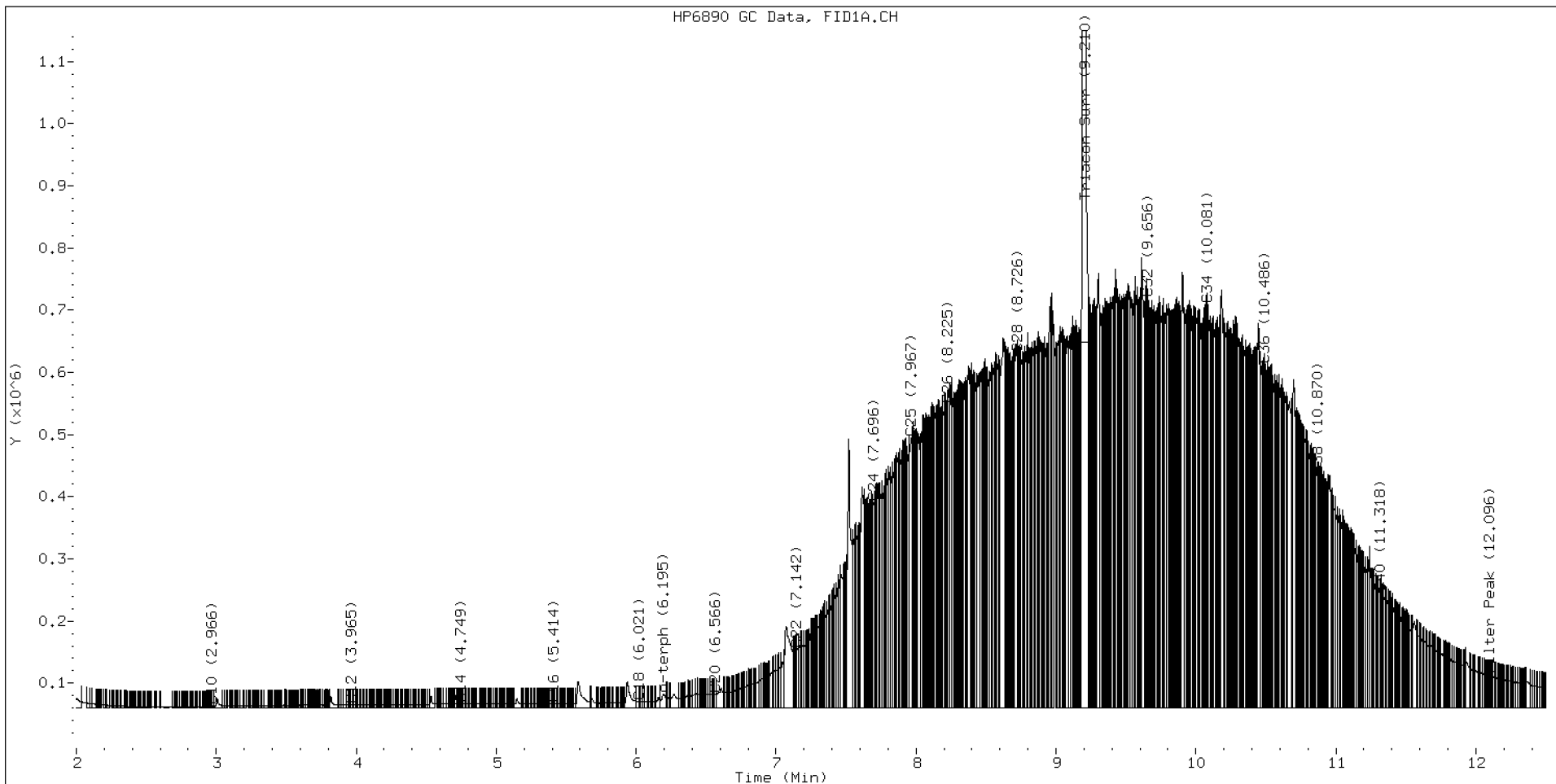
Range Times: NW Diesel(3.964 - 7.693) AK102(2.97 - 7.96) Jet A(2.97 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.96 - 10.48) OR Diesel(2.97 - 8.73)

Surrogate	Area	Amount
o-Terphenyl	40449	0.2
Triacontane	7119504	48.0 M

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020

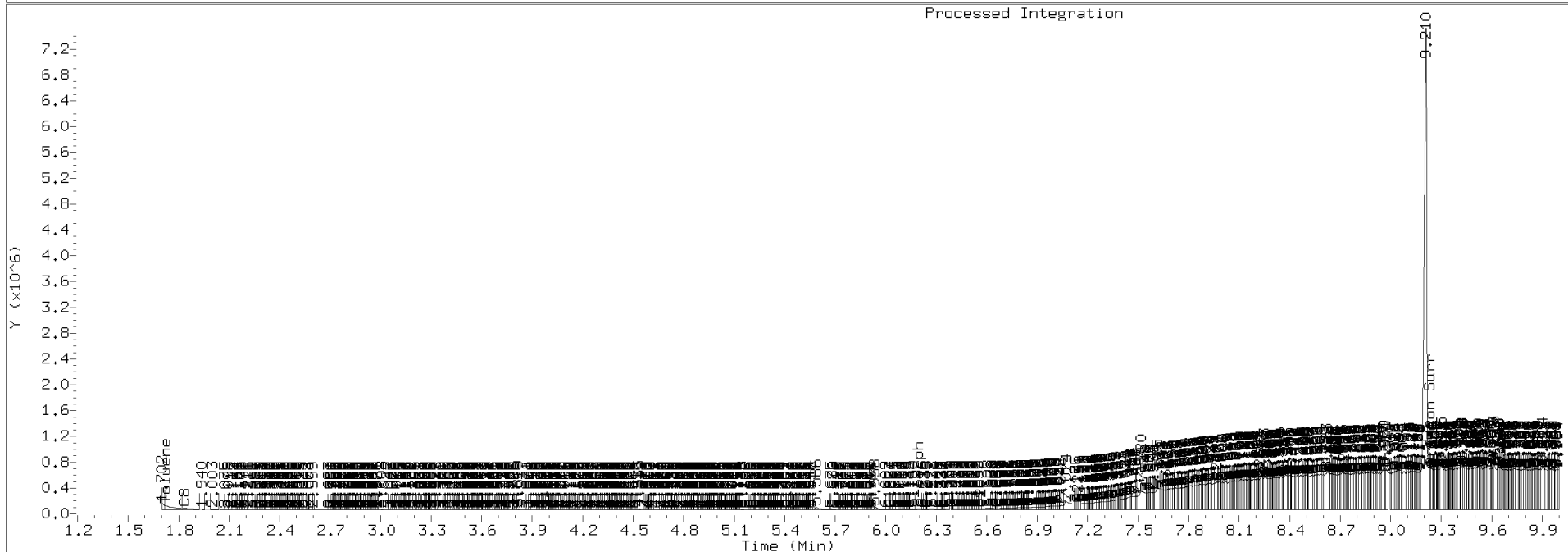
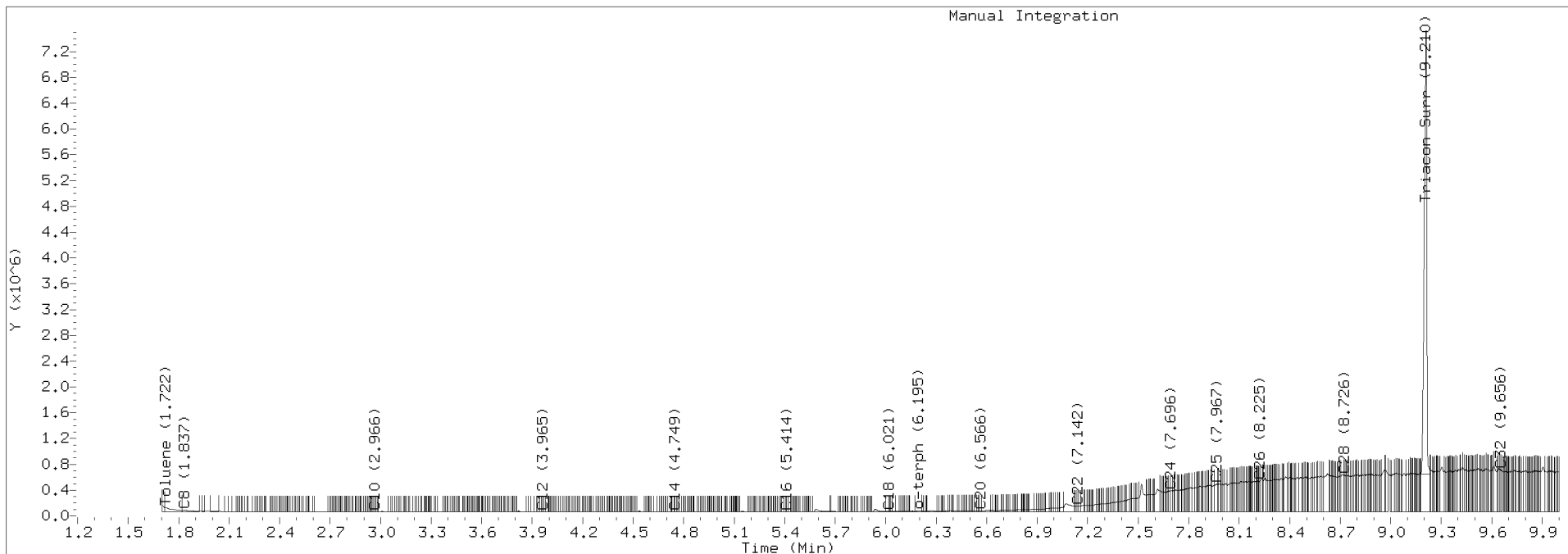




TPH Manual Integrations Report

Datafile: FID4A, 20201129.b/420K2957.D Injection: 30-NOV-2020 15:02

Lab ID:SEQ-CCV8





Data File: \\target\share\chem2\fid4a,1\20201204,b\42010416.D

Date: 04-DEC-2020 15:29

Client ID:

Sample Info: SIL0055-CCV1

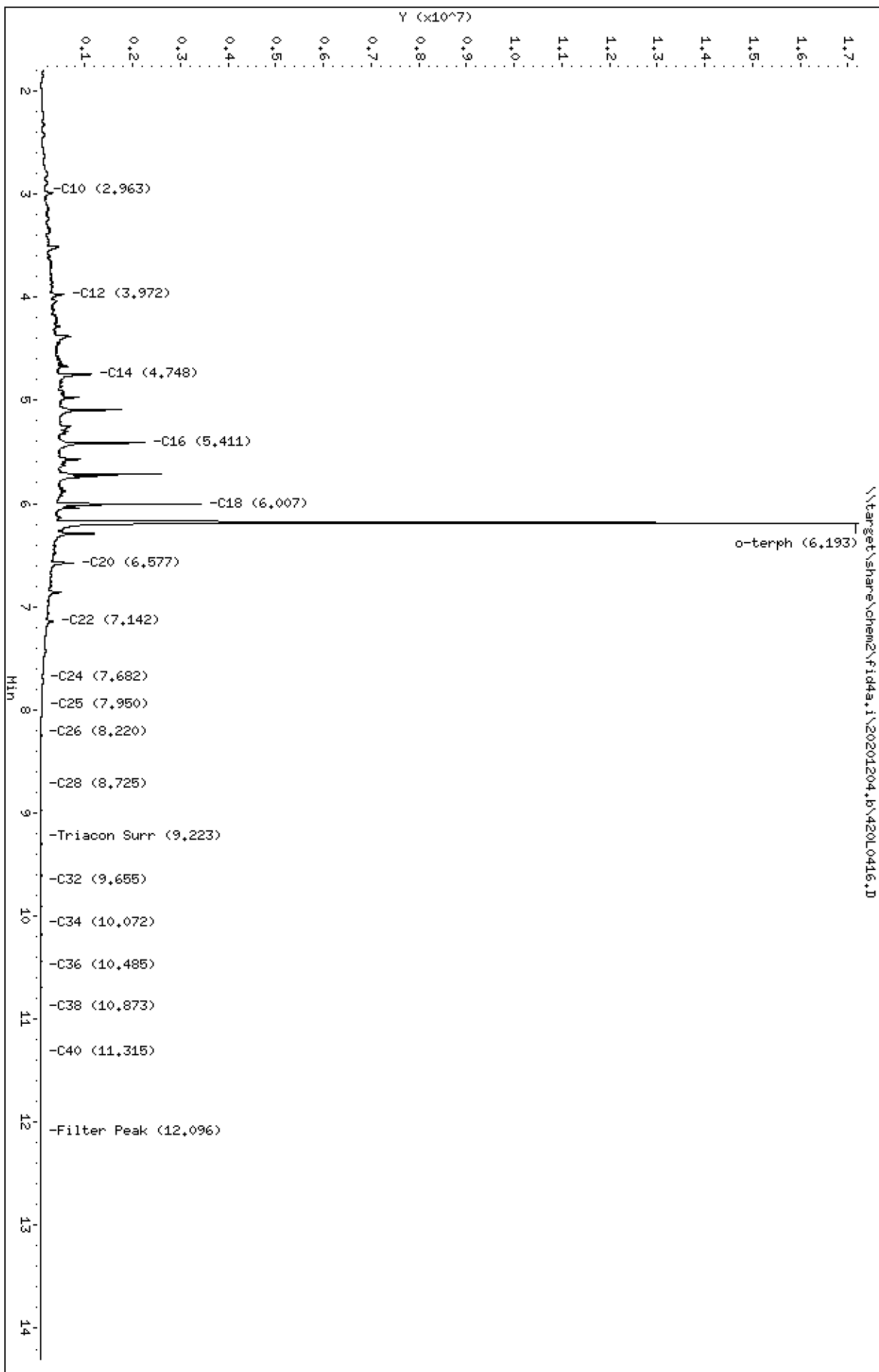
Column phase: RTX-1

Instrument: fid4a,1

Operator: JGR/CTO/VTS

Column diameter: 0.25

Page 1



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201204.b/420L0416.D  
Method: 20201204.b\FID4TPH.m  
Instrument: fid4a.i, JGR/CTO/VTS  
Report Date: 12/05/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SIL0055-CCV1  
Client ID:  
Injection: 04-DEC-2020 15:29  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

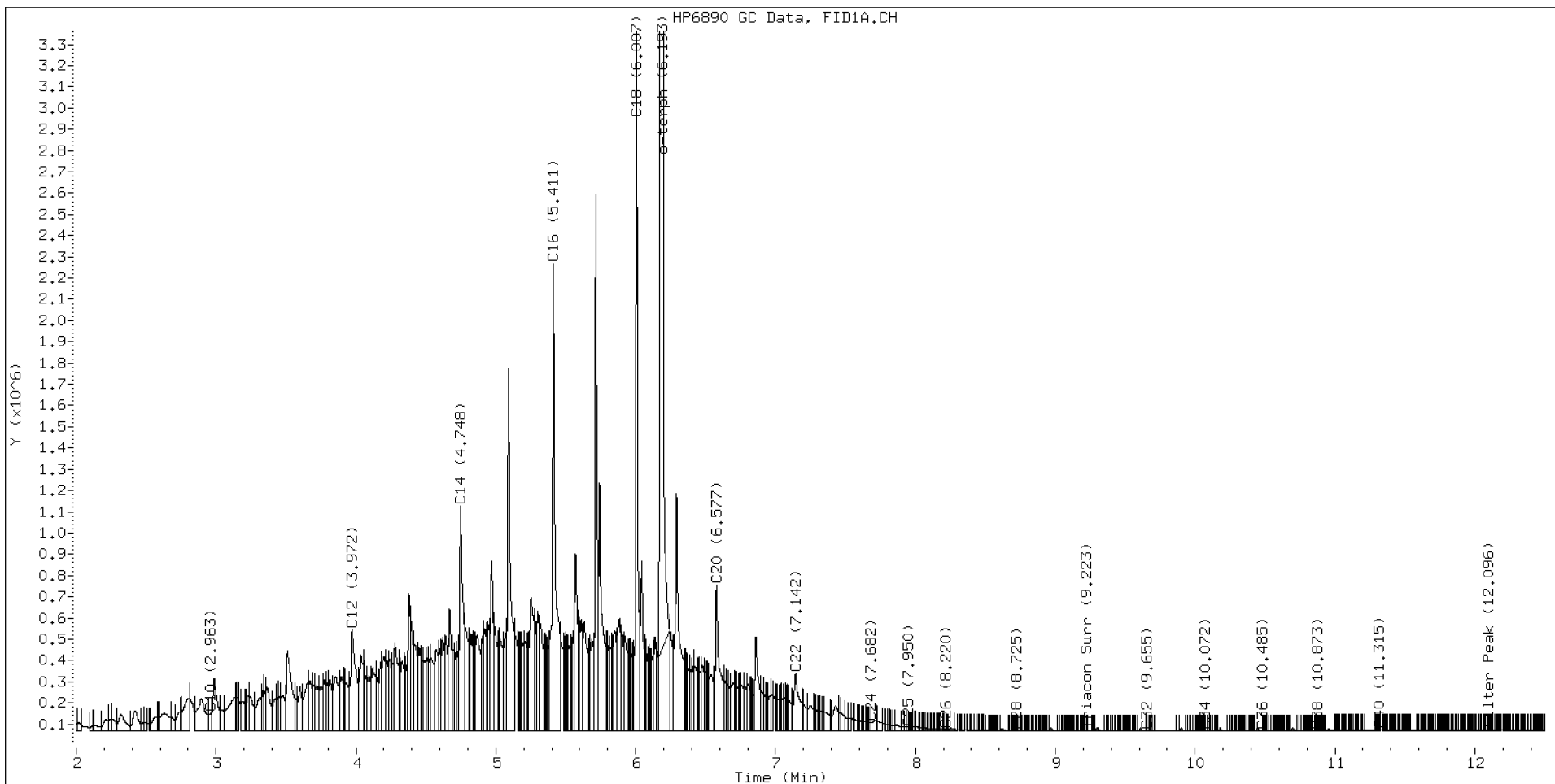
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.850	-0.013	54393	184219	WATPHD	(C12-C24)	76063234	477.4
C10	2.963	0.003	85709	86215	WATPHM	(C24-C38)	957698	9.5
C12	3.972	0.014	477820	1248997	AK102	(C10-C25)	87942653	449.9
C14	4.748	0.002	1062688	1755639	AK103	(C25-C36)	643164	8.8
C16	5.411	0.000	2200300	3822161	OR.DIES	(C10-C28)	88390472	451.0
C18	6.007	0.002	3370285	3074925				
C20	6.577	0.003	686753	1372778	JET-A	(C10-C18)	67070827	404.4
C22	7.142	0.006	269561	698141				
C24	7.682	-0.003	41021	12225				
C25	7.950	-0.002	19022	11241				
C26	8.220	0.007	9285	4577				
C28	8.725	0.008	2588	760				
C32	9.655	0.009	690	268				
C34	10.072	0.002	556	151				
Filter Peak	12.096	-0.001	5676	3367	BUNKERC	(C10-C38)	88676466	2246.3
C36	10.485	0.009	2365	696				
C38	10.873	0.003	4242	1677				
C40	11.315	-0.001	5563	3020				
o-terph	6.193	0.003	16759700	17509305				
Triacon Surr	9.223	0.002	488	109	NAS DIES	(C10-C24)	87718769	449.5

Range Times: NW Diesel(3.959 - 7.685) AK102(2.96 - 7.95) Jet A(2.96 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.95 - 10.48) OR Diesel(2.96 - 8.72)

Surrogate	Area	Amount
o-Terphenyl	17509305	85.5 M
Triacontane	109	0.0

M Indicates the peak was manually integrated

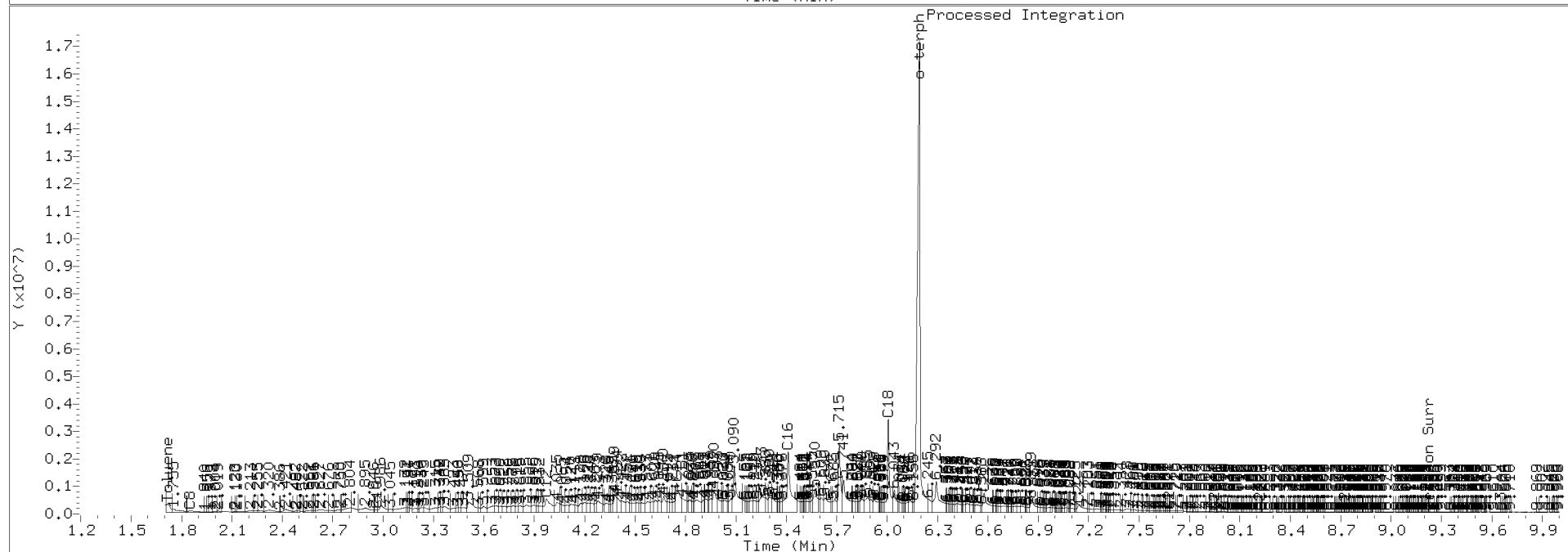
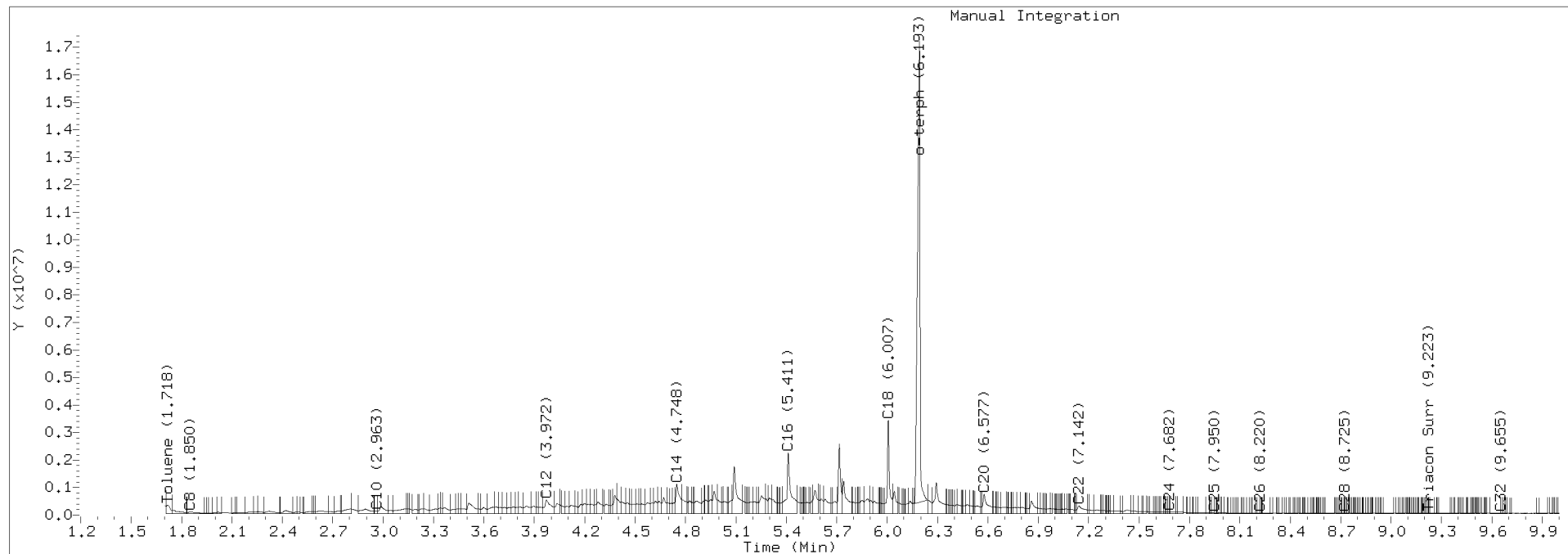
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20201204.b/420L0416.D Injection: 04-DEC-2020 15:29

Lab ID: SIL0055-CCV1







Data File: \\target\share\chem2\fid4a,1\20201204,b\42010417.D

Date : 04-DEC-2020 15:49

Client ID:

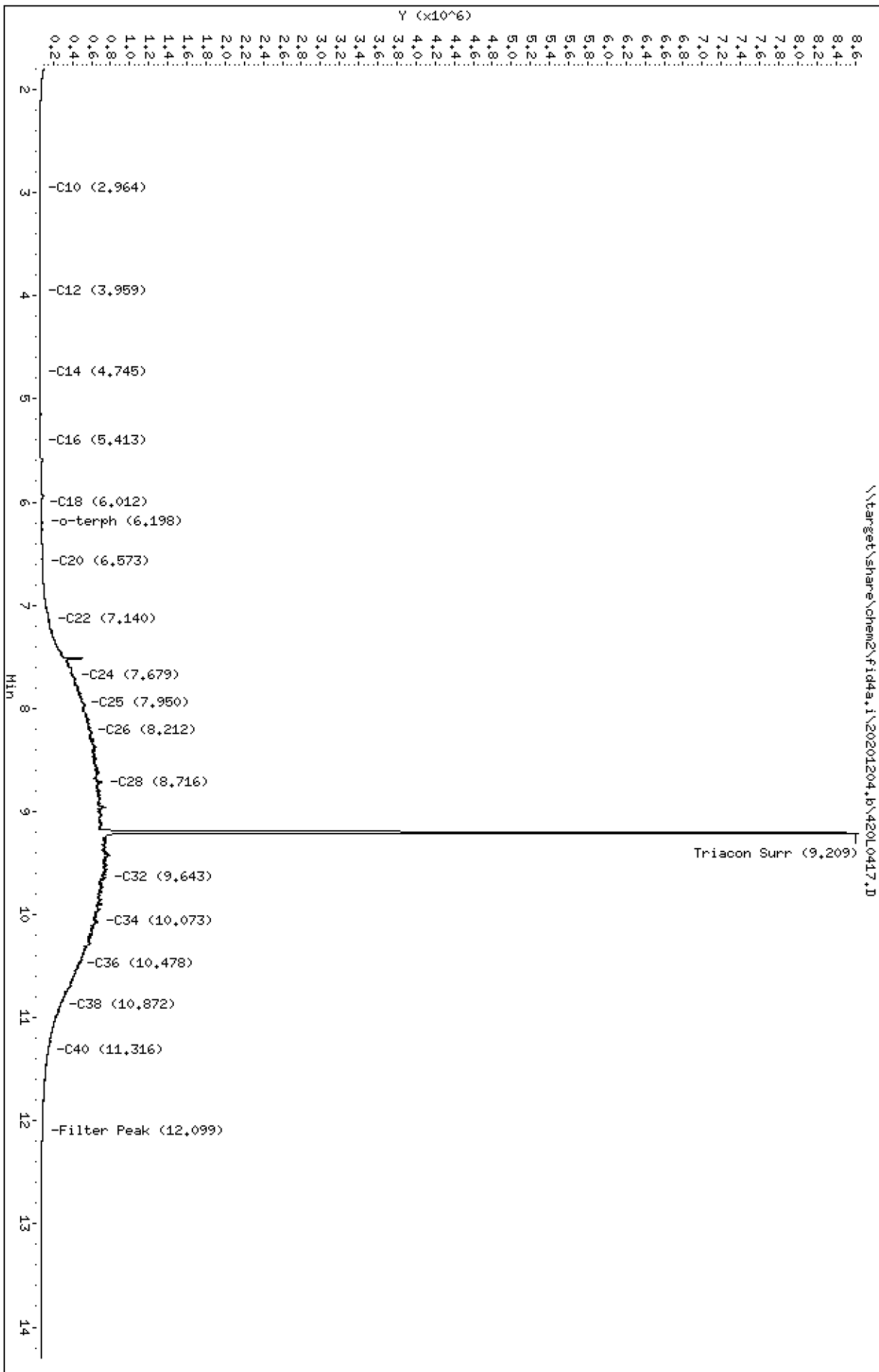
Instrument: fid4a,1

Sample Info: SIL0055-CCV2

Operator: JGR/CTO/VTS

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201204.b/420L0417.D  
Method: 20201204.b\FID4TPH.m  
Instrument: fid4a.i, JGR/CTO/VTS  
Report Date: 12/05/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SIL0055-CCV2  
Client ID:  
Injection: 04-DEC-2020 15:49  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

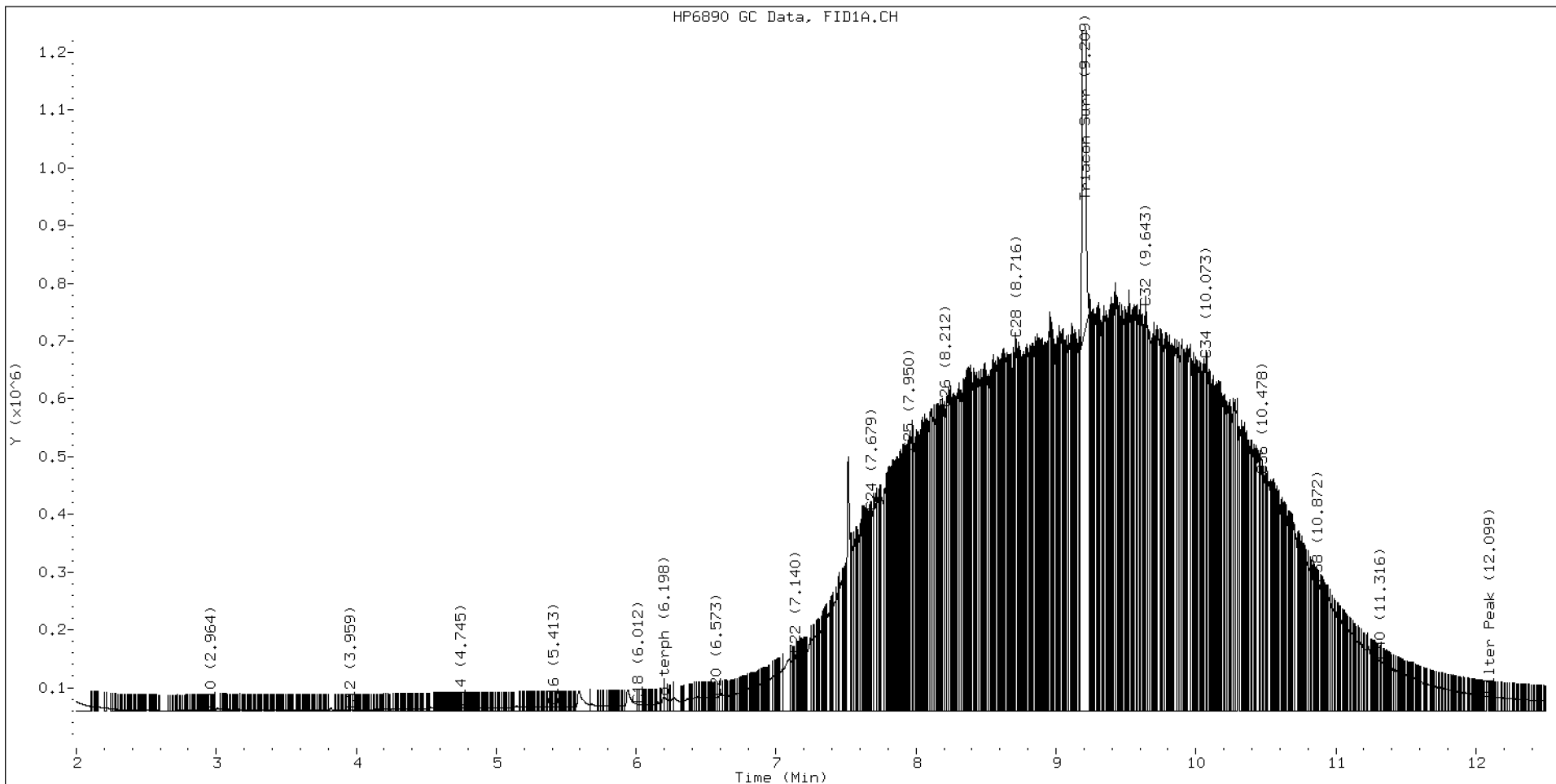
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.852	-0.012	33627	154324	WATPHD	(C12-C24)	10630227	66.7
C10	2.964	0.004	1465	543	WATPHM	(C24-C38)	100966802	998.0
C12	3.959	0.001	1618	858	AK102	(C10-C25)	14630323	74.8
C14	4.745	-0.001	4819	3073	AK103	(C25-C36)	90461363	1235.7
C16	5.413	0.002	6350	4398	OR.DIES	(C10-C28)	42424460	216.5
C18	6.012	0.007	11049	9192				
C20	6.573	-0.001	22609	11228	JET-A	(C10-C18)	846167	5.1
C22	7.140	0.004	96475	91474				
C24	7.679	-0.006	343303	253592				
C25	7.950	-0.003	447557	200193				
C26	8.212	-0.002	522160	257833				
C28	8.716	-0.002	643050	529695				
C32	9.643	-0.003	696687	636489				
C34	10.073	0.002	606422	209796				
Filter Peak	12.099	0.002	24567	9764	BUNKERC	(C10-C38)	111694609	2829.3
C36	10.478	0.002	407577	181861				
C38	10.872	0.002	219509	130602				
C40	11.316	-0.001	85522	38271				
o-terph	6.198	0.007	23637	27350				
Triacon Surr	9.209	-0.012	7911991	7619296	NAS DIES	(C10-C24)	10727806	55.0

Range Times: NW Diesel(3.959 - 7.685) AK102(2.96 - 7.95) Jet A(2.96 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.95 - 10.48) OR Diesel(2.96 - 8.72)

Surrogate	Area	Amount
o-Terphenyl	27350	0.1
Triacontane	7619296	51.4 M

M Indicates the peak was manually integrated

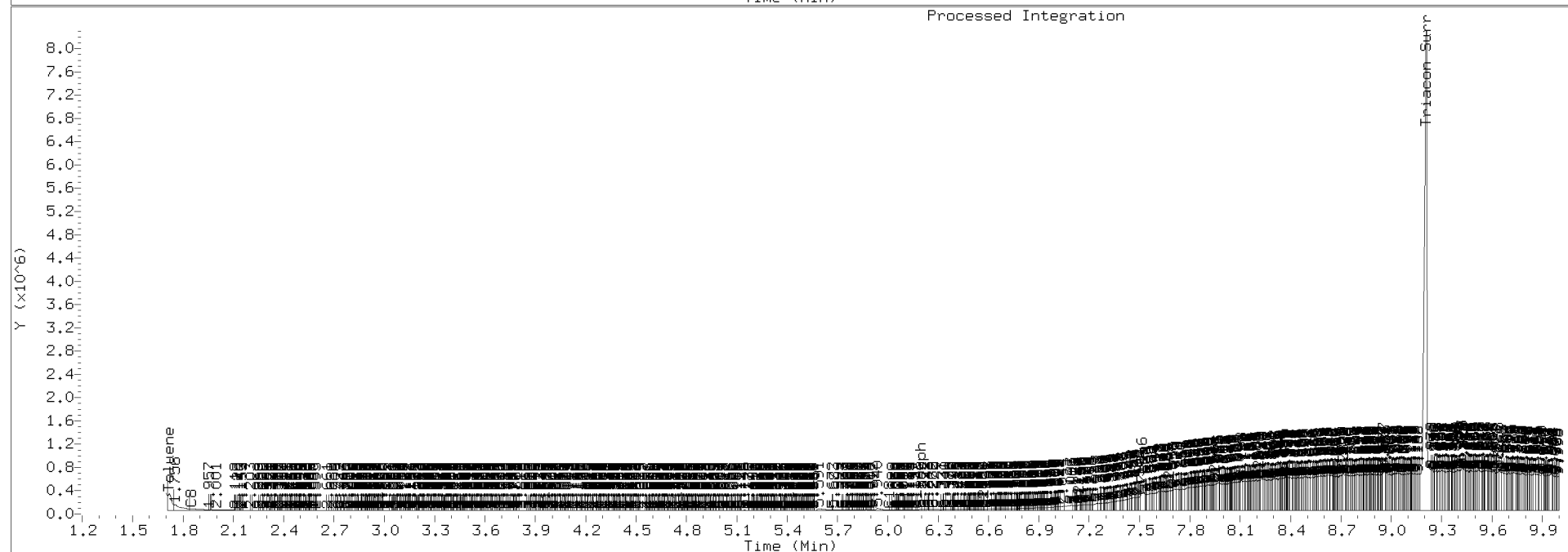
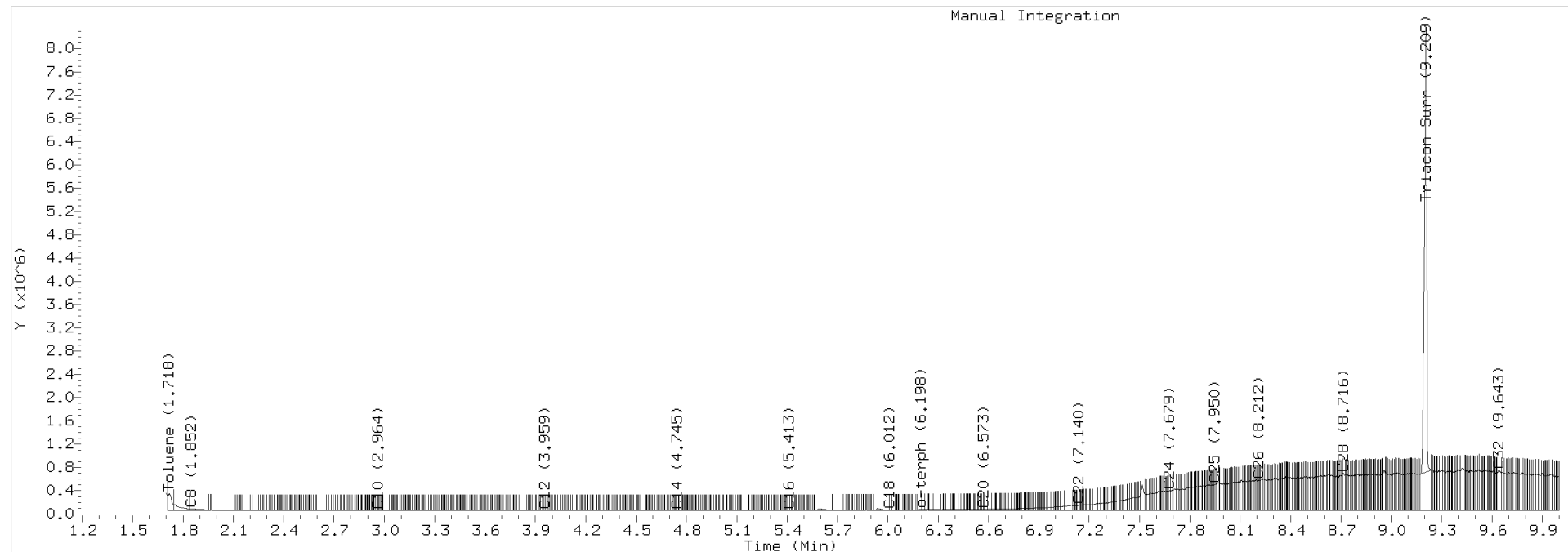
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20201204.b/420L0417.D Injection: 04-DEC-2020 15:49

Lab ID: SIL0055-CCV2





## CONTINUING CALIBRATION CHECK NWTPH-Dx

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>20K0204</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic</u>
Instrument ID:	<u>FID4</u>	Calibration:	<u>DA00022</u>
Lab File ID:	<u>420L0429.D</u>	Calibration Date:	<u>10/25/2019</u>
Sequence:	<u>SIL0055</u>	Injection Date:	<u>12/04/20</u>
Lab Sample ID:	<u>SIL0055-CCV3</u>	Injection Time:	<u>19:53</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	492	159336.7	156881.7		-1.5	+/-15
o-Terphenyl	A	90.000	88.8	204701.9	201964.6		-1.3	+/-15

\* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20201204,8\42010429.D

Date: 04-DEC-2020 19:53

Client ID:

Sample Info: SIL0055-CCV3

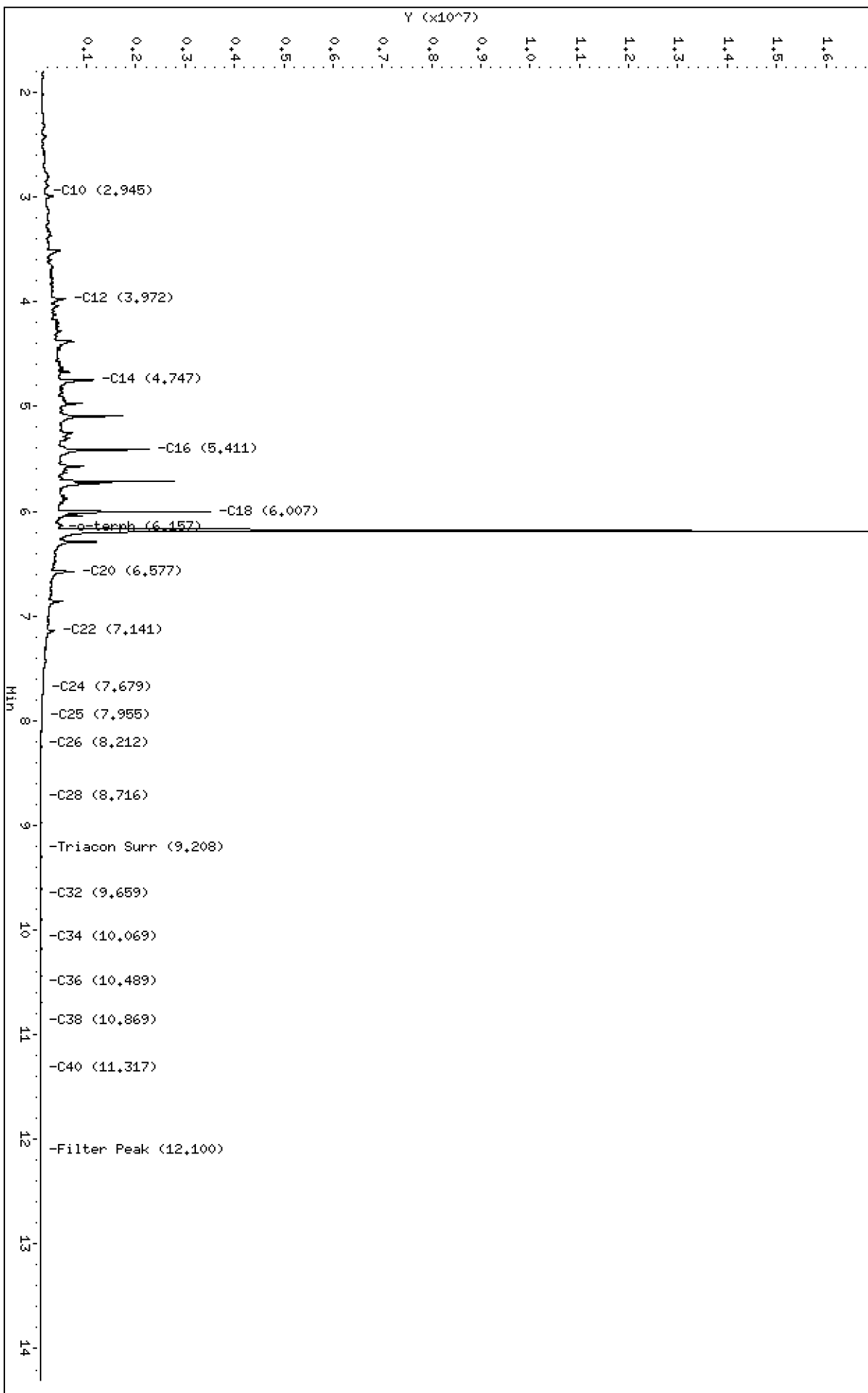
Column phase: RTX-1

Instrument: fid4a,1

Operator: JGR/CTO/VTS

Column diameter: 0.25

\\target\share\chem2\fid4a,1\20201204,8\42010429.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201204.b/420L0429.D  
Method: 20201204.b\FID4TPH.m  
Instrument: fid4a.i, JGR/CTO/VTS  
Report Date: 12/05/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SIL0055-CCV3  
Client ID:  
Injection: 04-DEC-2020 19:53  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

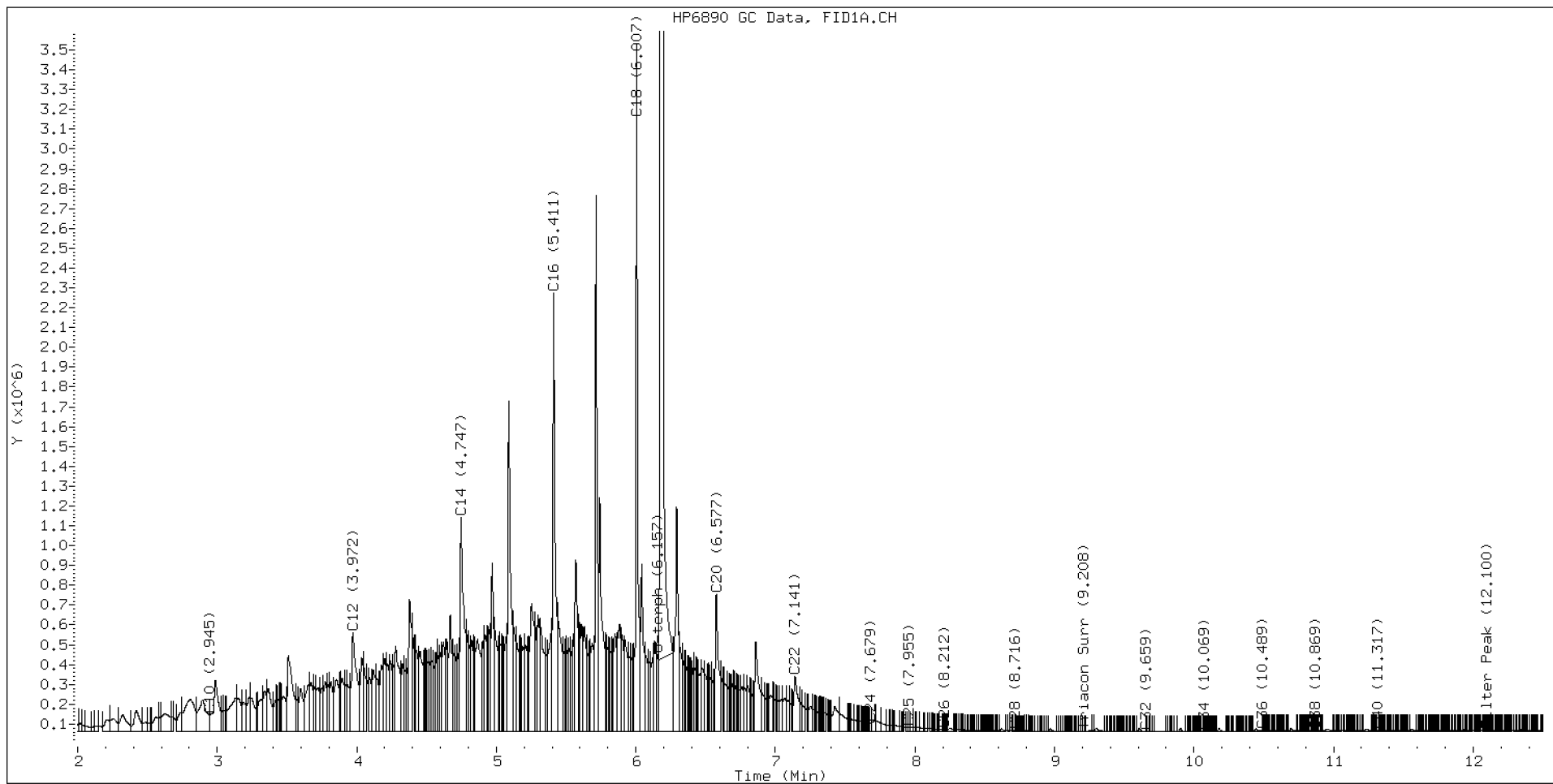
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.850	-0.014	56542	208725	WATPHD	(C12-C24)	78440854	492.3
C10	2.945	-0.015	84483	29390	WATPHM	(C24-C38)	985066	9.7
C12	3.972	0.013	495309	1289743	AK102	(C10-C25)	90937526	465.2
C14	4.747	0.001	1080329	2050378	AK103	(C25-C36)	624968	8.5
C16	5.411	-0.000	2210291	2735755	OR.DIES	(C10-C28)	91361121	466.1
C18	6.007	0.001	3463534	3184957				
C20	6.577	0.002	691504	1170796	JET-A	(C10-C18)	70243686	423.5
C22	7.141	0.005	277332	622482				
C24	7.679	-0.006	43702	21767				
C25	7.955	0.002	20404	13135				
C26	8.212	-0.002	10448	7157				
C28	8.716	-0.001	2702	1829				
C32	9.659	0.014	506	279				
C34	10.069	-0.001	626	149				
Filter Peak	12.100	0.002	7521	4132	BUNKERC	(C10-C38)	91669671	2322.1
C36	10.489	0.013	3218	947				
C38	10.869	-0.001	5310	2096				
C40	11.317	-0.000	7016	6220				
o-terph	6.192	0.002	16481859	18176810				
Triacon Surr	9.208	-0.013	330	194	NAS DIES	(C10-C24)	90684605	464.7

Range Times: NW Diesel(3.959 - 7.685) AK102(2.96 - 7.95) Jet A(2.96 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.95 - 10.48) OR Diesel(2.96 - 8.72)

Surrogate	Area	Amount
o-Terphenyl	18176810	88.8 M
Triacontane	194	0.0

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020

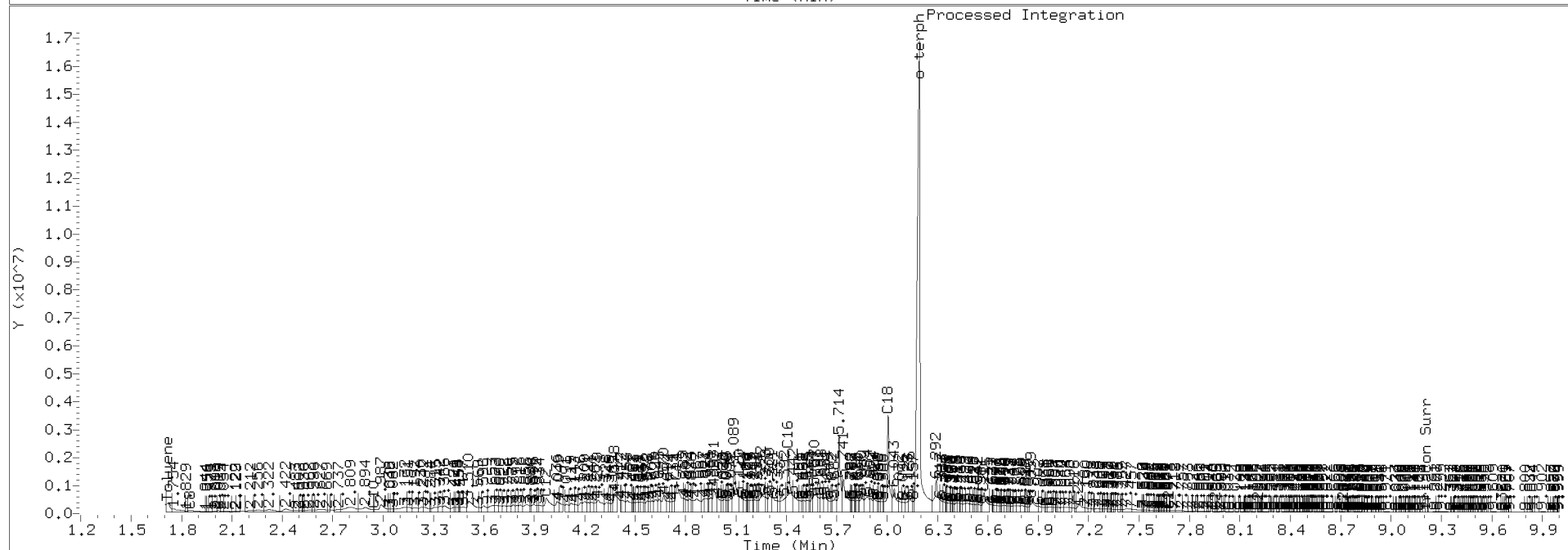
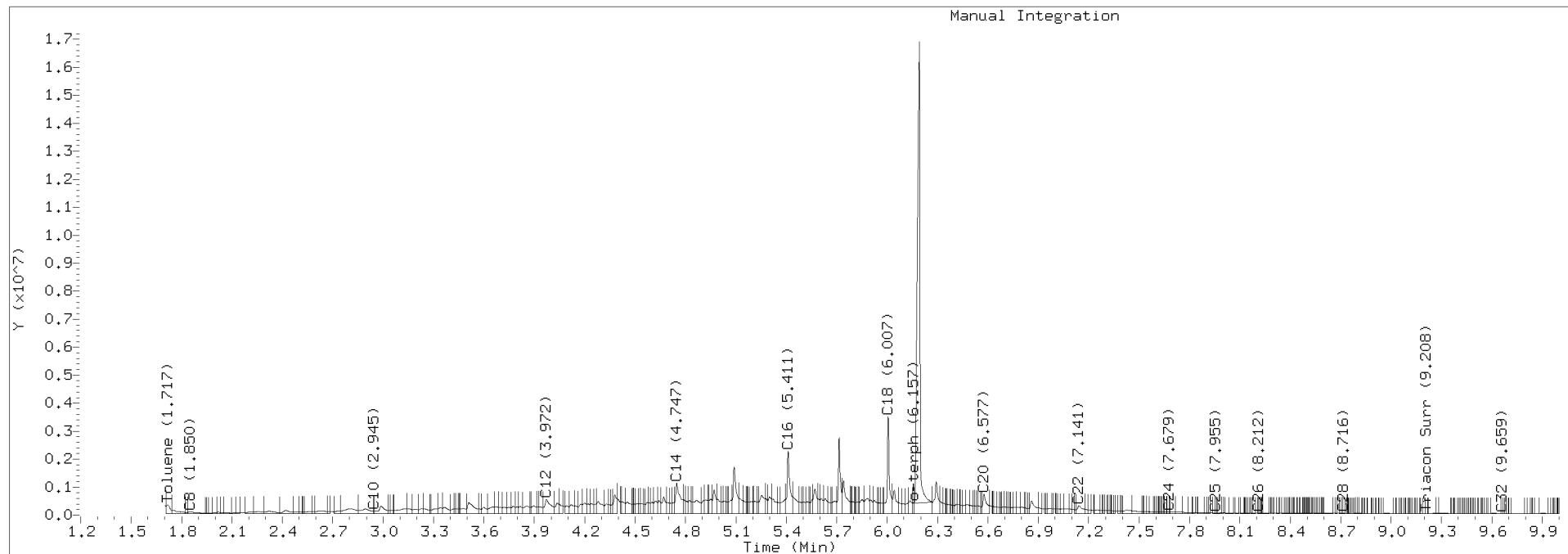




TPH Manual Integrations Report

Datafile: FID4A, 20201204.b/420L0429.D Injection: 04-DEC-2020 19:53

Lab ID: SIL0055-CCV3





### CONTINUING CALIBRATION CHECK NWTPH-Dx

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>20K0204</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic</u>
Instrument ID:	<u>FID4</u>	Calibration:	<u>DA00022</u>
Lab File ID:	<u>420L0430.D</u>	Calibration Date:	<u>10/25/2019</u>
Sequence:	<u>SIL0055</u>	Injection Date:	<u>12/04/20</u>
Lab Sample ID:	<u>SIL0055-CCV4</u>	Injection Time:	<u>20:13</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	993	101166	100467.9		-0.7	+/-15

\* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20201204,8\42010430.D

Date: 04-DEC-2020 20:13

Client ID:

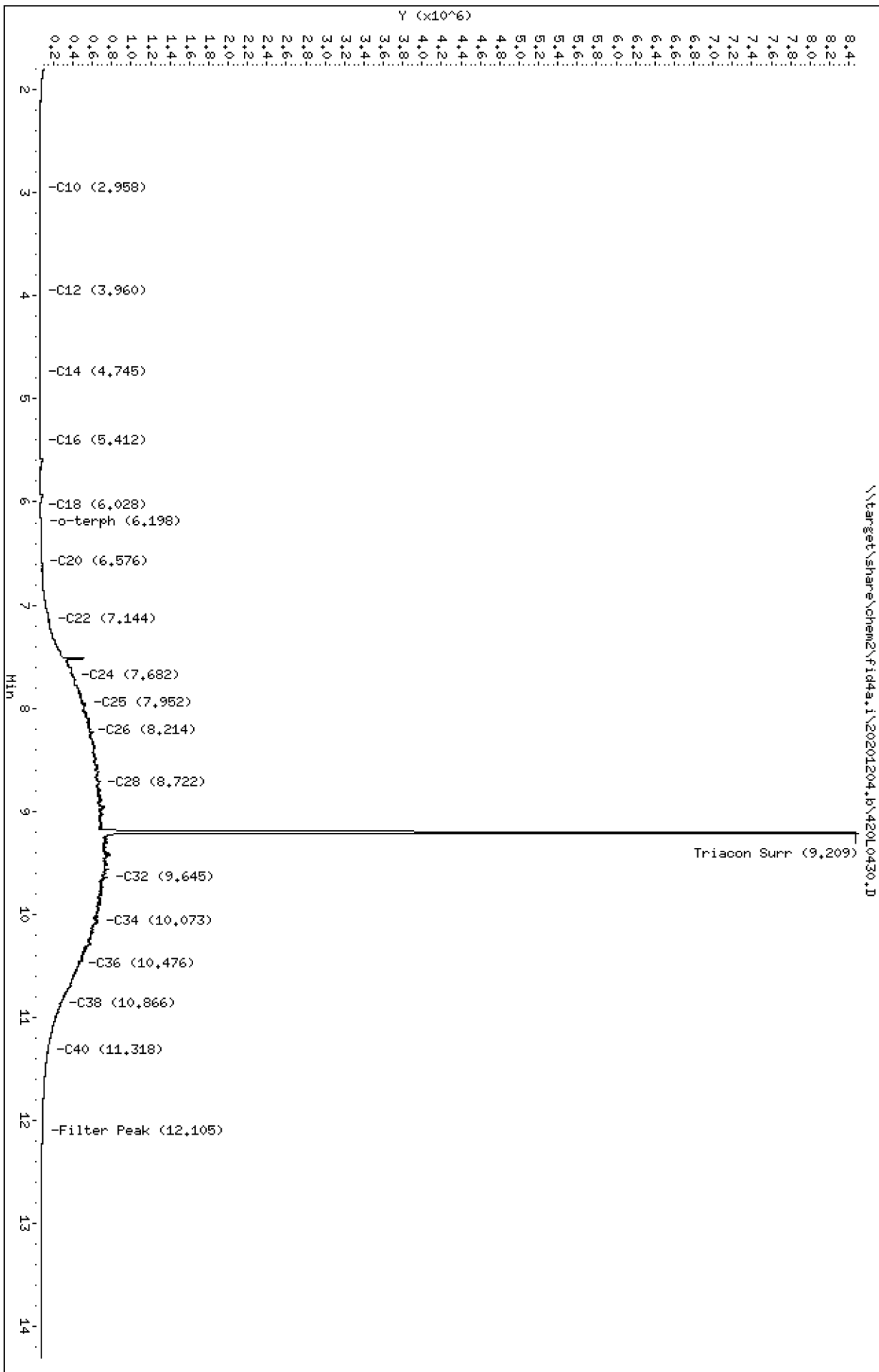
Sample Info: SIL0055-CCV4

Column phase: RTX-1

Instrument: fid4a,1

Operator: JGR/CTO/VTS

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201204.b/420L0430.D  
Method: 20201204.b\FID4TPH.m  
Instrument: fid4a.i, JGR/CTO/VTS  
Report Date: 12/05/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SIL0055-CCV4  
Client ID:  
Injection: 04-DEC-2020 20:13  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

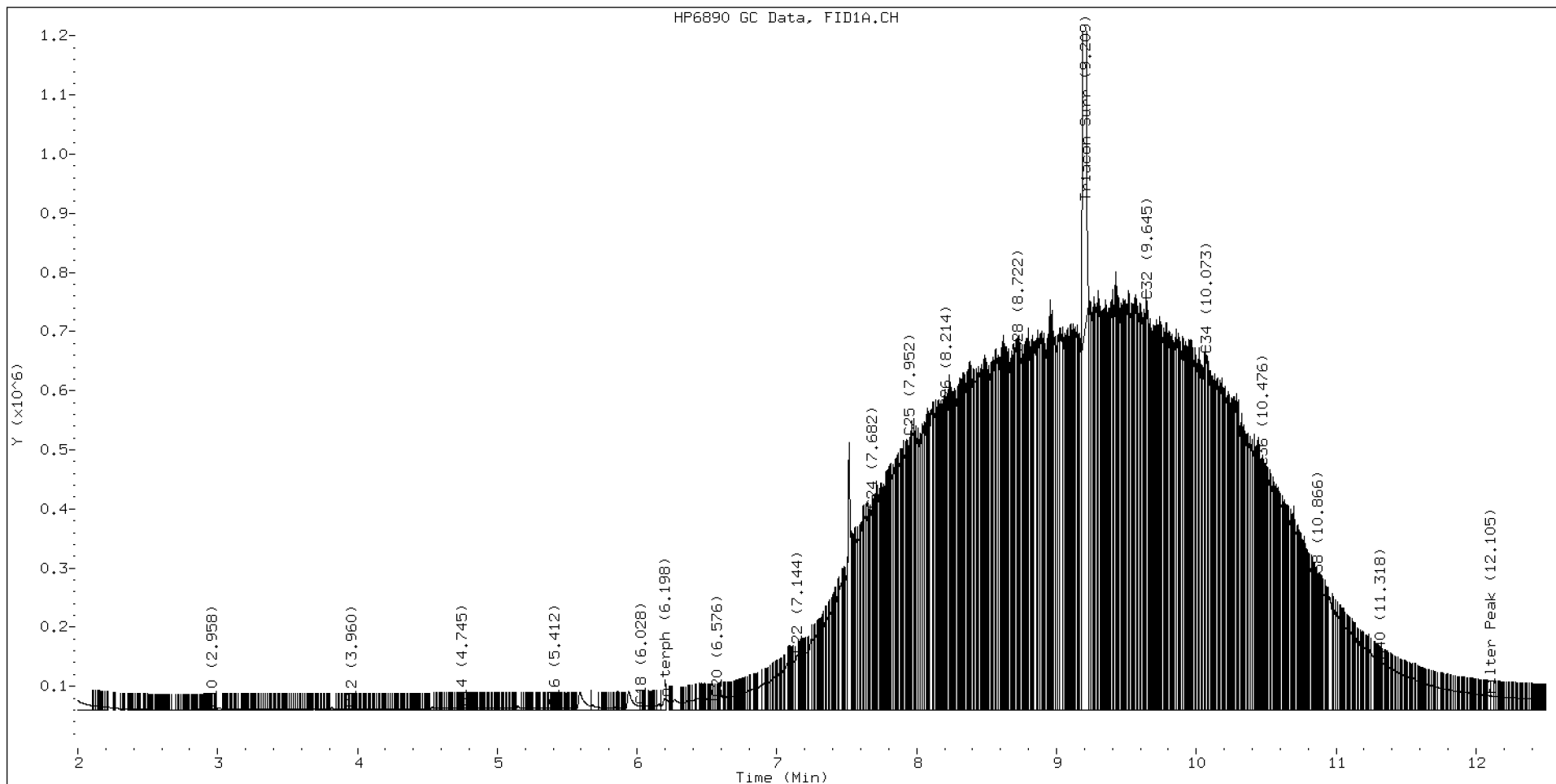
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.851	-0.012	32581	154487	WATPHD	(C12-C24)	9879096	62.0
C10	2.958	-0.002	1316	694	WATPHM	(C24-C38)	100467945	993.1
C12	3.960	0.001	1438	420	AK102	(C10-C25)	13781656	70.5
C14	4.745	-0.001	3000	1478	AK103	(C25-C36)	90077511	1230.5
C16	5.412	0.001	2978	2031	OR.DIES	(C10-C28)	41569785	212.1
C18	6.028	0.023	6405	3493				
C20	6.576	0.001	18412	5459	JET-A	(C10-C18)	589171	3.6
C22	7.144	0.008	92883	140870				
C24	7.682	-0.003	338197	134289				
C25	7.952	-0.000	460409	201095				
C26	8.214	0.000	508416	126565				
C28	8.722	0.005	604265	120726				
C32	9.645	-0.000	691572	535831				
C34	10.073	0.003	600989	441853				
Filter Peak	12.105	0.007	23485	8194	BUNKERC	(C10-C38)	110454969	2797.9
C36	10.476	-0.000	409720	161942				
C38	10.866	-0.005	212609	94221				
C40	11.318	0.001	82175	36542				
o-terph	6.198	0.008	18709	26576				
Triacon Surr	9.209	-0.012	7788028	7615110	NAS DIES	(C10-C24)	9987025	51.2

Range Times: NW Diesel(3.959 - 7.685) AK102(2.96 - 7.95) Jet A(2.96 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.95 - 10.48) OR Diesel(2.96 - 8.72)

Surrogate	Area	Amount
o-Terphenyl	26576	0.1
Triacontane	7615110	51.3 M

M Indicates the peak was manually integrated

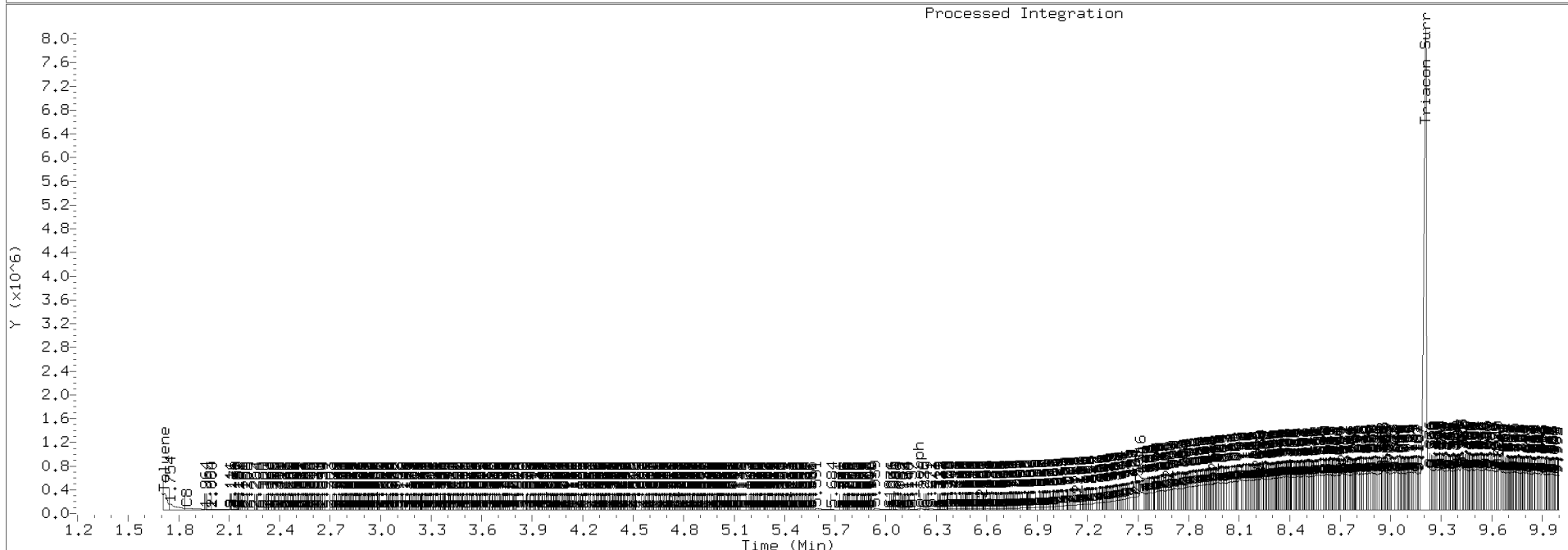
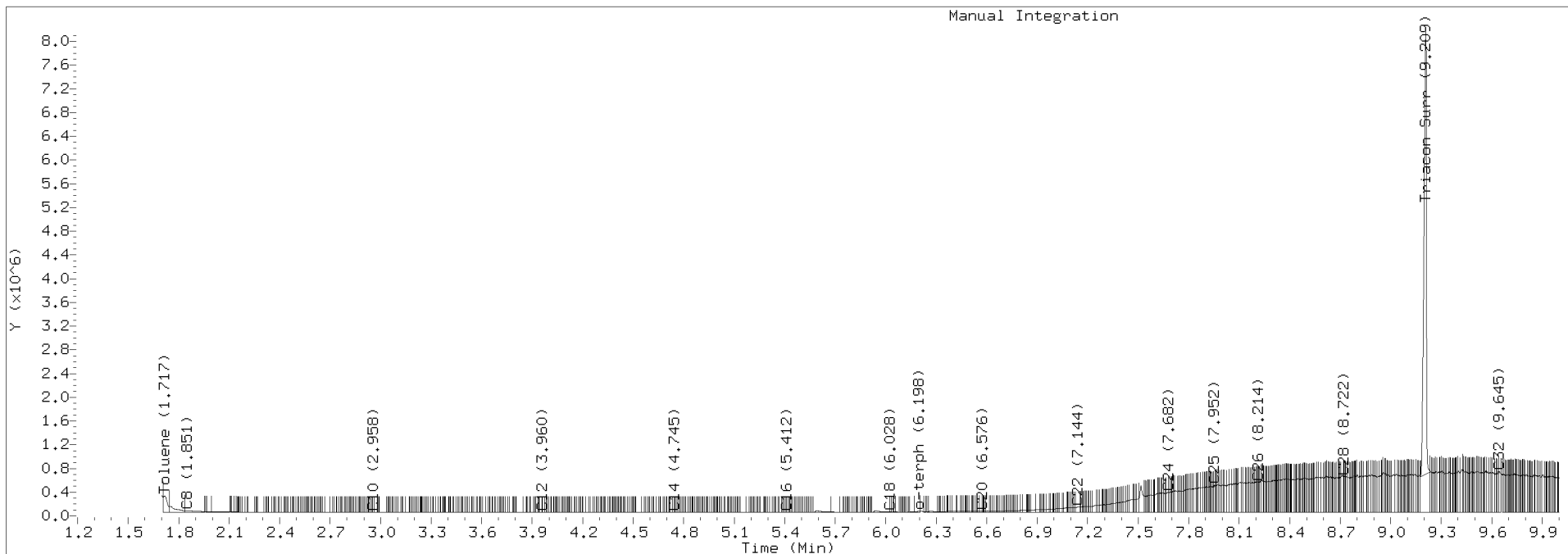
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20201204.b/420L0430.D Injection: 04-DEC-2020 20:13

Lab ID: SIL0055-CCV4





## CONTINUING CALIBRATION CHECK

### NWTPH-Dx

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>20K0204</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic</u>
Instrument ID: <u>FID4</u>	Calibration: <u>DA00022</u>
Lab File ID: <u>420L0443.D</u>	Calibration Date: <u>10/25/2019</u>
Sequence: <u>SIL0055</u>	Injection Date: <u>12/05/20</u>
Lab Sample ID: <u>SIL0055-CCV5</u>	Injection Time: <u>00:35</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	488	159336.7	155383.6		-2.5	+/-15
o-Terphenyl	A	90.000	89.8	204701.9	204229.3		-0.2	+/-15

\* Values outside of QC limits

\* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20201204,b\42010443.D

Date: 05-DEC-2020 00:35

Client ID:

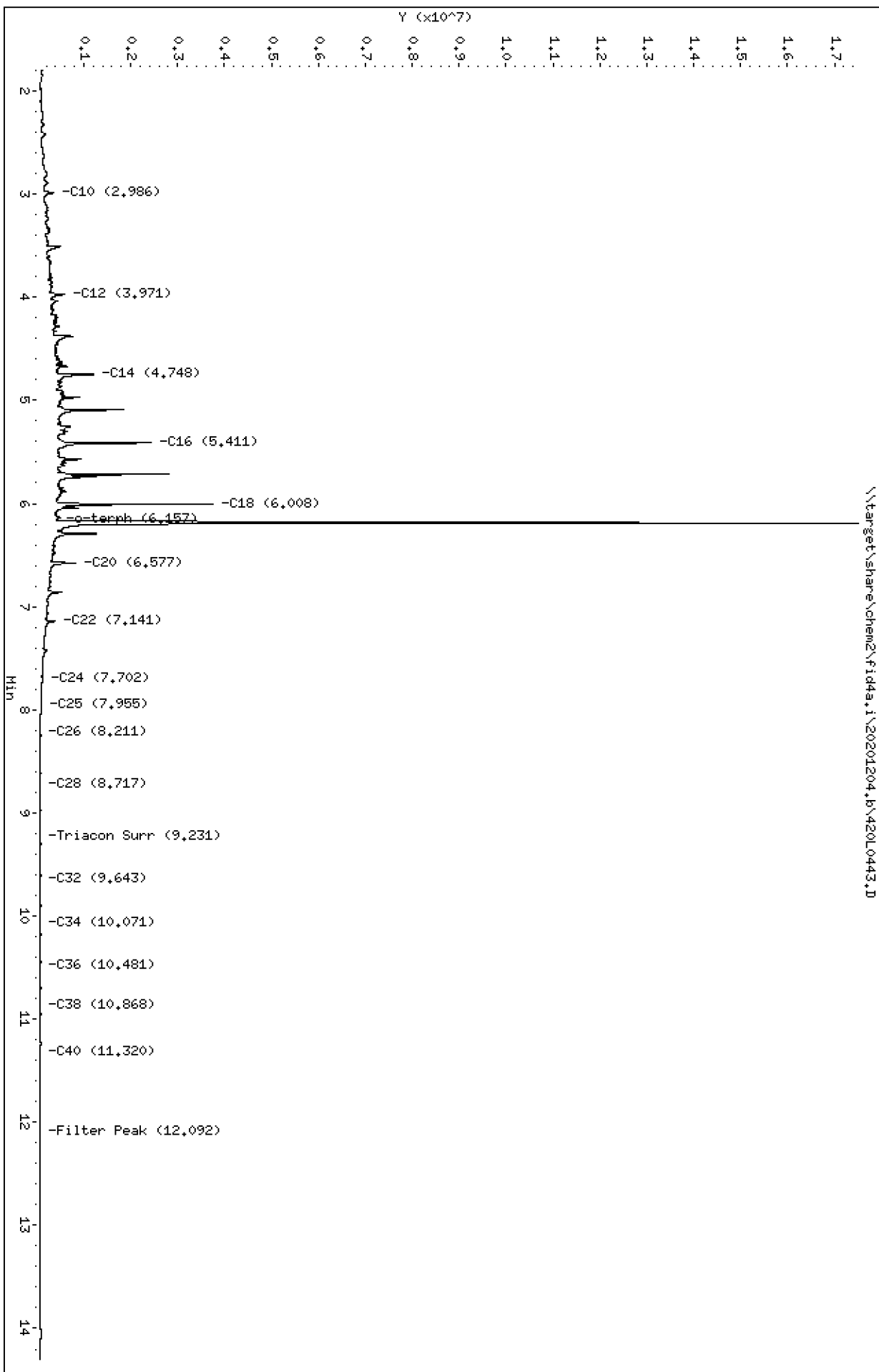
Sample Info: SIL0055-CCWS

Column phase: RTX-1

Instrument: fid4a,1

Operator: JGR/CTO/VTS

Column diameter: 0.25





Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201204.b/420L0443.D  
Method: 20201204.b\FID4TPH.m  
Instrument: fid4a.i, JGR/CTO/VTS  
Report Date: 12/05/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SIL0055-CCV5  
Client ID:  
Injection: 05-DEC-2020 00:35  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

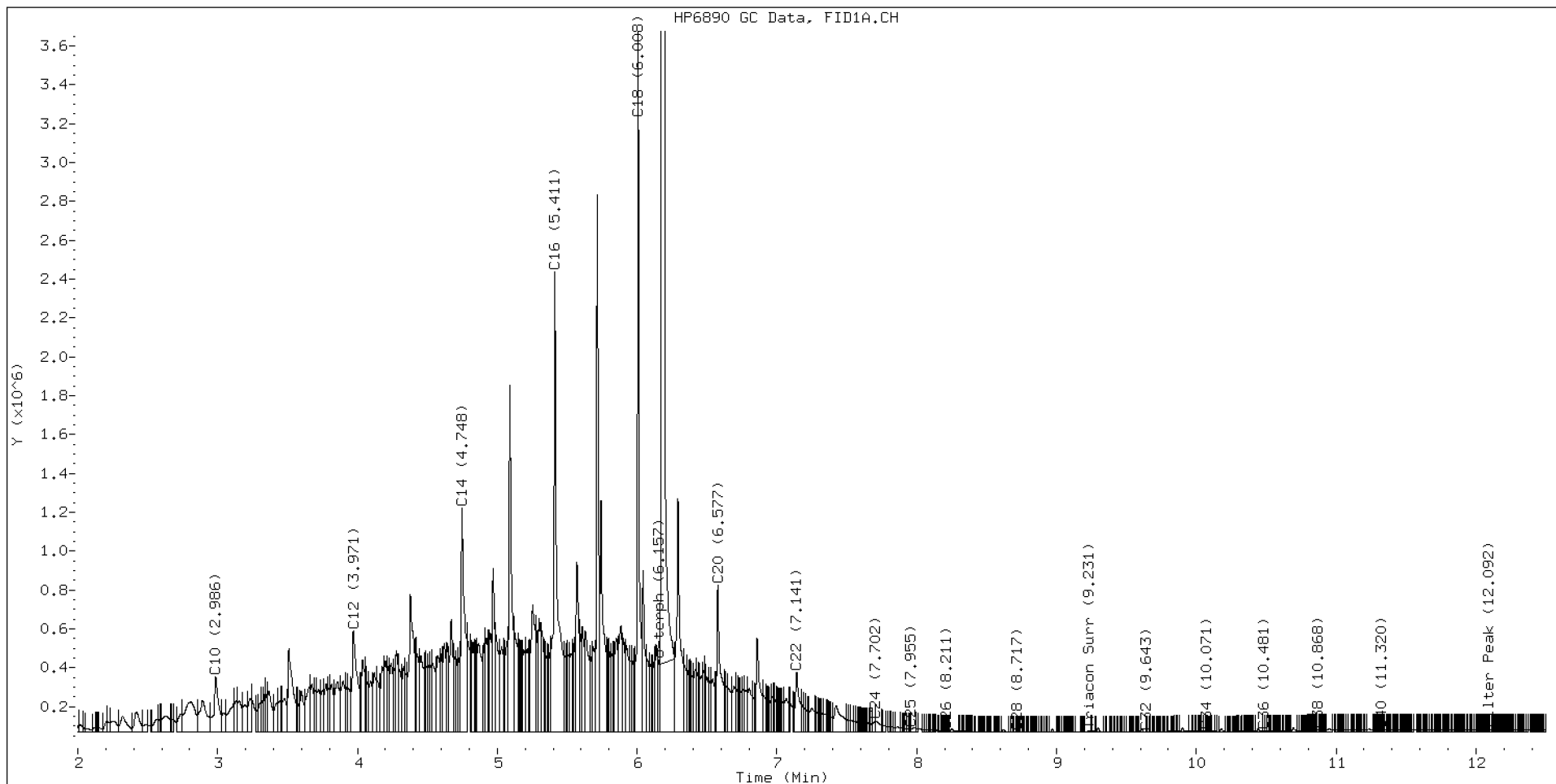
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.852	-0.011	52891	168528	WATPHD	(C12-C24)	77691780	487.6
C10	2.986	0.026	284603	693782	WATPHM	(C24-C38)	1236161	12.2
C12	3.971	0.012	523251	1293547	AK102	(C10-C25)	89615072	458.4
C14	4.748	0.002	1151283	1946955	AK103	(C25-C36)	766153	10.5
C16	5.411	0.000	2369693	4246482	OR.DIES	(C10-C28)	89974429	459.1
C18	6.008	0.003	3688613	3194745				
C20	6.577	0.003	754622	1399972	JET-A	(C10-C18)	68819321	415.0
C22	7.141	0.005	309264	599033				
C24	7.702	0.017	59118	70839				
C25	7.955	0.002	17343	6047				
C26	8.211	-0.003	7809	5751				
C28	8.717	-0.001	1133	332				
C32	9.643	-0.002	2690	1306				
C34	10.071	0.000	4968	984				
Filter Peak	12.092	-0.006	12460	8045	BUNKERC	(C10-C38)	90612087	2295.3
C36	10.481	0.004	6749	5320				
C38	10.868	-0.002	10933	10304				
C40	11.320	0.003	12317	6123				
o-terph	6.193	0.003	17083510	18380638				
Triacon Surr	9.231	0.009	7170	12845	NAS DIES	(C10-C24)	89375926	458.0

Range Times: NW Diesel(3.959 - 7.685) AK102(2.96 - 7.95) Jet A(2.96 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.95 - 10.48) OR Diesel(2.96 - 8.72)

Surrogate	Area	Amount
o-Terphenyl	18380638	89.8 M
Triacontane	12845	0.1

M Indicates the peak was manually integrated

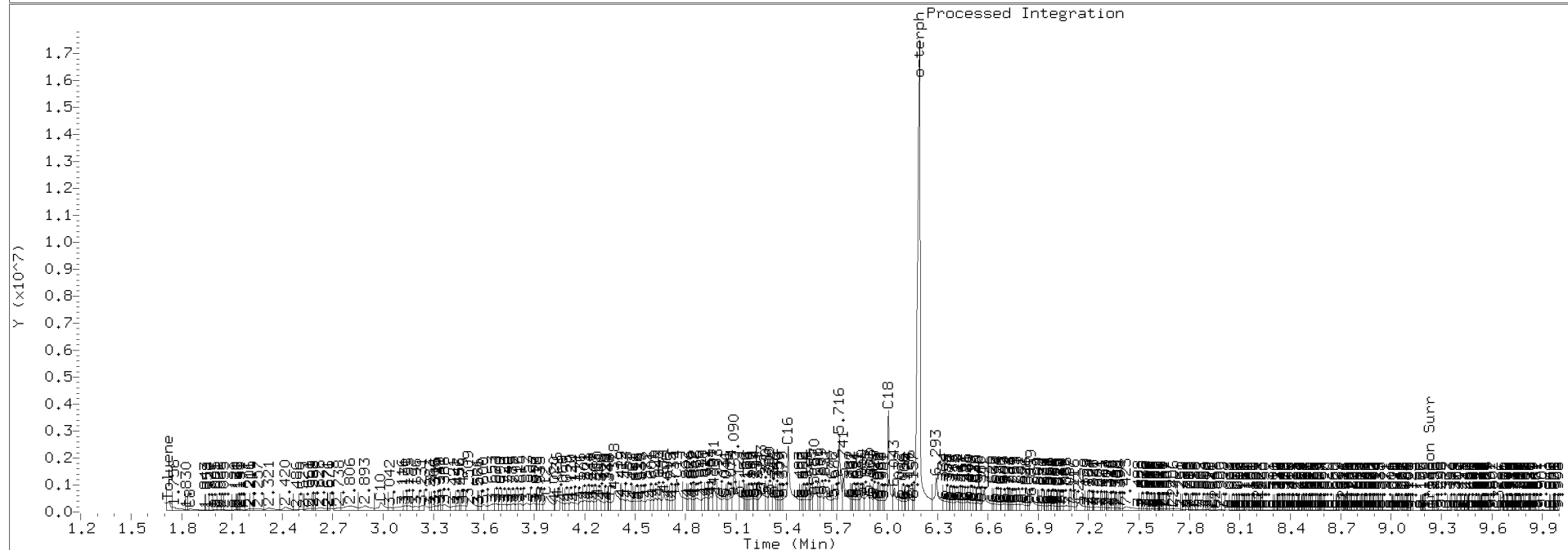
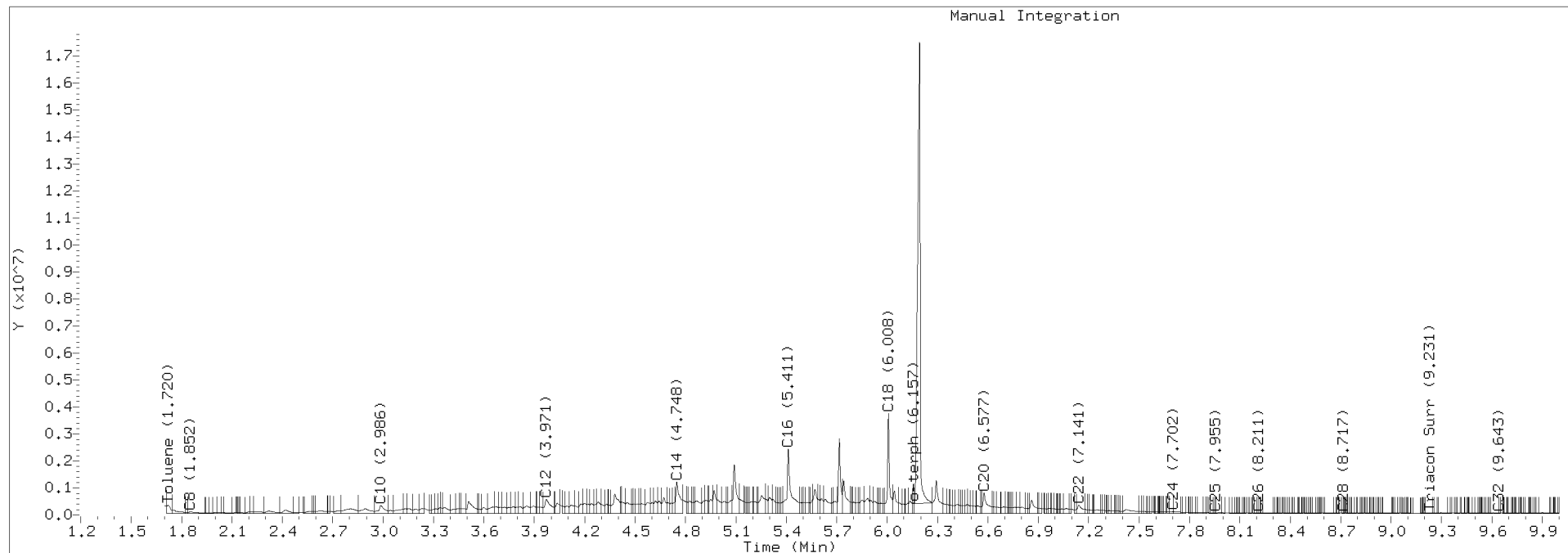
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20201204.b/420L0443.D Injection: 05-DEC-2020 00:35

Lab ID: SIL0055-CCV5





## CONTINUING CALIBRATION CHECK NWTPH-Dx

Laboratory: Analytical Resources, Inc.                      SDG: 20K0204  
Client: Anchor QEA, LLC    Project: Gasco Siltronic  
Instrument ID: FID4    Calibration: DA00022  
Lab File ID: 420L0444.D    Calibration Date: 10/25/2019  
Sequence: SIL0055    Injection Date: 12/05/20  
Lab Sample ID: SIL0055-CCV6                                      Injection Time: 00:55  
Sequence Name: MOIL CCV

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	1010	101166	101729.8		0.6	+/-15

\* Values outside of QC limits

Data File: \\target\share\chem2\fid4a,1\20201204,b\42010444.D

Date: 05-DEC-2020 00:55

Client ID:

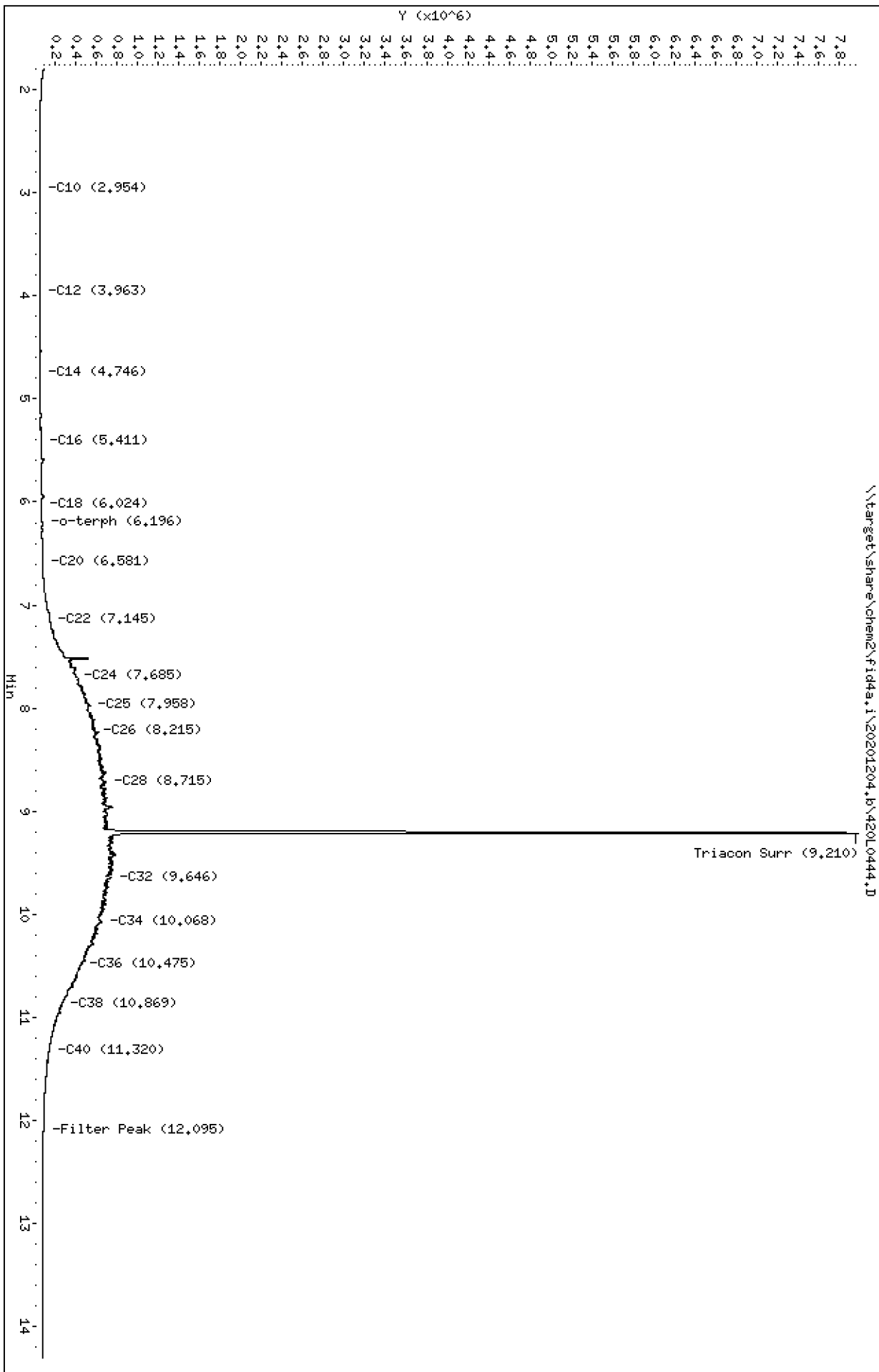
Sample Info: SIL0055-CCW6

Column phase: RTX-1

Instrument: fid4a,1

Operator: JGR/CTO/VTS

Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201204.b/420L0444.D  
Method: 20201204.b\FID4TPH.m  
Instrument: fid4a.i, JGR/CTO/VTS  
Report Date: 12/05/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SIL0055-CCV6  
Client ID:  
Injection: 05-DEC-2020 00:55  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

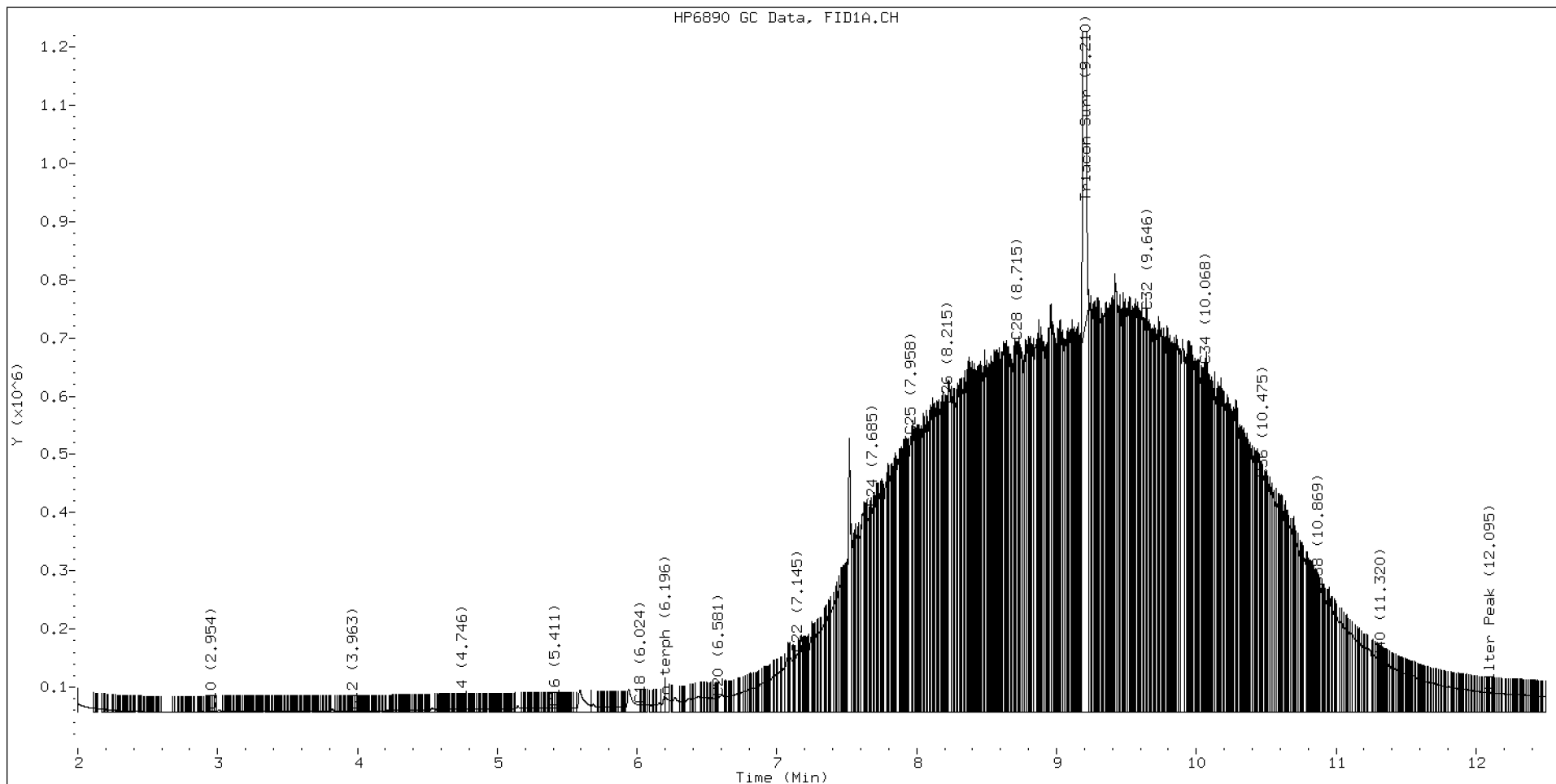
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.852	-0.011	32907	144859	WATPHD	(C12-C24)	11070736	69.5
C10	2.954	-0.006	1204	1021	WATPHM	(C24-C38)	101729752	1005.6
C12	3.963	0.004	1903	1399	AK102	(C10-C25)	15022382	76.8
C14	4.746	0.000	5173	2818	AK103	(C25-C36)	91328848	1247.6
C16	5.411	0.000	6790	1690	OR.DIES	(C10-C28)	43165670	220.2
C18	6.024	0.019	11672	4646				
C20	6.581	0.007	24771	20617	JET-A	(C10-C18)	945533	5.7
C22	7.145	0.009	99449	128865				
C24	7.685	0.000	351185	259707				
C25	7.958	0.005	474345	456487				
C26	8.215	0.002	527933	261257				
C28	8.715	-0.003	636027	592962				
C32	9.646	0.001	687832	272312				
C34	10.068	-0.002	595956	265047				
Filter Peak	12.095	-0.003	33382	8336	BUNKERC	(C10-C38)	112909081	2860.1
C36	10.475	-0.001	401239	99864				
C38	10.869	-0.001	214458	53214				
C40	11.320	0.003	88384	30736				
o-terph	6.196	0.006	26251	26155				
Triacon Surr	9.210	-0.011	7256388	7791150	NAS DIES	(C10-C24)	11179329	57.3

Range Times: NW Diesel(3.959 - 7.685) AK102(2.96 - 7.95) Jet A(2.96 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.95 - 10.48) OR Diesel(2.96 - 8.72)

Surrogate	Area	Amount
o-Terphenyl	26155	0.1
Triacontane	7791150	52.5 M

M Indicates the peak was manually integrated

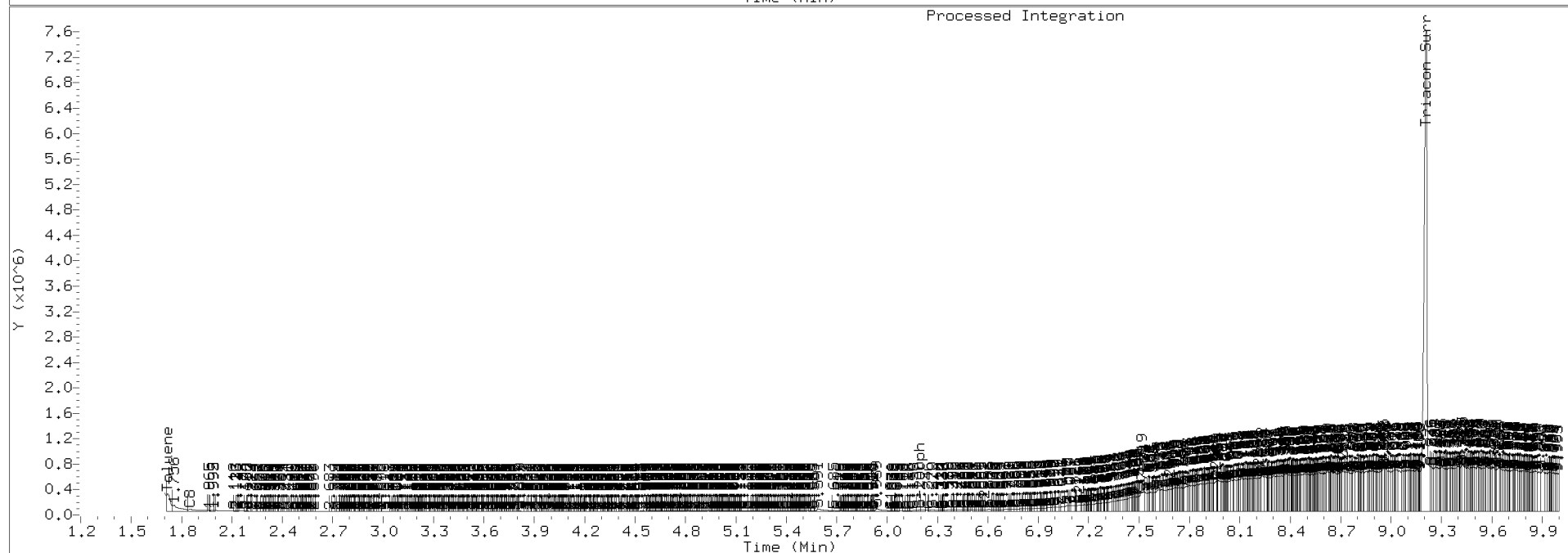
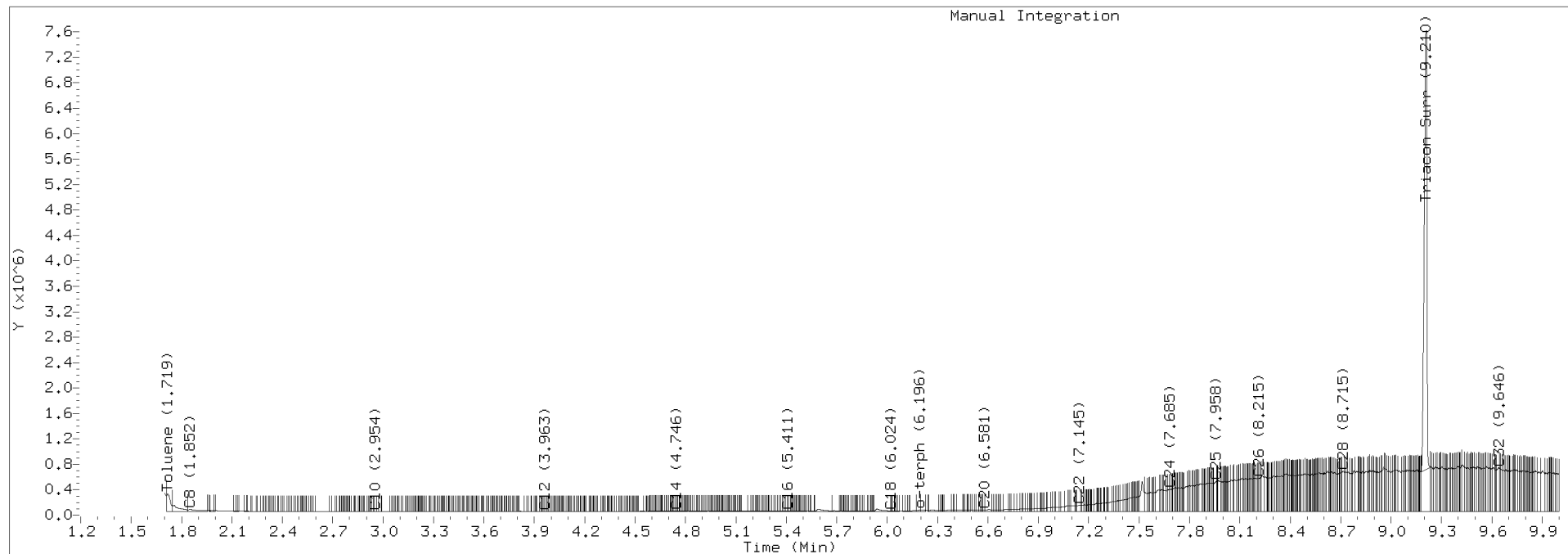
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20201204.b/420L0444.D Injection: 05-DEC-2020 00:55

Lab ID: SIL0055-CCV6







**CONTINUING CALIBRATION CHECK**  
**NWTPH-Dx**

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>20K0204</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic</u>
Instrument ID:	<u>FID4</u>	Calibration:	<u>DA00022</u>
Lab File ID:	<u>420K2971.D</u>	Calibration Date:	<u>10/25/2019</u>
Sequence:	<u>SIL0065</u>	Injection Date:	<u>11/30/20</u>
Lab Sample ID:	<u>SIL0065-CCV1</u>	Injection Time:	<u>21:42</u>
Sequence Name:	<u>DIESEL CCV</u>		

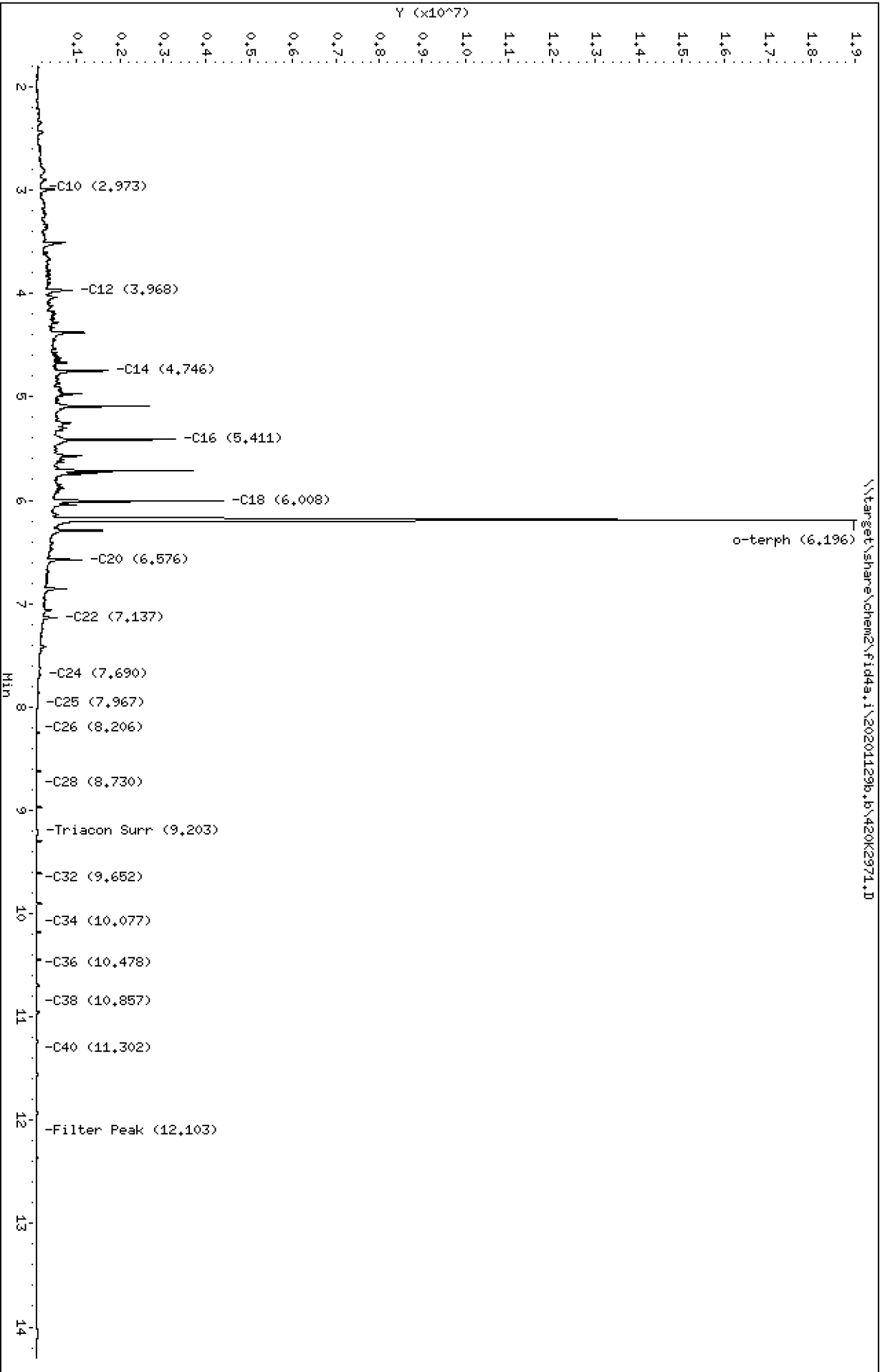
COMPOUND	TYPE	CONC. (mg/L)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Diesel Range Organics (C12-C24)	A	500.00	570	159336.7	181732.1		14.1	+/-15
o-Terphenyl	A	90.000	103	204701.9	235005.6		14.8	+/-15

\* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20201129b.b\420K2971.D  
Date: 30-NOV-2020 21:42  
Client ID:  
Sample Info: SIL0065-CCV1

Column phase: RTX-1

Instrument: fid4a.i  
Operator: JGR/CTO  
Column diameter: 0.25



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201129b.b/420K2971.D  
Method: 20201129b.b\FID4TPH.m  
Instrument: fid4a.i, JGR/CTO  
Report Date: 12/04/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SIL0065-CCV1  
Client ID:  
Injection: 30-NOV-2020 21:42  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

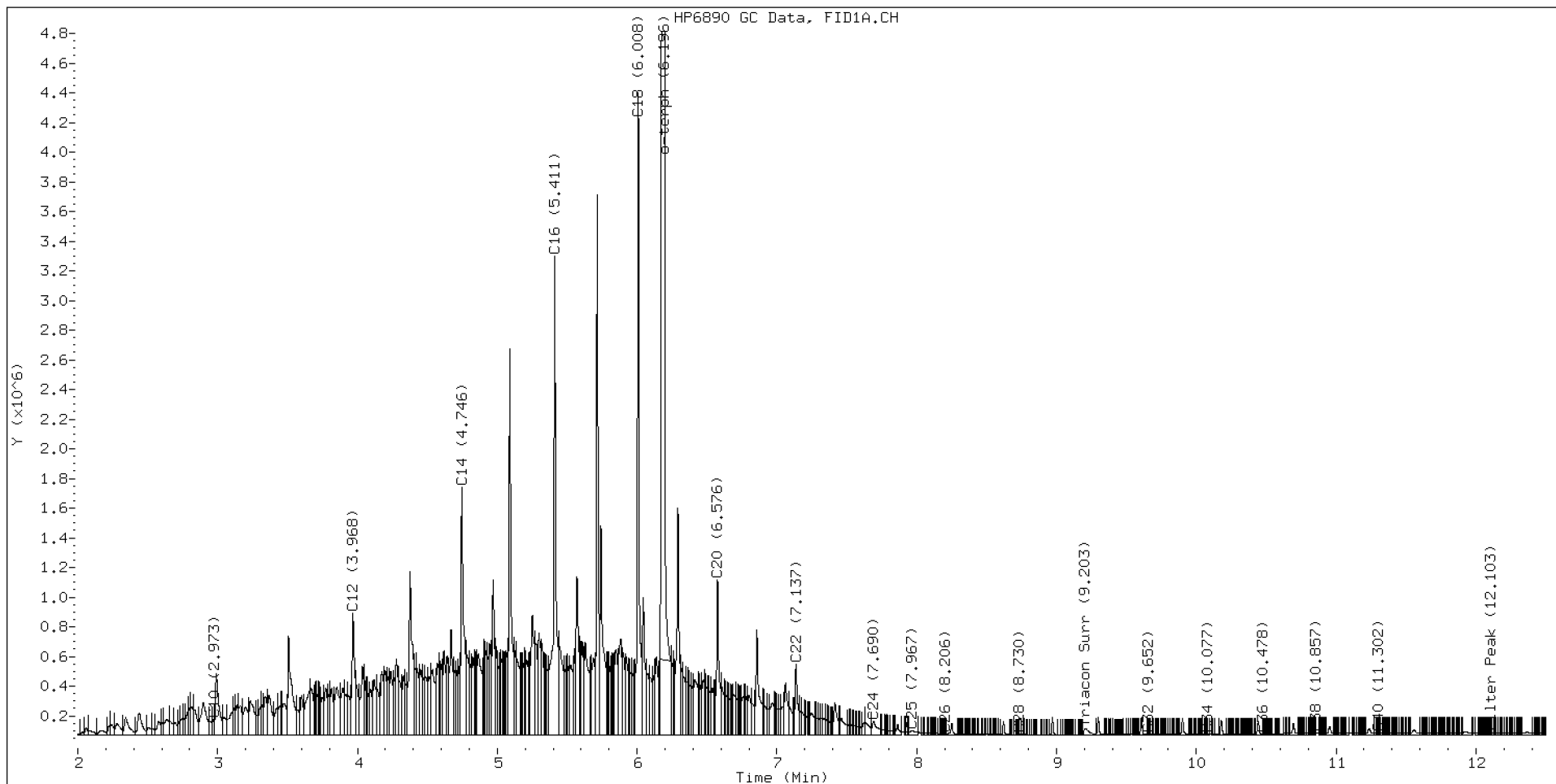
Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.922	0.008	41481	65848	WATPHD	(C12-C24)	90866040	570.3
C10	2.973	-0.005	102608	99318	WATPHM	(C24-C38)	1895372	18.7
C12	3.968	0.004	819983	1189448	AK102	(C10-C25)	105412061	539.2
C14	4.746	-0.000	1670082	2181964	AK103	(C25-C36)	1341905	18.3
C16	5.411	-0.001	3226531	4057834	OR.DIES	(C10-C28)	105884557	540.2
C18	6.008	-0.002	4327607	3776632				
C20	6.576	-0.005	1046301	1212846	JET-A	(C10-C18)	81564212	491.8
C22	7.137	-0.007	478125	604299				
C24	7.690	-0.002	91380	236818				
C25	7.967	0.007	28462	86171				
C26	8.206	-0.015	7261	3902				
C28	8.730	0.005	2633	1449				
C32	9.652	-0.001	3306	1779				
C34	10.077	0.001	7453	2227				
Filter Peak	12.103	0.006	12268	3059	BUNKERC	(C10-C38)	107024422	2711.0
C36	10.478	-0.000	7576	4126				
C38	10.857	-0.008	11557	7371				
C40	11.302	-0.000	12664	5665				
o-terph	6.196	-0.003	18467373	21150495				
Triacon Surr	9.203	-0.027	44206	107324	NAS DIES	(C10-C24)	105129050	538.7

Range Times: NW Diesel(3.964 - 7.692) AK102(2.98 - 7.96) Jet A(2.98 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.96 - 10.48) OR Diesel(2.98 - 8.73)

Surrogate	Area	Amount
o-Terphenyl	21150495	103.3 M
Triacontane	107324	0.7

M Indicates the peak was manually integrated

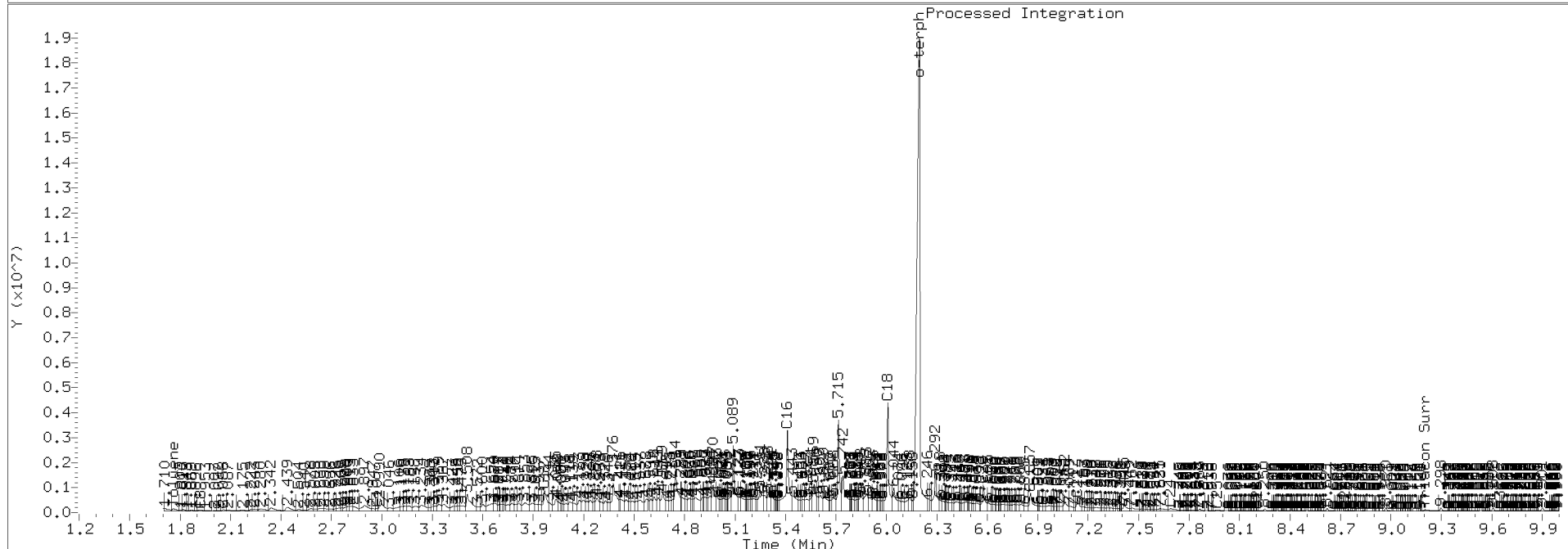
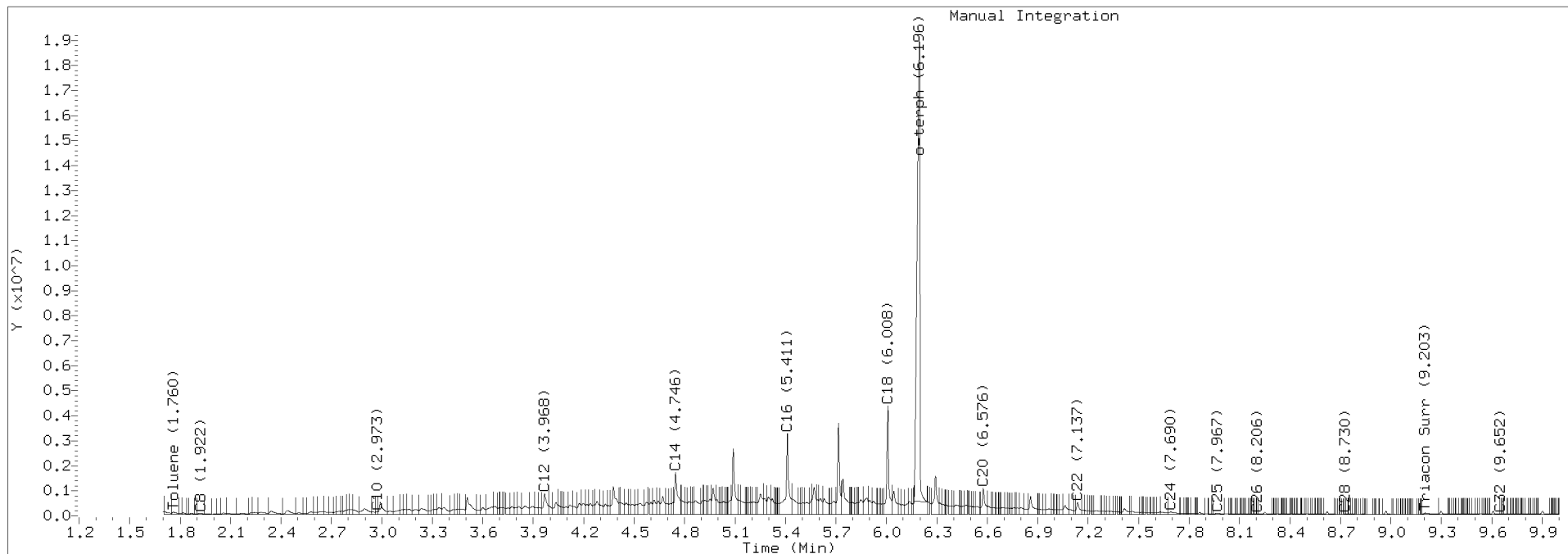
Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020



TPH Manual Integrations Report

Datafile: FID4A, 20201129b.b/420K2971.D Injection: 30-NOV-2020 21:42

Lab ID: SIL0065-CCV1





Data File: \\target\share\chem2\fid4a.i\20201129b.b\420K2972.D

Date: 30-NOV-2020 22:02

Client ID:

Sample Info: SIL0065-CCV2

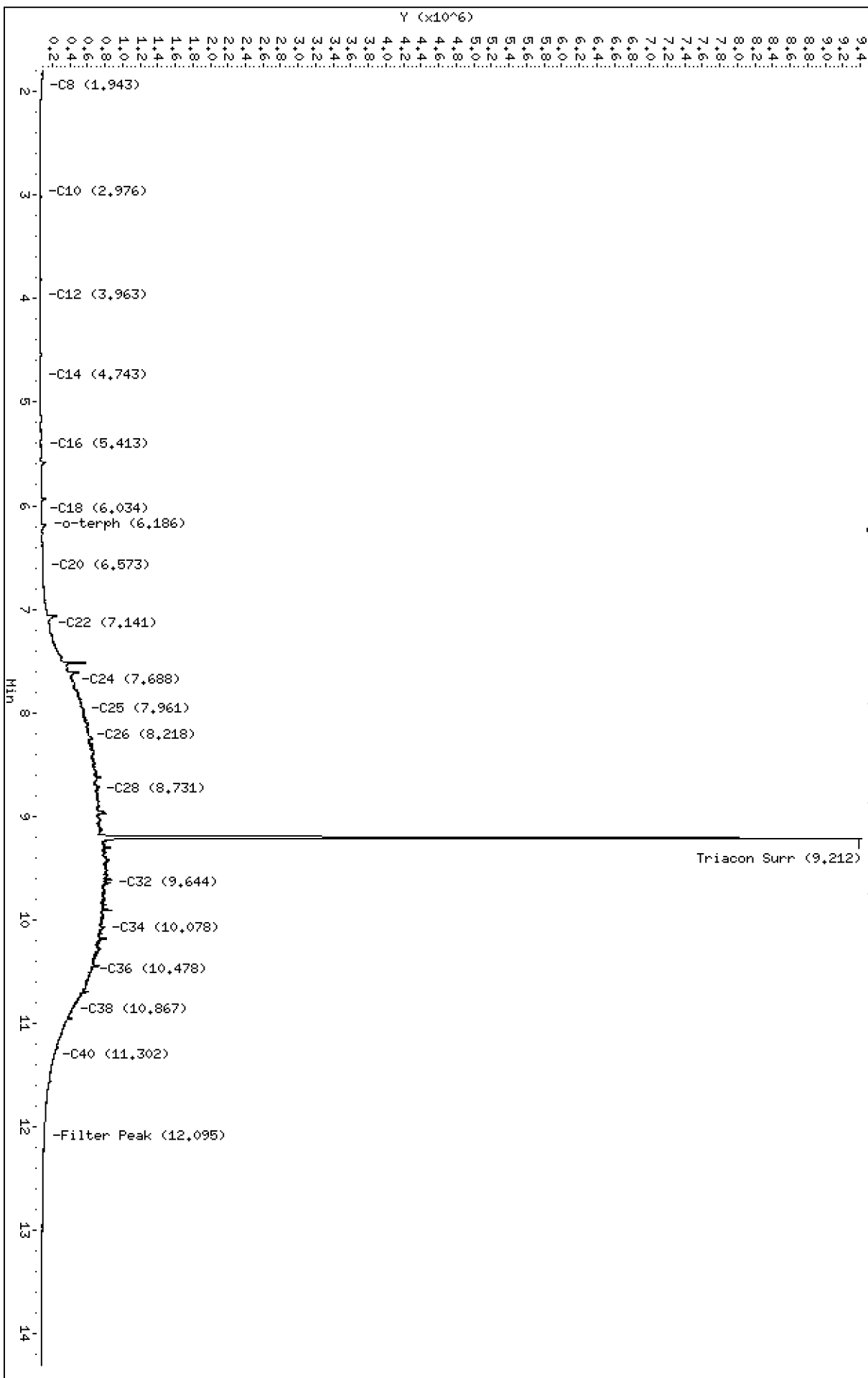
Column phase: RTX-1

Instrument: fid4a.1

Operator: JGR/CTO

Column diameter: 0.25

\\target\share\chem2\fid4a.i\20201129b.b\420K2972.D



Analytical Resources Inc.  
TPH Quantitation Report

Data file: 20201129b.b/420K2972.D  
Method: 20201129b.b\FID4TPH.m  
Instrument: fid4a.i, JGR/CTO  
Report Date: 12/04/2020  
Macro: 09-SEP-2019  
Calibration Dates: Gas:XX-XXX-XXXX Diesel:25-OCT-2019 M.Oil:25-OCT-2019

ARI ID: SIL0065-CCV2  
Client ID:  
Injection: 30-NOV-2020 22:02  
Dilution Factor: 1  
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc (mg/L)
C8	1.943	0.030	13915	12862	WATPHD	(C12-C24)	12189105	76.5
C10	2.976	-0.003	1837	1016	WATPHM	(C24-C38)	117025368	1156.8
C12	3.963	-0.000	3897	2319	AK102	(C10-C25)	16691336	85.4
C14	4.743	-0.003	7213	2502	AK103	(C25-C36)	102121092	1395.0
C16	5.413	0.001	7853	2735	OR.DIES	(C10-C28)	46570515	237.6
C18	6.034	0.024	13577	19094				
C20	6.573	-0.008	25843	8899	JET-A	(C10-C18)	1249890	7.5
C22	7.141	-0.003	108274	99376				
C24	7.688	-0.003	376131	223481				
C25	7.961	0.002	491420	340144				
C26	8.218	-0.003	556118	138492				
C28	8.731	0.006	655774	260516				
C32	9.644	-0.008	796999	943461				
C34	10.078	0.002	725316	323431				
Filter Peak	12.095	-0.002	45559	27146	BUNKERC	(C10-C38)	129433689	3278.7
C36	10.478	-0.000	585997	174710				
C38	10.867	0.002	366389	127483				
C40	11.302	-0.000	162800	56380				
o-terph	6.186	-0.013	57492	144169				
Triacon Surr	9.212	-0.018	8671782	8297220	NAS DIES	(C10-C24)	12408321	63.6

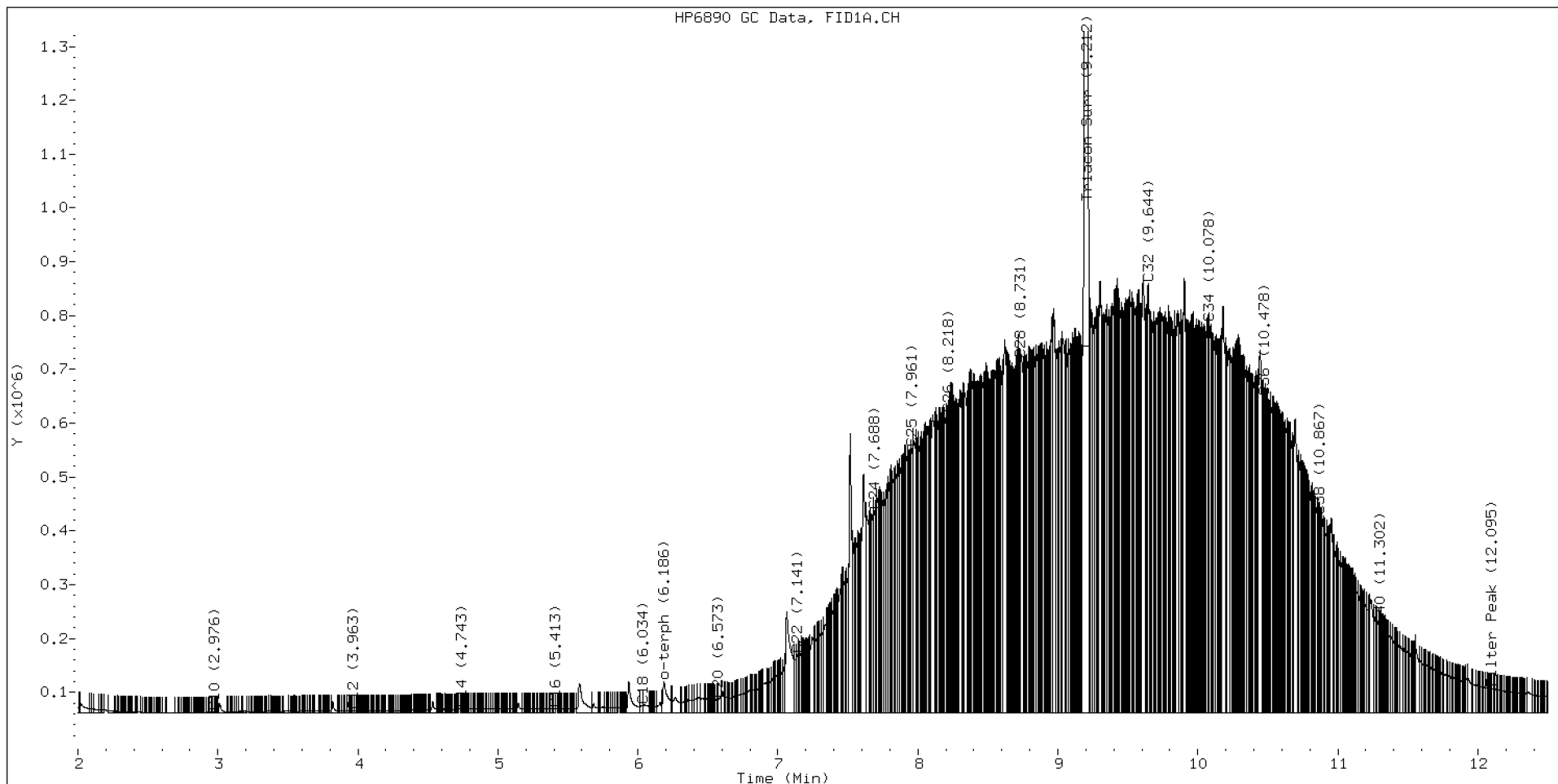
Range Times: NW Diesel(3.964 - 7.692) AK102(2.98 - 7.96) Jet A(2.98 - 6.01)  
NW M.Oil(7.69 - 10.87) AK103(7.96 - 10.48) OR Diesel(2.98 - 8.73)

Surrogate	Area	Amount
o-Terphenyl	144169	0.7
Triacontane	8297220	55.9 M

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	204701.9	25-OCT-2019
Triacon Surr	148377.1	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	159336.7	25-OCT-2019
Motor Oil	101166.0	25-OCT-2019
AK102	195491.2	25-OCT-2019
AK103	73206.5	25-OCT-2019
JetA	165849.0	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	39477.2	13-MAR-2020

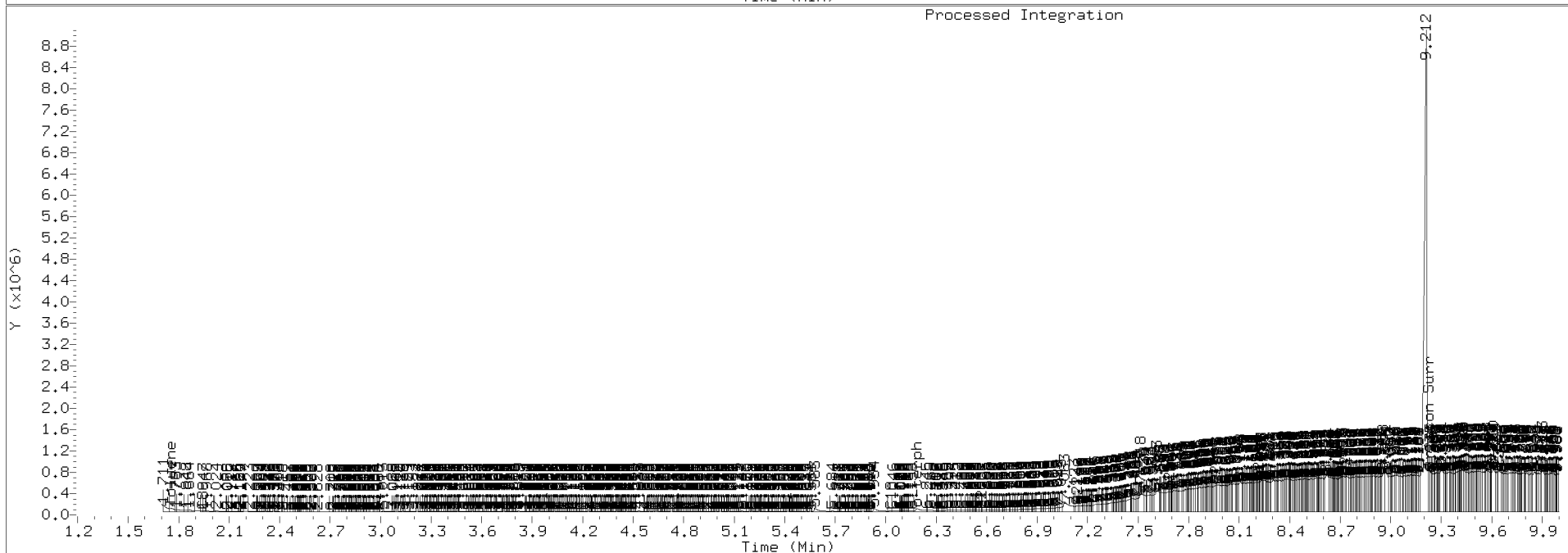
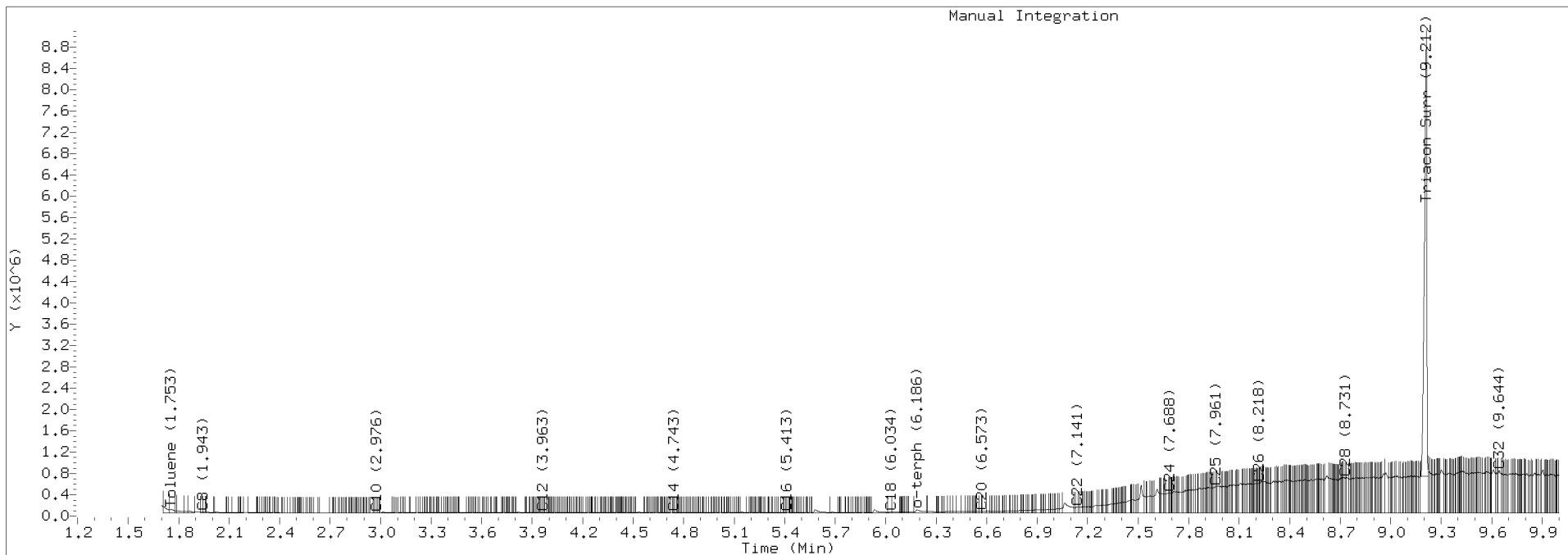




TPH Manual Integrations Report

Datafile: FID4A, 20201129b.b/420K2972.D Injection: 30-NOV-2020 22:02

Lab ID: SIL0065-CCV2





## ANALYSIS BATCH (SEQUENCE) SUMMARY

### NWTPH-Dx

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Sequence: SHJ0406

Instrument: FID4

Calibration: CJ00089

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Retention Time Standard	SHJ0406-IBL1	419J2505.D	NA	10/25/19 13:11
Instrument Blank	SHJ0406-IBL2	419J2506.D	NA	10/25/19 13:31
DIESEL 50	SHJ0406-CAL1	419J2507.D	NA	10/25/19 13:52
DIESEL 100	SHJ0406-CAL2	419J2508.D	NA	10/25/19 14:12
DIESEL 250	SHJ0406-CAL3	419J2509.D	NA	10/25/19 14:32
DIESEL 500	SHJ0406-CAL4	419J2510.D	NA	10/25/19 14:53
DIESEL 1000	SHJ0406-CAL5	419J2511.D	NA	10/25/19 15:13
DIESEL 2500	SHJ0406-CAL6	419J2512.D	NA	10/25/19 15:32
DIESEL SCV	SHJ0406-SCV1	419J2513.D	NA	10/25/19 15:52
MOIL 100	SHJ0406-CAL7	419J2514.D	NA	10/25/19 16:12
MOIL 250	SHJ0406-CAL8	419J2515.D	NA	10/25/19 16:33
MOIL 500	SHJ0406-CAL9	419J2516.D	NA	10/25/19 16:53
MOIL 1000	SHJ0406-CALA	419J2517.D	NA	10/25/19 17:13
MOIL 2500	SHJ0406-CALB	419J2518.D	NA	10/25/19 17:34
MOIL 5000	SHJ0406-CALC	419J2519.D	NA	10/25/19 17:54
MOIL SCV	SHJ0406-SCV2	419J2520.D	NA	10/25/19 18:14



ANALYSIS SEQUENCE

SHJ0406

Instrument: FID4  
Calibration ID: CJ00089

Element Column ID: G004925

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SHJ0406-IBL1	Retention Time Standard	QC		1	H006806		
SHJ0406-IBL2	Instrument Blank	QC		2	H007457		
SHJ0406-CAL1	DIESEL 50	QC		3	H010495		
SHJ0406-CAL2	DIESEL 100	QC		4	H010496		
SHJ0406-CAL3	DIESEL 250	QC		5	H010497		
SHJ0406-CAL4	DIESEL 500	QC		6	H010498		
SHJ0406-CAL5	DIESEL 1000	QC		7	H010499		
SHJ0406-CAL6	DIESEL 2500	QC		8	H009367		
SHJ0406-SCV1	DIESEL SCV	QC		9	H008294		
SHJ0406-CAL7	MOIL 100	QC		10	H008395		
SHJ0406-CAL8	MOIL 250	QC		11	H008396		
SHJ0406-CAL9	MOIL 500	QC		12	H008397		
SHJ0406-CALA	MOIL 1000	QC		13	H007659		
SHJ0406-CALB	MOIL 2500	QC		14	H008398		
SHJ0406-CALC	MOIL 5000	QC		15	H007458		
SHJ0406-SCV2	MOIL SCV	QC		16	H008399		
SHJ0406-CALD	AK103 100	QC		17	H010478		
SHJ0406-CALE	AK103 250	QC		18	H010479		
SHJ0406-CALF	AK103 500	QC		19	H010480		
SHJ0406-CALG	AK103 1000	QC		20	H010481		
SHJ0406-CALH	AK103 2500	QC		21	H010482		
SHJ0406-CALI	AK103 5000	QC		22	H008608		



ANALYSIS SEQUENCE

SHJ0406

Instrument: FID4

Element Column ID: G004925

Calibration ID: CJ00089

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SHJ0406-SCV3	AK103 SCV	QC		23	H008400		

## GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20191025.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	25-OCT-2019	11:37	419J2501.D	1	RINSE	
2	25-OCT-2019	11:55	419J2502.D	1	RINSE	
3	25-OCT-2019	12:30	419J2503.D	1	RINSE	
4	25-OCT-2019	12:51	419J2504.D	1	RINSE	
5	25-OCT-2019	13:11	419J2505.D	1	SHJ0406-IBL1	
6	25-OCT-2019	13:31	419J2506.D	1	SHJ0406-IBL2	
7	25-OCT-2019	13:52	419J2507.D	1	SHJ0406-CAL1	
8	25-OCT-2019	14:12	419J2508.D	1	SHJ0406-CAL2	
9	25-OCT-2019	14:32	419J2509.D	1	SHJ0406-CAL3	
10	25-OCT-2019	14:53	419J2510.D	1	SHJ0406-CAL4	
11	25-OCT-2019	15:13	419J2511.D	1	SHJ0406-CAL5	
12	25-OCT-2019	15:32	419J2512.D	1	SHJ0406-CAL6	
13	25-OCT-2019	15:52	419J2513.D	1	SHJ0406-SCV1	
14	25-OCT-2019	16:12	419J2514.D	1	SHJ0406-CAL7	
15	25-OCT-2019	16:33	419J2515.D	1	SHJ0406-CAL8	
16	25-OCT-2019	16:53	419J2516.D	1	SHJ0406-CAL9	
17	25-OCT-2019	17:13	419J2517.D	1	SHJ0406-CALA	
18	25-OCT-2019	17:34	419J2518.D	1	SHJ0406-CALB	
19	25-OCT-2019	17:54	419J2519.D	1	SHJ0406-CALC	
20	25-OCT-2019	18:14	419J2520.D	1	SHJ0406-SCV2	
21	25-OCT-2019	18:35	419J2521.D	1	SHJ0406-CALD	
22	25-OCT-2019	18:55	419J2522.D	1	SHJ0406-CALE	
23	25-OCT-2019	19:15	419J2523.D	1	SHJ0406-CALF	
24	25-OCT-2019	19:34	419J2524.D	1	SHJ0406-CALG	
25	25-OCT-2019	19:54	419J2525.D	1	SHJ0406-CALH	
26	25-OCT-2019	20:15	419J2526.D	1	SHJ0406-CALI	
27	25-OCT-2019	20:35	419J2527.D	1	SHJ0406-SCV3	
28	25-OCT-2019	20:55	419J2528.D	1	SHJ0406-ICV1	
29	25-OCT-2019	21:16	419J2529.D	1	SHJ0406-ICV2	
30	25-OCT-2019	21:36	419J2530.D	1	BHJ0711-BLK1	
31	25-OCT-2019	21:56	419J2531.D	1	BHJ0711-BS1	
32	25-OCT-2019	22:16	419J2532.D	1	19J0373-01	
33	25-OCT-2019	22:35	419J2533.D	1	19J0373-02	
34	25-OCT-2019	22:55	419J2534.D	1	19J0373-03	
35	25-OCT-2019	23:16	419J2535.D	1	19J0373-04	
36	25-OCT-2019	23:36	419J2536.D	1	19J0373-05	
37	25-OCT-2019	23:57	419J2537.D	1	19J0373-06	
38	26-OCT-2019	00:17	419J2538.D	1	19J0373-07	
39	26-OCT-2019	00:37	419J2539.D	1	19J0373-08	
40	26-OCT-2019	00:58	419J2540.D	1	SHJ0406-CCV1	
41	26-OCT-2019	01:18	419J2541.D	1	SHJ0406-CCV2	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20191025.b

ARI Job No.: RINS Method: FID4TPH.m Instrument: fid4a.i Date: 25-OCT-2019

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1137	419J2501.D	RINSE		1	NO MANUAL INTEGRATION
1155	419J2502.D	RINSE		1	NO MANUAL INTEGRATION
1230	419J2503.D	RINSE		1	NO MANUAL INTEGRATION
1251	419J2504.D	RINSE		1	NO MANUAL INTEGRATION
1311	419J2505.D	SHJ0406-IBL1		1	NO MANUAL INTEGRATION
1331	419J2506.D	SHJ0406-IBL2		1	NO MANUAL INTEGRATION
1352	419J2507.D	SHJ0406-CAL1		1	NO MANUAL INTEGRATION
1412	419J2508.D	SHJ0406-CAL2		1	o-terph,
1432	419J2509.D	SHJ0406-CAL3		1	NO MANUAL INTEGRATION
1453	419J2510.D	SHJ0406-CAL4		1	o-terph,
1513	419J2511.D	SHJ0406-CAL5		1	o-terph,
1532	419J2512.D	SHJ0406-CAL6		1	o-terph,
1552	419J2513.D	SHJ0406-SCV1		1	NO MANUAL INTEGRATION
1612	419J2514.D	SHJ0406-CAL7		1	Triacon Surr,
1633	419J2515.D	SHJ0406-CAL8		1	Triacon Surr,
1653	419J2516.D	SHJ0406-CAL9		1	Triacon Surr,
1713	419J2517.D	SHJ0406-CALA		1	Triacon Surr,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20191025.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1734	419J2518.D	SHJ0406-CALB		1	Triacon Surr,
1754	419J2519.D	SHJ0406-CALC		1	Triacon Surr,
1814	419J2520.D	SHJ0406-SCV2		1	Triacon Surr,
1835	419J2521.D	SHJ0406-CALD		1	Triacon Surr,
1855	419J2522.D	SHJ0406-CALE		1	Triacon Surr,
1915	419J2523.D	SHJ0406-CALF		1	Triacon Surr,
1934	419J2524.D	SHJ0406-CALG		1	Triacon Surr,
1954	419J2525.D	SHJ0406-CALH		1	Triacon Surr,
2015	419J2526.D	SHJ0406-CALI		1	Triacon Surr,
2035	419J2527.D	SHJ0406-SCV3		1	Triacon Surr,
2055	419J2528.D	SHJ0406-ICV1		1	o-terph,
2116	419J2529.D	SHJ0406-ICV2		1	Triacon Surr,
2136	419J2530.D	BHJ0711-BLK1		1	NO MANUAL INTEGRATION
2156	419J2531.D	BHJ0711-BS1		1	o-terph,
2216	419J2532.D	19J0373-01		1	Triacon Surr,
2235	419J2533.D	19J0373-02		1	NO MANUAL INTEGRATION
2255	419J2534.D	19J0373-03		1	Triacon Surr,
2316	419J2535.D	19J0373-04		1	Triacon Surr,



MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20191025.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2336	419J2536.D	19J0373-05	1	o-terph,	Triacon Surr,
2357	419J2537.D	19J0373-06	1	Triacon Surr,	
0017	419J2538.D	19J0373-07	1	Triacon Surr,	
0037	419J2539.D	19J0373-08	1	Triacon Surr,	
0058	419J2540.D	SHJ0406-CCV1	1	o-terph,	
0118	419J2541.D	SHJ0406-CCV2	1	Triacon Surr,	

Security Status Report

Date: 30-Oct-2019 07:25

419J2507.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2508.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2509.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2510.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2511.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2512.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2513.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2514.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2515.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2516.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2517.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2518.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2519.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2520.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2521.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2522.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2523.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2524.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2525.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2526.D	Data Locked	j rains, 30-Oct-2019 07:20
419J2527.D	Data Locked	j rains, 30-Oct-2019 07:20



## ANALYSIS BATCH (SEQUENCE) SUMMARY

### NWTPH-Dx

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Sequence: SIF0018

Instrument: FID4

Calibration: DA00022

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Retention Time Standard	SIF0018-IBL1	420F0203.D	NA	06/02/20 08:19
Instrument Blank	SIF0018-IBL2	420F0204.D	NA	06/02/20 08:38
MOIL 100	SIF0018-CAL1	420F0205.D	NA	06/02/20 08:58
MOIL 250	SIF0018-CAL2	420F0206.D	NA	06/02/20 09:17
MOIL 500	SIF0018-CAL3	420F0207.D	NA	06/02/20 09:37
MOIL 1000	SIF0018-CAL4	420F0208.D	NA	06/02/20 09:56
MOIL 2500	SIF0018-CAL5	420F0209.D	NA	06/02/20 10:16
MOIL 5000	SIF0018-CAL6	420F0210.D	NA	06/02/20 10:36
MOIL SCV	SIF0018-SCV1	420F0211.D	NA	06/02/20 10:55



**ANALYSIS SEQUENCE**

**SIF0018**

Instrument: FID4  
Calibration ID: DA00022

Printed: 6/2/2020 12:49:08PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SIF0018-IBL1	QC		1		H010802			
SIF0018-IBL2	QC		2		I000651			
SIF0018-CAL1	QC		3		I004752			
SIF0018-CAL2	QC		4		I004753			
SIF0018-CAL3	QC		5		I004754			
SIF0018-CAL4	QC		6		I004755			
SIF0018-CAL5	QC		7		I004756			
SIF0018-CAL6	QC		8		I003778			
SIF0018-SCV1	QC		9		I004757			

\_\_\_\_\_  
Samples Loaded By                          Date

\_\_\_\_\_  
Data Processed By                          Date

## GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20200602.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	02-JUN-2020	07:40	420F0201.D	1	RINSE	
2	02-JUN-2020	07:59	420F0202.D	1	RINSE	
3	02-JUN-2020	08:19	420F0203.D	1	SIF0018-IBL1	
4	02-JUN-2020	08:38	420F0204.D	1	SIF0018-IBL2	
5	02-JUN-2020	08:58	420F0205.D	1	SIF0018-CAL1	
6	02-JUN-2020	09:17	420F0206.D	1	SIF0018-CAL2	
7	02-JUN-2020	09:37	420F0207.D	1	SIF0018-CAL3	
8	02-JUN-2020	09:56	420F0208.D	1	SIF0018-CAL4	
9	02-JUN-2020	10:16	420F0209.D	1	SIF0018-CAL5	
10	02-JUN-2020	10:36	420F0210.D	1	SIF0018-CAL6	
11	02-JUN-2020	10:55	420F0211.D	1	SIF0018-SCV1	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20200602.b

ARI Job No.: RINS Method: FID4TPH.m Instrument: fid4a.i Date: 02-JUN-2020

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0740	420F0201.D	RINSE		1	NO MANUAL INTEGRATION
0759	420F0202.D	RINSE		1	NO MANUAL INTEGRATION
0819	420F0203.D	SIF0018-IBL1		1	NO MANUAL INTEGRATION
0838	420F0204.D	SIF0018-IBL2		1	NO MANUAL INTEGRATION
0858	420F0205.D	SIF0018-CAL1		1	Triacon Surr,
0917	420F0206.D	SIF0018-CAL2		1	Triacon Surr,
0937	420F0207.D	SIF0018-CAL3		1	Triacon Surr,
0956	420F0208.D	SIF0018-CAL4		1	Triacon Surr,
1016	420F0209.D	SIF0018-CAL5		1	Triacon Surr,
1036	420F0210.D	SIF0018-CAL6		1	Triacon Surr,
1055	420F0211.D	SIF0018-SCV1		1	Triacon Surr,

Security Status Report

Date: 02-Jun-2020 12:52

420F0201.D	Data Locked	christopher, 02-Jun-2020 12:51
420F0202.D	Data Locked	christopher, 02-Jun-2020 12:51
420F0203.D	Data Locked	christopher, 02-Jun-2020 12:51
420F0204.D	Data Locked	christopher, 02-Jun-2020 12:51
420F0205.D	Data Locked	christopher, 02-Jun-2020 12:51
420F0206.D	Data Locked	christopher, 02-Jun-2020 12:51
420F0207.D	Data Locked	christopher, 02-Jun-2020 12:51
420F0208.D	Data Locked	christopher, 02-Jun-2020 12:51
420F0209.D	Data Locked	christopher, 02-Jun-2020 12:51
420F0210.D	Data Locked	christopher, 02-Jun-2020 12:51
420F0211.D	Data Locked	christopher, 02-Jun-2020 12:51



## ANALYSIS BATCH (SEQUENCE) SUMMARY

### NWTPH-Dx

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Sequence: SIH0092

Instrument: FID4

Calibration: DA00022

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Retention Time Standard	SIH0092-IBL1	420H1003B.D	NA	08/10/20 08:50
Instrument Blank	SIH0092-IBL2	420H1004B.D	NA	08/10/20 09:10
CREOSOTE 100	SIH0092-CAL1	420H1008.D	NA	08/10/20 11:44
CREOSOTE 250	SIH0092-CAL2	420H1009.D	NA	08/10/20 12:03
CREOSOTE 500	SIH0092-CAL3	420H1010.D	NA	08/10/20 12:23
CREOSOTE 1000	SIH0092-CAL4	420H1011.D	NA	08/10/20 12:43
CREOSOTE 2500	SIH0092-CAL5	420H1012.D	NA	08/10/20 13:02
CREOSOTE 5000	SIH0092-CAL6	420H1013.D	NA	08/10/20 13:22





ANALYSIS SEQUENCE

SIH0092

Instrument: FID4  
Calibration ID: DA00022

Printed: 8/10/2020 2:51:30PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SIH0092-IBL1	QC		1		I006239			
SIH0092-IBL2	QC		2		I006241			
SIH0092-CAL1	QC		3		I006988			
SIH0092-CAL2	QC		4		I006987			
SIH0092-CAL3	QC		5		I006986			
SIH0092-CAL4	QC		6		I006985			
SIH0092-CAL5	QC		7		I006984			
SIH0092-CAL6	QC		8		I006965			

Samples Loaded By \_\_\_\_\_ Date \_\_\_\_\_

Data Processed By \_\_\_\_\_ Date \_\_\_\_\_

## GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20200810.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	10-AUG-2020	08:11	420H1001.D	1	RINSE	
2	10-AUG-2020	08:30	420H1002.D	1	RINSE	
3	10-AUG-2020	08:50	420H1003.D	1	SEQ-IBL1	
4	10-AUG-2020	09:10	420H1004.D	1	SEQ-IBL2	
5	10-AUG-2020	09:30	420H1005.D	1	SEQ-ICV1	
6	10-AUG-2020	09:49	420H1006.D	1	SEQ-ICV2	
7	10-AUG-2020	10:09	420H1007.D	1	I006965	
8	10-AUG-2020	11:44	420H1008.D	1	SEQ-CAL1	
9	10-AUG-2020	12:03	420H1009.D	1	SEQ-CAL2	
10	10-AUG-2020	12:23	420H1010.D	1	SEQ-CAL3	
11	10-AUG-2020	12:43	420H1011.D	1	SEQ-CAL4	
12	10-AUG-2020	13:02	420H1012.D	1	SEQ-CAL5	
13	10-AUG-2020	13:22	420H1013.D	1	SEQ-CAL6	
14	10-AUG-2020	15:15	420H1014.D	1	BIH0129-BLK1	
15	10-AUG-2020	15:34	420H1015.D	1	BIH0129-BS1	
16	10-AUG-2020	15:54	420H1016.D	1	20H0053-01	
17	10-AUG-2020	16:14	420H1017.D	1	20H0058-01	
18	10-AUG-2020	16:34	420H1018.D	1	20H0058-02	
19	10-AUG-2020	16:53	420H1019.D	1	20H0058-03	
20	10-AUG-2020	17:13	420H1020.D	1	20H0060-01	
21	10-AUG-2020	17:33	420H1021.D	1	20H0060-02	
22	10-AUG-2020	17:52	420H1022.D	1	20H0060-03	
23	10-AUG-2020	18:12	420H1023.D	1	BIH0058-BLK1	
24	10-AUG-2020	18:32	420H1024.D	1	BIH0058-BS1	
25	10-AUG-2020	18:52	420H1025.D	1	20G0289-03	
26	10-AUG-2020	19:11	420H1026.D	1	20G0291-01	
27	10-AUG-2020	19:31	420H1027.D	1	SEQ-CCV1	
28	10-AUG-2020	19:51	420H1028.D	1	SEQ-CCV2	
29	10-AUG-2020	20:11	420H1029.D	1	SEQ-ICV3	
30	10-AUG-2020	20:30	420H1030.D	1	BIH0100-BLK1	
31	10-AUG-2020	20:50	420H1031.D	1	BIH0100-BS1	
32	10-AUG-2020	21:10	420H1032.D	1	BIH0100-BSD1	
33	10-AUG-2020	21:29	420H1033.D	1	20G0287-01	
34	10-AUG-2020	21:49	420H1034.D	1	BIH0100-MS1	
35	10-AUG-2020	22:09	420H1035.D	1	BIH0100-MSD1	
36	10-AUG-2020	22:28	420H1036.D	1	BIH0113-BLK1	
37	10-AUG-2020	22:48	420H1037.D	1	BIH0113-BS1	
38	10-AUG-2020	23:08	420H1038.D	1	BIH0113-BSD1	
39	10-AUG-2020	23:27	420H1039.D	1	20H0047-01	
40	10-AUG-2020	23:47	420H1040.D	1	20H0047-02	
41	11-AUG-2020	00:06	420H1041.D	1	20H0047-03	
42	11-AUG-2020	00:26	420H1042.D	1	SEQ-CCV3	
43	11-AUG-2020	00:46	420H1043.D	1	SEQ-CCV4	
44	11-AUG-2020	01:05	420H1044.D	1	SEQ-CCV5	
45	11-AUG-2020	01:25	420H1045.D	1	BIH0166-BLK1	
46	11-AUG-2020	01:44	420H1046.D	1	BIH0166-BS1	
47	11-AUG-2020	02:04	420H1047.D	1	BIH0166-BSD1	
48	11-AUG-2020	02:23	420H1048.D	1	20H0082-01	
49	11-AUG-2020	02:43	420H1049.D	1	BIH0166-MS1	
50	11-AUG-2020	03:03	420H1050.D	1	BIH0166-MSD1	

## GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20200810.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
51	11-AUG-2020	03:22	420H1051.D	1	20H0082-02	
52	11-AUG-2020	03:42	420H1052.D	1	20H0082-03	
53	11-AUG-2020	04:01	420H1053.D	1	20H0082-04	
54	11-AUG-2020	04:21	420H1054.D	1	20H0082-05	
55	11-AUG-2020	04:40	420H1055.D	1	20H0082-06	
56	11-AUG-2020	05:00	420H1056.D	1	20H0082-07	
57	11-AUG-2020	05:19	420H1057.D	1	20H0082-08	
58	11-AUG-2020	05:39	420H1058.D	1	20H0082-09	
59	11-AUG-2020	05:58	420H1059.D	1	SEQ-CCV6	
60	11-AUG-2020	06:18	420H1060.D	1	SEQ-CCV7	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20200810.b

ARI Job No.: RINS Method: FID4TPH.m Instrument: fid4a.i Date: 10-AUG-2020

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0811	420H1001.D	RINSE		1	NO MANUAL INTEGRATION
0830	420H1002.D	RINSE		1	NO MANUAL INTEGRATION
0850	420H1003.D	SEQ-IBL1		1	NO MANUAL INTEGRATION
0910	420H1004.D	SEQ-IBL2		1	NO MANUAL INTEGRATION
0930	420H1005.D	SEQ-ICV1		1	NO MANUAL INTEGRATION
0949	420H1006.D	SEQ-ICV2		1	NO MANUAL INTEGRATION
1009	420H1007.D	I006965		1	NO MANUAL INTEGRATION
1144	420H1008.D	SEQ-CAL1		1	NO MANUAL INTEGRATION
1203	420H1009.D	SEQ-CAL2		1	o-terph,
1223	420H1010.D	SEQ-CAL3		1	o-terph,
1243	420H1011.D	SEQ-CAL4		1	o-terph,
1302	420H1012.D	SEQ-CAL5		1	o-terph,
1322	420H1013.D	SEQ-CAL6		1	o-terph,

Security Status Report

Date: 10-Aug-2020 15:38

420H1001.D	Data Locked	christopher, 10-Aug-2020 15:38
420H1002.D	Data Locked	christopher, 10-Aug-2020 15:38
420H1003.D	Data Locked	christopher, 10-Aug-2020 15:38
420H1004.D	Data Locked	christopher, 10-Aug-2020 15:38
420H1005.D	Data Locked	christopher, 10-Aug-2020 15:38
420H1006.D	Data Locked	christopher, 10-Aug-2020 15:38
420H1007.D	Data Locked	christopher, 10-Aug-2020 15:38
420H1008.D	Data Locked	christopher, 10-Aug-2020 15:38
420H1009.D	Data Locked	christopher, 10-Aug-2020 15:38
420H1010.D	Data Locked	christopher, 10-Aug-2020 15:38
420H1011.D	Data Locked	christopher, 10-Aug-2020 15:38
420H1012.D	Data Locked	christopher, 10-Aug-2020 15:38
420H1013.D	Data Locked	christopher, 10-Aug-2020 15:38



## ANALYSIS BATCH (SEQUENCE) SUMMARY

### NWTPH-Dx

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Sequence: SIH0165

Instrument: FID4

Calibration: DA00022

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Retention Time Standard	SIH0165-IBL1	420H1403.D	NA	08/14/20 08:43
Instrument Blank	SIH0165-IBL2	420H1404.D	NA	08/14/20 09:03
DIESEL ICV	SIH0165-ICV1	420H1405.D	NA	08/14/20 09:22
MOIL ICV	SIH0165-ICV2	420H1406.D	NA	08/14/20 09:42
CREOSOTE ICV	SIH0165-ICV3	420H1407.D	NA	08/14/20 10:01
ZZZZZ	BIH0223-BLK1	420H1408.D	Solid	08/14/20 10:21
ZZZZZ	BIH0223-BS1	420H1409.D	Solid	08/14/20 10:41
ZZZZZ	20H0120-01	420H1410.D	Solid	08/14/20 11:00
ZZZZZ	20H0120-02	420H1411.D	Solid	08/14/20 11:20
ZZZZZ	20H0120-03	420H1412.D	Solid	08/14/20 11:39
DIESEL CCV	SIH0165-CCV1	420H1413.D	NA	08/14/20 11:59
MOIL CCV	SIH0165-CCV2	420H1414.D	NA	08/14/20 12:18
CREOSOTE CCV	SIH0165-CCV3	420H1415.D	NA	08/14/20 12:38
ZZZZZ	20H0139-03	420H1420.D	Water	08/14/20 14:16
ZZZZZ	20H0139-04	420H1421.D	Water	08/14/20 14:36
ZZZZZ	20H0139-05	420H1422.D	Water	08/14/20 14:55
ZZZZZ	20H0142-01	420H1423.D	Water	08/14/20 15:15
ZZZZZ	20H0099-01	420H1427.D	Water	08/14/20 16:33
ZZZZZ	20H0099-02	420H1428.D	Water	08/14/20 16:53
ZZZZZ	20H0099-03	420H1429.D	Water	08/14/20 17:13
ZZZZZ	20H0099-04	420H1430.D	Water	08/14/20 17:32
DIESEL CCV	SIH0165-CCV4	420H1431.D	NA	08/14/20 17:52
MOIL CCV	SIH0165-CCV5	420H1432.D	NA	08/14/20 18:11
JETA CCV	SIH0165-CCV6	420H1433.D	NA	08/14/20 18:31
ZZZZZ	20H0114-01	420H1437.D	Water	08/14/20 19:49
ZZZZZ	20H0114-02	420H1438.D	Water	08/14/20 20:09
ZZZZZ	20H0085-01	420H1441.D	Solid	08/14/20 21:08
ZZZZZ	20H0085-02	420H1442.D	Solid	08/14/20 21:27
ZZZZZ	20H0085-03	420H1443.D	Solid	08/14/20 21:47
ZZZZZ	20H0085-04	420H1444.D	Solid	08/14/20 22:06



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

## ANALYSIS BATCH (SEQUENCE) SUMMARY

### NWTPH-Dx

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Sequence: SIH0165

Instrument: FID4

Calibration: DA00022

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
DIESEL CCV	SIH0165-CCV7	420H1445.D	NA	08/14/20 22:26
MOIL CCV	SIH0165-CCV8	420H1446.D	NA	08/14/20 22:45



ANALYSIS SEQUENCE

SIH0165
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Instrument: NT8  
Calibration ID: DG00082

Printed: 8/14/2020 2:00:25PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SIH0165-IBL1	QC		1		I006239			
SIH0165-IBL2	QC		2		I006241			
SIH0165-ICV1	QC		3		I002687			
SIH0165-ICV2	QC		4		I004755			
SIH0165-ICV3	QC		5		I006985			
BIH0223-BLK1	QC		6					
BIH0223-BS1	QC		7					
20H0120-01	TPH NW (Extractables)	A 01	8				Flatiron Corporation	Version
20H0120-02	TPH NW (Extractables)	A 01	9				Flatiron Corporation	Version
20H0120-03	TPH NW (Extractables)	A 01	10				Flatiron Corporation	Version
SIH0165-CCV1	QC		11		I002687			
SIH0165-CCV2	QC		12		I004755			
SIH0165-CCV3	QC		13		I006985			

\_\_\_\_\_  
Samples Loaded By

\_\_\_\_\_  
Date

\_\_\_\_\_  
Data Processed By

\_\_\_\_\_  
Date



## GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20200814.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	14-AUG-2020	08:04	420H1401.D	1	RINSE	
2	14-AUG-2020	08:23	420H1402.D	1	RINSE	
3	14-AUG-2020	08:43	420H1403.D	1	SEQ-IBL1	
4	14-AUG-2020	09:03	420H1404.D	1	SEQ-IBL2	
5	14-AUG-2020	09:22	420H1405.D	1	SEQ-ICV1	
6	14-AUG-2020	09:42	420H1406.D	1	SEQ-ICV2	
7	14-AUG-2020	10:01	420H1407.D	1	SEQ-ICV3	
8	14-AUG-2020	10:21	420H1408.D	1	BIH0223-BLK1	
9	14-AUG-2020	10:41	420H1409.D	1	BIH0223-BS1	
10	14-AUG-2020	11:00	420H1410.D	1	20H0120-01	
11	14-AUG-2020	11:20	420H1411.D	1	20H0120-02	
12	14-AUG-2020	11:39	420H1412.D	1	20H0120-03	
13	14-AUG-2020	11:59	420H1413.D	1	SEQ-CCV1	
14	14-AUG-2020	12:18	420H1414.D	1	SEQ-CCV2	
15	14-AUG-2020	12:38	420H1415.D	1	SEQ-CCV3	
16	14-AUG-2020	12:58	420H1416.D	1	SEQ-ICV4	
17	14-AUG-2020	13:17	420H1417.D	1	BIH0255-BLK1	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20200814.b

ARI Job No.: RINS Method: FID4TPH.m Instrument: fid4a.i Date: 14-AUG-2020

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0804	420H1401.D	RINSE		1	NO MANUAL INTEGRATION
0823	420H1402.D	RINSE		1	NO MANUAL INTEGRATION
0843	420H1403.D	SEQ-IBL1		1	C40,
0903	420H1404.D	SEQ-IBL2		1	NO MANUAL INTEGRATION
0922	420H1405.D	SEQ-ICV1		1	o-terph,
0942	420H1406.D	SEQ-ICV2		1	Triacon Surr,
1001	420H1407.D	SEQ-ICV3		1	NO MANUAL INTEGRATION
1021	420H1408.D	BIH0223-BLK1		1	o-terph,
1041	420H1409.D	BIH0223-BS1		1	NO MANUAL INTEGRATION
1100	420H1410.D	20H0120-01		1	o-terph, Triacon Surr,
1120	420H1411.D	20H0120-02		1	o-terph, Triacon Surr,
1139	420H1412.D	20H0120-03		1	o-terph, Triacon Surr,
1159	420H1413.D	SEQ-CCV1		1	o-terph,
1218	420H1414.D	SEQ-CCV2		1	Triacon Surr,
1238	420H1415.D	SEQ-CCV3		1	NO MANUAL INTEGRATION

Security Status Report

Date: 14-Aug-2020 13:57

420H1401.D	Data Locked	christopher, 14-Aug-2020 13:52
420H1402.D	Data Locked	christopher, 14-Aug-2020 13:52
420H1403.D	Data Locked	christopher, 14-Aug-2020 13:52
420H1404.D	Data Locked	christopher, 14-Aug-2020 13:52
420H1405.D	Data Locked	christopher, 14-Aug-2020 13:52
420H1406.D	Data Locked	christopher, 14-Aug-2020 13:52
420H1407.D	Data Locked	christopher, 14-Aug-2020 13:52
420H1408.D	Data Locked	christopher, 14-Aug-2020 13:52
420H1409.D	Data Locked	christopher, 14-Aug-2020 13:52
420H1410.D	Data Locked	christopher, 14-Aug-2020 13:52
420H1411.D	Data Locked	christopher, 14-Aug-2020 13:52
420H1412.D	Data Locked	christopher, 14-Aug-2020 13:52
420H1413.D	Data Locked	christopher, 14-Aug-2020 13:52
420H1414.D	Data Locked	christopher, 14-Aug-2020 13:52
420H1415.D	Data Locked	christopher, 14-Aug-2020 13:52



## ANALYSIS BATCH (SEQUENCE) SUMMARY

### NWTPH-Dx

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Sequence: SIK0411

Instrument: FID4

Calibration: DA00022

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
DIESEL ICV	SIK0411-ICV1	420K2905.D	NA	11/29/20 16:25
Retention Time Standard	SIK0411-IBL1	420K2903.D	NA	11/29/20 18:24
Instrument Blank	SIK0411-IBL2	420K2904.D	NA	11/29/20 18:44
MOIL ICV	SIK0411-ICV2	420K2906.D	NA	11/29/20 19:25
ZZZZZ	20K0154-04RE1	420K2907.D	Solid	11/29/20 19:45
ZZZZZ	20K0145-15	420K2908.D	Solid	11/29/20 20:05
ZZZZZ	20K0152-10	420K2909.D	Solid	11/29/20 20:25
ZZZZZ	20K0152-17	420K2910.D	Solid	11/29/20 20:45
ZZZZZ	20K0152-18	420K2911.D	Solid	11/29/20 21:05
ZZZZZ	BIK0583-BLK1	420K2912.D	Solid	11/29/20 21:25
ZZZZZ	BIK0583-BS1	420K2913.D	Solid	11/29/20 21:46
ZZZZZ	20K0191-01	420K2916.D	Solid	11/29/20 22:46
ZZZZZ	20K0191-02	420K2917.D	Solid	11/29/20 23:06
ZZZZZ	20K0191-04	420K2918.D	Solid	11/29/20 23:26
ZZZZZ	20K0191-05	420K2919.D	Solid	11/29/20 23:46
ZZZZZ	20K0191-06	420K2920.D	Solid	11/30/20 00:07
DIESEL CCV	SIK0411-CCV1	420K2921.D	NA	11/30/20 00:27
MOIL CCV	SIK0411-CCV2	420K2922.D	NA	11/30/20 00:47
ZZZZZ	20K0191-07	420K2923.D	Solid	11/30/20 01:07
ZZZZZ	20K0191-11	420K2924.D	Solid	11/30/20 01:27
ZZZZZ	20K0191-12	420K2925.D	Solid	11/30/20 01:47
ZZZZZ	20K0191-14	420K2926.D	Solid	11/30/20 02:08
ZZZZZ	20K0191-15	420K2927.D	Solid	11/30/20 02:28
ZZZZZ	20K0191-16	420K2928.D	Solid	11/30/20 02:48
ZZZZZ	20K0191-17	420K2929.D	Solid	11/30/20 03:08
ZZZZZ	20K0191-18	420K2930.D	Solid	11/30/20 03:28
ZZZZZ	20K0191-21	420K2931.D	Solid	11/30/20 03:49
ZZZZZ	20K0191-22	420K2932.D	Solid	11/30/20 04:09
DIESEL CCV	SIK0411-CCV3	420K2933.D	NA	11/30/20 04:29
MOIL CCV	SIK0411-CCV4	420K2934.D	NA	11/30/20 04:49



## ANALYSIS BATCH (SEQUENCE) SUMMARY

### NWTPH-Dx

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Sequence: SIK0411

Instrument: FID4

Calibration: DA00022

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	20K0191-24	420K2935.D	Solid	11/30/20 05:09
ZZZZZ	20K0191-25	420K2936.D	Solid	11/30/20 05:30
ZZZZZ	20K0191-26	420K2937.D	Solid	11/30/20 05:50
ZZZZZ	20K0191-27	420K2938.D	Solid	11/30/20 06:10
ZZZZZ	20K0191-28	420K2939.D	Solid	11/30/20 06:30
Blank	BIK0744-BLK1	420K2940.D	Solid	11/30/20 06:51
LCS	BIK0744-BS1	420K2941.D	Solid	11/30/20 07:11
USMPDI-006SC-D-02-04-201110	20K0204-07	420K2943.D	Solid	11/30/20 07:51
USMPDI-006SC-D-02-04-201110	BIK0744-MS1	420K2944.D	Solid	11/30/20 08:12
USMPDI-006SC-D-02-04-201110	BIK0744-MSD1	420K2945.D	Solid	11/30/20 08:32
ZZZZZ	BIK0664-BLK1	420K2946.D	Solid	11/30/20 08:52
ZZZZZ	BIK0664-BS1	420K2947.D	Solid	11/30/20 09:12
ZZZZZ	20K0117-21	420K2948.D	Solid	11/30/20 09:33
ZZZZZ	20K0170-04	420K2949.D	Solid	11/30/20 09:53
ZZZZZ	20K0170-14	420K2952.D	Solid	11/30/20 10:54
DIESEL CCV	SIK0411-CCV5	420K2953.D	NA	11/30/20 11:14
MOIL CCV	SIK0411-CCV6	420K2954.D	NA	11/30/20 11:34
ZZZZZ	20K0007-15	420K2955.D	Solid	11/30/20 14:22
DIESEL CCV	SIK0411-CCV7	420K2956.D	NA	11/30/20 14:42
MOIL CCV	SIK0411-CCV8	420K2957.D	NA	11/30/20 15:02



ANALYSIS SEQUENCE

SIK0411

Instrument: FID4  
Calibration ID: DA00022

Printed: 11/30/2020 5:35:12PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
SIK0411-IBL1	QC		1		I006239			
SIK0411-IBL2	QC		2		I006241			
SIK0411-ICV1	QC		3		I008275			
SIK0411-ICV2	QC		4		I008935			
20K0154-04RE1	PH NW (Extractables) low lev	A 01	5				The Boeing Company	Added 11/27/2020 by VTS
20K0145-15	PH NW (Extractables) low lev	A 02	6				Dalton, Olmsted & Fuglevand, Inc	
20K0152-10	PH NW (Extractables) low lev	B 01	7				Shannon & Wilson, Inc	
20K0152-17	PH NW (Extractables) low lev	A 01	8				Shannon & Wilson, Inc	
20K0152-18	PH NW (Extractables) low lev	A 01	9				Shannon & Wilson, Inc	
BIK0583-BLK1	QC		10					
BIK0583-BS1	QC		11					
BIK0583-MS1	QC		12					
BIK0583-MSD1	QC		13					
20K0191-01	TPH NW (Extractables)	A 01	14				Anchor QEA, LLC	
20K0191-02	TPH NW (Extractables)	A 01	15				Anchor QEA, LLC	
20K0191-04	TPH NW (Extractables)	A 01	16				Anchor QEA, LLC	
20K0191-05	TPH NW (Extractables)	A 01	17				Anchor QEA, LLC	
20K0191-06	TPH NW (Extractables)	A 01	18				Anchor QEA, LLC	
SIK0411-CCV1	QC		19		I008275			
SIK0411-CCV2	QC		20		I008935			
20K0191-07	TPH NW (Extractables)	A 01	21				Anchor QEA, LLC	

Samples Loaded By \_\_\_\_\_ Date \_\_\_\_\_

Data Processed By \_\_\_\_\_ Date \_\_\_\_\_



ANALYSIS SEQUENCE

SIK0411

Instrument: FID4  
Calibration ID: DA00022

Printed: 11/30/2020 5:35:12PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
20K0191-11	TPH NW (Extractables)	A 01	22				Anchor QEA, LLC	
20K0191-12	TPH NW (Extractables)	A 01	23				Anchor QEA, LLC	
20K0191-14	TPH NW (Extractables)	A 01	24				Anchor QEA, LLC	
20K0191-15	TPH NW (Extractables)	A 01	25				Anchor QEA, LLC	
20K0191-16	TPH NW (Extractables)	A 01	26				Anchor QEA, LLC	
20K0191-17	TPH NW (Extractables)	A 01	27				Anchor QEA, LLC	
20K0191-18	TPH NW (Extractables)	A 01	28				Anchor QEA, LLC	
20K0191-21	TPH NW (Extractables)	A 01	29				Anchor QEA, LLC	
20K0191-22	TPH NW (Extractables)	A 01	30				Anchor QEA, LLC	
SIK0411-CCV3	QC		31		I008275			
SIK0411-CCV4	QC		32		I008935			
20K0191-24	TPH NW (Extractables)	A 01	33				Anchor QEA, LLC	
20K0191-25	TPH NW (Extractables)	A 01	34				Anchor QEA, LLC	
20K0191-26	TPH NW (Extractables)	A 01	35				Anchor QEA, LLC	
20K0191-27	TPH NW (Extractables)	A 01	36				Anchor QEA, LLC	
20K0191-28	TPH NW (Extractables)	A 01	37				Anchor QEA, LLC	
BIK0744-BLK1	QC		38					
BIK0744-BS1	QC		39					
20K0204-07	TPH NW (Extractables)	A 02	40				Anchor QEA, LLC	
BIK0744-MS1	QC		41					
BIK0744-MSD1	QC		42					

Samples Loaded By \_\_\_\_\_ Date \_\_\_\_\_

Data Processed By \_\_\_\_\_ Date \_\_\_\_\_



ANALYSIS SEQUENCE

SIK0411

Instrument: FID4  
Calibration ID: DA00022

Printed: 11/30/2020 5:35:12PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
BIK0664-BLK1	QC		43					
BIK0664-BS1	QC		44					
20K0170-04	TPH NW (Extractables)	A 03	45				Anchor QEA, LLC	
BIK0664-MS1	QC		46					
BIK0664-MSD1	QC		47					
20K0170-14	TPH NW (Extractables)	A 03	48				Anchor QEA, LLC	
SIK0411-CCV5	QC		49		I008275			
SIK0411-CCV6	QC		50		I008935			
20K0007-15	PH NW (Extractables) low lev	A 01	51				Dalton, Olmsted & Fuglevand, Inc	
SIK0411-CCV7	QC		52		I008275			
SIK0411-CCV8	QC		53		I008935			

\_\_\_\_\_  
Samples Loaded By                                  Date

\_\_\_\_\_  
Data Processed By                                  Date



## GC LOG SUMMARY FOR DATABATCH - fid4a.i\20201129.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	29-NOV-2020	17:44	420K2901.D	1	RINSE	
2	29-NOV-2020	18:04	420K2902.D	1	RINSE	
3	29-NOV-2020	18:24	420K2903.D	1	SEQ-IBL1	
4	29-NOV-2020	18:44	420K2904.D	1	SEQ-IBL2	
5	29-NOV-2020	16:25	420K2905.D	1	SEQ-ICV1	
6	29-NOV-2020	19:25	420K2906.D	1	SEQ-ICV2	
7	29-NOV-2020	19:45	420K2907.D	200	20K0154-04RE	
8	29-NOV-2020	20:05	420K2908.D	50	20K0145-15RE1	
9	29-NOV-2020	20:25	420K2909.D	50	20K0152-10RE1	
10	29-NOV-2020	20:45	420K2910.D	25	20K0152-17RE1	
11	29-NOV-2020	21:05	420K2911.D	50	20K0152-18RE1	
12	29-NOV-2020	21:25	420K2912.D	1	BIK0583-BLK1	
13	29-NOV-2020	21:46	420K2913.D	1	BIK0583-BS1	
14	29-NOV-2020	22:06	420K2914.D	1	BIK0583-MS1	
15	29-NOV-2020	22:26	420K2915.D	1	BIK0583-MSD1	
16	29-NOV-2020	22:46	420K2916.D	1	20K0191-01	
17	29-NOV-2020	23:06	420K2917.D	1	20K0191-02	
18	29-NOV-2020	23:26	420K2918.D	1	20K0191-04	
19	29-NOV-2020	23:46	420K2919.D	1	20K0191-05	
20	30-NOV-2020	00:07	420K2920.D	1	20K0191-06	
21	30-NOV-2020	00:27	420K2921.D	1	SEQ-CCV1	
22	30-NOV-2020	00:47	420K2922.D	1	SEQ-CCV2	
23	30-NOV-2020	01:07	420K2923.D	1	20K0191-07	
24	30-NOV-2020	01:27	420K2924.D	1	20K0191-11	
25	30-NOV-2020	01:47	420K2925.D	1	20K0191-12	
26	30-NOV-2020	02:08	420K2926.D	1	20K0191-14	
27	30-NOV-2020	02:28	420K2927.D	1	20K0191-15	
28	30-NOV-2020	02:48	420K2928.D	1	20K0191-16	
29	30-NOV-2020	03:08	420K2929.D	1	20K0191-17	
30	30-NOV-2020	03:28	420K2930.D	1	20K0191-18	
31	30-NOV-2020	03:49	420K2931.D	1	20K0191-21	
32	30-NOV-2020	04:09	420K2932.D	1	20K0191-22	
33	30-NOV-2020	04:29	420K2933.D	1	SEQ-CCV3	
34	30-NOV-2020	04:49	420K2934.D	1	SEQ-CCV4	
35	30-NOV-2020	05:09	420K2935.D	1	20K0191-24	
36	30-NOV-2020	05:30	420K2936.D	1	20K0191-25	
37	30-NOV-2020	05:50	420K2937.D	1	20K0191-26	
38	30-NOV-2020	06:10	420K2938.D	1	20K0191-27	
39	30-NOV-2020	06:30	420K2939.D	1	20K0191-28	
40	30-NOV-2020	06:51	420K2940.D	1	BIK0744-BLK1	
41	30-NOV-2020	07:11	420K2941.D	1	BIK0744-BS1	
42	30-NOV-2020	07:31	420K2942.D	1	20K0204-05	
43	30-NOV-2020	07:51	420K2943.D	1	20K0204-07	
44	30-NOV-2020	08:12	420K2944.D	1	BIK0744-MS1	
45	30-NOV-2020	08:32	420K2945.D	1	BIK0744-MSD1	
46	30-NOV-2020	08:52	420K2946.D	1	BIK0664-BLK1	
47	30-NOV-2020	09:12	420K2947.D	1	BIK0664-BS1	
48	30-NOV-2020	09:33	420K2948.D	10	20K0117-21	
49	30-NOV-2020	09:53	420K2949.D	1	20K0170-04	
50	30-NOV-2020	10:13	420K2950.D	1	BIK0664-MS1	

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20201129.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
51	30-NOV-2020	10:33	420K2951.D	1	BIK0664-MSD1	
52	30-NOV-2020	10:54	420K2952.D	1	20K0170-14	
53	30-NOV-2020	11:14	420K2953.D	1	SEQ-CCV5	
54	30-NOV-2020	11:34	420K2954.D	1	SEQ-CCV6	
55	30-NOV-2020	14:22	420K2955.D	1	20K0007-15RE1	
56	30-NOV-2020	14:42	420K2956.D	1	SEQ-CCV7	
57	30-NOV-2020	15:02	420K2957.D	1	SEQ-CCV8	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20201129.b

ARI Job No.: RINS Method: FID4TPH.m Instrument: fid4a.i Date: 29-NOV-2020

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1744	420K2901.D	RINSE		1	NO MANUAL INTEGRATION
1804	420K2902.D	RINSE		1	NO MANUAL INTEGRATION
1824	420K2903.D	SEQ-IBL1		1	NO MANUAL INTEGRATION
1844	420K2904.D	SEQ-IBL2		1	NO MANUAL INTEGRATION
1625	420K2905.D	SEQ-ICV1		1	o-terph,
1925	420K2906.D	SEQ-ICV2		1	Triacon Surr,
1945	420K2907.D	20K0154-04RE		200	o-terph,
2005	420K2908.D	20K0145-15RE1		50	o-terph, Triacon Surr,
2025	420K2909.D	20K0152-10RE1		50	o-terph, Triacon Surr,
2045	420K2910.D	20K0152-17RE1		25	o-terph, Triacon Surr,
2105	420K2911.D	20K0152-18RE1		50	o-terph, Triacon Surr,
2125	420K2912.D	BIK0583-BLK1		1	NO MANUAL INTEGRATION
2146	420K2913.D	BIK0583-BS1		1	o-terph,
2206	420K2914.D	BIK0583-MS1		1	o-terph,
2226	420K2915.D	BIK0583-MSD1		1	o-terph,
2246	420K2916.D	20K0191-01		1	NO MANUAL INTEGRATION
2306	420K2917.D	20K0191-02		1	o-terph, Triacon Surr,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20201129.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2326	420K2918.D	20K0191-04	1		Triacon Surr,
2346	420K2919.D	20K0191-05	1		Triacon Surr,
0007	420K2920.D	20K0191-06	1		o-terph, Triacon Surr,
0027	420K2921.D	SEQ-CCV1	1		o-terph,
0047	420K2922.D	SEQ-CCV2	1		Triacon Surr,
0107	420K2923.D	20K0191-07	1		o-terph, Triacon Surr,
0127	420K2924.D	20K0191-11	1		NO MANUAL INTEGRATION
0147	420K2925.D	20K0191-12	1		o-terph, Triacon Surr,
0208	420K2926.D	20K0191-14	1		NO MANUAL INTEGRATION
0228	420K2927.D	20K0191-15	1		NO MANUAL INTEGRATION
0248	420K2928.D	20K0191-16	1		Triacon Surr,
0308	420K2929.D	20K0191-17	1		o-terph, Triacon Surr,
0328	420K2930.D	20K0191-18	1		o-terph, Triacon Surr,
0349	420K2931.D	20K0191-21	1		NO MANUAL INTEGRATION
0409	420K2932.D	20K0191-22	1		o-terph, Triacon Surr,
0429	420K2933.D	SEQ-CCV3	1		o-terph,
0449	420K2934.D	SEQ-CCV4	1		Triacon Surr,
0509	420K2935.D	20K0191-24	1		NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20201129.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0530	420K2936.D	20K0191-25	1	o-terph,	Triacon Surr,
0550	420K2937.D	20K0191-26	1	o-terph,	Triacon Surr,
0610	420K2938.D	20K0191-27	1	o-terph,	Triacon Surr,
0630	420K2939.D	20K0191-28	1	o-terph,	Triacon Surr,
0651	420K2940.D	BIK0744-BLK1	1		NO MANUAL INTEGRATION
0711	420K2941.D	BIK0744-BS1	1	o-terph,	
0731	420K2942.D	20K0204-05	1		Triacon Surr,
0751	420K2943.D	20K0204-07	1		NO MANUAL INTEGRATION
0812	420K2944.D	BIK0744-MS1	1	o-terph,	
0832	420K2945.D	BIK0744-MSD1	1	o-terph,	
0852	420K2946.D	BIK0664-BLK1	1		NO MANUAL INTEGRATION
0912	420K2947.D	BIK0664-BS1	1	o-terph,	
0933	420K2948.D	20K0117-21	10	o-terph,	Triacon Surr,
0953	420K2949.D	20K0170-04	1		NO MANUAL INTEGRATION
1013	420K2950.D	BIK0664-MS1	1	o-terph,	
1033	420K2951.D	BIK0664-MSD1	1	o-terph,	
1054	420K2952.D	20K0170-14	1	o-terph,	Triacon Surr,
1114	420K2953.D	SEQ-CCV5	1	o-terph,	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20201129.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1134	420K2954.D	SEQ-CCV6	1		Triacon Surr,
1422	420K2955.D	20K0007-15RE1	1		o-terph, Triacon Surr,
1442	420K2956.D	SEQ-CCV7	1		o-terph,
1502	420K2957.D	SEQ-CCV8	1		Triacon Surr,



420K2945.D	Data Locked	christopher, 30-Nov-2020 17:36
420K2946.D	Data Locked	christopher, 30-Nov-2020 17:36
420K2947.D	Data Locked	christopher, 30-Nov-2020 17:36
420K2948.D	Data Locked	christopher, 30-Nov-2020 17:36
420K2949.D	Data Locked	christopher, 30-Nov-2020 17:36
420K2950.D	Data Locked	christopher, 30-Nov-2020 17:36
420K2951.D	Data Locked	christopher, 30-Nov-2020 17:36
420K2952.D	Data Locked	christopher, 30-Nov-2020 17:36
420K2953.D	Data Locked	christopher, 30-Nov-2020 17:36
420K2954.D	Data Locked	christopher, 30-Nov-2020 17:36
420K2955.D	Data Locked	christopher, 30-Nov-2020 17:36
420K2956.D	Data Locked	christopher, 30-Nov-2020 17:36
420K2957.D	Data Locked	christopher, 30-Nov-2020 17:36





Analytical Resources, Incorporated  
Analytical Chemists and Consultants

### Extract Dilution Bench Sheet

Sequence: S/K2411  
Analyst: JK Date: 11/29/20

Sample ID	Primary Dilution				Secondary Dilution			
	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor
20K0154-04 (20x)	100	DCM	900	200				
20K145-15	20	↓	980	50				
20K152-10 (5x)	100	↓	900	50				
20K152-17	40	↓	960	25				
20K152-18 (5x)	100	↓	900	50				
20K152-21	100	↓	900	10				



## ANALYSIS BATCH (SEQUENCE) SUMMARY

### NWTPH-Dx

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Sequence: SIL0055

Instrument: FID4

Calibration: DA00022

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Retention Time Standard	SIL0055-IBL1	420L0401.D	NA	12/04/20 10:26
Instrument Blank	SIL0055-IBL2	420L0402.D	NA	12/04/20 10:46
DIESEL ICV	SIL0055-ICV1	420L0403.D	NA	12/04/20 11:06
MOIL ICV	SIL0055-ICV2	420L0404.D	NA	12/04/20 11:26
ZZZZZ	20K0350-02	420L0405.D	Solid	12/04/20 11:46
ZZZZZ	20K0350-03	420L0406.D	Solid	12/04/20 12:06
ZZZZZ	20K0350-04	420L0407.D	Solid	12/04/20 12:27
ZZZZZ	20K0350-05	420L0408.D	Solid	12/04/20 12:47
ZZZZZ	20K0350-06	420L0409.D	Solid	12/04/20 13:07
ZZZZZ	20K0350-07	420L0410.D	Solid	12/04/20 13:27
ZZZZZ	BIL0010-BLK1	420L0411.D	Solid	12/04/20 13:47
ZZZZZ	BIL0010-BS1	420L0412.D	Solid	12/04/20 14:08
ZZZZZ	20K0170-01	420L0413.D	Solid	12/04/20 14:28
ZZZZZ	20K0170-02	420L0414.D	Solid	12/04/20 14:48
ZZZZZ	20K0170-11	420L0415.D	Solid	12/04/20 15:09
DIESEL CCV	SIL0055-CCV1	420L0416.D	NA	12/04/20 15:29
MOIL CCV	SIL0055-CCV2	420L0417.D	NA	12/04/20 15:49
ZZZZZ	20K0170-12	420L0418.D	Solid	12/04/20 16:10
ZZZZZ	20K0170-23	420L0419.D	Solid	12/04/20 16:30
ZZZZZ	20K0170-24	420L0420.D	Solid	12/04/20 16:51
ZZZZZ	BIL0112-BLK1	420L0421.D	Solid	12/04/20 17:11
ZZZZZ	BIL0112-BS1	420L0422.D	Solid	12/04/20 17:31
ZZZZZ	20K0350-08	420L0423.D	Solid	12/04/20 17:51
ZZZZZ	20K0291-11	420L0426.D	Solid	12/04/20 18:52
ZZZZZ	20K0291-16	420L0427.D	Solid	12/04/20 19:12
ZZZZZ	20K0201-05	420L0428.D	Solid	12/04/20 19:33
DIESEL CCV	SIL0055-CCV3	420L0429.D	NA	12/04/20 19:53
MOIL CCV	SIL0055-CCV4	420L0430.D	NA	12/04/20 20:13
ZZZZZ	BIL0096-BLK1	420L0431.D	Solid	12/04/20 20:33
ZZZZZ	BIL0096-BS1	420L0432.D	Solid	12/04/20 20:53



## ANALYSIS BATCH (SEQUENCE) SUMMARY

### NWTPH-Dx

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Sequence: SIL0055

Instrument: FID4

Calibration: DA00022

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	20L0014-01	420L0434.D	Solid	12/04/20 21:34
ZZZZZ	20L0015-01	420L0435.D	Solid	12/04/20 21:54
ZZZZZ	20L0015-02	420L0436.D	Solid	12/04/20 22:14
ZZZZZ	20J0420-04RE1	420L0437.D	Solid	12/04/20 22:34
ZZZZZ	20J0420-05RE1	420L0438.D	Solid	12/04/20 22:54
ZZZZZ	20J0420-06RE1	420L0439.D	Solid	12/04/20 23:14
ZZZZZ	20K0008-03RE1	420L0440.D	Solid	12/04/20 23:35
ZZZZZ	20K0008-09RE1	420L0441.D	Solid	12/04/20 23:55
USMPDI-006SC-A-00-01-201110	20K0204-05RE1	420L0442.D	Solid	12/05/20 00:15
DIESEL CCV	SIL0055-CCV5	420L0443.D	NA	12/05/20 00:35
MOIL CCV	SIL0055-CCV6	420L0444.D	NA	12/05/20 00:55



ANALYSIS SEQUENCE

SIL0055

Instrument: FID4  
Calibration ID: DA00022

Element Column ID: G004923

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SIL0055-IBL1	Retention Time Standard	QC		1	I006239		
SIL0055-IBL2	Instrument Blank	QC		2	I006241		
SIL0055-ICV1	DIESEL ICV	QC		3	I008275		
SIL0055-ICV2	MOIL ICV	QC		4	I008935		
20K0350-02	NCPDI-050SG-201118	TPH NW (Extractables)	A 01	5			
20K0350-03	NCPDI-055SG-201119	TPH NW (Extractables)	A 01	6			
20K0350-04	NCPDI-071SG-201118	TPH NW (Extractables)	A 01	7			
20K0350-05	NCPDI-074SG-201119	TPH NW (Extractables)	A 01	8			
20K0350-06	NCPDI-075SG-201119	TPH NW (Extractables)	A 01	9			
20K0350-07	NCPDI-076SG-201119	TPH NW (Extractables)	A 01	10			
BIL0010-BLK1	Blank	QC		11			
BIL0010-BS1	LCS	QC		12			
20K0170-01	JSMPI-013SC-A-00-01-20110	TPH NW (Extractables)	A 01	13			
20K0170-02	JSMPI-013SC-A-01-02-20110	TPH NW (Extractables)	A 01	14			
20K0170-11	JSMPI-018SC-A-00-01-20110	TPH NW (Extractables)	A 01	15			
SIL0055-CCV1	DIESEL CCV	QC		16	I008275		
SIL0055-CCV2	MOIL CCV	QC		17	I008935		
20K0170-12	JSMPI-018SC-A-05-06-20110	TPH NW (Extractables)	A 01	18			
20K0170-23	JSMPI-022SC-A-00-01-20110	TPH NW (Extractables)	A 01	19			
20K0170-24	JSMPI-022SC-A-02-03-20110	TPH NW (Extractables)	A 01	20			
BIL0112-BLK1	Blank	QC		21			
BIL0112-BS1	LCS	QC		22			



ANALYSIS SEQUENCE

SIL0055

Instrument: FID4  
Calibration ID: DA00022

Element Column ID: G004923

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
20K0350-08	NCPDI-077SG-201119	TPH NW (Extractables)	A 01	23			
BIL0112-MS1	Matrix Spike	QC		24			
BIL0112-MSD1	Matrix Spike Dup	QC		25			
20K0291-11	JSMPI-002SC-B-02-04-20111	TPH NW (Extractables)	B 03	26			
20K0291-16	JSMPI-004SC-B-02-04-20111	TPH NW (Extractables)	A 03	27			
20K0201-05	BOL-LAI-19-S(5-6.5)20201110	TPH NW (Extractables) low level	A 02	28			
SIL0055-CCV3	DIESEL CCV	QC		29	I008275		
SIL0055-CCV4	MOIL CCV	QC		30	I008935		
BIL0096-BLK1	Blank	QC		31			
BIL0096-BS1	LCS	QC		32			
20L0014-01	Disposal	TPH NW (Extractables)	B 02	33			
20L0015-01	Clearance 01	TPH NW (Extractables)	A 01	34			
20L0015-02	Clearance 02	TPH NW (Extractables)	A 01	35			
20J0420-04RE1	BOF-LAI-05-S(1-3)-20201029	TPH NW (Extractables) low level	A 02	36			Added 12/5/2020 by VTS
20J0420-05RE1	BOF-LAI-05-S(10-12)-20201029	TPH NW (Extractables) low level	A 02	37			Added 12/5/2020 by VTS
20J0420-06RE1	BOF-LAI-05-S(47.7-48.2)-20201029	TPH NW (Extractables) low level	A 02	38			Added 12/5/2020 by VTS
20K0008-03RE1	PP17-7.5	TPH NW (Extractables) low level	A 02	39			Added 12/5/2020 by VTS
20K0008-09RE1	PP22-7.5	TPH NW (Extractables) low level	A 02	40			Added 12/5/2020 by VTS
20K0204-05RE1	JSMPI-006SC-A-00-01-20111	TPH NW (Extractables)	A 02	41			Added 12/5/2020 by VTS
SIL0055-CCV5	DIESEL CCV	QC		42	I008275		
SIL0055-CCV6	MOIL CCV	QC		43	I008935		

## GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20201204.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	04-DEC-2020	10:26	420L0401.D	1	SIL0055-IBL1	
2	04-DEC-2020	10:46	420L0402.D	1	SIL0055-IBL2	
3	04-DEC-2020	11:06	420L0403.D	1	SIL0055-ICV1	
4	04-DEC-2020	11:26	420L0404.D	1	SIL0055-ICV2	
5	04-DEC-2020	11:46	420L0405.D	1	20K0350-02	
6	04-DEC-2020	12:06	420L0406.D	1	20K0350-03	
7	04-DEC-2020	12:27	420L0407.D	1	20K0350-04	
8	04-DEC-2020	12:47	420L0408.D	1	20K0350-05	
9	04-DEC-2020	13:07	420L0409.D	1	20K0350-06	
10	04-DEC-2020	13:27	420L0410.D	1	20K0350-07	
11	04-DEC-2020	13:47	420L0411.D	1	BIL0010-BLK1	
12	04-DEC-2020	14:08	420L0412.D	1	BIL0010-BS1	
13	04-DEC-2020	14:28	420L0413.D	1	20K0170-01	
14	04-DEC-2020	14:48	420L0414.D	1	20K0170-02	
15	04-DEC-2020	15:09	420L0415.D	1	20K0170-11	
16	04-DEC-2020	15:29	420L0416.D	1	SIL0055-CCV1	
17	04-DEC-2020	15:49	420L0417.D	1	SIL0055-CCV2	
18	04-DEC-2020	16:10	420L0418.D	1	20K0170-12	
19	04-DEC-2020	16:30	420L0419.D	1	20K0170-23	
20	04-DEC-2020	16:51	420L0420.D	1	20K0170-24	
21	04-DEC-2020	17:11	420L0421.D	1	BIL0112-BLK1	
22	04-DEC-2020	17:31	420L0422.D	1	BIL0112-BS1	
23	04-DEC-2020	17:51	420L0423.D	3	20K0350-08	
24	04-DEC-2020	18:12	420L0424.D	3	BIL0112-MS1	
25	04-DEC-2020	18:32	420L0425.D	3	BIL0112-MSD1	
26	04-DEC-2020	18:52	420L0426.D	5	20K0291-11	
27	04-DEC-2020	19:12	420L0427.D	3	20K0291-16	
28	04-DEC-2020	19:33	420L0428.D	3	20K0201-05	
29	04-DEC-2020	19:53	420L0429.D	1	SIL0055-CCV3	
30	04-DEC-2020	20:13	420L0430.D	1	SIL0055-CCV4	
31	04-DEC-2020	20:33	420L0431.D	1	BIL0096-BLK1	
32	04-DEC-2020	20:53	420L0432.D	1	BIL0096-BS1	
33	04-DEC-2020	21:14	420L0433.D	3	20L0013-01	
34	04-DEC-2020	21:34	420L0434.D	3	20L0014-01	
35	04-DEC-2020	21:54	420L0435.D	1	20L0015-01	
36	04-DEC-2020	22:14	420L0436.D	1	20L0015-02	
37	04-DEC-2020	22:34	420L0437.D	1	20J0420-04RE1	
38	04-DEC-2020	22:54	420L0438.D	1	20J0420-05RE1	
39	04-DEC-2020	23:14	420L0439.D	1	20J0420-06RE1	
40	04-DEC-2020	23:35	420L0440.D	1	20K0008-03RE1	
41	04-DEC-2020	23:55	420L0441.D	1	20K0008-09RE1	
42	05-DEC-2020	00:15	420L0442.D	1	20K0204-05RE1	
43	05-DEC-2020	00:35	420L0443.D	1	SIL0055-CCV5	
44	05-DEC-2020	00:55	420L0444.D	1	SIL0055-CCV6	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20201204.b

Instrument: fid4a.i Date: 04-DEC-2020

Time	Filename	LabID	DF	Manually Integrated Compounds
1026	420L0401.D	SIL0055-IBL1	1	NO MANUAL INTEGRATION
1046	420L0402.D	SIL0055-IBL2	1	NO MANUAL INTEGRATION
1106	420L0403.D	SIL0055-ICV1	1	o-terph,
1126	420L0404.D	SIL0055-ICV2	1	Triacon Surr,
1146	420L0405.D	20K0350-02	1	o-terph, Triacon Surr,
1206	420L0406.D	20K0350-03	1	o-terph, Triacon Surr,
1227	420L0407.D	20K0350-04	1	o-terph, Triacon Surr,
1247	420L0408.D	20K0350-05	1	Triacon Surr,
1307	420L0409.D	20K0350-06	1	Triacon Surr,
1327	420L0410.D	20K0350-07	1	o-terph, Triacon Surr,
1347	420L0411.D	BIL0010-BLK1	1	NO MANUAL INTEGRATION
1408	420L0412.D	BIL0010-BS1	1	o-terph,
1428	420L0413.D	20K0170-01	1	o-terph, Triacon Surr,
1448	420L0414.D	20K0170-02	1	o-terph, Triacon Surr,
1509	420L0415.D	20K0170-11	1	o-terph, Triacon Surr,
1529	420L0416.D	SIL0055-CCV1	1	o-terph,
1549	420L0417.D	SIL0055-CCV2	1	Triacon Surr,

Instrument: fid4a.i Date: 04-DEC-2020

Time	Filename	LabID	DF	Manually Integrated Compounds
1610	420L0418.D	20K0170-12	1	o-terph, Triacon Surr,
1630	420L0419.D	20K0170-23	1	o-terph, Triacon Surr,
1651	420L0420.D	20K0170-24	1	o-terph, Triacon Surr,
1711	420L0421.D	BIL0112-BLK1	1	NO MANUAL INTEGRATION
1731	420L0422.D	BIL0112-BS1	1	o-terph,
1751	420L0423.D	20K0350-08	3	o-terph, Triacon Surr,
1812	420L0424.D	BIL0112-MS1	3	o-terph, Triacon Surr,
1832	420L0425.D	BIL0112-MSD1	3	o-terph, Triacon Surr,
1852	420L0426.D	20K0291-11	5	o-terph, Triacon Surr,
1912	420L0427.D	20K0291-16	3	o-terph, Triacon Surr,
1933	420L0428.D	20K0201-05	3	o-terph, Triacon Surr,
1953	420L0429.D	SIL0055-CCV3	1	o-terph,
2013	420L0430.D	SIL0055-CCV4	1	Triacon Surr,
2033	420L0431.D	BIL0096-BLK1	1	NO MANUAL INTEGRATION
2053	420L0432.D	BIL0096-BS1	1	o-terph,
2114	420L0433.D	20L0013-01	3	NO MANUAL INTEGRATION
2134	420L0434.D	20L0014-01	3	o-terph, Triacon Surr,
2154	420L0435.D	20L0015-01	1	o-terph, Triacon Surr,



Instrument: fid4a.i Date: 04-DEC-2020

Time	Filename	LabID	DF	Manually Integrated Compounds
2214	420L0436.D	20L0015-02	1	o-terph, Triacon Surr,
2234	420L0437.D	20J0420-04RE1	1	o-terph, Triacon Surr,
2254	420L0438.D	20J0420-05RE1	1	o-terph, Triacon Surr,
2314	420L0439.D	20J0420-06RE1	1	Triacon Surr,
2335	420L0440.D	20K0008-03RE1	1	o-terph, Triacon Surr,
2355	420L0441.D	20K0008-09RE1	1	o-terph, Triacon Surr,
0015	420L0442.D	20K0204-05RE1	1	o-terph, Triacon Surr,
0035	420L0443.D	SIL0055-CCV5	1	o-terph,
0055	420L0444.D	SIL0055-CCV6	1	Triacon Surr,

Security Status Report

Date: 05-Dec-2020 12:50

420L0401.D	Data Locked	van,	05-Dec-2020	10:56
420L0402.D	Data Locked	van,	05-Dec-2020	10:56
420L0403.D	Data Locked	van,	05-Dec-2020	10:56
420L0404.D	Data Locked	van,	05-Dec-2020	10:56
420L0405.D	Data Locked	van,	05-Dec-2020	10:56
420L0406.D	Data Locked	van,	05-Dec-2020	10:56
420L0407.D	Data Locked	van,	05-Dec-2020	10:56
420L0408.D	Data Locked	van,	05-Dec-2020	10:56
420L0409.D	Data Locked	van,	05-Dec-2020	10:56
420L0410.D	Data Locked	van,	05-Dec-2020	10:56
420L0411.D	Data Locked	van,	05-Dec-2020	10:56
420L0412.D	Data Locked	van,	05-Dec-2020	10:56
420L0413.D	Data Locked	van,	05-Dec-2020	10:56
420L0414.D	Data Locked	van,	05-Dec-2020	10:56
420L0415.D	Data Locked	van,	05-Dec-2020	10:56
420L0416.D	Data Locked	van,	05-Dec-2020	10:56
420L0417.D	Data Locked	van,	05-Dec-2020	10:56
420L0418.D	Data Locked	van,	05-Dec-2020	10:56
420L0419.D	Data Locked	van,	05-Dec-2020	10:56
420L0420.D	Data Locked	van,	05-Dec-2020	10:56
420L0421.D	Data Locked	van,	05-Dec-2020	10:56
420L0422.D	Data Locked	van,	05-Dec-2020	10:56
420L0423.D	Data Locked	van,	05-Dec-2020	10:56
420L0424.D	Data Locked	van,	05-Dec-2020	10:56
420L0425.D	Data Locked	van,	05-Dec-2020	10:56
420L0426.D	Data Locked	van,	05-Dec-2020	10:56
420L0427.D	Data Locked	van,	05-Dec-2020	10:56
420L0428.D	Data Locked	van,	05-Dec-2020	10:56
420L0429.D	Data Locked	van,	05-Dec-2020	10:56
420L0430.D	Data Locked	van,	05-Dec-2020	10:56
420L0431.D	Data Locked	van,	05-Dec-2020	10:56
420L0432.D	Data Locked	van,	05-Dec-2020	10:56
420L0433.D	Data Locked	van,	05-Dec-2020	10:56
420L0434.D	Data Locked	van,	05-Dec-2020	10:56
420L0435.D	Data Locked	van,	05-Dec-2020	10:56
420L0436.D	Data Locked	van,	05-Dec-2020	10:56
420L0437.D	Data Locked	van,	05-Dec-2020	10:56
420L0438.D	Data Locked	van,	05-Dec-2020	10:56
420L0439.D	Data Locked	van,	05-Dec-2020	10:56
420L0440.D	Data Locked	van,	05-Dec-2020	10:56
420L0441.D	Data Locked	van,	05-Dec-2020	10:56
420L0442.D	Data Locked	van,	05-Dec-2020	10:56
420L0443.D	Data Locked	van,	05-Dec-2020	10:56
420L0444.D	Data Locked	van,	05-Dec-2020	10:56

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# Extract Dilution Bench Sheet

Sequence: SIL0055

Analyst: VO

Date: 12/4/2020

Sample ID	Primary Dilution				Secondary Dilution			
	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor
20K0350, BIL0112-MS MSD	200	DCM	400	3				
20K0291-11	100	DCM	400	5				
20K0291-16, 20K0201-5	200	DCM	400	3				
20L0013-1, 20L0014-1	200	DCM	400	3				



## ANALYSIS BATCH (SEQUENCE) SUMMARY

### NWTPH-Dx

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Sequence: SIL0065

Instrument: FID4

Calibration: DA00022

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Retention Time Standard	SIL0065-IBL1	420K2961.D	NA	11/30/20 18:21
Instrument Blank	SIL0065-IBL2	420K2962.D	NA	11/30/20 18:41
DIESEL ICV	SIL0065-ICV1	420K2963.D	NA	11/30/20 19:01
MOIL ICV	SIL0065-ICV2	420K2964.D	NA	11/30/20 19:22
ZZZZZ	20J0420-04	420K2965.D	Solid	11/30/20 19:42
ZZZZZ	20J0420-05	420K2966.D	Solid	11/30/20 20:02
ZZZZZ	20J0420-06	420K2967.D	Solid	11/30/20 20:22
ZZZZZ	20K0008-03	420K2968.D	Solid	11/30/20 20:42
ZZZZZ	20K0008-09	420K2969.D	Solid	11/30/20 21:02
USMPDI-006SC-A-00-01-201110	20K0204-05	420K2970.D	Solid	11/30/20 21:22
DIESEL CCV	SIL0065-CCV1	420K2971.D	NA	11/30/20 21:42
MOIL CCV	SIL0065-CCV2	420K2972.D	NA	11/30/20 22:02



ANALYSIS SEQUENCE

SIL0065

Instrument: FID4

Element Column ID: G004923

Calibration ID: DA00022

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SIL0065-IBL1	Retention Time Standard	QC		1	I006239		
SIL0065-IBL2	Instrument Blank	QC		2	I006241		
SIL0065-ICV1	DIESEL ICV	QC		3	I008275		
SIL0065-ICV2	MOIL ICV	QC		4	I008935		
20J0420-04	BOF-LAI-05-S(1-3)-20201029	TPH NW (Extractables) low level	A 02	5			
20J0420-05	BOF-LAI-05-S(10-12)-20201029	TPH NW (Extractables) low level	A 02	6			
20J0420-06	BOF-LAI-05-S(47.7-48.2)-20201029	TPH NW (Extractables) low level	A 02	7			
20K0008-03	PP17-7.5	TPH NW (Extractables) low level	A 02	8			
20K0008-09	PP22-7.5	TPH NW (Extractables) low level	A 02	9			
20K0204-05	JSMPTDI-006SC-A-00-01-20111	TPH NW (Extractables)	A 02	10			
SIL0065-CCV1	DIESEL CCV	QC		11	I008275		
SIL0065-CCV2	MOIL CCV	QC		12	I008935		

## GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20201129b.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	30-NOV-2020	17:41	420K2959.D	1	SEQ-CCV9	
2	30-NOV-2020	18:01	420K2960.D	1	SEQ-CCVA	
3	30-NOV-2020	18:21	420K2961.D	1	SIL0065-IBL1	
4	30-NOV-2020	18:41	420K2962.D	1	SIL0065-IBL2	
5	30-NOV-2020	19:01	420K2963.D	1	SIL0065-ICV1	
6	30-NOV-2020	19:22	420K2964.D	1	SIL0065-ICV2	
7	30-NOV-2020	19:42	420K2965.D	1	20J0420-04	
8	30-NOV-2020	20:02	420K2966.D	1	20J0420-05	
9	30-NOV-2020	20:22	420K2967.D	1	20J0420-06	
10	30-NOV-2020	20:42	420K2968.D	1	20K0008-03	
11	30-NOV-2020	21:02	420K2969.D	1	20K0008-09	
12	30-NOV-2020	21:22	420K2970.D	1	20K0204-05	
13	30-NOV-2020	21:42	420K2971.D	1	SIL0065-CCV1	
14	30-NOV-2020	22:02	420K2972.D	1	SIL0065-CCV2	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid4a.i\20201129b.b

Instrument: fid4a.i Date: 30-NOV-2020

Time	Filename	LabID	DF	Manually Integrated Compounds
1741	420K2959.D	SEQ-CCV9	1	NO MANUAL INTEGRATION
1801	420K2960.D	SEQ-CCVA	1	NO MANUAL INTEGRATION
1821	420K2961.D	SIL0065-IBL1	1	Toluene, C8,
1841	420K2962.D	SIL0065-IBL2	1	NO MANUAL INTEGRATION
1901	420K2963.D	SIL0065-ICV1	1	o-terph,
1922	420K2964.D	SIL0065-ICV2	1	Triacon Surr,
1942	420K2965.D	20J0420-04	1	NO MANUAL INTEGRATION
2002	420K2966.D	20J0420-05	1	o-terph, Triacon Surr,
2022	420K2967.D	20J0420-06	1	Triacon Surr,
2042	420K2968.D	20K0008-03	1	o-terph, Triacon Surr,
2102	420K2969.D	20K0008-09	1	o-terph, Triacon Surr,
2122	420K2970.D	20K0204-05	1	o-terph, Triacon Surr,
2142	420K2971.D	SIL0065-CCV1	1	o-terph,
2202	420K2972.D	SIL0065-CCV2	1	Triacon Surr,



Security Status Report

Date: 04-Dec-2020 14:31

420K2959.D	Data Locked	van,	04-Dec-2020	14:31
420K2960.D	Data Locked	van,	04-Dec-2020	14:31
420K2961.D	Data Locked	van,	04-Dec-2020	14:31
420K2962.D	Data Locked	van,	04-Dec-2020	14:31
420K2963.D	Data Locked	van,	04-Dec-2020	14:31
420K2964.D	Data Locked	van,	04-Dec-2020	14:31
420K2965.D	Data Locked	van,	04-Dec-2020	14:31
420K2966.D	Data Locked	van,	04-Dec-2020	14:31
420K2967.D	Data Locked	van,	04-Dec-2020	14:31
420K2968.D	Data Locked	van,	04-Dec-2020	14:31
420K2969.D	Data Locked	van,	04-Dec-2020	14:31
420K2970.D	Data Locked	van,	04-Dec-2020	14:31
420K2971.D	Data Locked	van,	04-Dec-2020	14:31
420K2972.D	Data Locked	van,	04-Dec-2020	14:31



## SURROGATE RECOVERY AND RT SUMMARY

### NWTPH-Dx

Laboratory: <u>Analytical Resources, Inc.</u>	SDG/WO: <u>20K0204</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic</u>
Sequence: <u>SIH0165</u>	Instrument: <u>FID4</u>
Calibration: <u>DA00022</u>	Calibration Date: <u>10/25/2019</u>

Surrogate Compound	Spike Level mg/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
<b>SIH0165-ICV1 (Solid)</b>			Lab File ID: 420H1405.D			Analyzed: 08/14/20 09:22		
o-Terphenyl	90.000	88.6	85 - 115	6.33	6.66	-0.3300	N/A	
<b>SIH0165-ICV3 (Solid)</b>			Lab File ID: 420H1407.D			Analyzed: 08/14/20 10:01		
o-Terphenyl	90.000	97.1	85 - 115	6.33	6.66	-0.3300	N/A	
<b>SIH0165-CCV1 (Solid)</b>			Lab File ID: 420H1413.D			Analyzed: 08/14/20 11:59		
o-Terphenyl	90.000	88.1	85 - 115	6.33	6.66	-0.3300	N/A	



## SURROGATE RECOVERY AND RT SUMMARY

### NWTPH-Dx

Laboratory: Analytical Resources, Inc.

SDG/WO: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Sequence: SIK0411

Instrument: FID4

Calibration: DA00022

Calibration Date: 10/25/2019

Surrogate Compound	Spike Level mg/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
<b>SIK0411-ICV1 (Solid)</b>			Lab File ID: 420K2905.D		Analyzed: 11/29/20 16:25			
o-Terphenyl	90.000	90.4	85 - 115	6.2	6.66	-0.4600	N/A	
<b>SIK0411-IBL1 (Solid)</b>			Lab File ID: 420K2903.D		Analyzed: 11/29/20 18:24			
o-Terphenyl	100.00	103	50 - 150	6.2	6.66	-0.4600	N/A	
<b>SIK0411-IBL2 (Solid)</b>			Lab File ID: 420K2904.D		Analyzed: 11/29/20 18:44			
o-Terphenyl	100.00	106	50 - 150	6.2	6.66	-0.4600	N/A	
<b>SIK0411-CCV1 (Solid)</b>			Lab File ID: 420K2921.D		Analyzed: 11/30/20 00:27			
o-Terphenyl	90.000	91.8	85 - 115	6.19	6.66	-0.4700	N/A	
<b>SIK0411-CCV3 (Solid)</b>			Lab File ID: 420K2933.D		Analyzed: 11/30/20 04:29			
o-Terphenyl	90.000	93.8	85 - 115	6.2	6.66	-0.4600	N/A	
<b>BIK0744-BLK1 (Solid)</b>			Lab File ID: 420K2940.D		Analyzed: 11/30/20 06:51			
o-Terphenyl	56.250	88.7	50 - 150	6.19	6.66	-0.4700	N/A	
<b>BIK0744-BS1 (Solid)</b>			Lab File ID: 420K2941.D		Analyzed: 11/30/20 07:11			
o-Terphenyl	56.250	84.3	50 - 150	6.19	6.66	-0.4700	N/A	
<b>20K0204-07 (Solid)</b>			Lab File ID: 420K2943.D		Analyzed: 11/30/20 07:51			
o-Terphenyl	73.469	70.4	50 - 150	6.18	6.66	-0.4800	N/A	
<b>BIK0744-MS1 (Solid)</b>			Lab File ID: 420K2944.D		Analyzed: 11/30/20 08:12			
o-Terphenyl	73.616	91.0	50 - 150	6.19	6.66	-0.4700	N/A	
<b>BIK0744-MSD1 (Solid)</b>			Lab File ID: 420K2945.D		Analyzed: 11/30/20 08:32			
o-Terphenyl	73.616	95.8	50 - 150	6.19	6.66	-0.4700	N/A	
<b>SIK0411-CCV5 (Solid)</b>			Lab File ID: 420K2953.D		Analyzed: 11/30/20 11:14			
o-Terphenyl	90.000	96.6	85 - 115	6.2	6.66	-0.4600	N/A	
<b>SIK0411-CCV7 (Solid)</b>			Lab File ID: 420K2956.D		Analyzed: 11/30/20 14:42			
o-Terphenyl	90.000	100	85 - 115	6.19	6.66	-0.4700	N/A	



## SURROGATE RECOVERY AND RT SUMMARY

### NWTPH-Dx

Laboratory: <u>Analytical Resources, Inc.</u>	SDG/WO: <u>20K0204</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic</u>
Sequence: <u>SIL0055</u>	Instrument: <u>FID4</u>
Calibration: <u>DA00022</u>	Calibration Date: <u>08/14/2020</u>

Surrogate Compound	Spike Level mg/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
<b>SIL0055-IBL1 (Solid)</b>			Lab File ID: 420L0401.D			Analyzed: 12/04/20 10:26		
o-Terphenyl	100.00	97.4	50 - 150	6.19	6.66	-0.4700	N/A	
<b>SIL0055-IBL2 (Solid)</b>			Lab File ID: 420L0402.D			Analyzed: 12/04/20 10:46		
o-Terphenyl	100.00	96.0	50 - 150	6.19	6.66	-0.4700	N/A	
<b>SIL0055-ICV1 (Solid)</b>			Lab File ID: 420L0403.D			Analyzed: 12/04/20 11:06		
o-Terphenyl	90.000	94.3	85 - 115	6.19	6.66	-0.4700	N/A	
<b>SIL0055-CCV1 (Solid)</b>			Lab File ID: 420L0416.D			Analyzed: 12/04/20 15:29		
o-Terphenyl	90.000	95.0	85 - 115	6.19	6.66	-0.4700	N/A	
<b>SIL0055-CCV3 (Solid)</b>			Lab File ID: 420L0429.D			Analyzed: 12/04/20 19:53		
o-Terphenyl	90.000	98.7	85 - 115	6.19	6.66	-0.4700	N/A	
<b>20K0204-05RE1 (Solid)</b>			Lab File ID: 420L0442.D			Analyzed: 12/05/20 00:15		
o-Terphenyl	103.69	35.4	50 - 150	6.18	6.66	-0.4800	N/A	*
<b>SIL0055-CCV5 (Solid)</b>			Lab File ID: 420L0443.D			Analyzed: 12/05/20 00:35		
o-Terphenyl	90.000	99.8	85 - 115	6.19	6.66	-0.4700	N/A	



## SURROGATE RECOVERY AND RT SUMMARY

### NWTPH-Dx

Laboratory: <u>Analytical Resources, Inc.</u>	SDG/WO: <u>20K0204</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic</u>
Sequence: <u>SIL0065</u>	Instrument: <u>FID4</u>
Calibration: <u>DA00022</u>	Calibration Date: <u>08/14/2020</u>

Surrogate Compound	Spike Level mg/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
<b>SIL0065-IBL1 (Solid)</b>		Lab File ID: 420K2961.D			Analyzed: 11/30/20 18:21			
o-Terphenyl	100.00	129	50 - 150	6.2	6.66	-0.4600	N/A	
<b>SIL0065-IBL2 (Solid)</b>		Lab File ID: 420K2962.D			Analyzed: 11/30/20 18:41			
o-Terphenyl	100.00	110	50 - 150	6.2	6.66	-0.4600	N/A	
<b>SIL0065-ICV1 (Solid)</b>		Lab File ID: 420K2963.D			Analyzed: 11/30/20 19:01			
o-Terphenyl	90.000	112	85 - 115	6.2	6.66	-0.4600	N/A	
<b>20K0204-05 (Solid)</b>		Lab File ID: 420K2970.D			Analyzed: 11/30/20 21:22			
o-Terphenyl	103.69	45.5	50 - 150	6.18	6.66	-0.4800	N/A	*
<b>SIL0065-CCV1 (Solid)</b>		Lab File ID: 420K2971.D			Analyzed: 11/30/20 21:42			
o-Terphenyl	90.000	115	85 - 115	6.2	6.66	-0.4600	N/A	



## HOLDING TIME SUMMARY

Analysis: **NWTPH-Dx**

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

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-006SC-A-00-01-201110 20K0204-05	11/10/20 09:25	11/12/20 10:20	11/24/20 11:50	14	14	11/30/20 21:22	6	40	
USMPDI-006SC-A-00-01-201110 20K0204-05RE1	11/10/20 09:25	11/12/20 10:20	11/24/20 11:50	14	14	12/05/20 00:15	11	40	
USMPDI-006SC-D-02-04-201110 20K0204-07	11/10/20 09:05	11/12/20 10:20	11/24/20 11:50	14	14	11/30/20 07:51	6	40	
Matrix Spike BIK0744-MS1	11/10/20 09:05	11/12/20 10:20	11/24/20 11:50	14	14	11/30/20 08:12	6	40	
Matrix Spike Dup BIK0744-MSD1	11/10/20 09:05	11/12/20 10:20	11/24/20 11:50	14	14	11/30/20 08:32	6	40	

\* Indicates hold time exceedance.



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

## METHOD DETECTION AND REPORTING LIMITS

### NWTPH-Dx

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor OEA, LLC

Project: Gasco Siltronic

Matrix: Solid

Instrument: FID4

<b>Analyte</b>	<b>MDL</b>	<b>RL</b>	<b>Units</b>
Diesel Range Organics (C12-C24)	20.3	50.0	mg/kg
Motor Oil Range Organics (C24-C38)	21.0	100	mg/kg



Form I  
ORGANIC ANALYSIS DATA SHEET  
WA EPH  
WA EPH-Aliphatics

Laboratory: Analytical Resources, Inc.  
Client: Anchor OEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-01 A SDG: 20K0204  
Sampled: 11/10/20 11:55 Prepared: 11/24/20 10:15 File ID: 820L2050.D  
% Solids: 60.69 Preparation: EPA 3546 (Microwave) Analyzed: 12/21/20 09:11  
Batch: BIK0740 Sequence: SIL0418 Initial/Final: 10.04 g Wet / 1 mL  
Instrument: FID8 Column: ZB5 Calibration: DJ00015

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
ALI-C10-C12	C10-C12 Aliphatics	1	3280	U		3280

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
1-Chloro-octadecane	24616	15400	62.5	30 - 160	



Data File: \\target\share\chem2\fid8.1\20201220a11ph.b\820L2050.D

Date : 21-DEC-2020 09:11

Client ID:

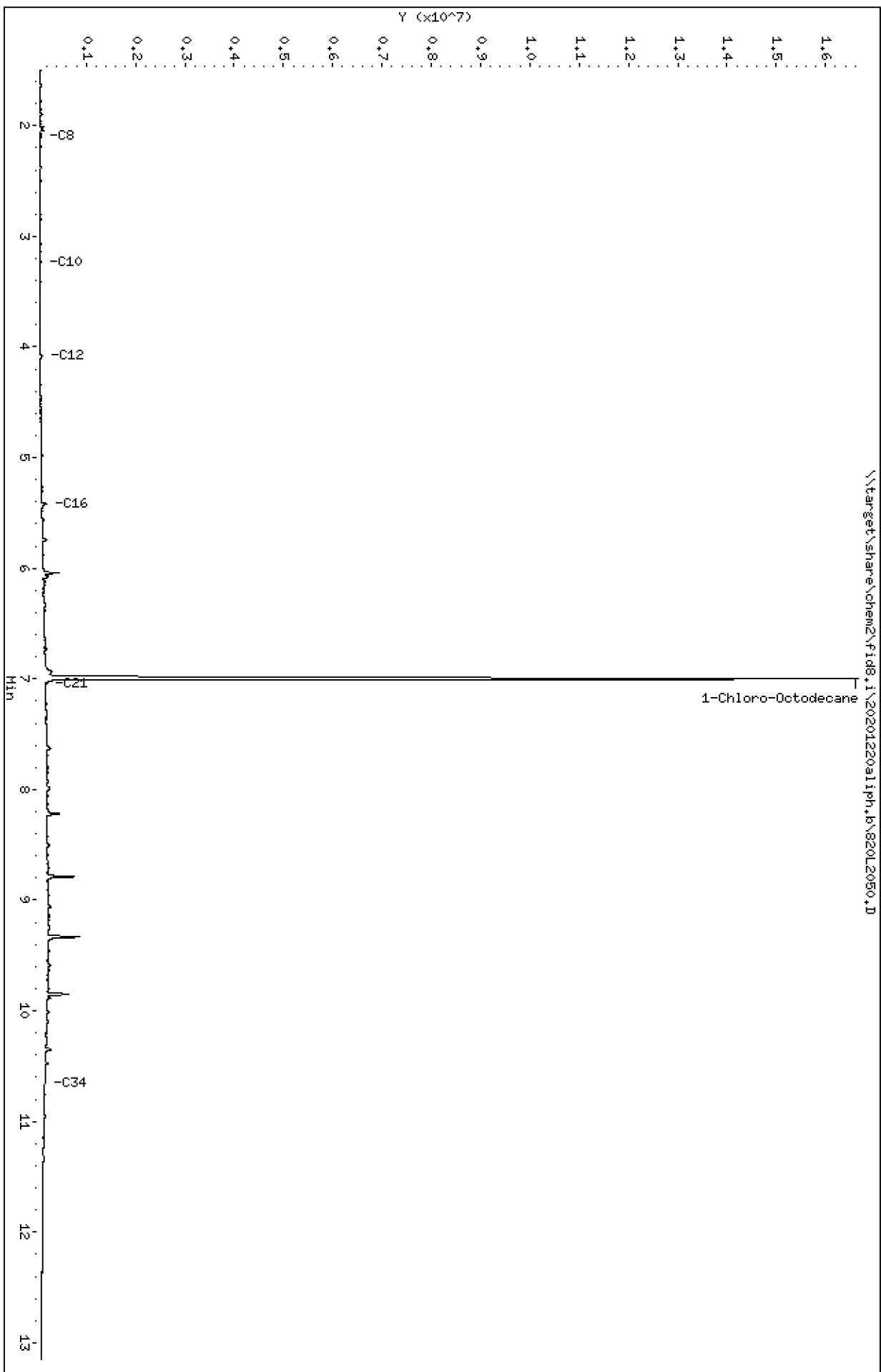
Sample Info: 20K0204-01

Column phase: RTX-1

Instrument: fid8.1

Operator: JGR

Column diameter: 0.25



Analytical Resources Inc.  
WA. EPH Aliphatics Report

Data file: 20201220aliph.b/820L2050.D  
Method: 20201220aliph.b\EPHALiph.m  
Instrument: fid8.i  
Operator: JGR  
Macro: ALIPH020217FID8

ARI ID: 20K0204-01  
Client ID:  
Injection: 21-DEC-2020 09:11  
Matrix: NONE  
Dilution Factor: 1

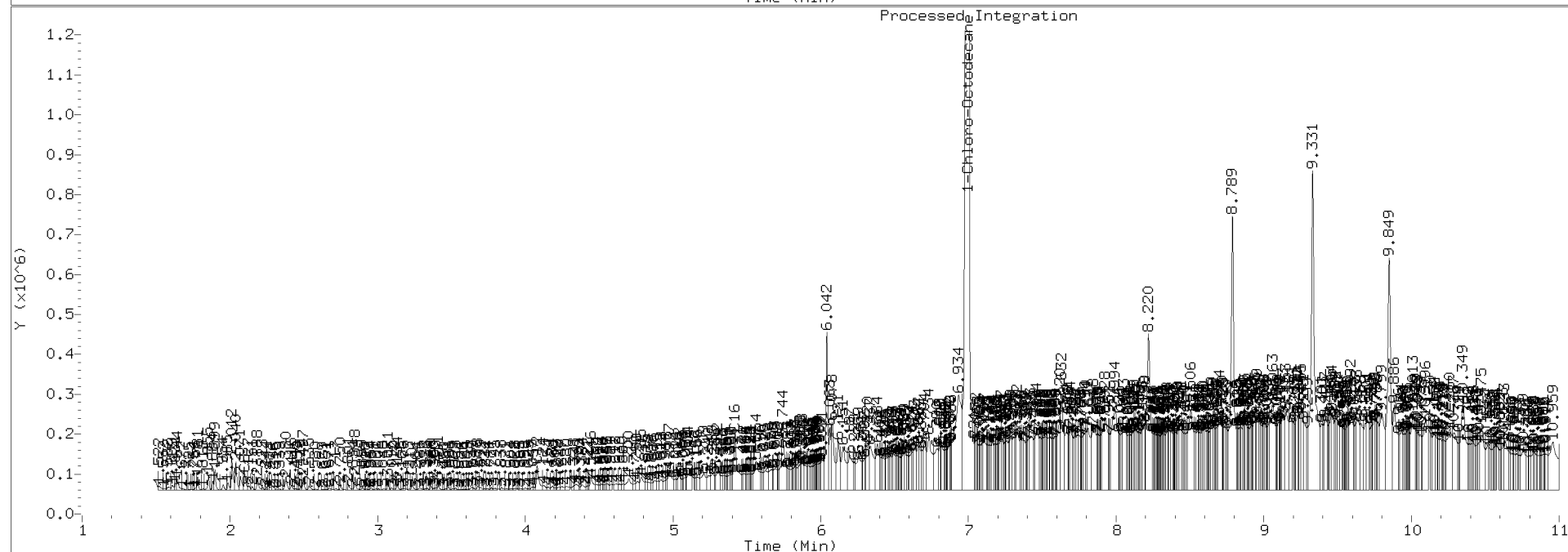
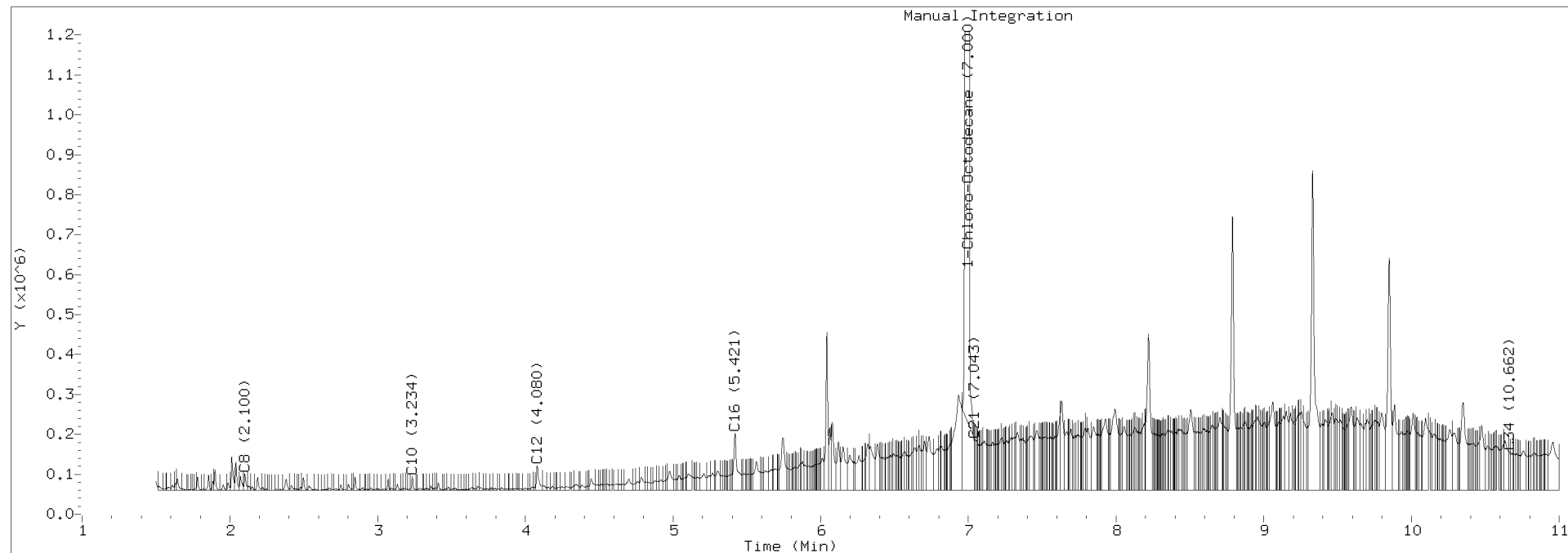
EPH-ALIPHATIC RESULTS

Quant	Range	Area	Conc	Time Range
C8-C10	Aliph.	532925	2.8	(2.001 - 3.348)
C10-C12	Aliph.	278028	1.4	(3.348 - 4.191)
C12-C16	Aliph.	1974930	9.8	(4.191 - 5.530)
C16-C21	Aliph.	8973871	46.0	(5.530 - 7.137)
C21-C34	Aliph.	33165327	185.3	(7.137 - 10.756)
Surrogate Rec: 62.5% 93.7 ug/mL				

EPH Aliphatics Manual Integrations Report

Datafile: FID8, 20201220aliph.b/820L2050.D Injection: 21-DEC-2020 09:11

Lab ID:20K0204-01





Form I  
ORGANIC ANALYSIS DATA SHEET  
WA EPH  
WA EPH-Aliphatics

Laboratory: Analytical Resources, Inc.  
Client: Anchor OEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-02 A SDG: 20K0204  
Sampled: 11/10/20 11:55 Prepared: 11/24/20 10:15 File ID: 820L2051.D  
% Solids: 77.60 Preparation: EPA 3546 (Microwave) Analyzed: 12/21/20 09:36  
Batch: BIK0740 Sequence: SIL0418 Initial/Final: 10.03 g Wet / 1 mL  
Instrument: FID8 Column: ZB5 Calibration: DJ00015

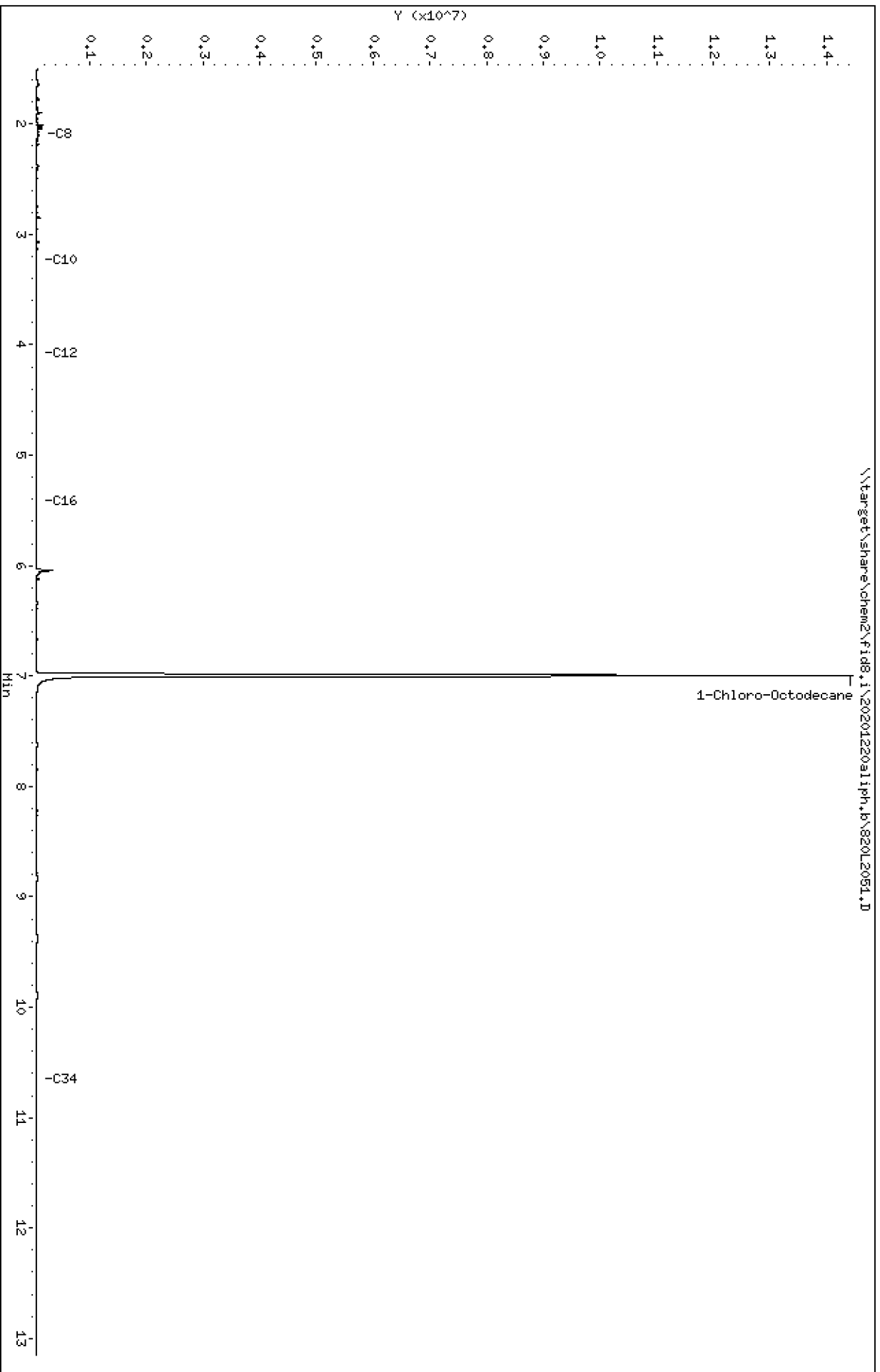
CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
ALI-C10-C12	C10-C12 Aliphatics	1	2570	U		2570

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
1-Chloro-octadecane	19272	12600	65.5	30 - 160	

Data File: \\target\share\chem2\fid8.1\20201220a11ph.b\82012051.D  
Date: 21-DEC-2020 09:36  
Client ID:  
Sample Info: 20K0204-02

Column phase: RTX-1

Instrument: fid8.1  
Operator: JGR  
Column diameter: 0.25



Analytical Resources Inc.  
WA. EPH Aliphatics Report

Data file: 20201220aliph.b/820L2051.D  
Method: 20201220aliph.b\EPHALiph.m  
Instrument: fid8.i  
Operator: JGR  
Macro: ALIPH020217FID8

ARI ID: 20K0204-02  
Client ID:  
Injection: 21-DEC-2020 09:36  
Matrix: NONE  
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant	Range	Area	Conc	Time Range
C8-C10	Aliph.	732609	3.8	(2.001 - 3.348)
C10-C12	Aliph.	92485	0.5	(3.348 - 4.191)
C12-C16	Aliph.	128659	0.6	(4.191 - 5.530)
C16-C21	Aliph.	608367	3.1	(5.530 - 7.137)
C21-C34	Aliph.	962664	5.4	(7.137 - 10.756)
Surrogate Rec:		65.5%	98.2 ug/mL	



Form I  
ORGANIC ANALYSIS DATA SHEET  
WA EPH  
WA EPH-Aliphatics

Laboratory: Analytical Resources, Inc.  
Client: Anchor OEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-03 A SDG: 20K0204  
Sampled: 11/10/20 11:55 Prepared: 11/24/20 10:15 File ID: 820L2052.D  
% Solids: 76.95 Preparation: EPA 3546 (Microwave) Analyzed: 12/21/20 10:01  
Batch: BIK0740 Sequence: SIL0418 Initial/Final: 10.07 g Wet / 1 mL  
Instrument: FID8 Column: ZB5 Calibration: DJ00015

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
ALI-C10-C12	C10-C12 Aliphatics	1	2580	U		2580

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
1-Chloro-octadecane	19358	10700	55.4	30 - 160	

Data File: \\target\share\chem2\fid8.1\20201220a11ph.b\82012052.D

Date : 21-DEC-2020 10:01

Client ID:

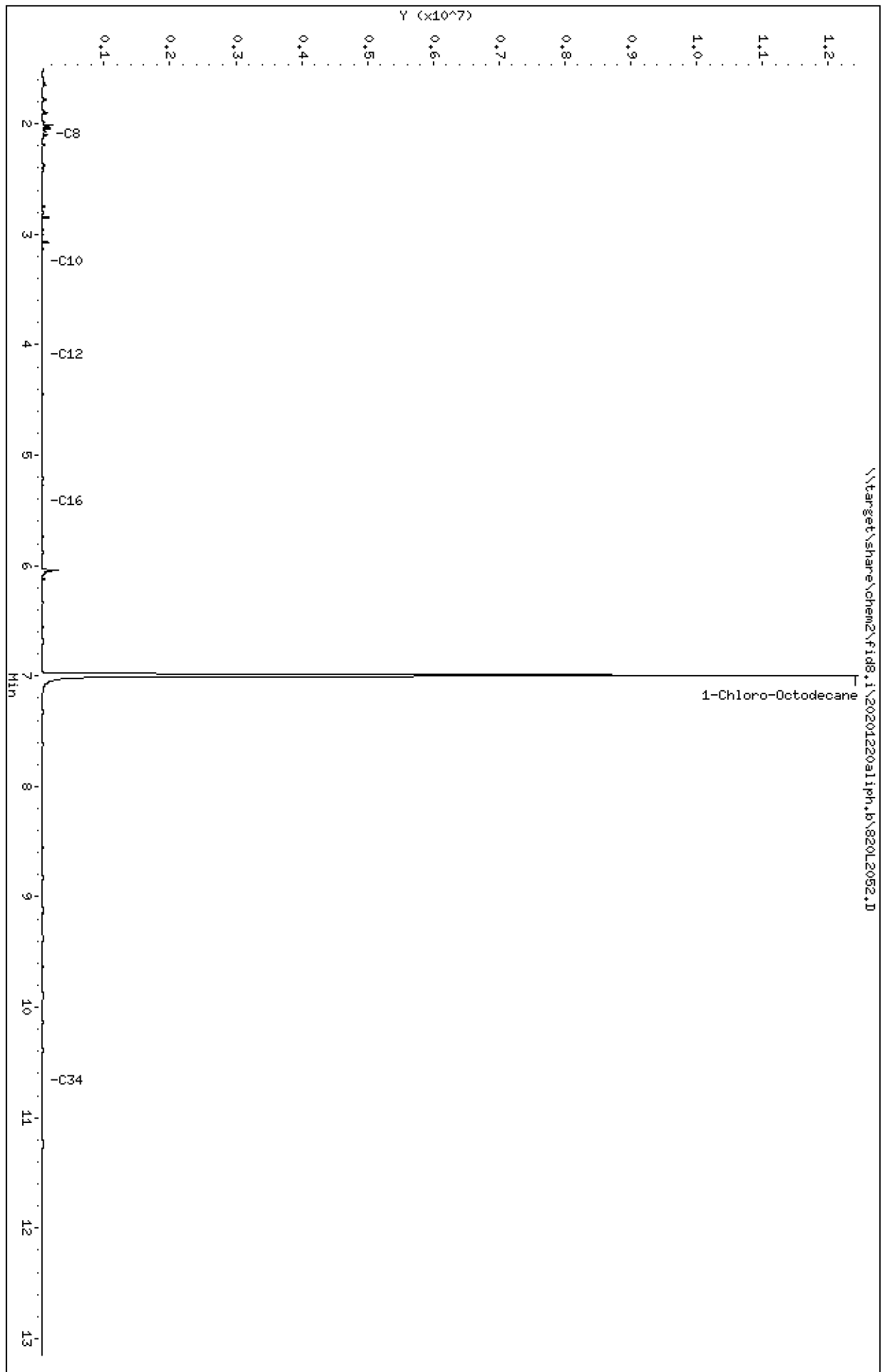
Sample Info: 20K0204-03

Column phase: RTX-1

Instrument: fid8.1

Operator: JGR

Column diameter: 0.25





Analytical Resources Inc.  
WA. EPH Aliphatics Report

Data file: 20201220aliph.b/820L2052.D  
Method: 20201220aliph.b\EPHALiph.m  
Instrument: fid8.i  
Operator: JGR  
Macro: ALIPH020217FID8

ARI ID: 20K0204-03  
Client ID:  
Injection: 21-DEC-2020 10:01  
Matrix: NONE  
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range	Area	Conc	Time Range
C8-C10 Aliph.	872381	4.5	(2.001 - 3.348)
C10-C12 Aliph.	38514	0.2	(3.348 - 4.191)
C12-C16 Aliph.	239007	1.2	(4.191 - 5.530)
C16-C21 Aliph.	619506	3.2	(5.530 - 7.137)
C21-C34 Aliph.	840361	4.7	(7.137 - 10.756)
Surrogate Rec:	55.4%	83.1 ug/mL	



Form I  
ORGANIC ANALYSIS DATA SHEET  
WA EPH  
WA EPH-Aliphatics

Laboratory: Analytical Resources, Inc.  
Client: Anchor OEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-04 A SDG: 20K0204  
Sampled: 11/10/20 11:55 Prepared: 11/24/20 10:15 File ID: 820L2053.D  
% Solids: 81.38 Preparation: EPA 3546 (Microwave) Analyzed: 12/21/20 10:26  
Batch: BIK0740 Sequence: SIL0418 Initial/Final: 10 g Wet / 1 mL  
Instrument: FID8 Column: ZB5 Calibration: DJ00015

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
ALI-C10-C12	C10-C12 Aliphatics	1	2460	U		2460

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
1-Chloro-octadecane	18432	11900	64.6	30 - 160	

Data File: \\target\share\chem2\fid8.1\20201220a11ph.b\82012053.D

Date: 21-DEC-2020 10:26

Client ID:

Sample Info: 20K0204-04

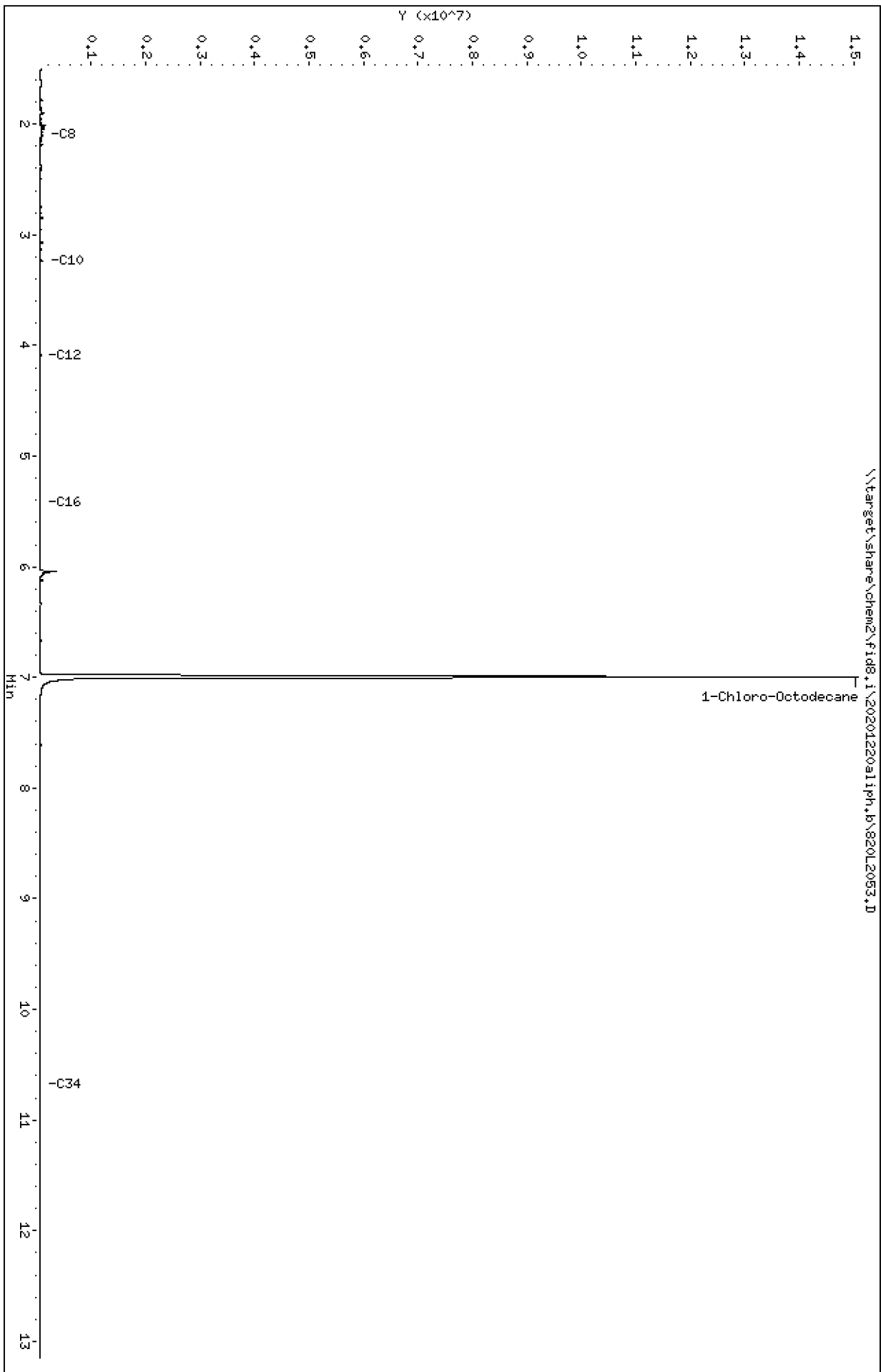
Column phase: RTX-1

Instrument: fid8.1

Operator: JGR

Column diameter: 0.25

Page 1



Analytical Resources Inc.  
WA. EPH Aliphatics Report

Data file: 20201220aliph.b/820L2053.D  
Method: 20201220aliph.b\EPHALiph.m  
Instrument: fid8.i  
Operator: JGR  
Macro: ALIPH020217FID8

ARI ID: 20K0204-04  
Client ID:  
Injection: 21-DEC-2020 10:26  
Matrix: NONE  
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range	Area	Conc	Time Range
C8-C10 Aliph.	764523	4.0	(2.001 - 3.348)
C10-C12 Aliph.	121528	0.6	(3.348 - 4.191)
C12-C16 Aliph.	130253	0.6	(4.191 - 5.530)
C16-C21 Aliph.	649730	3.3	(5.530 - 7.137)
C21-C34 Aliph.	399360	2.2	(7.137 - 10.756)
Surrogate Rec:	64.6%	96.9 ug/mL	



Form I  
ORGANIC ANALYSIS DATA SHEET  
WA EPH  
WA EPH-Aliphatics

Laboratory: Analytical Resources, Inc.  
Client: Anchor OEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-06 A SDG: 20K0204  
Sampled: 11/10/20 09:05 Prepared: 11/24/20 10:15 File ID: 820L2054.D  
% Solids: 58.19 Preparation: EPA 3546 (Microwave) Analyzed: 12/21/20 10:52  
Batch: BIK0740 Sequence: SIL0418 Initial/Final: 10.04 g Wet / 1 mL  
Instrument: FID8 Column: ZB5 Calibration: DJ00015

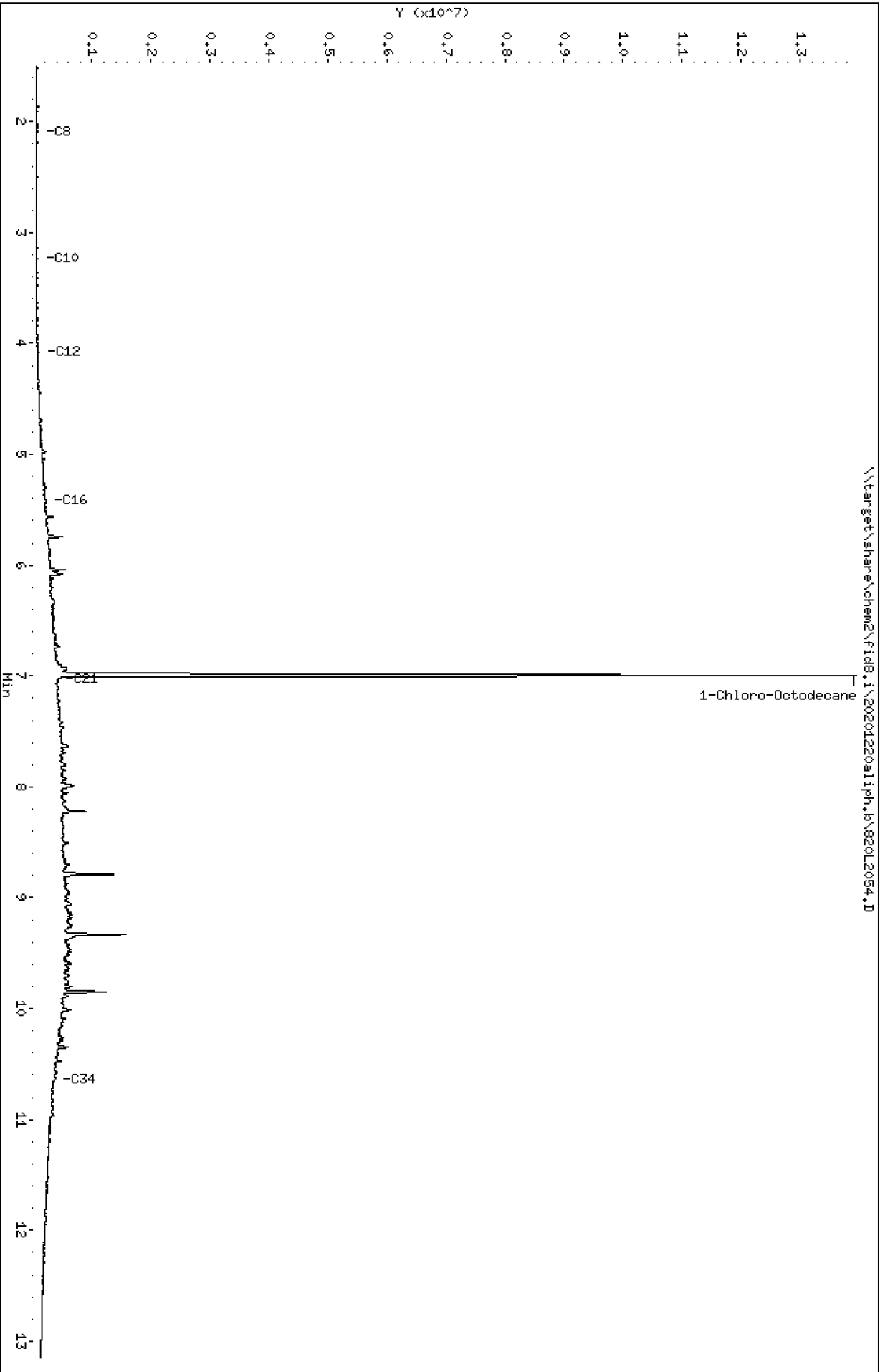
CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
ALI-C10-C12	C10-C12 Aliphatics	1	3420	U		3420

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
1-Chloro-octadecane	25676	14100	54.7	30 - 160	

Data File: \\target\share\chem2\fid8.1\20201220a11ph.b\82012054.D  
Date : 21-DEC-2020 10:52  
Client ID:  
Sample Info: 20K0204-06

Column phase: RTX-1

Instrument: fid8.1  
Operator: JGR  
Column diameter: 0.25



Analytical Resources Inc.  
WA. EPH Aliphatics Report

Data file: 20201220aliph.b/820L2054.D  
Method: 20201220aliph.b\EPHALiph.m  
Instrument: fid8.i  
Operator: JGR  
Macro: ALIPH020217FID8

ARI ID: 20K0204-06  
Client ID:  
Injection: 21-DEC-2020 10:52  
Matrix: NONE  
Dilution Factor: 1

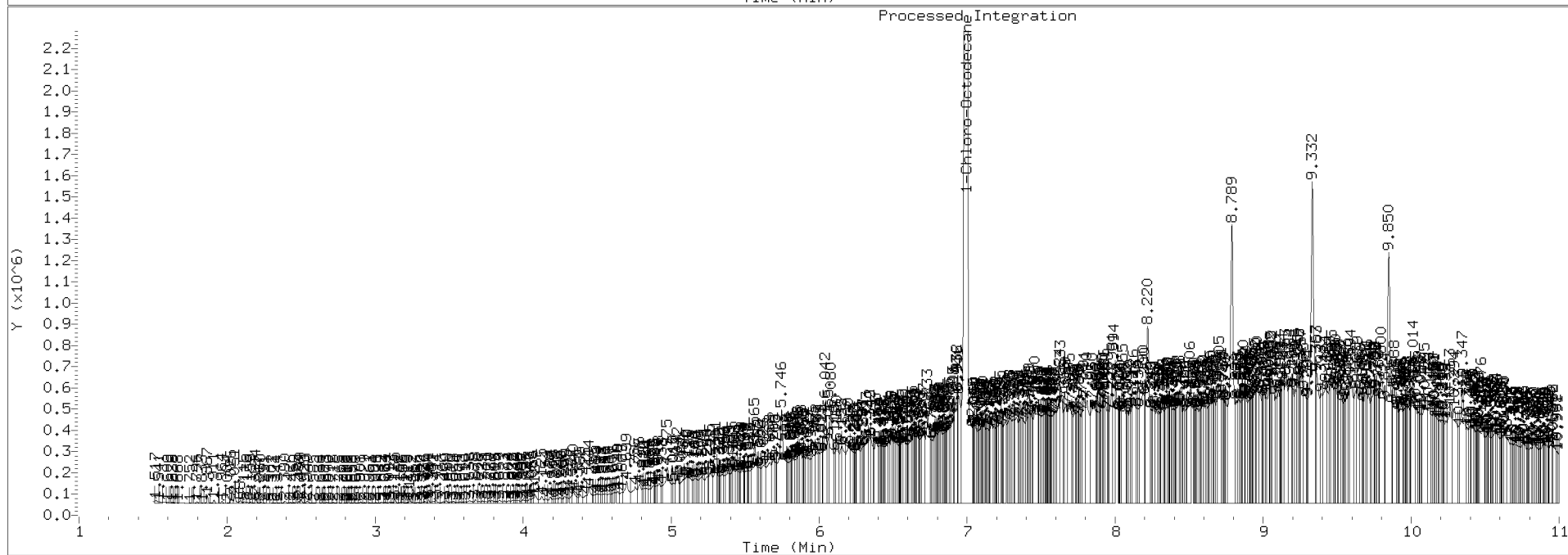
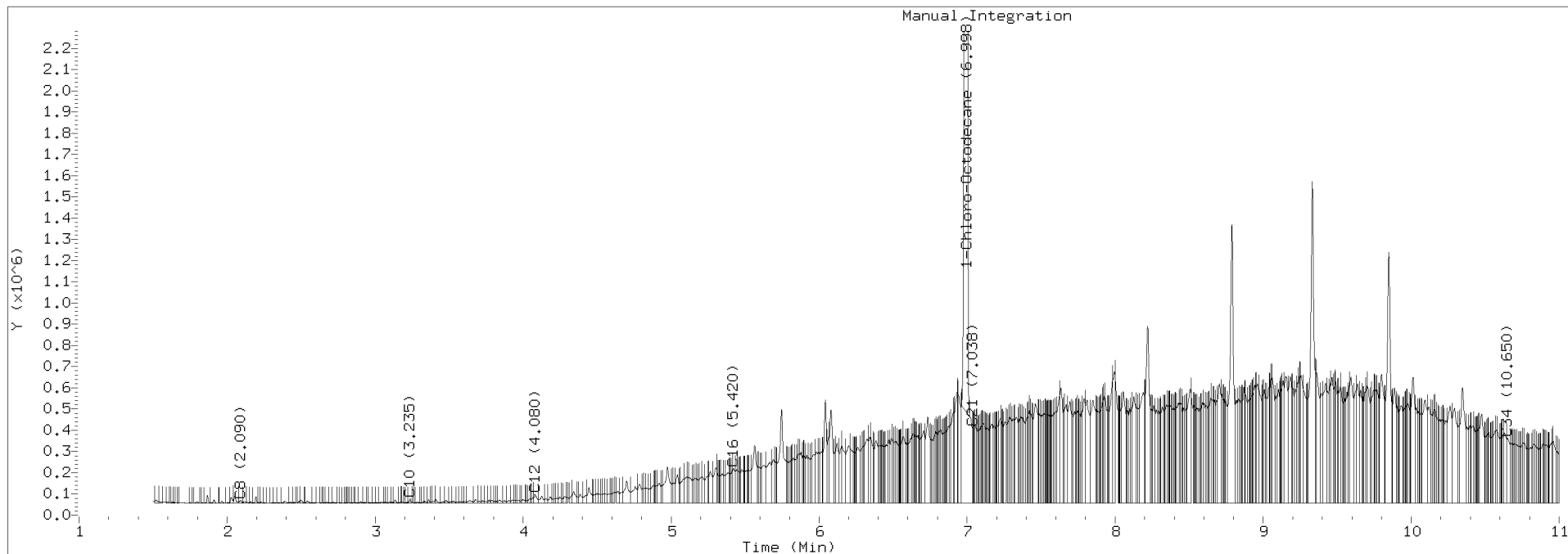
EPH-ALIPHATIC RESULTS

Quant Range	Area	Conc	Time Range
C8-C10 Aliph.	304280	1.6	(2.001 - 3.348)
C10-C12 Aliph.	566401	2.8	(3.348 - 4.191)
C12-C16 Aliph.	6396712	31.6	(4.191 - 5.530)
C16-C21 Aliph.	27172370	139.3	(5.530 - 7.137)
C21-C34 Aliph.	99792194	557.4	(7.137 - 10.756)
Surrogate Rec:	54.7%	82.1 ug/mL	

EPH Aliphatics Manual Integrations Report

Datafile: FID8, 20201220aliph.b/820L2054.D Injection: 21-DEC-2020 10:52

Lab ID:20K0204-06







Form I  
ORGANIC ANALYSIS DATA SHEET  
WA EPH  
WA EPH-Aliphatics

Laboratory: Analytical Resources, Inc.  
Client: Anchor OEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-07 A SDG: 20K0204  
Sampled: 11/10/20 09:05 Prepared: 11/24/20 10:15 File ID: 820L2055.D  
% Solids: 76.41 Preparation: EPA 3546 (Microwave) Analyzed: 12/21/20 11:17  
Batch: BIK0740 Sequence: SIL0418 Initial/Final: 10.01 g Wet / 1 mL  
Instrument: FID8 Column: ZB5 Calibration: DJ00015

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
ALI-C10-C12	C10-C12 Aliphatics	1	2610	U		2610

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
1-Chloro-octadecane	19611	13000	66.3	30 - 160	

Data File: \\target\share\chem2\fid8.1\20201220a11ph.b\82012055.D

Date : 21-DEC-2020 11:17

Client ID:

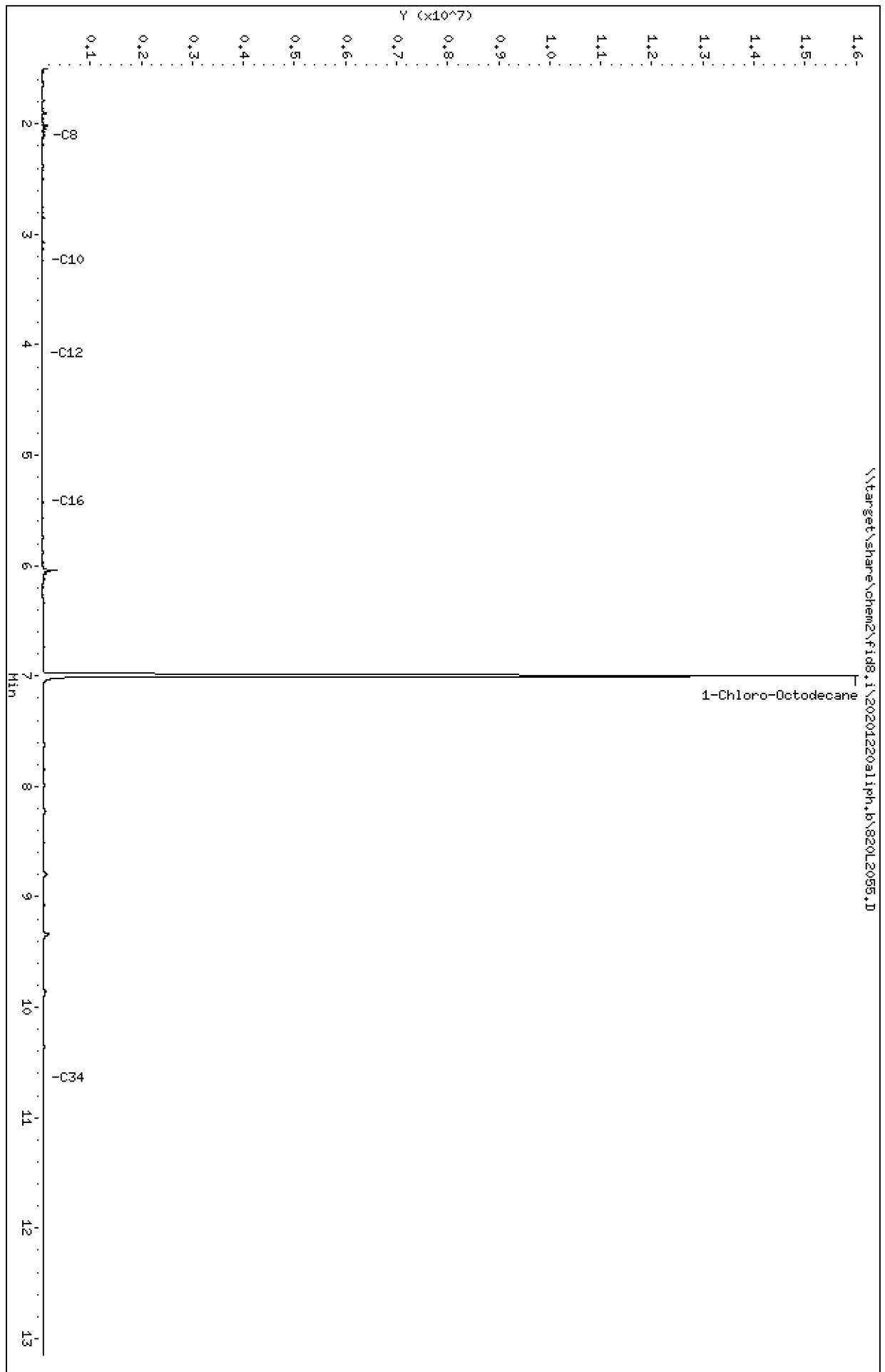
Sample Info: 20K0204-07

Column phase: RTX-1

Instrument: fid8.1

Operator: JGR

Column diameter: 0.25



Analytical Resources Inc.  
WA. EPH Aliphatics Report

Data file: 20201220aliph.b/820L2055.D  
Method: 20201220aliph.b\EPHALiph.m  
Instrument: fid8.i  
Operator: JGR  
Macro: ALIPH020217FID8

ARI ID: 20K0204-07  
Client ID:  
Injection: 21-DEC-2020 11:17  
Matrix: NONE  
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range	Area	Conc	Time Range
C8-C10 Aliph.	771597	4.0	(2.001 - 3.348)
C10-C12 Aliph.	80223	0.4	(3.348 - 4.191)
C12-C16 Aliph.	318725	1.6	(4.191 - 5.530)
C16-C21 Aliph.	1644885	8.4	(5.530 - 7.137)
C21-C34 Aliph.	6199525	34.6	(7.137 - 10.756)
Surrogate Rec:	66.3%	99.4 ug/mL	



Form I  
ORGANIC ANALYSIS DATA SHEET  
WA EPH  
WA EPH-Aliphatics

Laboratory: Analytical Resources, Inc.  
Client: Anchor OEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-08 A SDG: 20K0204  
Sampled: 11/10/20 09:05 Prepared: 11/24/20 10:15 File ID: 820L2057.D  
% Solids: 79.06 Preparation: EPA 3546 (Microwave) Analyzed: 12/21/20 12:08  
Batch: BIK0740 Sequence: SIL0418 Initial/Final: 10.05 g Wet / 1 mL  
Instrument: FID8 Column: ZB5 Calibration: DJ00015

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
ALI-C10-C12	C10-C12 Aliphatics	1	2520	U		2520

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
1-Chloro-octadecane	18880	12700	67.5	30 - 160	

Data File: \\target\share\chem2\fid8.1\20201220a11ph.b\820L2057.D

Date : 21-DEC-2020 12:08

Client ID:

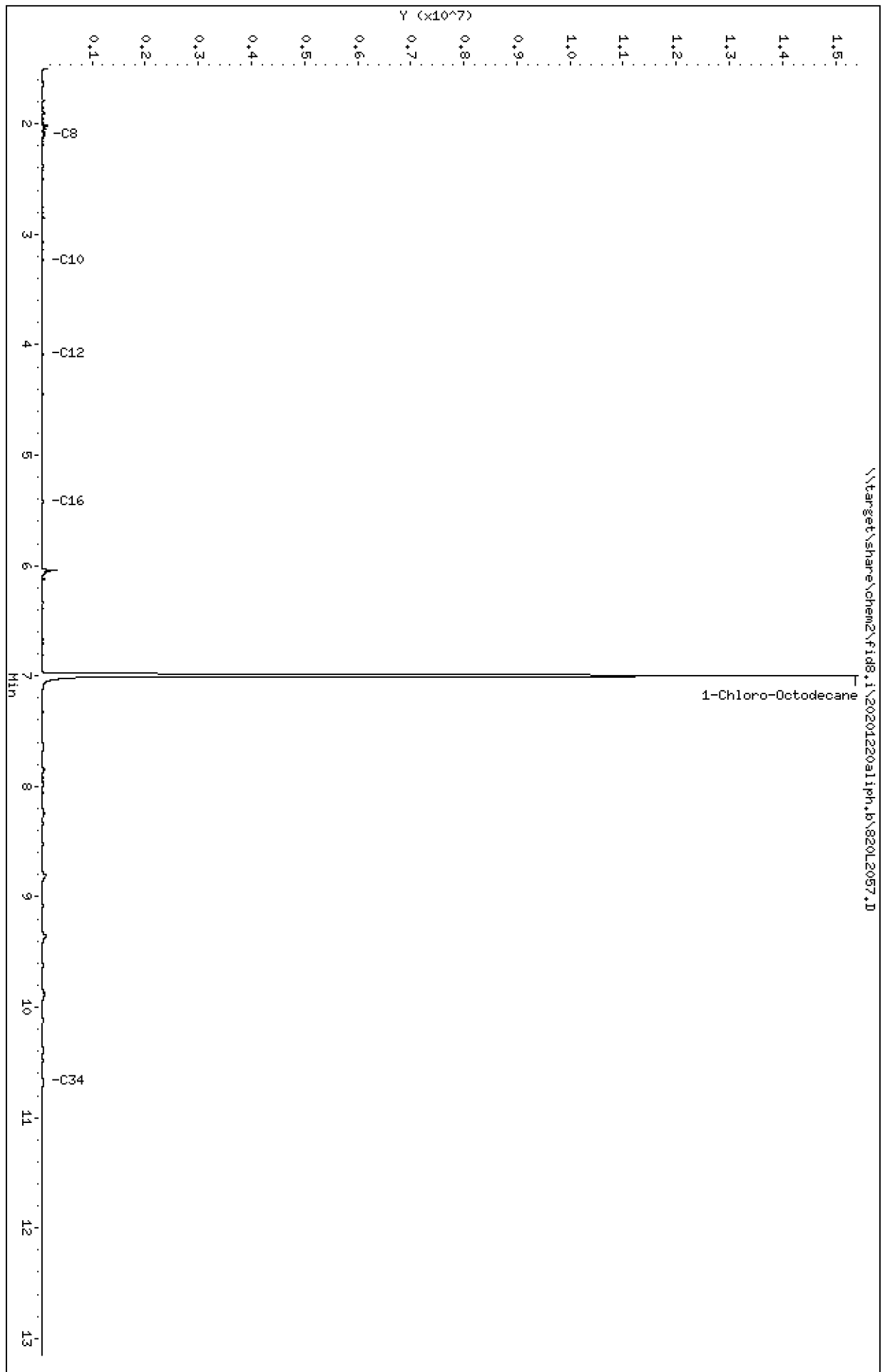
Sample Info: 20K0204-08

Column phase: RTX-1

Instrument: fid8.1

Operator: JGR

Column diameter: 0.25



Analytical Resources Inc.  
WA. EPH Aliphatics Report

Data file: 20201220aliph.b/820L2057.D  
Method: 20201220aliph.b\EPHALiph.m  
Instrument: fid8.i  
Operator: JGR  
Macro: ALIPH020217FID8

ARI ID: 20K0204-08  
Client ID:  
Injection: 21-DEC-2020 12:08  
Matrix: NONE  
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range	Area	Conc	Time Range
C8-C10 Aliph.	660822	3.4	(2.001 - 3.348)
C10-C12 Aliph.	108359	0.5	(3.348 - 4.191)
C12-C16 Aliph.	186195	0.9	(4.191 - 5.530)
C16-C21 Aliph.	632434	3.2	(5.530 - 7.137)
C21-C34 Aliph.	2011008	11.2	(7.137 - 10.756)
Surrogate Rec:	67.5%	101.2 ug/mL	



Form I  
ORGANIC ANALYSIS DATA SHEET  
WA EPH  
WA EPH-Aliphatics

Laboratory: Analytical Resources, Inc.  
Client: Anchor OEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-09 A SDG: 20K0204  
Sampled: 11/10/20 09:05 Prepared: 11/24/20 10:15 File ID: 820L2058.D  
% Solids: 77.92 Preparation: EPA 3546 (Microwave) Analyzed: 12/21/20 12:33  
Batch: BIK0740 Sequence: SIL0418 Initial/Final: 10.01 g Wet / 1 mL  
Instrument: FID8 Column: ZB5 Calibration: DJ00015

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
ALI-C10-C12	C10-C12 Aliphatics	1	2560	U		2560

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
1-Chloro-octadecane	19232	12900	67.1	30 - 160	

Data File: \\target\share\chem2\fid8,1\20201220a11ph,b\82012058.D

Date : 21-DEC-2020 12:33

Client ID:

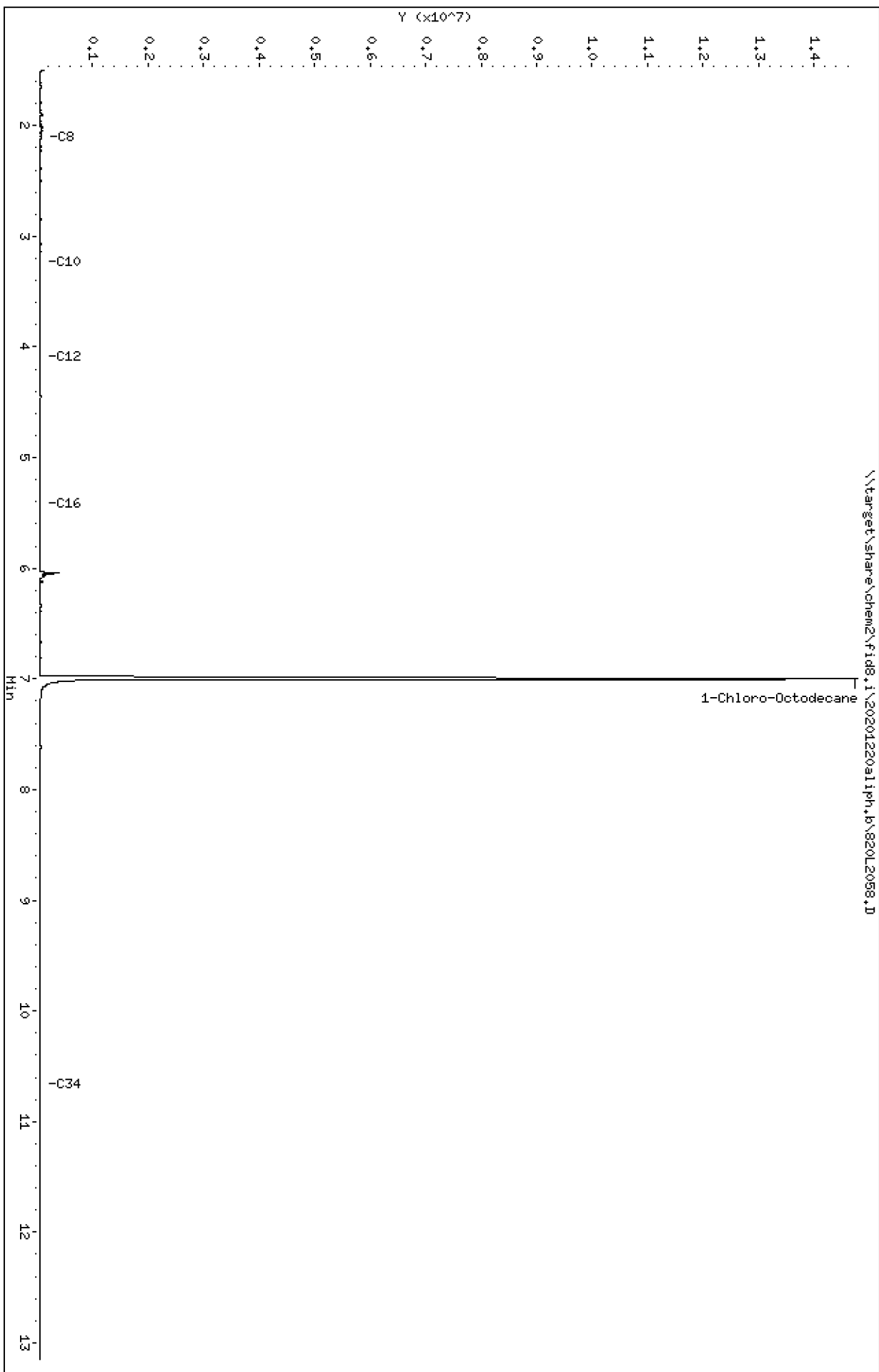
Sample Info: 20K0204-09

Column phase: RTX-1

Instrument: fid8,1

Operator: JGR

Column diameter: 0.25





Analytical Resources Inc.  
WA. EPH Aliphatics Report

Data file: 20201220aliph.b/820L2058.D  
Method: 20201220aliph.b\EPHALiph.m  
Instrument: fid8.i  
Operator: JGR  
Macro: ALIPH020217FID8

ARI ID: 20K0204-09  
Client ID:  
Injection: 21-DEC-2020 12:33  
Matrix: NONE  
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range	Area	Conc	Time Range
C8-C10 Aliph.	509862	2.6	(2.001 - 3.348)
C10-C12 Aliph.	116013	0.6	(3.348 - 4.191)
C12-C16 Aliph.	173874	0.9	(4.191 - 5.530)
C16-C21 Aliph.	737025	3.8	(5.530 - 7.137)
C21-C34 Aliph.	576050	3.2	(7.137 - 10.756)
Surrogate Rec:	67.1%	100.6 ug/mL	



Form I  
ORGANIC ANALYSIS DATA SHEET  
WA EPH  
WA EPH-Aliphatics

Laboratory: Analytical Resources, Inc.  
Client: Anchor OEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-10 A SDG: 20K0204  
Sampled: 11/10/20 09:05 Prepared: 11/24/20 10:15 File ID: 820L2059.D  
% Solids: 77.13 Preparation: EPA 3546 (Microwave) Analyzed: 12/21/20 12:59  
Batch: BIK0740 Sequence: SIL0418 Initial/Final: 10 g Wet / 1 mL  
Instrument: FID8 Column: ZB5 Calibration: DJ00015

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
ALI-C10-C12	C10-C12 Aliphatics	1	2590	U		2590

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
1-Chloro-octadecane	19447	13100	67.4	30 - 160	

Data File: \\target\share\chem2\fid8.1\20201220a11ph.b\82012059.D

Date : 21-DEC-2020 12:59

Client ID:

Sample Info: 20K0204-10

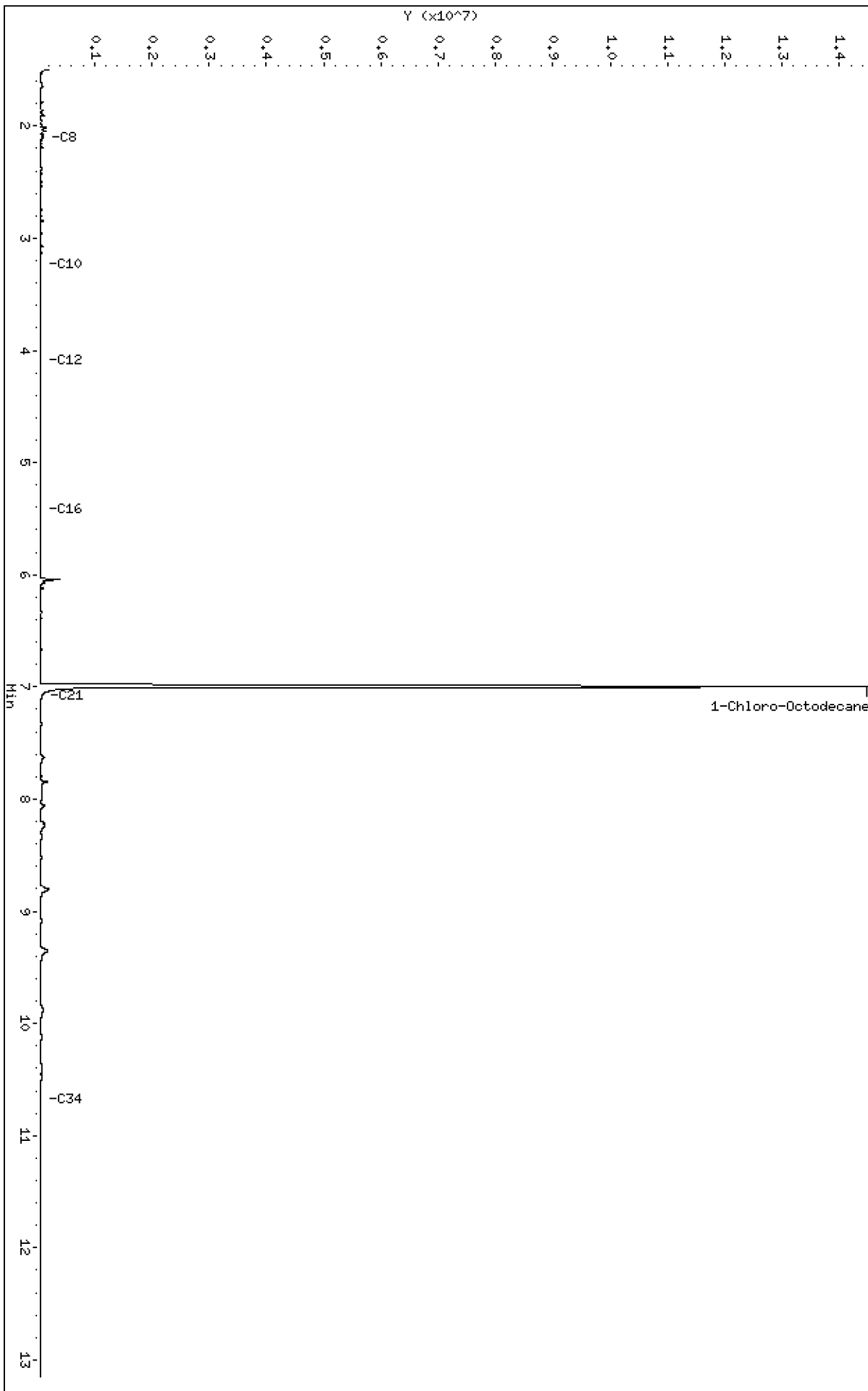
Column phase: RTX-1

Instrument: fid8.1

Operator: JGR

Column diameter: 0.25

\\target\share\chem2\fid8.1\20201220a11ph.b\82012059.D



Analytical Resources Inc.  
WA. EPH Aliphatics Report

Data file: 20201220aliph.b/820L2059.D  
Method: 20201220aliph.b\EPHALiph.m  
Instrument: fid8.i  
Operator: JGR  
Macro: ALIPH020217FID8

ARI ID: 20K0204-10  
Client ID:  
Injection: 21-DEC-2020 12:59  
Matrix: NONE  
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range	Area	Conc	Time Range
C8-C10 Aliph.	753014	3.9	(2.001 - 3.348)
C10-C12 Aliph.	102571	0.5	(3.348 - 4.191)
C12-C16 Aliph.	136283	0.7	(4.191 - 5.530)
C16-C21 Aliph.	719079	3.7	(5.530 - 7.137)
C21-C34 Aliph.	2790250	15.6	(7.137 - 10.756)
Surrogate Rec:	67.4%	101.1 ug/mL	



Form I  
ORGANIC ANALYSIS DATA SHEET  
WA EPH  
WA EPH-Aliphatics

Laboratory: Analytical Resources, Inc.  
Client: Anchor OEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-11 A SDG: 20K0204  
Sampled: 11/10/20 09:05 Prepared: 11/24/20 10:15 File ID: 820L2060.D  
% Solids: 72.93 Preparation: EPA 3546 (Microwave) Analyzed: 12/21/20 13:24  
Batch: BIK0740 Sequence: SIL0418 Initial/Final: 10.08 g Wet / 1 mL  
Instrument: FID8 Column: ZB5 Calibration: DJ00015

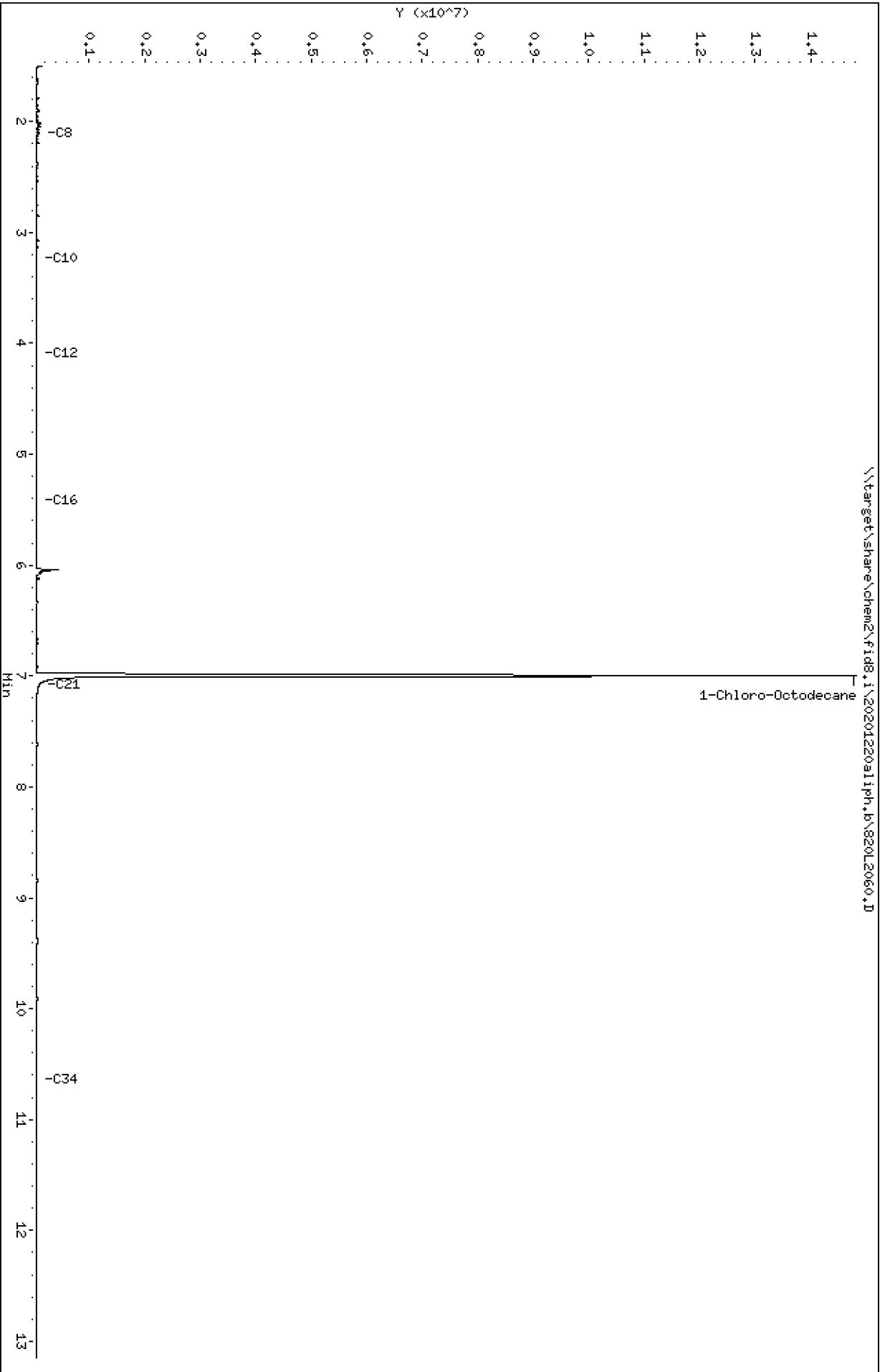
CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
ALI-C10-C12	C10-C12 Aliphatics	1	2720	U		2720

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
1-Chloro-octadecane	20405	12900	63.1	30 - 160	

Data File: \\target\share\chem2\fid8,1\20201220a11ph,b\820L2060.D  
Date : 21-DEC-2020 13:24  
Client ID:  
Sample Info: 20K0204-11

Column phase: RTX-1

Instrument: fid8,1  
Operator: JGR  
Column diameter: 0.25



Analytical Resources Inc.  
WA. EPH Aliphatics Report

Data file: 20201220aliph.b/820L2060.D  
Method: 20201220aliph.b\EPHALiph.m  
Instrument: fid8.i  
Operator: JGR  
Macro: ALIPH020217FID8

ARI ID: 20K0204-11  
Client ID:  
Injection: 21-DEC-2020 13:24  
Matrix: NONE  
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range	Area	Conc	Time Range
C8-C10 Aliph.	561431	2.9	(2.001 - 3.348)
C10-C12 Aliph.	70838	0.3	(3.348 - 4.191)
C12-C16 Aliph.	108630	0.5	(4.191 - 5.530)
C16-C21 Aliph.	882679	4.5	(5.530 - 7.137)
C21-C34 Aliph.	672547	3.8	(7.137 - 10.756)
Surrogate Rec:	63.1%	94.7 ug/mL	



Form I  
ORGANIC ANALYSIS DATA SHEET  
WA EPH  
WA EPH-Aliphatics

Laboratory: Analytical Resources, Inc.  
Client: Anchor OEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-12 A SDG: 20K0204  
Sampled: 11/10/20 09:05 Prepared: 11/24/20 10:15 File ID: 820L2061.D  
% Solids: 72.15 Preparation: EPA 3546 (Microwave) Analyzed: 12/21/20 13:50  
Batch: BIK0740 Sequence: SIL0418 Initial/Final: 10.02 g Wet / 1 mL  
Instrument: FID8 Column: ZB5 Calibration: DJ00015

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
ALI-C10-C12	C10-C12 Aliphatics	1	2770	U		2770

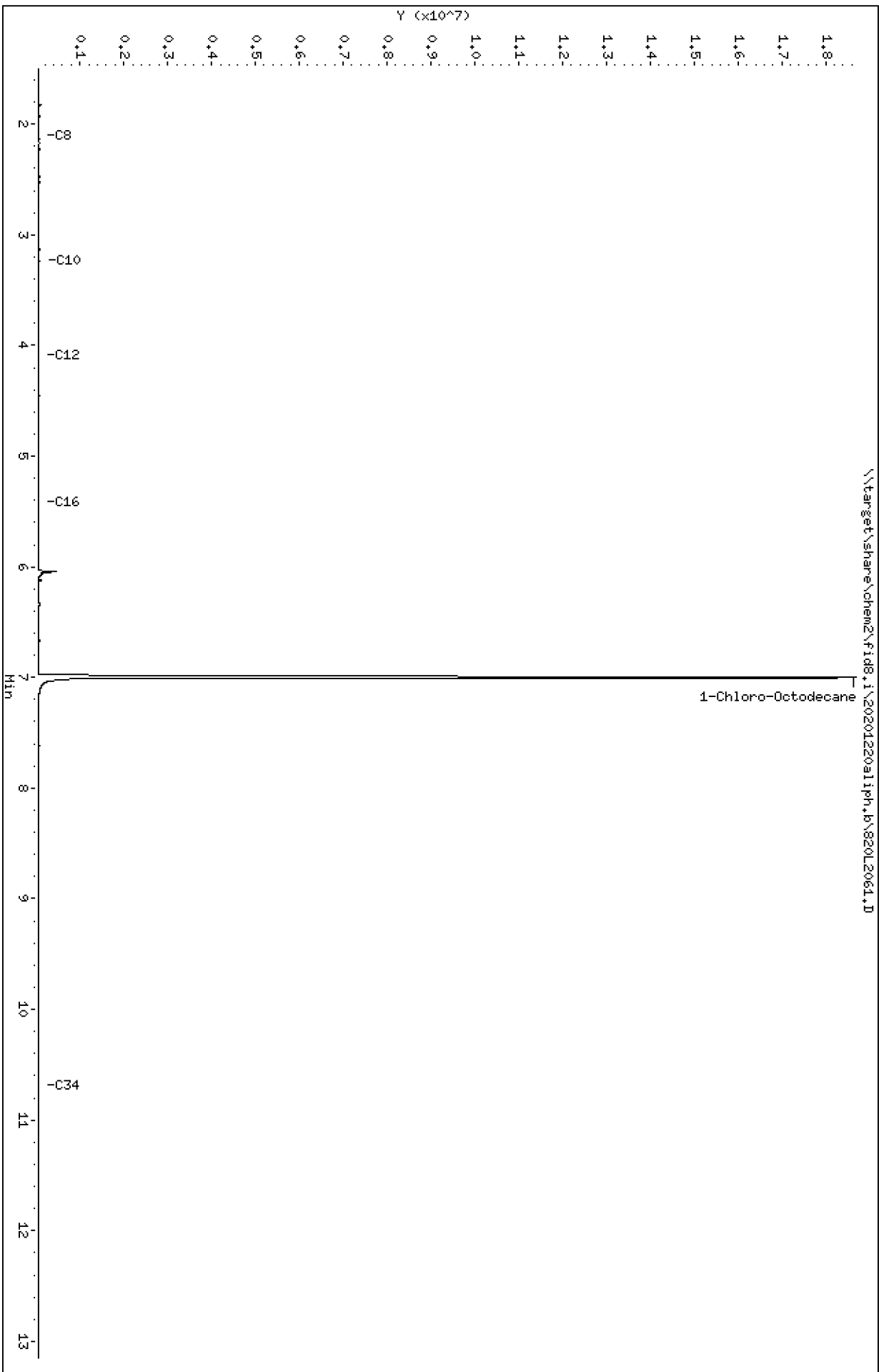
SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
1-Chloro-octadecane	20749	15700	75.5	30 - 160	



Data File: \\target\share\chem2\fid8.1\20201220a11ph.b\820L2061.D  
Date : 21-DEC-2020 13:50  
Client ID:  
Sample Info: 20K0204-12

Column phase: RTX-1

Instrument: fid8.1  
Operator: JGR  
Column diameter: 0.25



Analytical Resources Inc.  
WA. EPH Aliphatics Report

Data file: 20201220aliph.b/820L2061.D  
Method: 20201220aliph.b\EPHALiph.m  
Instrument: fid8.i  
Operator: JGR  
Macro: ALIPH020217FID8

ARI ID: 20K0204-12  
Client ID:  
Injection: 21-DEC-2020 13:50  
Matrix: NONE  
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range	Area	Conc	Time Range
C8-C10 Aliph.	429036	2.2	(2.001 - 3.348)
C10-C12 Aliph.	181680	0.9	(3.348 - 4.191)
C12-C16 Aliph.	210147	1.0	(4.191 - 5.530)
C16-C21 Aliph.	687430	3.5	(5.530 - 7.137)
C21-C34 Aliph.	529142	3.0	(7.137 - 10.756)
Surrogate Rec:	75.5%	113.3 ug/mL	



Form I  
ORGANIC ANALYSIS DATA SHEET  
WA EPH  
WA EPH-Aliphatics

Laboratory: Analytical Resources, Inc.  
Client: Anchor OEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-13 A SDG: 20K0204  
Sampled: 11/10/20 00:00 Prepared: 11/24/20 10:15 File ID: 820L2062.D  
% Solids: 72.28 Preparation: EPA 3546 (Microwave) Analyzed: 12/21/20 14:16  
Batch: BIK0740 Sequence: SIL0418 Initial/Final: 10.02 g Wet / 1 mL  
Instrument: FID8 Column: ZB5 Calibration: DJ00015

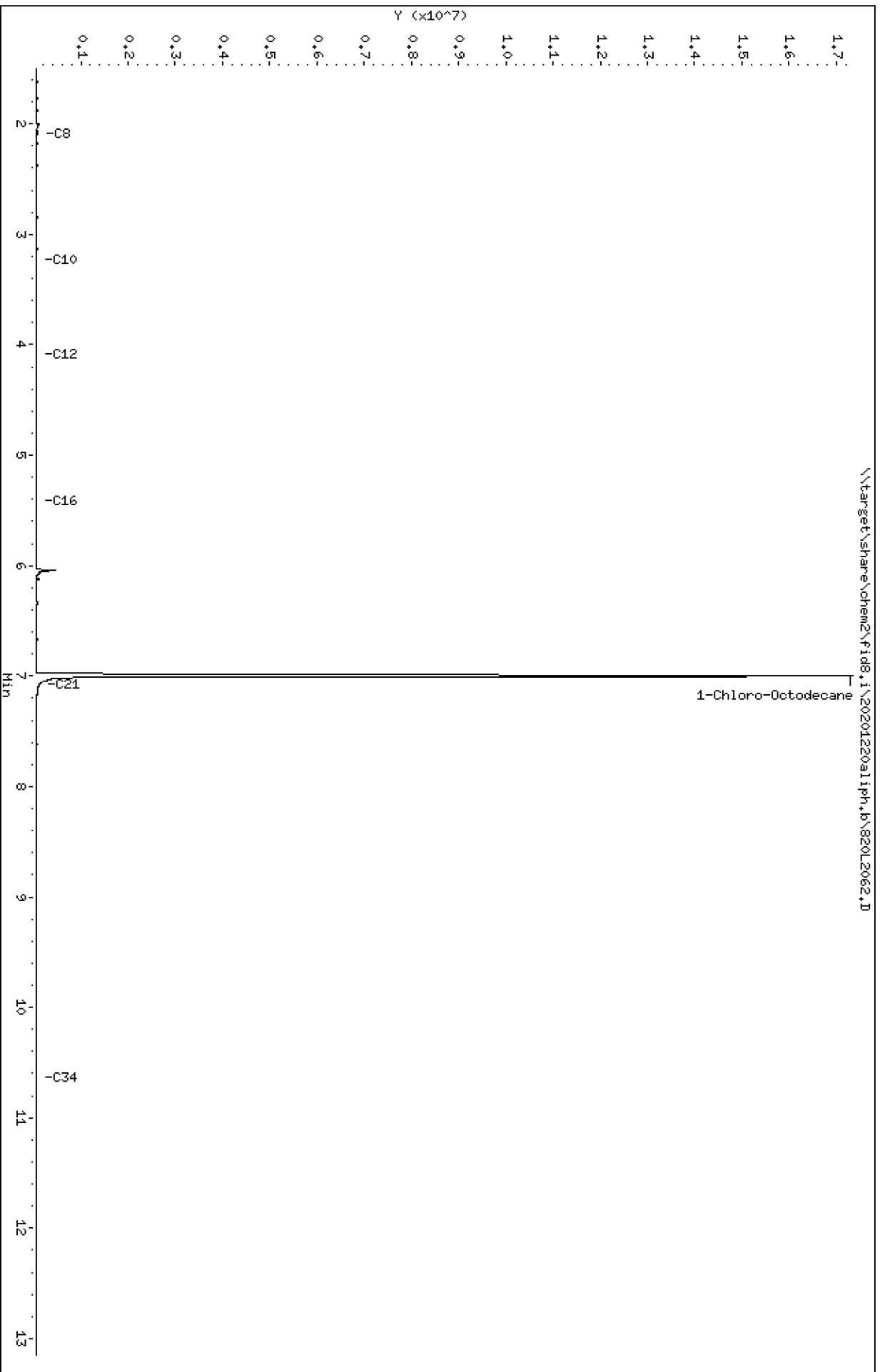
CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
ALI-C10-C12	C10-C12 Aliphatics	1	2760	U		2760

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
1-Chloro-octadecane	20711	15600	75.1	30 - 160	

Data File: \\target\share\chem2\fid8.1\20201220a11ph.b\820L2062.D  
Date: 21-DEC-2020 14:16  
Client ID:  
Sample Info: 20K0204-13

Column phase: RTX-1

Instrument: fid8.1  
Operator: JGR  
Column diameter: 0.25



Analytical Resources Inc.  
WA. EPH Aliphatics Report

Data file: 20201220aliph.b/820L2062.D  
Method: 20201220aliph.b\EPHALiph.m  
Instrument: fid8.i  
Operator: JGR  
Macro: ALIPH020217FID8

ARI ID: 20K0204-13  
Client ID:  
Injection: 21-DEC-2020 14:16  
Matrix: NONE  
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range	Area	Conc	Time Range
C8-C10 Aliph.	395590	2.1	(2.001 - 3.348)
C10-C12 Aliph.	105622	0.5	(3.348 - 4.191)
C12-C16 Aliph.	127298	0.6	(4.191 - 5.530)
C16-C21 Aliph.	773343	4.0	(5.530 - 7.137)
C21-C34 Aliph.	255140	1.4	(7.137 - 10.756)
Surrogate Rec:	75.1%	112.7 ug/mL	



## PREPARATION BATCH SUMMARY WA EPH

Laboratory: Analytical Resources, Inc. SDG: 20K0204  
Client: Anchor QEA, LLC Project: Gasco Siltronic  
Batch: BIK0740 Batch Matrix: Solid Preparation: EPA 3546 (Microwave)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
USMPDI-003SC-B-00-02-201110	20K0204-01	820L2050.D	11/24/20 10:15	
USMPDI-003SC-B-02-04-201110	20K0204-02	820L2051.D	11/24/20 10:15	
USMPDI-003SC-B-04-06-201110	20K0204-03	820L2052.D	11/24/20 10:15	
USMPDI-003SC-B-06-08-201110	20K0204-04	820L2053.D	11/24/20 10:15	
USMPDI-006SC-D-00-02-201110	20K0204-06	820L2054.D	11/24/20 10:15	
USMPDI-006SC-D-02-04-201110	20K0204-07	820L2055.D	11/24/20 10:15	
USMPDI-006SC-D-04-06-201110	20K0204-08	820L2057.D	11/24/20 10:15	
USMPDI-006SC-D-06-08-201110	20K0204-09	820L2058.D	11/24/20 10:15	
USMPDI-006SC-D-08-10-201110	20K0204-10	820L2059.D	11/24/20 10:15	
USMPDI-006SC-D-10-12-201110	20K0204-11	820L2060.D	11/24/20 10:15	
USMPDI-006SC-D-12-14-201110	20K0204-12	820L2061.D	11/24/20 10:15	
USMPDI-1006SC-D-10-12-201110	20K0204-13	820L2062.D	11/24/20 10:15	
Blank	BIK0740-BLK1	820L2046.D	11/24/20 10:15	
LCS	BIK0740-BS1	820L2047.D	11/24/20 10:15	
USMPDI-006SC-D-12-14-201110	BIK0740-MS1	820L2048.D	11/24/20 10:15	
USMPDI-006SC-D-12-14-201110	BIK0740-MSD1	820L2049.D	11/24/20 10:15	



Batch: BIK0740

Prepared using: EPA 3546 (Microwave)

WA EPH Aliphatic C10-C12 mod in Solid

Matrix: Solid

Date Prepared: 11/24/20

Balance ID: B146462614

Set Up By: CT 11/29/20

The following standards may be missing from this batch!

Designator	Description
QLS 22	QLS Spike

Analysis: WA EPH Aliphatic C10-C12 mod

Lab Number & Container	Initial (g) Target Wet: 10 (Wet) Actual		Fractionate Aromatic/ Aliphatic (1:1)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
20K0204-01 A	(10.00)	10.64	(1:1) 1mL	1 1.0	1.0 1.0	
20K0204-02 A	(10.00)	10.63	(1:1) 1mL	1	1.0	
20K0204-03 A	(10.00)	10.67	(1:1) 1mL	1	1.0	
20K0204-04 A	(10.00)	10.66	(1:1) 1mL	1	1.0	
20K0204-06 A	(10.00)	10.64	(1:1) 1mL	1	1.0	
20K0204-07 A	(10.00)	10.61	(1:1) 1mL	1	1.0	
20K0204-08 A	(10.00)	10.65	(1:1) 1mL	1	1.0	
20K0204-09 A	(10.00)	10.61	(1:1) 1mL	1	1.0	
20K0204-10 A	(10.00)	10.66	(1:1) 1mL	1	1.0	
20K0204-11 A	(10.00)	10.68	(1:1) 1mL	1	1.0	
20K0204-12 A	(10.00)	10.62	(1:1) 1mL	1	1.0	
20K0204-13 A	(10.00)	10.62	(1:1) 1mL	1	1.0	

Batch QC

Lab Number	Initial (g) Target Wet: 10 (Wet) Actual		Fractionate Aromatic/ Aliphatic (1:1)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
BIK0740-BLK1	(10.00)	10.66	(1:1) 1mL	1 1	1.0 1	
BIK0740-BS1	(10.00)	10.66	(1:1) 1mL	1 1	1.0 1	
BIK0740-MS1	(10.00)	10.66	(1:1) 1mL	1 1	1.0 1	Use 20K0204-12
BIK0740-MSD1	(10.00)	10.66	(1:1) 1mL	1 1	1.0 1	Use 20K0204-12

Client ID verified By: [Signature] 11/24/20

Date

Preparation Reviewed By: [Signature]

Date

12-18-2020

Extraction Date and Time: 11/24/20

10:15



Batch: BIK0740

Prepared using: EPA 3546 (Microwave)  
WA EPH Aliphatic C10-C12 mod in Solid

Prep Steps	Reagents Used	Surrogates & Spike Standards Used
KD 80 - 85°C to 1 mL Exchange with 50mL Hexane then 50mL Pentane 100°C to 1 mL. ① ② 3 4 5 6 AR 12/17/20 Analyst/Date	Station/Reagent Microwave Analyst: <i>AR</i> Date: <i>11/24/20</i>	Type Surrogate 1500µg/mL Vial ID / Standard ID M <i>1010814</i> Exp: 05/12/2021 Analyst: <i>[Signature]</i> Witness: <i>[Signature]</i>
	Standard ID Neutral Glass Wool <i>I010379</i> Neutral Sodium Sulfate <i>I010747</i> Methylene Chloride <i>I010679</i>	Spike 750µg/mL Vial ID / Standard ID 5 <i>1009355</i> Exp: 10/08/2021 Analyst: <i>[Signature]</i> Witness: <i>[Signature]</i>
TurboVap Pre Fractionation 1 2 3 4 5 6 MW 12-18-20 Analyst/Date	Station/Reagent Methylene Chloride <i>I01119</i> Pentane <i>I010910</i> Hexane <i>I010658</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).
	KD Analyst: <i>AR</i> Date: <i>12/17/20</i>	
TurboVap Post Fractionation 1 2 ③ 4 5 MW 12-18-20 Analyst/Date	Station/Reagent Methylene Chloride Hexane 0% Silica Gel Dart (EPH)	
	Vialing Analyst: <i>MW</i> Date: <i>12-18-20</i>	
Vialing Analyst: <i>MW</i> Date: <i>12-18-20</i>		





ANY HEXANE USE MUST BE PEST GRADE

Analytical Resources, Incorporated  
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BIK0740

Prepared using: EPA 3546 (Microwave)  
WA EPH Aliphatic C10-C12 mod in Solid

Prep Instructions	
<p>SPECIAL INSTRUCTIONS:            Note: Must use Pesticide Grade Hexane!</p> <ol style="list-style-type: none"> <li>1. Weigh into 100 mL beakers.</li> <li>2. Dry with neutral sodium sulfate.</li> <li>3. Transfer to Microwave vessel.</li> <li>4. Add DCM to the vessels until solvent is 3" above soil layer after homogenization.</li> <li>5. Add surr/spike.</li> <li>6. After microwave-Re-homogenize while hot then cool vessels in R-05 for 15 minutes. Re-homogenize while cool.</li> <li>7. Decant DCM into 250 mL flask with neutral glasswool. NO SODIUM SULFATE.</li> <li><del>8. Microwave a 2nd time using DCM.</del></li> <li>9. Let cool and decant solvent then empty the soil into the funnel and rinse with <del>DCM</del> Hexane</li> <li>10. Add 5mL of Hexane to KD with sample. KD to no more than 1 mL at 80°C</li> <li>11. Exchange with 50mL Pentane.</li> <li>12. KD to no more than 1 mL at 100°C</li> <li>13. Exchange a second time with 50mL Hexane and concentrate to 1mL again.</li> <li>14. Cool KDs in R-05 for 15 min prior to decanting to prevent losses (After cooling volume should be 5 mL)</li> <li>15. Transfer to TurboTube in Hexane.</li> <li>16. Turbovap to 3 mL then exchange with 10 mL of Hexane. Once exchanged turbvap to 1mL for SPE.</li> <li>17. Transfer to SPE culture tube to 1 mL using Hexane.</li> <li>18. Fractionate Aromatic/Aliphatic by SPE.</li> <li>19. Turbovap Each Fraction to 1 mL</li> <li>20. Vial the Aliphatics fraction in Hexane and the Aromatics fraction in DCM.</li> </ol> <p>A. Need Total Solids Y <input checked="" type="checkbox"/> N</p> <p>B. Archive/Freeze Y <input checked="" type="checkbox"/> N</p>	

Batch: BIK0740

Batch Comment: \*\*NONE\*\*

Project: Gasco Siltronic

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

Work Order:20K0204

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

Sample: 20K0204-01

Sample Comments: \*\*NONE\*\*

Sample: 20K0204-02

Sample Comments: \*\*NONE\*\*

Sample: 20K0204-03

Sample Comments: \*\*NONE\*\*

Sample: 20K0204-04

Sample Comments: \*\*NONE\*\*

Sample: 20K0204-06

Sample Comments: \*\*NONE\*\*

Sample: 20K0204-07

Sample Comments: \*\*NONE\*\*

Sample: 20K0204-08

Sample Comments: \*\*NONE\*\*

Sample: 20K0204-09

Sample Comments: \*\*NONE\*\*

Sample: 20K0204-10

Sample Comments: \*\*NONE\*\*

Sample: 20K0204-11

Sample Comments: \*\*NONE\*\*

Sample: 20K0204-12

Sample Comments: \*\*NONE\*\*

Sample: 20K0204-13

Sample Comments: \*\*NONE\*\*



Extraction Parameter: EP14 Extraction Batch B1K0740

Total Solids Batch: B1K0715 Work Order(s): 20K0204

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input checked="" type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)= <u>2,3,4,5,6,7,8,9,10,11,12,13</u>	<u>CTO 11/23/20</u>
<input type="checkbox"/> Standing Water Decanted (Not shared)=	
<input checked="" type="checkbox"/> Standing Water Homogenized (Shared samples)= <u>/</u>	<u>CTO 11/23/20</u>
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input type="checkbox"/> Previously Frozen =	
<input type="checkbox"/> Other (Details)=	
<b>Aqueous:</b>	
<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 <u>(Y) N 01,02,3,4,5,6,8,9,10,11,12,13</u> <u>   09: not shared</u>	<u>CTO 11/23/20</u>
<input type="checkbox"/> Multiple Jars Y / N	
<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**  
**WA EPH**

Blank
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Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>20K0204</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic</u>
Matrix:	<u>Solid</u>	Laboratory ID:	<u>BIK0740-BLK1</u>
Sampled:	<u>N/A</u>	Prepared:	<u>11/24/20 10:15</u>
Solids:		Preparation:	<u>EPA 3546 (Microwave)</u>
Batch:	<u>BIK0740</u>	Sequence:	<u>SIL0418</u>
Instrument:	<u>FID8</u>	Column:	<u>ZB5</u>
		File ID:	<u>820L2046.D</u>
		Analyzed:	<u>12/21/20 07:31</u>
		Initial/Final:	<u>10 g / 1 mL</u>
		Calibration:	<u>DJ00015</u>

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg wet)	Q	DL	RL
ALI-C10-C12	C10-C12 Aliphatics	1	2000	U		2000
SURROGATES		ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
1-Chloro-octadecane		15000	9210	61.4	30 - 160	

Data File: \\target\share\chem2\fid8.1\20201220a11ph.b\820L2046.D

Page 1

Date : 21-DEC-2020 07:31

Client ID:

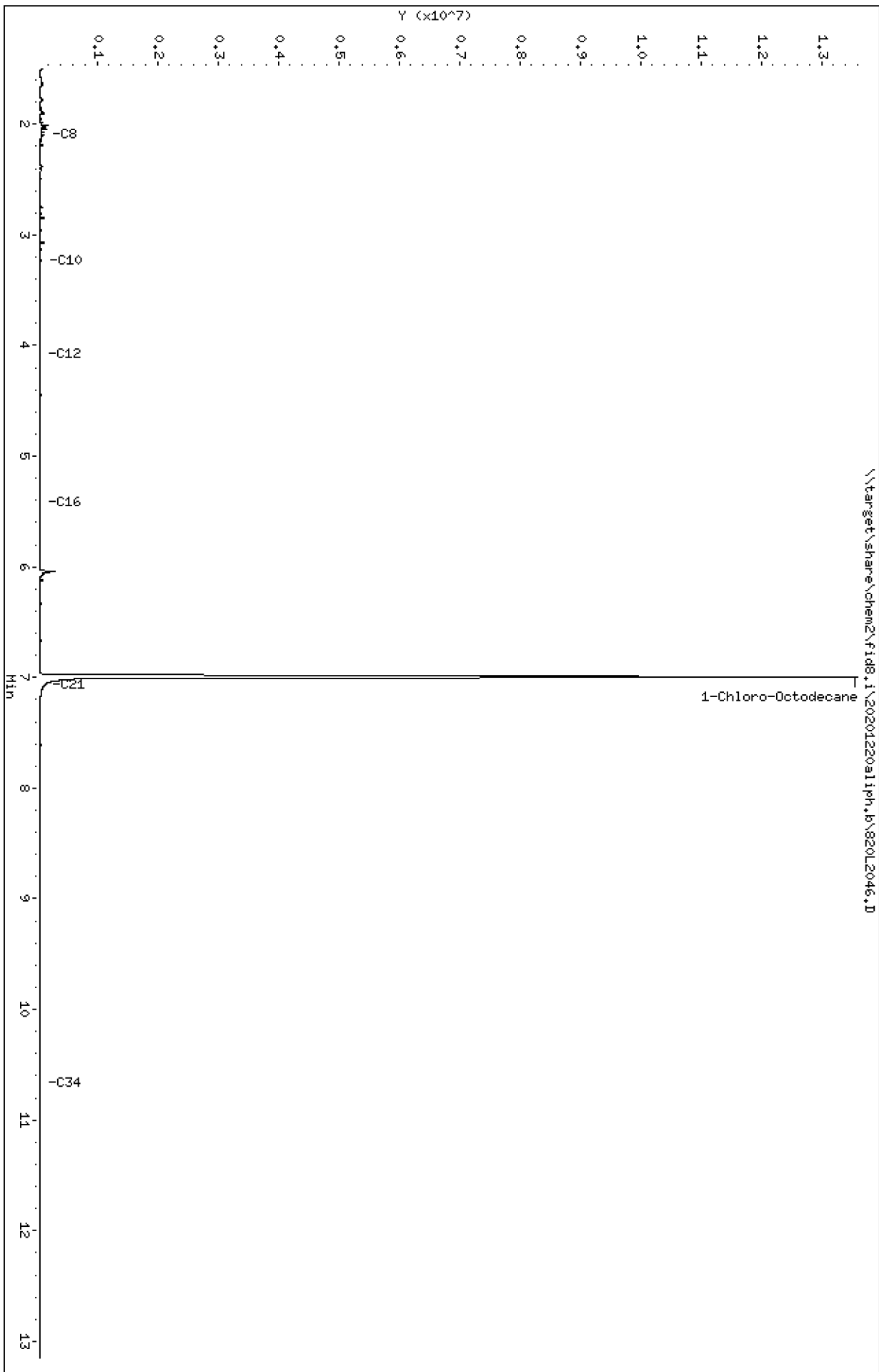
Instrument: fid8.1

Sample Info: BIK0740-BLK1

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
WA. EPH Aliphatics Report

Data file: 20201220aliph.b/820L2046.D  
Method: 20201220aliph.b\EPHALiph.m  
Instrument: fid8.i  
Operator: JGR  
Macro: ALIPH020217FID8

ARI ID: BIK0740-BLK1  
Client ID:  
Injection: 21-DEC-2020 07:31  
Matrix: NONE  
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range	Area	Conc	Time Range
C8-C10 Aliph.	852394	4.4	(2.001 - 3.348)
C10-C12 Aliph.	97041	0.5	(3.348 - 4.191)
C12-C16 Aliph.	143914	0.7	(4.191 - 5.530)
C16-C21 Aliph.	594568	3.0	(5.530 - 7.137)
C21-C34 Aliph.	304473	1.7	(7.137 - 10.756)
Surrogate Rec:	61.4%	92.1 ug/mL	



**LCS / LCS DUPLICATE RECOVERY**  
**WA EPH**

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Matrix: Solid

Analyzed: 12/21/20 07:56

Batch: BIK0740

Laboratory ID: BIK0740-BS1

Preparation: EPA 3546 (Microwave)

Sequence Name: LCS

Initial/Final: 10 g / 1 mL

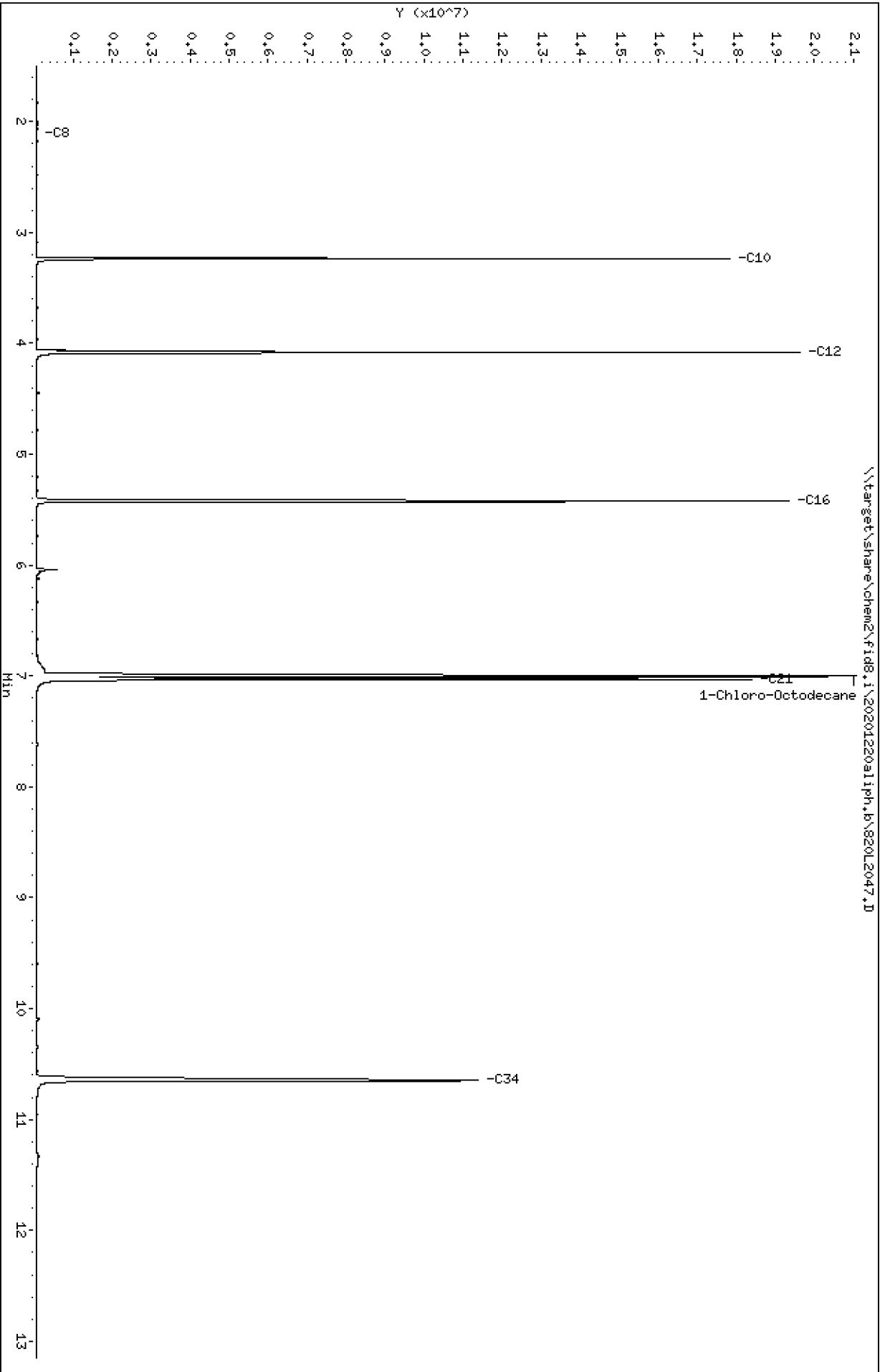
COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
C10-C12 Aliphatics	15000	6260		41.7	30 - 160

\* Indicates values outside of QC limits

Data File: \\target\share\chem2\fid8.1\20201220a11ph.b\820L2047.D  
Date: 21-DEC-2020 07:56  
Client ID:  
Sample Info: BIK0740-BS1

Column phase: RTX-1

Instrument: fid8.1  
Operator: JGR  
Column diameter: 0.25





Analytical Resources Inc.  
WA. EPH Aliphatics Report

Data file: 20201220aliph.b/820L2047.D  
Method: 20201220aliph.b\EPHALiph.m  
Instrument: fid8.i  
Operator: JGR  
Macro: ALIPH020217FID8

ARI ID: BIK0740-BS1  
Client ID:  
Injection: 21-DEC-2020 07:56  
Matrix: NONE  
Dilution Factor: 1

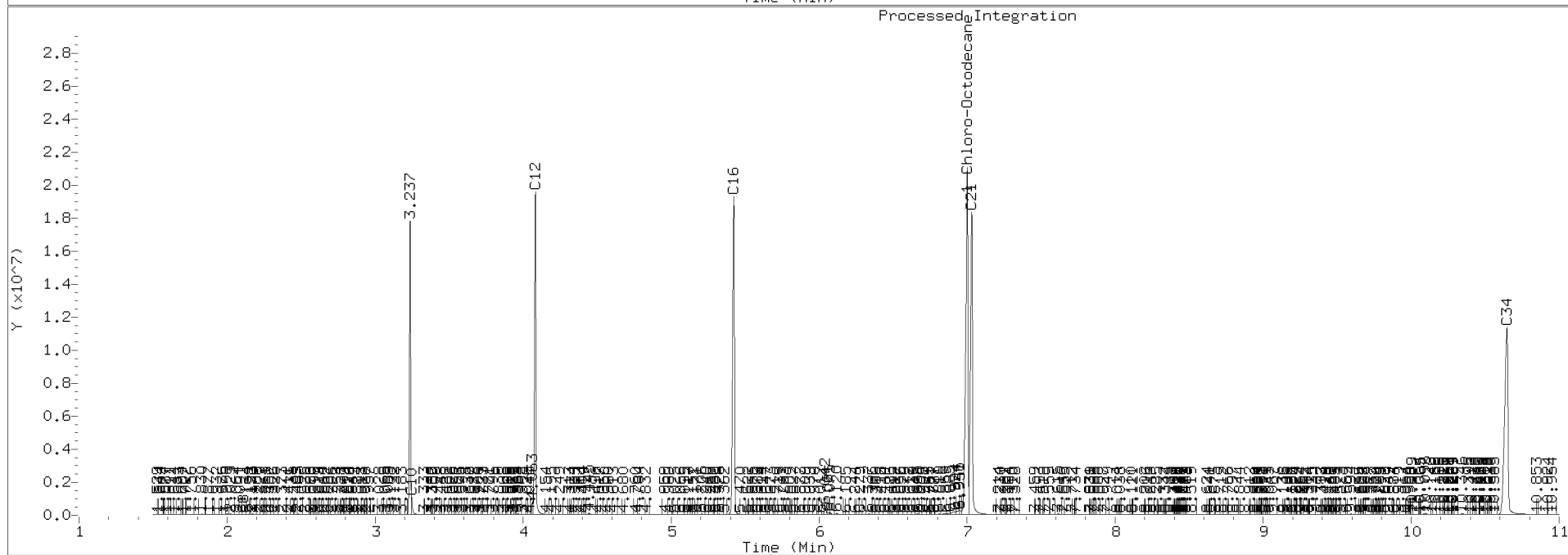
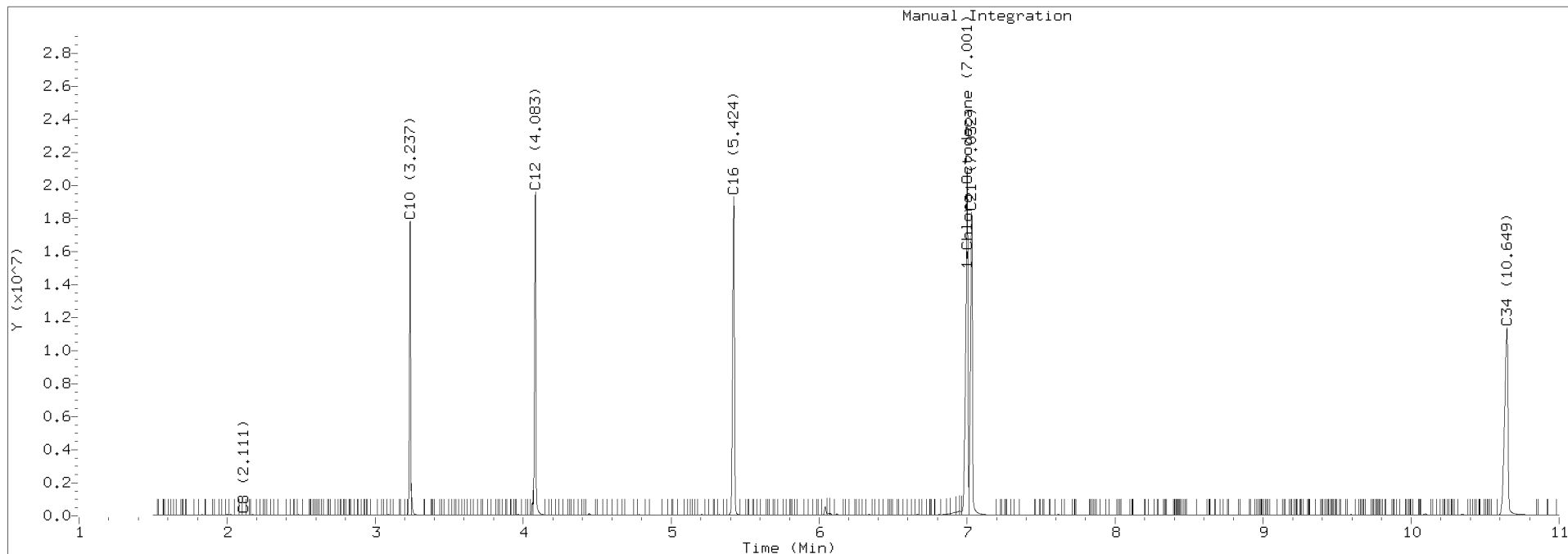
EPH-ALIPHATIC RESULTS

Quant	Range	Area	Conc	Time Range
C8-C10	Aliph.	10740902	55.8	(2.001 - 3.348)
C10-C12	Aliph.	12853102	62.6	(3.348 - 4.191)
C12-C16	Aliph.	17164149	84.8	(4.191 - 5.530)
C16-C21	Aliph.	19636338	100.7	(5.530 - 7.137)
C21-C34	Aliph.	19180013	107.1	(7.137 - 10.756)
=====				
Surrogate Rec:	84.3%	126.4	ug/mL	
=====				

EPH Aliphatics Manual Integrations Report

Datafile: FID8, 20201220aliph.b/820L2047.D Injection: 21-DEC-2020 07:56

Lab ID:BIK0740-BS1





**MS / MS DUPLICATE RECOVERY**  
**WA EPH**

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Matrix: Solid

Analyzed: 12/21/20 08:21

Batch: BIK0740

Laboratory ID: BIK0740-MS1

Preparation: EPA 3546 (Microwave)

Sequence Name: Matrix Spike

Initial/Final: 10 g / 1 mL

Source Sample: USMPDI-006SC-D-12-14-201110

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	Q	MS CONCENTRATION (ug/kg dry)	Q	MS % REC. #	QC LIMITS REC.
C10-C12 Aliphatics	20800	ND	U	13900		66.1	30 - 160

\* Values outside of QC limits



**MS / MS DUPLICATE RECOVERY**  
**WA EPH**

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>20K0204</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic</u>
Matrix:	<u>Solid</u>	Analyzed:	<u>12/21/20 08:46</u>
Batch:	<u>BIK0740</u>	Laboratory ID:	<u>BIK0740-MSD1</u>
Preparation:	<u>EPA 3546 (Microwave)</u>	Sequence Name:	<u>Matrix Spike Dup</u>
Initial/Final:	<u>10 g / 1 mL</u>	Source Sample:	<u>USMPDI-006SC-D-12-14-201110</u>

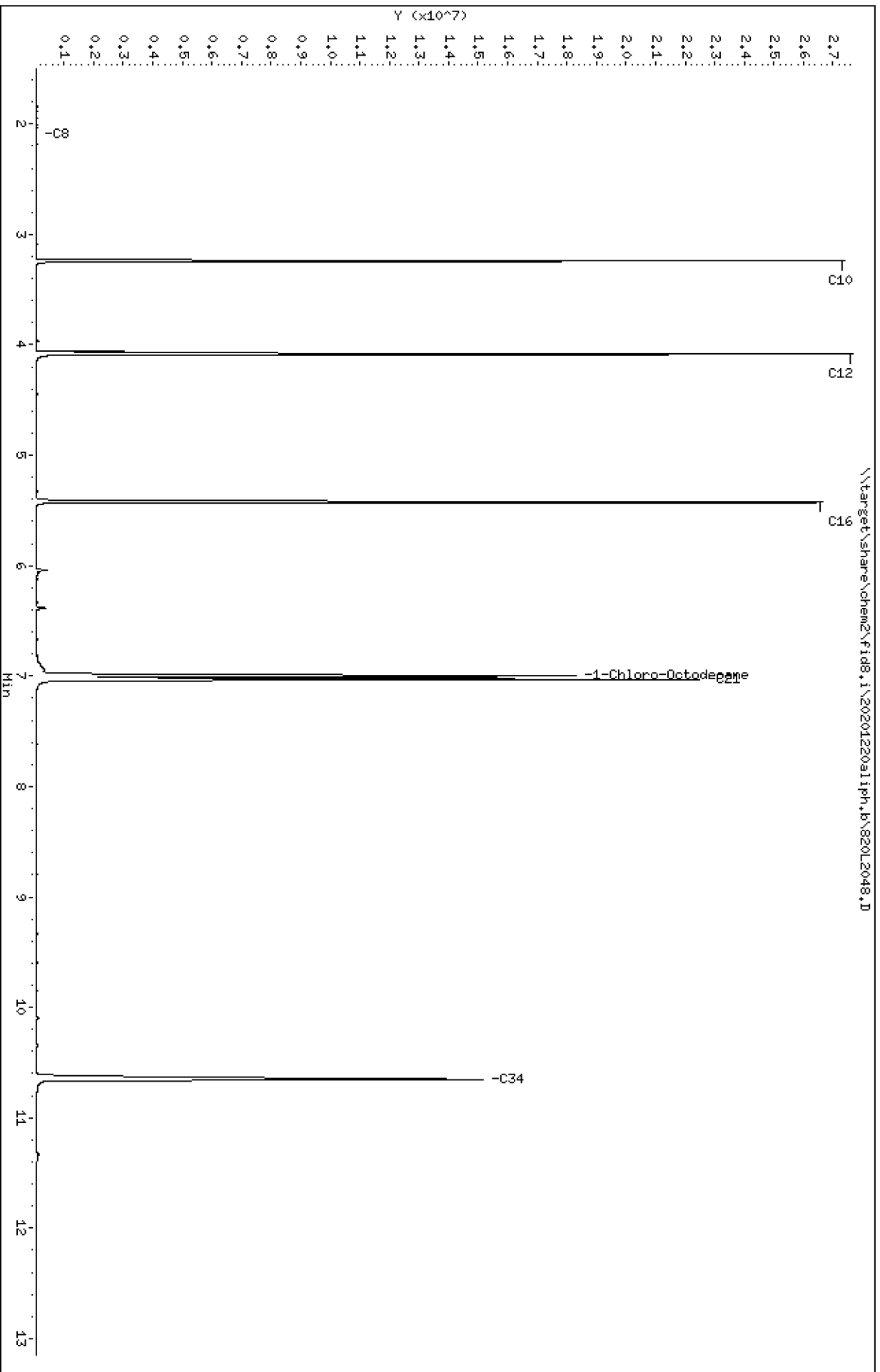
COMPOUND	SPIKE ADDED (ug/kg dry)	MSD CONCENTRATION (ug/kg dry)	Q	MSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
C10-C12 Aliphatics	20800	10600		50.5	26.5	30	30 - 160

\* Values outside of QC limits

Data File: \\target\share\chem2\fid8.1\20201220a11ph.b\820L2048.D  
Date : 21-DEC-2020 08:21  
Client ID:  
Sample Info: BIK0740-HS1

Column phase: RTX-1

Instrument: fid8.1  
Operator: JGR  
Column diameter: 0.25



Analytical Resources Inc.  
WA. EPH Aliphatics Report

Data file: 20201220aliph.b/820L2048.D  
Method: 20201220aliph.b\EPHALiph.m  
Instrument: fid8.i  
Operator: JGR  
Macro: ALIPH020217FID8

ARI ID: BIK0740-MS1  
Client ID:  
Injection: 21-DEC-2020 08:21  
Matrix: NONE  
Dilution Factor: 1

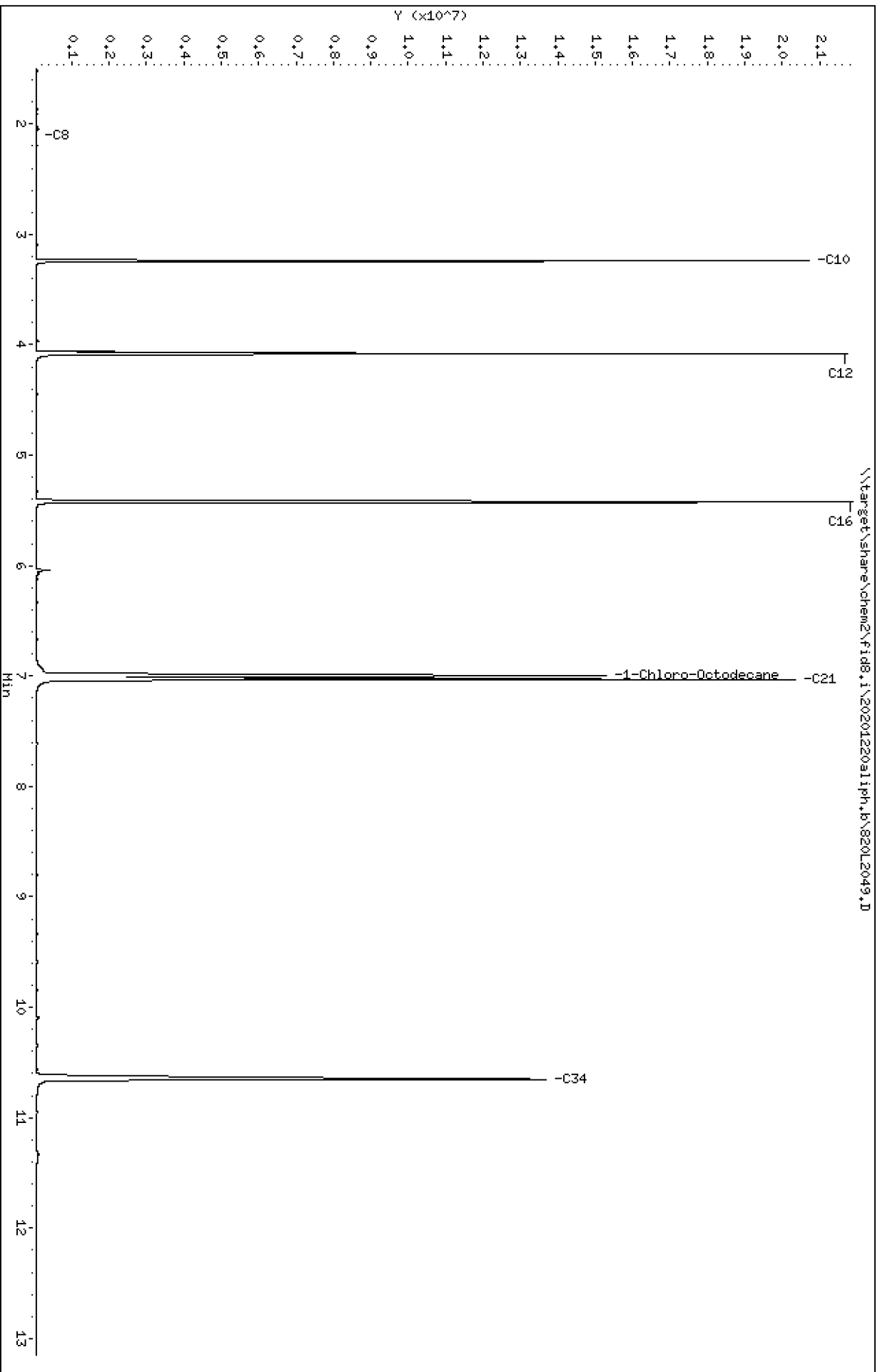
EPH-ALIPHATIC RESULTS

Quant	Range	Area	Conc	Time Range
C8-C10	Aliph.	17064372	88.6	(2.001 - 3.348)
C10-C12	Aliph.	20539849	100.0	(3.348 - 4.191)
C12-C16	Aliph.	22997247	113.6	(4.191 - 5.530)
C16-C21	Aliph.	25278220	129.6	(5.530 - 7.137)
C21-C34	Aliph.	25296360	141.3	(7.137 - 10.756)
Surrogate Rec: 78.0% 117.0 ug/mL				

Data File: \\target\share\chem2\fid8.1\20201220a11ph.b\820L2049.D  
Date : 21-DEC-2020 08:46  
Client ID:  
Sample Info: BIK0740-HSD1

Column phase: RTX-1

Instrument: fid8.1  
Operator: JGR  
Column diameter: 0.25



Analytical Resources Inc.  
WA. EPH Aliphatics Report

Data file: 20201220aliph.b/820L2049.D  
Method: 20201220aliph.b\EPHALiph.m  
Instrument: fid8.i  
Operator: JGR  
Macro: ALIPH020217FID8

ARI ID: BIK0740-MSD1  
Client ID:  
Injection: 21-DEC-2020 08:46  
Matrix: NONE  
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range	Area	Conc	Time Range
C8-C10 Aliph.	12537890	65.1	(2.001 - 3.348)
C10-C12 Aliph.	15735564	76.6	(3.348 - 4.191)
C12-C16 Aliph.	20143092	99.5	(4.191 - 5.530)
C16-C21 Aliph.	22366125	114.7	(5.530 - 7.137)
C21-C34 Aliph.	22787071	127.3	(7.137 - 10.756)
Surrogate Rec:	68.4%	102.6 ug/mL	







## INITIAL CALIBRATION DATA WA EPH

Laboratory:	Analytical Resources, Inc.	SDG:	20K0204
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic
Calibration:	DJ00015	Instrument:	FID8
Calibration Date:	10/01/2020	Column (1):	ZB5

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
C10-C12 Aliphatics	205303.2	5.3			RSD (20)	
1-Chloro-octadecane	168020.3	12.7			RSD (20)	



ANALYSIS SEQUENCE

SIJ0055

Instrument: FID8  
Calibration ID: DJ00015

Element Column ID: d002555

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SIJ0055-CAL1	AROM 20PPM	QC		1	I009169		
SIJ0055-CAL2	AROM 50PPM	QC		2	I009168		
SIJ0055-CAL3	AROM 100PPM	QC		3	I009167		
SIJ0055-CAL4	AROM 125PPM	QC		4	I009166		
SIJ0055-CAL5	AROM 150PPM	QC		5	I009165		
SIJ0055-CAL6	AROM 200PPM	QC		6	I009164		
SIJ0055-SCV1	AROM SCV	QC		7	I005685		
SIJ0055-CAL7	ALIPH 20PPM	QC		8	I009163		
SIJ0055-CAL8	ALIPH 50PPM	QC		9	I009160		
SIJ0055-CAL9	ALIPH 100PPM	QC		10	I009157		
SIJ0055-CALA	ALIPH 125PPM	QC		11	I009154		
SIJ0055-CALB	ALIPH 150PPM	QC		12	I009151		
SIJ0055-CALC	ALIPH 200PPM	QC		13	I009150		
SIJ0055-SCV2	ALIPH SCV	QC		14	I005686		

## GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20201001aliph.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	01-OCT-2020	20:50	820J0107.D	1	ALIB	
2	02-OCT-2020	00:13	820J0115.D	1	20ALIPH	
3	02-OCT-2020	00:39	820J0116.D	1	50ALPIH	
4	02-OCT-2020	01:04	820J0117.D	1	100ALIPH	
5	02-OCT-2020	01:29	820J0118.D	1	125ALIPH	
6	02-OCT-2020	01:54	820J0119.D	1	150ALIPH	
7	02-OCT-2020	02:19	820J0120.D	1	200ALIPH	
8	02-OCT-2020	02:45	820J0121.D	1	ALIPHSC2	
9	02-OCT-2020	12:28	820J0144.D	1	ALIPHICV2	
10	02-OCT-2020	12:54	820J0145.D	1	BII0795-BLK1	
11	02-OCT-2020	13:20	820J0146.D	1	BII0795-BS1	
12	02-OCT-2020	13:46	820J0147.D	1	20I0109-02	
13	02-OCT-2020	14:12	820J0148.D	1	20I0109-03	
14	02-OCT-2020	14:38	820J0149.D	1	20I0109-05	
15	02-OCT-2020	15:04	820J0150.D	1	20I0109-07	
16	02-OCT-2020	15:29	820J0151.D	1	20I0109-08	
17	02-OCT-2020	15:55	820J0152.D	1	20I0109-09	
18	02-OCT-2020	16:21	820J0153.D	1	20I0109-10	
19	02-OCT-2020	16:46	820J0154.D	1	BII0795-MS1	
20	02-OCT-2020	17:12	820J0155.D	1	BII0795-MSD1	
21	02-OCT-2020	17:38	820J0156.D	1	ALIPHCCV3	
22	02-OCT-2020	18:03	820J0157.D	1	20I0109-11	
23	02-OCT-2020	18:29	820J0158.D	1	20I0149-01	
24	02-OCT-2020	18:54	820J0159.D	1	20I0149-02	
25	02-OCT-2020	19:20	820J0160.D	1	20I0149-05	
26	02-OCT-2020	19:45	820J0161.D	1	20I0149-07	
27	02-OCT-2020	20:10	820J0162.D	1	20I0149-08	
28	02-OCT-2020	20:36	820J0163.D	1	20I0149-09	
29	02-OCT-2020	21:01	820J0164.D	1	20I0149-10	
30	02-OCT-2020	21:27	820J0165.D	1	ALIPHCCV4	
31	02-OCT-2020	22:17	820J0167.D	1	BII0478-BLK1	
32	02-OCT-2020	22:42	820J0168.D	1	BII0478-BS1	
33	02-OCT-2020	23:08	820J0169.D	1	BII0478-BSD1	
34	02-OCT-2020	23:33	820J0170.D	1	20I0212-03	
35	02-OCT-2020	23:58	820J0171.D	1	BII0481-BLK1	
36	03-OCT-2020	00:23	820J0172.D	1	BII0481-BS1	
37	03-OCT-2020	00:49	820J0173.D	1	BII0481-BSD1	
38	03-OCT-2020	01:14	820J0174.D	1	20I0212-06	
39	03-OCT-2020	01:39	820J0175.D	1	20I0212-24	
40	03-OCT-2020	05:52	820J0185.D	1	ALIPHCCV6	
41	03-OCT-2020	06:42	820J0187.D	1	BII0585-BLK1	
42	03-OCT-2020	07:07	820J0188.D	1	BII0585-BS1	
43	03-OCT-2020	07:32	820J0189.D	1	BII0585-BSD1	
44	03-OCT-2020	07:57	820J0190.D	1	20I0267-08	
45	03-OCT-2020	08:21	820J0191.D	1	20I0267-16	
46	03-OCT-2020	10:51	820J0197.D	1	ALIPHCCV8	

## GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20201001arom.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	01-OCT-2020	17:18	820J0101.D	1	RINSE	
2	01-OCT-2020	18:00	820J0102.D	1	RINSE	
3	01-OCT-2020	18:25	820J0103.D	1	RINSE	
4	01-OCT-2020	19:34	820J0104.D	1	RINSE	
5	01-OCT-2020	19:59	820J0105.D	1	RINSE	
6	01-OCT-2020	20:25	820J0106.D	1	ARIB	
7	01-OCT-2020	21:16	820J0108.D	1	20AROM	
8	01-OCT-2020	21:41	820J0109.D	1	50AROM	
9	01-OCT-2020	22:07	820J0110.D	1	100AROM	
10	01-OCT-2020	22:32	820J0111.D	1	125AROM	
11	01-OCT-2020	22:57	820J0112.D	1	150AROM	
12	01-OCT-2020	23:23	820J0113.D	1	200AROM	
13	01-OCT-2020	23:48	820J0114.D	1	AROMSCV1	
14	02-OCT-2020	03:10	820J0122.D	1	AROMICV1	
15	02-OCT-2020	03:36	820J0123.D	1	BII0795-BLK2	
16	02-OCT-2020	04:01	820J0124.D	1	BII0795-BS2	
17	02-OCT-2020	04:27	820J0125.D	1	20I0109-02	
18	02-OCT-2020	04:52	820J0126.D	1	20I0109-03	
19	02-OCT-2020	05:18	820J0127.D	1	20I0109-05	
20	02-OCT-2020	05:43	820J0128.D	1	20I0109-07	
21	02-OCT-2020	06:09	820J0129.D	1	20I0109-08	
22	02-OCT-2020	06:34	820J0130.D	1	20I0109-09	
23	02-OCT-2020	06:59	820J0131.D	1	20I0109-10	
24	02-OCT-2020	07:24	820J0132.D	1	BII0795-MS2	
25	02-OCT-2020	07:49	820J0133.D	1	BII0795-MSD2	
26	02-OCT-2020	08:14	820J0134.D	1	20I0109-11	
27	02-OCT-2020	08:39	820J0135.D	1	20I0149-01	
28	02-OCT-2020	09:05	820J0136.D	1	AROMCCV1	
29	02-OCT-2020	09:30	820J0137.D	1	20I0149-02	
30	02-OCT-2020	09:55	820J0138.D	1	20I0149-05	
31	02-OCT-2020	10:21	820J0139.D	1	20I0149-07	
32	02-OCT-2020	10:46	820J0140.D	1	20I0149-08	
33	02-OCT-2020	11:12	820J0141.D	1	20I0149-09	
34	02-OCT-2020	11:37	820J0142.D	1	20I0149-10	
35	02-OCT-2020	12:03	820J0143.D	1	AROMCCV2	
36	02-OCT-2020	21:52	820J0166.D	1	AROMCCV5	
37	03-OCT-2020	02:05	820J0176.D	1	BII0478-BLK2	
38	03-OCT-2020	02:30	820J0177.D	1	BII0478-BS2	
39	03-OCT-2020	02:55	820J0178.D	1	BII0478-BSD2	
40	03-OCT-2020	03:20	820J0179.D	1	20I0212-03	
41	03-OCT-2020	03:46	820J0180.D	1	BII0481-BLK2	
42	03-OCT-2020	04:11	820J0181.D	1	BII0481-BS2	
43	03-OCT-2020	04:36	820J0182.D	1	BII0481-BSD2	
44	03-OCT-2020	05:01	820J0183.D	1	20I0212-06	
45	03-OCT-2020	05:26	820J0184.D	1	20I0212-24	
46	03-OCT-2020	06:17	820J0186.D	1	AROMCCV7	
47	03-OCT-2020	08:46	820J0192.D	1	BII0585-BLK2	
48	03-OCT-2020	09:11	820J0193.D	1	BII0585-BS2	
49	03-OCT-2020	09:35	820J0194.D	1	BII0585-BSD2	
50	03-OCT-2020	10:01	820J0195.D	1	20I0267-08	

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20201001arom.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
51	03-OCT-2020	10:26	820J0196.D	1	20I0267-16	
52	03-OCT-2020	11:16	820J0198.D	1	AROMCCV9	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20201001arom.b

ARI Job No.: RINS Method: EPHArOm.m Instrument: fid8.i Date: 01-OCT-2020

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1718	820J0101.D	RINSE		1	NO MANUAL INTEGRATION
1800	820J0102.D	RINSE		1	NO MANUAL INTEGRATION
1825	820J0103.D	RINSE		1	NO MANUAL INTEGRATION
1934	820J0104.D	RINSE		1	NO MANUAL INTEGRATION
1959	820J0105.D	RINSE		1	NO MANUAL INTEGRATION
2025	820J0106.D	ARIB		1	NO MANUAL INTEGRATION
2116	820J0108.D	20AROM		1	1,2,3-Trimetben, Benzo-ghi-per,
2141	820J0109.D	50AROM		1	NO MANUAL INTEGRATION
2207	820J0110.D	100AROM		1	Benzo-ghi-per,
2232	820J0111.D	125AROM		1	NO MANUAL INTEGRATION
2257	820J0112.D	150AROM		1	NO MANUAL INTEGRATION
2323	820J0113.D	200AROM		1	Benzo-ghi-per,
2348	820J0114.D	AROMSCV1		1	NO MANUAL INTEGRATION
0310	820J0122.D	AROMICV1		1	NO MANUAL INTEGRATION
0336	820J0123.D	BII0795-BLK2		1	NO MANUAL INTEGRATION
0401	820J0124.D	BII0795-BS2		1	NO MANUAL INTEGRATION
0427	820J0125.D	20I0109-02		1	1-chlorooctodecane (AROMATIC),

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20201001arom.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0452	820J0126.D	20I0109-03	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0518	820J0127.D	20I0109-05	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0543	820J0128.D	20I0109-07	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0609	820J0129.D	20I0109-08	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0634	820J0130.D	20I0109-09	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0659	820J0131.D	20I0109-10	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0724	820J0132.D	BII0795-MS2	1	1	Benzo-ghi-per, 1-chlorooctodecane(AROMATIC), o-Terph Surr,
0749	820J0133.D	BII0795-MSD2	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0814	820J0134.D	20I0109-11	1	1	NO MANUAL INTEGRATION
0839	820J0135.D	20I0149-01	1	1	NO MANUAL INTEGRATION
0905	820J0136.D	AROMCCV1	1	1	NO MANUAL INTEGRATION
0930	820J0137.D	20I0149-02	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0955	820J0138.D	20I0149-05	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
1021	820J0139.D	20I0149-07	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
1046	820J0140.D	20I0149-08	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
1112	820J0141.D	20I0149-09	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
1137	820J0142.D	20I0149-10	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
1203	820J0143.D	AROMCCV2	1	1	NO MANUAL INTEGRATION



MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20201001arom.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2152	820J0166.D	AROMCCV5	1		Benzo-ghi-per,
0205	820J0176.D	BII0478-BLK2	1		NO MANUAL INTEGRATION
0230	820J0177.D	BII0478-BS2	1		NO MANUAL INTEGRATION
0255	820J0178.D	BII0478-BSD2	1		NO MANUAL INTEGRATION
0320	820J0179.D	20I0212-03	1		NO MANUAL INTEGRATION
0346	820J0180.D	BII0481-BLK2	1		NO MANUAL INTEGRATION
0411	820J0181.D	BII0481-BS2	1		NO MANUAL INTEGRATION
0436	820J0182.D	BII0481-BSD2	1		NO MANUAL INTEGRATION
0501	820J0183.D	20I0212-06	1		NO MANUAL INTEGRATION
0526	820J0184.D	20I0212-24	1		NO MANUAL INTEGRATION
0617	820J0186.D	AROMCCV7	1		NO MANUAL INTEGRATION
0846	820J0192.D	BII0585-BLK2	1		NO MANUAL INTEGRATION
0911	820J0193.D	BII0585-BS2	1		NO MANUAL INTEGRATION
0935	820J0194.D	BII0585-BSD2	1		NO MANUAL INTEGRATION
1001	820J0195.D	20I0267-08	1		NO MANUAL INTEGRATION
1026	820J0196.D	20I0267-16	1		NO MANUAL INTEGRATION
1116	820J0198.D	AROMCCV9	1		Benzo-ghi-per,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20201001aliph.b

ARI Job No.: ALIB Method: EPHaliph.m Instrument: fid8.i Date: 01-OCT-2020

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2050	820J0107.D	ALIB		1	NO MANUAL INTEGRATION
0013	820J0115.D	20ALIPH		1	C10,
0039	820J0116.D	50ALPIH		1	C10,
0104	820J0117.D	100ALIPH		1	NO MANUAL INTEGRATION
0129	820J0118.D	125ALIPH		1	NO MANUAL INTEGRATION
0154	820J0119.D	150ALIPH		1	NO MANUAL INTEGRATION
0219	820J0120.D	200ALIPH		1	NO MANUAL INTEGRATION
0245	820J0121.D	ALIPHSC2		1	C8,
1228	820J0144.D	ALIPHICV2		1	NO MANUAL INTEGRATION
1254	820J0145.D	BII0795-BLK1		1	NO MANUAL INTEGRATION
1320	820J0146.D	BII0795-BS1		1	C10,
1346	820J0147.D	20I0109-02		1	1-Chloro-Octodecane,
1412	820J0148.D	20I0109-03		1	1-Chloro-Octodecane,
1438	820J0149.D	20I0109-05		1	1-Chloro-Octodecane,
1504	820J0150.D	20I0109-07		1	1-Chloro-Octodecane,
1529	820J0151.D	20I0109-08		1	1-Chloro-Octodecane,
1555	820J0152.D	20I0109-09		1	1-Chloro-Octodecane,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20201001aliph.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1621	820J0153.D	20I0109-10		1	1-Chloro-Octodecane,
1646	820J0154.D	BII0795-MS1		1	C10, 1-Chloro-Octodecane,
1712	820J0155.D	BII0795-MSD1		1	C10, 1-Chloro-Octodecane,
1738	820J0156.D	ALIPHCCV3		1	NO MANUAL INTEGRATION
1803	820J0157.D	20I0109-11		1	NO MANUAL INTEGRATION
1829	820J0158.D	20I0149-01		1	1-Chloro-Octodecane,
1854	820J0159.D	20I0149-02		1	1-Chloro-Octodecane,
1920	820J0160.D	20I0149-05		1	1-Chloro-Octodecane,
1945	820J0161.D	20I0149-07		1	1-Chloro-Octodecane,
2010	820J0162.D	20I0149-08		1	1-Chloro-Octodecane,
2036	820J0163.D	20I0149-09		1	1-Chloro-Octodecane,
2101	820J0164.D	20I0149-10		1	1-Chloro-Octodecane,
2127	820J0165.D	ALIPHCCV4		1	C10,
2217	820J0167.D	BII0478-BLK1		1	NO MANUAL INTEGRATION
2242	820J0168.D	BII0478-BS1		1	C10,
2308	820J0169.D	BII0478-BSD1		1	C10,
2333	820J0170.D	20I0212-03		1	NO MANUAL INTEGRATION
2358	820J0171.D	BII0481-BLK1		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20201001aliph.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0023	820J0172.D	BII0481-BS1	1	C10,	
0049	820J0173.D	BII0481-BS1	1	C10,	
0114	820J0174.D	20I0212-06	1	NO MANUAL INTEGRATION	
0139	820J0175.D	20I0212-24	1	NO MANUAL INTEGRATION	
0552	820J0185.D	ALIPHCCV6	1	NO MANUAL INTEGRATION	
0642	820J0187.D	BII0585-BLK1	1	NO MANUAL INTEGRATION	
0707	820J0188.D	BII0585-BS1	1	C10,	
0732	820J0189.D	BII0585-BS1	1	C10,	
0757	820J0190.D	20I0267-08	1	NO MANUAL INTEGRATION	
0821	820J0191.D	20I0267-16	1	NO MANUAL INTEGRATION	
1051	820J0197.D	ALIPHCCV8	1	NO MANUAL INTEGRATION	

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 01-OCT-2020 21:16  
 End Cal Date : 01-OCT-2020 23:23  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\target\share\chem2\fid8.i\20201001arom.b\EPHArOm.m  
 Last Edit : 03-Oct-2020 16:14 jrains  
 Curve Type : Average

Calibration File Names:

Level 1: \\target\share\chem2\fid8.i\20201001arom.b\820J0108.D  
 Level 2: \\target\share\chem2\fid8.i\20201001arom.b\820J0109.D  
 Level 3: \\target\share\chem2\fid8.i\20201001arom.b\820J0110.D  
 Level 4: \\target\share\chem2\fid8.i\20201001arom.b\820J0111.D  
 Level 5: \\target\share\chem2\fid8.i\20201001arom.b\820J0112.D  
 Level 6: \\target\share\chem2\fid8.i\20201001arom.b\820J0113.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	0.000e+00 Level 6	RRF	% RSD
2 Toluene	202541	200103	210181	206834	218140	220027	209638	3.873
75 1-chlorooctadecane(AROMATIC)	132313	153399	174967	173349	185447	188648	168020	12.750
3 1,2,3-Trimetben	191434	197193	228204	223881	237337	237890	219323	9.202
4 Naphthalene	213238	216541	229212	224164	240841	240261	227376	5.122
7 Acenaphthene	199093	205855	221749	218129	235859	234173	219143	6.743
13 Pyrene	184602	191251	203229	197225	214605	207275	199698	5.474
21 Benzo-ghi-per	178290	180537	192963	187635	203195	198613	190205	5.200
\$ 11 o-Terph Surr	201436	208092	221843	218933	236273	231635	219702	6.075

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 02-OCT-2020 00:13  
 End Cal Date : 02-OCT-2020 02:19  
 Quant Method : ESTD  
 Origin : Disabled  
 Target Version : 4.14  
 Integrator : Falcon  
 Method file : \\target\share\chem2\fid8.i\20201001aliph.b\EPHALiph.m  
 Last Edit : 02-Oct-2020 15:45 jrains  
 Curve Type : Average

Calibration File Names:

- Level 1: \\target\share\chem2\fid8.i\20201001aliph.b\820J0115.D
- Level 2: \\target\share\chem2\fid8.i\20201001aliph.b\820J0116.D
- Level 3: \\target\share\chem2\fid8.i\20201001aliph.b\820J0117.D
- Level 4: \\target\share\chem2\fid8.i\20201001aliph.b\820J0118.D
- Level 5: \\target\share\chem2\fid8.i\20201001aliph.b\820J0119.D
- Level 6: \\target\share\chem2\fid8.i\20201001aliph.b\820J0120.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	150.000 Level 4	200.000 Level 5	0.000e+00 Level 6	RRF	% RSD
1 C8	176338	175062	188683	191276	198627	194095	187347	5.131
2 C10	176420	177478	200312	204928	214702	212340	197697	8.537
3 C12	195247	190902	206967	204132	217696	216877	205303	5.337
4 C16	187421	187647	206440	200811	216724	215676	202453	6.411
6 C21	202391	188336	194246	190241	200304	194799	195053	2.812
7 C34	166616	167083	182209	181067	186280	190891	179024	5.610
\$ 5 1-Chloro-Octodecane	132313	153399	174967	173349	185447	188648	168020	12.750

ARI Labs, Inc.  
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem2\fid8.i\20201001arom.b\EPHArrom.m  
Batch File: \\target\share\chem2\fid8.i\20201001arom.b  
Inst ID: fid8.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	820J0108	820J0109	820J0110	820J0111	820J0112	820J0113
INJ. DATE:	01-OCT-2020	01-OCT-2020	01-OCT-2020	01-OCT-2020	01-OCT-2020	01-OCT-2020
INJ. TIME:	21:16	21:41	22:07	22:32	22:57	23:23

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
2 Toluene	1.881	1.886	1.889	1.889	1.892	1.895	1.889	1.839-1.939	1.889	0.005
75 1-chlorooctodecane(ARO)	6.978	7.003	7.003	7.006	6.973	6.974	7.002	6.952-7.052	6.990	0.016
3 1,2,3-Trimetben	3.357	3.360	3.364	3.365	3.367	3.371	3.357	3.307-3.407	3.364	0.005
4 Naphthalene	4.074	4.076	4.081	4.083	4.085	4.088	4.086	4.036-4.136	4.081	0.005
7 Acenaphthene	5.124	5.126	5.130	5.133	5.135	5.138	5.137	5.087-5.187	5.131	0.005
11 o-Terph Surr	6.397	6.397	6.403	6.405	6.408	6.412	6.410	6.360-6.460	6.404	0.006
13 Pyrene	7.182	7.184	7.193	7.196	7.200	7.205	7.204	7.154-7.254	7.193	0.009
21 Benzo-ghi-per	10.312	10.323	10.342	10.350	10.359	10.371	10.353	10.303-10.403	10.343	0.022

Reviewer 1 \_\_\_\_\_ Date: \_\_\_\_\_  
Reviewer 2 \_\_\_\_\_ Date: \_\_\_\_\_

ARI Labs, Inc.  
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem2\fid8.i\20201001aliph.b\EPHALiph.m  
 Batch File: \\target\share\chem2\fid8.i\20201001aliph.b  
 Inst ID: fid8.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	820J0115	820J0116	820J0117	820J0118	820J0119	820J0120
INJ. DATE:	02-OCT-2020	02-OCT-2020	02-OCT-2020	02-OCT-2020	02-OCT-2020	02-OCT-2020
INJ. TIME:	00:13	00:39	01:04	01:29	01:54	02:19

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 C8	2.105	2.106	2.112	2.113	2.114	2.118	2.118	2.068-2.168	2.111	0.005
2 C10	3.245	3.249	3.253	3.254	3.256	3.259	3.259	3.209-3.309	3.253	0.005
3 C12	4.088	4.090	4.093	4.095	4.097	4.099	4.099	4.050-4.150	4.094	0.004
4 C16	5.428	5.429	5.433	5.435	5.437	5.438	5.438	5.388-5.488	5.433	0.004
5 1-Chloro-Octodecane	7.000	7.001	7.006	7.009	7.011	7.014	7.014	6.964-7.064	7.007	0.006
6 C21	7.032	7.034	7.039	7.041	7.045	7.047	7.047	6.997-7.097	7.040	0.006
7 C34	10.644	10.644	10.652	10.658	10.659	10.669	10.669	10.619-10.719	10.654	0.010

Reviewer 1 \_\_\_\_\_ Date: \_\_\_\_\_  
 Reviewer 2 \_\_\_\_\_ Date: \_\_\_\_\_



Security Status Report

Date: 05-Oct-2020 17:34

820J0107.D	Data Locked	j rains,	05-Oct-2020	17:34
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820J0118.D	Data Locked	j rains,	05-Oct-2020	17:34
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820J0120.D	Data Locked	j rains,	05-Oct-2020	17:34
820J0121.D	Data Locked	j rains,	05-Oct-2020	17:34
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820J0145.D	Data Locked	j rains,	05-Oct-2020	17:34
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820J0189.D	Data Locked	j rains,	05-Oct-2020	17:34
820J0190.D	Data Locked	j rains,	05-Oct-2020	17:34

820J0191.D  
820J0197.D

Data Locked  
Data Locked

j rains, 05-Oct-2020 17:34  
j rains, 05-Oct-2020 17:34

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Security Status Report

Date: 05-Oct-2020 17:40

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820J0182.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0183.D	Data Locked	j rains, 05-Oct-2020 17:40

820J0184.D	Data Locked	jrains, 05-Oct-2020 17:40
820J0186.D	Data Locked	jrains, 05-Oct-2020 17:40
820J0192.D	Data Locked	jrains, 05-Oct-2020 17:40
820J0193.D	Data Locked	jrains, 05-Oct-2020 17:40
820J0194.D	Data Locked	jrains, 05-Oct-2020 17:40
820J0195.D	Data Locked	jrains, 05-Oct-2020 17:40
820J0196.D	Data Locked	jrains, 05-Oct-2020 17:40
820J0198.D	Data Locked	jrains, 05-Oct-2020 17:40

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Data File: \\target\share\chem2\fid8.1\20201001a1iph.b\82030107.D

Date : 01-OCT-2020 20:50

Client ID:

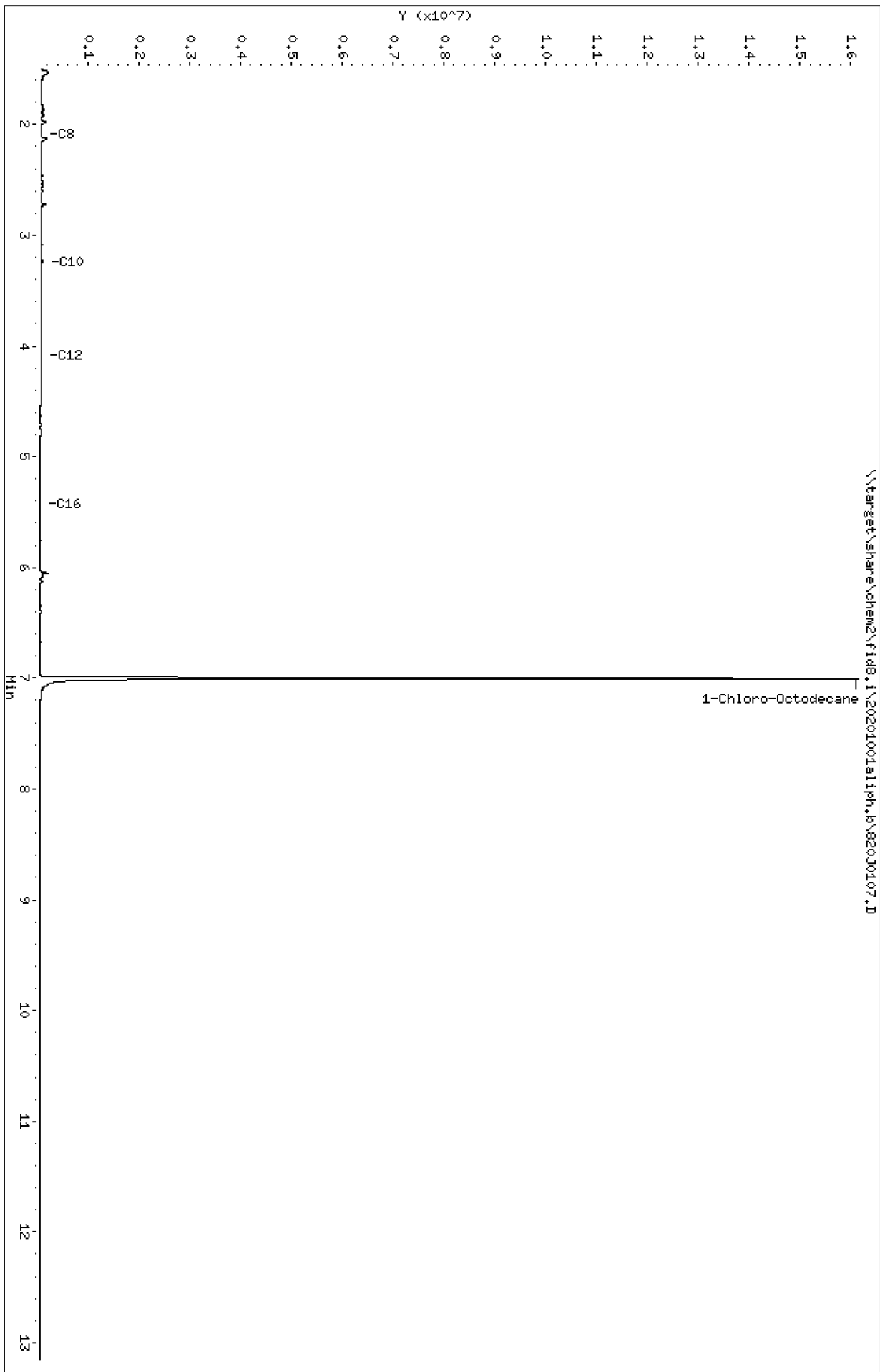
Sample Info: ALIB

Column phase: RTX-1

Instrument: fid8.1

Operator: JGR

Column diameter: 0.25



Analytical Resources Inc.  
WA. EPH Aliphatics Report

Data file: 20201001aliph.b/820J0107.D  
Method: 20201001aliph.b\EPHALiph.m  
Instrument: fid8.i  
Operator: JGR  
Macro: ALIPH020217FID8

ARI ID: ALIB  
Client ID:  
Injection: 01-OCT-2020 20:50  
Matrix: NONE  
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range	Area	Conc	Time Range
C8-C10 Aliph.	2241826	11.6	(2.018 - 3.359)
C10-C12 Aliph.	762525	3.7	(3.359 - 4.199)
C12-C16 Aliph.	509118	2.5	(4.199 - 5.538)
C16-C21 Aliph.	608631	3.1	(5.538 - 7.147)
C21-C34 Aliph.	161111	0.9	(7.147 - 10.769)
Surrogate Rec:	61.1%	91.6 ug/mL	

Data File: \\target\share\chem2\fid8.1\20201001arom,b\820J0108.D  
Date : 01-OCT-2020 21:16

Client ID:

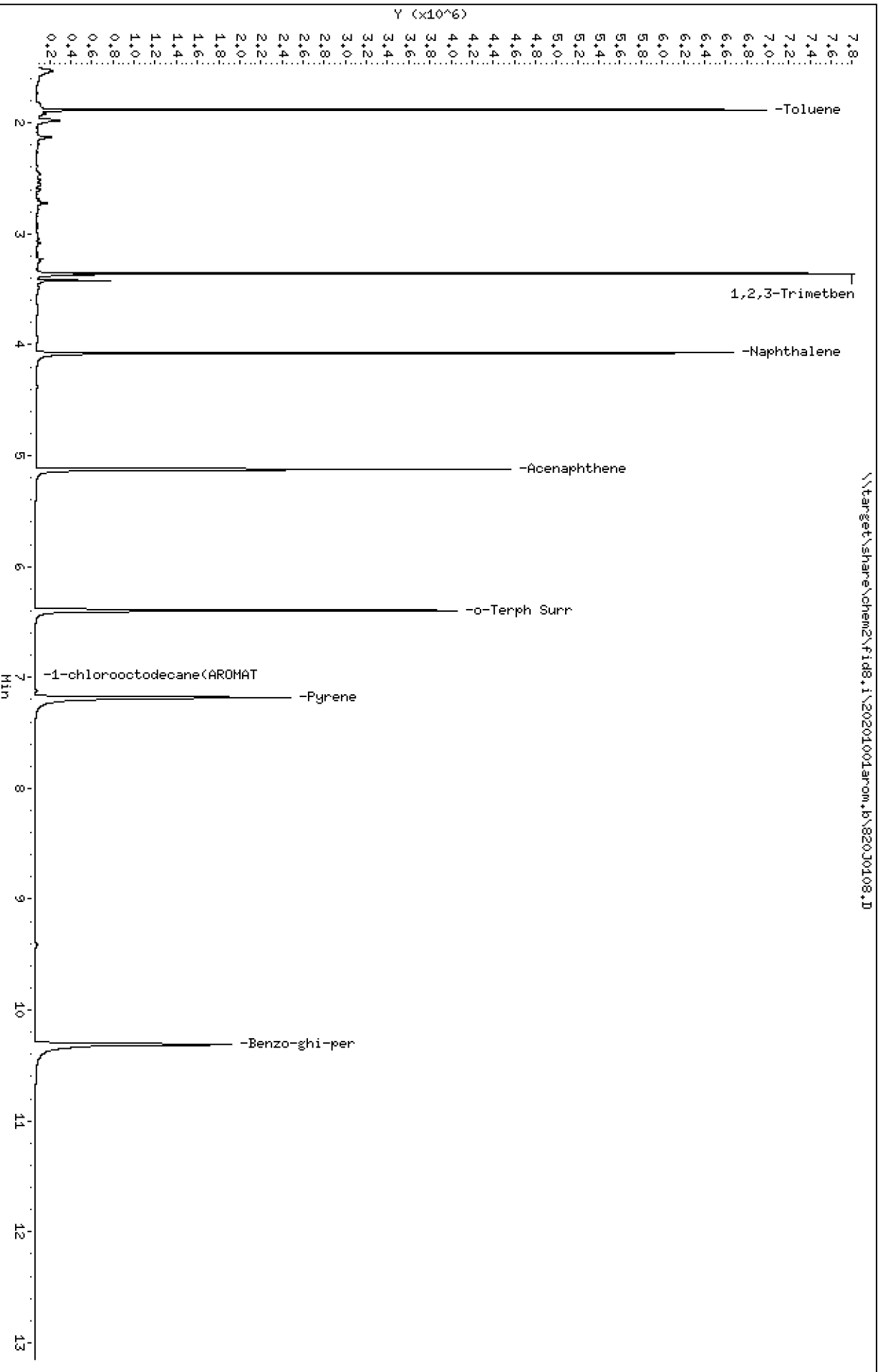
Sample Info: 20HR0M

Column phase: RTX-1

Instrument: fid8.1

Operator: JGR

Column diameter: 0.25



EPH AROMATIC CALIBRATION REPORT

Lab Name: ANALYTICAL RESOURCES, INC.

Lab ID: 20AROM

ICal Date: 01-OCT-2020

Instrument: FID8.I

Analysis Time: 21:16

Lab File Name: 820J0108.D

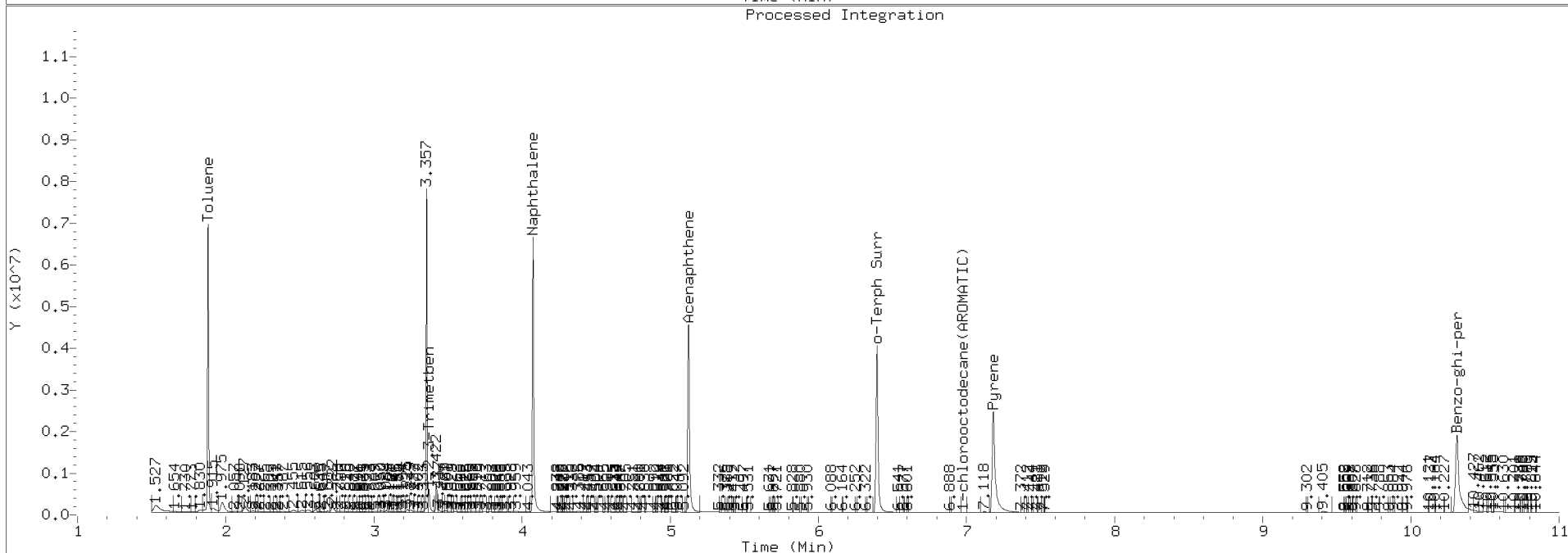
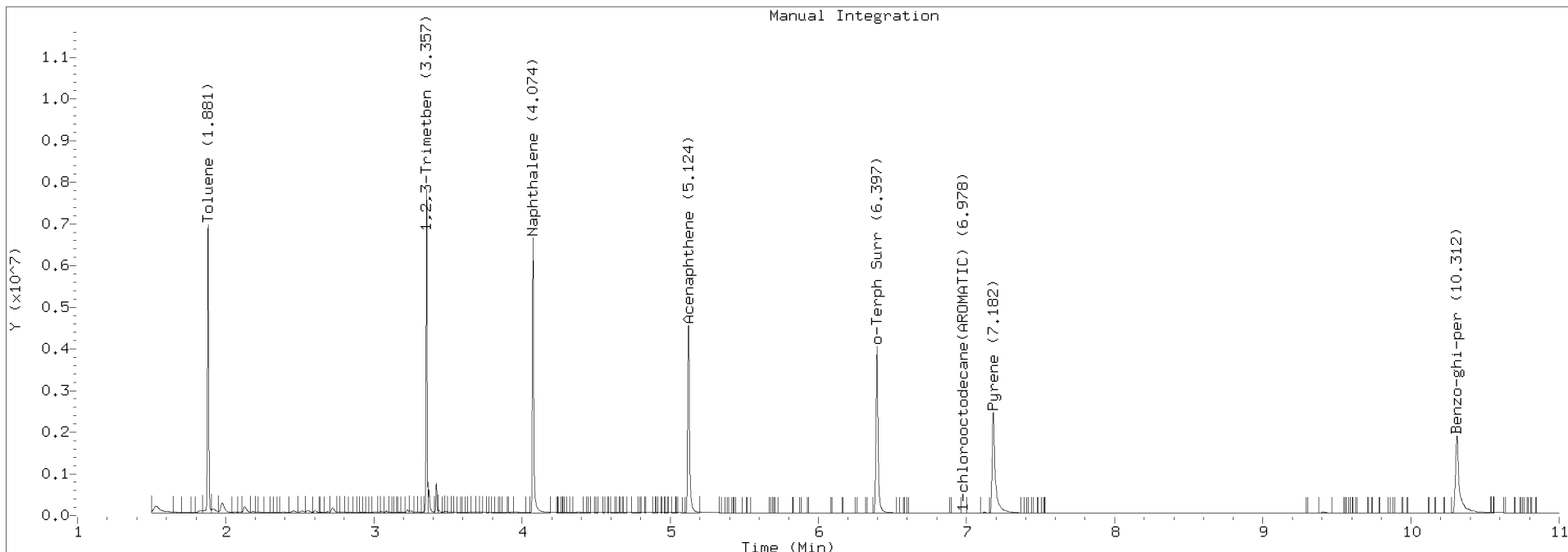
Quant Range	Area*	Conc
C8-C10 Arom.	7879500	36.8
C10-C12 Arom.	4264763	18.8
C12-C16 Arom.	3981855	18.2
C16-C21 Arom.	3692046	18.5
C21-C34 Arom.	3565794	18.7
Surrogate	4028722	18.3

\* From Range Reference Peak(s)



EPH Aromatics Manual Integrations Report

Datafile: FID8, 20201001arom.b/820J0108.D Injection: 01-OCT-2020 21:16  
 Lab ID:20AROM



Data File: \\target\share\chem2\fid8.1\20201001arom\_b\820J0109.D  
Date : 01-OCT-2020 21:41

Client ID:

Sample Info: 504R0M

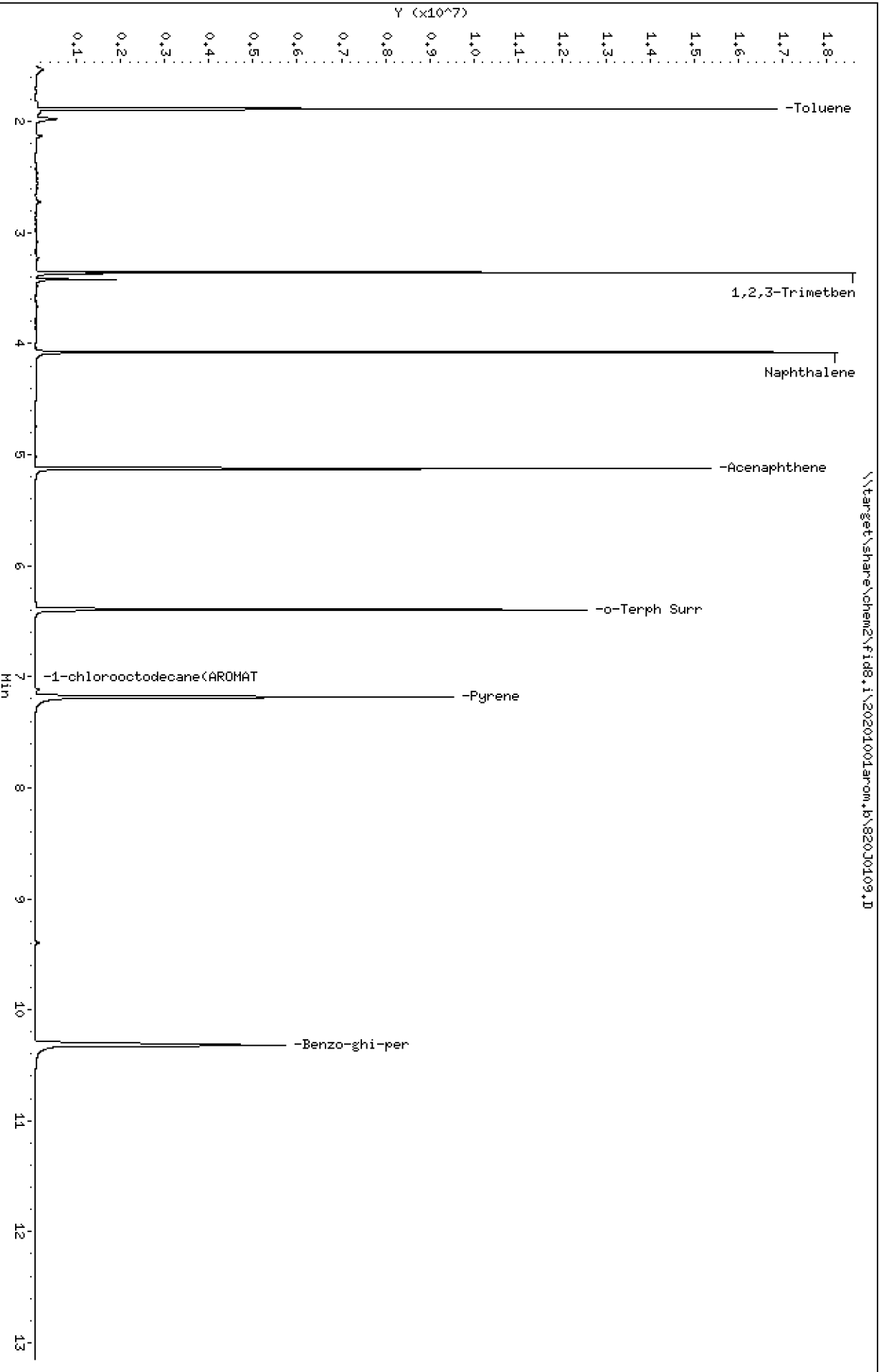
Column phase: RTX-1

Instrument: fid8.1

Operator: JGR

Column diameter: 0.25

Page 1



EPH AROMATIC CALIBRATION REPORT

Lab Name: ANALYTICAL RESOURCES, INC.

Lab ID: 50AROM

ICal Date: 01-OCT-2020

Instrument: FID8.I

Analysis Time: 21:41

Lab File Name: 820J0109.D

Quant Range	Area*	Conc
C8-C10 Arom.	19864827	92.7
C10-C12 Arom.	10827055	47.6
C12-C16 Arom.	10292755	47.0
C16-C21 Arom.	9562568	47.9
C21-C34 Arom.	9026865	47.5
Surrogate	10404619	47.4

\* From Range Reference Peak(s)

Data File: \\target\share\chem2\fid8.1\20201001arom\_b\820J0110.D  
Date : 01-OCT-2020 22:07

Client ID:

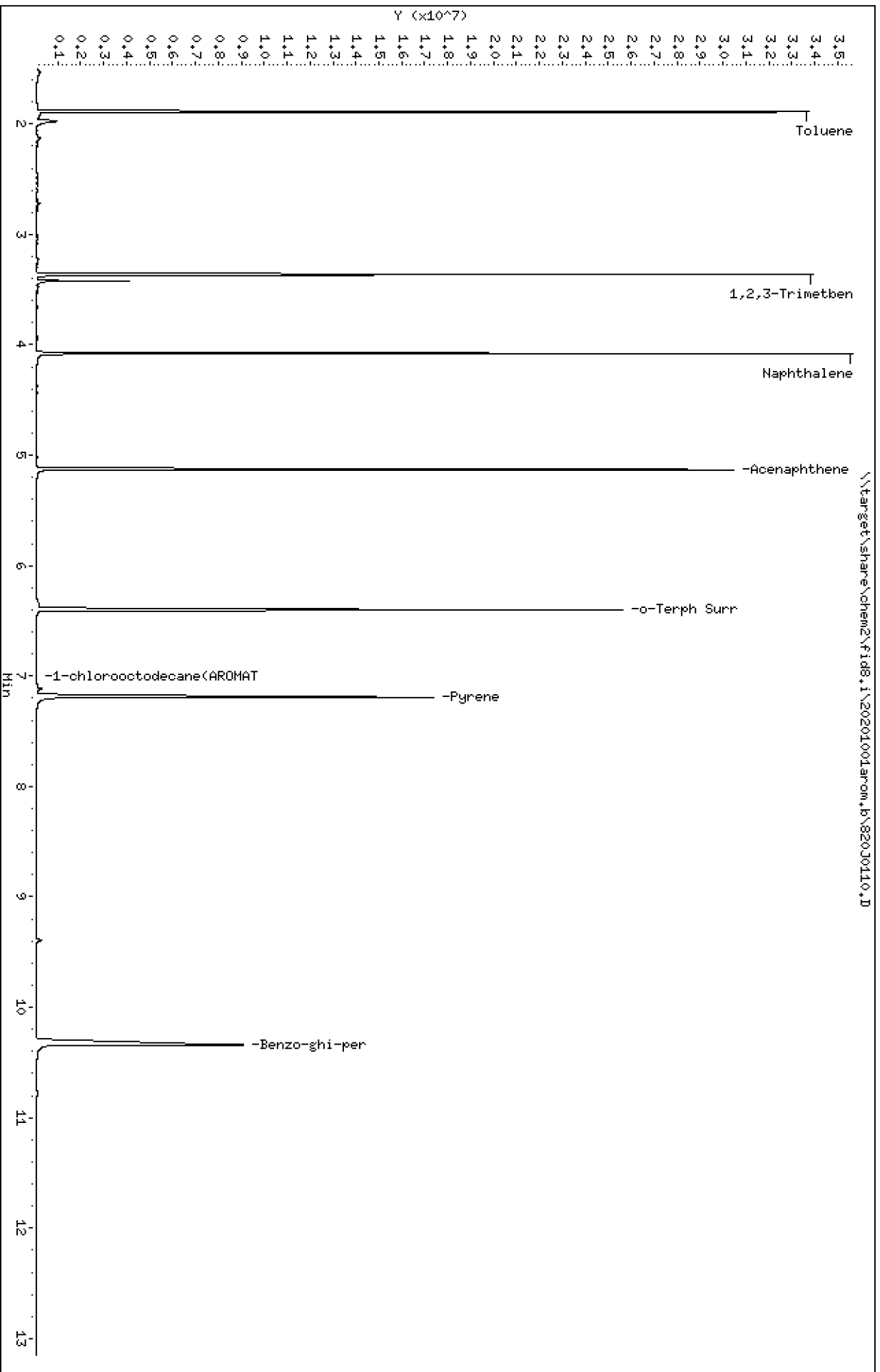
Sample Info: 100AROM

Column phase: RTX-1

Instrument: fid8.1

Operator: JGR

Column diameter: 0.25



EPH AROMATIC CALIBRATION REPORT

Lab Name: ANALYTICAL RESOURCES, INC.

Lab ID: 100AROM

ICal Date: 01-OCT-2020

Instrument: FID8.I

Analysis Time: 22:07

Lab File Name: 820J0110.D

Quant Range	Area*	Conc
C8-C10 Arom.	43838545	204.3
C10-C12 Arom.	22921214	100.8
C12-C16 Arom.	22174890	101.2
C16-C21 Arom.	20322928	101.8
C21-C34 Arom.	19296272	101.4
Surrogate	22184280	101.0

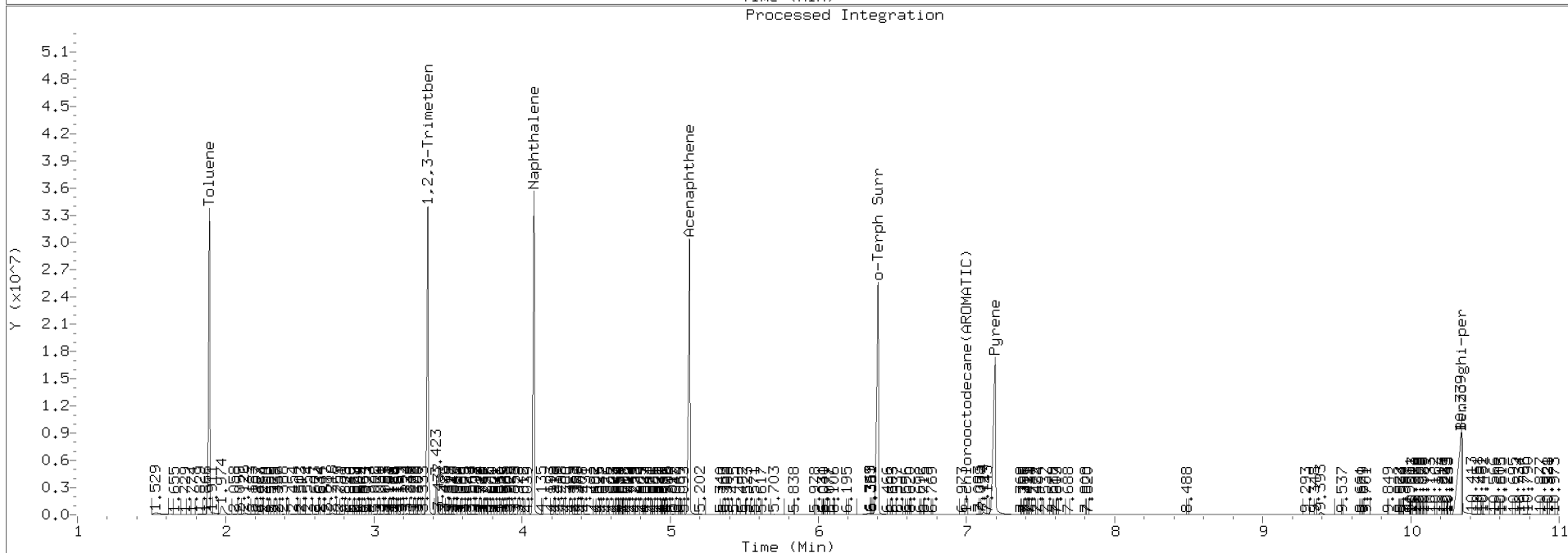
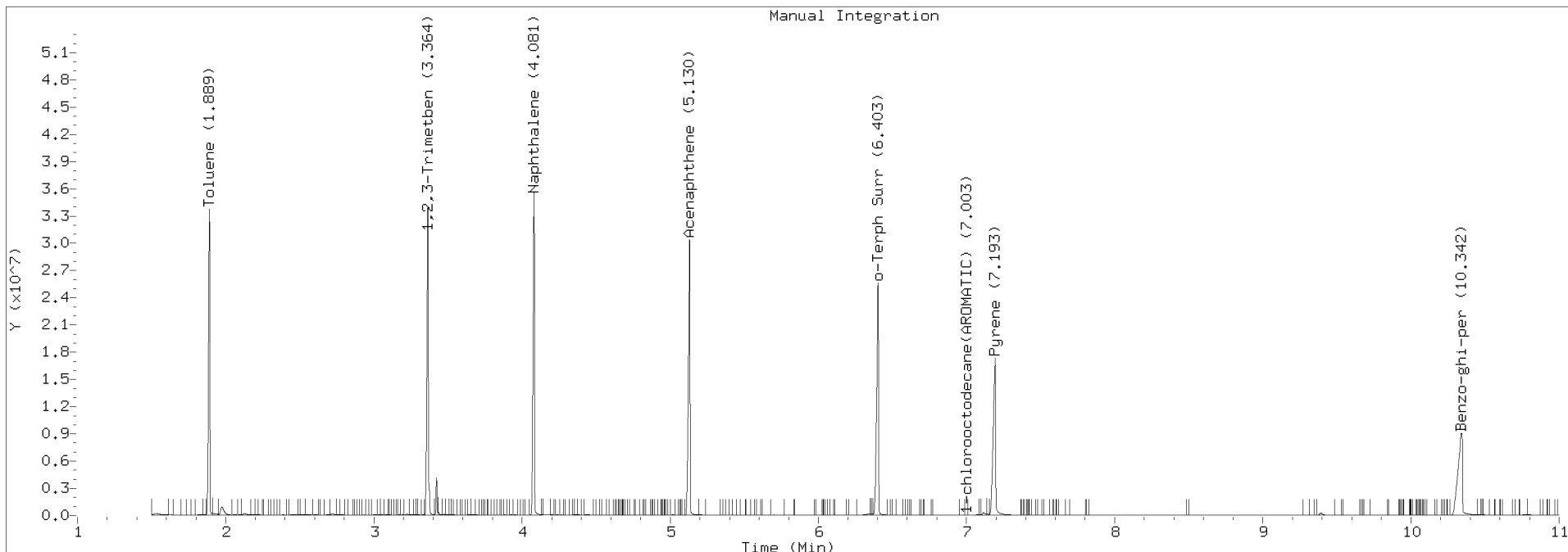
\* From Range Reference Peak(s)

EPH Aromatics Manual Integrations Report

Datafile: FID8, 20201001arom.b/820J0110.D  
 Lab ID:100AROM

20201001arom.b/820J0110.D

Injection: 01-OCT-2020 22:07



Data File: \\target\share\chem2\fid8.1\20201001arom\_b\820J0111.D  
Date: 01-OCT-2020 22:32

Client ID:

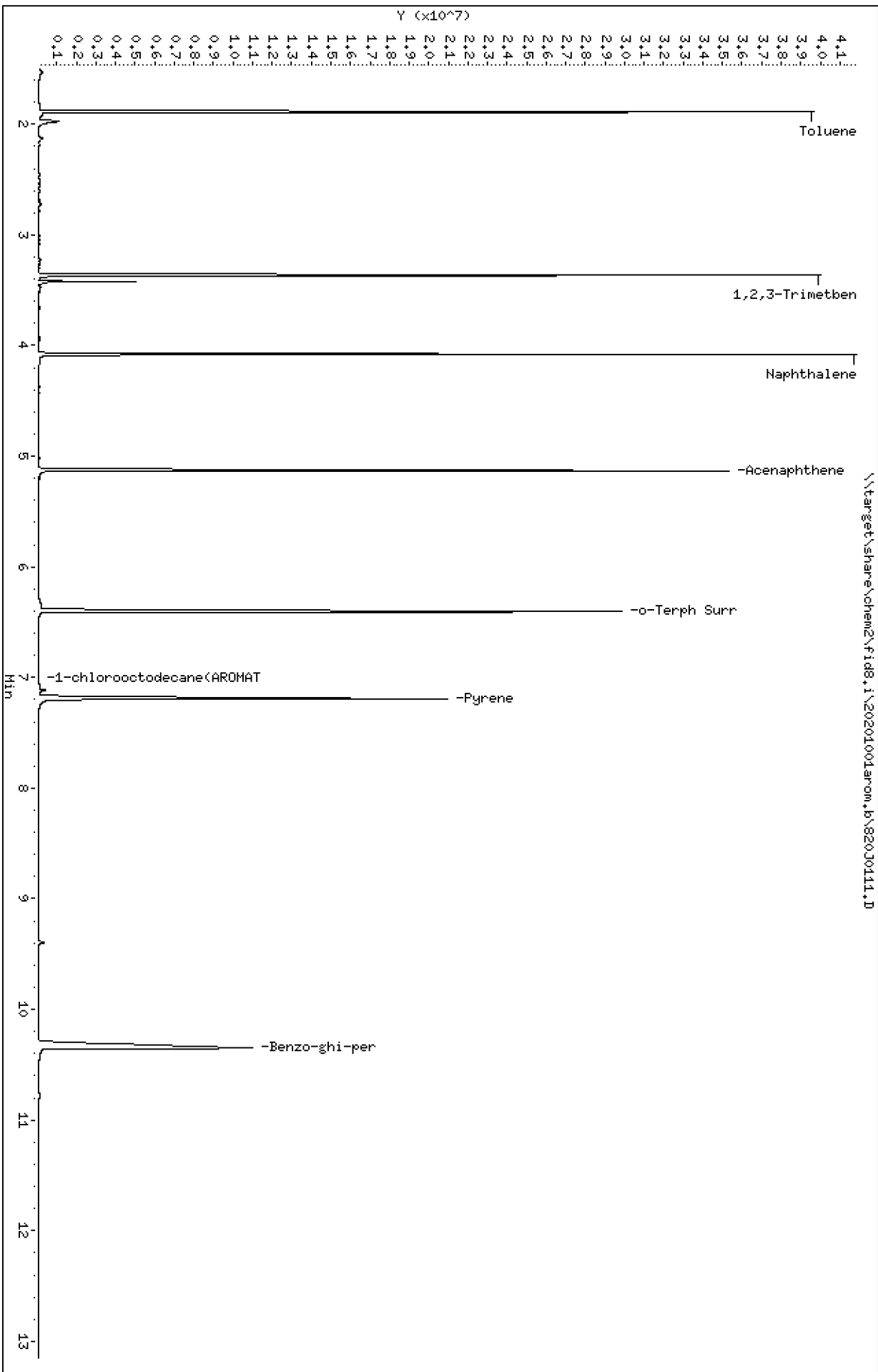
Sample Info: 125AROM

Column phase: RTX-1

Instrument: fid8.1

Operator: JGR

Column diameter: 0.25



EPH AROMATIC CALIBRATION REPORT

Lab Name: ANALYTICAL RESOURCES, INC.

Lab ID: 125AROM

ICal Date: 01-OCT-2020

Instrument: FID8.I

Analysis Time: 22:32

Lab File Name: 820J0111.D

Quant Range		Area*	Conc
C8-C10	Arom.	53839388	250.9
C10-C12	Arom.	28020461	123.2
C12-C16	Arom.	27266098	124.4
C16-C21	Arom.	24653071	123.5
C21-C34	Arom.	23454396	123.3
Surrogate		27366622	124.6

\* From Range Reference Peak(s)



Data File: \\target\share\chem2\fid8.1\20201001arom\_b\820J0112.D  
Date : 01-OCT-2020 22:57

Client ID:

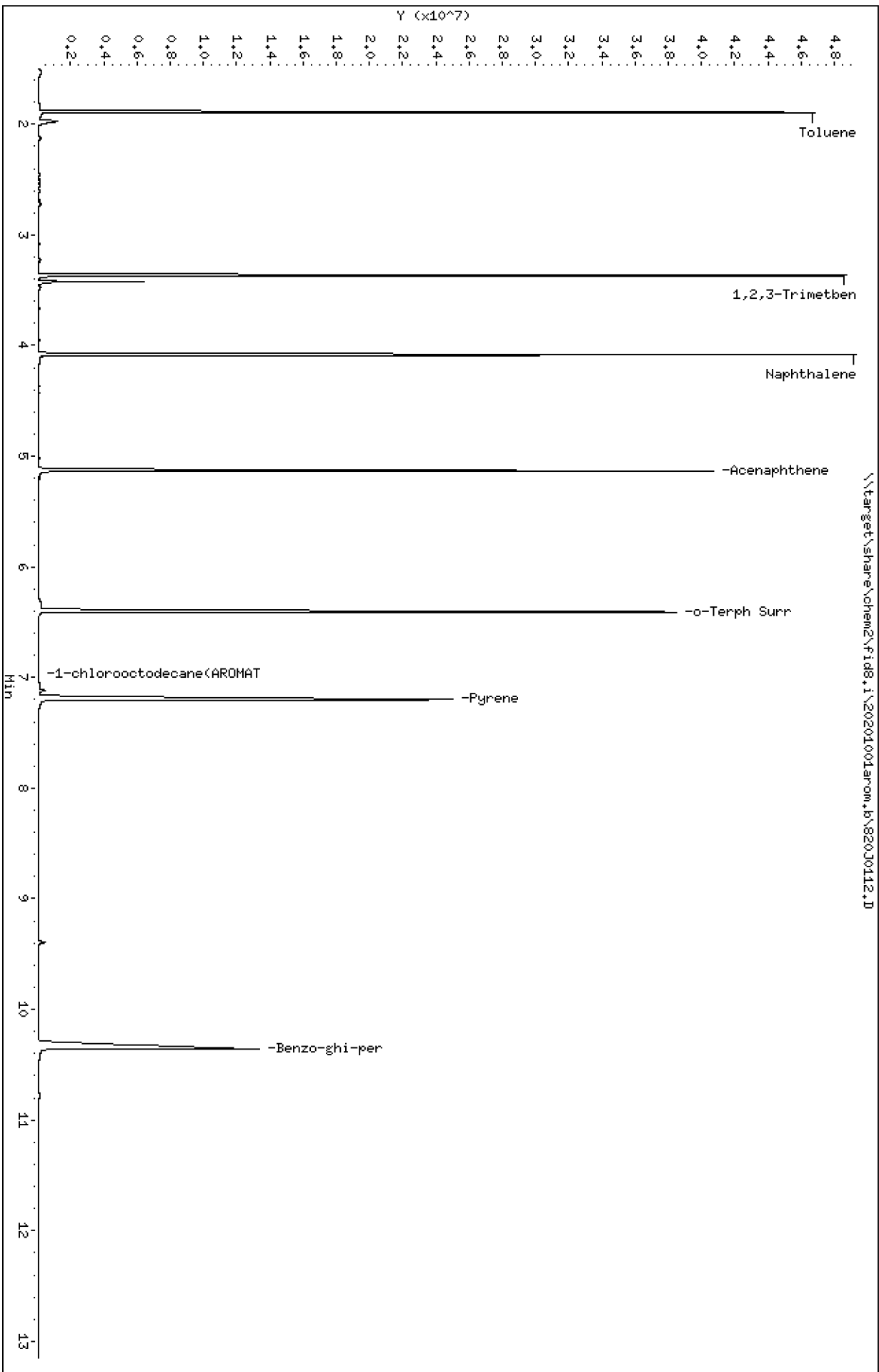
Sample Info: 150AROM

Column phase: RTX-1

Instrument: fid8.1

Operator: JGR

Column diameter: 0.25



EPH AROMATIC CALIBRATION REPORT

Lab Name: ANALYTICAL RESOURCES, INC.

Lab ID: 150AROM

Ical Date: 01-OCT-2020

Instrument: FID8.I

Analysis Time: 22:57

Lab File Name: 820J0112.D

Quant Range	Area*	Conc
C8-C10 Arom.	68321514	318.4
C10-C12 Arom.	36126191	158.9
C12-C16 Arom.	35378805	161.4
C16-C21 Arom.	32190721	161.2
C21-C34 Arom.	30479246	160.2
Surrogate	35440907	161.3

\* From Range Reference Peak(s)

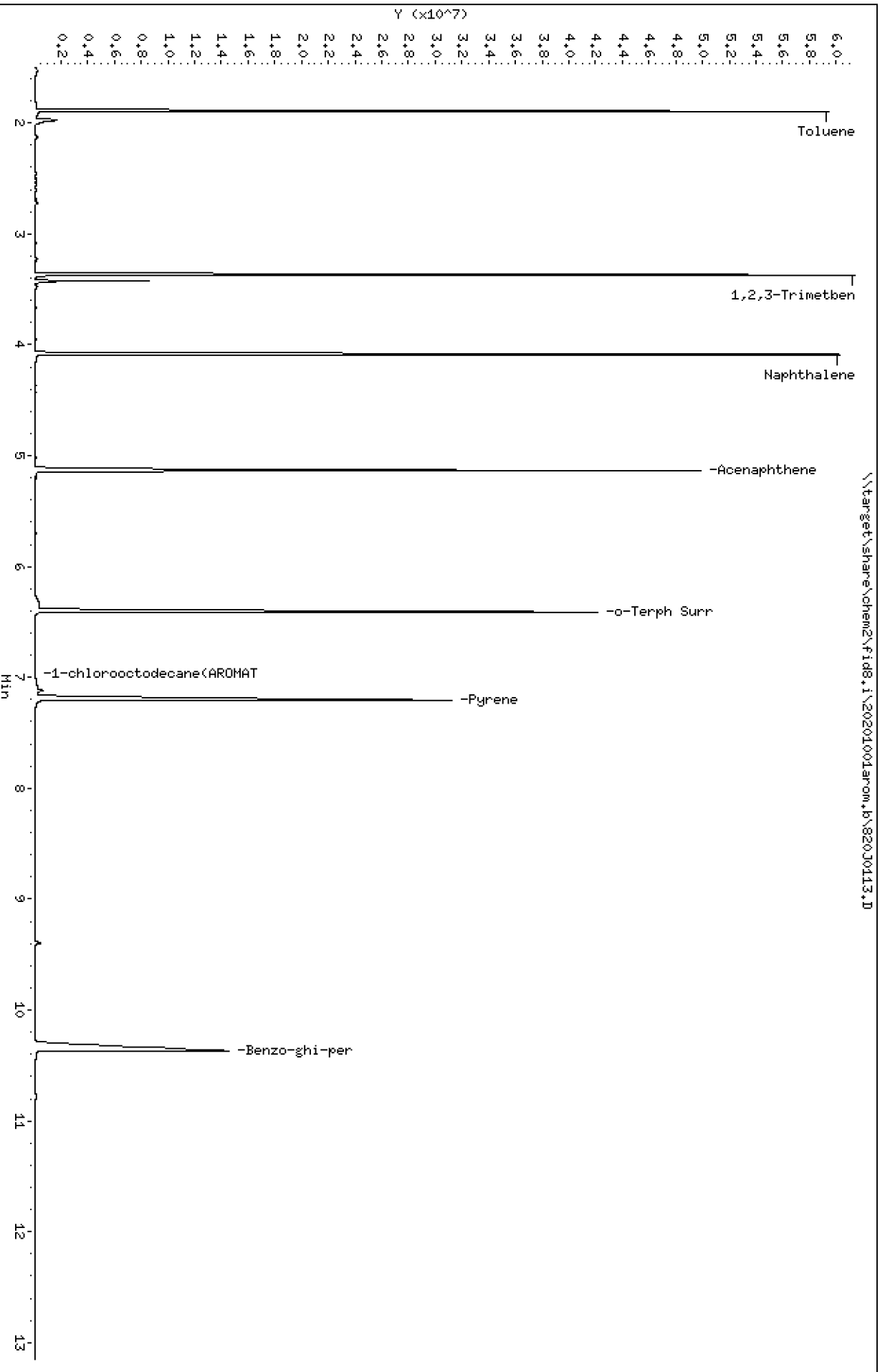
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Date : 01-OCT-2020 23:23  
Client ID:  
Sample Info: 200AROM

Instrument: fid8.1

Page 1

Column phase: RTX-1

Operator: JGR  
Column diameter: 0.25



EPH AROMATIC CALIBRATION REPORT

Lab Name: ANALYTICAL RESOURCES, INC.

Lab ID: 200AROM

ICal Date: 01-OCT-2020

Instrument: FID8.I

Analysis Time: 23:23

Lab File Name: 820J0113.D

Quant Range	Area*	Conc
C8-C10 Arom.	91583324	426.8
C10-C12 Arom.	48052127	211.3
C12-C16 Arom.	46834541	213.7
C16-C21 Arom.	41455089	207.6
C21-C34 Arom.	39722566	208.8
Surrogate	46327076	210.9

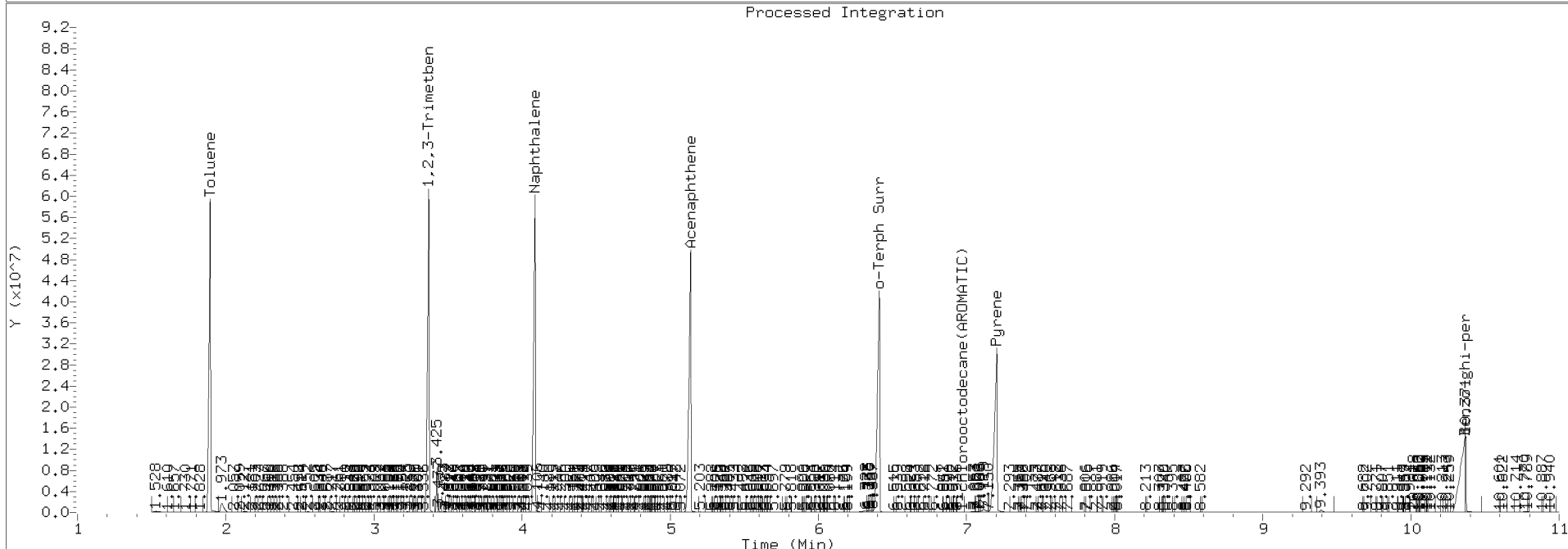
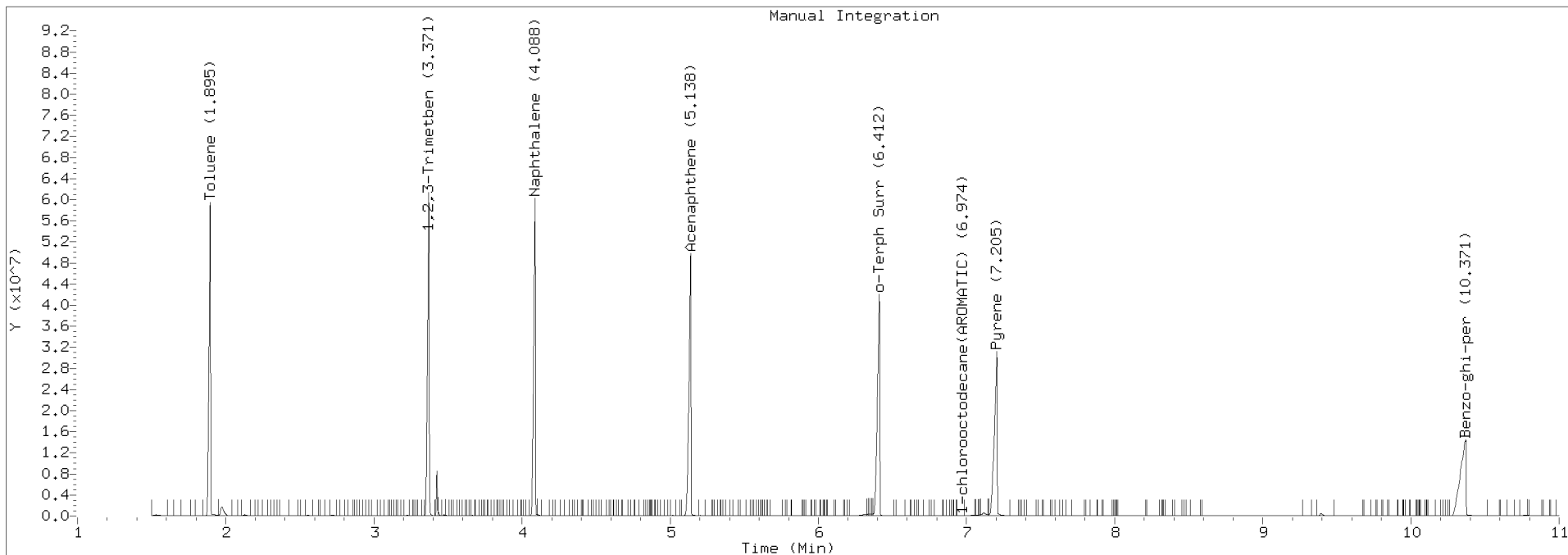
\* From Range Reference Peak(s)

EPH Aromatics Manual Integrations Report

Datafile: FID8, 20201001arom.b/820J0113.D  
Lab ID:200AROM

20201001arom.b/820J0113.D

Injection: 01-OCT-2020 23:23



Data File: \\target\share\chem2\fid8.1\20201001arom,b\820J0114.D  
Date : 01-OCT-2020 23:48

Client ID:

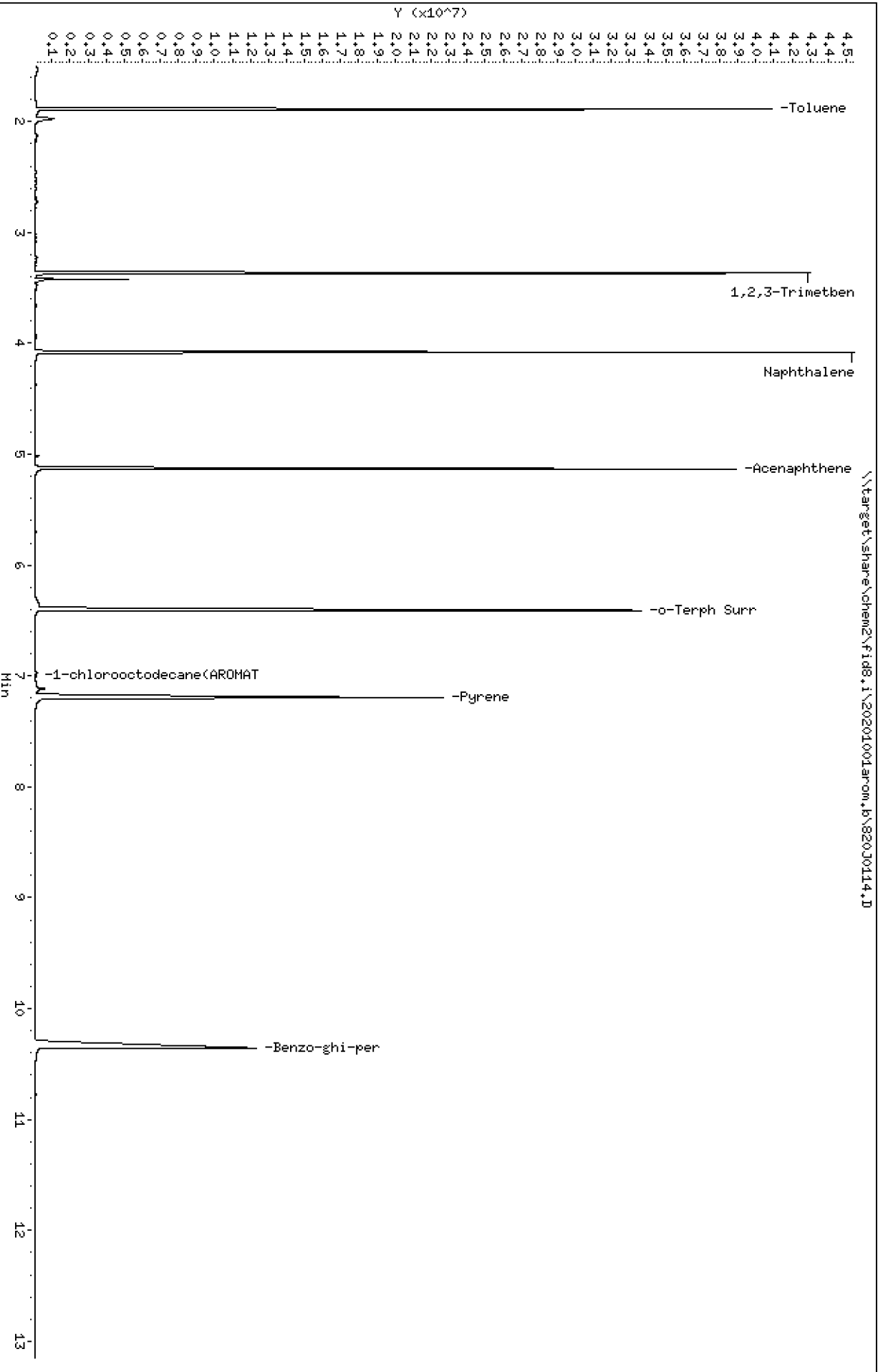
Sample Info: ARDMSCV1

Column phase: RTX-1

Instrument: fid8.1

Operator: JGR

Column diameter: 0.25



Analytical Resources Inc.  
WA-EPH Aromatics Report

Data file: 20201001arom.b/820J0114.D  
Method: 20201001arom.b\EPHArOm.m  
Instrument: fid8.i  
Operator: JGR  
Report Date: 10/05/2020  
Macro: AROM120911FID8

ARI ID: AROMSCV1  
Client ID:  
Injection: 01-OCT-2020 23:48  
Matrix: NONE  
Dilution Factor: 1

EPH-AROMATIC RESULTS

Quant Range	RF	Area	Conc	Time Range
C8-C10 Arom.	214480	64104813	298.9	(1.789 - 3.457)
C10-C12 Arom.	227376	32593872	143.3	(3.457 - 4.186)
C12-C16 Arom.	219143	31578494	144.1	(4.186 - 5.237)
C16-C21 Arom.	199698	30919014	154.8	(5.237 - 7.304)
C21-C34 Arom.	190205	27644405	145.3	(7.304 - 10.453)

Surrogate Rec: 104.4% 156.6 ug/mL

Data File: \\target\share\chem2\fid8.1\20201001a1iph.b\82030115.D

Page 1

Date : 02-OCT-2020 00:13

Client ID:

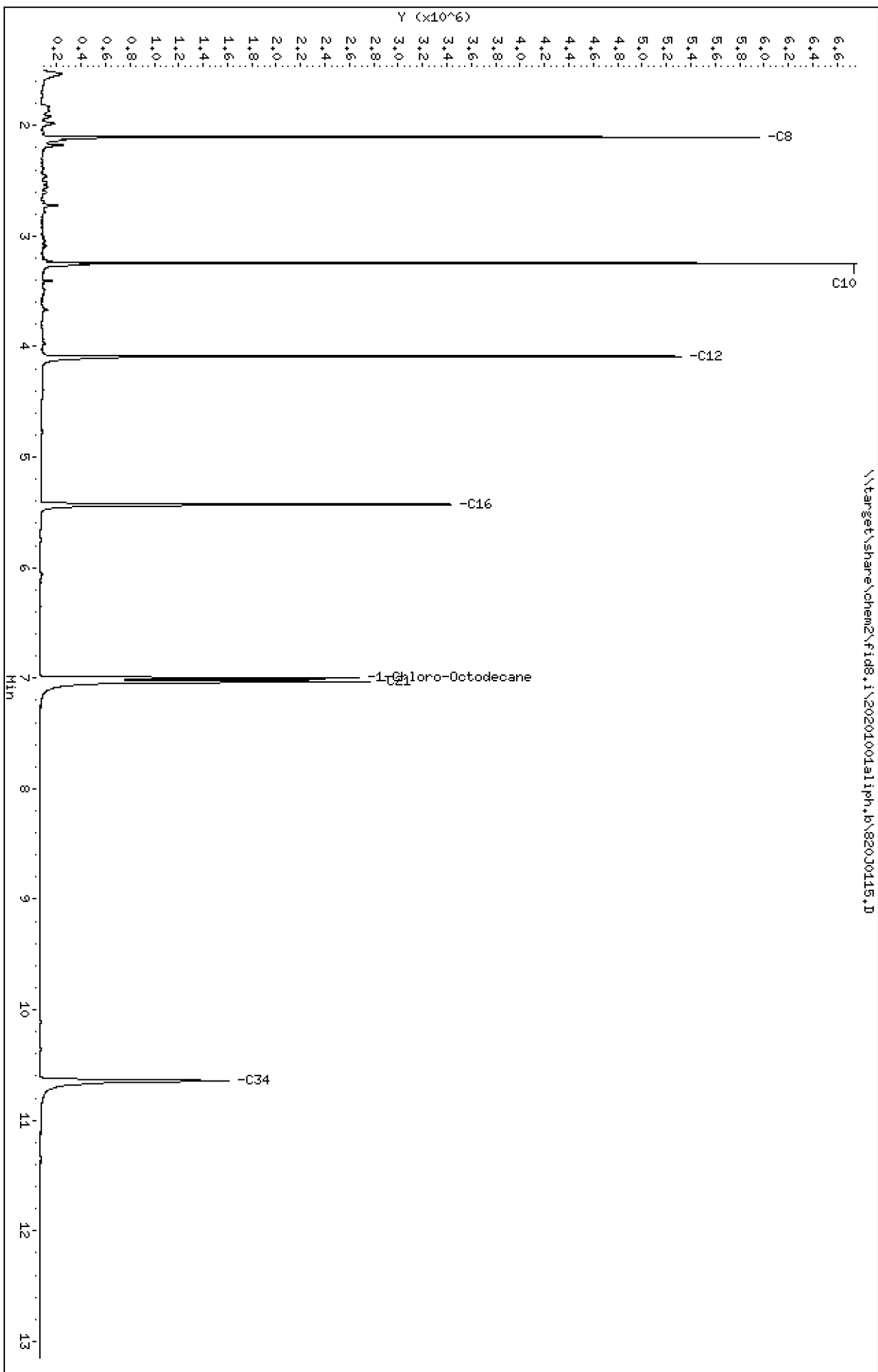
Instrument: fid8.1

Sample Info: 20HL1PH

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25





EPH ALIPHATIC CALIBRATION REPORT

Lab Name: ANALYTICAL RESOURCES, INC.

Lab ID: 20ALIPH

ICal Date: 02-OCT-2020

Instrument: FID8.I

Analysis Time: 00:13

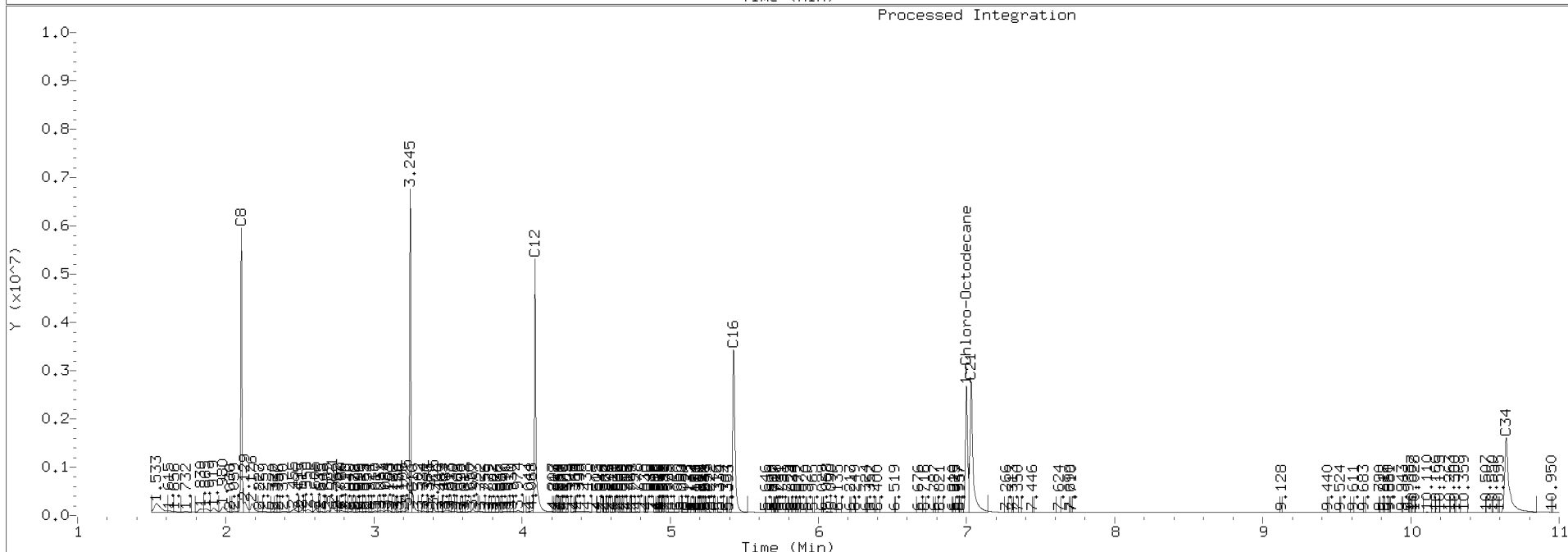
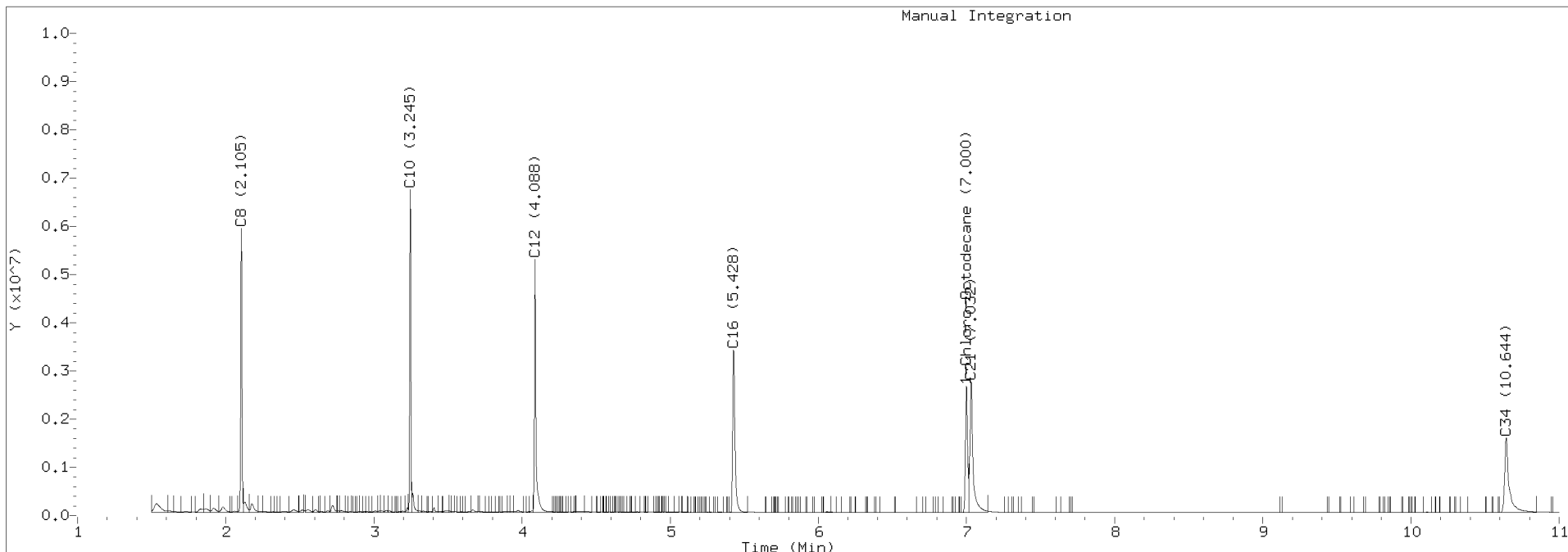
Lab File Name: 820J0115.D

Quant Range	Area*	Conc
C8-C10 Aliph.	7055161	36.7
C10-C12 Aliph.	3904943	19.0
C12-C16 Aliph.	3748415	18.5
C16-C21 Aliph.	4047810	20.8
C21-C34 Aliph.	3332321	18.6
Surrogate	2646266	15.7

\* From Range Reference Peak(s)

EPH Aliphatics Manual Integrations Report

Datafile: FID8, 20201001aliph.b/820J0115.D Injection: 02-OCT-2020 00:13  
 Lab ID:20ALIPH



Data File: \\target\share\chem2\fid8.1\20201001a1iph,b\82030116.D

Date: 02-OCT-2020 00:39

Client ID:

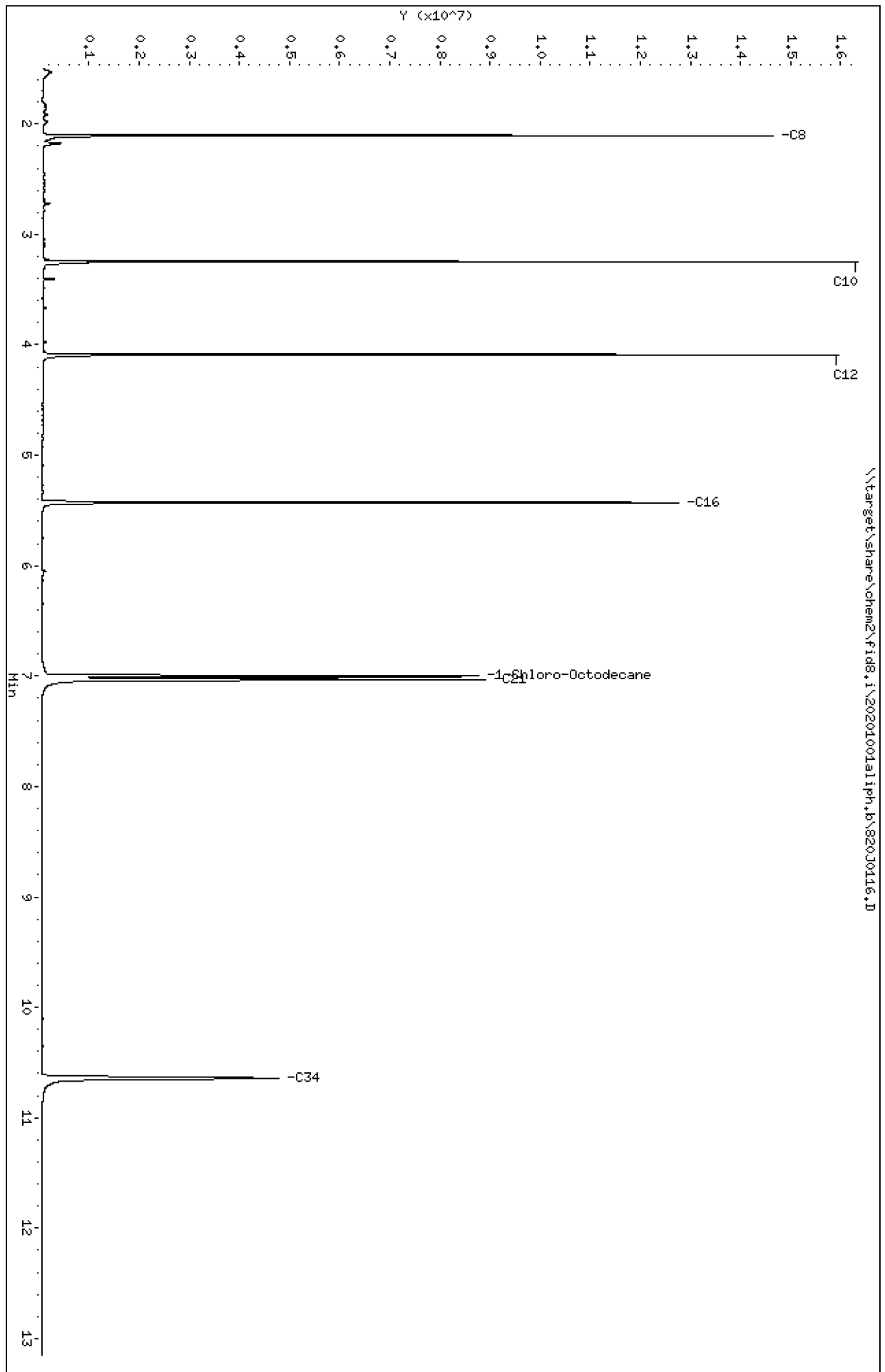
Sample Info: 504LPIH

Column phase: RTX-1

Instrument: fid8.1

Operator: JGR

Column diameter: 0.25



EPH ALIPHATIC CALIBRATION REPORT

Lab Name: ANALYTICAL RESOURCES, INC.

Lab ID: 50ALPIH

Ical Date: 02-OCT-2020

Instrument: FID8.I

Analysis Time: 00:39

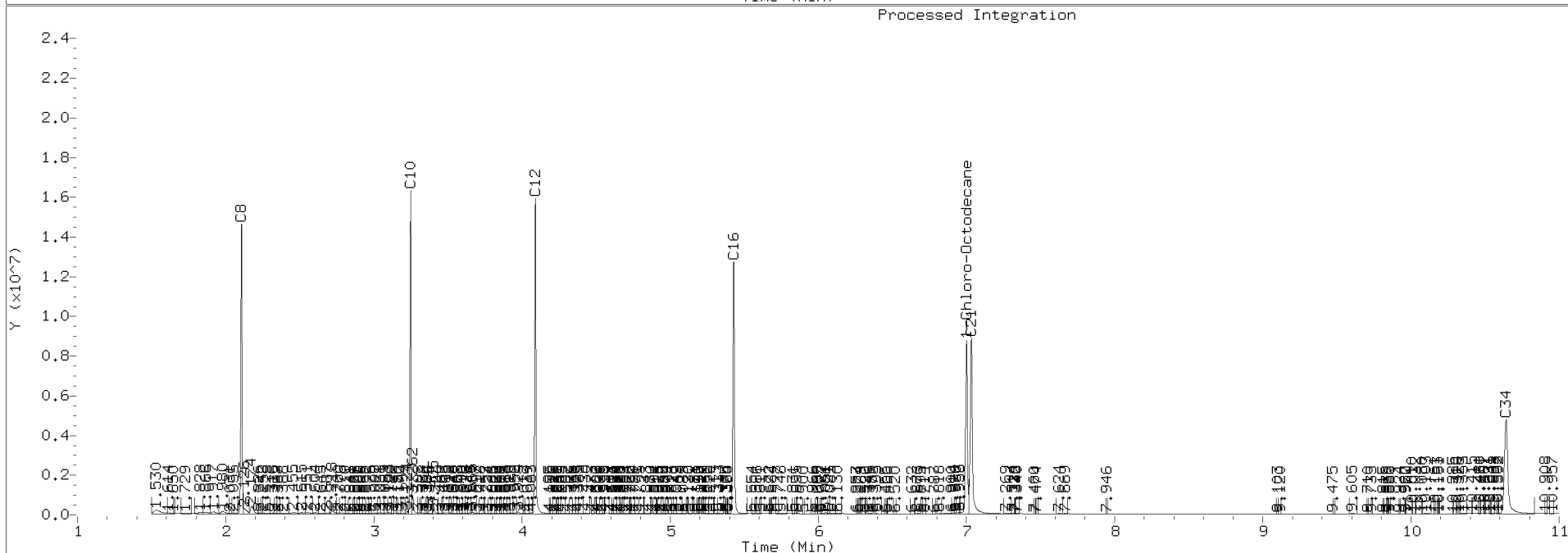
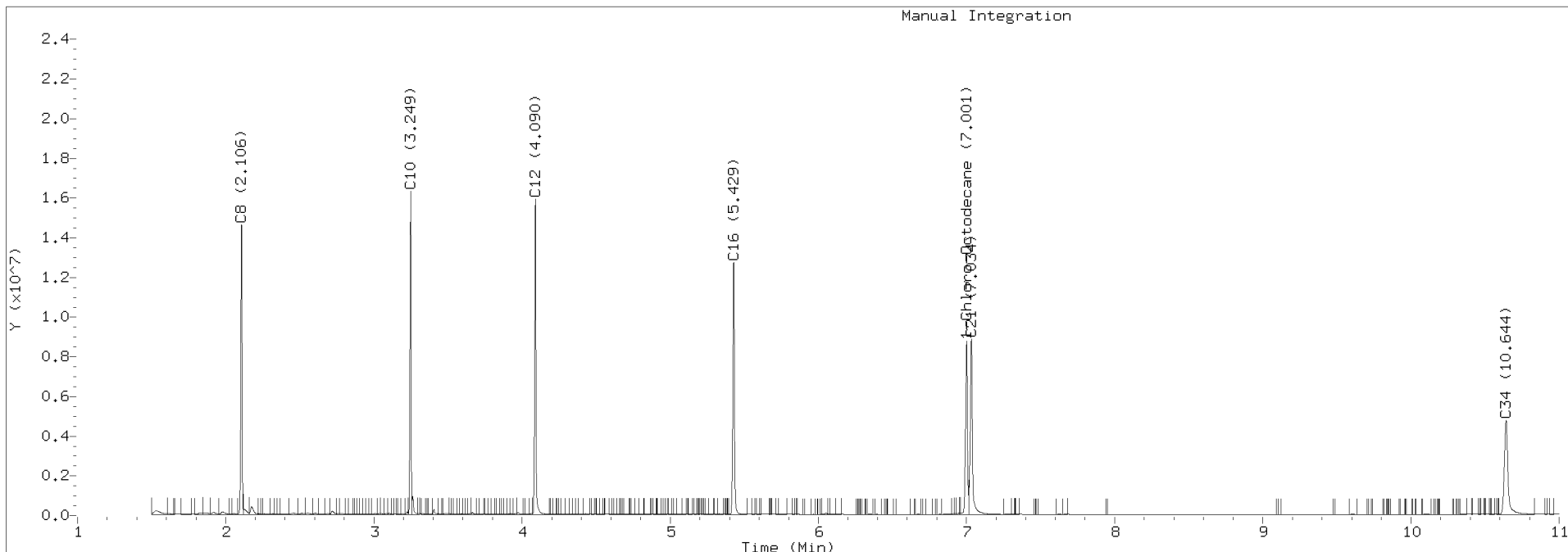
Lab File Name: 820J0116.D

Quant Range	Area*	Conc
C8-C10 Aliph.	17627010	91.6
C10-C12 Aliph.	9545076	46.5
C12-C16 Aliph.	9382326	46.3
C16-C21 Aliph.	9416813	48.3
C21-C34 Aliph.	8354165	46.7
Surrogate	7669940	45.6

\* From Range Reference Peak(s)

EPH Aliphatics Manual Integrations Report

Datafile: FID8, 20201001aliph.b/820J0116.D Injection: 02-OCT-2020 00:39  
Lab ID:50ALPIH



Data File: \\target\share\chem2\fid8.1\20201001a1iph,b\82030117.D

Date : 02-OCT-2020 01:04

Client ID:

Sample Info: 1000ALIPH

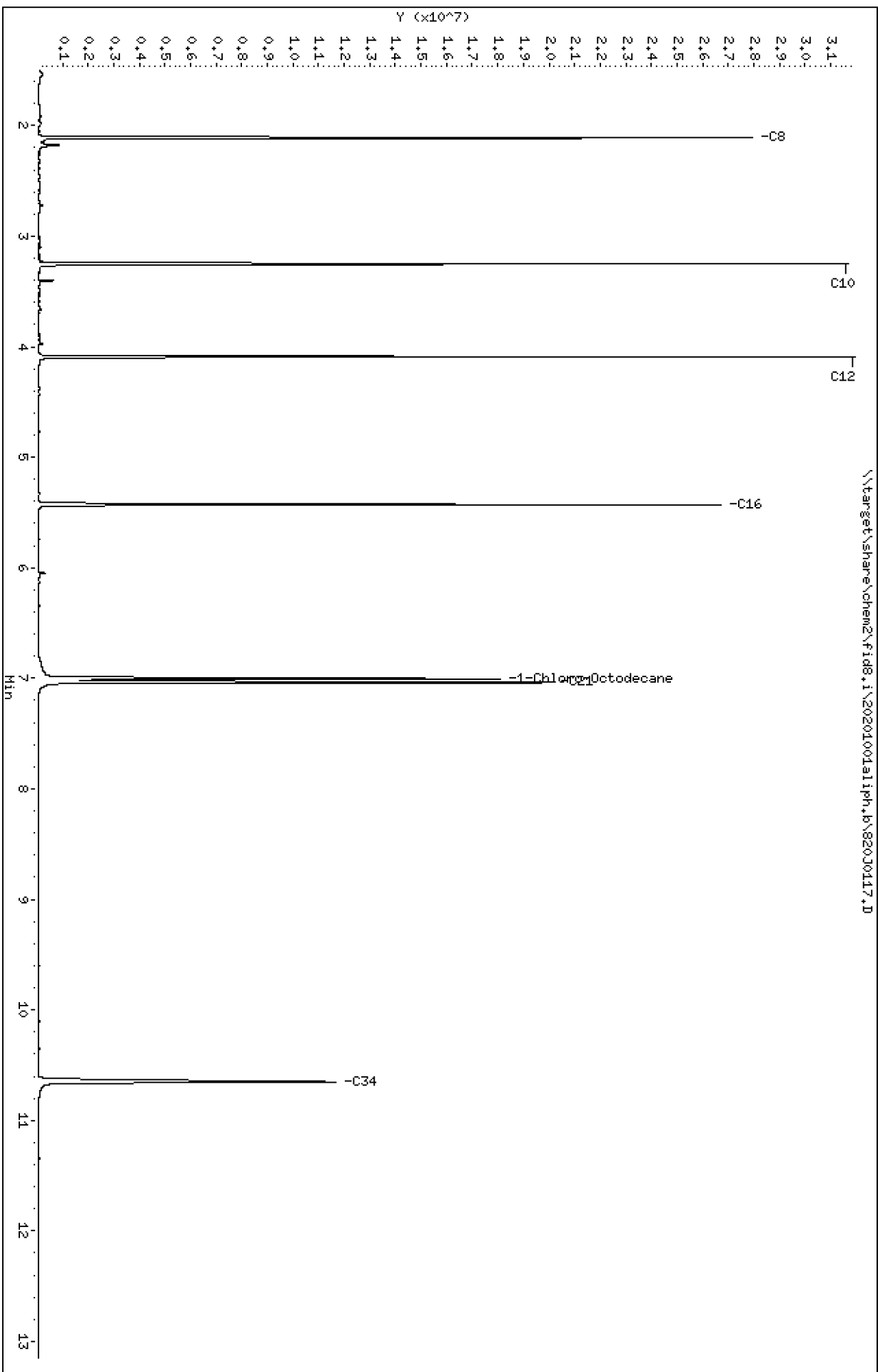
Column phase: RTX-1

Instrument: fid8.1

Operator: JGR

Column diameter: 0.25

Page 1



EPH ALIPHATIC CALIBRATION REPORT

Lab Name: ANALYTICAL RESOURCES, INC.

Lab ID: 100ALIPH

ICal Date: 02-OCT-2020

Instrument: FID8.I

Analysis Time: 01:04

Lab File Name: 820J0117.D

Quant Range	Area*	Conc
C8-C10 Aliph.	38899569	202.0
C10-C12 Aliph.	20696656	100.8
C12-C16 Aliph.	20643972	102.0
C16-C21 Aliph.	19424591	99.6
C21-C34 Aliph.	18220942	101.8
Surrogate	17496683	104.1

\* From Range Reference Peak(s)

Data File: \\target\share\chem2\fid8.1\20201001a1iph,b\82030118.D

Date : 02-OCT-2020 01:29

Client ID:

Sample Info: 1256ALIPH

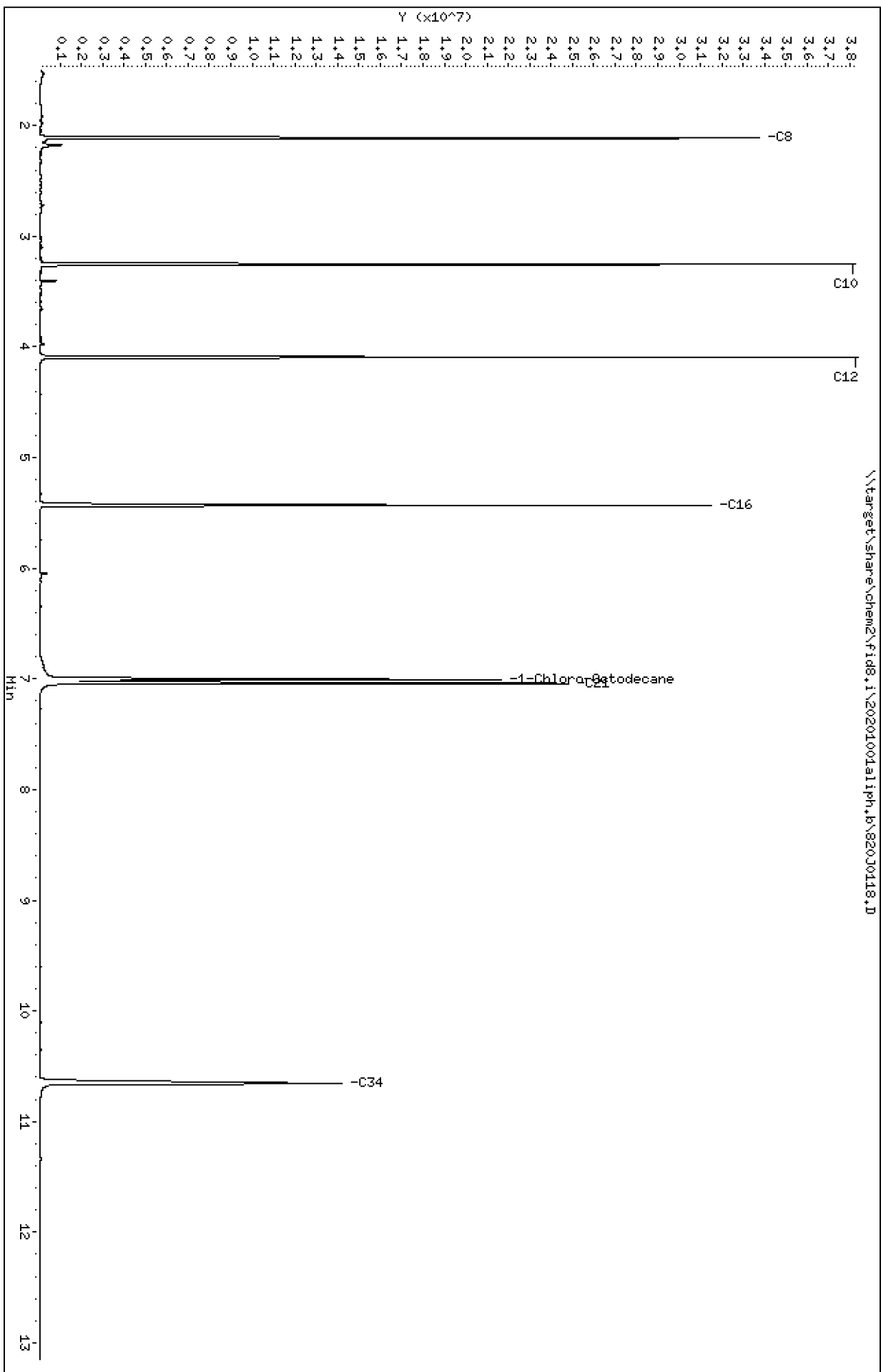
Column phase: RTX-1

Instrument: fid8.1

Operator: JGR

Column diameter: 0.25

Page 1





EPH ALIPHATIC CALIBRATION REPORT

Lab Name: ANALYTICAL RESOURCES, INC.

Lab ID: 125ALIPH

ICal Date: 02-OCT-2020

Instrument: FID8.I

Analysis Time: 01:29

Lab File Name: 820J0118.D

Quant Range	Area*	Conc
C8-C10 Aliph.	49525474	257.2
C10-C12 Aliph.	25516440	124.3
C12-C16 Aliph.	25101340	124.0
C16-C21 Aliph.	23780069	121.9
C21-C34 Aliph.	22633357	126.4
Surrogate	21668625	129.0

\* From Range Reference Peak(s)

Data File: \\target\share\chem2\fid8,j\20201001a1iph,b\82030119.D

Date : 02-OCT-2020 01:54

Client ID:

Sample Info: 150ALIPH

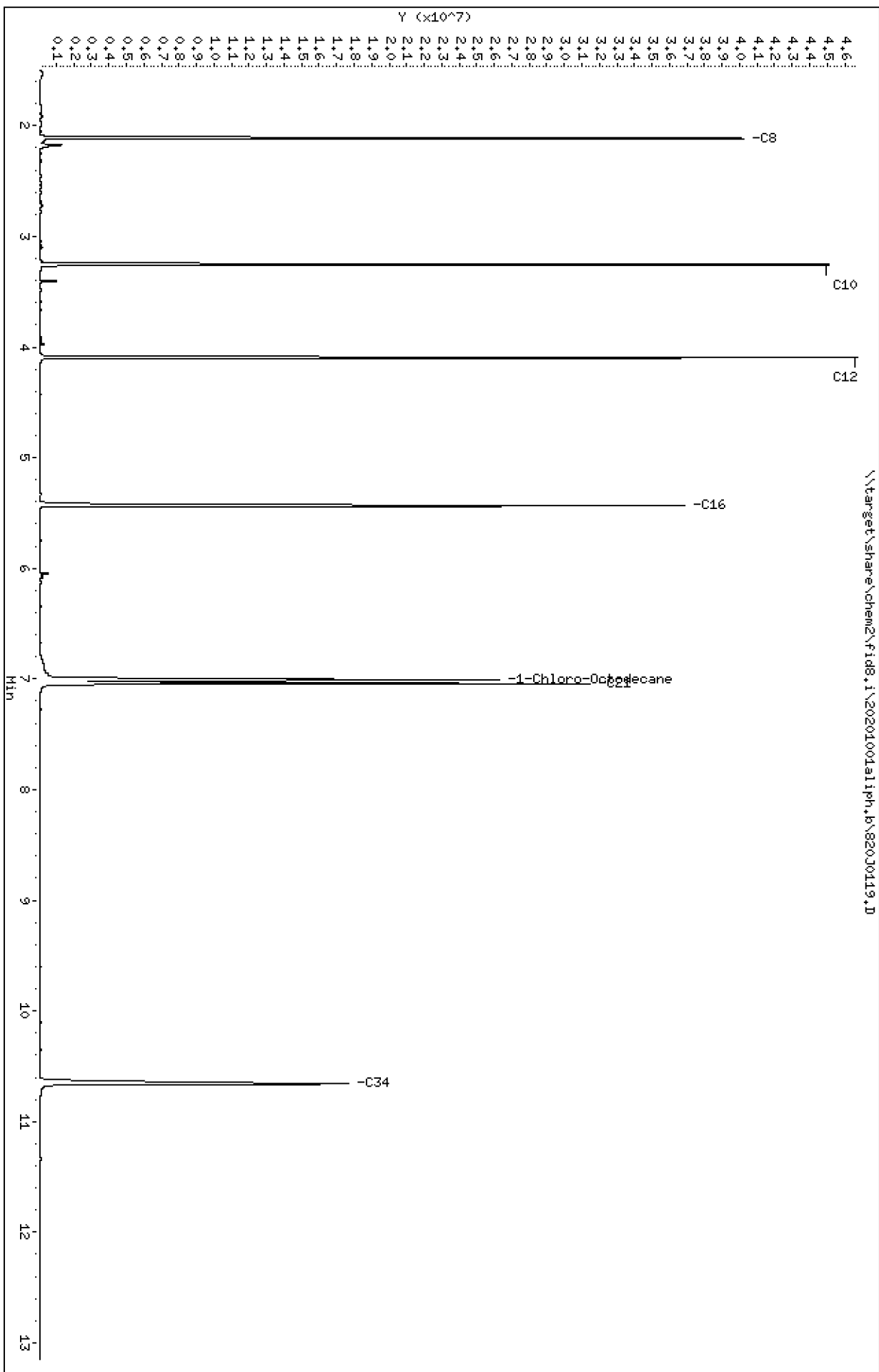
Column phase: RTX-1

Instrument: fid8,j

Operator: JGR

Column diameter: 0.25

Page 1



EPH ALIPHATIC CALIBRATION REPORT

Lab Name: ANALYTICAL RESOURCES, INC.

Lab ID: 150ALIPH

ICal Date: 02-OCT-2020

Instrument: FID8.I

Analysis Time: 01:54

Lab File Name: 820J0119.D

Quant Range	Area*	Conc
C8-C10 Aliph.	61999370	321.9
C10-C12 Aliph.	32654331	159.1
C12-C16 Aliph.	32508557	160.6
C16-C21 Aliph.	30045631	154.0
C21-C34 Aliph.	27941927	156.1
Surrogate	27816978	165.6

\* From Range Reference Peak(s)

Data File: \\target\share\chem2\fid8.1\20201001a1iph.b\82030120.D  
Date: 02-OCT-2020 02:19

Client ID:

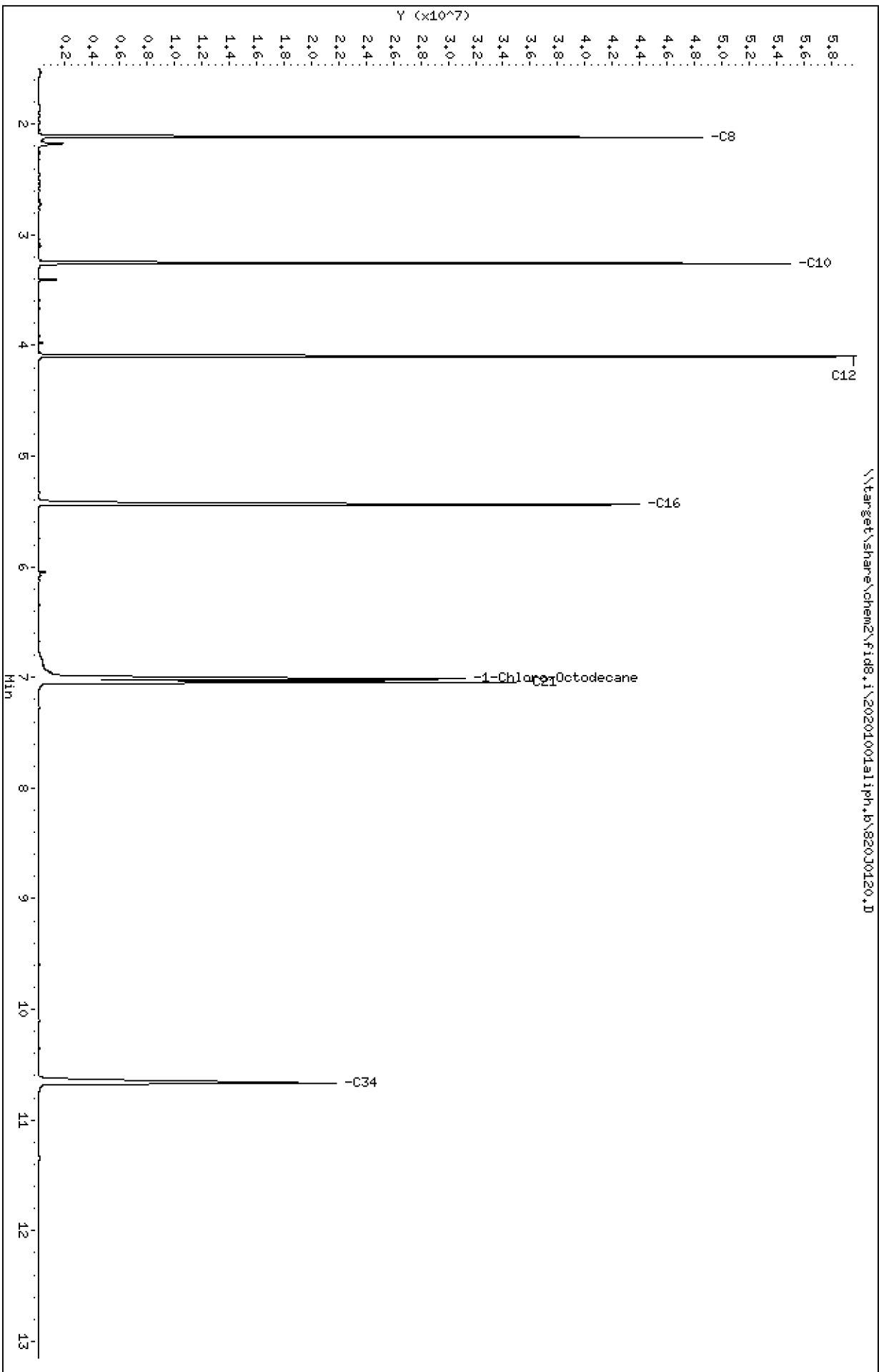
Sample Info: 2009ALIPH

Column phase: RTX-1

Instrument: fid8.1

Operator: JGR

Column diameter: 0.25



EPH ALIPHATIC CALIBRATION REPORT

Lab Name: ANALYTICAL RESOURCES, INC.

Lab ID: 200ALIPH

Ical Date: 02-OCT-2020

Instrument: FID8.I

Analysis Time: 02:19

Lab File Name: 820J0120.D

Quant Range	Area*	Conc
C8-C10 Aliph.	81286980	422.0
C10-C12 Aliph.	43375398	211.3
C12-C16 Aliph.	43135136	213.1
C16-C21 Aliph.	38959755	199.7
C21-C34 Aliph.	38178185	213.3
Surrogate	37729526	224.6

\* From Range Reference Peak(s)

Data File: \\target\share\chem2\fid8.1\20201001a1iph.b\82030121.D

Page 1

Date : 02-OCT-2020 02:45

Client ID:

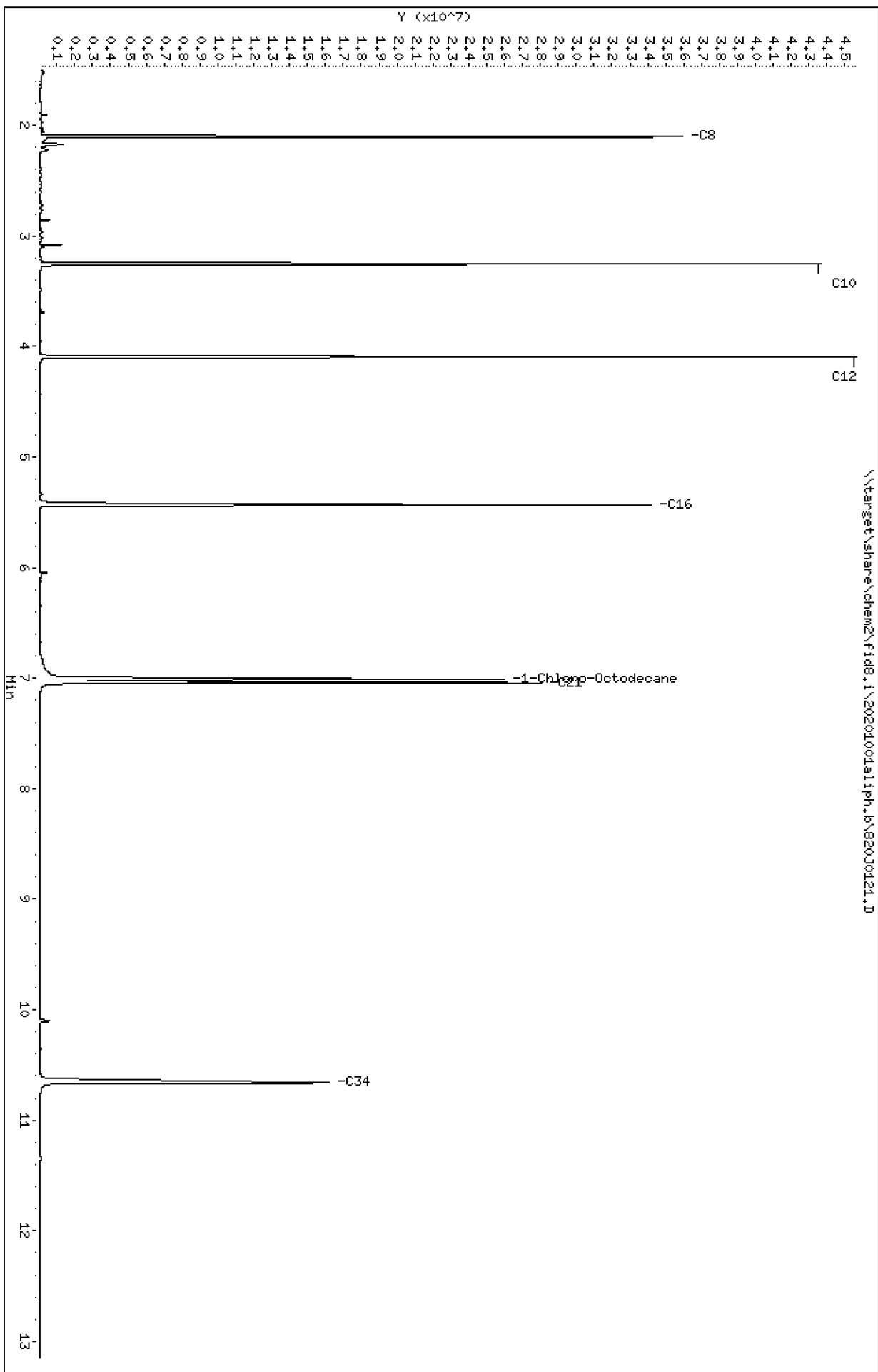
Instrument: fid8.1

Sample Info: ALIPHSC2

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
WA. EPH Aliphatics Report

Data file: 20201001aliph.b/820J0121.D  
Method: 20201001aliph.b\EPHALiph.m  
Instrument: fid8.i  
Operator: JGR  
Macro: ALIPH020217FID8

ARI ID: ALIPHSC2  
Client ID:  
Injection: 02-OCT-2020 02:45  
Matrix: NONE  
Dilution Factor: 1

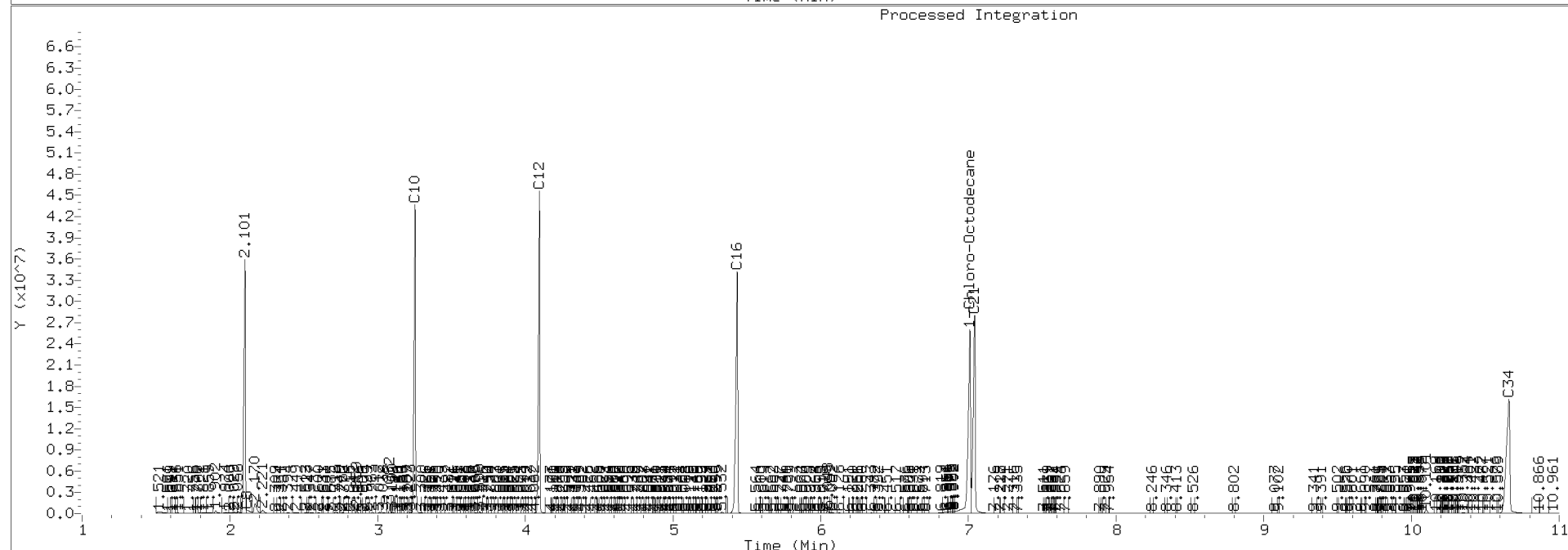
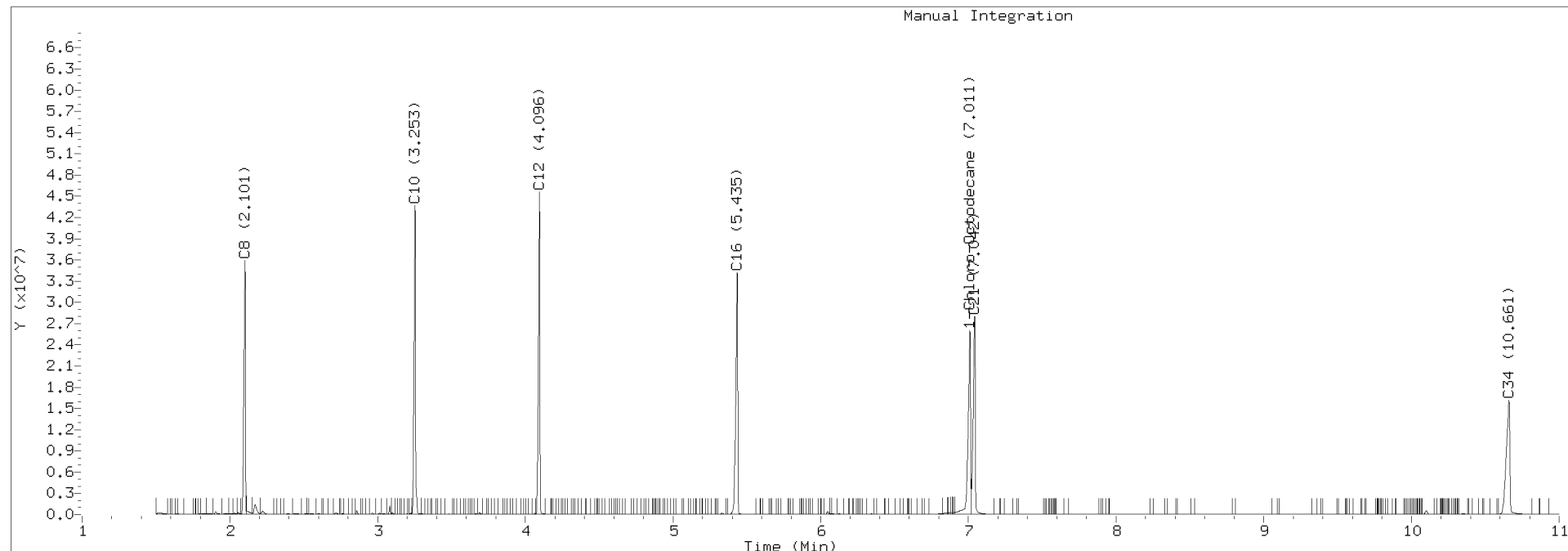
EPH-ALIPHATIC RESULTS

Quant Range	Area	Conc	Time Range
C8-C10 Aliph.	61966510	321.9	(2.018 - 3.359)
C10-C12 Aliph.	31342373	152.7	(3.359 - 4.199)
C12-C16 Aliph.	31575101	156.0	(4.199 - 5.538)
C16-C21 Aliph.	29727101	152.4	(5.538 - 7.147)
C21-C34 Aliph.	28321380	158.2	(7.147 - 10.769)
Surrogate Rec: 116.1% 174.2 ug/mL			

EPH Aliphatics Manual Integrations Report

Datafile: FID8, 20201001aliph.b/820J0121.D Injection: 02-OCT-2020 02:45

Lab ID:ALIPHSC2







**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

## SECOND-SOURCE CALIBRATION VERIFICATION WA EPH

**Laboratory:** Analytical Resources, Inc.

**SDG:** 20K0204

**Client:** Anchor QEA, LLC

**Project:** Gasco Siltronic

**Calibration:** DJ00015

**Laboratory ID:** SIJ0055-SCV2

**Sequence:** SIJ0055

**Sequence Name:** ALIPH SCV

**Standard ID:** I005686

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
C10-C12 Aliphatics	125.00	153	22.2	30.00
1-Chloro-octadecane	125.00	174	39.4 *	30.00

\* Indicates values outside of QC limits

Data File: \\target\share\chem2\fid8.1\20201001a1iph,b\82030121.D

Page 1

Date : 02-OCT-2020 02:45

Client ID:

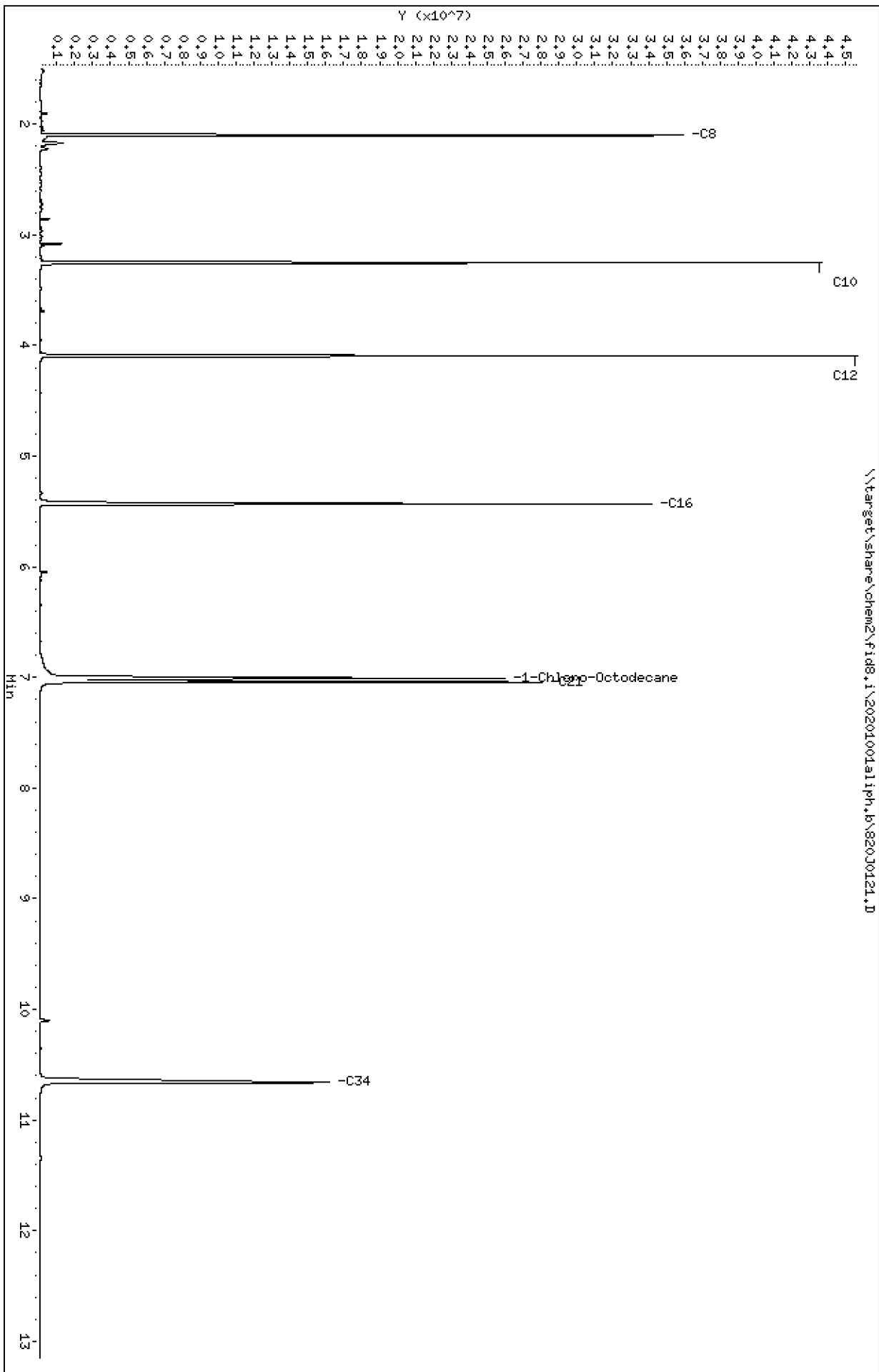
Instrument: fid8.1

Sample Info: ALIPHSC2

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
WA. EPH Aliphatics Report

Data file: 20201001aliph.b/820J0121.D  
Method: 20201001aliph.b\EPHALiph.m  
Instrument: fid8.i  
Operator: JGR  
Macro: ALIPH020217FID8

ARI ID: ALIPHSC2  
Client ID:  
Injection: 02-OCT-2020 02:45  
Matrix: NONE  
Dilution Factor: 1

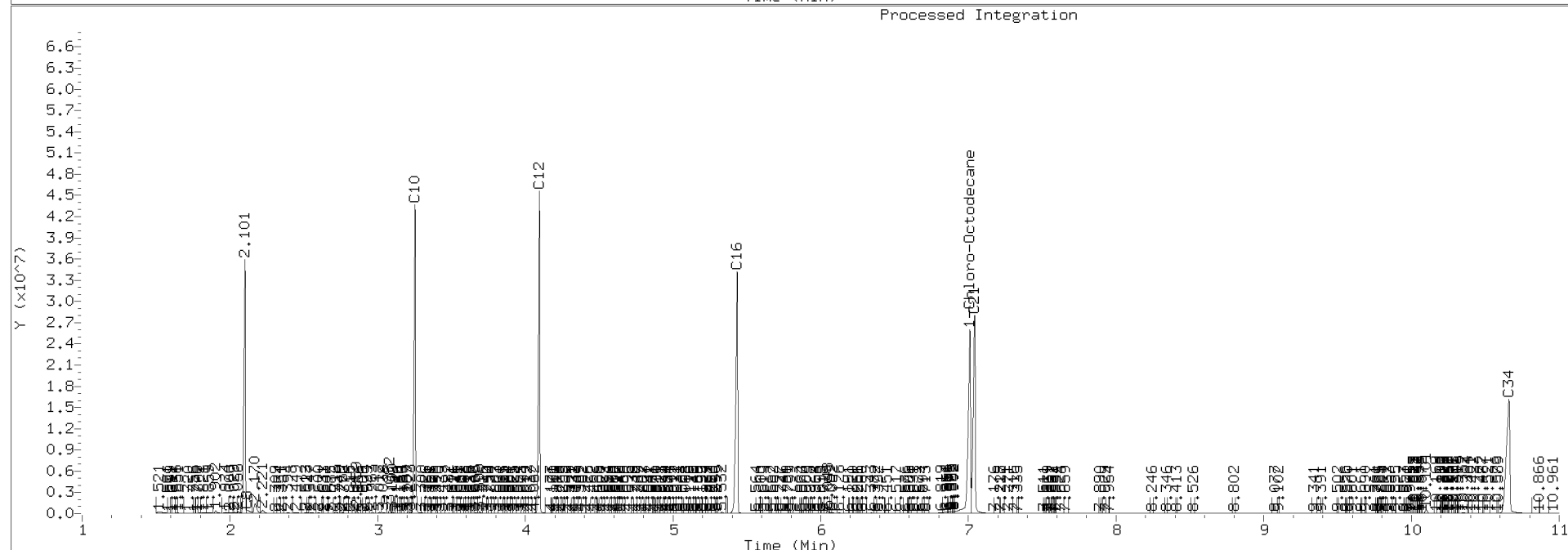
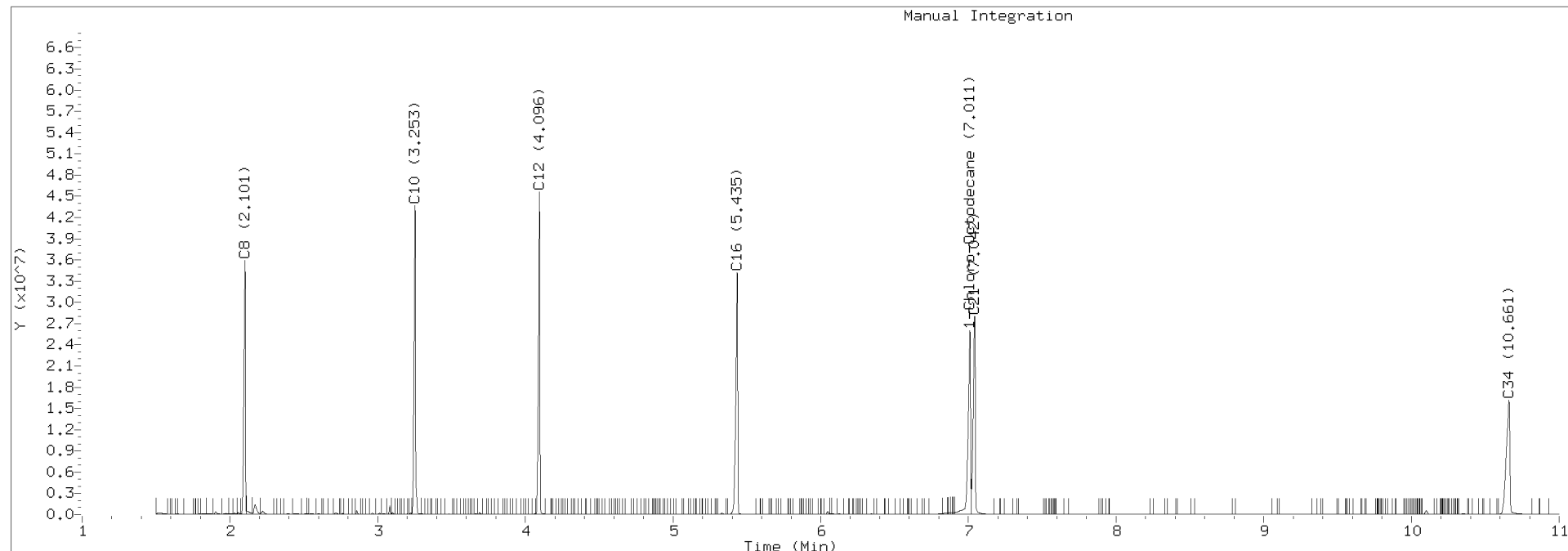
EPH-ALIPHATIC RESULTS

Quant	Range	Area	Conc	Time Range
C8-C10	Aliph.	61966510	321.9	(2.018 - 3.359)
C10-C12	Aliph.	31342373	152.7	(3.359 - 4.199)
C12-C16	Aliph.	31575101	156.0	(4.199 - 5.538)
C16-C21	Aliph.	29727101	152.4	(5.538 - 7.147)
C21-C34	Aliph.	28321380	158.2	(7.147 - 10.769)
Surrogate Rec: 116.1%		174.2 ug/mL		

EPH Aliphatics Manual Integrations Report

Datafile: FID8, 20201001aliph.b/820J0121.D Injection: 02-OCT-2020 02:45

Lab ID:ALIPHSC2





## INITIAL CALIBRATION CHECK

### WA EPH

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Instrument ID: FID8

Calibration: DJ00015

Lab File ID: 820L2005.D

Calibration Date: 10/01/2020

Sequence: SIL0418

Injection Date: 12/20/20

Lab Sample ID: SIL0418-ICV2

Injection Time: 14:29

Sequence Name: ALIPHATICS

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
C10-C12 Aliphatics	A	125.00	116	205303.2000	190334.6000		-7.3	+/-20
1-Chloro-octadecane	A	125.00	118	168020.3000	158678.2000		-5.6	+/-20

\* Values outside of QC limits

Data File: \\target\share\chem2\fid8.1\20201220a11ph.b\820L2005.D  
Date: 20-DEC-2020 14:29

Client ID:

Sample Info: ALIPHICV2

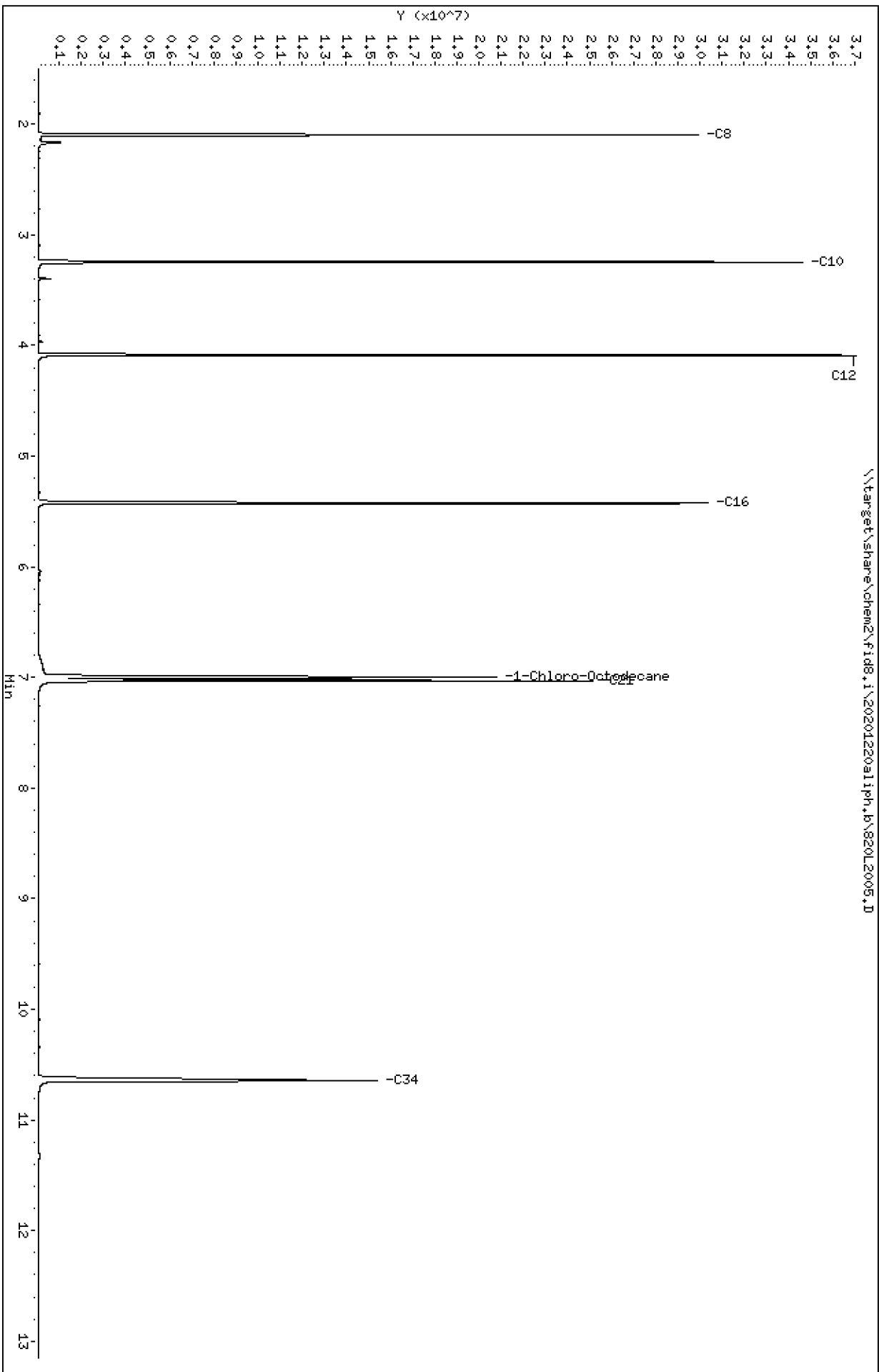
Column phase: RTX-1

Instrument: fid8.1

Operator: JGR

Column diameter: 0.25

Page 1



Analytical Resources Inc.  
WA. EPH Aliphatics Report

Data file: 20201220aliph.b/820L2005.D  
Method: 20201220aliph.b\EPHALiph.m  
Instrument: fid8.i  
Operator: JGR  
Macro: ALIPH020217FID8

ARI ID: ALIPHICV2  
Client ID:  
Injection: 20-DEC-2020 14:29  
Matrix: NONE  
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range	Area	Conc	Time Range
C8-C10 Aliph.	45152531	234.5	(2.001 - 3.348)
C10-C12 Aliph.	23791832	115.9	(3.348 - 4.191)
C12-C16 Aliph.	23513645	116.1	(4.191 - 5.530)
C16-C21 Aliph.	24568271	126.0	(5.530 - 7.137)
C21-C34 Aliph.	23448423	131.0	(7.137 - 10.756)
Surrogate Rec:	78.7%	118.0 ug/mL	



**CONTINUING CALIBRATION CHECK**  
**WA EPH**

Laboratory: Analytical Resources, Inc.                      SDG:                      20K0204  
Client: Anchor QEA, LLC    Project:                      Gasco Siltronic  
Instrument ID: FID8    Calibration:                      DJ00015  
Lab File ID: 820L2025.D    Calibration Date:                      10/01/2020  
Sequence: SIL0418    Injection Date:                      12/20/20  
Lab Sample ID: SIL0418-CCV2    Injection Time:                      22:48  
Sequence Name: ALIPHATICS

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
C10-C12 Aliphatics	A	125.00	116	205303.2	190621.4		-7.1	+/-20
1-Chloro-octadecane	A	125.00	117	168020.3	156837.9		-6.6	+/-20

\* Values outside of QC limits

\* Values outside of QC limits



Data File: \\target\share\chem2\fid8.1\20201220a11ph.b\82012025.D

Date: 20-DEC-2020 22:48

Client ID:

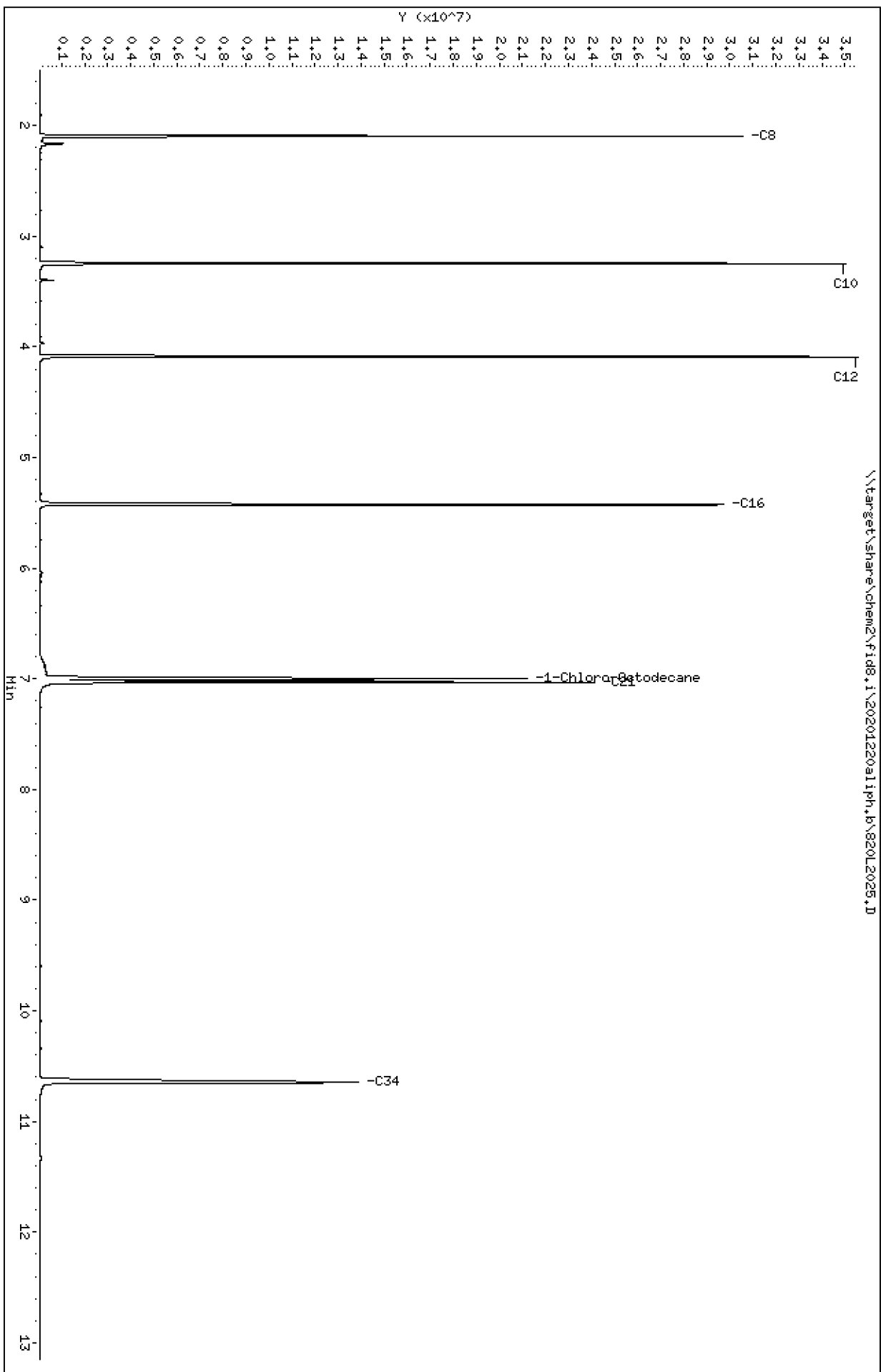
Sample Info: ALIPHCCV2

Column phase: RTX-1

Instrument: fid8.1

Operator: JGR

Column diameter: 0.25



Analytical Resources Inc.  
WA. EPH Aliphatics Report

Data file: 20201220aliph.b/820L2025.D  
Method: 20201220aliph.b\EPHALiph.m  
Instrument: fid8.i  
Operator: JGR  
Macro: ALIPH020217FID8

ARI ID: ALIPHCCV2  
Client ID:  
Injection: 20-DEC-2020 22:48  
Matrix: NONE  
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant	Range	Area	Conc	Time Range
C8-C10	Aliph.	45411745	235.9	(2.001 - 3.348)
C10-C12	Aliph.	23827676	116.1	(3.348 - 4.191)
C12-C16	Aliph.	23398049	115.6	(4.191 - 5.530)
C16-C21	Aliph.	24372161	125.0	(5.530 - 7.137)
C21-C34	Aliph.	23442582	130.9	(7.137 - 10.756)
Surrogate Rec: 77.8% 116.7 ug/mL				



## CONTINUING CALIBRATION CHECK WA EPH

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>20K0204</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic</u>
Instrument ID: <u>FID8</u>	Calibration: <u>DJ00015</u>
Lab File ID: <u>820L2041.D</u>	Calibration Date: <u>10/01/2020</u>
Sequence: <u>SIL0418</u>	Injection Date: <u>12/21/20</u>
Lab Sample ID: <u>SIL0418-CCV3</u>	Injection Time: <u>05:26</u>
Sequence Name: <u>ALIPHATICS</u>	

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
C10-C12 Aliphatics	A	125.00	115	205303.2	188638.2		-8.1	+/-20
1-Chloro-octadecane	A	125.00	118	168020.3	158109.4		-5.9	+/-20

\* Values outside of QC limits

Data File: \\target\share\chem2\fid8.1\20201220a11ph.b\820L2041.D

Page 1

Date : 21-DEC-2020 05:26

Client ID:

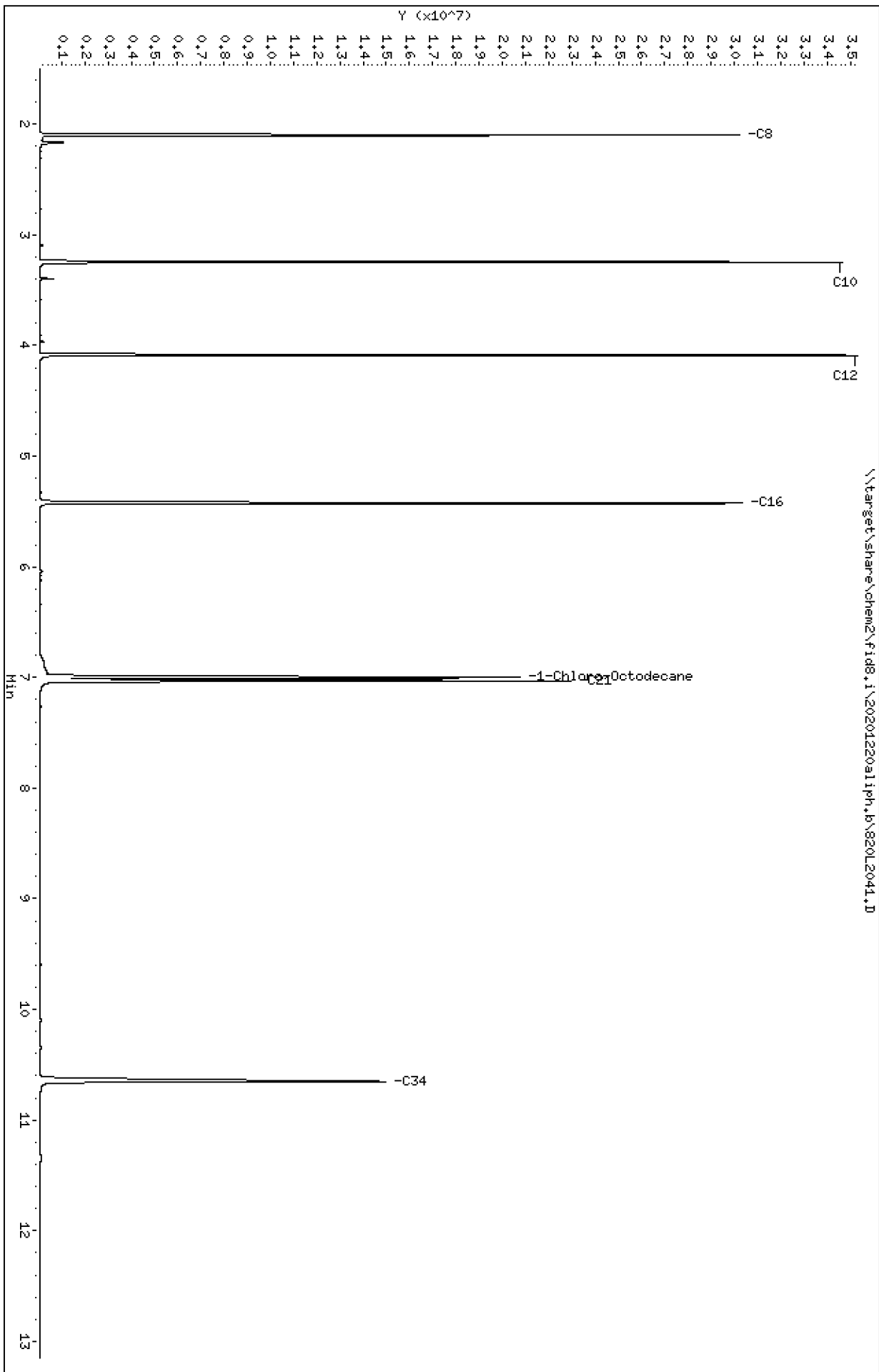
Instrument: fid8.1

Sample Info: ALIPHCCV3

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
WA. EPH Aliphatics Report

Data file: 20201220aliph.b/820L2041.D  
Method: 20201220aliph.b\EPHALiph.m  
Instrument: fid8.i  
Operator: JGR  
Macro: ALIPH020217FID8

ARI ID: ALIPHCCV3  
Client ID:  
Injection: 21-DEC-2020 05:26  
Matrix: NONE  
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant	Range	Area	Conc	Time Range
C8-C10	Aliph.	44893493	233.2	(2.001 - 3.348)
C10-C12	Aliph.	23579778	114.9	(3.348 - 4.191)
C12-C16	Aliph.	23325251	115.2	(4.191 - 5.530)
C16-C21	Aliph.	24638243	126.3	(5.530 - 7.137)
C21-C34	Aliph.	23720209	132.5	(7.137 - 10.756)
=====				
Surrogate Rec:	78.4%	117.6	ug/mL	
=====				



## CONTINUING CALIBRATION CHECK WA EPH

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>20K0204</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Gasco Siltronic</u>
Instrument ID: <u>FID8</u>	Calibration: <u>DJ00015</u>
Lab File ID: <u>820L2056.D</u>	Calibration Date: <u>10/01/2020</u>
Sequence: <u>SIL0418</u>	Injection Date: <u>12/21/20</u>
Lab Sample ID: <u>SIL0418-CCV4</u>	Injection Time: <u>11:42</u>
Sequence Name: <u>ALIPHATICS</u>	

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
C10-C12 Aliphatics	A	125.00	116	205303.2	190983.5		-7.0	+/-20
1-Chloro-octadecane	A	125.00	120	168020.3	161636.1		-3.8	+/-20

\* Values outside of QC limits

Data File: \\target\share\chem2\fid8.1\20201220a11ph.b\82012056.D

Date : 21-DEC-2020 11:42

Client ID:

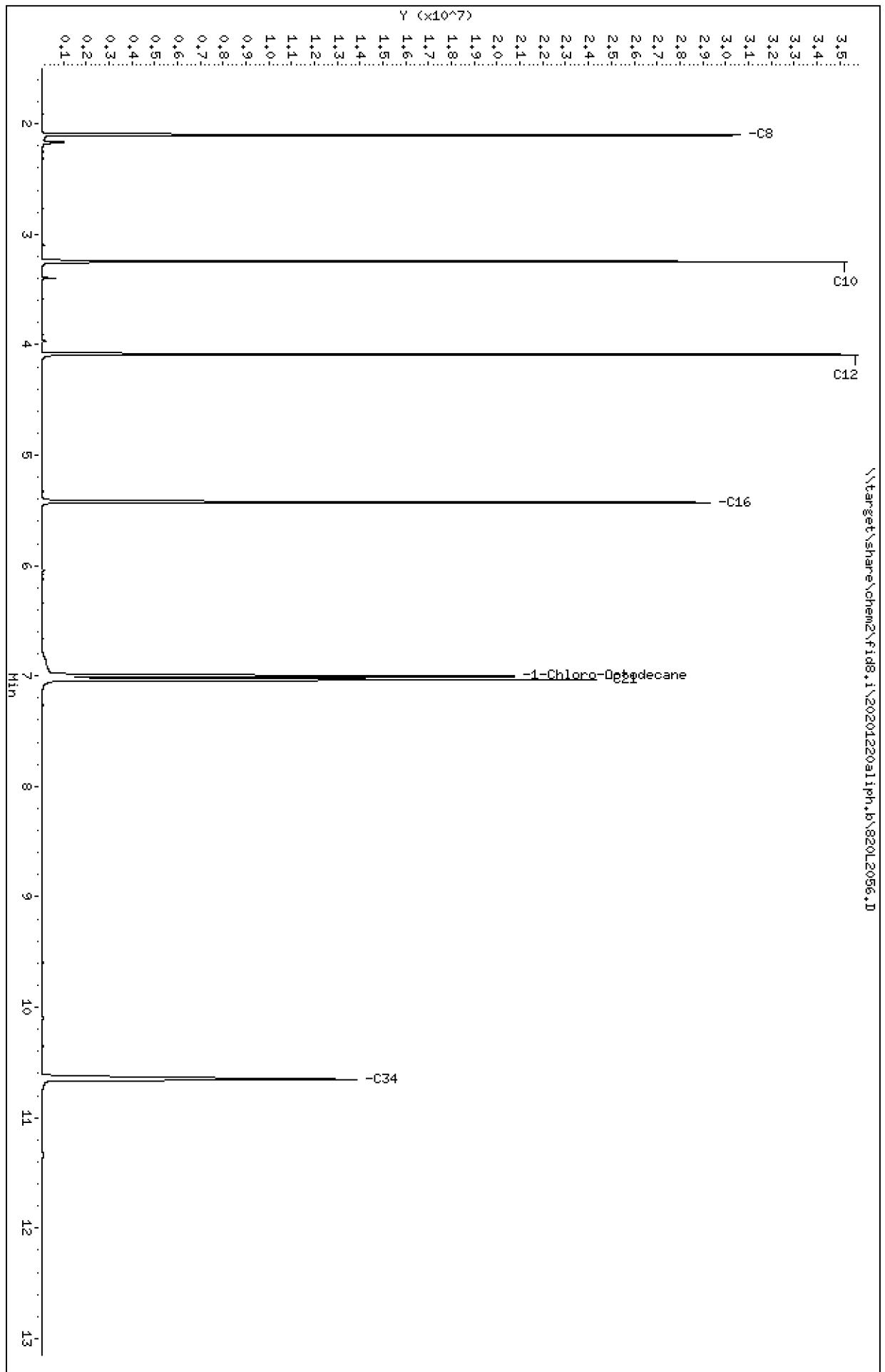
Sample Info: ALIPHCCV4

Column phase: RTX-1

Instrument: fid8.1

Operator: JGR

Column diameter: 0.25



Analytical Resources Inc.  
WA. EPH Aliphatics Report

Data file: 20201220aliph.b/820L2056.D  
Method: 20201220aliph.b\EPHALiph.m  
Instrument: fid8.i  
Operator: JGR  
Macro: ALIPH020217FID8

ARI ID: ALIPHCCV4  
Client ID:  
Injection: 21-DEC-2020 11:42  
Matrix: NONE  
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant	Range	Area	Conc	Time Range
C8-C10	Aliph.	45230992	234.9	(2.001 - 3.348)
C10-C12	Aliph.	23872944	116.3	(3.348 - 4.191)
C12-C16	Aliph.	23606470	116.6	(4.191 - 5.530)
C16-C21	Aliph.	24782704	127.1	(5.530 - 7.137)
C21-C34	Aliph.	22611317	126.3	(7.137 - 10.756)
Surrogate Rec: 80.2% 120.3 ug/mL				





## CONTINUING CALIBRATION CHECK WA EPH

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>20K0204</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Gasco Siltronic</u>
Instrument ID:	<u>FID8</u>	Calibration:	<u>DJ00015</u>
Lab File ID:	<u>820L2063.D</u>	Calibration Date:	<u>10/01/2020</u>
Sequence:	<u>SIL0418</u>	Injection Date:	<u>12/21/20</u>
Lab Sample ID:	<u>SIL0418-CCV5</u>	Injection Time:	<u>14:41</u>
Sequence Name:	<u>ALIPHATICS</u>		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
C10-C12 Aliphatics	A	125.00	117	205303.2	192768.5		-6.1	+/-20
1-Chloro-octadecane	A	125.00	122	168020.3	164172.3		-2.3	+/-20

\* Values outside of QC limits

Data File: \\target\share\chem2\fid8.1\20201220a11ph.b\820L2063.D

Page 1

Date : 21-DEC-2020 14:41

Client ID:

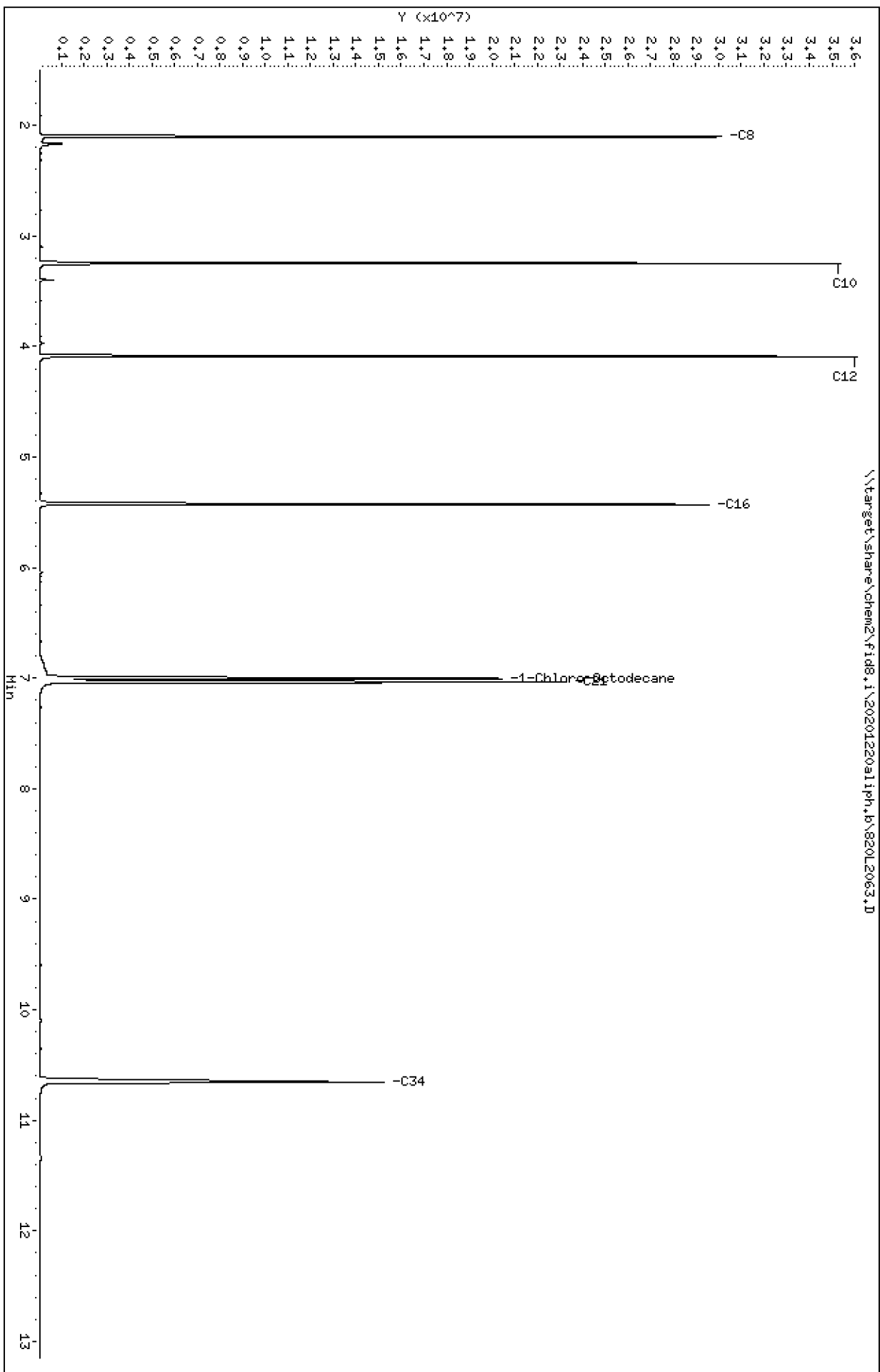
Instrument: fid8.1

Sample Info: ALIPHCCV5

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.  
WA. EPH Aliphatics Report

Data file: 20201220aliph.b/820L2063.D  
Method: 20201220aliph.b\EPHALiph.m  
Instrument: fid8.i  
Operator: JGR  
Macro: ALIPH020217FID8

ARI ID: ALIPHCCV5  
Client ID:  
Injection: 21-DEC-2020 14:41  
Matrix: NONE  
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range	Area	Conc	Time Range
C8-C10 Aliph.	45580918	236.8	(2.001 - 3.348)
C10-C12 Aliph.	24096055	117.4	(3.348 - 4.191)
C12-C16 Aliph.	23954180	118.3	(4.191 - 5.530)
C16-C21 Aliph.	25194403	129.2	(5.530 - 7.137)
C21-C34 Aliph.	23915226	133.6	(7.137 - 10.756)
Surrogate Rec:	81.4%	122.1 ug/mL	



## ANALYSIS BATCH (SEQUENCE) SUMMARY

### WA EPH

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Sequence: SIJ0055

Instrument: FID8

Calibration: DJ00015

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ALIPH 20PPM	SIJ0055-CAL7	820J0115.D	NA	10/02/20 00:13
ALIPH 50PPM	SIJ0055-CAL8	820J0116.D	NA	10/02/20 00:39
ALIPH 100PPM	SIJ0055-CAL9	820J0117.D	NA	10/02/20 01:04
ALIPH 125PPM	SIJ0055-CALA	820J0118.D	NA	10/02/20 01:29
ALIPH 150PPM	SIJ0055-CALB	820J0119.D	NA	10/02/20 01:54
ALIPH 200PPM	SIJ0055-CALC	820J0120.D	NA	10/02/20 02:19
ALIPH SCV	SIJ0055-SCV2	820J0121.D	NA	10/02/20 02:45



ANALYSIS SEQUENCE

SIJ0055

Instrument: FID8  
Calibration ID: DJ00015

Element Column ID: d002555

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SIJ0055-CAL1	AROM 20PPM	QC		1	I009169		
SIJ0055-CAL2	AROM 50PPM	QC		2	I009168		
SIJ0055-CAL3	AROM 100PPM	QC		3	I009167		
SIJ0055-CAL4	AROM 125PPM	QC		4	I009166		
SIJ0055-CAL5	AROM 150PPM	QC		5	I009165		
SIJ0055-CAL6	AROM 200PPM	QC		6	I009164		
SIJ0055-SCV1	AROM SCV	QC		7	I005685		
SIJ0055-CAL7	ALIPH 20PPM	QC		8	I009163		
SIJ0055-CAL8	ALIPH 50PPM	QC		9	I009160		
SIJ0055-CAL9	ALIPH 100PPM	QC		10	I009157		
SIJ0055-CALA	ALIPH 125PPM	QC		11	I009154		
SIJ0055-CALB	ALIPH 150PPM	QC		12	I009151		
SIJ0055-CALC	ALIPH 200PPM	QC		13	I009150		
SIJ0055-SCV2	ALIPH SCV	QC		14	I005686		

## GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20201001aliph.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	01-OCT-2020	20:50	820J0107.D	1	ALIB	
2	02-OCT-2020	00:13	820J0115.D	1	20ALIPH	
3	02-OCT-2020	00:39	820J0116.D	1	50ALPIH	
4	02-OCT-2020	01:04	820J0117.D	1	100ALIPH	
5	02-OCT-2020	01:29	820J0118.D	1	125ALIPH	
6	02-OCT-2020	01:54	820J0119.D	1	150ALIPH	
7	02-OCT-2020	02:19	820J0120.D	1	200ALIPH	
8	02-OCT-2020	02:45	820J0121.D	1	ALIPHSC2	
9	02-OCT-2020	12:28	820J0144.D	1	ALIPHICV2	
10	02-OCT-2020	12:54	820J0145.D	1	BII0795-BLK1	
11	02-OCT-2020	13:20	820J0146.D	1	BII0795-BS1	
12	02-OCT-2020	13:46	820J0147.D	1	20I0109-02	
13	02-OCT-2020	14:12	820J0148.D	1	20I0109-03	
14	02-OCT-2020	14:38	820J0149.D	1	20I0109-05	
15	02-OCT-2020	15:04	820J0150.D	1	20I0109-07	
16	02-OCT-2020	15:29	820J0151.D	1	20I0109-08	
17	02-OCT-2020	15:55	820J0152.D	1	20I0109-09	
18	02-OCT-2020	16:21	820J0153.D	1	20I0109-10	
19	02-OCT-2020	16:46	820J0154.D	1	BII0795-MS1	
20	02-OCT-2020	17:12	820J0155.D	1	BII0795-MSD1	
21	02-OCT-2020	17:38	820J0156.D	1	ALIPHCCV3	
22	02-OCT-2020	18:03	820J0157.D	1	20I0109-11	
23	02-OCT-2020	18:29	820J0158.D	1	20I0149-01	
24	02-OCT-2020	18:54	820J0159.D	1	20I0149-02	
25	02-OCT-2020	19:20	820J0160.D	1	20I0149-05	
26	02-OCT-2020	19:45	820J0161.D	1	20I0149-07	
27	02-OCT-2020	20:10	820J0162.D	1	20I0149-08	
28	02-OCT-2020	20:36	820J0163.D	1	20I0149-09	
29	02-OCT-2020	21:01	820J0164.D	1	20I0149-10	
30	02-OCT-2020	21:27	820J0165.D	1	ALIPHCCV4	
31	02-OCT-2020	22:17	820J0167.D	1	BII0478-BLK1	
32	02-OCT-2020	22:42	820J0168.D	1	BII0478-BS1	
33	02-OCT-2020	23:08	820J0169.D	1	BII0478-BSD1	
34	02-OCT-2020	23:33	820J0170.D	1	20I0212-03	
35	02-OCT-2020	23:58	820J0171.D	1	BII0481-BLK1	
36	03-OCT-2020	00:23	820J0172.D	1	BII0481-BS1	
37	03-OCT-2020	00:49	820J0173.D	1	BII0481-BSD1	
38	03-OCT-2020	01:14	820J0174.D	1	20I0212-06	
39	03-OCT-2020	01:39	820J0175.D	1	20I0212-24	
40	03-OCT-2020	05:52	820J0185.D	1	ALIPHCCV6	
41	03-OCT-2020	06:42	820J0187.D	1	BII0585-BLK1	
42	03-OCT-2020	07:07	820J0188.D	1	BII0585-BS1	
43	03-OCT-2020	07:32	820J0189.D	1	BII0585-BSD1	
44	03-OCT-2020	07:57	820J0190.D	1	20I0267-08	
45	03-OCT-2020	08:21	820J0191.D	1	20I0267-16	
46	03-OCT-2020	10:51	820J0197.D	1	ALIPHCCV8	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20201001aliph.b

ARI Job No.: ALIB Method: EPHaliph.m Instrument: fid8.i Date: 01-OCT-2020

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2050	820J0107.D	ALIB		1	NO MANUAL INTEGRATION
0013	820J0115.D	20ALIPH		1	C10,
0039	820J0116.D	50ALPIH		1	C10,
0104	820J0117.D	100ALIPH		1	NO MANUAL INTEGRATION
0129	820J0118.D	125ALIPH		1	NO MANUAL INTEGRATION
0154	820J0119.D	150ALIPH		1	NO MANUAL INTEGRATION
0219	820J0120.D	200ALIPH		1	NO MANUAL INTEGRATION
0245	820J0121.D	ALIPHSC2		1	C8,
1228	820J0144.D	ALIPHICV2		1	NO MANUAL INTEGRATION
1254	820J0145.D	BII0795-BLK1		1	NO MANUAL INTEGRATION
1320	820J0146.D	BII0795-BS1		1	C10,
1346	820J0147.D	20I0109-02		1	1-Chloro-Octodecane,
1412	820J0148.D	20I0109-03		1	1-Chloro-Octodecane,
1438	820J0149.D	20I0109-05		1	1-Chloro-Octodecane,
1504	820J0150.D	20I0109-07		1	1-Chloro-Octodecane,
1529	820J0151.D	20I0109-08		1	1-Chloro-Octodecane,
1555	820J0152.D	20I0109-09		1	1-Chloro-Octodecane,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20201001aliph.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1621	820J0153.D	20I0109-10		1	1-Chloro-Octodecane,
1646	820J0154.D	BII0795-MS1		1	C10, 1-Chloro-Octodecane,
1712	820J0155.D	BII0795-MSD1		1	C10, 1-Chloro-Octodecane,
1738	820J0156.D	ALIPHCCV3		1	NO MANUAL INTEGRATION
1803	820J0157.D	20I0109-11		1	NO MANUAL INTEGRATION
1829	820J0158.D	20I0149-01		1	1-Chloro-Octodecane,
1854	820J0159.D	20I0149-02		1	1-Chloro-Octodecane,
1920	820J0160.D	20I0149-05		1	1-Chloro-Octodecane,
1945	820J0161.D	20I0149-07		1	1-Chloro-Octodecane,
2010	820J0162.D	20I0149-08		1	1-Chloro-Octodecane,
2036	820J0163.D	20I0149-09		1	1-Chloro-Octodecane,
2101	820J0164.D	20I0149-10		1	1-Chloro-Octodecane,
2127	820J0165.D	ALIPHCCV4		1	C10,
2217	820J0167.D	BII0478-BLK1		1	NO MANUAL INTEGRATION
2242	820J0168.D	BII0478-BS1		1	C10,
2308	820J0169.D	BII0478-BSD1		1	C10,
2333	820J0170.D	20I0212-03		1	NO MANUAL INTEGRATION
2358	820J0171.D	BII0481-BLK1		1	NO MANUAL INTEGRATION



MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20201001aliph.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0023	820J0172.D	BII0481-BS1	1	C10,	
0049	820J0173.D	BII0481-BSD1	1	C10,	
0114	820J0174.D	20I0212-06	1	NO MANUAL INTEGRATION	
0139	820J0175.D	20I0212-24	1	NO MANUAL INTEGRATION	
0552	820J0185.D	ALIPHCCV6	1	NO MANUAL INTEGRATION	
0642	820J0187.D	BII0585-BLK1	1	NO MANUAL INTEGRATION	
0707	820J0188.D	BII0585-BS1	1	C10,	
0732	820J0189.D	BII0585-BSD1	1	C10,	
0757	820J0190.D	20I0267-08	1	NO MANUAL INTEGRATION	
0821	820J0191.D	20I0267-16	1	NO MANUAL INTEGRATION	
1051	820J0197.D	ALIPHCCV8	1	NO MANUAL INTEGRATION	

## GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20201001arom.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	01-OCT-2020	17:18	820J0101.D	1	RINSE	
2	01-OCT-2020	18:00	820J0102.D	1	RINSE	
3	01-OCT-2020	18:25	820J0103.D	1	RINSE	
4	01-OCT-2020	19:34	820J0104.D	1	RINSE	
5	01-OCT-2020	19:59	820J0105.D	1	RINSE	
6	01-OCT-2020	20:25	820J0106.D	1	ARIB	
7	01-OCT-2020	21:16	820J0108.D	1	20AROM	
8	01-OCT-2020	21:41	820J0109.D	1	50AROM	
9	01-OCT-2020	22:07	820J0110.D	1	100AROM	
10	01-OCT-2020	22:32	820J0111.D	1	125AROM	
11	01-OCT-2020	22:57	820J0112.D	1	150AROM	
12	01-OCT-2020	23:23	820J0113.D	1	200AROM	
13	01-OCT-2020	23:48	820J0114.D	1	AROMSCV1	
14	02-OCT-2020	03:10	820J0122.D	1	AROMICV1	
15	02-OCT-2020	03:36	820J0123.D	1	BII0795-BLK2	
16	02-OCT-2020	04:01	820J0124.D	1	BII0795-BS2	
17	02-OCT-2020	04:27	820J0125.D	1	20I0109-02	
18	02-OCT-2020	04:52	820J0126.D	1	20I0109-03	
19	02-OCT-2020	05:18	820J0127.D	1	20I0109-05	
20	02-OCT-2020	05:43	820J0128.D	1	20I0109-07	
21	02-OCT-2020	06:09	820J0129.D	1	20I0109-08	
22	02-OCT-2020	06:34	820J0130.D	1	20I0109-09	
23	02-OCT-2020	06:59	820J0131.D	1	20I0109-10	
24	02-OCT-2020	07:24	820J0132.D	1	BII0795-MS2	
25	02-OCT-2020	07:49	820J0133.D	1	BII0795-MSD2	
26	02-OCT-2020	08:14	820J0134.D	1	20I0109-11	
27	02-OCT-2020	08:39	820J0135.D	1	20I0149-01	
28	02-OCT-2020	09:05	820J0136.D	1	AROMCCV1	
29	02-OCT-2020	09:30	820J0137.D	1	20I0149-02	
30	02-OCT-2020	09:55	820J0138.D	1	20I0149-05	
31	02-OCT-2020	10:21	820J0139.D	1	20I0149-07	
32	02-OCT-2020	10:46	820J0140.D	1	20I0149-08	
33	02-OCT-2020	11:12	820J0141.D	1	20I0149-09	
34	02-OCT-2020	11:37	820J0142.D	1	20I0149-10	
35	02-OCT-2020	12:03	820J0143.D	1	AROMCCV2	
36	02-OCT-2020	21:52	820J0166.D	1	AROMCCV5	
37	03-OCT-2020	02:05	820J0176.D	1	BII0478-BLK2	
38	03-OCT-2020	02:30	820J0177.D	1	BII0478-BS2	
39	03-OCT-2020	02:55	820J0178.D	1	BII0478-BSD2	
40	03-OCT-2020	03:20	820J0179.D	1	20I0212-03	
41	03-OCT-2020	03:46	820J0180.D	1	BII0481-BLK2	
42	03-OCT-2020	04:11	820J0181.D	1	BII0481-BS2	
43	03-OCT-2020	04:36	820J0182.D	1	BII0481-BSD2	
44	03-OCT-2020	05:01	820J0183.D	1	20I0212-06	
45	03-OCT-2020	05:26	820J0184.D	1	20I0212-24	
46	03-OCT-2020	06:17	820J0186.D	1	AROMCCV7	
47	03-OCT-2020	08:46	820J0192.D	1	BII0585-BLK2	
48	03-OCT-2020	09:11	820J0193.D	1	BII0585-BS2	
49	03-OCT-2020	09:35	820J0194.D	1	BII0585-BSD2	
50	03-OCT-2020	10:01	820J0195.D	1	20I0267-08	

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20201001arom.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
51	03-OCT-2020	10:26	820J0196.D	1	20I0267-16	
52	03-OCT-2020	11:16	820J0198.D	1	AROMCCV9	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20201001arom.b

ARI Job No.: RINS Method: EPHArOm.m Instrument: fid8.i Date: 01-OCT-2020

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1718	820J0101.D	RINSE		1	NO MANUAL INTEGRATION
1800	820J0102.D	RINSE		1	NO MANUAL INTEGRATION
1825	820J0103.D	RINSE		1	NO MANUAL INTEGRATION
1934	820J0104.D	RINSE		1	NO MANUAL INTEGRATION
1959	820J0105.D	RINSE		1	NO MANUAL INTEGRATION
2025	820J0106.D	ARIB		1	NO MANUAL INTEGRATION
2116	820J0108.D	20AROM		1	1,2,3-Trimetben, Benzo-ghi-per,
2141	820J0109.D	50AROM		1	NO MANUAL INTEGRATION
2207	820J0110.D	100AROM		1	Benzo-ghi-per,
2232	820J0111.D	125AROM		1	NO MANUAL INTEGRATION
2257	820J0112.D	150AROM		1	NO MANUAL INTEGRATION
2323	820J0113.D	200AROM		1	Benzo-ghi-per,
2348	820J0114.D	AROMSCV1		1	NO MANUAL INTEGRATION
0310	820J0122.D	AROMICV1		1	NO MANUAL INTEGRATION
0336	820J0123.D	BII0795-BLK2		1	NO MANUAL INTEGRATION
0401	820J0124.D	BII0795-BS2		1	NO MANUAL INTEGRATION
0427	820J0125.D	20I0109-02		1	1-chlorooctodecane (AROMATIC),

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20201001arom.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0452	820J0126.D	20I0109-03	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0518	820J0127.D	20I0109-05	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0543	820J0128.D	20I0109-07	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0609	820J0129.D	20I0109-08	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0634	820J0130.D	20I0109-09	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0659	820J0131.D	20I0109-10	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0724	820J0132.D	BII0795-MS2	1	1	Benzo-ghi-per, 1-chlorooctodecane(AROMATIC), o-Terph Surr,
0749	820J0133.D	BII0795-MSD2	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0814	820J0134.D	20I0109-11	1	1	NO MANUAL INTEGRATION
0839	820J0135.D	20I0149-01	1	1	NO MANUAL INTEGRATION
0905	820J0136.D	AROMCCV1	1	1	NO MANUAL INTEGRATION
0930	820J0137.D	20I0149-02	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0955	820J0138.D	20I0149-05	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
1021	820J0139.D	20I0149-07	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
1046	820J0140.D	20I0149-08	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
1112	820J0141.D	20I0149-09	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
1137	820J0142.D	20I0149-10	1	1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
1203	820J0143.D	AROMCCV2	1	1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20201001arom.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2152	820J0166.D	AROMCCV5	1		Benzo-ghi-per,
0205	820J0176.D	BII0478-BLK2	1		NO MANUAL INTEGRATION
0230	820J0177.D	BII0478-BS2	1		NO MANUAL INTEGRATION
0255	820J0178.D	BII0478-BSD2	1		NO MANUAL INTEGRATION
0320	820J0179.D	20I0212-03	1		NO MANUAL INTEGRATION
0346	820J0180.D	BII0481-BLK2	1		NO MANUAL INTEGRATION
0411	820J0181.D	BII0481-BS2	1		NO MANUAL INTEGRATION
0436	820J0182.D	BII0481-BSD2	1		NO MANUAL INTEGRATION
0501	820J0183.D	20I0212-06	1		NO MANUAL INTEGRATION
0526	820J0184.D	20I0212-24	1		NO MANUAL INTEGRATION
0617	820J0186.D	AROMCCV7	1		NO MANUAL INTEGRATION
0846	820J0192.D	BII0585-BLK2	1		NO MANUAL INTEGRATION
0911	820J0193.D	BII0585-BS2	1		NO MANUAL INTEGRATION
0935	820J0194.D	BII0585-BSD2	1		NO MANUAL INTEGRATION
1001	820J0195.D	20I0267-08	1		NO MANUAL INTEGRATION
1026	820J0196.D	20I0267-16	1		NO MANUAL INTEGRATION
1116	820J0198.D	AROMCCV9	1		Benzo-ghi-per,

Security Status Report

Date: 05-Oct-2020 17:34

820J0107.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0115.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0116.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0117.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0118.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0119.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0120.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0121.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0144.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0145.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0146.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0147.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0148.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0149.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0150.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0151.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0152.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0153.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0154.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0155.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0156.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0157.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0158.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0159.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0160.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0161.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0162.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0163.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0164.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0165.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0167.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0168.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0169.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0170.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0171.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0172.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0173.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0174.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0175.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0185.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0187.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0188.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0189.D	Data Locked	jrains,	05-Oct-2020	17:34
820J0190.D	Data Locked	jrains,	05-Oct-2020	17:34

820J0191.D  
820J0197.D

Data Locked  
Data Locked

j rains, 05-Oct-2020 17:34  
j rains, 05-Oct-2020 17:34

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Security Status Report

Date: 05-Oct-2020 17:40

820J0101.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0102.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0103.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0104.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0105.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0106.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0108.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0109.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0110.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0111.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0112.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0113.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0114.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0122.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0123.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0124.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0125.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0126.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0127.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0128.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0129.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0130.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0131.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0132.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0133.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0134.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0135.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0136.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0137.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0138.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0139.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0140.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0141.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0142.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0143.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0166.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0176.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0177.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0178.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0179.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0180.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0181.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0182.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0183.D	Data Locked	j rains, 05-Oct-2020 17:40

820J0184.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0186.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0192.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0193.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0194.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0195.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0196.D	Data Locked	j rains, 05-Oct-2020 17:40
820J0198.D	Data Locked	j rains, 05-Oct-2020 17:40

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## ANALYSIS BATCH (SEQUENCE) SUMMARY

### WA EPH

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Sequence: SIL0418

Instrument: FID8

Calibration: DJ00015

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ALIPHATICS	SIL0418-ICV2	820L2005.D	NA	12/20/20 14:29
ZZZZZ	20K0282-01	820L2008.D	Water	12/20/20 15:44
ZZZZZ	20K0282-01	820L2011.D	Water	12/20/20 16:59
ZZZZZ	BIK0783-BLK1	820L2012.D	Solid	12/20/20 17:24
ZZZZZ	BIK0783-BS1	820L2013.D	Solid	12/20/20 17:49
ZZZZZ	20K0291-02	820L2014.D	Solid	12/20/20 18:14
ZZZZZ	20K0291-03	820L2015.D	Solid	12/20/20 18:39
ZZZZZ	20K0291-04	820L2016.D	Solid	12/20/20 19:04
ZZZZZ	20K0291-05	820L2017.D	Solid	12/20/20 19:29
ZZZZZ	20K0291-06	820L2020.D	Solid	12/20/20 20:43
ZZZZZ	20K0291-10	820L2022.D	Solid	12/20/20 21:33
ZZZZZ	20K0291-11	820L2023.D	Solid	12/20/20 21:58
ALIPHATICS	SIL0418-CCV2	820L2025.D	NA	12/20/20 22:48
ZZZZZ	20K0291-12	820L2026.D	Solid	12/20/20 23:13
ZZZZZ	BIK0784-BS1	820L2029.D	Solid	12/21/20 00:27
ZZZZZ	20K0291-16	820L2030.D	Solid	12/21/20 00:52
ZZZZZ	20K0291-18	820L2034.D	Solid	12/21/20 02:32
ZZZZZ	20K0291-19	820L2035.D	Solid	12/21/20 02:57
ZZZZZ	20K0291-20	820L2036.D	Solid	12/21/20 03:22
ZZZZZ	20K0291-21	820L2037.D	Solid	12/21/20 03:47
ZZZZZ	20K0291-24	820L2038.D	Solid	12/21/20 04:12
ZZZZZ	20K0291-25	820L2039.D	Solid	12/21/20 04:36
ZZZZZ	20K0291-26	820L2040.D	Solid	12/21/20 05:01
ALIPHATICS	SIL0418-CCV3	820L2041.D	NA	12/21/20 05:26
ZZZZZ	20K0291-27	820L2042.D	Solid	12/21/20 05:51
ZZZZZ	20K0291-28	820L2043.D	Solid	12/21/20 06:16
ZZZZZ	20K0291-29	820L2044.D	Solid	12/21/20 06:41
ZZZZZ	20K0291-30	820L2045.D	Solid	12/21/20 07:06
Blank	BIK0740-BLK1	820L2046.D	Solid	12/21/20 07:31
LCS	BIK0740-BS1	820L2047.D	Solid	12/21/20 07:56



## ANALYSIS BATCH (SEQUENCE) SUMMARY

### WA EPH

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Sequence: SIL0418

Instrument: FID8

Calibration: DJ00015

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
USMPDI-006SC-D-12-14-201110	BIK0740-MS1	820L2048.D	Solid	12/21/20 08:21
USMPDI-006SC-D-12-14-201110	BIK0740-MSD1	820L2049.D	Solid	12/21/20 08:46
USMPDI-003SC-B-00-02-201110	20K0204-01	820L2050.D	Solid	12/21/20 09:11
USMPDI-003SC-B-02-04-201110	20K0204-02	820L2051.D	Solid	12/21/20 09:36
USMPDI-003SC-B-04-06-201110	20K0204-03	820L2052.D	Solid	12/21/20 10:01
USMPDI-003SC-B-06-08-201110	20K0204-04	820L2053.D	Solid	12/21/20 10:26
USMPDI-006SC-D-00-02-201110	20K0204-06	820L2054.D	Solid	12/21/20 10:52
USMPDI-006SC-D-02-04-201110	20K0204-07	820L2055.D	Solid	12/21/20 11:17
ALIPHATICS	SIL0418-CCV4	820L2056.D	NA	12/21/20 11:42
USMPDI-006SC-D-04-06-201110	20K0204-08	820L2057.D	Solid	12/21/20 12:08
USMPDI-006SC-D-06-08-201110	20K0204-09	820L2058.D	Solid	12/21/20 12:33
USMPDI-006SC-D-08-10-201110	20K0204-10	820L2059.D	Solid	12/21/20 12:59
USMPDI-006SC-D-10-12-201110	20K0204-11	820L2060.D	Solid	12/21/20 13:24
USMPDI-006SC-D-12-14-201110	20K0204-12	820L2061.D	Solid	12/21/20 13:50
USMPDI-1006SC-D-10-12-201110	20K0204-13	820L2062.D	Solid	12/21/20 14:16
ALIPHATICS	SIL0418-CCV5	820L2063.D	NA	12/21/20 14:41



ANALYSIS SEQUENCE

SIL0418

Instrument: FID8  
Calibration ID: DJ00015

Element Column ID: i10655i10656

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SIL0418-ICV1	AROMATICS	QC		1	I009166		
SIL0418-ICV2	ALIPHATICS	QC		2	I009827		
BIK0788-BLK1	Blank	QC		3			
BIK0788-BS1	LCS	QC		4			
20K0282-01	A0K0461-02	WA EPH Aliphatics	A 01	5			
BIK0788-BLK2	Blank	QC		6			
BIK0788-BS2	LCS	QC		7			
20K0282-01	A0K0461-02	WA EPH Aromatics	A 02	8			
BIK0783-BLK1	Blank	QC		9			
BIK0783-BS1	LCS	QC		10			
20K0291-02	JSMPTDI-001SC-B-00-02-20111	WA EPH Aliphatic C10-C12 mod	A 01	11			
20K0291-03	JSMPTDI-001SC-B-02-04-20111	WA EPH Aliphatic C10-C12 mod	A 01	12			
20K0291-04	JSMPTDI-001SC-B-04-06-20111	WA EPH Aliphatic C10-C12 mod	A 01	13			
20K0291-05	JSMPTDI-001SC-B-06-08-20111	WA EPH Aliphatic C10-C12 mod	A 01	14			
BIK0783-MS1	Matrix Spike	QC		15			
BIK0783-MSD1	Matrix Spike Dup	QC		16			
20K0291-06	JSMPTDI-001SC-B-08-9.6-20111	WA EPH Aliphatic C10-C12 mod	A 01	17			
20K0291-07	SMPDI-1001SC-B-04-06-2011	WA EPH Aliphatic C10-C12 mod	A 01	18			
20K0291-10	JSMPTDI-002SC-B-00-02-20111	WA EPH Aliphatic C10-C12 mod	A 01	19			
20K0291-11	JSMPTDI-002SC-B-02-04-20111	WA EPH Aliphatic C10-C12 mod	A 01	20			
SIL0418-CCV1	AROMATICS	QC		21	I009166		
SIL0418-CCV2	ALIPHATICS	QC		22	I009827		



ANALYSIS SEQUENCE

SIL0418

Instrument: FID8

Element Column ID: i10655i10656

Calibration ID: DJ00015

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
20K0291-12	JSMPI-002SC-B-04-06-20111	WA EPH Aliphatic C10-C12 mod	A 01	23			
20K0291-15	JSMPI-004SC-B-00-02-20111	WA EPH Aliphatic C10-C12 mod	A 01	24			
BIK0784-BLK1	Blank	QC		25			
BIK0784-BS1	LCS	QC		26			
BIK0784-MS1	Matrix Spike	QC		27			
BIK0784-MSD1	Matrix Spike Dup	QC		28			
20K0291-16	JSMPI-004SC-B-02-04-20111	WA EPH Aliphatic C10-C12 mod	A 01	29			
20K0291-17	JSMPI-004SC-B-04-06-20111	WA EPH Aliphatic C10-C12 mod	A 01	30			
20K0291-18	JSMPI-004SC-B-06-08-20111	WA EPH Aliphatic C10-C12 mod	A 01	31			
20K0291-19	JSMPI-004SC-B-08-10-20111	WA EPH Aliphatic C10-C12 mod	A 01	32			
20K0291-20	JSMPI-004SC-B-10-12-20111	WA EPH Aliphatic C10-C12 mod	A 01	33			
20K0291-21	SMPDI-004SC-B-12-13.5-2011	WA EPH Aliphatic C10-C12 mod	A 01	34			
20K0291-24	JSMPI-011SC-D-00-02-20111	WA EPH Aliphatic C10-C12 mod	A 01	35			
20K0291-25	JSMPI-011SC-D-02-04-20111	WA EPH Aliphatic C10-C12 mod	A 01	36			
20K0291-26	JSMPI-011SC-D-04-06-20111	WA EPH Aliphatic C10-C12 mod	A 01	37			
SIL0418-CCV3	ALIPHATICS	QC		38	I009827		
20K0291-27	JSMPI-011SC-D-06-08-20111	WA EPH Aliphatic C10-C12 mod	A 01	39			
20K0291-28	JSMPI-011SC-D-08-10-20111	WA EPH Aliphatic C10-C12 mod	A 01	40			
20K0291-29	JSMPI-011SC-D-10-12-20111	WA EPH Aliphatic C10-C12 mod	A 01	41			
20K0291-30	SMPDI-011SC-D-12-13.5-2011	WA EPH Aliphatic C10-C12 mod	A 01	42			
BIK0740-BLK1	Blank	QC		43			
BIK0740-BS1	LCS	QC		44			



ANALYSIS SEQUENCE

SIL0418

Instrument: FID8

Element Column ID: i10655i10656

Calibration ID: DJ00015

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
BIK0740-MS1	Matrix Spike	QC		45			
BIK0740-MSD1	Matrix Spike Dup	QC		46			
20K0204-01	JSMPTDI-003SC-B-00-02-20111	WA EPH Aliphatic C10-C12 mod	A 01	47			
20K0204-02	JSMPTDI-003SC-B-02-04-20111	WA EPH Aliphatic C10-C12 mod	A 01	48			
20K0204-03	JSMPTDI-003SC-B-04-06-20111	WA EPH Aliphatic C10-C12 mod	A 01	49			
20K0204-04	JSMPTDI-003SC-B-06-08-20111	WA EPH Aliphatic C10-C12 mod	A 01	50			
20K0204-06	JSMPTDI-006SC-D-00-02-20111	WA EPH Aliphatic C10-C12 mod	A 01	51			
20K0204-07	JSMPTDI-006SC-D-02-04-20111	WA EPH Aliphatic C10-C12 mod	A 01	52			
20K0204-08	JSMPTDI-006SC-D-04-06-20111	WA EPH Aliphatic C10-C12 mod	A 01	53			
SIL0418-CCV4	ALIPHATICS	QC		54	I009827		
20K0204-09	JSMPTDI-006SC-D-06-08-20111	WA EPH Aliphatic C10-C12 mod	A 01	55			
20K0204-10	JSMPTDI-006SC-D-08-10-20111	WA EPH Aliphatic C10-C12 mod	A 01	56			
20K0204-11	JSMPTDI-006SC-D-10-12-20111	WA EPH Aliphatic C10-C12 mod	A 01	57			
20K0204-12	JSMPTDI-006SC-D-12-14-20111	WA EPH Aliphatic C10-C12 mod	A 01	58			
20K0204-13	SMPDI-1006SC-D-10-12-2011	WA EPH Aliphatic C10-C12 mod	A 01	59			
SIL0418-CCV5	ALIPHATICS	QC		60	I009827		

## GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20201220aliph.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
1	20-DEC-2020	12:50	820L2001.D	1	DCM	
2	20-DEC-2020	13:14	820L2002.D	1	DCM	
3	20-DEC-2020	14:04	820L2004.D	1	AROMICV1	
4	20-DEC-2020	14:29	820L2005.D	1	ALIPHICV2	
5	20-DEC-2020	14:54	820L2006.D	1	BIK0788-BLK1	
6	20-DEC-2020	15:19	820L2007.D	1	BIK0788-BS1	
7	20-DEC-2020	15:44	820L2008.D	1	20K0282-01	
8	20-DEC-2020	17:24	820L2012.D	1	BIK0783-BLK1	
9	20-DEC-2020	17:49	820L2013.D	1	BIK0783-BS1	
10	20-DEC-2020	18:14	820L2014.D	1	20K0291-02	
11	20-DEC-2020	18:39	820L2015.D	1	20K0291-03	
12	20-DEC-2020	19:04	820L2016.D	1	20K0291-04	
13	20-DEC-2020	19:29	820L2017.D	1	20K0291-05	
14	20-DEC-2020	19:54	820L2018.D	1	BIK0783-MS1	
15	20-DEC-2020	20:19	820L2019.D	1	BIK0783-MSD1	
16	20-DEC-2020	20:43	820L2020.D	1	20K0291-06	
17	20-DEC-2020	21:08	820L2021.D	1	20K0291-07	
18	20-DEC-2020	21:33	820L2022.D	1	20K0291-10	
19	20-DEC-2020	21:58	820L2023.D	1	20K0291-11	
20	20-DEC-2020	22:48	820L2025.D	1	ALIPHCCV2	
21	20-DEC-2020	23:13	820L2026.D	1	20K0291-12	
22	20-DEC-2020	23:38	820L2027.D	1	20K0291-15	
23	21-DEC-2020	00:03	820L2028.D	1	BIK0784-BLK1AR	
24	21-DEC-2020	00:27	820L2029.D	1	BIK0784-BS1	
25	21-DEC-2020	00:52	820L2030.D	1	20K0291-16	
26	21-DEC-2020	01:17	820L2031.D	1	BIK0784-MS1AR	
27	21-DEC-2020	01:42	820L2032.D	1	BIK0784-MSD1AR	
28	21-DEC-2020	02:07	820L2033.D	1	20K0291-17AR	
29	21-DEC-2020	02:32	820L2034.D	1	20K0291-18	
30	21-DEC-2020	02:57	820L2035.D	1	20K0291-19	
31	21-DEC-2020	03:22	820L2036.D	1	20K0291-20	
32	21-DEC-2020	03:47	820L2037.D	1	20K0291-21	
33	21-DEC-2020	04:12	820L2038.D	1	20K0291-24	
34	21-DEC-2020	04:36	820L2039.D	1	20K0291-25	
35	21-DEC-2020	05:01	820L2040.D	1	20K0291-26	
36	21-DEC-2020	05:26	820L2041.D	1	ALIPHCCV3	
37	21-DEC-2020	05:51	820L2042.D	1	20K0291-27	
38	21-DEC-2020	06:16	820L2043.D	1	20K0291-28	
39	21-DEC-2020	06:41	820L2044.D	1	20K0291-29	
40	21-DEC-2020	07:06	820L2045.D	1	20K0291-30	
41	21-DEC-2020	07:31	820L2046.D	1	BIK0740-BLK1	
42	21-DEC-2020	07:56	820L2047.D	1	BIK0740-BS1	
43	21-DEC-2020	08:21	820L2048.D	1	BIK0740-MS1	
44	21-DEC-2020	08:46	820L2049.D	1	BIK0740-MSD1	
45	21-DEC-2020	09:11	820L2050.D	1	20K0204-01	
46	21-DEC-2020	09:36	820L2051.D	1	20K0204-02	
47	21-DEC-2020	10:01	820L2052.D	1	20K0204-03	
48	21-DEC-2020	10:26	820L2053.D	1	20K0204-04	
49	21-DEC-2020	10:52	820L2054.D	1	20K0204-06	
50	21-DEC-2020	11:17	820L2055.D	1	20K0204-07	



## GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20201220aliph.b

	Inject	Date/Time	Filename	DF	LabID	ClientID
51	21-DEC-2020	11:42	820L2056.D	1	ALIPHCCV4	
52	21-DEC-2020	12:08	820L2057.D	1	20K0204-08	
53	21-DEC-2020	12:33	820L2058.D	1	20K0204-09	
54	21-DEC-2020	12:59	820L2059.D	1	20K0204-10	
55	21-DEC-2020	13:24	820L2060.D	1	20K0204-11	
56	21-DEC-2020	13:50	820L2061.D	1	20K0204-12	
57	21-DEC-2020	14:16	820L2062.D	1	20K0204-13	
58	21-DEC-2020	14:41	820L2063.D	1	ALIPHCCV5	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20201220aliph.b

ARI Job No.: DCM Method: EPHaliph.m Instrument: fid8.i Date: 20-DEC-2020

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1250	820L2001.D	DCM		1	NO MANUAL INTEGRATION
1314	820L2002.D	DCM		1	NO MANUAL INTEGRATION
1429	820L2005.D	ALIPHICV2		1	NO MANUAL INTEGRATION
1454	820L2006.D	BIK0788-BLK1		1	NO MANUAL INTEGRATION
1519	820L2007.D	BIK0788-BS1		1	C10,
1544	820L2008.D	20K0282-01		1	NO MANUAL INTEGRATION
1724	820L2012.D	BIK0783-BLK1		1	NO MANUAL INTEGRATION
1749	820L2013.D	BIK0783-BS1		1	C10,
1814	820L2014.D	20K0291-02		1	1-Chloro-Octodecane,
1839	820L2015.D	20K0291-03		1	NO MANUAL INTEGRATION
1904	820L2016.D	20K0291-04		1	NO MANUAL INTEGRATION
1929	820L2017.D	20K0291-05		1	NO MANUAL INTEGRATION
1954	820L2018.D	BIK0783-MS1		1	C10,
2019	820L2019.D	BIK0783-MSD1		1	C10,
2043	820L2020.D	20K0291-06		1	NO MANUAL INTEGRATION
2108	820L2021.D	20K0291-07		1	NO MANUAL INTEGRATION
2133	820L2022.D	20K0291-10		1	1-Chloro-Octodecane,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20201220aliph.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2158	820L2023.D	20K0291-11		1	1-Chloro-Octodecane,
2248	820L2025.D	ALIPHCCV2		1	NO MANUAL INTEGRATION
2313	820L2026.D	20K0291-12		1	1-Chloro-Octodecane,
2338	820L2027.D	20K0291-15		1	1-Chloro-Octodecane,
0003	820L2028.D	BIK0784-BLK1AR		1	NO MANUAL INTEGRATION
0027	820L2029.D	BIK0784-BS1		1	C10,
0052	820L2030.D	20K0291-16		1	1-Chloro-Octodecane,
0117	820L2031.D	BIK0784-MS1AR		1	NO MANUAL INTEGRATION
0142	820L2032.D	BIK0784-MSD1AR		1	NO MANUAL INTEGRATION
0207	820L2033.D	20K0291-17AR		1	NO MANUAL INTEGRATION
0232	820L2034.D	20K0291-18		1	1-Chloro-Octodecane,
0257	820L2035.D	20K0291-19		1	1-Chloro-Octodecane,
0322	820L2036.D	20K0291-20		1	NO MANUAL INTEGRATION
0347	820L2037.D	20K0291-21		1	NO MANUAL INTEGRATION
0412	820L2038.D	20K0291-24		1	1-Chloro-Octodecane,
0436	820L2039.D	20K0291-25		1	1-Chloro-Octodecane,
0501	820L2040.D	20K0291-26		1	1-Chloro-Octodecane,
0526	820L2041.D	ALIPHCCV3		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20201220aliph.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0551	820L2042.D	20K0291-27	1		NO MANUAL INTEGRATION
0616	820L2043.D	20K0291-28	1		NO MANUAL INTEGRATION
0641	820L2044.D	20K0291-29	1		NO MANUAL INTEGRATION
0706	820L2045.D	20K0291-30	1		NO MANUAL INTEGRATION
0731	820L2046.D	BIK0740-BLK1	1		NO MANUAL INTEGRATION
0756	820L2047.D	BIK0740-BS1	1	C10,	
0821	820L2048.D	BIK0740-MS1	1		NO MANUAL INTEGRATION
0846	820L2049.D	BIK0740-MSD1	1		NO MANUAL INTEGRATION
0911	820L2050.D	20K0204-01	1		1-Chloro-Octodecane,
0936	820L2051.D	20K0204-02	1		NO MANUAL INTEGRATION
1001	820L2052.D	20K0204-03	1		NO MANUAL INTEGRATION
1026	820L2053.D	20K0204-04	1		NO MANUAL INTEGRATION
1052	820L2054.D	20K0204-06	1		1-Chloro-Octodecane,
1117	820L2055.D	20K0204-07	1		NO MANUAL INTEGRATION
1142	820L2056.D	ALIPHCCV4	1		NO MANUAL INTEGRATION
1208	820L2057.D	20K0204-08	1		NO MANUAL INTEGRATION
1233	820L2058.D	20K0204-09	1		NO MANUAL INTEGRATION
1259	820L2059.D	20K0204-10	1		NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20201220aliph.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1324	820L2060.D	20K0204-11	1		NO MANUAL INTEGRATION
1350	820L2061.D	20K0204-12	1		NO MANUAL INTEGRATION
1416	820L2062.D	20K0204-13	1		NO MANUAL INTEGRATION
1441	820L2063.D	ALIPHCCV5	1		NO MANUAL INTEGRATION

Security Status Report

Date: 27-Dec-2020 14:51

820L2001.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2002.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2005.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2006.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2007.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2008.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2012.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2013.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2014.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2015.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2016.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2017.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2018.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2019.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2020.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2021.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2022.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2023.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2025.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2026.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2027.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2028.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2029.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2030.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2031.D	Data Locked	jrains, 27-Dec-2020 14:51
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820L2033.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2034.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2035.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2036.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2037.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2038.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2039.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2040.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2041.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2042.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2043.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2044.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2045.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2046.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2047.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2048.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2049.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2050.D	Data Locked	jrains, 27-Dec-2020 14:51

820L2051.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2052.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2053.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2054.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2055.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2056.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2057.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2058.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2059.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2060.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2061.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2062.D	Data Locked	jrains, 27-Dec-2020 14:51
820L2063.D	Data Locked	jrains, 27-Dec-2020 14:51

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## SURROGATE RECOVERY AND RT SUMMARY

### WA EPH

Laboratory: Analytical Resources, Inc.

SDG/WO: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Sequence: SIJ0055

Instrument: FID8

Calibration: DJ00015

Calibration Date: 10/02/2020

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
<b>SIJ0055-SCV2 (Water)</b>			Lab File ID: 820J0121.D			Analyzed: 10/02/20 02:45		
1-Chloro-octadecane	125.00	139	70 - 130	7.01	7.01	0.0000	N/A	*





## SURROGATE RECOVERY AND RT SUMMARY

### WA EPH

Laboratory: Analytical Resources, Inc.

SDG/WO: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Sequence: SIL0418

Instrument: FID8

Calibration: DJ00015

Calibration Date: 10/02/2020

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
<b>SIL0418-ICV2 (Water)</b>			Lab File ID: 820L2005.D		Analyzed: 12/20/20 14:29			
1-Chloro-octadecane	125.00	94.4	80 - 120	7	7.01	-0.0100	N/A	
<b>SIL0418-CCV2 (Water)</b>			Lab File ID: 820L2025.D		Analyzed: 12/20/20 22:48			
1-Chloro-octadecane	125.00	93.4	80 - 120	7	7.01	-0.0100	N/A	
<b>SIL0418-CCV3 (Water)</b>			Lab File ID: 820L2041.D		Analyzed: 12/21/20 05:26			
1-Chloro-octadecane	125.00	94.1	80 - 120	7	7.01	-0.0100	N/A	
<b>BIK0740-BLK1 (Solid)</b>			Lab File ID: 820L2046.D		Analyzed: 12/21/20 07:31			
1-Chloro-octadecane	15000	61.4	30 - 160	7	7.01	-0.0100	N/A	
<b>BIK0740-BS1 (Solid)</b>			Lab File ID: 820L2047.D		Analyzed: 12/21/20 07:56			
1-Chloro-octadecane	15000	84.3	30 - 160	7	7.01	-0.0100	N/A	
<b>BIK0740-MS1 (Solid)</b>			Lab File ID: 820L2048.D		Analyzed: 12/21/20 08:21			
1-Chloro-octadecane	20791	78.0	30 - 160	7	7.01	-0.0100	N/A	
<b>BIK0740-MSD1 (Solid)</b>			Lab File ID: 820L2049.D		Analyzed: 12/21/20 08:46			
1-Chloro-octadecane	20791	68.4	30 - 160	7	7.01	-0.0100	N/A	
<b>20K0204-01 (Solid)</b>			Lab File ID: 820L2050.D		Analyzed: 12/21/20 09:11			
1-Chloro-octadecane	24616	62.5	30 - 160	7	7.01	-0.0100	N/A	
<b>20K0204-02 (Solid)</b>			Lab File ID: 820L2051.D		Analyzed: 12/21/20 09:36			
1-Chloro-octadecane	19272	65.5	30 - 160	7	7.01	-0.0100	N/A	
<b>20K0204-03 (Solid)</b>			Lab File ID: 820L2052.D		Analyzed: 12/21/20 10:01			
1-Chloro-octadecane	19358	55.4	30 - 160	7	7.01	-0.0100	N/A	
<b>20K0204-04 (Solid)</b>			Lab File ID: 820L2053.D		Analyzed: 12/21/20 10:26			
1-Chloro-octadecane	18432	64.6	30 - 160	7	7.01	-0.0100	N/A	
<b>20K0204-06 (Solid)</b>			Lab File ID: 820L2054.D		Analyzed: 12/21/20 10:52			
1-Chloro-octadecane	25676	54.7	30 - 160	7	7.01	-0.0100	N/A	
<b>20K0204-07 (Solid)</b>			Lab File ID: 820L2055.D		Analyzed: 12/21/20 11:17			
1-Chloro-octadecane	19611	66.3	30 - 160	7	7.01	-0.0100	N/A	



## SURROGATE RECOVERY AND RT SUMMARY

### WA EPH

Laboratory: Analytical Resources, Inc.

SDG/WO: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Sequence: SIL0418

Instrument: FID8

Calibration: DJ00015

Calibration Date: 10/02/2020

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
<b>SIL0418-CCV4 (Water)</b>			Lab File ID: 820L2056.D		Analyzed: 12/21/20 11:42			
1-Chloro-octadecane	125.00	96.2	80 - 120	7	7.01	-0.0100	N/A	
<b>20K0204-08 (Solid)</b>			Lab File ID: 820L2057.D		Analyzed: 12/21/20 12:08			
1-Chloro-octadecane	18880	67.5	30 - 160	7	7.01	-0.0100	N/A	
<b>20K0204-09 (Solid)</b>			Lab File ID: 820L2058.D		Analyzed: 12/21/20 12:33			
1-Chloro-octadecane	19232	67.1	30 - 160	7	7.01	-0.0100	N/A	
<b>20K0204-10 (Solid)</b>			Lab File ID: 820L2059.D		Analyzed: 12/21/20 12:59			
1-Chloro-octadecane	19447	67.4	30 - 160	7	7.01	-0.0100	N/A	
<b>20K0204-11 (Solid)</b>			Lab File ID: 820L2060.D		Analyzed: 12/21/20 13:24			
1-Chloro-octadecane	20405	63.1	30 - 160	7	7.01	-0.0100	N/A	
<b>20K0204-12 (Solid)</b>			Lab File ID: 820L2061.D		Analyzed: 12/21/20 13:50			
1-Chloro-octadecane	20749	75.5	30 - 160	7	7.01	-0.0100	N/A	
<b>20K0204-13 (Solid)</b>			Lab File ID: 820L2062.D		Analyzed: 12/21/20 14:16			
1-Chloro-octadecane	20711	75.1	30 - 160	7	7.01	-0.0100	N/A	
<b>SIL0418-CCV5 (Water)</b>			Lab File ID: 820L2063.D		Analyzed: 12/21/20 14:41			
1-Chloro-octadecane	125.00	97.7	80 - 120	7	7.01	-0.0100	N/A	



## HOLDING TIME SUMMARY

### Analysis: WA EPH

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

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-003SC-B-00-02-201110 20K0204-01	11/10/20 11:55	11/12/20 10:20	11/24/20 10:15	13	14	12/21/20 09:11	27	40	
USMPDI-003SC-B-02-04-201110 20K0204-02	11/10/20 11:55	11/12/20 10:20	11/24/20 10:15	13	14	12/21/20 09:36	27	40	
USMPDI-003SC-B-04-06-201110 20K0204-03	11/10/20 11:55	11/12/20 10:20	11/24/20 10:15	13	14	12/21/20 10:01	27	40	
USMPDI-003SC-B-06-08-201110 20K0204-04	11/10/20 11:55	11/12/20 10:20	11/24/20 10:15	13	14	12/21/20 10:26	27	40	
USMPDI-006SC-D-00-02-201110 20K0204-06	11/10/20 09:05	11/12/20 10:20	11/24/20 10:15	14	14	12/21/20 10:52	27	40	
USMPDI-006SC-D-02-04-201110 20K0204-07	11/10/20 09:05	11/12/20 10:20	11/24/20 10:15	14	14	12/21/20 11:17	27	40	
USMPDI-006SC-D-04-06-201110 20K0204-08	11/10/20 09:05	11/12/20 10:20	11/24/20 10:15	14	14	12/21/20 12:08	27	40	
USMPDI-006SC-D-06-08-201110 20K0204-09	11/10/20 09:05	11/12/20 10:20	11/24/20 10:15	14	14	12/21/20 12:33	27	40	
USMPDI-006SC-D-08-10-201110 20K0204-10	11/10/20 09:05	11/12/20 10:20	11/24/20 10:15	14	14	12/21/20 12:59	27	40	
USMPDI-006SC-D-10-12-201110 20K0204-11	11/10/20 09:05	11/12/20 10:20	11/24/20 10:15	14	14	12/21/20 13:24	27	40	
USMPDI-006SC-D-12-14-201110 20K0204-12	11/10/20 09:05	11/12/20 10:20	11/24/20 10:15	14	14	12/21/20 13:50	27	40	
USMPDI-1006SC-D-10-12-201110 20K0204-13	11/10/20 00:00	11/12/20 10:20	11/24/20 10:15	14	14	12/21/20 14:16	27	40	
Matrix Spike BIK0740-MS1	11/10/20 09:05	11/12/20 10:20	11/24/20 10:15	14	14	12/21/20 08:21	27	40	
Matrix Spike Dup BIK0740-MSD1	11/10/20 09:05	11/12/20 10:20	11/24/20 10:15	14	14	12/21/20 08:46	27	40	

\* Indicates hold time exceedance.



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

## METHOD DETECTION AND REPORTING LIMITS

**WA EPH**

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor OEA, LLC

Project: Gasco Siltronic

Matrix: Solid

Instrument: FID8

<b>Analyte</b>	<b>MDL</b>	<b>RL</b>	<b>Units</b>
C10-C12 Aliphatics		2000	ug/kg



**Analytical Resources, Incorporated**  
Analytical Chemists and Consultants

## METHOD DETECTION AND REPORTING LIMITS

WA EPH

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor OEA, LLC

Project: Gasco Siltronic

Matrix: Water

Instrument: FID8

<b>Analyte</b>	<b>MDL</b>	<b>RL</b>	<b>Units</b>
C10-C12 Aliphatics		20	ug/L



Form I  
INORGANIC ANALYSIS DATA SHEET  
SM 2540 G-97

USMPDI-003SC-B-00-02-201110

Laboratory: Analytical Resources, Inc.  
Client: Anchor QEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-01 A SDG: 20K0204  
Sampled: 11/10/20 11:55 Prepared: 11/18/20 02:56 File ID:  
% Solids: 60.69 Preparation: No Prep Wet Chem Analyzed: 11/18/20 03:24  
Batch: BIK0541 Sequence: Initial/Final: 10 g Wet / 10 g  
Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	60.69	1	0.04	0.04	



Form I  
INORGANIC ANALYSIS DATA SHEET  
SM 2540 G-97

USMPDI-003SC-B-02-04-201110

Laboratory: Analytical Resources, Inc.  
Client: Anchor QEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-02 A SDG: 20K0204  
Sampled: 11/10/20 11:55 Prepared: 11/18/20 02:56 File ID:  
% Solids: 77.60 Preparation: No Prep Wet Chem Analyzed: 11/18/20 03:24  
Batch: BIK0541 Sequence: Initial/Final: 10 g Wet / 10 g  
Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	77.60	1	0.04	0.04	



Form I  
INORGANIC ANALYSIS DATA SHEET  
SM 2540 G-97

USMPDI-003SC-B-04-06-201110

Laboratory: Analytical Resources, Inc.  
Client: Anchor QEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-03 A SDG: 20K0204  
Sampled: 11/10/20 11:55 Prepared: 11/18/20 02:56 File ID:  
% Solids: 76.95 Preparation: No Prep Wet Chem Analyzed: 11/18/20 03:24  
Batch: BIK0541 Sequence: Initial/Final: 10 g Wet / 10 g  
Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	76.95	1	0.04	0.04	





Form I  
INORGANIC ANALYSIS DATA SHEET  
SM 2540 G-97

USMPDI-003SC-B-06-08-201110

Laboratory: Analytical Resources, Inc.  
Client: Anchor QEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-04 A SDG: 20K0204  
Sampled: 11/10/20 11:55 Prepared: 11/18/20 02:56 File ID:  
% Solids: 81.38 Preparation: No Prep Wet Chem Analyzed: 11/18/20 03:24  
Batch: BIK0541 Sequence: Initial/Final: 10 g Wet / 10 g  
Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	81.38	1	0.04	0.04	



Form I  
INORGANIC ANALYSIS DATA SHEET  
SM 2540 G-97

USMPDI-006SC-A-00-01-201110

Laboratory: Analytical Resources, Inc.  
Client: Anchor QEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-05 A SDG: 20K0204  
Sampled: 11/10/20 09:25 Prepared: 11/18/20 02:56 File ID:  
% Solids: 54.03 Preparation: No Prep Wet Chem Analyzed: 11/18/20 03:24  
Batch: BIK0541 Sequence: Initial/Final: 10 g Wet / 10 g  
Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	54.03	1	0.04	0.04	



Form I  
INORGANIC ANALYSIS DATA SHEET  
SM 2540 G-97

USMPDI-006SC-D-00-02-201110

Laboratory: Analytical Resources, Inc.  
Client: Anchor QEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-06 A SDG: 20K0204  
Sampled: 11/10/20 09:05 Prepared: 11/18/20 02:56 File ID:  
% Solids: 58.19 Preparation: No Prep Wet Chem Analyzed: 11/18/20 03:24  
Batch: BIK0541 Sequence: Initial/Final: 10 g Wet / 10 g  
Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	58.19	1	0.04	0.04	



Form I  
INORGANIC ANALYSIS DATA SHEET  
SM 2540 G-97

USMPDI-006SC-D-02-04-201110

Laboratory: Analytical Resources, Inc.  
Client: Anchor QEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-07 B SDG: 20K0204  
Sampled: 11/10/20 09:05 Prepared: 11/18/20 02:56 File ID:  
% Solids: 76.41 Preparation: No Prep Wet Chem Analyzed: 11/18/20 03:24  
Batch: BIK0541 Sequence: Initial/Final: 10 g Wet / 10 g  
Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	76.41	1	0.04	0.04	



Form I  
INORGANIC ANALYSIS DATA SHEET  
SM 2540 G-97

USMPDI-006SC-D-04-06-201110

Laboratory: Analytical Resources, Inc.  
Client: Anchor QEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-08 A SDG: 20K0204  
Sampled: 11/10/20 09:05 Prepared: 11/18/20 02:56 File ID:  
% Solids: 79.06 Preparation: No Prep Wet Chem Analyzed: 11/18/20 03:24  
Batch: BIK0541 Sequence: Initial/Final: 10 g Wet / 10 g  
Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	79.06	1	0.04	0.04	



Form I  
INORGANIC ANALYSIS DATA SHEET  
SM 2540 G-97

USMPDI-006SC-D-06-08-201110

Laboratory: Analytical Resources, Inc.  
Client: Anchor QEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-09 A SDG: 20K0204  
Sampled: 11/10/20 09:05 Prepared: 11/18/20 02:56 File ID:  
% Solids: 77.92 Preparation: No Prep Wet Chem Analyzed: 11/18/20 03:24  
Batch: BIK0541 Sequence: Initial/Final: 10 g Wet / 10 g  
Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	77.92	1	0.04	0.04	



Form I  
INORGANIC ANALYSIS DATA SHEET  
SM 2540 G-97

USMPDI-006SC-D-08-10-201110

Laboratory: Analytical Resources, Inc.  
Client: Anchor QEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-10 A SDG: 20K0204  
Sampled: 11/10/20 09:05 Prepared: 11/18/20 02:56 File ID:  
% Solids: 77.13 Preparation: No Prep Wet Chem Analyzed: 11/18/20 03:24  
Batch: BIK0541 Sequence: Initial/Final: 10 g Wet / 10 g  
Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	77.13	1	0.04	0.04	



Form I  
INORGANIC ANALYSIS DATA SHEET  
SM 2540 G-97

USMPDI-006SC-D-10-12-201110

Laboratory: Analytical Resources, Inc.  
Client: Anchor QEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-11 A SDG: 20K0204  
Sampled: 11/10/20 09:05 Prepared: 11/18/20 02:56 File ID:  
% Solids: 72.93 Preparation: No Prep Wet Chem Analyzed: 11/18/20 03:24  
Batch: BIK0541 Sequence: Initial/Final: 10 g Wet / 10 g  
Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	72.93	1	0.04	0.04	





Form I  
INORGANIC ANALYSIS DATA SHEET  
SM 2540 G-97

USMPDI-006SC-D-12-14-201110

Laboratory: Analytical Resources, Inc.  
Client: Anchor QEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-12 B SDG: 20K0204  
Sampled: 11/10/20 09:05 Prepared: 11/18/20 03:25 File ID:  
% Solids: 72.15 Preparation: No Prep Wet Chem Analyzed: 11/18/20 03:40  
Batch: BIK0542 Sequence: Initial/Final: 10 g Wet / 10 g  
Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	72.15	1	0.04	0.04	



Form I  
INORGANIC ANALYSIS DATA SHEET  
SM 2540 G-97

USMPDI-1006SC-D-10-12-201110

Laboratory: Analytical Resources, Inc.  
Client: Anchor QEA, LLC  
Project: Gasco Siltronic  
Matrix: Sediment Laboratory ID: 20K0204-13 A SDG: 20K0204  
Sampled: 11/10/20 00:00 Prepared: 11/18/20 03:25 File ID:  
% Solids: 72.28 Preparation: No Prep Wet Chem Analyzed: 11/18/20 03:40  
Batch: BIK0542 Sequence: Initial/Final: 10 g Wet / 10 g  
Instrument: BAL2 Calibration:

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	72.28	1	0.04	0.04	



## PREPARATION BATCH SUMMARY

SM 2540 G-97

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Batch: BIK0541 Batch Matrix: Solid

Preparation: No Prep Wet Chem

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
USMPDI-003SC-B-00-02-201110	20K0204-01		11/18/20 02:56	Keep Solids
USMPDI-003SC-B-02-04-201110	20K0204-02		11/18/20 02:56	Keep Solids
USMPDI-003SC-B-04-06-201110	20K0204-03		11/18/20 02:56	Keep Solids
USMPDI-003SC-B-06-08-201110	20K0204-04		11/18/20 02:56	Keep Solids
USMPDI-006SC-A-00-01-201110	20K0204-05		11/18/20 02:56	Keep Solids
USMPDI-006SC-D-00-02-201110	20K0204-06		11/18/20 02:56	Keep Solids
USMPDI-006SC-D-02-04-201110	20K0204-07		11/18/20 02:56	Keep Solids
USMPDI-006SC-D-04-06-201110	20K0204-08		11/18/20 02:56	Keep Solids
USMPDI-006SC-D-06-08-201110	20K0204-09		11/18/20 02:56	Keep Solids
USMPDI-006SC-D-08-10-201110	20K0204-10		11/18/20 02:56	Keep Solids
USMPDI-006SC-D-10-12-201110	20K0204-11		11/18/20 02:56	Keep Solids
Blank	BIK0541-BLK1		11/18/20 02:56	





## PREPARATION BATCH SUMMARY

SM 2540 G-97

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Batch: BIK0542 Batch Matrix: Solid

Preparation: No Prep Wet Chem

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
USMPDI-006SC-D-12-14-201110	20K0204-12		11/18/20 03:25	Keep Solids
USMPDI-1006SC-D-10-12-201110	20K0204-13		11/18/20 03:25	Keep Solids
Blank	BIK0542-BLK1		11/18/20 03:25	
USMPDI-006SC-D-12-14-201110	BIK0542-DUP1		11/18/20 03:25	





**Form I**  
**METHOD BLANK DATA SHEET**  
**SM 2540 G-97**  
TotalAnalytes

**Blank**

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Batch: BIK0541

Laboratory ID: BIK0541-BLK1

Prepared: 11/18/20 02:56

Matrix: Solid

Preparation: No Prep Wet Chem

Analyzed: 11/18/20 03:24

Sequence:

Calibration:

Instrument: BAL2

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	ND	1	0.04	0.04	U



**Form I**  
**METHOD BLANK DATA SHEET**  
**SM 2540 G-97**  
TotalAnalytes

**Blank**

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Batch: BIK0542

Laboratory ID: BIK0542-BLK1

Prepared: 11/18/20 03:25

Matrix: Solid

Preparation: No Prep Wet Chem

Analyzed: 11/18/20 03:40

Sequence:

Calibration:

Instrument: BAL2

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	ND	1	0.04	0.04	U





**DUPLICATES**  
**SM 2540 G-97**

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

Matrix: Solid

Laboratory ID: BIK0542-DUP1

Batch: BIK0542

Lab Source ID: 20K0204-12

Preparation: No Prep Wet Chem

Initial/Final: 10 g / 10 g

Source Sample Name: USMPDI-006SC-D-12-14-201110

% Solids: 72.15

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (%)	C	DUPLICATE CONCENTRATION (%)	C	RPD %	Q
Total Solids	20	72.15		71.86		0.395	

\*: Values outside of QC limits

L: Analyte concentration is  $\leq 5$  times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD



## HOLDING TIME SUMMARY

Analysis: SM 2540 G-97

Laboratory: Analytical Resources, Inc.

SDG: 20K0204

Client: Anchor QEA, LLC

Project: Gasco Siltronic

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-003SC-B-00-02-201110 20K0204-01	11/10/20 11:55	11/12/20 10:20	11/18/20 02:56	7	28	11/18/20 03:24	8	28	
USMPDI-003SC-B-02-04-201110 20K0204-02	11/10/20 11:55	11/12/20 10:20	11/18/20 02:56	7	28	11/18/20 03:24	8	28	
USMPDI-003SC-B-04-06-201110 20K0204-03	11/10/20 11:55	11/12/20 10:20	11/18/20 02:56	7	28	11/18/20 03:24	8	28	
USMPDI-003SC-B-06-08-201110 20K0204-04	11/10/20 11:55	11/12/20 10:20	11/18/20 02:56	7	28	11/18/20 03:24	8	28	
USMPDI-006SC-A-00-01-201110 20K0204-05	11/10/20 09:25	11/12/20 10:20	11/18/20 02:56	7	28	11/18/20 03:24	8	28	
USMPDI-006SC-D-00-02-201110 20K0204-06	11/10/20 09:05	11/12/20 10:20	11/18/20 02:56	7	28	11/18/20 03:24	8	28	
USMPDI-006SC-D-02-04-201110 20K0204-07	11/10/20 09:05	11/12/20 10:20	11/18/20 02:56	7	28	11/18/20 03:24	8	28	
USMPDI-006SC-D-04-06-201110 20K0204-08	11/10/20 09:05	11/12/20 10:20	11/18/20 02:56	7	28	11/18/20 03:24	8	28	
USMPDI-006SC-D-06-08-201110 20K0204-09	11/10/20 09:05	11/12/20 10:20	11/18/20 02:56	7	28	11/18/20 03:24	8	28	
USMPDI-006SC-D-08-10-201110 20K0204-10	11/10/20 09:05	11/12/20 10:20	11/18/20 02:56	7	28	11/18/20 03:24	8	28	
USMPDI-006SC-D-10-12-201110 20K0204-11	11/10/20 09:05	11/12/20 10:20	11/18/20 02:56	7	28	11/18/20 03:24	8	28	
USMPDI-006SC-D-12-14-201110 20K0204-12	11/10/20 09:05	11/12/20 10:20	11/18/20 03:25	7	28	11/18/20 03:40	8	28	
USMPDI-1006SC-D-10-12-201110 20K0204-13	11/10/20 00:00	11/12/20 10:20	11/18/20 03:25	8	28	11/18/20 03:40	8	28	
Duplicate BIK0542-DUP1	11/10/20 09:05	11/12/20 10:20	11/18/20 03:25	7	28	11/18/20 03:40	8	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: 20K0204

Client: Anchor OEA, LLC

Project: Gasco Siltronic

Matrix: Solid

Instrument:

<b>Analyte</b>	<b>MDL</b>	<b>RL</b>	<b>Units</b>
Total Solids	0.04	0.04	%

<b>TOTAL SOLIDS BENCHSHEET</b>		Batch:	BIK0715
Method: PSEP 1986		Date:	11/23/2020 12:02
(dry at 103-105 C)		Analyst:	CTO
<b>Instrumentation</b>		Drying Oven:	15
		Analytical Balance:	B334705934

<b>Batch drying time</b>		<b>TS (%) calculated as:</b> 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:	11/23/2020 19:17	
date/time out:	11/24/2020 9:24	
elapsed hrs:	14.1	

SAMPLE ID	Dish Tare Wt (g)	Dish with Sample (g)	Dry Wt (g)	Solids Wt (g)	TS (%)	Sample Decanted
20K0204-01	0.7900	11.4800	7.1000	6.31	59.03%	No
20K0204-02	0.8000	11.0900	8.9300	8.13	79.01%	No
20K0204-03	0.7900	11.2200	8.9300	8.14	78.04%	No
20K0204-04	0.8000	10.9200	9.1000	8.30	82.02%	No
20K0204-05	0.8000	13.3100	7.6700	6.87	54.92%	No
20K0204-06	0.7900	10.8200	6.6700	5.88	58.62%	No
20K0204-07	0.8000	13.6100	10.5900	9.79	76.42%	No
20K0204-08	0.7900	11.0200	8.9000	8.11	79.28%	No
20K0204-09	0.7800	12.5500	9.9500	9.17	77.91%	No
20K0204-10	0.8000	11.5400	8.9800	8.18	76.16%	No
20K0204-11	0.7800	11.3500	8.4600	7.68	72.66%	No
20K0204-12	0.8000	11.4500	8.4100	7.61	71.46%	No
20K0204-13	0.7900	11.1900	8.3700	7.58	72.88%	No