Analytical Resources, Incorporated
Analytical Chemists and Consultants

15 June 2021

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

RE: Gasco Siltronic - US Moorings

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

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

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

Associated Work Order(s)	Associated SDG ID(s)
21E0099	N/A

Shelly Fishel

Digitally signed by Shelly Fishel
Date: 2021.06.15 16:12:42 -07'00'

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

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

Analytical Resources, Inc.

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

Shelly Fishel, Project Manager

ACCREDITED IN ACCORDANCE WITH nelac
Cert# 100006-012

21E0099

ANCHOR QEA
1201 3rd Avenue, Suite 2600, Seattle, WA 98101

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID: ARI-20210503-150641

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

Project: GascoSiltronic: US Moorings
Client: NW Natural

Sample Custodian: CO
Lab: Analytical Resources Inc.

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
001	SC-FB-2105030940	FB	WQ	05/03/2021	9:40	6	☐				
								EPH (QAPP C-4)	EPH	30	
								PAHs and Alk. PAHs	SW8270ESIM	30	
								TPH	NWTPHDx	30	
002	SC-RB-2105030901	RB	WQ	05/03/2021	9:00	6	☐				
								EPH (QAPP C-4)	EPH	30	
								PAHs and Alk. PAHs	SW8270ESIM	30	
								TPH	NWTPHDx	30	

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Print Name: Sasha Norwood	Print Name: Jacob Haltz	Print Name	Print Name	Print Name	Print Name
Company: Anchor QEA	Company: ARI	Company	Company	Company	Company
Date/Time: 5/4/21 @ 0810	Date/Time: 05/05/2021 1057	Date/Time	Date/Time	Date/Time	Date/Time

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

Date Printed: 5/3/2021

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Anchor QEA

Project Name: Gasco Siltronic: US Moorings

COC No(s): _____ NA

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

Assigned ARI Job No: 21E0099

Tracking No: 7736 2953 4344 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 1053 4.3 ___ ___ ___ ___ ___

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

Temp Gun ID#: DOO 5206

Cooler Accepted by: JB Date: 05/05/2021 Time: 1053

Complete custody forms and attach all shipping documents

Log-In Phase:

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

Were the sample(s) split by ARI? NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: KD Date: 5/7/21 Time: 1303 Labels checked by: KD

***** 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	Project:	Gasco Siltronic - US Moorings	
1201 3rd Ave, Suite 2600	Project Number:	[none]	**Reported:**
Seattle, WA 98101	Project Manager:	Delaney Peterson	06/15/2021 15:43

ANALYTICAL REPORT FOR SAMPLES

Laboratory ID	Sample ID	Matrix	Date Sampled	Date Received
21E0099-01	SC-FB-2105030940	Water	05/03/21 09:40	05/05/21 10:53
21E0099-02	SC-RB-2105030901	Water	05/03/21 09:00	05/05/21 10:53

Anchor QEA, LLC	Project: Gasco Siltronic - US Moorings	
1201 3rd Ave, Suite 2600	Project Number: [none]	**Reported:**
Seattle WA, 98101	Project Manager: Delaney Peterson	15-Jun-2021 15:43

Case Narrative

Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Work Order: 21E0099

Sample receipt

Samples as listed on the preceding page were received 05-May-2021 10:53 under ARI work order 21E0099. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Alkyl PAH - EPA Method SW8270E-SIM

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

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

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

The blank spike/blank spike duplicate (BS/BSD aka LCS/LCSD) percent recoveries and relative percent difference (RPD) were within control limits except trans-Decalin and cis-Decalin percent recoveries which were out of control low in the LCS as well as BS/BSD RPD for these two analytes are also out of control. Deviations have been flagged.

The matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and relative percent difference (RPD) were within advisory control limits.

Extractable Organic Hydrocarbons - WA-Ecology

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

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits except 1-Chloro-octadecane which was out of control high in the second source calibration verification and has been flagged.

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

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

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

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

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits.

Analytical Report

Anchor QEA, LLC	Project: Gasco Siltronic - US Moorings	
1201 3rd Ave, Suite 2600	Project Number: [none]	**Reported:**
Seattle WA, 98101	Project Manager: Delaney Peterson	15-Jun-2021 15:43

Case Narrative

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

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

Analytical Report

Anchor QEA, LLC	Project: Gasco Siltronic - US Moorings	
1201 3rd Ave, Suite 2600	Project Number: [none]	**Reported:**
Seattle WA, 98101	Project Manager: Delaney Peterson	15-Jun-2021 15:43

Case Narrative

QUALIFIERS AND NOTES

Qualifier	Definition
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.
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

SC-FB-2105030940

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

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Gasco Siltronic - US Moorings				
Matrix:	Water	Laboratory ID:	21E0099-01 B	SDG:	21E0099
Sampled:	05/03/21 09:40	Prepared:	05/10/21 15:58	File ID:	NT1421060707.D
% Solids:		Preparation:	EPA 3520C (Liq Liq)	Analyzed:	06/07/21 17:18
Batch:	BJE0209	Sequence:	SJF0173	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT14	Column:	ZB-5MS	Calibration:	EF00008

CAS NO.	COMPOUND	DILUTION	(ug/L)	Q	DL	RL
493-02-7	trans-Decalin	1	0.100	U	0.007	0.100
493-01-6	cis-Decalin	1	0.100	U	0.007	0.100
91-20-3	Naphthalene	1	0.011	J	0.011	0.100
90-12-0	1-Methylnaphthalene	1	0.100	U	0.010	0.100
91-57-6	2-Methylnaphthalene	1	0.100	U	0.010	0.100
92-52-4	Biphenyl	1	0.100	U	0.012	0.100
581-42-0	2,6-Dimethylnaphthalene	1	0.100	U	0.013	0.100
208-96-8	Acenaphthylene	1	0.100	U	0.006	0.100
83-32-9	Acenaphthene	1	0.100	U	0.011	0.100
132-64-9	Dibenzofuran	1	0.100	U	0.009	0.100
2245-38-7	2,3,5-Trimethylnaphthalene	1	0.100	U	0.008	0.100
86-73-7	Fluorene	1	0.100	U	0.007	0.100
95-15-8	Benzo(b)thiophene	1	0.100	U	0.009	0.100
85-01-8	Phenanthrene	1	0.100	U	0.009	0.100
120-12-7	Anthracene	1	0.100	U	0.025	0.100
86-74-8	Carbazole	1	0.100	U	0.028	0.100
832-69-9	1-Methylphenanthrene	1	0.100	U	0.005	0.100
206-44-0	Fluoranthene	1	0.100	U	0.007	0.100
132-65-0	Dibenzothiophene	1	0.100	U	0.021	0.100
129-00-0	Pyrene	1	0.100	U	0.014	0.100
56-55-3	Benzo(a)anthracene	1	0.100	U	0.017	0.100
218-01-9	Chrysene	1	0.100	U	0.010	0.100
205-99-2	Benzo(b)fluoranthene	1	0.100	U	0.010	0.100
205-82-3	Benzo(j)fluoranthene	1	0.100	U	0.038	0.100
207-08-9	Benzo(k)fluoranthene	1	0.100	U	0.010	0.100
197-97-2	Benzo(e)pyrene	1	0.100	U	0.014	0.100
50-32-8	Benzo(a)pyrene	1	0.100	U	0.022	0.100
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.100	U	0.014	0.100
53-70-3	Dibenzo(a,h)anthracene	1	0.100	U	0.013	0.100
191-24-2	Benzo(g,h,i)perylene	1	0.100	U	0.009	0.100
1985-5-0	Perylene	1	0.100	U	0.032	0.100

SC-FB-2105030940

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270E-SIM

Alkyl PAH Parents

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Gasco Siltronic - US Moorings				
Matrix:	Water	Laboratory ID:	21E0099-01 B	SDG:	21E0099
Sampled:	05/03/21 09:40	Prepared:	05/10/21 15:58	File ID:	NT1421060707.D
% Solids:		Preparation:	EPA 3520C (Liq Liq)	Analyzed:	06/07/21 17:18
Batch:	BJE0209	Sequence:	SJF0173	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT14	Column:	ZB-5MS	Calibration:	EF00008

CAS NO.	COMPOUND	DILUTION	(ug/L)	Q	DL	RL
239-35-0	Benzo(b)naphtho(2,1-d)thiophene	1	0.100	U	0.100	0.100

SURROGATES	ADDED:(ug/L)	(ug/L)	% REC	QC LIMITS	Q
Naphthalene-d8	3.0000	1.64	54.8	30 - 160	
Acenaphthene-d10	3.0000	1.68	56.0	30 - 160	
Phenanthrene-d10	3.0000	1.84	61.3	30 - 160	
Chrysene-d12	3.0000	2.08	69.5	30 - 160	
Perylene-d12	3.0000	1.58	52.6	30 - 160	

Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060707.D

Date : 07-JUN-2021 17:18

Client ID:

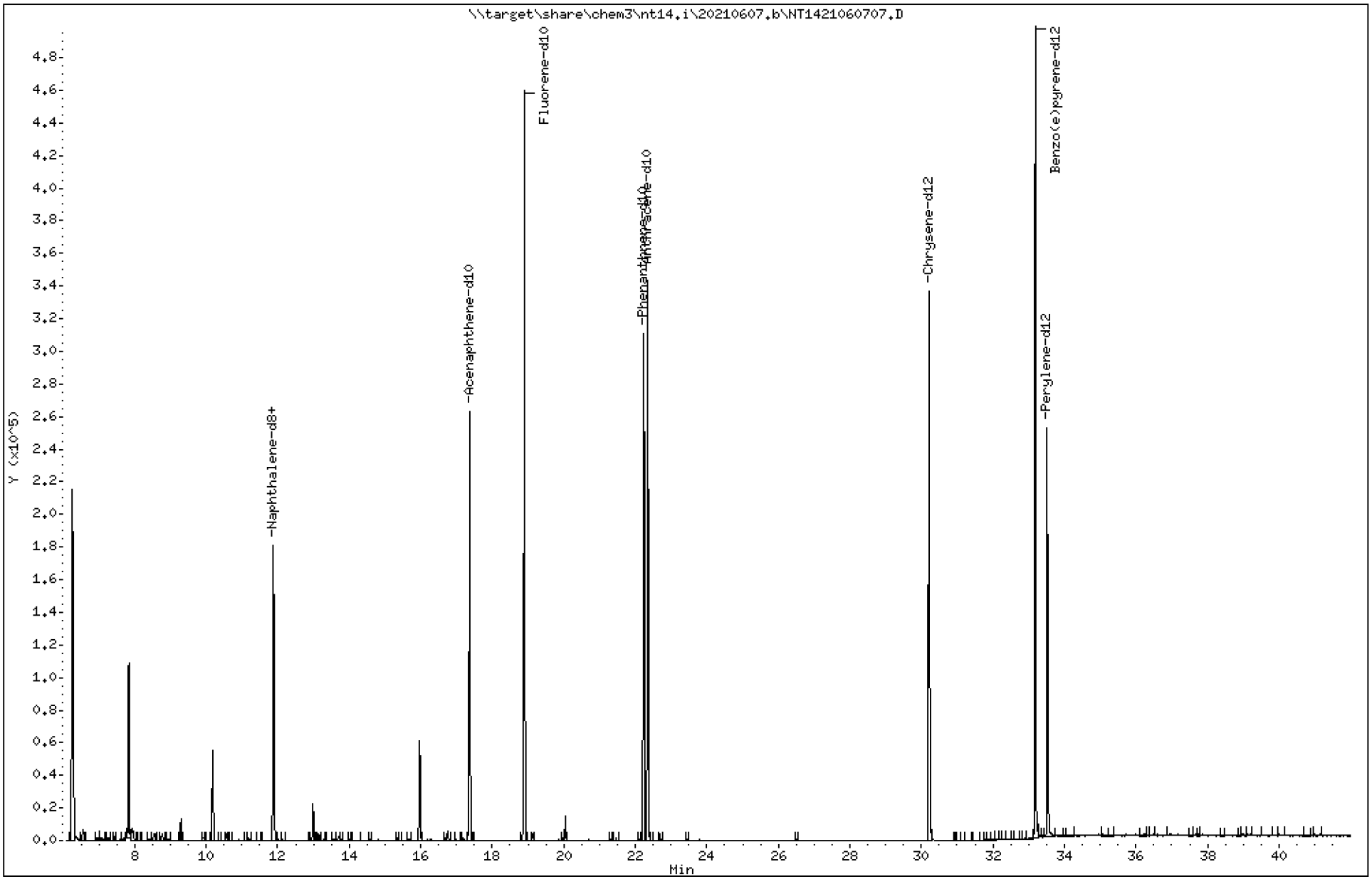
Instrument: nt14.i

Sample Info: 21E0099-01

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



Final Report 21E0099 06/15/2021 Page 11 of 957

Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060707.D

Date : 07-JUN-2021 17:18

Client ID:

Instrument: nt14.i

Sample Info: 21E0099-01

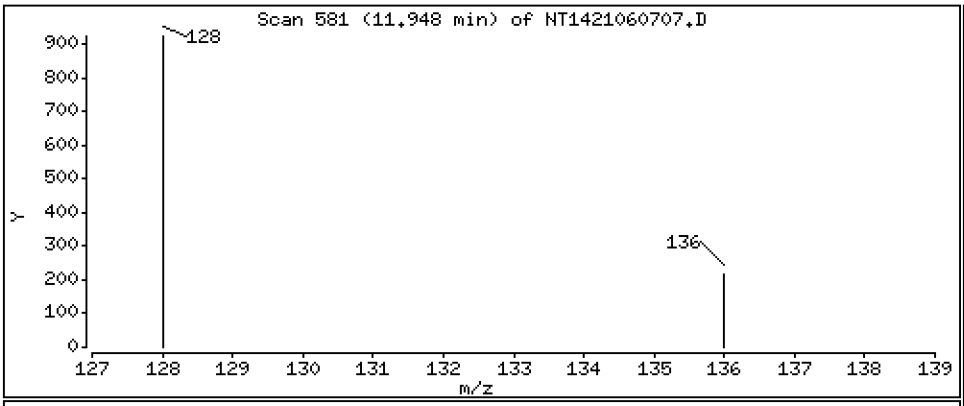
Operator: VTS

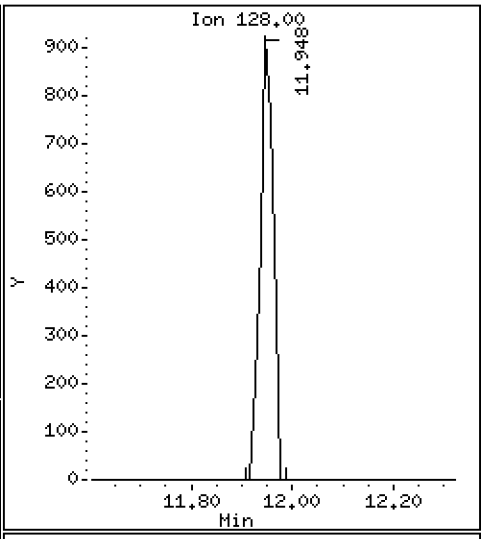
Column phase: Rxi-17Sil MS

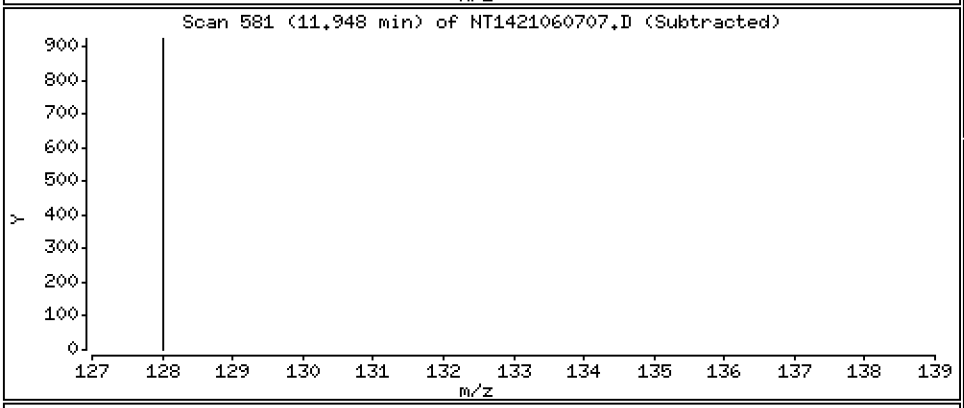
Column diameter: 0.25

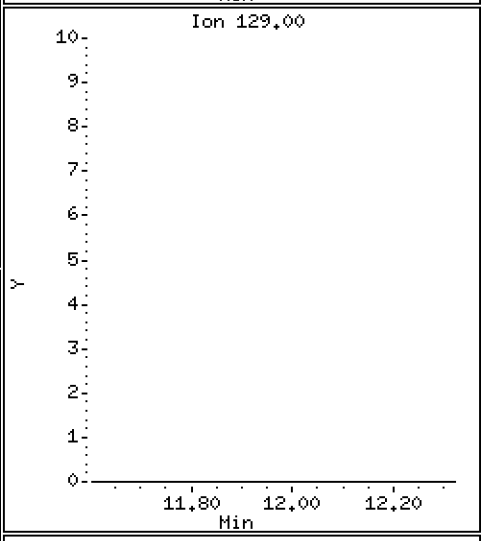
7 Naphthalene

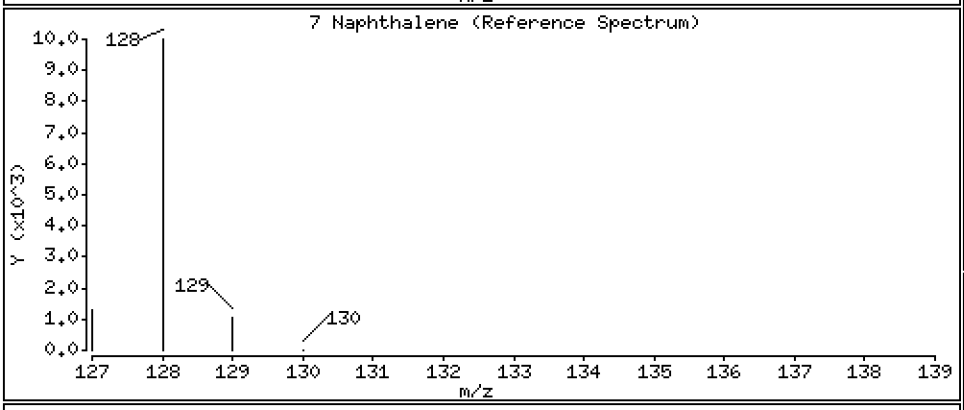
Concentration: 0.01092 ug/mL

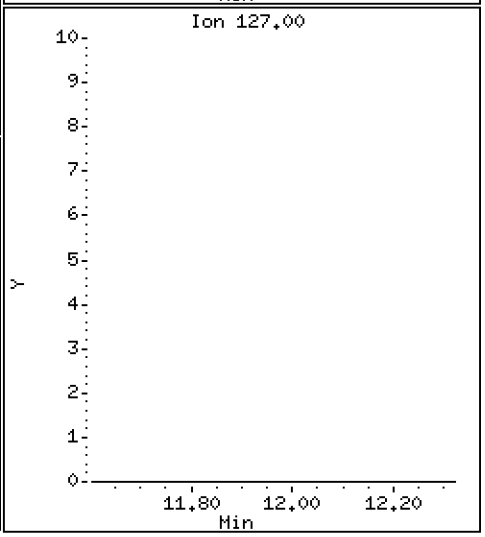


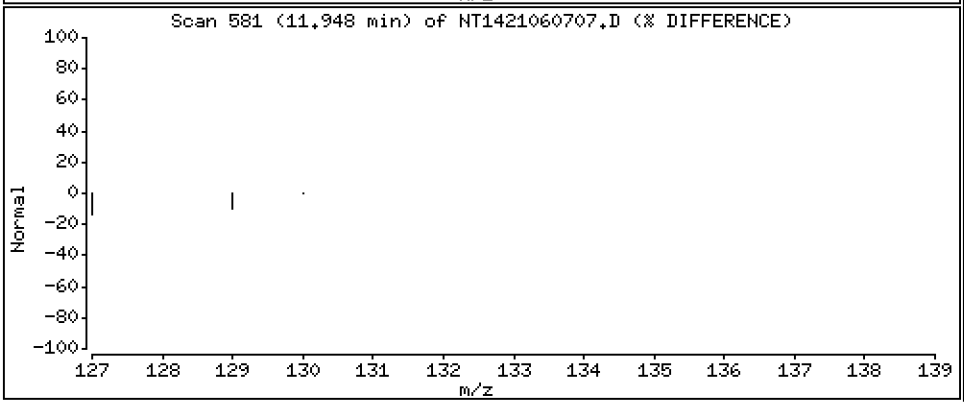












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210607.b\NT1421060707.D
Lab Smp Id: 21E0099-01
Inj Date : 07-JUN-2021 17:18
Operator : VTS Inst ID: nt14.i
Smp Info : 21E0099-01
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210607.b\ALKYLPNA.m
Meth Date : 12-Jun-2021 14:57 yev Quant Type: ISTD
Cal Date : 29-MAY-2021 18:49 Cal File: NT1421052914.D
Als bottle: 34
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: ORGDATA102

							CONCENTRATIONS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	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	11.887	11.887	(0.629)	248067	1.64473	1.645(R)
	7 Naphthalene	128	11.947	11.957	(0.632)	1646	0.01092	0.01092
	12 Benzo(b)thiophene	134	Compound Not Detected.					
	16 2-Methylnaphthalene	141	Compound Not Detected.					
	17 1-methylnaphthalene	141	Compound Not Detected.					
	18 Biphenyl	154	Compound Not Detected.					
	19 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	20 Acenaphthylene	152	Compound Not Detected.					
$	21 Acenaphthene-d10	164	17.365	17.365	(0.919)	155526	1.67892	1.679(R)
	22 Acenaphthene	153	Compound Not Detected.					
	23 Dibenzofuran	168	Compound Not Detected.					
	24 1,6,7-Trimethylnaphthalene	170	Compound Not Detected.					
*	25 Fluorene-d10	176	18.896	18.896	(1.000)	324435	2.00000	
	26 Fluorene	166	Compound Not Detected.					
	30 Dibenzothiophene	184	Compound Not Detected.					
$	35 Phenanthrene-d10	188	22.238	22.238	(0.995)	298126	1.83753	1.838(R)
	36 Phenanthrene	178	Compound Not Detected.					
*	250 Anthracene-d10	188	22.348	22.359	(1.000)	337230	2.00000	
	37 Anthracene	178	Compound Not Detected.					
	42 Carbazole	167	Compound Not Detected.					
	43 1-Methylphenanthrene	192	Compound Not Detected.					
	44 Fluoranthene	202	Compound Not Detected.					
	46 Pyrene	202	Compound Not Detected.					
	51 Naphthobenzothiophene	234	Compound Not Detected.					
	55 Benzo(a)anthracene	228	Compound Not Detected.					
$	56 Chrysene-d12	240	30.219	30.219	(0.911)	282827	2.08459	2.085(R)
	57 Chrysene	228	Compound Not Detected.					
	62 Benzo(b)fluoranthene	252	Compound Not Detected.					
	63 Benzo(k)fluoranthene	252	Compound Not Detected.					
	293 Benzo(j)fluoranthene	252	Compound Not Detected.					
	246 Total Benzofluoranthenes	252	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.181	33.181	(1.000)	433441	2.00000	
64 Benzo(e)pyrene	252	Compound Not Detected.					
66 Benzo(a)pyrene	252	Compound Not Detected.					
$ 67 Perylene-d12	264	33.519	33.519	(1.010)	231255	1.57894	1.579(RM)
68 Perylene	252	Compound Not Detected.					
69 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
70 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
74 Benzo(g,h,i)perylene	276	Compound Not Detected.					

QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421060707.D
Lab Smp Id: 21E0099-01
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210607.b\ALKYLPNA.m
Misc Info:

Calibration Date: 07-JUN-2021
Calibration Time: 13:18
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	323874	161937	647748	324435	0.17
250 Anthracene-d10	339912	169956	679824	337230	-0.79
251 Benzo(e)pyrene-d1	416427	208214	832854	433441	4.09

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.90	18.40	19.40	18.90	0.00
250 Anthracene-d10	22.36	21.86	22.86	22.35	-0.05
251 Benzo(e)pyrene-d1	33.18	32.68	33.68	33.18	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 - NT1421060707.D

Lab ID: 21E0099-01
nt14.i, 20210607.b\ALKYLPNA.m,   07-JUN-2021 17:18

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

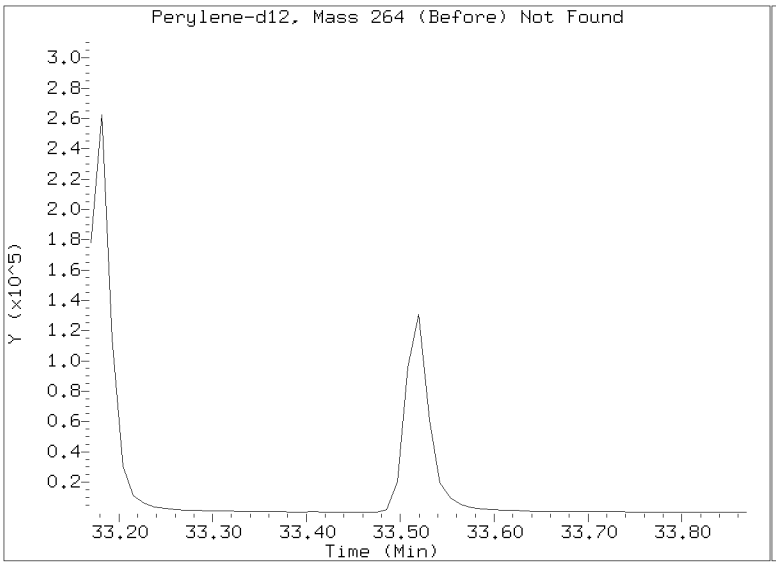
RRT check based on Ccal File: NT1421060702.D

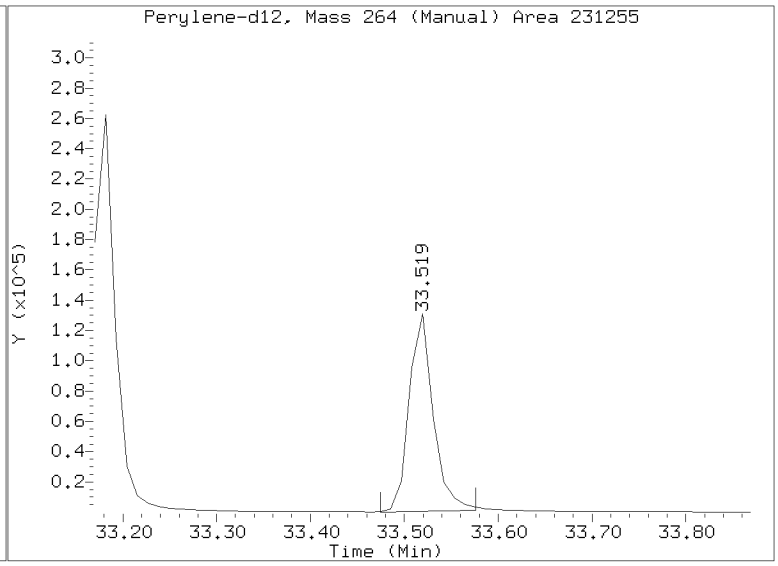
On Column LOD for nt14.i, 20210607.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* 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/20210607.b/NT1421060707.D
Injection Date: 07-JUN-2021 17:18
Lab ID:21E0099-01 Client ID:
Report Date: 06/12/2021 15:50





SC-FB-2105030940

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

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Gasco Siltronic - US Moorings				
Matrix:	Water	Laboratory ID:	21E0099-01 B	SDG:	21E0099
Sampled:	05/03/21 09:40	Prepared:	05/10/21 15:58	File ID:	NT1421060707S.D
% Solids:		Preparation:	EPA 3520C (Liq Liq)	Analyzed:	06/07/21 17:18
Batch:	BJE0209	Sequence:	SJF0198	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT14	Column:	ZB-5MS	Calibration:	EF00019

CAS NO.	COMPOUND	DILUTION	(ug/L)	Q	DL	RL
C1DEC	C1-Decalins	1	0.020	U		0.020
C2DEC	C2-Decalins	1	0.020	U		0.020
C3DEC	C3-Decalins	1	0.020	U		0.020
C4DEC	C4-Decalins	1	0.020	U		0.020
C1NAPH	C1-Naphthalenes	1	0.020	U		0.020
C2NAPH	C2-Naphthalenes	1	0.020	U		0.020
C3NAPH	C3-Naphthalenes	1	0.020	U		0.020
C4NAPH	C4-Naphthalenes	1	0.020	U		0.020
C1FLR	C1-Fluorenes	1	0.020	U		0.020
C4PHNANT	C4-Phenanthrenes/Anthracenes	1	0.020	U		0.020
C1FLPYR	C1-Fluoranthenes/Pyrenes	1	0.020	U		0.020
C2FLR	C2-Fluorenes	1	0.020	U		0.020
C3FLR	C3-Fluorenes	1	0.020	U		0.020
C1DBTPH	C1-Dibenzothiophenes	1	0.020	U		0.020
C2DBTPH	C2-Dibenzothiophenes	1	0.020	U		0.020
C3DBTPH	C3-Dibenzothiophenes	1	0.020	U		0.020
C4DBTPH	C4-Dibenzothiophenes	1	0.020	U		0.020
C1PHNANT	C1-Phenanthrenes/Anthracenes	1	0.020	U		0.020
C2PHNANT	C2-Phenanthrenes/Anthracenes	1	0.020	U		0.020
C3PHNANT	C3-Phenanthrenes/Anthracenes	1	0.020	U		0.020
C2FLPYR	C2-Fluoranthenes/Pyrenes	1	0.020	U		0.020
C3FLPYR	C3-Fluoranthenes/Pyrenes	1	0.020	U		0.020
C4FLPYR	C4-Fluoranthenes/Pyrenes	1	0.020	U		0.020
C1BAACYR	C1-Benzo(a)anthracenes/Chrysenes	1	0.020	U		0.020
C2BAACYR	C2-Benzo(a)anthracenes/Chrysenes	1	0.020	U		0.020
C3BAACYR	C3-Benzo(a)anthracenes/Chrysenes	1	0.020	U		0.020
C4BAACYR	C4-Benzo(a)anthracenes/Chrysenes	1	0.020	U		0.020
C1BZTPH	C1-Benzothiophenes	1	0.020	U		0.020
C2BZTPH	C2-Benzothiophenes	1	0.020	U		0.020
C3BZTPH	C3-Benzothiophenes	1	0.020	U		0.020
C1NPBTP	C1-Naphthobenzothiophenes	1	0.020	U		0.020

SC-FB-2105030940

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270E-SIM

Alkyl PAH Ranges

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Gasco Siltronic - US Moorings				
Matrix:	Water	Laboratory ID:	21E0099-01 B	SDG:	21E0099
Sampled:	05/03/21 09:40	Prepared:	05/10/21 15:58	File ID:	NT1421060707S.D
% Solids:		Preparation:	EPA 3520C (Liq Liq)	Analyzed:	06/07/21 17:18
Batch:	BJE0209	Sequence:	SJF0198	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT14	Column:	ZB-5MS	Calibration:	EF00019

CAS NO.	COMPOUND	DILUTION	(ug/L)	Q	DL	RL
C2NPBTP	C2-Naphthobenzothiophenes	1	0.020	U		0.020
C3NPBTP	C3-Naphthobenzothiophenes	1	0.020	U		0.020
C4NPBTP	C4-Naphthobenzothiopenes	1	0.020	U		0.020
C1DBA	C1-Dibenzo(a)anthracenes	1	0.020	U		0.020
C2DBA	C2-Dibenzo(a)anthracenes	1	0.020	U		0.020
C3DBA	C3-Dibenzo(a)anthracenes	1	0.020	U		0.020

Data File: \\target\share\chem3\nt14.i\20210607.b\SIM.b\NT1421060707S.D

Date : 07-JUN-2021 17:18

Client ID:

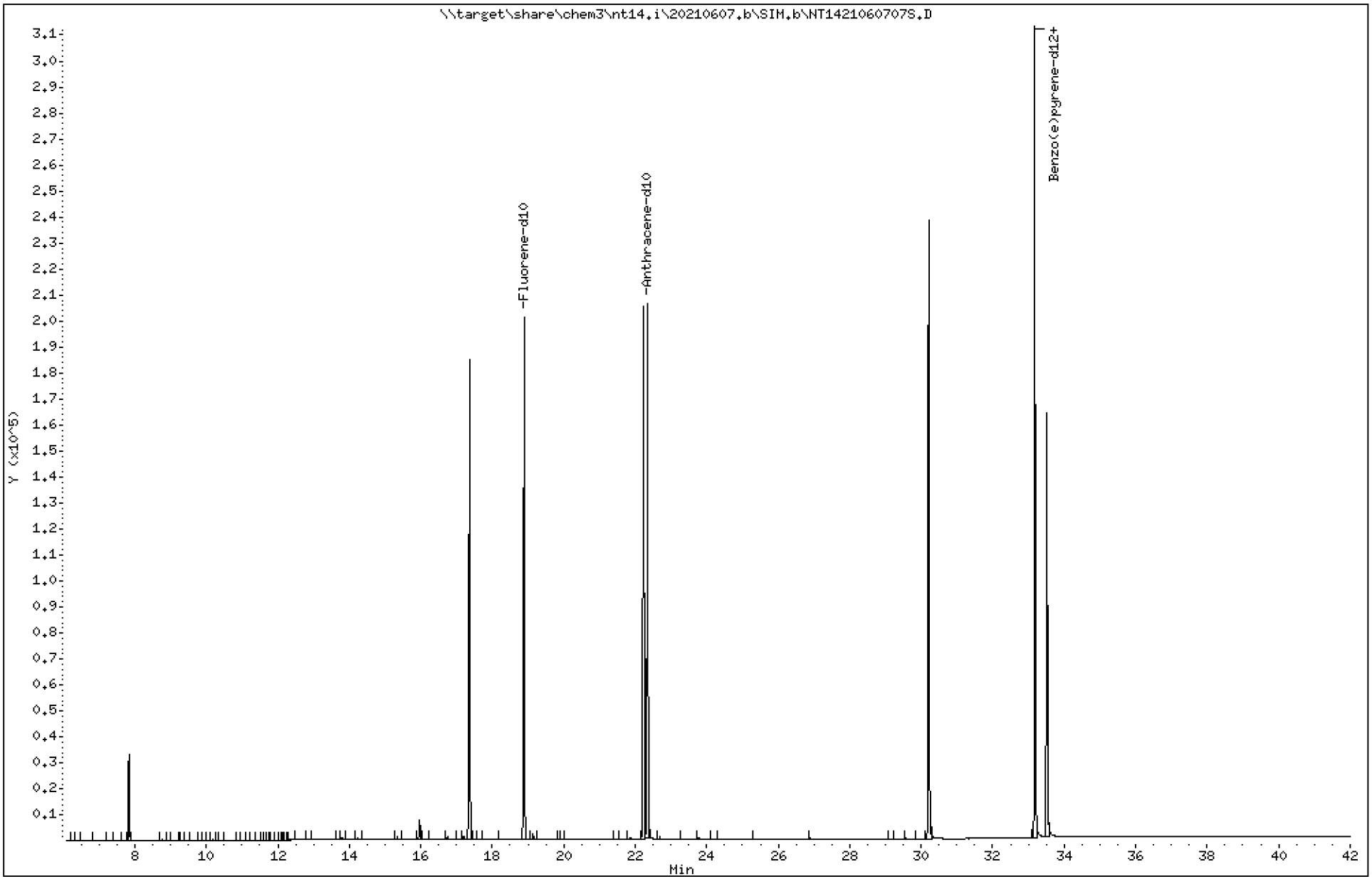
Instrument: nt14.i

Sample Info: 21E0099-01

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



Final Report 21E0099 06/15/2021 Page 20 of 957

Data File: \\target\share\chem3\nt14.i\20210607.b\SIM.b\NT1421060707S.D

Date : 07-JUN-2021 17:18

Client ID:

Instrument: nt14.i

Sample Info: 21E0099-01

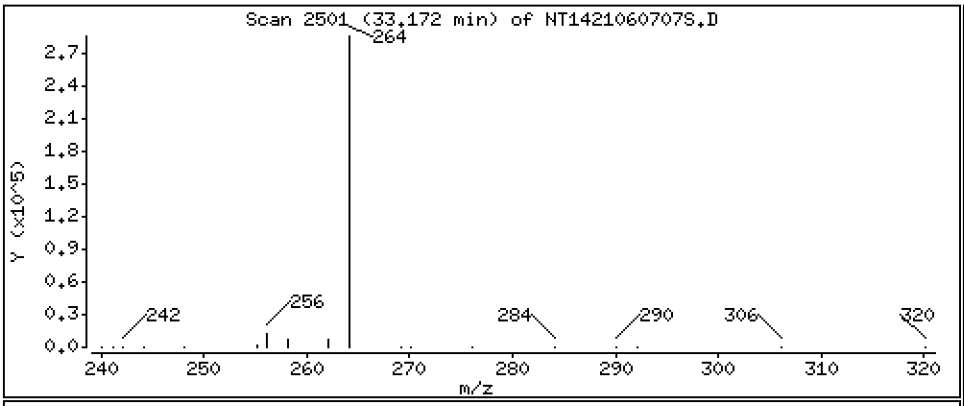
Operator: VTS

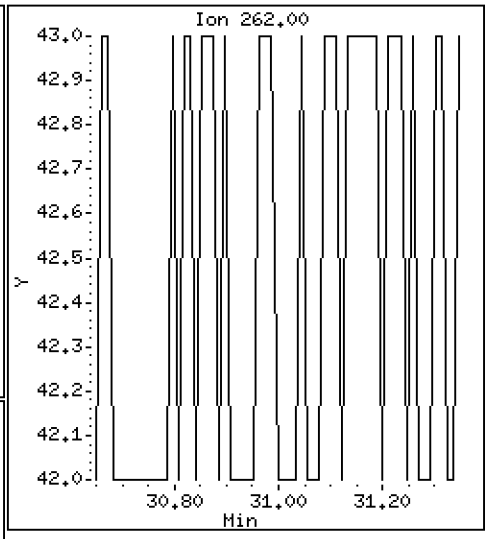
Column phase: Rxi-17Sil MS

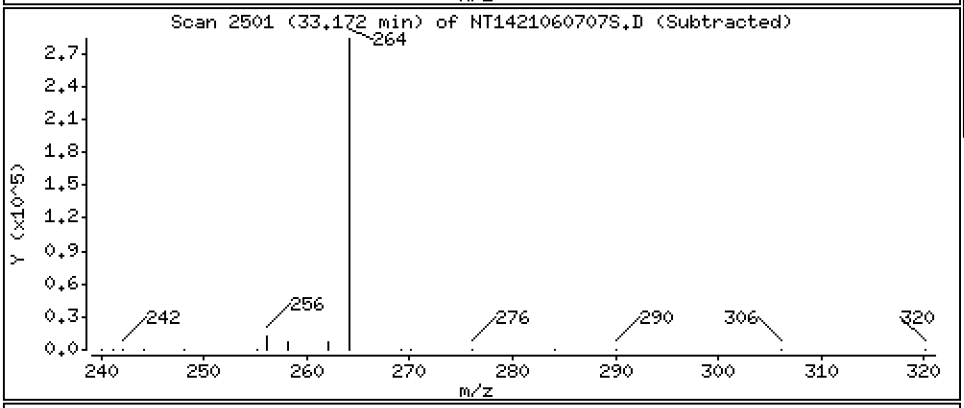
Column diameter: 0.25

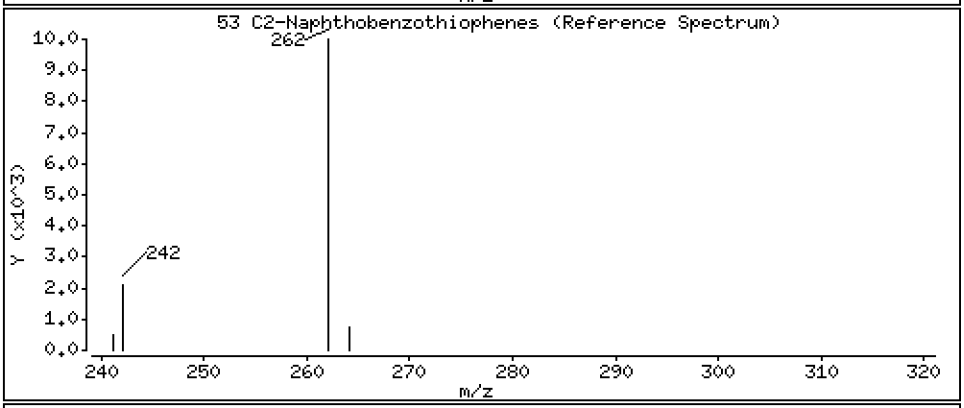
53 C2-Naphthobenzothiophenes

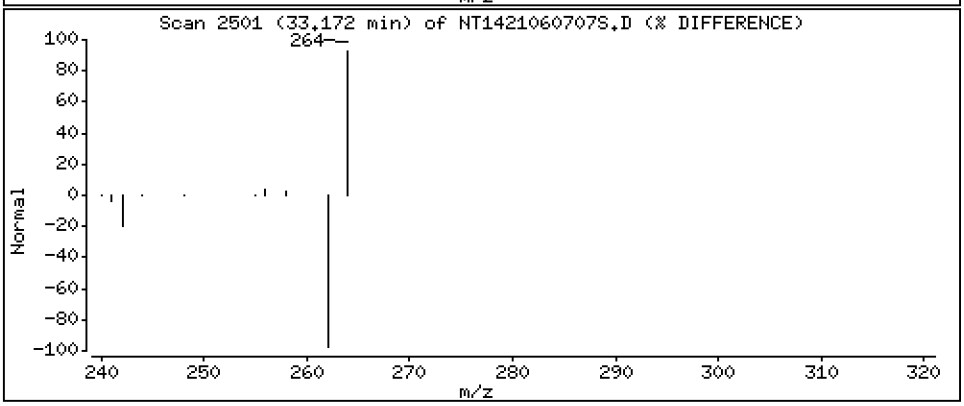
Concentration: 0.05557 ug/mL











ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210607.b\SIM.b\NT1421060707S.D
Lab Smp Id: 21E0099-01
Inj Date : 07-JUN-2021 17:18
Operator : VTS Inst ID: nt14.i
Smp Info : 21E0099-01
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210607.b\SIM.b\ALKYLRANGES.m
Meth Date : 15-Jun-2021 10:32 yev Quant Type: ISTD
Cal Date : 29-MAY-2021 18:49 Cal File: NT1421052914.D
Als bottle: 34
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ALKYLRANGES.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
3	C1-Decalin	152	Compound Not Detected.					
4	C2-Decalin	166	Compound Not Detected.					
5	C3-Decalin	180	Compound Not Detected.					
247	C4-Decalin	194	Compound Not Detected.					
8	C1-Naphthalenes	142	Compound Not Detected.					
9	C2-Naphthalenes	156	Compound Not Detected.					
10	C3-Naphthalenes	170	Compound Not Detected.					
11	C4-Naphthalenes	184	Compound Not Detected.					
13	C1-Benzothiophenes	148	Compound Not Detected.					
14	C2-Benzothiophenes	162	Compound Not Detected.					
15	C3_Benzothiophenes	176	Compound Not Detected.					
27	C1-Fluorenes	180	Compound Not Detected.					
* 25	Fluorene-d10	176	18.897	18.896	(1.000)	376090	2.00000	
28	C2-Fluorenes	194	Compound Not Detected.					
29	C3-Fluorenes	208	Compound Not Detected.					
31	C1-Dibenzothiophenes	198	Compound Not Detected.					
32	C2-Dibenzothiophenes	212	Compound Not Detected.					
33	C3-Dibenzothiophenes	226	Compound Not Detected.					
34	C4-Dibenzothiophenes	240	Compound Not Detected.					
* 250	Anthracene-d10	188	22.339	22.359	(1.000)	390572	2.00000	
38	C1-Phenanthrenes/Anthracenes	192	Compound Not Detected.					
39	C2-Phenanthrenes/Anthracenes	206	Compound Not Detected.					
40	C3-Phenanthrenes/Anthracenes	220	Compound Not Detected.					
41	C4-Phenanthrenes/Anthracenes	234	Compound Not Detected.					
48	C1-Fluoranthenes/Pyrenes	216	Compound Not Detected.					
49	C2-Fluoranthenes/Pyrenes	230	Compound Not Detected.					
50	C3-Fluoranthenes/Pyrenes	244	Compound Not Detected.					
249	C4-Fluoranthenes/Pyrenes	258	Compound Not Detected.					
52	C1-Naphthobenzothiophenes	248	Compound Not Detected.					
53	C2-Naphthobenzothiophenes	262	33.172	31.000	(1.485)	13803	0.05557	0.05557
54	C3-Naphthobenzothiophenes	276	Compound Not Detected.					
248	C4-Naphthobenzothiophenes	290	Compound Not Detected.					
58	C1-Benzo(a)anthracenes/Chrysen	242	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
59 C2-Benzo(a)anthracenes/Chrysen	256	Compound Not Detected.					
60 C3-Benzo(a)anthracenes/Chrysen	270	Compound Not Detected.					
61 C4-Benzo(a)anthracenes/Chrysen	284	Compound Not Detected.					
* 251 Benzo(e)pyrene-d12	264	33.172	33.181	(1.000)	500411	2.00000	
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: NT1421060707S.D
Lab Smp Id: 21E0099-01
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210607.b\SIM.b\ALKYLRANGES.m
Misc Info:

Calibration Date: 07-JUN-2021
Calibration Time: 13:18
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

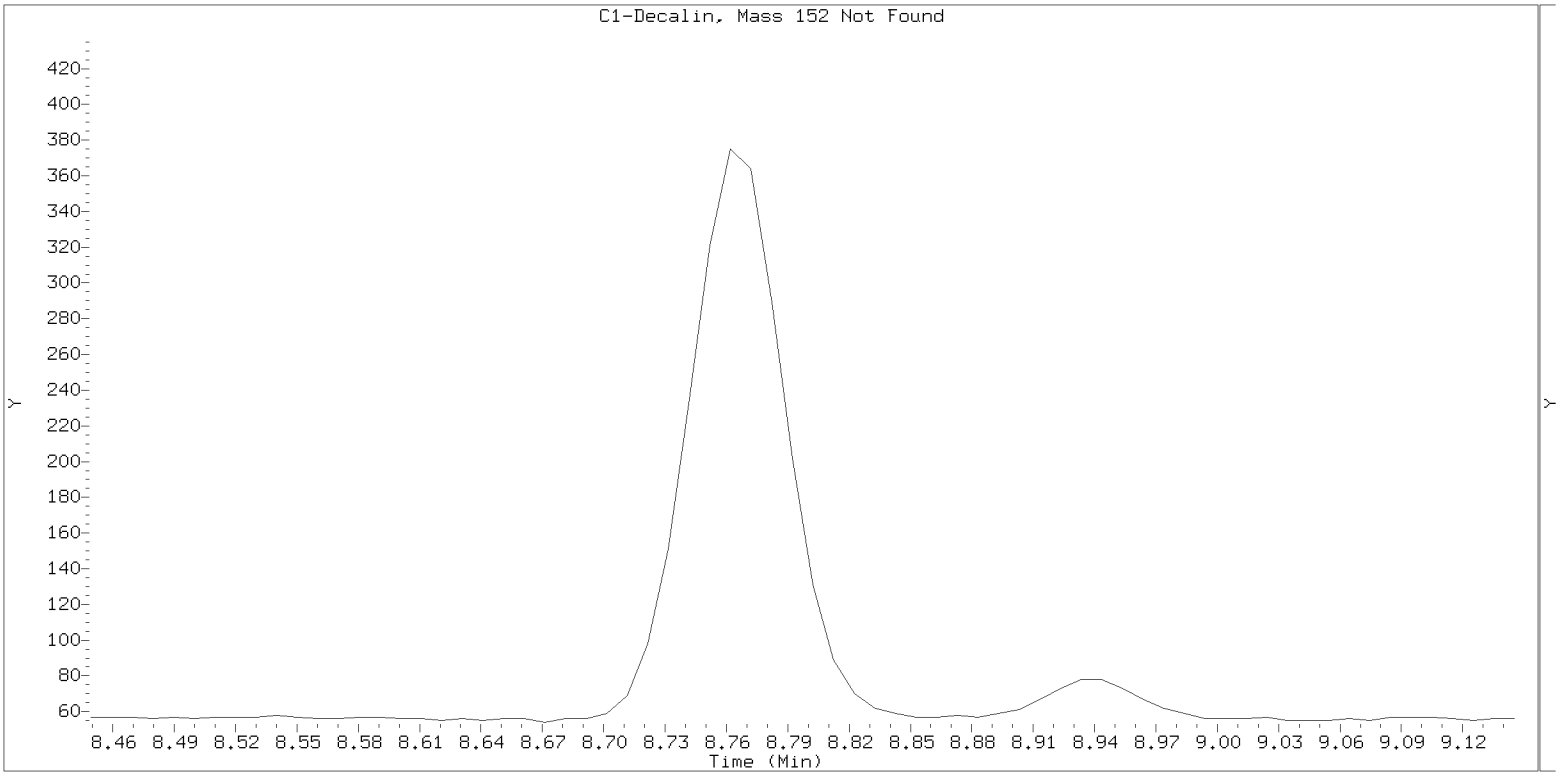
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	311077	155539	622154	376090	20.90
250 Anthracene-d10	331614	165807	663228	390572	17.78
251 Benzo(e)pyrene-d1	416427	208214	832854	500411	20.17

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.90	18.40	19.40	18.90	0.01
250 Anthracene-d10	22.36	21.86	22.86	22.34	-0.09
251 Benzo(e)pyrene-d1	33.18	32.68	33.68	33.17	-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.

SIM ALKYL PNA RANGE ION WINDOWS - NT1421060707S.D

Lab ID: 21E0099-01
nt14.i, SIM.b\ALKYLRANGES.m, 07-JUN-2021 17:18



SIM ALKYL PNA RANGE ION WINDOWS - NT1421060707S.D

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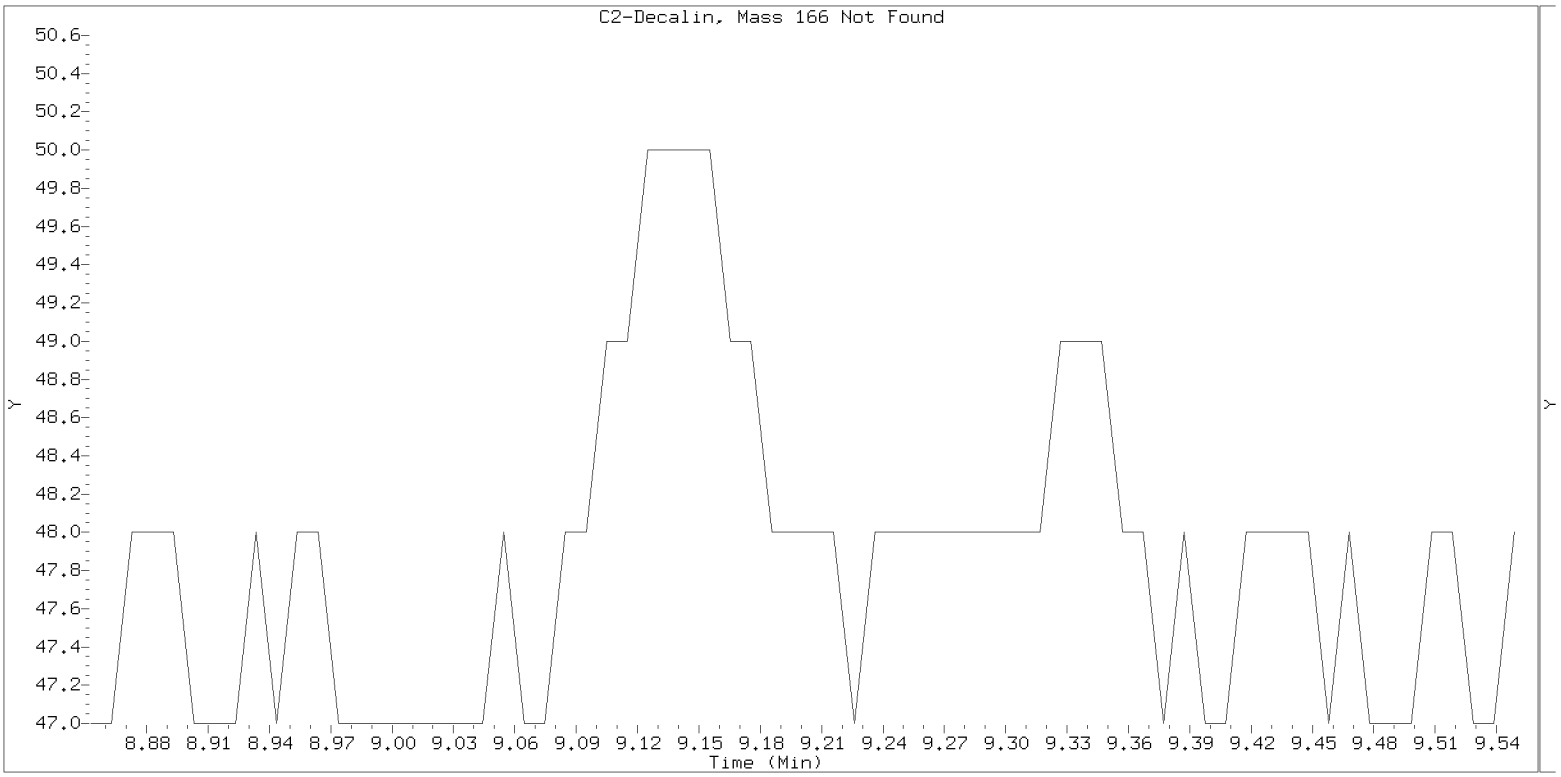

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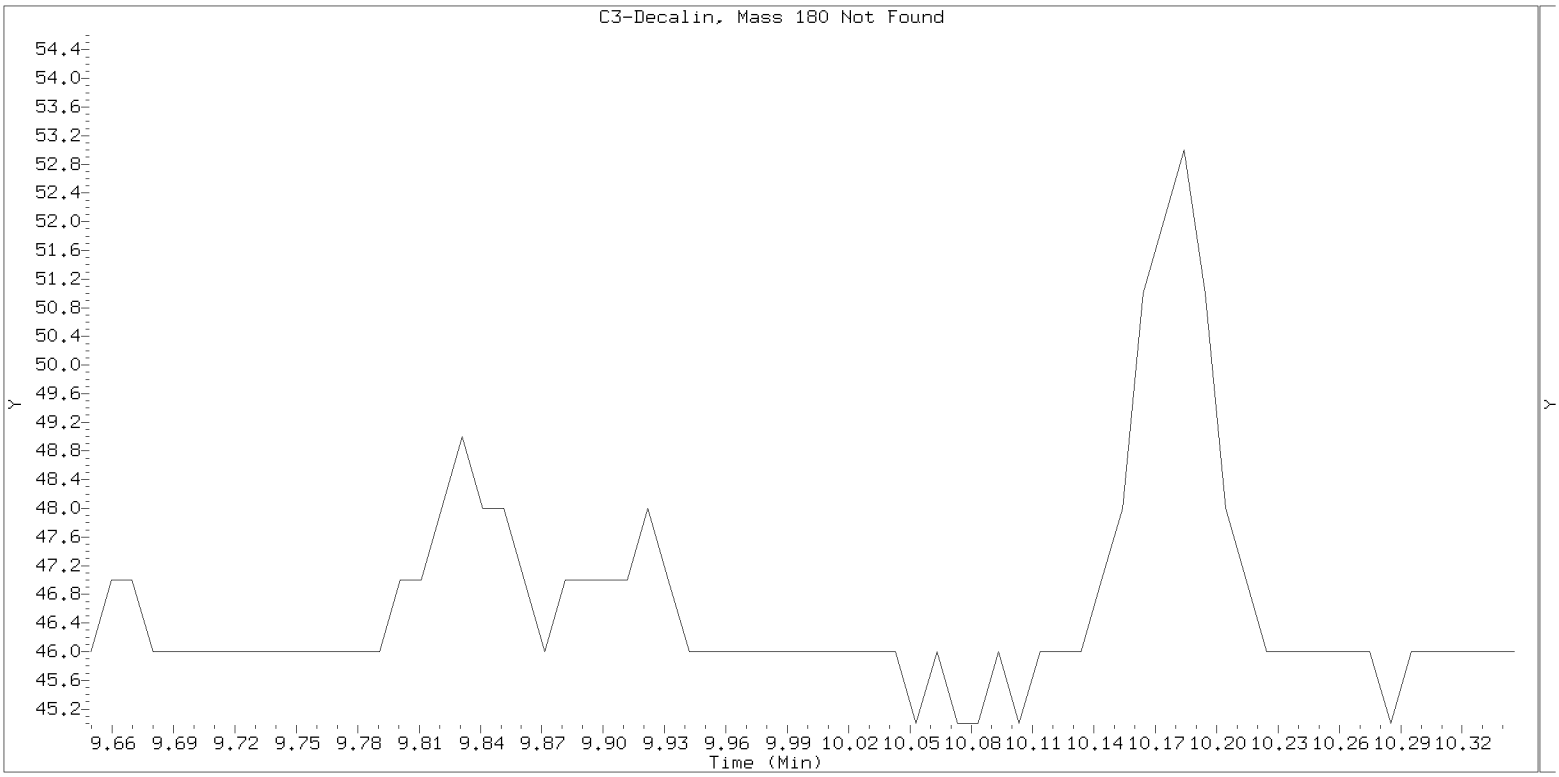

SIM ALKYL PNA RANGE ION WINDOWS - NT1421060707S.D

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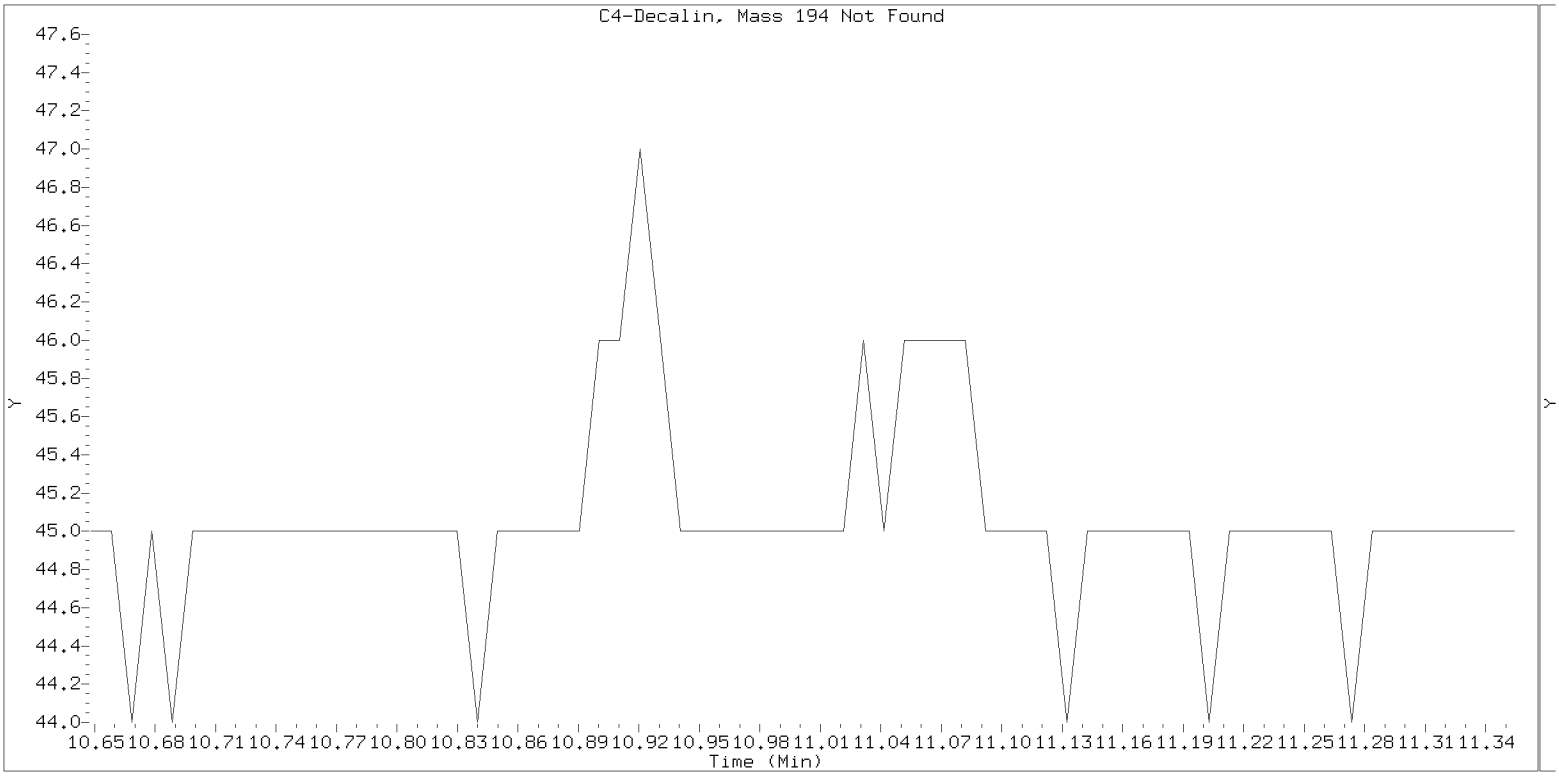

SIM ALKYL PNA RANGE ION WINDOWS - NT1421060707S.D

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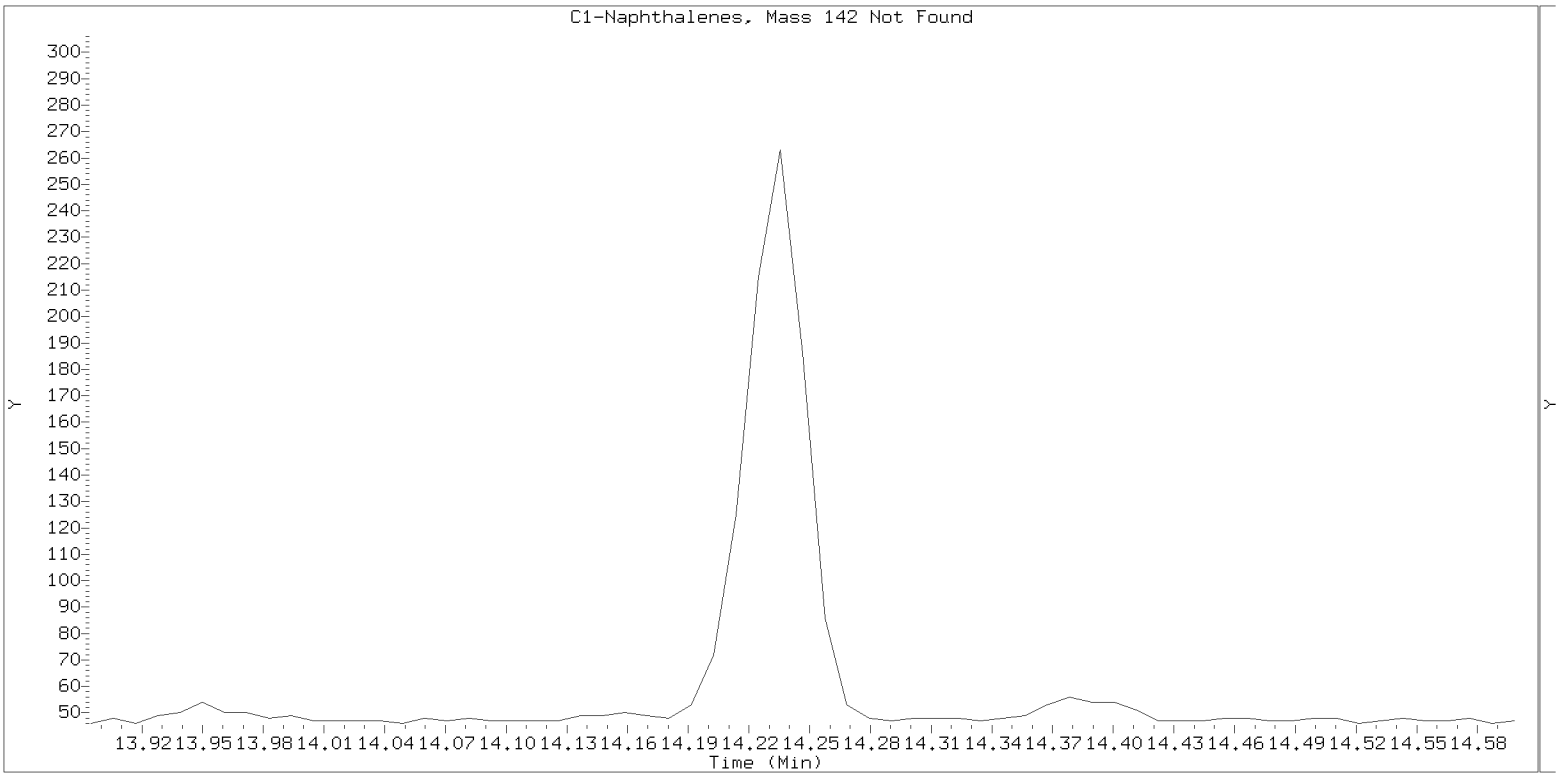

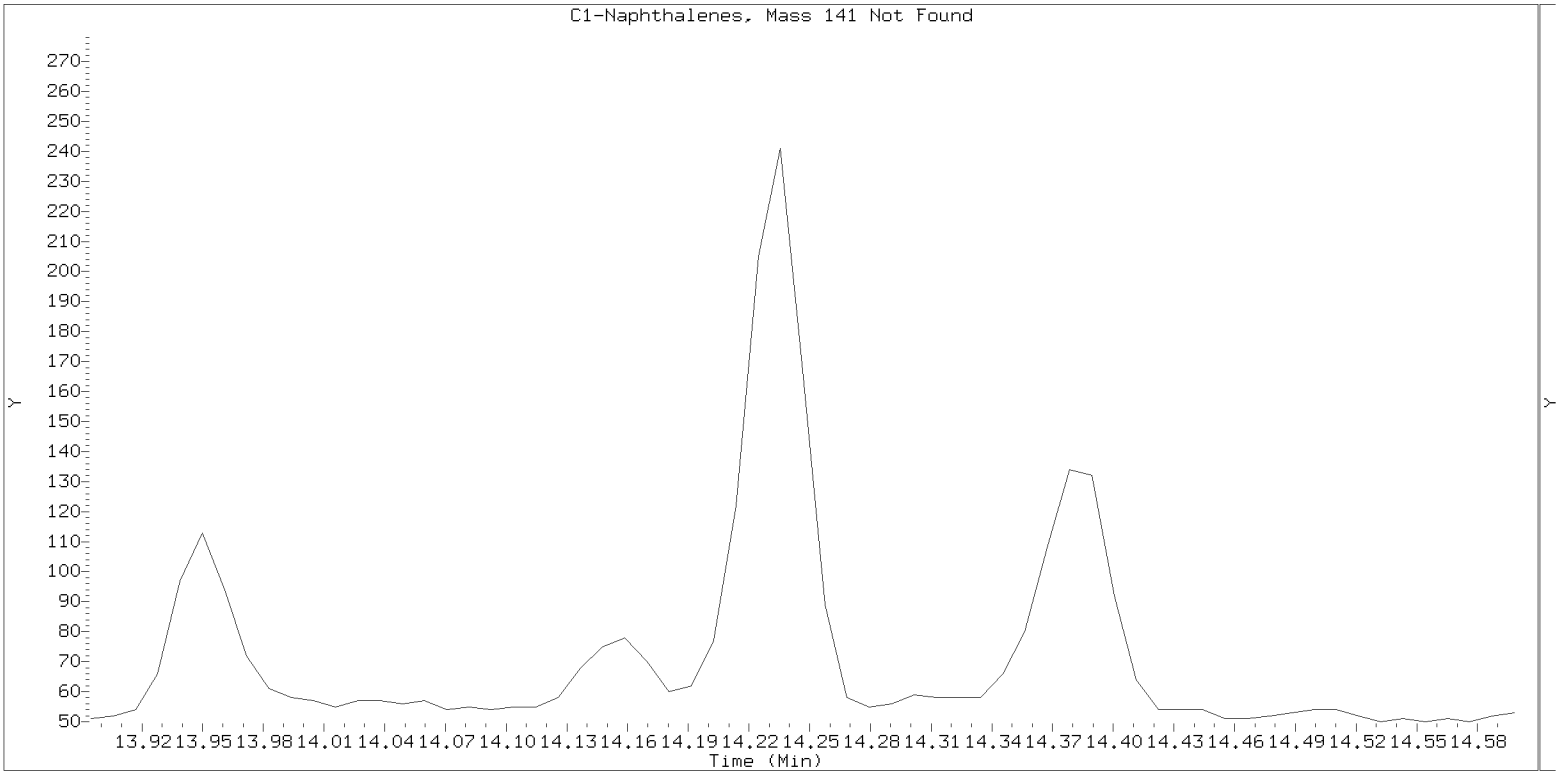

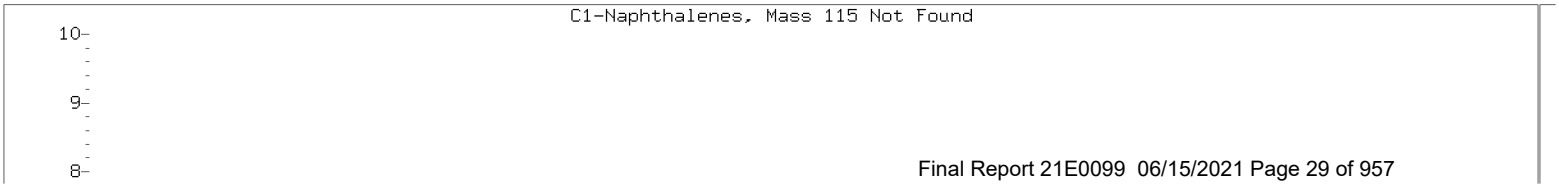

SIM ALKYL PNA RANGE ION WINDOWS - NT1421060707S.D

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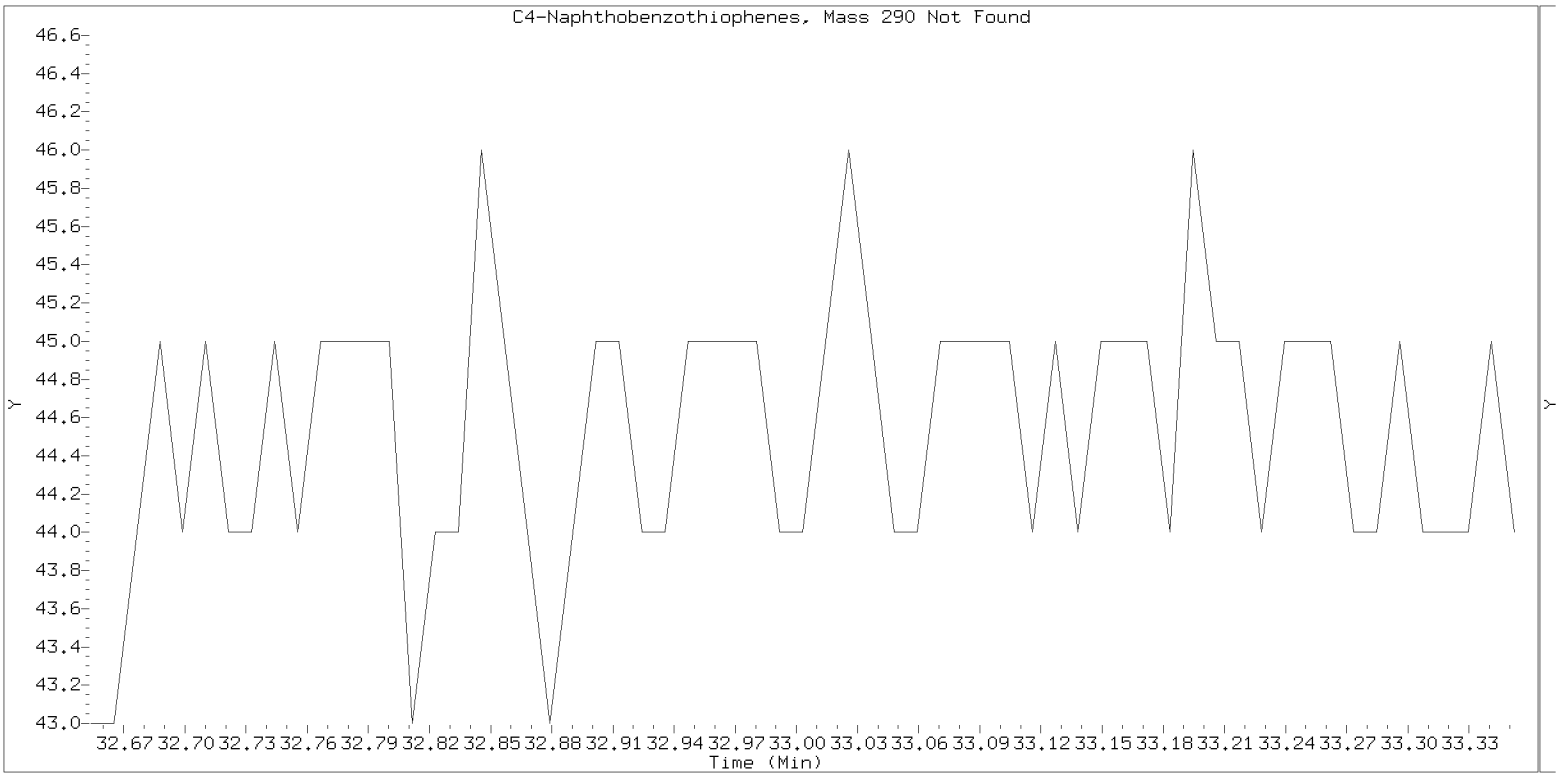

SIM ALKYL PNA RANGE ION WINDOWS - NT1421060707S.D

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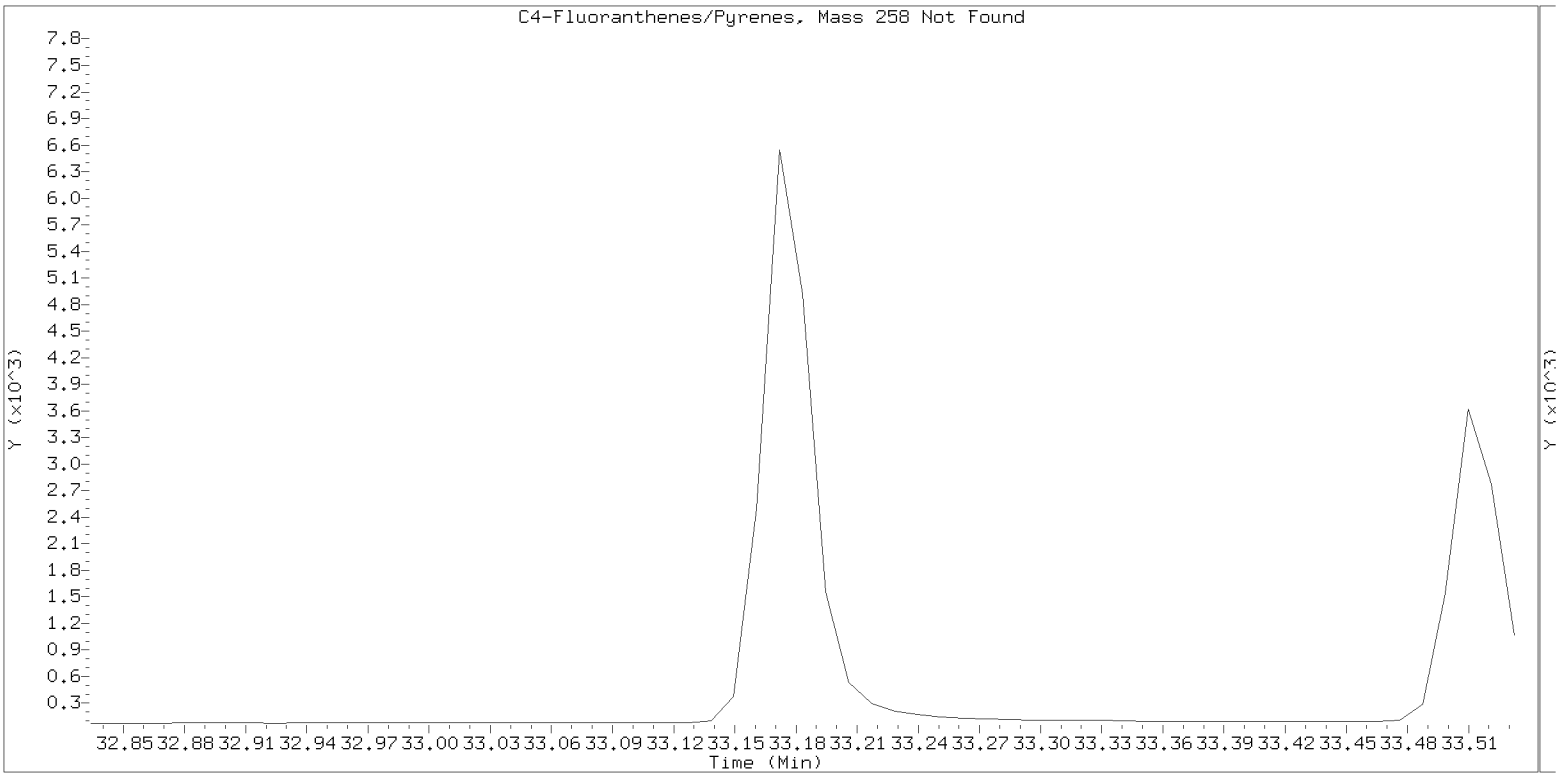

SIM ALKYL PNA RANGE ION WINDOWS - NT1421060707S.D

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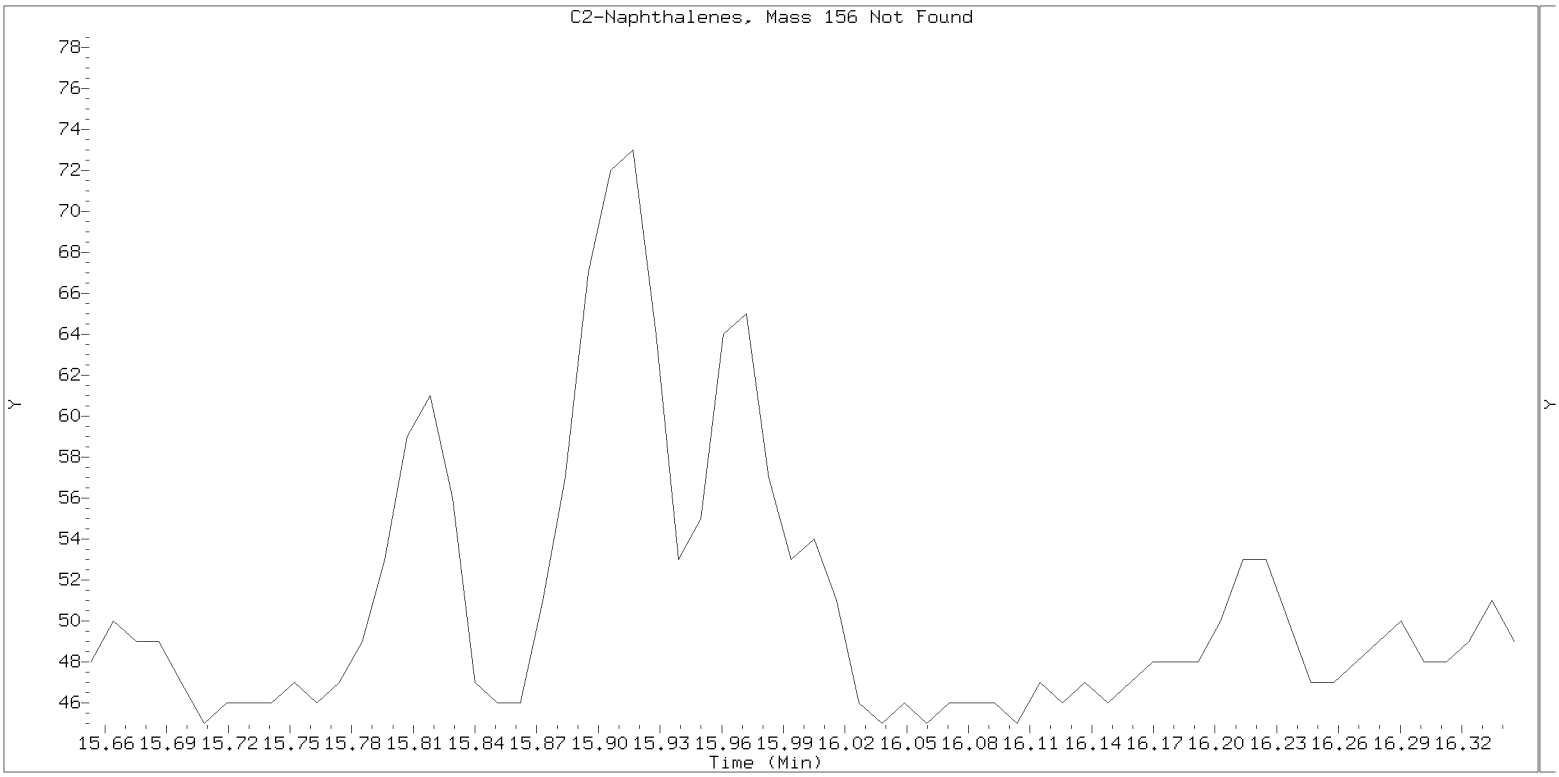

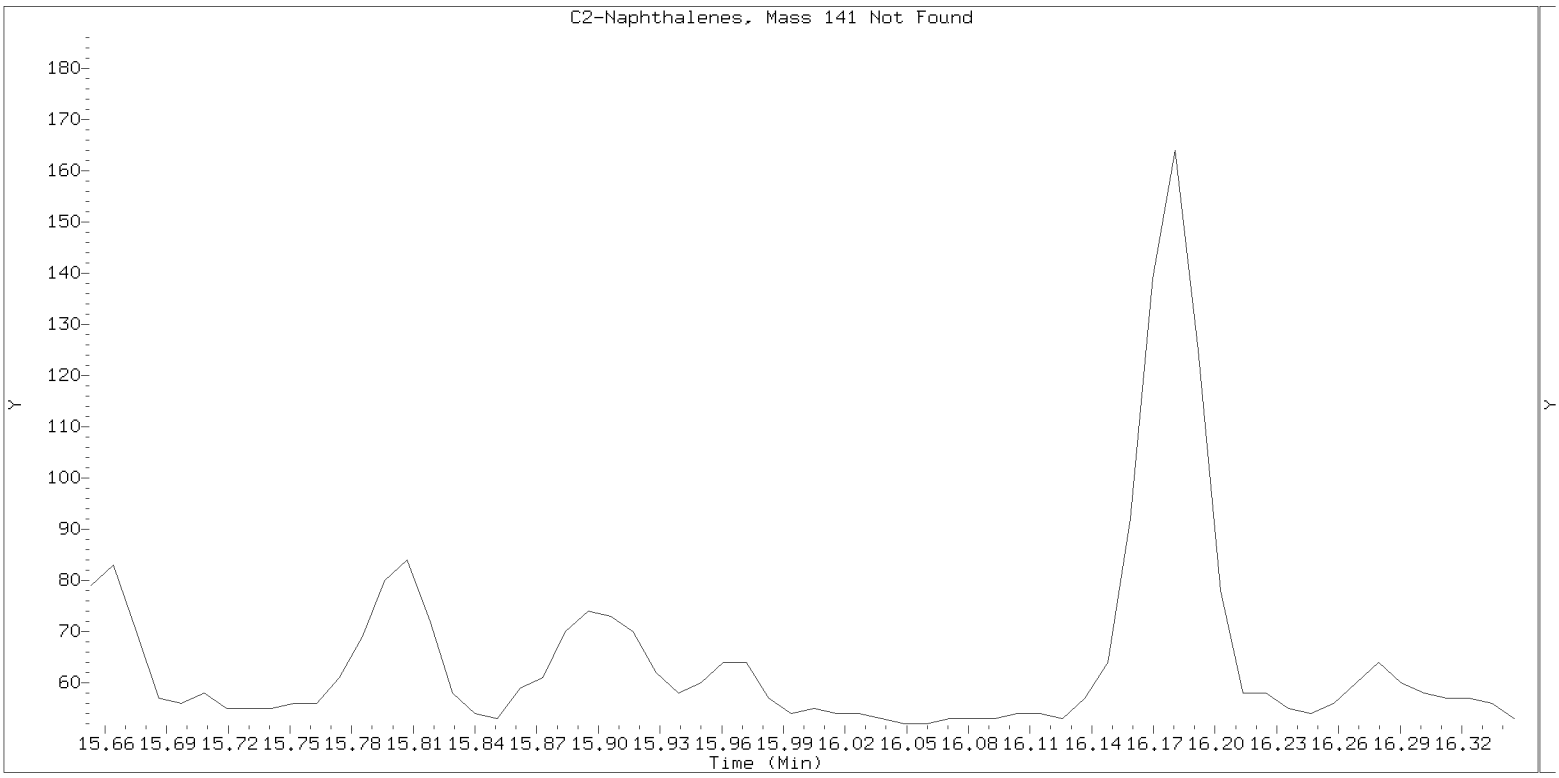

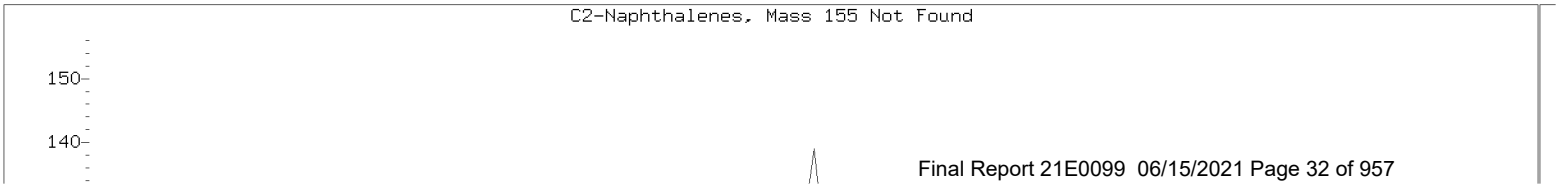

SIM ALKYL PNA RANGE ION WINDOWS - NT1421060707S.D

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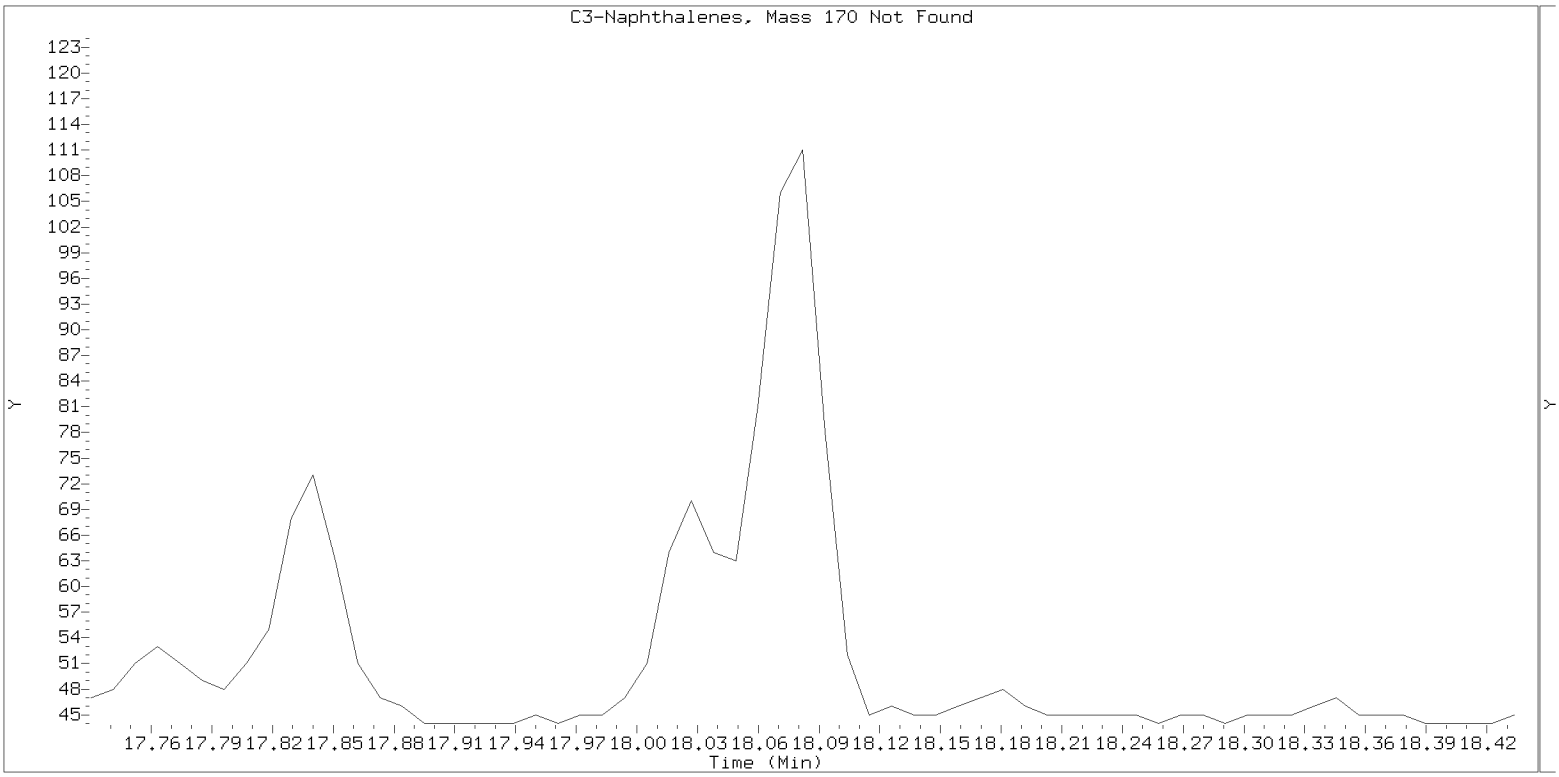

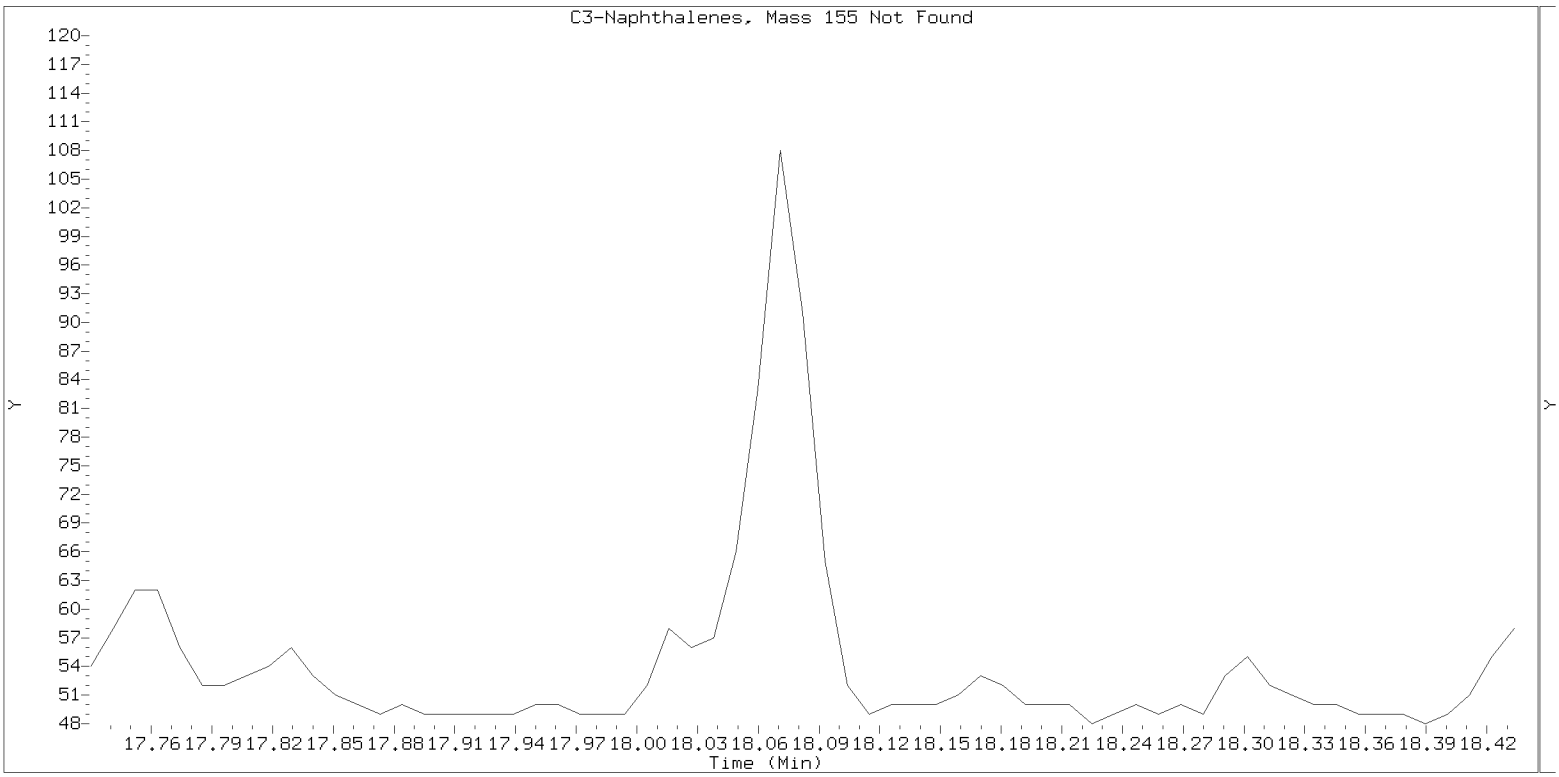

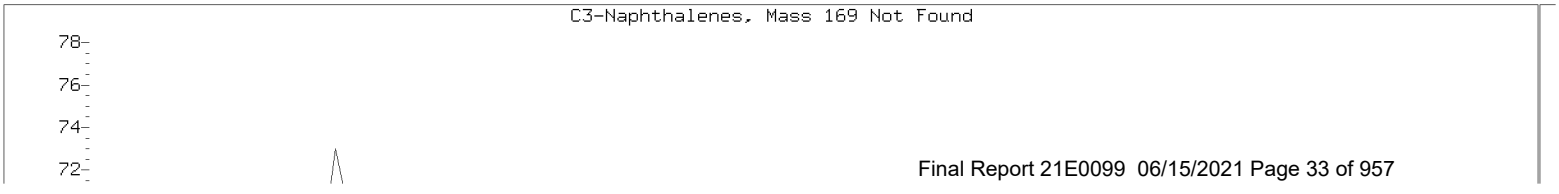

SIM ALKYL PNA RANGE ION WINDOWS - NT1421060707S.D

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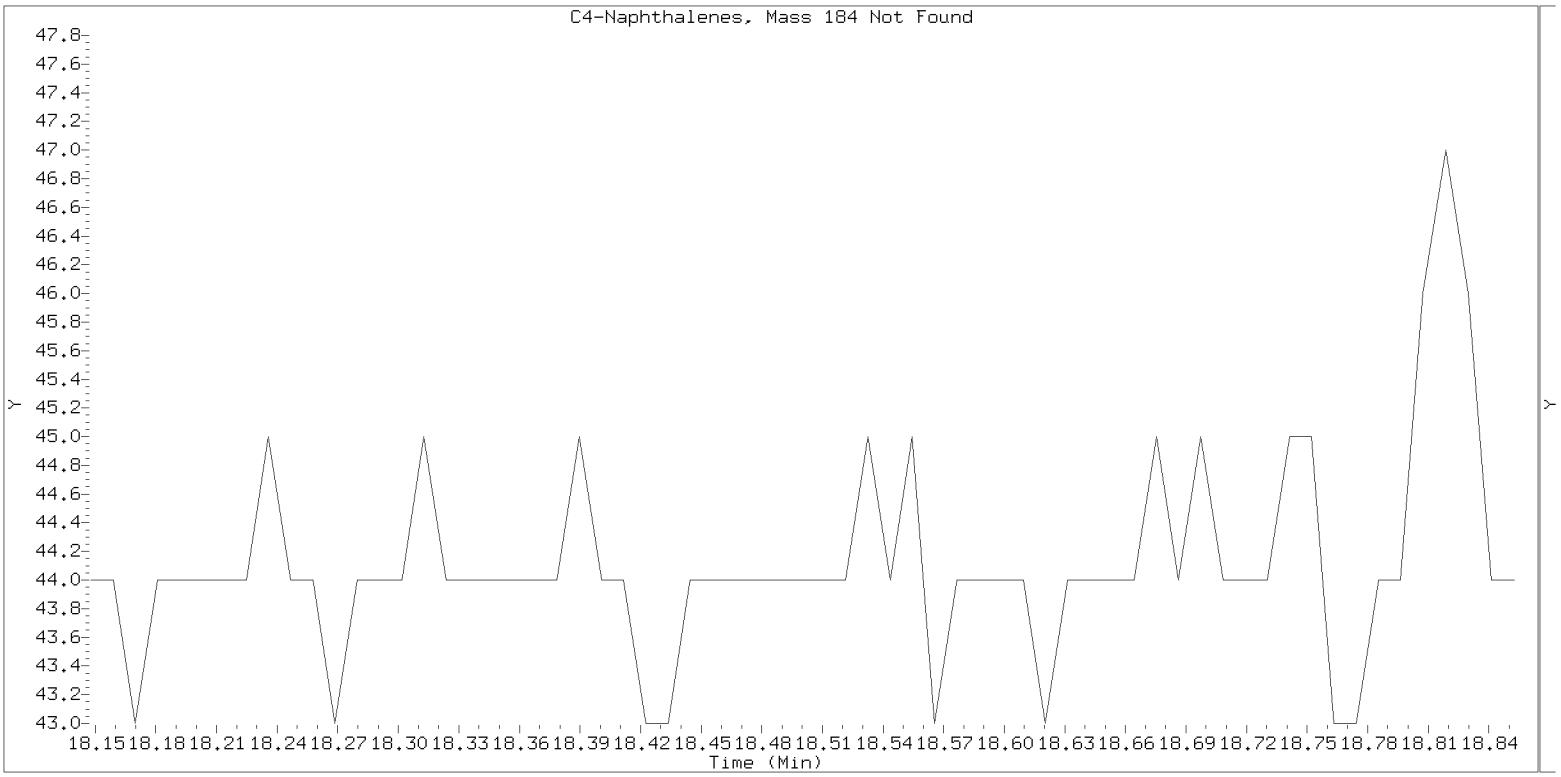

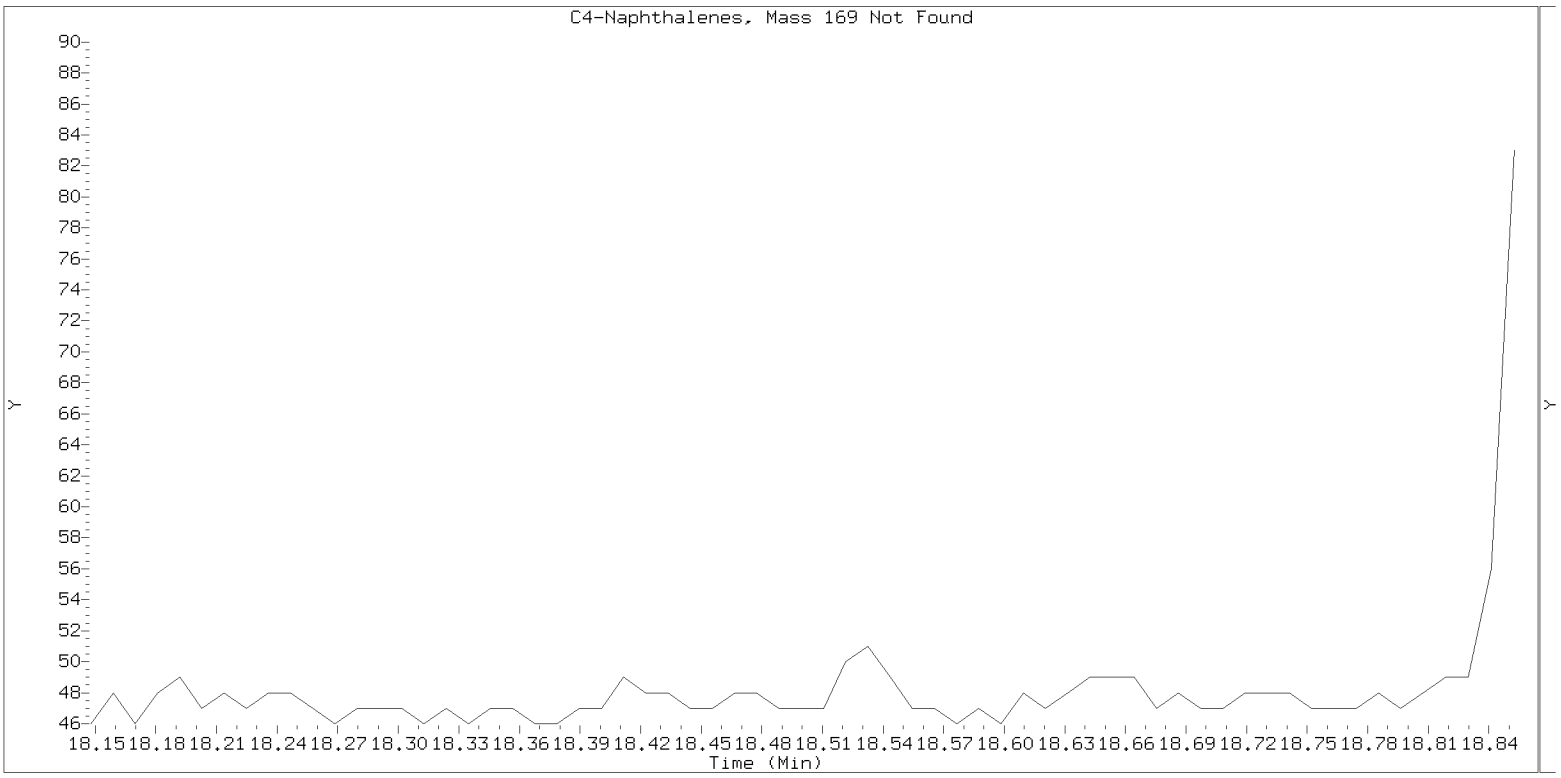

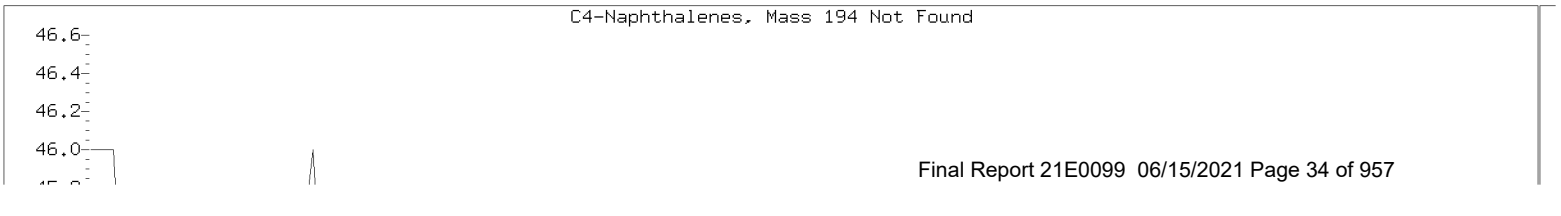

SIM ALKYL PNA RANGE ION WINDOWS - NT1421060707S.D

Lab ID: 21E0099-01
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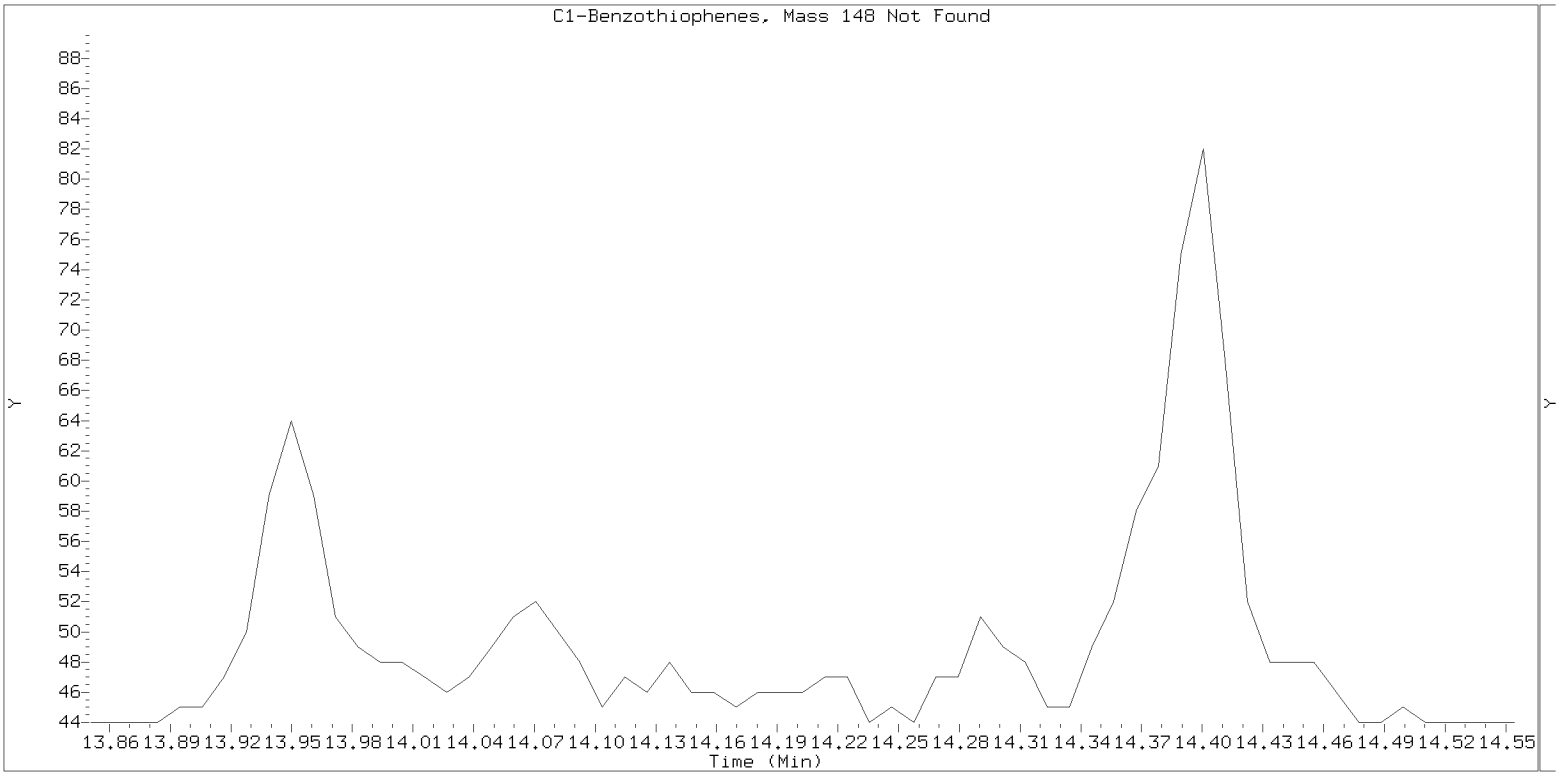

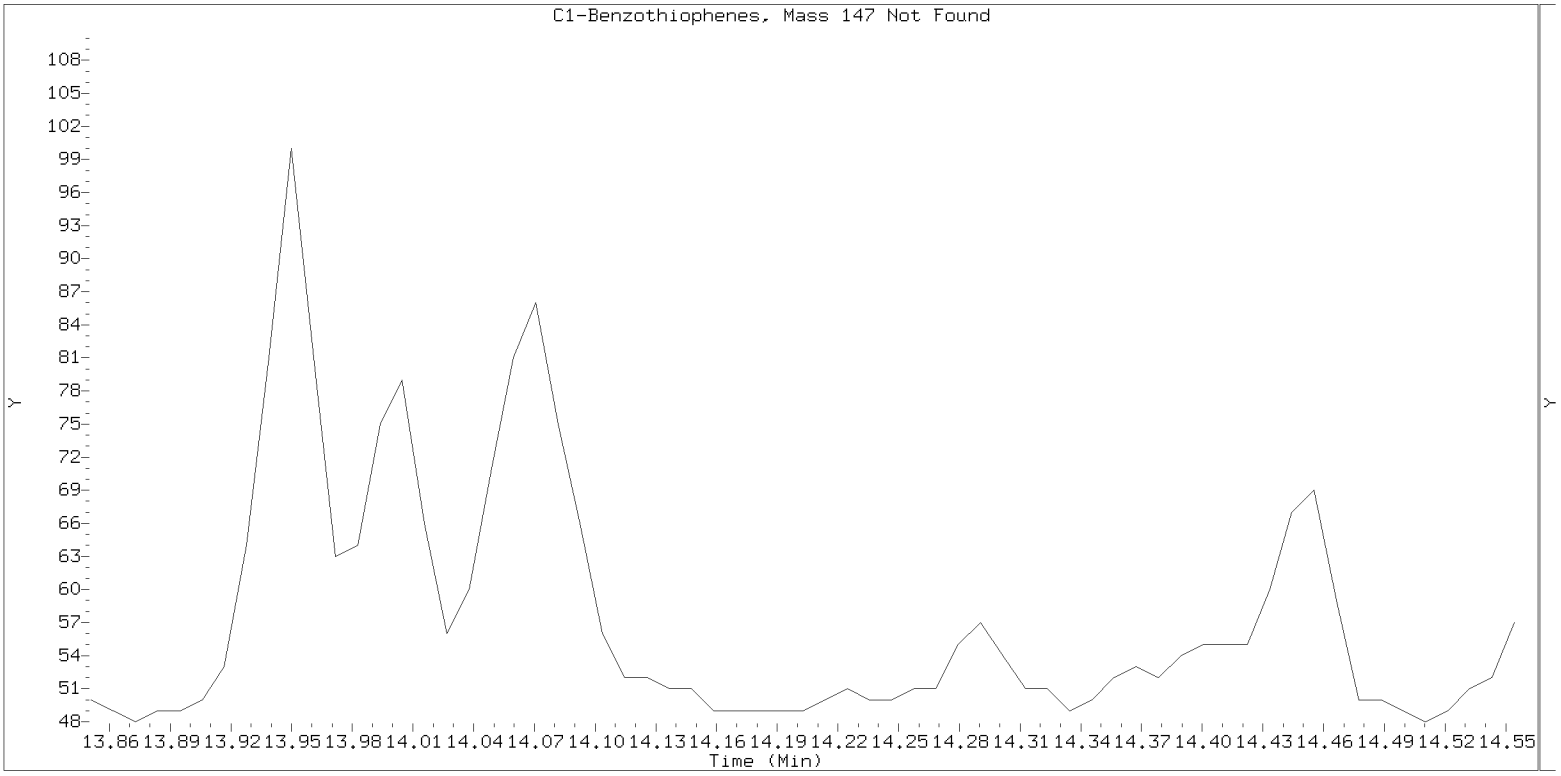

SIM ALKYL PNA RANGE ION WINDOWS - NT1421060707S.D

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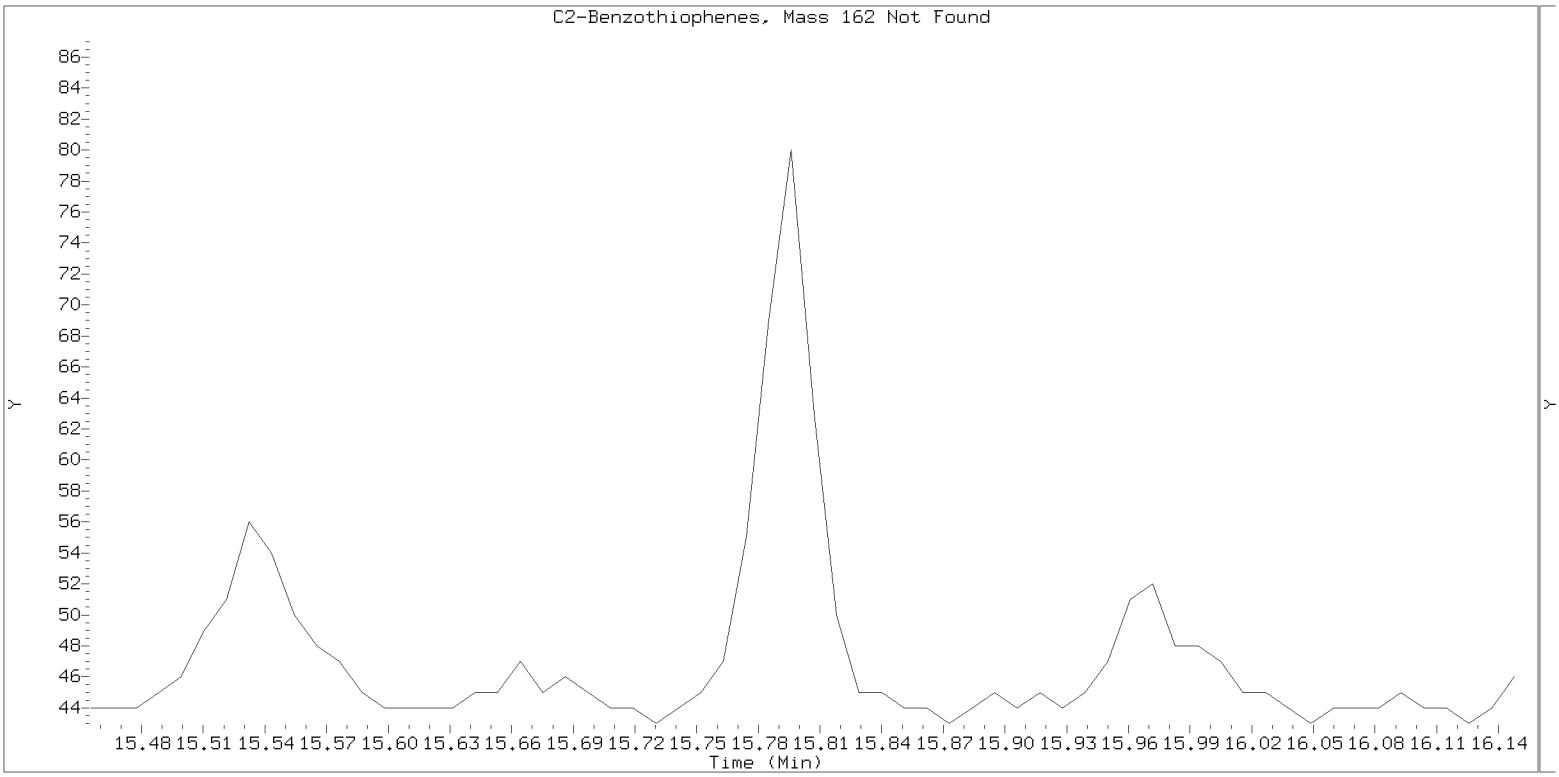

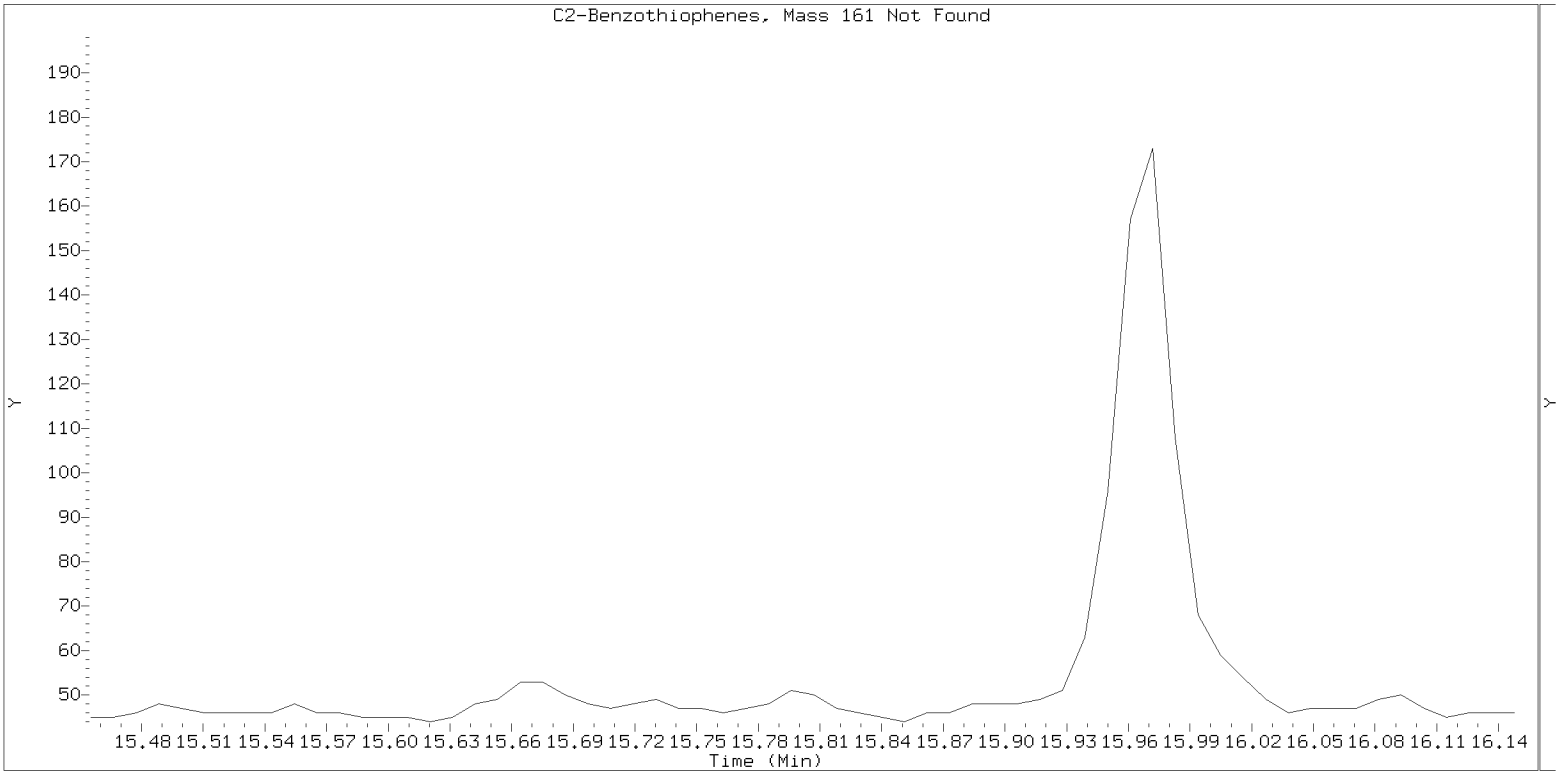

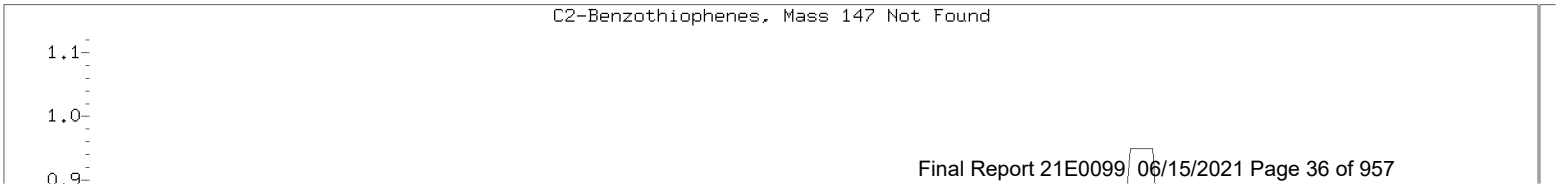

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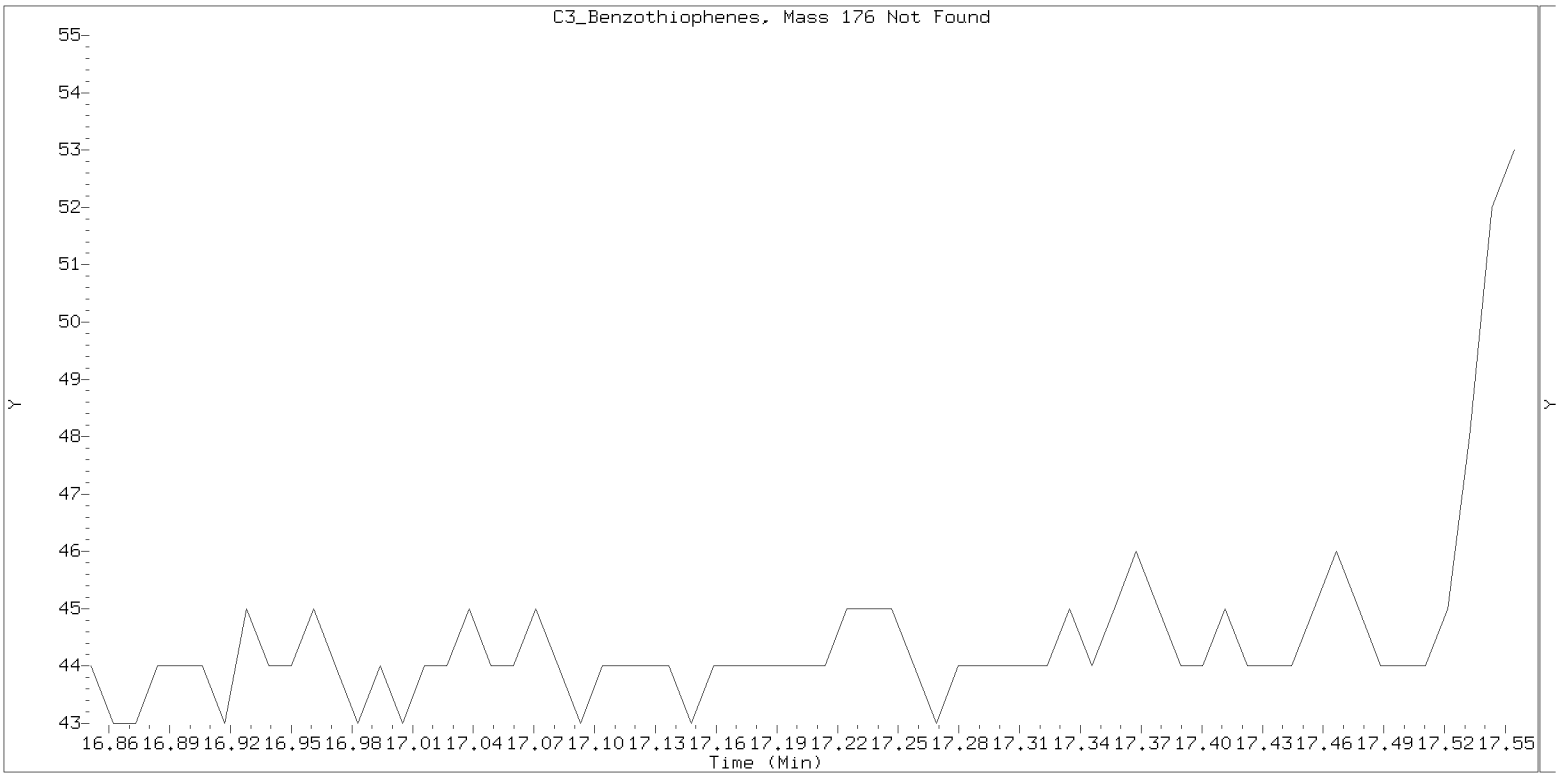

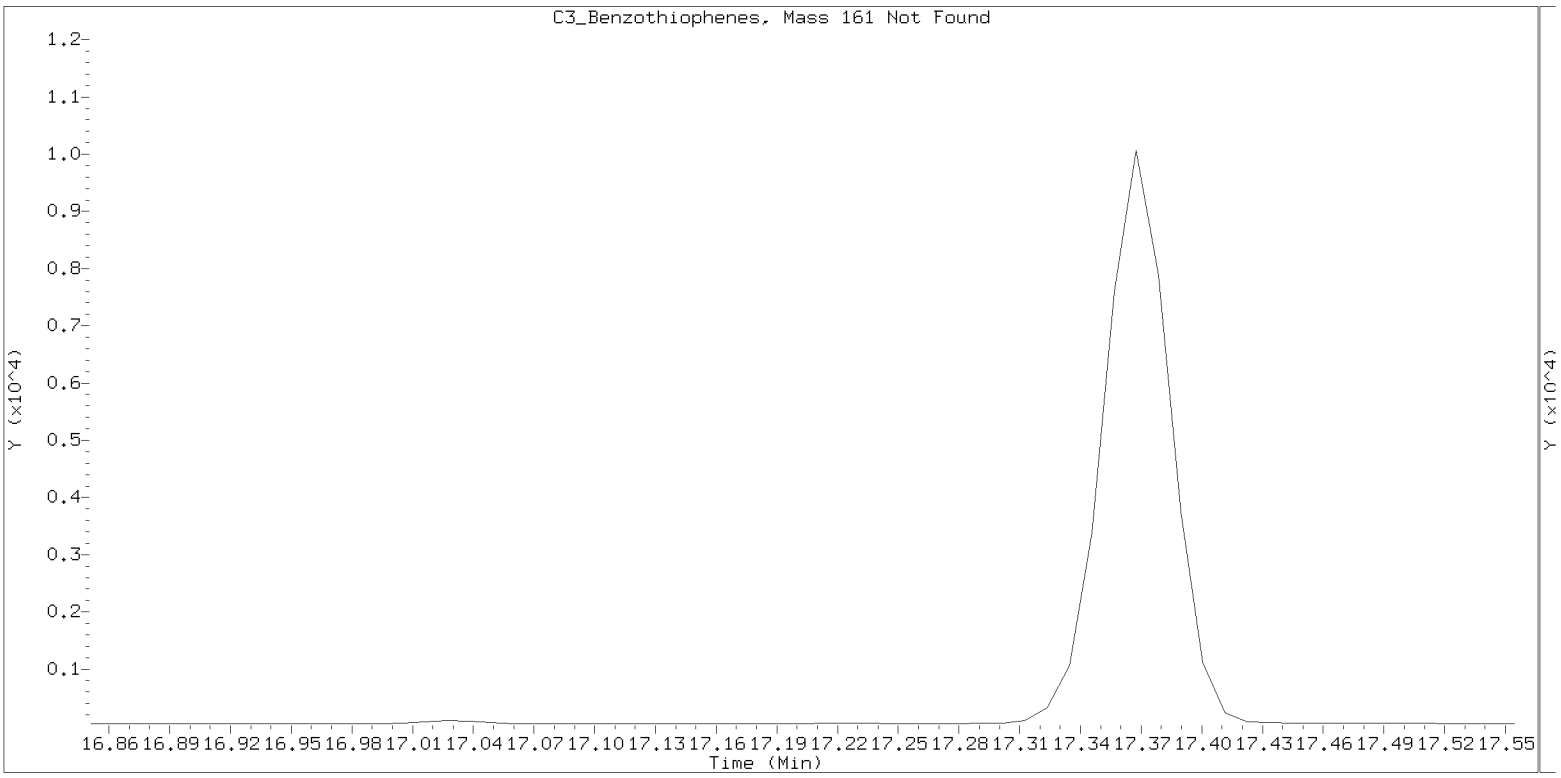

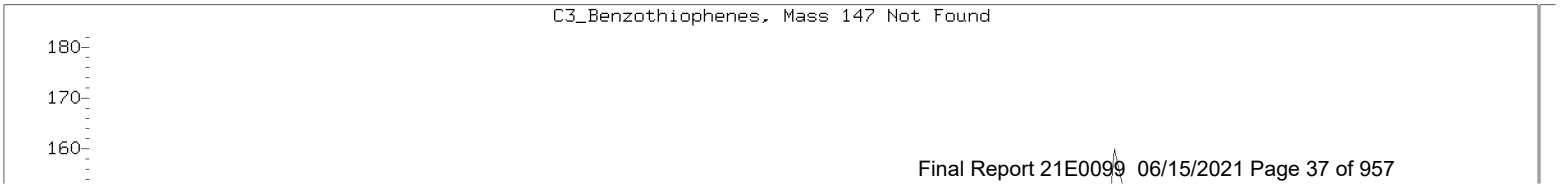

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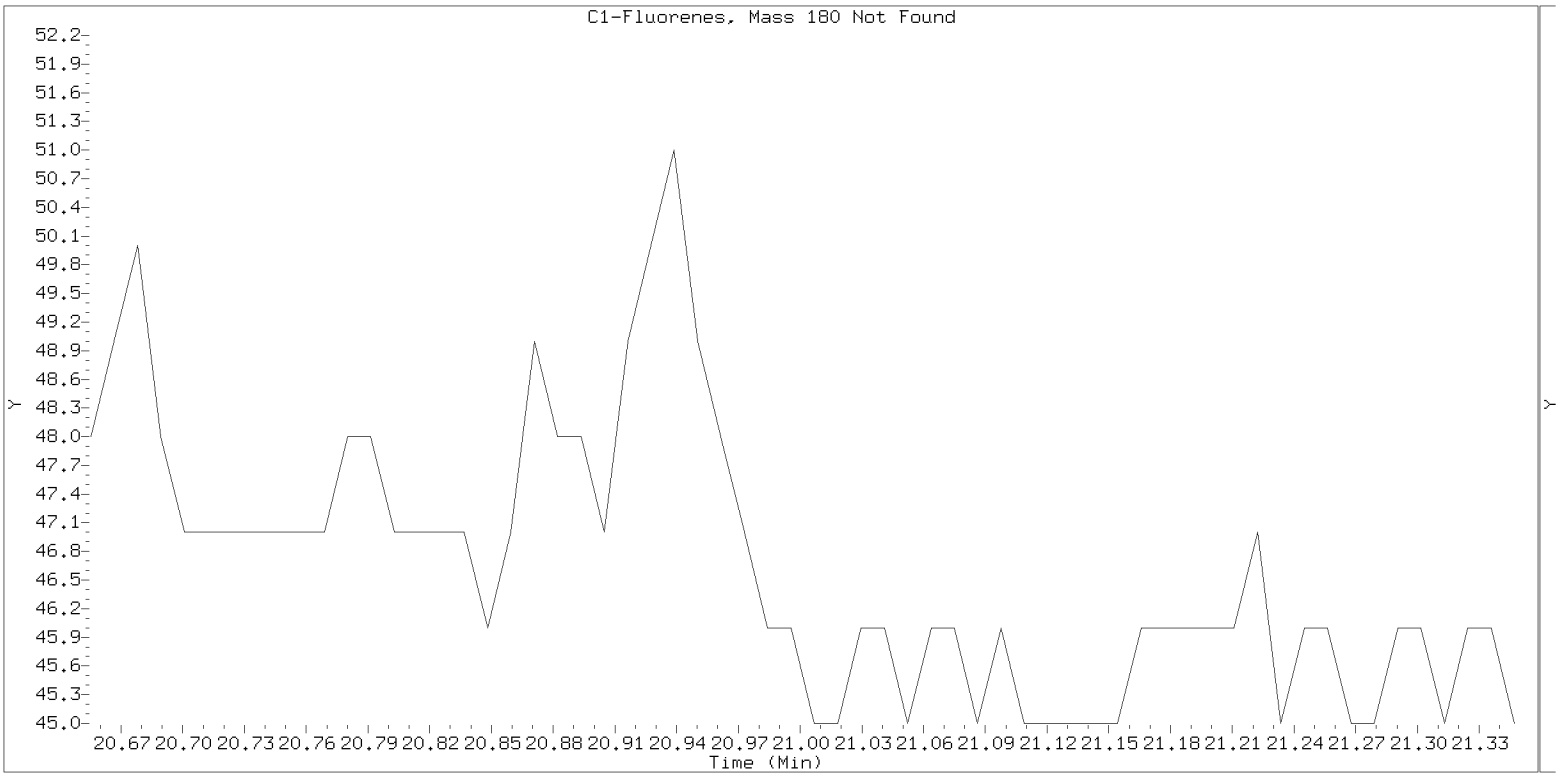

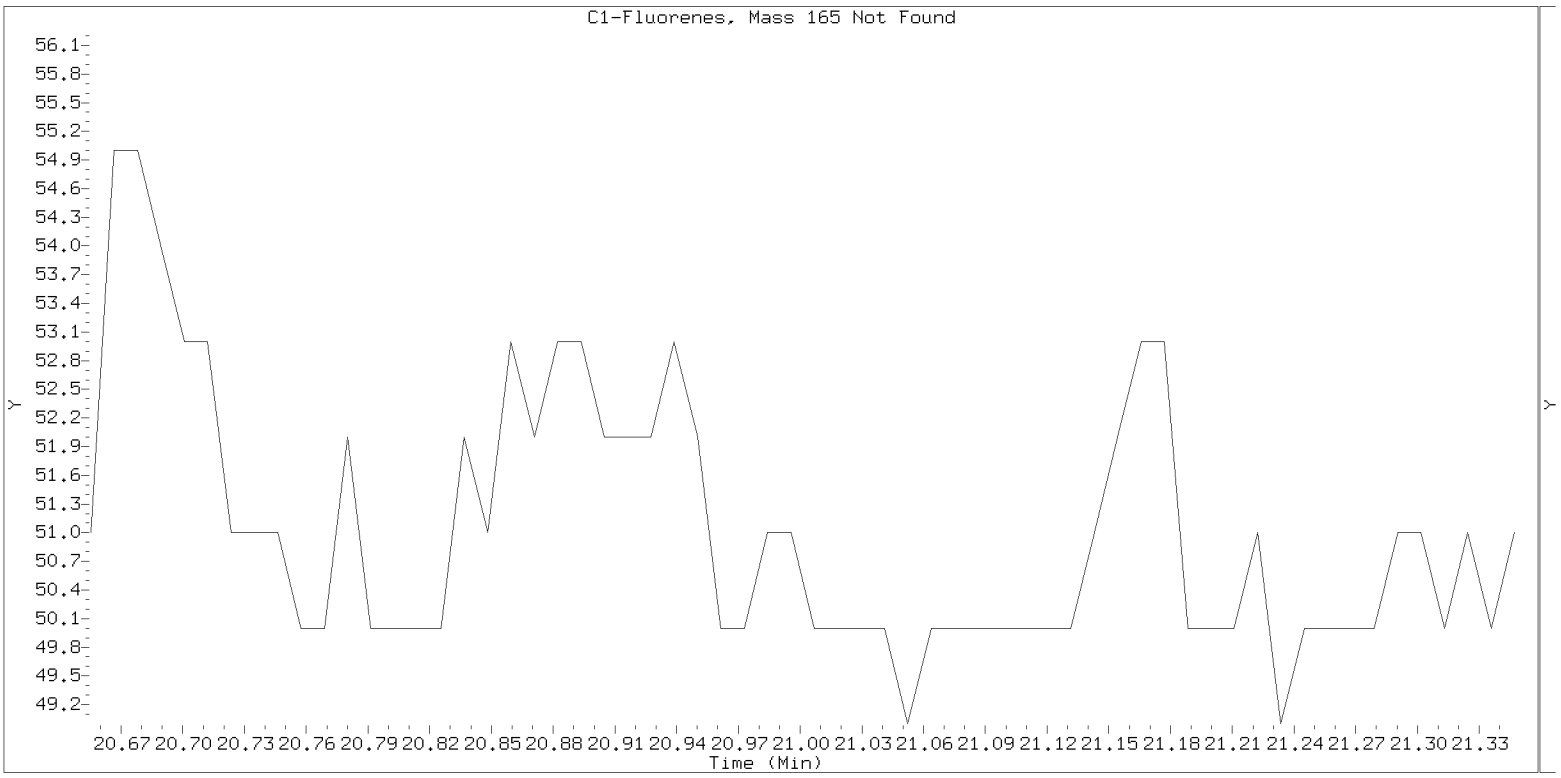

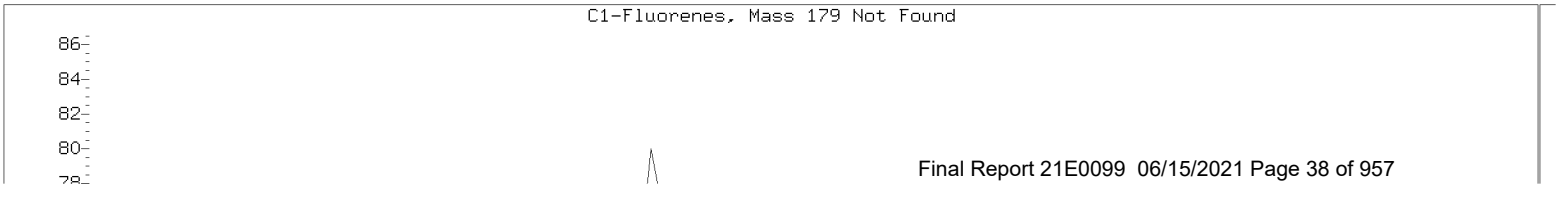

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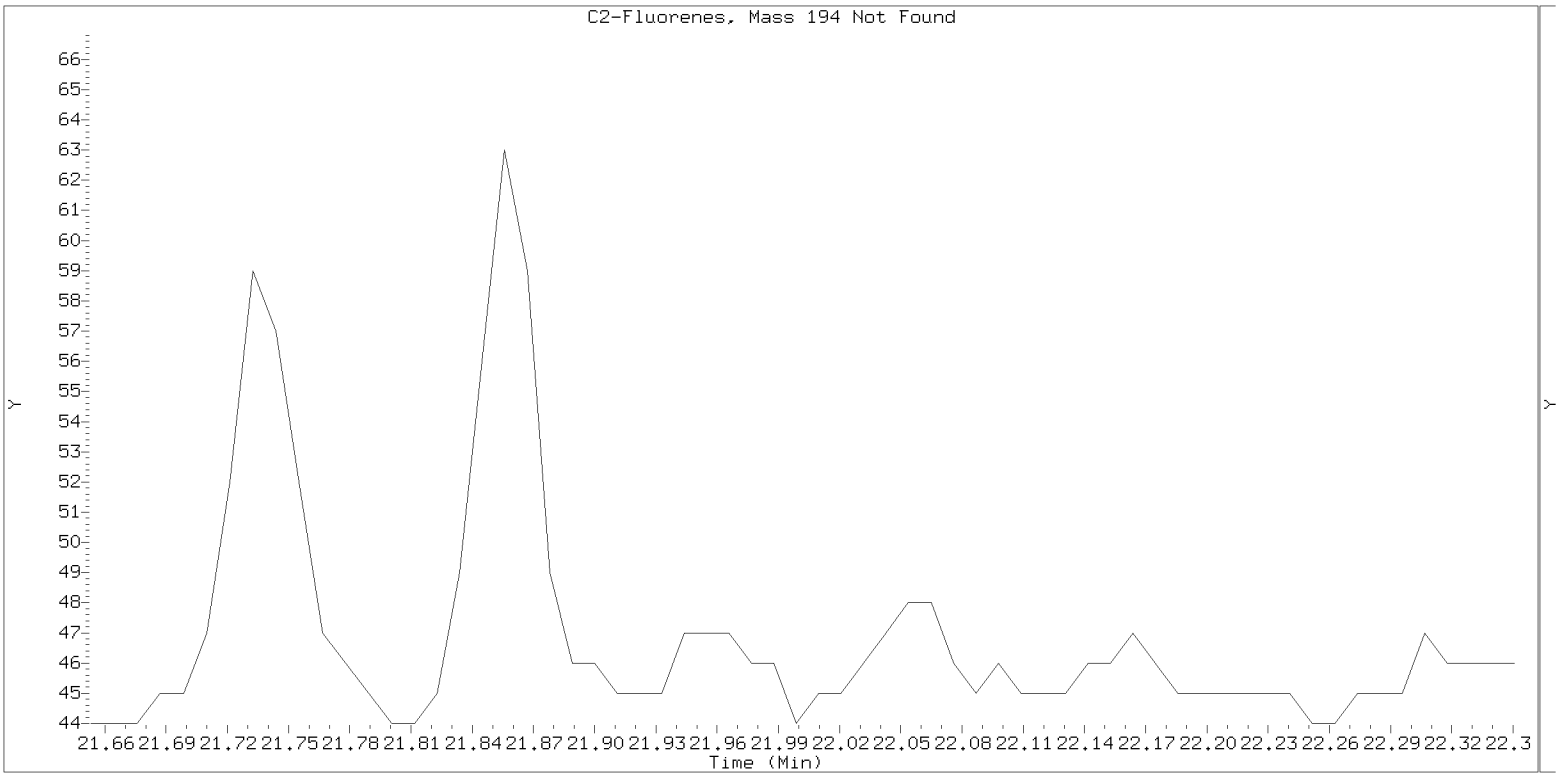

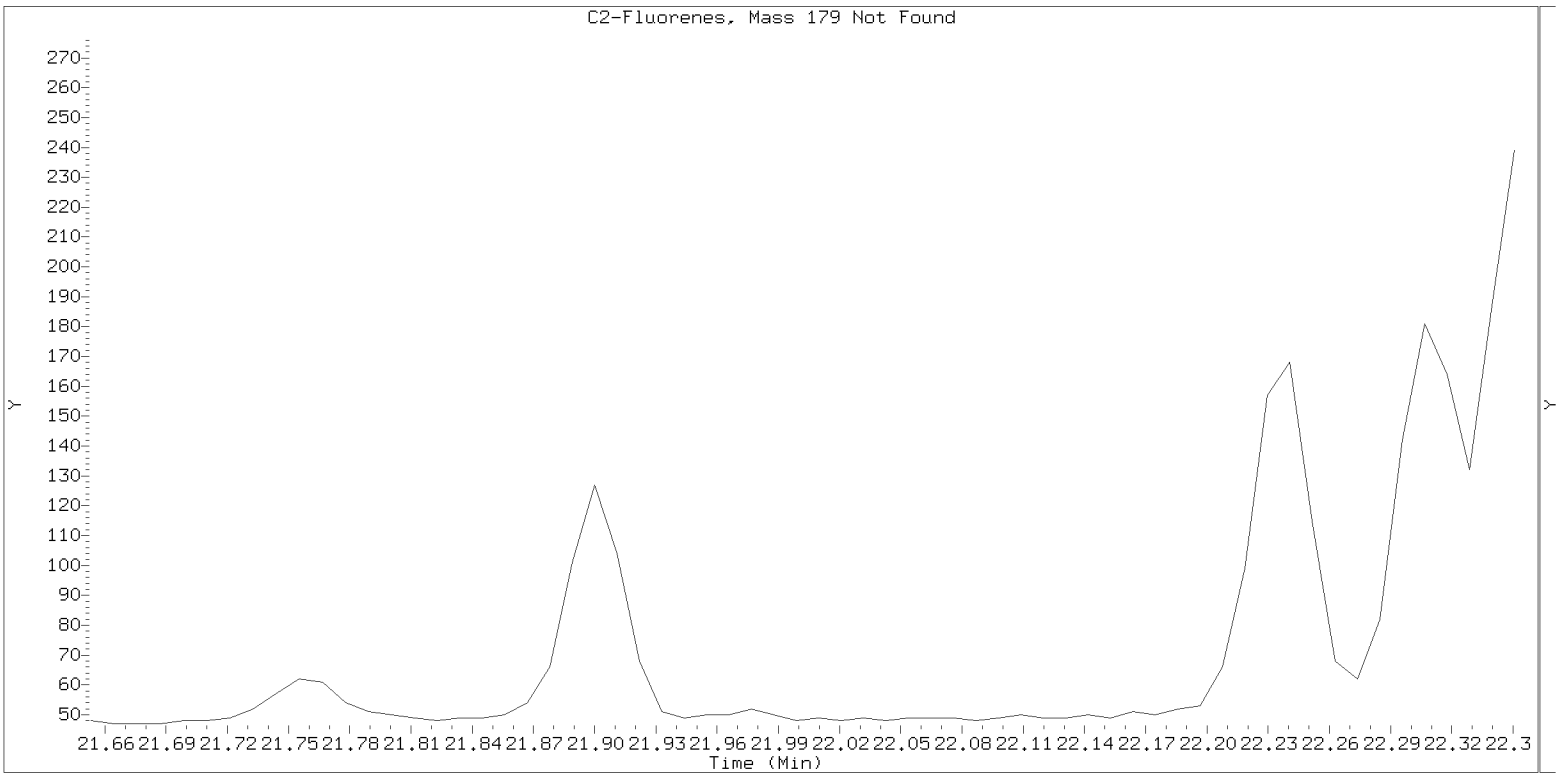

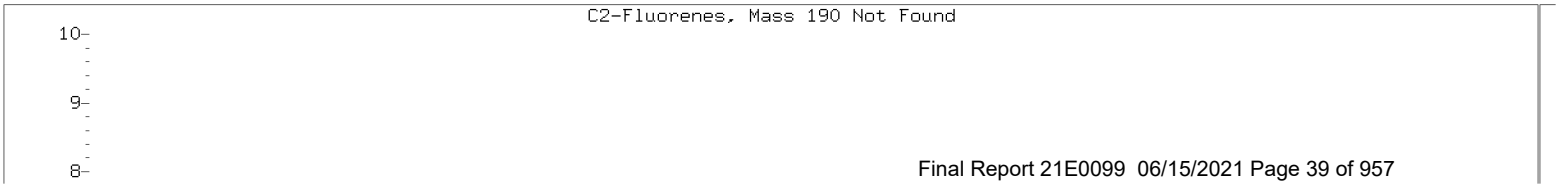

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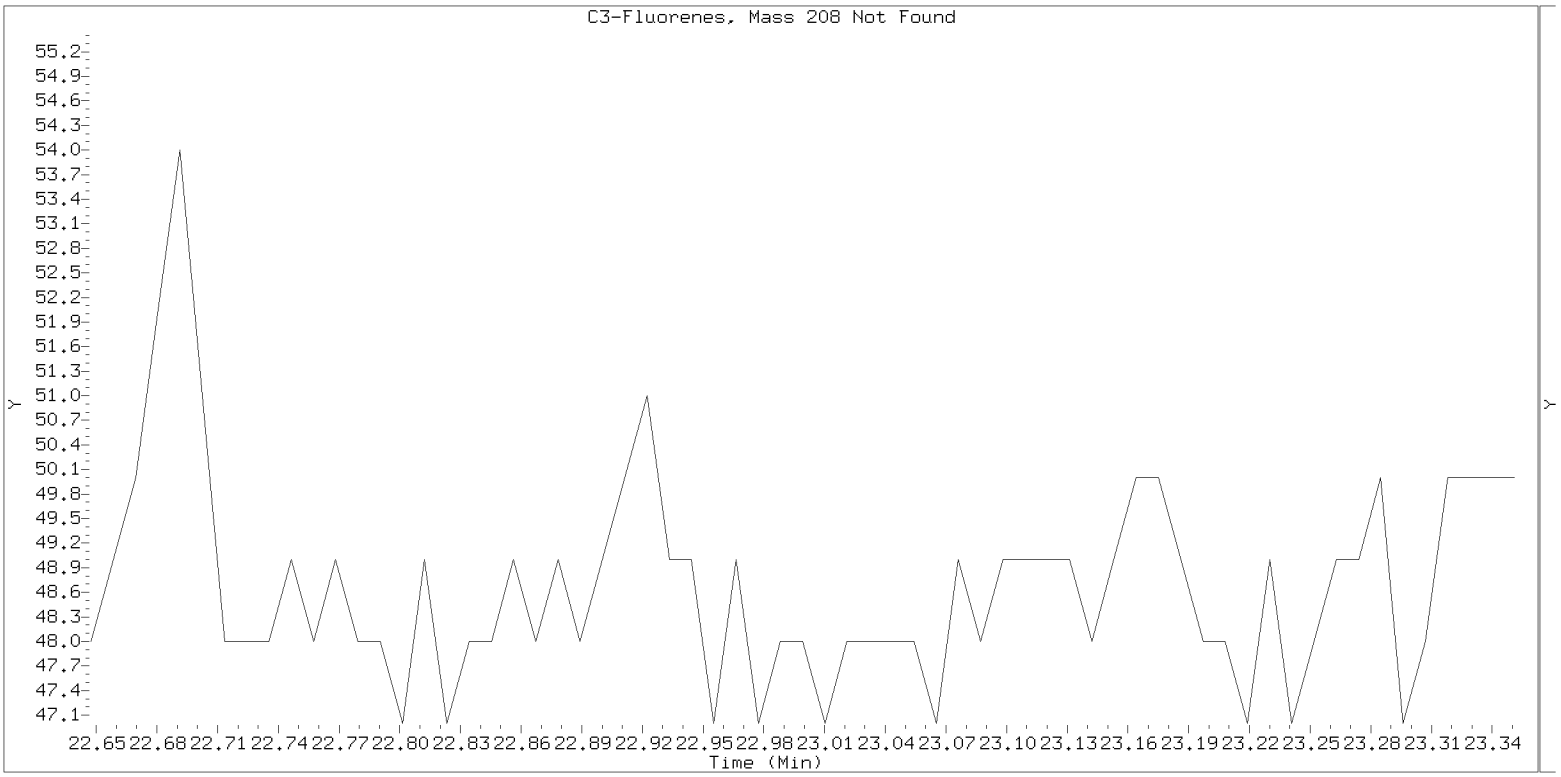

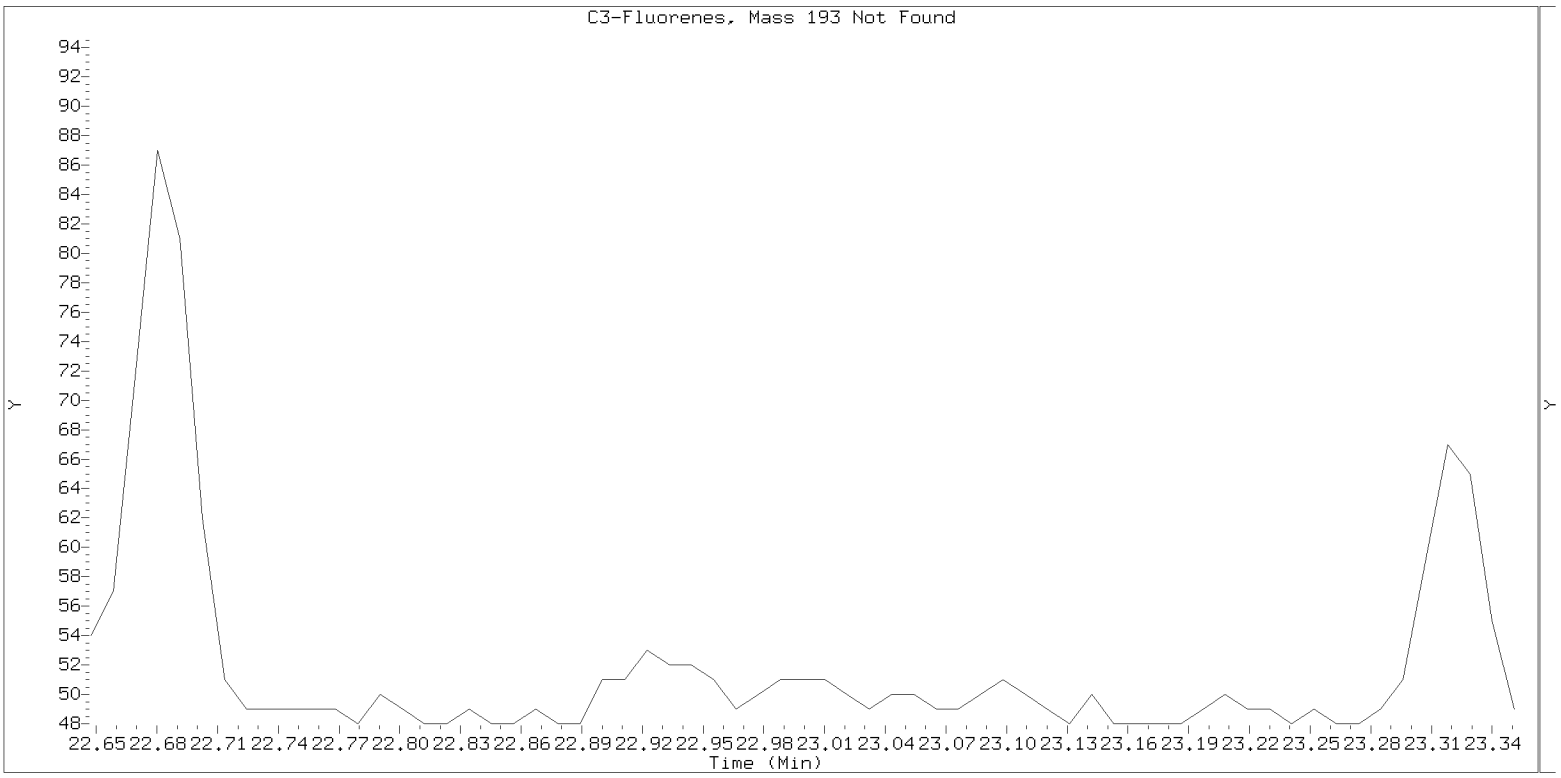

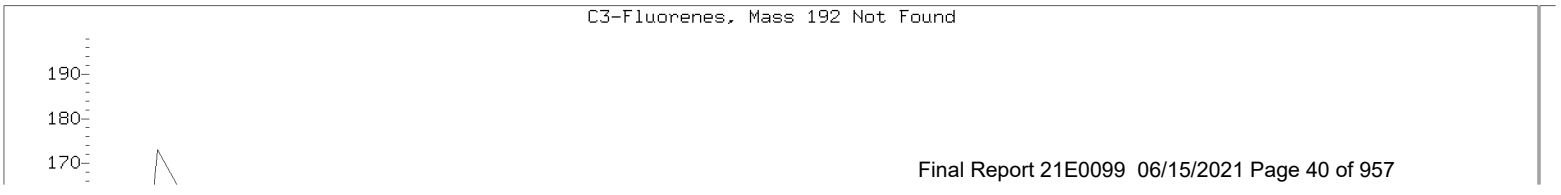

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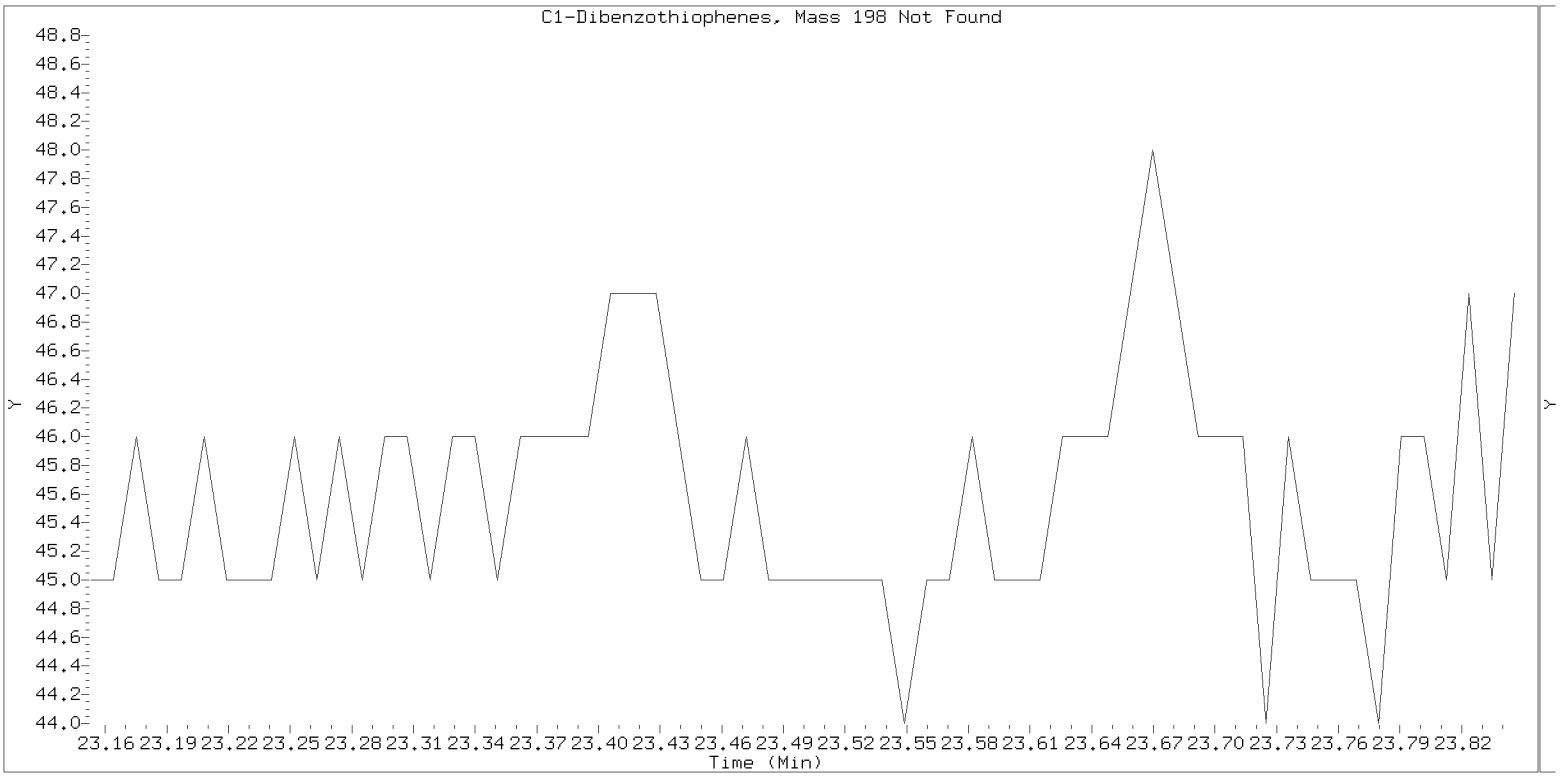

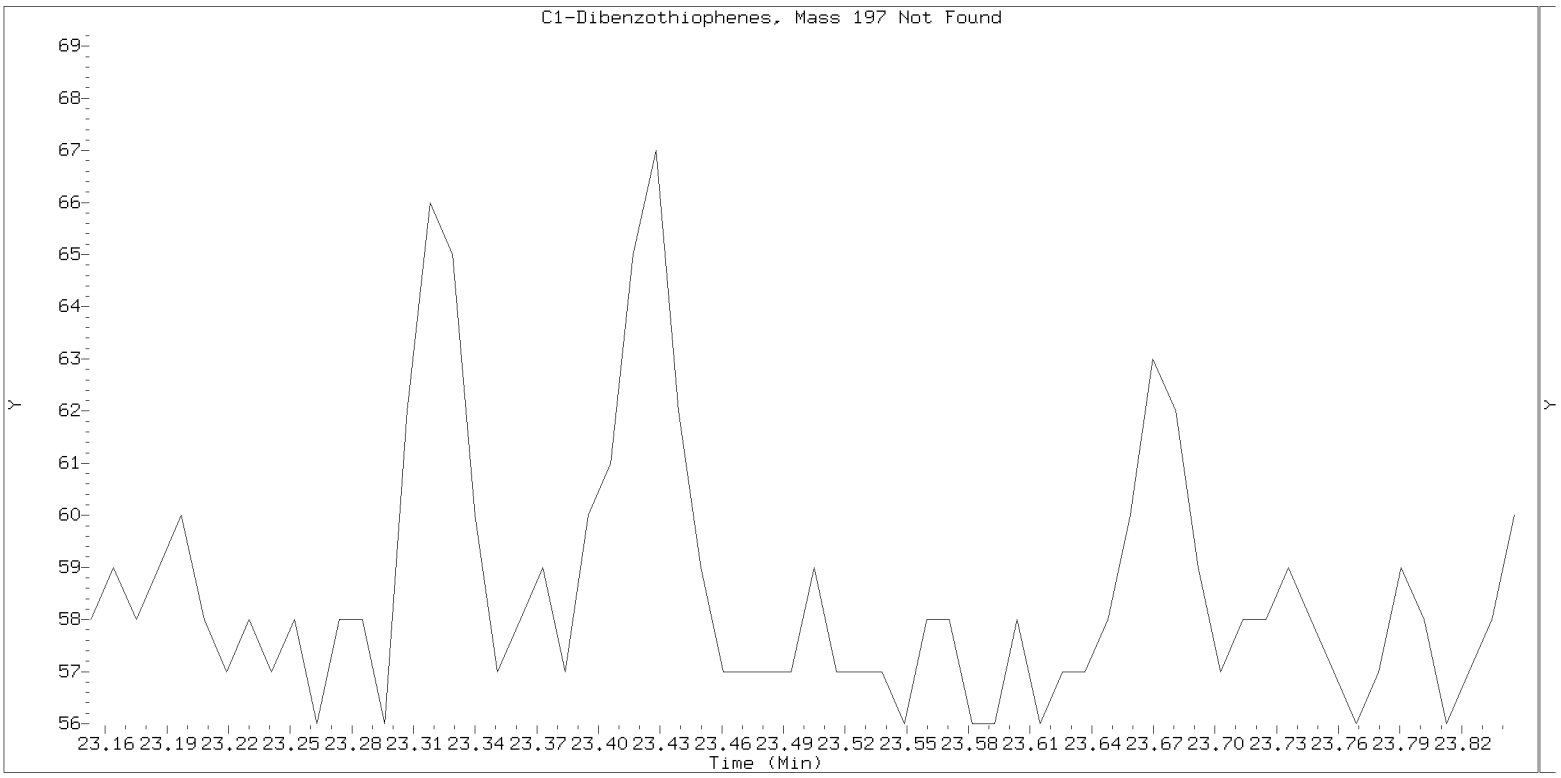

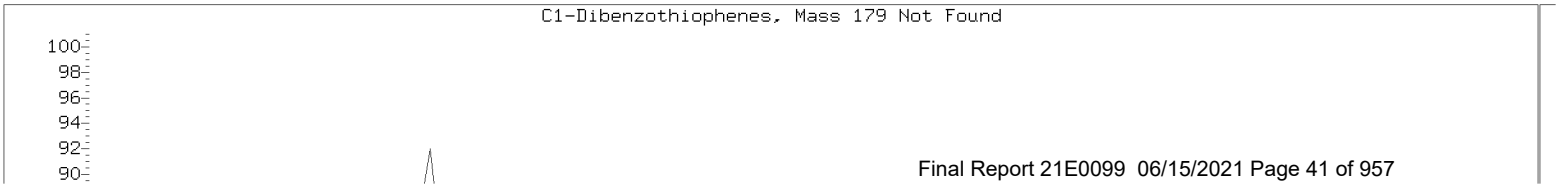

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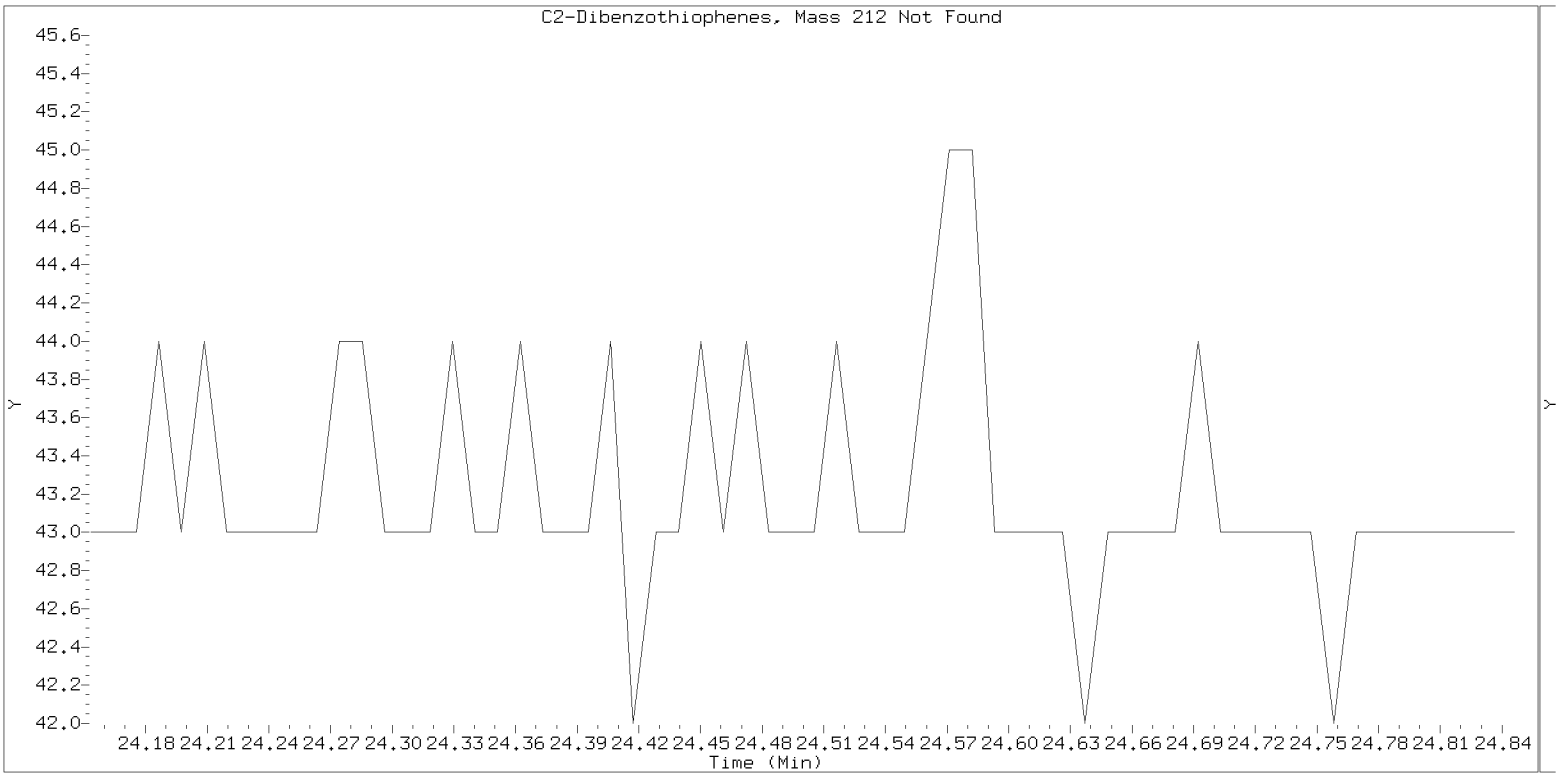

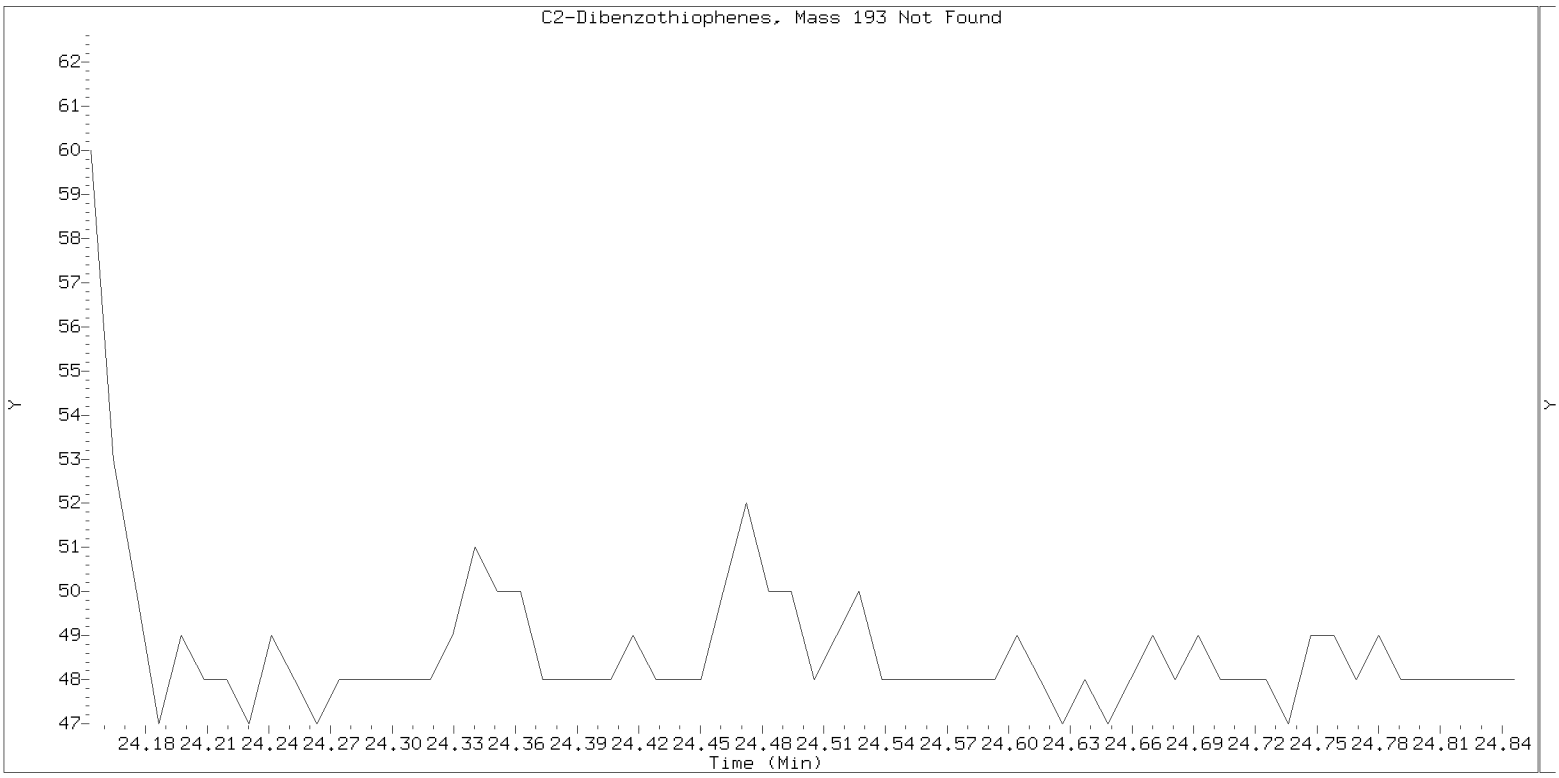

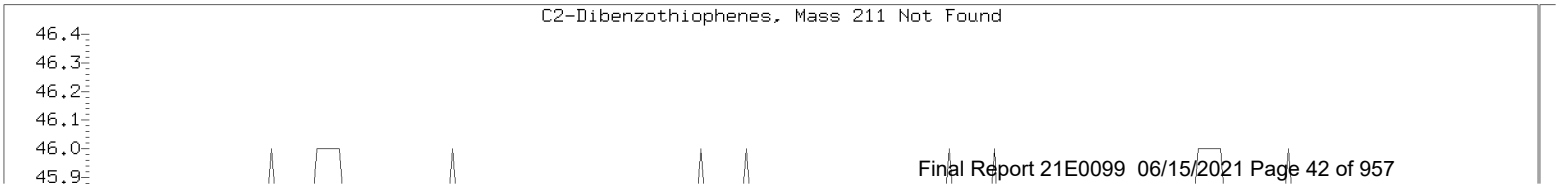

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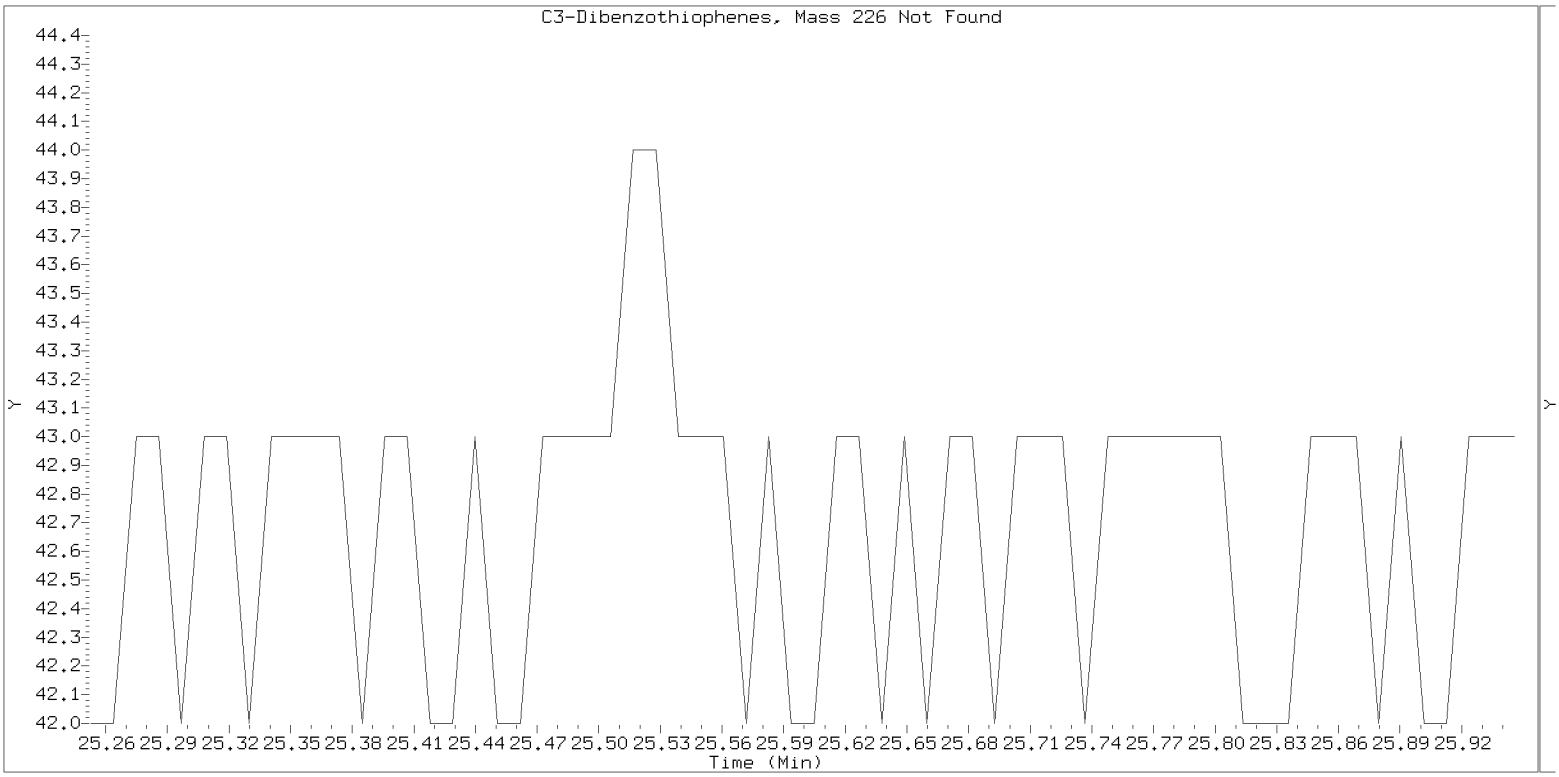

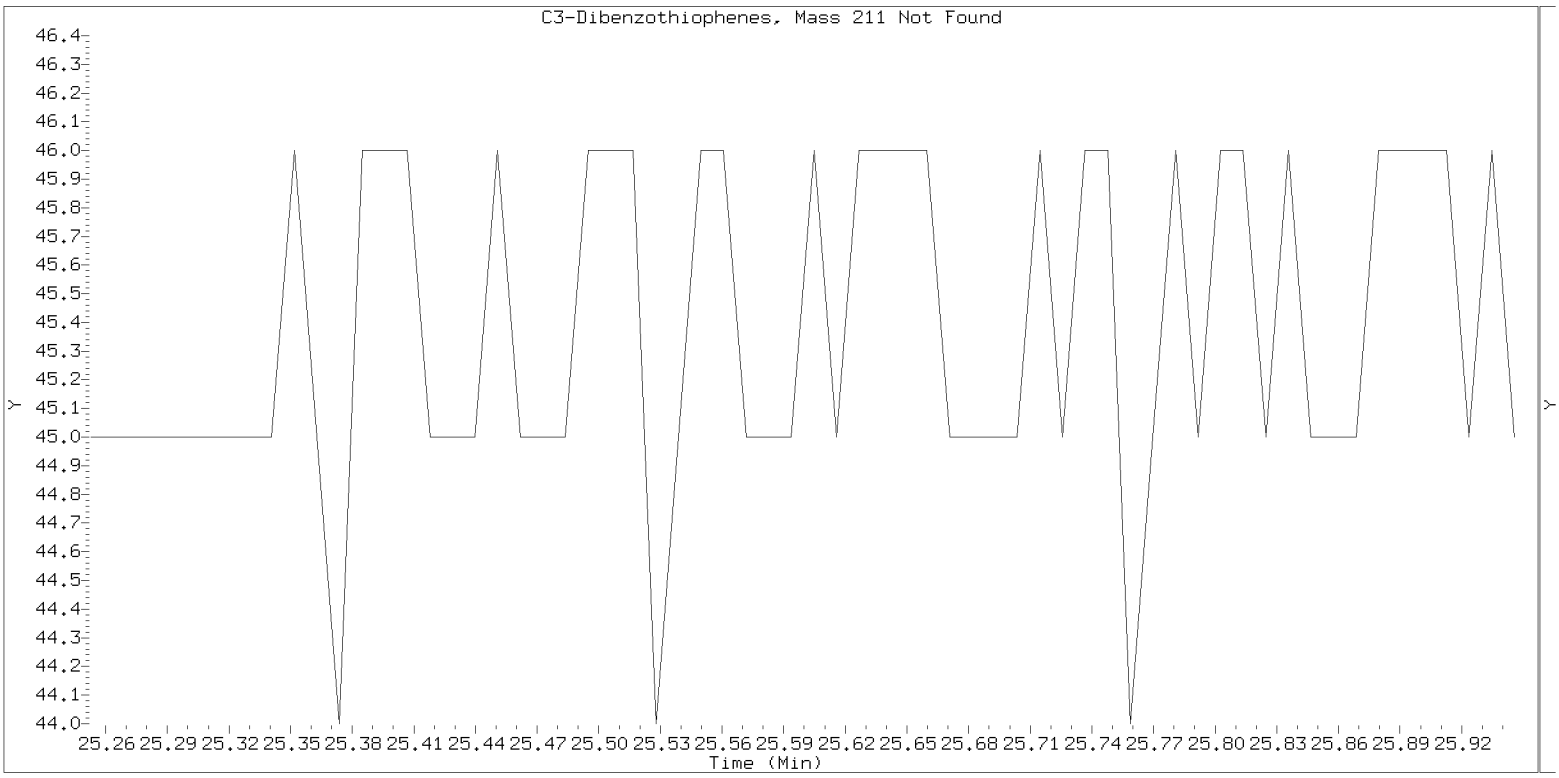

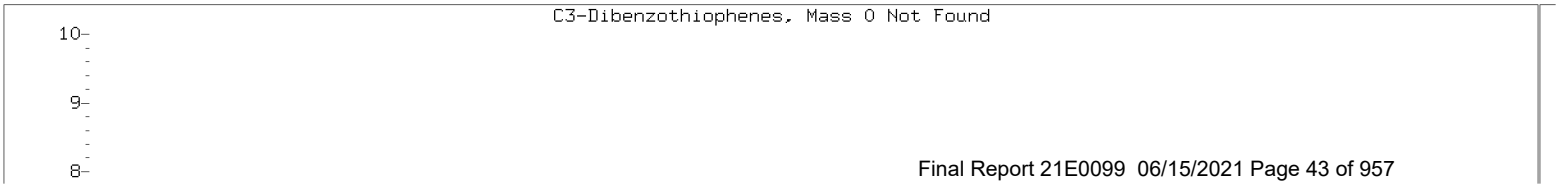

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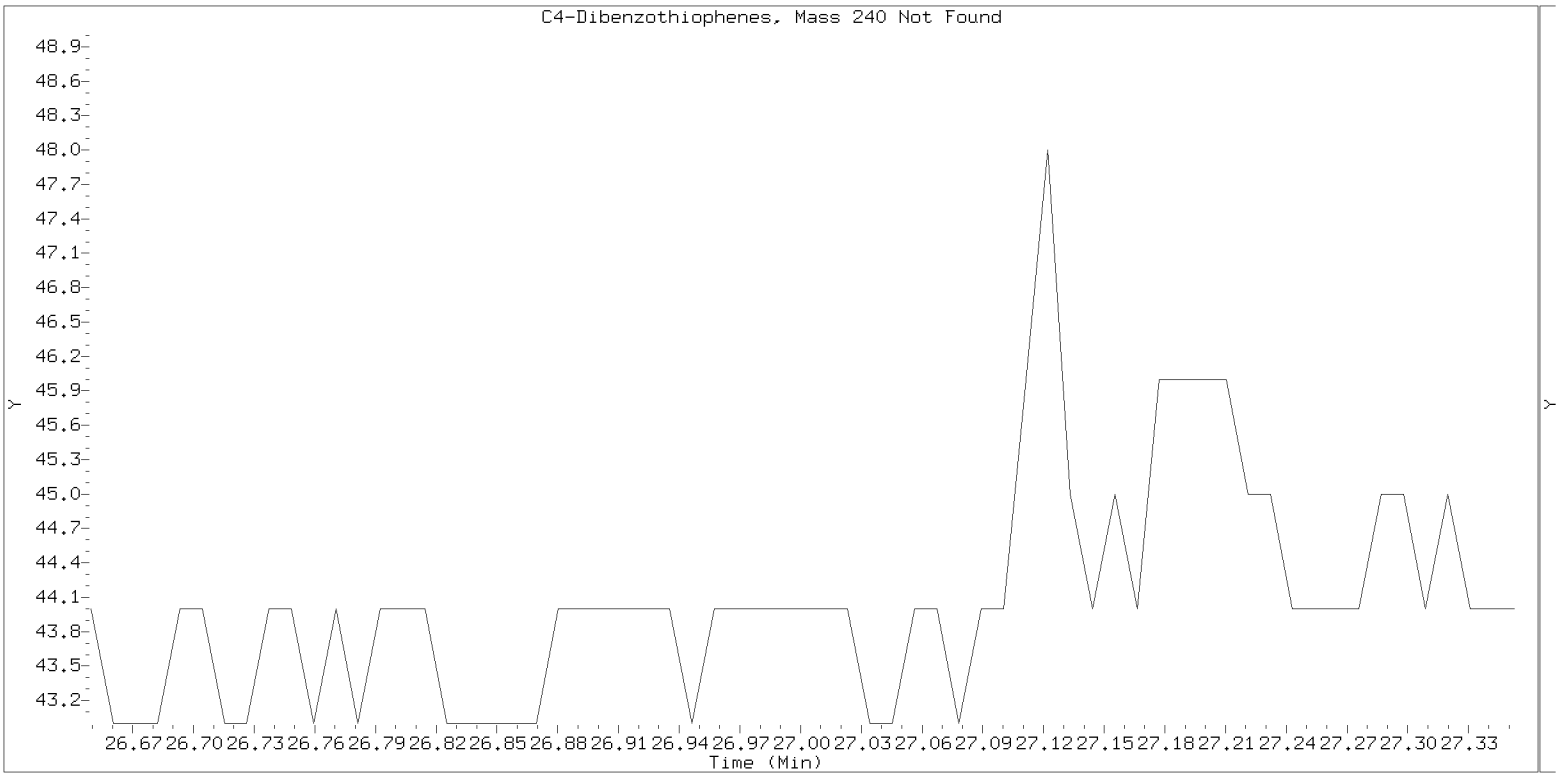

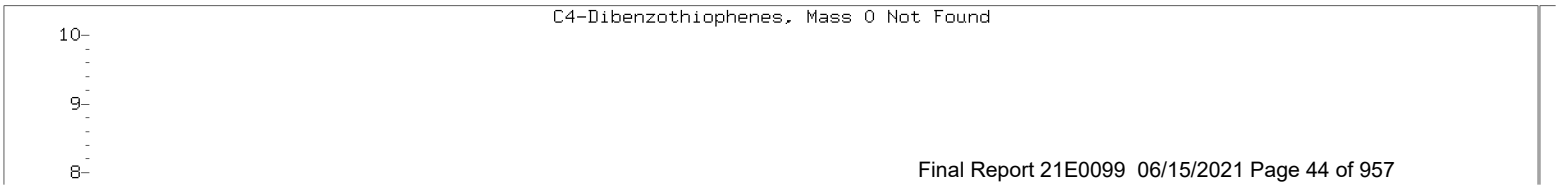

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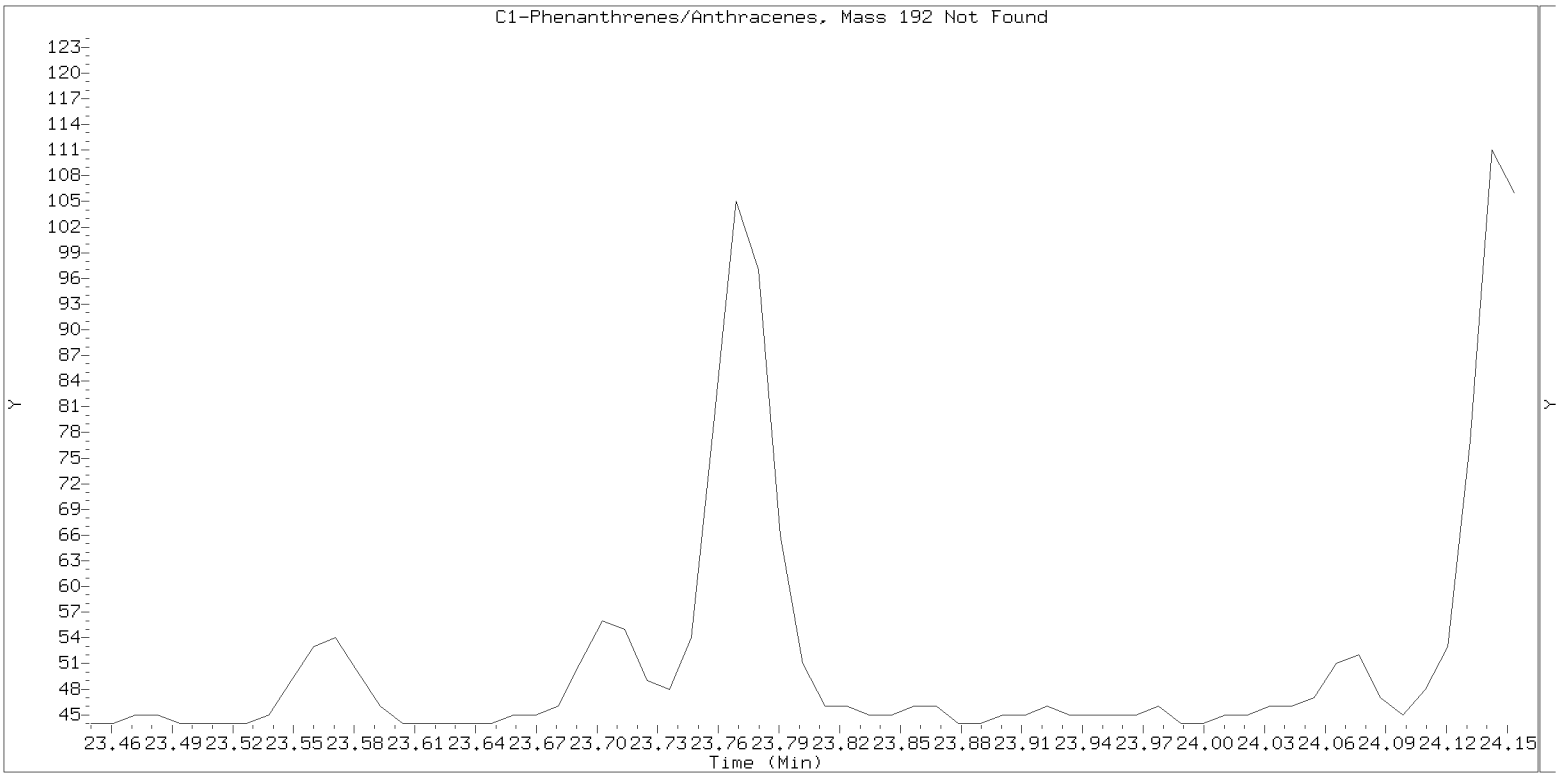

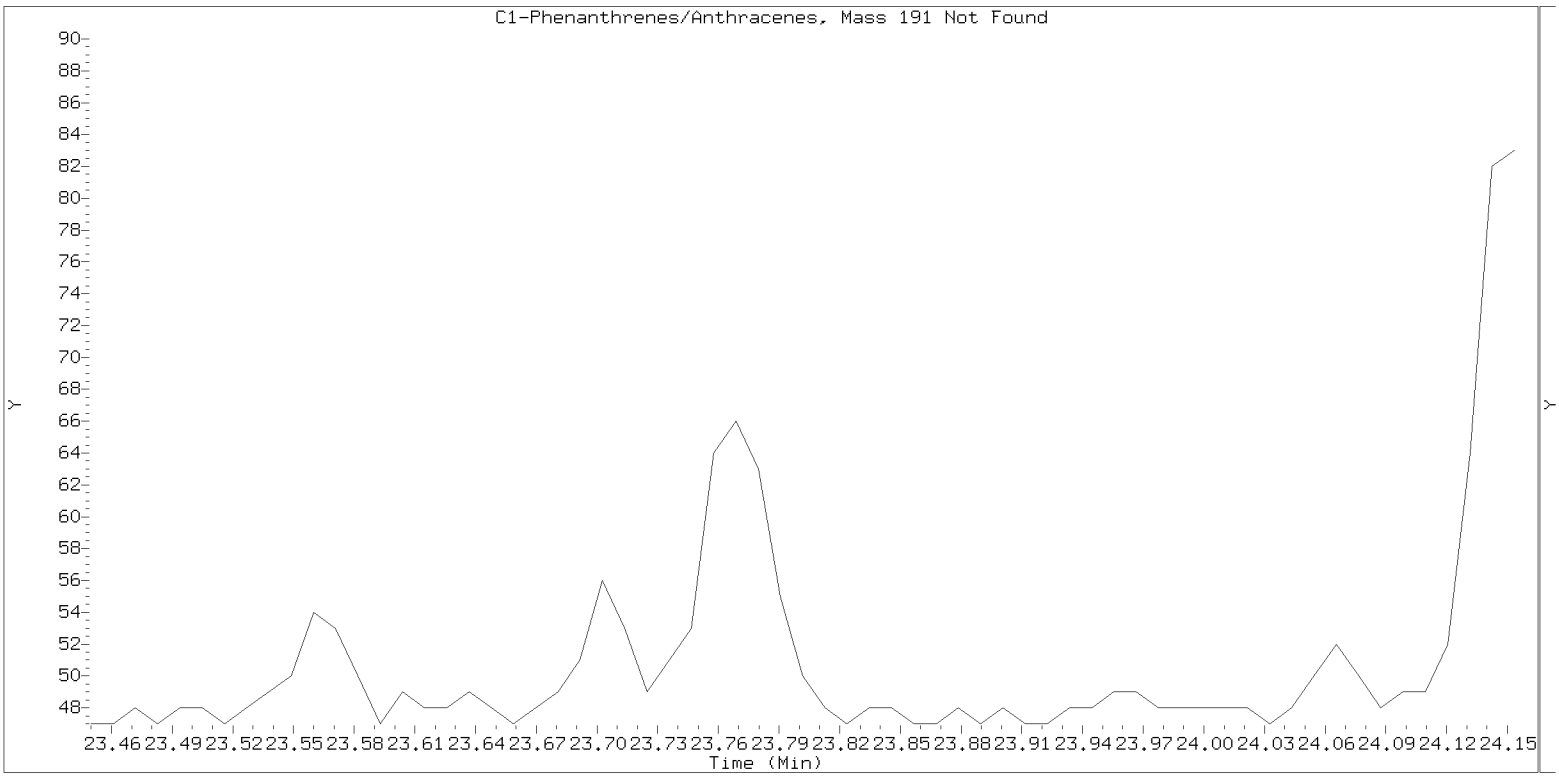

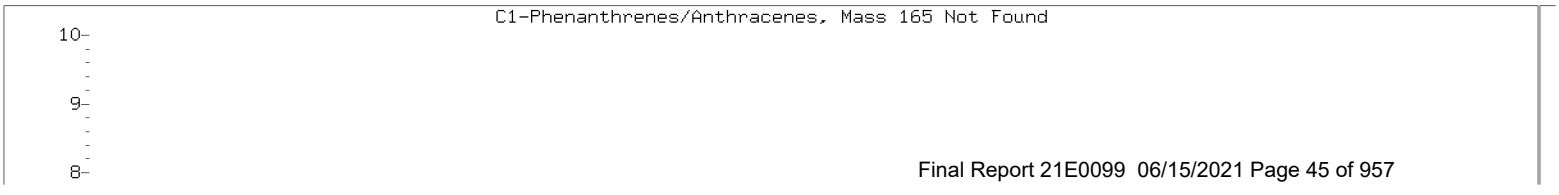

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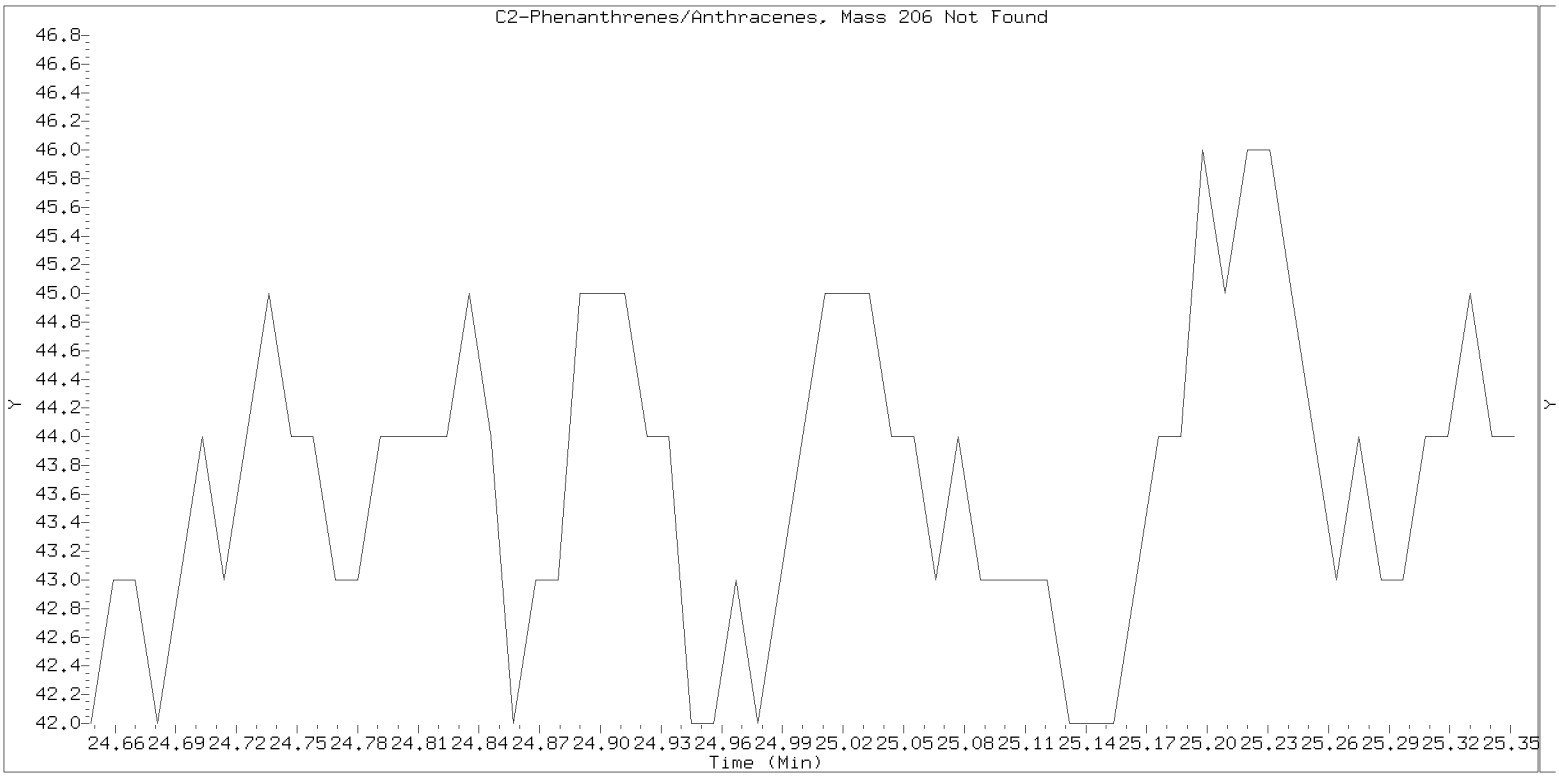

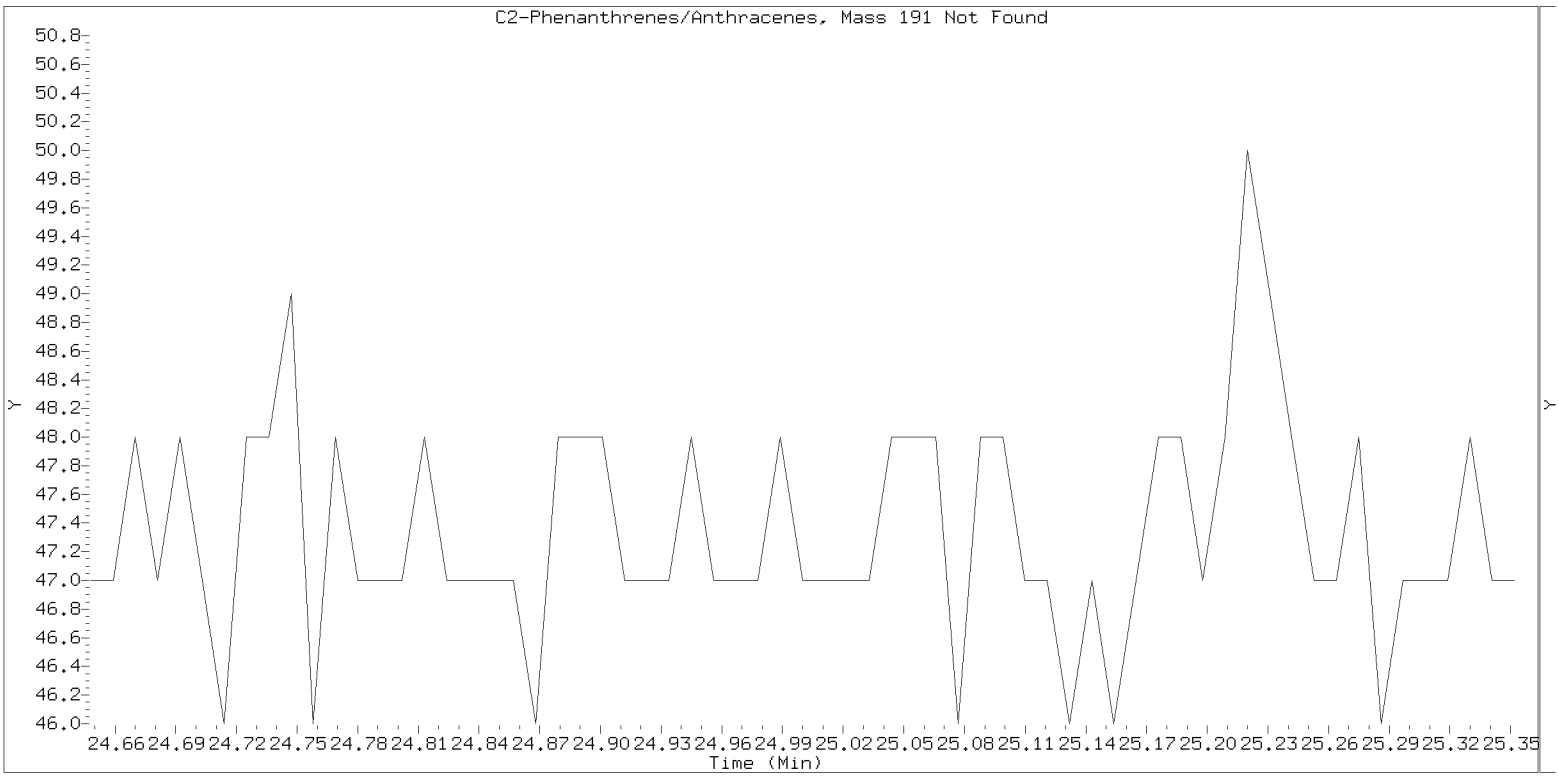

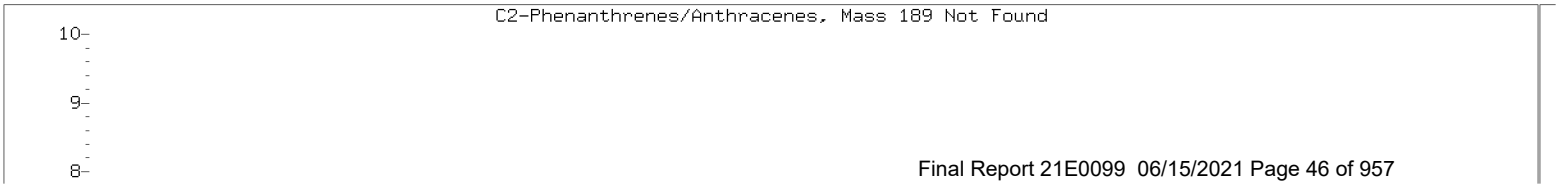

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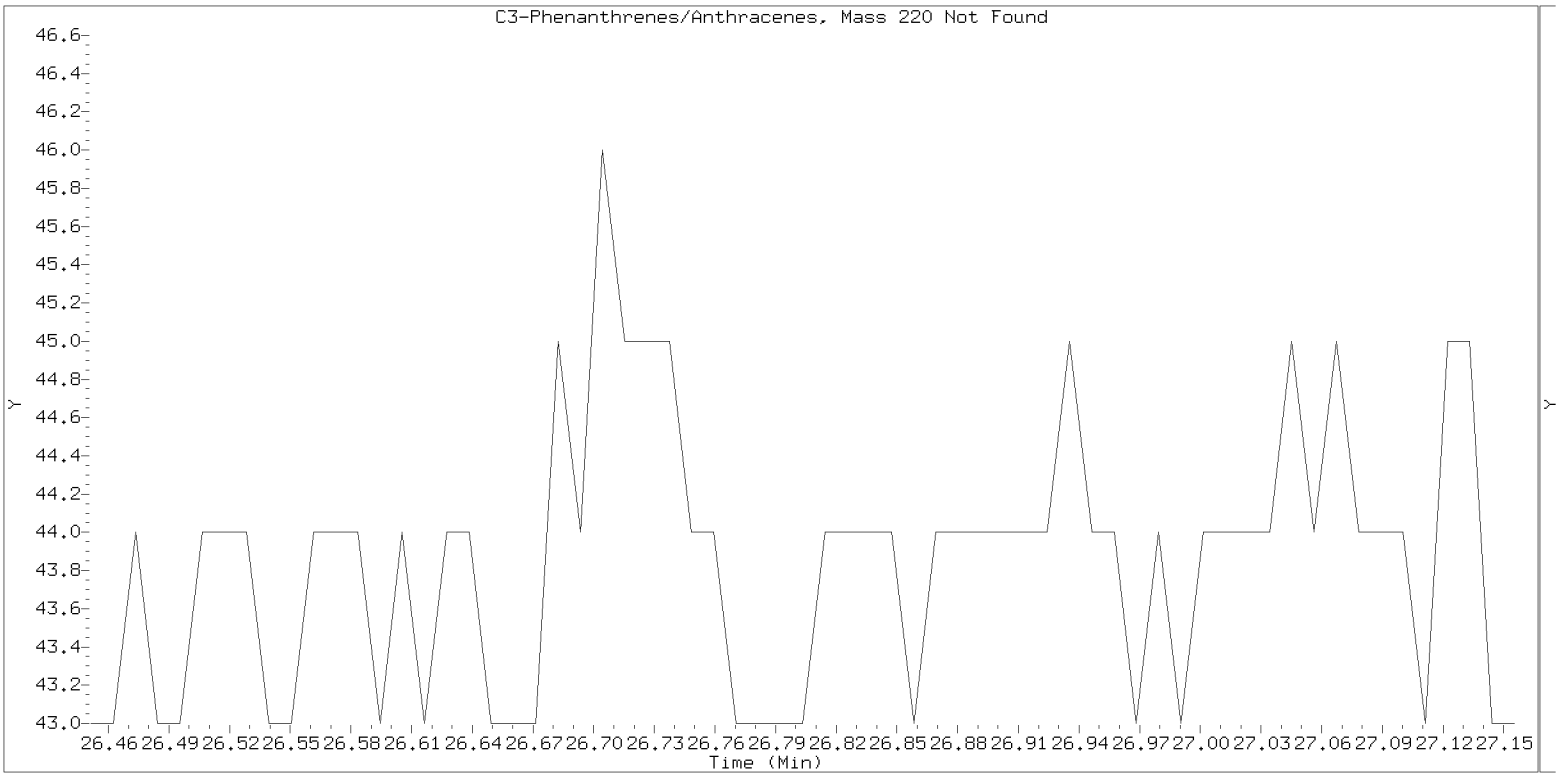

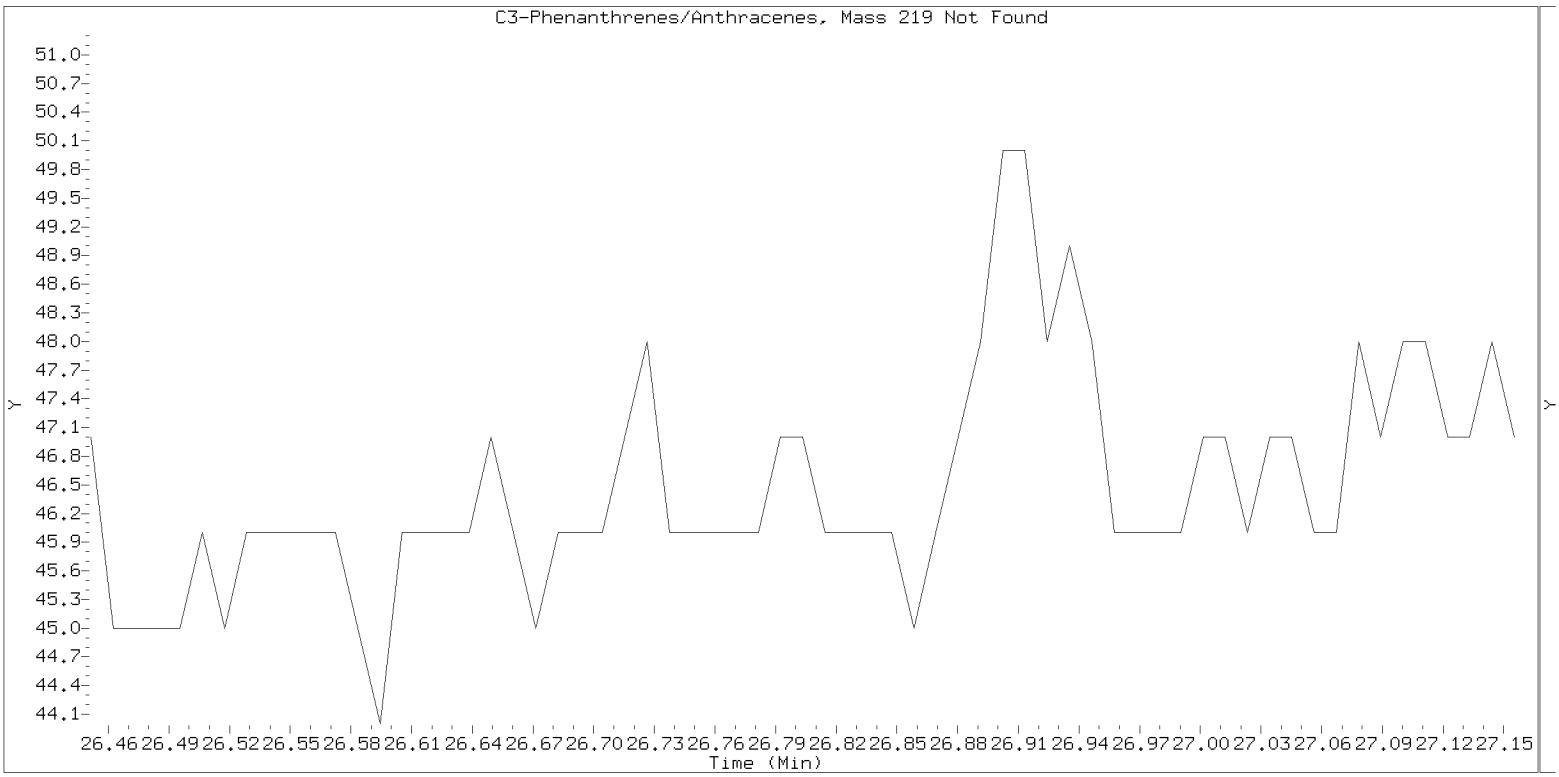

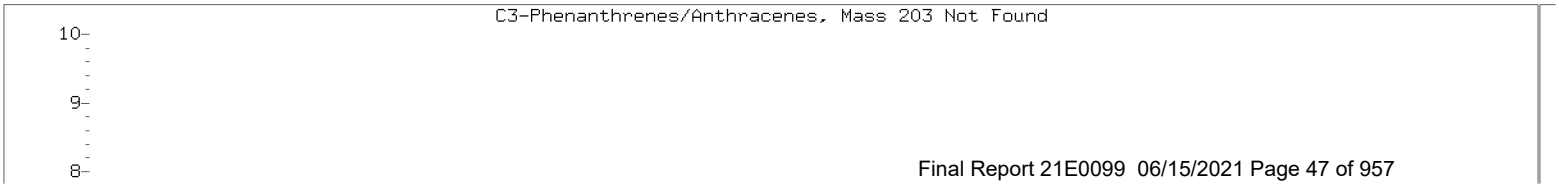

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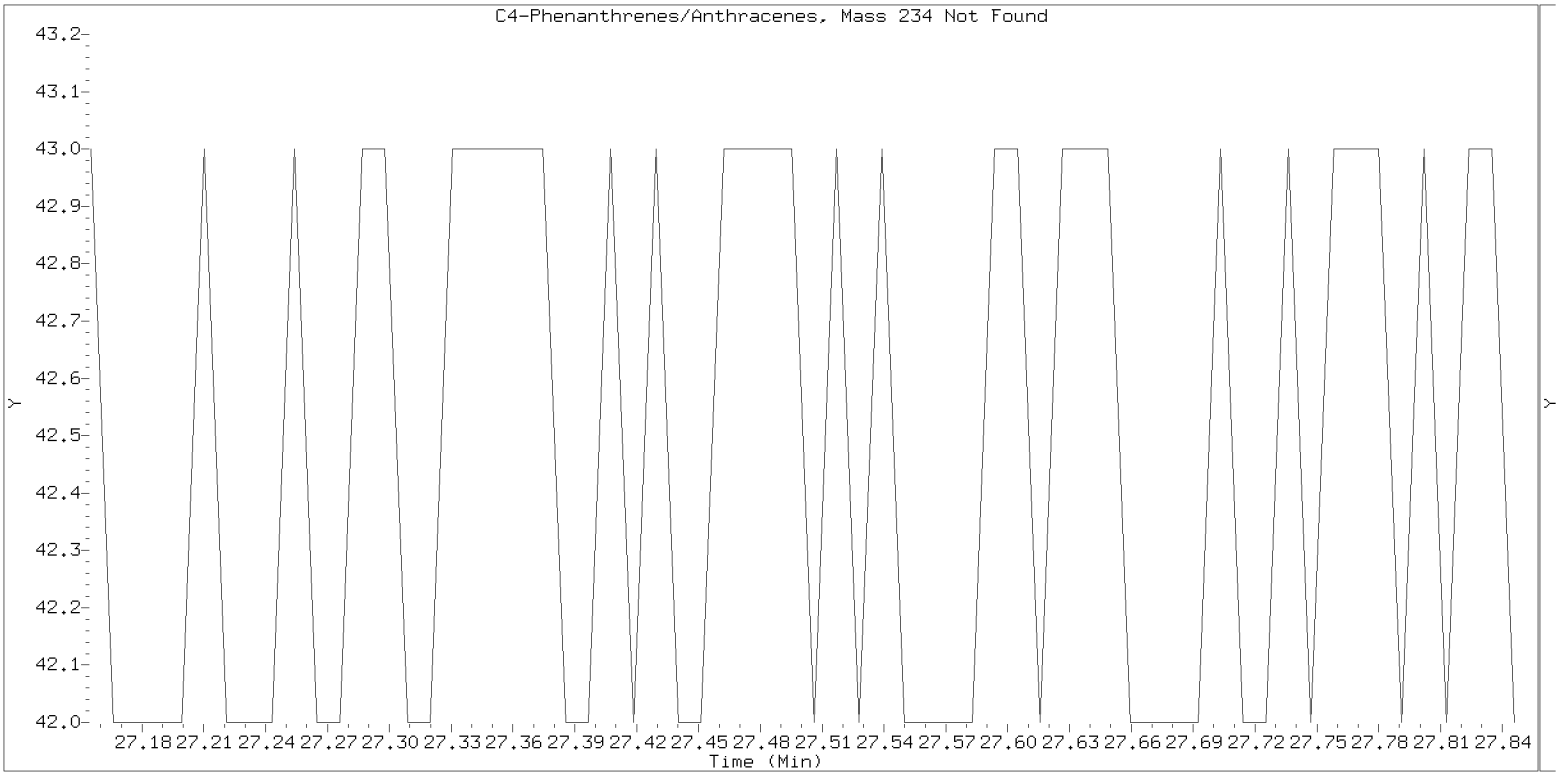

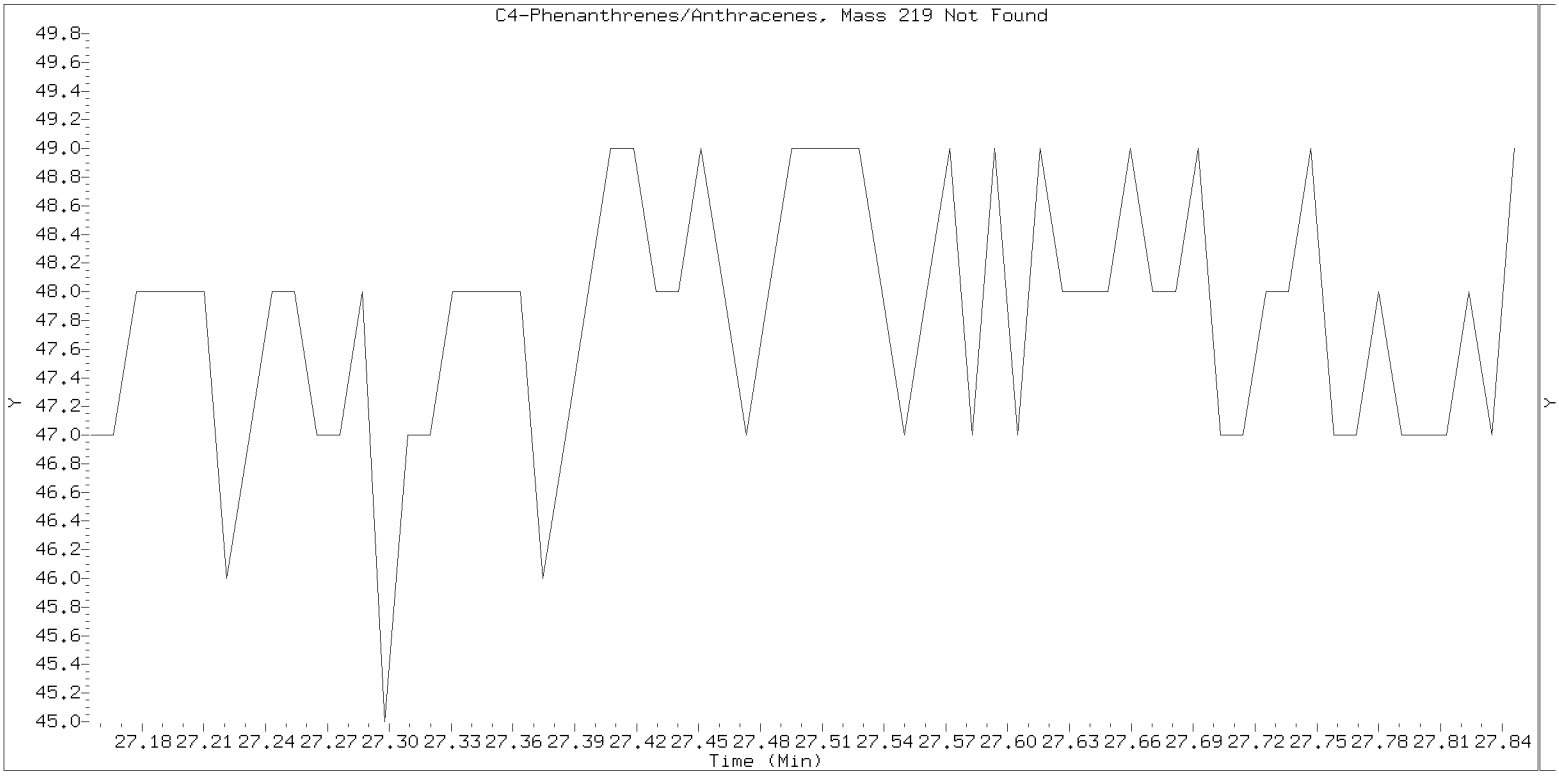

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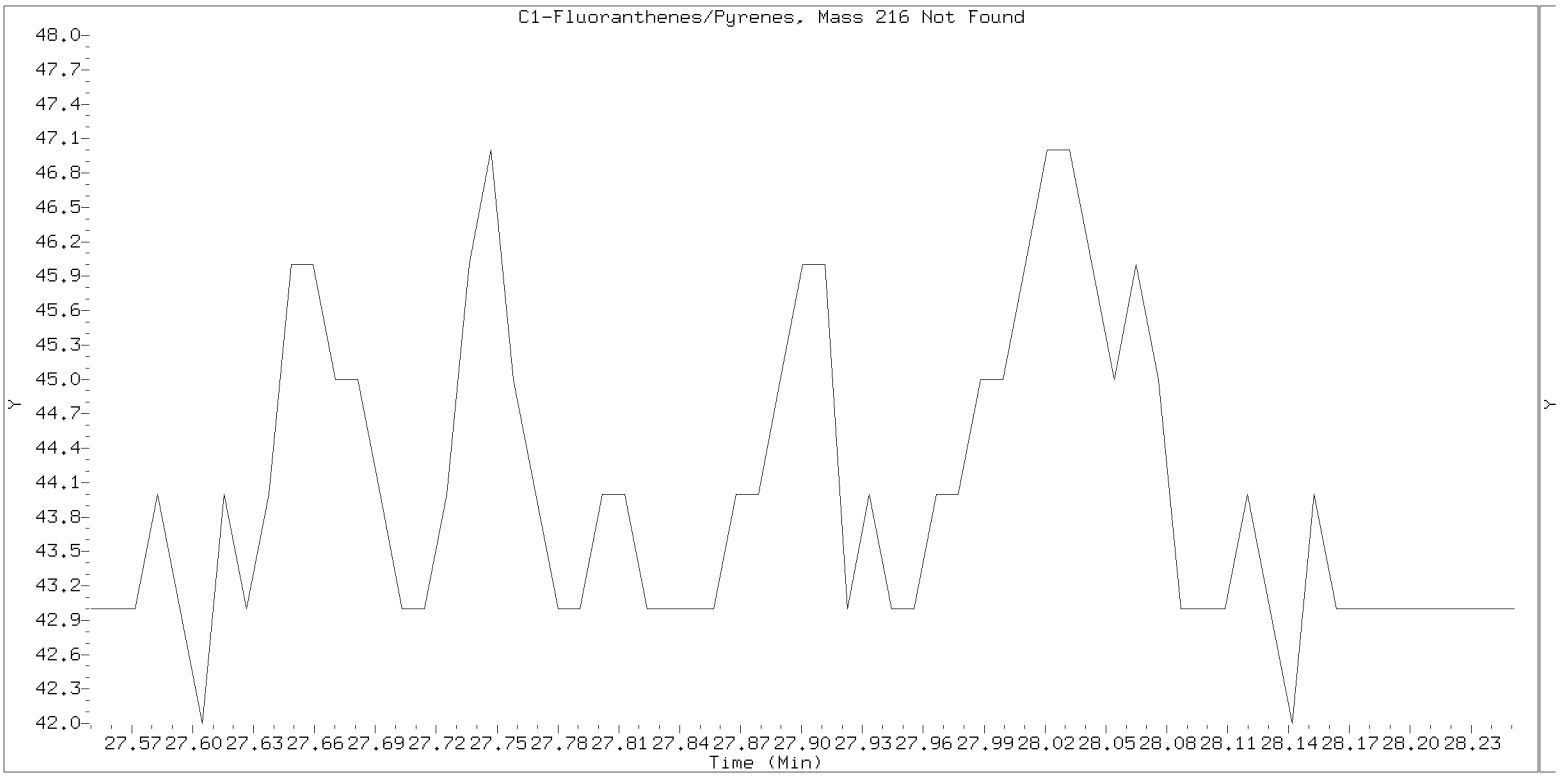

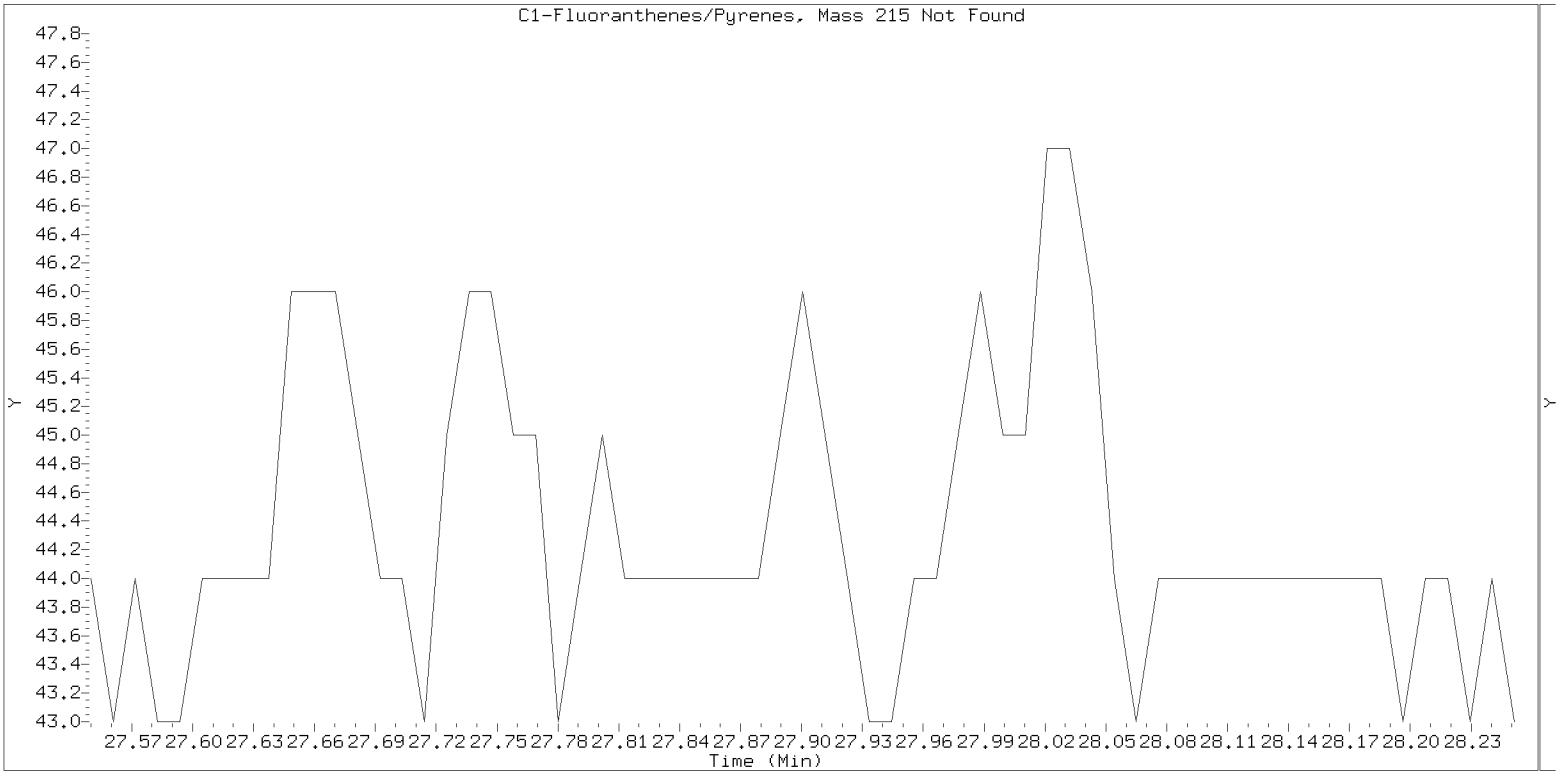

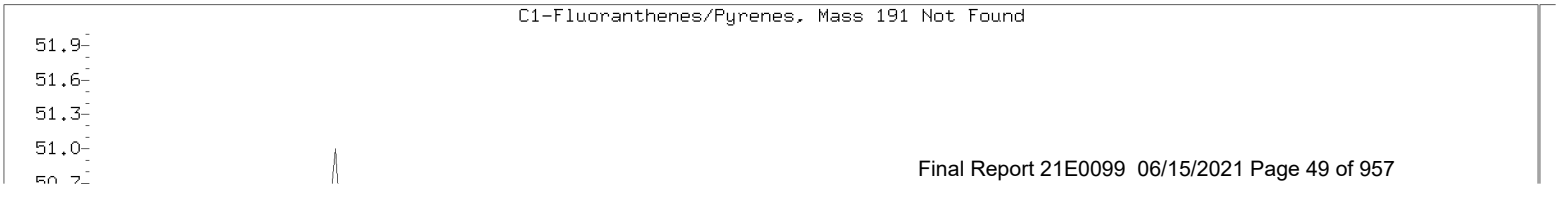

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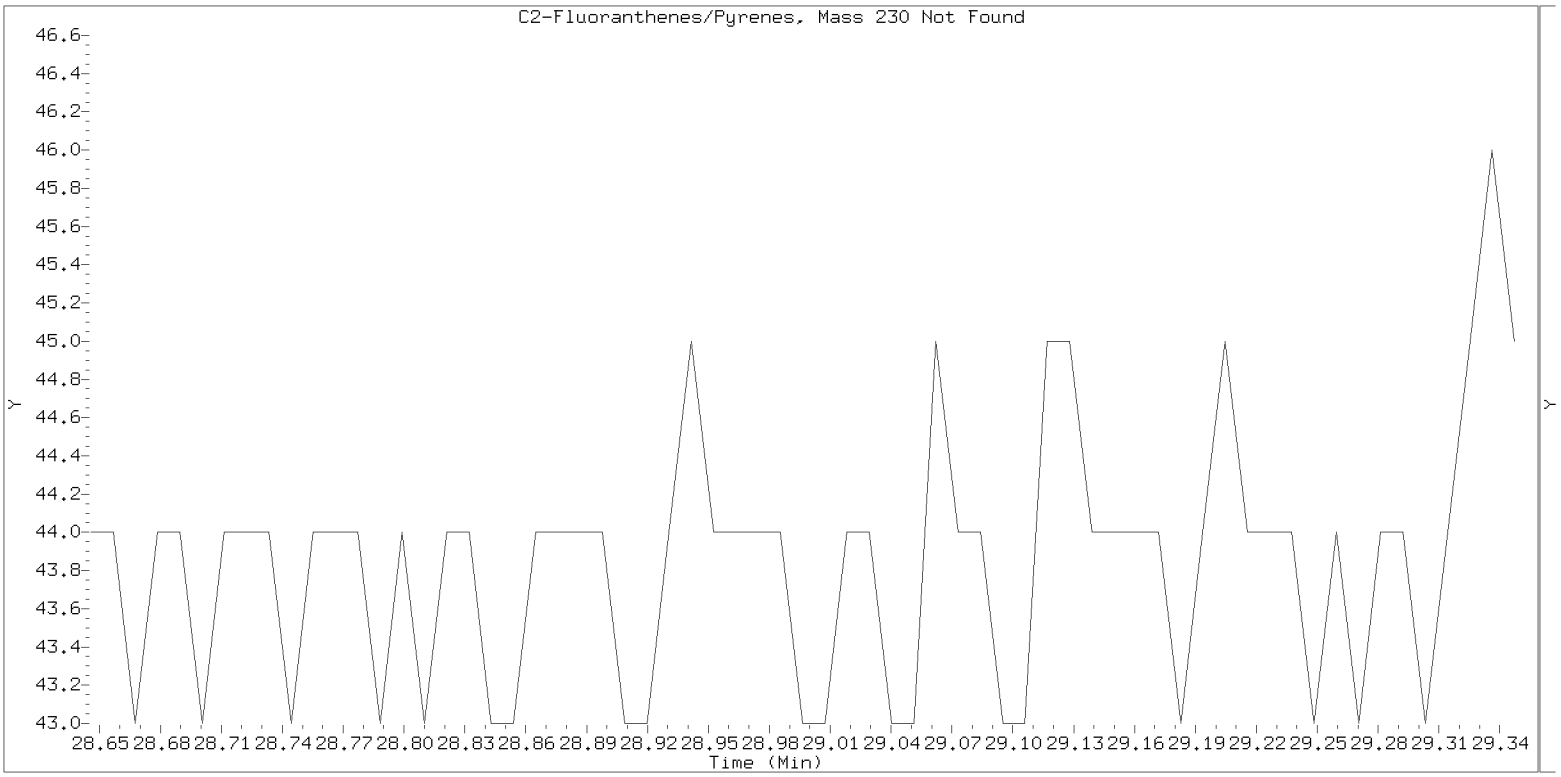

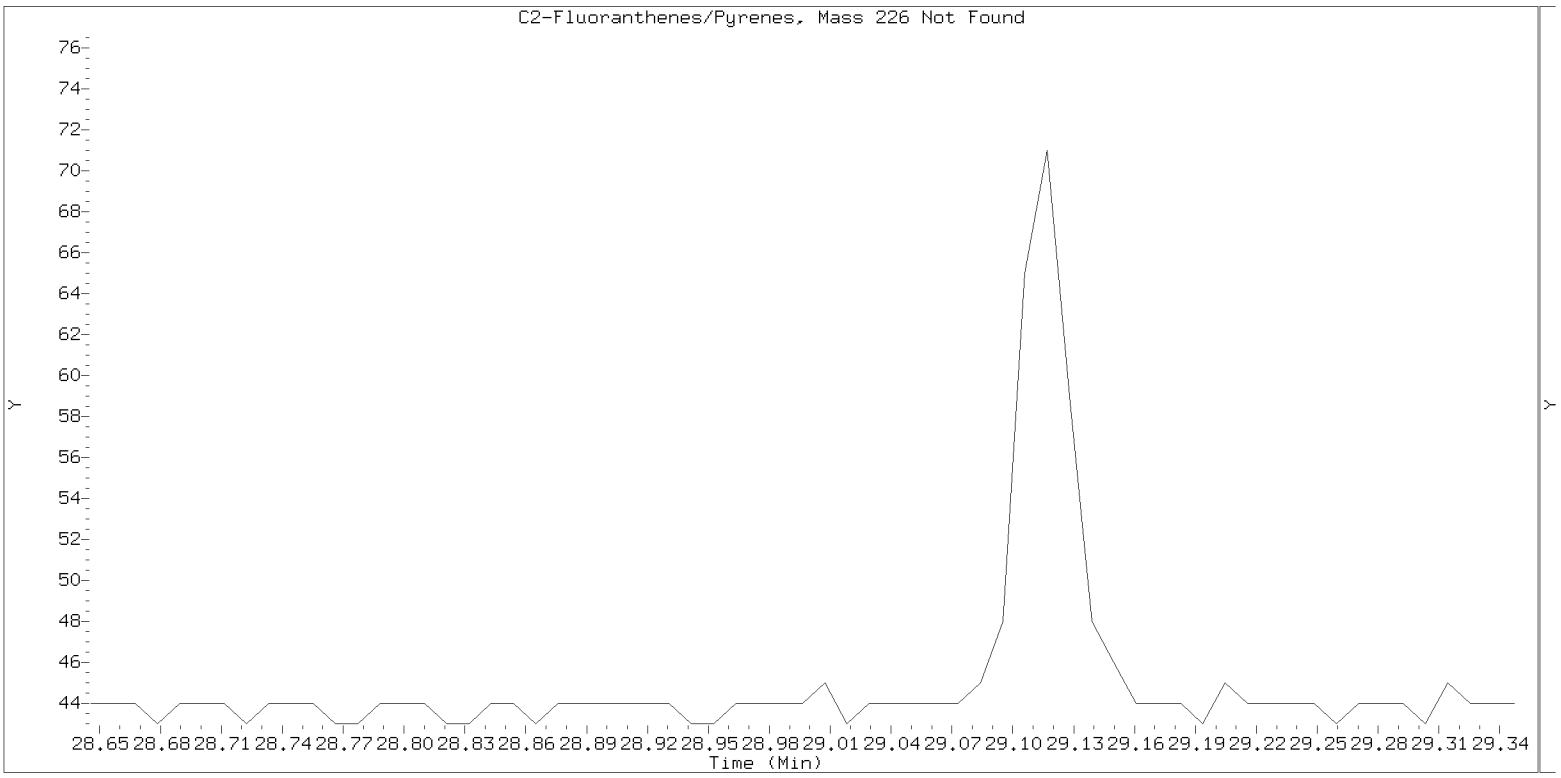

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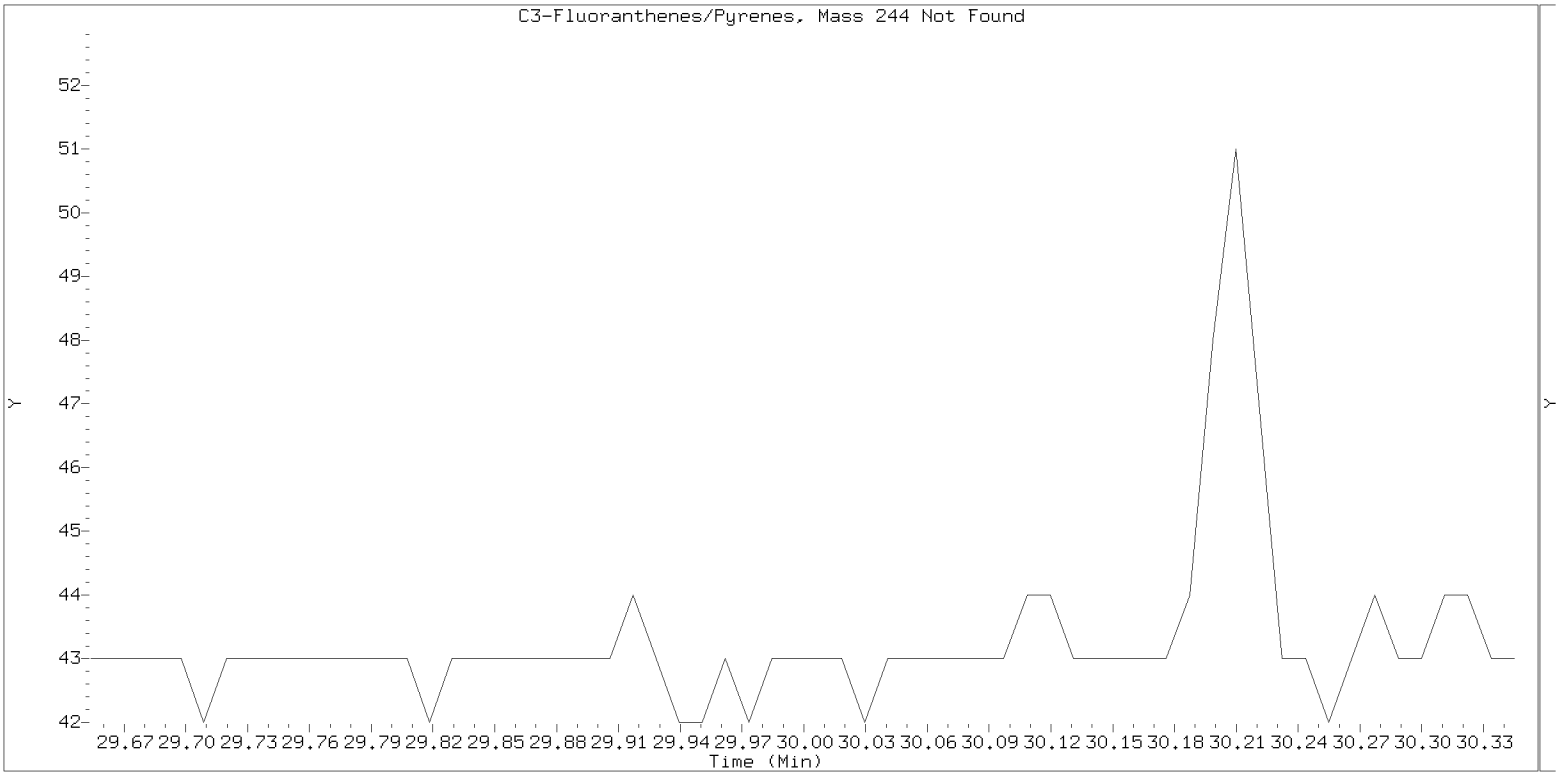

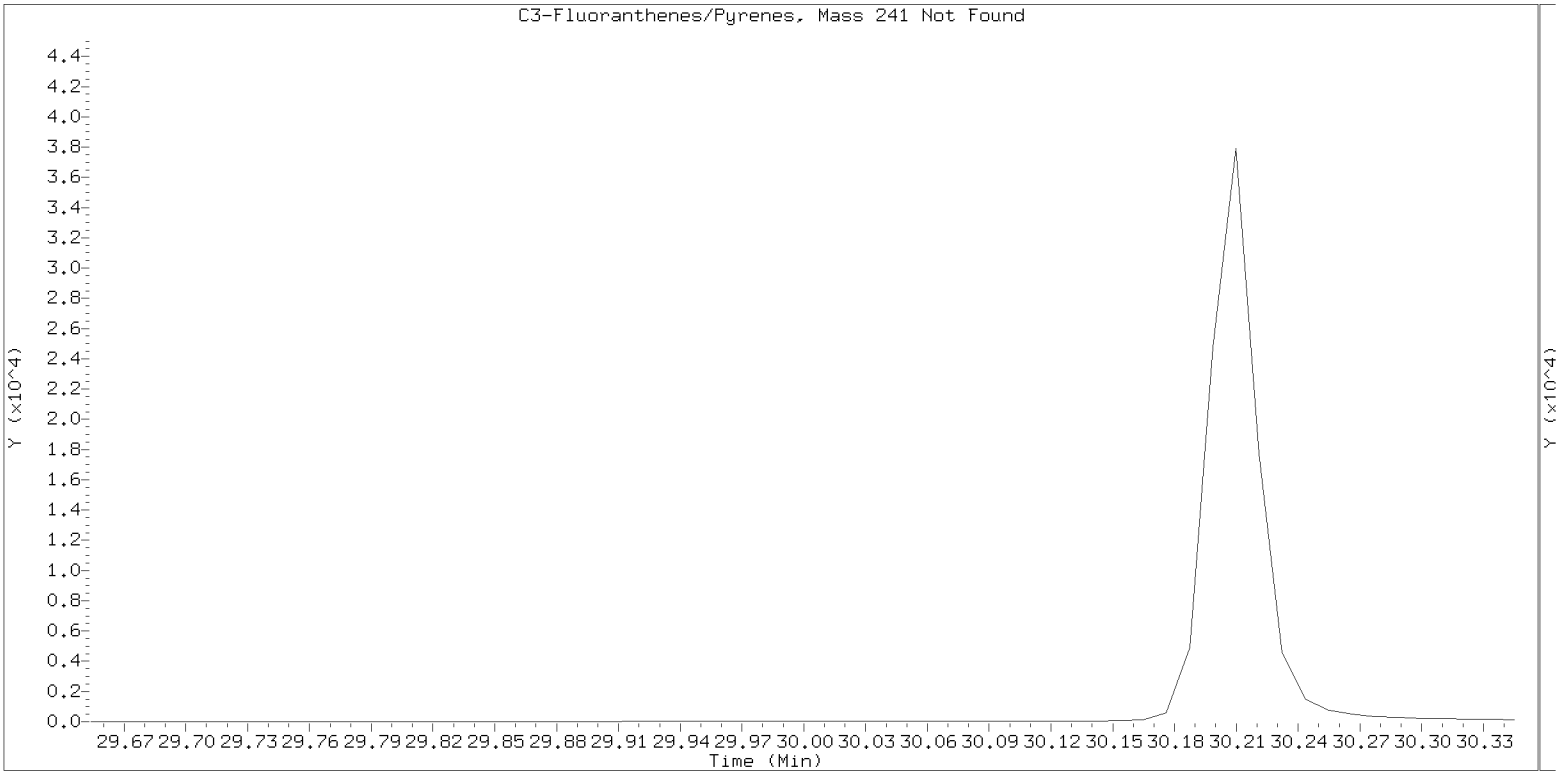

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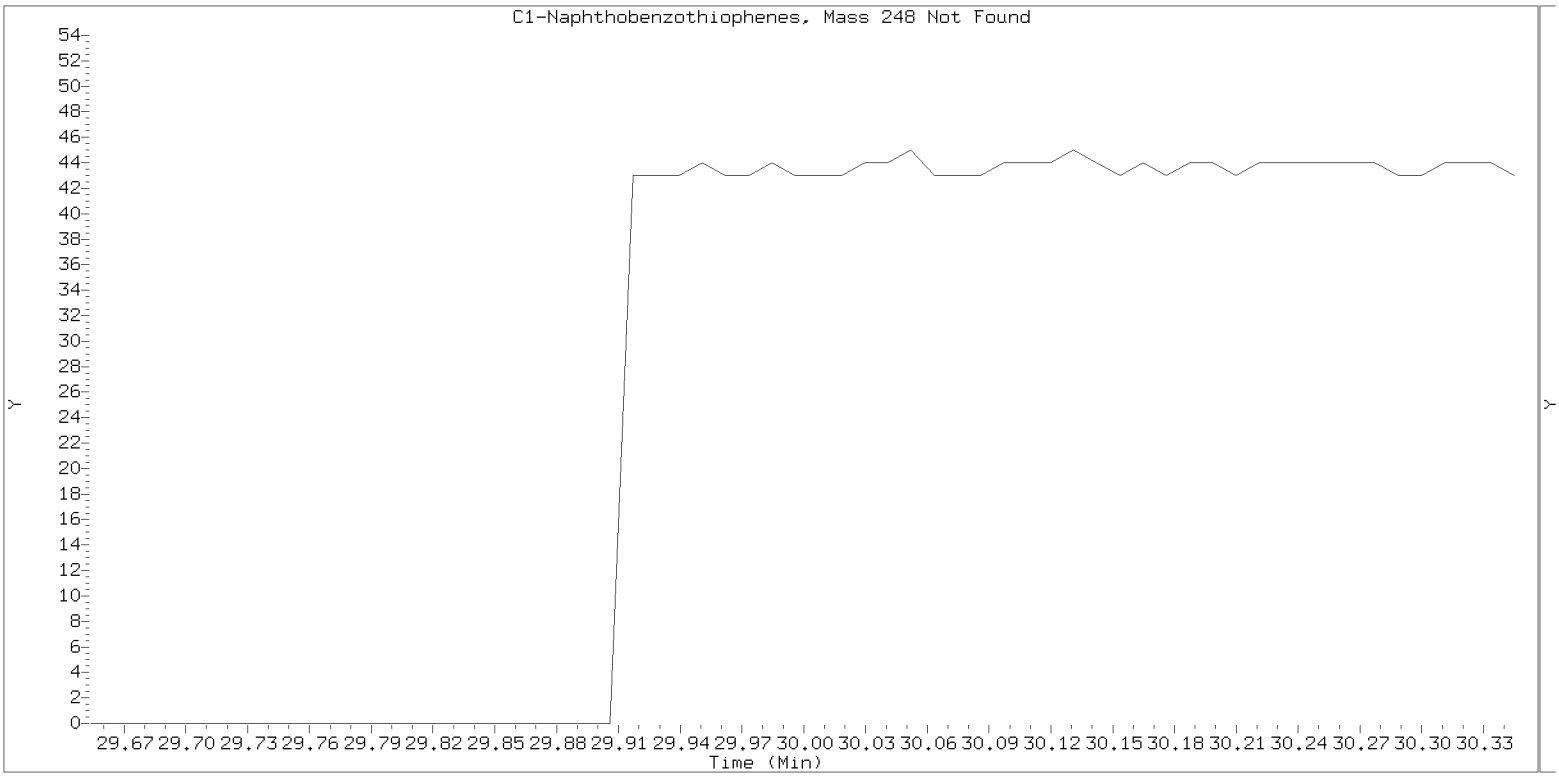

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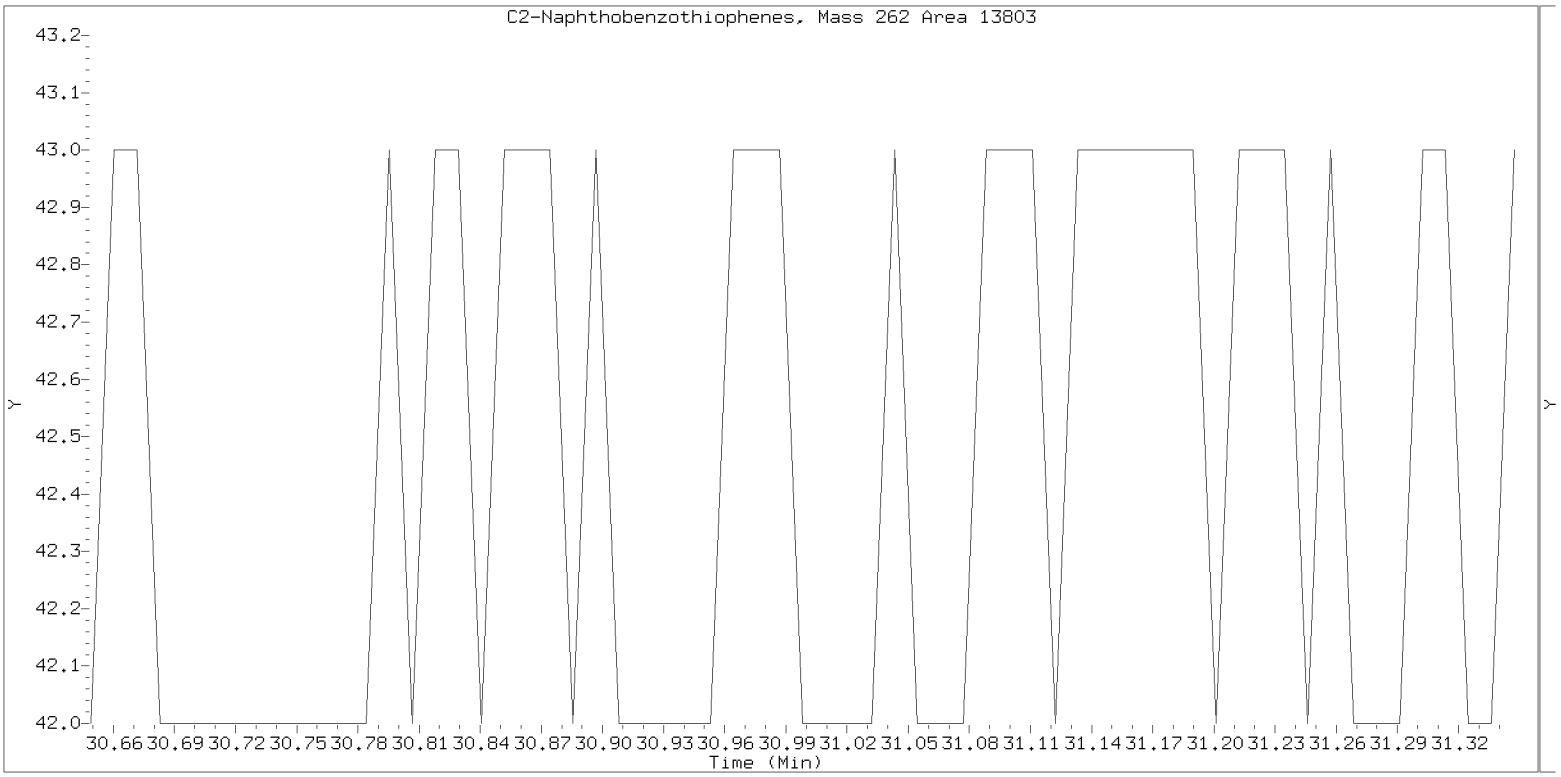

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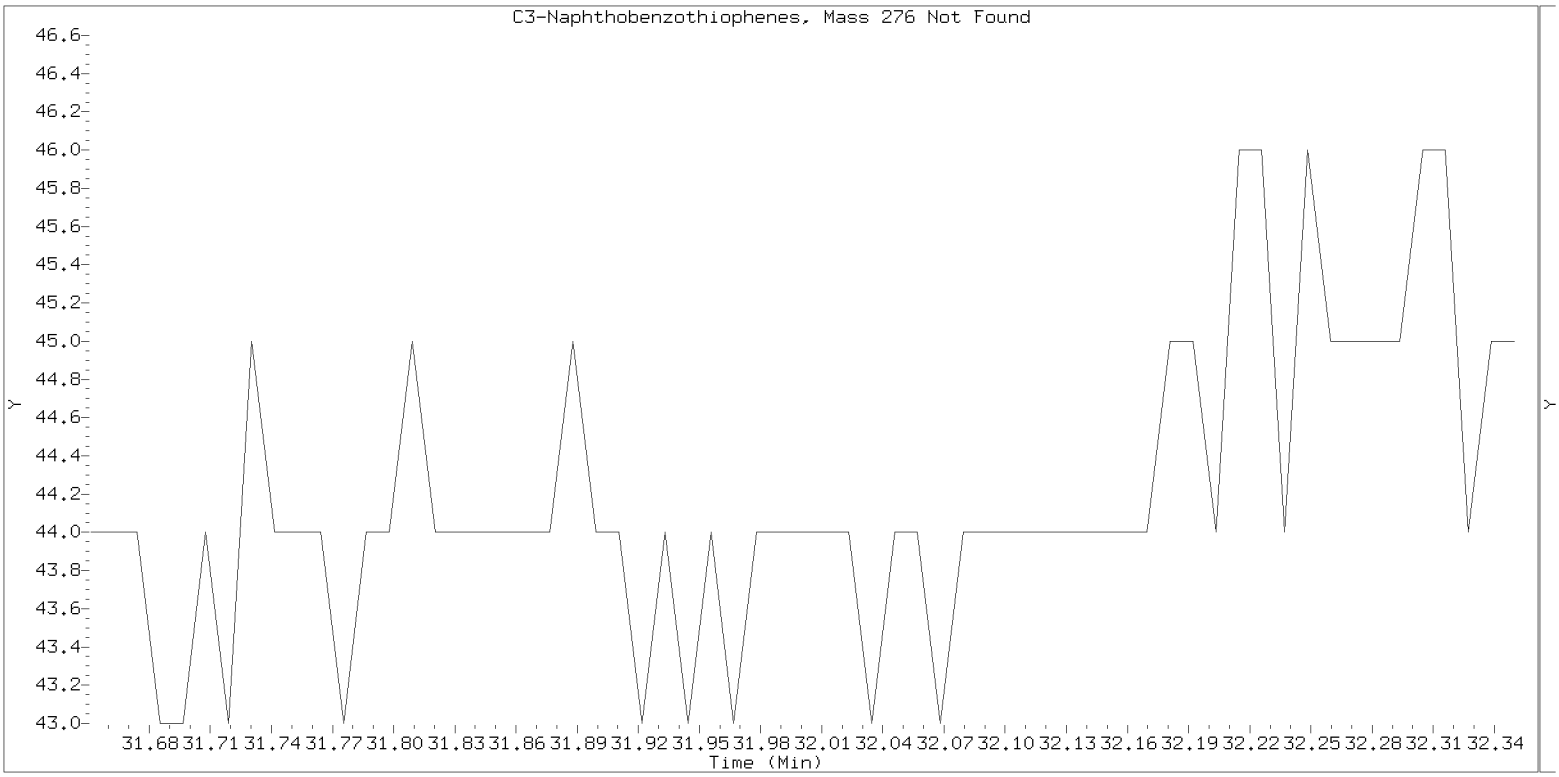

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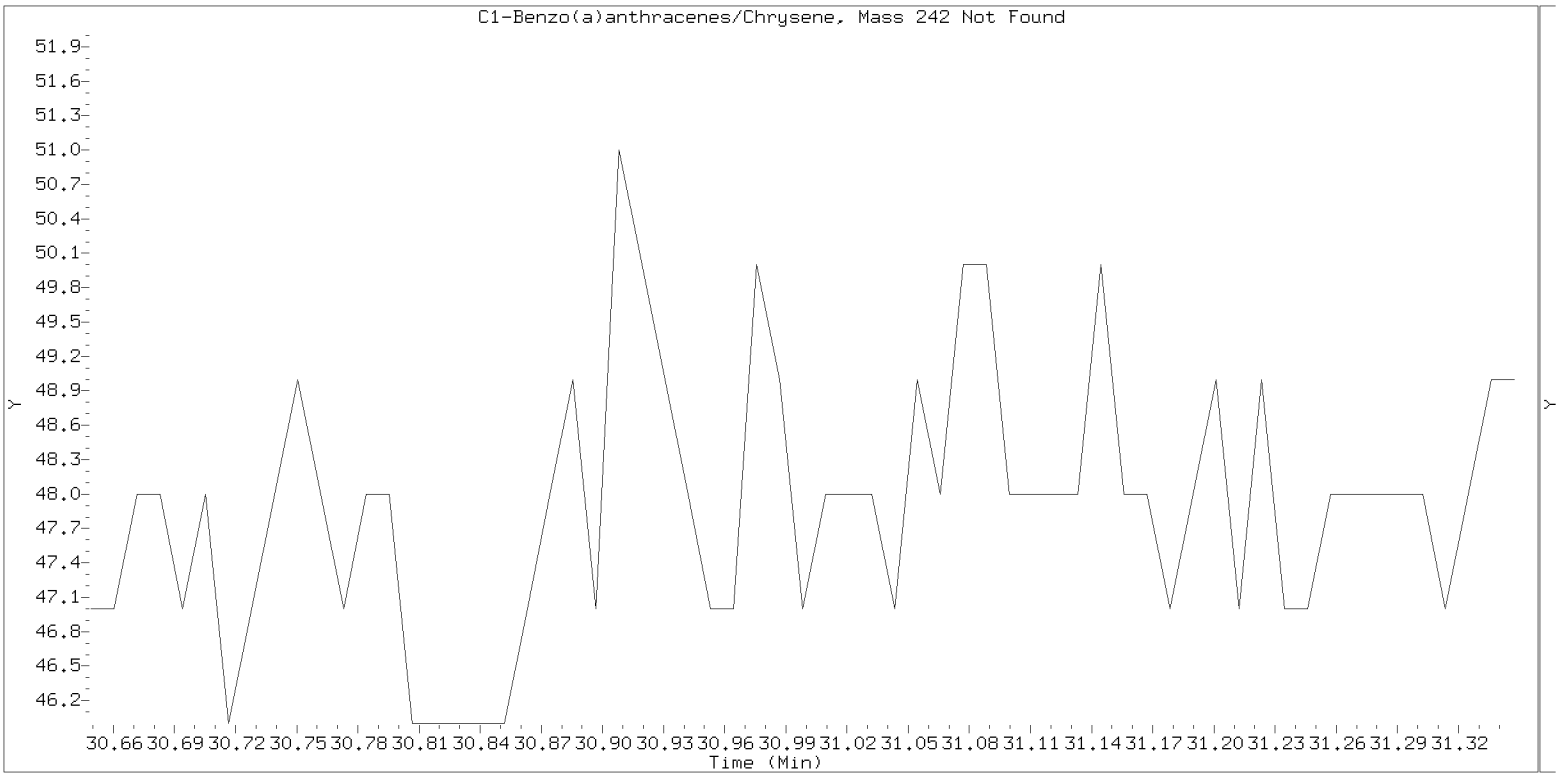
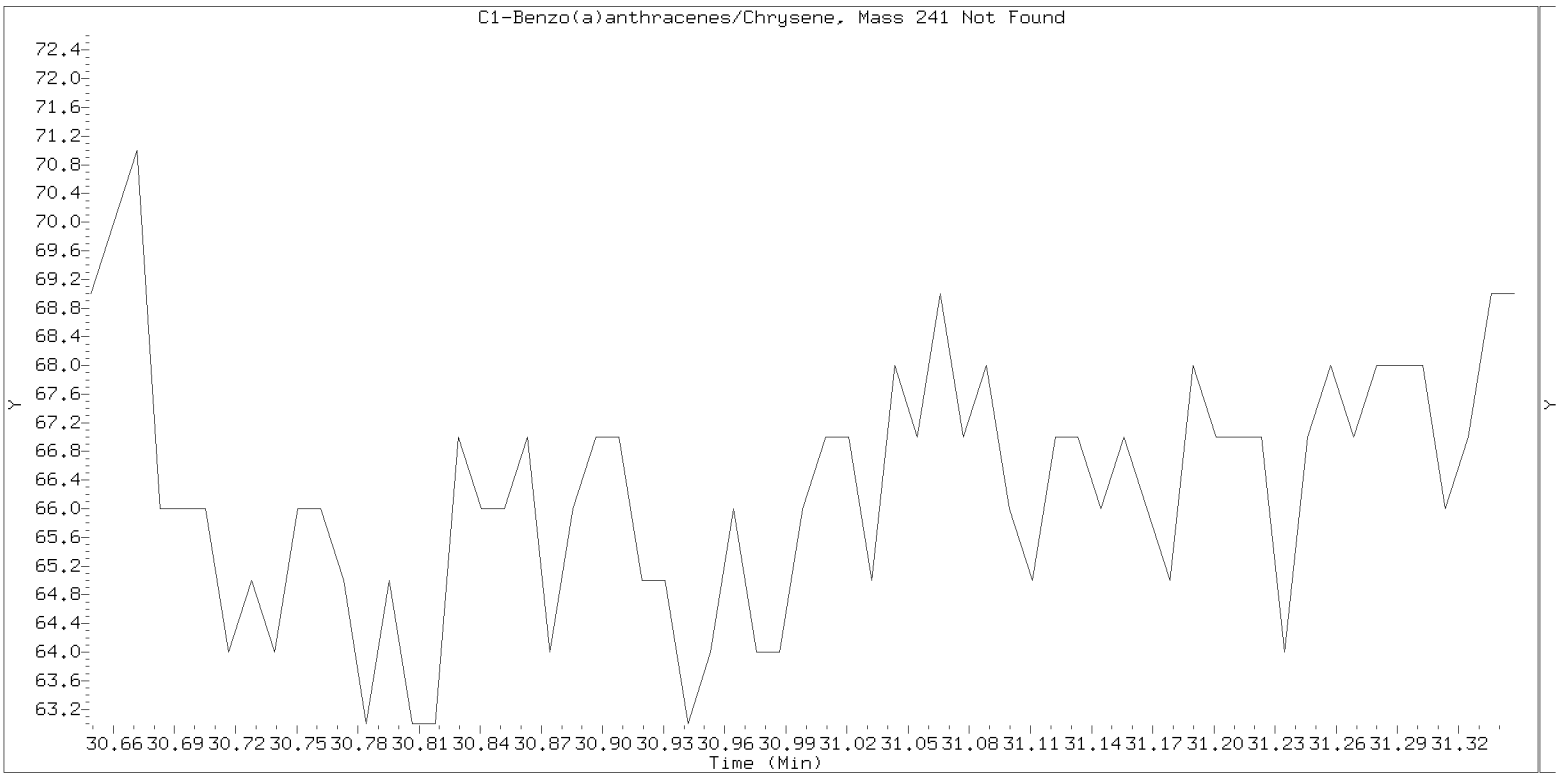
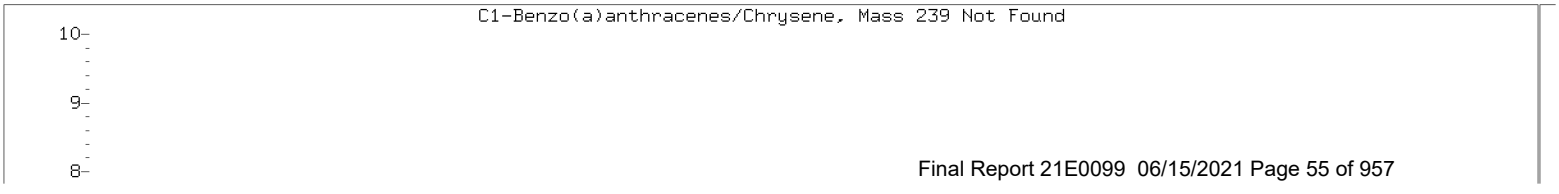
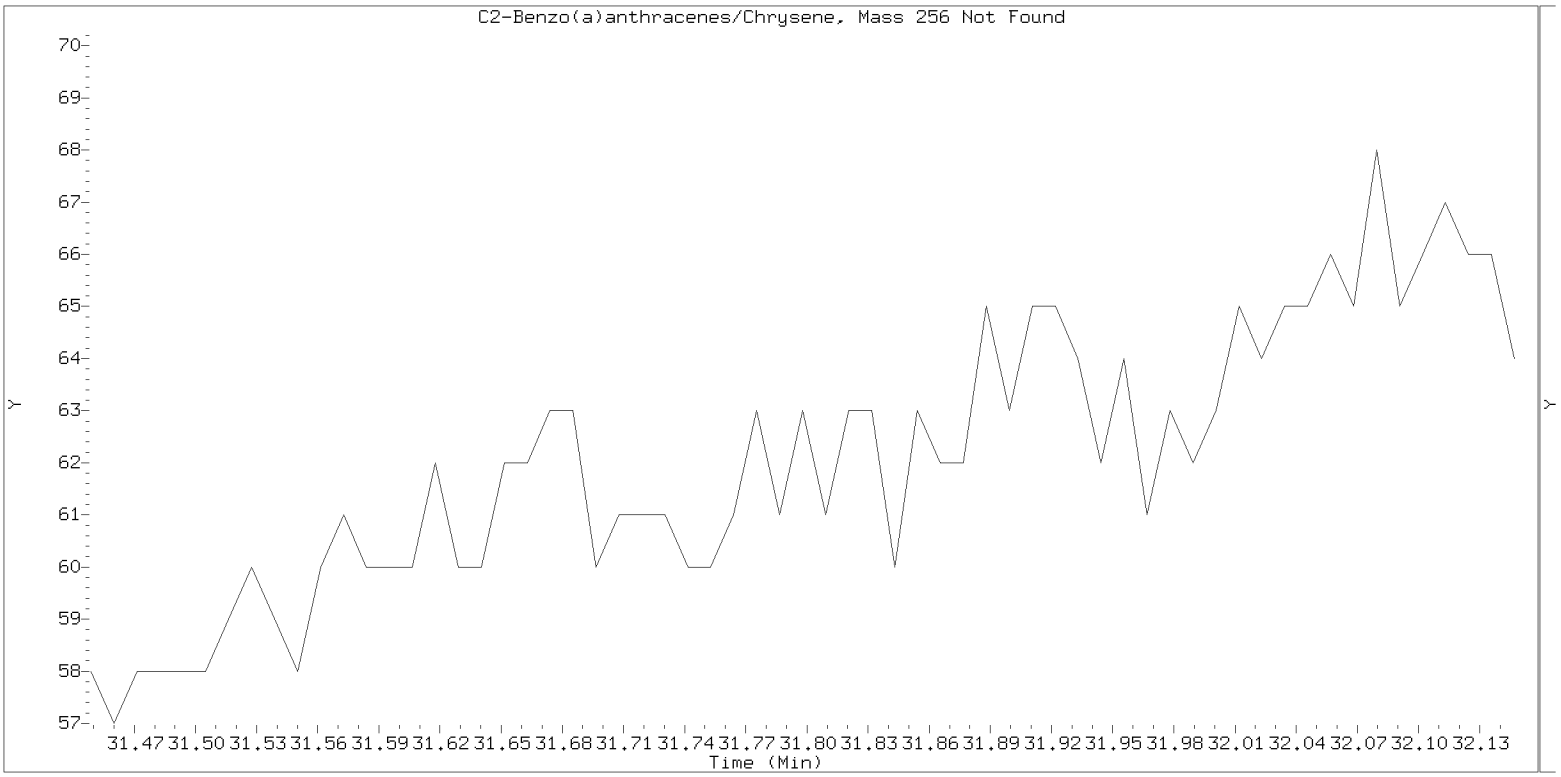


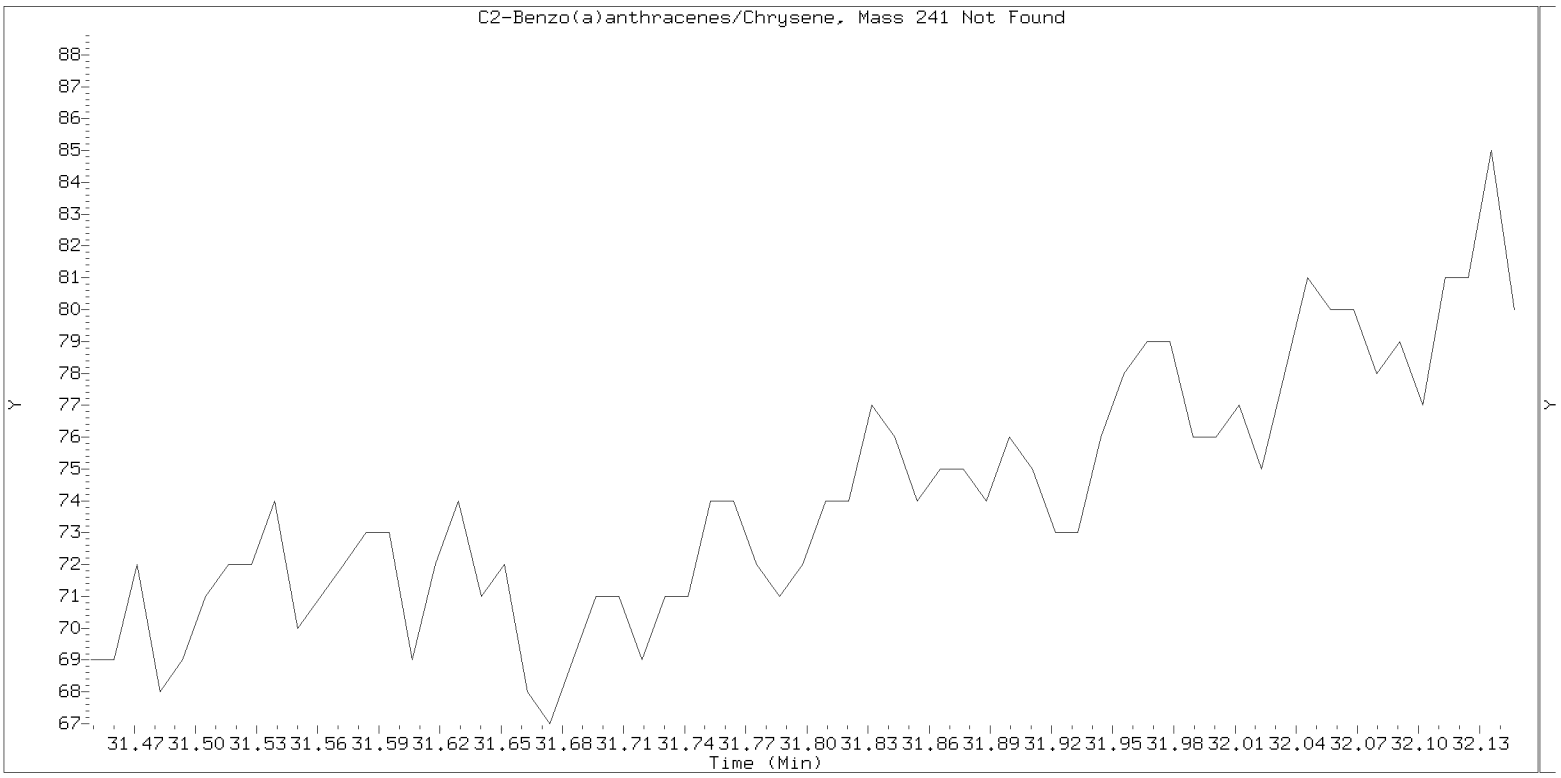


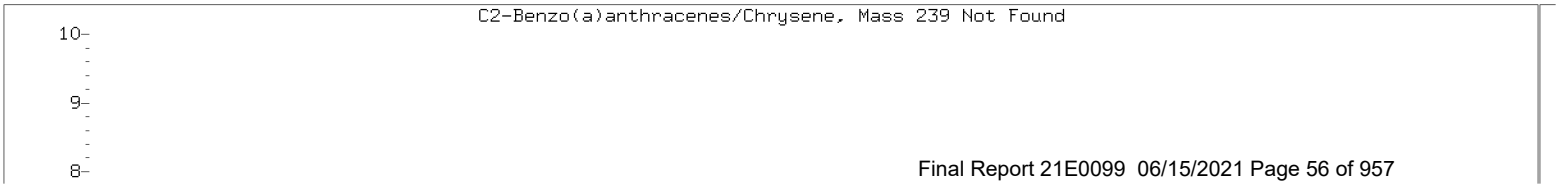


SIM ALKYL PNA RANGE ION WINDOWS - NT1421060707S.D

Lab ID: 21E0099-01
nt14.i, SIM.b\ALKYLRANGES.m, 07-JUN-2021 17:18







SIM ALKYL PNA RANGE ION WINDOWS - NT1421060707S.D

Lab ID: 21E0099-01
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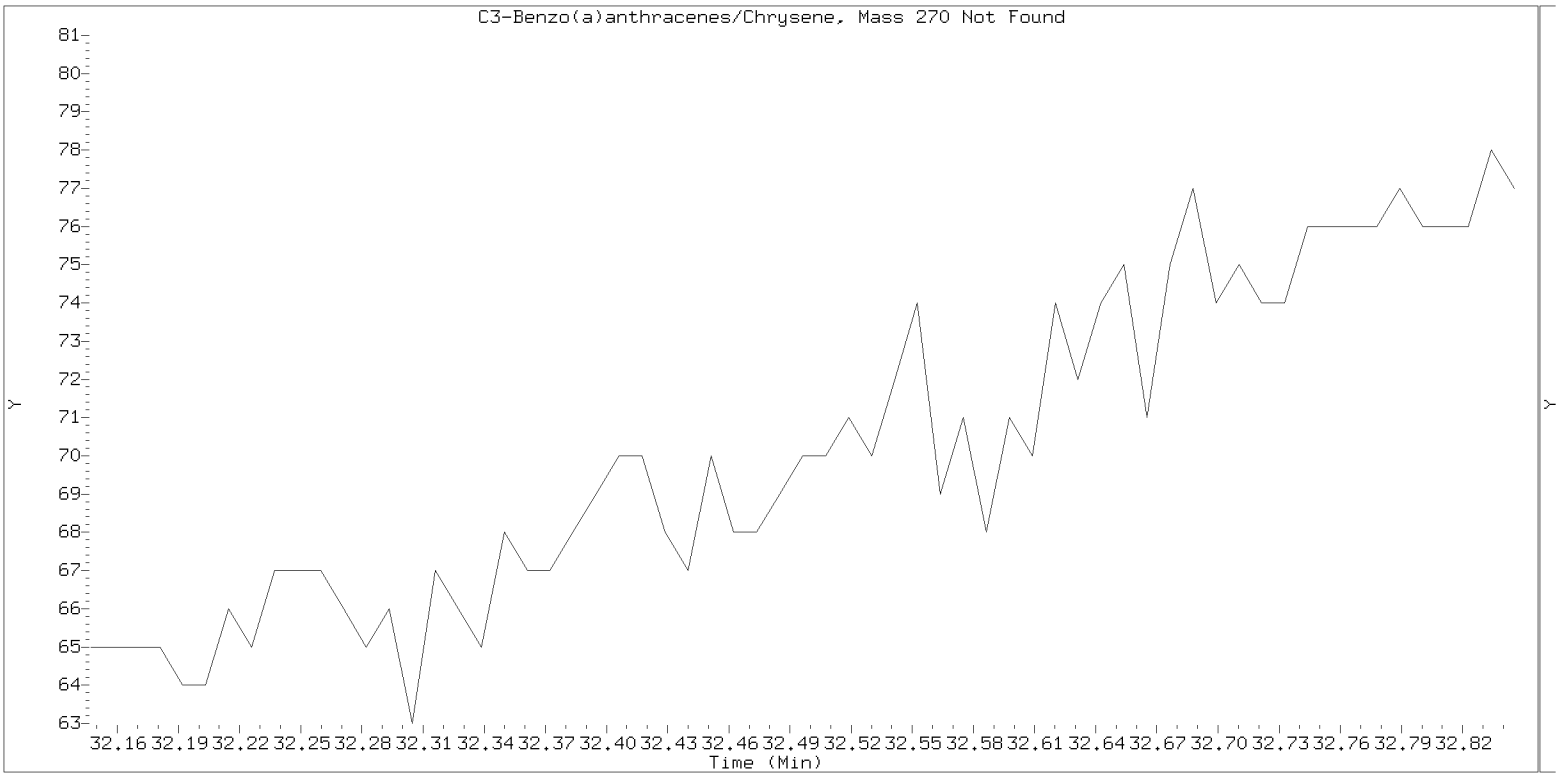

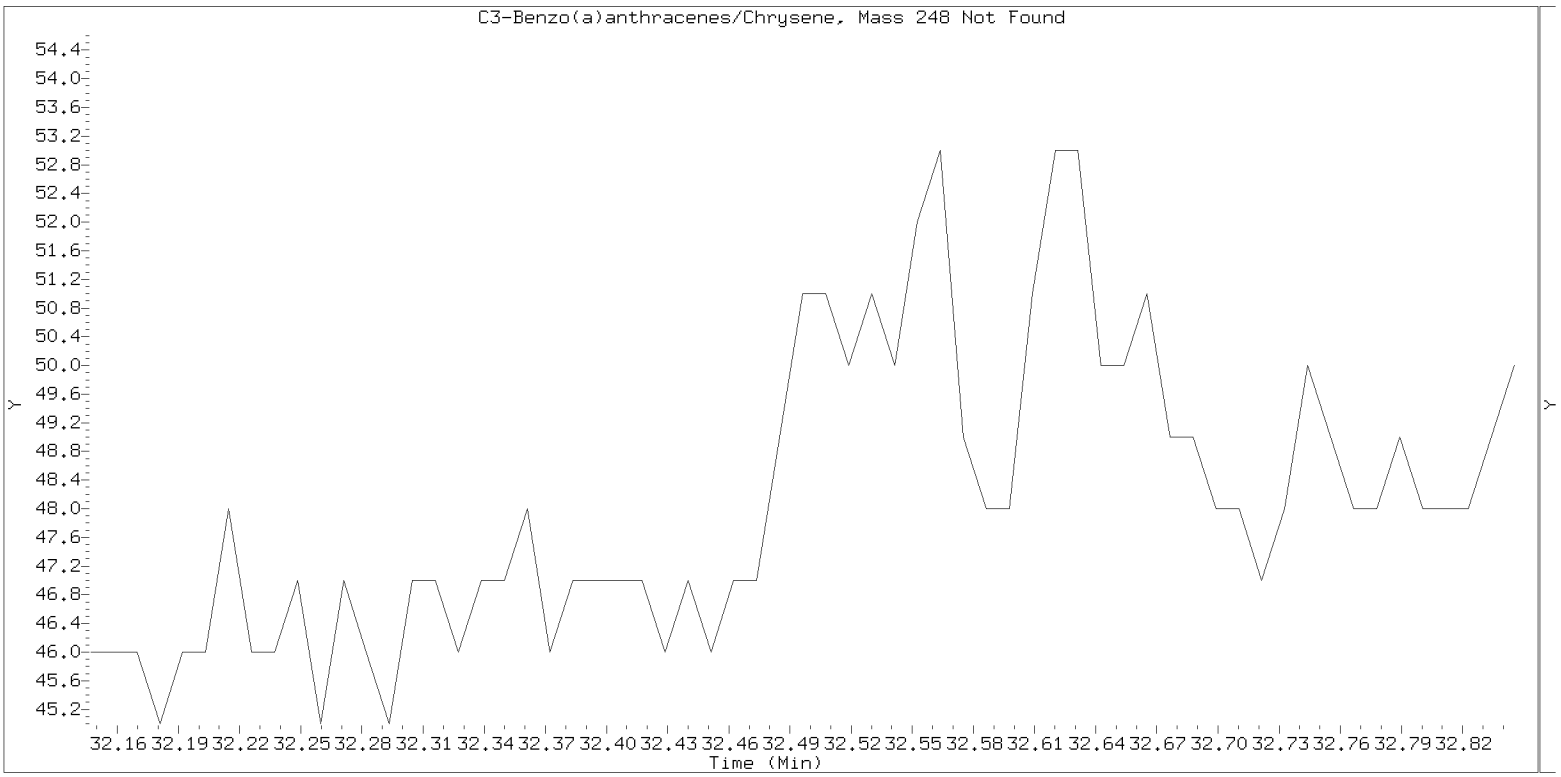

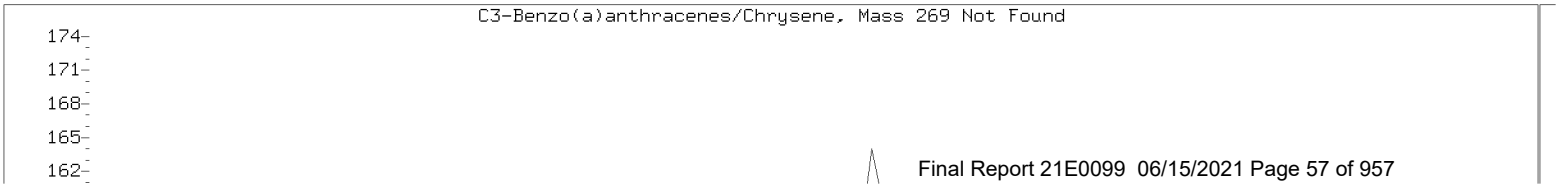

SIM ALKYL PNA RANGE ION WINDOWS - NT1421060707S.D

Lab ID: 21E0099-01
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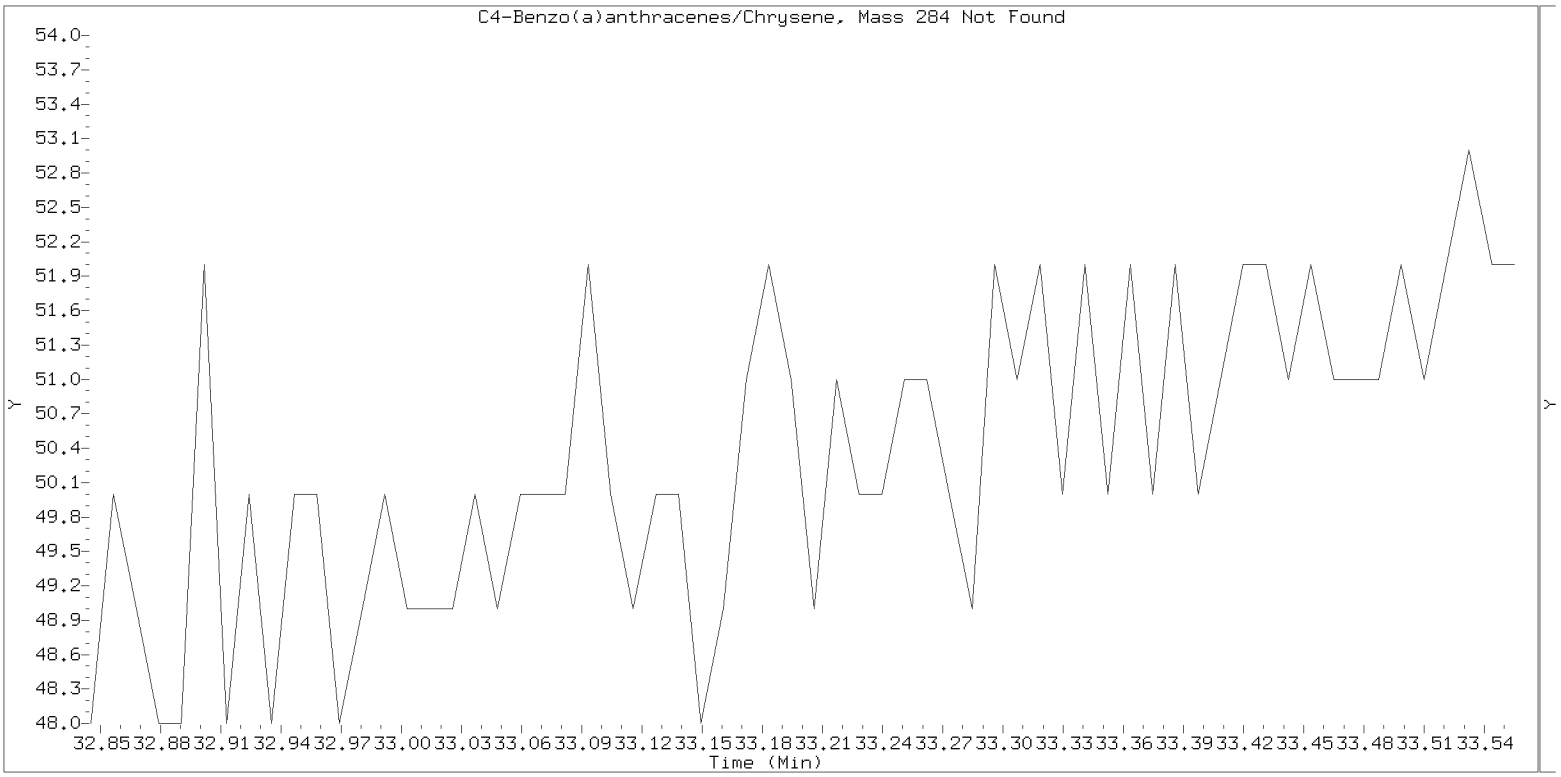
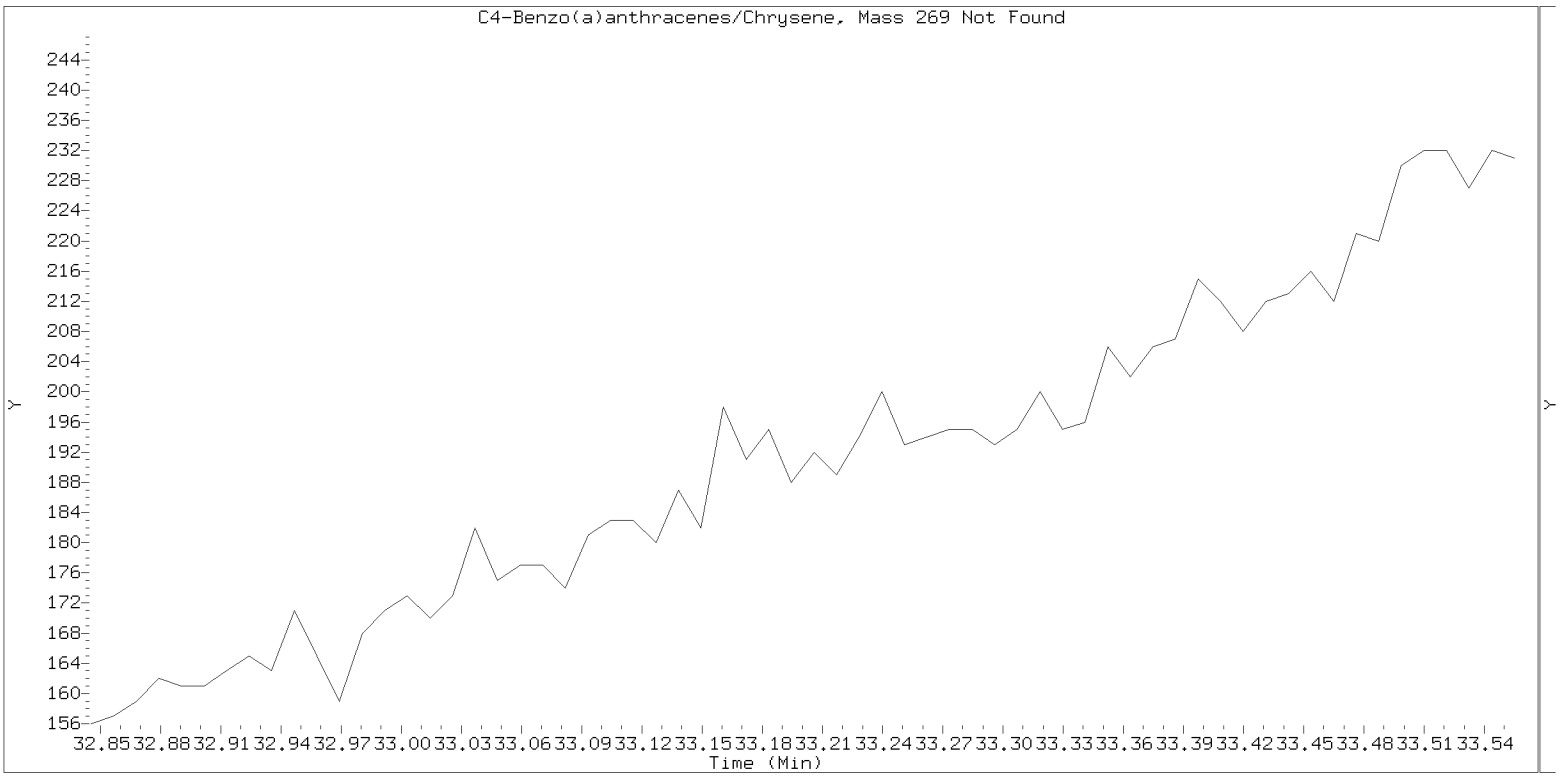
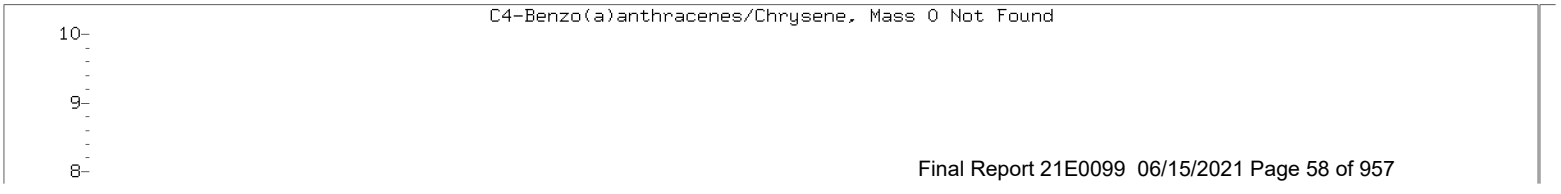
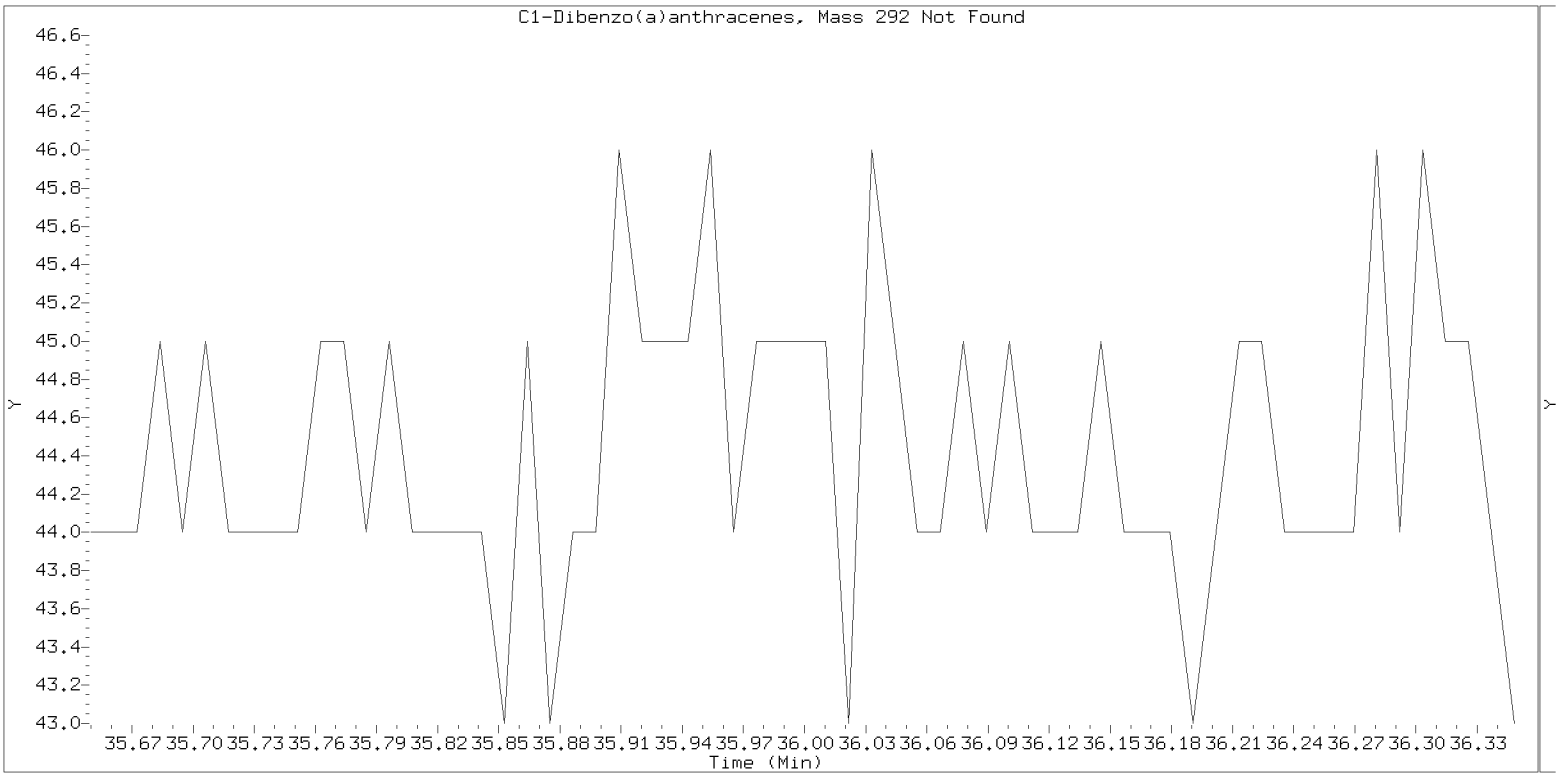






SIM ALKYL PNA RANGE ION WINDOWS - NT1421060707S.D

Lab ID: 21E0099-01
nt14.i, SIM.b\ALKYLRANGES.m, 07-JUN-2021 17:18



SIM ALKYL PNA RANGE ION WINDOWS - NT1421060707S.D

Lab ID: 21E0099-01
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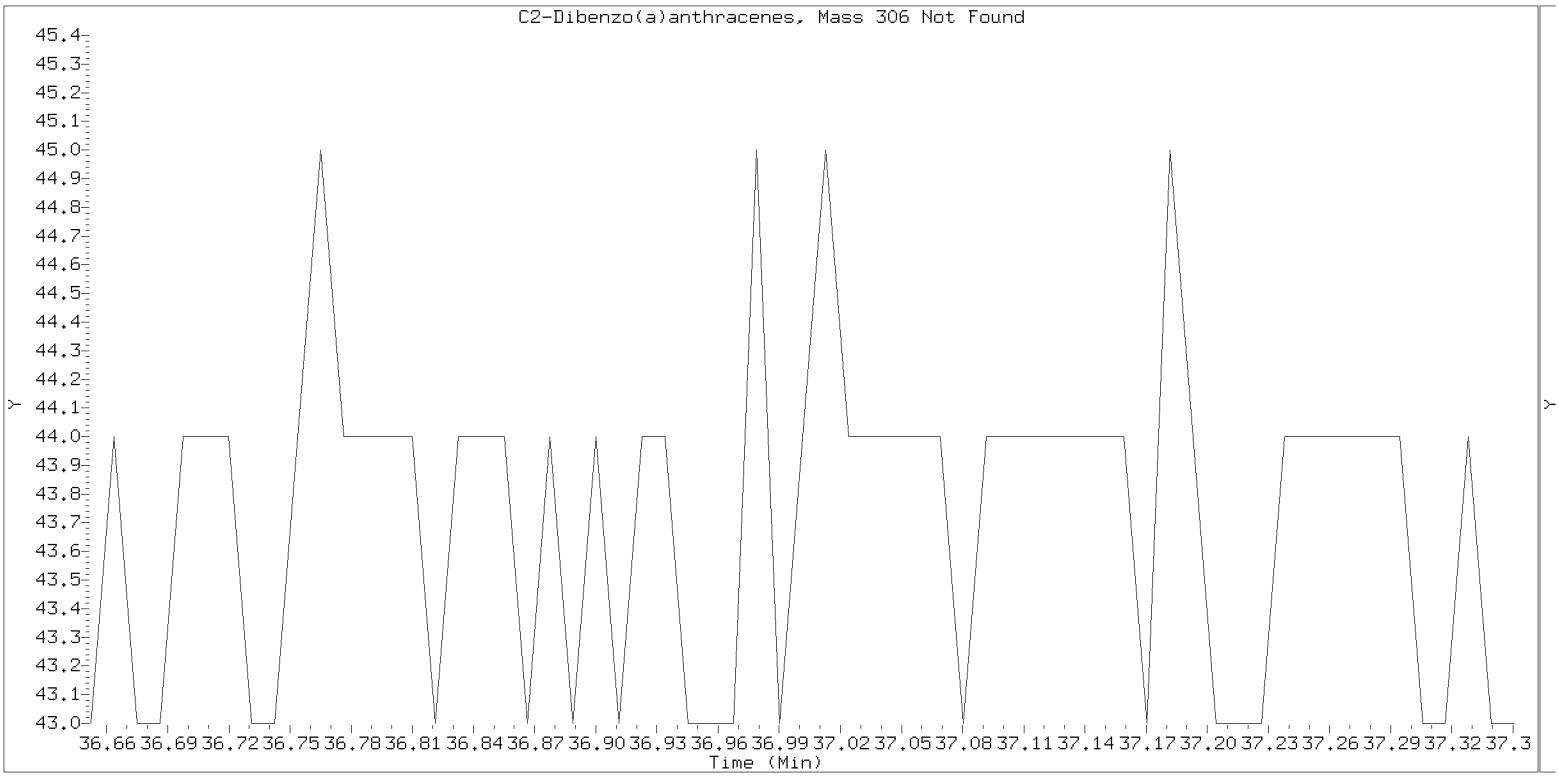

SIM ALKYL PNA RANGE ION WINDOWS - NT1421060707S.D

Lab ID: 21E0099-01
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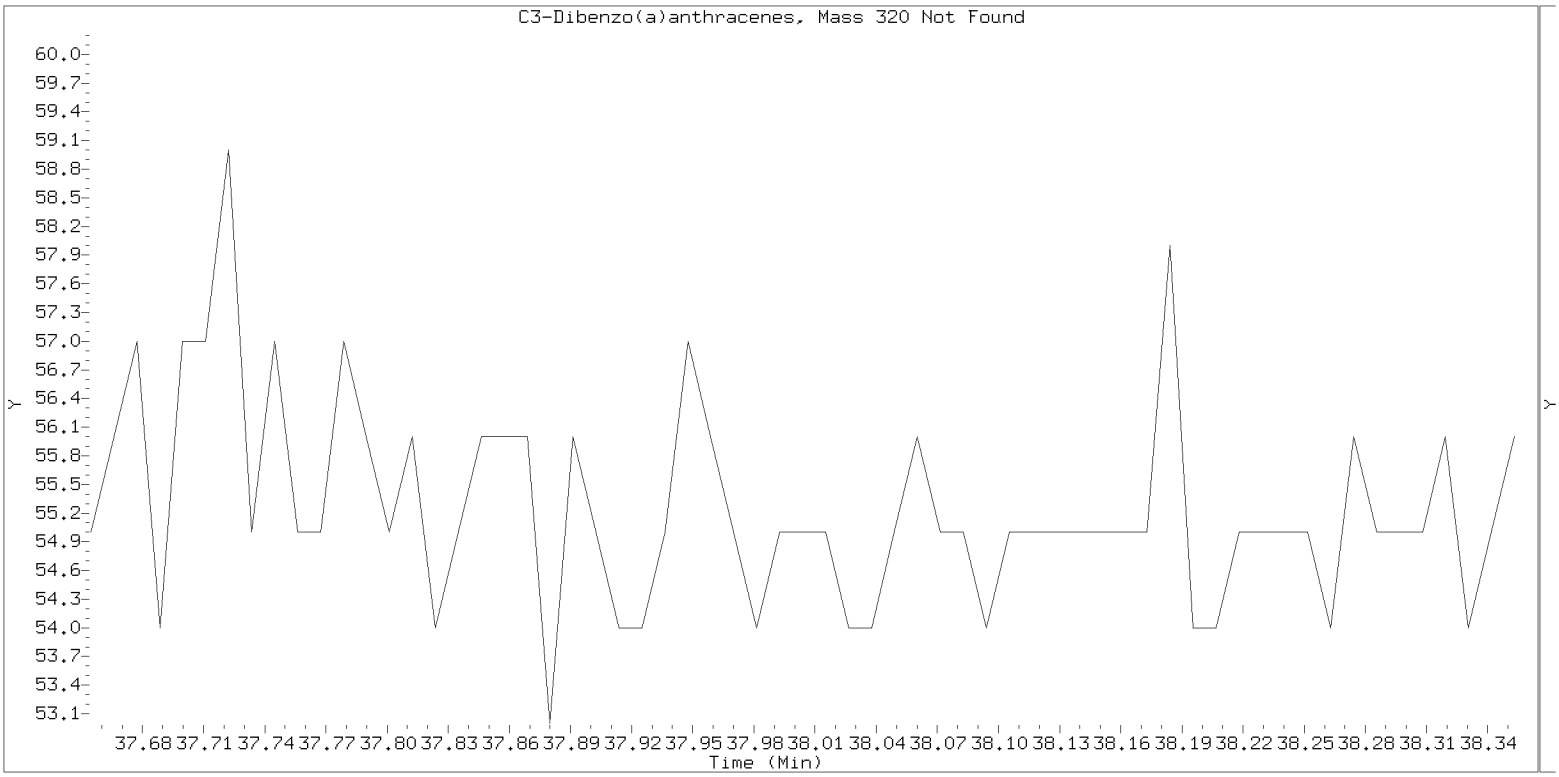


SC-RB-2105030901

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

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Gasco Siltronic - US Moorings				
Matrix:	Water	Laboratory ID:	21E0099-02 B	SDG:	21E0099
Sampled:	05/03/21 09:00	Prepared:	05/10/21 15:58	File ID:	NT1421060708.D
% Solids:		Preparation:	EPA 3520C (Liq Liq)	Analyzed:	06/07/21 18:06
Batch:	BJE0209	Sequence:	SJF0173	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT14	Column:	ZB-5MS	Calibration:	EF00008

CAS NO.	COMPOUND	DILUTION	(ug/L)	Q	DL	RL
493-02-7	trans-Decalin	1	0.100	U	0.007	0.100
493-01-6	cis-Decalin	1	0.100	U	0.007	0.100
91-20-3	Naphthalene	1	0.100	U	0.011	0.100
90-12-0	1-Methylnaphthalene	1	0.100	U	0.010	0.100
91-57-6	2-Methylnaphthalene	1	0.100	U	0.010	0.100
92-52-4	Biphenyl	1	0.100	U	0.012	0.100
581-42-0	2,6-Dimethylnaphthalene	1	0.100	U	0.013	0.100
208-96-8	Acenaphthylene	1	0.100	U	0.006	0.100
83-32-9	Acenaphthene	1	0.100	U	0.011	0.100
132-64-9	Dibenzofuran	1	0.100	U	0.009	0.100
2245-38-7	2,3,5-Trimethylnaphthalene	1	0.100	U	0.008	0.100
86-73-7	Fluorene	1	0.100	U	0.007	0.100
95-15-8	Benzo(b)thiophene	1	0.100	U	0.009	0.100
85-01-8	Phenanthrene	1	0.100	U	0.009	0.100
120-12-7	Anthracene	1	0.100	U	0.025	0.100
86-74-8	Carbazole	1	0.100	U	0.028	0.100
832-69-9	1-Methylphenanthrene	1	0.100	U	0.005	0.100
206-44-0	Fluoranthene	1	0.100	U	0.007	0.100
132-65-0	Dibenzothiophene	1	0.100	U	0.021	0.100
129-00-0	Pyrene	1	0.100	U	0.014	0.100
56-55-3	Benzo(a)anthracene	1	0.100	U	0.017	0.100
218-01-9	Chrysene	1	0.100	U	0.010	0.100
205-99-2	Benzo(b)fluoranthene	1	0.100	U	0.010	0.100
205-82-3	Benzo(j)fluoranthene	1	0.100	U	0.038	0.100
207-08-9	Benzo(k)fluoranthene	1	0.100	U	0.010	0.100
197-97-2	Benzo(e)pyrene	1	0.100	U	0.014	0.100
50-32-8	Benzo(a)pyrene	1	0.100	U	0.022	0.100
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.100	U	0.014	0.100
53-70-3	Dibenzo(a,h)anthracene	1	0.100	U	0.013	0.100
191-24-2	Benzo(g,h,i)perylene	1	0.100	U	0.009	0.100
1985-5-0	Perylene	1	0.100	U	0.032	0.100

SC-RB-2105030901

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

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Gasco Siltronic - US Moorings				
Matrix:	Water	Laboratory ID:	21E0099-02 B	SDG:	21E0099
Sampled:	05/03/21 09:00	Prepared:	05/10/21 15:58	File ID:	NT1421060708.D
% Solids:		Preparation:	EPA 3520C (Liq Liq)	Analyzed:	06/07/21 18:06
Batch:	BJE0209	Sequence:	SJF0173	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT14	Column:	ZB-5MS	Calibration:	EF00008

CAS NO.	COMPOUND	DILUTION	(ug/L)	Q	DL	RL
239-35-0	Benzo(b)naphtho(2,1-d)thiophene	1	0.100	U	0.100	0.100

SURROGATES	ADDED:(ug/L)	(ug/L)	% REC	QC LIMITS	Q
Naphthalene-d8	3.0000	1.54	51.2	30 - 160	
Acenaphthene-d10	3.0000	1.60	53.4	30 - 160	
Phenanthrene-d10	3.0000	1.77	59.1	30 - 160	
Chrysene-d12	3.0000	2.18	72.6	30 - 160	
Perylene-d12	3.0000	1.70	56.6	30 - 160	

Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060708.D

Date : 07-JUN-2021 18:06

Client ID:

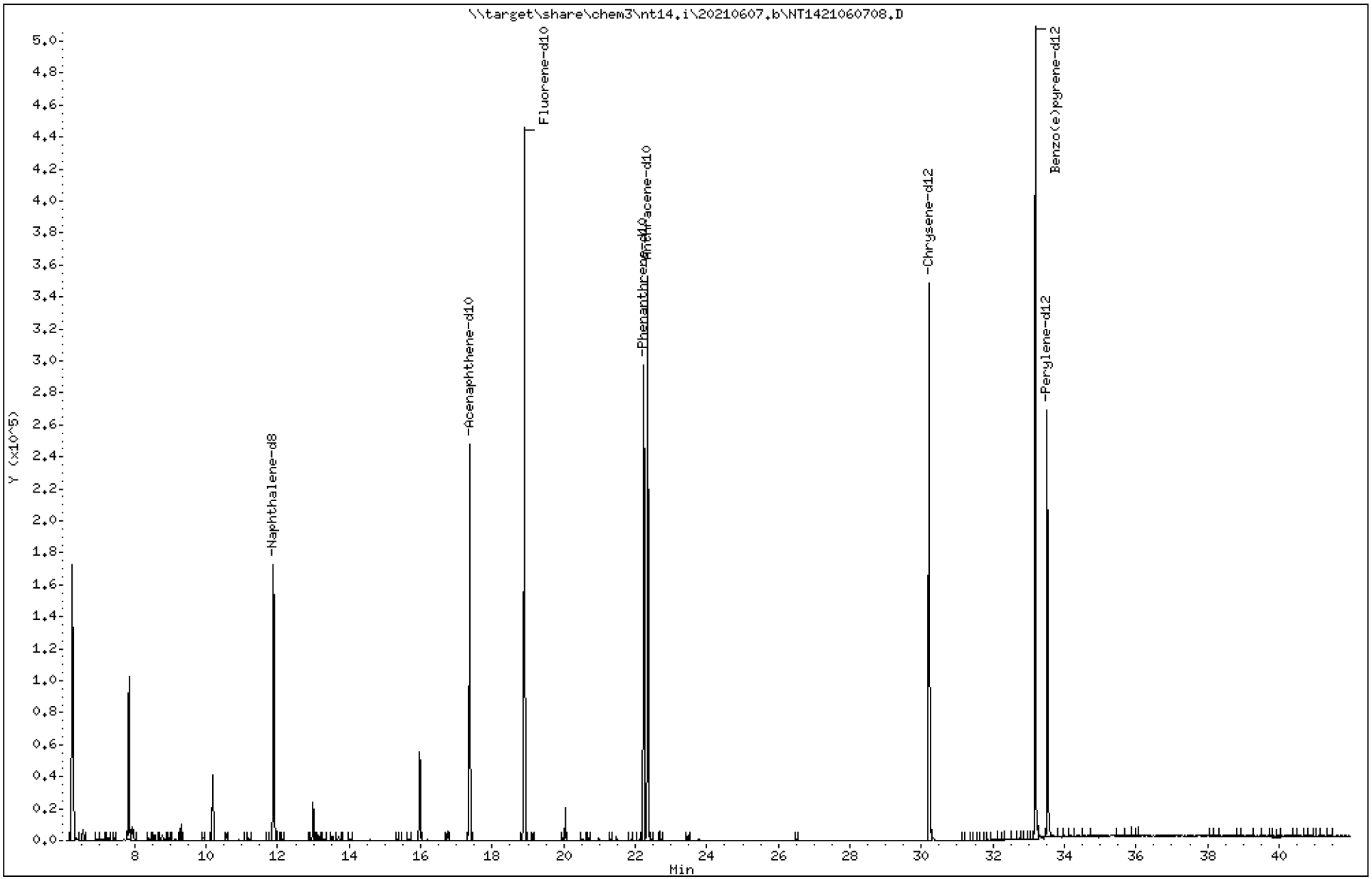
Instrument: nt14.i

Sample Info: 21E0099-02

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



Final Report 21E0099 06/15/2021 Page 64 of 957

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210607.b\NT1421060708.D
Lab Smp Id: 21E0099-02
Inj Date : 07-JUN-2021 18:06
Operator : VTS Inst ID: nt14.i
Smp Info : 21E0099-02
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210607.b\ALKYLPNA.m
Meth Date : 12-Jun-2021 14:57 yev Quant Type: ISTD
Cal Date : 29-MAY-2021 18:49 Cal File: NT1421052914.D
Als bottle: 35
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	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	11.887	11.887	(0.629)	234767	1.53515	1.535(R)
	7 Naphthalene	128	Compound Not Detected.					
	12 Benzo(b)thiophene	134	Compound Not Detected.					
	16 2-Methylnaphthalene	141	Compound Not Detected.					
	17 1-methylnaphthalene	141	Compound Not Detected.					
	18 Biphenyl	154	Compound Not Detected.					
	19 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	20 Acenaphthylene	152	Compound Not Detected.					
$	21 Acenaphthene-d10	164	17.365	17.365	(0.919)	150364	1.60088	1.601(R)
	22 Acenaphthene	153	Compound Not Detected.					
	23 Dibenzofuran	168	Compound Not Detected.					
	24 1,6,7-Trimethylnaphthalene	170	Compound Not Detected.					
*	25 Fluorene-d10	176	18.896	18.896	(1.000)	328958	2.00000	
	26 Fluorene	166	Compound Not Detected.					
	30 Dibenzothiophene	184	Compound Not Detected.					
$	35 Phenanthrene-d10	188	22.238	22.238	(0.995)	289642	1.77335	1.773(R)
	36 Phenanthrene	178	Compound Not Detected.					
*	250 Anthracene-d10	188	22.348	22.359	(1.000)	339490	2.00000	
	37 Anthracene	178	Compound Not Detected.					
	42 Carbazole	167	Compound Not Detected.					
	43 1-Methylphenanthrene	192	Compound Not Detected.					
	44 Fluoranthene	202	Compound Not Detected.					
	46 Pyrene	202	Compound Not Detected.					
	51 Naphthobenzothiophene	234	Compound Not Detected.					
	55 Benzo(a)anthracene	228	Compound Not Detected.					
$	56 Chrysene-d12	240	30.219	30.219	(0.911)	295301	2.17894	2.179(R)
	57 Chrysene	228	Compound Not Detected.					
	62 Benzo(b)fluoranthene	252	Compound Not Detected.					
	63 Benzo(k)fluoranthene	252	Compound Not Detected.					
	293 Benzo(j)fluoranthene	252	Compound Not Detected.					
	246 Total Benzofluoranthenes	252	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.181	33.181	(1.000)	432962	2.00000	
64 Benzo(e)pyrene	252	Compound Not Detected.					
66 Benzo(a)pyrene	252	Compound Not Detected.					
$ 67 Perylene-d12	264	33.519	33.519	(1.010)	248286	1.69710	1.697(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
Lab File ID: NT1421060708.D
Lab Smp Id: 21E0099-02
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210607.b\ALKYLPNA.m
Misc Info:

Calibration Date: 07-JUN-2021
Calibration Time: 13:18
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	323874	161937	647748	328958	1.57
250 Anthracene-d10	339912	169956	679824	339490	-0.12
251 Benzo(e)pyrene-d1	416427	208214	832854	432962	3.97

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.90	18.40	19.40	18.90	0.00
250 Anthracene-d10	22.36	21.86	22.86	22.35	-0.05
251 Benzo(e)pyrene-d1	33.18	32.68	33.68	33.18	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 - NT1421060708.D

Lab ID: 21E0099-02
nt14.i, 20210607.b\ALKYLPNA.m,   07-JUN-2021 18:06

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

RRT check based on Ccal File: NT1421060702.D

On Column LOD for nt14.i, 20210607.b\ALKYLPNA.m, TARGETS.sub = 0.0000

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

SC-RB-2105030901

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

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Gasco Siltronic - US Moorings				
Matrix:	Water	Laboratory ID:	21E0099-02 B	SDG:	21E0099
Sampled:	05/03/21 09:00	Prepared:	05/10/21 15:58	File ID:	NT1421060708S.D
% Solids:		Preparation:	EPA 3520C (Liq Liq)	Analyzed:	06/07/21 18:06
Batch:	BJE0209	Sequence:	SJF0198	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT14	Column:	ZB-5MS	Calibration:	EF00019

CAS NO.	COMPOUND	DILUTION	(ug/L)	Q	DL	RL
C1DEC	C1-Decalins	1	0.020	U		0.020
C2DEC	C2-Decalins	1	0.020	U		0.020
C3DEC	C3-Decalins	1	0.020	U		0.020
C4DEC	C4-Decalins	1	0.020	U		0.020
C1NAPH	C1-Naphthalenes	1	0.020	U		0.020
C2NAPH	C2-Naphthalenes	1	0.020	U		0.020
C3NAPH	C3-Naphthalenes	1	0.020	U		0.020
C4NAPH	C4-Naphthalenes	1	0.020	U		0.020
C1FLR	C1-Fluorenes	1	0.020	U		0.020
C4PHNANT	C4-Phenanthrenes/Anthracenes	1	0.020	U		0.020
C1FLPYR	C1-Fluoranthenes/Pyrenes	1	0.020	U		0.020
C2FLR	C2-Fluorenes	1	0.020	U		0.020
C3FLR	C3-Fluorenes	1	0.020	U		0.020
C1DBTPH	C1-Dibenzothiophenes	1	0.020	U		0.020
C2DBTPH	C2-Dibenzothiophenes	1	0.020	U		0.020
C3DBTPH	C3-Dibenzothiophenes	1	0.020	U		0.020
C4DBTPH	C4-Dibenzothiophenes	1	0.020	U		0.020
C1PHNANT	C1-Phenanthrenes/Anthracenes	1	0.020	U		0.020
C2PHNANT	C2-Phenanthrenes/Anthracenes	1	0.020	U		0.020
C3PHNANT	C3-Phenanthrenes/Anthracenes	1	0.020	U		0.020
C2FLPYR	C2-Fluoranthenes/Pyrenes	1	0.020	U		0.020
C3FLPYR	C3-Fluoranthenes/Pyrenes	1	0.020	U		0.020
C4FLPYR	C4-Fluoranthenes/Pyrenes	1	0.020	U		0.020
C1BAACYR	C1-Benzo(a)anthracenes/Chrysenes	1	0.020	U		0.020
C2BAACYR	C2-Benzo(a)anthracenes/Chrysenes	1	0.020	U		0.020
C3BAACYR	C3-Benzo(a)anthracenes/Chrysenes	1	0.020	U		0.020
C4BAACYR	C4-Benzo(a)anthracenes/Chrysenes	1	0.020	U		0.020
C1BZTPH	C1-Benzothiophenes	1	0.020	U		0.020
C2BZTPH	C2-Benzothiophenes	1	0.020	U		0.020
C3BZTPH	C3-Benzothiophenes	1	0.020	U		0.020
C1NPBTP	C1-Naphthobenzothiophenes	1	0.020	U		0.020

SC-RB-2105030901

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

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Gasco Siltronic - US Moorings				
Matrix:	Water	Laboratory ID:	21E0099-02 B	SDG:	21E0099
Sampled:	05/03/21 09:00	Prepared:	05/10/21 15:58	File ID:	NT1421060708S.D
% Solids:		Preparation:	EPA 3520C (Liq Liq)	Analyzed:	06/07/21 18:06
Batch:	BJE0209	Sequence:	SJF0198	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT14	Column:	ZB-5MS	Calibration:	EF00019

CAS NO.	COMPOUND	DILUTION	(ug/L)	Q	DL	RL
C2NPBTP	C2-Naphthobenzothiophenes	1	0.020	U		0.020
C3NPBTP	C3-Naphthobenzothiophenes	1	0.020	U		0.020
C4NPBTP	C4-Naphthobenzothiopenes	1	0.020	U		0.020
C1DBA	C1-Dibenzo(a)anthracenes	1	0.020	U		0.020
C2DBA	C2-Dibenzo(a)anthracenes	1	0.020	U		0.020
C3DBA	C3-Dibenzo(a)anthracenes	1	0.020	U		0.020

Data File: \\target\share\chem3\nt14.i\20210607.b\SIM.b\NT1421060708S.D

Date : 07-JUN-2021 18:06

Client ID:

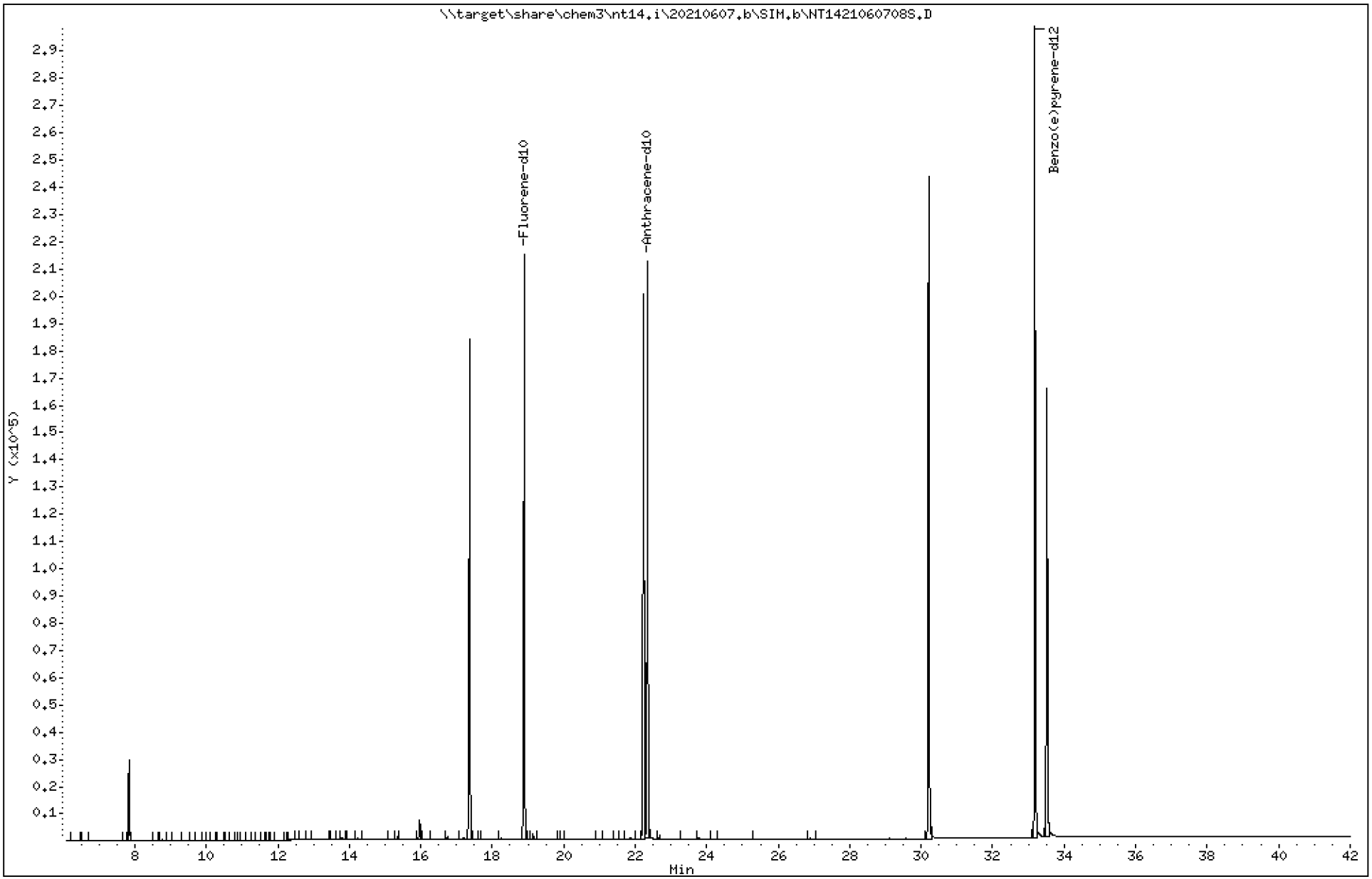
Instrument: nt14.i

Sample Info: 21E0099-02

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



Final Report 21E0099 06/15/2021 Page 71 of 957

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210607.b\SIM.b\NT1421060708S.D
Lab Smp Id: 21E0099-02
Inj Date : 07-JUN-2021 18:06
Operator : VTS Inst ID: nt14.i
Smp Info : 21E0099-02
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210607.b\SIM.b\ALKYLRANGES.m
Meth Date : 15-Jun-2021 10:32 yev Quant Type: ISTD
Cal Date : 29-MAY-2021 18:49 Cal File: NT1421052914.D
Als bottle: 35
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ALKYLRANGES.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
3	C1-Decalin	152	Compound Not Detected.					
4	C2-Decalin	166	Compound Not Detected.					
5	C3-Decalin	180	Compound Not Detected.					
247	C4-Decalin	194	Compound Not Detected.					
8	C1-Naphthalenes	142	Compound Not Detected.					
9	C2-Naphthalenes	156	Compound Not Detected.					
10	C3-Naphthalenes	170	Compound Not Detected.					
11	C4-Naphthalenes	184	Compound Not Detected.					
13	C1-Benzothiophenes	148	Compound Not Detected.					
14	C2-Benzothiophenes	162	Compound Not Detected.					
15	C3_Benzothiophenes	176	Compound Not Detected.					
27	C1-Fluorenes	180	Compound Not Detected.					
* 25	Fluorene-d10	176	18.897	18.896	(1.000)	378018	2.00000	
28	C2-Fluorenes	194	Compound Not Detected.					
29	C3-Fluorenes	208	Compound Not Detected.					
31	C1-Dibenzothiophenes	198	Compound Not Detected.					
32	C2-Dibenzothiophenes	212	Compound Not Detected.					
33	C3-Dibenzothiophenes	226	Compound Not Detected.					
34	C4-Dibenzothiophenes	240	Compound Not Detected.					
* 250	Anthracene-d10	188	22.339	22.359	(1.000)	391781	2.00000	
38	C1-Phenanthrenes/Anthracenes	192	Compound Not Detected.					
39	C2-Phenanthrenes/Anthracenes	206	Compound Not Detected.					
40	C3-Phenanthrenes/Anthracenes	220	Compound Not Detected.					
41	C4-Phenanthrenes/Anthracenes	234	Compound Not Detected.					
48	C1-Fluoranthenes/Pyrenes	216	Compound Not Detected.					
49	C2-Fluoranthenes/Pyrenes	230	Compound Not Detected.					
50	C3-Fluoranthenes/Pyrenes	244	Compound Not Detected.					
249	C4-Fluoranthenes/Pyrenes	258	Compound Not Detected.					
52	C1-Naphthobenzothiophenes	248	Compound Not Detected.					
53	C2-Naphthobenzothiophenes	262	Compound Not Detected.					
54	C3-Naphthobenzothiophenes	276	Compound Not Detected.					
248	C4-Naphthobenzothiophenes	290	Compound Not Detected.					
58	C1-Benzo(a)anthracenes/Chrysen	242	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
59	C2-Benzo(a)anthracenes/Chrysen	256	Compound Not Detected.					
60	C3-Benzo(a)anthracenes/Chrysen	270	Compound Not Detected.					
61	C4-Benzo(a)anthracenes/Chrysen	284	Compound Not Detected.					
* 251	Benzo(e)pyrene-d12	264	33.172	33.181	(1.000)	509409	2.00000	
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: NT1421060708S.D
Lab Smp Id: 21E0099-02
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210607.b\SIM.b\ALKYLRANGES.m
Misc Info:

Calibration Date: 07-JUN-2021
Calibration Time: 13:18
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	311077	155539	622154	378018	21.52
250 Anthracene-d10	331614	165807	663228	391781	18.14
251 Benzo(e)pyrene-d1	416427	208214	832854	509409	22.33

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.90	18.40	19.40	18.90	0.01
250 Anthracene-d10	22.36	21.86	22.86	22.34	-0.09
251 Benzo(e)pyrene-d1	33.18	32.68	33.68	33.17	-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.

SIM ALKYL PNA RANGE ION WINDOWS - NT1421060708S.D

Lab ID: 21E0099-02
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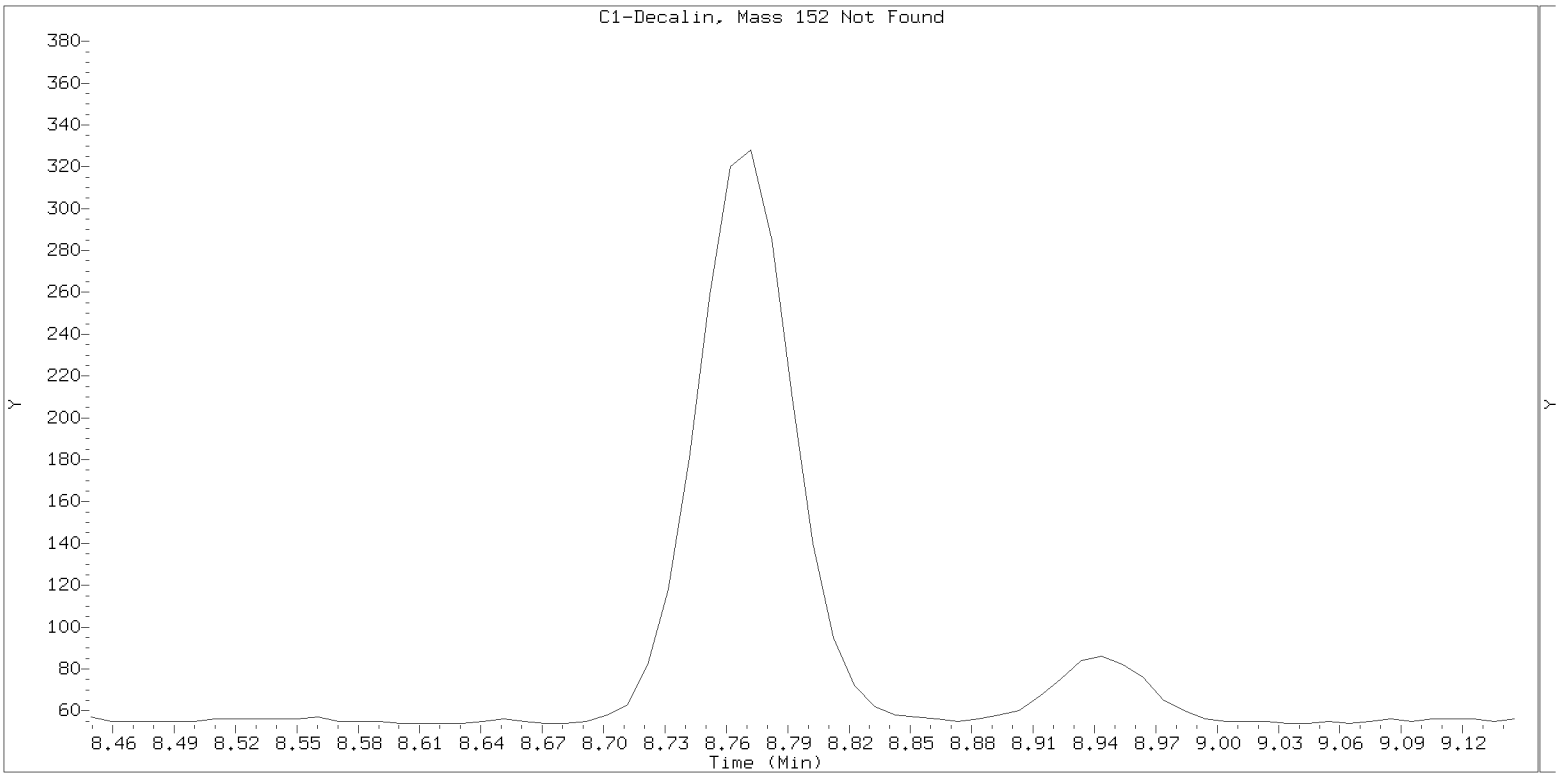

SIM ALKYL PNA RANGE ION WINDOWS - NT1421060708S.D

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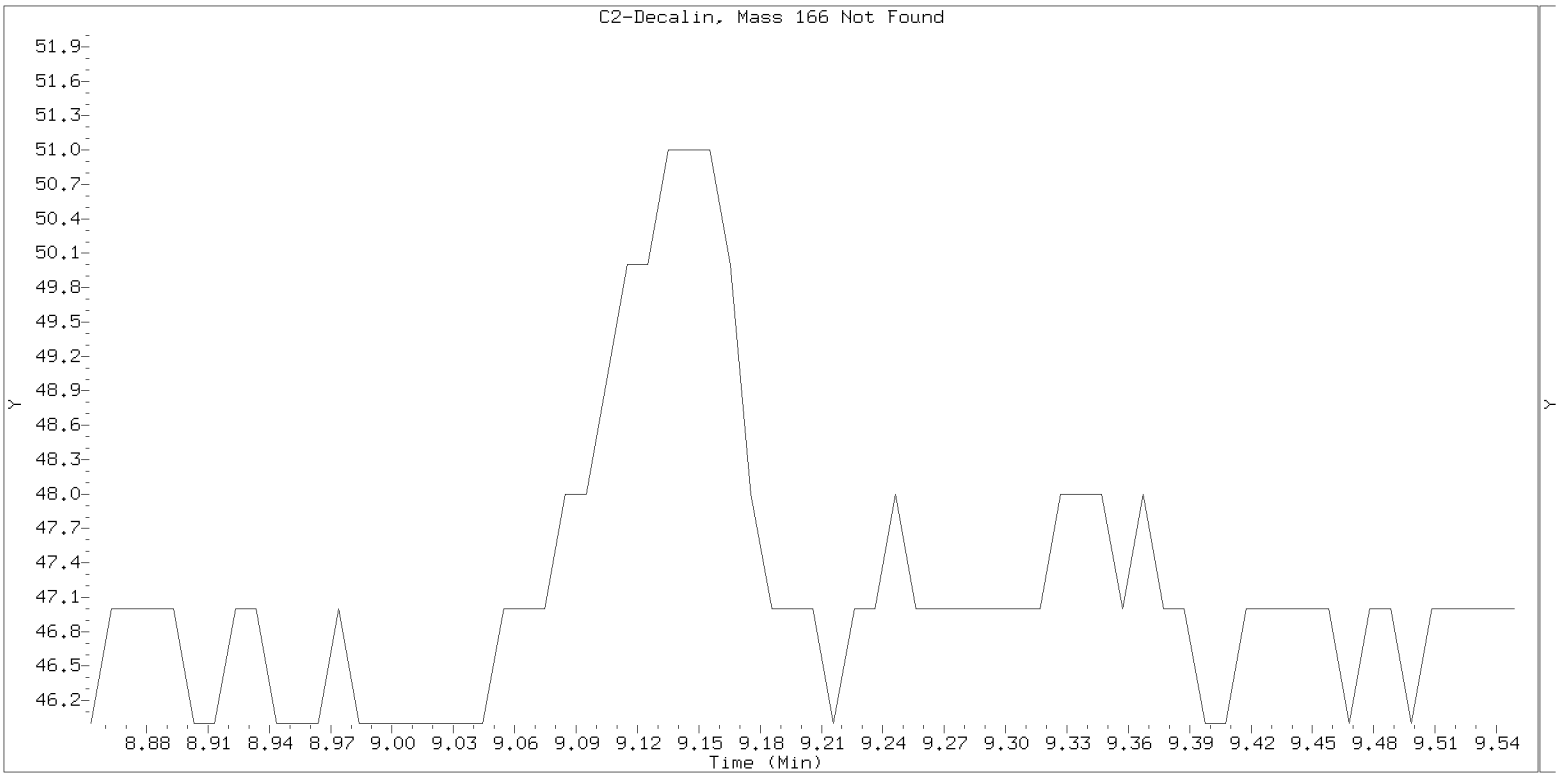

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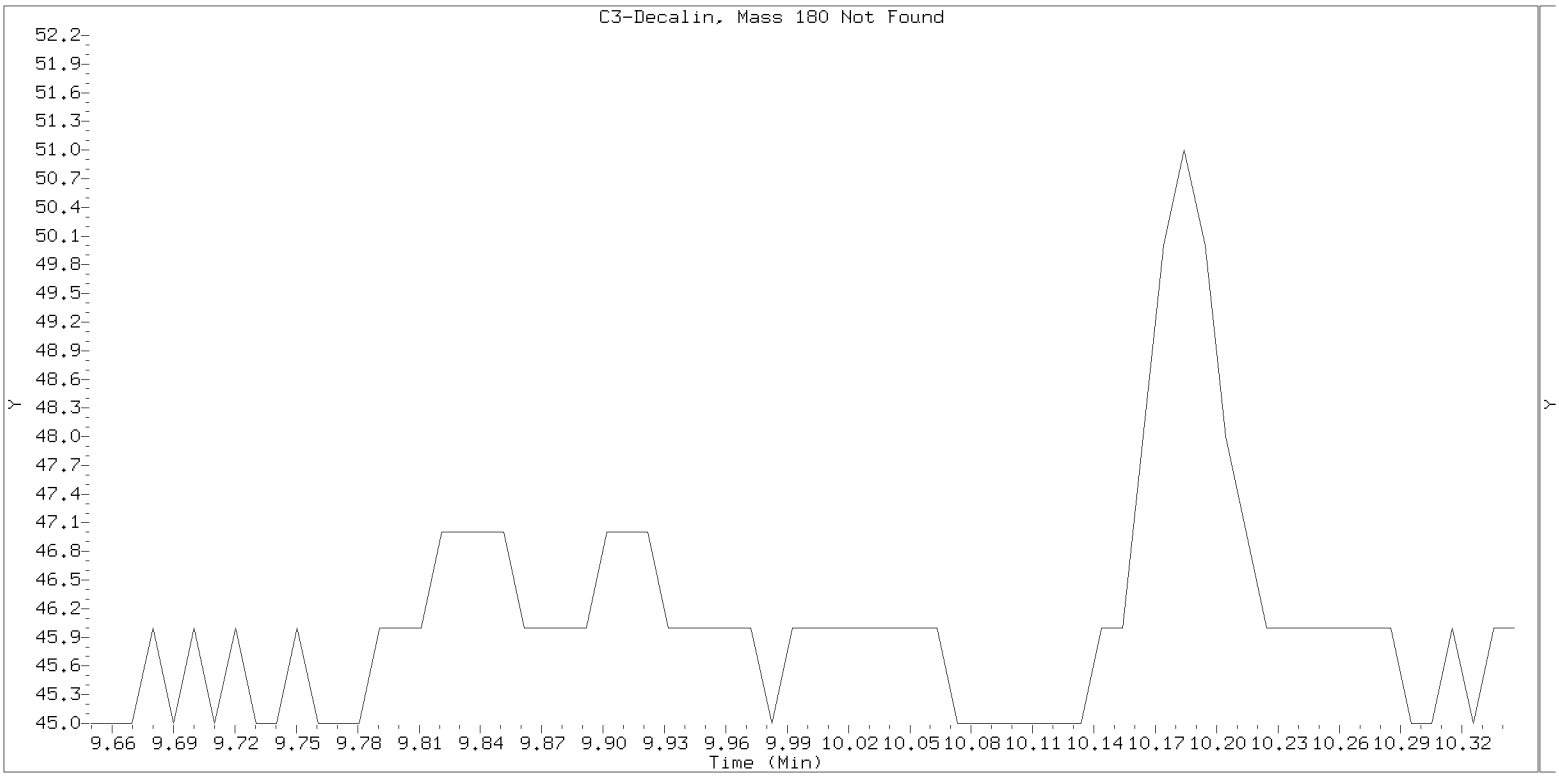

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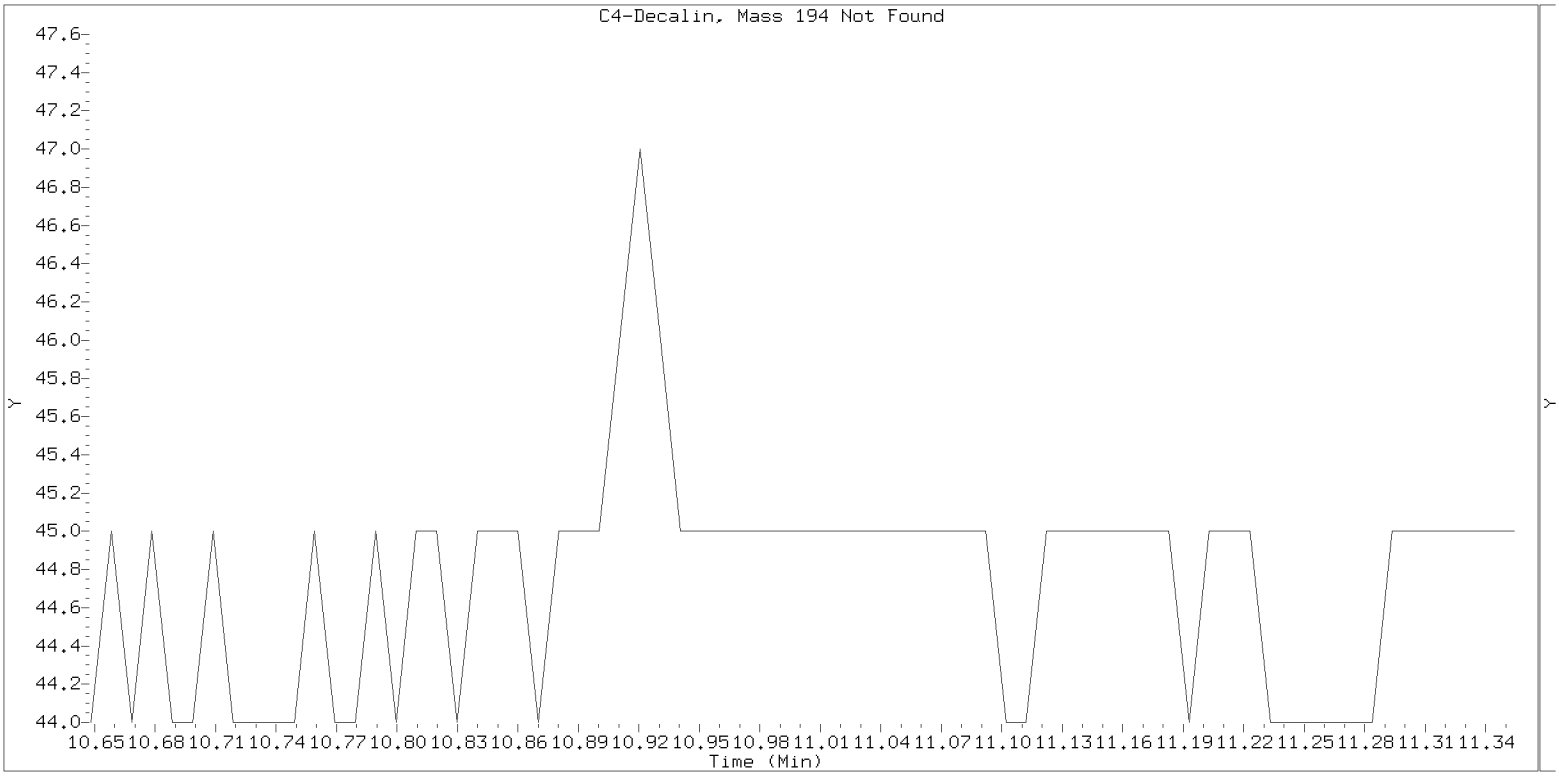

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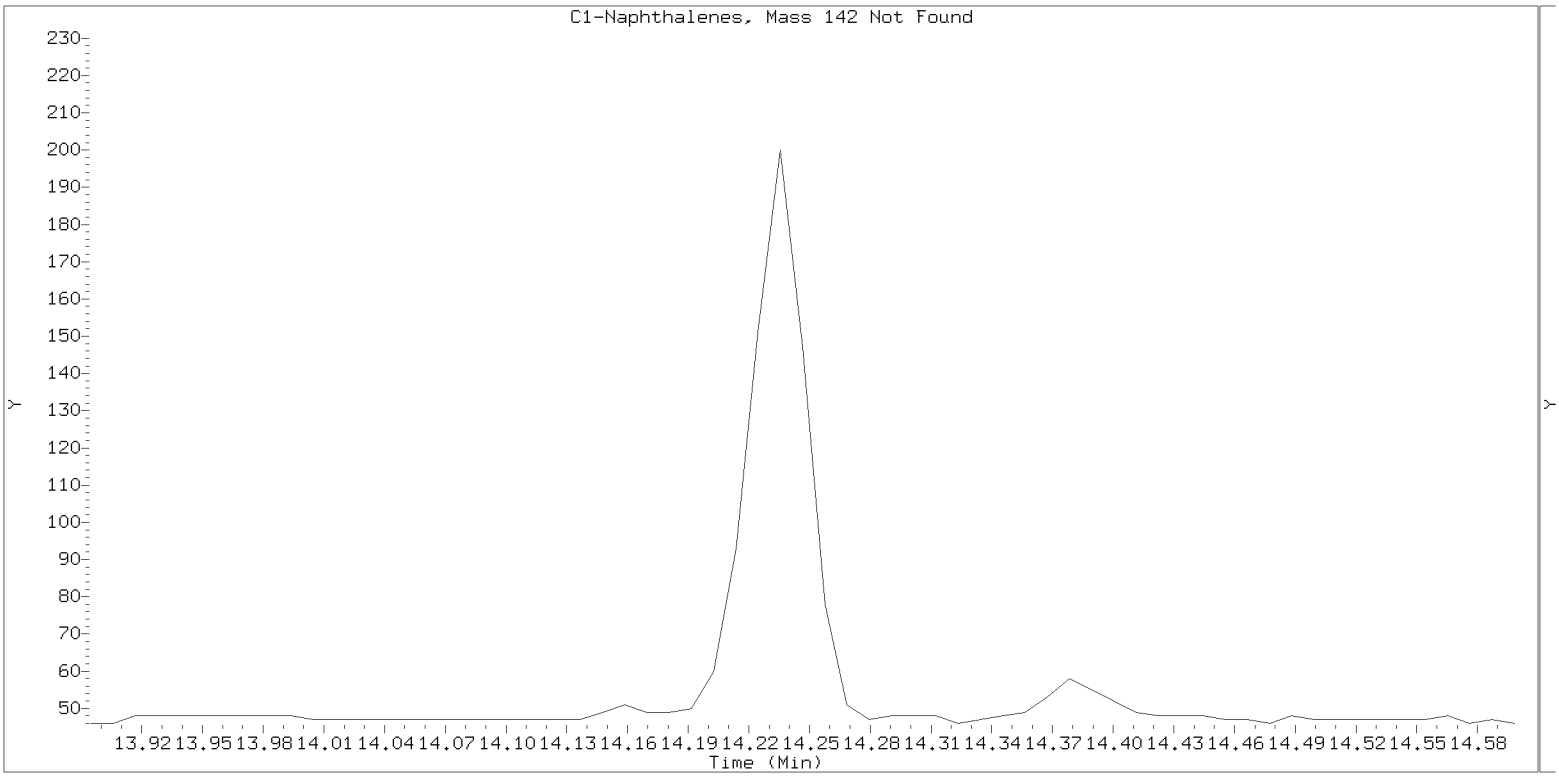

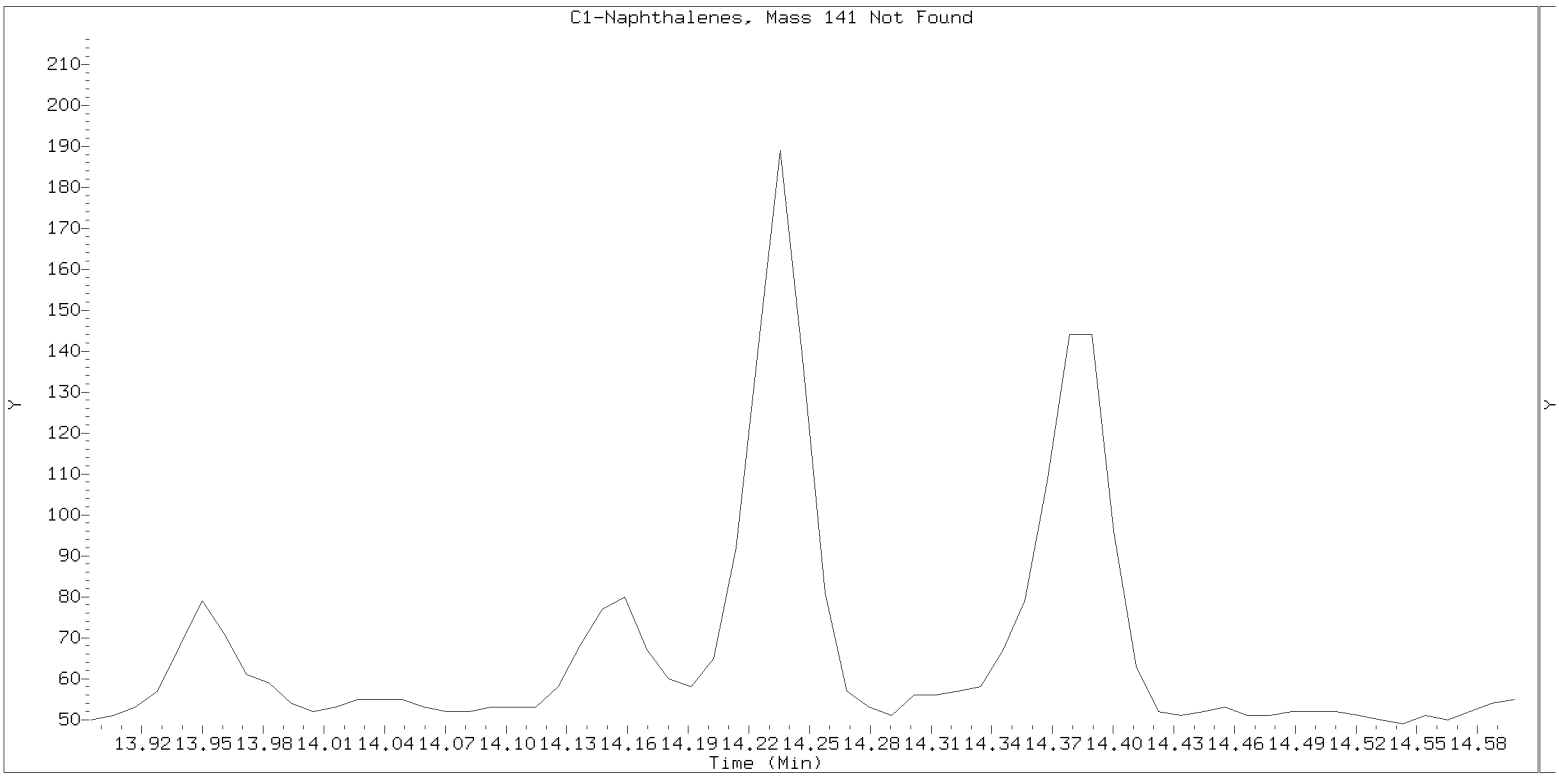

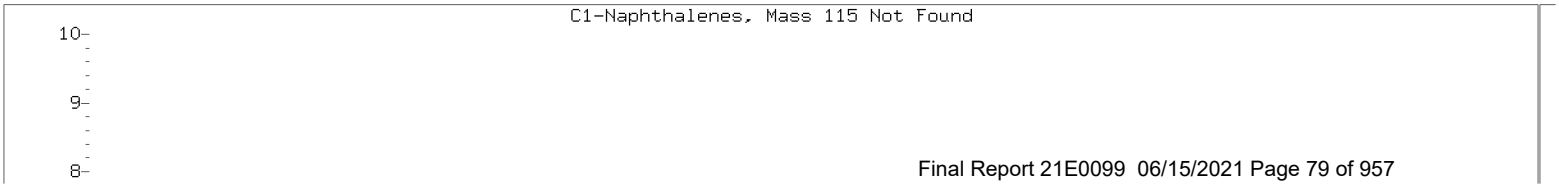

SIM ALKYL PNA RANGE ION WINDOWS - NT1421060708S.D

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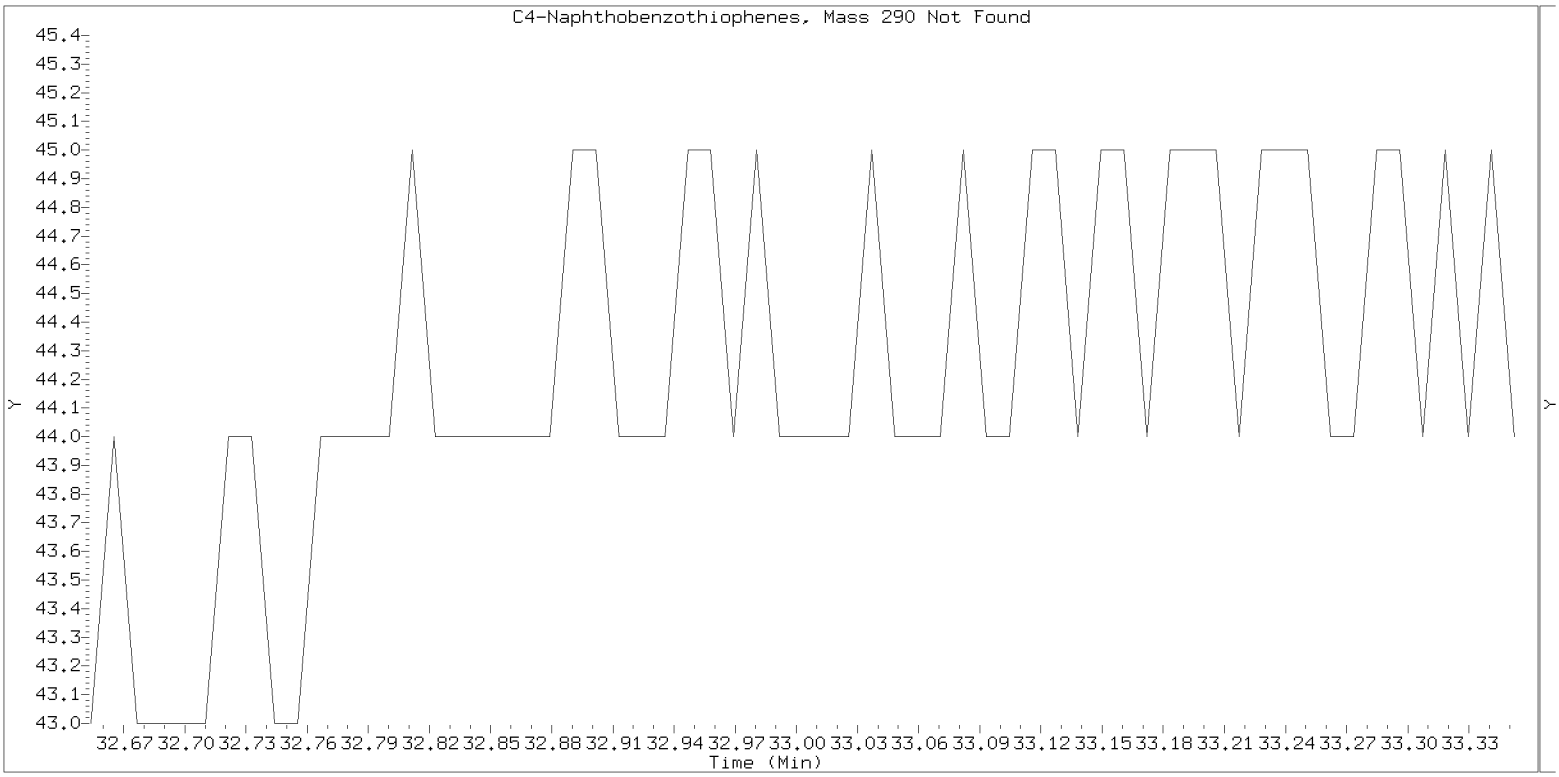

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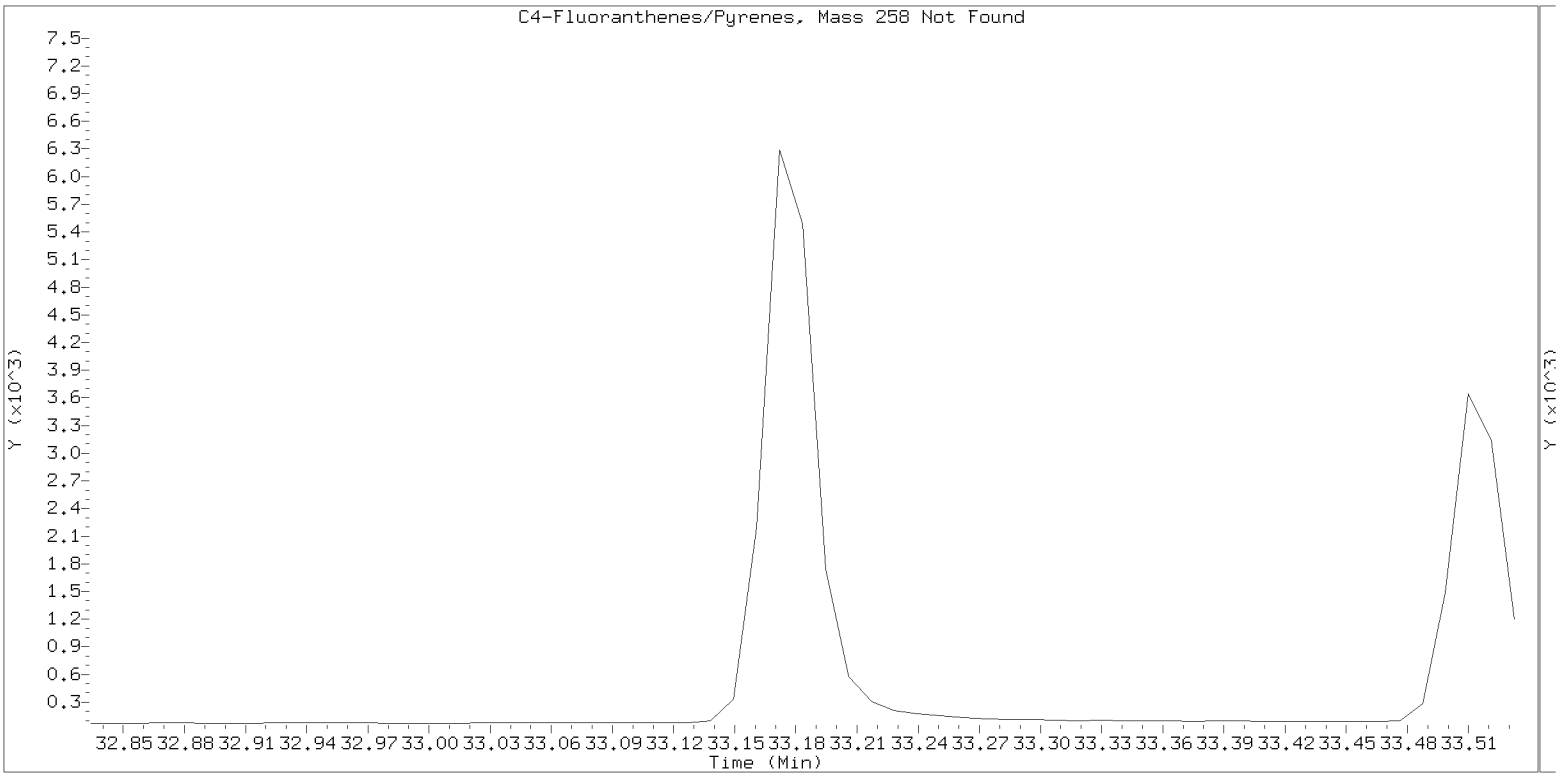

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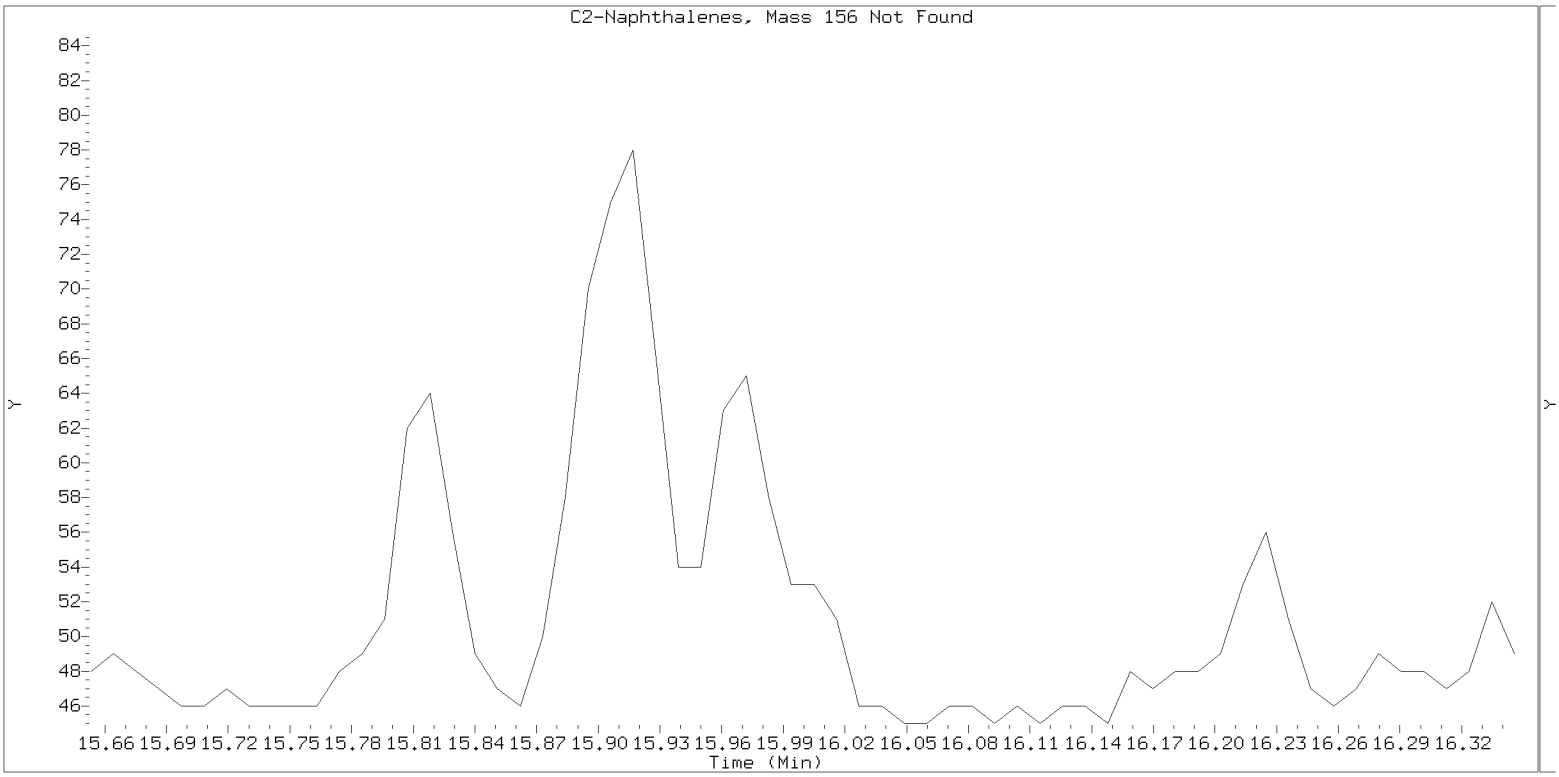

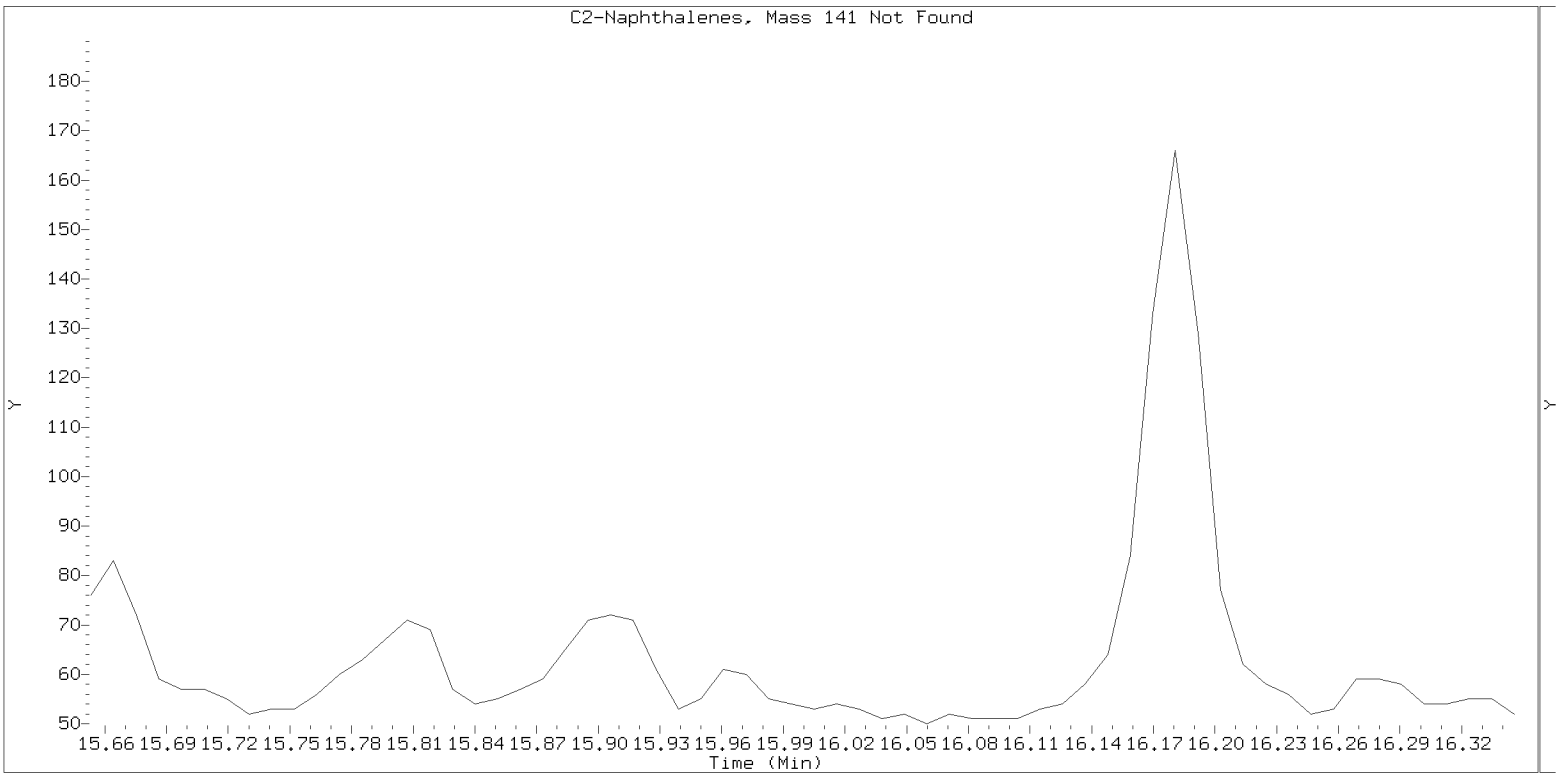

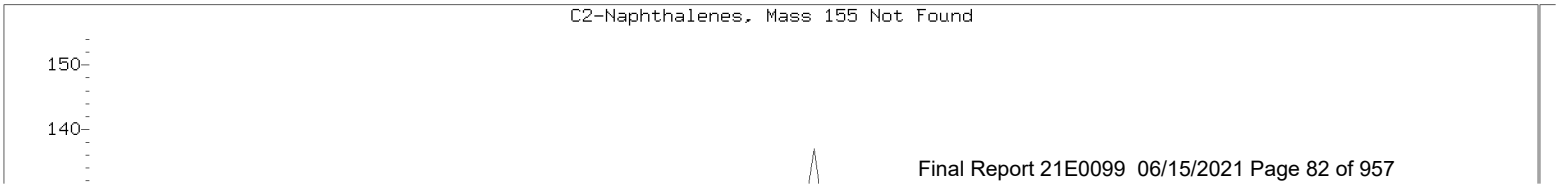

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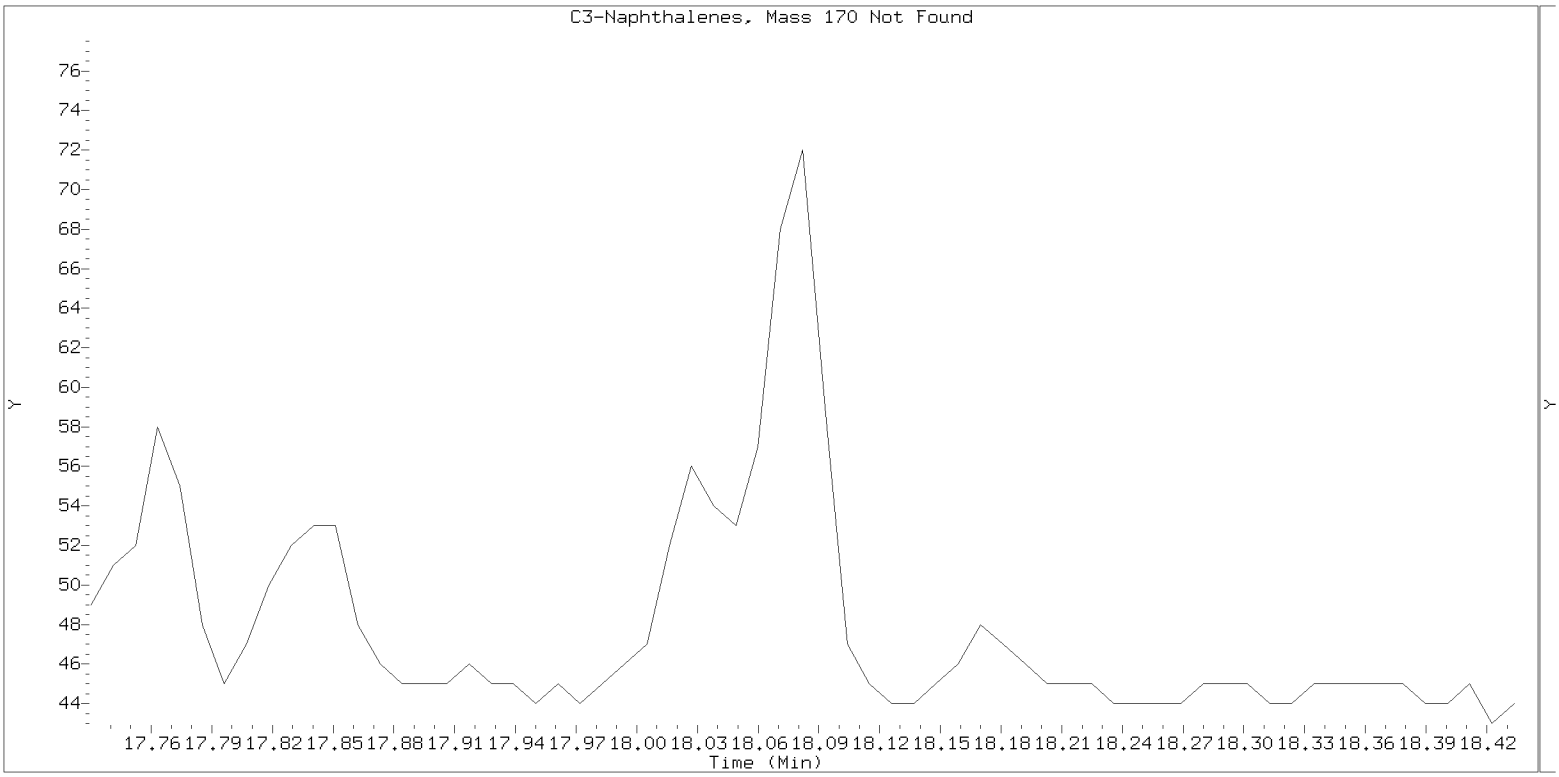

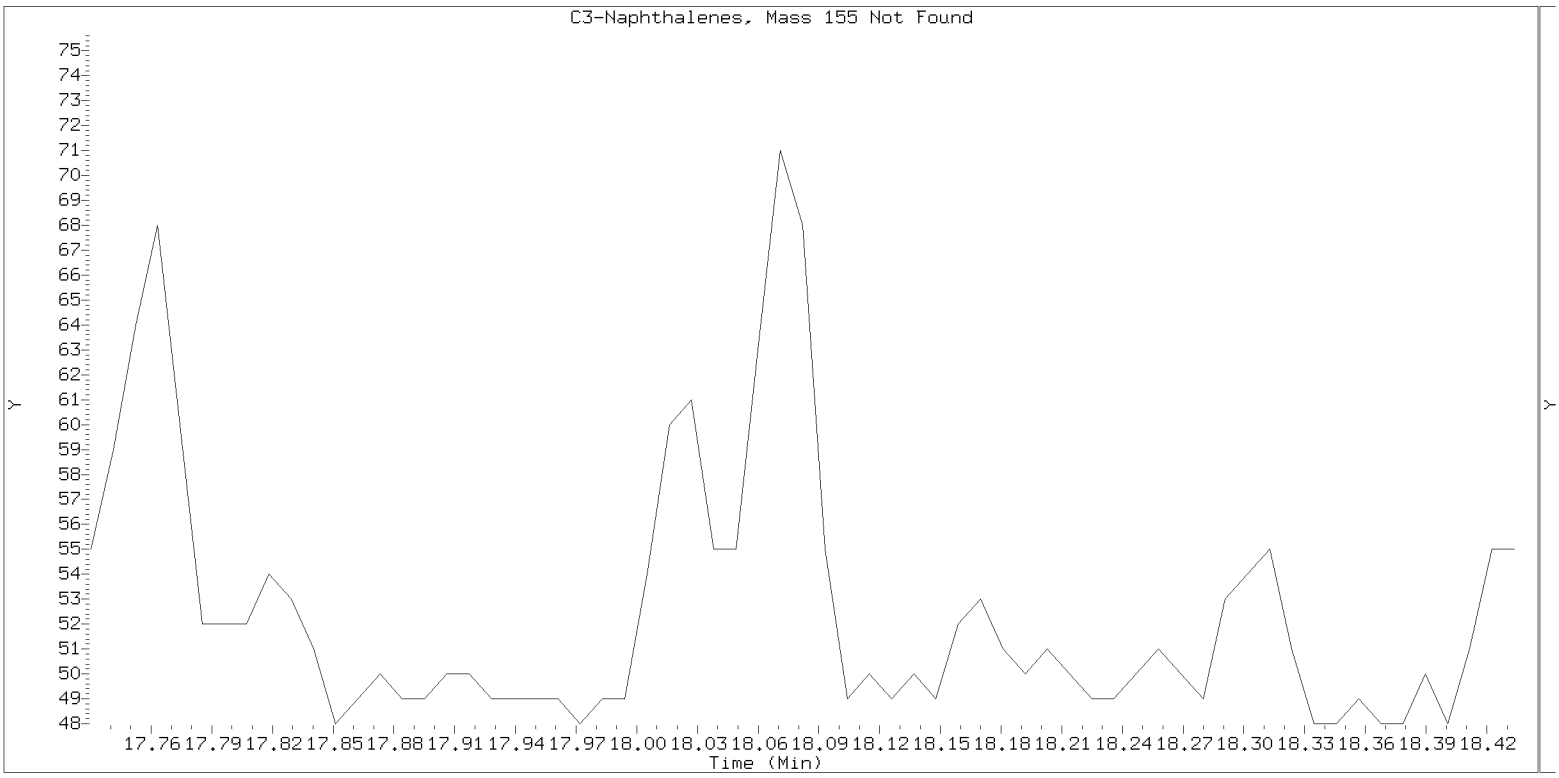

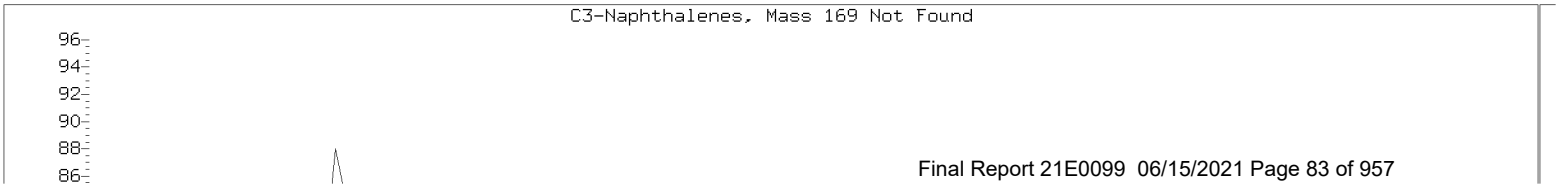

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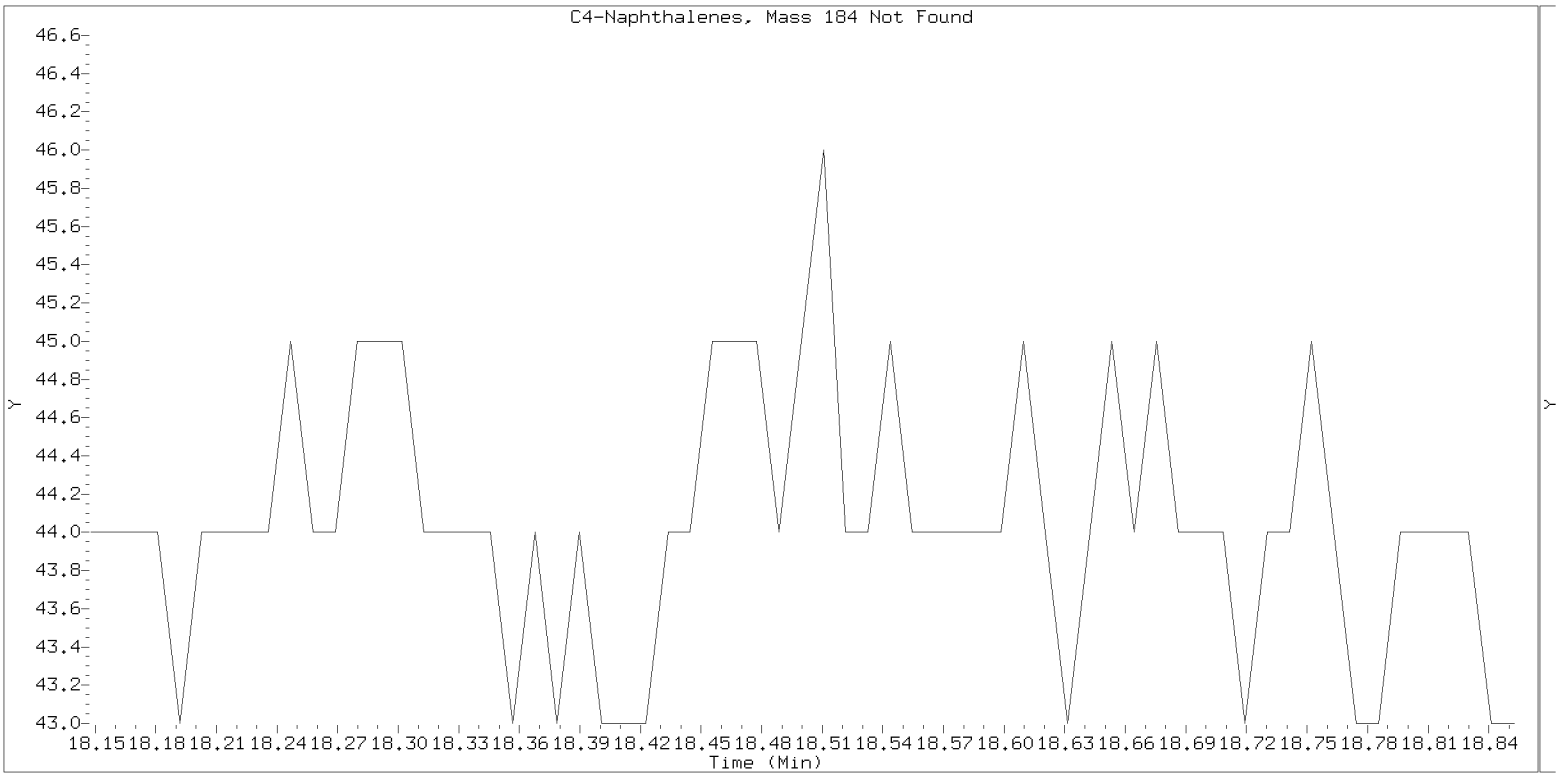

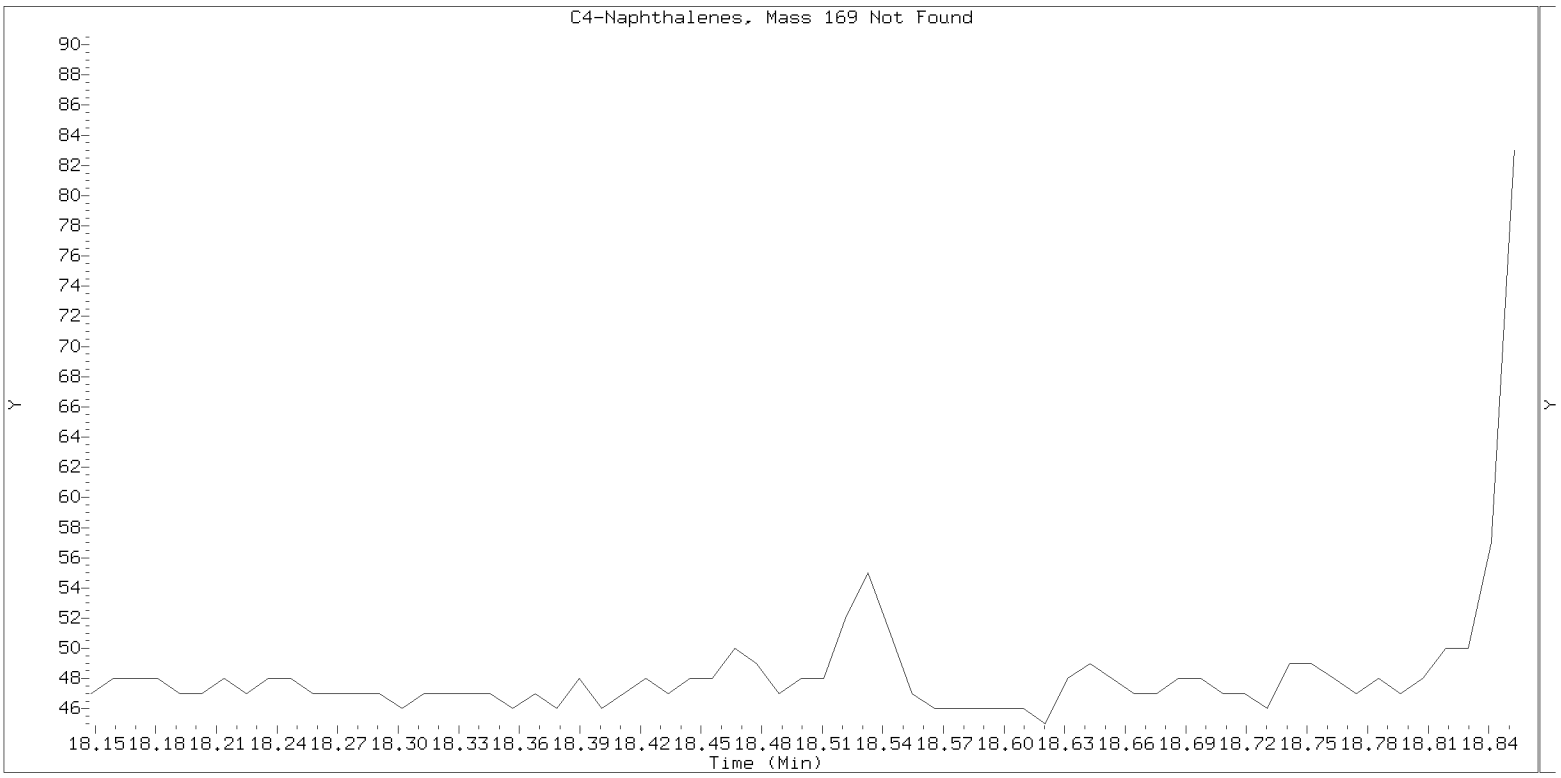

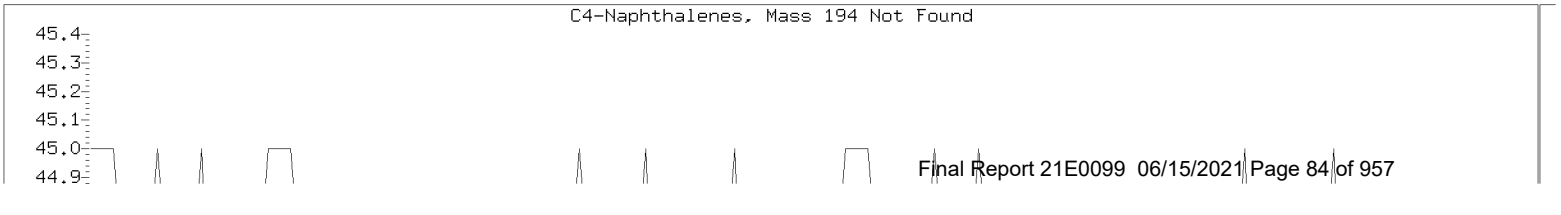

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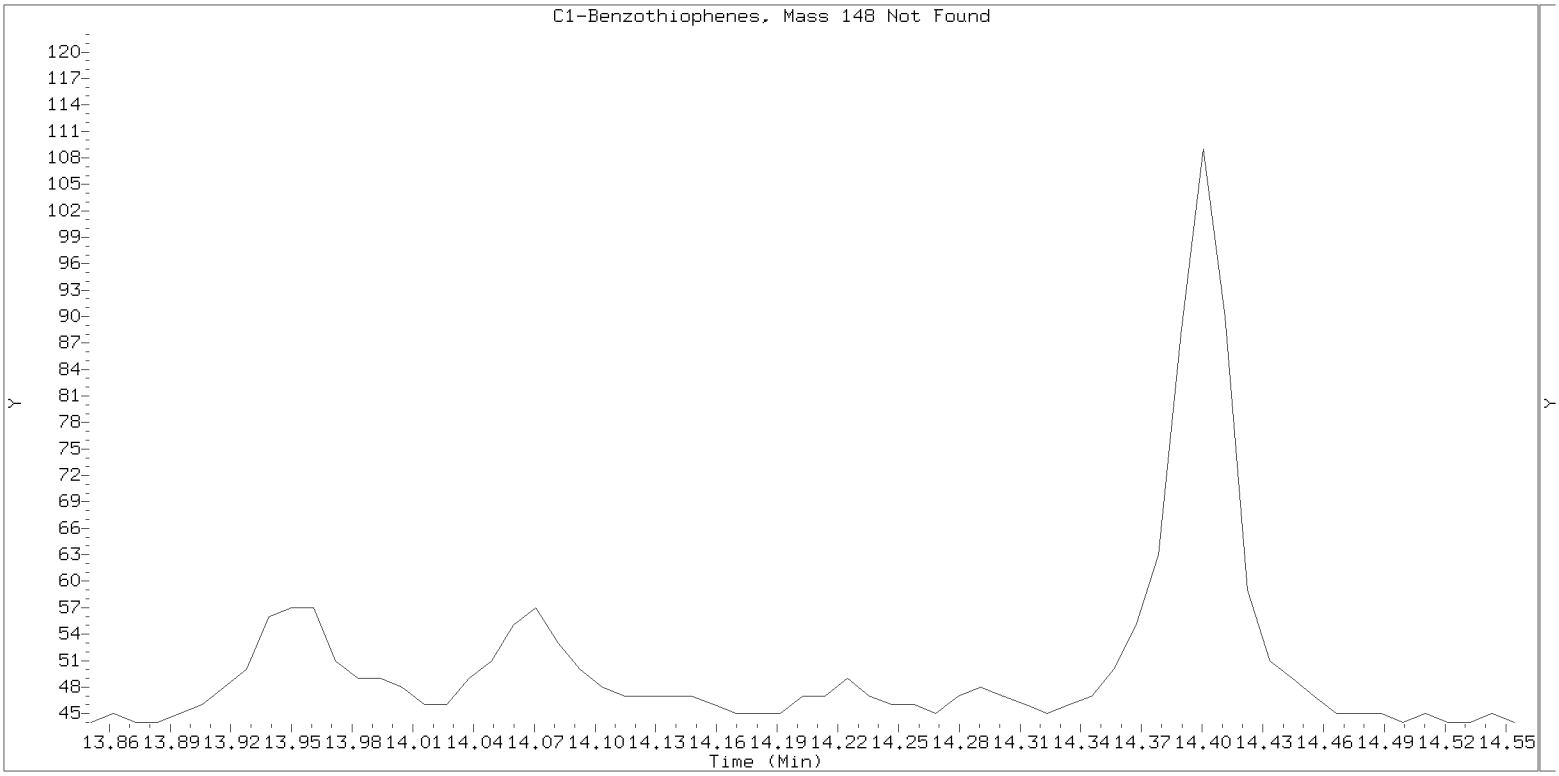

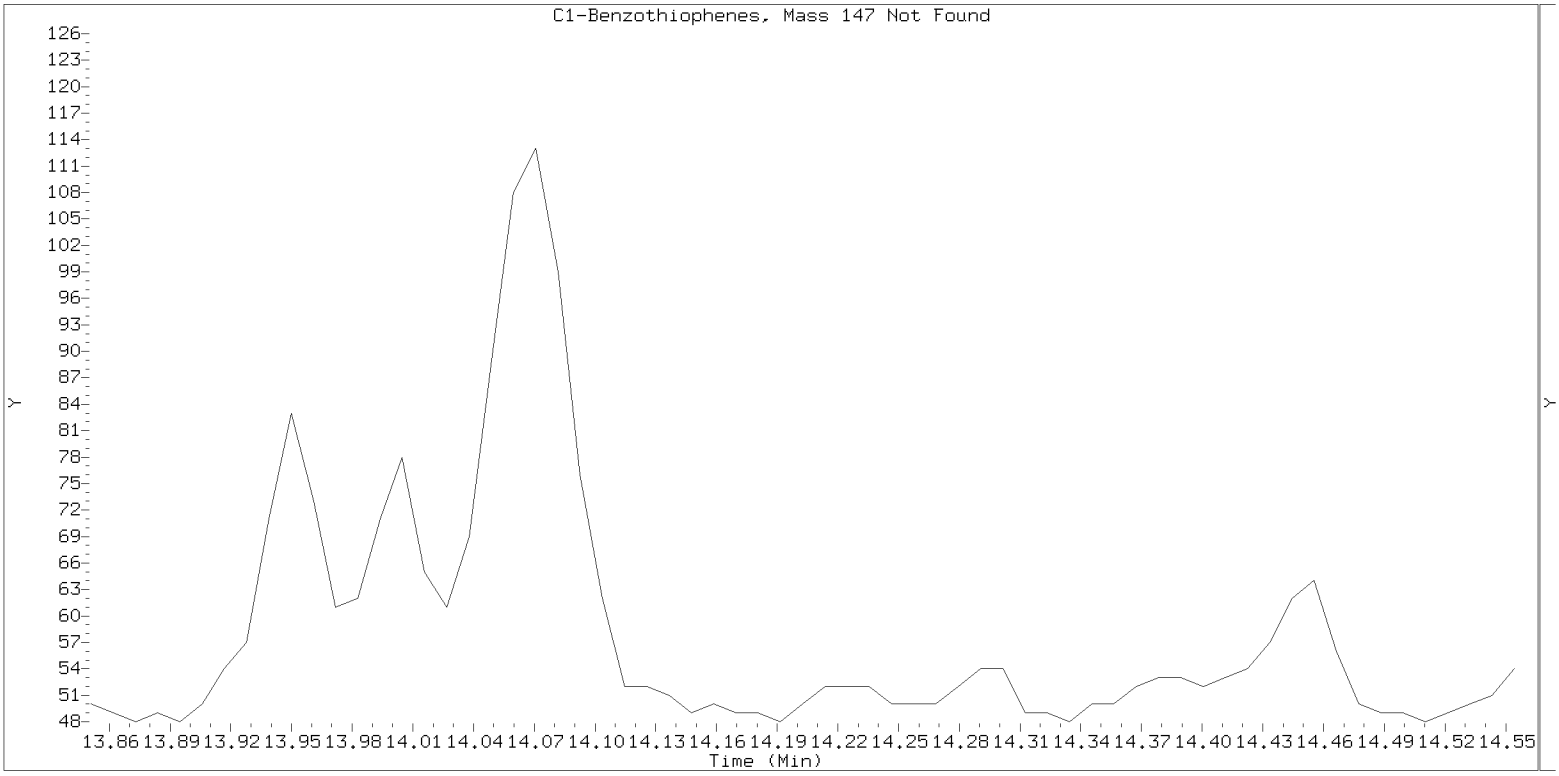

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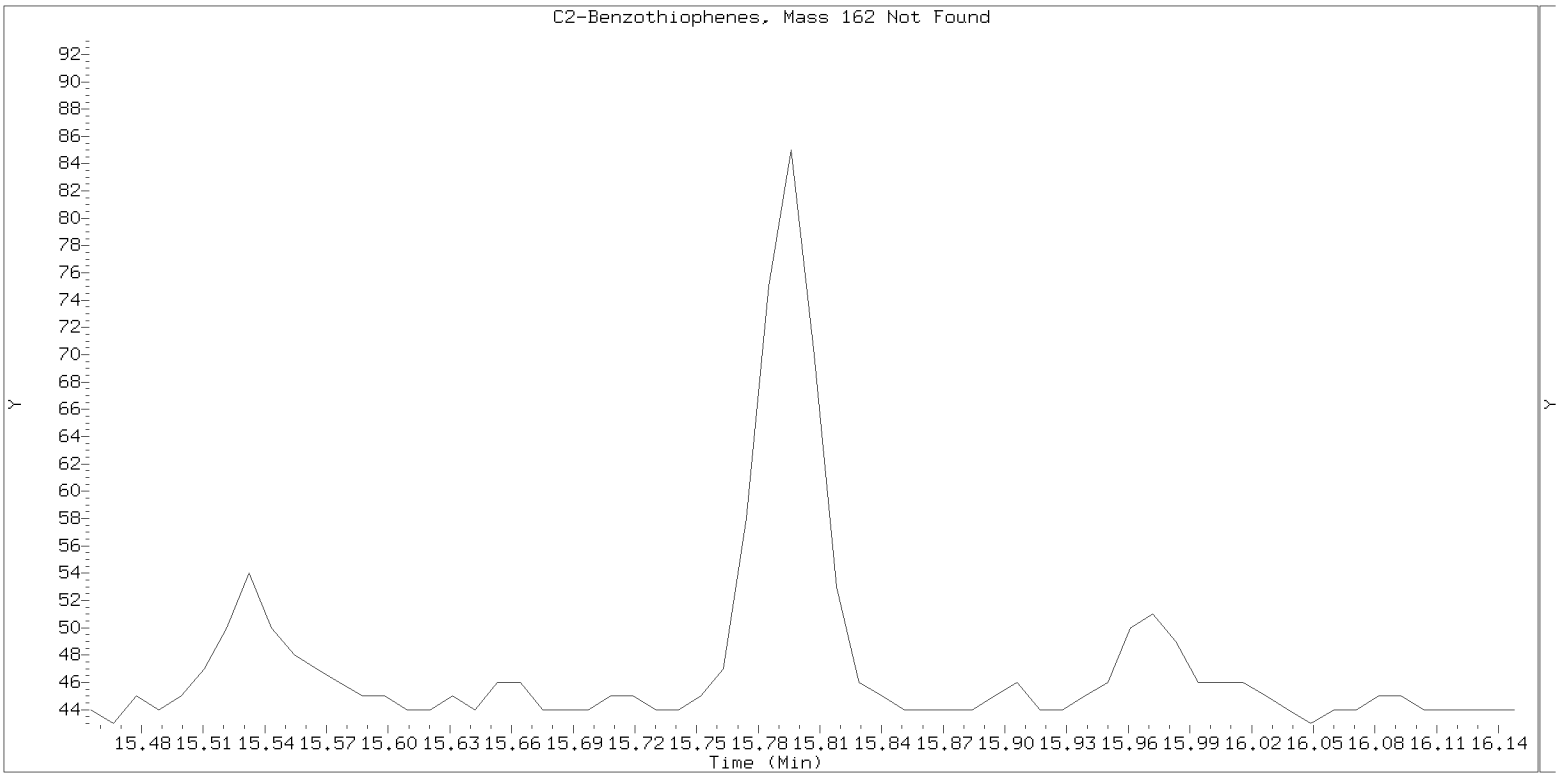

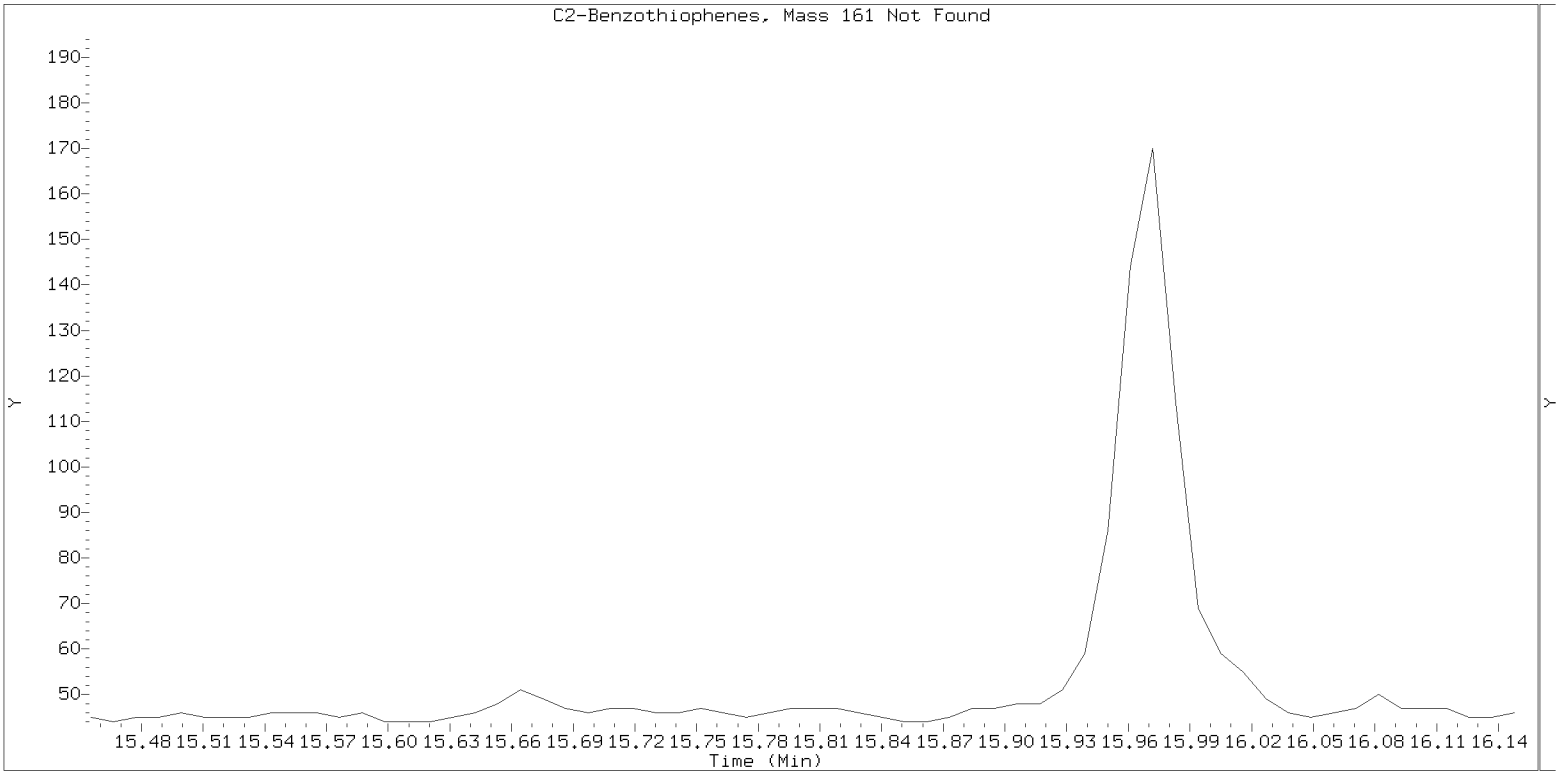

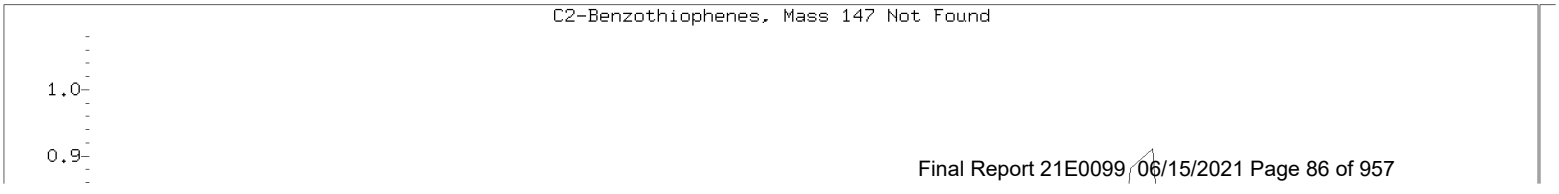

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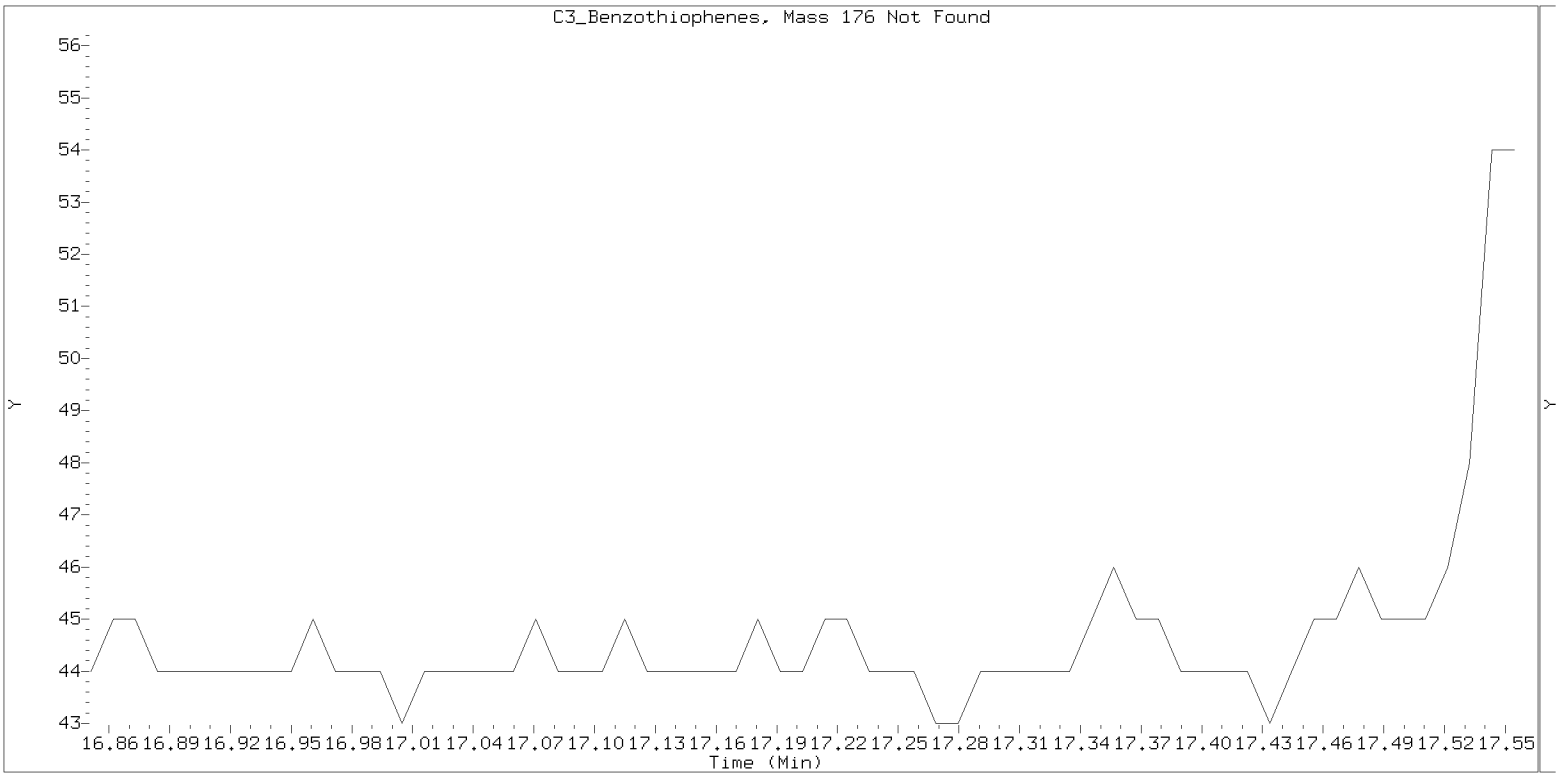

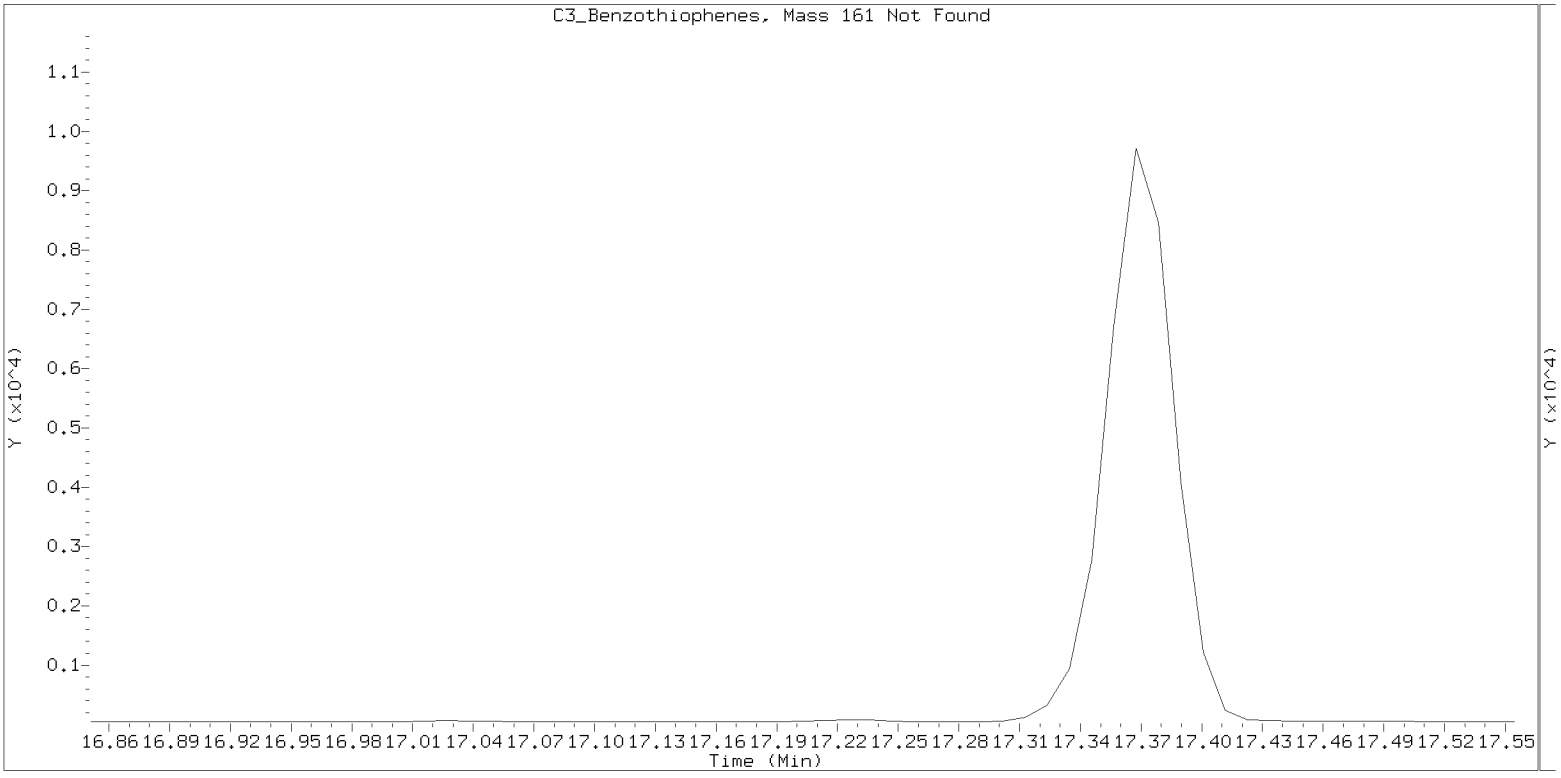

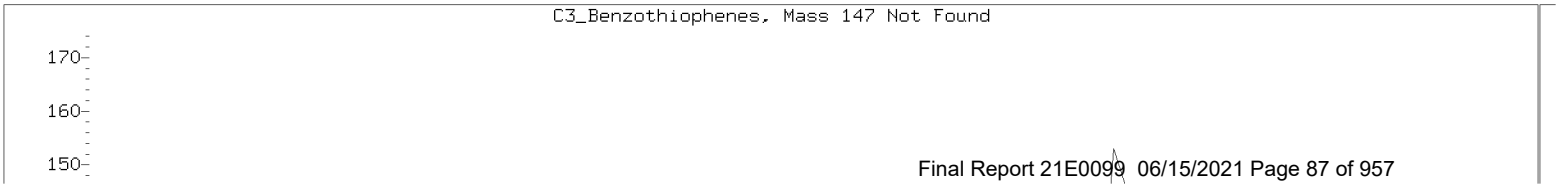

SIM ALKYL PNA RANGE ION WINDOWS - NT1421060708S.D

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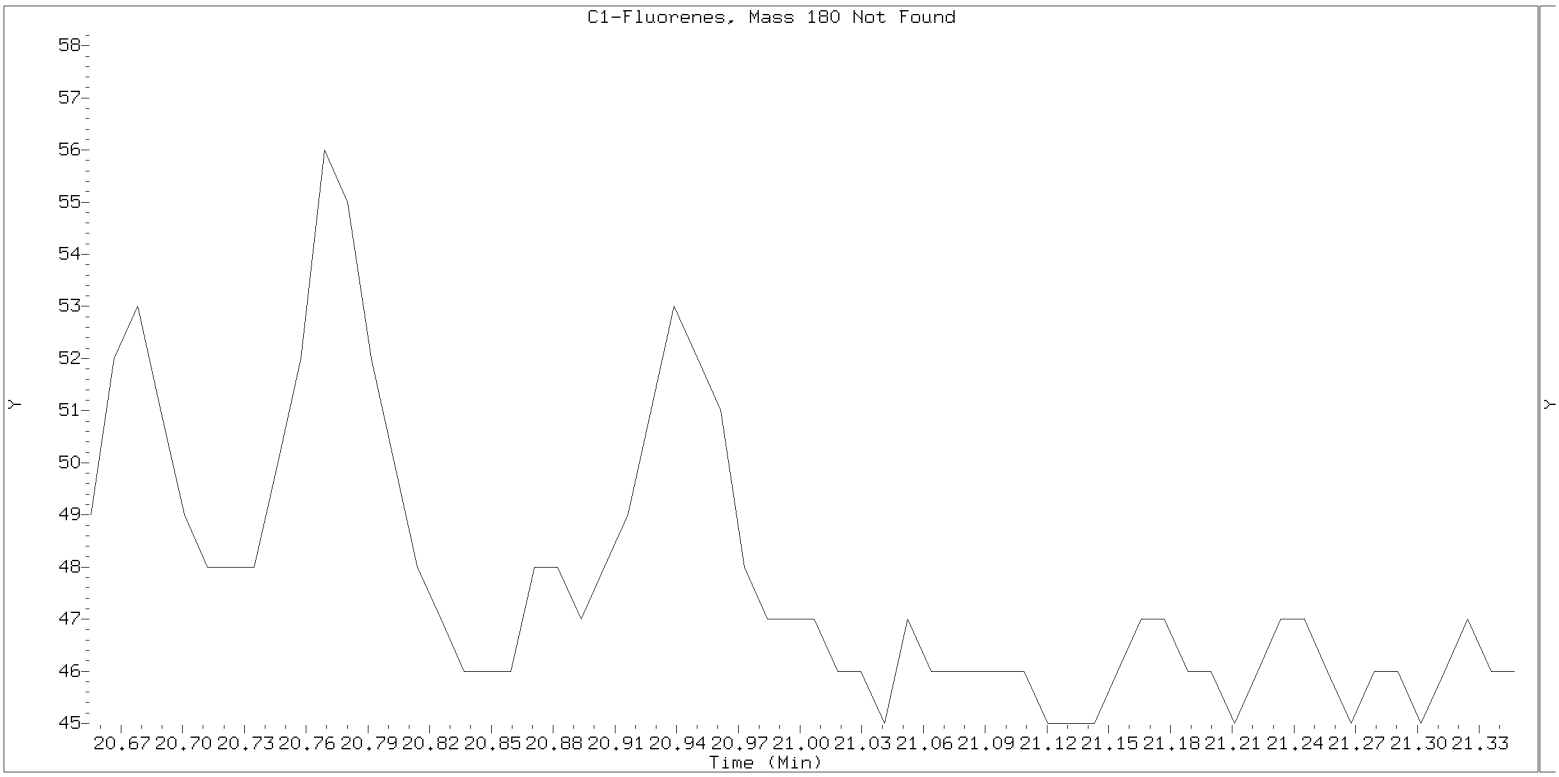

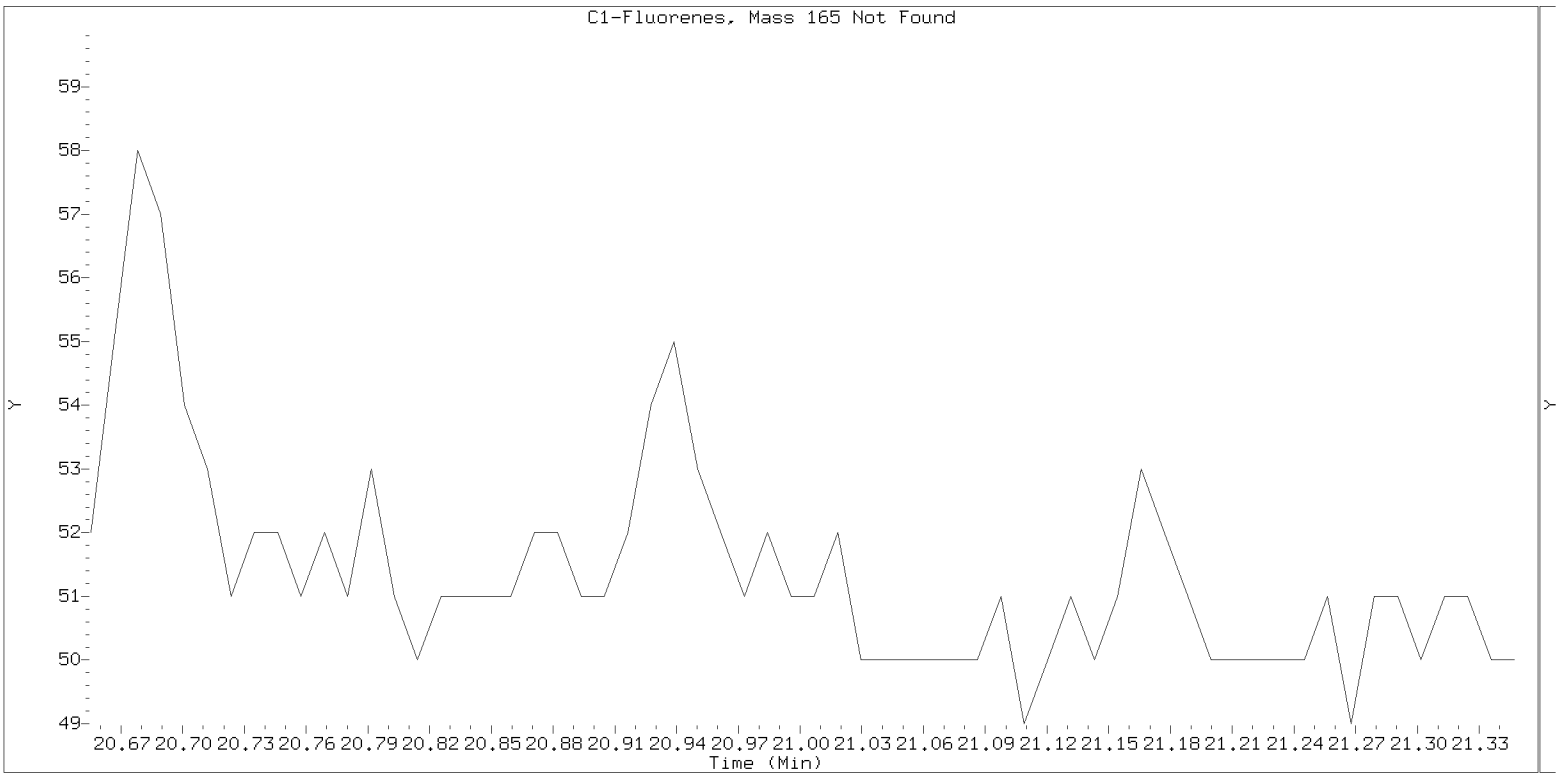

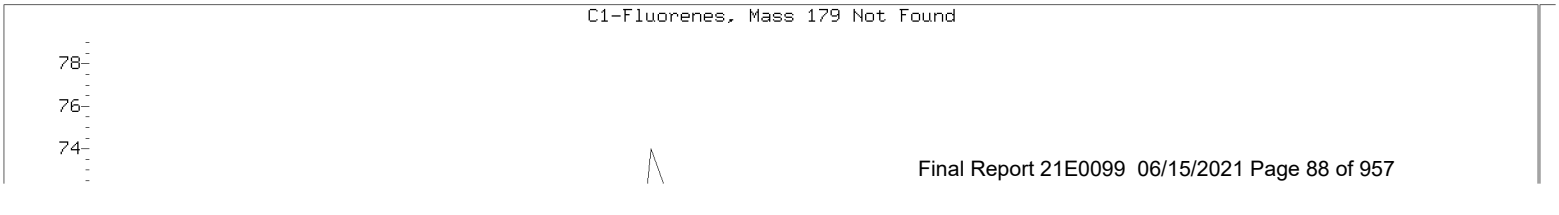

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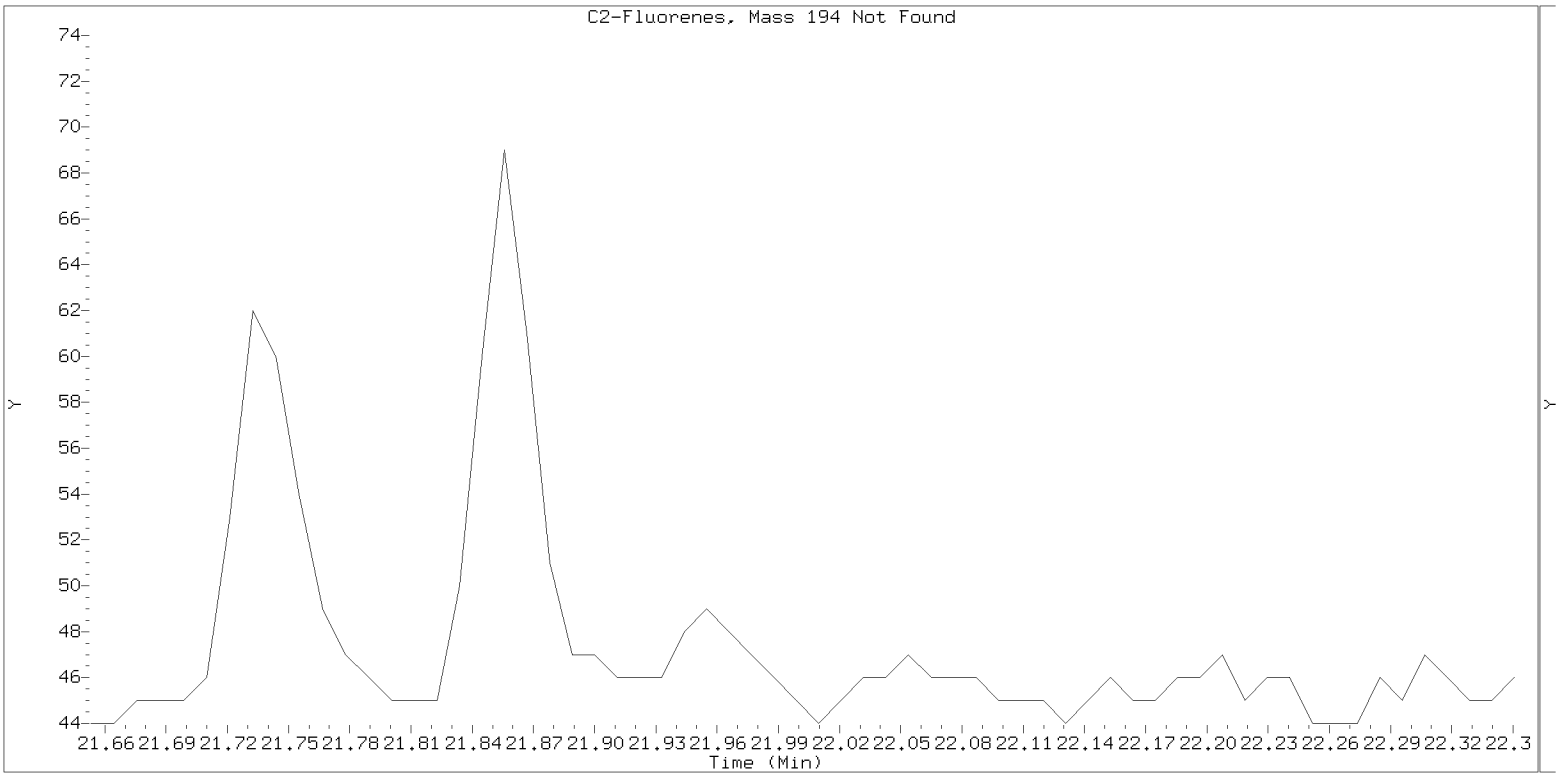

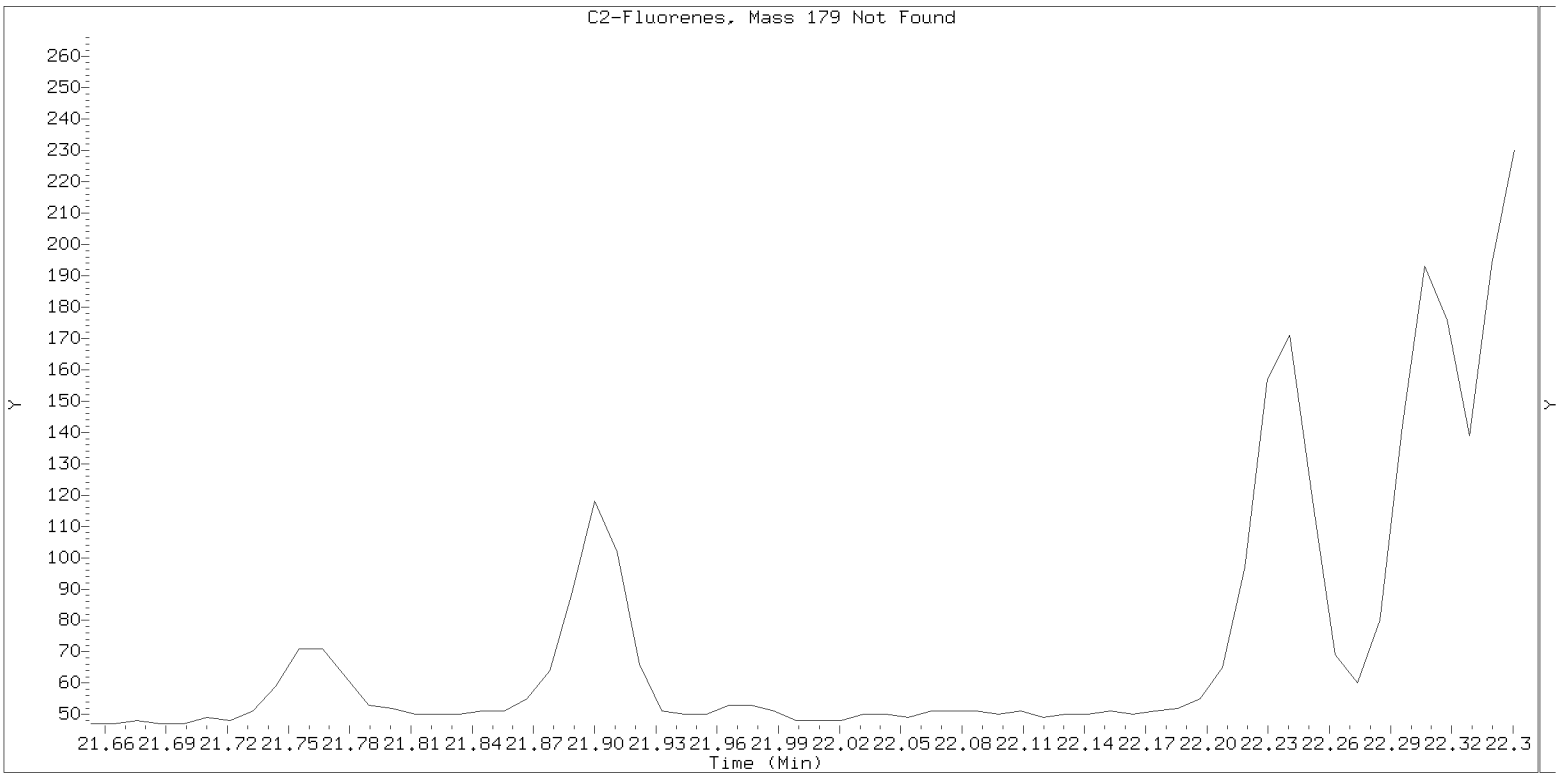

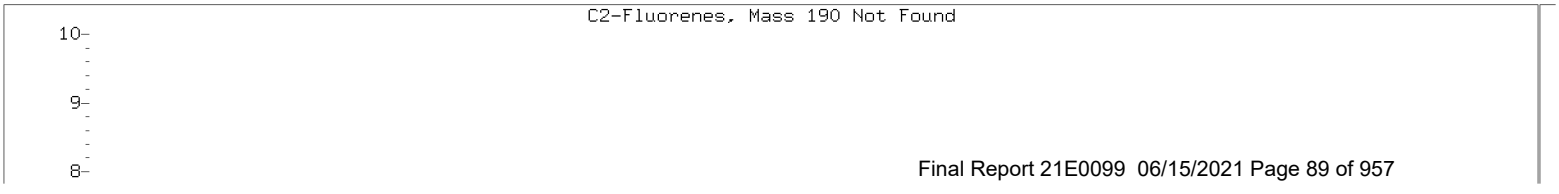

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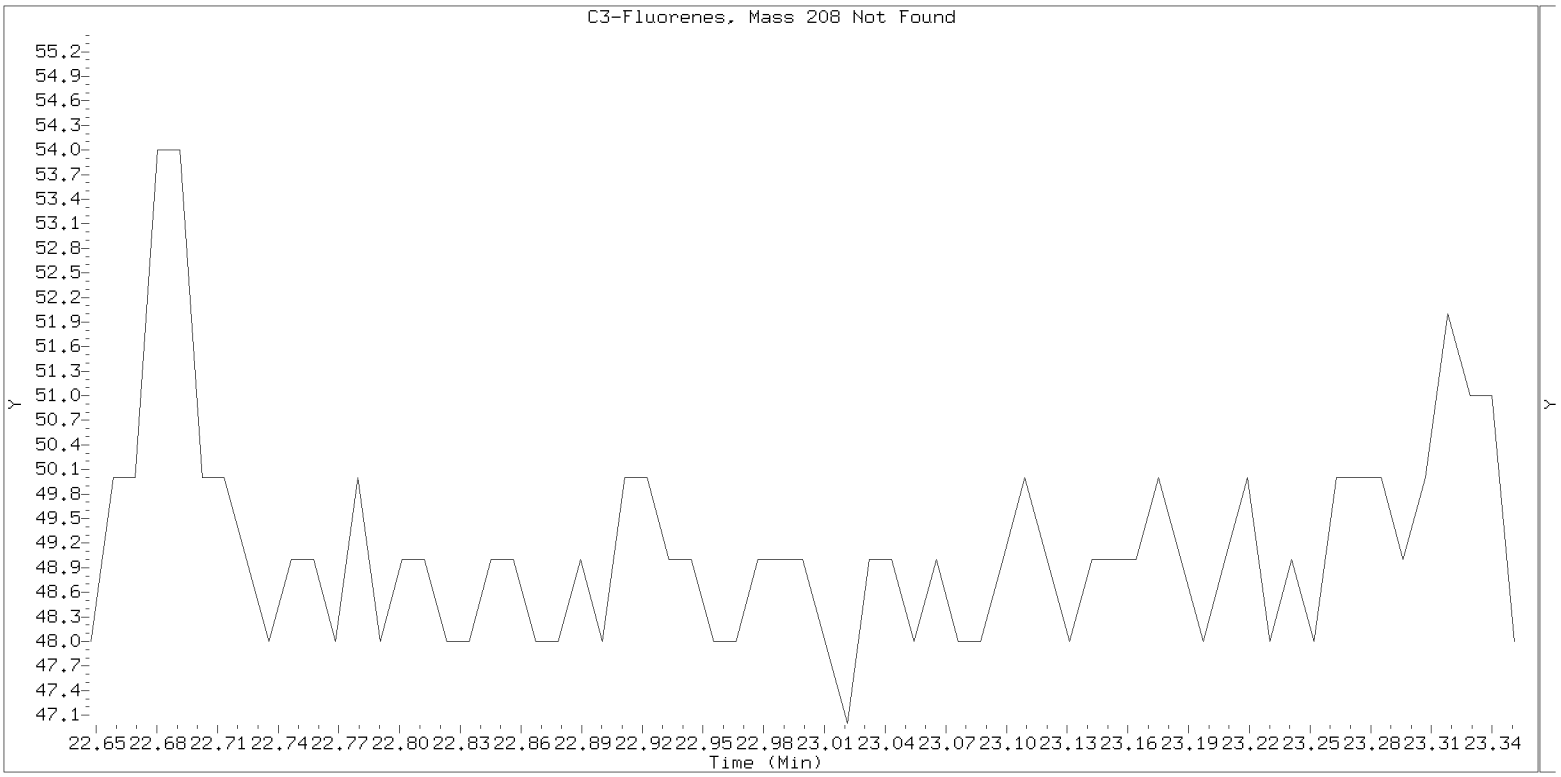

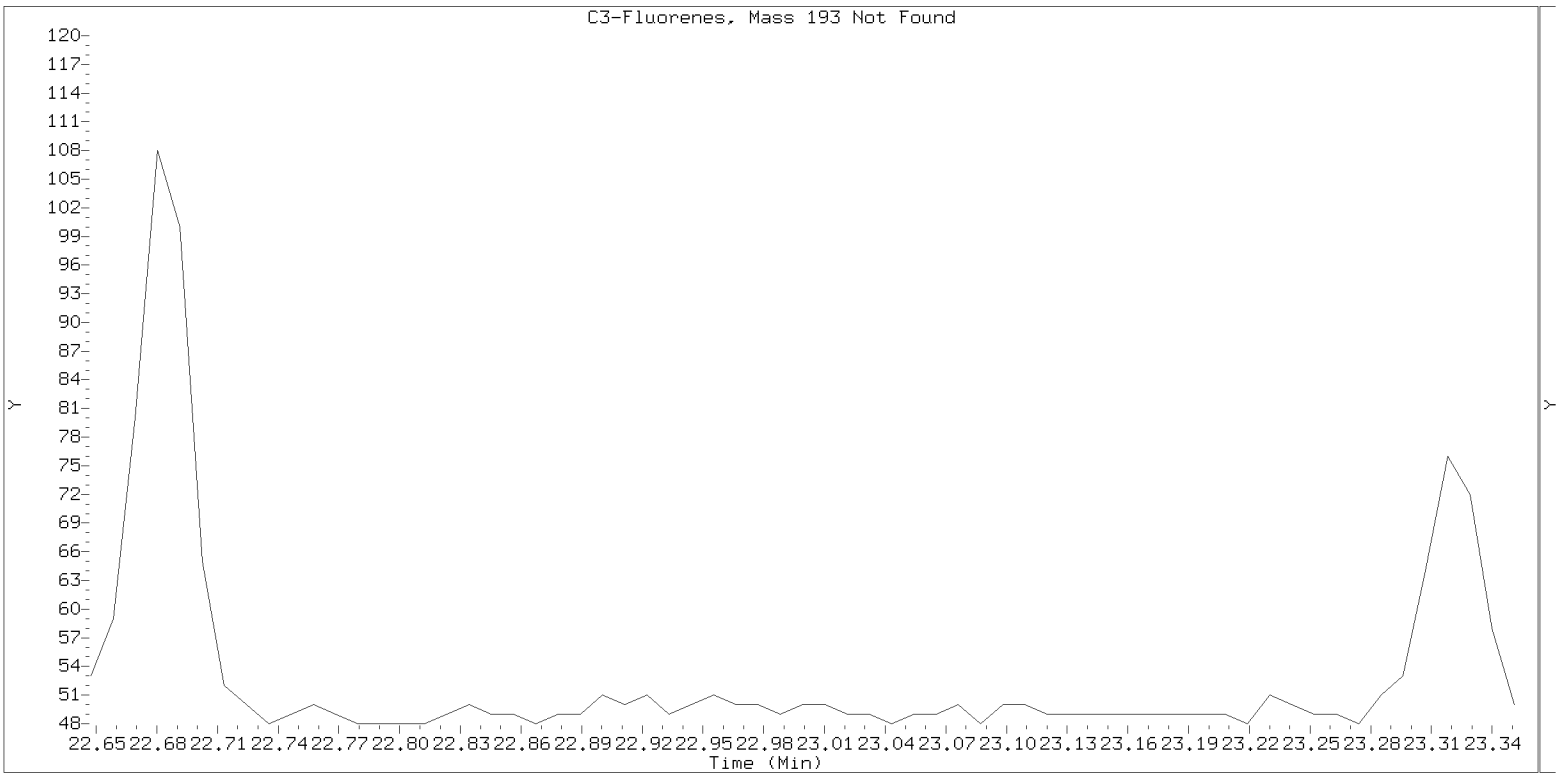

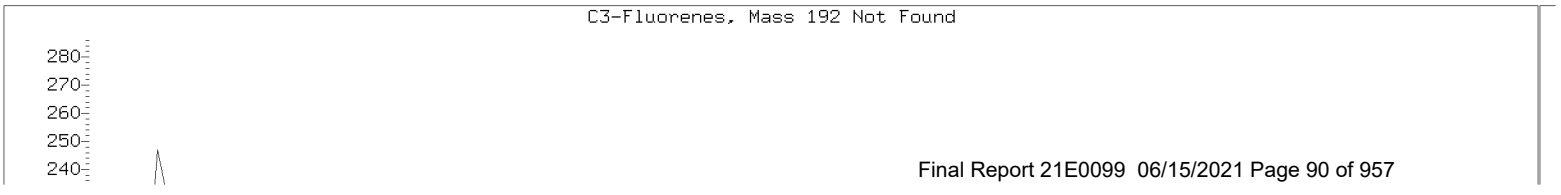

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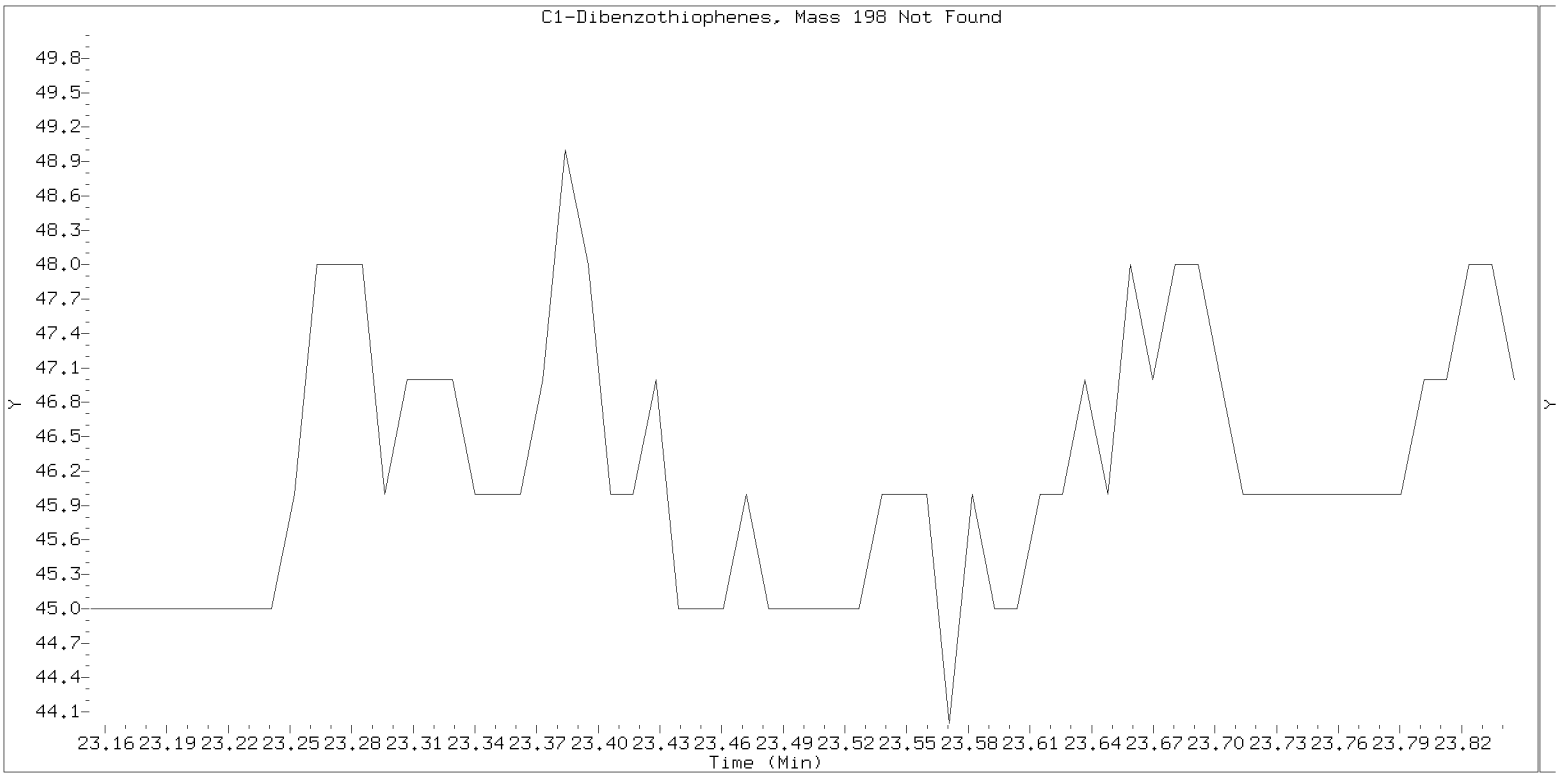

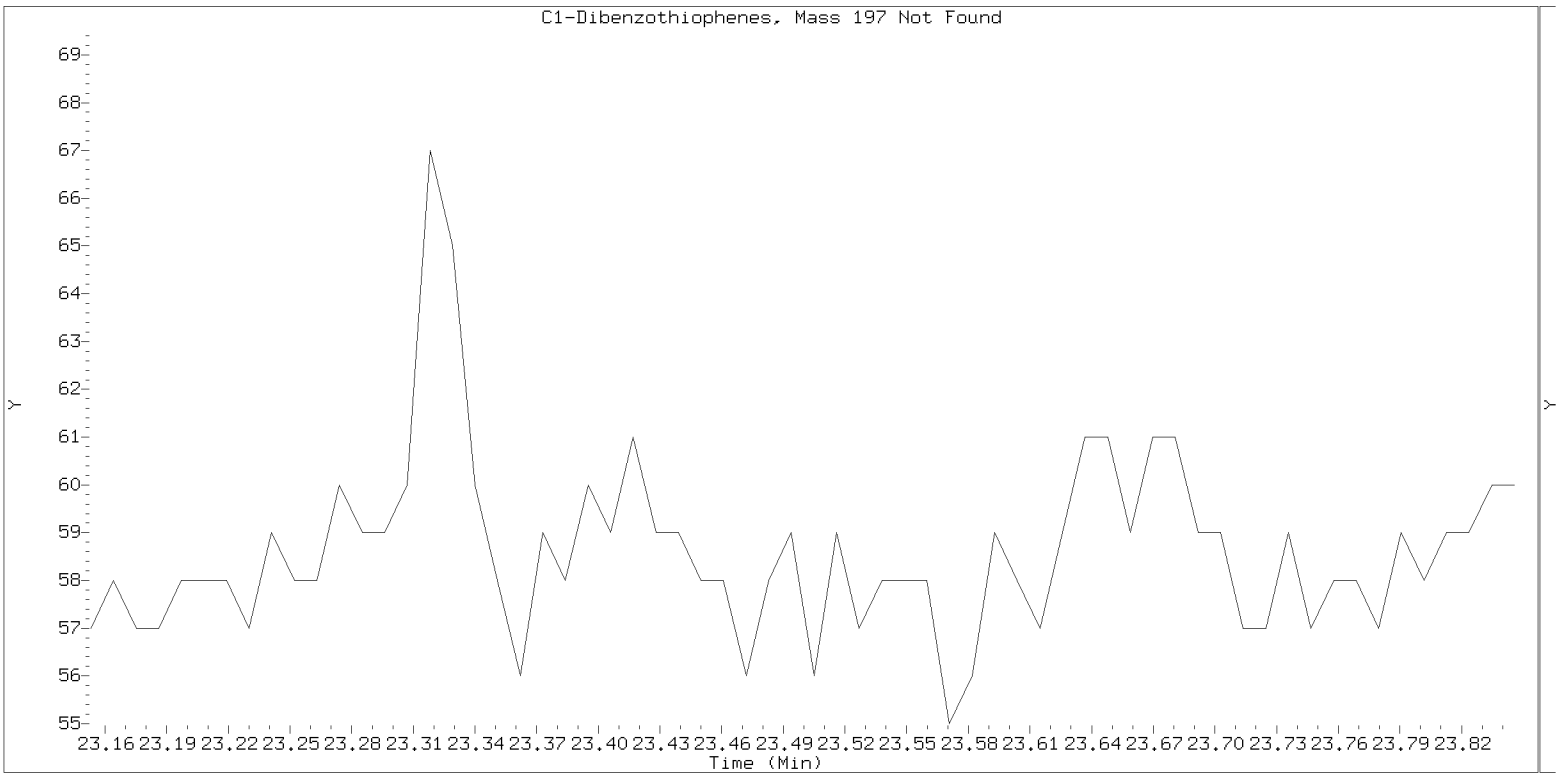

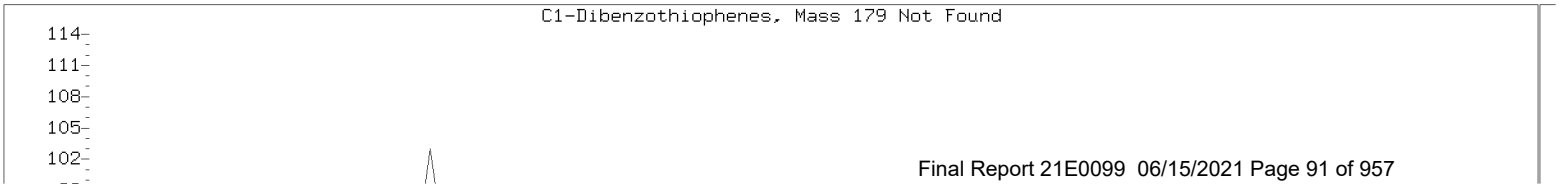

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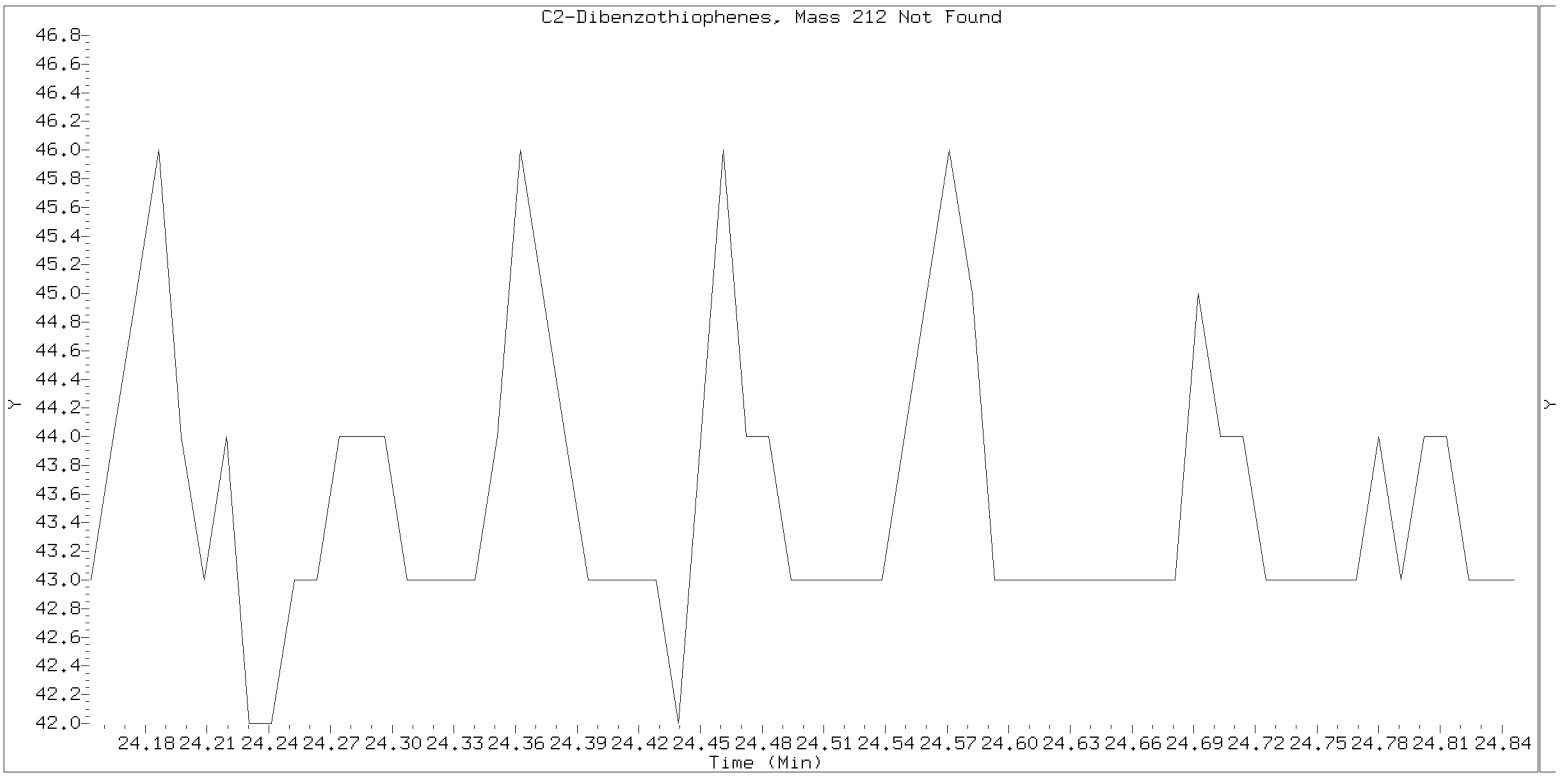

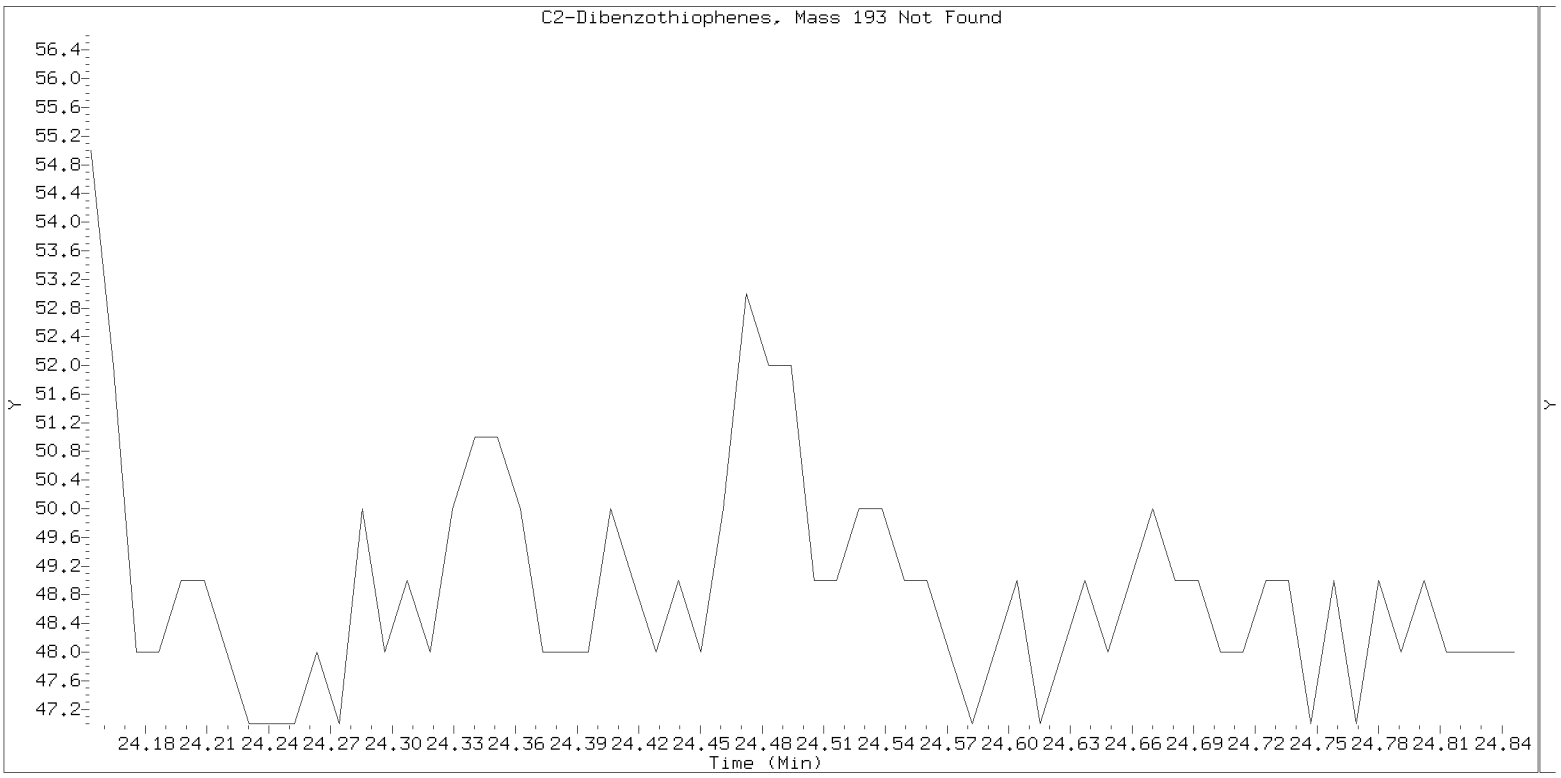

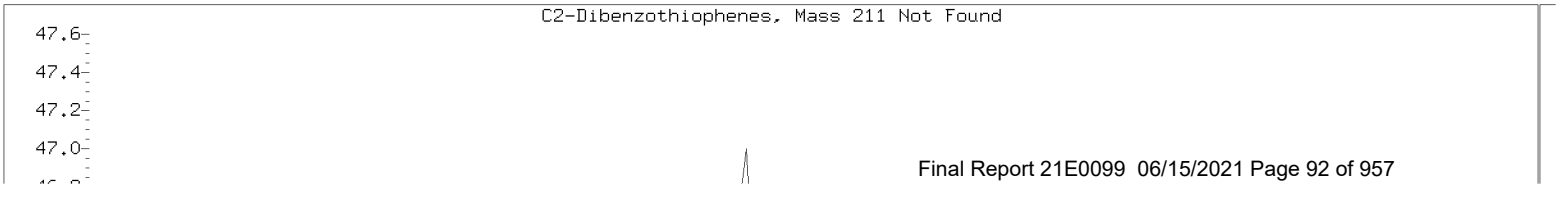

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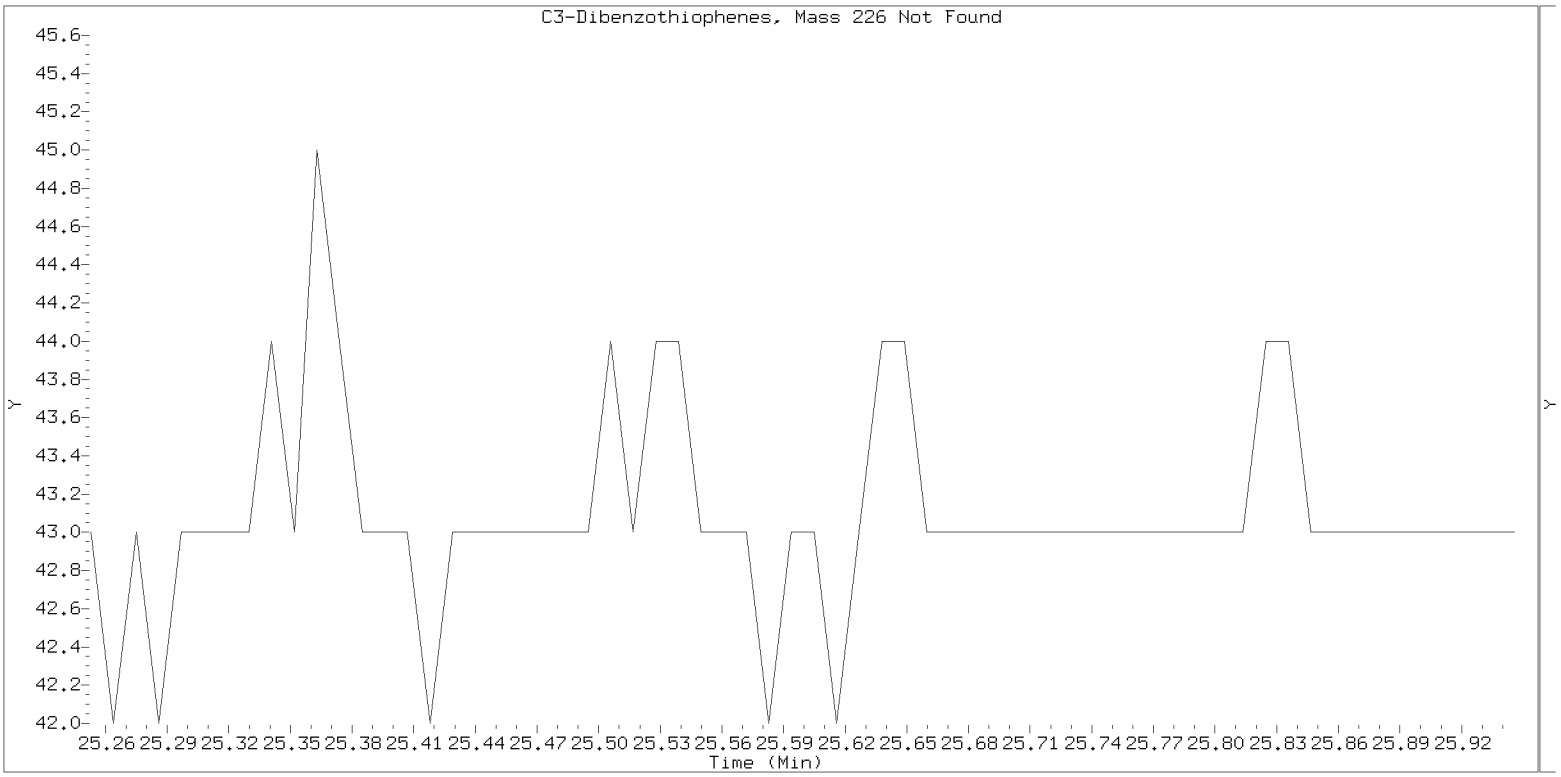

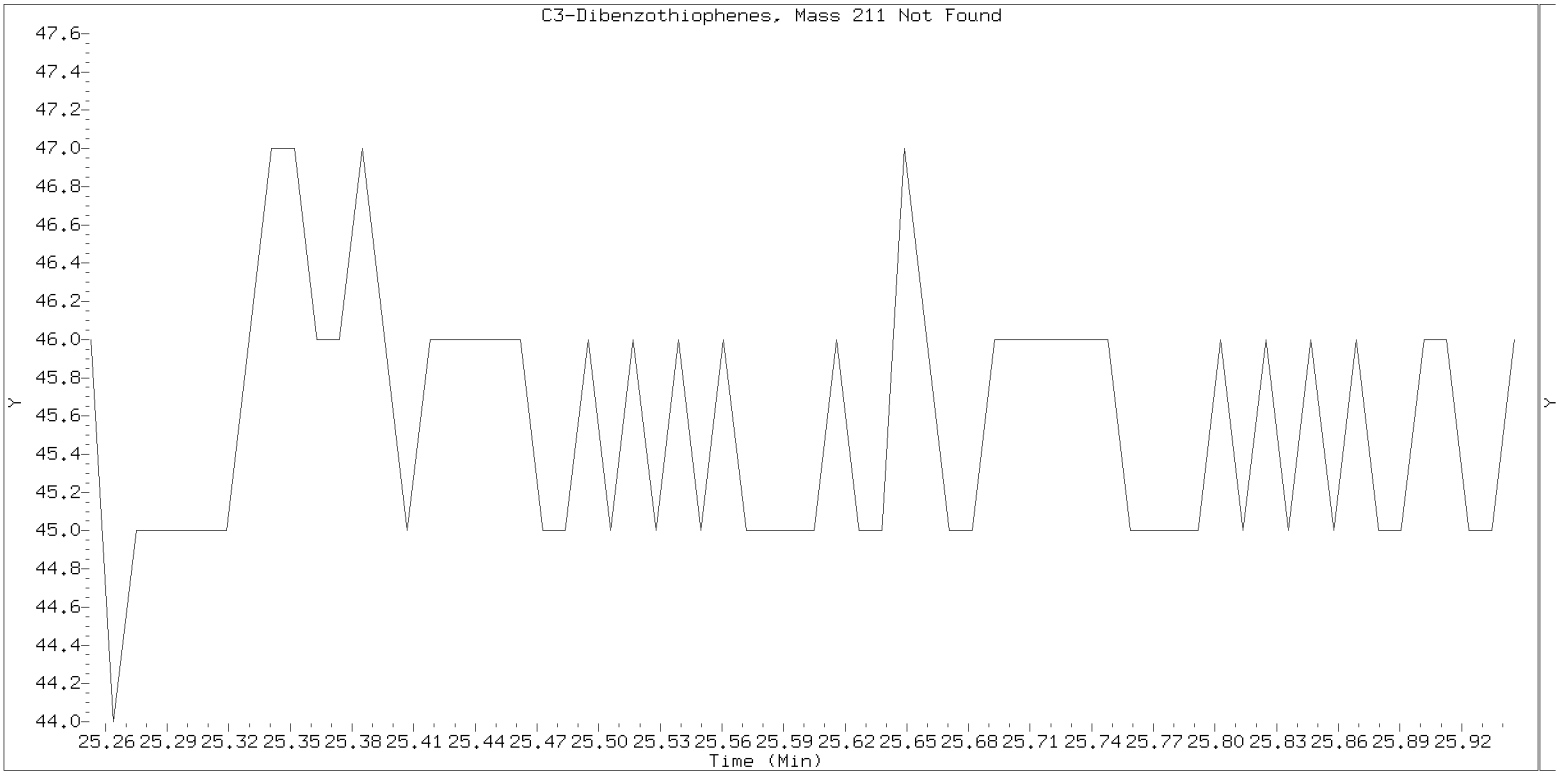

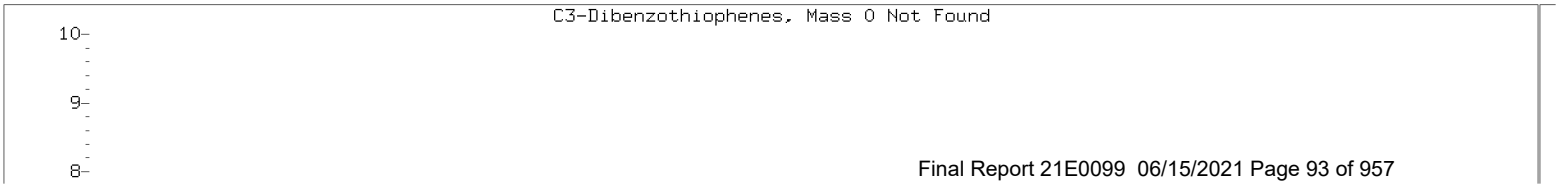

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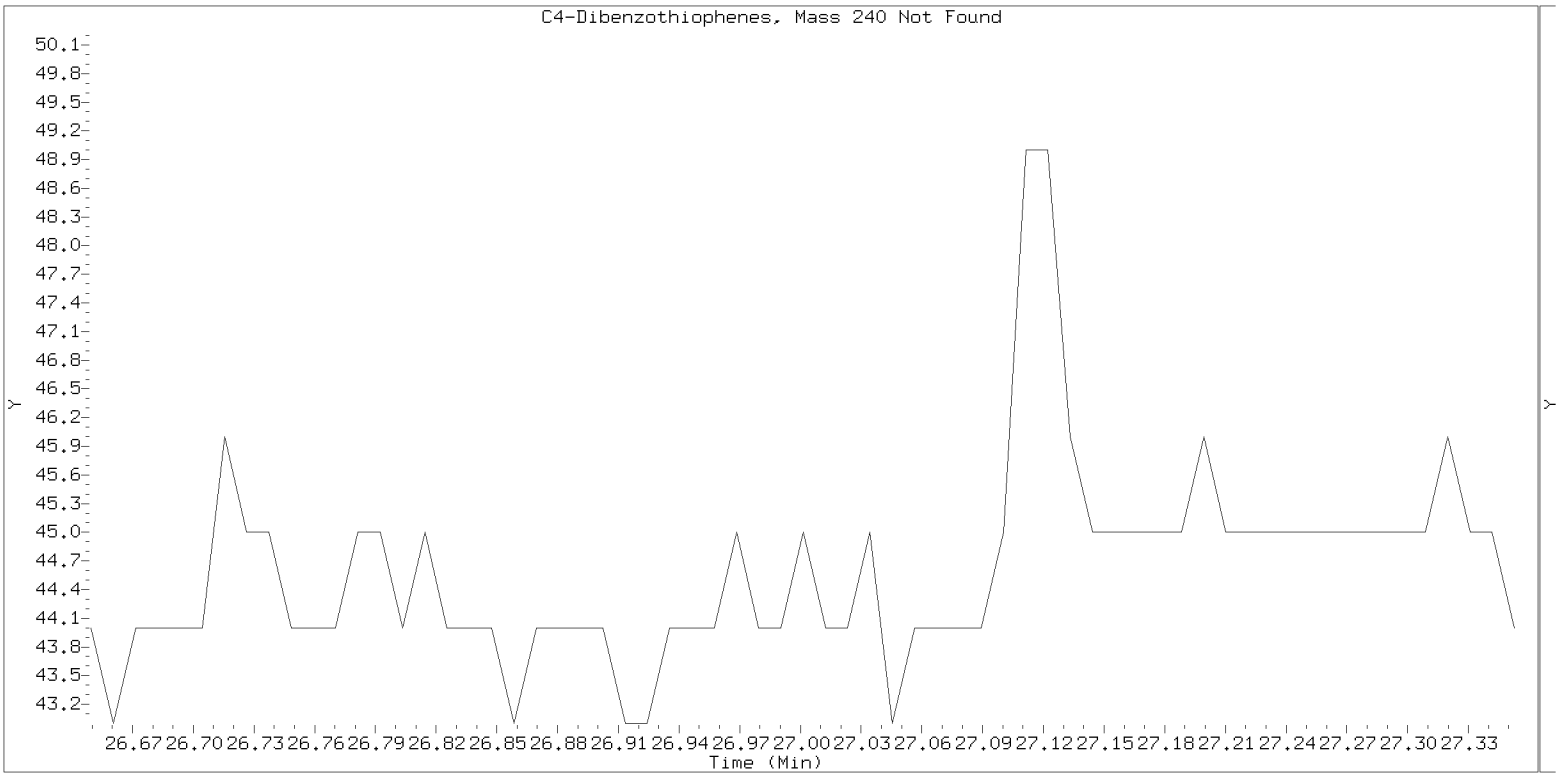

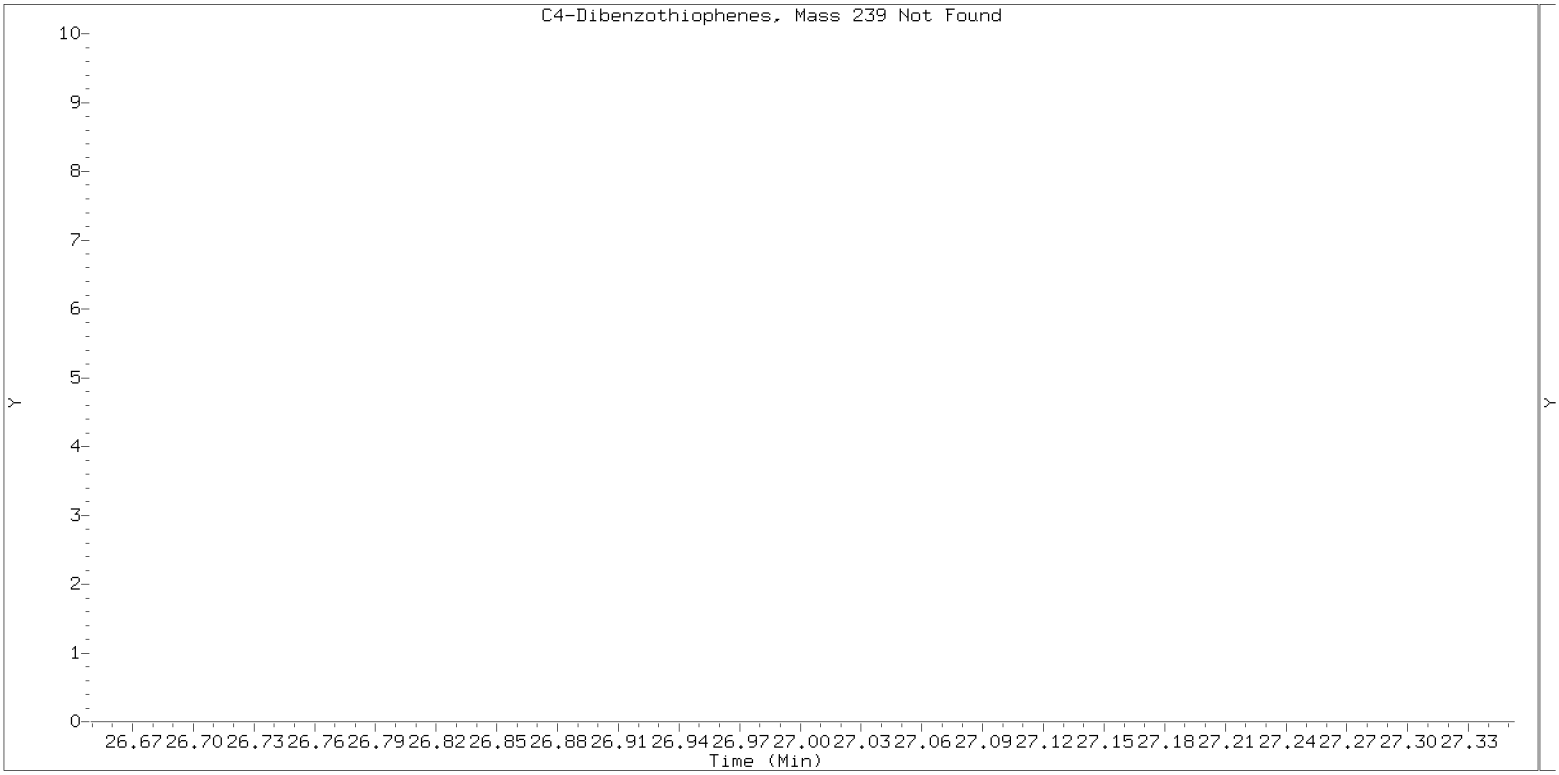

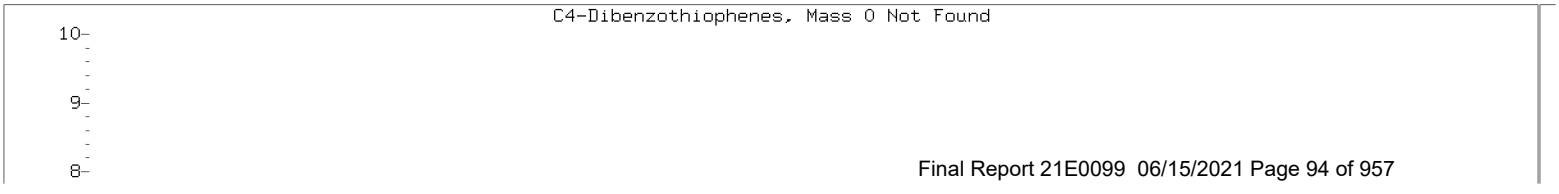

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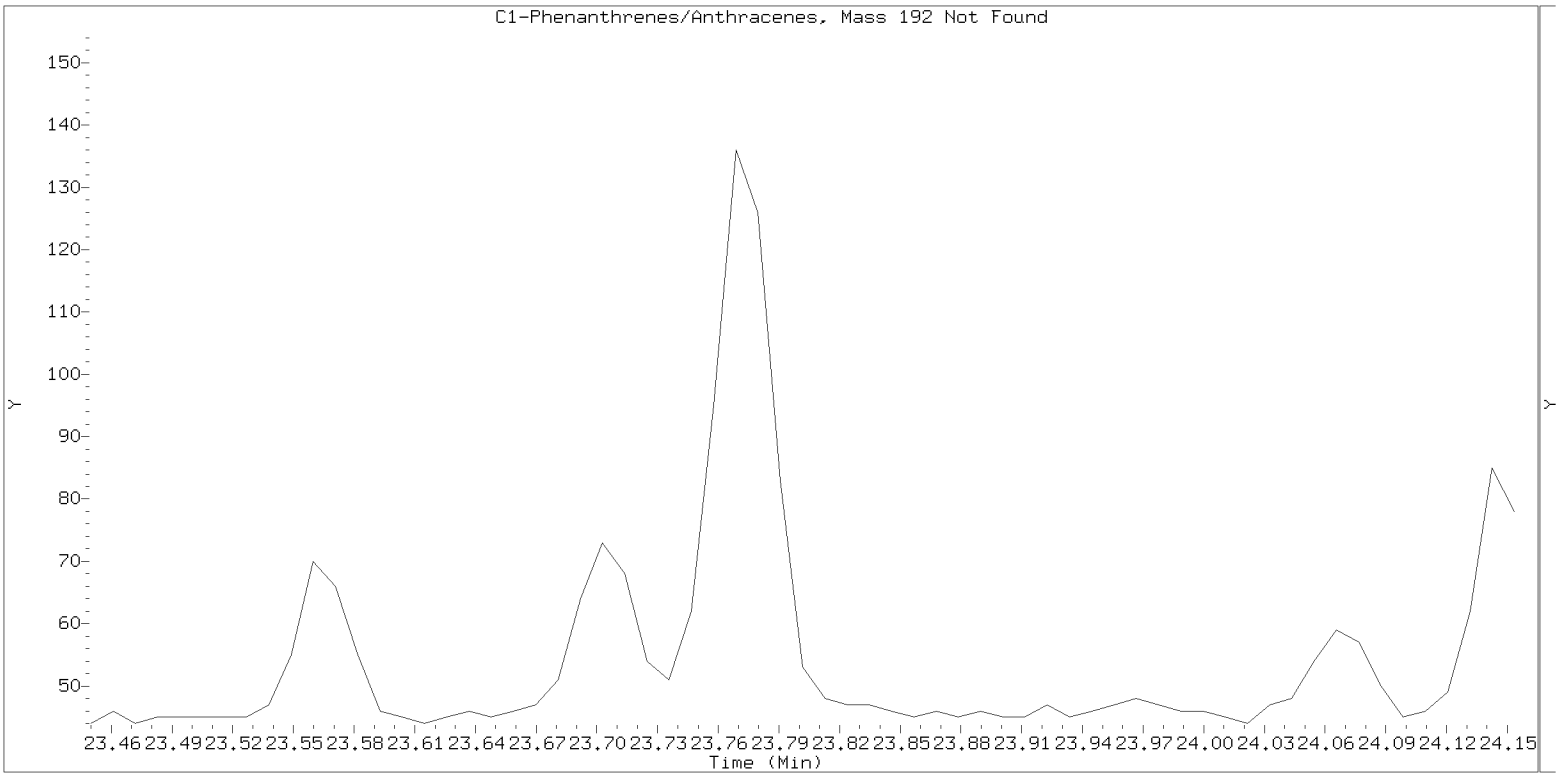

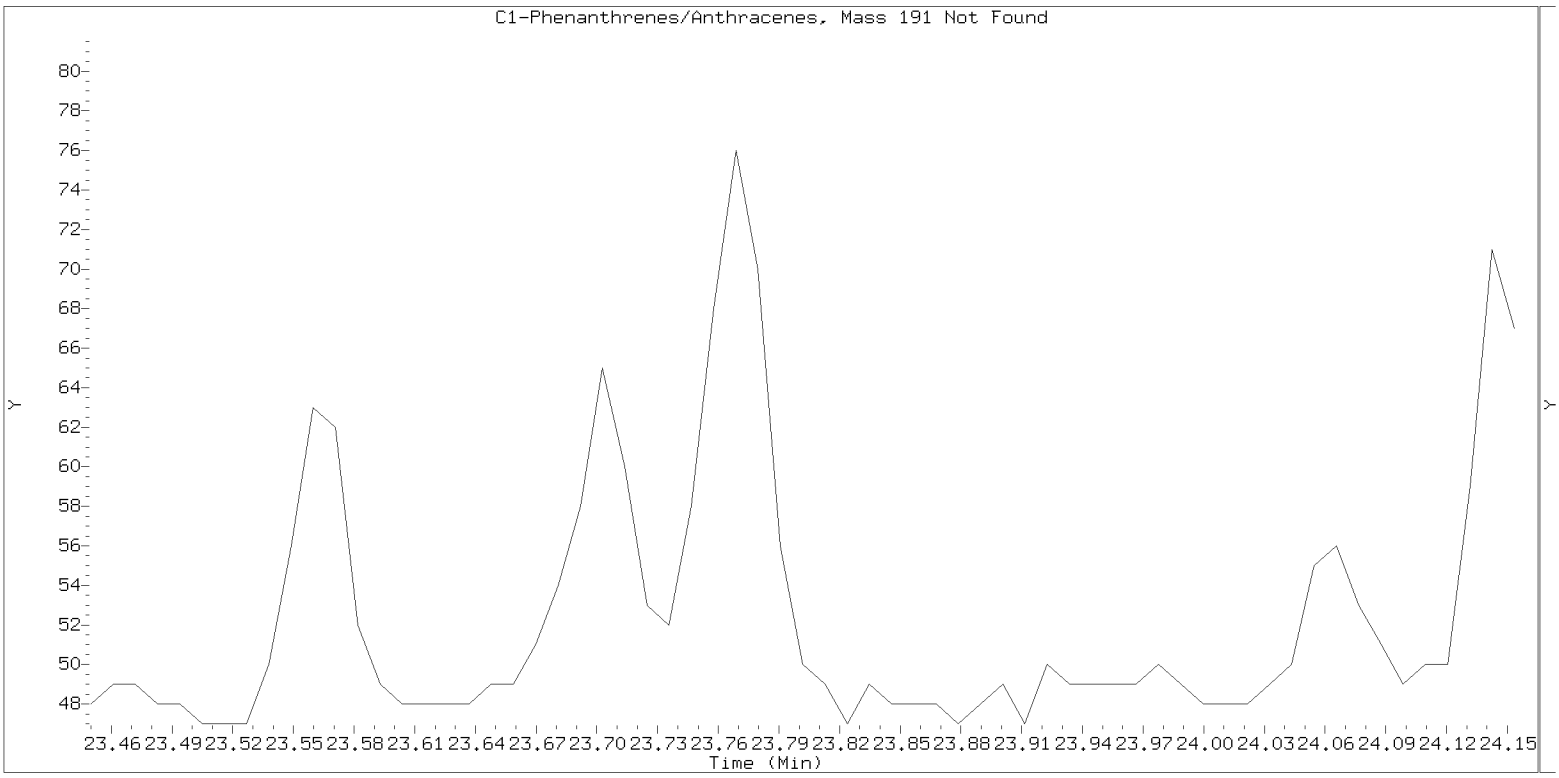

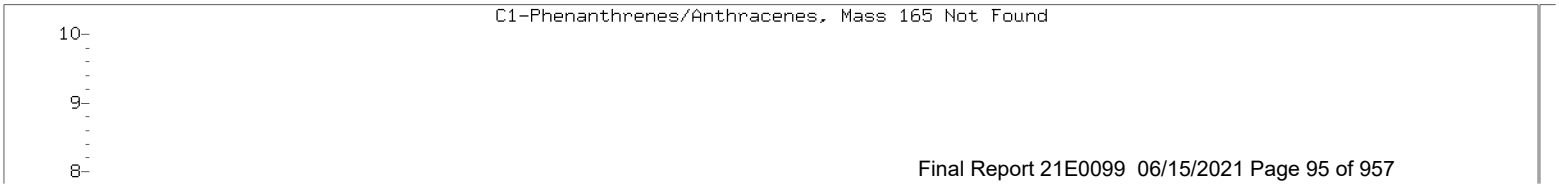

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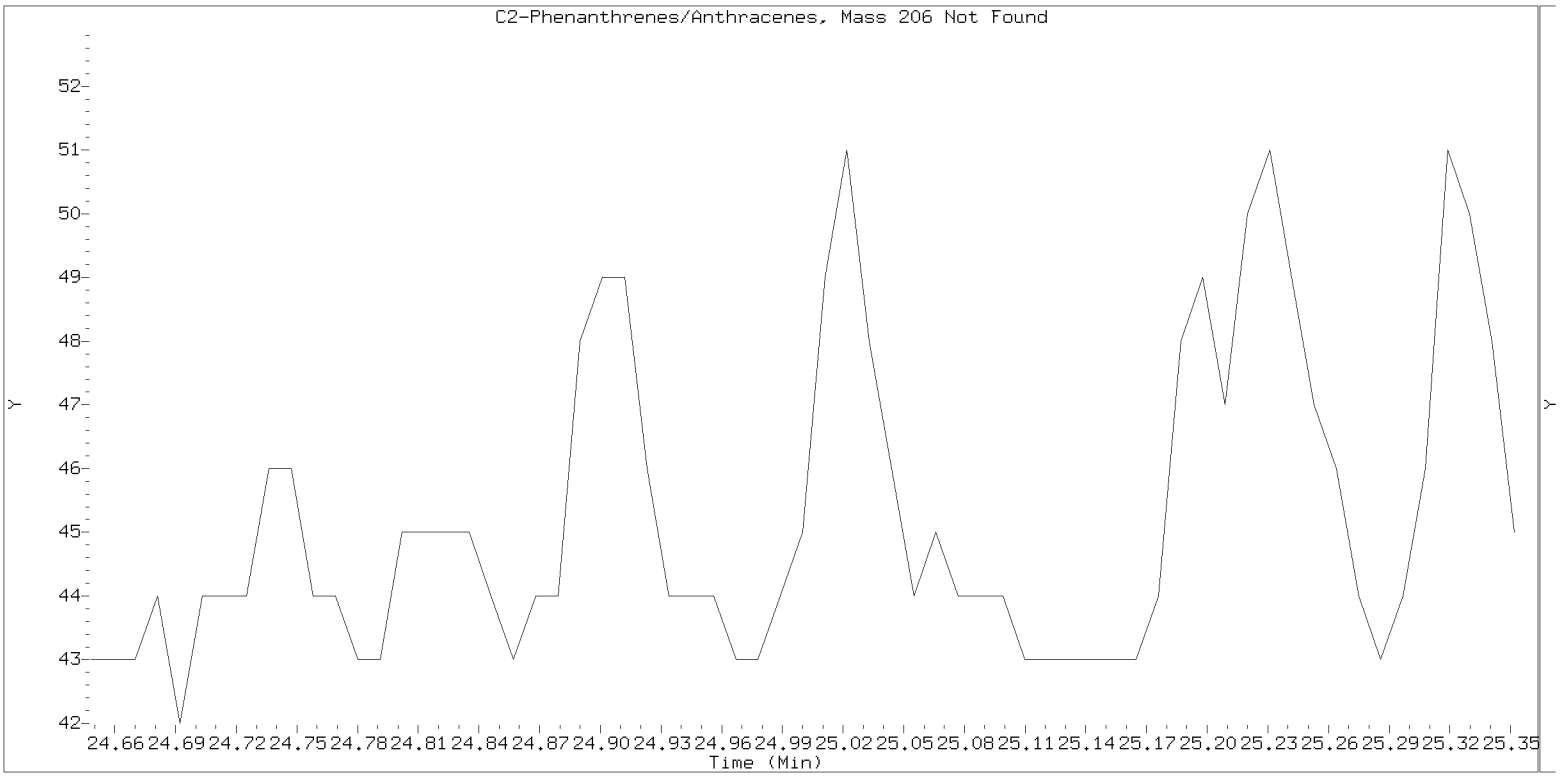

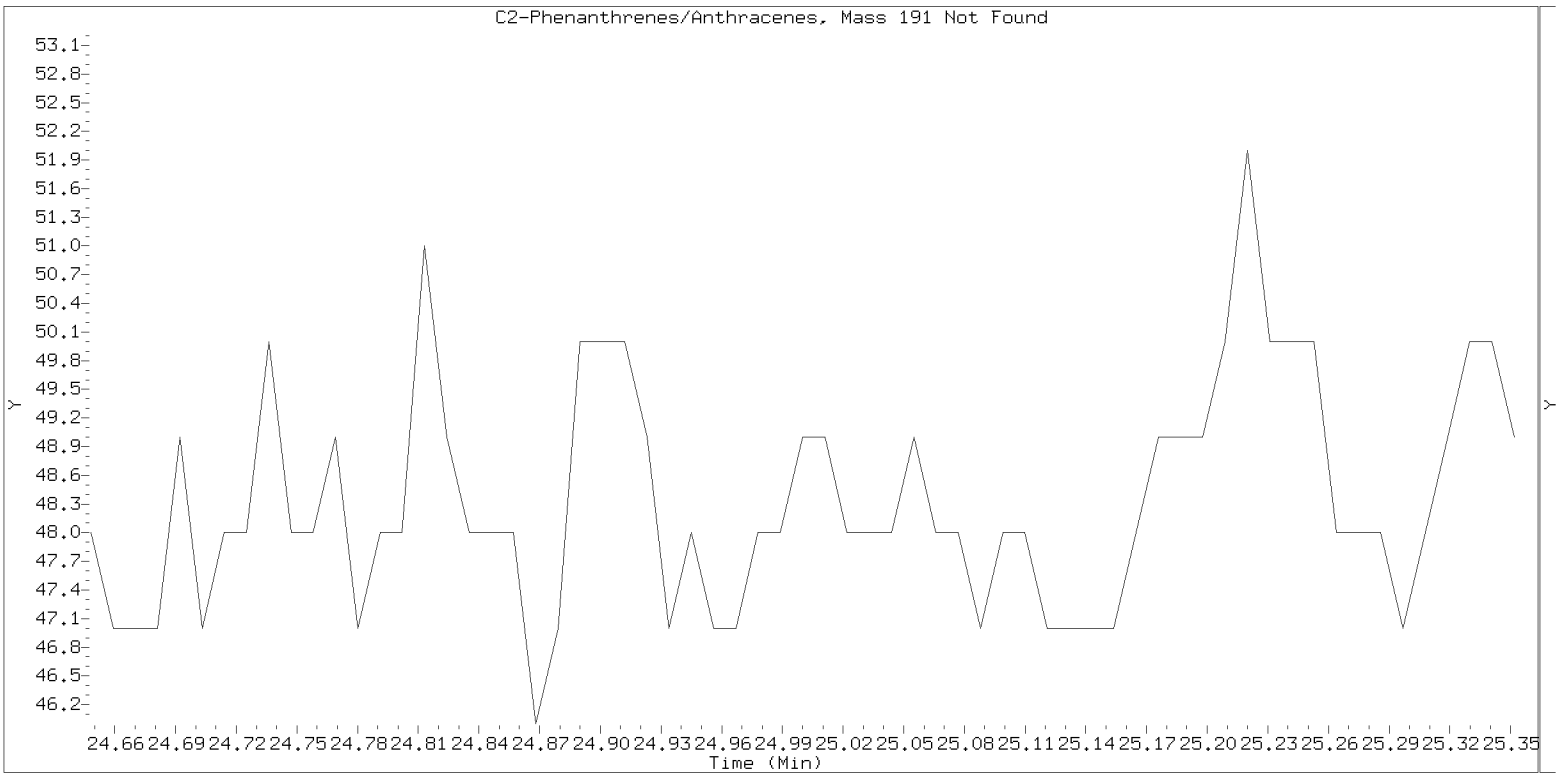

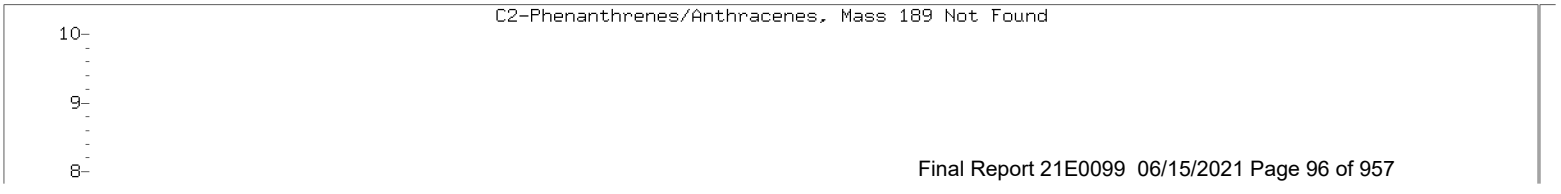

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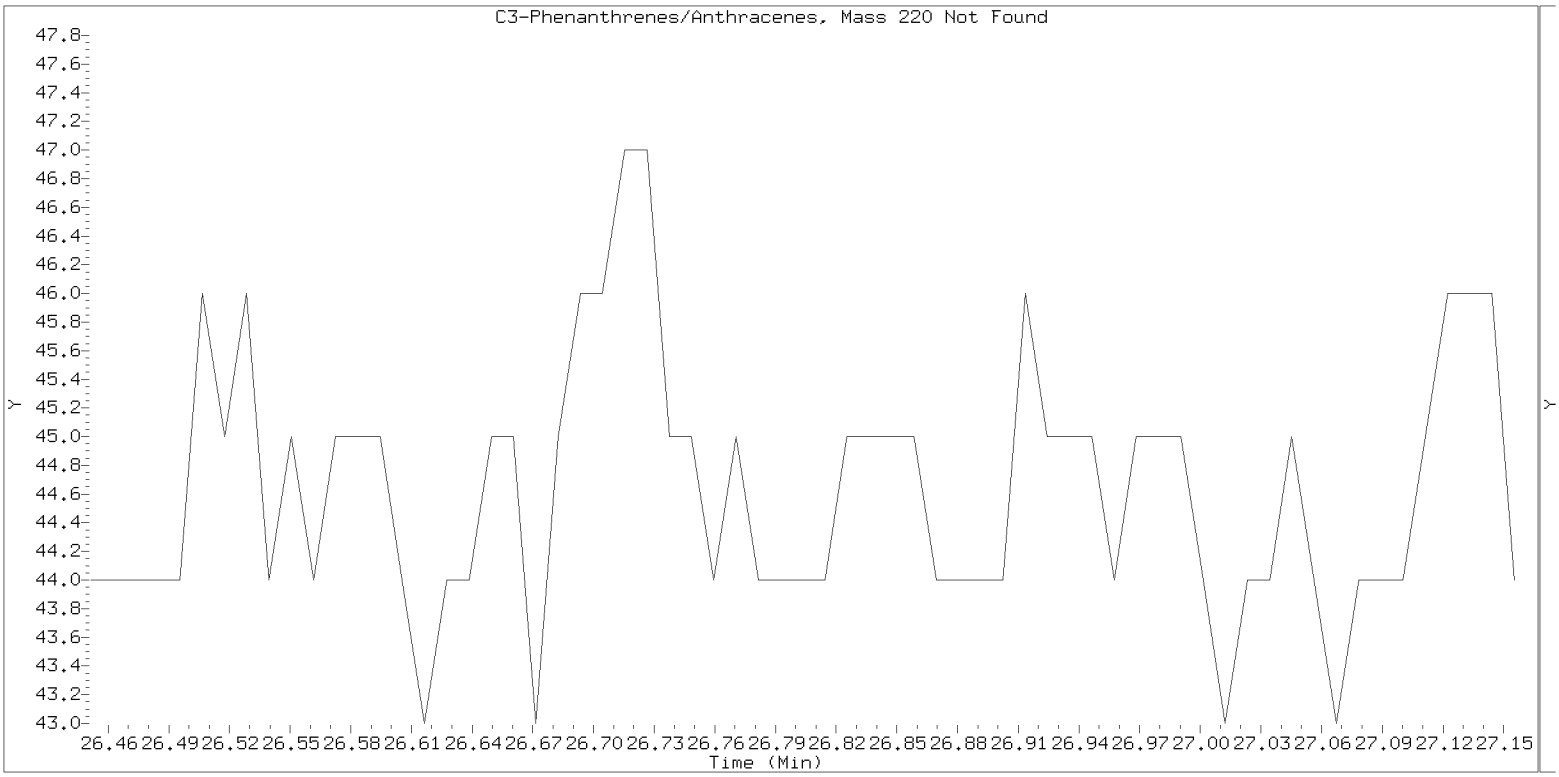

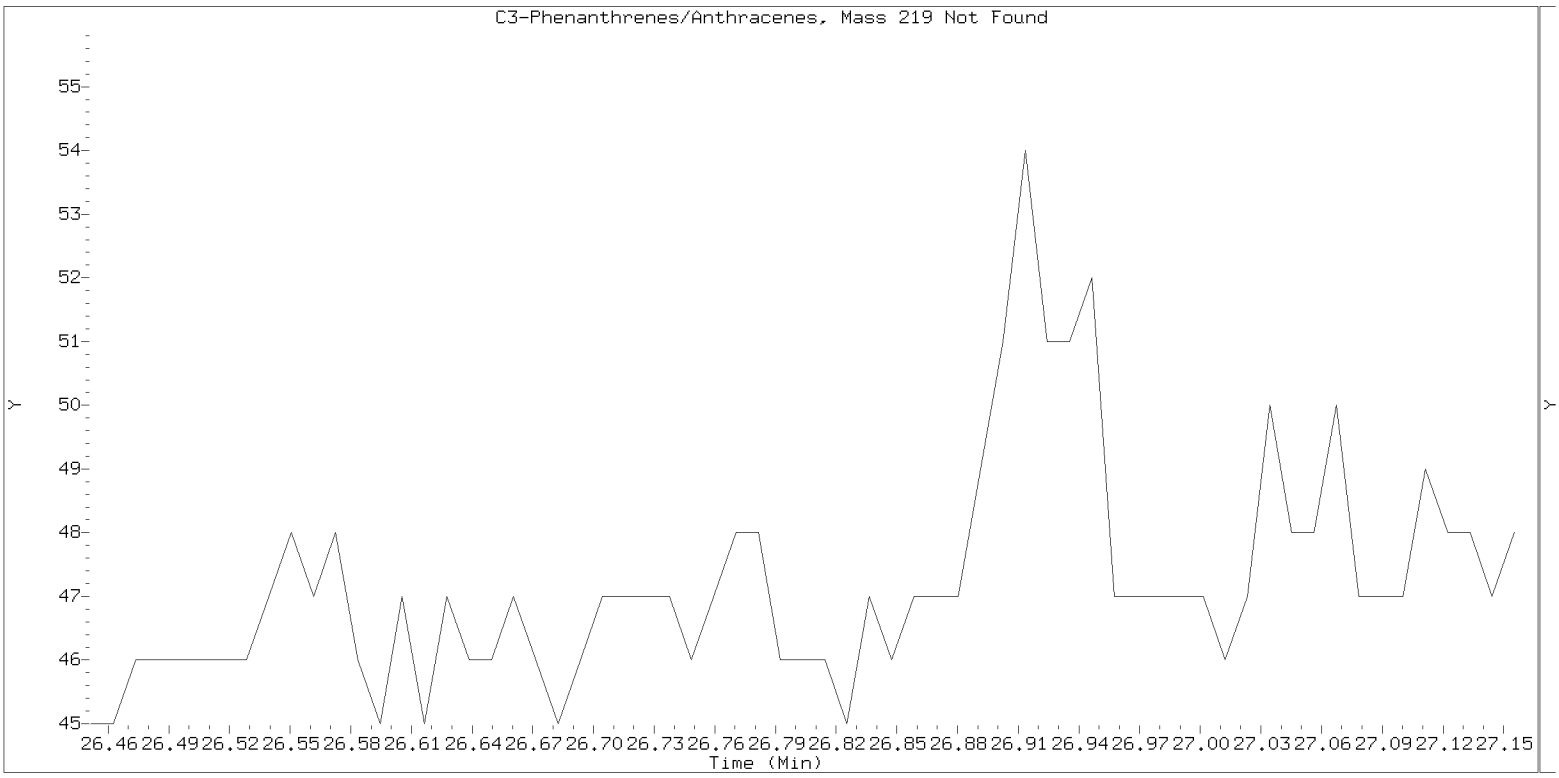

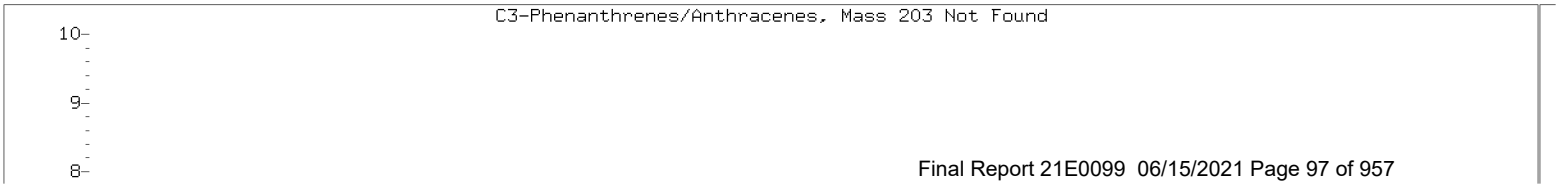

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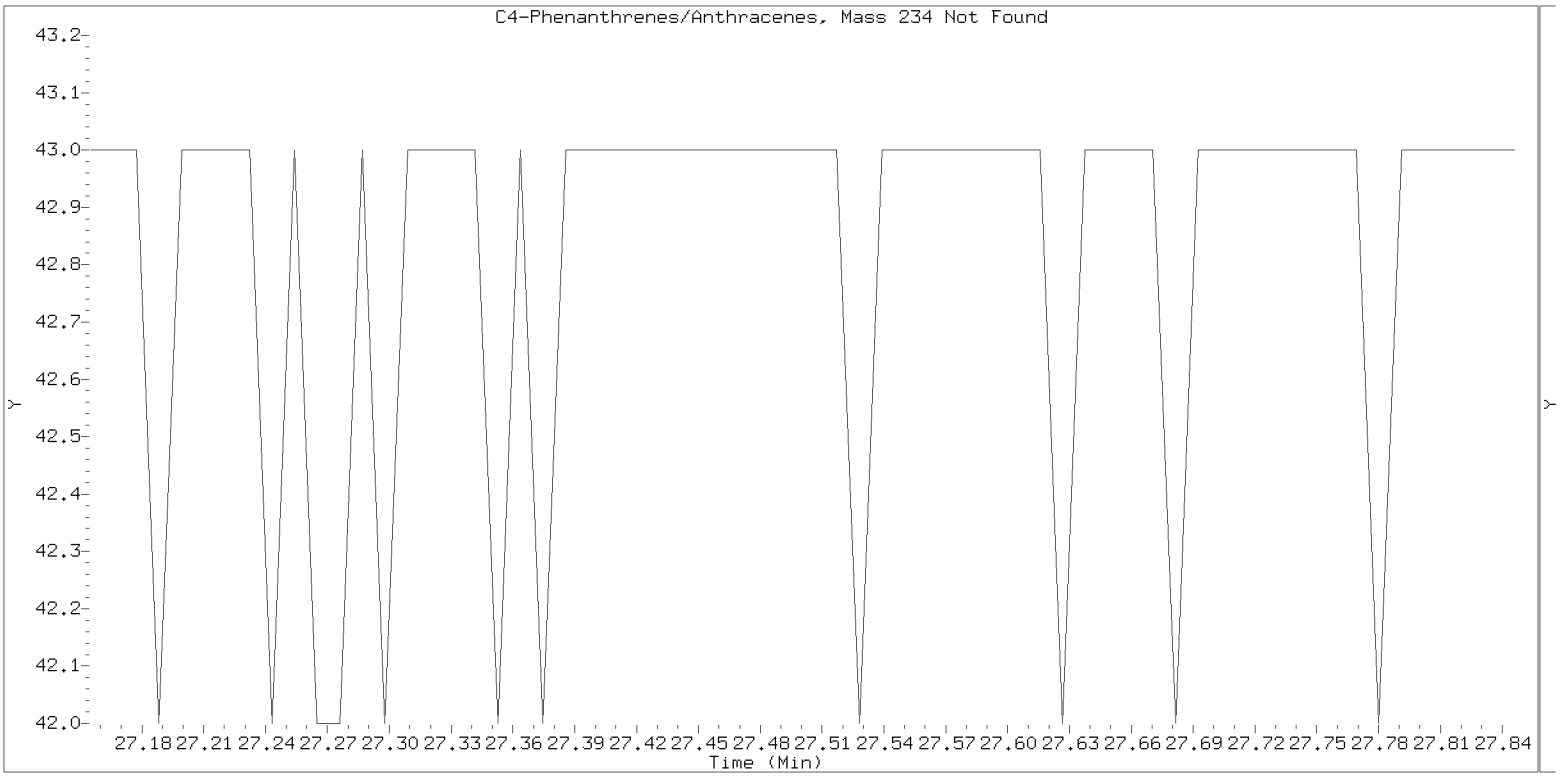

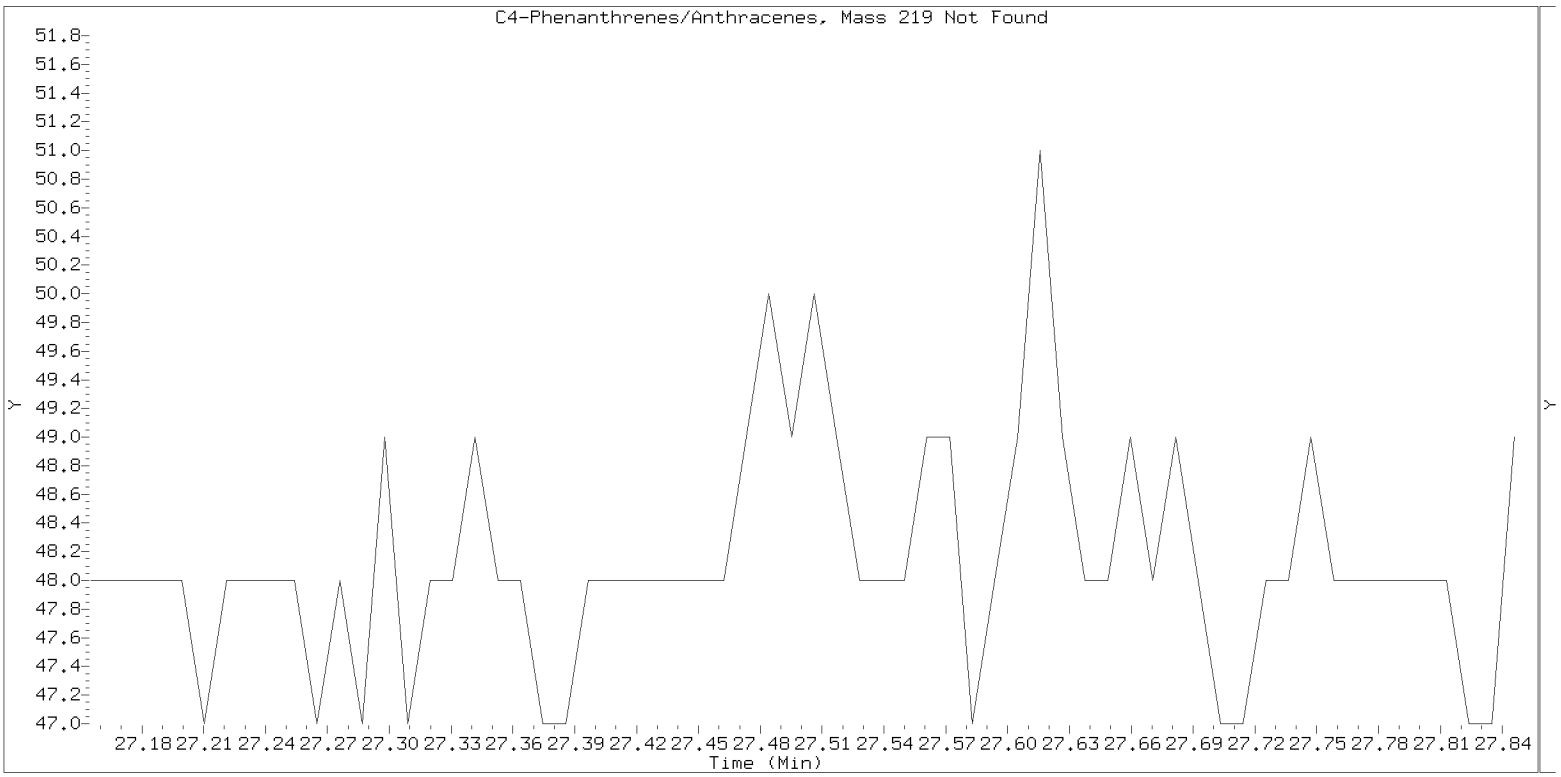

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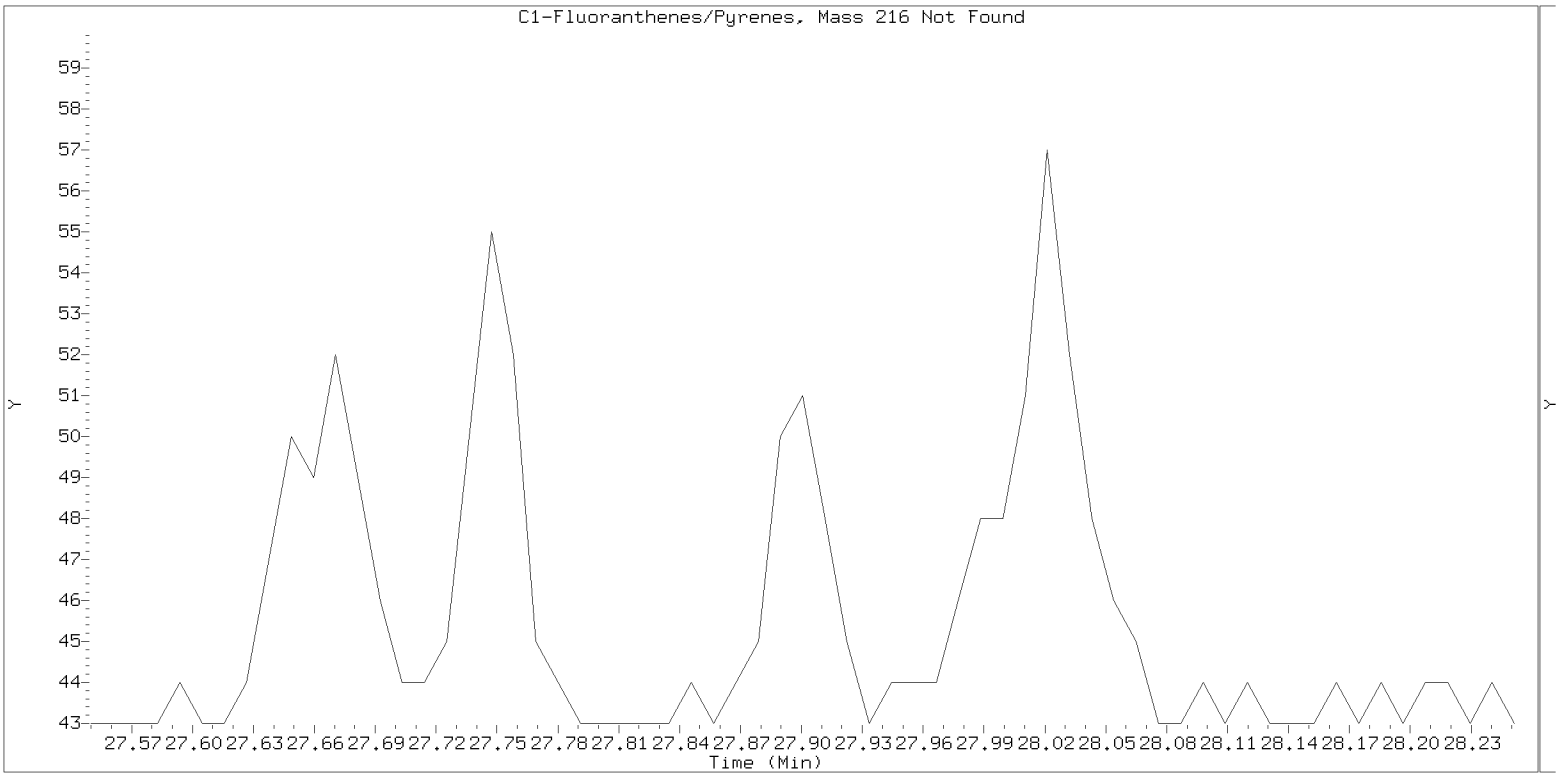

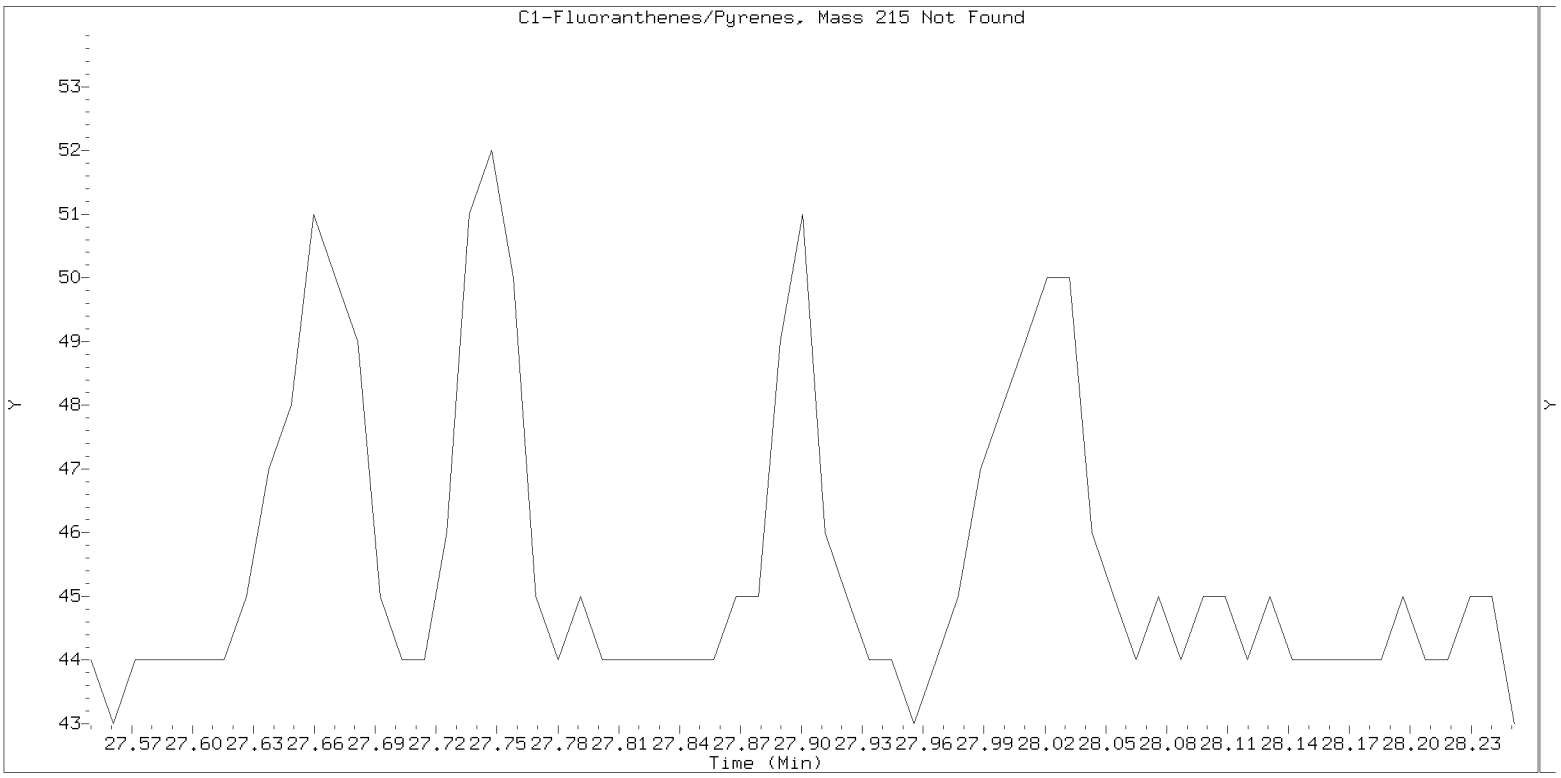

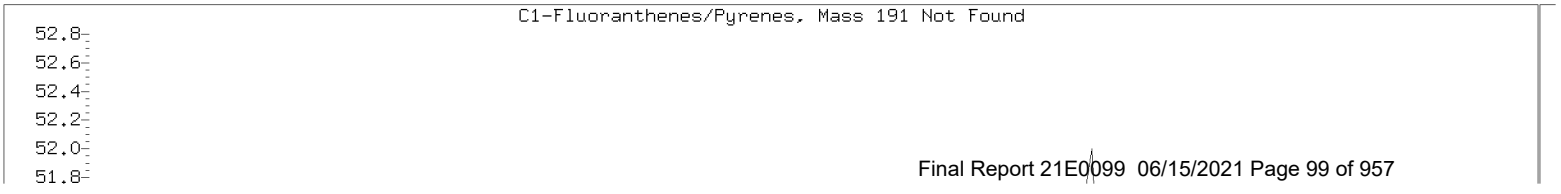

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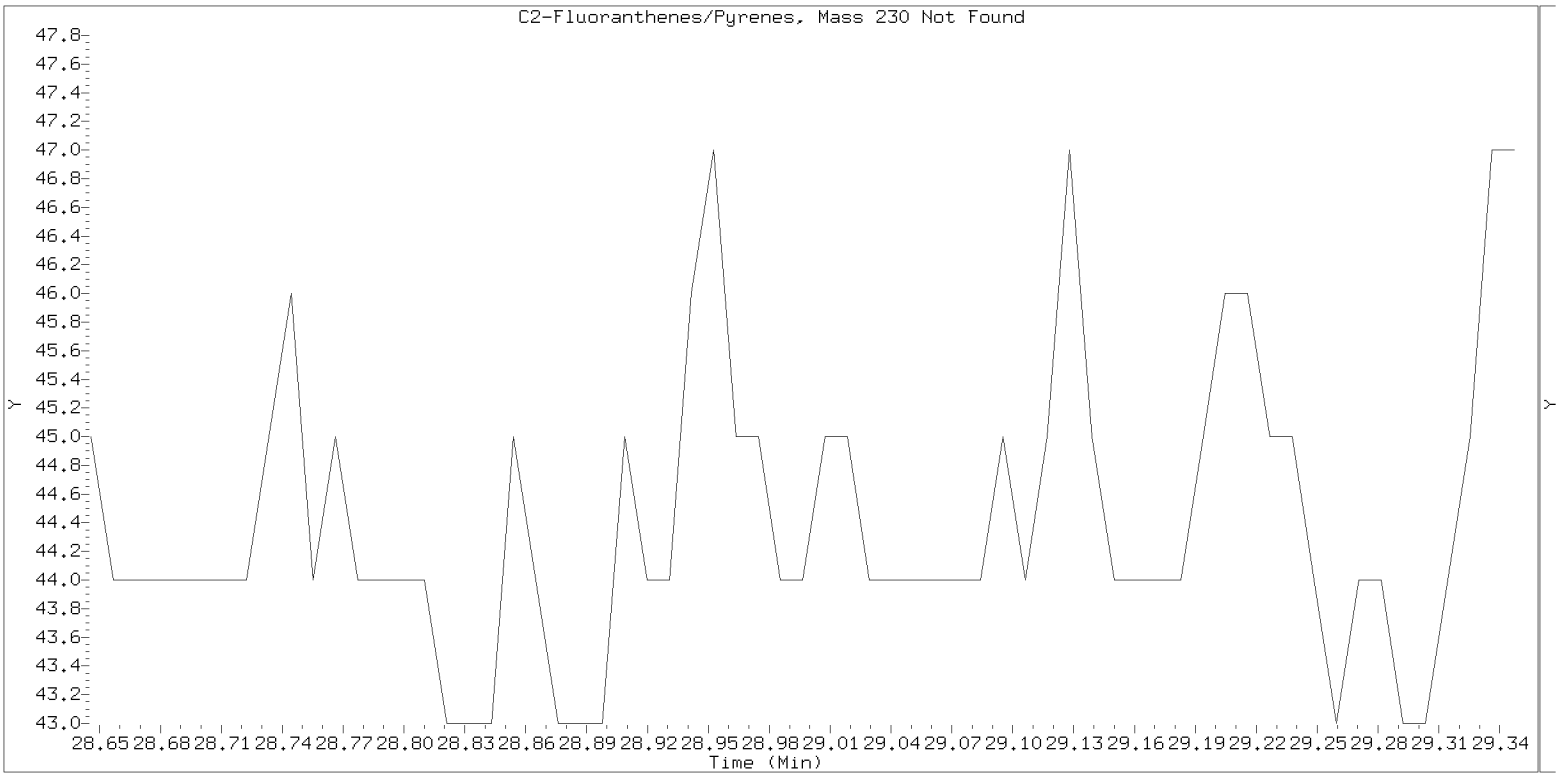

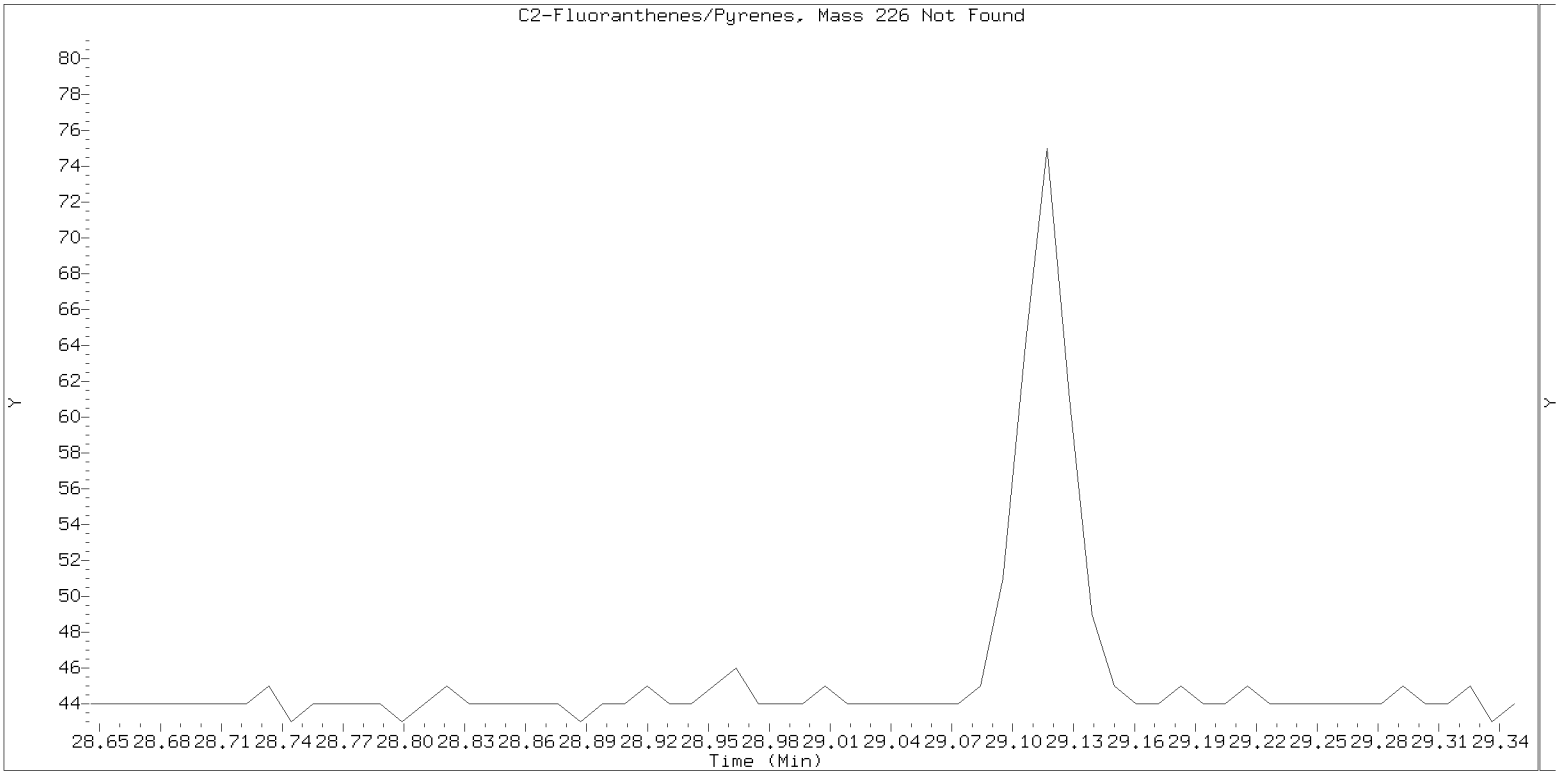

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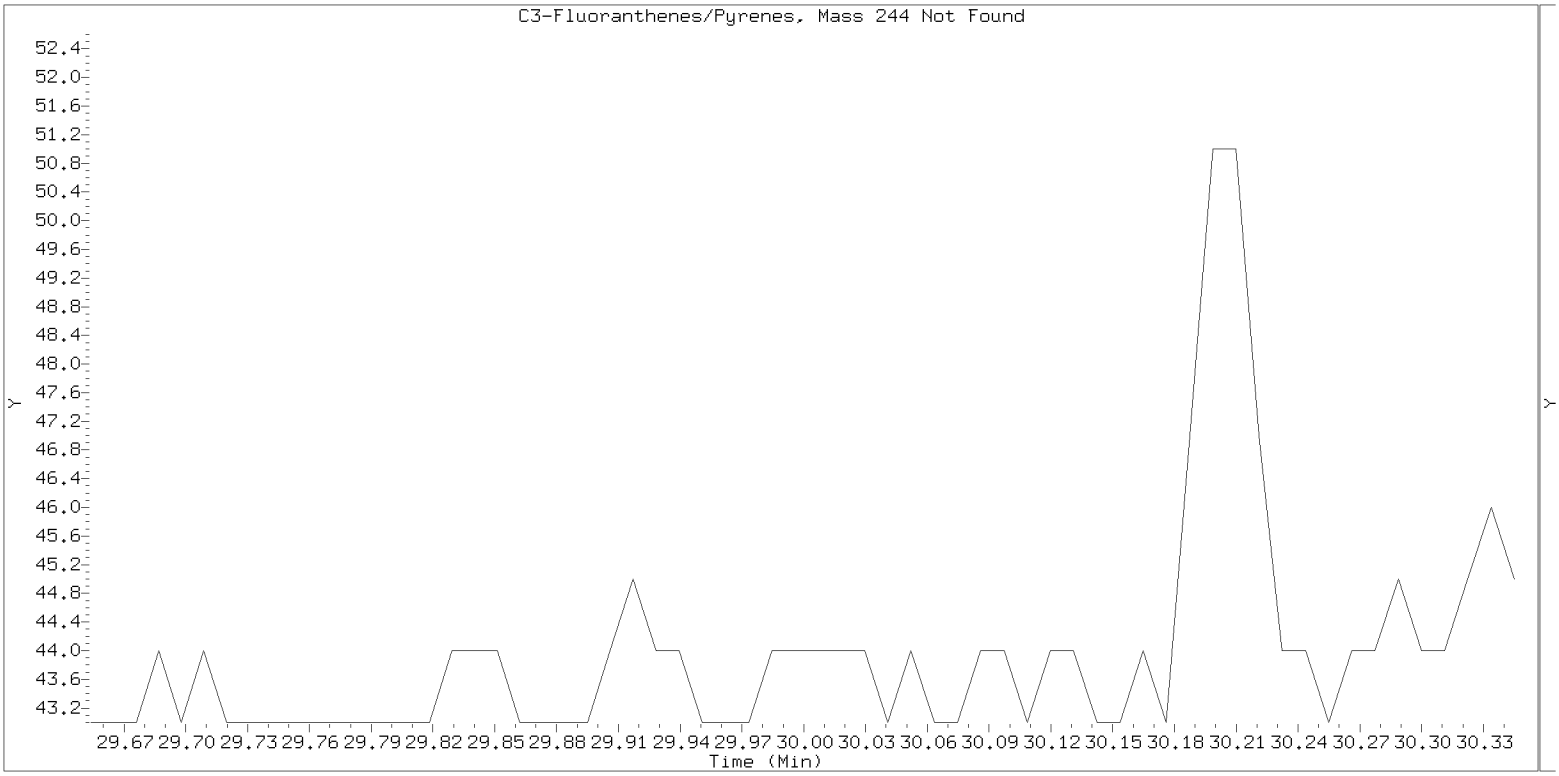

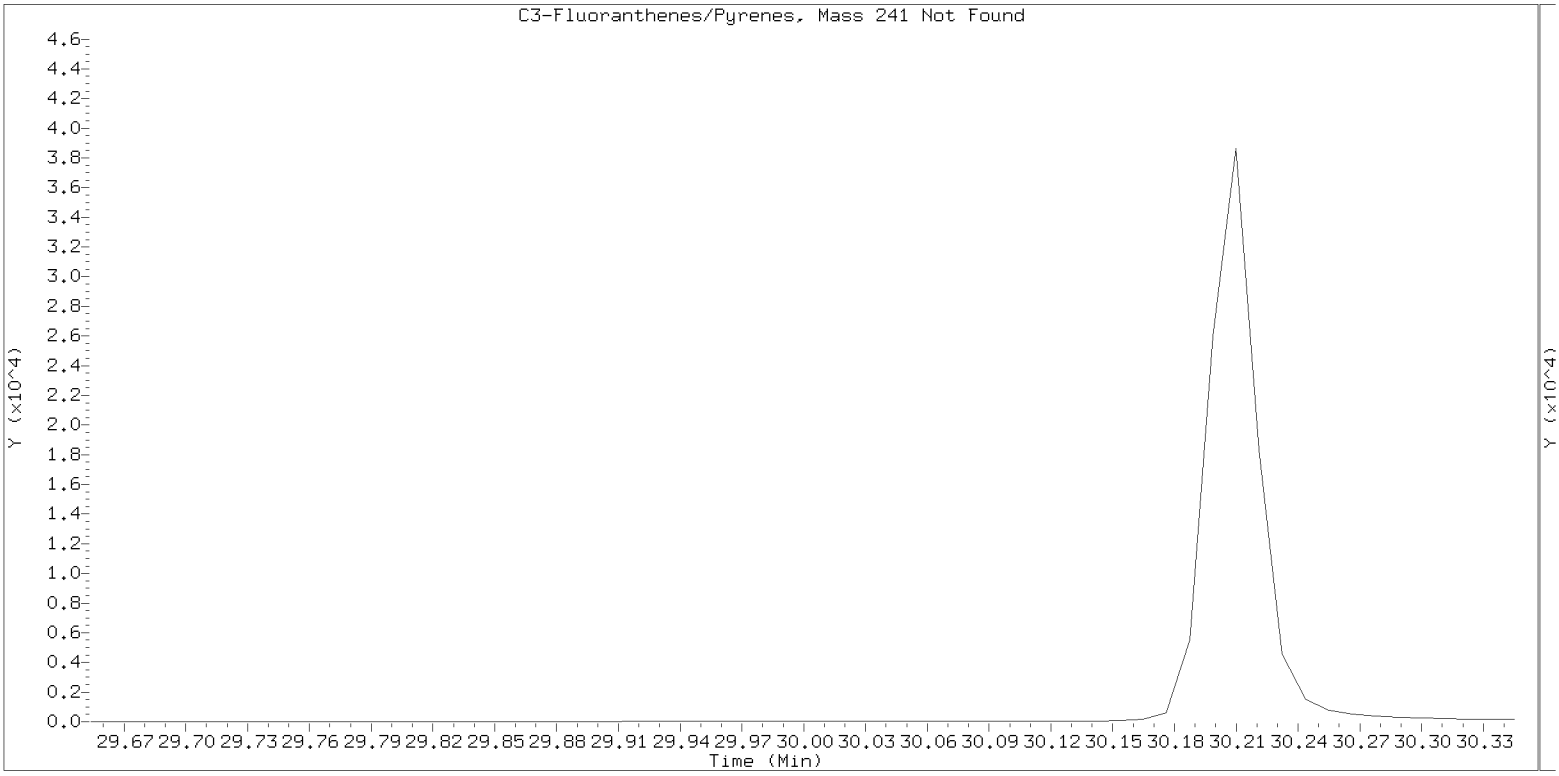

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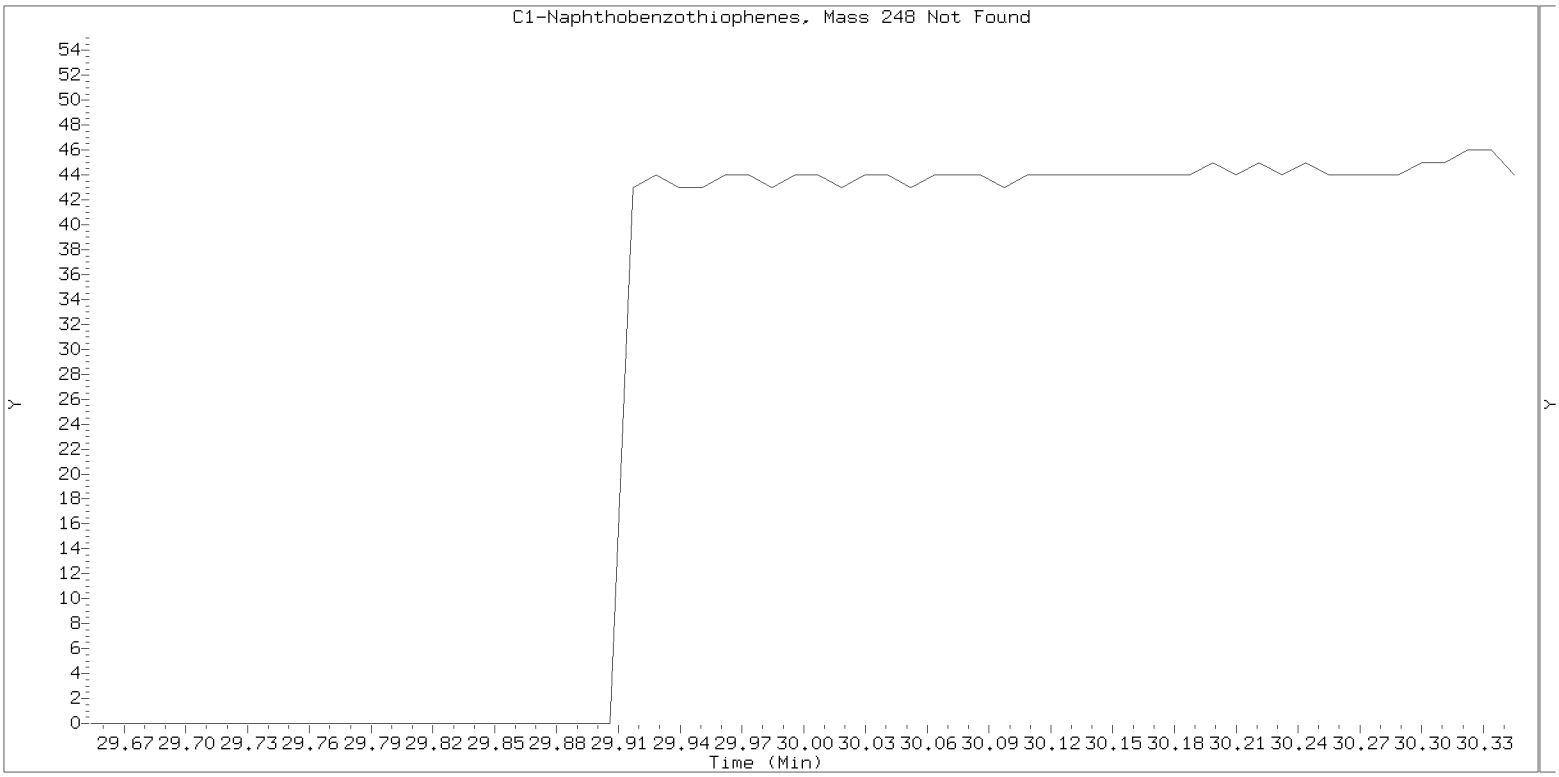

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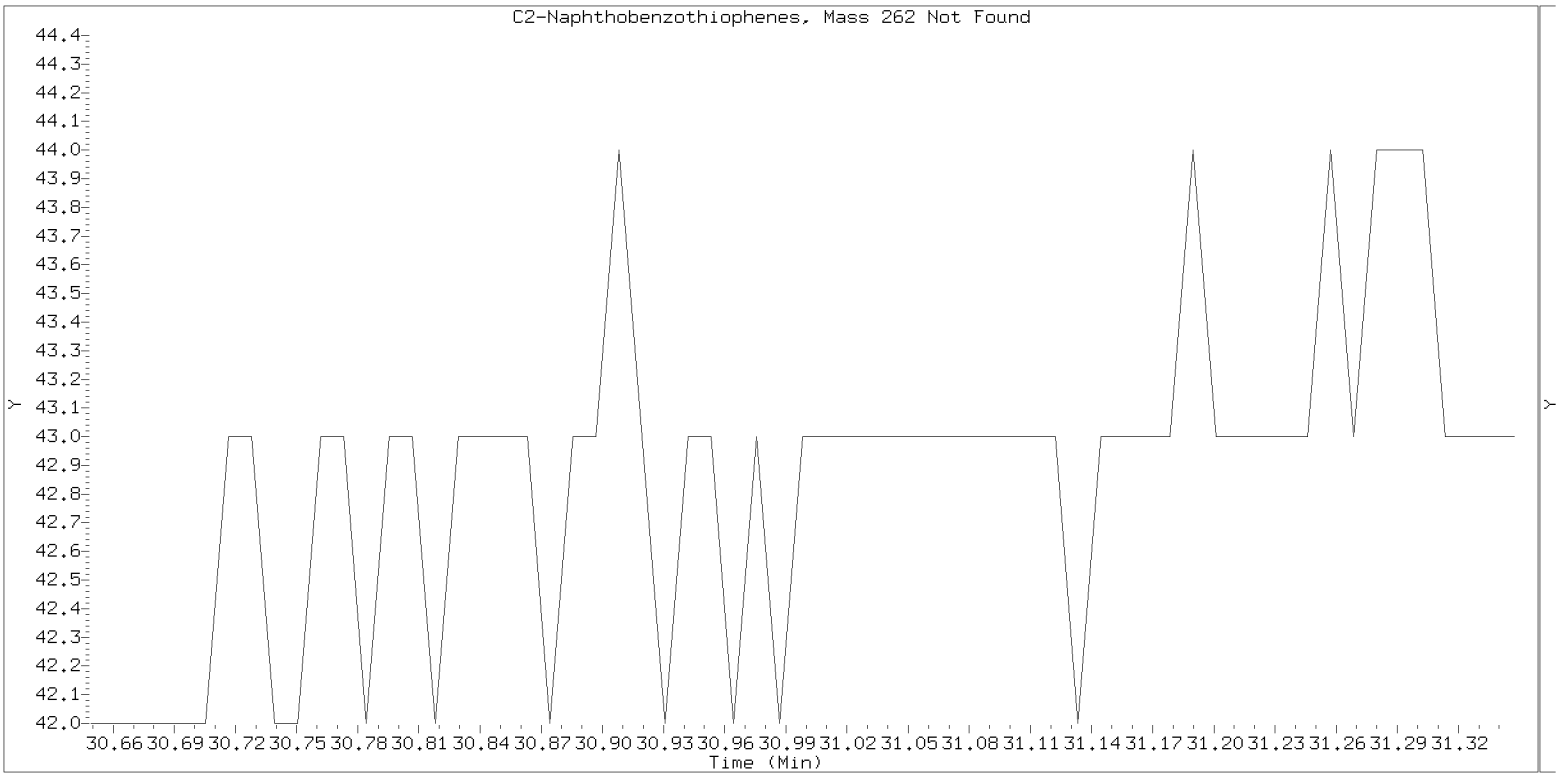

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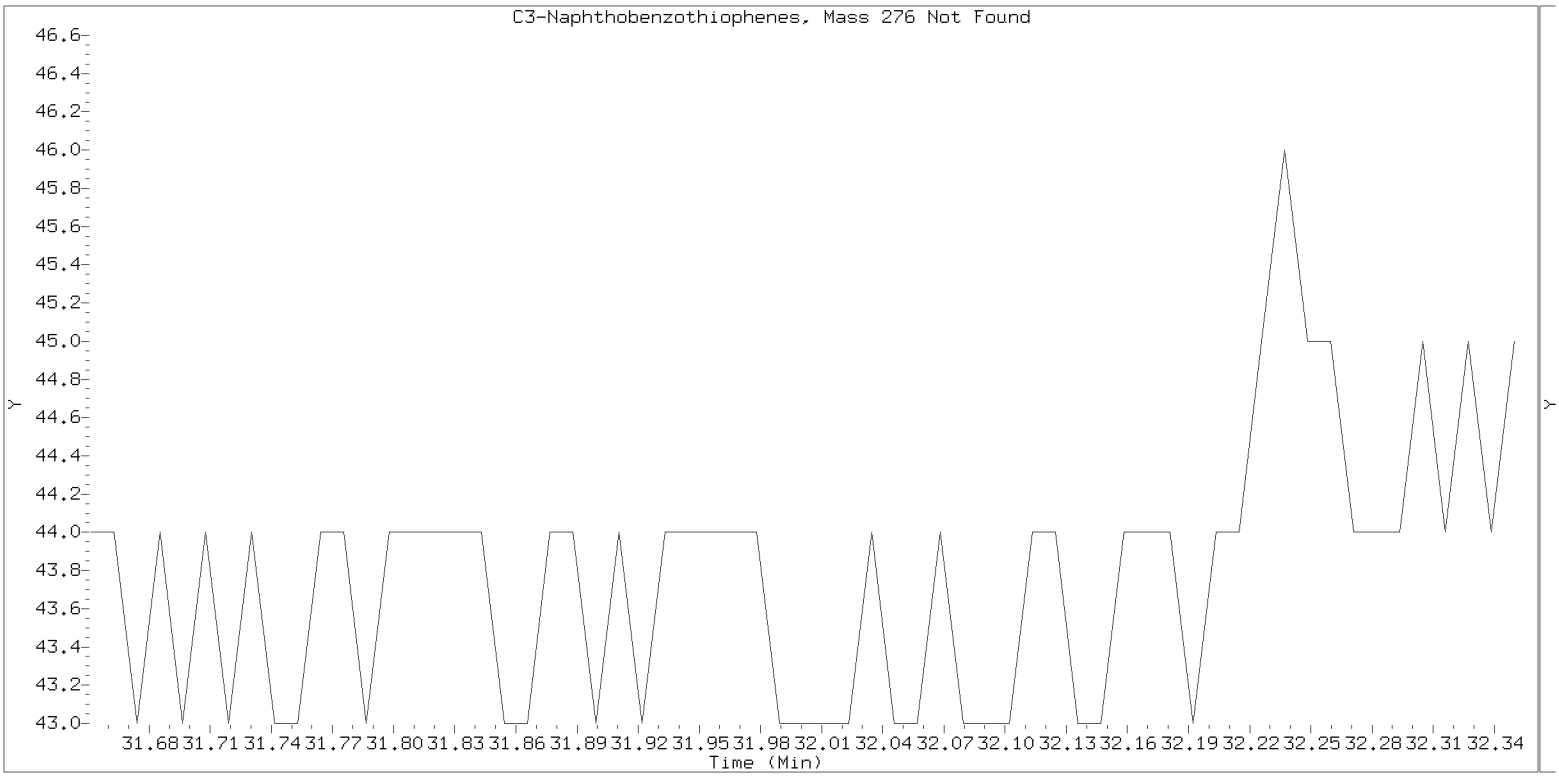

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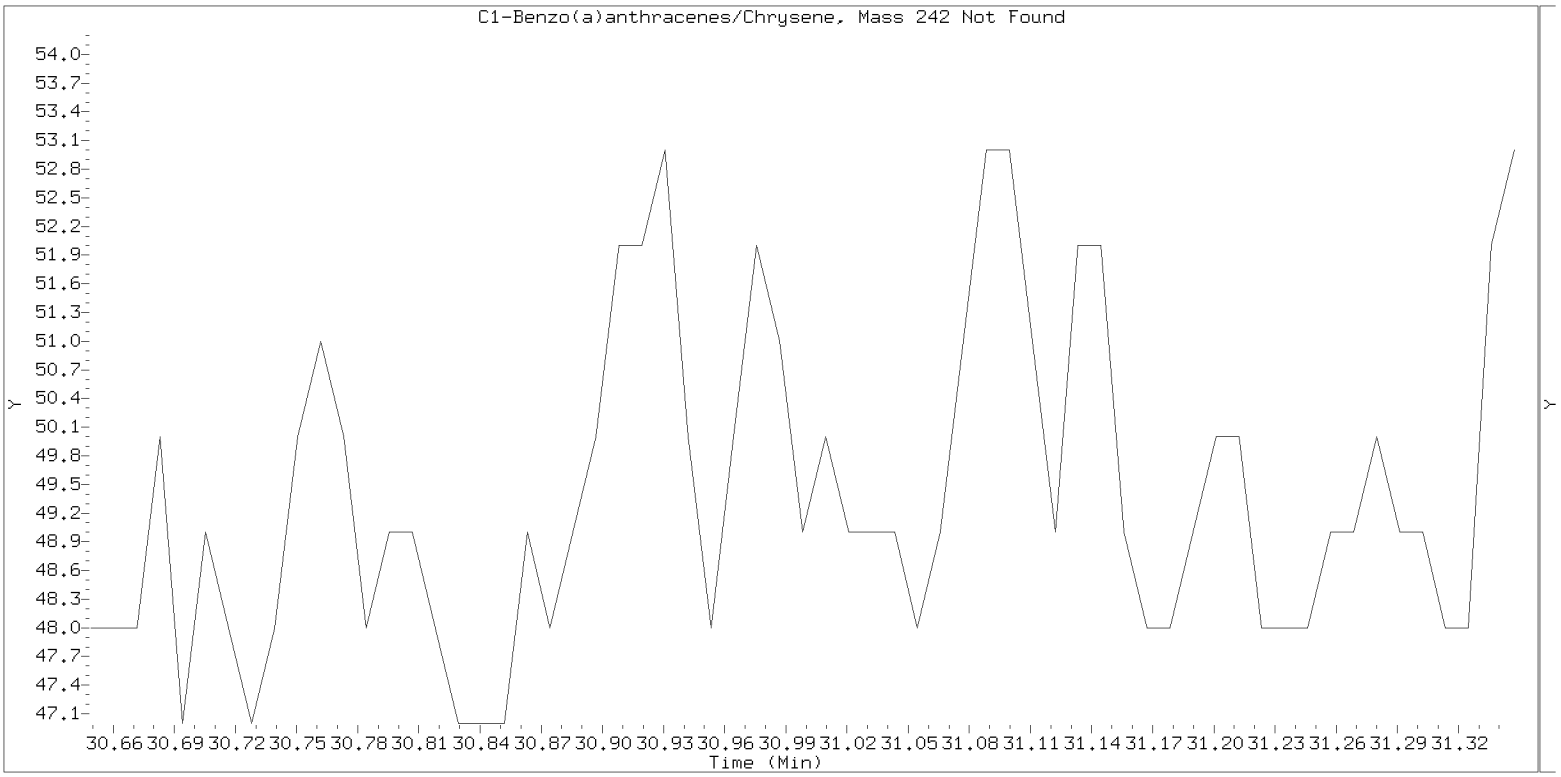

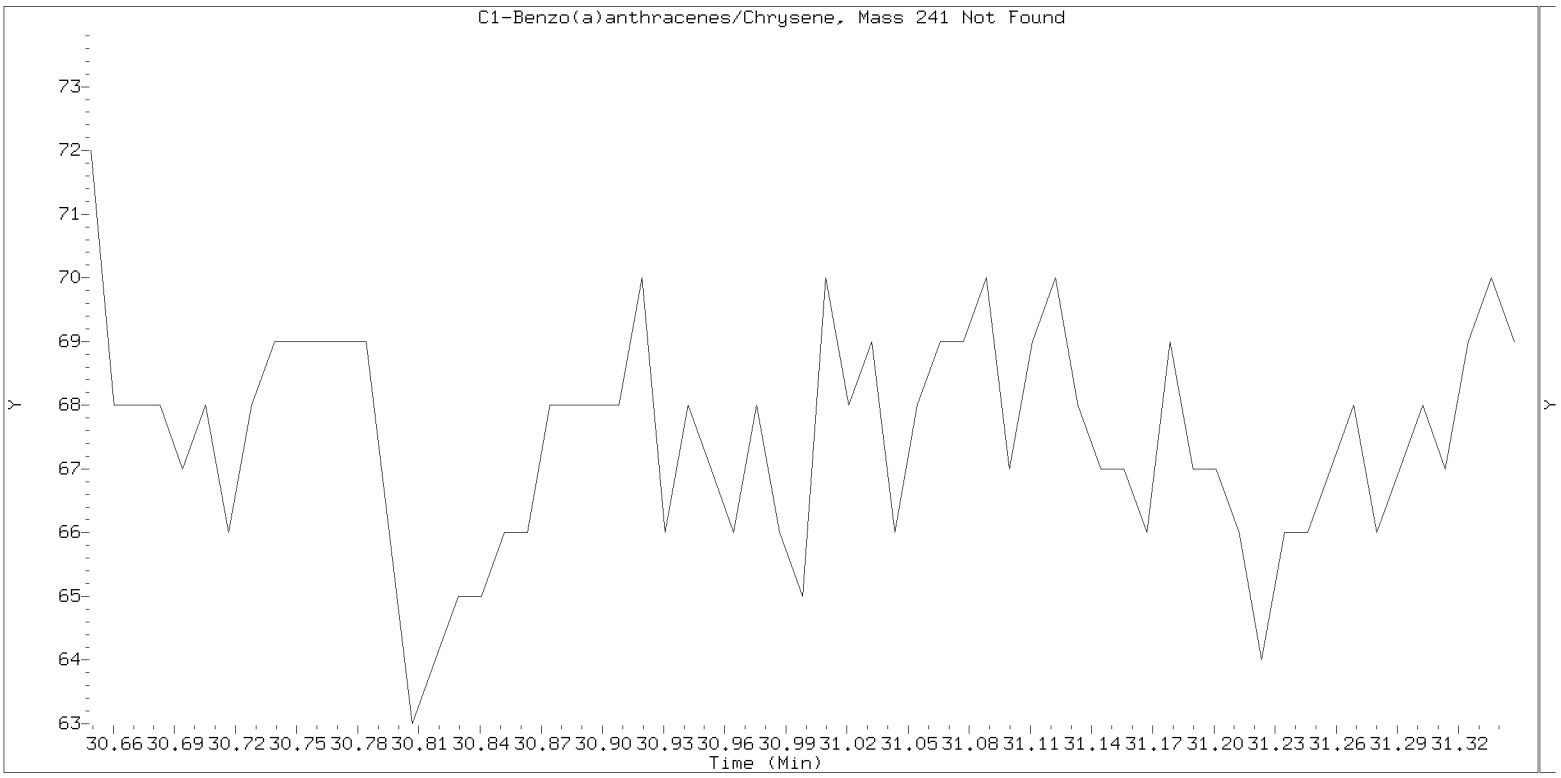

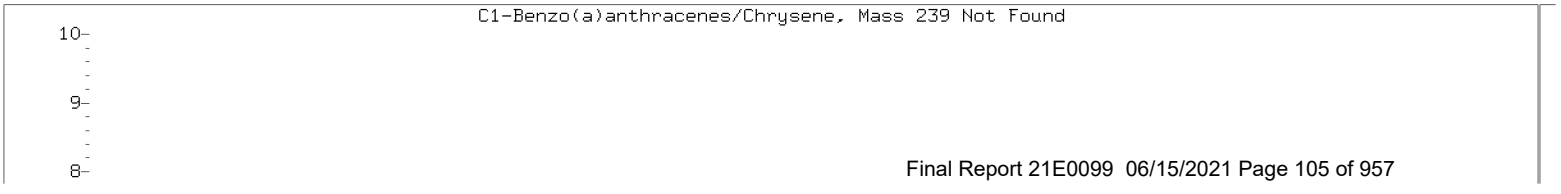

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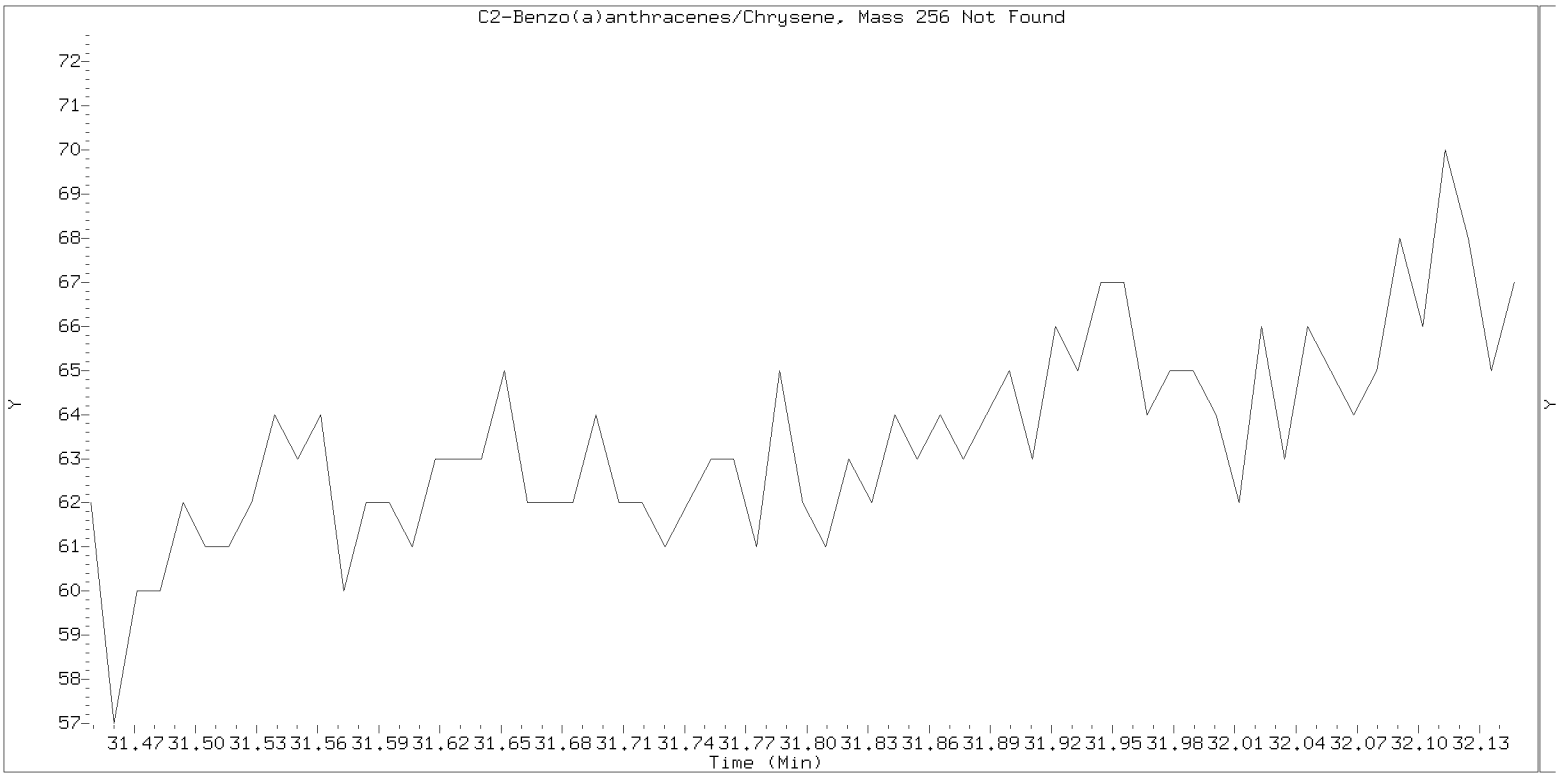

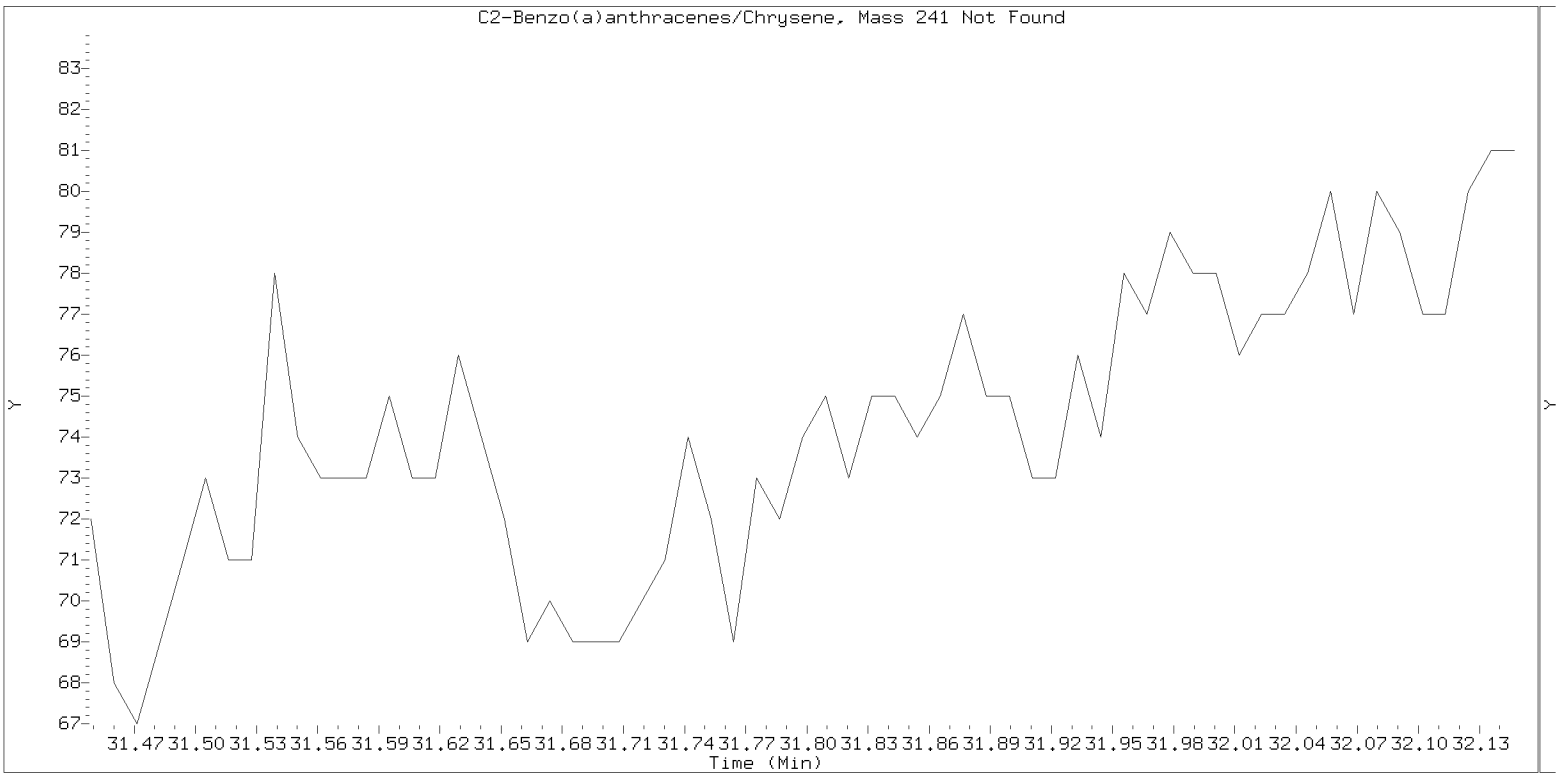

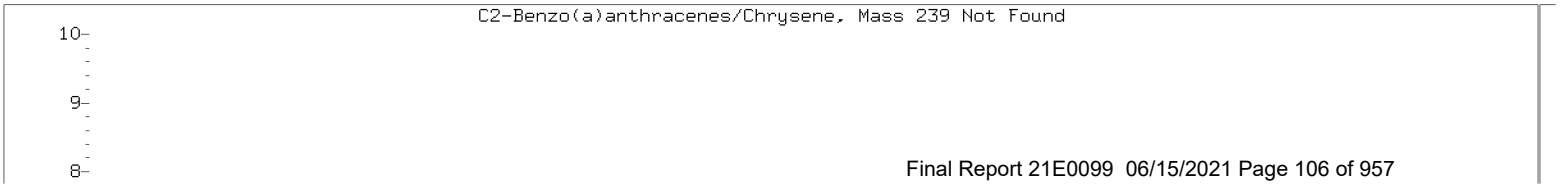

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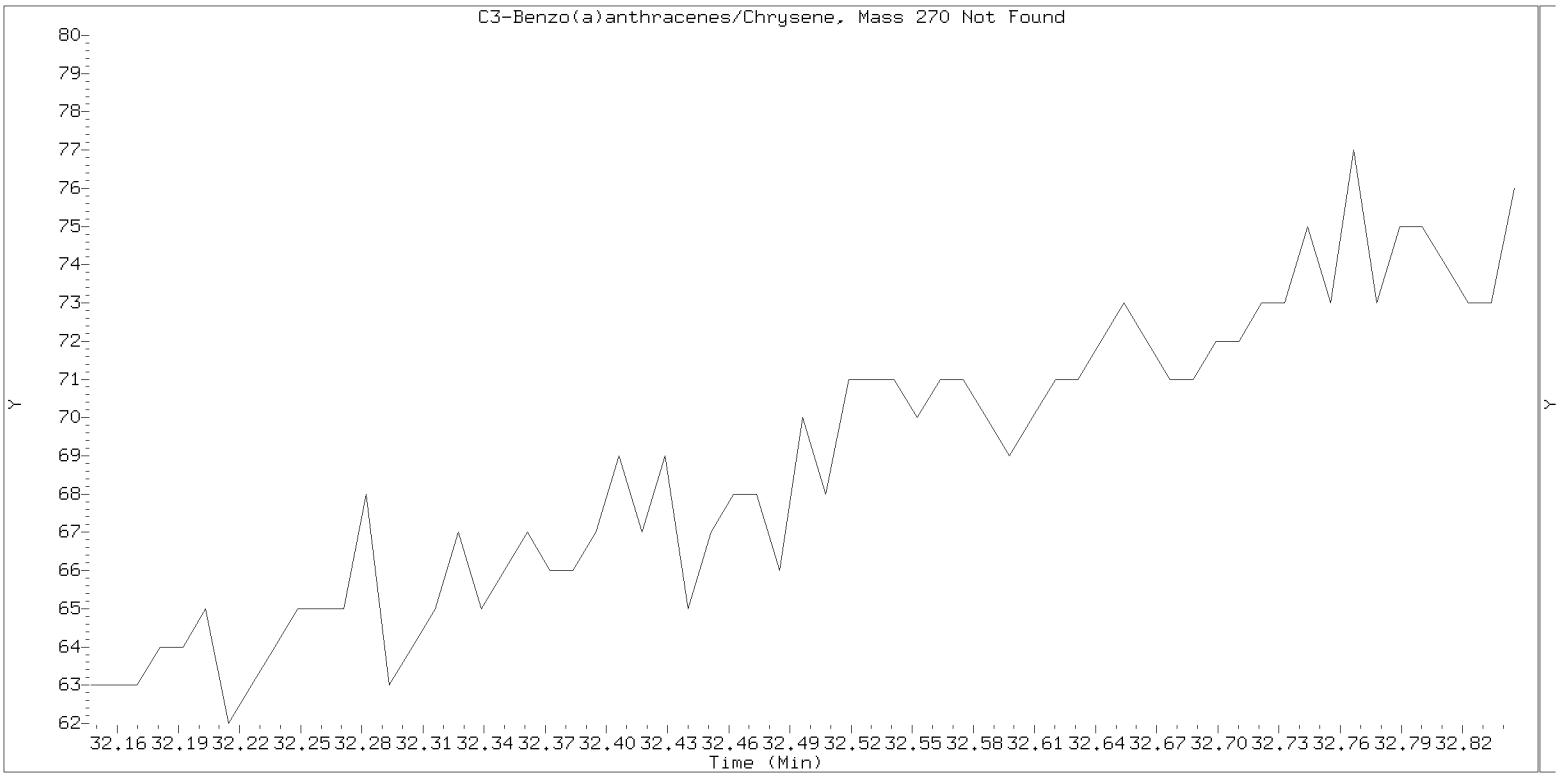

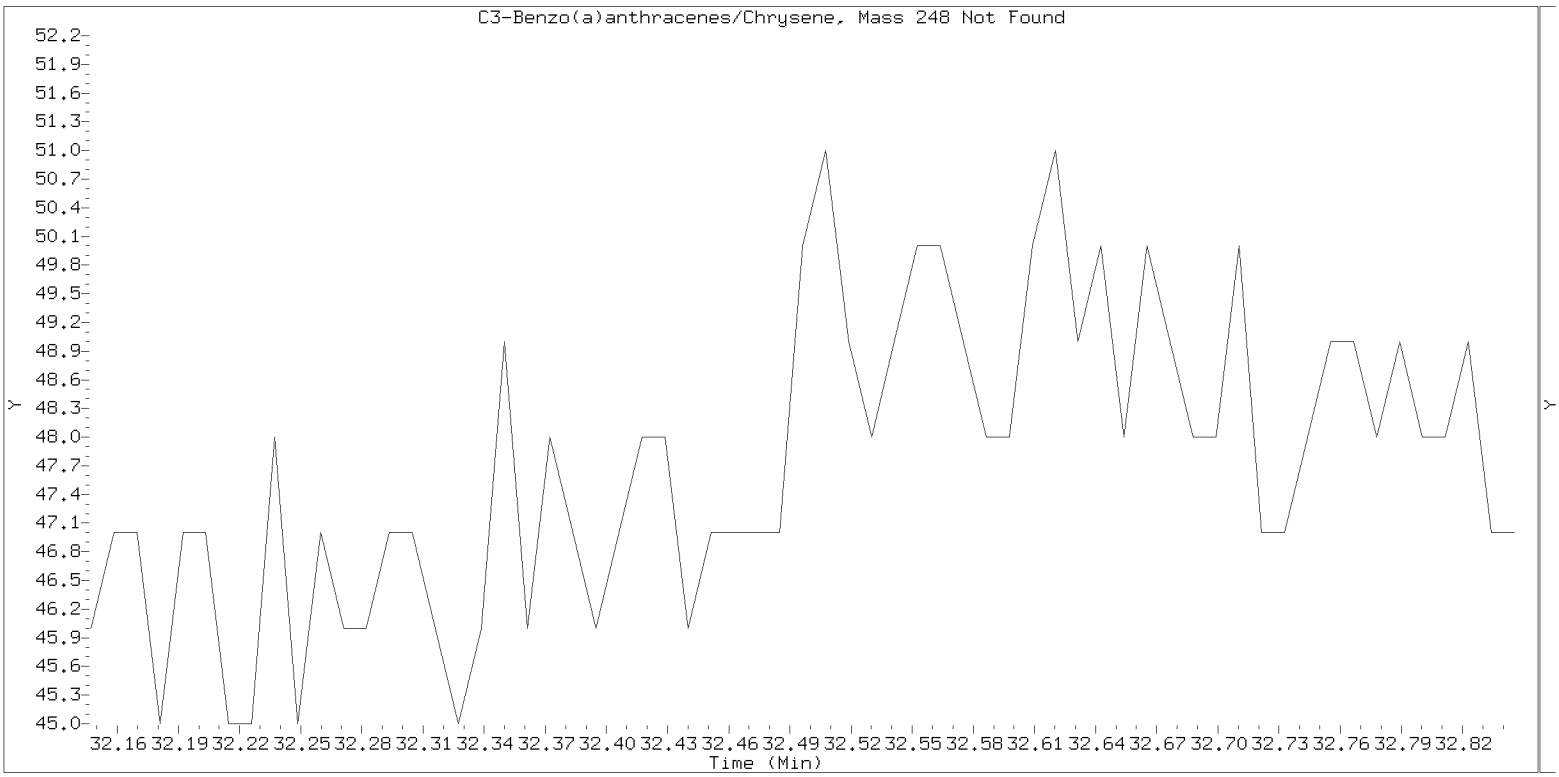

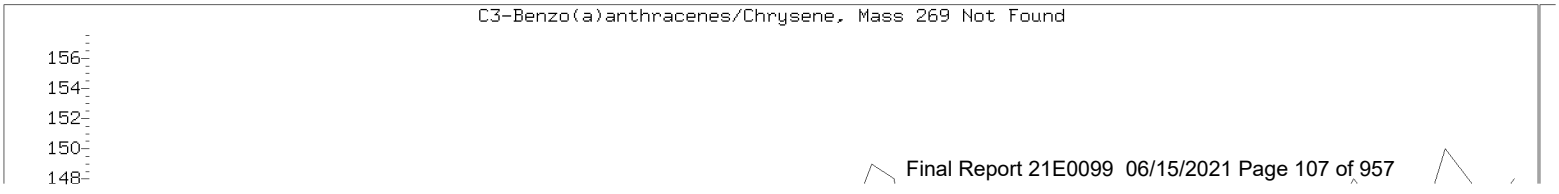

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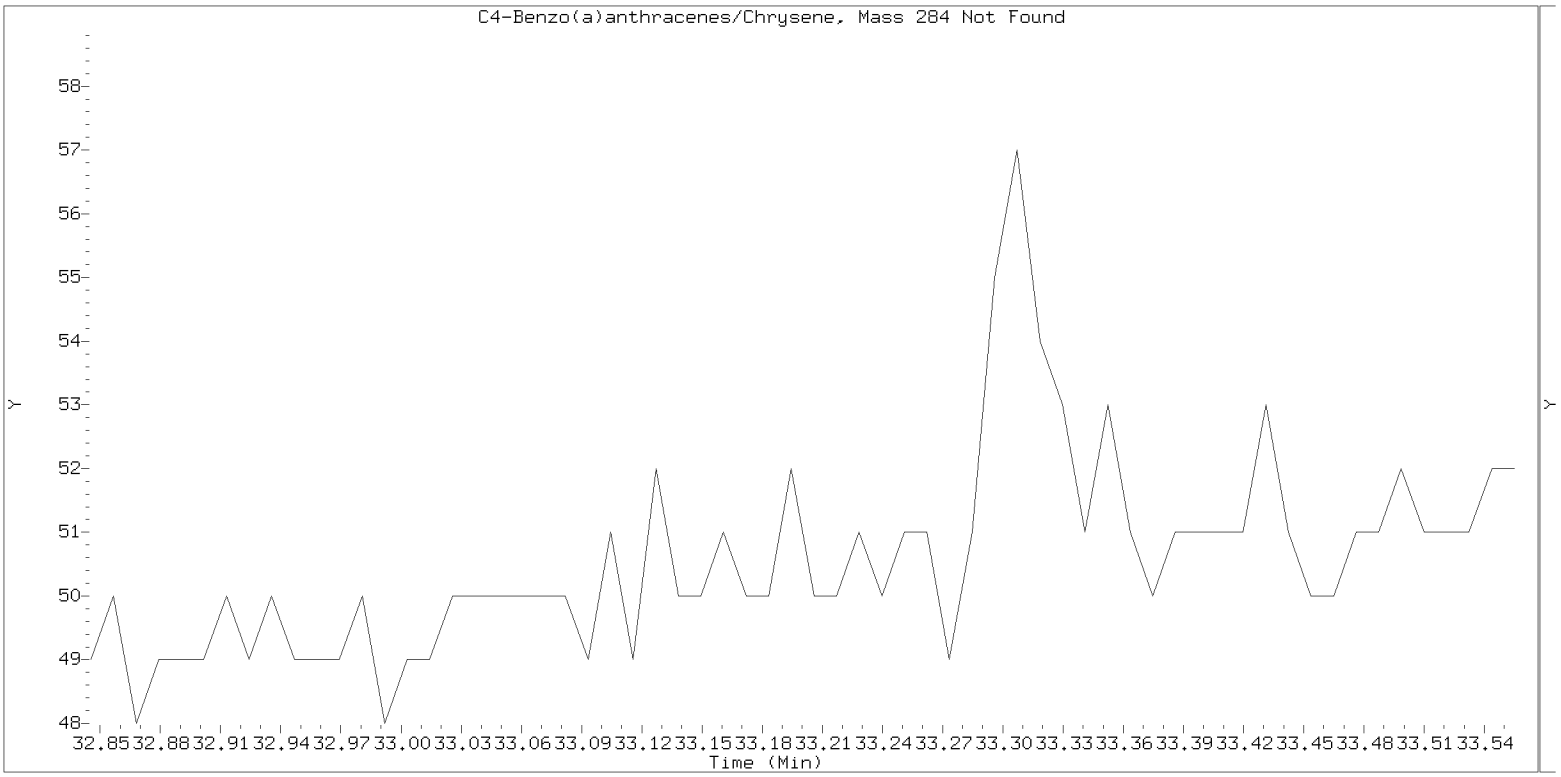

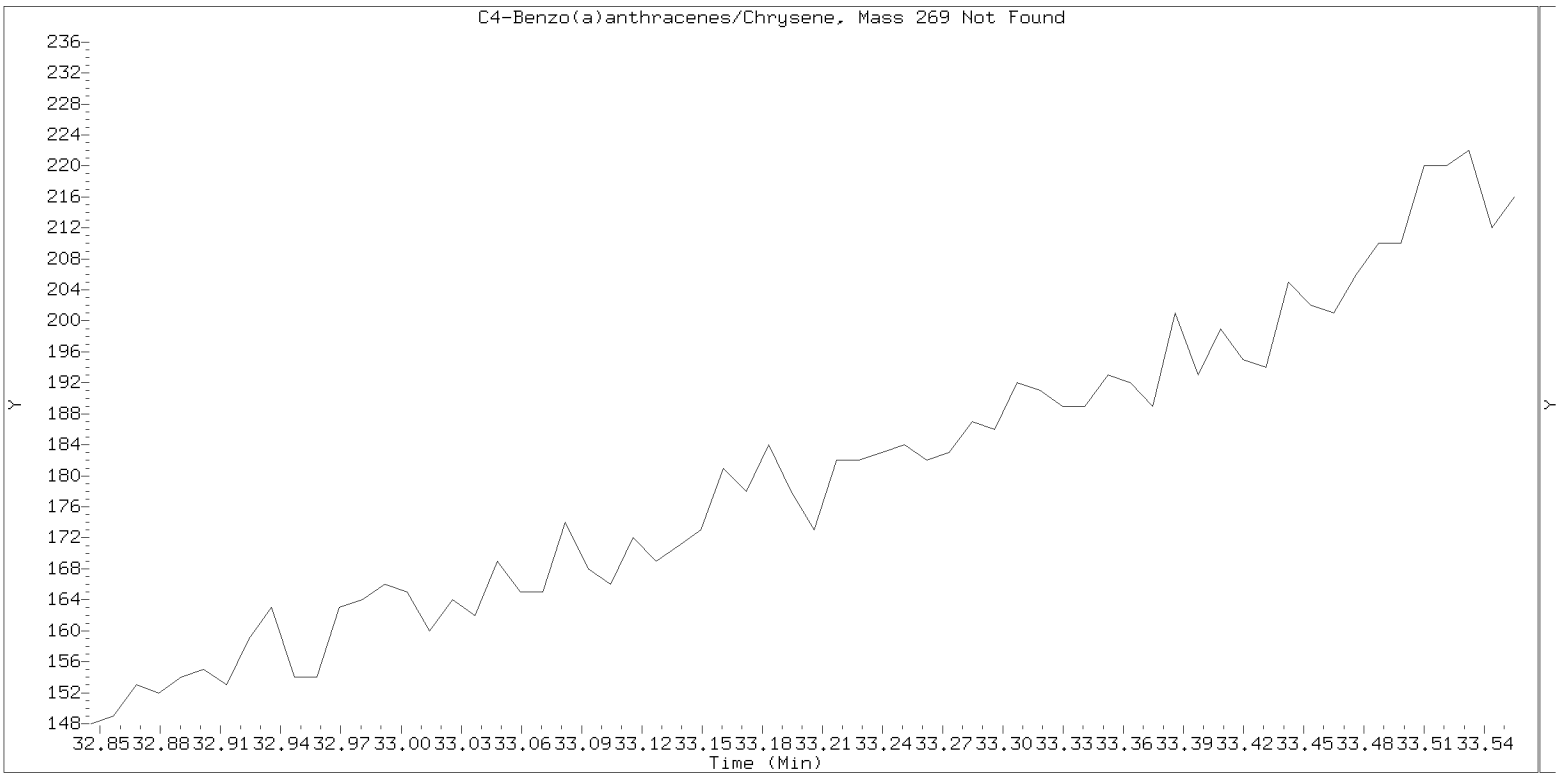

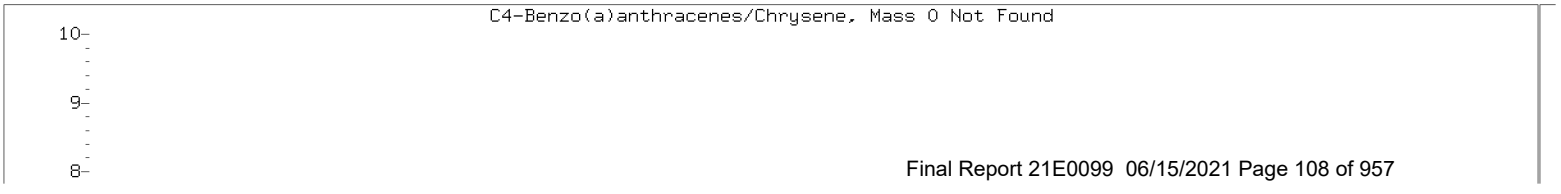

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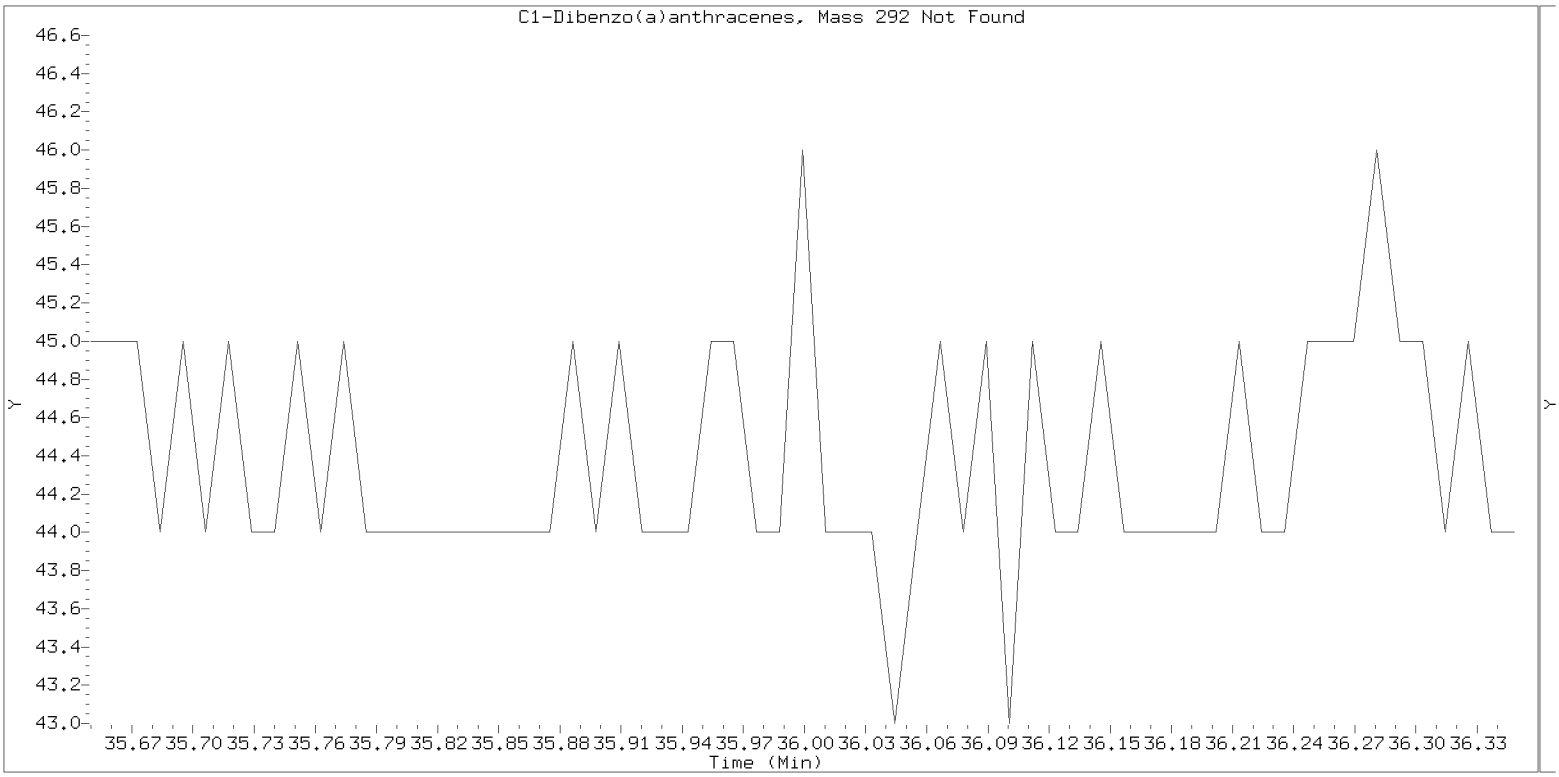

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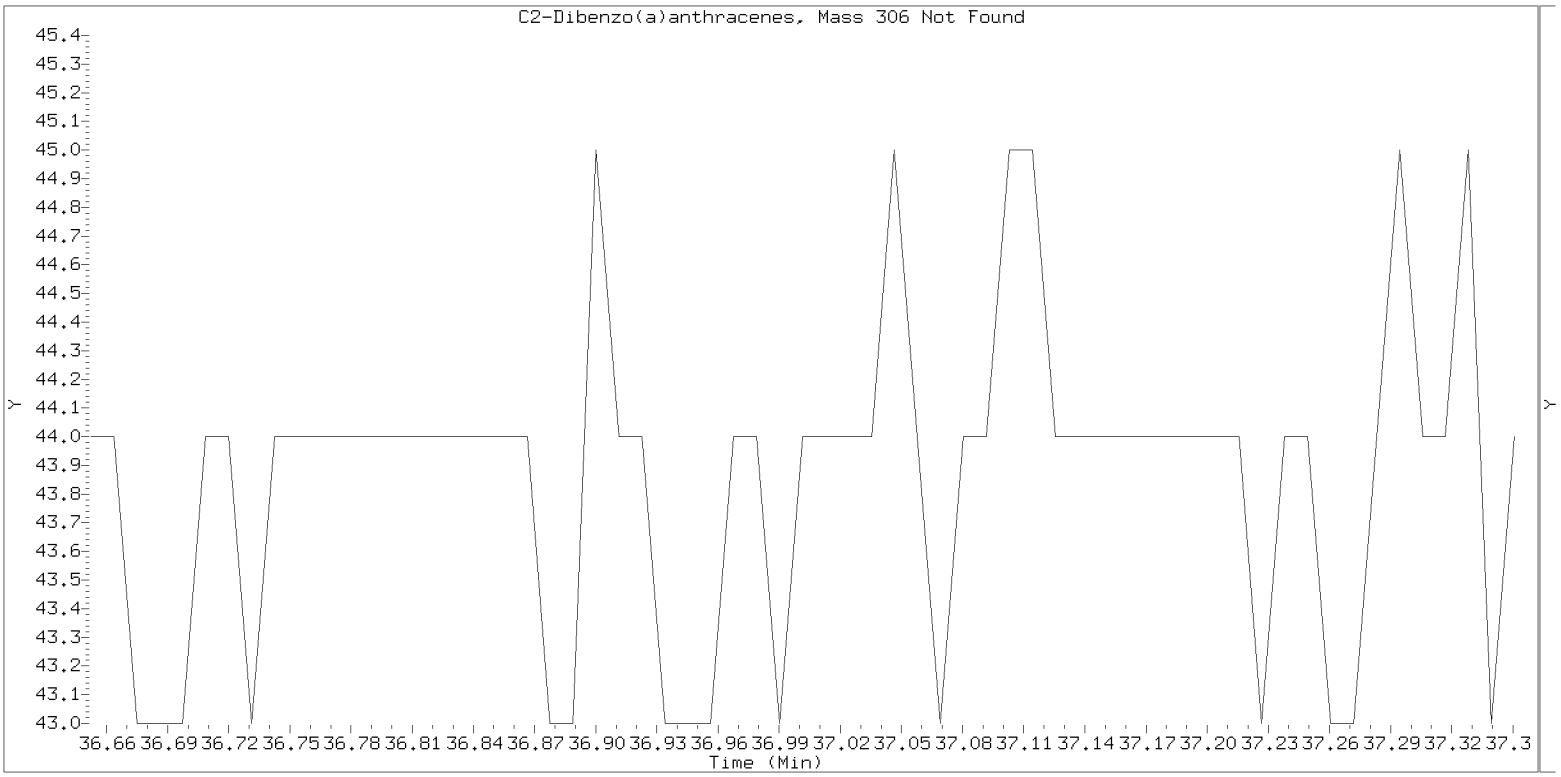

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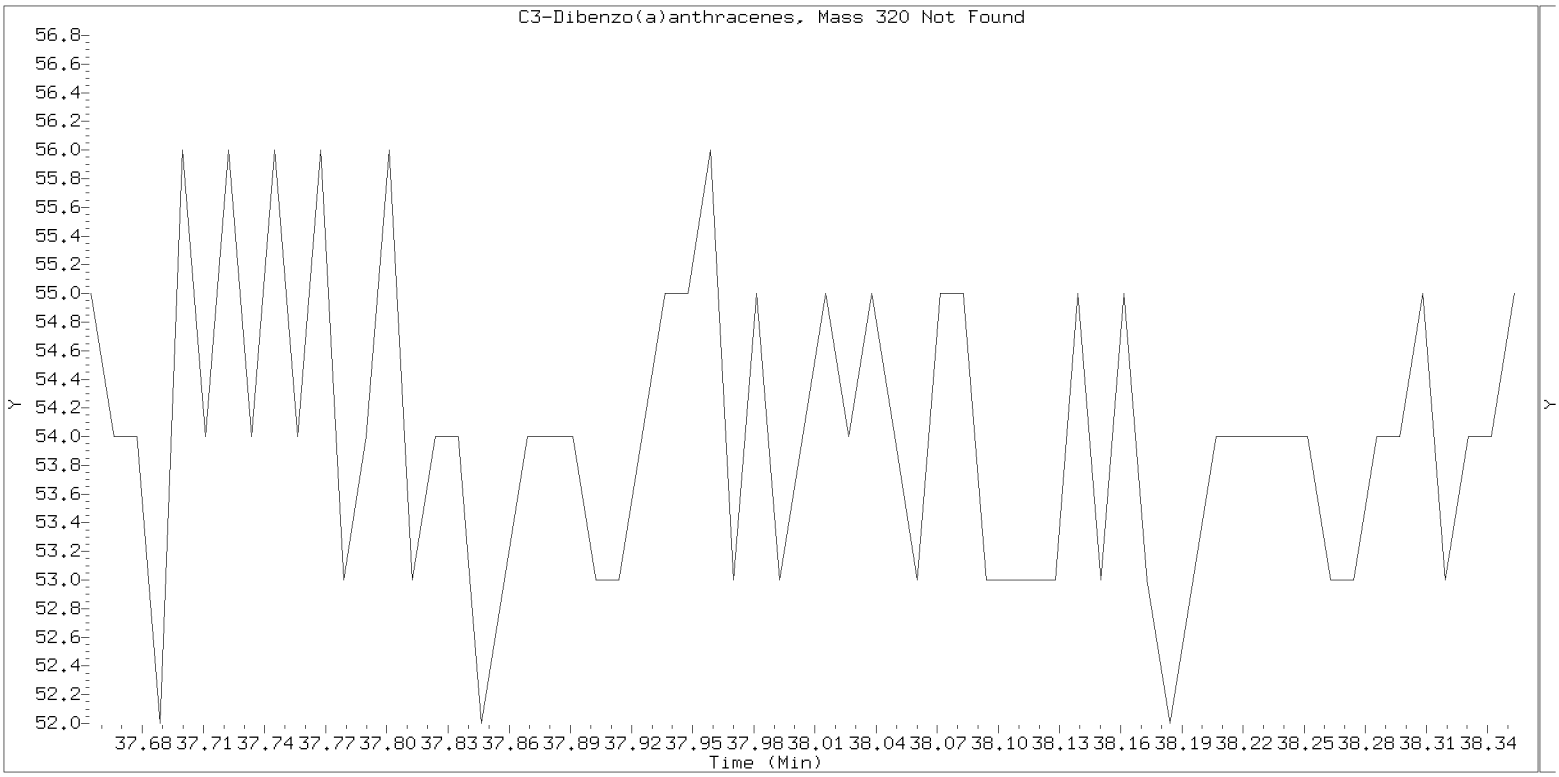


PREPARATION BATCH SUMMARY

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21E0099

Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings

Batch: BJE0209 Batch Matrix: Water Preparation: EPA 3520C (Liq Liq)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
SC-FB-2105030940	21E0099-01	NT1421060707S.D	05/10/21 15:58	
SC-FB-2105030940	21E0099-01	NT1421060707.D	05/10/21 15:58	
SC-RB-2105030901	21E0099-02	NT1421060708S.D	05/10/21 15:58	
SC-RB-2105030901	21E0099-02	NT1421060708.D	05/10/21 15:58	
Blank	BJE0209-BLK1	NT1421060704.D	05/10/21 15:58	
Blank	BJE0209-BLK2	NT1421060704S.D	05/10/21 15:58	
LCS	BJE0209-BS1	NT1421060705.D	05/10/21 15:58	
LCS Dup	BJE0209-BSD1	NT1421060706.D	05/10/21 15:58	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BJE0209

Prepared using: EPA 3520C (Liq Liq)

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

Matrix: Water **Date Prepared:** 5/10/2021 **Balance ID:** _____ **Set Up By:** CTO 5/10/21

Not enough volume for MS/MSD, BSD done instead.

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

Lab Number & Container	Initial (mL) Actual	Disassemble Liq/Liq (Mantle #)	Liq/Liq Start Time	Liq/Liq End Time	(Opt) Silica Gel C/U (1:1) Y / N	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
21E0099-01 B	(500.00) 500	23	16:05	7:12	(1:1) Y / N	0.5	0.5	
21E0099-02 B	(500.00) ↓	24	↓	↓	(1:1) Y / N	0.5	0.5	

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

Lab Number & Container	Initial (mL) Actual	Disassemble Liq/Liq (Mantle #)	Liq/Liq Start Time	Liq/Liq End Time	(Opt) Silica Gel C/U (1:1) Y / N	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
21E0099-01 B	(500.00) 500	23	16:05	7:12	(1:1) Y / N	0.5	0.5	
21E0099-02 B	(500.00) ↓	24	16:05	↓	(1:1) Y / N	0.5	0.5	

Batch QC

Lab Number	Initial (mL) Actual	Disassemble Liq/Liq (Mantle #)	Liq/Liq Start Time	Liq/Liq End Time	(Opt) Silica Gel C/U (1:1) Y / N	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
BJE0209-BLK1	(500.00) 500	20	16:05	7:12	(1:1) Y / N	0.5	0.5	
BJE0209-BS1	(500.00) ↓	21	↓	↓	(1:1) Y / N	0.5	0.5	
BJE0209-BSD1	(500.00) ↓	22	↓	↓	(1:1) Y / N	0.5	0.5	

TW 5/10/21 — Client ID verified By / Date

BT 05/21/21 — Preparation Reviewed By / Date

05/10/21 15:58 — Extraction Date and Time

Printed: 5/10/2021 8:17:22AM

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BJE0209

Prepared using: EPA 3520C (Liq Liq)

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

Prep Steps

Liquid/Liquid
TW 5/10/21
Analyst/Date

KD 80 - 85°C
Hexane Exchange
(2 X 20 mL)
100°C
(1) 2 3 (4) (5) 6
VLB 5/20/21
Analyst/Date

TurboVap
Pre Silica Gel Clean
1 2 3 (4) 5
BT 05/21/21
Analyst/Date

TurboVap
Post Silica Gel Clean
1 2 3 4 5
N/A
Analyst/Date

Vialing
BT 05/21/21
Analyst/Date

Reagents Used

Station/Reagent	Standard ID
Liquid/Liquid Setup Analyst: TW Date: 5/10/21	
Methylene Chloride	JQQ4317
Hexane	JQQ2940
Liquid/Liquid Breakdown Analyst: RL Date: 5/11/21	
Anhydrous Sodium Sulfate	JQQ4281
KD Analyst: VLB Date: 5/20/21	
Methylene Chloride	JQQ5192
Hexane	JQQ3533
Vialing Analyst: BT Date: 05/21/21	
Methylene Chloride	JQQ5192
Hexane	N/A
Silica Gel (SPE) Darts	N/A

Surrogates & Spike Standards Used

Type	Vial ID / Standard ID	Vol uL	Analyst	Witness
Surrogate 15/75µg/mL	T (I010873) Exp: 11/24/2021 TW	100µL	TW	BT
Spike 15/75µg/mL	15 (I010207) Exp: 10/03/2021 TW	100µL	TW	BT

(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 inthe 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).

			Analyst	Witness
Napthalene Spike	42 (I010896) TW	100µL	TW	BT

ORGANICS PREPARATION BENCH SHEET

Batch: BJE0209

Prepared using: EPA 3520C (Liq Liq)

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

Prep Instructions	
SPECIAL INSTRUCTIONS: 1. Use 500mL Liq/Liq Body 2. Add 20-25mL Hexane. 3. Add ~200mL DCM to Liq/Liq. 4. Add surr/spike. 5. Extract minimum 8 hrs. 6. KD (no drying column) to 5mL at 80°. 7. Exchange (2 X with 20mL) to Hexane at 100°. 8. TurboVap. 9. Silica Clean-up Opt-Any Color=REQ (All or none). 10. TurboVap (if Silica Clean). 11. Vial in DCM. Archive: [Y] N	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: SIM ALKYL PAH Extraction Batch BJE0209

Total Solids Batch: N/A Work Order(s): 21E0099

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☐ Previously Frozen =	
☐ Other (Details)=	
Aqueous:	
☑ No Anomalies	TW 5/10/21
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☐ Received in 1.0L Bottle(s)=No Bottle Rinse=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
☐ Share Samples Y / N	
☐ Multiple Jars Y / N	
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

Batch: BJE0209
Batch Comment: **NONE**
Project: Gasco Siltronic - US Moorings
Project Comments: <G> MS/MSD per 20 samples, please batch with other work orders, SM2540 Needed </G>
Work Order:21E0099
Work Order Comments: <G> MS/MSD per 20 samples, please batch with other work orders, SM2540 Needed </G>
Sample: 21E0099-01
Sample Comments: **NONE**
Sample: 21E0099-02
Sample Comments: **NONE**

Form I

METHOD BLANK DATA SHEET

EPA 8270E-SIM

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	21E0099
Client:	Anchor QEA, LLC			Project:	Gasco Siltronic - US Moorings
Matrix:	Water	Laboratory ID:	BJE0209-BLK1	File ID:	NT1421060704.D
Sampled:	N/A	Prepared:	05/10/21 15:58	Analyzed:	06/07/21 14:54
Solids:		Preparation:	EPA 3520C (Liq Liq)	Initial/Final:	500 mL / 0.5 mL
Batch:	BJE0209	Sequence:	SJF0173	Calibration:	EF00008
Instrument:	NT14	Column:	ZB-5MS		

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
493-02-7	trans-Decalin	1	0.100	U	0.007	0.100
493-01-6	cis-Decalin	1	0.100	U	0.007	0.100
91-20-3	Naphthalene	1	0.100	U	0.011	0.100
90-12-0	1-Methylnaphthalene	1	0.100	U	0.010	0.100
91-57-6	2-Methylnaphthalene	1	0.100	U	0.010	0.100
92-52-4	Biphenyl	1	0.100	U	0.012	0.100
581-42-0	2,6-Dimethylnaphthalene	1	0.100	U	0.013	0.100
208-96-8	Acenaphthylene	1	0.100	U	0.006	0.100
83-32-9	Acenaphthene	1	0.100	U	0.011	0.100
132-64-9	Dibenzofuran	1	0.100	U	0.009	0.100
2245-38-7	2,3,5-Trimethylnaphthalene	1	0.100	U	0.008	0.100
86-73-7	Fluorene	1	0.100	U	0.007	0.100
95-15-8	Benzo(b)thiophene	1	0.100	U	0.009	0.100
85-01-8	Phenanthrene	1	0.100	U	0.009	0.100
120-12-7	Anthracene	1	0.100	U	0.025	0.100
86-74-8	Carbazole	1	0.100	U	0.028	0.100
832-69-9	1-Methylphenanthrene	1	0.100	U	0.005	0.100
206-44-0	Fluoranthene	1	0.100	U	0.007	0.100
132-65-0	Dibenzothiophene	1	0.100	U	0.021	0.100
129-00-0	Pyrene	1	0.100	U	0.014	0.100
56-55-3	Benzo(a)anthracene	1	0.100	U	0.017	0.100
218-01-9	Chrysene	1	0.100	U	0.010	0.100
205-99-2	Benzo(b)fluoranthene	1	0.100	U	0.010	0.100
205-82-3	Benzo(j)fluoranthene	1	0.100	U	0.038	0.100
207-08-9	Benzo(k)fluoranthene	1	0.100	U	0.010	0.100
197-97-2	Benzo(e)pyrene	1	0.100	U	0.014	0.100
50-32-8	Benzo(a)pyrene	1	0.100	U	0.022	0.100
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.100	U	0.014	0.100
53-70-3	Dibenzo(a,h)anthracene	1	0.100	U	0.013	0.100
191-24-2	Benzo(g,h,i)perylene	1	0.100	U	0.009	0.100
1985-5-0	Perylene	1	0.100	U	0.032	0.100
239-35-0	Benzo(b)naphtho(2,1-d)thiophene	1	0.100	U	0.100	0.100

SURROGATES	ADDED (ug/L)	CONC. (ug/L)	% REC	QC LIMITS	Q
Naphthalene-d8	3.0000	1.42	47.3	30 - 160	
Acenaphthene-d10	3.0000	1.48	49.4	30 - 160	
Phenanthrene-d10	3.0000	1.80	60.0	30 - 160	

Form I

METHOD BLANK DATA SHEET

EPA 8270E-SIM

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	21E0099
Client:	Anchor QEA, LLC			Project:	Gasco Siltronic - US Moorings
Matrix:	Water	Laboratory ID:	BJE0209-BLK1	File ID:	NT1421060704.D
Sampled:	N/A	Prepared:	05/10/21 15:58	Analyzed:	06/07/21 14:54
Solids:		Preparation:	EPA 3520C (Liq Liq)	Initial/Final:	500 mL / 0.5 mL
Batch:	BJE0209	Sequence:	SJF0173	Calibration:	EF00008
Instrument:	NT14	Column:	ZB-5MS		

SURROGATES	ADDED (ug/L)	CONC. (ug/L)	% REC	QC LIMITS	Q
Chrysene-d12	3.0000	2.26	75.4	30 - 160	
Perylene-d12	3.0000	0.949	31.6	30 - 160	

Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060704.D

Date : 07-JUN-2021 14:54

Client ID:

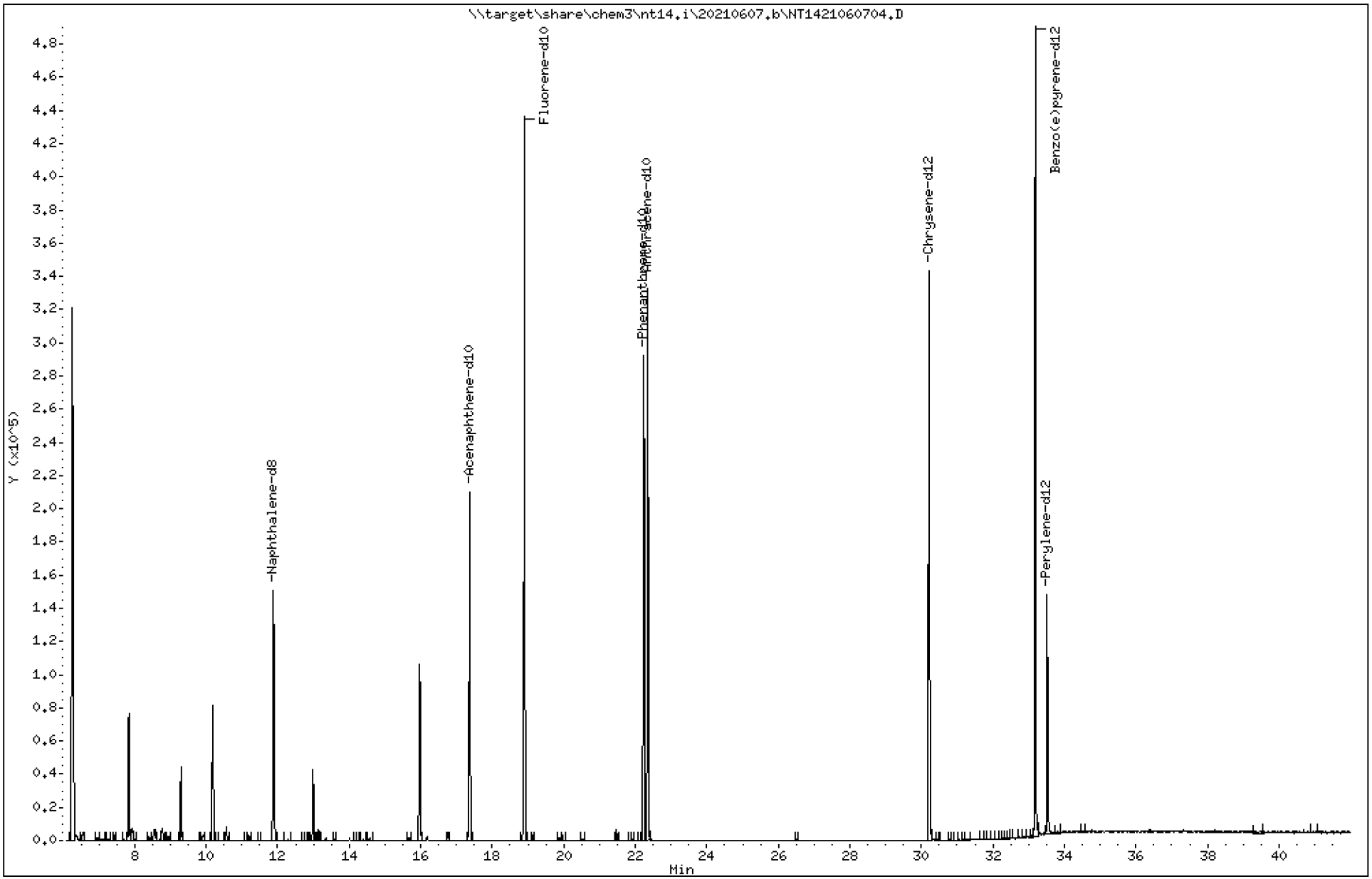
Instrument: nt14.i

Sample Info: BJE0209-BLK1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210607.b\NT1421060704.D
Lab Smp Id: BJE0209-BLK1
Inj Date : 07-JUN-2021 14:54
Operator : VTS Inst ID: nt14.i
Smp Info : BJE0209-BLK1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210607.b\ALKYLPNA.m
Meth Date : 12-Jun-2021 14:57 yev Quant Type: ISTD
Cal Date : 29-MAY-2021 18:49 Cal File: NT1421052914.D
Als bottle: 31
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	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	11.887	11.887	(0.629)	205345	1.41984	1.420(R)
	7 Naphthalene	128	Compound Not Detected.					
	12 Benzo(b)thiophene	134	Compound Not Detected.					
	16 2-Methylnaphthalene	141	Compound Not Detected.					
	17 1-methylnaphthalene	141	Compound Not Detected.					
	18 Biphenyl	154	Compound Not Detected.					
	19 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	20 Acenaphthylene	152	Compound Not Detected.					
$	21 Acenaphthene-d10	164	17.365	17.365	(0.919)	131564	1.48113	1.481(R)
	22 Acenaphthene	153	Compound Not Detected.					
	23 Dibenzofuran	168	Compound Not Detected.					
	24 1,6,7-Trimethylnaphthalene	170	Compound Not Detected.					
*	25 Fluorene-d10	176	18.896	18.896	(1.000)	311099	2.00000	
	26 Fluorene	166	Compound Not Detected.					
	30 Dibenzothiophene	184	Compound Not Detected.					
$	35 Phenanthrene-d10	188	22.238	22.238	(0.995)	280438	1.80134	1.801(R)
	36 Phenanthrene	178	Compound Not Detected.					
*	250 Anthracene-d10	188	22.348	22.359	(1.000)	323596	2.00000	
	37 Anthracene	178	Compound Not Detected.					
	42 Carbazole	167	Compound Not Detected.					
	43 1-Methylphenanthrene	192	Compound Not Detected.					
	44 Fluoranthene	202	Compound Not Detected.					
	46 Pyrene	202	Compound Not Detected.					
	51 Naphthobenzothiophene	234	Compound Not Detected.					
	55 Benzo(a)anthracene	228	Compound Not Detected.					
$	56 Chrysene-d12	240	30.219	30.219	(0.911)	290210	2.26212	2.262(R)
	57 Chrysene	228	Compound Not Detected.					
	62 Benzo(b)fluoranthene	252	Compound Not Detected.					
	63 Benzo(k)fluoranthene	252	Compound Not Detected.					
	293 Benzo(j)fluoranthene	252	Compound Not Detected.					
	246 Total Benzofluoranthenes	252	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.181	33.181	(1.000)	409852	2.00000	
64 Benzo(e)pyrene	252	Compound Not Detected.					
66 Benzo(a)pyrene	252	Compound Not Detected.					
$ 67 Perylene-d12	264	33.519	33.519	(1.010)	131491	0.94945	0.9495(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
Lab File ID: NT1421060704.D
Lab Smp Id: BJE0209-BLK1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210607.b\ALKYLPNA.m
Misc Info:

Calibration Date: 07-JUN-2021
Calibration Time: 13:18
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	323874	161937	647748	311099	-3.94
250 Anthracene-d10	339912	169956	679824	323596	-4.80
251 Benzo(e)pyrene-d1	416427	208214	832854	409852	-1.58

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.90	18.40	19.40	18.90	0.00
250 Anthracene-d10	22.36	21.86	22.86	22.35	-0.05
251 Benzo(e)pyrene-d1	33.18	32.68	33.68	33.18	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 - NT1421060704.D

Lab ID: BJE0209-BLK1
nt14.i, 20210607.b\ALKYLPNA.m,   07-JUN-2021 14:54

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

RRT check based on Ccal File: NT1421060702.D

On Column LOD for nt14.i, 20210607.b\ALKYLPNA.m, TARGETS.sub = 0.0000

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

Form I

METHOD BLANK DATA SHEET

EPA 8270E-SIM

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	21E0099
Client:	Anchor QEA, LLC			Project:	Gasco Siltronic - US Moorings
Matrix:	Water	Laboratory ID:	BJE0209-BLK2	File ID:	NT1421060704S.D
Sampled:	N/A	Prepared:	05/10/21 15:58	Analyzed:	06/07/21 14:54
Solids:		Preparation:	EPA 3520C (Liq Liq)	Initial/Final:	500 mL / 0.5 mL
Batch:	BJE0209	Sequence:	SJF0198	Calibration:	EF00019
Instrument:	NT14	Column:	ZB-5MS		

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
C1DEC	C1-Decalins	1	0.020	U		0.020
C2DEC	C2-Decalins	1	0.020	U		0.020
C3DEC	C3-Decalins	1	0.020	U		0.020
C4DEC	C4-Decalins	1	0.020	U		0.020
C1NAPH	C1-Naphthalenes	1	0.020	U		0.020
C2NAPH	C2-Naphthalenes	1	0.020	U		0.020
C3NAPH	C3-Naphthalenes	1	0.020	U		0.020
C4NAPH	C4-Naphthalenes	1	0.020	U		0.020
C1FLR	C1-Fluorenes	1	0.020	U		0.020
C4PHNANT	C4-Phenanthrenes/Anthracenes	1	0.020	U		0.020
C1FLPYR	C1-Fluoranthenes/Pyrenes	1	0.020	U		0.020
C2FLR	C2-Fluorenes	1	0.020	U		0.020
C3FLR	C3-Fluorenes	1	0.020	U		0.020
C1DBTPH	C1-Dibenzothiophenes	1	0.020	U		0.020
C2DBTPH	C2-Dibenzothiophenes	1	0.020	U		0.020
C3DBTPH	C3-Dibenzothiophenes	1	0.020	U		0.020
C4DBTPH	C4-Dibenzothiophenes	1	0.020	U		0.020
C1PHNANT	C1-Phenanthrenes/Anthracenes	1	0.020	U		0.020
C2PHNANT	C2-Phenanthrenes/Anthracenes	1	0.020	U		0.020
C3PHNANT	C3-Phenanthrenes/Anthracenes	1	0.020	U		0.020
C2FLPYR	C2-Fluoranthenes/Pyrenes	1	0.020	U		0.020
C3FLPYR	C3-Fluoranthenes/Pyrenes	1	0.020	U		0.020
C4FLPYR	C4-Fluoranthenes/Pyrenes	1	0.020	U		0.020
C1BAACYR	C1-Benzo(a)anthracenes/Chrysenes	1	0.020	U		0.020
C2BAACYR	C2-Benzo(a)anthracenes/Chrysenes	1	0.020	U		0.020
C3BAACYR	C3-Benzo(a)anthracenes/Chrysenes	1	0.020	U		0.020
C4BAACYR	C4-Benzo(a)anthracenes/Chrysenes	1	0.020	U		0.020
C1BZTPH	C1-Benzothiophenes	1	0.020	U		0.020
C2BZTPH	C2-Benzothiophenes	1	0.020	U		0.020
C3BZTPH	C3-Benzothiophenes	1	0.020	U		0.020
C1NPBTP	C1-Naphthobenzothiophenes	1	0.020	U		0.020
C2NPBTP	C2-Naphthobenzothiophenes	1	0.020	U		0.020
C3NPBTP	C3-Naphthobenzothiophenes	1	0.020	U		0.020
C4NPBTP	C4-Naphthobenzothiopenes	1	0.020	U		0.020
C1DBA	C1-Dibenzo(a)anthracenes	1	0.020	U		0.020
C2DBA	C2-Dibenzo(a)anthracenes	1	0.020	U		0.020

Form I

METHOD BLANK DATA SHEET

EPA 8270E-SIM

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	21E0099
Client:	Anchor QEA, LLC			Project:	Gasco Siltronic - US Moorings
Matrix:	Water	Laboratory ID:	BJE0209-BLK2	File ID:	NT1421060704S.D
Sampled:	N/A	Prepared:	05/10/21 15:58	Analyzed:	06/07/21 14:54
Solids:		Preparation:	EPA 3520C (Liq Liq)	Initial/Final:	500 mL / 0.5 mL
Batch:	BJE0209	Sequence:	SJF0198	Calibration:	EF00019
Instrument:	NT14	Column:	ZB-5MS		

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
C3DBA	C3-Dibenzo(a)anthracenes	1	0.020	U		0.020

Data File: \\target\share\chem3\nt14.i\20210607.b\SIM.b\NT1421060704S.D

Date : 07-JUN-2021 14:54

Client ID:

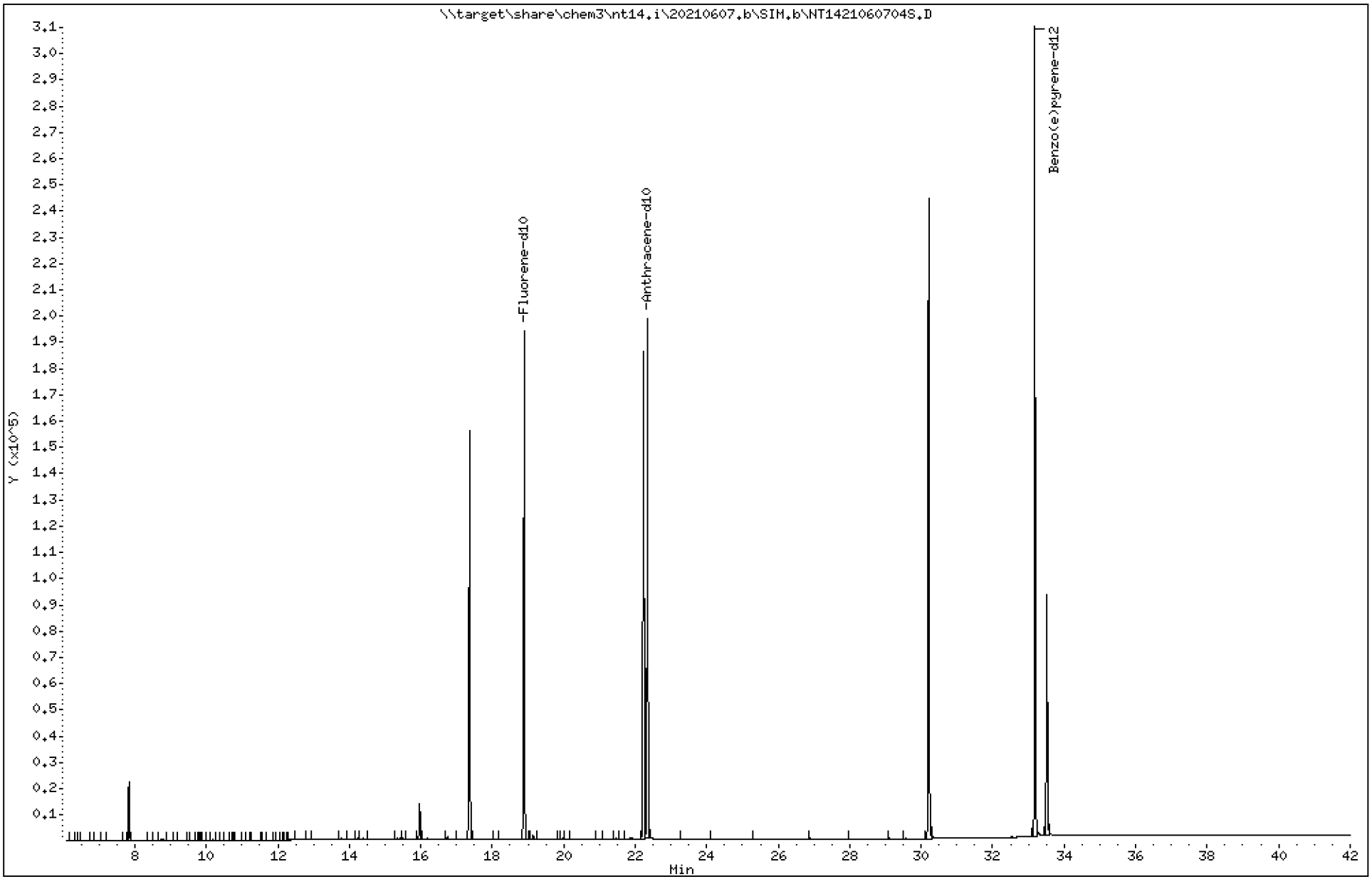
Instrument: nt14.i

Sample Info: BJE0209-BLK1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210607.b\SIM.b\NT1421060704S.D
Lab Smp Id: BJE0209-BLK1
Inj Date : 07-JUN-2021 14:54
Operator : VTS Inst ID: nt14.i
Smp Info : BJE0209-BLK1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210607.b\SIM.b\ALKYLRANGES.m
Meth Date : 15-Jun-2021 12:23 yev Quant Type: ISTD
Cal Date : 29-MAY-2021 18:49 Cal File: NT1421052914.D
Als bottle: 31
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ALKYLRANGES.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
3	C1-Decalin	152	Compound Not Detected.					
4	C2-Decalin	166	Compound Not Detected.					
5	C3-Decalin	180	Compound Not Detected.					
247	C4-Decalin	194	Compound Not Detected.					
8	C1-Naphthalenes	142	Compound Not Detected.					
9	C2-Naphthalenes	156	Compound Not Detected.					
10	C3-Naphthalenes	170	Compound Not Detected.					
11	C4-Naphthalenes	184	Compound Not Detected.					
13	C1-Benzothiophenes	148	Compound Not Detected.					
14	C2-Benzothiophenes	162	Compound Not Detected.					
15	C3_Benzothiophenes	176	Compound Not Detected.					
27	C1-Fluorenes	180	Compound Not Detected.					
* 25	Fluorene-d10	176	18.897	18.896	(1.000)	354742	2.00000	
28	C2-Fluorenes	194	Compound Not Detected.					
29	C3-Fluorenes	208	Compound Not Detected.					
31	C1-Dibenzothiophenes	198	Compound Not Detected.					
32	C2-Dibenzothiophenes	212	Compound Not Detected.					
33	C3-Dibenzothiophenes	226	Compound Not Detected.					
34	C4-Dibenzothiophenes	240	Compound Not Detected.					
* 250	Anthracene-d10	188	22.339	22.359	(1.000)	372260	2.00000	
38	C1-Phenanthrenes/Anthracenes	192	Compound Not Detected.					
39	C2-Phenanthrenes/Anthracenes	206	Compound Not Detected.					
40	C3-Phenanthrenes/Anthracenes	220	Compound Not Detected.					
41	C4-Phenanthrenes/Anthracenes	234	Compound Not Detected.					
48	C1-Fluoranthenes/Pyrenes	216	Compound Not Detected.					
49	C2-Fluoranthenes/Pyrenes	230	Compound Not Detected.					
50	C3-Fluoranthenes/Pyrenes	244	Compound Not Detected.					
249	C4-Fluoranthenes/Pyrenes	258	Compound Not Detected.					
52	C1-Naphthobenzothiophenes	248	Compound Not Detected.					
53	C2-Naphthobenzothiophenes	262	Compound Not Detected.					
54	C3-Naphthobenzothiophenes	276	Compound Not Detected.					
248	C4-Naphthobenzothiophenes	290	Compound Not Detected.					
58	C1-Benzo(a)anthracenes/Chrysen	242	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
59 C2-Benzo(a)anthracenes/Chrysen	256	Compound Not Detected.					
60 C3-Benzo(a)anthracenes/Chrysen	270	Compound Not Detected.					
61 C4-Benzo(a)anthracenes/Chrysen	284	Compound Not Detected.					
* 251 Benzo(e)pyrene-d12	264	33.172	33.181	(1.000)	488355	2.00000	
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: NT1421060704S.D
Lab Smp Id: BJE0209-BLK1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210607.b\SIM.b\ALKYLRANGES.m
Misc Info:

Calibration Date: 07-JUN-2021
Calibration Time: 13:18
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	311077	155539	622154	354742	14.04
250 Anthracene-d10	331614	165807	663228	372260	12.26
251 Benzo(e)pyrene-d1	416427	208214	832854	488355	17.27

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.90	18.40	19.40	18.90	0.01
250 Anthracene-d10	22.36	21.86	22.86	22.34	-0.09
251 Benzo(e)pyrene-d1	33.18	32.68	33.68	33.17	-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.

SIM ALKYL PNA RANGE ION WINDOWS - NT1421060704S.D

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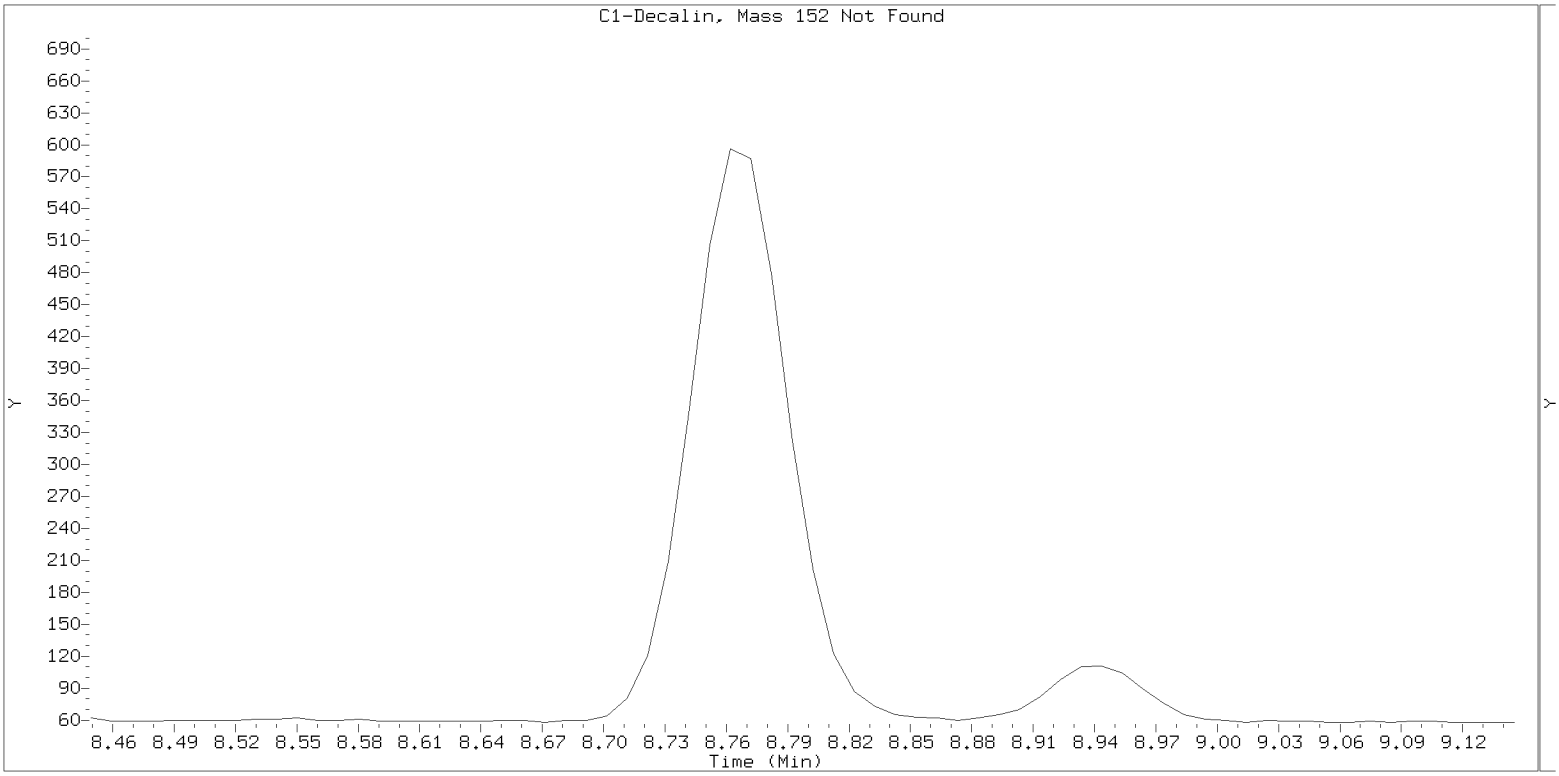

SIM ALKYL PNA RANGE ION WINDOWS - NT1421060704S.D

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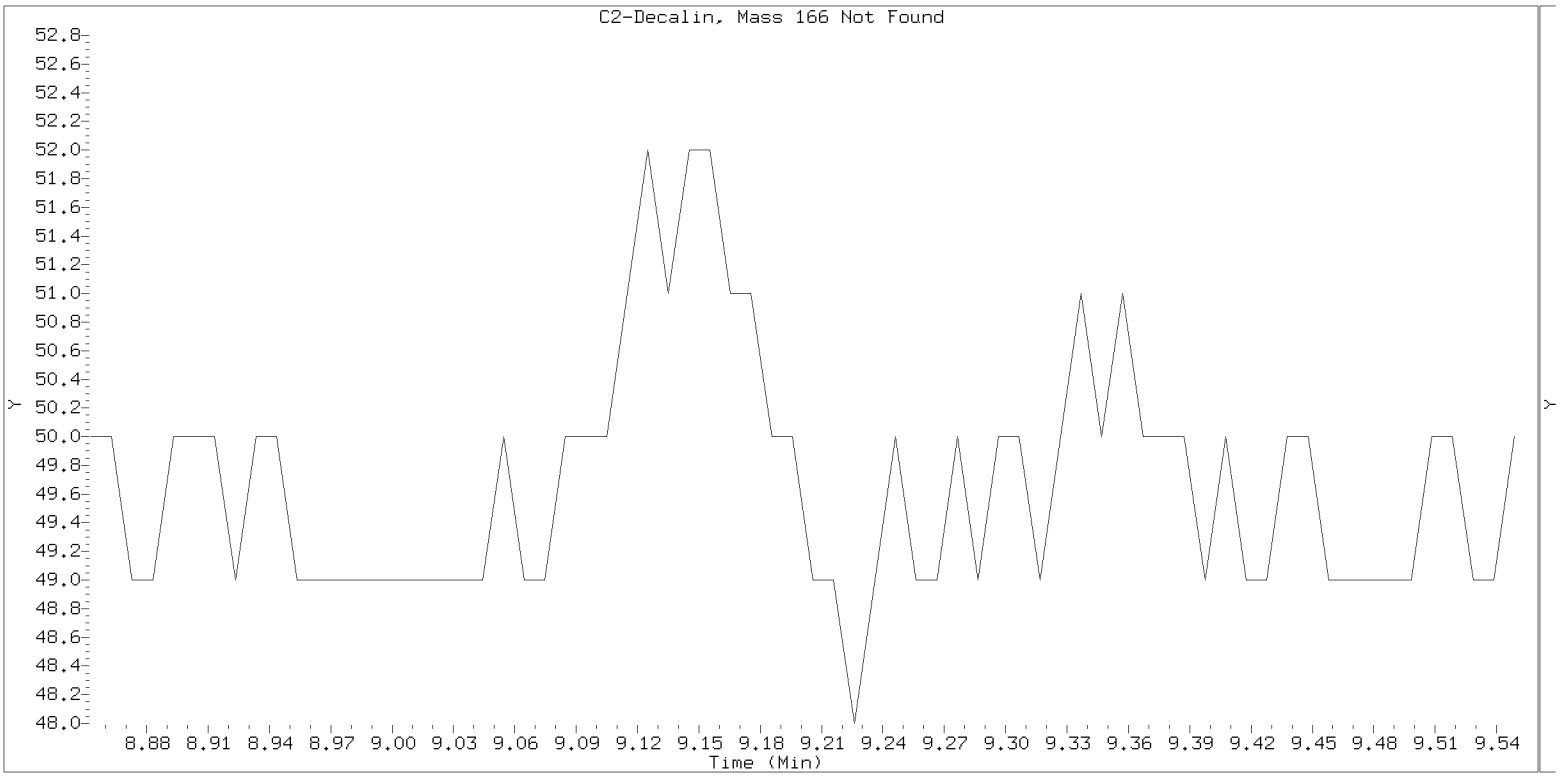

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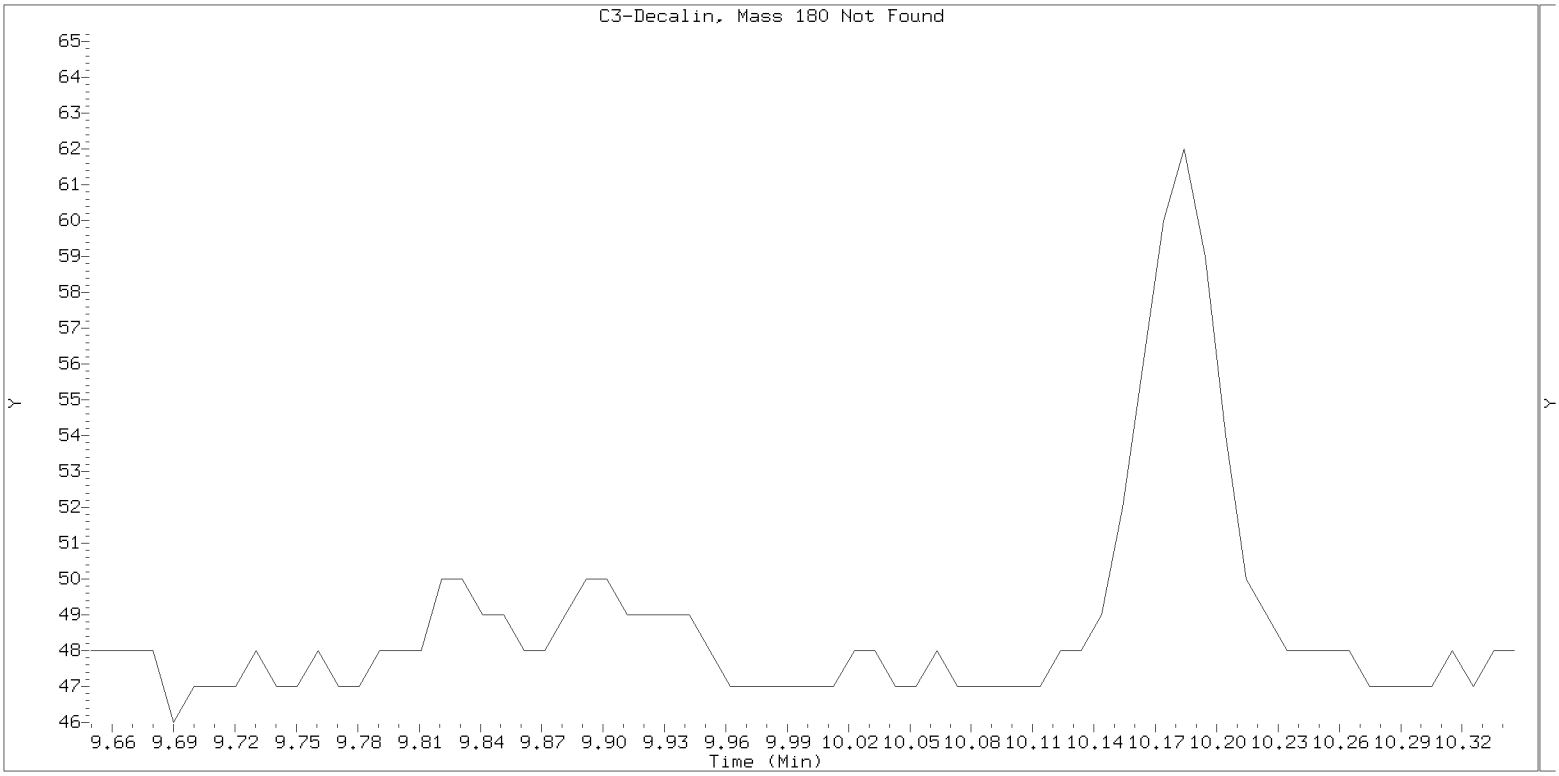

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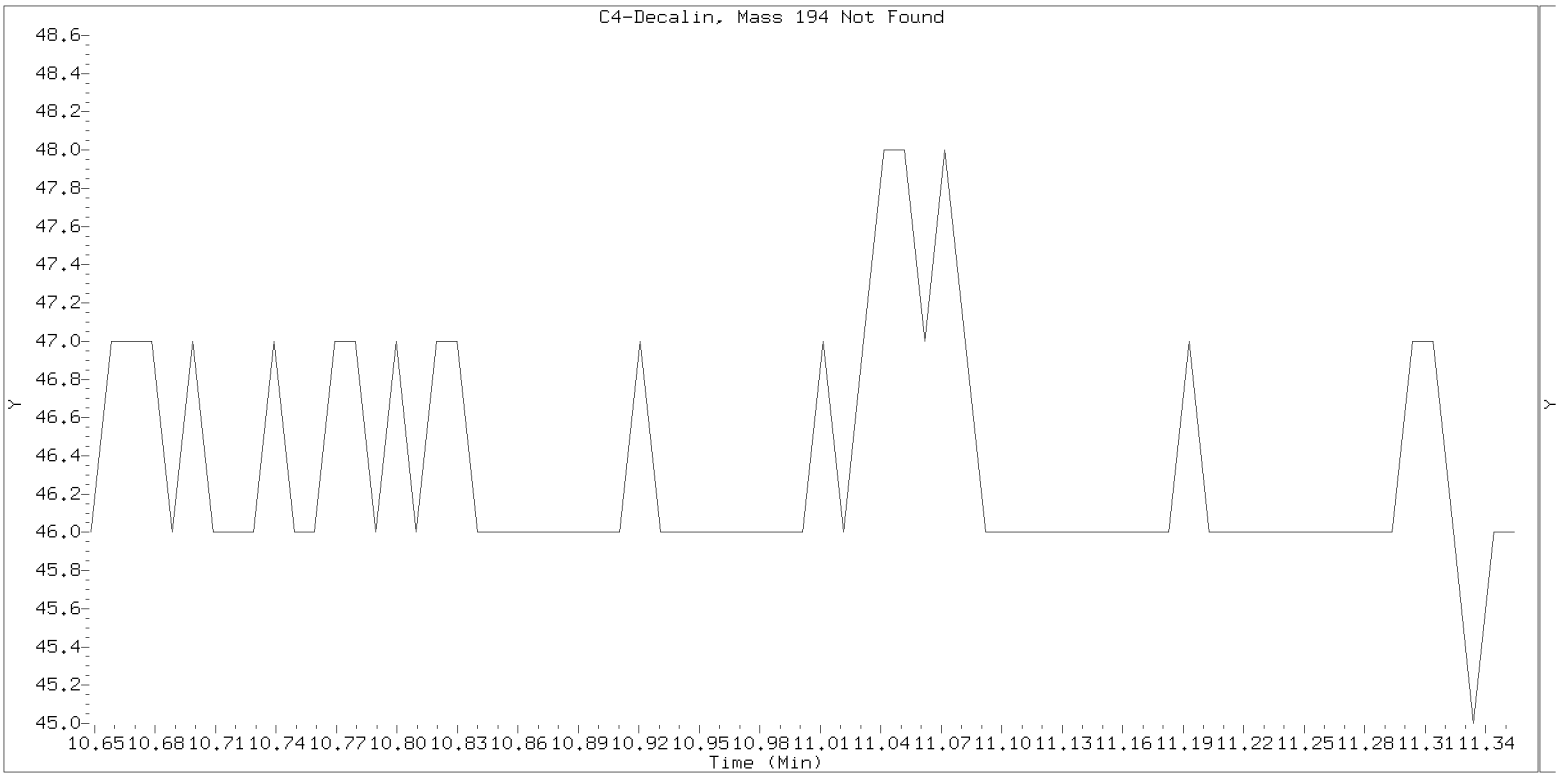

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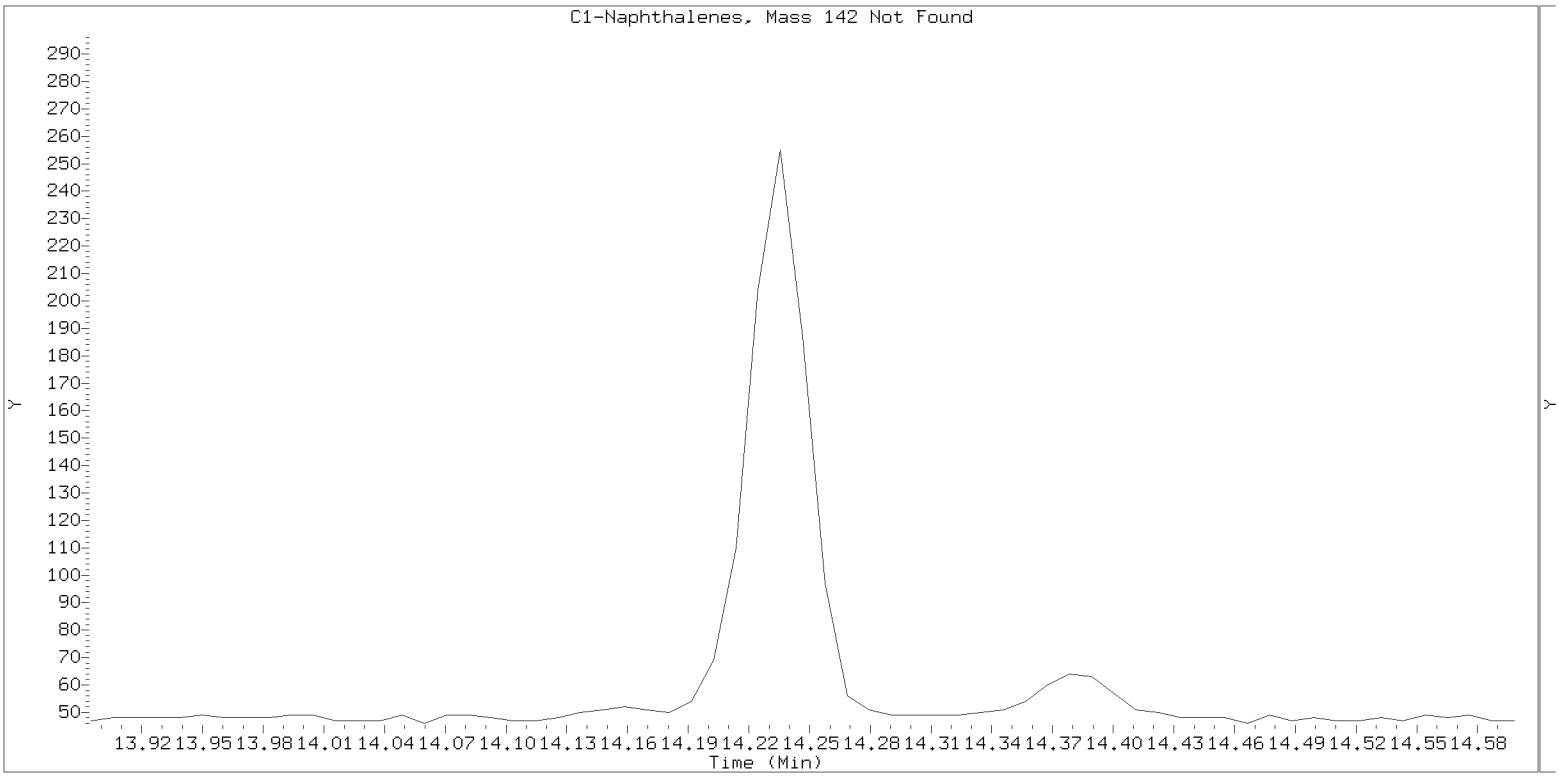

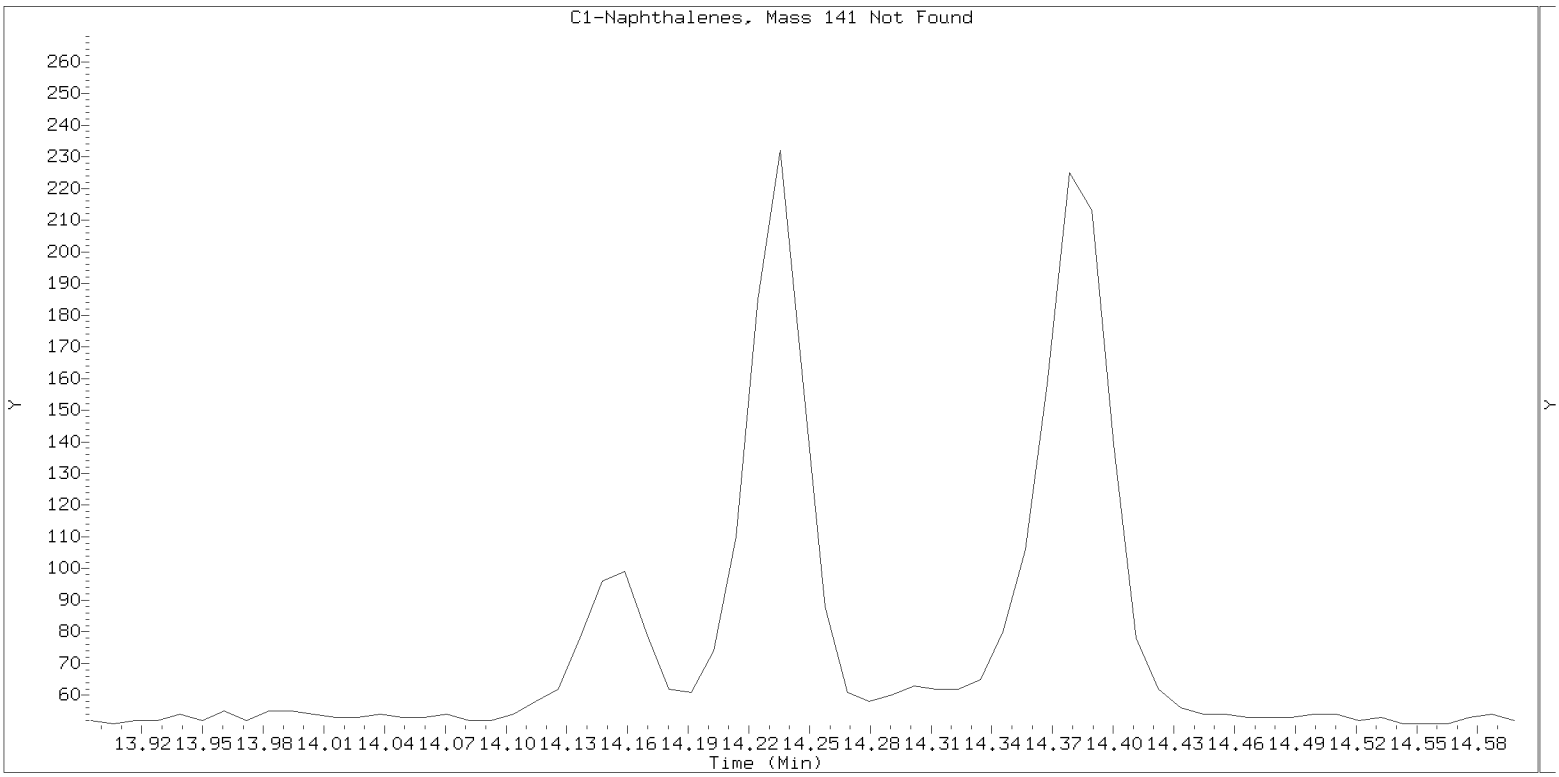

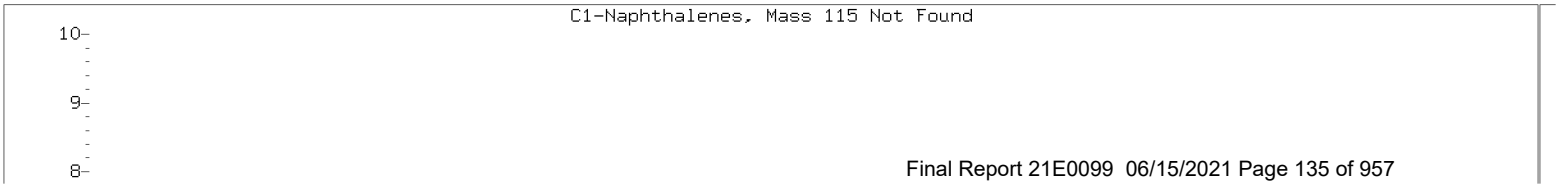

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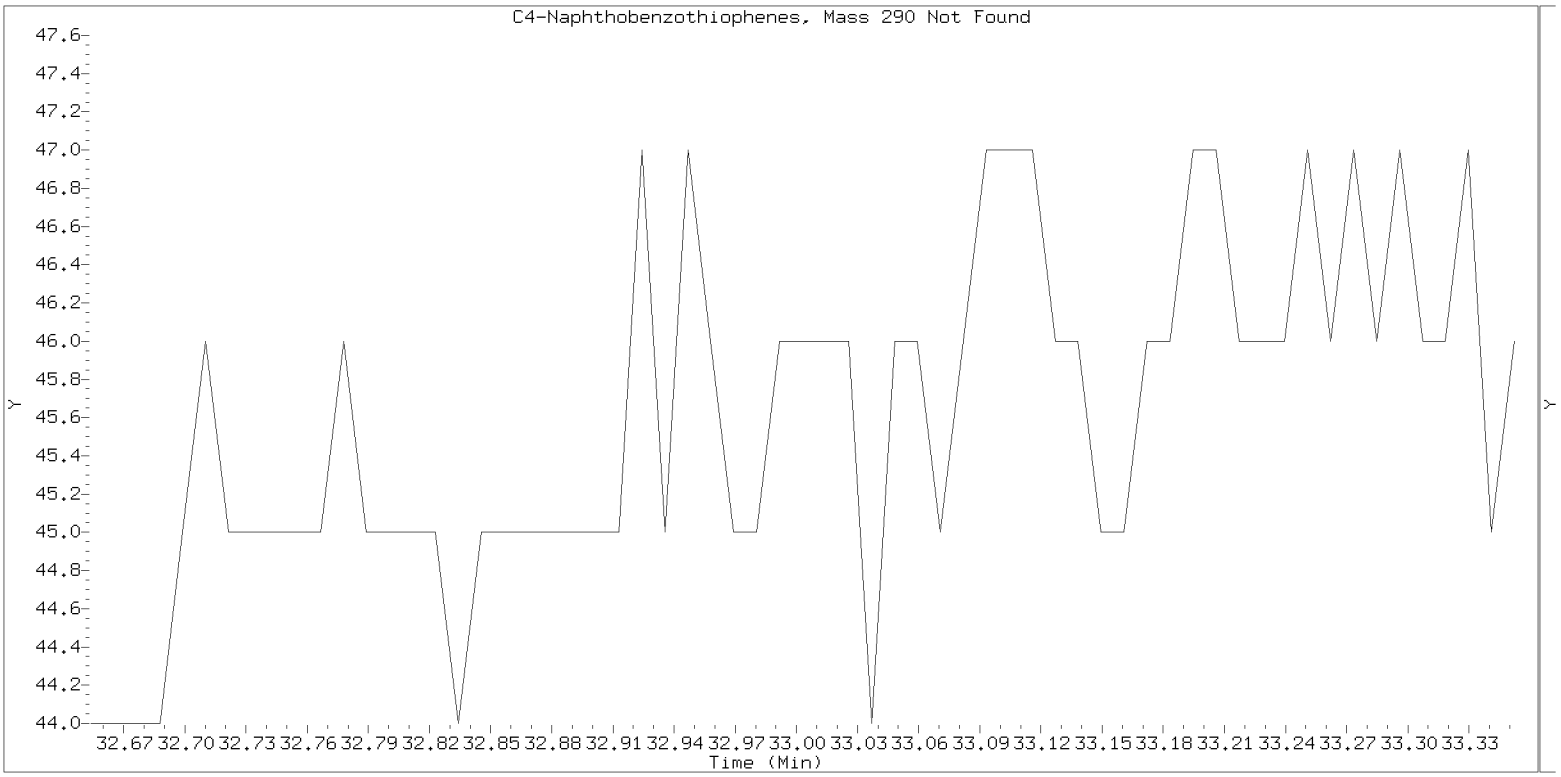

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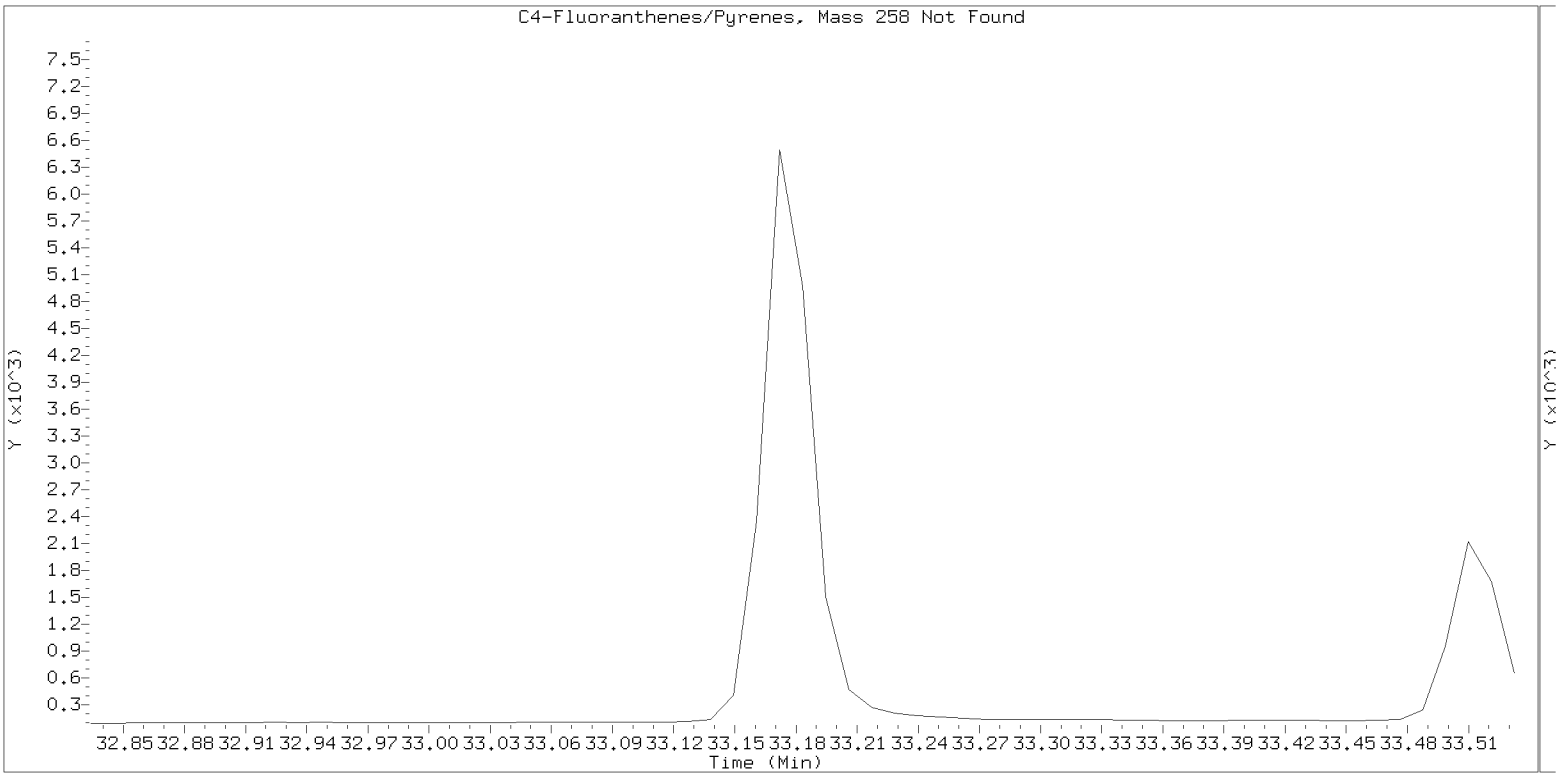

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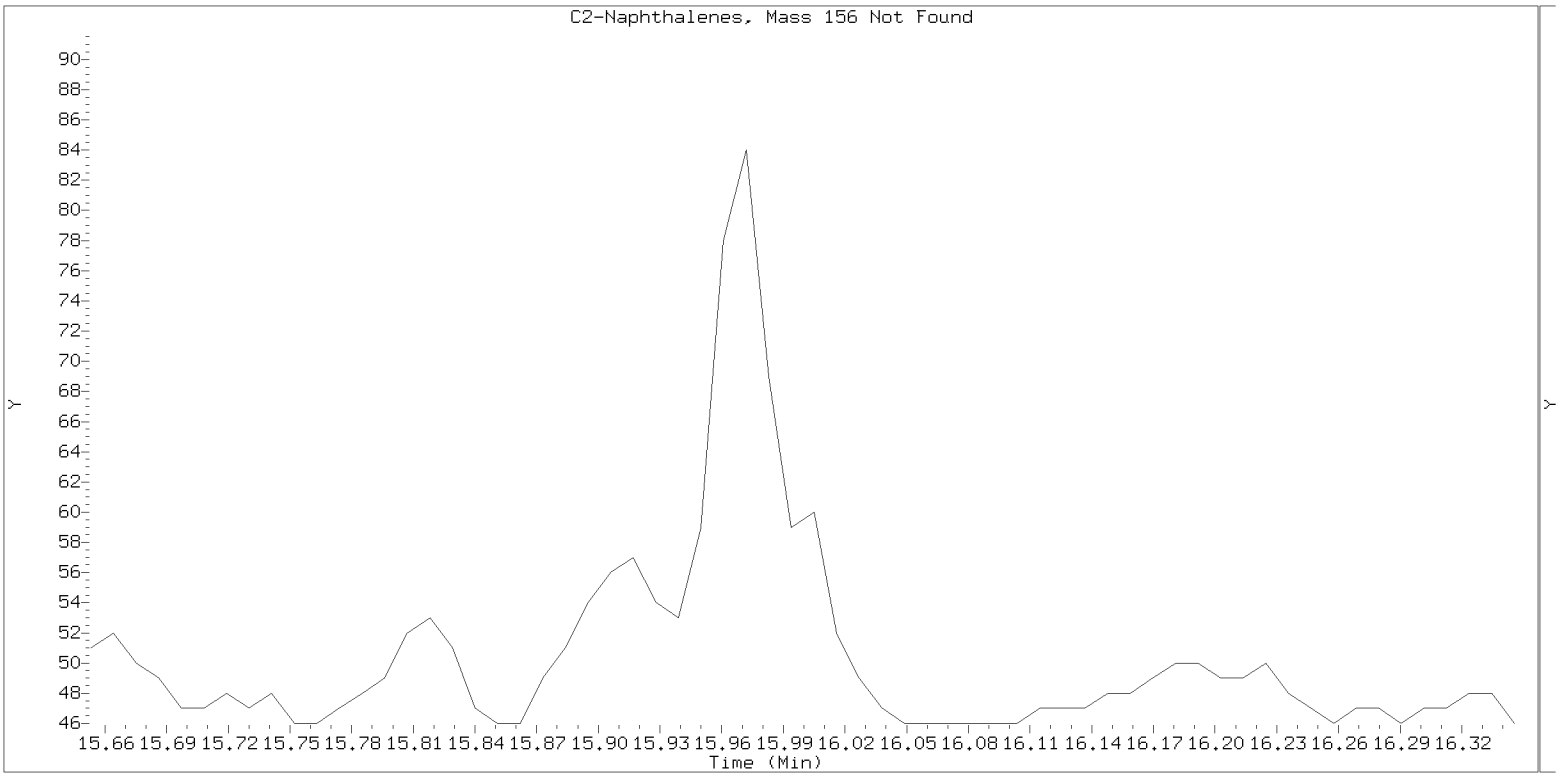

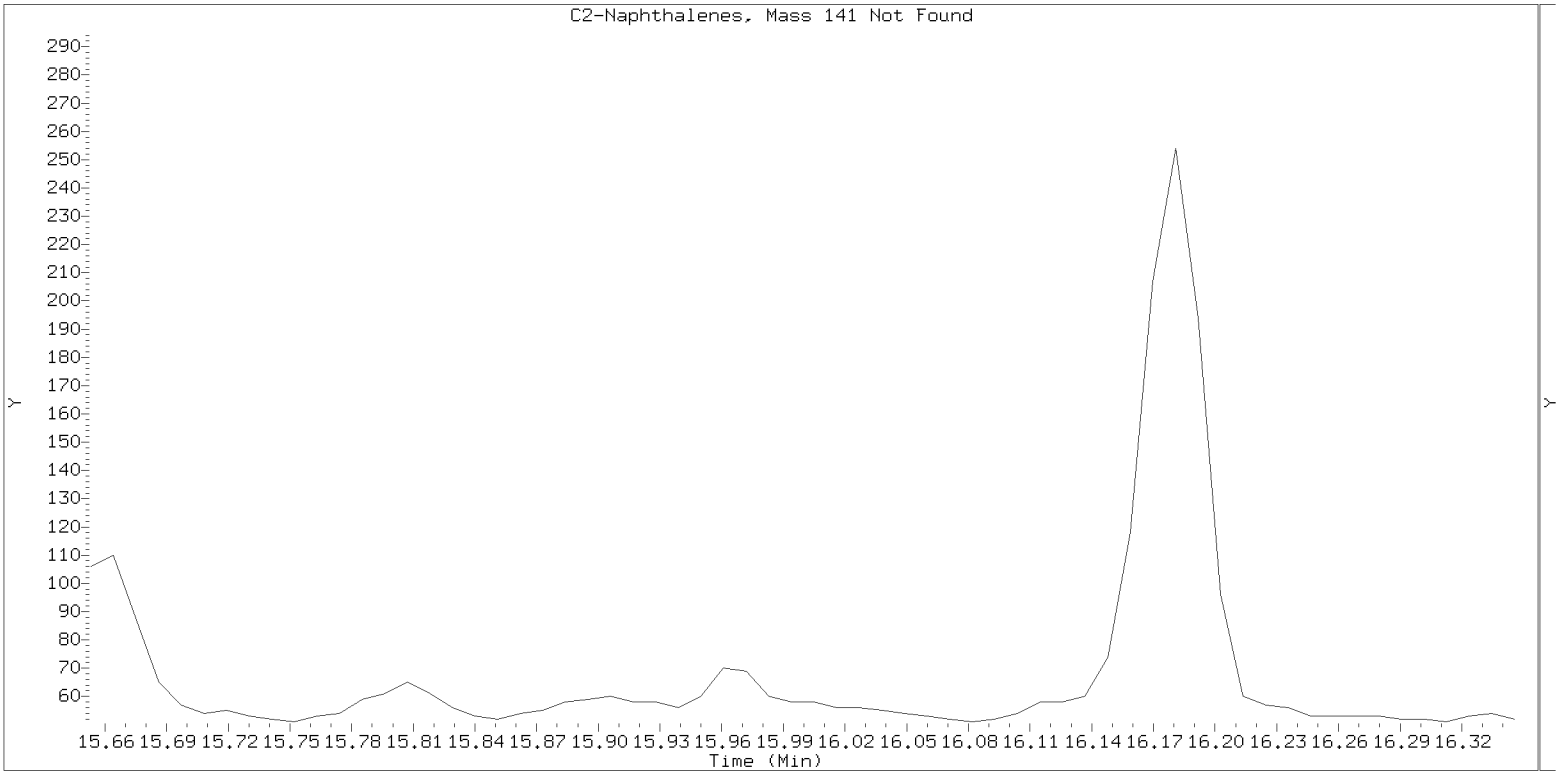

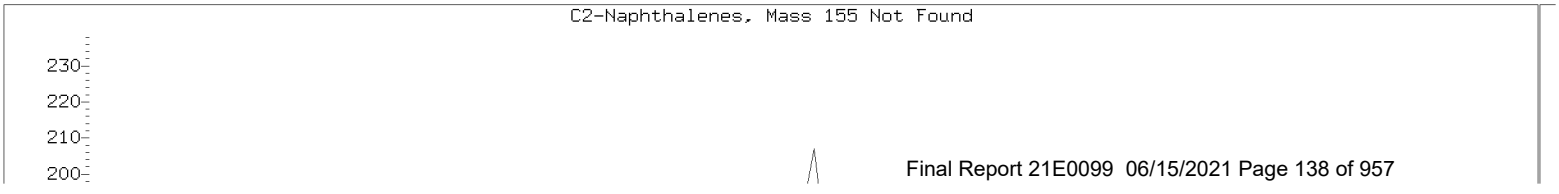

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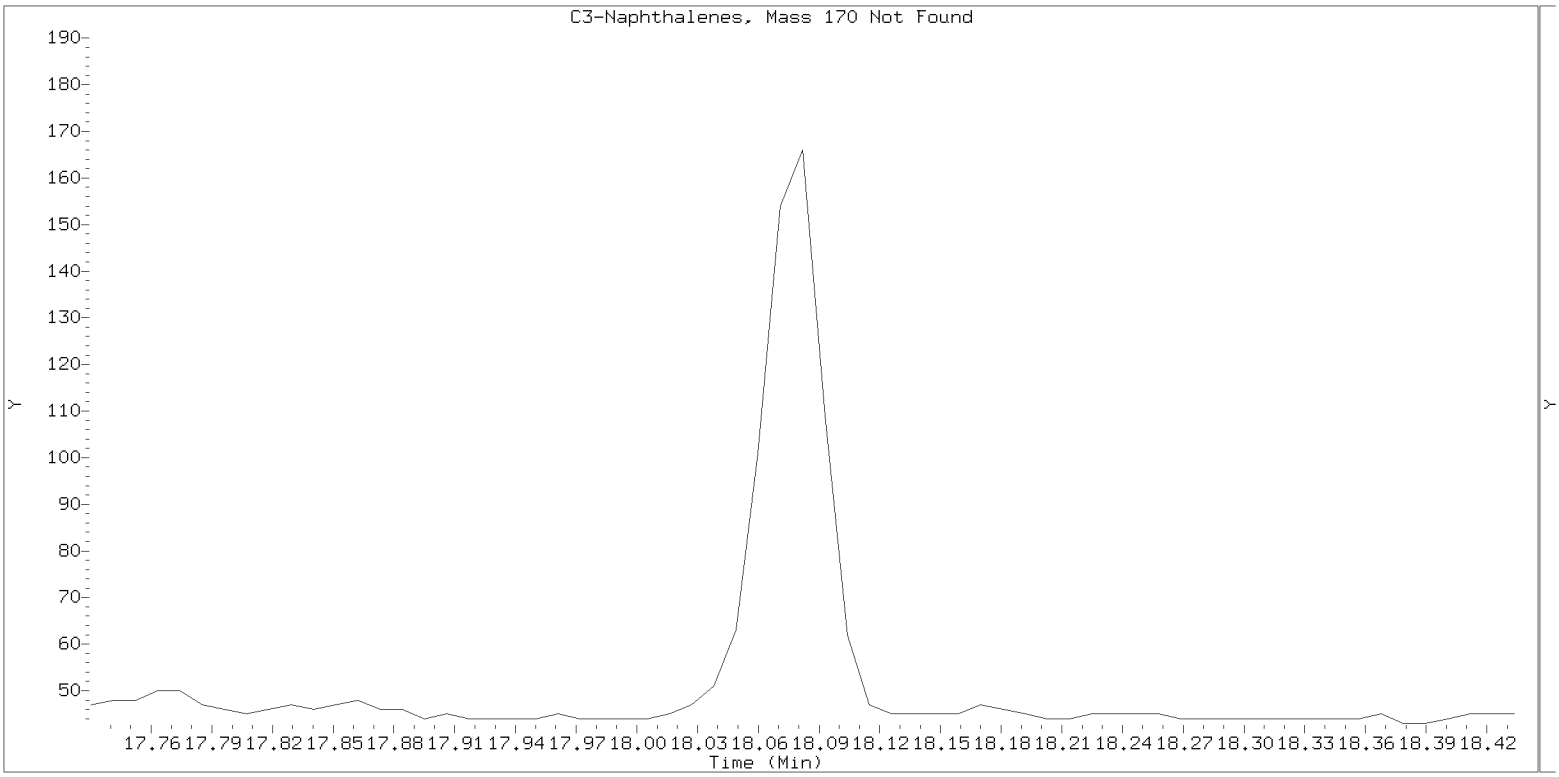

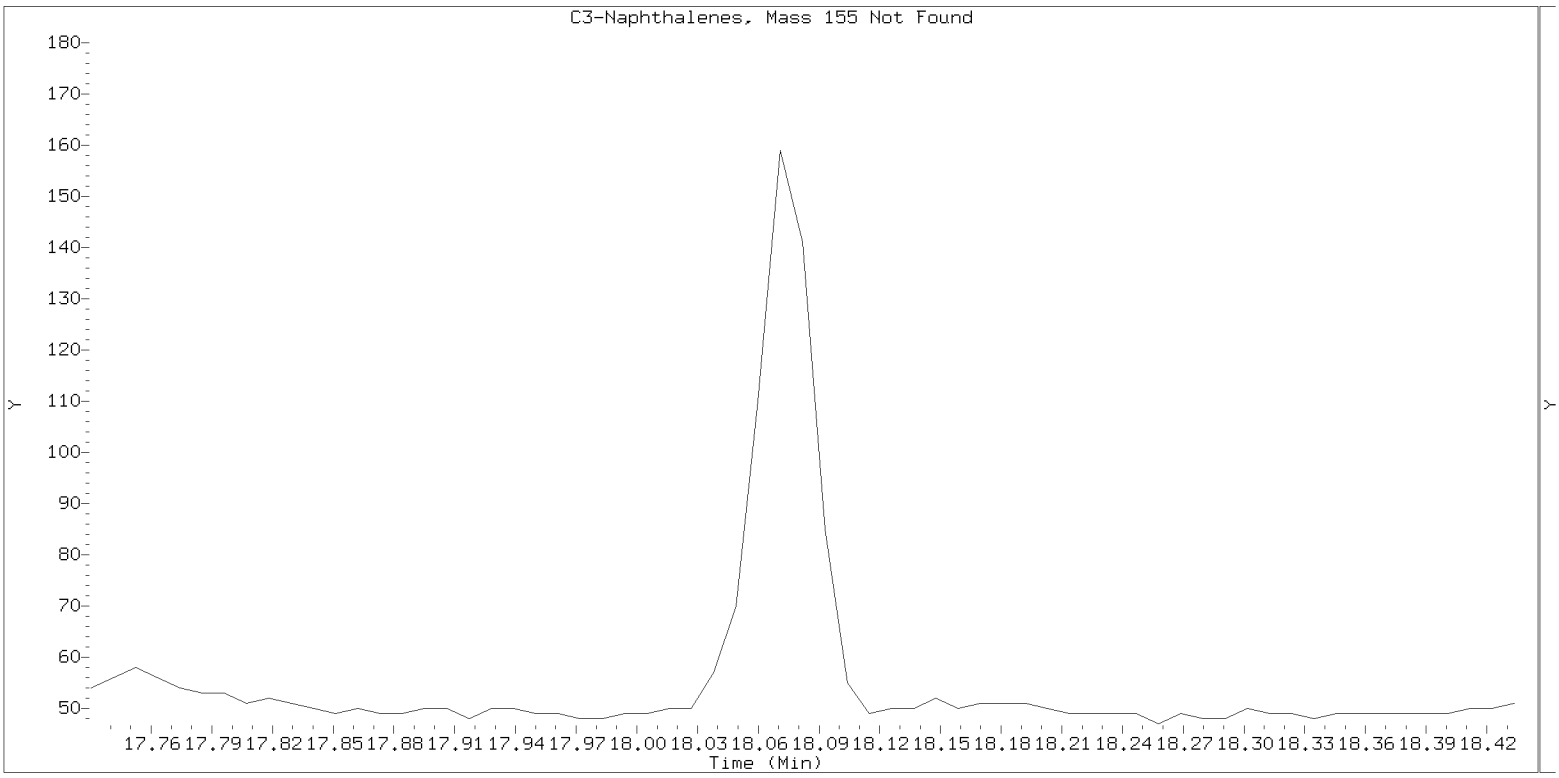

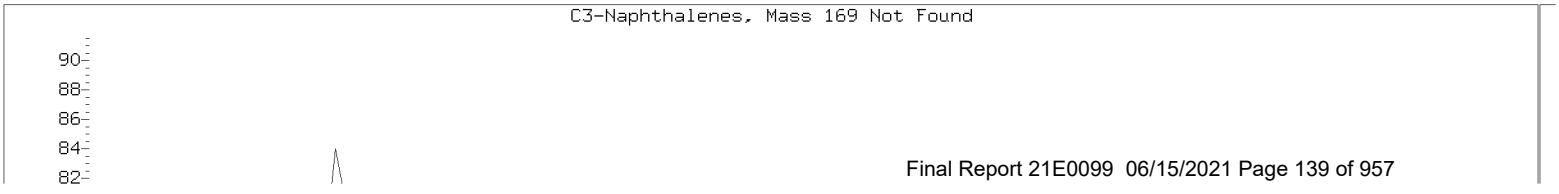

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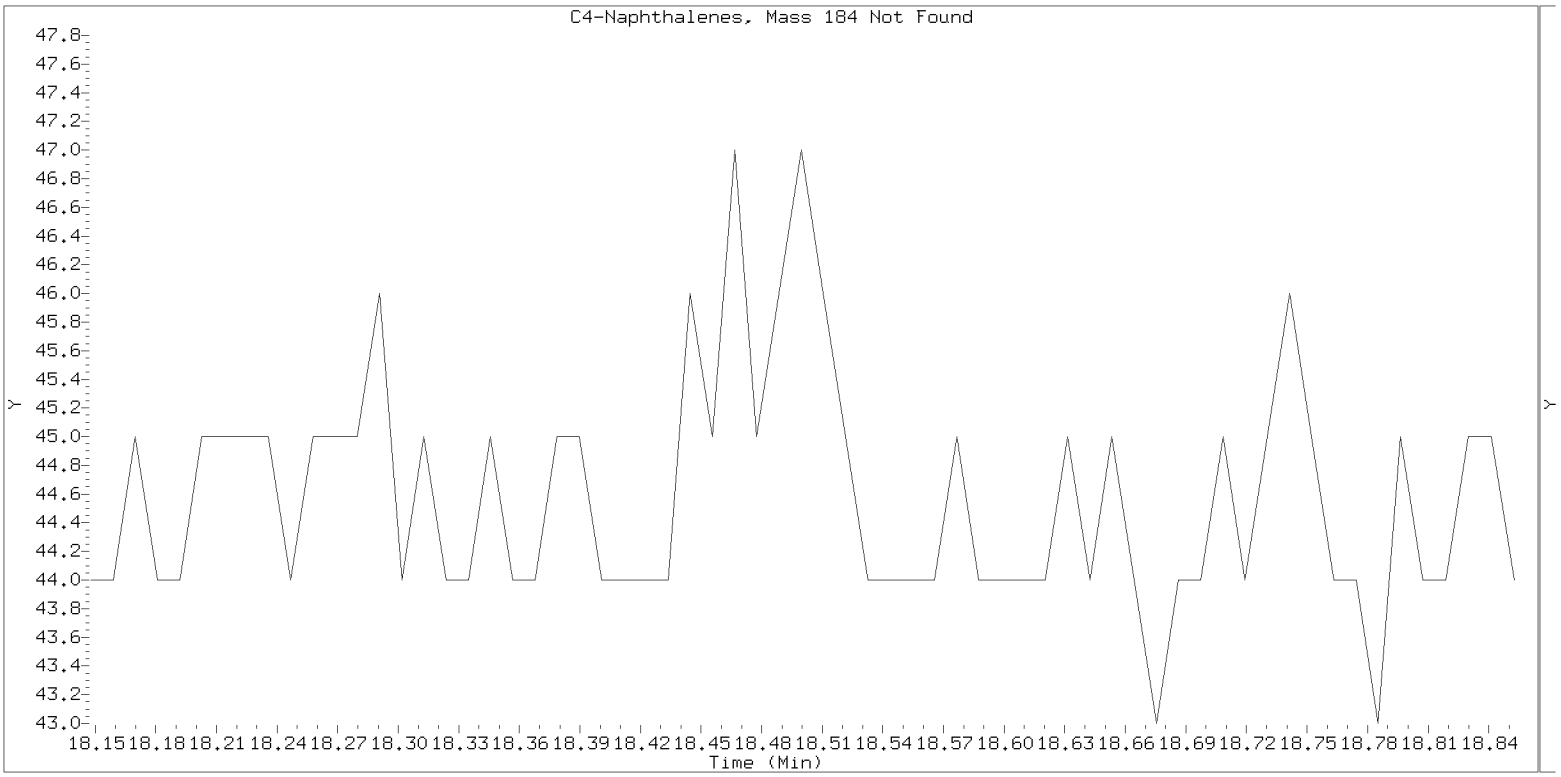

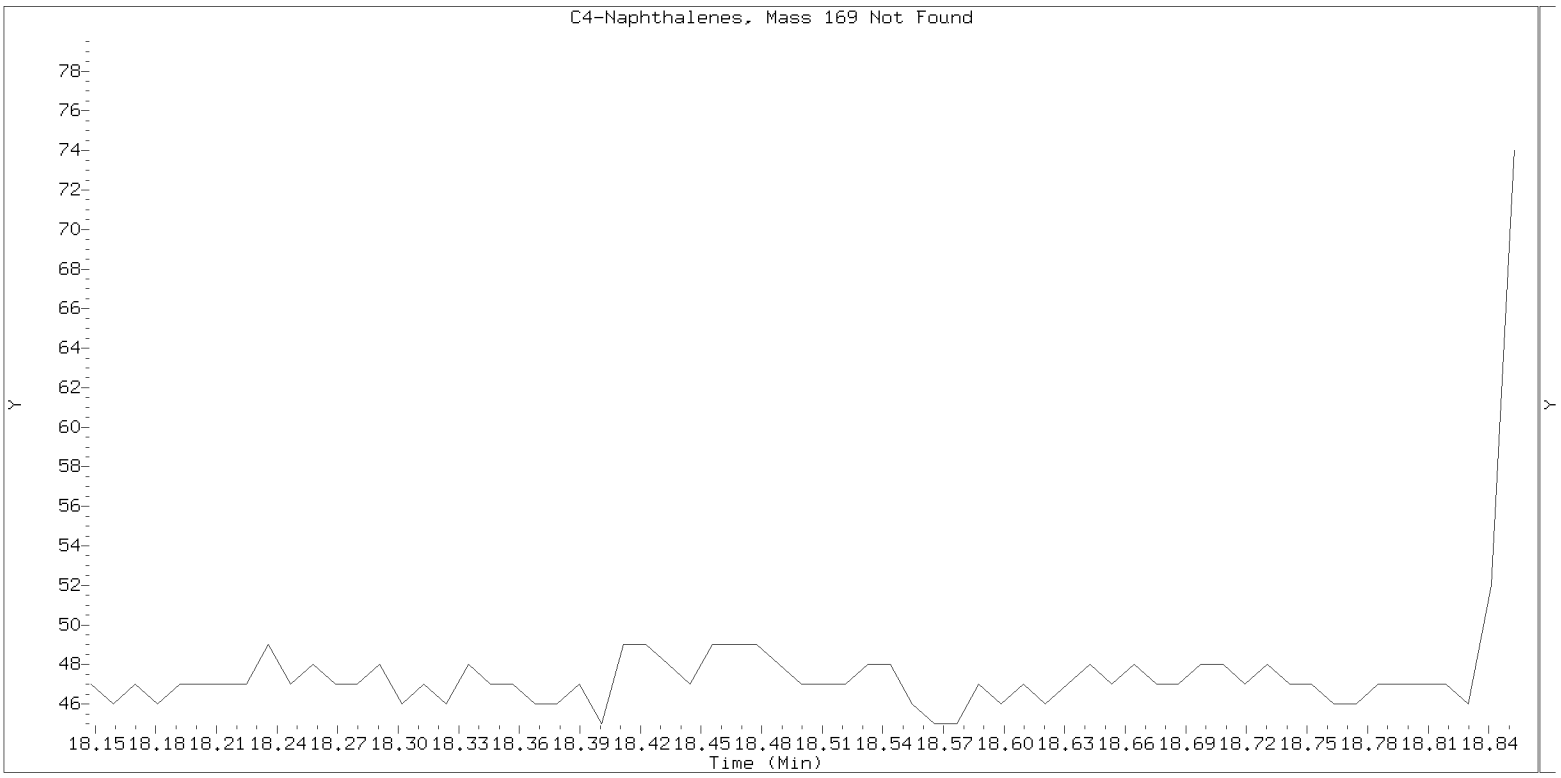

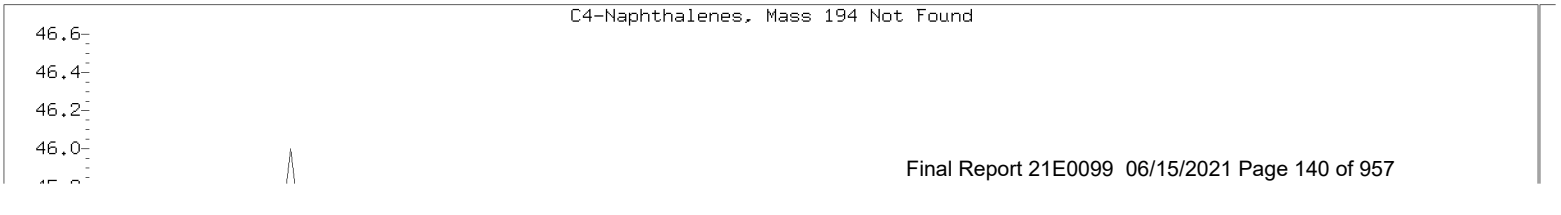

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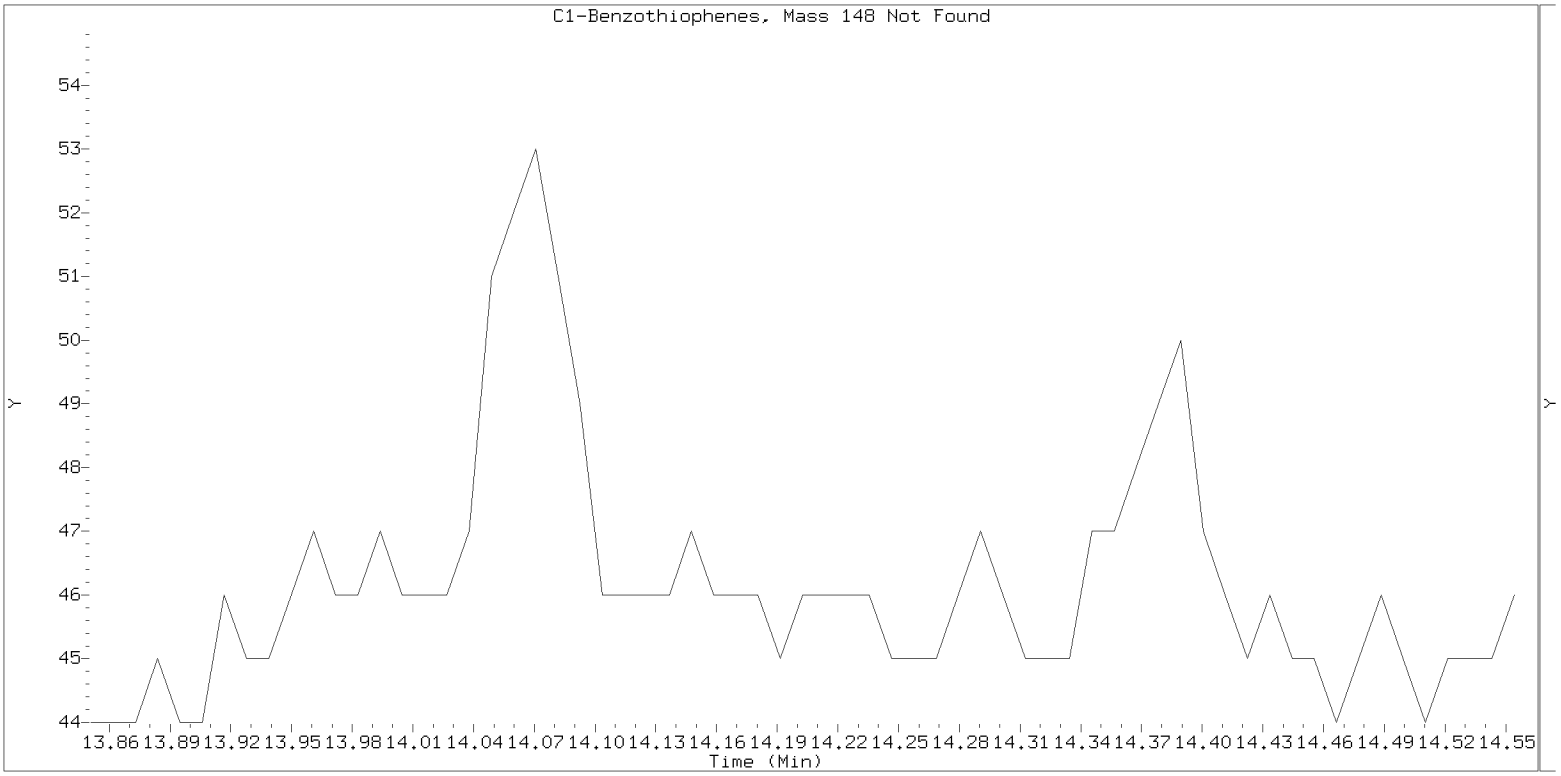

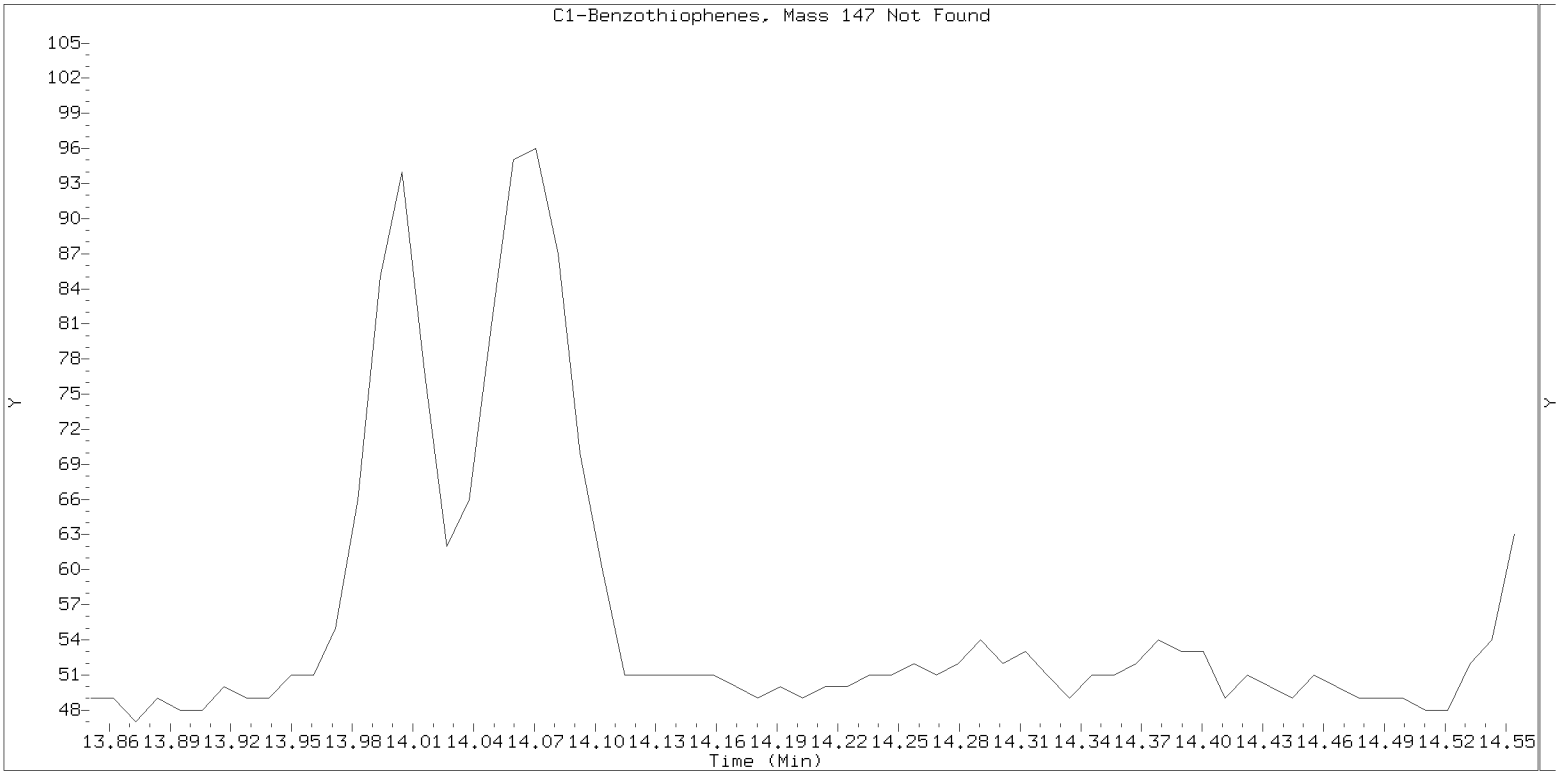

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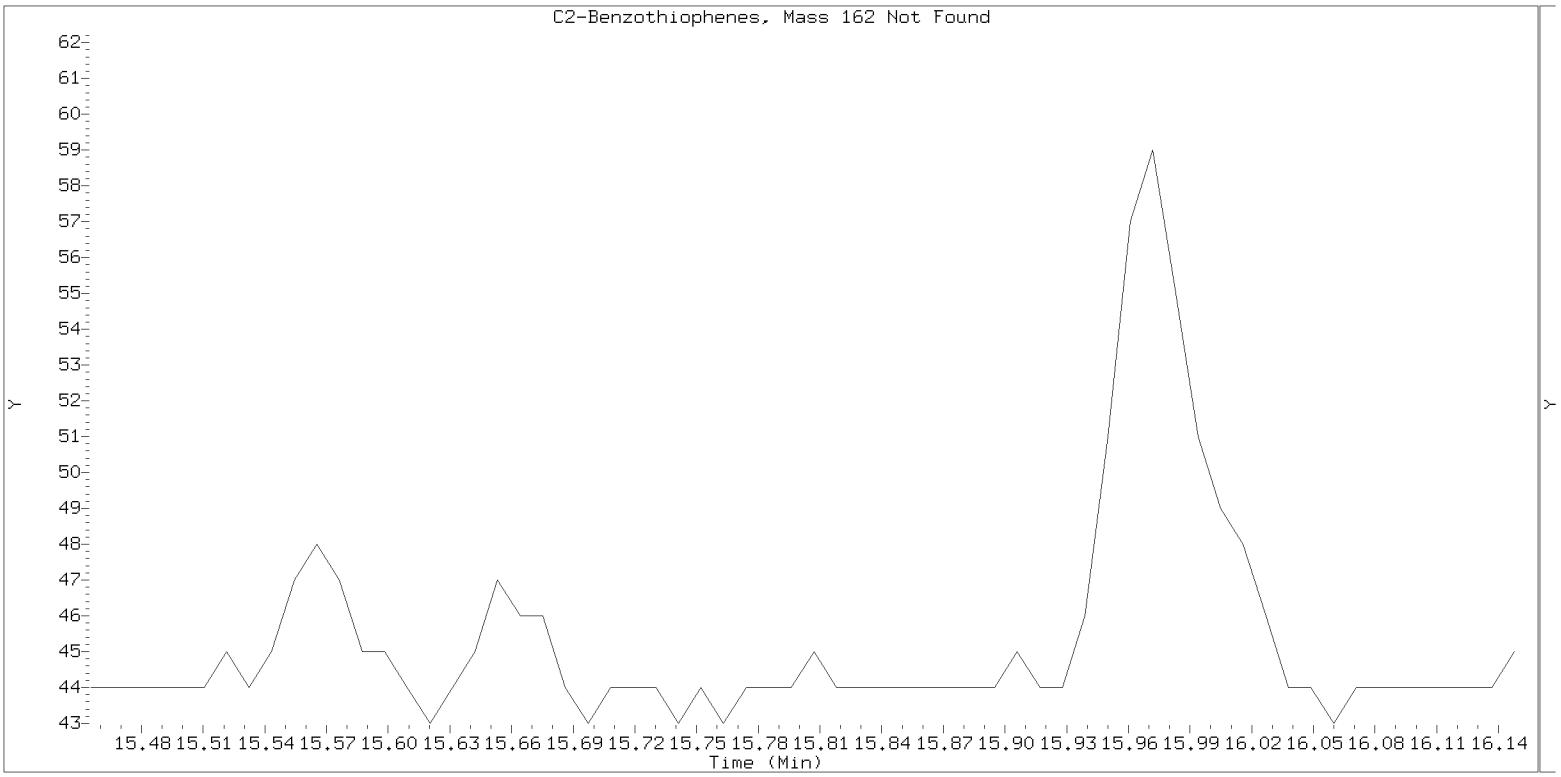

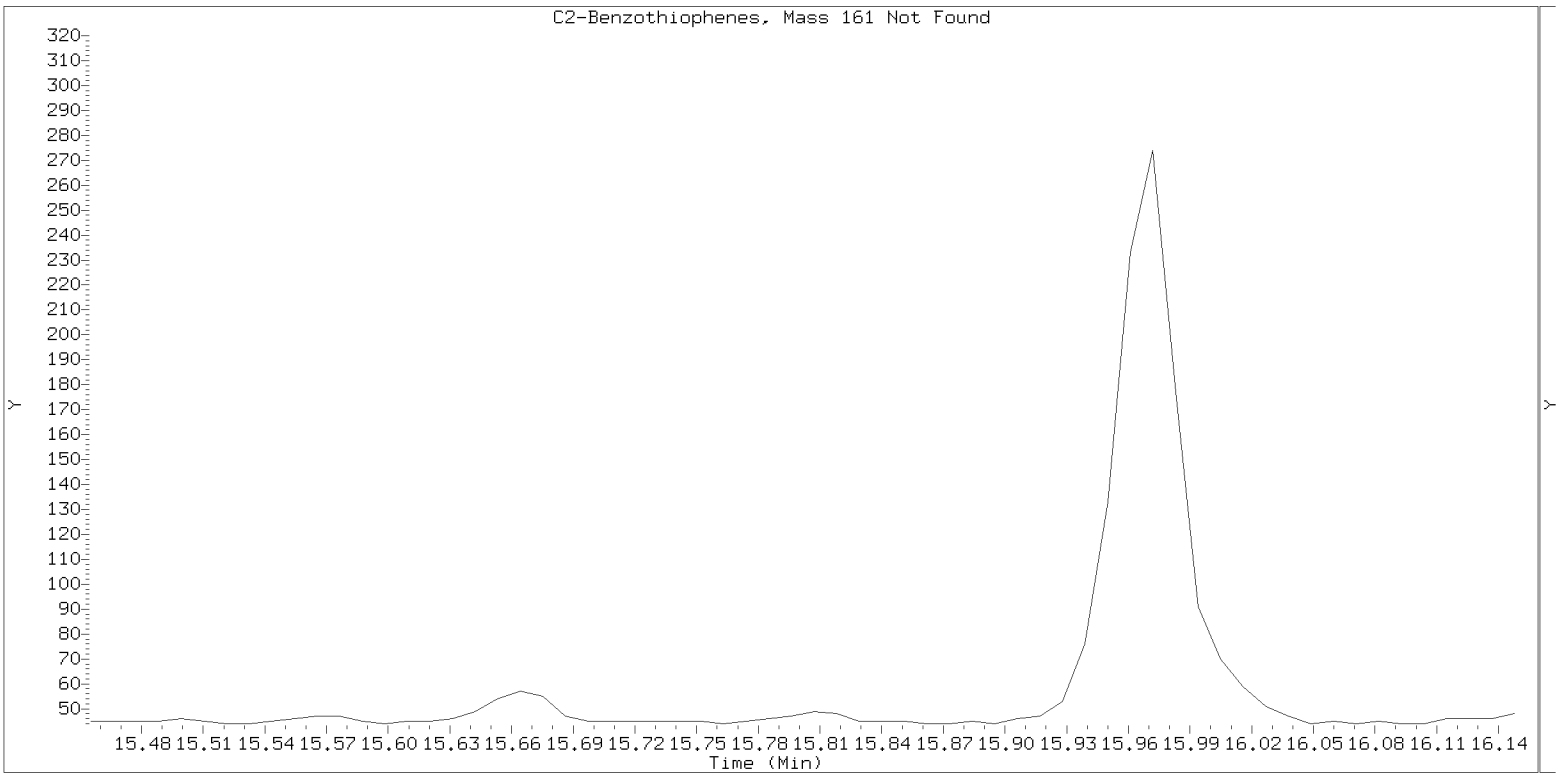

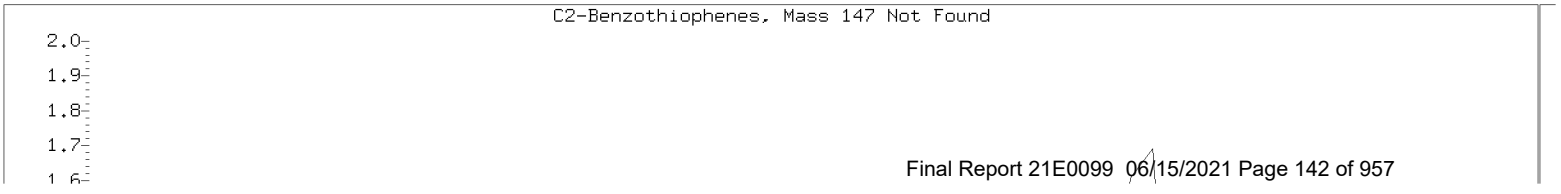

SIM ALKYL PNA RANGE ION WINDOWS - NT1421060704S.D

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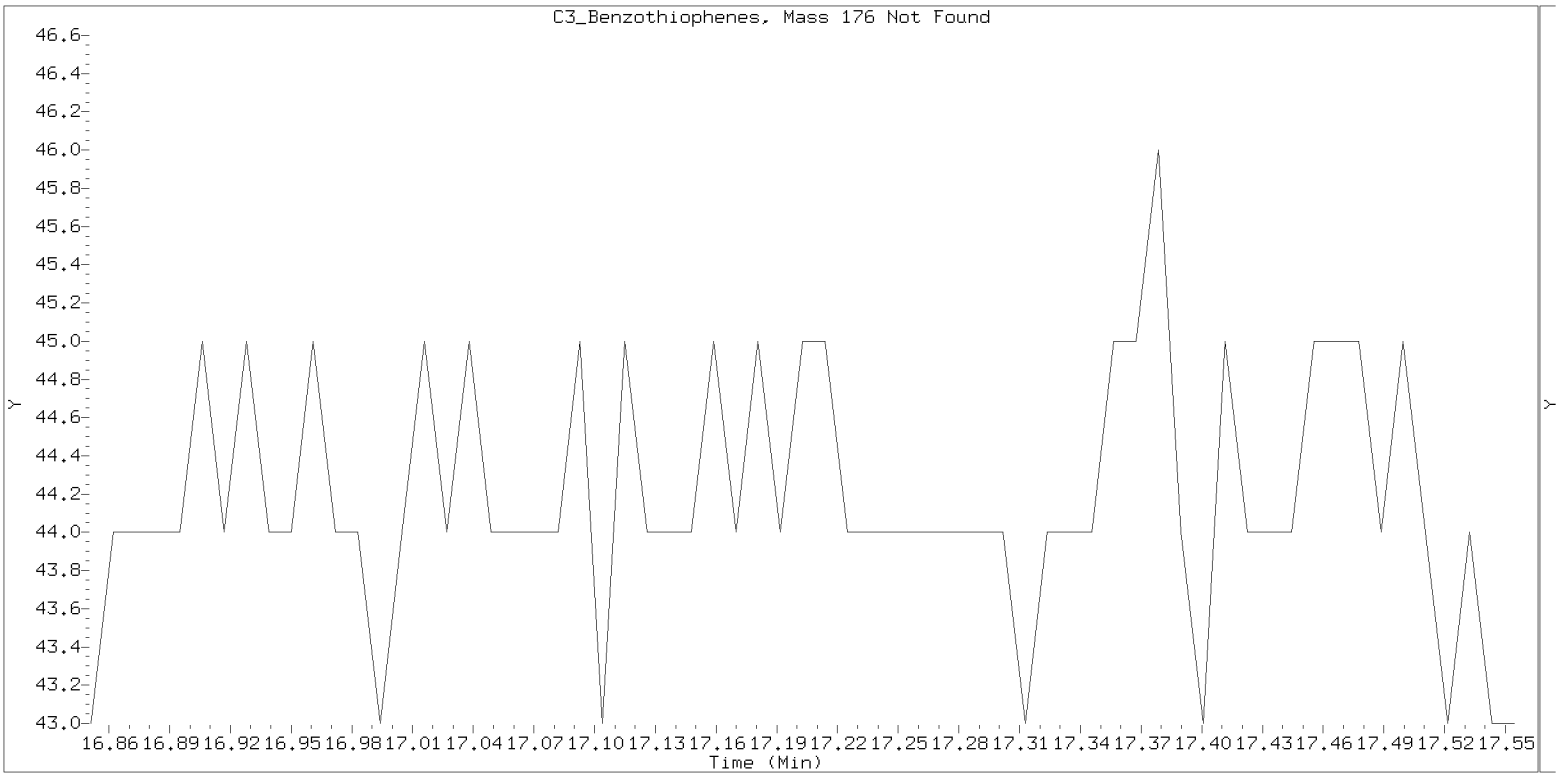

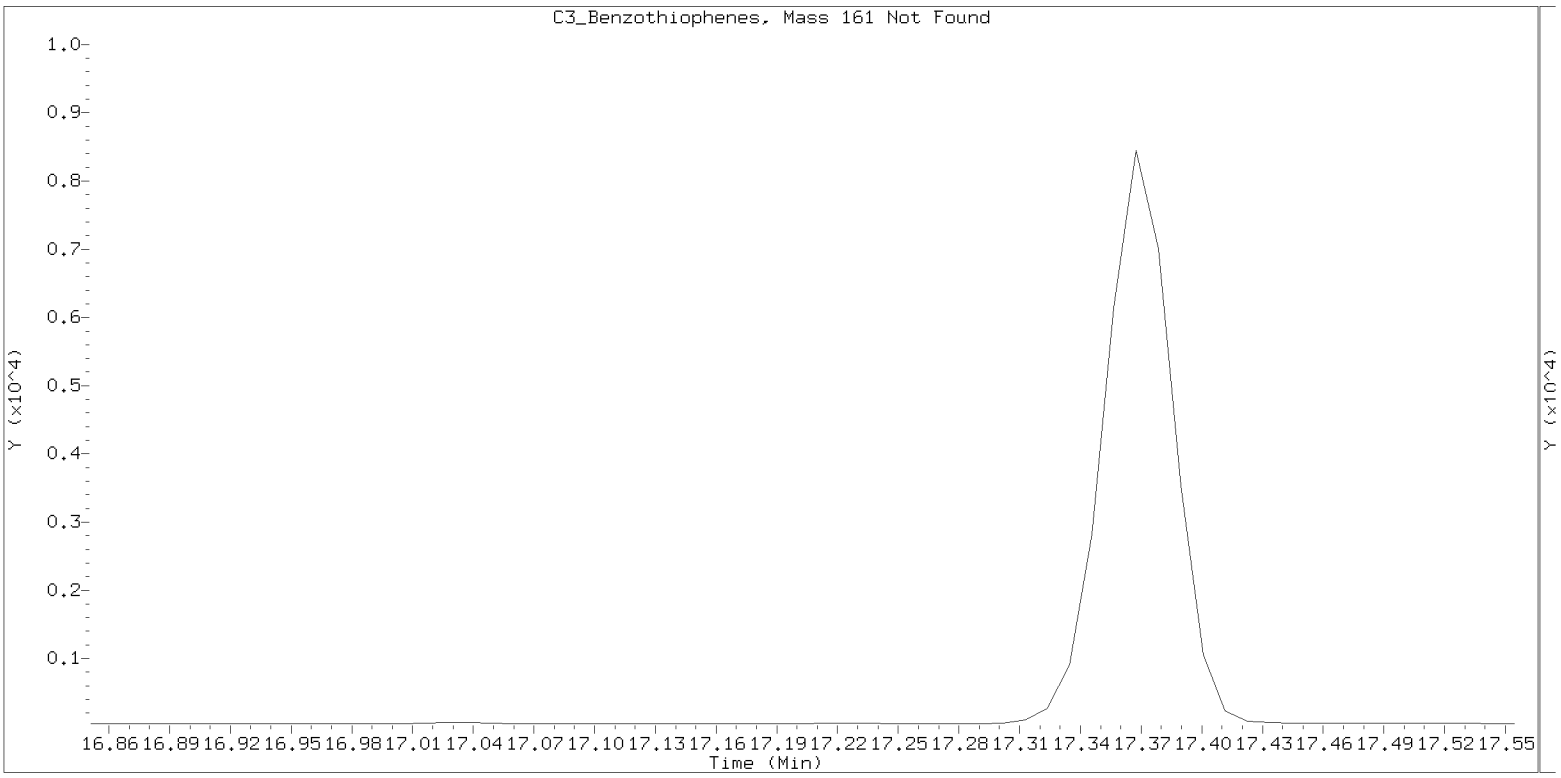

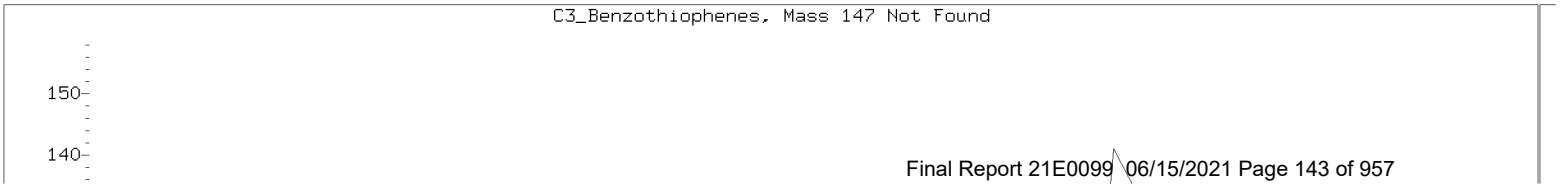

SIM ALKYL PNA RANGE ION WINDOWS - NT1421060704S.D

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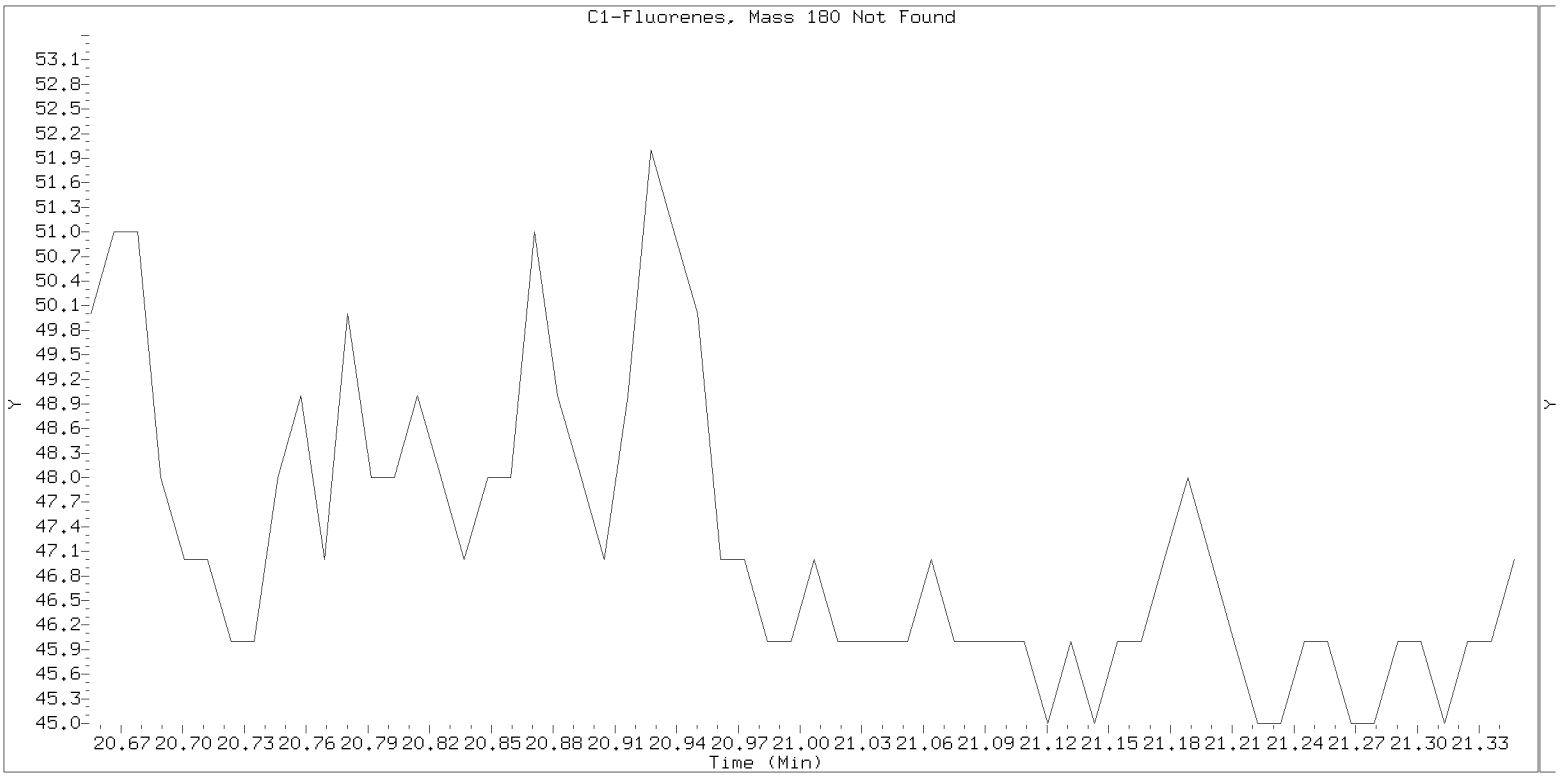

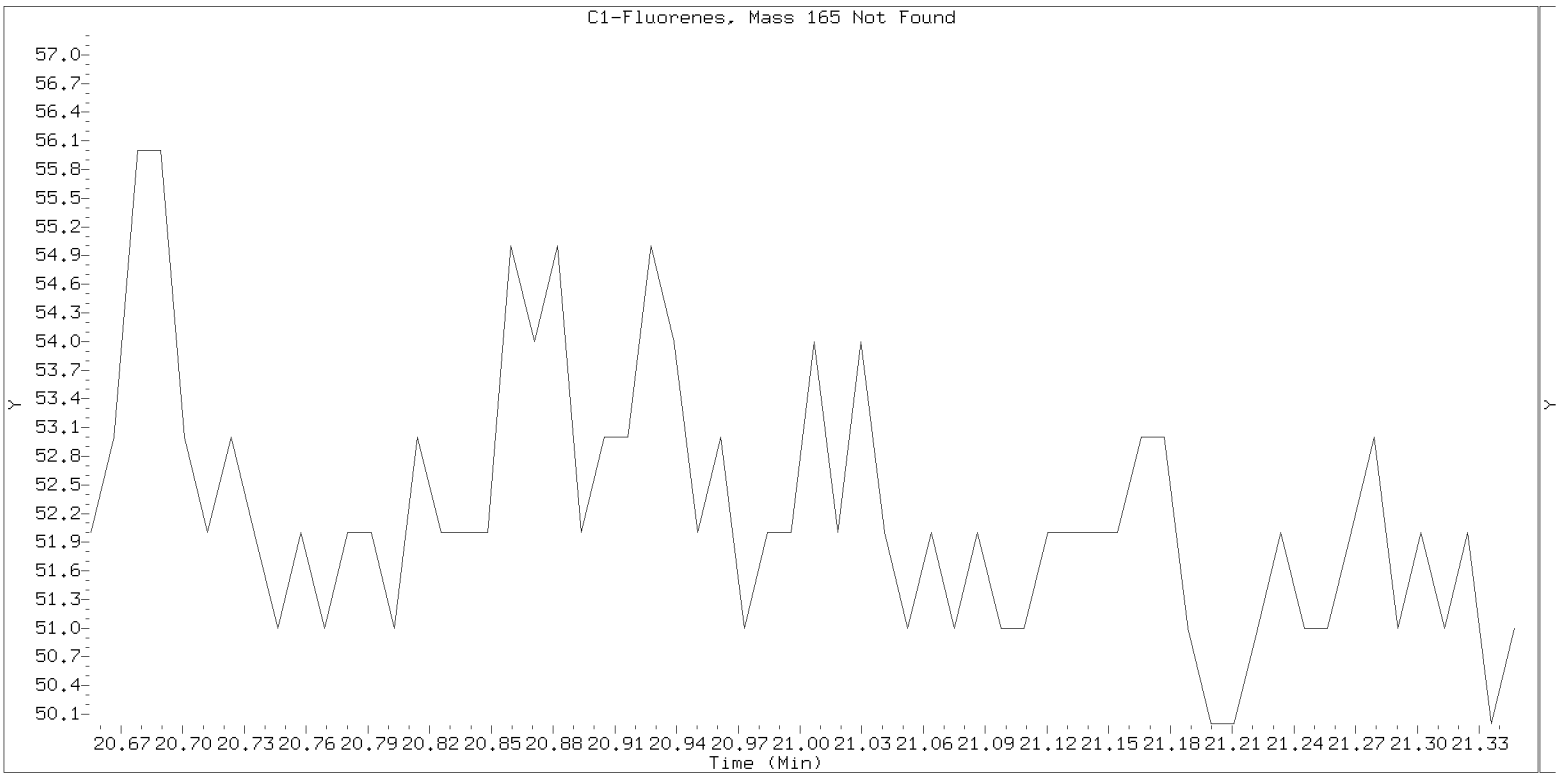

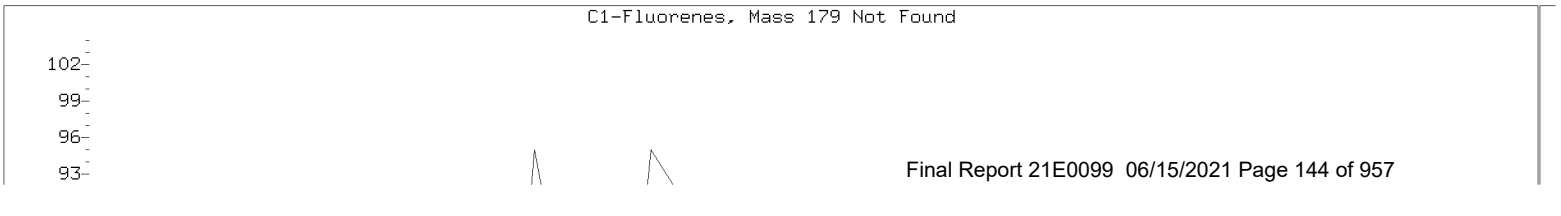

SIM ALKYL PNA RANGE ION WINDOWS - NT1421060704S.D

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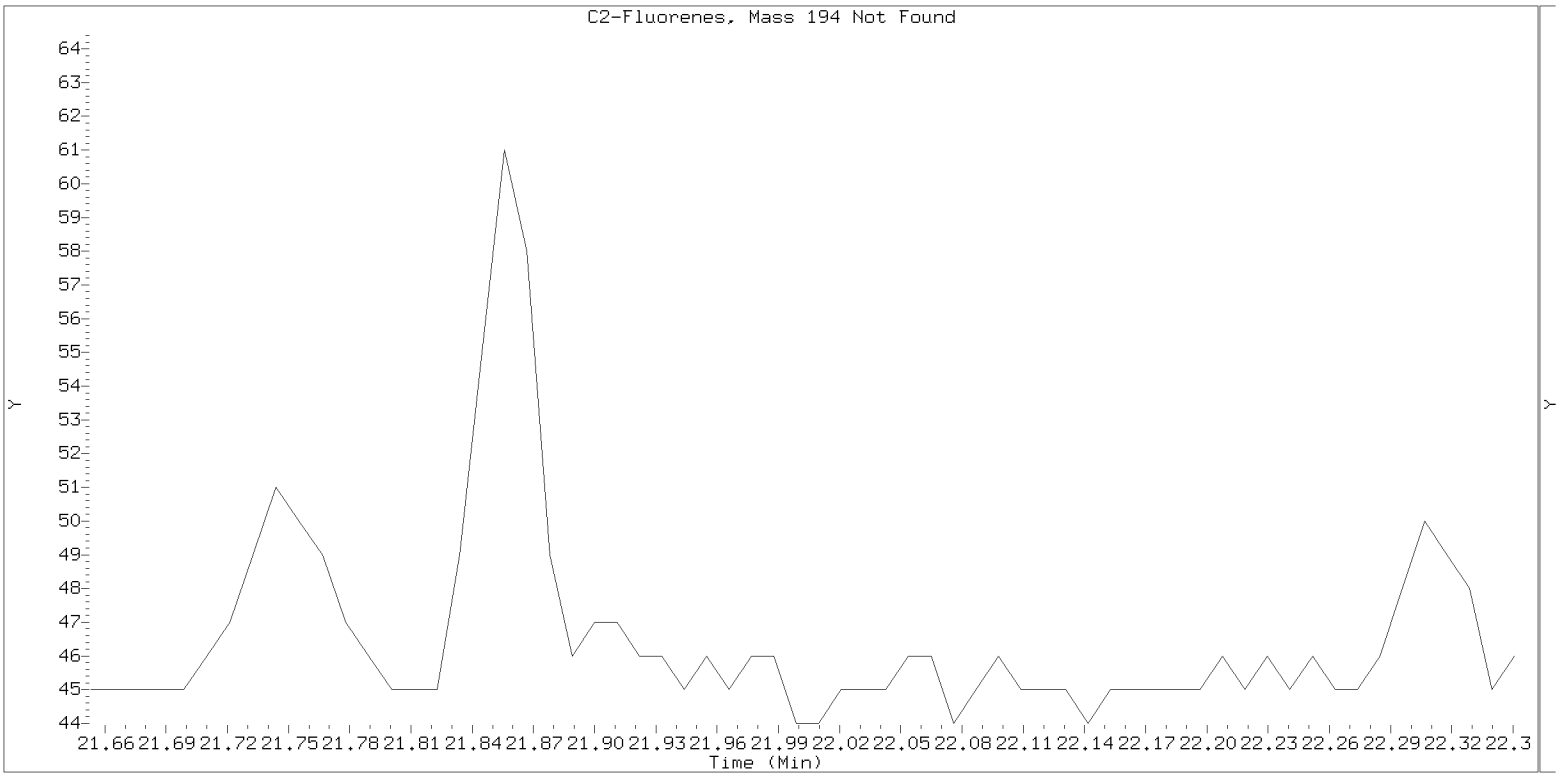

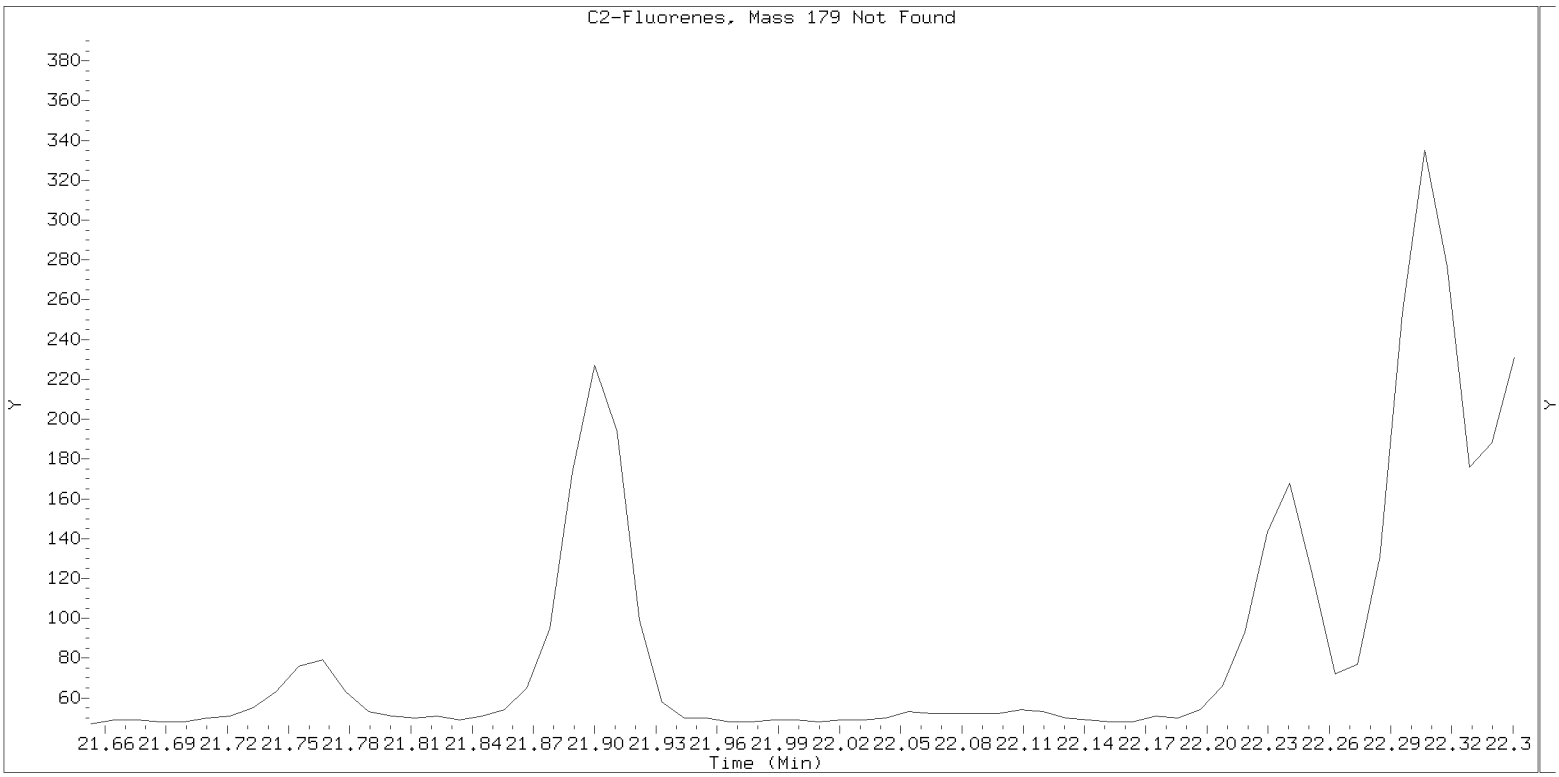

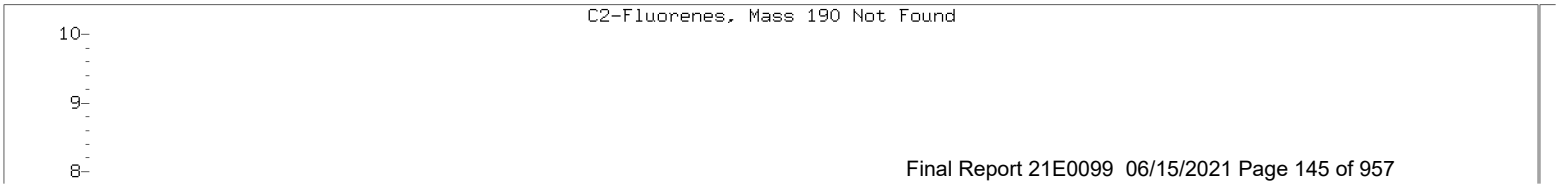

SIM ALKYL PNA RANGE ION WINDOWS - NT1421060704S.D

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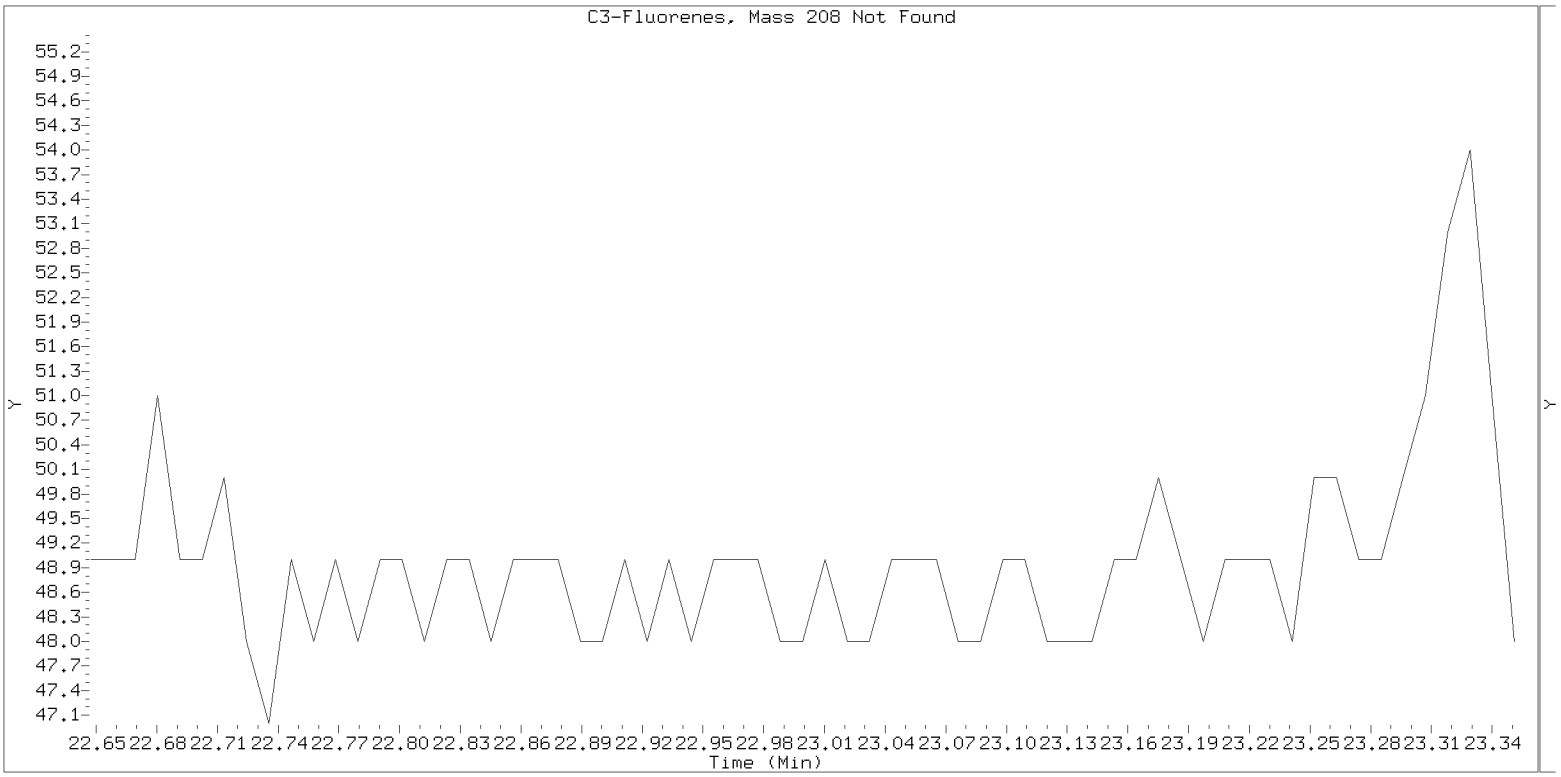

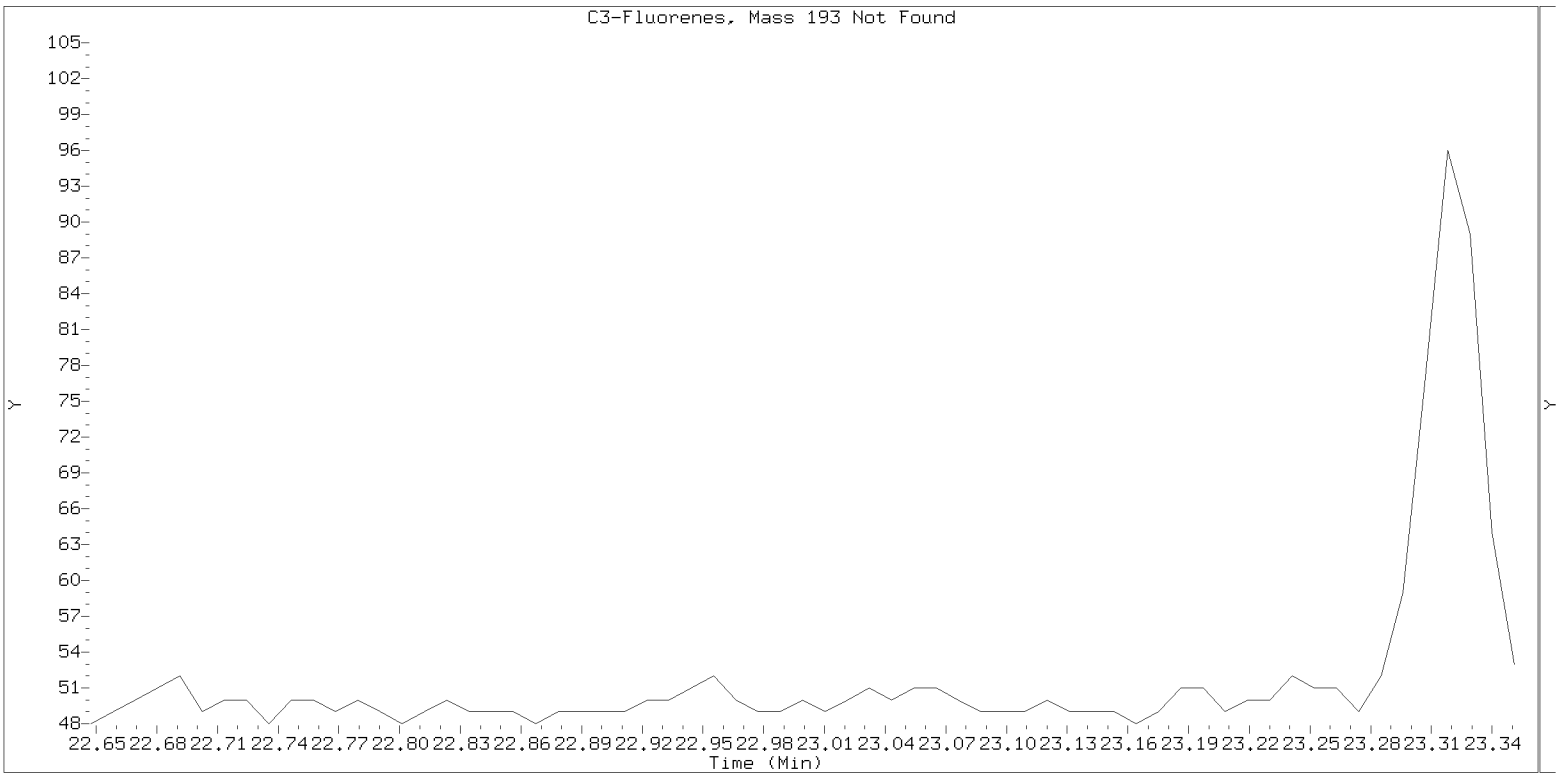

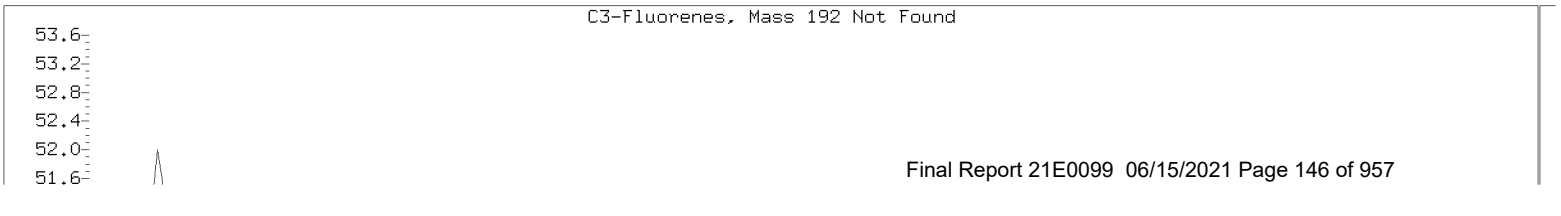

SIM ALKYL PNA RANGE ION WINDOWS - NT1421060704S.D

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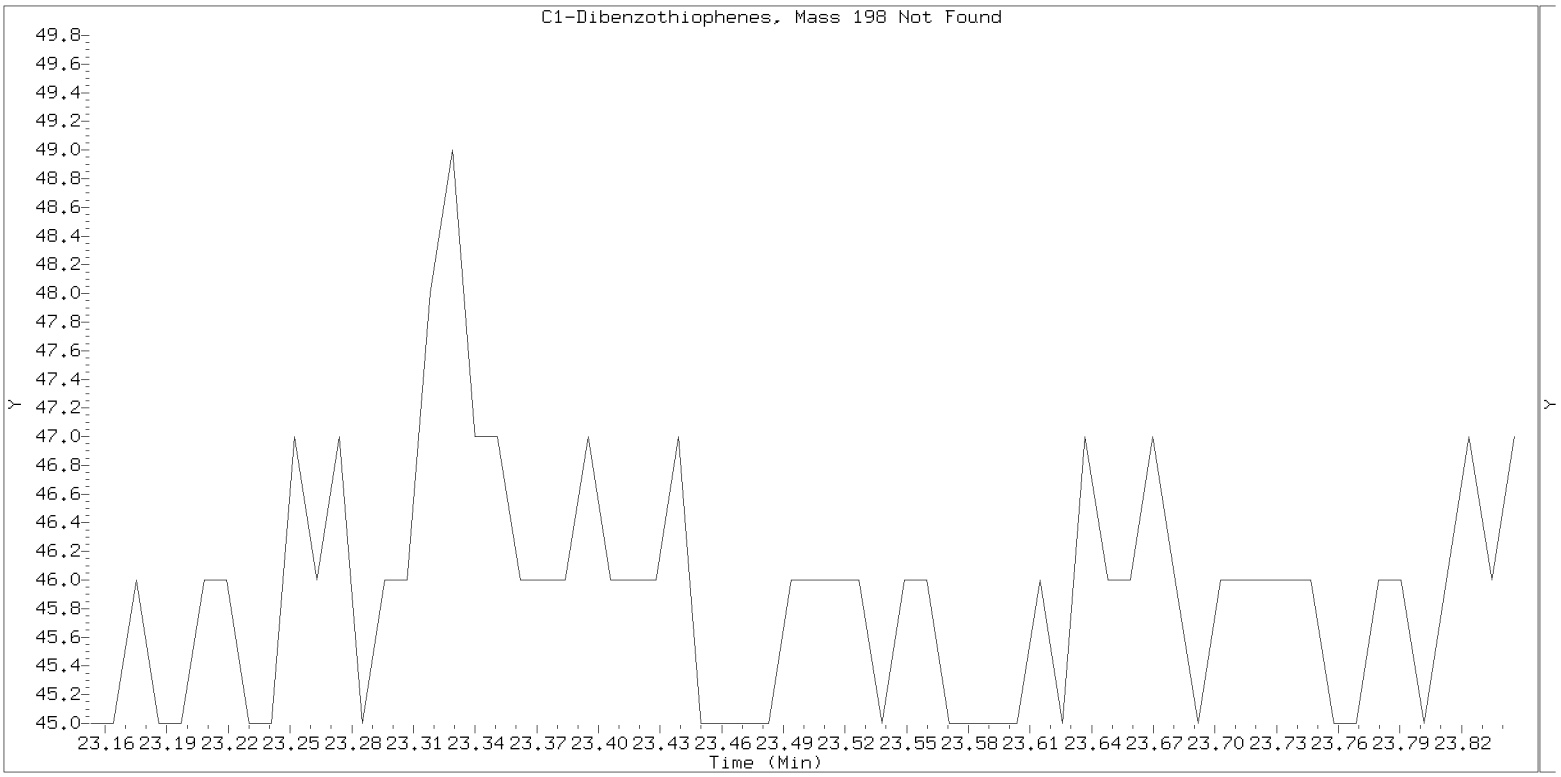

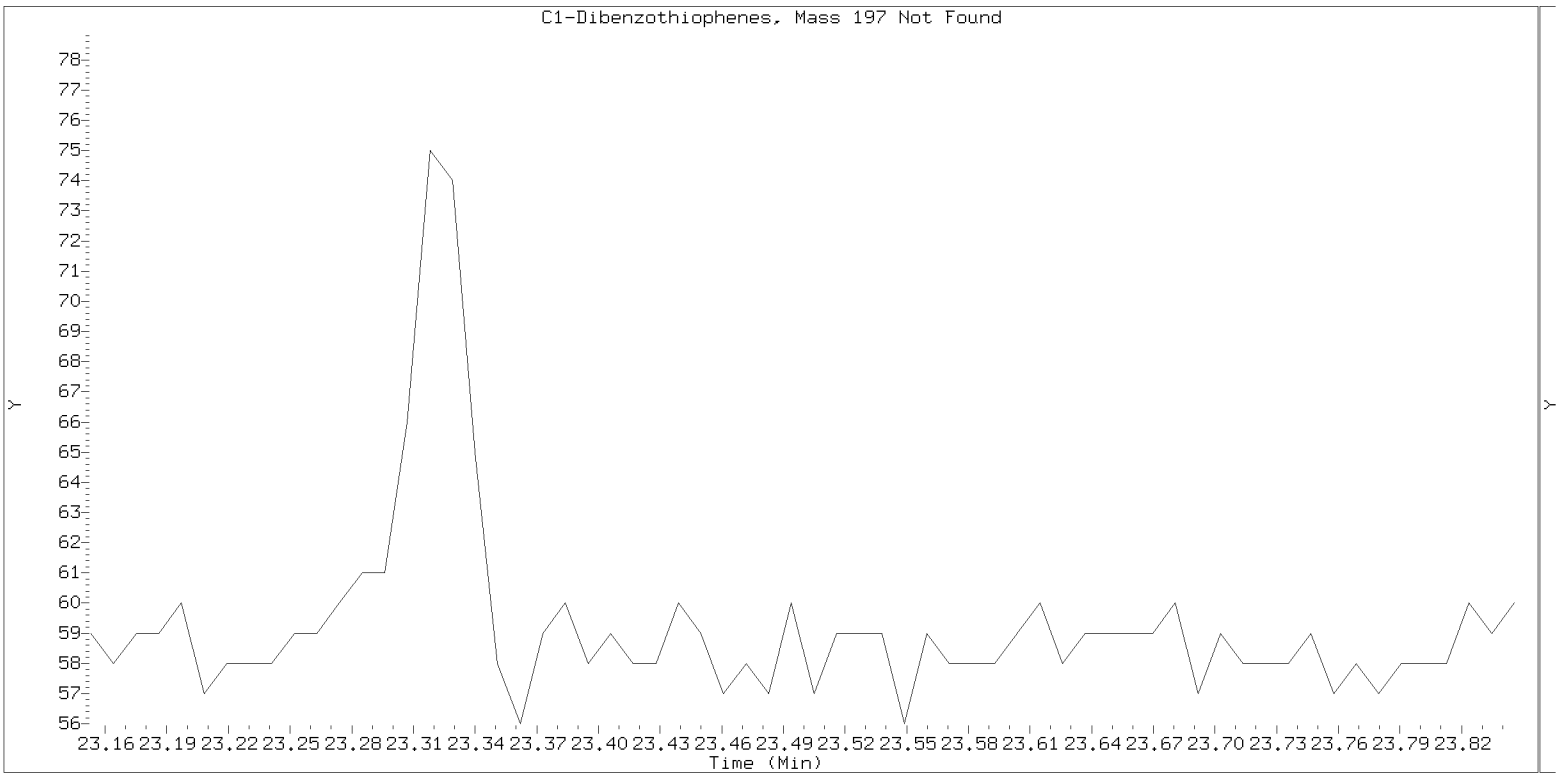

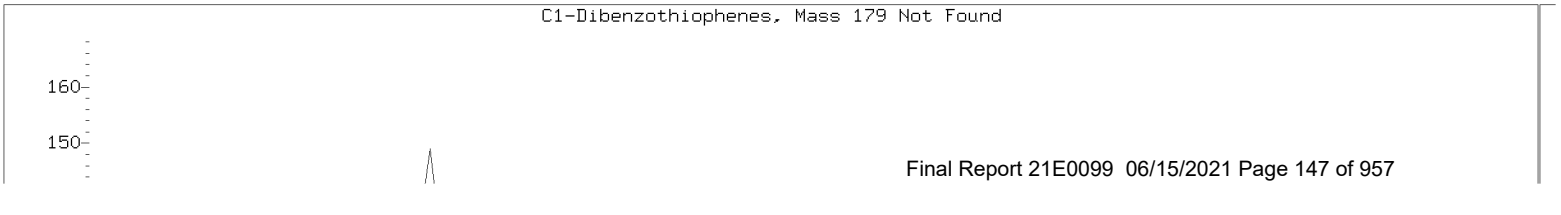

SIM ALKYL PNA RANGE ION WINDOWS - NT1421060704S.D

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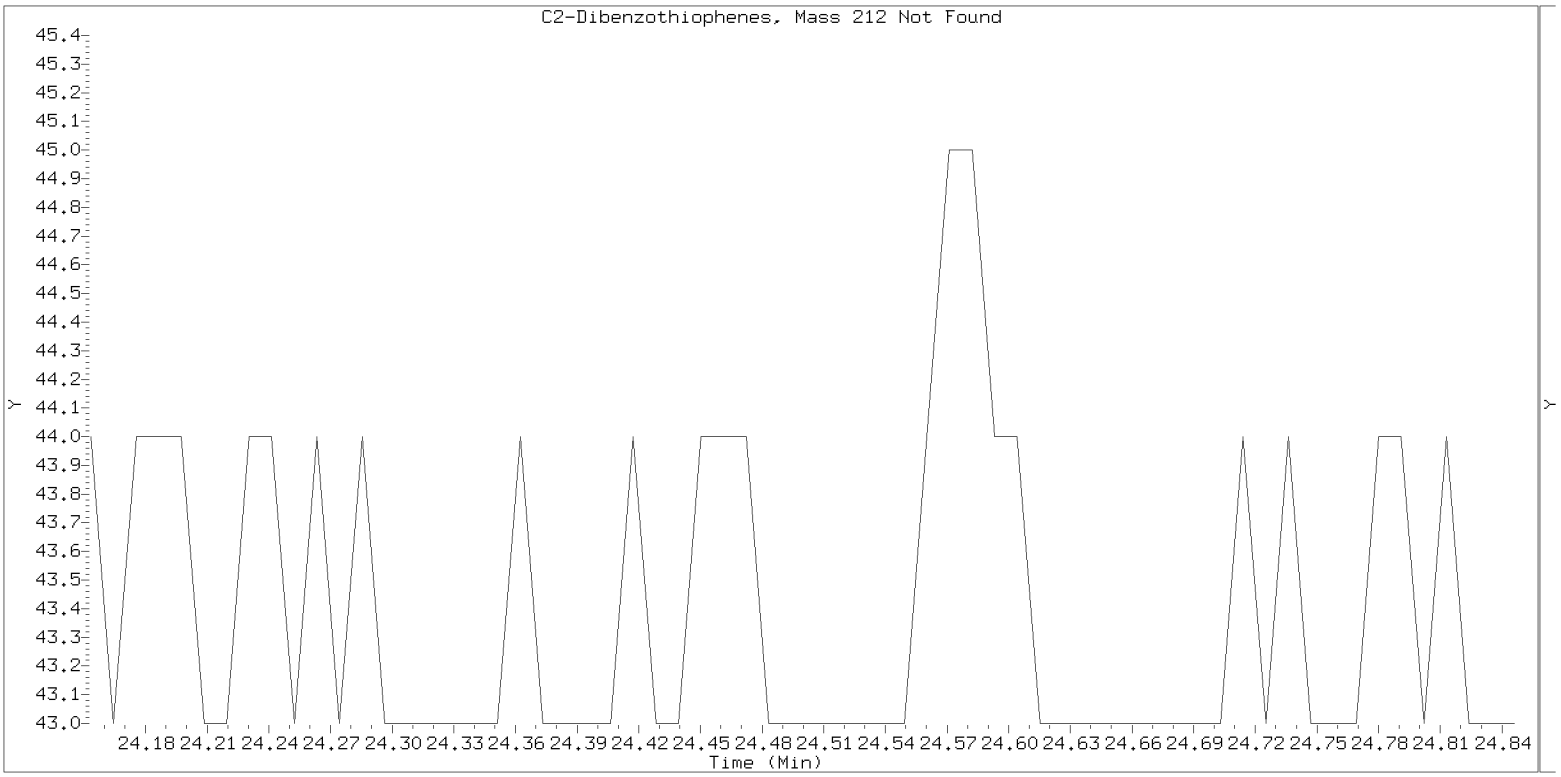

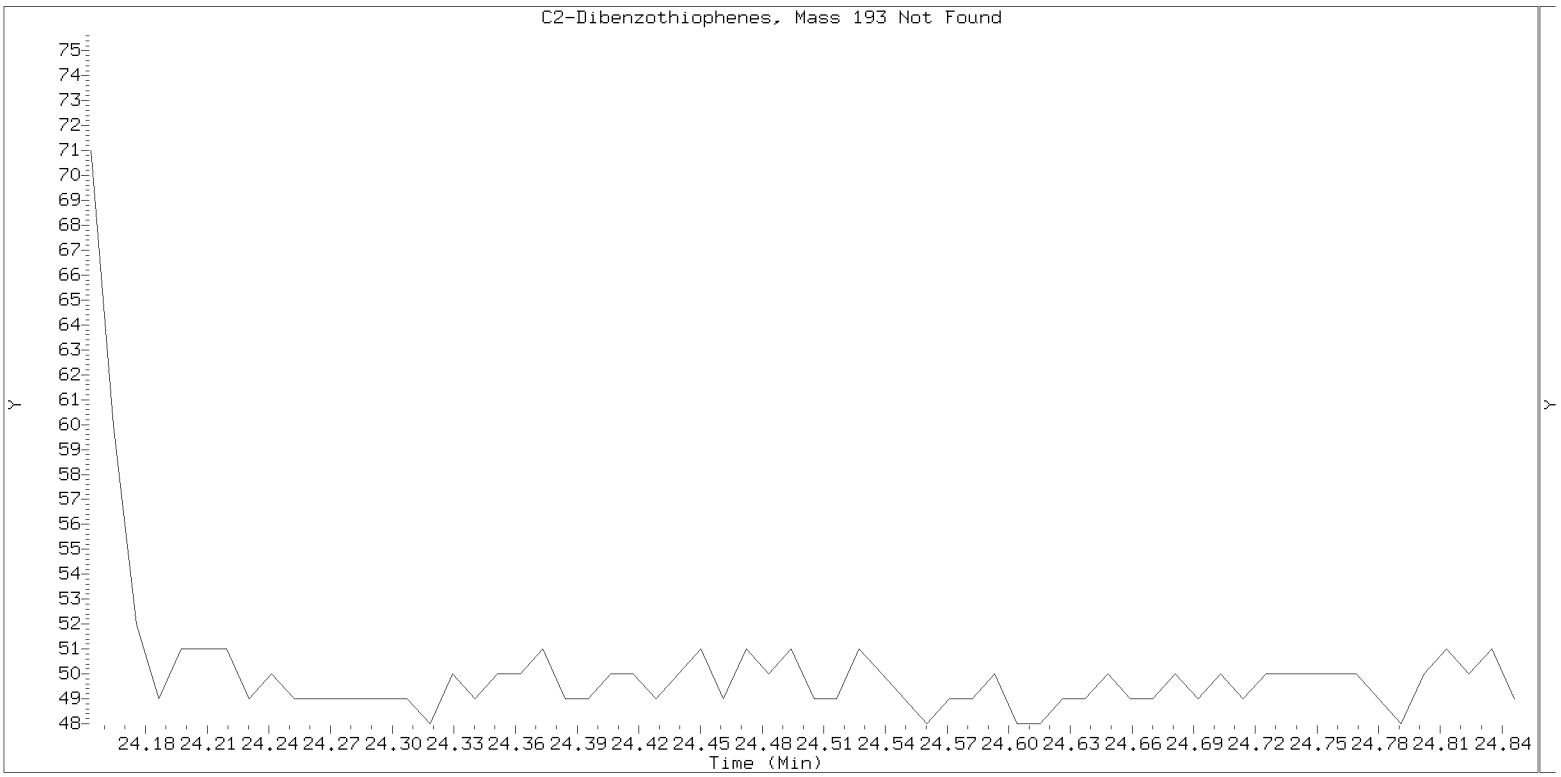

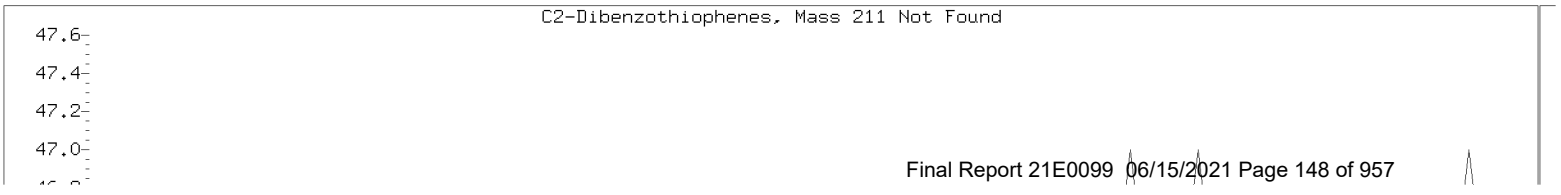

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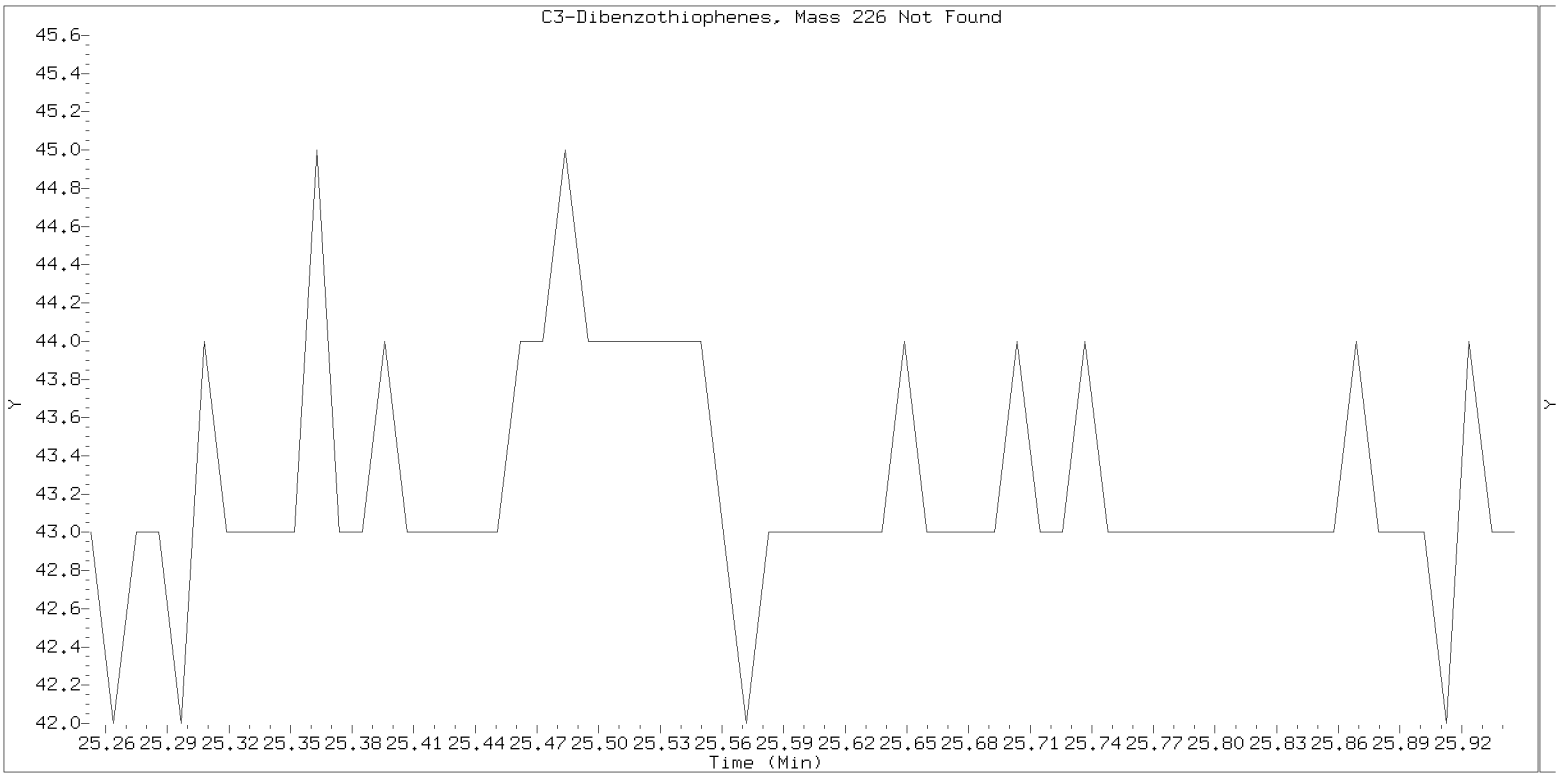

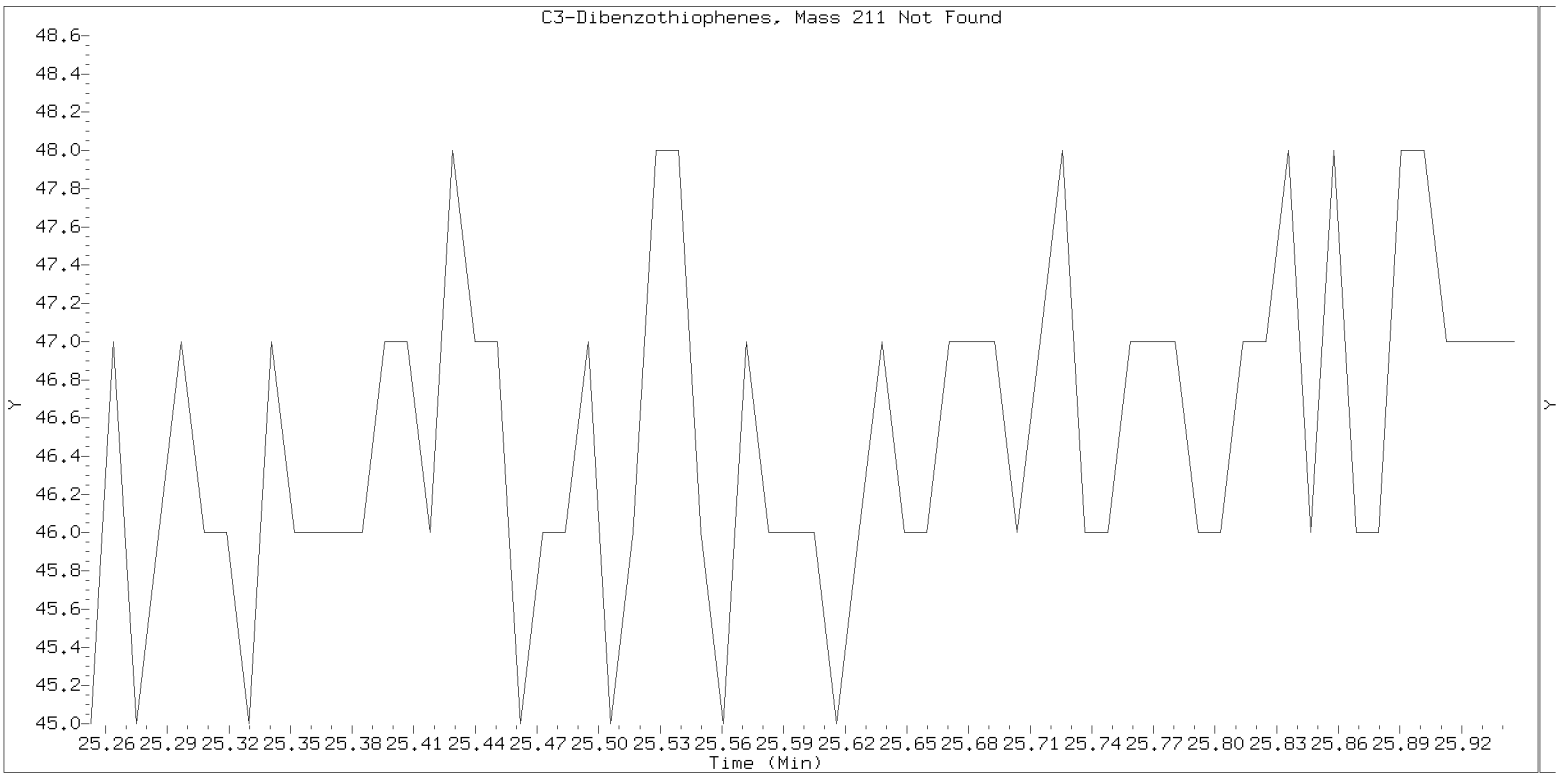

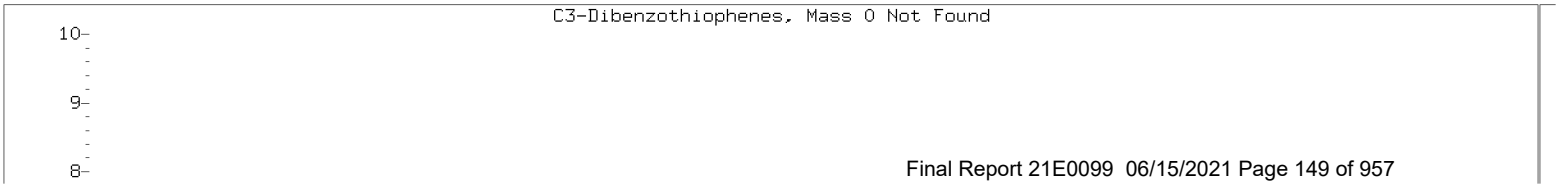

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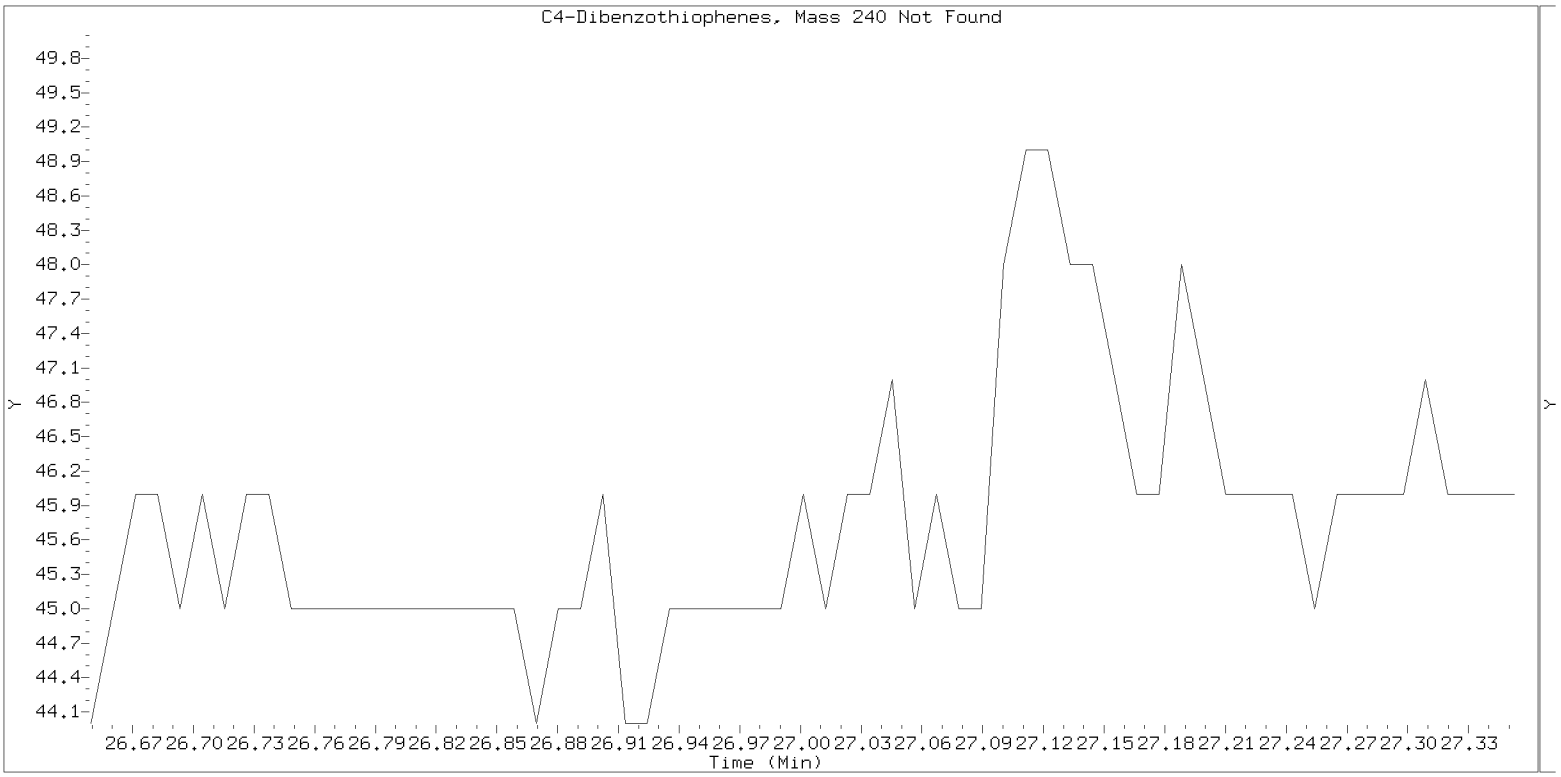

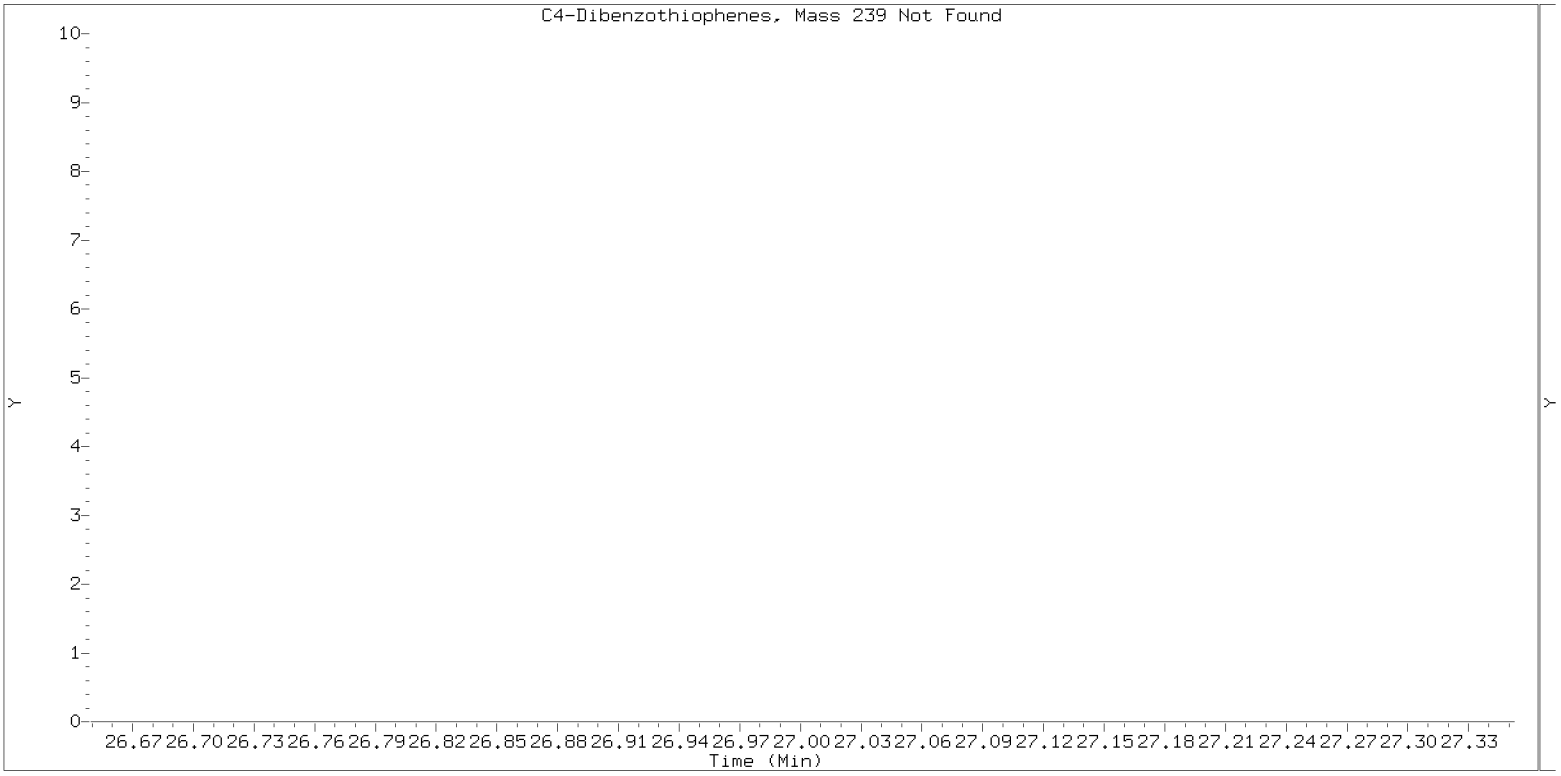

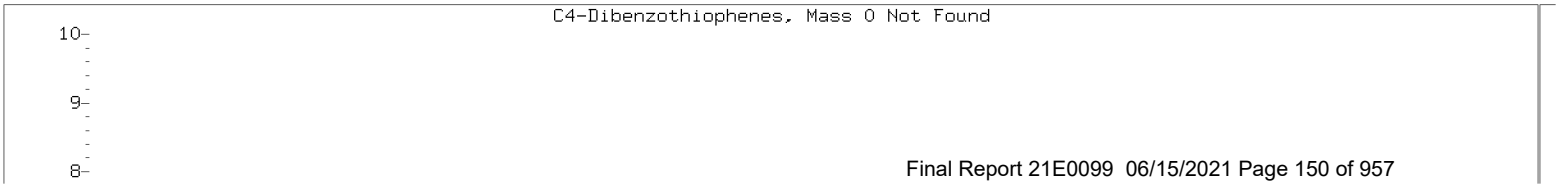

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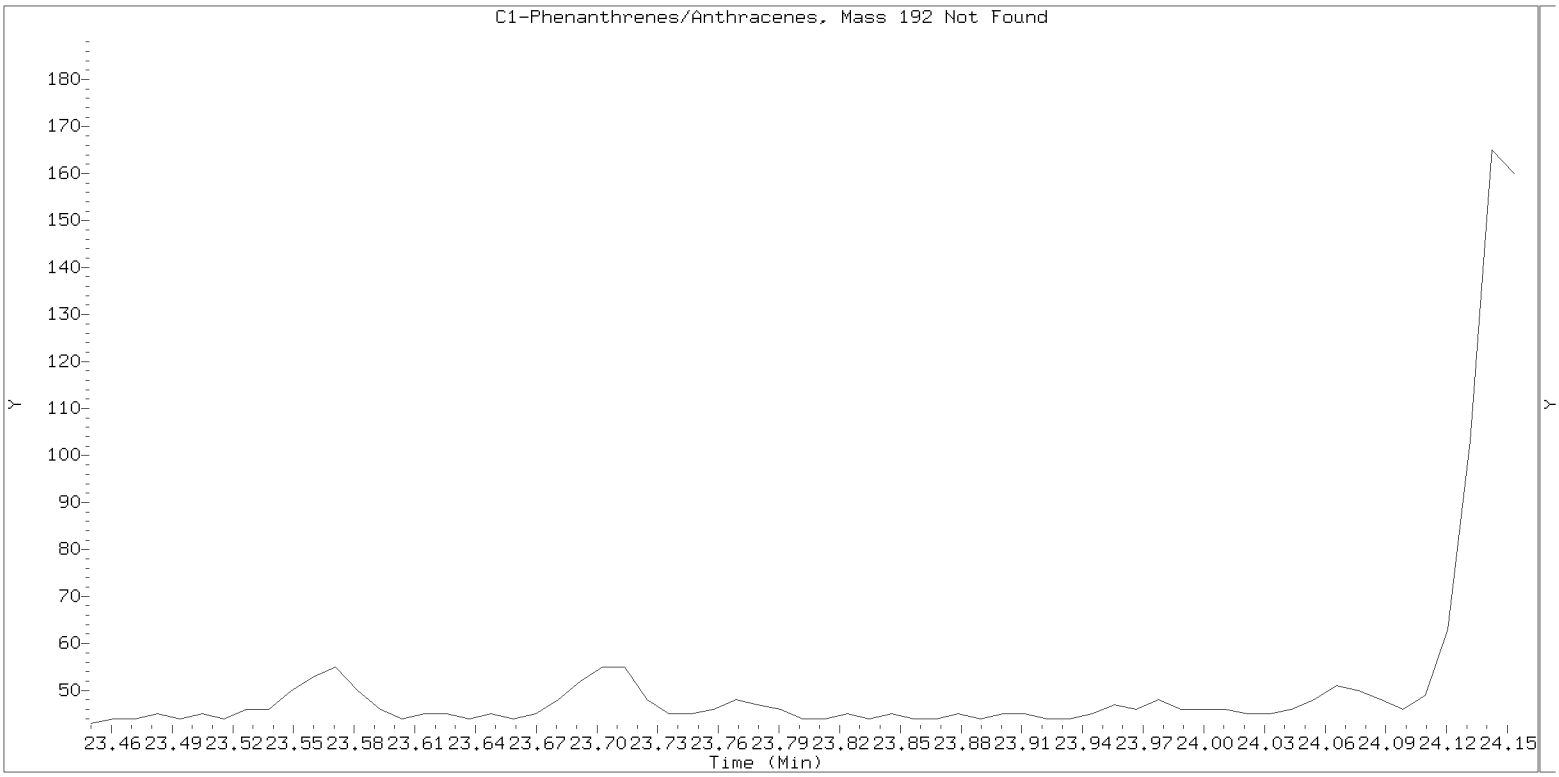

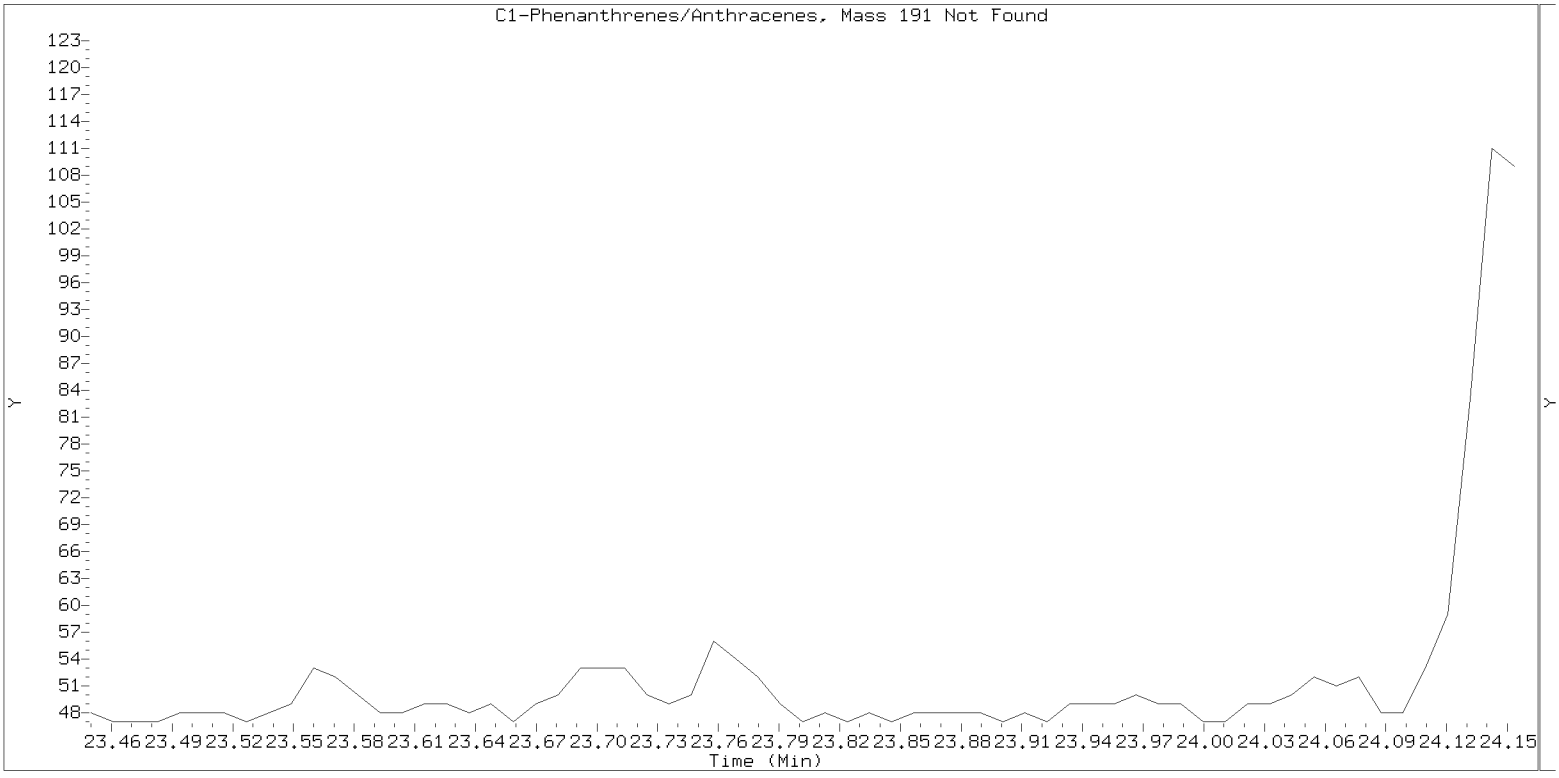

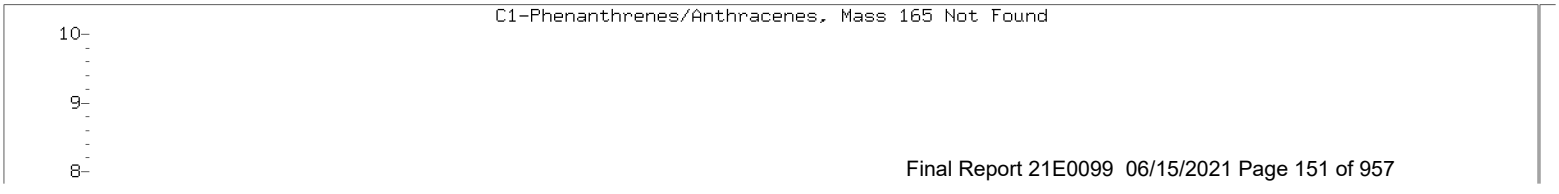

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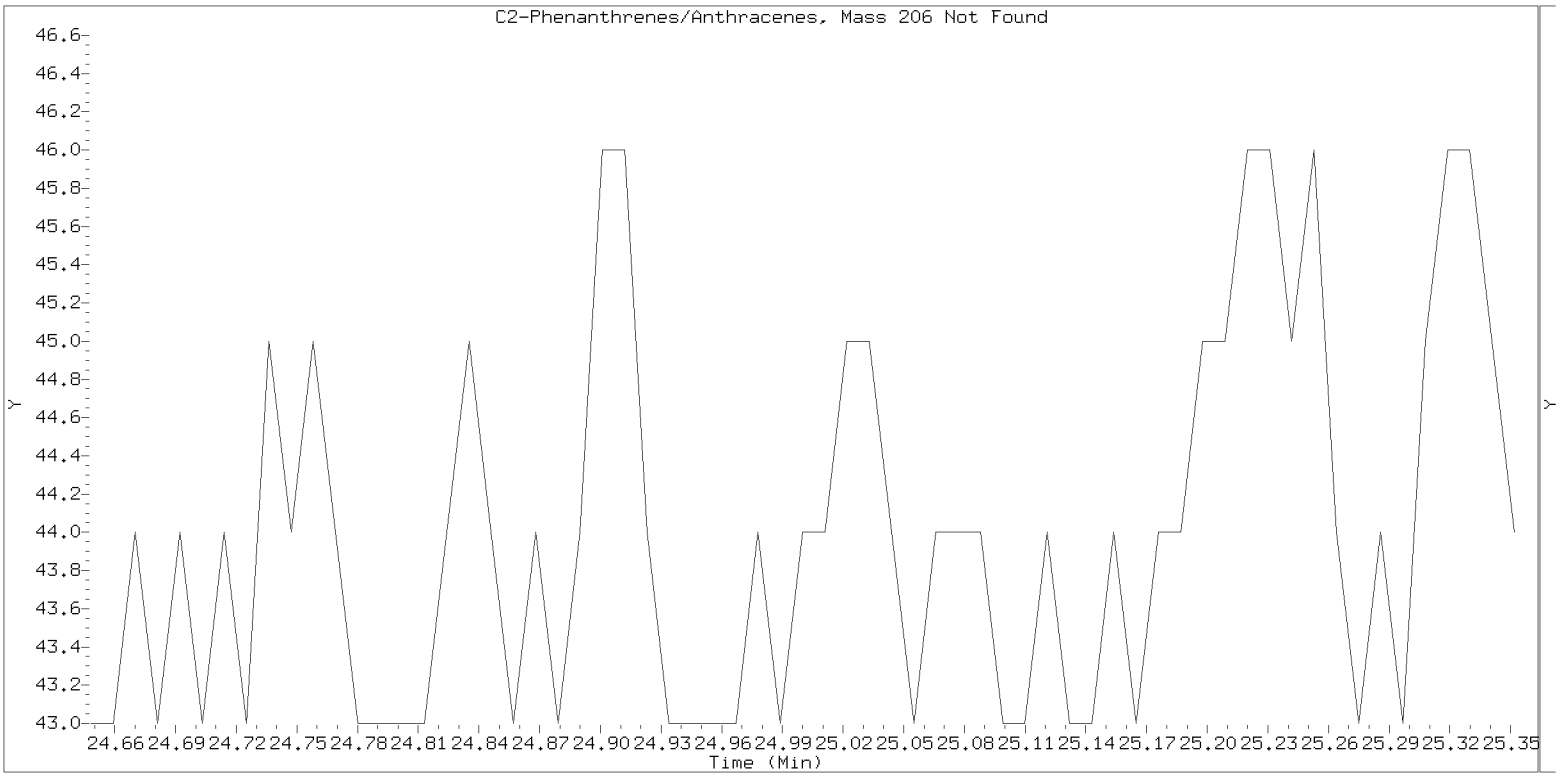

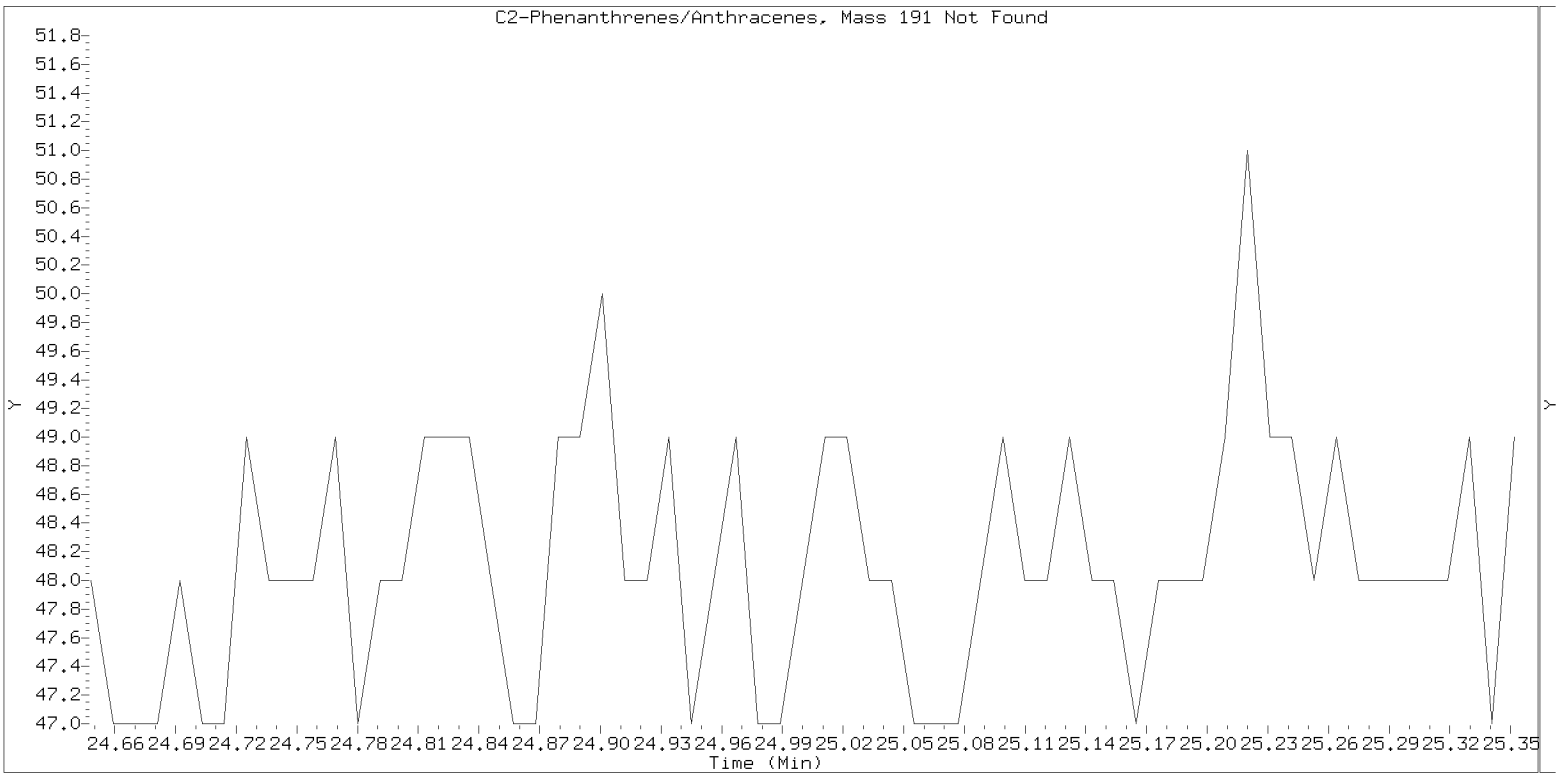

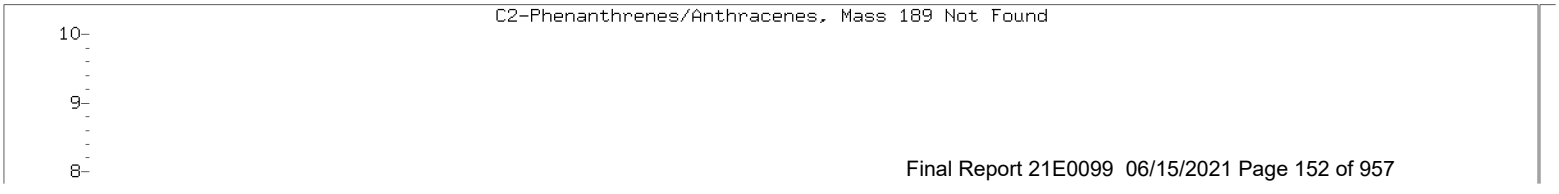

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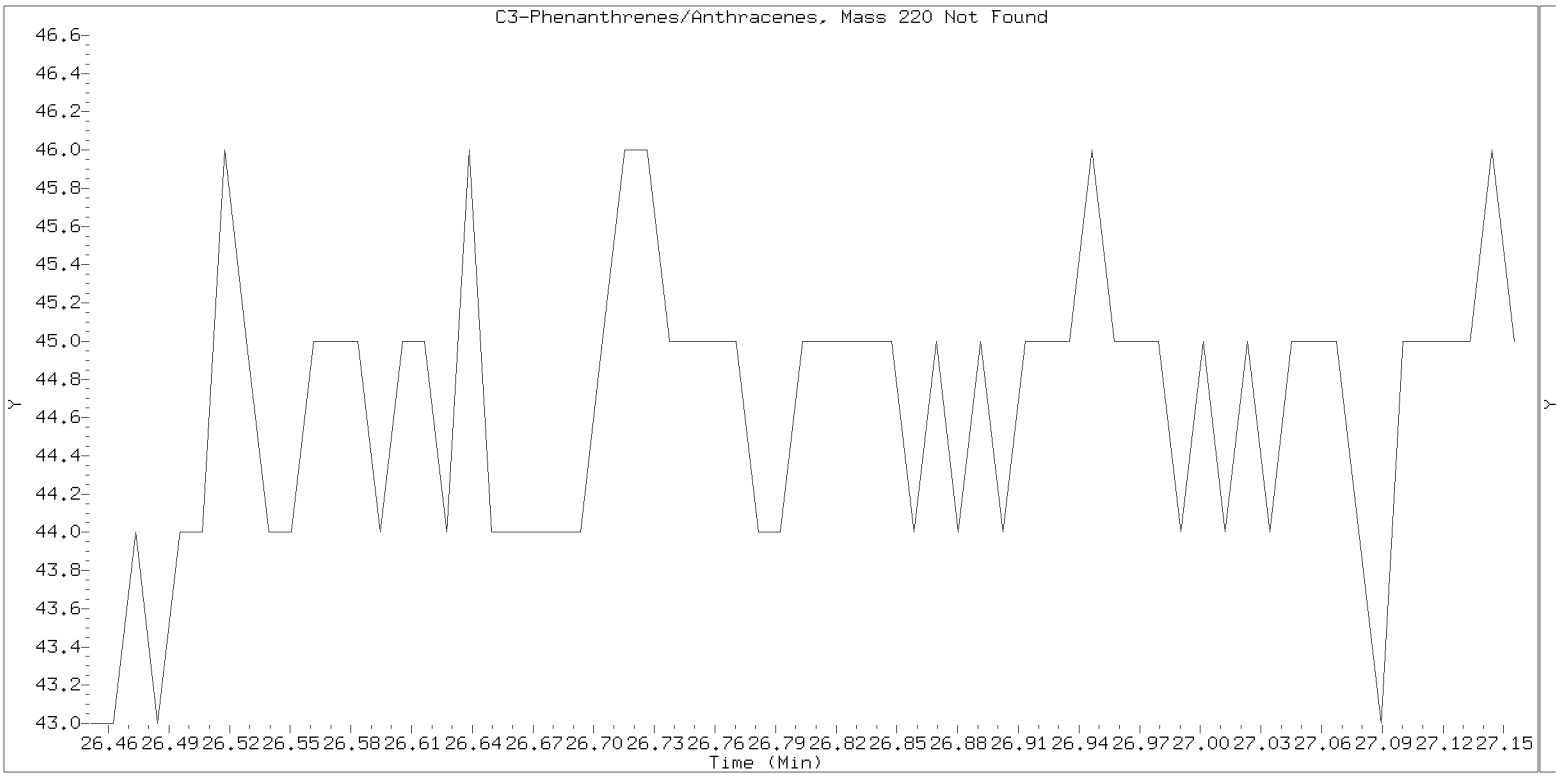

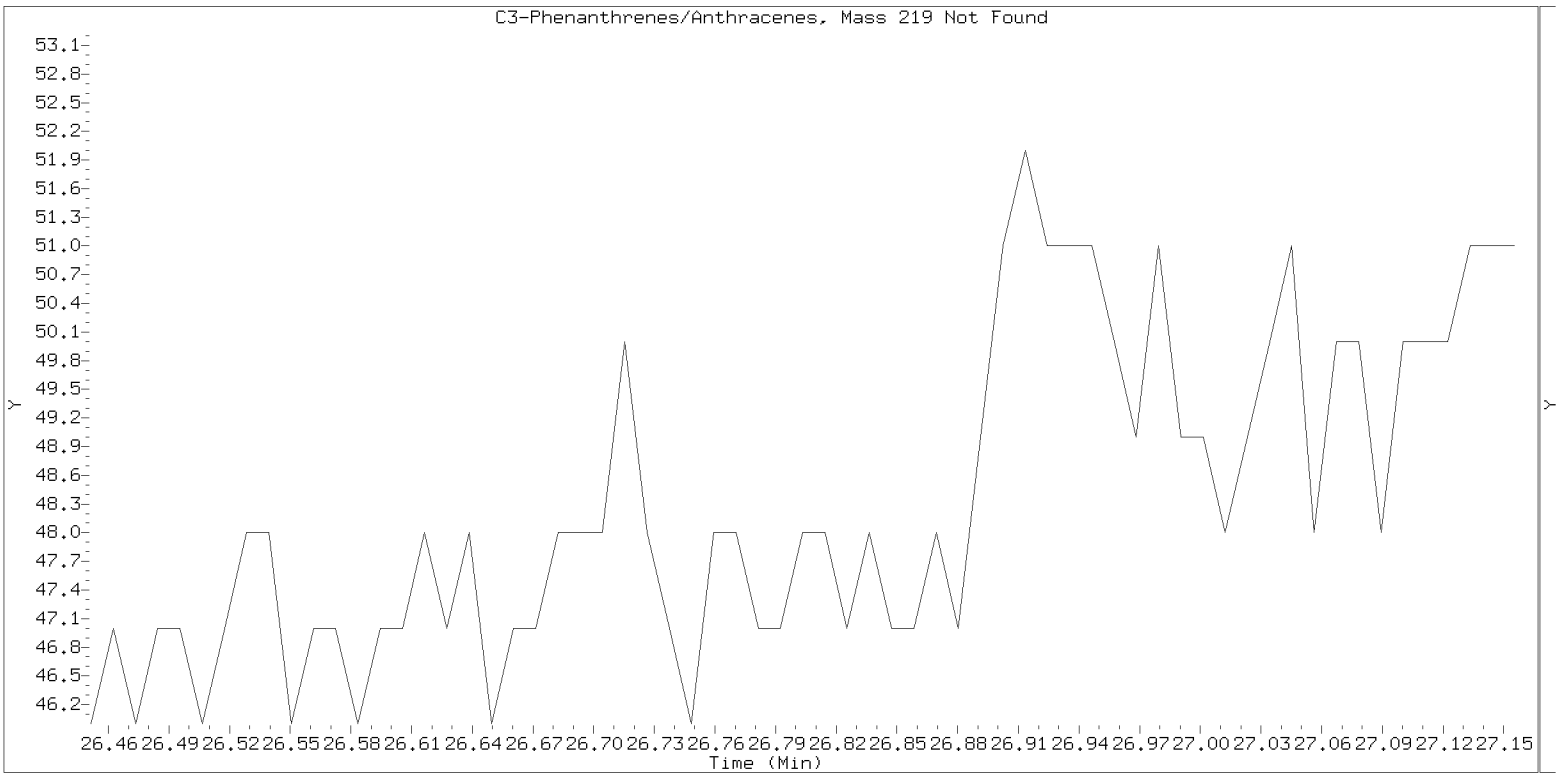

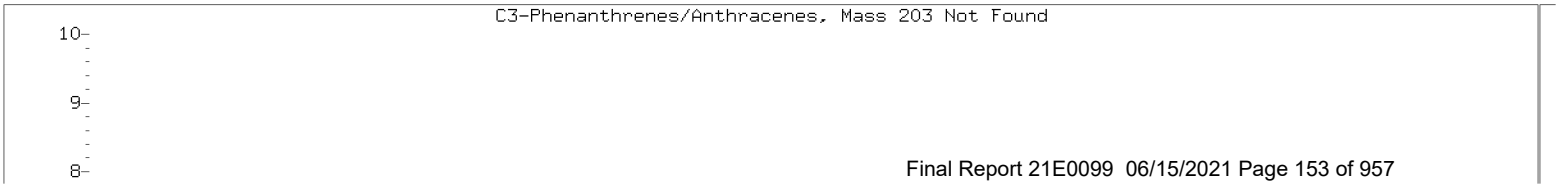

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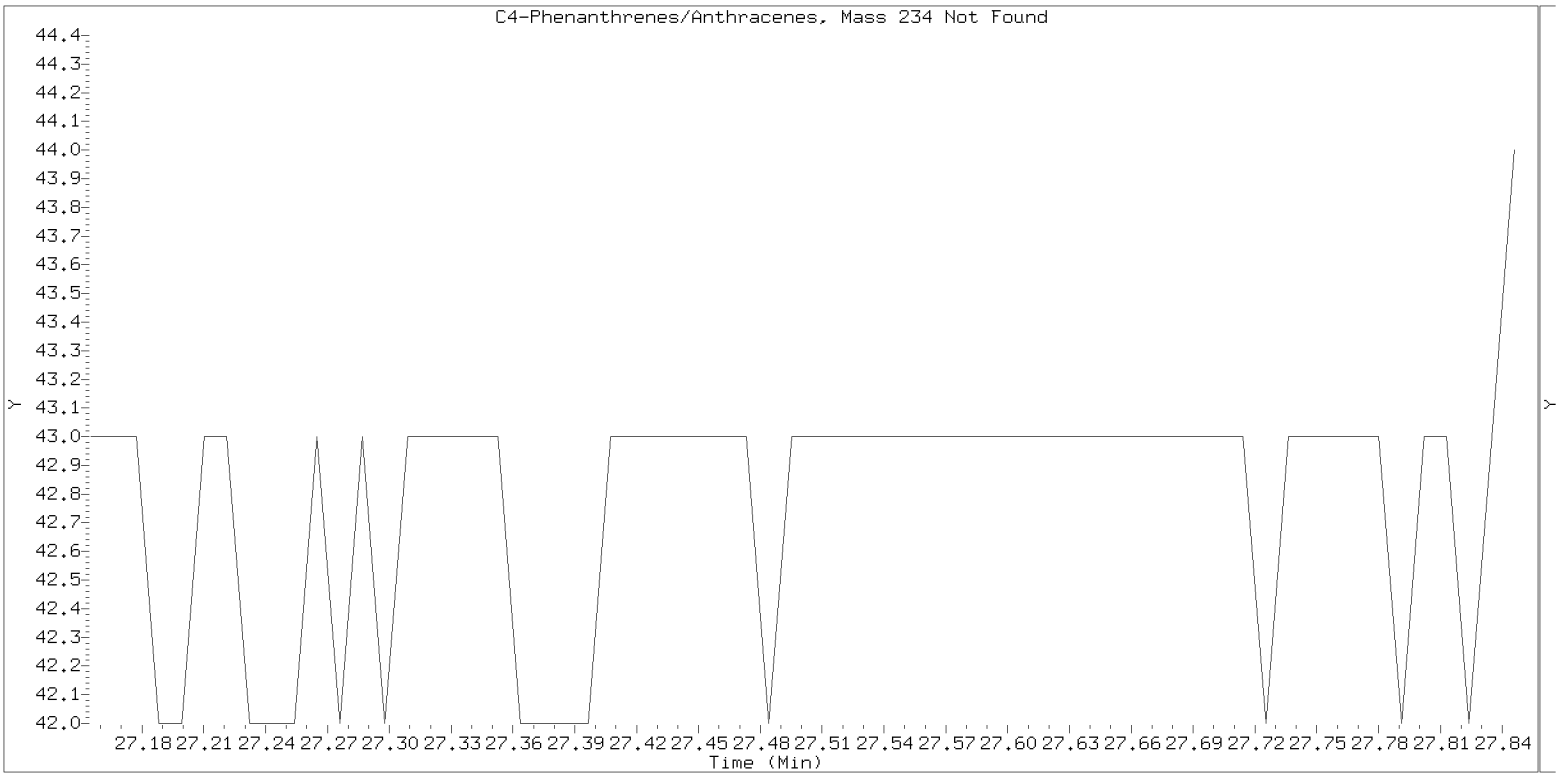

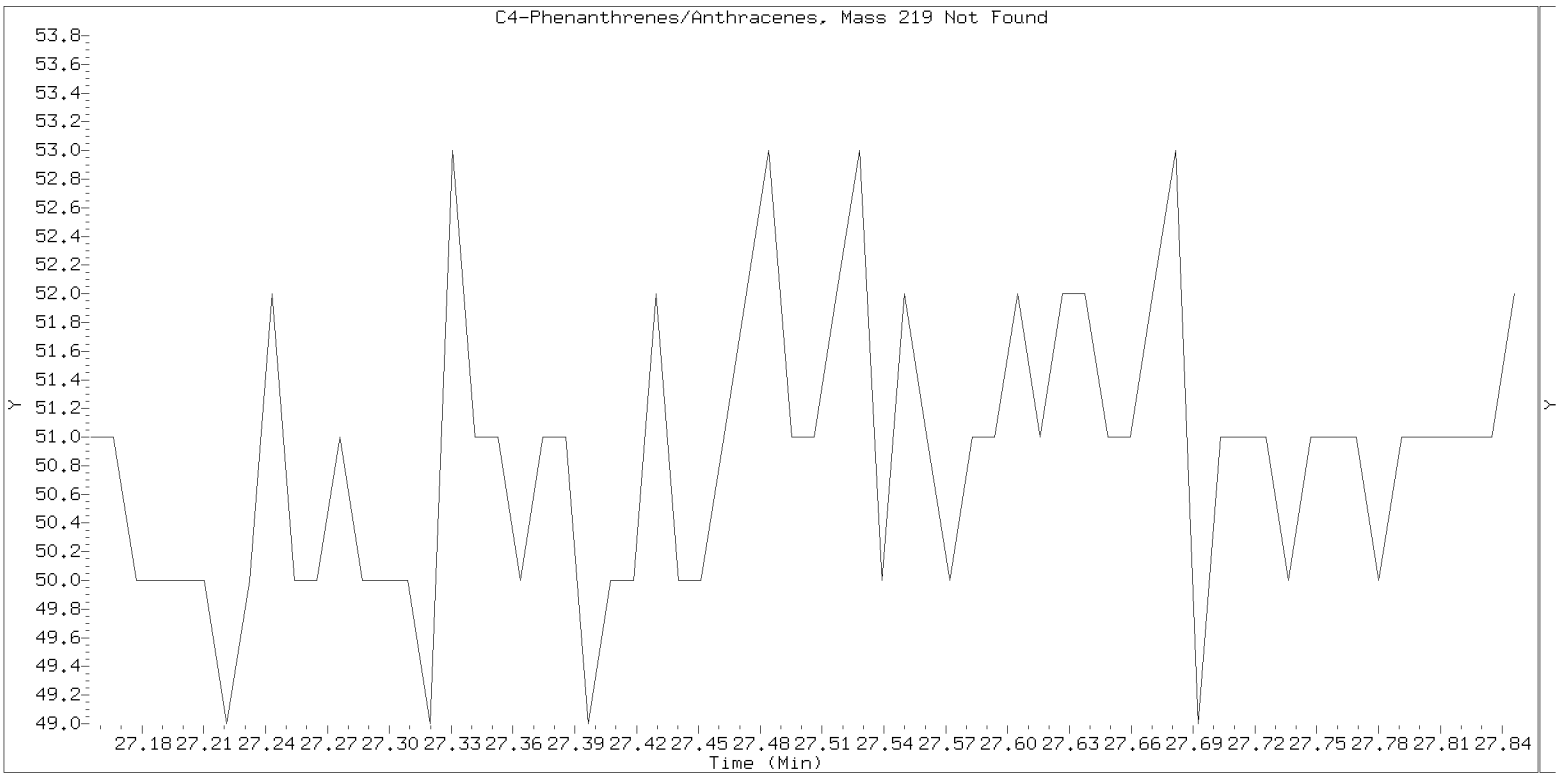

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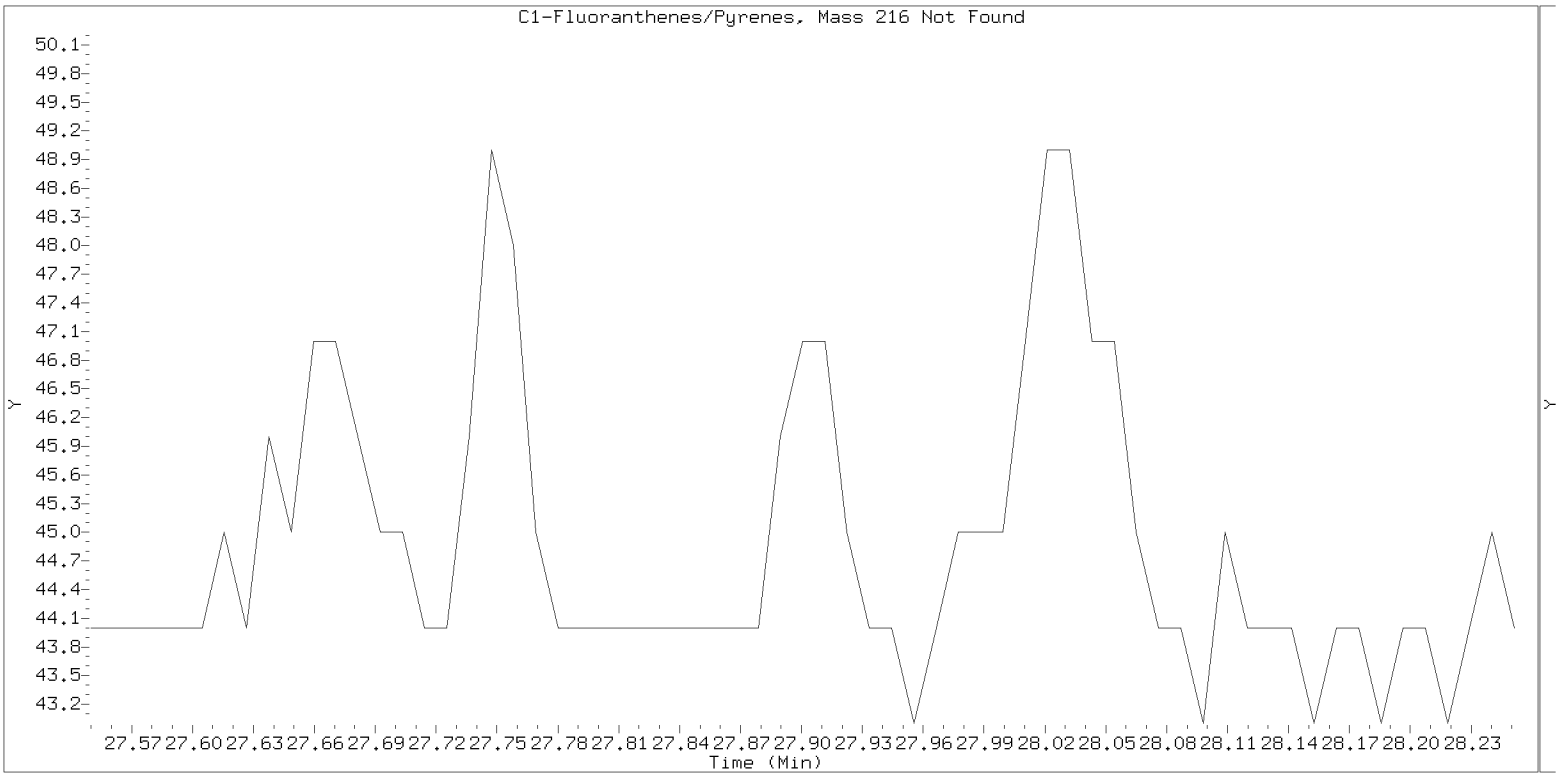

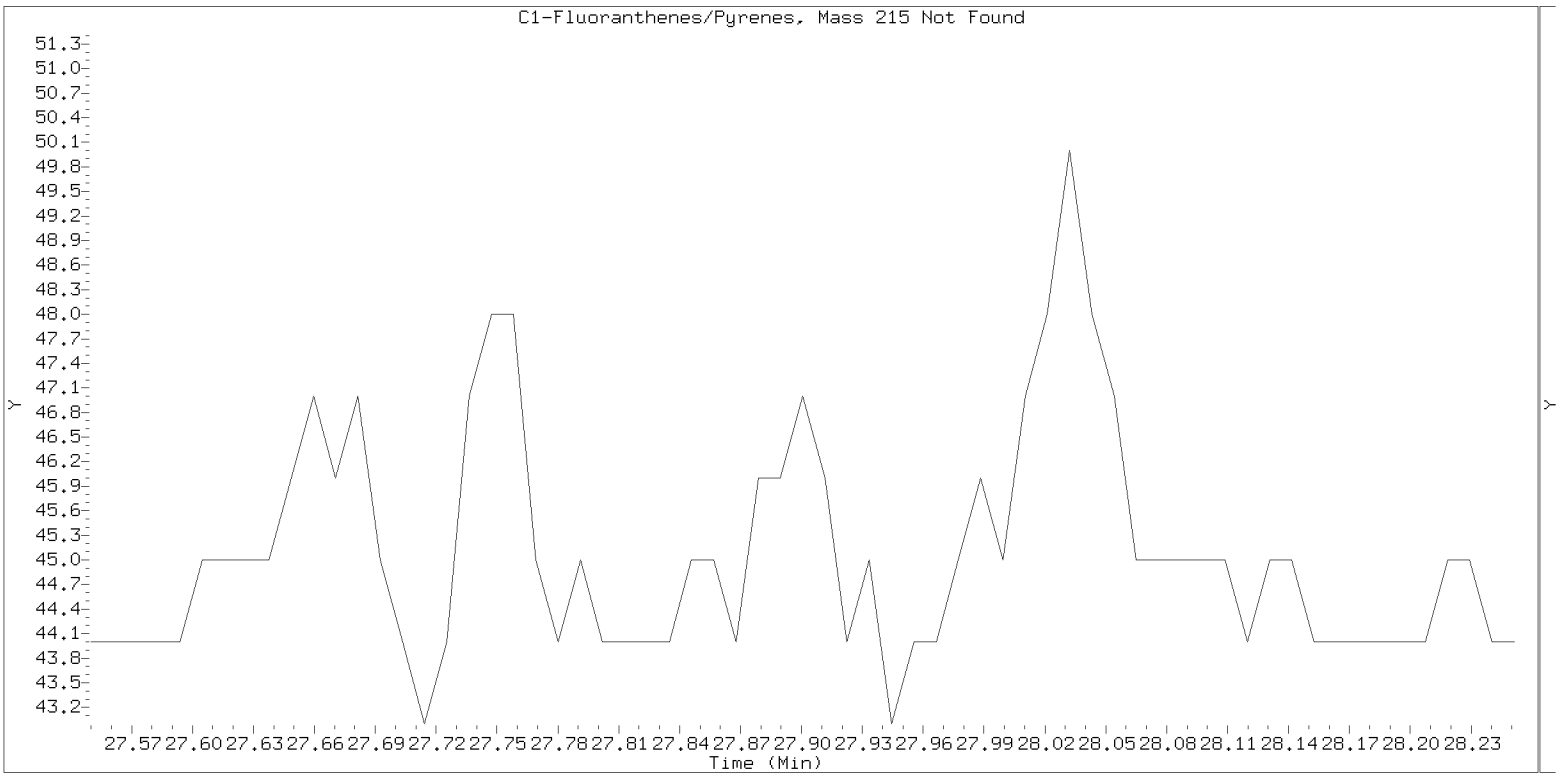

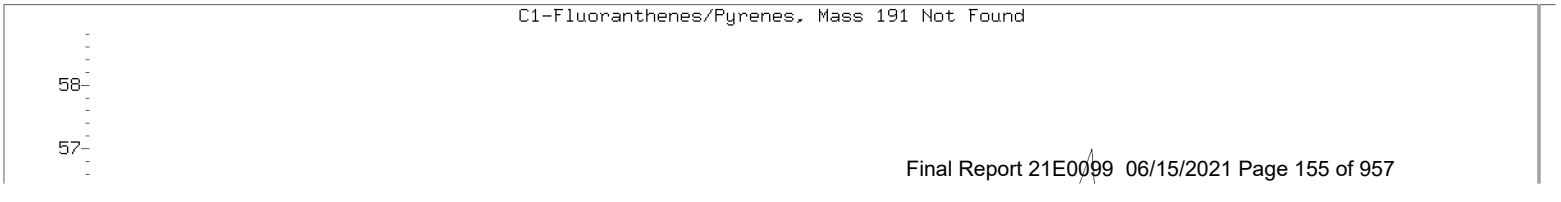

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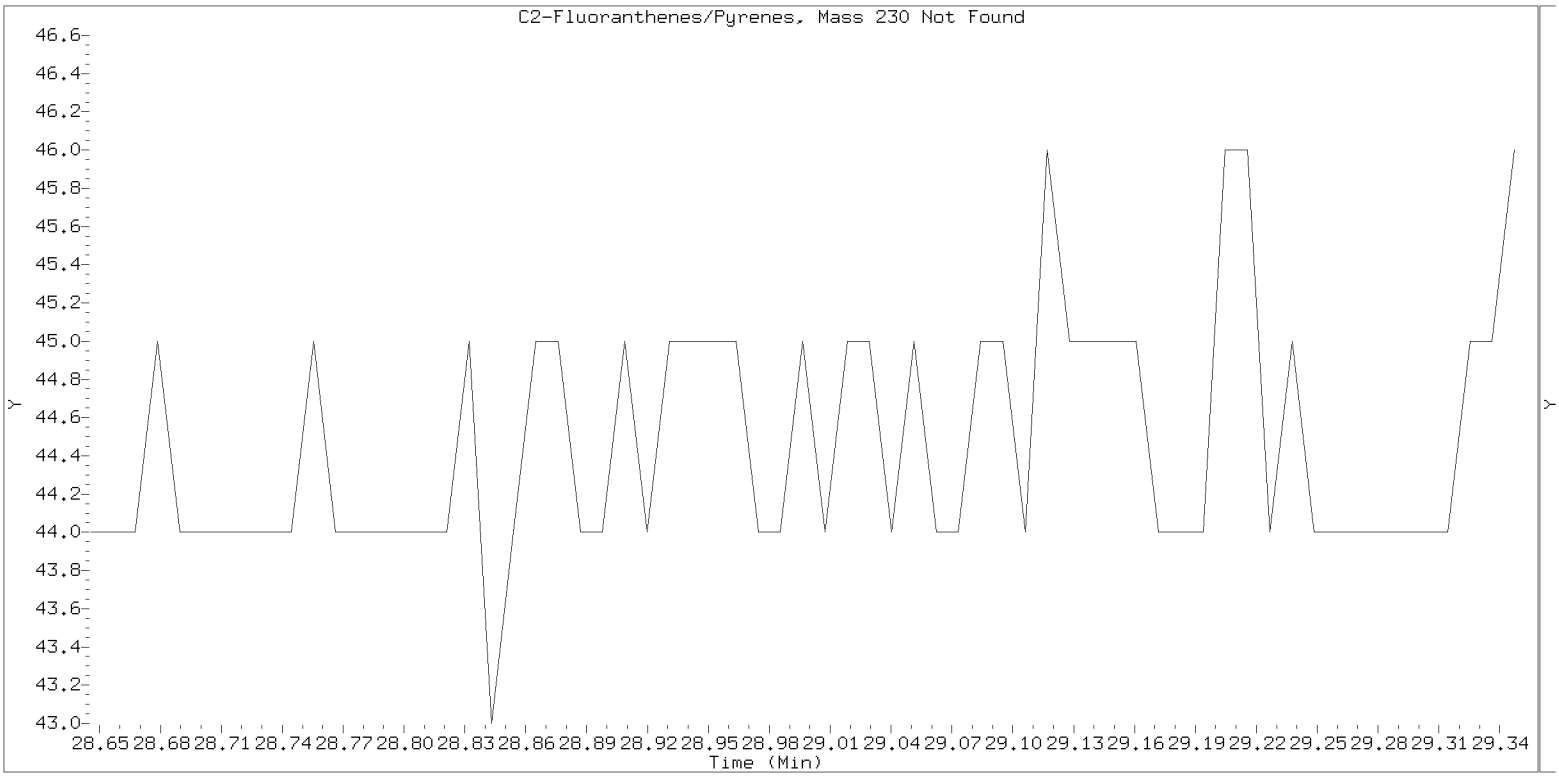

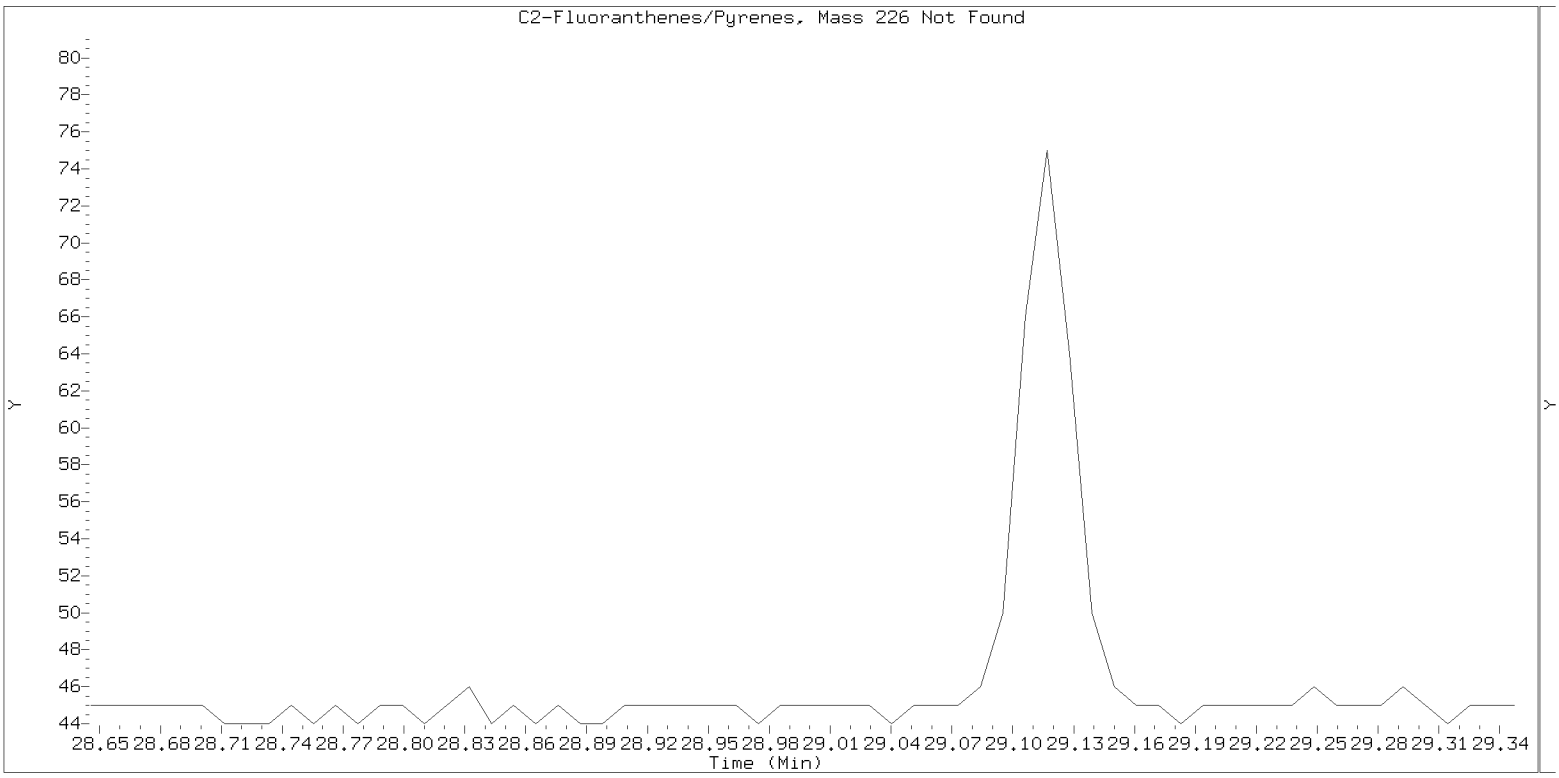

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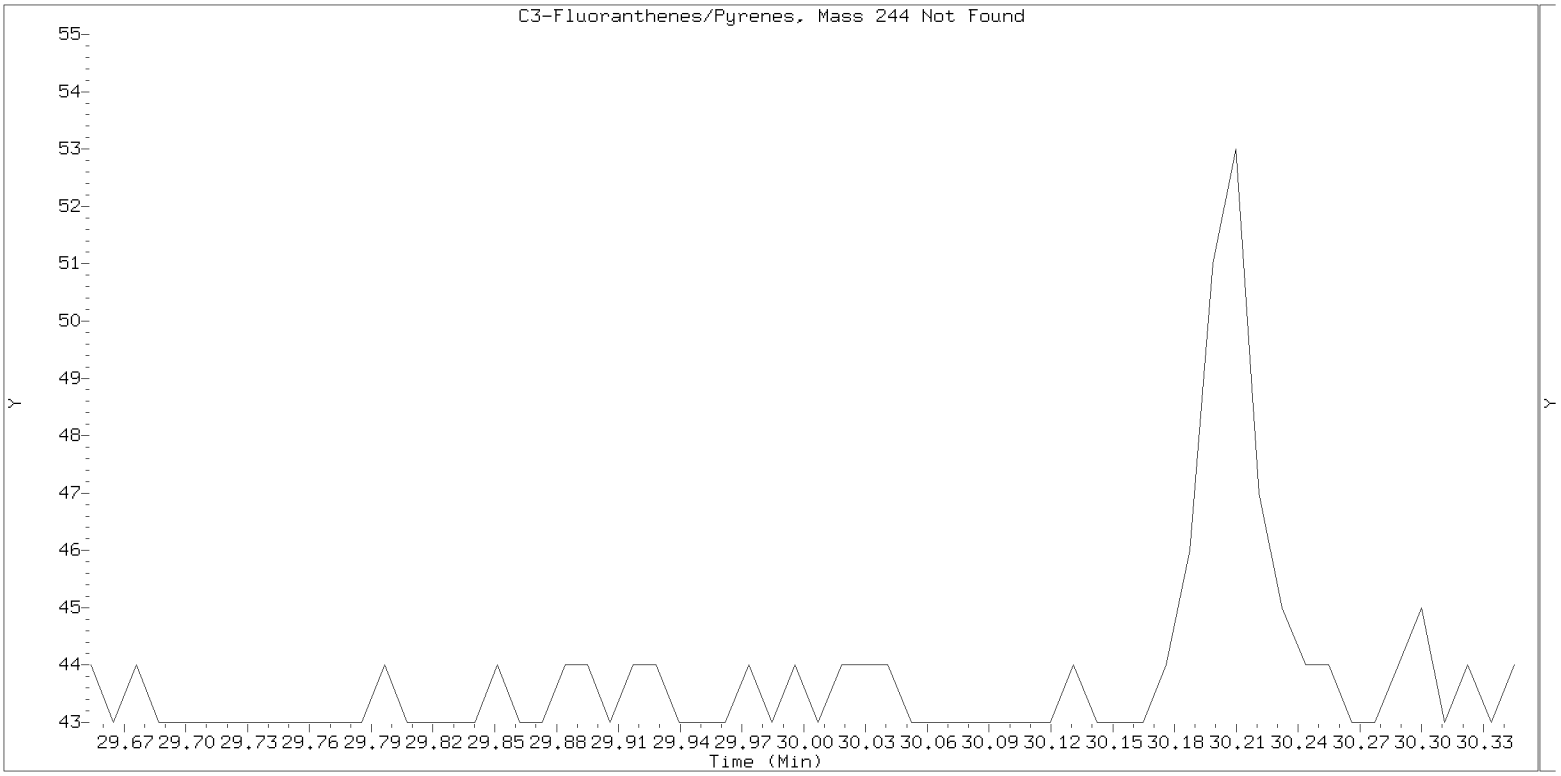

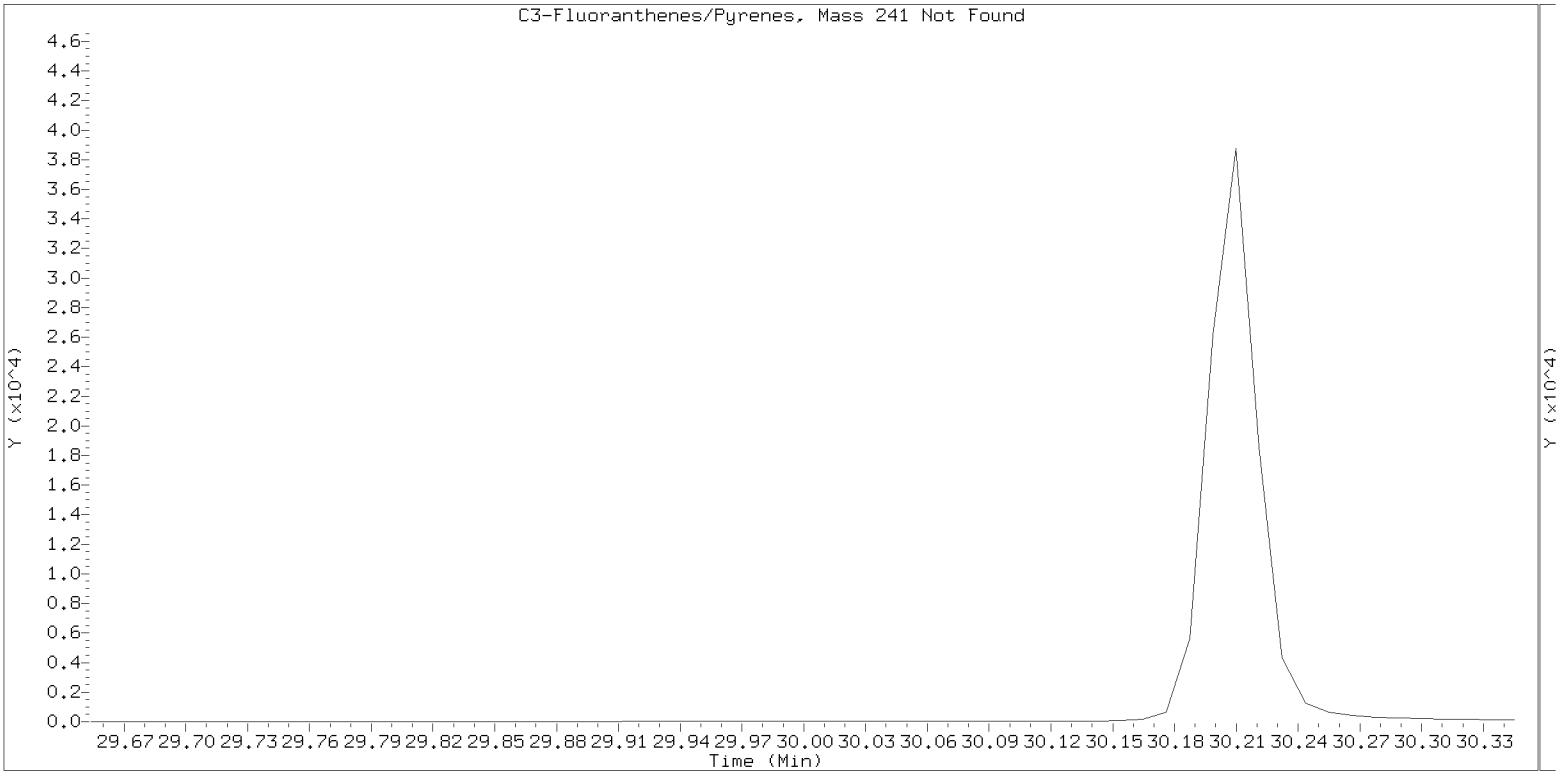

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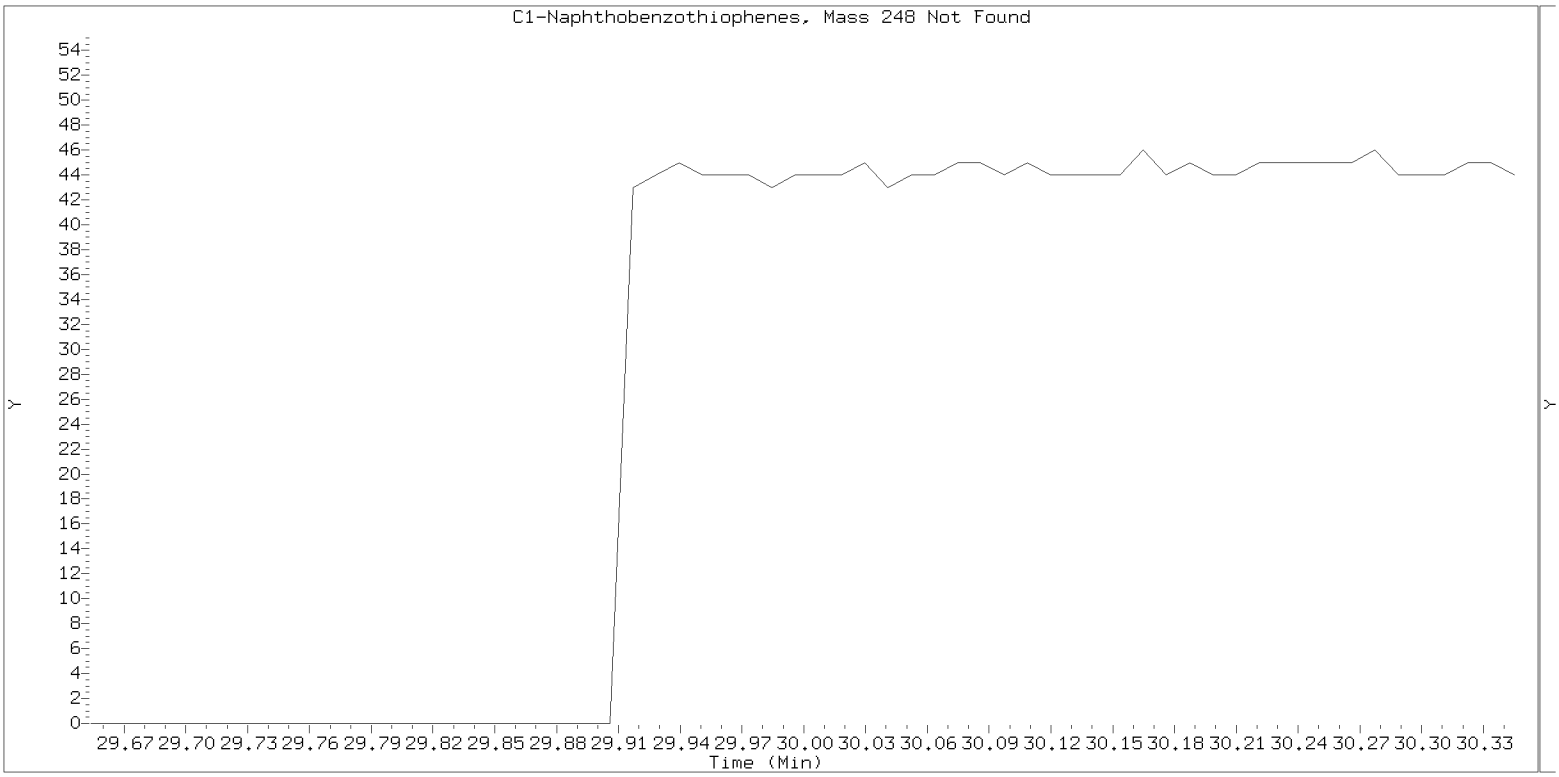

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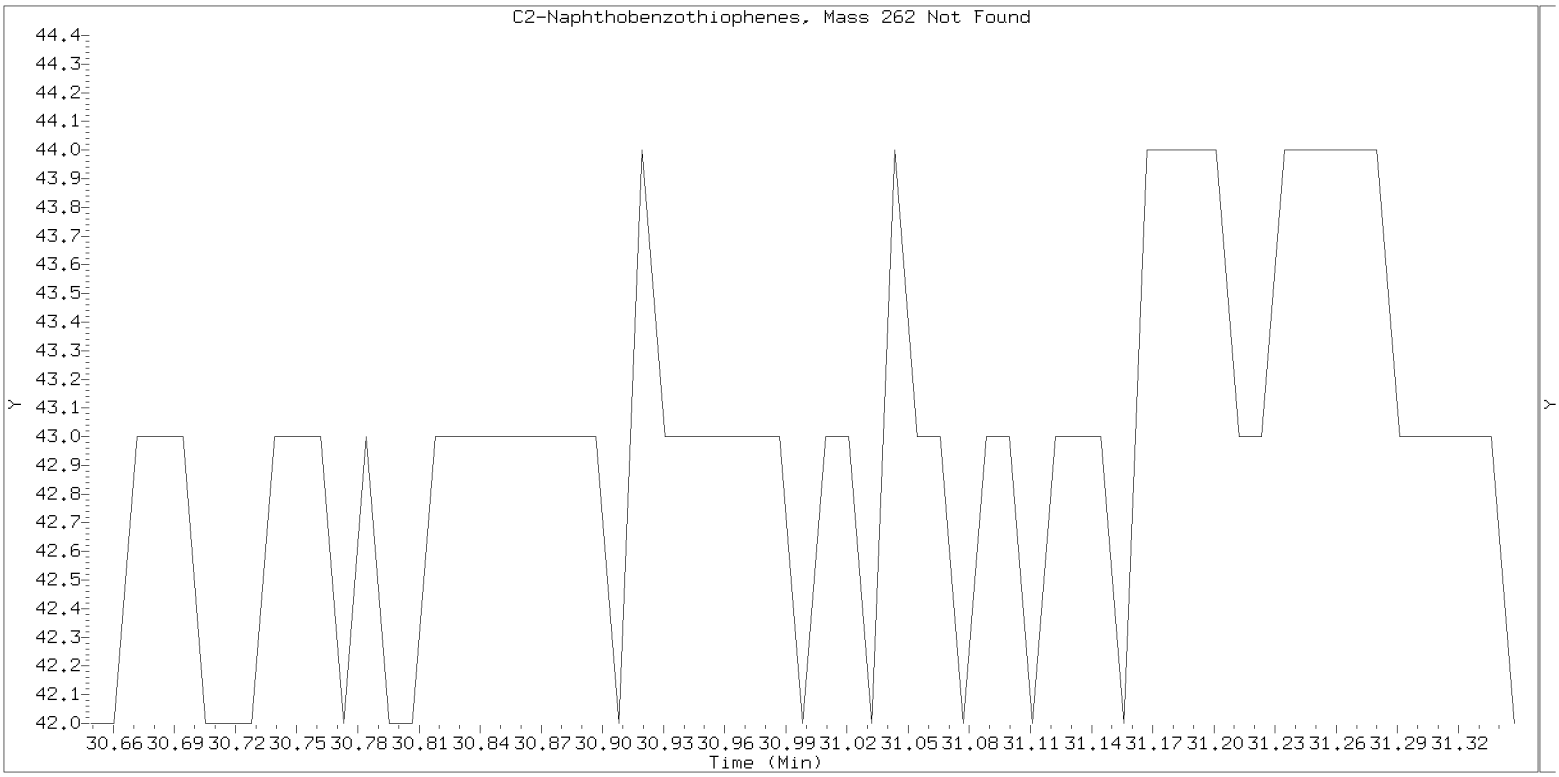

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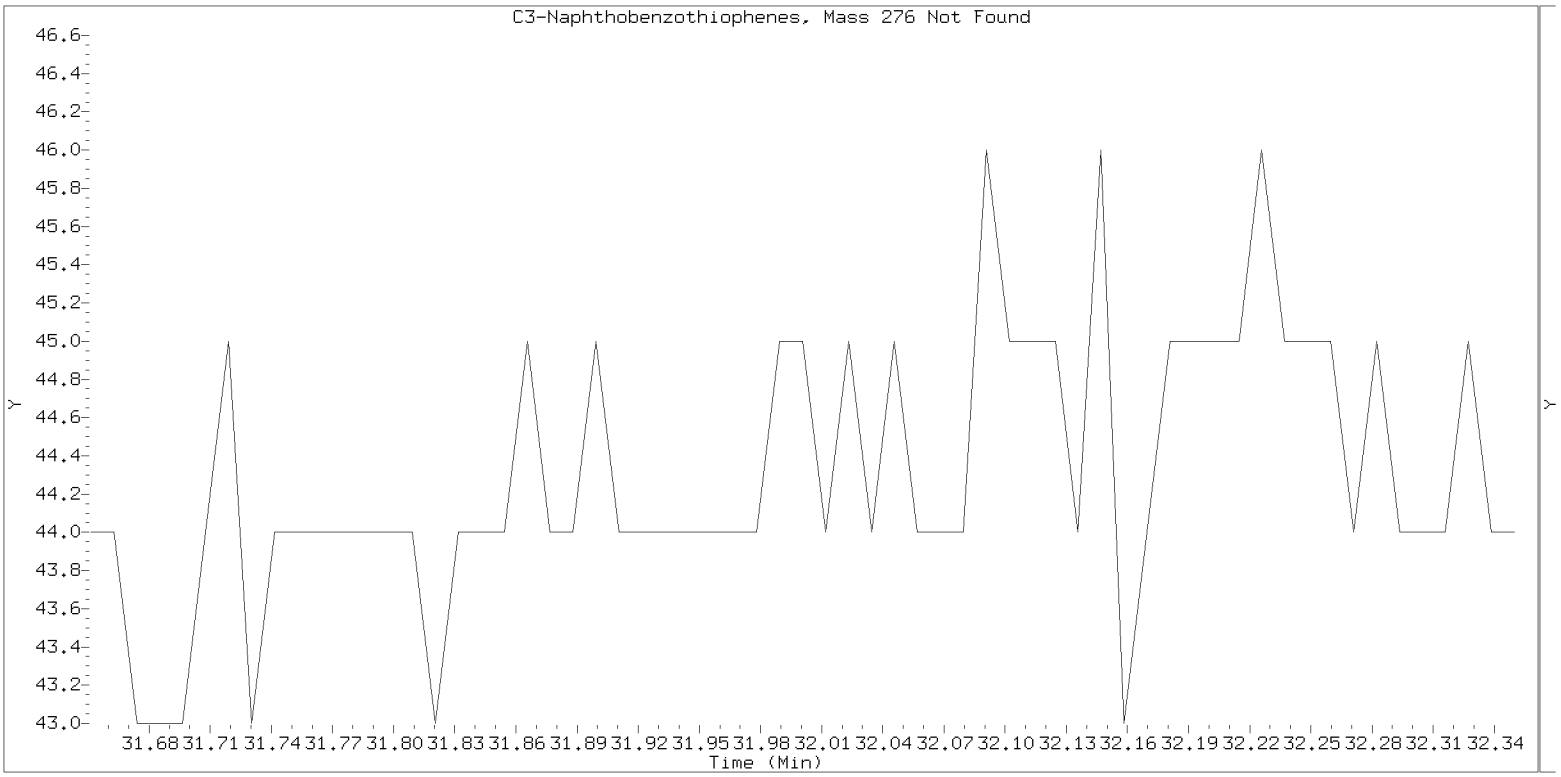

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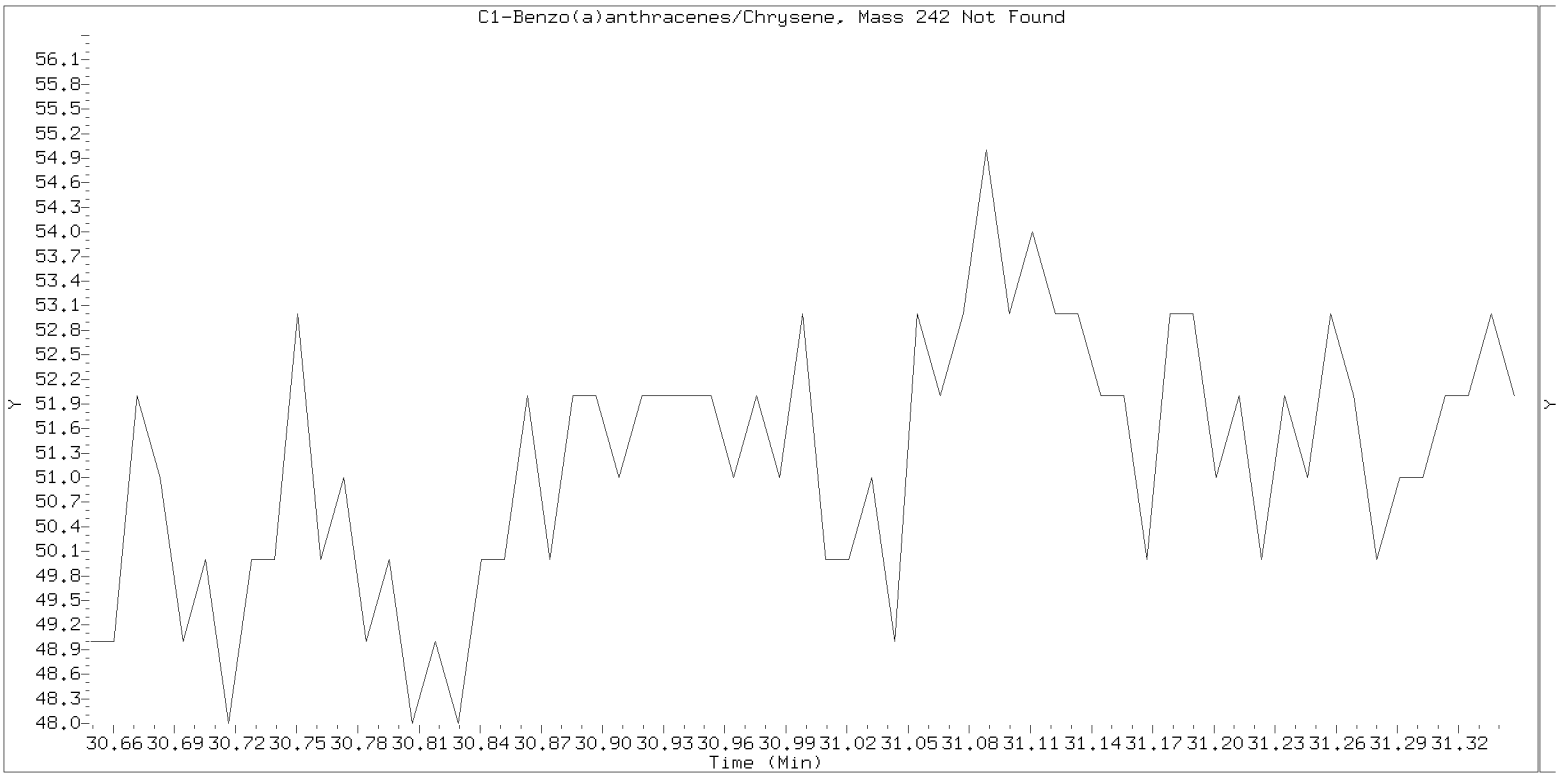

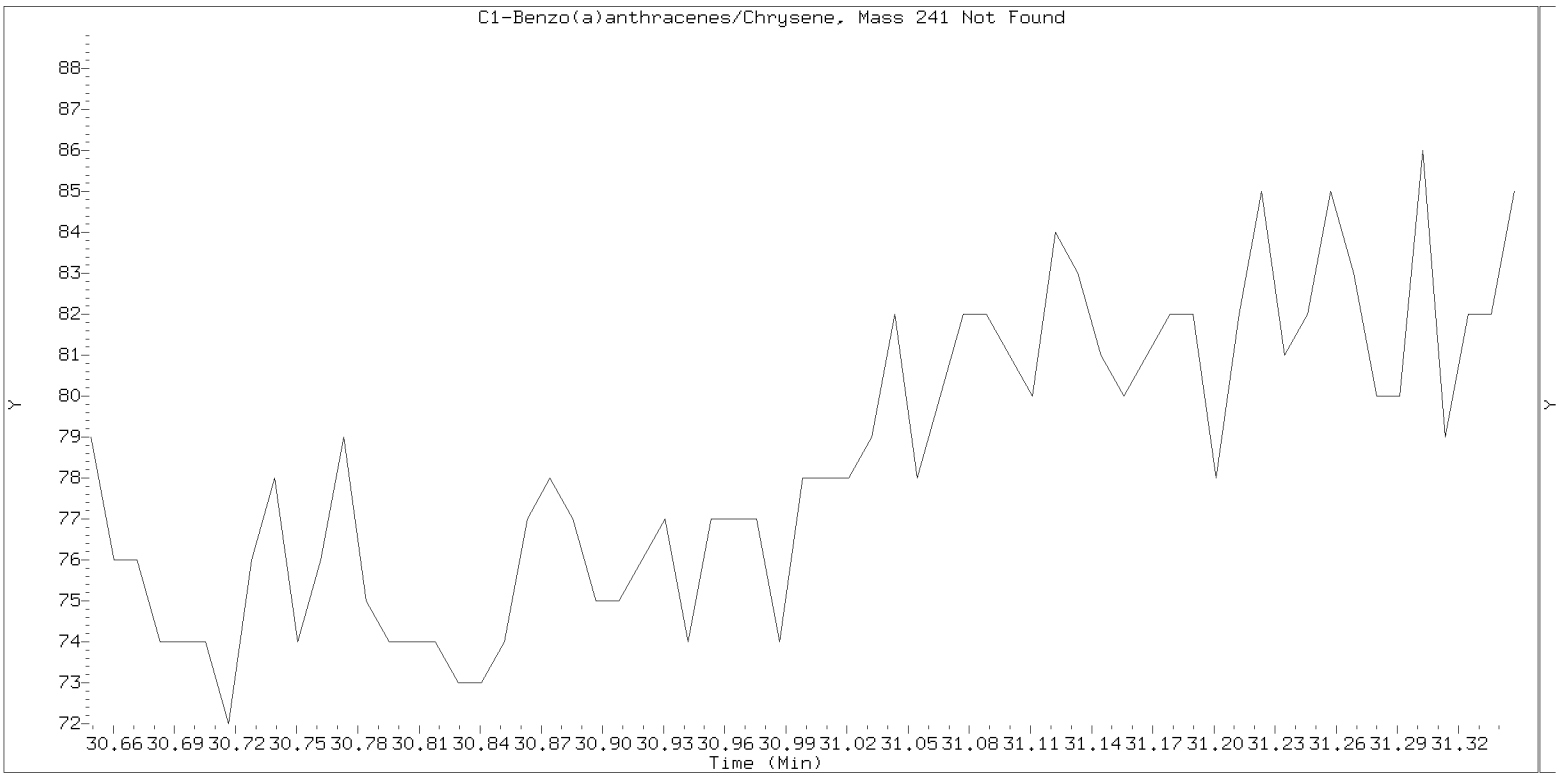

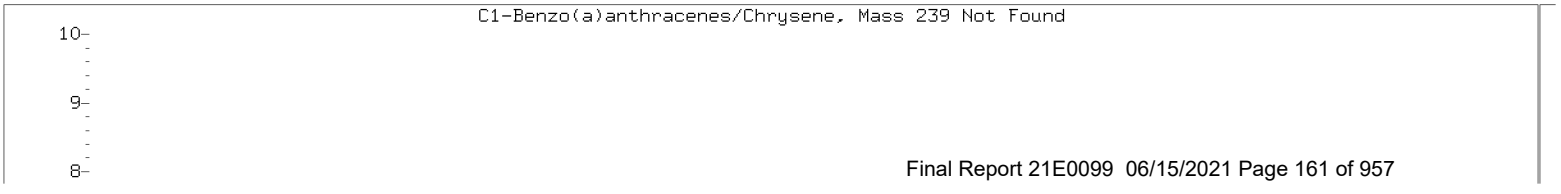

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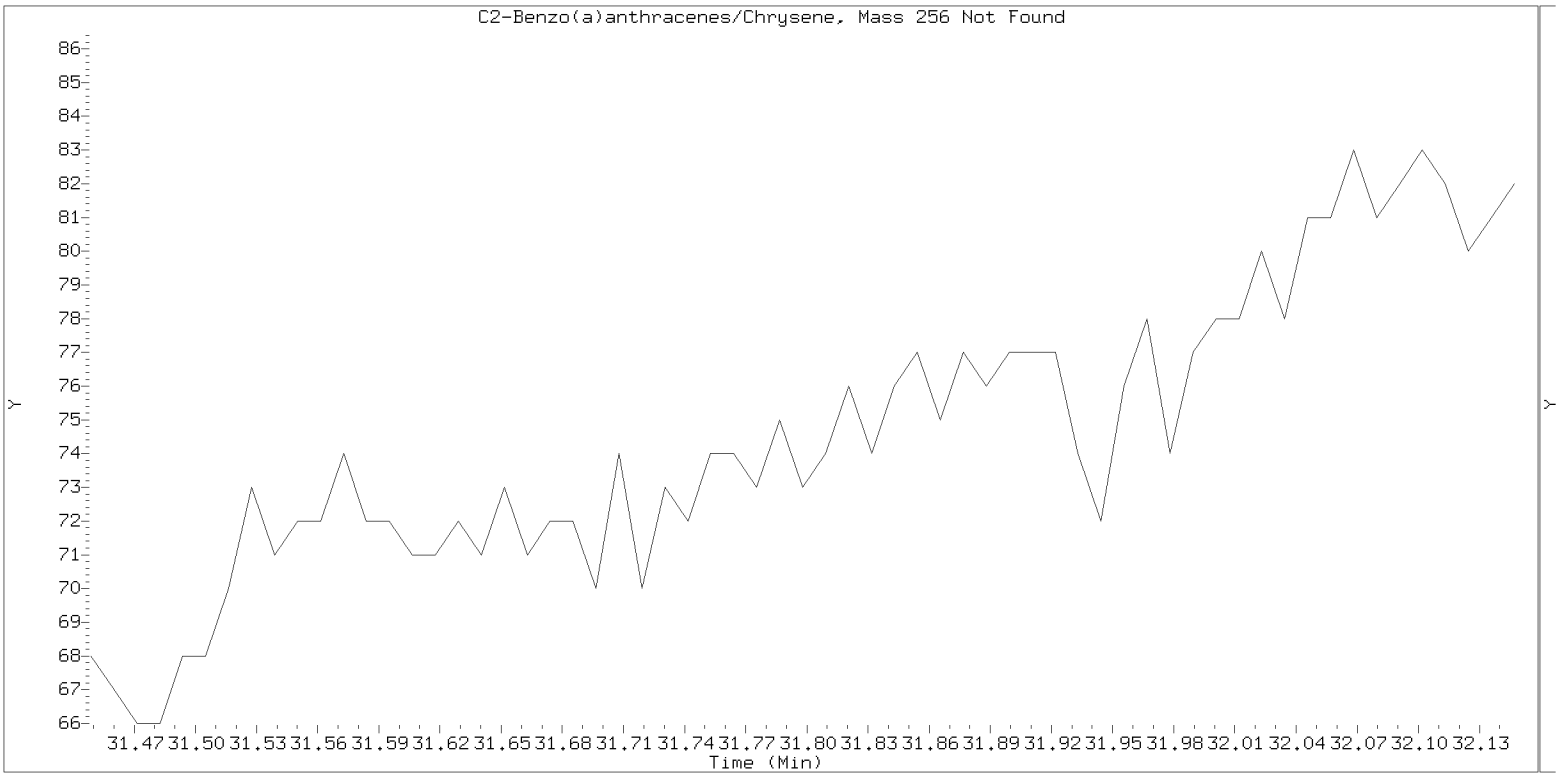

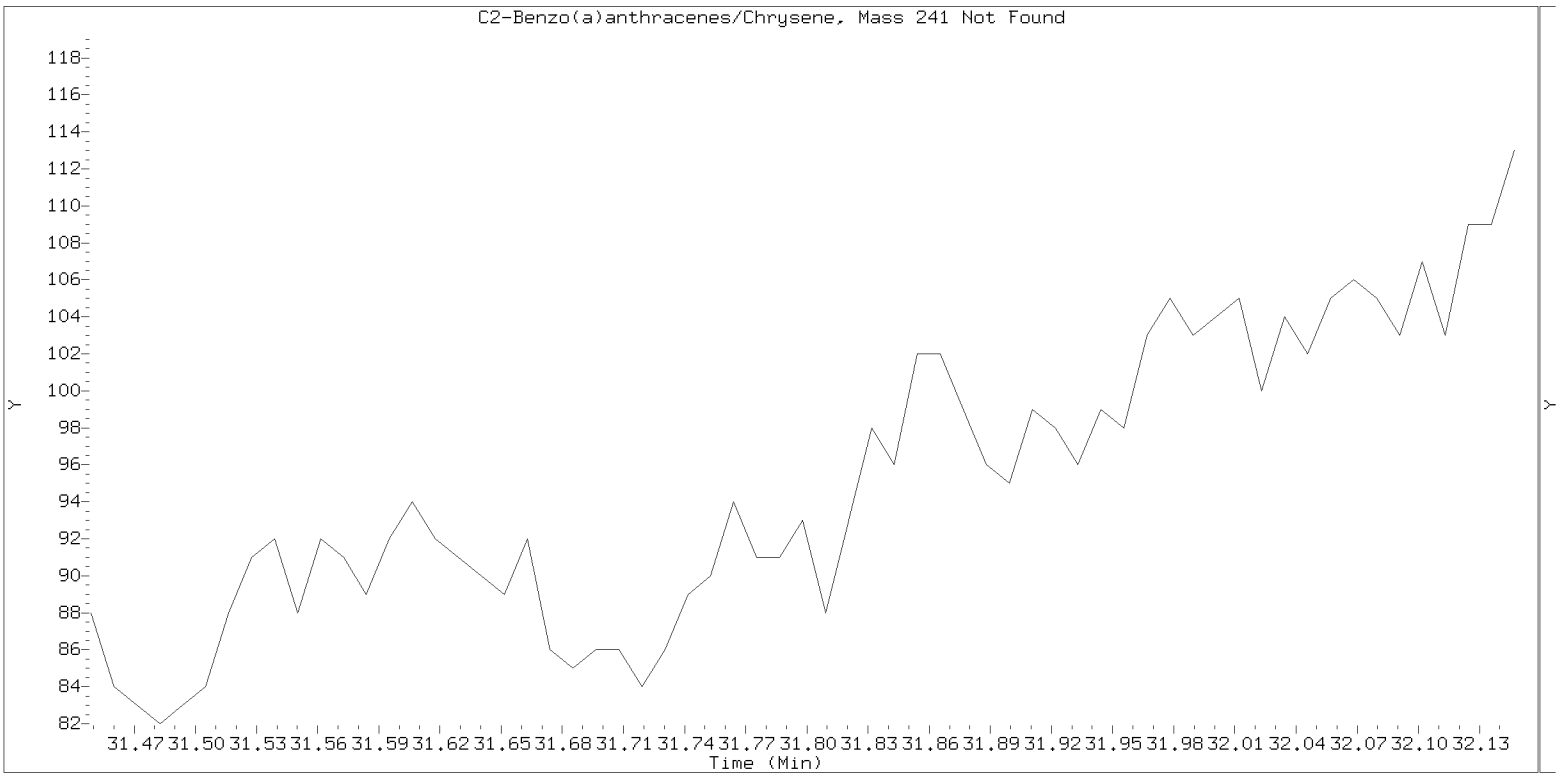

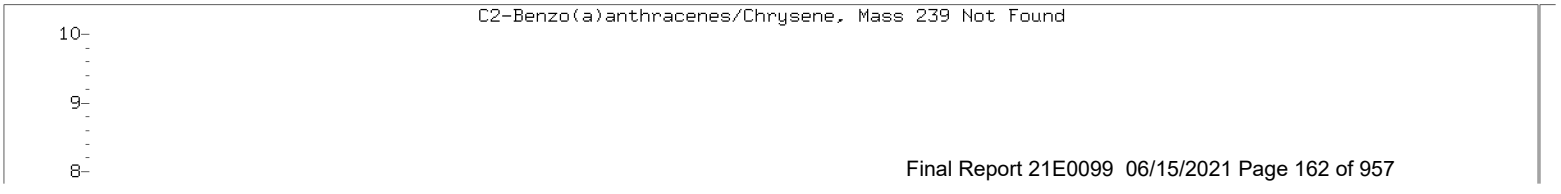

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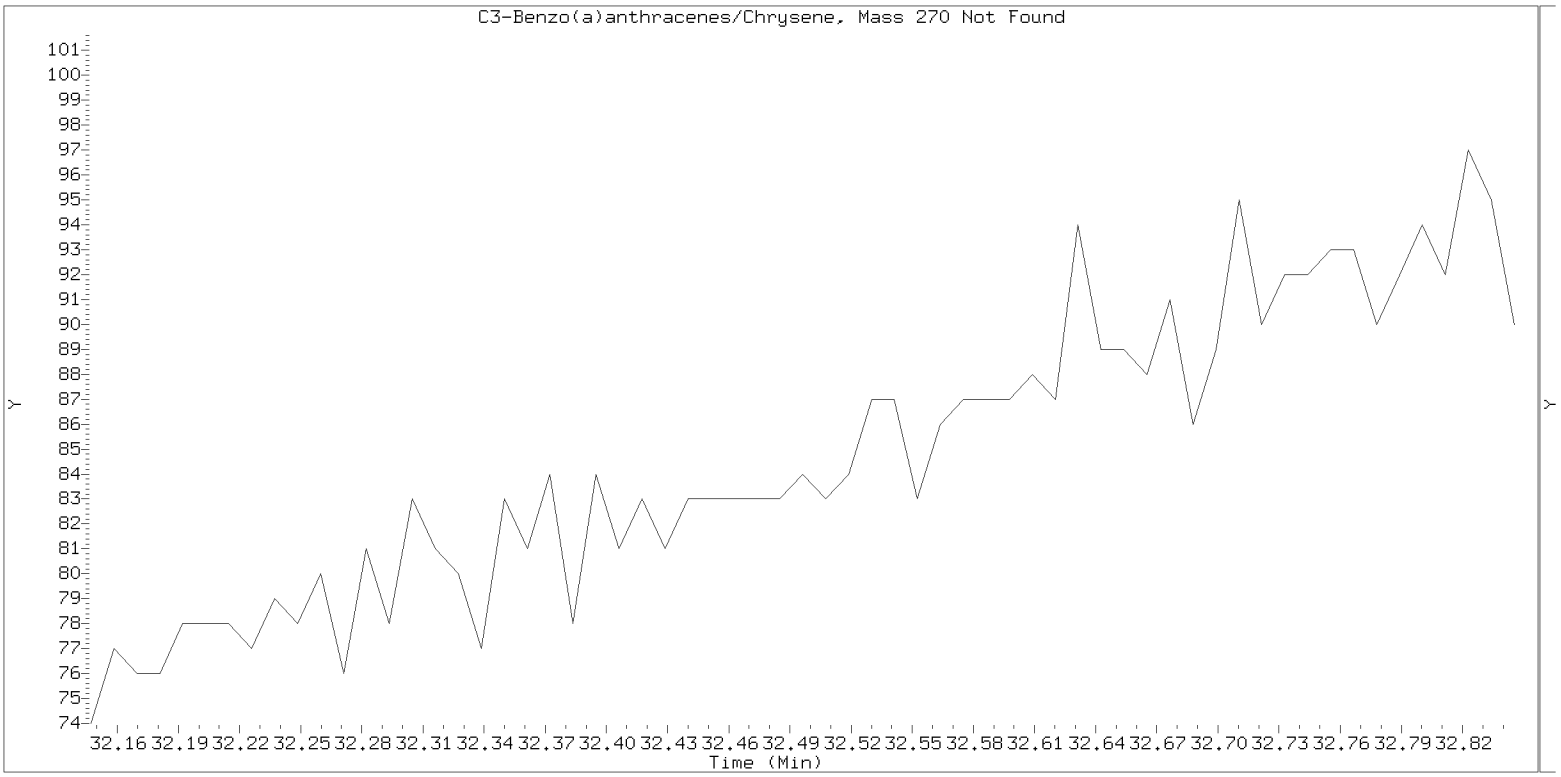

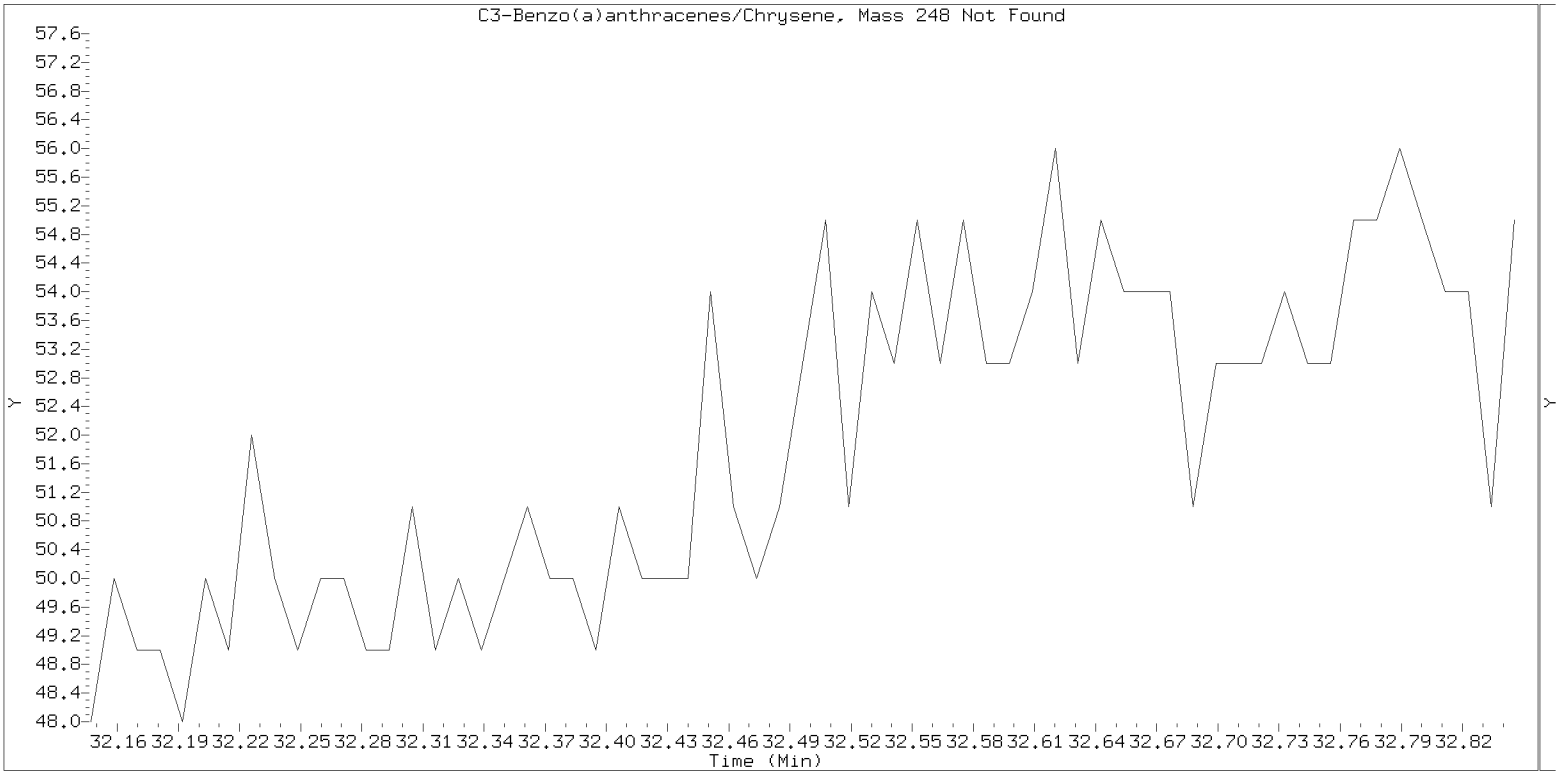

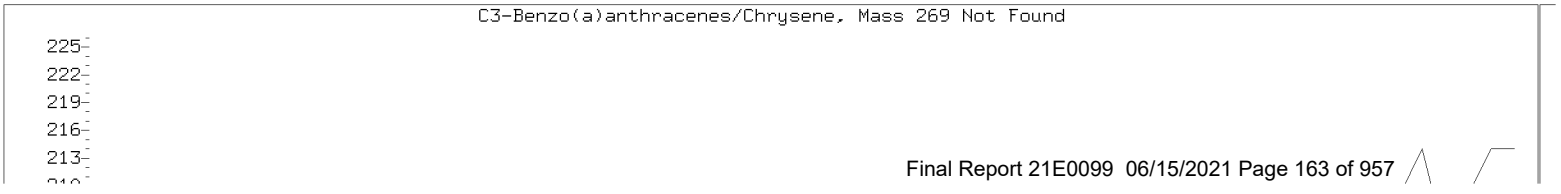

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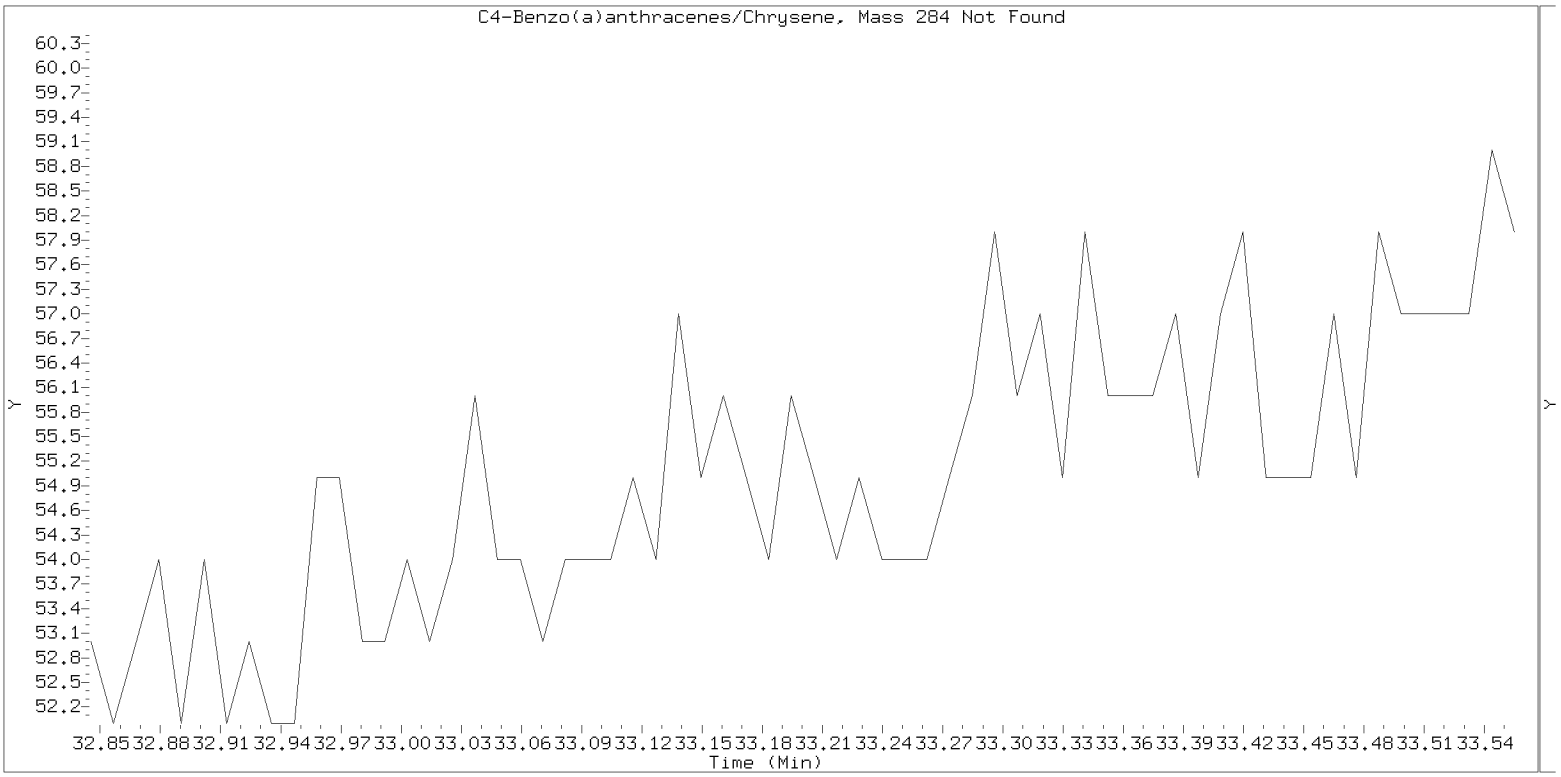

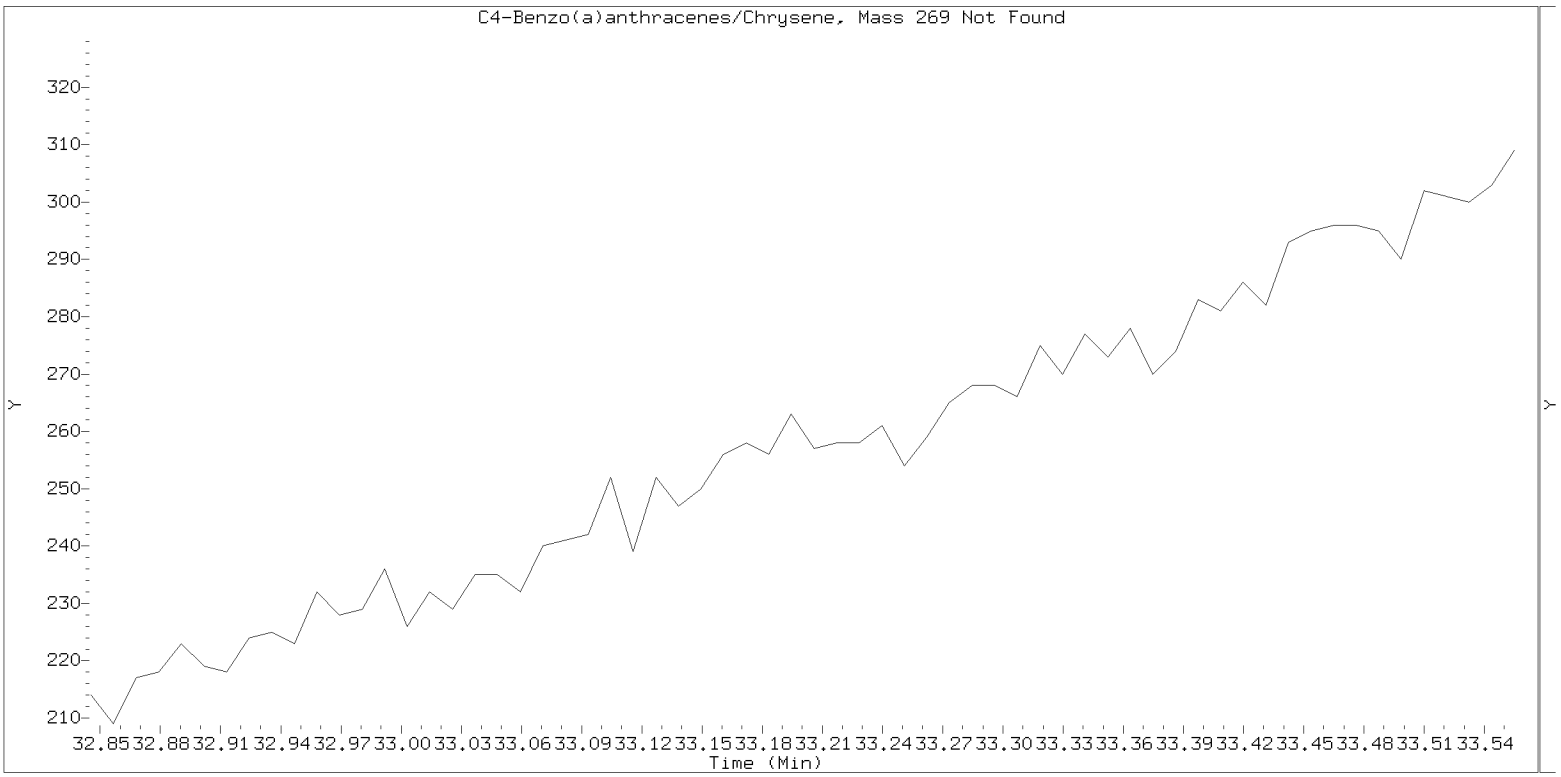

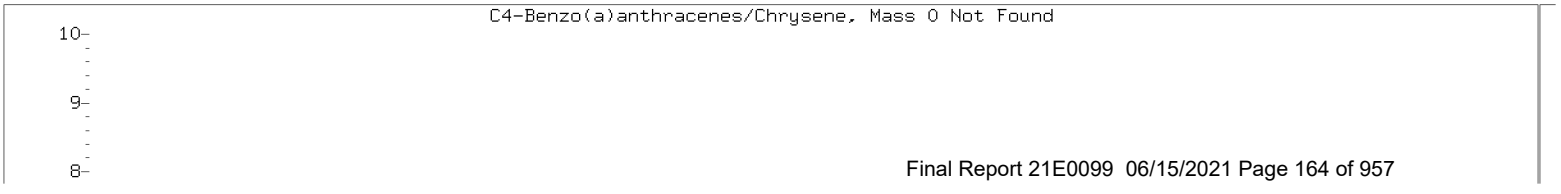

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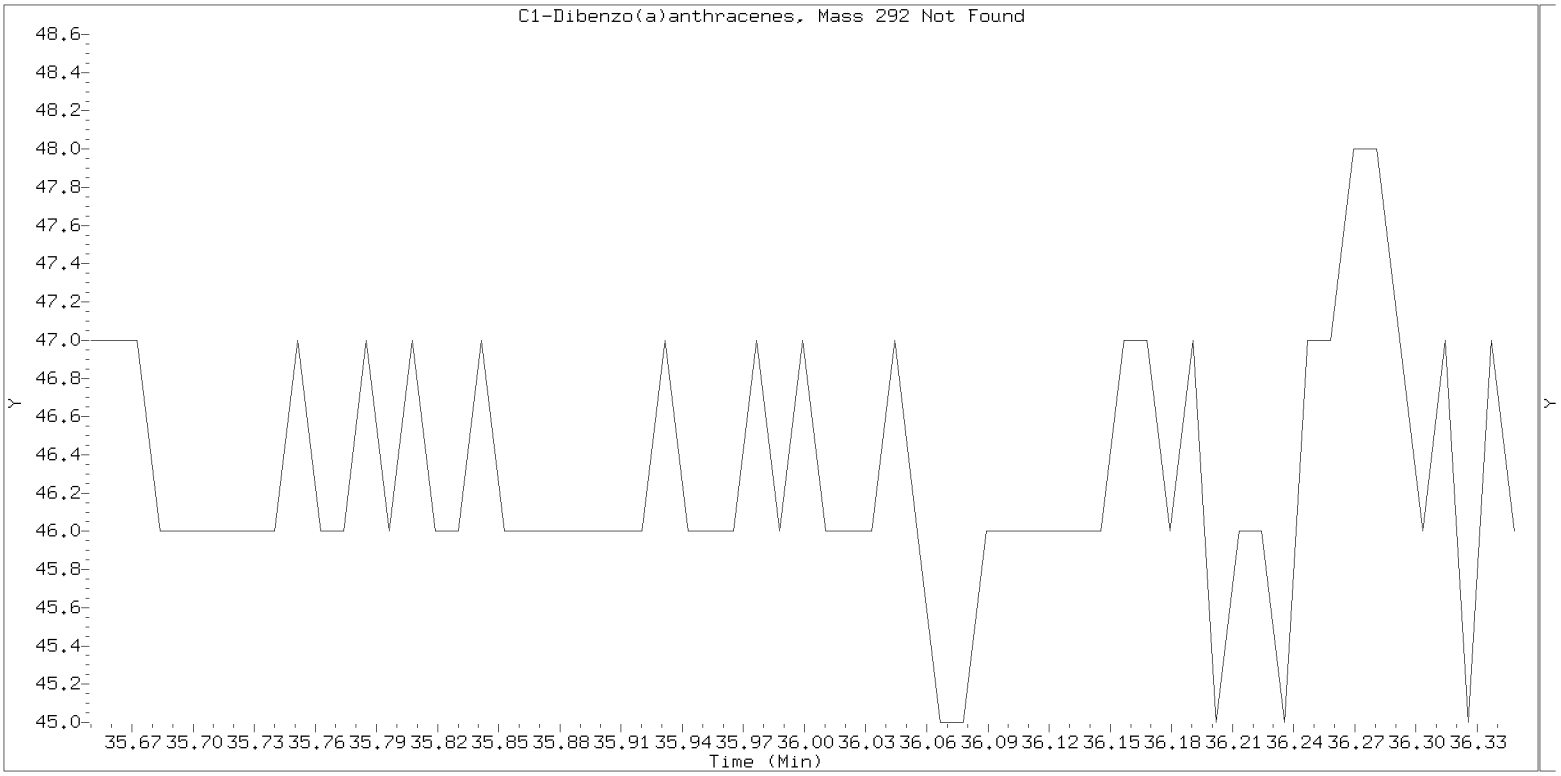

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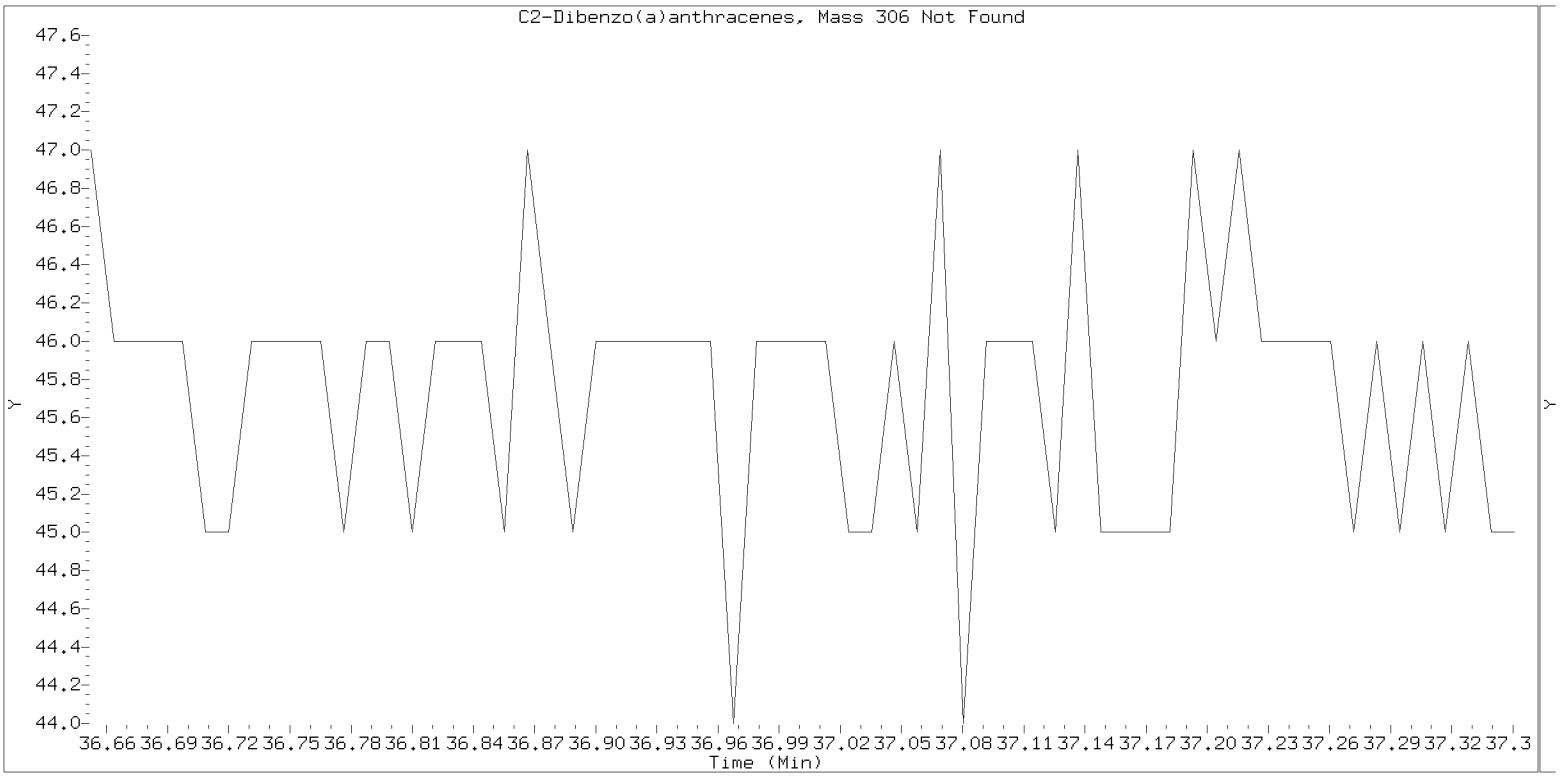

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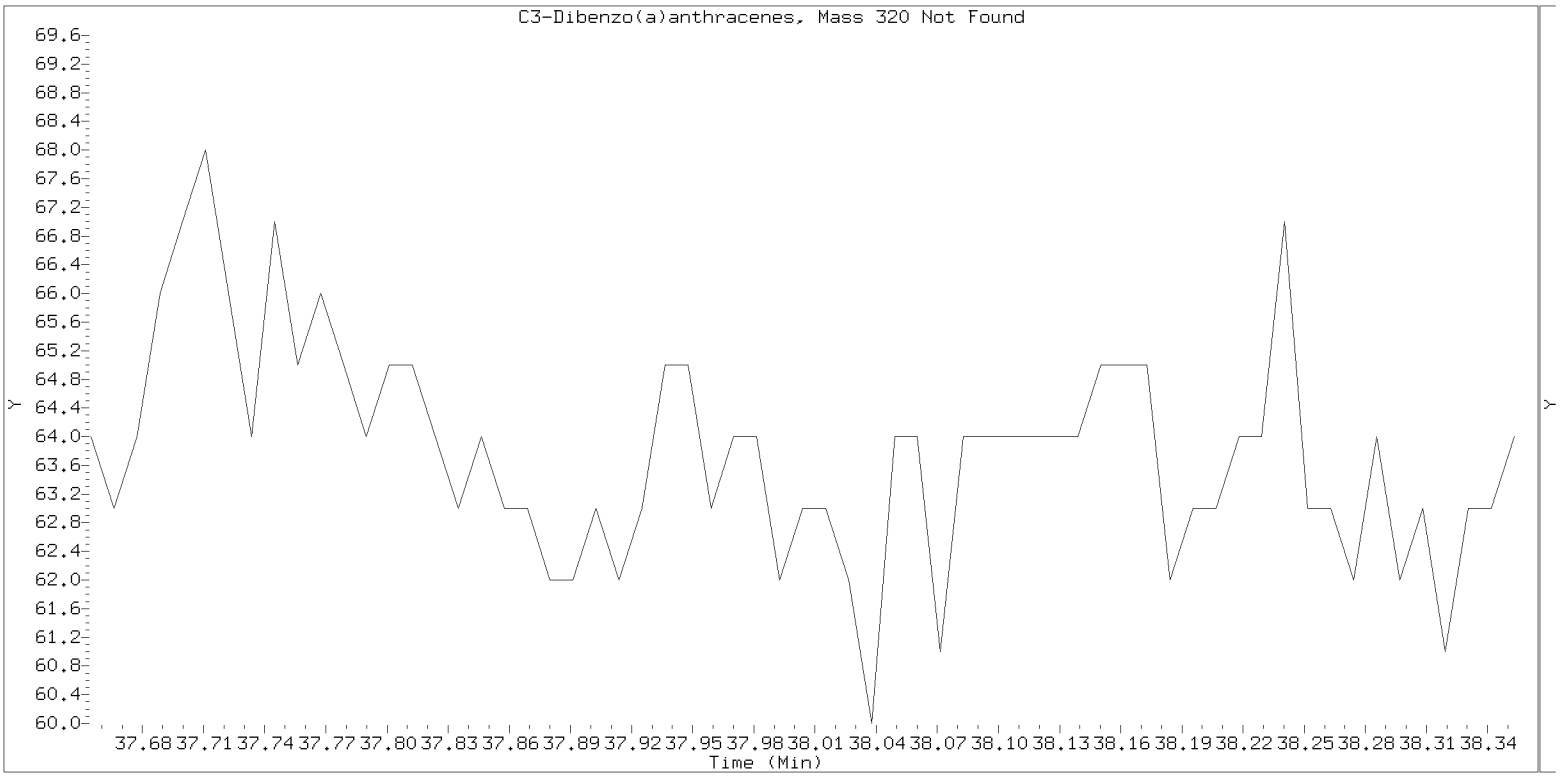


LCS / LCS DUPLICATE RECOVERY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Matrix:	Water	Analyzed:	06/07/21 15:42
Batch:	BJE0209	Laboratory ID:	BJE0209-BS1
Preparation:	EPA 3520C (Liq Liq)	Sequence Name:	LCS
Initial/Final:	500 mL / 0.5 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	Q	LCS % REC. #		QC LIMITS REC.
trans-Decalin	3.00	0.224	*	7.46	*	30 - 160
cis-Decalin	3.00	0.279	*	9.29	*	30 - 160
Naphthalene	3.00	1.26		41.9		37 - 120
1-Methylnaphthalene	3.00	1.29		43.2		30 - 160
2-Methylnaphthalene	3.00	1.25		41.7		34 - 120
Biphenyl	3.00	1.35		45.0		30 - 160
2,6-Dimethylnaphthalene	3.00	1.22		40.5		30 - 160
Acenaphthylene	3.00	1.36		45.4		32 - 120
Acenaphthene	3.00	1.53		51.1		40 - 120
Dibenzofuran	3.00	1.59		52.9		44 - 120
2,3,5-Trimethylnaphthalene	3.00	1.59		52.9		30 - 160
Fluorene	3.00	1.71		57.0		43 - 120
Benzo(b)thiophene	3.00	1.28		42.6		30 - 160
Phenanthrene	3.00	1.98		65.8		43 - 120
Anthracene	3.00	1.85		61.6		30 - 120
Carbazole	3.00	2.00		66.6		30 - 160
1-Methylphenanthrene	3.00	2.16		72.0		30 - 160
Fluoranthene	3.00	2.28		75.8		46 - 138
Dibenzothiophene	3.00	1.56		52.1		30 - 160
Pyrene	3.00	2.28		76.1		47 - 124
Benzo(a)anthracene	3.00	2.31		77.0		38 - 134
Chrysene	3.00	2.43		81.0		52 - 120
Benzo(b)fluoranthene	3.00	2.75		91.6		35 - 127
Benzo(j)fluoranthene	3.00	2.18		72.6		49 - 120
Benzo(k)fluoranthene	3.00	2.08		69.4		37 - 129
Benzo(e)pyrene	3.00	2.19		73.0		30 - 160
Benzo(a)pyrene	3.00	1.84		61.5		24 - 120
Indeno(1,2,3-cd)pyrene	3.00	2.00		66.5		32 - 123
Dibenzo(a,h)anthracene	3.00	1.86		62.0		30 - 127
Benzo(g,h,i)perylene	3.00	1.94		64.8		26 - 124
Perylene	3.00	1.70		56.8		30 - 160
Benzo(b)naphtho(2,1-d)thiophene	3.00	1.57		52.4		30 - 160

* Indicates values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Matrix:	Water	Analyzed:	06/07/21 16:30
Batch:	BJE0209	Laboratory ID:	BJE0209-BSD1
Preparation:	EPA 3520C (Liq Liq)	Sequence Name:	LCS Dup
Initial/Final:	500 mL / 0.5 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	Q	LCSD % REC. #	% RPD #		QC LIMITS RPD	QC LIMITS REC.
trans-Decalin	3.00	1.25	*	41.5	139	*	30	30 - 160
cis-Decalin	3.00	1.20	*	40.1	125	*	30	30 - 160
Naphthalene	3.00	1.63		54.3	25.9		30	37 - 120
1-Methylnaphthalene	3.00	1.66		55.3	24.7		30	30 - 160
2-Methylnaphthalene	3.00	1.65		55.0	27.5		30	34 - 120
Biphenyl	3.00	1.69		56.4	22.4		30	30 - 160
2,6-Dimethylnaphthalene	3.00	1.62		54.0	28.5		30	30 - 160
Acenaphthylene	3.00	1.62		53.9	16.9		30	32 - 120
Acenaphthene	3.00	1.79		59.8	15.6		30	40 - 120
Dibenzofuran	3.00	1.81		60.2	12.8		30	44 - 120
2,3,5-Trimethylnaphthalene	3.00	1.82		60.8	13.9		30	30 - 160
Fluorene	3.00	1.88		62.7	9.43		30	43 - 120
Benzo(b)thiophene	3.00	1.64		54.7	24.8		30	30 - 160
Phenanthrene	3.00	2.07		69.1	4.84		30	43 - 120
Anthracene	3.00	1.94		64.7	4.85		30	30 - 120
Carbazole	3.00	2.01		67.1	0.846		30	30 - 160
1-Methylphenanthrene	3.00	2.17		72.4	0.604		30	30 - 160
Fluoranthene	3.00	2.27		75.7	0.197		30	46 - 138
Dibenzothiophene	3.00	1.84		61.2	16.0		30	30 - 160
Pyrene	3.00	2.27		75.7	0.531		30	47 - 124
Benzo(a)anthracene	3.00	2.27		75.5	1.95		30	38 - 134
Chrysene	3.00	2.41		80.2	1.05		30	52 - 120
Benzo(b)fluoranthene	3.00	2.06		68.6	28.6		30	35 - 127
Benzo(j)fluoranthene	3.00	2.23		74.3	2.22		30	49 - 120
Benzo(k)fluoranthene	3.00	2.28		76.0	9.06		30	37 - 129
Benzo(e)pyrene	3.00	2.15		71.5	2.04		30	30 - 160
Benzo(a)pyrene	3.00	1.83		61.2	0.546		30	24 - 120
Indeno(1,2,3-cd)pyrene	3.00	2.00		66.5	0.0311		30	32 - 123
Dibenzo(a,h)anthracene	3.00	1.82		60.7	1.96		30	30 - 127
Benzo(g,h,i)perylene	3.00	1.96		65.4	0.943		30	26 - 124
Perylene	3.00	1.67		55.8	1.84		30	30 - 160
Benzo(b)naphtho(2,1-d)thiophene	3.00	1.60		53.4	1.94		30	30 - 160

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

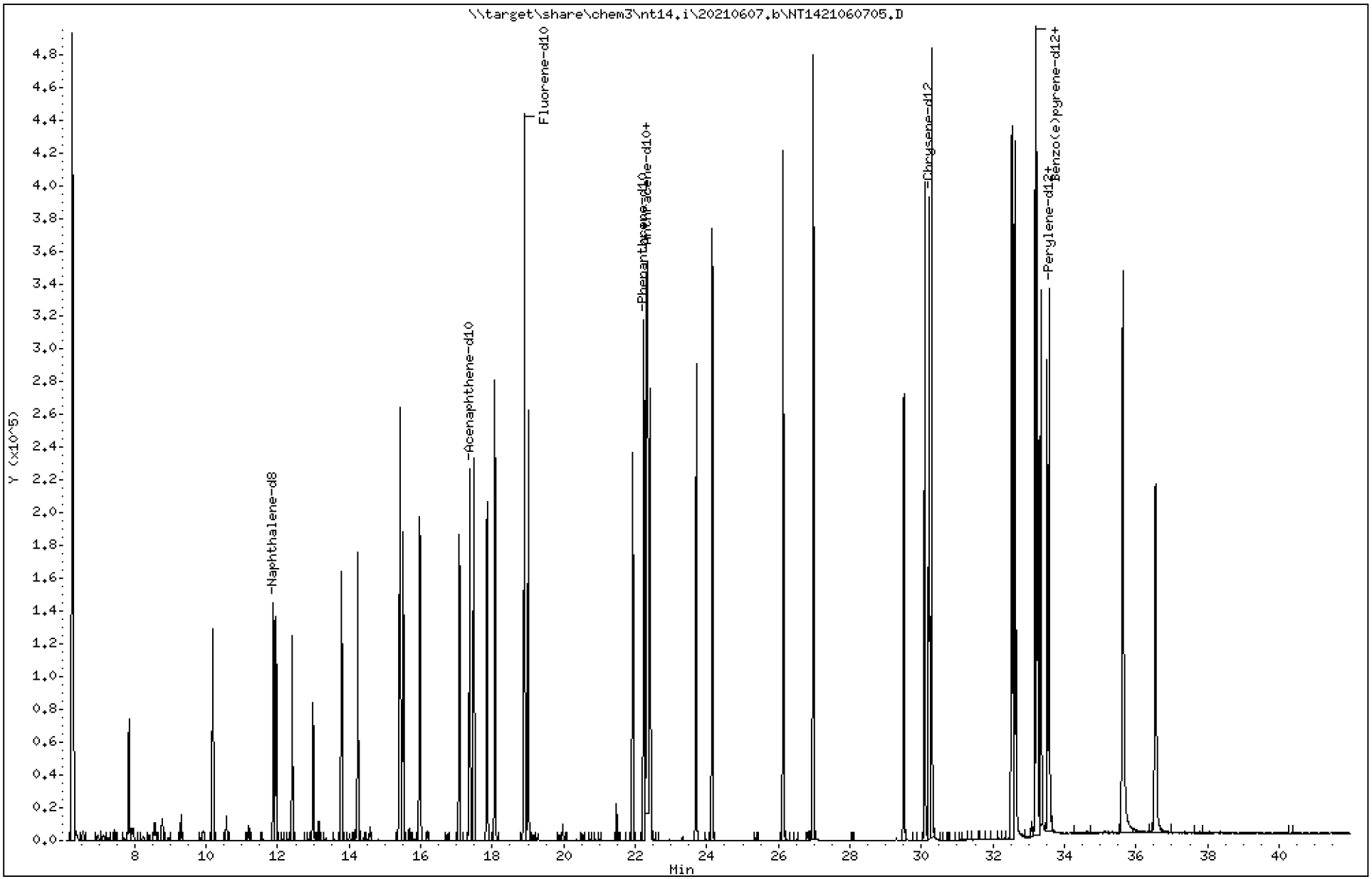
Instrument: nt14.i

Sample Info: BJE0209-BS1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

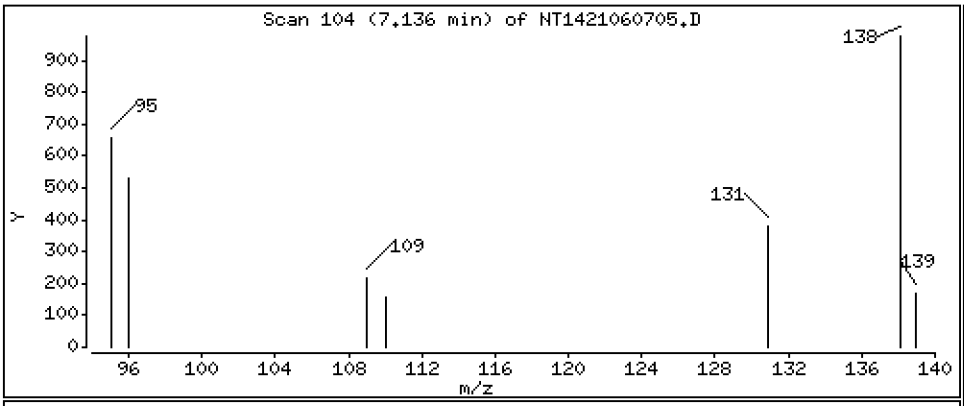
Operator: VTS

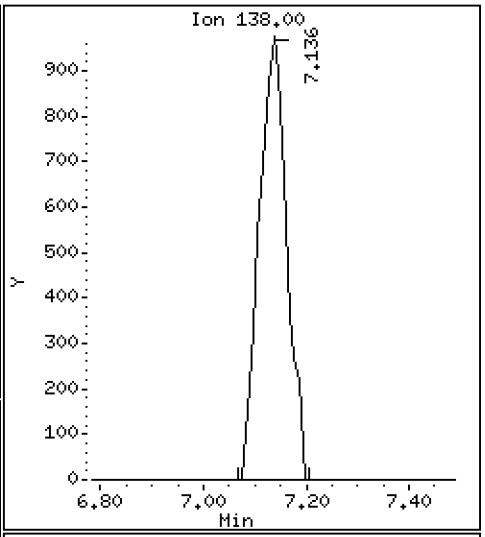
Column phase: Rxi-17Sil MS

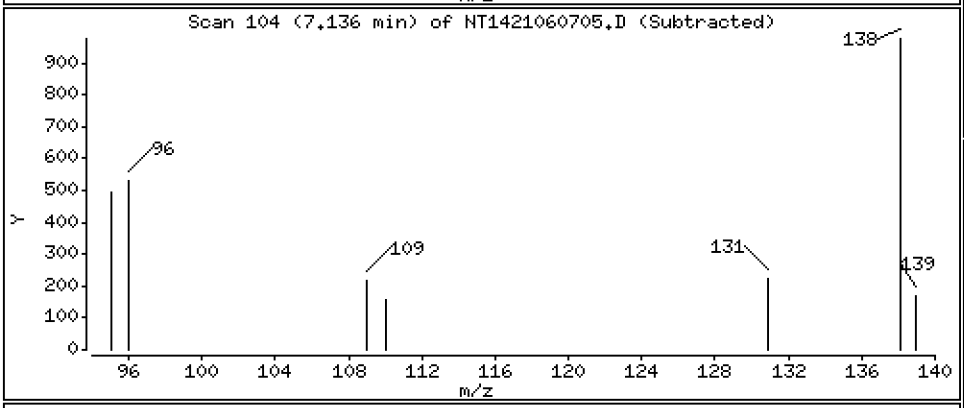
Column diameter: 0.25

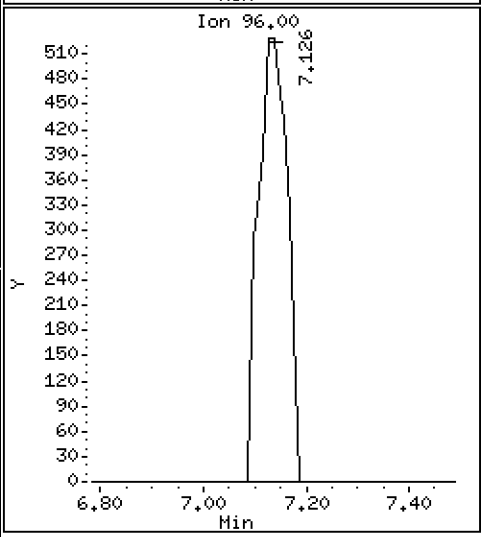
1 trans-Decalin

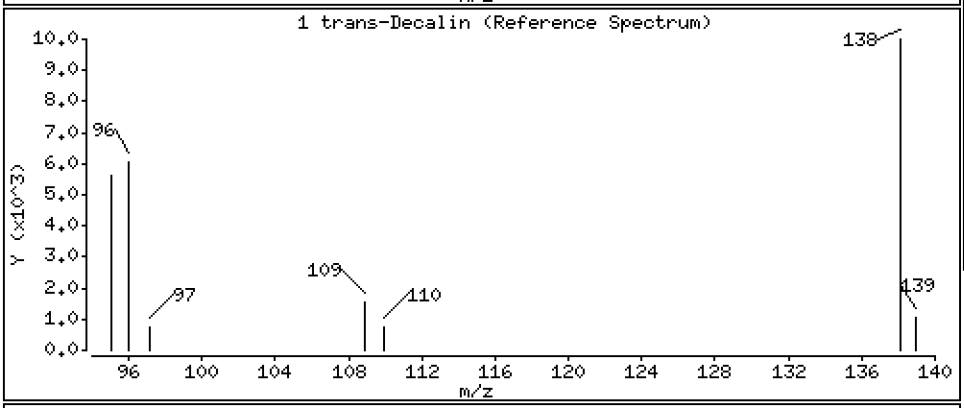
Concentration: 0.2237 ug/mL

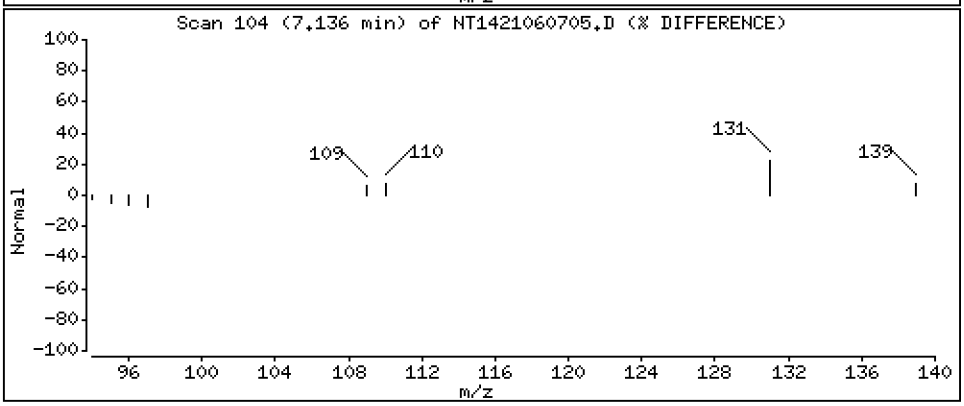












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Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

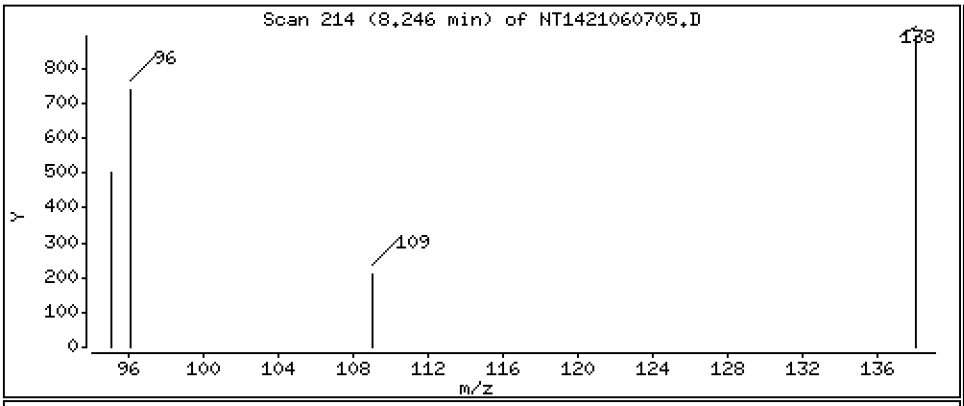
Operator: VTS

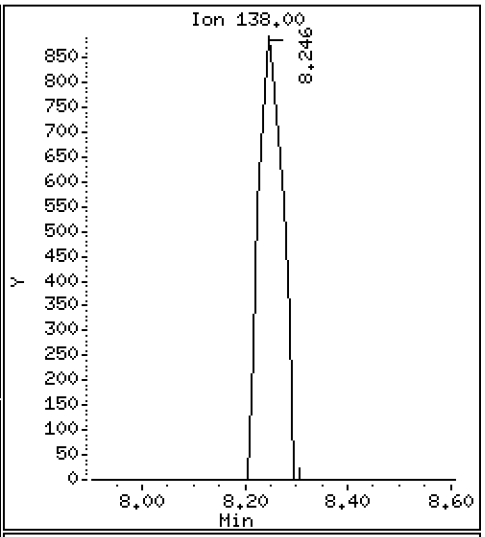
Column phase: Rxi-17Sil MS

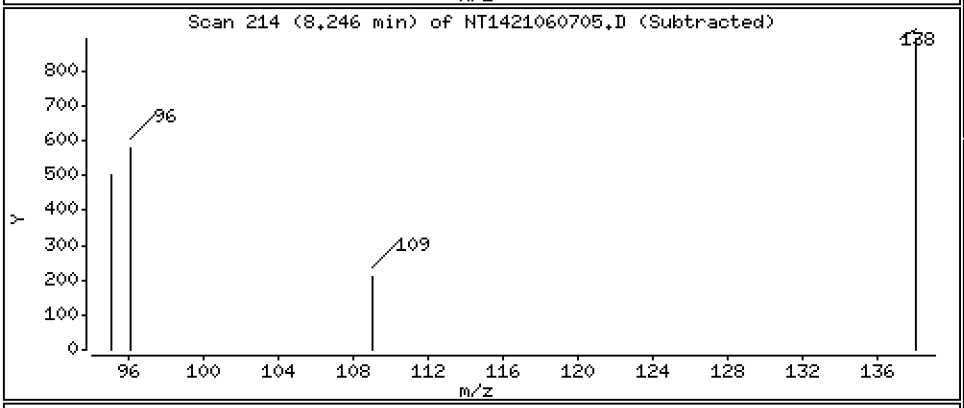
Column diameter: 0.25

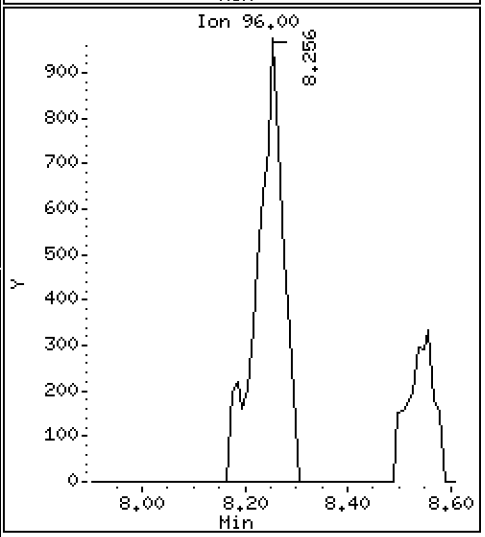
2 cis-Decalin

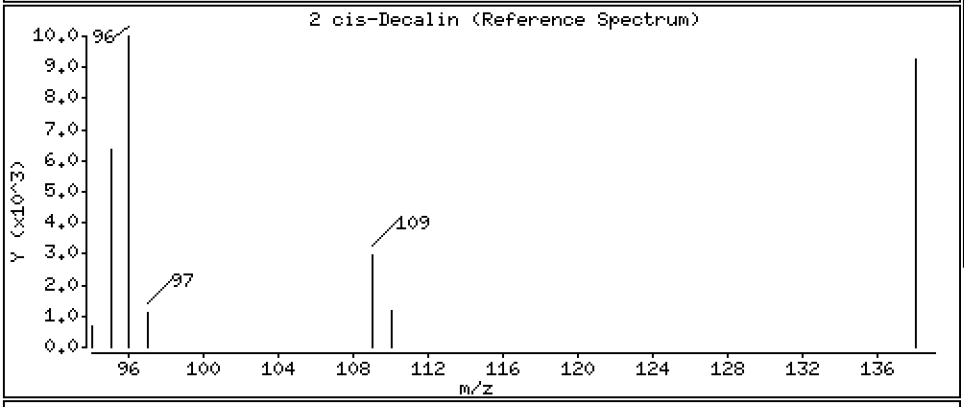
Concentration: 0.2786 ug/mL

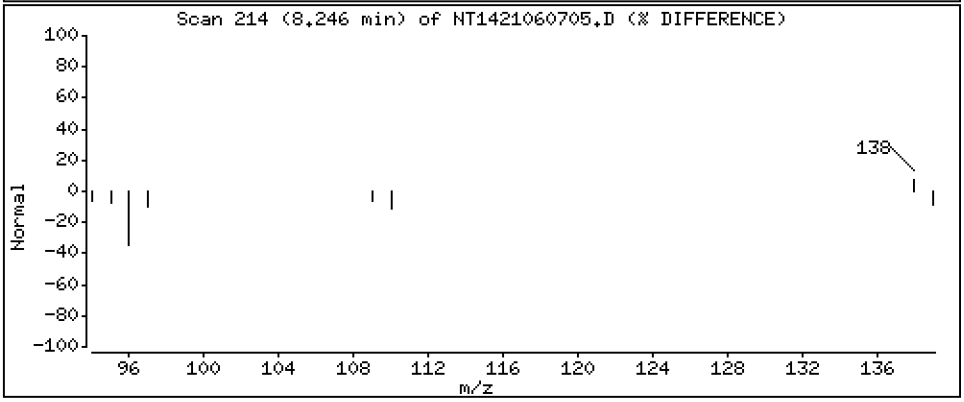












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

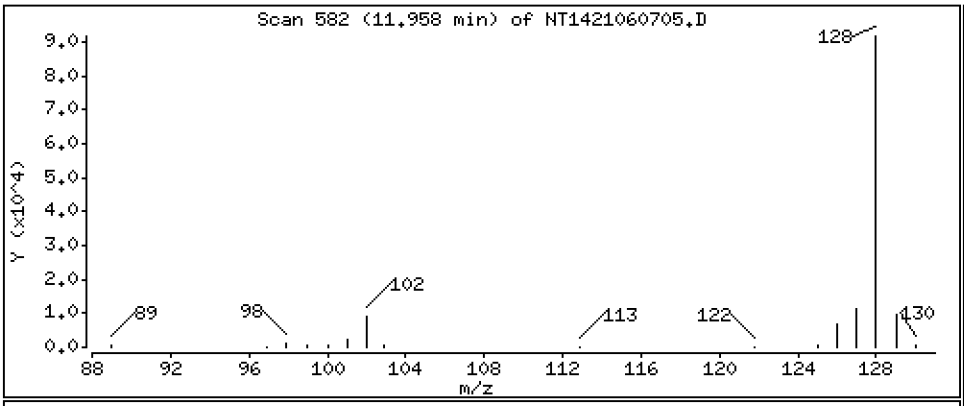
Operator: VTS

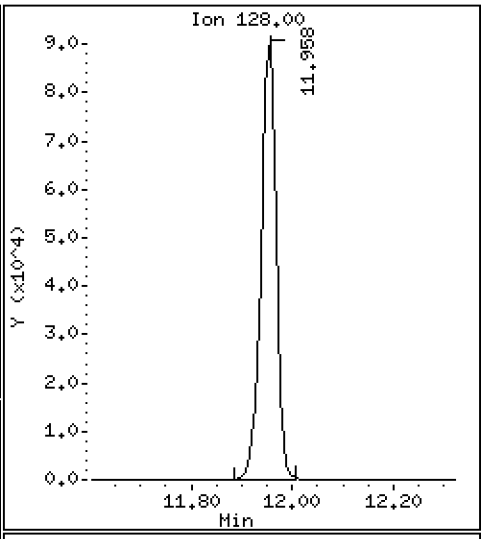
Column phase: Rxi-17Sil MS

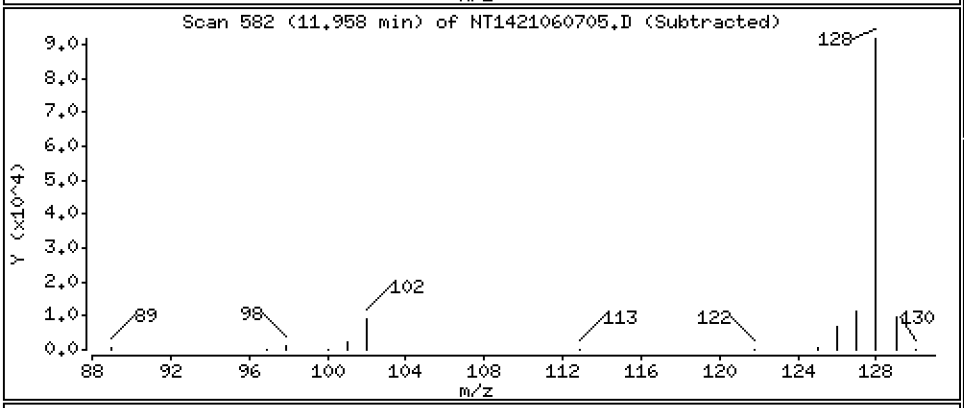
Column diameter: 0.25

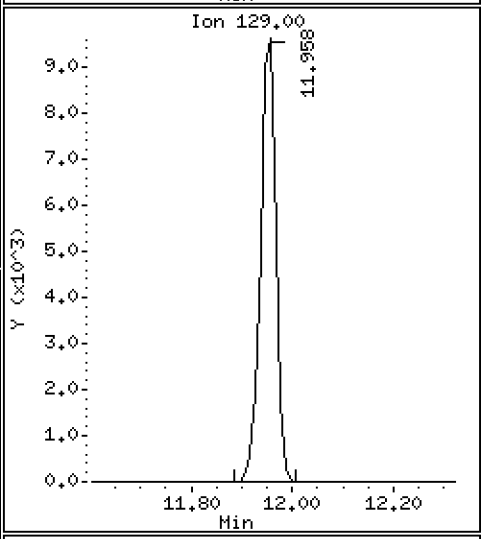
7 Naphthalene

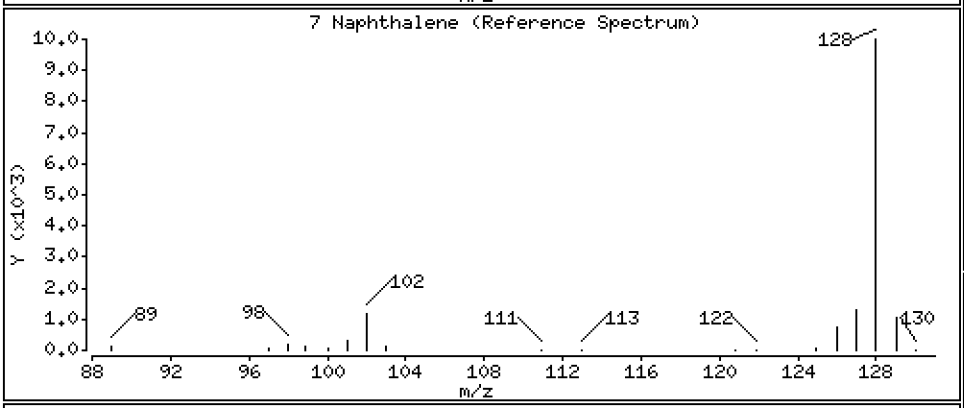
Concentration: 1.256 ug/mL

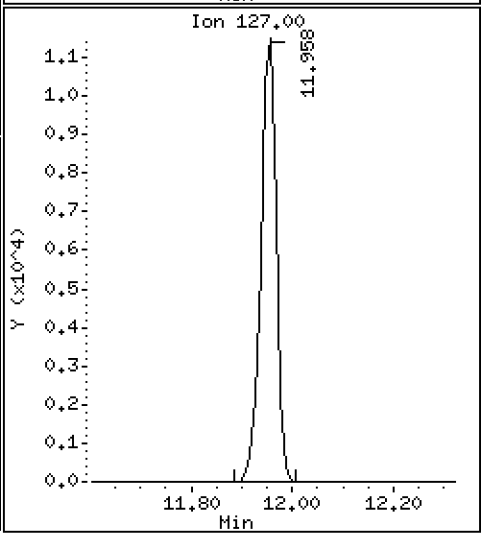


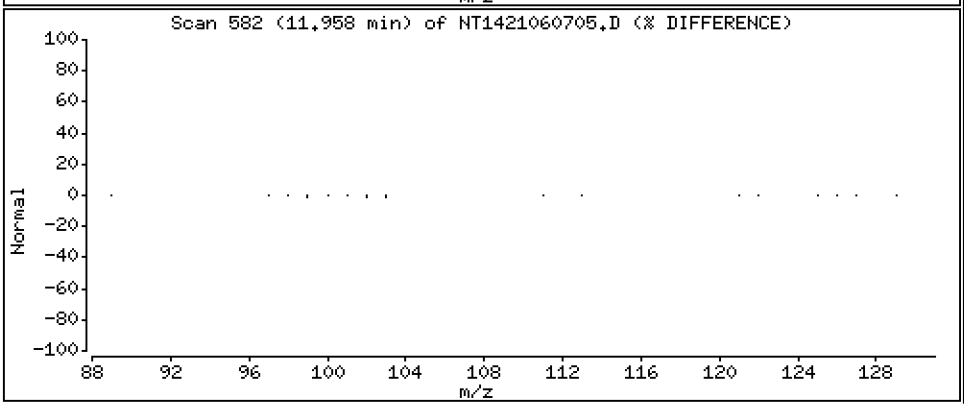












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

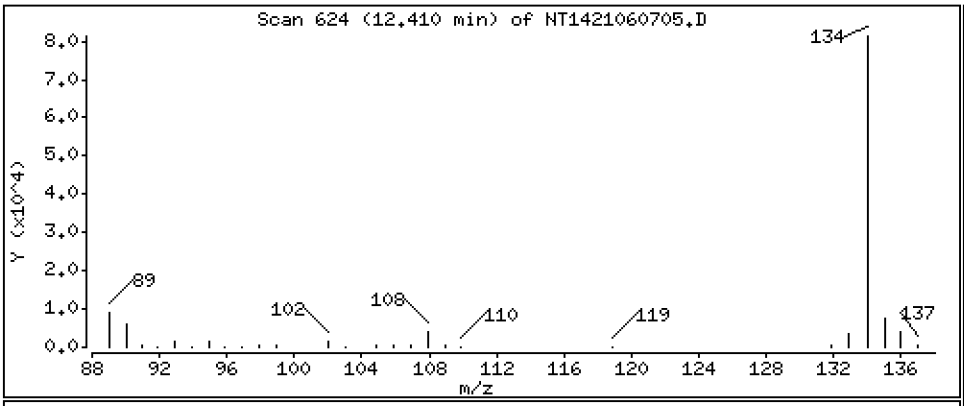
Operator: VTS

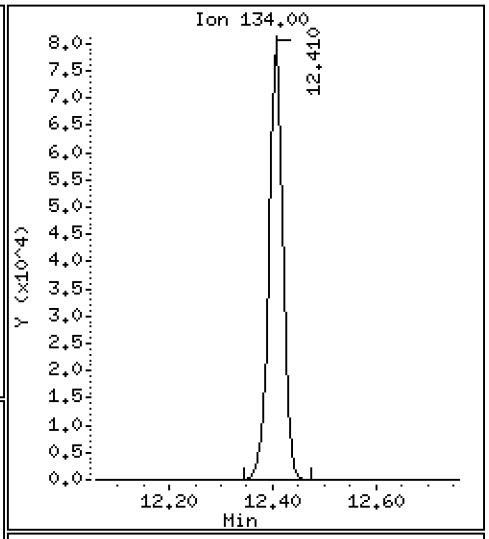
Column phase: Rxi-17Sil MS

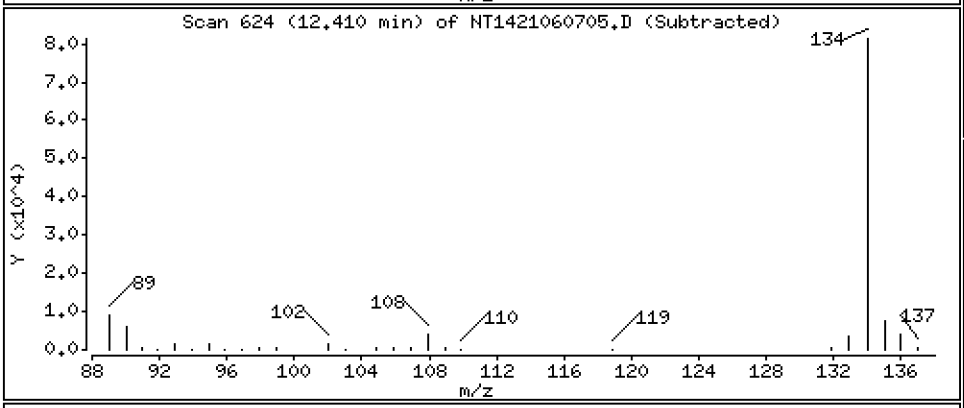
Column diameter: 0.25

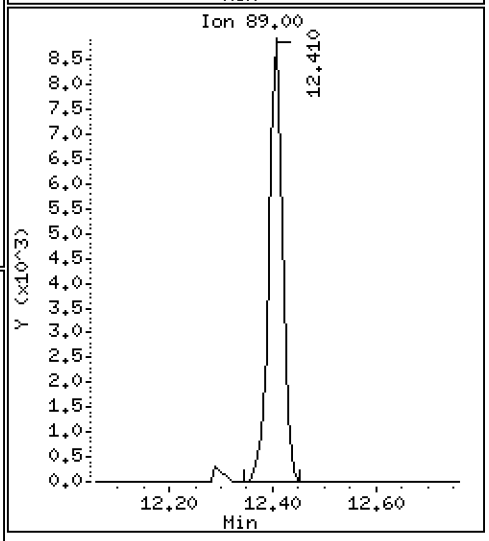
12 Benzo(b)thiophene

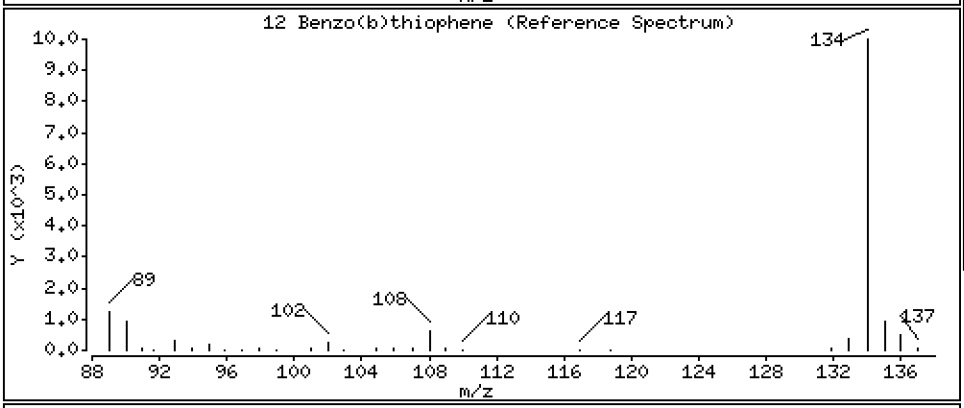
Concentration: 1.279 ug/mL

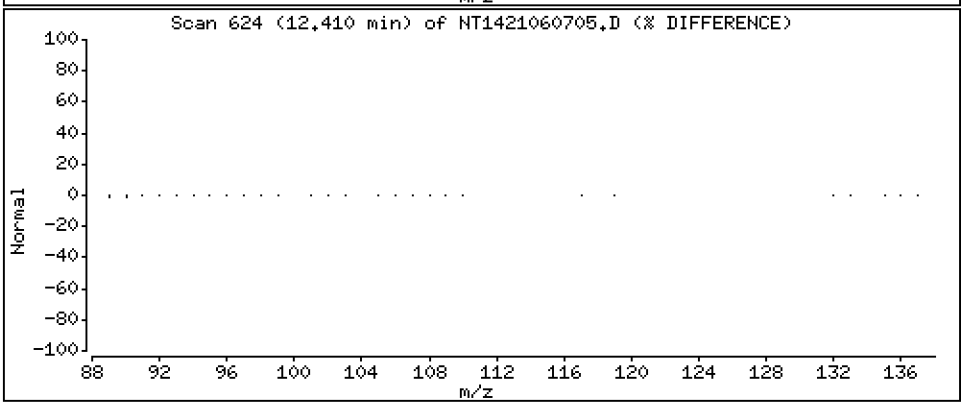












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

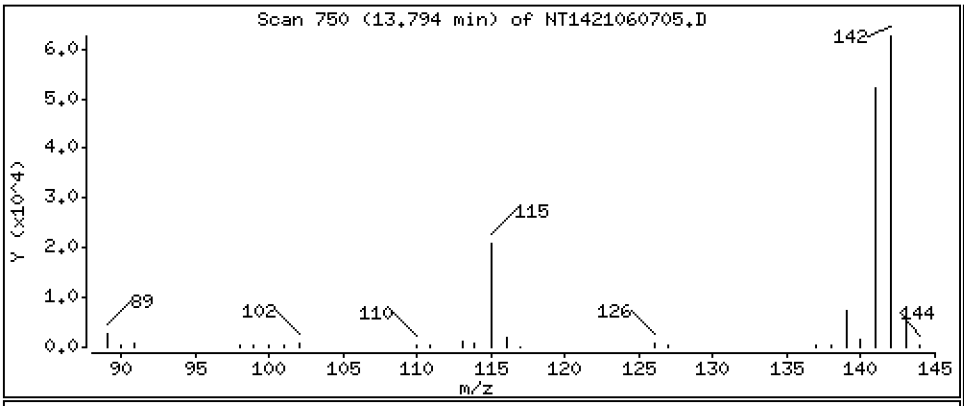
Operator: VTS

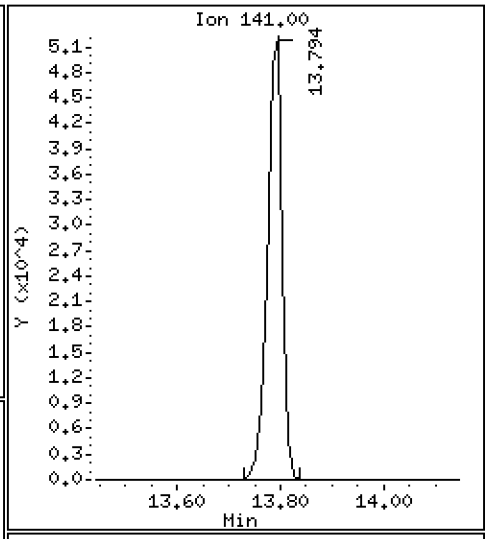
Column phase: Rxi-17Sil MS

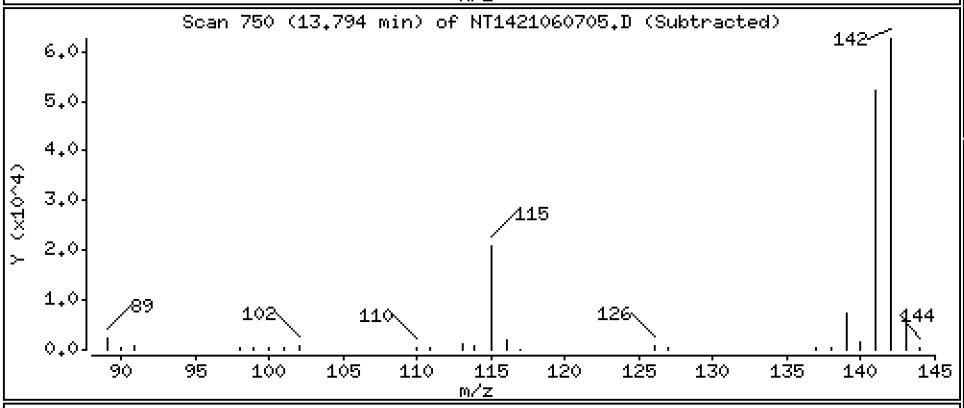
Column diameter: 0.25

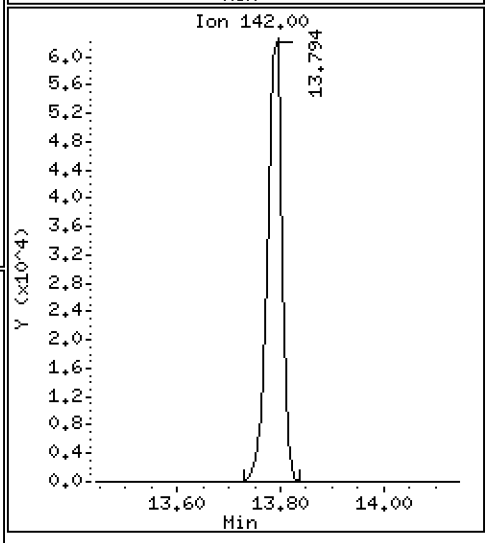
16 2-Methylnaphthalene

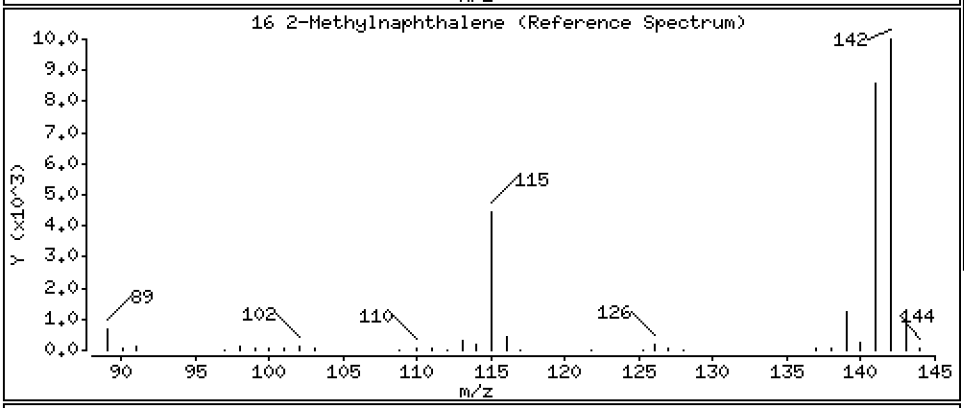
Concentration: 1.251 ug/mL

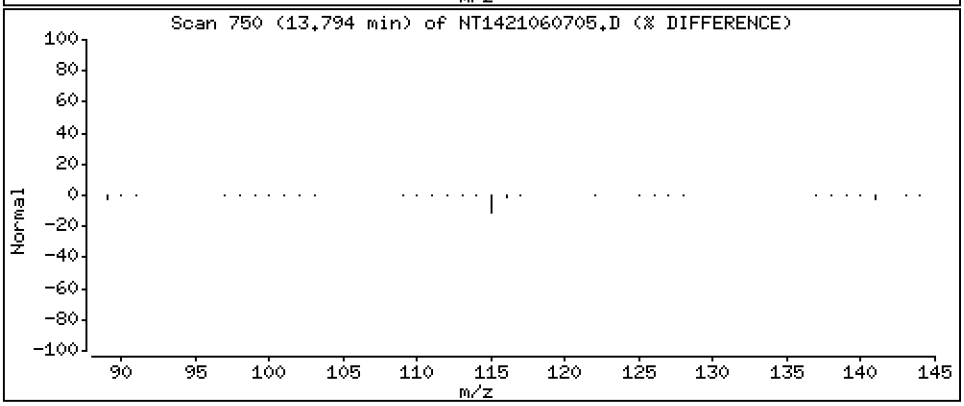












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Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

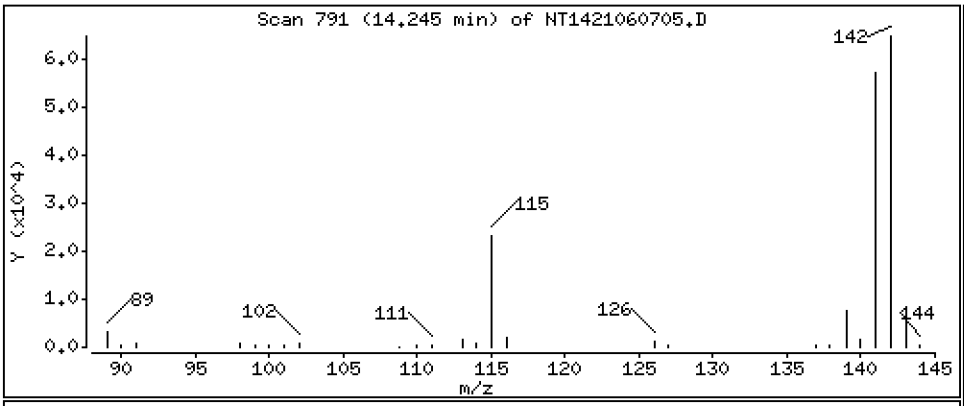
Operator: VTS

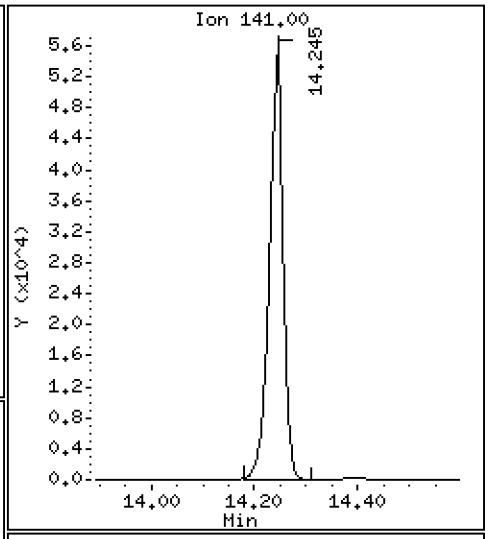
Column phase: Rxi-17Sil MS

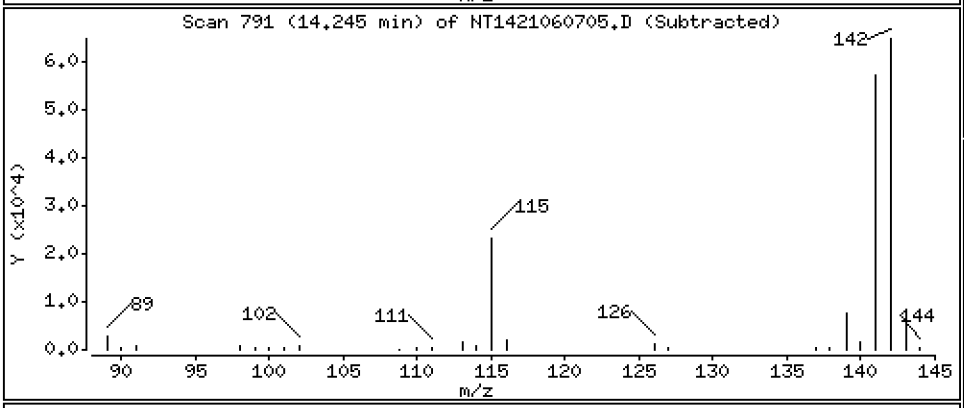
Column diameter: 0.25

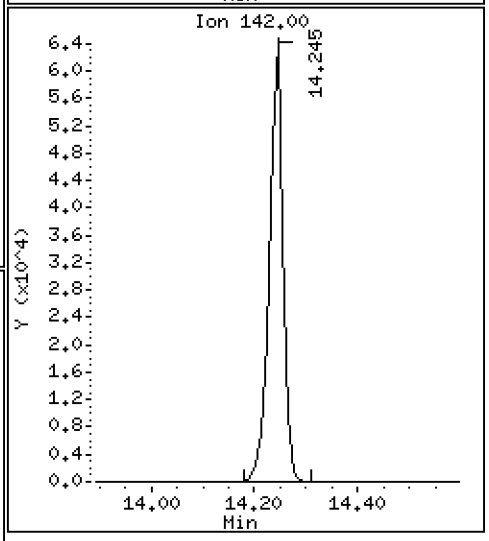
17 1-methylnaphthalene

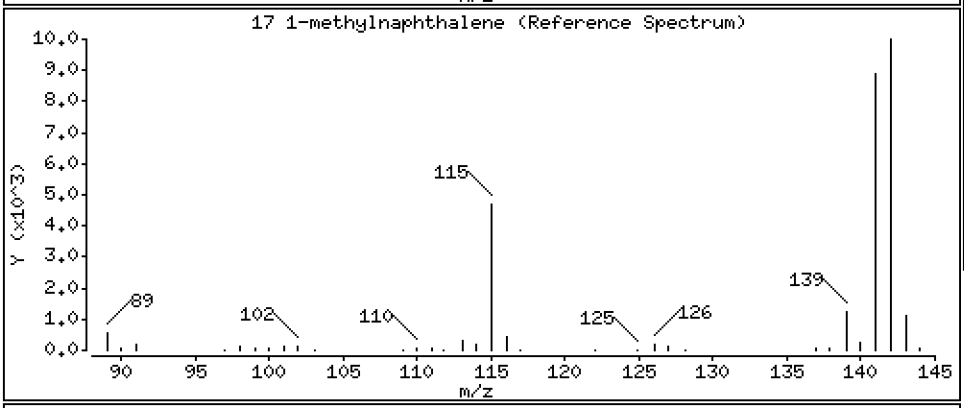
Concentration: 1.295 ug/mL

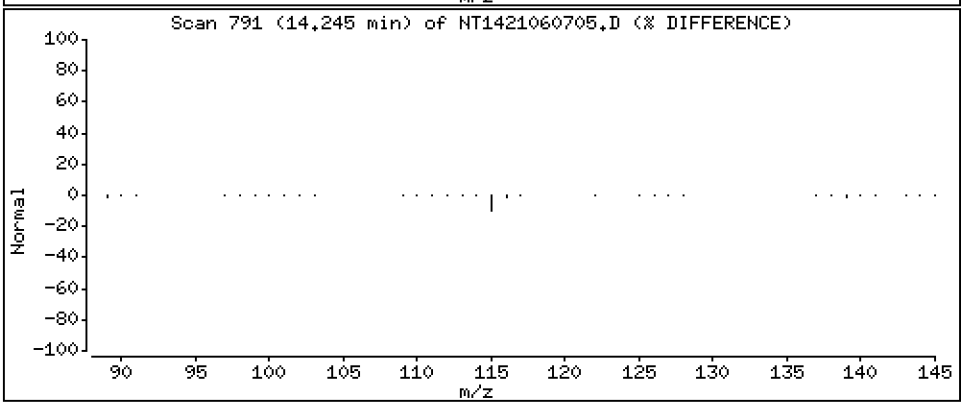












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

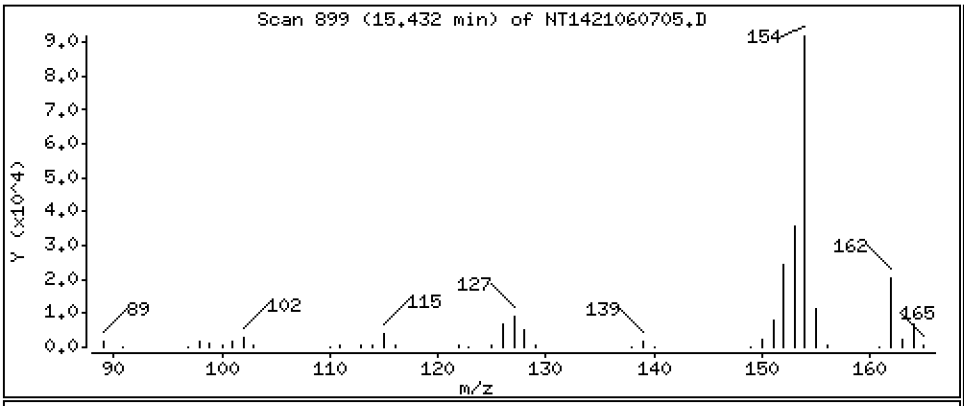
Operator: VTS

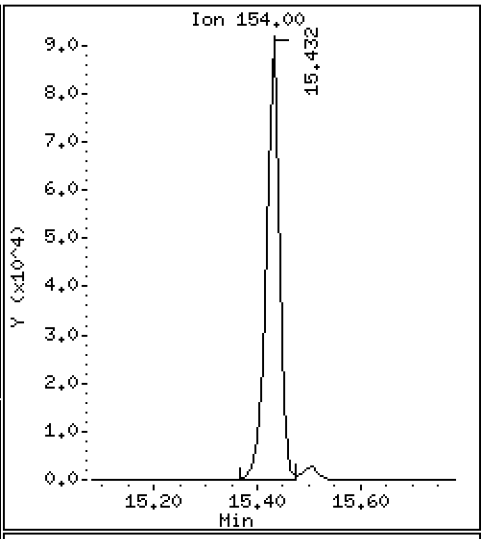
Column phase: Rxi-17Sil MS

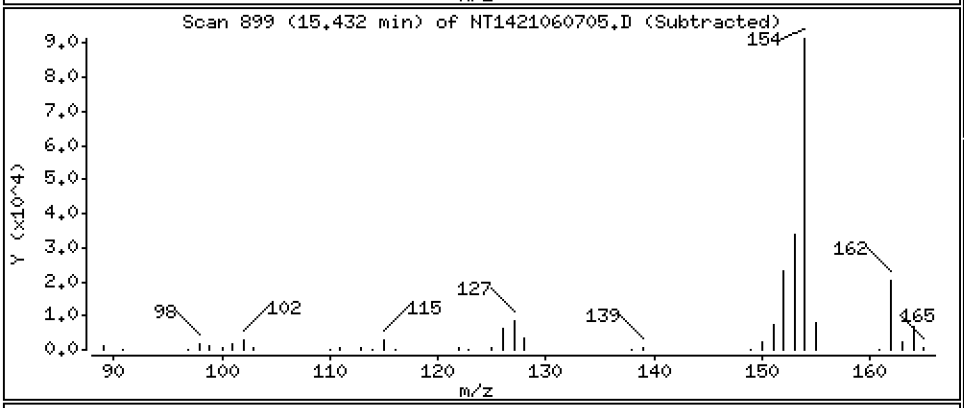
Column diameter: 0.25

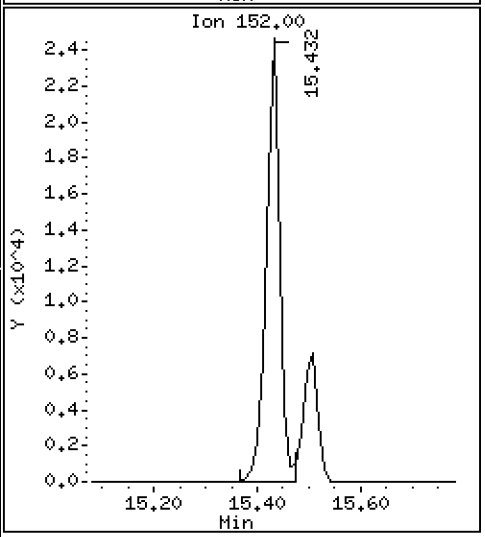
18 Biphenyl

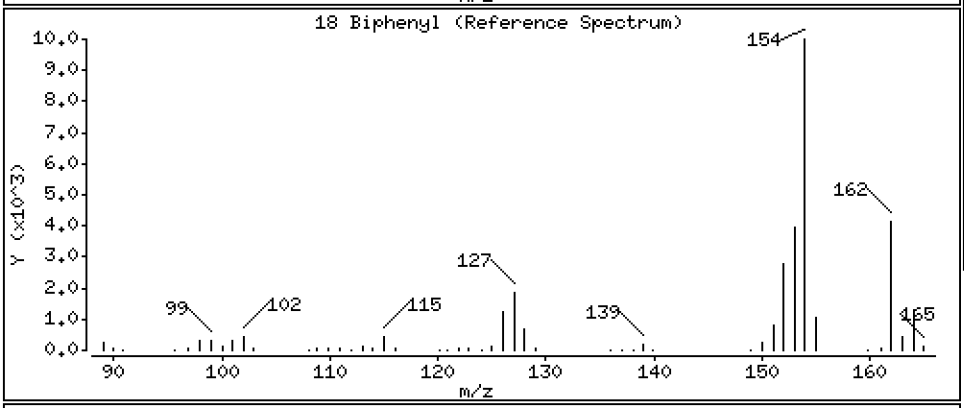
Concentration: 1.351 ug/mL

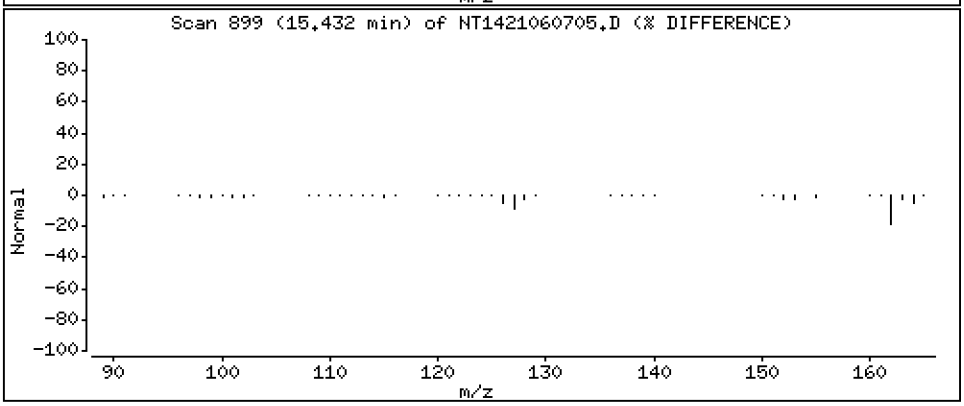












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Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

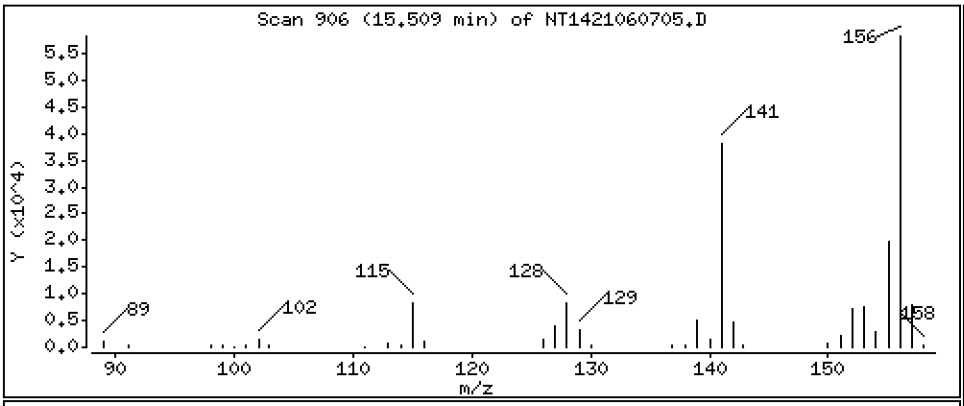
Operator: VTS

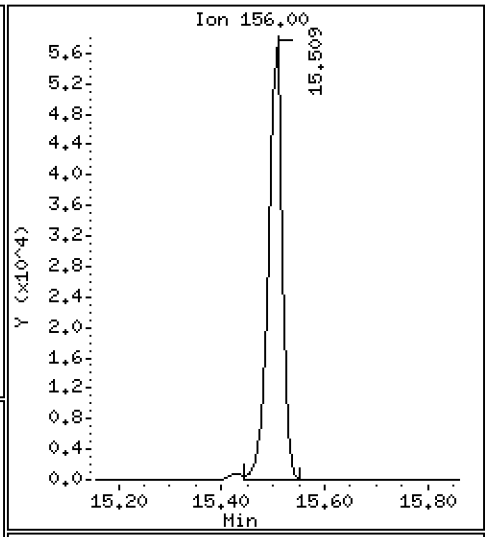
Column phase: Rxi-17Sil MS

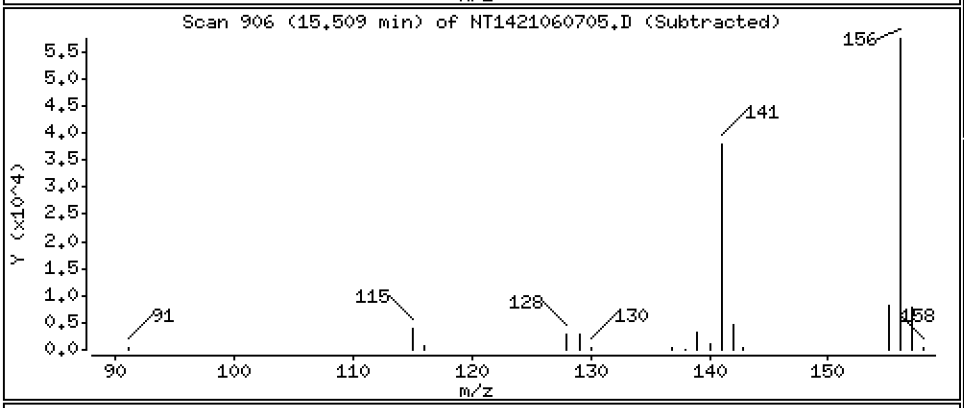
Column diameter: 0.25

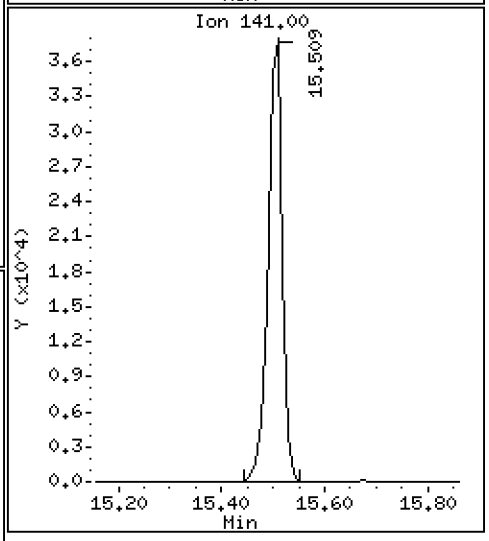
19 2,6-Dimethylnaphthalene

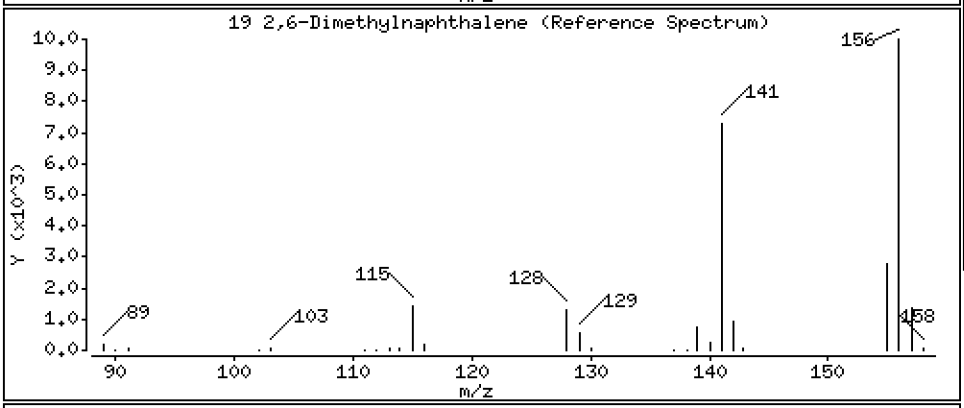
Concentration: 1.216 ug/mL

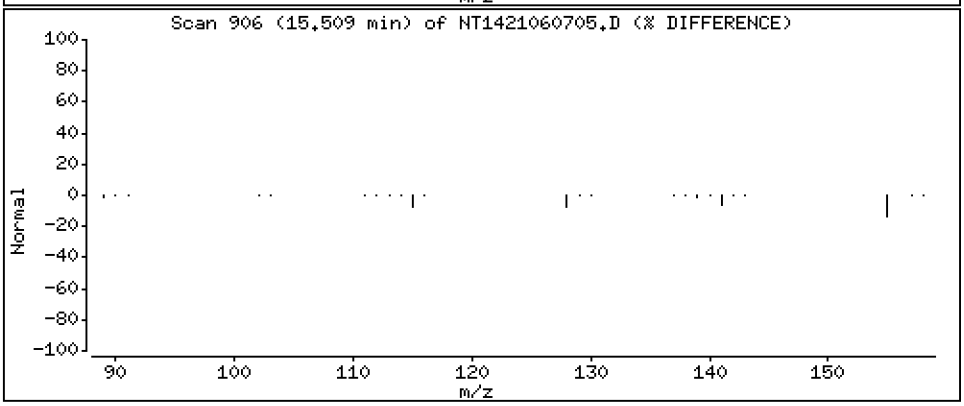












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

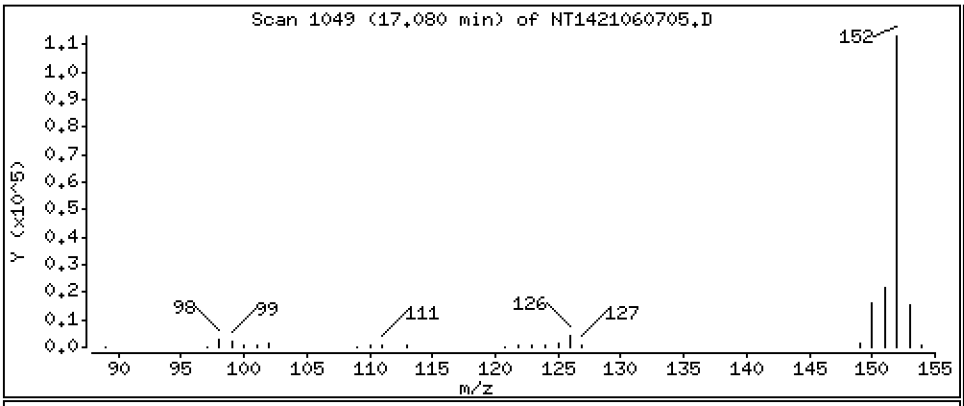
Operator: VTS

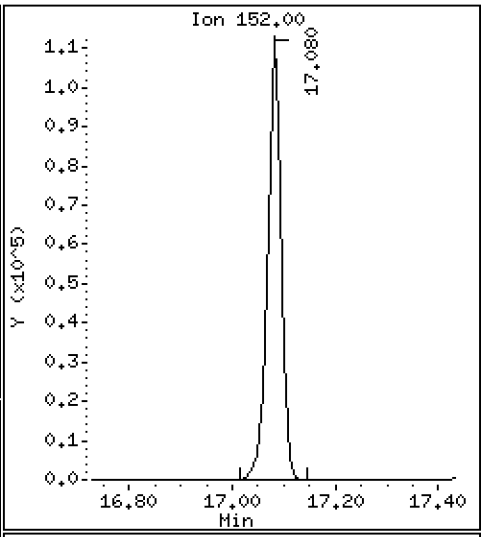
Column phase: Rxi-17Sil MS

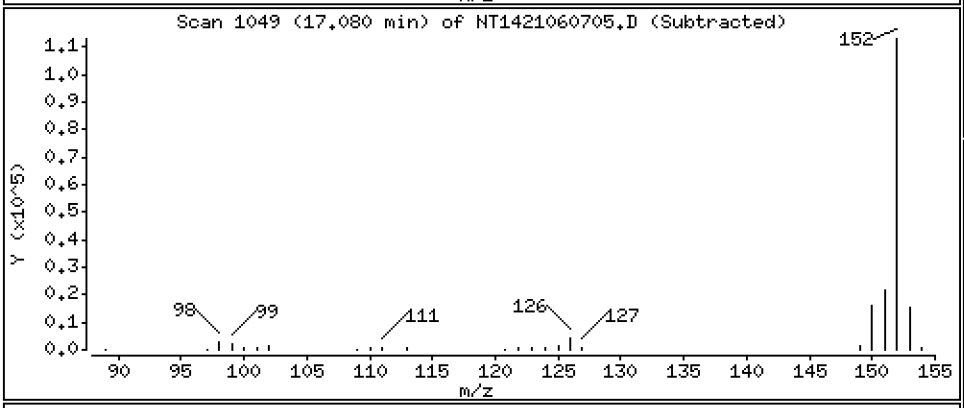
Column diameter: 0.25

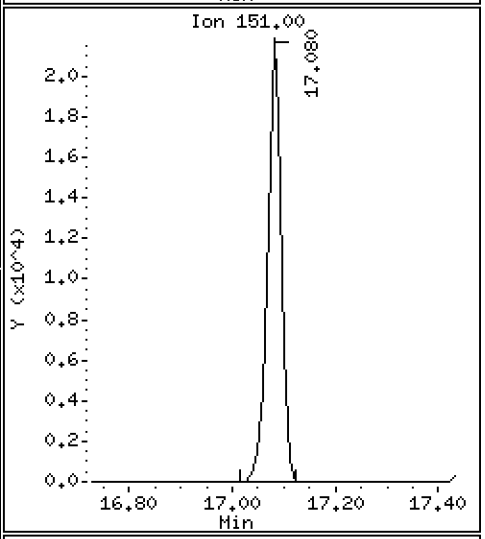
20 Acenaphthylene

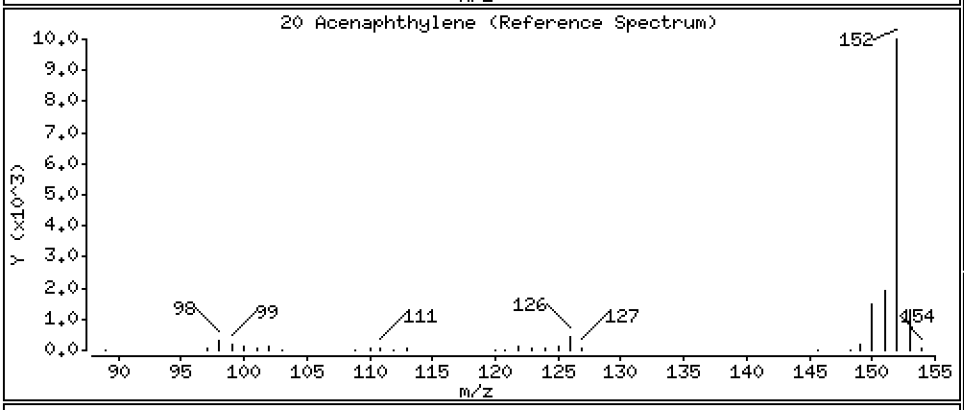
Concentration: 1.363 ug/mL

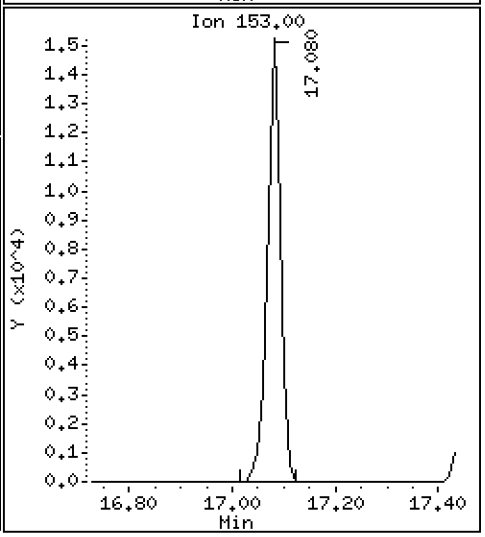


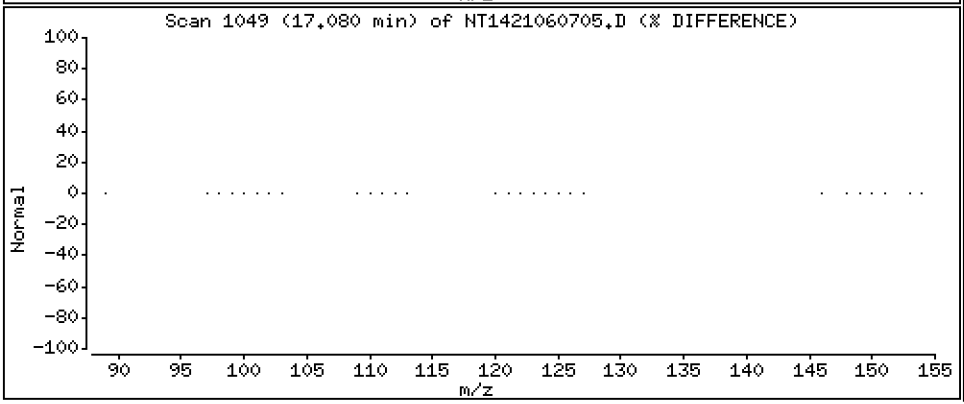












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Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

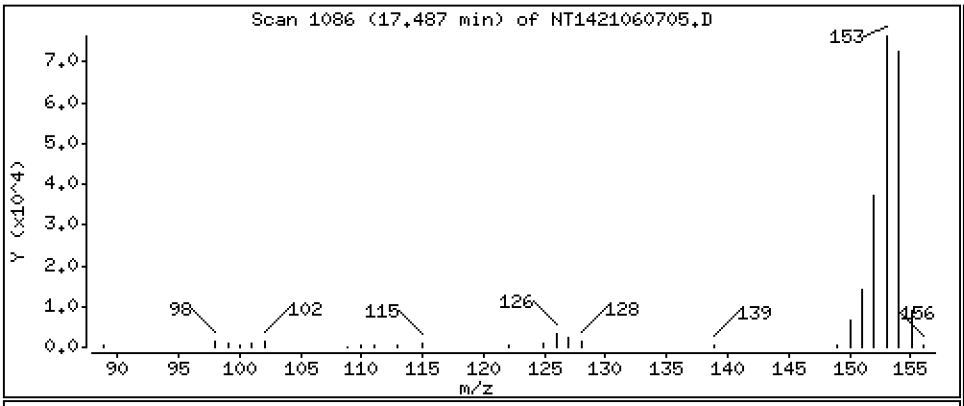
Operator: VTS

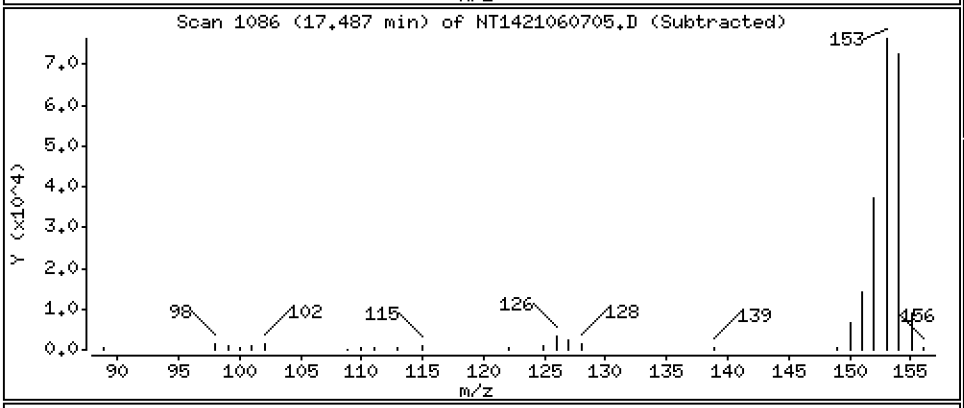
Column phase: Rxi-17Sil MS

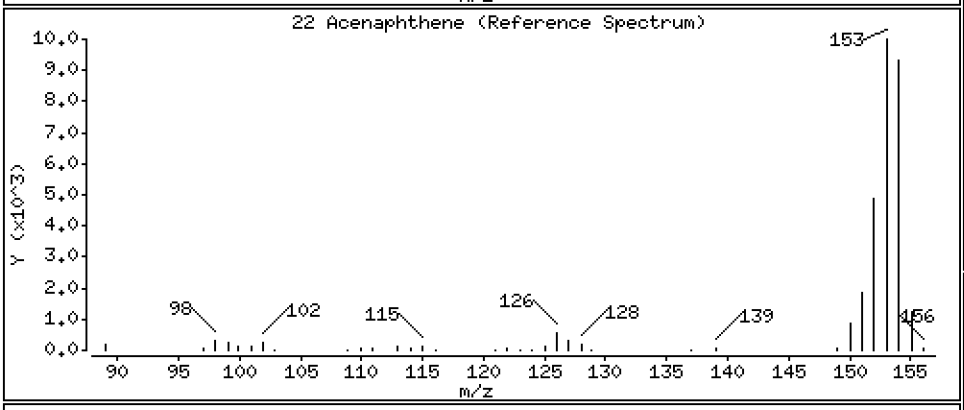
Column diameter: 0.25

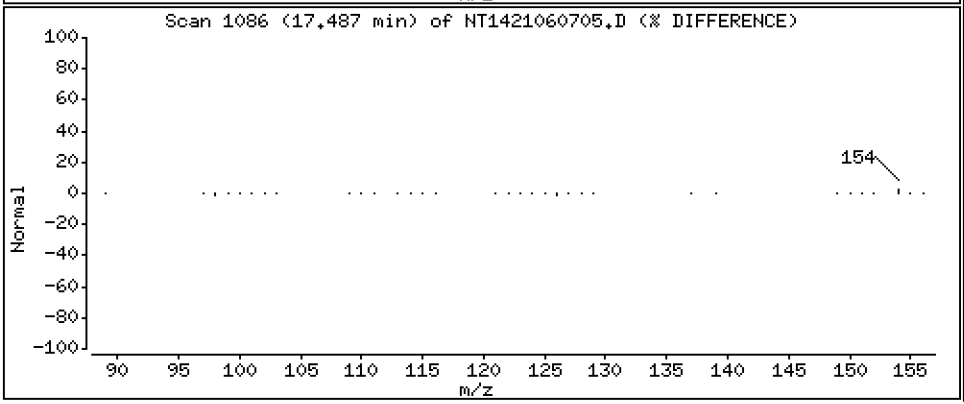
22 Acenaphthene

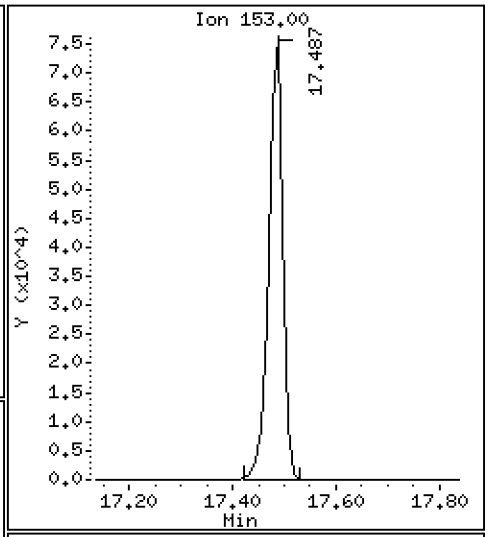
Concentration: 1.534 ug/mL

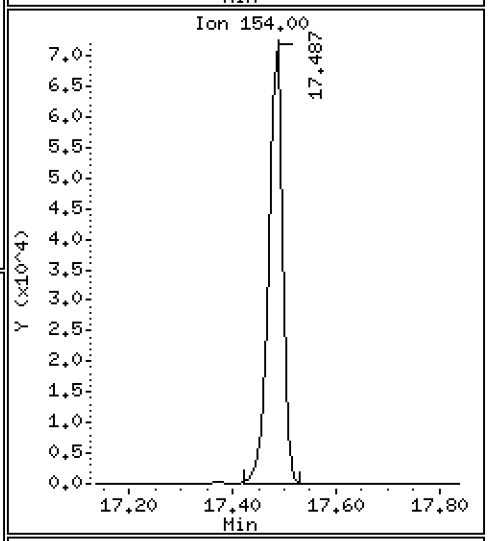


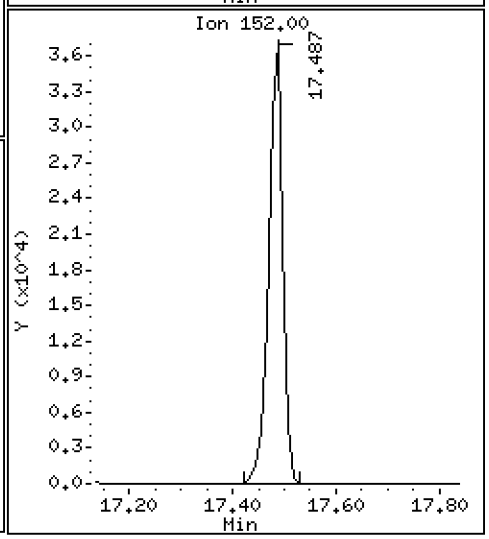












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Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

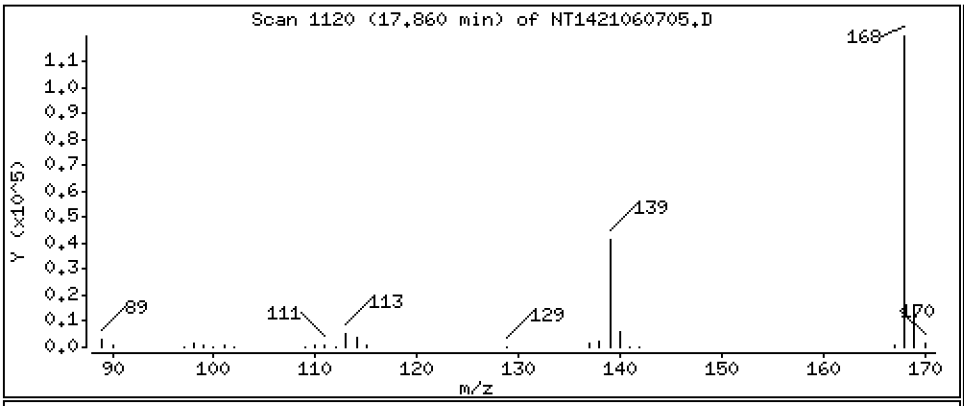
Operator: VTS

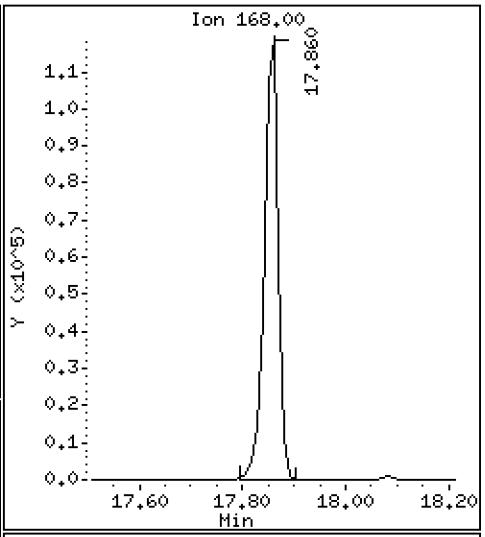
Column phase: Rxi-17Sil MS

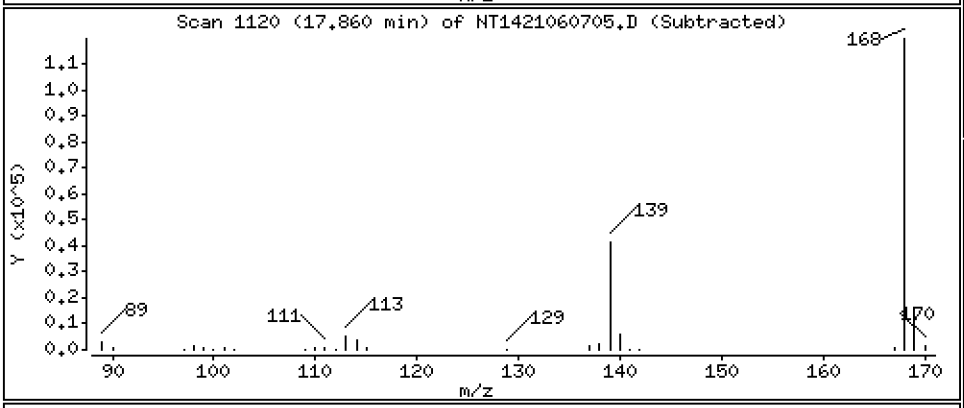
Column diameter: 0.25

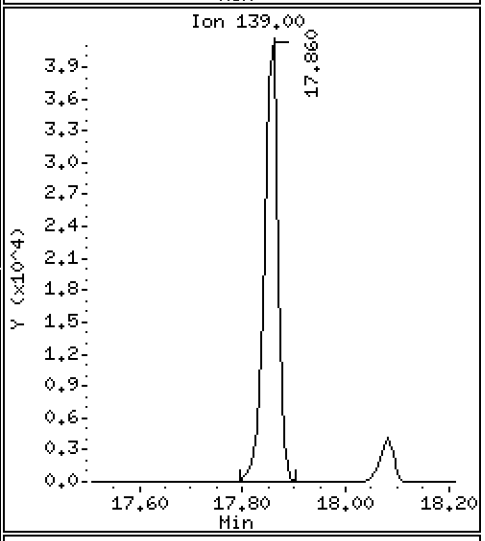
23 Dibenzofuran

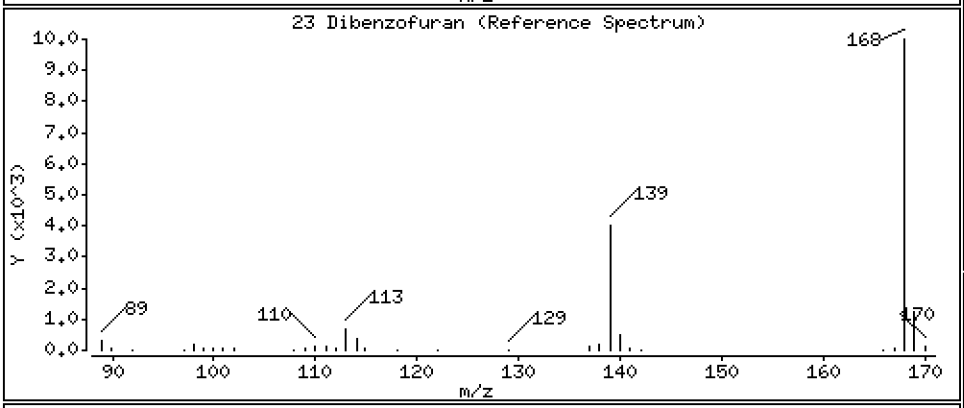
Concentration: 1.588 ug/mL

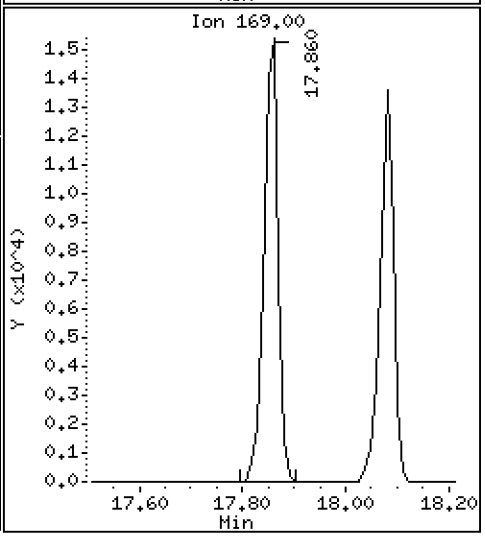


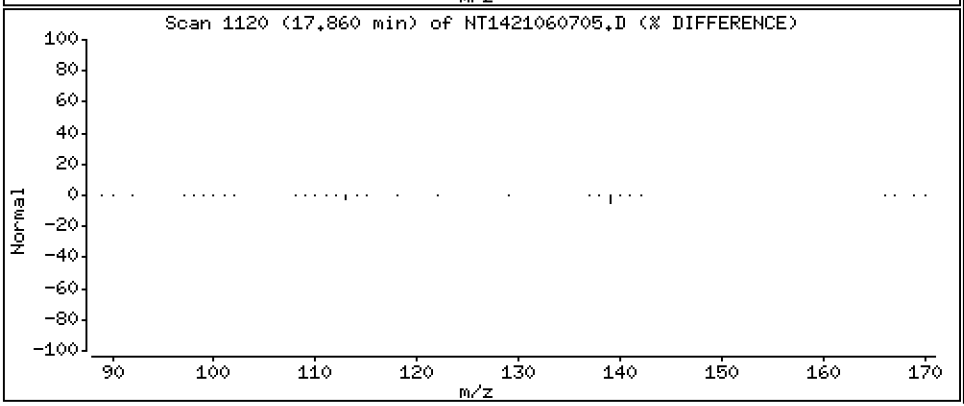












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Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

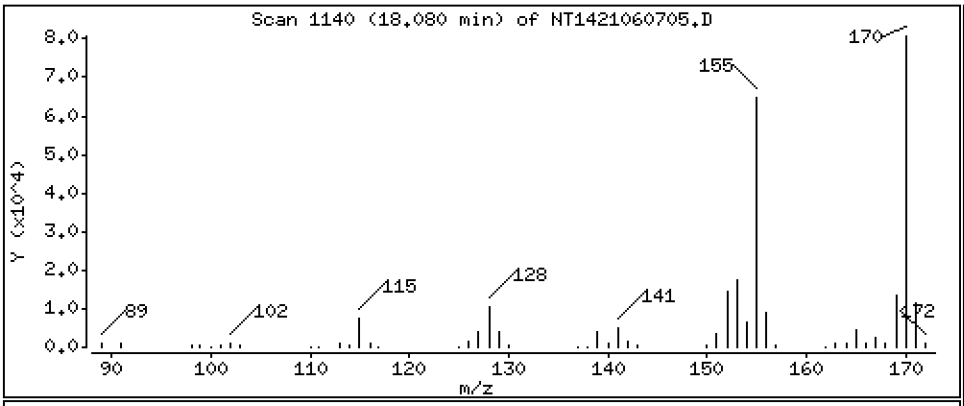
Operator: VTS

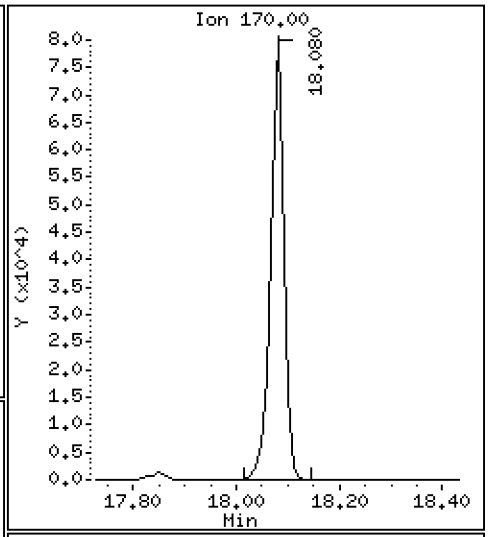
Column phase: Rxi-17Sil MS

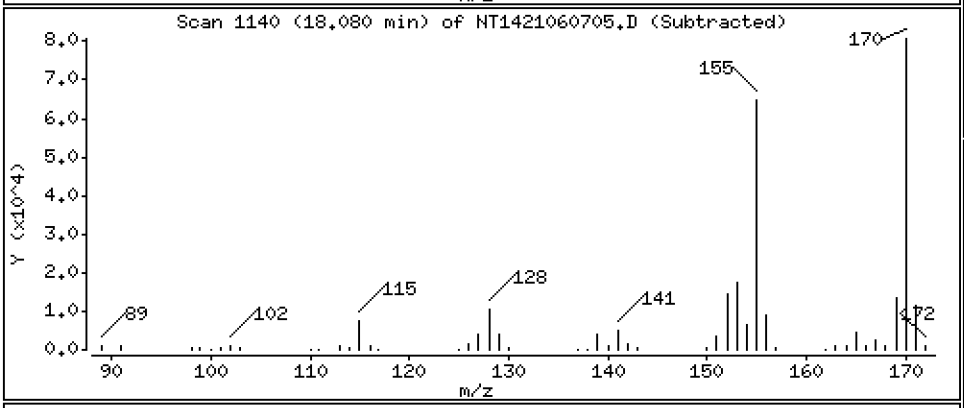
Column diameter: 0.25

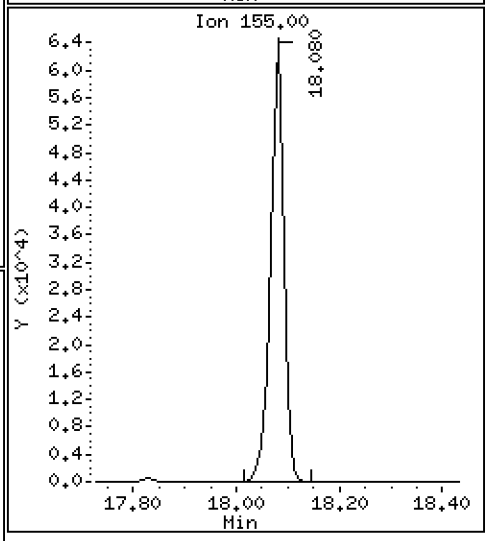
24 1,6,7-Trimethylnaphthalene

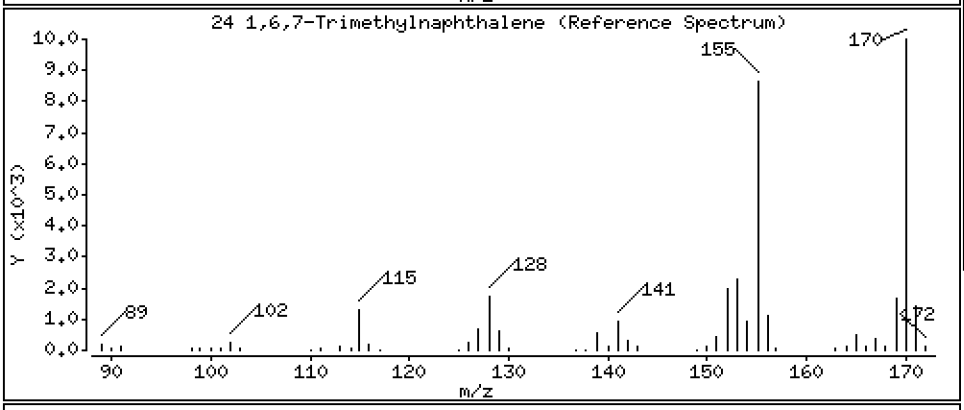
Concentration: 1.586 ug/mL

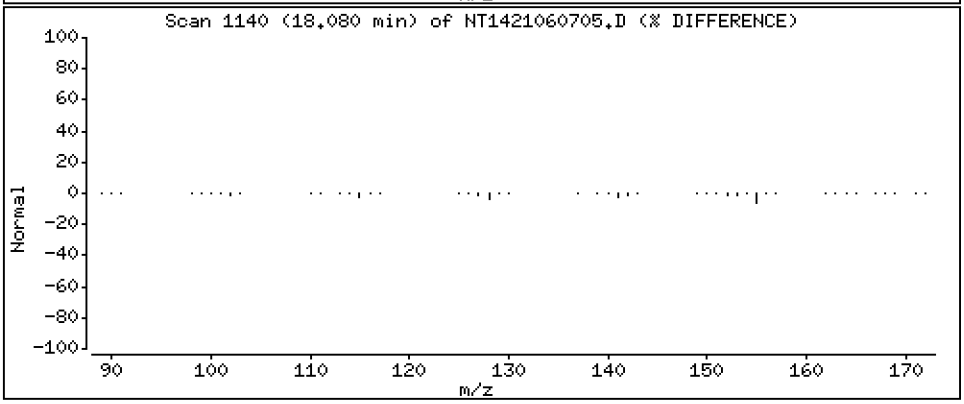












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Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

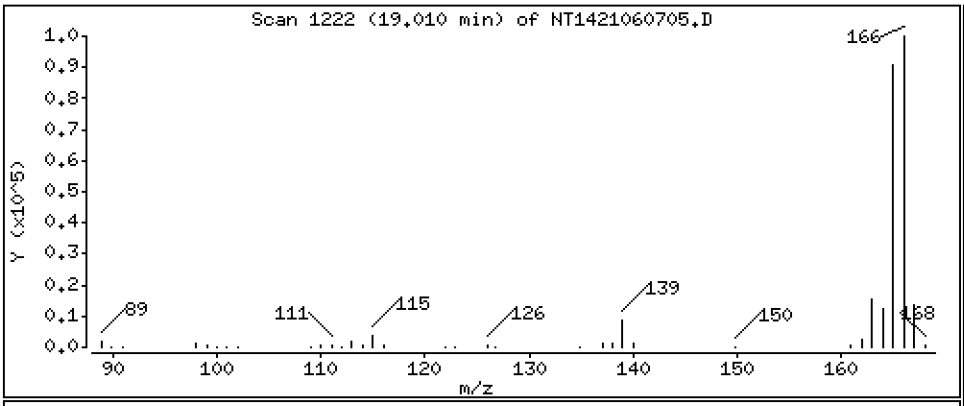
Operator: VTS

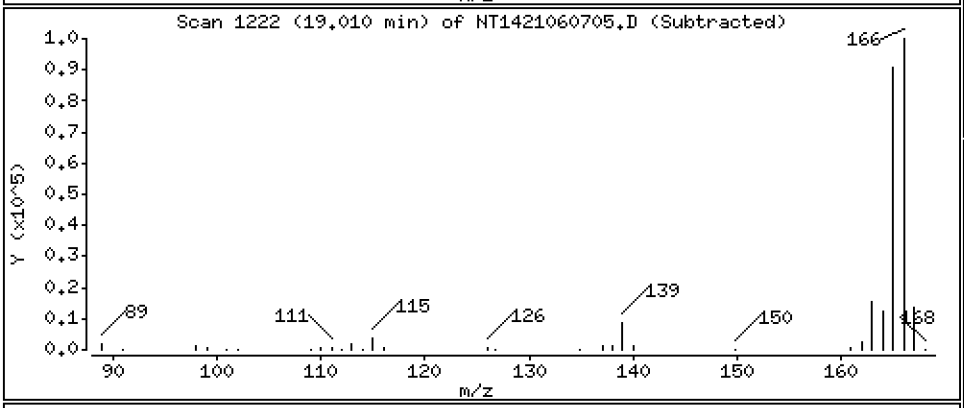
Column phase: Rxi-17Sil MS

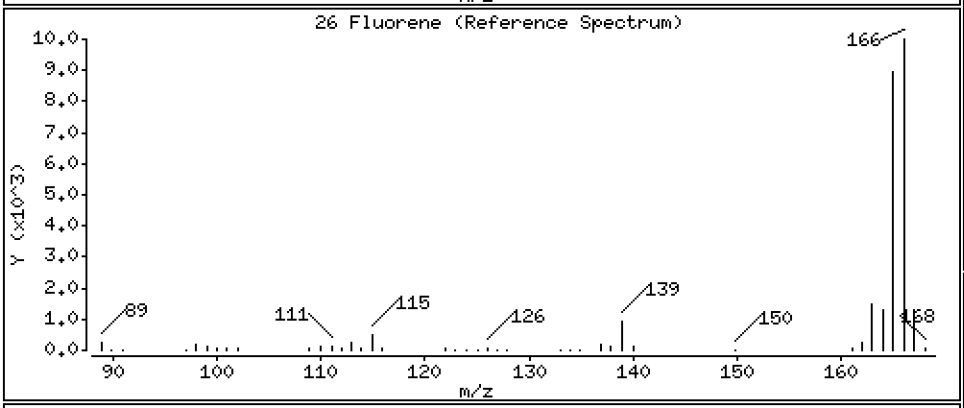
Column diameter: 0.25

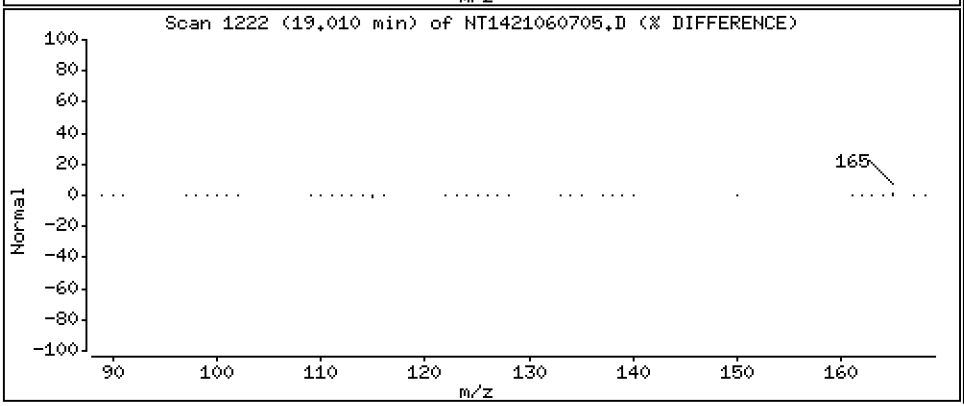
26 Fluorene

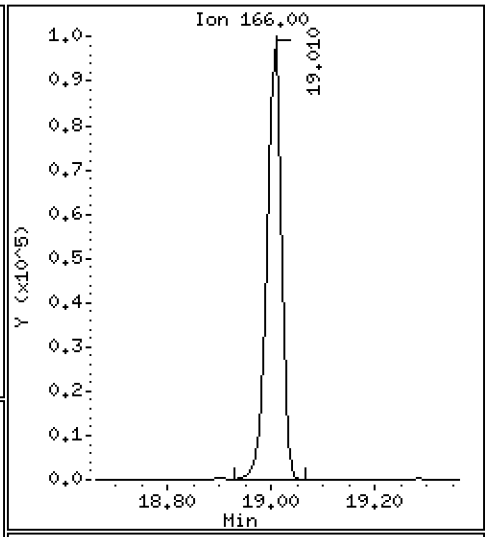
Concentration: 1.711 ug/mL

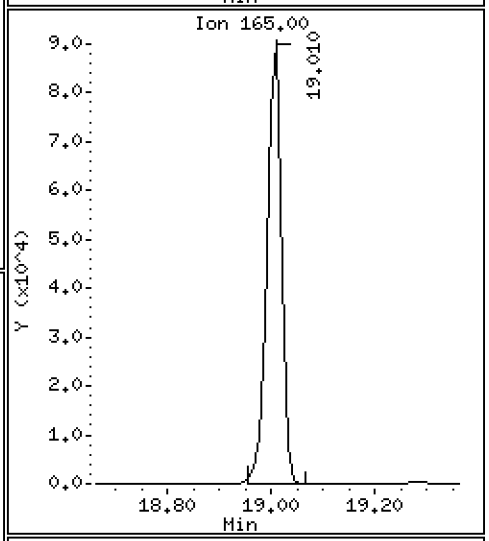


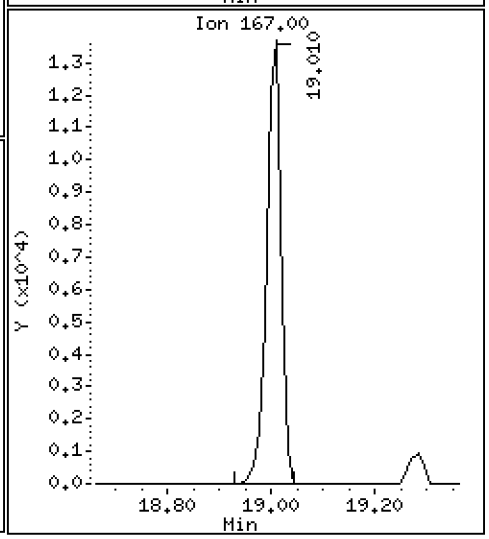












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Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

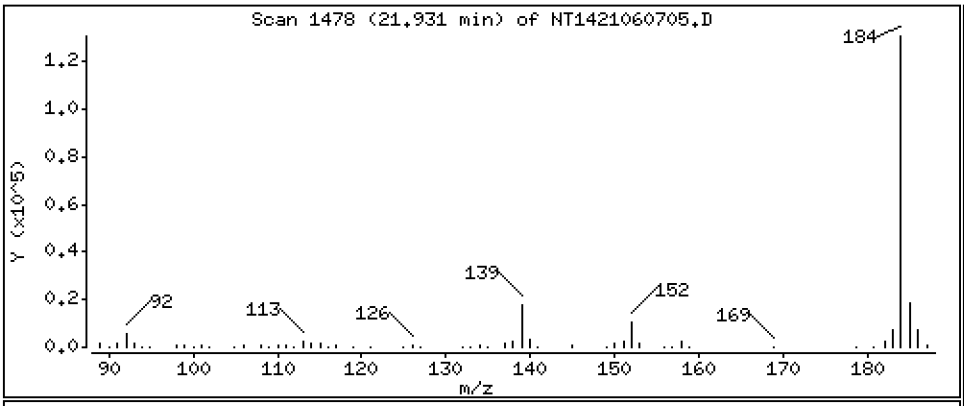
Operator: VTS

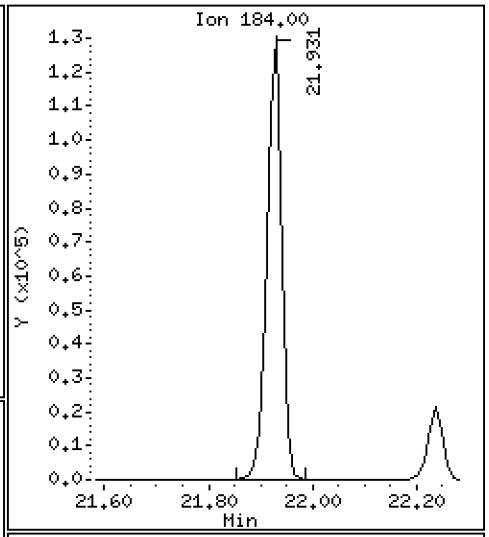
Column phase: Rxi-17Sil MS

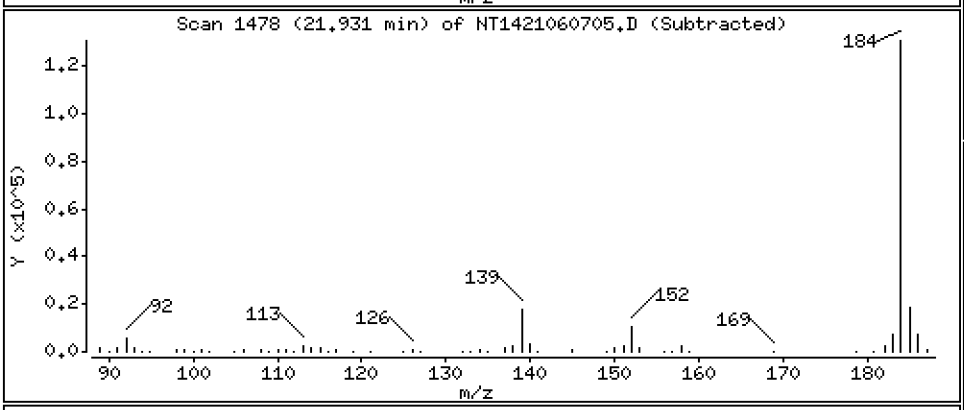
Column diameter: 0.25

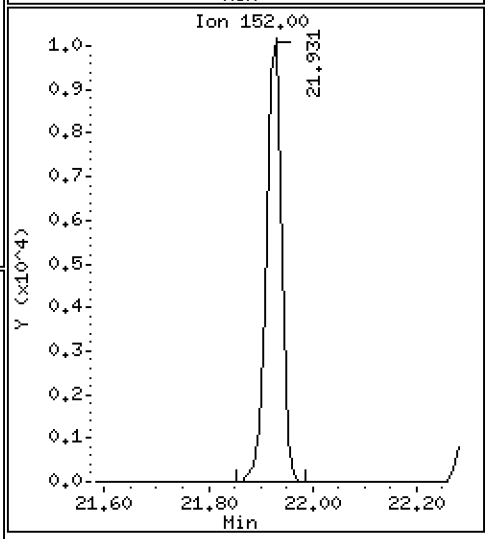
30 Dibenzothiophene

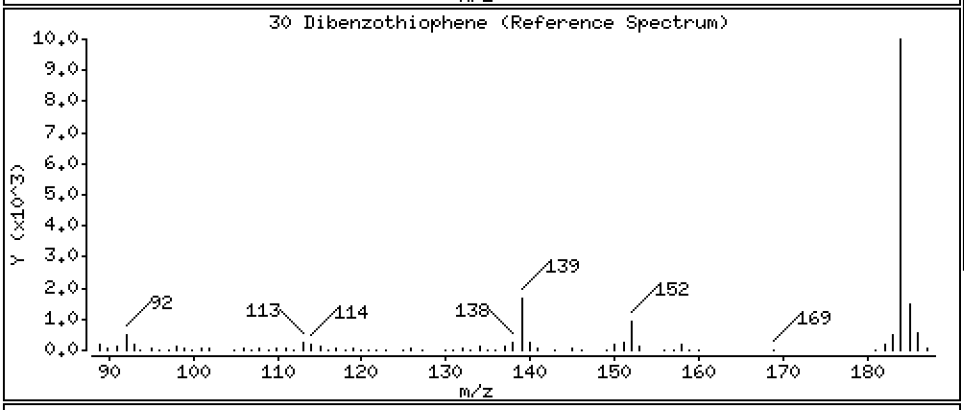
Concentration: 1.563 ug/mL

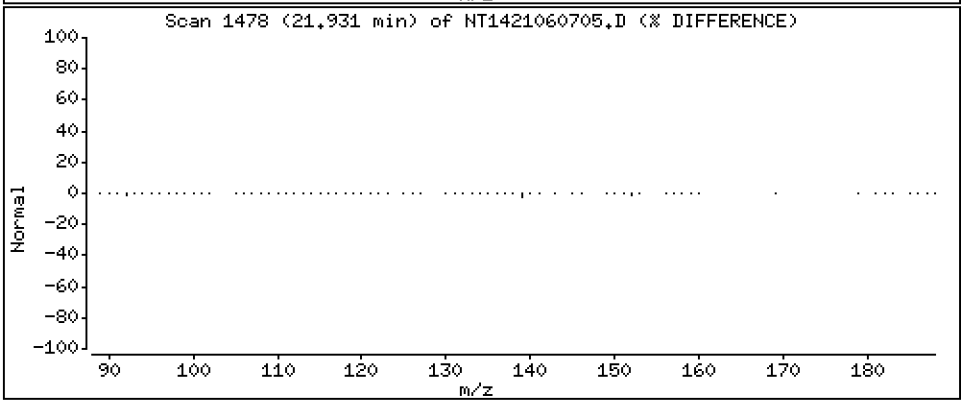












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

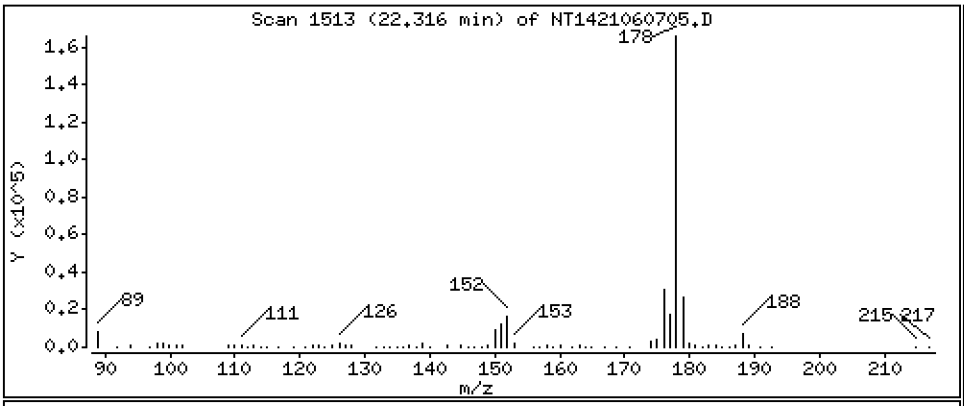
Operator: VTS

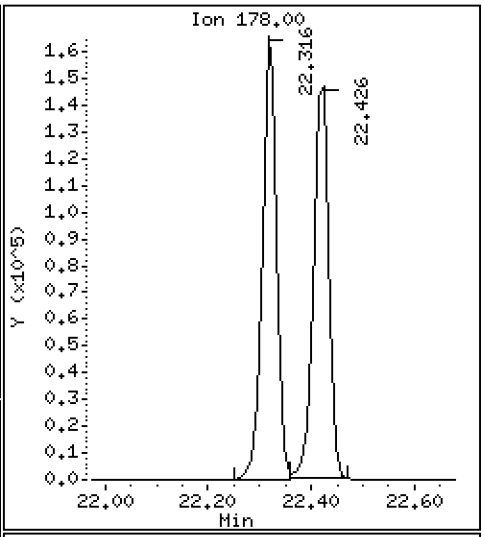
Column phase: Rxi-17Sil MS

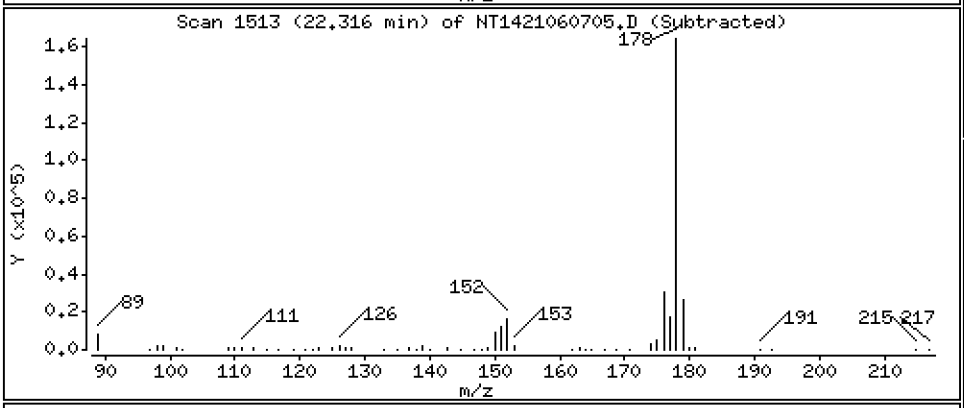
Column diameter: 0.25

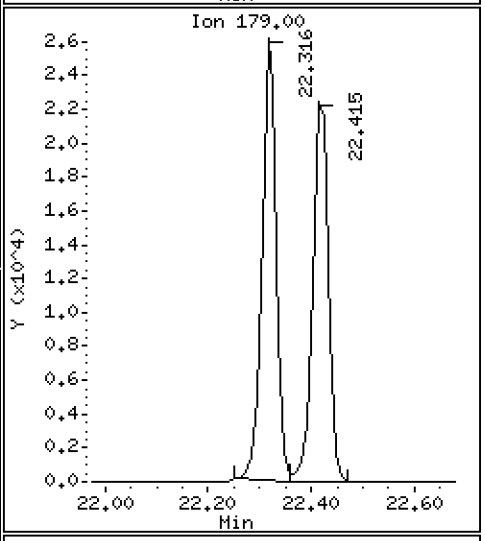
36 Phenanthrene

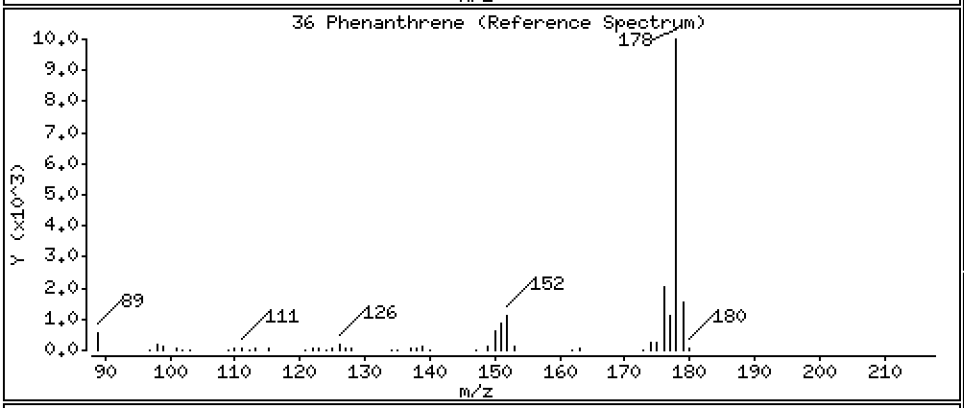
Concentration: 1.975 ug/mL

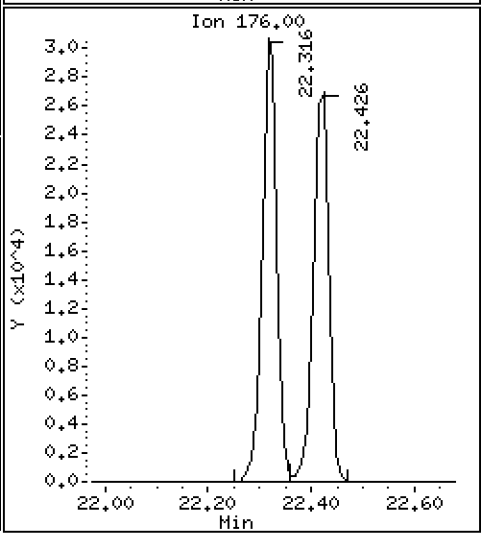


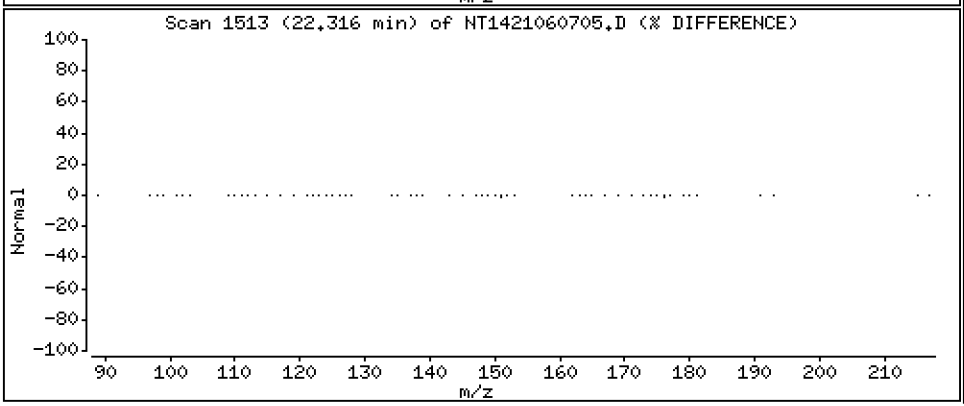












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

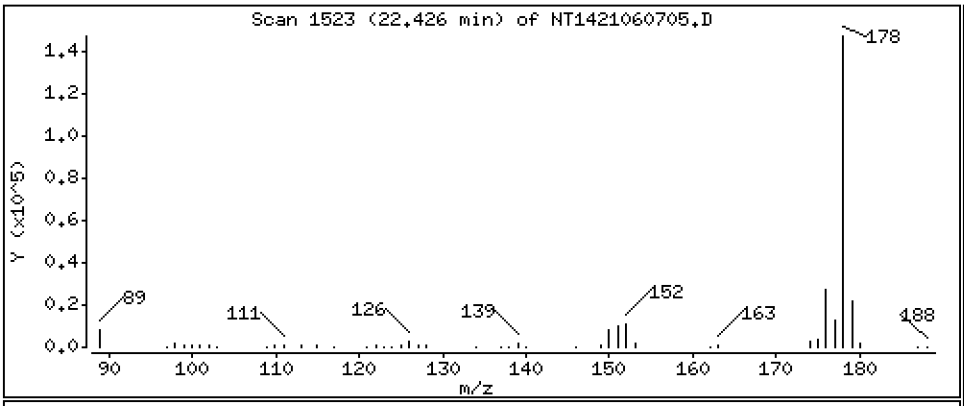
Operator: VTS

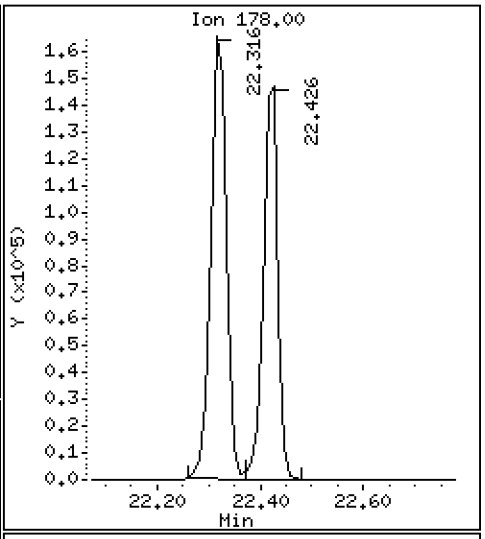
Column phase: Rxi-17Sil MS

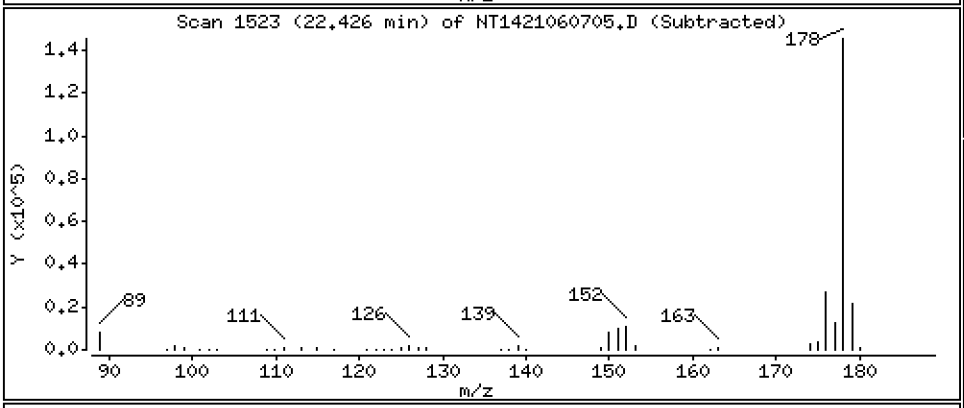
Column diameter: 0.25

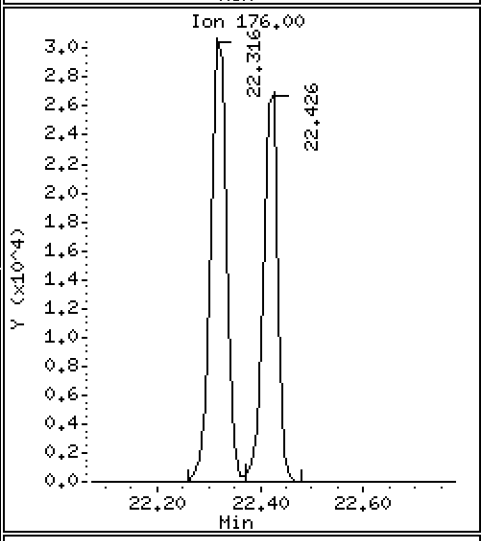
37 Anthracene

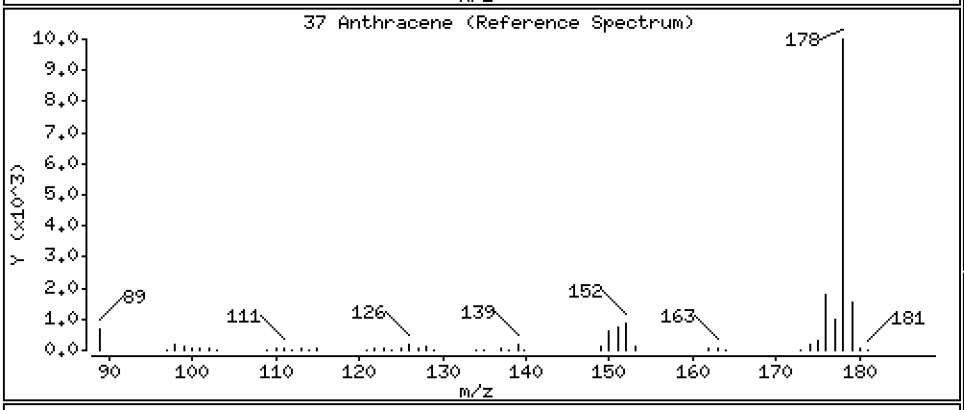
Concentration: 1.848 ug/mL

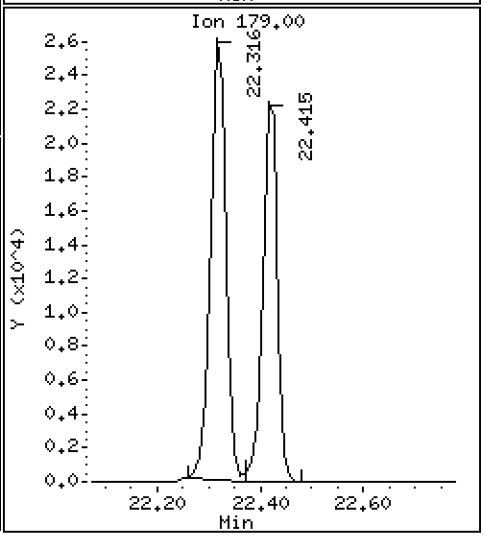


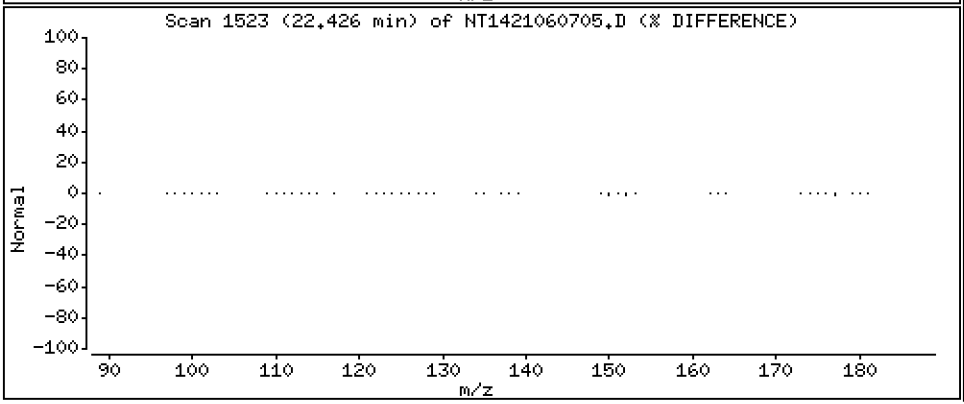












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

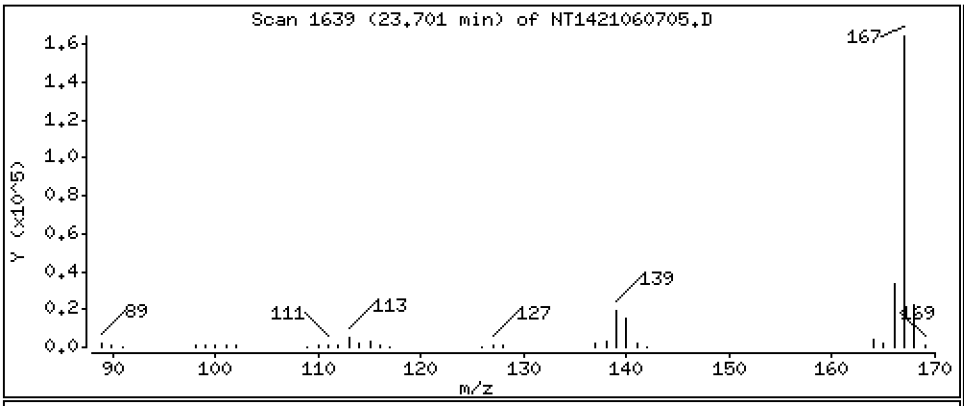
Operator: VTS

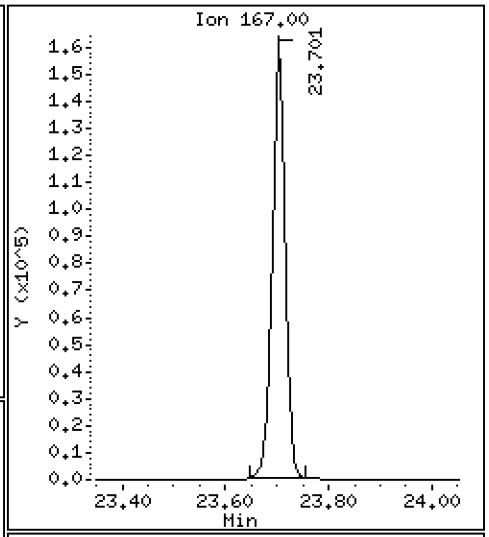
Column phase: Rxi-17Sil MS

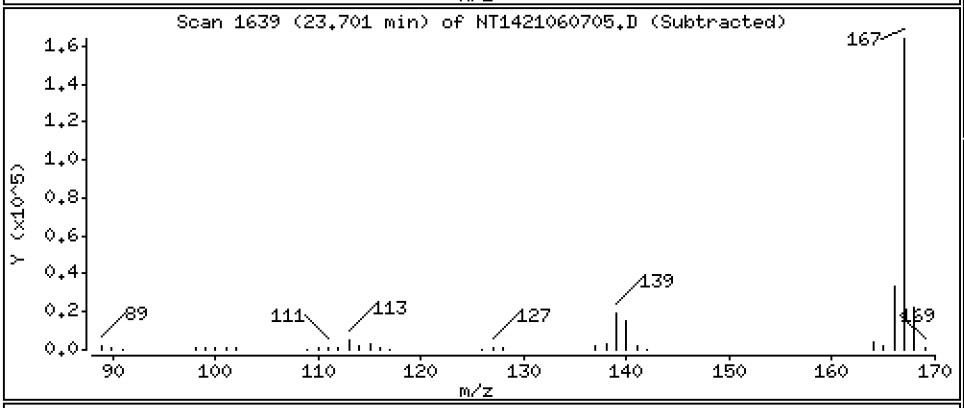
Column diameter: 0.25

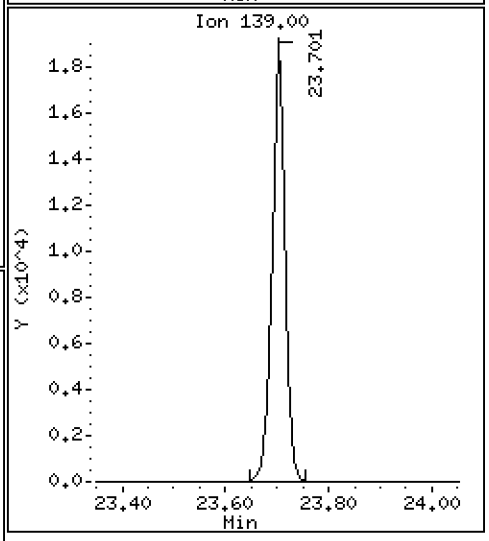
42 Carbazole

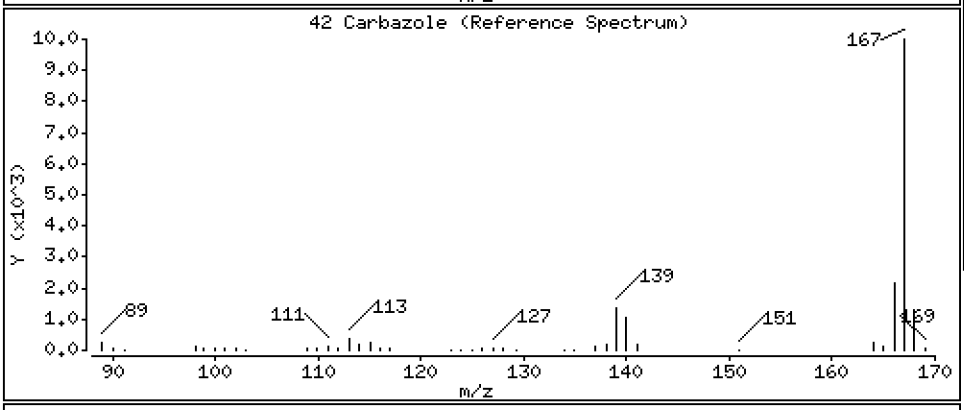
Concentration: 1.997 ug/mL

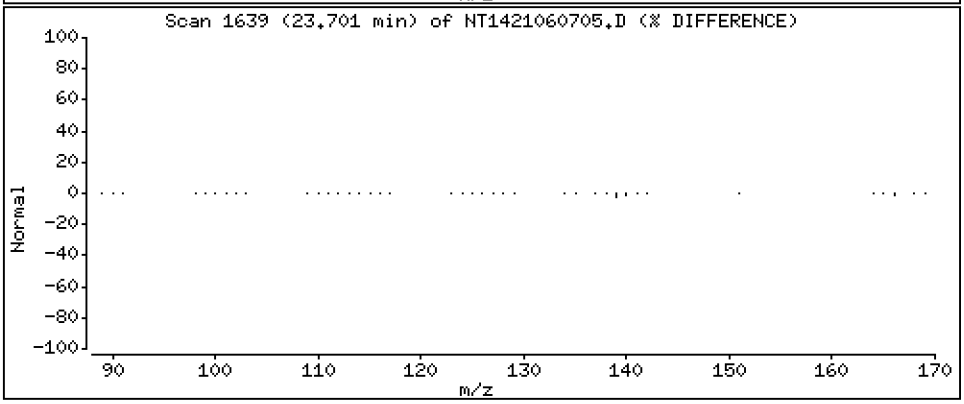












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

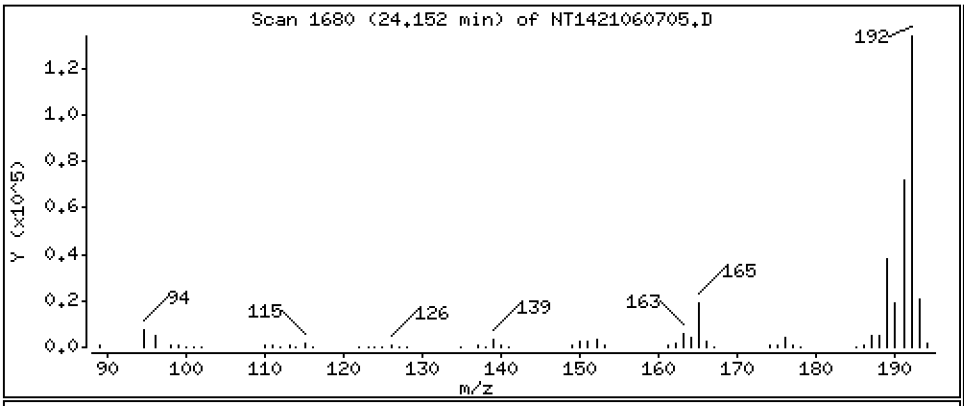
Operator: VTS

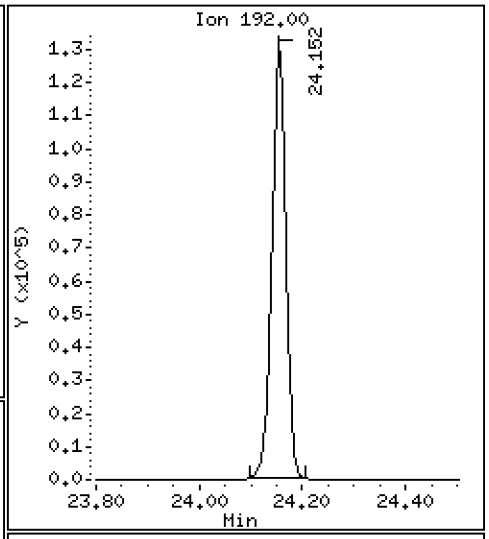
Column phase: Rxi-17Sil MS

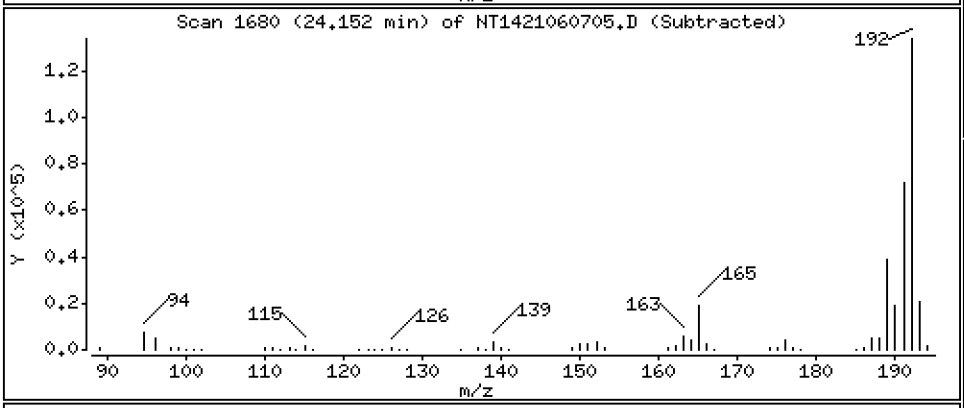
Column diameter: 0.25

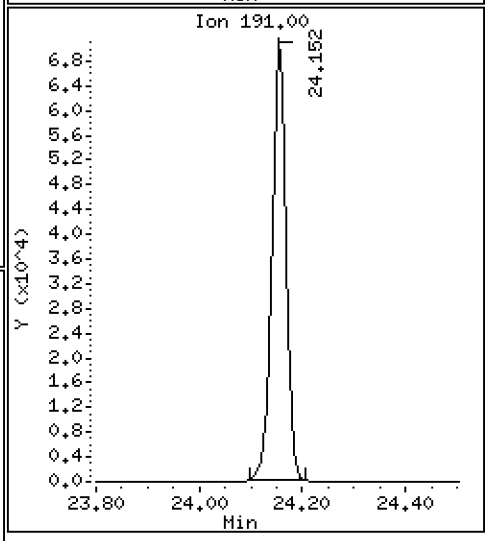
43 1-Methylphenanthrene

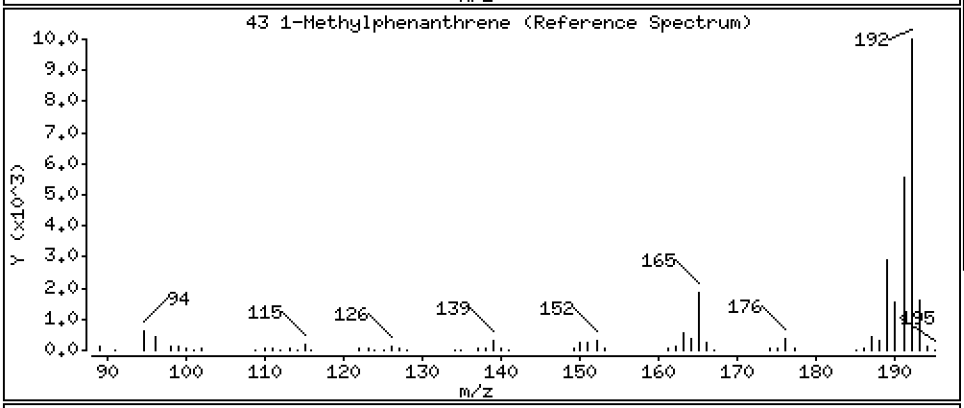
Concentration: 2.160 ug/mL

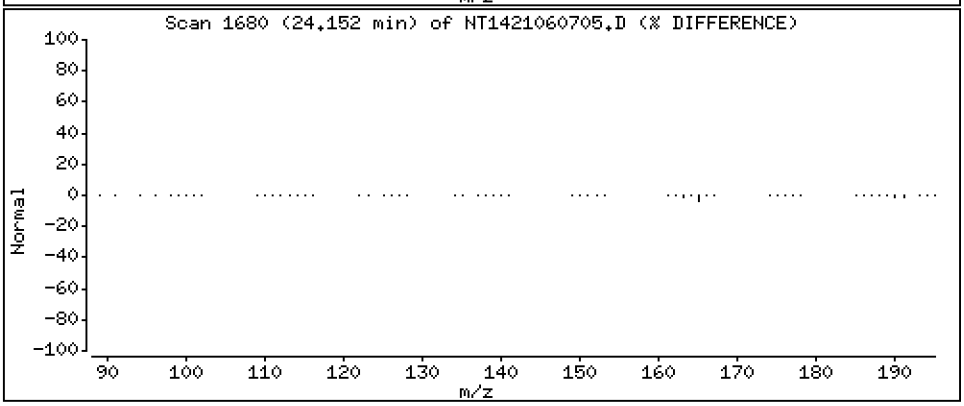












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Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

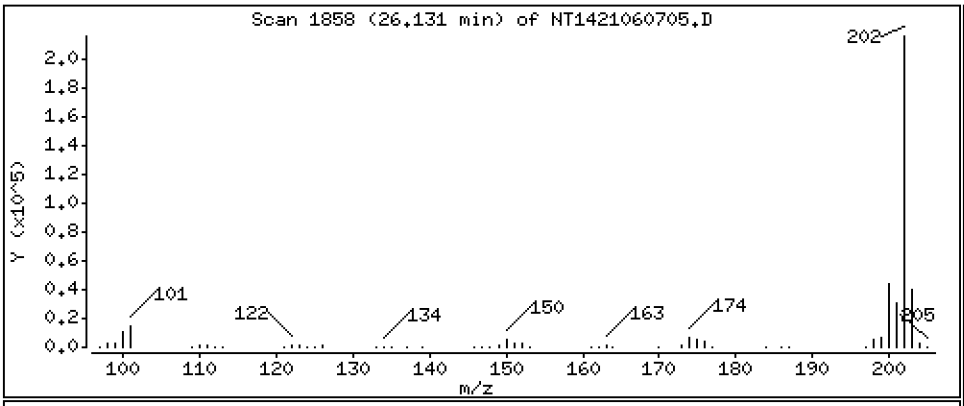
Operator: VTS

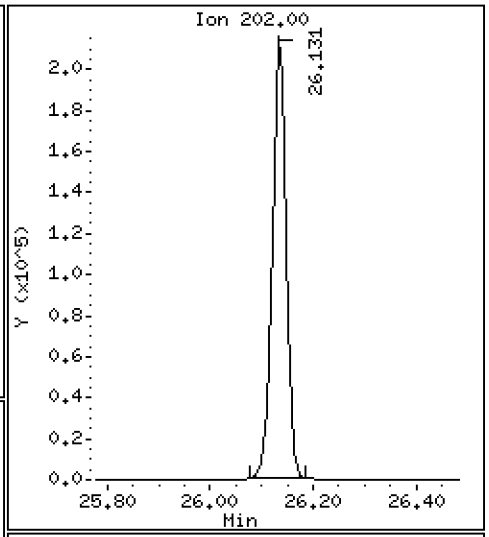
Column phase: Rxi-17Sil MS

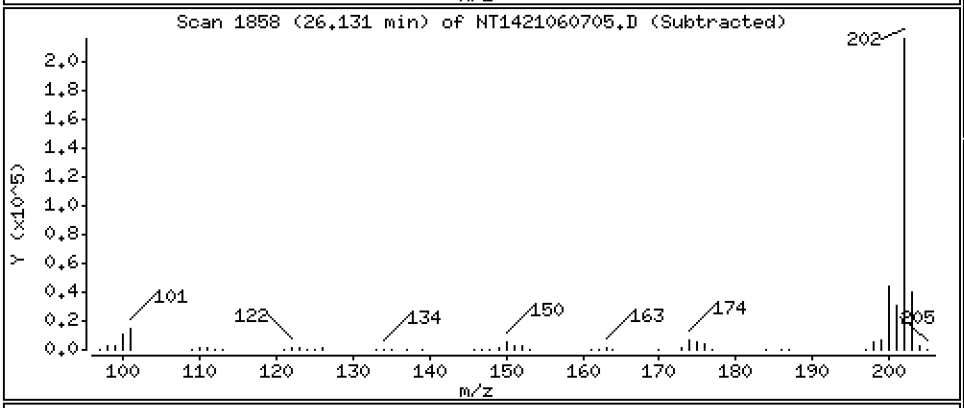
Column diameter: 0.25

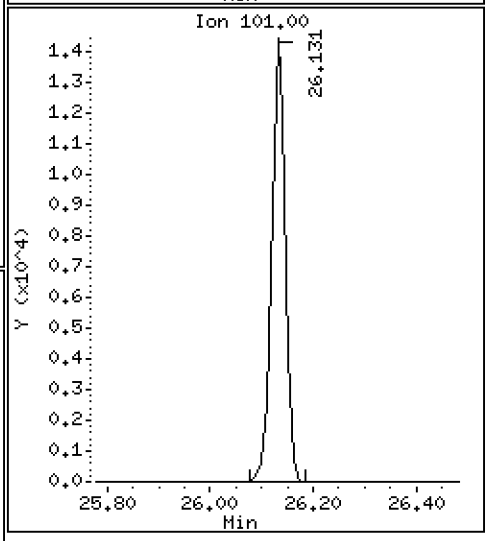
44 Fluoranthene

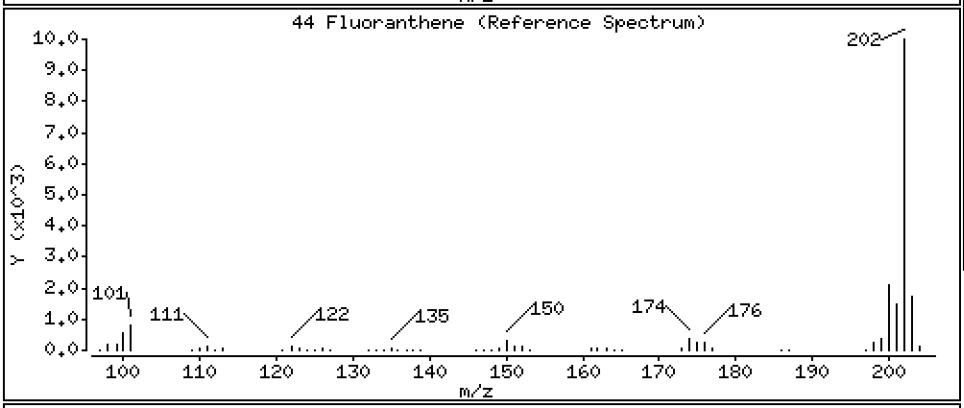
Concentration: 2.275 ug/mL

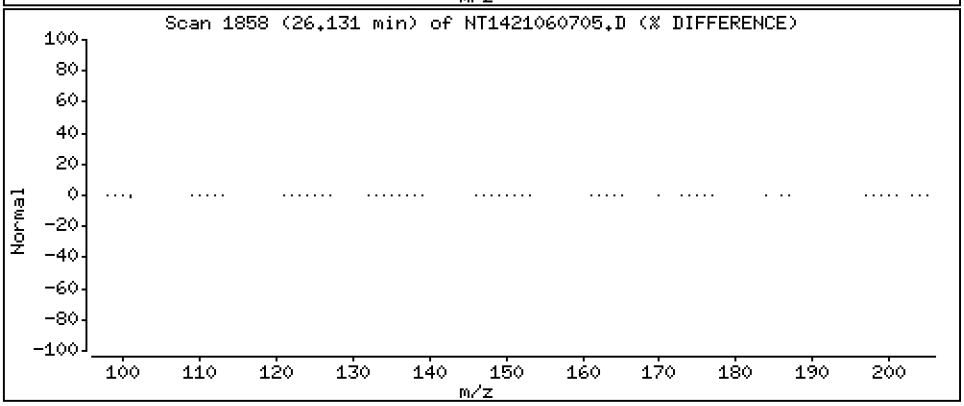












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

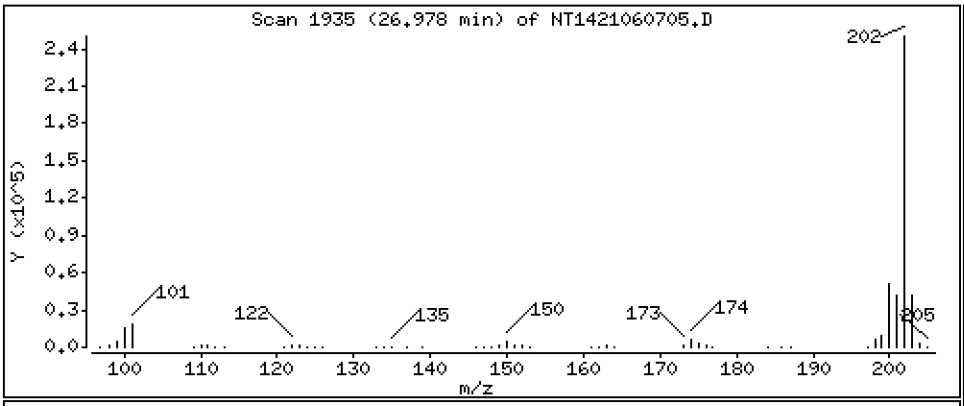
Operator: VTS

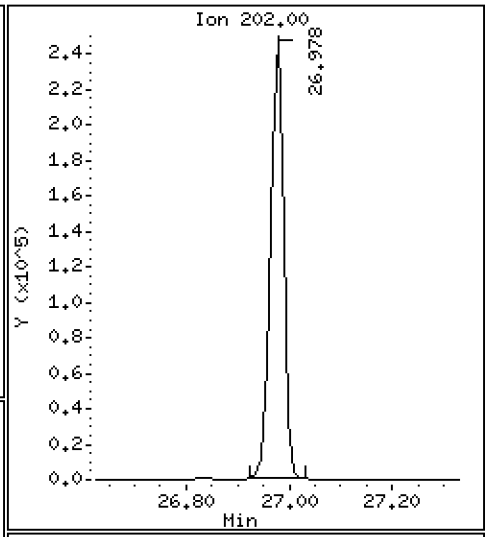
Column phase: Rxi-17Sil MS

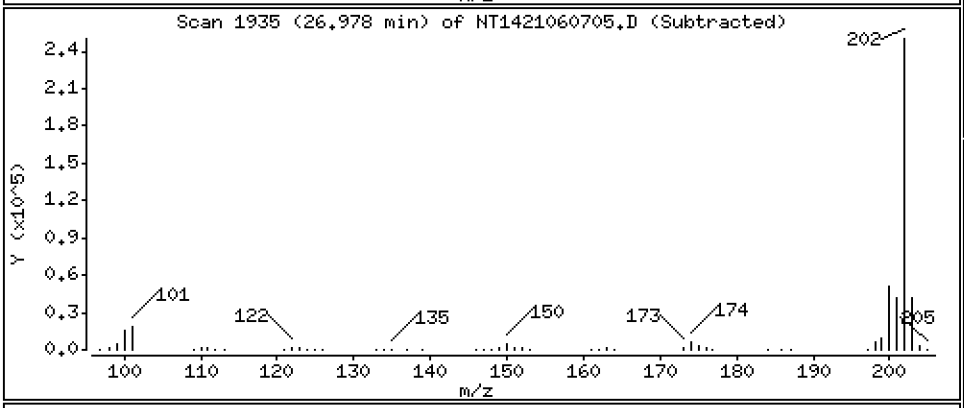
Column diameter: 0.25

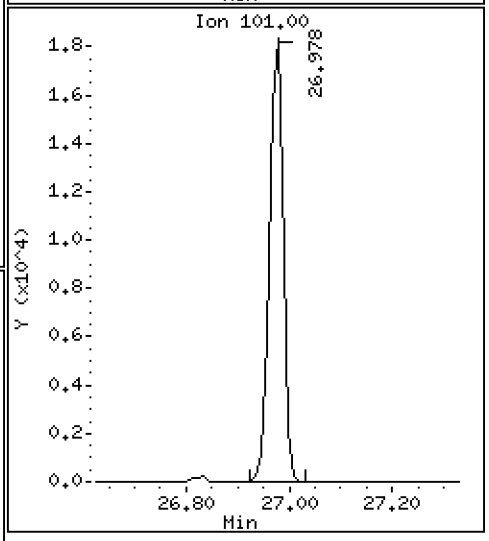
46 Pyrene

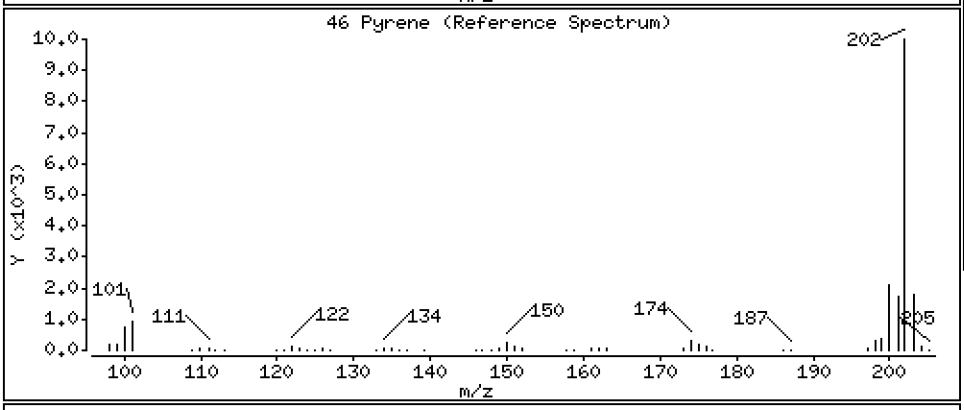
Concentration: 2.284 ug/mL

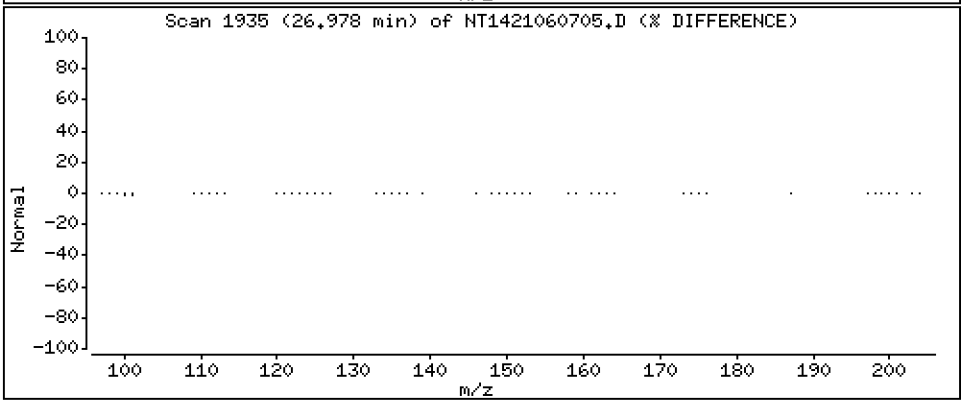












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

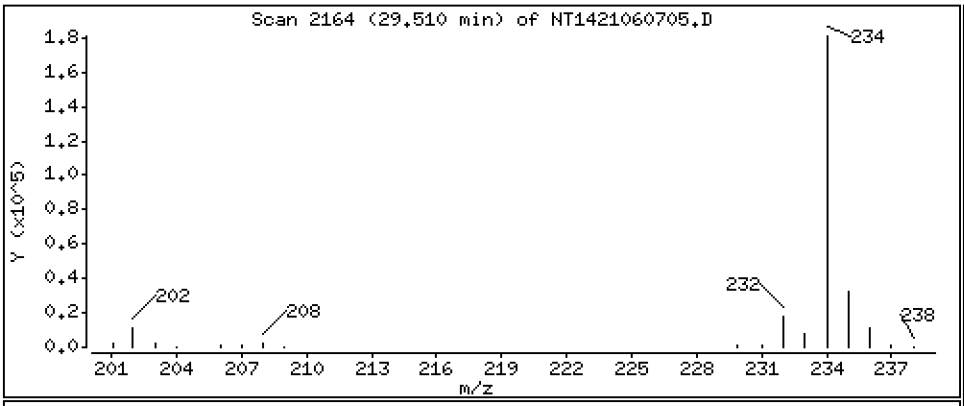
Operator: VTS

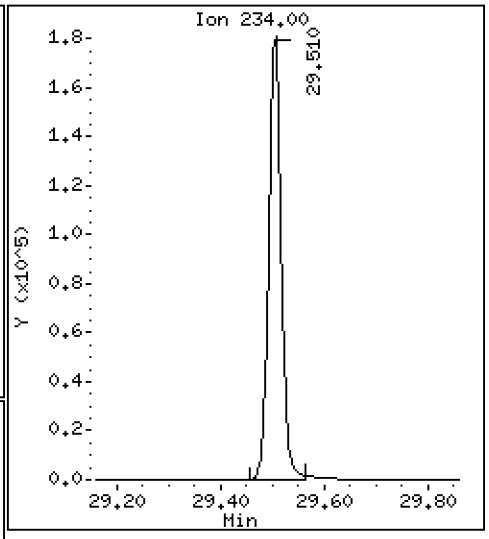
Column phase: Rxi-17Sil MS

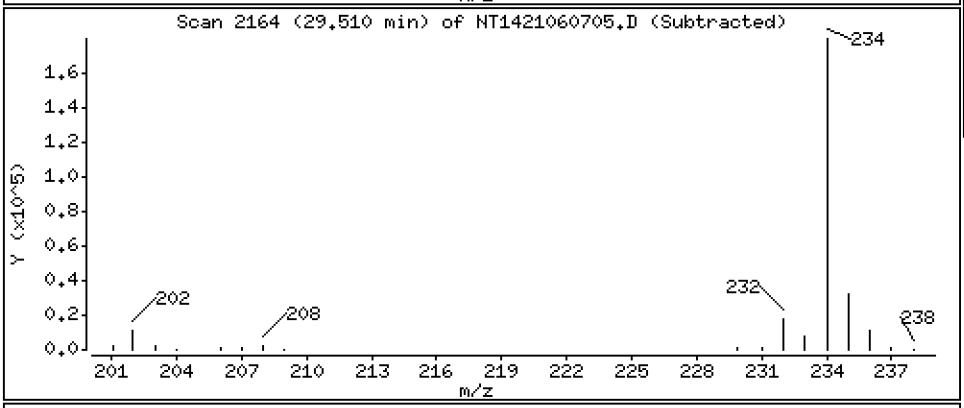
Column diameter: 0.25

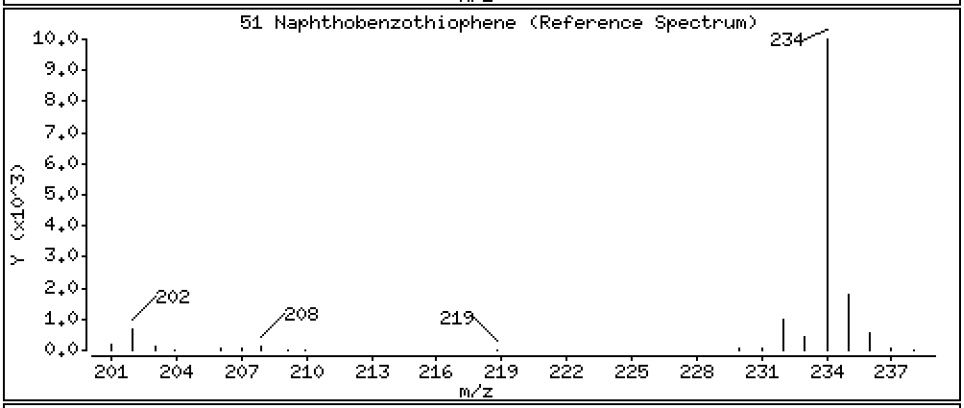
51 Naphthobenzothiophene

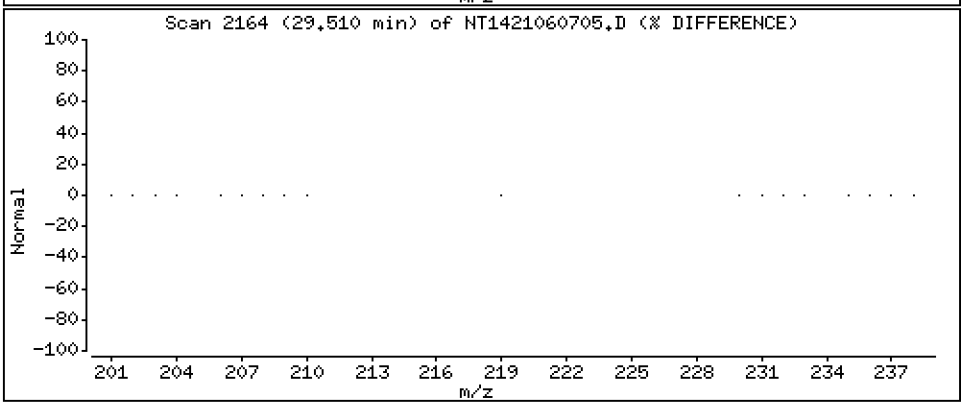
Concentration: 1.571 ug/mL











Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

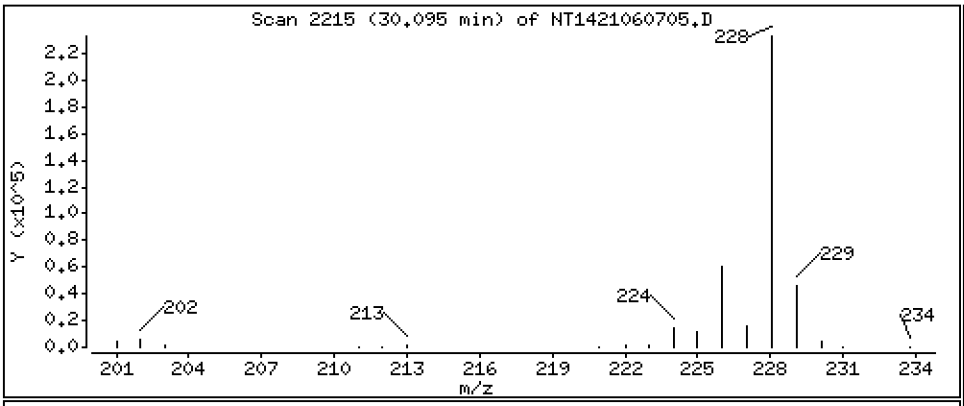
Operator: VTS

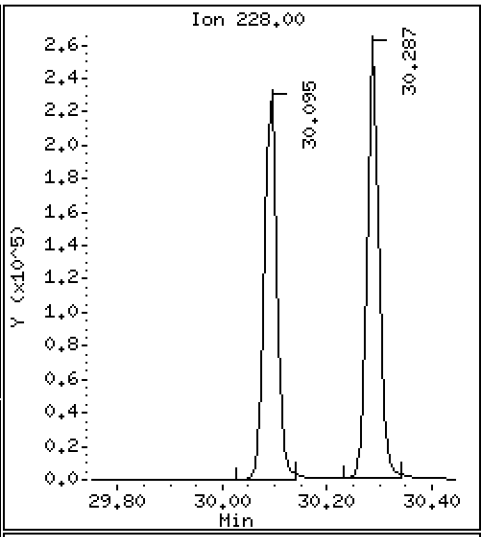
Column phase: Rxi-17Sil MS

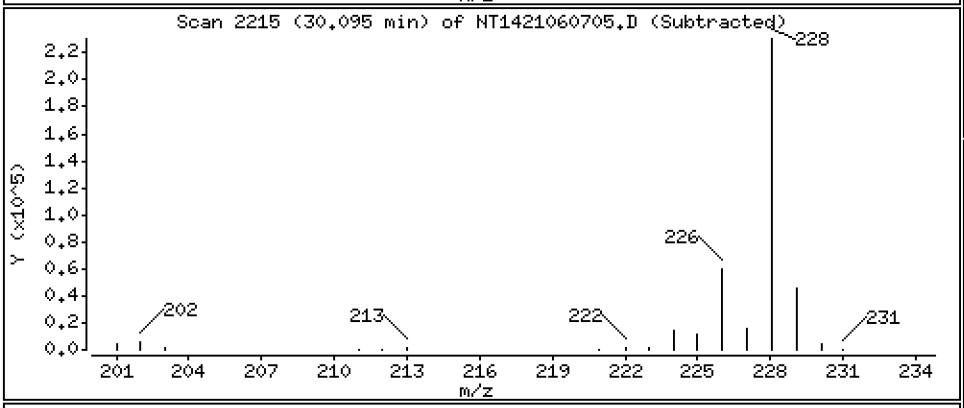
Column diameter: 0.25

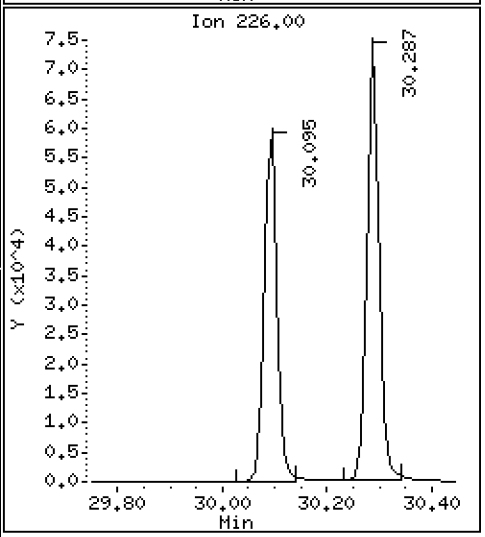
55 Benzo(a)anthracene

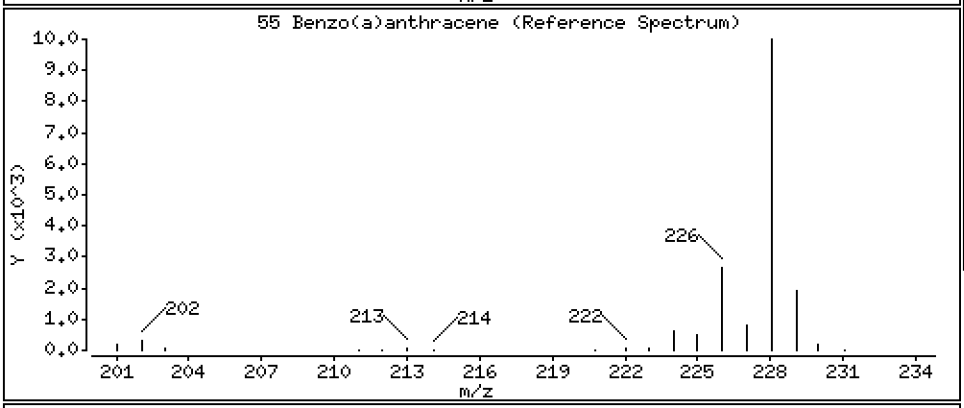
Concentration: 2.311 ug/mL

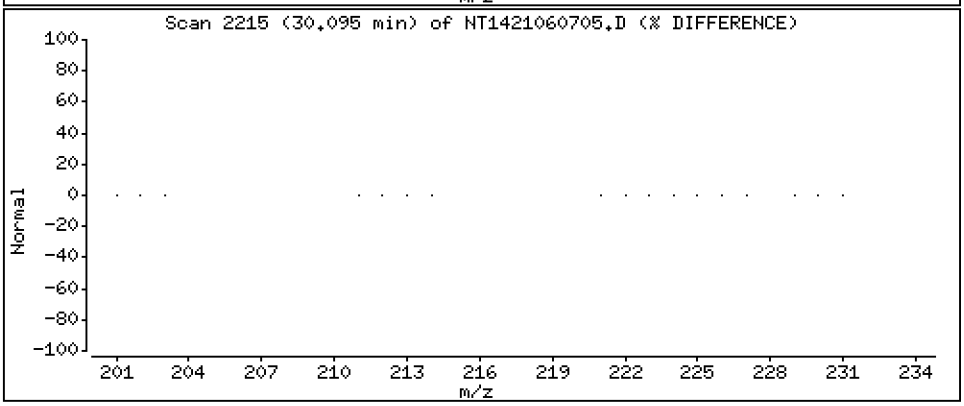












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

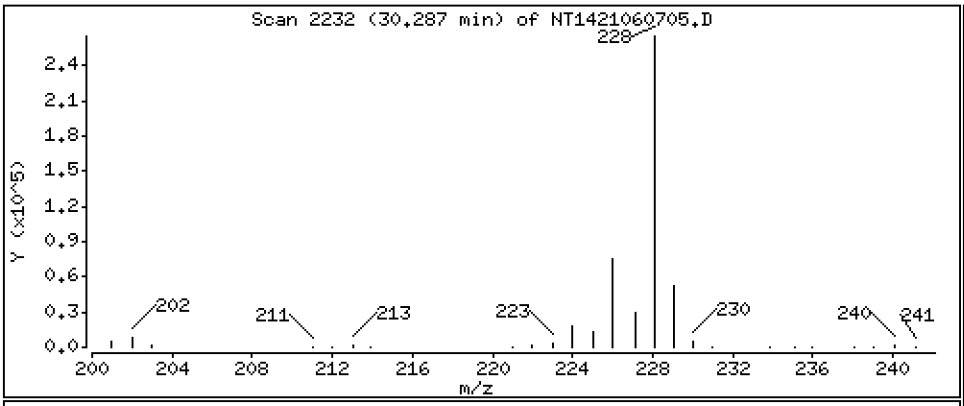
Operator: VTS

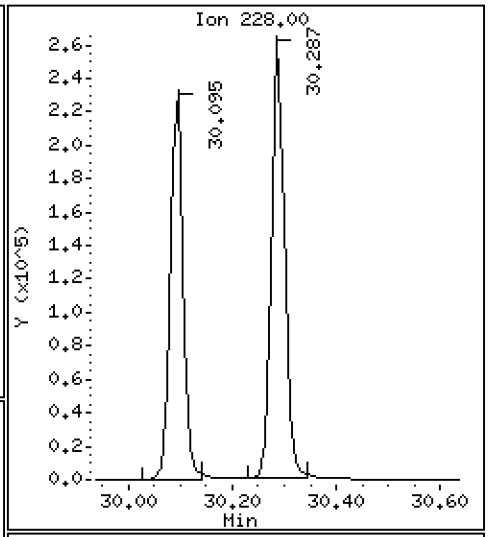
Column phase: Rxi-17Sil MS

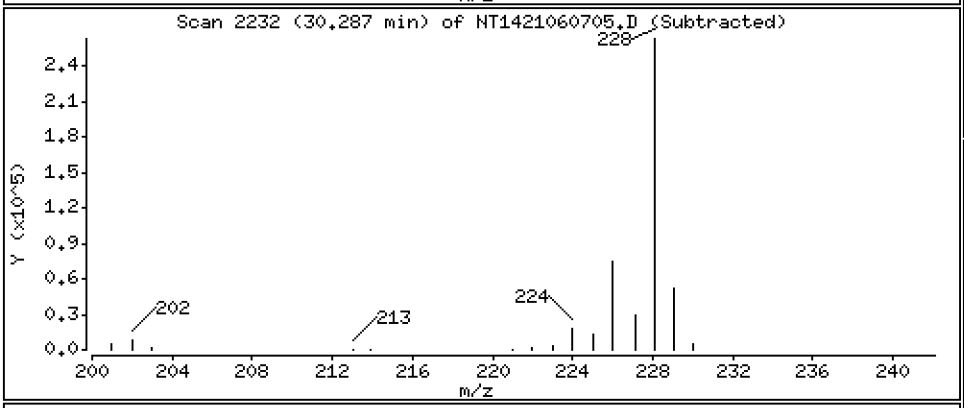
Column diameter: 0.25

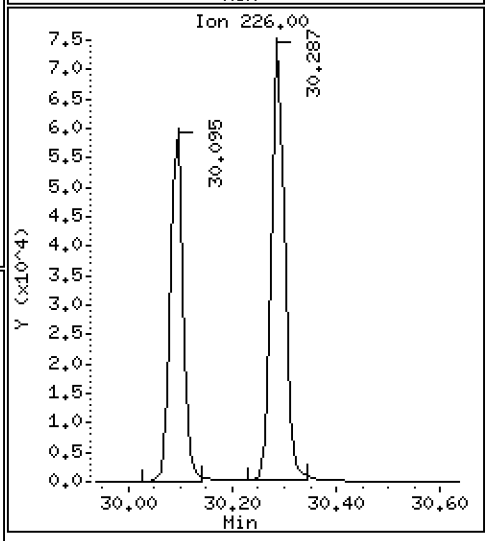
57 Chrysene

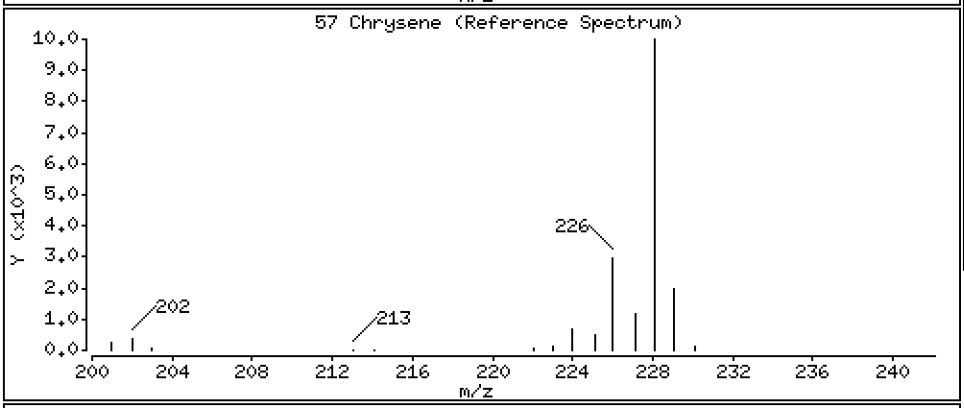
Concentration: 2.431 ug/mL

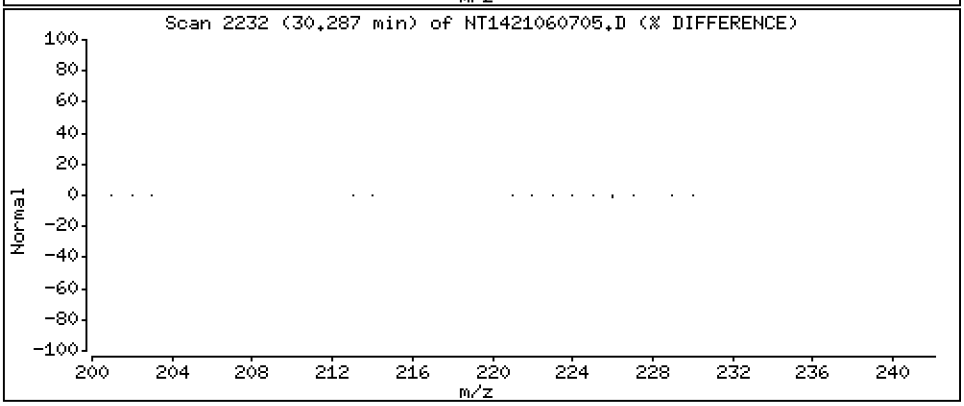












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

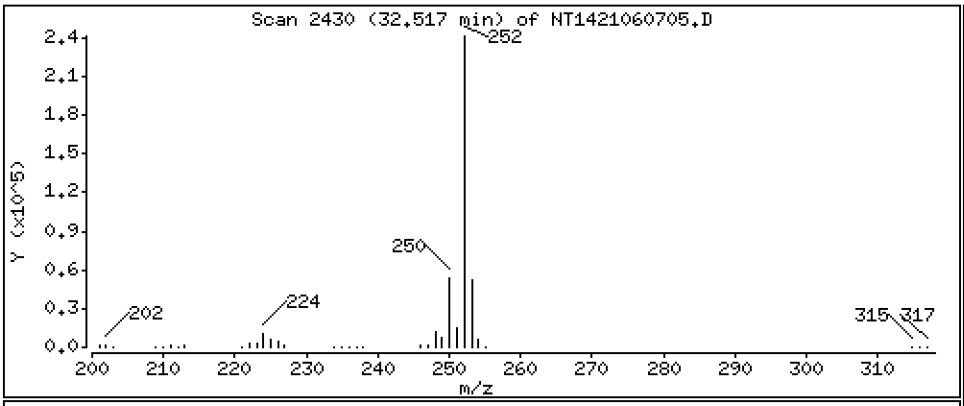
Operator: VTS

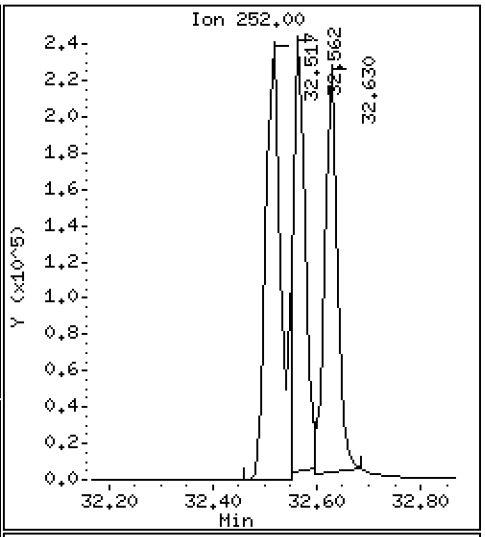
Column phase: Rxi-17Sil MS

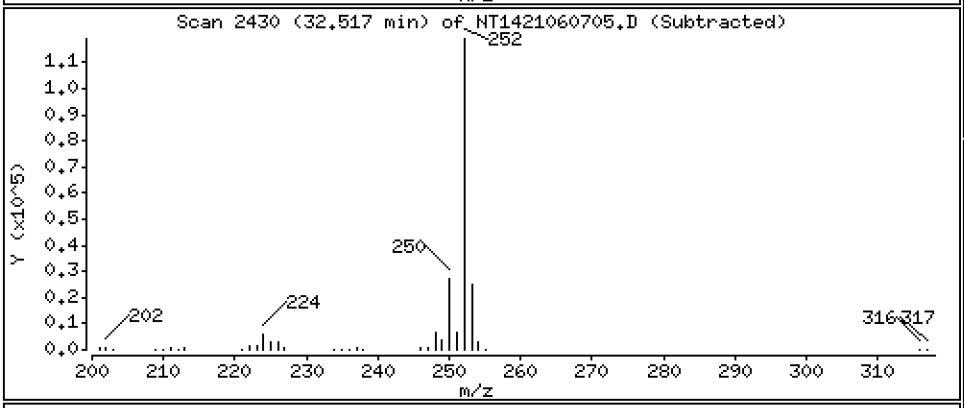
Column diameter: 0.25

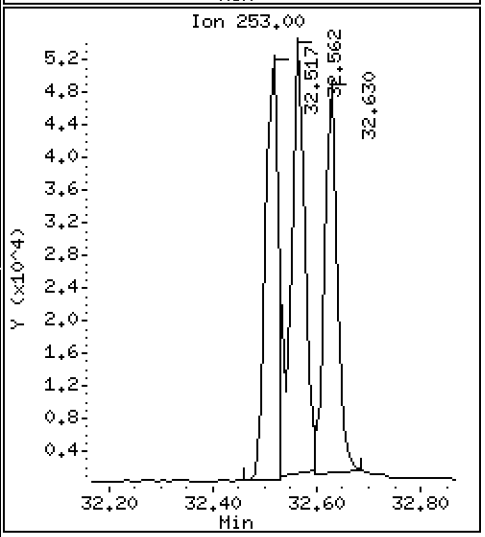
62 Benzo(b)fluoranthene

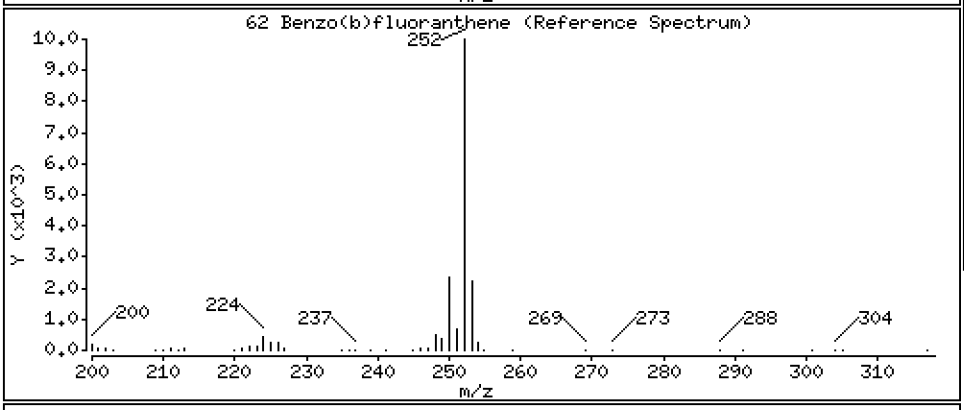
Concentration: 2.748 ug/mL

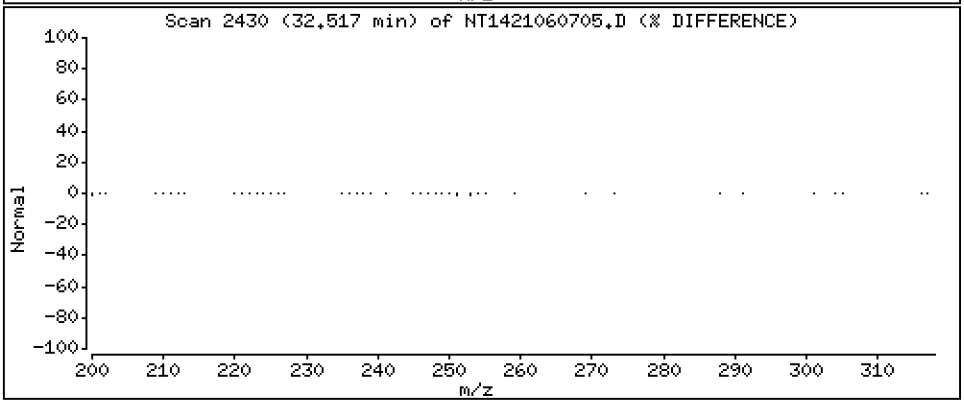












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

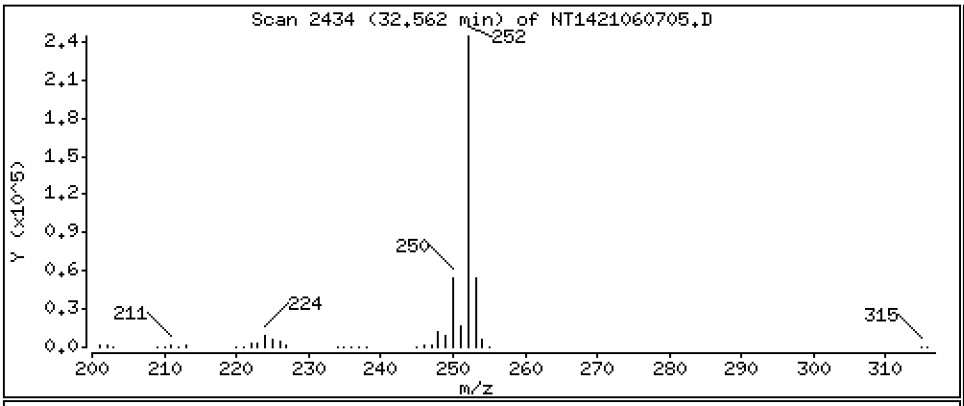
Operator: VTS

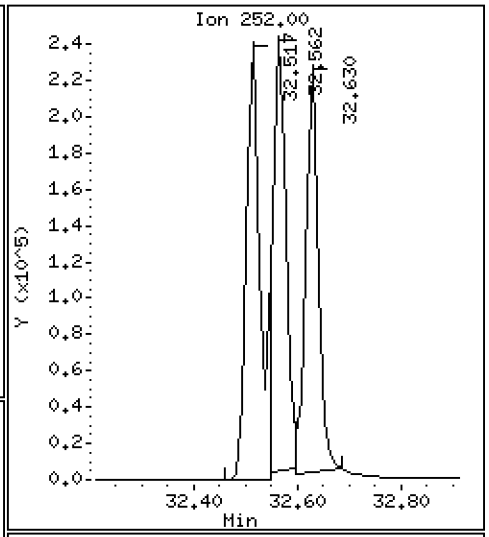
Column phase: Rxi-17Sil MS

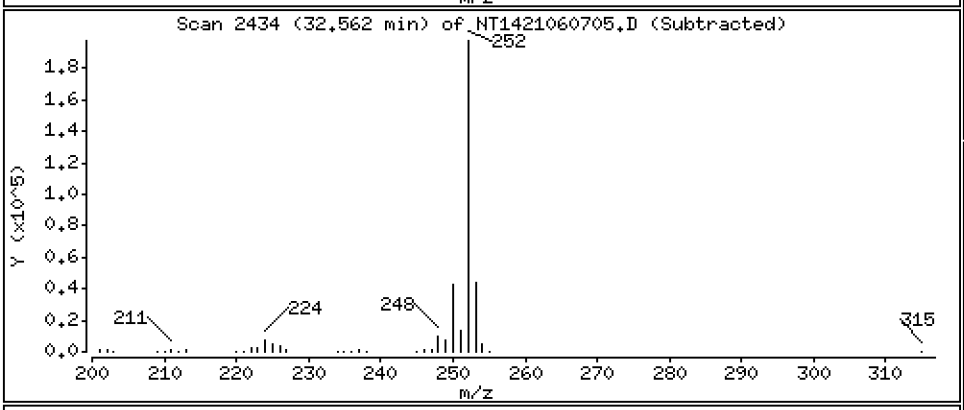
Column diameter: 0.25

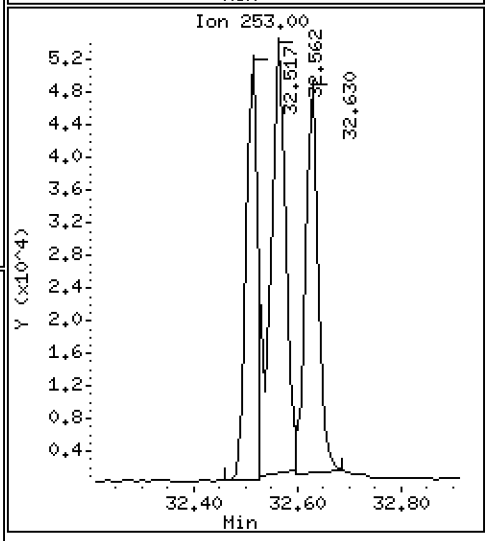
63 Benzo(k)fluoranthene

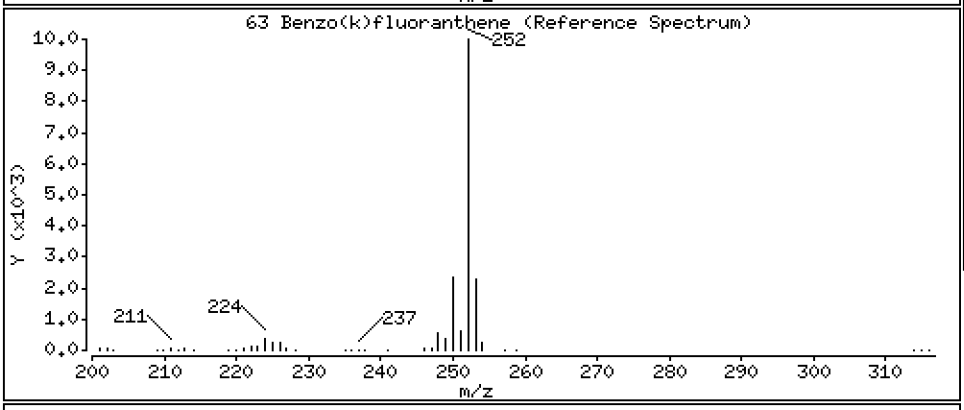
Concentration: 2.082 ug/mL

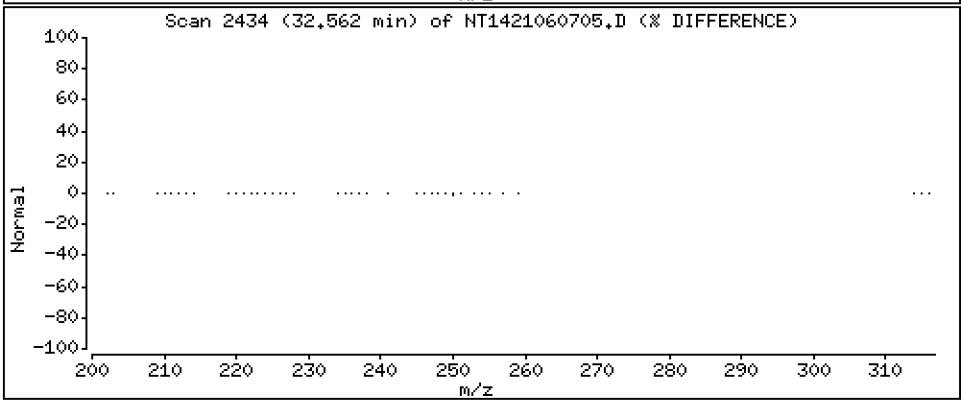












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

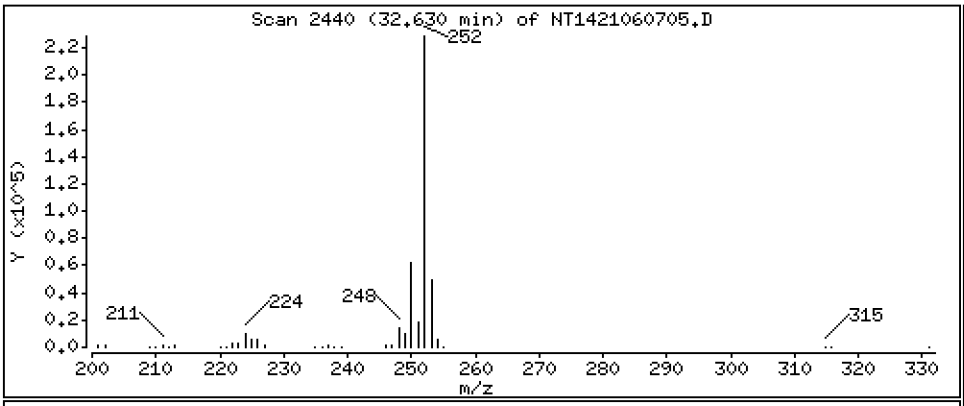
Operator: VTS

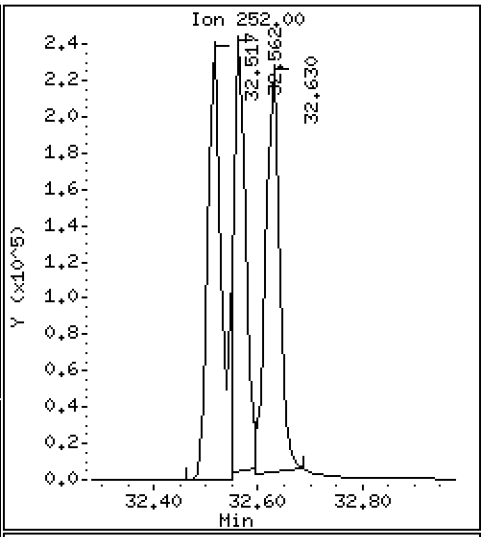
Column phase: Rxi-17Sil MS

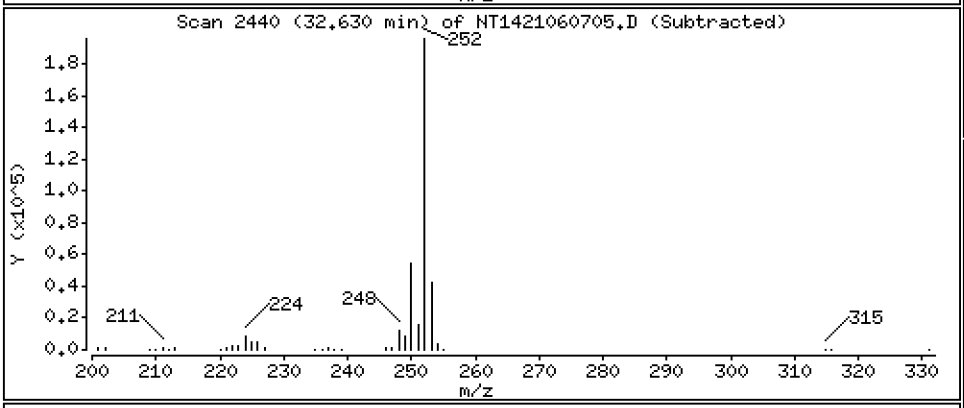
Column diameter: 0.25

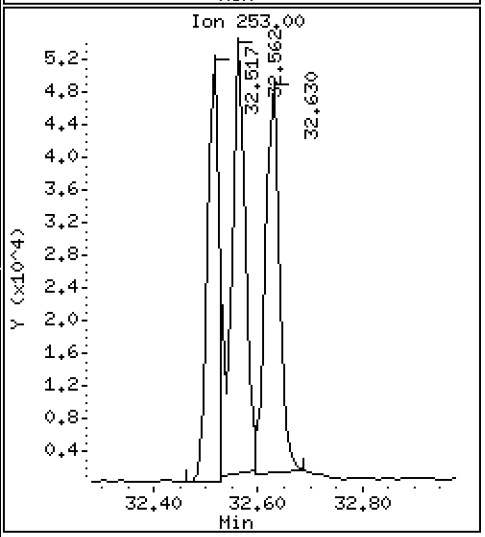
293 Benzo(j)fluoranthene

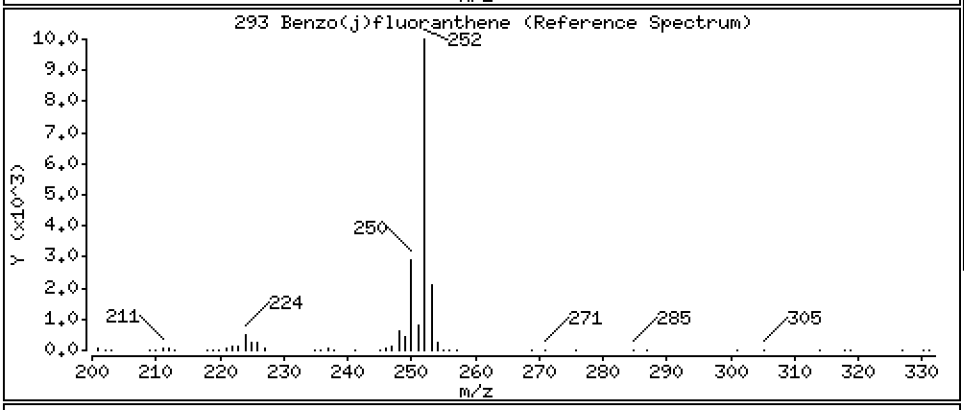
Concentration: 2.179 ug/mL

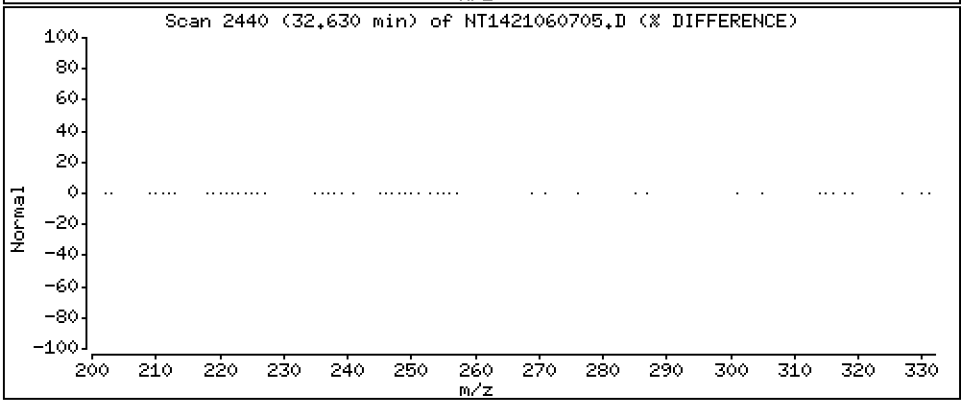












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

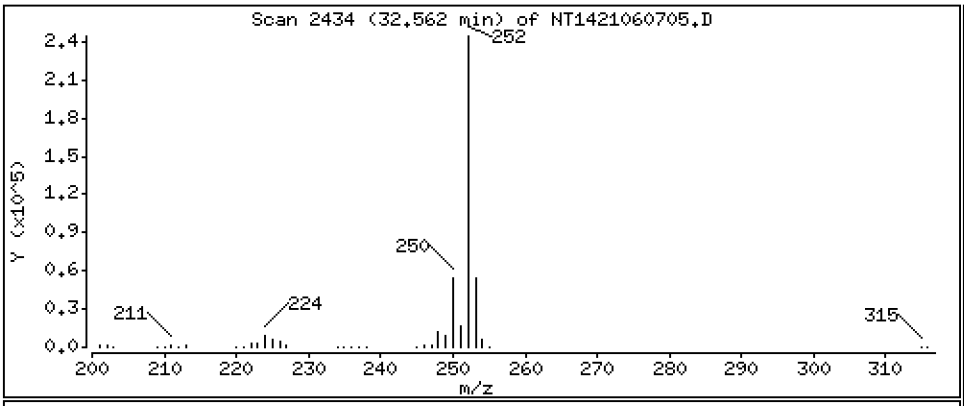
Operator: VTS

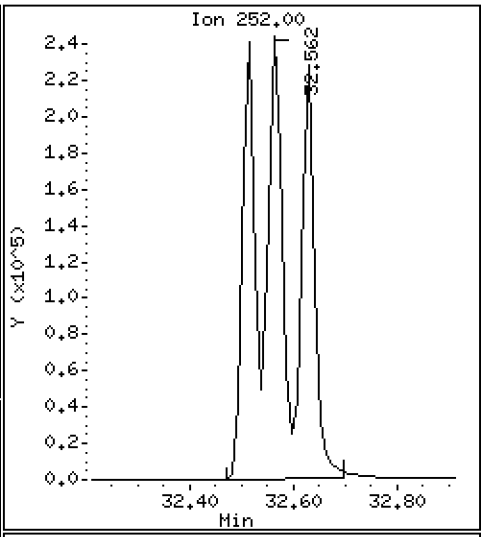
Column phase: Rxi-17Sil MS

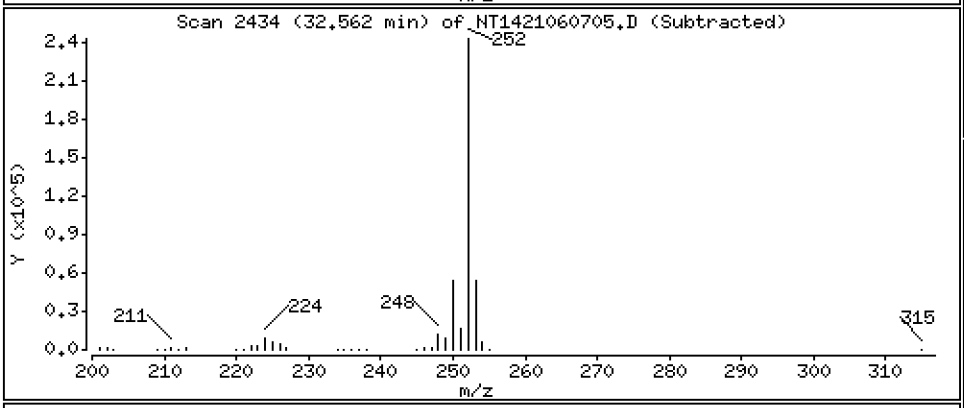
Column diameter: 0.25

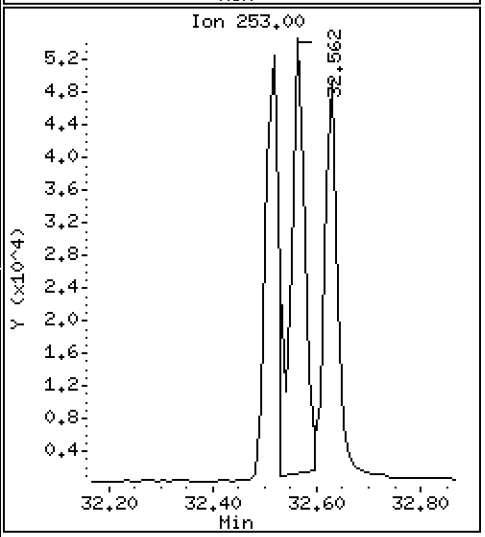
246 Total Benzofluoranthenes

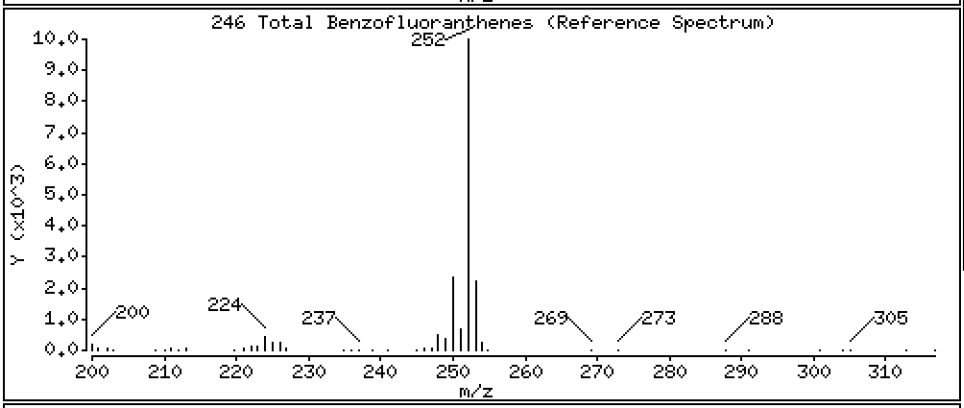
Concentration: 6.979 ug/mL

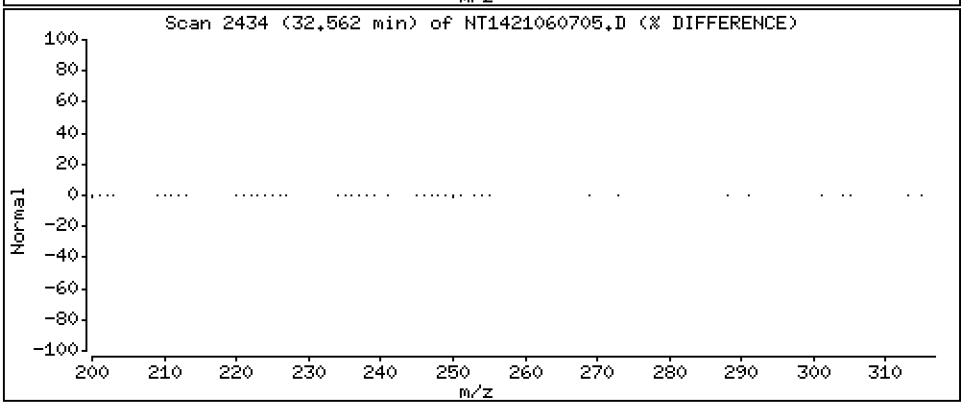












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

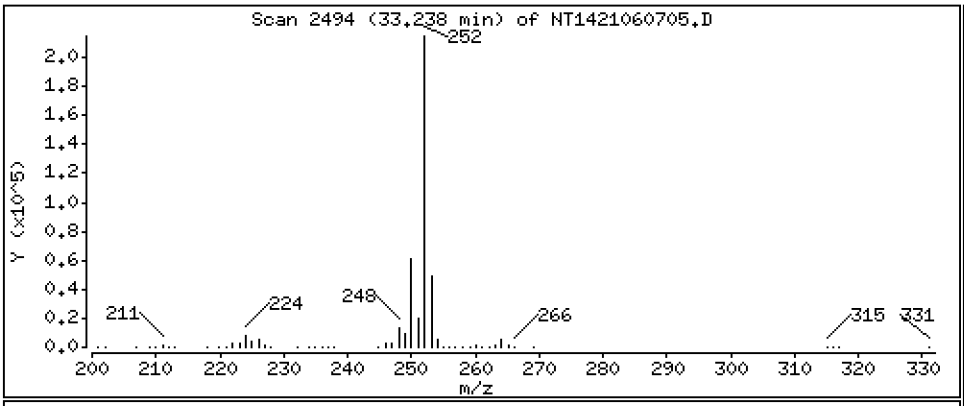
Operator: VTS

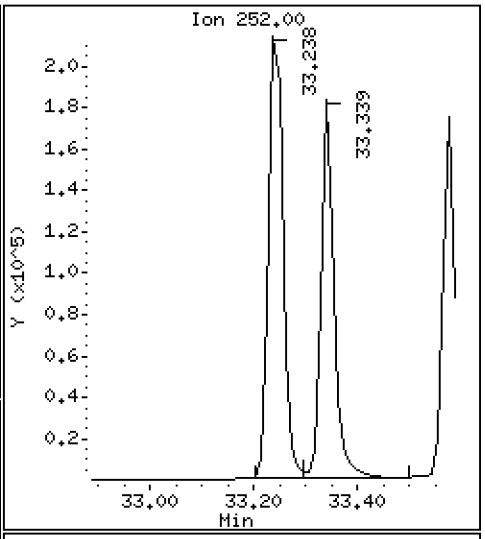
Column phase: Rxi-17Sil MS

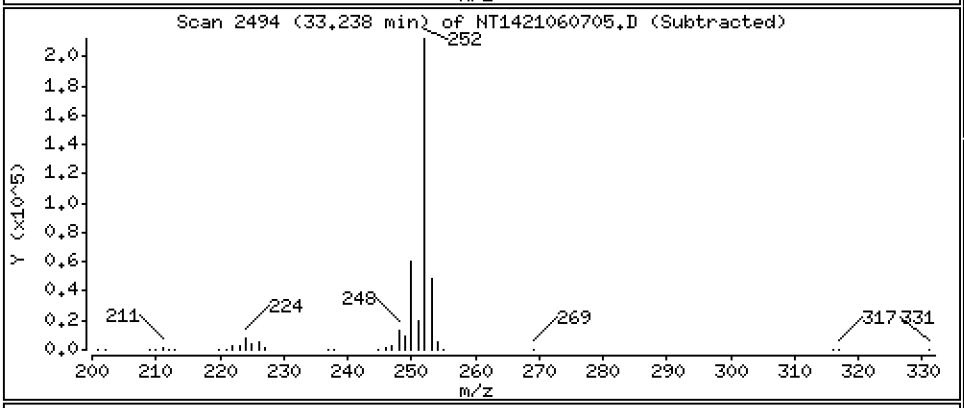
Column diameter: 0.25

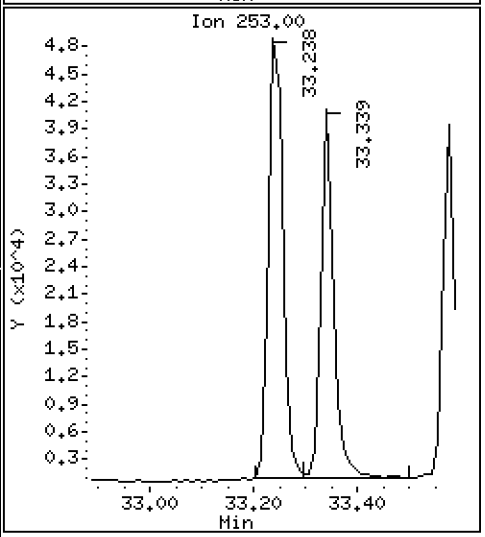
64 Benzo(e)pyrene

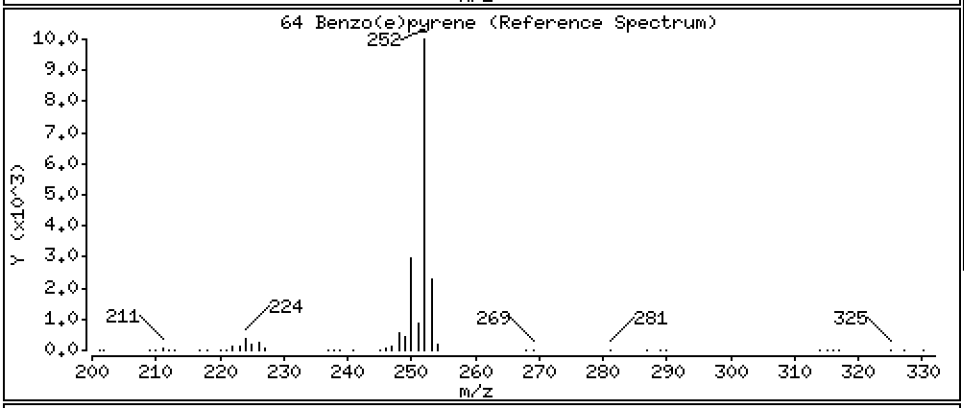
Concentration: 2.190 ug/mL

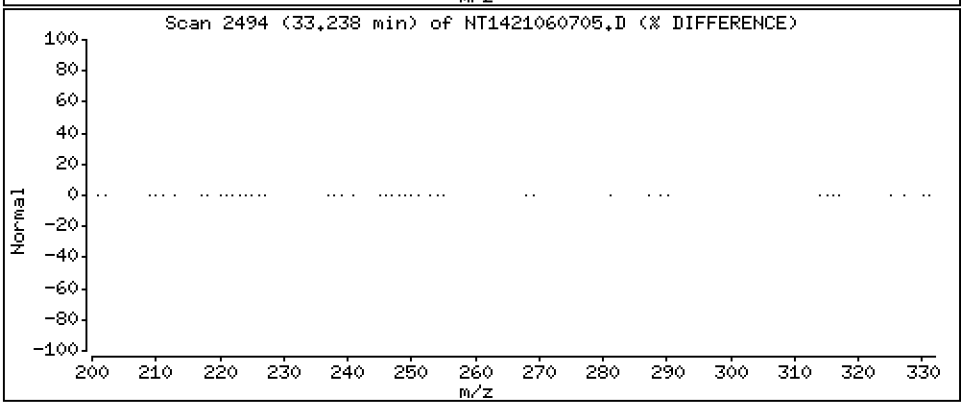












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

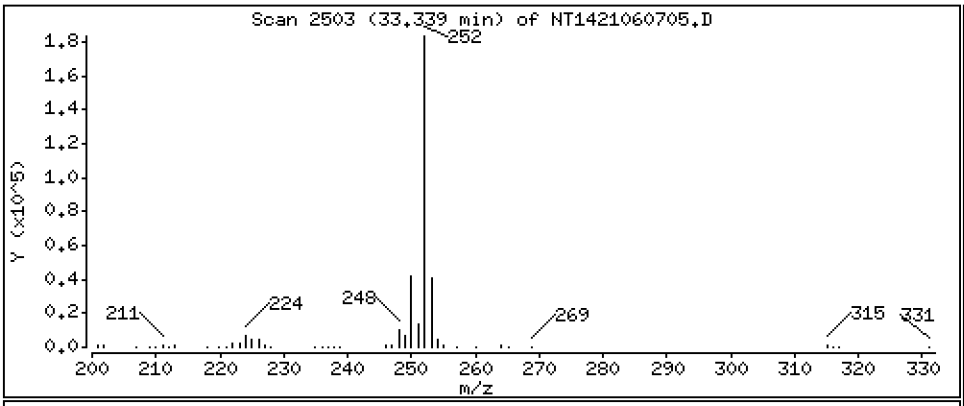
Operator: VTS

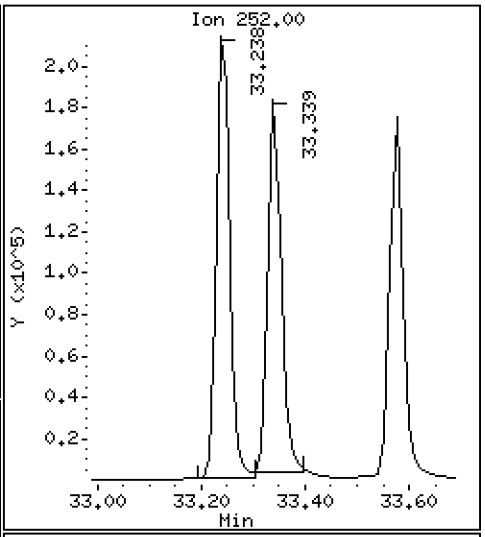
Column phase: Rxi-17Sil MS

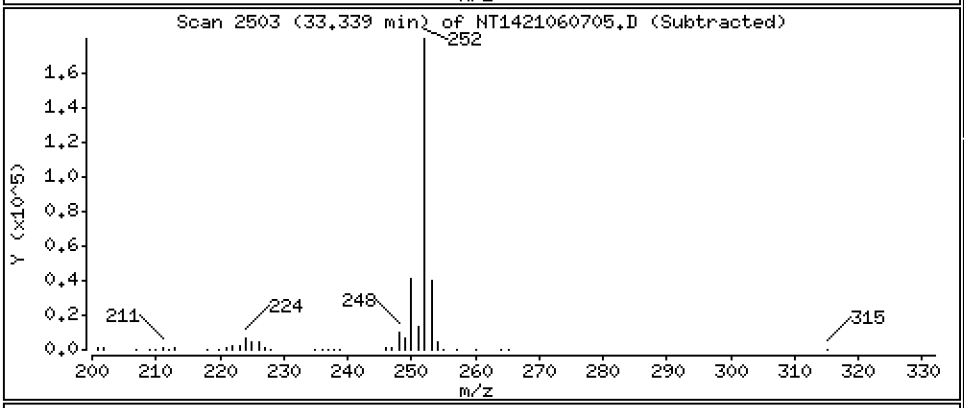
Column diameter: 0.25

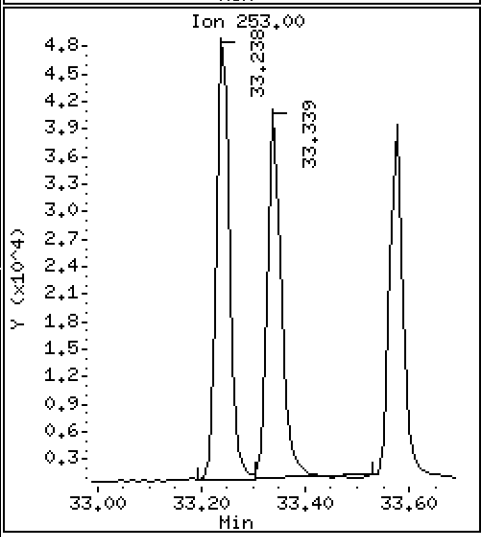
66 Benzo(a)pyrene

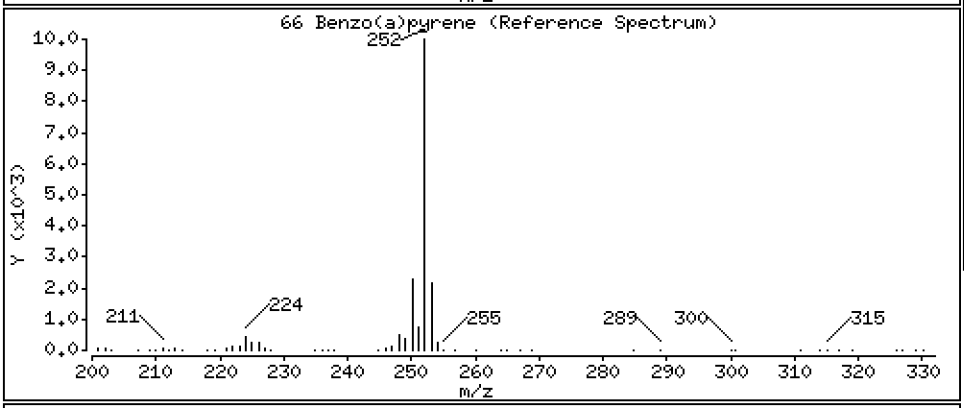
Concentration: 1.845 ug/mL

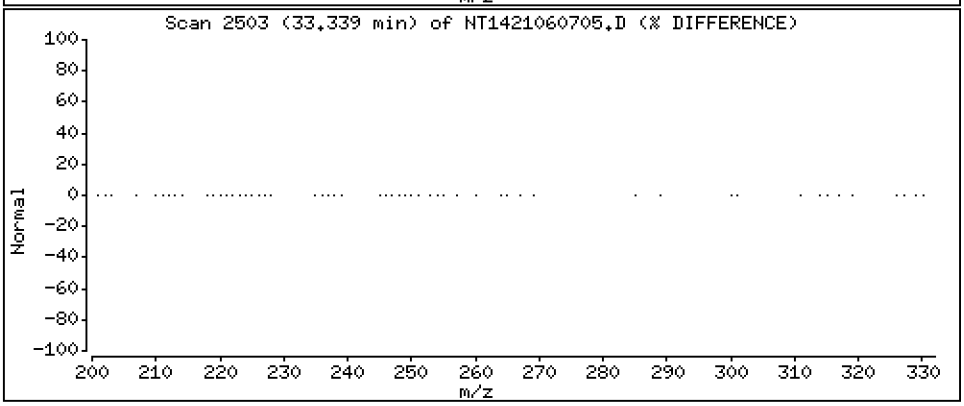












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

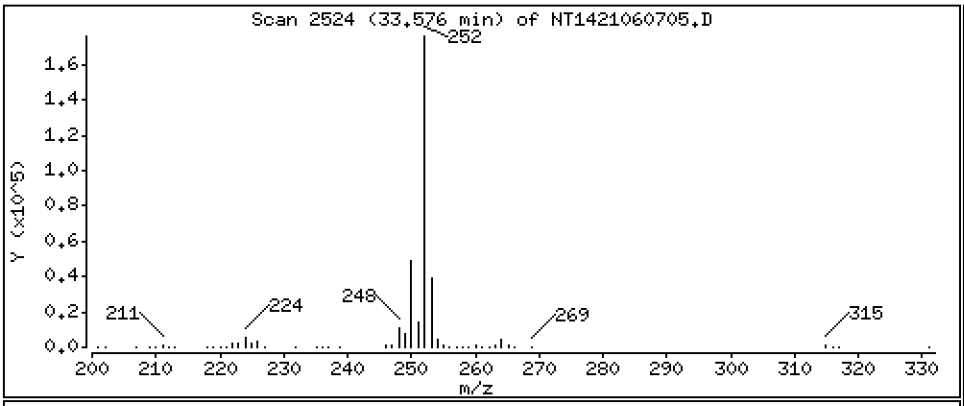
Operator: VTS

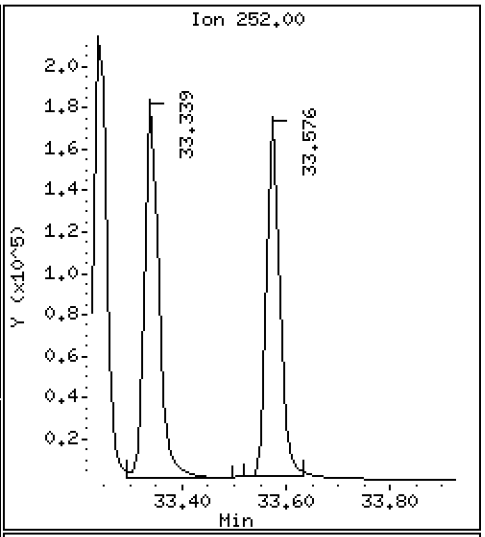
Column phase: Rxi-17Sil MS

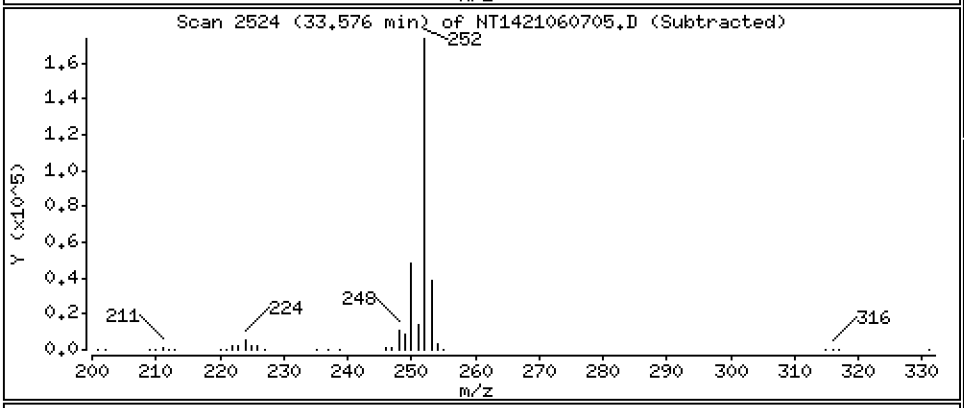
Column diameter: 0.25

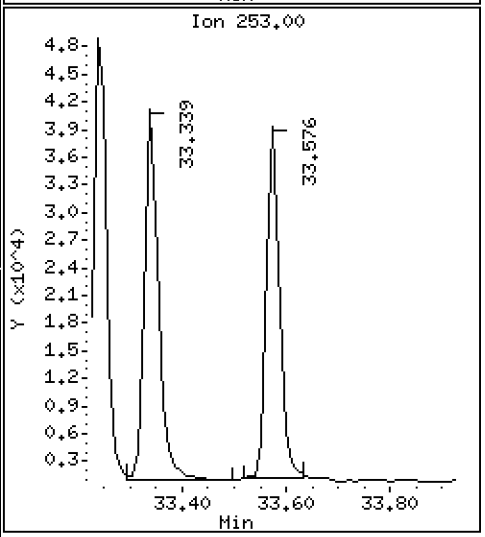
68 Perylene

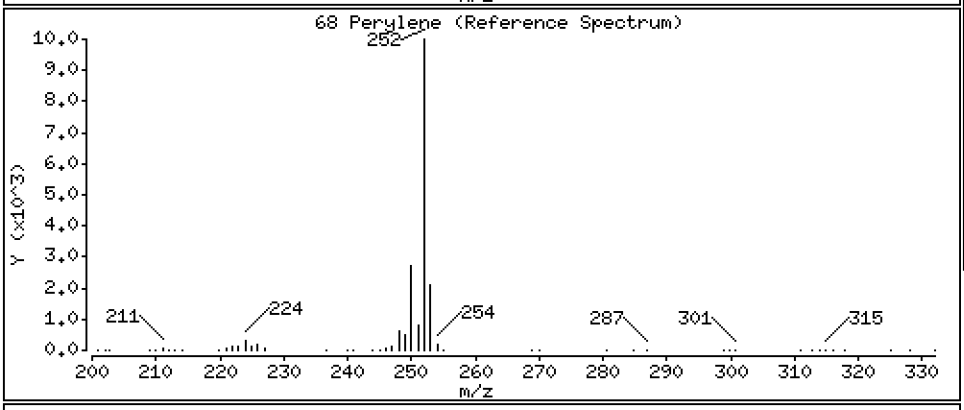
Concentration: 1.704 ug/mL

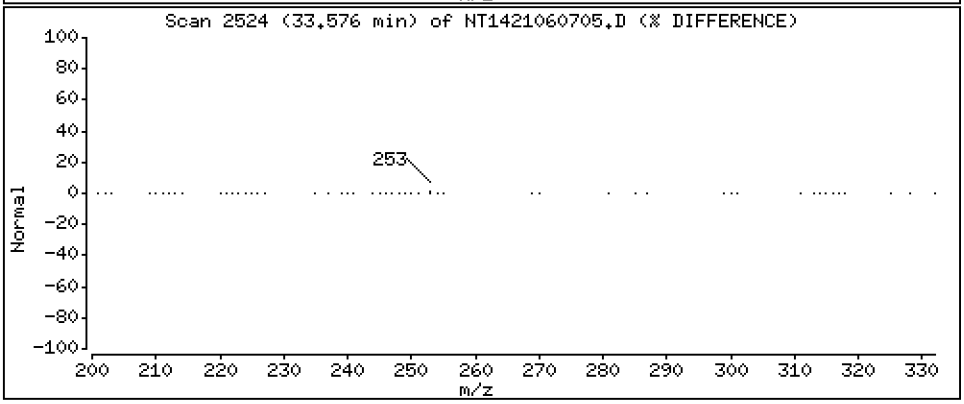












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

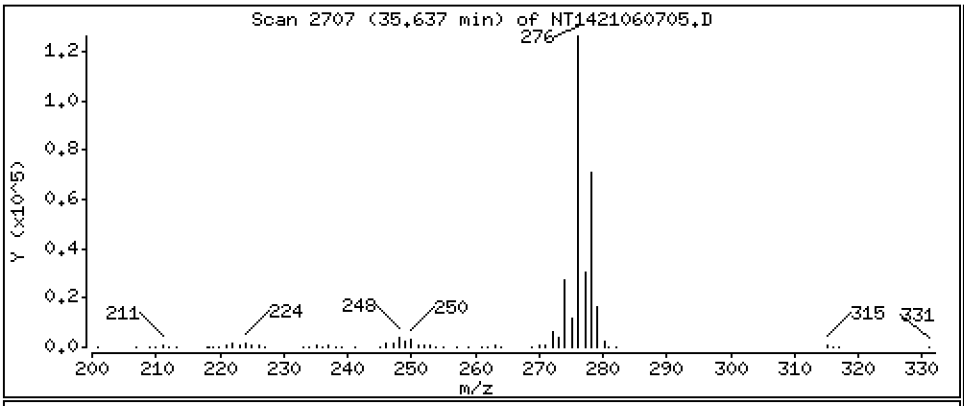
Operator: VTS

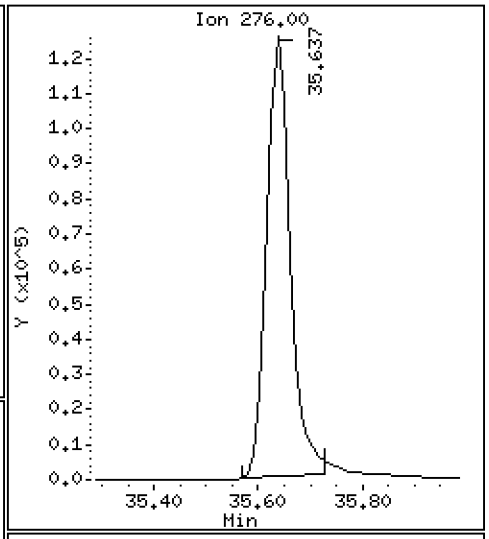
Column phase: Rxi-17Sil MS

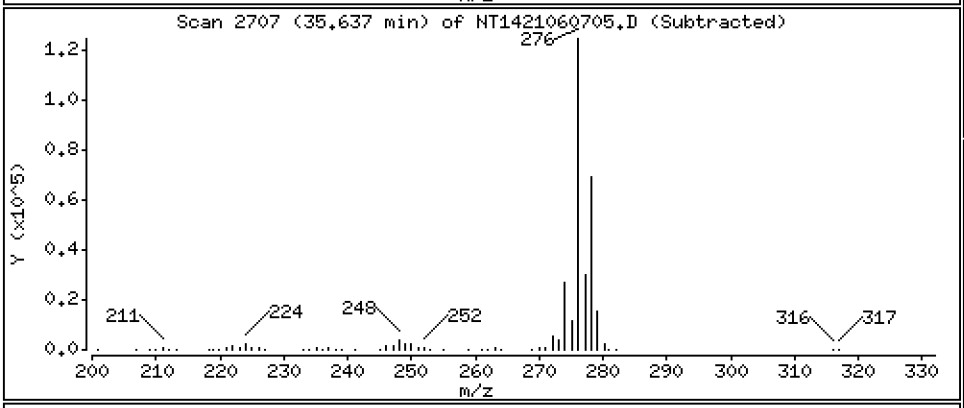
Column diameter: 0.25

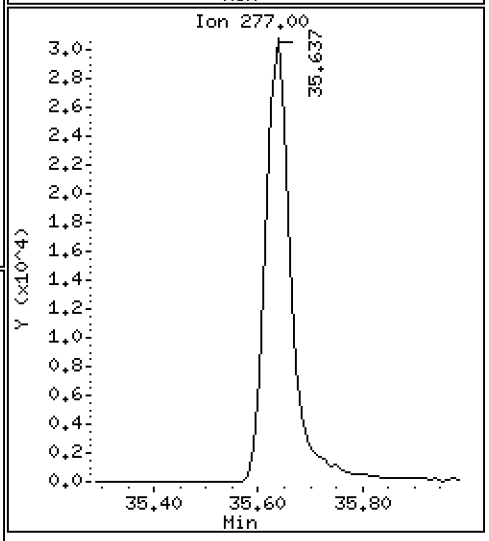
69 Indeno(1,2,3-cd)pyrene

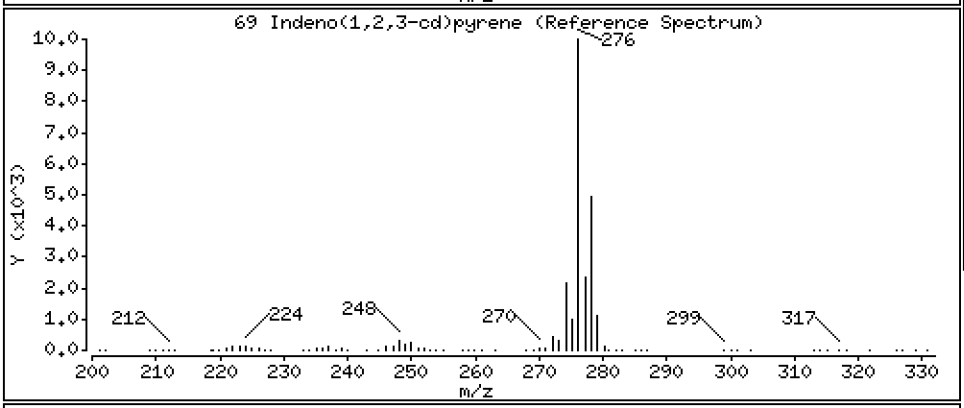
Concentration: 1.996 ug/mL

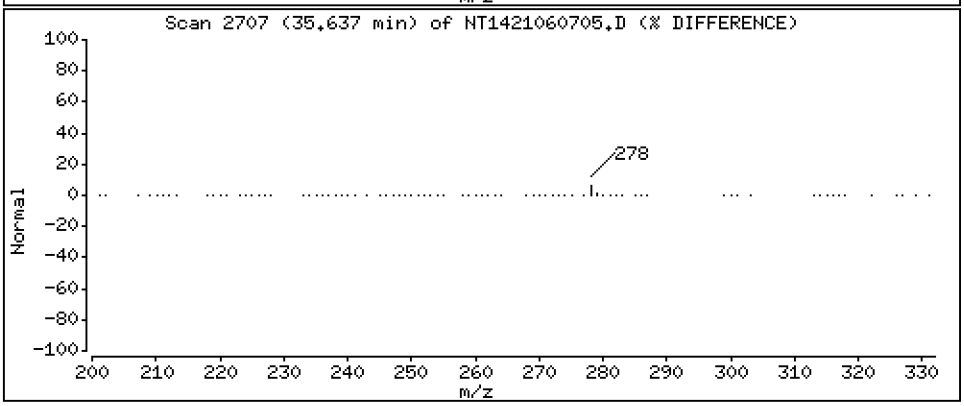












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

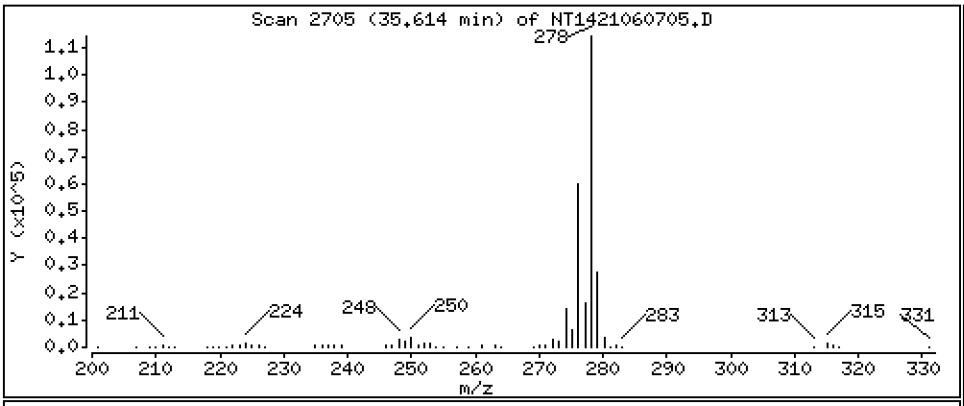
Operator: VTS

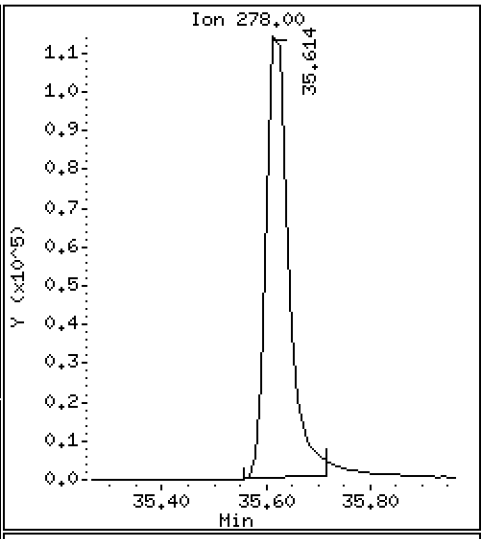
Column phase: Rxi-17Sil MS

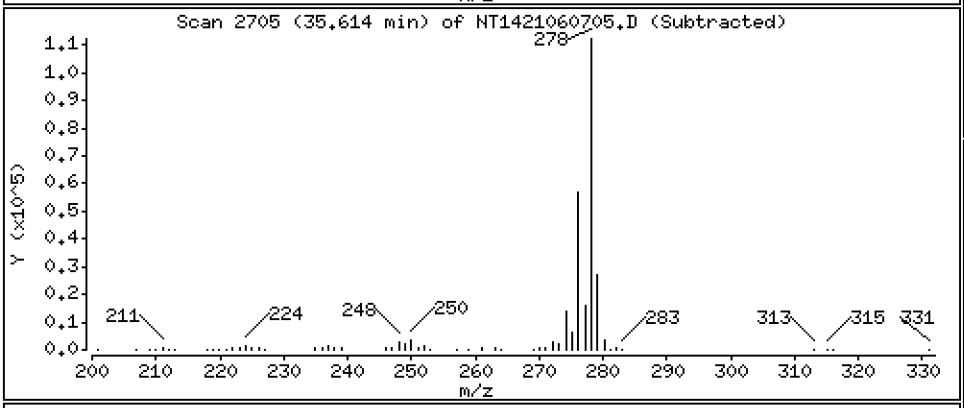
Column diameter: 0.25

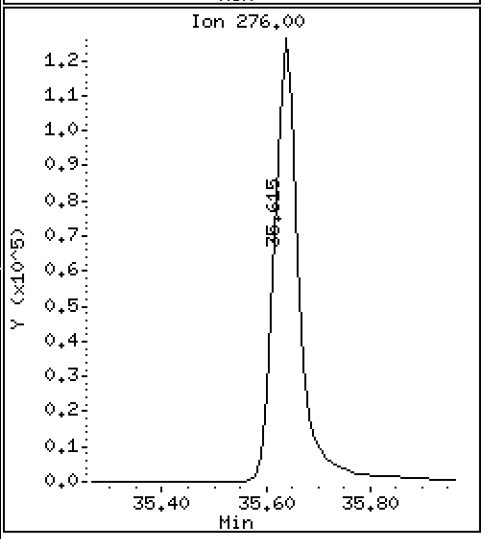
70 Dibenzo(a,h)anthracene

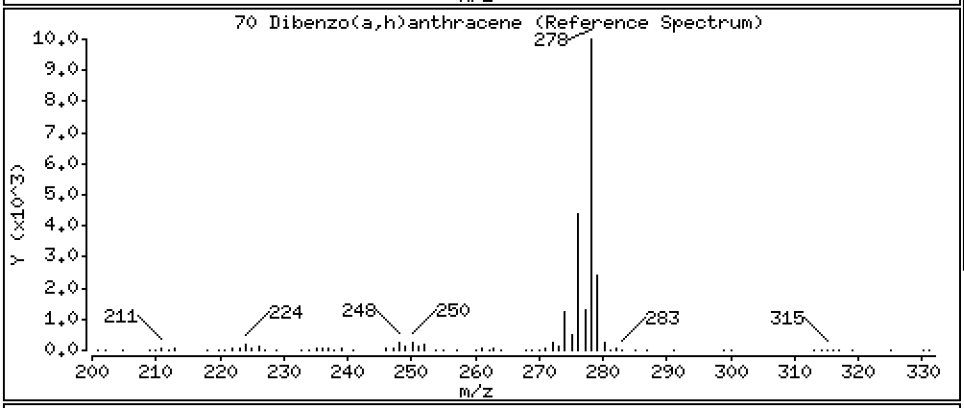
Concentration: 1.859 ug/mL

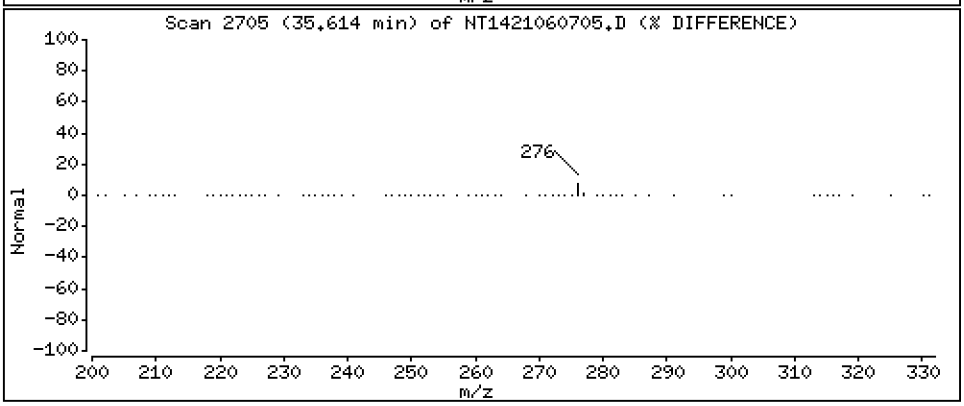












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D

Date : 07-JUN-2021 15:42

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BS1

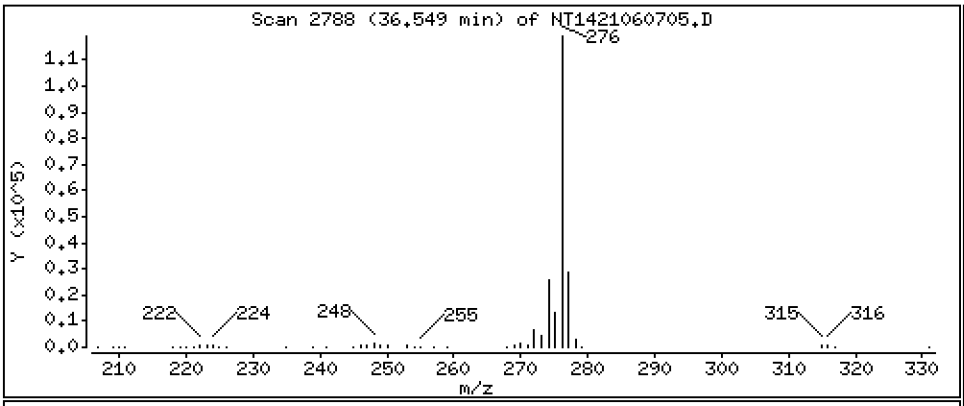
Operator: VTS

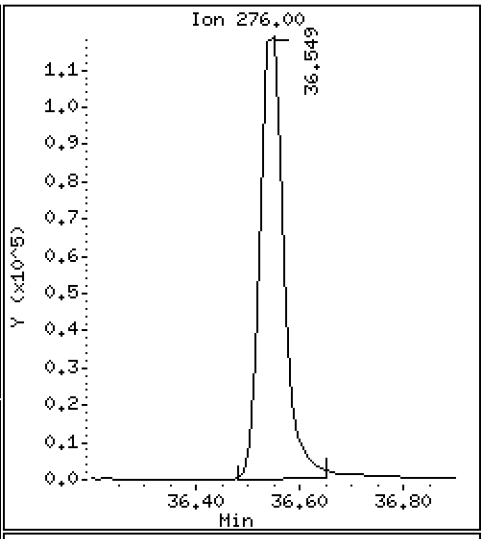
Column phase: Rxi-17Sil MS

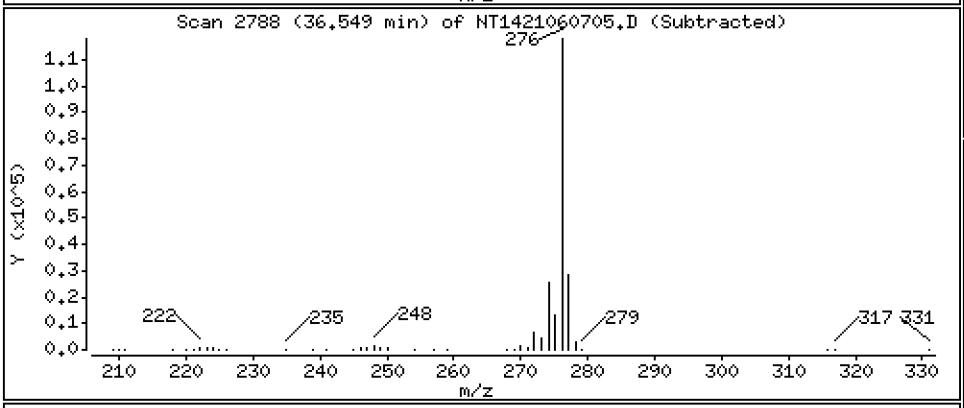
Column diameter: 0.25

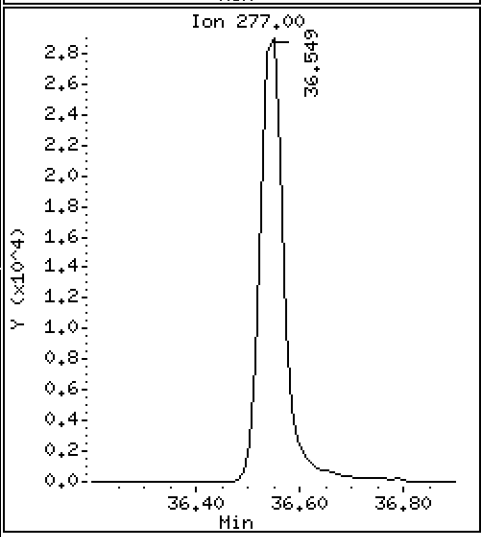
74 Benzo(g,h,i)perylene

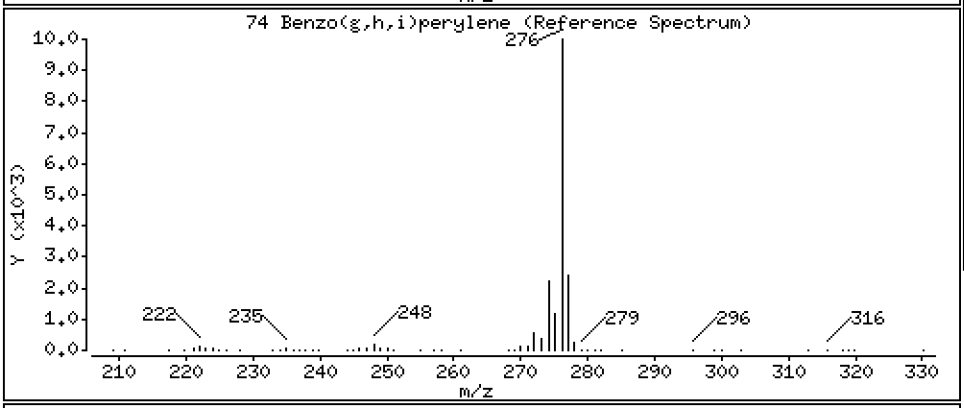
Concentration: 1.944 ug/mL

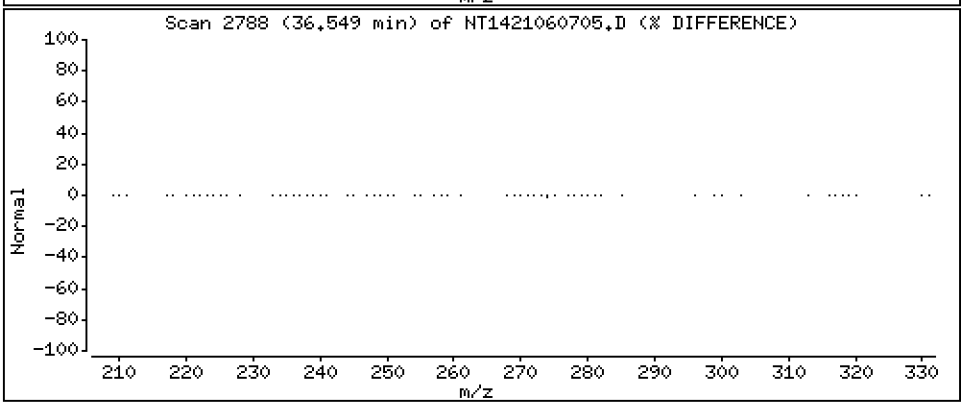












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210607.b\NT1421060705.D
Lab Smp Id: BJE0209-BS1
Inj Date : 07-JUN-2021 15:42
Operator : VTS Inst ID: nt14.i
Smp Info : BJE0209-BS1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210607.b\ALKYLPNA.m
Meth Date : 12-Jun-2021 14:57 yev Quant Type: ISTD
Cal Date : 29-MAY-2021 18:49 Cal File: NT1421052914.D
Als bottle: 32
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: ORGDATA102

								CONCENTRATIONS	
		QUANT SIG						ON-COLUMN	FINAL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE		(ug/mL)	(ug/mL)
	1 trans-Decalin	138	7.136	7.136	(0.378)	3616		0.22365	0.2237
	2 cis-Decalin	138	8.245	8.255	(0.436)	2923		0.27864	0.2786
$	6 Naphthalene-d8	136	11.887	11.887	(0.629)	193551		1.28419	1.284(R)
	7 Naphthalene	128	11.957	11.957	(0.633)	189234		1.25627	1.256
	12 Benzo(b)thiophene	134	12.409	12.409	(0.657)	158325		1.27855	1.279
	16 2-Methylnaphthalene	141	13.794	13.794	(0.730)	110146		1.25087	1.251
	17 1-methylnaphthalene	141	14.244	14.244	(0.754)	110934		1.29496	1.295
	18 Biphenyl	154	15.431	15.431	(0.817)	175845		1.35148	1.351
	19 2,6-Dimethylnaphthalene	156	15.508	15.508	(0.821)	116388		1.21639	1.216
	20 Acenaphthylene	152	17.080	17.080	(0.904)	222984		1.36327	1.363
$	21 Acenaphthene-d10	164	17.365	17.365	(0.919)	138432		1.49546	1.495(R)
	22 Acenaphthene	153	17.486	17.486	(0.925)	154708		1.53431	1.534
	23 Dibenzofuran	168	17.860	17.860	(0.945)	237440		1.58752	1.588
	24 1,6,7-Trimethylnaphthalene	170	18.080	18.080	(0.957)	154589		1.58641	1.586
*	25 Fluorene-d10	176	18.896	18.896	(1.000)	324204		2.00000	
	26 Fluorene	166	19.009	19.009	(1.006)	198292		1.71113	1.711
	30 Dibenzothiophene	184	21.931	21.931	(1.161)	255786		1.56344	1.563
$	35 Phenanthrene-d10	188	22.238	22.238	(0.995)	300801		1.85362	1.854(R)
	36 Phenanthrene	178	22.315	22.326	(0.999)	343499		1.97512	1.975
*	250 Anthracene-d10	188	22.348	22.359	(1.000)	337302		2.00000	
	37 Anthracene	178	22.425	22.425	(1.003)	302370		1.84786	1.848
	42 Carbazole	167	23.701	23.701	(1.061)	304324		1.99686	1.997
	43 1-Methylphenanthrene	192	24.151	24.151	(1.081)	270004		2.16034	2.160
	44 Fluoranthene	202	26.130	26.130	(1.169)	436753		2.27523	2.275
	46 Pyrene	202	26.977	26.977	(1.207)	455983		2.28397	2.284
	51 Naphthobenzothiophene	234	29.509	29.509	(1.320)	336955		1.57080	1.571
	55 Benzo(a)anthracene	228	30.095	30.095	(0.907)	404241		2.31067	2.311
$	56 Chrysene-d12	240	30.219	30.219	(0.911)	322168		2.28179	2.282(R)
	57 Chrysene	228	30.286	30.286	(0.913)	416667		2.43057	2.431
	62 Benzo(b)fluoranthene	252	32.517	32.517	(0.980)	498545		2.74774	2.748
	63 Benzo(k)fluoranthene	252	32.562	32.562	(0.981)	405407		2.08247	2.082
	293 Benzo(j)fluoranthene	252	32.629	32.629	(0.983)	390882		2.17900	2.179
	246 Total Benzofluoranthenes	252	32.562	32.562	(0.981)	1240247		6.97887	6.979(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.181	33.181	(1.000)	451062	2.00000	
64 Benzo(e)pyrene	252	33.237	33.237	(1.002)	389507	2.19034	2.190
66 Benzo(a)pyrene	252	33.339	33.339	(1.005)	298469	1.84499	1.845
$ 67 Perylene-d12	264	33.519	33.519	(1.010)	260122	1.70665	1.707(R)
68 Perylene	252	33.575	33.575	(1.012)	284291	1.70447	1.704
69 Indeno(1,2,3-cd)pyrene	276	35.636	35.636	(1.074)	379040	1.99610	1.996(M)
70 Dibenzo(a,h)anthracene	278	35.614	35.614	(1.073)	330916	1.85859	1.859(M)
74 Benzo(g,h,i)perylene	276	36.549	36.549	(1.101)	364764	1.94440	1.944(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
Lab File ID: NT1421060705.D
Lab Smp Id: BJE0209-BS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210607.b\ALKYLPNA.m
Misc Info:

Calibration Date: 07-JUN-2021
Calibration Time: 13:18
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	323874	161937	647748	324204	0.10
250 Anthracene-d10	339912	169956	679824	337302	-0.77
251 Benzo(e)pyrene-d1	416427	208214	832854	451062	8.32

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.90	18.40	19.40	18.90	0.00
250 Anthracene-d10	22.36	21.86	22.86	22.35	-0.05
251 Benzo(e)pyrene-d1	33.18	32.68	33.68	33.18	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 - NT1421060705.D

Lab ID: BJE0209-BS1
nt14.i, 20210607.b\ALKYLPNA.m,   07-JUN-2021 15:42

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

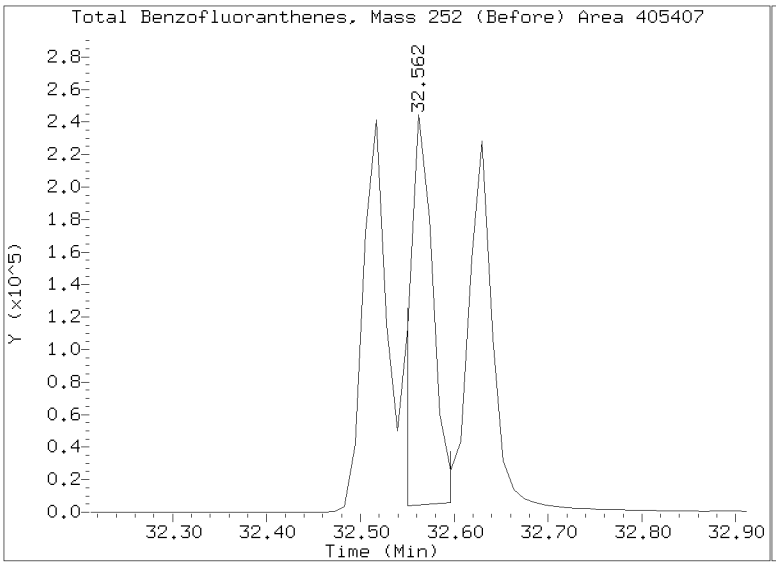
RRT check based on Ccal File: NT1421060702.D

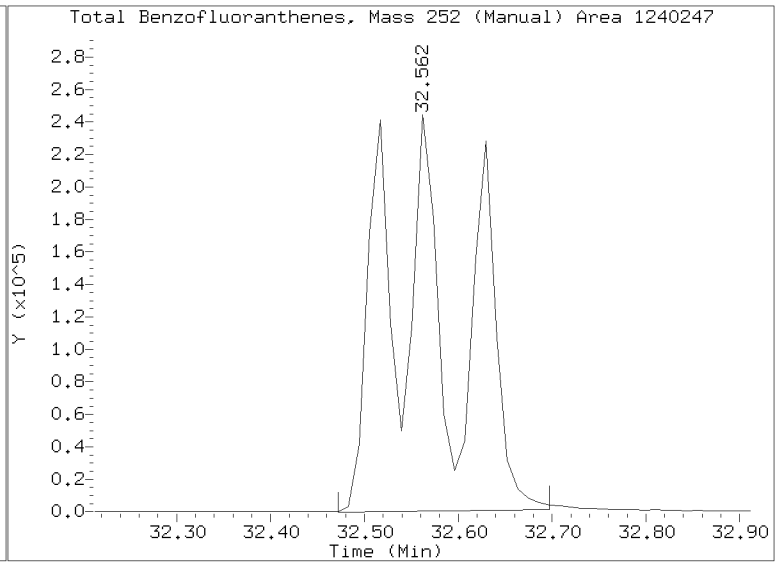
On Column LOD for nt14.i, 20210607.b\ALKYLPNA.m, TARGETS.sub = 0.0000

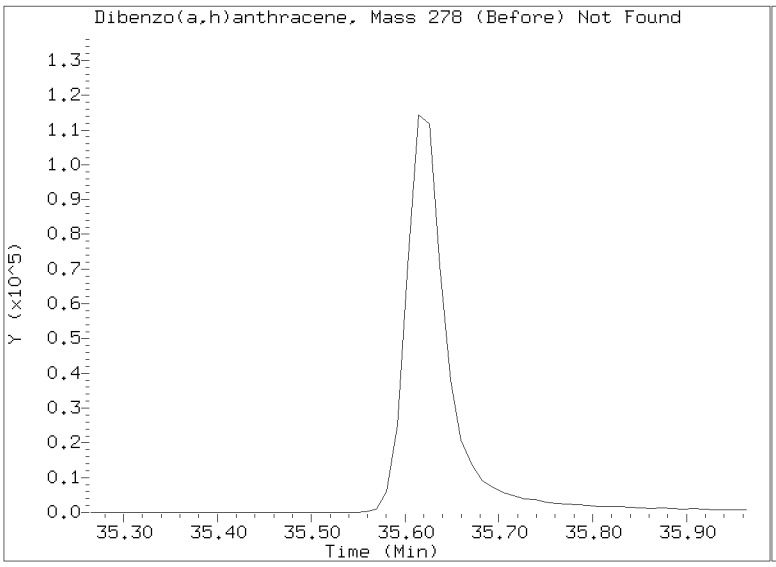
* Only compounds listed in the work order have been verified by the analyst *

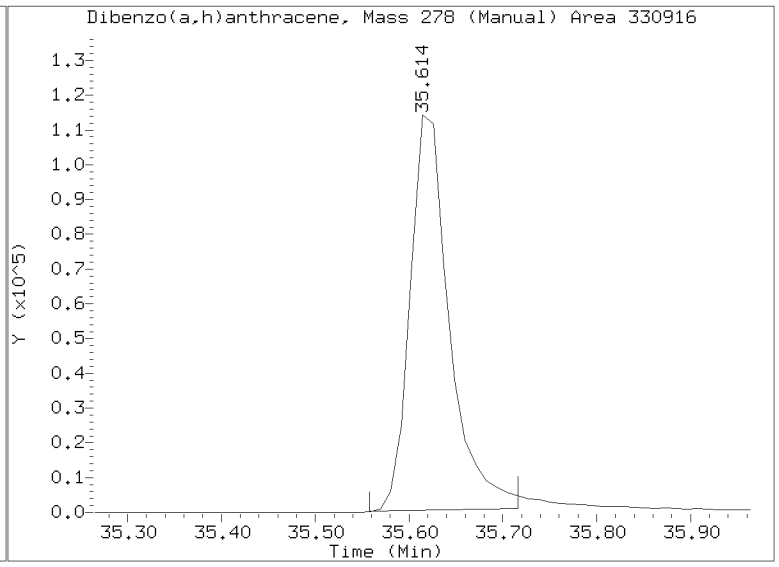
Quant Ion Manual Peak Adjustment Report

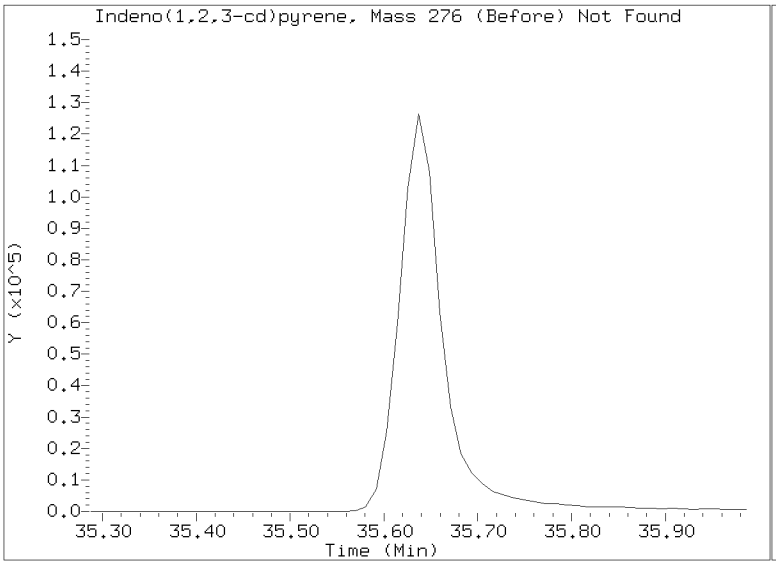
Datafile: //target/share/chem3/nt14.i/20210607.b/NT1421060705.D
Injection Date: 07-JUN-2021 15:42
Lab ID:BJE0209-BS1 Client ID:
Report Date: 06/12/2021 15:49

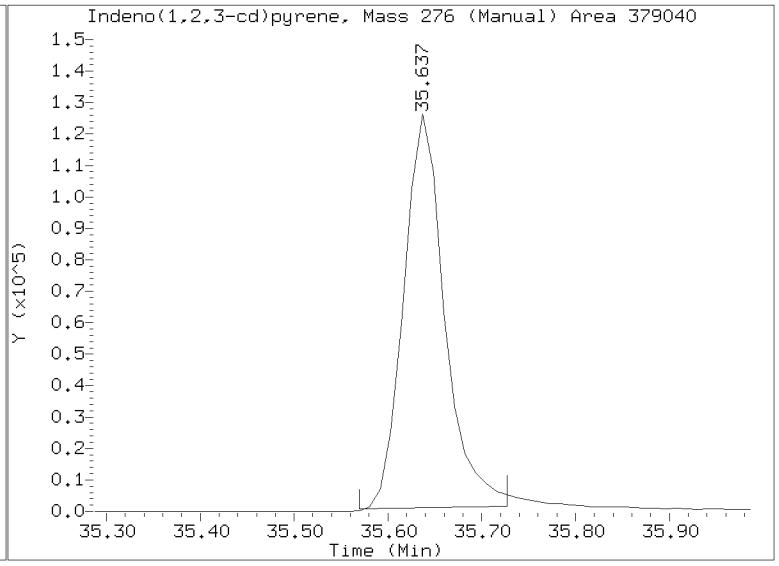






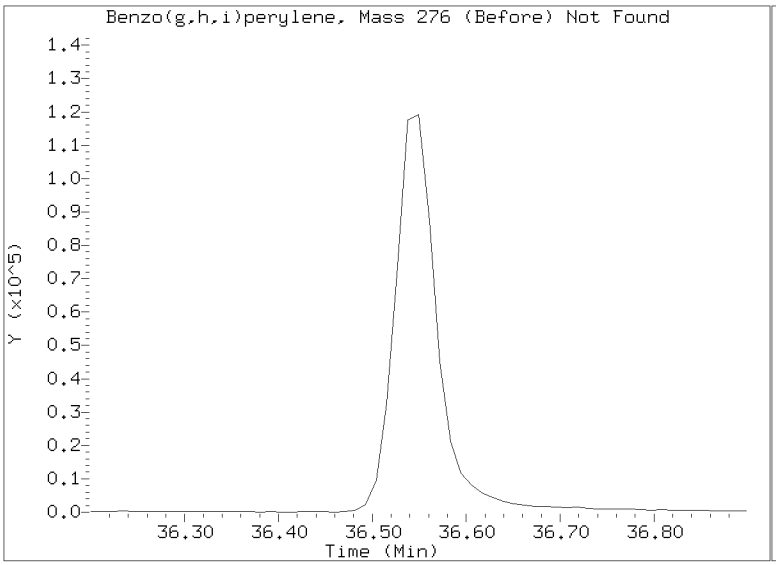


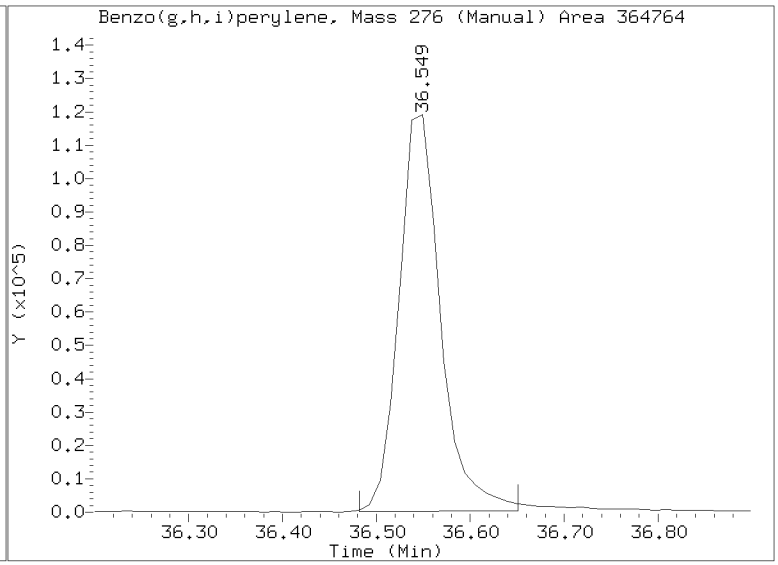




Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210607.b/NT1421060705.D
Injection Date: 07-JUN-2021 15:42
Lab ID:BJE0209-BS1 Client ID:
Report Date: 06/12/2021 15:49





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Date : 07-JUN-2021 16:30

Client ID:

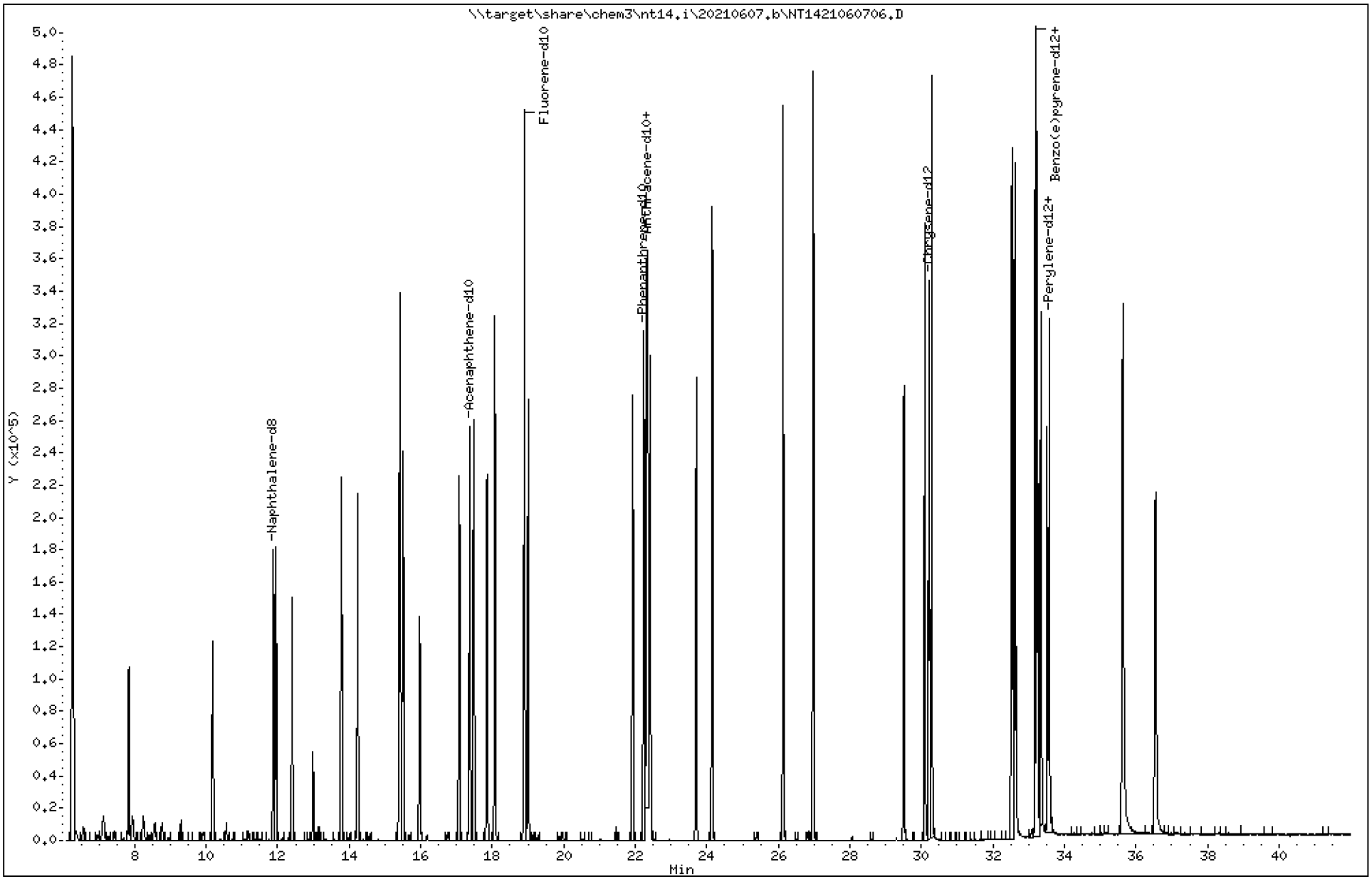
Instrument: nt14.i

Sample Info: BJE0209-BSD1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



Final Report 21E0099 06/15/2021 Page 210 of 957

Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

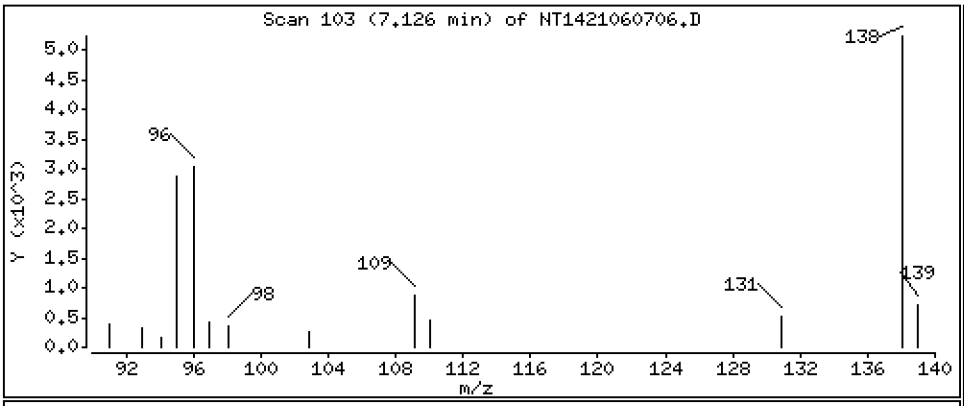
Operator: VTS

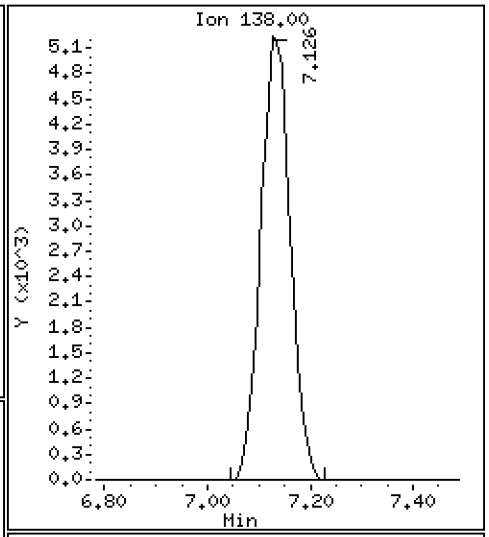
Column phase: Rxi-17Sil MS

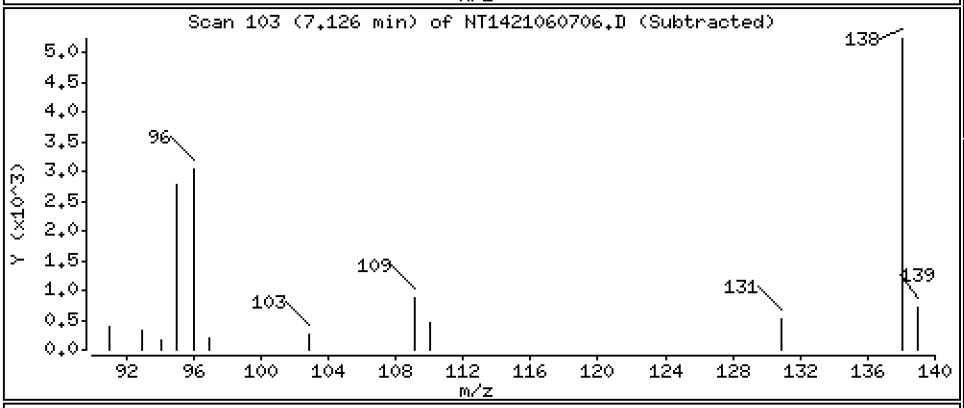
Column diameter: 0.25

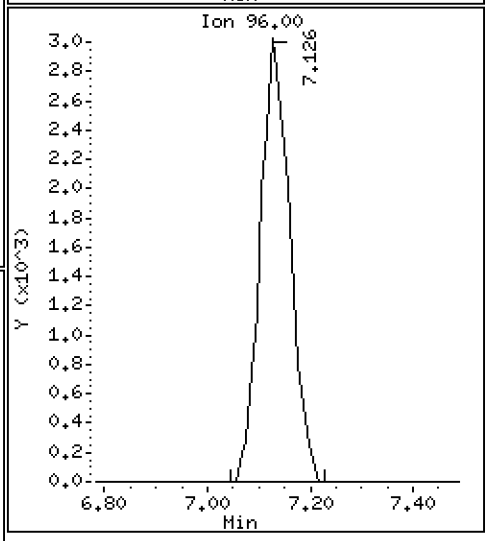
1 trans-Decalin

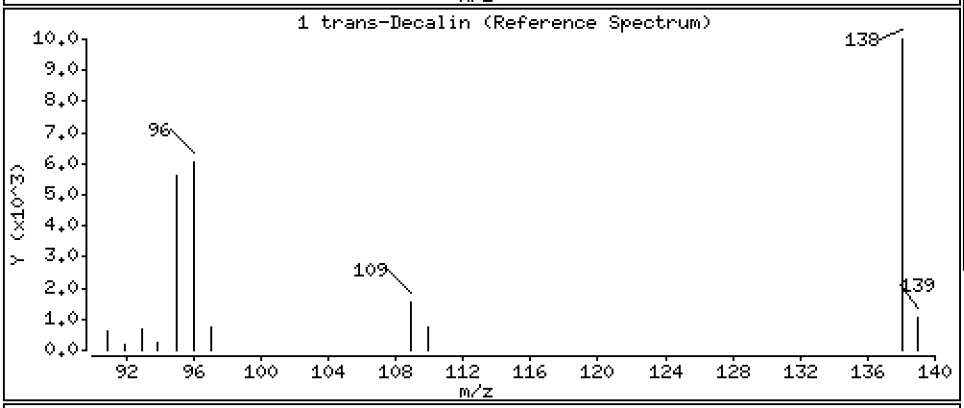
Concentration: 1.245 ug/mL

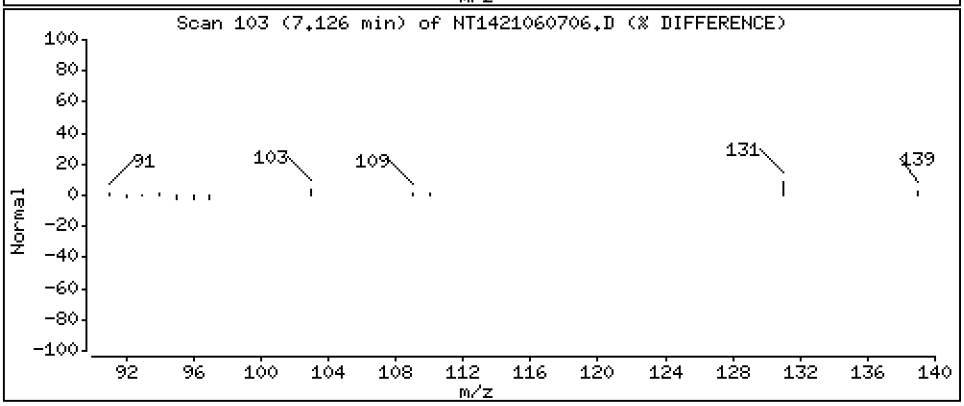












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

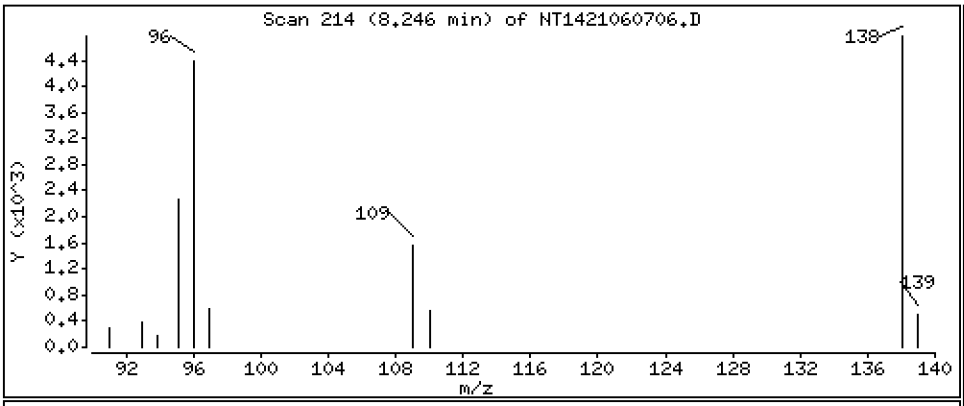
Operator: VTS

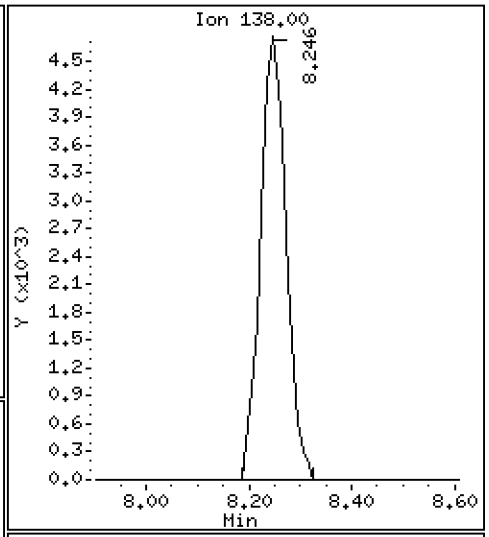
Column phase: Rxi-17Sil MS

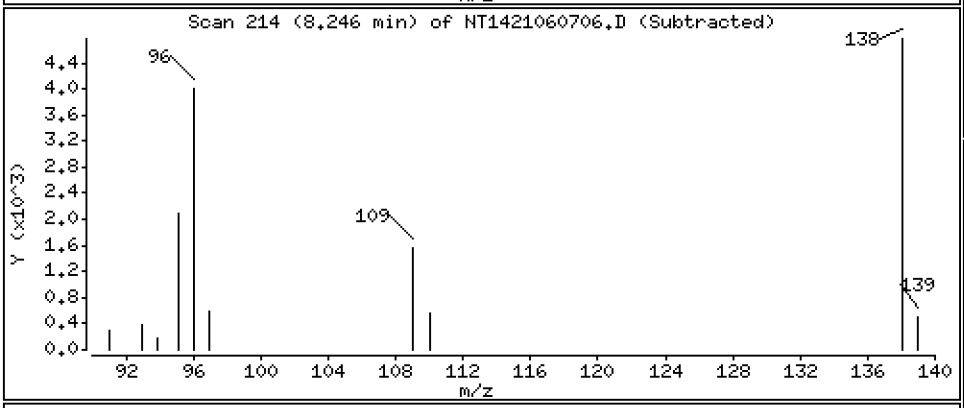
Column diameter: 0.25

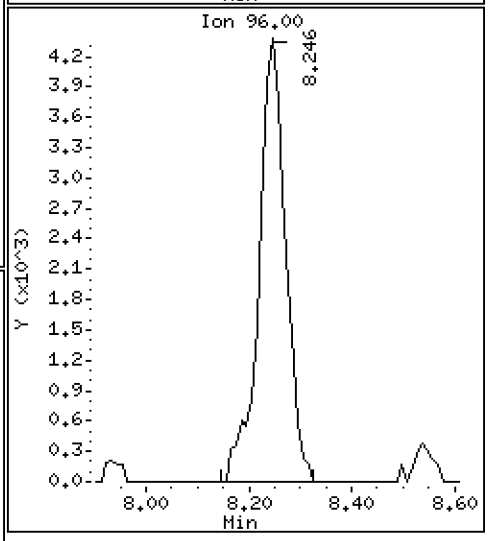
2 cis-Decalin

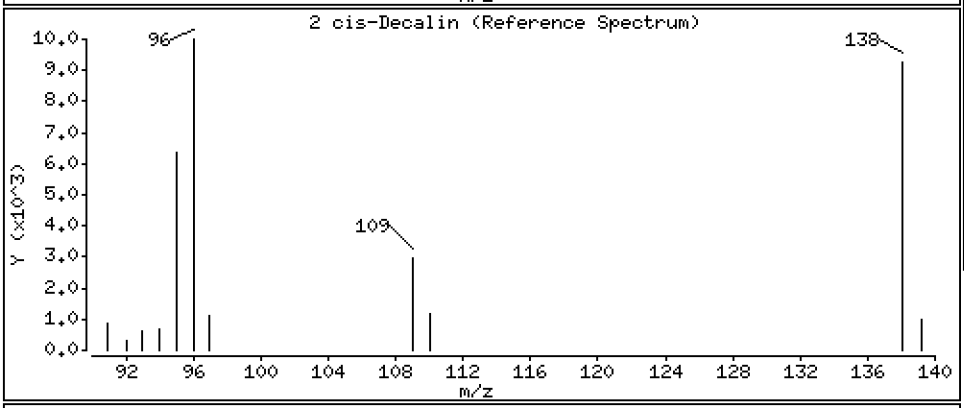
Concentration: 1.203 ug/mL

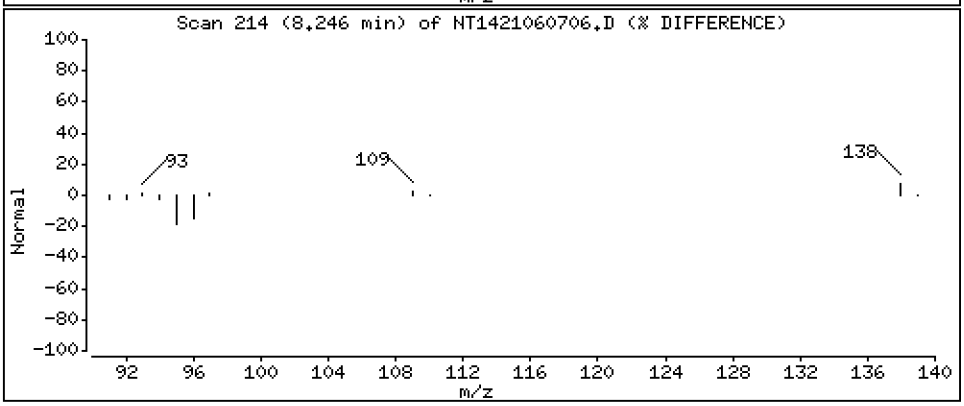












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

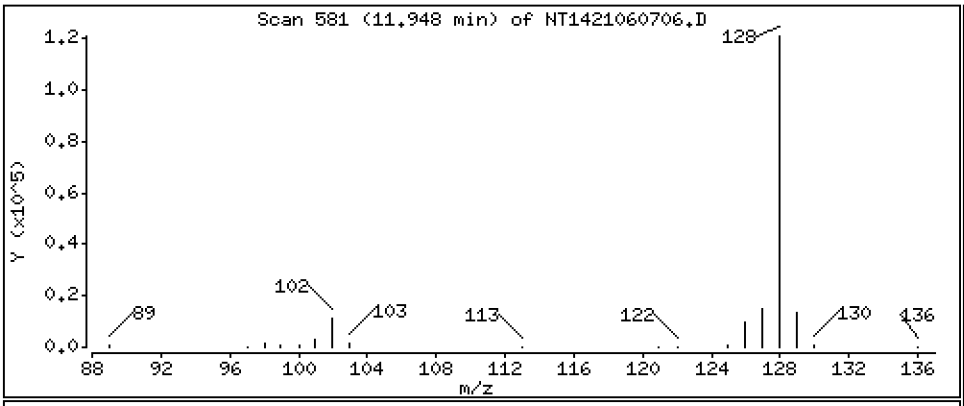
Operator: VTS

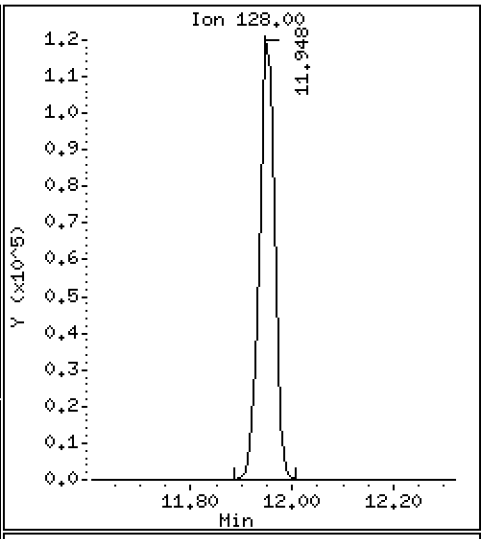
Column phase: Rxi-17Sil MS

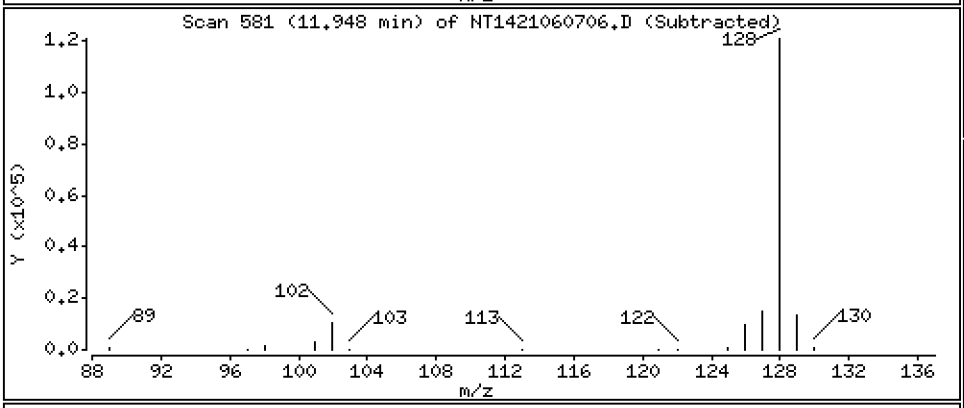
Column diameter: 0.25

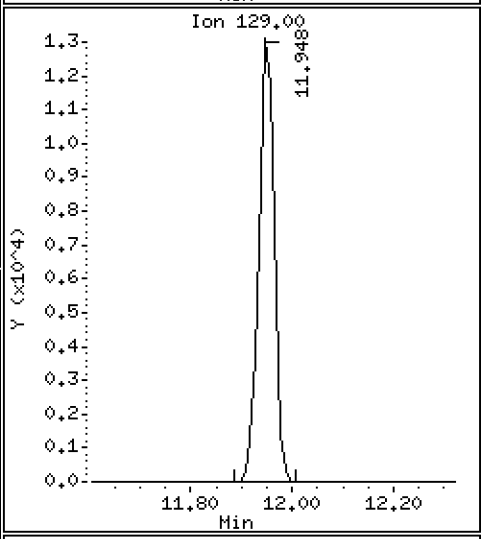
7 Naphthalene

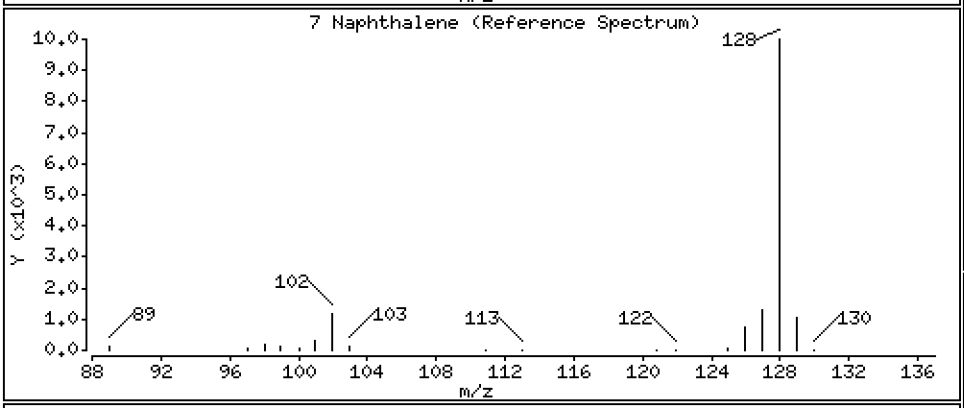
Concentration: 1.630 ug/mL

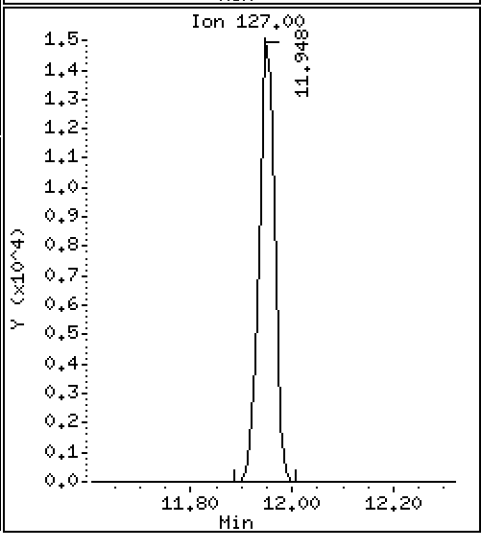


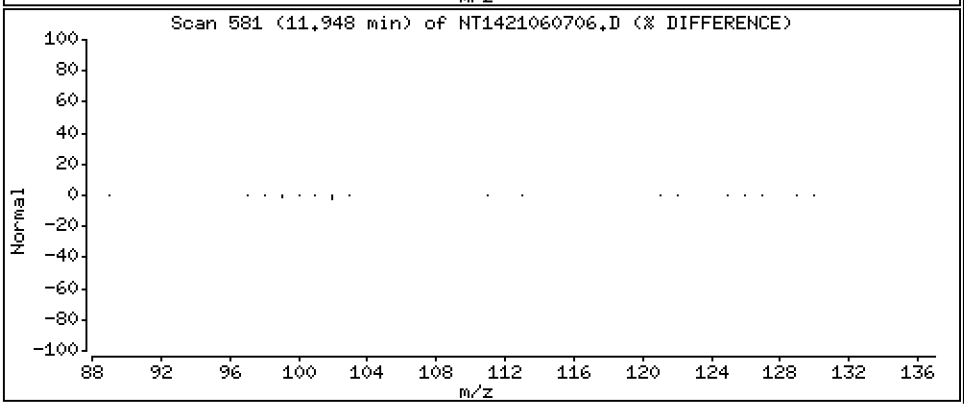












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

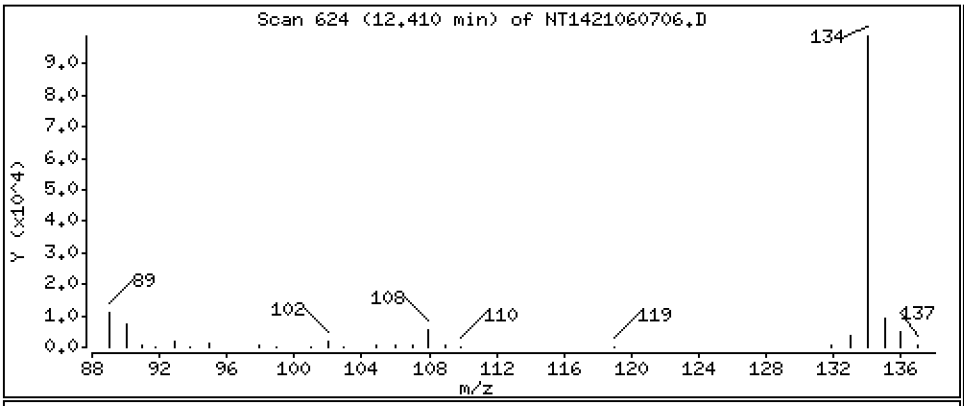
Operator: VTS

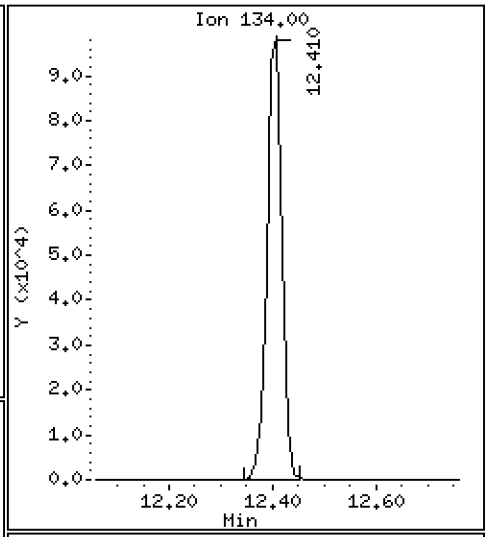
Column phase: Rxi-17Sil MS

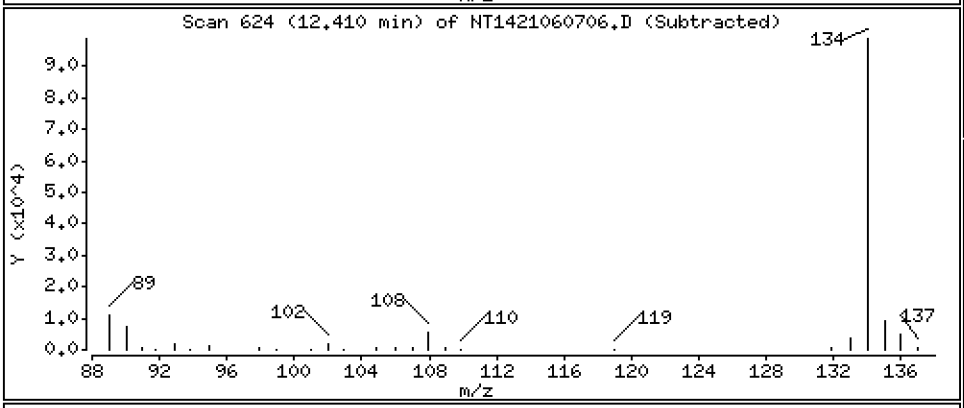
Column diameter: 0.25

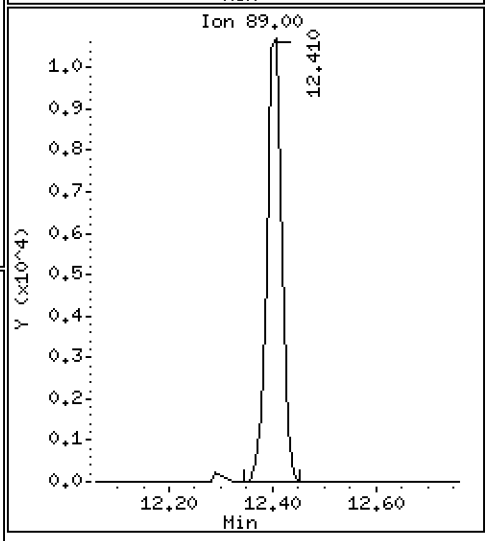
12 Benzo(b)thiophene

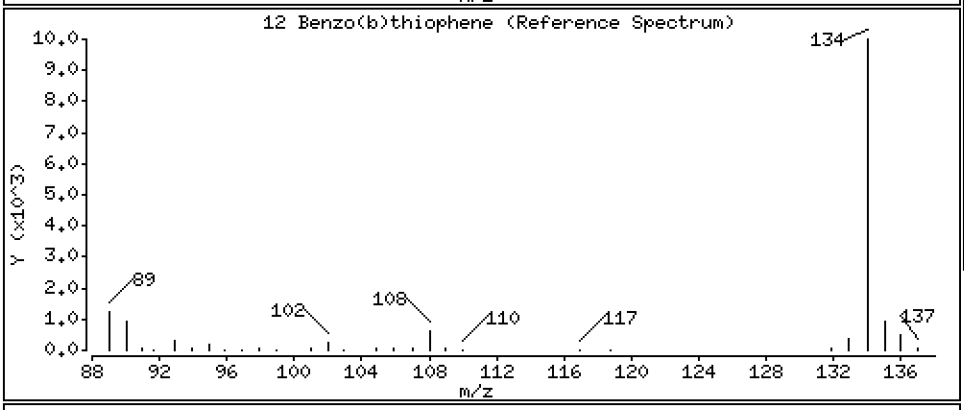
Concentration: 1.640 ug/mL

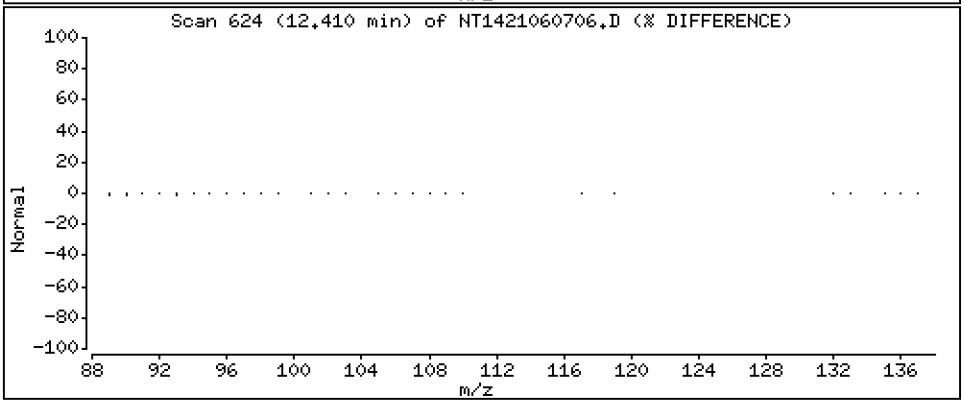












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

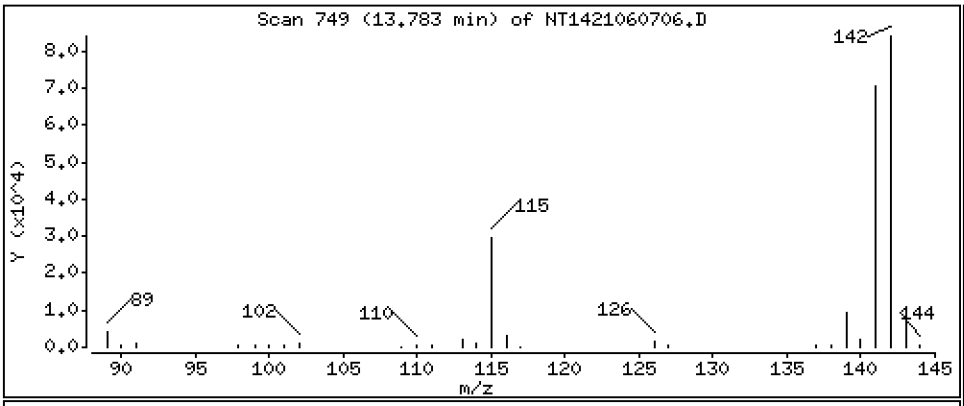
Operator: VTS

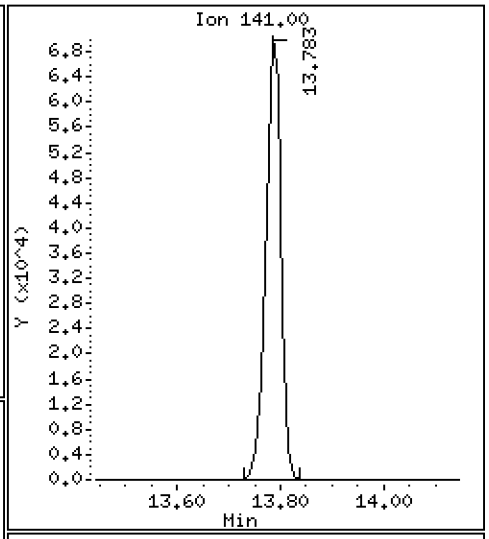
Column phase: Rxi-17Sil MS

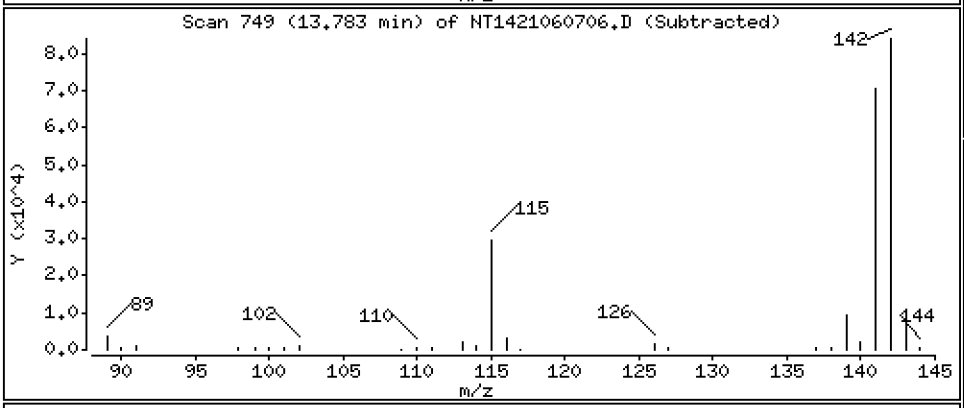
Column diameter: 0.25

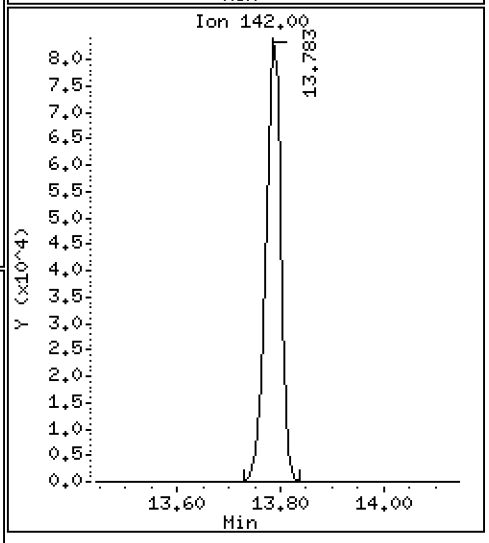
16 2-Methylnaphthalene

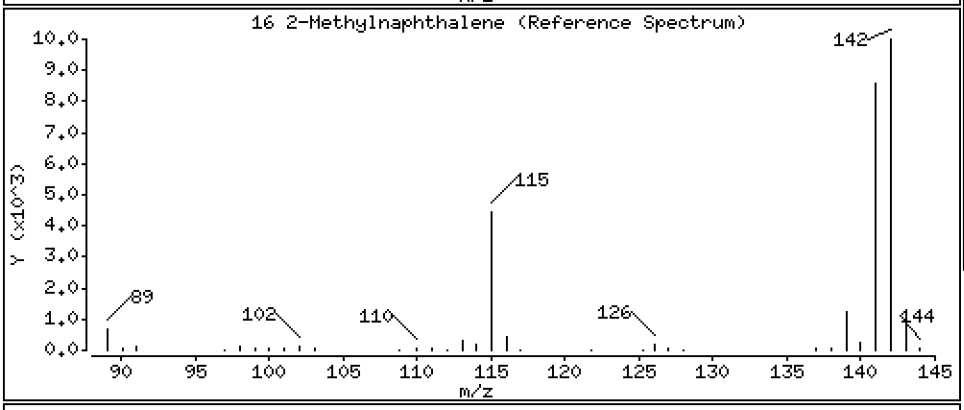
Concentration: 1.649 ug/mL

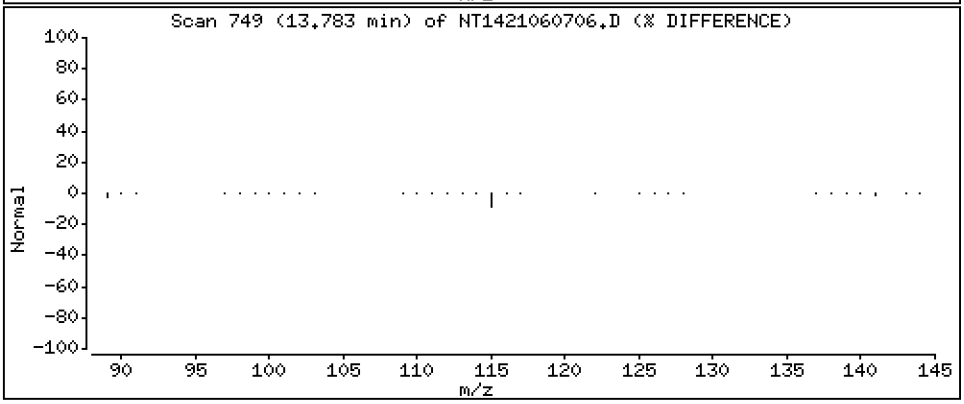












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

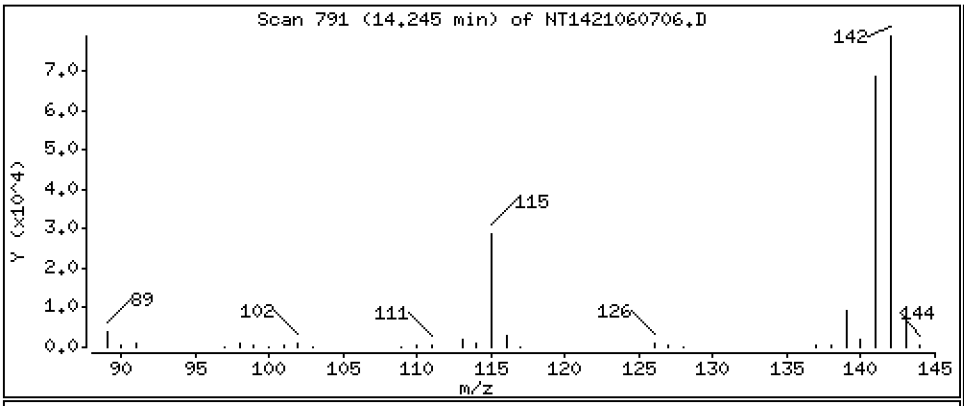
Operator: VTS

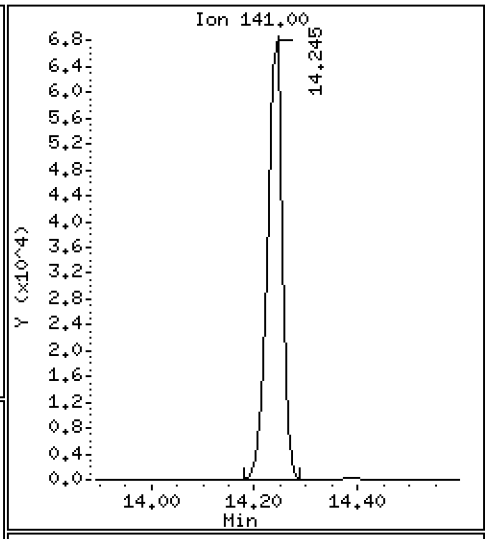
Column phase: Rxi-17Sil MS

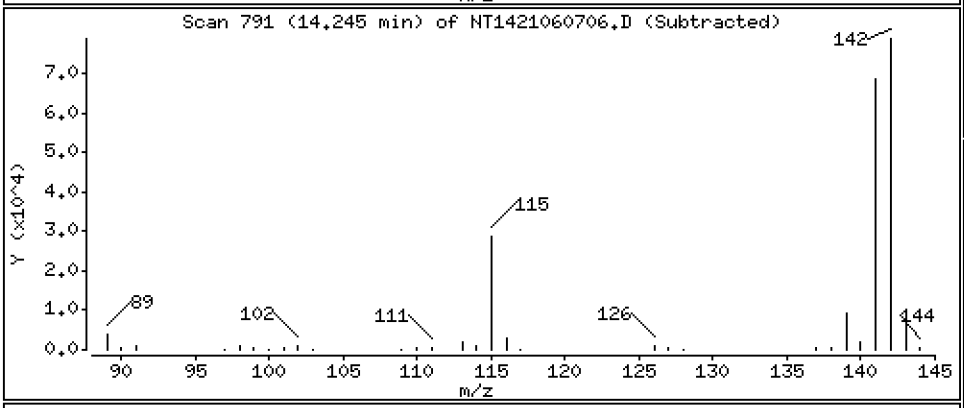
Column diameter: 0.25

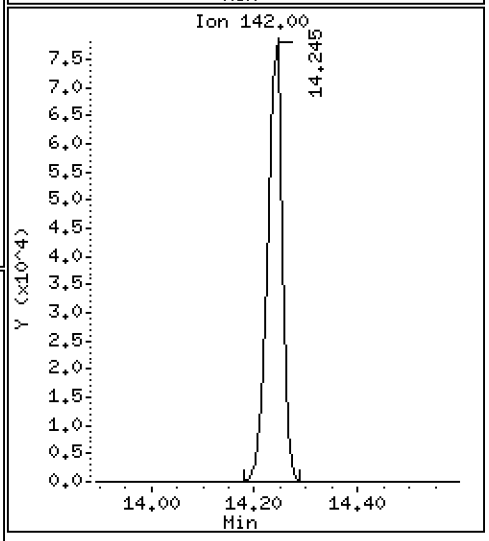
17 1-methylnaphthalene

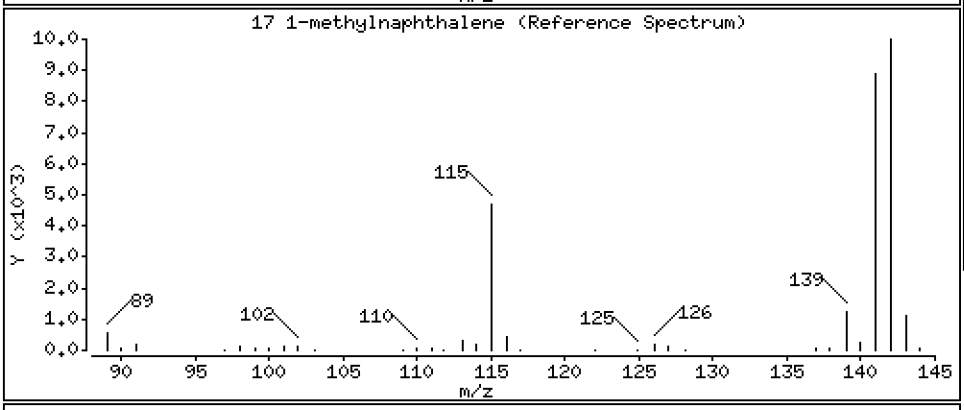
Concentration: 1.660 ug/mL

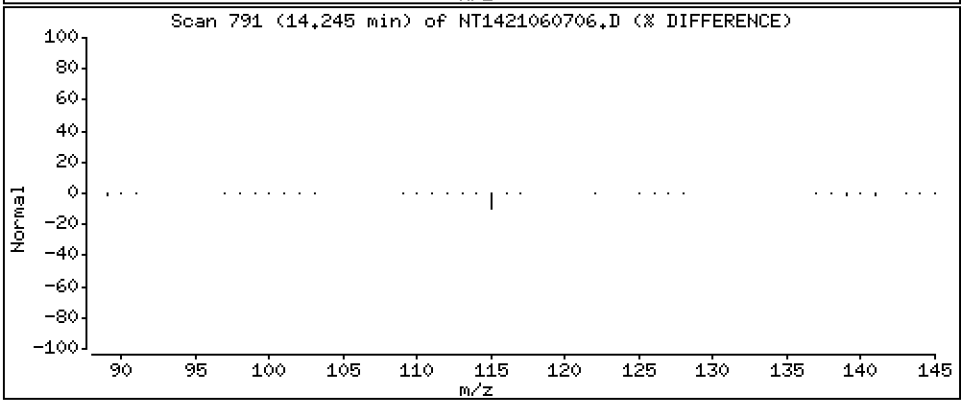












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

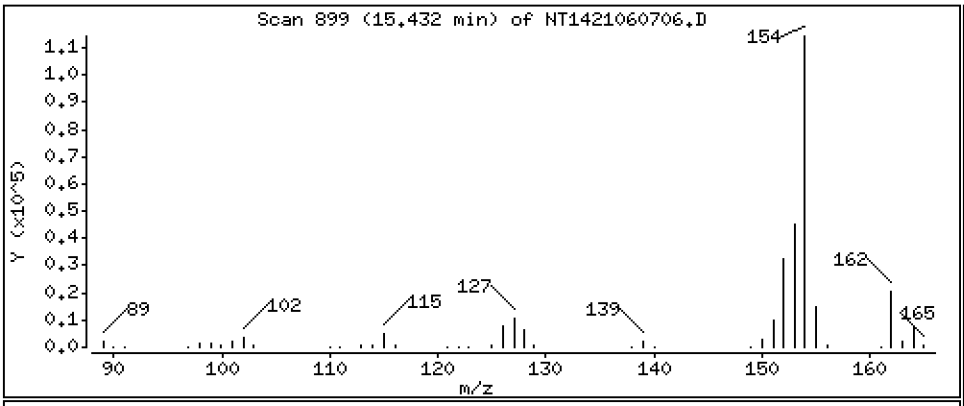
Operator: VTS

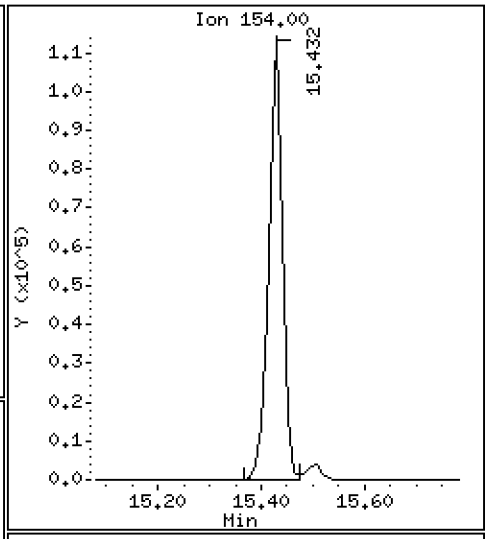
Column phase: Rxi-17Sil MS

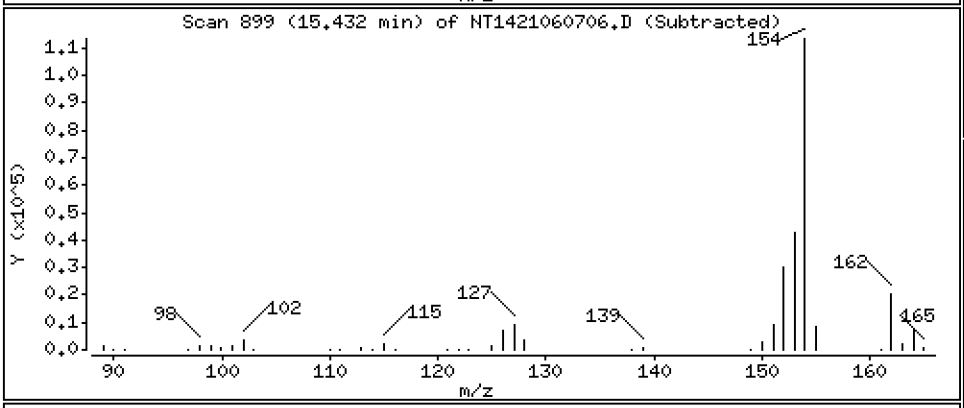
Column diameter: 0.25

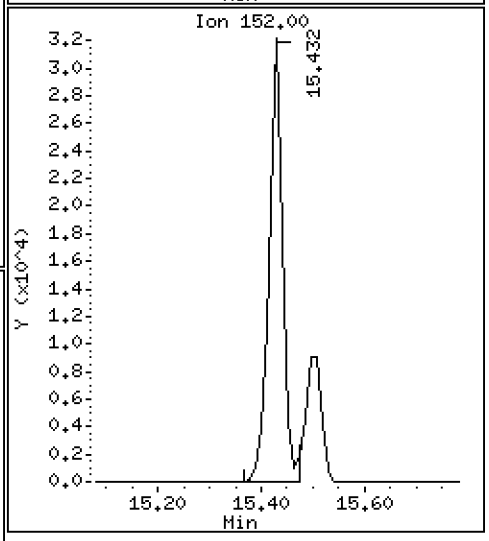
18 Biphenyl

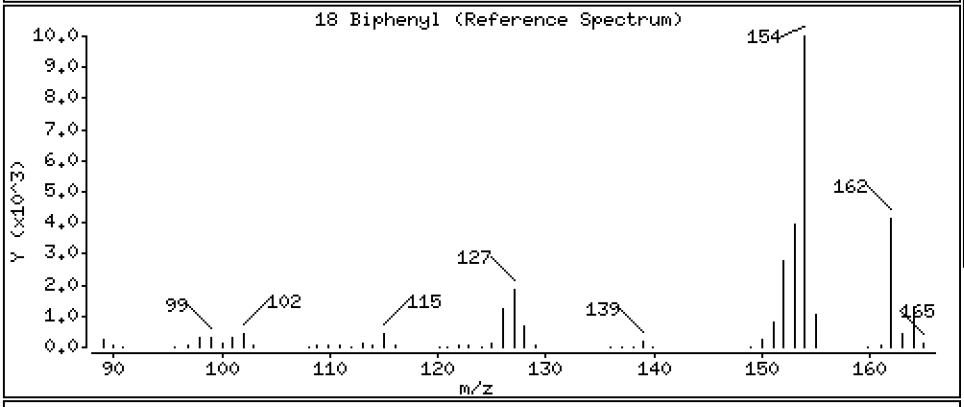
Concentration: 1.692 ug/mL

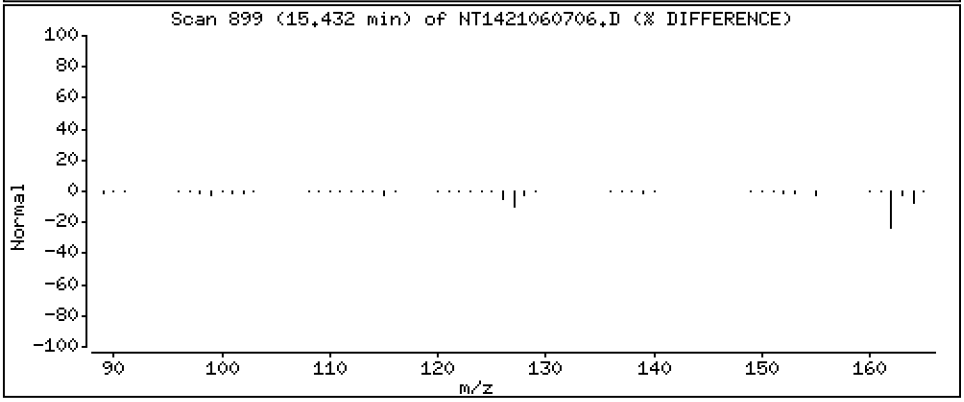












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

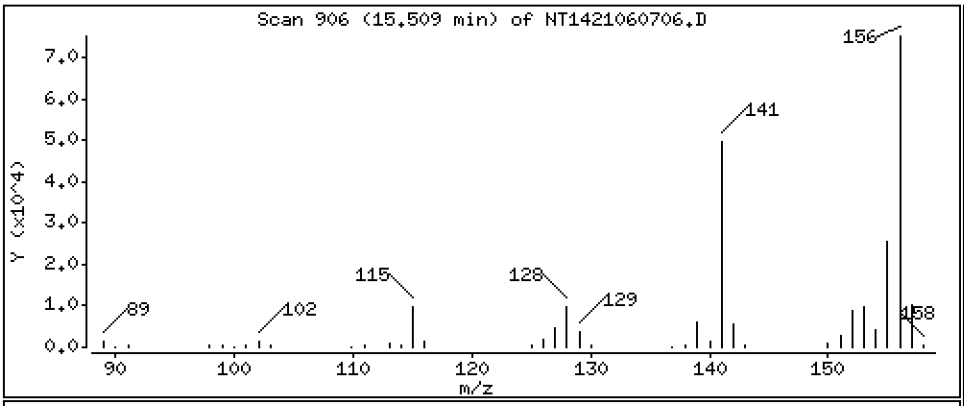
Operator: VTS

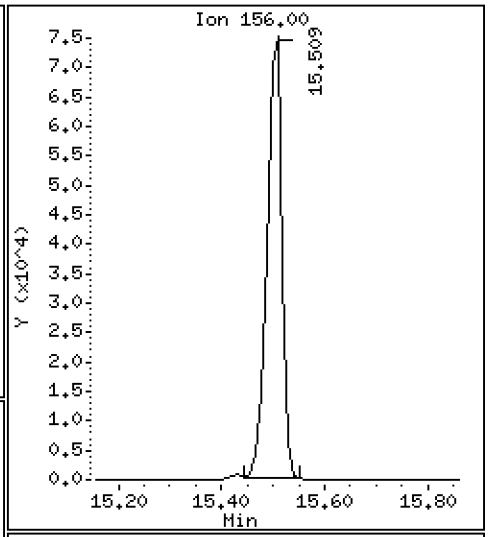
Column phase: Rxi-17Sil MS

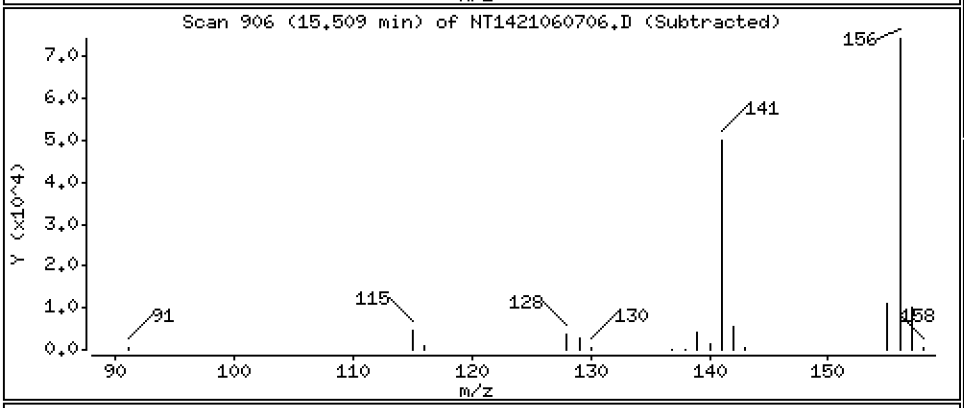
Column diameter: 0.25

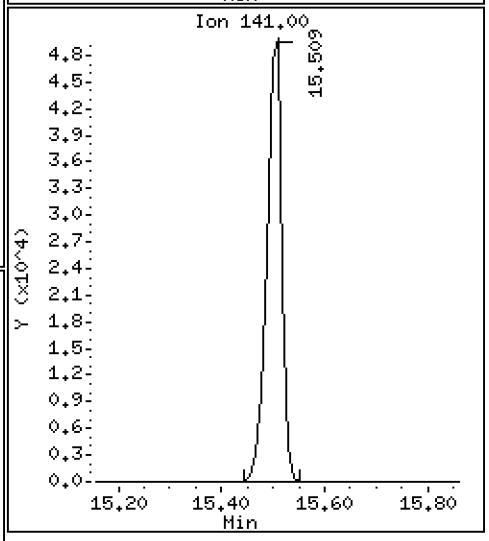
19 2,6-Dimethylnaphthalene

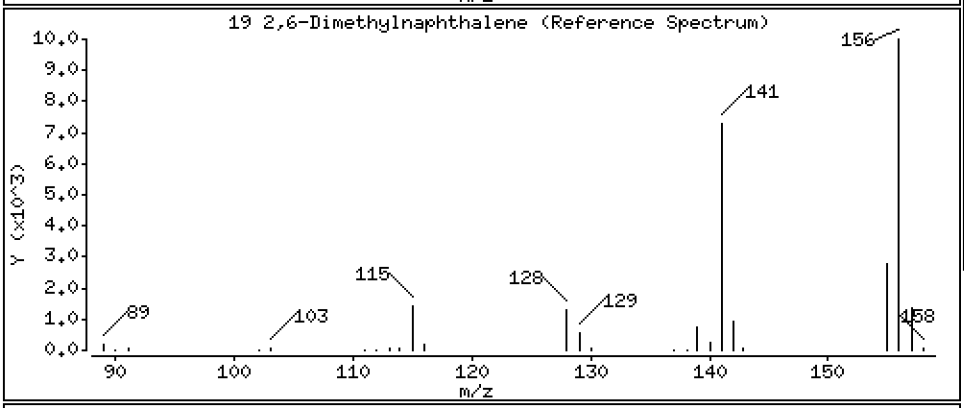
Concentration: 1.620 ug/mL

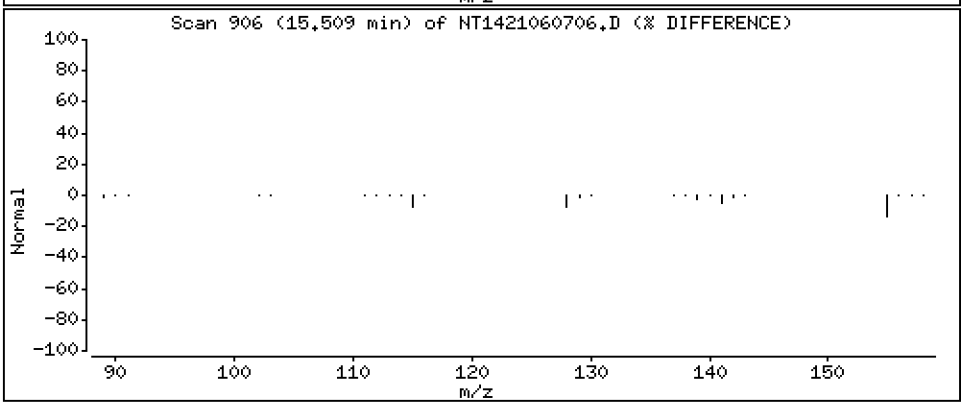












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

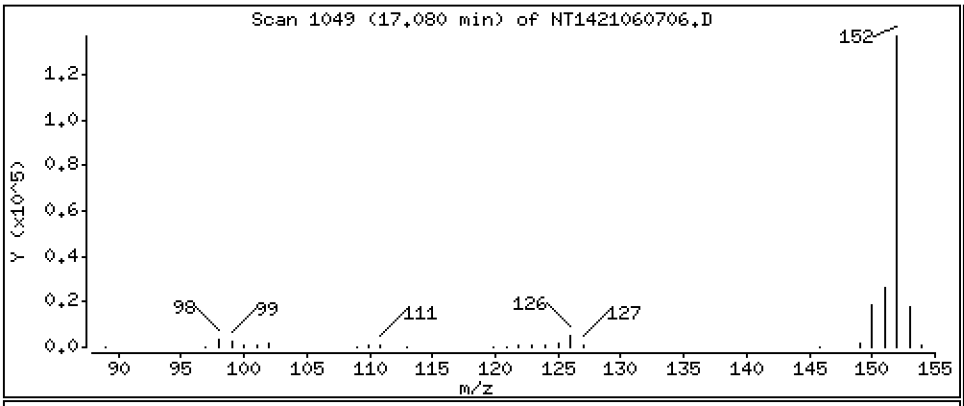
Operator: VTS

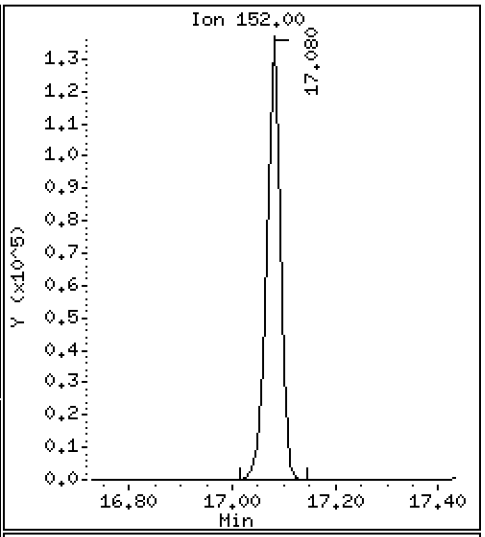
Column phase: Rxi-17Sil MS

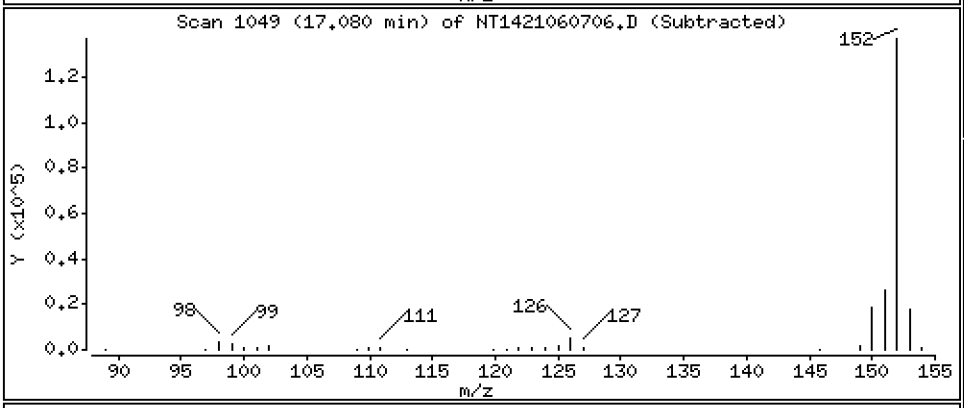
Column diameter: 0.25

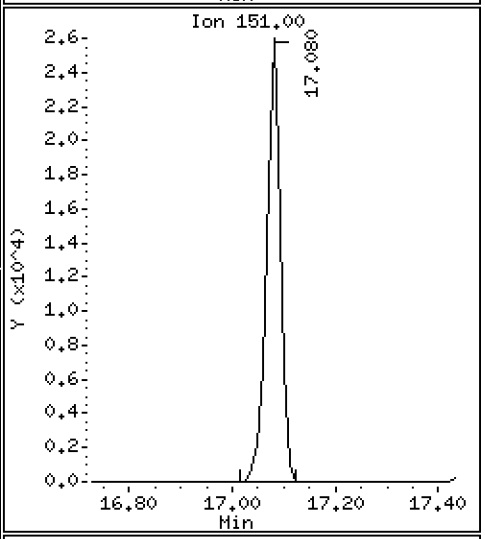
20 Acenaphthylene

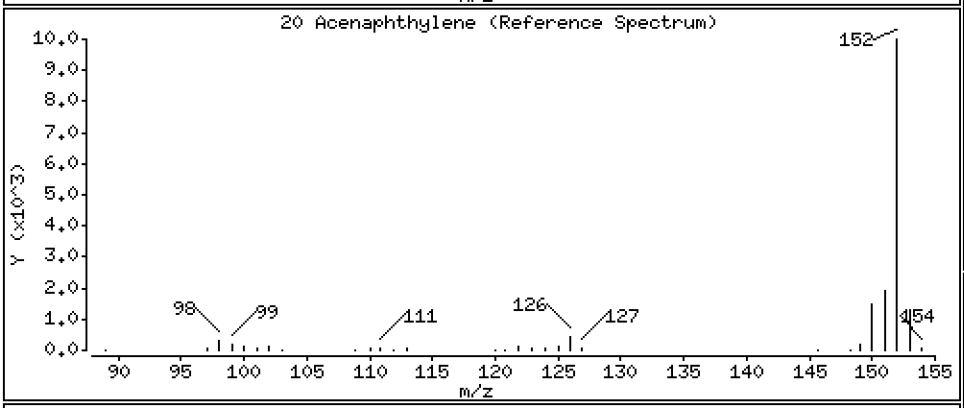
Concentration: 1.616 ug/mL

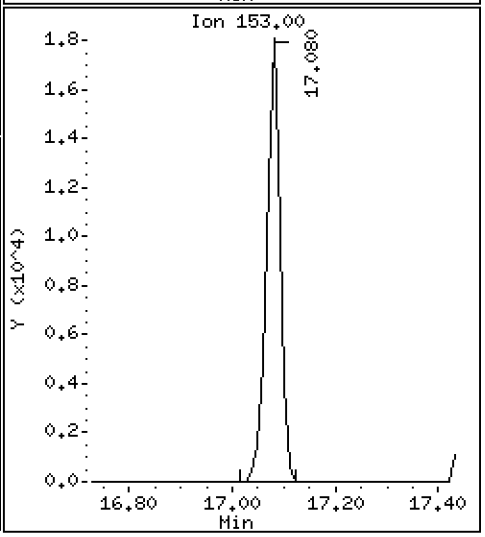


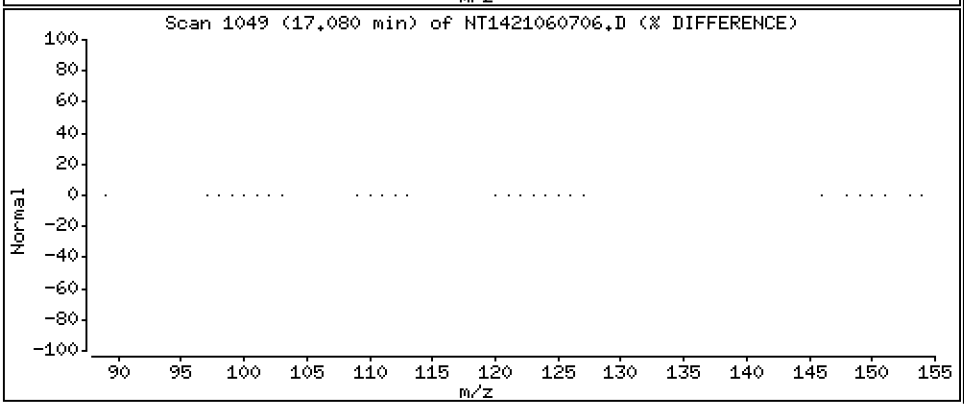












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

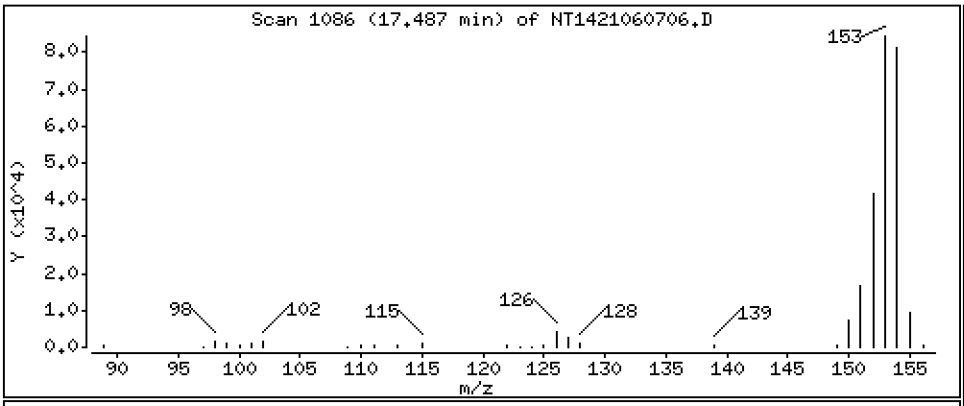
Operator: VTS

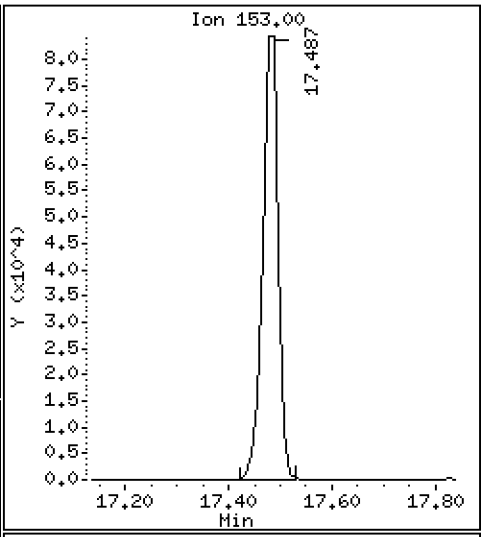
Column phase: Rxi-17Sil MS

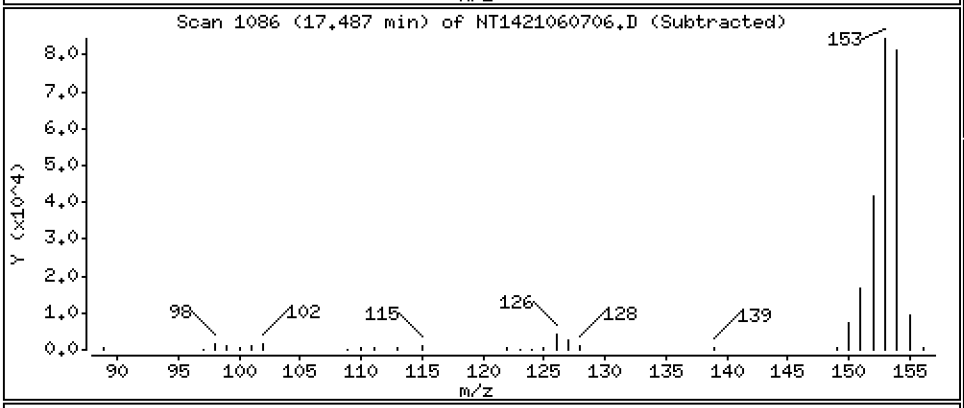
Column diameter: 0.25

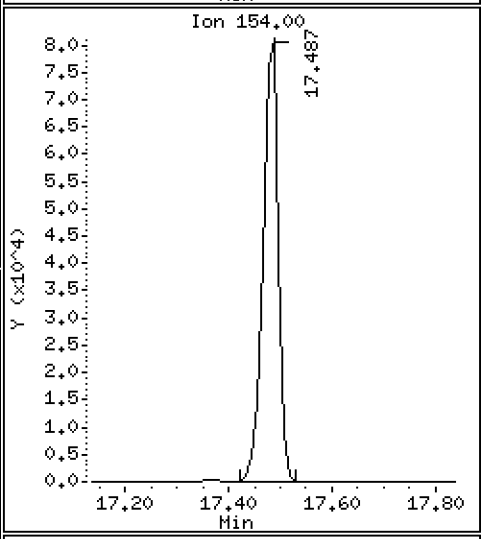
22 Acenaphthene

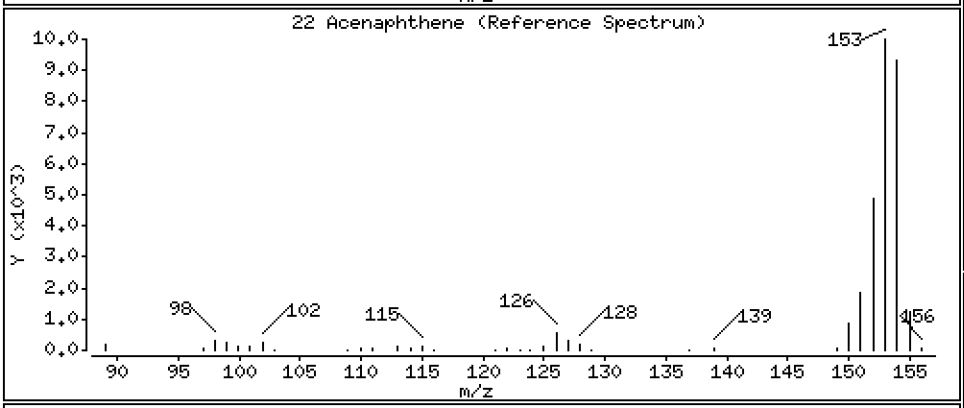
Concentration: 1.793 ug/mL

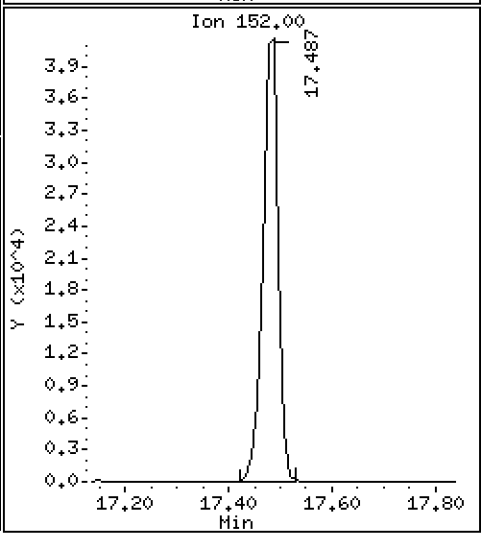


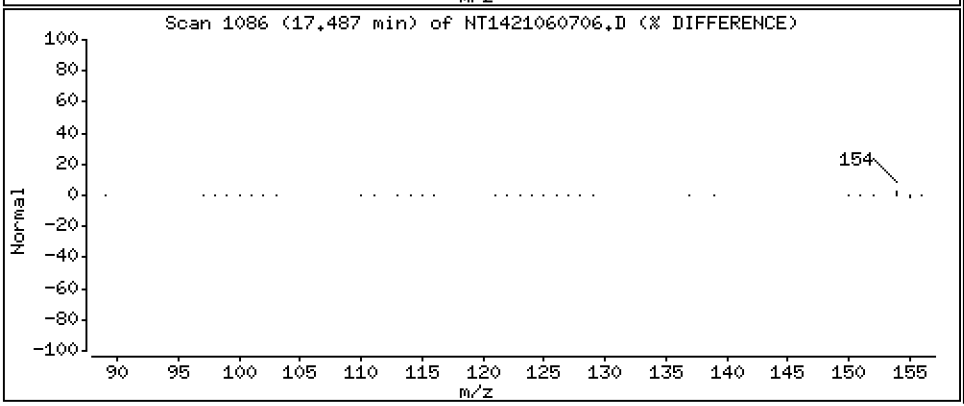












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

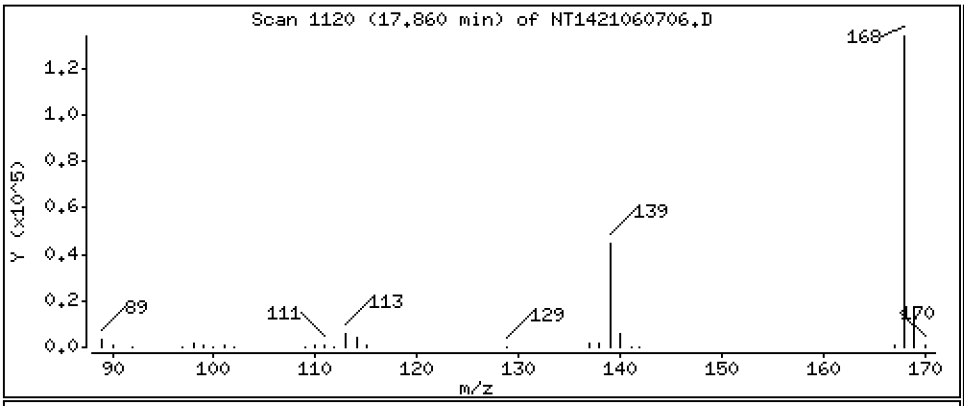
Operator: VTS

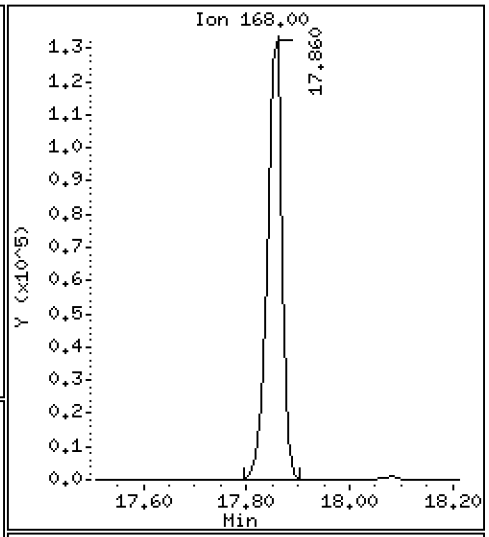
Column phase: Rxi-17Sil MS

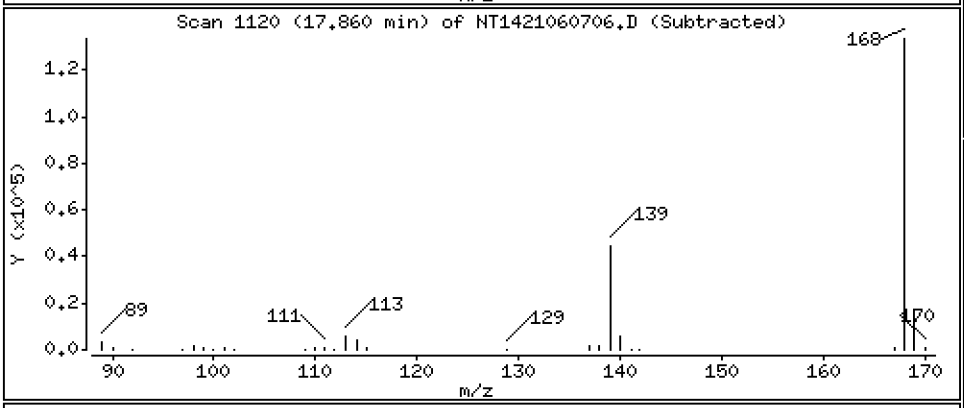
Column diameter: 0.25

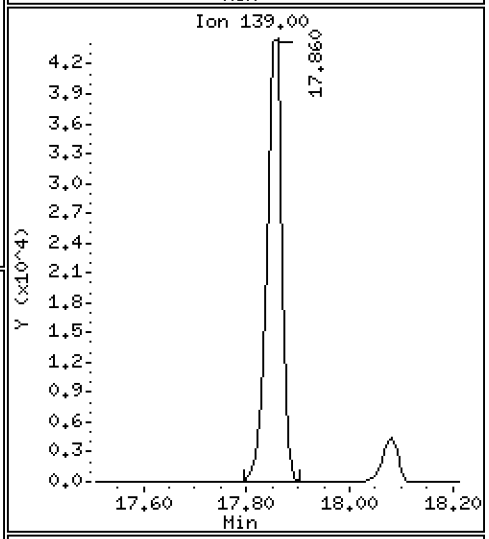
23 Dibenzofuran

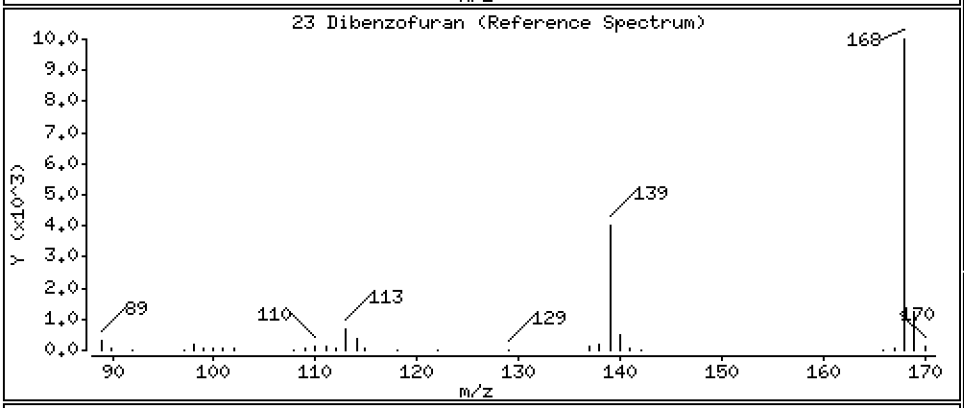
Concentration: 1.805 ug/mL

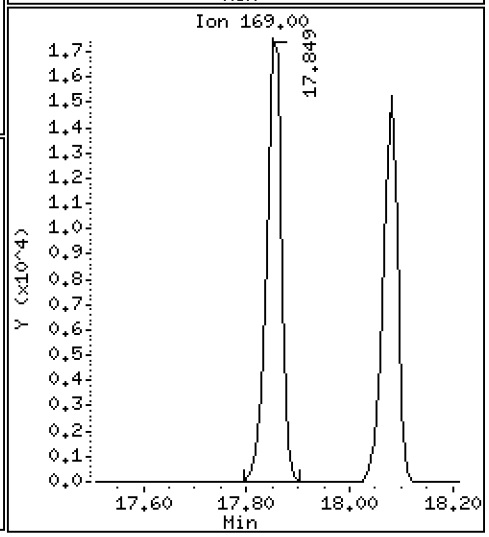


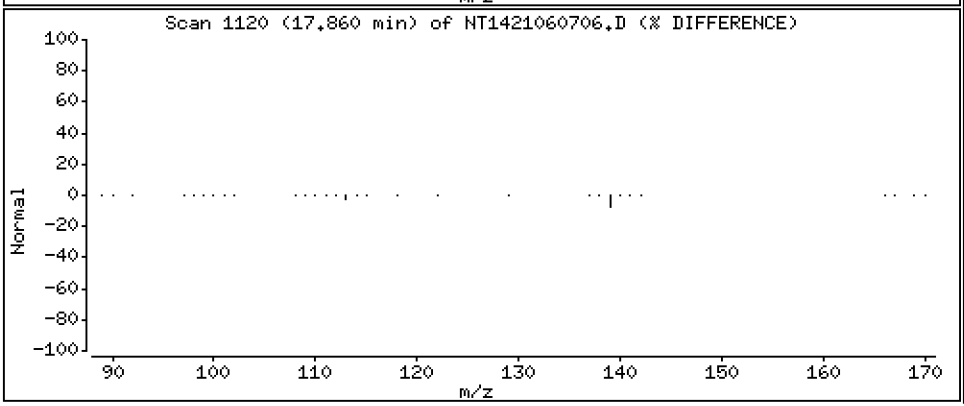












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

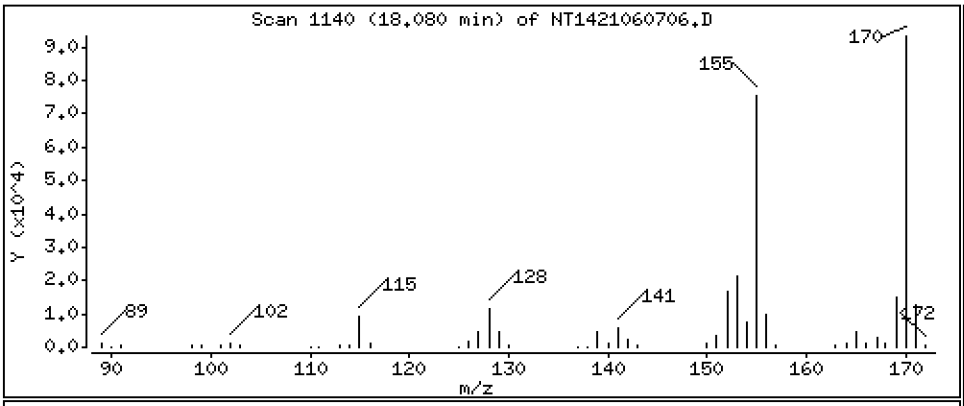
Operator: VTS

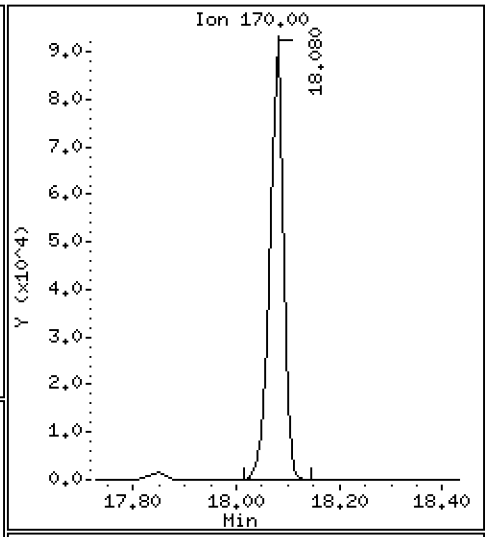
Column phase: Rxi-17Sil MS

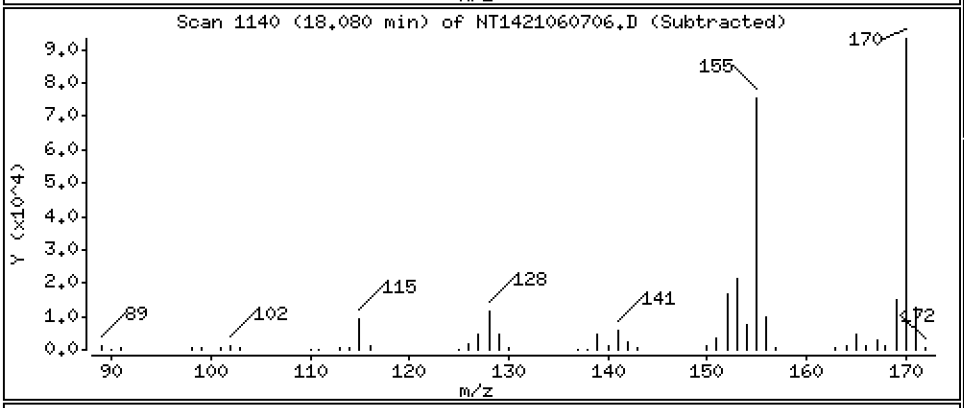
Column diameter: 0.25

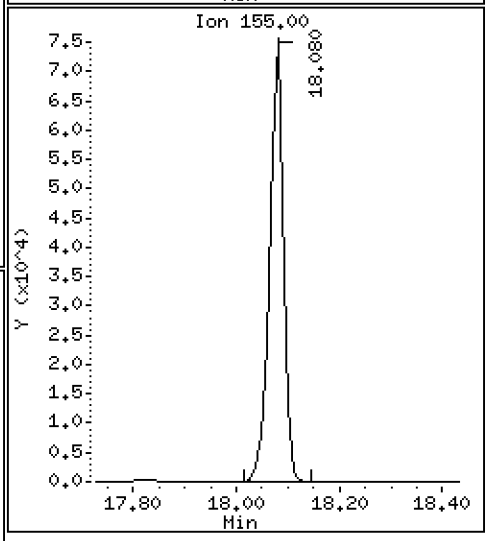
24 1,6,7-Trimethylnaphthalene

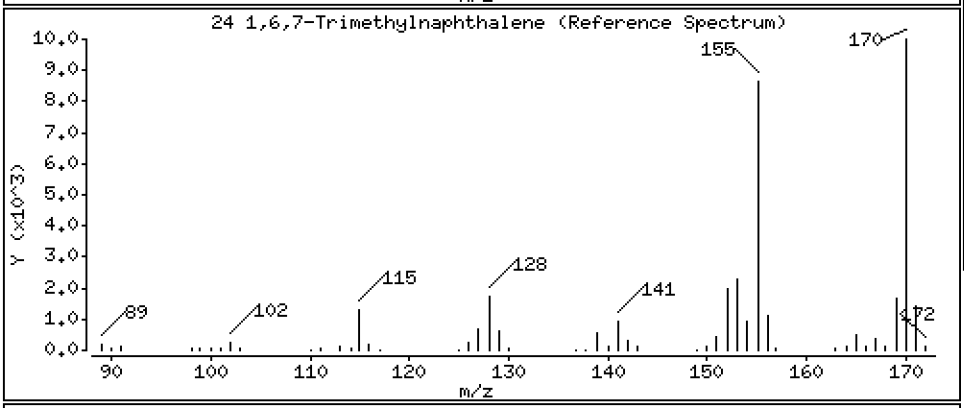
Concentration: 1.823 ug/mL

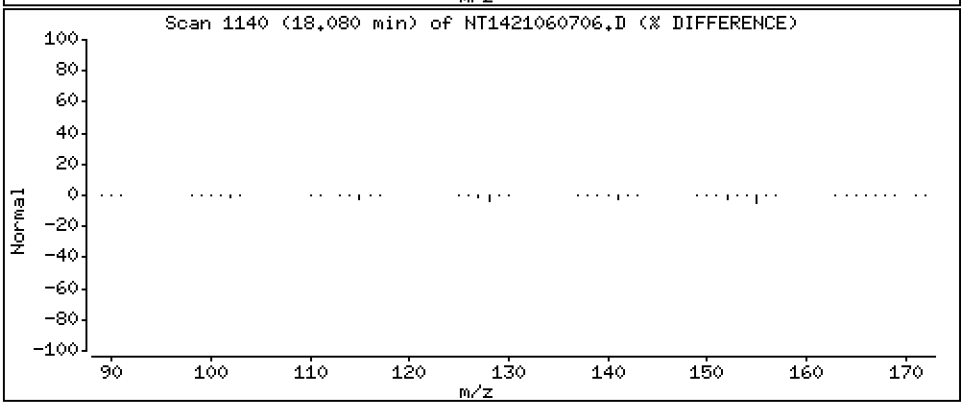












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

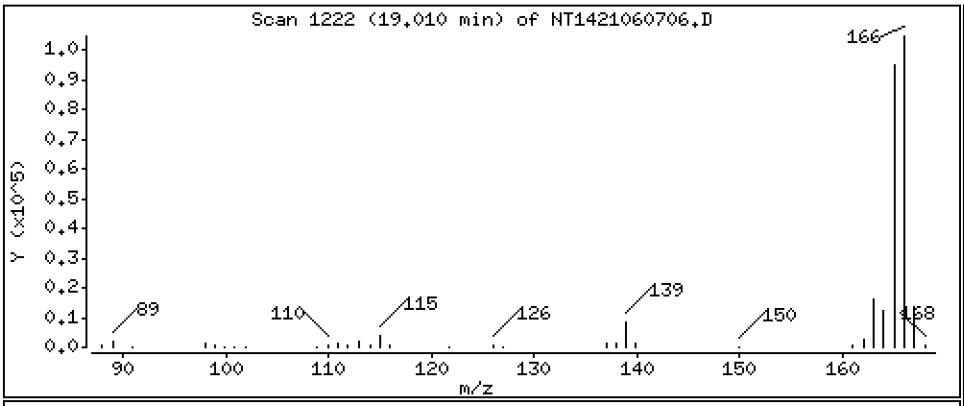
Operator: VTS

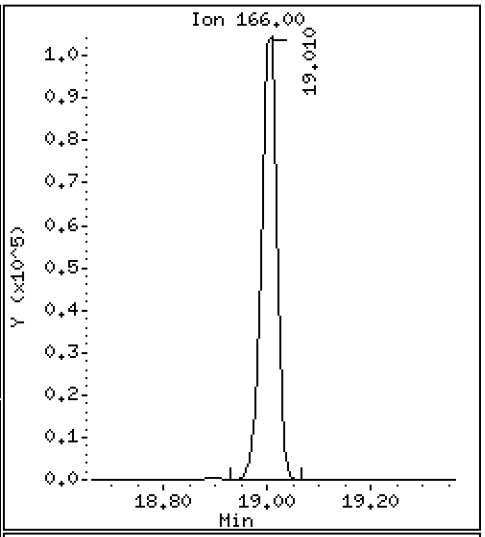
Column phase: Rxi-17Sil MS

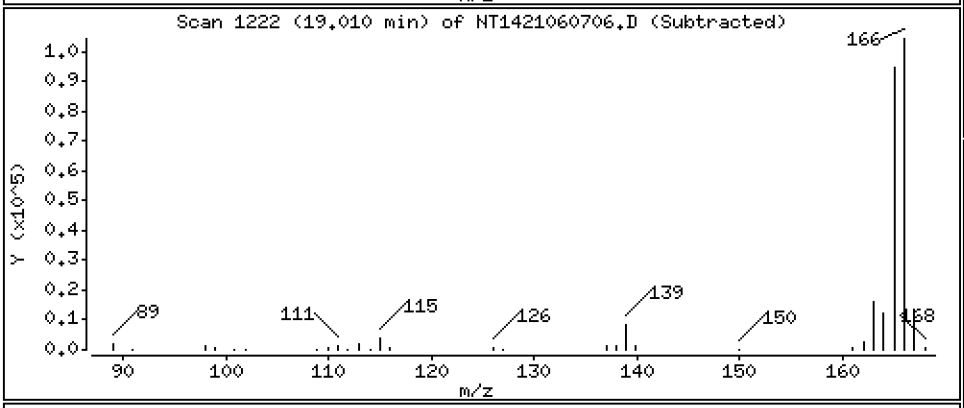
Column diameter: 0.25

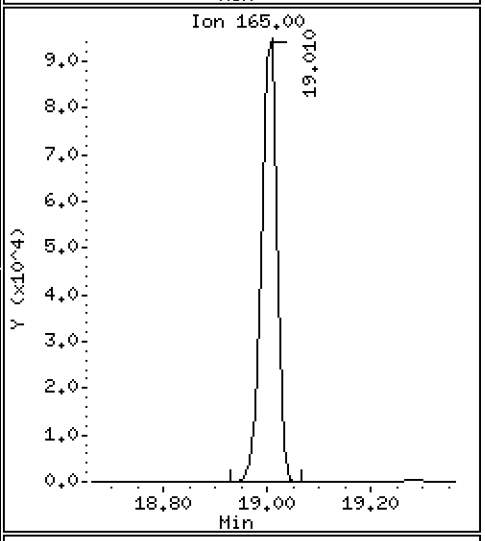
26 Fluorene

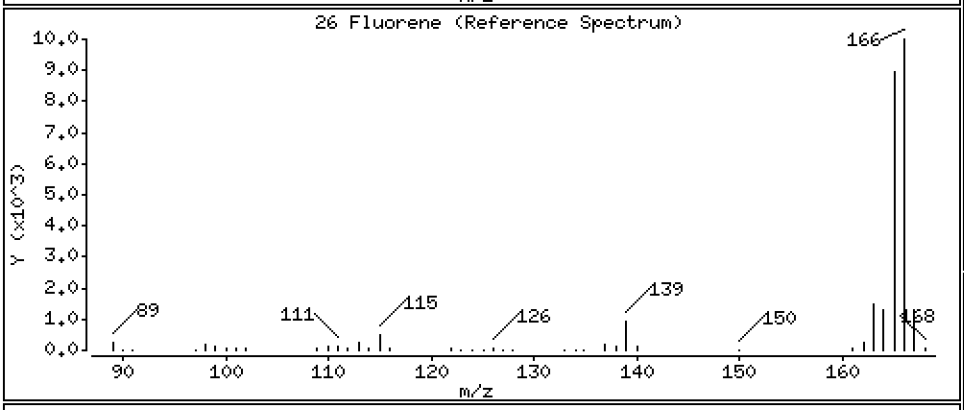
Concentration: 1.880 ug/mL

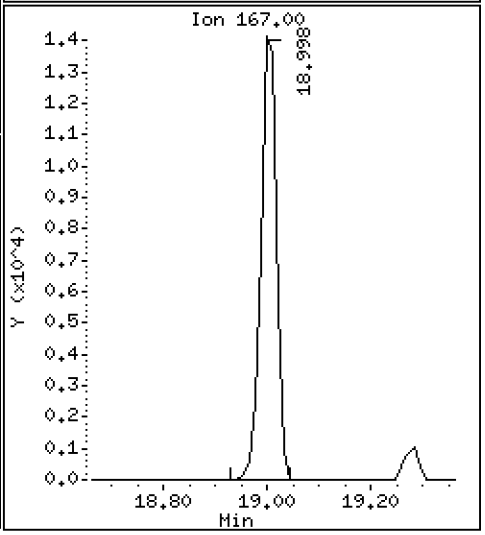


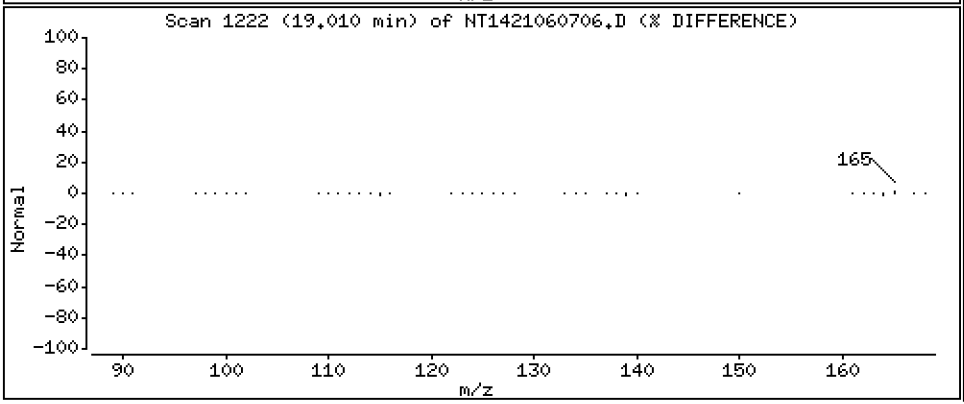












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

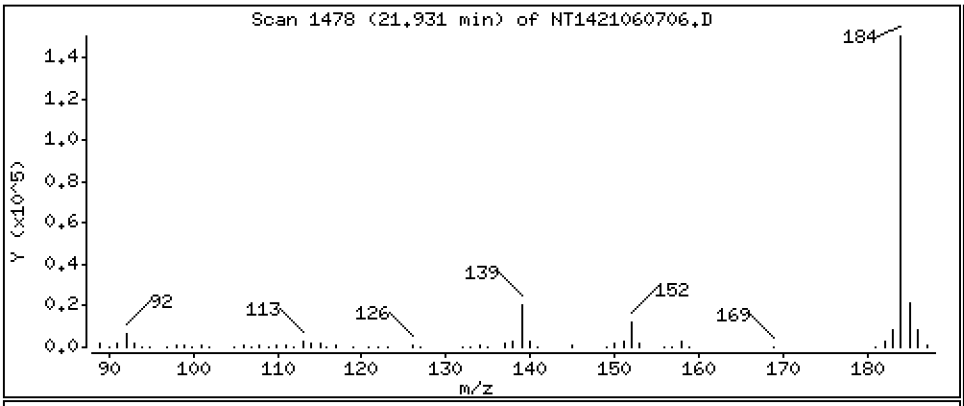
Operator: VTS

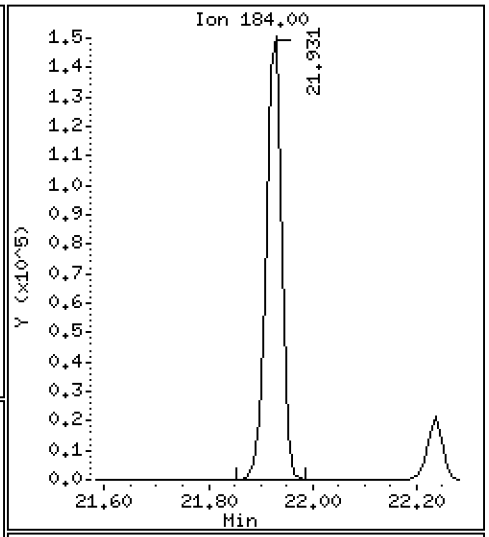
Column phase: Rxi-17Sil MS

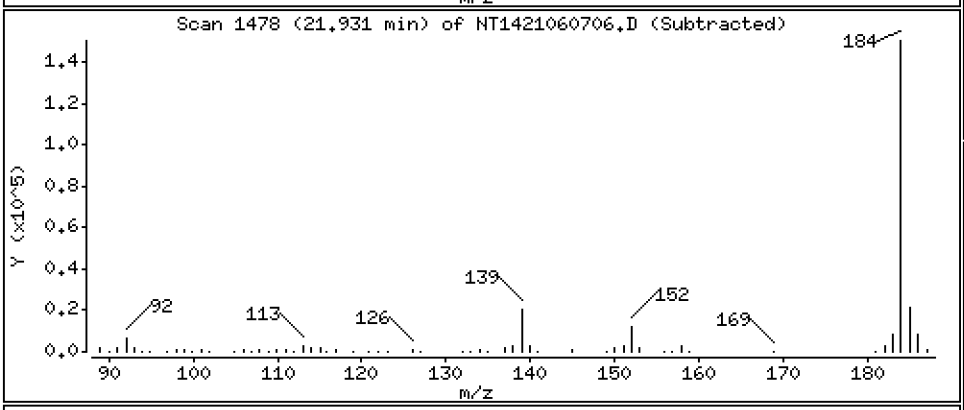
Column diameter: 0.25

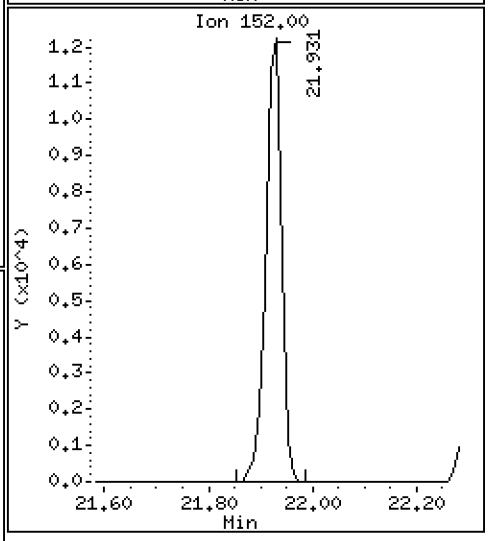
30 Dibenzothiophene

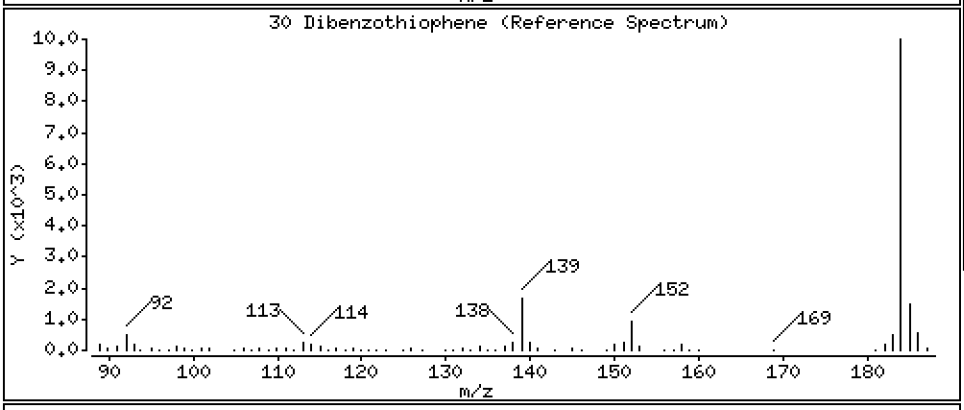
Concentration: 1.836 ug/mL

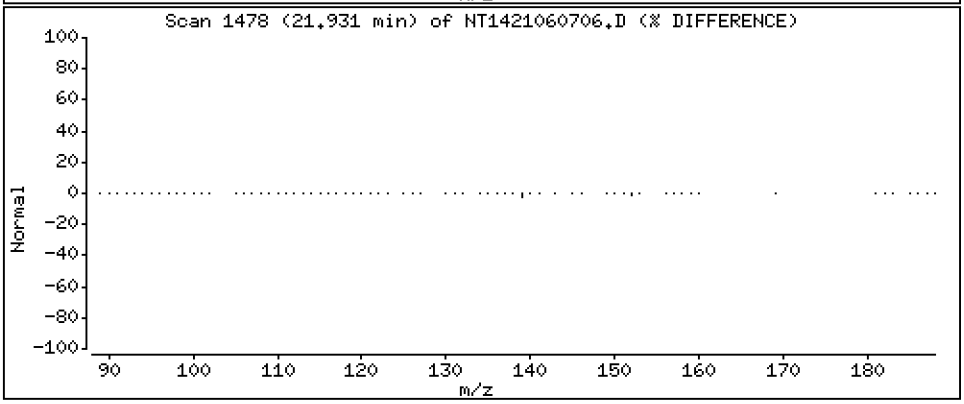












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

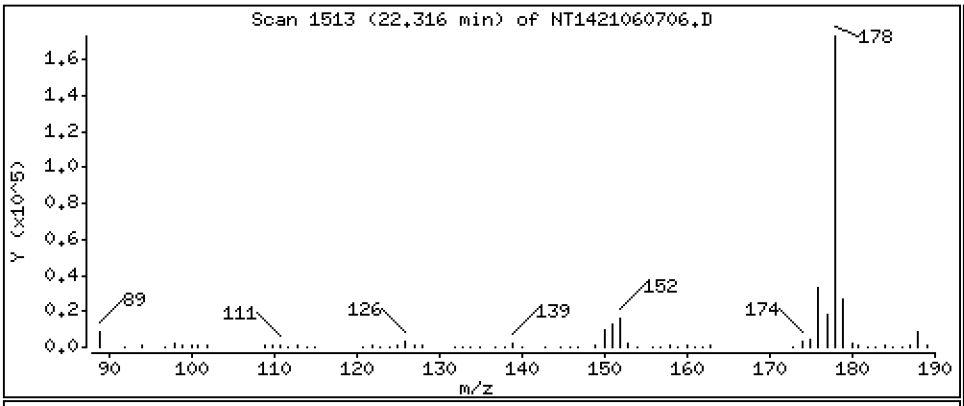
Operator: VTS

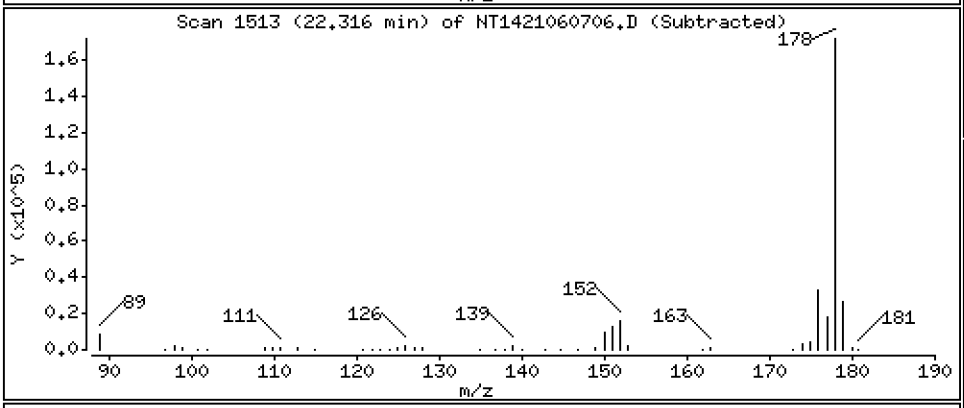
Column phase: Rxi-17Sil MS

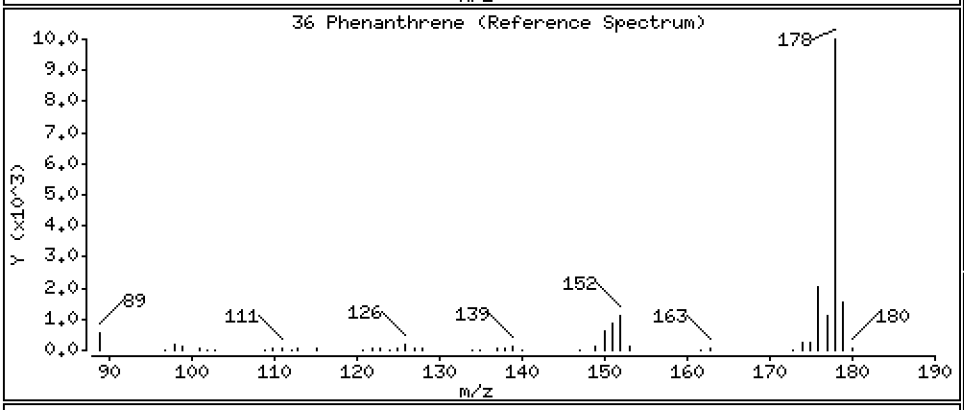
Column diameter: 0.25

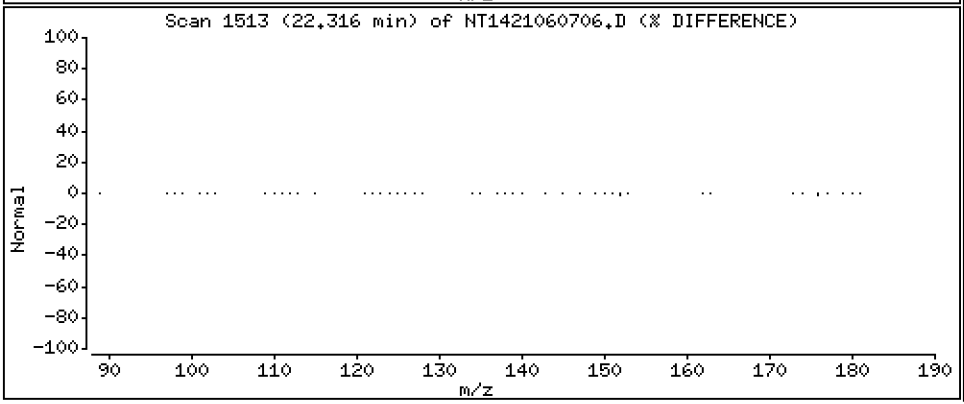
36 Phenanthrene

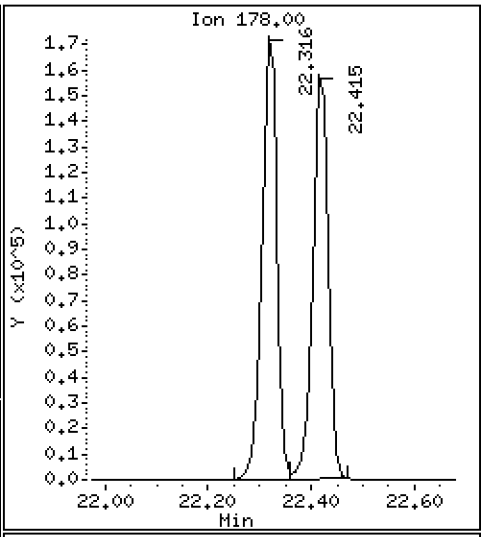
Concentration: 2.073 ug/mL

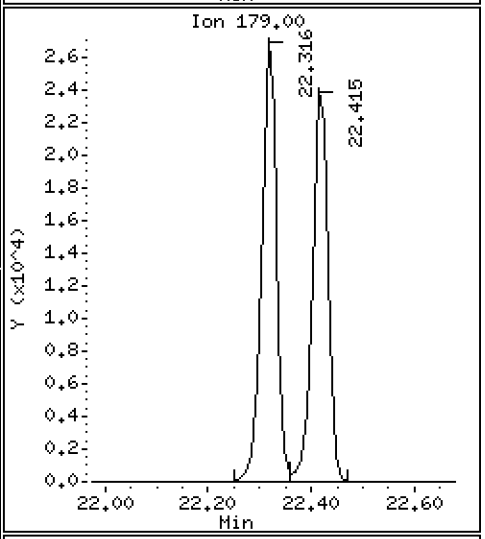


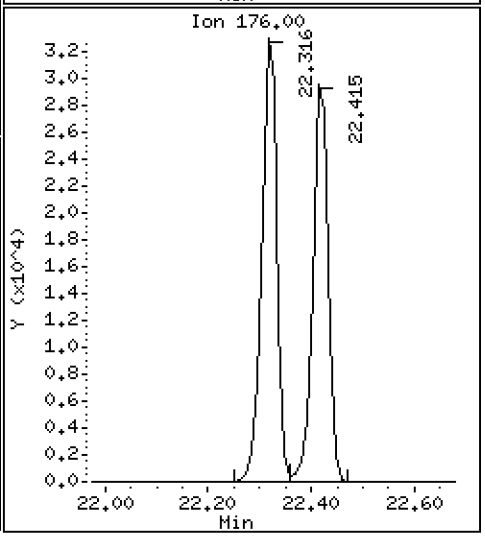












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

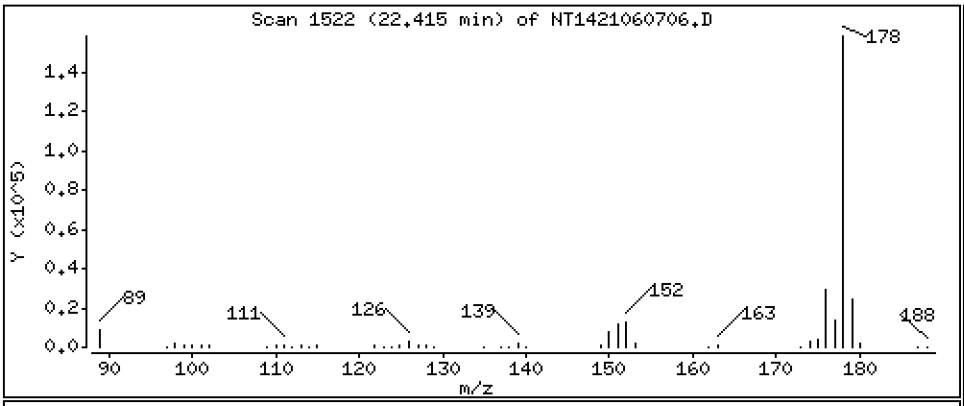
Operator: VTS

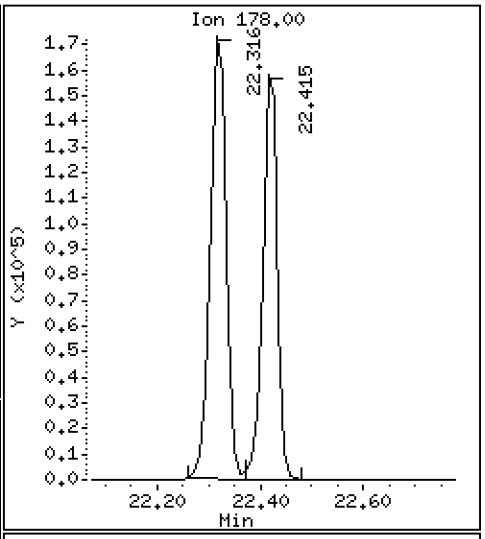
Column phase: Rxi-17Sil MS

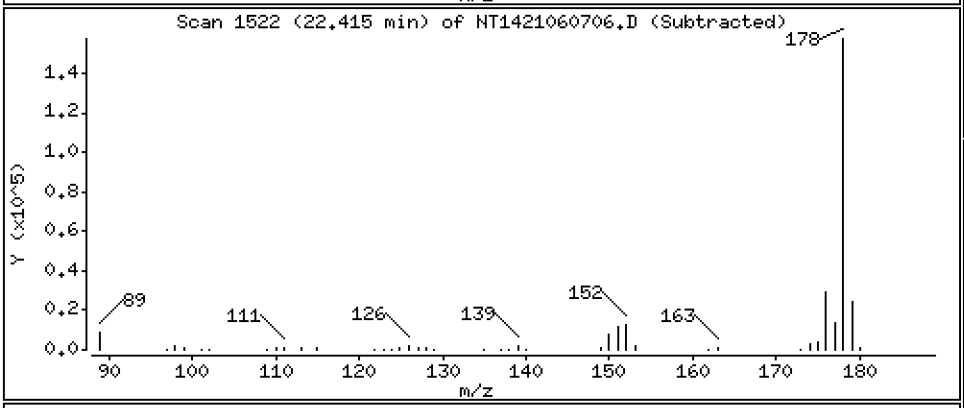
Column diameter: 0.25

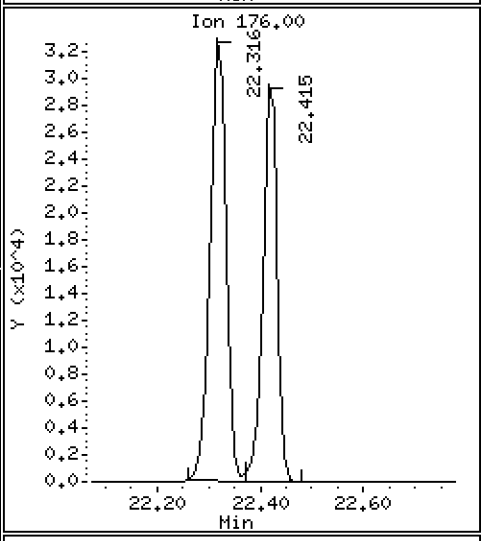
37 Anthracene

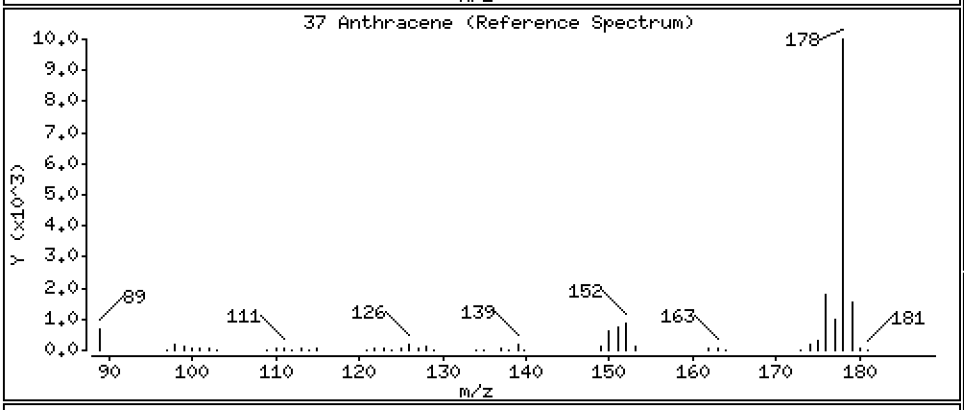
Concentration: 1.940 ug/mL

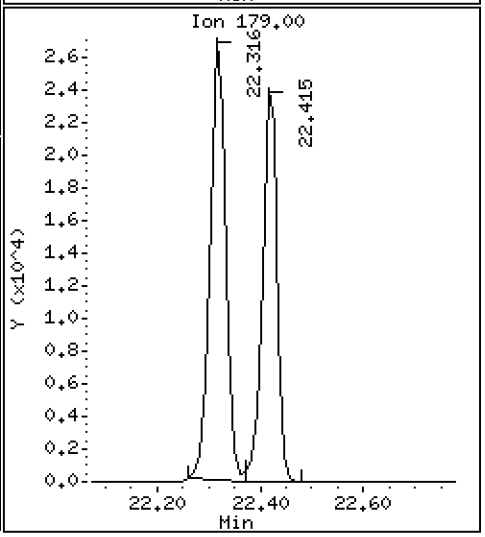


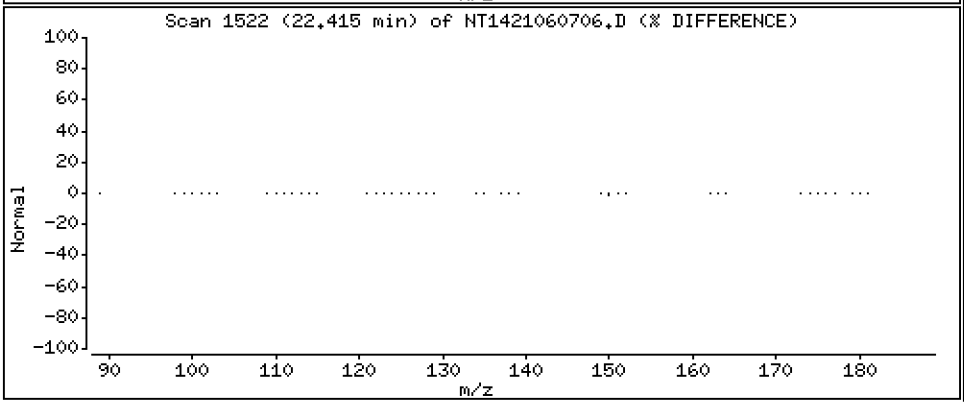












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

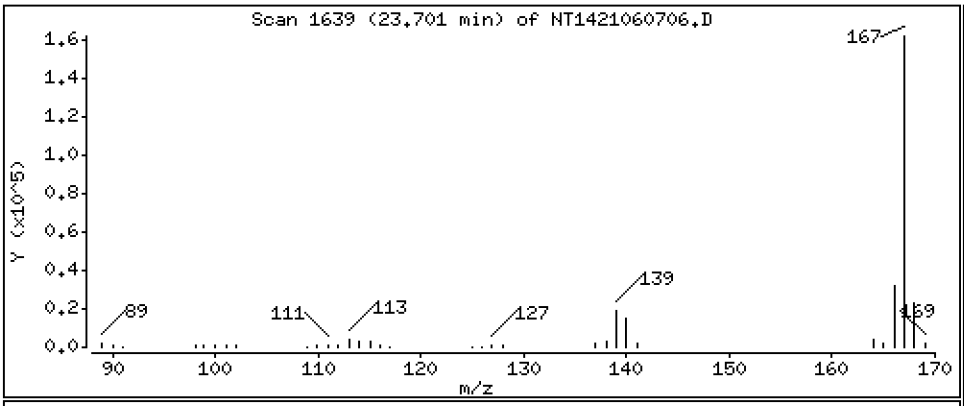
Operator: VTS

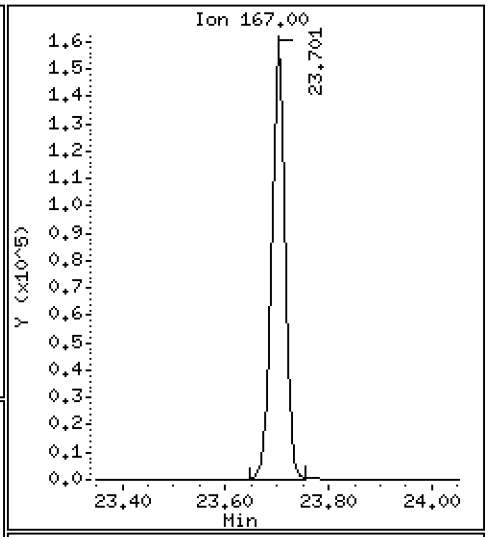
Column phase: Rxi-17Sil MS

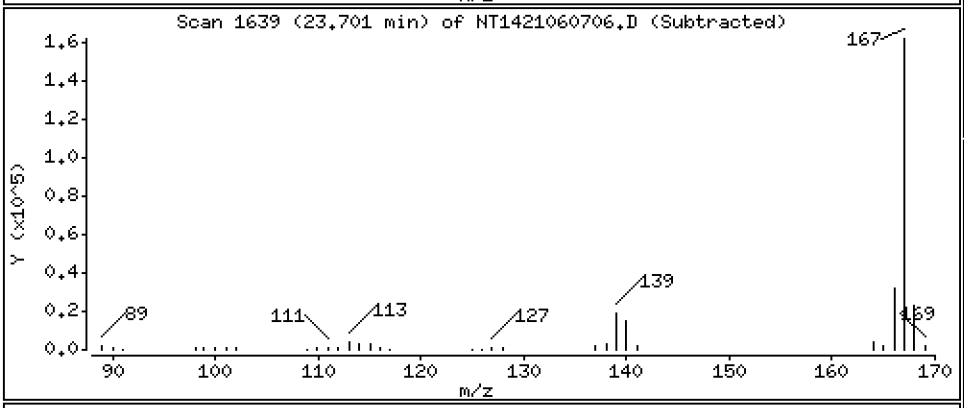
Column diameter: 0.25

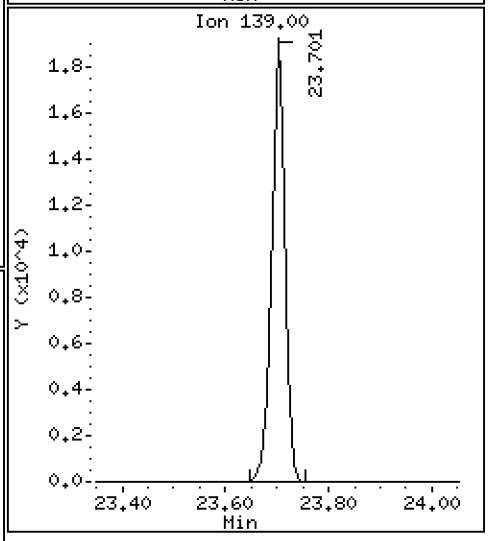
42 Carbazole

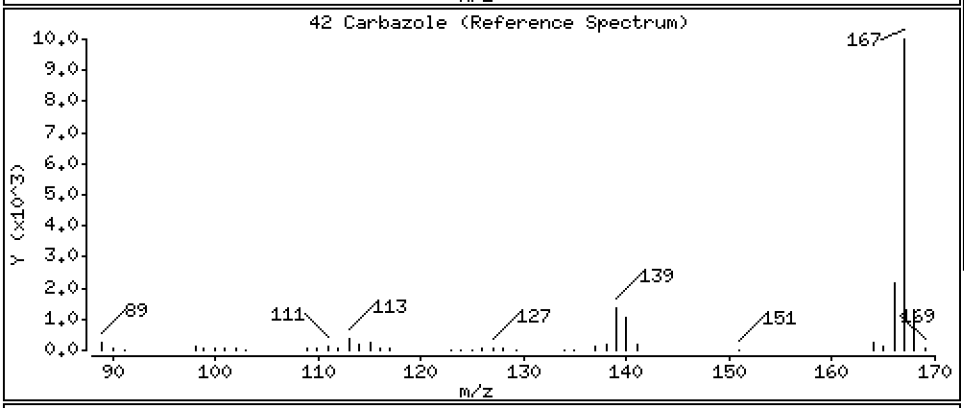
Concentration: 2.014 ug/mL

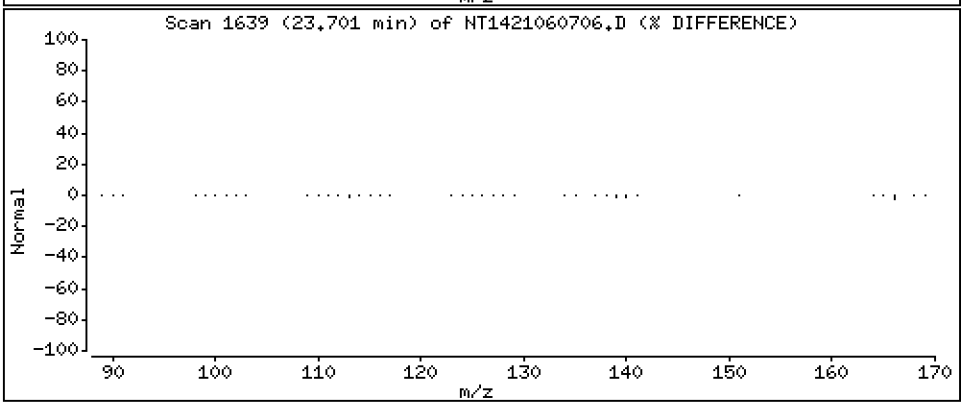












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

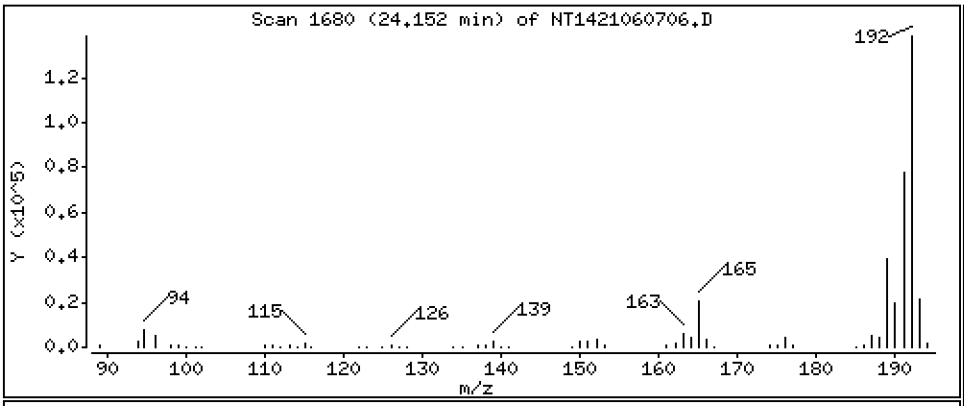
Operator: VTS

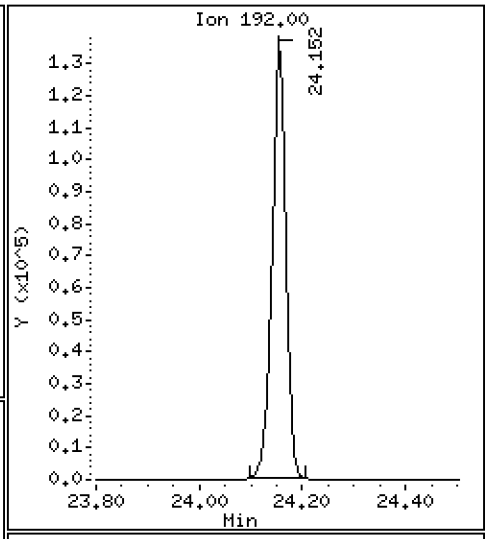
Column phase: Rxi-17Sil MS

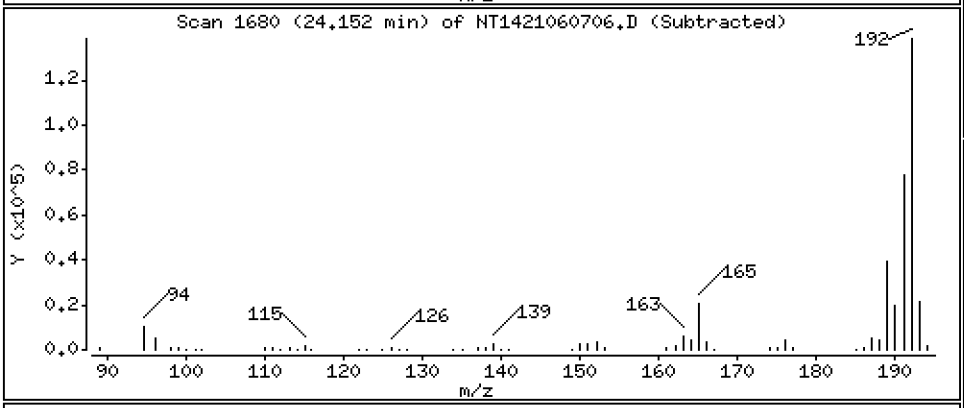
Column diameter: 0.25

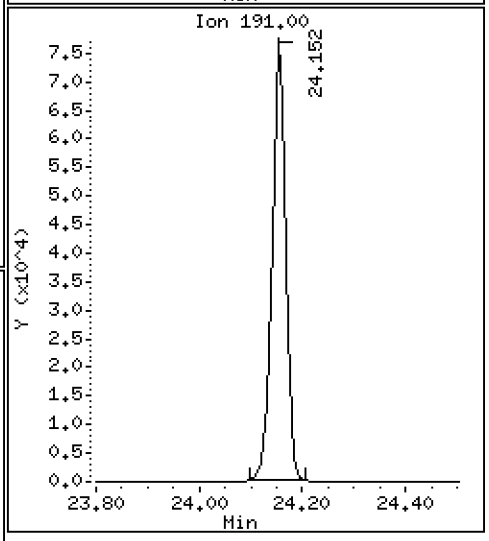
43 1-Methylphenanthrene

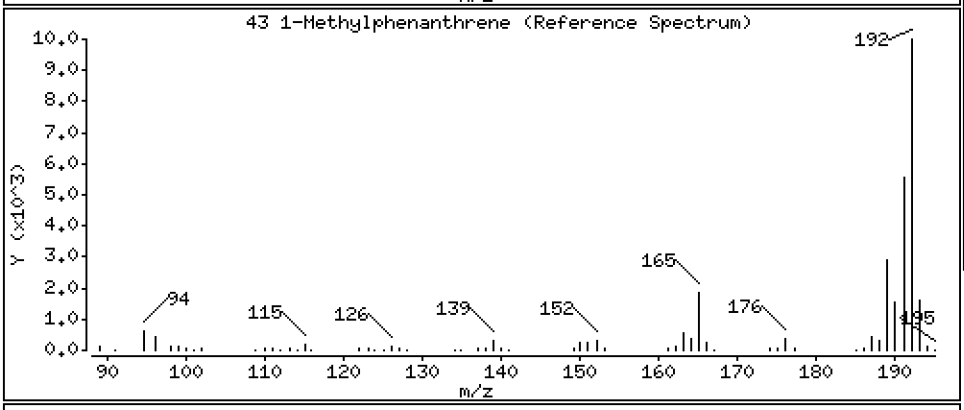
Concentration: 2.173 ug/mL

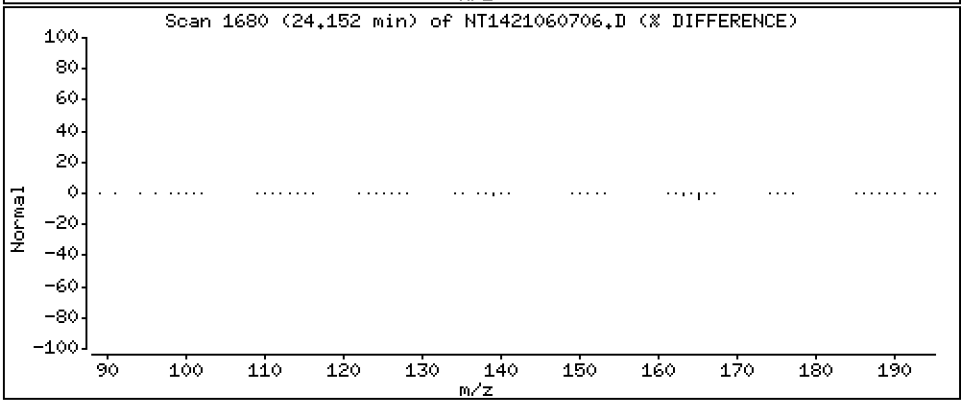












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

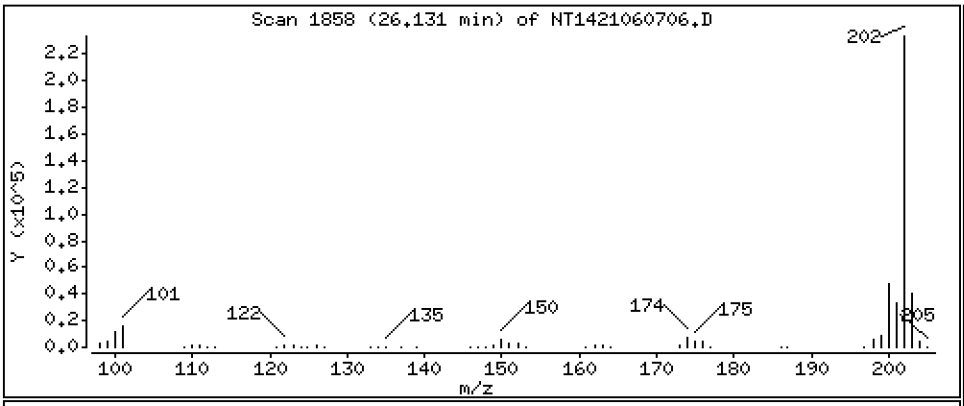
Operator: VTS

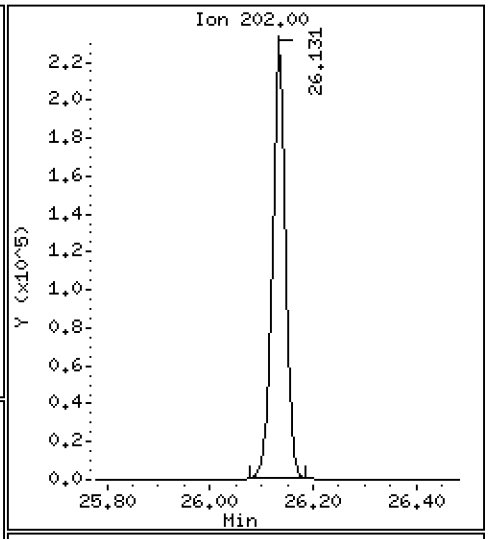
Column phase: Rxi-17Sil MS

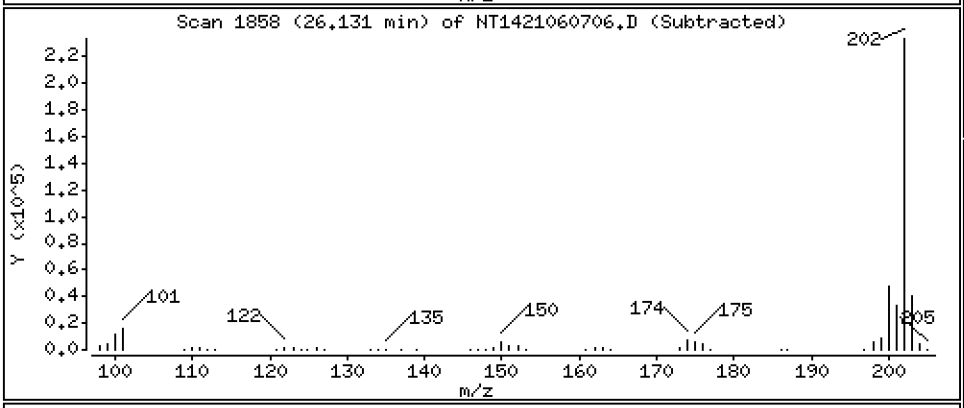
Column diameter: 0.25

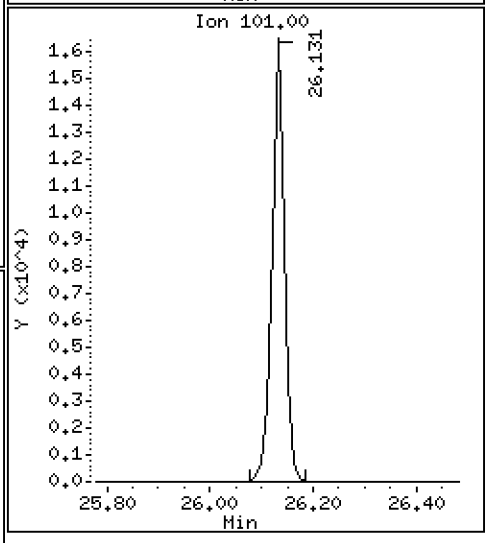
44 Fluoranthene

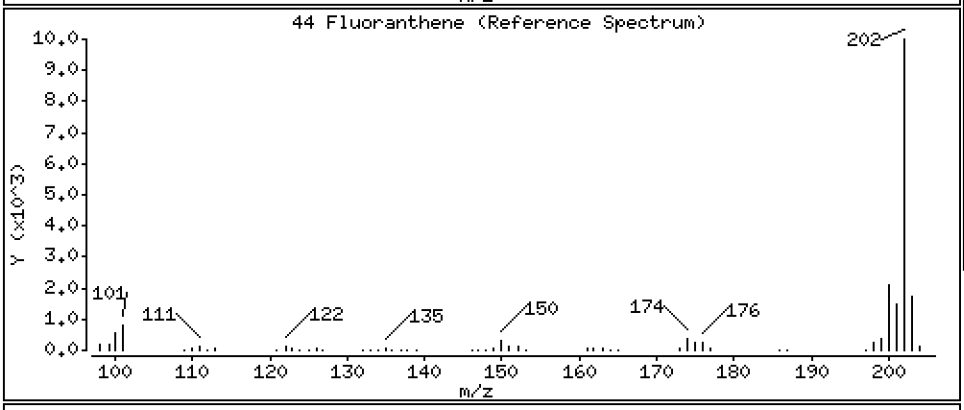
Concentration: 2.271 ug/mL

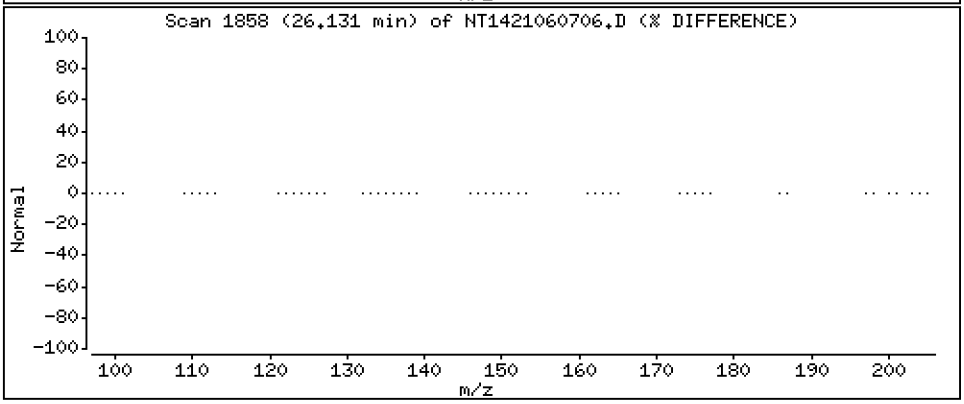












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

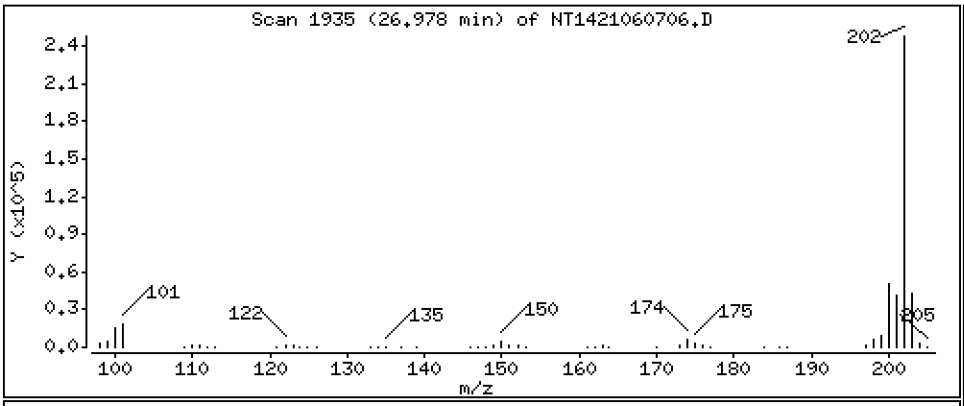
Operator: VTS

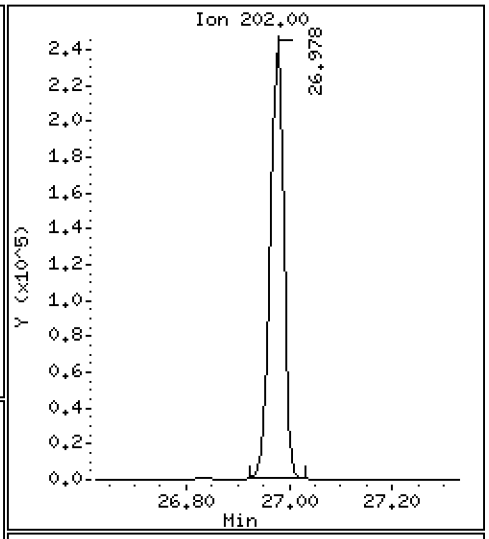
Column phase: Rxi-17Sil MS

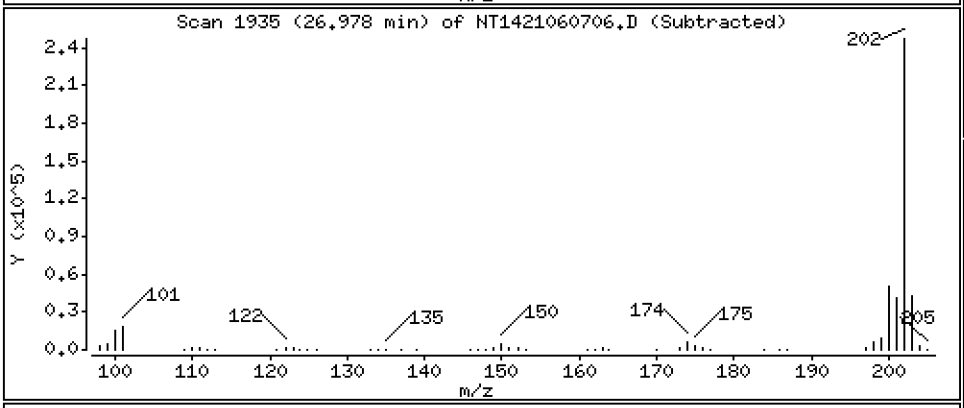
Column diameter: 0.25

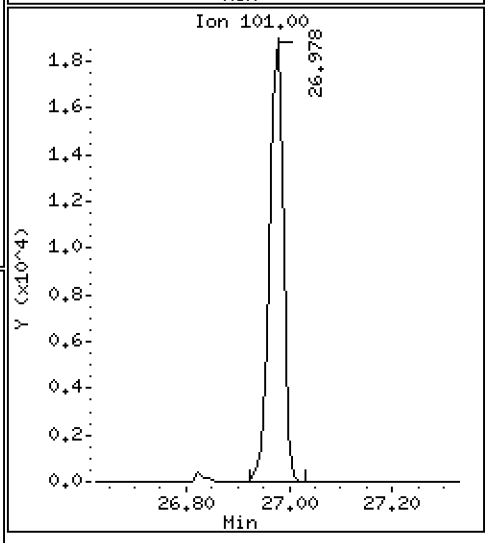
46 Pyrene

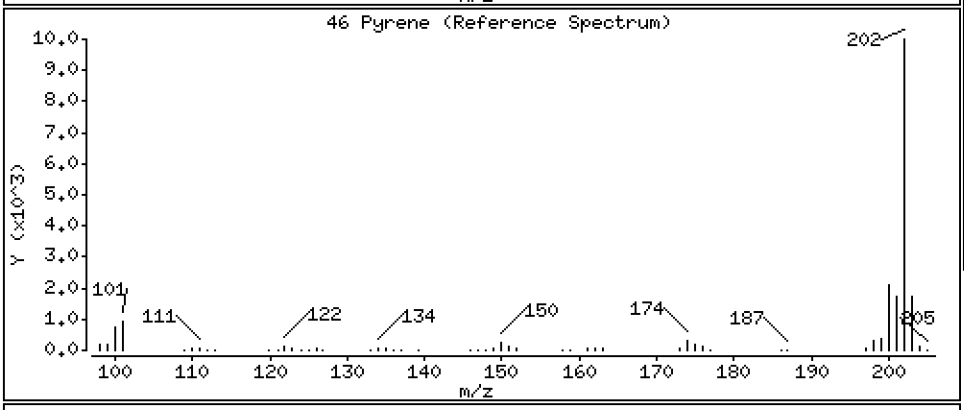
Concentration: 2.272 ug/mL

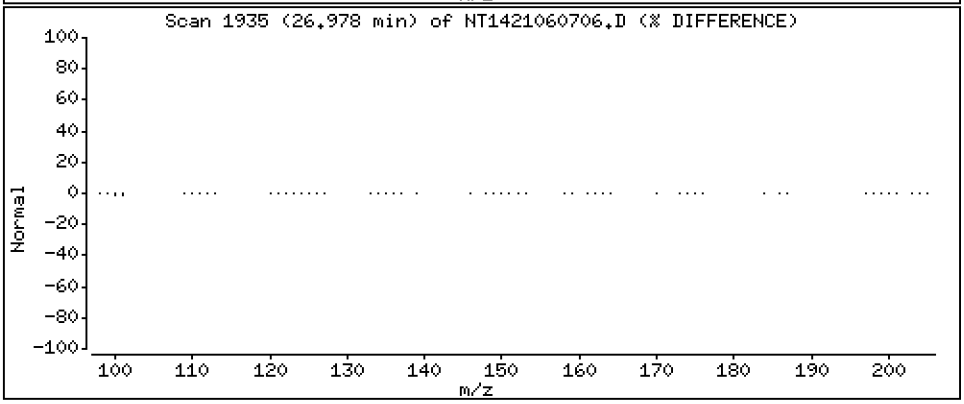












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

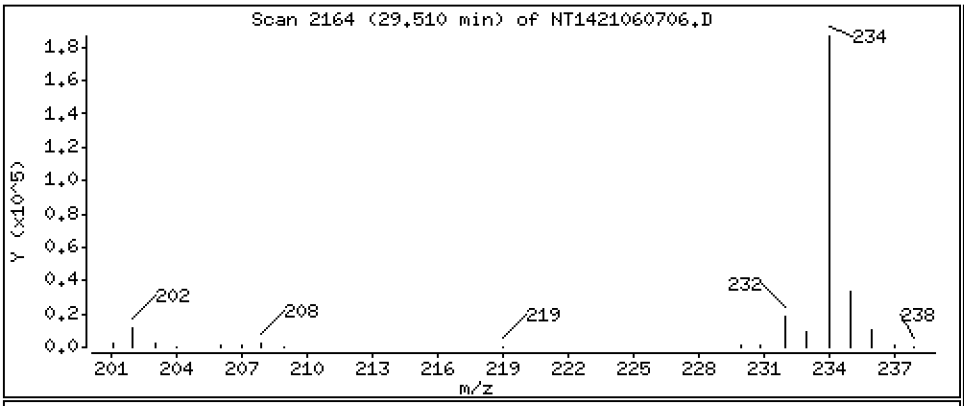
Operator: VTS

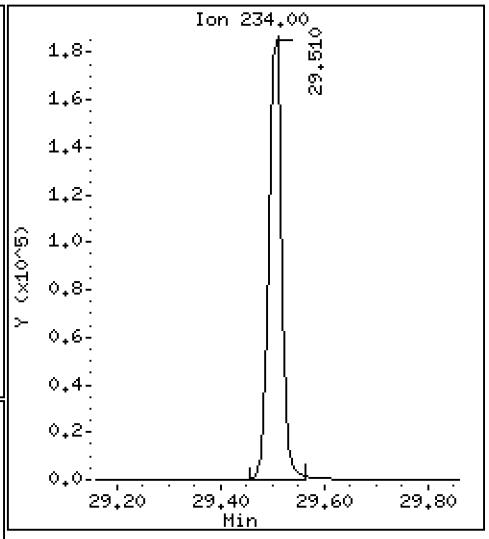
Column phase: Rxi-17Sil MS

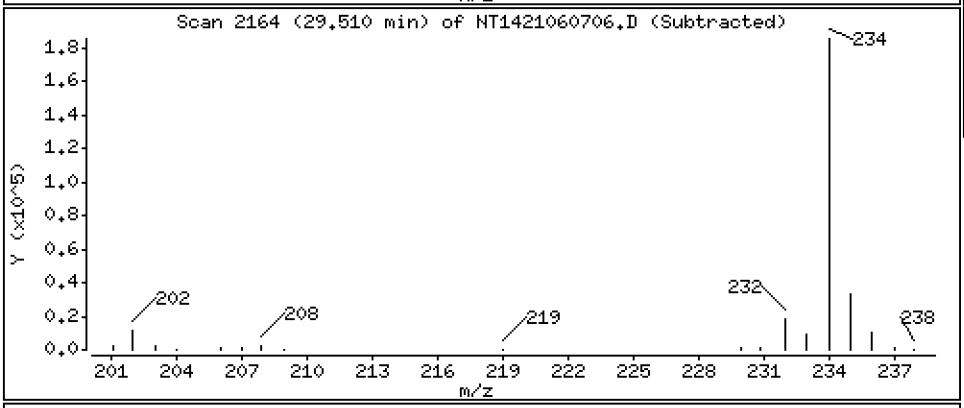
Column diameter: 0.25

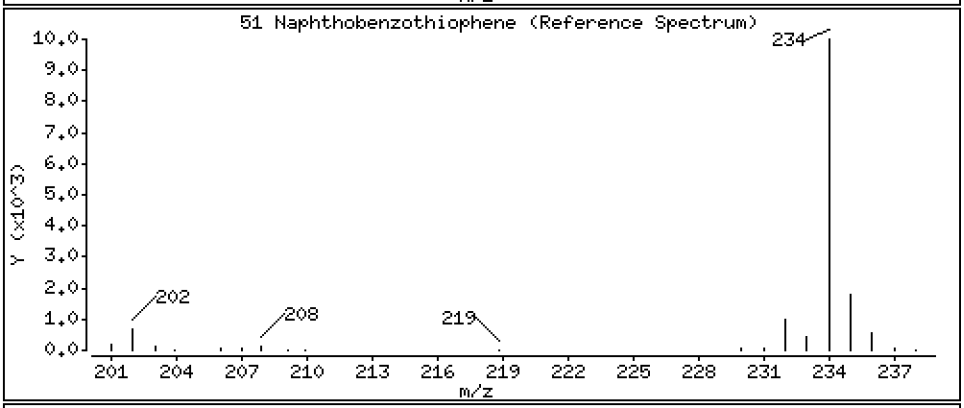
51 Naphthobenzothiophene

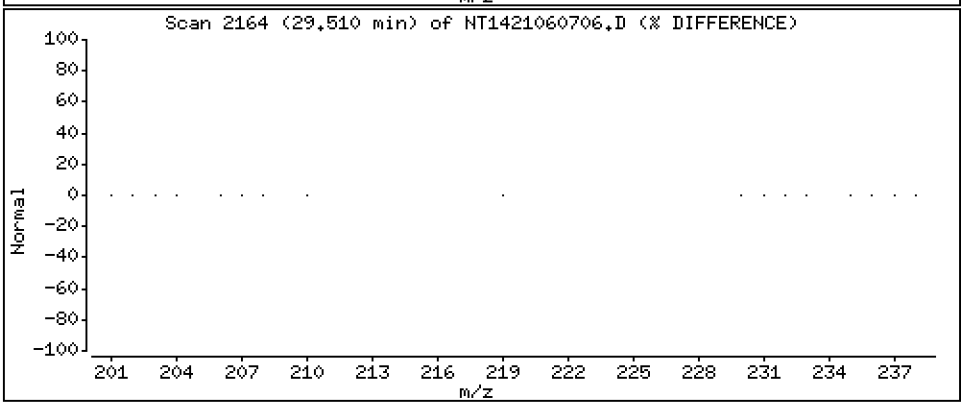
Concentration: 1.602 ug/mL











Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

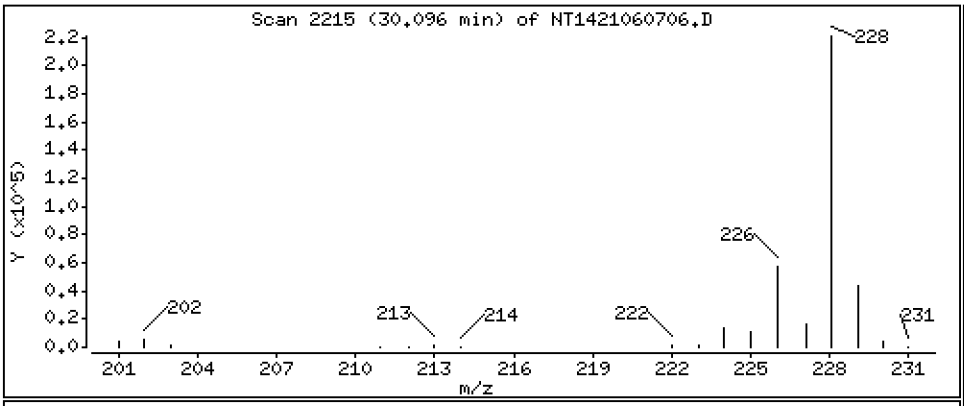
Operator: VTS

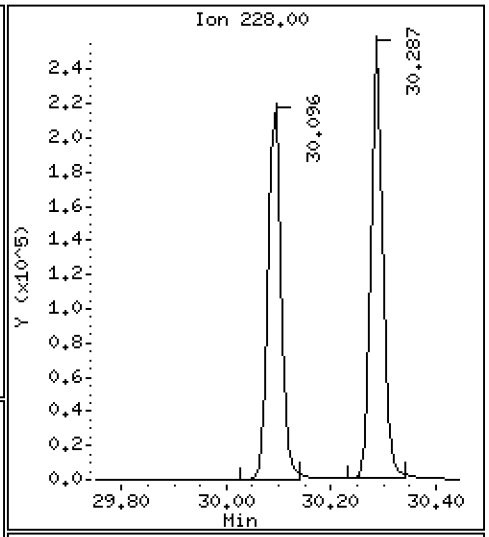
Column phase: Rxi-17Sil MS

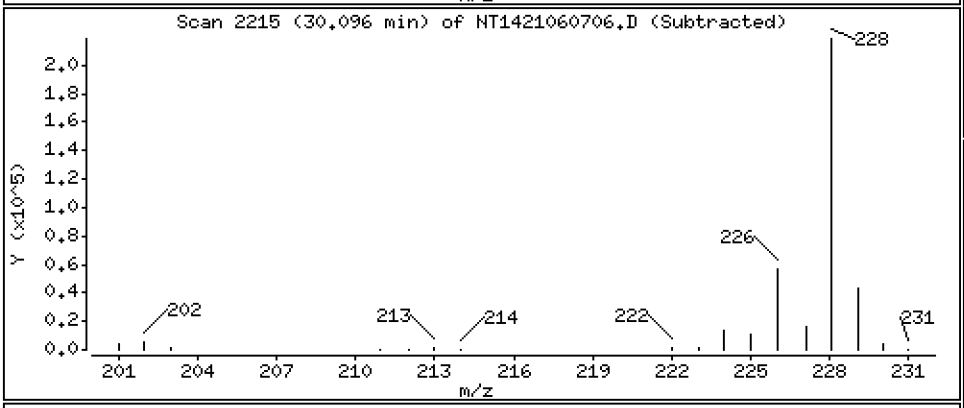
Column diameter: 0.25

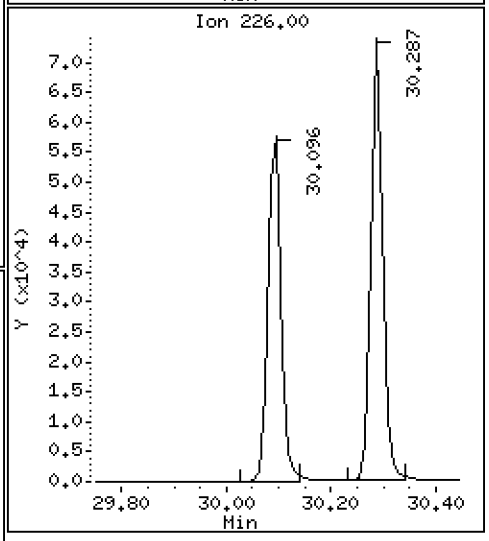
55 Benzo(a)anthracene

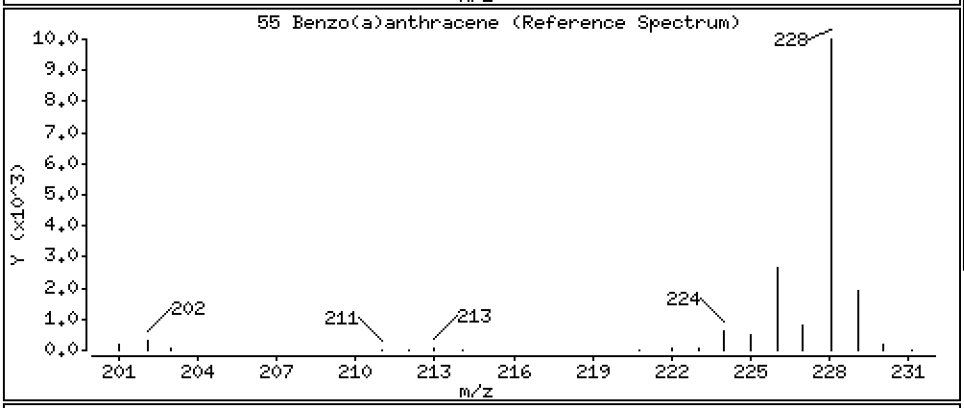
Concentration: 2.266 ug/mL

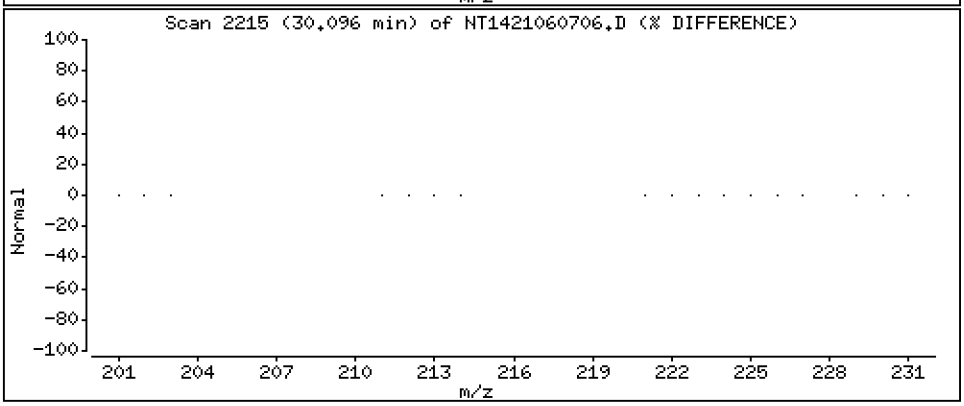












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

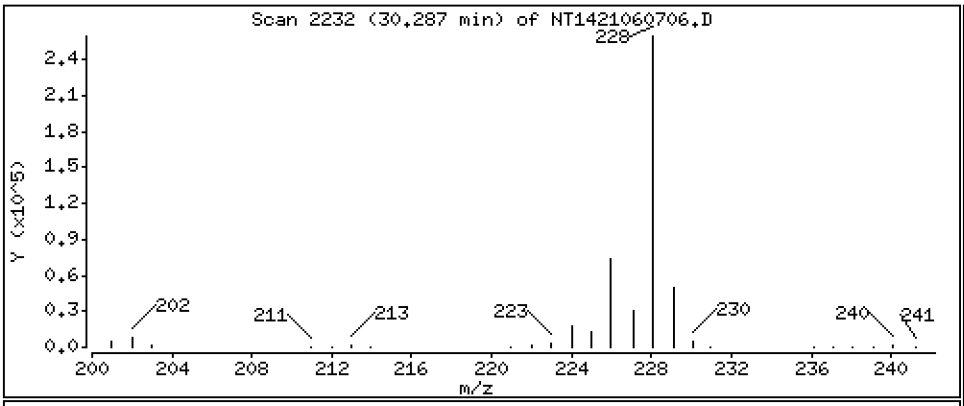
Operator: VTS

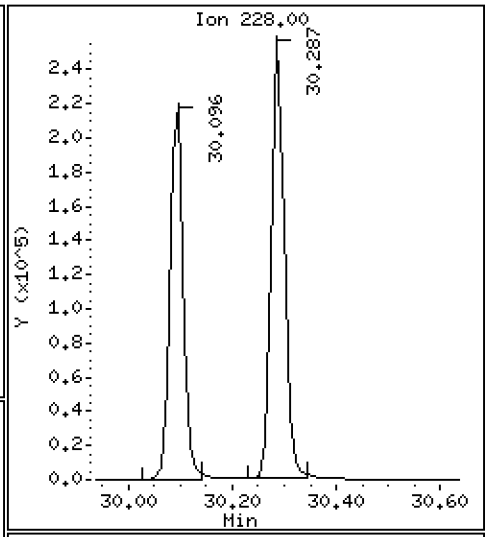
Column phase: Rxi-17Sil MS

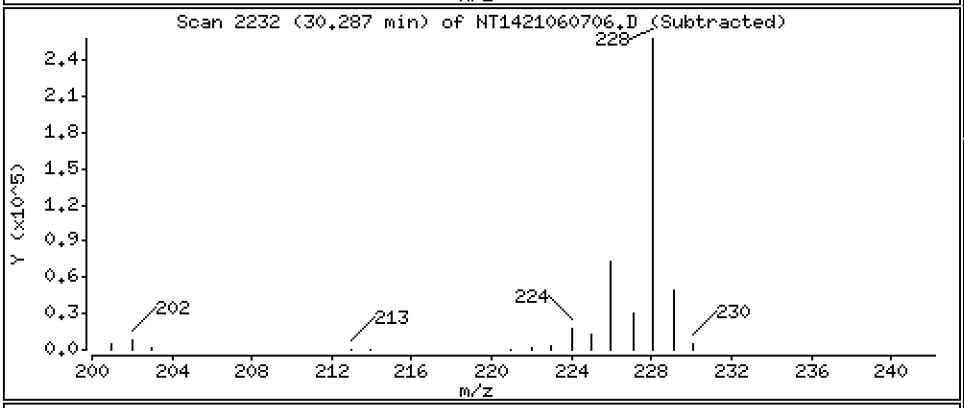
Column diameter: 0.25

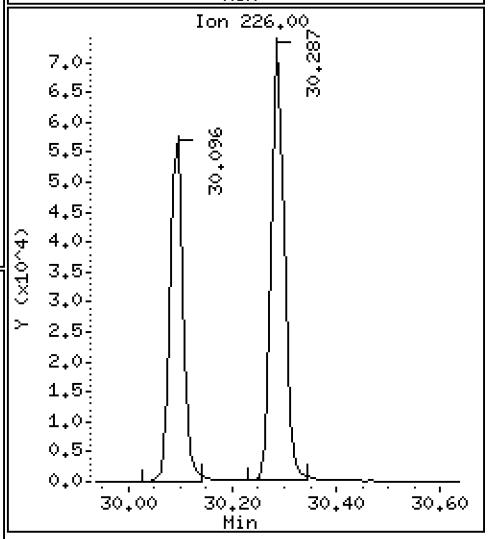
57 Chrysene

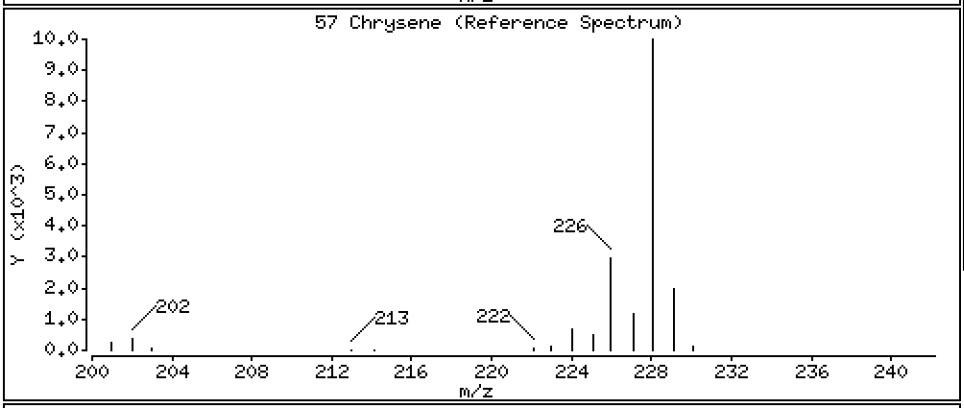
Concentration: 2.405 ug/mL

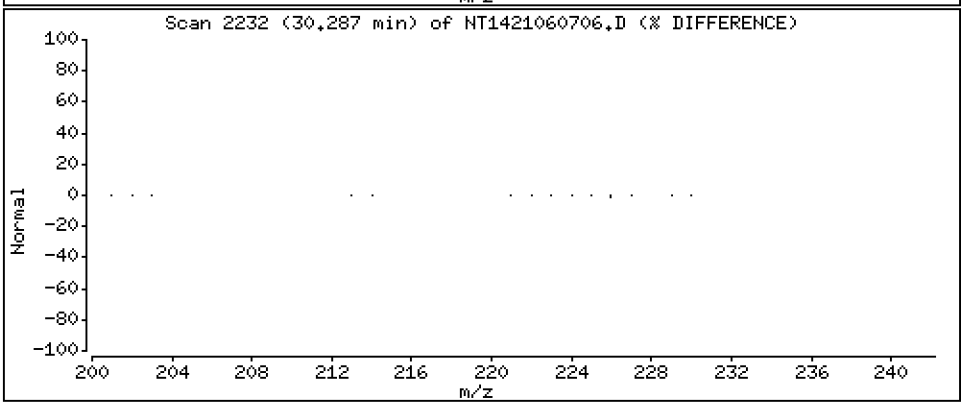












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

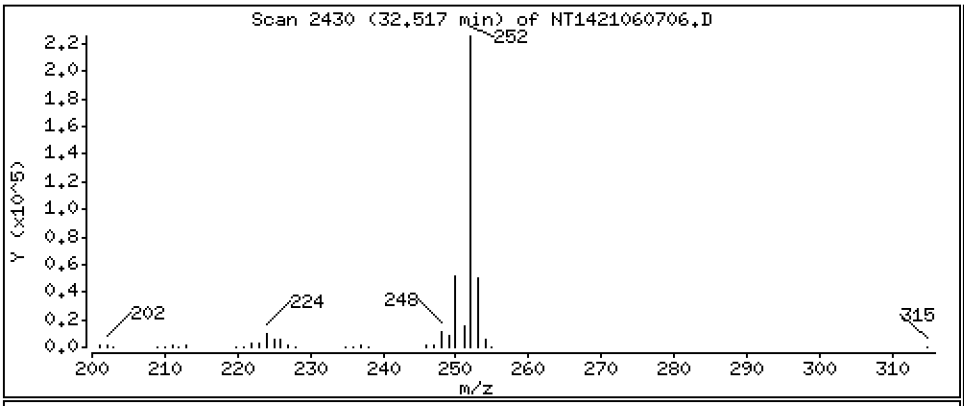
Operator: VTS

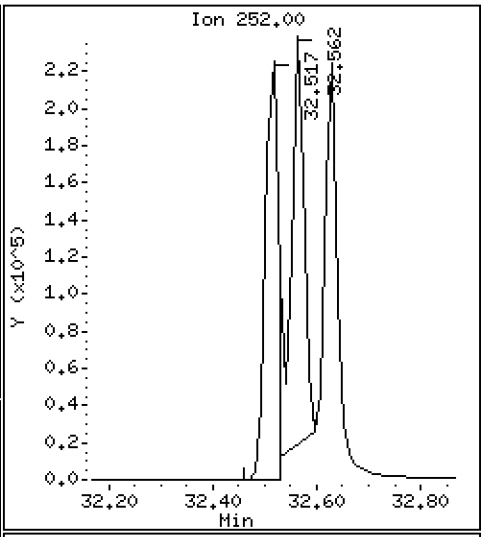
Column phase: Rxi-17Sil MS

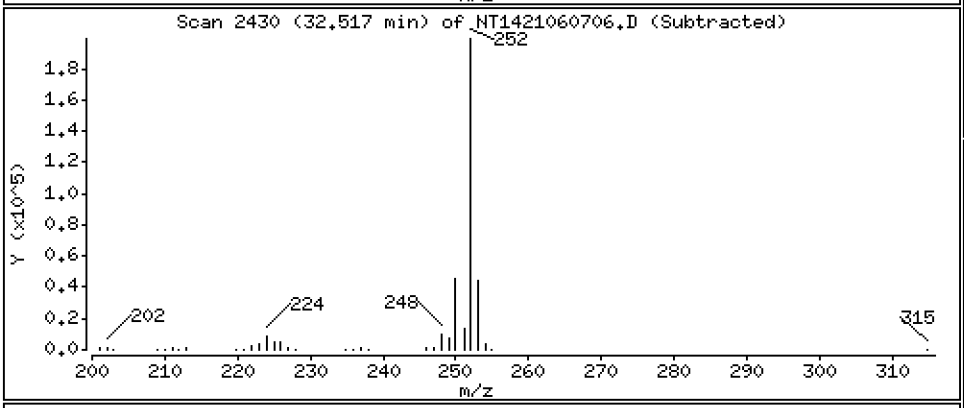
Column diameter: 0.25

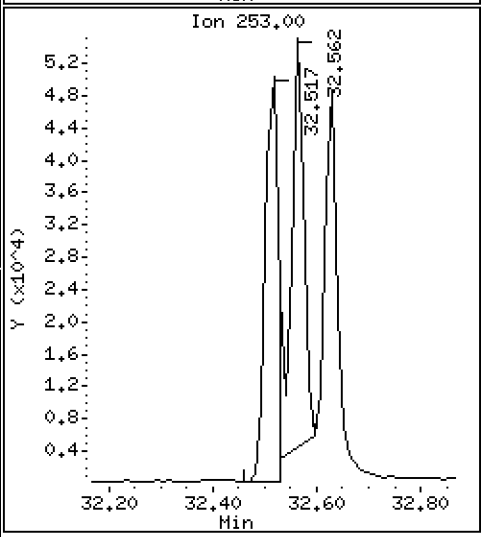
62 Benzo(b)fluoranthene

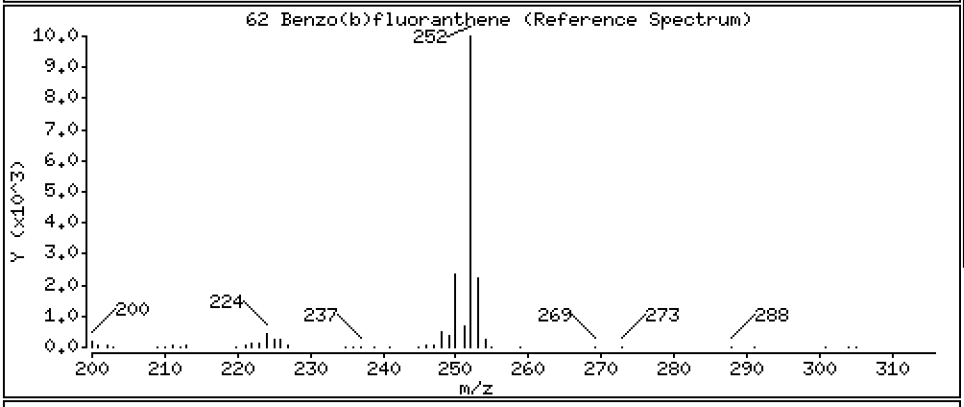
Concentration: 2.059 ug/mL

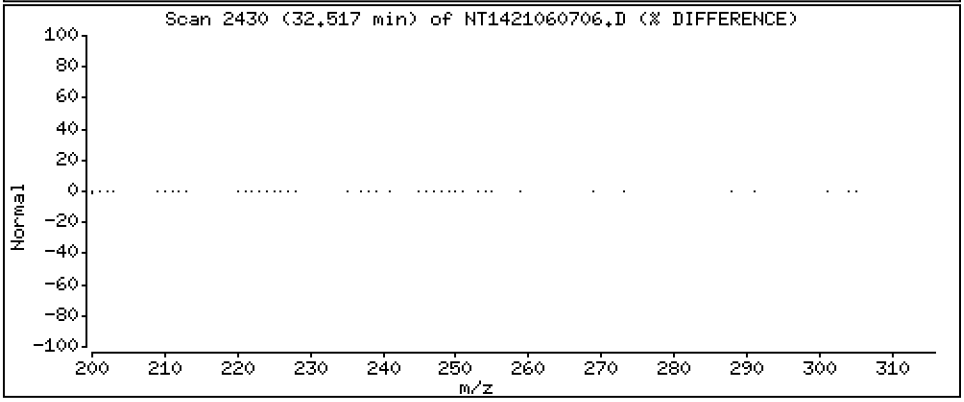












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

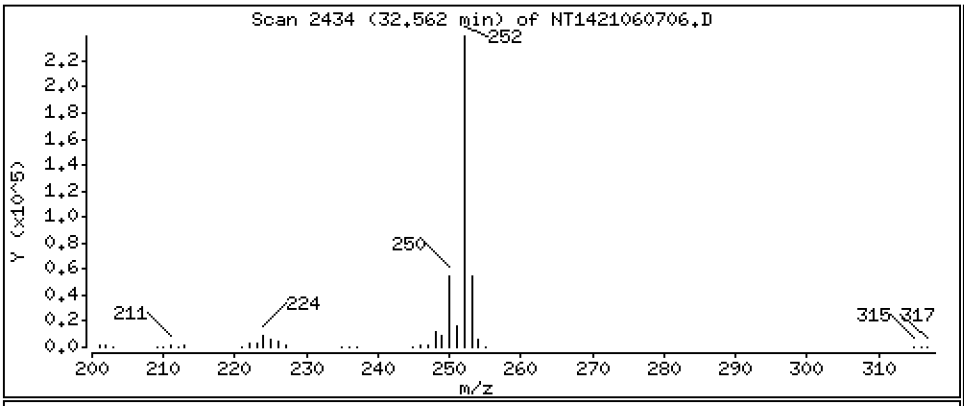
Operator: VTS

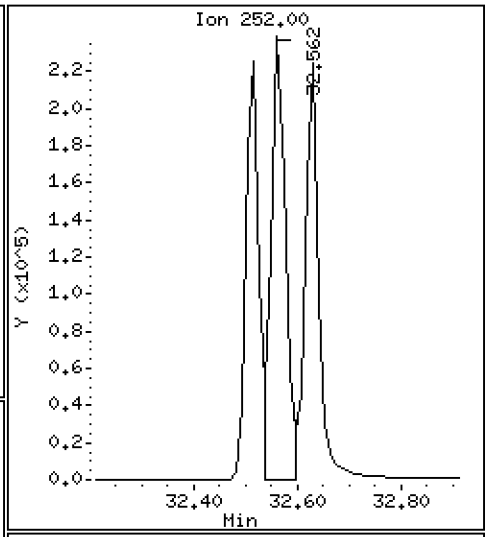
Column phase: Rxi-17Sil MS

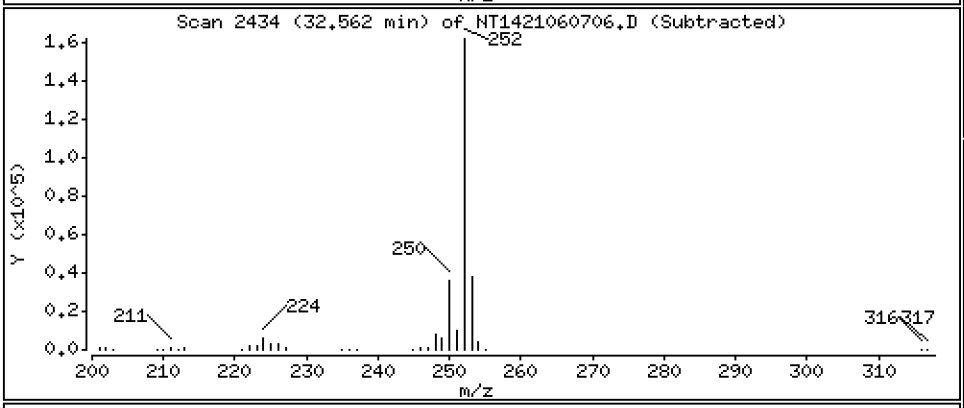
Column diameter: 0.25

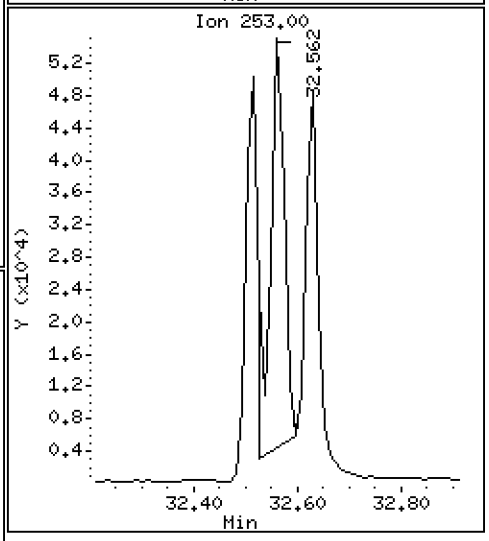
63 Benzo(k)fluoranthene

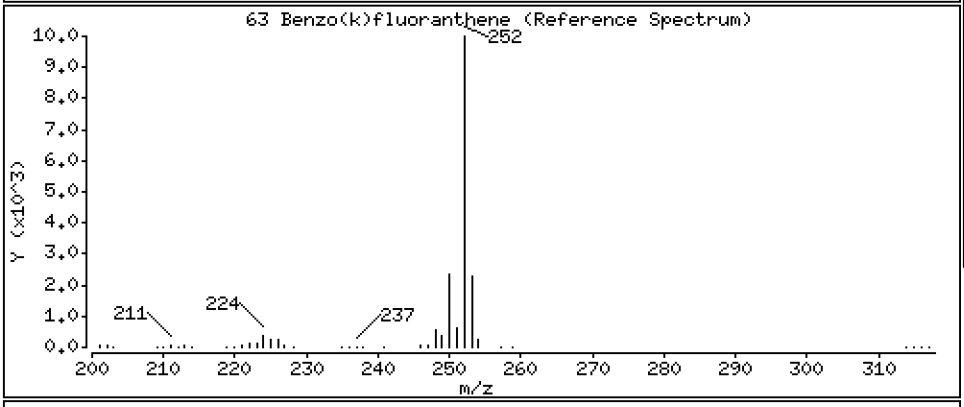
Concentration: 2.280 ug/mL

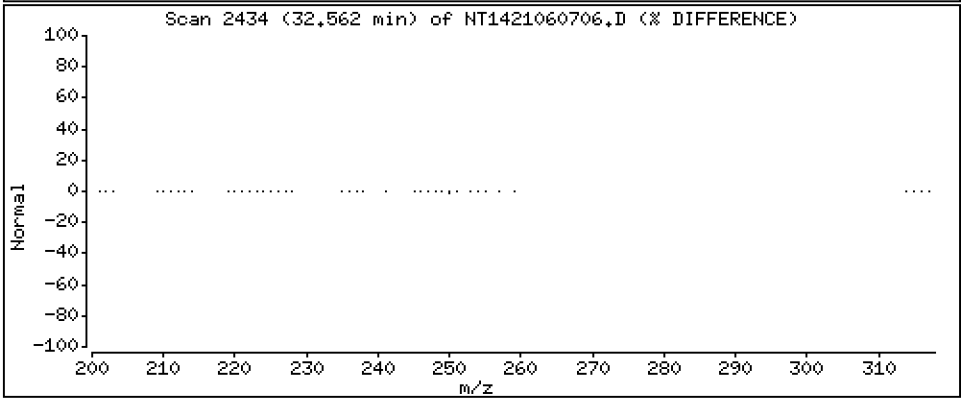












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

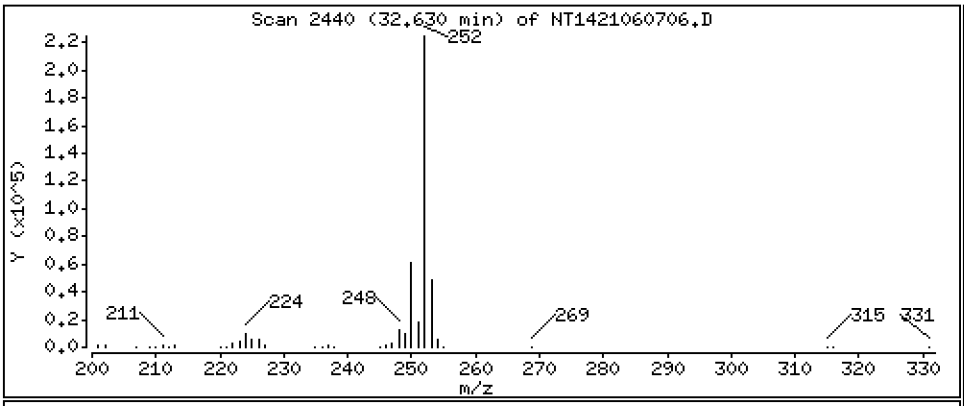
Operator: VTS

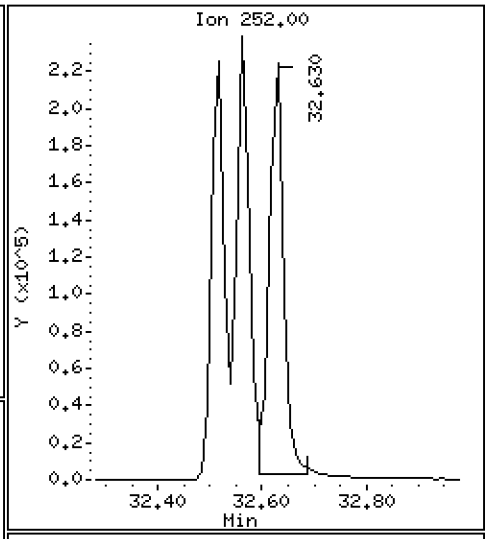
Column phase: Rxi-17Sil MS

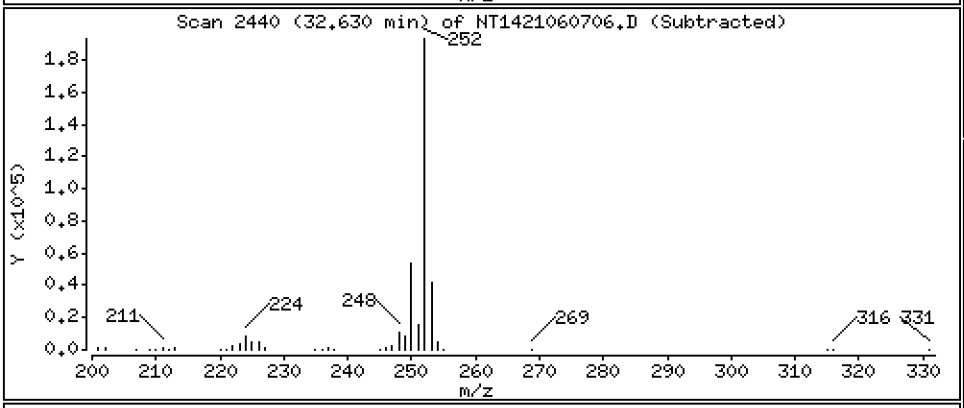
Column diameter: 0.25

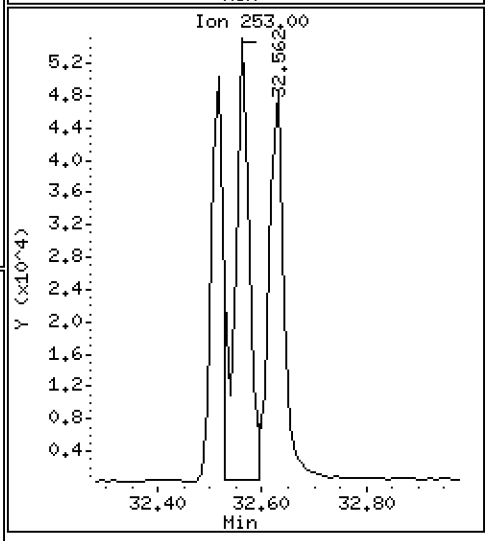
293 Benzo(j)fluoranthene

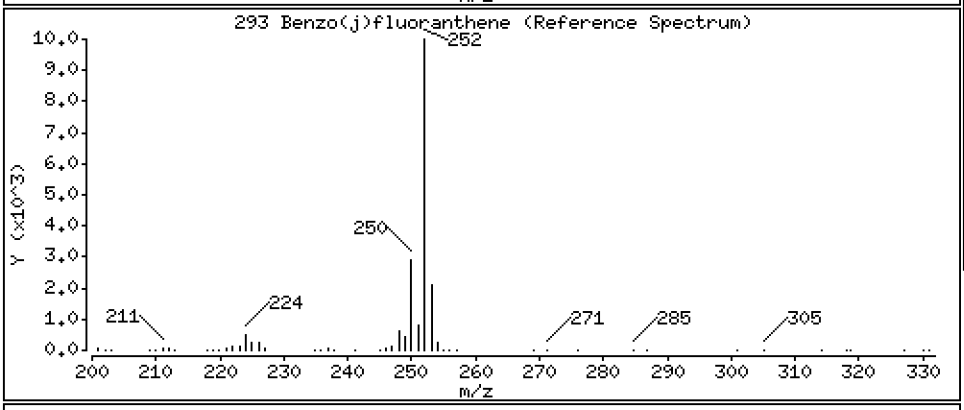
Concentration: 2.228 ug/mL

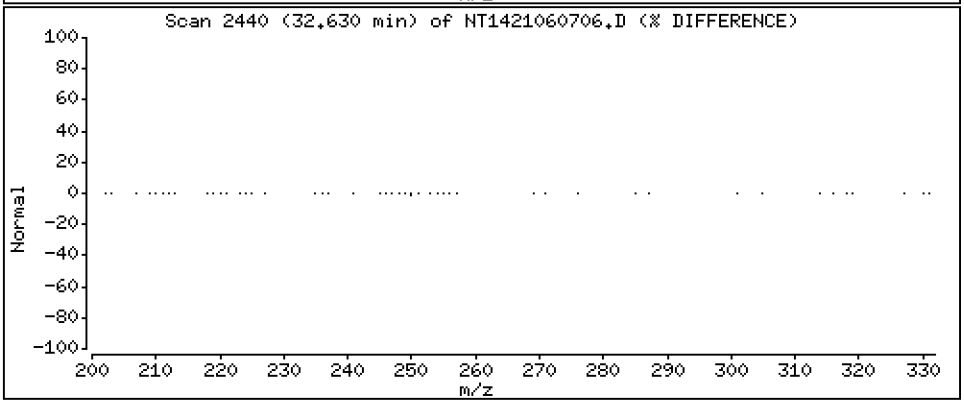












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

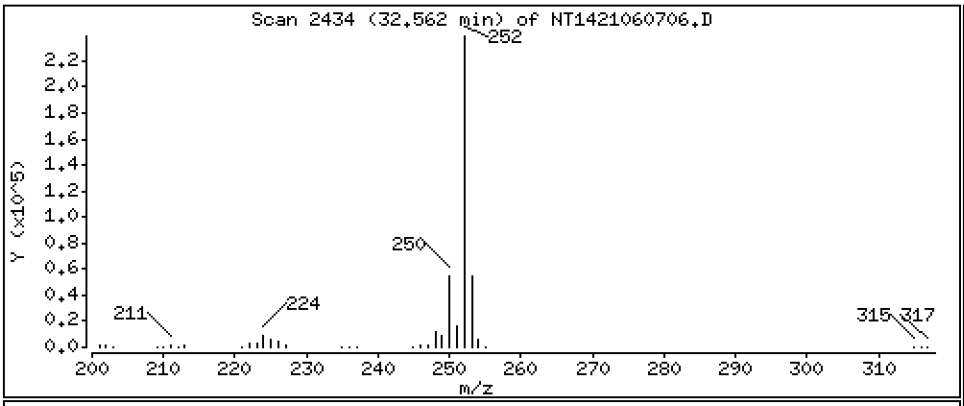
Operator: VTS

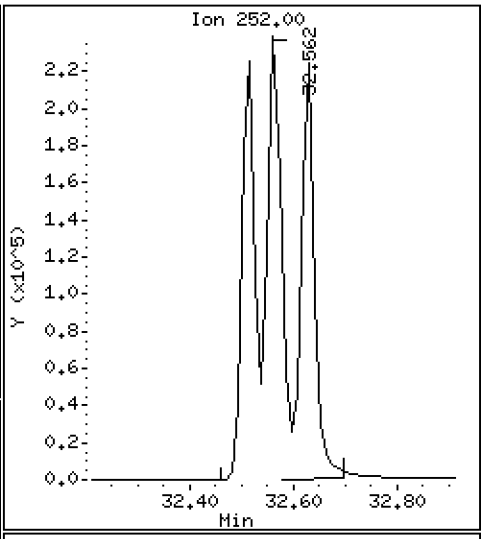
Column phase: Rxi-17Sil MS

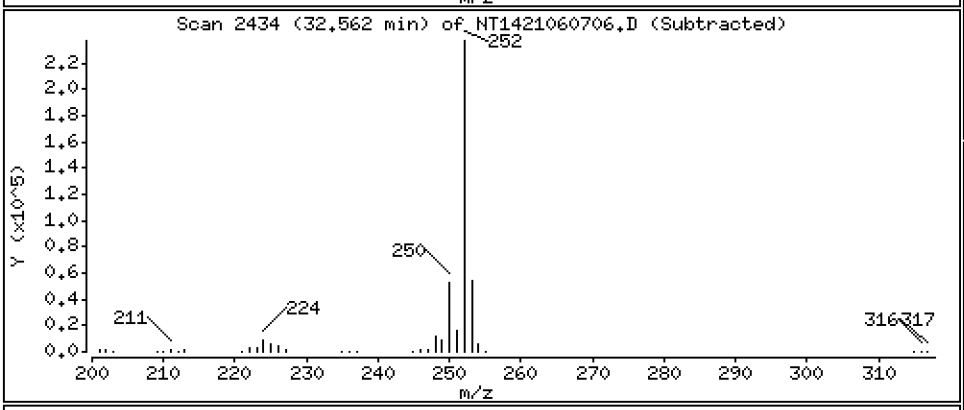
Column diameter: 0.25

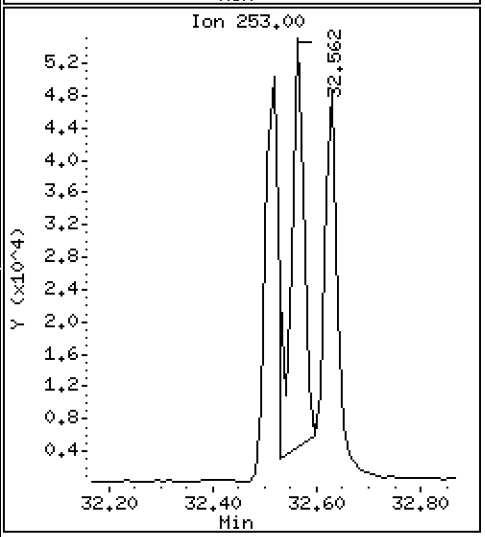
246 Total Benzofluoranthenes

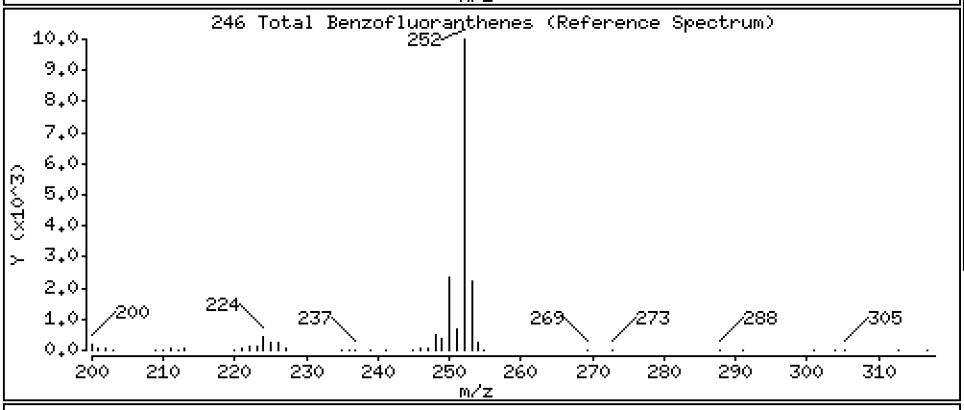
Concentration: 6.891 ug/mL

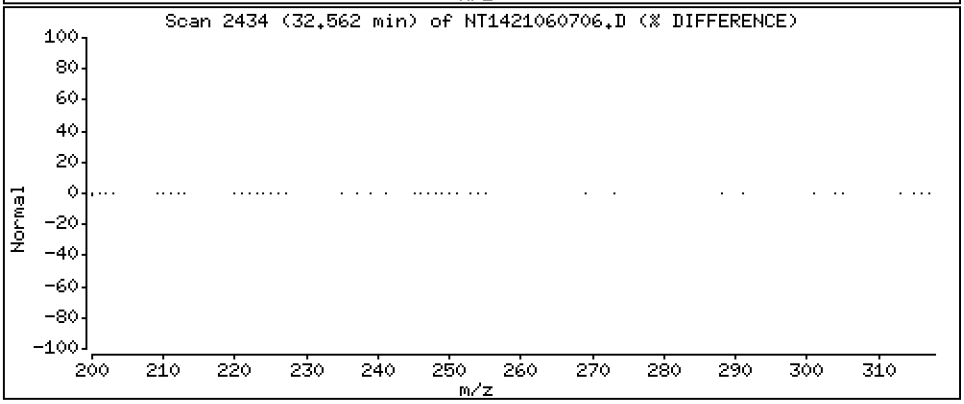












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

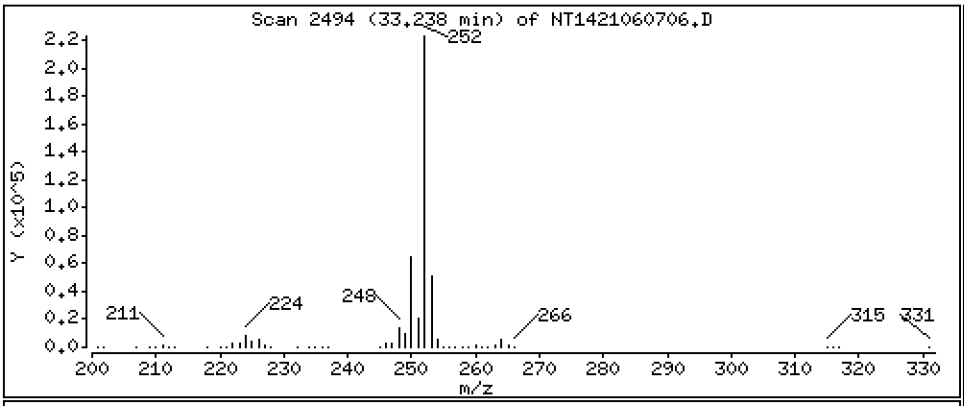
Operator: VTS

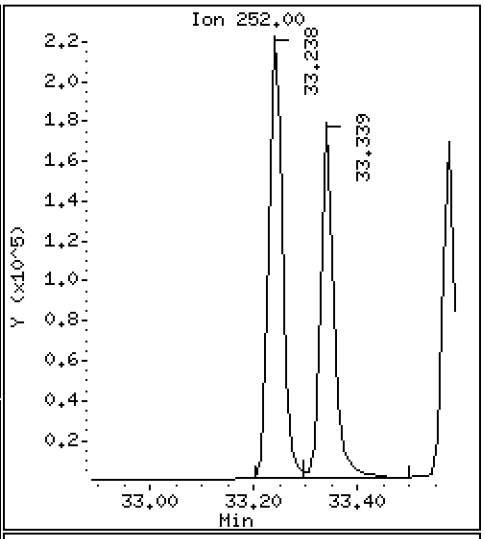
Column phase: Rxi-17Sil MS

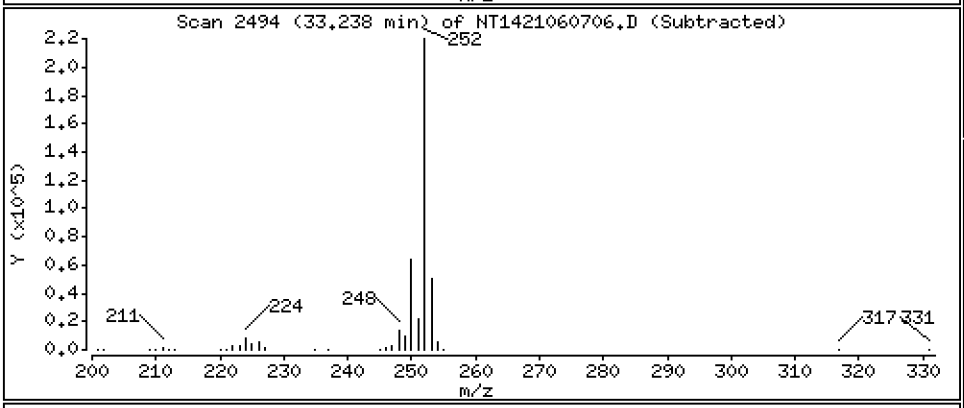
Column diameter: 0.25

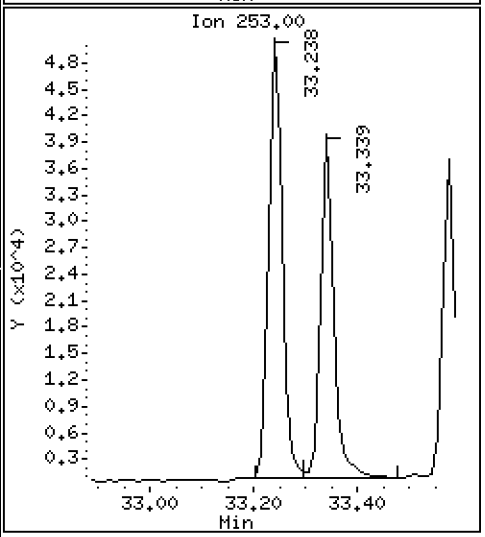
64 Benzo(e)pyrene

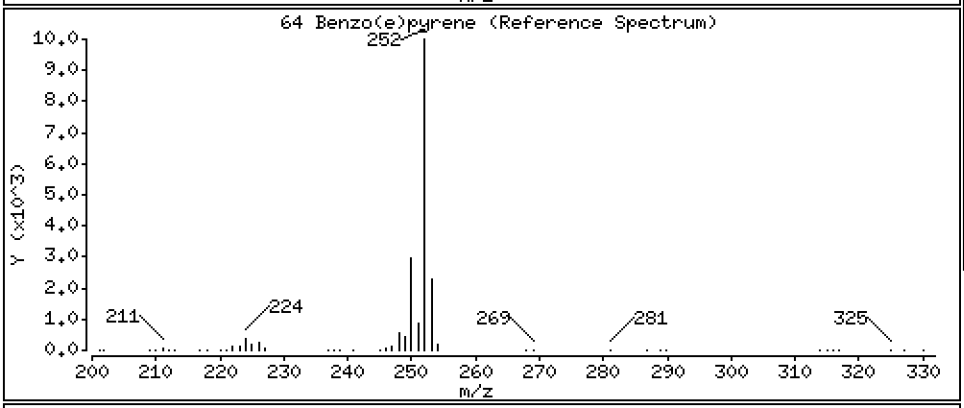
Concentration: 2.146 ug/mL

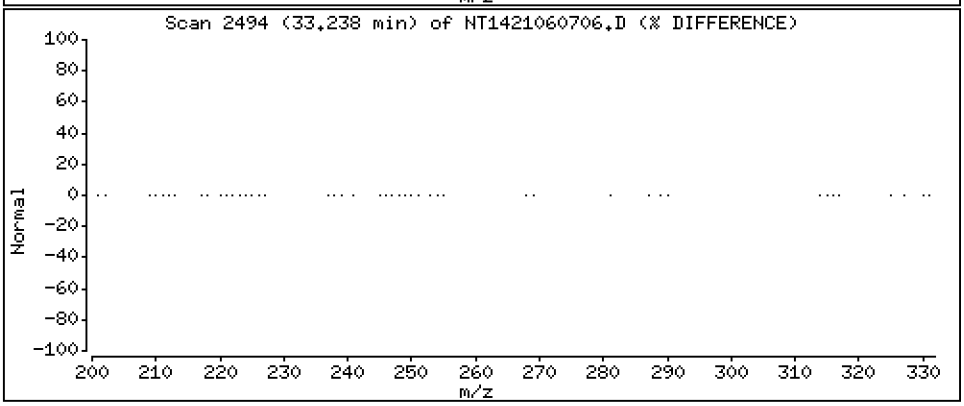












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

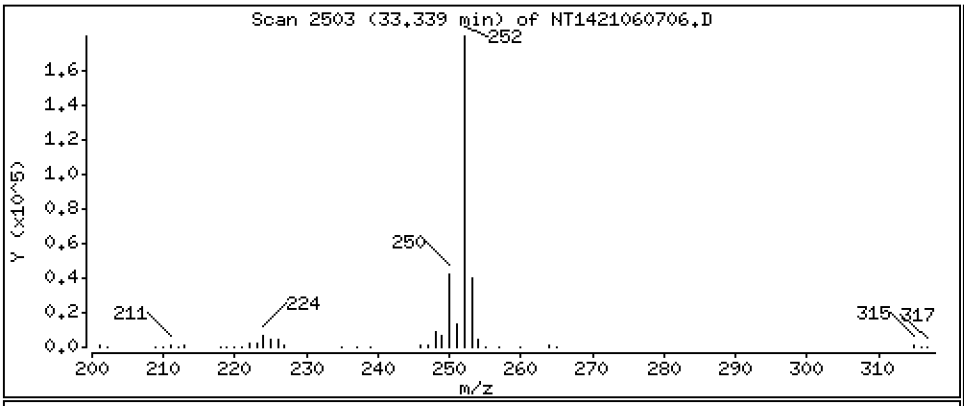
Operator: VTS

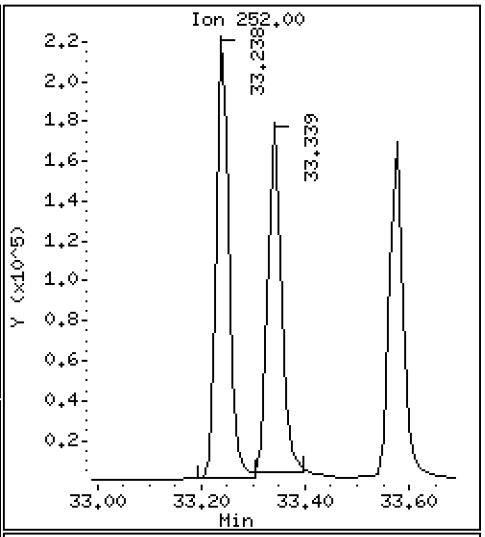
Column phase: Rxi-17Sil MS

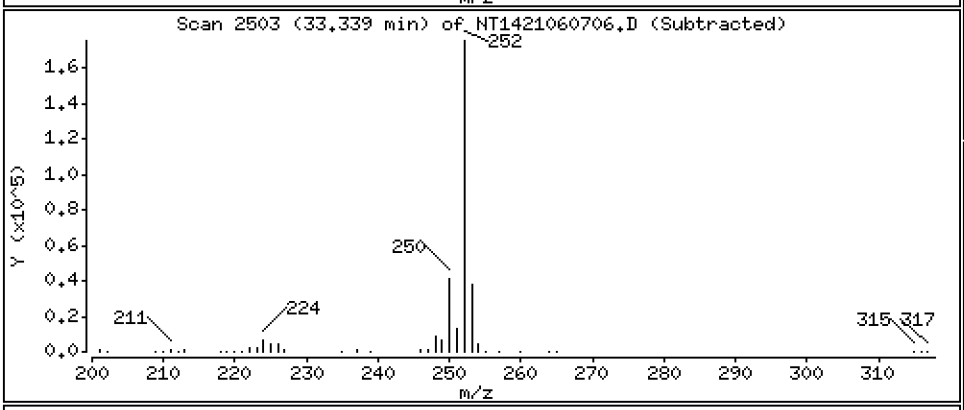
Column diameter: 0.25

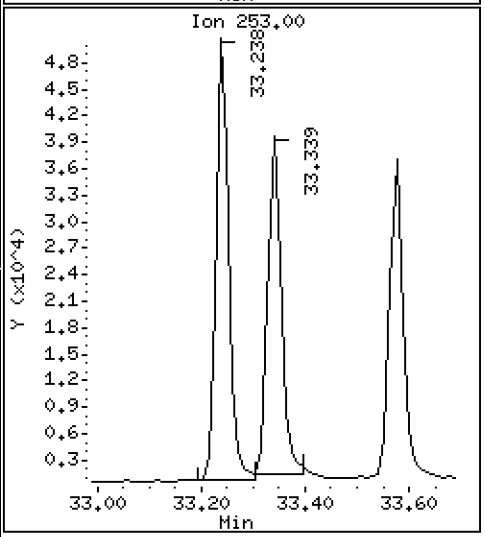
66 Benzo(a)pyrene

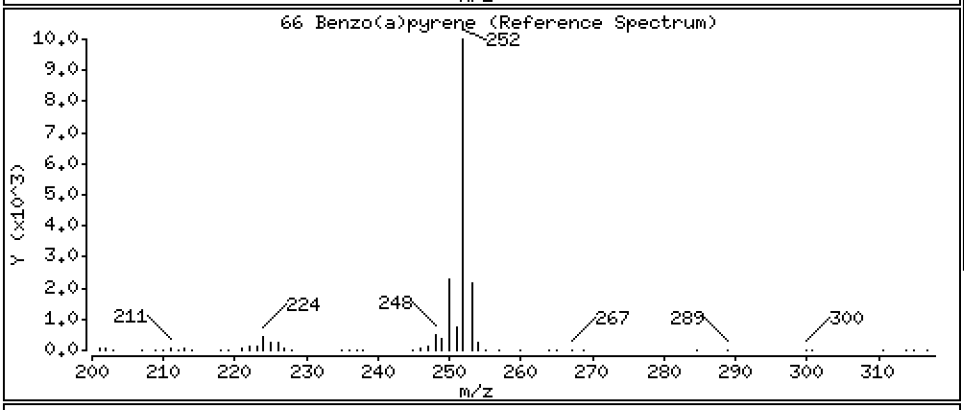
Concentration: 1.835 ug/mL

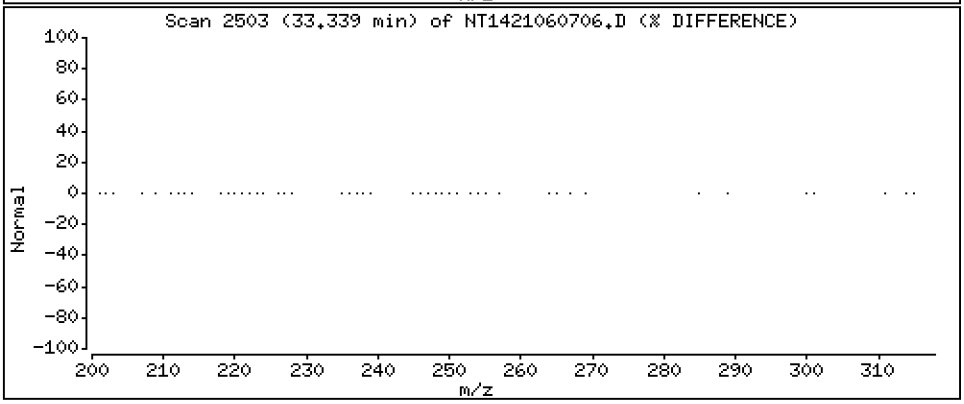












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

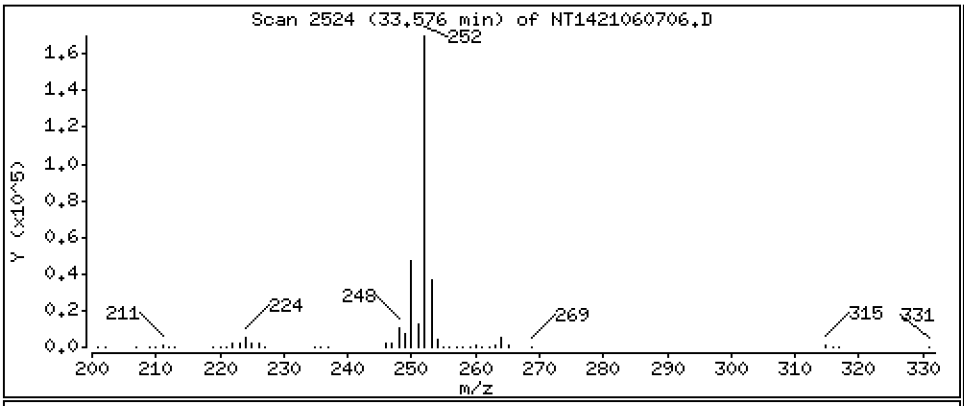
Operator: VTS

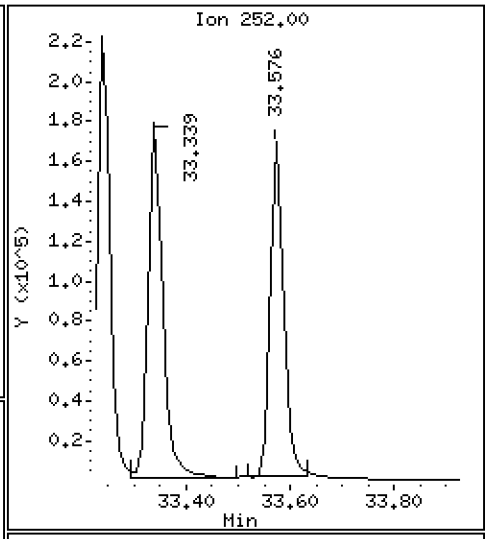
Column phase: Rxi-17Sil MS

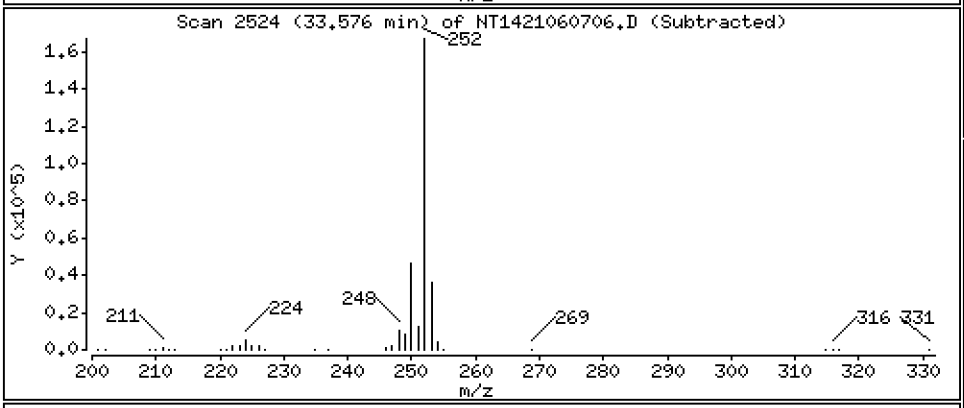
Column diameter: 0.25

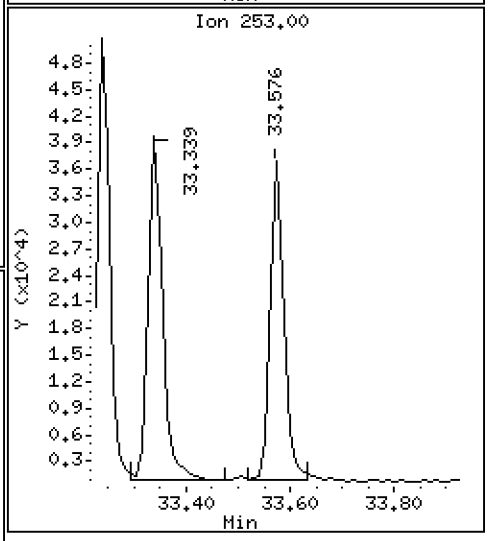
68 Perylene

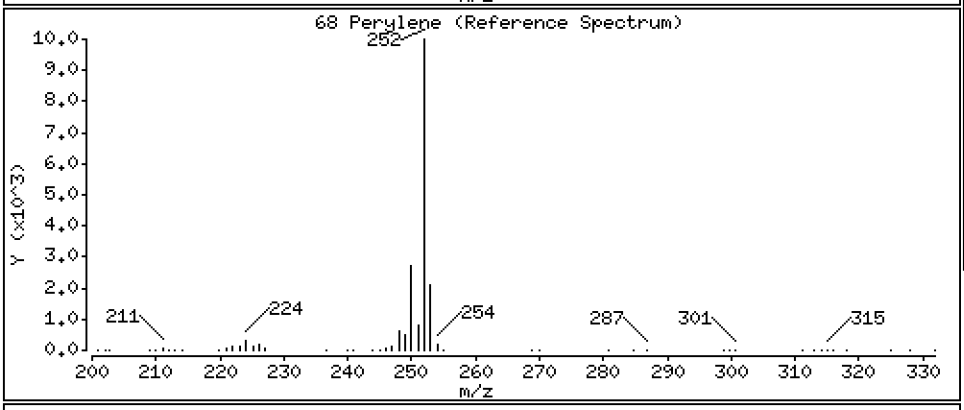
Concentration: 1.673 ug/mL

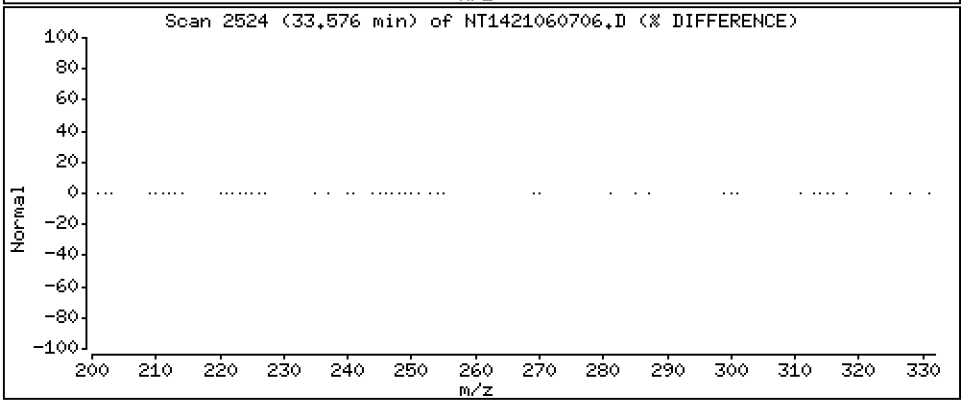












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

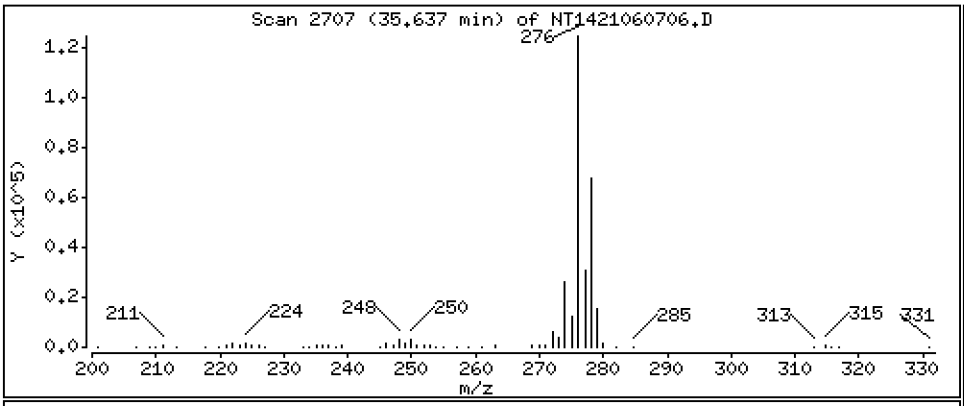
Operator: VTS

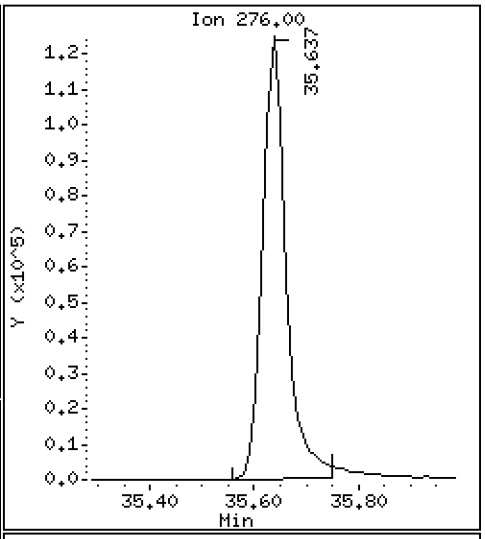
Column phase: Rxi-17Sil MS

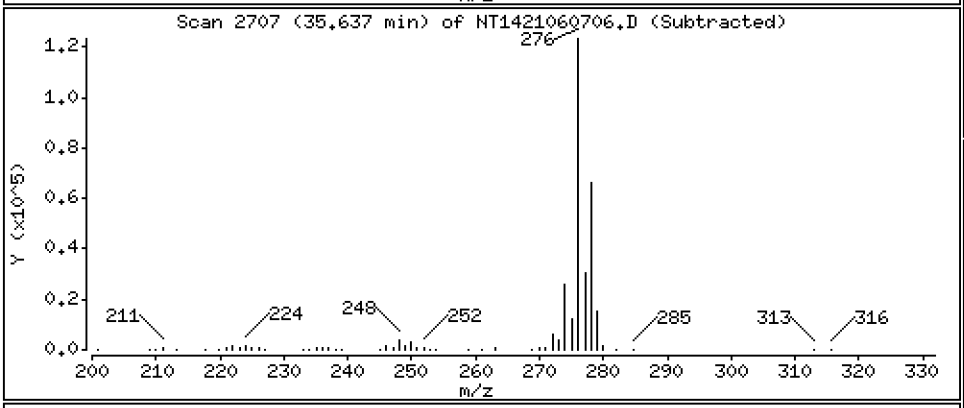
Column diameter: 0.25

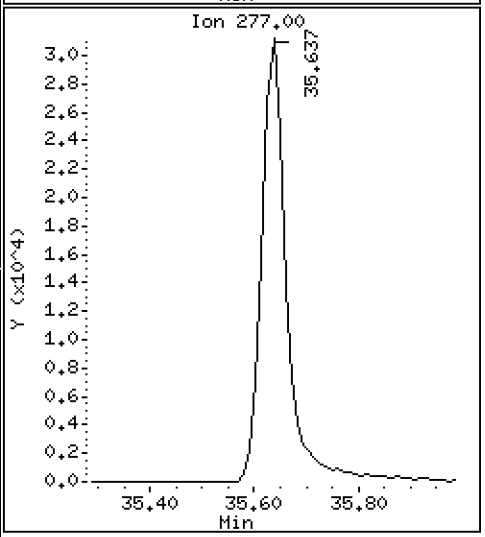
69 Indeno(1,2,3-cd)pyrene

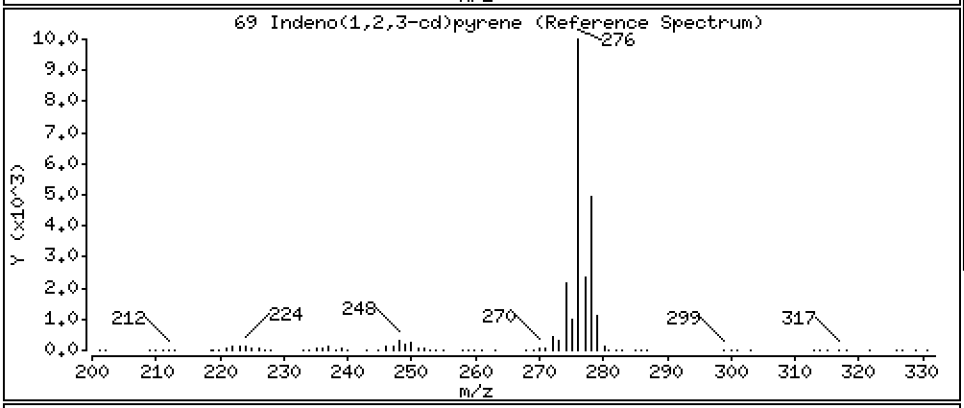
Concentration: 1.995 ug/mL

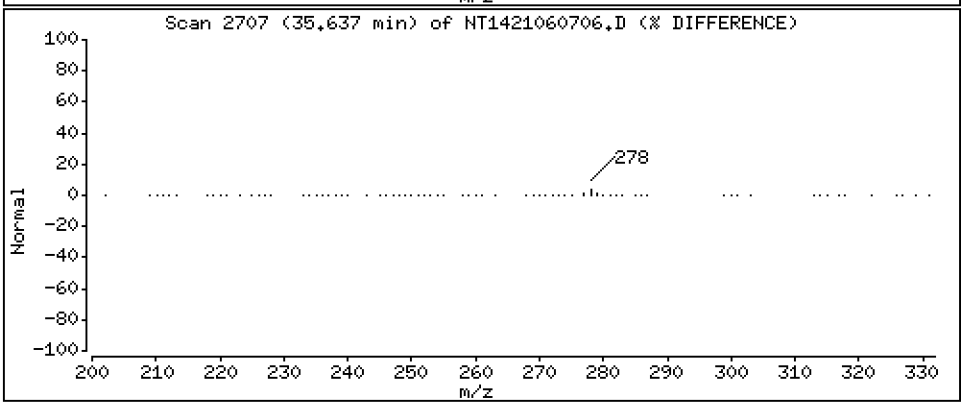












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

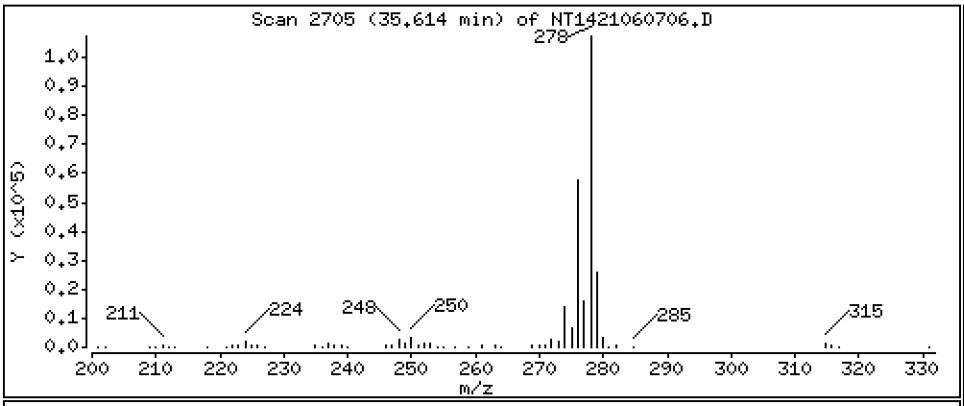
Operator: VTS

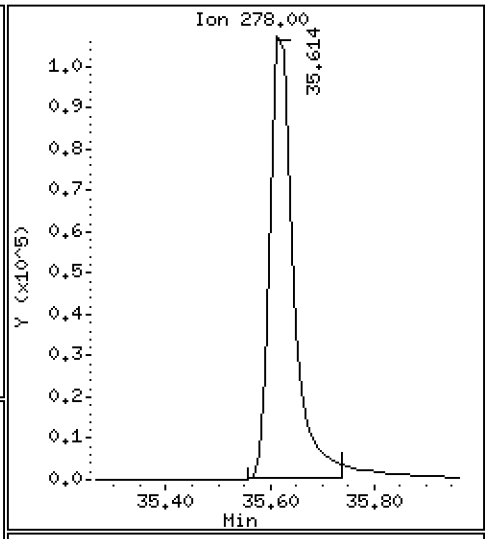
Column phase: Rxi-17Sil MS

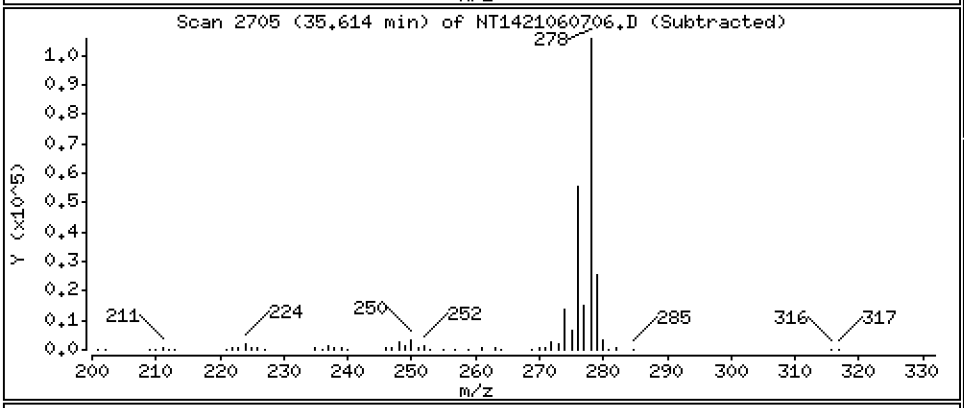
Column diameter: 0.25

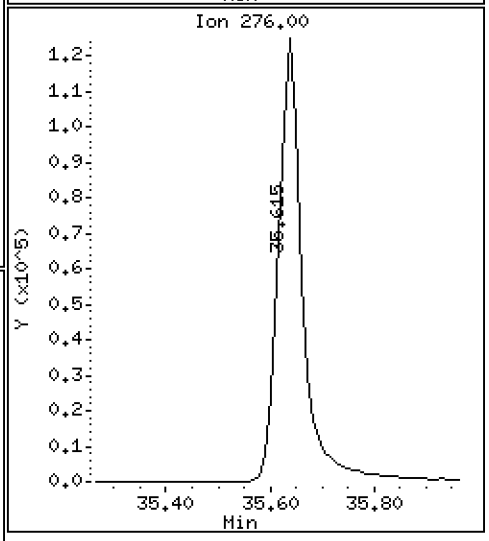
70 Dibenzo(a,h)anthracene

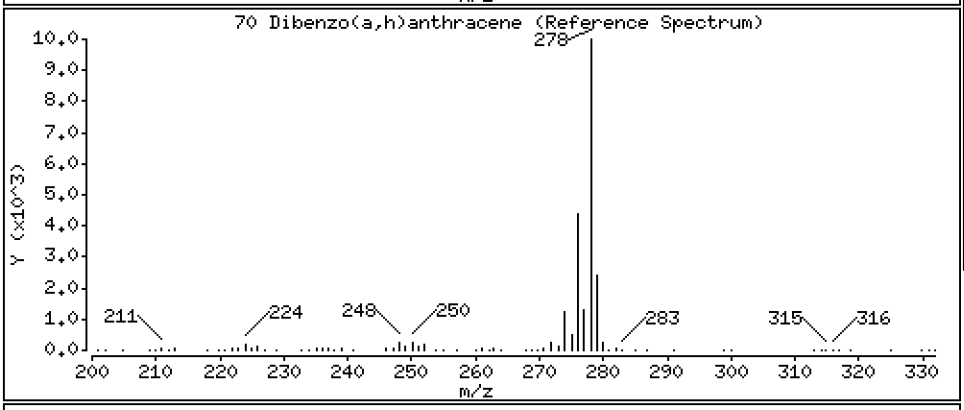
Concentration: 1.822 ug/mL

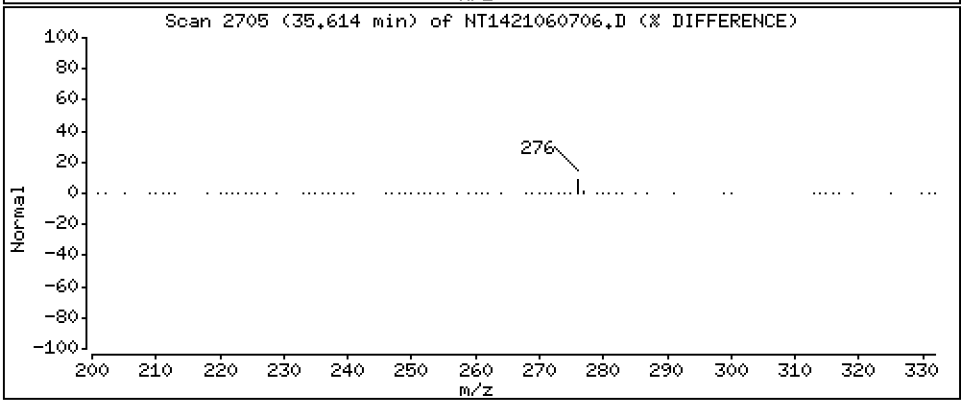












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D

Date : 07-JUN-2021 16:30

Client ID:

Instrument: nt14.i

Sample Info: BJE0209-BSD1

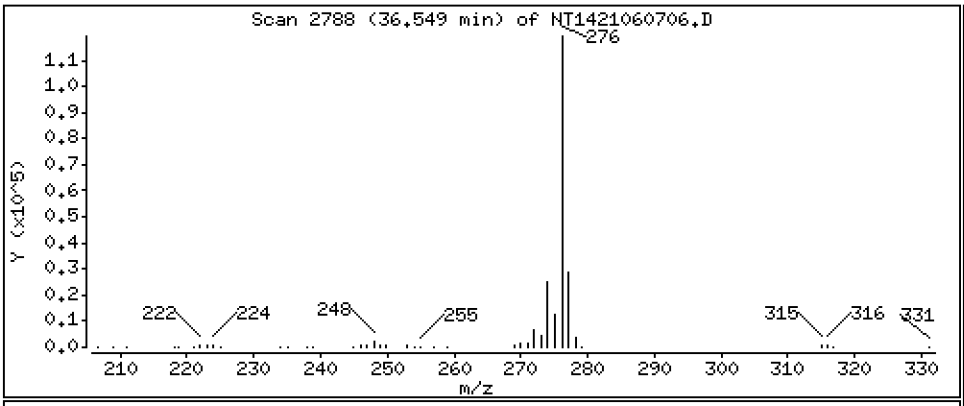
Operator: VTS

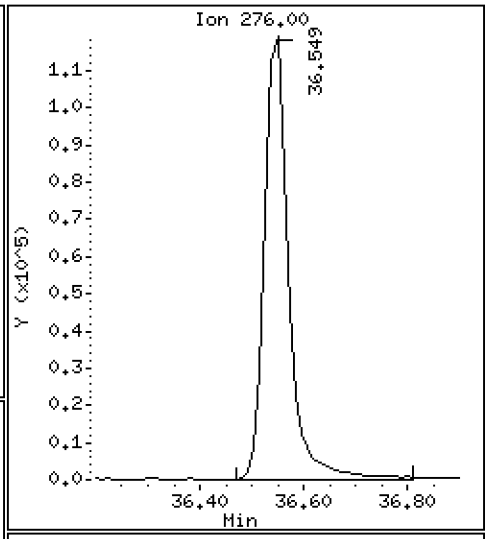
Column phase: Rxi-17Sil MS

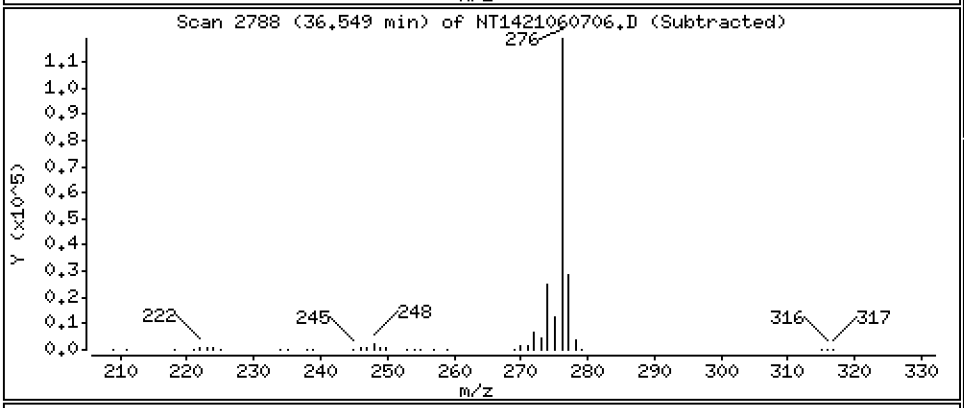
Column diameter: 0.25

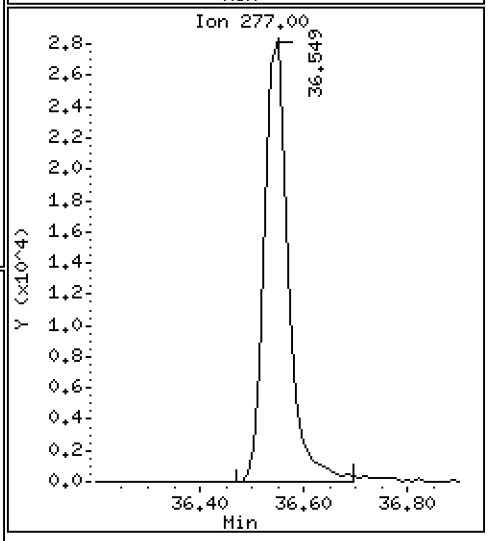
74 Benzo(g,h,i)perylene

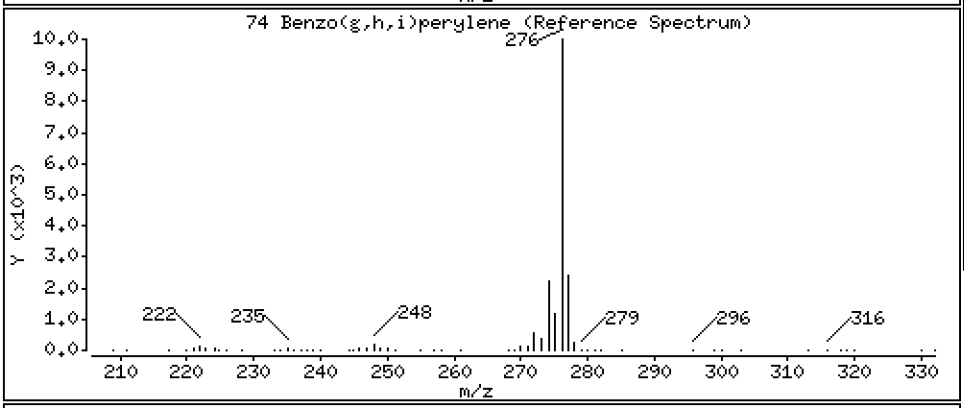
Concentration: 1.963 ug/mL

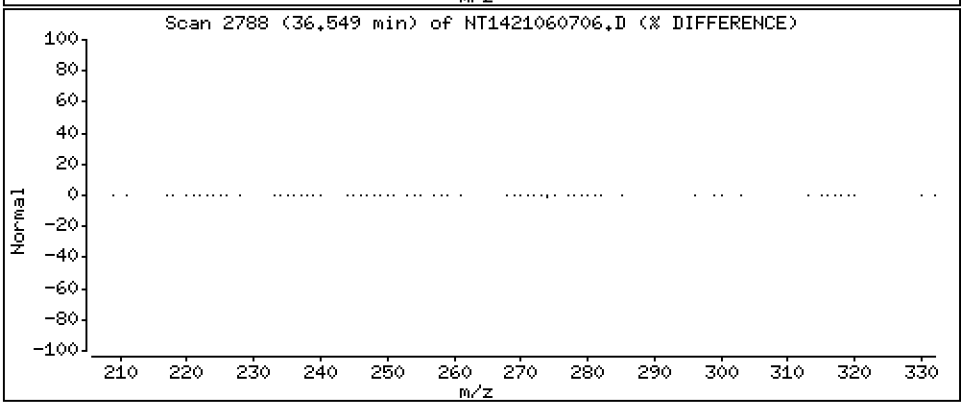












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210607.b\NT1421060706.D
Lab Smp Id: BJE0209-BSD1
Inj Date : 07-JUN-2021 16:30
Operator : VTS Inst ID: nt14.i
Smp Info : BJE0209-BSD1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210607.b\ALKYLPNA.m
Meth Date : 12-Jun-2021 14:57 yev Quant Type: ISTD
Cal Date : 29-MAY-2021 18:49 Cal File: NT1421052914.D
Als bottle: 33
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	1 trans-Decalin	138	7.126	7.136	(0.377)	20961	1.24539	1.245
	2 cis-Decalin	138	8.245	8.255	(0.436)	16489	1.20325	1.203
$	6 Naphthalene-d8	136	11.887	11.887	(0.629)	244794	1.56021	1.560(R)
	7 Naphthalene	128	11.947	11.957	(0.632)	255593	1.62997	1.630
	12 Benzo(b)thiophene	134	12.409	12.409	(0.657)	211408	1.63998	1.640
	16 2-Methylnaphthalene	141	13.783	13.794	(0.729)	151195	1.64941	1.649
	17 1-methylnaphthalene	141	14.244	14.244	(0.754)	148037	1.66001	1.660
	18 Biphenyl	154	15.431	15.431	(0.817)	229159	1.69186	1.692
	19 2,6-Dimethylnaphthalene	156	15.508	15.508	(0.821)	161352	1.61989	1.620
	20 Acenaphthylene	152	17.080	17.080	(0.904)	275102	1.61566	1.616
$	21 Acenaphthene-d10	164	17.365	17.365	(0.919)	154688	1.60525	1.605(R)
	22 Acenaphthene	153	17.486	17.486	(0.925)	188235	1.79328	1.793
	23 Dibenzofuran	168	17.860	17.860	(0.945)	281102	1.80541	1.805
	24 1,6,7-Trimethylnaphthalene	170	18.080	18.080	(0.957)	184899	1.82272	1.823
*	25 Fluorene-d10	176	18.896	18.896	(1.000)	337497	2.00000	
	26 Fluorene	166	19.009	19.009	(1.006)	226850	1.88047	1.880
	30 Dibenzothiophene	184	21.931	21.931	(1.161)	312666	1.83584	1.836
$	35 Phenanthrene-d10	188	22.238	22.238	(0.995)	302173	1.82302	1.823(R)
	36 Phenanthrene	178	22.315	22.326	(0.999)	368271	2.07314	2.073
*	250 Anthracene-d10	188	22.348	22.359	(1.000)	344529	2.00000	
	37 Anthracene	178	22.414	22.425	(1.003)	324186	1.93963	1.940
	42 Carbazole	167	23.701	23.701	(1.061)	313426	2.01382	2.014
	43 1-Methylphenanthrene	192	24.151	24.151	(1.081)	277461	2.17343	2.173
	44 Fluoranthene	202	26.130	26.130	(1.169)	445234	2.27076	2.271
	46 Pyrene	202	26.977	26.977	(1.207)	463287	2.27188	2.272
	51 Naphthobenzothiophene	234	29.509	29.509	(1.320)	350925	1.60161	1.602
	55 Benzo(a)anthracene	228	30.095	30.095	(0.907)	396010	2.26608	2.266
$	56 Chrysene-d12	240	30.219	30.219	(0.911)	299402	2.12285	2.123(R)
	57 Chrysene	228	30.286	30.286	(0.913)	411875	2.40523	2.405
	62 Benzo(b)fluoranthene	252	32.517	32.517	(0.980)	373235	2.05933	2.059
	63 Benzo(k)fluoranthene	252	32.562	32.562	(0.981)	443381	2.28001	2.280(M)
	293 Benzo(j)fluoranthene	252	32.629	32.629	(0.983)	399214	2.22787	2.228(M)
	246 Total Benzofluoranthenes	252	32.562	32.562	(0.981)	1223282	6.89089	6.891(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.181	33.181	(1.000)	450572	2.00000	
64 Benzo(e)pyrene	252	33.237	33.237	(1.002)	381231	2.14613	2.146
66 Benzo(a)pyrene	252	33.339	33.339	(1.005)	296523	1.83495	1.835
$ 67 Perylene-d12	264	33.519	33.519	(1.010)	240156	1.57737	1.577(RM)
68 Perylene	252	33.575	33.575	(1.012)	278809	1.67342	1.673
69 Indeno(1,2,3-cd)pyrene	276	35.636	35.636	(1.074)	378510	1.99548	1.995(M)
70 Dibenzo(a,h)anthracene	278	35.614	35.614	(1.073)	324052	1.82243	1.822(M)
74 Benzo(g,h,i)perylene	276	36.549	36.549	(1.101)	367819	1.96282	1.963

QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421060706.D
Lab Smp Id: BJE0209-BSD1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210607.b\ALKYLPNA.m
Misc Info:

Calibration Date: 07-JUN-2021
Calibration Time: 13:18
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	323874	161937	647748	337497	4.21
250 Anthracene-d10	339912	169956	679824	344529	1.36
251 Benzo(e)pyrene-d1	416427	208214	832854	450572	8.20

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.90	18.40	19.40	18.90	0.00
250 Anthracene-d10	22.36	21.86	22.86	22.35	-0.05
251 Benzo(e)pyrene-d1	33.18	32.68	33.68	33.18	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 - NT1421060706.D

Lab ID: BJE0209-BSD1
nt14.i, 20210607.b\ALKYLPNA.m,   07-JUN-2021 16:30

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

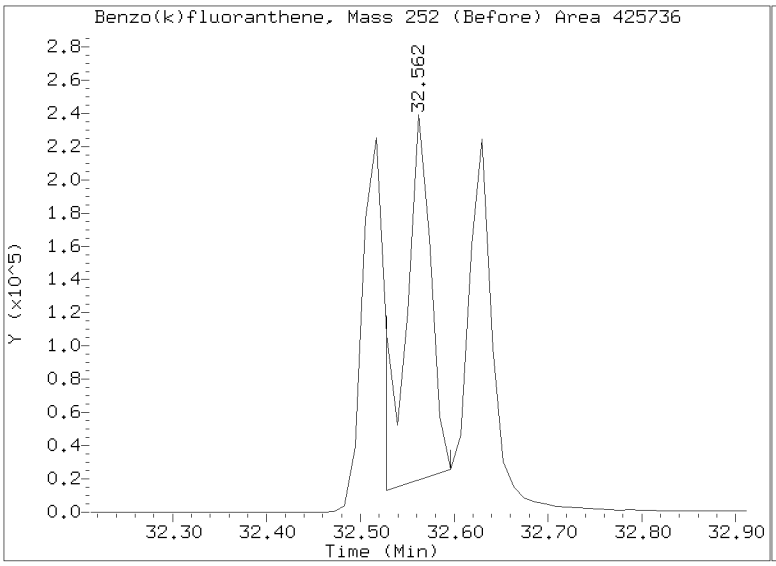
RRT check based on Ccal File: NT1421060702.D

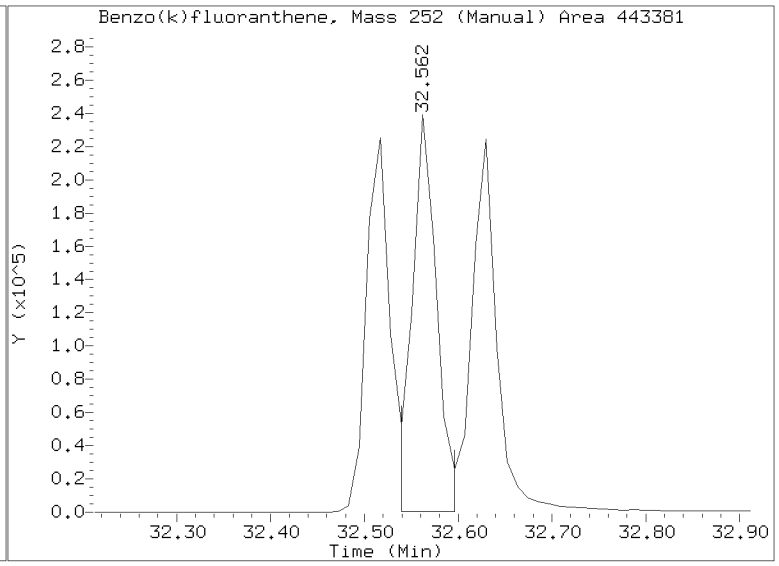
On Column LOD for nt14.i, 20210607.b\ALKYLPNA.m, TARGETS.sub = 0.0000

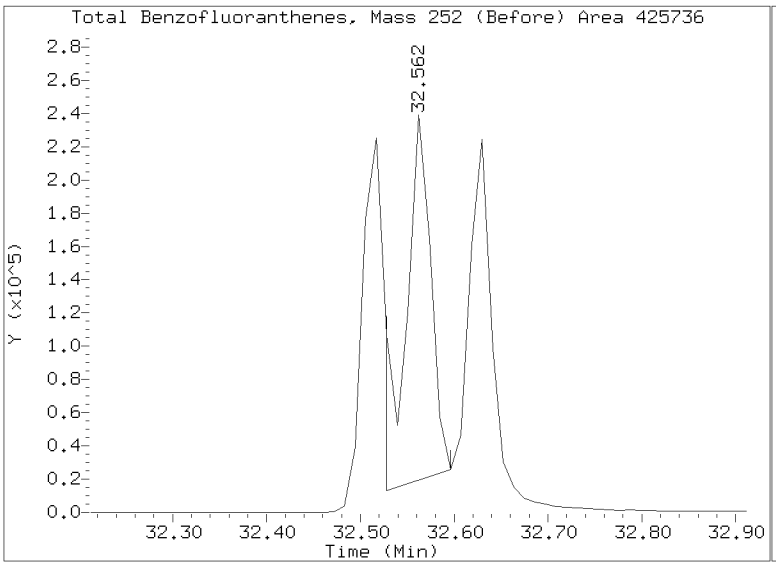
* Only compounds listed in the work order have been verified by the analyst *

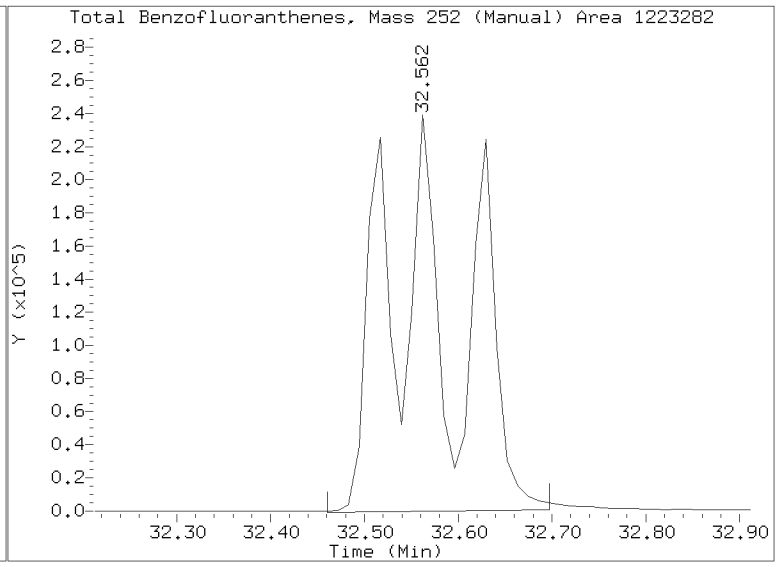
Quant Ion Manual Peak Adjustment Report

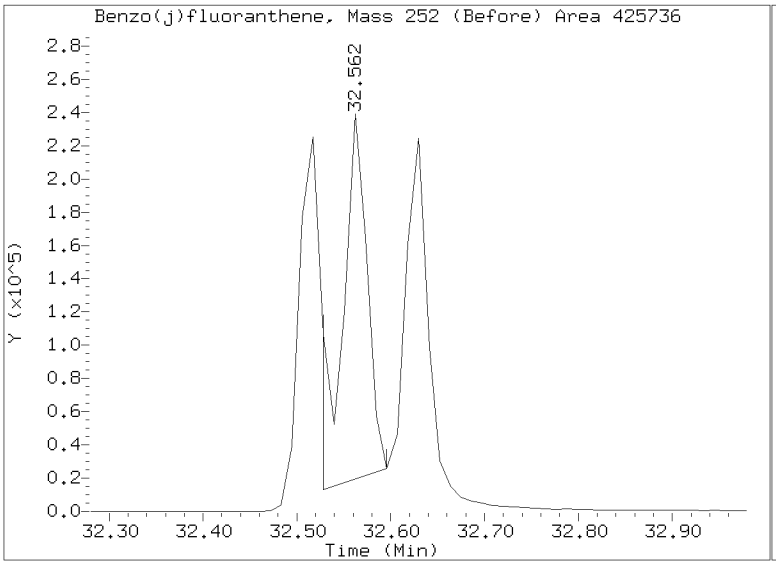
Datafile: //target/share/chem3/nt14.i/20210607.b/NT1421060706.D
Injection Date: 07-JUN-2021 16:30
Lab ID:BJE0209-BSD1 Client ID:
Report Date: 06/12/2021 15:50

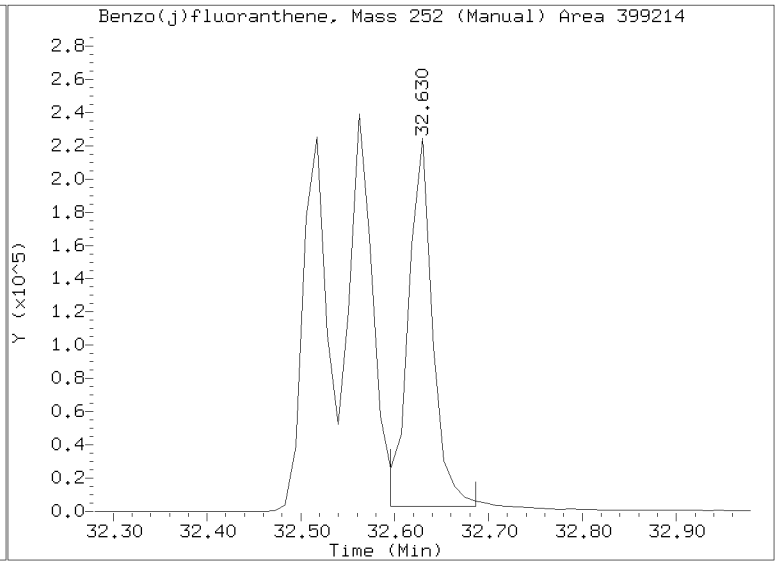






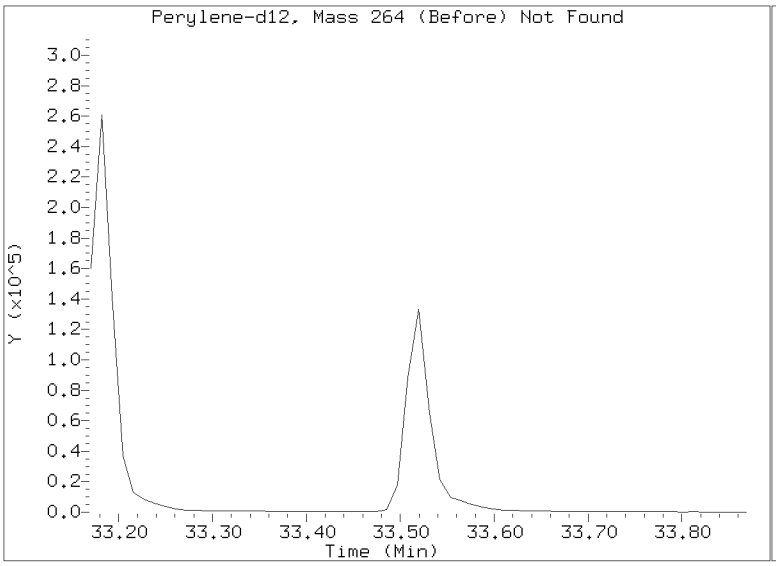


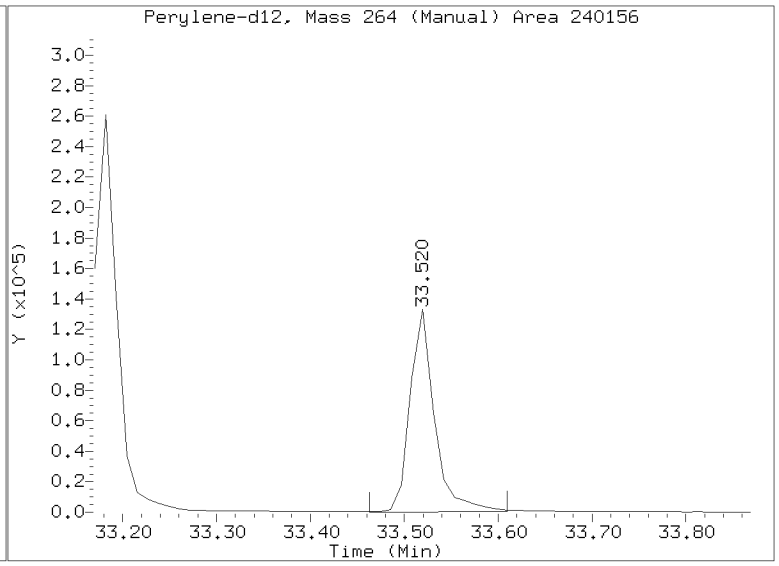


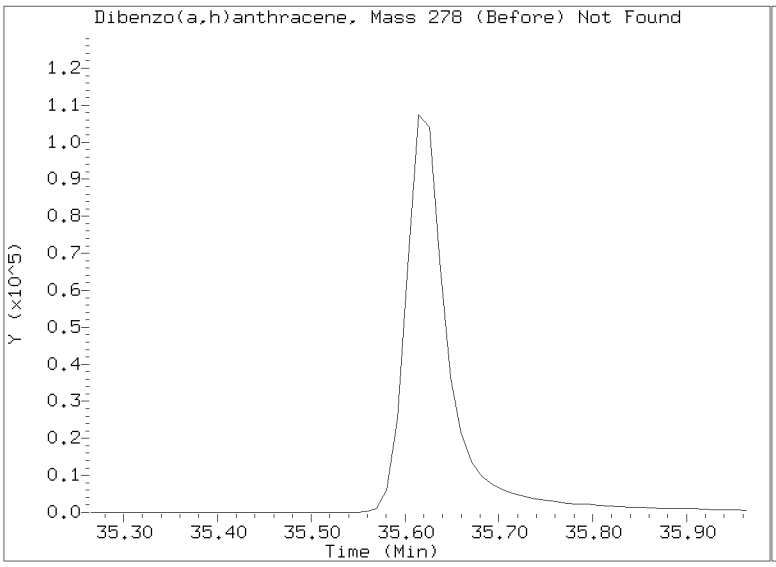


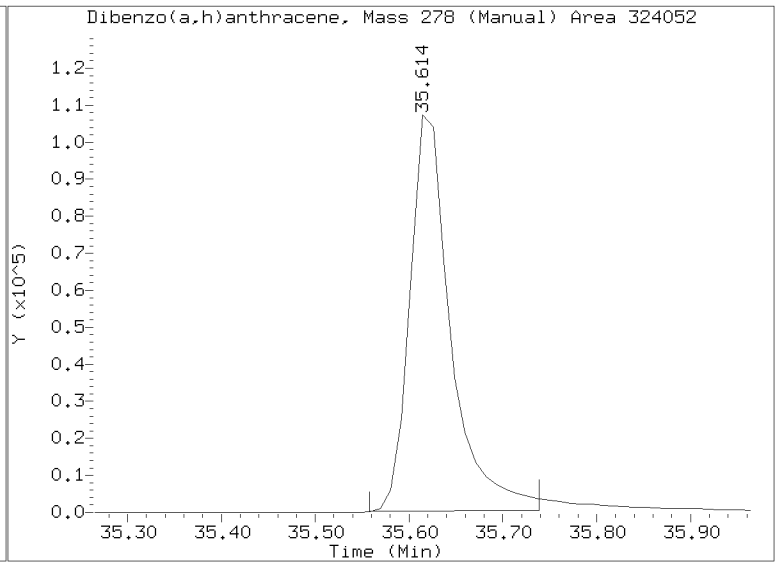
Quant Ion Manual Peak Adjustment Report

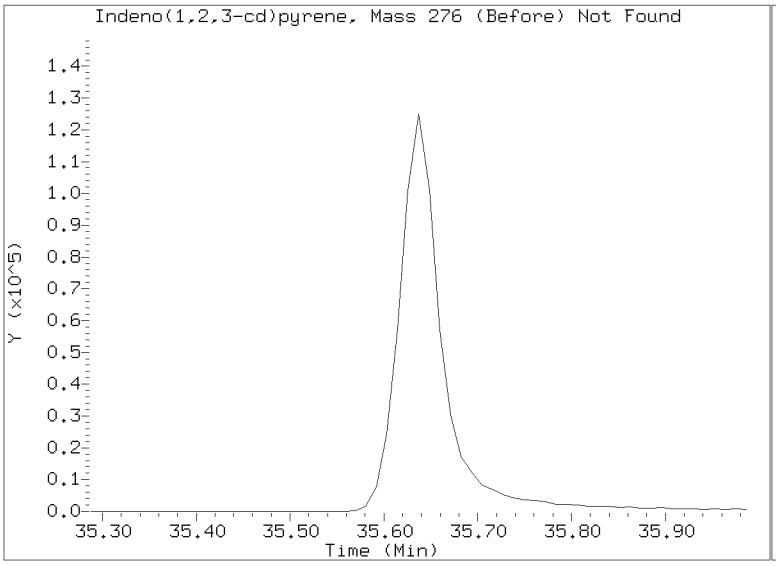
Datafile: //target/share/chem3/nt14.i/20210607.b/NT1421060706.D
Injection Date: 07-JUN-2021 16:30
Lab ID:BJE0209-BSD1 Client ID:
Report Date: 06/12/2021 15:50

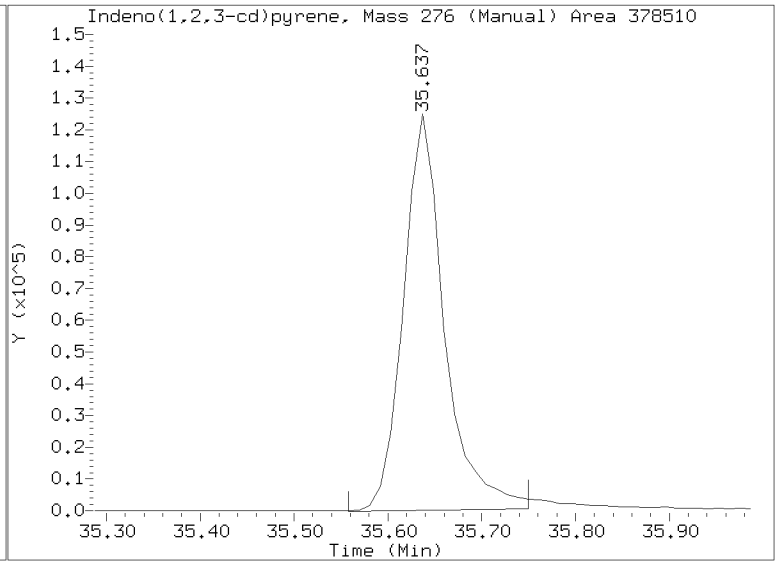












Analytical Resources, Incorporated
Analytical Chemists and Consultants

MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270E-SIM

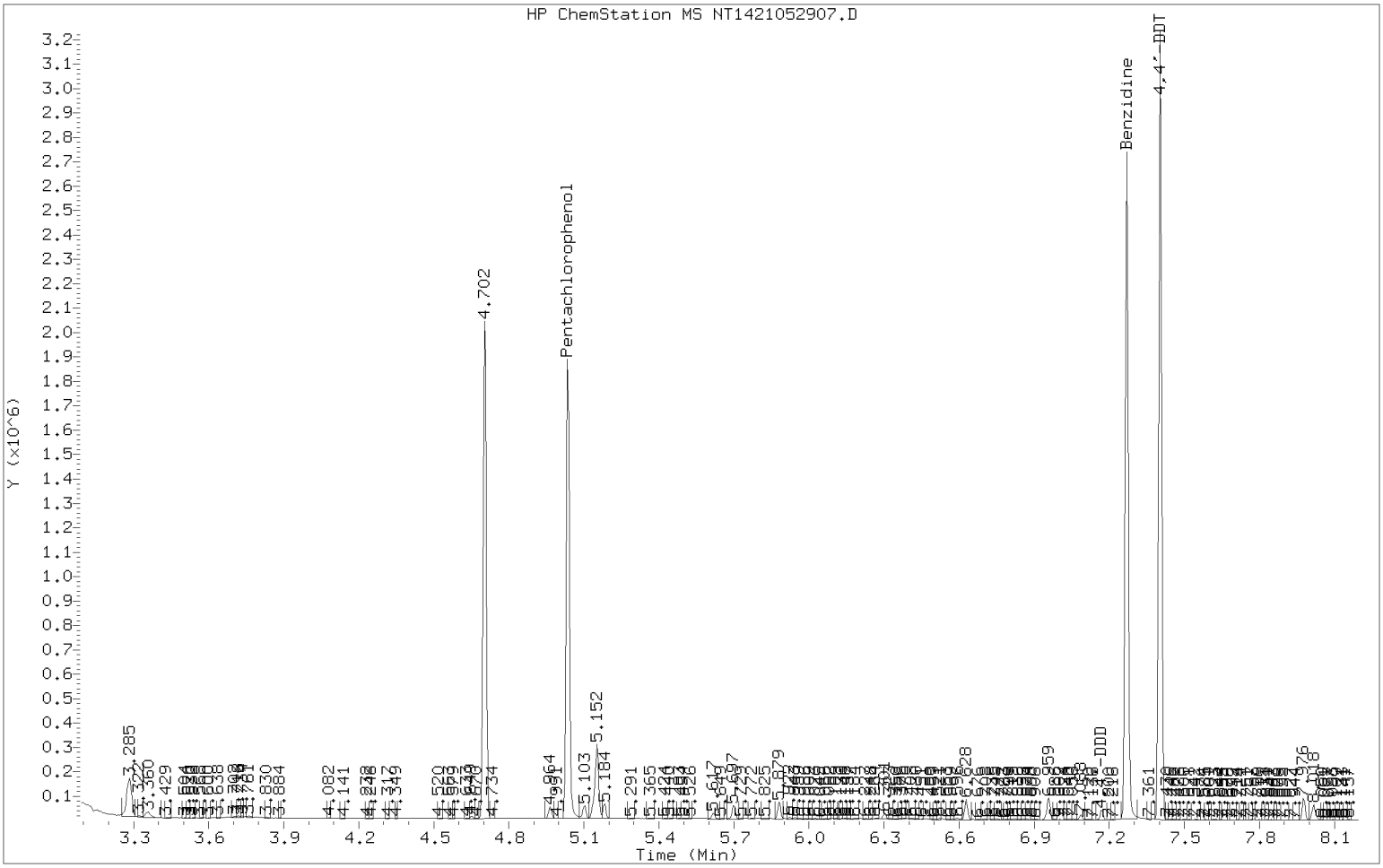
Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Lab File ID:	NT1421052907.D	Injection Date:	05/29/21
Instrument ID:	NT14	Injection Time:	13:39
Sequence:	SJF0025	Lab Sample ID:	SJF0025-TUN1

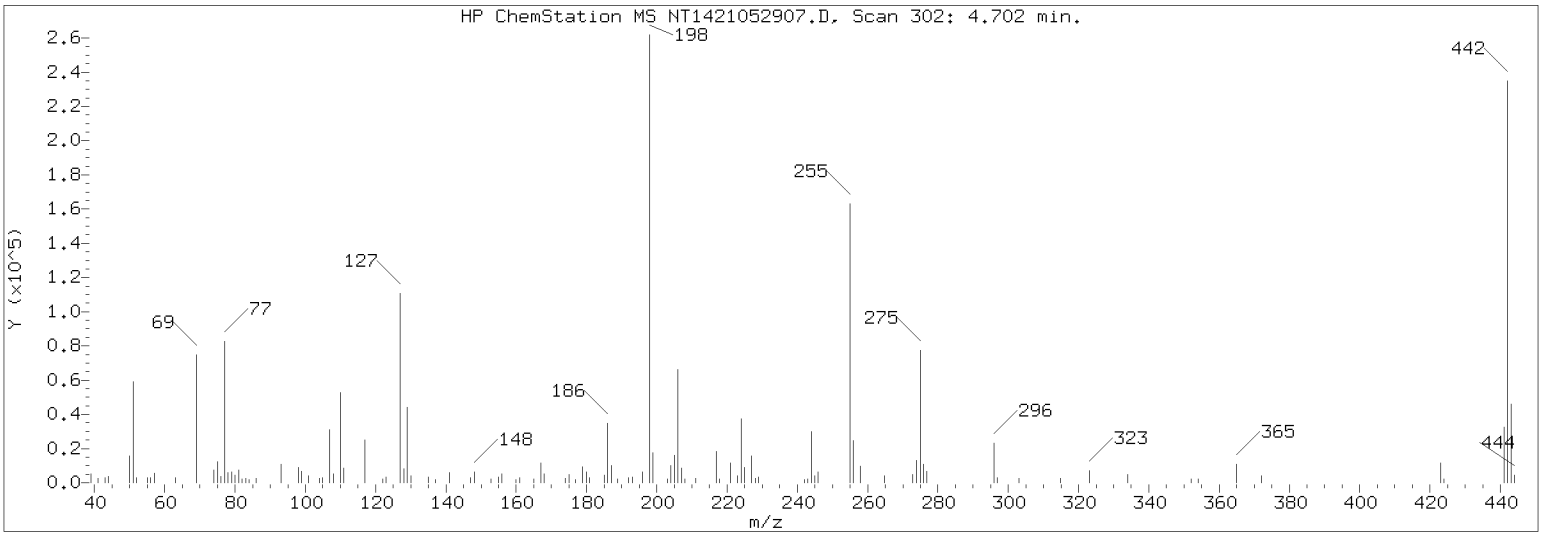
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
68	Less than 2% of 69	0	PASS
69	Less than 100% of 198	28.4	PASS
70	Less than 2% of 69	0	PASS
197	Less than 2% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.76	PASS
365	1 - 100% of 198	4.64	PASS
441	Less than 150% of 443	72.5	PASS
442	1 - 200% of 198	108	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		
4,4'-DDT	Less than 200% of		

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SJF0025-TUN1	NT1421052907.D	05/29/2021	13:39
Cal Standard	SJF0025-CAL5	NT1421052908.D	05/29/2021	14:01
Cal Standard	SJF0025-CAL7	NT1421052909.D	05/29/2021	14:49
Cal Standard	SJF0025-CAL1	NT1421052910.D	05/29/2021	15:37
Cal Standard	SJF0025-CAL6	NT1421052911.D	05/29/2021	16:25
Cal Standard	SJF0025-CAL3	NT1421052912.D	05/29/2021	17:13
Cal Standard	SJF0025-CAL4	NT1421052913.D	05/29/2021	18:01
Cal Standard	SJF0025-CAL2	NT1421052914.D	05/29/2021	18:49
Secondary Cal Check	SJF0025-SCV1	NT1421052915.D	05/29/2021	19:38
Initial Cal Blank	SJF0025-ICB1	NT1421052916.D	05/29/2021	20:26

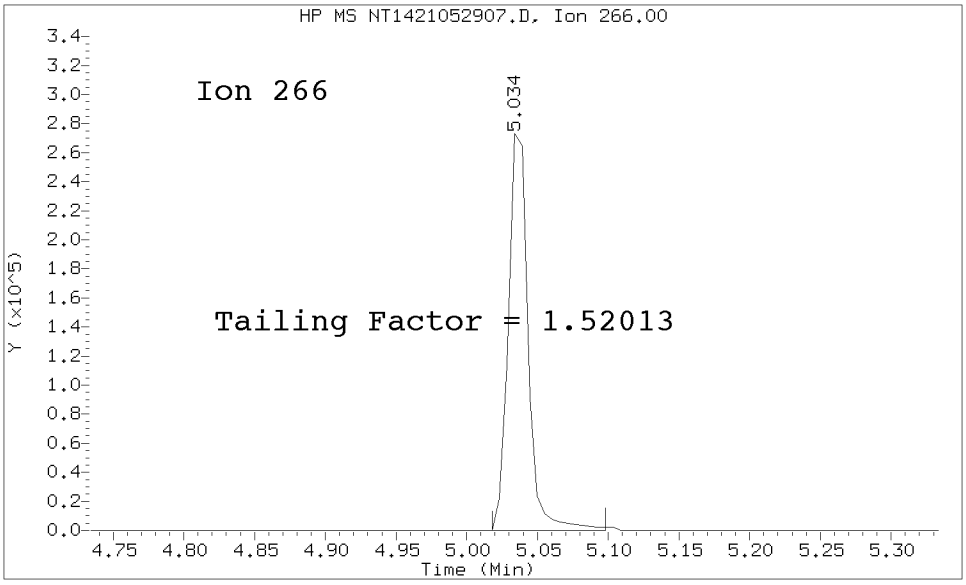
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20210529.b/NT1421052907.D/NT1421052907.D
Method Used: \20210529.b\DFTPP8270E.m Inst: nt14
Injection Date: 29-MAY-2021 13:39 Operator: VTS
Sample Info: SJF0025-TUN1 SJF0025-TUN1
Report Date: 06/02/2021 18:45



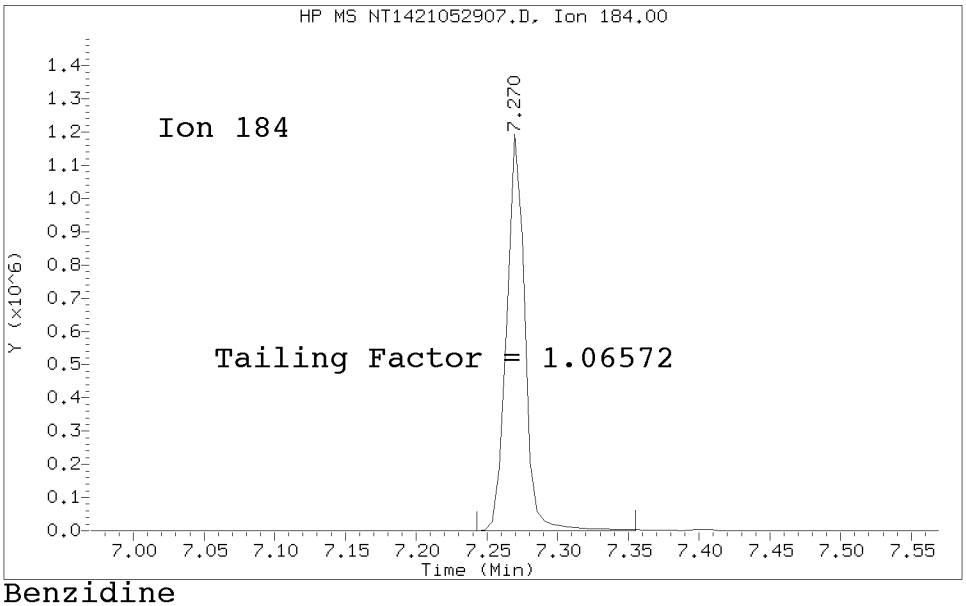


Datafile Analyzed: /20210529.b/NT1421052907.D/NT1421052907.D
Method Used: \20210529.b\DFTPP8270E.m\sw846ddt.m Inst: nt14
Injection Date: 29-MAY-2021 13:39 Operator: JZ
Sample Info: SJF0025-TUN1
Report Date: 06/02/2021 18:45



Pentachlorophenol
==========
Exp. RT = 5.039
Found RT = 5.034

Tail Factor = 1.520 Maximum Allowed = 2.0



Benzidine
==========
Exp. RT = 7.275
Found RT = 7.270

Tail Factor = 1.066 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.5201288	2.000	PASS
Benzidine	1.0657216	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	563112			N/A
4,4-DDE	0	0.0	20.0	PASS
4,4-DDD	13152	2.3	20.0	PASS
4,4-DDD + DDE	13152	2.3	20.0	PASS

Tuning Sample, nt14.i/20210529.b/NT1421052907.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	28.36
70	Less than 2.00% of mass 69	0.00 (0.00)
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.76
365	1.00 - 100.00% of mass 198	4.64
441	Less than 150.00% of mass 443	15.22 (72.50)
442	Less than 200.00% of mass 198	107.89
443	15.00 - 24.00% of mass 442	20.99 (19.45)

Data File: NT1421052907.D
Spectrum: Avg. Scans 301-303 (4.70), Background Scan 296
Location of Maximum: 442.00
Number of points: 119

m/z	Y	m/z	Y	m/z	Y	m/z	Y
39.00	4088	107.00	23768	185.00	3550	246.00	4921
41.00	189	108.00	3673	186.00	27048	255.00	130472
43.00	300	110.00	40024	187.00	7921	256.00	19464
44.00	492	111.00	6643	189.00	687	258.00	7944
50.00	11960	117.00	19360	192.00	1775	265.00	2660
51.00	44032	122.00	778	193.00	2104	273.00	4235
52.00	1691	123.00	2759	196.00	5145	274.00	10626
55.00	546	127.00	84112	198.00	202048	275.00	62040
56.00	1678	128.00	6409	199.00	13660	276.00	8597
57.00	4602	129.00	34144	203.00	687	277.00	5339
63.00	984	130.00	3082	204.00	7568	296.00	19536
69.00	57304	135.00	2780	205.00	12402	297.00	2089
74.00	5859	137.00	682	206.00	51632	303.00	1778
75.00	9203	141.00	4684	207.00	6963	315.00	1895
76.00	2985	147.00	1837	208.00	1422	323.00	6224
77.00	62216	148.00	4980	211.00	1691	334.00	3421
78.00	4462	153.00	743	217.00	14131	352.00	1509
79.00	4915	155.00	2043	218.00	755	354.00	1684
80.00	3483	156.00	3962	221.00	9451	365.00	9372
81.00	5765	160.00	679	222.00	674	372.00	2913
82.00	702	161.00	1805	223.00	2579	403.00	888
83.00	2221	165.00	1447	224.00	30408	421.00	826
84.00	685	167.00	8876	225.00	7402	422.00	716
86.00	1590	168.00	4117	227.00	12661	423.00	10882
93.00	8295	174.00	1590	228.00	1506	424.00	1838
98.00	7051	175.00	3747	229.00	2182	441.00	30744
99.00	5151	177.00	674	242.00	673	442.00	217984
101.00	3014	179.00	7206	243.00	724	443.00	42408
104.00	846	180.00	5041	244.00	24280	444.00	3461
105.00	1678	181.00	1922	245.00	3292		

INITIAL CALIBRATION DATA

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	EF00008	Instrument:	NT14
Calibration Date:	06/02/2021	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	7.534294E-02	0.25	9.778924E-02	0.5	0.1036148	1	0.106297	2.5	0.1043755	5	0.1088011
cis-Decalin	0.1	3.670278E-02	0.25	6.178443E-02	0.5	7.815701E-02	1	7.951199E-02	2.5	7.976022E-02	5	8.013539E-02
Naphthalene	0.1	0.9765522	0.25	0.9067926	0.5	0.9255268	1	0.9807403	2.5	0.9081428	5	0.9387818
1-Methylnaphthalene	0.1	0.5476356	0.25	0.5119529	0.5	0.5386273	1	0.5544323	2.5	0.5378297	5	0.5270036
2-Methylnaphthalene	0.1	0.5620584	0.25	0.5307568	0.5	0.5500292	1	0.5770137	2.5	0.5423394	5	0.5394794
Biphenyl	0.1	0.866121	0.25	0.8037175	0.5	0.8227613	1	0.8448413	2.5	0.7883871	5	0.7812212
2,6-Dimethylnaphthalene	0.1	0.6124305	0.25	0.5967873	0.5	0.5947874	1	0.6231305	2.5	0.5840555	5	0.5886414
Acenaphthylene	0.1	1.054263	0.25	0.940891	0.5	0.9872286	1	1.046211	2.5	1.034134	5	1.029675
Acenaphthene	0.1	0.6504249	0.25	0.6015099	0.5	0.6334943	1	0.653886	2.5	0.6294135	5	0.6141236
Dibenzofuran	0.1	0.975153	0.25	0.889895	0.5	0.9282871	1	0.9845446	2.5	0.9332497	5	0.9063837
2,3,5-Trimethylnaphthalene	0.1	0.6459043	0.25	0.5533302	0.5	0.5973141	1	0.6237959	2.5	0.6172789	5	0.6061235
Fluorene	0.1	0.7472944	0.25	0.6937966	0.5	0.7166835	1	0.7379897	2.5	0.7367587	5	0.7082099
Benzo(b)thiophene	0.1	0.8336159	0.25	0.7500785	0.5	0.7434577	1	0.7839956	2.5	0.7434204	5	0.7716431
Phenanthrene	0.1	1.131429	0.25	1.01129	0.5	1.038436	1	1.079004	2.5	1.018391	5	1.010104
Anthracene	0.1	0.985716	0.25	0.9554749	0.5	0.9711693	1	1.020905	2.5	0.9795335	5	0.9705072
Carbazole	0.1	0.8763289	0.25	0.7815781	0.5	0.8387547	1	0.8873516	2.5	0.8878368	5	0.8835912
1-Methylphenanthrene	0.1	0.7837705	0.25	0.6578359	0.5	0.7154462	1	0.7764907	2.5	0.7574097	5	0.7751158
Fluoranthene	0.1	1.130505	0.25	1.037637	0.5	1.099469	1	1.177821	2.5	1.185089	5	1.182504
Dibenzothiophene	0.1	1.085584	0.25	0.9323989	0.5	1.00258	1	1.048352	2.5	1.044824	5	1.006764
Pyrene	0.1	1.168781	0.25	1.045878	0.5	1.136973	1	1.211834	2.5	1.251549	5	1.269524
Benzo(a)anthracene	0.1	0.8140912	0.25	0.6707719	0.5	0.7671555	1	0.8017325	2.5	0.8336517	5	0.8031392
Chrysene	0.1	0.8072931	0.25	0.7219358	0.5	0.7864226	1	0.7987609	2.5	0.7686271	5	0.7471807
Benzo(b)fluoranthene	0.1	0.854727	0.25	0.6576491	0.5	0.7544163	1	0.7852628	2.5	0.8363295	5	0.8506428
Benzo(j)fluoranthene	0.1	0.8267708	0.25	0.8195274	0.5	0.8279569	1	0.8858766	2.5	0.7258668	5	0.750776
Benzo(k)fluoranthene	0.1	0.8280693	0.25	0.8500869	0.5	0.8291479	1	0.9014526	2.5	0.8952783	5	0.8256551
Benzofluoranthenes, Total	0.3	0.8113414	0.75	0.6971081	1.5	0.7651052	3	0.8097535	7.5	0.8020647	15	0.8253576
Benzo(e)pyrene	0.1	0.8546506	0.25	0.734757	0.5	0.7544314	1	0.8085466	2.5	0.7983839	5	0.7929136
Benzo(a)pyrene	0.1	0.7645949	0.25	0.6490514	0.5	0.6677295	1	0.7345777	2.5	0.73648	5	0.7414213

INITIAL CALIBRATION DATA

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	EF00008	Instrument:	NT14
Calibration Date:	06/02/2021	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	0.7359512	0.25	0.6503788	0.5	0.8202078	1	0.8621191	2.5	0.9480635	5	0.9414672
Dibenzo(a,h)anthracene	0.1	0.6053361	0.25	0.546784	0.5	0.6899063	1	0.7163892	2.5	0.807435	5	0.8071966
Benzo(g,h,i)perylene	0.1	0.817452	0.25	0.7204878	0.5	0.7919253	1	0.8547246	2.5	0.904796	5	0.8734312
Perylene	0.1	0.8097373	0.25	0.6287488	0.5	0.7253348	1	0.7554018	2.5	0.7706186	5	0.7575012
Benzo(b)naphtho(2,1-d)thiophene	0.1	1.308542	0.25	1.104565	0.5	1.228033	1	1.317391	2.5	1.33585	5	1.333795
Naphthalene-d8	0.1	0.9407105	0.25	0.9066626	0.5	0.9293912	1	0.9809289	2.5	0.9150152	5	0.9527602
Acenaphthene-d10	0.1	0.6039275	0.25	0.5495174	0.5	0.5733426	1	0.5959018	2.5	0.5788585	5	0.5673766
Phenanthrene-d10	0.1	1.02317	0.25	0.9375358	0.5	0.9619614	1	1.004585	2.5	0.9435863	5	0.9744183
Chrysene-d12	0.1	0.6443679	0.25	0.5849457	0.5	0.6476483	1	0.6545664	2.5	0.6599023	5	0.6235904
Perylene-d12	0.1	0.7316738	0.25	0.6009344	0.5	0.6527742	1	0.693495	2.5	0.7048907	5	0.6796008

INITIAL CALIBRATION DATA

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	EF00008	Instrument:	NT14
Calibration Date:	06/02/2021	Column (1):	ZB-5MS

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RRF		RRF		RRF		RRF		RRF		RRF
trans-Decalin	10	0.1019532										
cis-Decalin	10	0.0740341										
Naphthalene	10	0.8681585										
1-Methylnaphthalene	10	0.4818078										
2-Methylnaphthalene	10	0.5007918										
Biphenyl	10	0.7115786										
2,6-Dimethylnaphthalene	10	0.5320324										
Acenaphthylene	10	0.9708179										
Acenaphthene	10	0.5713637										
Dibenzofuran	10	0.841194										
2,3,5-Trimethylnaphthalene	10	0.5642276										
Fluorene	10	0.6634272										
Benzo(b)thiophene	10	0.721182										
Phenanthrene	10	0.9297658										
Anthracene	10	0.908387										
Carbazole	10	0.8348721										
1-Methylphenanthrene	10	0.7214288										
Fluoranthene	10	1.154423										
Dibenzothiophene	10	0.9443673										
Pyrene	10	1.201874										
Benzo(a)anthracene	10	0.7393942										
Chrysene	10	0.6905319										
Benzo(b)fluoranthene	10	0.8924207										
Benzo(j)fluoranthene	10	0.7309814										
Benzo(k)fluoranthene	10	0.9126467										
Benzofluoranthenes, Total	30	0.8051519										
Benzo(e)pyrene	10	0.7757705										
Benzo(a)pyrene	10	0.7272336										

INITIAL CALIBRATION DATA

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	EF00008	Instrument:	NT14
Calibration Date:	06/02/2021	Column (1):	ZB-5MS

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RRF		RRF		RRF		RRF		RRF		RRF
Indeno(1,2,3-cd)pyrene	10	0.9356019										
Dibenzo(a,h)anthracene	10	0.8344713										
Benzo(g,h,i)perylene	10	0.8598027										
Perylene	10	0.7295014										
Benzo(b)naphtho(2,1-d)thiophene	10	1.275329										
Naphthalene-d8	10	0.8829448										
Acenaphthene-d10	10	0.5284258										
Phenanthrene-d10	10	0.8902021										
Chrysene-d12	10	0.5672435										
Perylene-d12	10	0.6673176										

INITIAL CALIBRATION DATA

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	EF00008	Instrument:	NT14
Calibration Date:	06/02/2021	Column (1):	ZB-5MS

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
trans-Decalin	9.973911E-02	11.3			RSD (15)	
cis-Decalin	7.001228E-02	22.9		0.9997	QCOD (0.99)	
Naphthalene	0.9292421	4.3			RSD (15)	
1-Methylnaphthalene	0.5284699	4.7			RSD (15)	
2-Methylnaphthalene	0.5432098	4.5			RSD (15)	
Biphenyl	0.8026611	6.3			RSD (15)	
2,6-Dimethylnaphthalene	0.5902664	4.9			RSD (15)	
Acenaphthylene	1.009032	4.3			RSD (15)	
Acenaphthene	0.6220308	4.7			RSD (15)	
Dibenzofuran	0.9226724	5.4			RSD (15)	
2,3,5-Trimethylnaphthalene	0.6011392	5.5			RSD (15)	
Fluorene	0.71488	4.1			RSD (15)	
Benzo(b)thiophene	0.7639133	4.8			RSD (15)	
Phenanthrene	1.031203	6.1			RSD (15)	
Anthracene	0.9702418	3.5			RSD (15)	
Carbazole	0.8557591	4.6			RSD (15)	
1-Methylphenanthrene	0.7410711	6.2			RSD (15)	
Fluoranthene	1.138207	4.8			RSD (15)	
Dibenzothiophene	1.009267	5.5			RSD (15)	
Pyrene	1.183773	6.4			RSD (15)	
Benzo(a)anthracene	0.7757052	7.2			RSD (15)	
Chrysene	0.7601074	5.6			RSD (15)	
Benzo(b)fluoranthene	0.8044926	9.9			RSD (15)	
Benzo(j)fluoranthene	0.7953937	7.6			RSD (15)	
Benzo(k)fluoranthene	0.863191	4.5			RSD (15)	
Benzofluoranthenes, Total	0.7879832	5.6			RSD (15)	
Benzo(e)pyrene	0.7884934	4.9			RSD (15)	
Benzo(a)pyrene	0.7172983	5.9			RSD (15)	
Indeno(1,2,3-cd)pyrene	0.8419699	13.6			RSD (15)	
Dibenzo(a,h)anthracene	0.7153598	15.3		0.9998	QCOD (0.99)	
Benzo(g,h,i)perylene	0.8318028	7.4			RSD (15)	

INITIAL CALIBRATION DATA

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	EF00008	Instrument:	NT14
Calibration Date:	06/02/2021	Column (1):	ZB-5MS

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Perylene	0.7395491	7.6			RSD (15)	
Benzo(b)naphtho(2,1-d)thiophene	1.271929	6.5			RSD (15)	
Naphthalene-d8	0.9297733	3.5			RSD (15)	
Acenaphthene-d10	0.5710501	4.6			RSD (15)	
Phenanthrene-d10	0.9622084	4.6			RSD (15)	
Chrysene-d12	0.6260378	5.8			RSD (15)	
Perylene-d12	0.6758124	6.2			RSD (15)	

Printed: 6/2/2021 6:40:59PM

ANALYSIS SEQUENCE

SJF0025

Instrument: NT14 Element Column ID: i008815
Calibration ID: UNASSIGNED Tune File: 200228u
EM Voltage: 1906

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SJF0025-TUN1	MS Tune	QC		1	I007631		
SJF0025-CAL1	PAH 0.1	QC		2	J004706	J004384	
SJF0025-CAL2	PAH 0.25	QC		3	J004705	J004384	
SJF0025-CAL3	PAH 0.5	QC		4	J004704	J004384	
SJF0025-CAL4	PAH 1.0	QC		5	J004703	J004384	
SJF0025-CAL5	PAH 2.5	QC		6	J004700	J004384	
SJF0025-CAL6	PAH 5.0	QC		7	J004702	J004384	
SJF0025-CAL7	PAH 10.0	QC		8	J004701	J004384	
SJF0025-SCV1	Secondary Cal Check	QC		9	J004707	J004384	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210529.b

	Time	Filename	LabID	ClientId	DF						
1	1339	NT1421052907.D	SJF0025-TUN1		1	|NO ISTDS FOUND||					
2	1401	NT1421052908.D	SJF0025-CAL5		1	|18.91	159478||22.36	170161||33.18	236612|		
3	1449	NT1421052909.D	SJF0025-CAL7		1	|18.91	163422||22.36	166127||33.18	247029|		
4	1537	NT1421052910.D	SJF0025-CAL1		1	|18.91	185817||22.36	194904||33.18	261838|		
5	1625	NT1421052911.D	SJF0025-CAL6		1	|18.91	174899||22.36	178057||33.18	261344|		
6	1713	NT1421052912.D	SJF0025-CAL3		1	|18.91	188390||22.36	196353||33.18	265323|		
7	1801	NT1421052913.D	SJF0025-CAL4		1	|18.91	180325||22.36	185169||33.18	261813|		
8	1849	NT1421052914.D	SJF0025-CAL2		1	|18.91	184642||22.36	192206||33.18	265187|		
9	1938	NT1421052915.D	SJF0025-SCV1		1	|18.91	166522||22.36	168360||33.18	235397|		
10	2026	NT1421052916.D	SJF0025-ICB1		1	|18.91	183758||22.36	189746||33.18	265253|		

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210529.b

ARI Job No.: SJF0 Method: DFTPP8270E.m Instrument: nt14.i Date: 29-MAY-2021

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1339	NT1421052907.D	SJF0025-TUN1		1	NO MANUAL INTEGRATION
1401	NT1421052908.D	SJF0025-CAL5		1	Benzo(b)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Perylene, Total Benzofluoranthen
1449	NT1421052909.D	SJF0025-CAL7		1	Benzo(g,h,i)perylene, Perylene, Total Benzofluoranthenes,
1537	NT1421052910.D	SJF0025-CAL1		1	Benzo(b)fluoranthene, Dibenzo(a,h)anthracene, Perylene, Total Benzofluoranthenes,
1625	NT1421052911.D	SJF0025-CAL6		1	Phenanthrene, Benzo(b)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
1713	NT1421052912.D	SJF0025-CAL3		1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Perylene, cis-Decalin, Total Benzofluoranthenes, Benzo(j)fluoranthene,
1801	NT1421052913.D	SJF0025-CAL4		1	Phenanthrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)peryle Perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
1849	NT1421052914.D	SJF0025-CAL2		1	Benzo(b)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Perylene, Total Benzofluoranthenes,
1938	NT1421052915.D	SJF0025-SCV1		1	Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Perylene, Total Benzofluoranthenes,
2026	NT1421052916.D	SJF0025-ICB1		1	NO MANUAL INTEGRATION

Security Status Report

Date: 02-Jun-2021 19:12

NT1421052907.D	Data Locked	yev, 02-
NT1421052908.D	Data Locked	yev, 02-
NT1421052909.D	Data Locked	yev, 02-
NT1421052910.D	Data Locked	yev, 02-
NT1421052911.D	Data Locked	yev, 02-
NT1421052912.D	Data Locked	yev, 02-
NT1421052913.D	Data Locked	yev, 02-
NT1421052914.D	Data Locked	yev, 02-
NT1421052915.D	Data Locked	yev, 02-
NT1421052916.D	Data Locked	yev, 02-

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Batch File: \\target\share\chem3\nt14.i\20210529.b
Inst ID: nt14.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	NT1421052908	NT1421052909	NT1421052910	NT1421052911	NT1421052912	NT1421052913	NT1421052914
INJ.DATE:	29-MAY-2021	29-MAY-2021	29-MAY-2021	29-MAY-2021	29-MAY-2021	29-MAY-2021	29-MAY-2021
INJ.TIME:	14:01	14:49	15:37	16:25	17:13	18:01	18:49

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1	trans-Decalin	7.147	7.146	7.157	7.146	7.136	7.136	7.157	7.147	4.147-10.147	7.147	0.008
2	cis-Decalin	8.256	8.256	8.256	8.266	8.266	8.266	8.246	8.256	5.256-11.256	8.259	0.008
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	11.897	11.897	11.897	11.897	11.897	11.897	11.897	11.897	8.897-14.897	11.897	0.000
7	Naphthalene	11.958	11.968	11.958	11.958	11.958	11.958	11.958	11.958	8.958-14.958	11.959	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	12.410	12.421	12.410	12.410	12.410	12.410	12.410	12.410	9.410-15.410	12.411	0.004
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	13.794	13.794	13.794	13.794	13.794	13.794	13.794	13.794	10.794-16.794	13.794	0.000

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Batch File: \\target\share\chem3\nt14.i\20210529.b
Inst ID: nt14.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
17 1-methylnaphthalene	14.245	14.256	14.245	14.245	14.245	14.245	14.245	14.245	11.245-17.245	14.246	0.004
18 Biphenyl	15.432	15.443	15.432	15.443	15.432	15.432	15.432	15.432	12.432-18.432	15.435	0.005
19 2,6-Dimethylnaphthalen	15.509	15.520	15.509	15.509	15.509	15.509	15.509	15.509	12.509-18.509	15.510	0.004
20 Acenaphthylene	17.091	17.091	17.080	17.091	17.091	17.091	17.091	17.091	14.091-20.091	17.090	0.004
$ 21 Acenaphthene-d10	17.377	17.377	17.377	17.377	17.366	17.377	17.377	17.377	14.377-20.377	17.375	0.004
22 Acenaphthene	17.487	17.498	17.487	17.487	17.487	17.487	17.487	17.487	14.487-20.487	17.488	0.004
23 Dibenzofuran	17.861	17.860	17.861	17.860	17.861	17.860	17.861	17.861	14.861-20.861	17.861	0.000
24 1,6,7-Trimethylnaphtha	18.091	18.091	18.080	18.091	18.080	18.080	18.080	18.091	15.091-21.091	18.085	0.006
* 25 Fluorene-d10	18.908	18.908	18.908	18.908	18.908	18.908	18.908	18.908	15.908-21.908	18.908	0.000
26 Fluorene	19.010	19.010	19.010	19.010	19.010	19.010	19.010	19.010	16.010-22.010	19.010	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	21.931	21.931	21.931	21.931	21.931	21.931	21.931	21.931	18.931-24.931	21.931	0.000
31 C1-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.500	20.500-26.500	+++++	+++++
32 C2-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.500	21.500-27.500	+++++	+++++
33 C3-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.600	22.600-28.600	+++++	+++++
34 C4-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.000	24.000-30.000	+++++	+++++
$ 35 Phenanthrene-d10	22.239	22.250	22.239	22.239	22.239	22.239	22.239	22.239	19.239-25.239	22.241	0.004
* 250 Anthracene-d10	22.360	22.360	22.360	22.360	22.360	22.360	22.360	22.360	19.360-25.360	22.360	0.000
36 Phenanthrene	22.327	22.327	22.316	22.327	22.316	22.327	22.327	22.327	19.327-25.327	22.324	0.005
37 Anthracene	22.426	22.426	22.426	22.426	22.426	22.426	22.426	22.426	19.426-25.426	22.426	0.000

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
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Inst ID: nt14.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	38 C1-Phenanthrenes/Anthr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.800	20.800-26.800	+++++	+++++
	39 C2-Phenanthrenes/Anthr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.000	22.000-28.000	+++++	+++++
	40 C3-Phenanthrenes/Anthr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.000	24.000-30.000	+++++	+++++
	41 C4-Phenanthrenes/Anthr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	28.000	25.000-31.000	+++++	+++++
	42 Carbazole	23.712	23.712	23.701	23.712	23.701	23.701	23.701	23.712	20.712-26.712	23.706	0.006
	43 1-Methylphenanthrene	24.163	24.163	24.163	24.163	24.163	24.163	24.152	24.163	21.163-27.163	24.161	0.004
	44 Fluoranthene	26.142	26.142	26.131	26.142	26.131	26.131	26.131	26.142	23.142-29.142	26.136	0.006
	45 Pyrene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.628	15.628-21.628	+++++	+++++
	46 Pyrene	26.978	26.978	26.978	26.978	26.978	26.978	26.978	26.978	23.978-29.978	26.978	0.000
	47 Retene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.769	14.769-20.769	+++++	+++++
	48 C1-Fluoranthenes/Pyren	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.900	24.900-30.900	+++++	+++++
	49 C2-Fluoranthenes/Pyren	+++++	+++++	+++++	+++++	+++++	+++++	+++++	29.000	26.000-32.000	+++++	+++++
	50 C3-Fluoranthenes/Pyren	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.000	27.000-33.000	+++++	+++++
	249 C4-Fluoranthenes/Pyren	+++++	+++++	+++++	+++++	+++++	+++++	+++++	33.000	30.000-36.000	+++++	+++++
	51 Naphthobenzothiophene	29.510	29.510	29.499	29.510	29.510	29.510	29.510	29.510	26.510-32.510	29.508	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	30.096	30.095	30.096	30.095	30.096	30.096	30.096	30.096	27.096-33.096	30.096	0.000
$	56 Chrysene-d12	30.220	30.219	30.220	30.219	30.219	30.219	30.220	30.220	27.220-33.220	30.219	0.000
	57 Chrysene	30.287	30.298	30.287	30.287	30.287	30.287	30.287	30.287	27.287-33.287	30.289	0.004
	58 C1-Benzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	31.000	28.000-34.000	+++++	+++++
	59 C2-Benzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	31.800	28.800-34.800	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

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Batch File: \\target\share\chem3\nt14.i\20210529.b
Inst ID: nt14.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
60 C3-Benzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	33.000	30.000-36.000	+++++	+++++
61 C4-Benzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	33.200	30.200-36.200	+++++	+++++
62 Benzo(b)fluoranthene	32.517	32.517	32.517	32.517	32.517	32.517	32.517	32.517	29.517-35.517	32.517	0.000
293 Benzo(j)fluoranthene	32.630	32.630	32.619	32.630	32.630	32.630	32.630	32.630	29.630-35.630	32.628	0.004
63 Benzo(k)fluoranthene	32.562	32.573	32.562	32.562	32.562	32.562	32.562	32.562	29.562-35.562	32.564	0.004
* 251 Benzo(e)pyrene-d12	33.182	33.182	33.182	33.182	33.182	33.182	33.182	33.182	30.182-36.182	33.182	0.000
64 Benzo(e)pyrene	33.238	33.249	33.238	33.249	33.238	33.238	33.238	33.238	30.238-36.238	33.241	0.005
246 Total Benzofluoranthen	32.562	32.573	32.562	32.517	32.562	32.562	32.562	32.562	29.562-35.562	32.557	0.018
65 Benzo(a)pyrene-d12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.348	22.348-28.348	+++++	+++++
66 Benzo(a)pyrene	33.339	33.350	33.339	33.339	33.339	33.339	33.339	33.339	30.339-36.339	33.341	0.004
$ 67 Perylene-d12	33.520	33.519	33.520	33.519	33.520	33.520	33.520	33.520	30.520-36.520	33.520	0.000
68 Perylene	33.576	33.587	33.576	33.576	33.576	33.576	33.576	33.576	30.576-36.576	33.577	0.004
69 Indeno(1,2,3-cd)pyrene	35.637	35.659	35.637	35.648	35.637	35.637	35.637	35.637	32.637-38.637	35.642	0.009
70 Dibenzo(a,h)anthracene	35.626	35.637	35.615	35.626	35.626	35.614	35.615	35.626	32.626-38.626	35.623	0.008
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	36.549	36.561	36.538	36.561	36.549	36.549	36.549	36.549	33.549-39.549	36.551	0.008
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.
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Inst ID: nt14.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
257 n-Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.527	9.527-15.527	+++++	+++++
258 n-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.495	10.495-16.495	+++++	+++++
259 n-Pentadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.559	11.559-17.559	+++++	+++++
263 n-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.570	12.570-18.570	+++++	+++++
264 n-Heptadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.533	13.533-19.533	+++++	+++++
265 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.453	14.453-20.453	+++++	+++++
266 Pristane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.608	13.608-19.608	+++++	+++++
288 n-Nonadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.282	15.282-21.282	+++++	+++++
289 Phytane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.517	14.517-20.517	+++++	+++++
267 n-Eicosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.090	16.090-22.090	+++++	+++++
268 n-Heneicosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.962	16.962-22.962	+++++	+++++
270 n-Docosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.529	17.529-23.529	+++++	+++++
271 n-Tricosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.133	18.133-24.133	+++++	+++++
272 n-Tetracosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.839	18.839-24.839	+++++	+++++
273 n-Pentacosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.245	19.245-25.245	+++++	+++++
274 n-Hexacosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.251	20.251-26.251	+++++	+++++
275 n-Heptacosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.764	20.764-26.764	+++++	+++++
276 n-Octacosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.128	21.128-27.128	+++++	+++++
291 n-Nonacosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.626	21.626-27.626	+++++	+++++
278 n-Triacontain	+++++	+++++	+++++	+++++	+++++	+++++	+++++	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.
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Inst ID: nt14.i

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

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-MAY-2021 14:01
End Cal Date : 29-MAY-2021 18:49
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Last Edit : 02-Jun-2021 19:04 yev

Calibration File Names:
Level 1: \\target\share\chem3\nt14.i\20210529.b\NT1421052910.D
Level 2: \\target\share\chem3\nt14.i\20210529.b\NT1421052914.D
Level 3: \\target\share\chem3\nt14.i\20210529.b\NT1421052912.D
Level 4: \\target\share\chem3\nt14.i\20210529.b\NT1421052913.D
Level 5: \\target\share\chem3\nt14.i\20210529.b\NT1421052908.D
Level 6: \\target\share\chem3\nt14.i\20210529.b\NT1421052911.D
Level 7: \\target\share\chem3\nt14.i\20210529.b\NT1421052909.D

Compound	0.1000000 Level 1	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	10.0000 Level 7											
1 trans-Decalin	0.07534	0.09779	0.10361	0.10630	0.10438	0.10880						
	0.10195						AVRG		0.09974		11.32497	
2 cis-Decalin	341	1426	3681	7169	15900	35039						
	60494						QUAD	0.000e+000	11.75388	4.66632	0.99984	<-
3 C1-Decalin	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
4 C2-Decalin	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-

ARI Labs, Inc.

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Compound	0.1000000 Level 1	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	10.0000 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
5 C3-Decalin	+++++	+++++	+++++	+++++	+++++	+++++							
	+++++							AVRG		0.000e+000		0.000e+000	<-
247 C4-Decalin	+++++	+++++	+++++	+++++	+++++	+++++							
	+++++							AVRG		0.000e+000		0.000e+000	<-
7 Naphthalene	0.97655	0.90679	0.92553	0.98074	0.90814	0.93878							
	0.86816							AVRG		0.92924		4.32147	
8 C1-Naphthalenes	+++++	+++++	+++++	+++++	+++++	+++++							
	+++++							AVRG		0.000e+000		0.000e+000	<-
9 C2-Naphthalenes	+++++	+++++	+++++	+++++	+++++	+++++							
	+++++							AVRG		0.000e+000		0.000e+000	<-
10 C3-Naphthalenes	+++++	+++++	+++++	+++++	+++++	+++++							
	+++++							AVRG		0.000e+000		0.000e+000	<-
11 C4-Naphthalenes	+++++	+++++	+++++	+++++	+++++	+++++							
	+++++							AVRG		0.000e+000		0.000e+000	<-

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 29-MAY-2021 14:01
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Integrator : HP RTE
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Last Edit : 02-Jun-2021 19:04 yev

Compound	0.1000000 Level 1	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	10.0000 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
12 Benzo(b)thiophene	0.83362	0.75008	0.74346	0.78400	0.74342	0.77164							
	0.72118							AVRG		0.76391		4.83263	
13 C1-Benzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++							
	+++++							AVRG		0.000e+000		0.000e+000	<-
14 C2-Benzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++							
	+++++							AVRG		0.000e+000		0.000e+000	<-
15 C3_Benzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++							
	+++++							AVRG		0.000e+000		0.000e+000	<-
16 2-Methylnaphthalene	0.56206	0.53076	0.55003	0.57701	0.54234	0.53948							
	0.50079							AVRG		0.54321		4.45479	
17 1-methylnaphthalene	0.54764	0.51195	0.53863	0.55443	0.53783	0.52700							
	0.48181							AVRG		0.52847		4.68912	
18 Biphenyl	0.86612	0.80372	0.82276	0.84484	0.78839	0.78122							
	0.71158							AVRG		0.80266		6.26466	

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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Integrator : HP RTE
Method file : \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Last Edit : 02-Jun-2021 19:04 yev

Compound	0.1000000 Level 1	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	10.0000 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
19 2,6-Dimethylnaphthalene	0.61243	0.59679	0.59479	0.62313	0.58406	0.58864							
	0.53203							AVRG		0.59027		4.92309	
20 Acenaphthylene	1.05426	0.94089	0.98723	1.04621	1.03413	1.02968							
	0.97082							AVRG		1.00903		4.25561	
22 Acenaphthene	0.65042	0.60151	0.63349	0.65389	0.62941	0.61412							
	0.57136							AVRG		0.62203		4.66754	
23 Dibenzofuran	0.97515	0.88990	0.92829	0.98454	0.93325	0.90638							
	0.84119							AVRG		0.92267		5.36534	
24 1,6,7-Trimethylnaphthalene	0.64590	0.55333	0.59731	0.62380	0.61728	0.60612							
	0.56423							AVRG		0.60114		5.46067	
26 Fluorene	0.74729	0.69380	0.71668	0.73799	0.73676	0.70821							
	0.66343							AVRG		0.71488		4.11928	
27 C1-Fluorenes	+++++	+++++	+++++	+++++	+++++	+++++							
	+++++							AVRG		0.000e+000		0.000e+000	<-

ARI Labs, Inc.

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Integrator : HP RTE
Method file : \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Last Edit : 02-Jun-2021 19:04 yev

Compound	0.1000000 Level 1	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	10.0000 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
28 C2-Fluorenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+000		0.000e+000	<-
29 C3-Fluorenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++						
								AVRG		0.000e+000		0.000e+000	<-
30 Dibenzothiophene	1.08558	0.93240	1.00258	1.04835	1.04482	1.00676	0.94437						
								AVRG		1.00927		5.54443	
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	<-

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Compound	0.1000000 Level 1	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	10.0000 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
36 Phenanthrene	1.13143	1.01129	1.03844	1.07900	1.01839	1.01010							
	0.92977							AVRG		1.03120		6.09188	
37 Anthracene	0.98572	0.95547	0.97117	1.02091	0.97953	0.97051							
	0.90839							AVRG		0.97024		3.50468	
38 C1-Phenanthrenes/Anthracenes	+++++	+++++	+++++	+++++	+++++	+++++							
	+++++							AVRG		0.000e+000		0.000e+000	<-
39 C2-Phenanthrenes/Anthracenes	+++++	+++++	+++++	+++++	+++++	+++++							
	+++++							AVRG		0.000e+000		0.000e+000	<-
40 C3-Phenanthrenes/Anthracenes	+++++	+++++	+++++	+++++	+++++	+++++							
	+++++							AVRG		0.000e+000		0.000e+000	<-
41 C4-Phenanthrenes/Anthracenes	+++++	+++++	+++++	+++++	+++++	+++++							
	+++++							AVRG		0.000e+000		0.000e+000	<-
42 Carbazole	0.87633	0.78158	0.83875	0.88735	0.88784	0.88359							
	0.83487							AVRG		0.85576		4.63830	

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Compound	0.1000000 Level 1	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	10.0000 Level 7											
43 1-Methylphenanthrene	0.78377	0.65784	0.71545	0.77649	0.75741	0.77512						
	0.72143						AVRG		0.74107		6.15281	
44 Fluoranthene	1.13051	1.03764	1.09947	1.17782	1.18509	1.18250						
	1.15442						AVRG		1.13821		4.76741	
45 Pyrene-d10	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
46 Pyrene	1.16878	1.04588	1.13697	1.21183	1.25155	1.26952						
	1.20187						AVRG		1.18377		6.40493	
47 Retene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
48 C1-Fluoranthenes/Pyrenes	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
49 C2-Fluoranthenes/Pyrenes	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-

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Compound	0.1000000 Level 1	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	10.0000 Level 7											
50 C3-Fluoranthenes/Pyrenes	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
249 C4-Fluoranthenes/Pyrenes	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
51 Naphthobenzothiophene	1.30854	1.10456	1.22803	1.31739	1.33585	1.33380						
	1.27533						AVRG		1.27193		6.52045	
52 C1-Naphthobenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
53 C2-Naphthobenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
54 C3-Naphthobenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
248 C4-Naphthobenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-

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Compound	0.1000000 Level 1 / 10.0000 Level 7	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
55 Benzo(a)anthracene	0.81409	0.67077	0.76716	0.80173	0.83365	0.80314						
	0.73939						AVRG		0.77571		7.19000	
57 Chrysene	0.80729	0.72194	0.78642	0.79876	0.76863	0.74718						
	0.69053						AVRG		0.76011		5.62041	
58 C1-Benzo(a)anthracenes/Chryse	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
59 C2-Benzo(a)anthracenes/Chryse	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
60 C3-Benzo(a)anthracenes/Chryse	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
61 C4-Benzo(a)anthracenes/Chryse	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
62 Benzo(b)fluoranthene	0.85473	0.65765	0.75442	0.78526	0.83633	0.85064						
	0.89242						AVRG		0.80449		9.87121	

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Compound	0.1000000 Level 1	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	10.0000 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
293 Benzo(j)fluoranthene	0.82677	0.81953	0.82796	0.88588	0.72587	0.75078							
	0.73098							AVRG		0.79539		7.57621	
63 Benzo(k)fluoranthene	0.82807	0.85009	0.82915	0.90145	0.89528	0.82566							
	0.91265							AVRG		0.86319		4.46497	
64 Benzo(e)pyrene	0.85465	0.73476	0.75443	0.80855	0.79838	0.79291							
	0.77577							AVRG		0.78849		4.94071	
246 Total Benzofluoranthenes	0.81134	0.69711	0.76511	0.80975	0.80206	0.82536							
	0.80515							AVRG		0.78798		5.60191	
65 Benzo(a)pyrene-d12	+++++	+++++	+++++	+++++	+++++	+++++							
	+++++							AVRG		0.000e+000		0.000e+000	<-
66 Benzo(a)pyrene	0.76459	0.64905	0.66773	0.73458	0.73648	0.74142							
	0.72723							AVRG		0.71730		5.88698	
68 Perylene	0.80974	0.62875	0.72533	0.75540	0.77062	0.75750							
	0.72950							AVRG		0.73955		7.61812	

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Compound	0.1000000 Level 1	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	10.0000 Level 7											
69 Indeno(1,2,3-cd)pyrene	0.73595	0.65038	0.82021	0.86212	0.94806	0.94147						
	0.93560						AVRG		0.84197		13.60664	
70 Dibenzo(a,h)anthracene	7925	18125	45762	93780	238811	527390						
	1030693						QUAD	0.000e+000	1.28137	-0.02001	0.99987	
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	0.81745	0.72049	0.79193	0.85472	0.90480	0.87343						
	0.85980						AVRG		0.83180		7.37140	
253 n-Octane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-

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

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

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Compound	0.1000000 Level 1 / 10.0000 Level 7	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
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	<-

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

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Compound	0.1000000 Level 1	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	10.0000 Level 7											
283 n-Pentatriacontane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
284 n-Hexatriacontane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
285 n-Heptatriacontane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
286 n-Octatriacontane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
292 n-Nonatriacontane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
287 n-Tetracontane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
$ 6 Naphthalene-d8	0.94071	0.90666	0.92939	0.98093	0.91502	0.95276						
	0.88294						AVRG		0.92977		3.46010	

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Compound	0.1000000 Level 1	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	10.0000 Level 7										
$ 21 Acenaphthene-d10	0.60393	0.54952	0.57334	0.59590	0.57886	0.56738					
	0.52843						AVRG		0.57105		4.55455
$ 35 Phenanthrene-d10	1.02317	0.93754	0.96196	1.00459	0.94359	0.97442					
	0.89020						AVRG		0.96221		4.60922
$ 56 Chrysene-d12	0.64437	0.58495	0.64765	0.65457	0.65990	0.62359					
	0.56724						AVRG		0.62604		5.80162
$ 67 Perylene-d12	0.73167	0.60093	0.65277	0.69349	0.70489	0.67960					
	0.66732						AVRG		0.67581		6.19083

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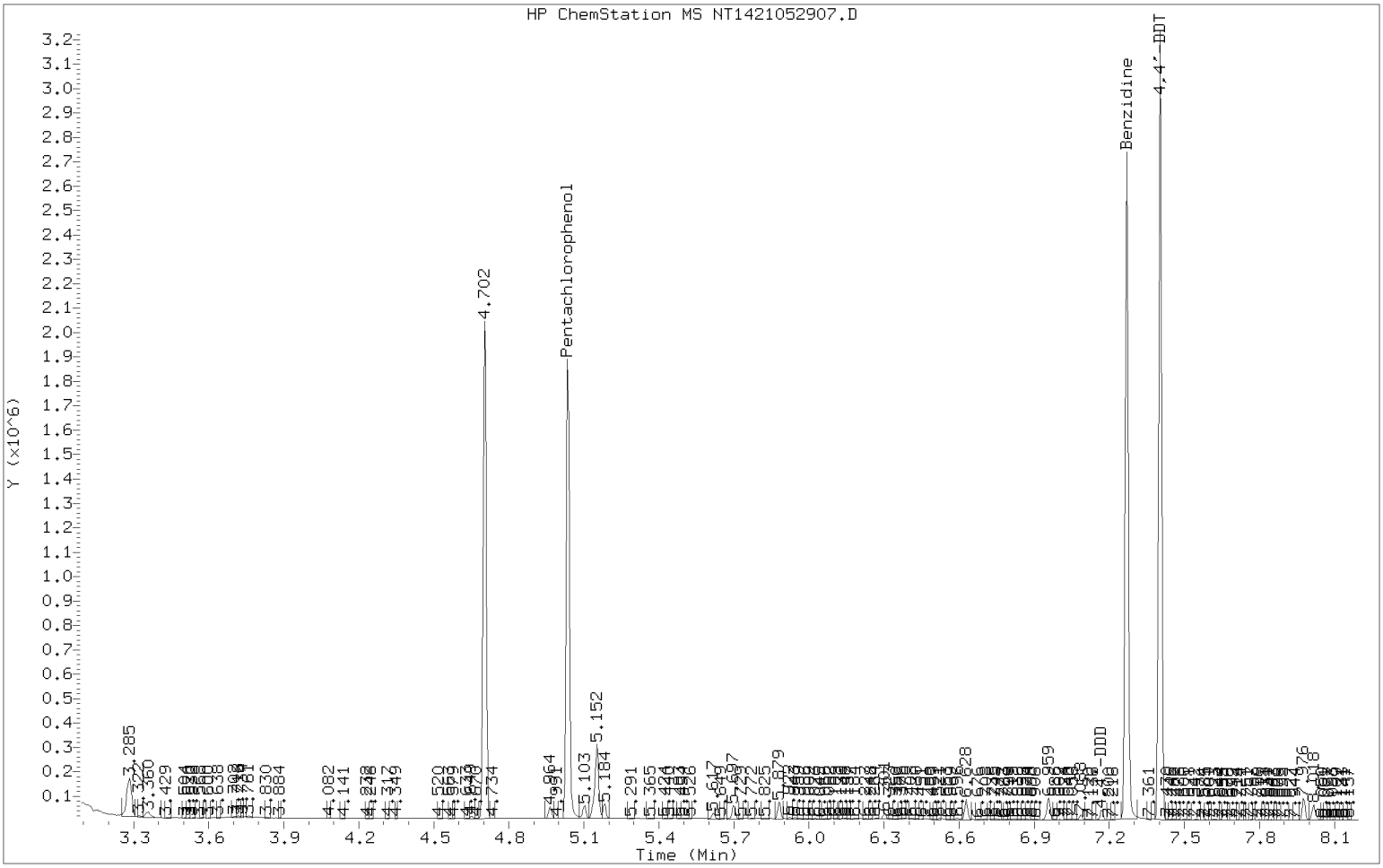
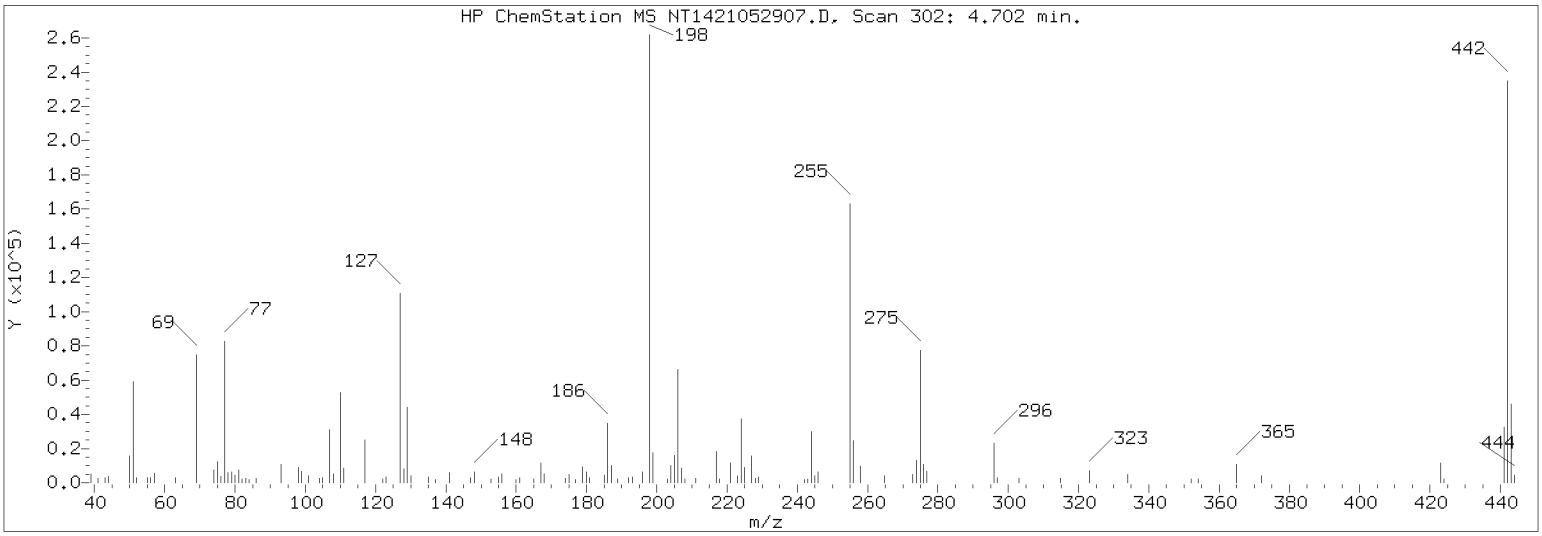
Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

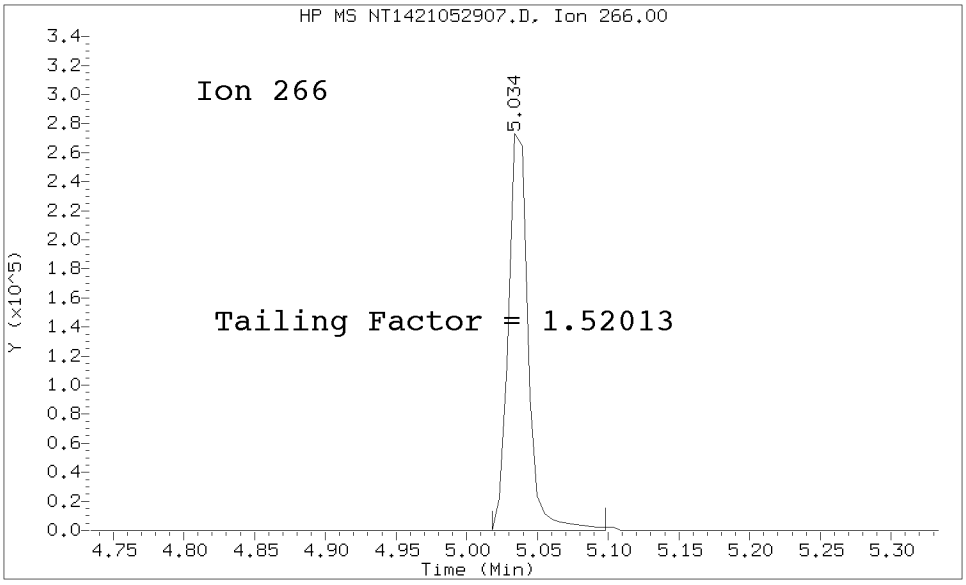
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20210529.b/NT1421052907.D/NT1421052907.D
Method Used: \20210529.b\DFTPP8270E.m Inst: nt14
Injection Date: 29-MAY-2021 13:39 Operator: VTS
Sample Info: SJF0025-TUN1 SJF0025-TUN1
Report Date: 06/02/2021 18:45



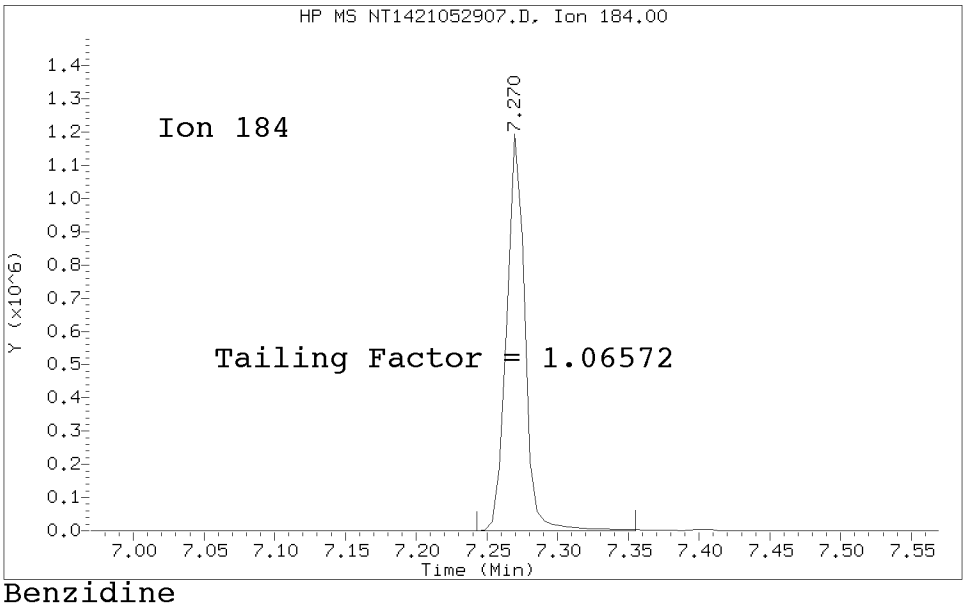


Datafile Analyzed: /20210529.b/NT1421052907.D/NT1421052907.D
Method Used: \20210529.b\DFTPP8270E.m\sw846ddt.m Inst: nt14
Injection Date: 29-MAY-2021 13:39 Operator: JZ
Sample Info: SJF0025-TUN1
Report Date: 06/02/2021 18:45



Pentachlorophenol
==========
Exp. RT = 5.039
Found RT = 5.034

Tail Factor = 1.520 Maximum Allowed = 2.0



Benzidine
==========
Exp. RT = 7.275
Found RT = 7.270

Tail Factor = 1.066 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.5201288	2.000	PASS
Benzidine	1.0657216	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	563112			N/A
4,4-DDE	0	0.0	20.0	PASS
4,4-DDD	13152	2.3	20.0	PASS
4,4-DDD + DDE	13152	2.3	20.0	PASS

Tuning Sample, nt14.i/20210529.b/NT1421052907.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	28.36
70	Less than 2.00% of mass 69	0.00 (0.00)
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.76
365	1.00 - 100.00% of mass 198	4.64
441	Less than 150.00% of mass 443	15.22 (72.50)
442	Less than 200.00% of mass 198	107.89
443	15.00 - 24.00% of mass 442	20.99 (19.45)

Data File: NT1421052907.D
Spectrum: Avg. Scans 301-303 (4.70), Background Scan 296
Location of Maximum: 442.00
Number of points: 119

m/z	Y	m/z	Y	m/z	Y	m/z	Y
39.00	4088	107.00	23768	185.00	3550	246.00	4921
41.00	189	108.00	3673	186.00	27048	255.00	130472
43.00	300	110.00	40024	187.00	7921	256.00	19464
44.00	492	111.00	6643	189.00	687	258.00	7944
50.00	11960	117.00	19360	192.00	1775	265.00	2660
51.00	44032	122.00	778	193.00	2104	273.00	4235
52.00	1691	123.00	2759	196.00	5145	274.00	10626
55.00	546	127.00	84112	198.00	202048	275.00	62040
56.00	1678	128.00	6409	199.00	13660	276.00	8597
57.00	4602	129.00	34144	203.00	687	277.00	5339
63.00	984	130.00	3082	204.00	7568	296.00	19536
69.00	57304	135.00	2780	205.00	12402	297.00	2089
74.00	5859	137.00	682	206.00	51632	303.00	1778
75.00	9203	141.00	4684	207.00	6963	315.00	1895
76.00	2985	147.00	1837	208.00	1422	323.00	6224
77.00	62216	148.00	4980	211.00	1691	334.00	3421
78.00	4462	153.00	743	217.00	14131	352.00	1509
79.00	4915	155.00	2043	218.00	755	354.00	1684
80.00	3483	156.00	3962	221.00	9451	365.00	9372
81.00	5765	160.00	679	222.00	674	372.00	2913
82.00	702	161.00	1805	223.00	2579	403.00	888
83.00	2221	165.00	1447	224.00	30408	421.00	826
84.00	685	167.00	8876	225.00	7402	422.00	716
86.00	1590	168.00	4117	227.00	12661	423.00	10882
93.00	8295	174.00	1590	228.00	1506	424.00	1838
98.00	7051	175.00	3747	229.00	2182	441.00	30744
99.00	5151	177.00	674	242.00	673	442.00	217984
101.00	3014	179.00	7206	243.00	724	443.00	42408
104.00	846	180.00	5041	244.00	24280	444.00	3461
105.00	1678	181.00	1922	245.00	3292		

Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052908.D

Date : 29-MAY-2021 14:01

Client ID:

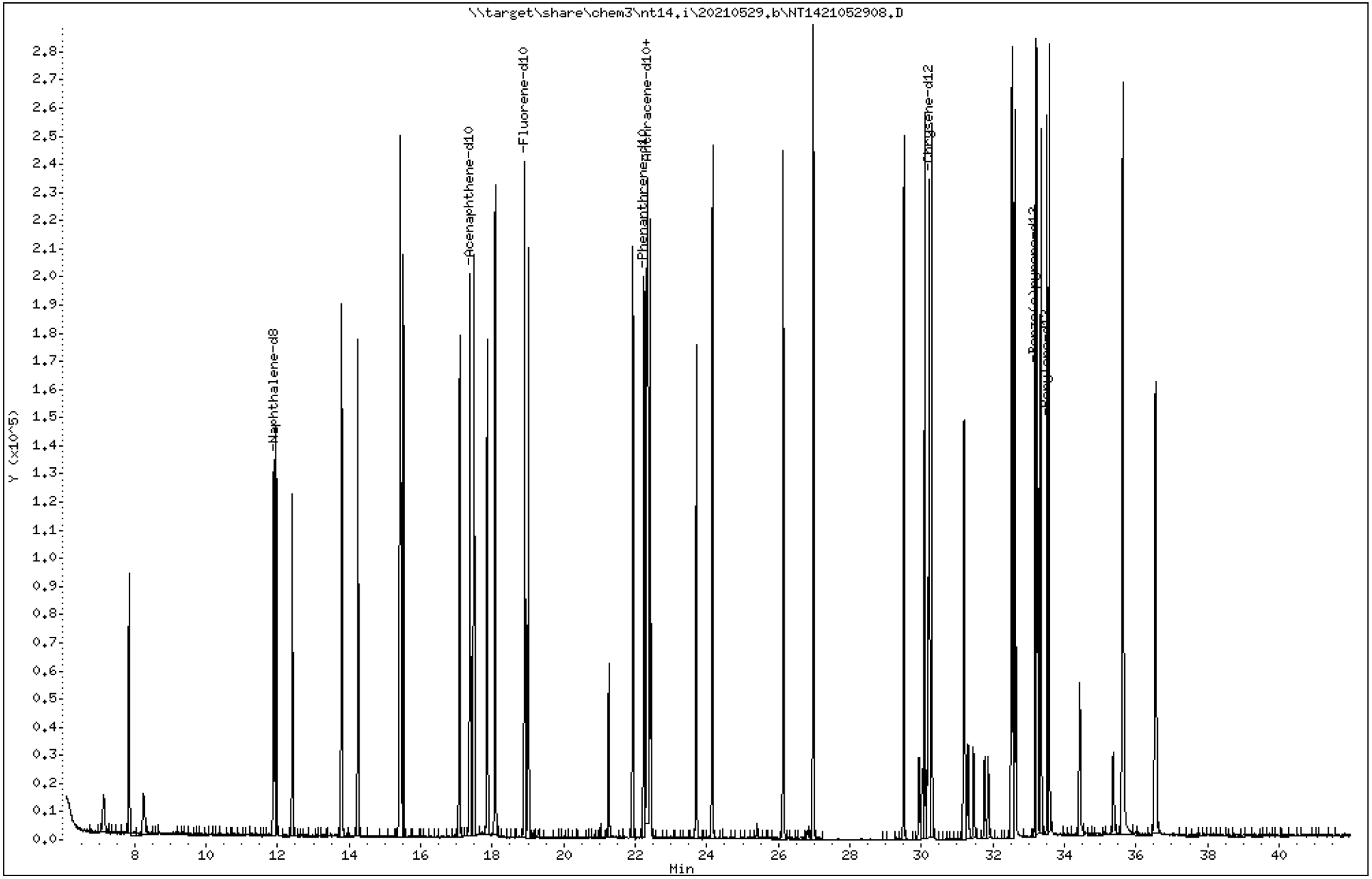
Sample Info: SJF0025-CAL5

Column phase: Rxi-17Sil MS

Instrument: nt14.i

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\20210529.b\NT1421052908.D
Lab Smp Id: SJF0025-CAL5
Inj Date : 29-MAY-2021 14:01
Operator : VTS Inst ID: nt14.i
Smp Info : SJF0025-CAL5
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Meth Date : 02-Jun-2021 19:03 yev Quant Type: ISTD
Cal Date : 29-MAY-2021 14:01 Cal File: NT1421052908.D
Als bottle: 2 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
	1 trans-Decalin	138	7.146	7.146	(0.378)	20807	2.50000	2.616
	2 cis-Decalin	138	8.256	8.256	(0.437)	15900	2.50000	2.436
$	6 Naphthalene-d8	136	11.897	11.897	(0.629)	182406	2.50000	2.460
	7 Naphthalene	128	11.957	11.957	(0.632)	181036	2.50000	2.443
	12 Benzo(b)thiophene	134	12.409	12.409	(0.656)	148199	2.50000	2.433
	16 2-Methylnaphthalene	141	13.794	13.794	(0.730)	108114	2.50000	2.496
	17 1-methylnaphthalene	141	14.245	14.245	(0.753)	107215	2.50000	2.544
	18 Biphenyl	154	15.431	15.431	(0.816)	157163	2.50000	2.456
	19 2,6-Dimethylnaphthalene	156	15.508	15.508	(0.820)	116430	2.50000	2.474
	20 Acenaphthylene	152	17.091	17.091	(0.904)	206152	2.50000	2.562
$	21 Acenaphthene-d10	164	17.377	17.377	(0.919)	115394	2.50000	2.534
	22 Acenaphthene	153	17.486	17.486	(0.925)	125472	2.50000	2.530
	23 Dibenzofuran	168	17.860	17.860	(0.945)	186041	2.50000	2.529
	24 1,6,7-Trimethylnaphthalene	170	18.091	18.091	(0.957)	123053	2.50000	2.567
*	25 Fluorene-d10	176	18.907	18.907	(1.000)	159478	2.00000	
	26 Fluorene	166	19.009	19.009	(1.005)	146871	2.50000	2.577
	30 Dibenzothiophene	184	21.931	21.931	(1.160)	208283	2.50000	2.588
$	35 Phenanthrene-d10	188	22.239	22.239	(0.995)	200702	2.50000	2.452
	36 Phenanthrene	178	22.327	22.327	(0.999)	216613	2.50000	2.469
*	250 Anthracene-d10	188	22.360	22.360	(1.000)	170161	2.00000	
	37 Anthracene	178	22.426	22.426	(1.003)	208348	2.50000	2.524
	42 Carbazole	167	23.712	23.712	(1.060)	188844	2.50000	2.594
	43 1-Methylphenanthrene	192	24.162	24.162	(1.081)	161102	2.50000	2.555
	44 Fluoranthene	202	26.142	26.142	(1.169)	252070	2.50000	2.603
	46 Pyrene	202	26.977	26.977	(1.207)	266206	2.50000	2.643
	51 Naphthobenzothiophene	234	29.509	29.509	(1.320)	284137	2.50000	2.626
	55 Benzo(a)anthracene	228	30.095	30.095	(0.907)	246565	2.50000	2.687
$	56 Chrysene-d12	240	30.219	30.219	(0.911)	195176	2.50000	2.635
	57 Chrysene	228	30.287	30.287	(0.913)	227333	2.50000	2.528
	62 Benzo(b)fluoranthene	252	32.517	32.517	(0.980)	247357	2.50000	2.599(M)
	63 Benzo(k)fluoranthene	252	32.562	32.562	(0.981)	264792	2.50000	2.593
	293 Benzo(j)fluoranthene	252	32.629	32.629	(0.983)	214686	2.50000	2.281
	246 Total Benzofluoranthenes	252	32.562	32.562	(0.981)	711668	7.50000	7.634(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.181	33.181	(1.000)	236612	2.00000	
64 Benzo(e)pyrene	252	33.238	33.238	(1.002)	236134	2.50000	2.531
66 Benzo(a)pyrene	252	33.339	33.339	(1.005)	217825	2.50000	2.567
$ 67 Perylene-d12	264	33.519	33.519	(1.010)	208482	2.50000	2.608
68 Perylene	252	33.575	33.575	(1.012)	227922	2.50000	2.605(M)
69 Indeno(1,2,3-cd)pyrene	276	35.637	35.637	(1.074)	280404	2.50000	2.815(M)
70 Dibenzo(a,h)anthracene	278	35.625	35.625	(1.074)	238811	2.50000	2.546(M)
74 Benzo(g,h,i)perylene	276	36.549	36.549	(1.101)	267607	2.50000	2.719(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: NT1421052908.D
Lab Smp Id: SJF0025-CAL5
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Misc Info:

Calibration Date: 29-MAY-2021
Calibration Time: 14:01
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	159478	79739	318956	159478	0.00
250 Anthracene-d10	170161	85081	340322	170161	0.00
251 Benzo(e)pyrene-d1	236612	118306	473224	236612	0.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.91	18.41	19.41	18.91	0.00
250 Anthracene-d10	22.36	21.86	22.86	22.36	0.00
251 Benzo(e)pyrene-d1	33.18	32.68	33.68	33.18	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 - NT1421052908.D

Lab ID: SJF0025-CAL5
nt14.i, 20210529.b\ALKYLPNA.m,   29-MAY-2021 14:01

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

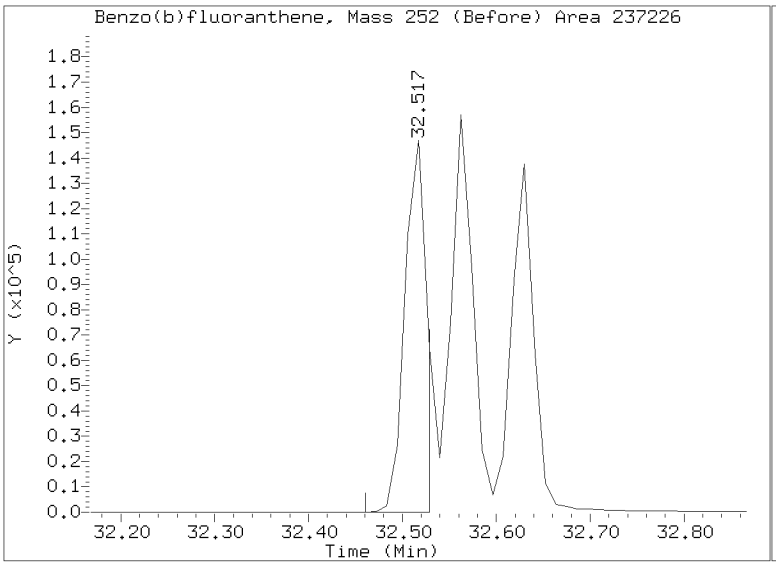
RRT check based on Ccal File: NT1421052908.D

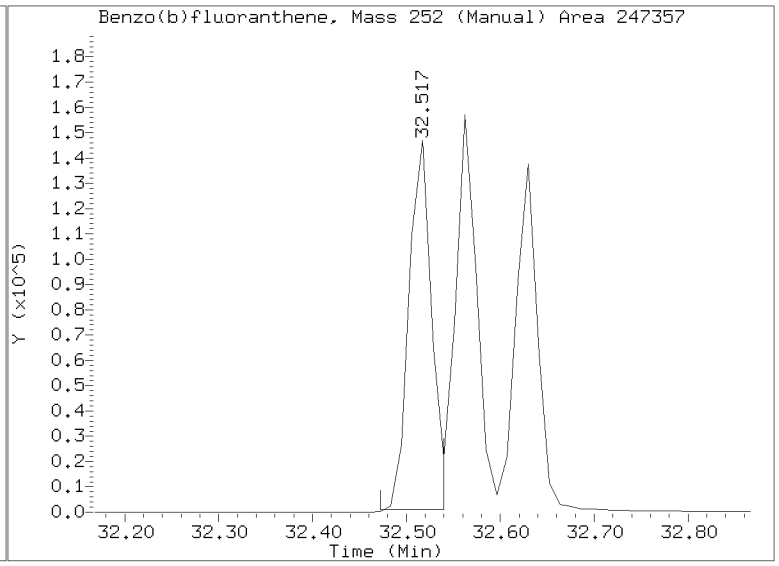
On Column LOD for nt14.i, 20210529.b\ALKYLPNA.m, TARGETS.sub = 0.0000

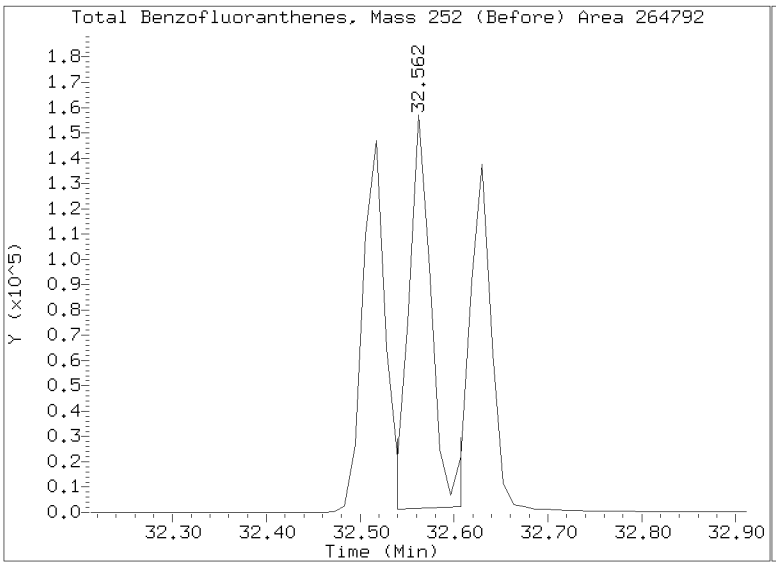
* Only compounds listed in the work order have been verified by the analyst *

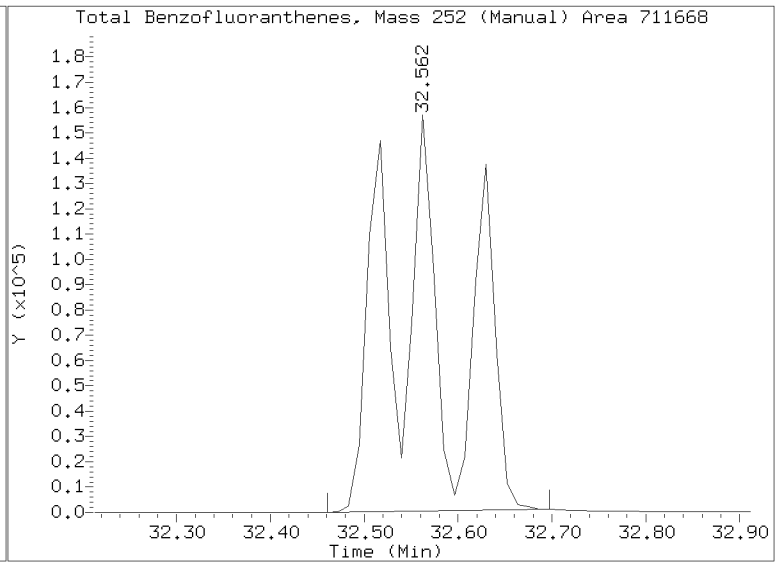
Quant Ion Manual Peak Adjustment Report

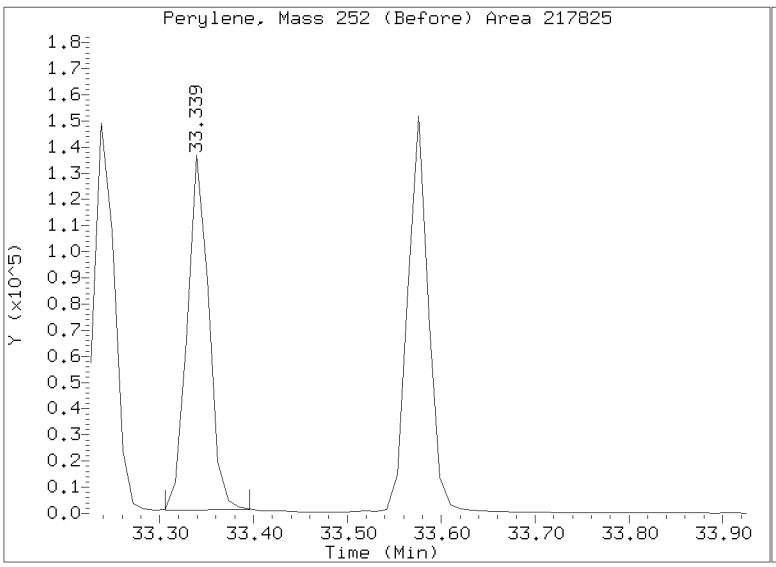
Datafile: //target/share/chem3/nt14.i/20210529.b/NT1421052908.D
Injection Date: 29-MAY-2021 14:01
Lab ID:SJF0025-CAL5 Client ID:
Report Date: 06/02/2021 19:03

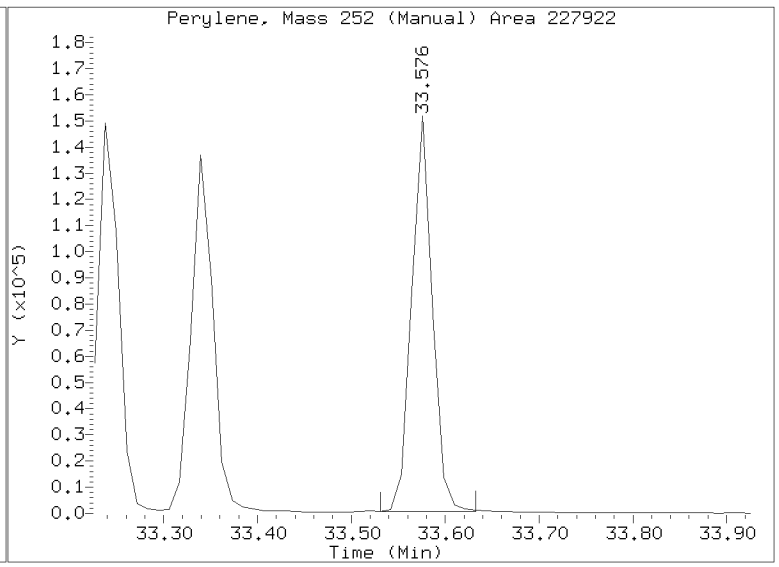






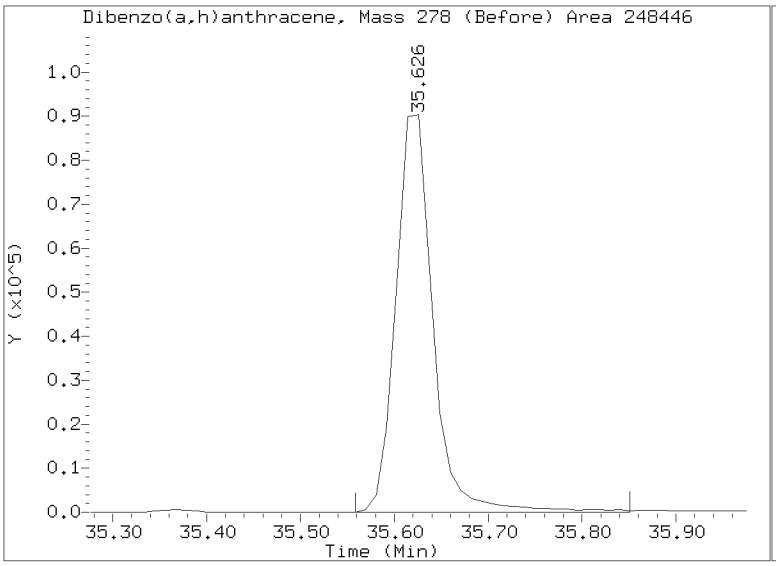


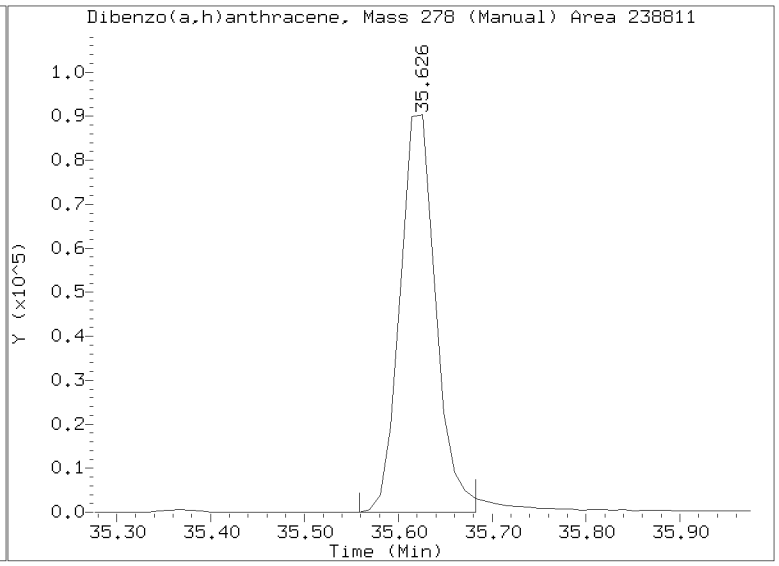


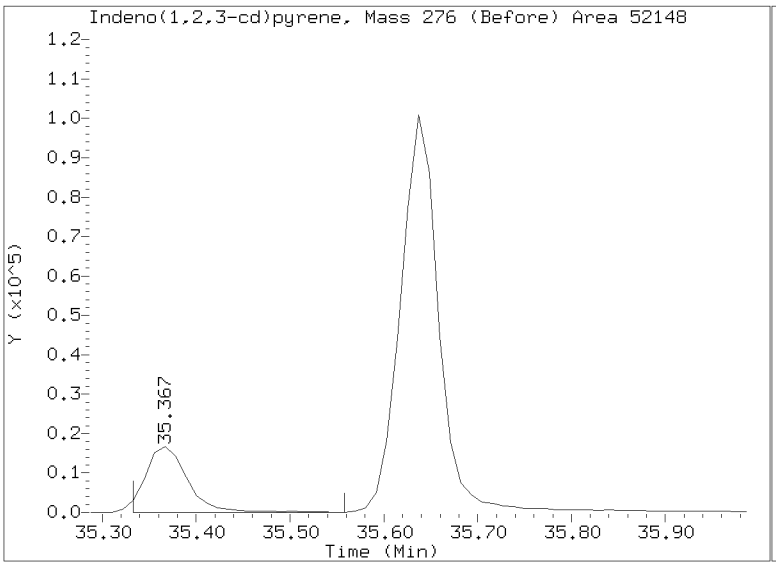


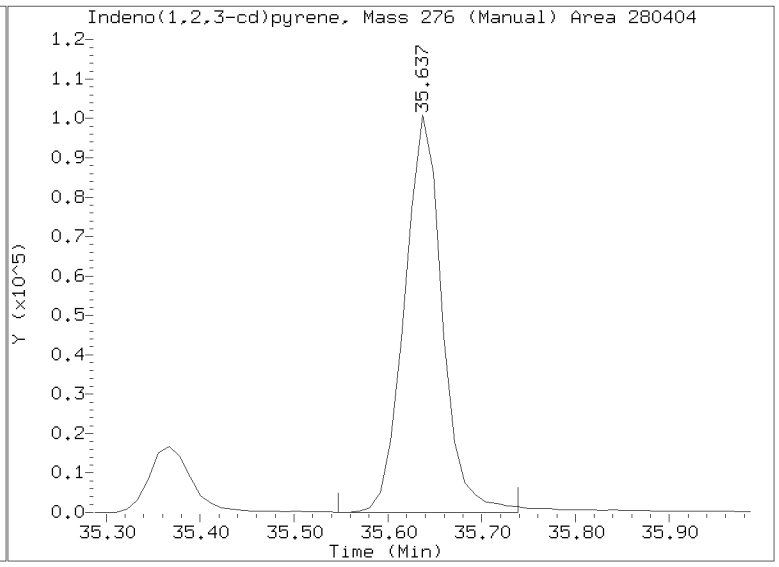
Quant Ion Manual Peak Adjustment Report

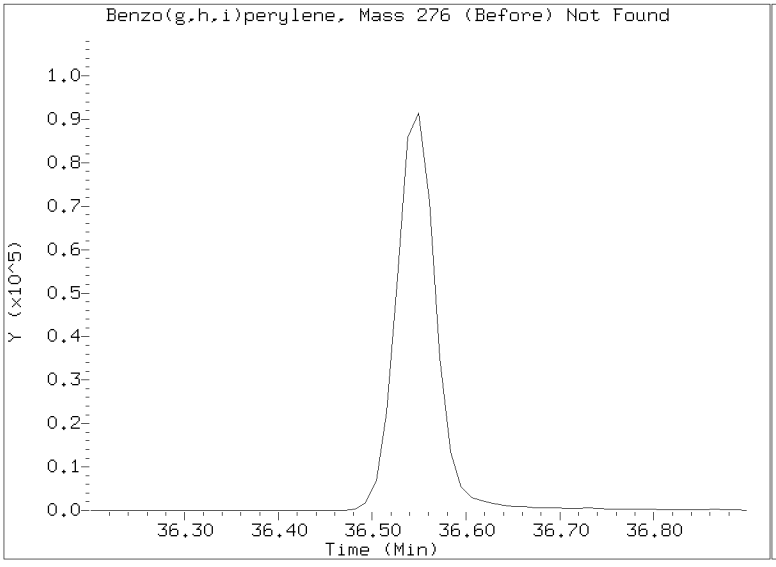
Datafile: //target/share/chem3/nt14.i/20210529.b/NT1421052908.D
Injection Date: 29-MAY-2021 14:01
Lab ID:SJF0025-CAL5 Client ID:
Report Date: 06/02/2021 19:03

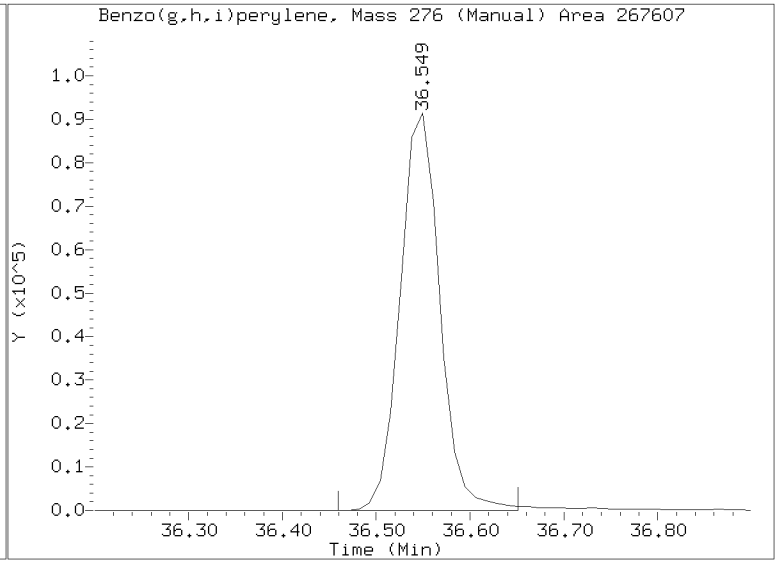






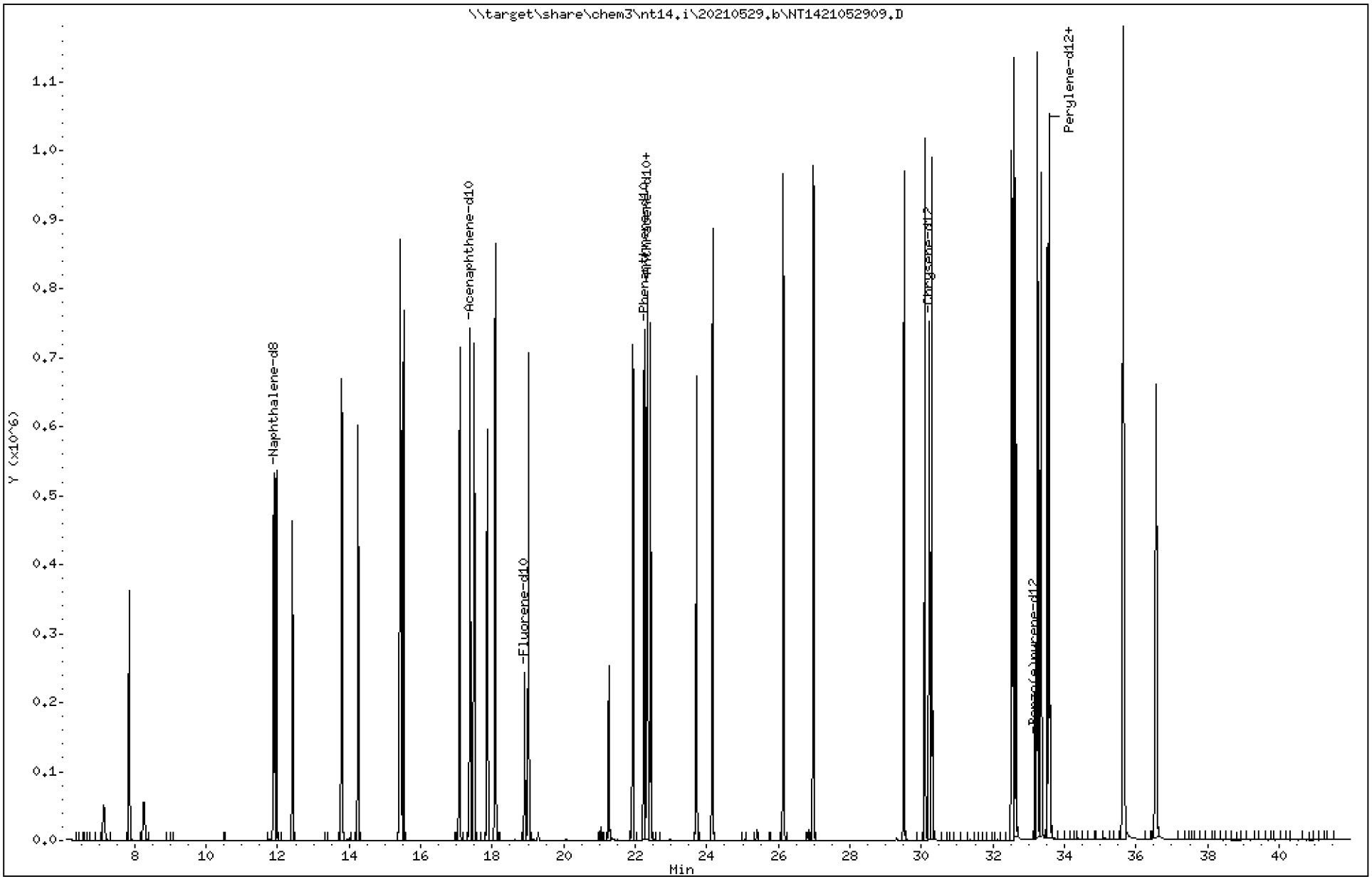






Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052909.D
Date : 29-MAY-2021 14:49
Client ID:
Sample Info: SJF0025-CAL7

Instrument: nt14.i
Operator: VTS
Column phase: Rxi-17Sil MS
Column diameter: 0.25



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210529.b\NT1421052909.D
Lab Smp Id: SJF0025-CAL7
Inj Date : 29-MAY-2021 14:49
Operator : VTS Inst ID: nt14.i
Smp Info : SJF0025-CAL7
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Meth Date : 02-Jun-2021 19:03 yev Quant Type: ISTD
Cal Date : 29-MAY-2021 14:49 Cal File: NT1421052909.D
Als bottle: 3 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
	1 trans-Decalin	138	7.146	7.146	(0.378)	83307	10.0000	10.22
	2 cis-Decalin	138	8.255	8.255	(0.437)	60494	10.0000	9.981
$	6 Naphthalene-d8	136	11.897	11.897	(0.629)	721463	10.0000	9.496
	7 Naphthalene	128	11.967	11.967	(0.633)	709381	10.0000	9.343
	12 Benzo(b)thiophene	134	12.420	12.420	(0.657)	589285	10.0000	9.441
	16 2-Methylnaphthalene	141	13.794	13.794	(0.730)	409202	10.0000	9.219
	17 1-methylnaphthalene	141	14.255	14.255	(0.754)	393690	10.0000	9.117
	18 Biphenyl	154	15.442	15.442	(0.817)	581438	10.0000	8.865
	19 2,6-Dimethylnaphthalene	156	15.519	15.519	(0.821)	434729	10.0000	9.013
	20 Acenaphthylene	152	17.091	17.091	(0.904)	793265	10.0000	9.621
$	21 Acenaphthene-d10	164	17.376	17.376	(0.919)	431782	10.0000	9.254
	22 Acenaphthene	153	17.497	17.497	(0.925)	466867	10.0000	9.185
	23 Dibenzofuran	168	17.860	17.860	(0.945)	687348	10.0000	9.117
	24 1,6,7-Trimethylnaphthalene	170	18.091	18.091	(0.957)	461036	10.0000	9.386
*	25 Fluorene-d10	176	18.907	18.907	(1.000)	163422	2.00000	
	26 Fluorene	166	19.009	19.009	(1.005)	542093	10.0000	9.280
	30 Dibenzothiophene	184	21.931	21.931	(1.160)	771652	10.0000	9.357
$	35 Phenanthrene-d10	188	22.249	22.249	(0.995)	739433	10.0000	9.252
	36 Phenanthrene	178	22.326	22.326	(0.999)	772296	10.0000	9.016
*	250 Anthracene-d10	188	22.359	22.359	(1.000)	166127	2.00000	
	37 Anthracene	178	22.425	22.425	(1.003)	754538	10.0000	9.362
	42 Carbazole	167	23.711	23.711	(1.060)	693474	10.0000	9.756
	43 1-Methylphenanthrene	192	24.162	24.162	(1.081)	599244	10.0000	9.735
	44 Fluoranthene	202	26.141	26.141	(1.169)	958904	10.0000	10.14
	46 Pyrene	202	26.977	26.977	(1.207)	998319	10.0000	10.15
	51 Naphthobenzothiophene	234	29.509	29.509	(1.320)	1059333	10.0000	10.03
	55 Benzo(a)anthracene	228	30.095	30.095	(0.907)	913259	10.0000	9.532
$	56 Chrysene-d12	240	30.219	30.219	(0.911)	700628	10.0000	9.061
	57 Chrysene	228	30.298	30.298	(0.913)	852907	10.0000	9.085
	62 Benzo(b)fluoranthene	252	32.517	32.517	(0.980)	1102269	10.0000	11.09
	63 Benzo(k)fluoranthene	252	32.573	32.573	(0.982)	1127251	10.0000	10.57
	293 Benzo(j)fluoranthene	252	32.629	32.629	(0.983)	902868	10.0000	9.190
	246 Total Benzofluoranthenes	252	32.573	32.573	(0.982)	2983438	30.0000	30.65(M)

		QUANT SIG					AMOUNTS CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
*	251 Benzo(e)pyrene-d12	264	33.181	33.181	(1.000)	247029	2.00000	
	64 Benzo(e)pyrene	252	33.249	33.249	(1.002)	958189	10.0000	9.839
	66 Benzo(a)pyrene	252	33.350	33.350	(1.005)	898239	10.0000	10.14
$	67 Perylene-d12	264	33.519	33.519	(1.010)	824234	10.0000	9.874
	68 Perylene	252	33.587	33.587	(1.012)	901040	10.0000	9.864(M)
	69 Indeno(1,2,3-cd)pyrene	276	35.659	35.659	(1.075)	1155604	10.0000	11.11
	70 Dibenzo(a,h)anthracene	278	35.636	35.636	(1.074)	1030693	10.0000	9.996
	74 Benzo(g,h,i)perylene	276	36.560	36.560	(1.102)	1061981	10.0000	10.34(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: NT1421052909.D
Lab Smp Id: SJF0025-CAL7
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Misc Info:

Calibration Date: 29-MAY-2021
Calibration Time: 14:01
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	159478	79739	318956	163422	2.47
250 Anthracene-d10	170161	85081	340322	166127	-2.37
251 Benzo(e)pyrene-d1	236612	118306	473224	247029	4.40

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.91	18.41	19.41	18.91	-0.00
250 Anthracene-d10	22.36	21.86	22.86	22.36	-0.00
251 Benzo(e)pyrene-d1	33.18	32.68	33.68	33.18	-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 - NT1421052909.D

Lab ID: SJF0025-CAL7
nt14.i, 20210529.b\ALKYLPNA.m,   29-MAY-2021 14:49

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

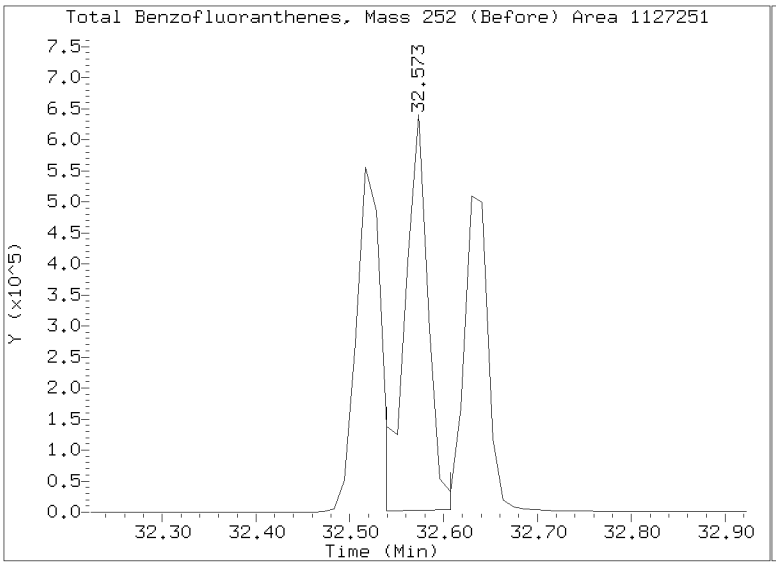
RRT check based on Ccal File: NT1421052909.D

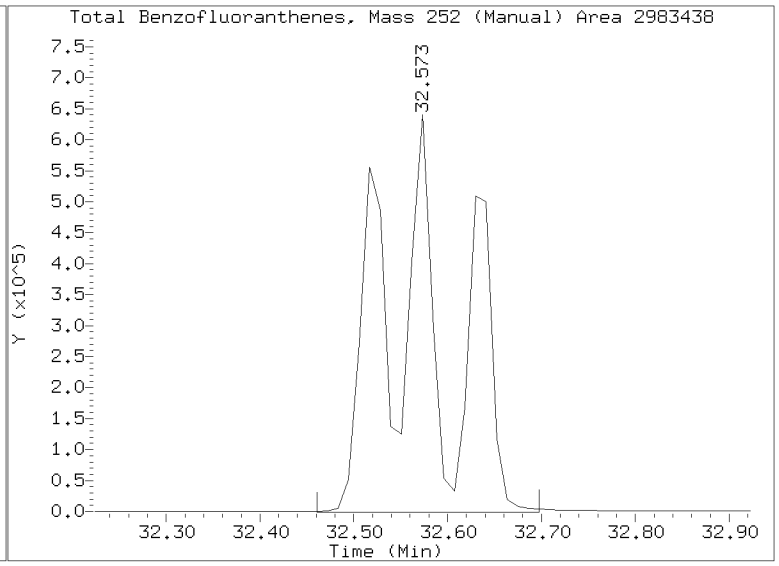
On Column LOD for nt14.i, 20210529.b\ALKYLPNA.m, TARGETS.sub = 0.0000

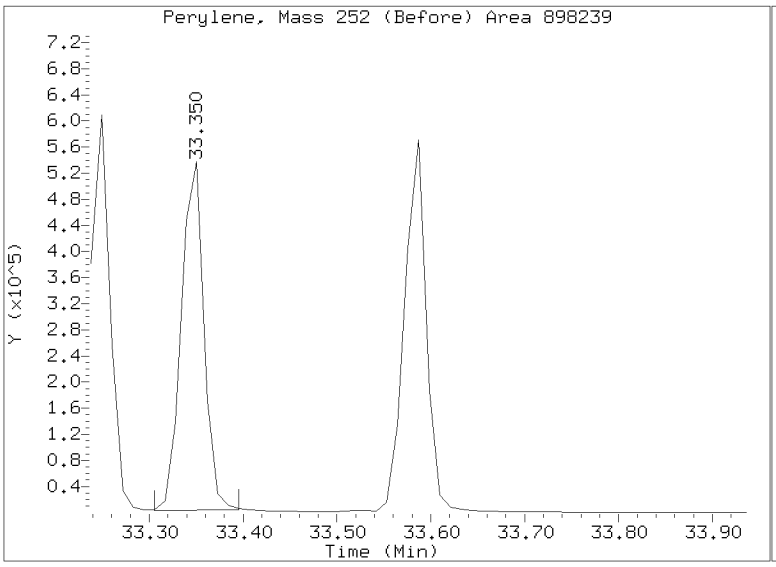
* Only compounds listed in the work order have been verified by the analyst *

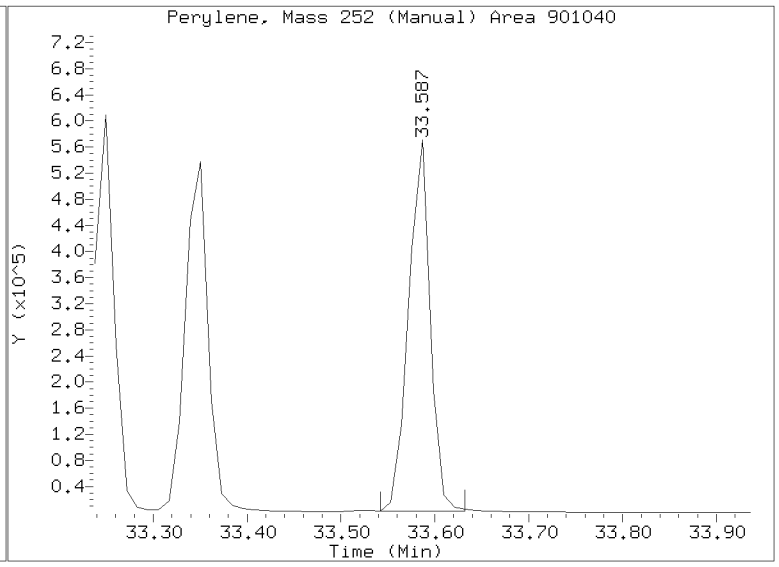
Quant Ion Manual Peak Adjustment Report

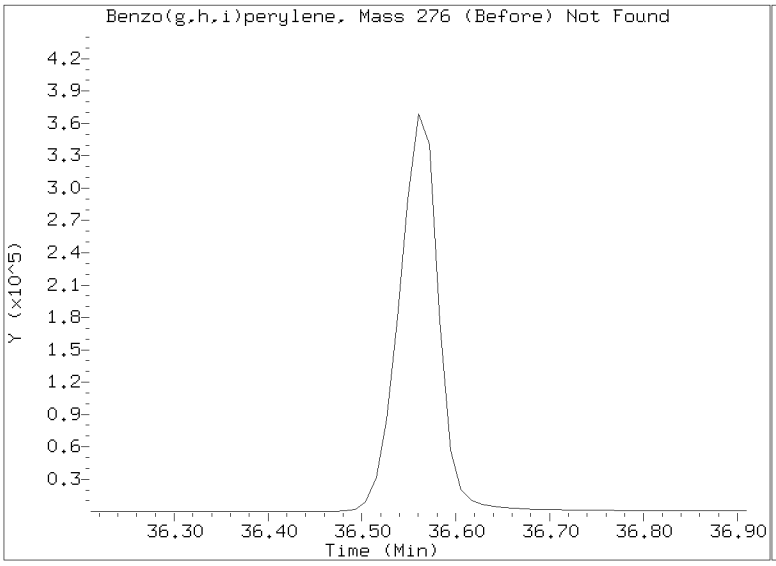
Datafile: //target/share/chem3/nt14.i/20210529.b/NT1421052909.D
Injection Date: 29-MAY-2021 14:49
Lab ID:SJF0025-CAL7 Client ID:
Report Date: 06/02/2021 19:03

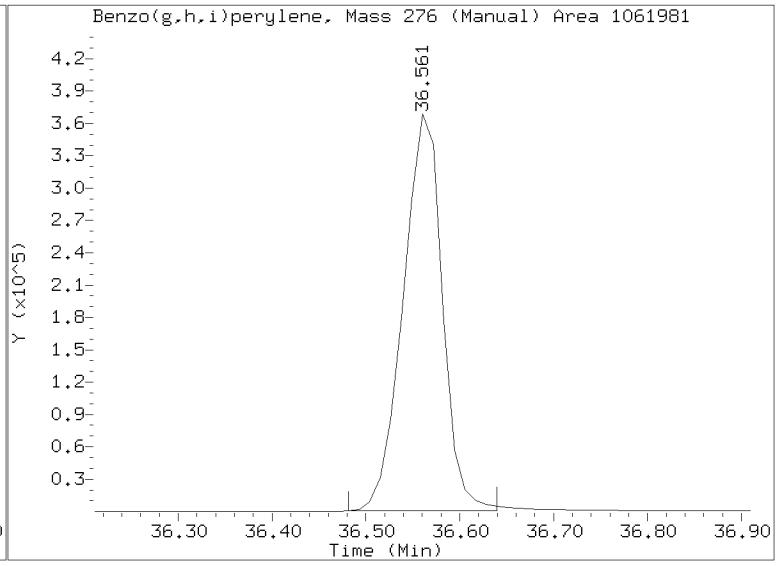












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052910.D

Date : 29-MAY-2021 15:37

Client ID:

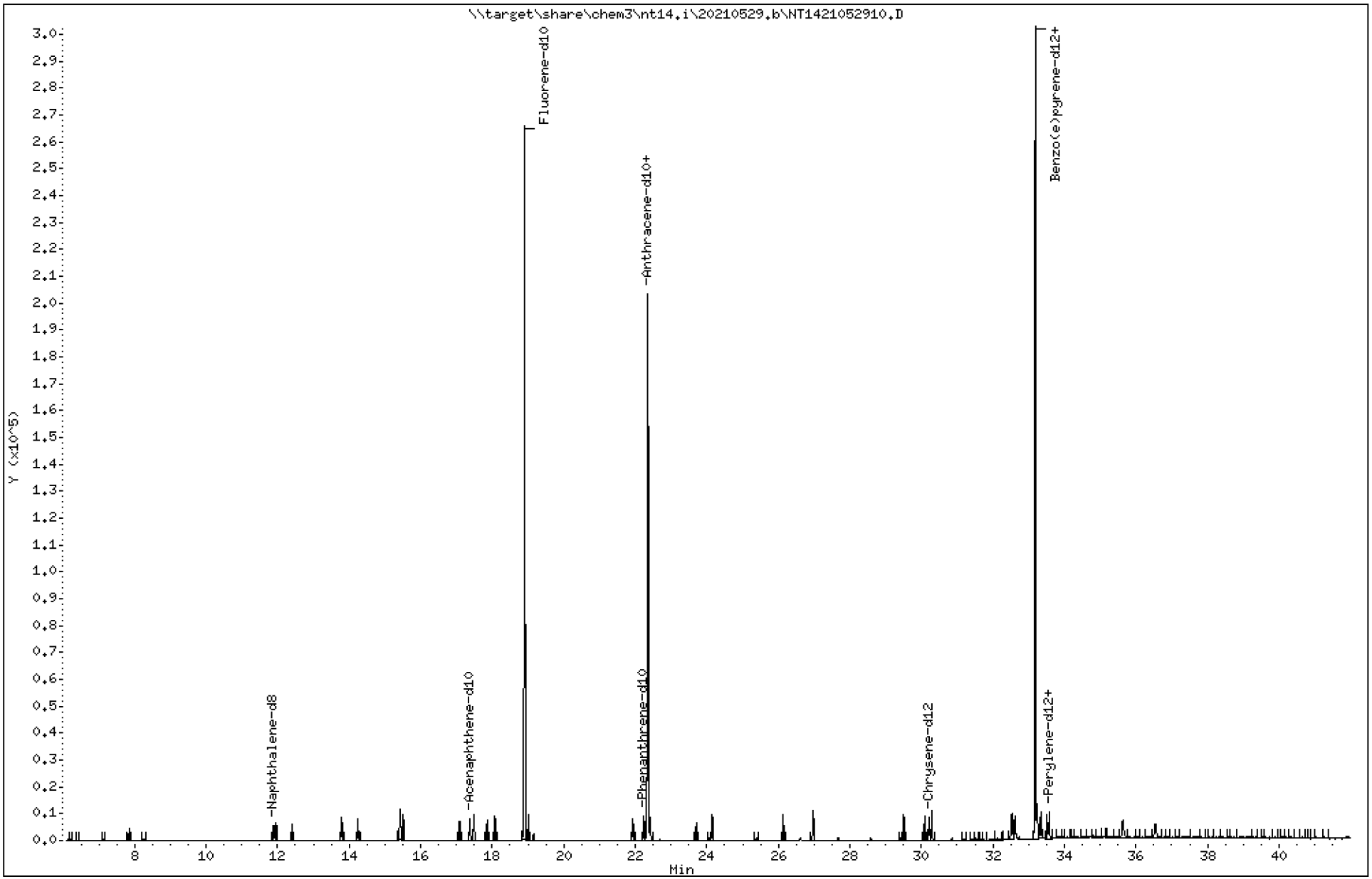
Sample Info: SJF0025-CAL1

Column phase: Rxi-17Sil MS

Instrument: nt14.i

Operator: VTS

Column diameter: 0.25



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210529.b\NT1421052910.D
Lab Smp Id: SJF0025-CAL1
Inj Date : 29-MAY-2021 15:37
Operator : VTS Inst ID: nt14.i
Smp Info : SJF0025-CAL1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Meth Date : 02-Jun-2021 19:03 yev Quant Type: ISTD
Cal Date : 29-MAY-2021 15:37 Cal File: NT1421052910.D
Als bottle: 4 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: ORGDATA102

							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
	1 trans-Decalin	138	7.156	7.156	(0.379)	700	0.10000	0.07554
	2 cis-Decalin	138	8.256	8.256	(0.437)	341	0.10000	0.04317
$	6 Naphthalene-d8	136	11.897	11.897	(0.629)	8740	0.10000	0.1012
	7 Naphthalene	128	11.957	11.957	(0.632)	9073	0.10000	0.1051
	12 Benzo(b)thiophene	134	12.409	12.409	(0.656)	7745	0.10000	0.1091
	16 2-Methylnaphthalene	141	13.794	13.794	(0.730)	5222	0.10000	0.1035
	17 1-methylnaphthalene	141	14.245	14.245	(0.753)	5088	0.10000	0.1036
	18 Biphenyl	154	15.431	15.431	(0.816)	8047	0.10000	0.1079
	19 2,6-Dimethylnaphthalene	156	15.508	15.508	(0.820)	5690	0.10000	0.1038
	20 Acenaphthylene	152	17.080	17.080	(0.903)	9795	0.10000	0.1045
$	21 Acenaphthene-d10	164	17.377	17.377	(0.919)	5611	0.10000	0.1058
	22 Acenaphthene	153	17.486	17.486	(0.925)	6043	0.10000	0.1046
	23 Dibenzofuran	168	17.860	17.860	(0.945)	9060	0.10000	0.1057
	24 1,6,7-Trimethylnaphthalene	170	18.080	18.080	(0.956)	6001	0.10000	0.1074
*	25 Fluorene-d10	176	18.907	18.907	(1.000)	185817	2.00000	
	26 Fluorene	166	19.009	19.009	(1.005)	6943	0.10000	0.1045
	30 Dibenzothiophene	184	21.931	21.931	(1.160)	10086	0.10000	0.1076
$	35 Phenanthrene-d10	188	22.239	22.239	(0.995)	9971	0.10000	0.1063
	36 Phenanthrene	178	22.316	22.316	(0.998)	11026	0.10000	0.1097
*	250 Anthracene-d10	188	22.360	22.360	(1.000)	194904	2.00000	
	37 Anthracene	178	22.426	22.426	(1.003)	9606	0.10000	0.1016
	42 Carbazole	167	23.701	23.701	(1.060)	8540	0.10000	0.1024
	43 1-Methylphenanthrene	192	24.162	24.162	(1.081)	7638	0.10000	0.1058
	44 Fluoranthene	202	26.131	26.131	(1.169)	11017	0.10000	0.09932
	46 Pyrene	202	26.977	26.977	(1.207)	11390	0.10000	0.09873
	51 Naphthobenzothiophene	234	29.499	29.499	(1.319)	12752	0.10000	0.1029
	55 Benzo(a)anthracene	228	30.095	30.095	(0.907)	10658	0.10000	0.1049
$	56 Chrysene-d12	240	30.219	30.219	(0.911)	8436	0.10000	0.1029
	57 Chrysene	228	30.287	30.287	(0.913)	10569	0.10000	0.1062
	62 Benzo(b)fluoranthene	252	32.517	32.517	(0.980)	11190	0.10000	0.1062(M)
	63 Benzo(k)fluoranthene	252	32.562	32.562	(0.981)	10841	0.10000	0.09593
	293 Benzo(j)fluoranthene	252	32.618	32.618	(0.983)	10824	0.10000	0.1039
	246 Total Benzofluoranthenes	252	32.562	32.562	(0.981)	31866	0.30000	0.3089(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.181	33.181	(1.000)	261838	2.00000	
64 Benzo(e)pyrene	252	33.238	33.238	(1.002)	11189	0.10000	0.1084
66 Benzo(a)pyrene	252	33.339	33.339	(1.005)	10010	0.10000	0.1066
$ 67 Perylene-d12	264	33.519	33.519	(1.010)	9579	0.10000	0.1083
68 Perylene	252	33.576	33.576	(1.012)	10601	0.10000	0.1095(M)
69 Indeno(1,2,3-cd)pyrene	276	35.637	35.637	(1.074)	9635	0.10000	0.08741
70 Dibenzo(a,h)anthracene	278	35.614	35.614	(1.073)	7925	0.10000	0.07753(M)
74 Benzo(g,h,i)perylene	276	36.538	36.538	(1.101)	10702	0.10000	0.09827

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: NT1421052910.D
Lab Smp Id: SJF0025-CAL1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Misc Info:

Calibration Date: 29-MAY-2021
Calibration Time: 14:01
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	159478	79739	318956	185817	16.52
250 Anthracene-d10	170161	85081	340322	194904	14.54
251 Benzo(e)pyrene-d1	236612	118306	473224	261838	10.66

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.91	18.41	19.41	18.91	0.00
250 Anthracene-d10	22.36	21.86	22.86	22.36	0.00
251 Benzo(e)pyrene-d1	33.18	32.68	33.68	33.18	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 - NT1421052910.D

Lab ID: SJF0025-CAL1
nt14.i, 20210529.b\ALKYLPNA.m,   29-MAY-2021 15:37

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

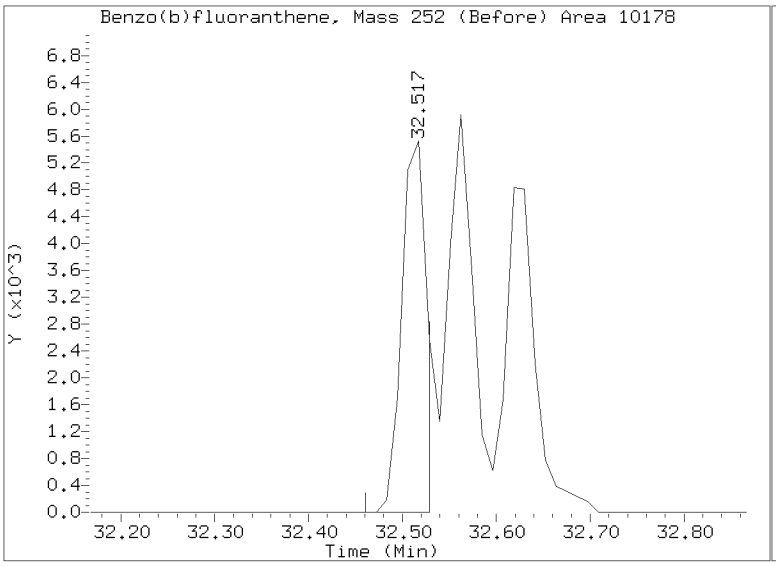
RRT check based on Ccal File: NT1421052910.D

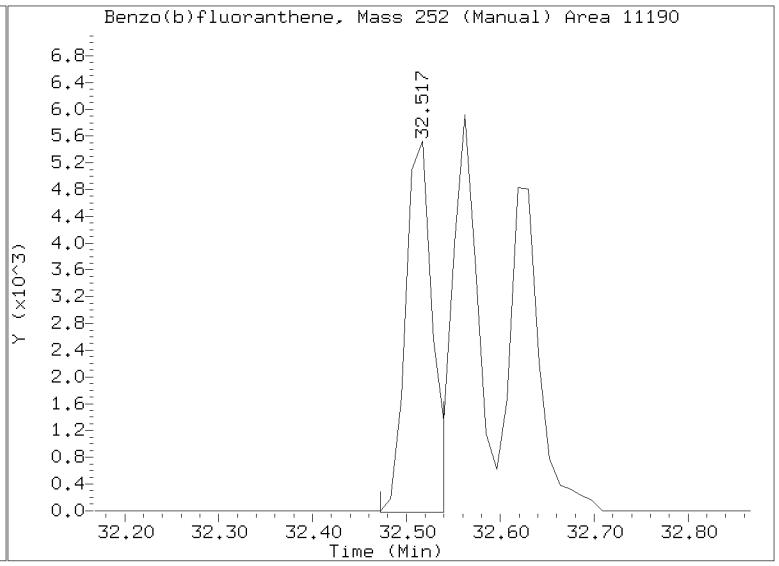
On Column LOD for nt14.i, 20210529.b\ALKYLPNA.m, TARGETS.sub = 0.0000

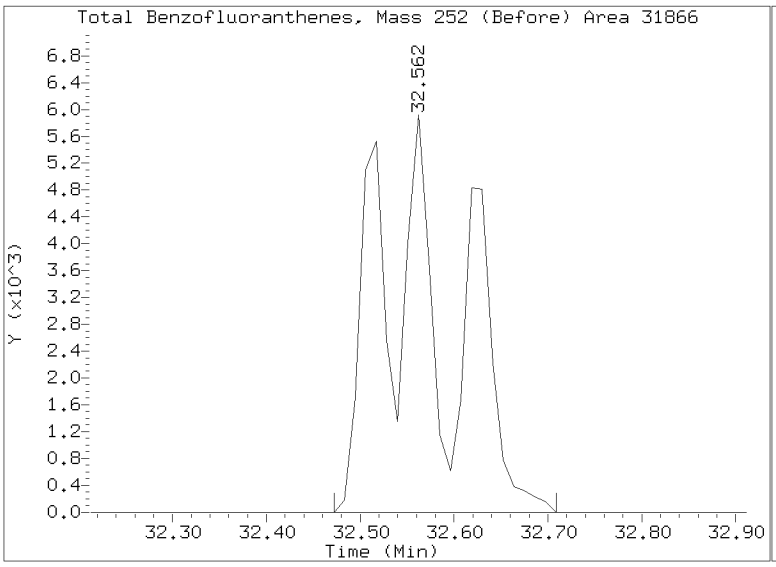
* Only compounds listed in the work order have been verified by the analyst *

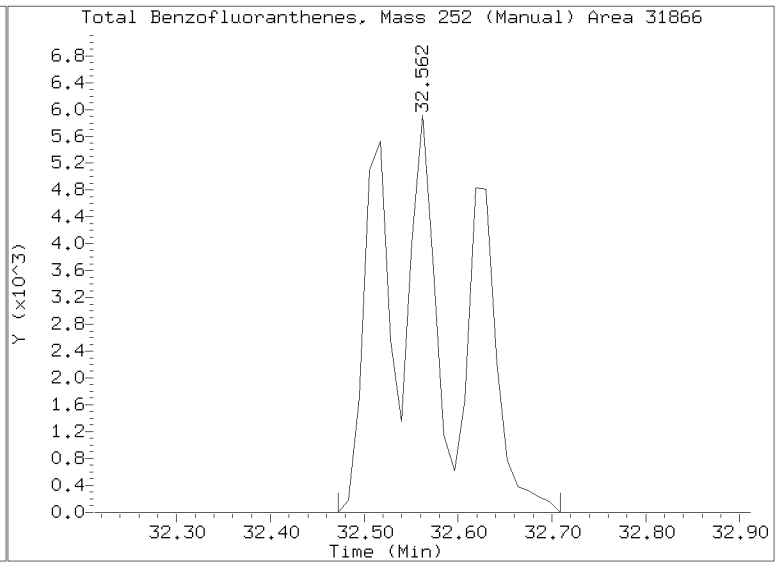
Quant Ion Manual Peak Adjustment Report

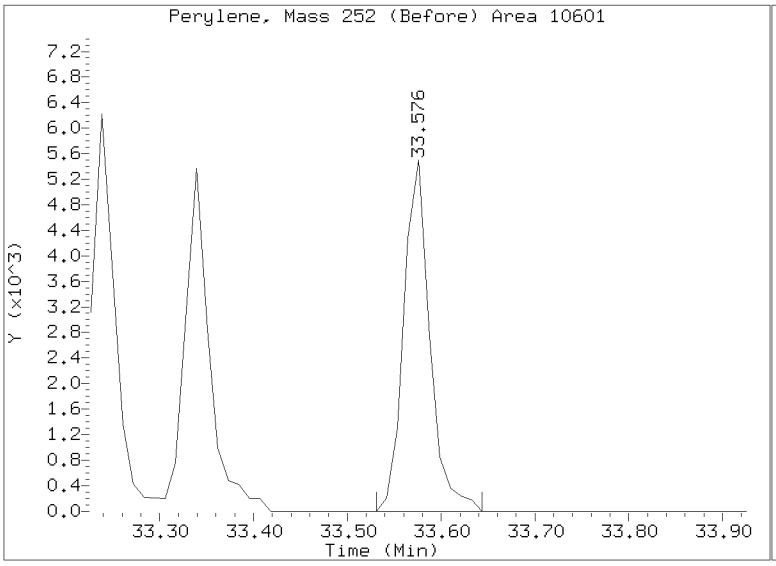
Datafile: //target/share/chem3/nt14.i/20210529.b/NT1421052910.D
Injection Date: 29-MAY-2021 15:37
Lab ID:SJF0025-CAL1 Client ID:
Report Date: 06/02/2021 19:03

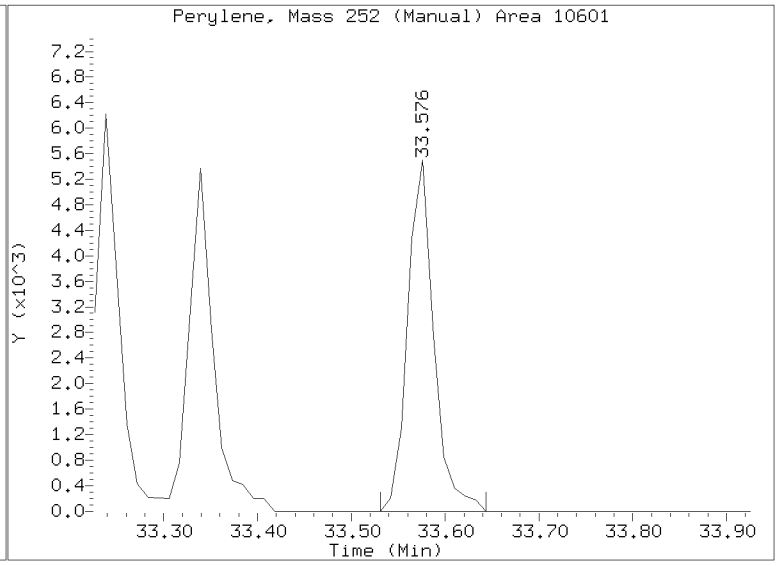






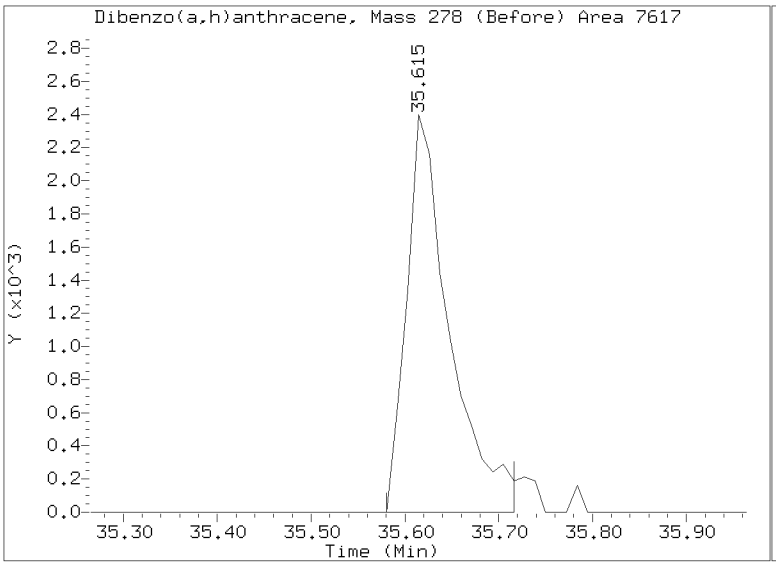


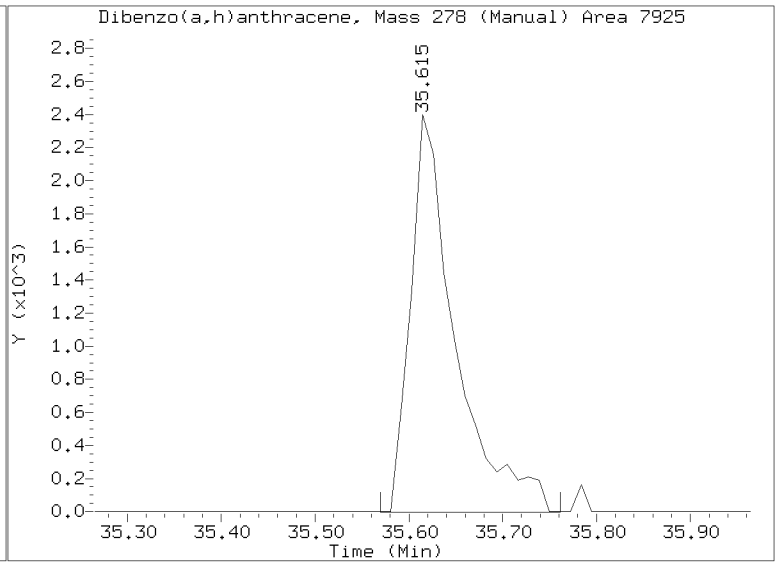




Quant Ion Manual Peak Adjustment Report

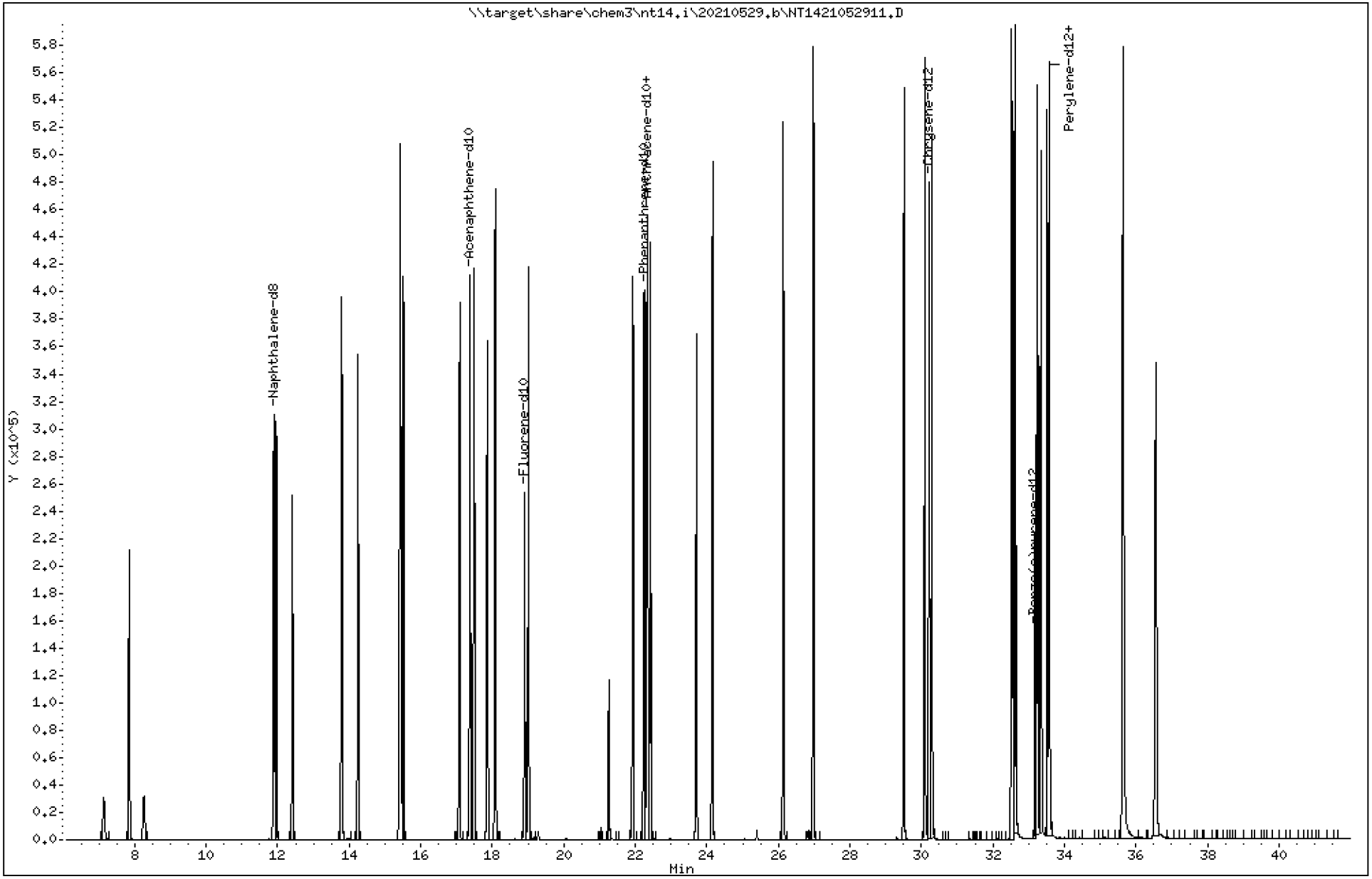
Datafile: //target/share/chem3/nt14.i/20210529.b/NT1421052910.D
Injection Date: 29-MAY-2021 15:37
Lab ID:SJF0025-CAL1 Client ID:
Report Date: 06/02/2021 19:03





Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052911.D
Date : 29-MAY-2021 16:25
Client ID:
Sample Info: SJF0025-CAL6

Instrument: nt14.i
Operator: VTS
Column phase: Rxi-17Sil MS
Column diameter: 0.25



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ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210529.b\NT1421052911.D
Lab Smp Id: SJF0025-CAL6
Inj Date : 29-MAY-2021 16:25
Operator : VTS Inst ID: nt14.i
Smp Info : SJF0025-CAL6
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Meth Date : 02-Jun-2021 19:03 yev Quant Type: ISTD
Cal Date : 29-MAY-2021 16:25 Cal File: NT1421052911.D
Als bottle: 5 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
	1 trans-Decalin	138	7.146	7.146	(0.378)	47573	5.00000	5.454
	2 cis-Decalin	138	8.266	8.266	(0.437)	35039	5.00000	5.084
$	6 Naphthalene-d8	136	11.897	11.897	(0.629)	416592	5.00000	5.124
	7 Naphthalene	128	11.957	11.957	(0.632)	410480	5.00000	5.051
	12 Benzo(b)thiophene	134	12.409	12.409	(0.656)	337399	5.00000	5.051
	16 2-Methylnaphthalene	141	13.794	13.794	(0.730)	235886	5.00000	4.966
	17 1-methylnaphthalene	141	14.244	14.244	(0.753)	230431	5.00000	4.986
	18 Biphenyl	154	15.442	15.442	(0.817)	341587	5.00000	4.866
	19 2,6-Dimethylnaphthalene	156	15.508	15.508	(0.820)	257382	5.00000	4.986
	20 Acenaphthylene	152	17.091	17.091	(0.904)	450223	5.00000	5.102
$	21 Acenaphthene-d10	164	17.376	17.376	(0.919)	248084	5.00000	4.968
	22 Acenaphthene	153	17.486	17.486	(0.925)	268524	5.00000	4.936
	23 Dibenzofuran	168	17.860	17.860	(0.945)	396314	5.00000	4.912
	24 1,6,7-Trimethylnaphthalene	170	18.091	18.091	(0.957)	265026	5.00000	5.041
*	25 Fluorene-d10	176	18.907	18.907	(1.000)	174899	2.00000	
	26 Fluorene	166	19.009	19.009	(1.005)	309663	5.00000	4.953
	30 Dibenzothiophene	184	21.931	21.931	(1.160)	440205	5.00000	4.988
$	35 Phenanthrene-d10	188	22.238	22.238	(0.995)	433755	5.00000	5.063
	36 Phenanthrene	178	22.326	22.326	(0.999)	449640	5.00000	4.898(M)
*	250 Anthracene-d10	188	22.359	22.359	(1.000)	178057	2.00000	
	37 Anthracene	178	22.425	22.425	(1.003)	432014	5.00000	5.001
	42 Carbazole	167	23.711	23.711	(1.060)	393324	5.00000	5.163
	43 1-Methylphenanthrene	192	24.162	24.162	(1.081)	345037	5.00000	5.230
	44 Fluoranthene	202	26.141	26.141	(1.169)	526383	5.00000	5.195
	46 Pyrene	202	26.977	26.977	(1.207)	565119	5.00000	5.362
	51 Naphthobenzothiophene	234	29.509	29.509	(1.320)	593729	5.00000	5.243
	55 Benzo(a)anthracene	228	30.095	30.095	(0.907)	524739	5.00000	5.177
$	56 Chrysene-d12	240	30.219	30.219	(0.911)	407429	5.00000	4.980
	57 Chrysene	228	30.286	30.286	(0.913)	488178	5.00000	4.915
	62 Benzo(b)fluoranthene	252	32.517	32.517	(0.980)	555776	5.00000	5.287(M)
	63 Benzo(k)fluoranthene	252	32.562	32.562	(0.981)	539450	5.00000	4.783
	293 Benzo(j)fluoranthene	252	32.629	32.629	(0.983)	490527	5.00000	4.720(M)
	246 Total Benzofluoranthenes	252	32.517	32.517	(0.980)	1617767	15.0000	15.71(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.181	33.181	(1.000)	261344	2.00000	
64 Benzo(e)pyrene	252	33.249	33.249	(1.002)	518058	5.00000	5.028
66 Benzo(a)pyrene	252	33.339	33.339	(1.005)	484415	5.00000	5.168
$ 67 Perylene-d12	264	33.519	33.519	(1.010)	444024	5.00000	5.028
68 Perylene	252	33.575	33.575	(1.012)	494921	5.00000	5.121(M)
69 Indeno(1,2,3-cd)pyrene	276	35.648	35.648	(1.074)	615117	5.00000	5.591(M)
70 Dibenzo(a,h)anthracene	278	35.625	35.625	(1.074)	527390	5.00000	5.009(M)
74 Benzo(g,h,i)perylene	276	36.560	36.560	(1.102)	570665	5.00000	5.250(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: NT1421052911.D
Lab Smp Id: SJF0025-CAL6
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Misc Info:

Calibration Date: 29-MAY-2021
Calibration Time: 14:01
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	159478	79739	318956	174899	9.67
250 Anthracene-d10	170161	85081	340322	178057	4.64
251 Benzo(e)pyrene-d1	236612	118306	473224	261344	10.45

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.91	18.41	19.41	18.91	-0.00
250 Anthracene-d10	22.36	21.86	22.86	22.36	-0.00
251 Benzo(e)pyrene-d1	33.18	32.68	33.68	33.18	-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 - NT1421052911.D

Lab ID: SJF0025-CAL6
nt14.i, 20210529.b\ALKYLPNA.m,   29-MAY-2021 16:25

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

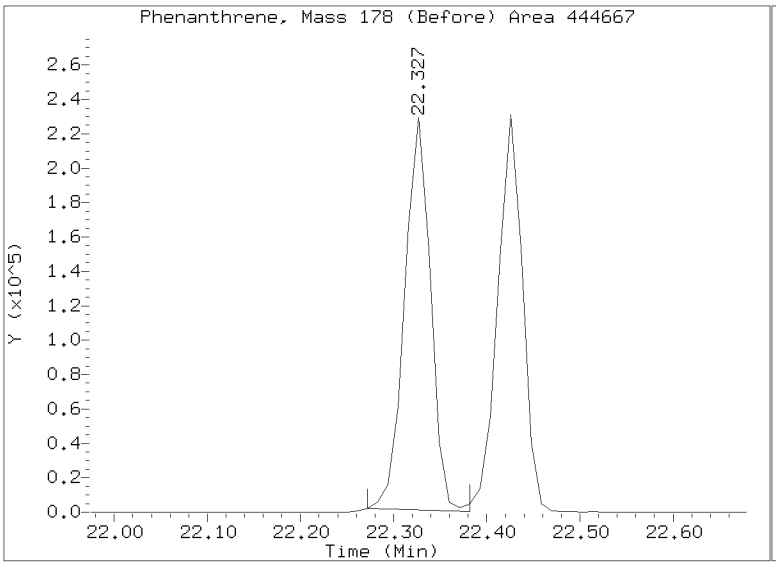
RRT check based on Ccal File: NT1421052911.D

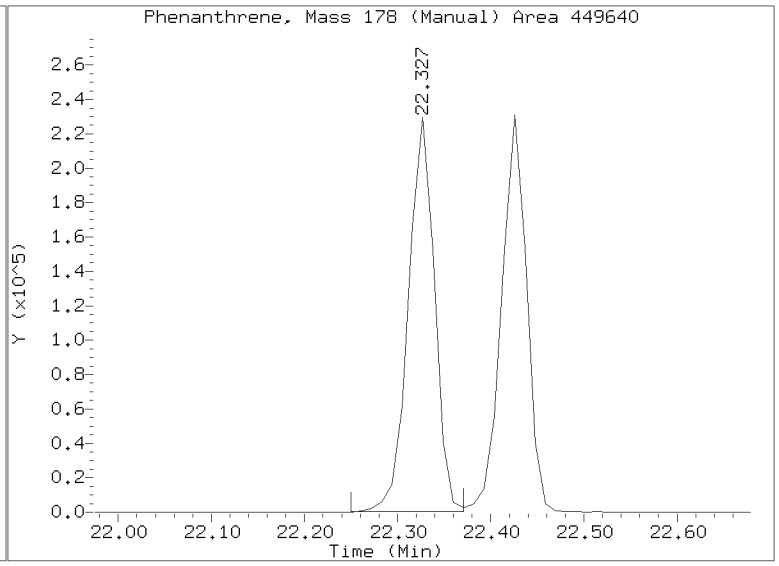
On Column LOD for nt14.i, 20210529.b\ALKYLPNA.m, TARGETS.sub = 0.0000

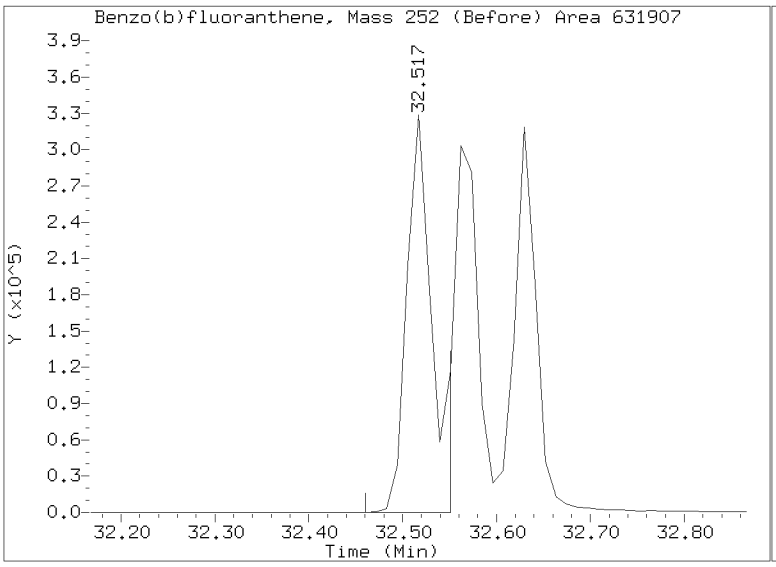
* Only compounds listed in the work order have been verified by the analyst *

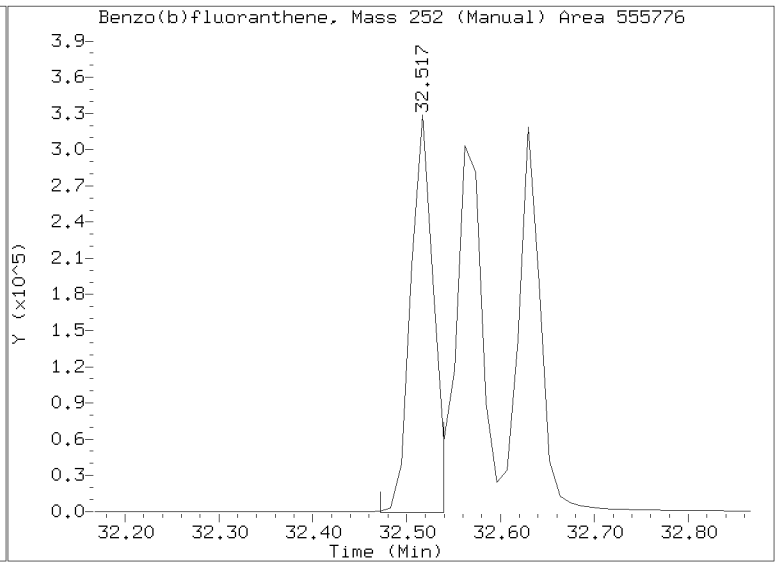
Quant Ion Manual Peak Adjustment Report

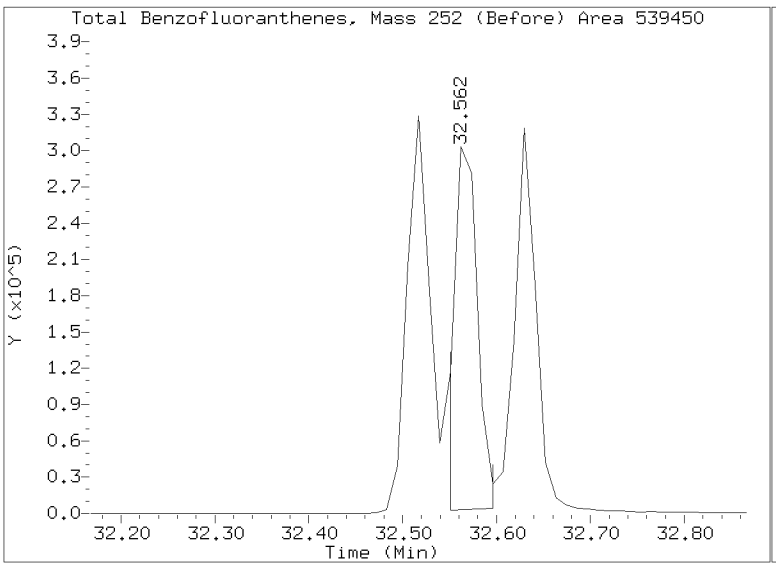
Datafile: //target/share/chem3/nt14.i/20210529.b/NT1421052911.D
Injection Date: 29-MAY-2021 16:25
Lab ID:SJF0025-CAL6 Client ID:
Report Date: 06/02/2021 19:03

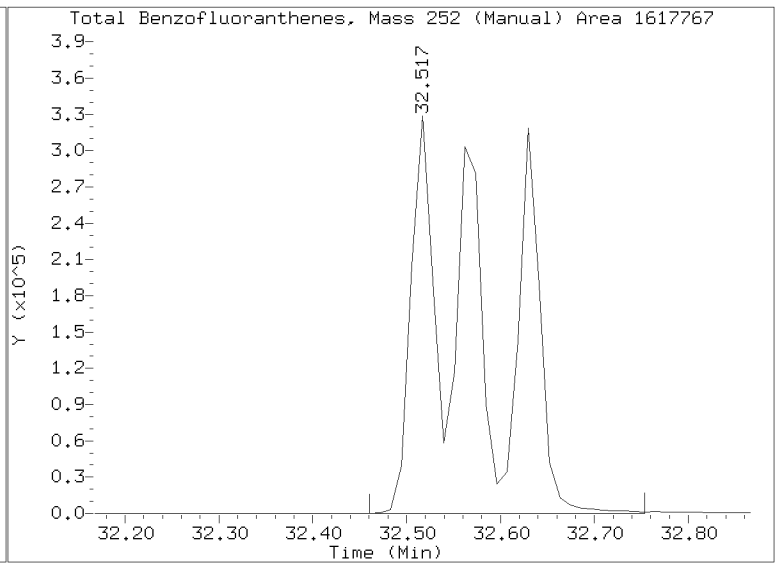






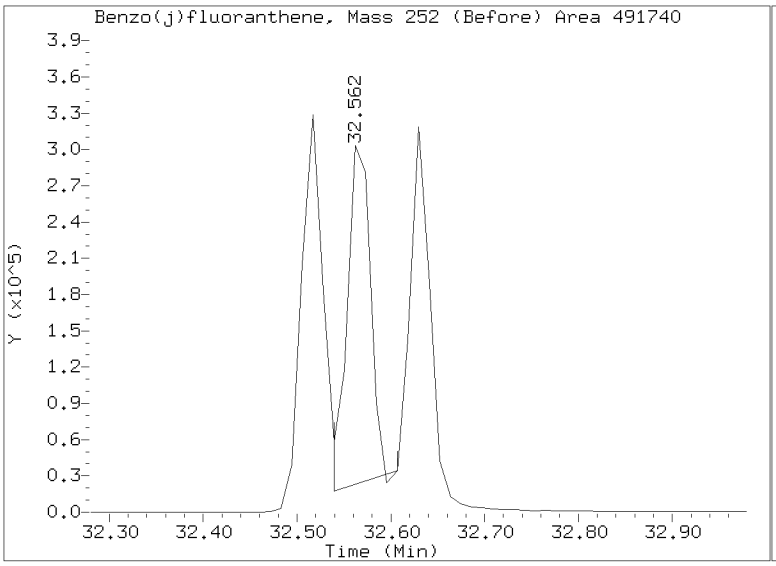


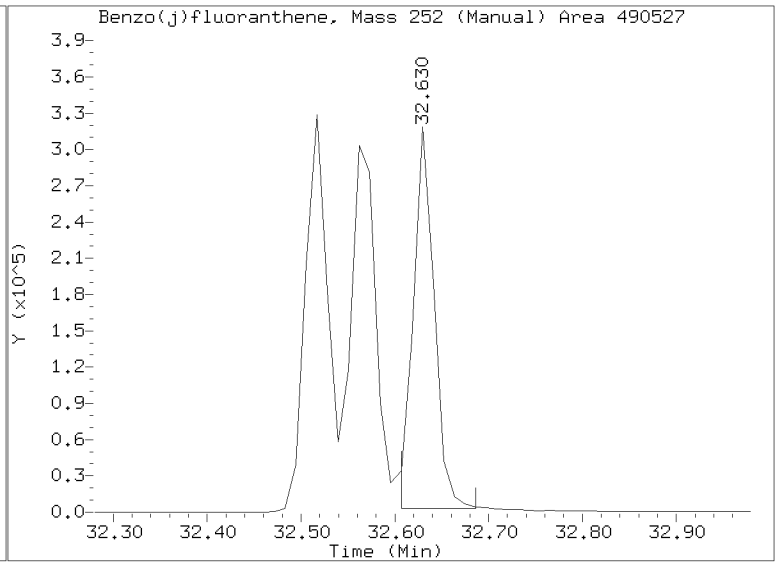


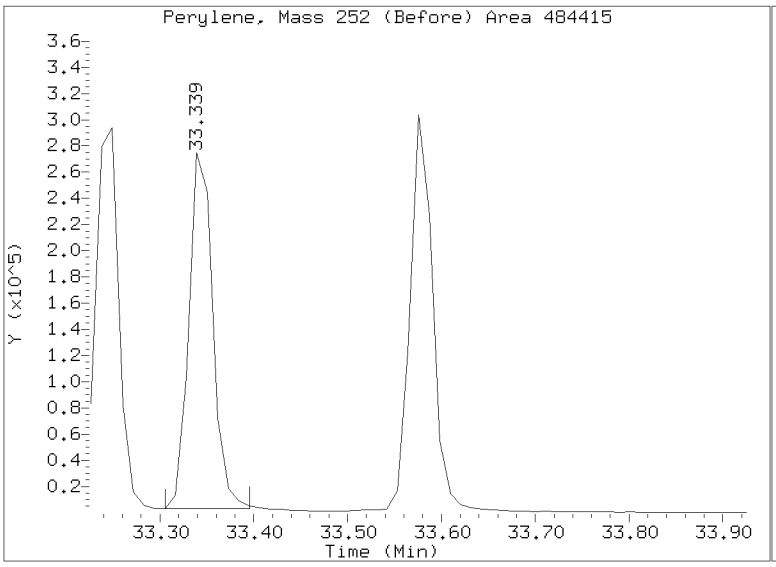


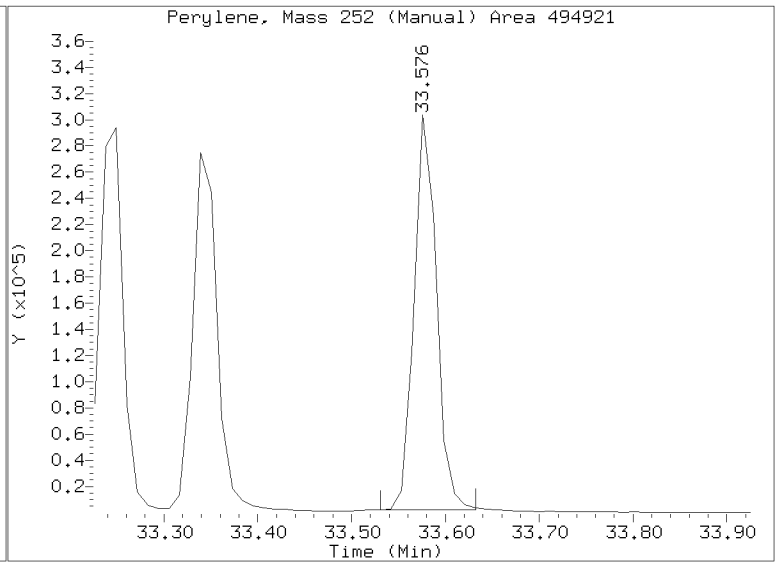
Quant Ion Manual Peak Adjustment Report

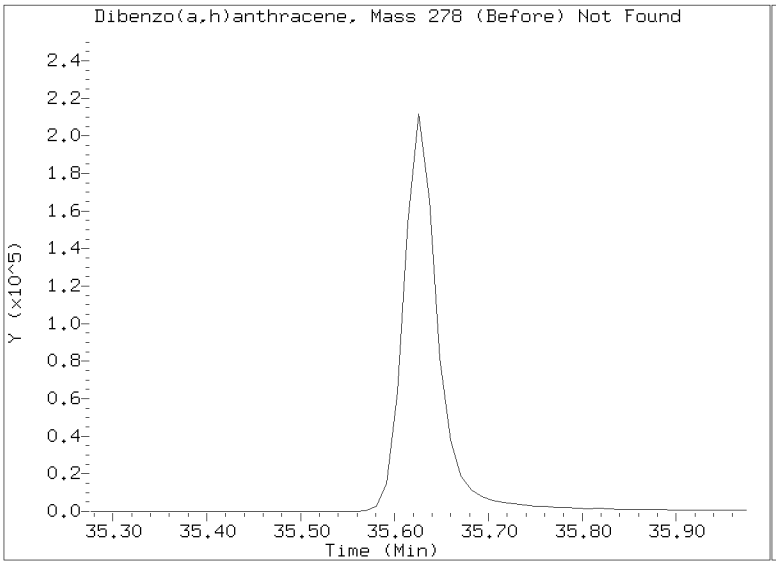
Datafile: //target/share/chem3/nt14.i/20210529.b/NT1421052911.D
Injection Date: 29-MAY-2021 16:25
Lab ID:SJF0025-CAL6 Client ID:
Report Date: 06/02/2021 19:03

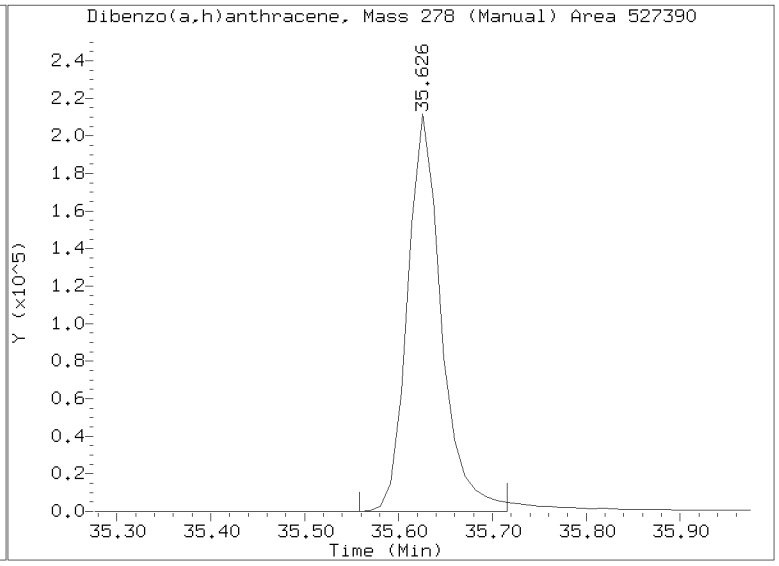






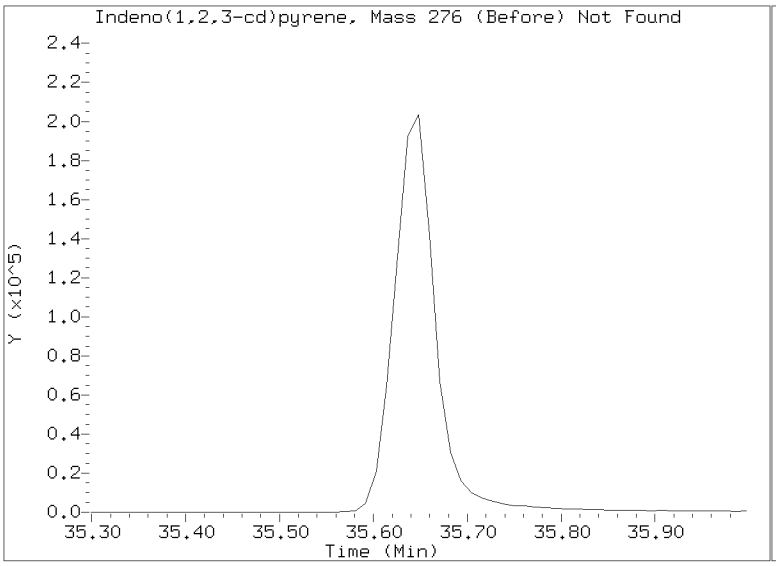


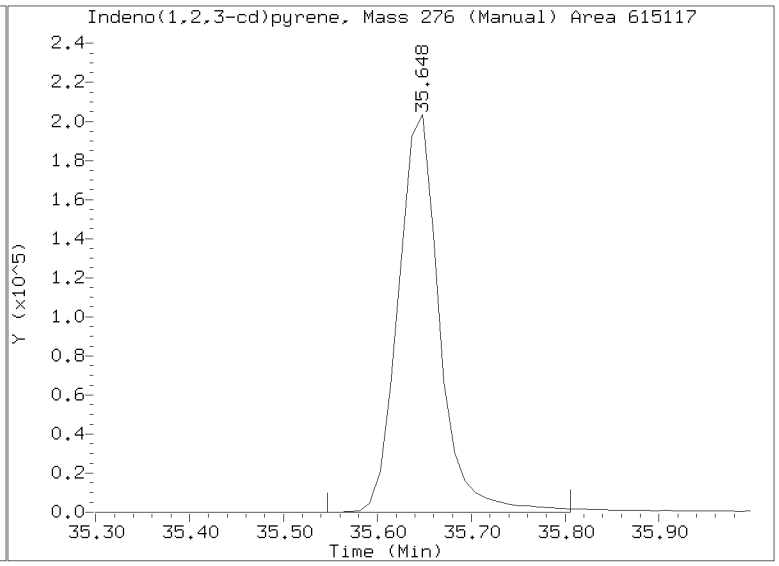


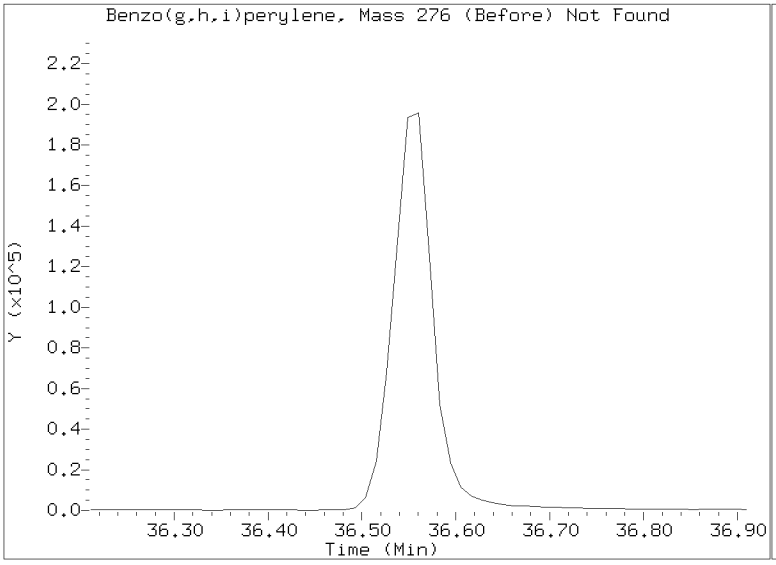


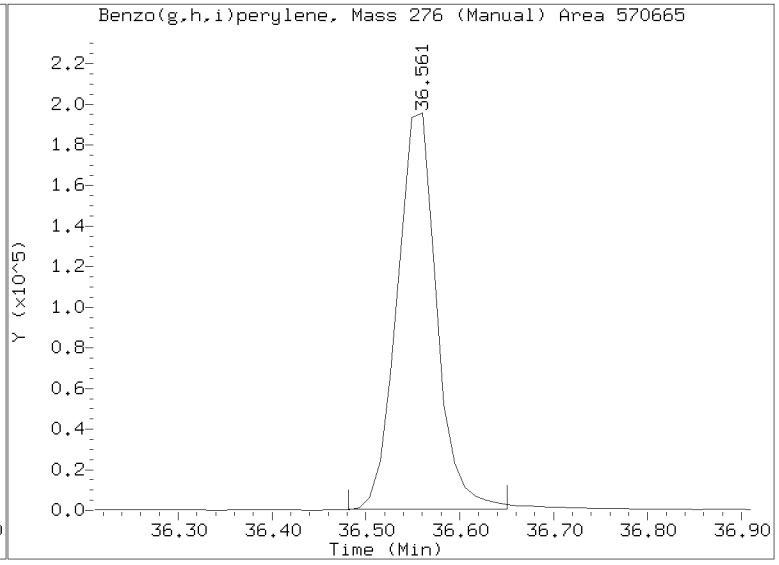
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210529.b/NT1421052911.D
Injection Date: 29-MAY-2021 16:25
Lab ID:SJF0025-CAL6 Client ID:
Report Date: 06/02/2021 19:03









Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052912.D

Date : 29-MAY-2021 17:13

Client ID:

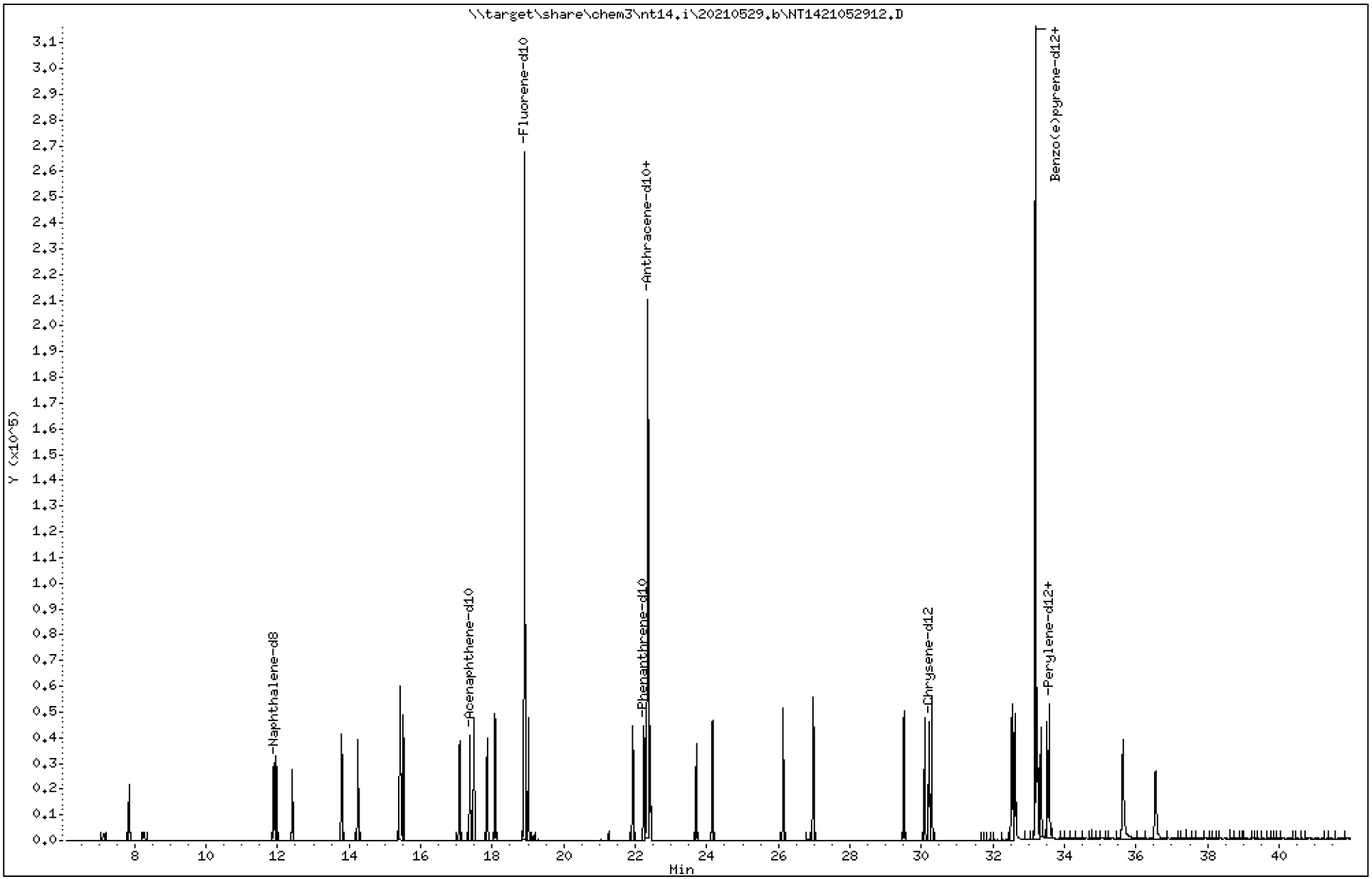
Instrument: nt14.i

Sample Info: SJF0025-CAL3

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210529.b\NT1421052912.D
Lab Smp Id: SJF0025-CAL3
Inj Date : 29-MAY-2021 17:13
Operator : VTS Inst ID: nt14.i
Smp Info : SJF0025-CAL3
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Meth Date : 02-Jun-2021 19:03 yev Quant Type: ISTD
Cal Date : 29-MAY-2021 17:13 Cal File: NT1421052912.D
Als bottle: 6 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
	1 trans-Decalin	138	7.136	7.136	(0.377)	4880	0.50000	0.5194
	2 cis-Decalin	138	8.266	8.266	(0.437)	3681	0.50000	0.4629(M)
$	6 Naphthalene-d8	136	11.897	11.897	(0.629)	43772	0.50000	0.4998
	7 Naphthalene	128	11.957	11.957	(0.632)	43590	0.50000	0.4980
	12 Benzo(b)thiophene	134	12.409	12.409	(0.656)	35015	0.50000	0.4866
	16 2-Methylnaphthalene	141	13.794	13.794	(0.730)	25905	0.50000	0.5063
	17 1-methylnaphthalene	141	14.244	14.244	(0.753)	25368	0.50000	0.5096
	18 Biphenyl	154	15.431	15.431	(0.816)	38750	0.50000	0.5125
	19 2,6-Dimethylnaphthalene	156	15.508	15.508	(0.820)	28013	0.50000	0.5038
	20 Acenaphthylene	152	17.091	17.091	(0.904)	46496	0.50000	0.4892
$	21 Acenaphthene-d10	164	17.366	17.366	(0.918)	27003	0.50000	0.5020
	22 Acenaphthene	153	17.486	17.486	(0.925)	29836	0.50000	0.5092
	23 Dibenzofuran	168	17.860	17.860	(0.945)	43720	0.50000	0.5030
	24 1,6,7-Trimethylnaphthalene	170	18.080	18.080	(0.956)	28132	0.50000	0.4968
*	25 Fluorene-d10	176	18.907	18.907	(1.000)	188390	2.00000	
	26 Fluorene	166	19.009	19.009	(1.005)	33754	0.50000	0.5013
	30 Dibenzothiophene	184	21.931	21.931	(1.160)	47219	0.50000	0.4967
$	35 Phenanthrene-d10	188	22.239	22.239	(0.995)	47221	0.50000	0.4999
	36 Phenanthrene	178	22.316	22.316	(0.998)	50975	0.50000	0.5035
*	250 Anthracene-d10	188	22.359	22.359	(1.000)	196353	2.00000	
	37 Anthracene	178	22.425	22.425	(1.003)	47673	0.50000	0.5005
	42 Carbazole	167	23.701	23.701	(1.060)	41173	0.50000	0.4901
	43 1-Methylphenanthrene	192	24.162	24.162	(1.081)	35120	0.50000	0.4827
	44 Fluoranthene	202	26.130	26.130	(1.169)	53971	0.50000	0.4830
	46 Pyrene	202	26.977	26.977	(1.207)	55812	0.50000	0.4802
	51 Naphthobenzothiophene	234	29.509	29.509	(1.320)	60282	0.50000	0.4827
	55 Benzo(a)anthracene	228	30.095	30.095	(0.907)	50886	0.50000	0.4945
$	56 Chrysene-d12	240	30.219	30.219	(0.911)	42959	0.50000	0.5173
	57 Chrysene	228	30.287	30.287	(0.913)	52164	0.50000	0.5173
	62 Benzo(b)fluoranthene	252	32.517	32.517	(0.980)	50041	0.50000	0.4689(M)
	63 Benzo(k)fluoranthene	252	32.562	32.562	(0.981)	54998	0.50000	0.4803(M)
	293 Benzo(j)fluoranthene	252	32.629	32.629	(0.983)	54919	0.50000	0.5205(M)
	246 Total Benzofluoranthenes	252	32.562	32.562	(0.981)	152250	1.50000	1.456(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.181	33.181	(1.000)	265323	2.00000	
64 Benzo(e)pyrene	252	33.238	33.238	(1.002)	50042	0.50000	0.4784
66 Benzo(a)pyrene	252	33.339	33.339	(1.005)	44291	0.50000	0.4654
$ 67 Perylene-d12	264	33.519	33.519	(1.010)	43299	0.50000	0.4830
68 Perylene	252	33.575	33.575	(1.012)	48112	0.50000	0.4904(M)
69 Indeno(1,2,3-cd)pyrene	276	35.637	35.637	(1.074)	54405	0.50000	0.4871
70 Dibenzo(a,h)anthracene	278	35.625	35.625	(1.074)	45762	0.50000	0.4408(M)
74 Benzo(g,h,i)perylene	276	36.549	36.549	(1.101)	52529	0.50000	0.4760(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: NT1421052912.D
Lab Smp Id: SJF0025-CAL3
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Misc Info:

Calibration Date: 29-MAY-2021
Calibration Time: 14:01
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	159478	79739	318956	188390	18.13
250 Anthracene-d10	170161	85081	340322	196353	15.39
251 Benzo(e)pyrene-d1	236612	118306	473224	265323	12.13

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.91	18.41	19.41	18.91	-0.00
250 Anthracene-d10	22.36	21.86	22.86	22.36	-0.00
251 Benzo(e)pyrene-d1	33.18	32.68	33.68	33.18	-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 - NT1421052912.D

Lab ID: SJF0025-CAL3
nt14.i, 20210529.b\ALKYLPNA.m,   29-MAY-2021 17:13

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

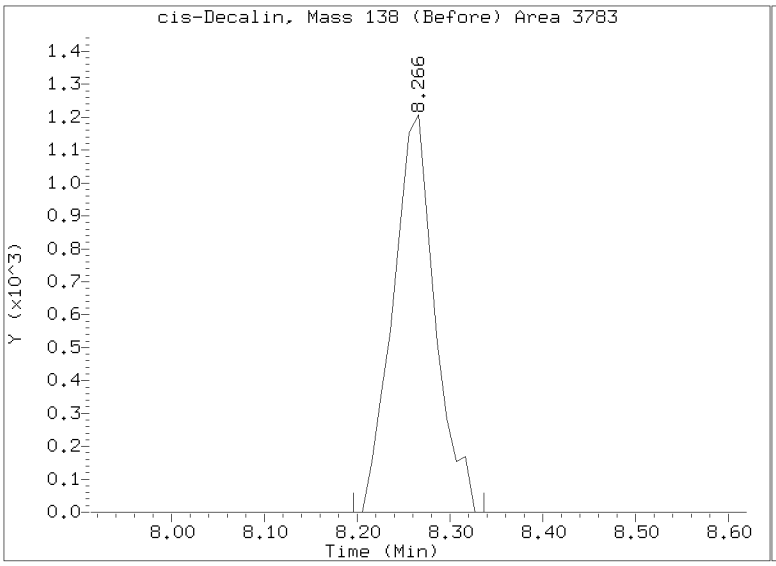
RRT check based on Ccal File: NT1421052912.D

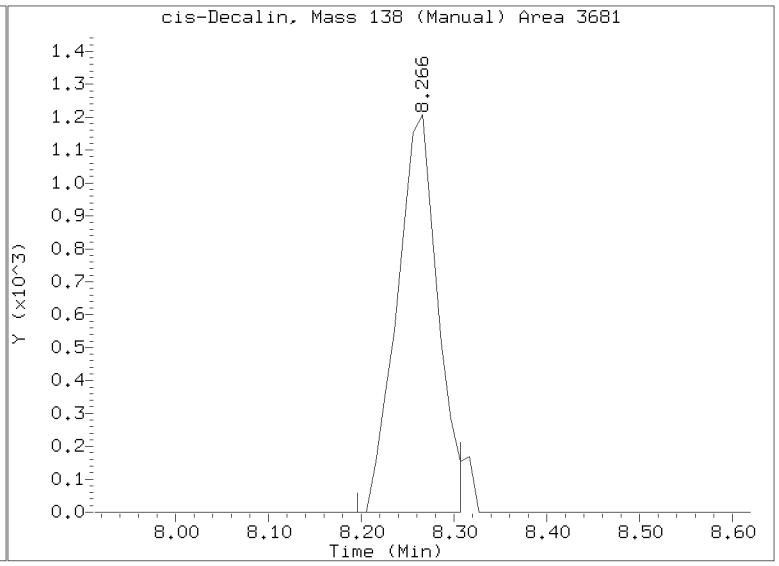
On Column LOD for nt14.i, 20210529.b\ALKYLPNA.m, TARGETS.sub = 0.0000

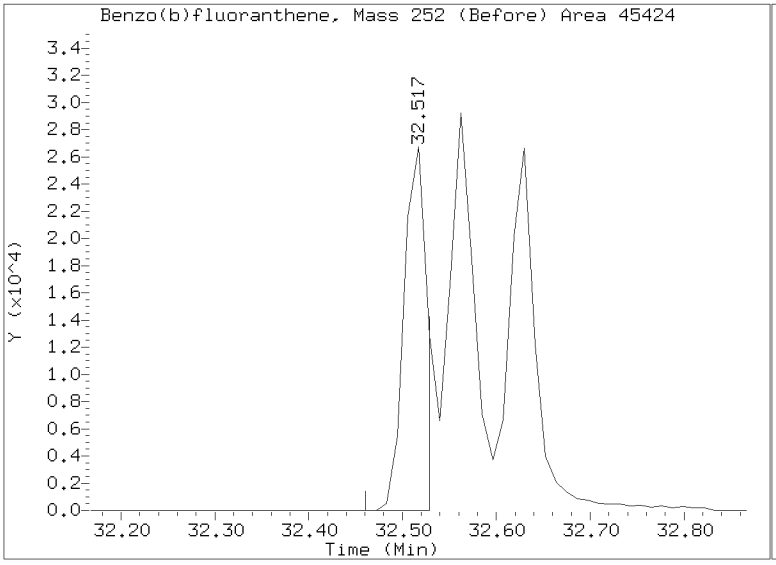
* Only compounds listed in the work order have been verified by the analyst *

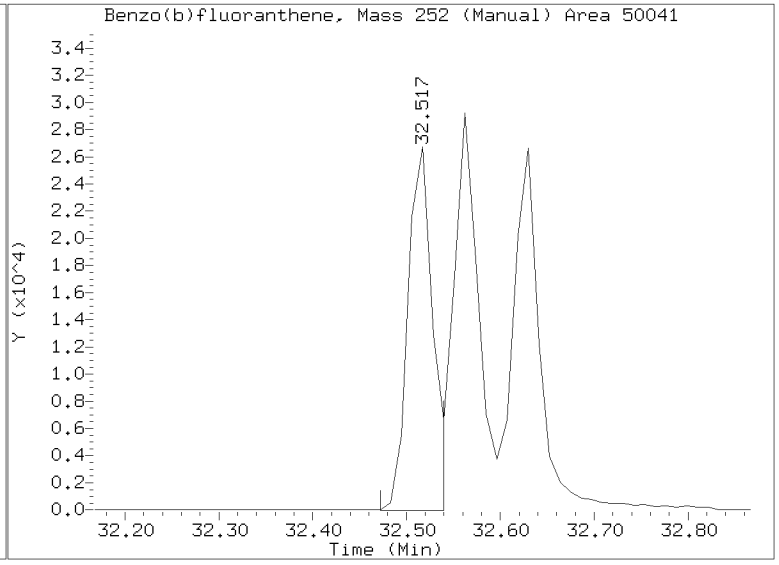
Quant Ion Manual Peak Adjustment Report

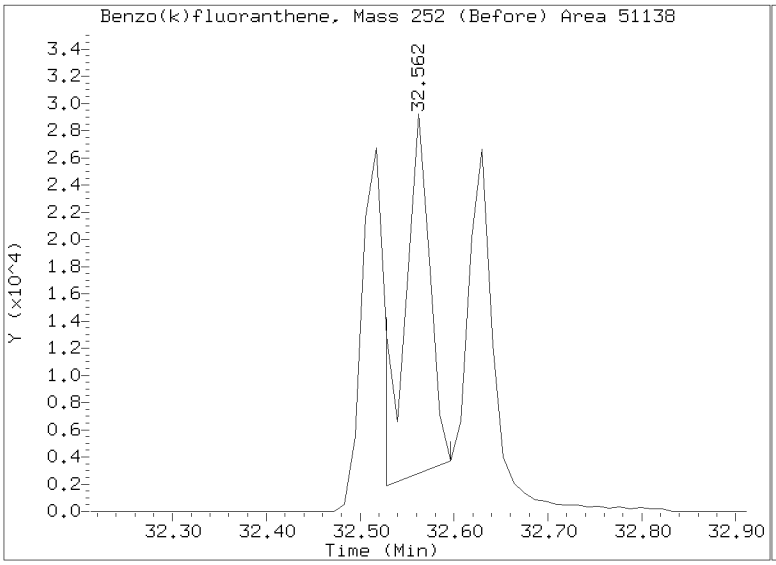
Datafile: //target/share/chem3/nt14.i/20210529.b/NT1421052912.D
Injection Date: 29-MAY-2021 17:13
Lab ID:SJF0025-CAL3 Client ID:
Report Date: 06/02/2021 19:03

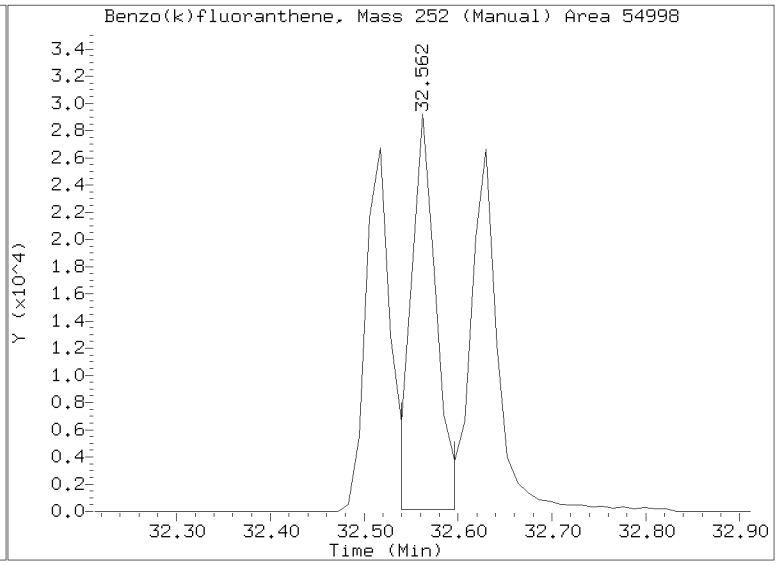






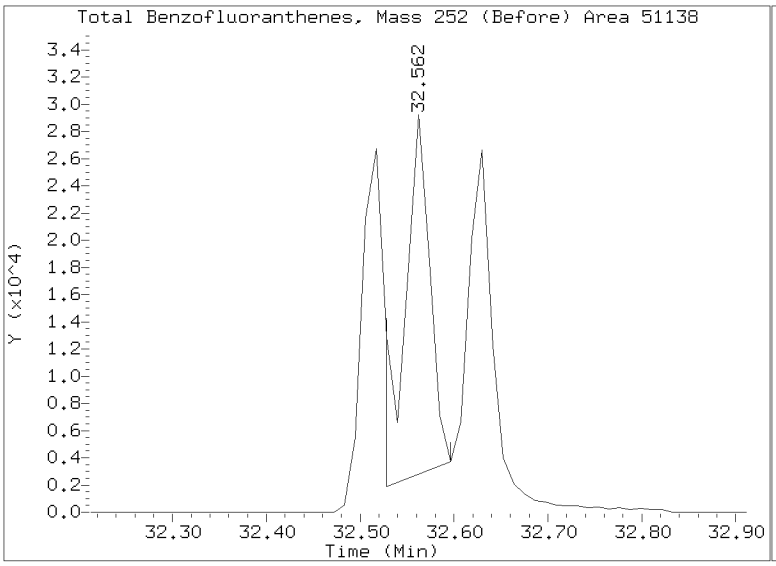


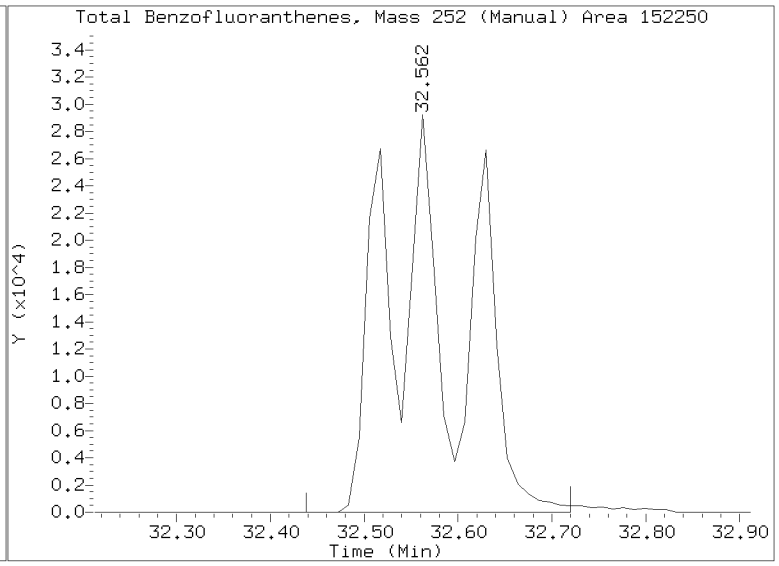


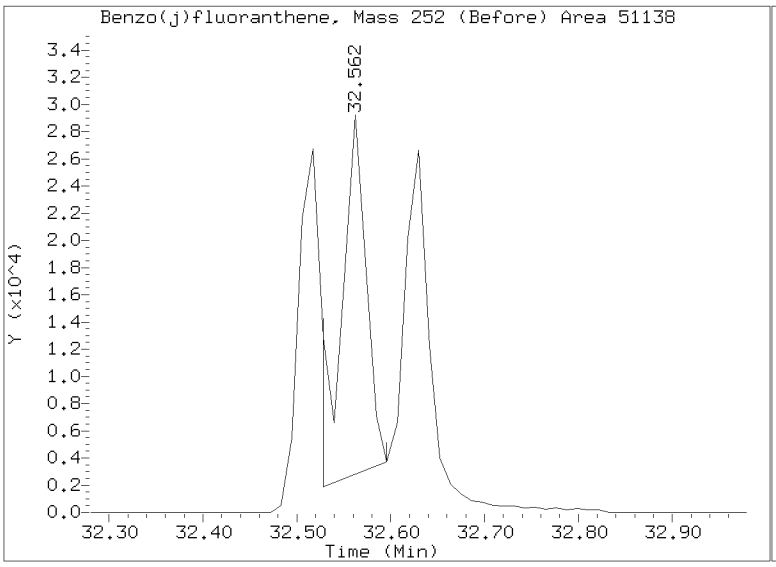


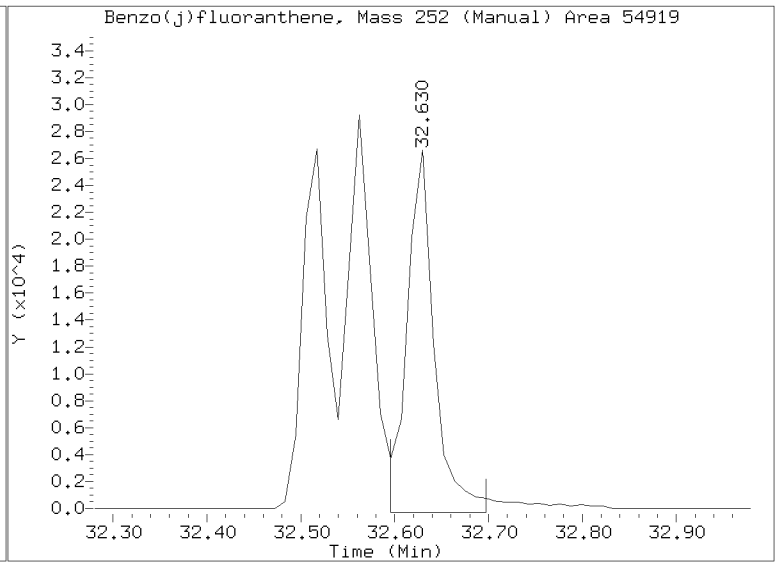
Quant Ion Manual Peak Adjustment Report

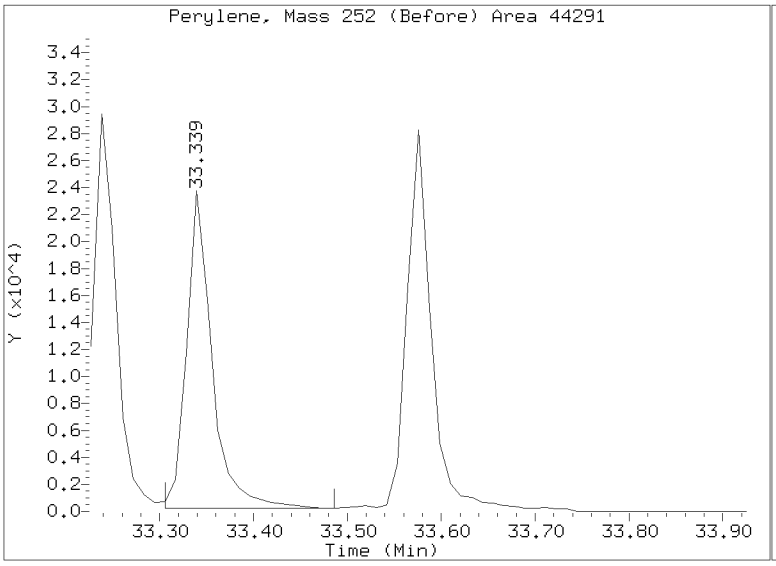
Datafile: //target/share/chem3/nt14.i/20210529.b/NT1421052912.D
Injection Date: 29-MAY-2021 17:13
Lab ID:SJF0025-CAL3 Client ID:
Report Date: 06/02/2021 19:03

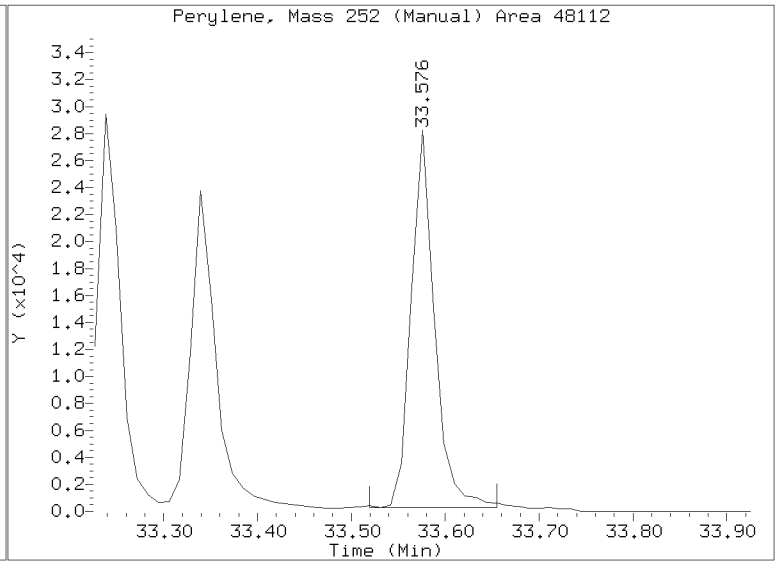












Quant Ion Manual Peak Adjustment Report

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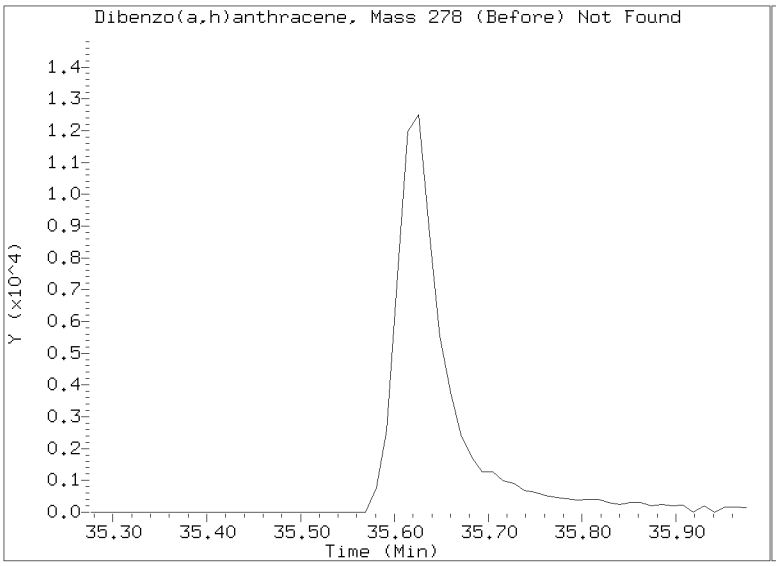
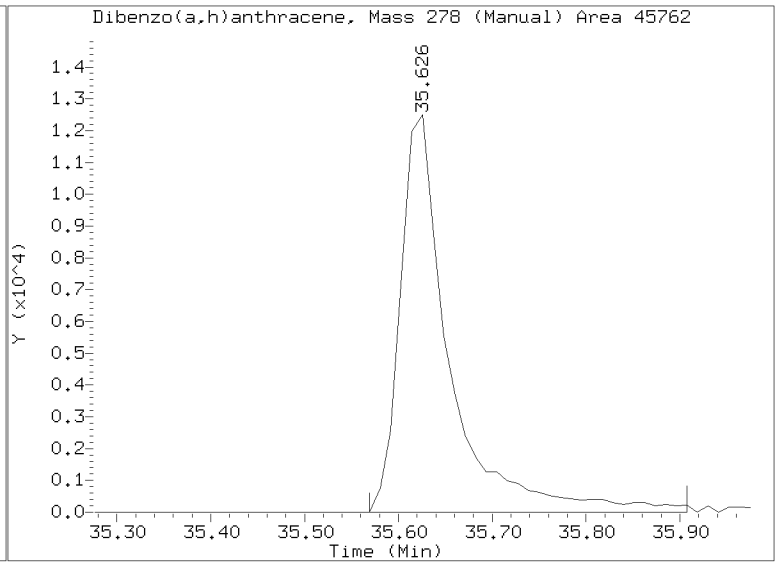
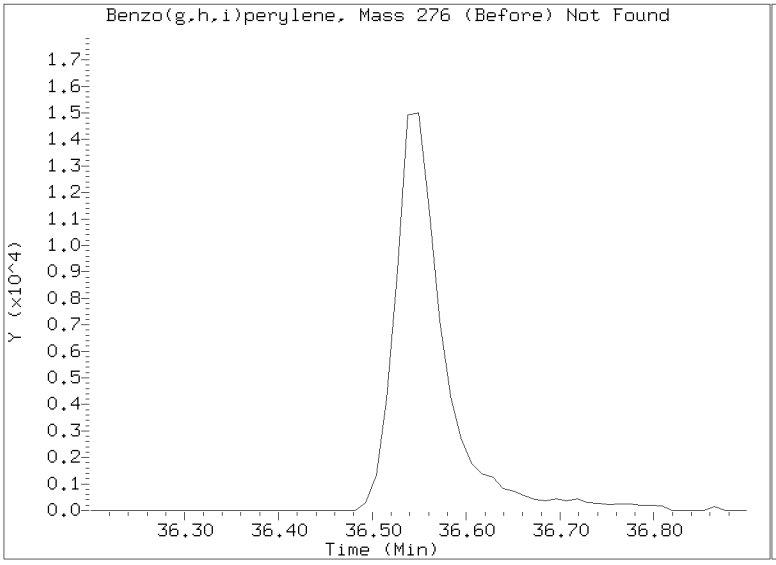
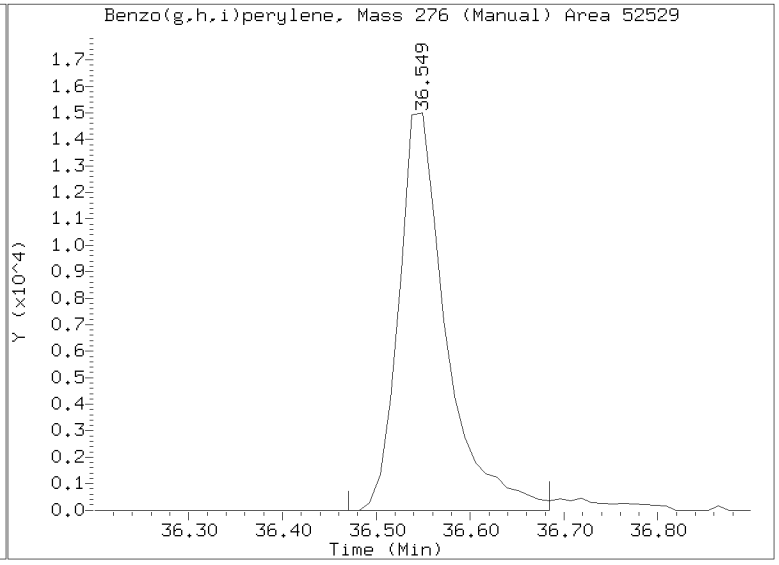
Injection Date: 29-MAY-2021 17:13
Lab ID:SJF0025-CAL3 Client ID:
Report Date: 06/02/2021 19:03









Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052913.D

Date : 29-MAY-2021 18:01

Client ID:

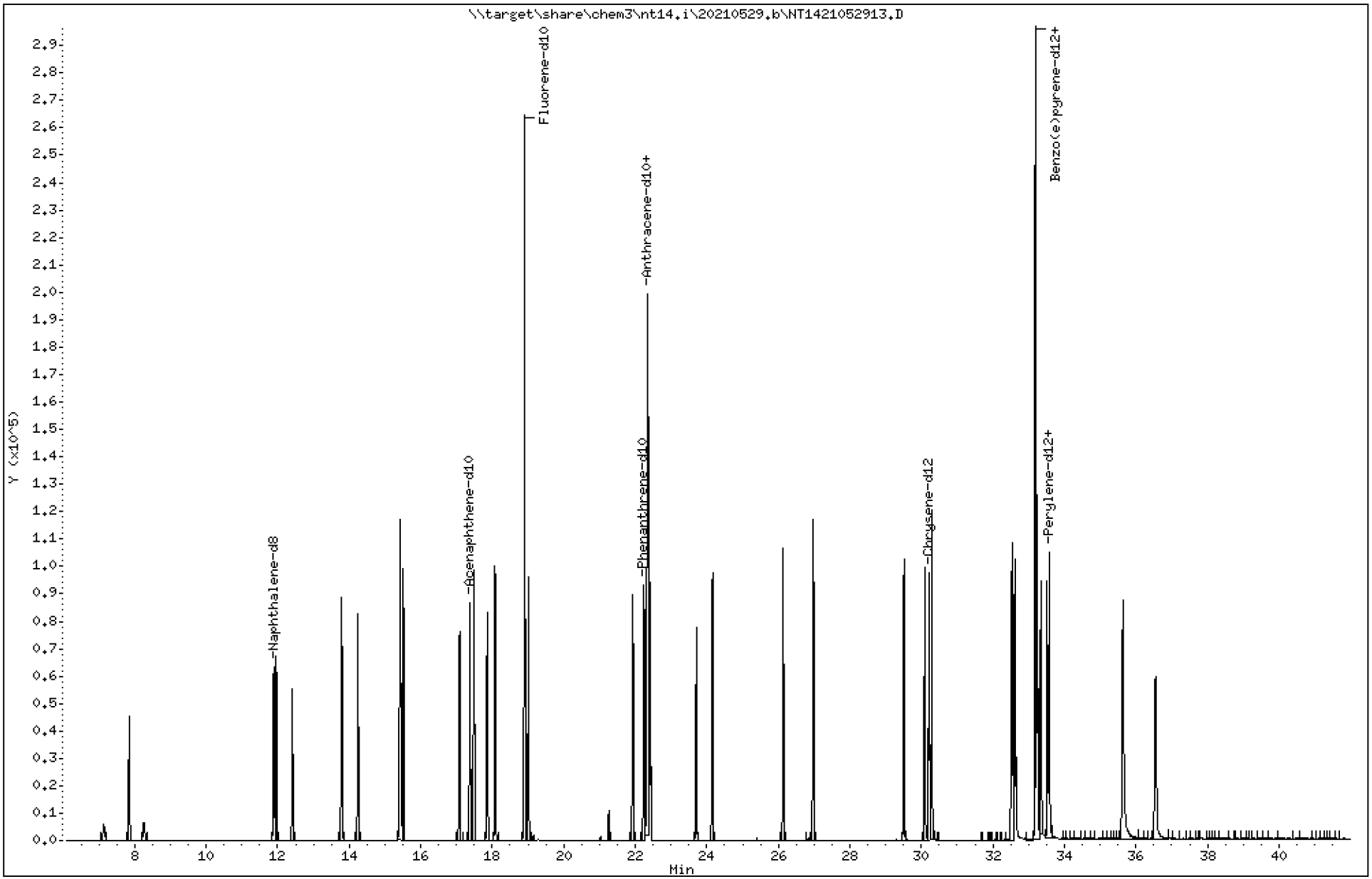
Instrument: nt14.i

Sample Info: SJF0025-CAL4

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210529.b\NT1421052913.D
Lab Smp Id: SJF0025-CAL4
Inj Date : 29-MAY-2021 18:01
Operator : VTS Inst ID: nt14.i
Smp Info : SJF0025-CAL4
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Meth Date : 02-Jun-2021 19:03 yev Quant Type: ISTD
Cal Date : 29-MAY-2021 18:01 Cal File: NT1421052913.D
Als bottle: 7 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
	1 trans-Decalin	138	7.136	7.136	(0.377)	9584	1.00000	1.066
	2 cis-Decalin	138	8.266	8.266	(0.437)	7169	1.00000	0.9493
$	6 Naphthalene-d8	136	11.897	11.897	(0.629)	88443	1.00000	1.055
	7 Naphthalene	128	11.957	11.957	(0.632)	88426	1.00000	1.055
	12 Benzo(b)thiophene	134	12.409	12.409	(0.656)	70687	1.00000	1.026
	16 2-Methylnaphthalene	141	13.794	13.794	(0.730)	52025	1.00000	1.062
	17 1-methylnaphthalene	141	14.244	14.244	(0.753)	49989	1.00000	1.049
	18 Biphenyl	154	15.431	15.431	(0.816)	76173	1.00000	1.053
	19 2,6-Dimethylnaphthalene	156	15.508	15.508	(0.820)	56183	1.00000	1.056
	20 Acenaphthylene	152	17.091	17.091	(0.904)	94329	1.00000	1.037
$	21 Acenaphthene-d10	164	17.376	17.376	(0.919)	53728	1.00000	1.044
	22 Acenaphthene	153	17.486	17.486	(0.925)	58956	1.00000	1.051
	23 Dibenzofuran	168	17.860	17.860	(0.945)	88769	1.00000	1.067
	24 1,6,7-Trimethylnaphthalene	170	18.080	18.080	(0.956)	56243	1.00000	1.038
*	25 Fluorene-d10	176	18.907	18.907	(1.000)	180325	2.00000	
	26 Fluorene	166	19.009	19.009	(1.005)	66539	1.00000	1.032
	30 Dibenzothiophene	184	21.931	21.931	(1.160)	94522	1.00000	1.039
$	35 Phenanthrene-d10	188	22.238	22.238	(0.995)	93009	1.00000	1.044
	36 Phenanthrene	178	22.326	22.326	(0.999)	99899	1.00000	1.046(M)
*	250 Anthracene-d10	188	22.359	22.359	(1.000)	185169	2.00000	
	37 Anthracene	178	22.425	22.425	(1.003)	94520	1.00000	1.052
	42 Carbazole	167	23.701	23.701	(1.060)	82155	1.00000	1.037
	43 1-Methylphenanthrene	192	24.162	24.162	(1.081)	71891	1.00000	1.048
	44 Fluoranthene	202	26.130	26.130	(1.169)	109048	1.00000	1.035
	46 Pyrene	202	26.977	26.977	(1.207)	112197	1.00000	1.024
	51 Naphthobenzothiophene	234	29.509	29.509	(1.320)	121970	1.00000	1.036
	55 Benzo(a)anthracene	228	30.095	30.095	(0.907)	104952	1.00000	1.034
$	56 Chrysene-d12	240	30.219	30.219	(0.911)	85687	1.00000	1.046
	57 Chrysene	228	30.286	30.286	(0.913)	104563	1.00000	1.051
	62 Benzo(b)fluoranthene	252	32.517	32.517	(0.980)	102796	1.00000	0.9761(M)
	63 Benzo(k)fluoranthene	252	32.562	32.562	(0.981)	118006	1.00000	1.044(M)
	293 Benzo(j)fluoranthene	252	32.629	32.629	(0.983)	115967	1.00000	1.114(M)
	246 Total Benzofluoranthenes	252	32.562	32.562	(0.981)	318006	3.00000	3.083(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.181	33.181	(1.000)	261813	2.00000	
64 Benzo(e)pyrene	252	33.237	33.237	(1.002)	105844	1.00000	1.025
66 Benzo(a)pyrene	252	33.339	33.339	(1.005)	96161	1.00000	1.024
$ 67 Perylene-d12	264	33.519	33.519	(1.010)	90783	1.00000	1.026
68 Perylene	252	33.575	33.575	(1.012)	98887	1.00000	1.021(M)
69 Indeno(1,2,3-cd)pyrene	276	35.636	35.636	(1.074)	112857	1.00000	1.024(M)
70 Dibenzo(a,h)anthracene	278	35.614	35.614	(1.073)	93780	1.00000	0.9128(M)
74 Benzo(g,h,i)perylene	276	36.549	36.549	(1.101)	111889	1.00000	1.028(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: NT1421052913.D
Lab Smp Id: SJF0025-CAL4
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Misc Info:

Calibration Date: 29-MAY-2021
Calibration Time: 14:01
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	159478	79739	318956	180325	13.07
250 Anthracene-d10	170161	85081	340322	185169	8.82
251 Benzo(e)pyrene-d1	236612	118306	473224	261813	10.65

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.91	18.41	19.41	18.91	-0.00
250 Anthracene-d10	22.36	21.86	22.86	22.36	-0.00
251 Benzo(e)pyrene-d1	33.18	32.68	33.68	33.18	-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 - NT1421052913.D

Lab ID: SJF0025-CAL4
nt14.i, 20210529.b\ALKYLPNA.m,   29-MAY-2021 18:01

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

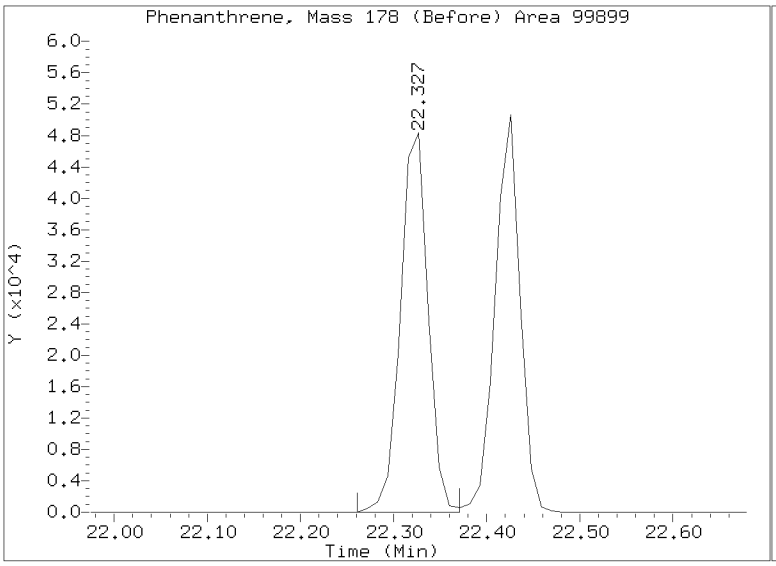
RRT check based on Ccal File: NT1421052913.D

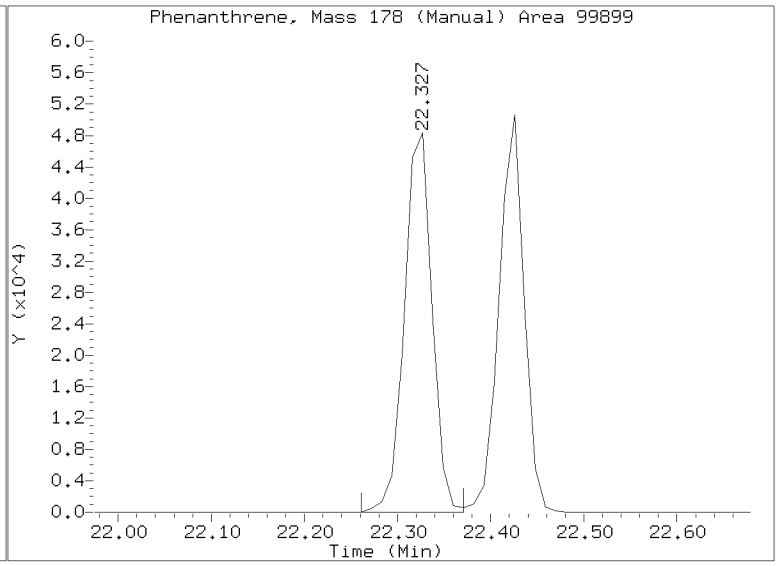
On Column LOD for nt14.i, 20210529.b\ALKYLPNA.m, TARGETS.sub = 0.0000

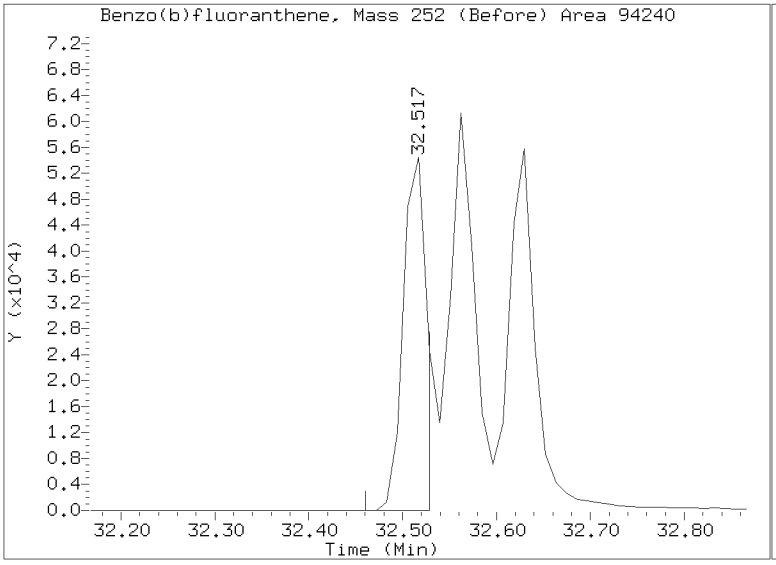
* Only compounds listed in the work order have been verified by the analyst *

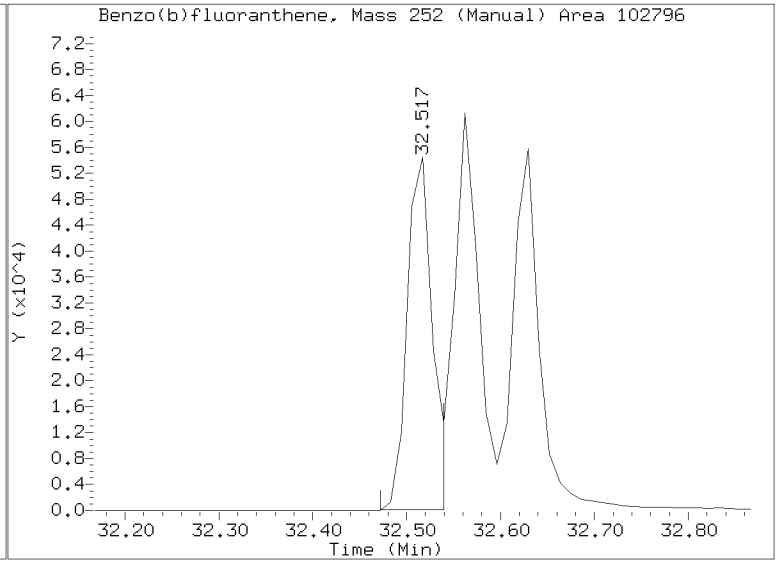
Quant Ion Manual Peak Adjustment Report

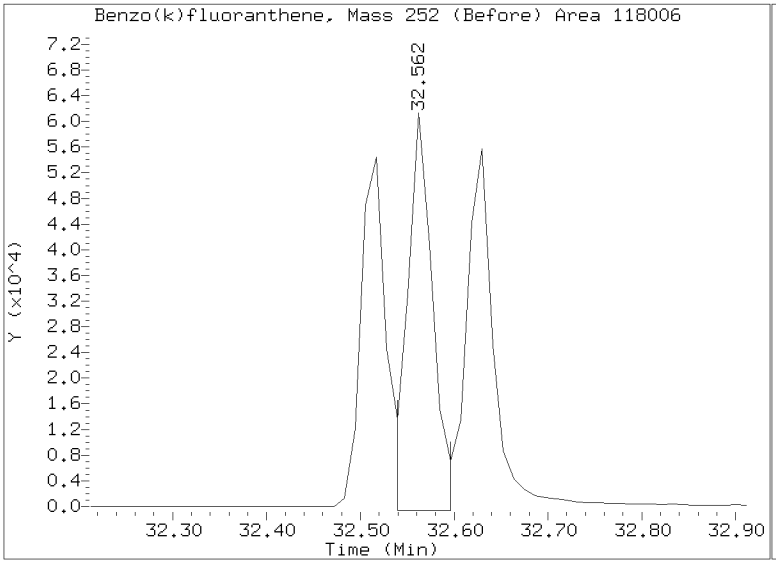
Datafile: //target/share/chem3/nt14.i/20210529.b/NT1421052913.D
Injection Date: 29-MAY-2021 18:01
Lab ID:SJF0025-CAL4 Client ID:
Report Date: 06/02/2021 19:03

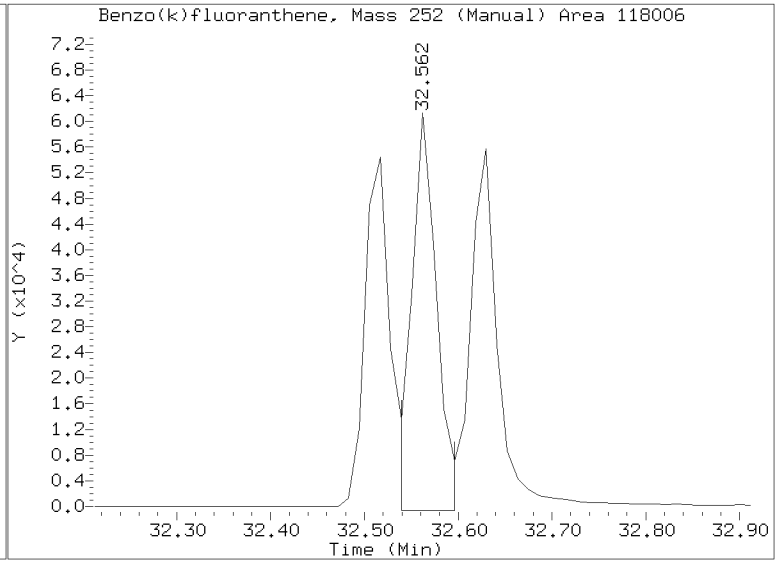












Quant Ion Manual Peak Adjustment Report

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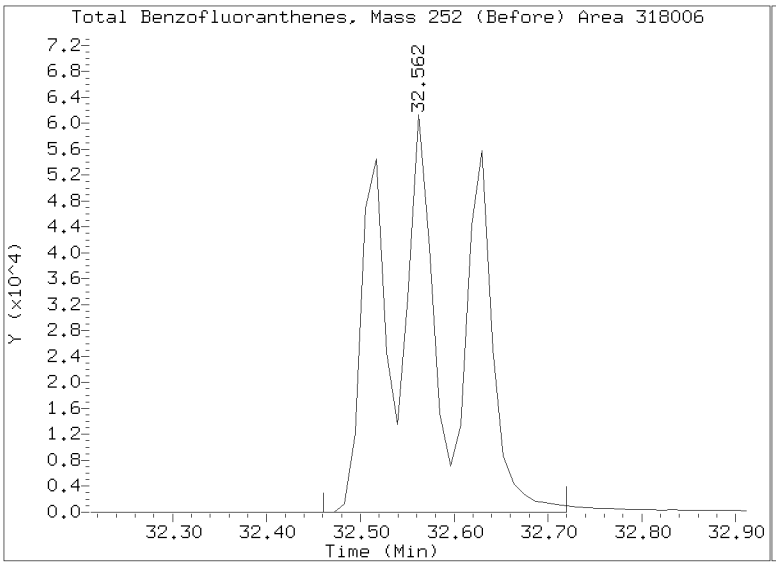
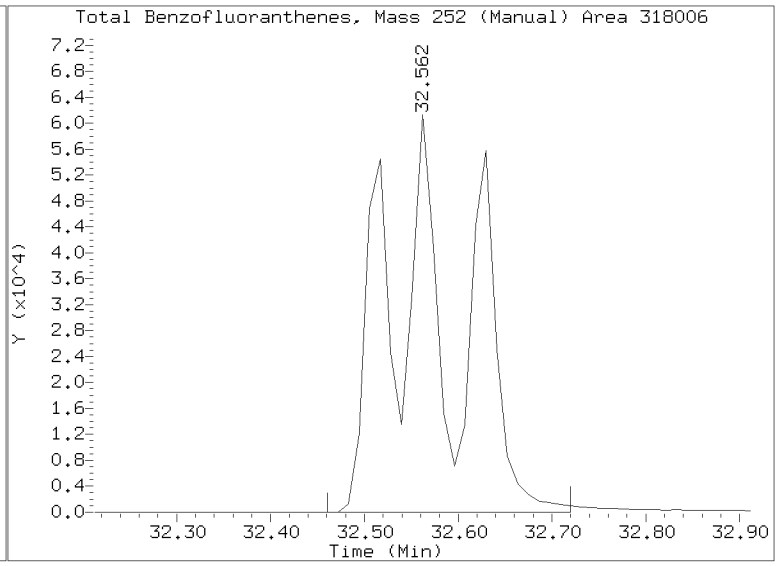
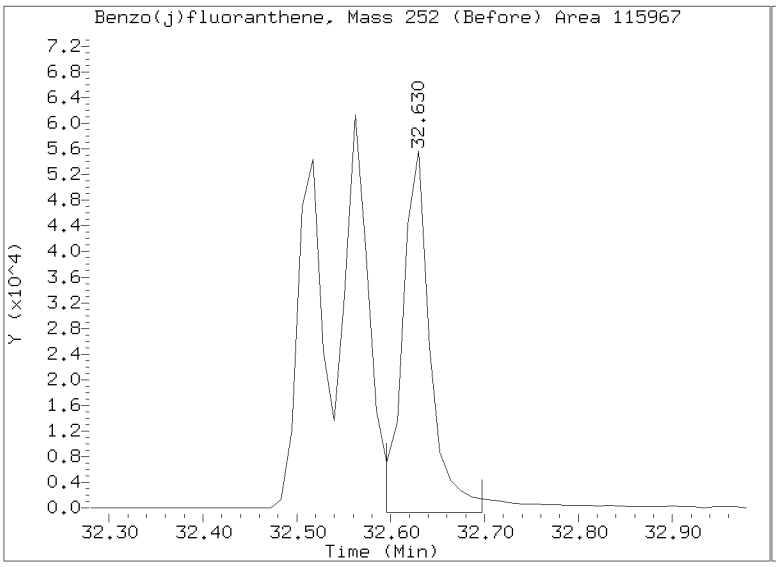
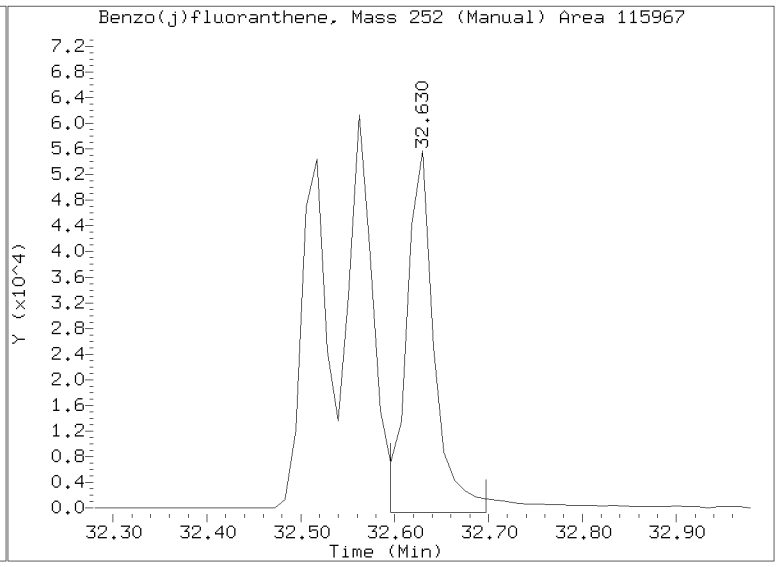
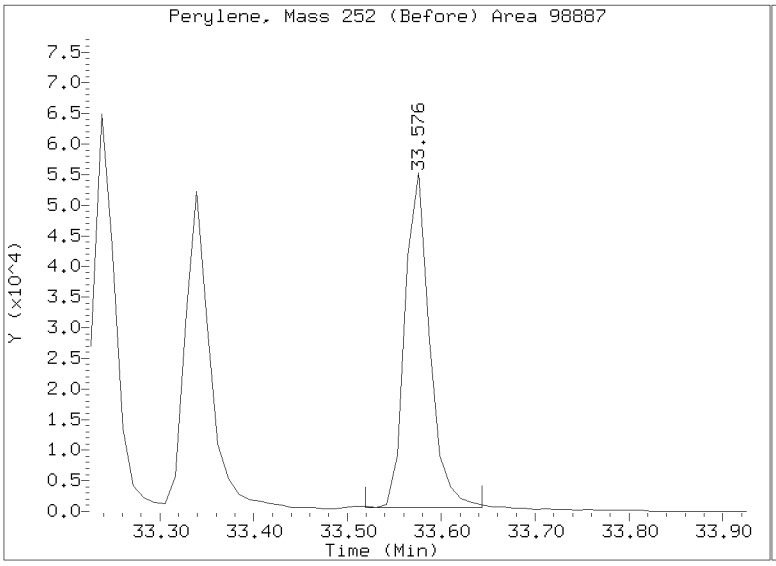
Lab ID:SJF0025-CAL4 Client ID:
Report Date: 06/02/2021 19:03

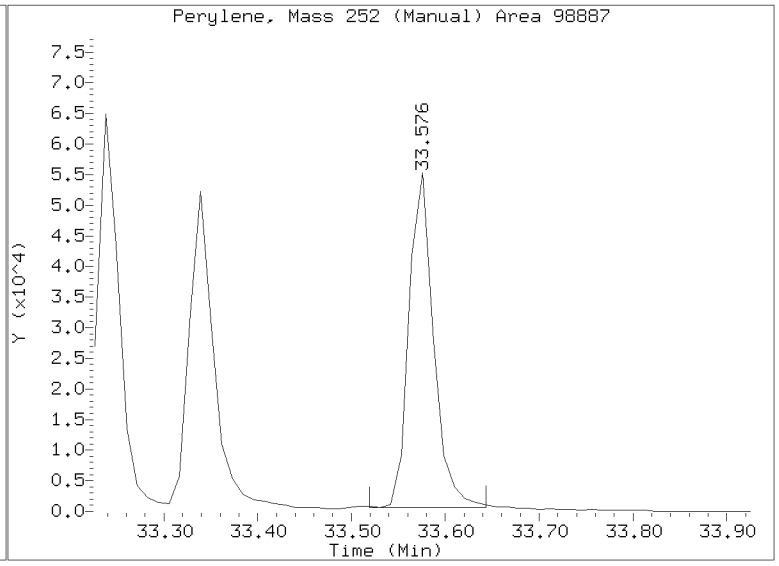












Quant Ion Manual Peak Adjustment Report

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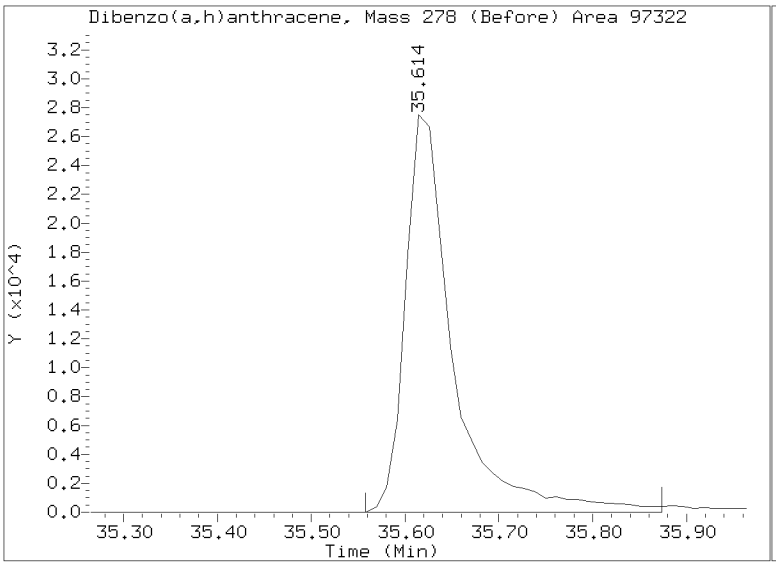
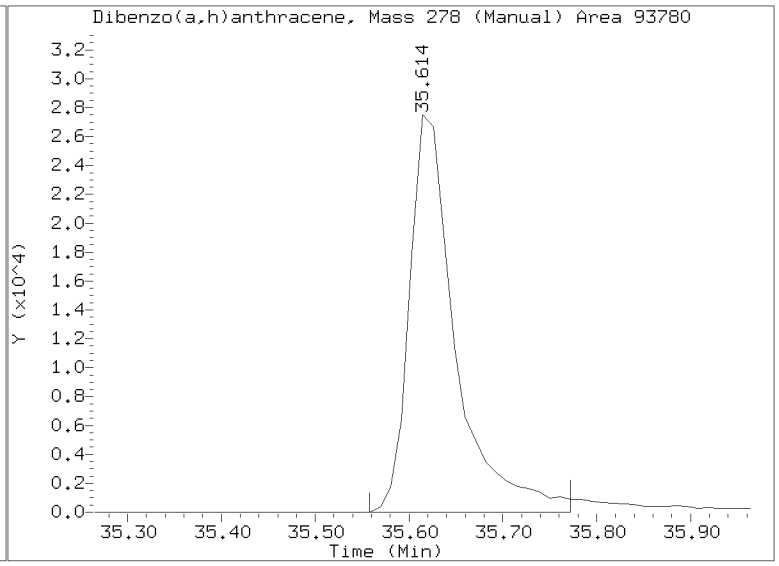
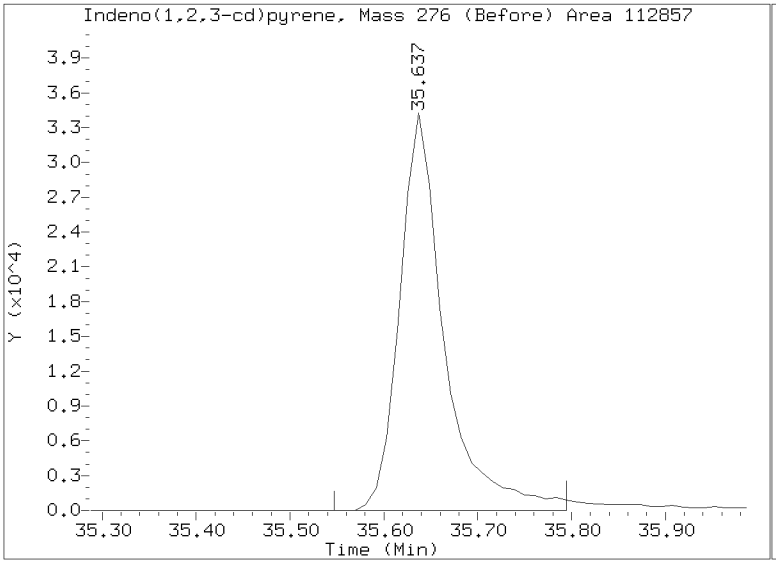
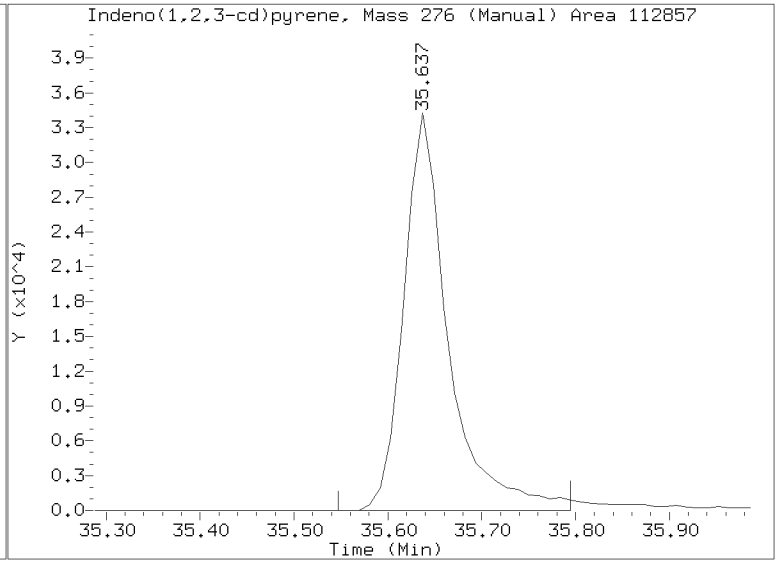
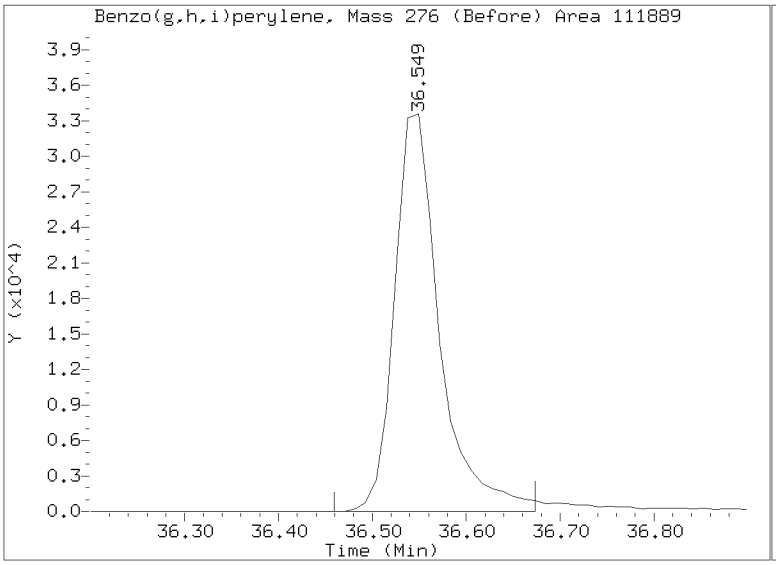
Injection Date: 29-MAY-2021 18:01
Lab ID:SJF0025-CAL4 Client ID:
Report Date: 06/02/2021 19:03

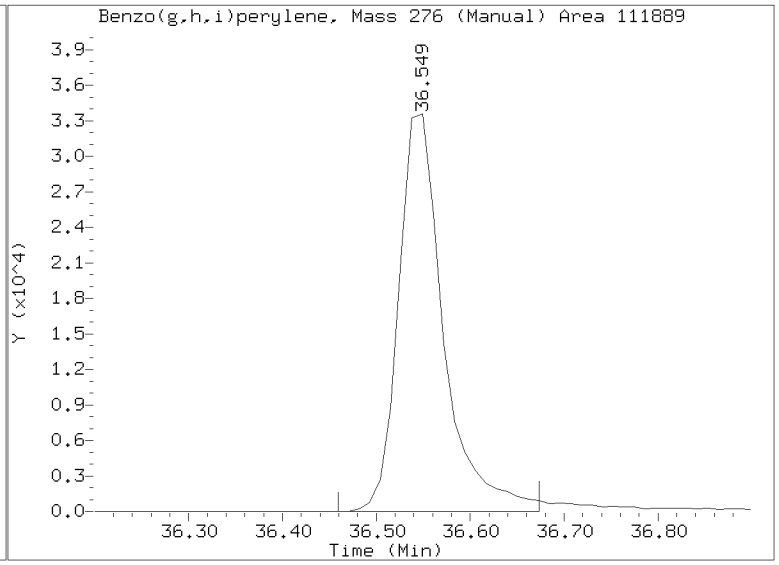












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052914.D

Page 1

Date : 29-MAY-2021 18:49

Client ID:

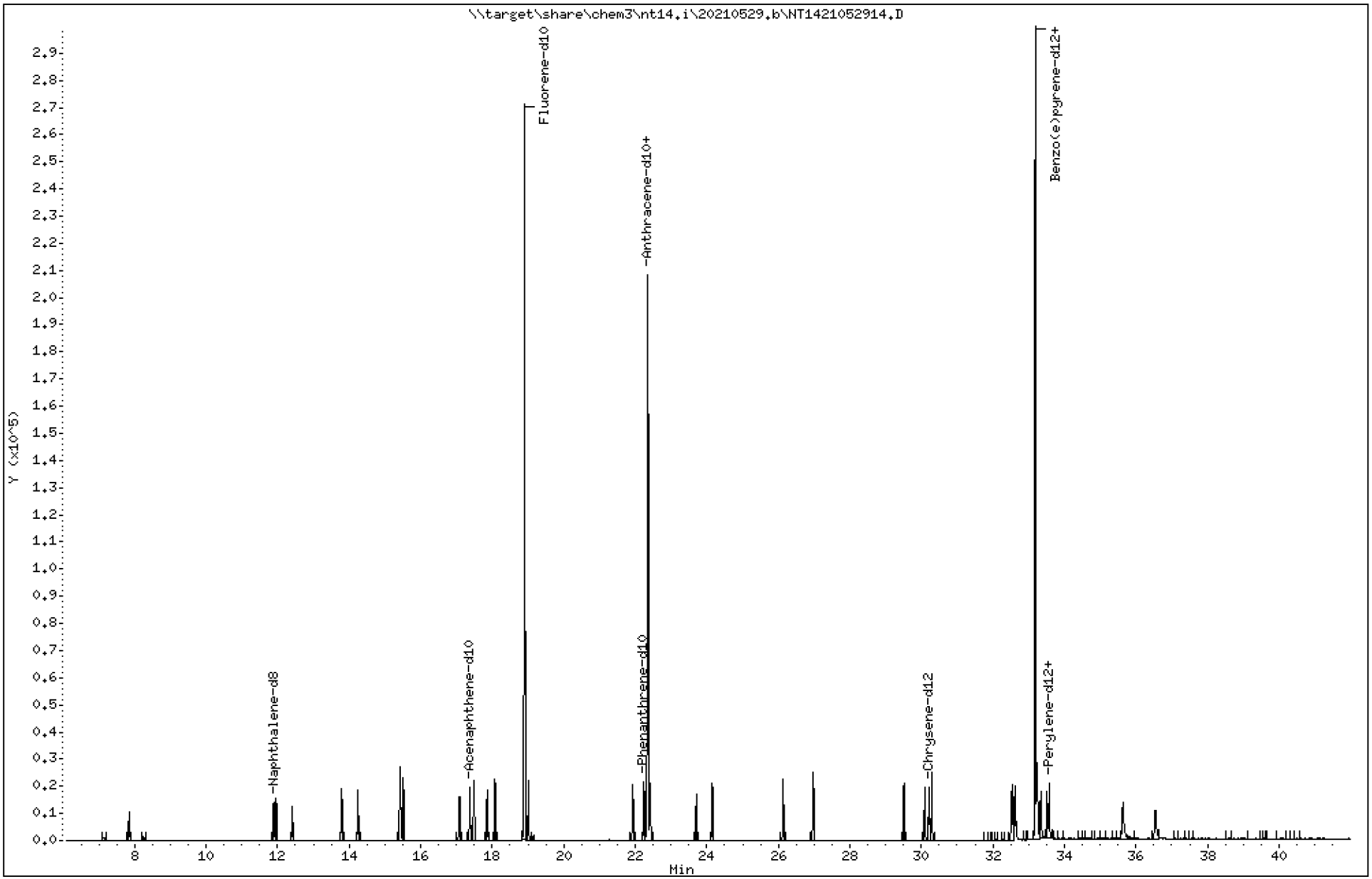
Instrument: nt14.i

Sample Info: SJF0025-CAL2

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210529.b\NT1421052914.D
Lab Smp Id: SJF0025-CAL2
Inj Date : 29-MAY-2021 18:49
Operator : VTS Inst ID: nt14.i
Smp Info : SJF0025-CAL2
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Meth Date : 02-Jun-2021 19:03 yev Quant Type: ISTD
Cal Date : 29-MAY-2021 18:49 Cal File: NT1421052914.D
Als bottle: 8 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
	1 trans-Decalin	138	7.156	7.156	(0.379)	2257	0.25000	0.2451
	2 cis-Decalin	138	8.246	8.246	(0.436)	1426	0.25000	0.1821
$	6 Naphthalene-d8	136	11.897	11.897	(0.629)	20926	0.25000	0.2438
	7 Naphthalene	128	11.957	11.957	(0.632)	20929	0.25000	0.2440
	12 Benzo(b)thiophene	134	12.409	12.409	(0.656)	17312	0.25000	0.2455
	16 2-Methylnaphthalene	141	13.794	13.794	(0.730)	12250	0.25000	0.2443
	17 1-methylnaphthalene	141	14.244	14.244	(0.753)	11816	0.25000	0.2422
	18 Biphenyl	154	15.431	15.431	(0.816)	18550	0.25000	0.2503
	19 2,6-Dimethylnaphthalene	156	15.508	15.508	(0.820)	13774	0.25000	0.2528
	20 Acenaphthylene	152	17.091	17.091	(0.904)	21716	0.25000	0.2331
$	21 Acenaphthene-d10	164	17.377	17.377	(0.919)	12683	0.25000	0.2406
	22 Acenaphthene	153	17.486	17.486	(0.925)	13883	0.25000	0.2418
	23 Dibenzofuran	168	17.860	17.860	(0.945)	20539	0.25000	0.2411
	24 1,6,7-Trimethylnaphthalene	170	18.080	18.080	(0.956)	12771	0.25000	0.2301
*	25 Fluorene-d10	176	18.907	18.907	(1.000)	184642	2.00000	
	26 Fluorene	166	19.009	19.009	(1.005)	16013	0.25000	0.2426
	30 Dibenzothiophene	184	21.931	21.931	(1.160)	21520	0.25000	0.2310
$	35 Phenanthrene-d10	188	22.239	22.239	(0.995)	22525	0.25000	0.2436
	36 Phenanthrene	178	22.327	22.327	(0.999)	24297	0.25000	0.2452
*	250 Anthracene-d10	188	22.360	22.360	(1.000)	192206	2.00000	
	37 Anthracene	178	22.425	22.425	(1.003)	22956	0.25000	0.2462
	42 Carbazole	167	23.701	23.701	(1.060)	18778	0.25000	0.2283
	43 1-Methylphenanthrene	192	24.151	24.151	(1.080)	15805	0.25000	0.2219
	44 Fluoranthene	202	26.131	26.131	(1.169)	24930	0.25000	0.2279
	46 Pyrene	202	26.977	26.977	(1.207)	25128	0.25000	0.2209
	51 Naphthobenzothiophene	234	29.509	29.509	(1.320)	26538	0.25000	0.2171
	55 Benzo(a)anthracene	228	30.095	30.095	(0.907)	22235	0.25000	0.2162
$	56 Chrysene-d12	240	30.219	30.219	(0.911)	19390	0.25000	0.2336
	57 Chrysene	228	30.287	30.287	(0.913)	23931	0.25000	0.2374
	62 Benzo(b)fluoranthene	252	32.517	32.517	(0.980)	21800	0.25000	0.2044(M)
	63 Benzo(k)fluoranthene	252	32.562	32.562	(0.981)	28179	0.25000	0.2462
	293 Benzo(j)fluoranthene	252	32.629	32.629	(0.983)	27166	0.25000	0.2576(H)
	246 Total Benzofluoranthenes	252	32.562	32.562	(0.981)	69324	0.75000	0.6635(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.181	33.181	(1.000)	265187	2.00000	
64 Benzo(e)pyrene	252	33.238	33.238	(1.002)	24356	0.25000	0.2330
66 Benzo(a)pyrene	252	33.339	33.339	(1.005)	21515	0.25000	0.2262(M)
$ 67 Perylene-d12	264	33.519	33.519	(1.010)	19920	0.25000	0.2223
68 Perylene	252	33.575	33.575	(1.012)	20842	0.25000	0.2125(M)
69 Indeno(1,2,3-cd)pyrene	276	35.637	35.637	(1.074)	21559	0.25000	0.1931(M)
70 Dibenzo(a,h)anthracene	278	35.614	35.614	(1.073)	18125	0.25000	0.1750
74 Benzo(g,h,i)perylene	276	36.549	36.549	(1.101)	23883	0.25000	0.2165

QC Flag Legend

M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421052914.D
Lab Smp Id: SJF0025-CAL2
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Misc Info:

Calibration Date: 29-MAY-2021
Calibration Time: 14:01
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	159478	79739	318956	184642	15.78
250 Anthracene-d10	170161	85081	340322	192206	12.96
251 Benzo(e)pyrene-d1	236612	118306	473224	265187	12.08

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.91	18.41	19.41	18.91	-0.00
250 Anthracene-d10	22.36	21.86	22.86	22.36	-0.00
251 Benzo(e)pyrene-d1	33.18	32.68	33.68	33.18	-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 - NT1421052914.D

Lab ID: SJF0025-CAL2
nt14.i, 20210529.b\ALKYLPNA.m,   29-MAY-2021 18:49

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

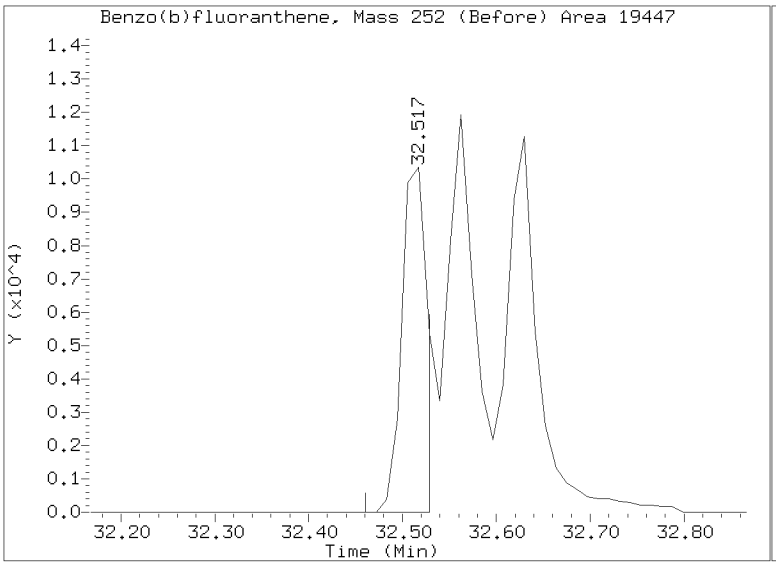
RRT check based on Ccal File: NT1421052914.D

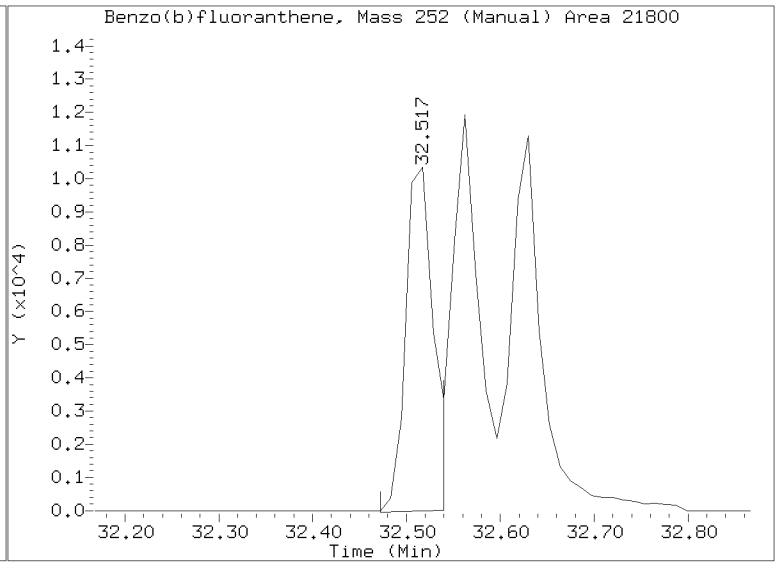
On Column LOD for nt14.i, 20210529.b\ALKYLPNA.m, TARGETS.sub = 0.0000

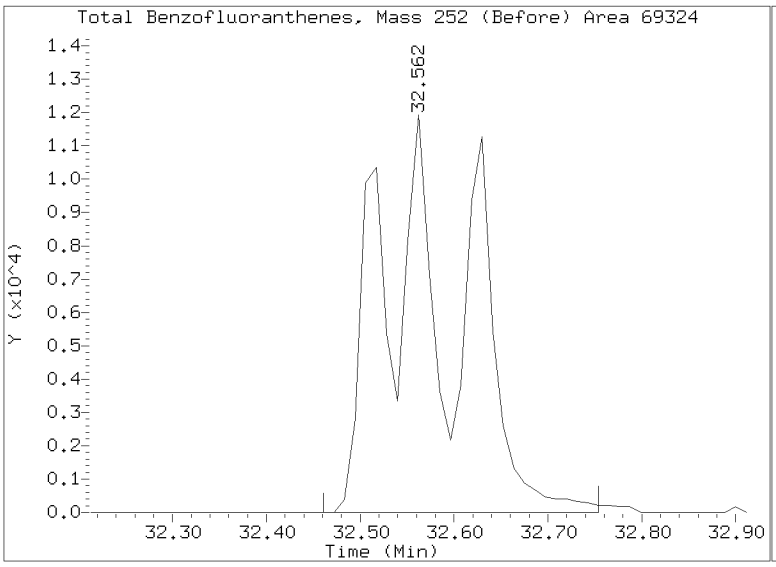
* Only compounds listed in the work order have been verified by the analyst *

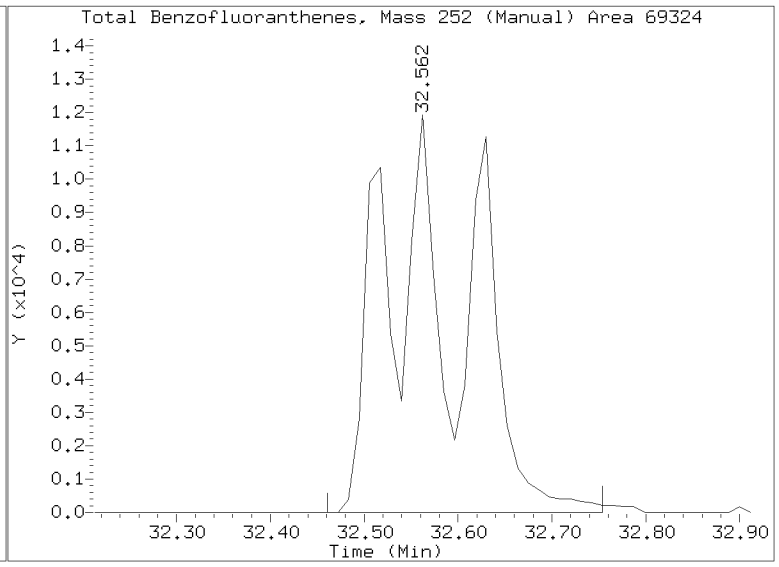
Quant Ion Manual Peak Adjustment Report

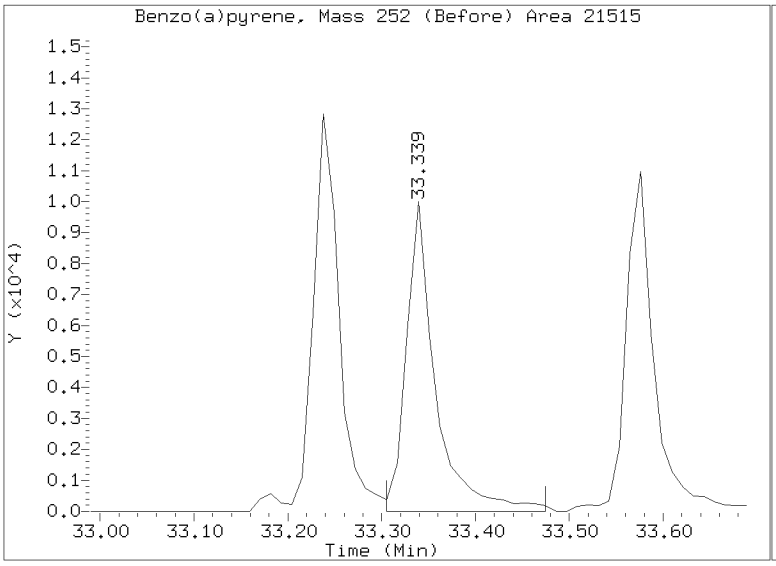
Datafile: //target/share/chem3/nt14.i/20210529.b/NT1421052914.D
Injection Date: 29-MAY-2021 18:49
Lab ID:SJF0025-CAL2 Client ID:
Report Date: 06/02/2021 19:03

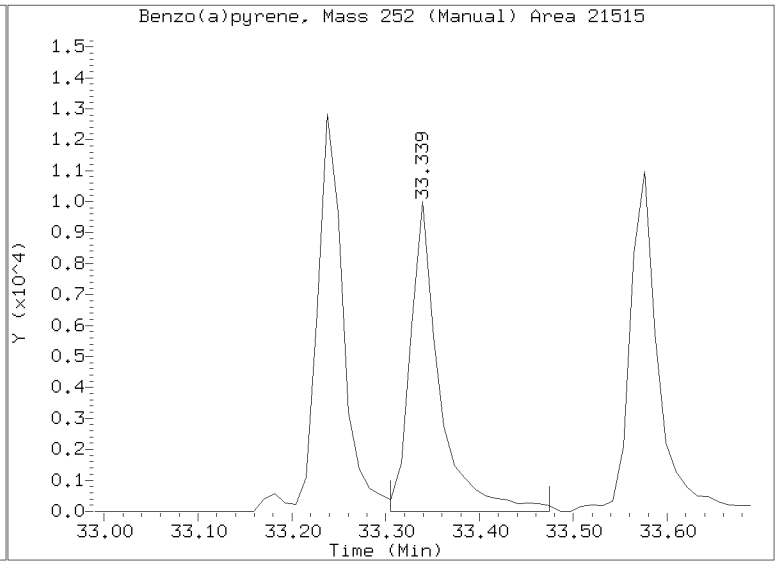






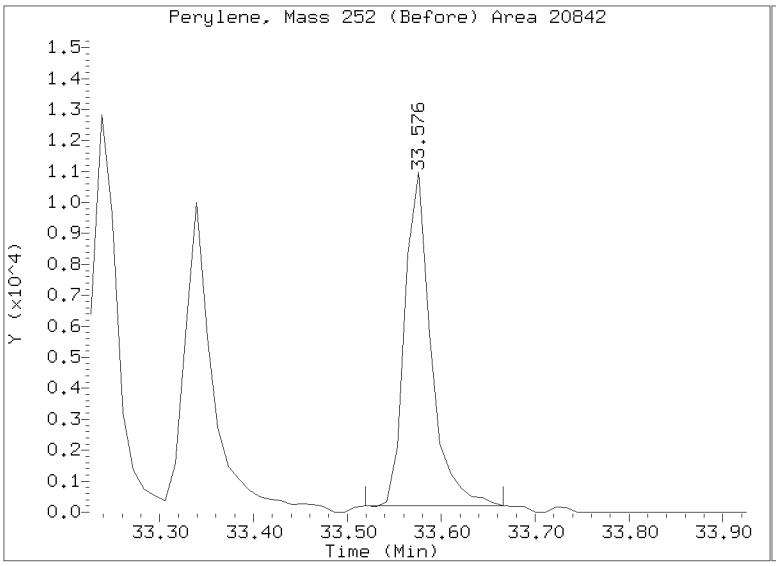


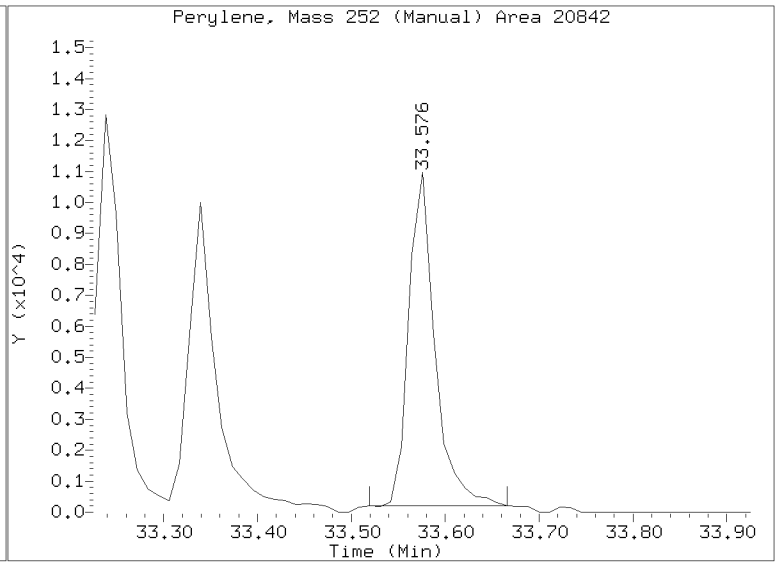


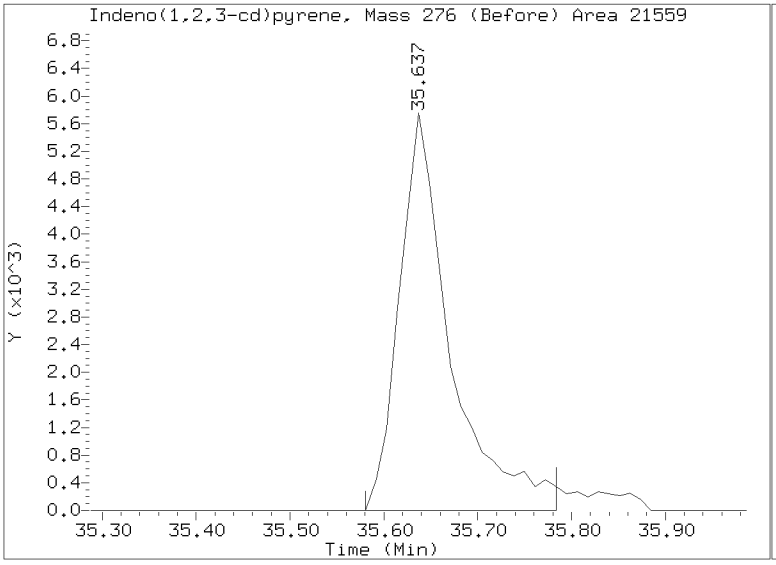


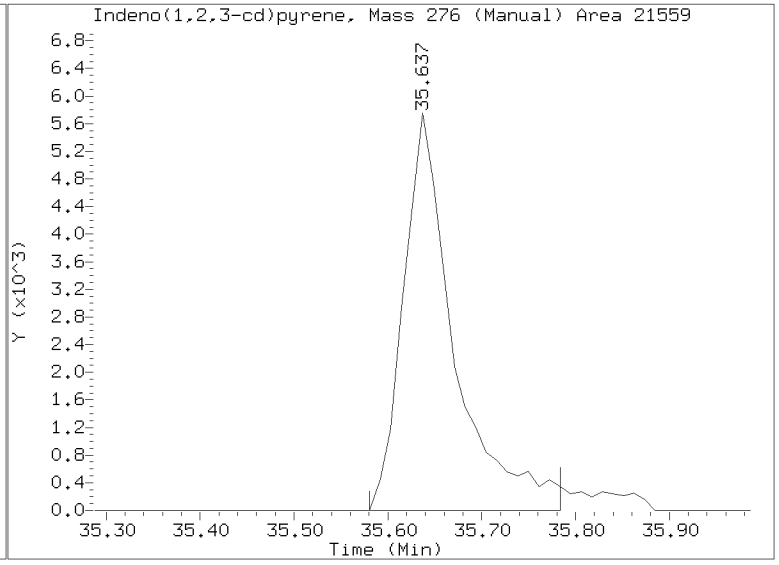
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210529.b/NT1421052914.D
Injection Date: 29-MAY-2021 18:49
Lab ID:SJF0025-CAL2 Client ID:
Report Date: 06/02/2021 19:03









Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Page 1

Date : 29-MAY-2021 19:38

Client ID:

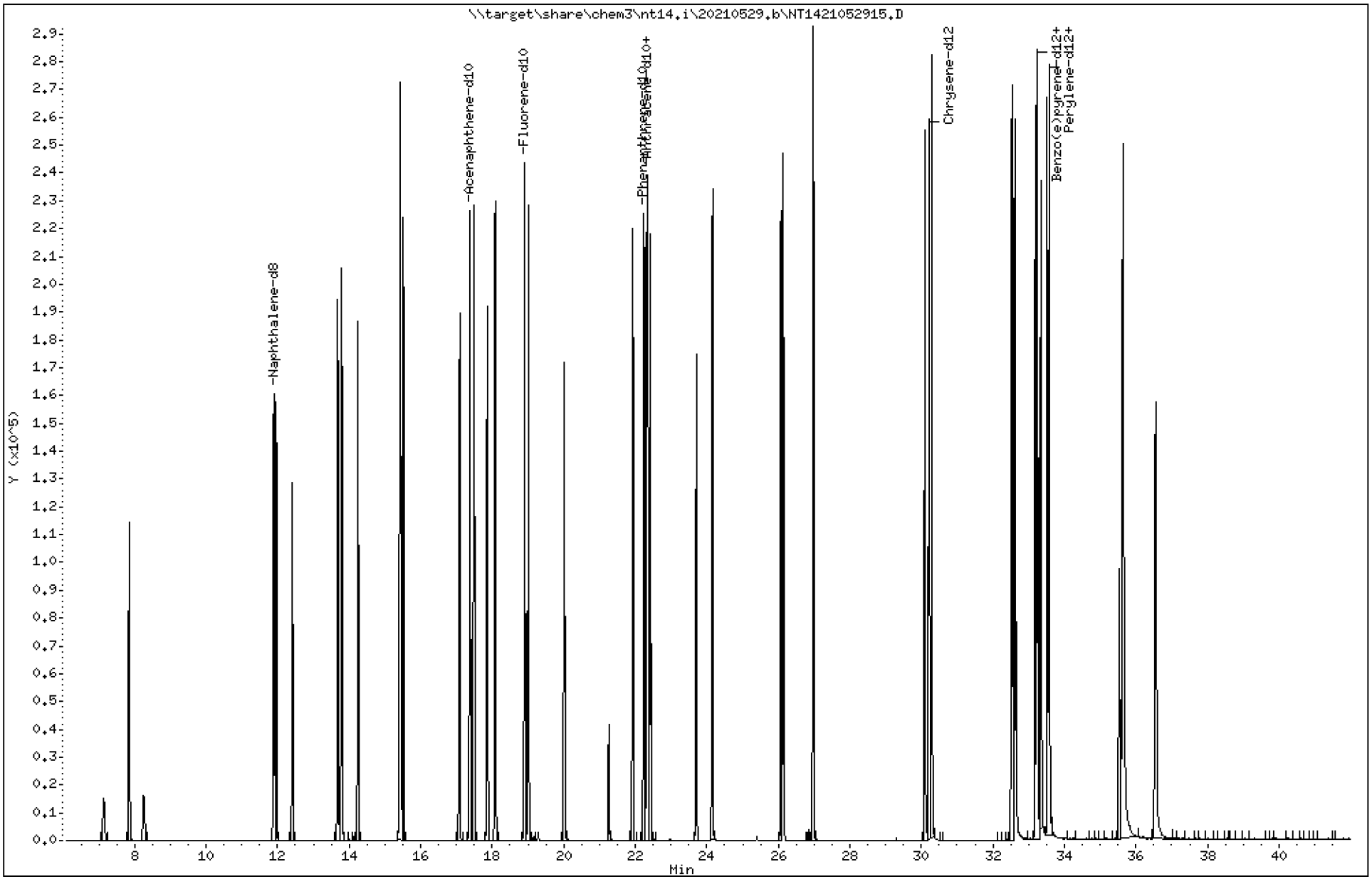
Instrument: nt14.i

Sample Info: SJF0025-SCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

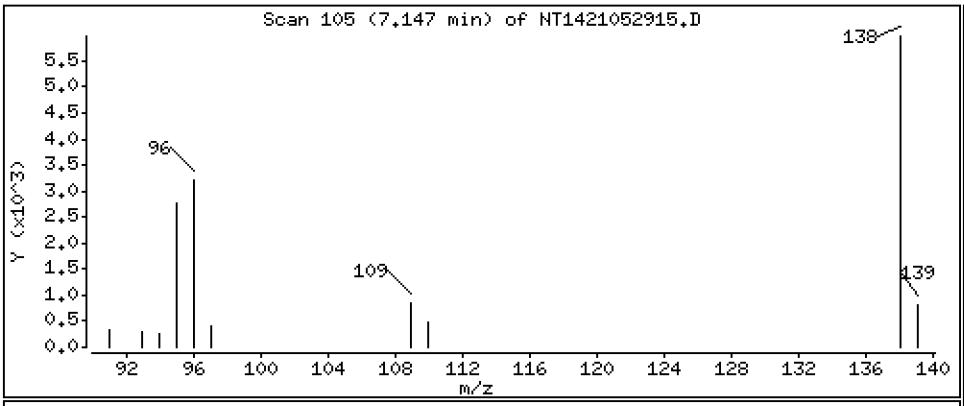
Operator: VTS

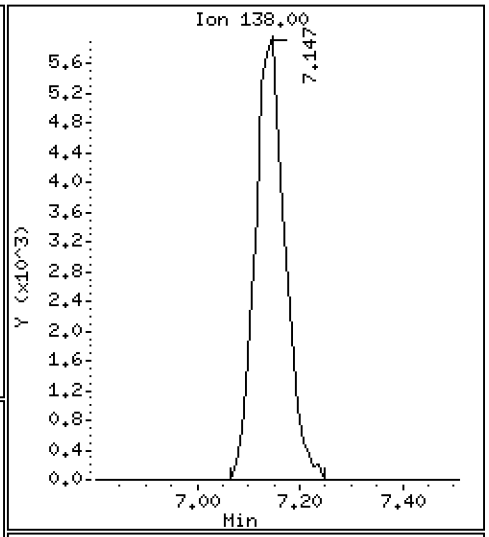
Column phase: Rxi-17Sil MS

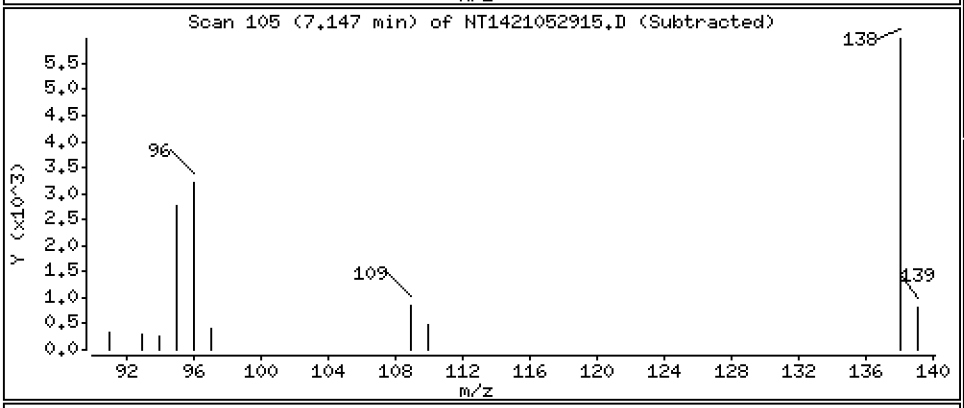
Column diameter: 0.25

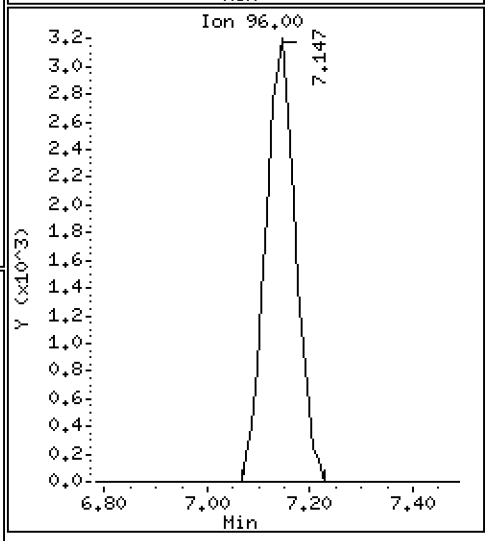
1 trans-Decalin

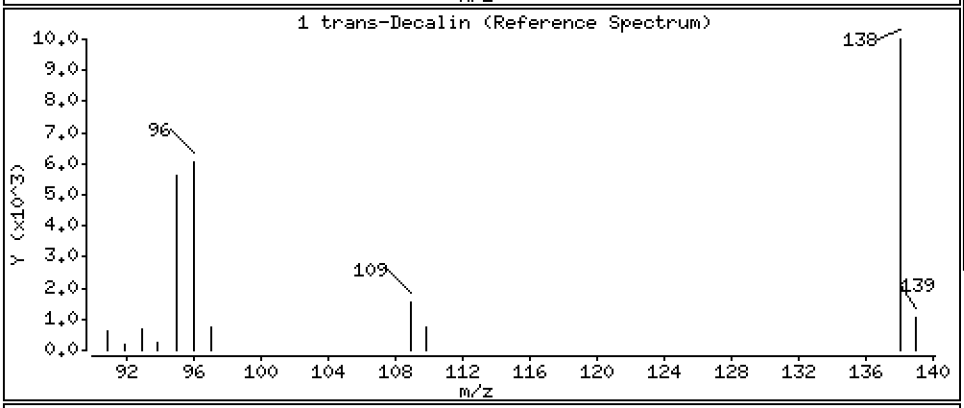
Concentration: 2.939 ug/mL

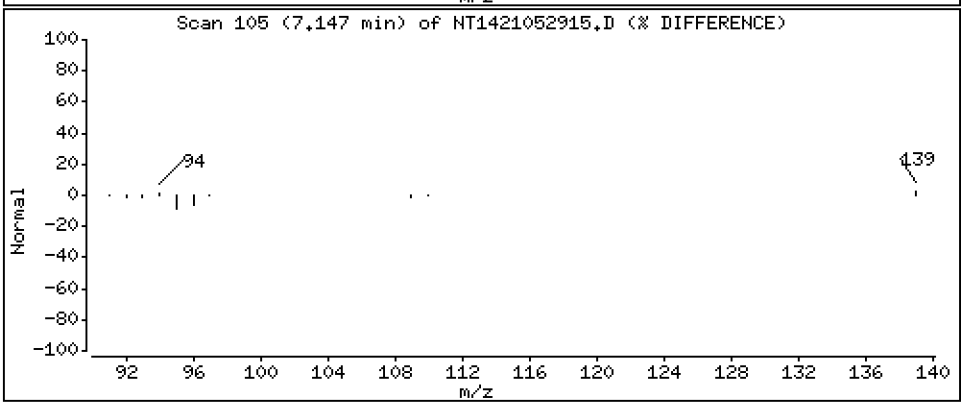












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

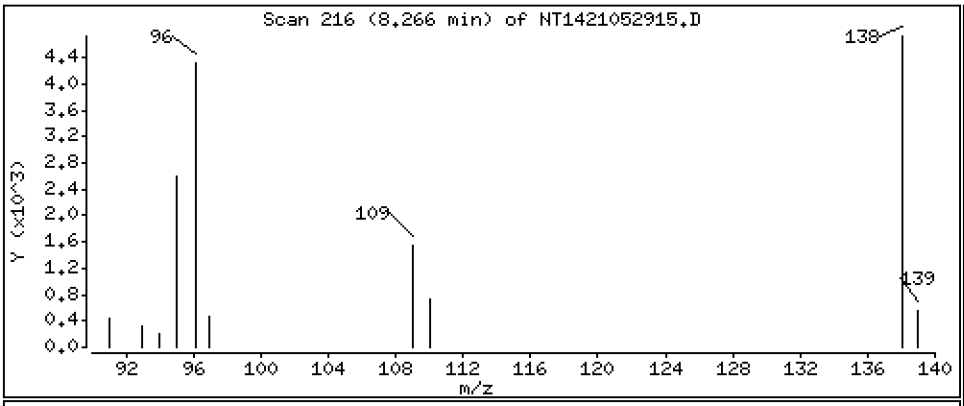
Operator: VTS

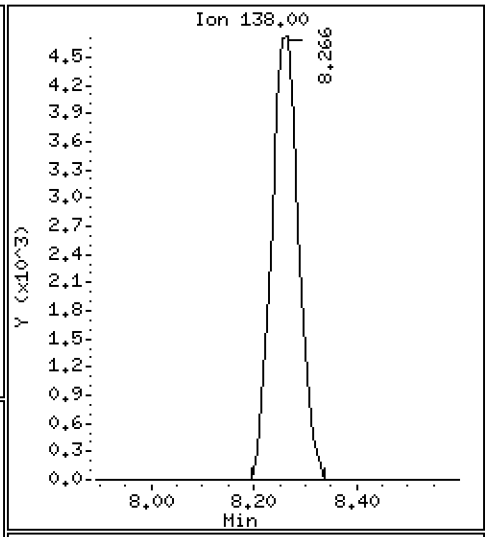
Column phase: Rxi-17Sil MS

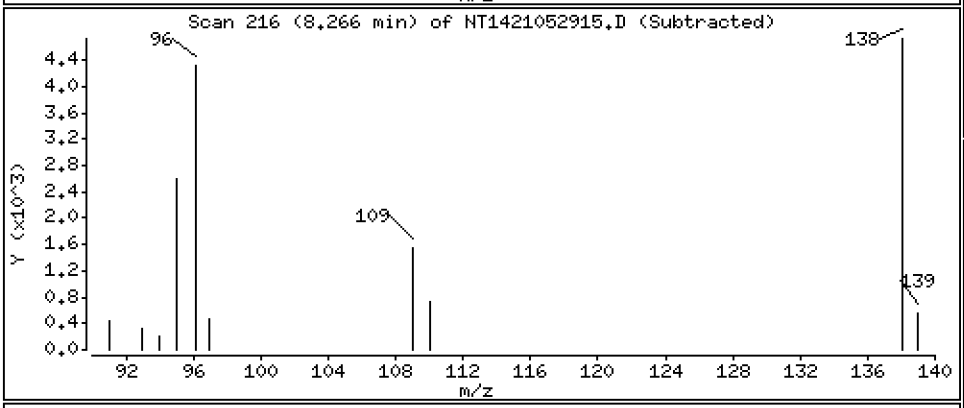
Column diameter: 0.25

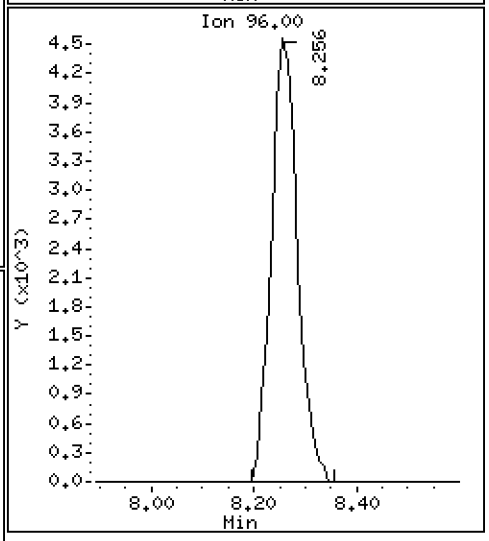
2 cis-Decalin

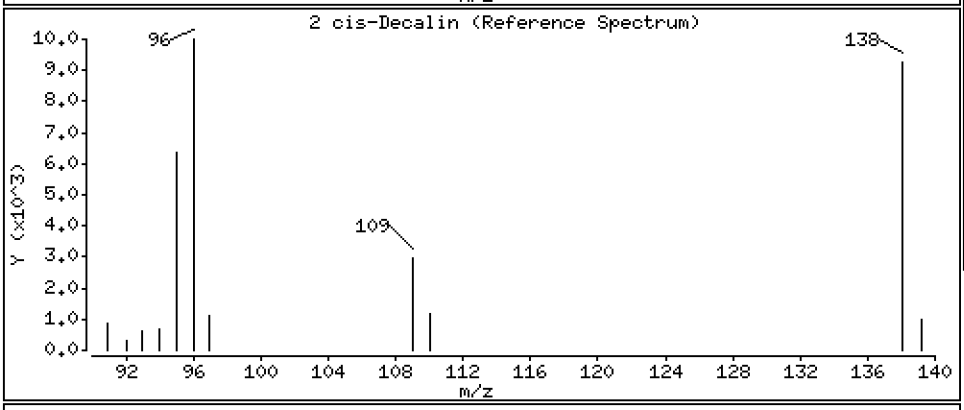
Concentration: 2.555 ug/mL

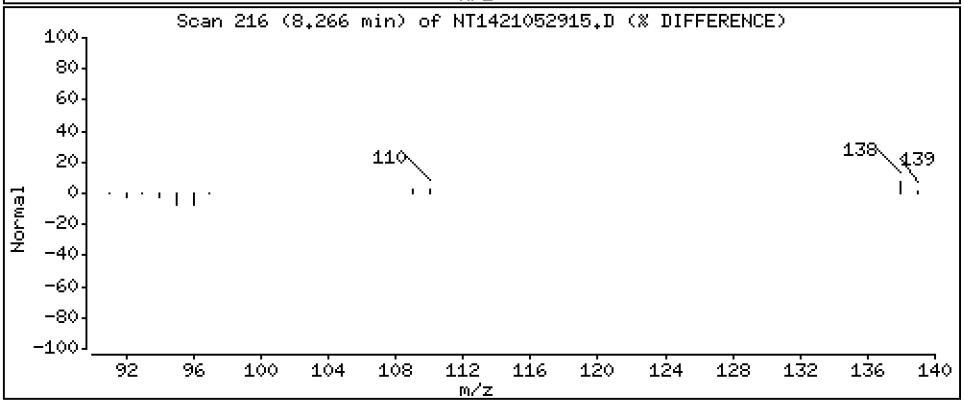












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

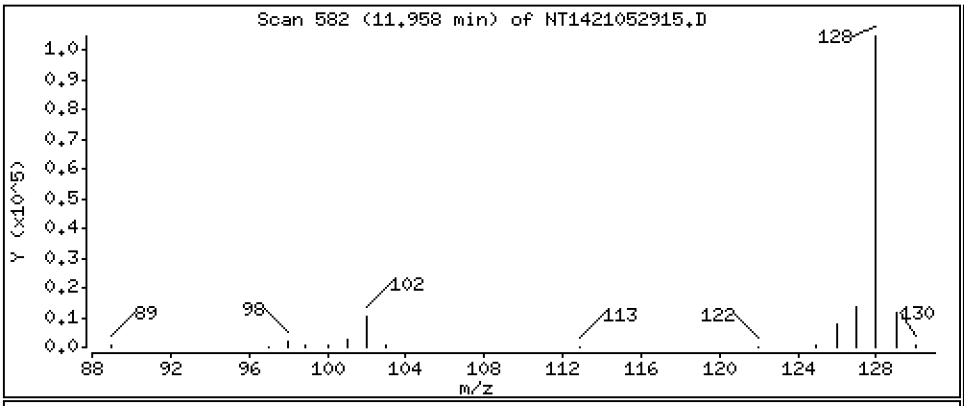
Operator: VTS

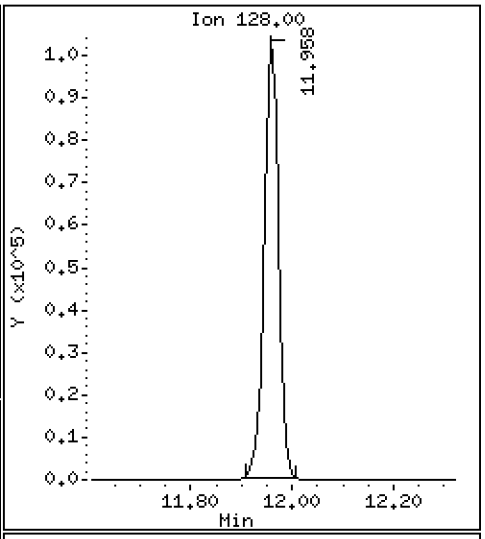
Column phase: Rxi-17Sil MS

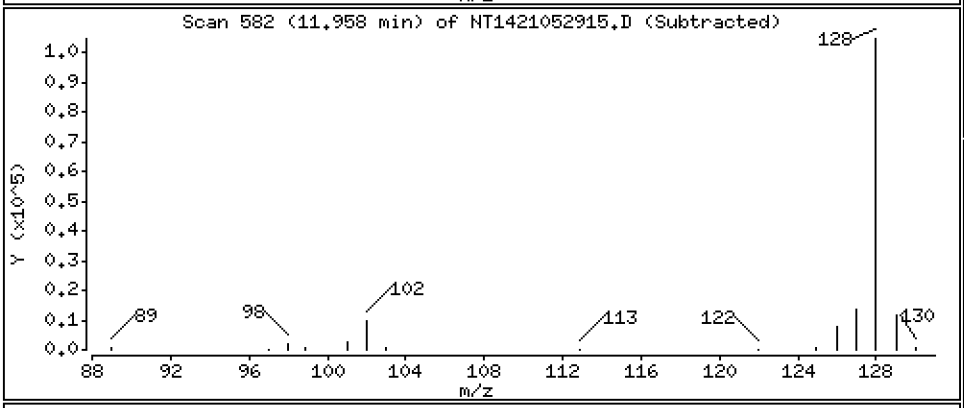
Column diameter: 0.25

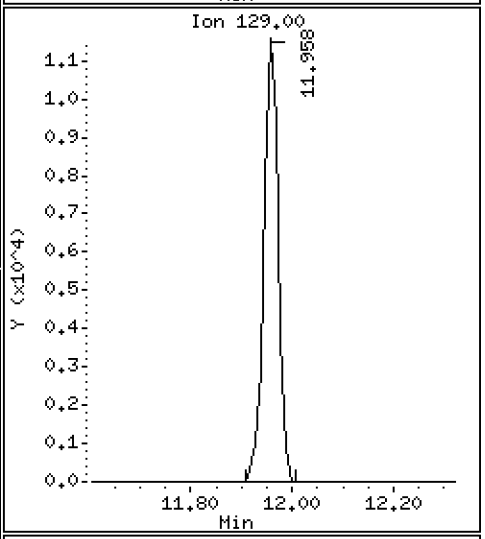
7 Naphthalene

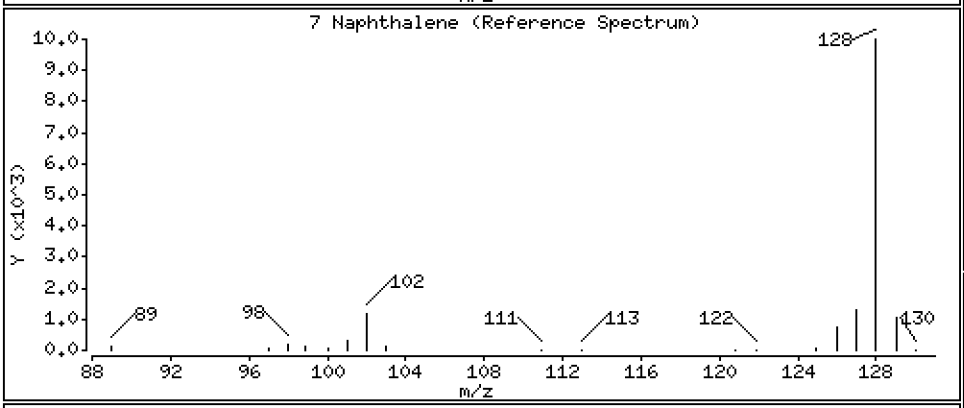
Concentration: 2.625 ug/mL

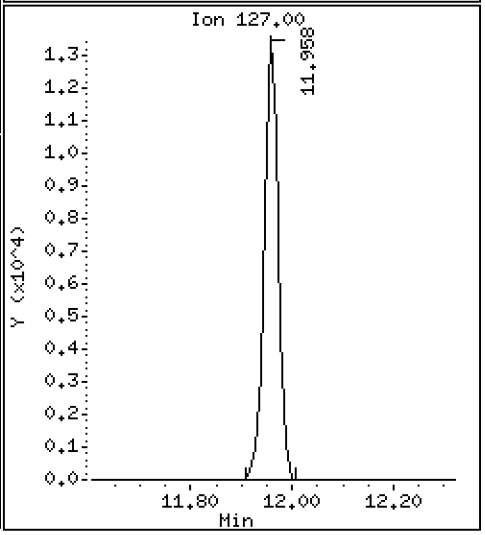


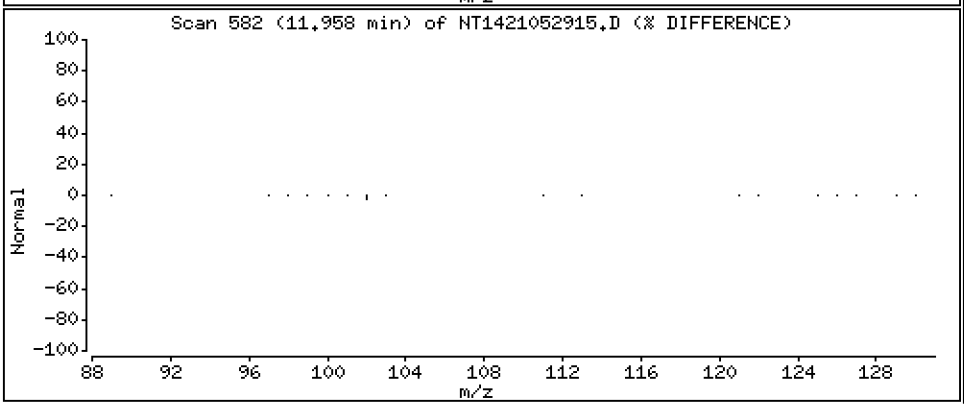












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

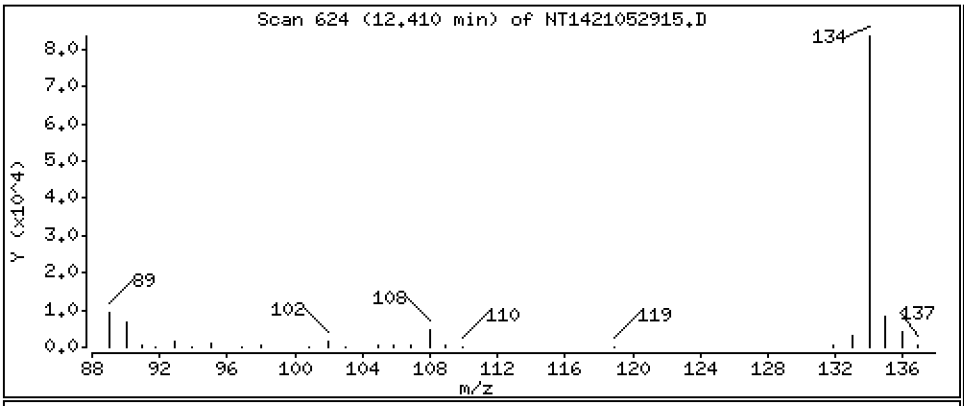
Operator: VTS

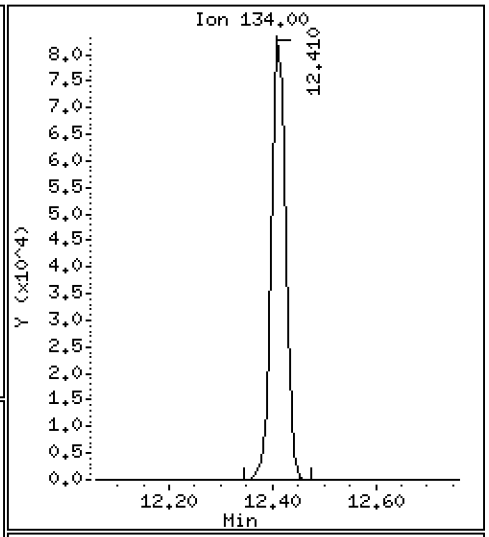
Column phase: Rxi-17Sil MS

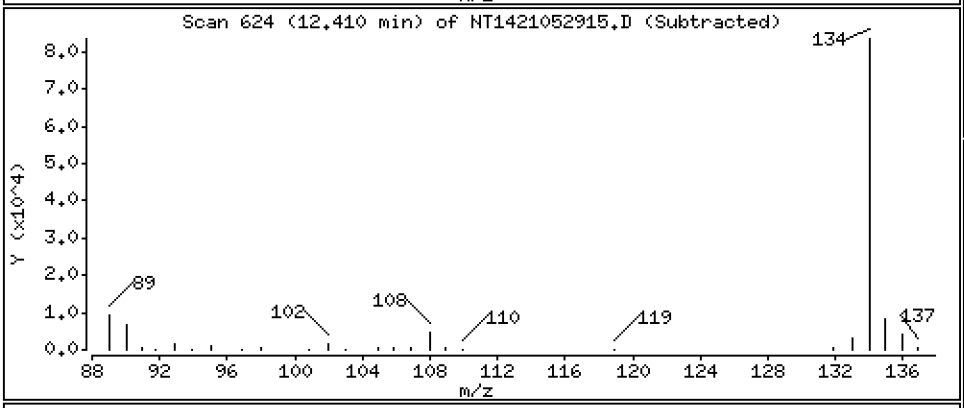
Column diameter: 0.25

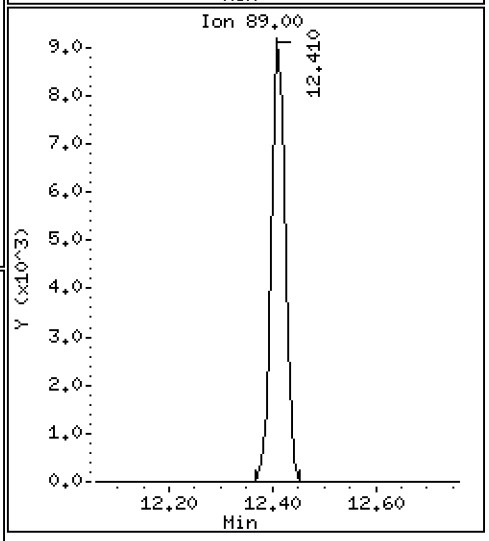
12 Benzo(b)thiophene

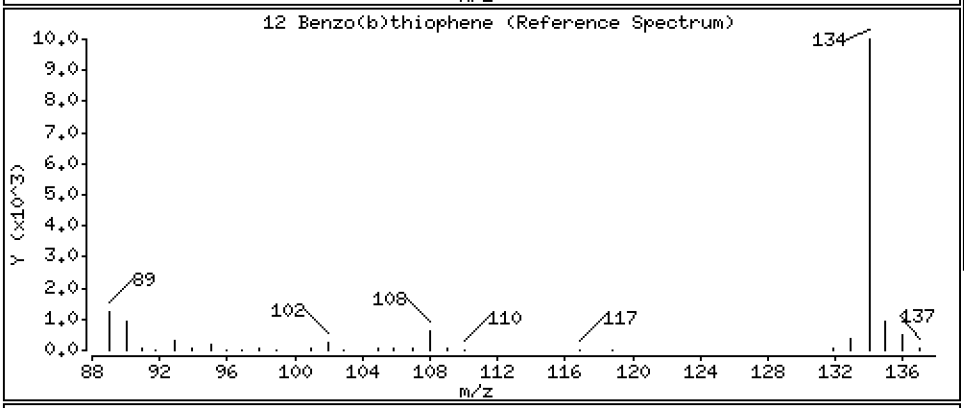
Concentration: 2.621 ug/mL

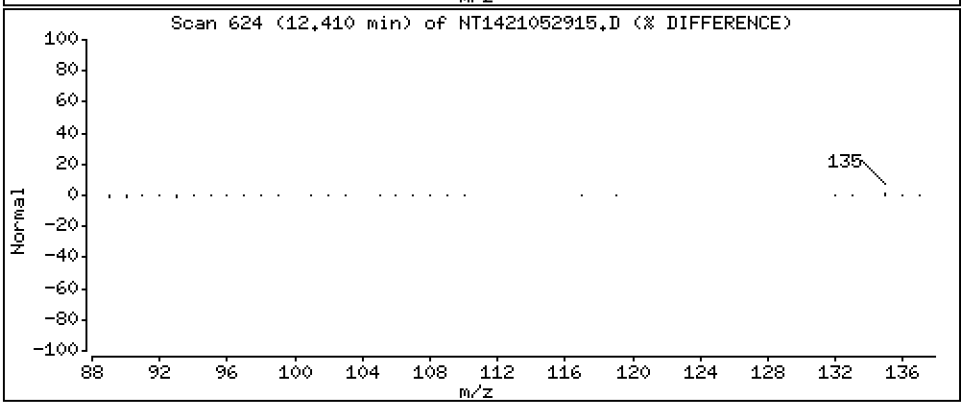












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

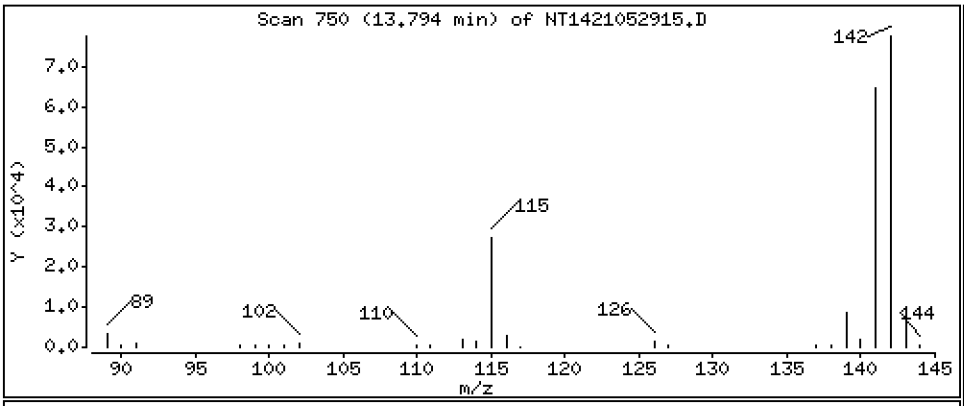
Operator: VTS

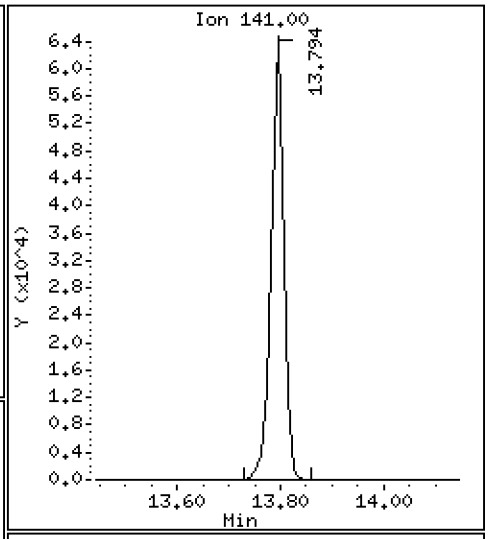
Column phase: Rxi-17Sil MS

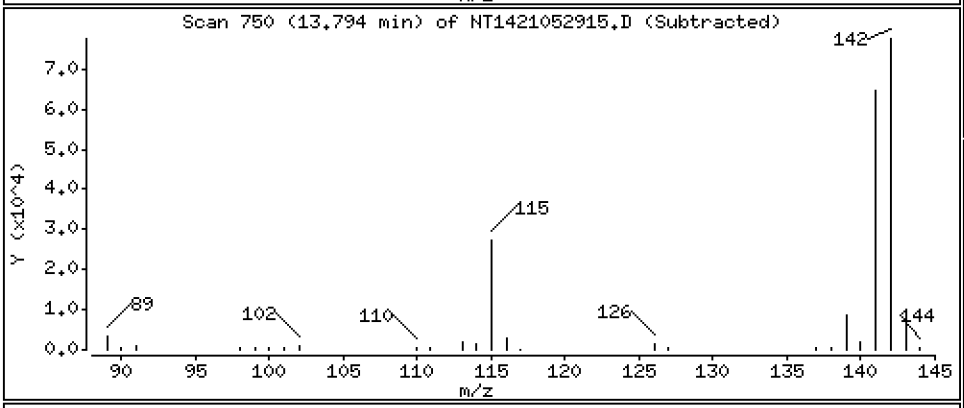
Column diameter: 0.25

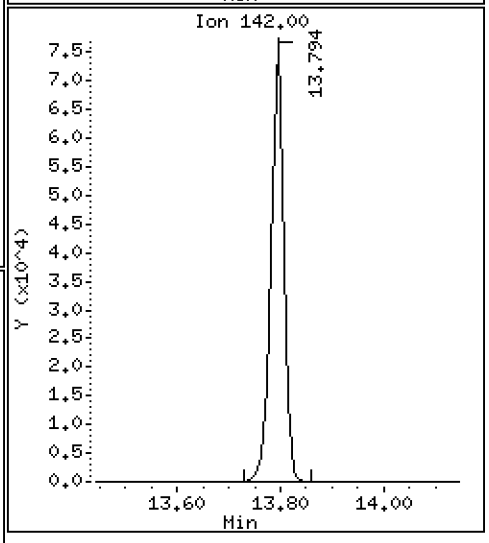
16 2-Methylnaphthalene

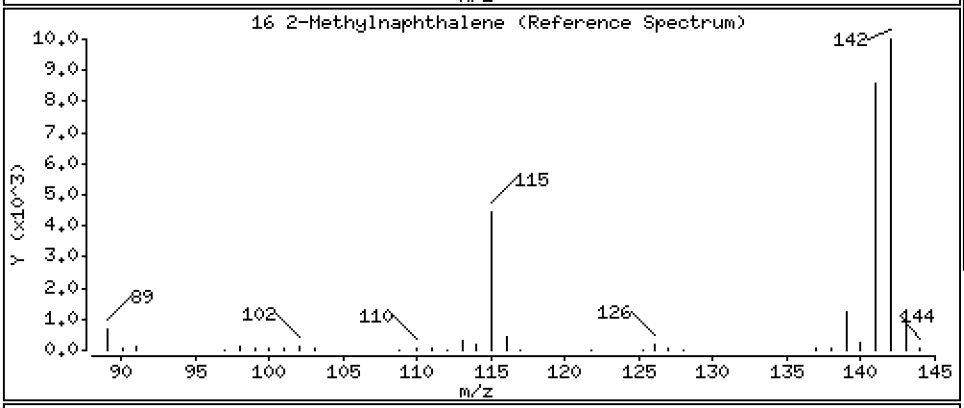
Concentration: 2.645 ug/mL

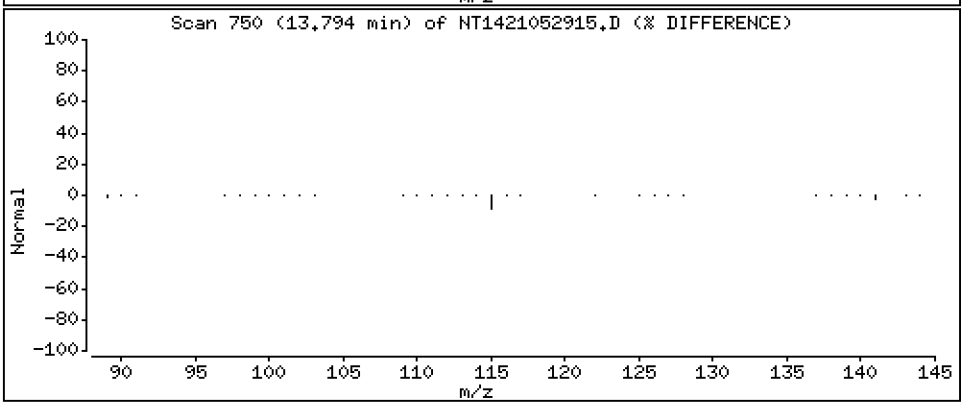












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

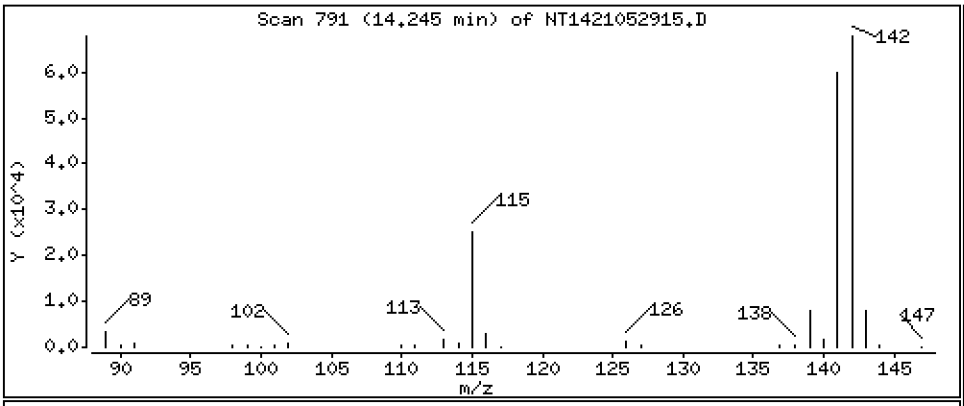
Operator: VTS

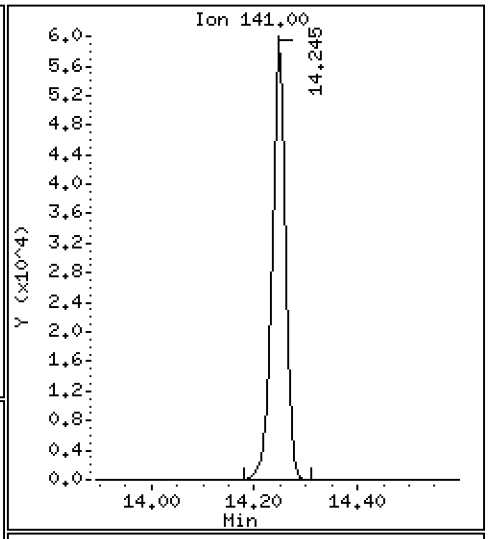
Column phase: Rxi-17Sil MS

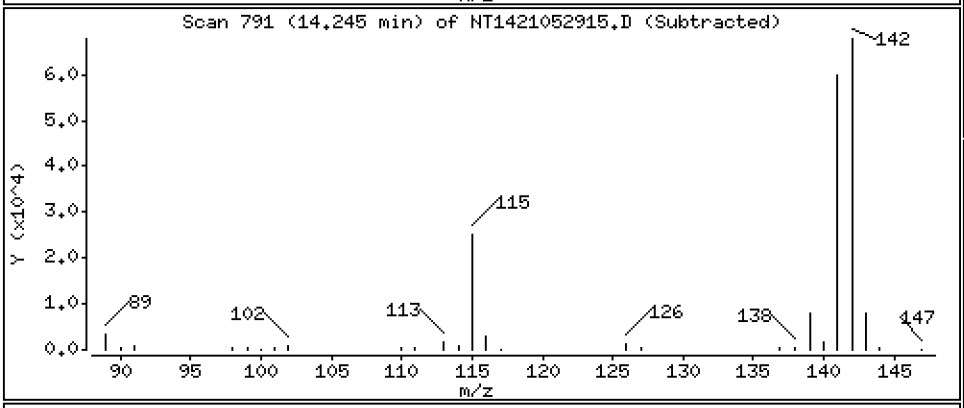
Column diameter: 0.25

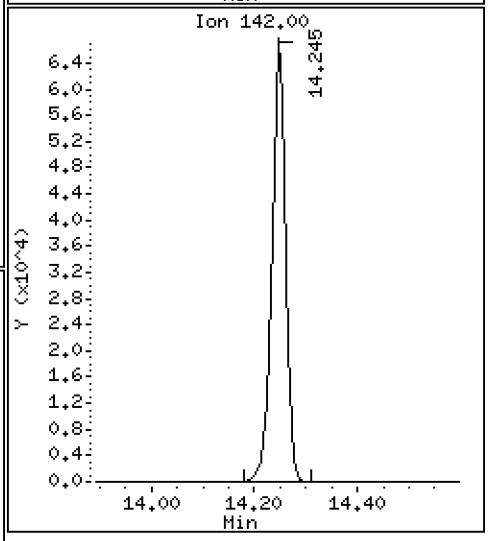
17 1-methylnaphthalene

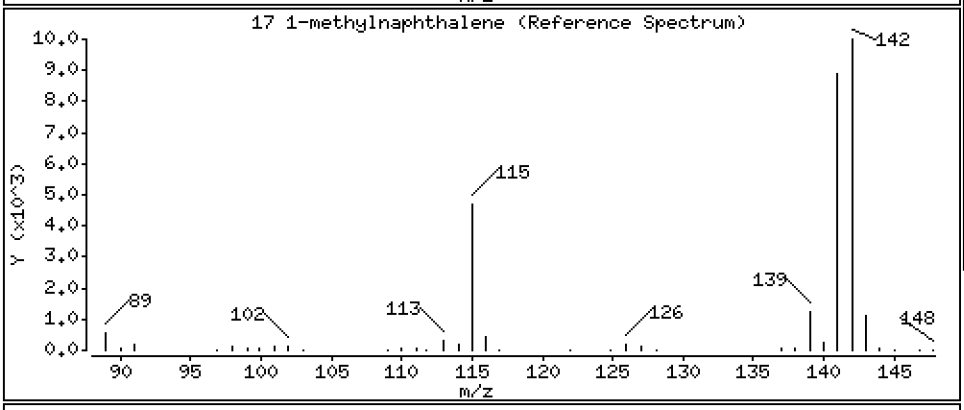
Concentration: 2.659 ug/mL

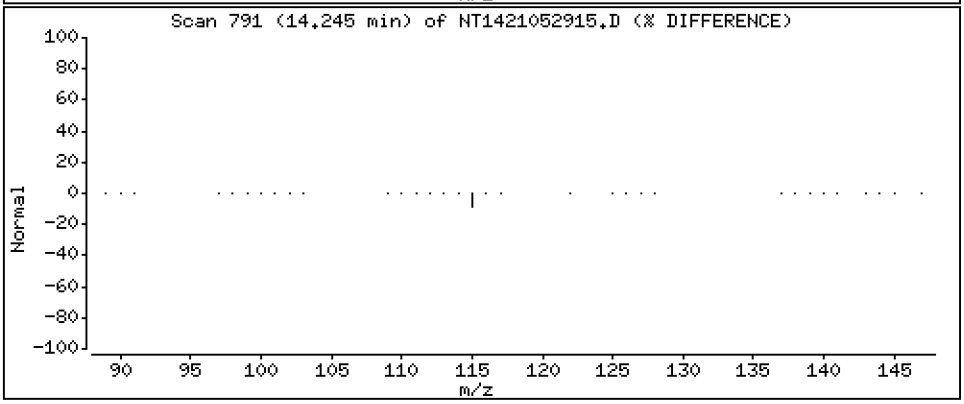












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

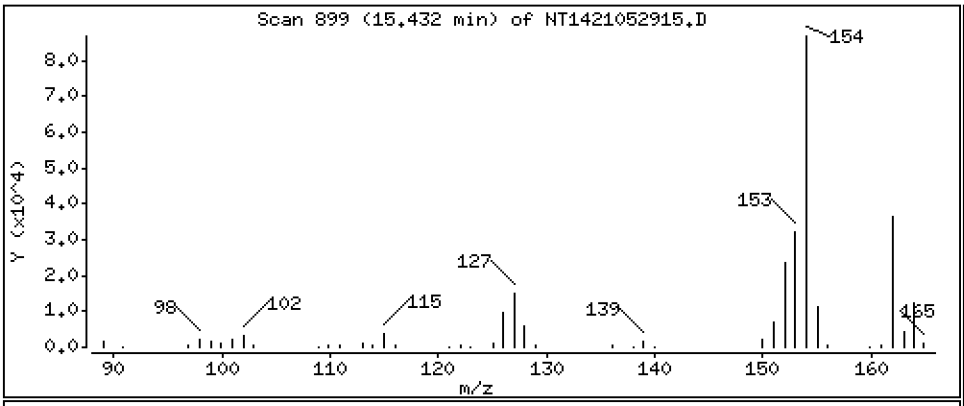
Operator: VTS

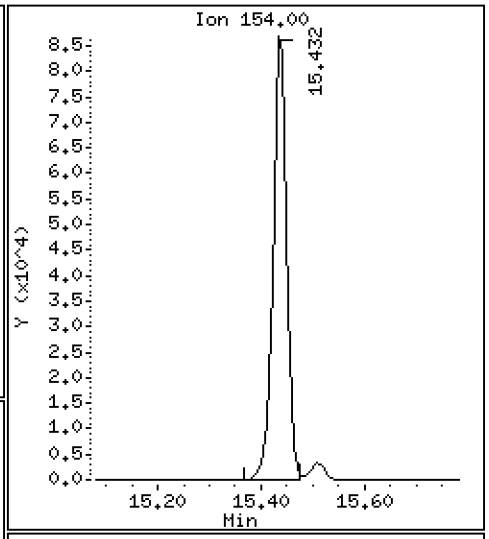
Column phase: Rxi-17Sil MS

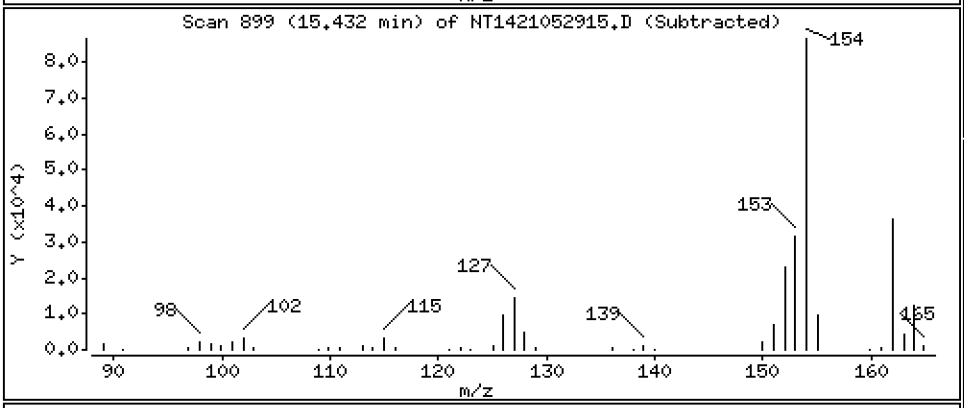
Column diameter: 0.25

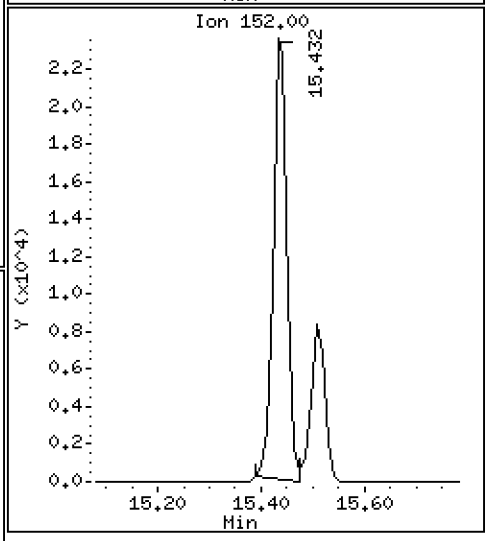
18 Biphenyl

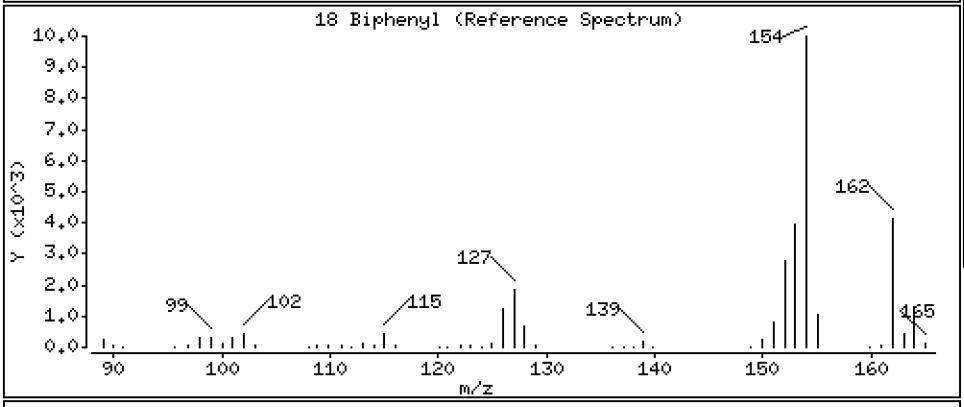
Concentration: 2.608 ug/mL

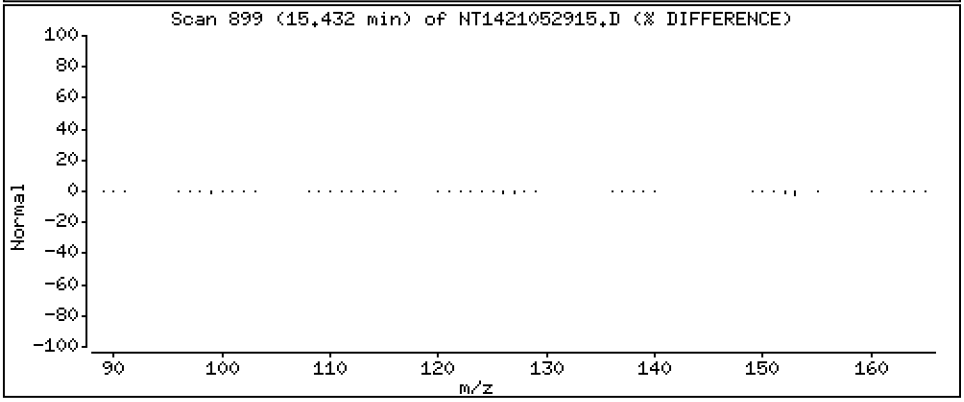












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

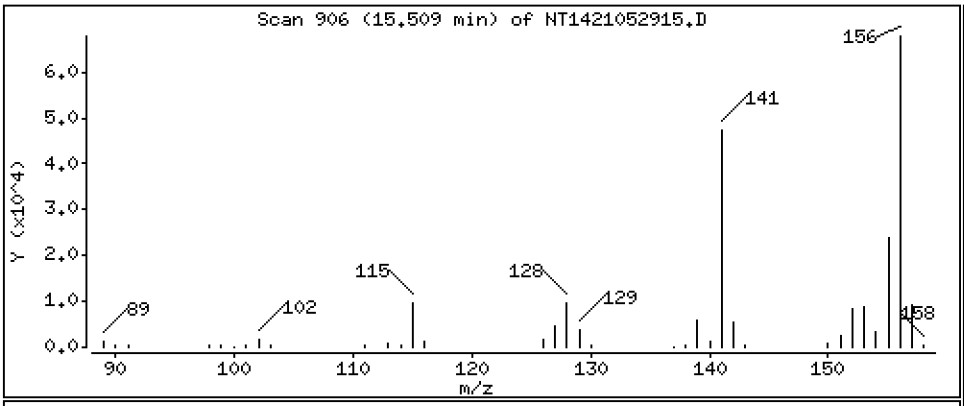
Operator: VTS

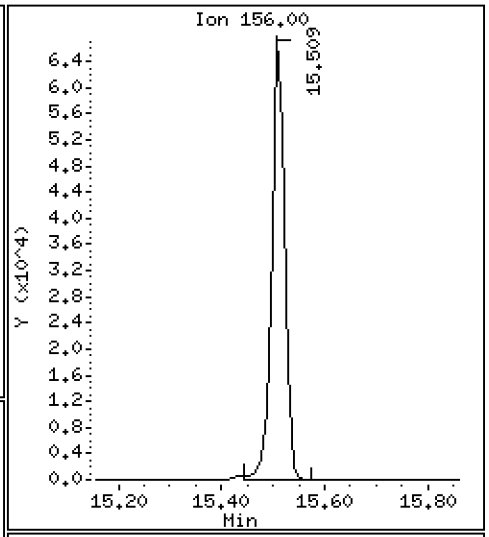
Column phase: Rxi-17Sil MS

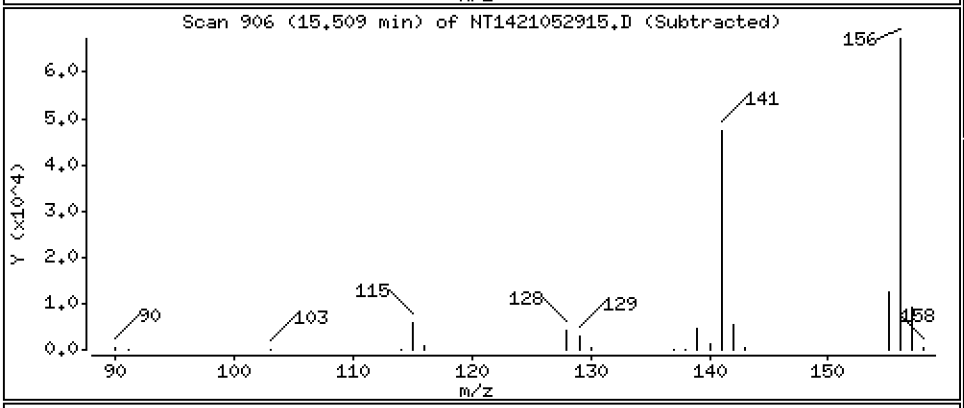
Column diameter: 0.25

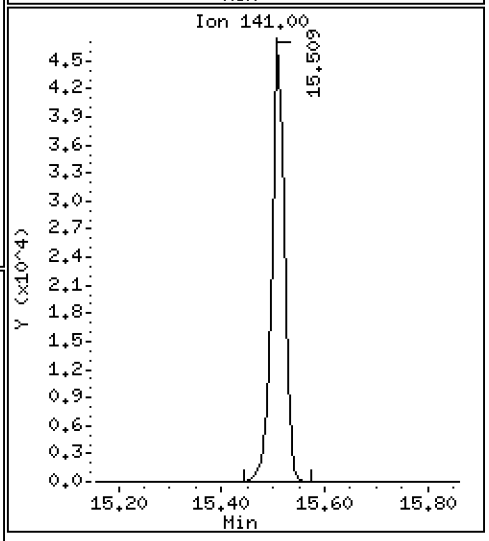
19 2,6-Dimethylnaphthalene

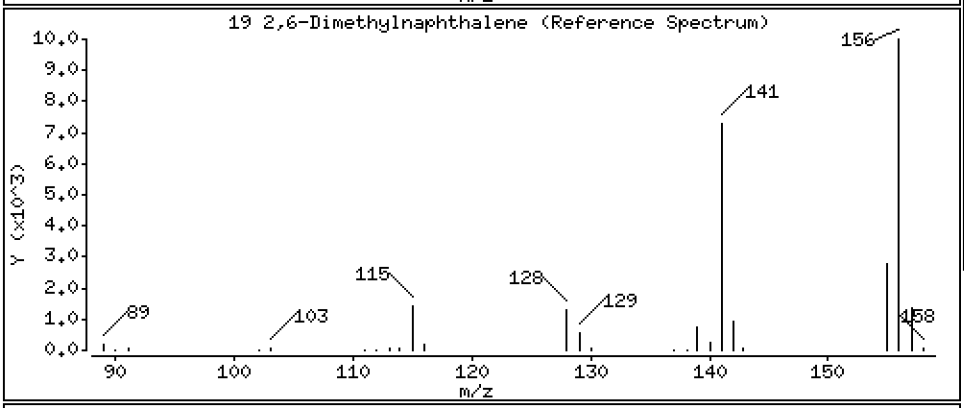
Concentration: 2.604 ug/mL

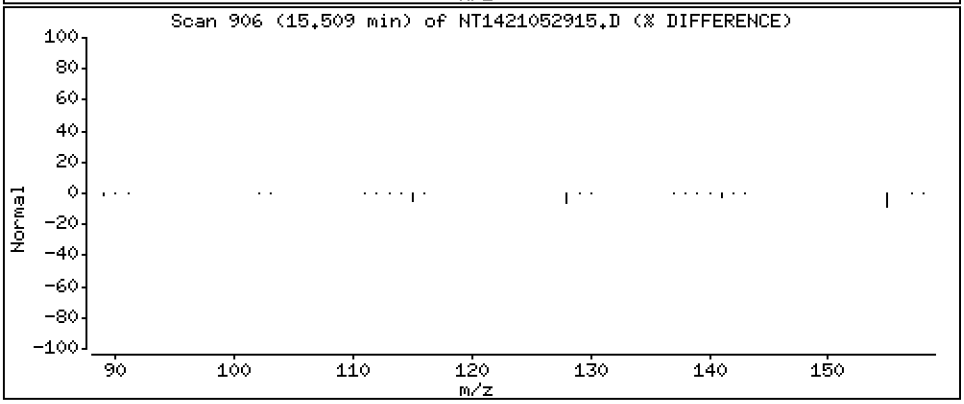












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

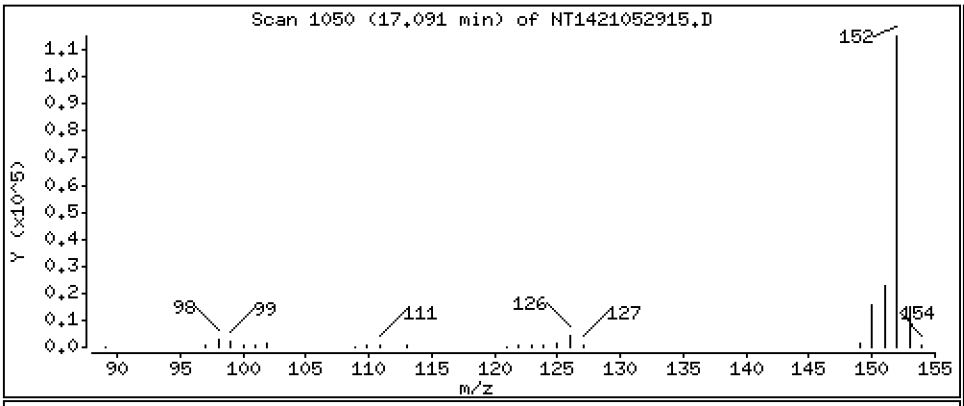
Operator: VTS

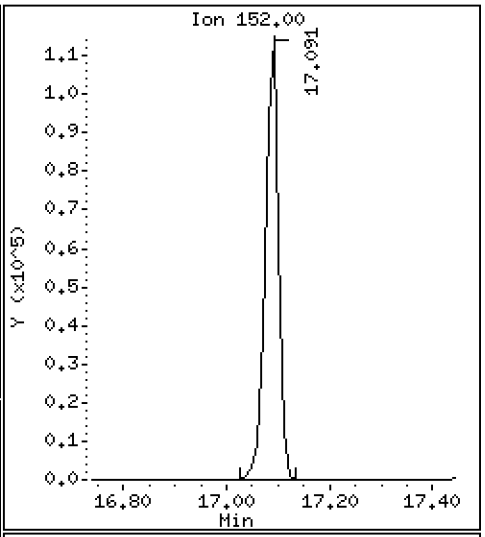
Column phase: Rxi-17Sil MS

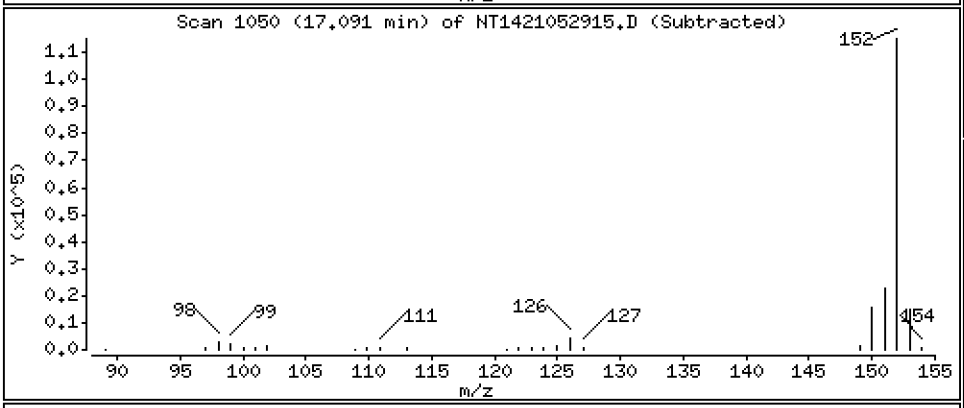
Column diameter: 0.25

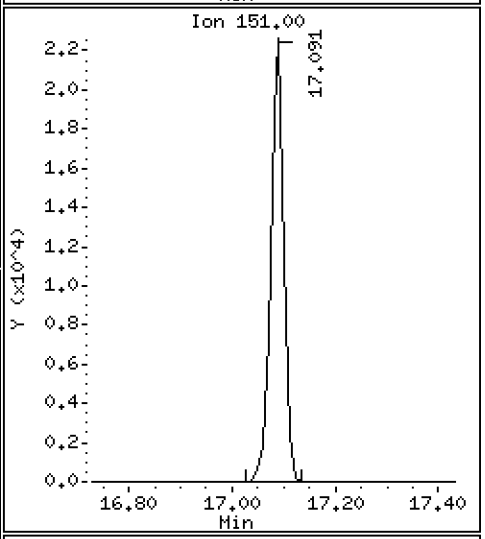
20 Acenaphthylene

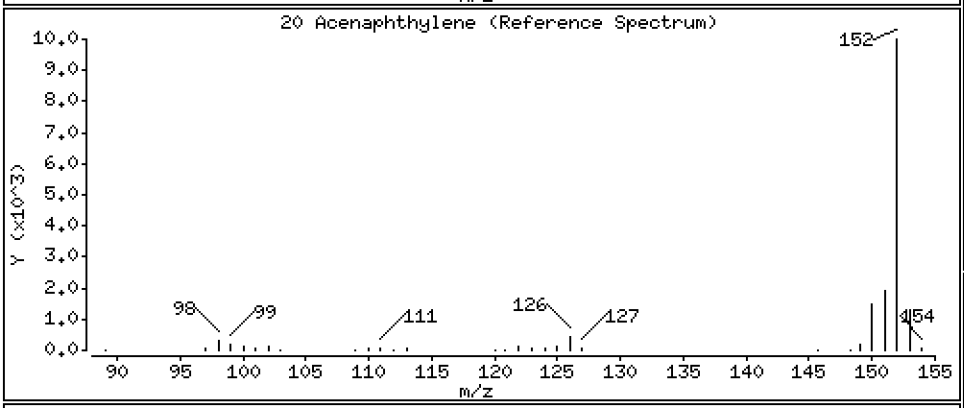
Concentration: 2.624 ug/mL

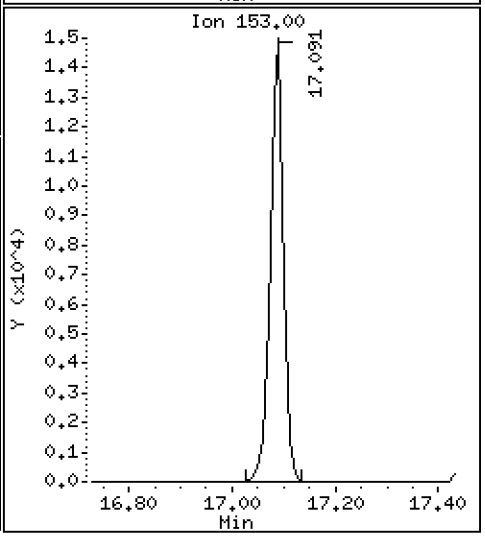


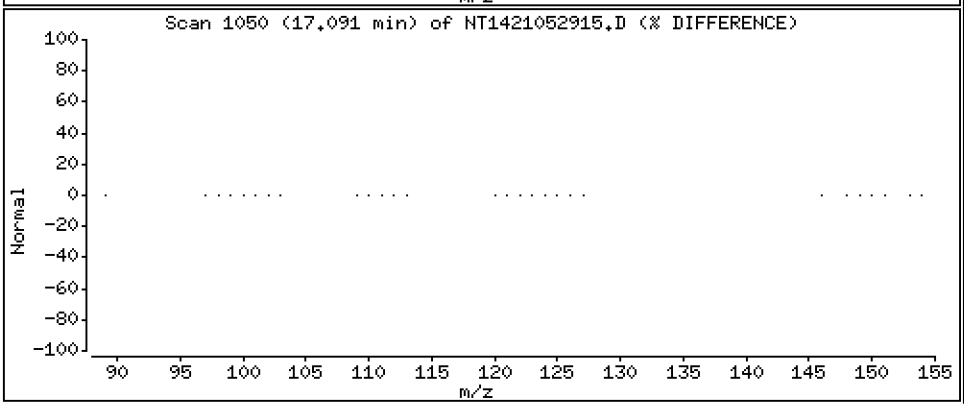












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

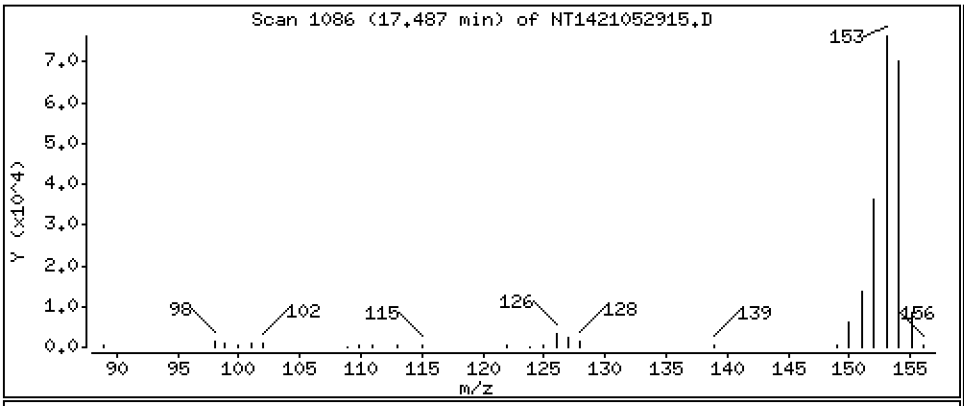
Operator: VTS

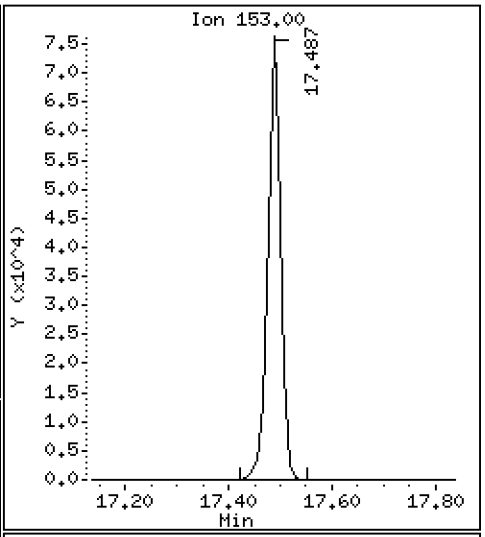
Column phase: Rxi-17Sil MS

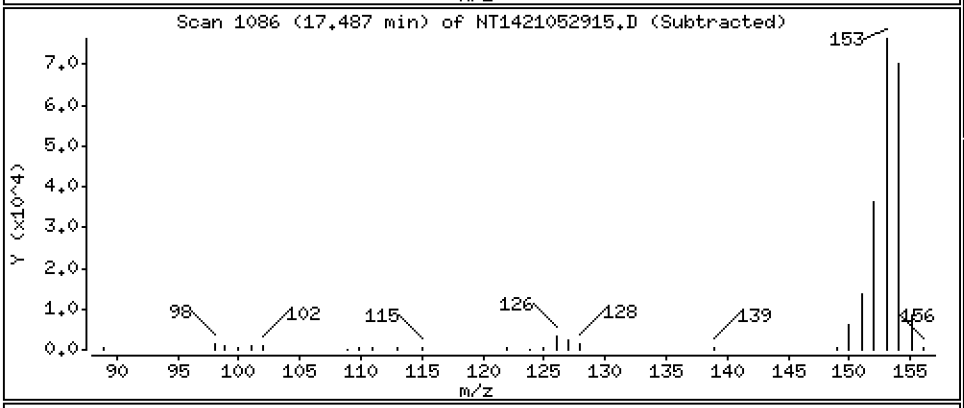
Column diameter: 0.25

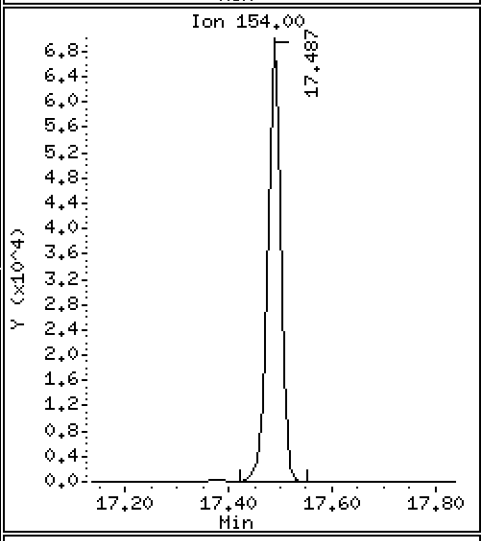
22 Acenaphthene

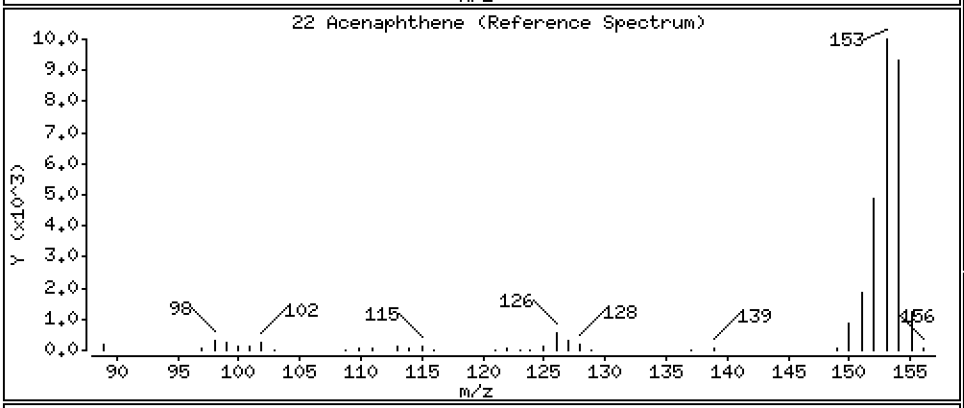
Concentration: 2.755 ug/mL

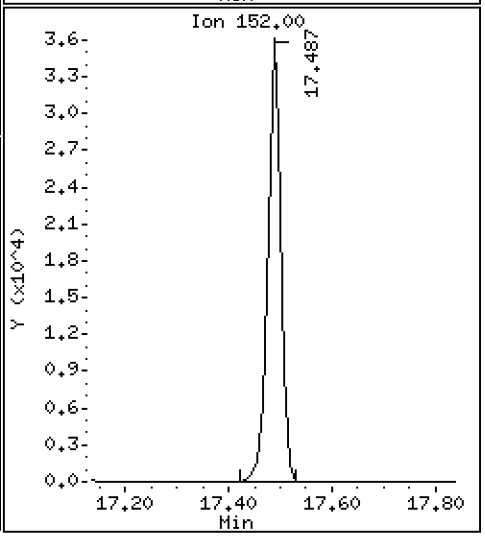


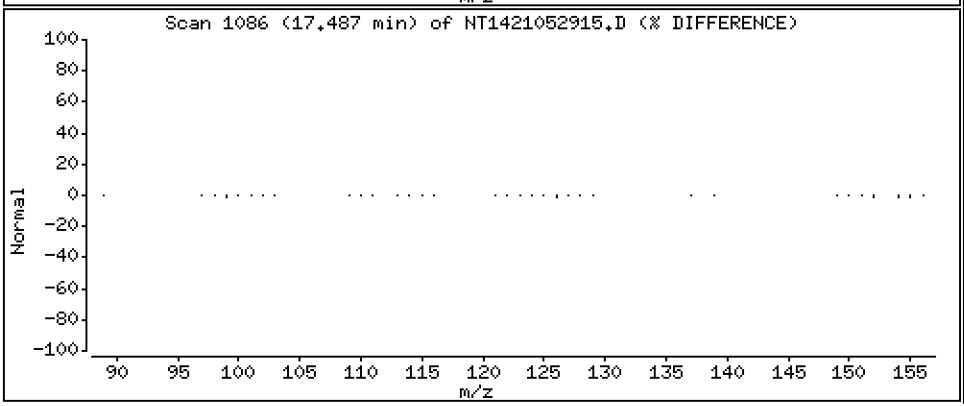












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

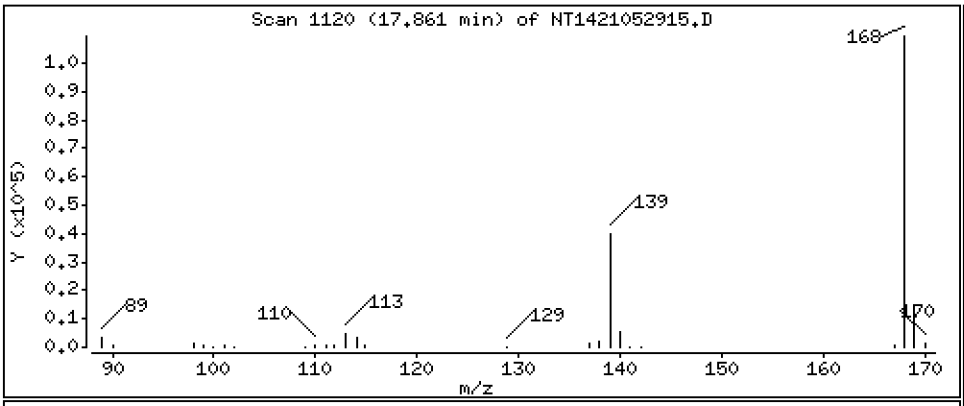
Operator: VTS

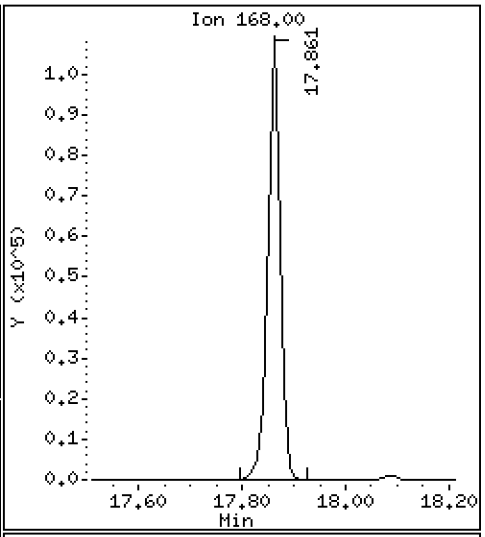
Column phase: Rxi-17Sil MS

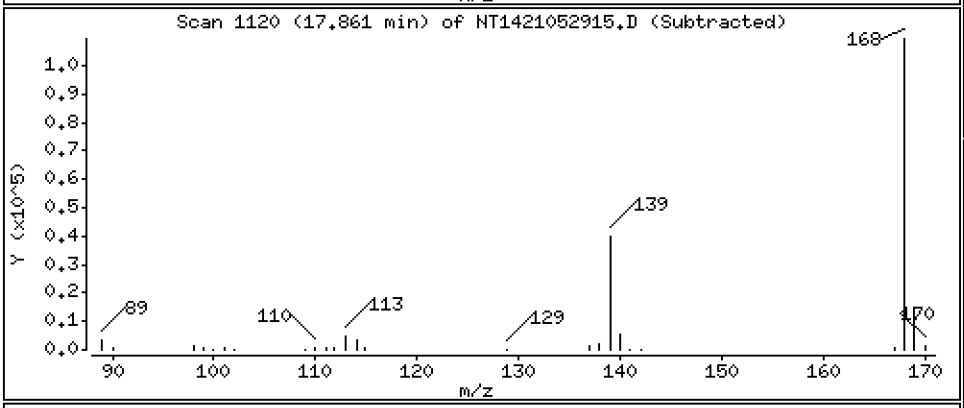
Column diameter: 0.25

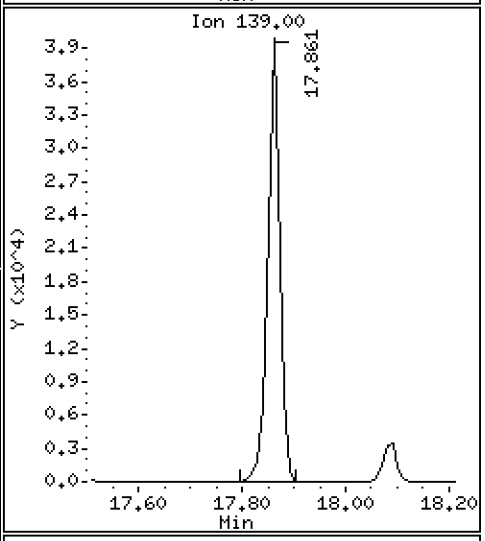
23 Dibenzofuran

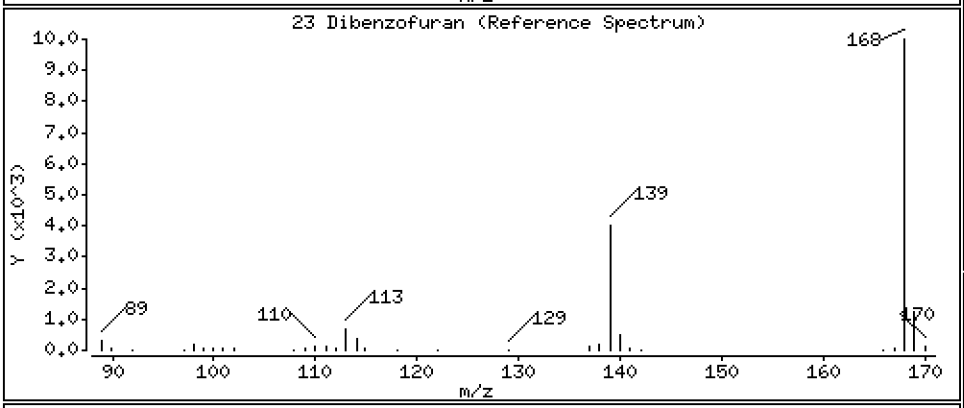
Concentration: 2.595 ug/mL

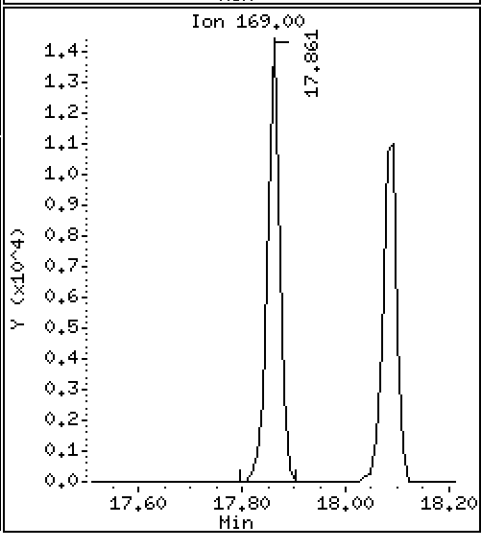


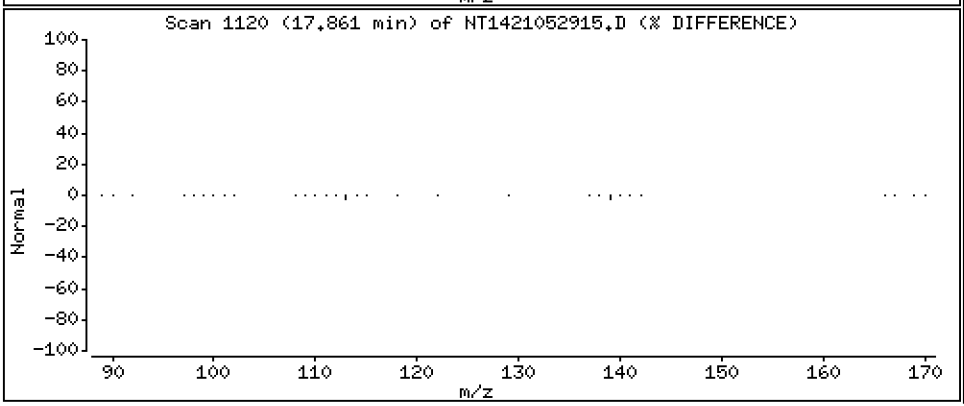












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

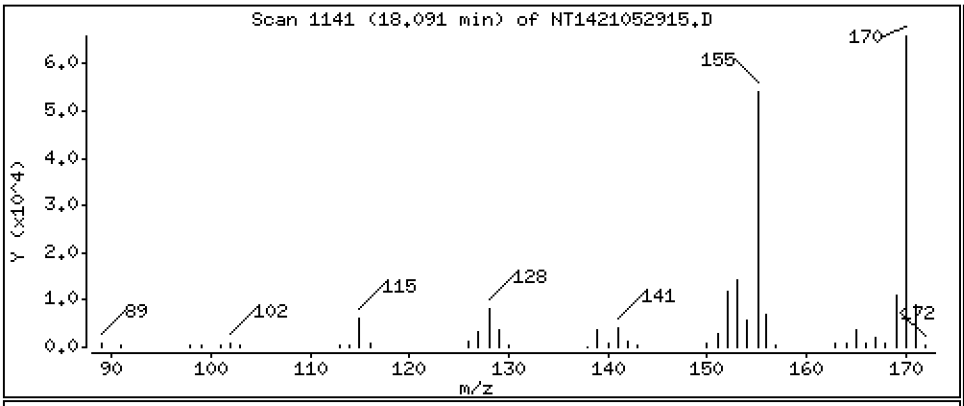
Operator: VTS

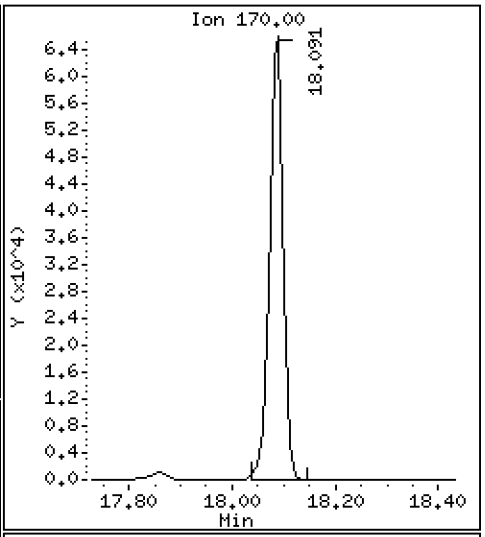
Column phase: Rxi-17Sil MS

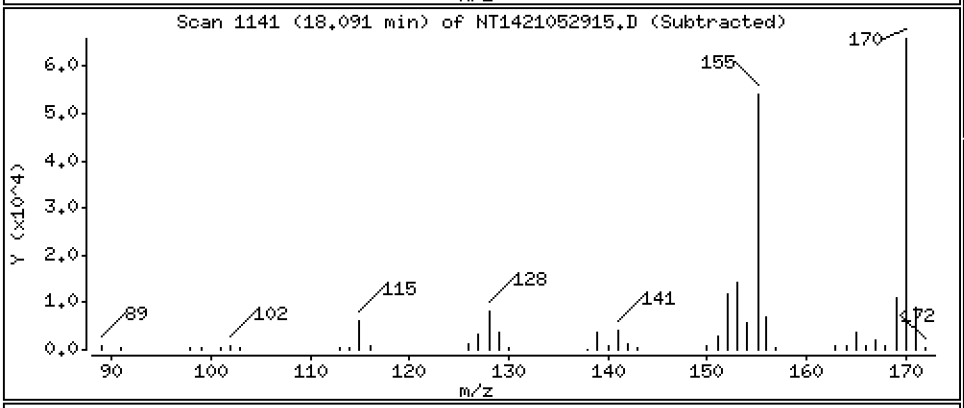
Column diameter: 0.25

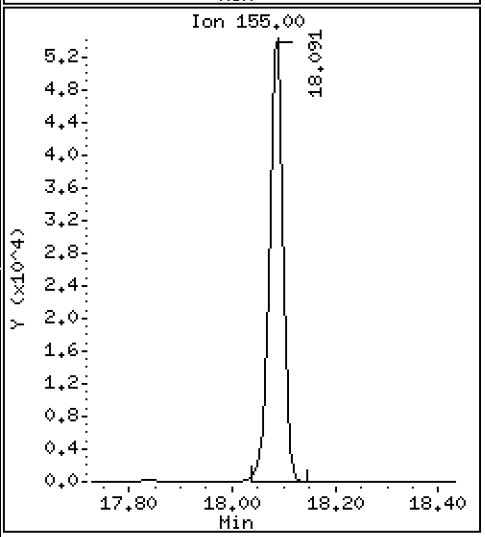
24 1,6,7-Trimethylnaphthalene

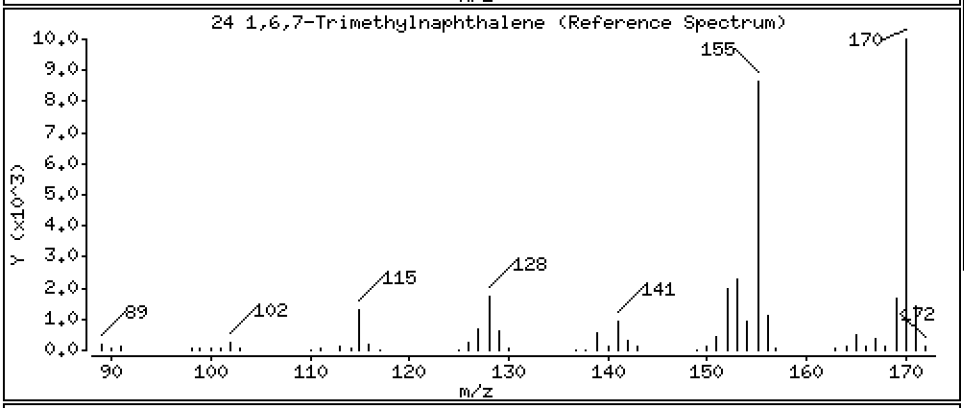
Concentration: 2.642 ug/mL

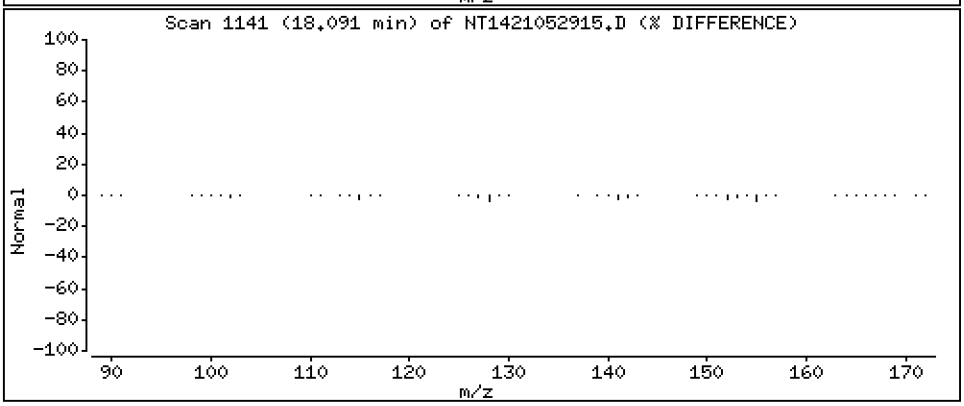












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

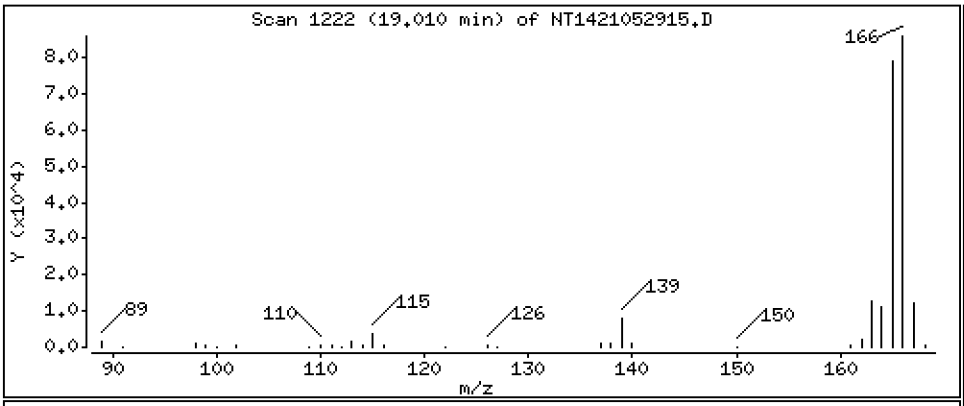
Operator: VTS

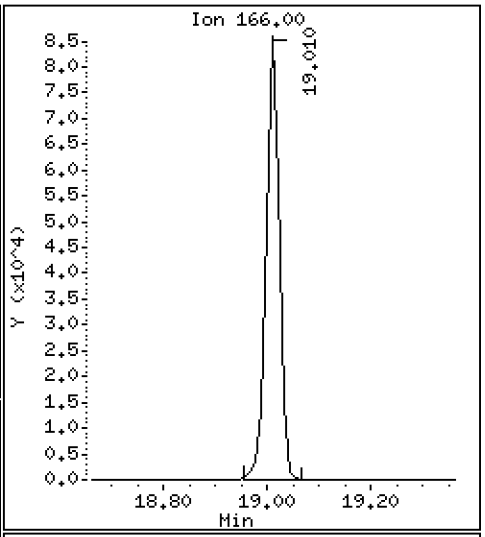
Column phase: Rxi-17Sil MS

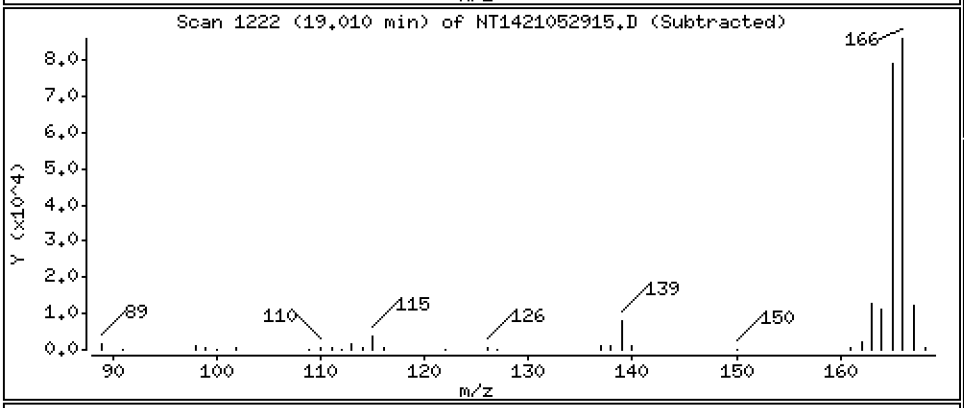
Column diameter: 0.25

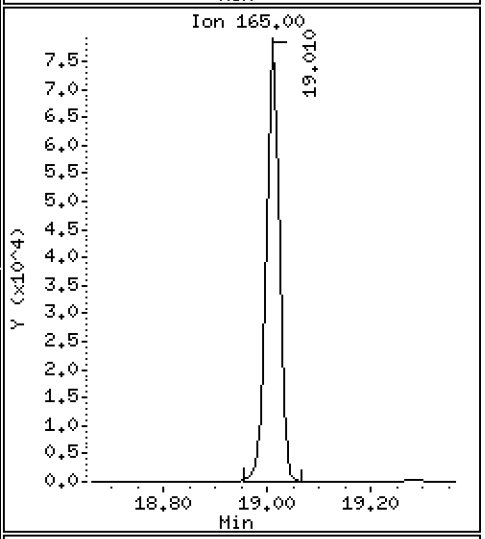
26 Fluorene

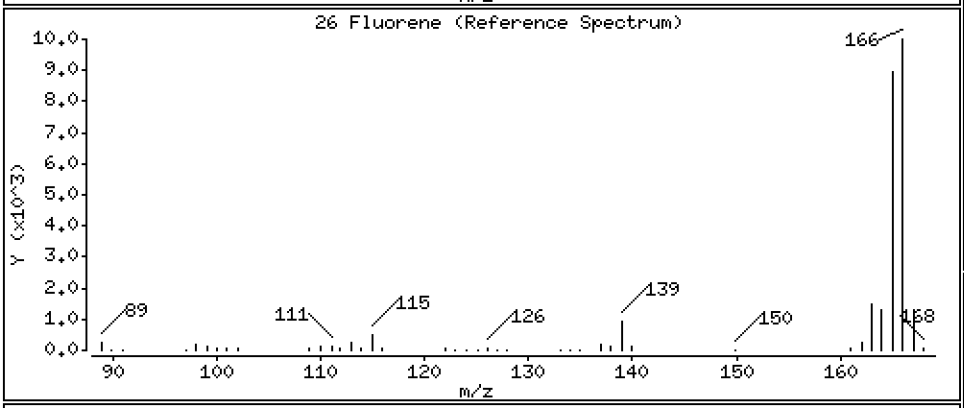
Concentration: 2.611 ug/mL

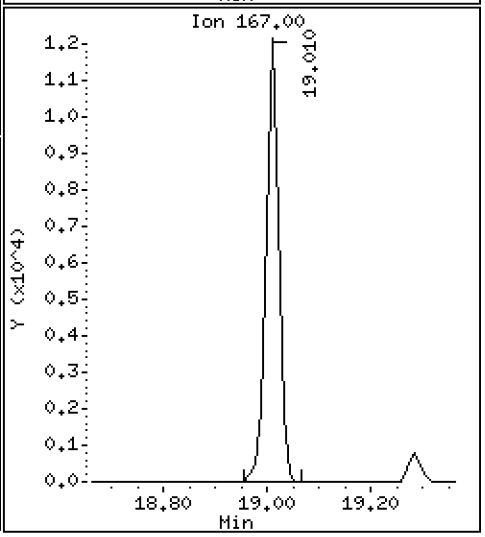


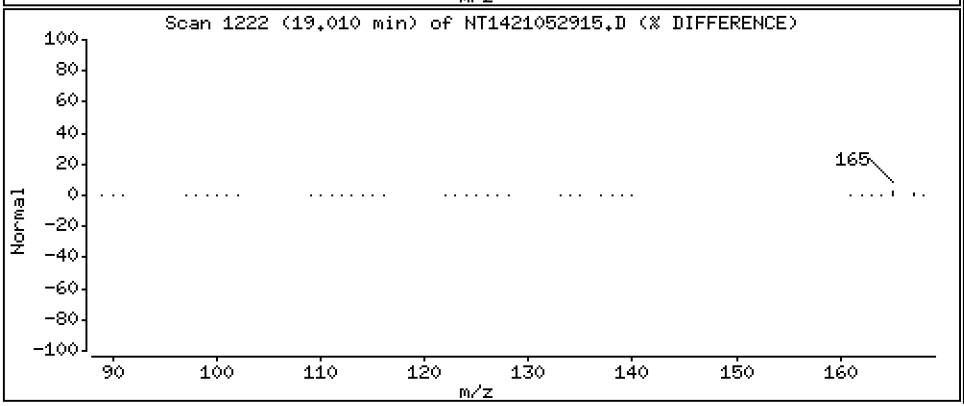












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

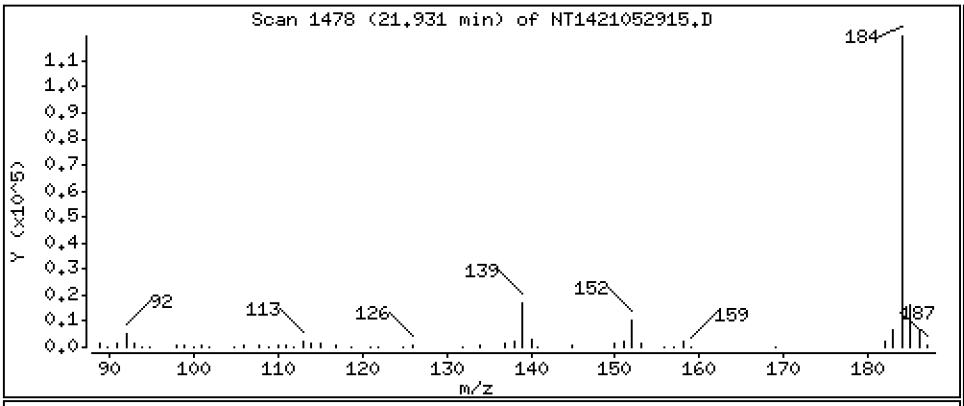
Operator: VTS

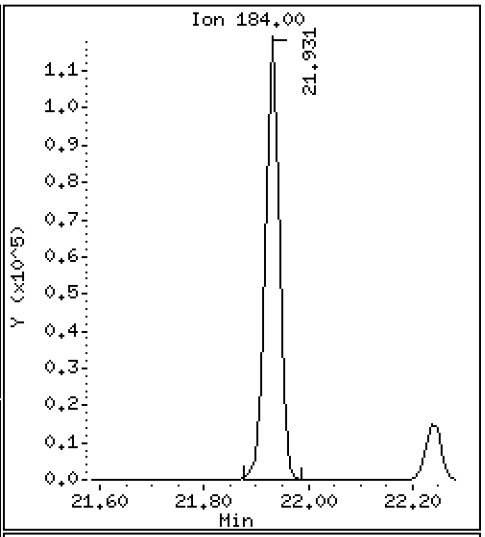
Column phase: Rxi-17Sil MS

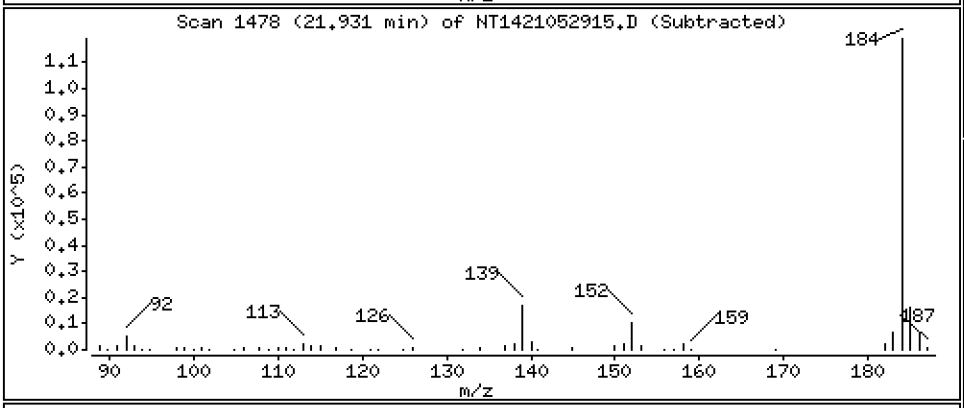
Column diameter: 0.25

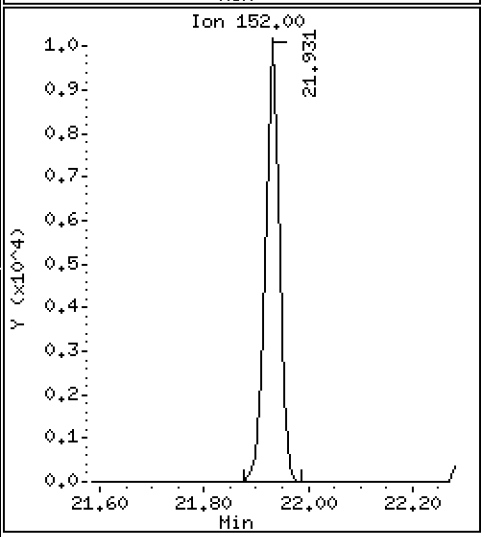
30 Dibenzothiophene

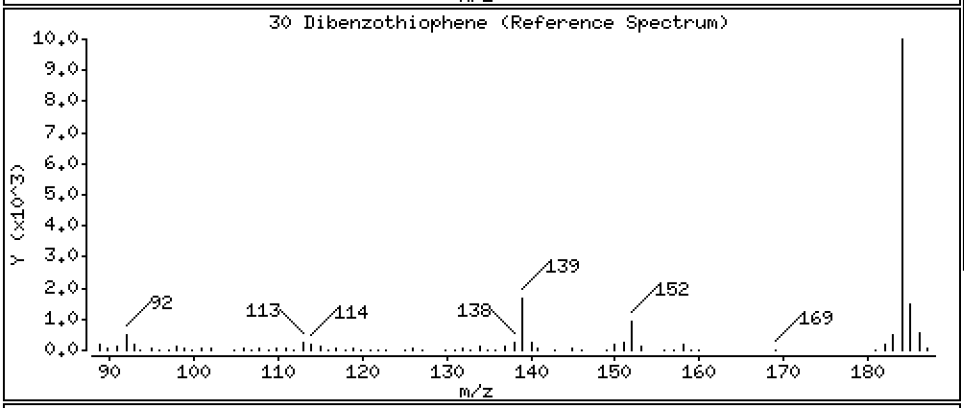
Concentration: 2.634 ug/mL

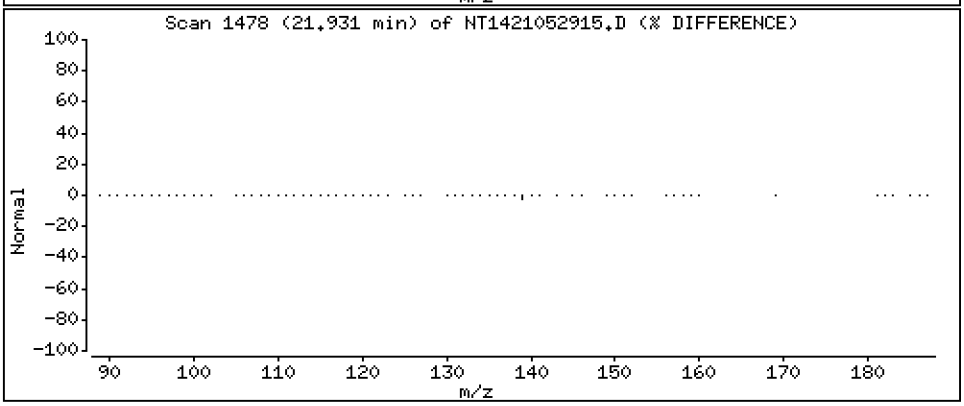












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

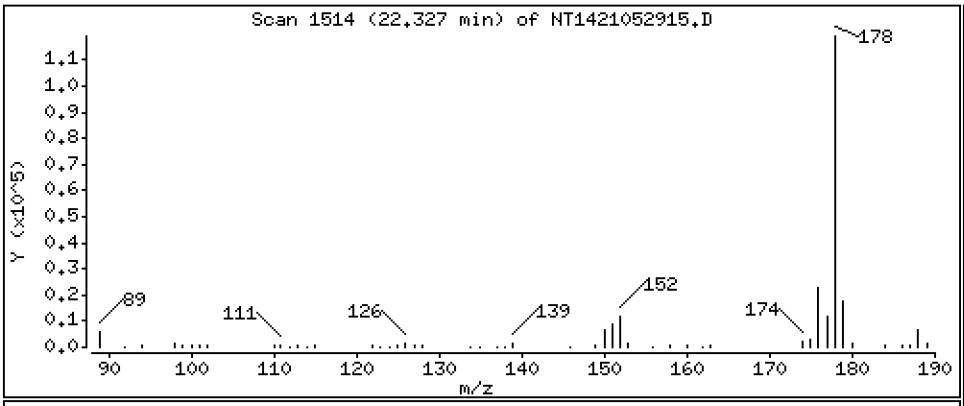
Operator: VTS

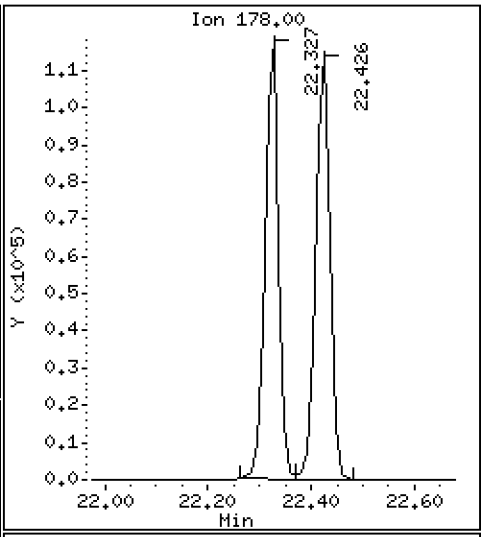
Column phase: Rxi-17Sil MS

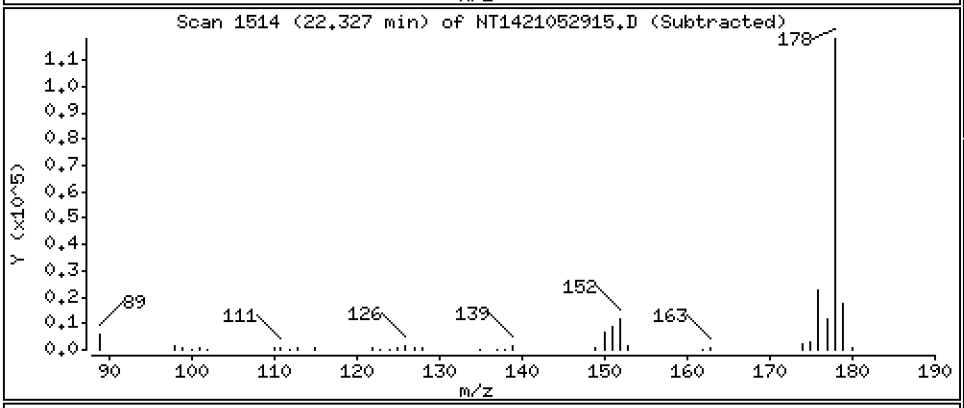
Column diameter: 0.25

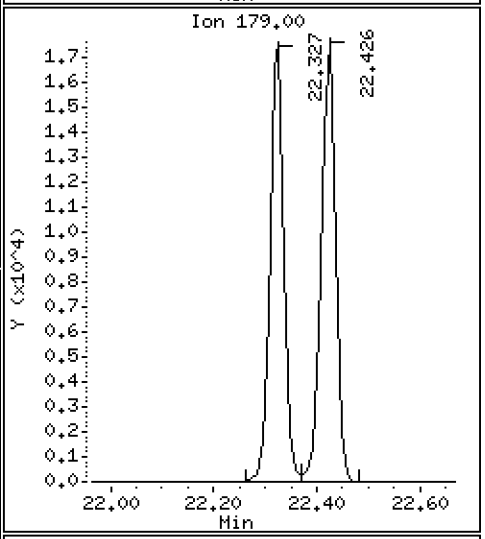
36 Phenanthrene

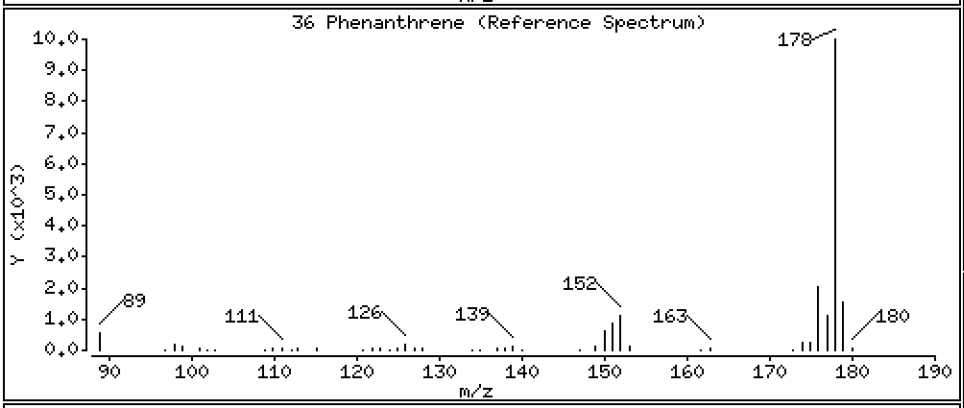
Concentration: 2.640 ug/mL

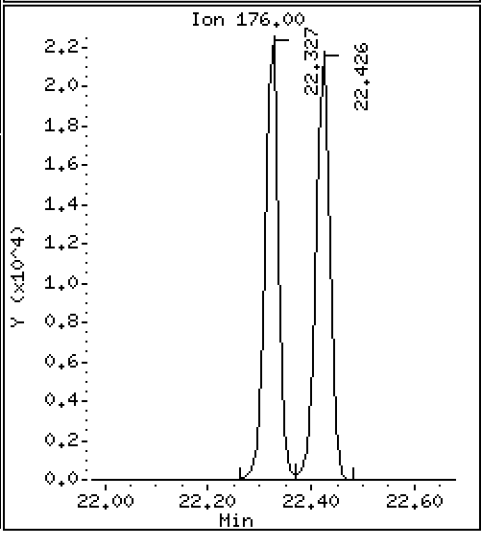


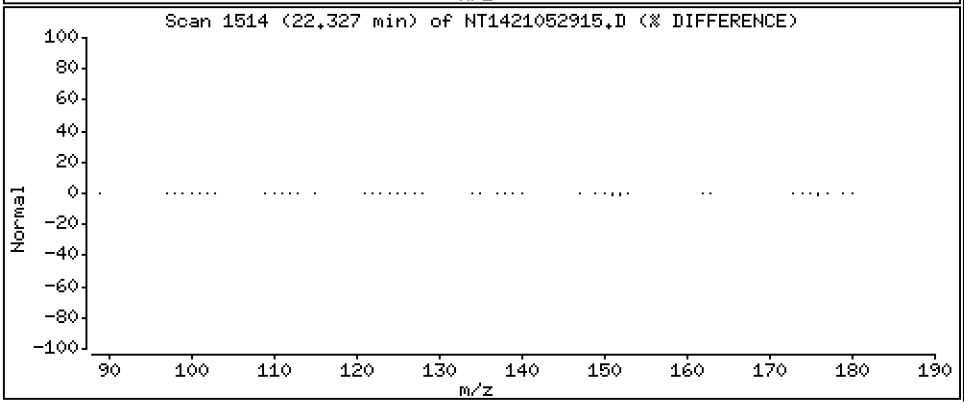












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

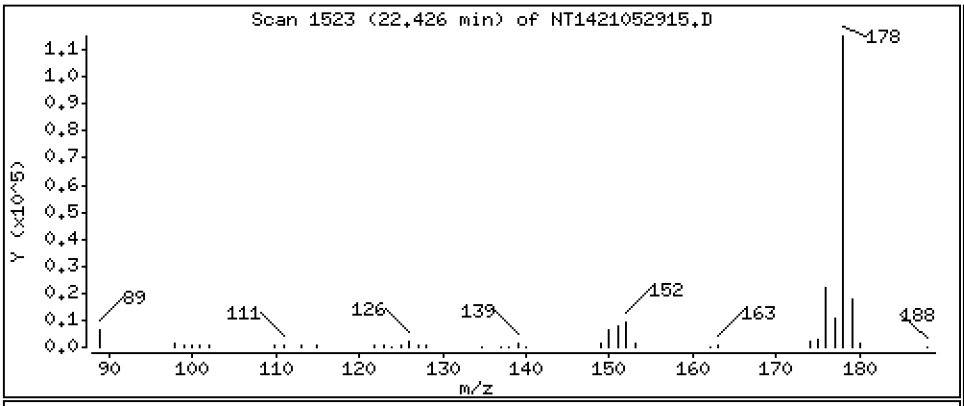
Operator: VTS

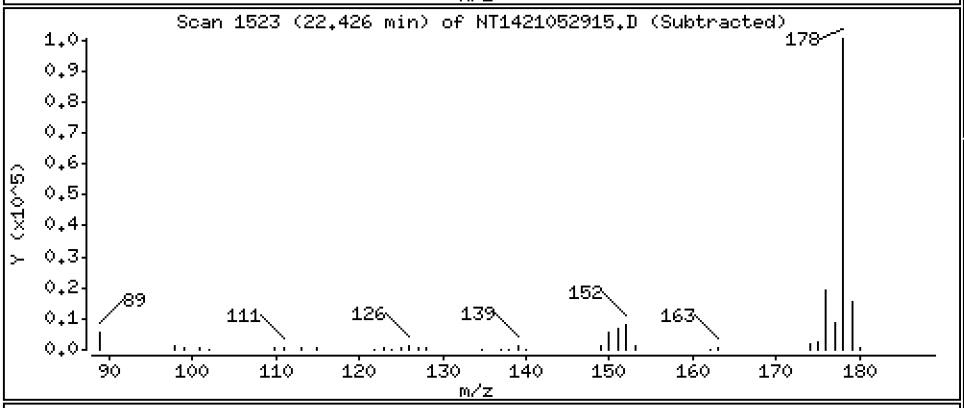
Column phase: Rxi-17Sil MS

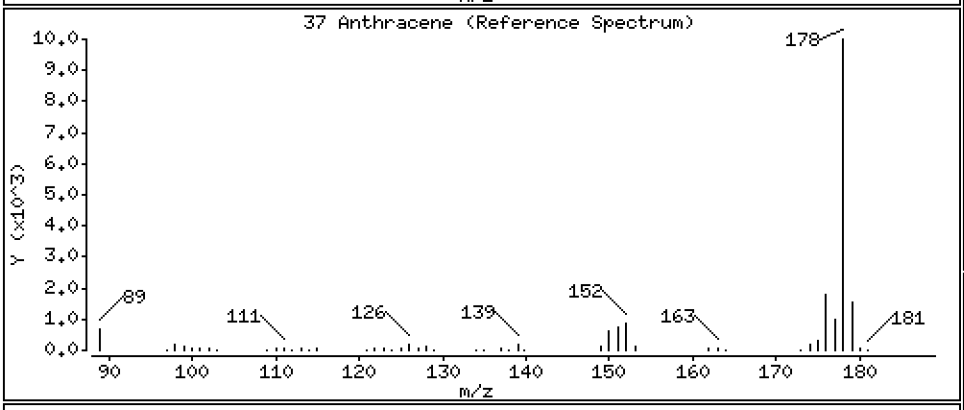
Column diameter: 0.25

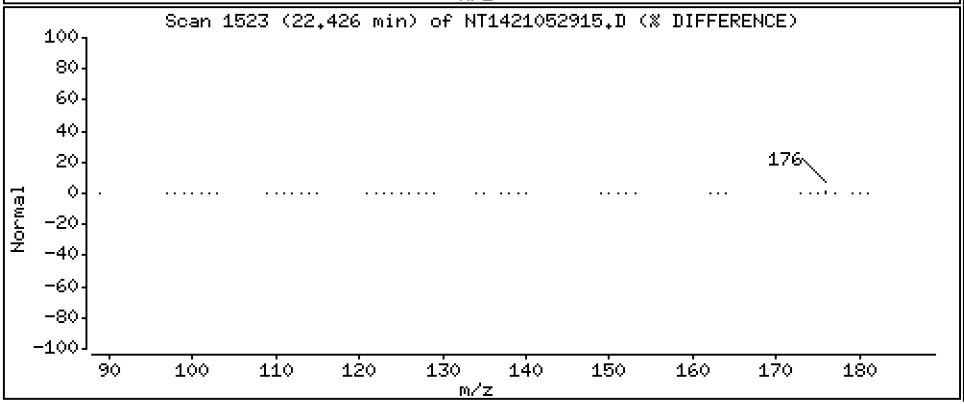
37 Anthracene

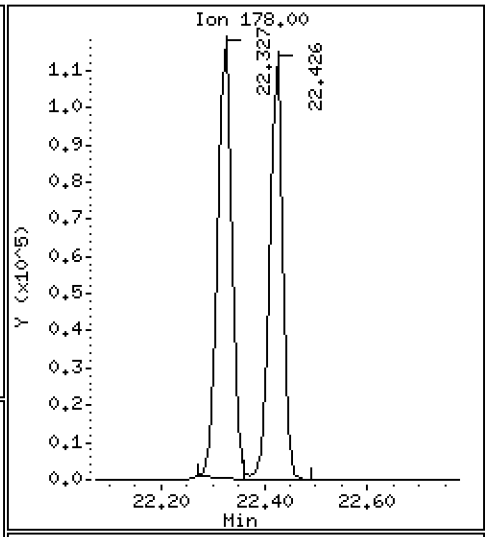
Concentration: 2.688 ug/mL

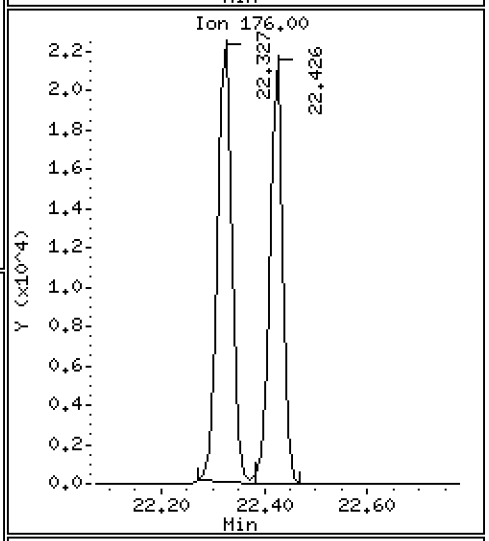


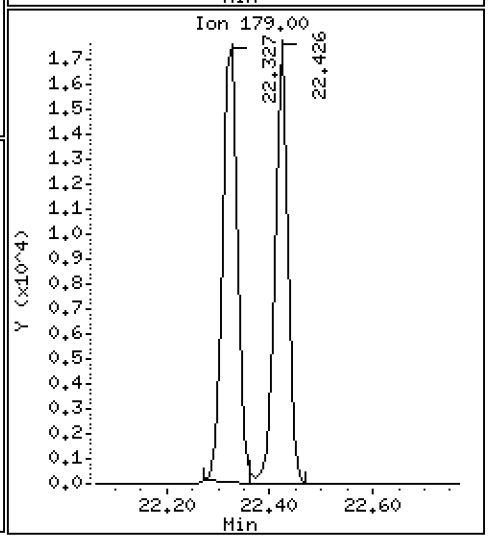












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

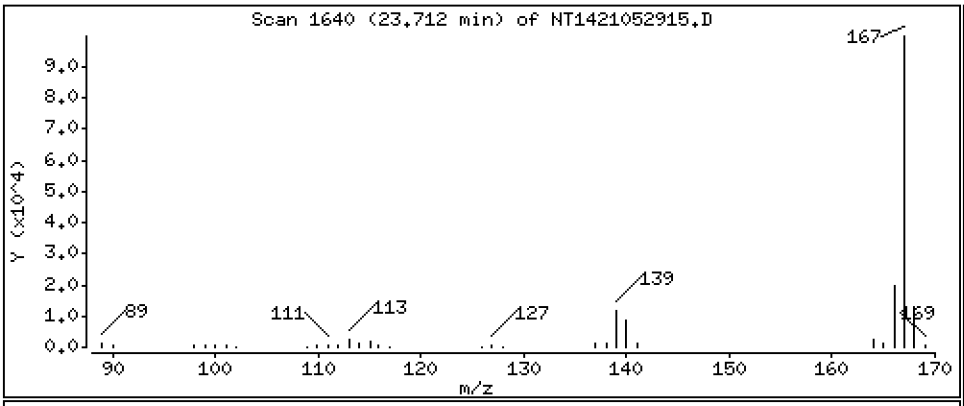
Operator: VTS

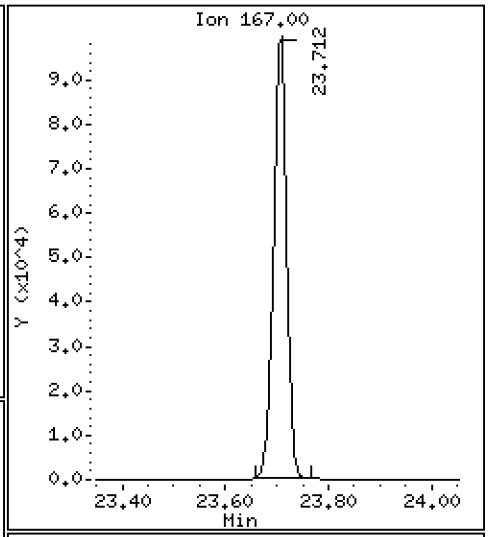
Column phase: Rxi-17Sil MS

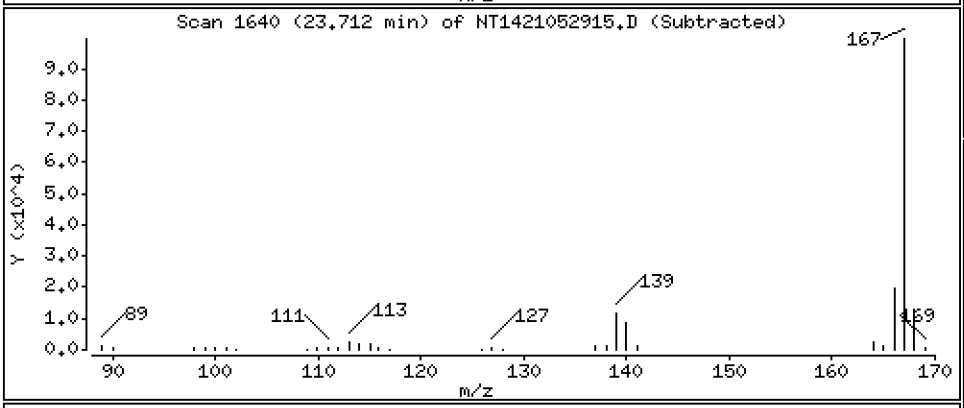
Column diameter: 0.25

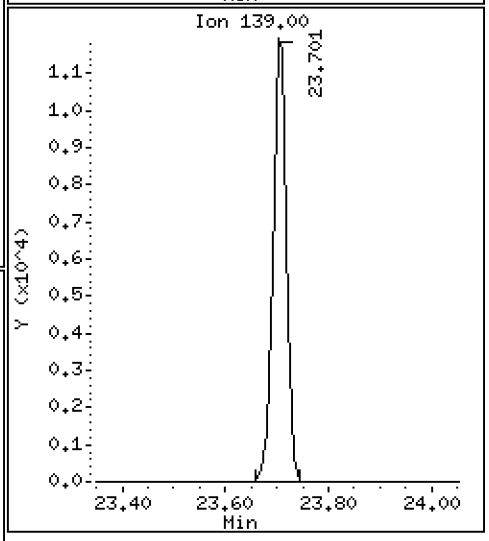
42 Carbazole

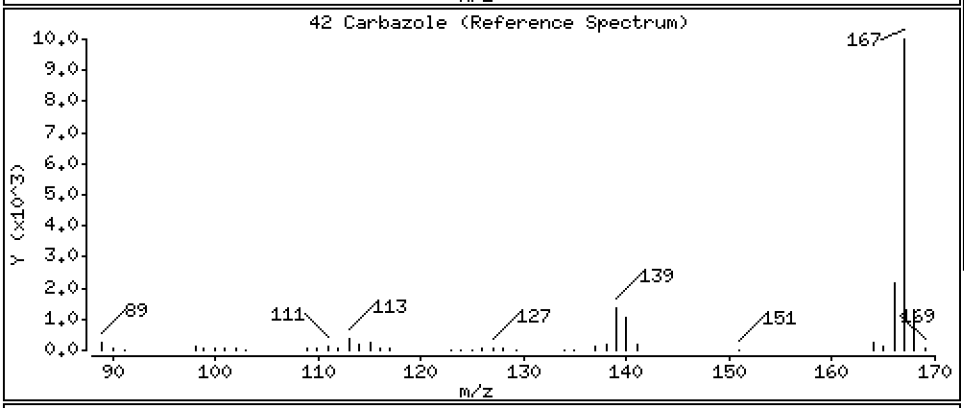
Concentration: 2.704 ug/mL

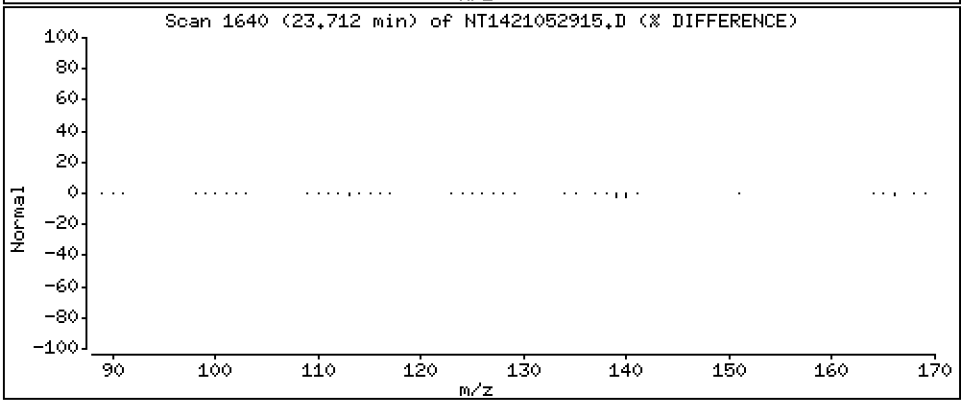












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

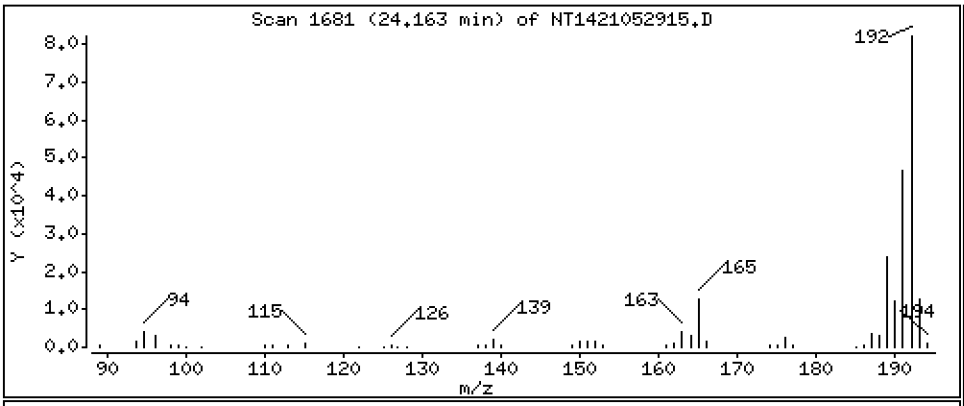
Operator: VTS

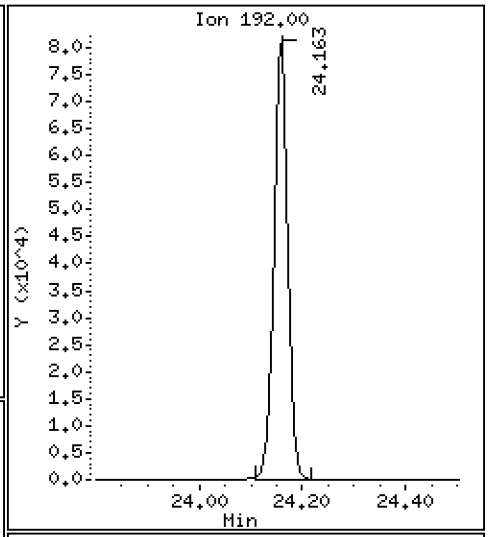
Column phase: Rxi-17Sil MS

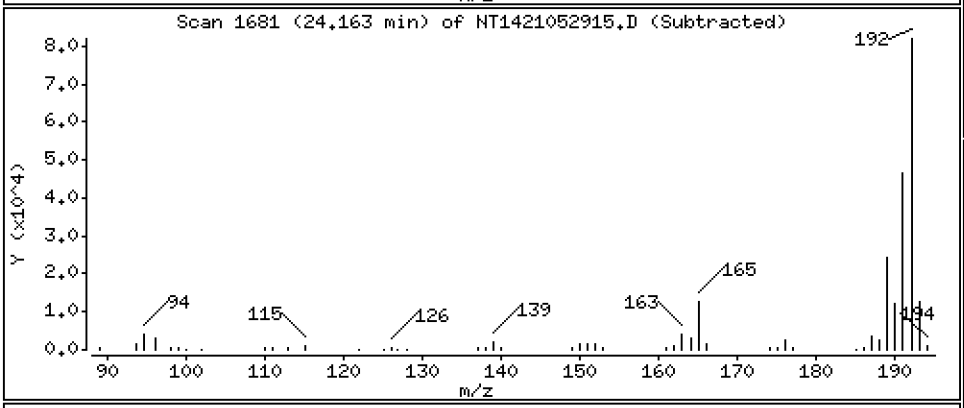
Column diameter: 0.25

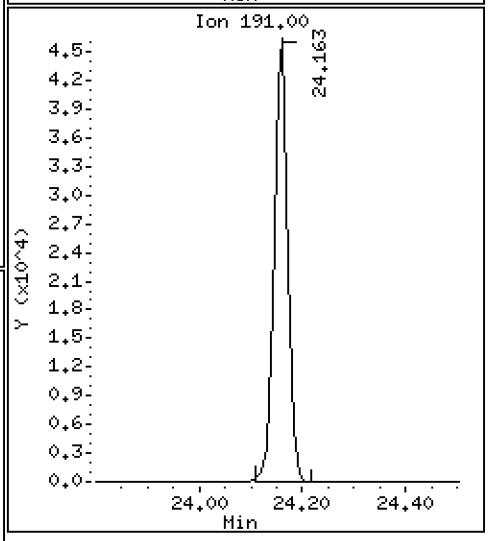
43 1-Methylphenanthrene

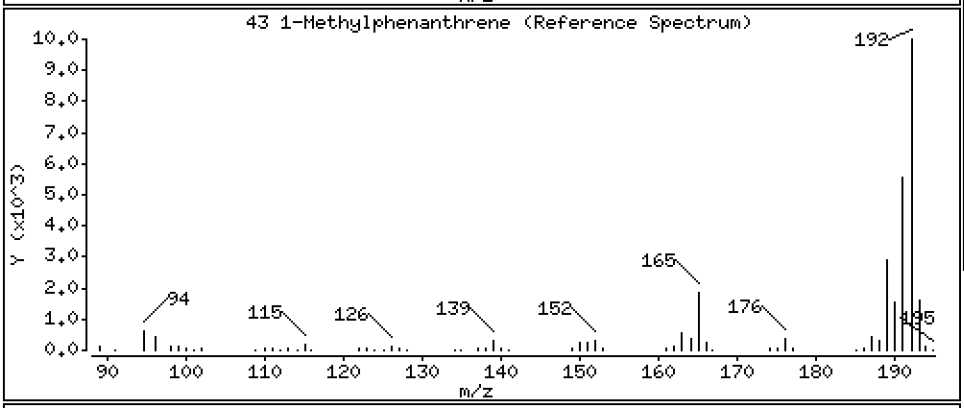
Concentration: 2.667 ug/mL

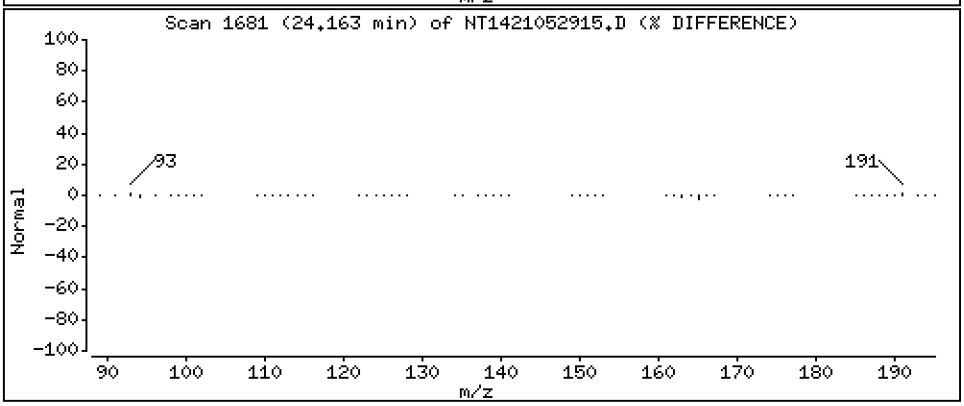












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

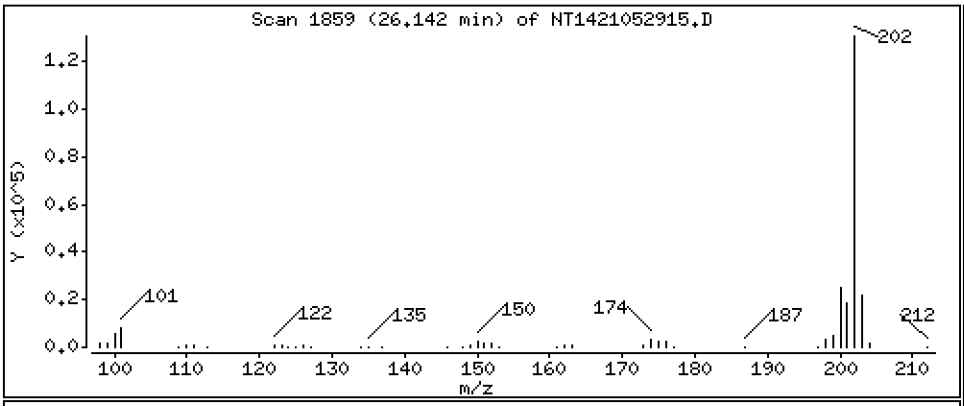
Operator: VTS

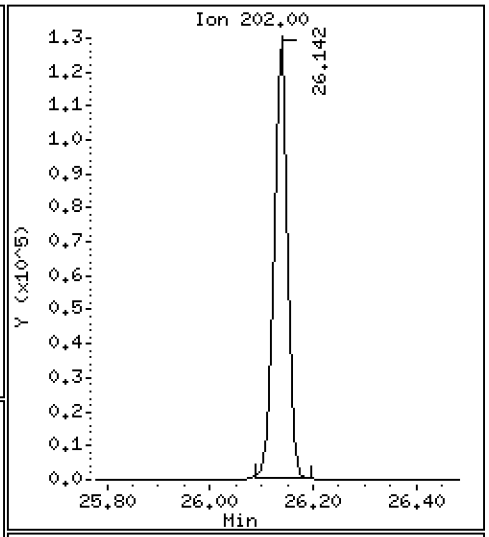
Column phase: Rxi-17Sil MS

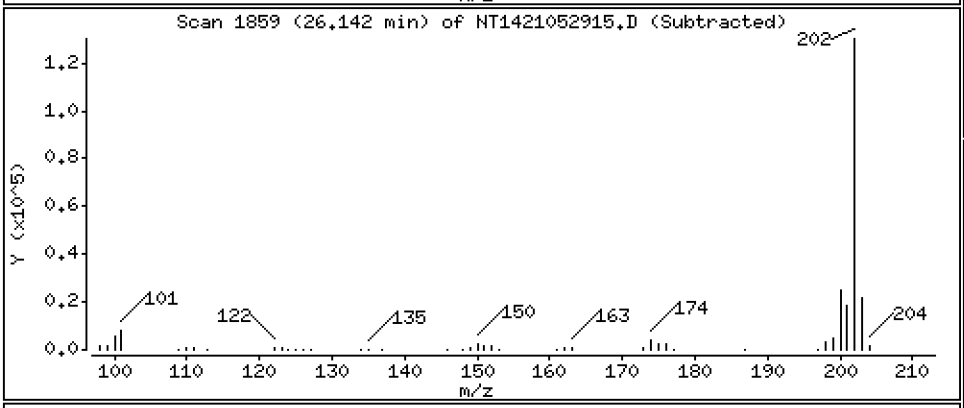
Column diameter: 0.25

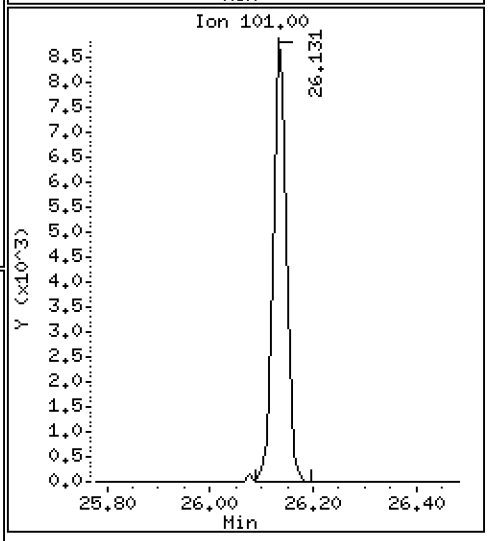
44 Fluoranthene

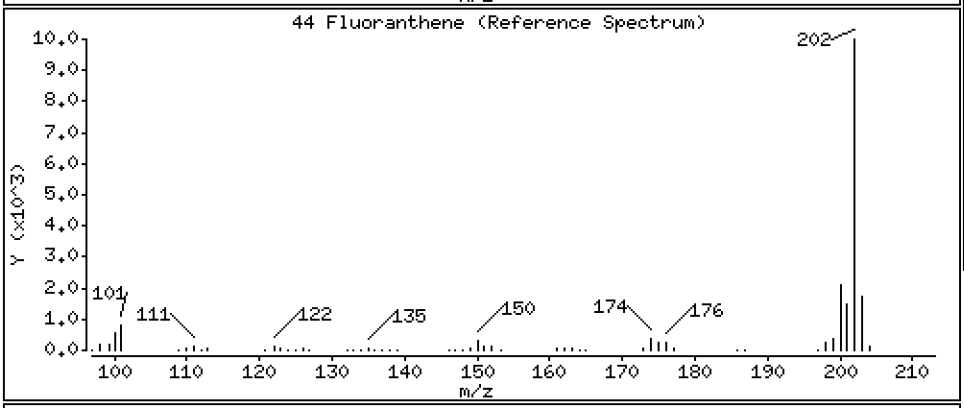
Concentration: 2.672 ug/mL

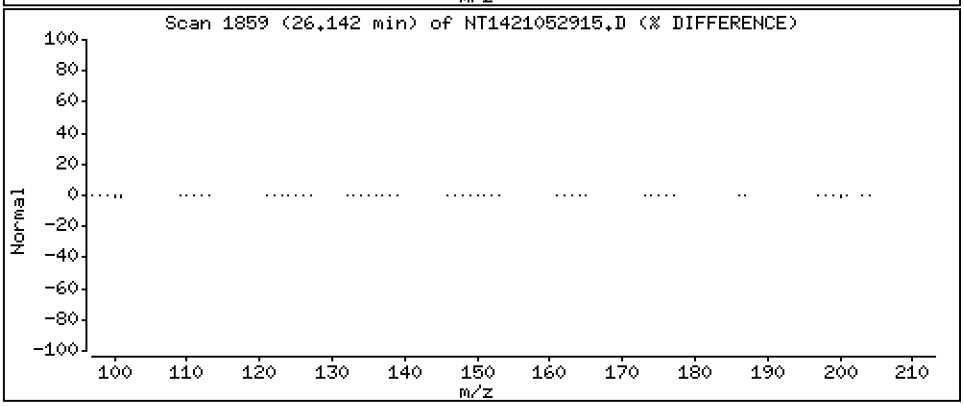












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

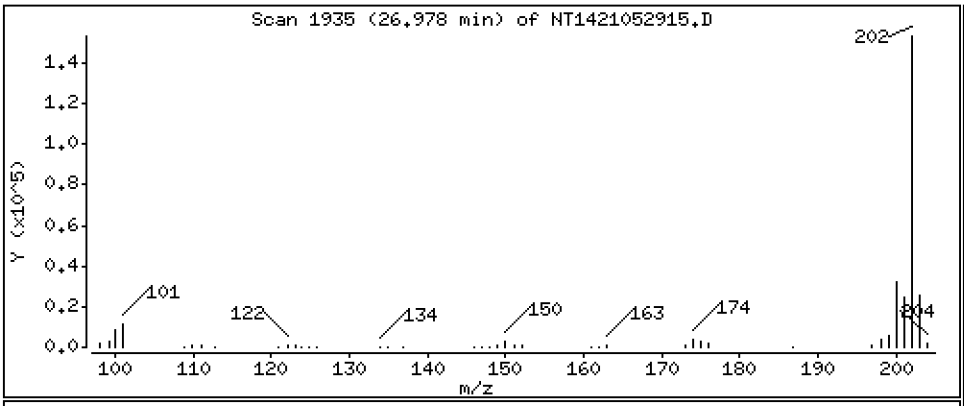
Operator: VTS

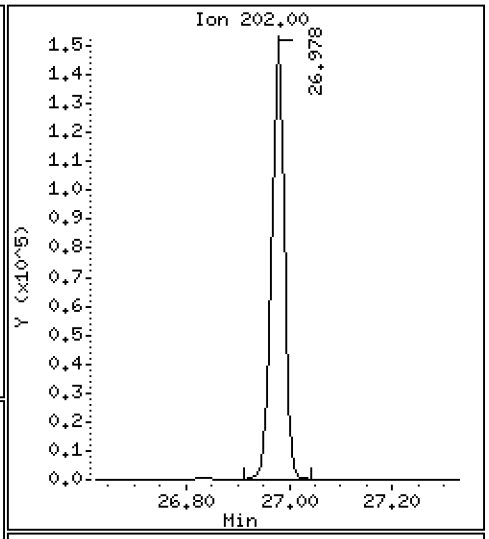
Column phase: Rxi-17Sil MS

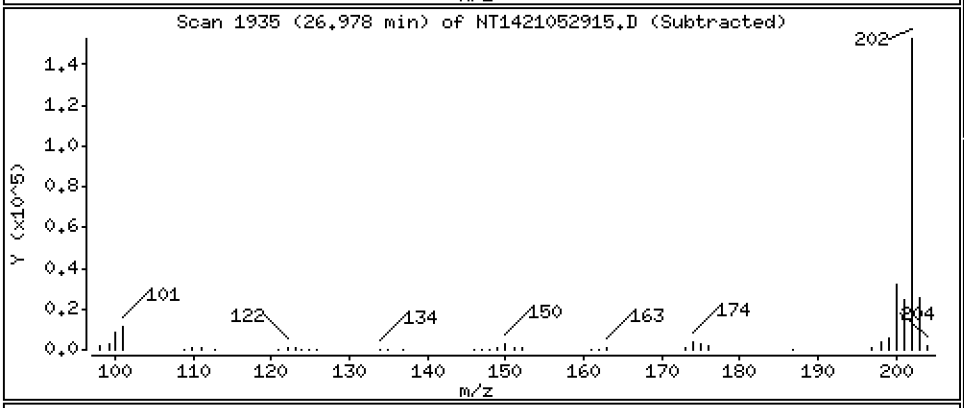
Column diameter: 0.25

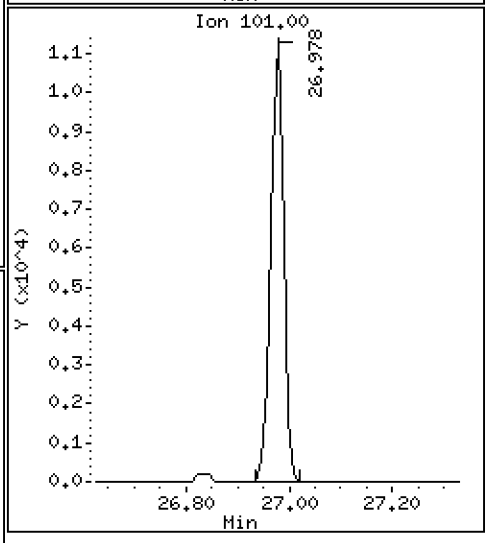
46 Pyrene

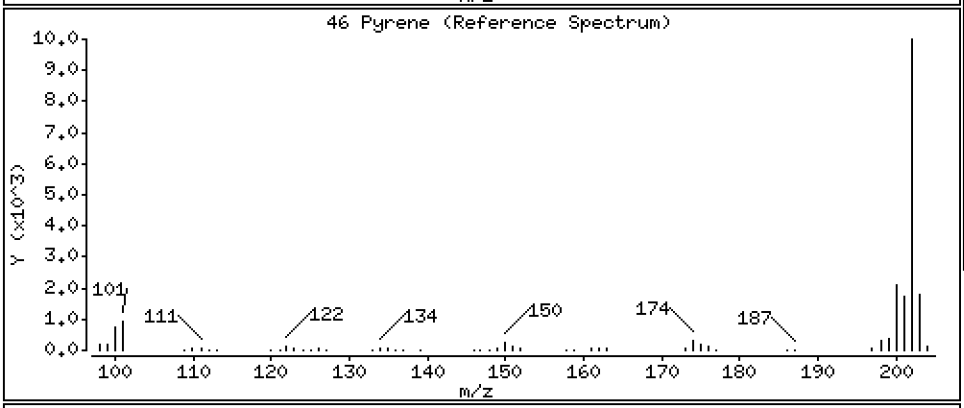
Concentration: 2.712 ug/mL

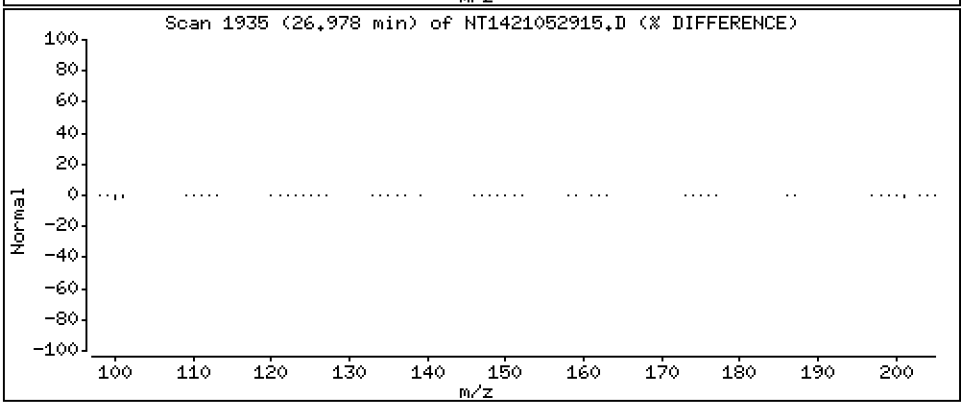












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

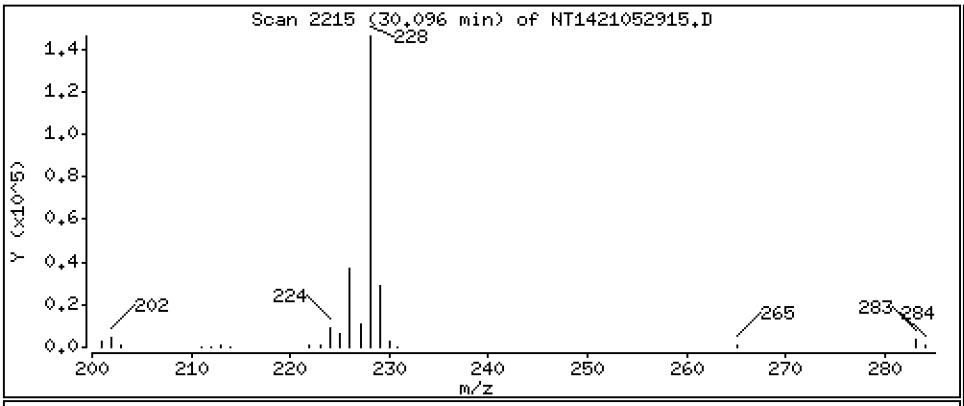
Operator: VTS

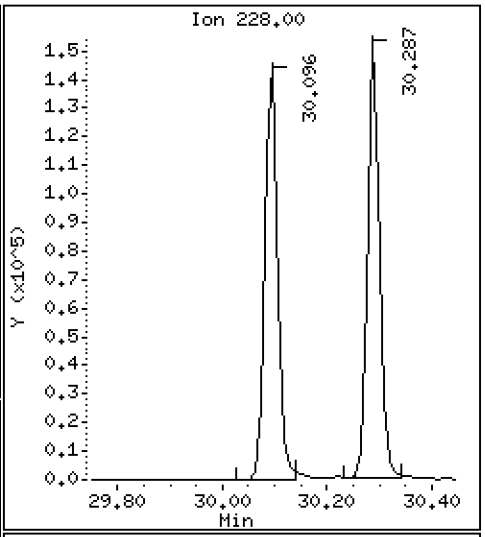
Column phase: Rxi-17Sil MS

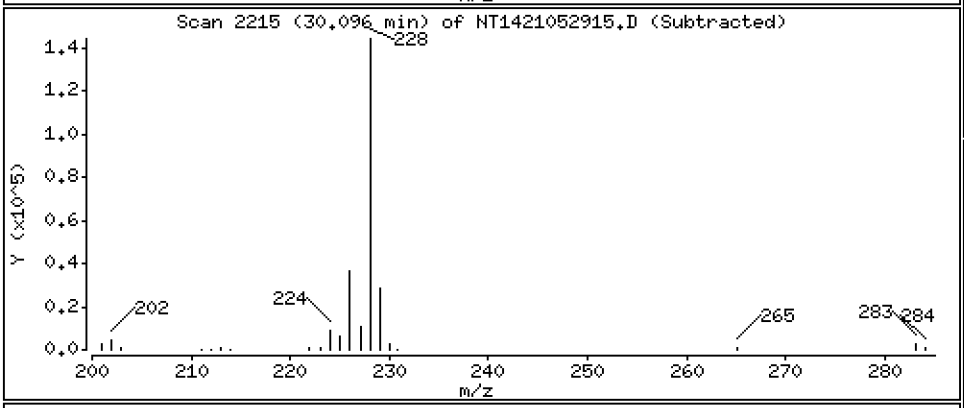
Column diameter: 0.25

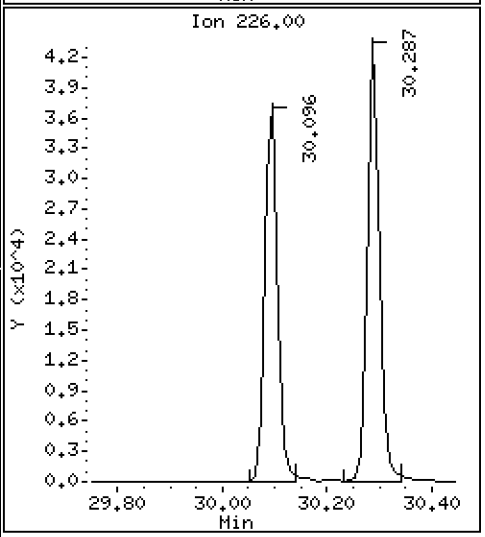
55 Benzo(a)anthracene

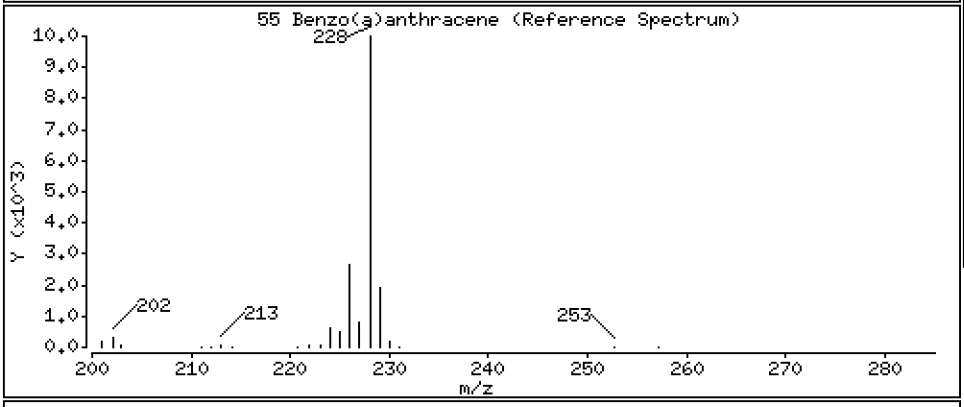
Concentration: 2.756 ug/mL

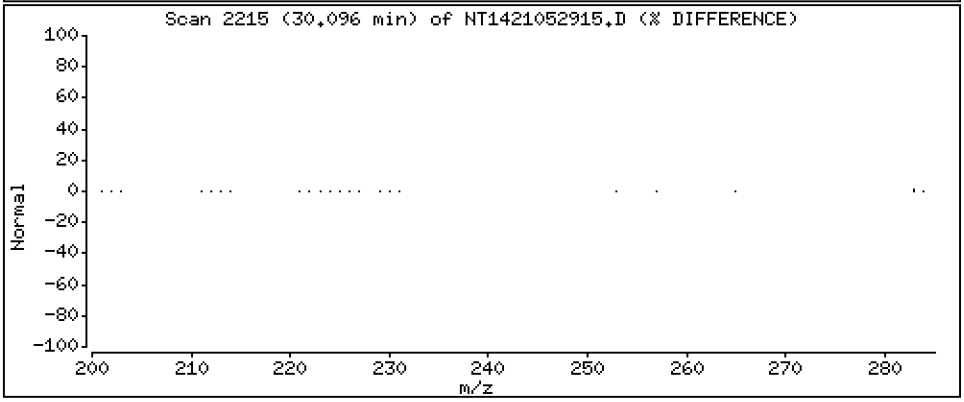












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

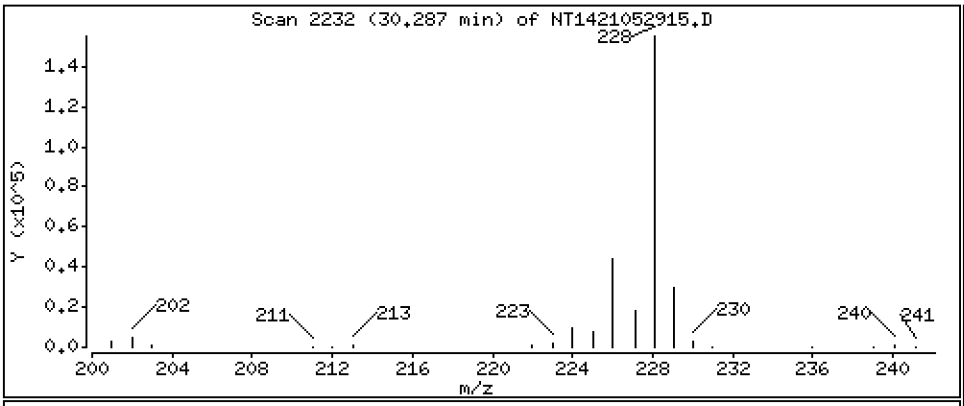
Operator: VTS

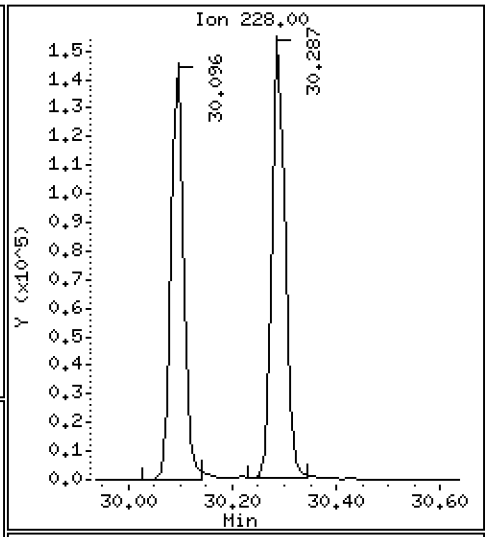
Column phase: Rxi-17Sil MS

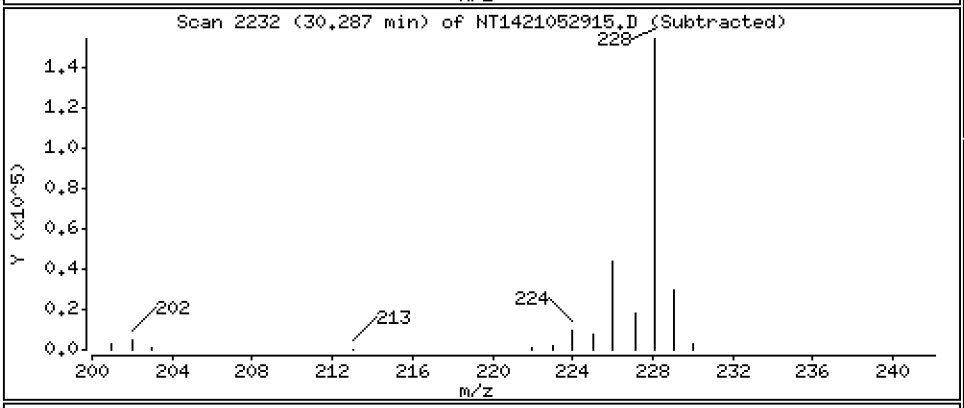
Column diameter: 0.25

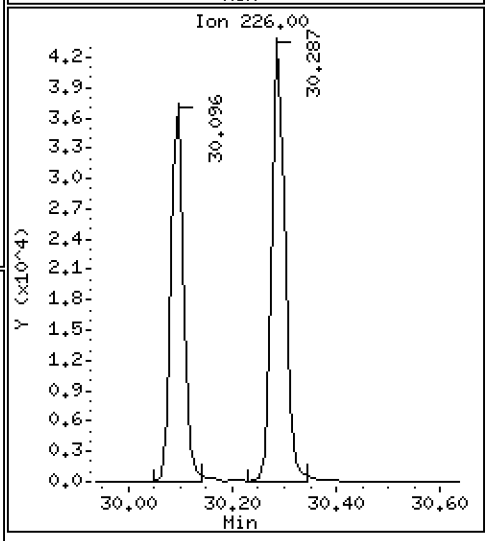
57 Chrysene

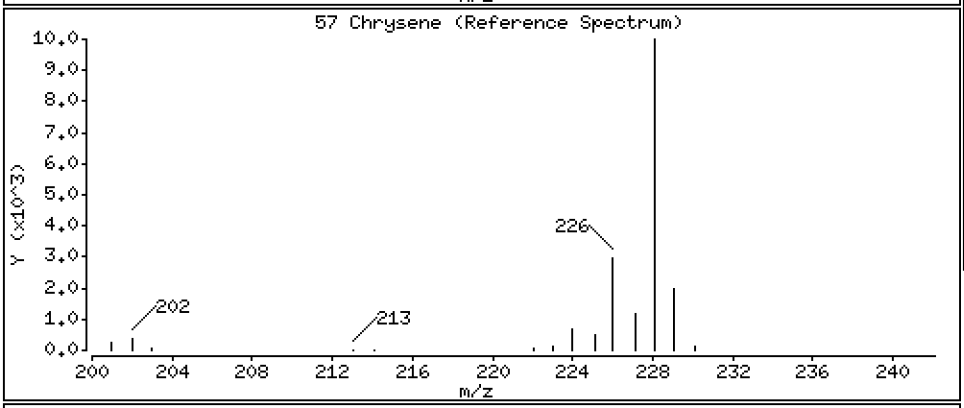
Concentration: 2.770 ug/mL

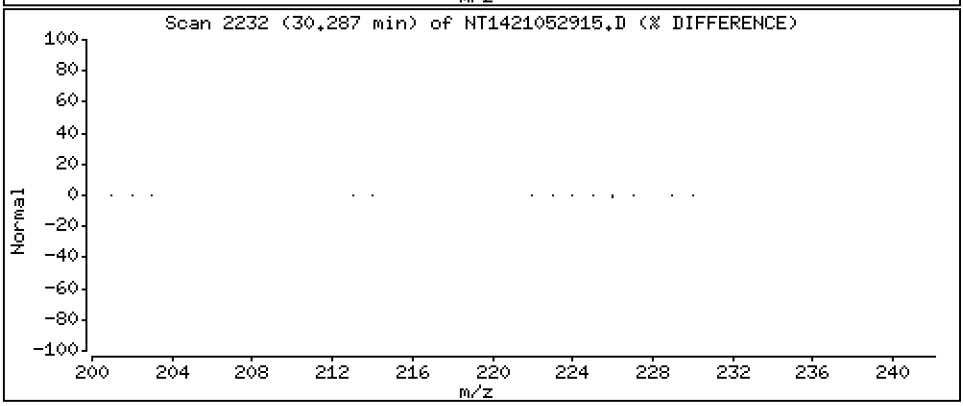












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

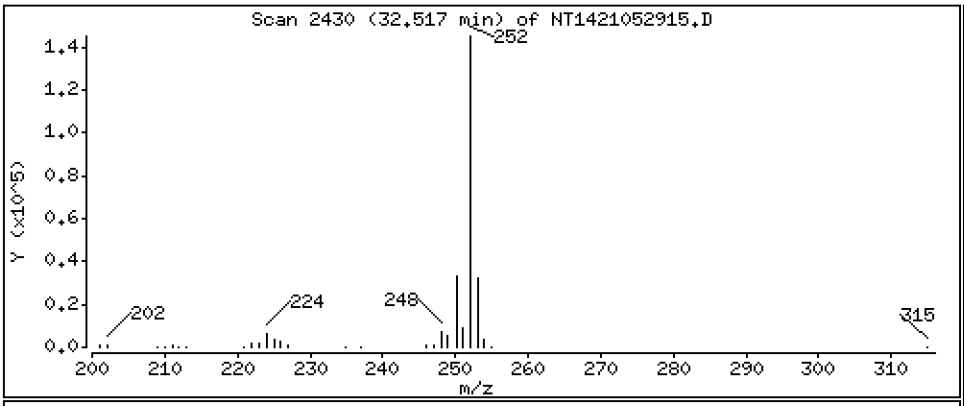
Operator: VTS

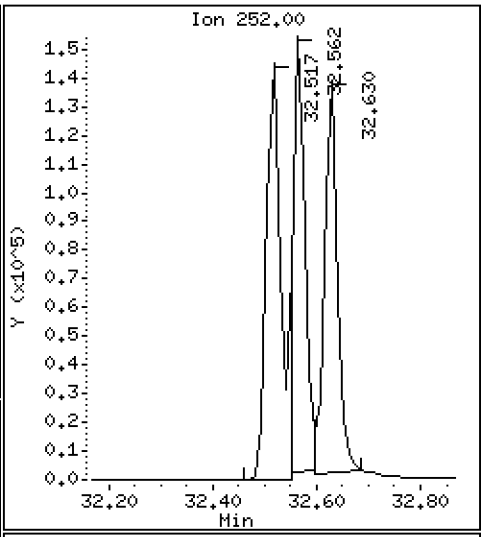
Column phase: Rxi-17Sil MS

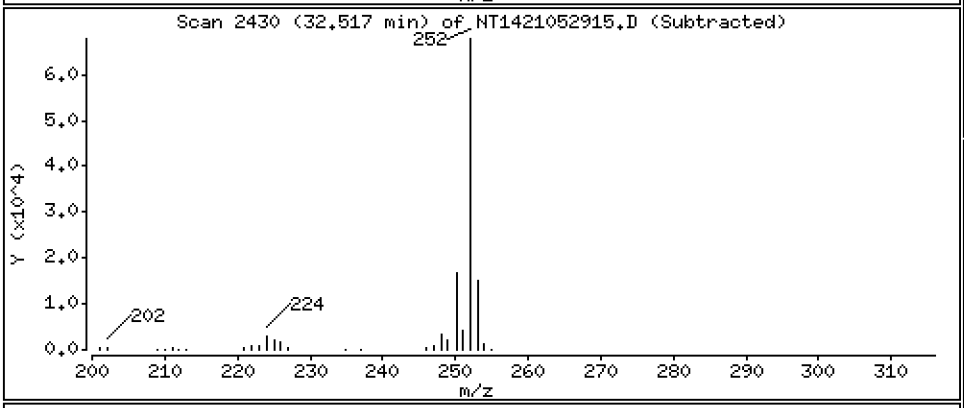
Column diameter: 0.25

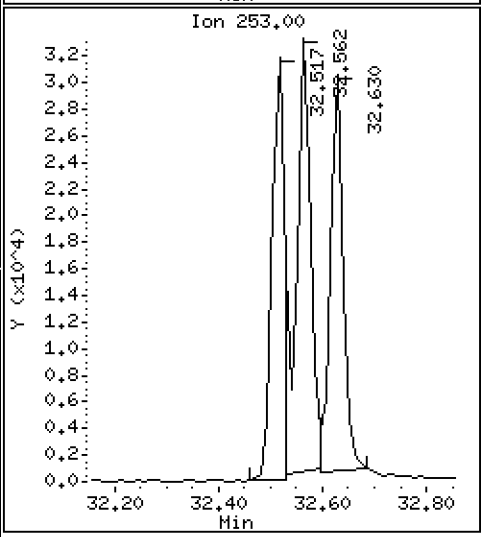
62 Benzo(b)fluoranthene

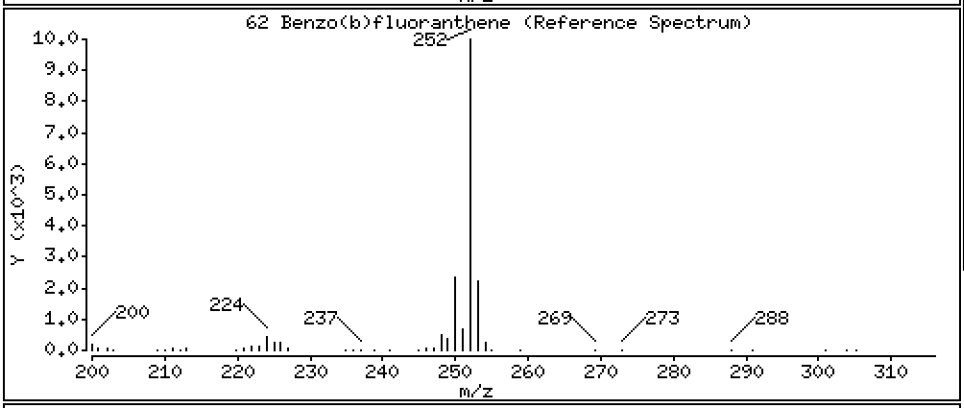
Concentration: 3.119 ug/mL

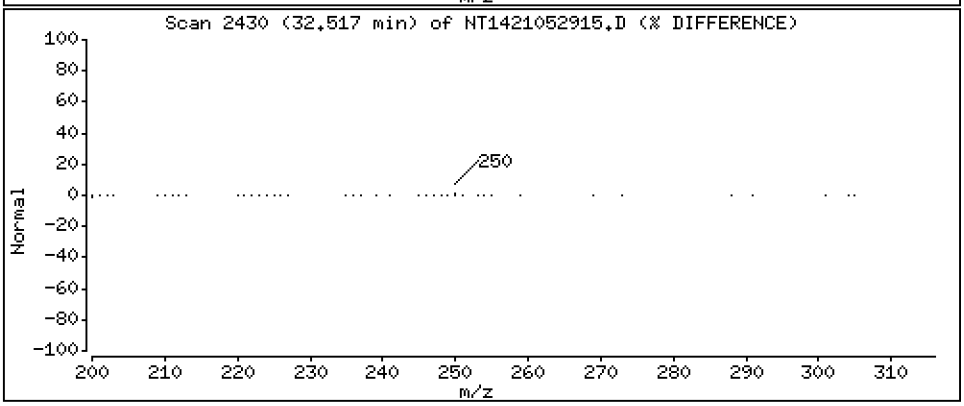












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

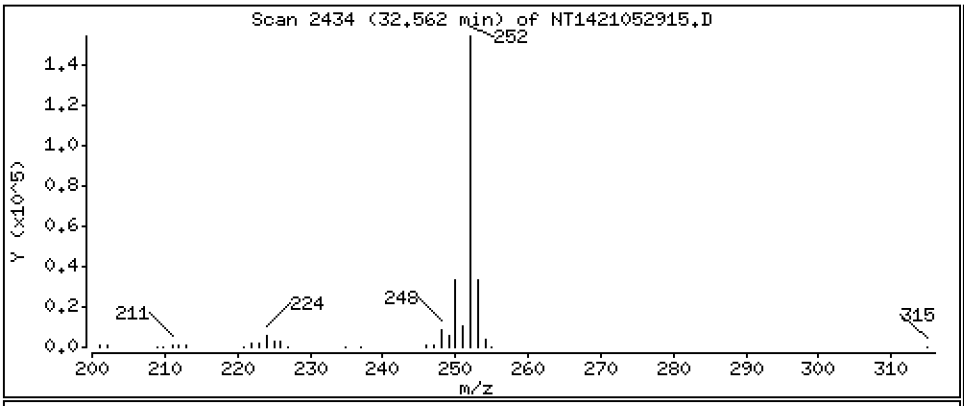
Operator: VTS

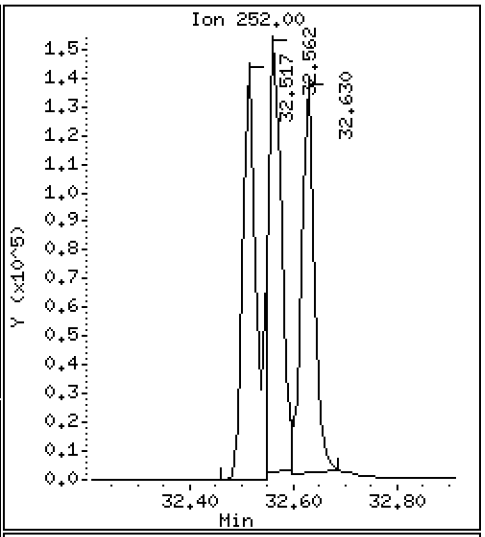
Column phase: Rxi-17Sil MS

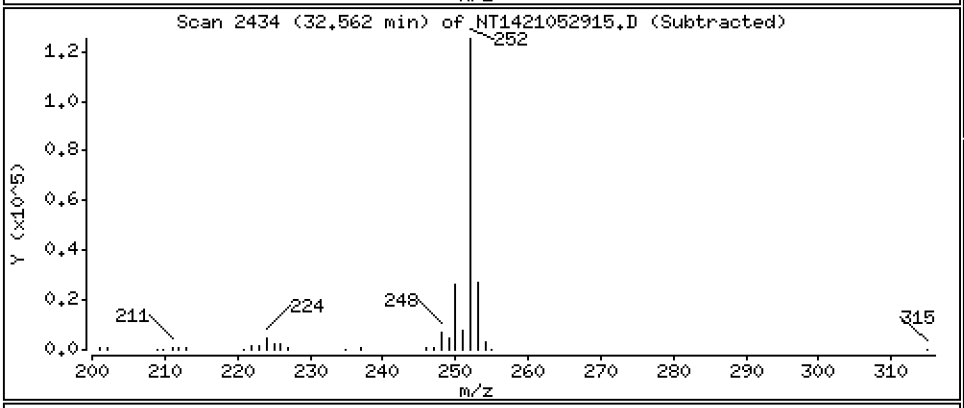
Column diameter: 0.25

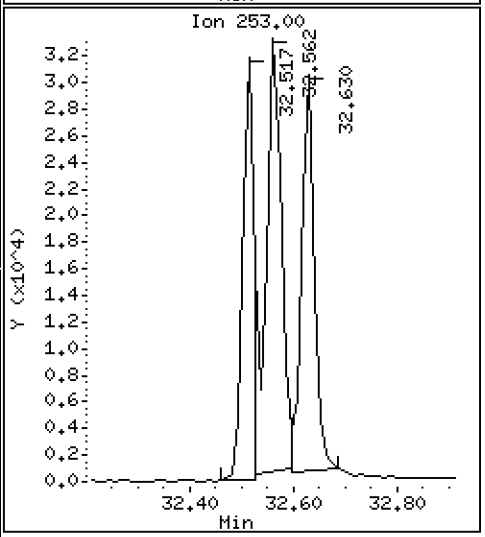
63 Benzo(k)fluoranthene

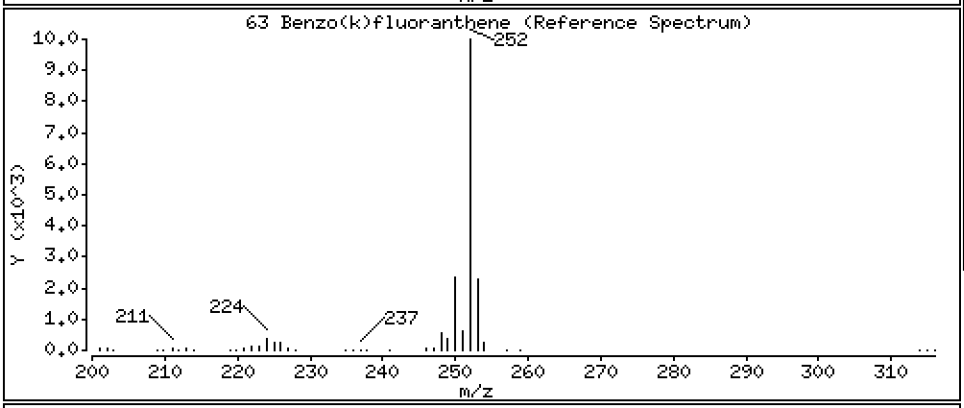
Concentration: 2.487 ug/mL

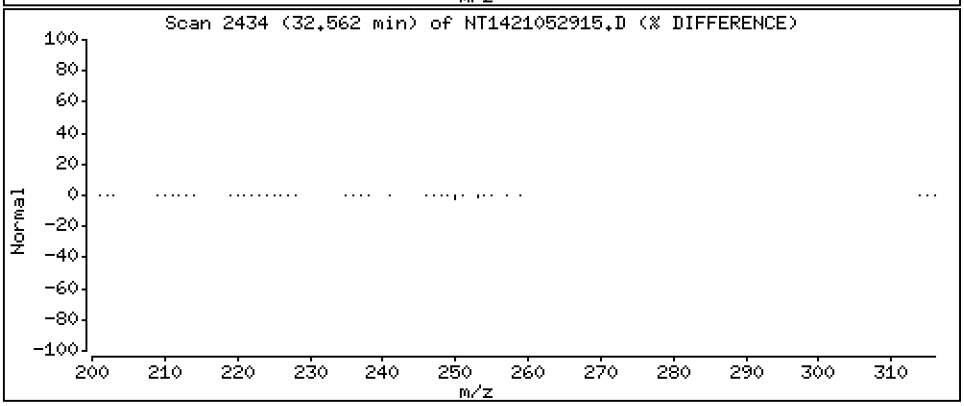












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

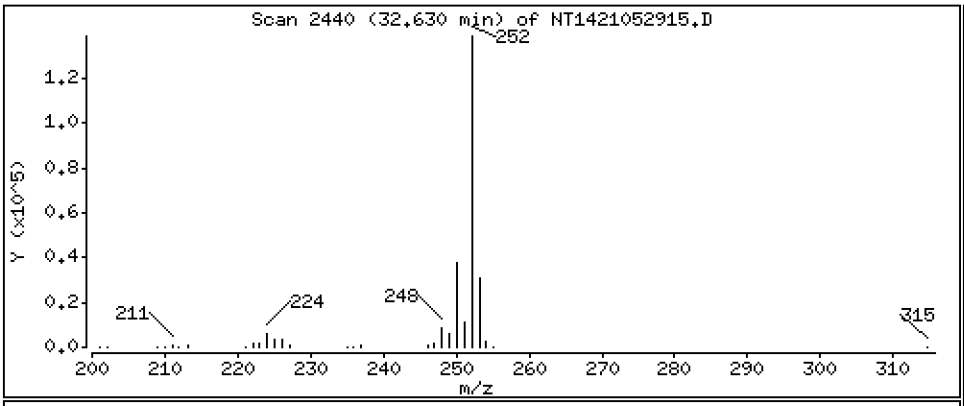
Operator: VTS

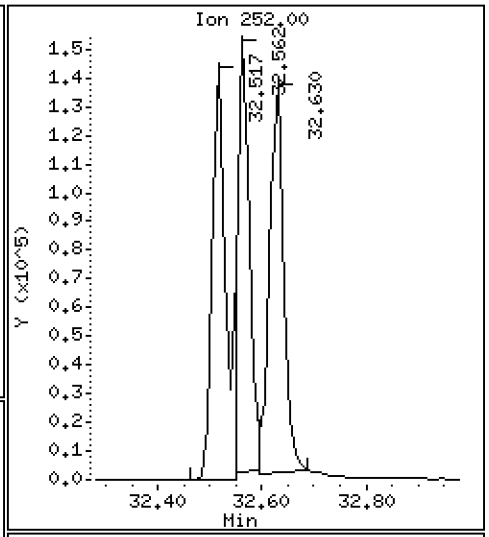
Column phase: Rxi-17Sil MS

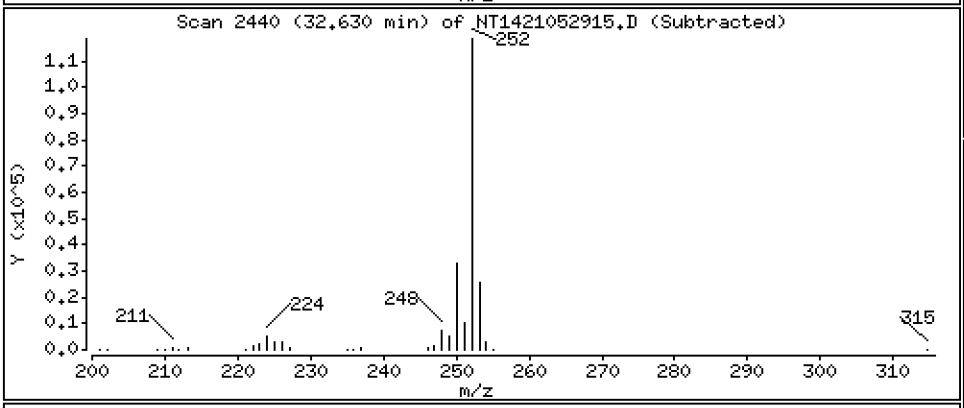
Column diameter: 0.25

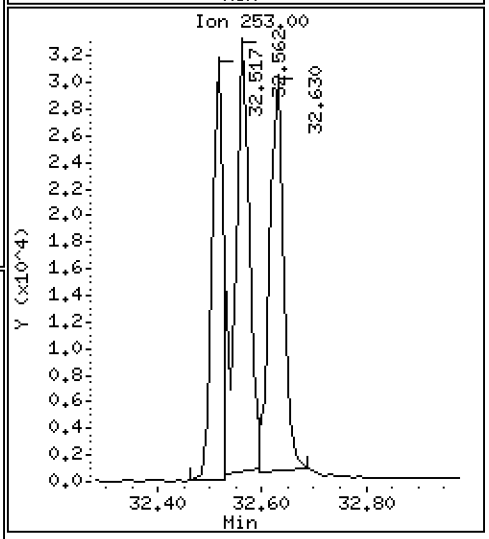
293 Benzo(j)fluoranthene

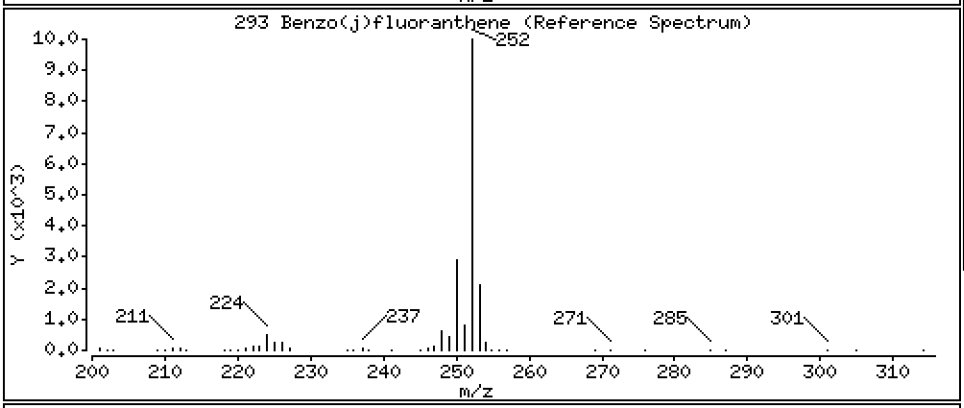
Concentration: 2.590 ug/mL

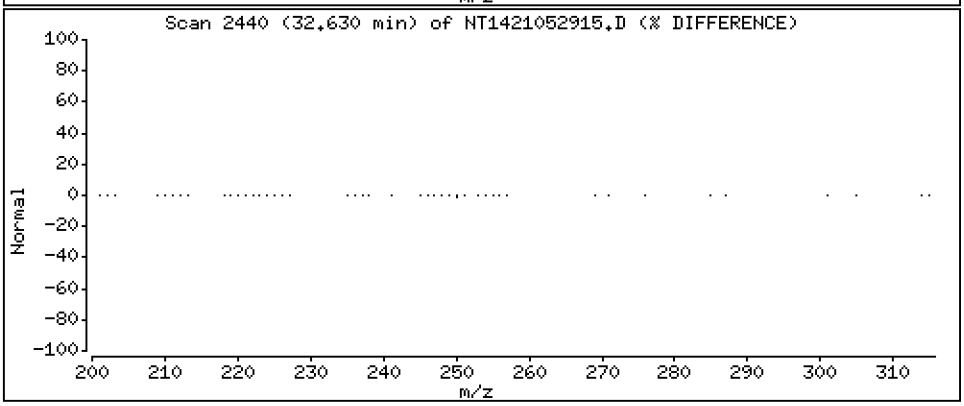












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

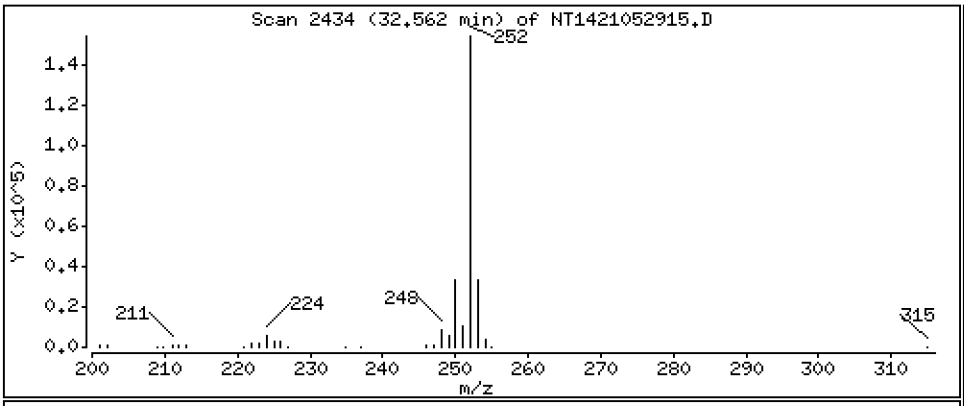
Operator: VTS

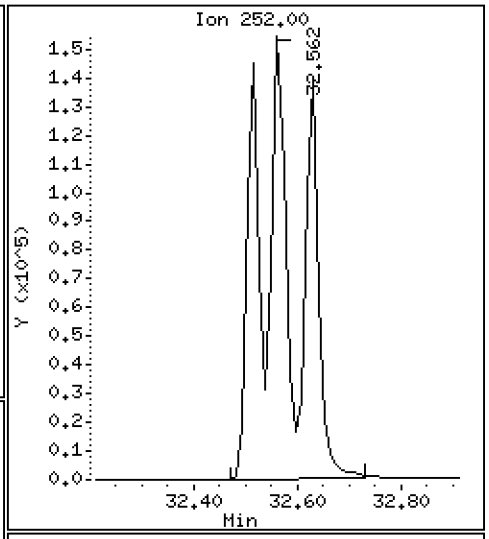
Column phase: Rxi-17Sil MS

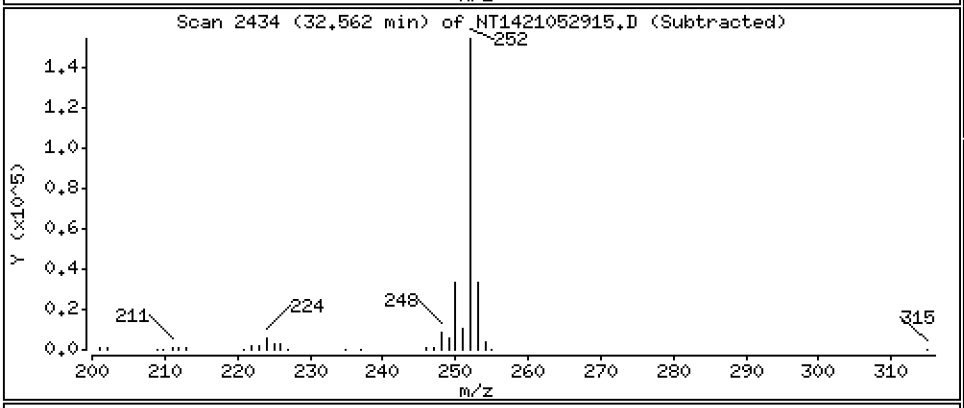
Column diameter: 0.25

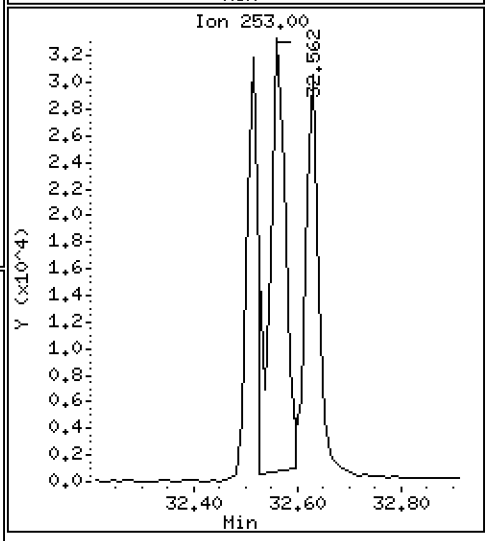
246 Total Benzofluoranthenes

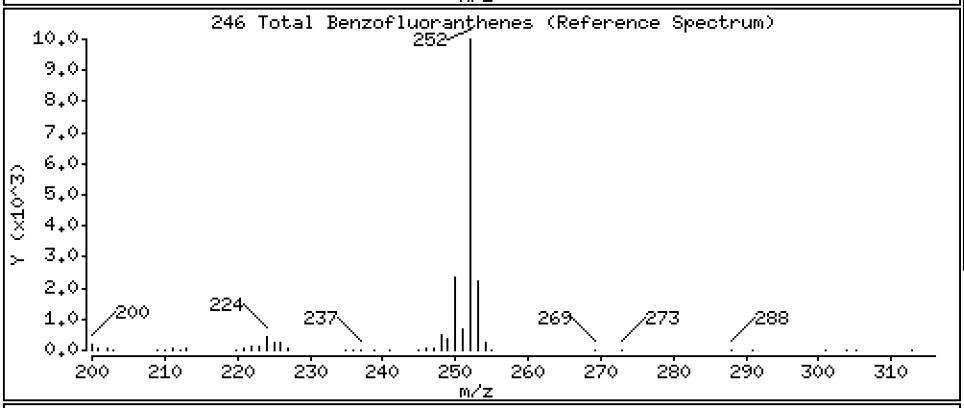
Concentration: 8.191 ug/mL

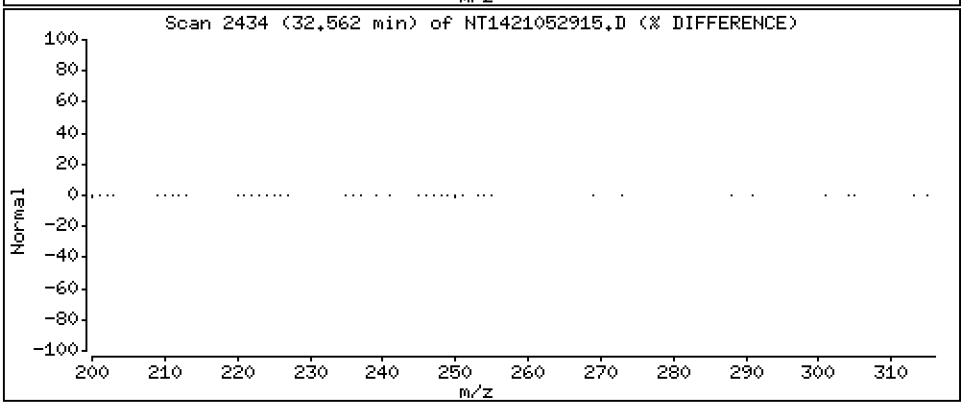












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

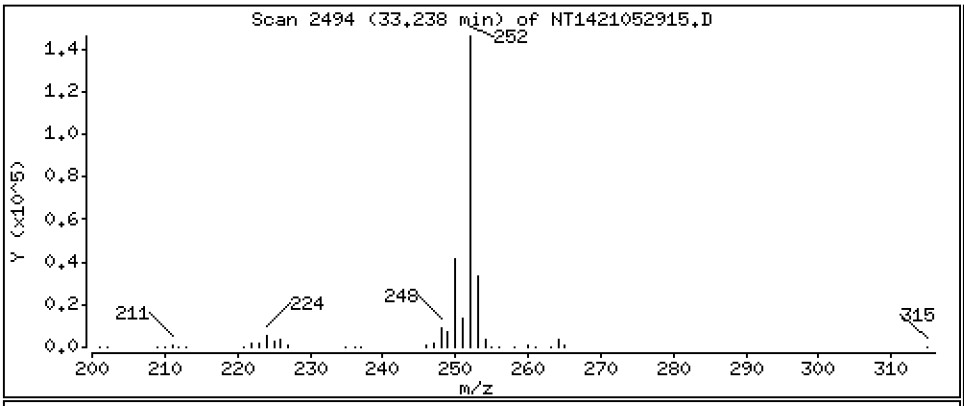
Operator: VTS

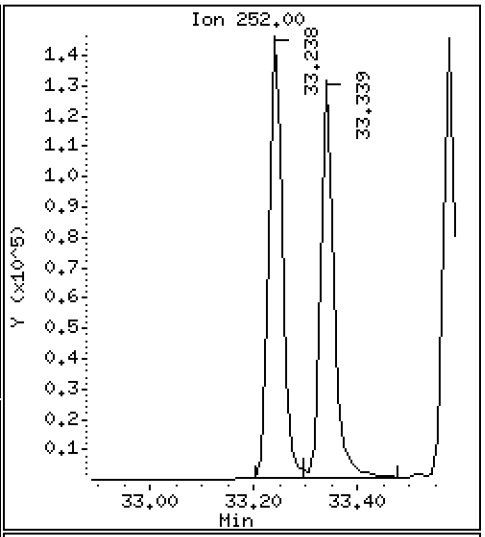
Column phase: Rxi-17Sil MS

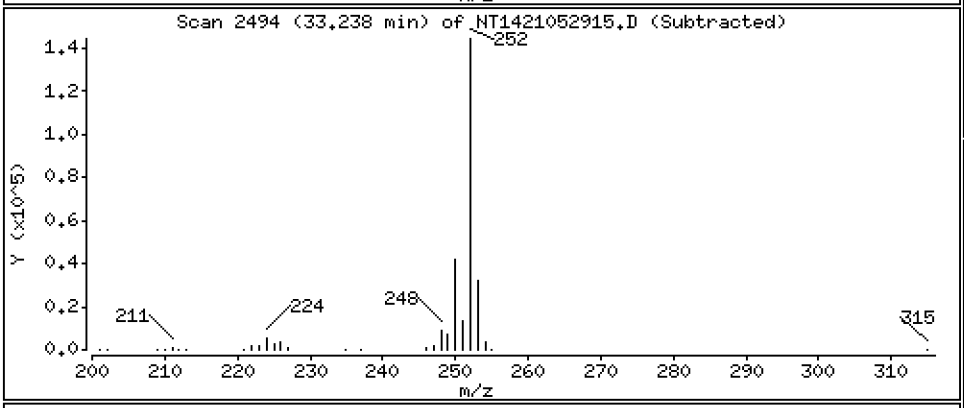
Column diameter: 0.25

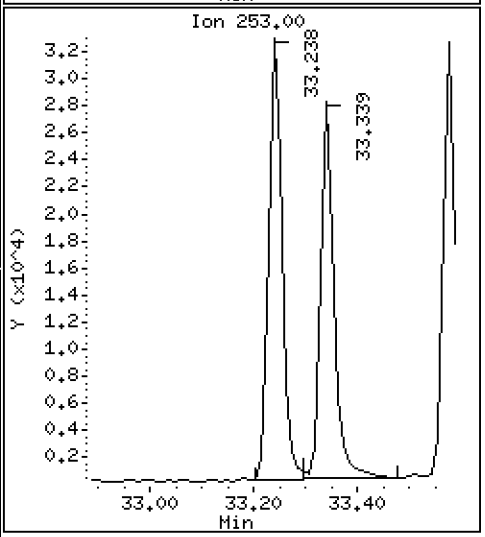
64 Benzo(e)pyrene

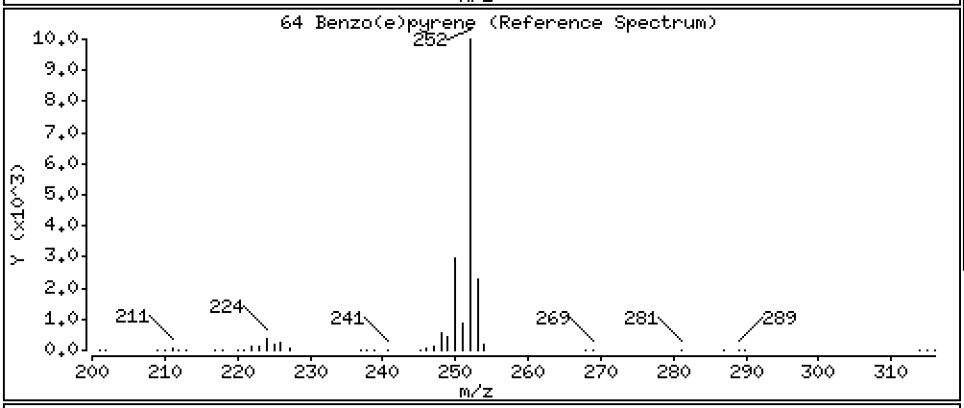
Concentration: 2.669 ug/mL

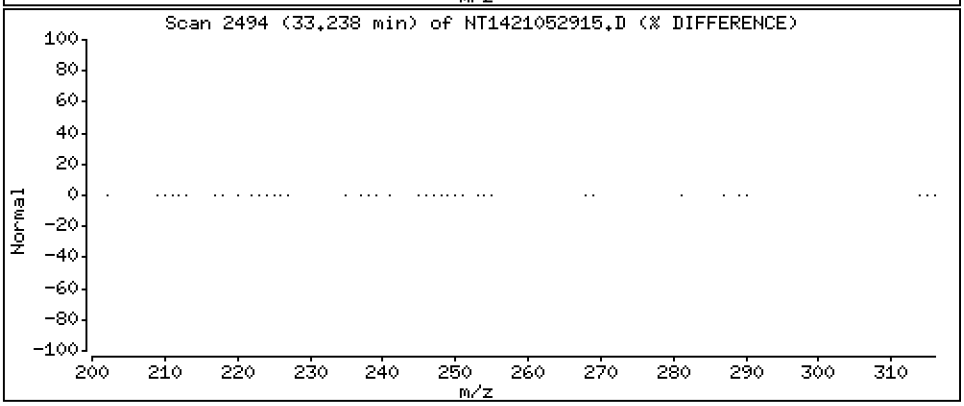












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

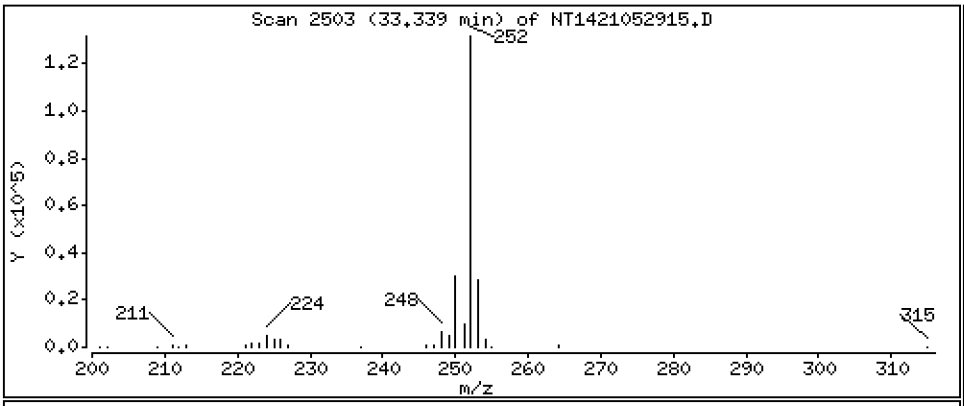
Operator: VTS

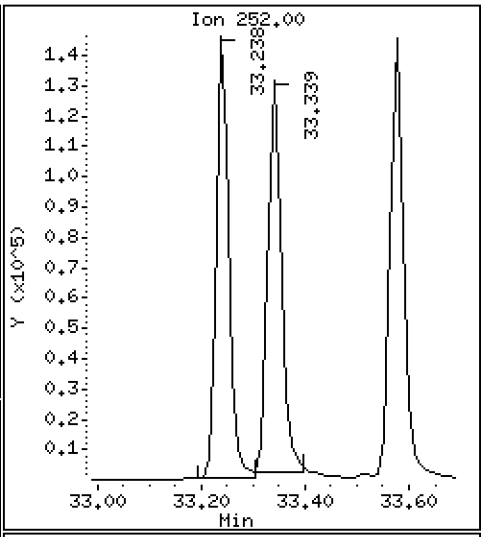
Column phase: Rxi-17Sil MS

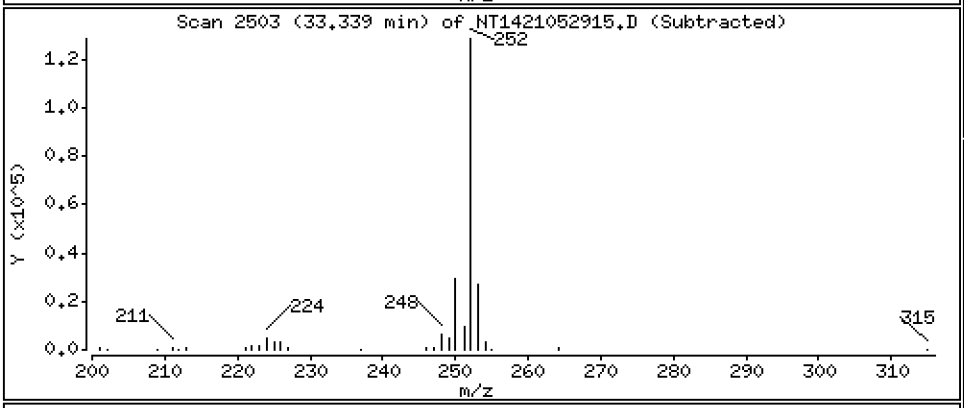
Column diameter: 0.25

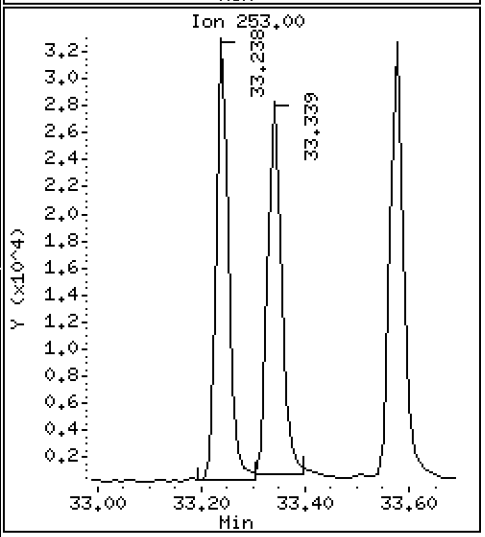
66 Benzo(a)pyrene

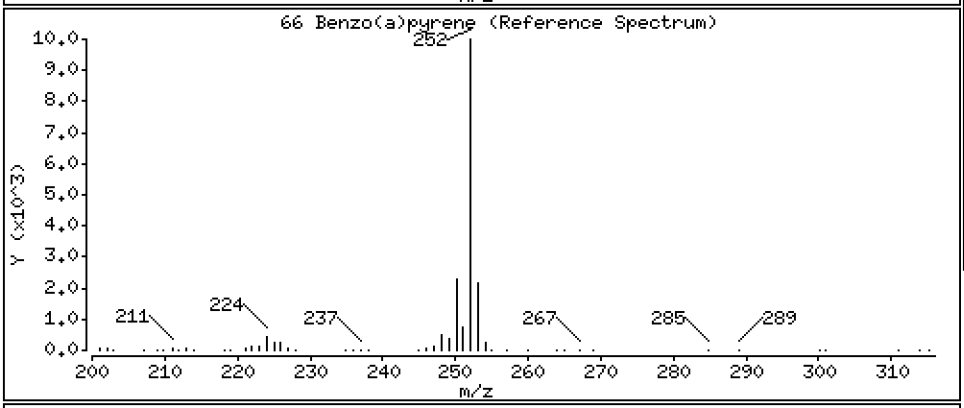
Concentration: 2.621 ug/mL

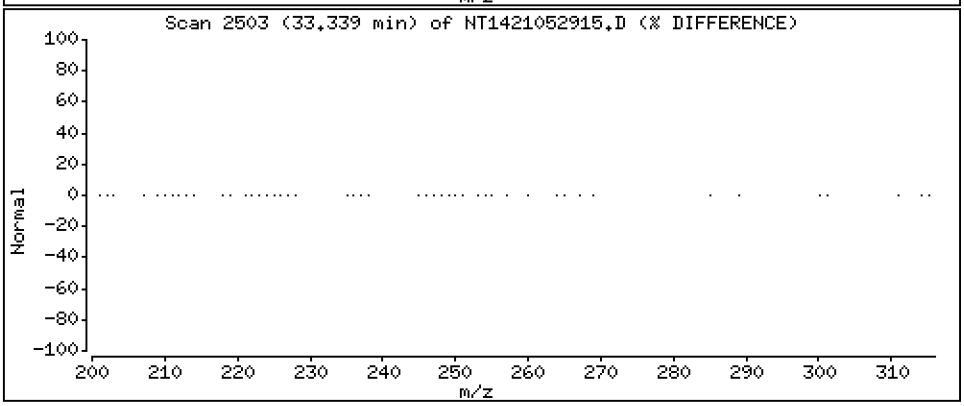












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

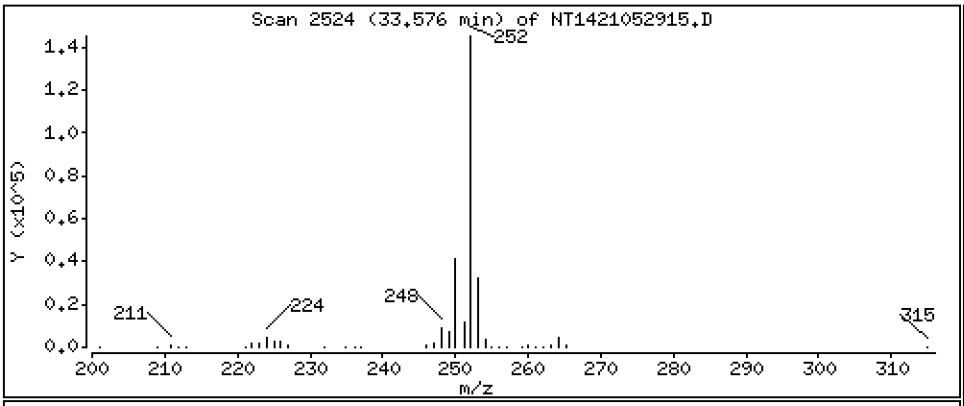
Operator: VTS

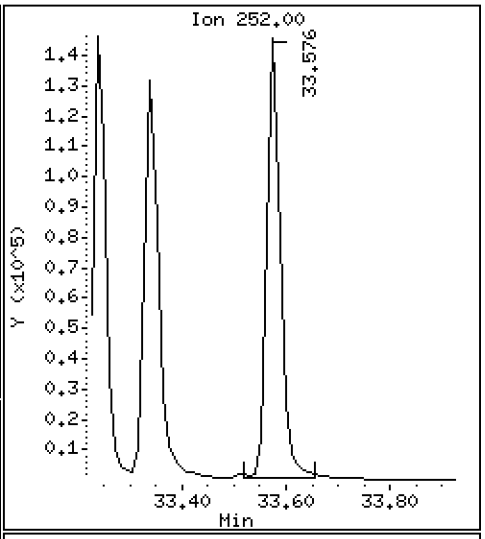
Column phase: Rxi-17Sil MS

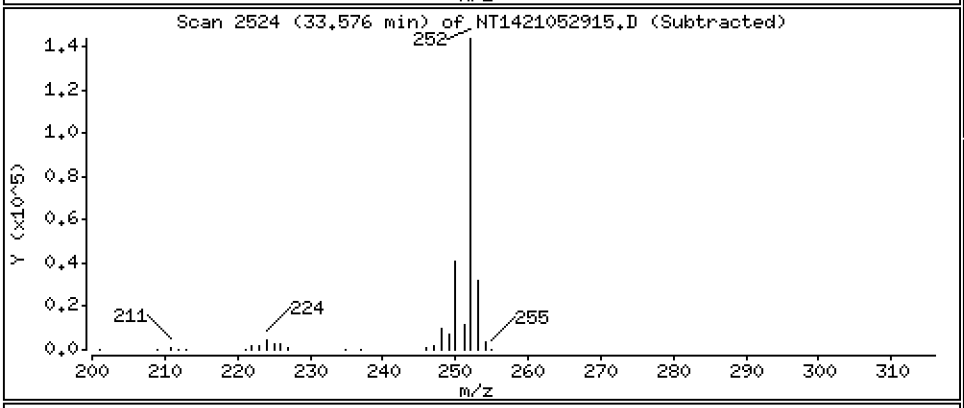
Column diameter: 0.25

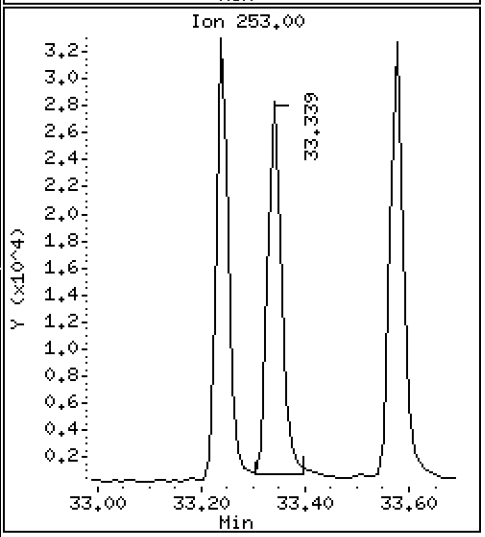
68 Perylene

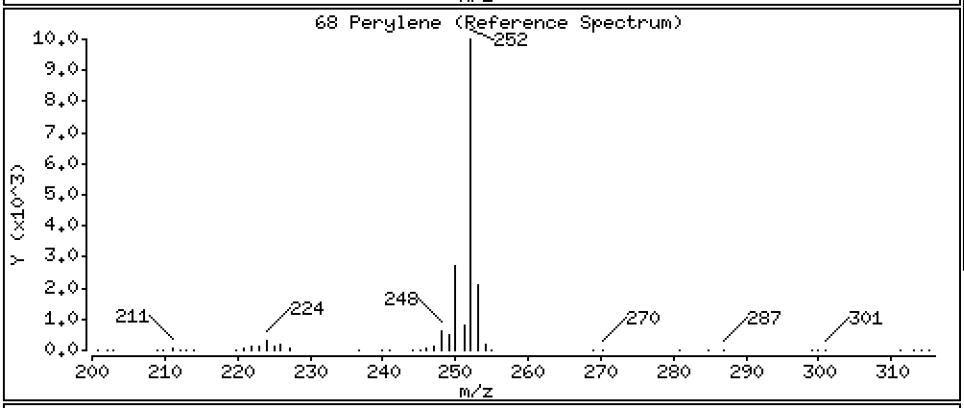
Concentration: 2.820 ug/mL

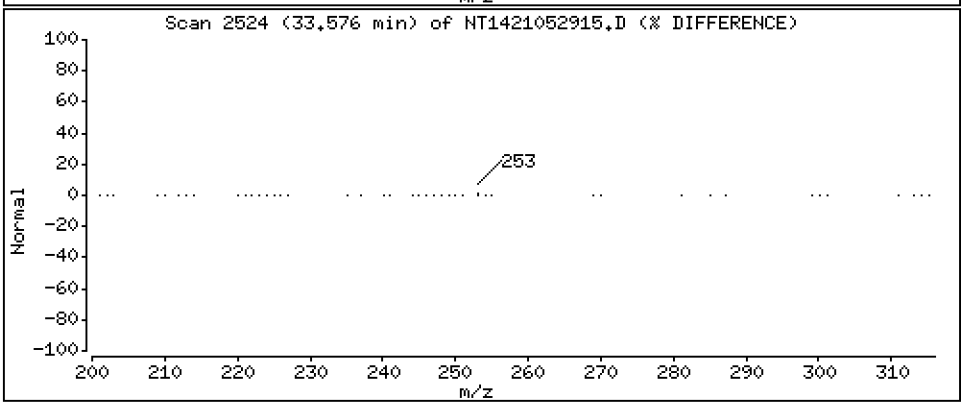












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

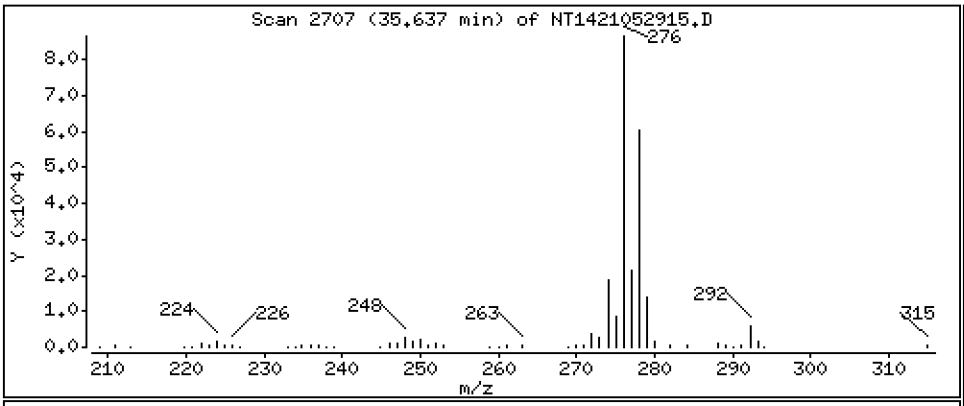
Operator: VTS

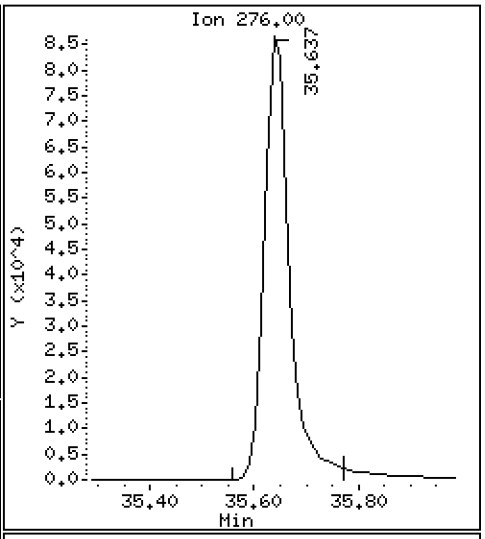
Column phase: Rxi-17Sil MS

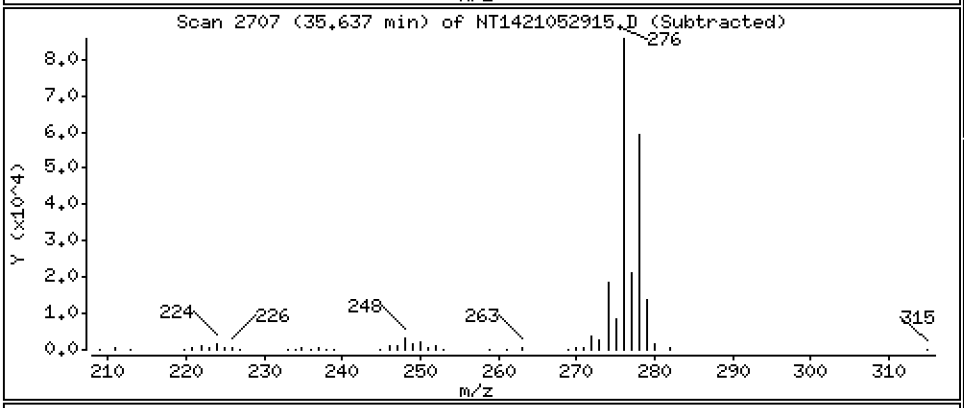
Column diameter: 0.25

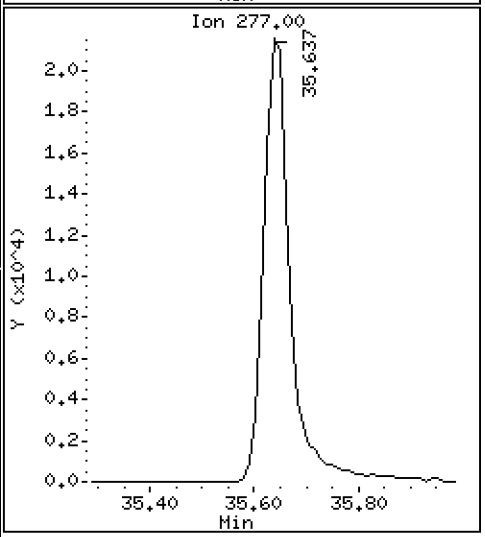
69 Indeno(1,2,3-cd)pyrene

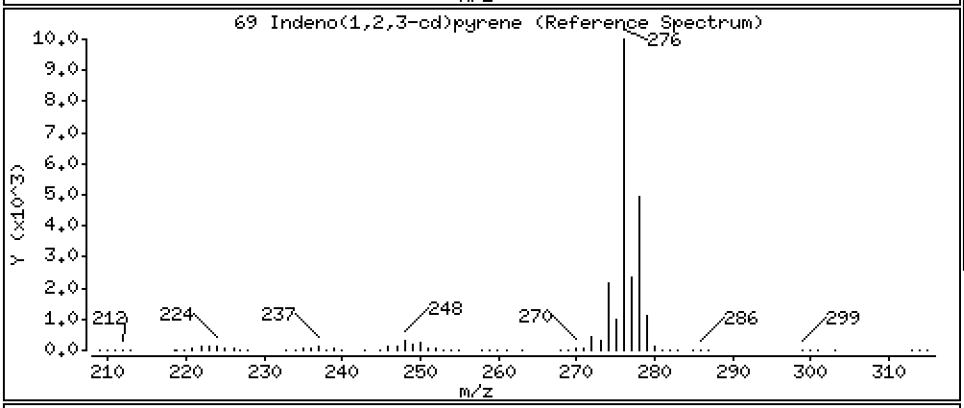
Concentration: 2.913 ug/mL

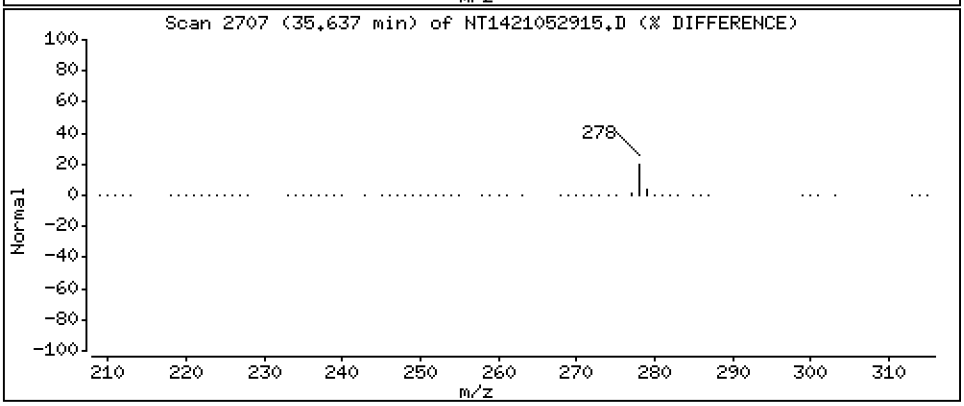












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

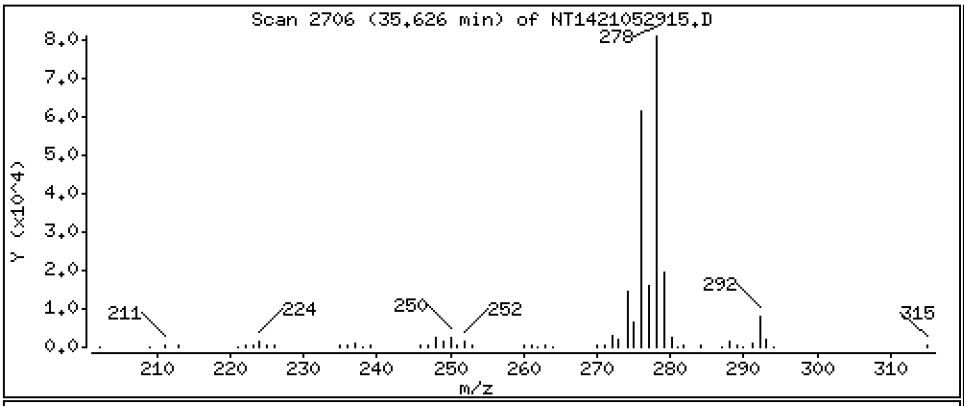
Operator: VTS

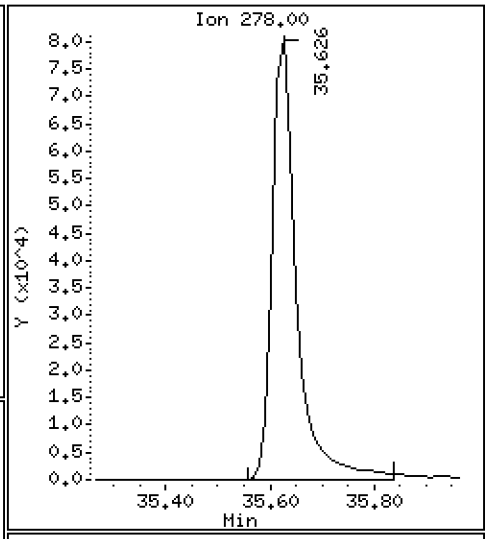
Column phase: Rxi-17Sil MS

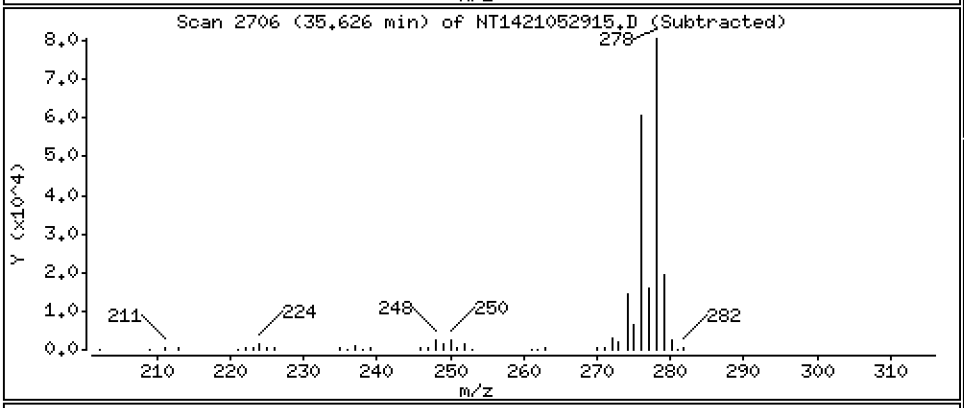
Column diameter: 0.25

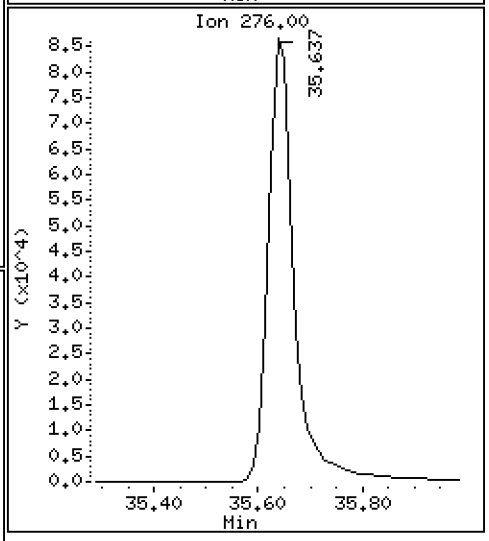
70 Dibenzo(a,h)anthracene

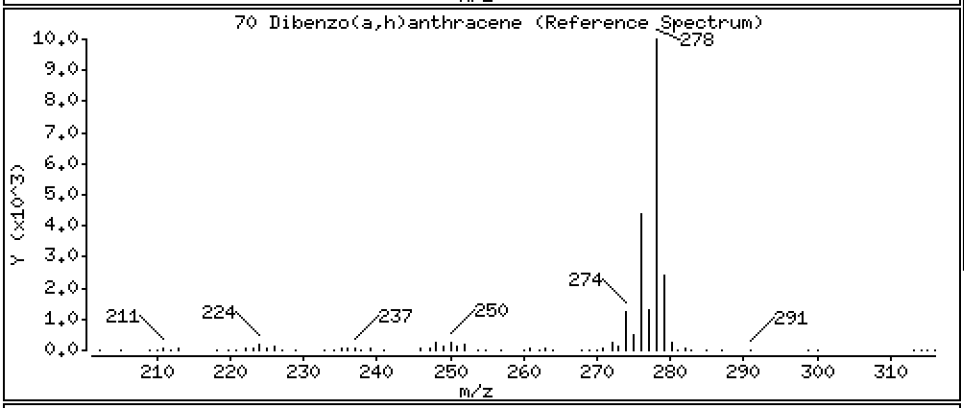
Concentration: 2.690 ug/mL

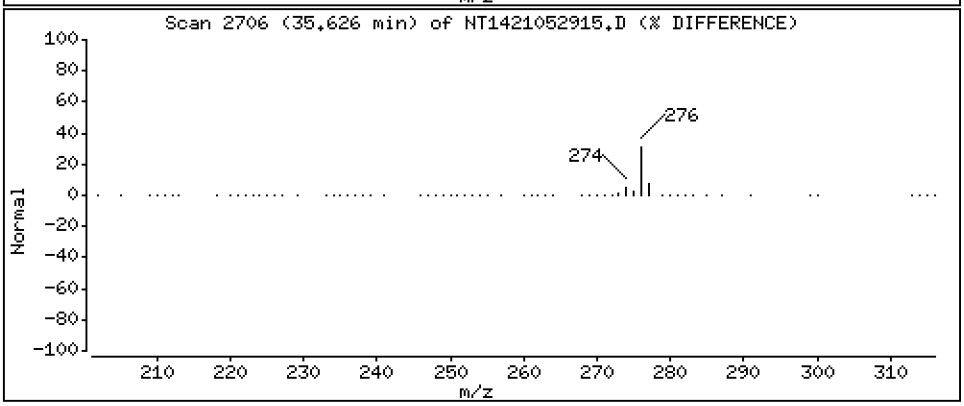












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

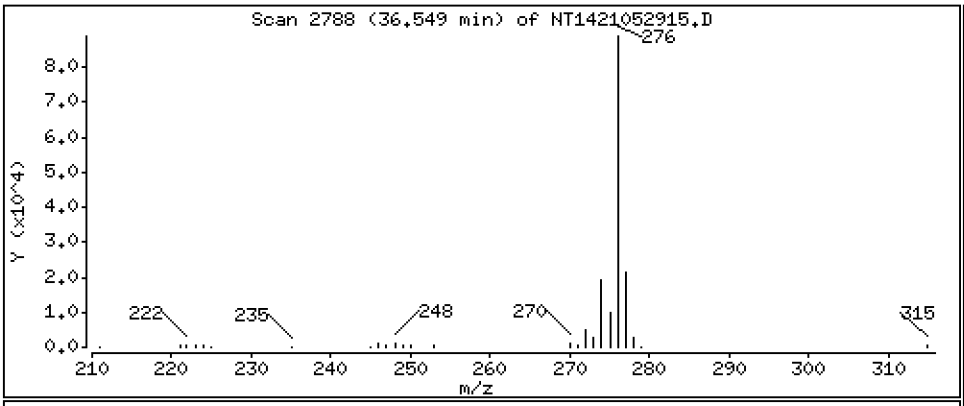
Operator: VTS

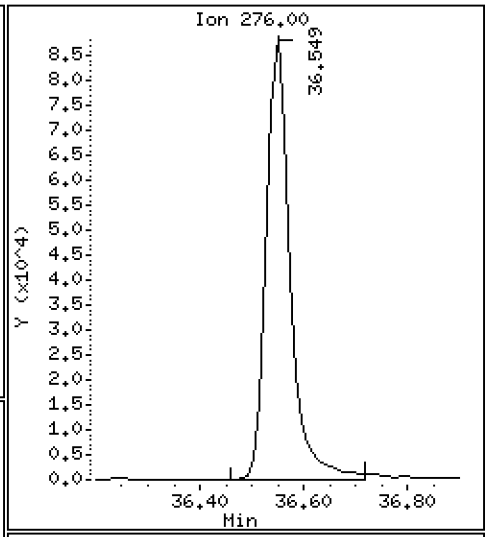
Column phase: Rxi-17Sil MS

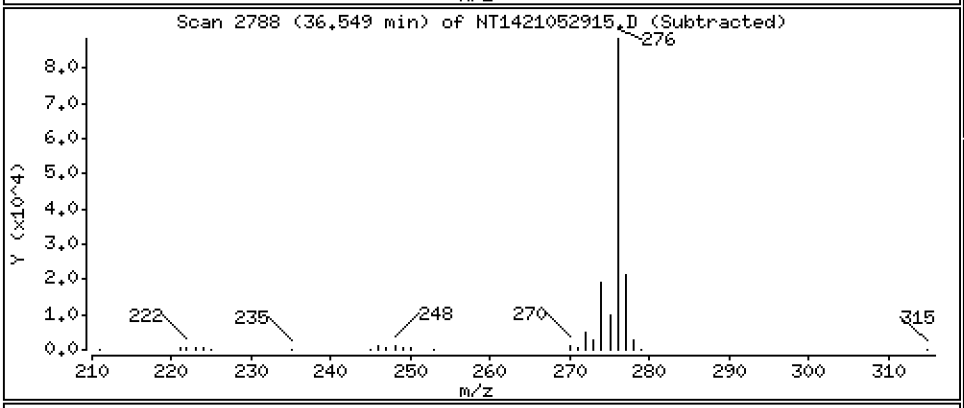
Column diameter: 0.25

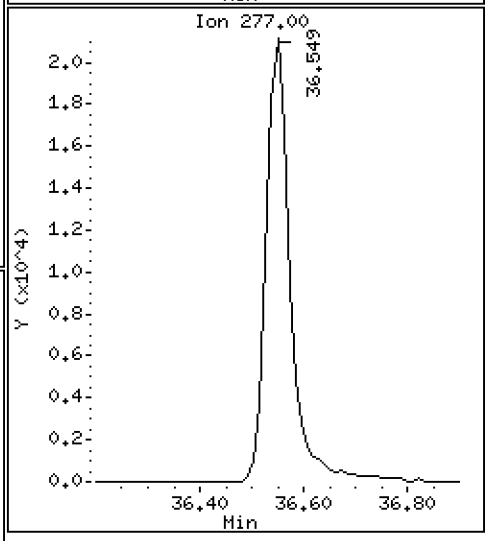
74 Benzo(g,h,i)perylene

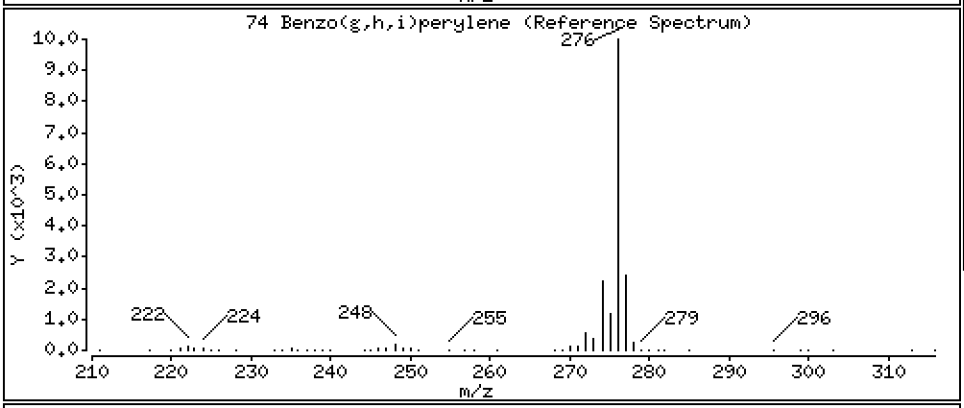
Concentration: 2.781 ug/mL

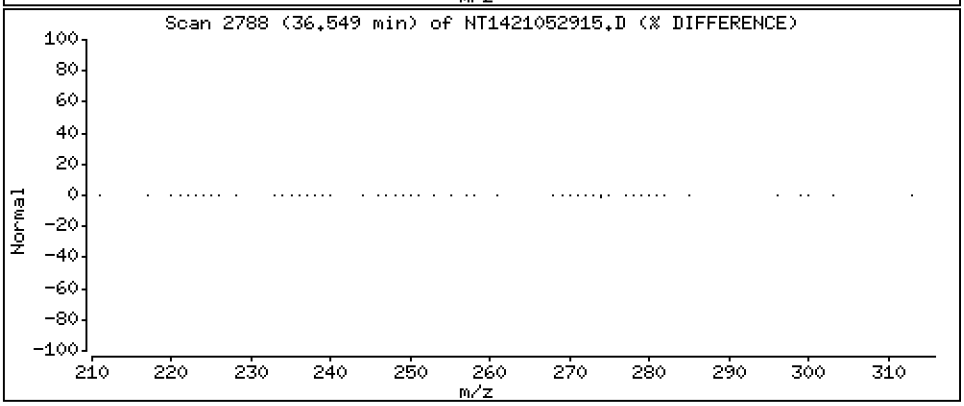












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D
Lab Smp Id: SJF0025-SCV1
Inj Date : 29-MAY-2021 19:38
Operator : VTS Inst ID: nt14.i
Smp Info : SJF0025-SCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Meth Date : 02-Jun-2021 19:03 yev Quant Type: ISTD
Cal Date : 29-MAY-2021 18:49 Cal File: NT1421052914.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	1 trans-Decalin	138	7.146	7.156	(0.378)	24405	2.93881	2.939
	2 cis-Decalin	138	8.266	8.246	(0.437)	17380	2.55518	2.555
$	6 Naphthalene-d8	136	11.897	11.897	(0.629)	223244	2.88377	2.884(R)
	7 Naphthalene	128	11.957	11.957	(0.632)	203089	2.62492	2.625
	12 Benzo(b)thiophene	134	12.409	12.409	(0.656)	166732	2.62140	2.621
	16 2-Methylnaphthalene	141	13.794	13.794	(0.730)	119639	2.64523	2.645
	17 1-methylnaphthalene	141	14.245	14.244	(0.753)	117019	2.65947	2.659
	18 Biphenyl	154	15.431	15.431	(0.816)	174317	2.60835	2.608
	19 2,6-Dimethylnaphthalene	156	15.508	15.508	(0.820)	127969	2.60384	2.604
	20 Acenaphthylene	152	17.091	17.091	(0.904)	220486	2.62443	2.624
$	21 Acenaphthene-d10	164	17.377	17.377	(0.919)	134362	2.82593	2.826(R)
	22 Acenaphthene	153	17.486	17.486	(0.925)	142697	2.75525	2.755
	23 Dibenzofuran	168	17.860	17.860	(0.945)	199363	2.59511	2.595
	24 1,6,7-Trimethylnaphthalene	170	18.091	18.080	(0.957)	132237	2.64202	2.642
*	25 Fluorene-d10	176	18.907	18.907	(1.000)	166522	2.00000	
	26 Fluorene	166	19.009	19.009	(1.005)	155403	2.61087	2.611
	30 Dibenzothiophene	184	21.931	21.931	(1.160)	221357	2.63418	2.634
$	35 Phenanthrene-d10	188	22.239	22.239	(0.995)	230950	2.85128	2.851(R)
	36 Phenanthrene	178	22.327	22.327	(0.999)	229127	2.63951	2.640
*	250 Anthracene-d10	188	22.360	22.360	(1.000)	168360	2.00000	
	37 Anthracene	178	22.426	22.425	(1.003)	219523	2.68776	2.688
	42 Carbazole	167	23.712	23.701	(1.060)	194800	2.70414	2.704
	43 1-Methylphenanthrene	192	24.162	24.151	(1.081)	166388	2.66719	2.667
	44 Fluoranthene	202	26.142	26.131	(1.169)	256004	2.67188	2.672
	46 Pyrene	202	26.977	26.977	(1.207)	270263	2.71212	2.712
	51 Naphthobenzothiophene	234	Compound Not Detected.					
	55 Benzo(a)anthracene	228	30.095	30.095	(0.907)	251589	2.75565	2.756
$	56 Chrysene-d12	240	30.219	30.219	(0.911)	227348	3.08546	3.085(R)
	57 Chrysene	228	30.287	30.287	(0.913)	247820	2.77007	2.770
	62 Benzo(b)fluoranthene	252	32.517	32.517	(0.980)	295325	3.11894	3.119
	63 Benzo(k)fluoranthene	252	32.562	32.562	(0.981)	252708	2.48737	2.487
	293 Benzo(j)fluoranthene	252	32.629	32.629	(0.983)	242480	2.59014	2.590(H)
	246 Total Benzofluoranthenes	252	32.562	32.562	(0.981)	759661	8.19091	8.191(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.181	33.181	(1.000)	235397	2.00000	
64 Benzo(e)pyrene	252	33.238	33.238	(1.002)	247681	2.66885	2.669
66 Benzo(a)pyrene	252	33.339	33.339	(1.005)	221317	2.62146	2.621
$ 67 Perylene-d12	264	33.519	33.519	(1.010)	232231	2.91960	2.920(R)
68 Perylene	252	33.575	33.575	(1.012)	245483	2.82022	2.820(M)
69 Indeno(1,2,3-cd)pyrene	276	35.637	35.637	(1.074)	288654	2.91280	2.913(M)
70 Dibenzo(a,h)anthracene	278	35.625	35.614	(1.074)	251294	2.69021	2.690(M)
74 Benzo(g,h,i)perylene	276	36.549	36.549	(1.101)	272250	2.78084	2.781(M)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421052915.D
Lab Smp Id: SJF0025-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Misc Info:

Calibration Date: 29-MAY-2021
Calibration Time: 14:01
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	159478	79739	318956	166522	4.42
250 Anthracene-d10	170161	85081	340322	168360	-1.06
251 Benzo(e)pyrene-d1	236612	118306	473224	235397	-0.51

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.91	18.41	19.41	18.91	0.00
250 Anthracene-d10	22.36	21.86	22.86	22.36	0.00
251 Benzo(e)pyrene-d1	33.18	32.68	33.68	33.18	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 - NT1421052915.D

Lab ID: SJF0025-SCV1
nt14.i, 20210529.b\ALKYLPNA.m,   29-MAY-2021 19:38

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

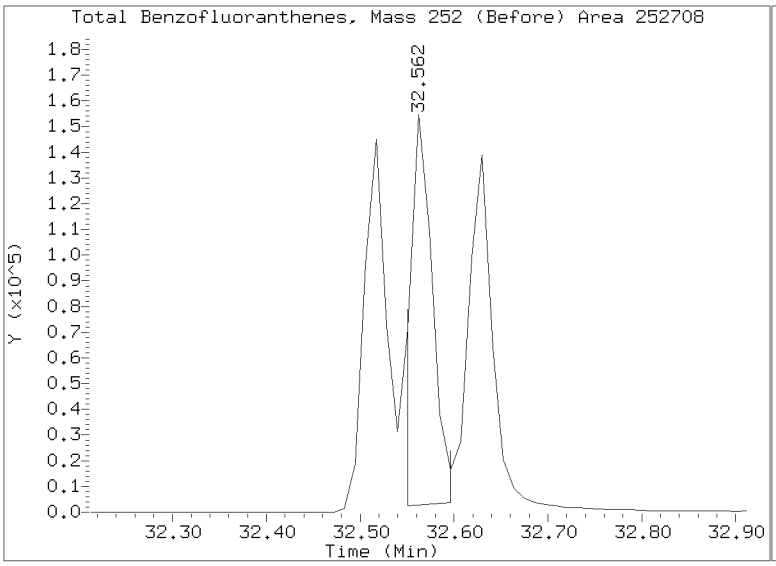
RRT check based on Ccal File: NT1421052914.D

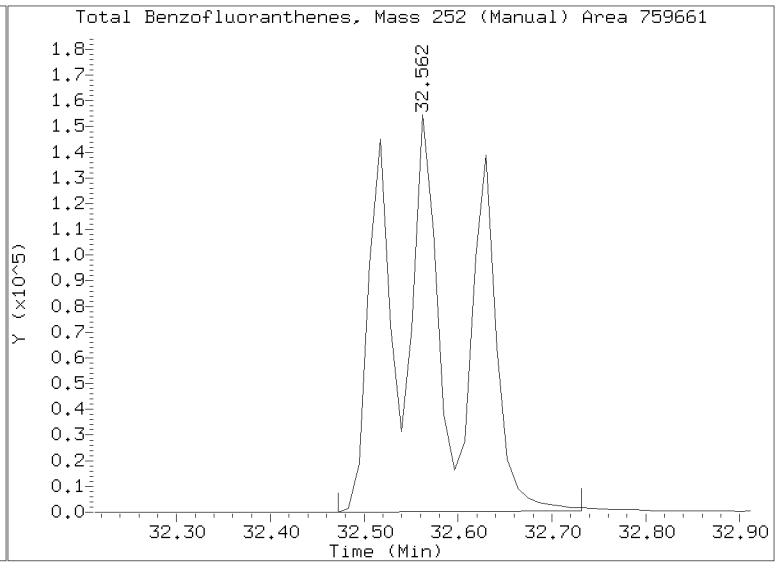
On Column LOD for nt14.i, 20210529.b\ALKYLPNA.m, TARGETS.sub = 0.0000

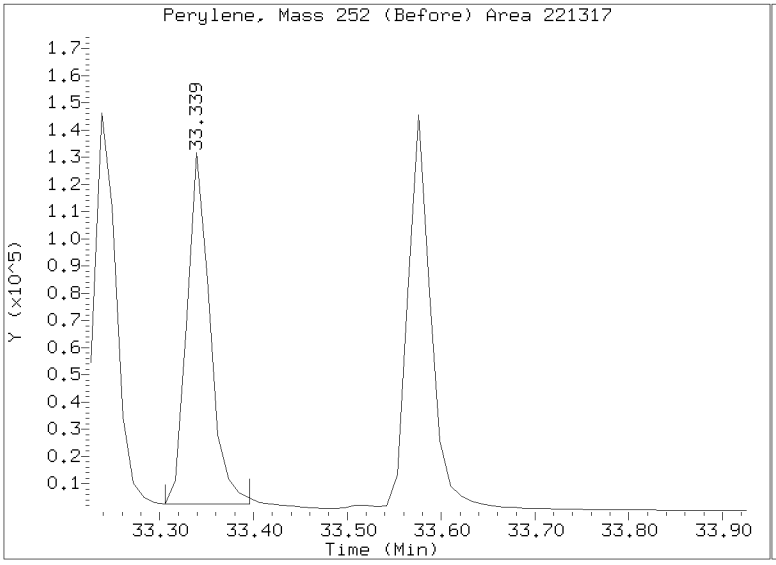
* Only compounds listed in the work order have been verified by the analyst *

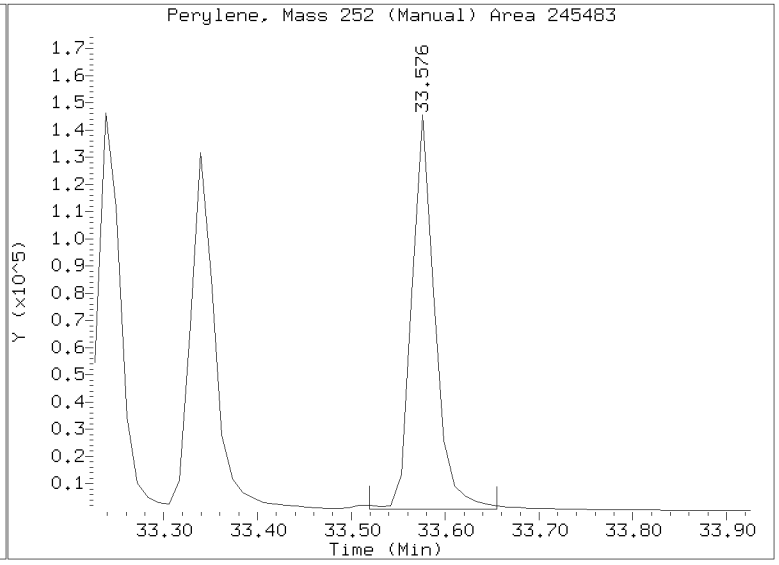
Quant Ion Manual Peak Adjustment Report

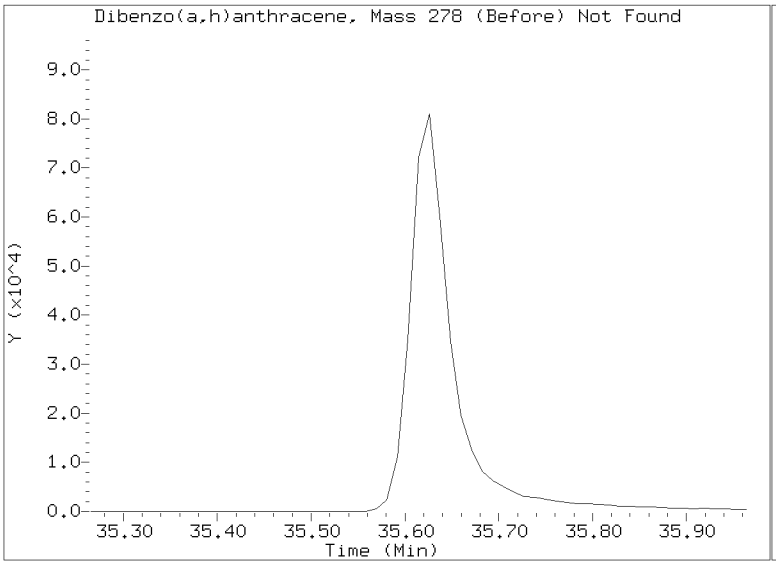
Datafile: //target/share/chem3/nt14.i/20210529.b/NT1421052915.D
Injection Date: 29-MAY-2021 19:38
Lab ID:SJF0025-SCV1 Client ID:
Report Date: 06/02/2021 19:03

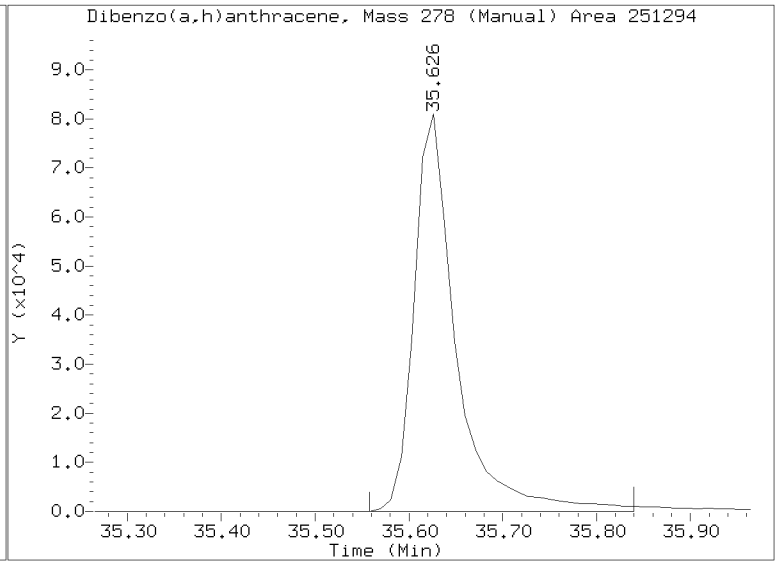






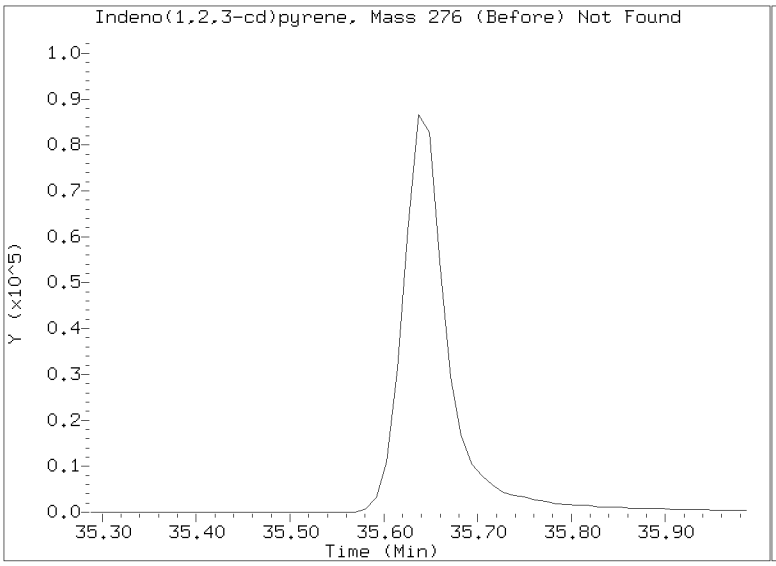


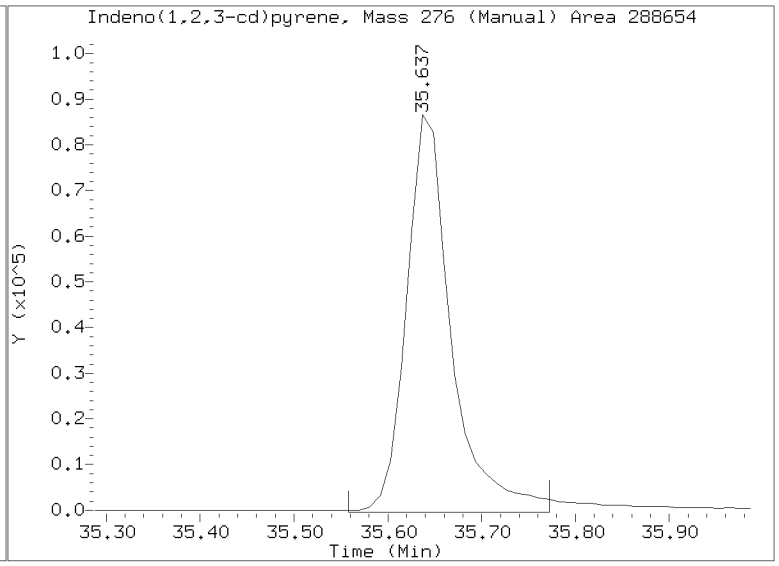


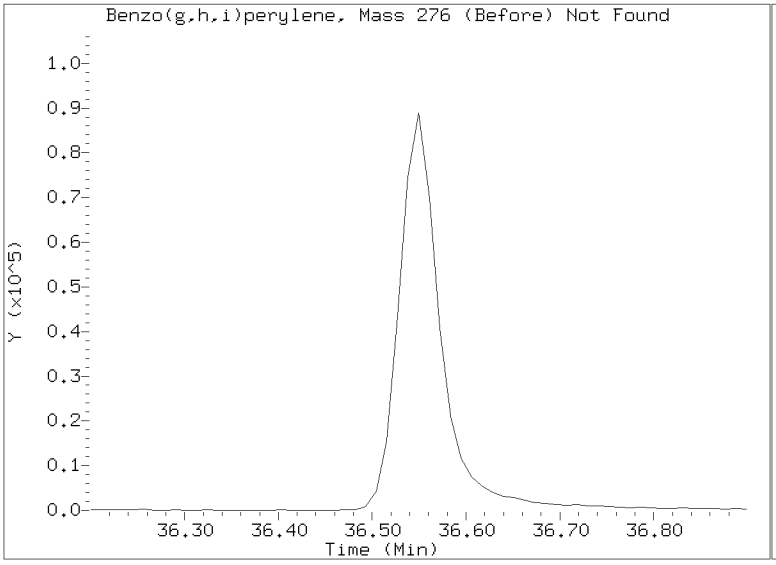


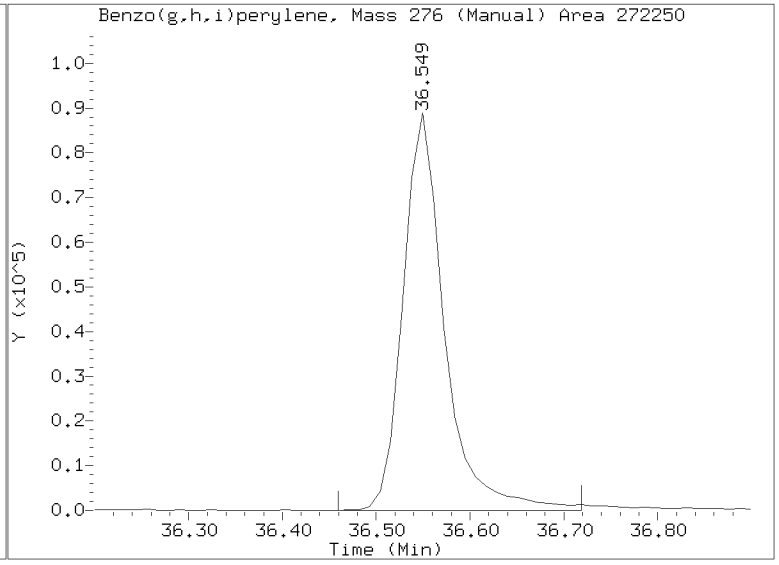
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210529.b/NT1421052915.D
Injection Date: 29-MAY-2021 19:38
Lab ID:SJF0025-SCV1 Client ID:
Report Date: 06/02/2021 19:03









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Date : 29-MAY-2021 20:26

Client ID:

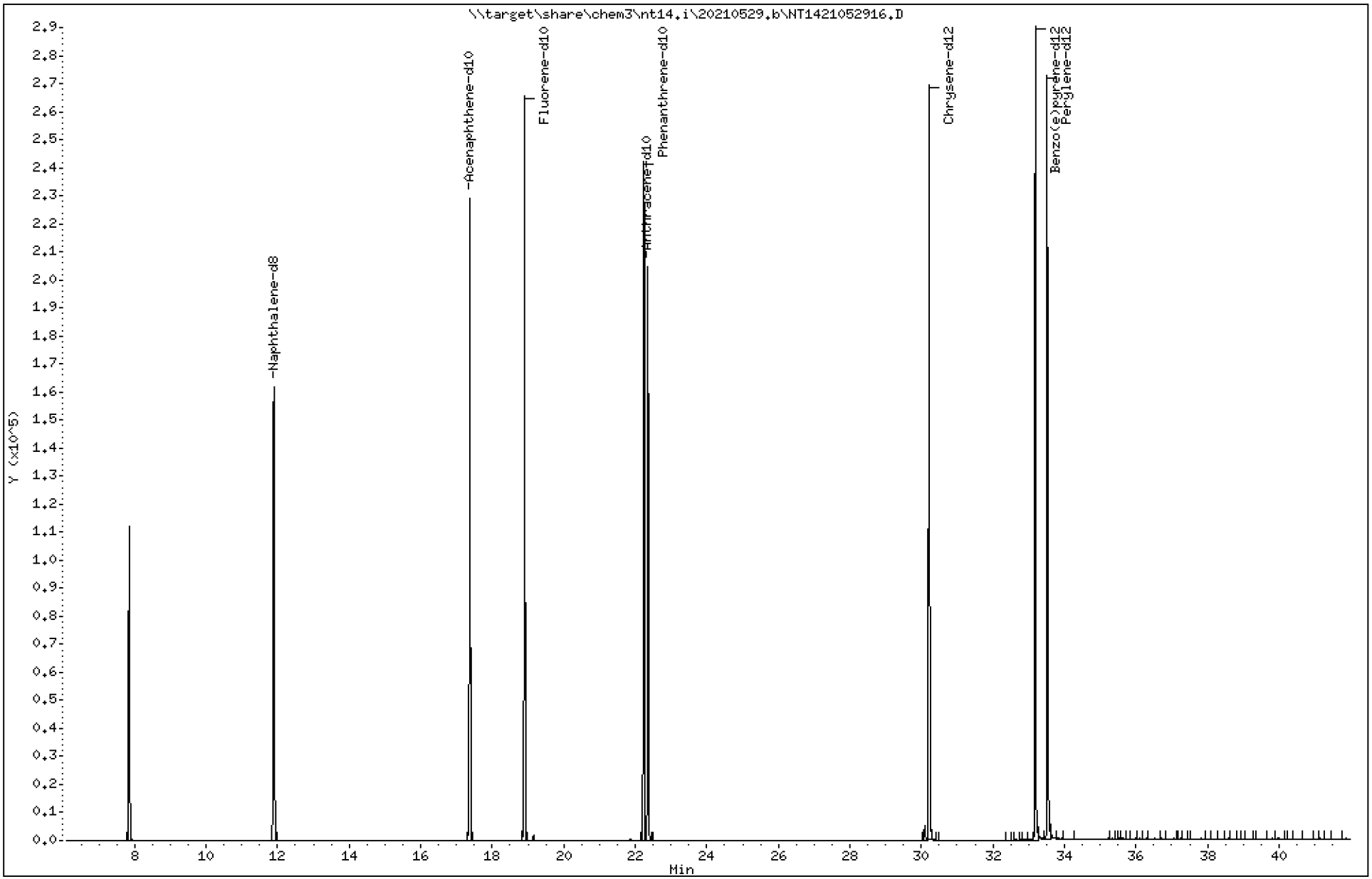
Sample Info: SJF0025-ICB1

Instrument: nt14.i

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210529.b\NT1421052916.D
Lab Smp Id: SJF0025-ICB1
Inj Date : 29-MAY-2021 20:26
Operator : VTS Inst ID: nt14.i
Smp Info : SJF0025-ICB1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Meth Date : 02-Jun-2021 19:03 yev Quant Type: ISTD
Cal Date : 29-MAY-2021 18:49 Cal File: NT1421052914.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	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	11.897	11.897	(0.629)	223234	2.61317	2.613(R)
7	Naphthalene	128	Compound Not Detected.					
12	Benzo(b)thiophene	134	Compound Not Detected.					
16	2-Methylnaphthalene	141	Compound Not Detected.					
17	1-methylnaphthalene	141	Compound Not Detected.					
18	Biphenyl	154	Compound Not Detected.					
19	2,6-Dimethylnaphthalene	156	Compound Not Detected.					
20	Acenaphthylene	152	Compound Not Detected.					
$ 21	Acenaphthene-d10	164	17.377	17.377	(0.919)	140978	2.68696	2.687(R)
22	Acenaphthene	153	Compound Not Detected.					
23	Dibenzofuran	168	Compound Not Detected.					
24	1,6,7-Trimethylnaphthalene	170	Compound Not Detected.					
* 25	Fluorene-d10	176	18.907	18.907	(1.000)	183758	2.00000	
26	Fluorene	166	Compound Not Detected.					
30	Dibenzothiophene	184	Compound Not Detected.					
$ 35	Phenanthrene-d10	188	22.239	22.239	(0.995)	246541	2.70071	2.701(R)
36	Phenanthrene	178	Compound Not Detected.					
* 250	Anthracene-d10	188	22.360	22.360	(1.000)	189746	2.00000	
37	Anthracene	178	Compound Not Detected.					
42	Carbazole	167	Compound Not Detected.					
43	1-Methylphenanthrene	192	Compound Not Detected.					
44	Fluoranthene	202	Compound Not Detected.					
46	Pyrene	202	Compound Not Detected.					
51	Naphthobenzothiophene	234	Compound Not Detected.					
55	Benzo(a)anthracene	228	Compound Not Detected.					
$ 56	Chrysene-d12	240	30.219	30.219	(0.911)	237472	2.86010	2.860(R)
57	Chrysene	228	Compound Not Detected.					
62	Benzo(b)fluoranthene	252	Compound Not Detected.					
63	Benzo(k)fluoranthene	252	Compound Not Detected.					
293	Benzo(j)fluoranthene	252	Compound Not Detected.					
246	Total Benzofluoranthenes	252	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.181	33.181	(1.000)	265253	2.00000	
64 Benzo(e)pyrene	252	Compound Not Detected.					
66 Benzo(a)pyrene	252	Compound Not Detected.					
$ 67 Perylene-d12	264	33.519	33.519	(1.010)	237293	2.64745	2.647(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
Lab File ID: NT1421052916.D
Lab Smp Id: SJF0025-ICB1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Misc Info:

Calibration Date: 29-MAY-2021
Calibration Time: 14:01
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	159478	79739	318956	183758	15.22
250 Anthracene-d10	170161	85081	340322	189746	11.51
251 Benzo(e)pyrene-d1	236612	118306	473224	265253	12.10

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.91	18.41	19.41	18.91	0.00
250 Anthracene-d10	22.36	21.86	22.86	22.36	0.00
251 Benzo(e)pyrene-d1	33.18	32.68	33.68	33.18	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 - NT1421052916.D

Lab ID: SJF0025-ICB1
nt14.i, 20210529.b\ALKYLPNA.m,   29-MAY-2021 20:26

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

RRT check based on Ccal File: NT1421052914.D

On Column LOD for nt14.i, 20210529.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: 21E0099
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Calibration: EF00008
Laboratory ID: SJF0025-SCV1
Sequence: SJF0025
Sequence Name: Secondary Cal Check
Standard ID: J004707

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
trans-Decalin	2.5000	2.9	17.6	20.00
cis-Decalin	2.5000	2.6	2.2	20.00
Naphthalene	2.5000	2.6	5.0	20.00
1-Methylnaphthalene	2.5000	2.7	6.4	20.00
2-Methylnaphthalene	2.5000	2.6	5.8	20.00
Biphenyl	2.5000	2.6	4.3	20.00
2,6-Dimethylnaphthalene	2.5000	2.6	4.2	20.00
Acenaphthylene	2.5000	2.6	5.0	20.00
Acenaphthene	2.5000	2.8	10.2	20.00
Dibenzofuran	2.5000	2.6	3.8	20.00
2,3,5-Trimethylnaphthalene	2.5000	2.6	5.7	20.00
Fluorene	2.5000	2.6	4.4	20.00
Benzo(b)thiophene	2.5000	2.6	4.9	20.00
Phenanthrene	2.5000	2.6	5.6	20.00
Anthracene	2.5000	2.7	7.5	20.00
Carbazole	2.5000	2.7	8.2	20.00
1-Methylphenanthrene	2.5000	2.7	6.7	20.00
Fluoranthene	2.5000	2.7	6.9	20.00
Dibenzothiophene	2.5000	2.6	5.4	20.00
Pyrene	2.5000	2.7	8.5	20.00
Benzo(a)anthracene	2.5000	2.8	10.2	20.00
Chrysene	2.5000	2.8	10.8	20.00
Benzo(b)fluoranthene	2.5000	3.1	24.8	
Benzo(j)fluoranthene	2.5000	2.6	3.6	
Benzo(k)fluoranthene	2.5000	2.5	-0.5	
Benzofluoranthenes, Total	7.5000	8.2	9.2	
Benzo(e)pyrene	2.5000	2.7	6.8	20.00
Benzo(a)pyrene	2.5000	2.6	4.9	20.00
Indeno(1,2,3-cd)pyrene	2.5000	2.9	16.5	20.00
Dibenzo(a,h)anthracene	2.5000	2.7	7.6	20.00
Benzo(g,h,i)perylene	2.5000	2.8	11.2	20.00
Perylene	2.5000	2.8	12.8	20.00
Naphthalene-d8	2.5000	2.88	15.4	20.00
Acenaphthene-d10	2.5000	2.83	13.0	20.00
Phenanthrene-d10	2.5000	2.85	14.1	20.00

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.
SDG: 21E0099
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Calibration: EF00008
Laboratory ID: SJF0025-SCV1
Sequence: SJF0025
Sequence Name: Secondary Cal Check
Standard ID: J004707

Chrysene-d12	2.5000	3.09	23.4	20.00
Perylene-d12	2.5000	2.92	16.8	20.00

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Page 1

Date : 29-MAY-2021 19:38

Client ID:

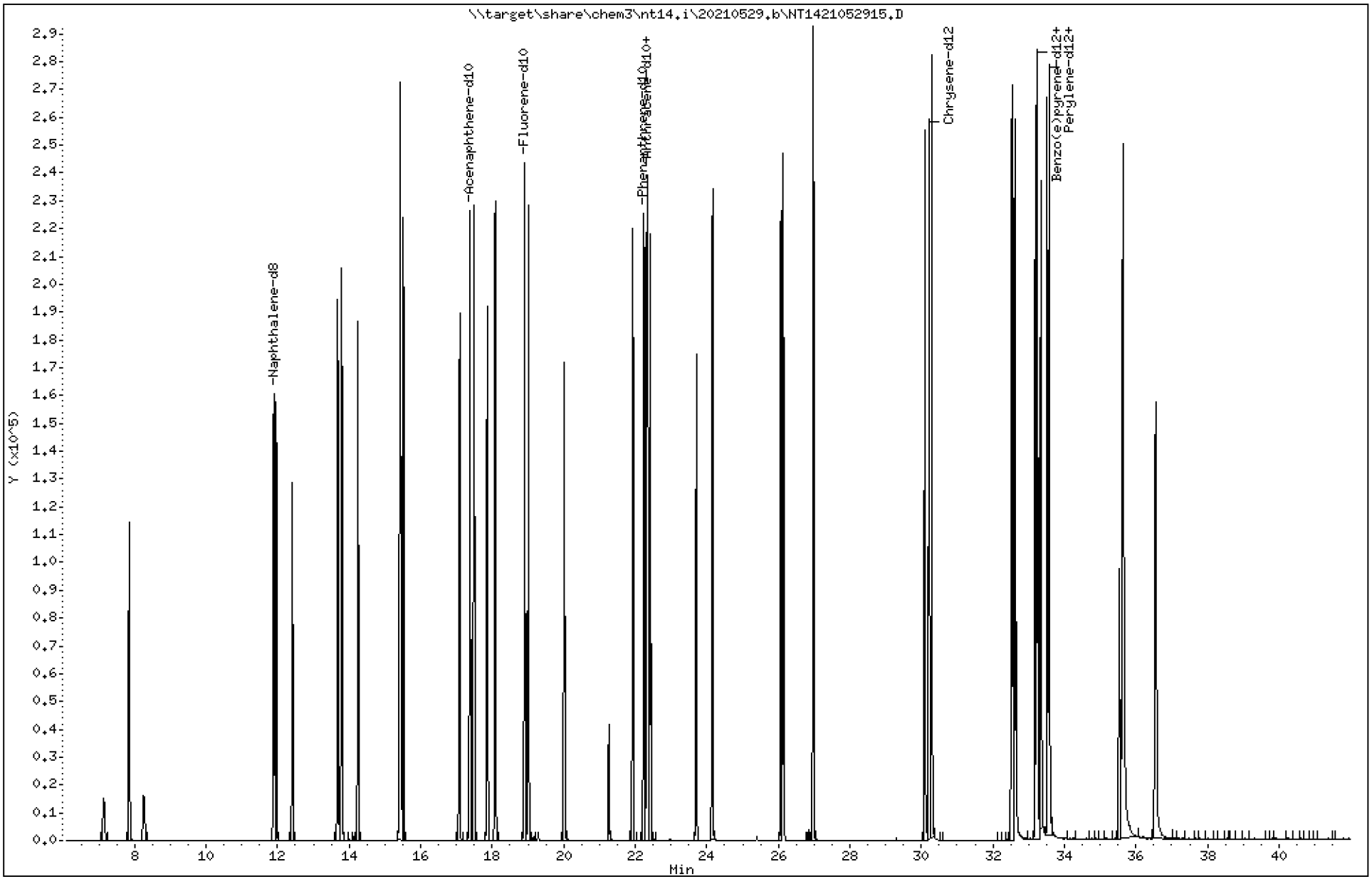
Instrument: nt14.i

Sample Info: SJF0025-SCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

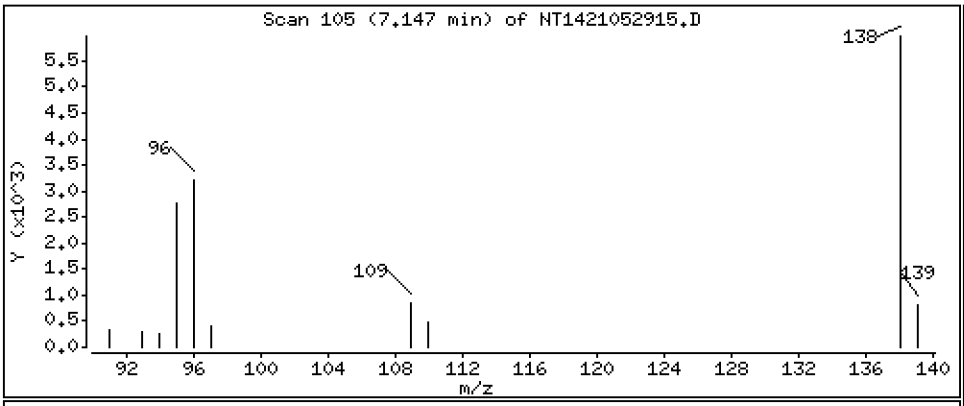
Operator: VTS

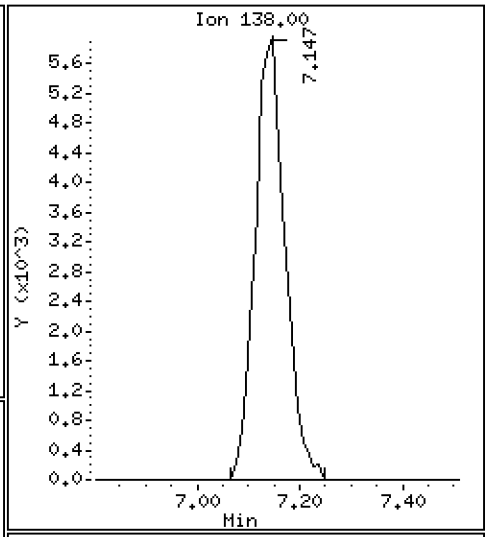
Column phase: Rxi-17Sil MS

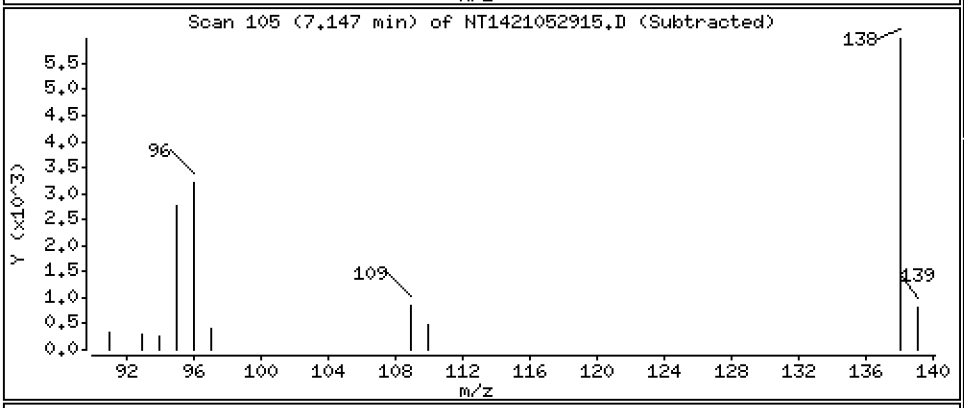
Column diameter: 0.25

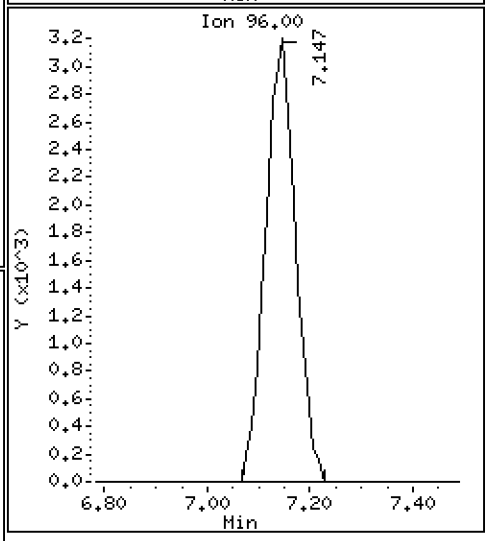
1 trans-Decalin

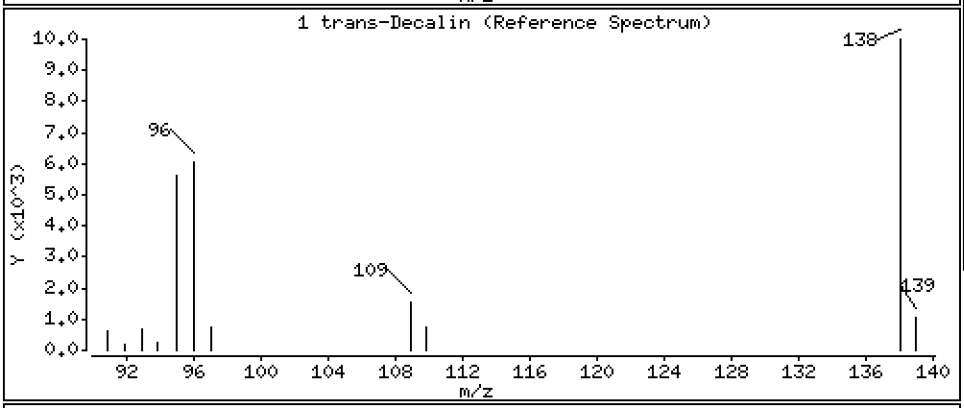
Concentration: 2.939 ug/mL

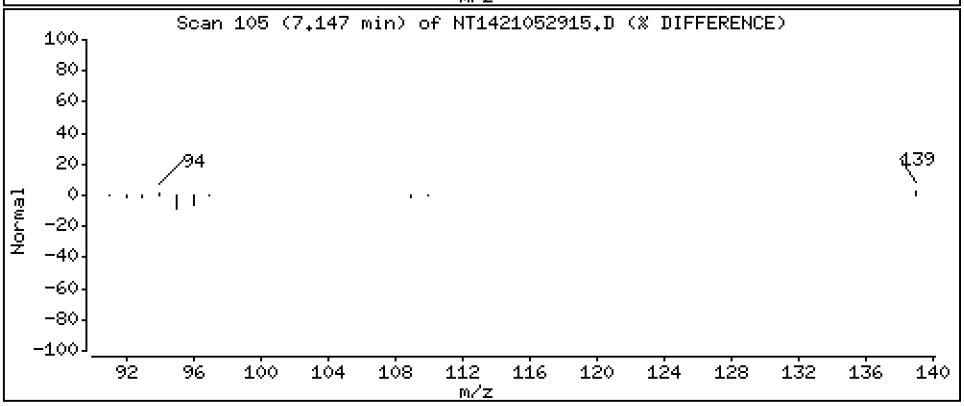












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

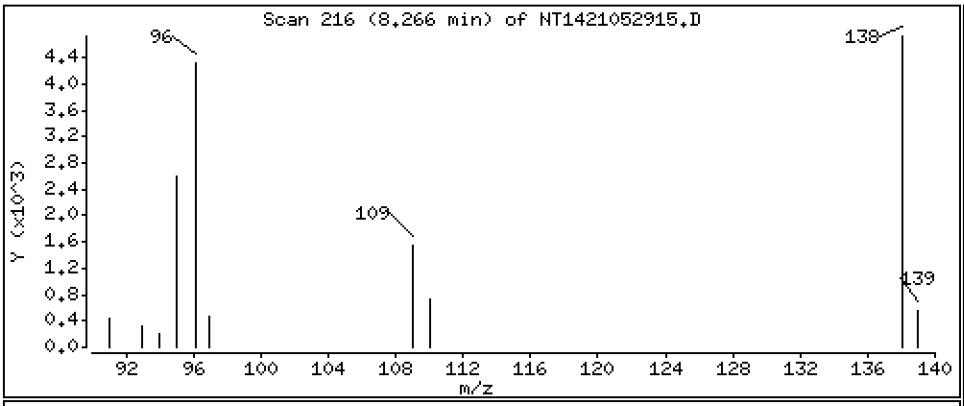
Operator: VTS

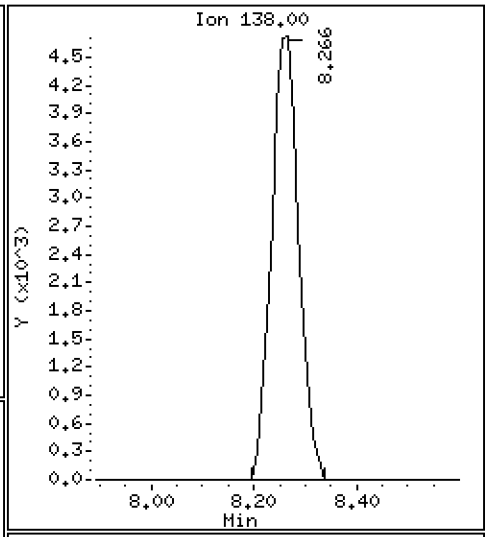
Column phase: Rxi-17Sil MS

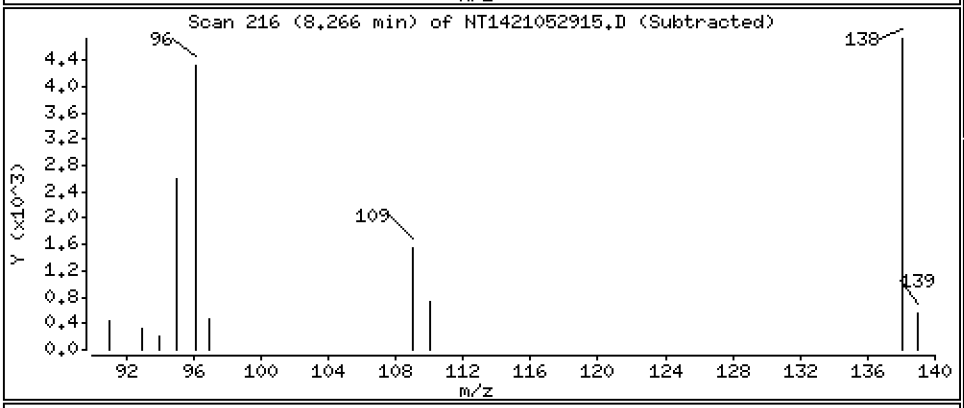
Column diameter: 0.25

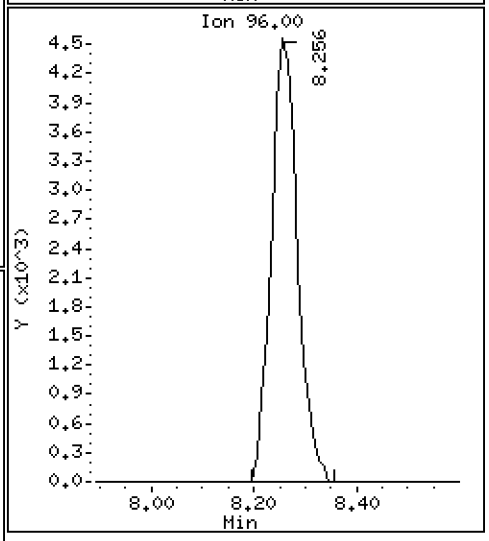
2 cis-Decalin

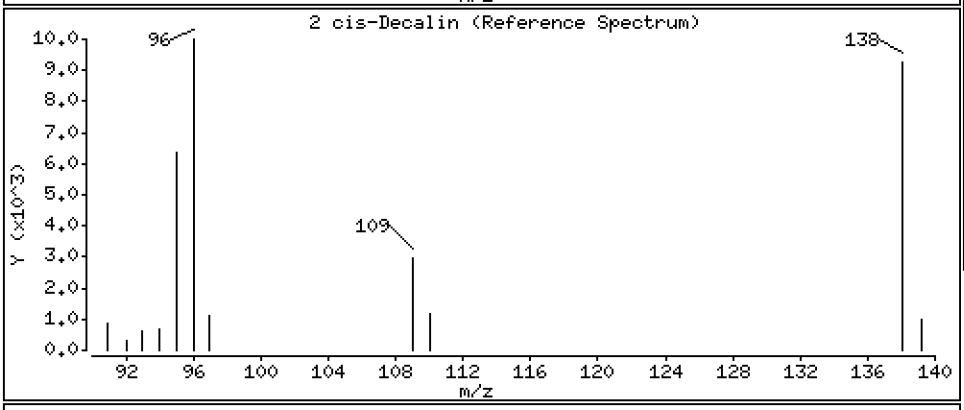
Concentration: 2.555 ug/mL

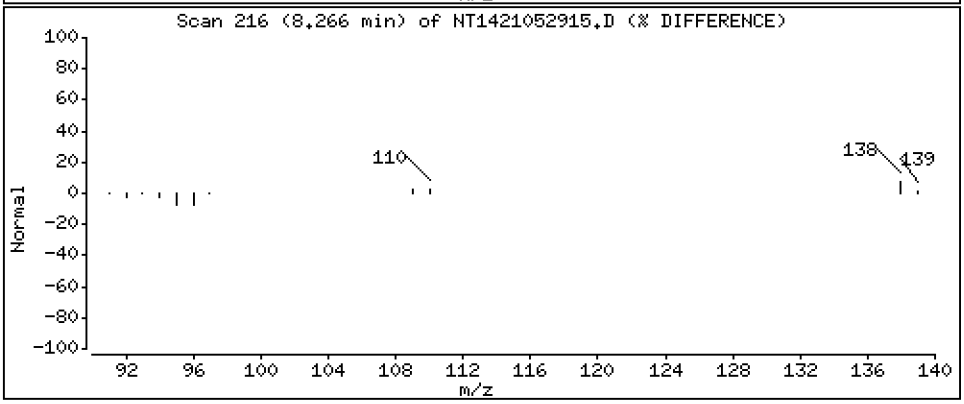












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

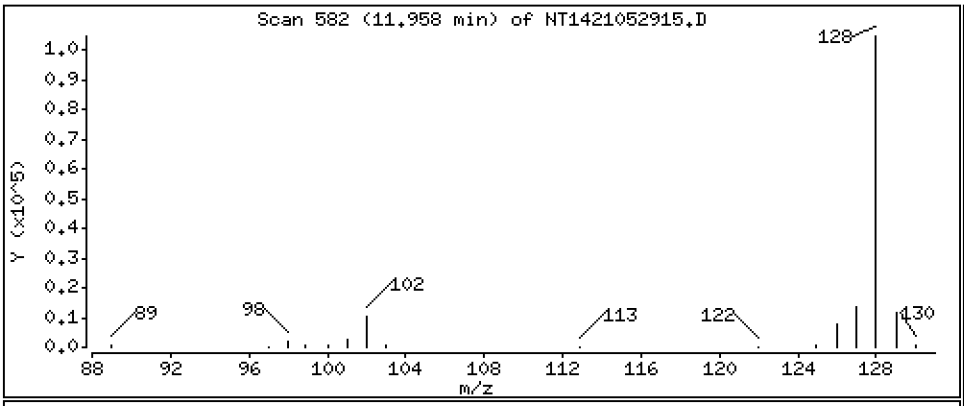
Operator: VTS

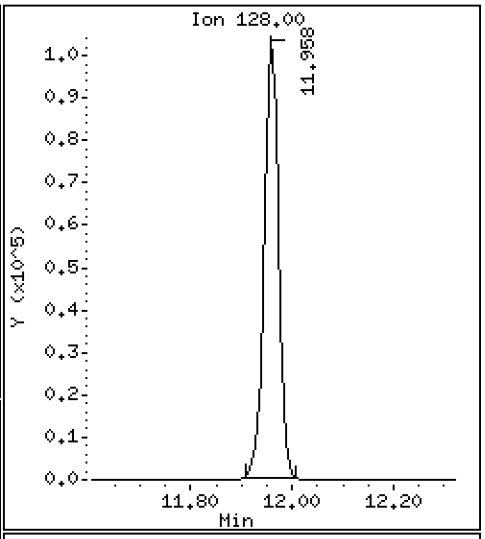
Column phase: Rxi-17Sil MS

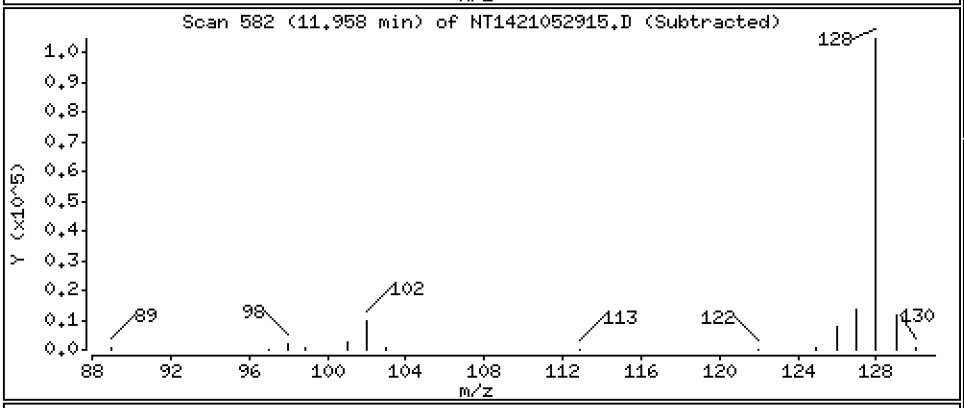
Column diameter: 0.25

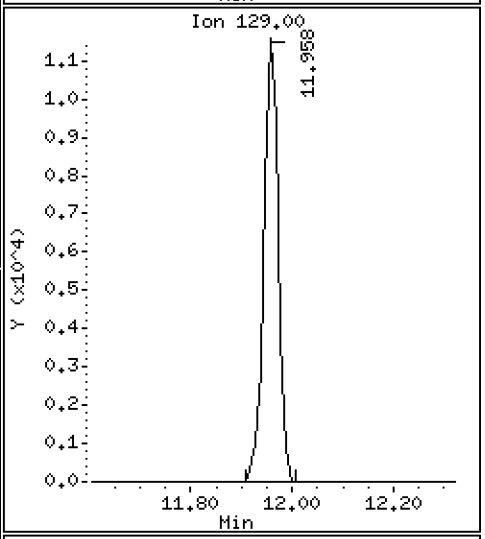
7 Naphthalene

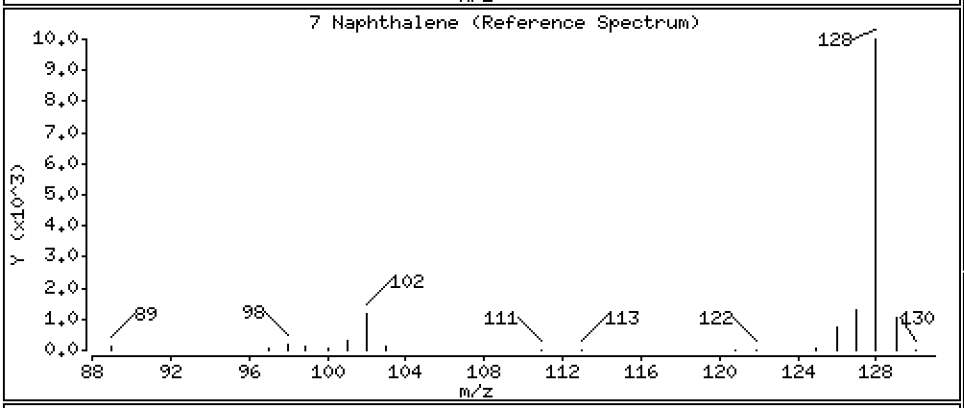
Concentration: 2.625 ug/mL

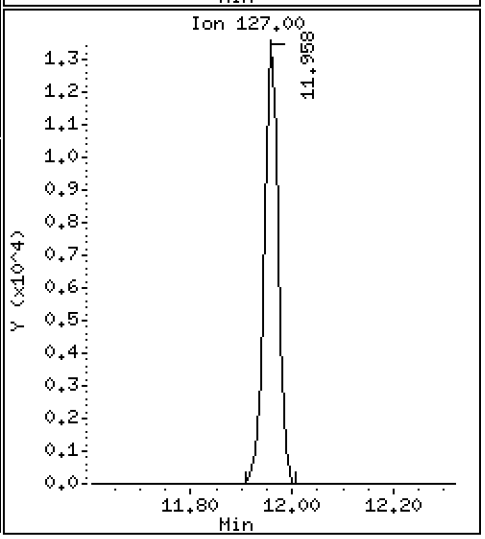


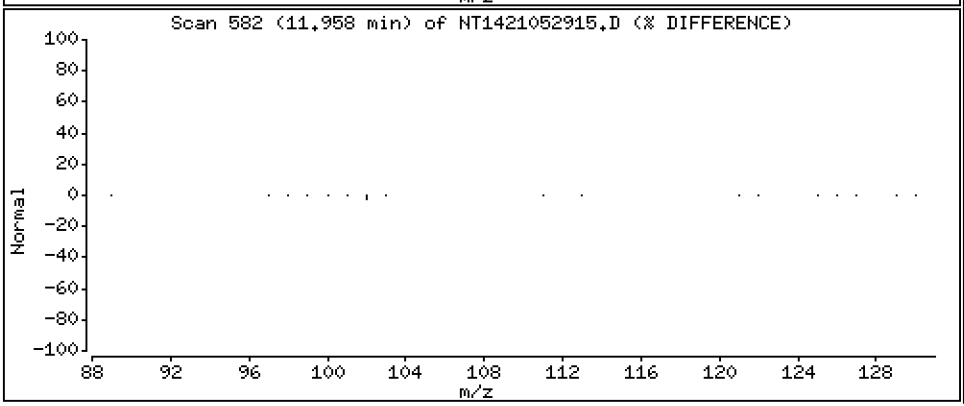












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

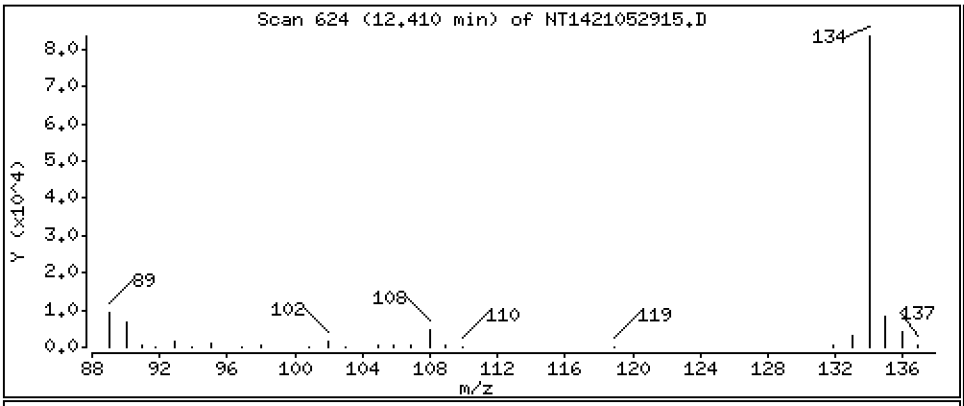
Operator: VTS

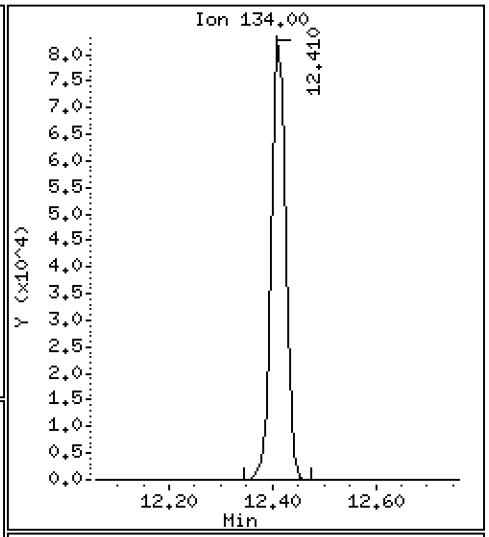
Column phase: Rxi-17Sil MS

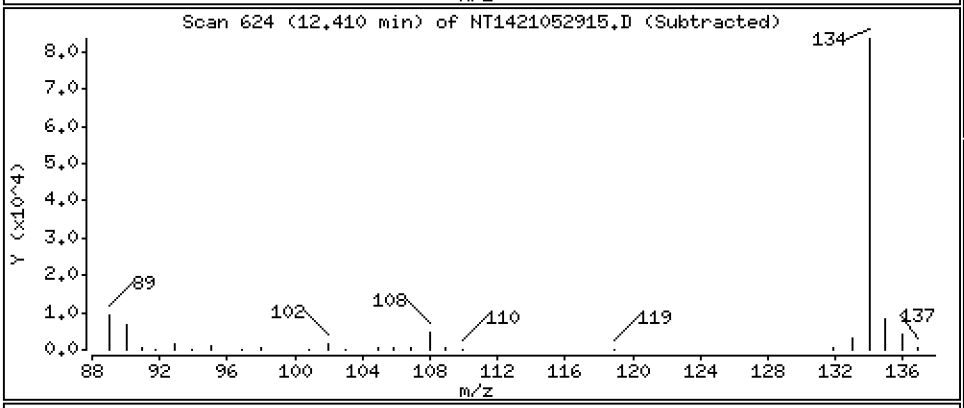
Column diameter: 0.25

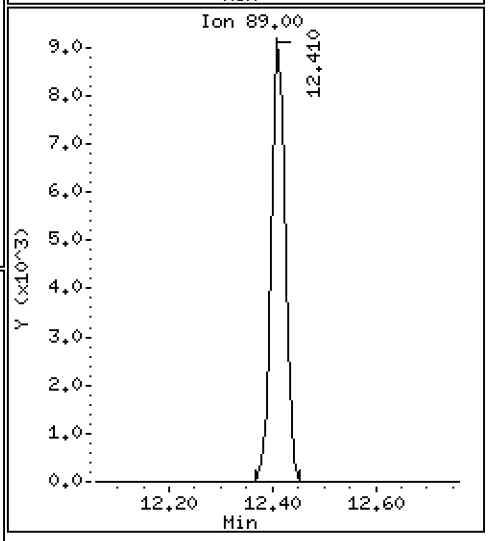
12 Benzo(b)thiophene

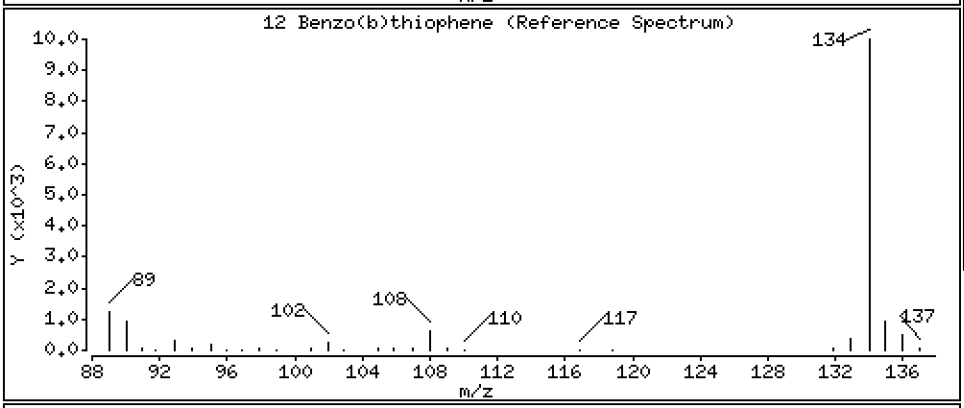
Concentration: 2.621 ug/mL

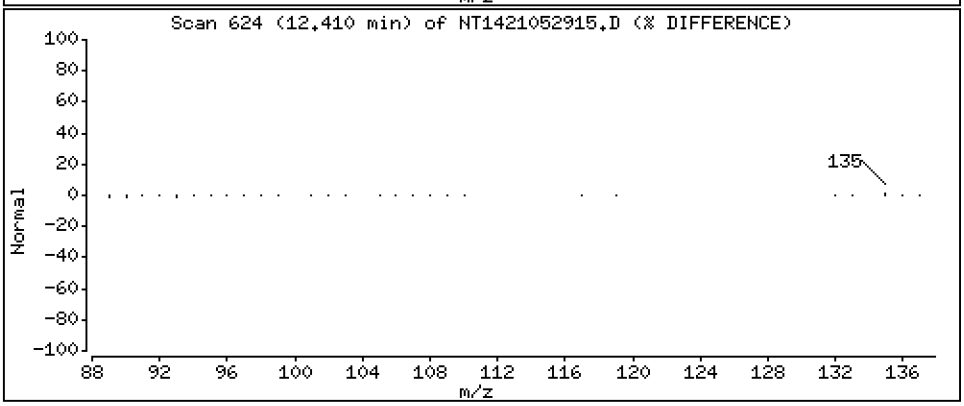












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

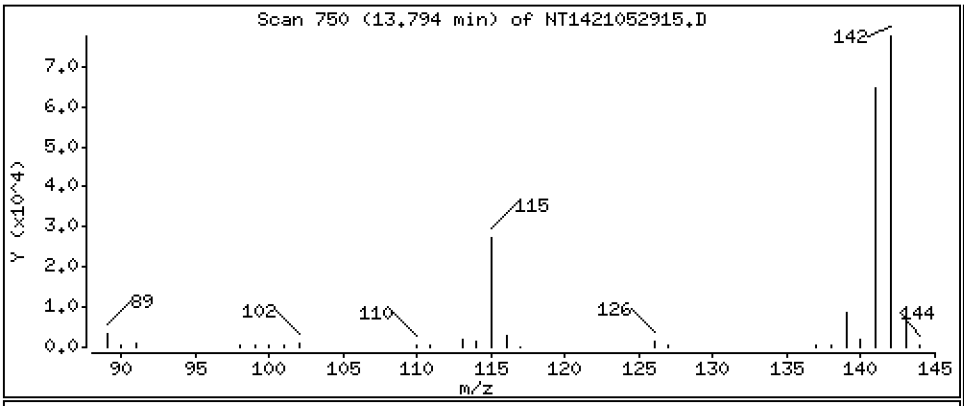
Operator: VTS

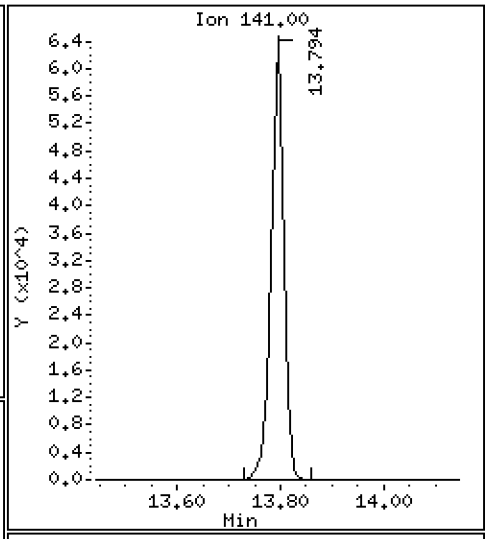
Column phase: Rxi-17Sil MS

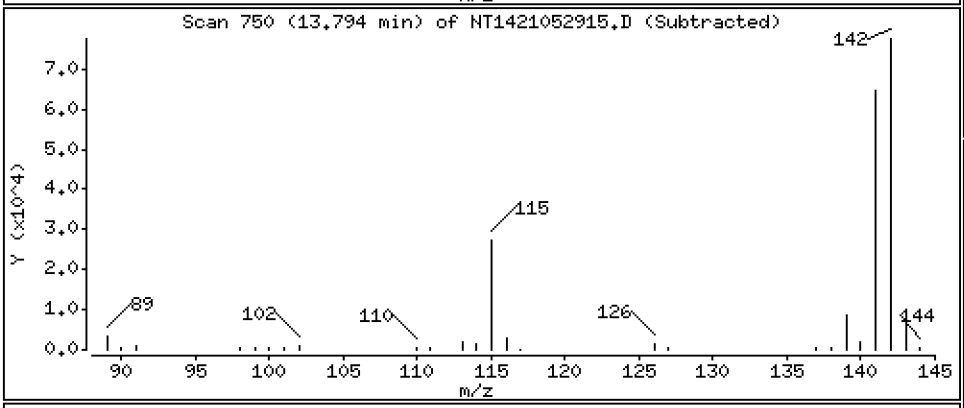
Column diameter: 0.25

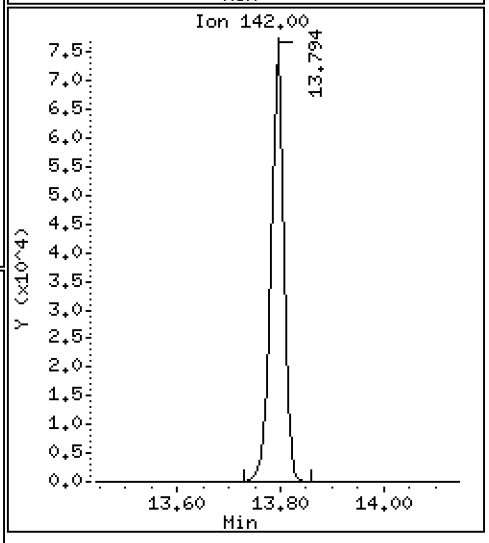
16 2-Methylnaphthalene

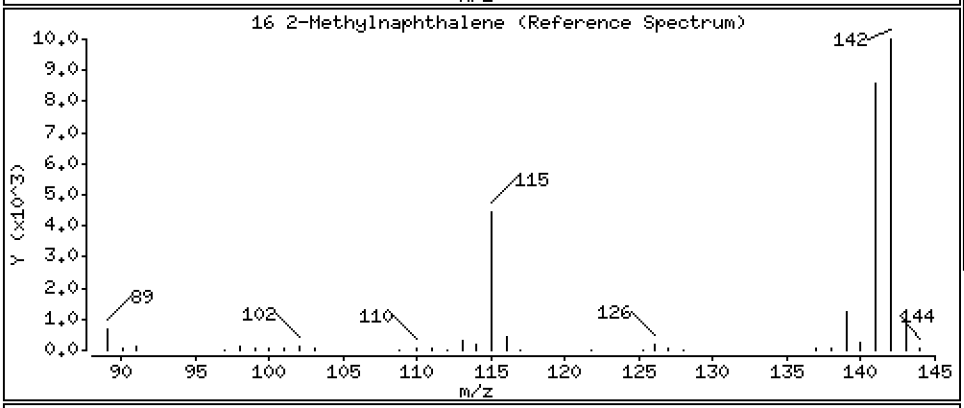
Concentration: 2.645 ug/mL

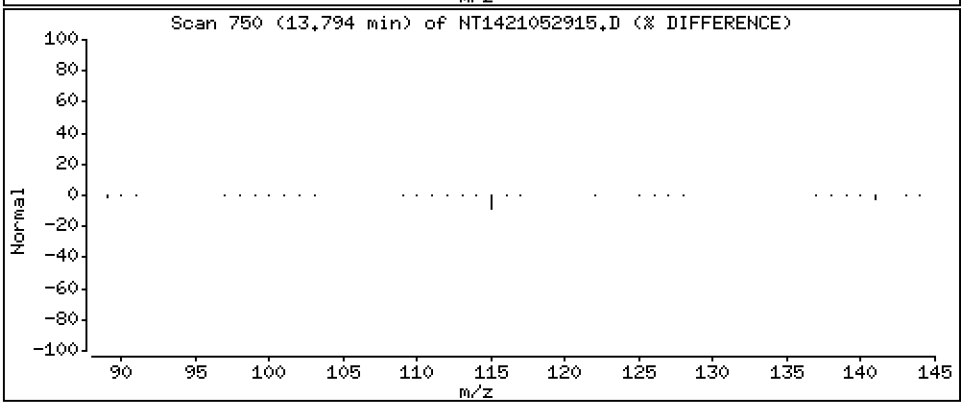












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

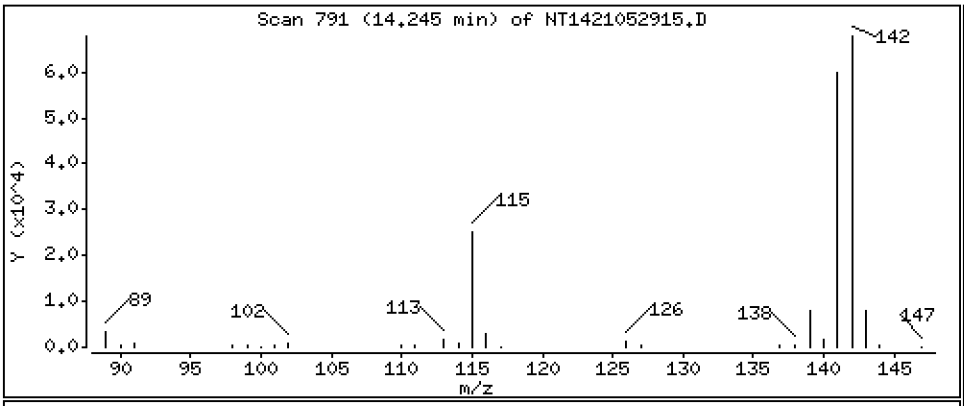
Operator: VTS

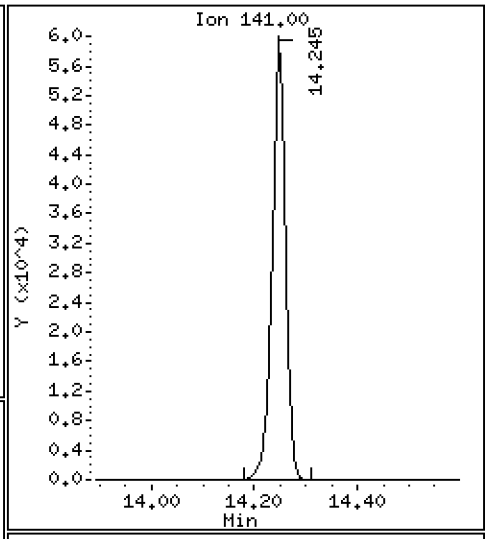
Column phase: Rxi-17Sil MS

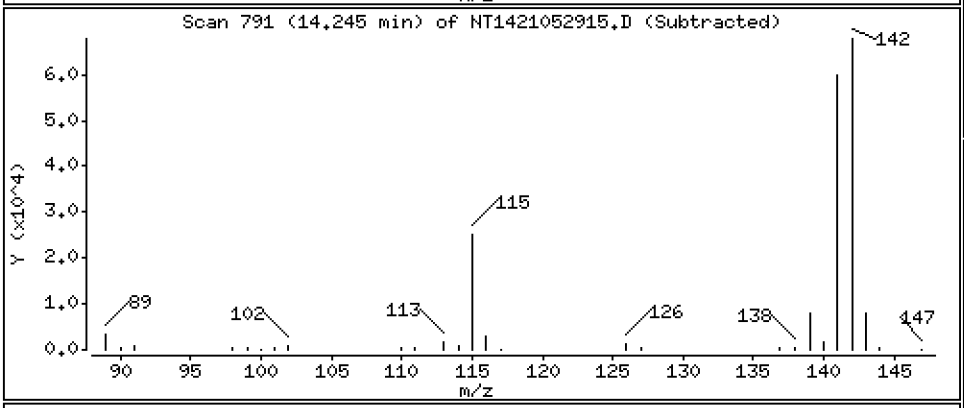
Column diameter: 0.25

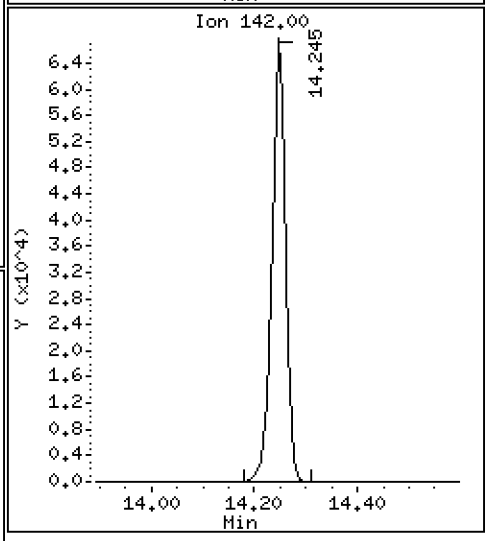
17 1-methylnaphthalene

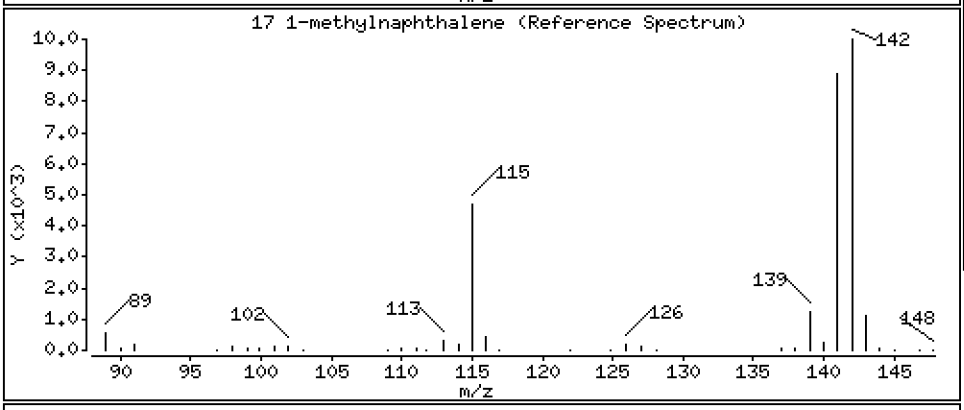
Concentration: 2.659 ug/mL

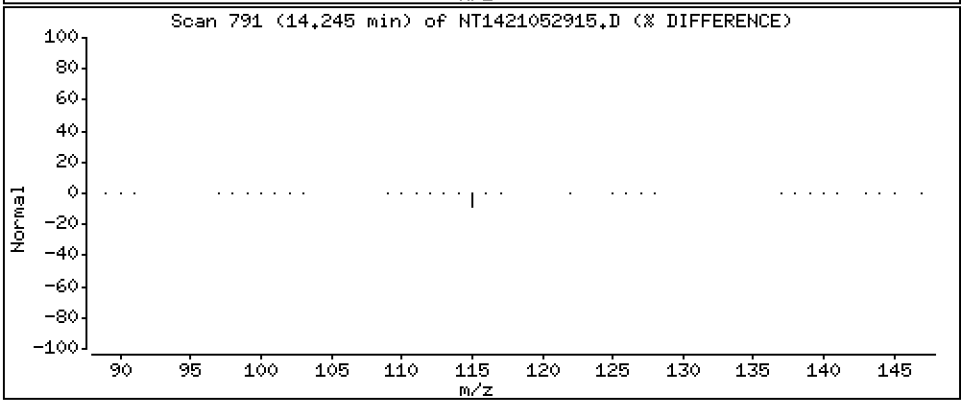












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

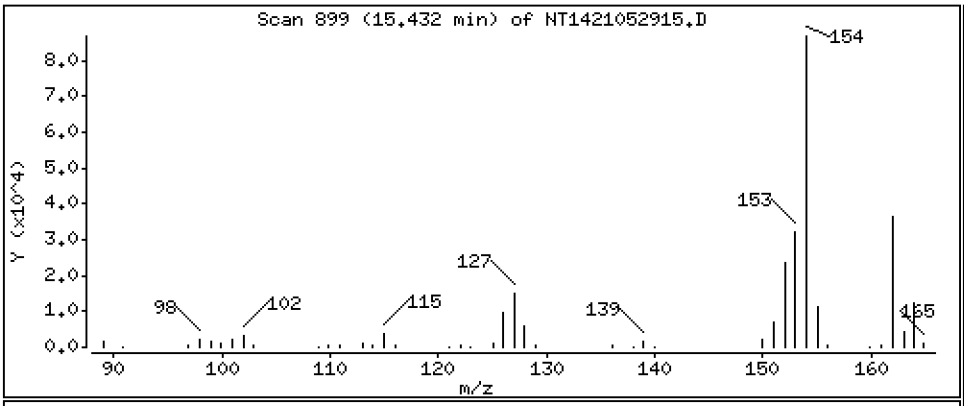
Operator: VTS

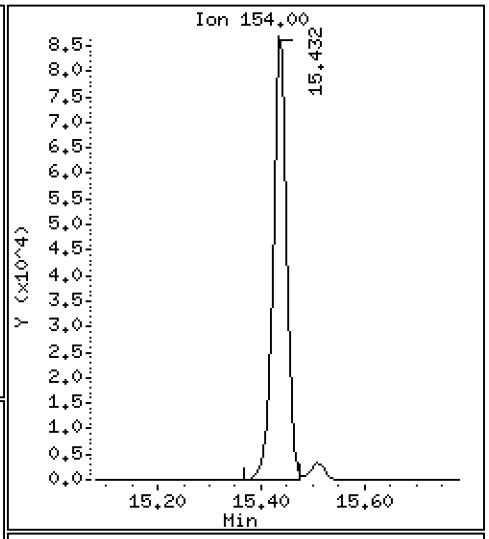
Column phase: Rxi-17Sil MS

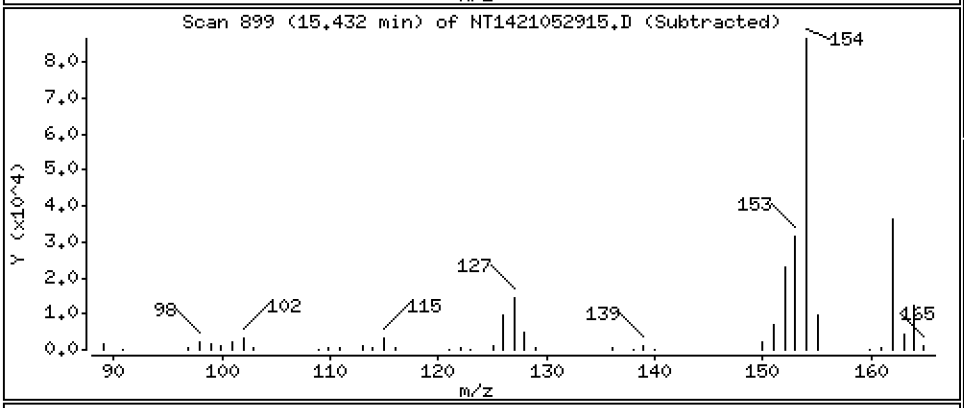
Column diameter: 0.25

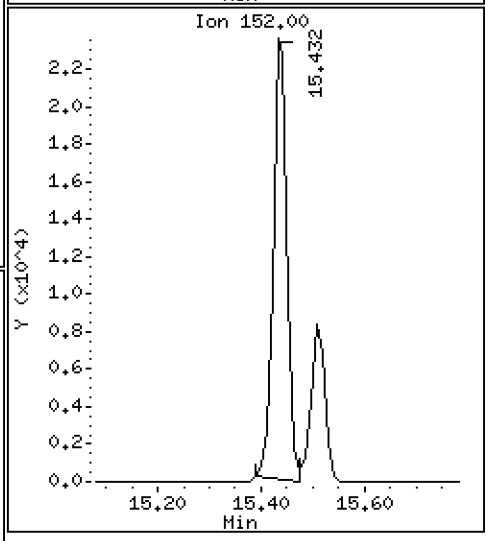
18 Biphenyl

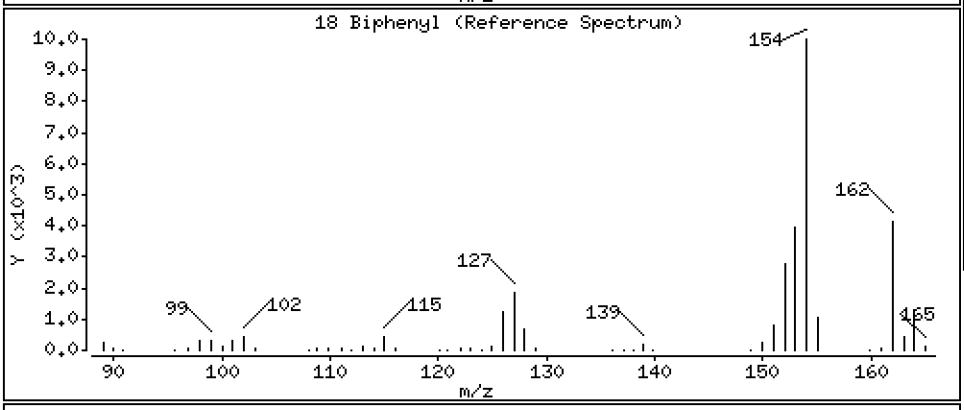
Concentration: 2.608 ug/mL

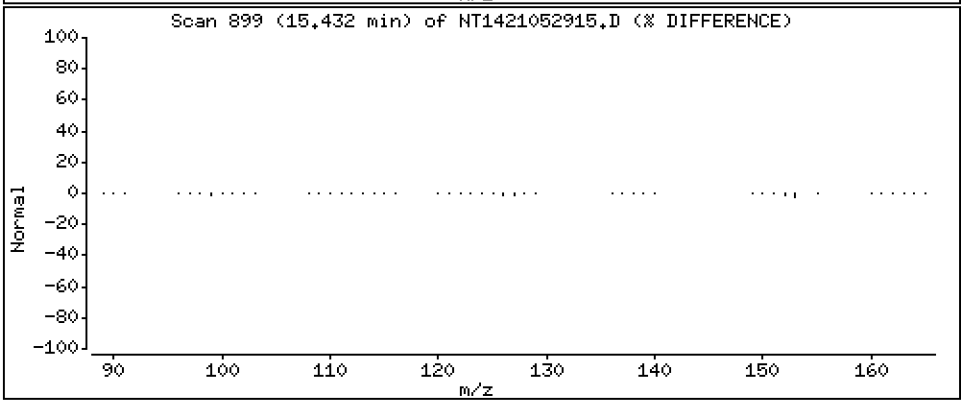












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

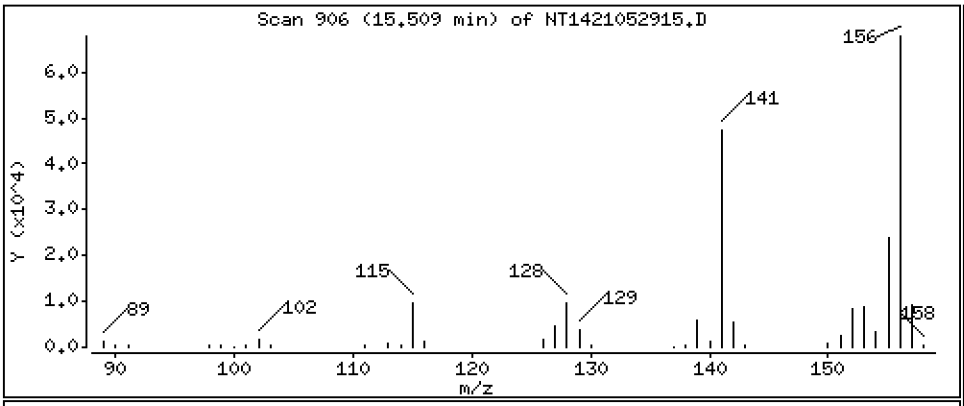
Operator: VTS

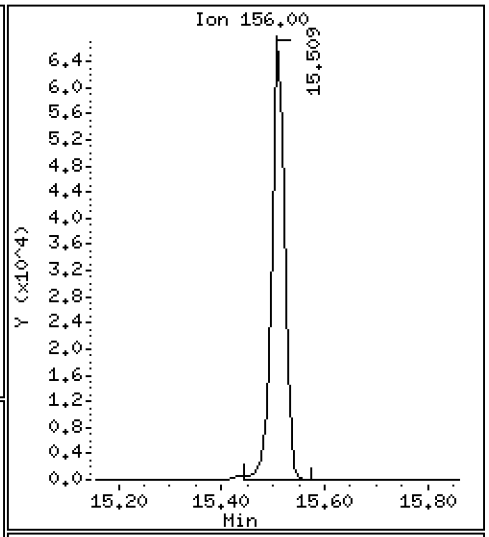
Column phase: Rxi-17Sil MS

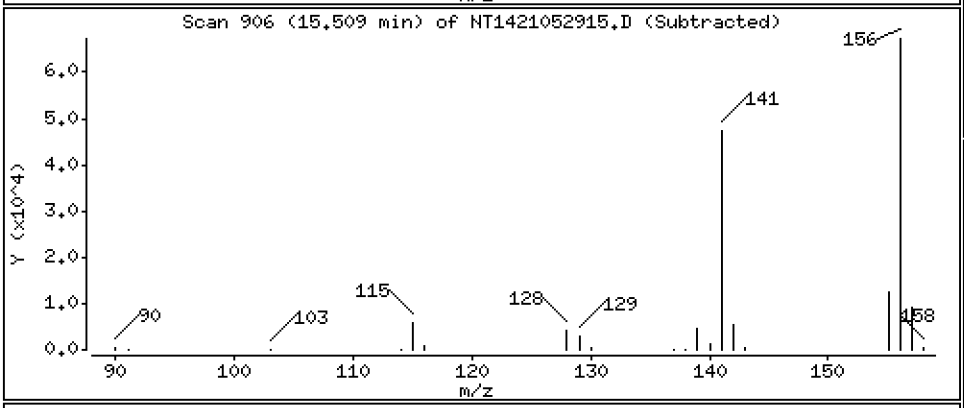
Column diameter: 0.25

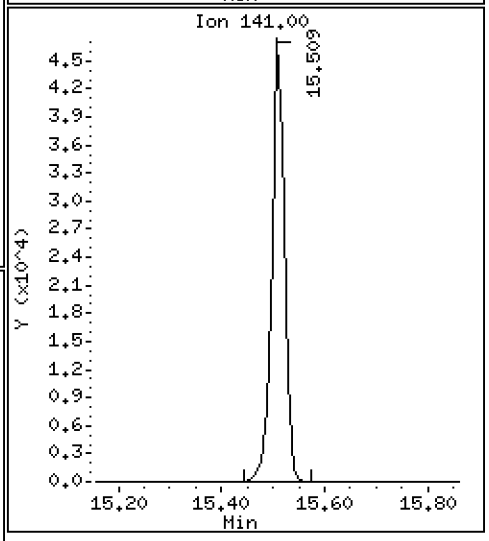
19 2,6-Dimethylnaphthalene

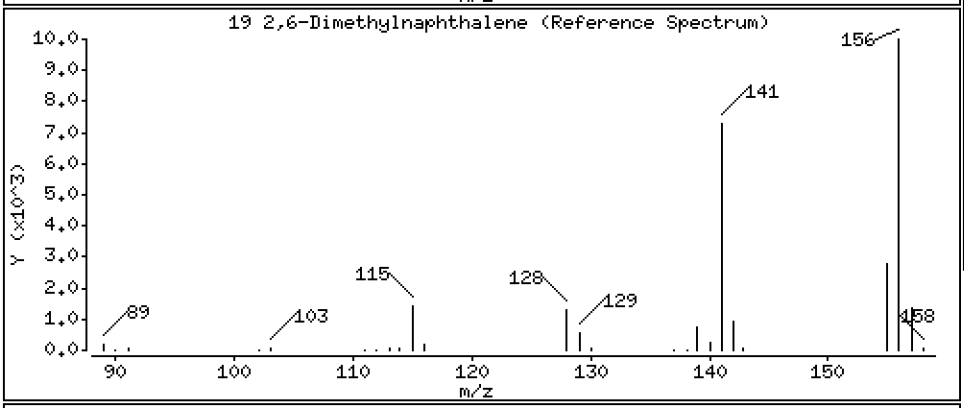
Concentration: 2.604 ug/mL

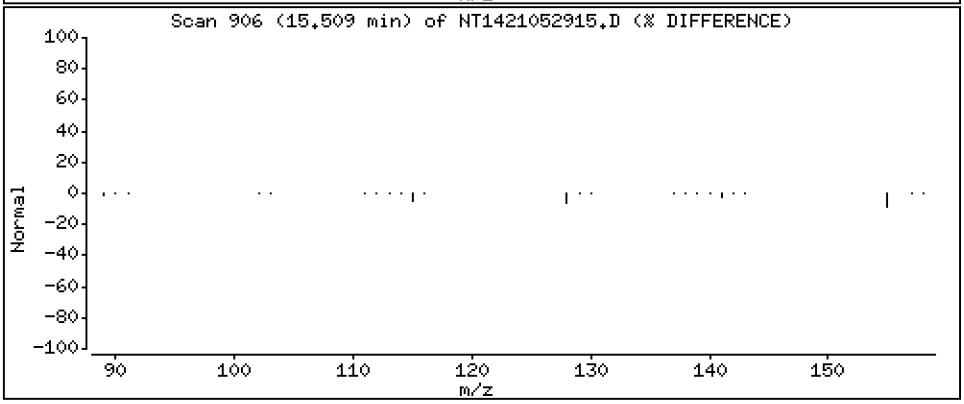












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

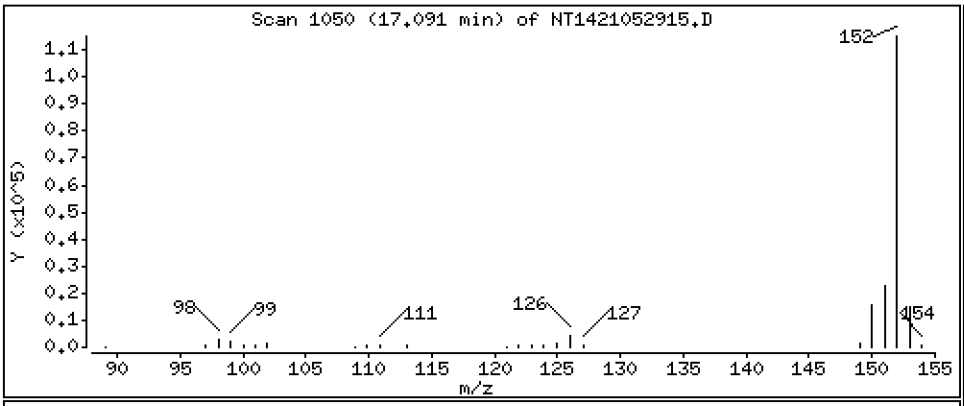
Operator: VTS

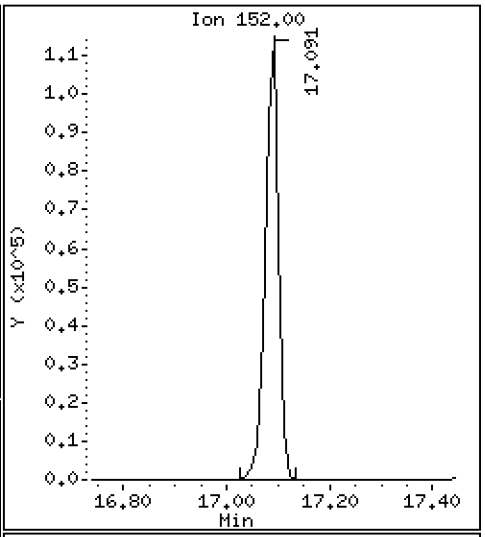
Column phase: Rxi-17Sil MS

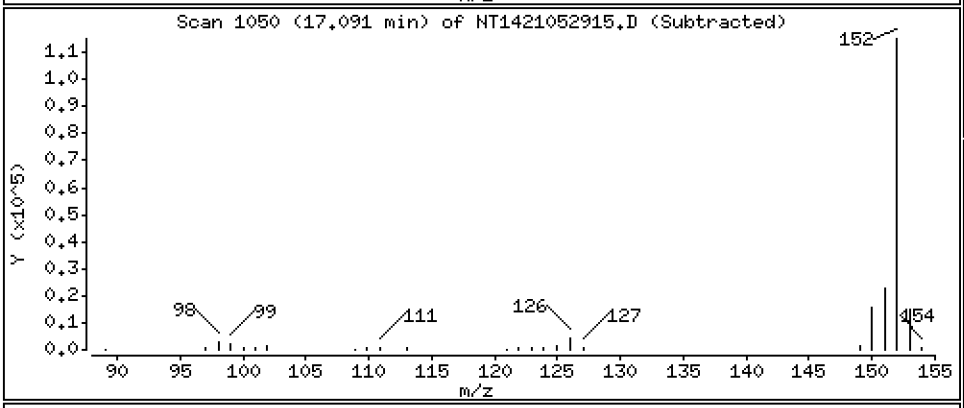
Column diameter: 0.25

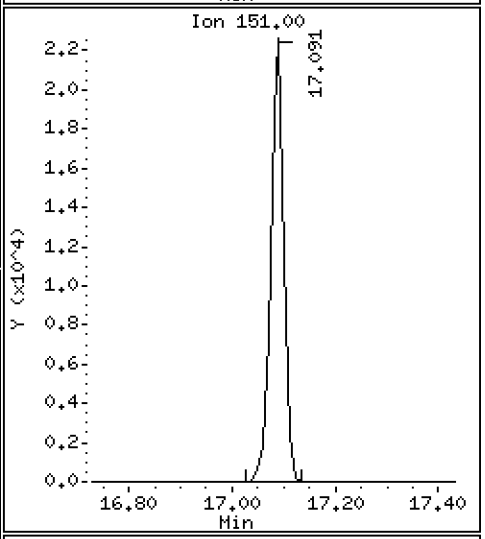
20 Acenaphthylene

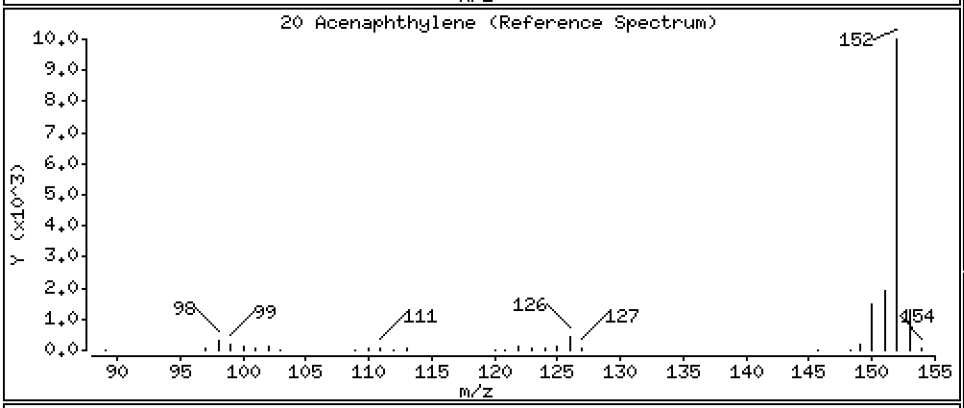
Concentration: 2.624 ug/mL

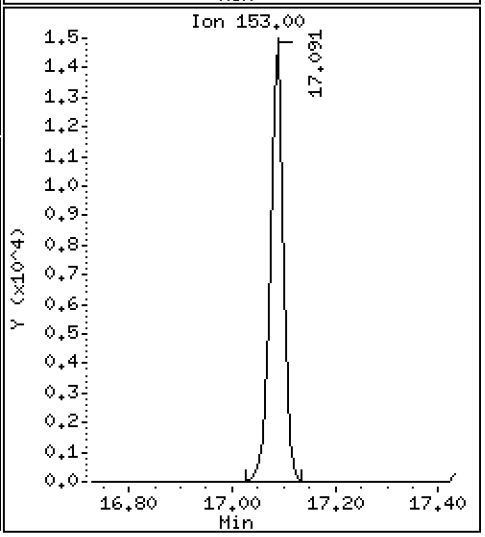


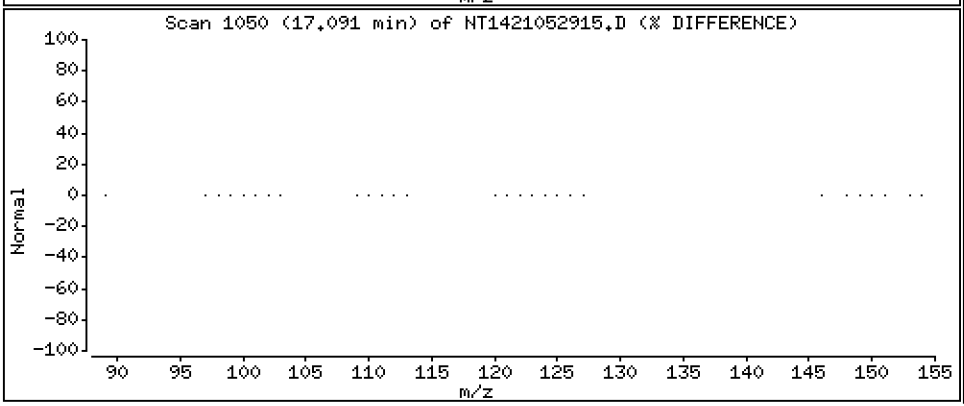












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

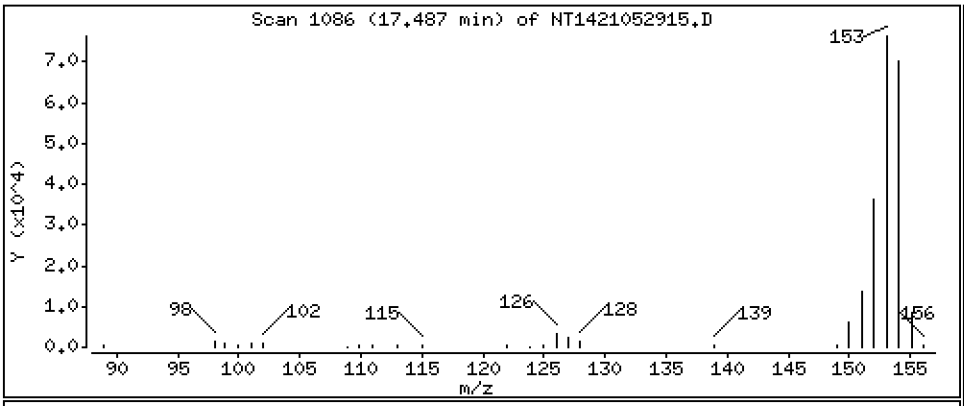
Operator: VTS

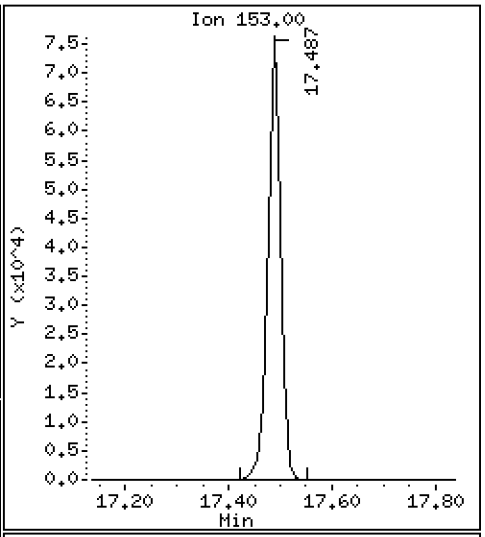
Column phase: Rxi-17Sil MS

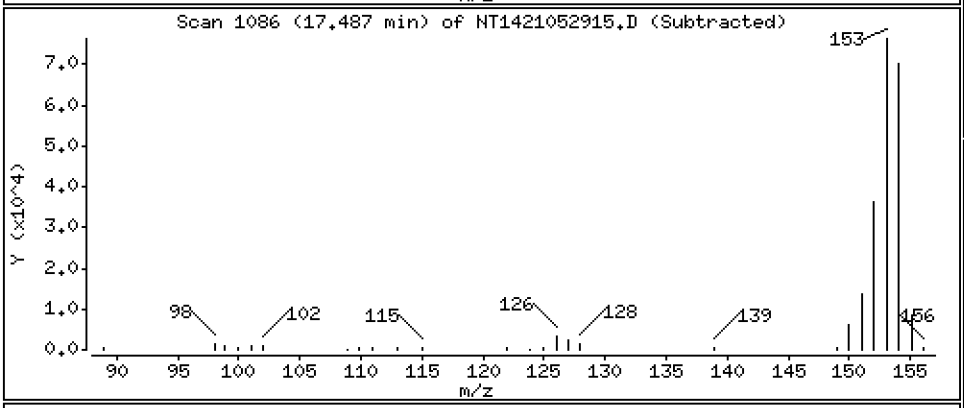
Column diameter: 0.25

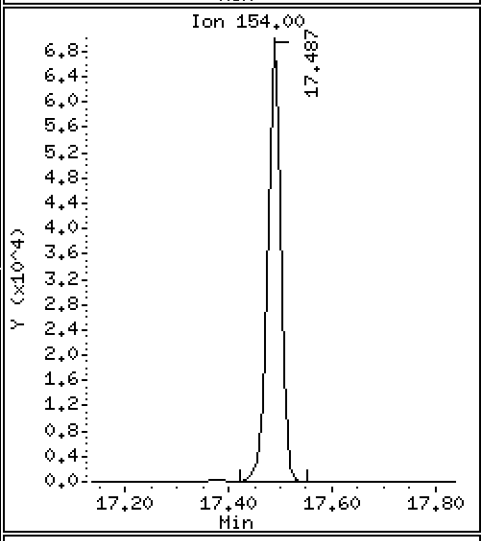
22 Acenaphthene

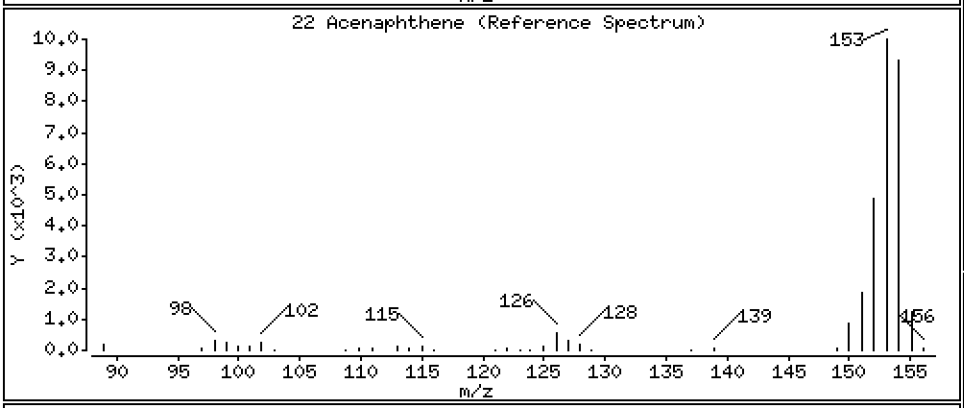
Concentration: 2.755 ug/mL

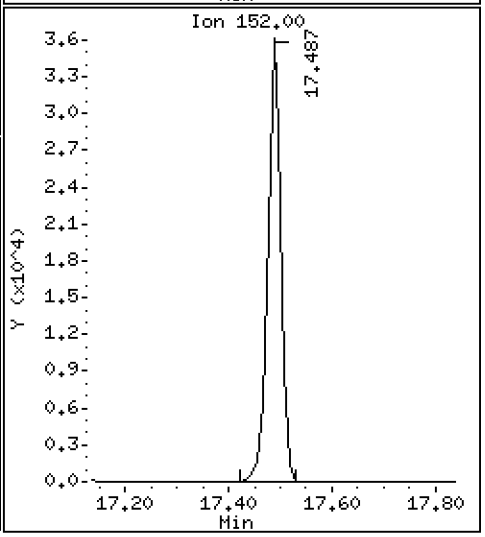


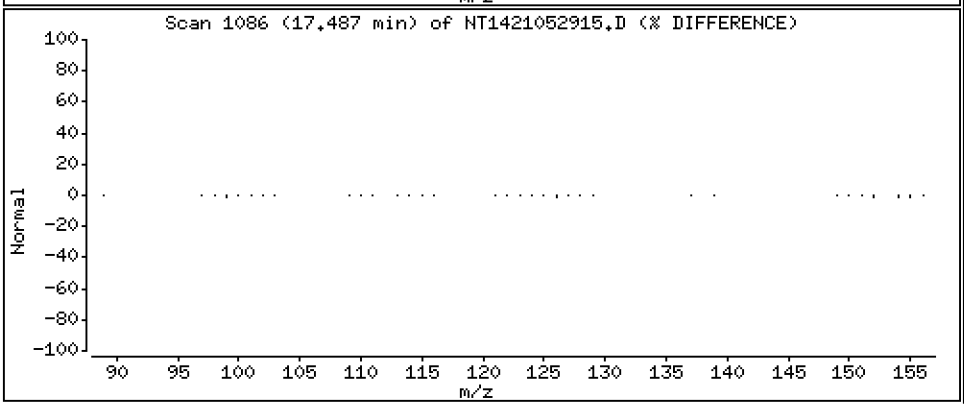












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

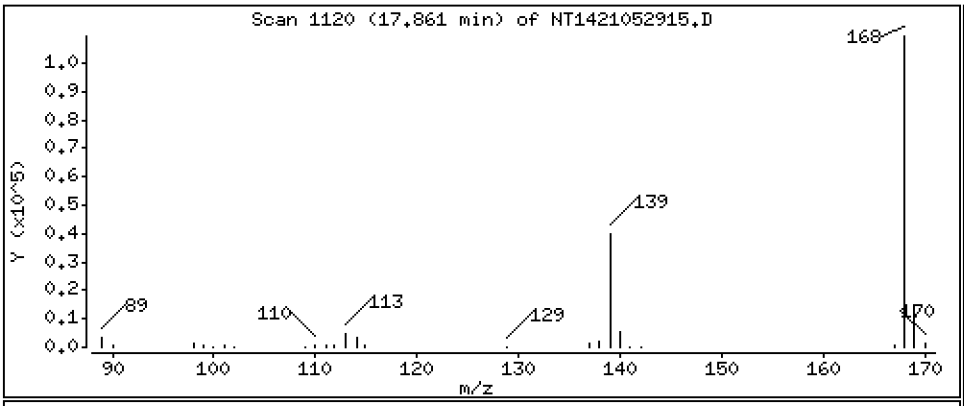
Operator: VTS

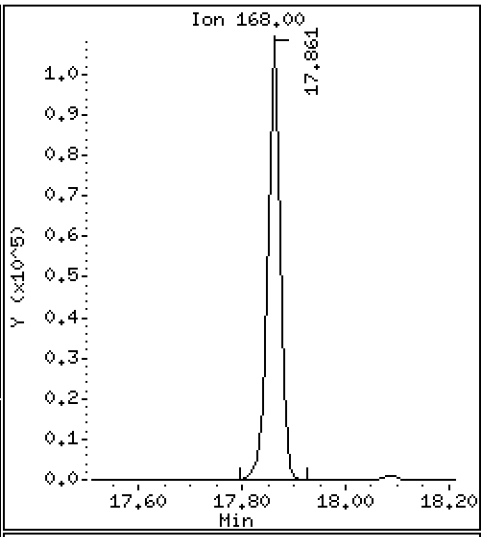
Column phase: Rxi-17Sil MS

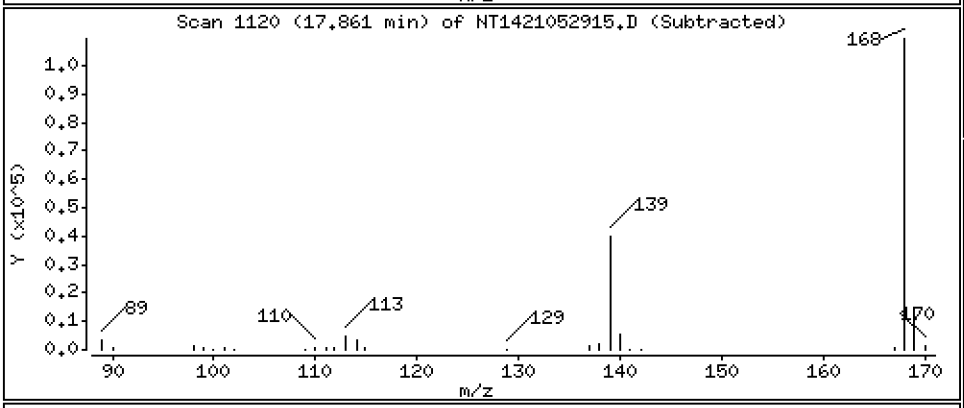
Column diameter: 0.25

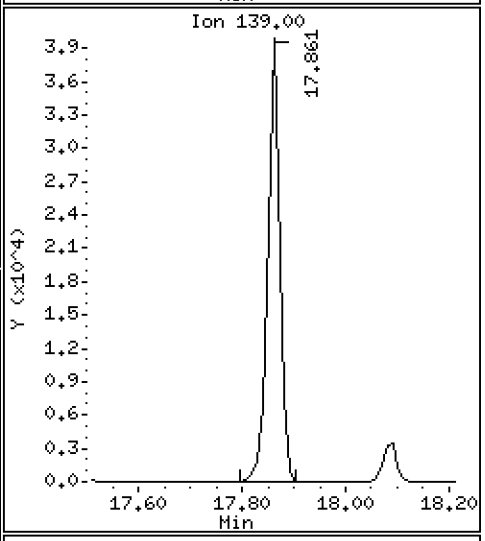
23 Dibenzofuran

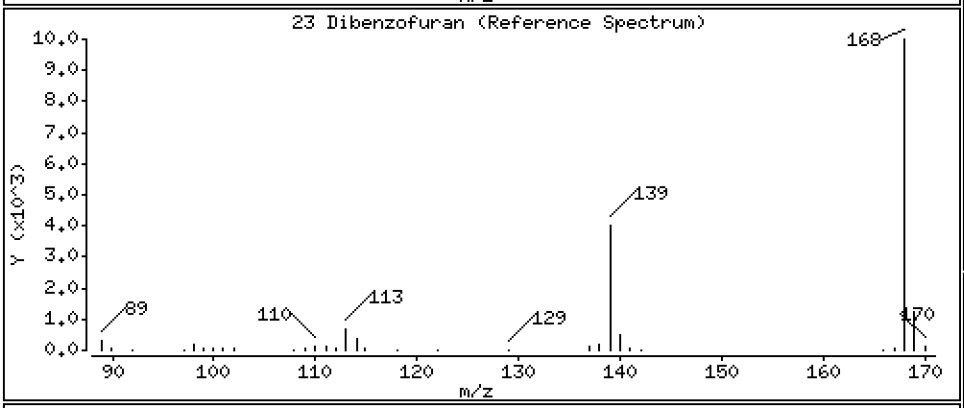
Concentration: 2.595 ug/mL

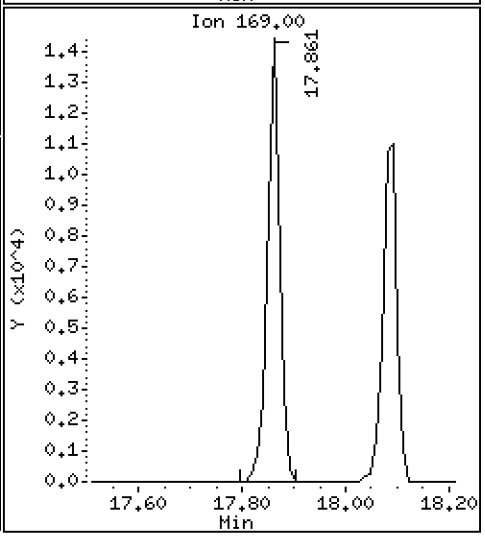


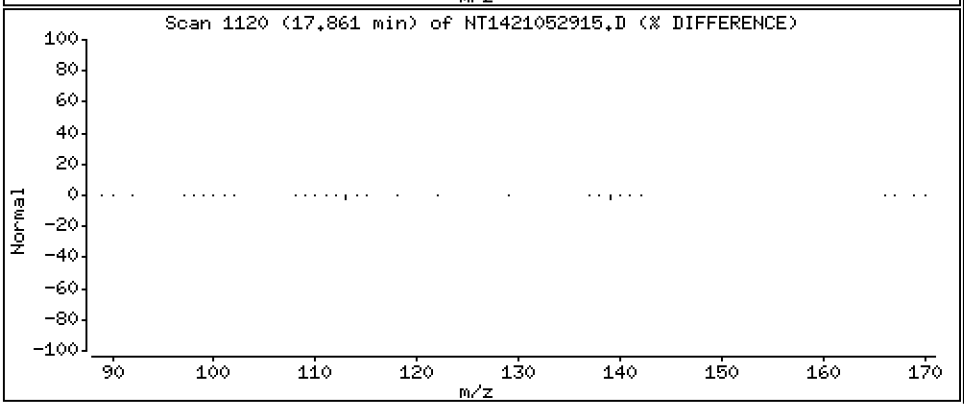












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

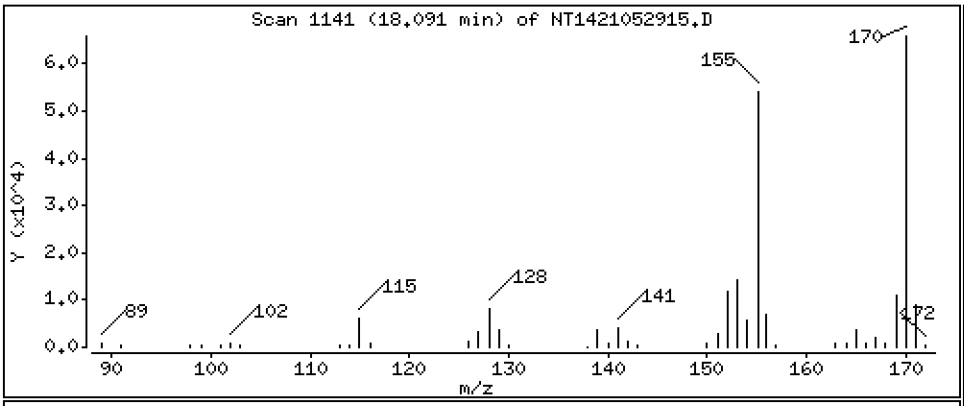
Operator: VTS

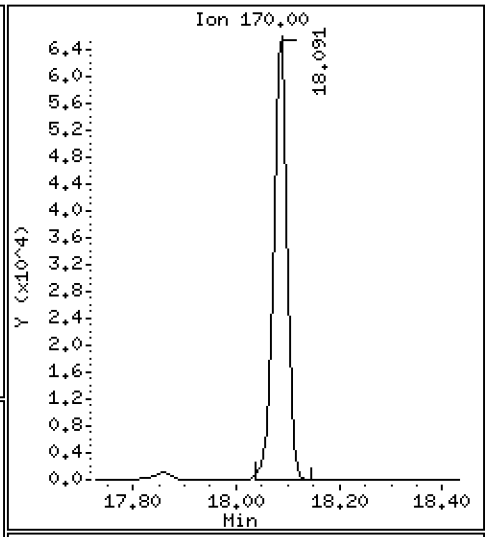
Column phase: Rxi-17Sil MS

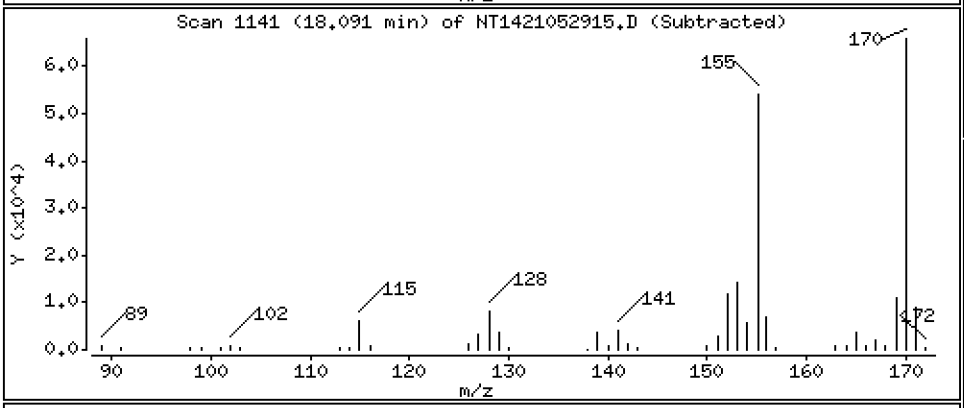
Column diameter: 0.25

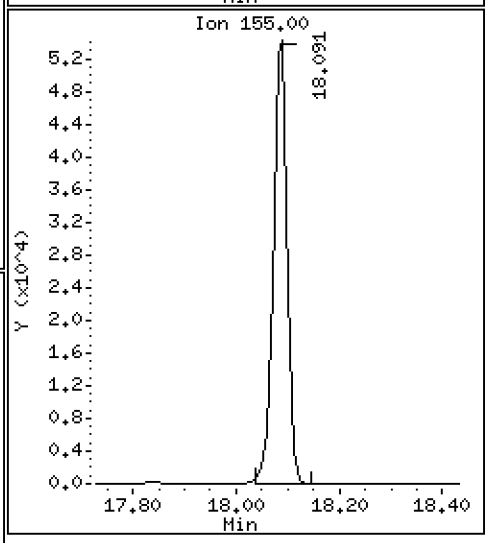
24 1,6,7-Trimethylnaphthalene

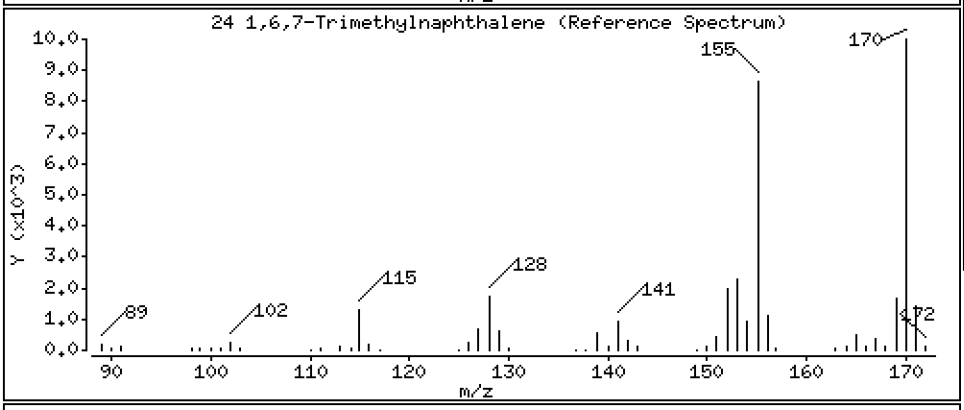
Concentration: 2.642 ug/mL

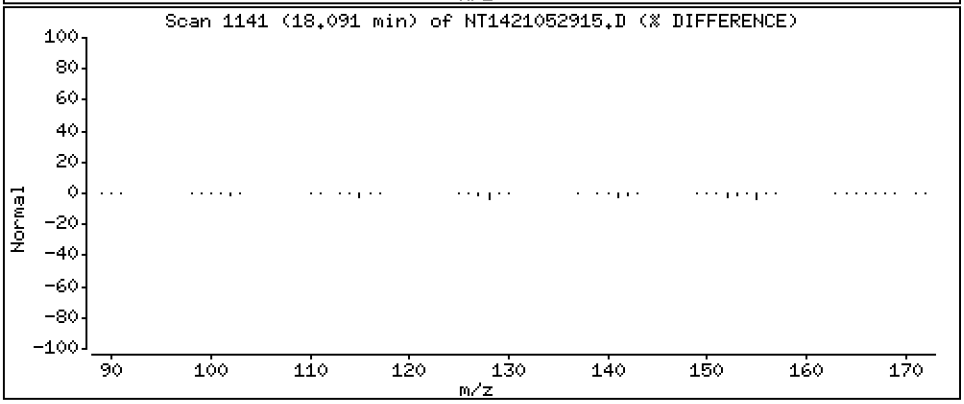












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

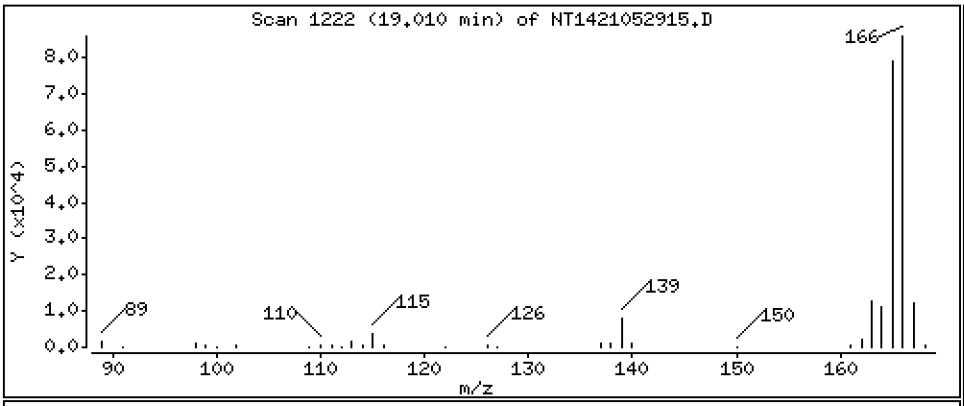
Operator: VTS

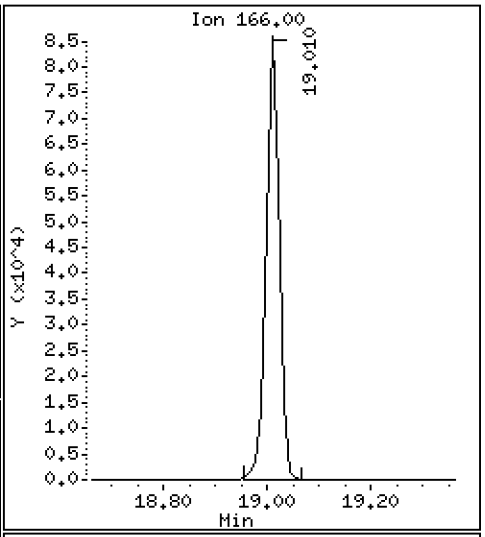
Column phase: Rxi-17Sil MS

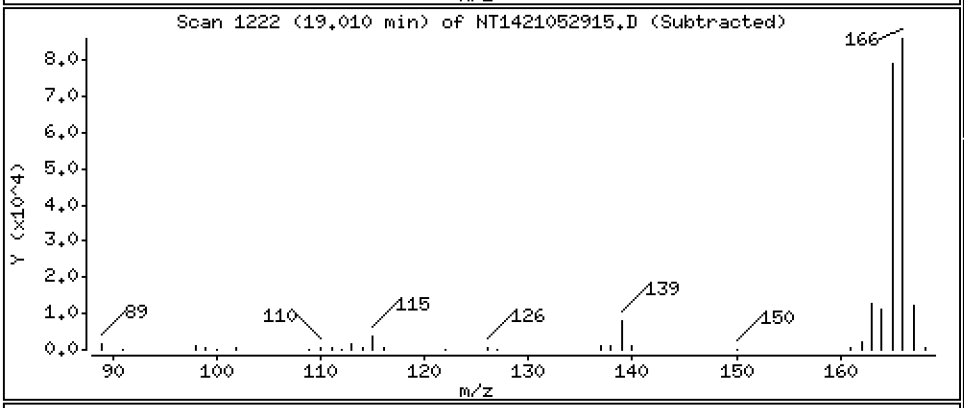
Column diameter: 0.25

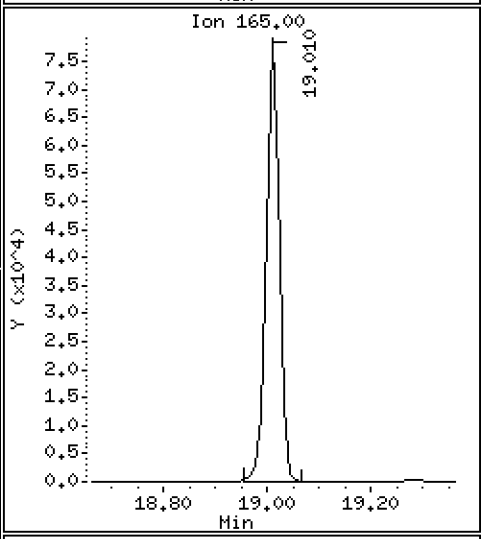
26 Fluorene

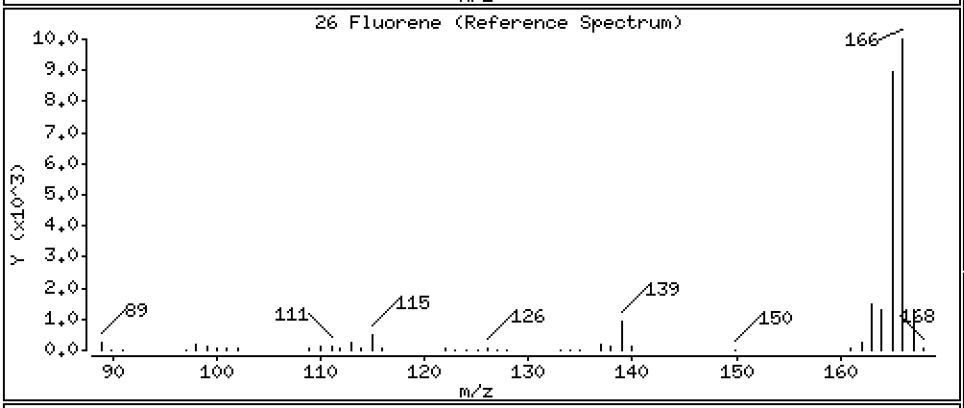
Concentration: 2.611 ug/mL

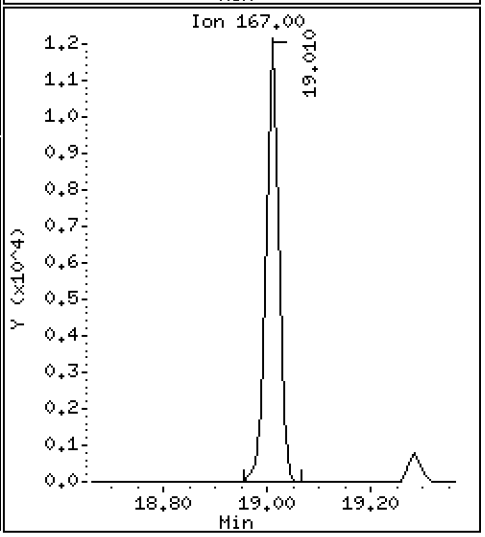


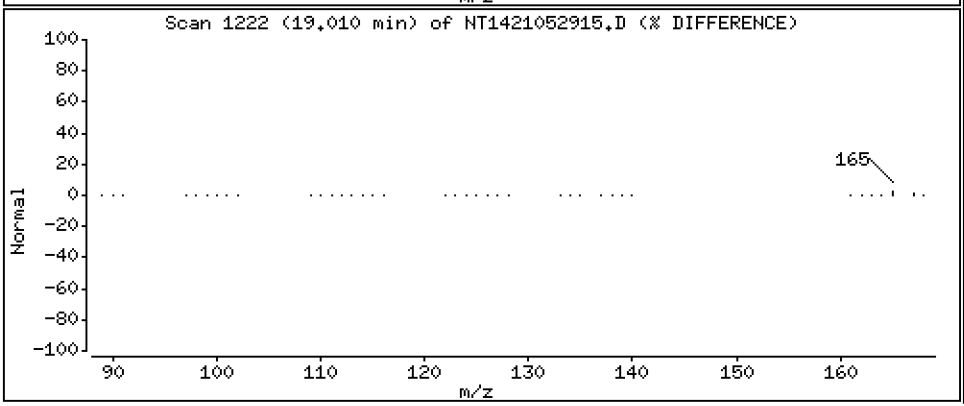












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

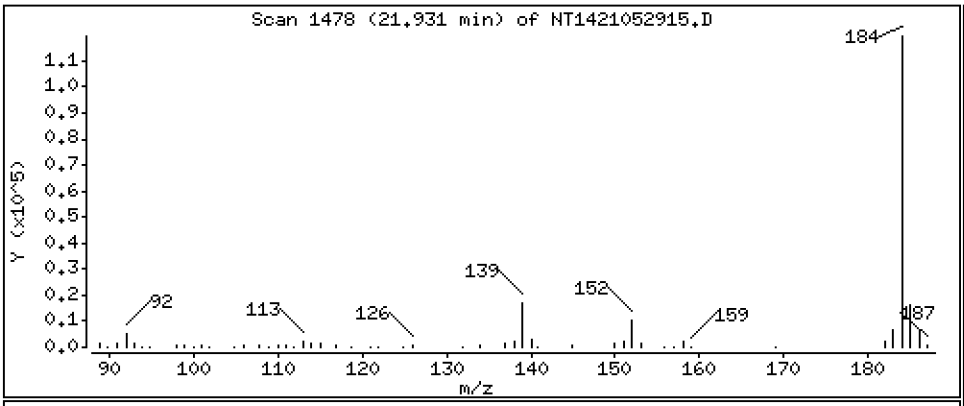
Operator: VTS

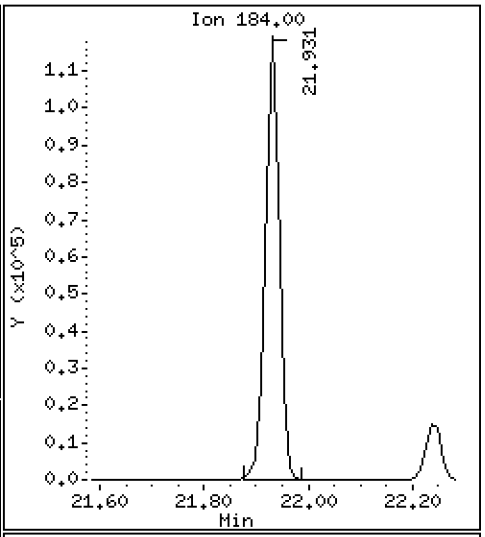
Column phase: Rxi-17Sil MS

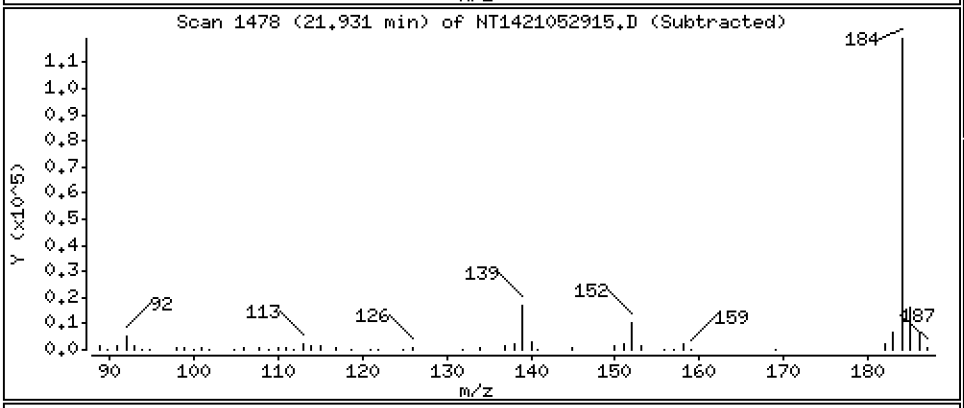
Column diameter: 0.25

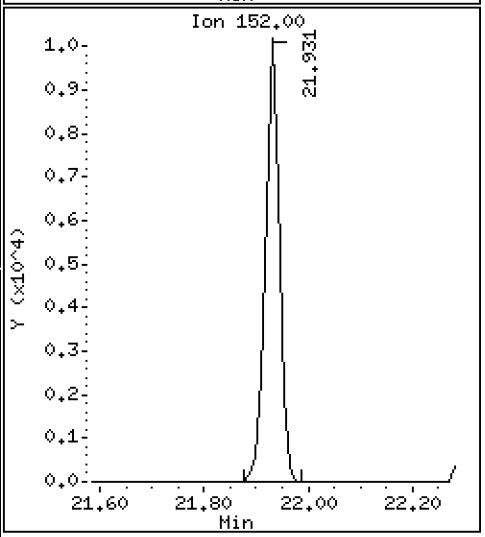
30 Dibenzothiophene

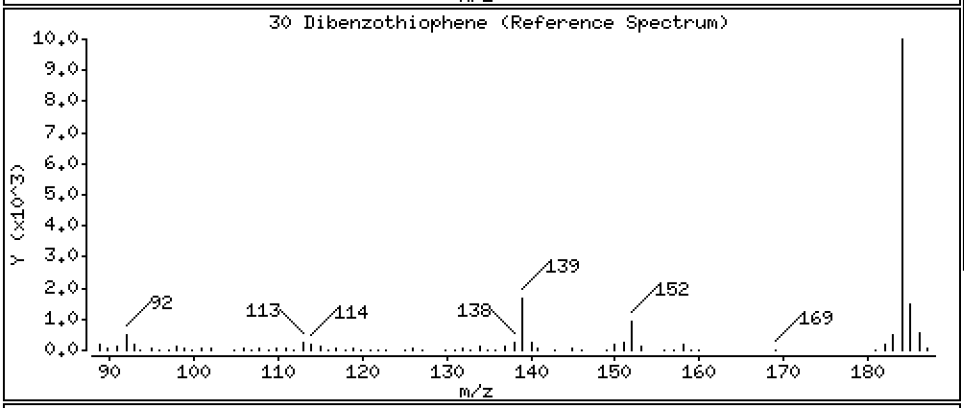
Concentration: 2.634 ug/mL

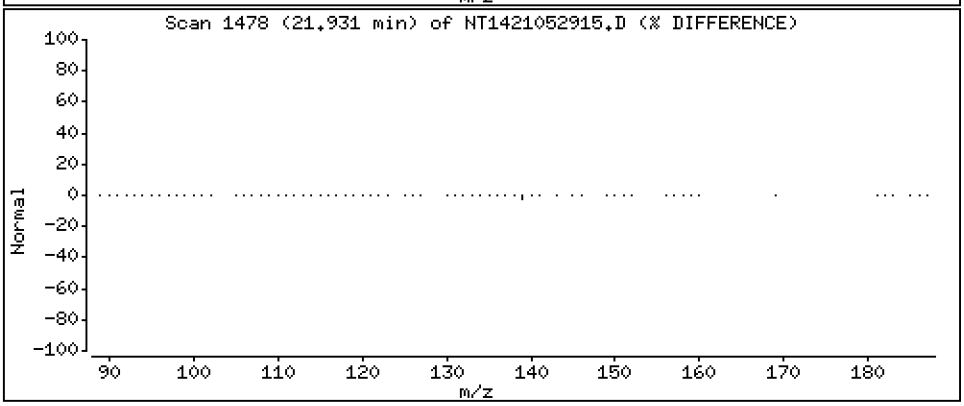












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

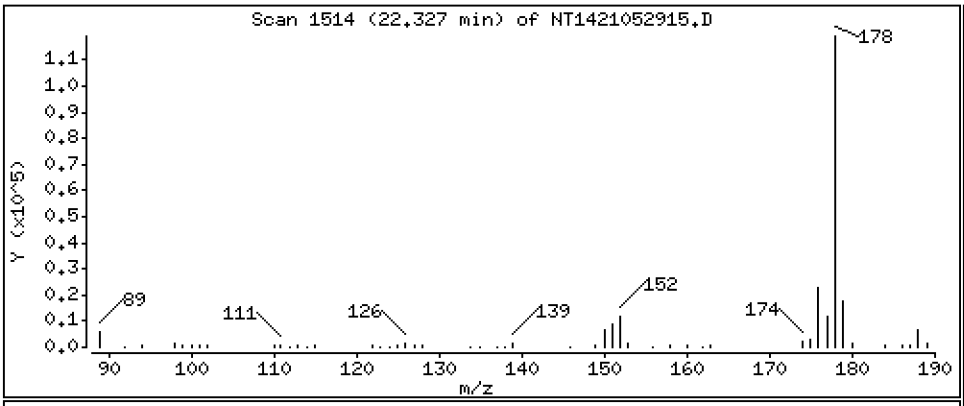
Operator: VTS

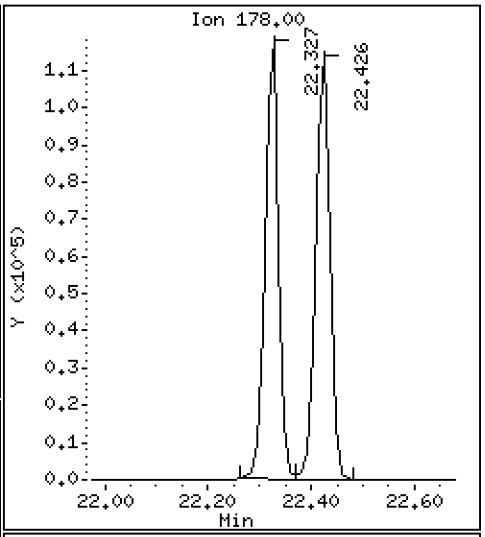
Column phase: Rxi-17Sil MS

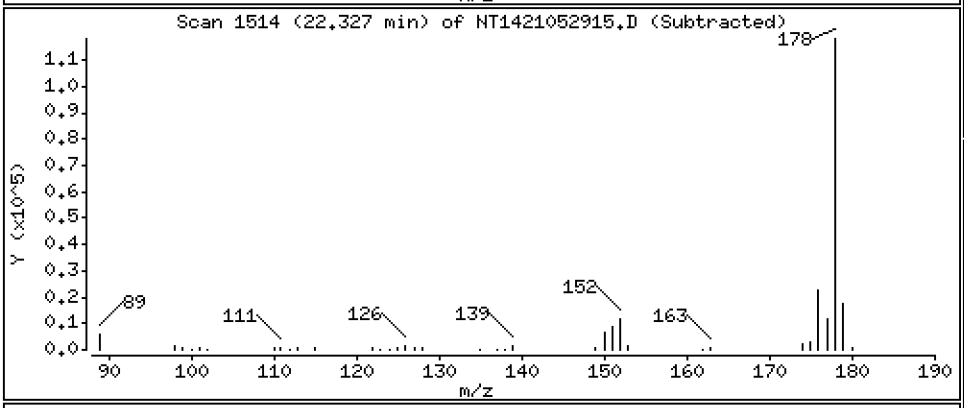
Column diameter: 0.25

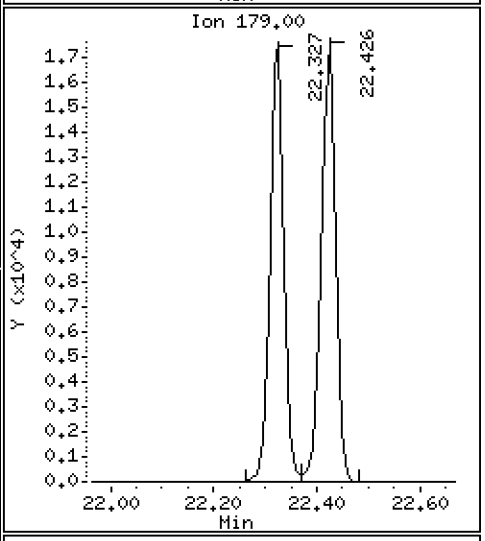
36 Phenanthrene

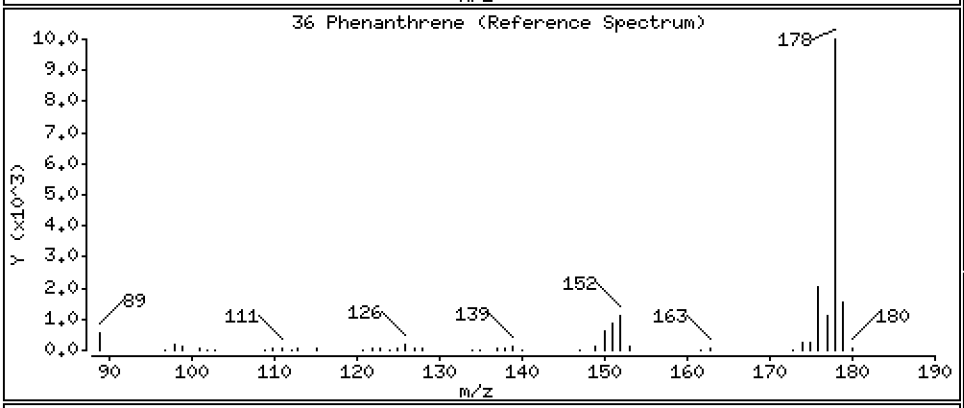
Concentration: 2.640 ug/mL

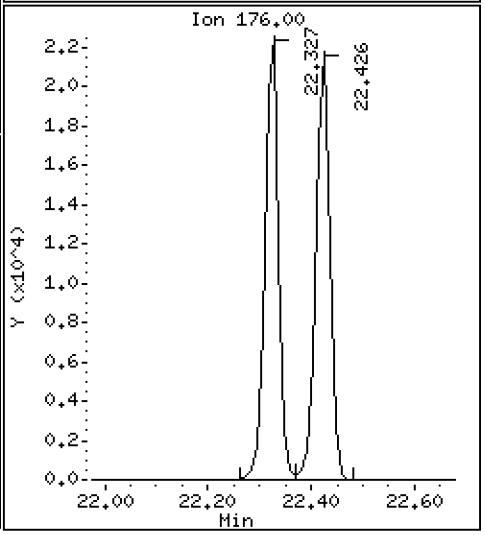


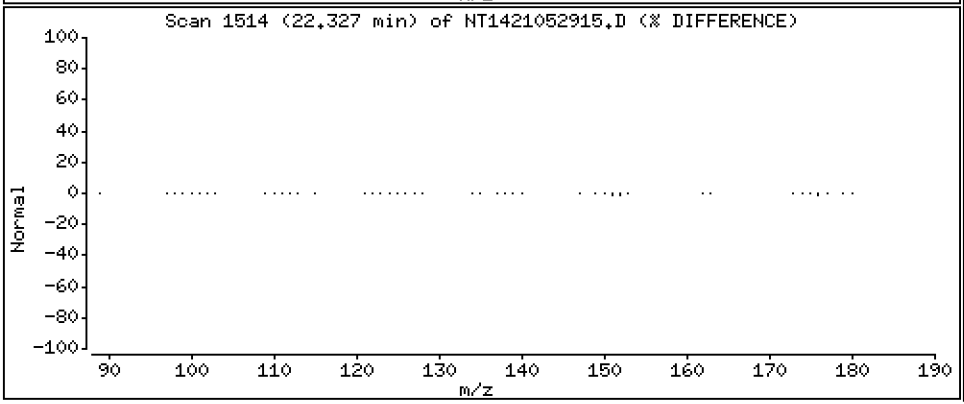












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

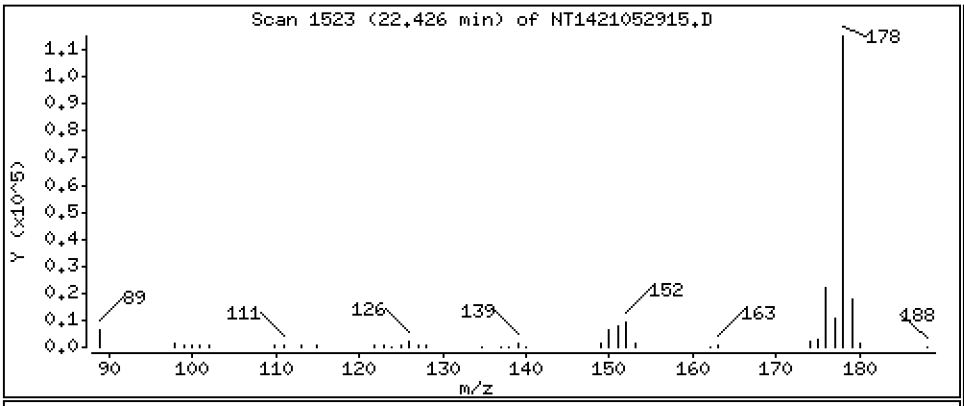
Operator: VTS

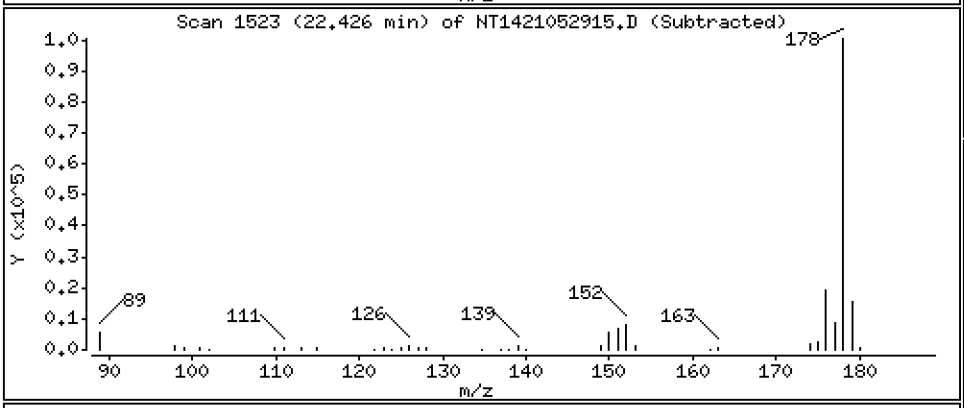
Column phase: Rxi-17Sil MS

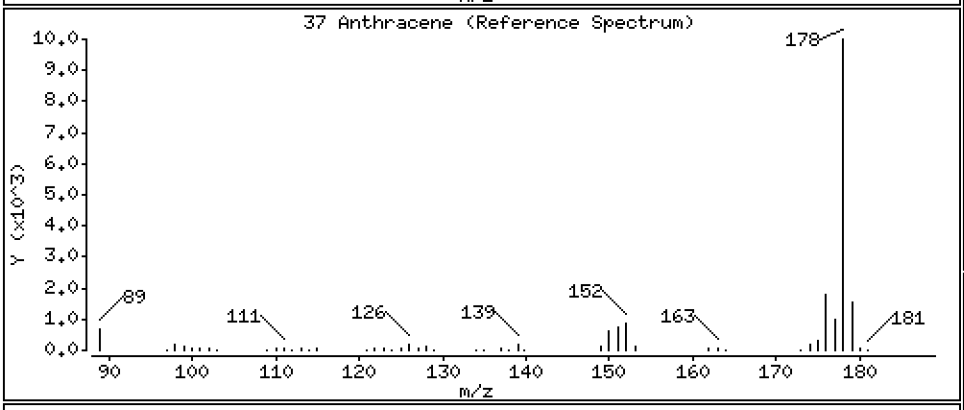
Column diameter: 0.25

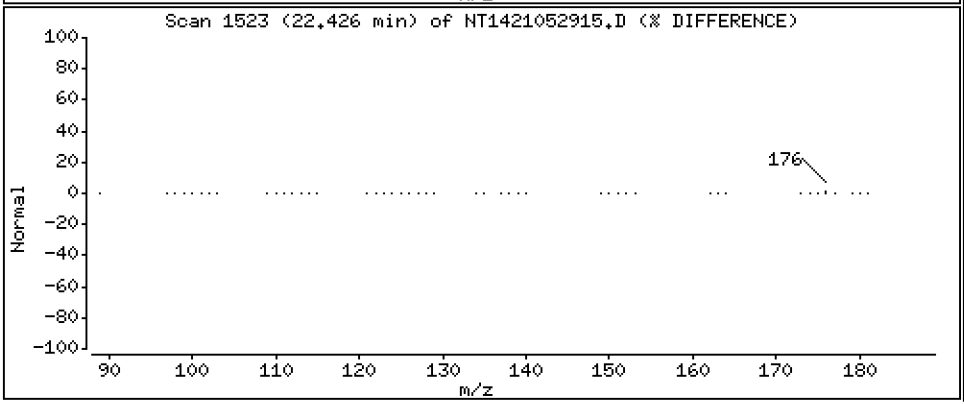
37 Anthracene

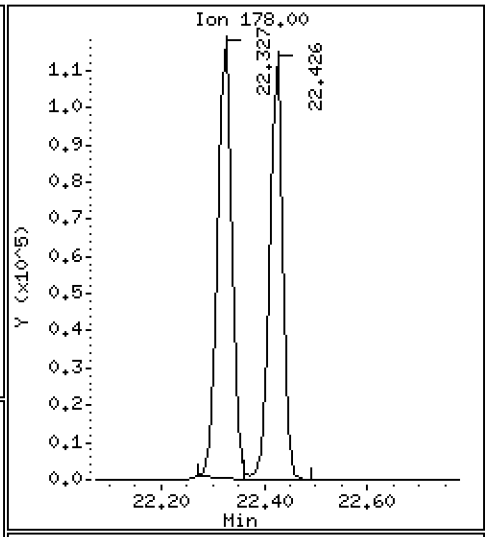
Concentration: 2.688 ug/mL

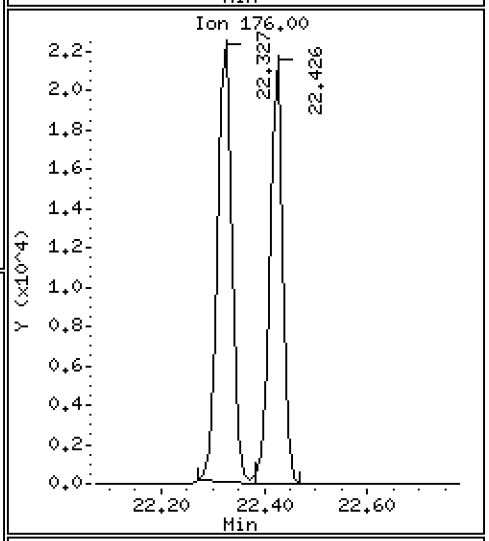


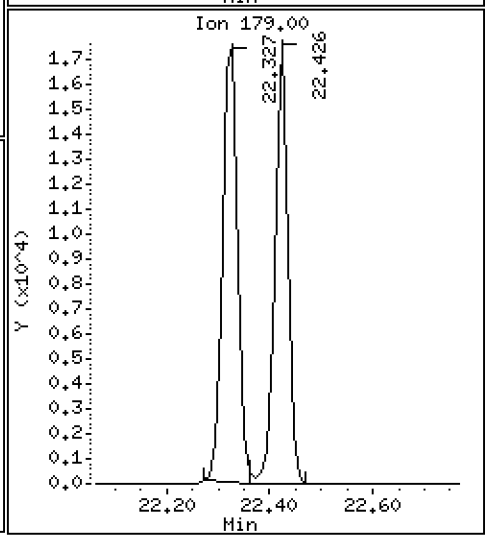












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

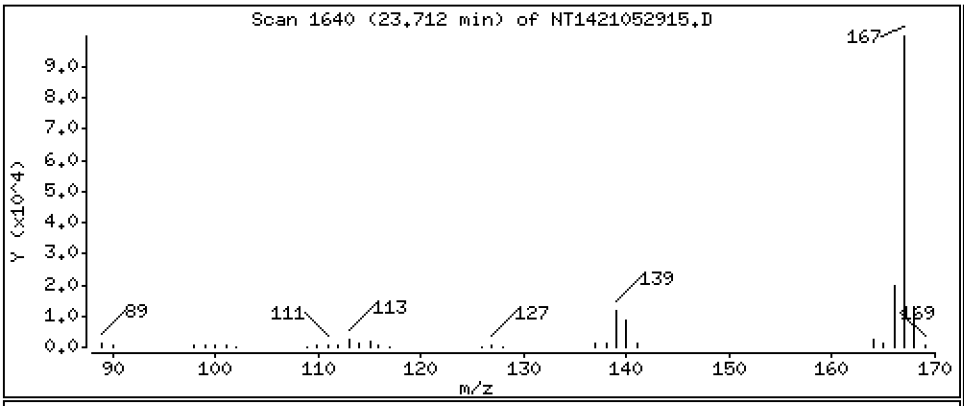
Operator: VTS

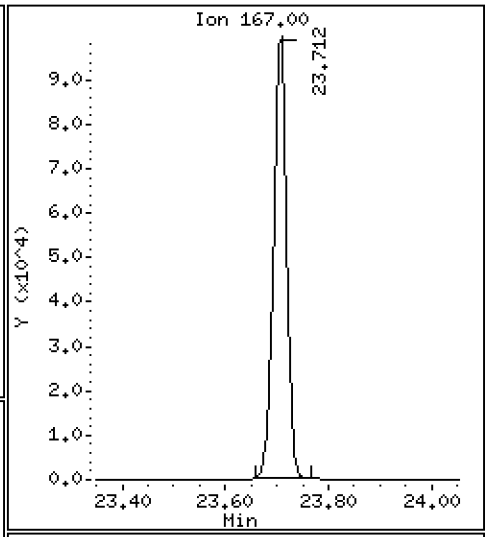
Column phase: Rxi-17Sil MS

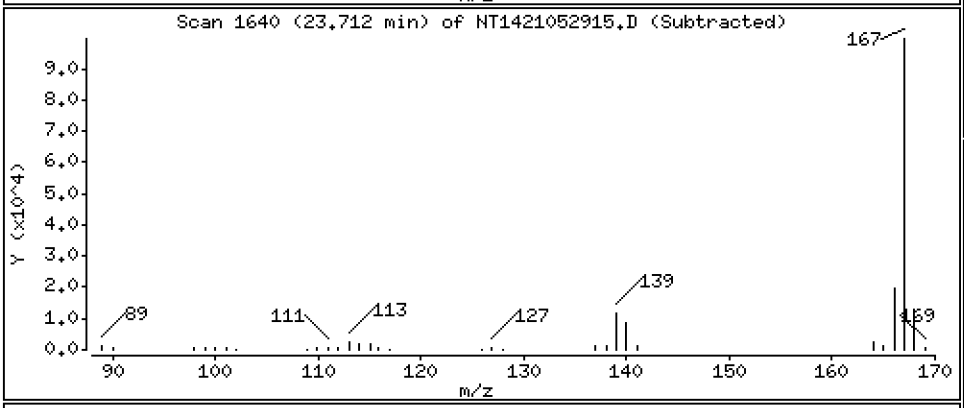
Column diameter: 0.25

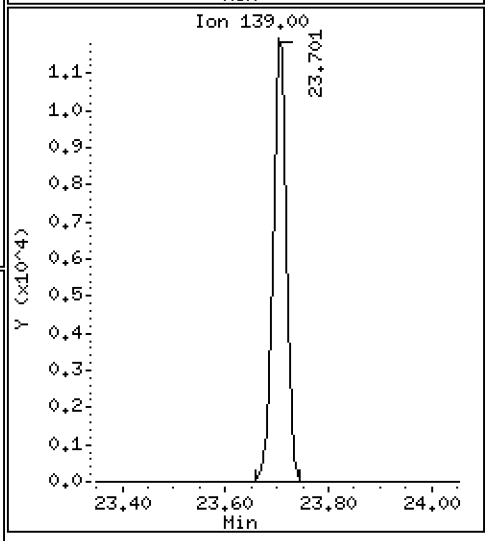
42 Carbazole

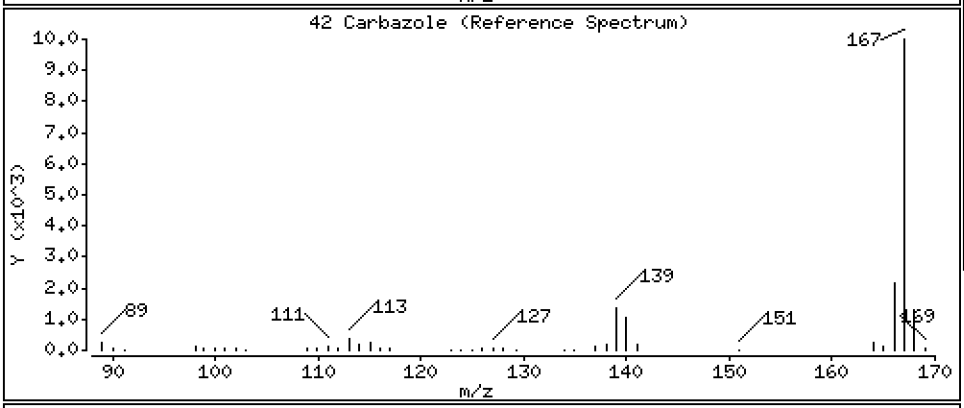
Concentration: 2.704 ug/mL

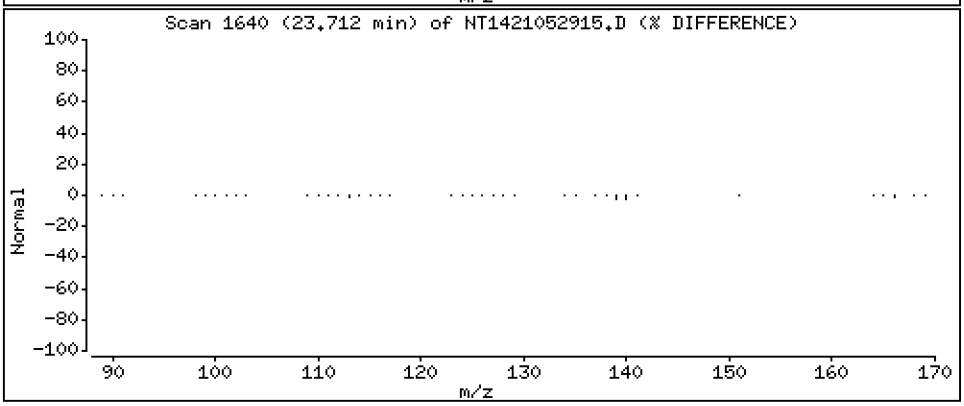












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

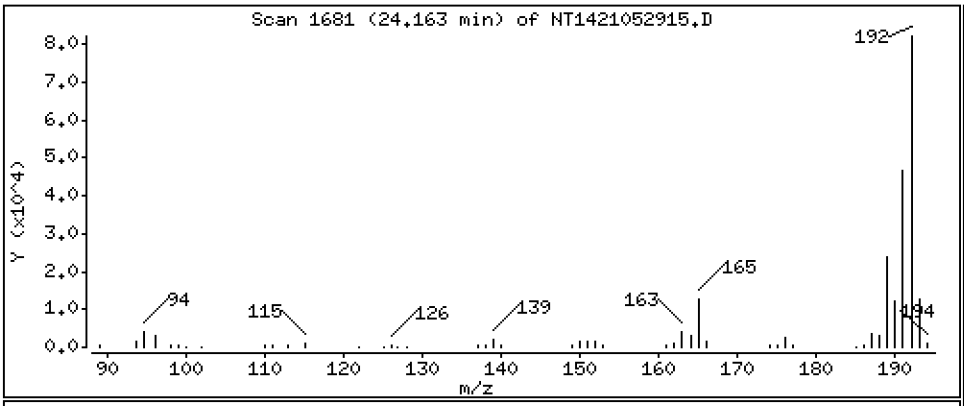
Operator: VTS

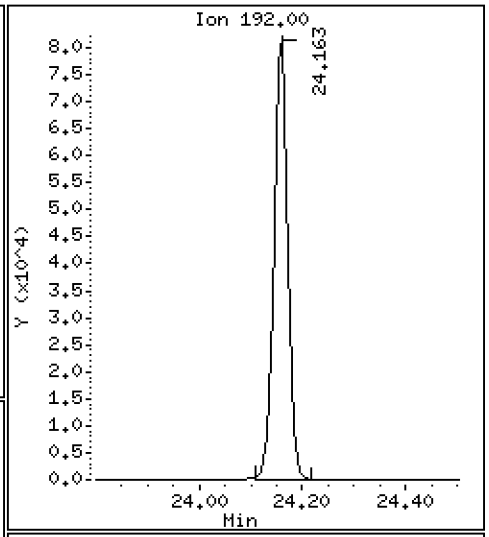
Column phase: Rxi-17Sil MS

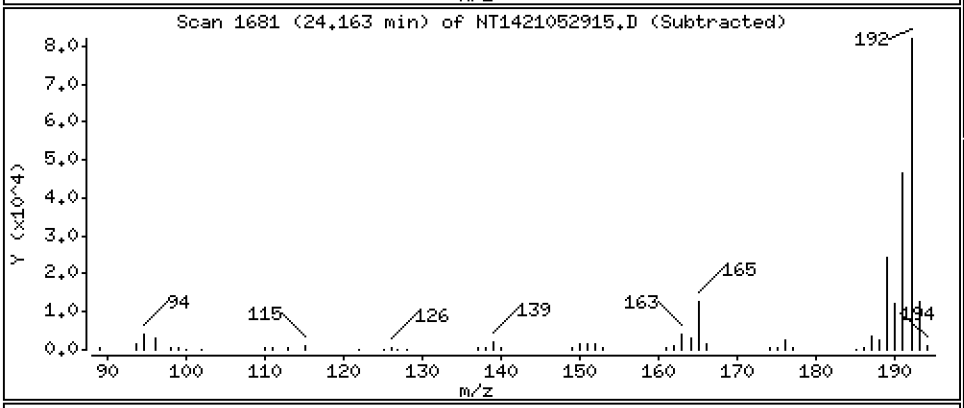
Column diameter: 0.25

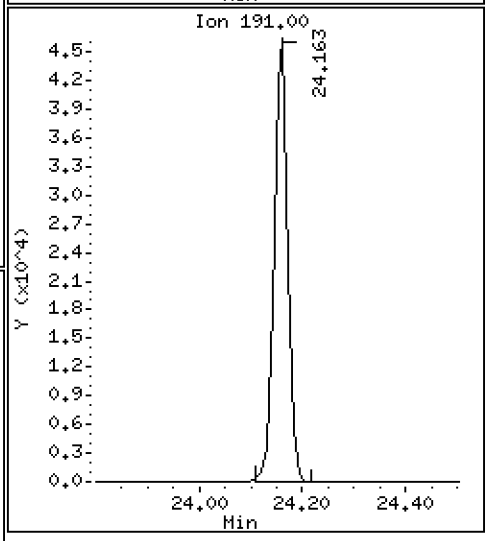
43 1-Methylphenanthrene

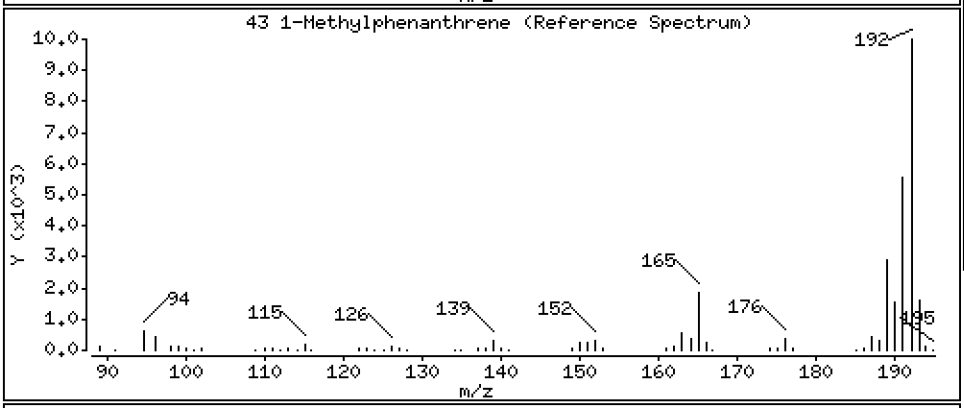
Concentration: 2.667 ug/mL

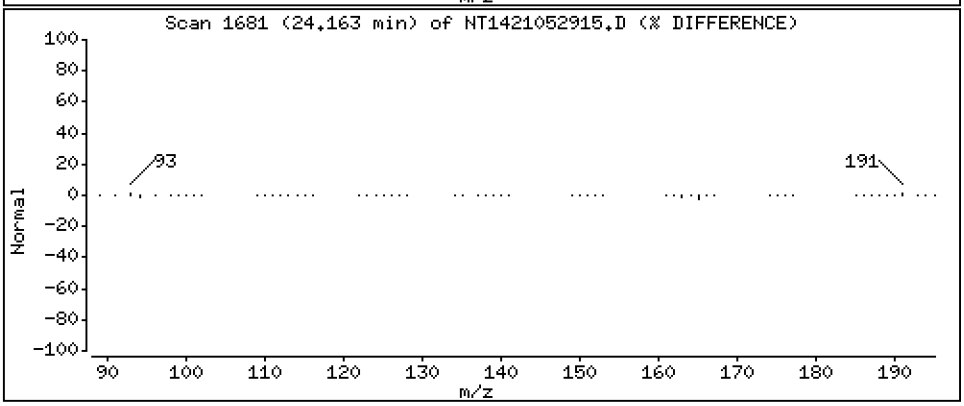












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

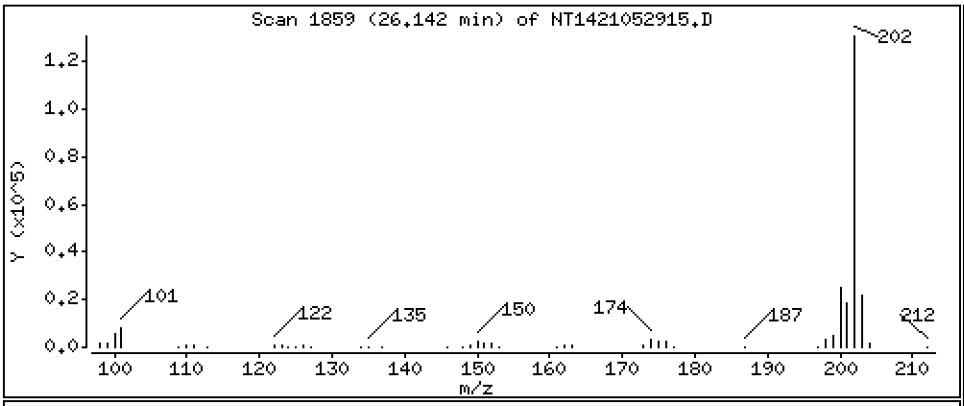
Operator: VTS

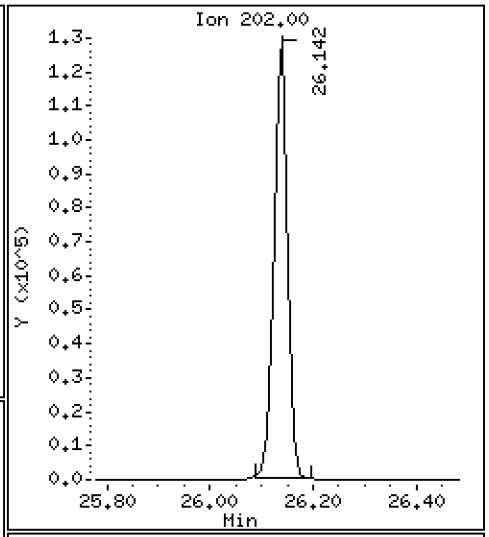
Column phase: Rxi-17Sil MS

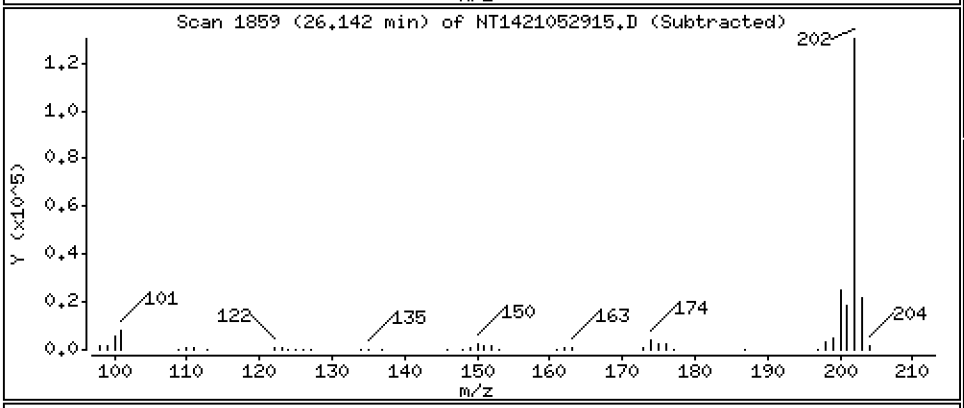
Column diameter: 0.25

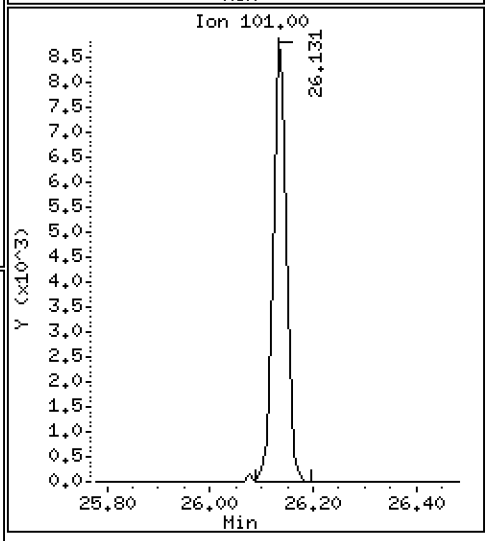
44 Fluoranthene

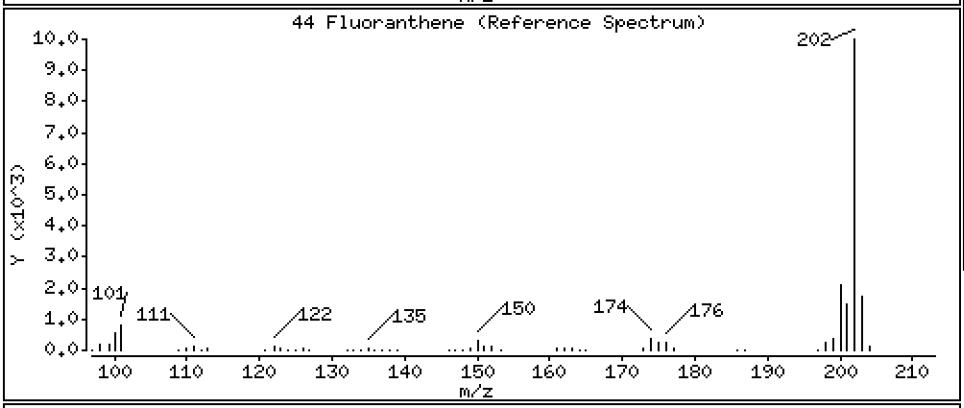
Concentration: 2.672 ug/mL

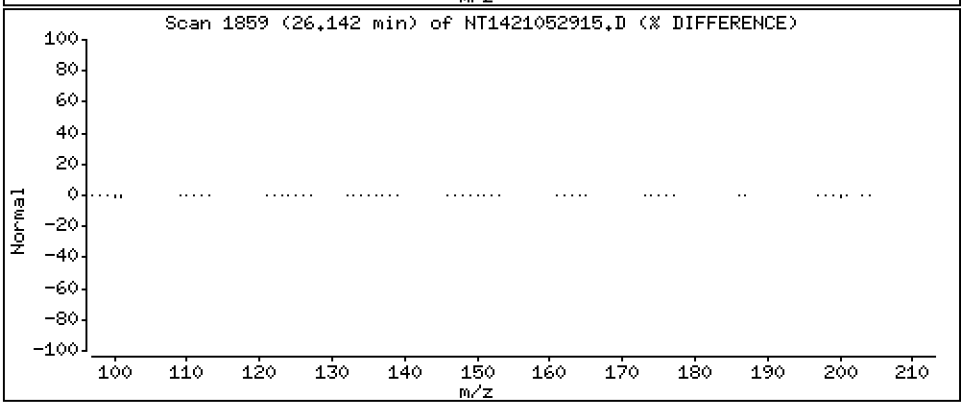












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

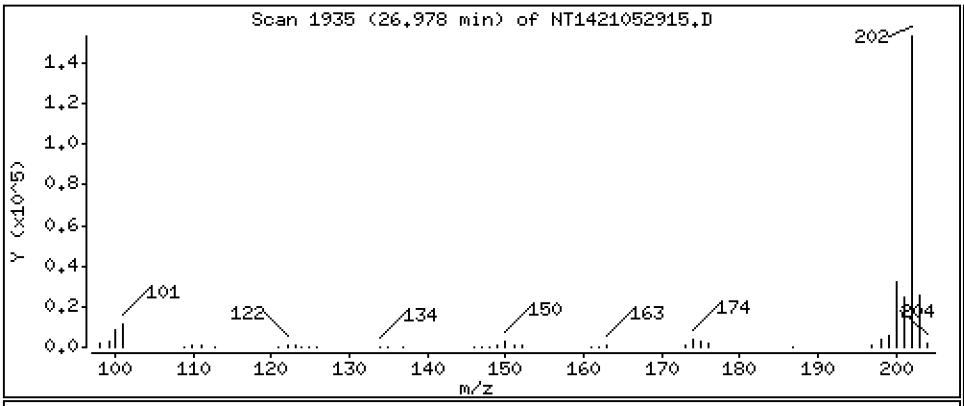
Operator: VTS

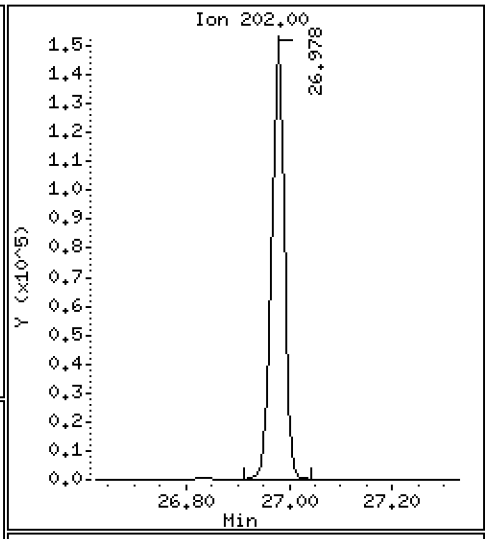
Column phase: Rxi-17Sil MS

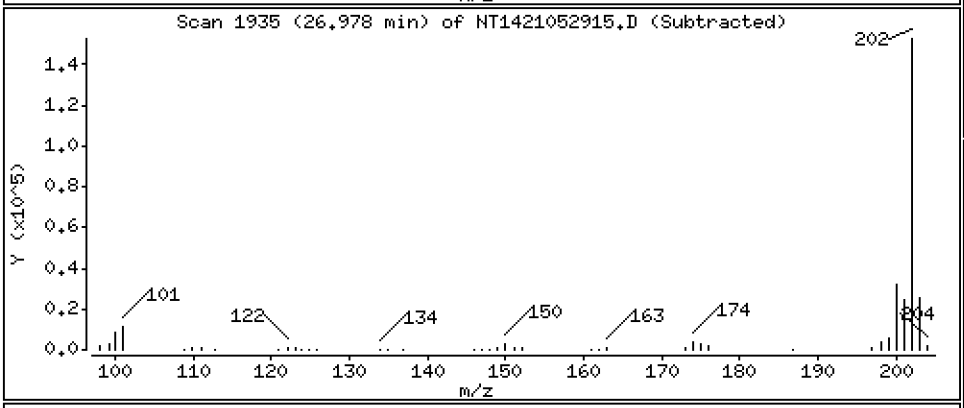
Column diameter: 0.25

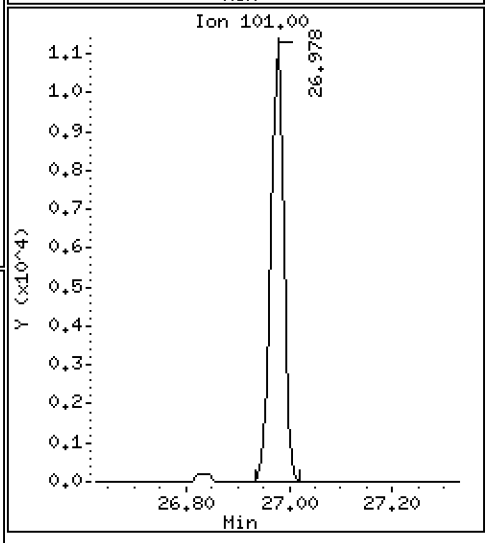
46 Pyrene

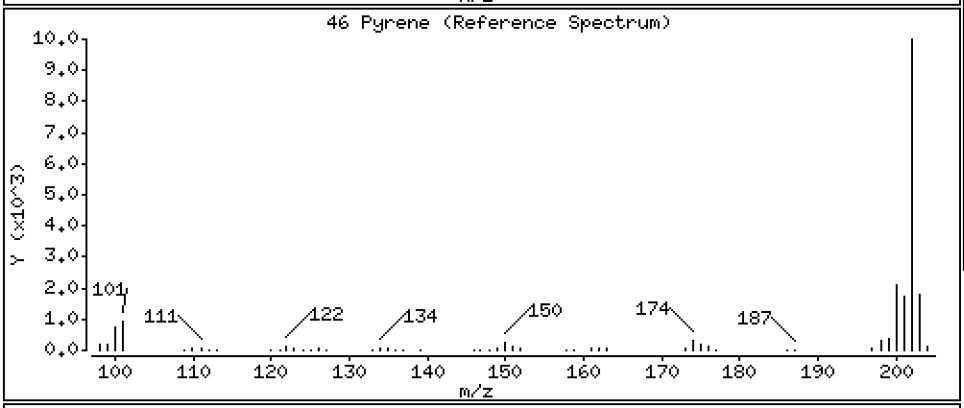
Concentration: 2.712 ug/mL

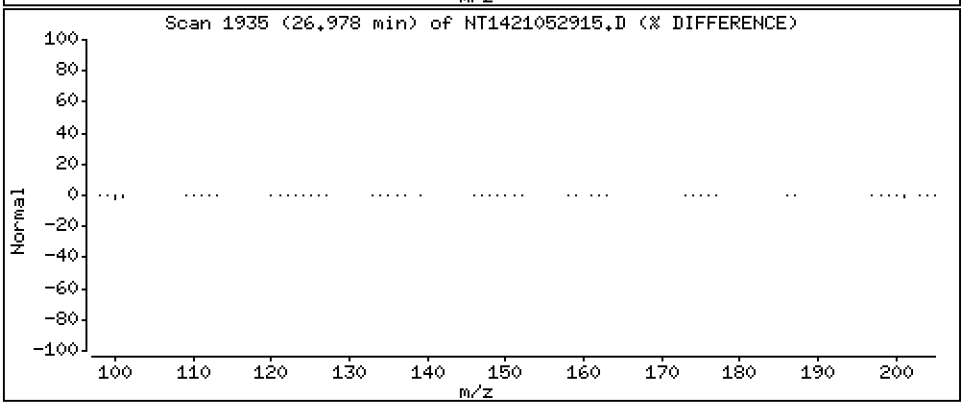












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

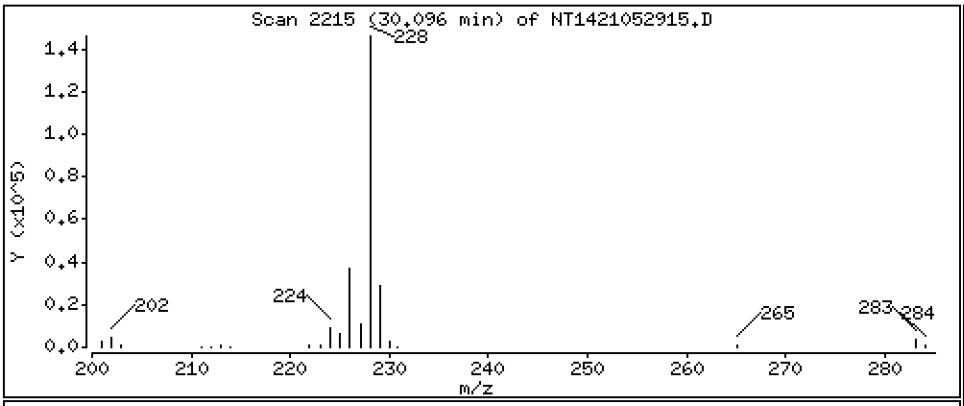
Operator: VTS

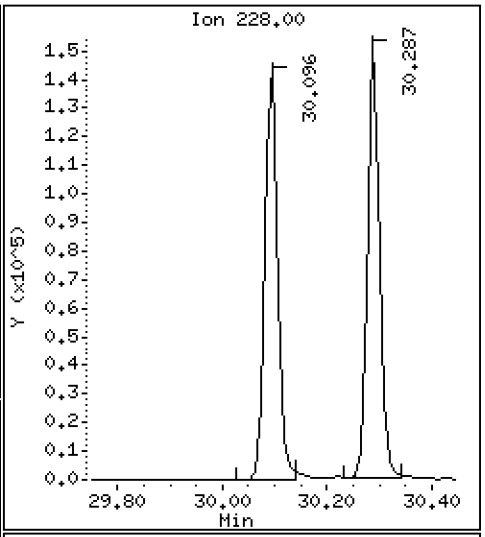
Column phase: Rxi-17Sil MS

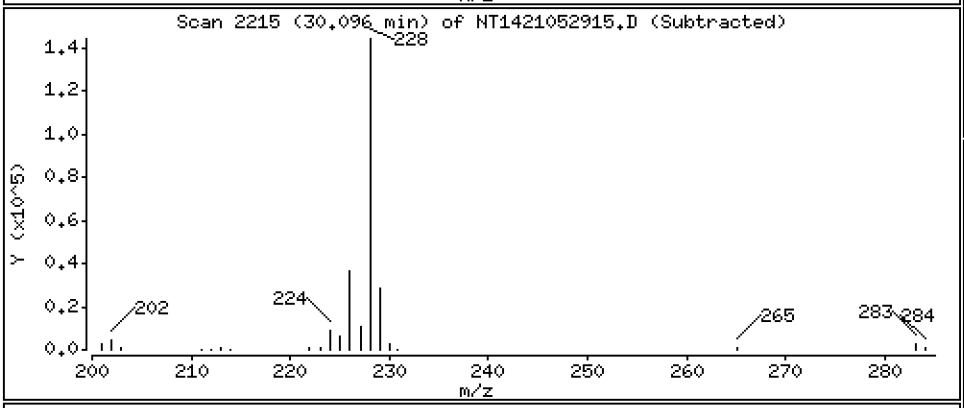
Column diameter: 0.25

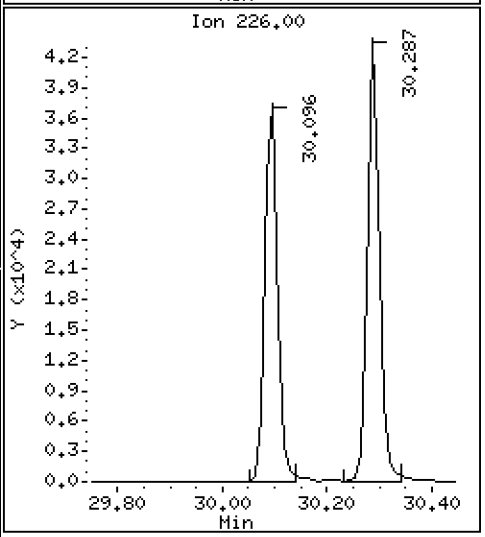
55 Benzo(a)anthracene

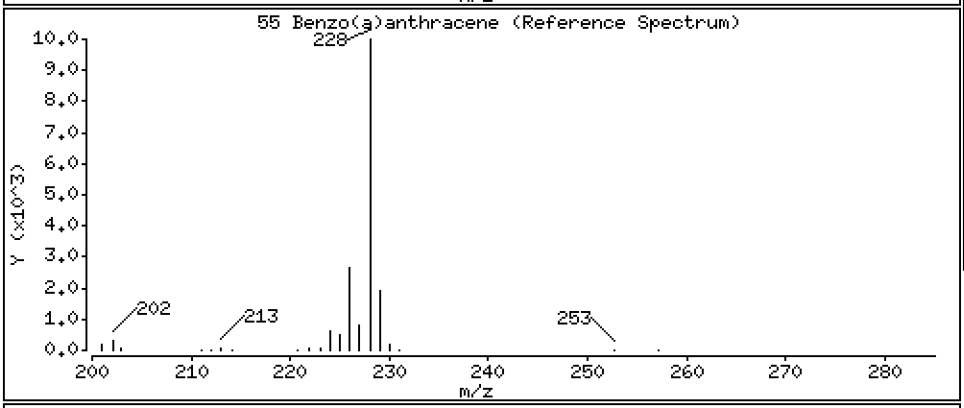
Concentration: 2.756 ug/mL

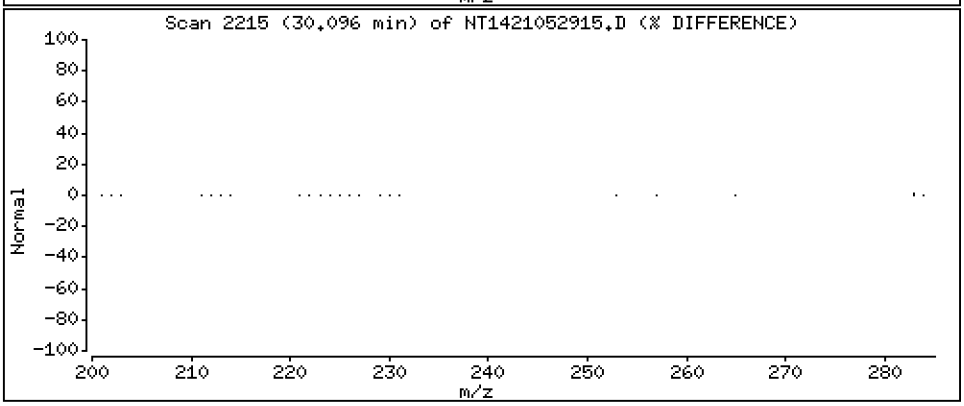












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

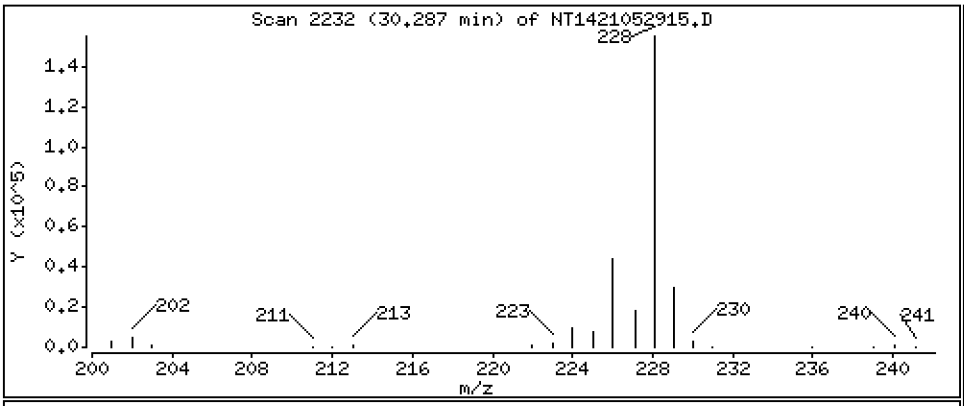
Operator: VTS

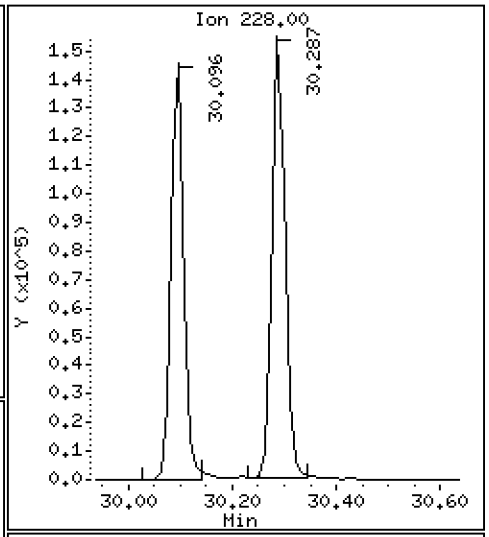
Column phase: Rxi-17Sil MS

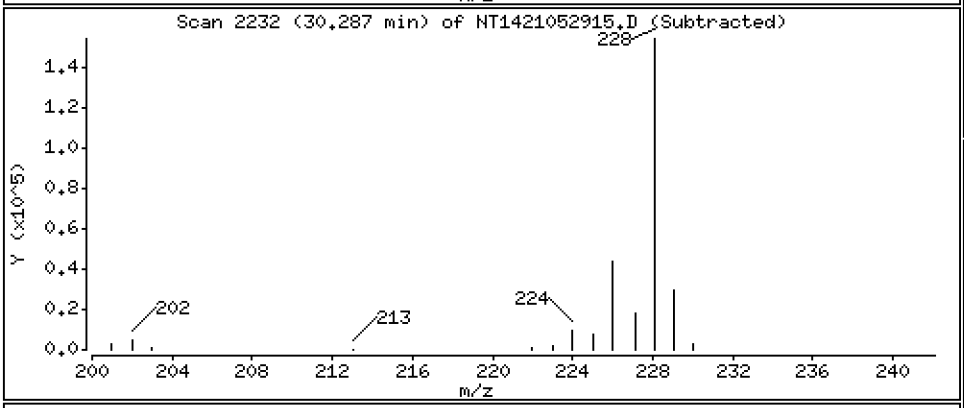
Column diameter: 0.25

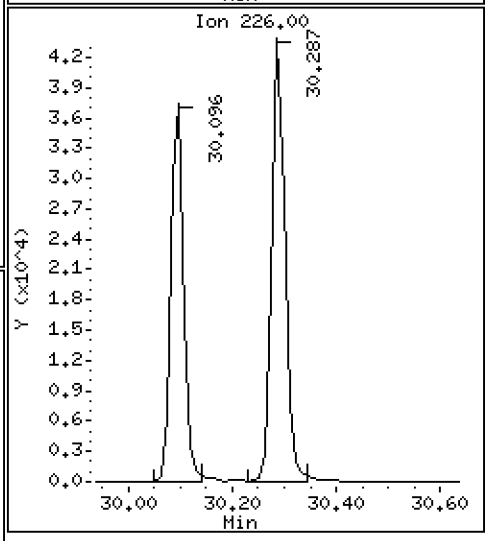
57 Chrysene

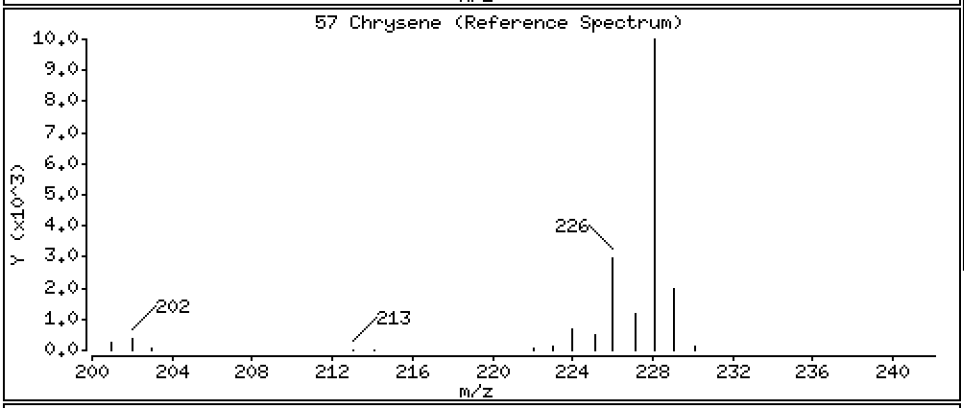
Concentration: 2.770 ug/mL

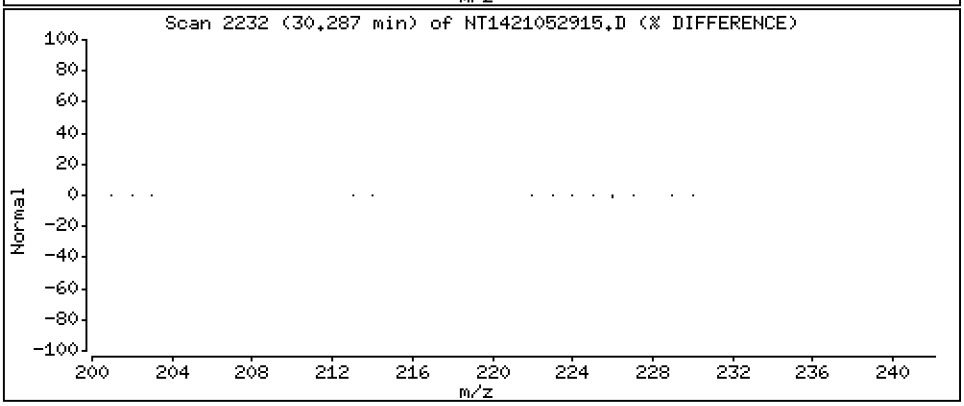












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

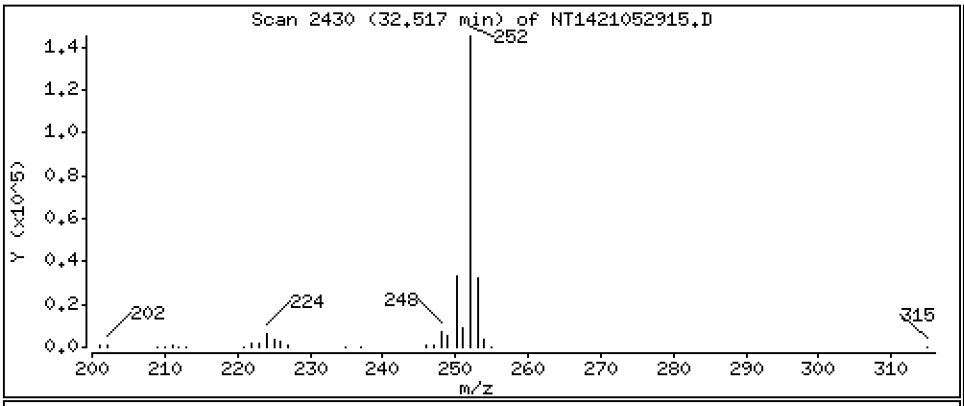
Operator: VTS

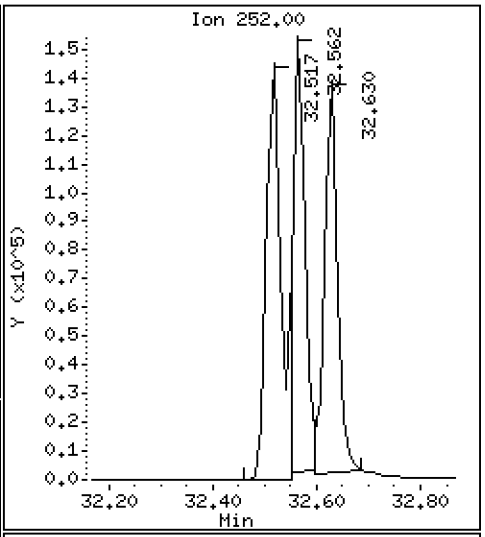
Column phase: Rxi-17Sil MS

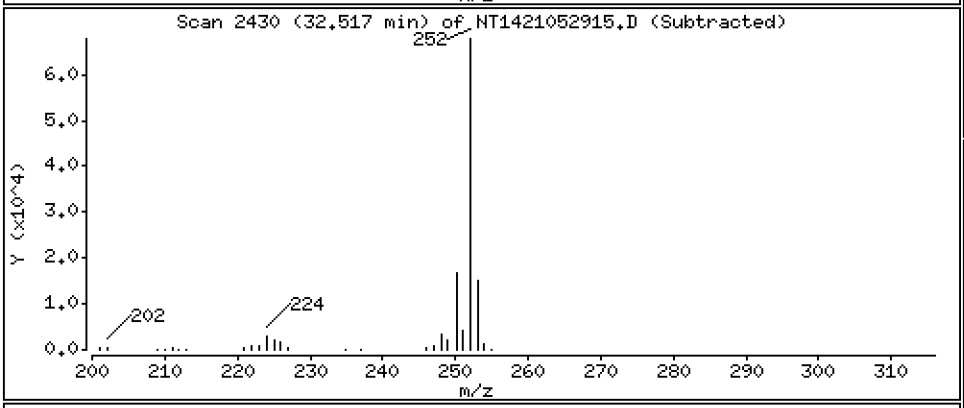
Column diameter: 0.25

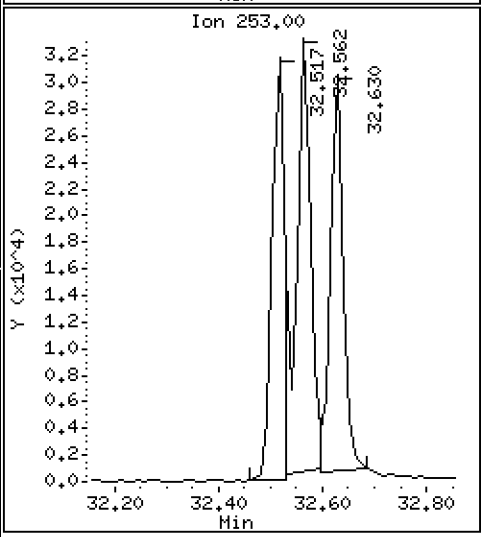
62 Benzo(b)fluoranthene

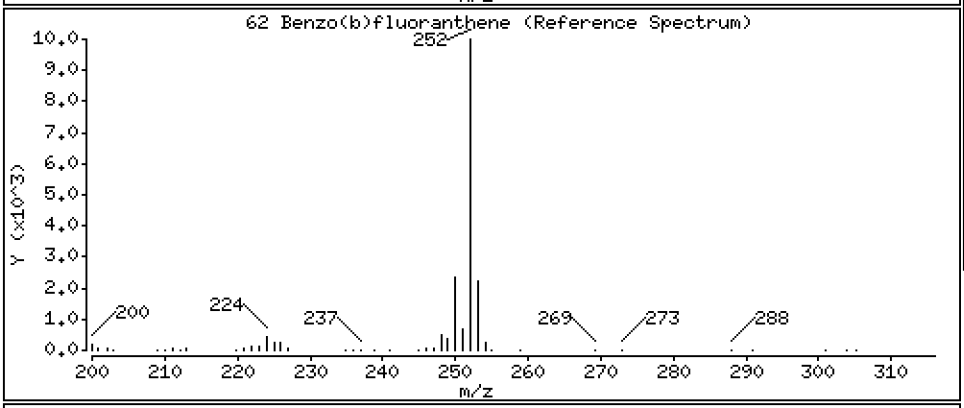
Concentration: 3.119 ug/mL

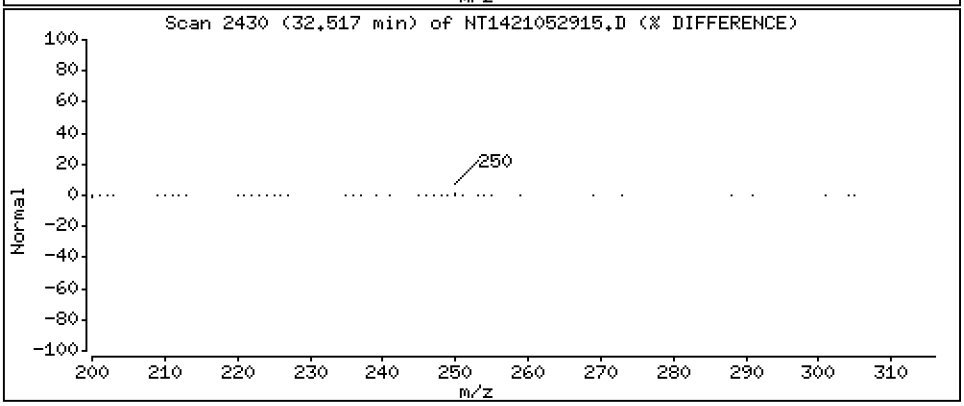












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

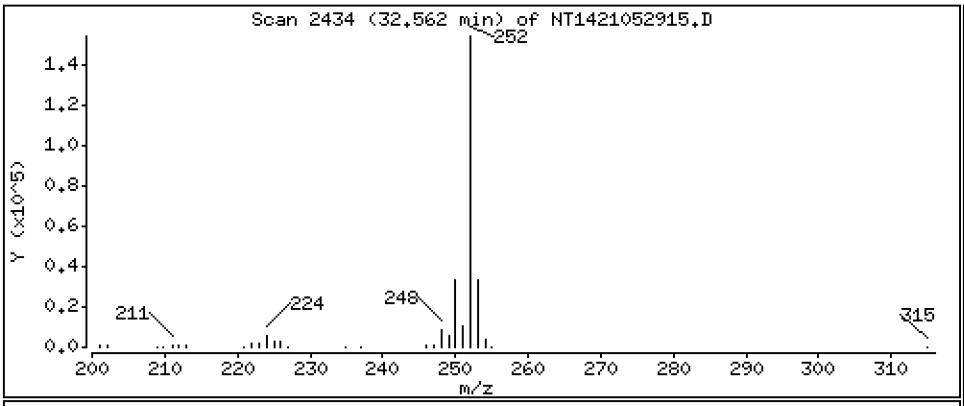
Operator: VTS

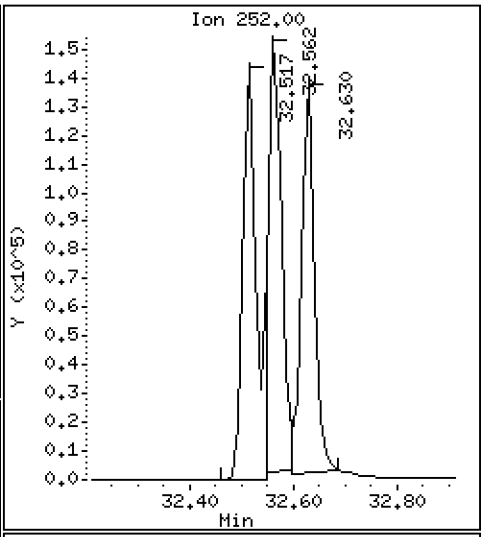
Column phase: Rxi-17Sil MS

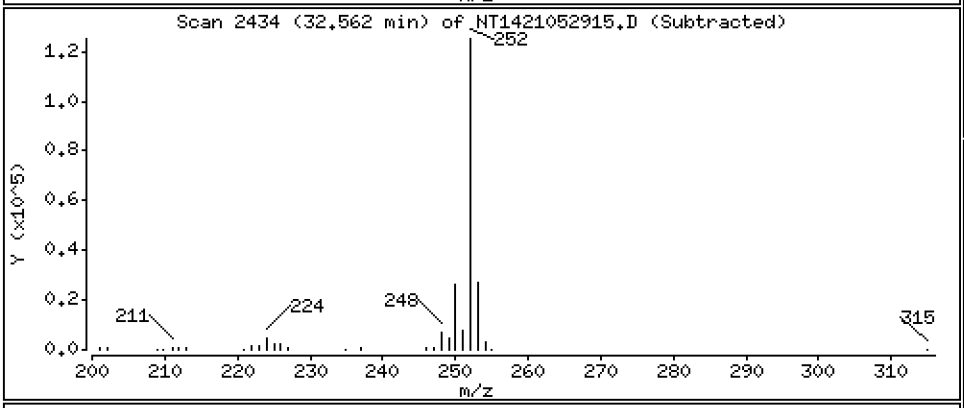
Column diameter: 0.25

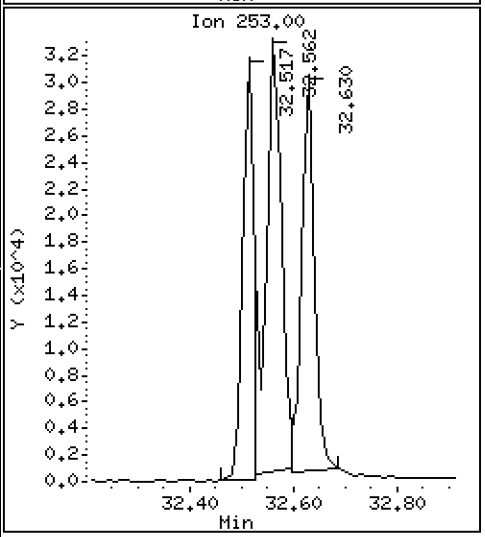
63 Benzo(k)fluoranthene

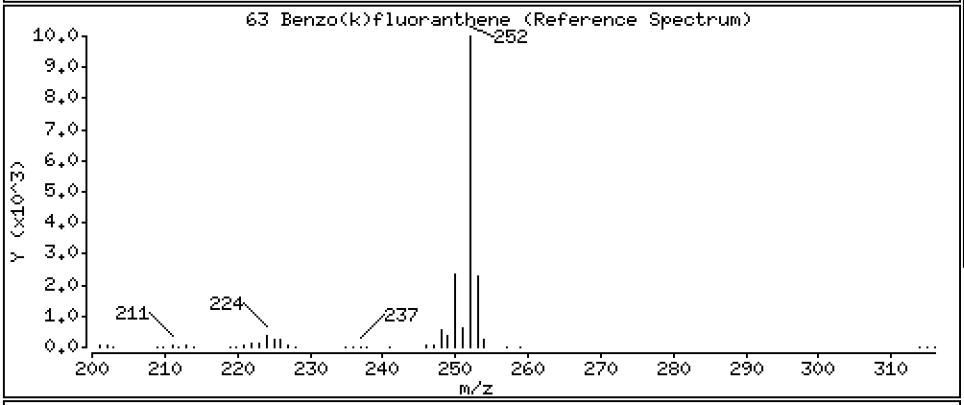
Concentration: 2.487 ug/mL

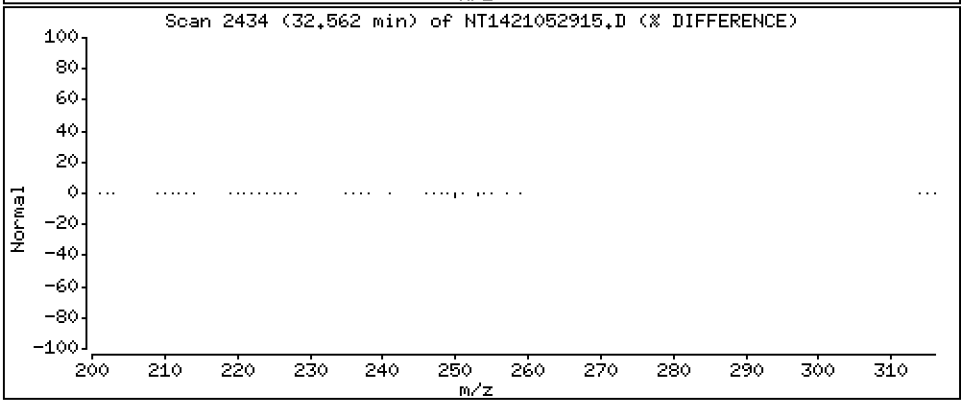












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

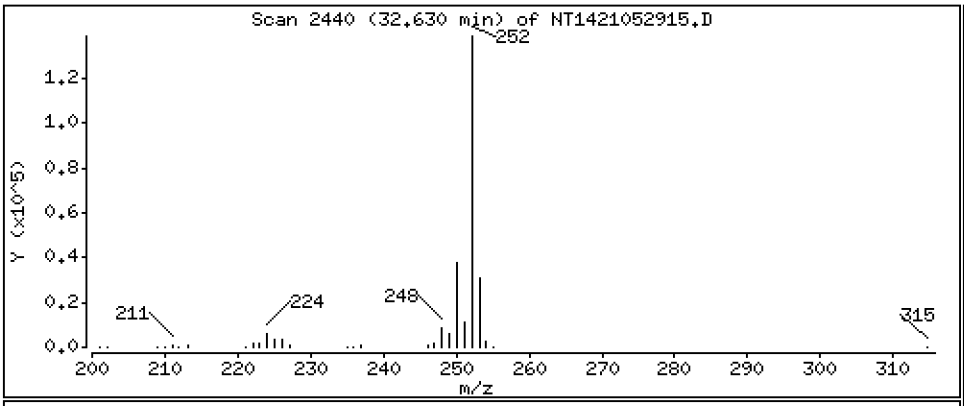
Operator: VTS

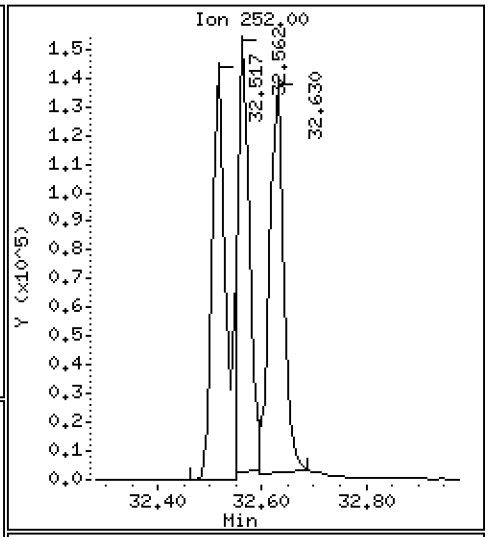
Column phase: Rxi-17Sil MS

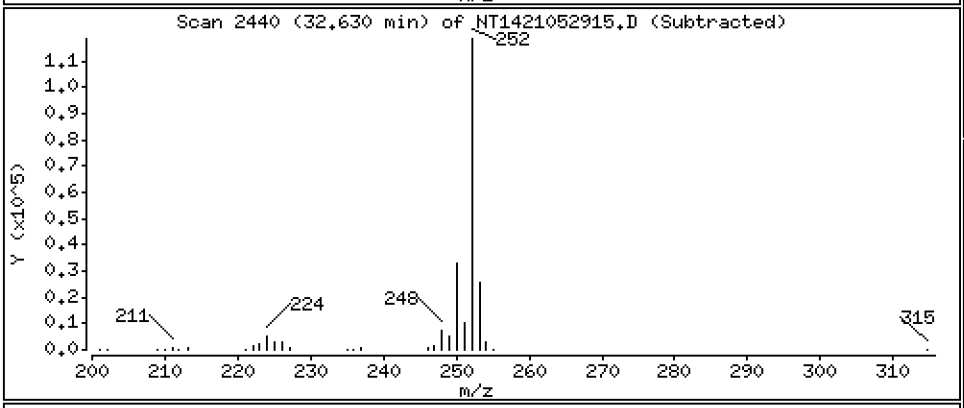
Column diameter: 0.25

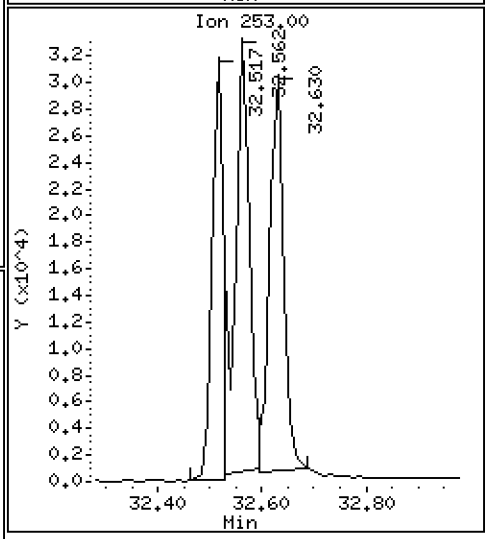
293 Benzo(j)fluoranthene

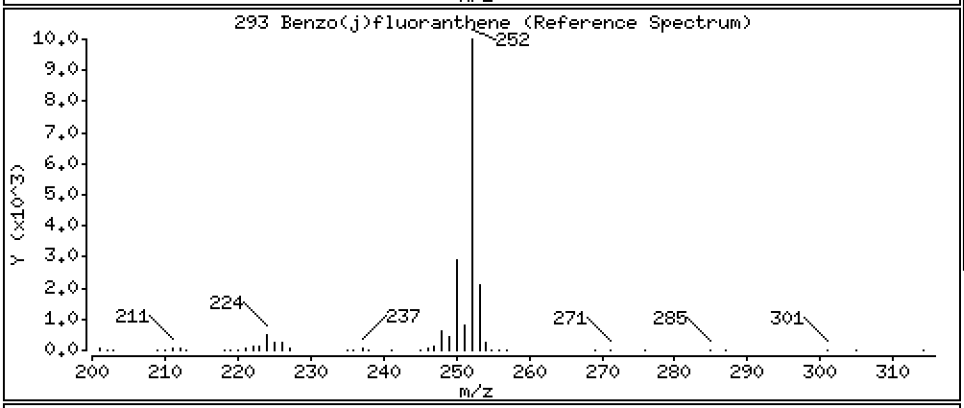
Concentration: 2.590 ug/mL

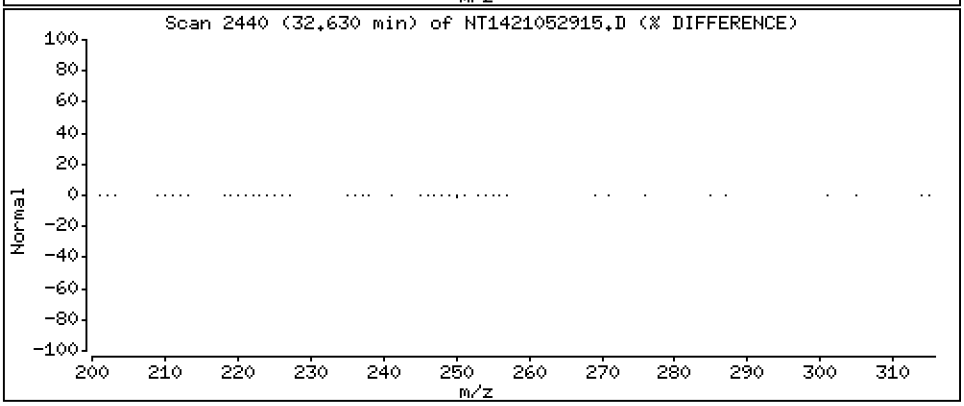












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

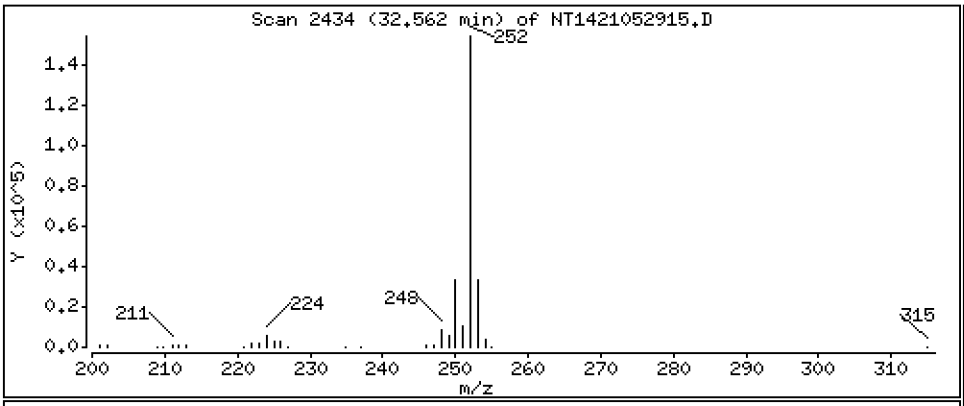
Operator: VTS

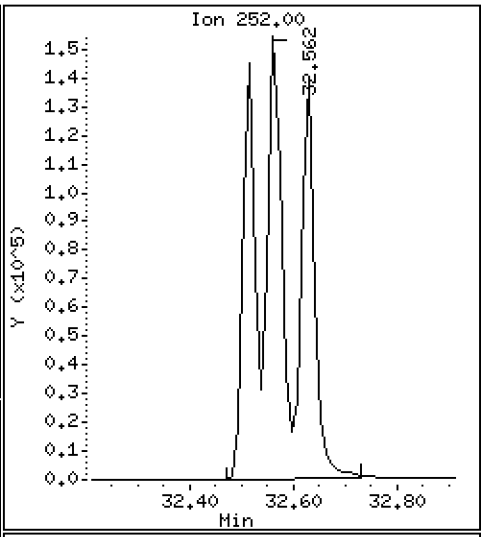
Column phase: Rxi-17Sil MS

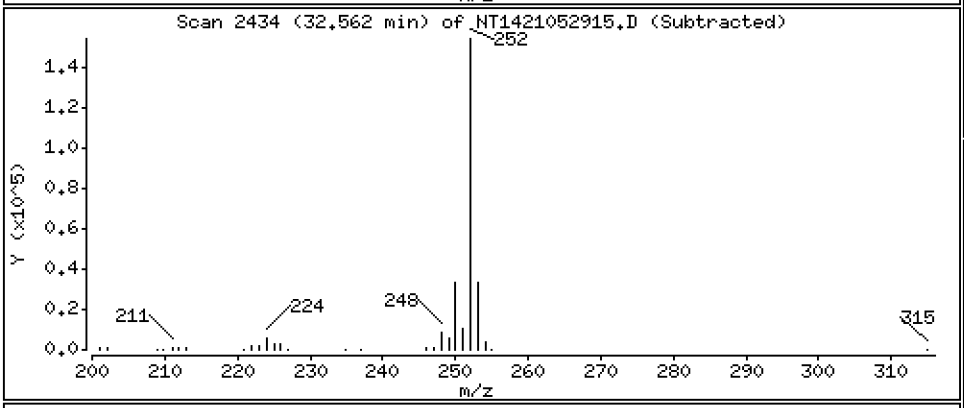
Column diameter: 0.25

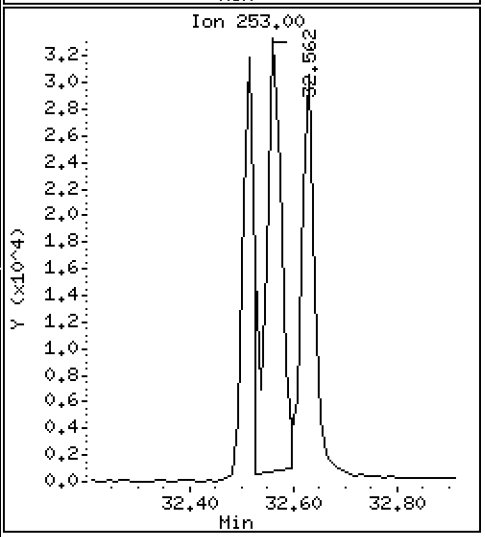
246 Total Benzofluoranthenes

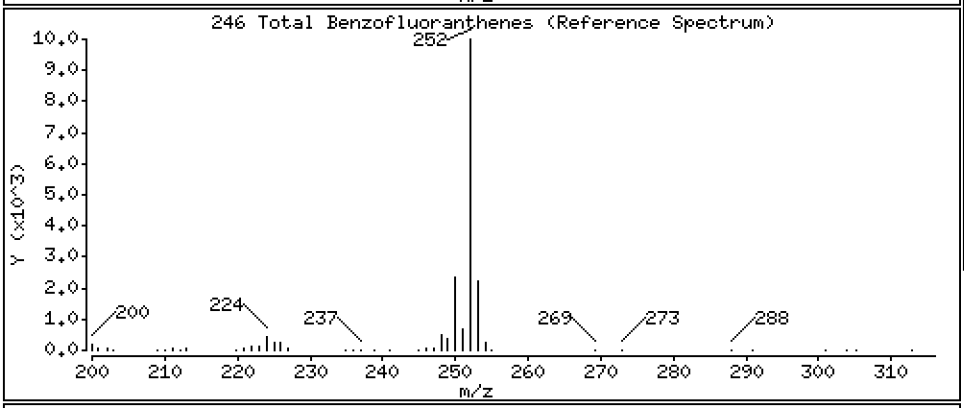
Concentration: 8.191 ug/mL

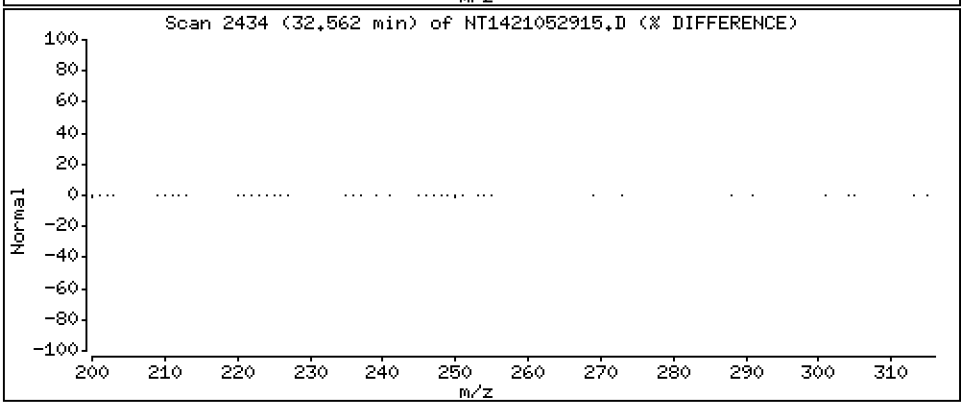












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

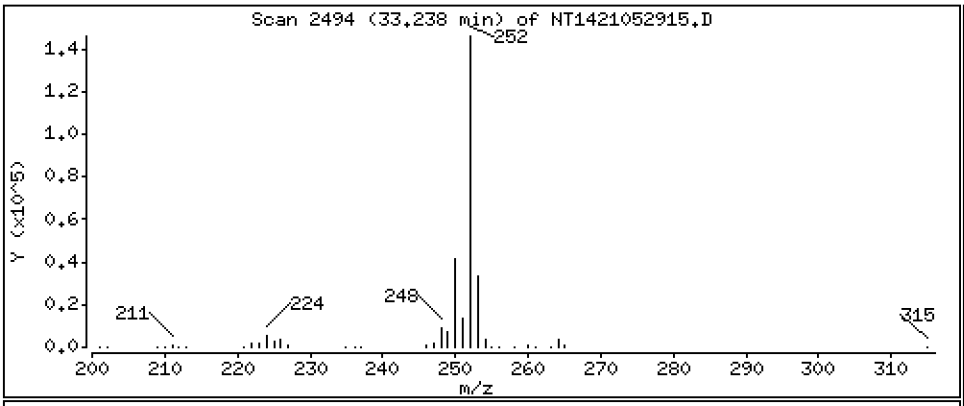
Operator: VTS

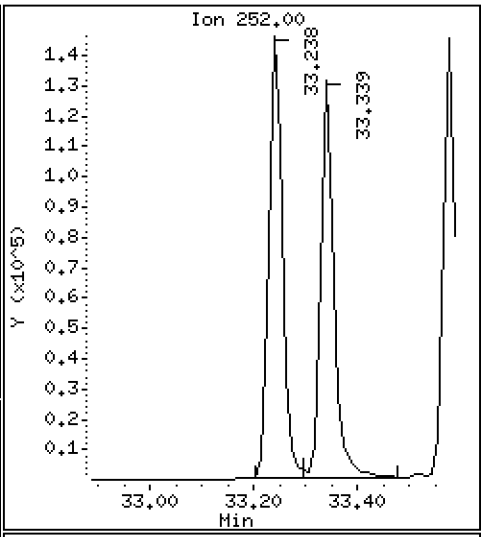
Column phase: Rxi-17Sil MS

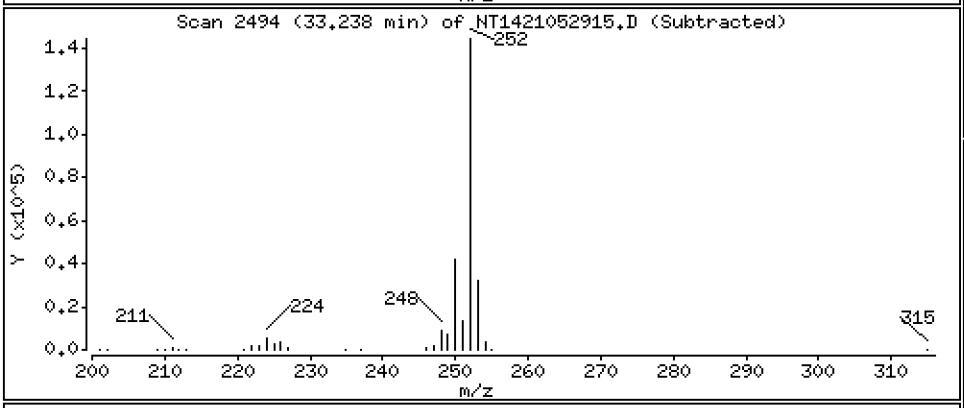
Column diameter: 0.25

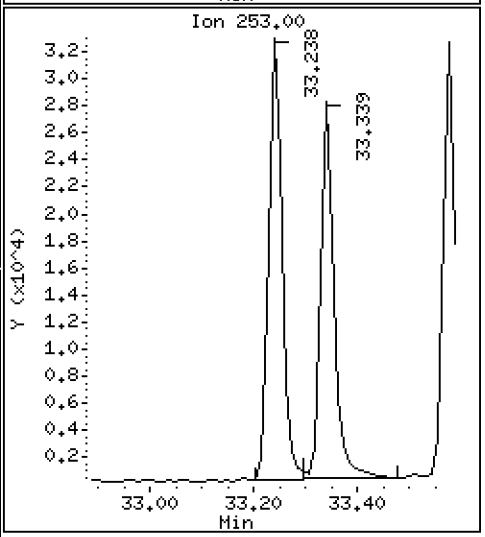
64 Benzo(e)pyrene

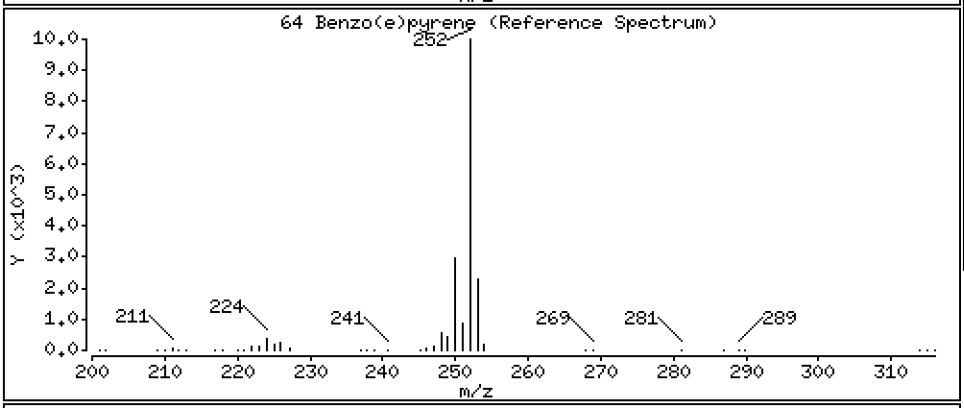
Concentration: 2.669 ug/mL

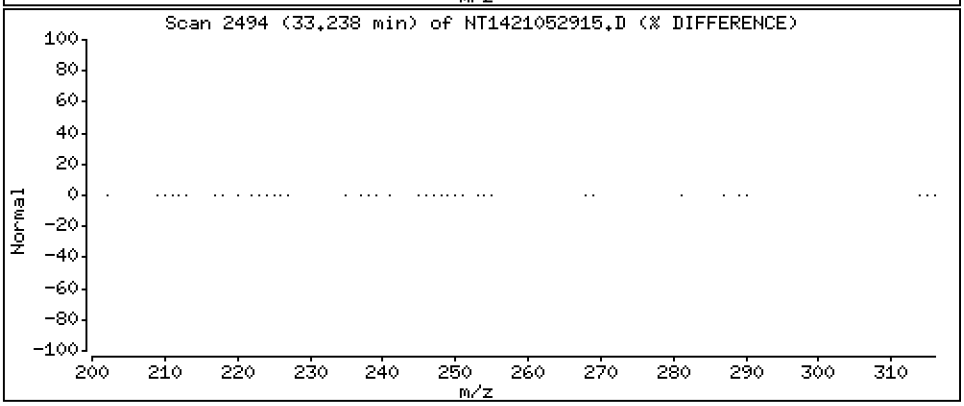












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

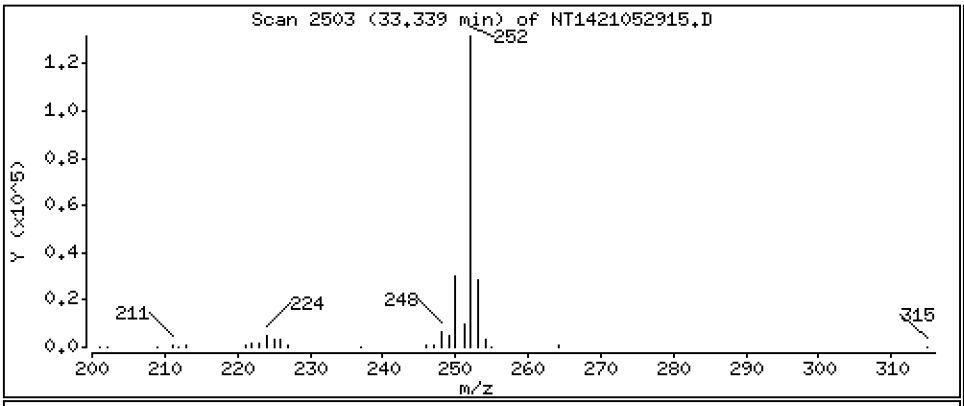
Operator: VTS

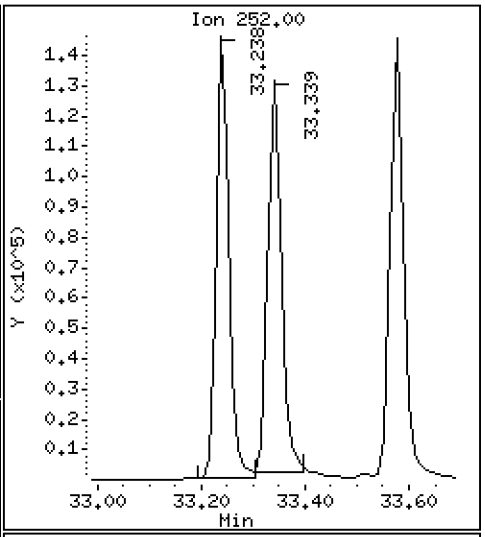
Column phase: Rxi-17Sil MS

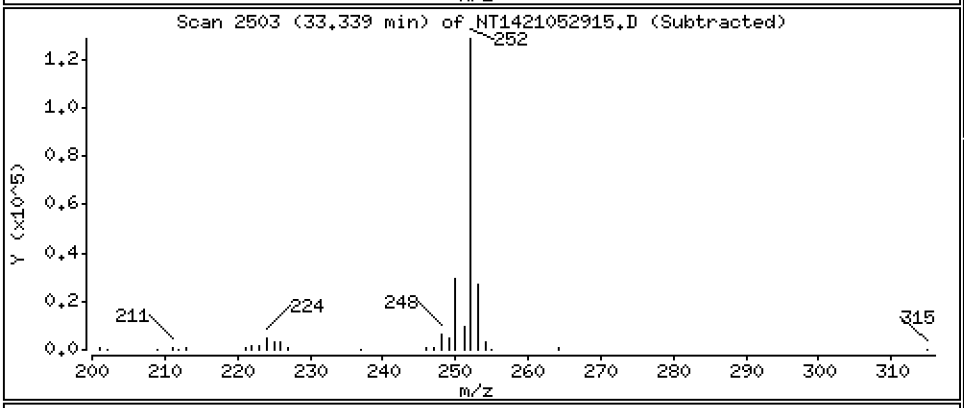
Column diameter: 0.25

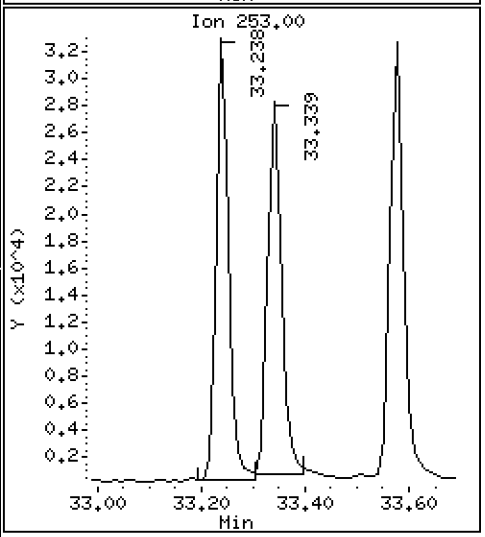
66 Benzo(a)pyrene

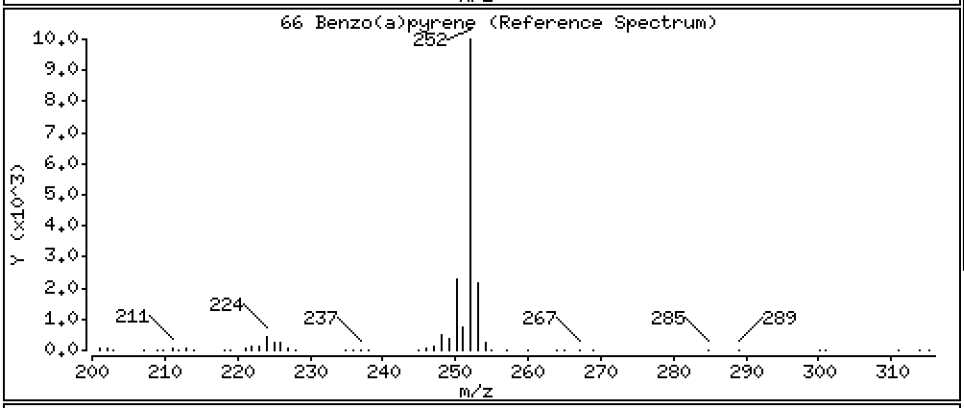
Concentration: 2.621 ug/mL

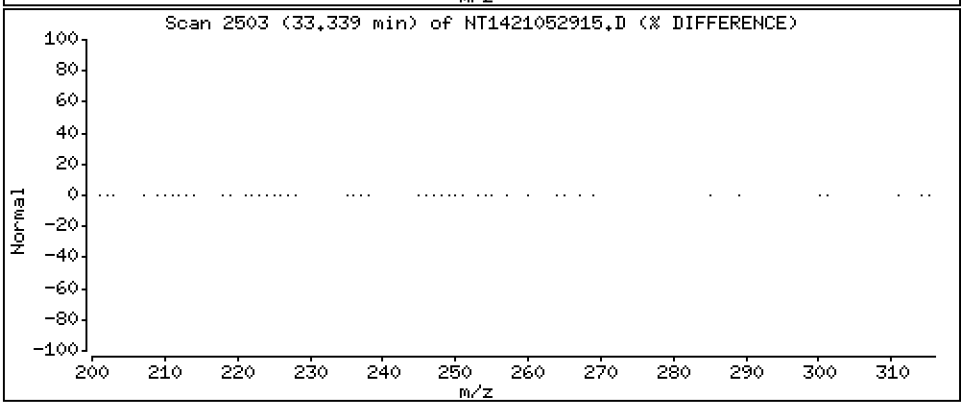












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

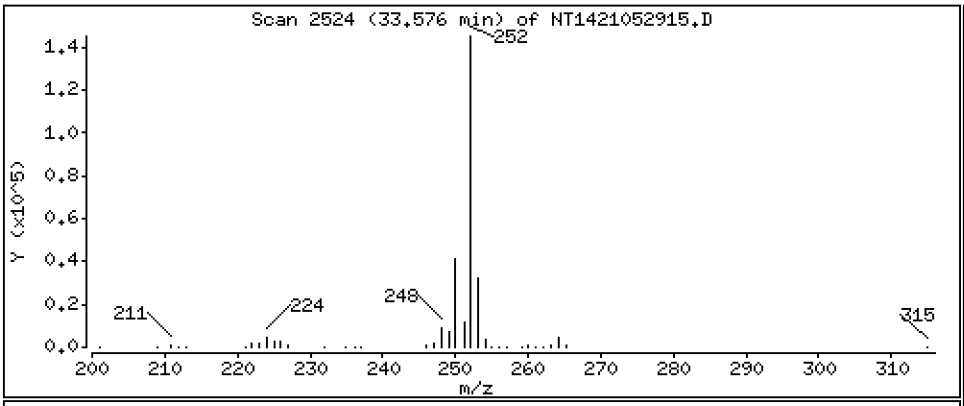
Operator: VTS

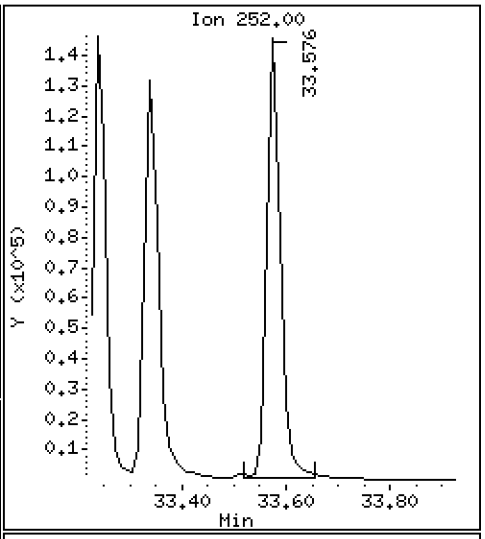
Column phase: Rxi-17Sil MS

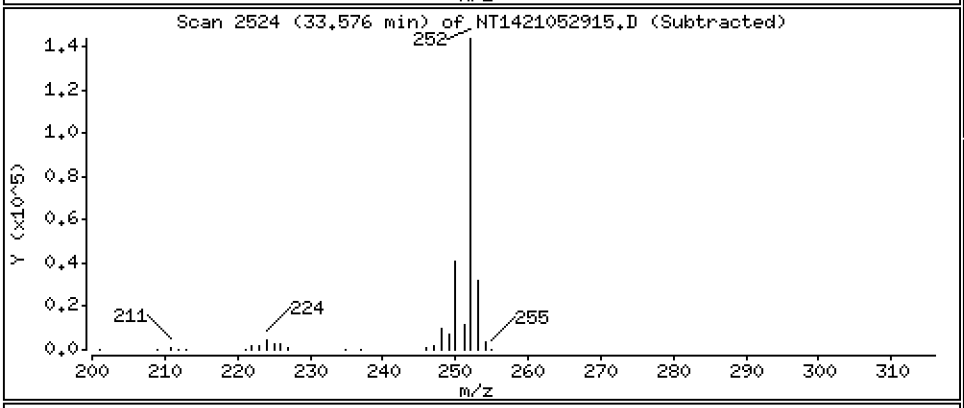
Column diameter: 0.25

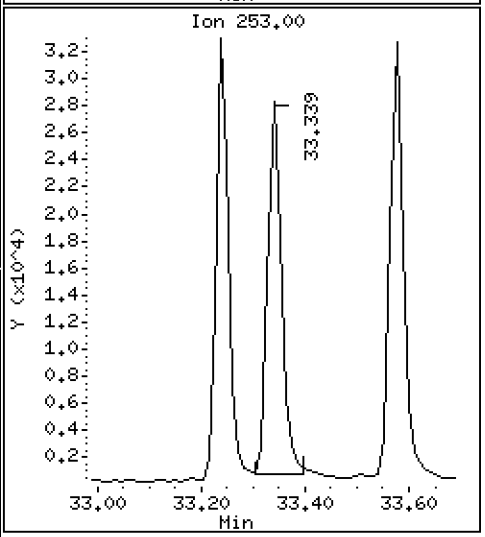
68 Perylene

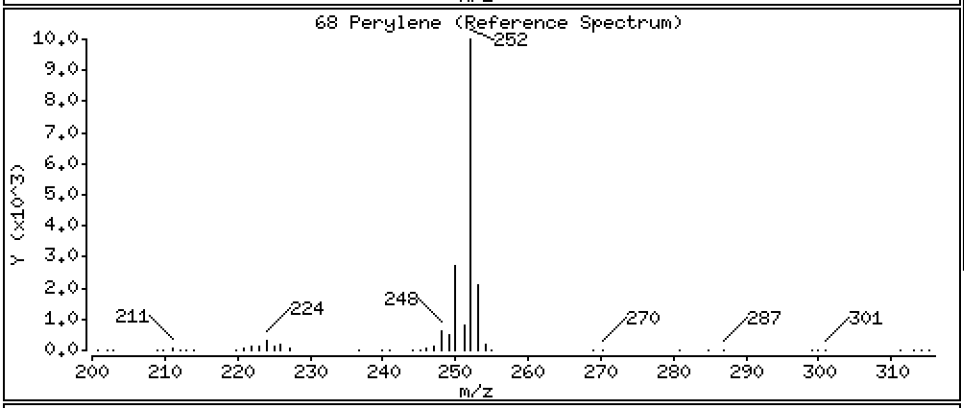
Concentration: 2.820 ug/mL

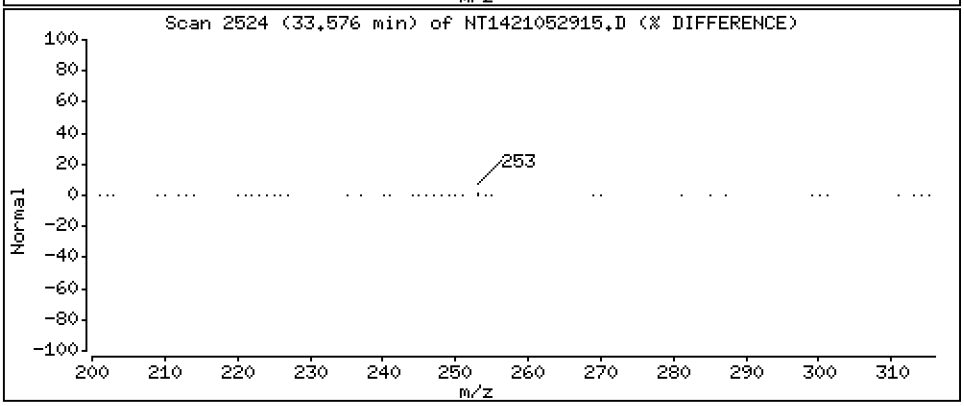












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

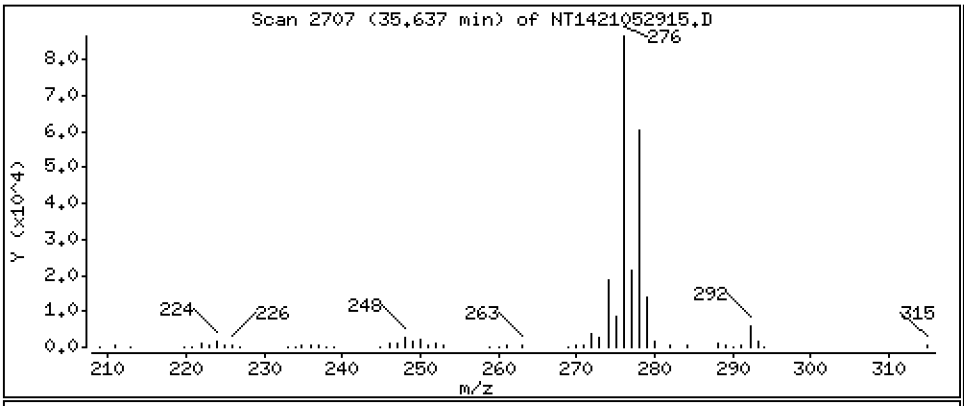
Operator: VTS

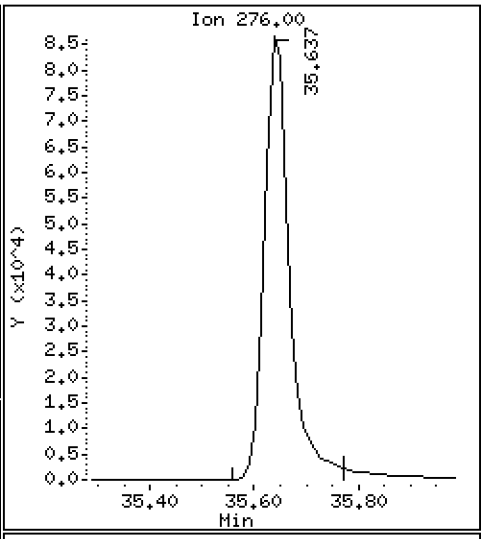
Column phase: Rxi-17Sil MS

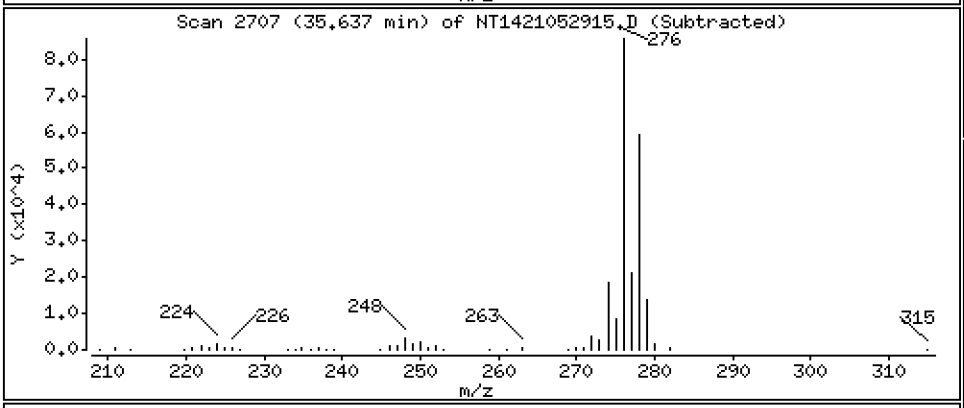
Column diameter: 0.25

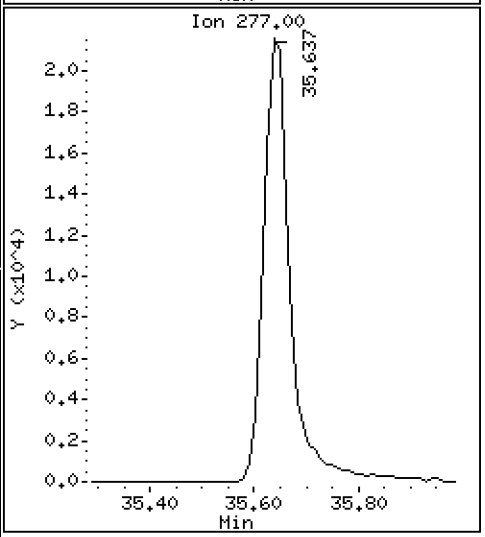
69 Indeno(1,2,3-cd)pyrene

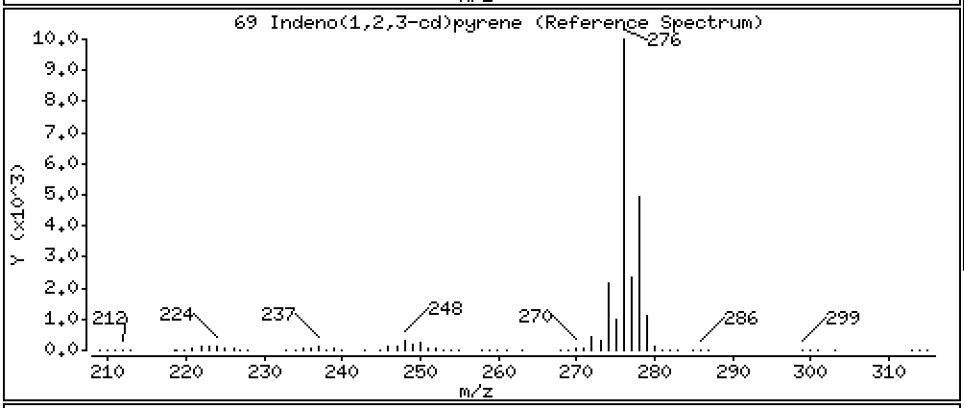
Concentration: 2.913 ug/mL

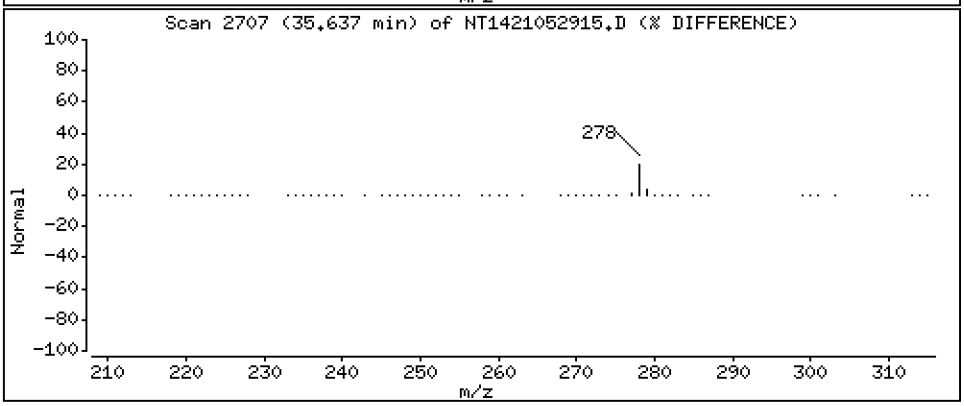












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

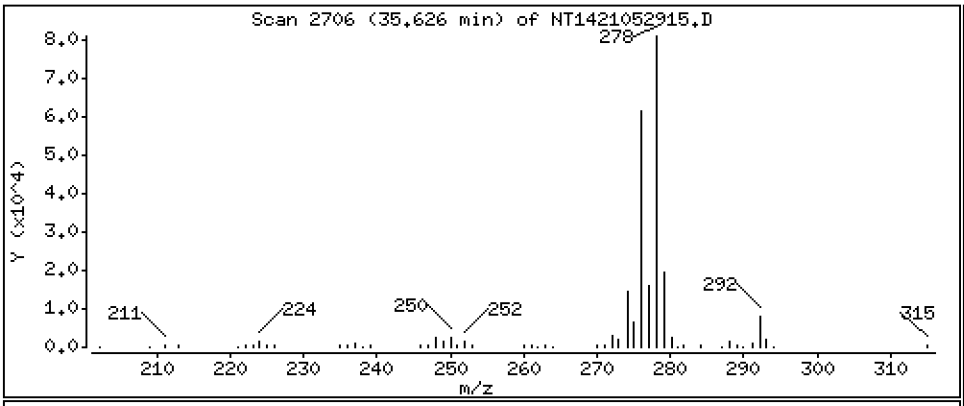
Operator: VTS

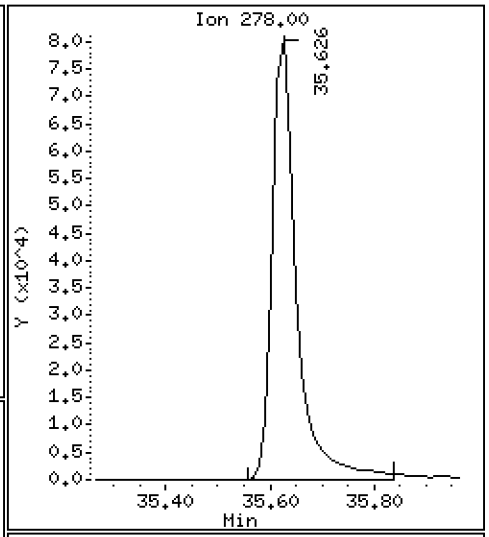
Column phase: Rxi-17Sil MS

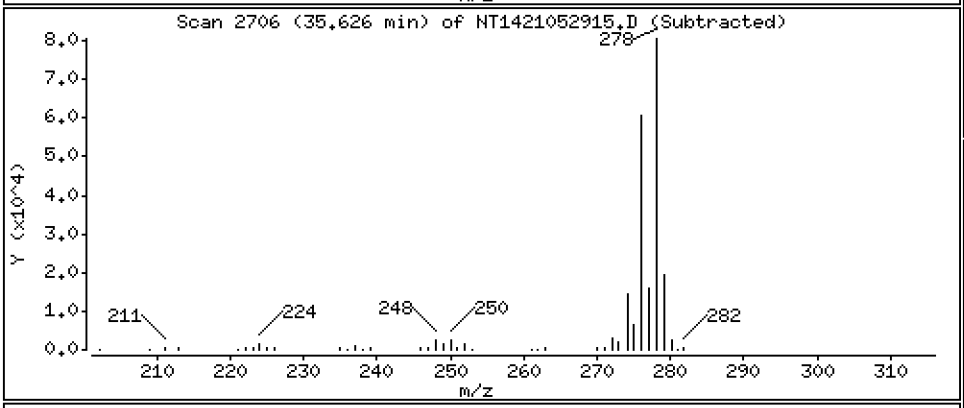
Column diameter: 0.25

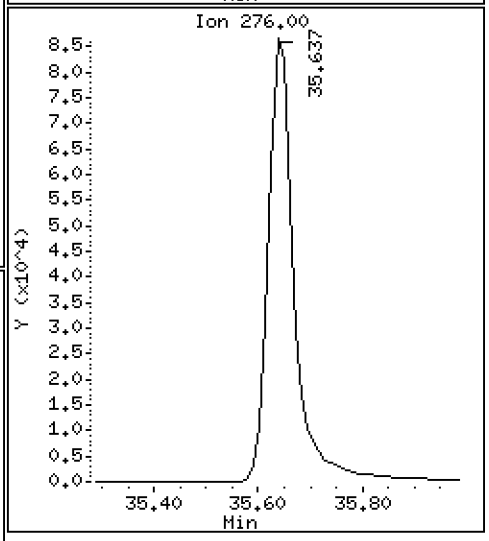
70 Dibenzo(a,h)anthracene

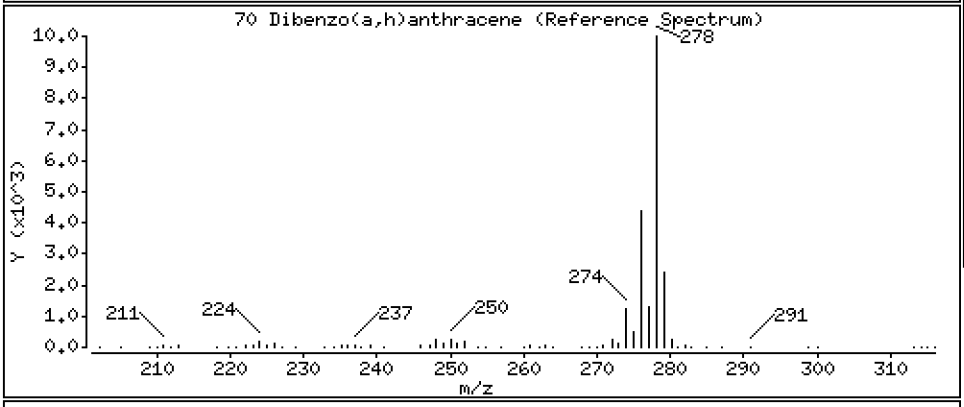
Concentration: 2.690 ug/mL

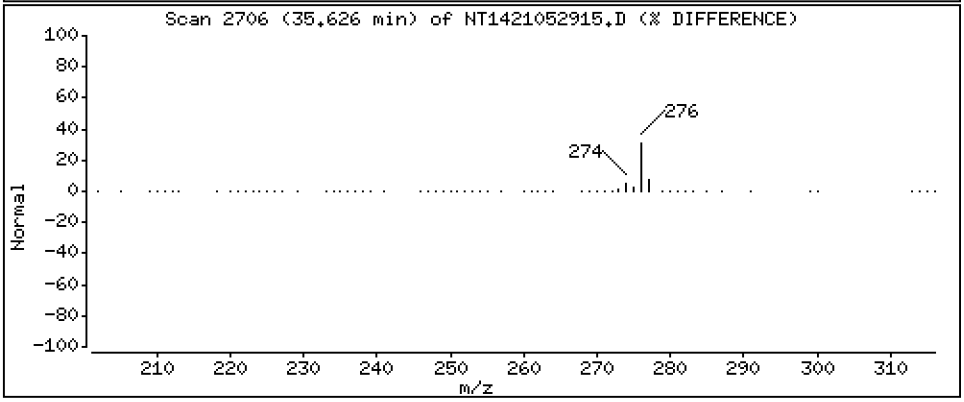












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

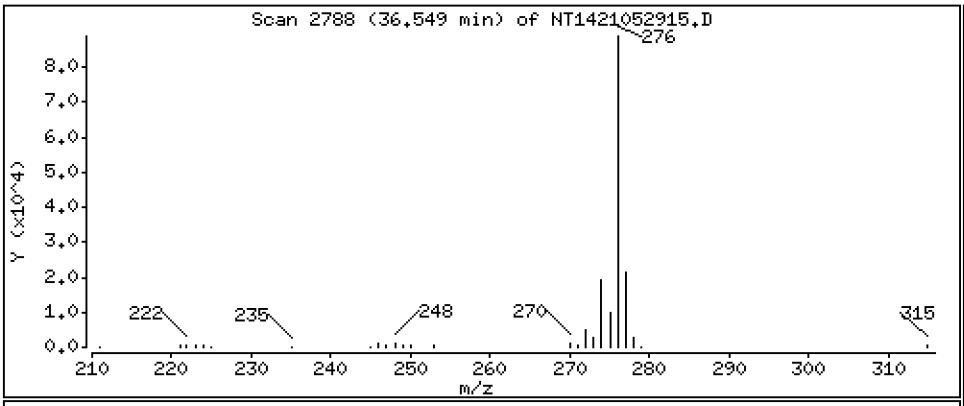
Operator: VTS

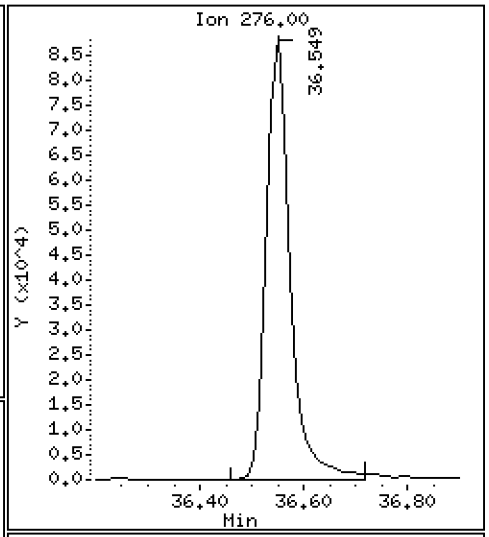
Column phase: Rxi-17Sil MS

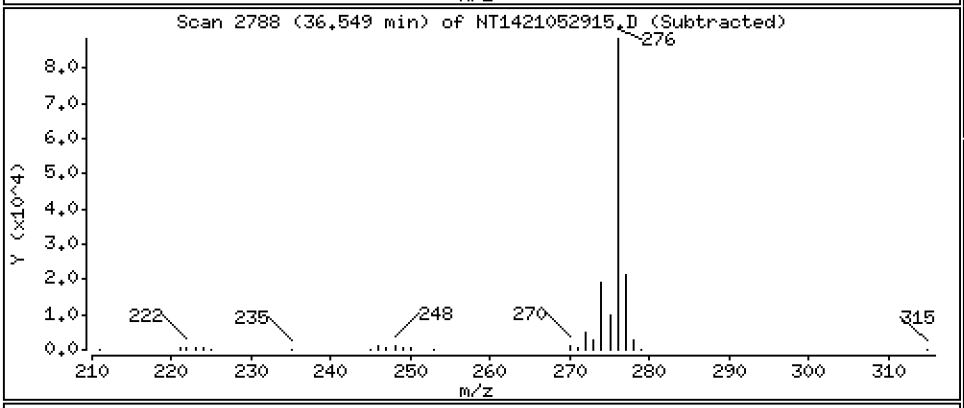
Column diameter: 0.25

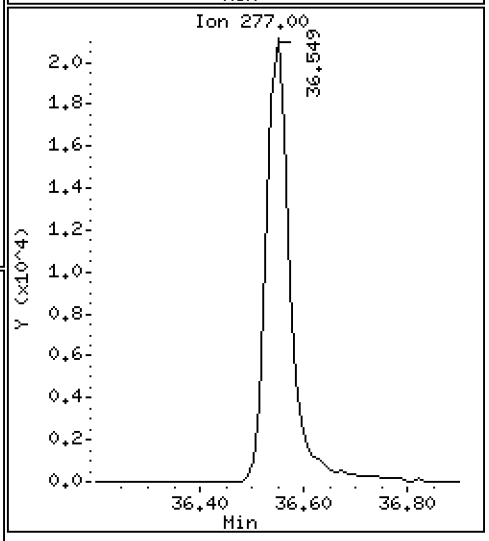
74 Benzo(g,h,i)perylene

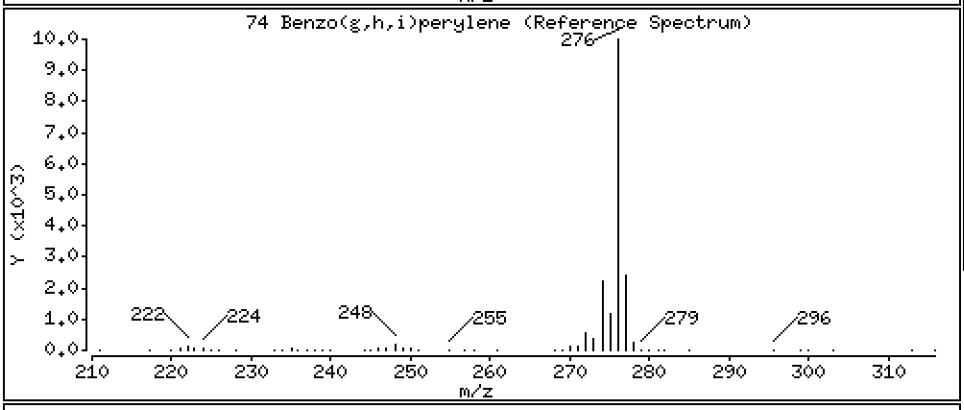
Concentration: 2.781 ug/mL

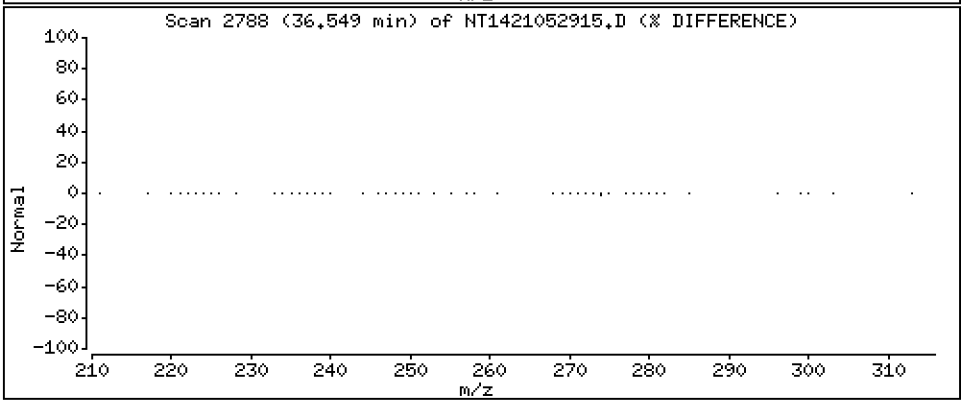












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D
Lab Smp Id: SJF0025-SCV1
Inj Date : 29-MAY-2021 19:38
Operator : VTS Inst ID: nt14.i
Smp Info : SJF0025-SCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Meth Date : 02-Jun-2021 19:03 yev Quant Type: ISTD
Cal Date : 29-MAY-2021 18:49 Cal File: NT1421052914.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	1 trans-Decalin	138	7.146	7.156	(0.378)	24405	2.93881	2.939
	2 cis-Decalin	138	8.266	8.246	(0.437)	17380	2.55518	2.555
$	6 Naphthalene-d8	136	11.897	11.897	(0.629)	223244	2.88377	2.884(R)
	7 Naphthalene	128	11.957	11.957	(0.632)	203089	2.62492	2.625
	12 Benzo(b)thiophene	134	12.409	12.409	(0.656)	166732	2.62140	2.621
	16 2-Methylnaphthalene	141	13.794	13.794	(0.730)	119639	2.64523	2.645
	17 1-methylnaphthalene	141	14.245	14.244	(0.753)	117019	2.65947	2.659
	18 Biphenyl	154	15.431	15.431	(0.816)	174317	2.60835	2.608
	19 2,6-Dimethylnaphthalene	156	15.508	15.508	(0.820)	127969	2.60384	2.604
	20 Acenaphthylene	152	17.091	17.091	(0.904)	220486	2.62443	2.624
$	21 Acenaphthene-d10	164	17.377	17.377	(0.919)	134362	2.82593	2.826(R)
	22 Acenaphthene	153	17.486	17.486	(0.925)	142697	2.75525	2.755
	23 Dibenzofuran	168	17.860	17.860	(0.945)	199363	2.59511	2.595
	24 1,6,7-Trimethylnaphthalene	170	18.091	18.080	(0.957)	132237	2.64202	2.642
*	25 Fluorene-d10	176	18.907	18.907	(1.000)	166522	2.00000	
	26 Fluorene	166	19.009	19.009	(1.005)	155403	2.61087	2.611
	30 Dibenzothiophene	184	21.931	21.931	(1.160)	221357	2.63418	2.634
$	35 Phenanthrene-d10	188	22.239	22.239	(0.995)	230950	2.85128	2.851(R)
	36 Phenanthrene	178	22.327	22.327	(0.999)	229127	2.63951	2.640
*	250 Anthracene-d10	188	22.360	22.360	(1.000)	168360	2.00000	
	37 Anthracene	178	22.426	22.425	(1.003)	219523	2.68776	2.688
	42 Carbazole	167	23.712	23.701	(1.060)	194800	2.70414	2.704
	43 1-Methylphenanthrene	192	24.162	24.151	(1.081)	166388	2.66719	2.667
	44 Fluoranthene	202	26.142	26.131	(1.169)	256004	2.67188	2.672
	46 Pyrene	202	26.977	26.977	(1.207)	270263	2.71212	2.712
	51 Naphthobenzothiophene	234	Compound Not Detected.					
	55 Benzo(a)anthracene	228	30.095	30.095	(0.907)	251589	2.75565	2.756
$	56 Chrysene-d12	240	30.219	30.219	(0.911)	227348	3.08546	3.085(R)
	57 Chrysene	228	30.287	30.287	(0.913)	247820	2.77007	2.770
	62 Benzo(b)fluoranthene	252	32.517	32.517	(0.980)	295325	3.11894	3.119
	63 Benzo(k)fluoranthene	252	32.562	32.562	(0.981)	252708	2.48737	2.487
	293 Benzo(j)fluoranthene	252	32.629	32.629	(0.983)	242480	2.59014	2.590(H)
	246 Total Benzofluoranthenes	252	32.562	32.562	(0.981)	759661	8.19091	8.191(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.181	33.181	(1.000)	235397	2.00000	
64 Benzo(e)pyrene	252	33.238	33.238	(1.002)	247681	2.66885	2.669
66 Benzo(a)pyrene	252	33.339	33.339	(1.005)	221317	2.62146	2.621
$ 67 Perylene-d12	264	33.519	33.519	(1.010)	232231	2.91960	2.920(R)
68 Perylene	252	33.575	33.575	(1.012)	245483	2.82022	2.820(M)
69 Indeno(1,2,3-cd)pyrene	276	35.637	35.637	(1.074)	288654	2.91280	2.913(M)
70 Dibenzo(a,h)anthracene	278	35.625	35.614	(1.074)	251294	2.69021	2.690(M)
74 Benzo(g,h,i)perylene	276	36.549	36.549	(1.101)	272250	2.78084	2.781(M)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421052915.D
Lab Smp Id: SJF0025-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Misc Info:

Calibration Date: 29-MAY-2021
Calibration Time: 14:01
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	159478	79739	318956	166522	4.42
250 Anthracene-d10	170161	85081	340322	168360	-1.06
251 Benzo(e)pyrene-d1	236612	118306	473224	235397	-0.51

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.91	18.41	19.41	18.91	0.00
250 Anthracene-d10	22.36	21.86	22.86	22.36	0.00
251 Benzo(e)pyrene-d1	33.18	32.68	33.68	33.18	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 - NT1421052915.D

Lab ID: SJF0025-SCV1
nt14.i, 20210529.b\ALKYLPNA.m,   29-MAY-2021 19:38

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

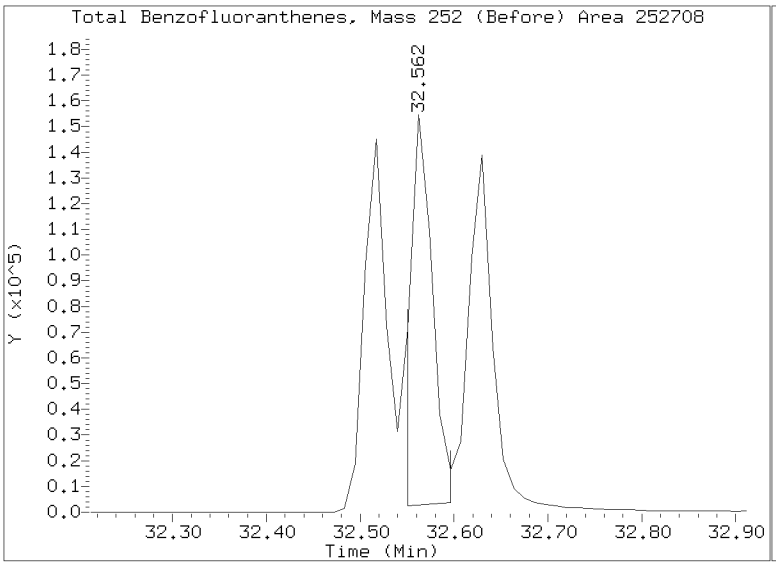
RRT check based on Ccal File: NT1421052914.D

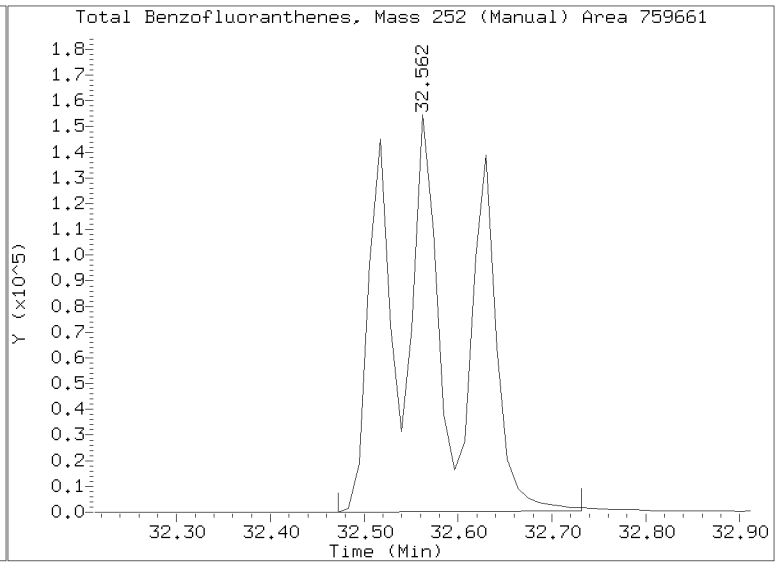
On Column LOD for nt14.i, 20210529.b\ALKYLPNA.m, TARGETS.sub = 0.0000

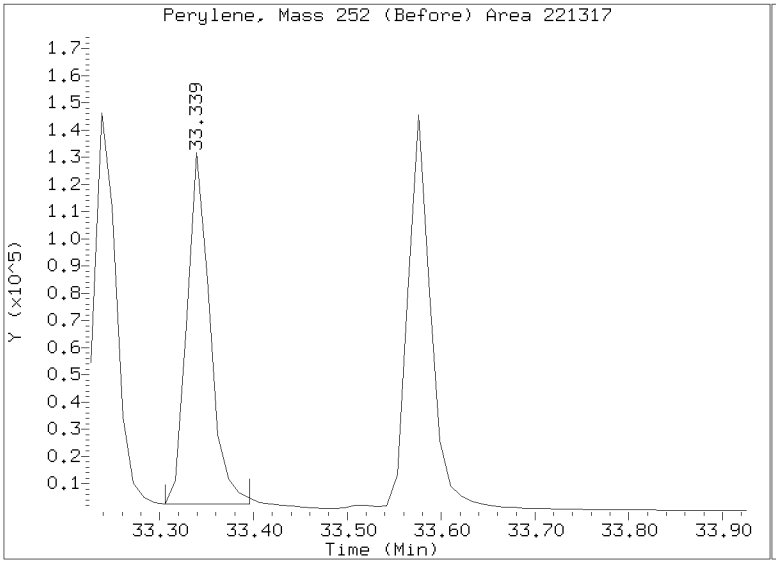
* Only compounds listed in the work order have been verified by the analyst *

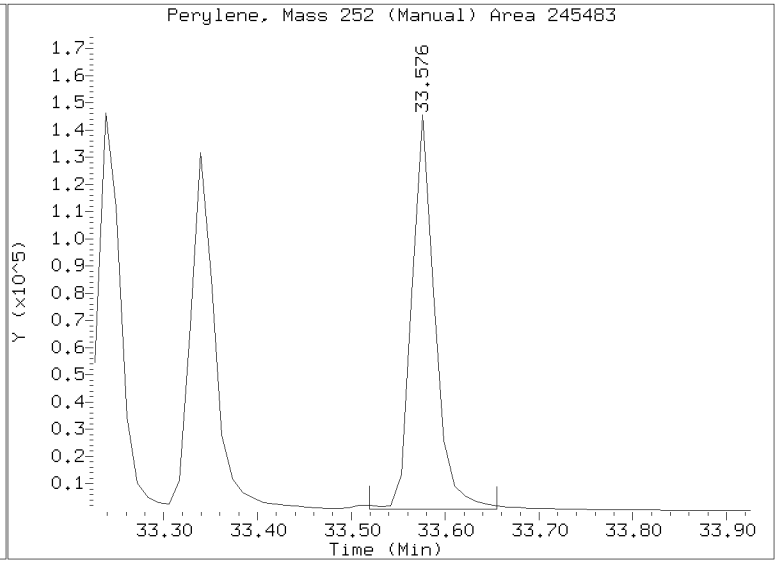
Quant Ion Manual Peak Adjustment Report

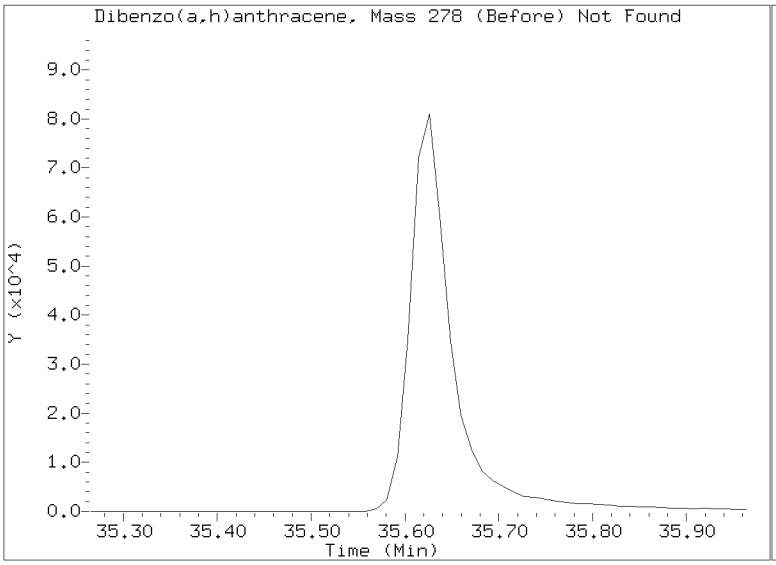
Datafile: //target/share/chem3/nt14.i/20210529.b/NT1421052915.D
Injection Date: 29-MAY-2021 19:38
Lab ID:SJF0025-SCV1 Client ID:
Report Date: 06/02/2021 19:03

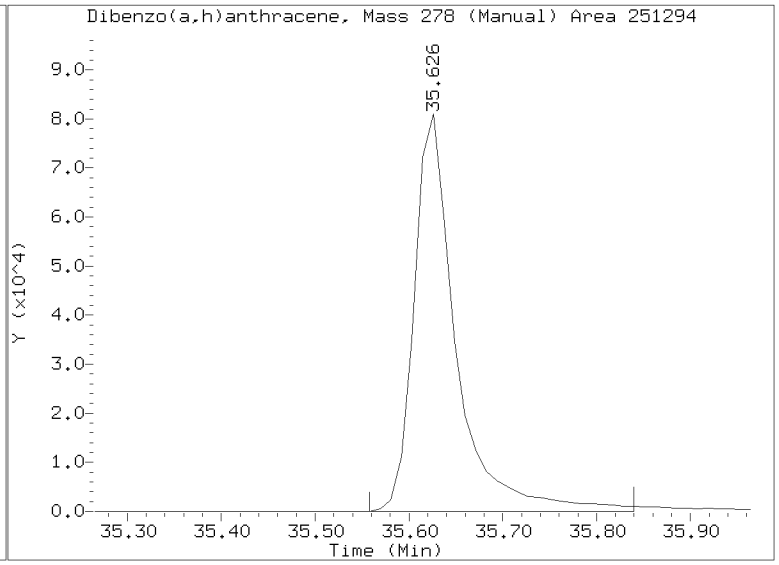






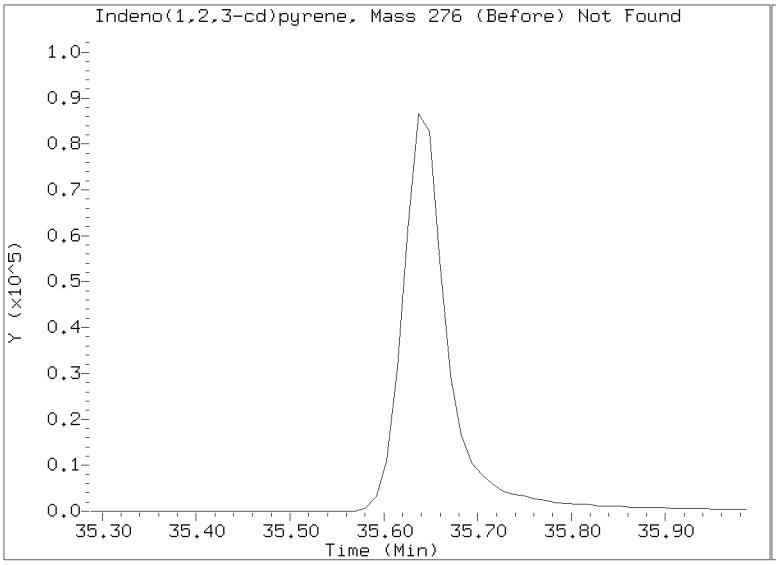


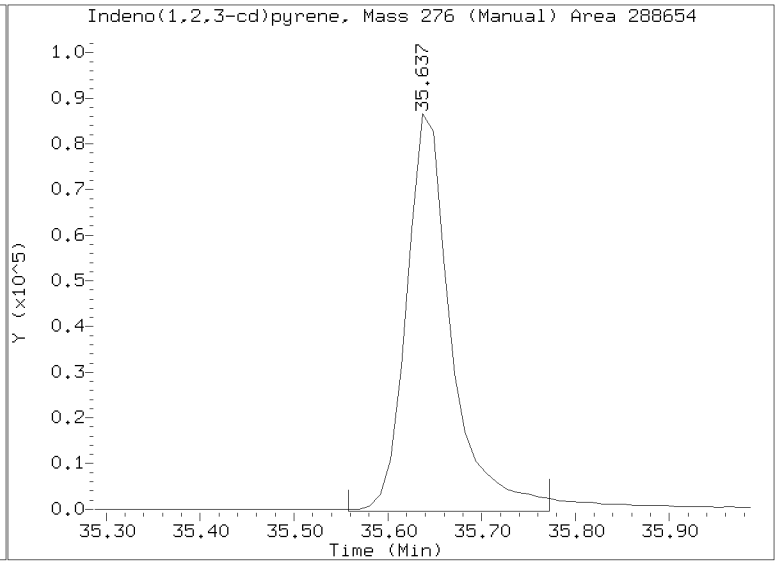


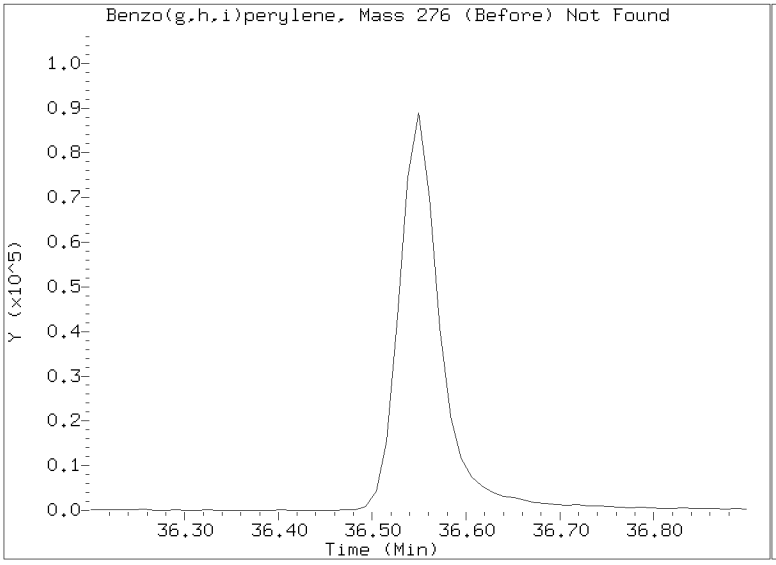


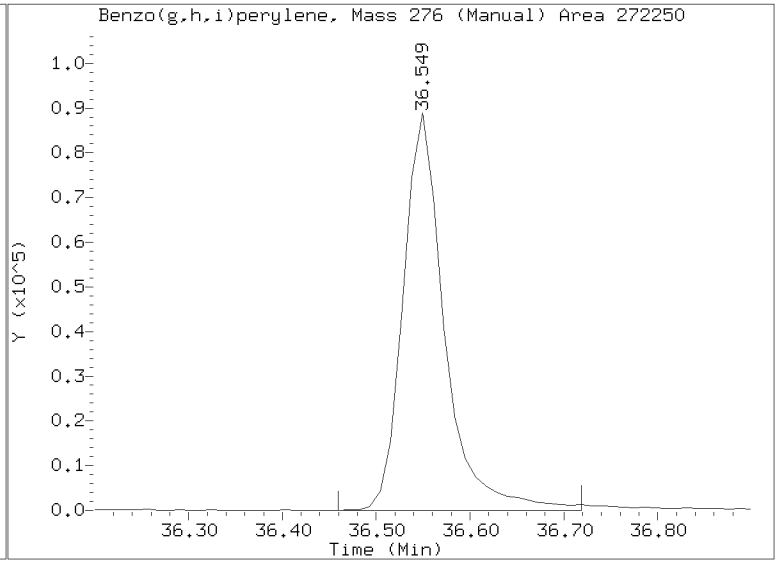
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210529.b/NT1421052915.D
Injection Date: 29-MAY-2021 19:38
Lab ID:SJF0025-SCV1 Client ID:
Report Date: 06/02/2021 19:03









SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.
SDG: 21E0099
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Calibration: EF00008
Laboratory ID: SJF0025-SCV1
Sequence: SJF0025
Standard ID: J004707

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
trans-Decalin	2.5000	2.9	17.6	20.00
cis-Decalin	2.5000	2.6	2.2	20.00
Naphthalene	2.5000	2.6	5.0	20.00
1-Methylnaphthalene	2.5000	2.7	6.4	20.00
2-Methylnaphthalene	2.5000	2.6	5.8	20.00
Biphenyl	2.5000	2.6	4.3	20.00
2,6-Dimethylnaphthalene	2.5000	2.6	4.2	20.00
Acenaphthylene	2.5000	2.6	5.0	20.00
Acenaphthene	2.5000	2.8	10.2	20.00
Dibenzofuran	2.5000	2.6	3.8	20.00
2,3,5-Trimethylnaphthalene	2.5000	2.6	5.7	20.00
Fluorene	2.5000	2.6	4.4	20.00
Benzo(b)thiophene	2.5000	2.6	4.9	20.00
Phenanthrene	2.5000	2.6	5.6	20.00
Anthracene	2.5000	2.7	7.5	20.00
Carbazole	2.5000	2.7	8.2	20.00
1-Methylphenanthrene	2.5000	2.7	6.7	20.00
Fluoranthene	2.5000	2.7	6.9	20.00
Dibenzothiophene	2.5000	2.6	5.4	20.00
Pyrene	2.5000	2.7	8.5	20.00
Benzo(a)anthracene	2.5000	2.8	10.2	20.00
Chrysene	2.5000	2.8	10.8	20.00
Benzo(b)fluoranthene	2.5000	3.1	24.8	
Benzo(j)fluoranthene	2.5000	2.6	3.6	
Benzo(k)fluoranthene	2.5000	2.5	-0.5	
Benzofluoranthenes, Total	7.5000	8.2	9.2	
Benzo(e)pyrene	2.5000	2.7	6.8	20.00
Benzo(a)pyrene	2.5000	2.6	4.9	20.00
Indeno(1,2,3-cd)pyrene	2.5000	2.9	16.5	20.00
Dibenzo(a,h)anthracene	2.5000	2.7	7.6	20.00
Benzo(g,h,i)perylene	2.5000	2.8	11.2	20.00
Perylene	2.5000	2.8	12.8	20.00

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. **SDG:** 21E0099

Client: Anchor QEA, LLC **Project:** Gasco Siltronic - US Moorings

Calibration: EF00008 **Laboratory ID:** SJF0025-SCV1

Sequence: SJF0025 **Standard ID:** J004707

Naphthalene-d8	2.5000	2.88	15.4	20.00
Acenaphthene-d10	2.5000	2.83	13.0	20.00
Phenanthrene-d10	2.5000	2.85	14.1	20.00
Chrysene-d12	2.5000	3.09	23.4	20.00
Perylene-d12	2.5000	2.92	16.8	20.00

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

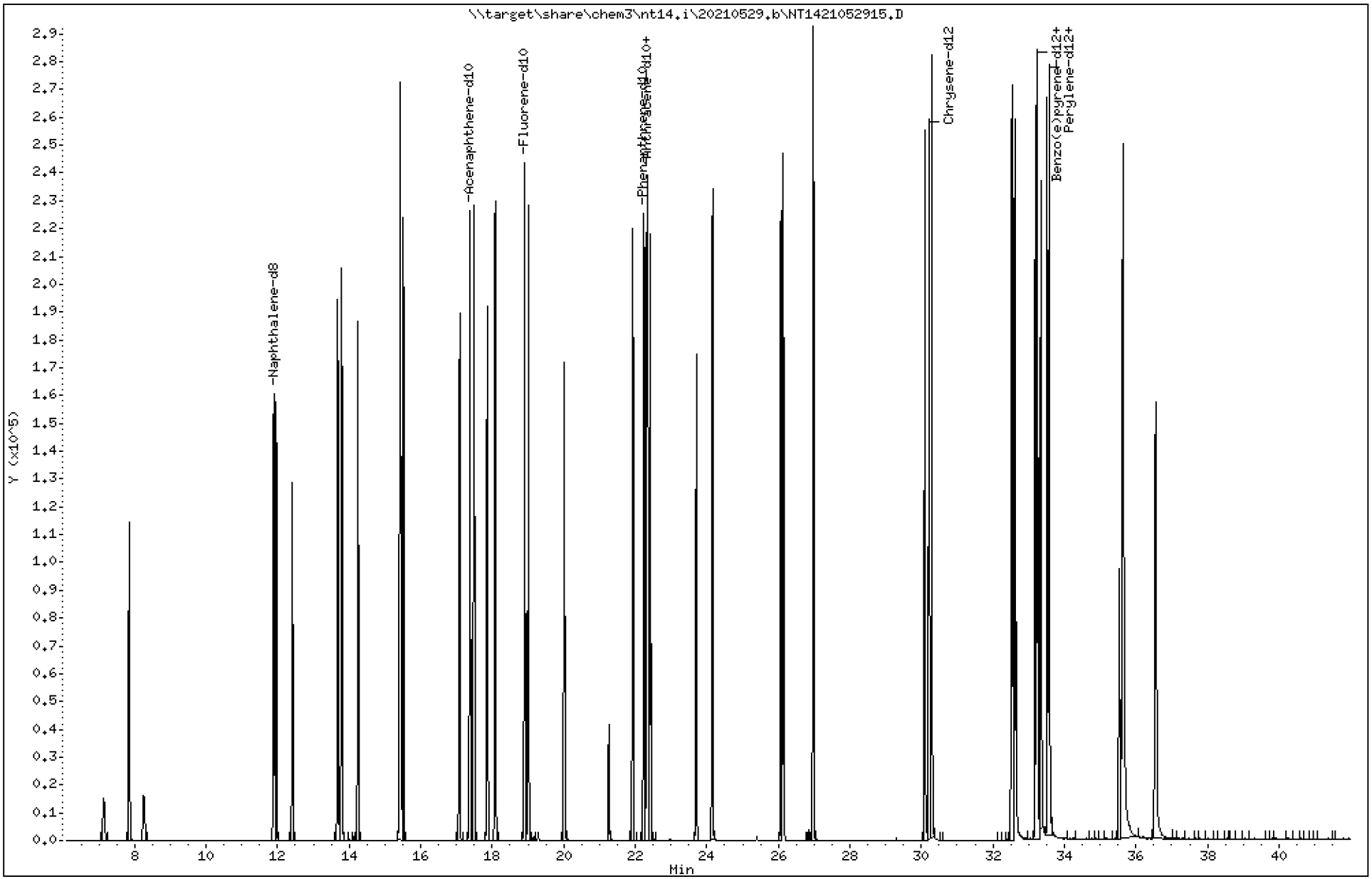
Sample Info: SJF0025-SCV1

Column phase: Rxi-17Sil MS

Instrument: nt14.i

Operator: VTS

Column diameter: 0.25



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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

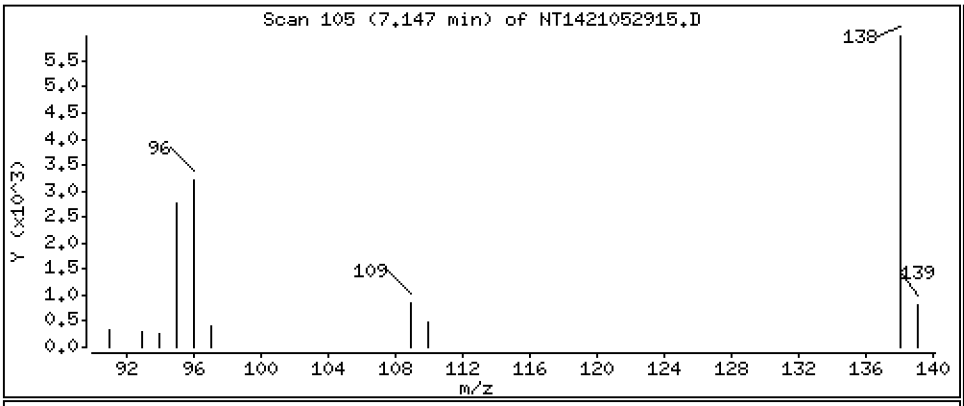
Operator: VTS

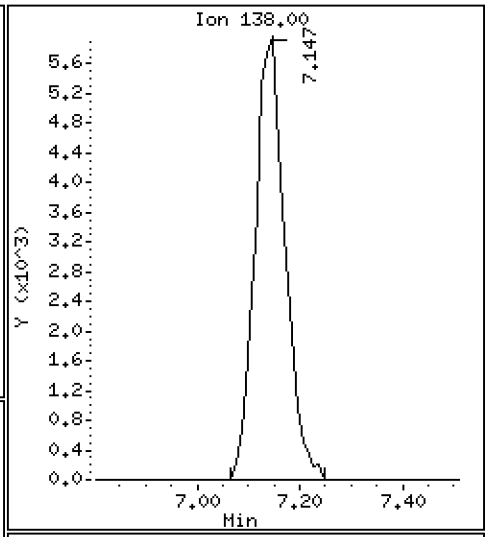
Column phase: Rxi-17Sil MS

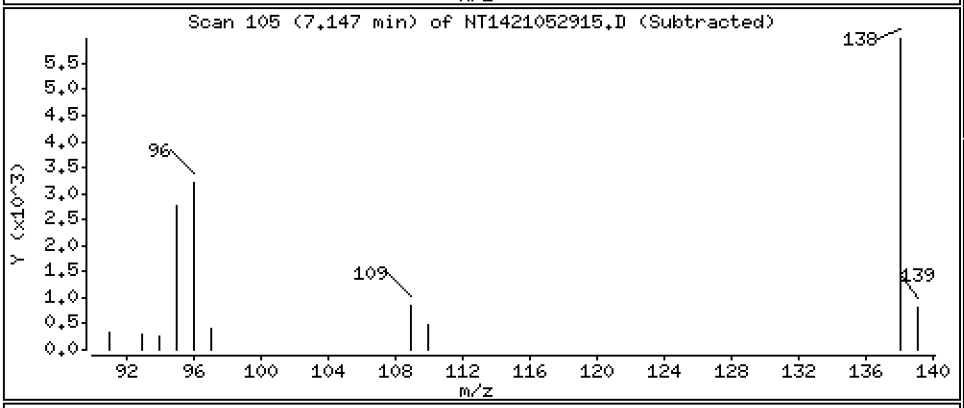
Column diameter: 0.25

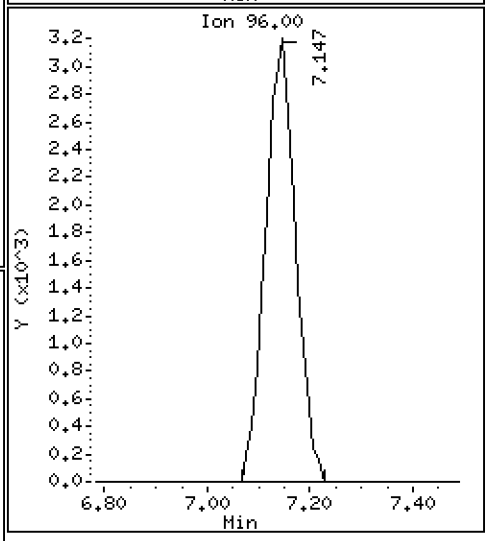
1 trans-Decalin

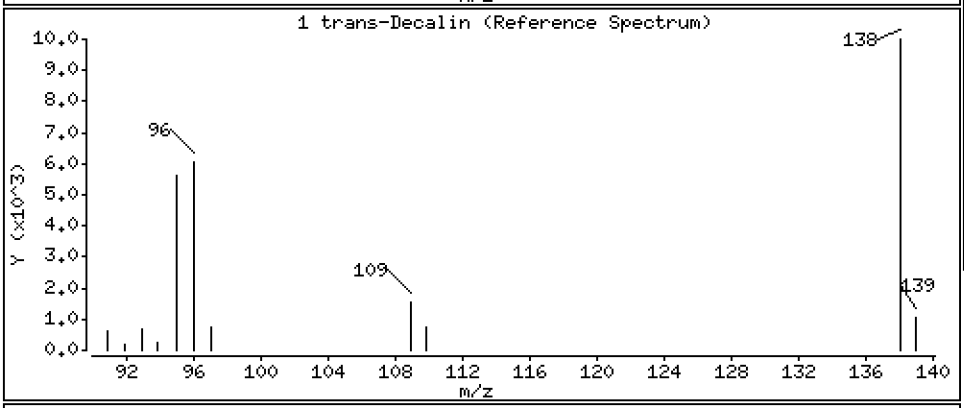
Concentration: 2.939 ug/mL

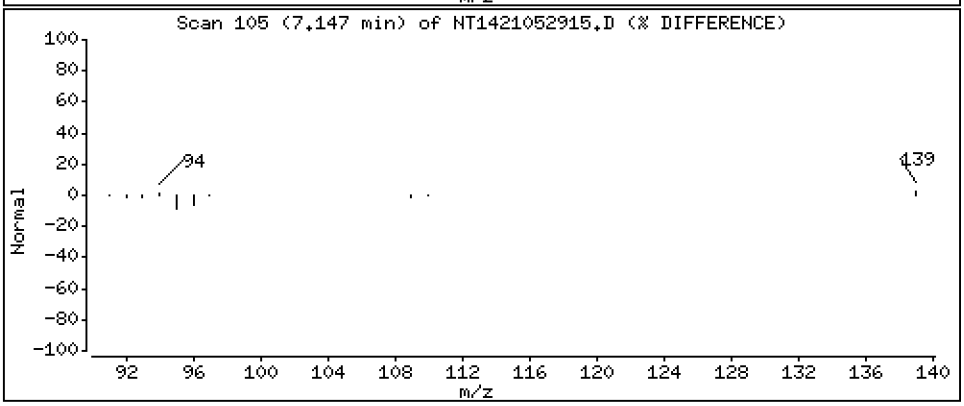












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

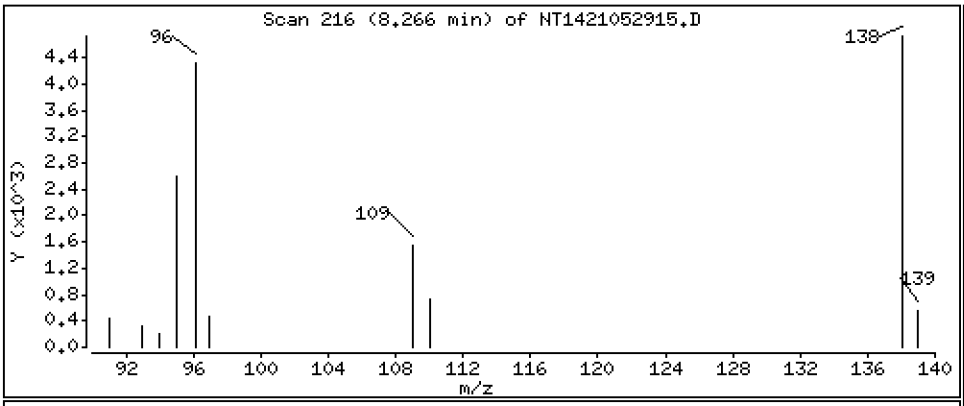
Operator: VTS

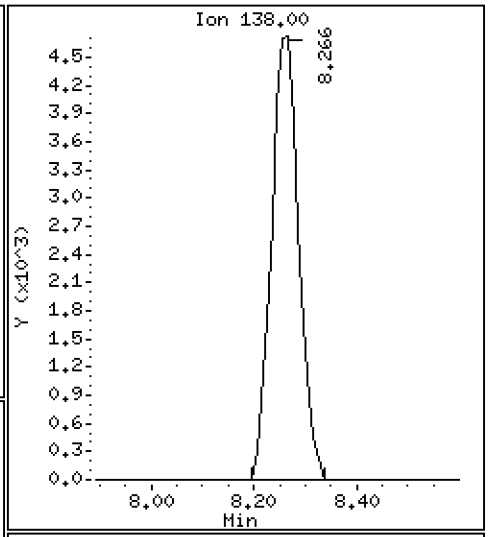
Column phase: Rxi-17Sil MS

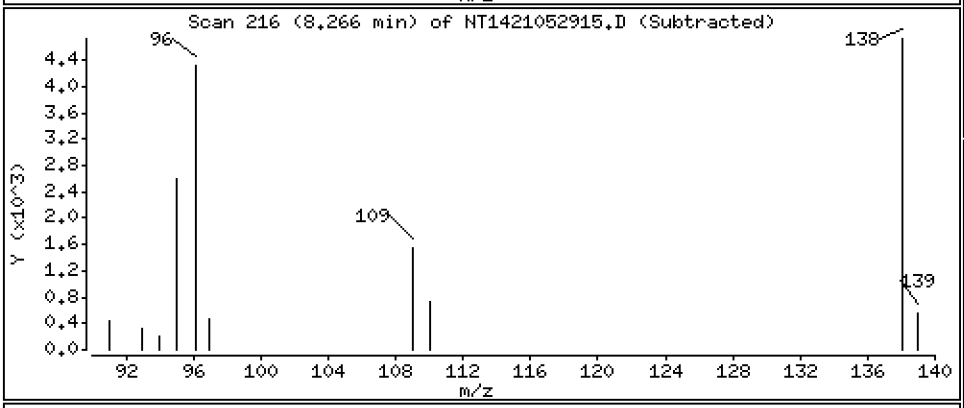
Column diameter: 0.25

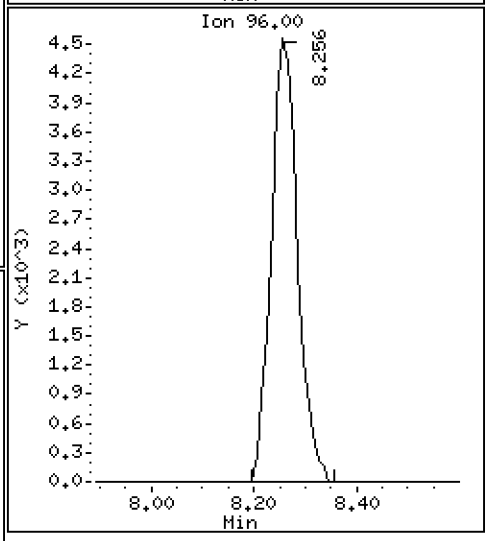
2 cis-Decalin

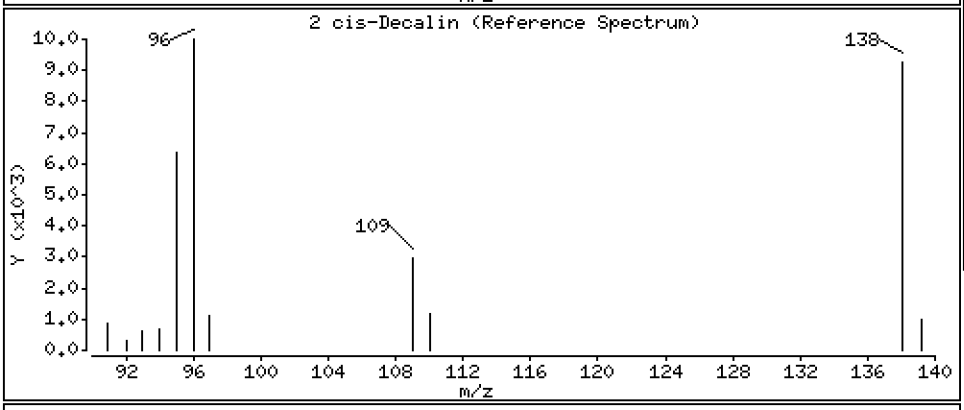
Concentration: 2.555 ug/mL

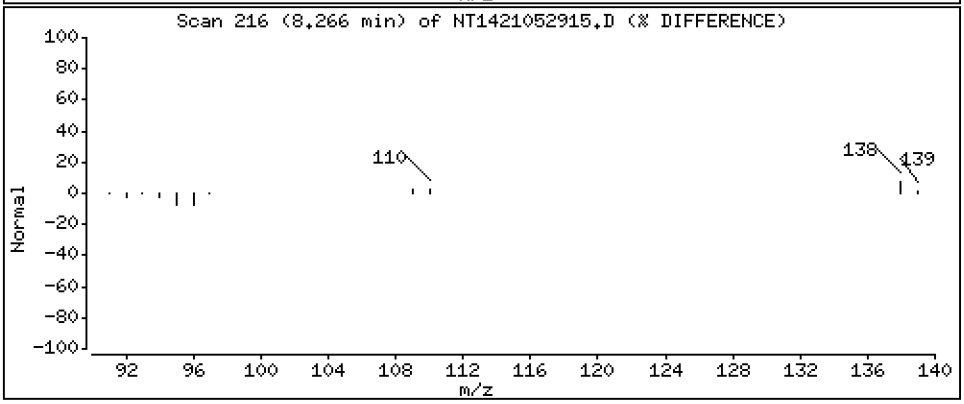












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

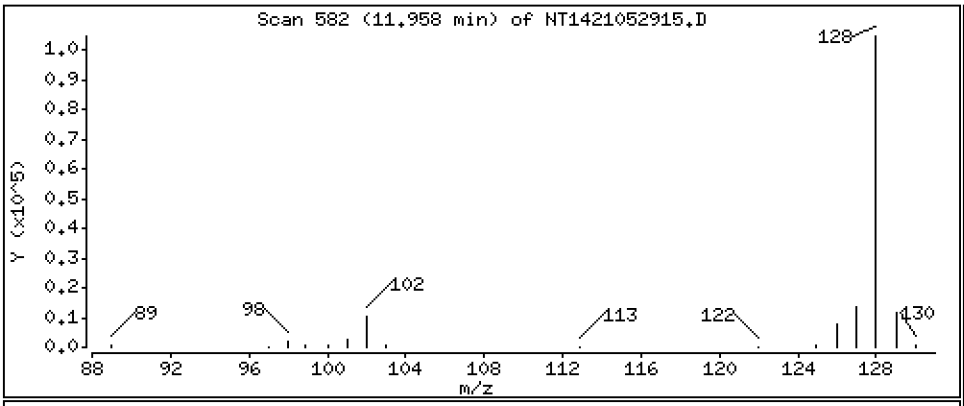
Operator: VTS

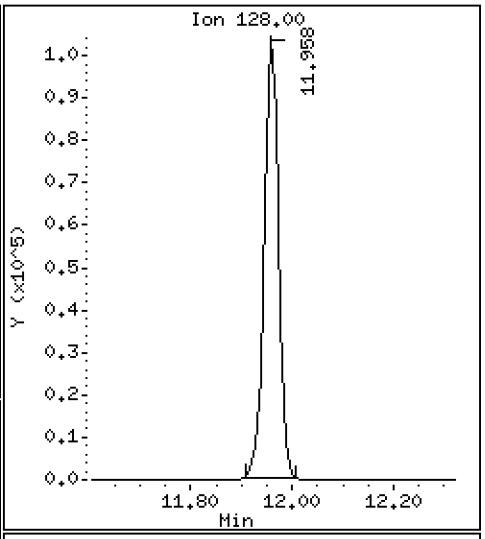
Column phase: Rxi-17Sil MS

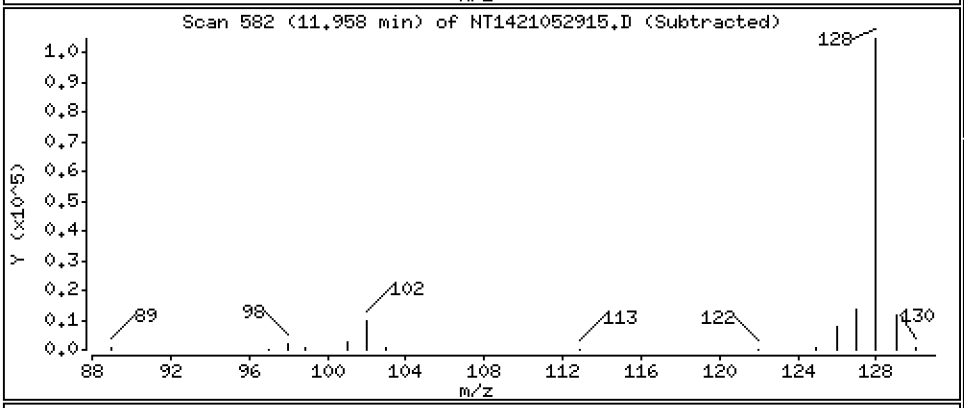
Column diameter: 0.25

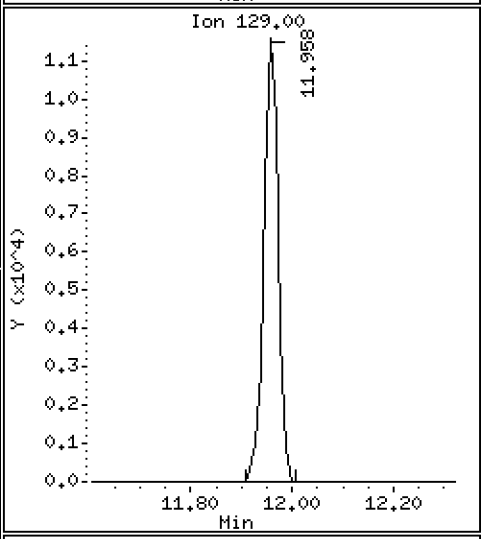
7 Naphthalene

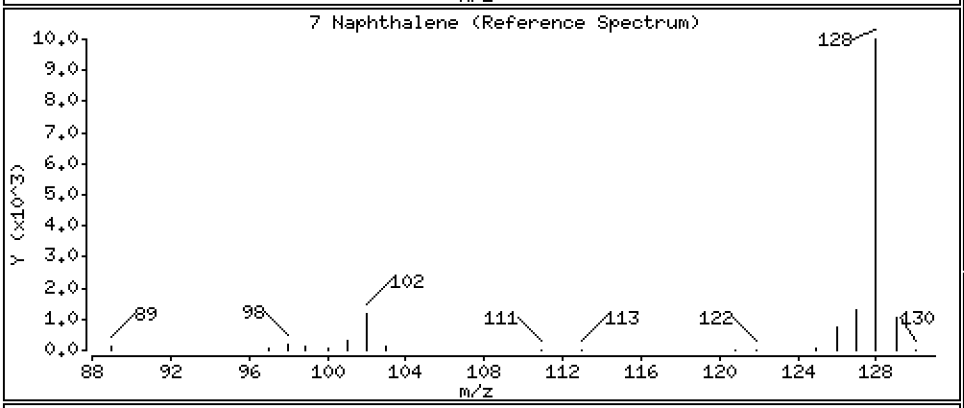
Concentration: 2.625 ug/mL

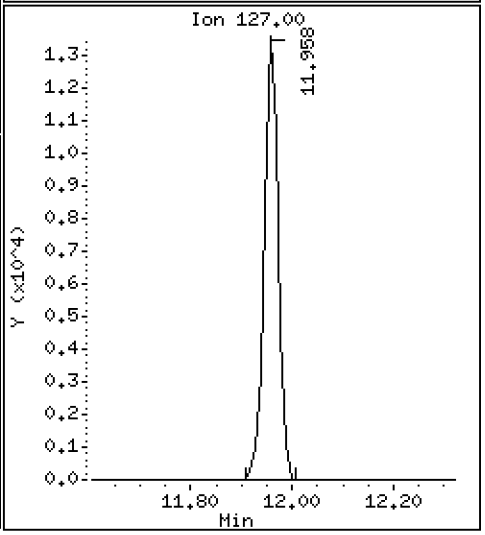


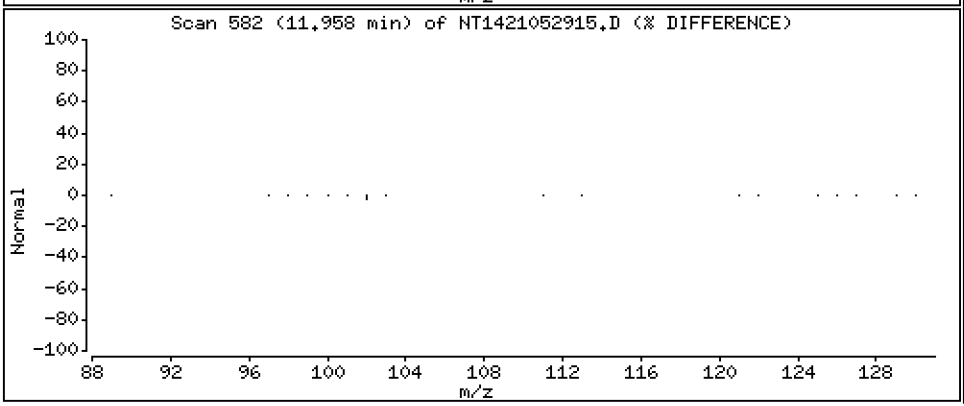












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

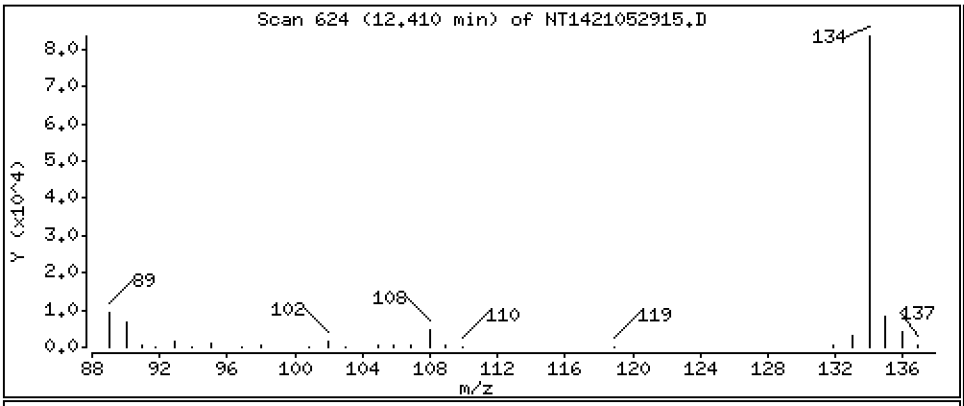
Operator: VTS

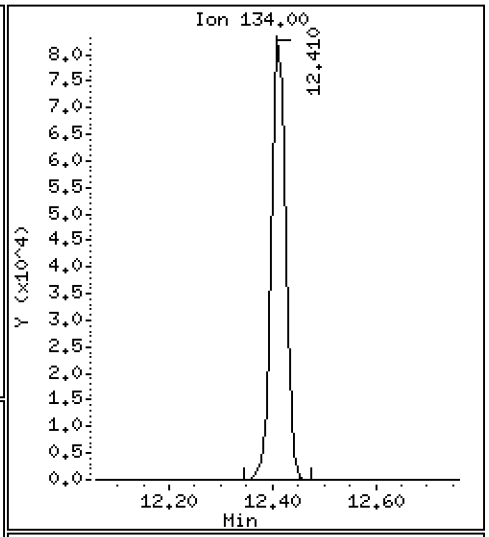
Column phase: Rxi-17Sil MS

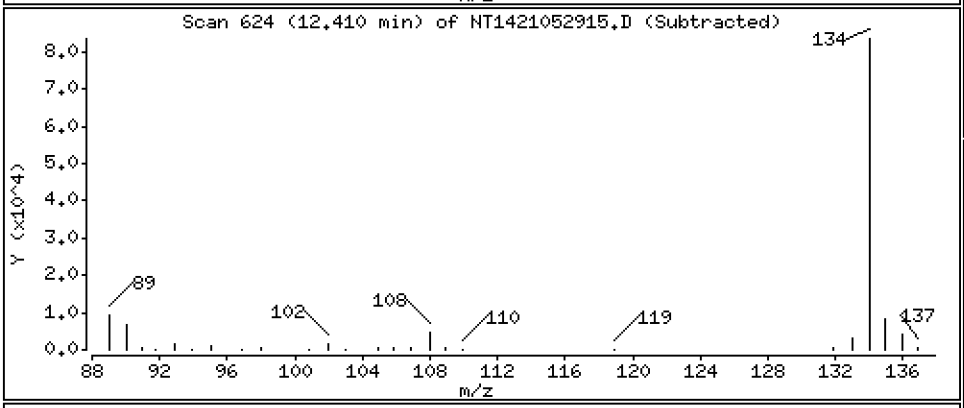
Column diameter: 0.25

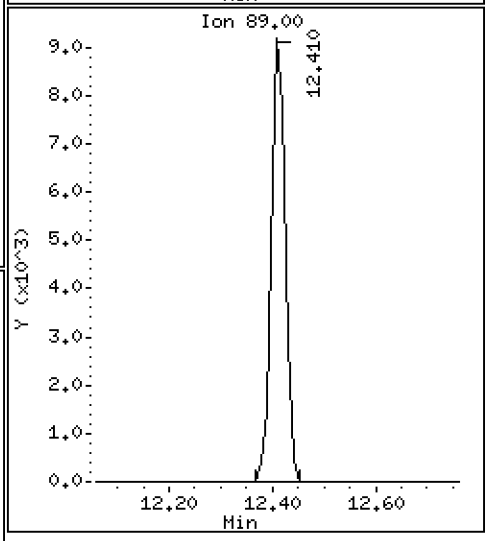
12 Benzo(b)thiophene

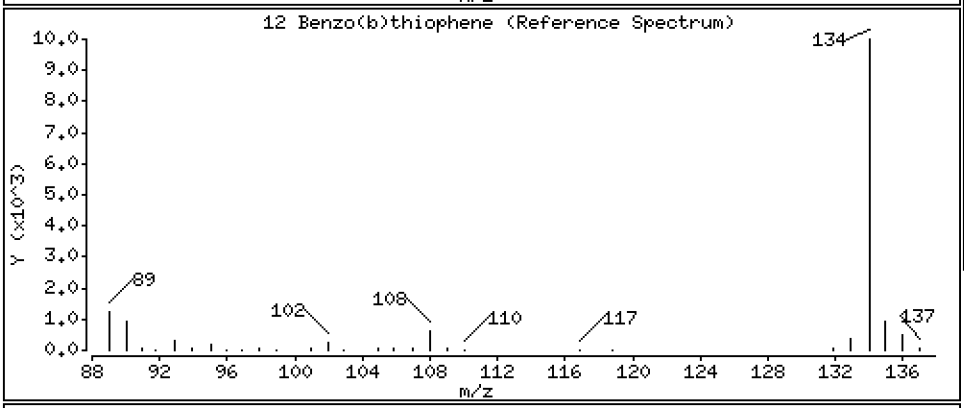
Concentration: 2.621 ug/mL

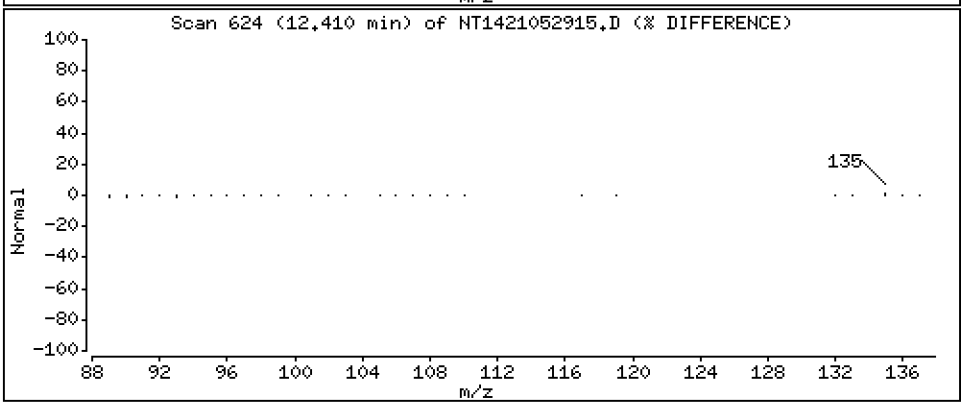












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

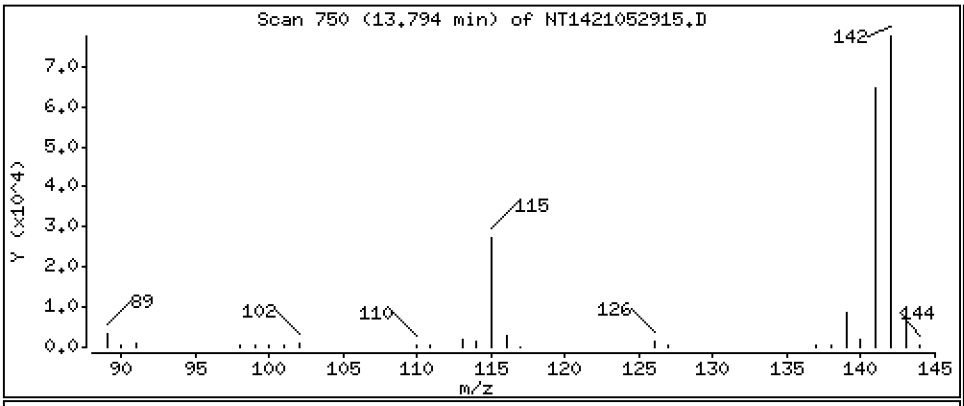
Operator: VTS

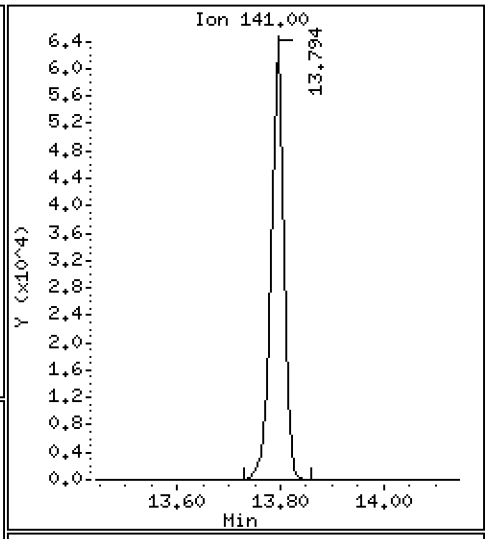
Column phase: Rxi-17Sil MS

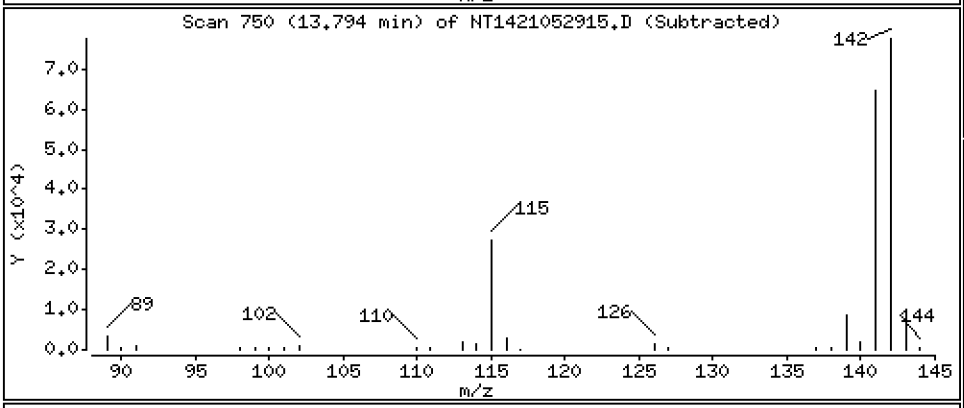
Column diameter: 0.25

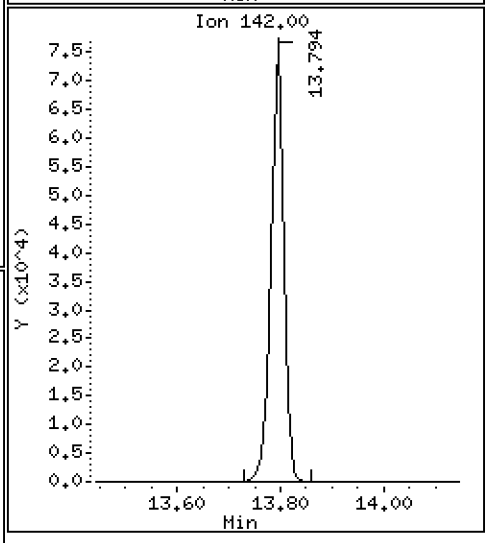
16 2-Methylnaphthalene

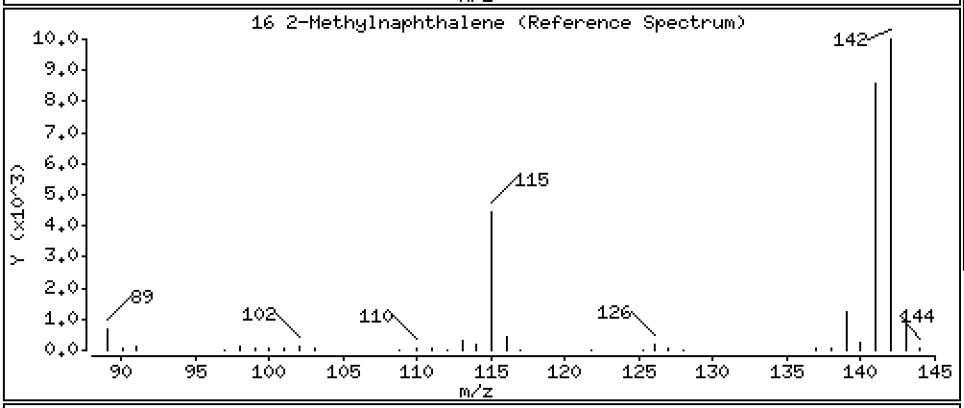
Concentration: 2.645 ug/mL

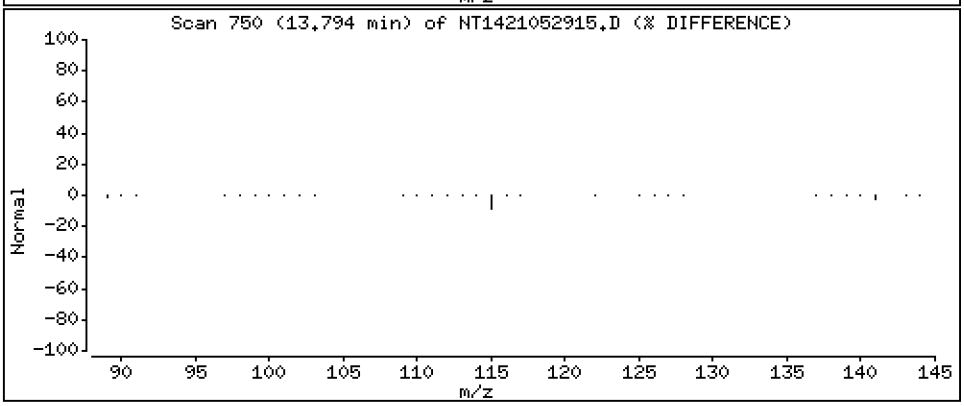












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

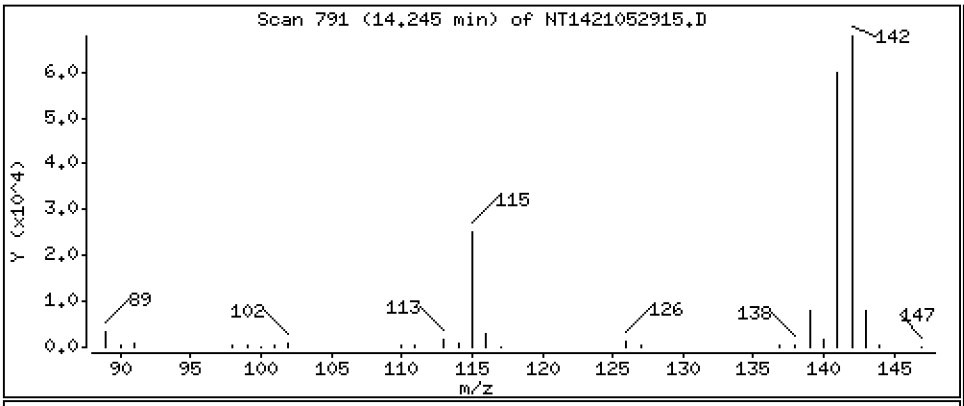
Operator: VTS

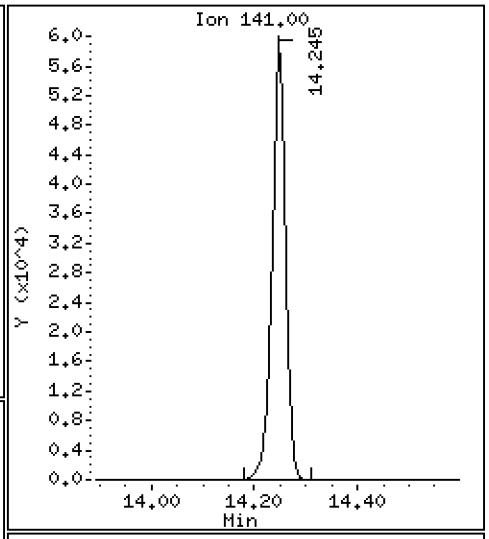
Column phase: Rxi-17Sil MS

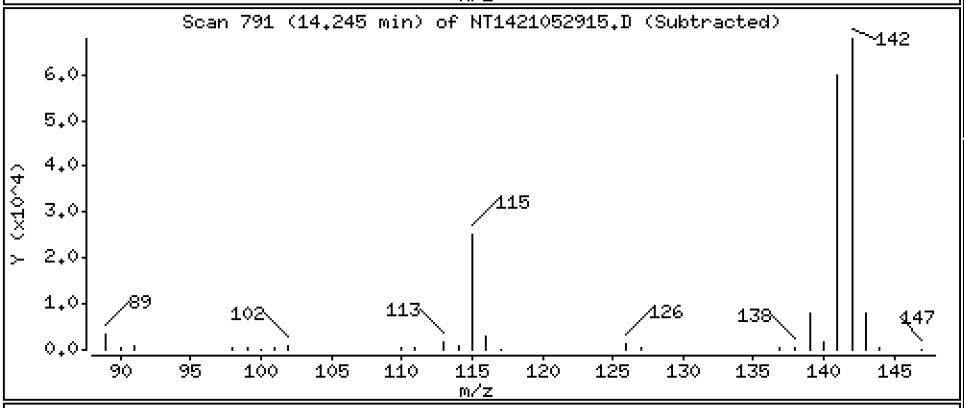
Column diameter: 0.25

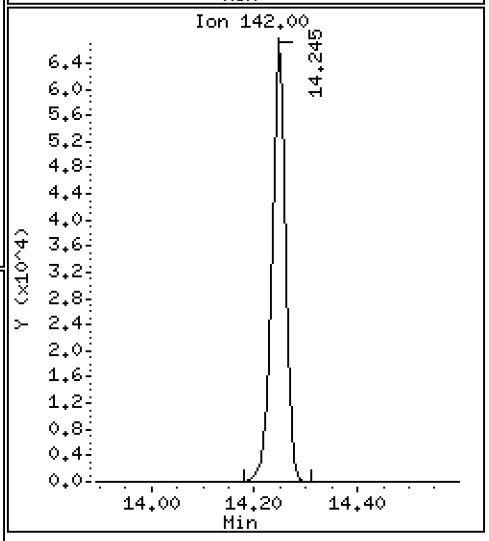
17 1-methylnaphthalene

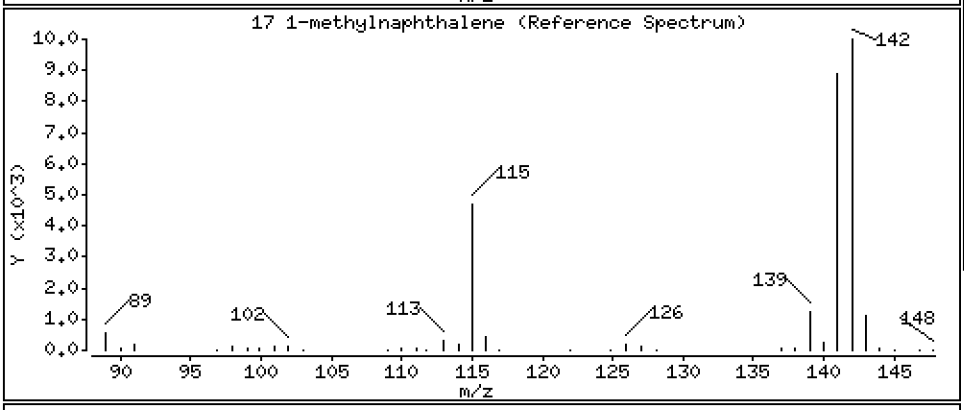
Concentration: 2.659 ug/mL

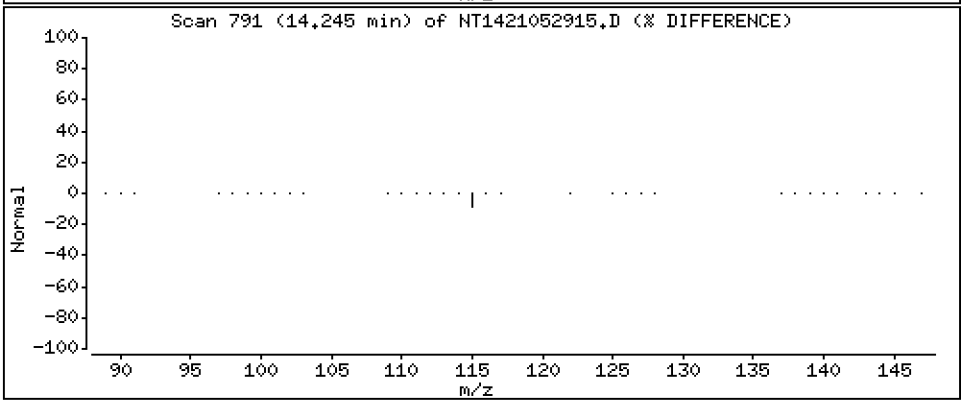












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

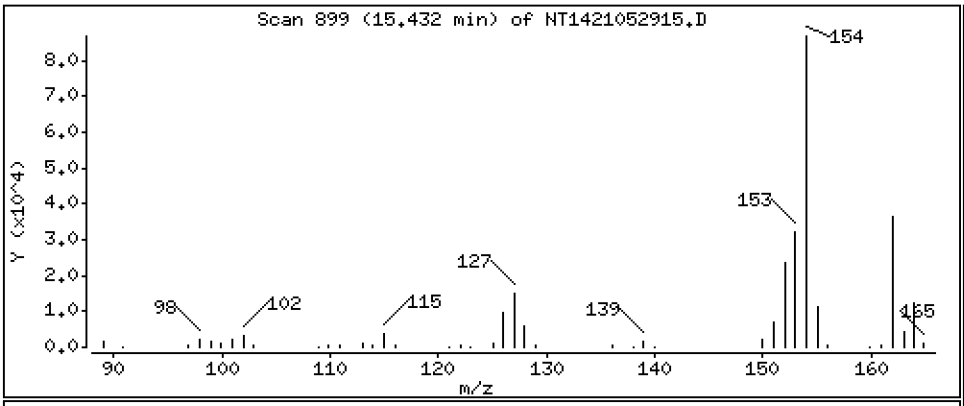
Operator: VTS

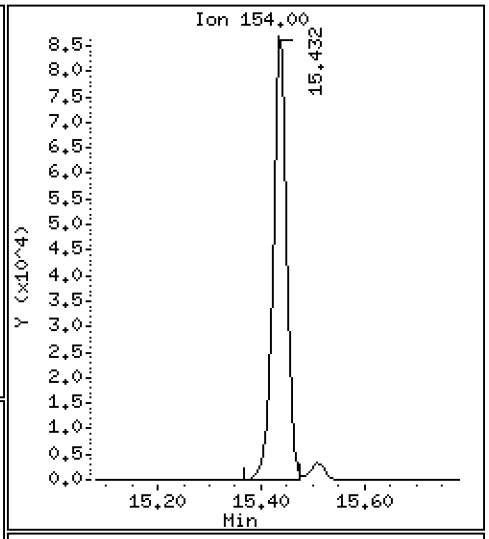
Column phase: Rxi-17Sil MS

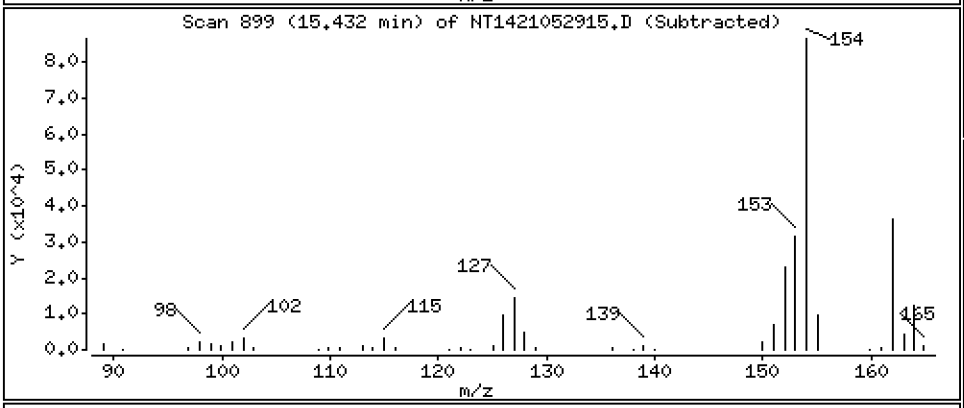
Column diameter: 0.25

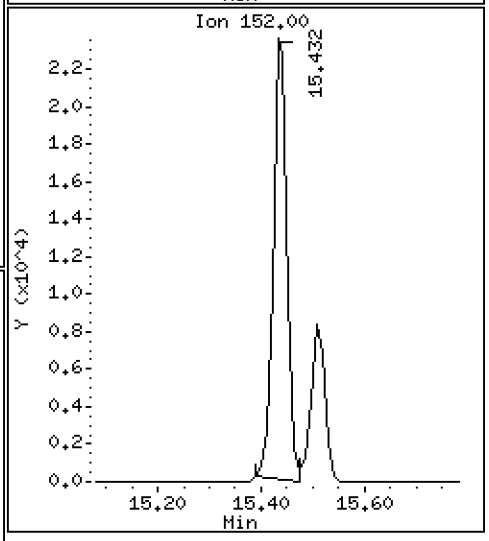
18 Biphenyl

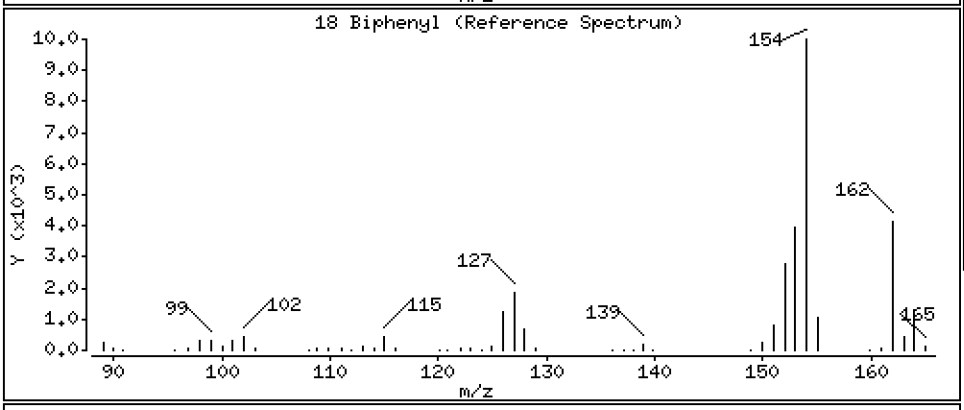
Concentration: 2.608 ug/mL

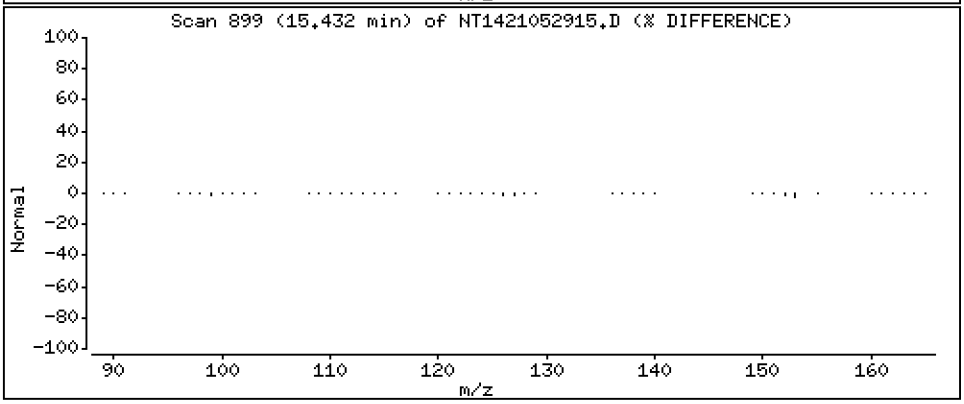












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

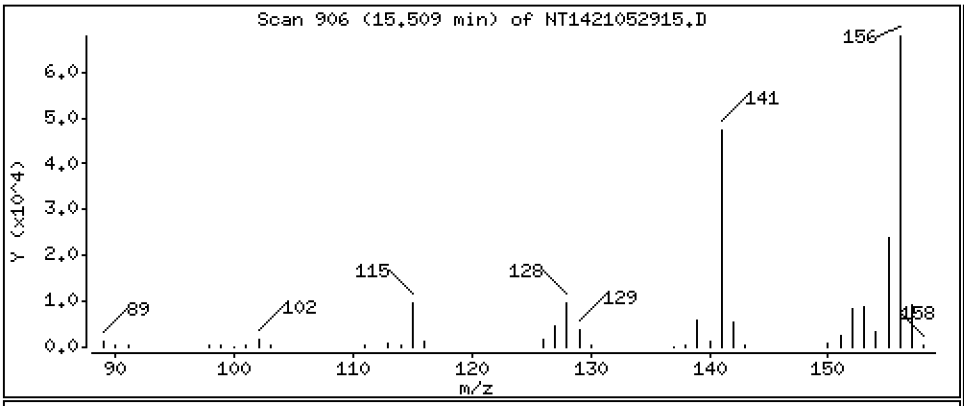
Operator: VTS

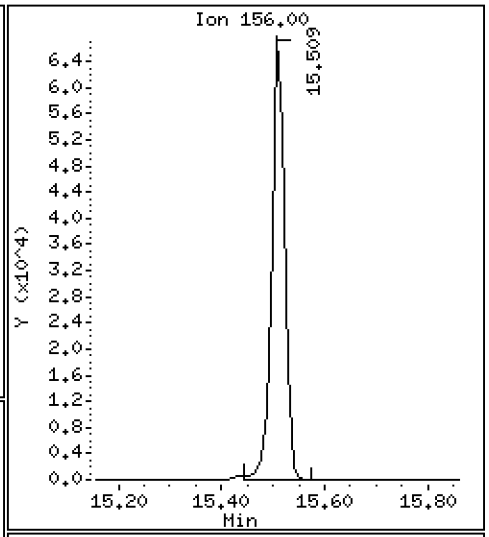
Column phase: Rxi-17Sil MS

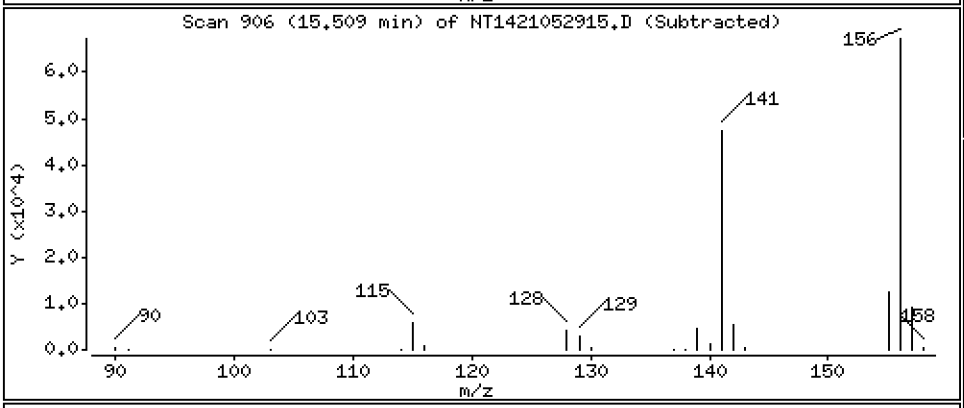
Column diameter: 0.25

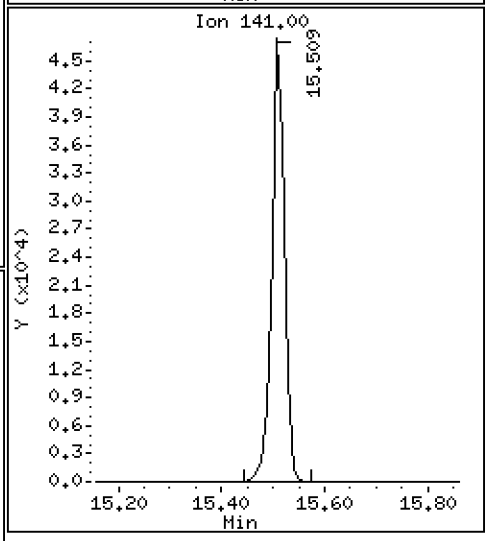
19 2,6-Dimethylnaphthalene

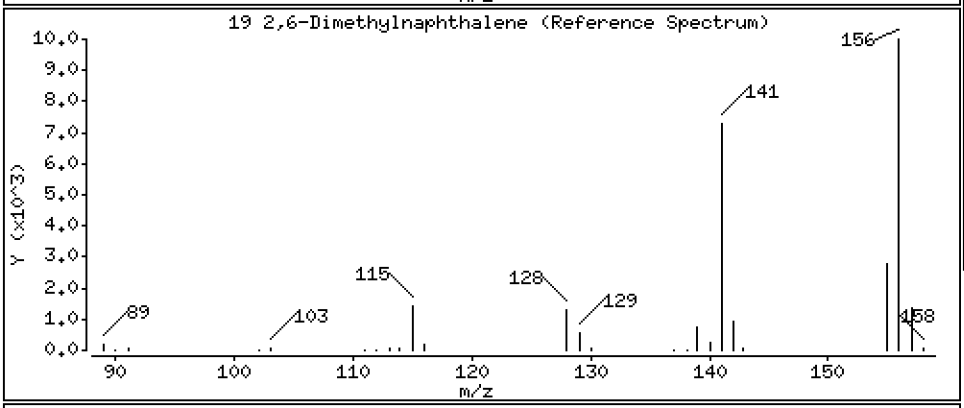
Concentration: 2.604 ug/mL

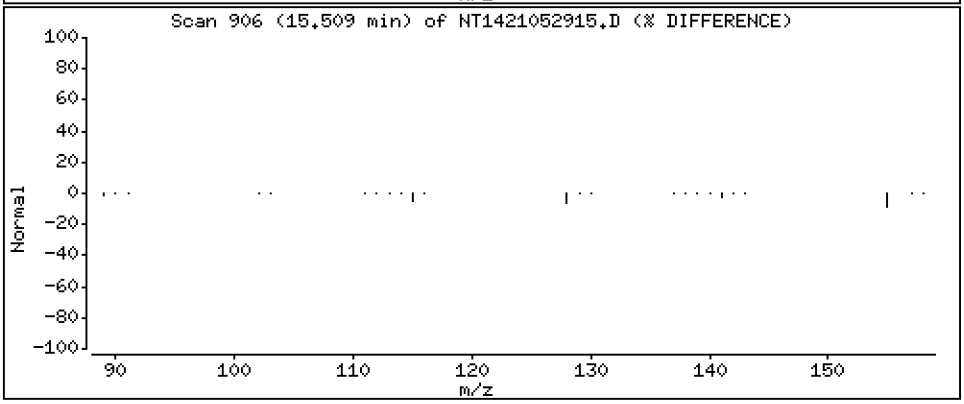












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

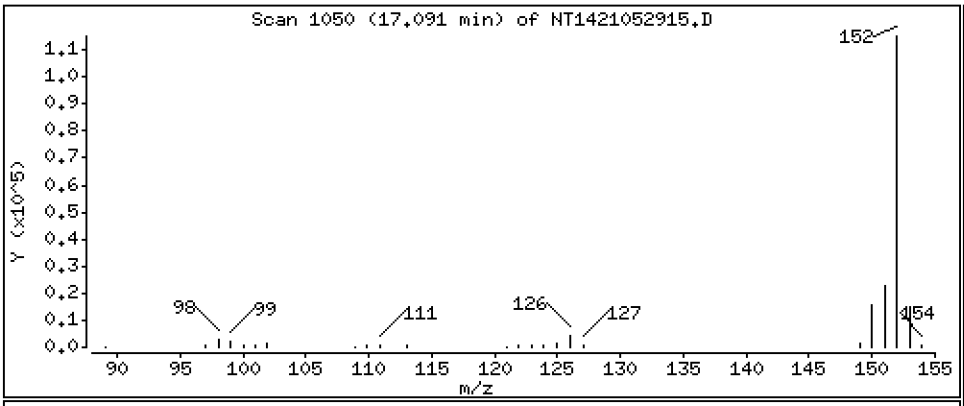
Operator: VTS

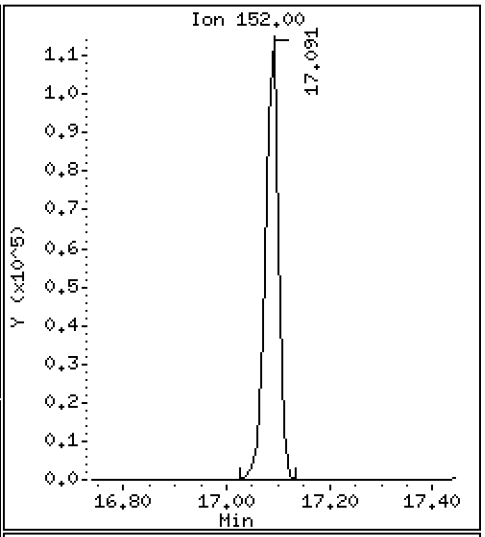
Column phase: Rxi-17Sil MS

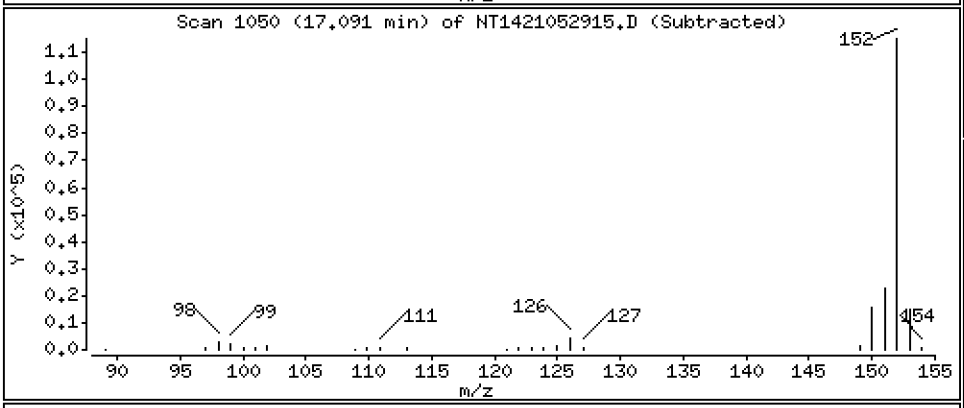
Column diameter: 0.25

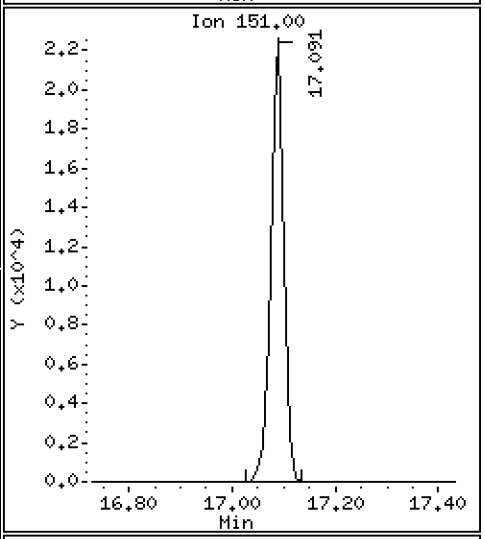
20 Acenaphthylene

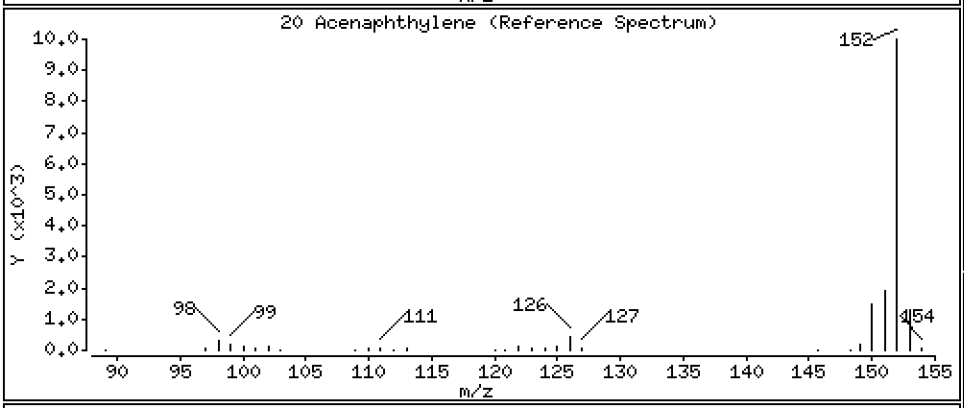
Concentration: 2.624 ug/mL

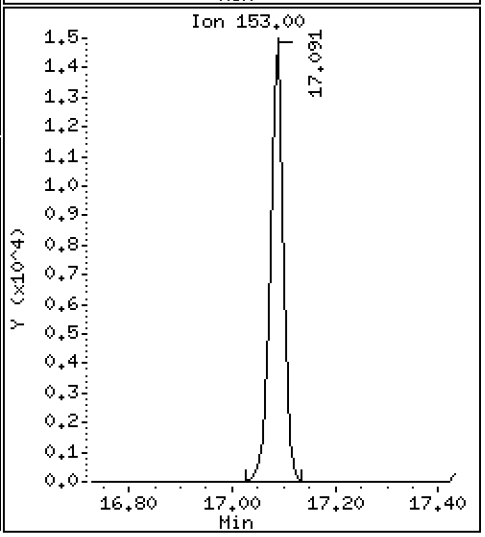


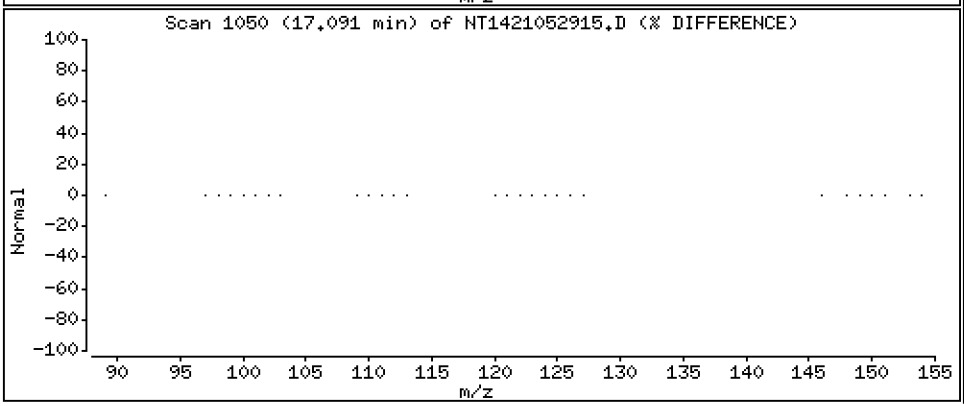












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

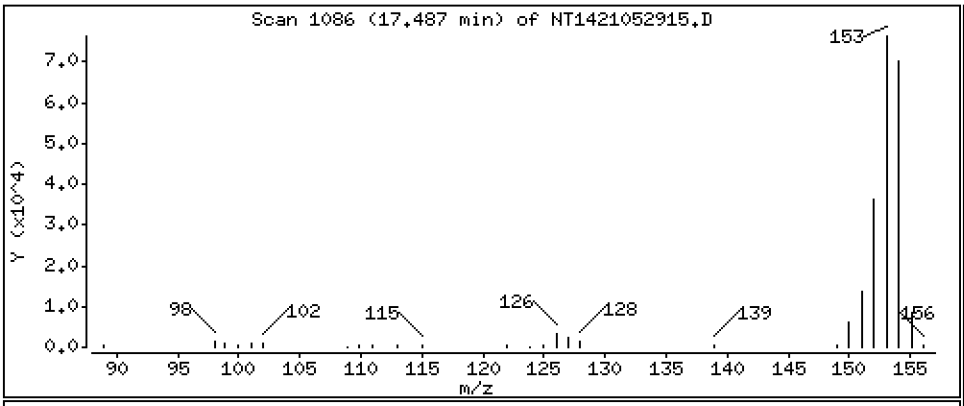
Operator: VTS

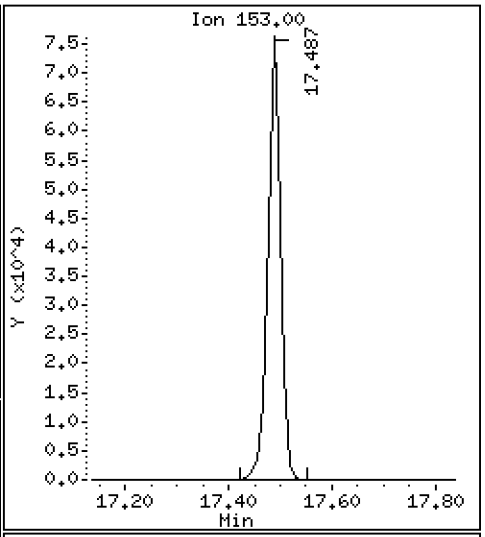
Column phase: Rxi-17Sil MS

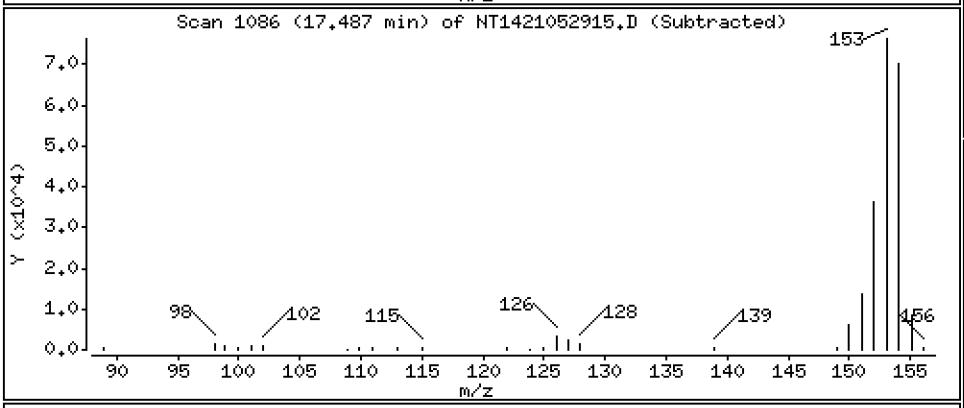
Column diameter: 0.25

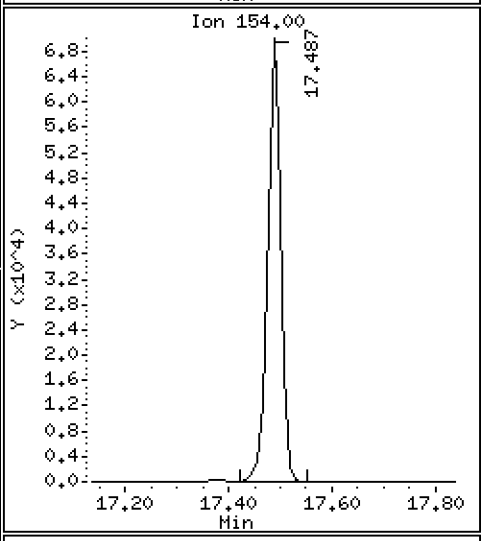
22 Acenaphthene

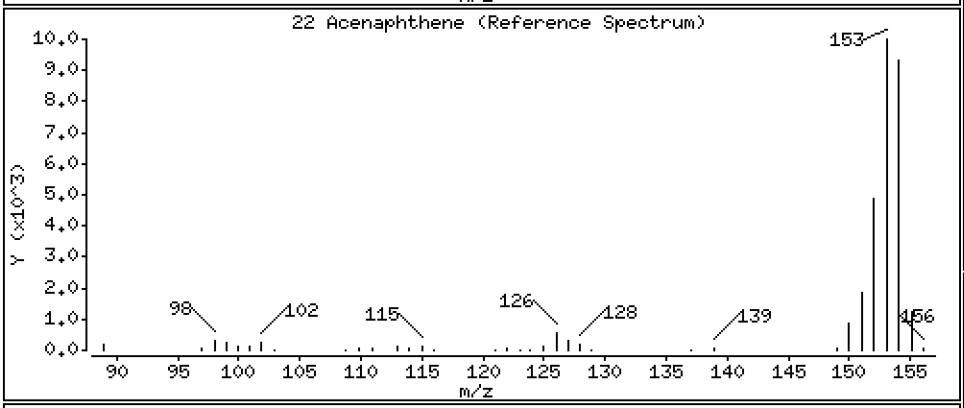
Concentration: 2.755 ug/mL

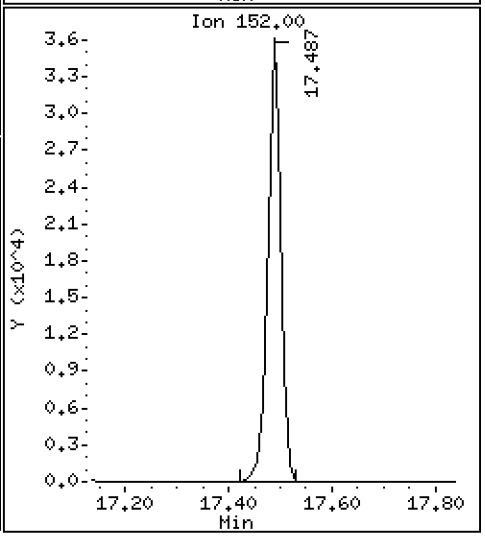


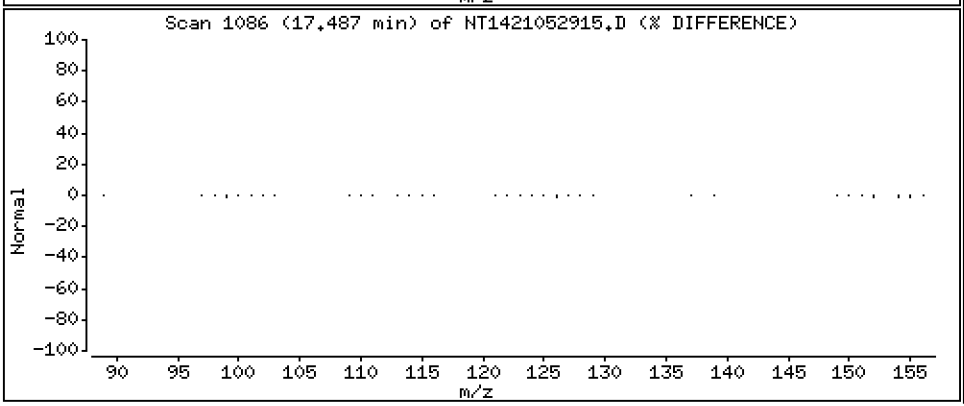












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

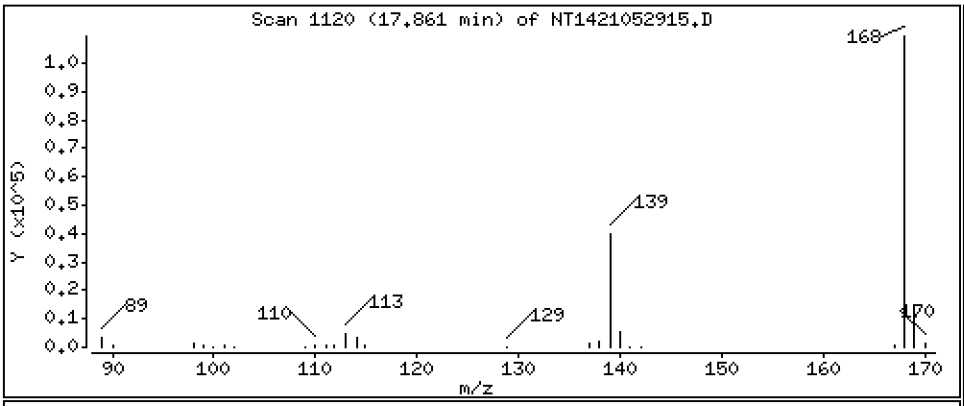
Operator: VTS

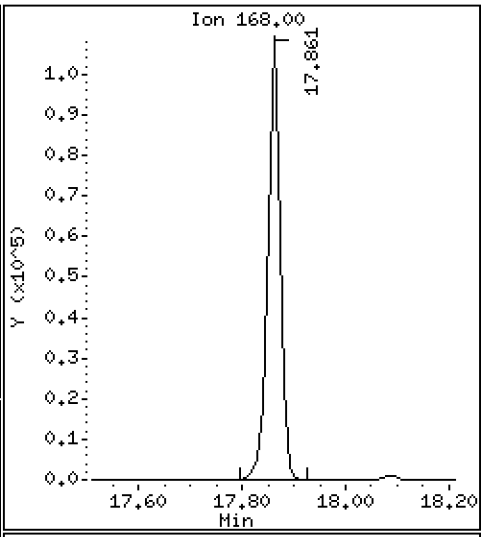
Column phase: Rxi-17Sil MS

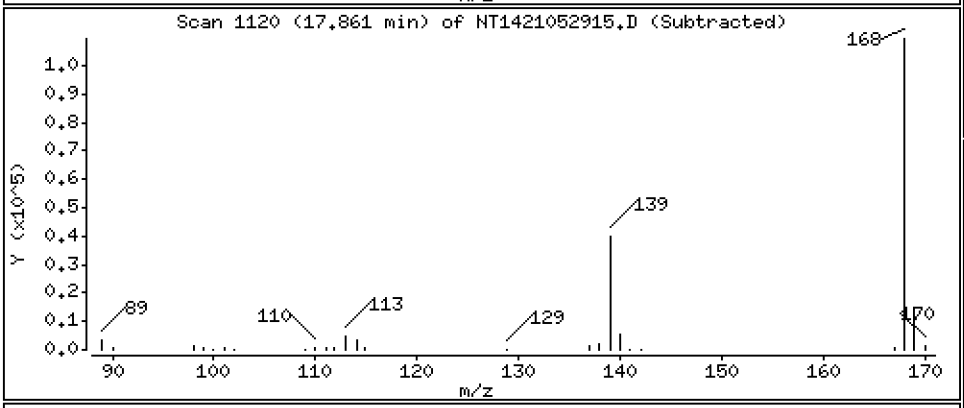
Column diameter: 0.25

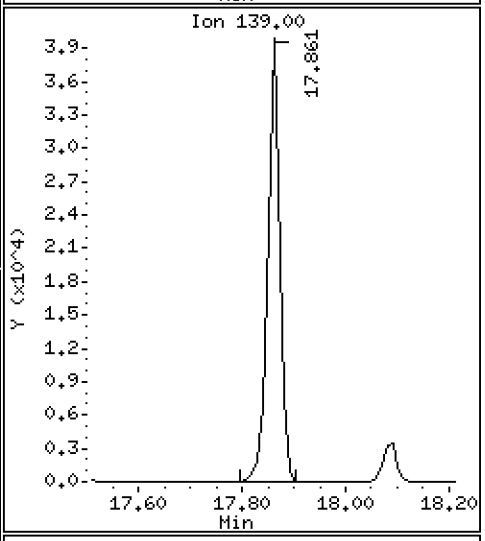
23 Dibenzofuran

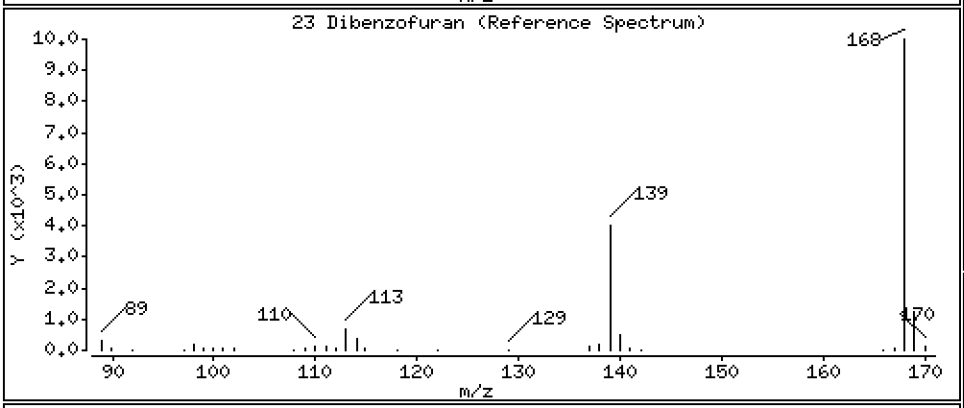
Concentration: 2.595 ug/mL

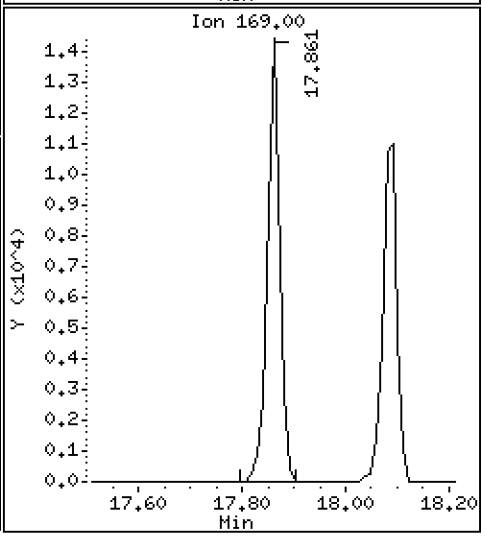


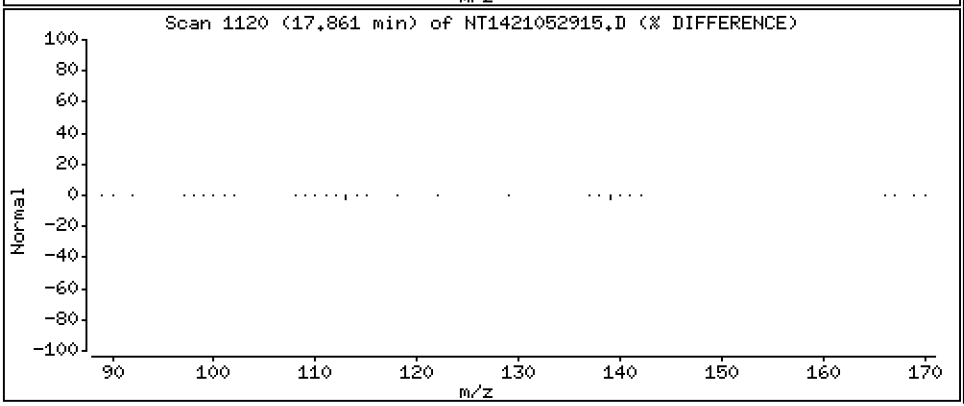












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

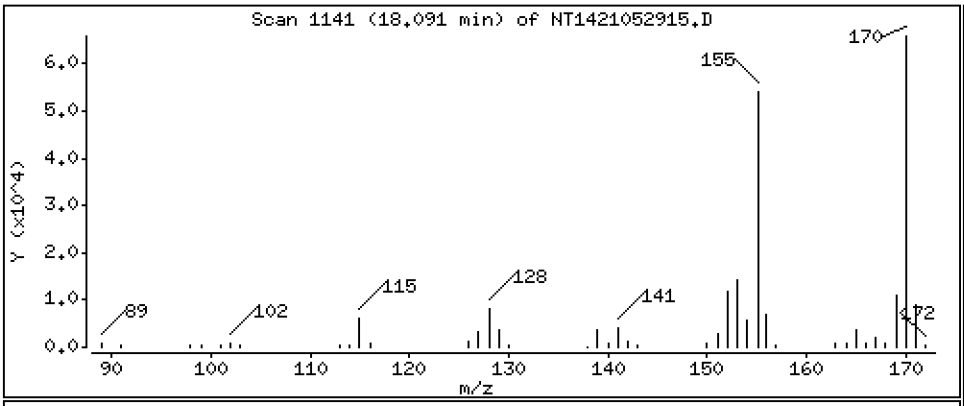
Operator: VTS

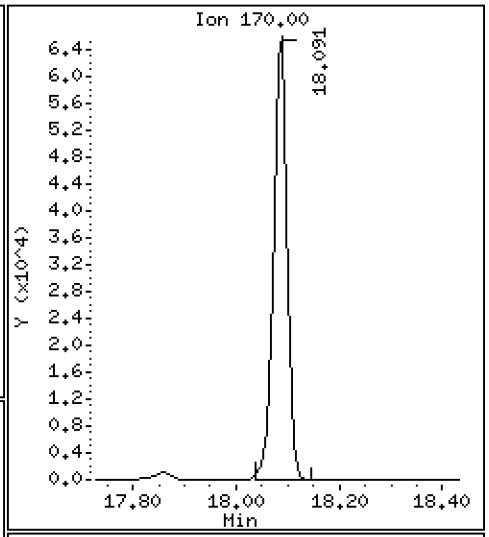
Column phase: Rxi-17Sil MS

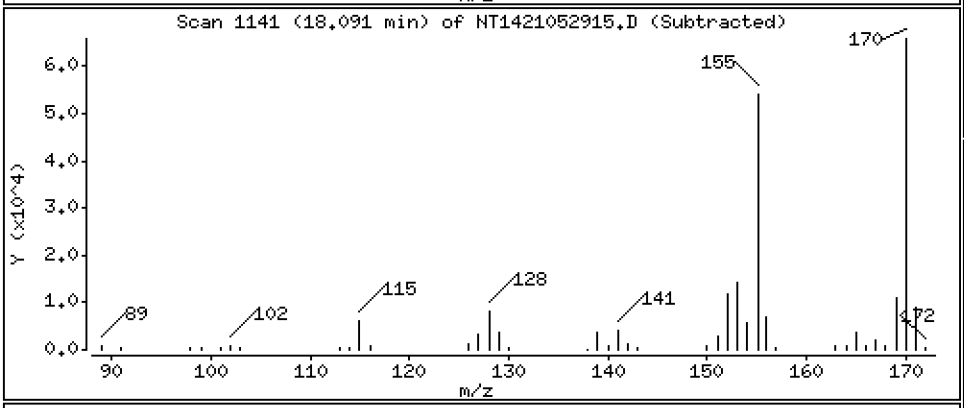
Column diameter: 0.25

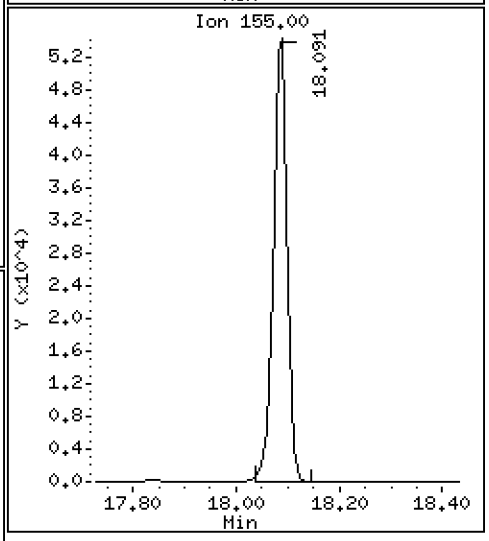
24 1,6,7-Trimethylnaphthalene

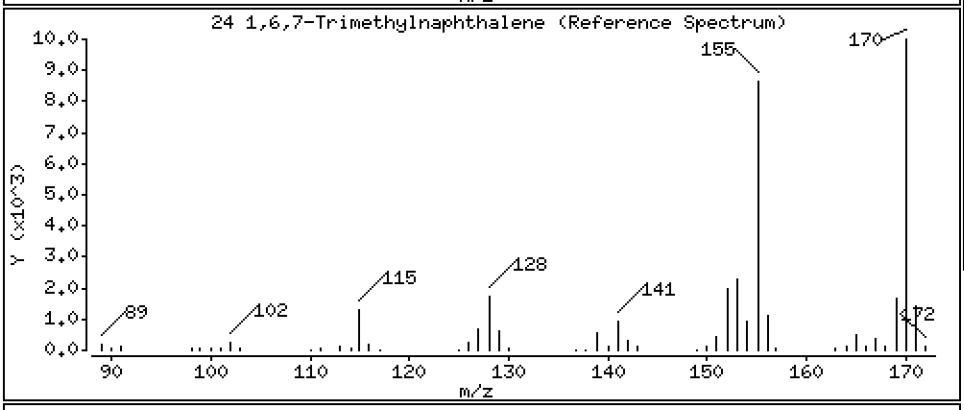
Concentration: 2.642 ug/mL

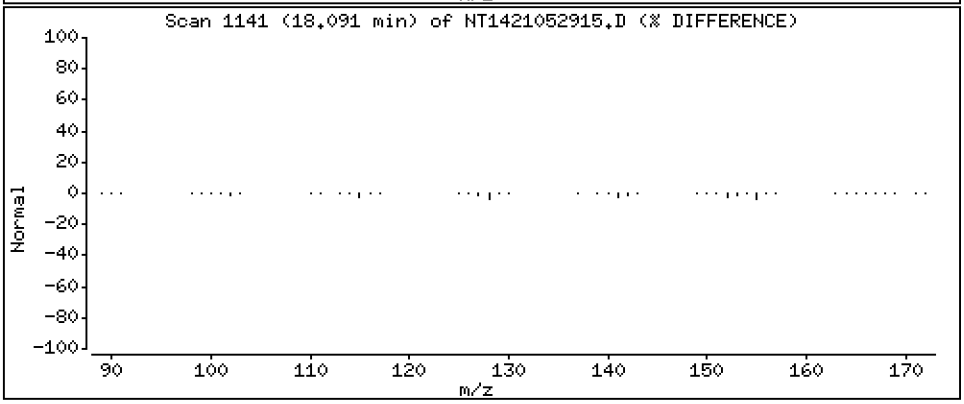












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

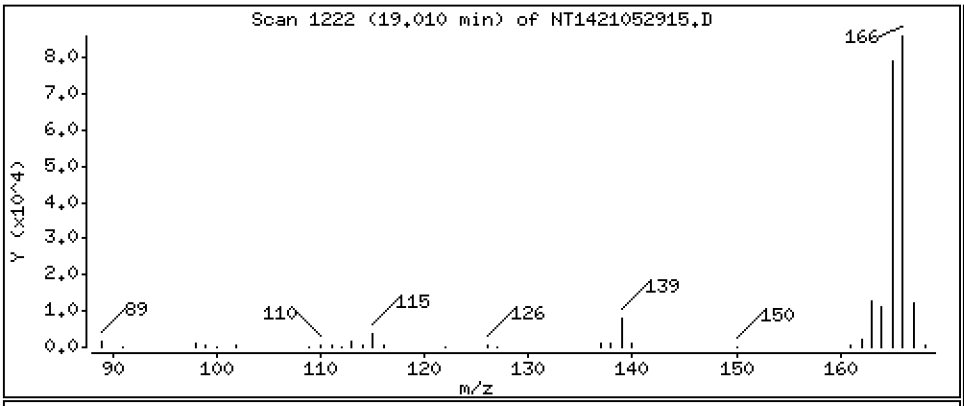
Operator: VTS

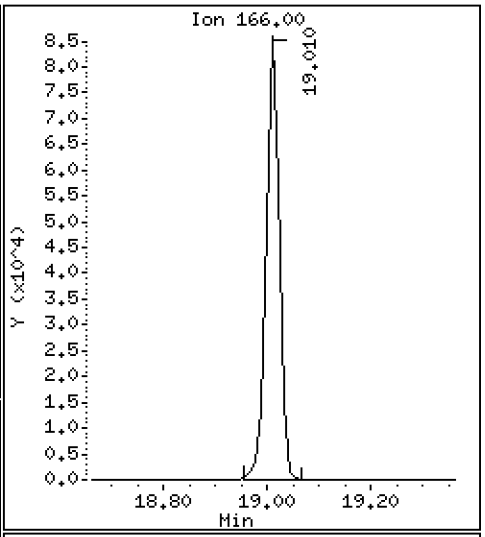
Column phase: Rxi-17Sil MS

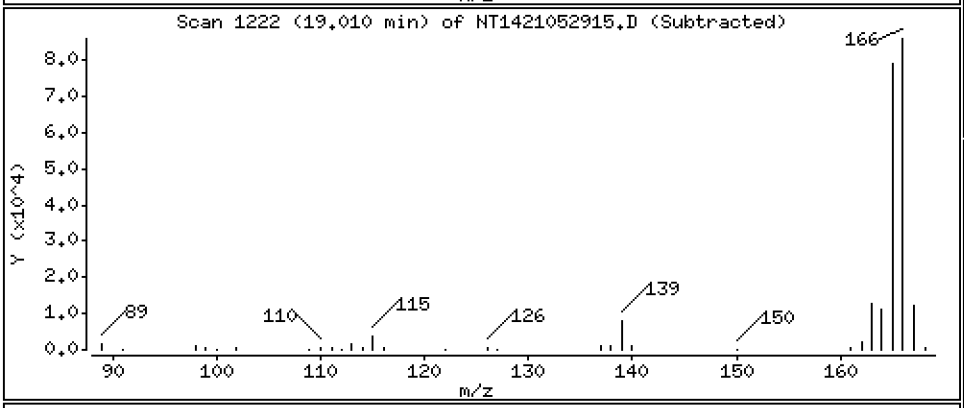
Column diameter: 0.25

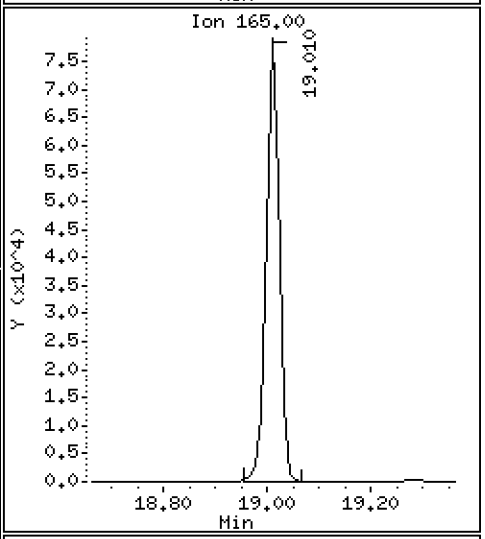
26 Fluorene

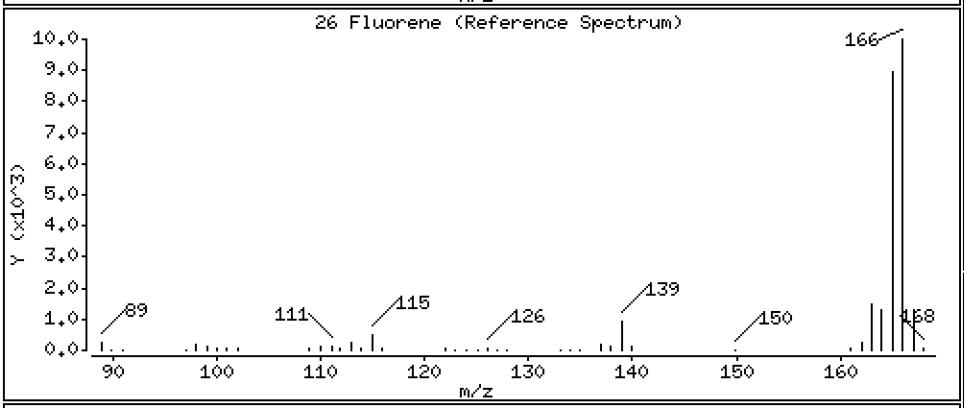
Concentration: 2.611 ug/mL

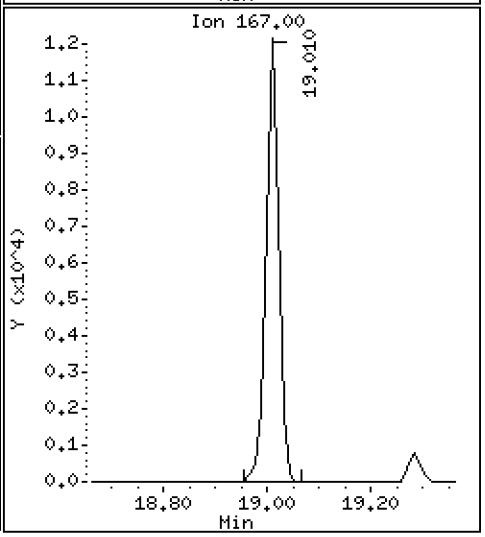


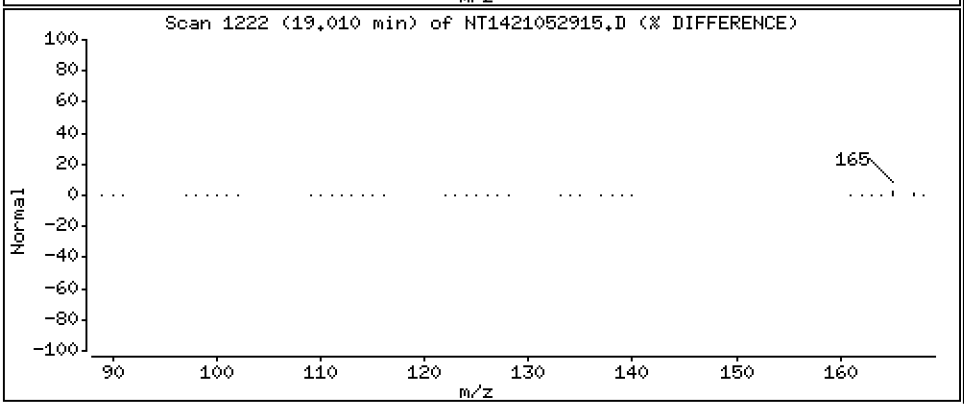












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

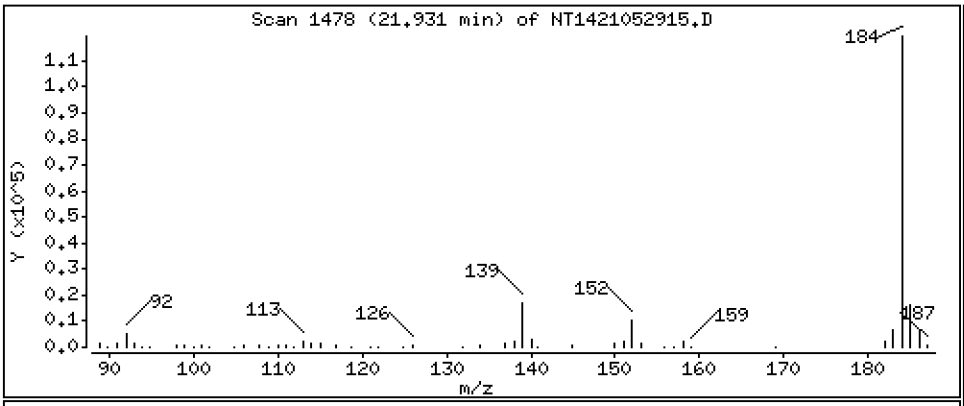
Operator: VTS

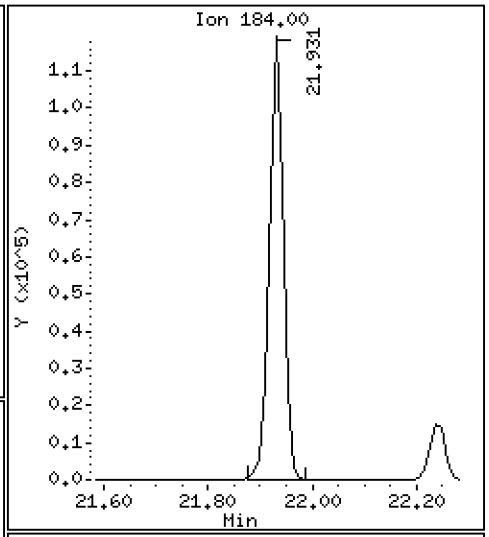
Column phase: Rxi-17Sil MS

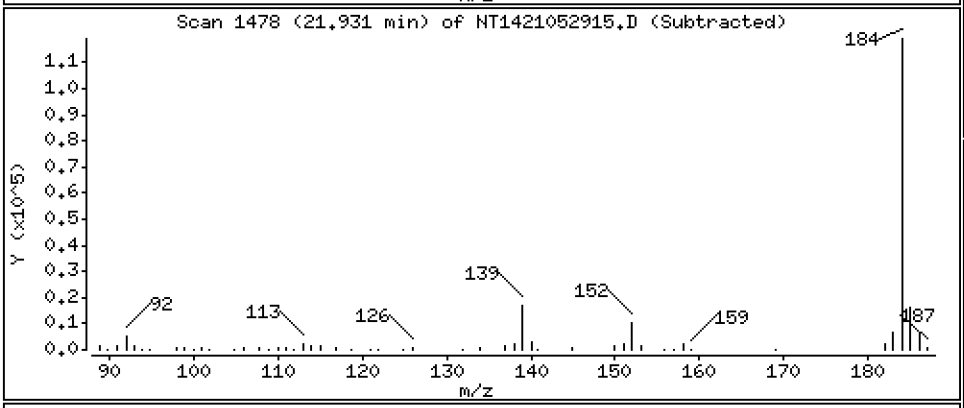
Column diameter: 0.25

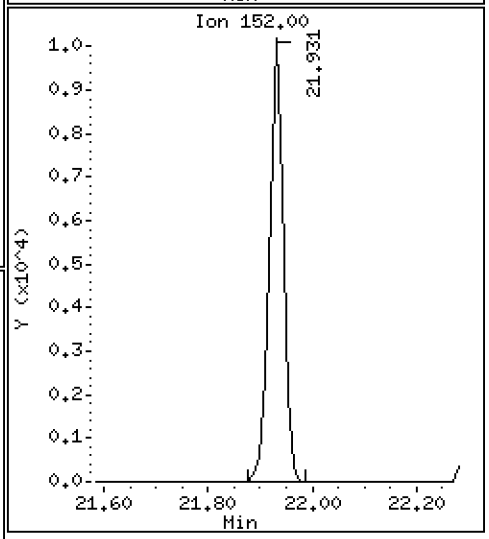
30 Dibenzothiophene

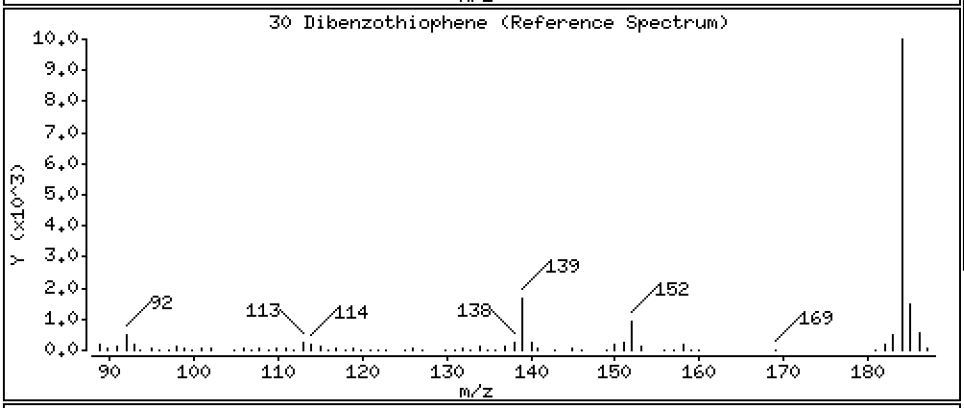
Concentration: 2.634 ug/mL

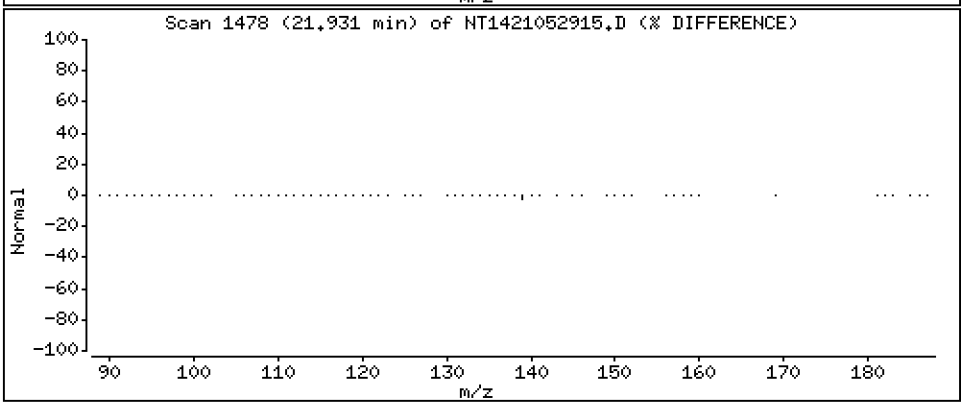












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

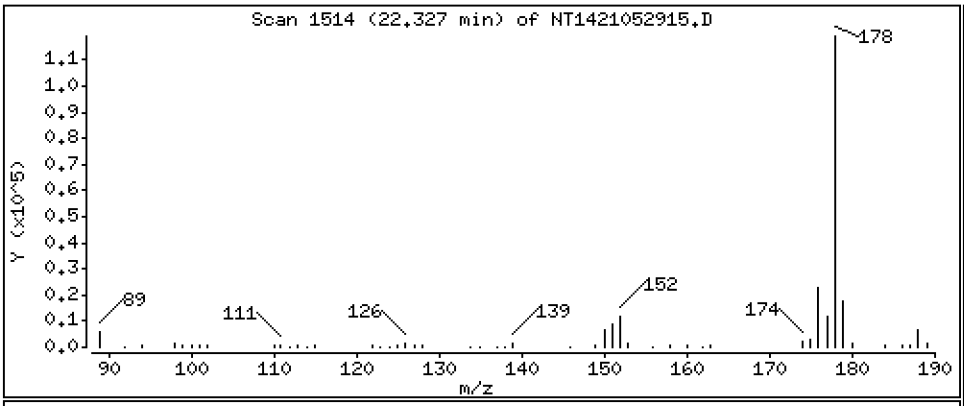
Operator: VTS

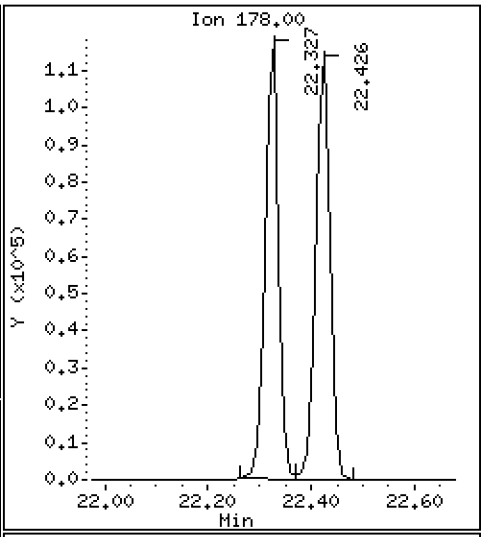
Column phase: Rxi-17Sil MS

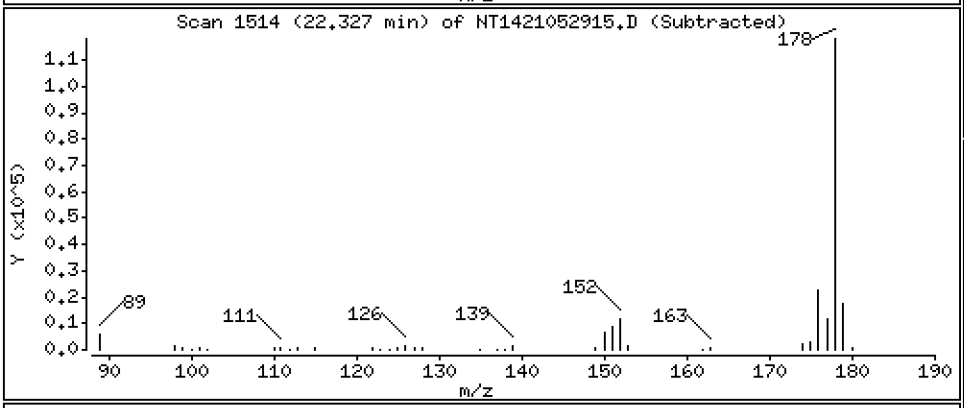
Column diameter: 0.25

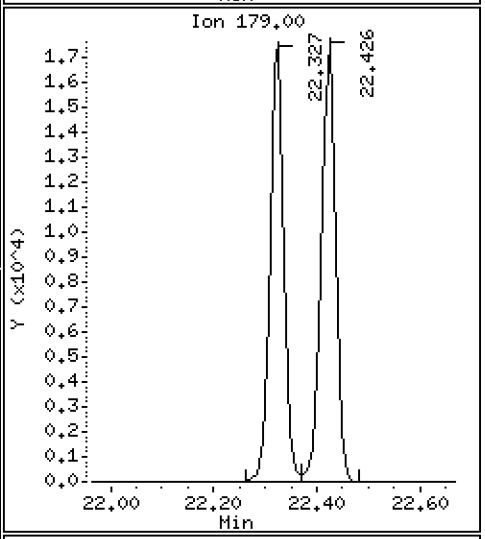
36 Phenanthrene

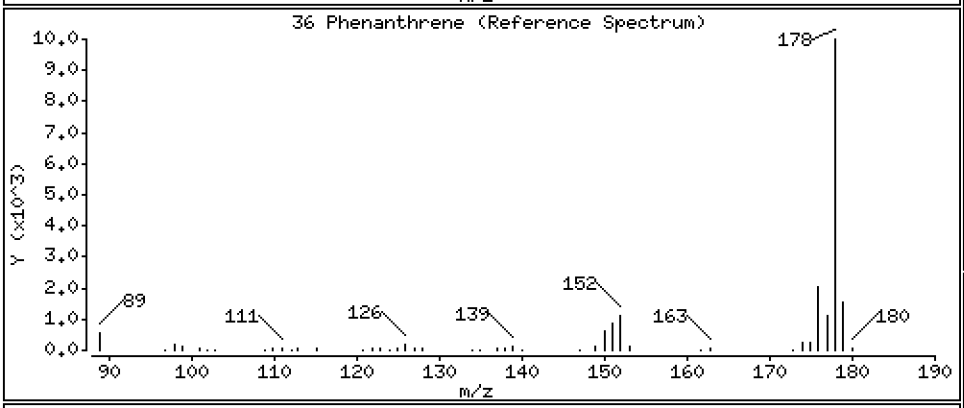
Concentration: 2.640 ug/mL

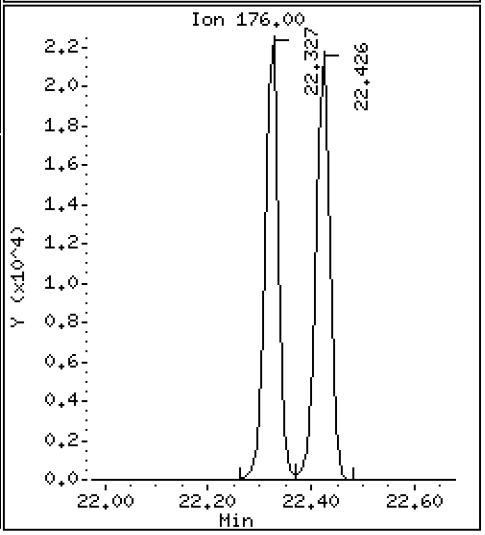


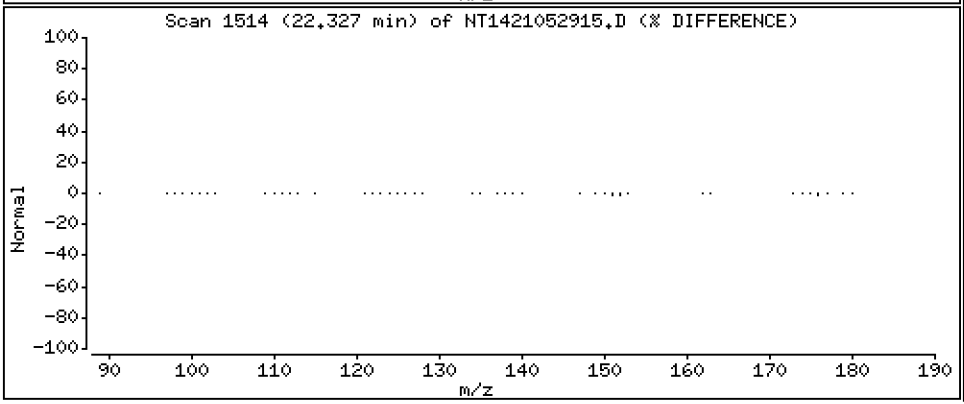












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

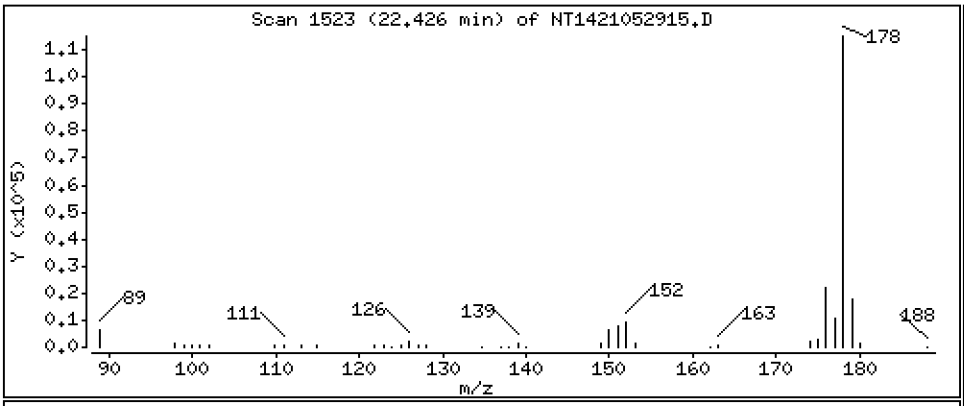
Operator: VTS

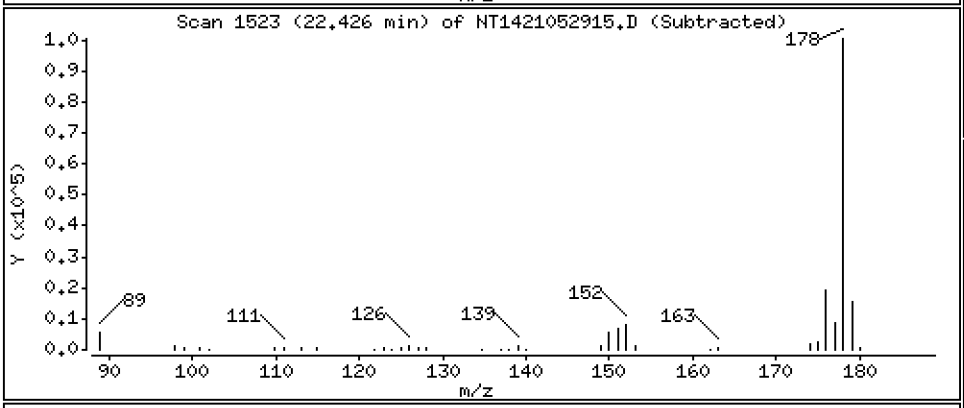
Column phase: Rxi-17Sil MS

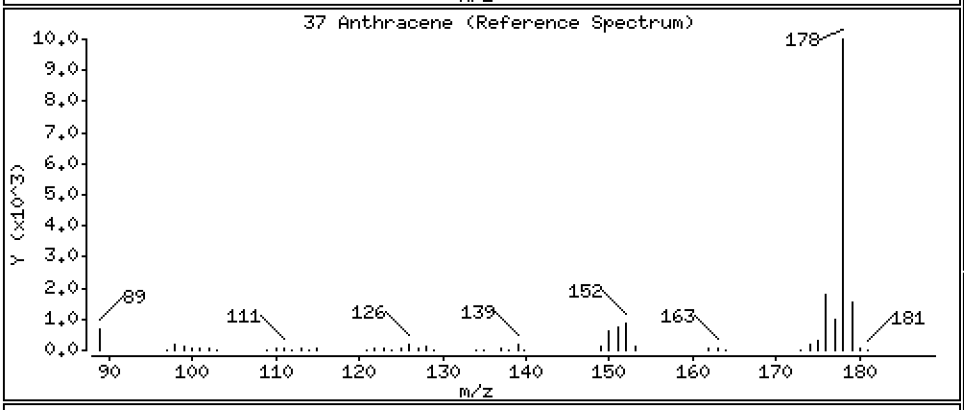
Column diameter: 0.25

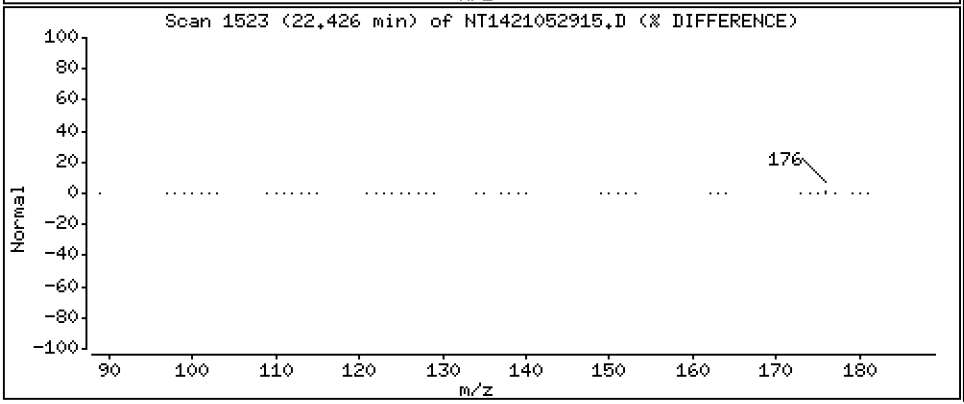
37 Anthracene

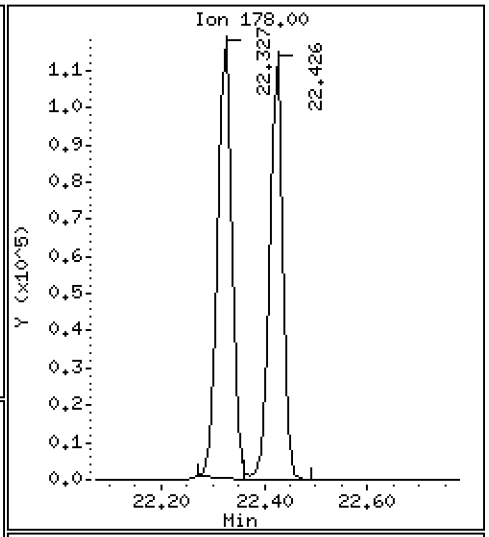
Concentration: 2.688 ug/mL

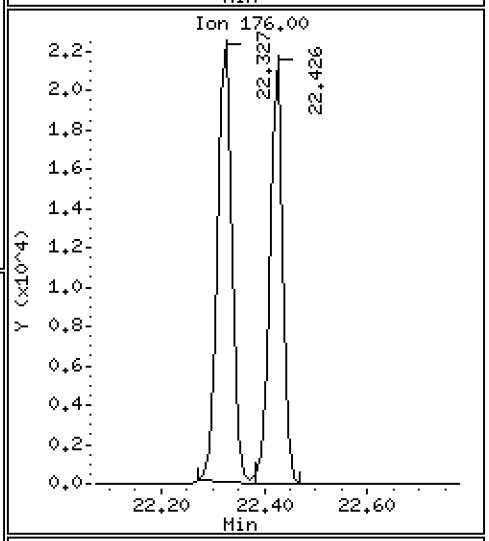


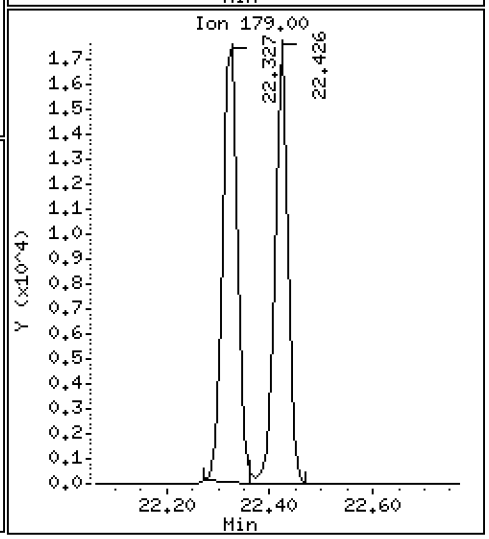












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

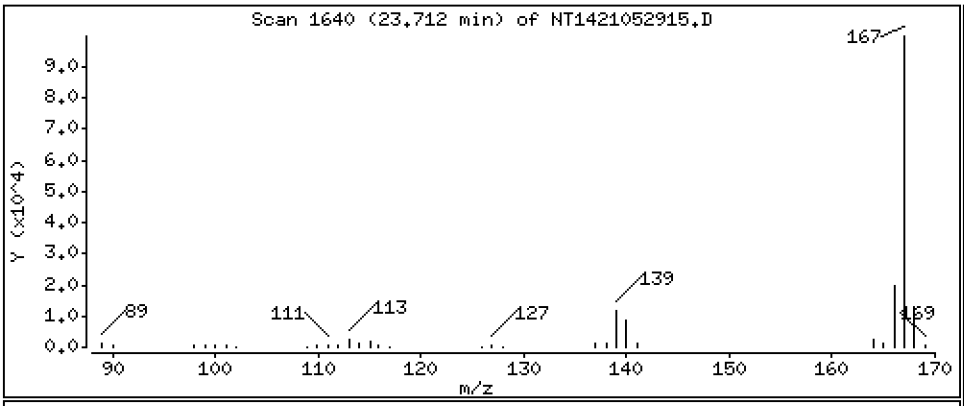
Operator: VTS

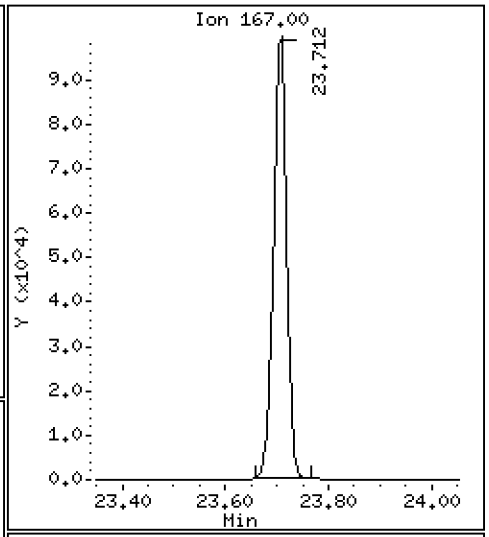
Column phase: Rxi-17Sil MS

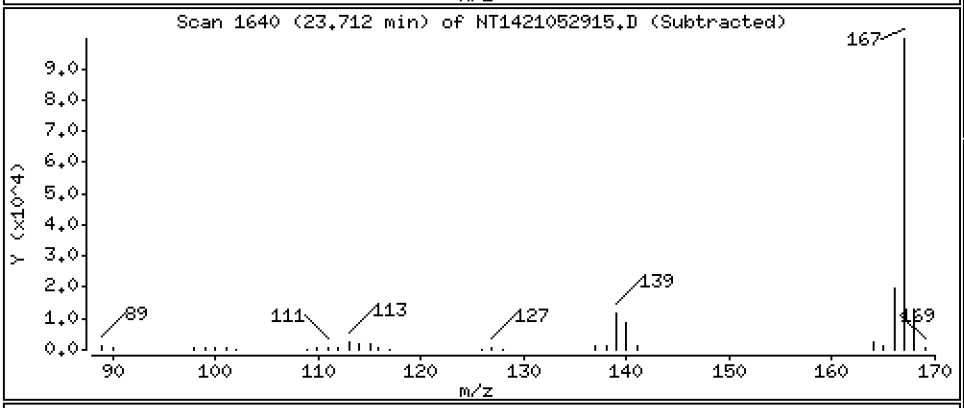
Column diameter: 0.25

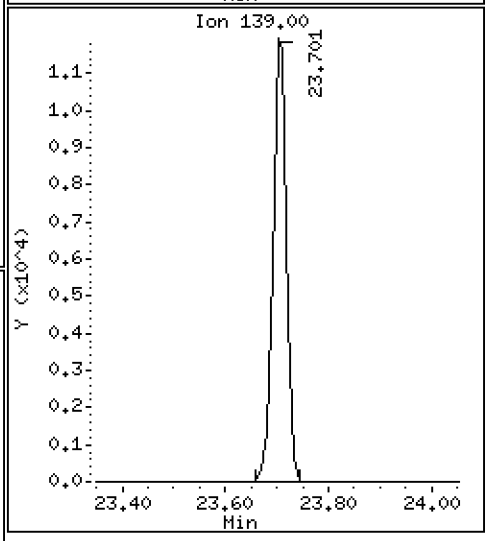
42 Carbazole

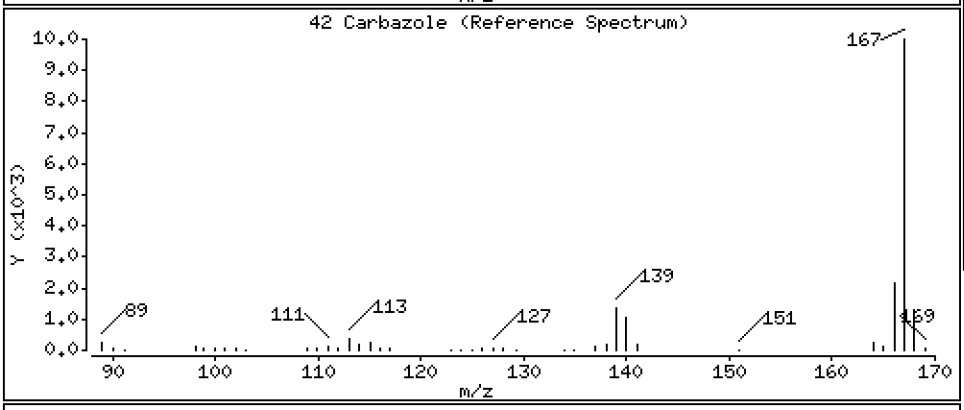
Concentration: 2.704 ug/mL

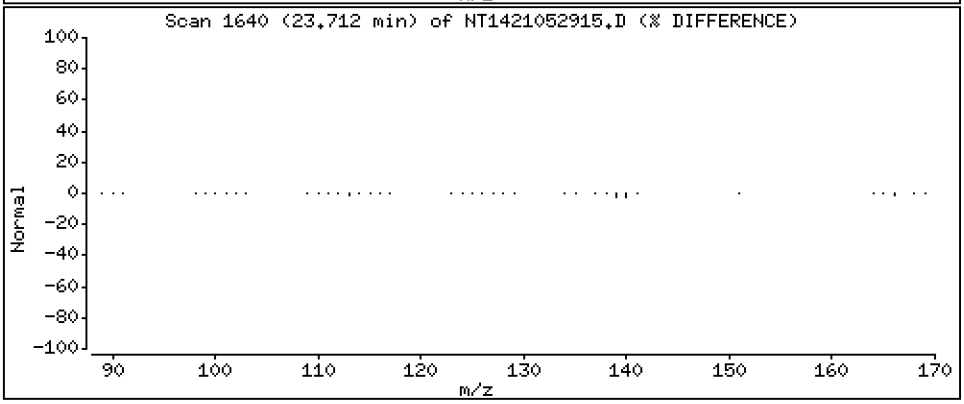












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

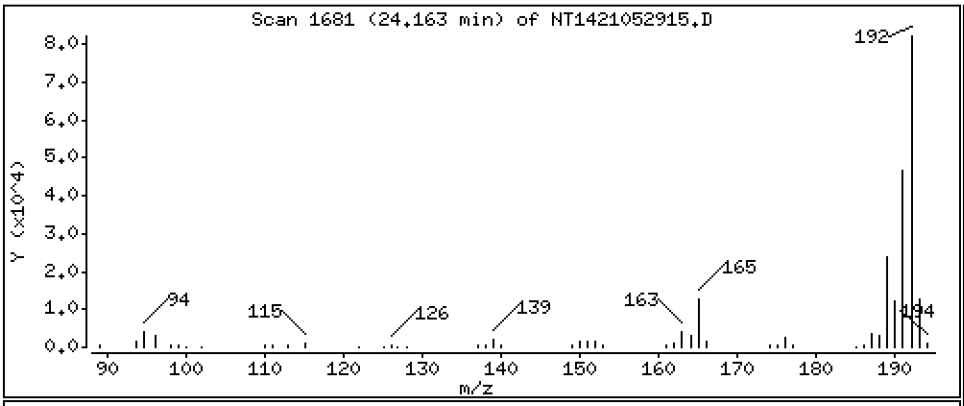
Operator: VTS

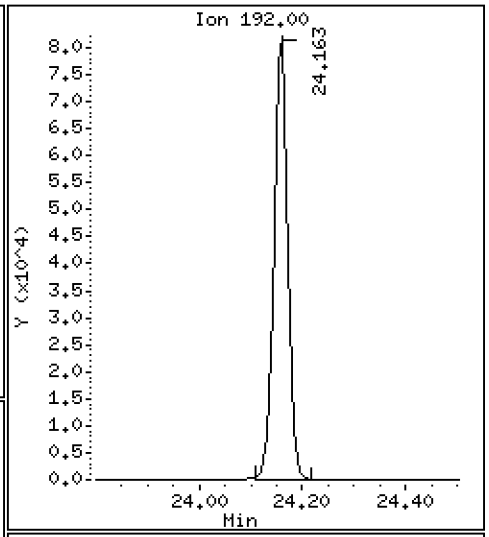
Column phase: Rxi-17Sil MS

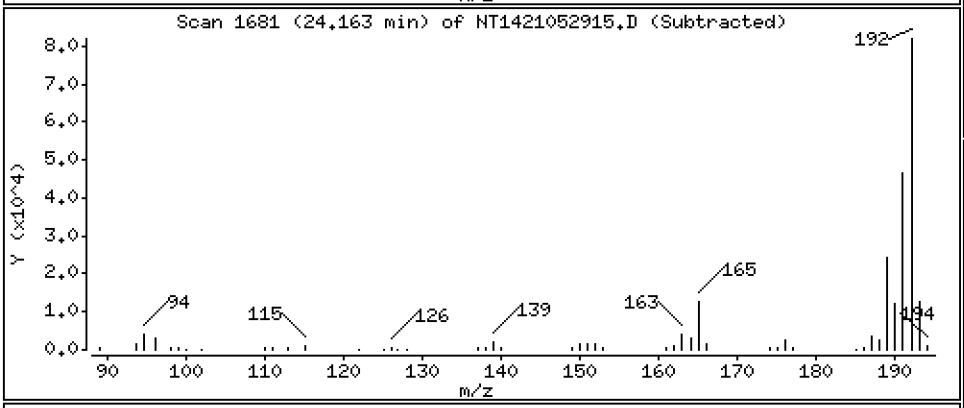
Column diameter: 0.25

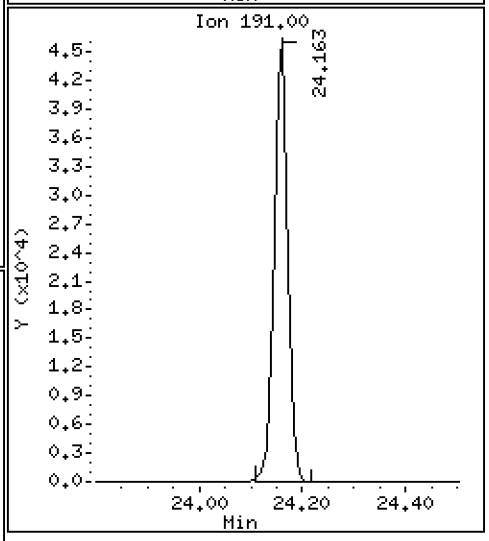
43 1-Methylphenanthrene

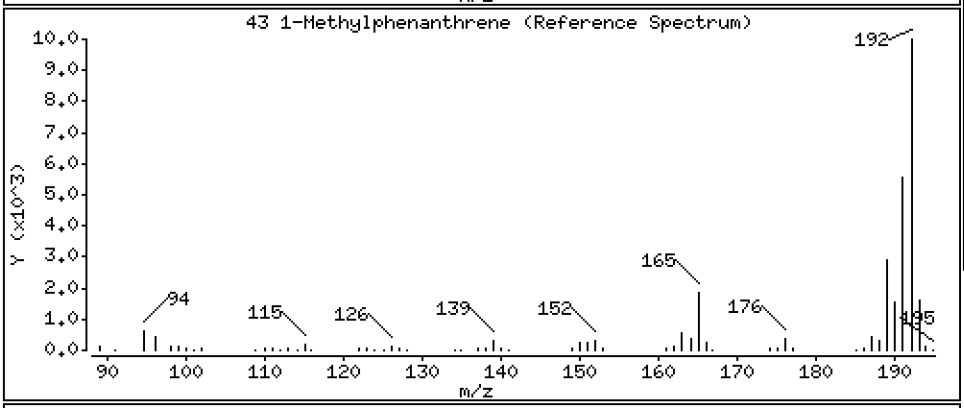
Concentration: 2.667 ug/mL

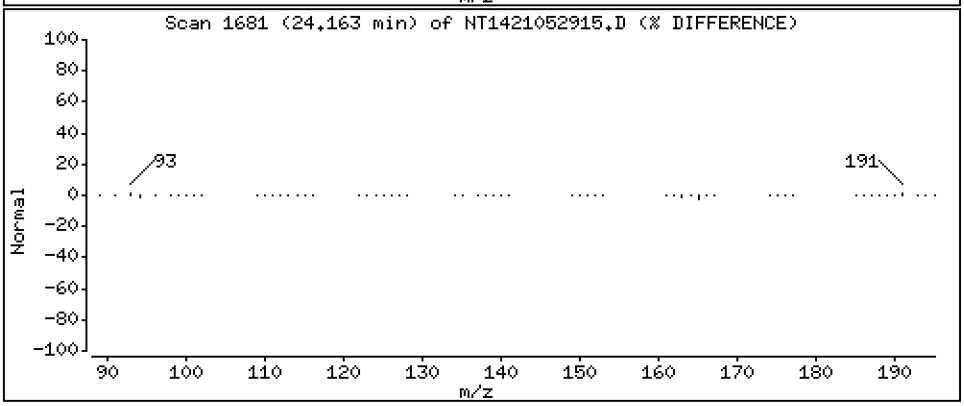












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

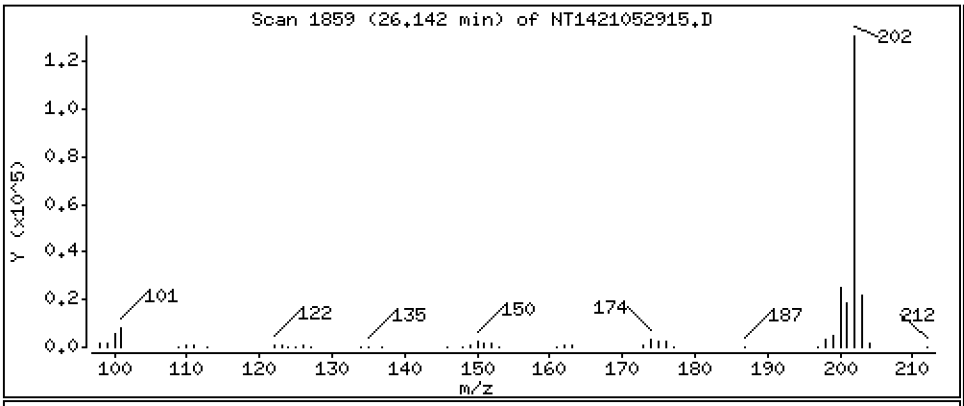
Operator: VTS

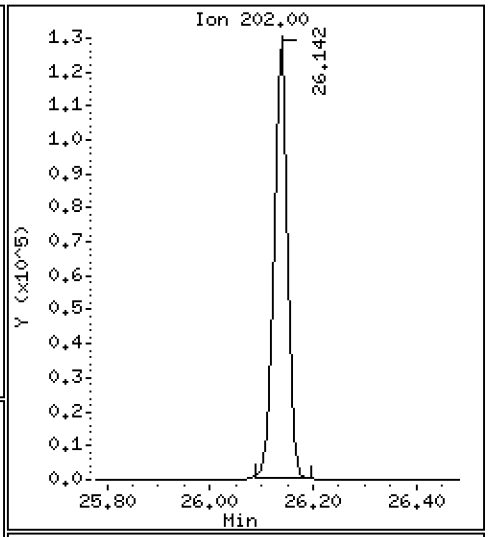
Column phase: Rxi-17Sil MS

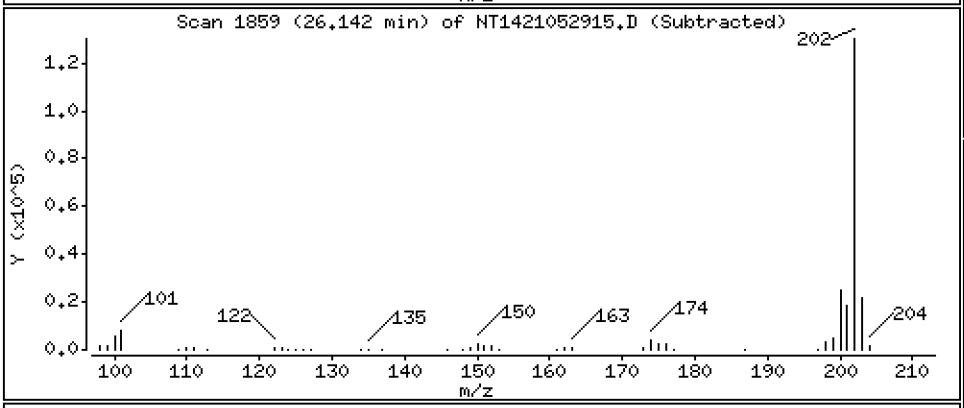
Column diameter: 0.25

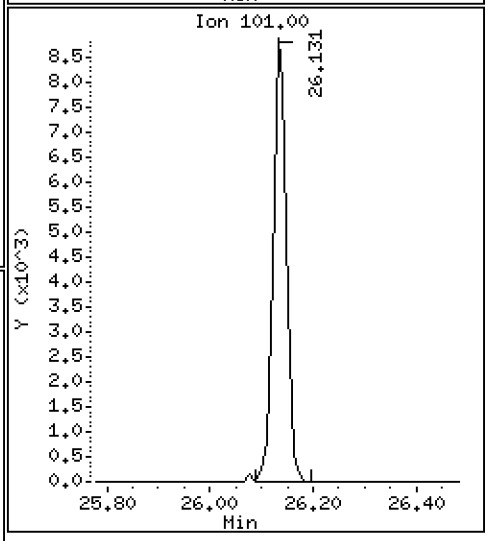
44 Fluoranthene

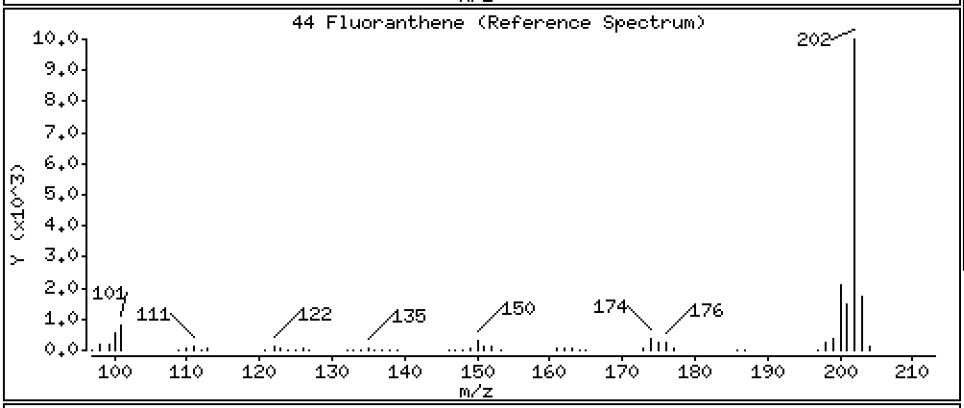
Concentration: 2.672 ug/mL

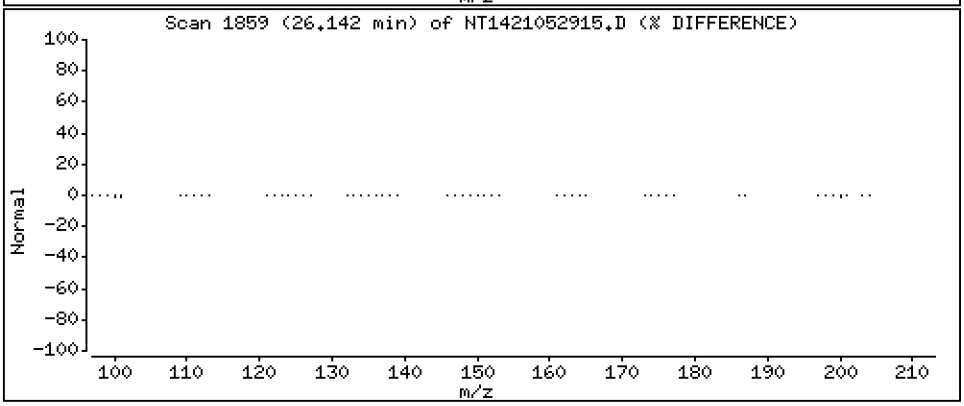












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

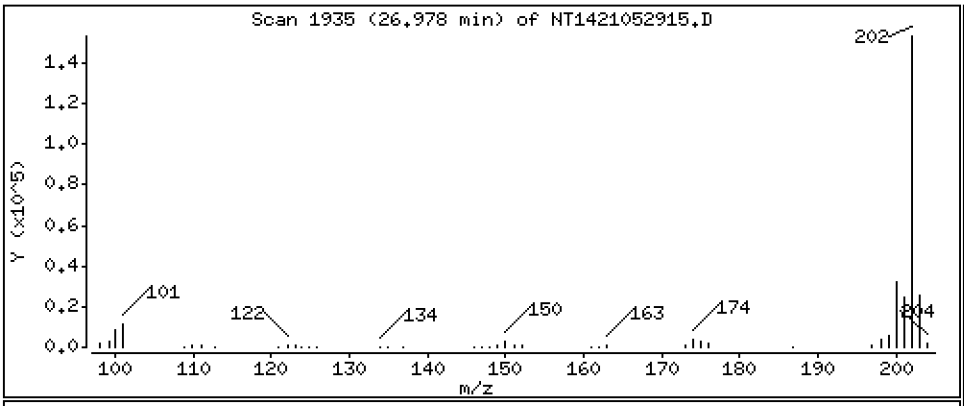
Operator: VTS

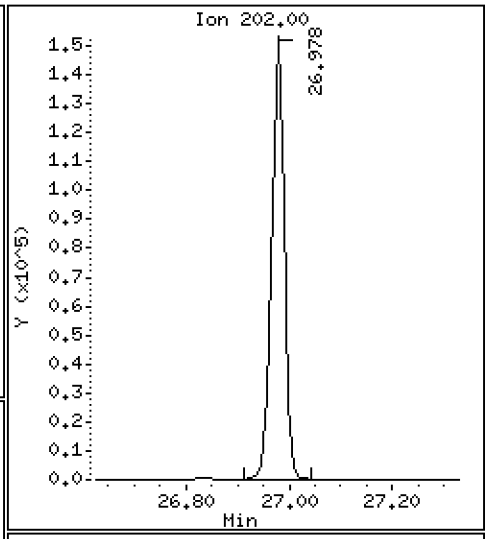
Column phase: Rxi-17Sil MS

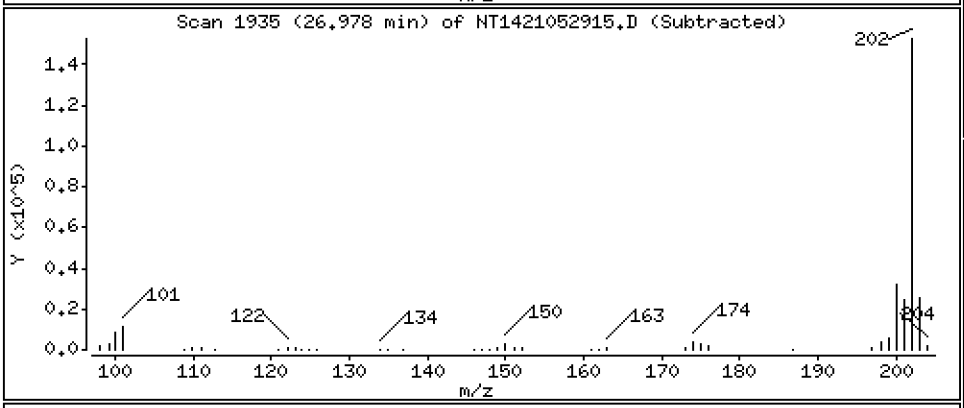
Column diameter: 0.25

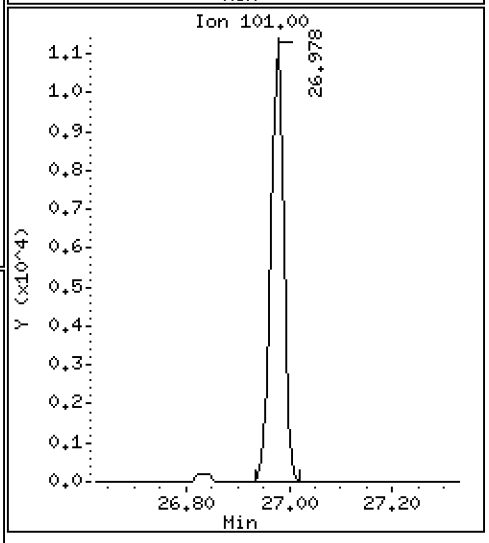
46 Pyrene

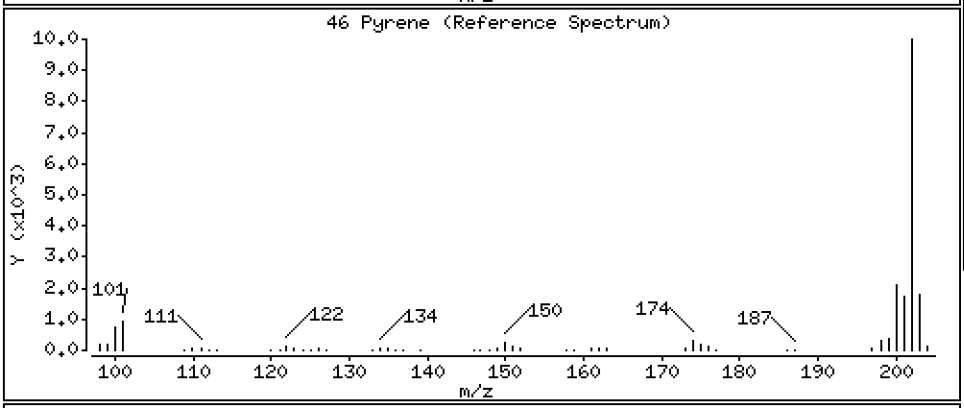
Concentration: 2.712 ug/mL

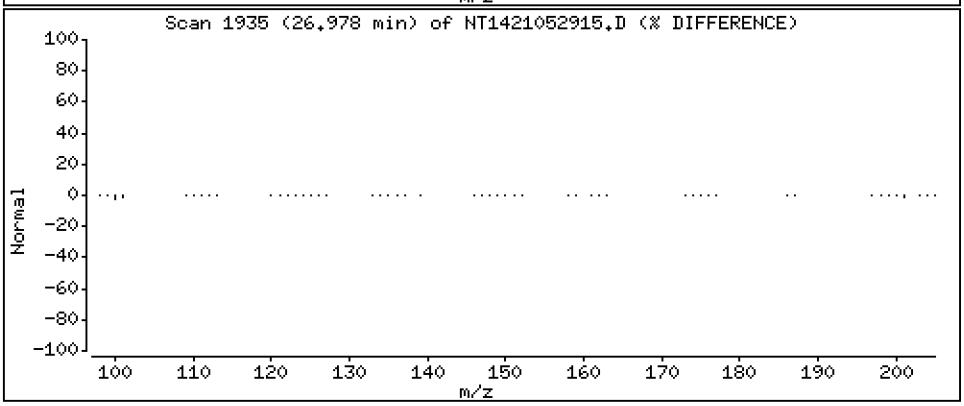












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

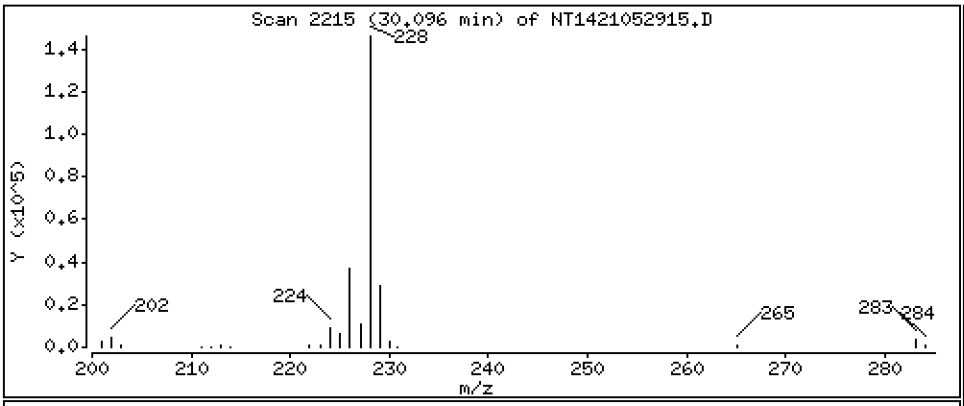
Operator: VTS

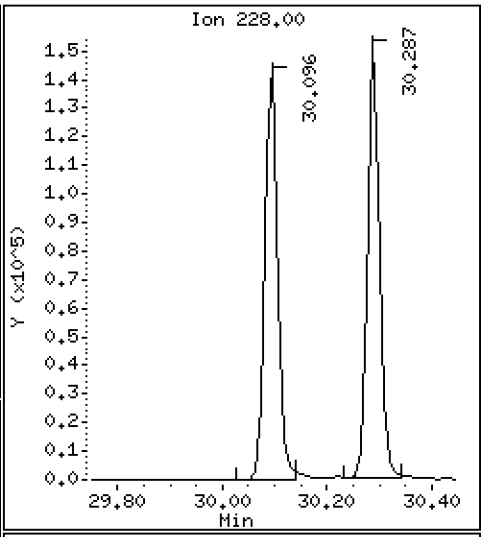
Column phase: Rxi-17Sil MS

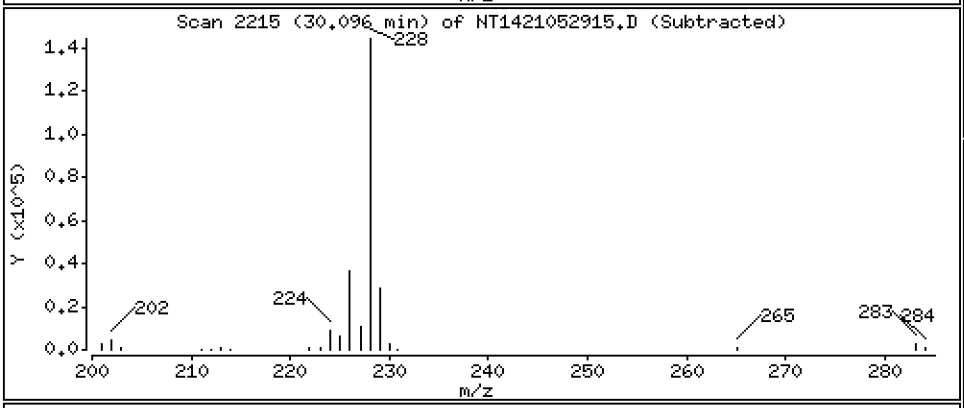
Column diameter: 0.25

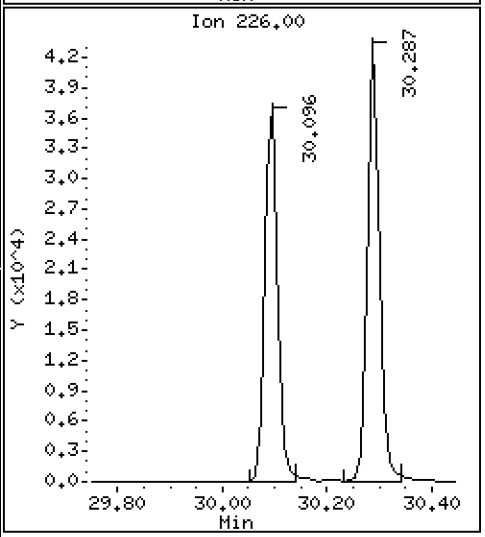
55 Benzo(a)anthracene

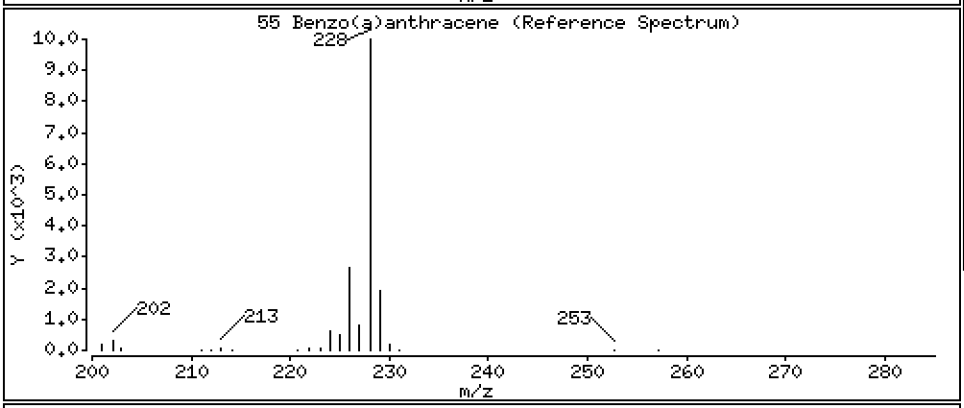
Concentration: 2.756 ug/mL

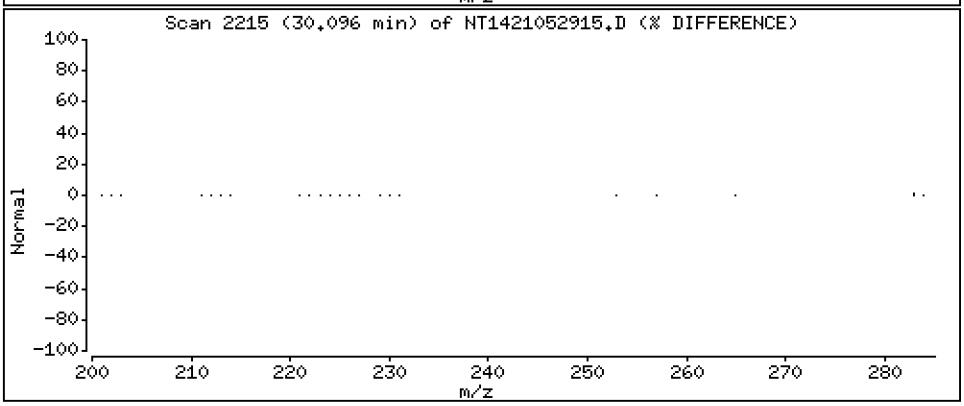












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

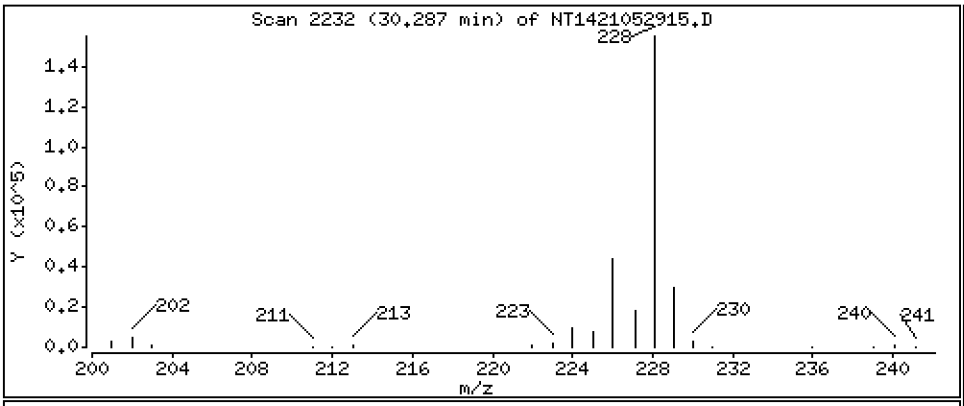
Operator: VTS

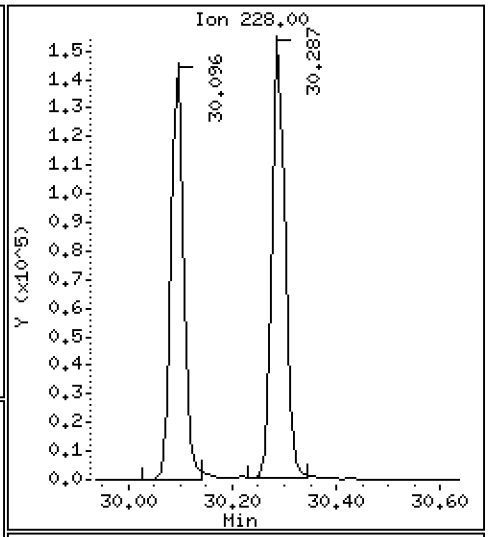
Column phase: Rxi-17Sil MS

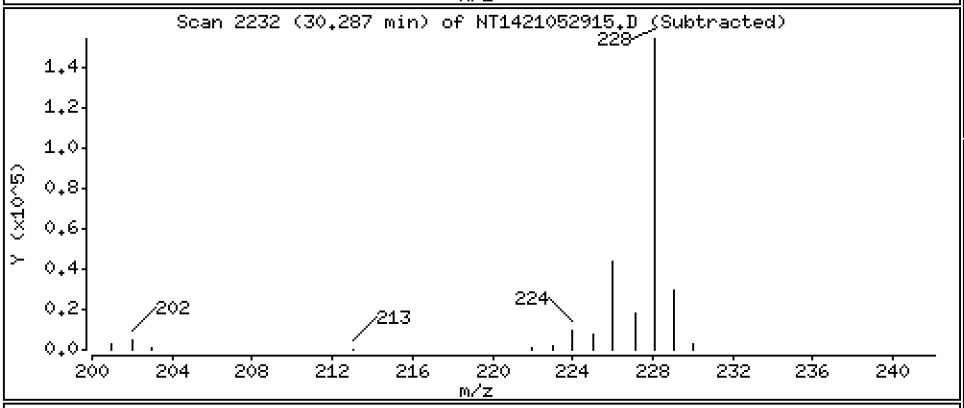
Column diameter: 0.25

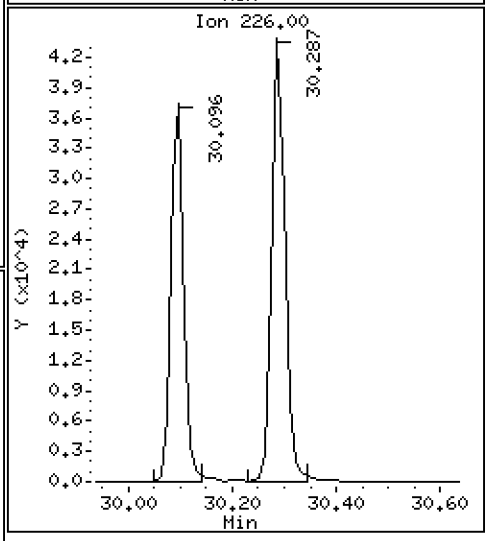
57 Chrysene

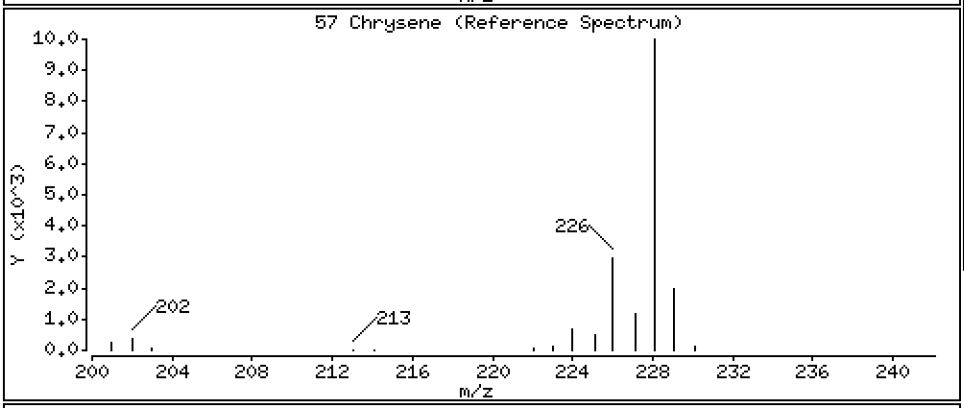
Concentration: 2.770 ug/mL

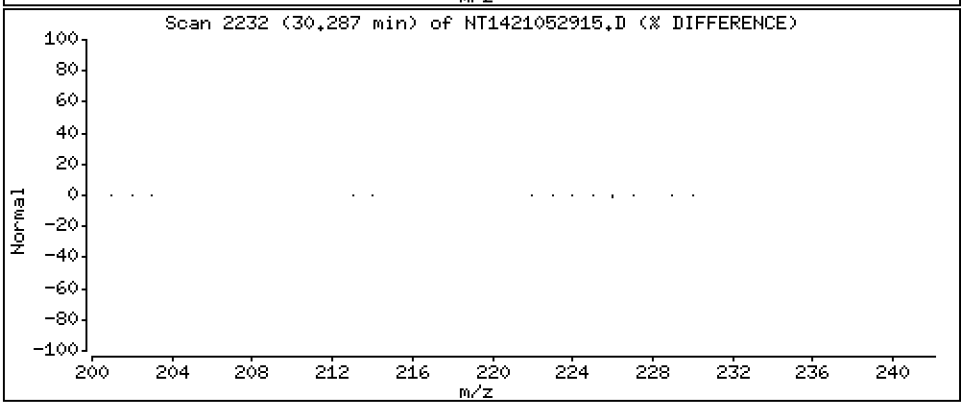












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

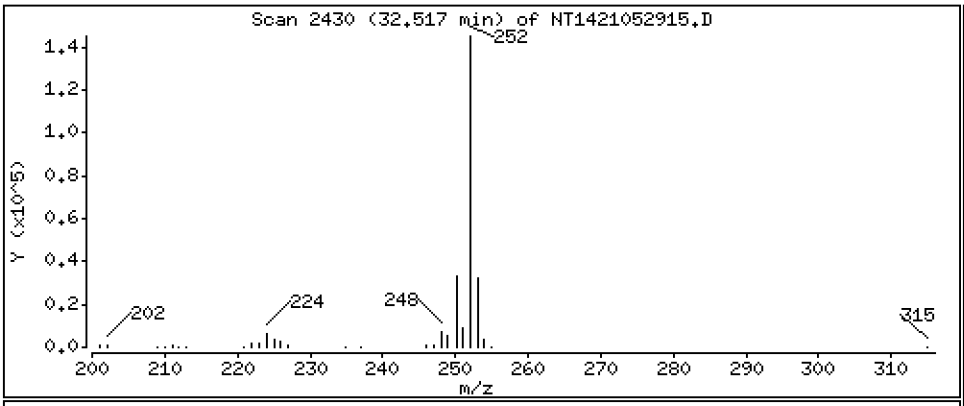
Operator: VTS

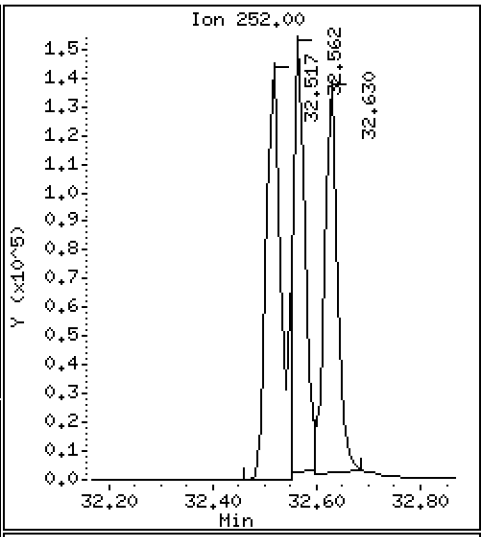
Column phase: Rxi-17Sil MS

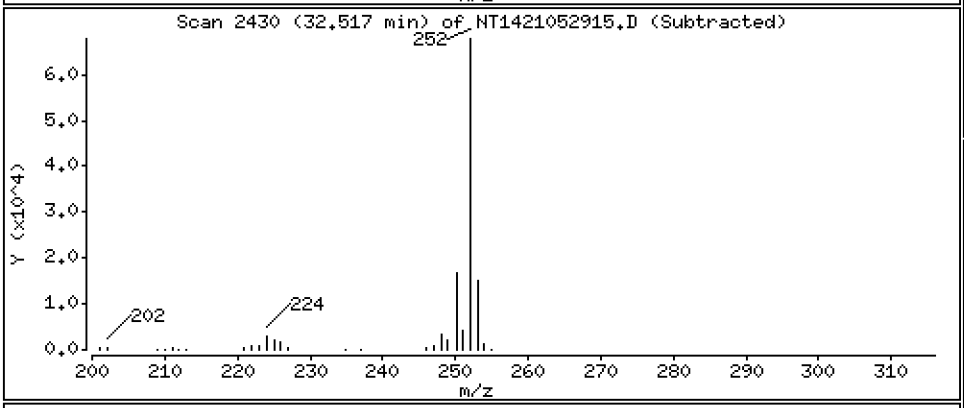
Column diameter: 0.25

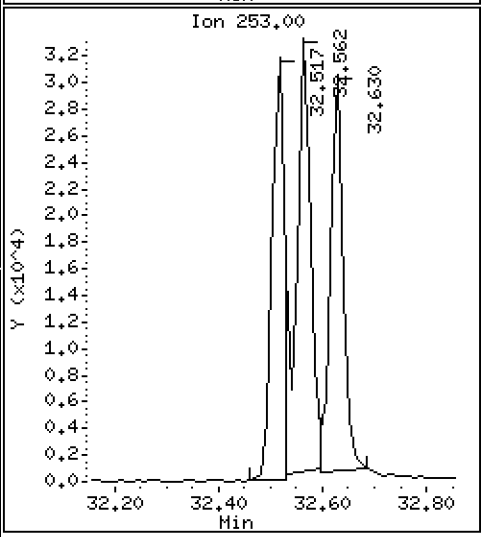
62 Benzo(b)fluoranthene

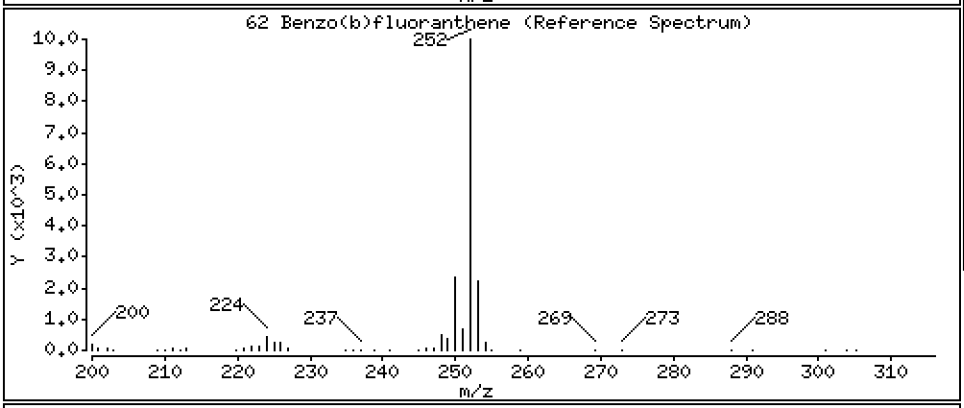
Concentration: 3.119 ug/mL

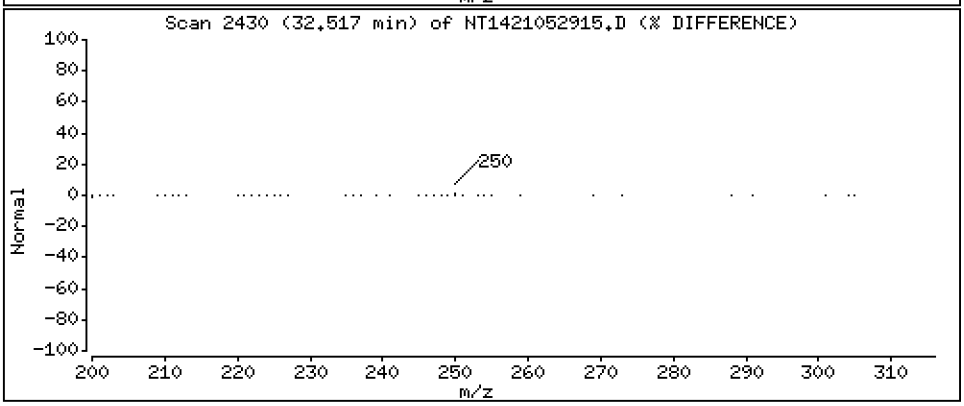












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

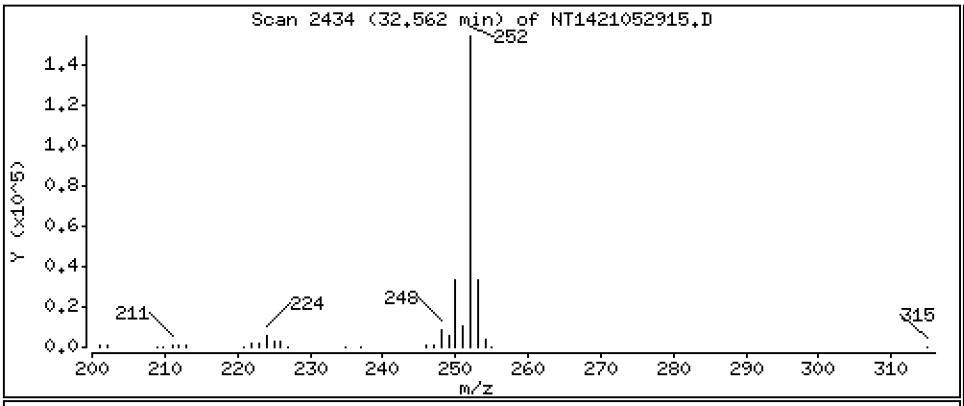
Operator: VTS

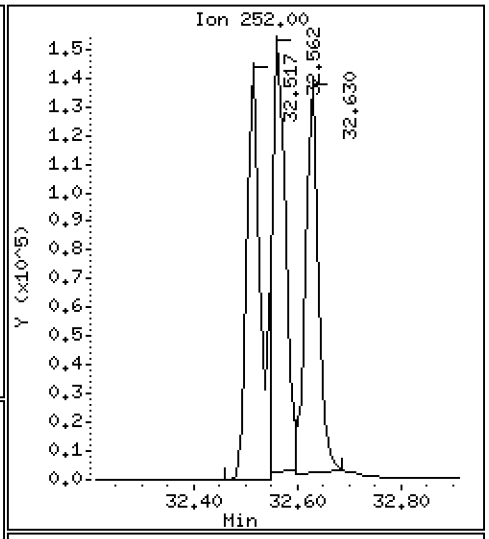
Column phase: Rxi-17Sil MS

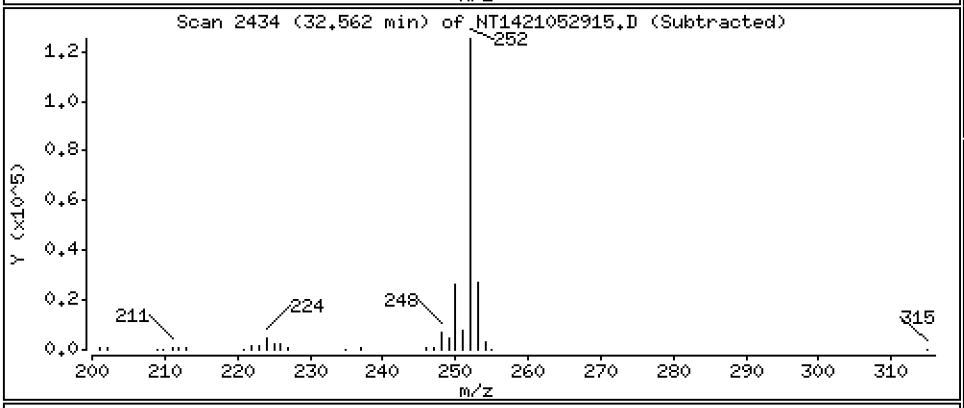
Column diameter: 0.25

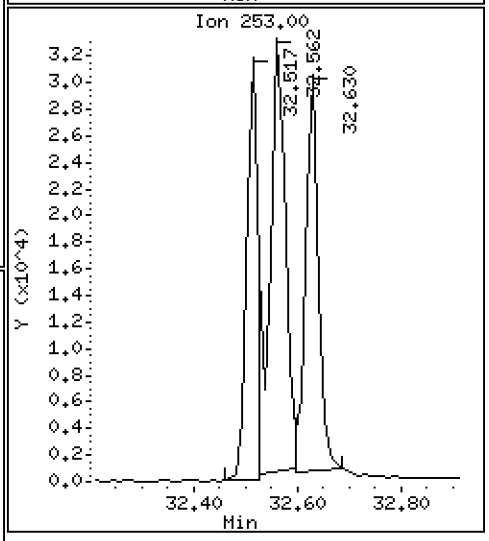
63 Benzo(k)fluoranthene

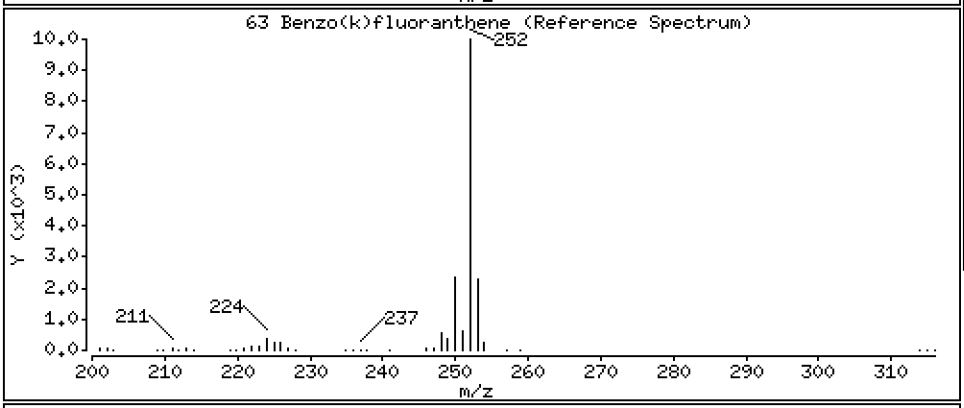
Concentration: 2.487 ug/mL

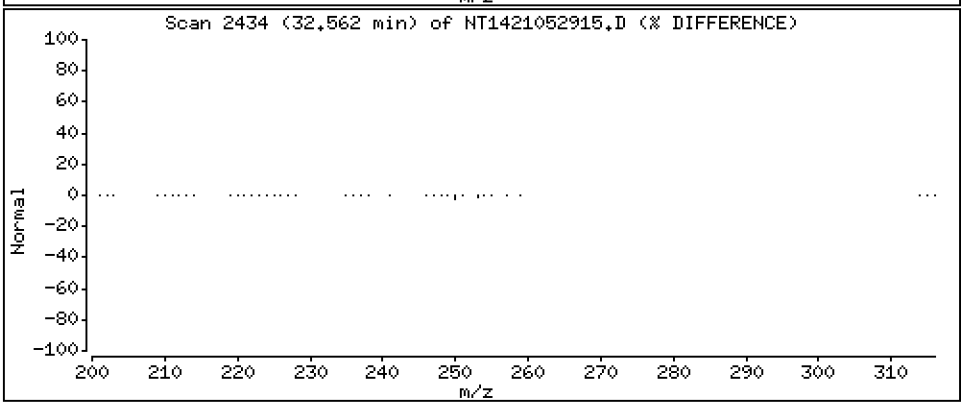












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

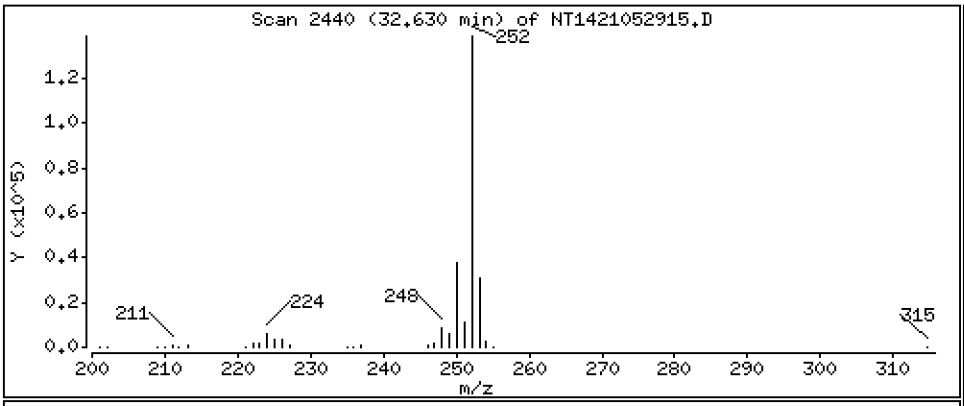
Operator: VTS

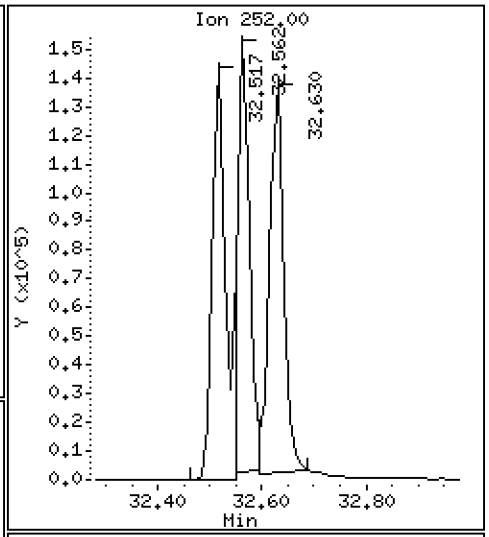
Column phase: Rxi-17Sil MS

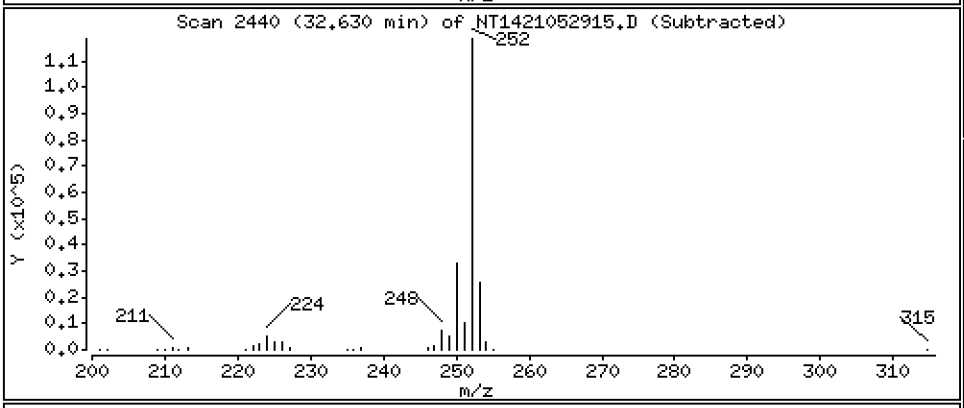
Column diameter: 0.25

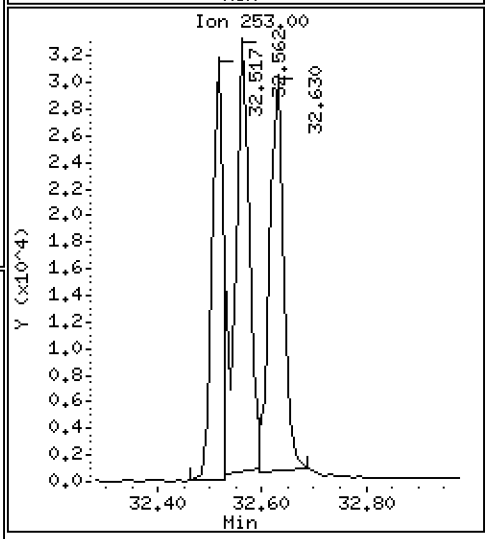
293 Benzo(j)fluoranthene

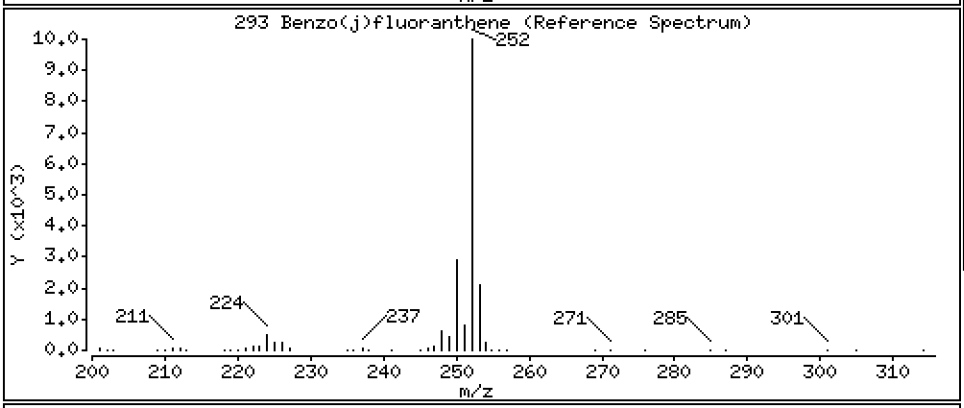
Concentration: 2.590 ug/mL

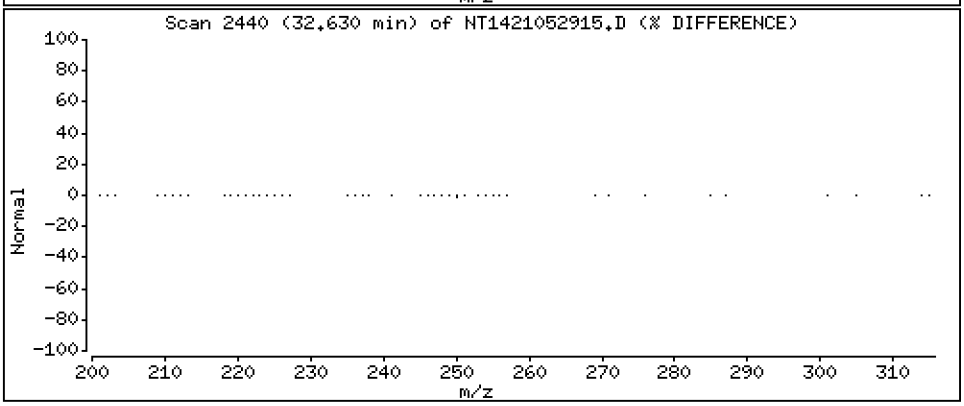












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

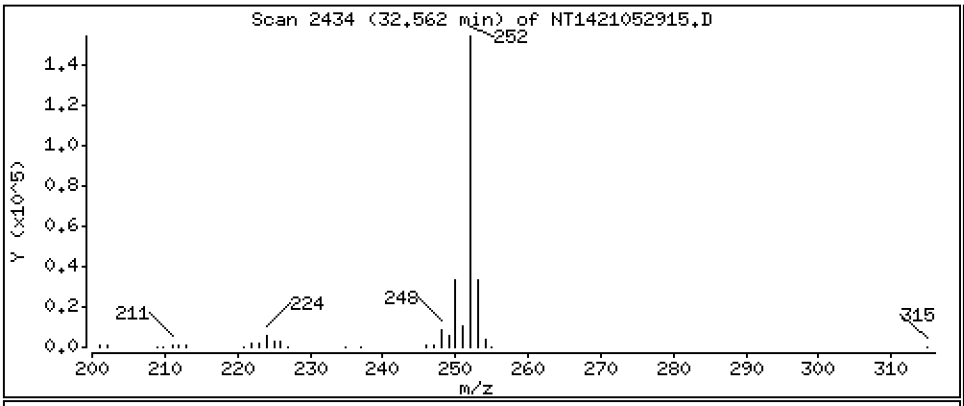
Operator: VTS

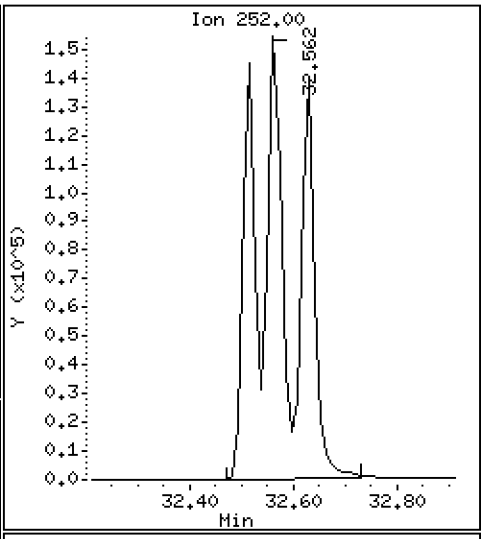
Column phase: Rxi-17Sil MS

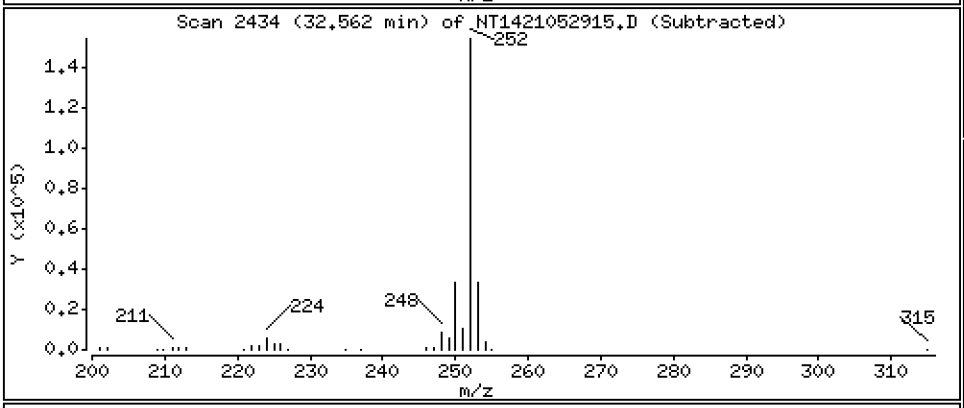
Column diameter: 0.25

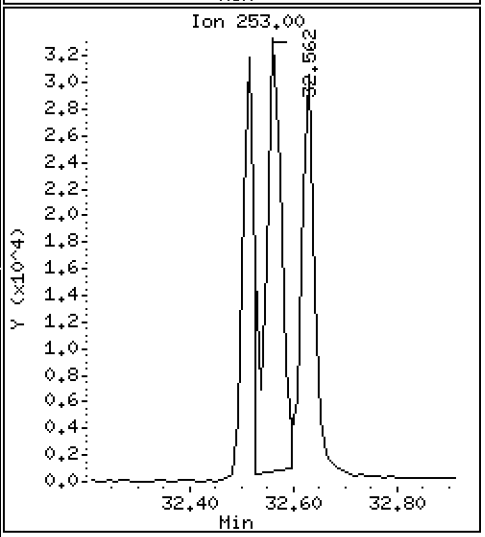
246 Total Benzofluoranthenes

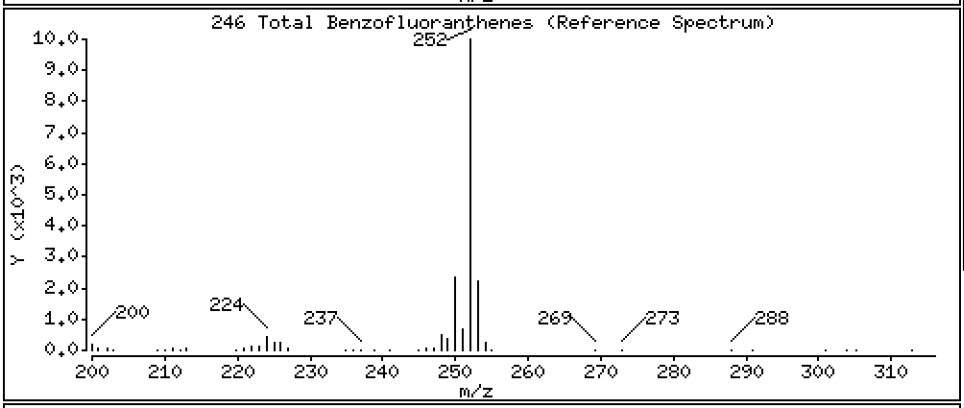
Concentration: 8.191 ug/mL

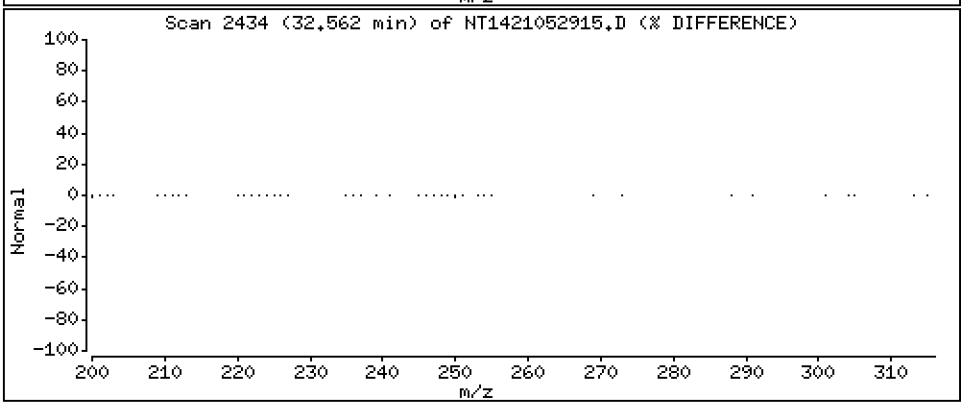












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

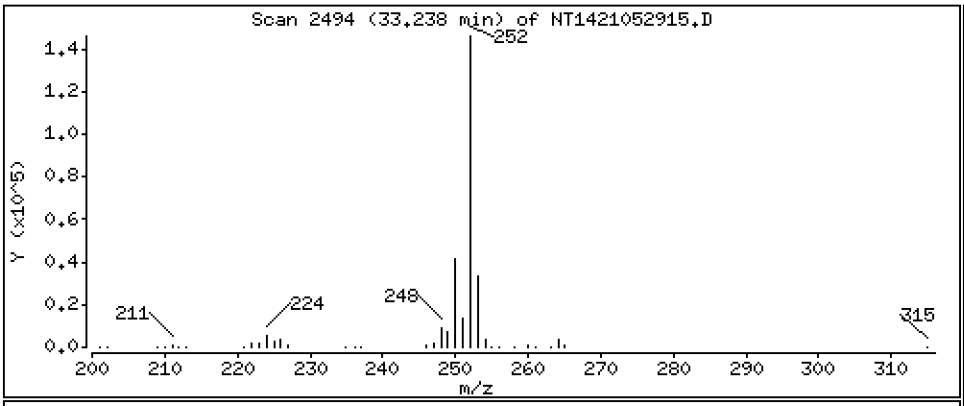
Operator: VTS

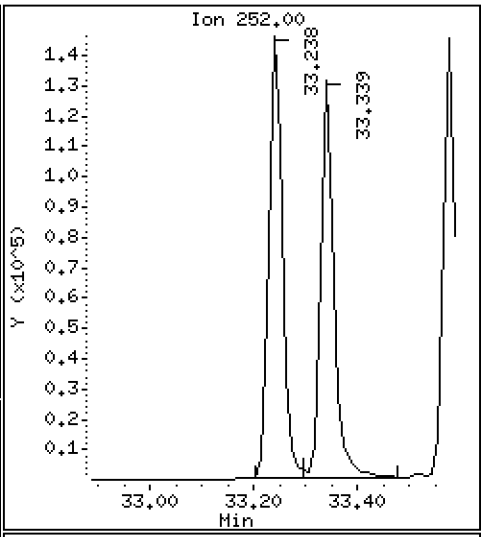
Column phase: Rxi-17Sil MS

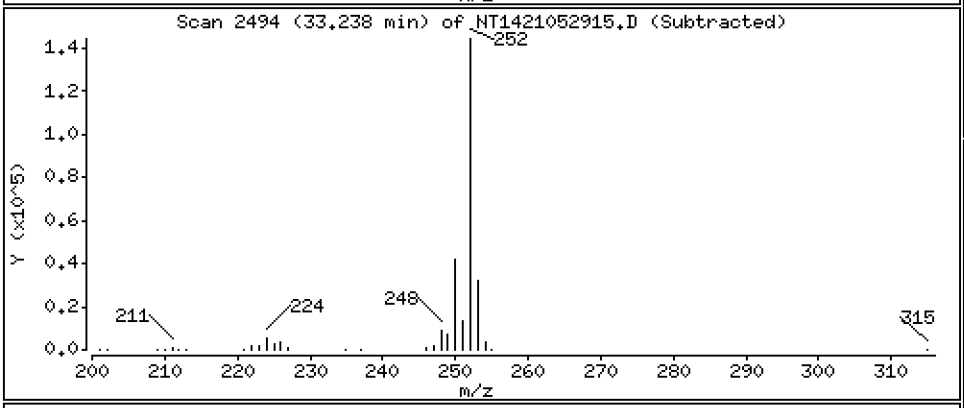
Column diameter: 0.25

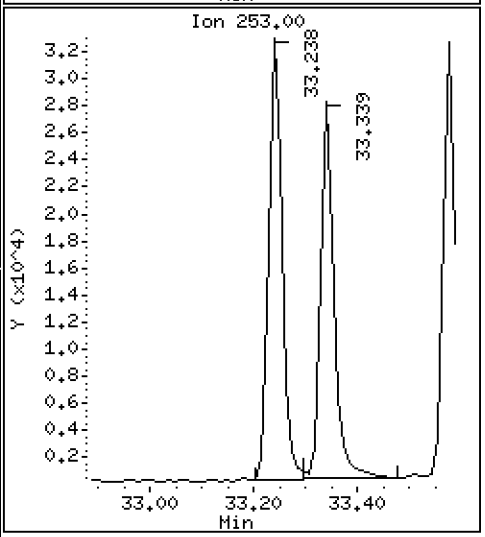
64 Benzo(e)pyrene

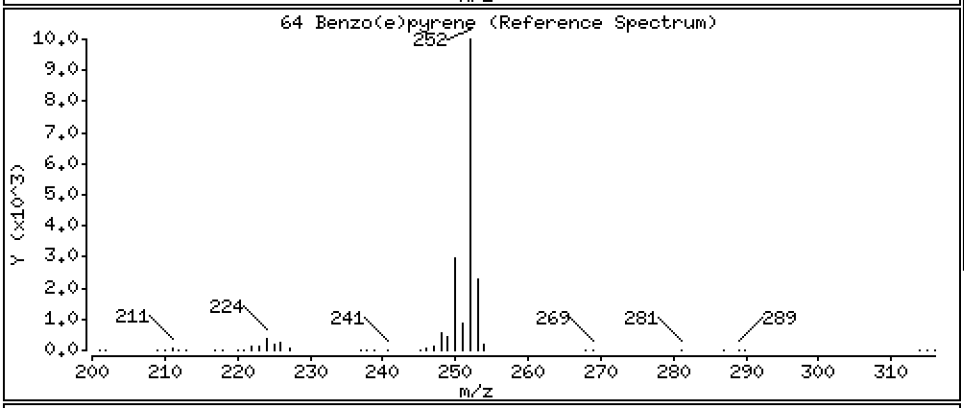
Concentration: 2.669 ug/mL

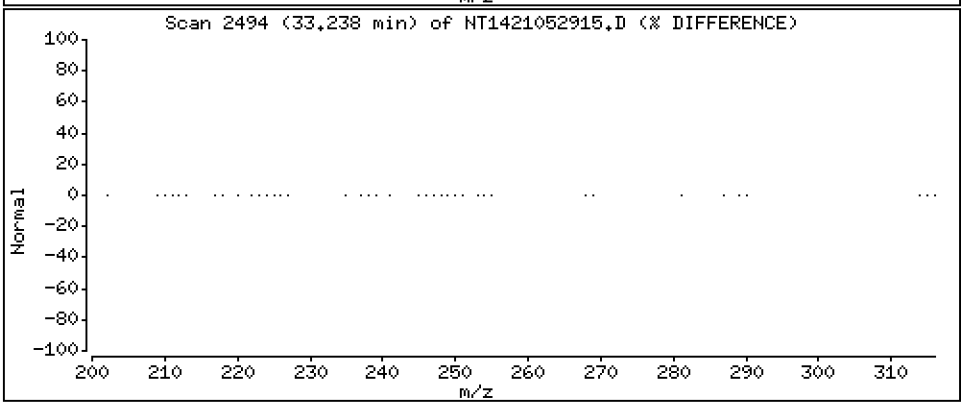












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

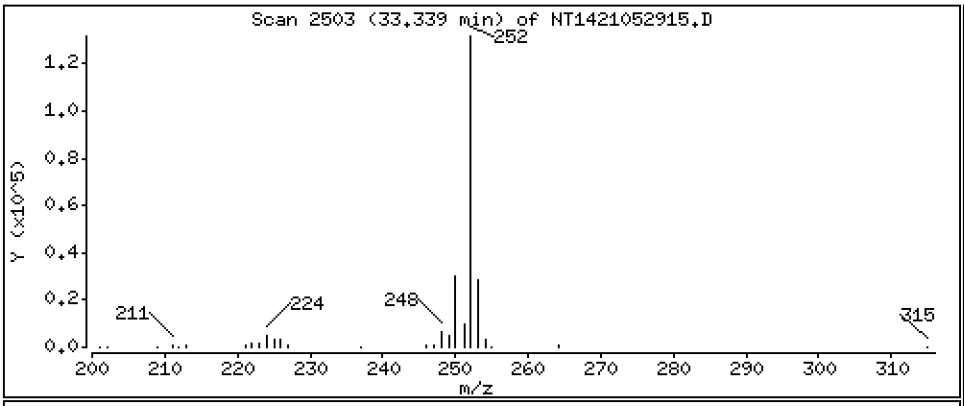
Operator: VTS

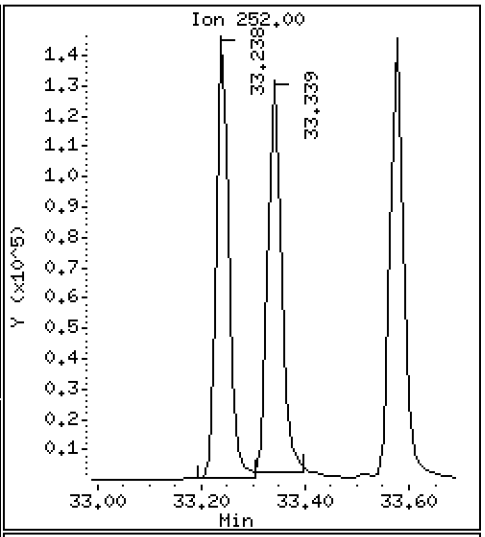
Column phase: Rxi-17Sil MS

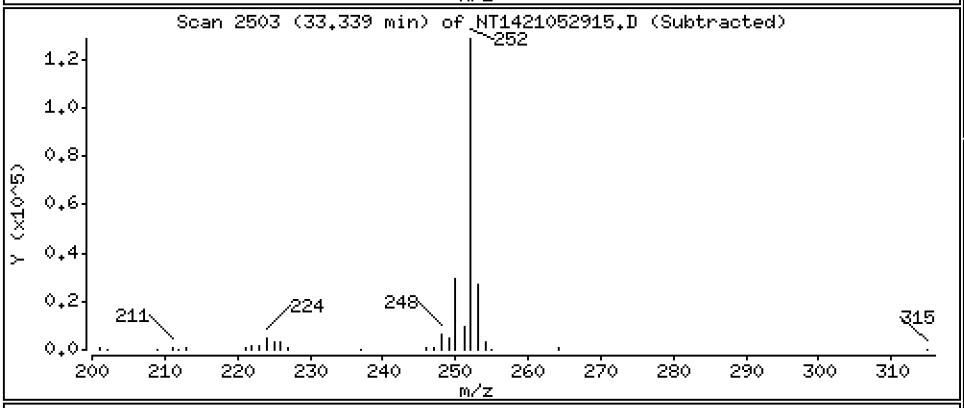
Column diameter: 0.25

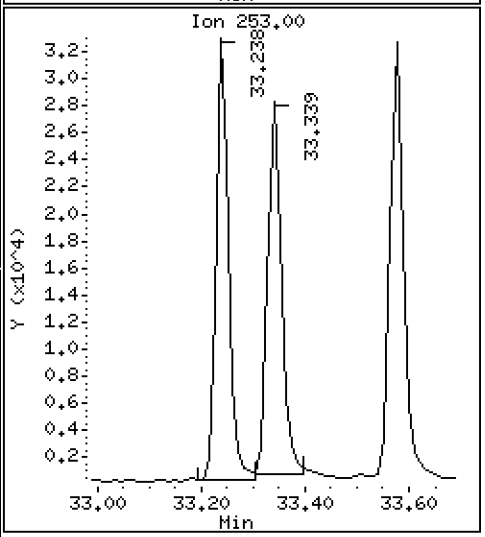
66 Benzo(a)pyrene

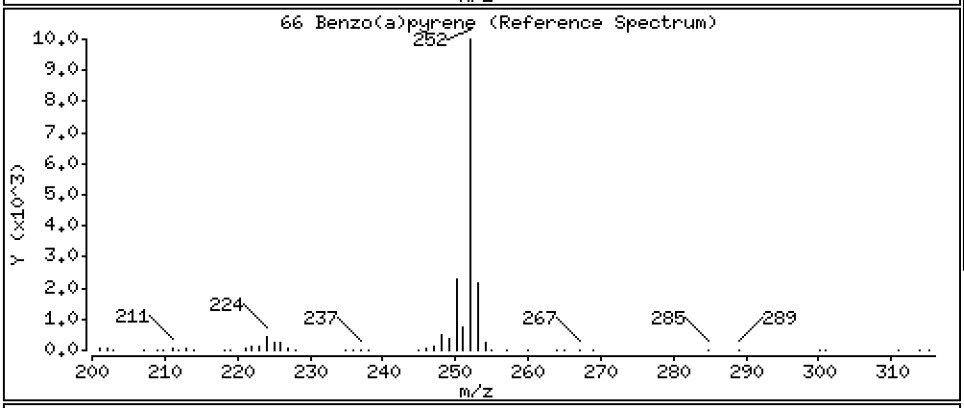
Concentration: 2.621 ug/mL

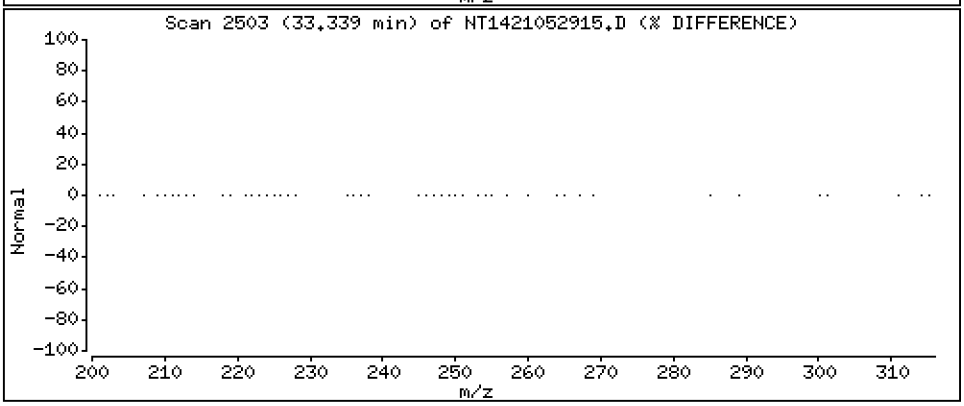












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

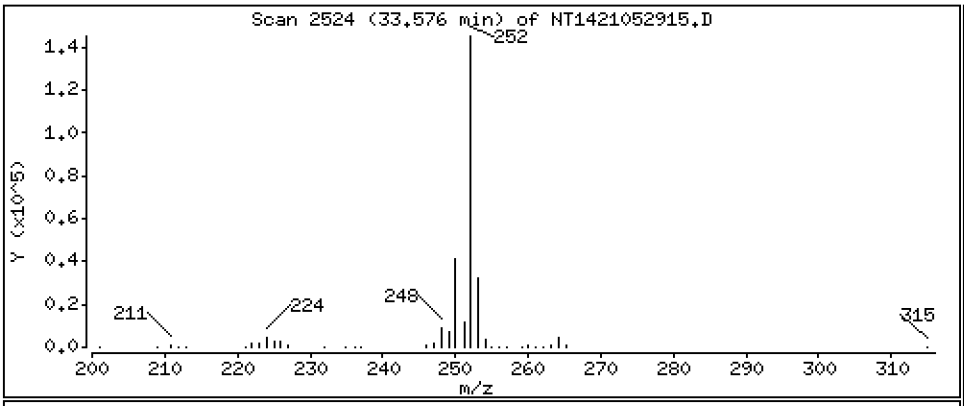
Operator: VTS

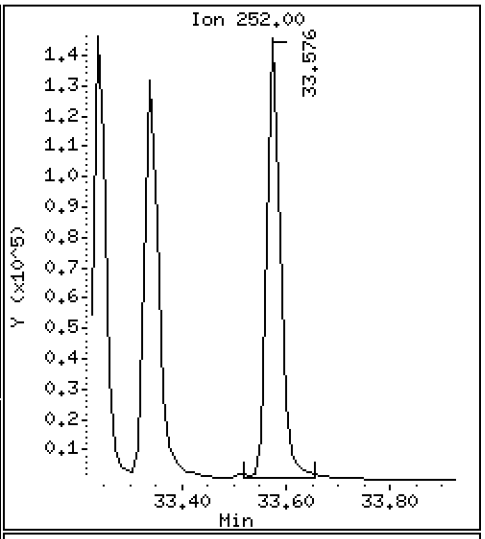
Column phase: Rxi-17Sil MS

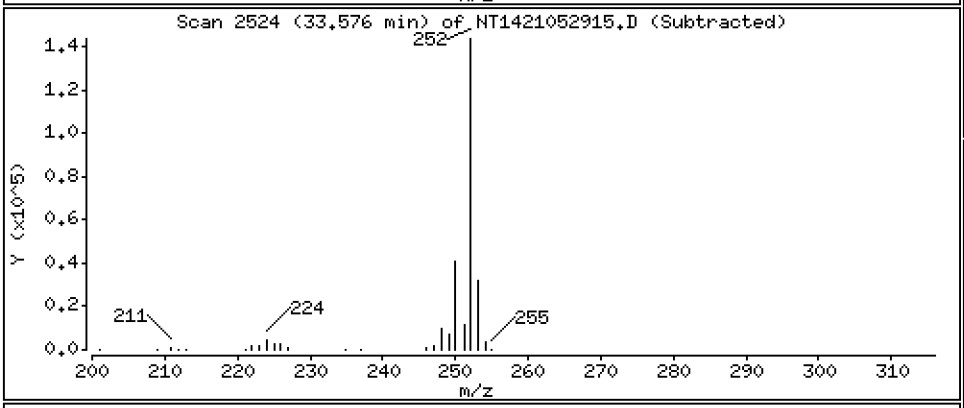
Column diameter: 0.25

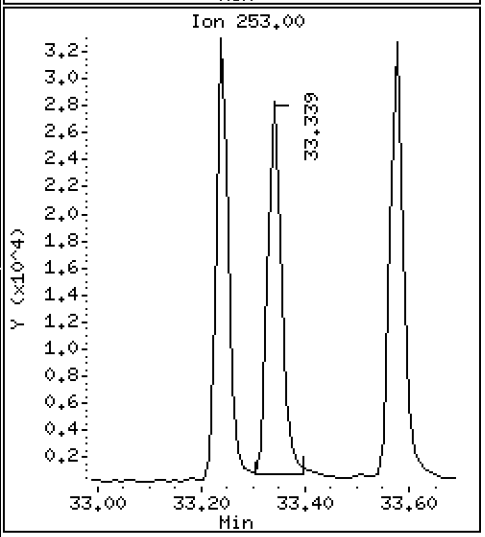
68 Perylene

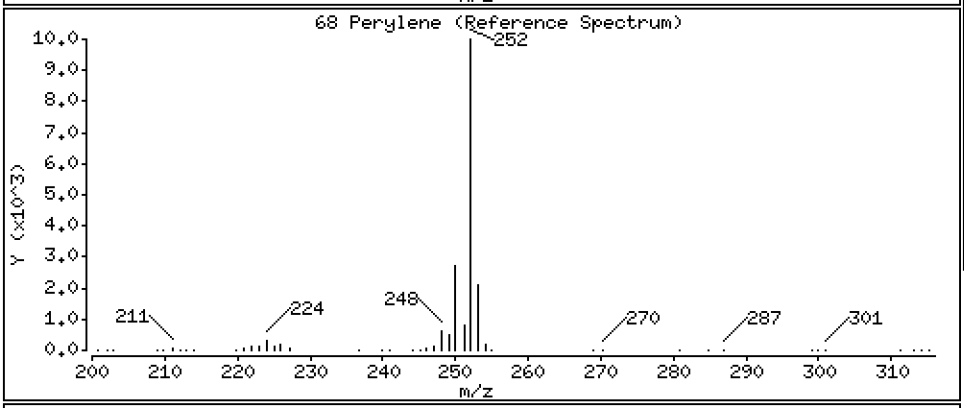
Concentration: 2.820 ug/mL

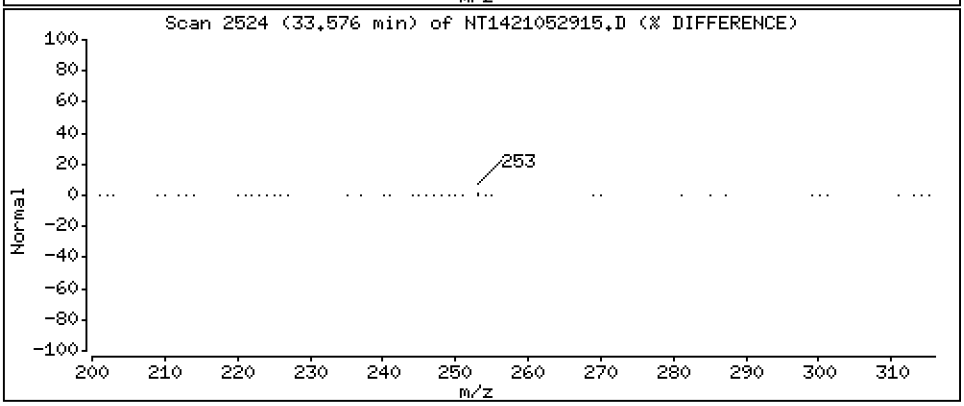












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

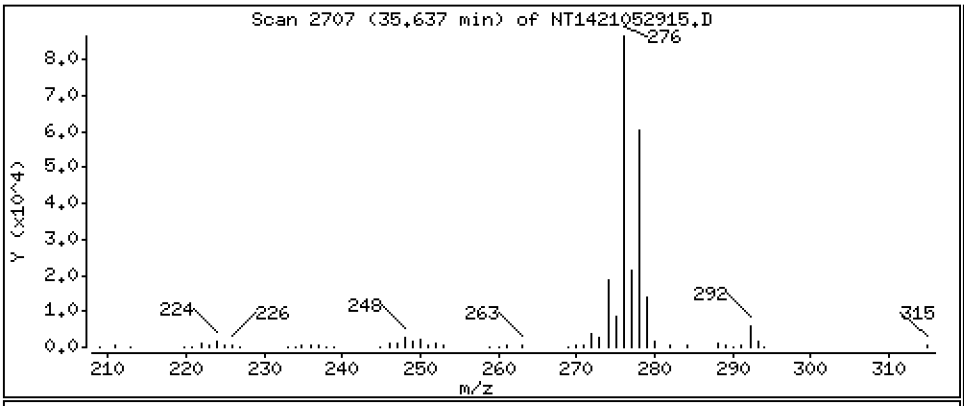
Operator: VTS

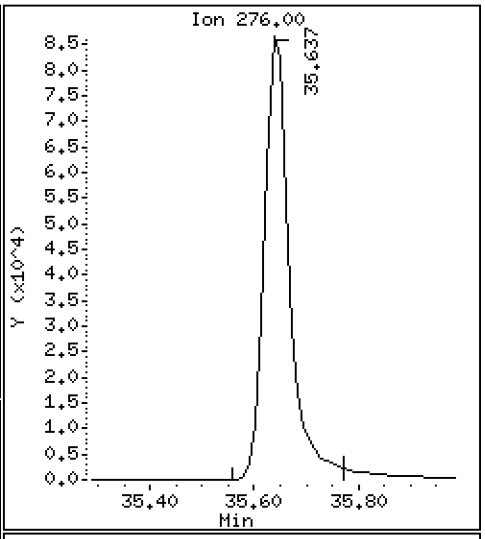
Column phase: Rxi-17Sil MS

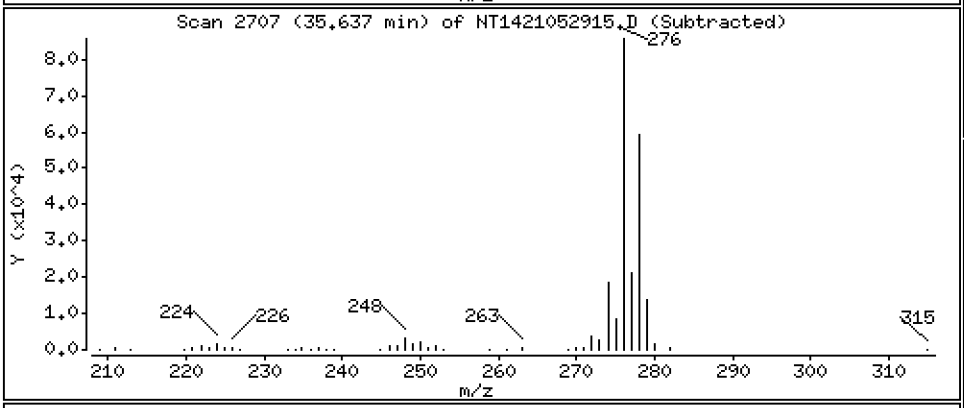
Column diameter: 0.25

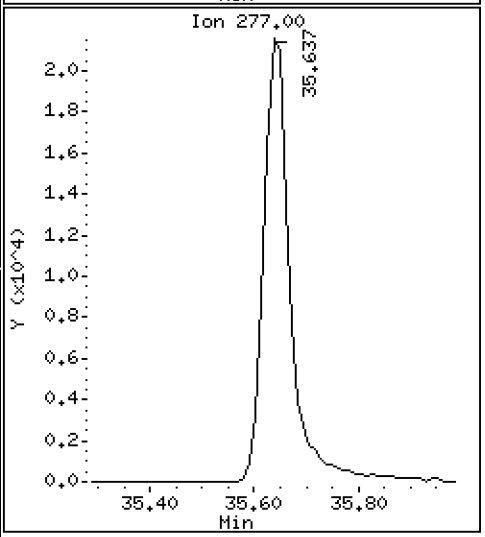
69 Indeno(1,2,3-cd)pyrene

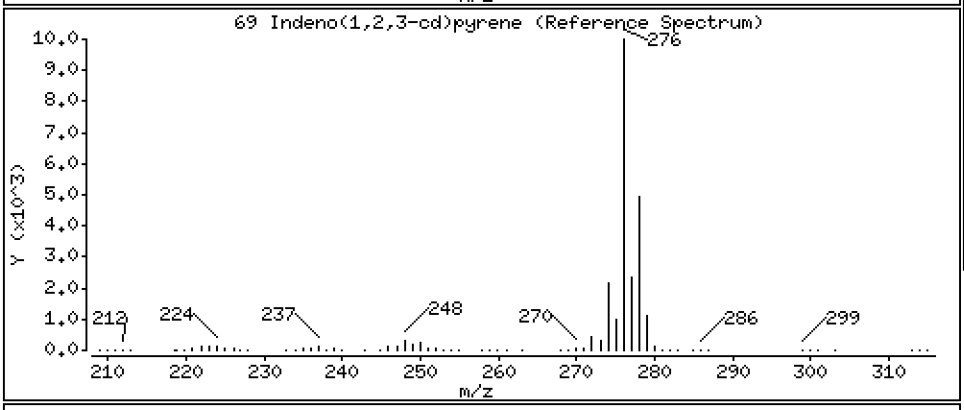
Concentration: 2.913 ug/mL

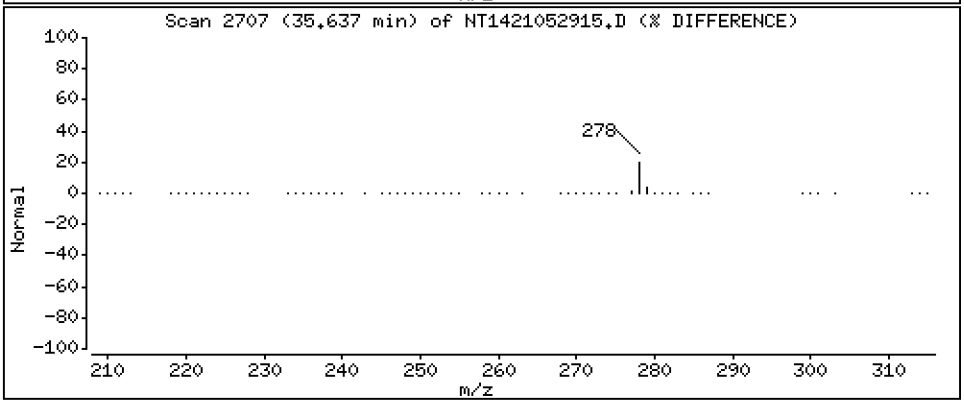












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

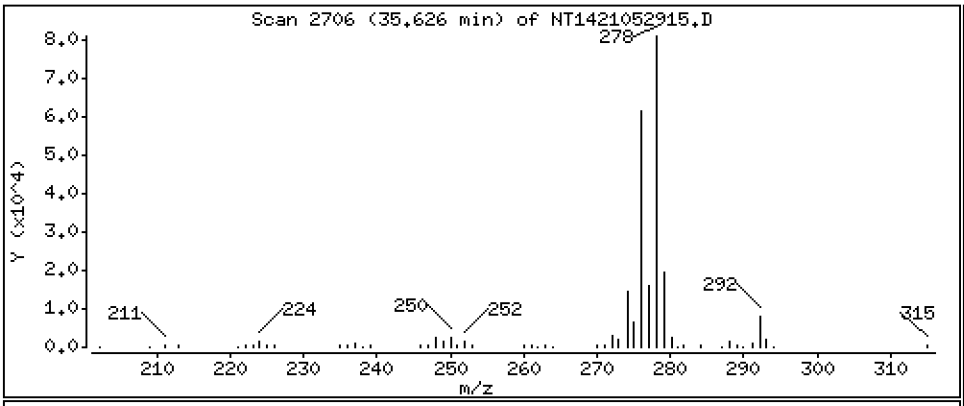
Operator: VTS

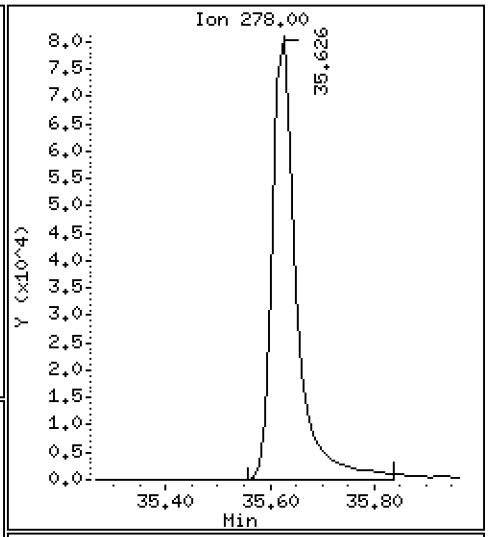
Column phase: Rxi-17Sil MS

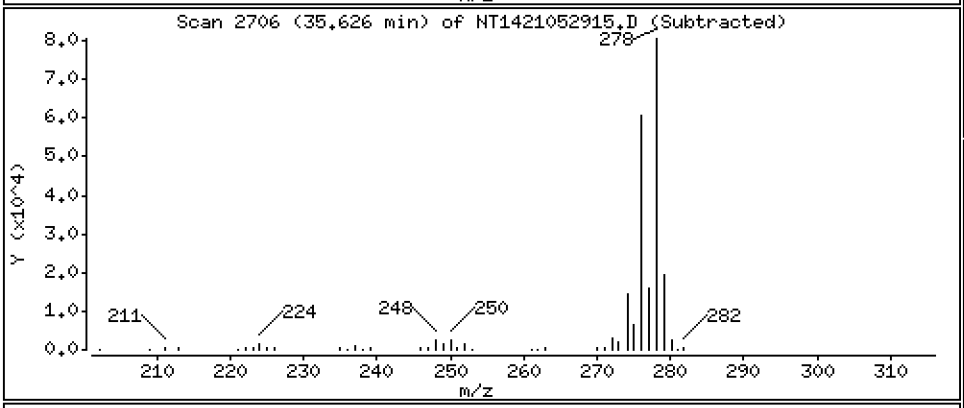
Column diameter: 0.25

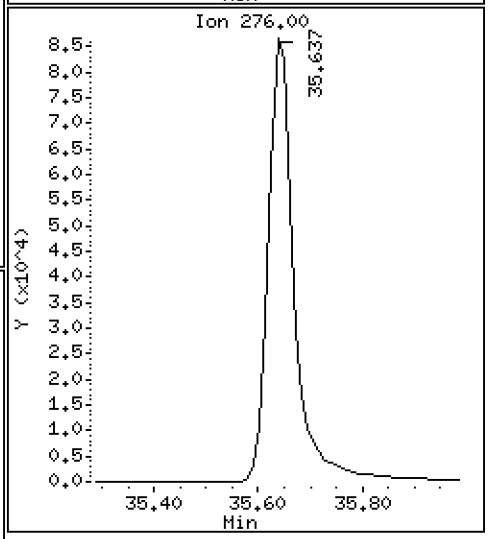
70 Dibenzo(a,h)anthracene

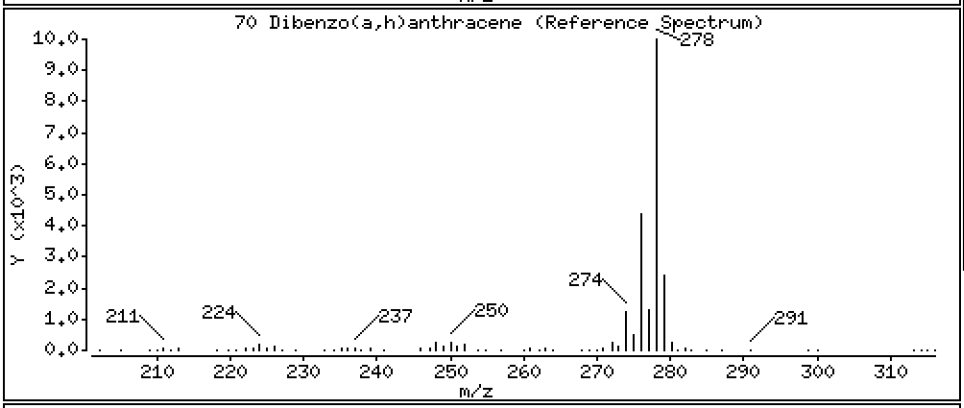
Concentration: 2.690 ug/mL

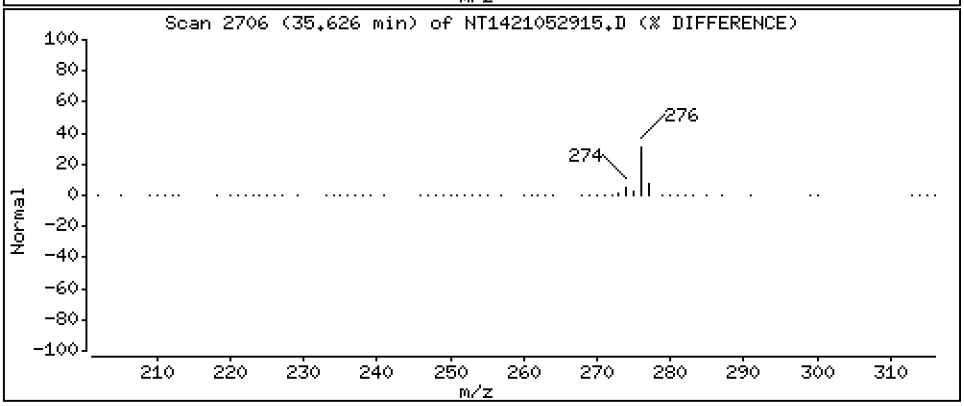












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

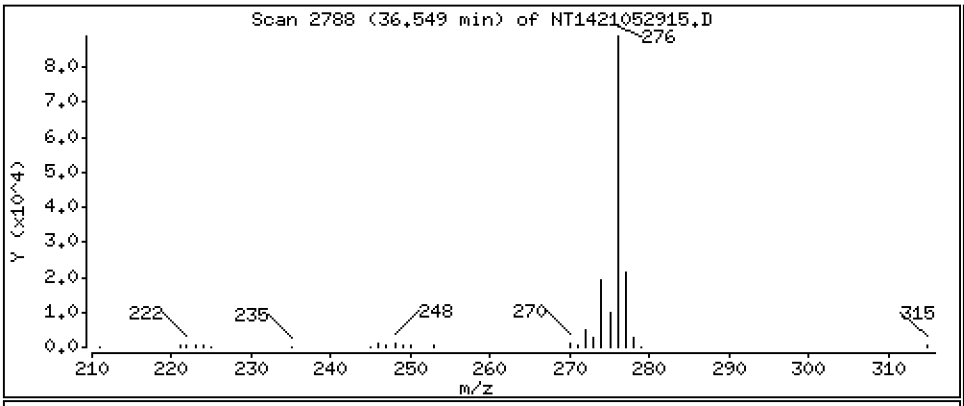
Operator: VTS

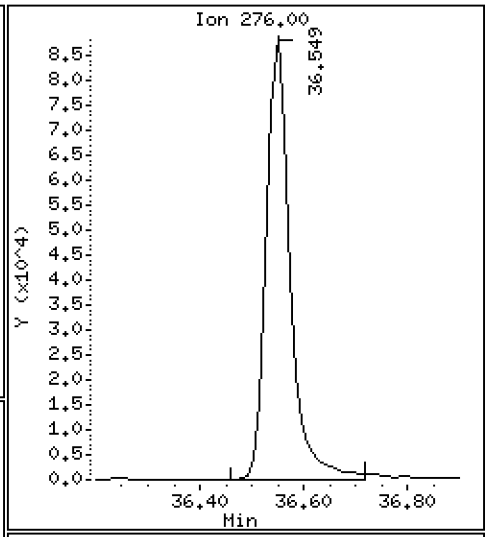
Column phase: Rxi-17Sil MS

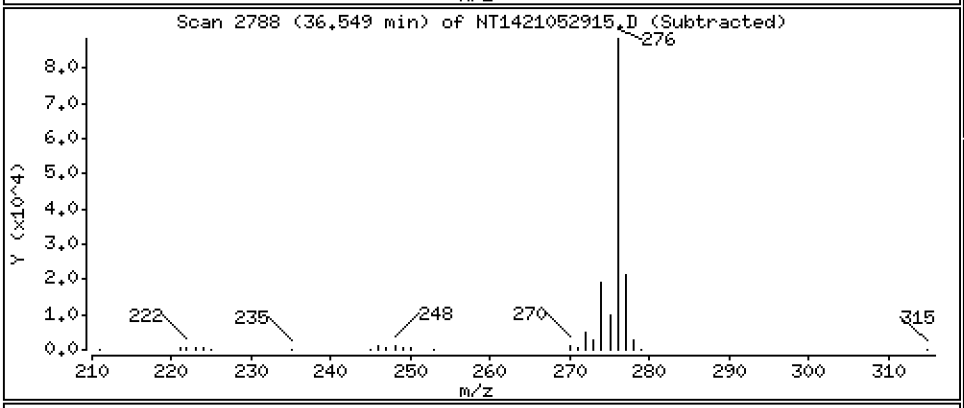
Column diameter: 0.25

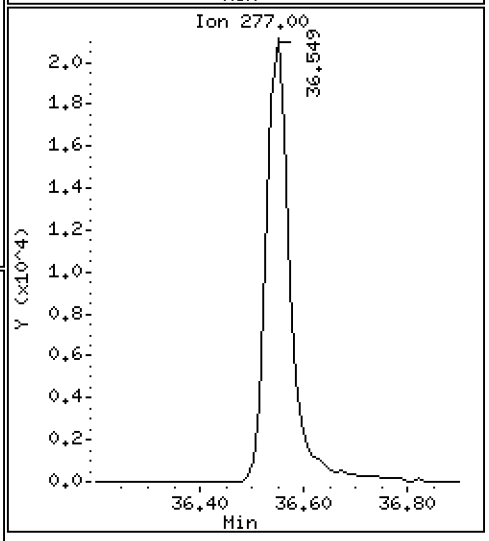
74 Benzo(g,h,i)perylene

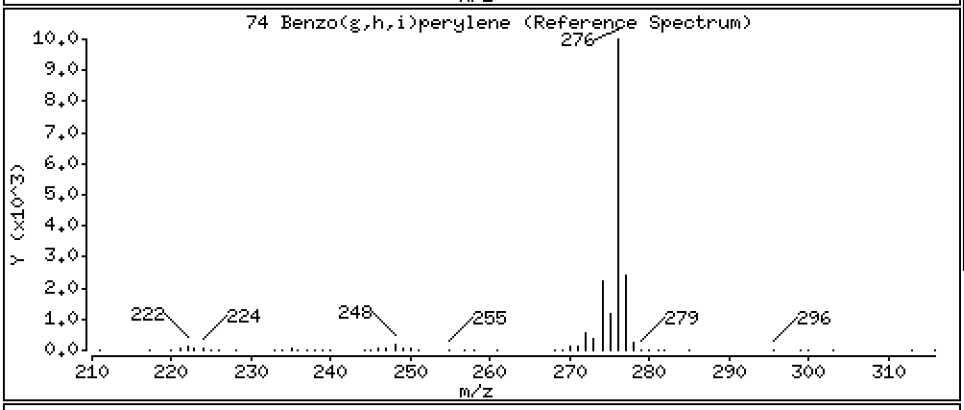
Concentration: 2.781 ug/mL

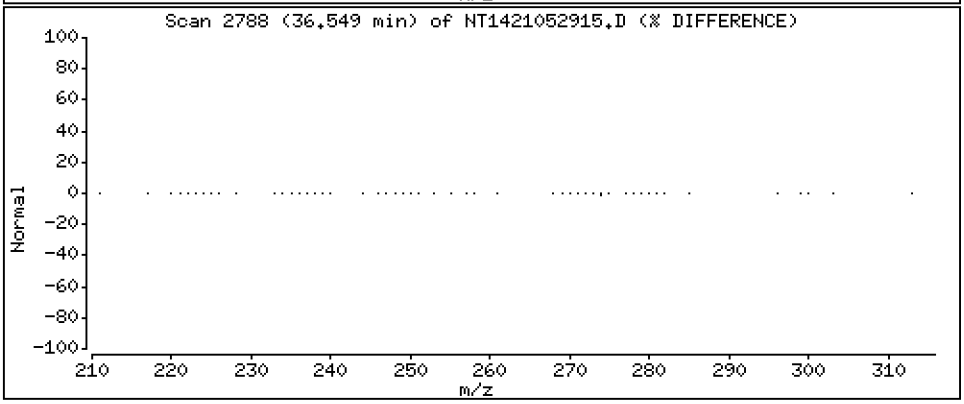












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D
Lab Smp Id: SJF0025-SCV1
Inj Date : 29-MAY-2021 19:38
Operator : VTS Inst ID: nt14.i
Smp Info : SJF0025-SCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Meth Date : 02-Jun-2021 19:03 yev Quant Type: ISTD
Cal Date : 29-MAY-2021 18:49 Cal File: NT1421052914.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	1 trans-Decalin	138	7.146	7.156	(0.378)	24405	2.93881	2.939
	2 cis-Decalin	138	8.266	8.246	(0.437)	17380	2.55518	2.555
$	6 Naphthalene-d8	136	11.897	11.897	(0.629)	223244	2.88377	2.884(R)
	7 Naphthalene	128	11.957	11.957	(0.632)	203089	2.62492	2.625
	12 Benzo(b)thiophene	134	12.409	12.409	(0.656)	166732	2.62140	2.621
	16 2-Methylnaphthalene	141	13.794	13.794	(0.730)	119639	2.64523	2.645
	17 1-methylnaphthalene	141	14.245	14.244	(0.753)	117019	2.65947	2.659
	18 Biphenyl	154	15.431	15.431	(0.816)	174317	2.60835	2.608
	19 2,6-Dimethylnaphthalene	156	15.508	15.508	(0.820)	127969	2.60384	2.604
	20 Acenaphthylene	152	17.091	17.091	(0.904)	220486	2.62443	2.624
$	21 Acenaphthene-d10	164	17.377	17.377	(0.919)	134362	2.82593	2.826(R)
	22 Acenaphthene	153	17.486	17.486	(0.925)	142697	2.75525	2.755
	23 Dibenzofuran	168	17.860	17.860	(0.945)	199363	2.59511	2.595
	24 1,6,7-Trimethylnaphthalene	170	18.091	18.080	(0.957)	132237	2.64202	2.642
*	25 Fluorene-d10	176	18.907	18.907	(1.000)	166522	2.00000	
	26 Fluorene	166	19.009	19.009	(1.005)	155403	2.61087	2.611
	30 Dibenzothiophene	184	21.931	21.931	(1.160)	221357	2.63418	2.634
$	35 Phenanthrene-d10	188	22.239	22.239	(0.995)	230950	2.85128	2.851(R)
	36 Phenanthrene	178	22.327	22.327	(0.999)	229127	2.63951	2.640
*	250 Anthracene-d10	188	22.360	22.360	(1.000)	168360	2.00000	
	37 Anthracene	178	22.426	22.425	(1.003)	219523	2.68776	2.688
	42 Carbazole	167	23.712	23.701	(1.060)	194800	2.70414	2.704
	43 1-Methylphenanthrene	192	24.162	24.151	(1.081)	166388	2.66719	2.667
	44 Fluoranthene	202	26.142	26.131	(1.169)	256004	2.67188	2.672
	46 Pyrene	202	26.977	26.977	(1.207)	270263	2.71212	2.712
	51 Naphthobenzothiophene	234	Compound Not Detected.					
	55 Benzo(a)anthracene	228	30.095	30.095	(0.907)	251589	2.75565	2.756
$	56 Chrysene-d12	240	30.219	30.219	(0.911)	227348	3.08546	3.085(R)
	57 Chrysene	228	30.287	30.287	(0.913)	247820	2.77007	2.770
	62 Benzo(b)fluoranthene	252	32.517	32.517	(0.980)	295325	3.11894	3.119
	63 Benzo(k)fluoranthene	252	32.562	32.562	(0.981)	252708	2.48737	2.487
	293 Benzo(j)fluoranthene	252	32.629	32.629	(0.983)	242480	2.59014	2.590(H)
	246 Total Benzofluoranthenes	252	32.562	32.562	(0.981)	759661	8.19091	8.191(M)

		QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL
Compounds		MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
* 251	Benzo(e)pyrene-d12	264	33.181	33.181	(1.000)	235397	2.00000	
64	Benzo(e)pyrene	252	33.238	33.238	(1.002)	247681	2.66885	2.669
66	Benzo(a)pyrene	252	33.339	33.339	(1.005)	221317	2.62146	2.621
$ 67	Perylene-d12	264	33.519	33.519	(1.010)	232231	2.91960	2.920(R)
68	Perylene	252	33.575	33.575	(1.012)	245483	2.82022	2.820(M)
69	Indeno(1,2,3-cd)pyrene	276	35.637	35.637	(1.074)	288654	2.91280	2.913(M)
70	Dibenzo(a,h)anthracene	278	35.625	35.614	(1.074)	251294	2.69021	2.690(M)
74	Benzo(g,h,i)perylene	276	36.549	36.549	(1.101)	272250	2.78084	2.781(M)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421052915.D
Lab Smp Id: SJF0025-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Misc Info:

Calibration Date: 29-MAY-2021
Calibration Time: 14:01
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	159478	79739	318956	166522	4.42
250 Anthracene-d10	170161	85081	340322	168360	-1.06
251 Benzo(e)pyrene-d1	236612	118306	473224	235397	-0.51

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.91	18.41	19.41	18.91	0.00
250 Anthracene-d10	22.36	21.86	22.86	22.36	0.00
251 Benzo(e)pyrene-d1	33.18	32.68	33.68	33.18	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 - NT1421052915.D

Lab ID: SJF0025-SCV1
nt14.i, 20210529.b\ALKYLPNA.m,   29-MAY-2021 19:38

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

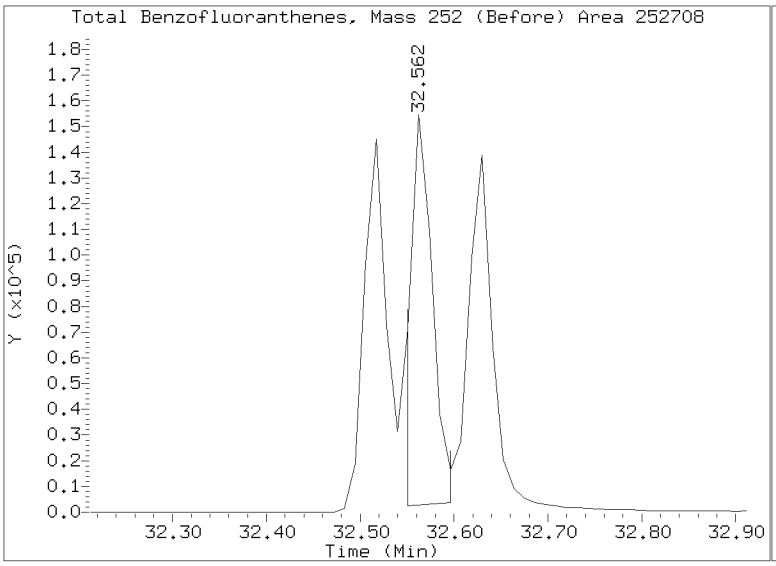
RRT check based on Ccal File: NT1421052914.D

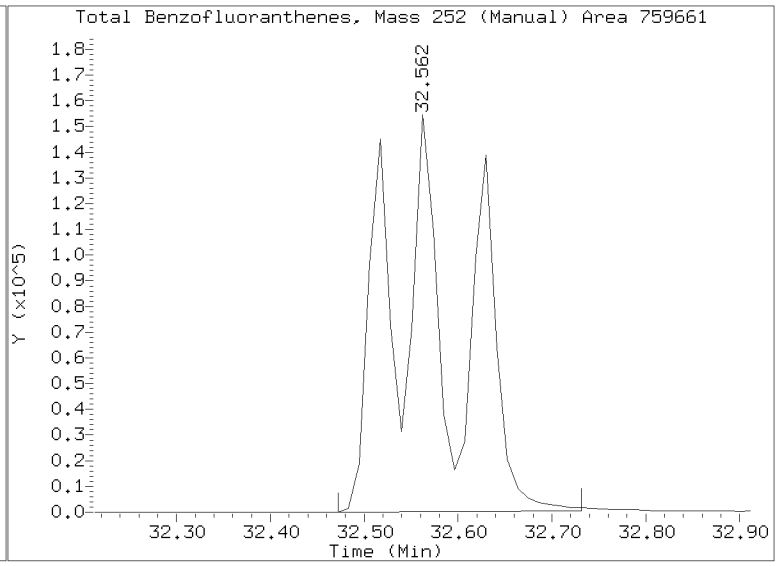
On Column LOD for nt14.i, 20210529.b\ALKYLPNA.m, TARGETS.sub = 0.0000

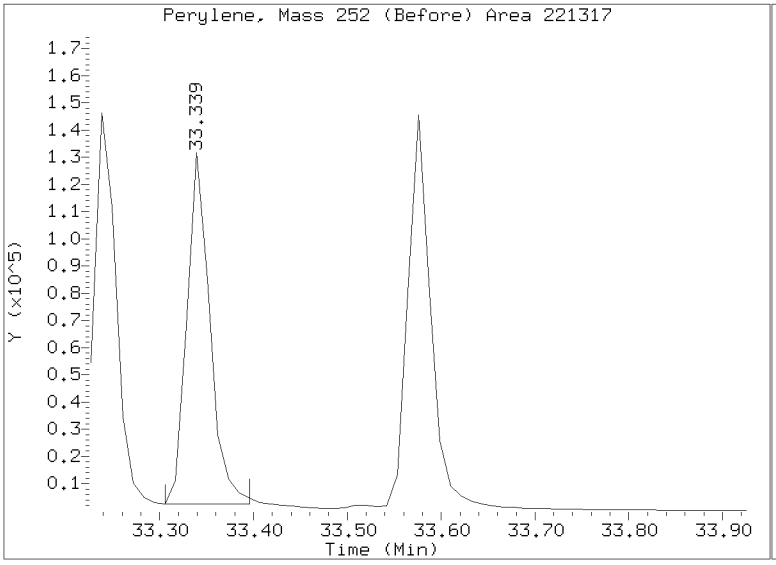
* Only compounds listed in the work order have been verified by the analyst *

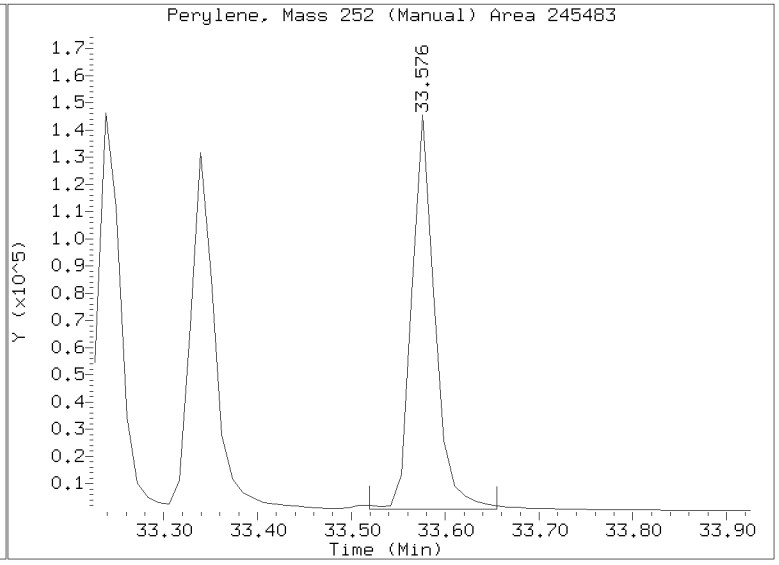
Quant Ion Manual Peak Adjustment Report

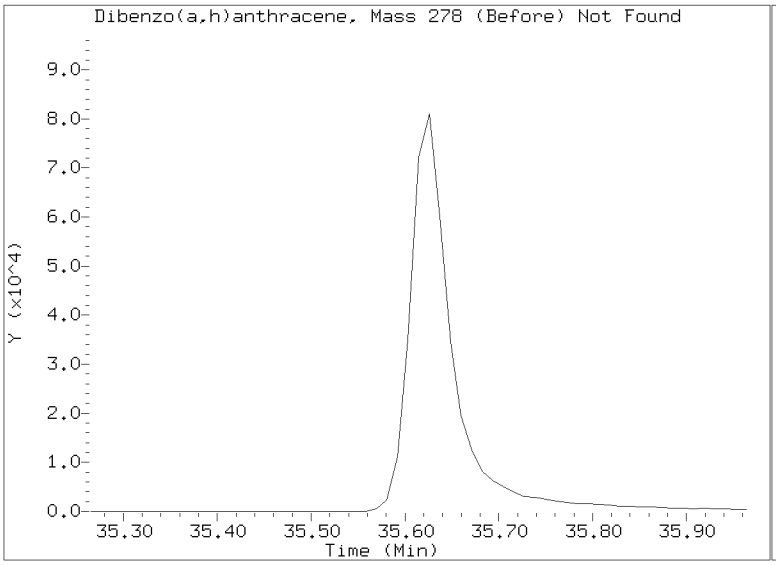
Datafile: //target/share/chem3/nt14.i/20210529.b/NT1421052915.D
Injection Date: 29-MAY-2021 19:38
Lab ID:SJF0025-SCV1 Client ID:
Report Date: 06/02/2021 19:03

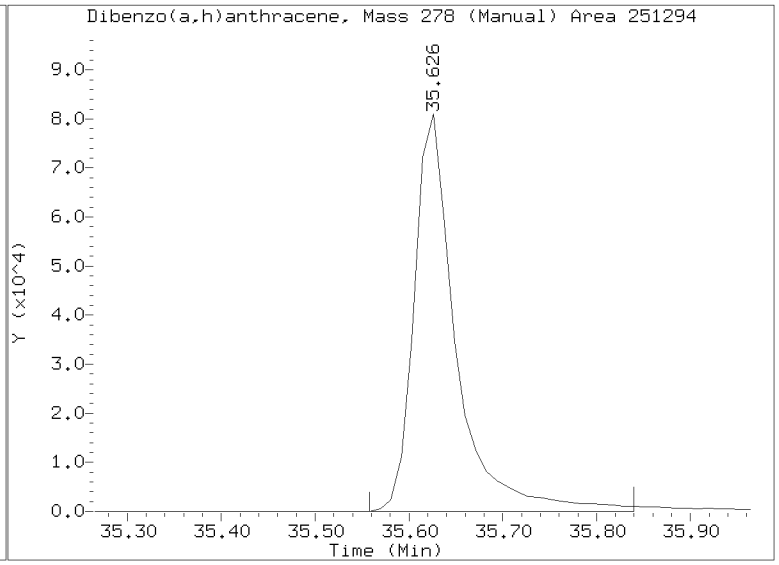






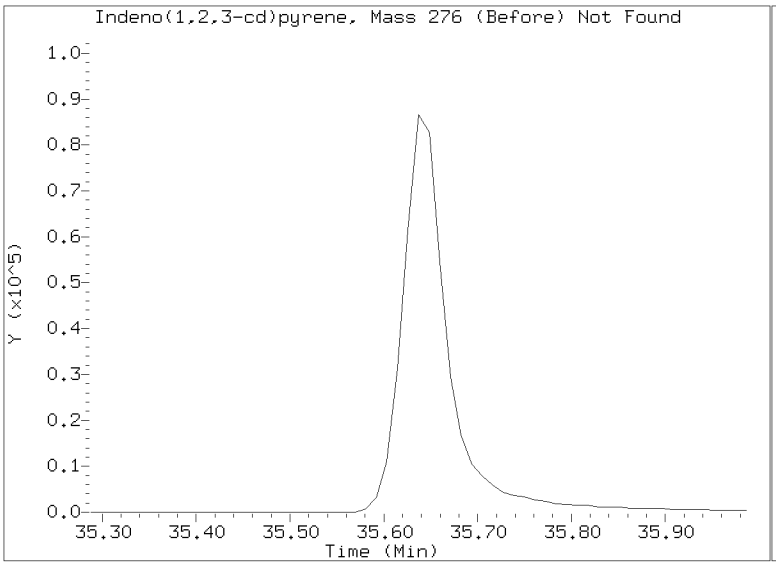


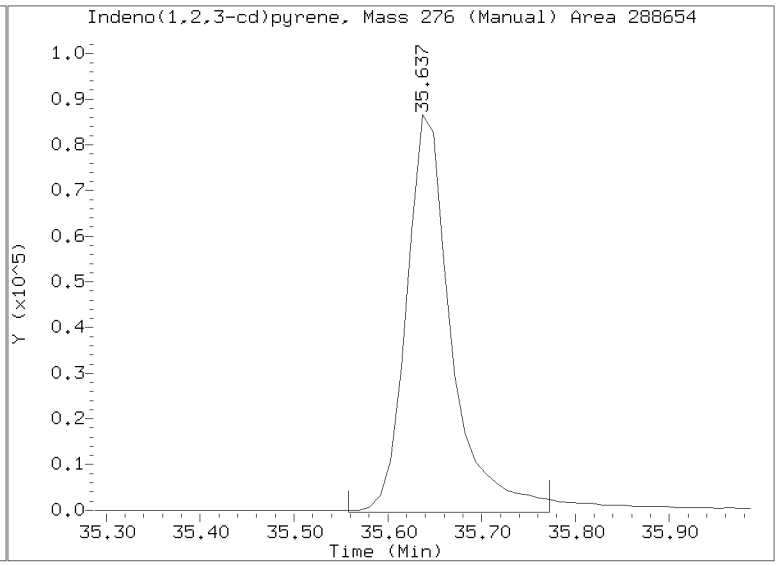


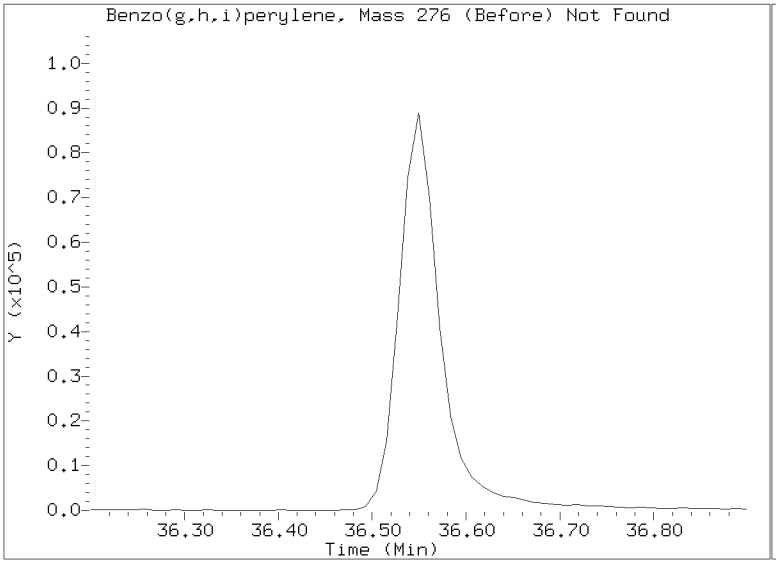


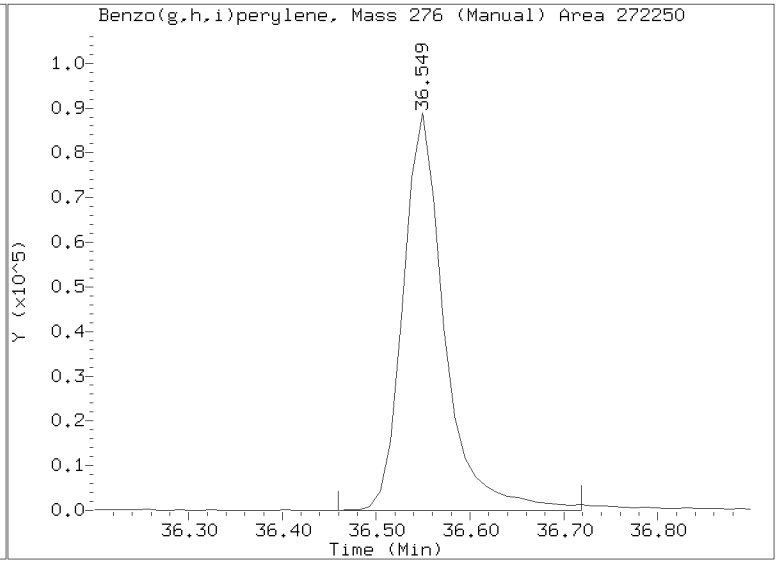
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210529.b/NT1421052915.D
Injection Date: 29-MAY-2021 19:38
Lab ID:SJF0025-SCV1 Client ID:
Report Date: 06/02/2021 19:03









INITIAL CALIBRATION CHECK

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	NT14	Calibration:	EF00008
Lab File ID:	NT1421060702.D	Calibration Date:	06/02/2021
Sequence:	SJF0173	Injection Date:	06/07/21
Lab Sample ID:	SJF0173-ICV1	Injection Time:	13:18
Sequence Name:	Initial Cal Check		

		CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
trans-Decalin	A	2.5000	2.7	0.0997391	0.1061448		6.4	+/-20
cis-Decalin	A	2.5000	2.6	0.0700123	0.0836500		2.3	+/-20
Naphthalene	A	2.5000	2.7	0.9292421	0.9875806		6.3	+/-20
1-Methylnaphthalene	A	2.5000	2.6	0.5284699	0.5532649		4.7	+/-20
2-Methylnaphthalene	A	2.5000	2.6	0.5432098	0.5747027		5.8	+/-20
Biphenyl	A	2.5000	2.6	0.8026611	0.8447889		5.2	+/-20
2,6-Dimethylnaphthalene	A	2.5000	2.6	0.5902664	0.6079035		3.0	+/-20
Acenaphthylene	A	2.5000	2.7	1.0090320	1.0758980		6.6	+/-20
Acenaphthene	A	2.5000	2.6	0.6220308	0.6448616		3.7	+/-20
Dibenzofuran	A	2.5000	2.7	0.9226724	0.9816708		6.4	+/-20
2,3,5-Trimethylnaphthalene	A	2.5000	2.6	0.6011392	0.6335332		5.4	+/-20
Fluorene	A	2.5000	2.7	0.7148800	0.7590301		6.2	+/-20
Benzo(b)thiophene	A	2.5000	2.6	0.7639133	0.8028983		5.1	+/-20
Phenanthrene	A	2.5000	2.6	1.0312030	1.0649180		3.3	+/-20
Anthracene	A	2.5000	2.6	0.9702418	1.0187480		5.0	+/-20
Carbazole	A	2.5000	2.5	0.8557591	0.9093561		1.2	+/-20
1-Methylphenanthrene	A	2.5000	2.6	0.7410711	0.7852165		6.0	+/-20
Fluoranthene	A	2.5000	2.7	1.1382070	1.2385970		8.8	+/-20
Dibenzothiophene	A	2.5000	2.7	1.0092670	1.1082740		9.8	+/-20
Pyrene	A	2.5000	2.8	1.1837730	1.3298180		12.3	+/-20
Benzo(a)anthracene	A	2.5000	3.0	0.7757052	0.9261494		19.4	+/-20
Chrysene	A	2.5000	2.9	0.7601074	0.8778009		15.5	+/-20
Benzo(b)fluoranthene	A	2.5000	2.6	0.8044926	0.8245325		2.5	+/-20
Benzo(j)fluoranthene	A	2.5000	2.5	0.7953937	0.7886309		-0.9	+/-20
Benzo(k)fluoranthene	A	2.5000	2.6	0.8631910	0.9140714		5.9	+/-20
Benzofluoranthenes, Total	A	7.5000	8.2	0.7879832	0.8567027		8.7	+/-20
Benzo(e)pyrene	A	2.5000	2.5	0.7884934	0.7942405		0.7	+/-20
Benzo(a)pyrene	A	2.5000	2.6	0.7172983	0.7431238		3.6	+/-20
Indeno(1,2,3-cd)pyrene	A	2.5000	2.5	0.8419699	0.8527459		1.3	+/-20
Dibenzo(a,h)anthracene	A	2.5000	2.4	0.7153598	0.7667149		-3.2	+/-20
Benzo(g,h,i)perylene	A	2.5000	2.4	0.8318028	0.8099532		-2.6	+/-20

* Values outside of QC limits

INITIAL CALIBRATION CHECK

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	NT14	Calibration:	EF00008
Lab File ID:	NT1421060702.D	Calibration Date:	06/02/2021
Sequence:	SJF0173	Injection Date:	06/07/21
Lab Sample ID:	SJF0173-ICV1	Injection Time:	13:18
Sequence Name:	Initial Cal Check		

		CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Perylene	A	2.5000	2.6	0.7395491	0.7695678		4.1	+/-20
Benzo(b)naphtho(2,1-d)thiophene	A	2.5000	2.7	1.2719290	1.3496540		6.1	+/-20
Naphthalene-d8	A	2.5000	2.66	0.9297733	0.9887738		6.3	+/-20
Acenaphthene-d10	A	2.5000	2.58	0.5710501	0.5900893		3.3	+/-20
Phenanthrene-d10	A	2.5000	2.58	0.9622084	0.9943826		3.3	+/-20
Chrysene-d12	A	2.5000	2.91	0.6260378	0.7286406		16.4	+/-20
Perylene-d12	A	2.5000	2.55	0.6758124	0.6899476		2.1	+/-20

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060702.D

Page 1

Date : 07-JUN-2021 13:18

Client ID:

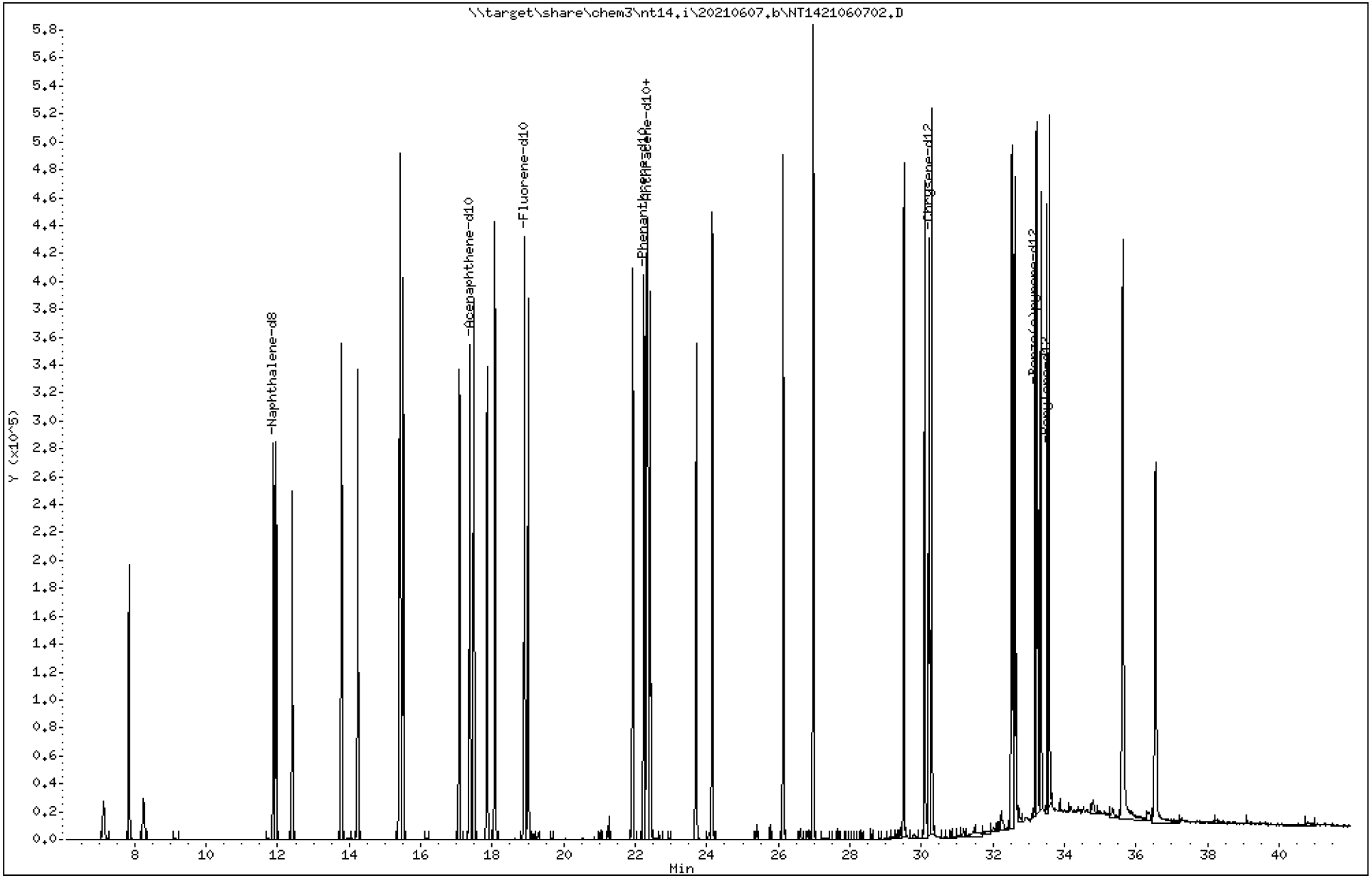
Instrument: nt14.i

Sample Info: SJF0173-ICV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



Final Report 21E0099 06/15/2021 Page 474 of 957

Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060702.D

Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

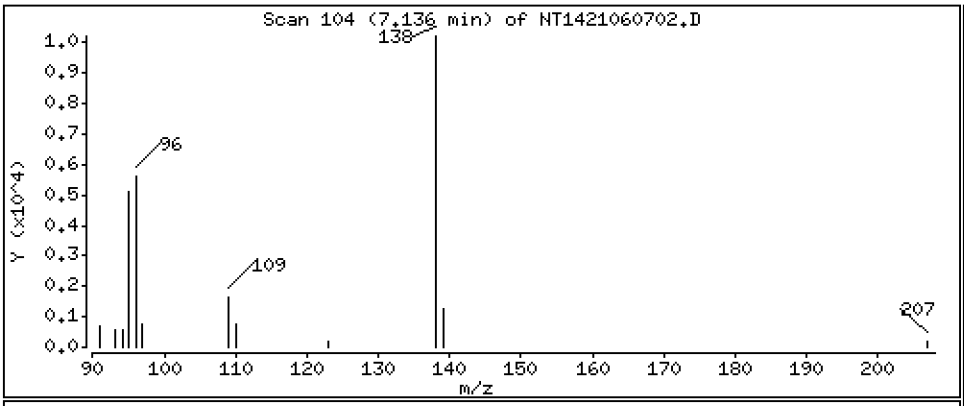
Operator: VTS

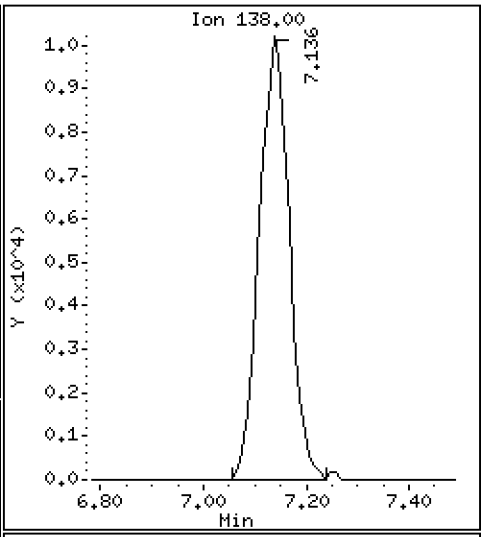
Column phase: Rxi-17Sil MS

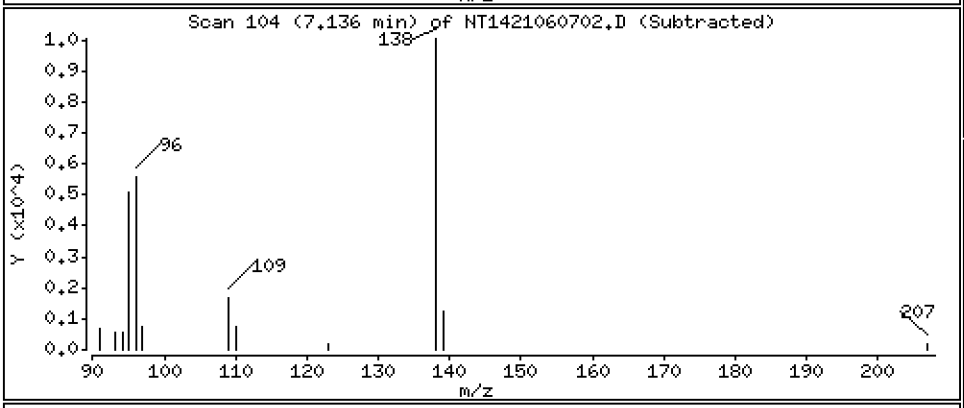
Column diameter: 0.25

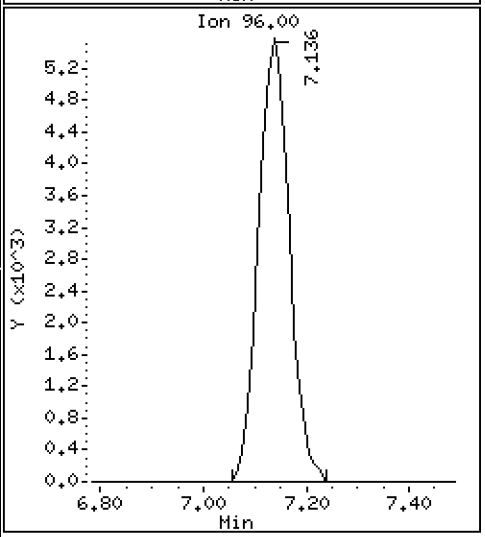
1 trans-Decalin

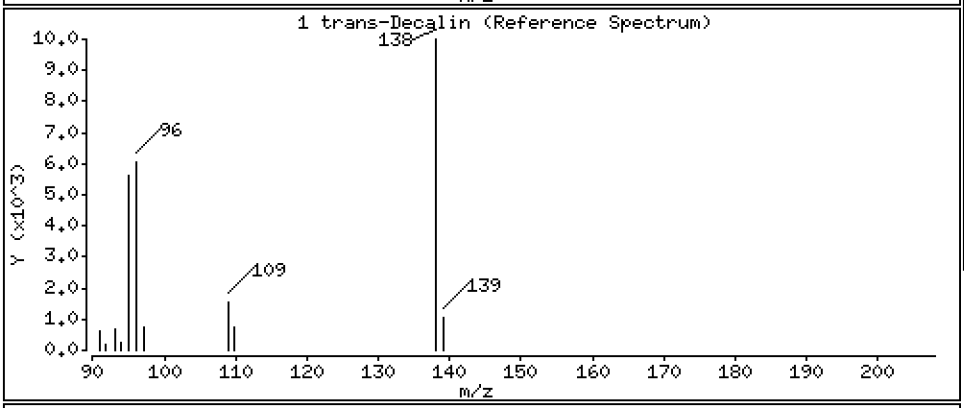
Concentration: 2.661 ug/mL

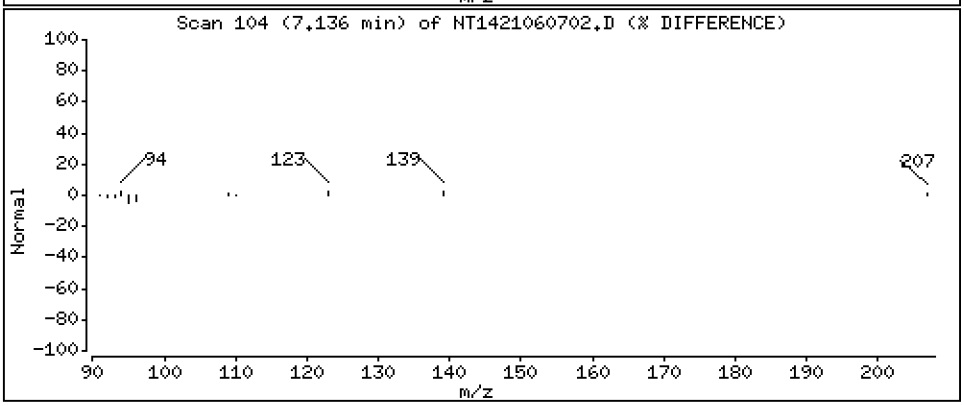












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Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

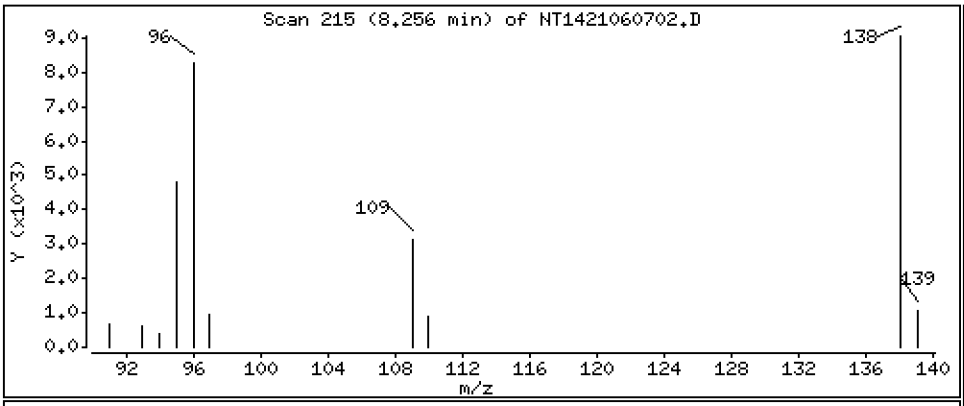
Operator: VTS

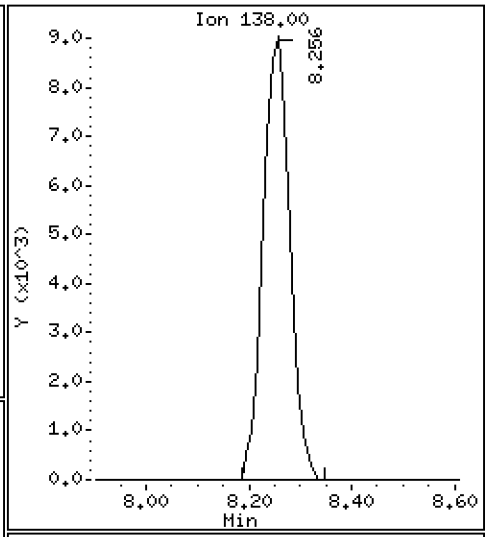
Column phase: Rxi-17Sil MS

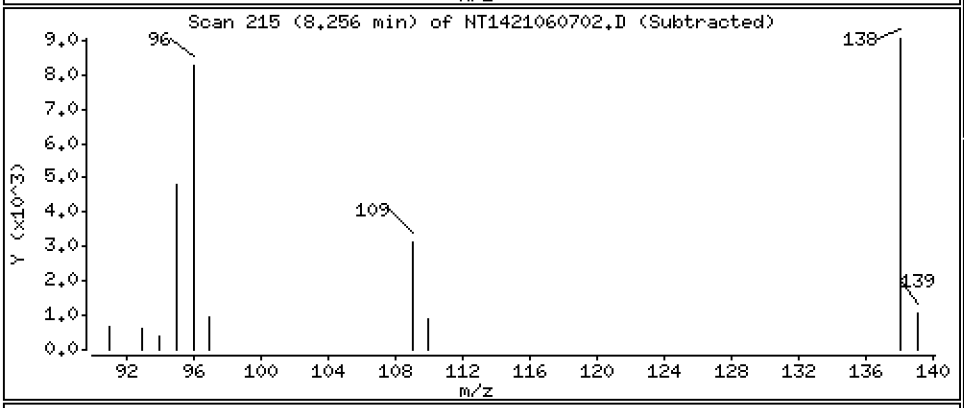
Column diameter: 0.25

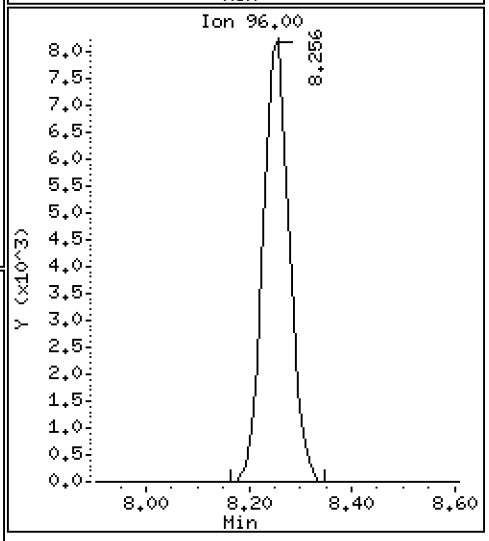
2 cis-Decalin

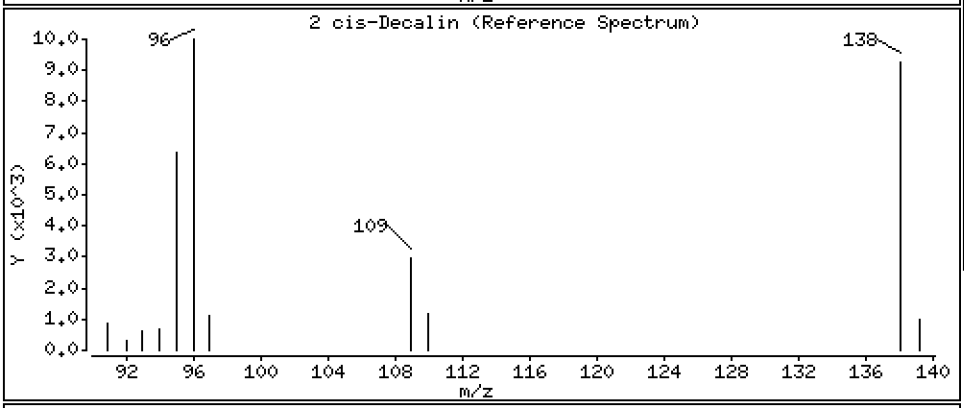
Concentration: 2.557 ug/mL

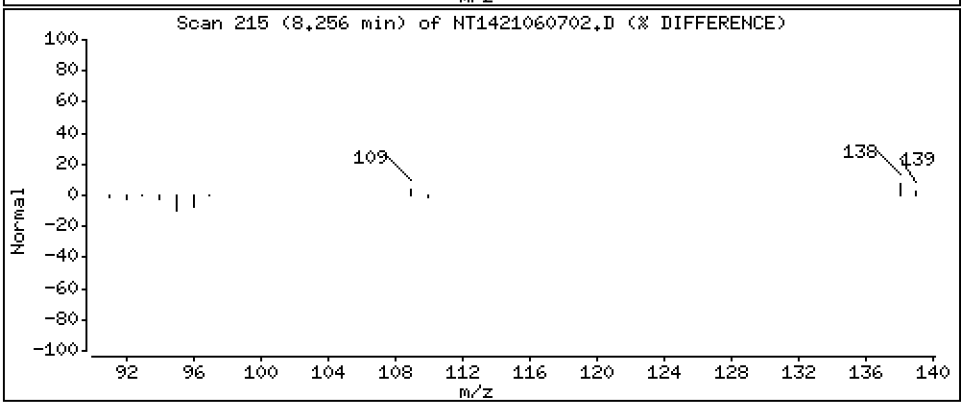












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Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

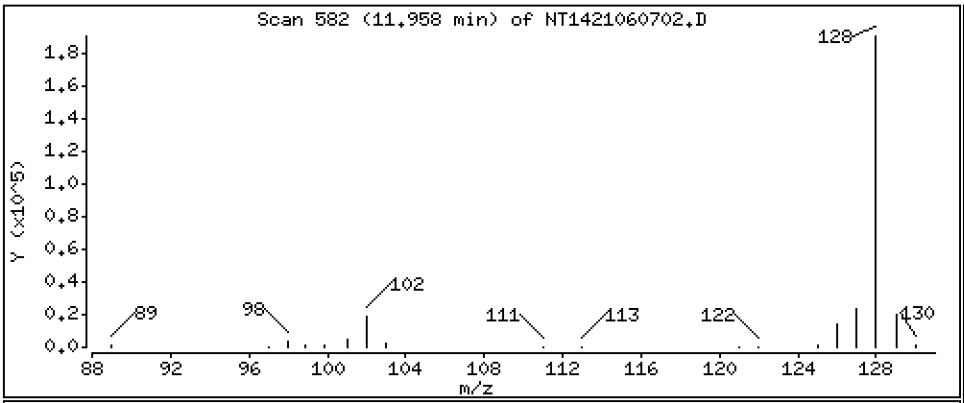
Operator: VTS

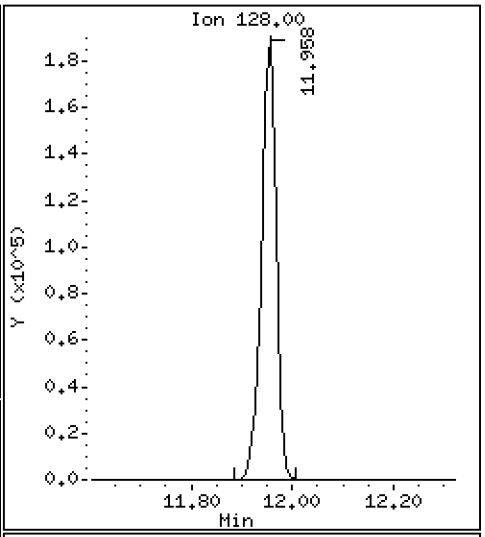
Column phase: Rxi-17Sil MS

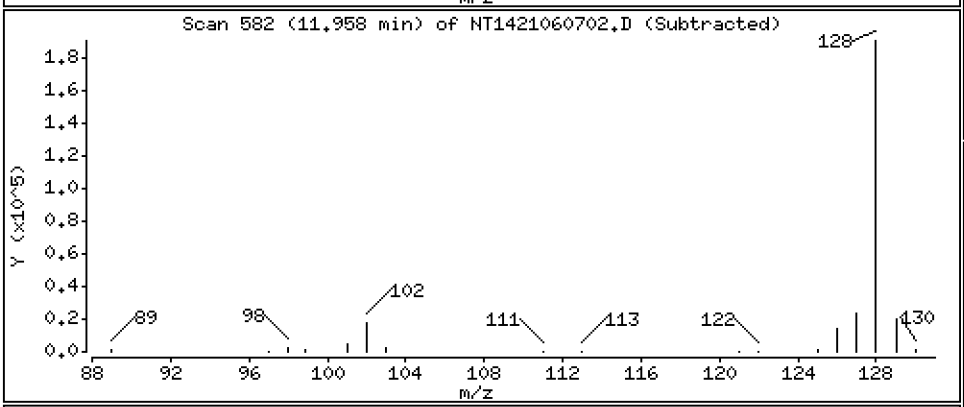
Column diameter: 0.25

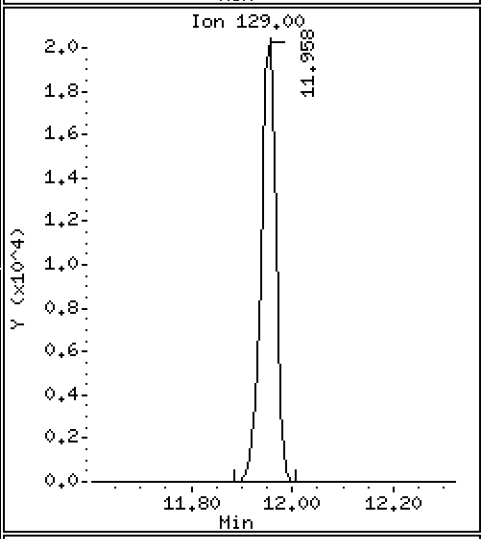
7 Naphthalene

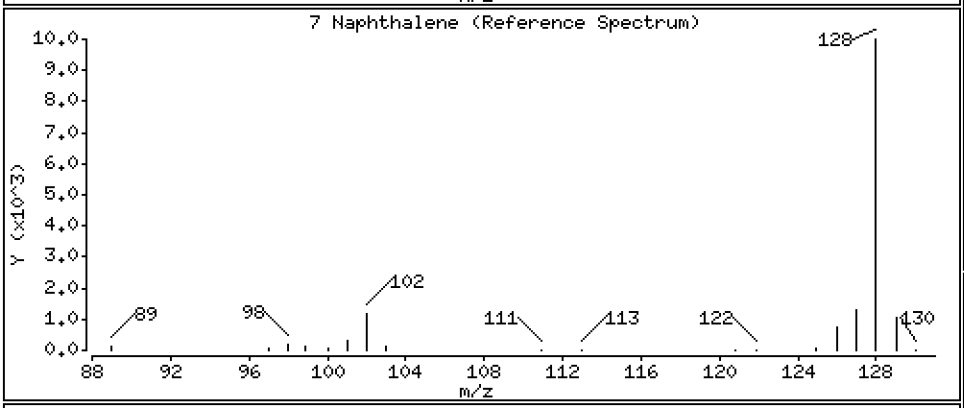
Concentration: 2.657 ug/mL

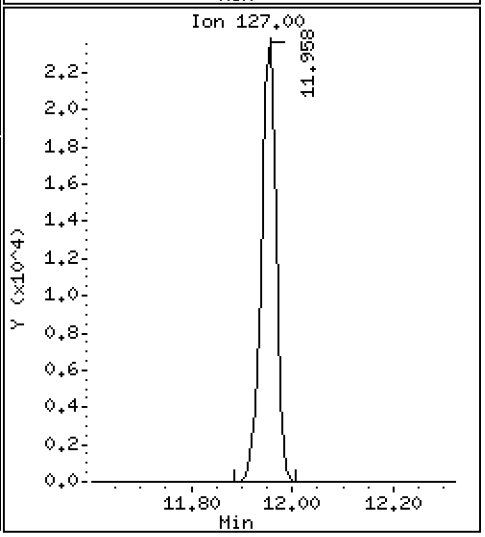


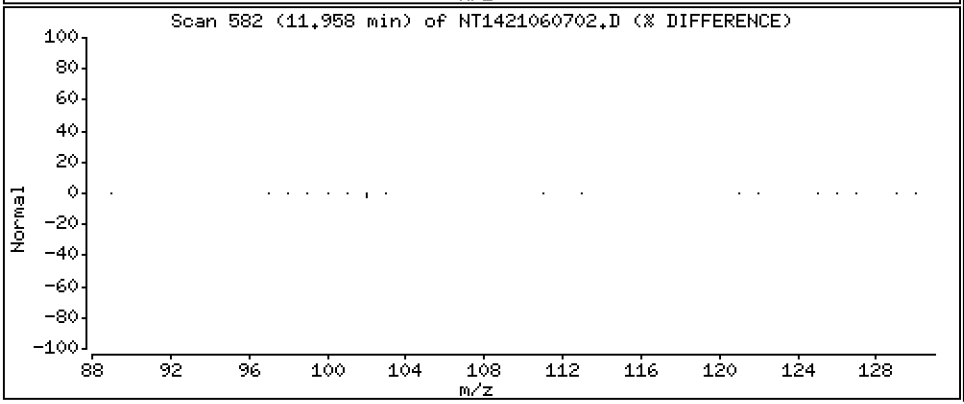












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Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

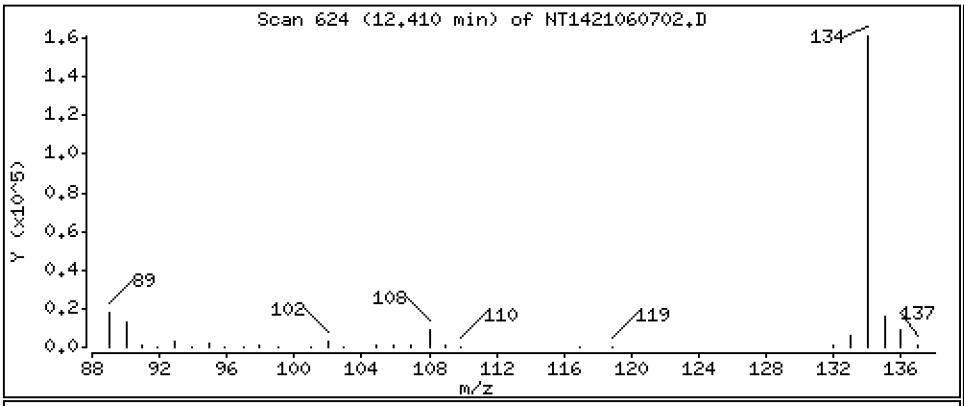
Operator: VTS

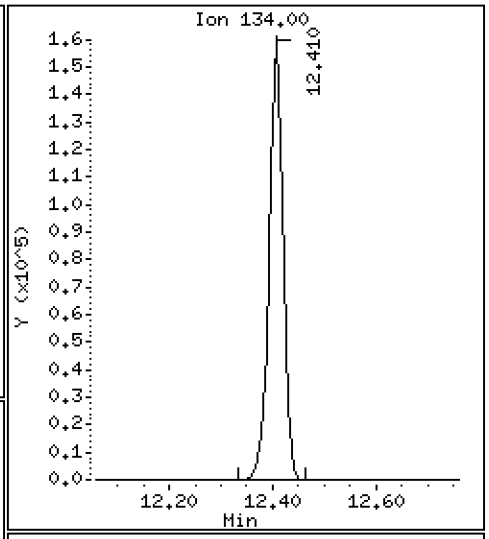
Column phase: Rxi-17Sil MS

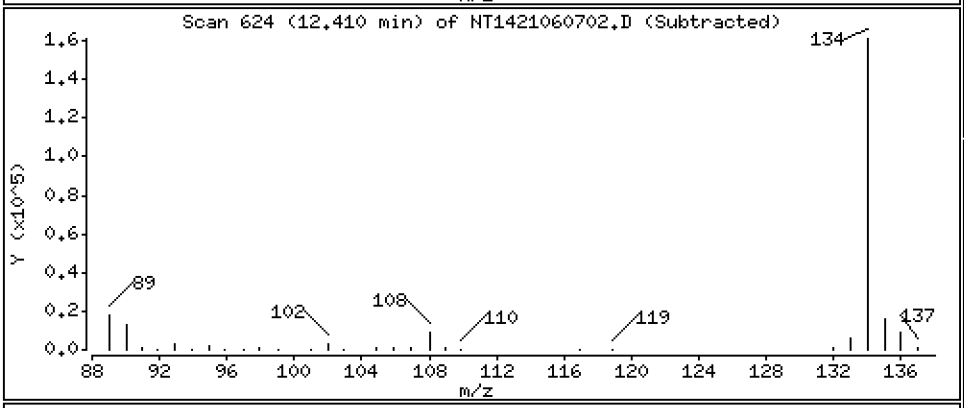
Column diameter: 0.25

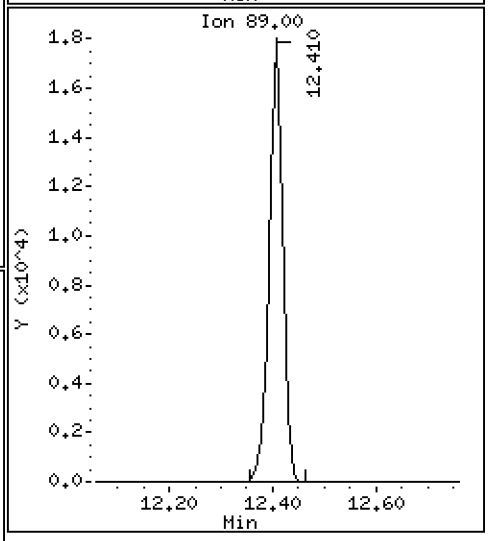
12 Benzo(b)thiophene

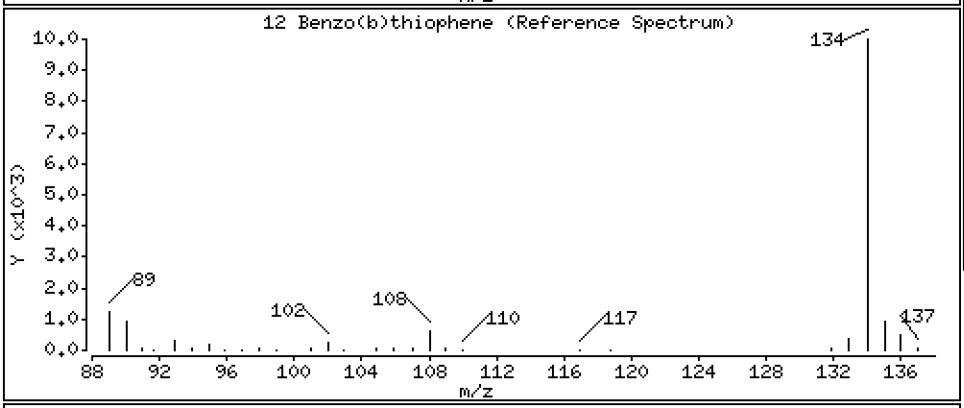
Concentration: 2.628 ug/mL

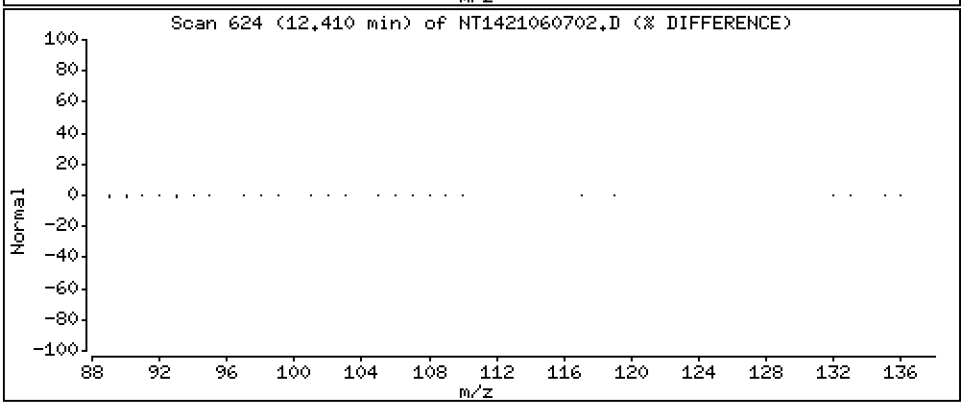












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Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

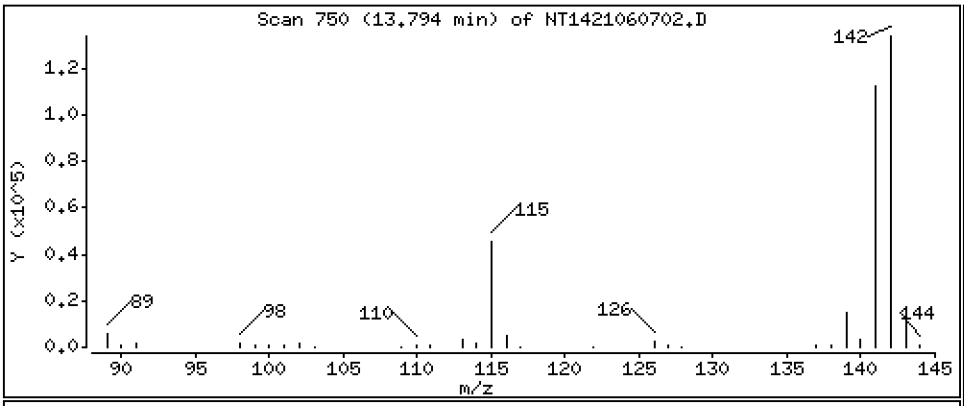
Operator: VTS

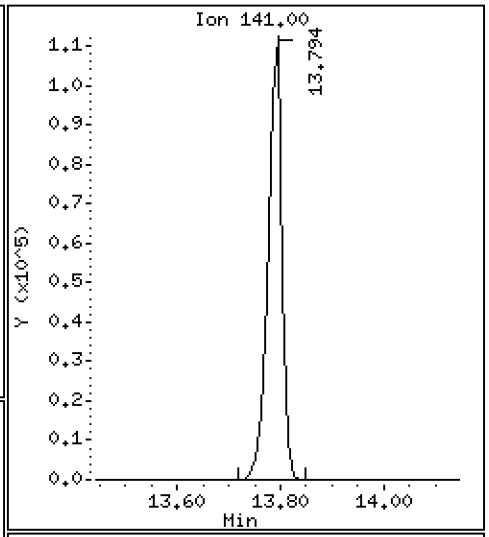
Column phase: Rxi-17Sil MS

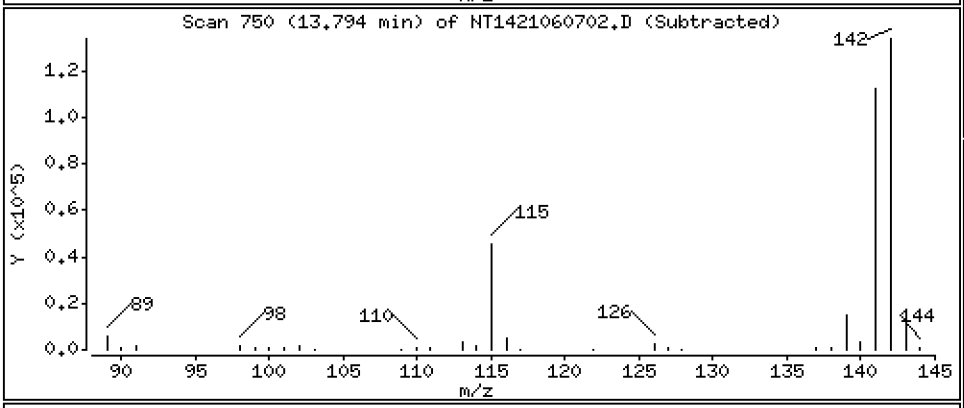
Column diameter: 0.25

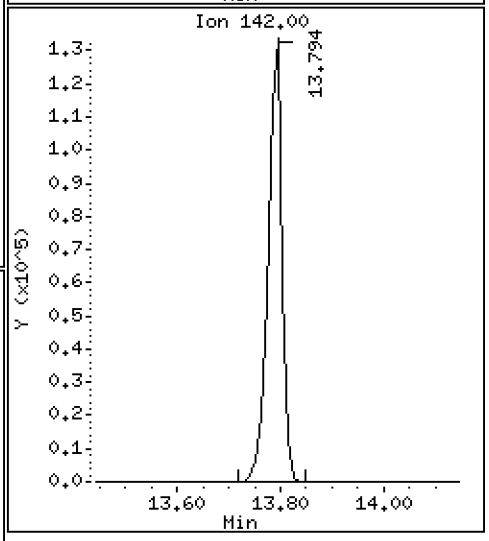
16 2-Methylnaphthalene

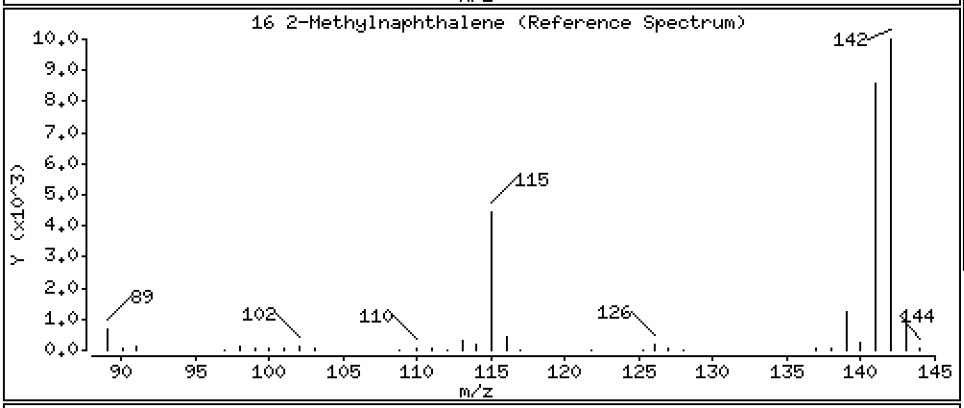
Concentration: 2.645 ug/mL

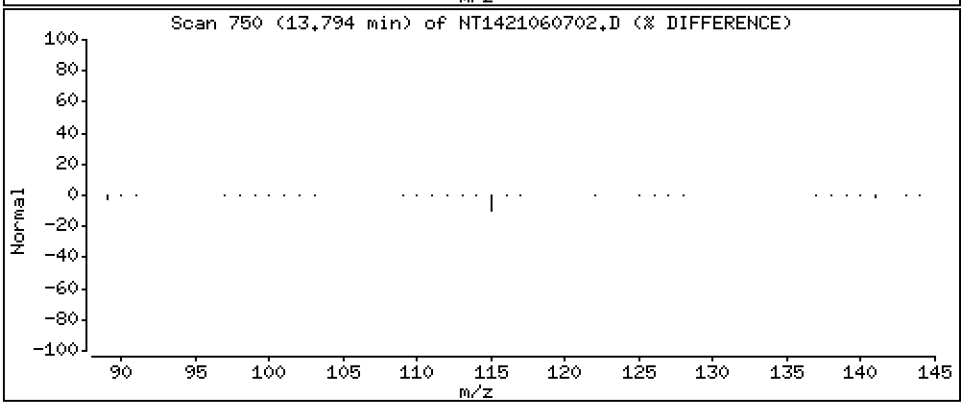












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Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

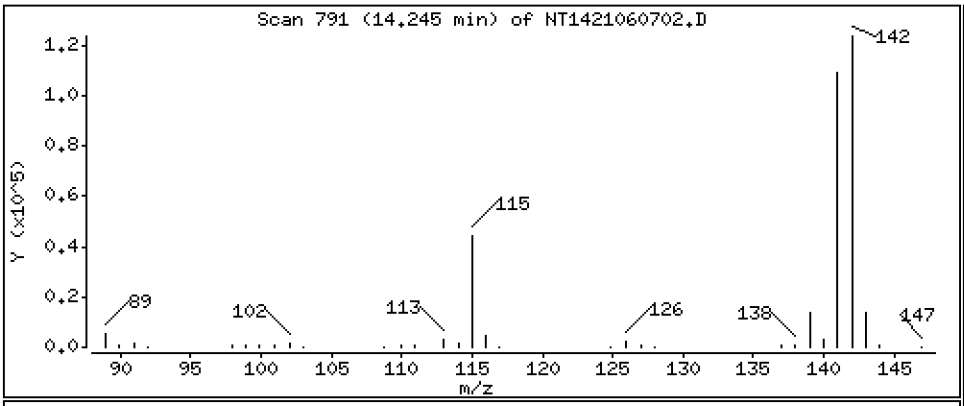
Operator: VTS

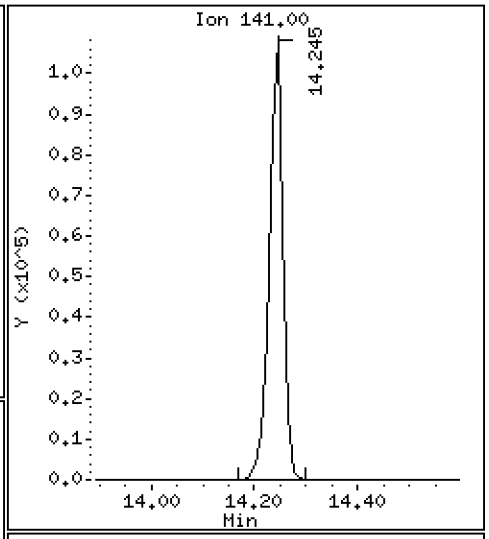
Column phase: Rxi-17Sil MS

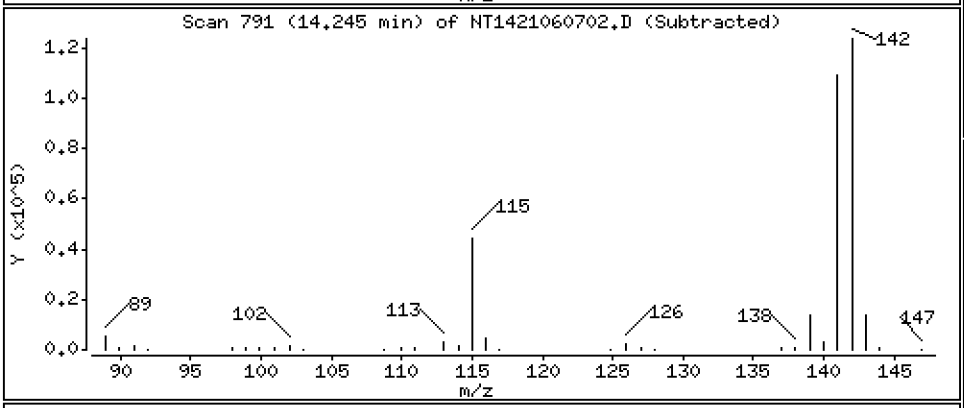
Column diameter: 0.25

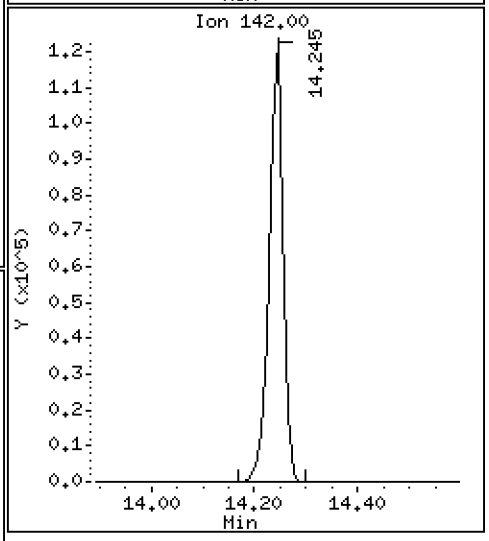
17 1-methylnaphthalene

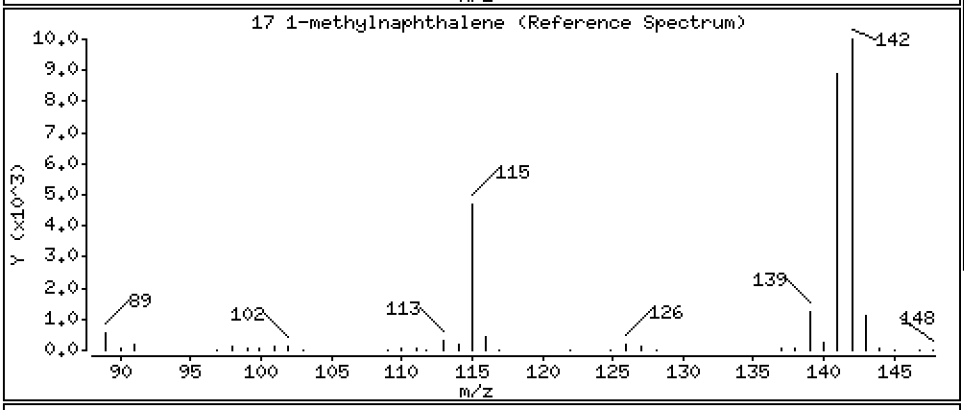
Concentration: 2.617 ug/mL

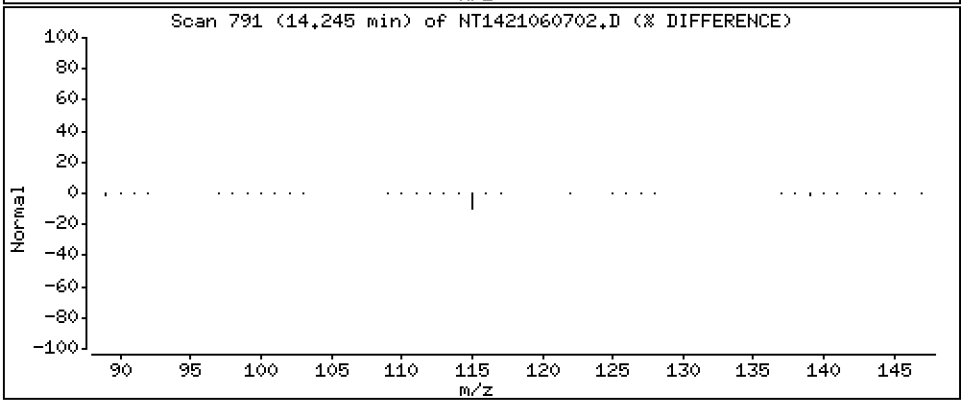












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Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

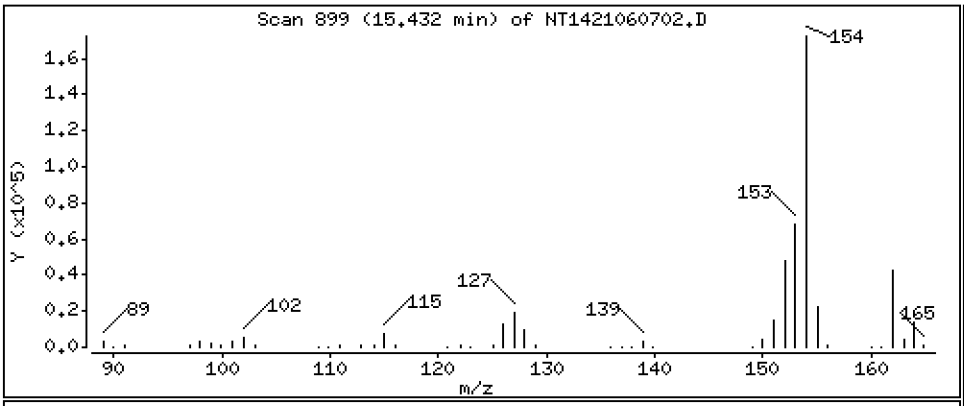
Operator: VTS

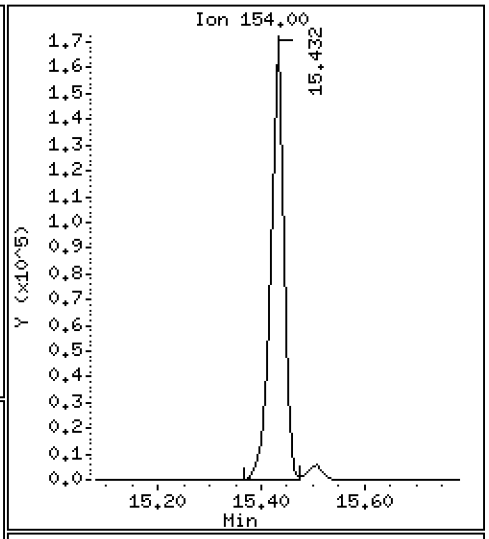
Column phase: Rxi-17Sil MS

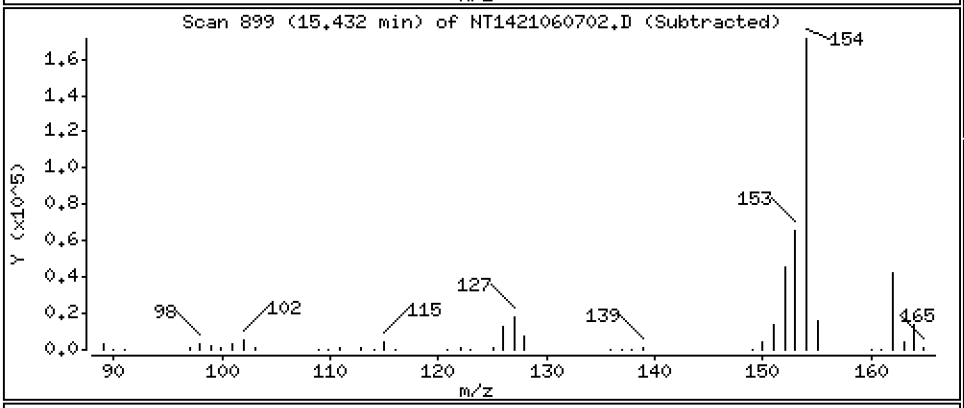
Column diameter: 0.25

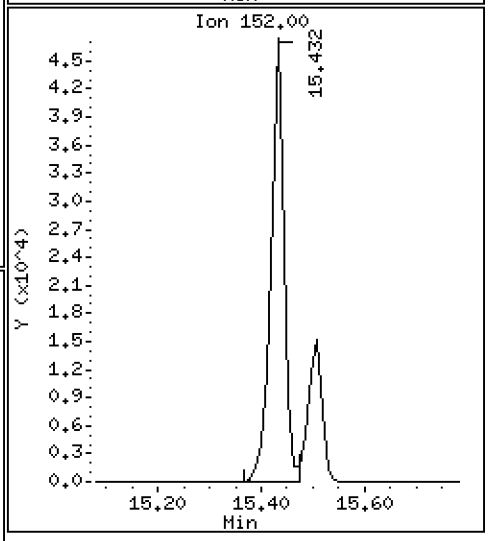
18 Biphenyl

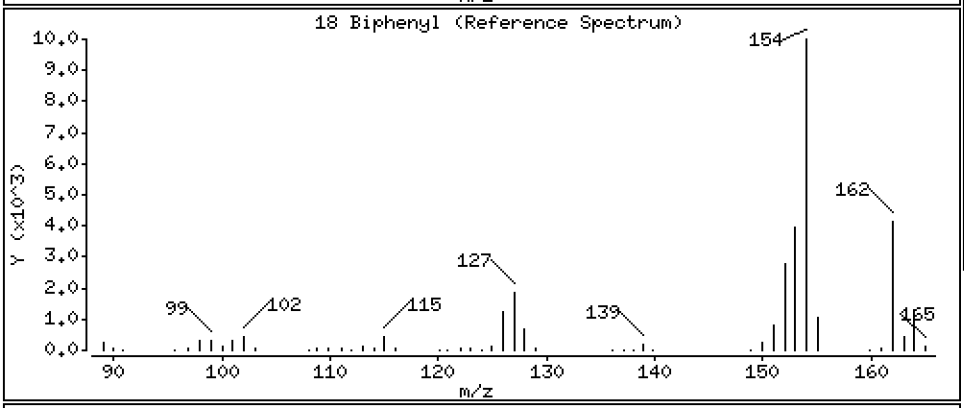
Concentration: 2.631 ug/mL

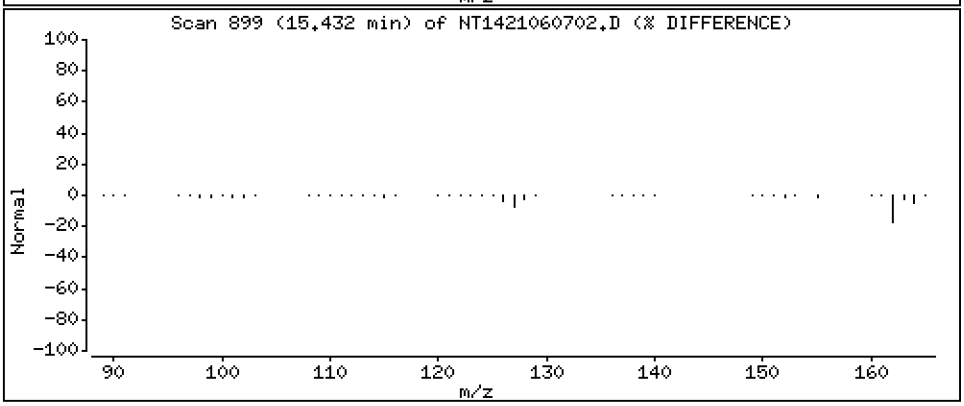












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Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

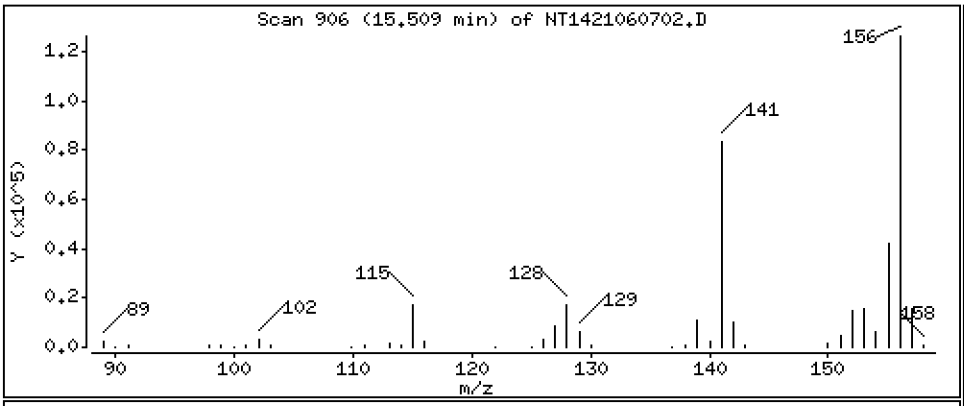
Operator: VTS

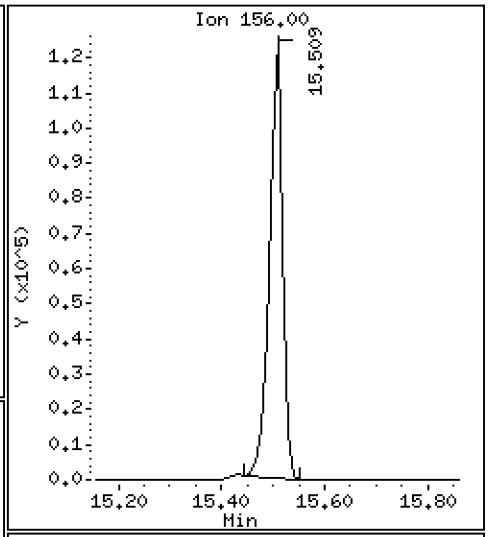
Column phase: Rxi-17Sil MS

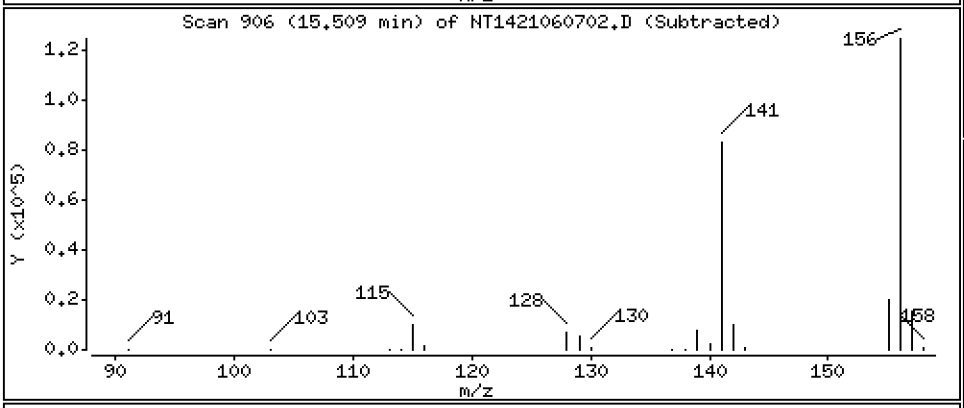
Column diameter: 0.25

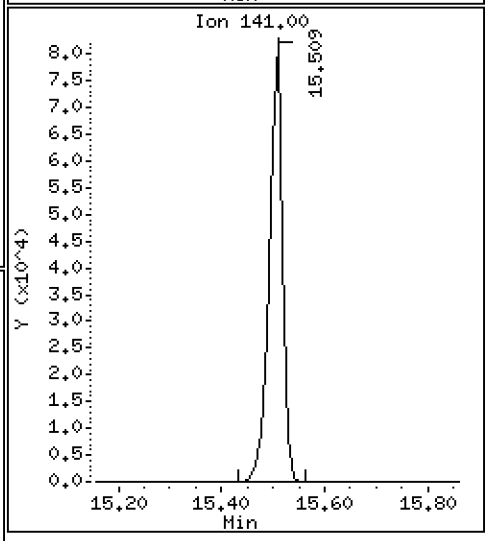
19 2,6-Dimethylnaphthalene

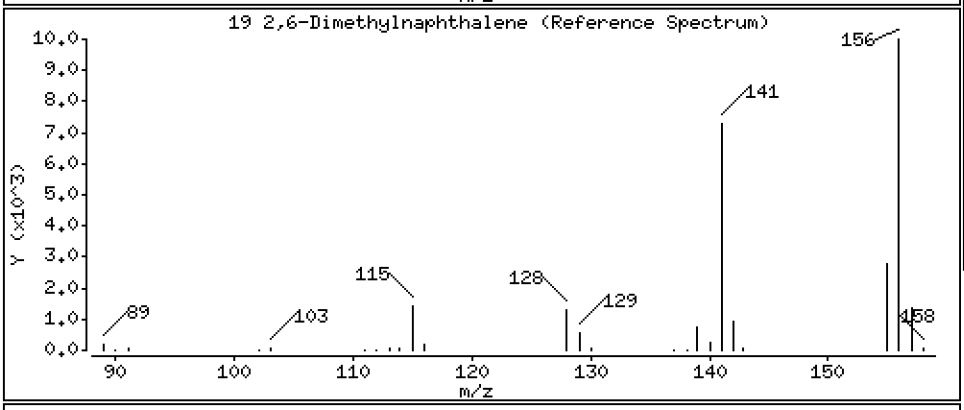
Concentration: 2.575 ug/mL

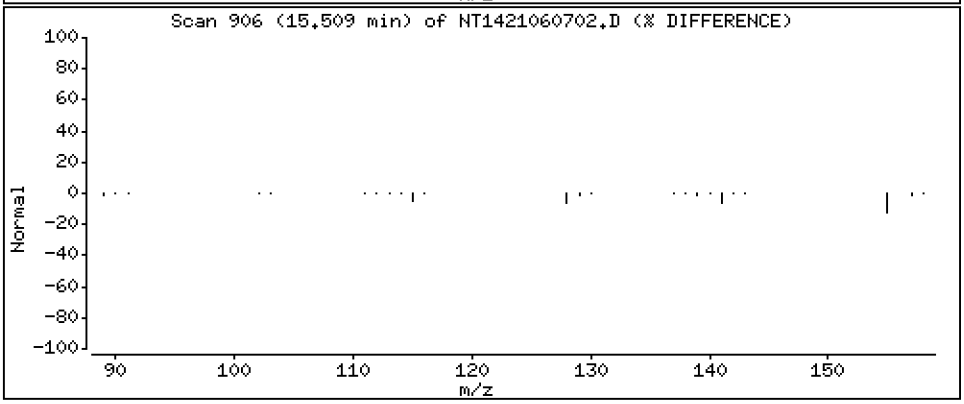












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060702.D

Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

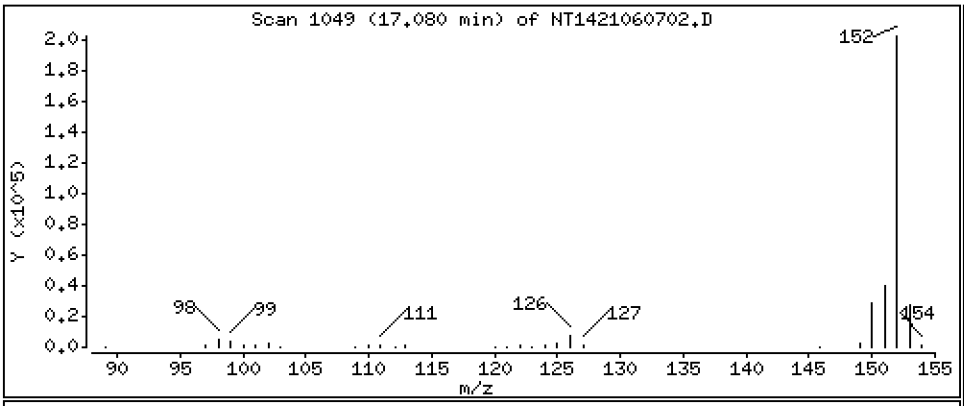
Operator: VTS

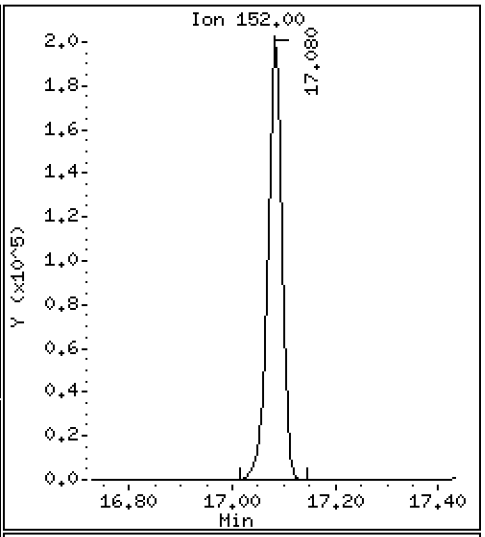
Column phase: Rxi-17Sil MS

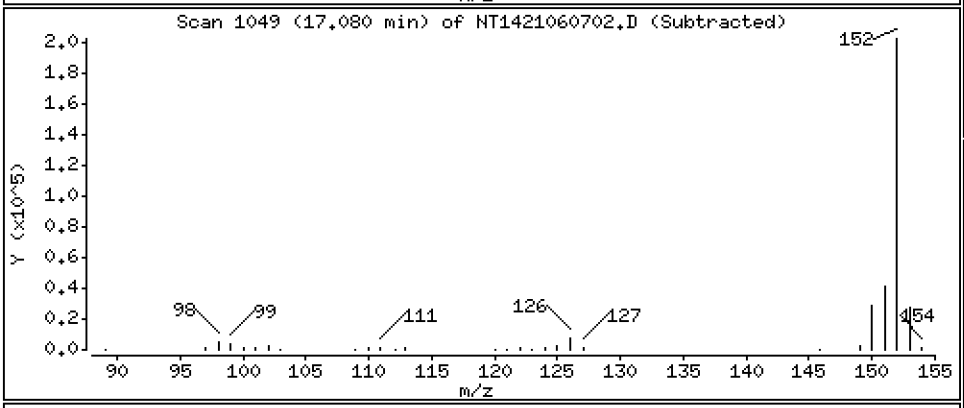
Column diameter: 0.25

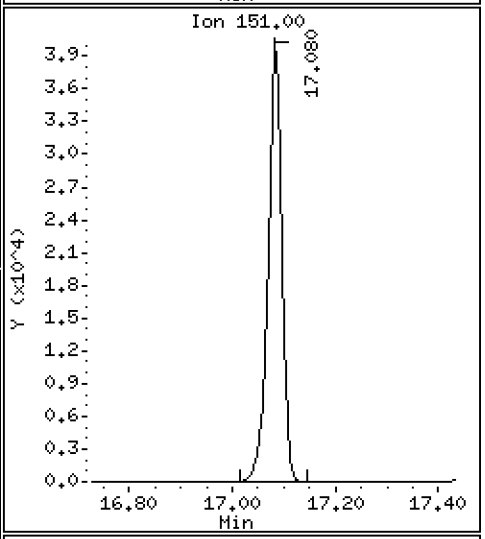
20 Acenaphthylene

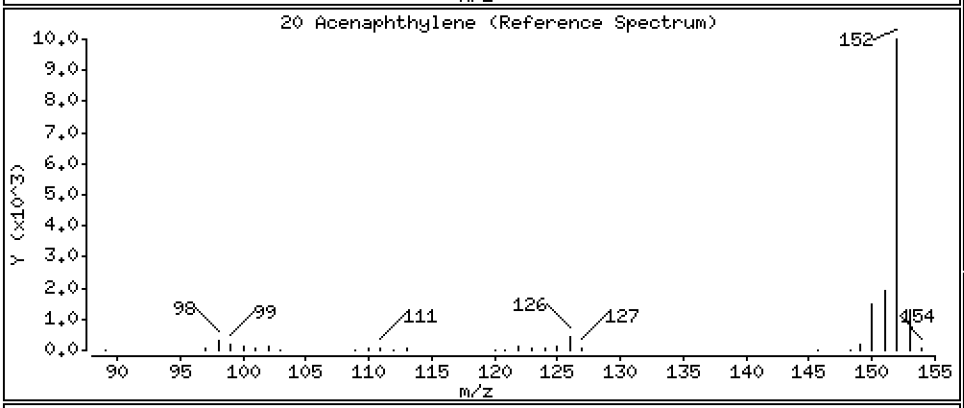
Concentration: 2.666 ug/mL

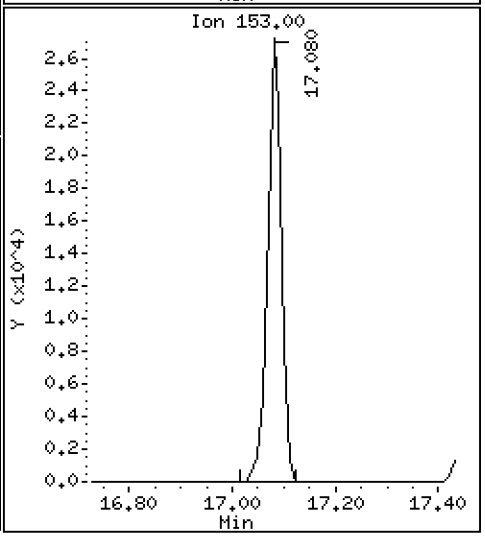


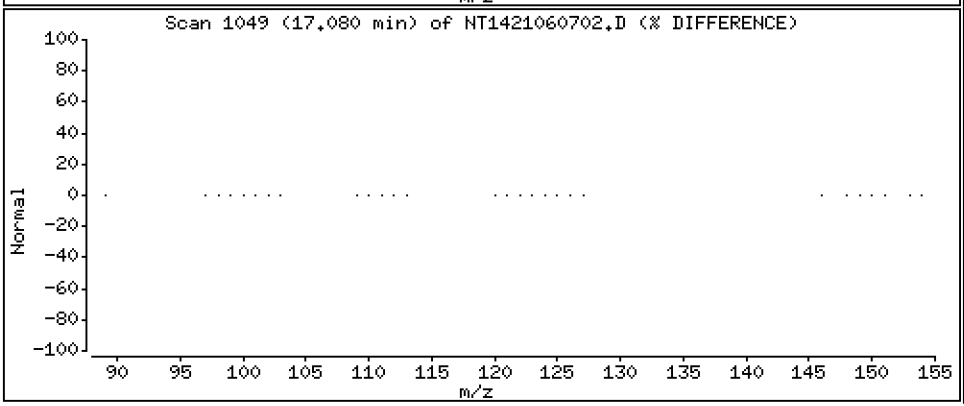












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060702.D

Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

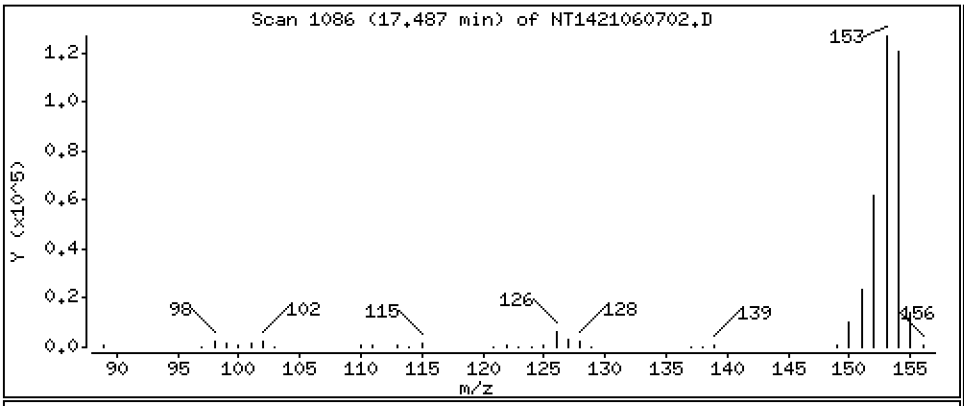
Operator: VTS

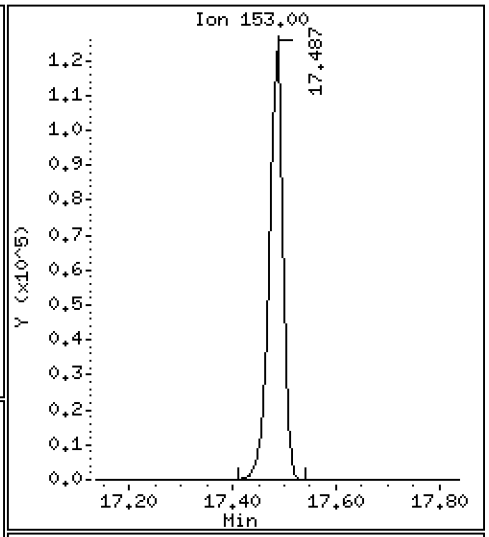
Column phase: Rxi-17Sil MS

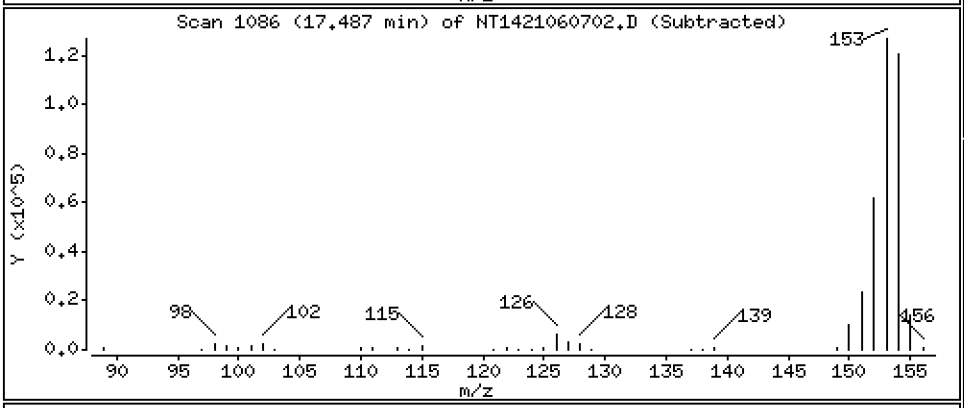
Column diameter: 0.25

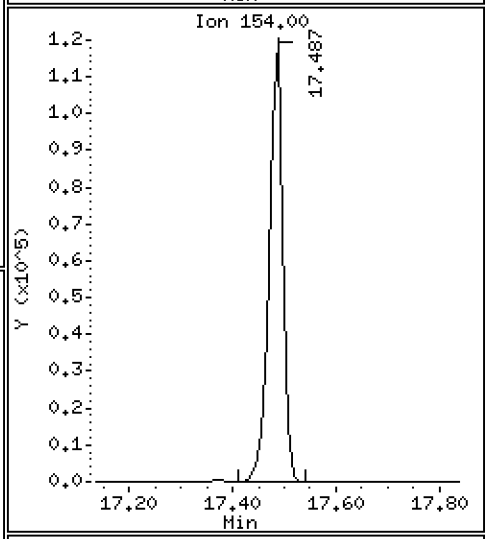
22 Acenaphthene

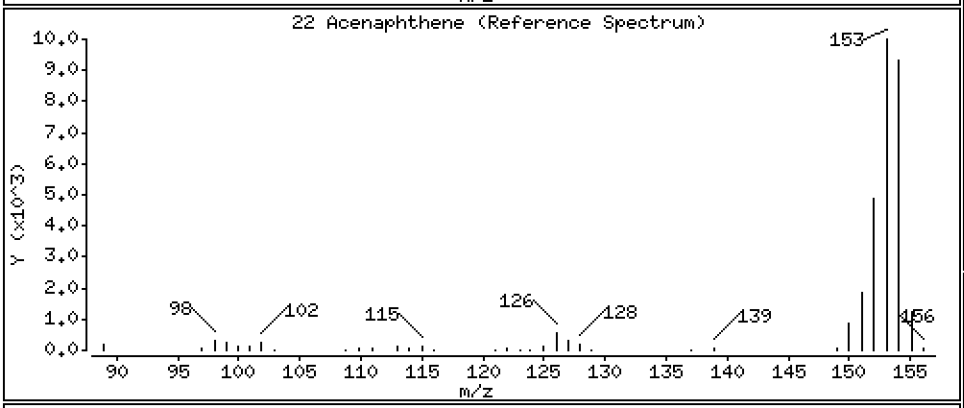
Concentration: 2.592 ug/mL

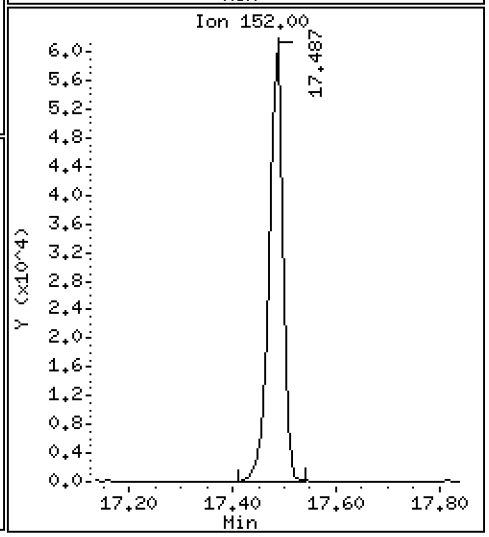


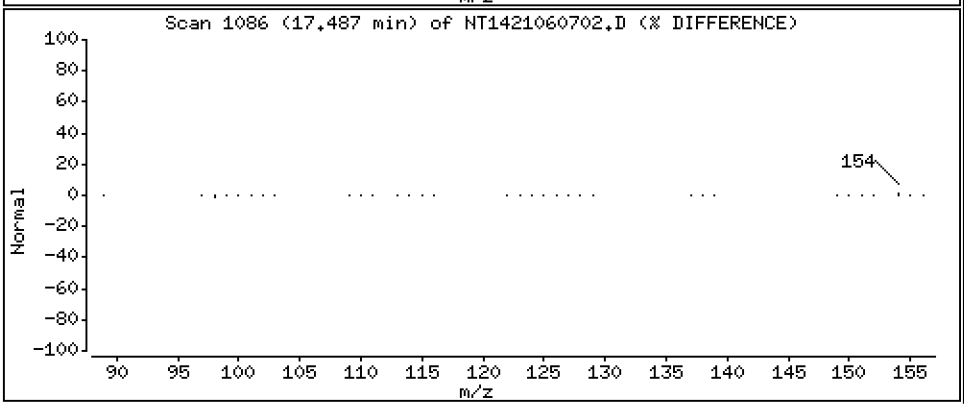












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Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

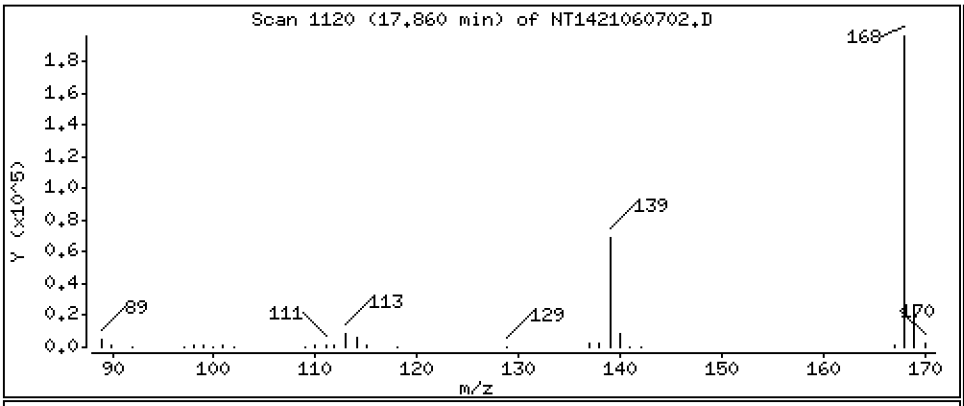
Operator: VTS

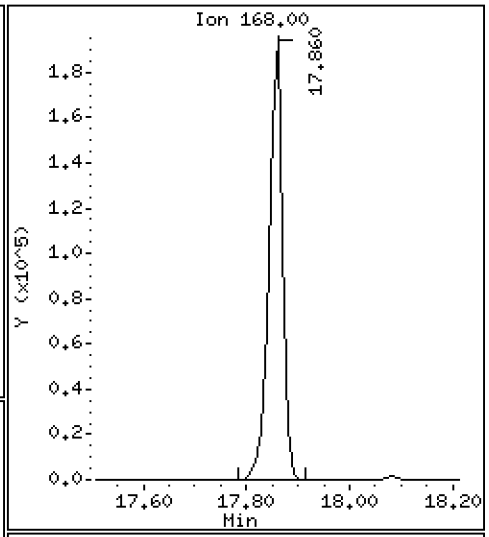
Column phase: Rxi-17Sil MS

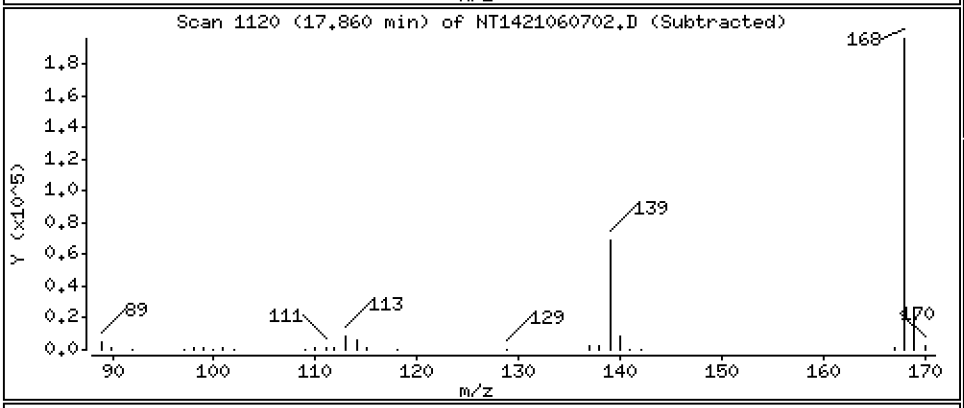
Column diameter: 0.25

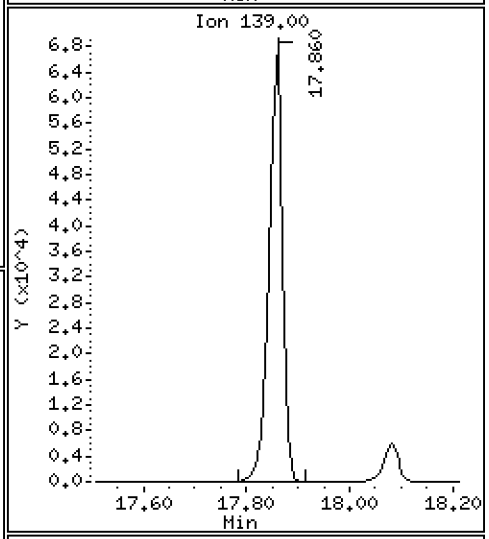
23 Dibenzofuran

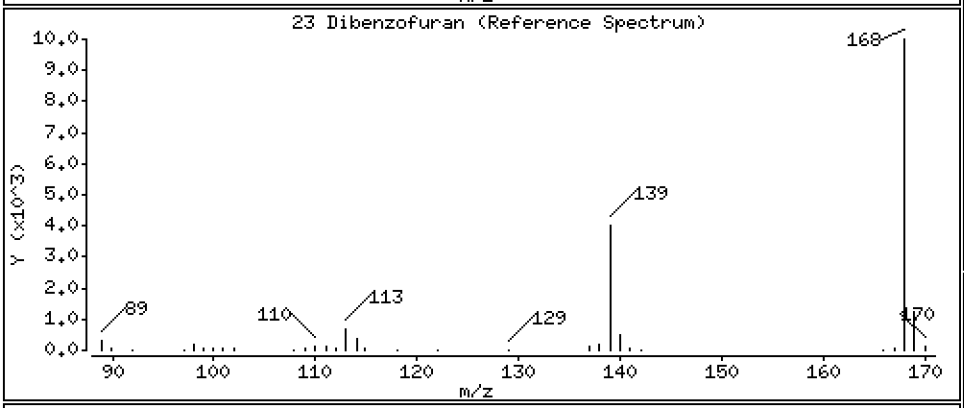
Concentration: 2.660 ug/mL

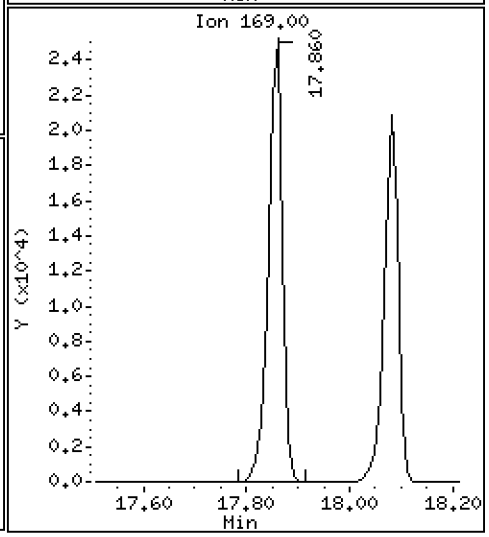


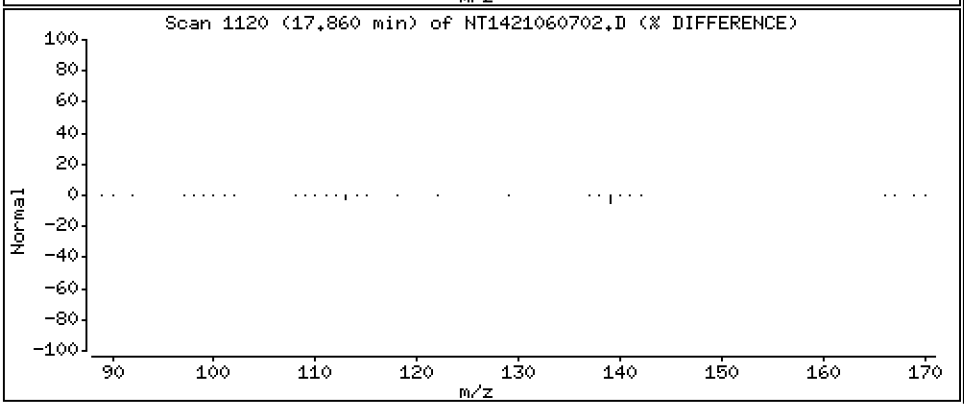












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Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

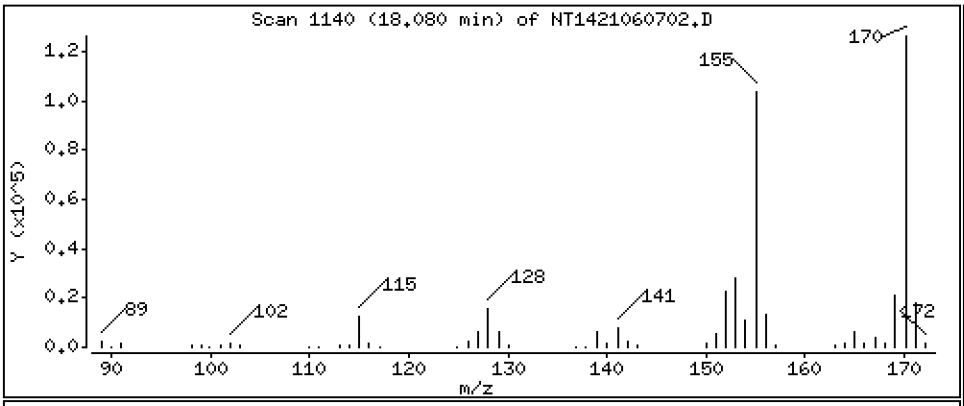
Operator: VTS

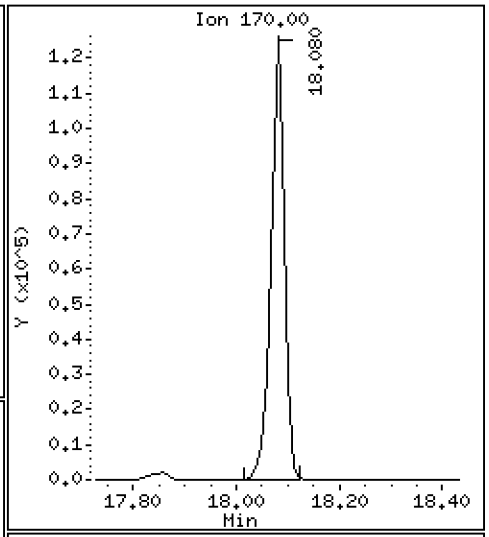
Column phase: Rxi-17Sil MS

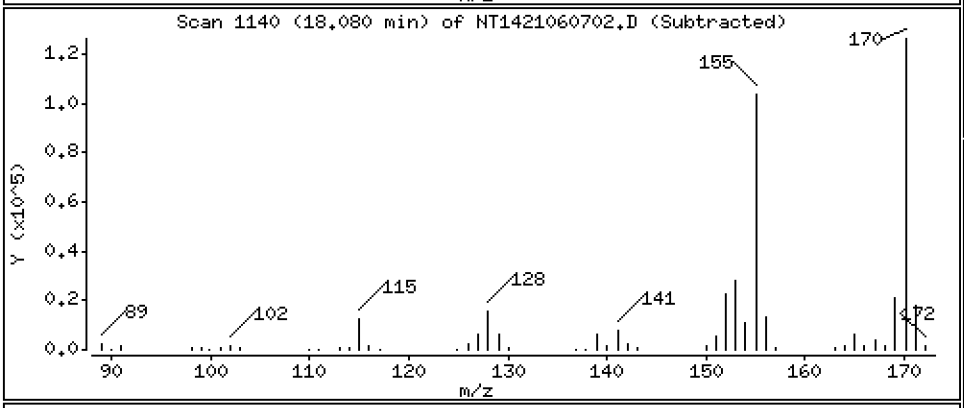
Column diameter: 0.25

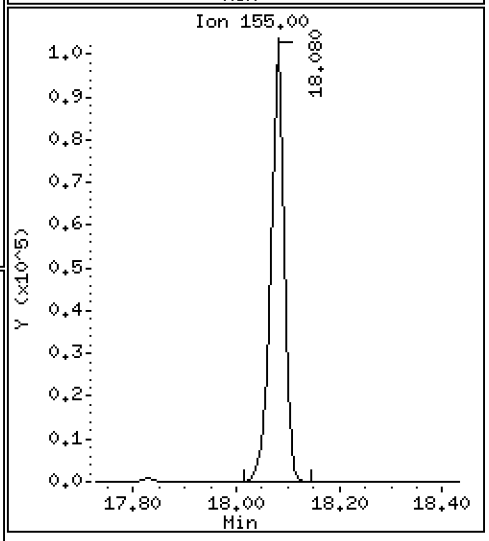
24 1,6,7-Trimethylnaphthalene

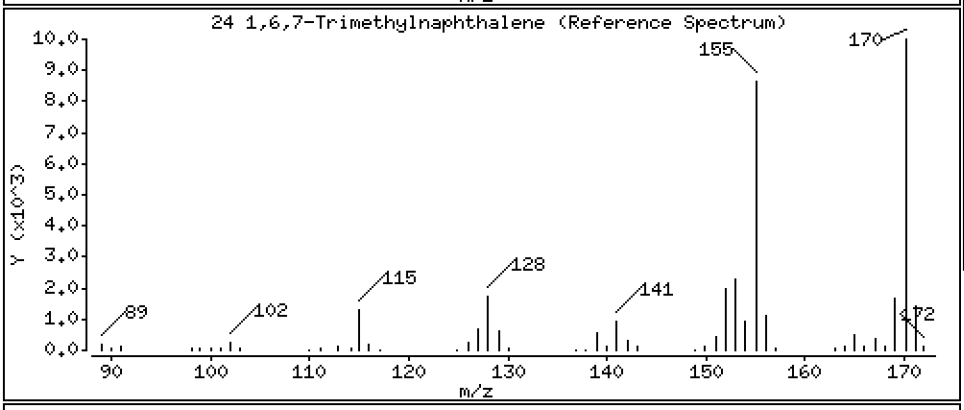
Concentration: 2.635 ug/mL

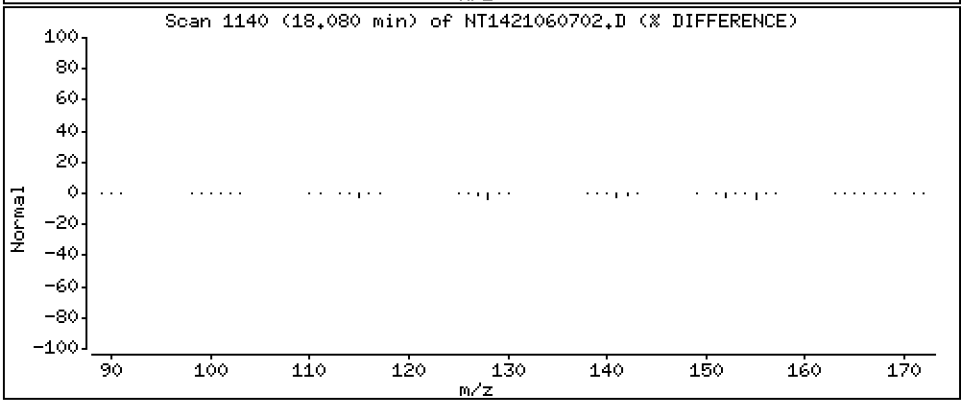












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Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

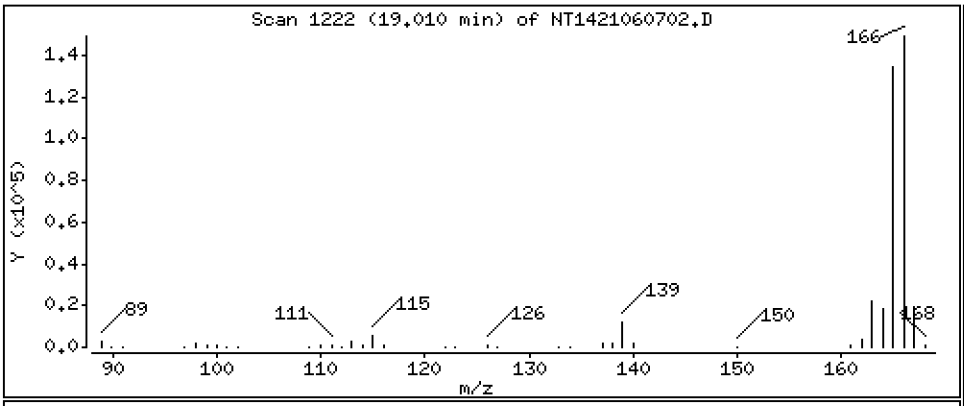
Operator: VTS

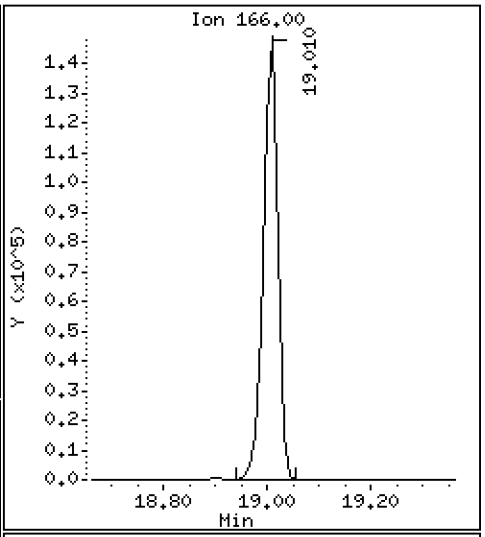
Column phase: Rxi-17Sil MS

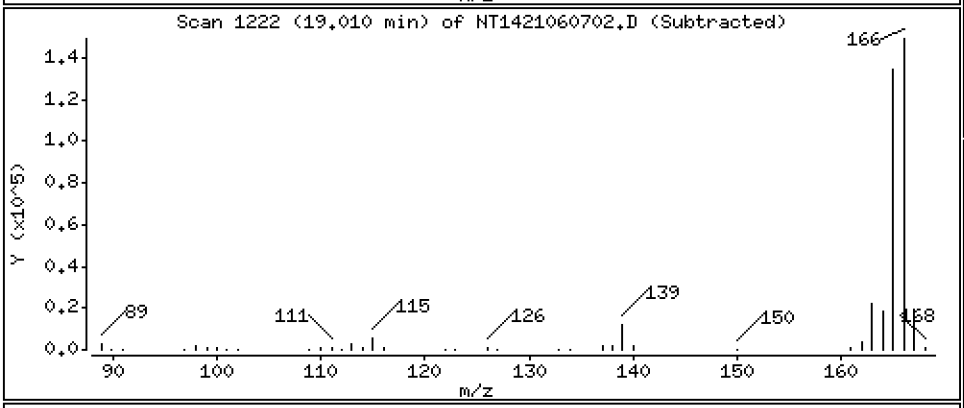
Column diameter: 0.25

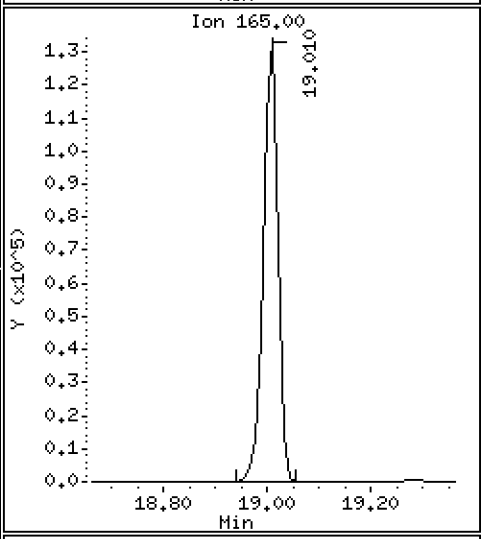
26 Fluorene

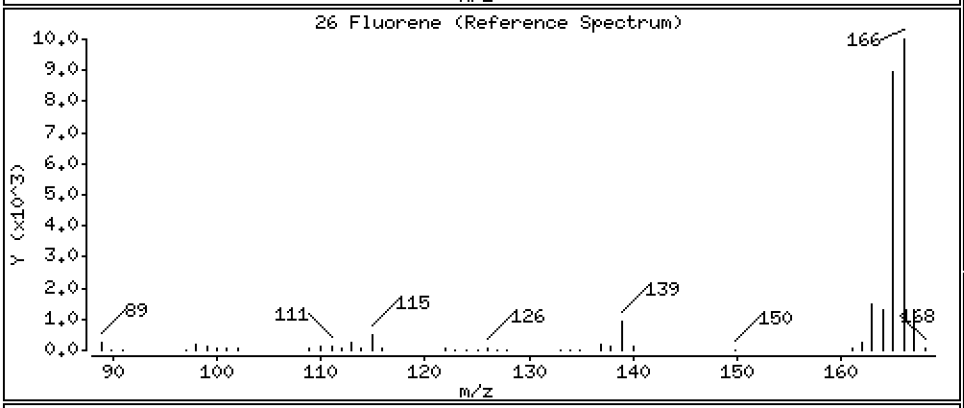
Concentration: 2.654 ug/mL

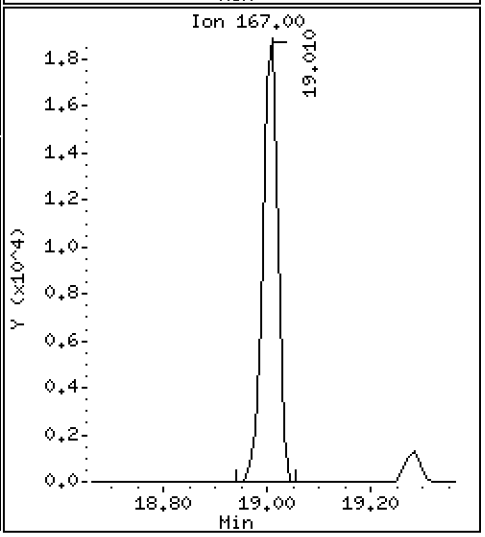


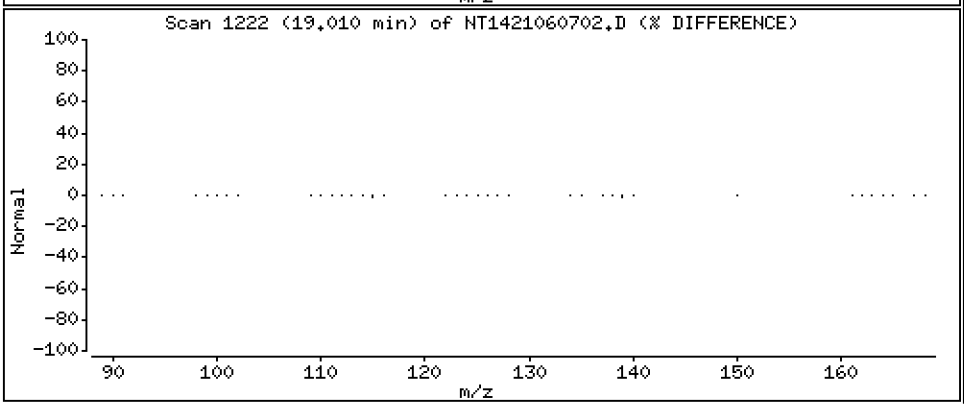












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Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

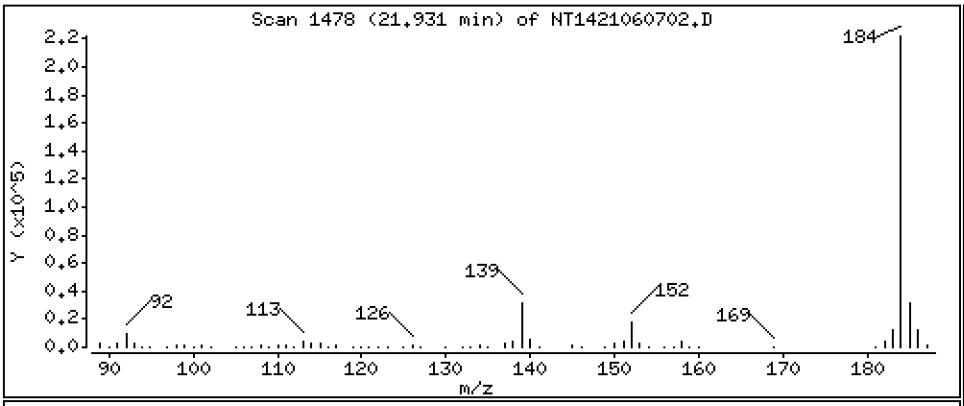
Operator: VTS

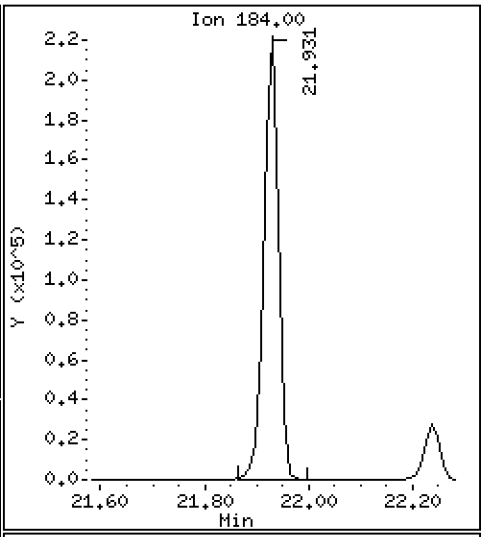
Column phase: Rxi-17Sil MS

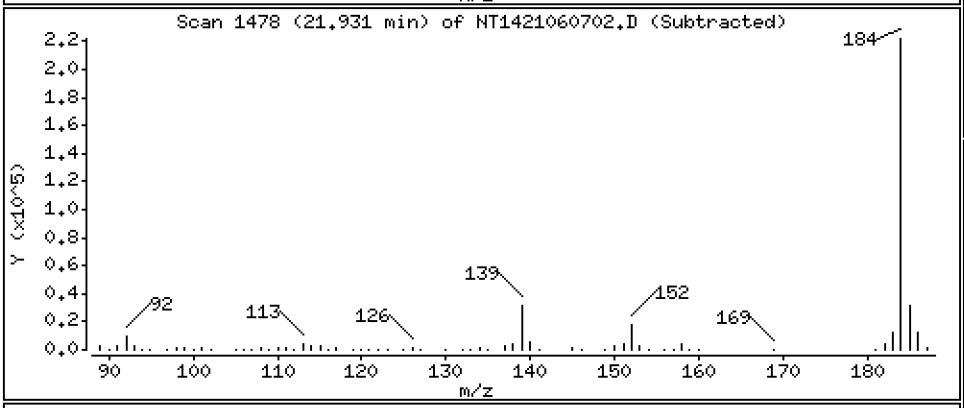
Column diameter: 0.25

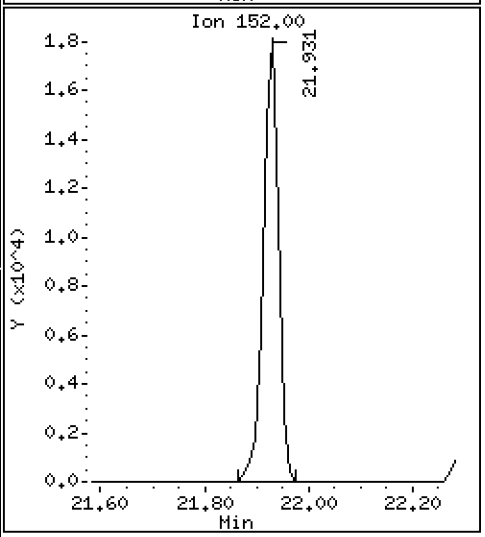
30 Dibenzothiophene

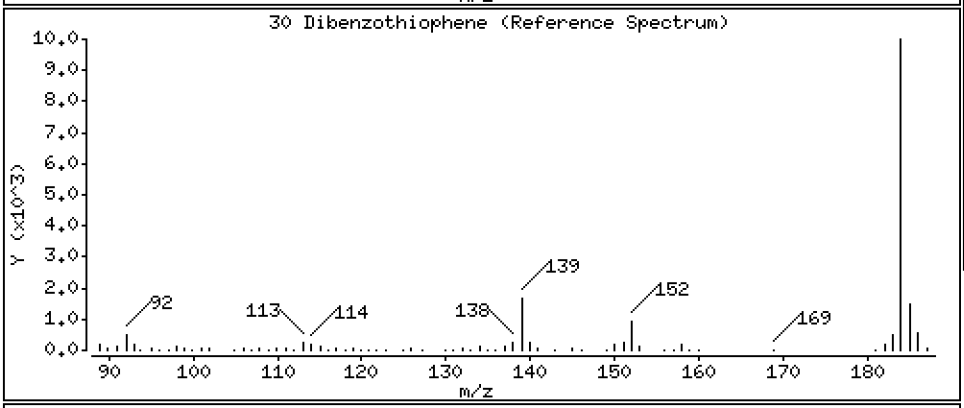
Concentration: 2.745 ug/mL

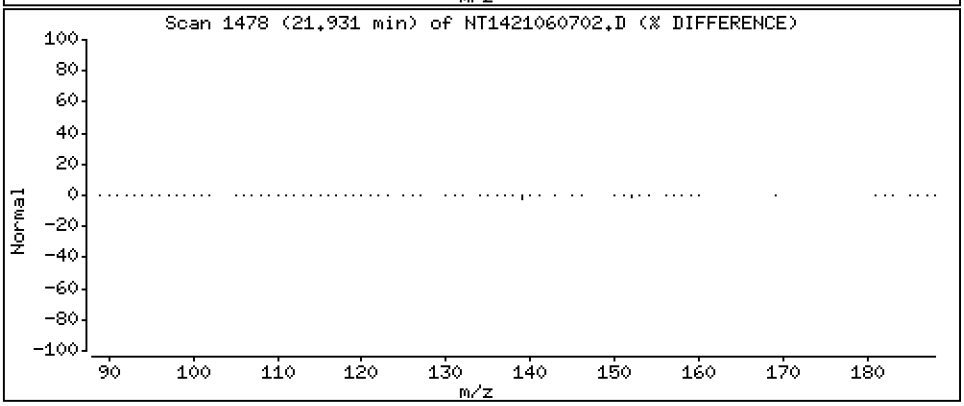












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Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

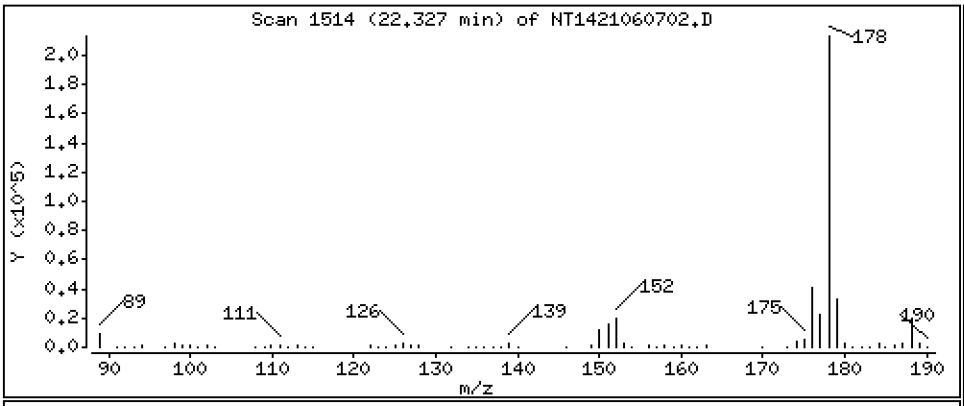
Operator: VTS

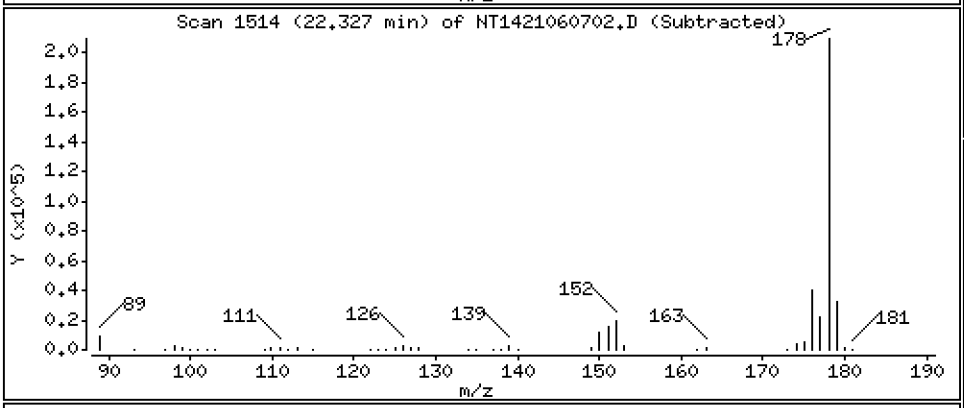
Column phase: Rxi-17Sil MS

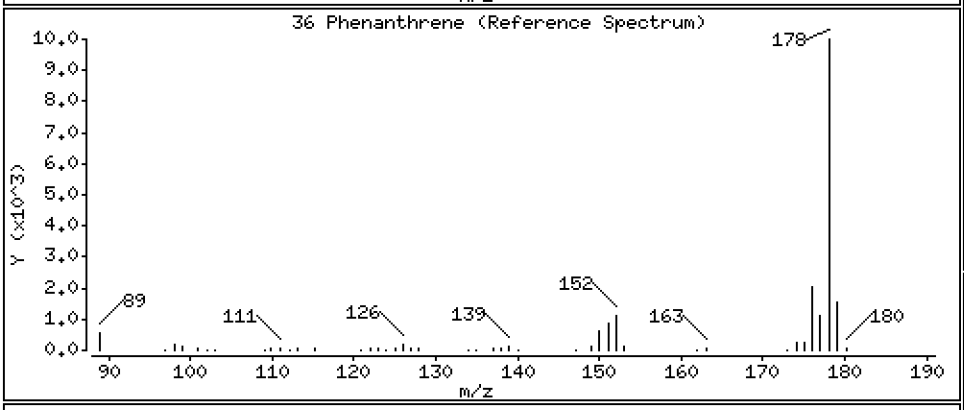
Column diameter: 0.25

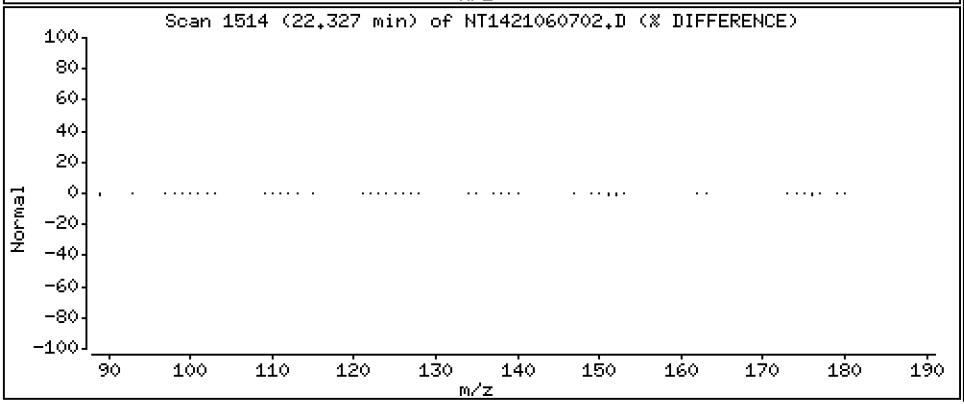
36 Phenanthrene

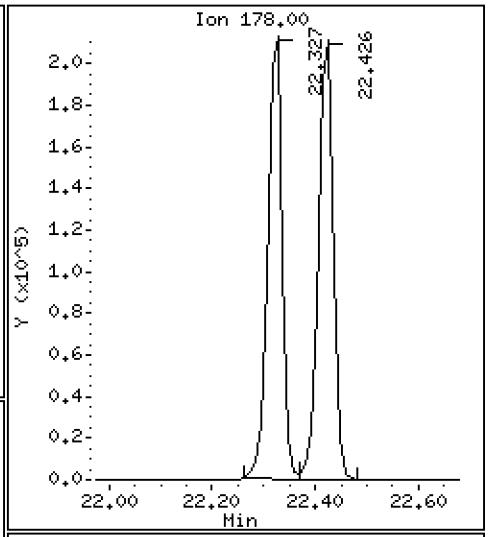
Concentration: 2.582 ug/mL

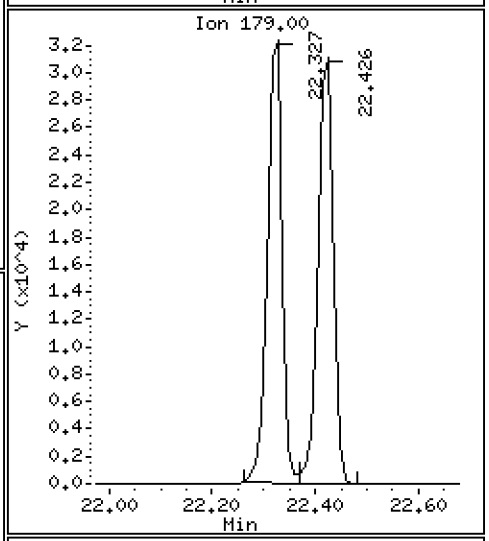


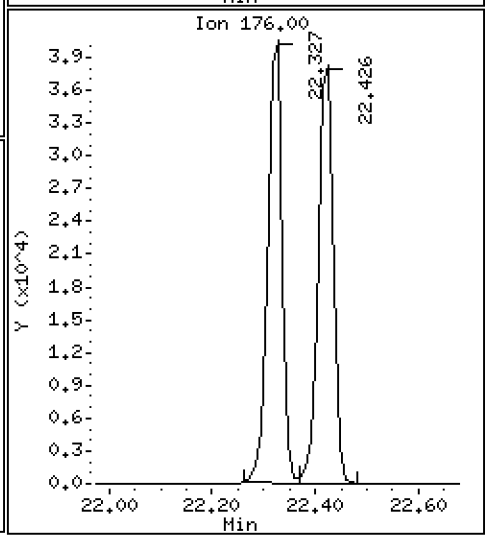












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Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

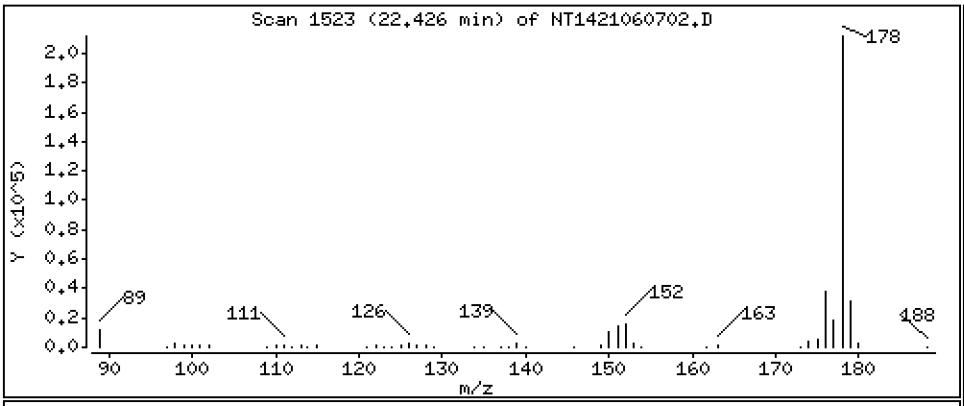
Operator: VTS

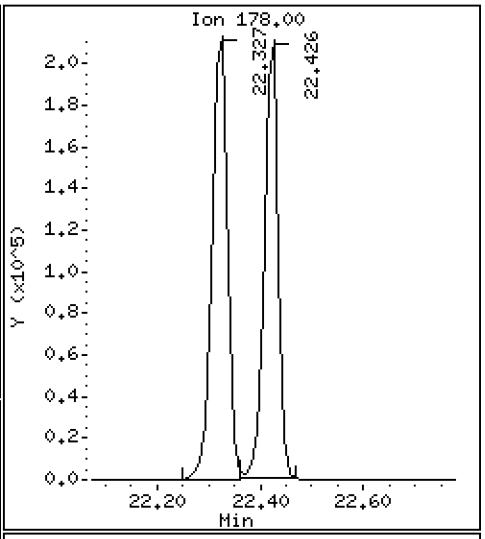
Column phase: Rxi-17Sil MS

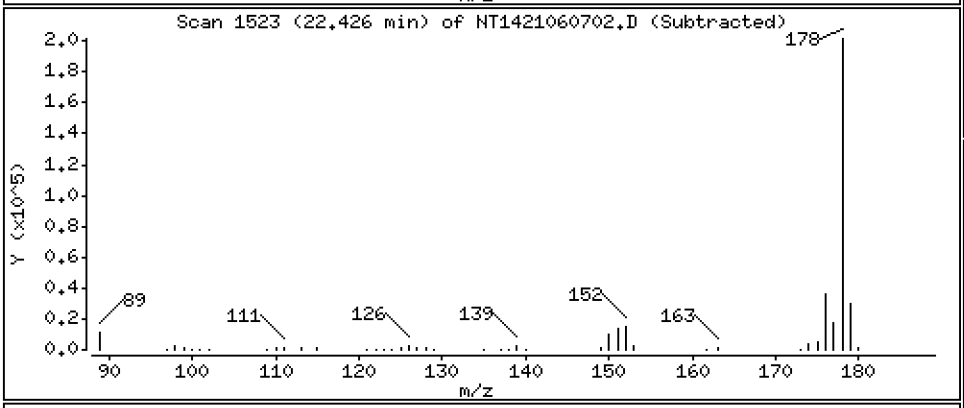
Column diameter: 0.25

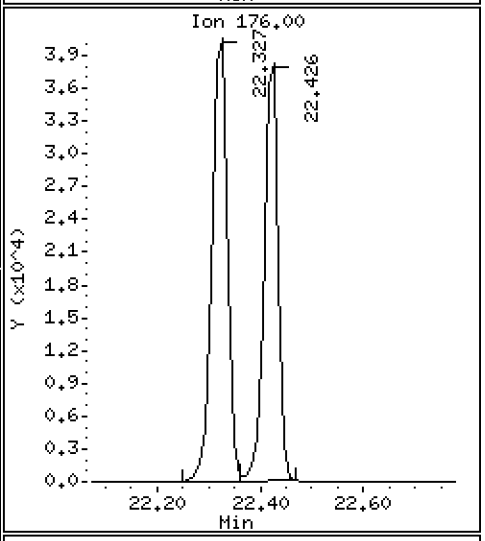
37 Anthracene

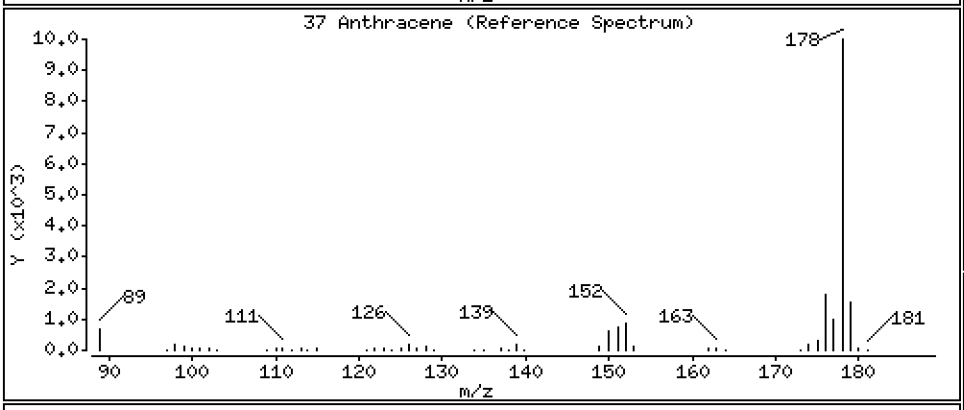
Concentration: 2.625 ug/mL

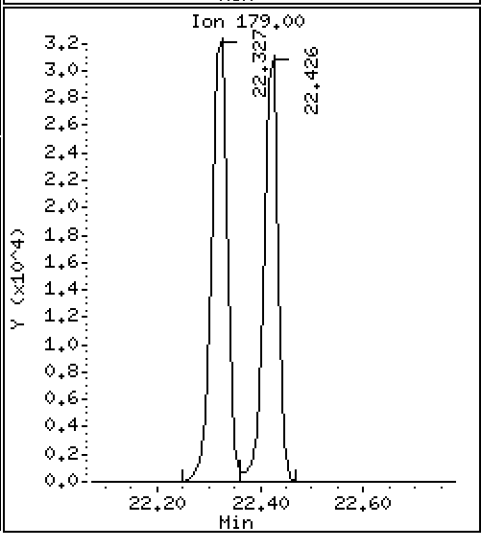


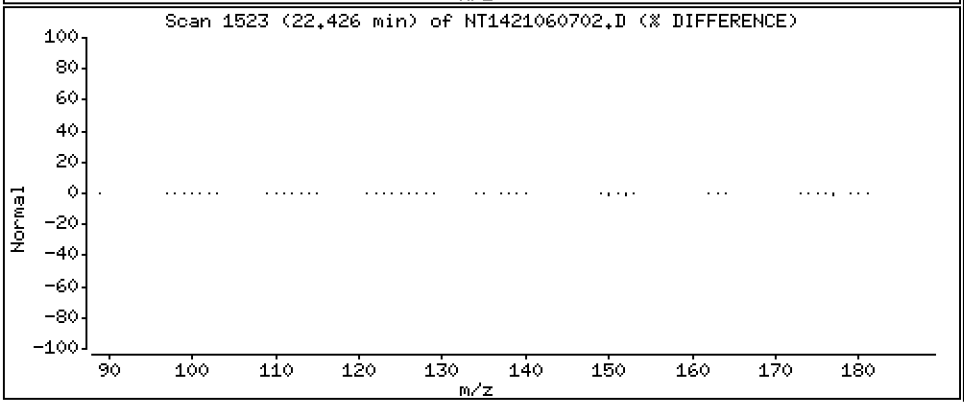












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Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

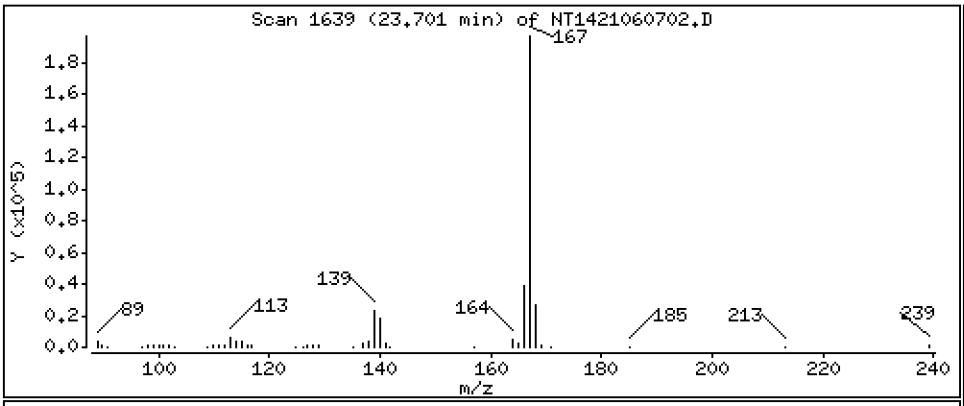
Operator: VTS

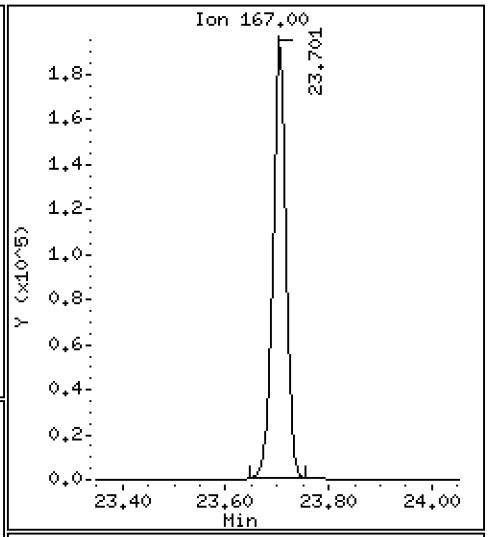
Column phase: Rxi-17Sil MS

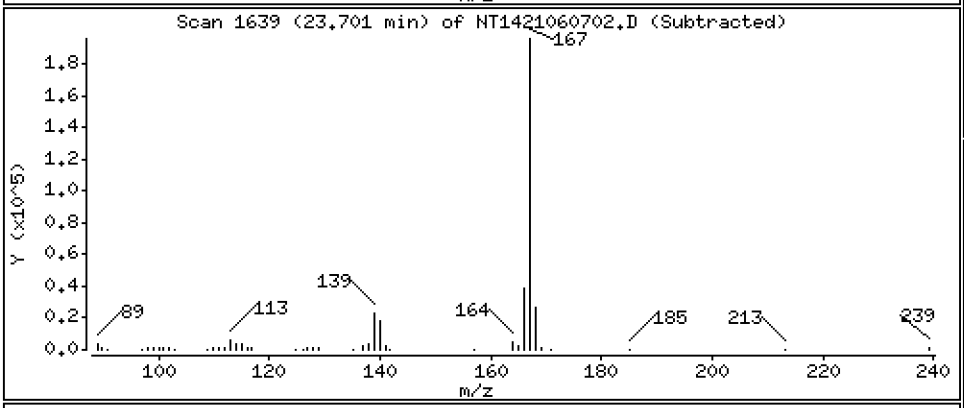
Column diameter: 0.25

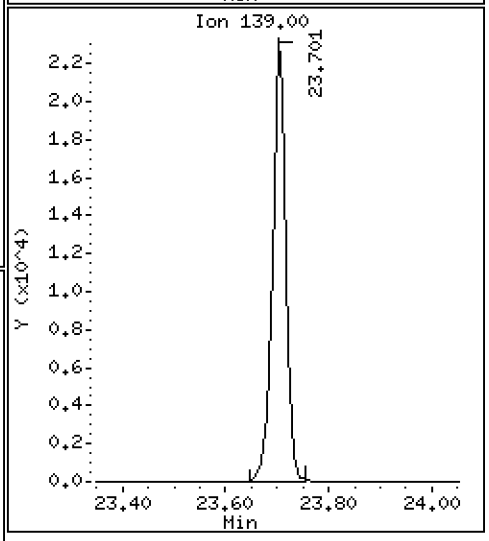
42 Carbazole

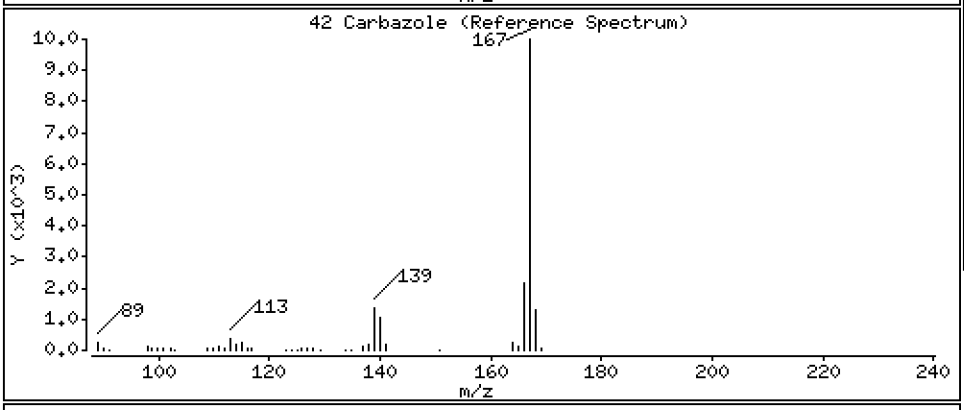
Concentration: 2.530 ug/mL

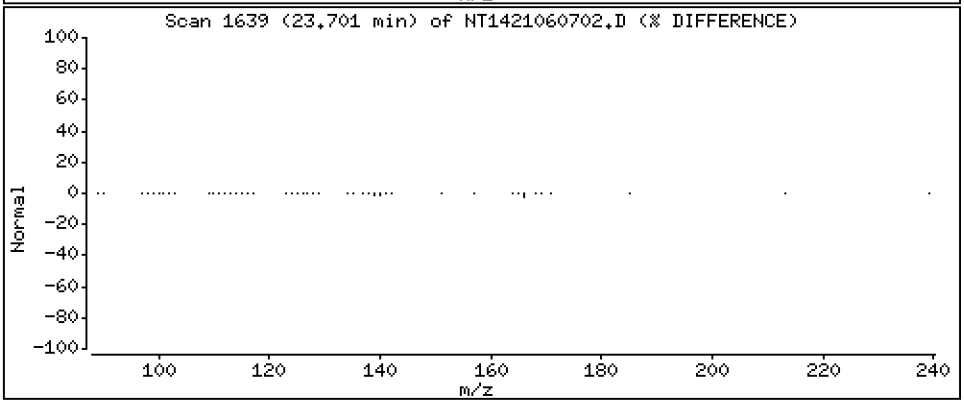












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060702.D

Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

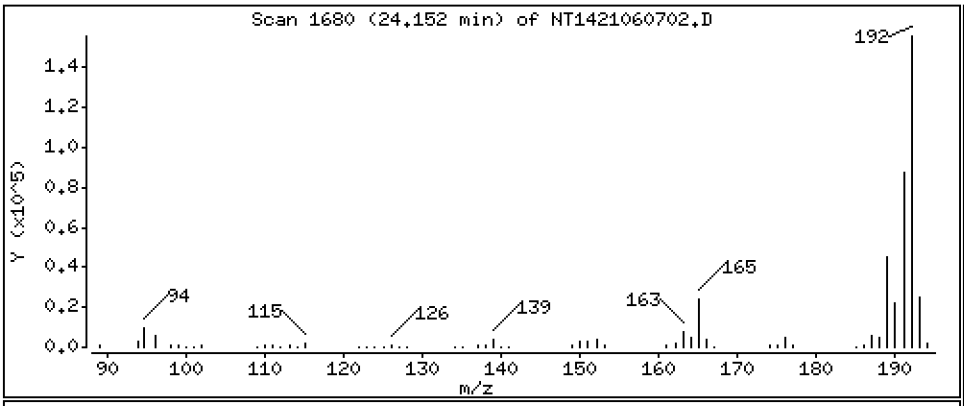
Operator: VTS

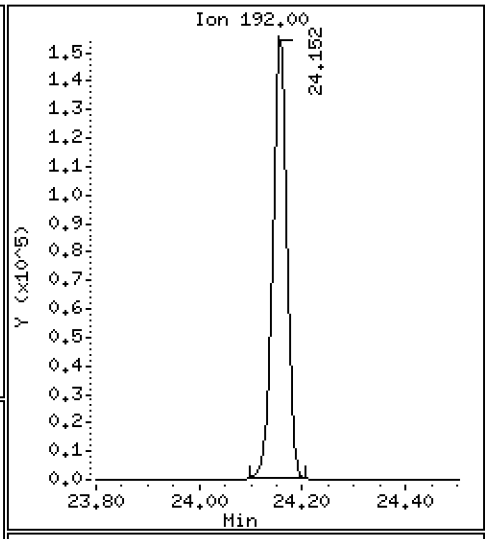
Column phase: Rxi-17Sil MS

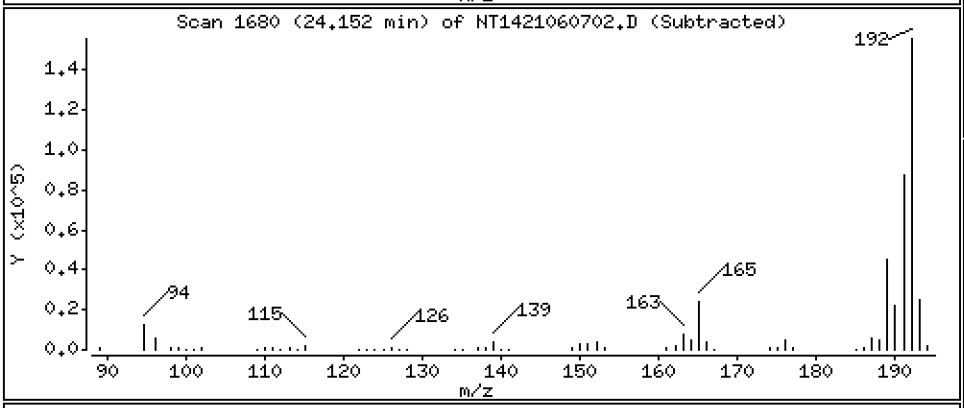
Column diameter: 0.25

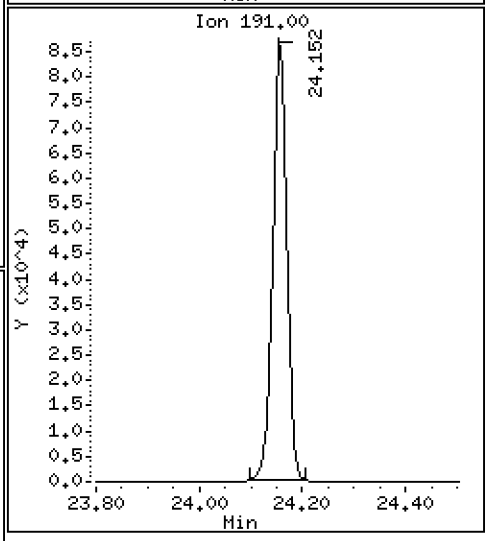
43 1-Methylphenanthrene

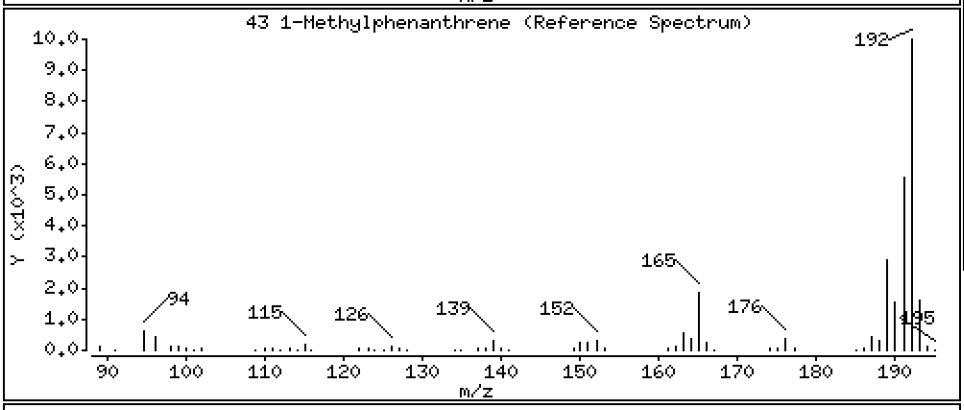
Concentration: 2.649 ug/mL

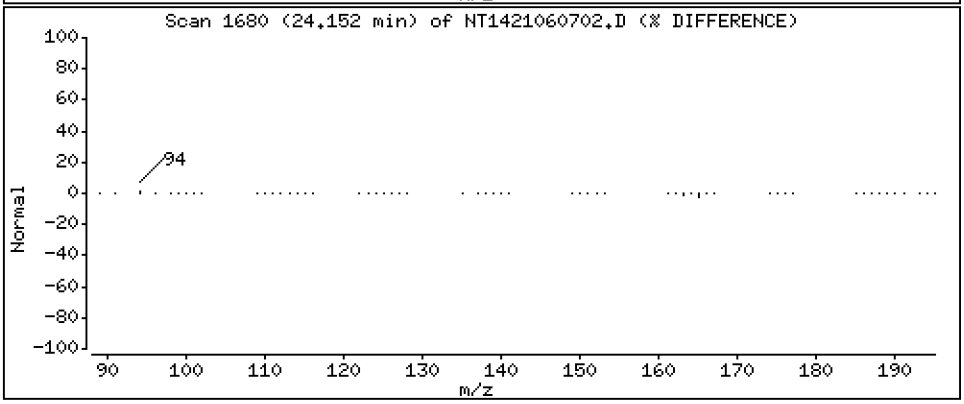












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Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

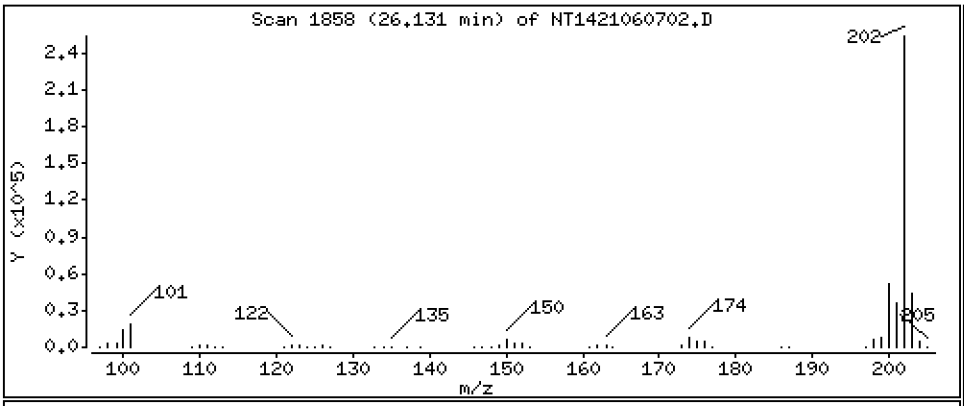
Operator: VTS

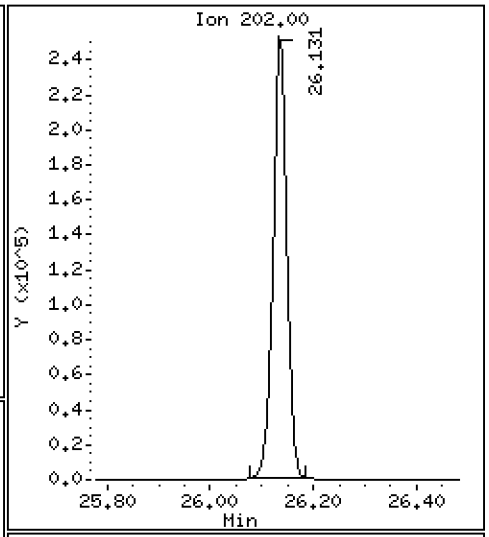
Column phase: Rxi-17Sil MS

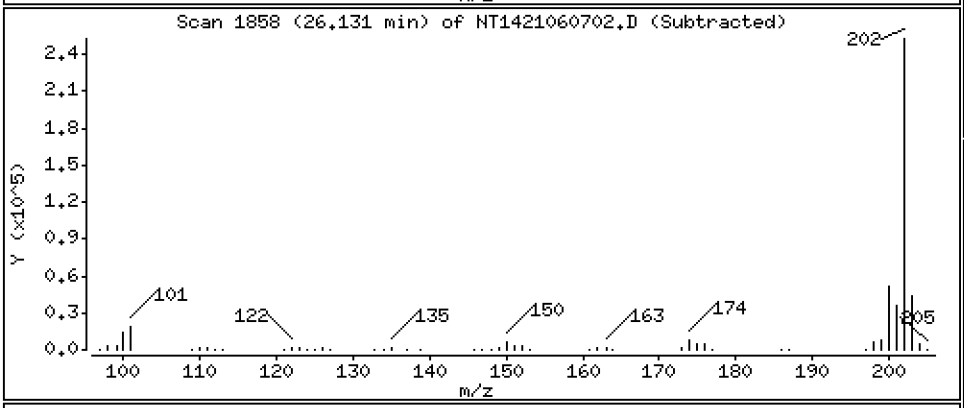
Column diameter: 0.25

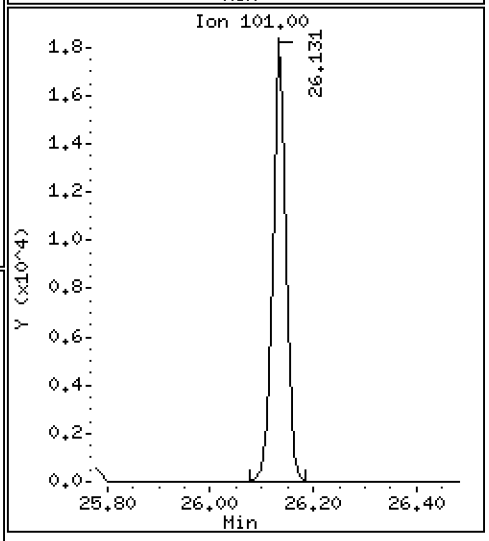
44 Fluoranthene

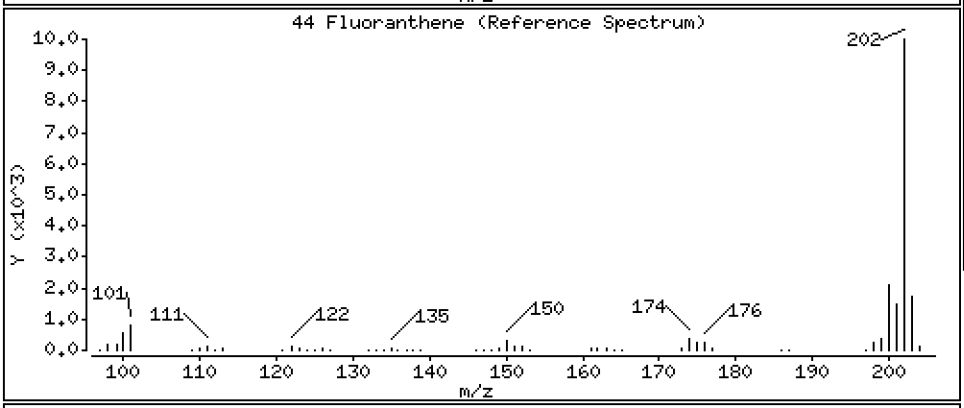
Concentration: 2.720 ug/mL

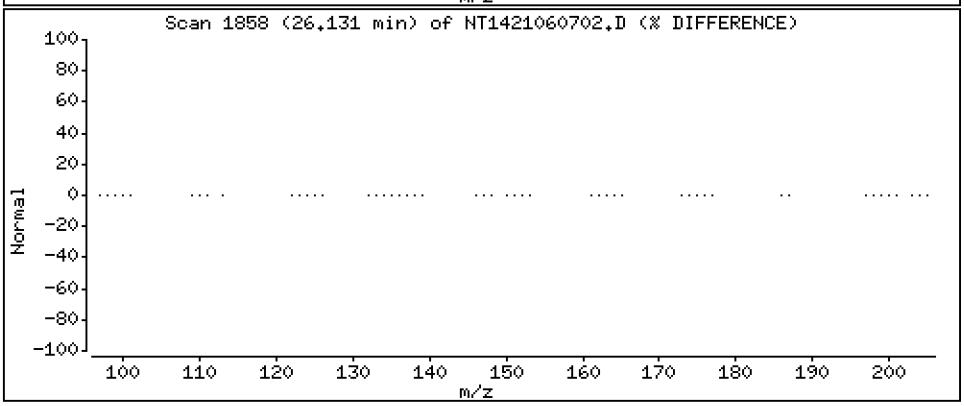












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060702.D

Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

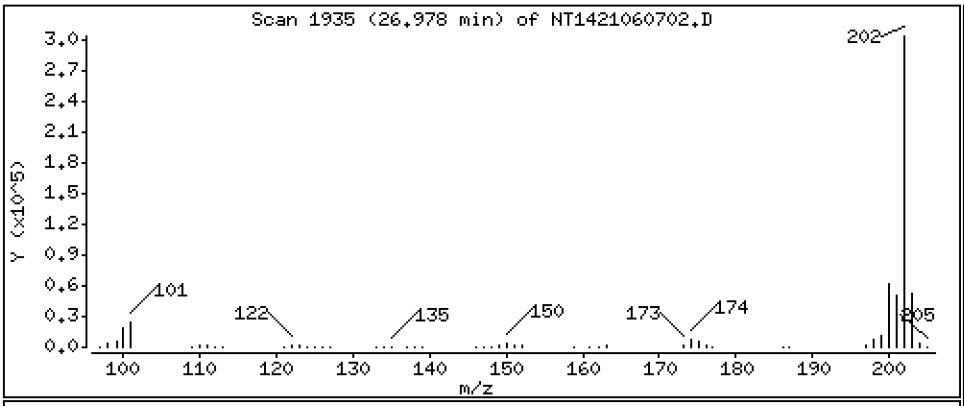
Operator: VTS

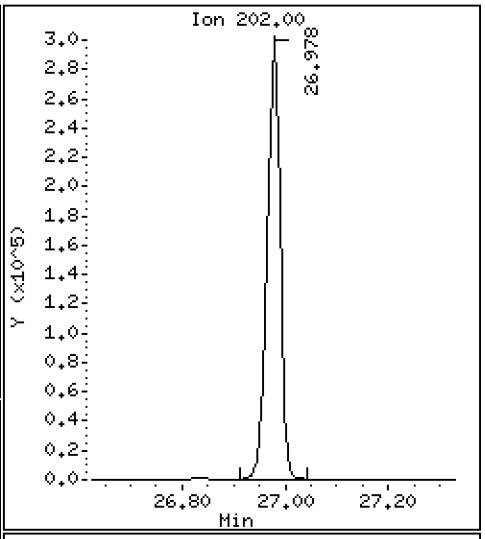
Column phase: Rxi-17Sil MS

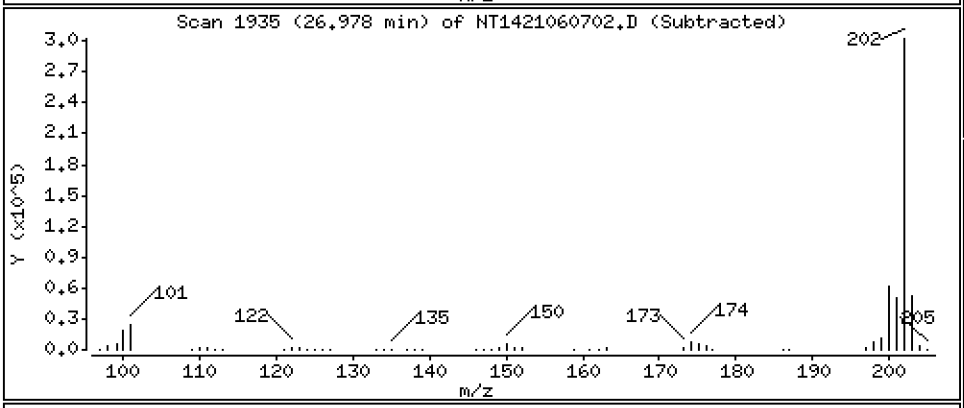
Column diameter: 0.25

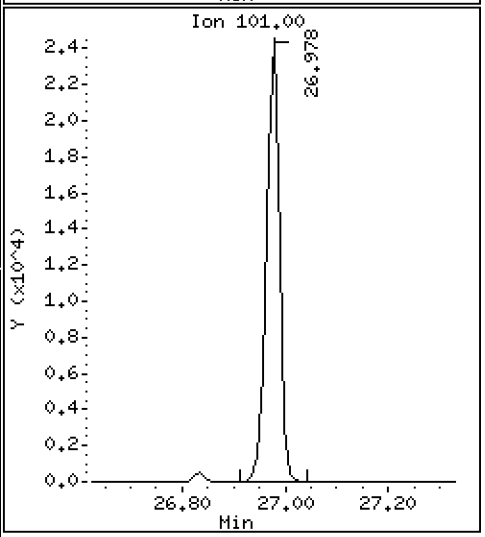
46 Pyrene

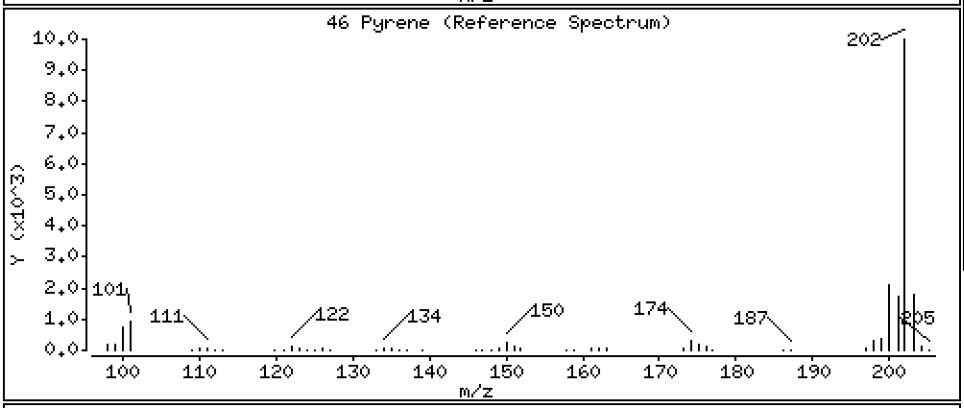
Concentration: 2.808 ug/mL

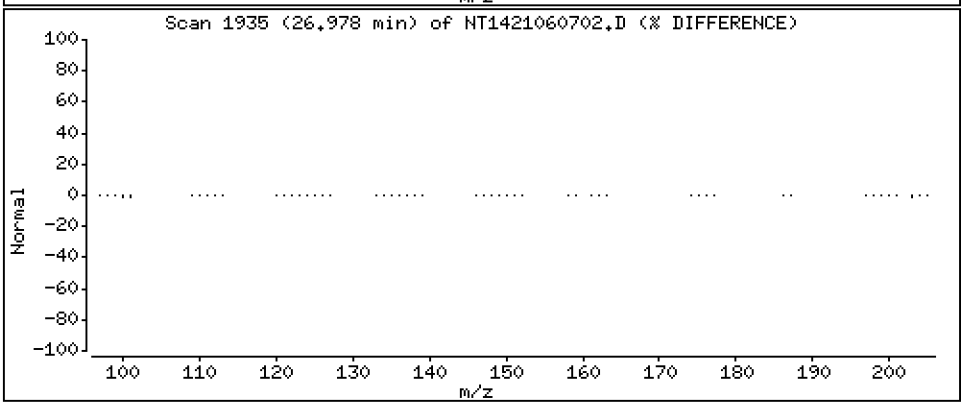












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Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

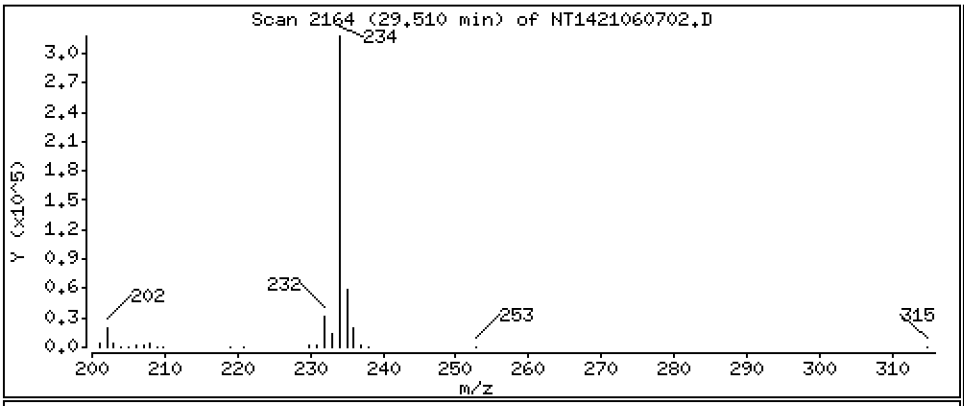
Operator: VTS

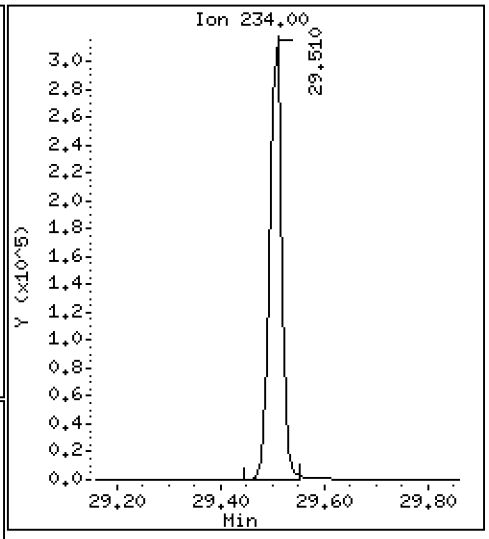
Column phase: Rxi-17Sil MS

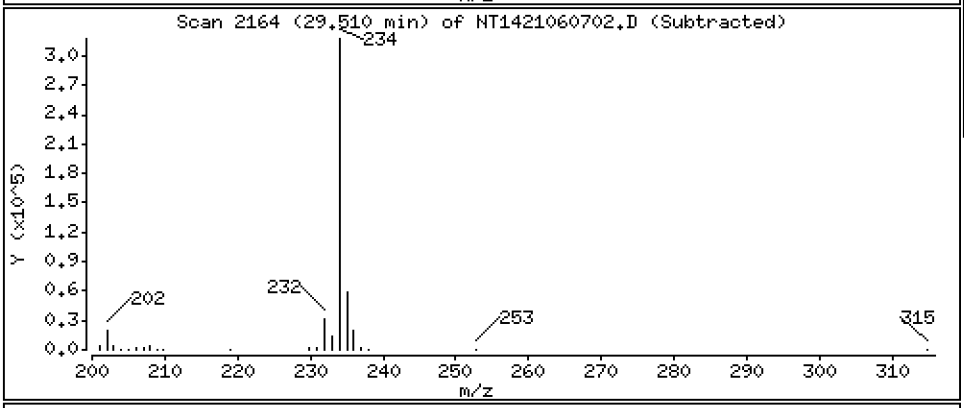
Column diameter: 0.25

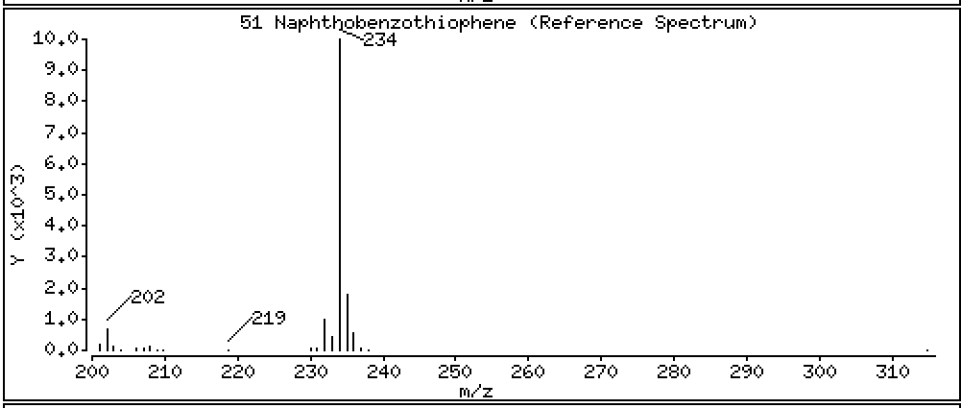
51 Naphthobenzothiophene

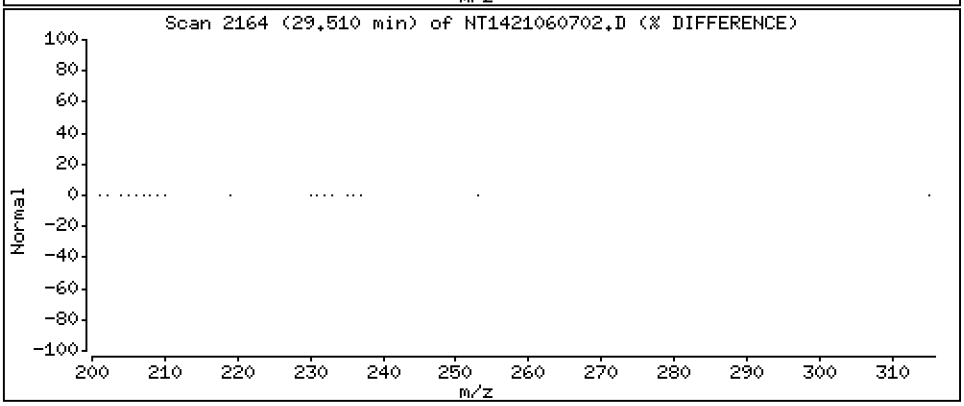
Concentration: 2.653 ug/mL











Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060702.D

Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

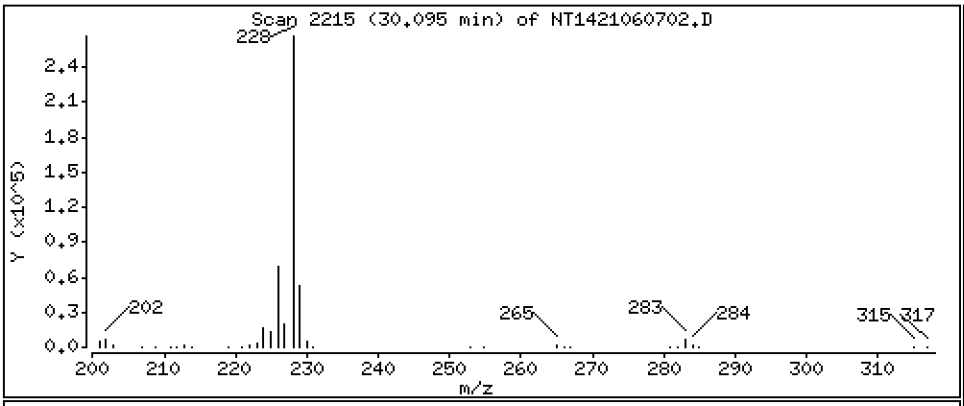
Operator: VTS

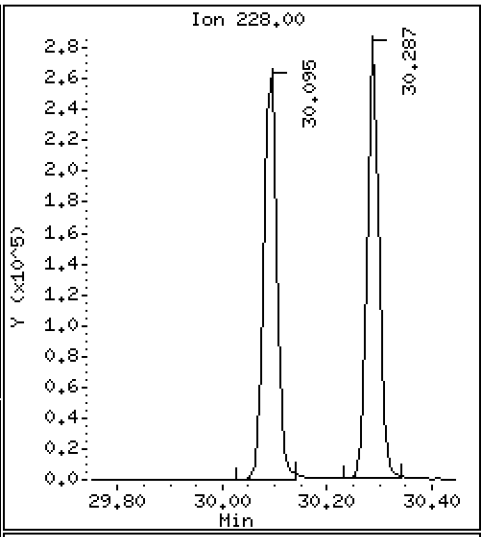
Column phase: Rxi-17Sil MS

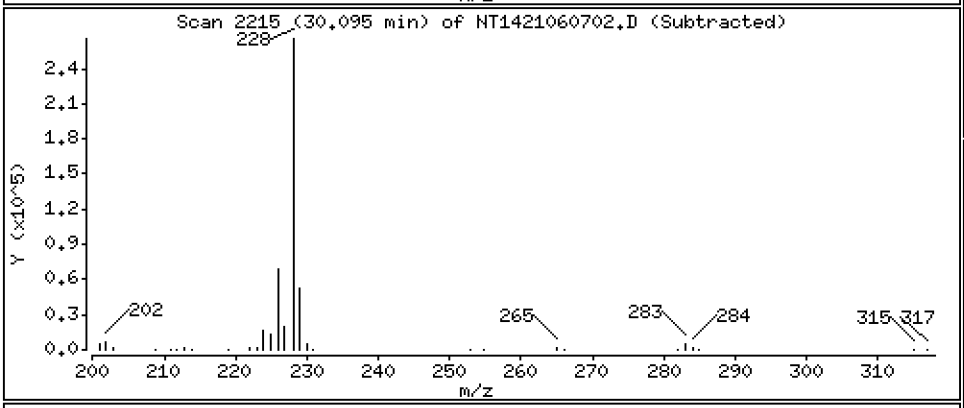
Column diameter: 0.25

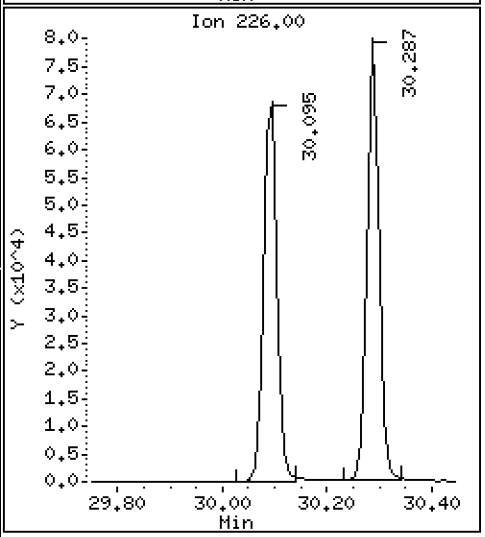
55 Benzo(a)anthracene

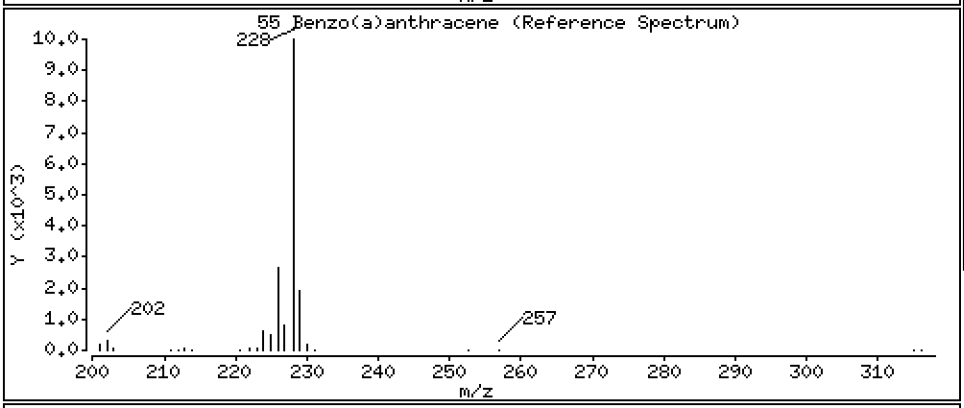
Concentration: 2.985 ug/mL

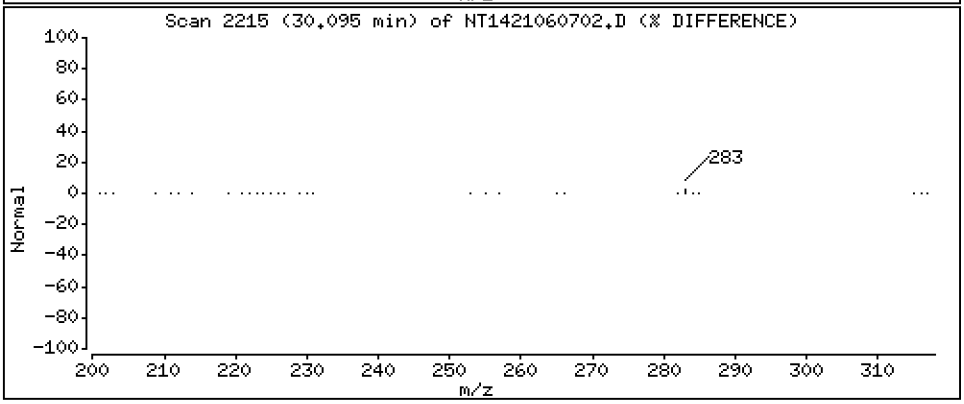












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060702.D

Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

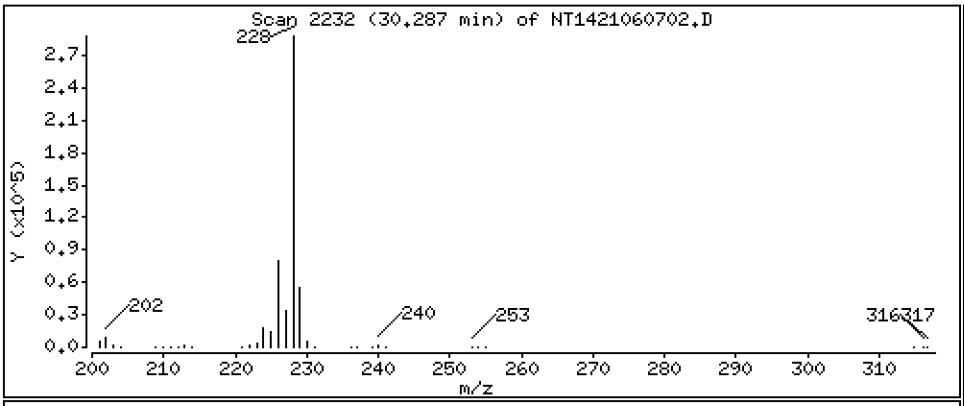
Operator: VTS

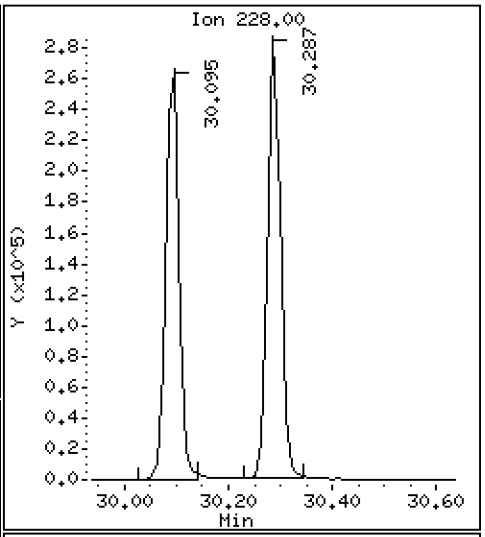
Column phase: Rxi-17Sil MS

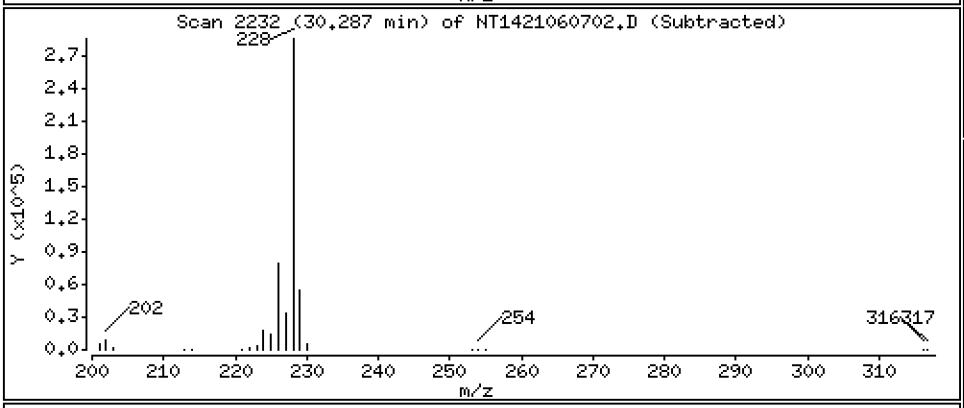
Column diameter: 0.25

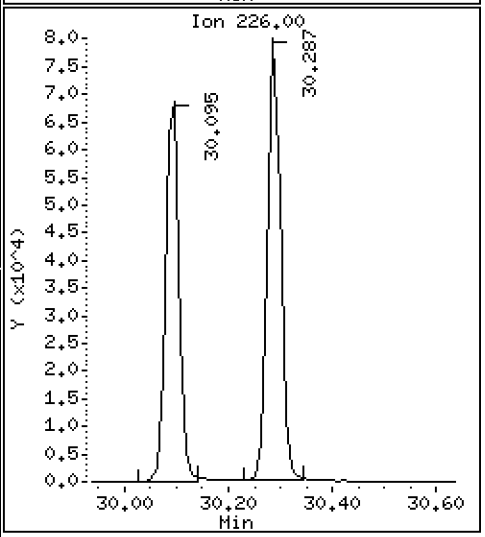
57 Chrysene

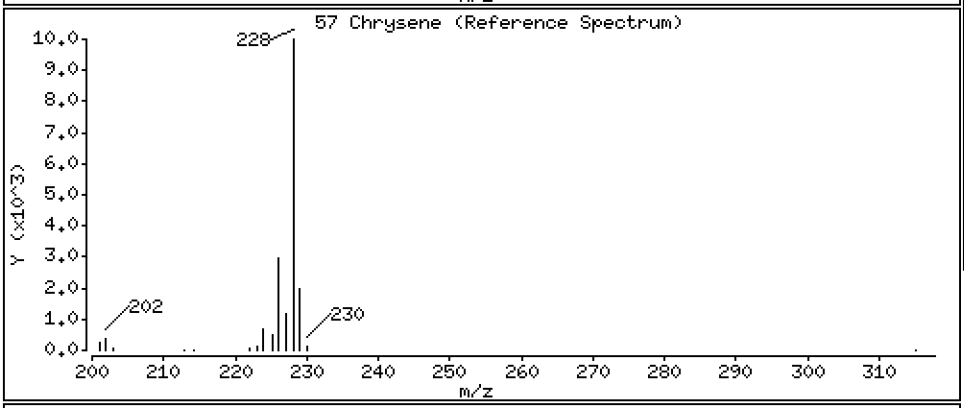
Concentration: 2.887 ug/mL

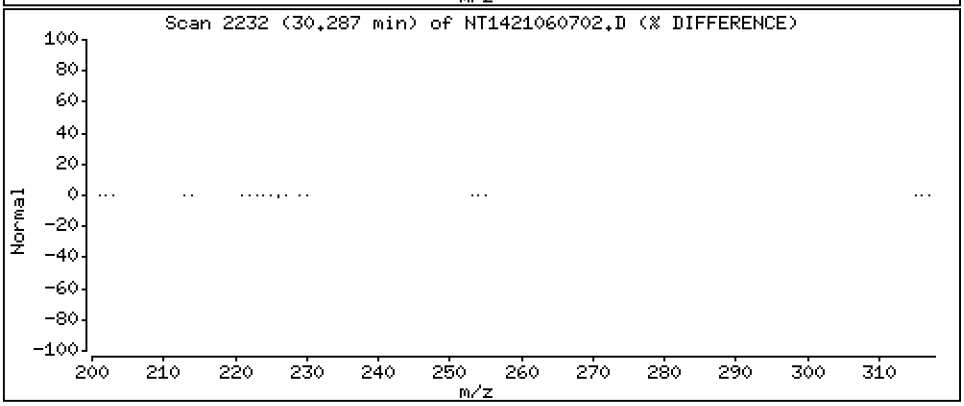












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Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

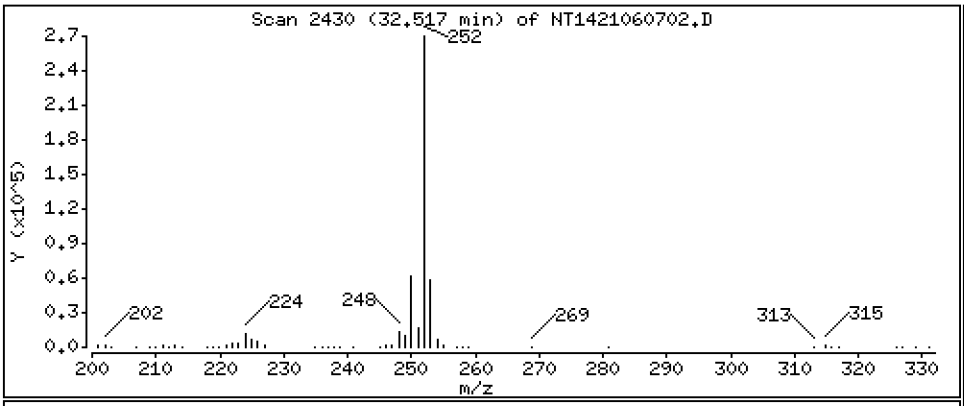
Operator: VTS

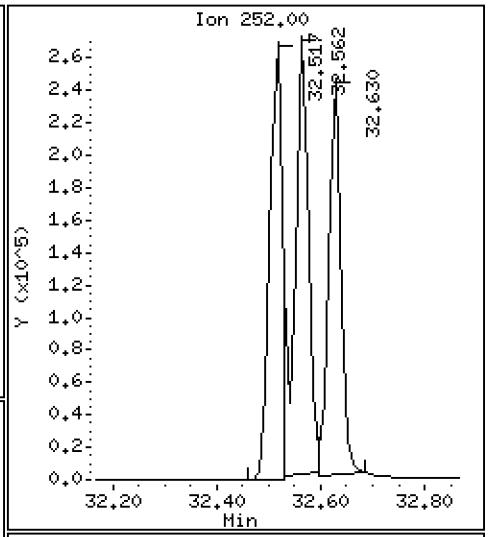
Column phase: Rxi-17Sil MS

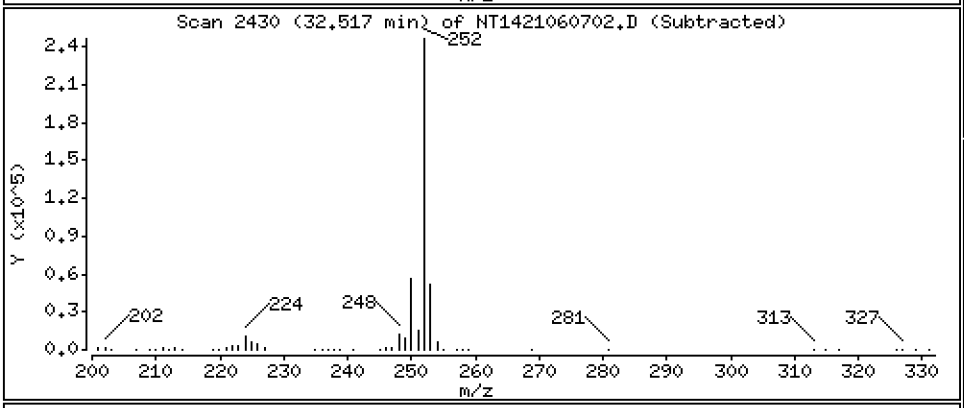
Column diameter: 0.25

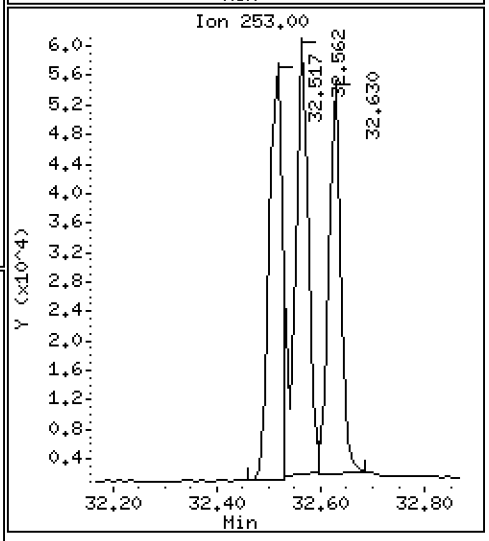
62 Benzo(b)fluoranthene

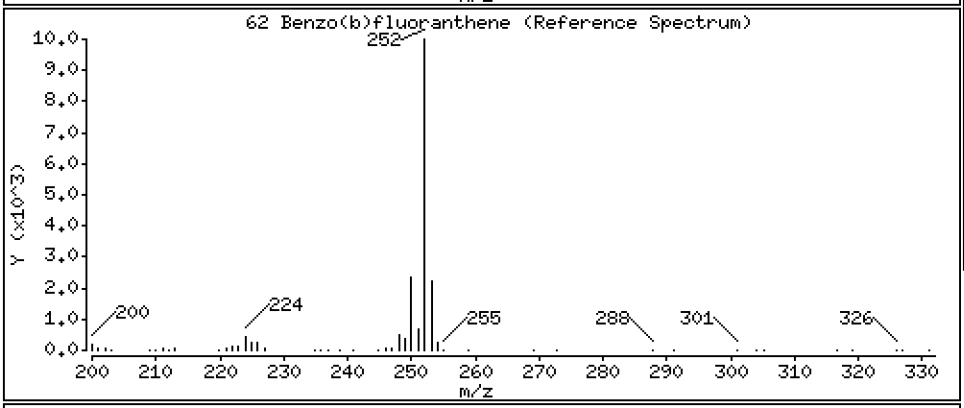
Concentration: 2.562 ug/mL

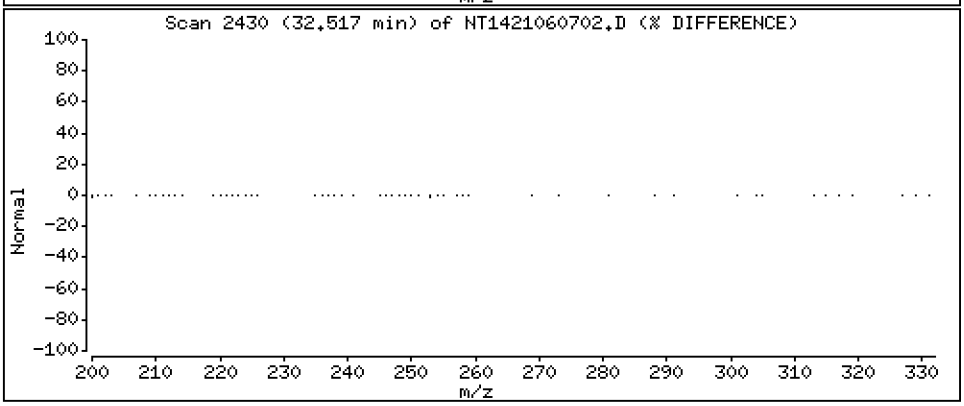












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060702.D

Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

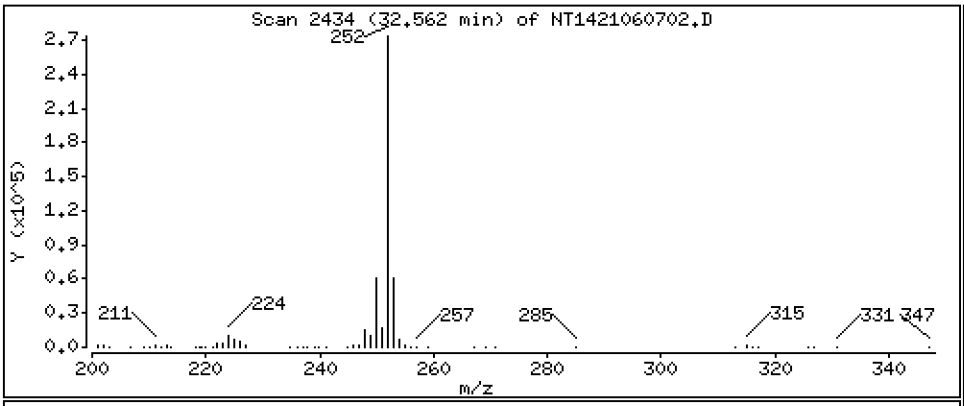
Operator: VTS

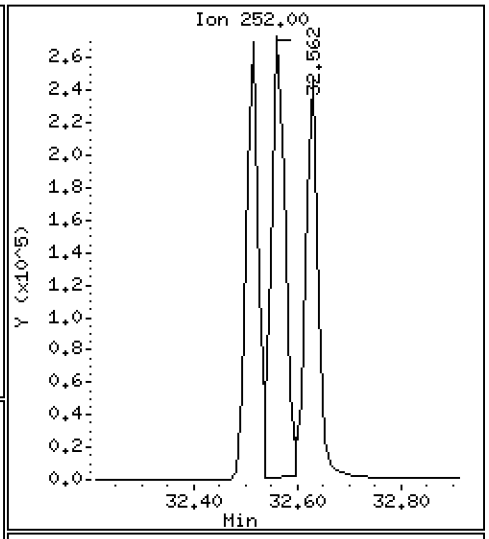
Column phase: Rxi-17Sil MS

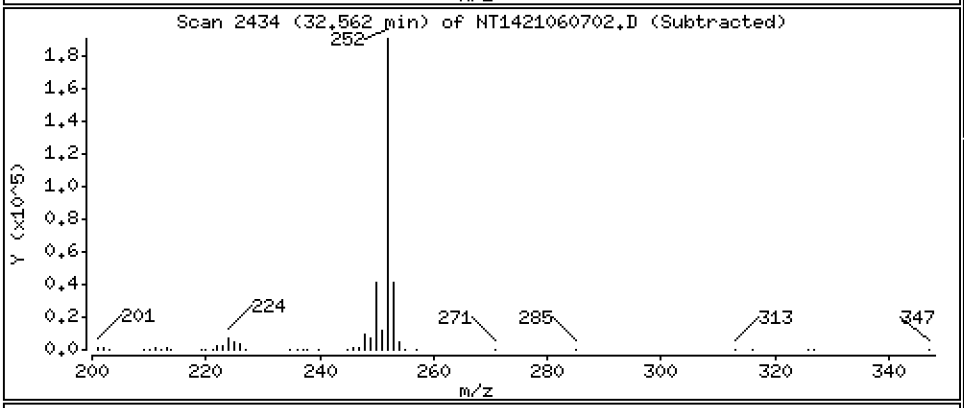
Column diameter: 0.25

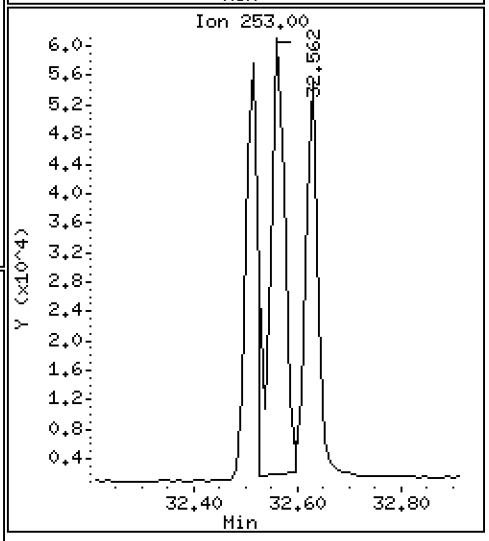
63 Benzo(k)fluoranthene

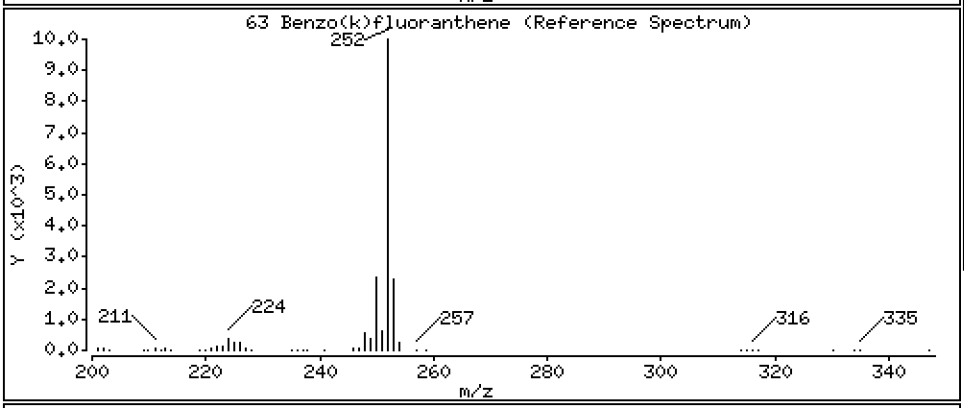
Concentration: 2.647 ug/mL

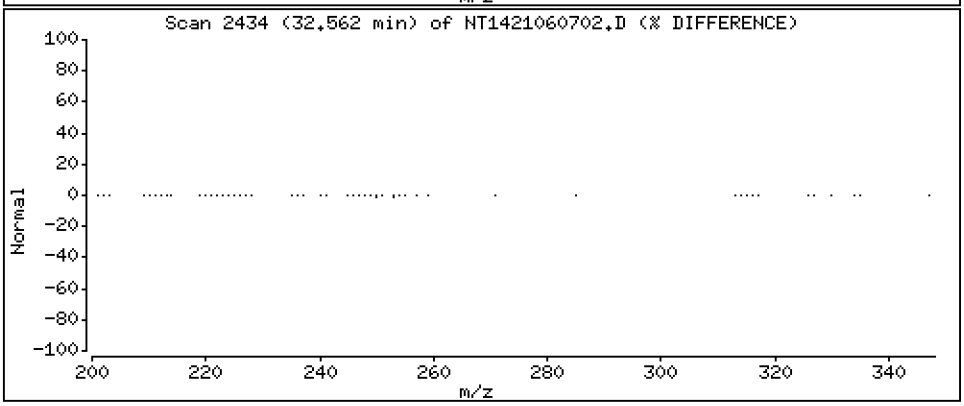












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060702.D

Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

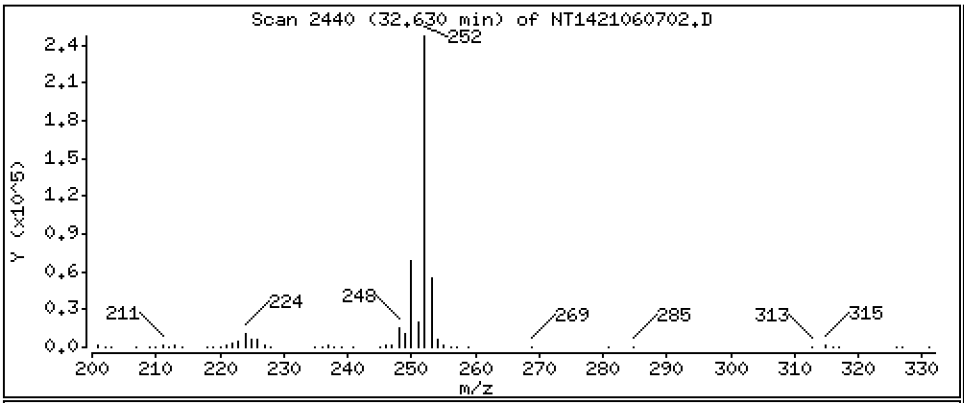
Operator: VTS

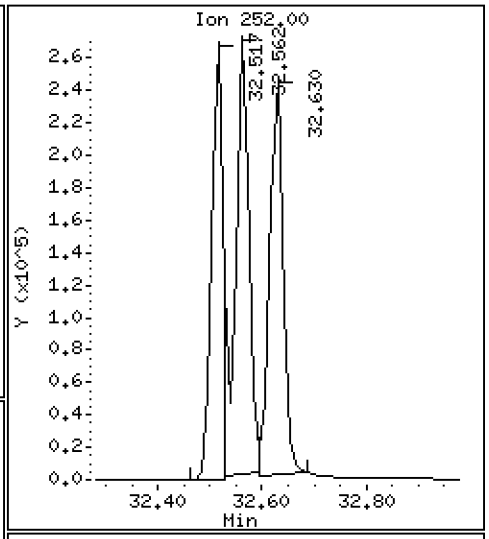
Column phase: Rxi-17Sil MS

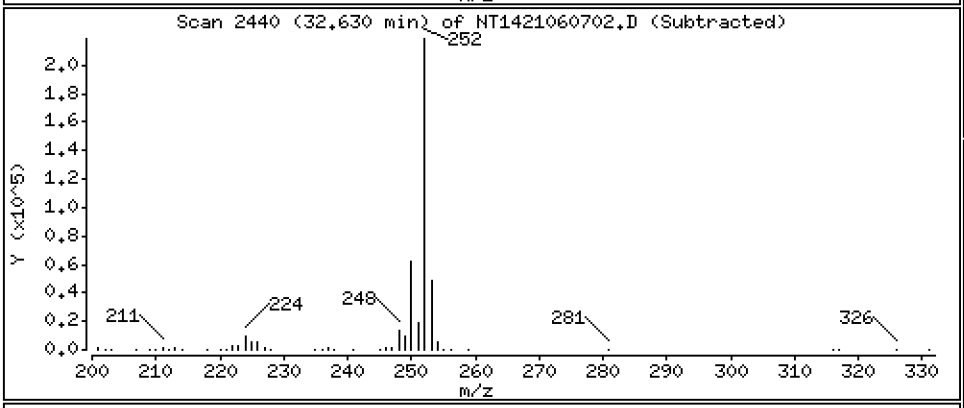
Column diameter: 0.25

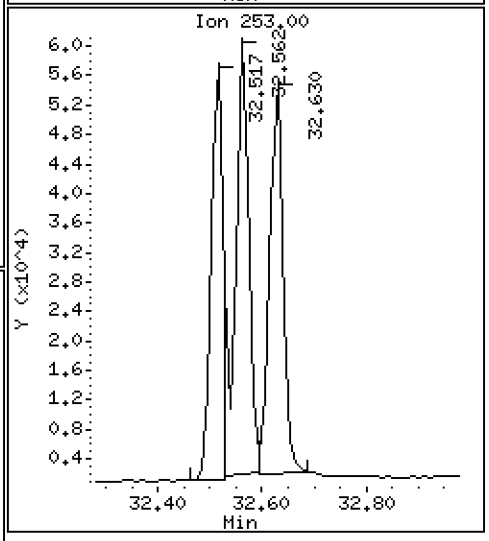
293 Benzo(j)fluoranthene

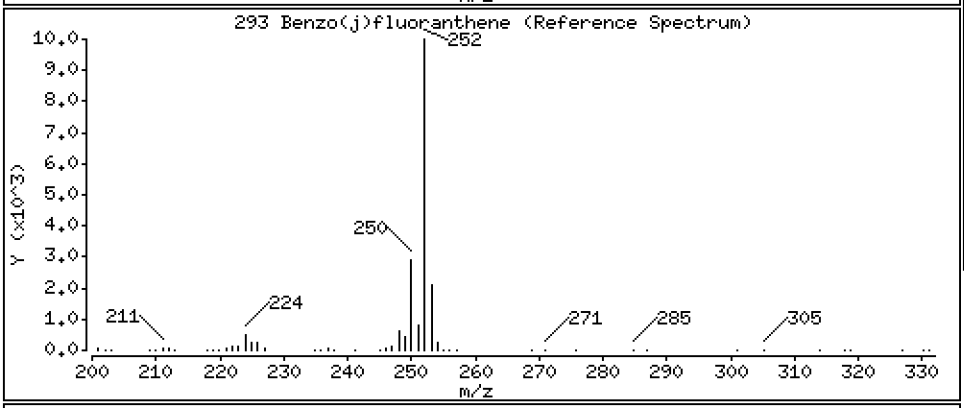
Concentration: 2.479 ug/mL

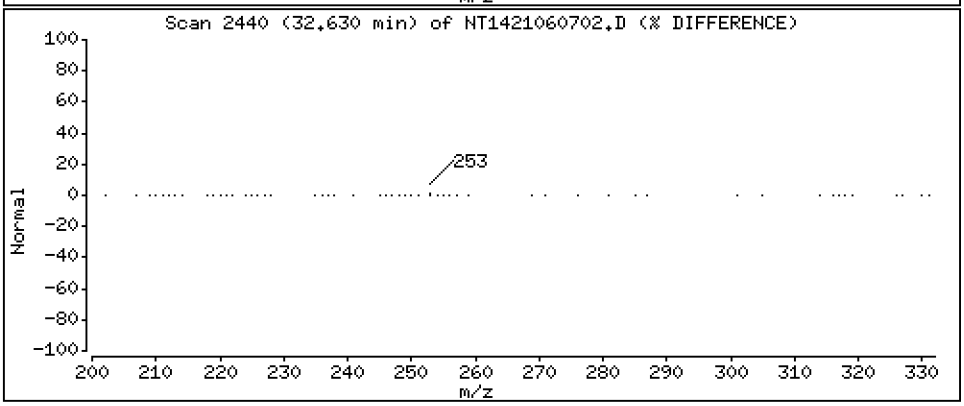












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060702.D

Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

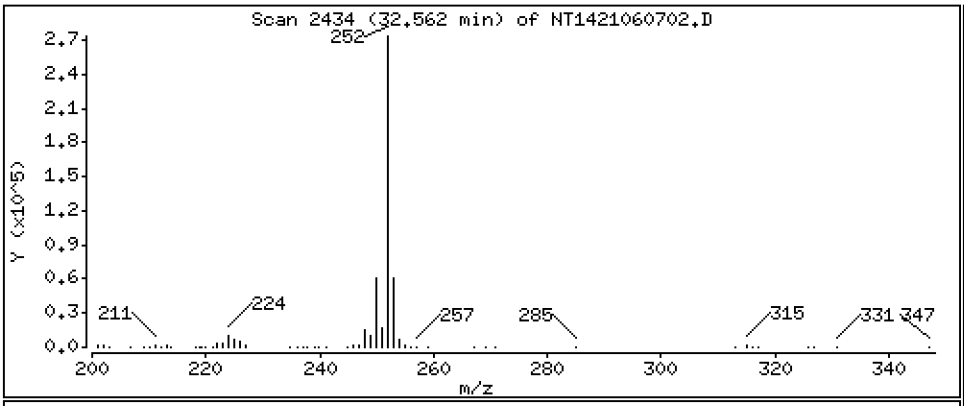
Operator: VTS

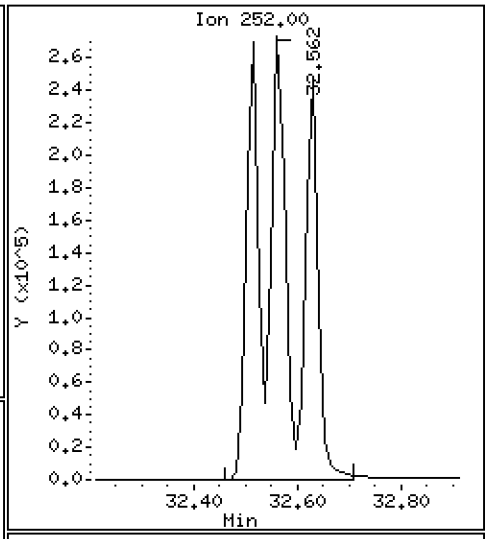
Column phase: Rxi-17Sil MS

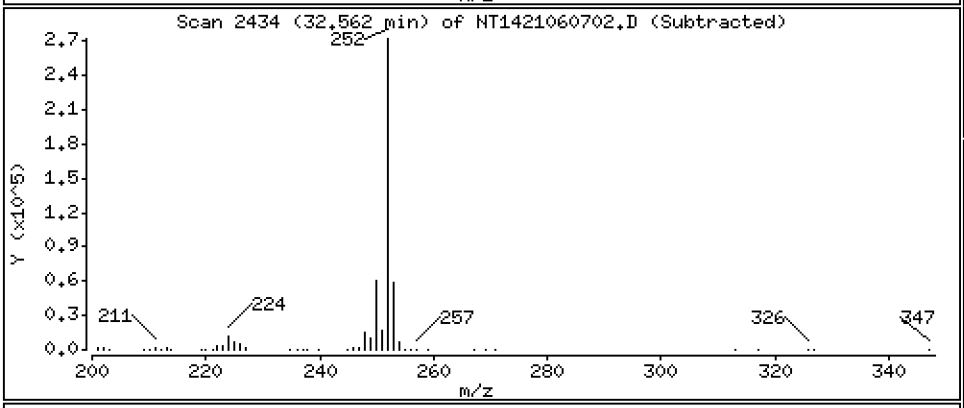
Column diameter: 0.25

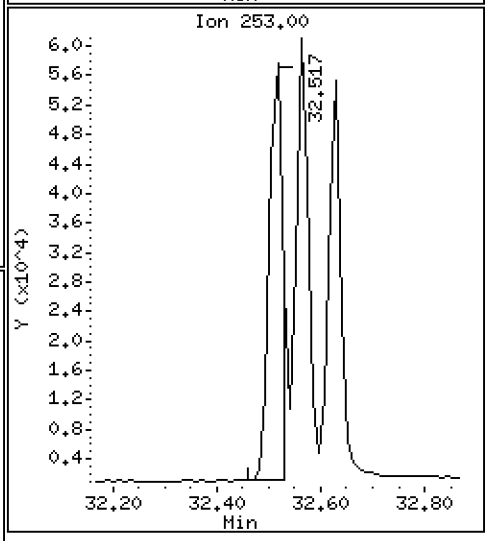
246 Total Benzofluoranthenes

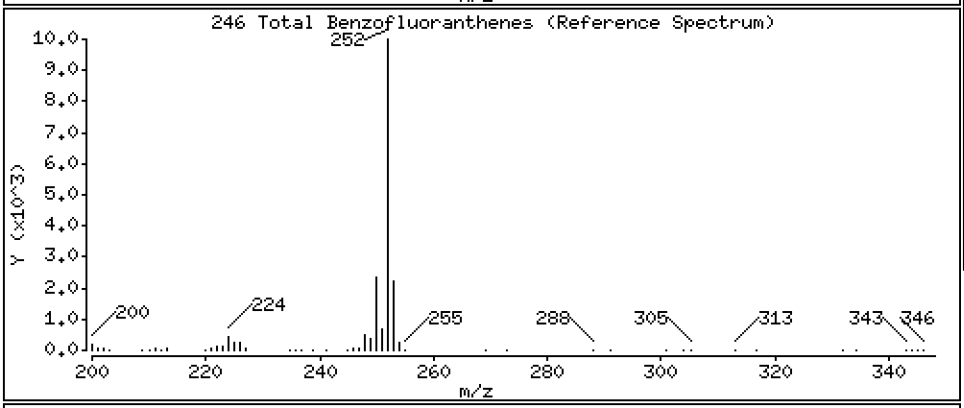
Concentration: 8.154 ug/mL

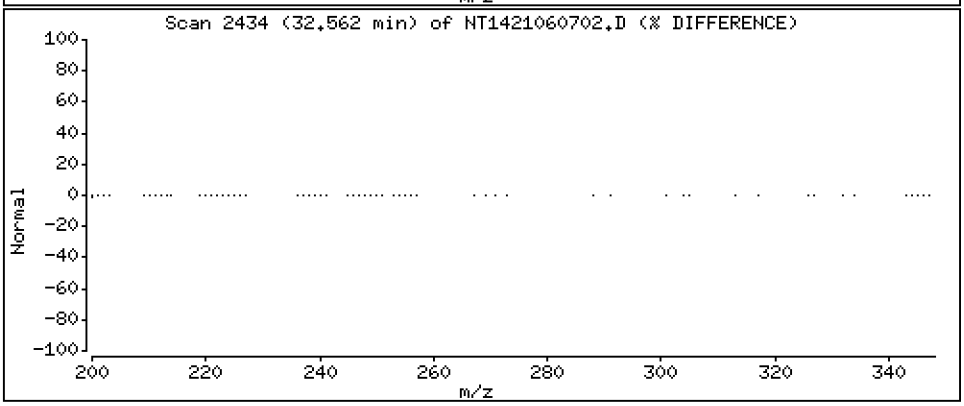












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060702.D

Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

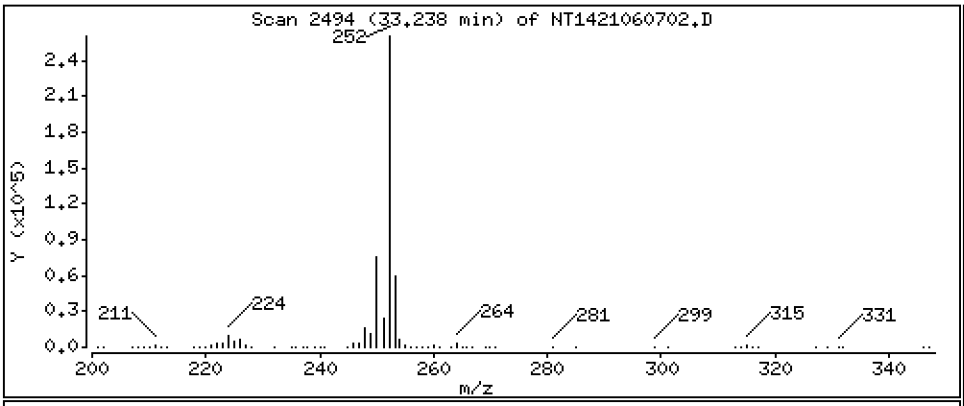
Operator: VTS

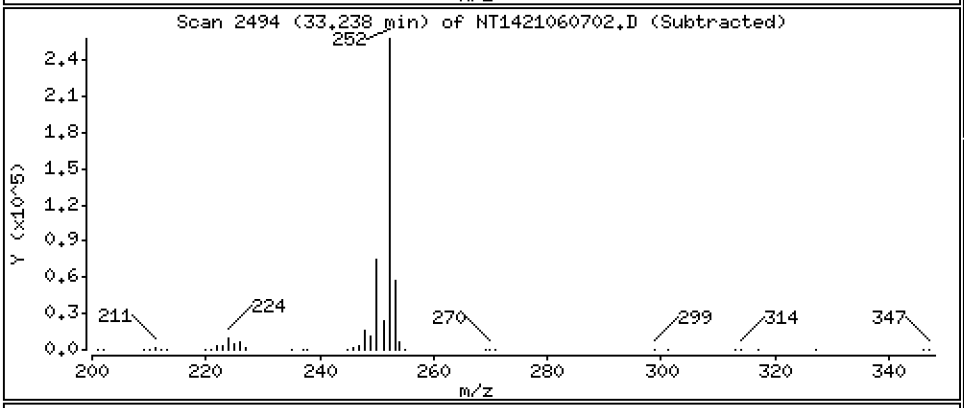
Column phase: Rxi-17Sil MS

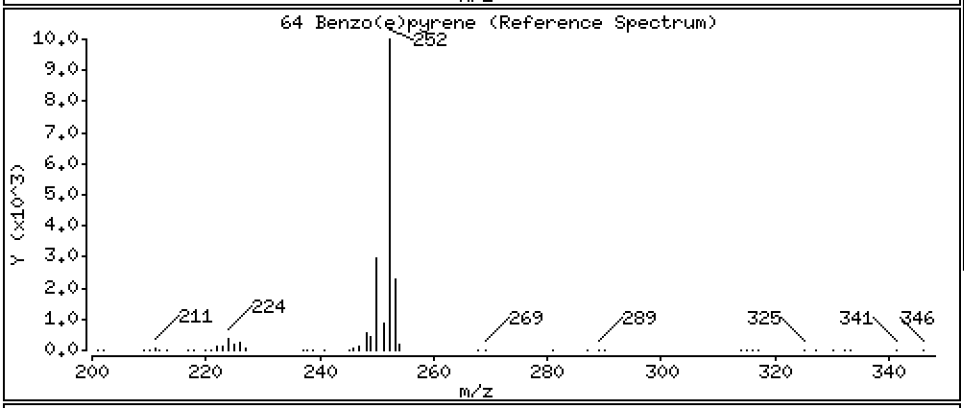
Column diameter: 0.25

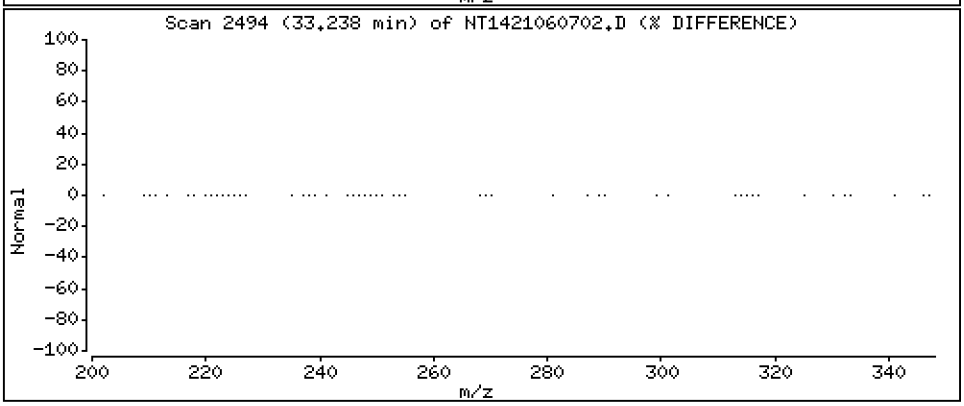
64 Benzo(e)pyrene

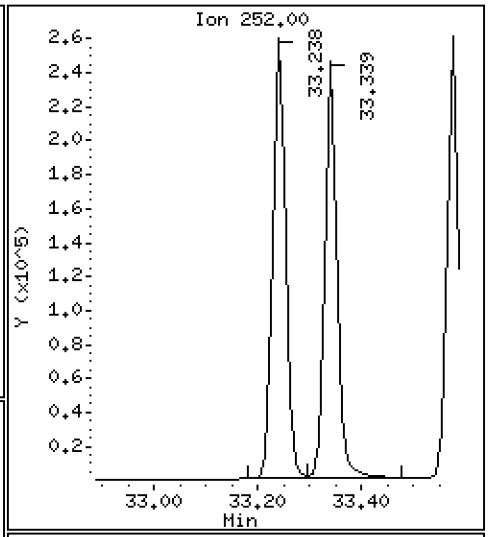
Concentration: 2.518 ug/mL

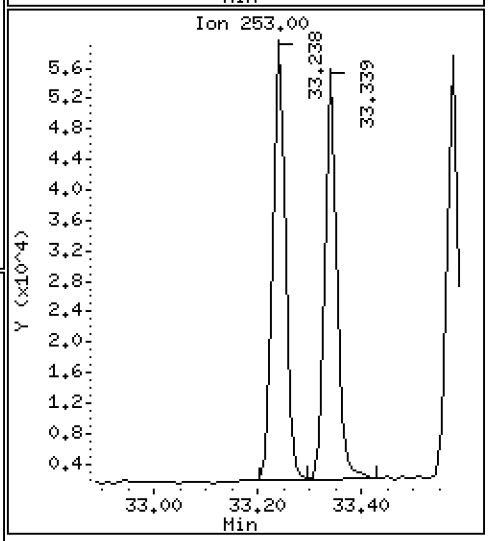












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060702.D

Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

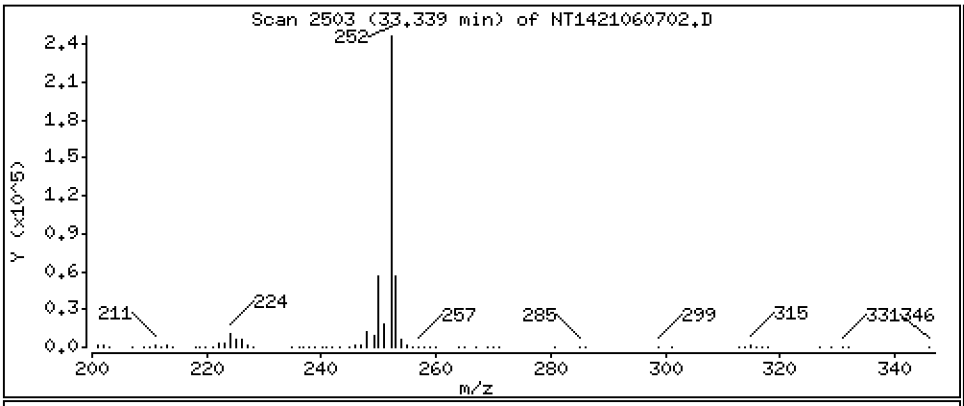
Operator: VTS

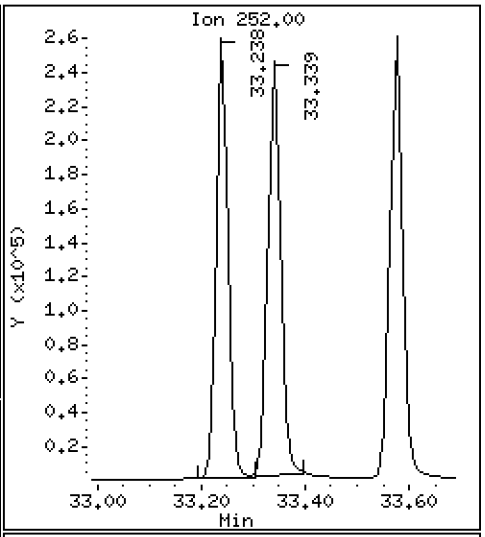
Column phase: Rxi-17Sil MS

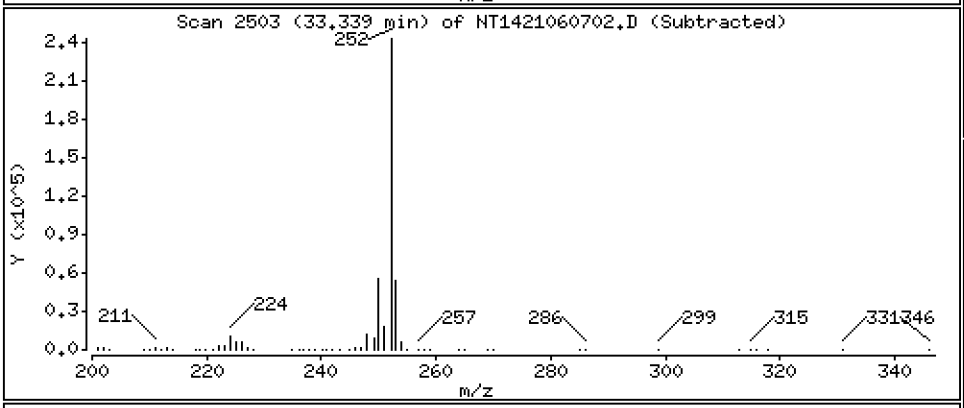
Column diameter: 0.25

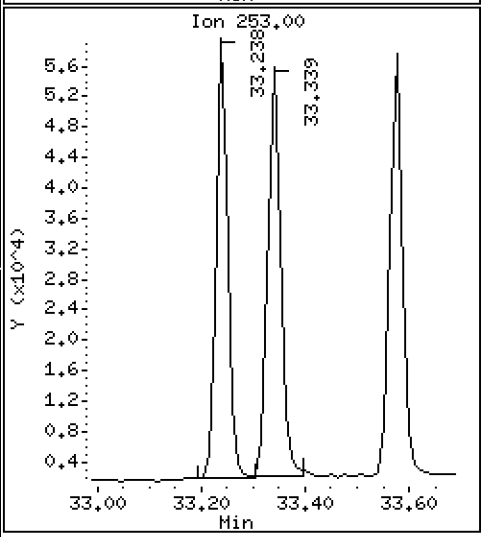
66 Benzo(a)pyrene

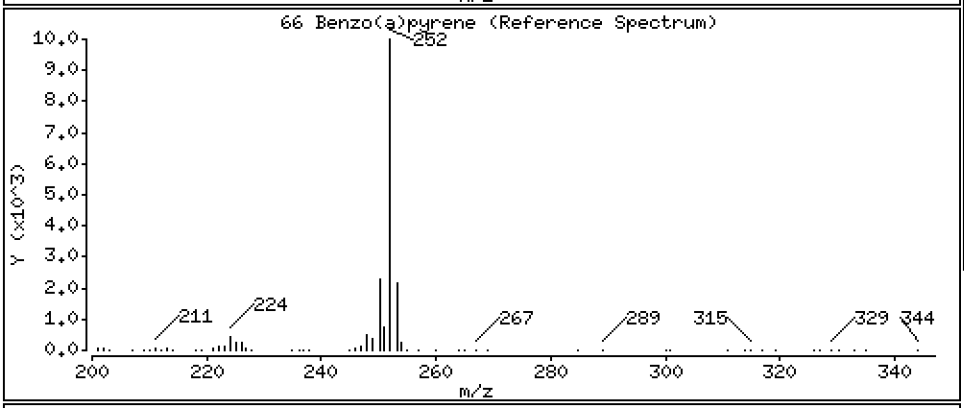
Concentration: 2.590 ug/mL

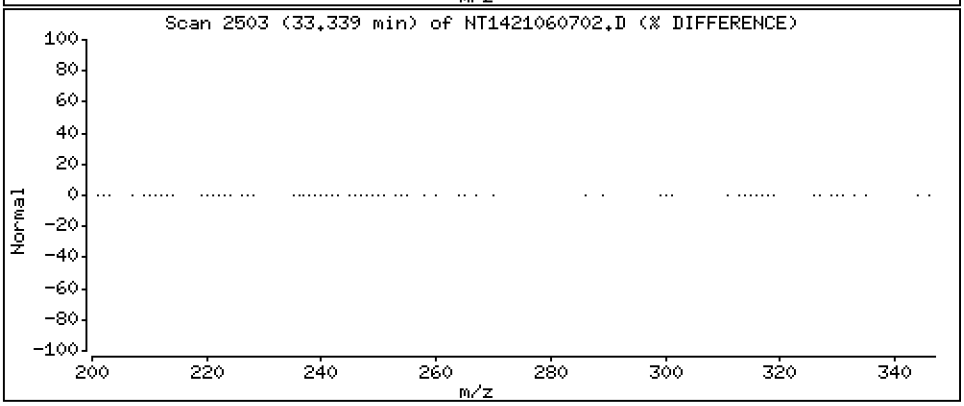












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060702.D

Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

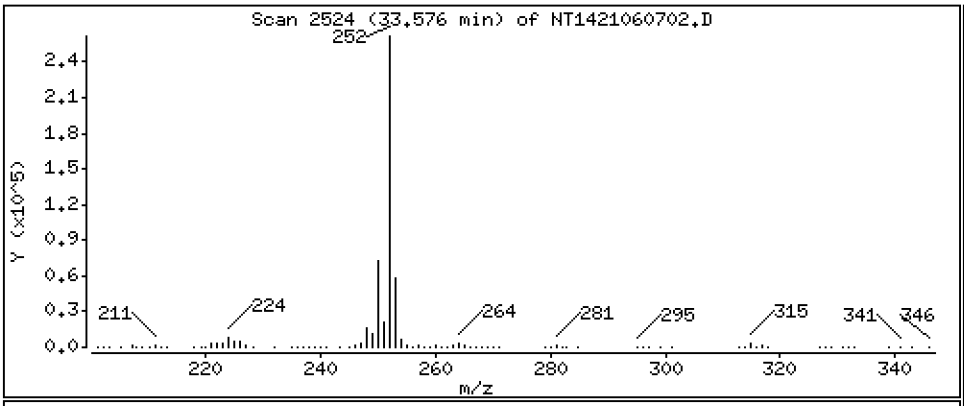
Operator: VTS

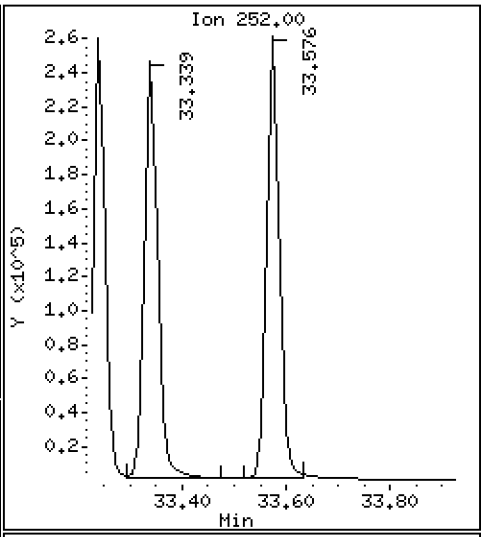
Column phase: Rxi-17Sil MS

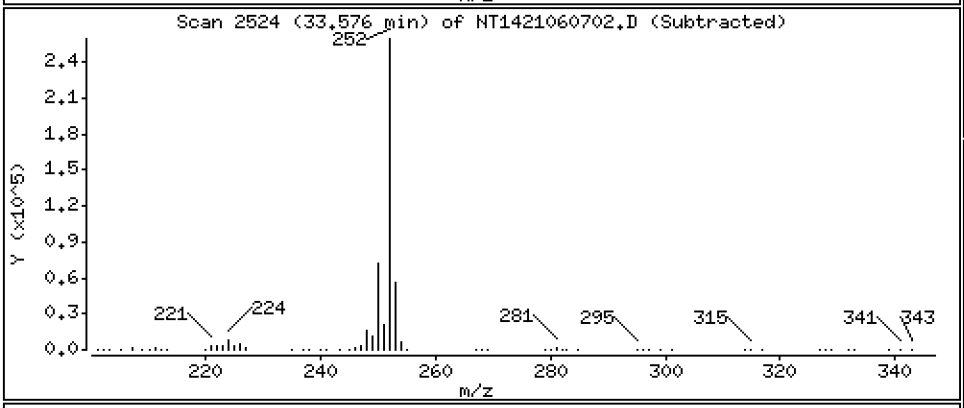
Column diameter: 0.25

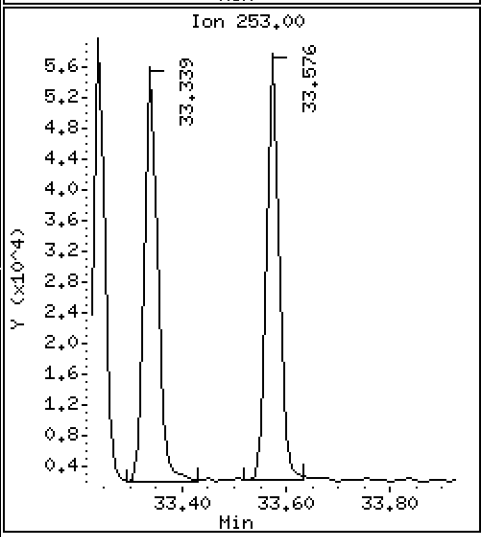
68 Perylene

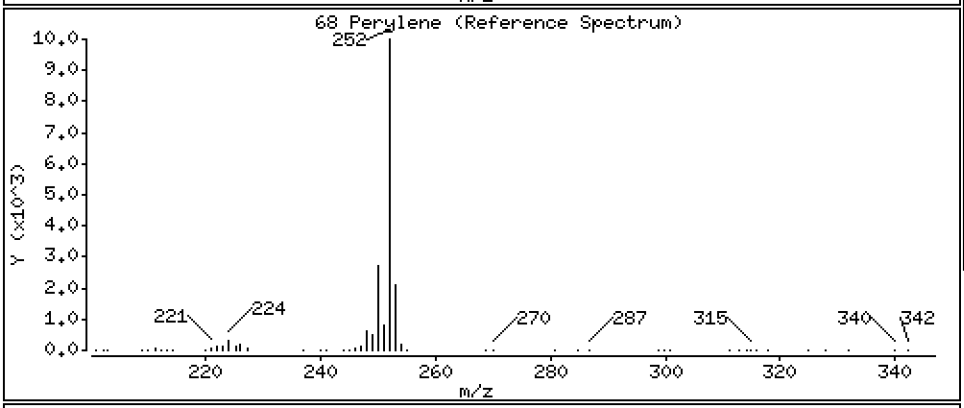
Concentration: 2.601 ug/mL

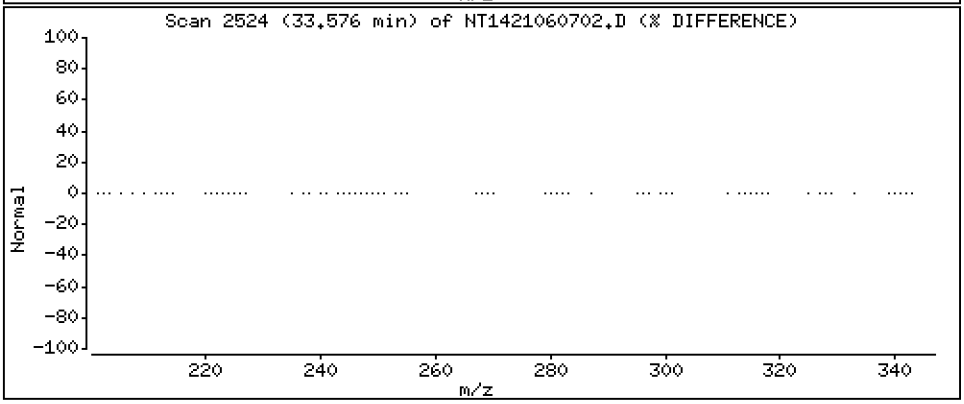












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060702.D

Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

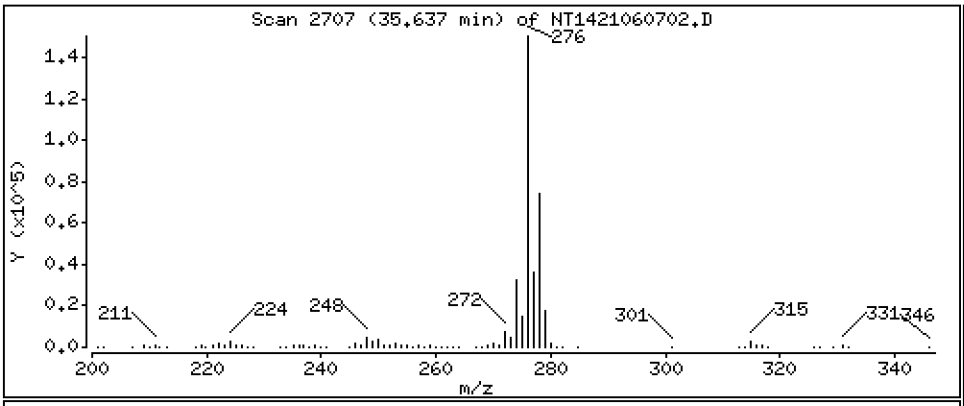
Operator: VTS

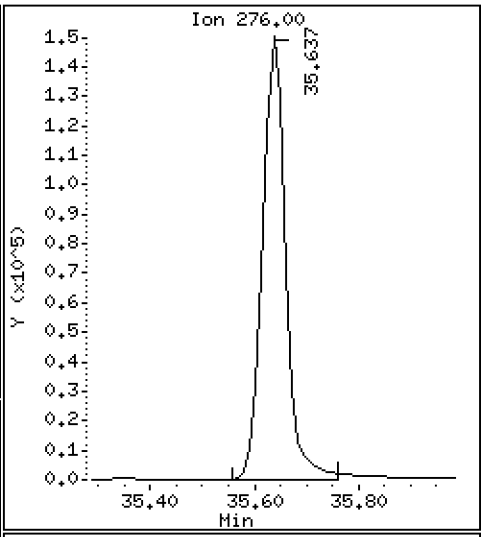
Column phase: Rxi-17Sil MS

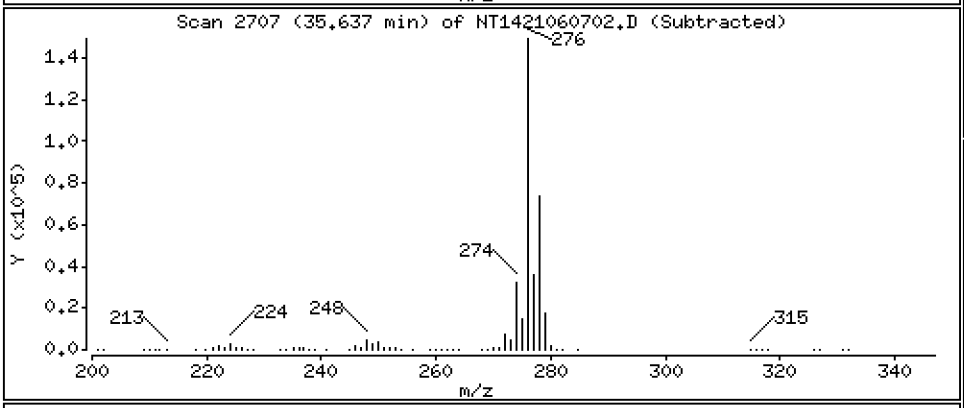
Column diameter: 0.25

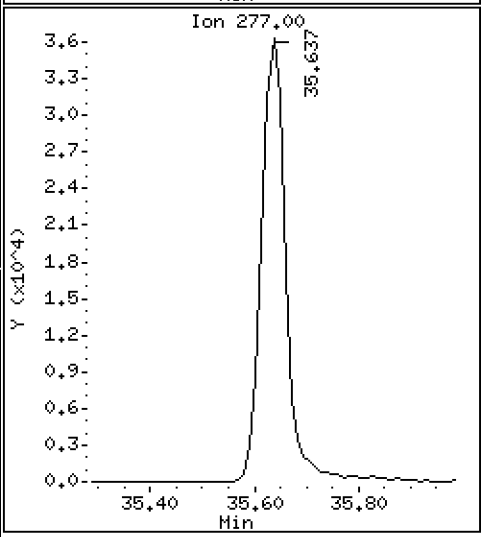
69 Indeno(1,2,3-cd)pyrene

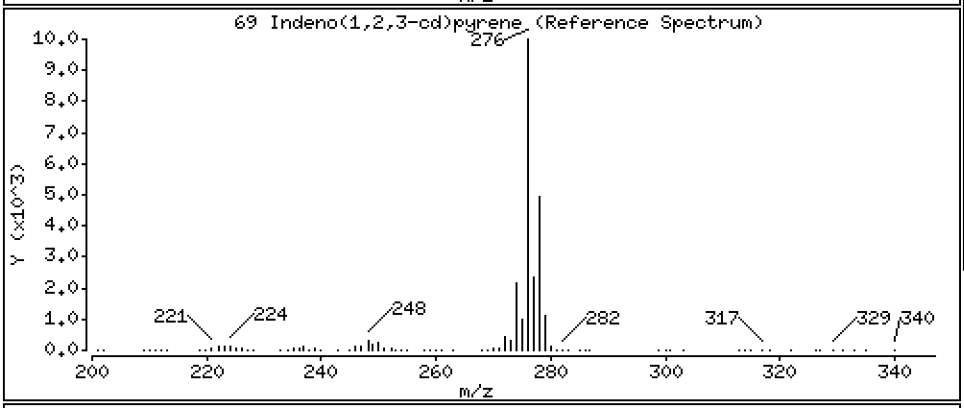
Concentration: 2.532 ug/mL

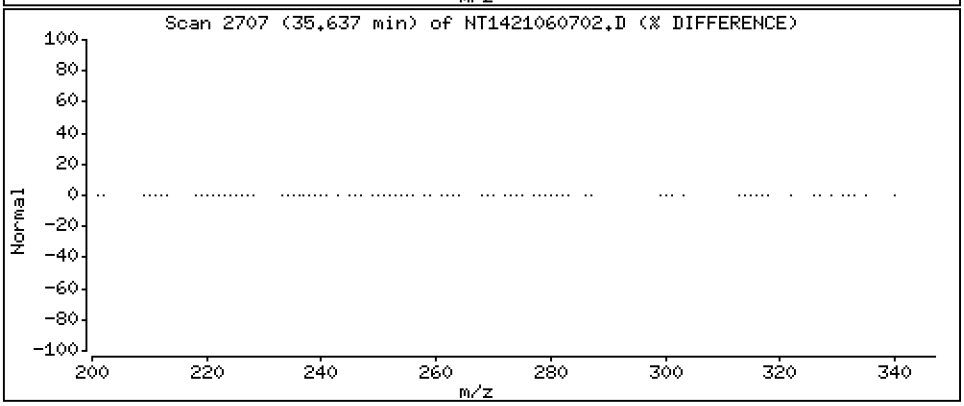












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060702.D

Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

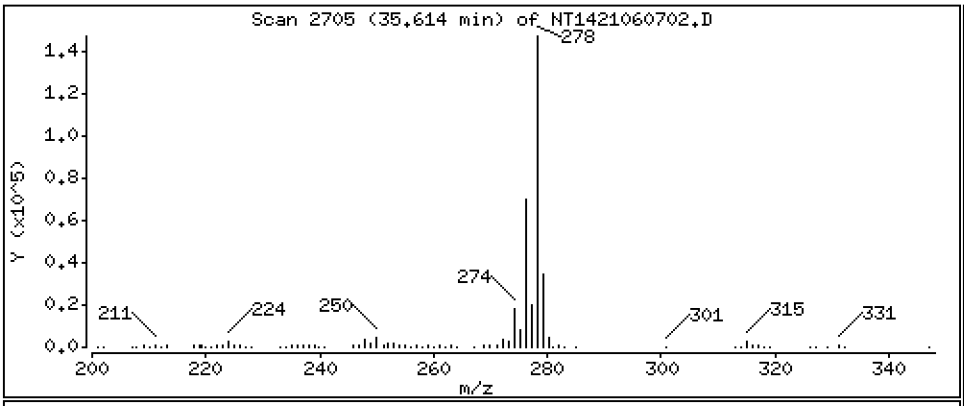
Operator: VTS

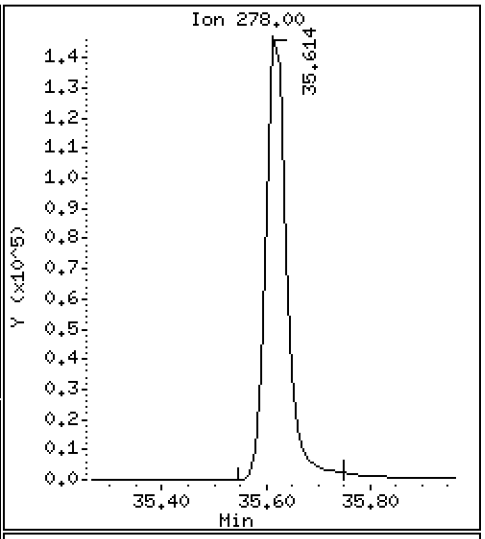
Column phase: Rxi-17Sil MS

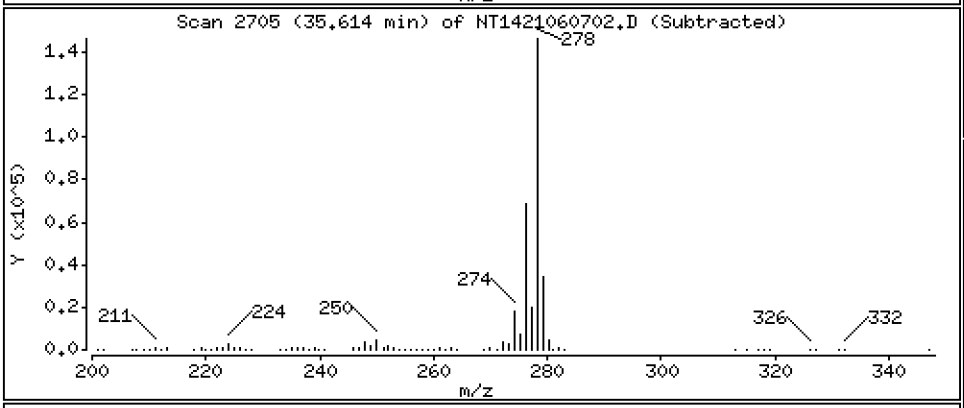
Column diameter: 0.25

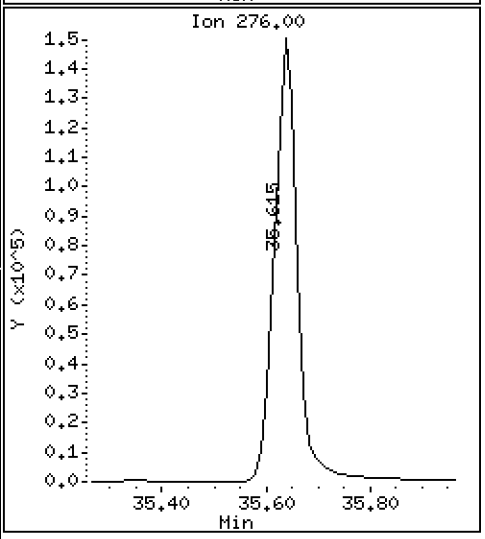
70 Dibenzo(a,h)anthracene

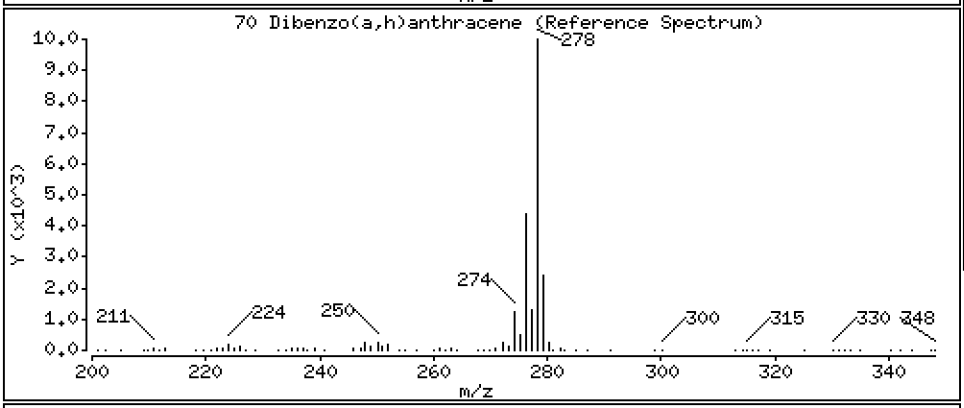
Concentration: 2.419 ug/mL

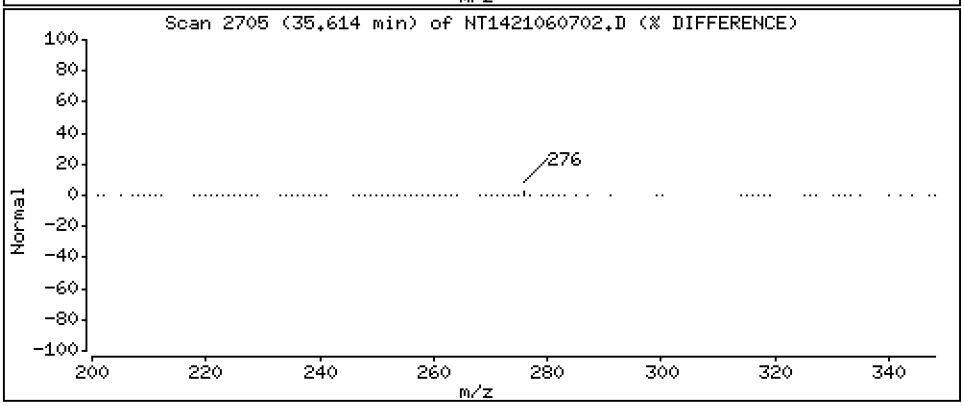












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060702.D

Date : 07-JUN-2021 13:18

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-ICV1

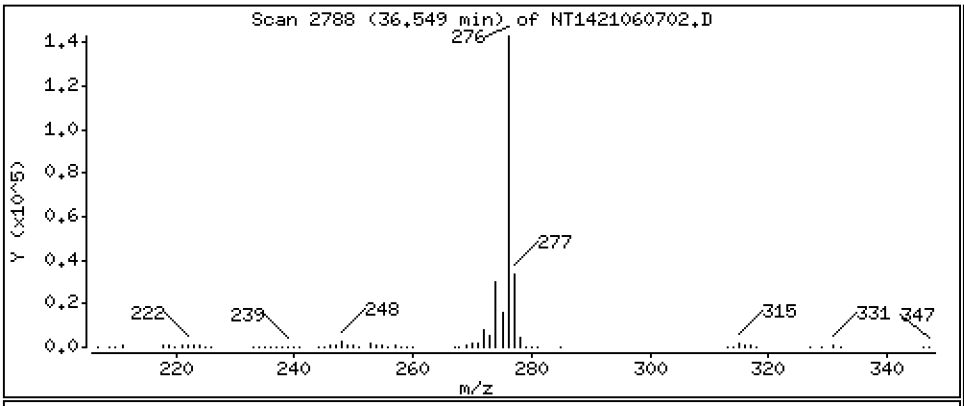
Operator: VTS

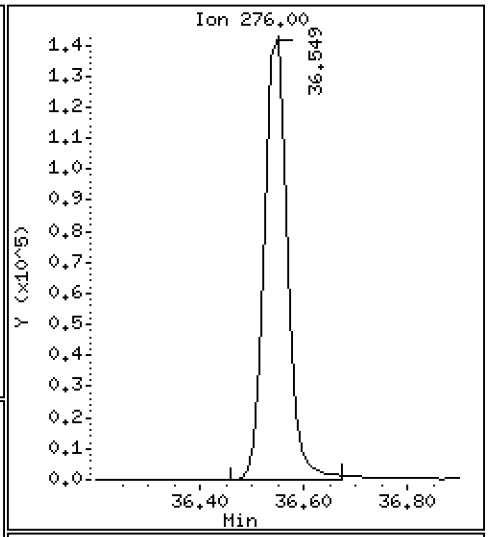
Column phase: Rxi-17Sil MS

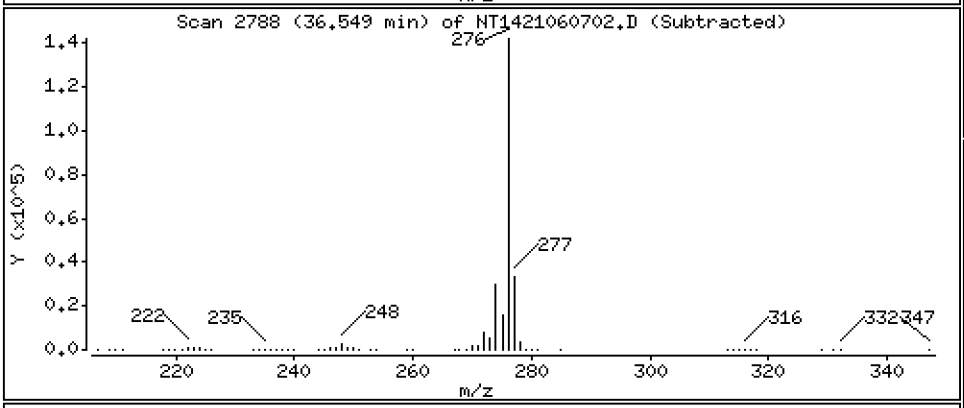
Column diameter: 0.25

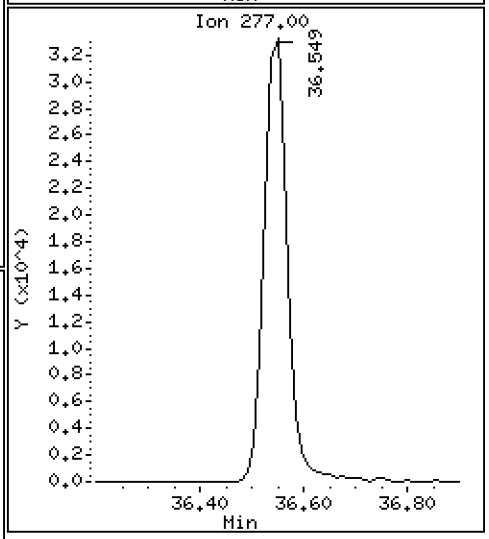
74 Benzo(g,h,i)perylene

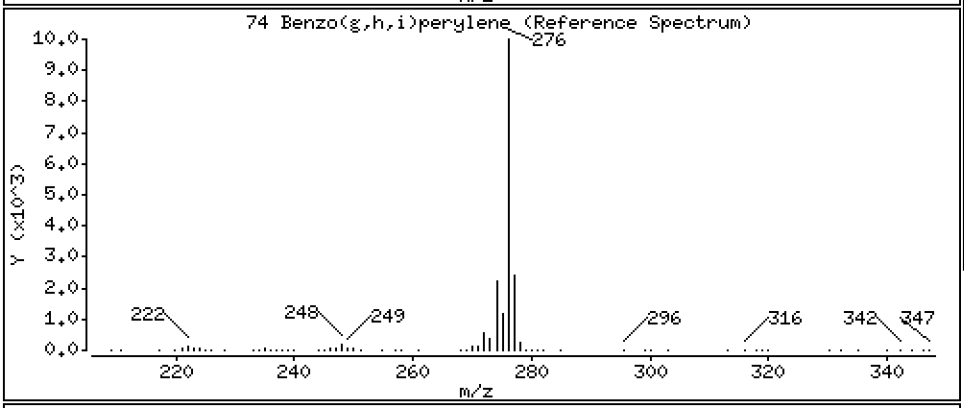
Concentration: 2.434 ug/mL

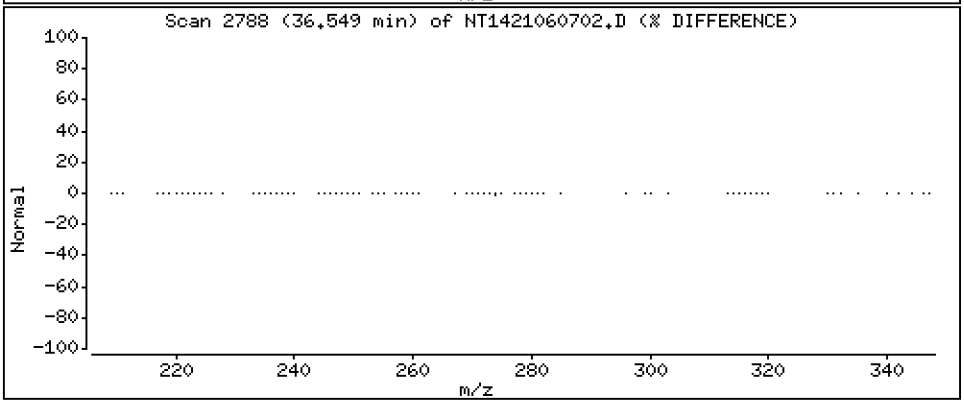












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210607.b\NT1421060702.D
Lab Smp Id: SJF0173-ICV1
Inj Date : 07-JUN-2021 13:18
Operator : VTS Inst ID: nt14.i
Smp Info : SJF0173-ICV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210607.b\ALKYLPNA.m
Meth Date : 12-Jun-2021 14:57 yev Quant Type: ISTD
Cal Date : 29-MAY-2021 18:49 Cal File: NT1421052914.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	1 trans-Decalin	138	7.136	7.136	(0.378)	41274	2.66056	2.661
	2 cis-Decalin	138	8.255	8.255	(0.437)	32527	2.55704	2.557
$	6 Naphthalene-d8	136	11.887	11.887	(0.629)	384481	2.65864	2.659(R)
	7 Naphthalene	128	11.957	11.957	(0.633)	384017	2.65695	2.657
	12 Benzo(b)thiophene	134	12.409	12.409	(0.657)	312204	2.62758	2.628
	16 2-Methylnaphthalene	141	13.794	13.794	(0.730)	223471	2.64494	2.645
	17 1-methylnaphthalene	141	14.244	14.244	(0.754)	215135	2.61730	2.617
	18 Biphenyl	154	15.431	15.431	(0.817)	328493	2.63121	2.631
	19 2,6-Dimethylnaphthalene	156	15.508	15.508	(0.821)	236381	2.57470	2.575(M)
	20 Acenaphthylene	152	17.080	17.080	(0.904)	418359	2.66567	2.666
$	21 Acenaphthene-d10	164	17.365	17.365	(0.919)	229454	2.58335	2.583(RM)
	22 Acenaphthene	153	17.486	17.486	(0.925)	250752	2.59176	2.592
	23 Dibenzofuran	168	17.860	17.860	(0.945)	381719	2.65986	2.660
	24 1,6,7-Trimethylnaphthalene	170	18.080	18.080	(0.957)	246347	2.63472	2.635(M)
*	25 Fluorene-d10	176	18.896	18.896	(1.000)	311077	2.00000	(M)
	26 Fluorene	166	19.009	19.009	(1.006)	295146	2.65440	2.654
	30 Dibenzothiophene	184	21.931	21.931	(1.161)	430948	2.74524	2.745
$	35 Phenanthrene-d10	188	22.238	22.238	(0.995)	412189	2.58359	2.584(R)
	36 Phenanthrene	178	22.326	22.326	(0.999)	441427	2.58174	2.582
*	250 Anthracene-d10	188	22.359	22.359	(1.000)	331614	2.00000	(M)
	37 Anthracene	178	22.425	22.425	(1.003)	422289	2.62499	2.625
	42 Carbazole	167	23.701	23.701	(1.060)	376944	2.53043	2.530
	43 1-Methylphenanthrene	192	24.151	24.151	(1.080)	325486	2.64892	2.649
	44 Fluoranthene	202	26.130	26.130	(1.169)	513420	2.72050	2.720
	46 Pyrene	202	26.977	26.977	(1.207)	551233	2.80843	2.808
	51 Naphthobenzothiophene	234	29.509	29.509	(1.320)	559455	2.65277	2.653
	55 Benzo(a)anthracene	228	30.095	30.095	(0.907)	482092	2.98486	2.985
$	56 Chrysene-d12	240	30.219	30.219	(0.911)	379282	2.90973	2.910(R)
	57 Chrysene	228	30.286	30.286	(0.913)	456925	2.88709	2.887
	62 Benzo(b)fluoranthene	252	32.517	32.517	(0.980)	429197	2.56227	2.562
	63 Benzo(k)fluoranthene	252	32.562	32.562	(0.981)	475805	2.64736	2.647(M)
	293 Benzo(j)fluoranthene	252	32.629	32.629	(0.983)	410509	2.47874	2.479
	246 Total Benzofluoranthenes	252	32.562	32.562	(0.981)	1337828	8.15407	8.154(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.181	33.181	(1.000)	416427	2.00000	
64 Benzo(e)pyrene	252	33.237	33.237	(1.002)	413429	2.51822	2.518
66 Benzo(a)pyrene	252	33.339	33.339	(1.005)	386821	2.59001	2.590
$ 67 Perylene-d12	264	33.519	33.519	(1.010)	359141	2.55229	2.552(R)
68 Perylene	252	33.575	33.575	(1.012)	400586	2.60148	2.601
69 Indeno(1,2,3-cd)pyrene	276	35.636	35.636	(1.074)	443883	2.53200	2.532(M)
70 Dibenzo(a,h)anthracene	278	35.614	35.614	(1.073)	399101	2.41936	2.419(M)
74 Benzo(g,h,i)perylene	276	36.549	36.549	(1.101)	421608	2.43433	2.434(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
Lab File ID: NT1421060702.D
Lab Smp Id: SJF0173-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210607.b\ALKYLPNA.m
Misc Info:

Calibration Date: 07-JUN-2021
Calibration Time: 13:18
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	323874	161937	647748	311077	-3.95
250 Anthracene-d10	339912	169956	679824	331614	-2.44
251 Benzo(e)pyrene-d1	416427	208214	832854	416427	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.90	18.40	19.40	18.90	0.00
250 Anthracene-d10	22.36	21.86	22.86	22.36	0.00
251 Benzo(e)pyrene-d1	33.18	32.68	33.68	33.18	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 - NT1421060702.D

Lab ID: SJF0173-ICV1
nt14.i, 20210607.b\ALKYLPNA.m,   07-JUN-2021 13:18

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

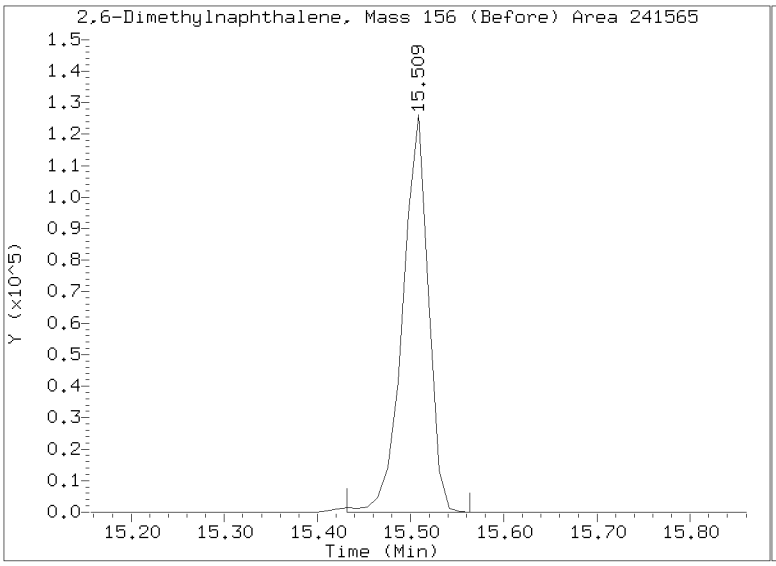
RRT check based on Ccal File: NT1421060702.D

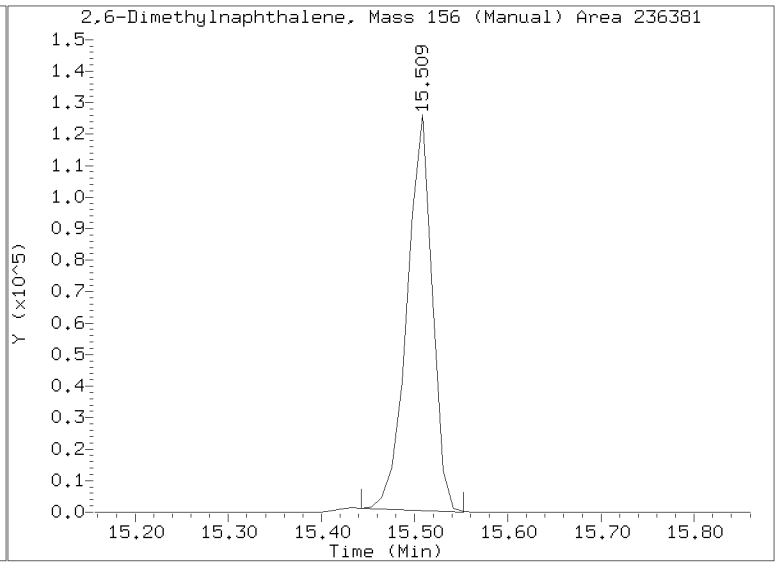
On Column LOD for nt14.i, 20210607.b\ALKYLPNA.m, TARGETS.sub = 0.0000

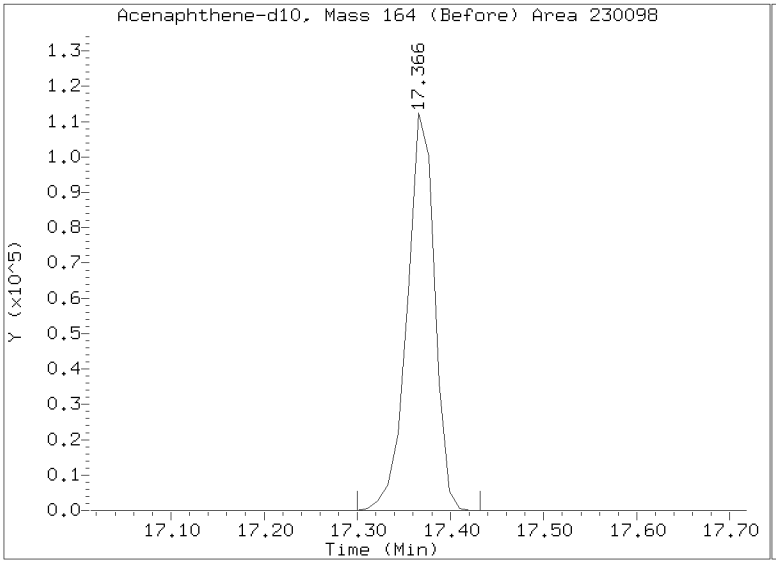
* Only compounds listed in the work order have been verified by the analyst *

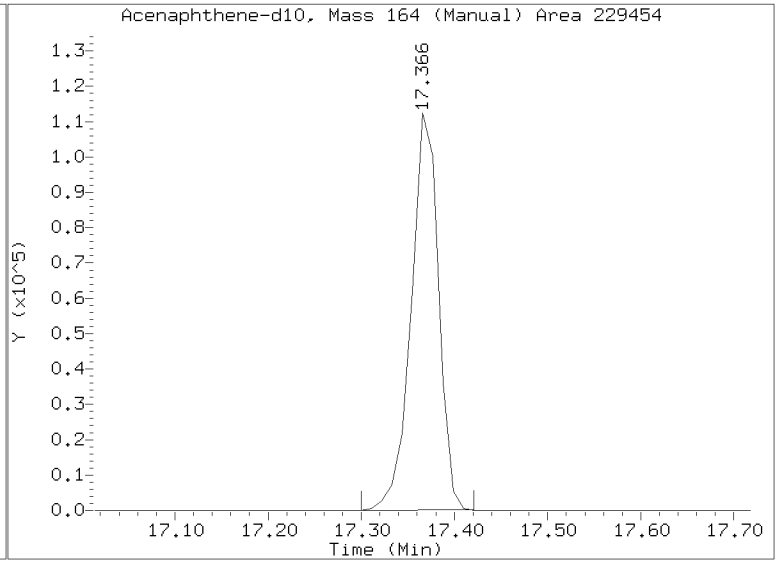
Quant Ion Manual Peak Adjustment Report

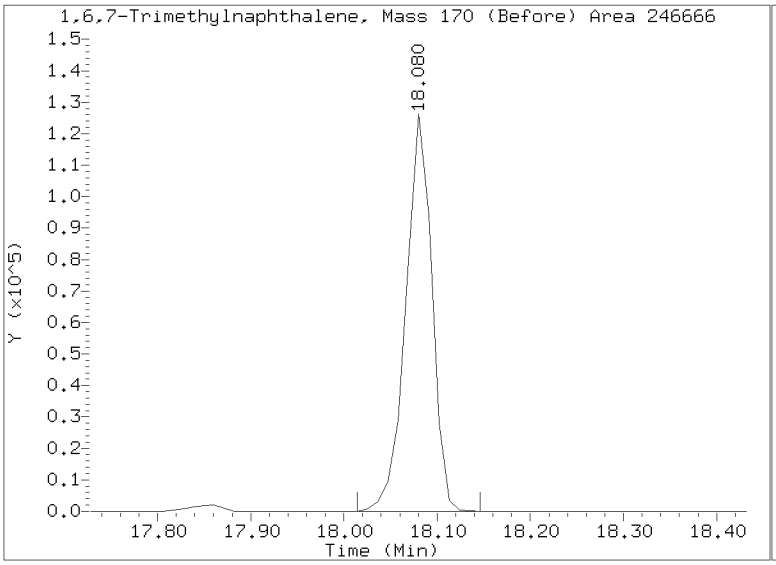
Datafile: //target/share/chem3/nt14.i/20210607.b/NT1421060702.D
Injection Date: 07-JUN-2021 13:18
Lab ID:SJF0173-ICV1 Client ID:
Report Date: 06/12/2021 15:49

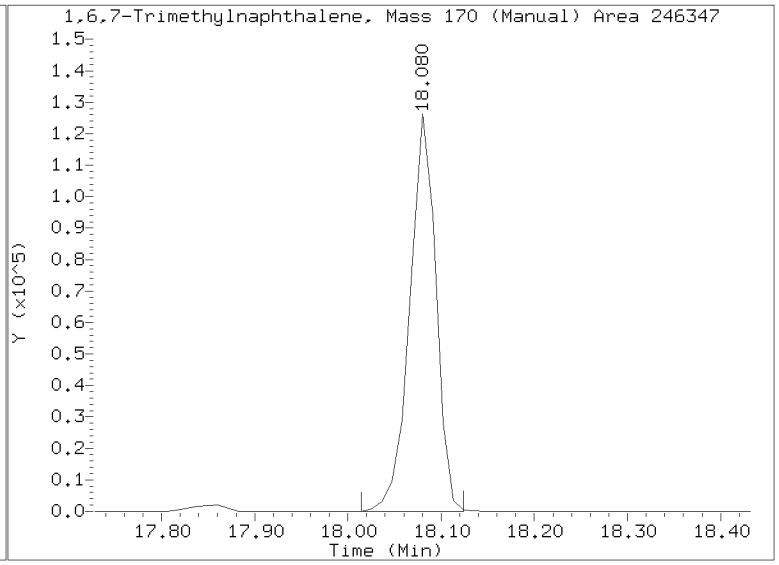






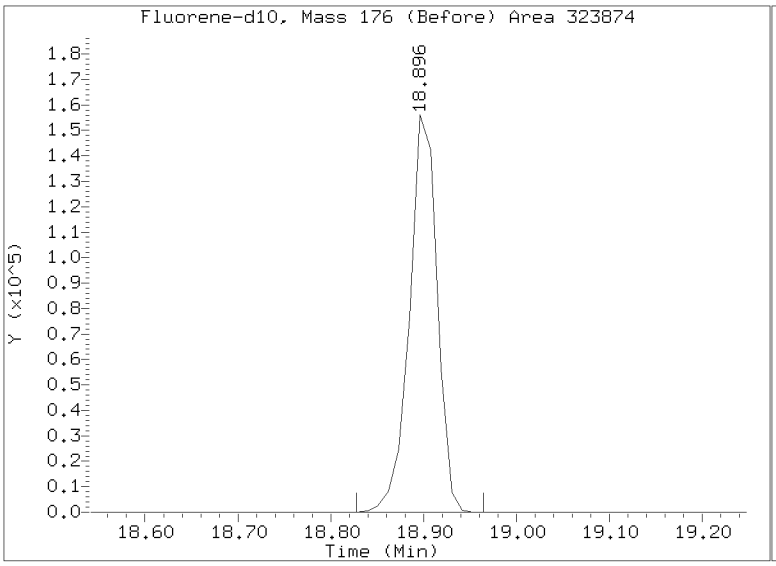


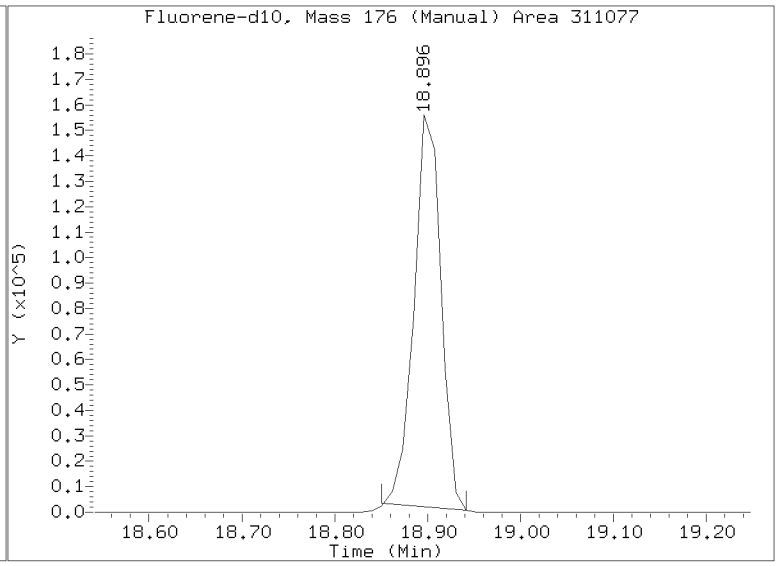


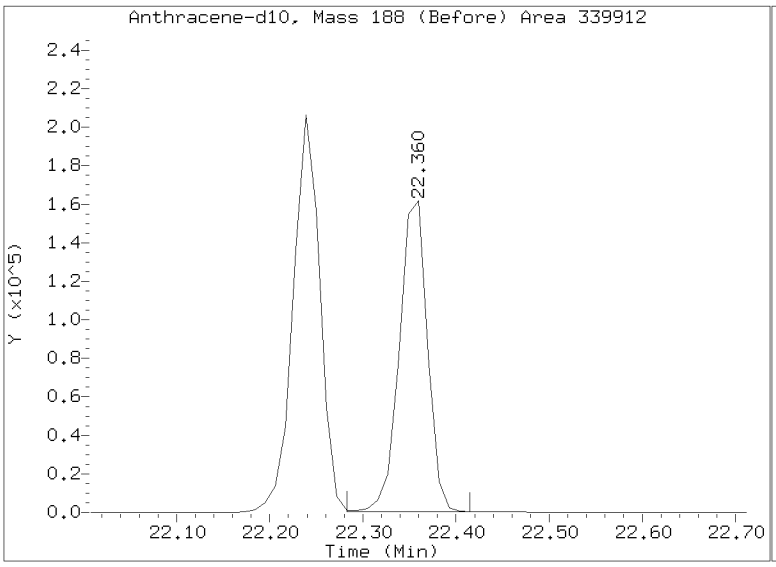


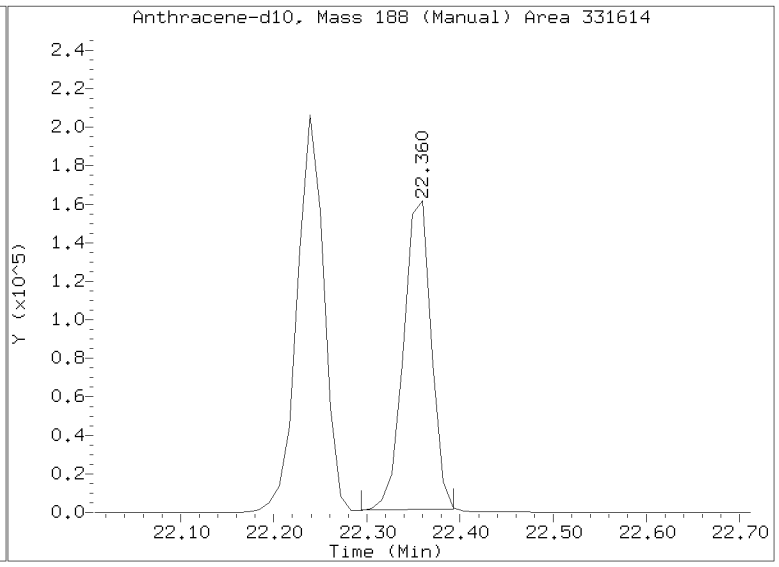
Quant Ion Manual Peak Adjustment Report

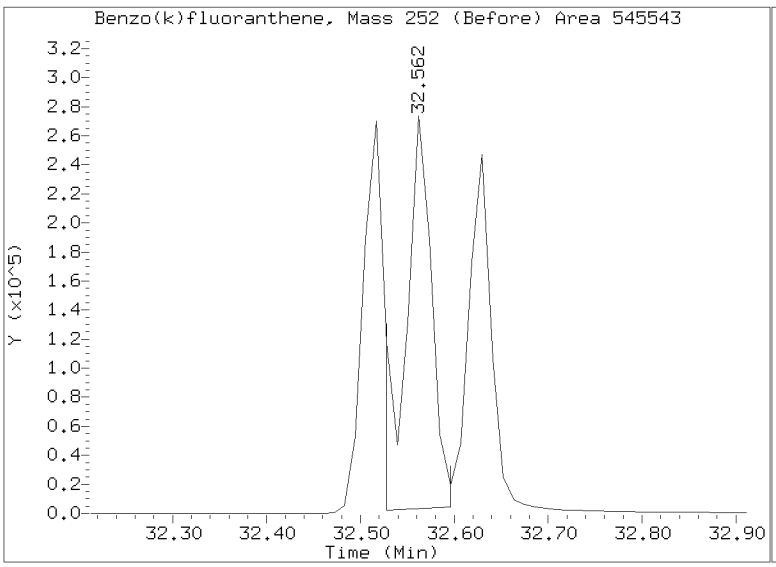
Datafile: //target/share/chem3/nt14.i/20210607.b/NT1421060702.D
Injection Date: 07-JUN-2021 13:18
Lab ID:SJF0173-ICV1 Client ID:
Report Date: 06/12/2021 15:49

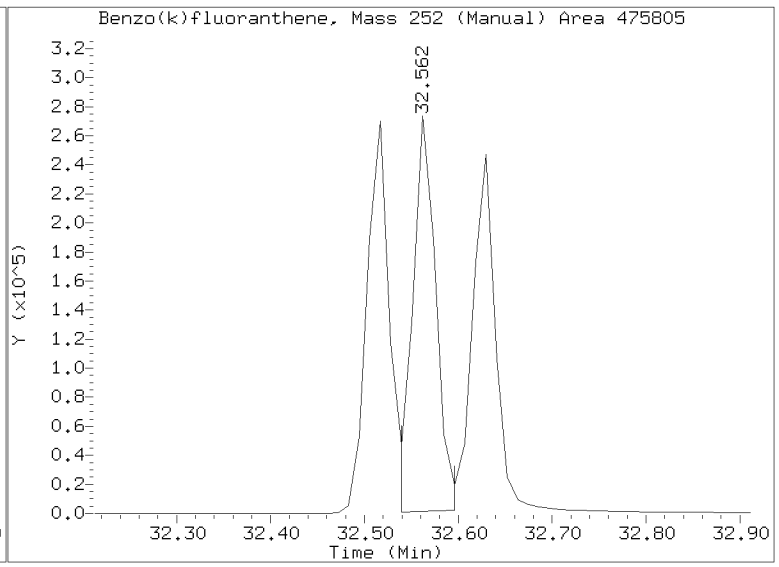






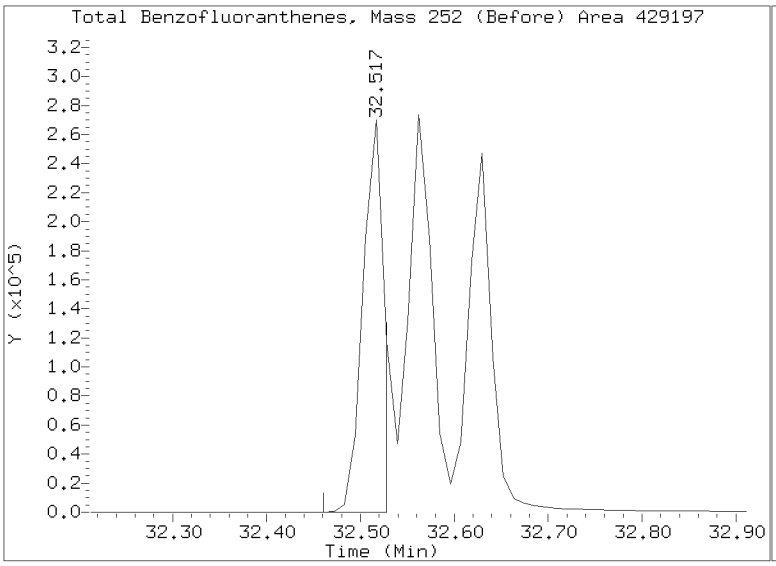


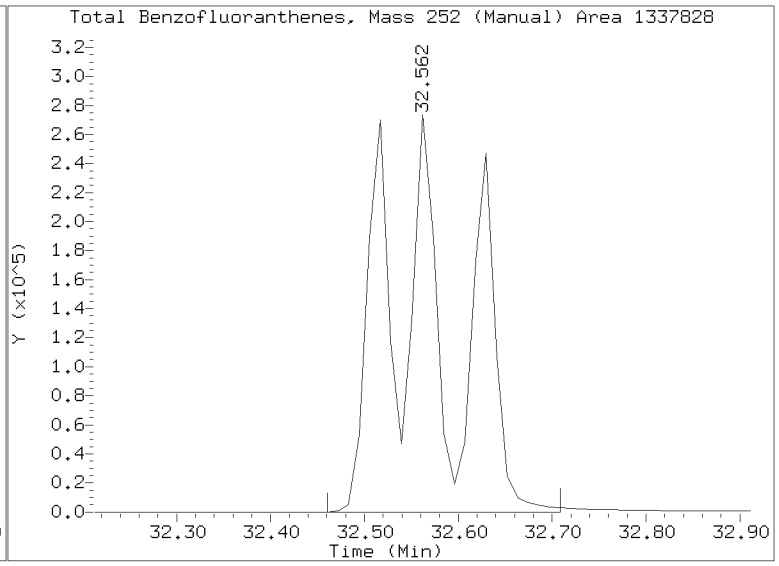


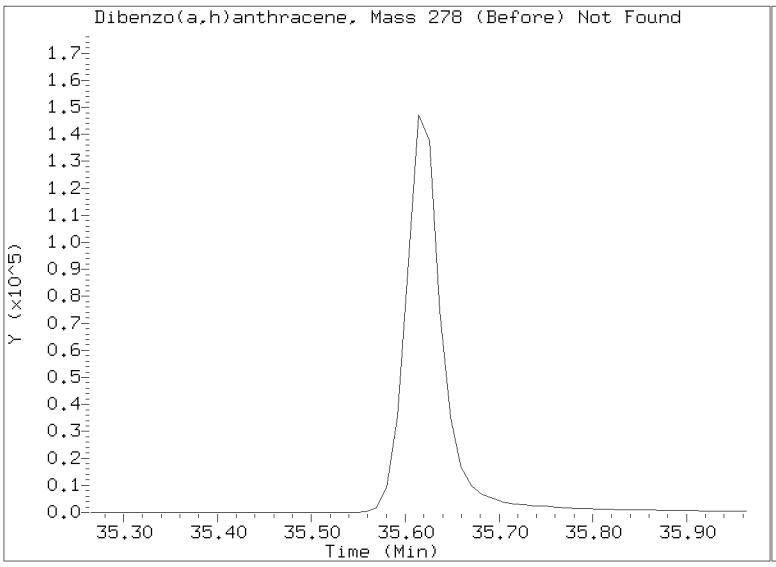


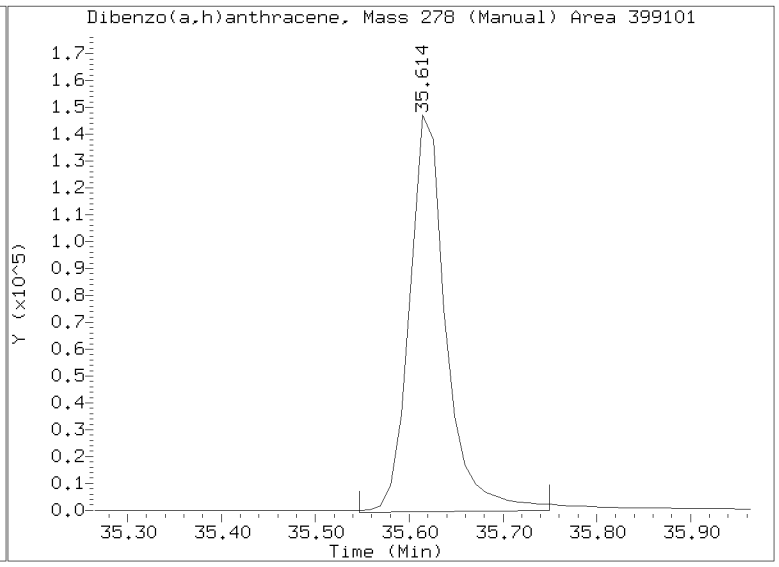
Quant Ion Manual Peak Adjustment Report

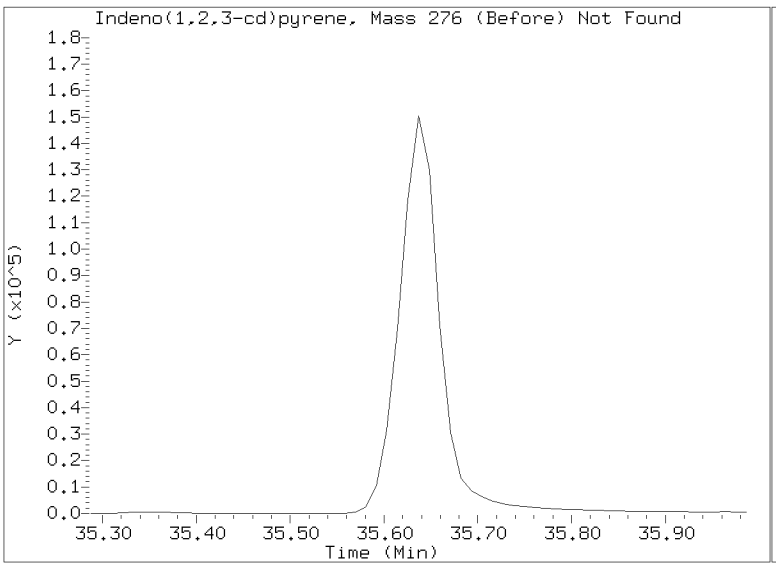
Datafile: //target/share/chem3/nt14.i/20210607.b/NT1421060702.D
Injection Date: 07-JUN-2021 13:18
Lab ID:SJF0173-ICV1 Client ID:
Report Date: 06/12/2021 15:49

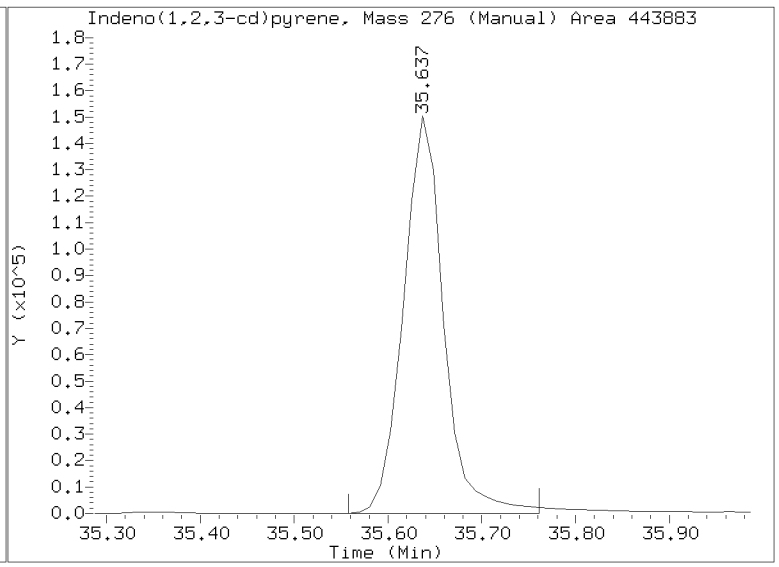






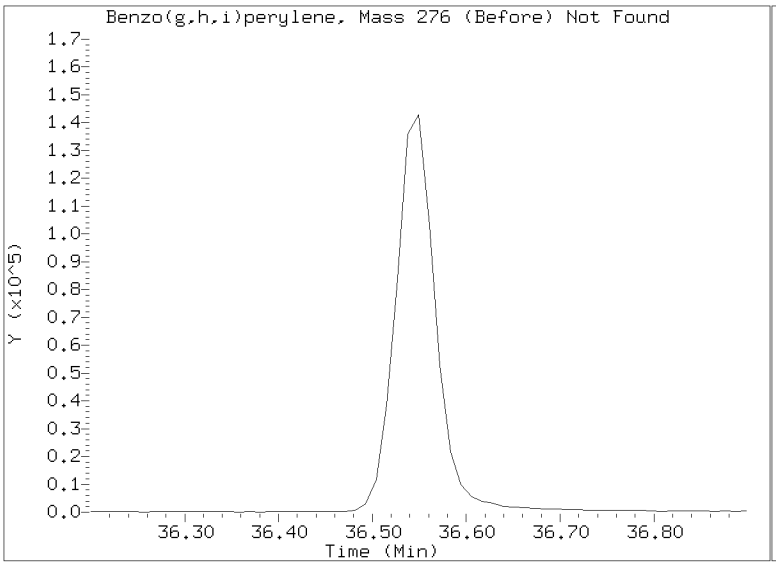


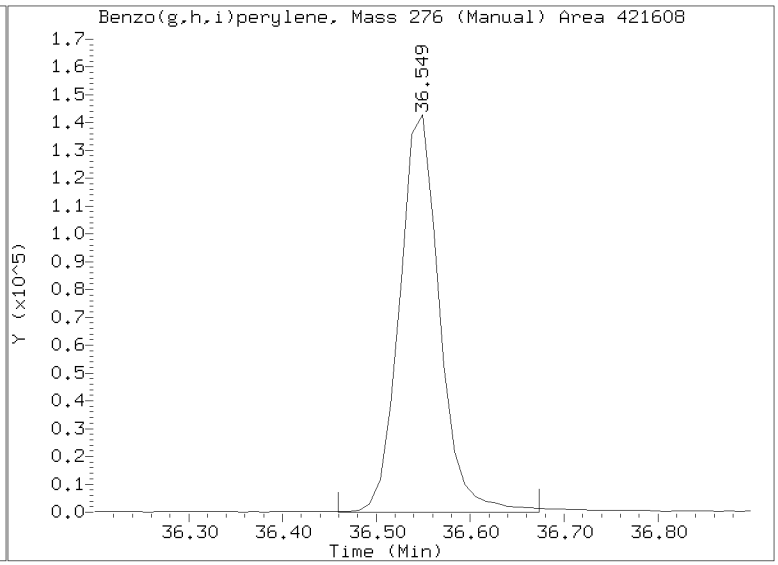




Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210607.b/NT1421060702.D
Injection Date: 07-JUN-2021 13:18
Lab ID:SJF0173-ICV1 Client ID:
Report Date: 06/12/2021 15:49





Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210607.b

Instrument: nt14.i Date: 07-JUN-2021 Method: 20210607.b\ALKYLPNA.m

INITIAL CAL: 29-MAY-2021

Compound	%RSD or R^2
NO Q-FLAGS	

ICV CAL: NT1421060702.D 07-JUN-2021 13:18

Compound	%D
NO Q-FLAGS	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	NT14	Calibration:	EF00008
Lab File ID:	NT1421052915.D	Calibration Date:	06/02/2021
Sequence:	SJF0025	Injection Date:	05/29/21
Lab Sample ID:	SJF0025-SCV1	Injection Time:	19:38
Sequence Name:	Secondary Cal Check		

		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
trans-Decalin	A	2.5000	2.9	0.0997391	0.1172458		17.6	+/-20
cis-Decalin	A	2.5000	2.6	0.0700123	0.0834965		2.2	+/-20
Naphthalene	A	2.5000	2.6	0.9292421	0.9756741		5.0	+/-20
1-Methylnaphthalene	A	2.5000	2.7	0.5284699	0.5621792		6.4	+/-20
2-Methylnaphthalene	A	2.5000	2.6	0.5432098	0.5747661		5.8	+/-20
Biphenyl	A	2.5000	2.6	0.8026611	0.8374485		4.3	+/-20
2,6-Dimethylnaphthalene	A	2.5000	2.6	0.5902664	0.6147848		4.2	+/-20
Acenaphthylene	A	2.5000	2.6	1.0090320	1.0592520		5.0	+/-20
Acenaphthene	A	2.5000	2.8	0.6220308	0.6855406		10.2	+/-20
Dibenzofuran	A	2.5000	2.6	0.9226724	0.9577737		3.8	+/-20
2,3,5-Trimethylnaphthalene	A	2.5000	2.6	0.6011392	0.6352890		5.7	+/-20
Fluorene	A	2.5000	2.6	0.7148800	0.7465824		4.4	+/-20
Benzo(b)thiophene	A	2.5000	2.6	0.7639133	0.8010089		4.9	+/-20
Phenanthrene	A	2.5000	2.6	1.0312030	1.0887480		5.6	+/-20
Anthracene	A	2.5000	2.7	0.9702418	1.0431120		7.5	+/-20
Carbazole	A	2.5000	2.7	0.8557591	0.9256355		8.2	+/-20
1-Methylphenanthrene	A	2.5000	2.7	0.7410711	0.7906296		6.7	+/-20
Fluoranthene	A	2.5000	2.7	1.1382070	1.2164600		6.9	+/-20
Dibenzothiophene	A	2.5000	2.6	1.0092670	1.0634370		5.4	+/-20
Pyrene	A	2.5000	2.7	1.1837730	1.2842150		8.5	+/-20
Benzo(a)anthracene	A	2.5000	2.8	0.7757052	0.8550287		10.2	+/-20
Chrysene	A	2.5000	2.8	0.7601074	0.8422197		10.8	+/-20
Benzo(b)fluoranthene	A	2.5000	3.1	0.8044926	1.0036660		24.8	
Benzo(j)fluoranthene	A	2.5000	2.6	0.7953937	0.8240717		3.6	
Benzo(k)fluoranthene	A	2.5000	2.5	0.8631910	0.8588317		-0.5	
Benzofluoranthenes, Total	A	7.5000	8.2	0.7879832	0.8605728		9.2	
Benzo(e)pyrene	A	2.5000	2.7	0.7884934	0.8417473		6.8	+/-20
Benzo(a)pyrene	A	2.5000	2.6	0.7172983	0.7521489		4.9	+/-20
Indeno(1,2,3-cd)pyrene	A	2.5000	2.9	0.8419699	0.9809947		16.5	+/-20
Dibenzo(a,h)anthracene	A	2.5000	2.7	0.7153598	0.8540262		7.6	+/-20
Benzo(g,h,i)perylene	A	2.5000	2.8	0.8318028	0.9252454		11.2	+/-20
Perylene	A	2.5000	2.8	0.7395491	0.8342774		12.8	+/-20
Naphthalene-d8	A	2.5000	2.88	0.9297733	1.0725020		15.4	+/-20
Acenaphthene-d10	A	2.5000	2.83	0.5710501	0.6454979		13.0	+/-20

* Values outside of QC limits

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	NT14	Calibration:	EF00008
Lab File ID:	NT1421052915.D	Calibration Date:	06/02/2021
Sequence:	SJF0025	Injection Date:	05/29/21
Lab Sample ID:	SJF0025-SCV1	Injection Time:	19:38
Sequence Name:	Secondary Cal Check		

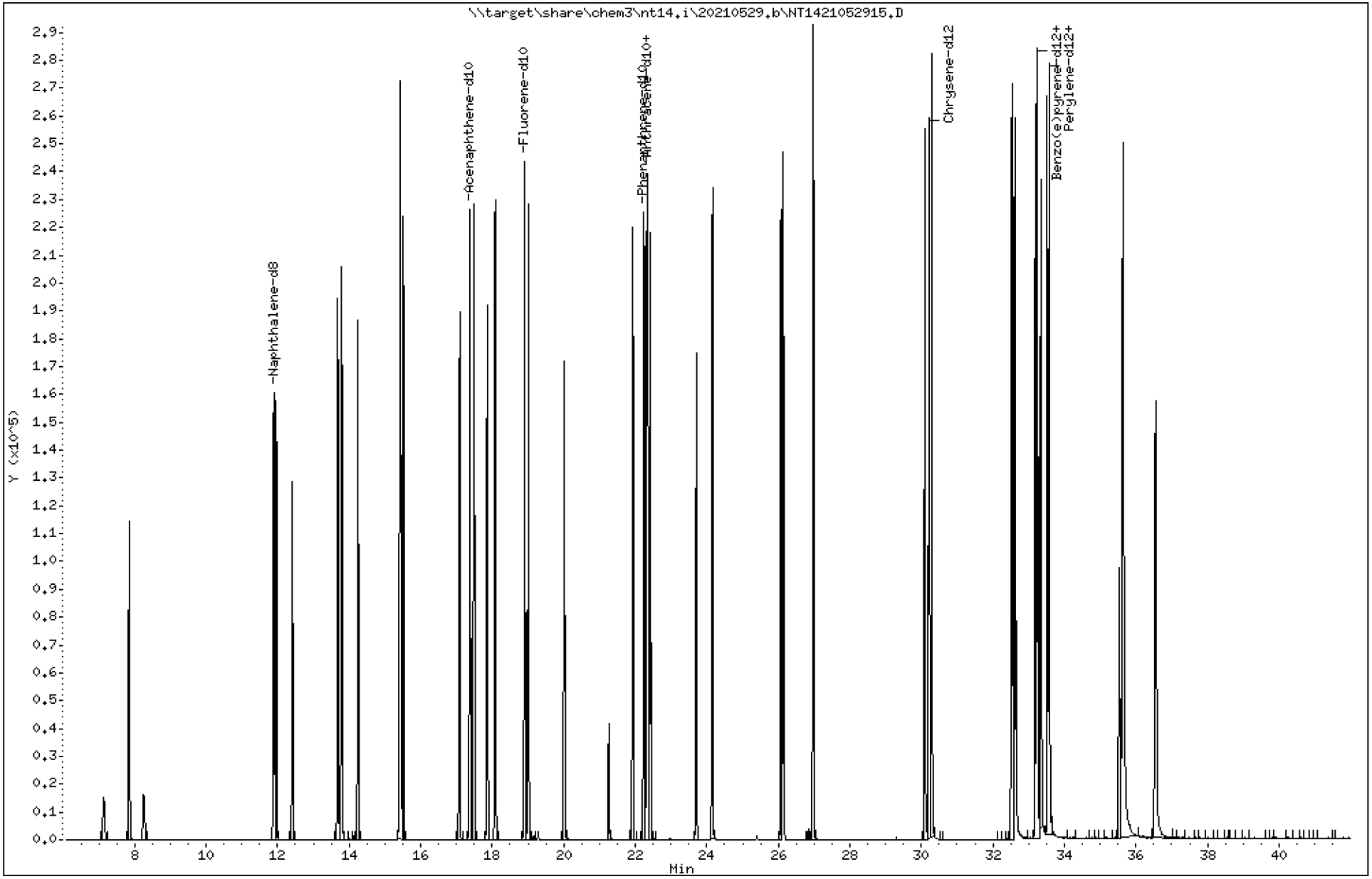
		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenanthrene-d10	A	2.5000	2.85	0.9622084	1.0974100		14.1	+/-20
Chrysene-d12	A	2.5000	3.09	0.6260378	0.7726454		23.4	+/-20
Perylene-d12	A	2.5000	2.92	0.6758124	0.7892403		16.8	+/-20

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D
Date : 29-MAY-2021 19:38
Client ID:
Sample Info: SJF0025-SCV1

Instrument: nt14.i
Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS



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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

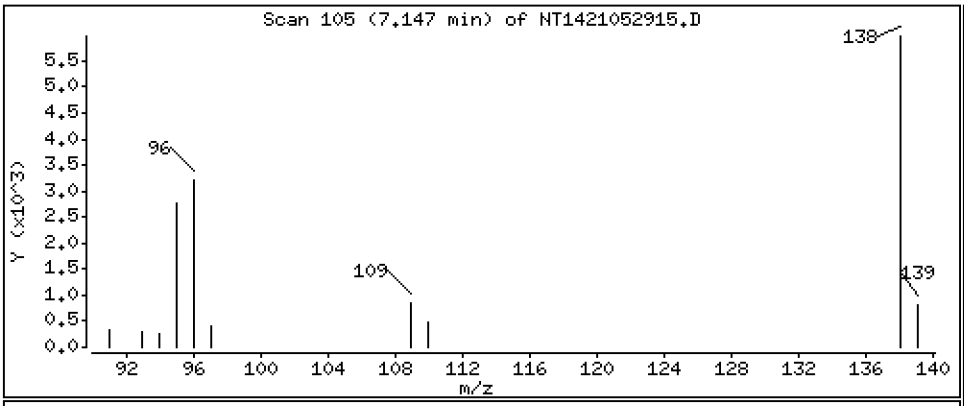
Operator: VTS

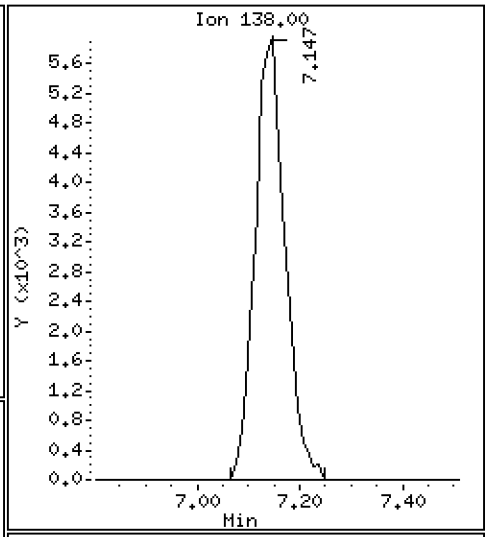
Column phase: Rxi-17Sil MS

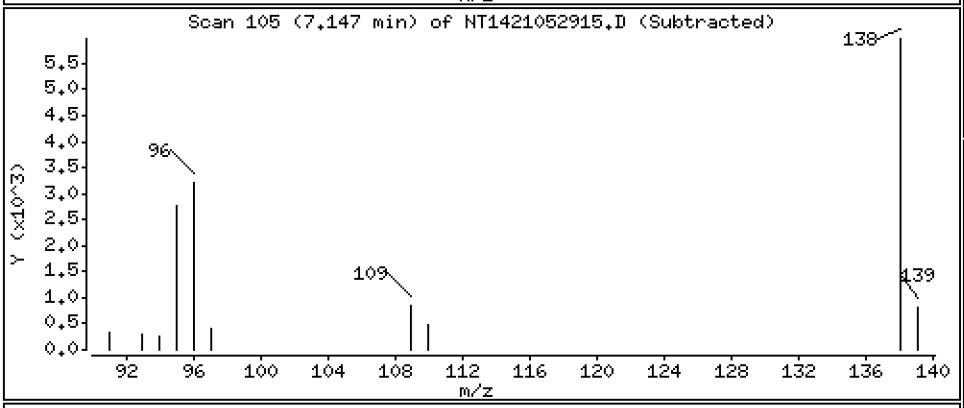
Column diameter: 0.25

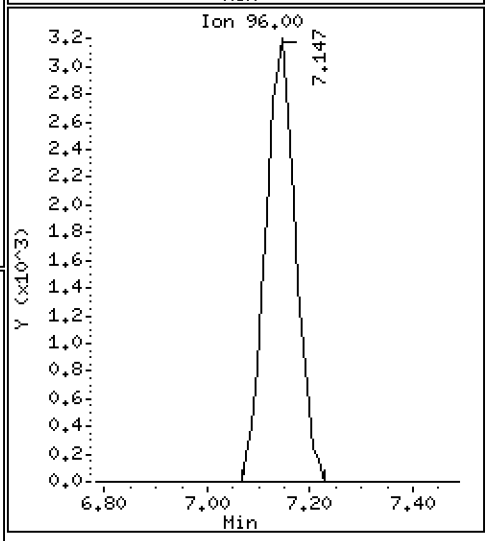
1 trans-Decalin

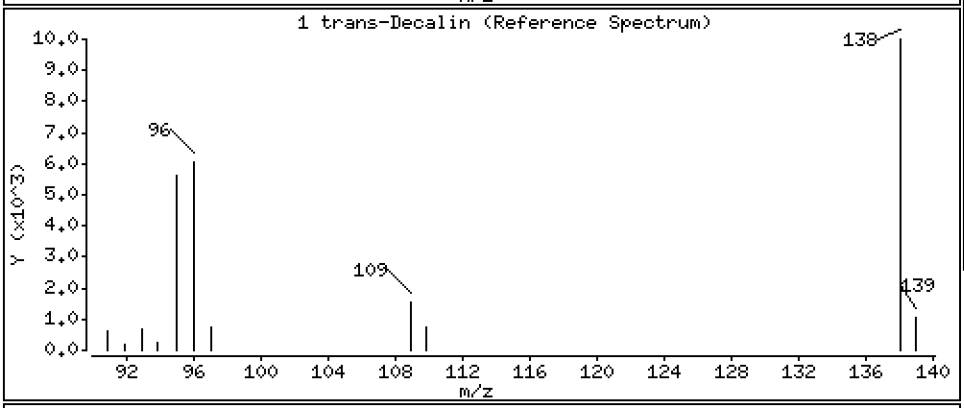
Concentration: 2.939 ug/mL

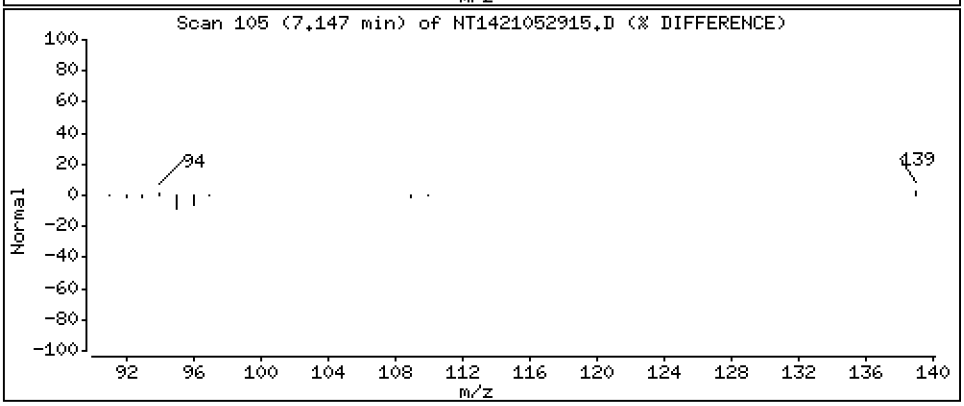












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

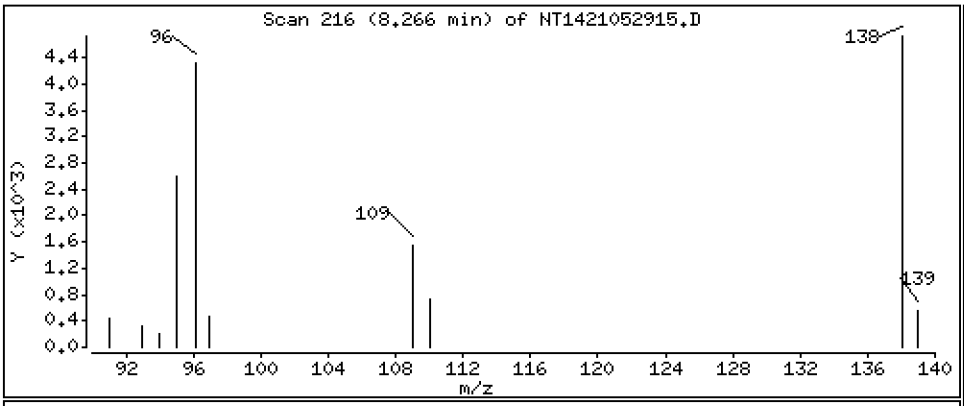
Operator: VTS

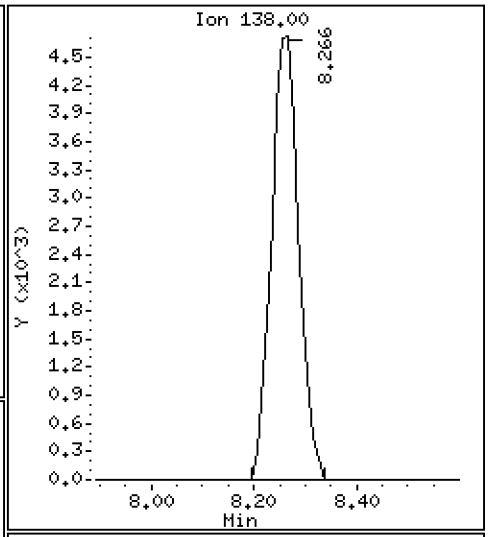
Column phase: Rxi-17Sil MS

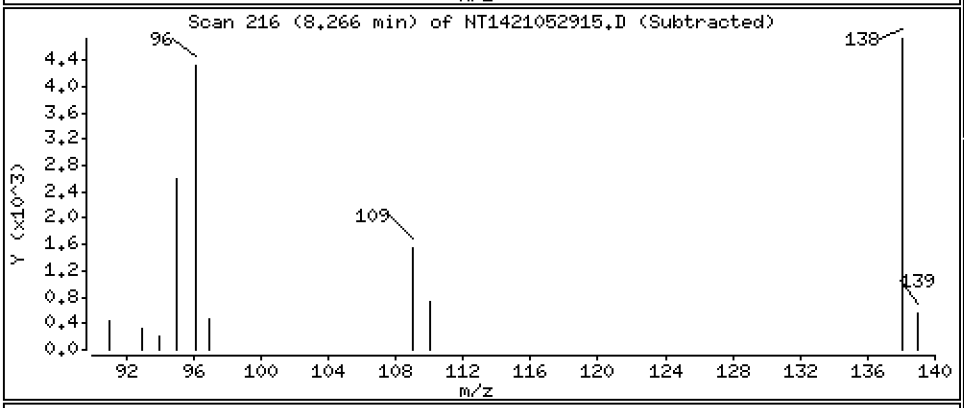
Column diameter: 0.25

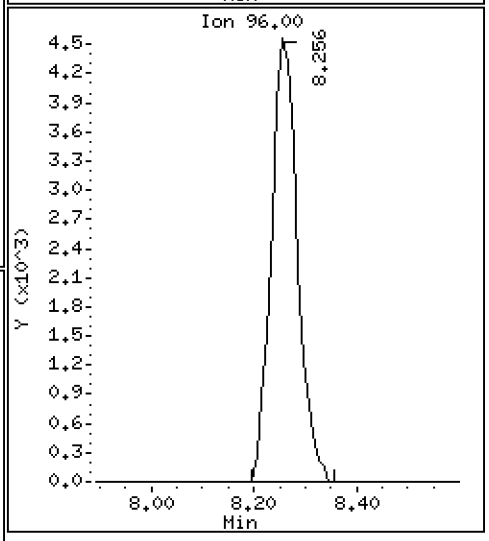
2 cis-Decalin

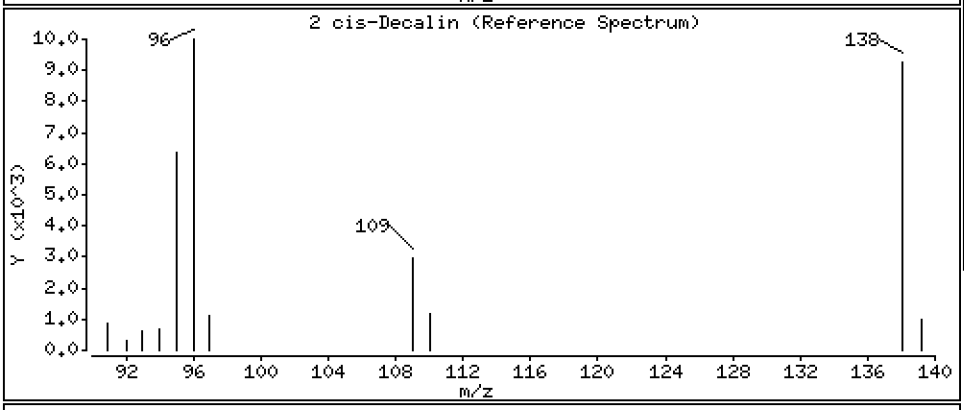
Concentration: 2.555 ug/mL

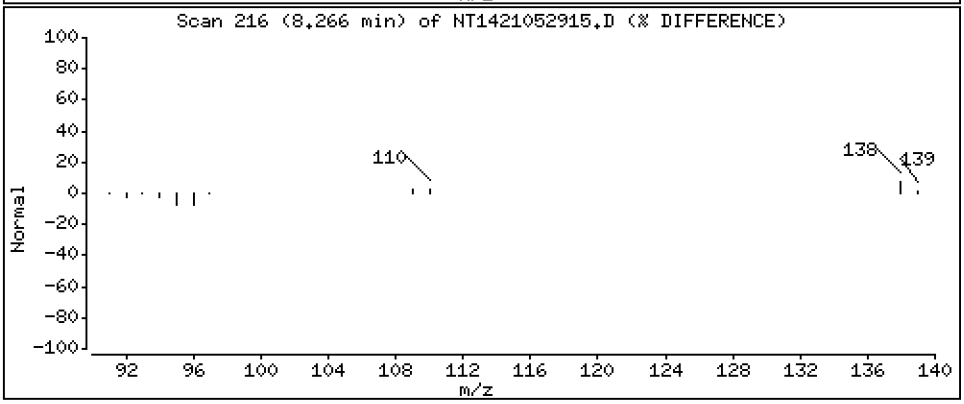












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

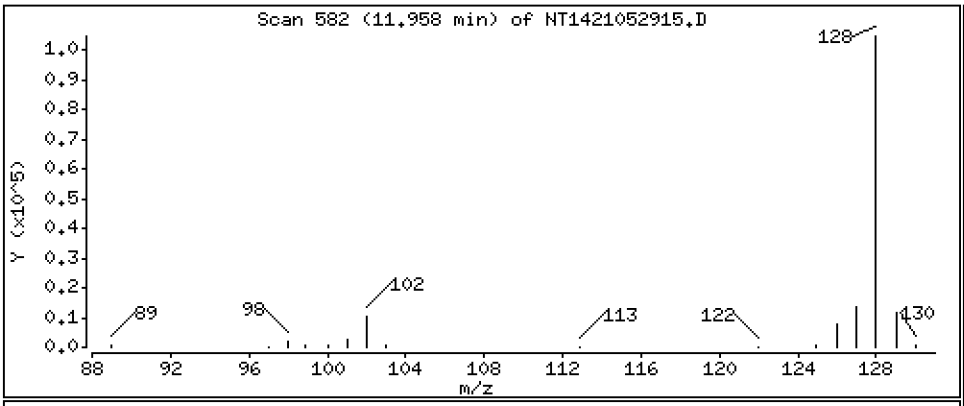
Operator: VTS

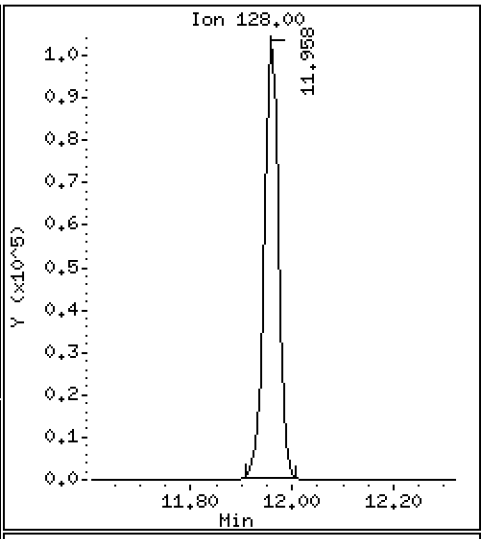
Column phase: Rxi-17Sil MS

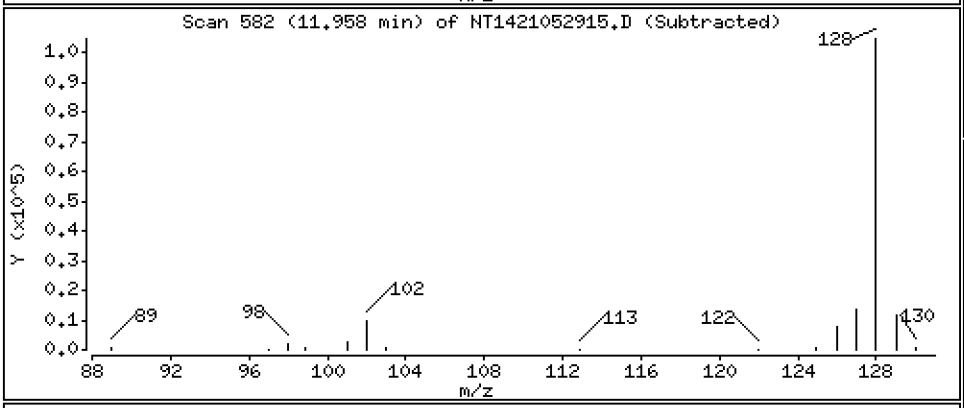
Column diameter: 0.25

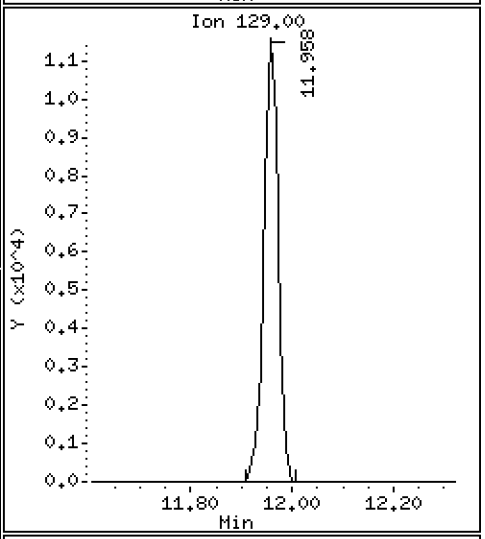
7 Naphthalene

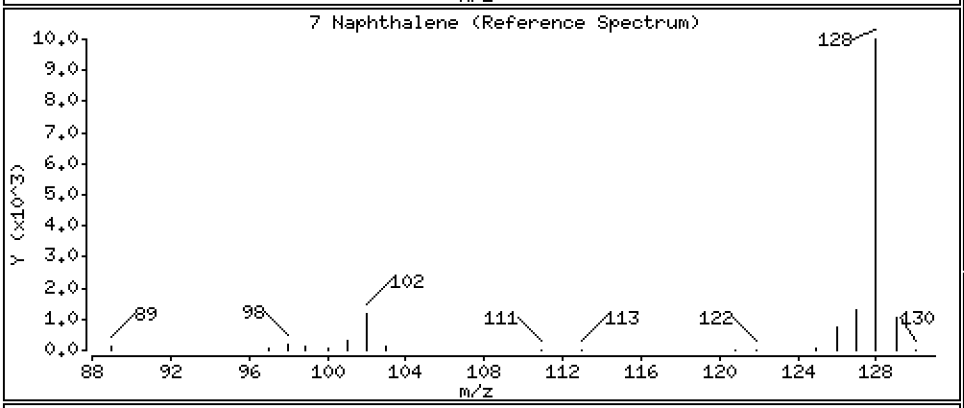
Concentration: 2.625 ug/mL

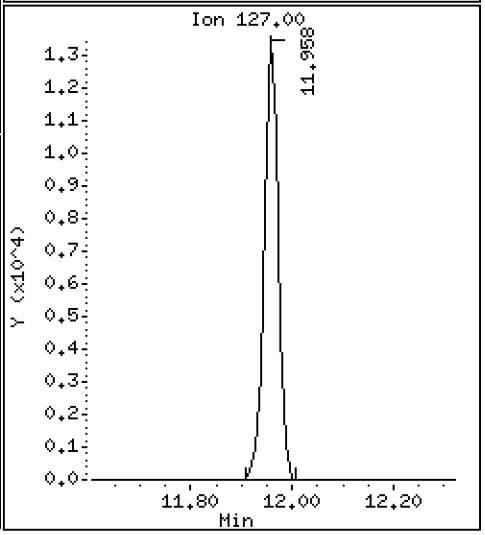


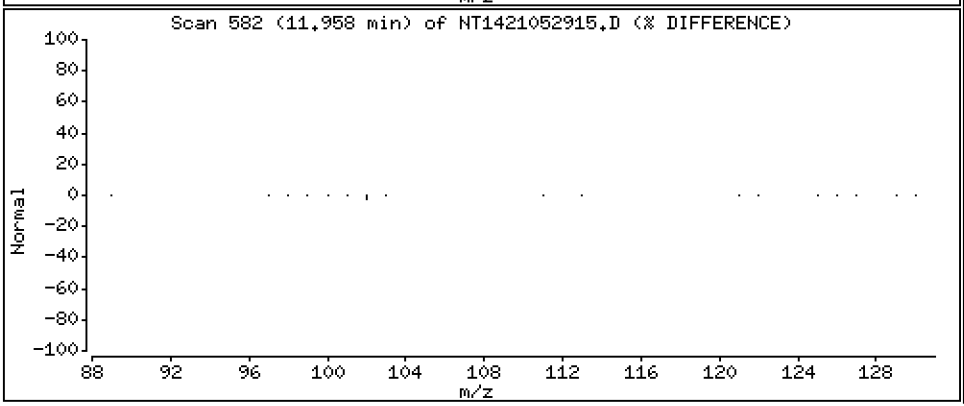












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

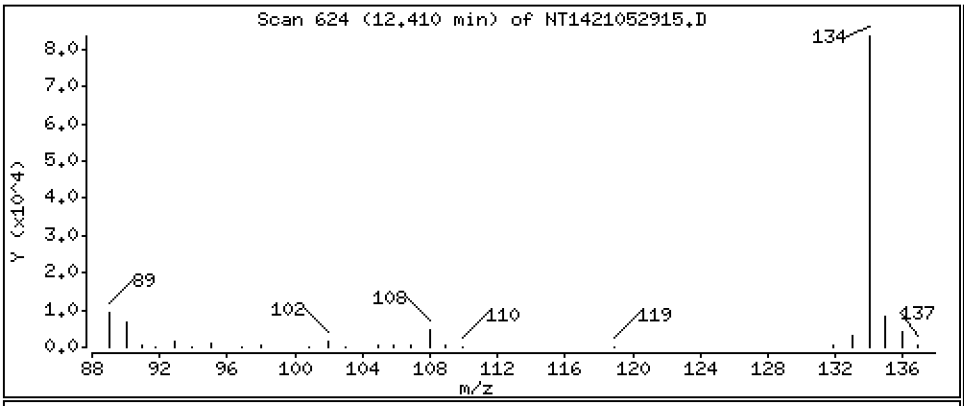
Operator: VTS

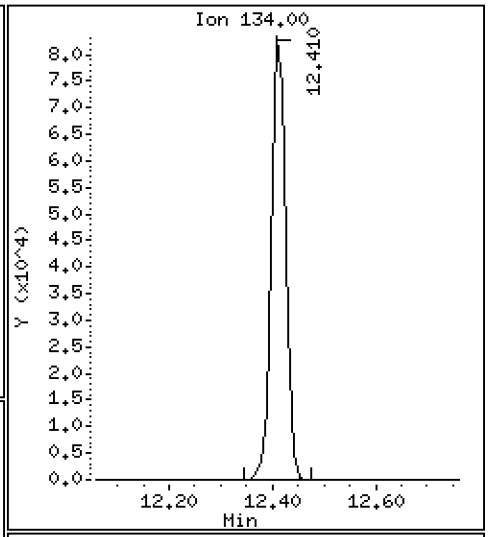
Column phase: Rxi-17Sil MS

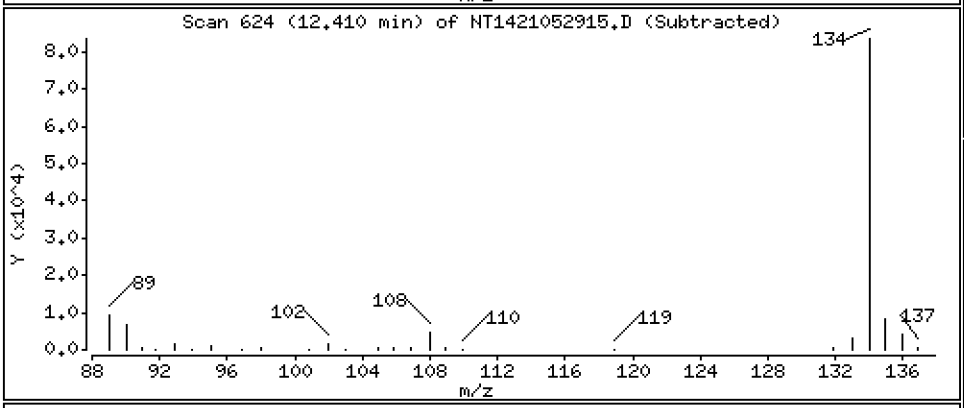
Column diameter: 0.25

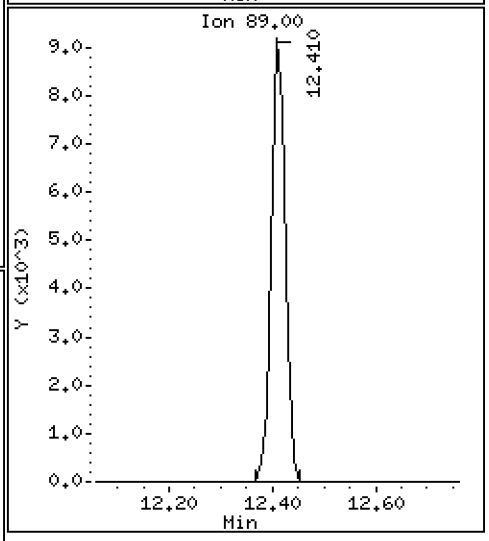
12 Benzo(b)thiophene

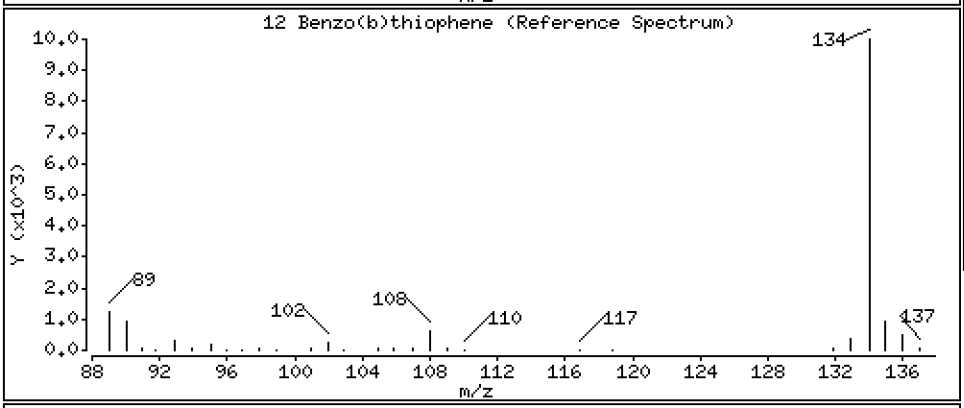
Concentration: 2.621 ug/mL

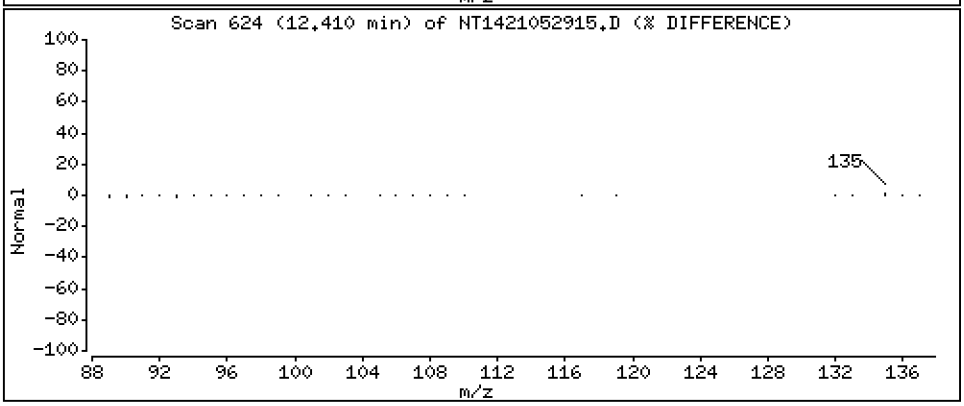












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

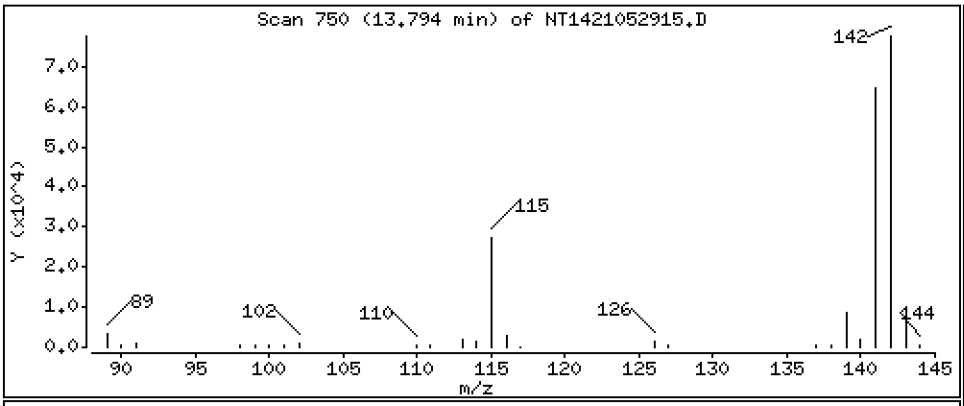
Operator: VTS

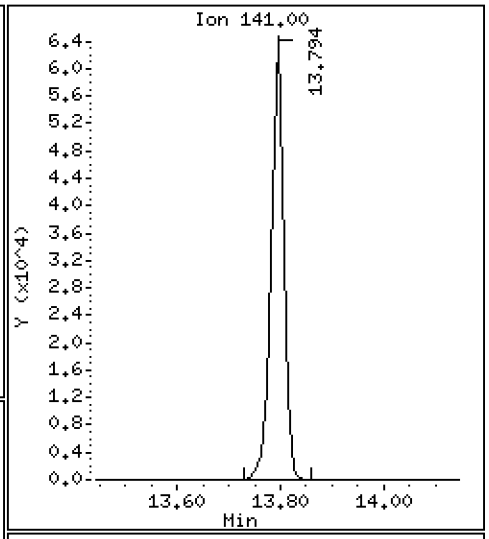
Column phase: Rxi-17Sil MS

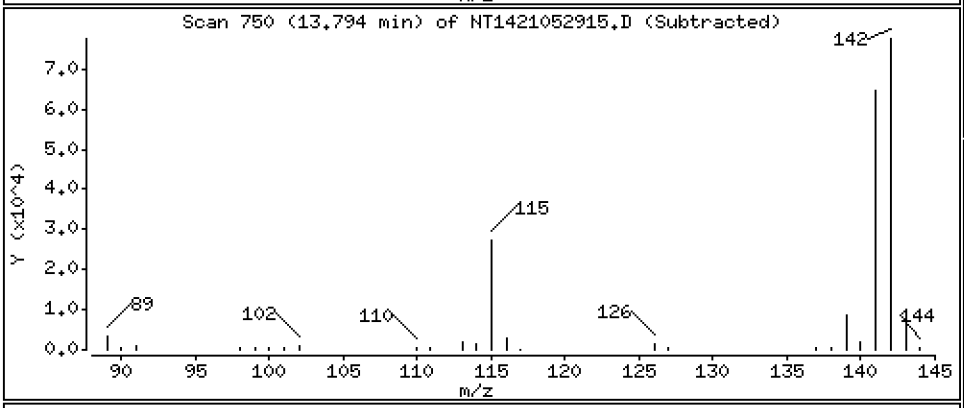
Column diameter: 0.25

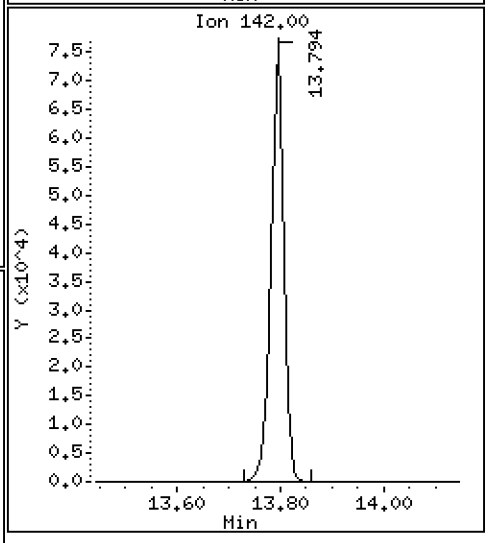
16 2-Methylnaphthalene

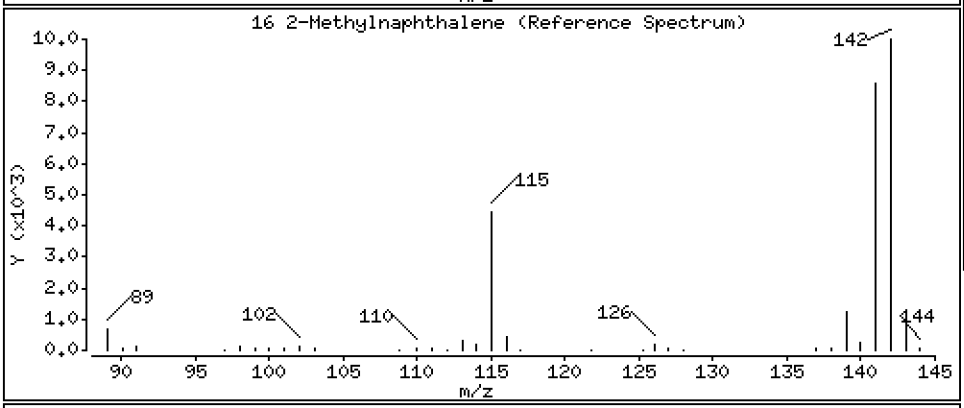
Concentration: 2.645 ug/mL

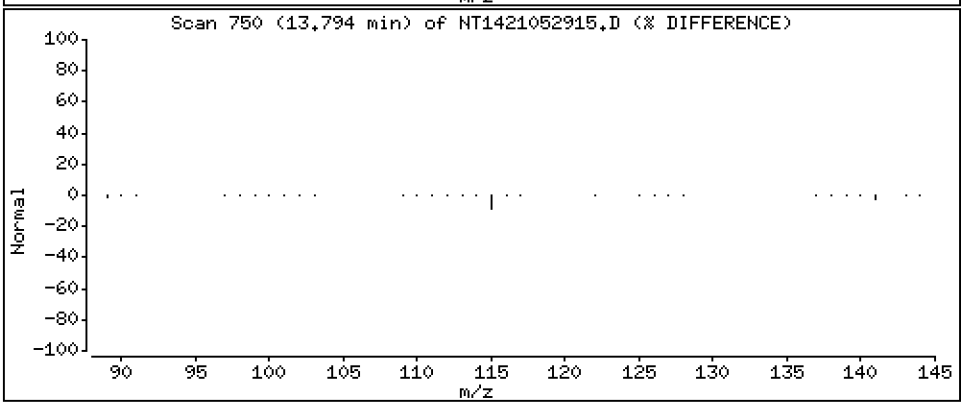












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

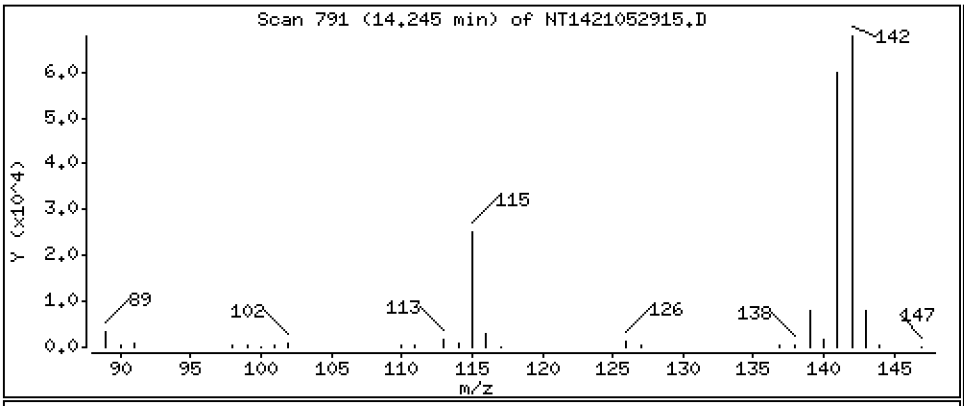
Operator: VTS

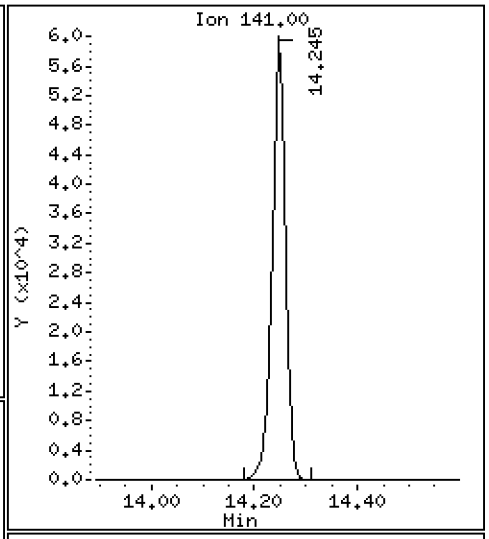
Column phase: Rxi-17Sil MS

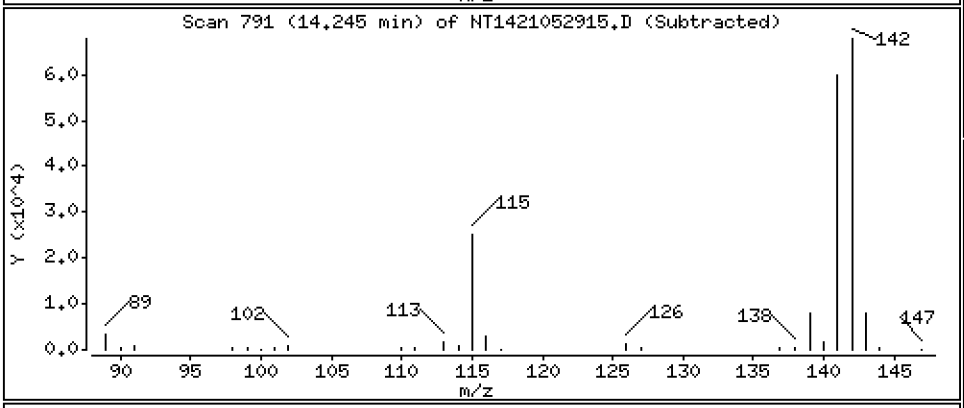
Column diameter: 0.25

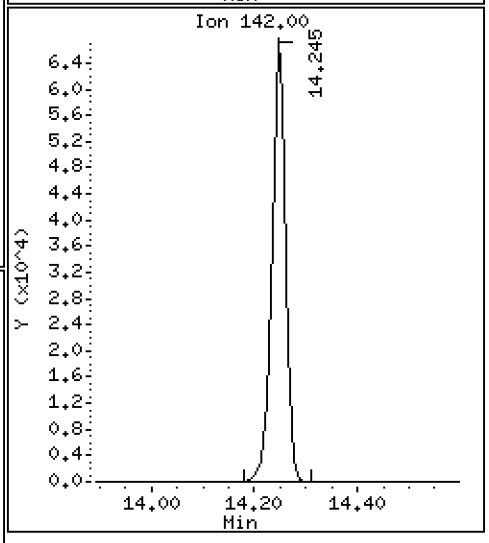
17 1-methylnaphthalene

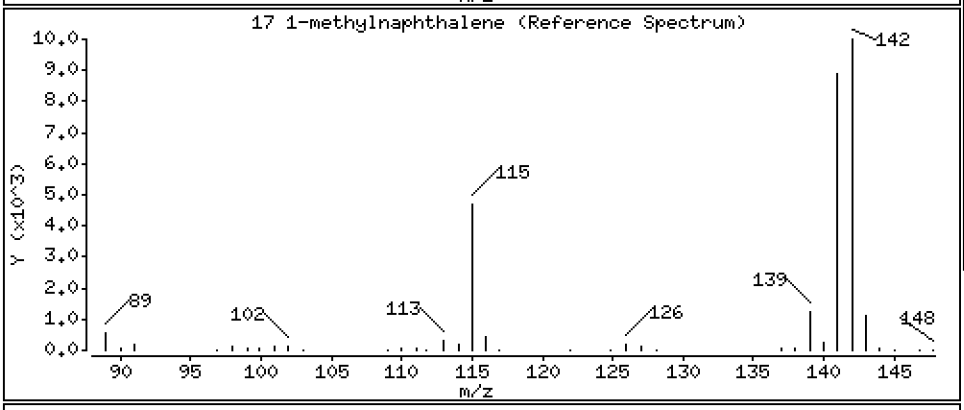
Concentration: 2.659 ug/mL

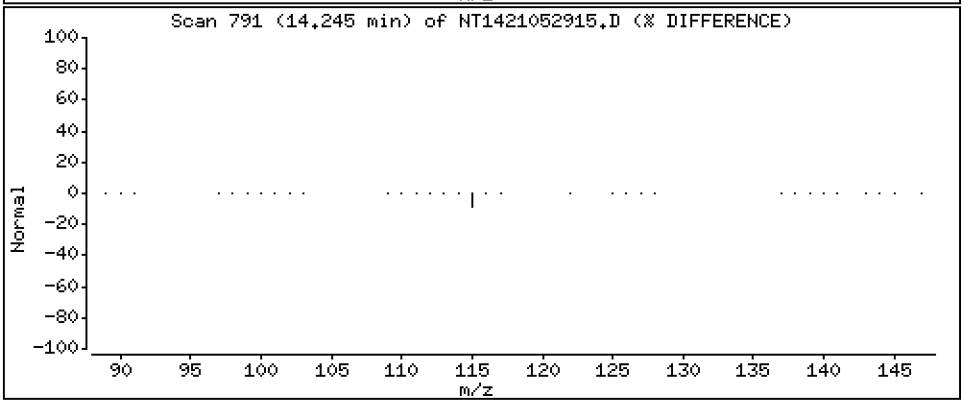












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

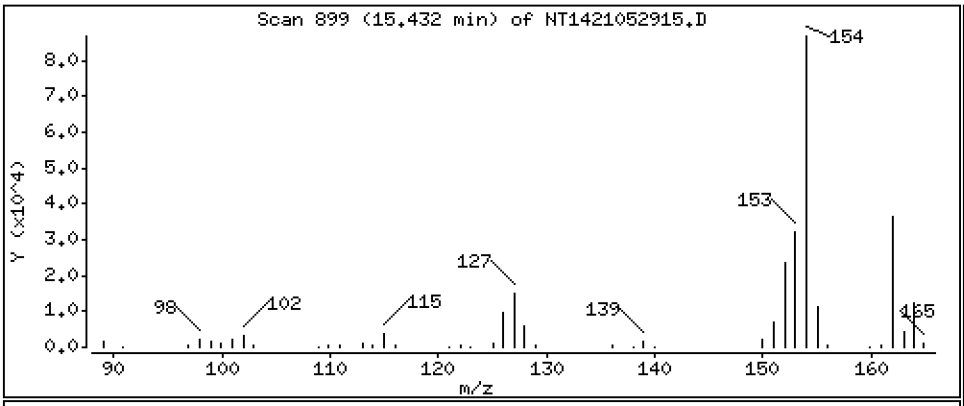
Operator: VTS

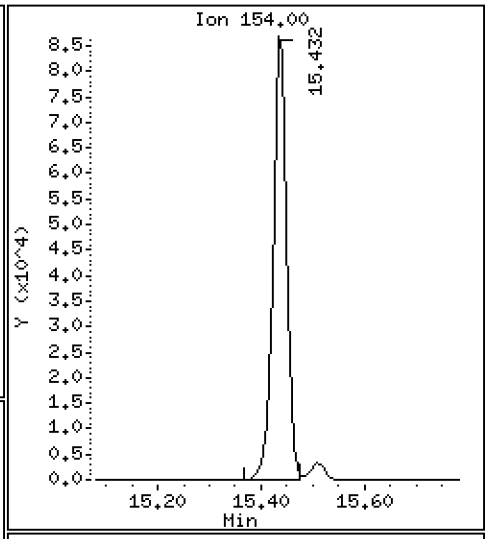
Column phase: Rxi-17Sil MS

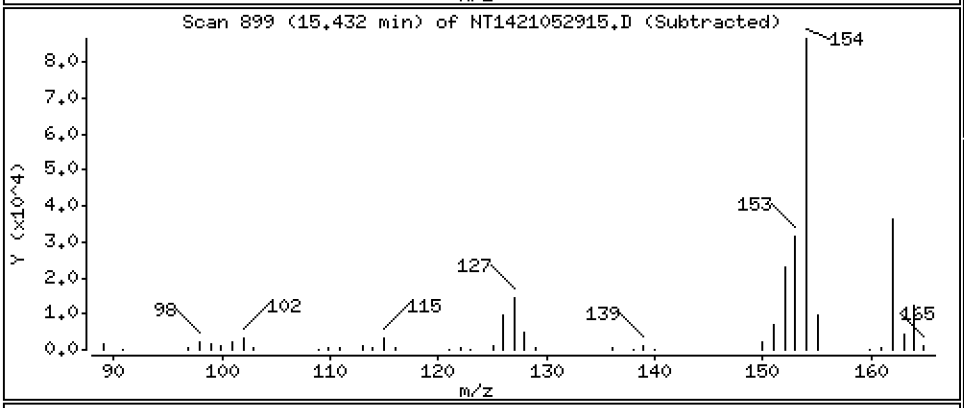
Column diameter: 0.25

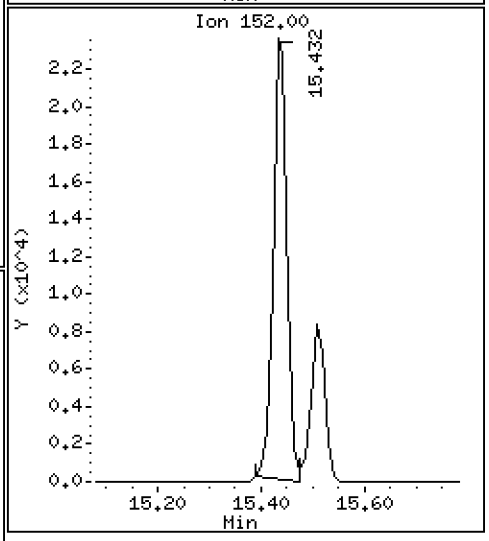
18 Biphenyl

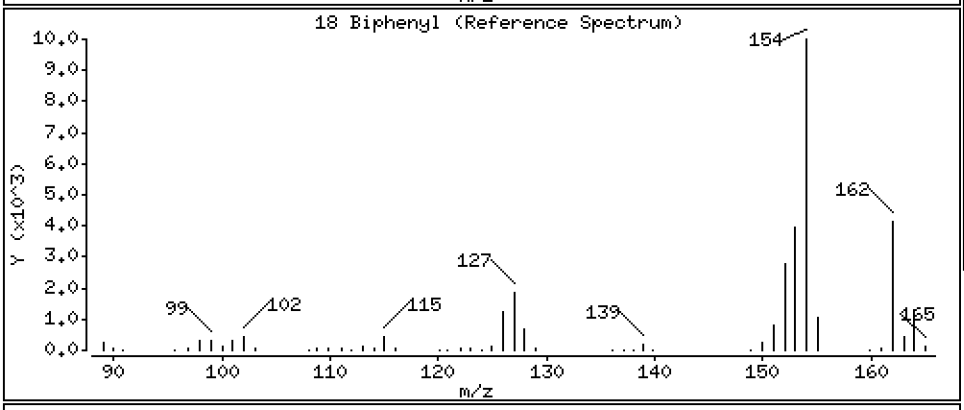
Concentration: 2.608 ug/mL

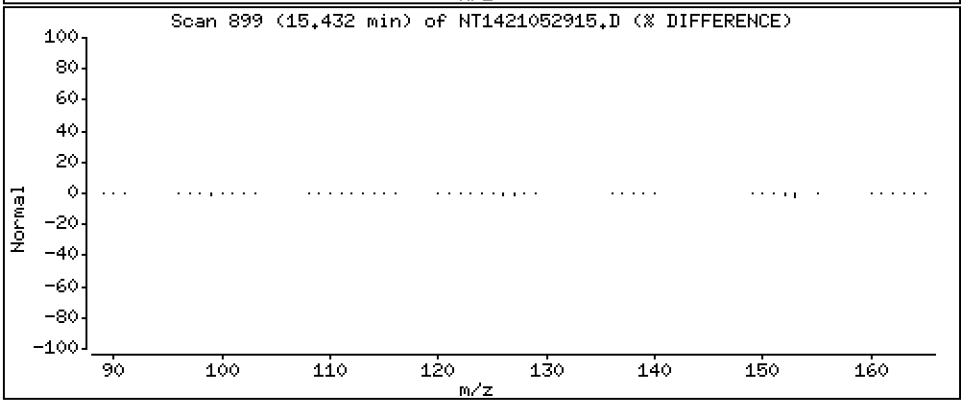












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

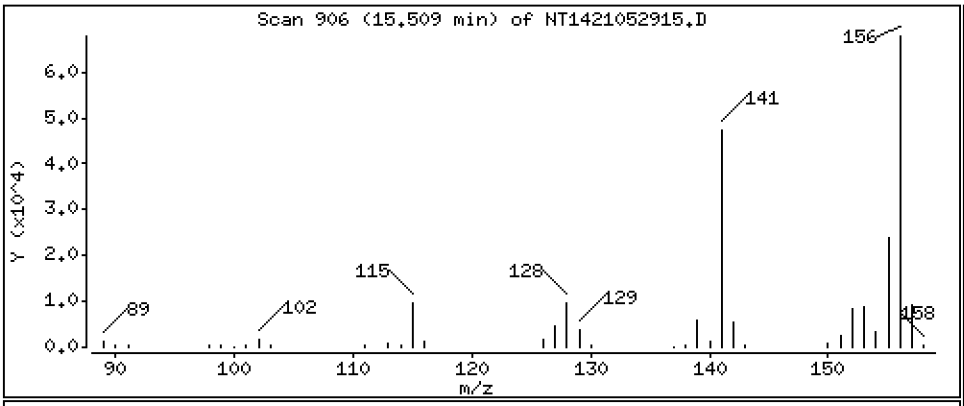
Operator: VTS

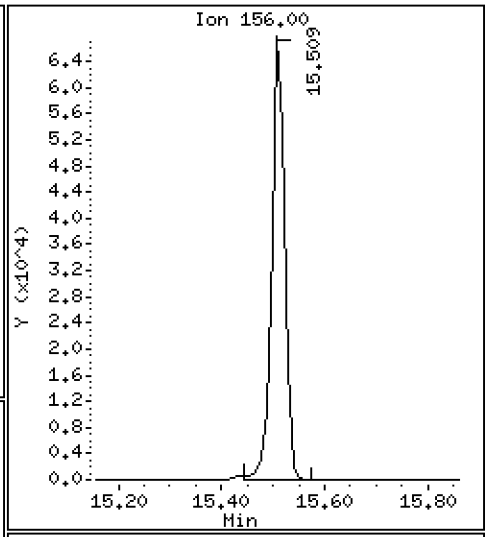
Column phase: Rxi-17Sil MS

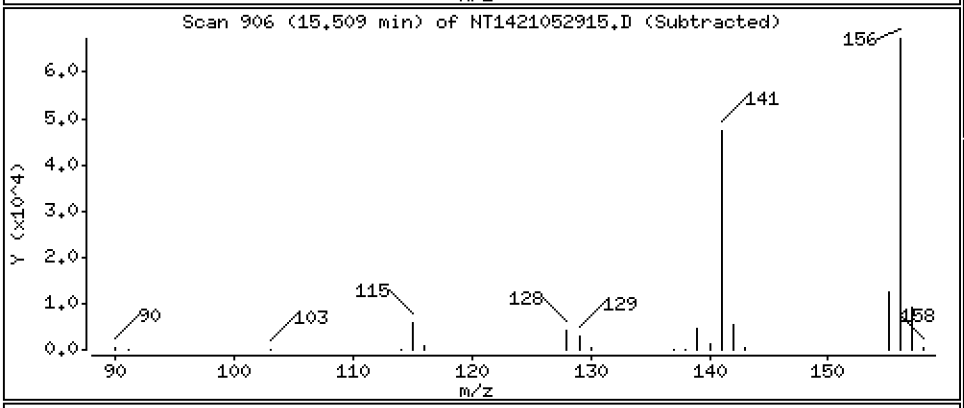
Column diameter: 0.25

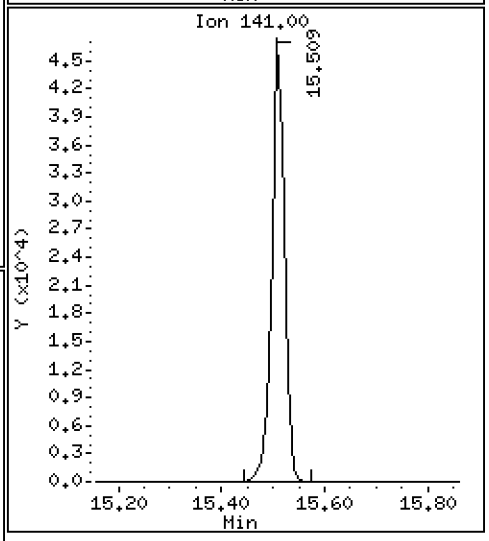
19 2,6-Dimethylnaphthalene

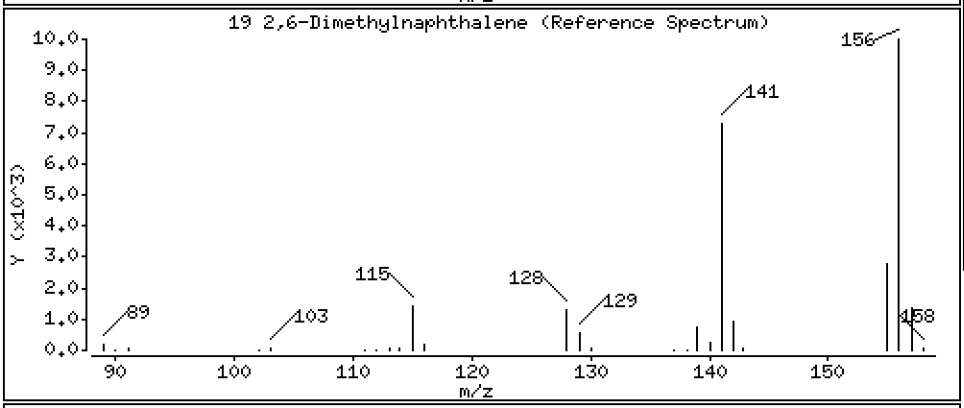
Concentration: 2.604 ug/mL

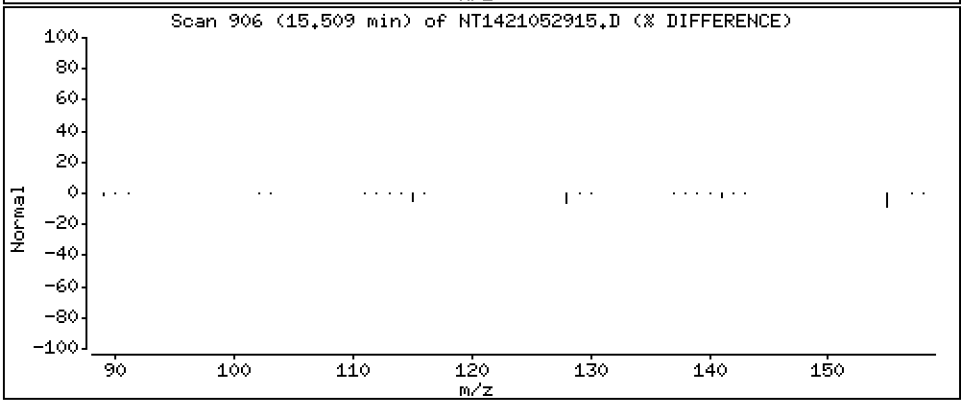












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

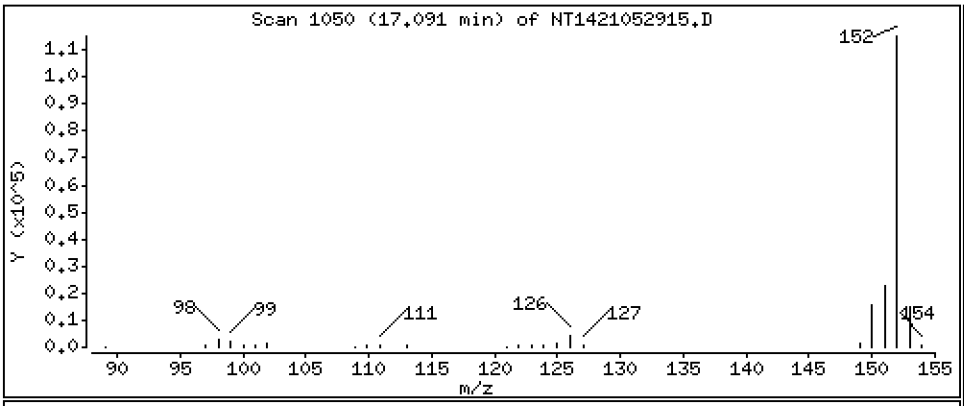
Operator: VTS

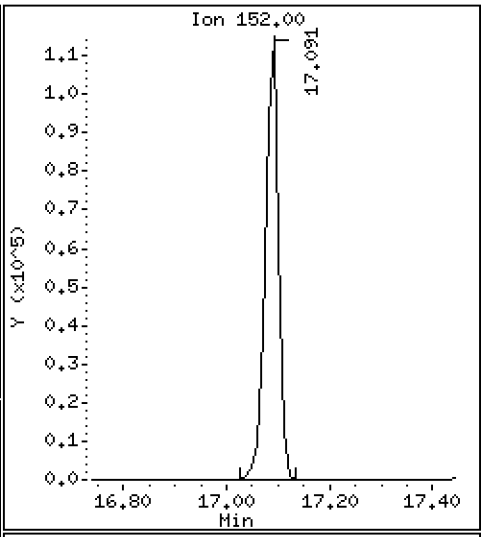
Column phase: Rxi-17Sil MS

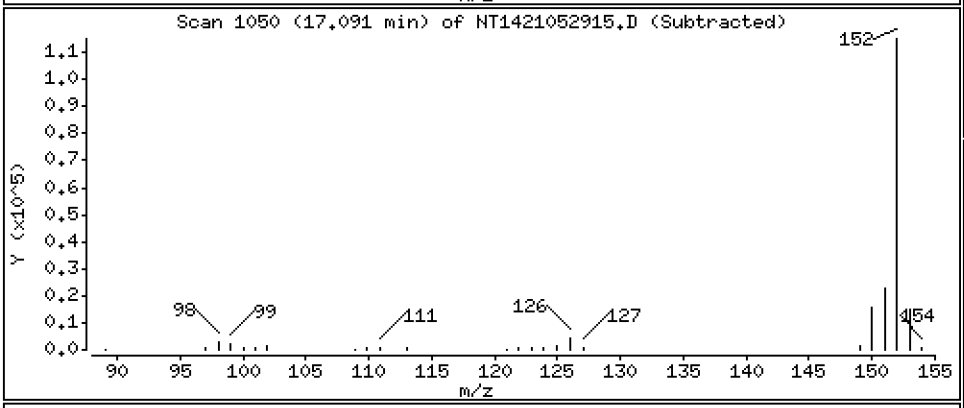
Column diameter: 0.25

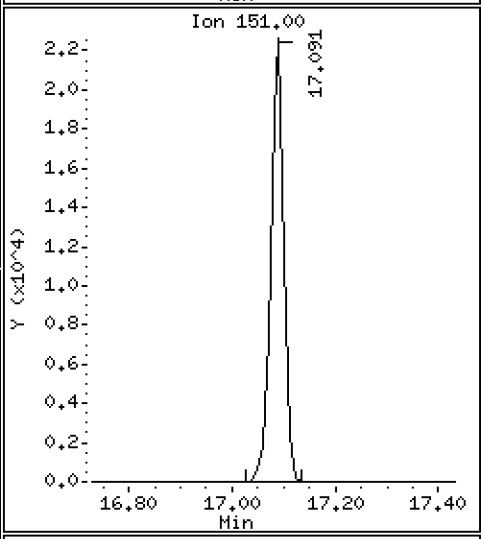
20 Acenaphthylene

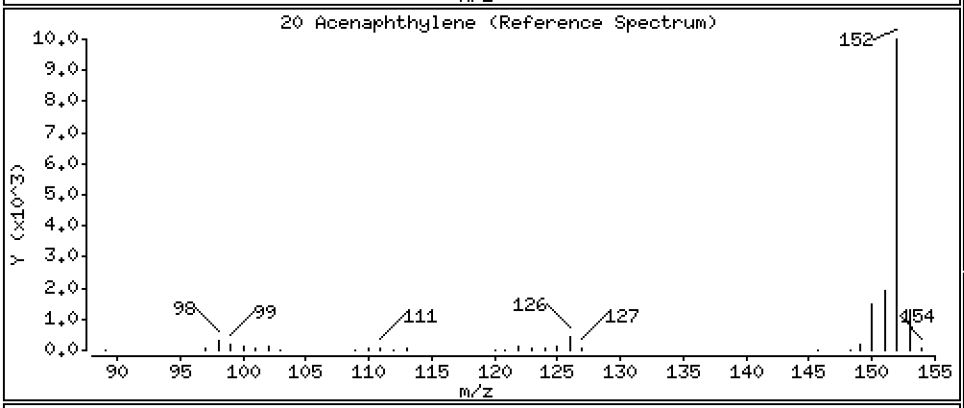
Concentration: 2.624 ug/mL

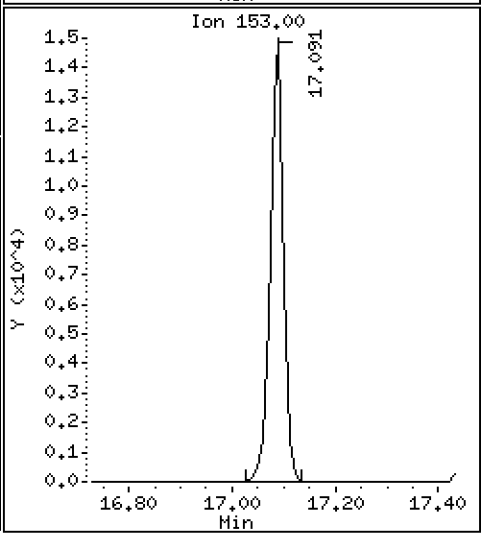


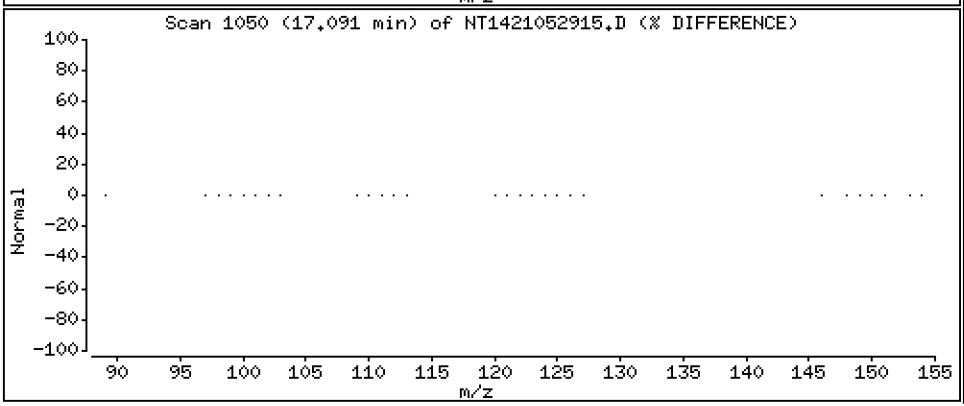












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

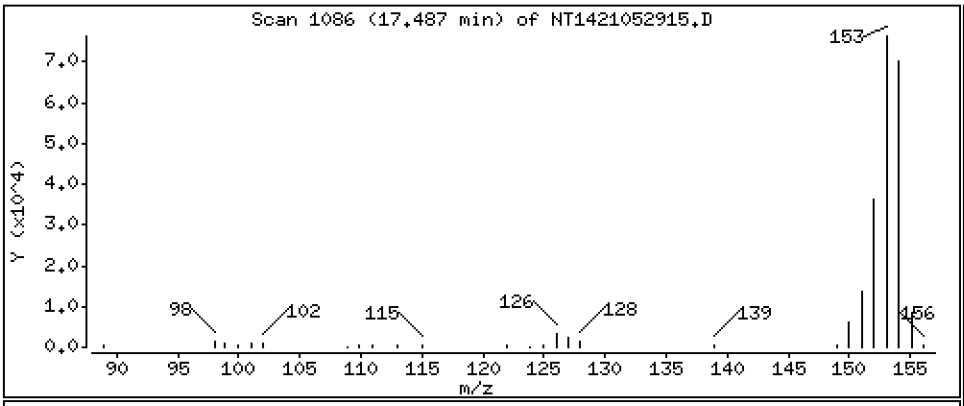
Operator: VTS

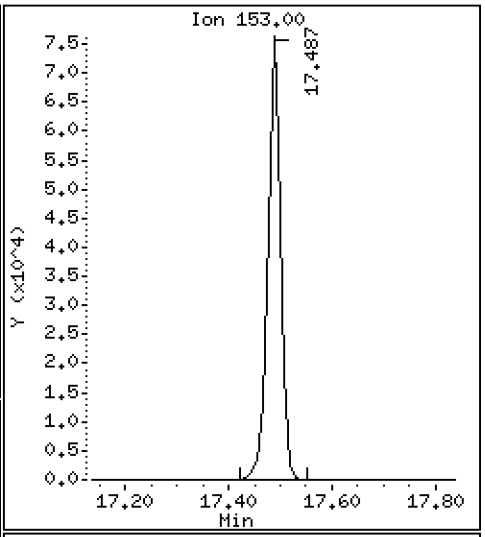
Column phase: Rxi-17Sil MS

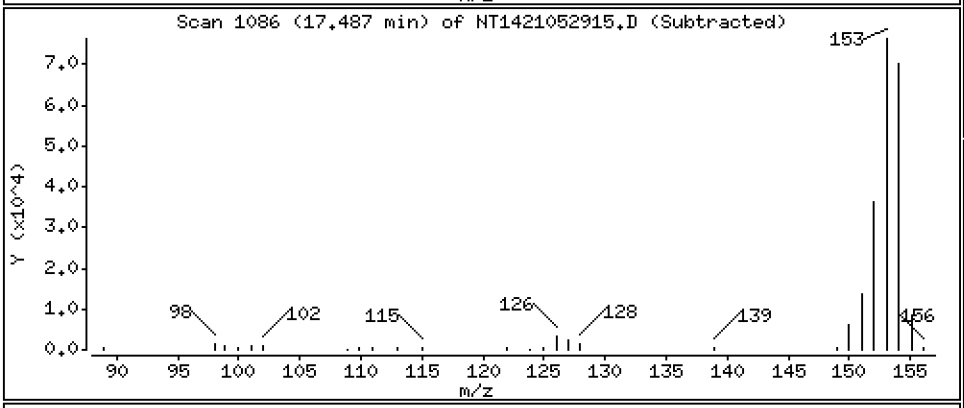
Column diameter: 0.25

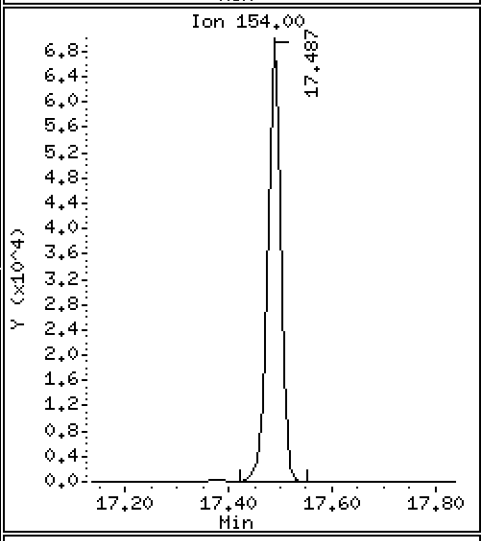
22 Acenaphthene

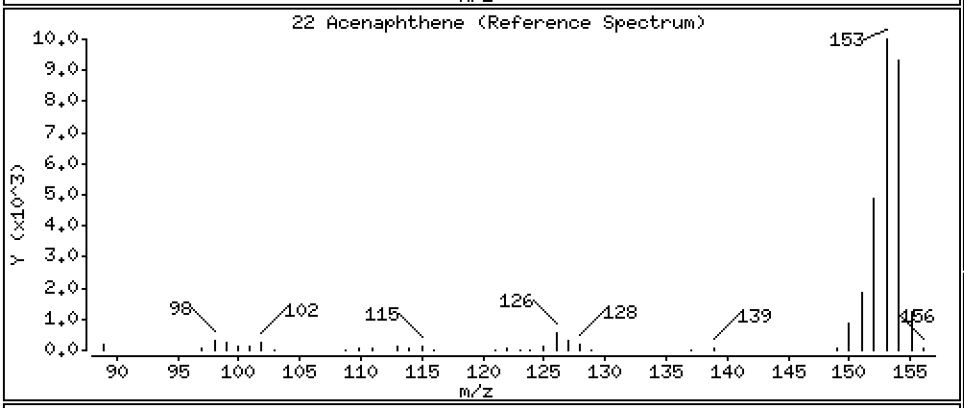
Concentration: 2.755 ug/mL

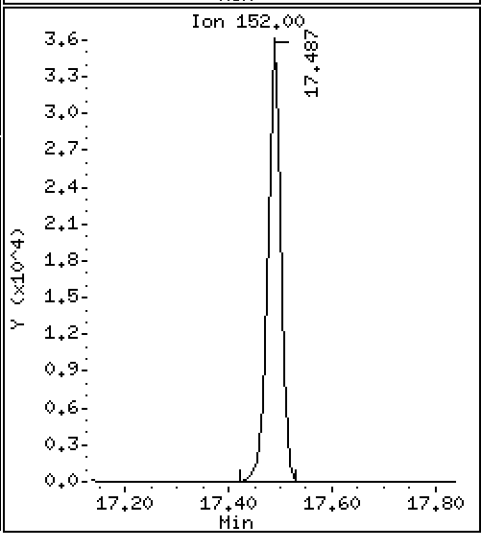


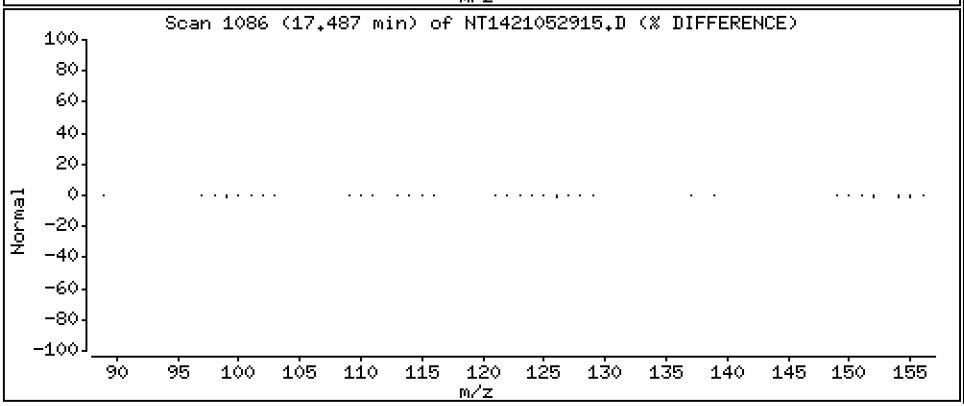












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

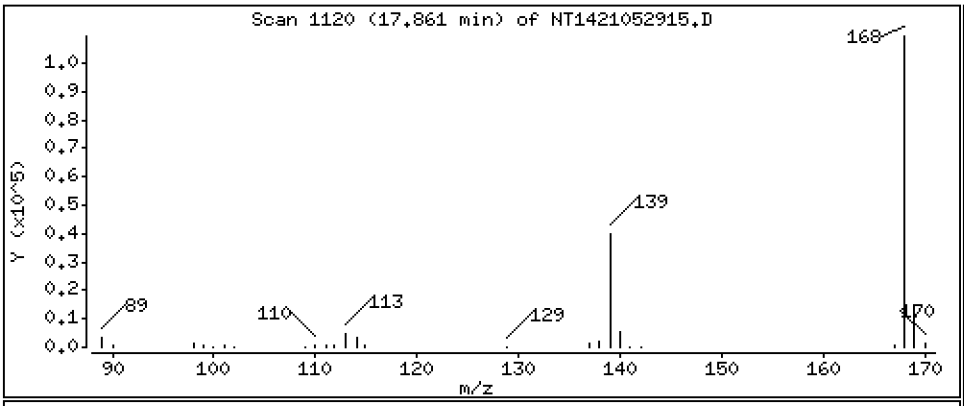
Operator: VTS

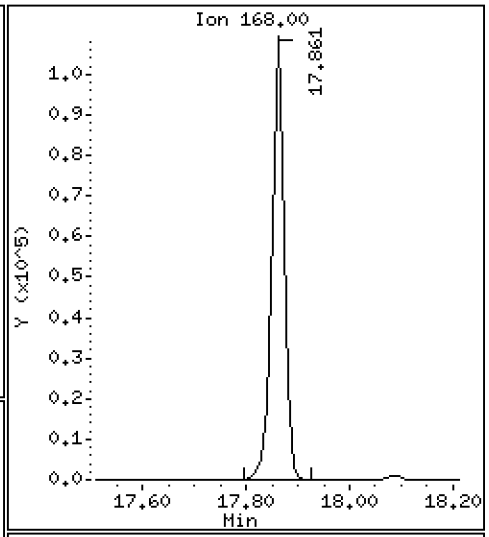
Column phase: Rxi-17Sil MS

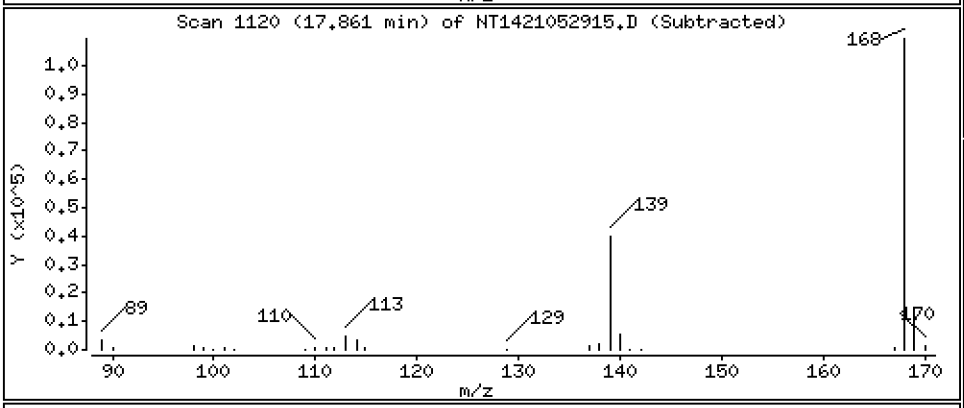
Column diameter: 0.25

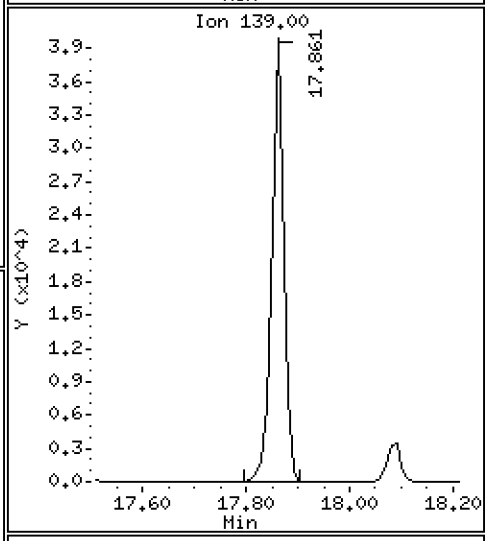
23 Dibenzofuran

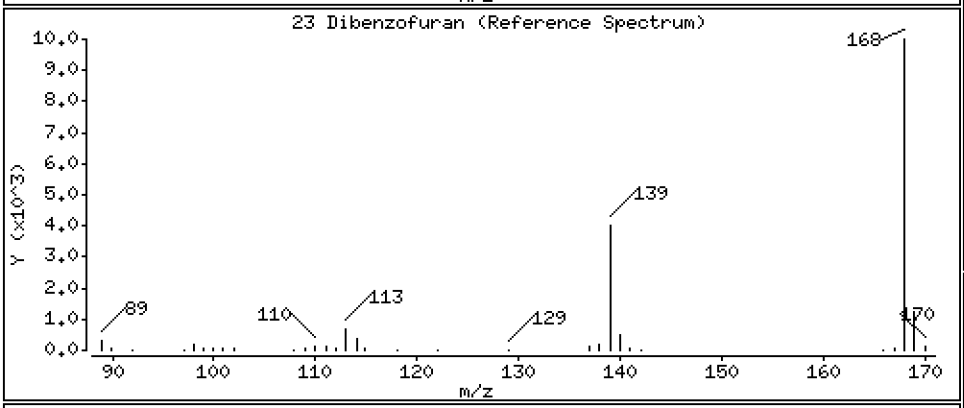
Concentration: 2.595 ug/mL

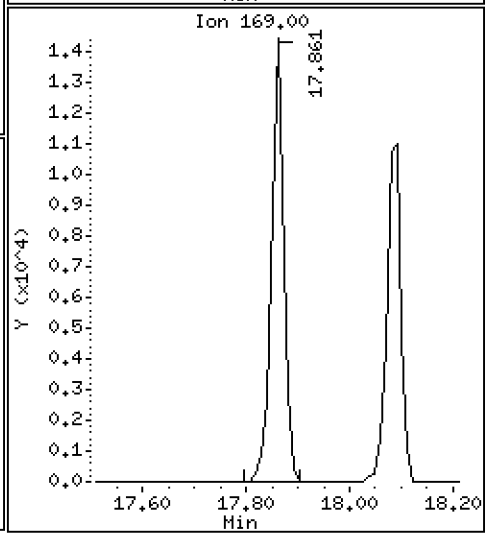


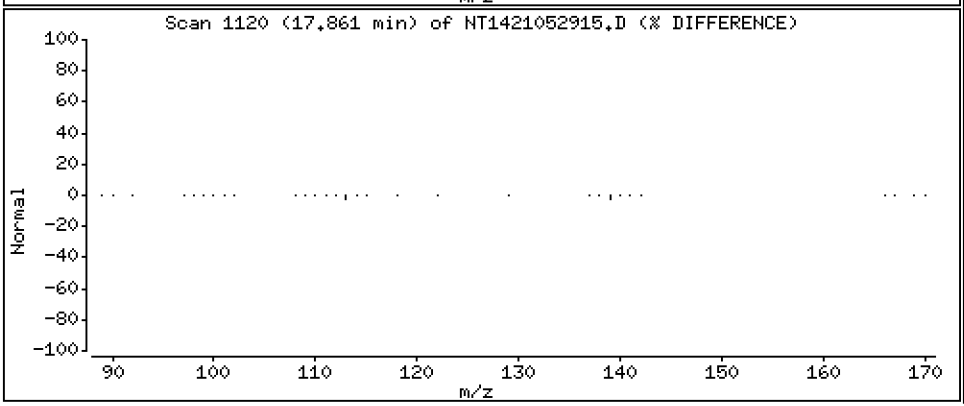












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

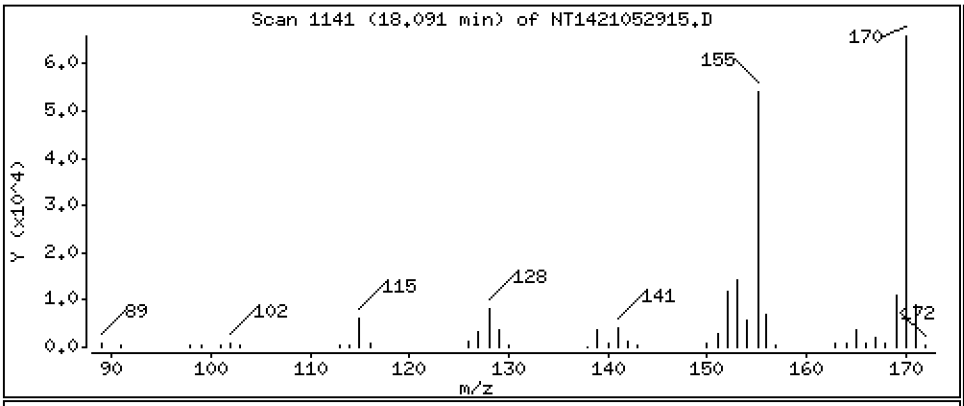
Operator: VTS

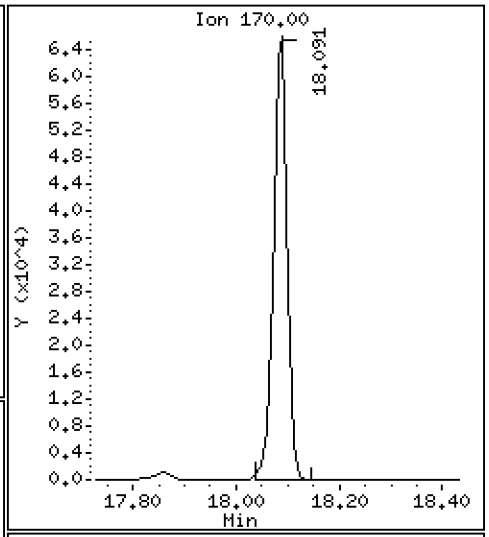
Column phase: Rxi-17Sil MS

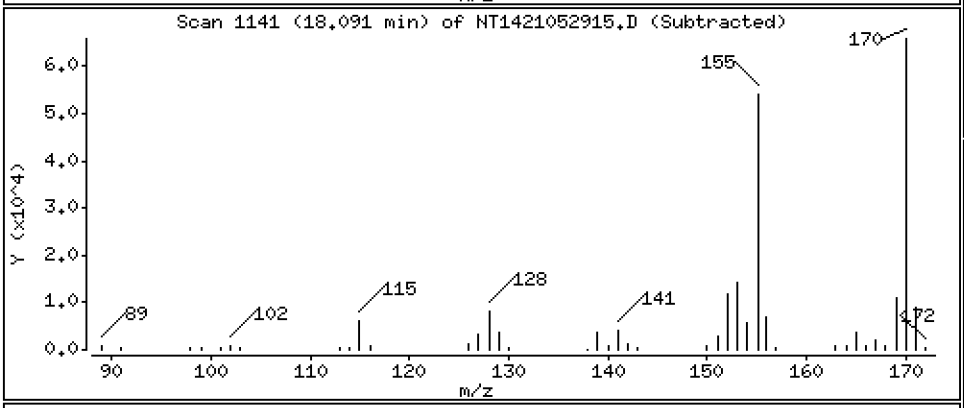
Column diameter: 0.25

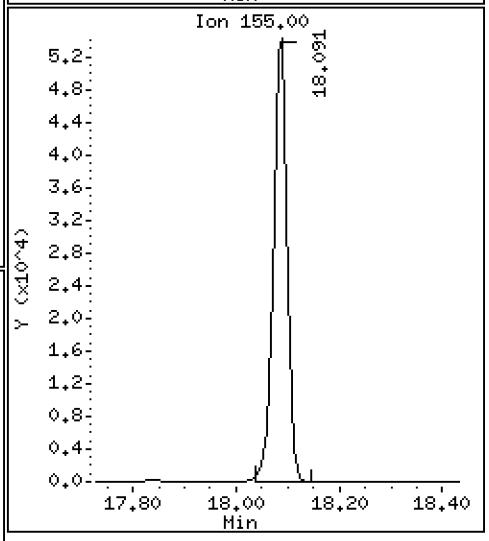
24 1,6,7-Trimethylnaphthalene

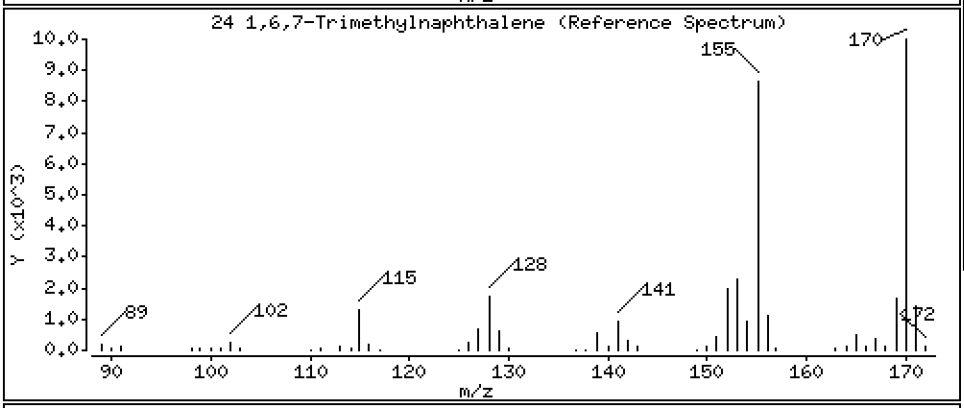
Concentration: 2.642 ug/mL

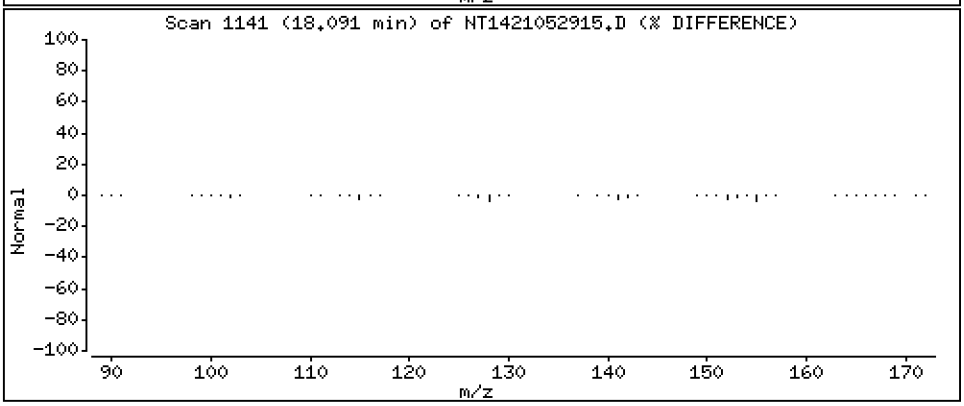












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

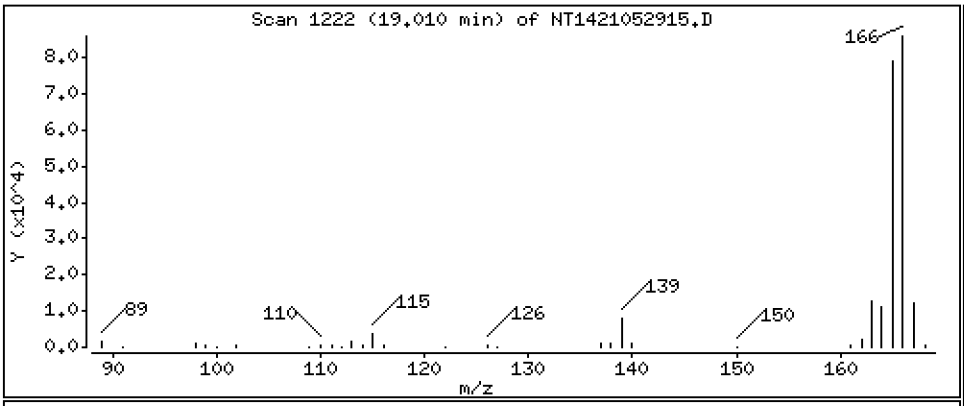
Operator: VTS

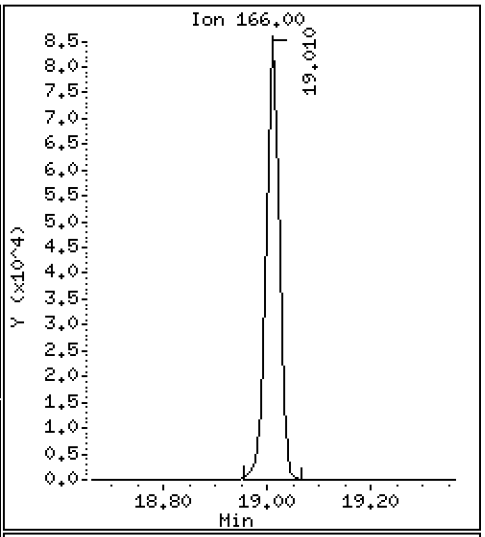
Column phase: Rxi-17Sil MS

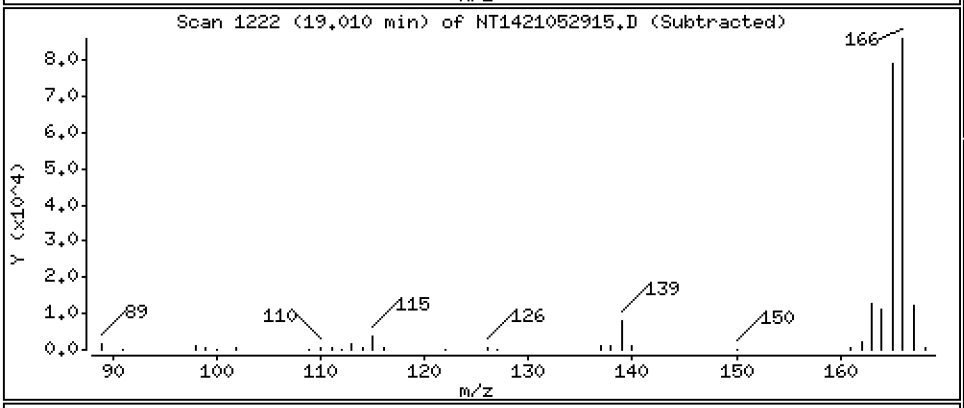
Column diameter: 0.25

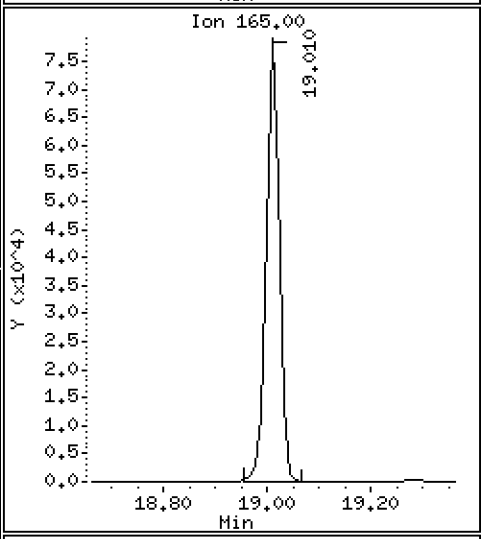
26 Fluorene

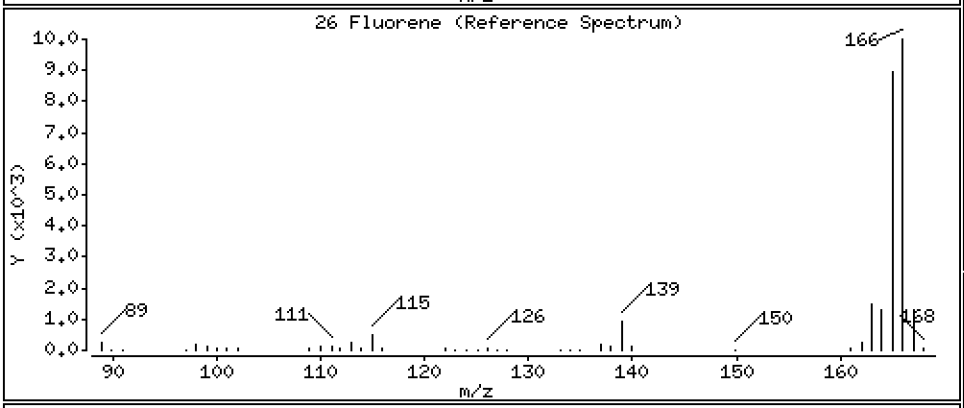
Concentration: 2.611 ug/mL

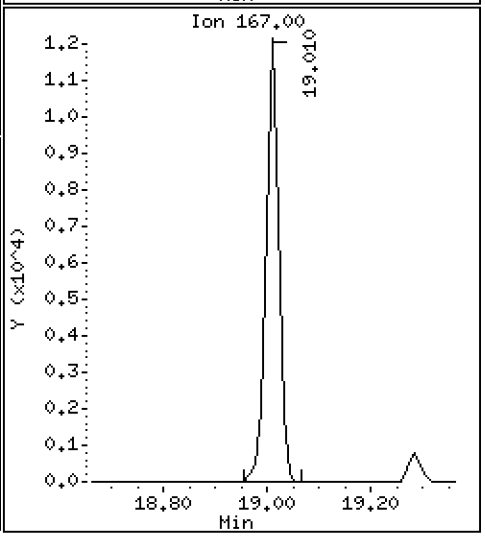


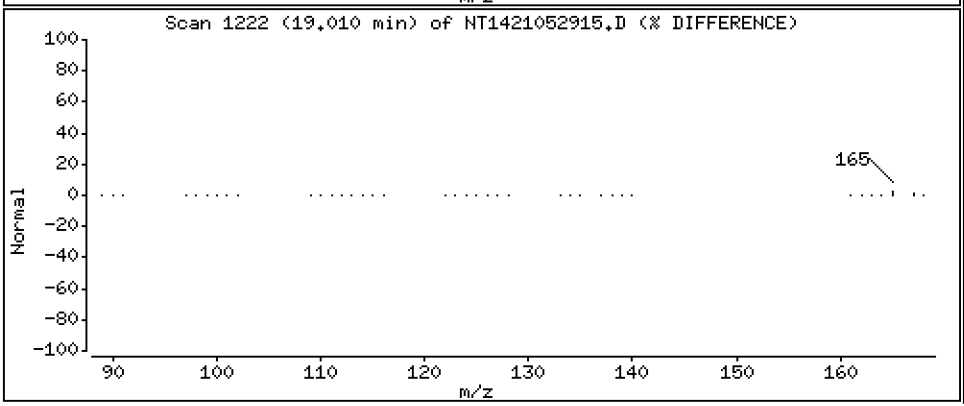












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

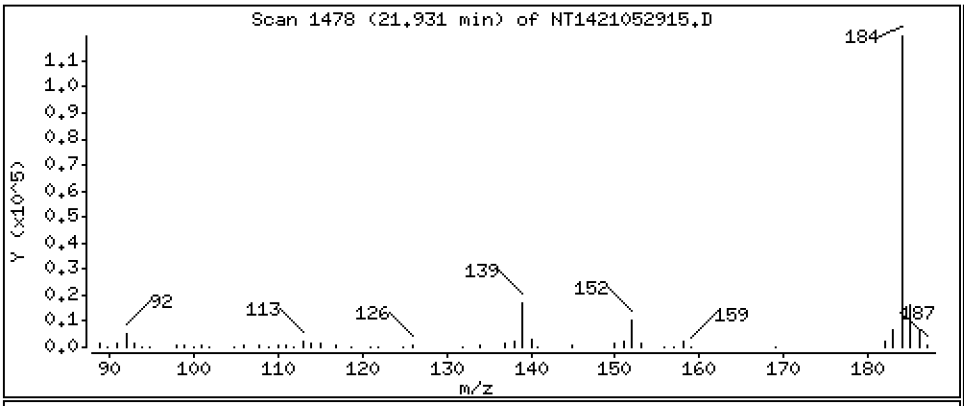
Operator: VTS

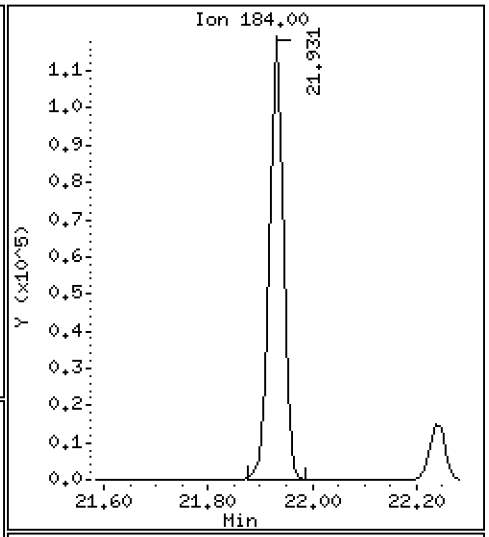
Column phase: Rxi-17Sil MS

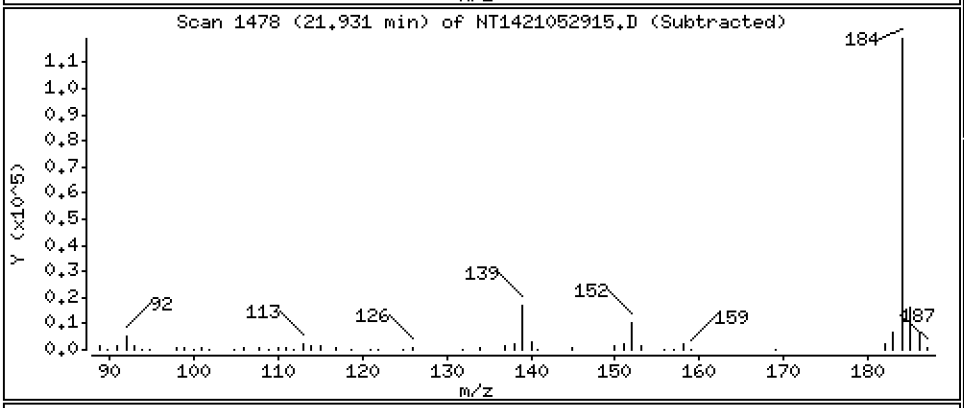
Column diameter: 0.25

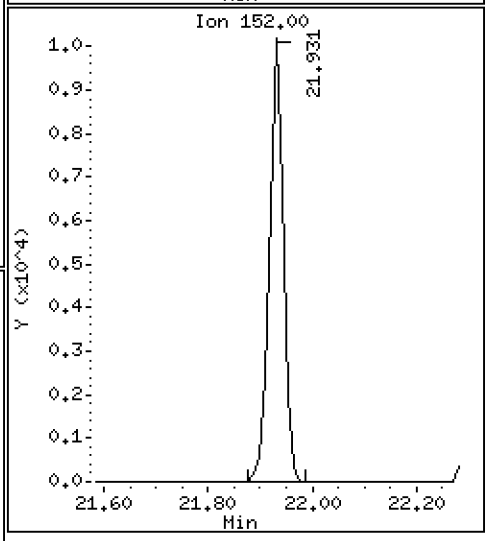
30 Dibenzothiophene

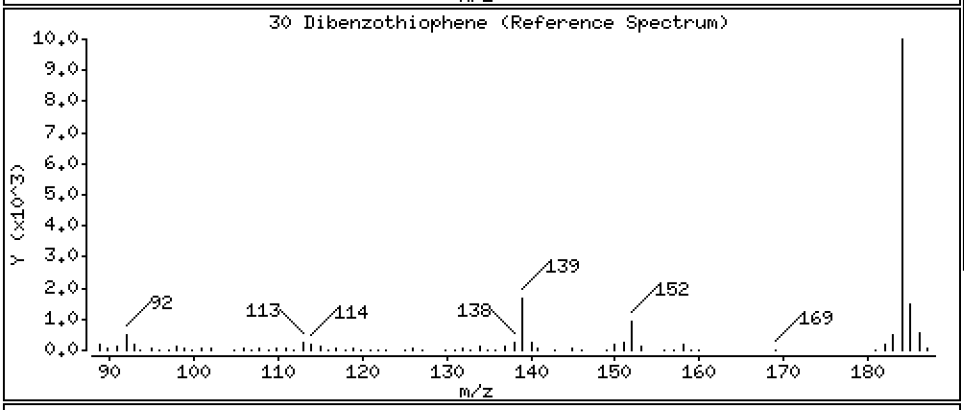
Concentration: 2.634 ug/mL

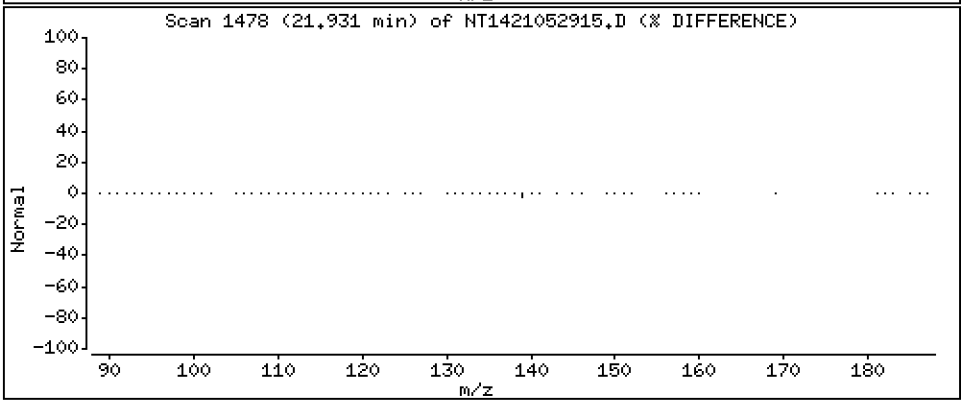












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

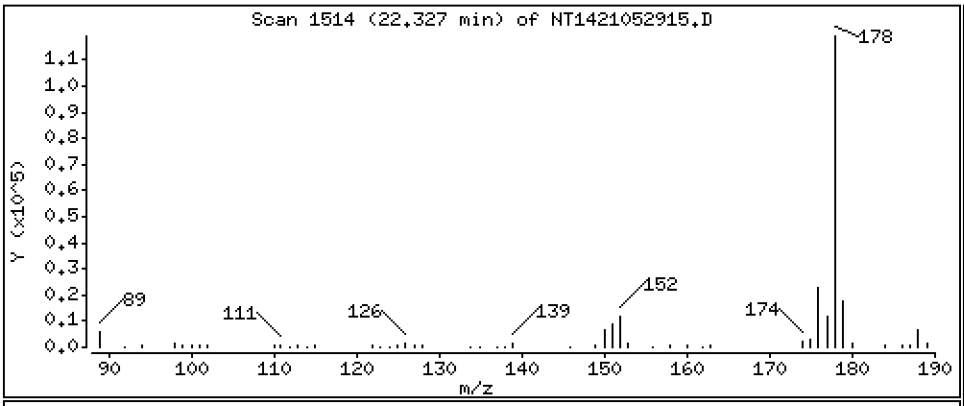
Operator: VTS

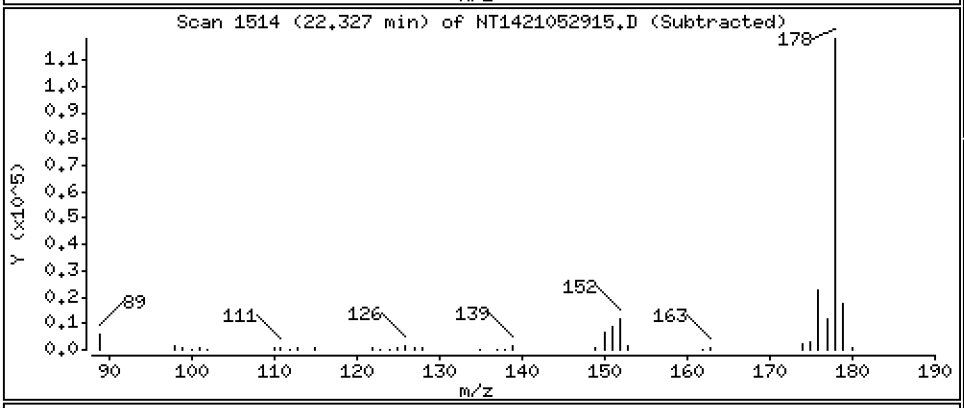
Column phase: Rxi-17Sil MS

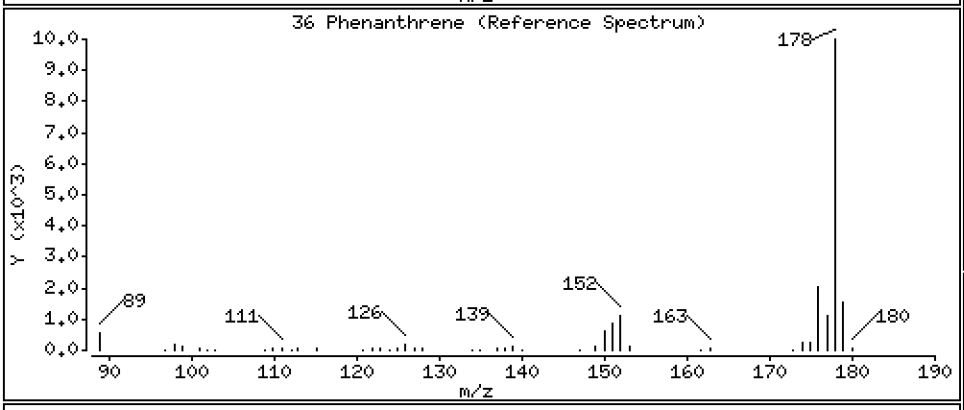
Column diameter: 0.25

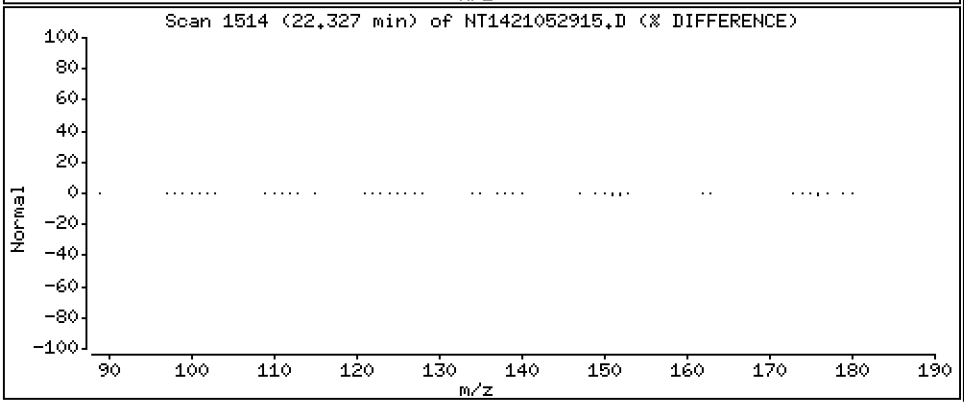
36 Phenanthrene

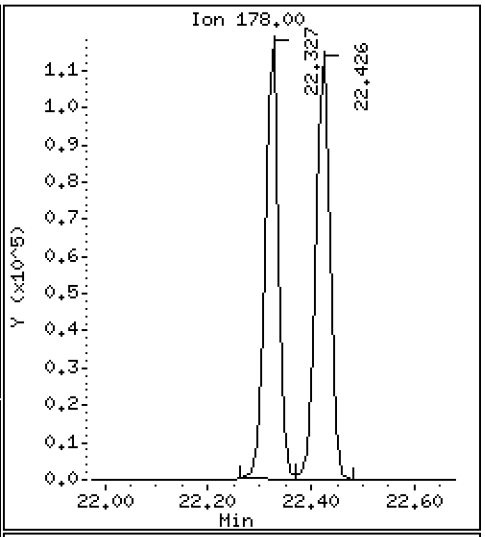
Concentration: 2.640 ug/mL

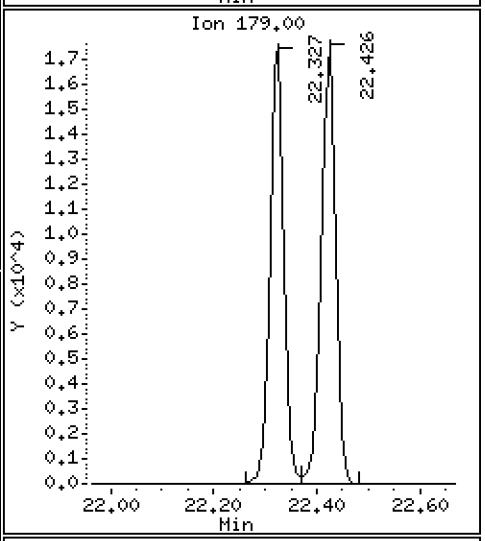


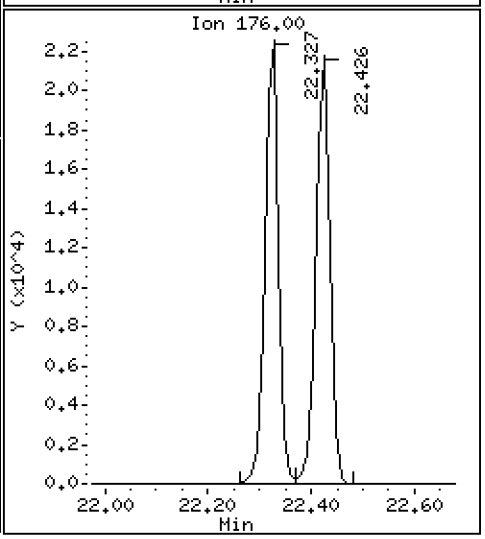












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

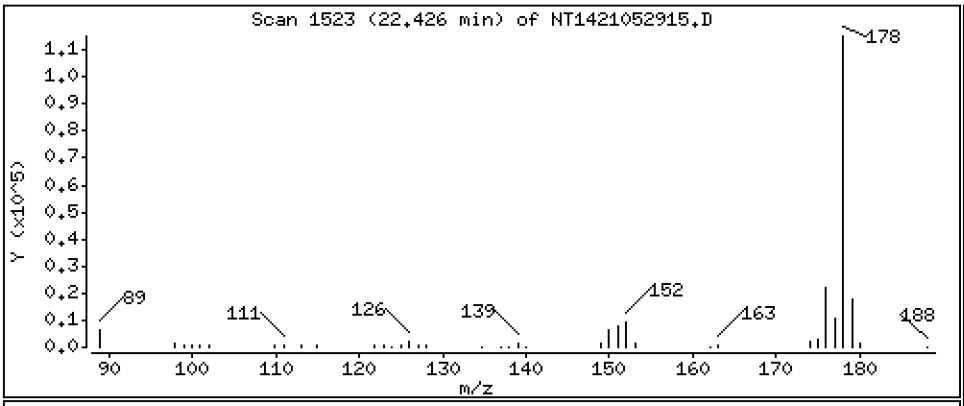
Operator: VTS

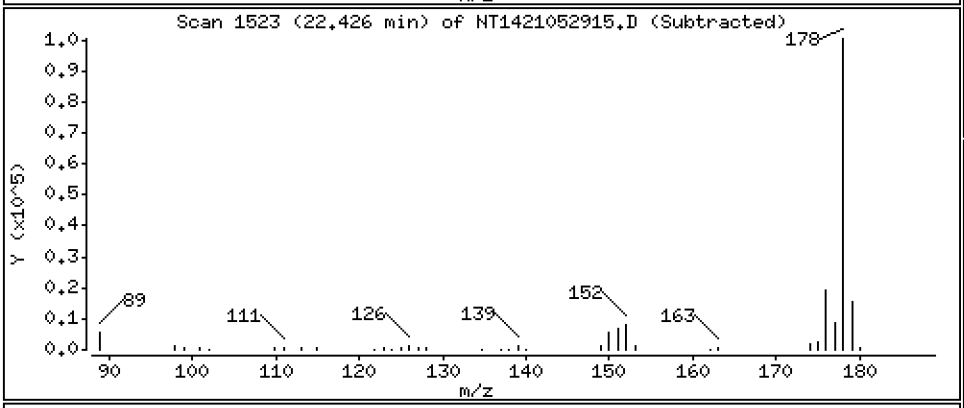
Column phase: Rxi-17Sil MS

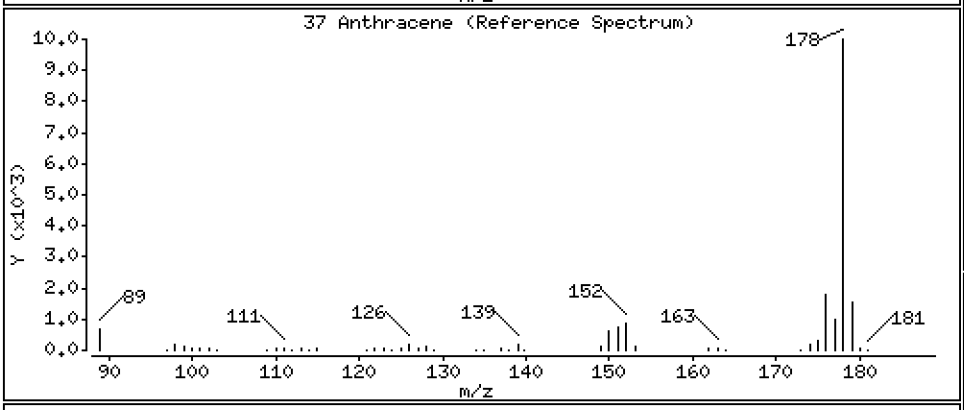
Column diameter: 0.25

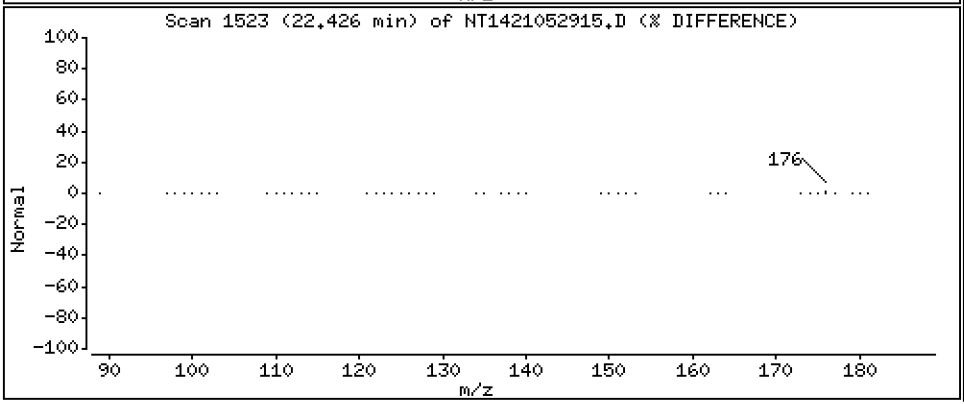
37 Anthracene

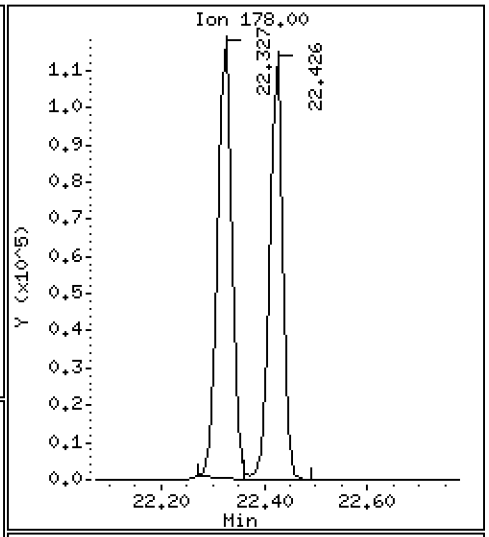
Concentration: 2.688 ug/mL

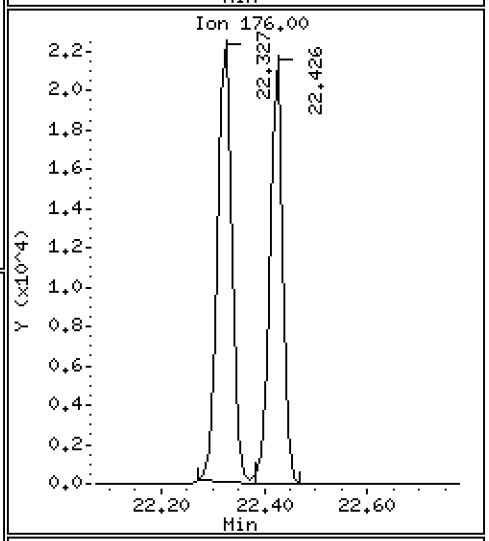


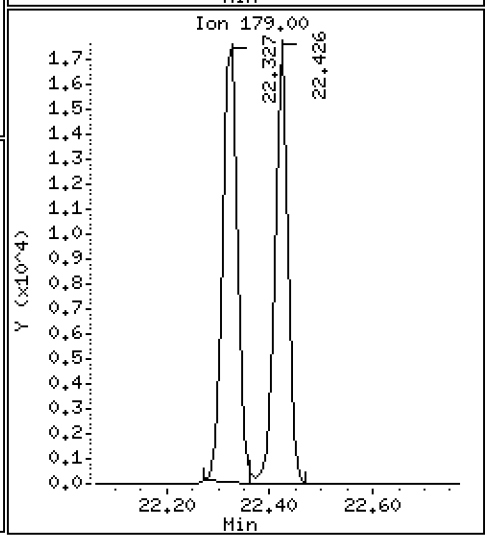












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

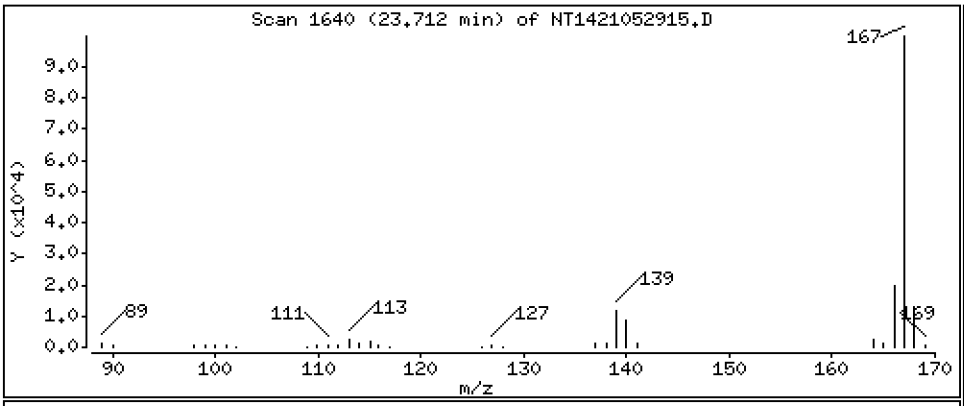
Operator: VTS

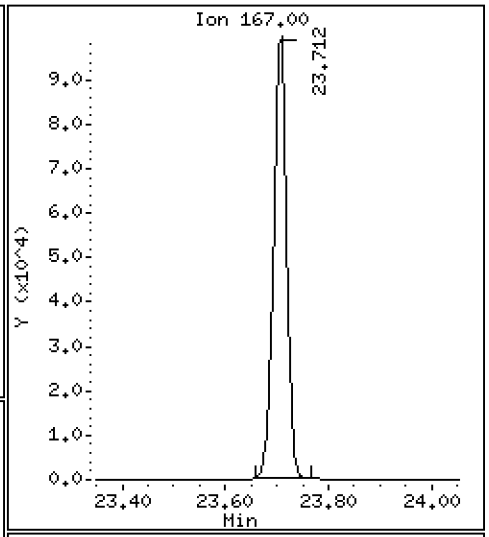
Column phase: Rxi-17Sil MS

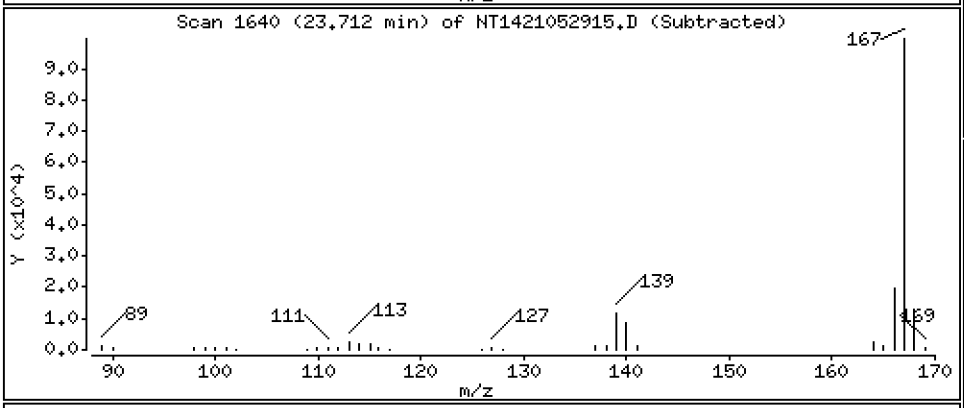
Column diameter: 0.25

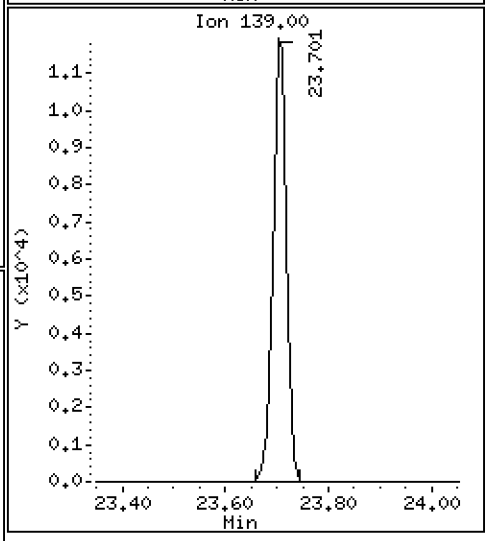
42 Carbazole

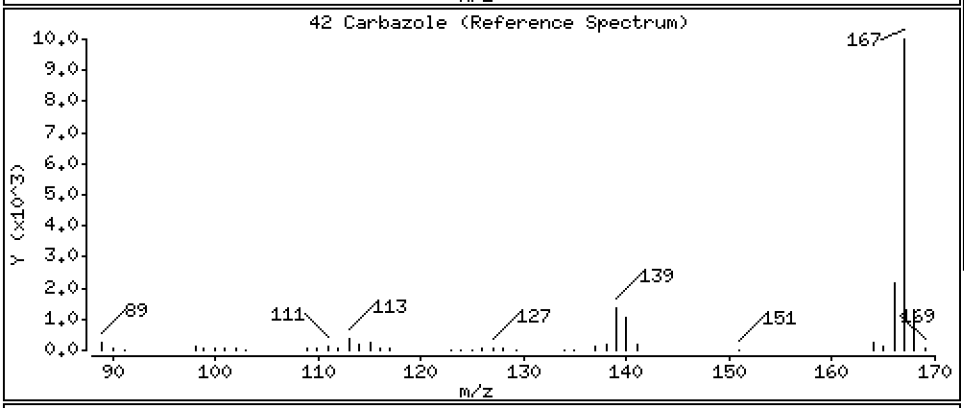
Concentration: 2.704 ug/mL

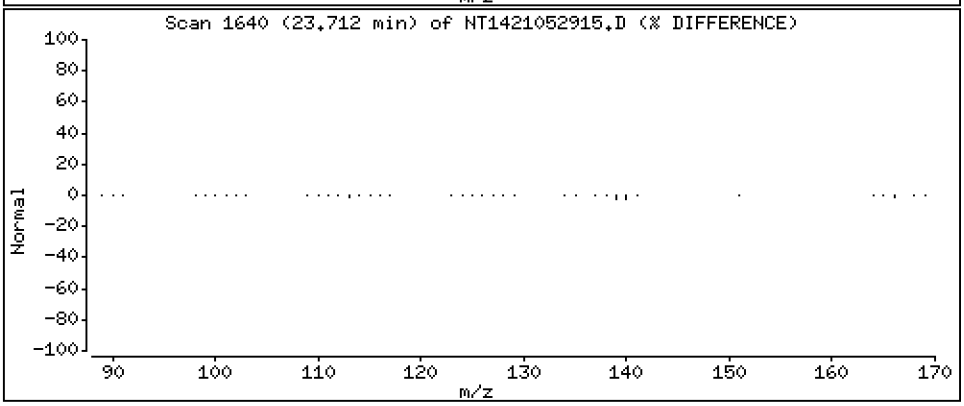












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

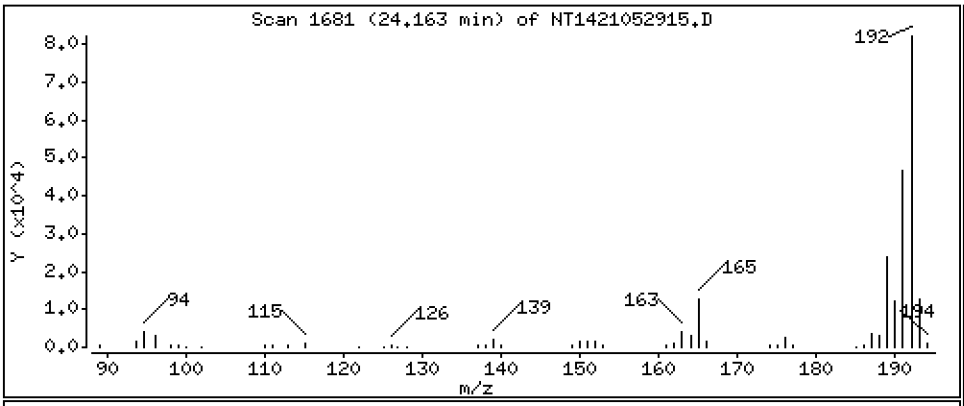
Operator: VTS

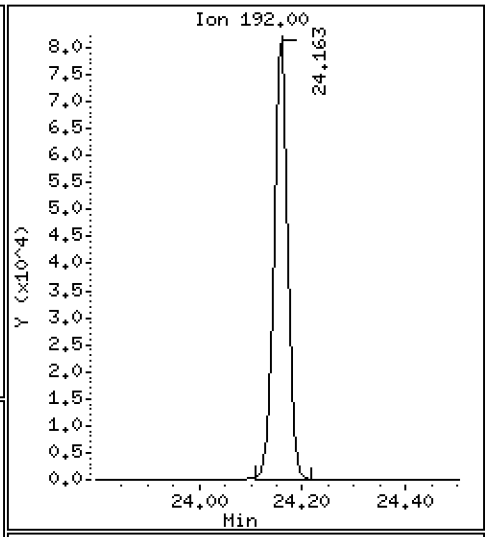
Column phase: Rxi-17Sil MS

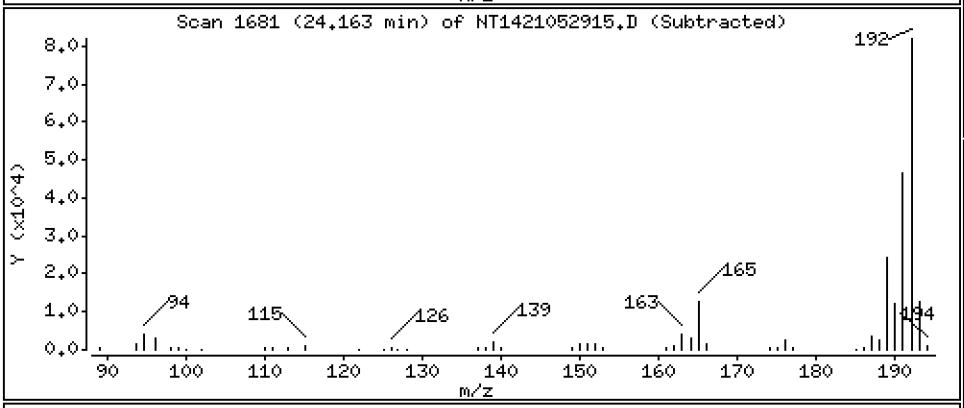
Column diameter: 0.25

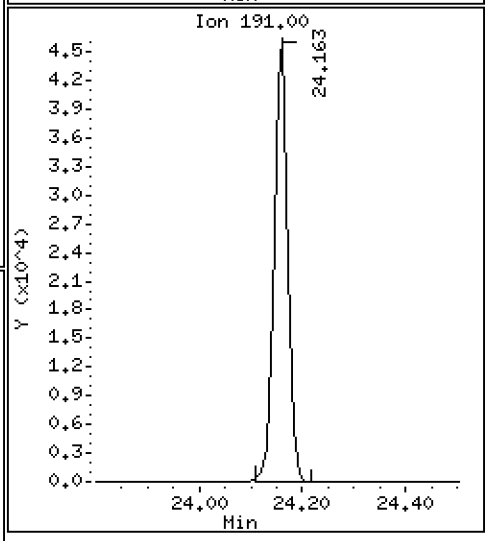
43 1-Methylphenanthrene

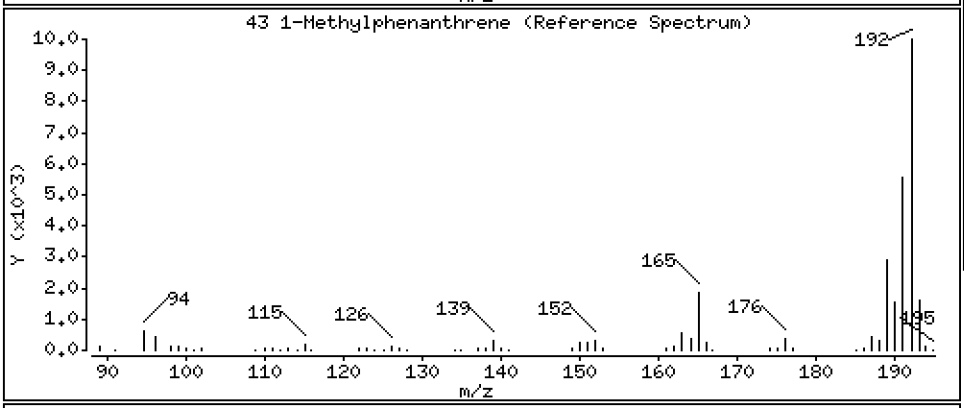
Concentration: 2.667 ug/mL

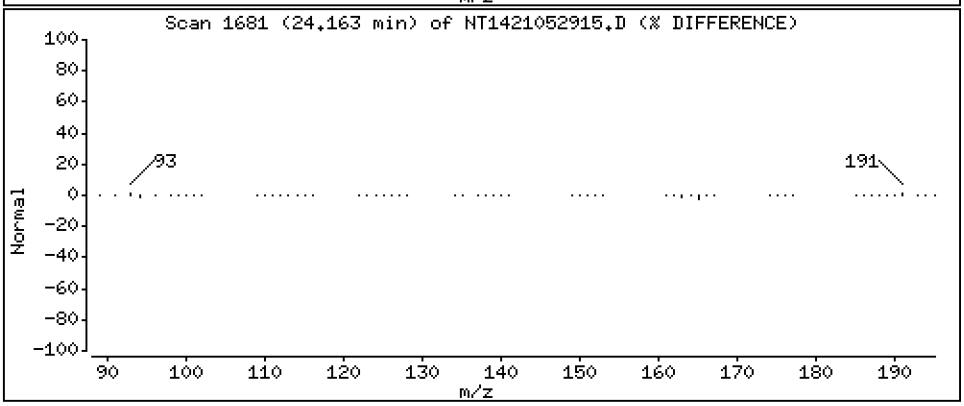












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

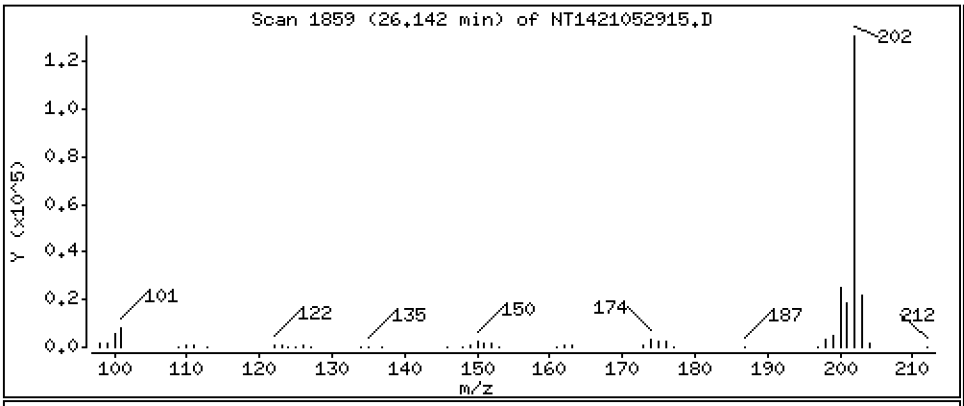
Operator: VTS

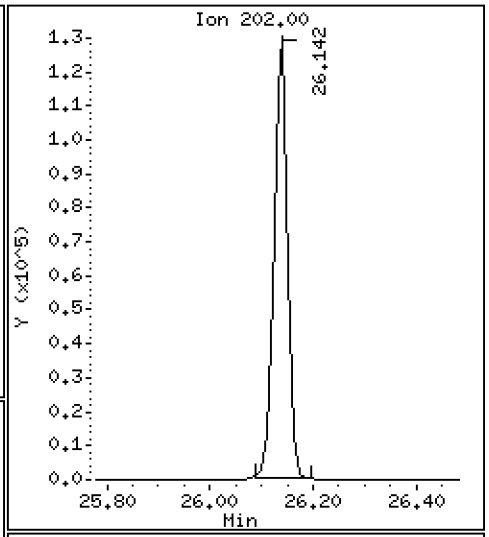
Column phase: Rxi-17Sil MS

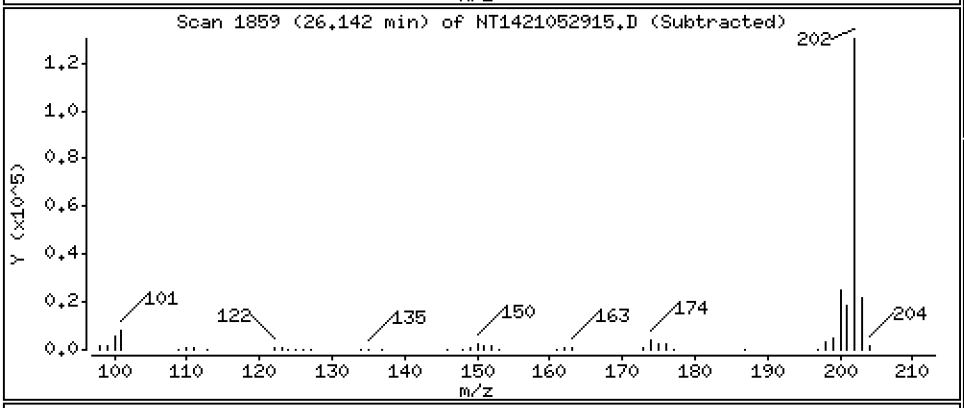
Column diameter: 0.25

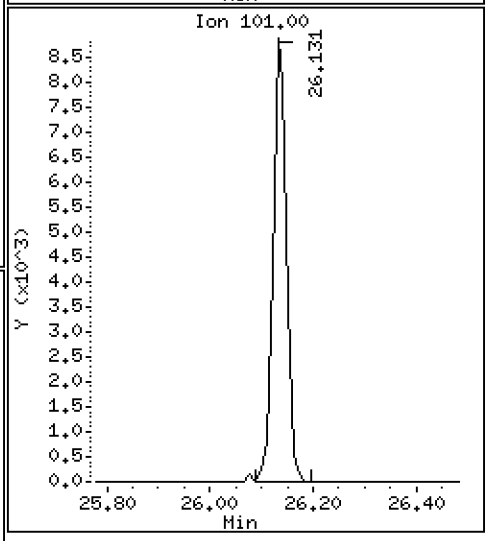
44 Fluoranthene

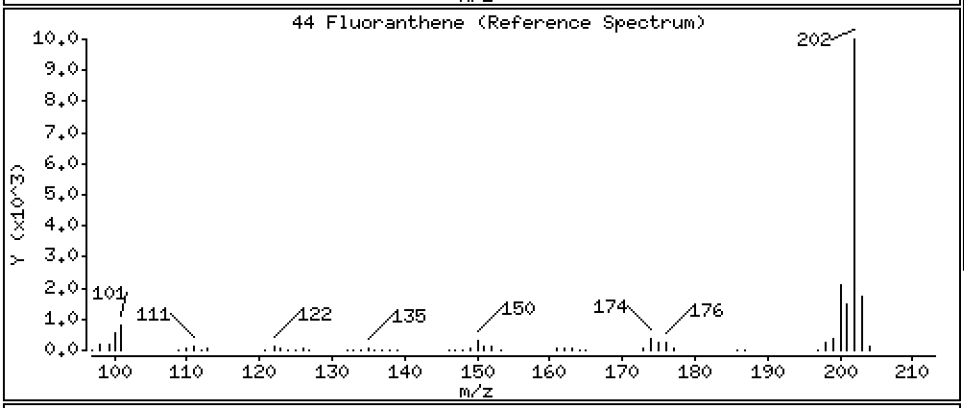
Concentration: 2.672 ug/mL

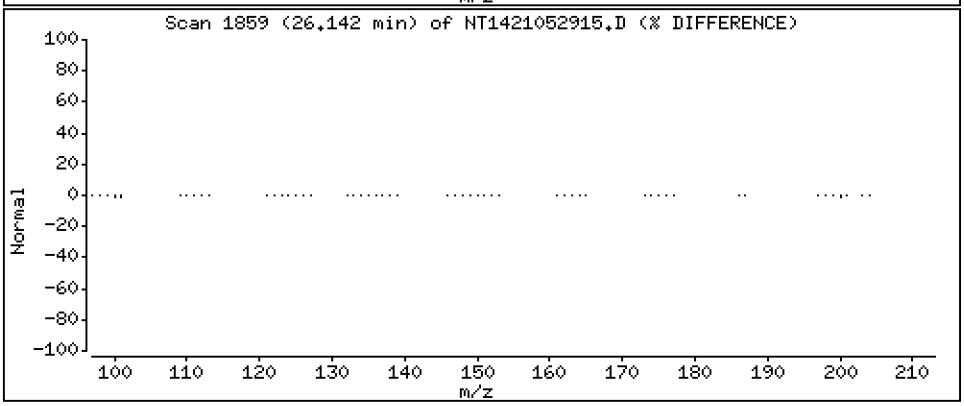












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

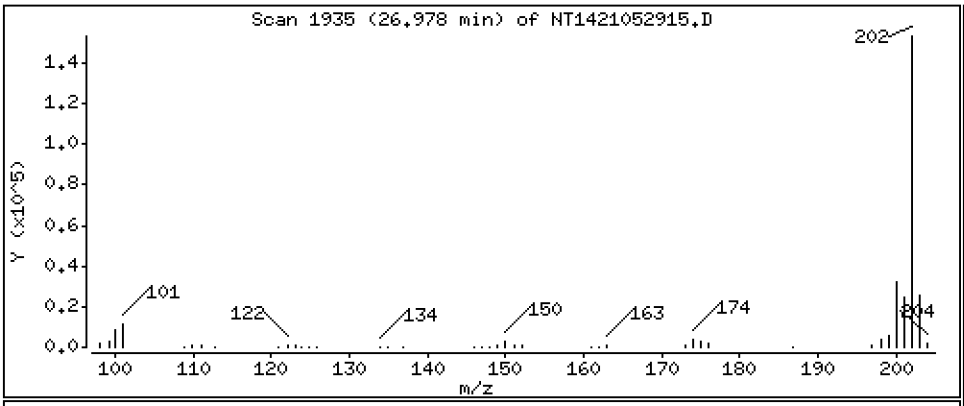
Operator: VTS

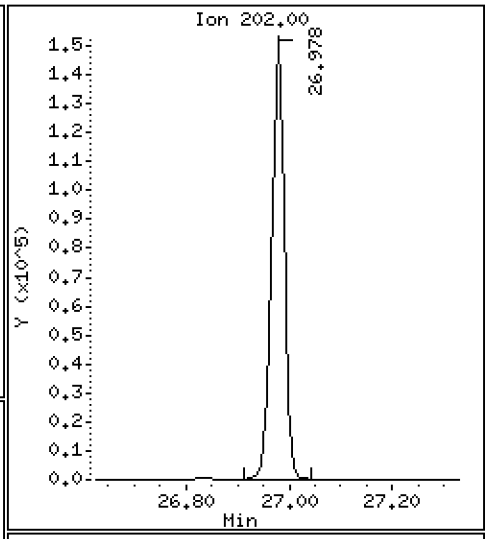
Column phase: Rxi-17Sil MS

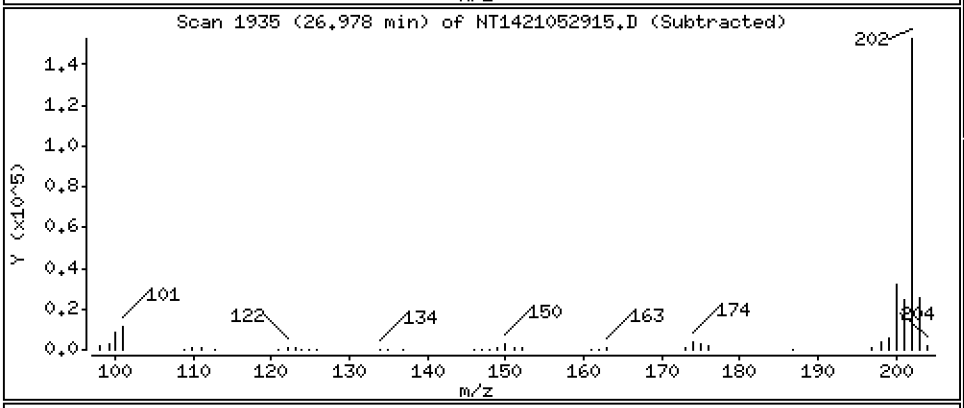
Column diameter: 0.25

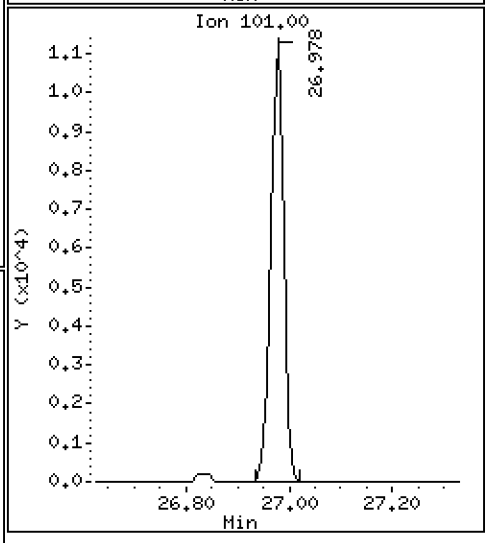
46 Pyrene

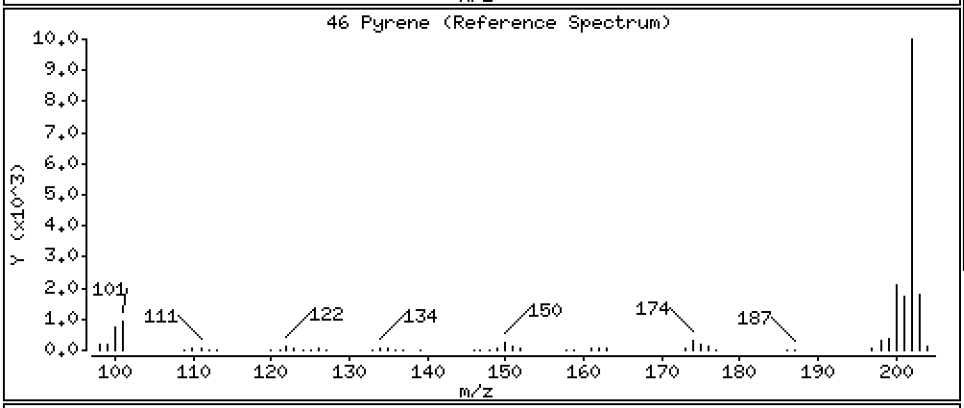
Concentration: 2.712 ug/mL

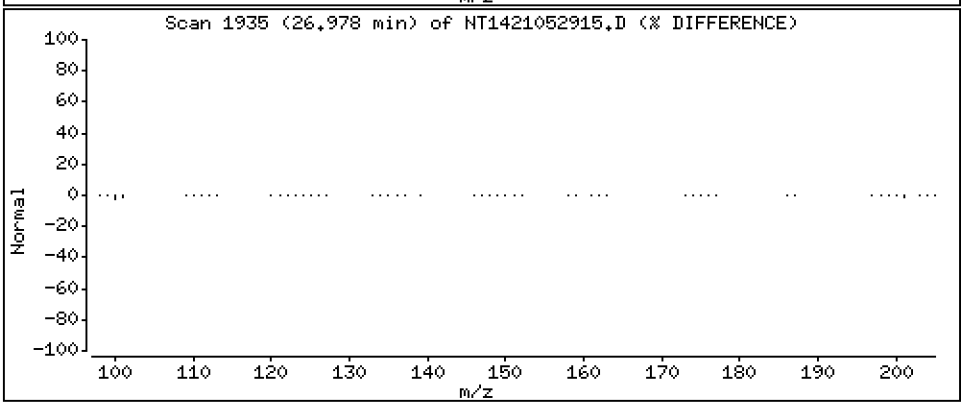












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

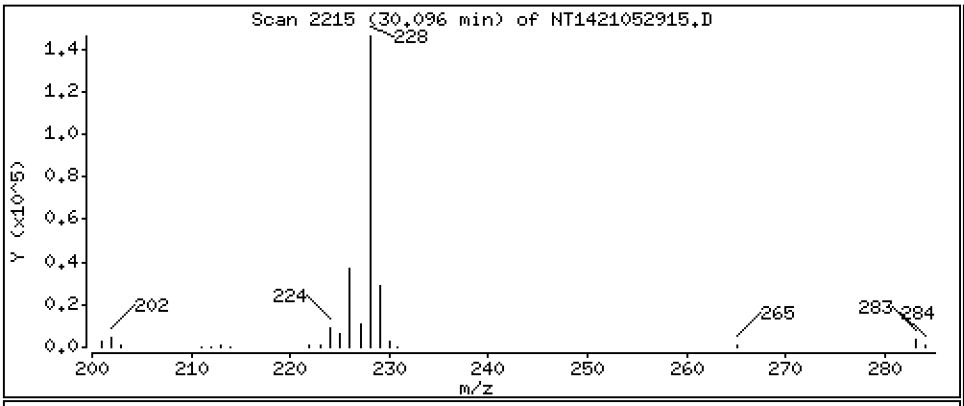
Operator: VTS

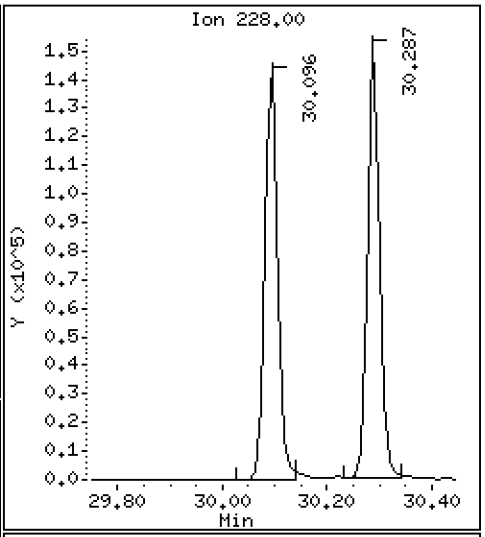
Column phase: Rxi-17Sil MS

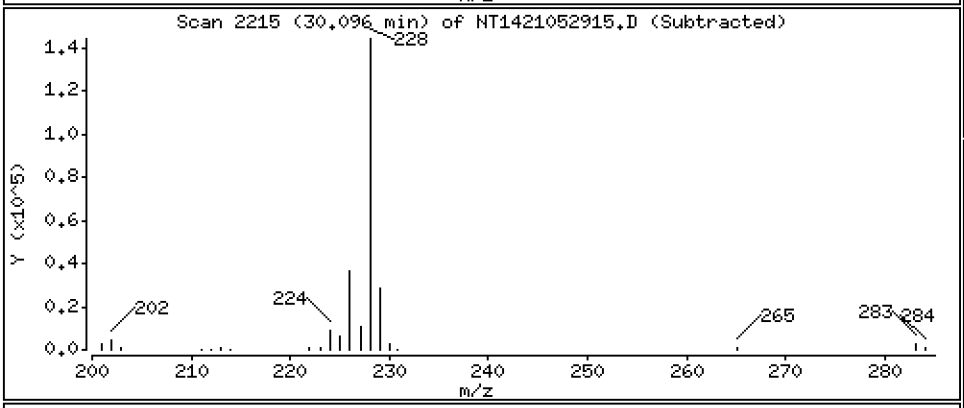
Column diameter: 0.25

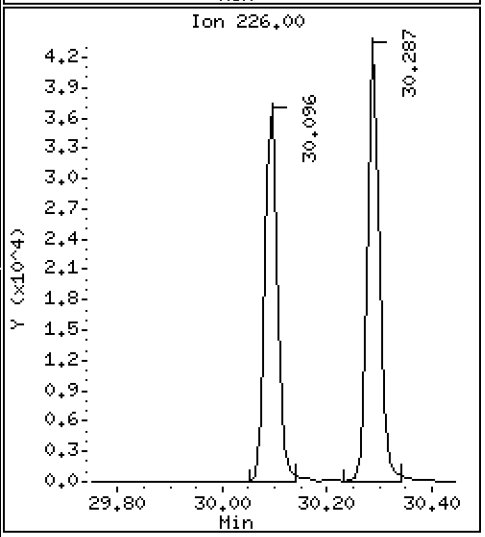
55 Benzo(a)anthracene

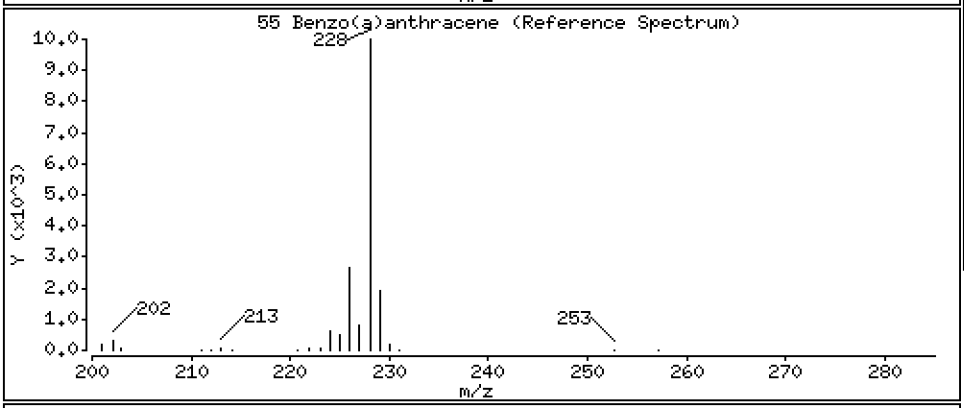
Concentration: 2.756 ug/mL

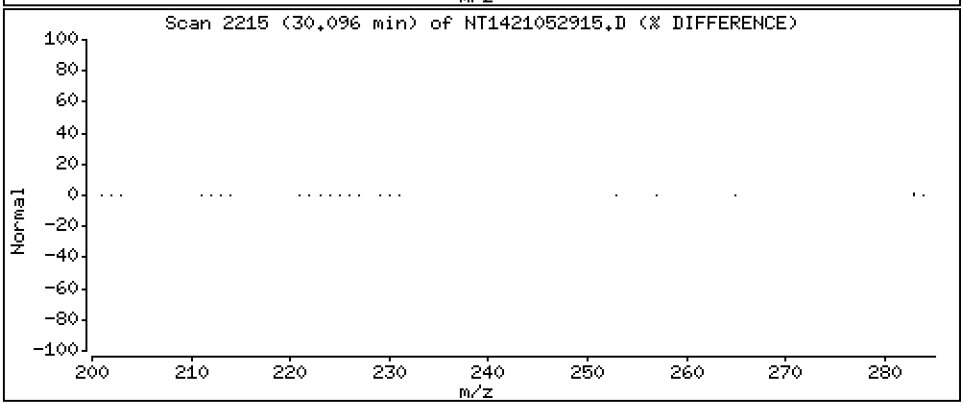












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

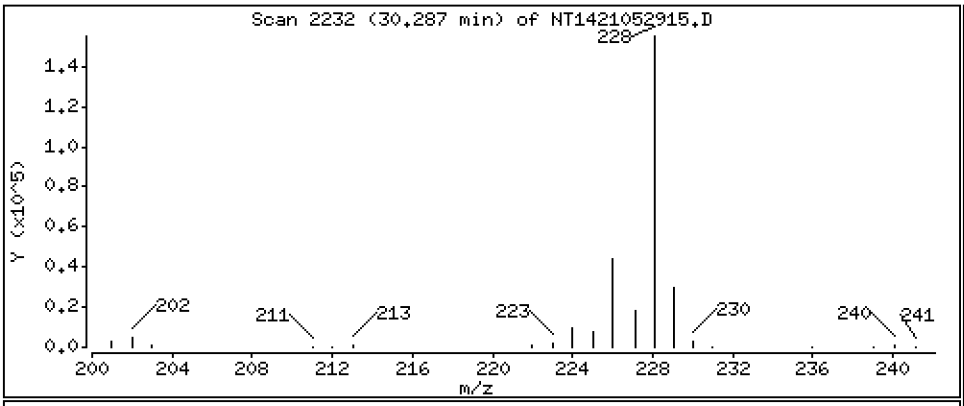
Operator: VTS

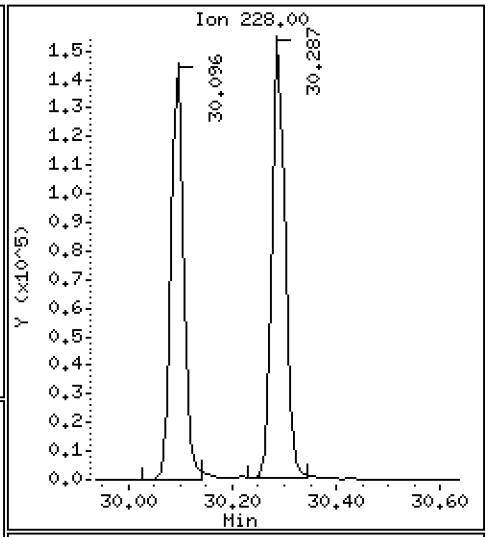
Column phase: Rxi-17Sil MS

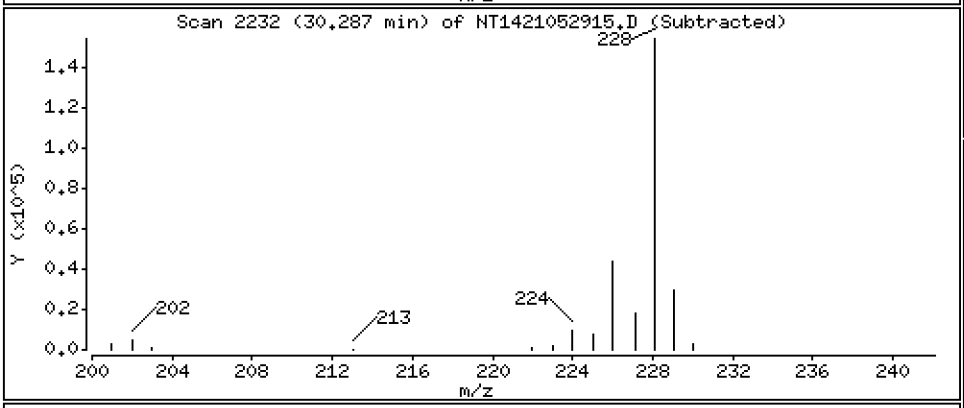
Column diameter: 0.25

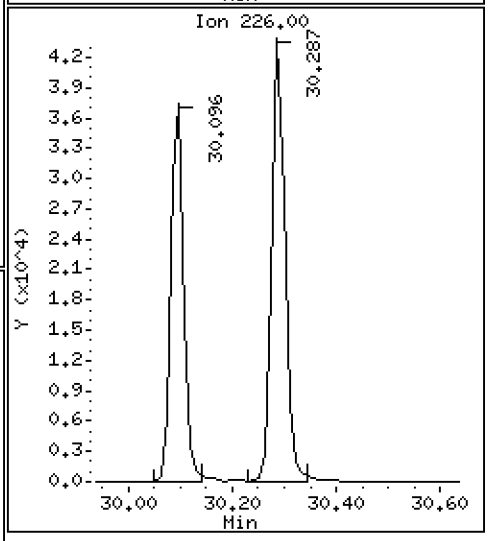
57 Chrysene

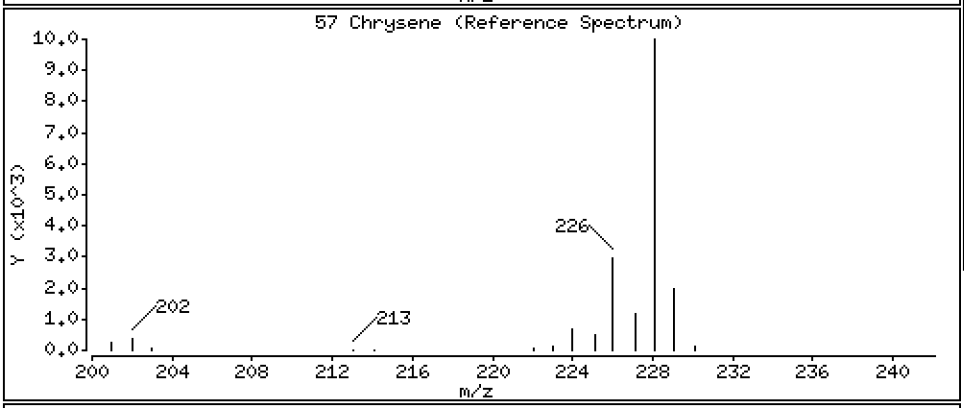
Concentration: 2.770 ug/mL

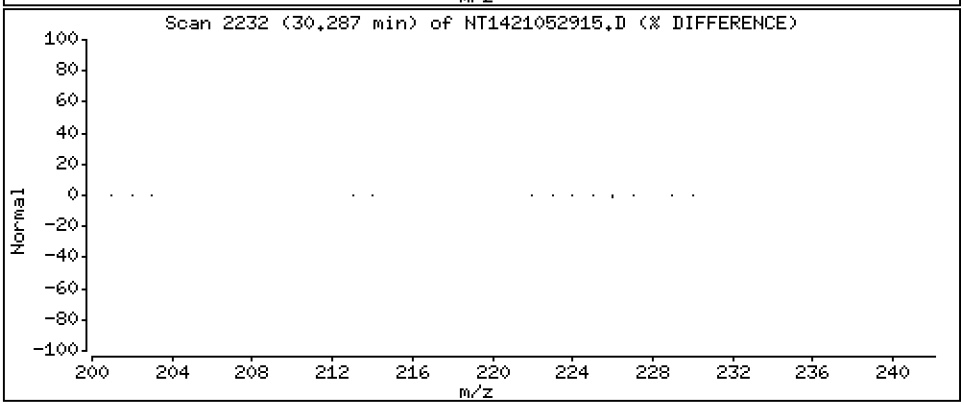












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Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

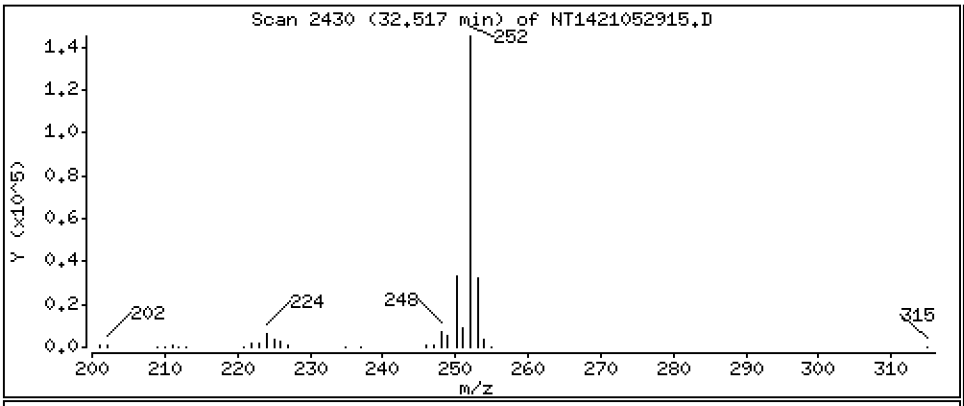
Operator: VTS

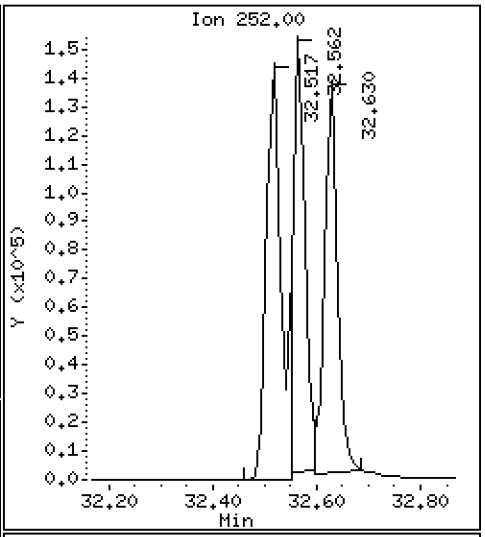
Column phase: Rxi-17Sil MS

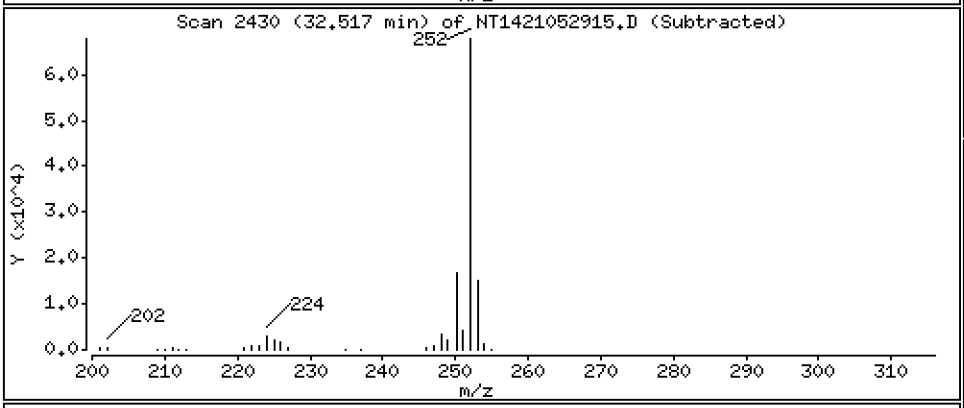
Column diameter: 0.25

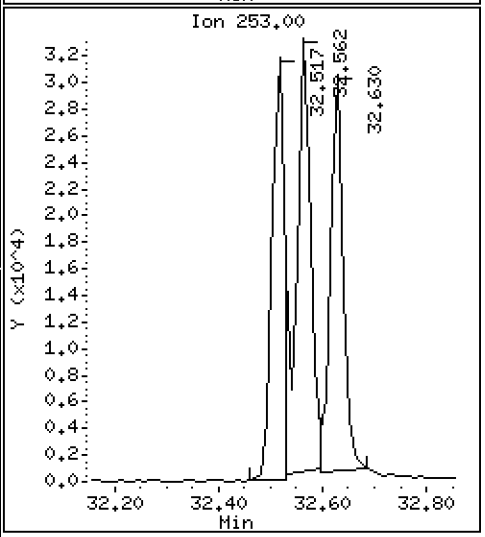
62 Benzo(b)fluoranthene

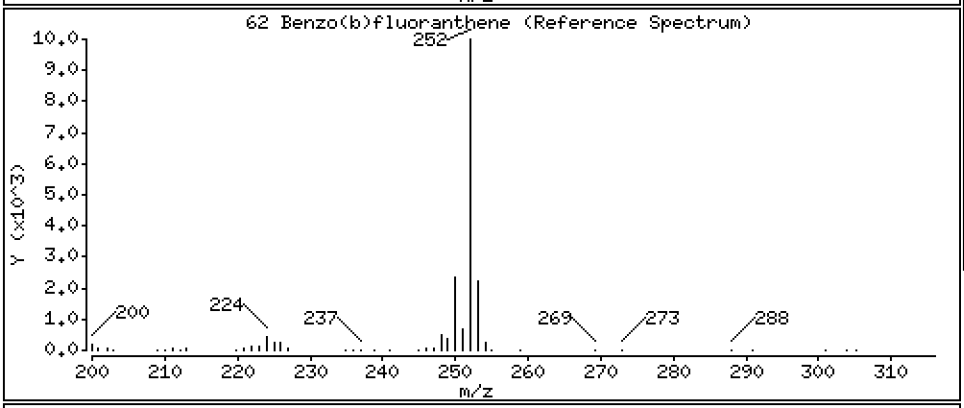
Concentration: 3.119 ug/mL

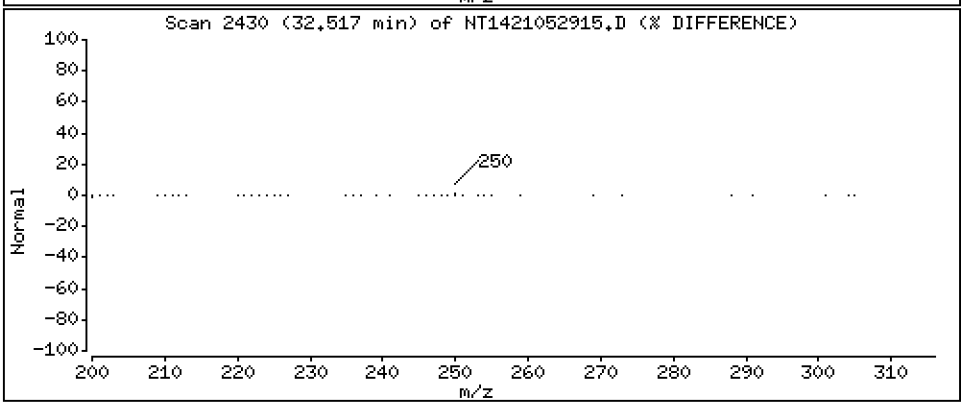












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

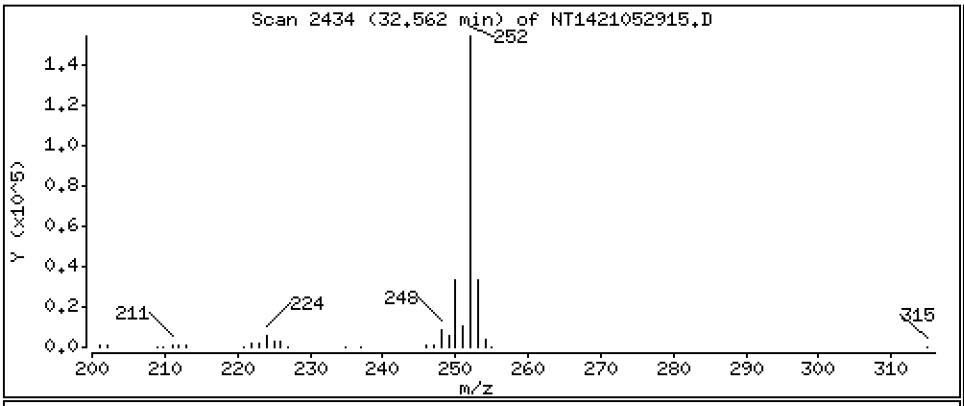
Operator: VTS

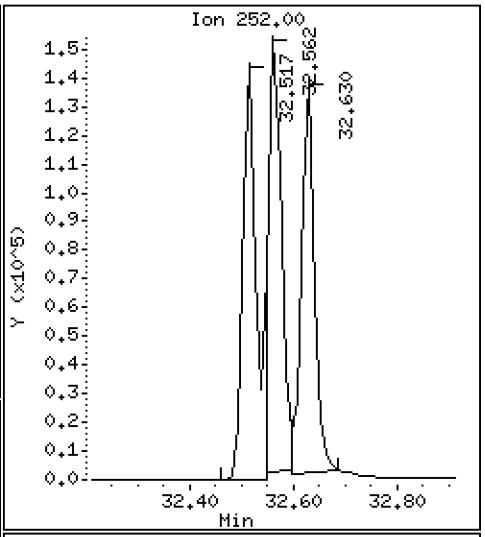
Column phase: Rxi-17Sil MS

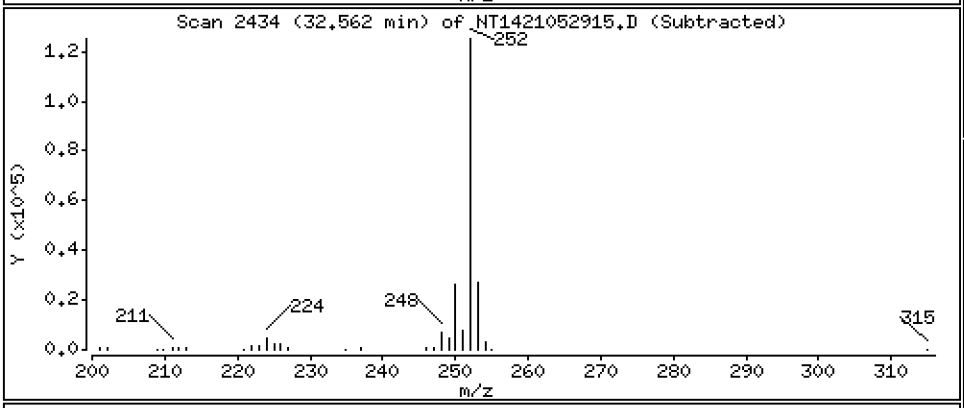
Column diameter: 0.25

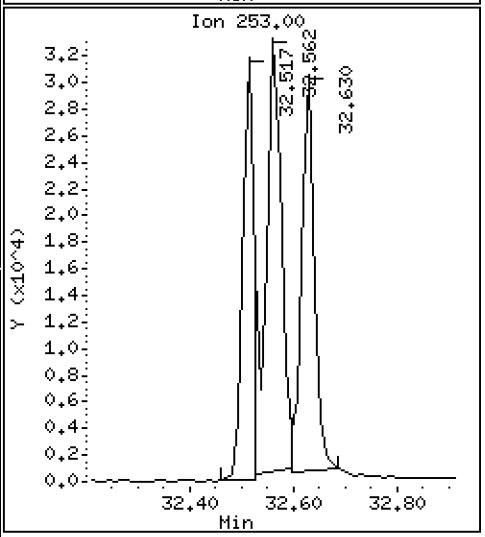
63 Benzo(k)fluoranthene

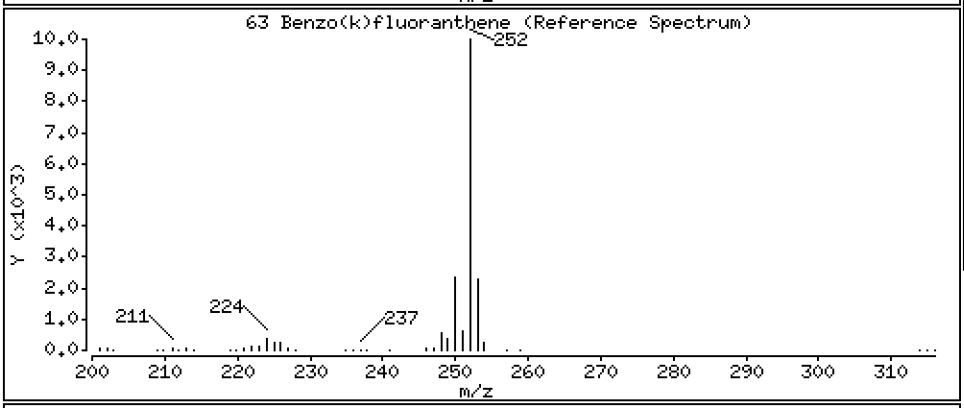
Concentration: 2.487 ug/mL

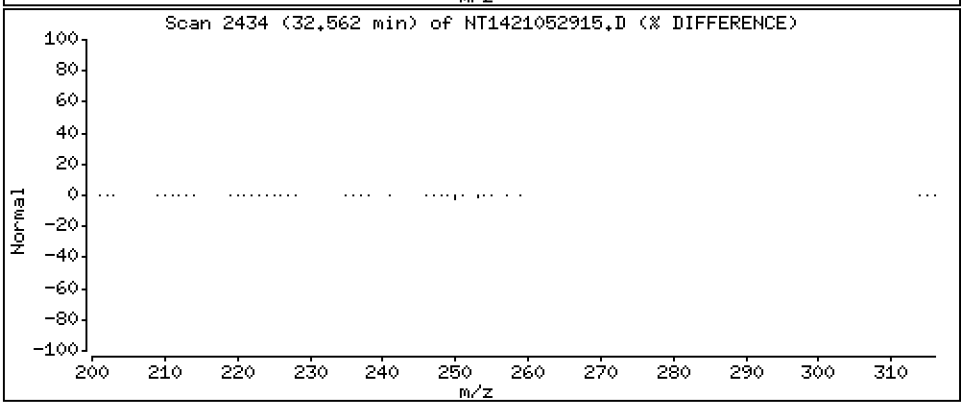












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

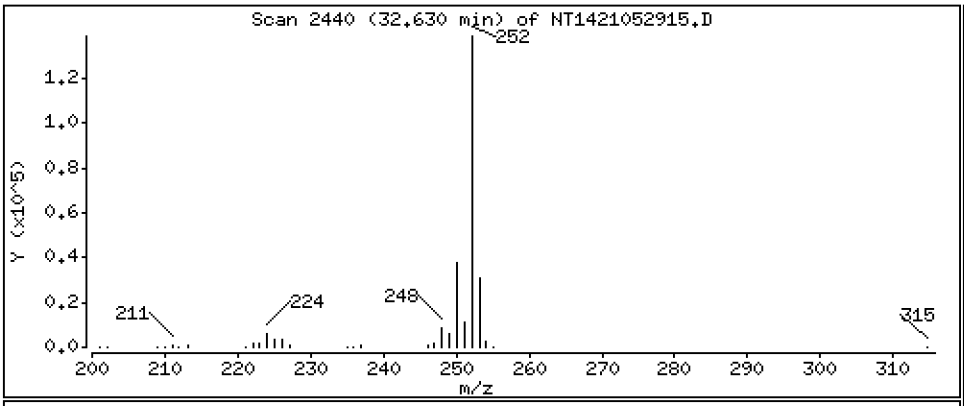
Operator: VTS

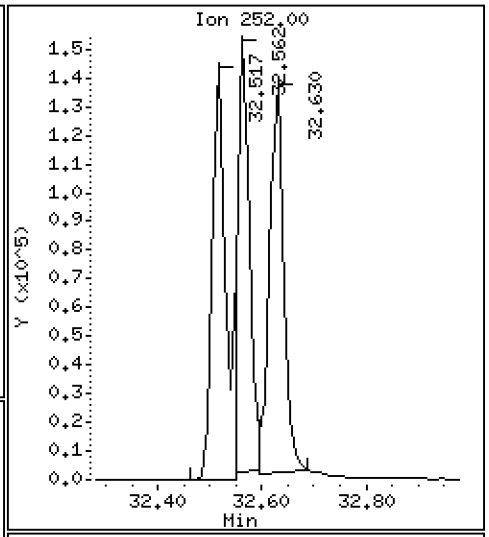
Column phase: Rxi-17Sil MS

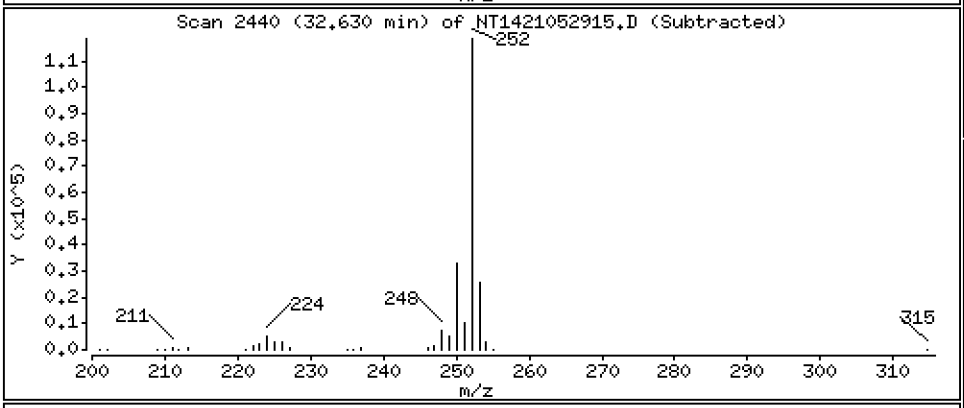
Column diameter: 0.25

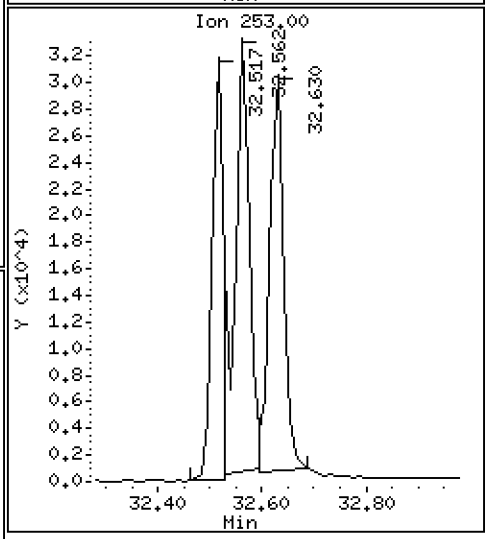
293 Benzo(j)fluoranthene

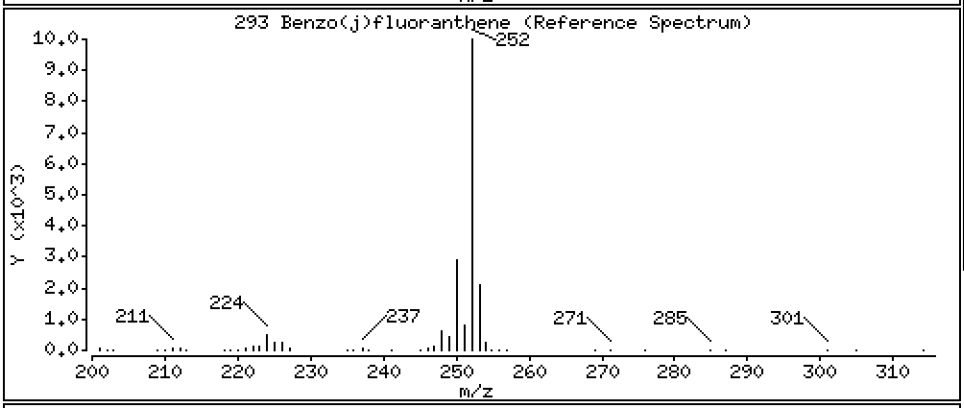
Concentration: 2.590 ug/mL

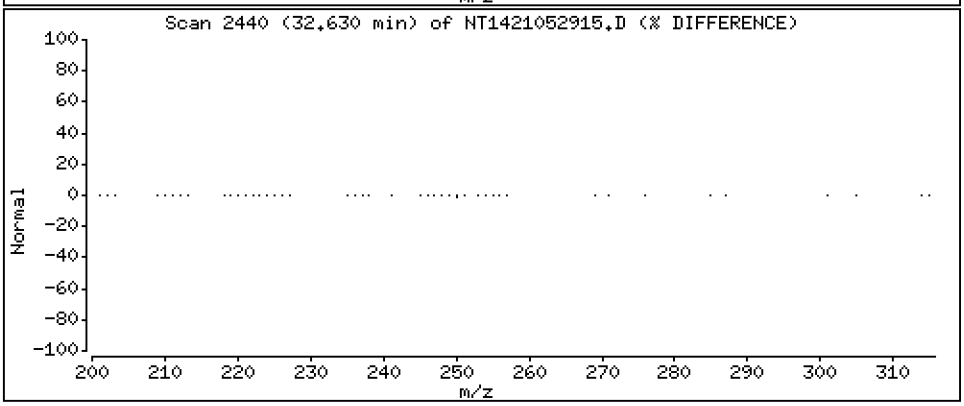












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

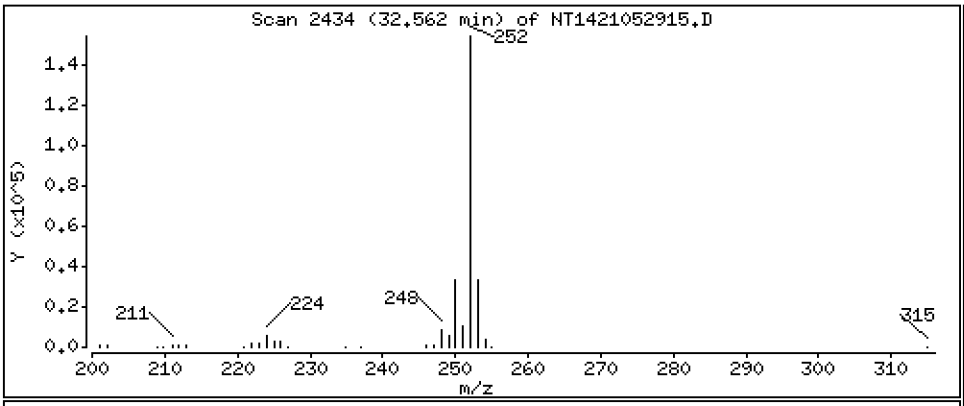
Operator: VTS

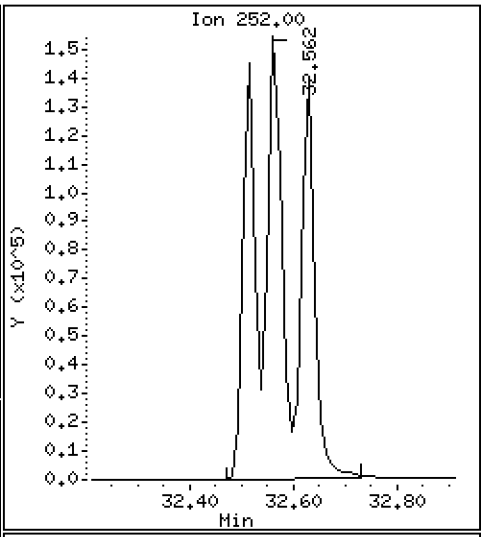
Column phase: Rxi-17Sil MS

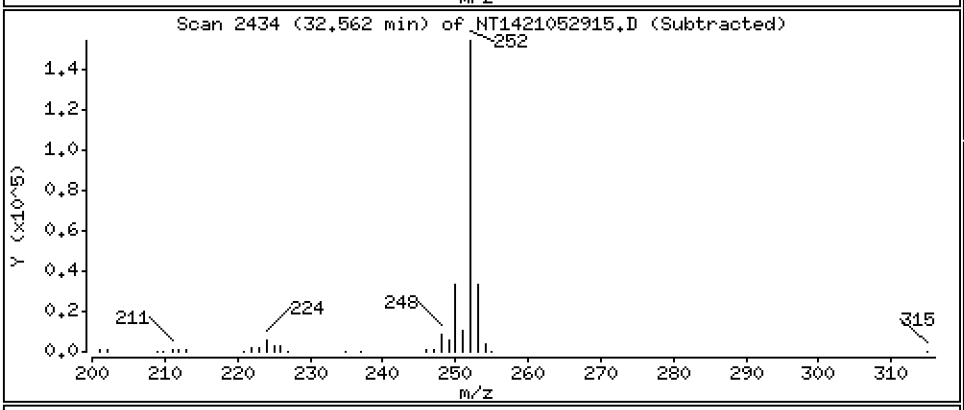
Column diameter: 0.25

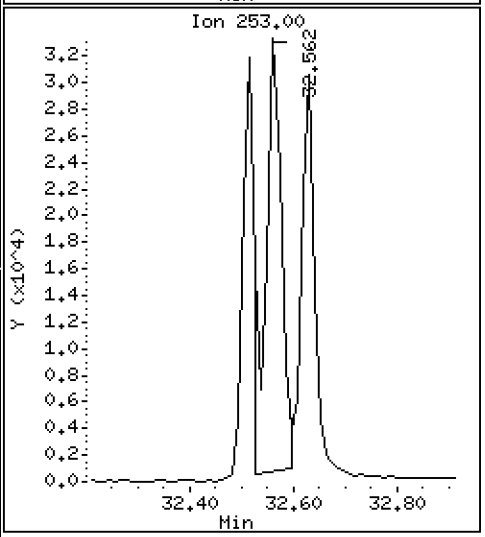
246 Total Benzofluoranthenes

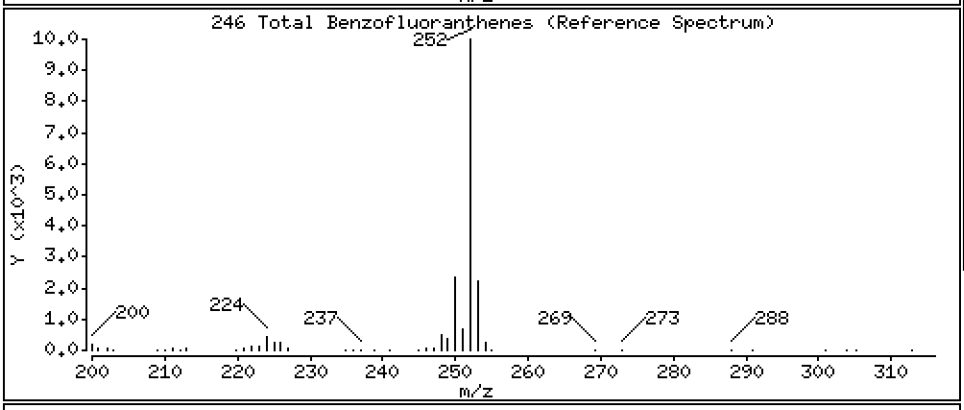
Concentration: 8.191 ug/mL

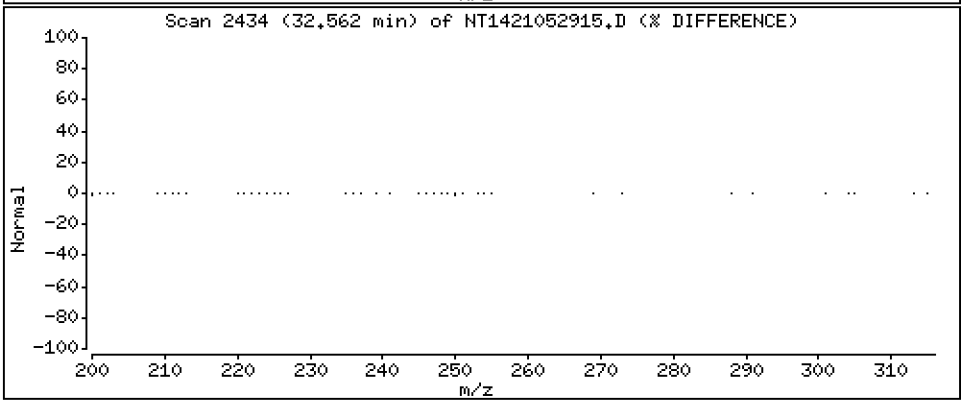












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

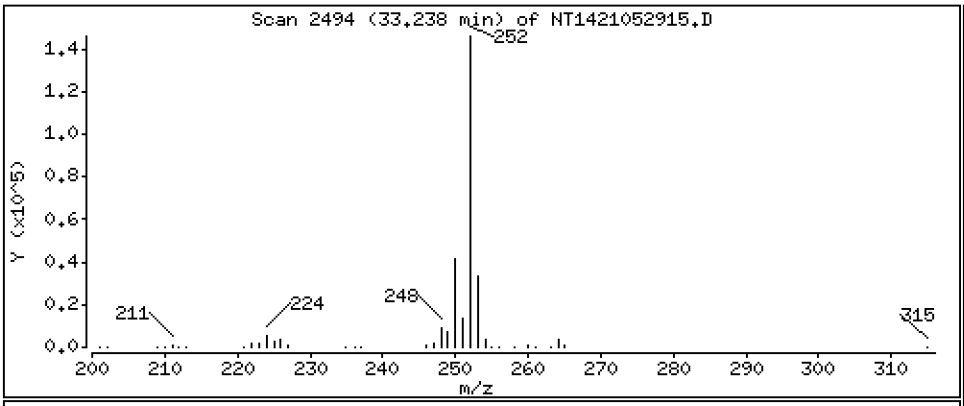
Operator: VTS

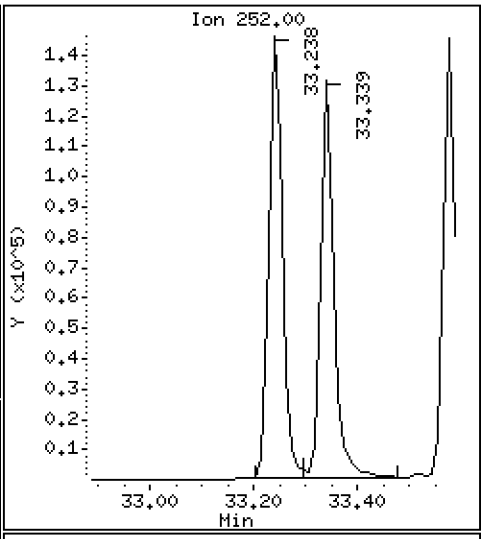
Column phase: Rxi-17Sil MS

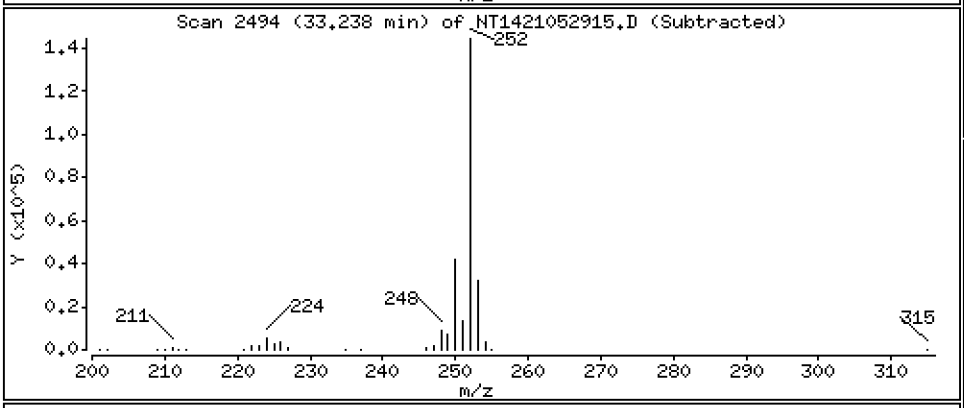
Column diameter: 0.25

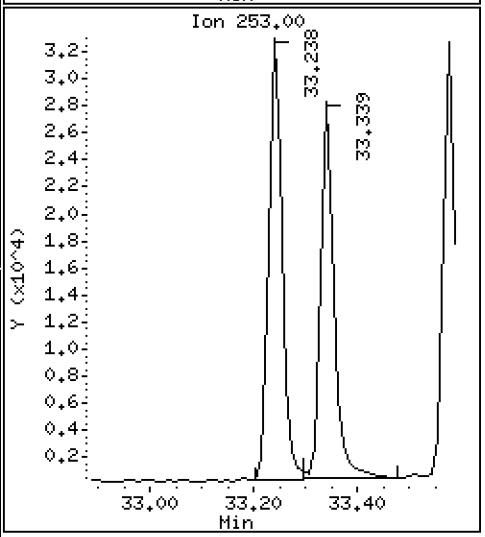
64 Benzo(e)pyrene

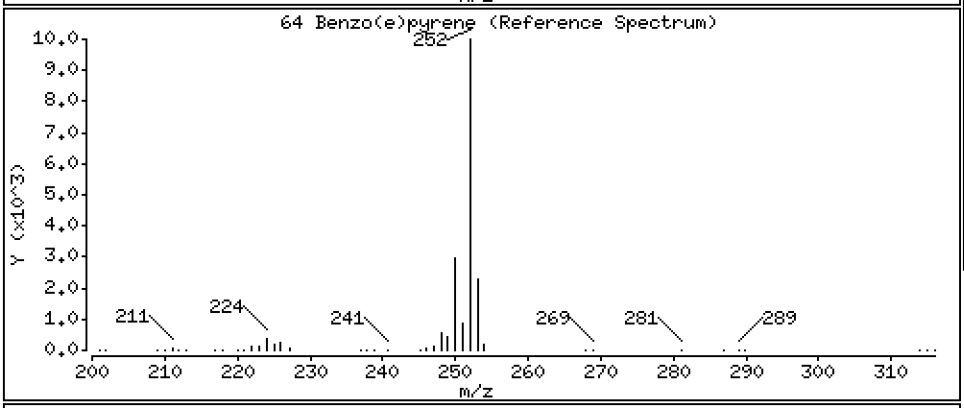
Concentration: 2.669 ug/mL

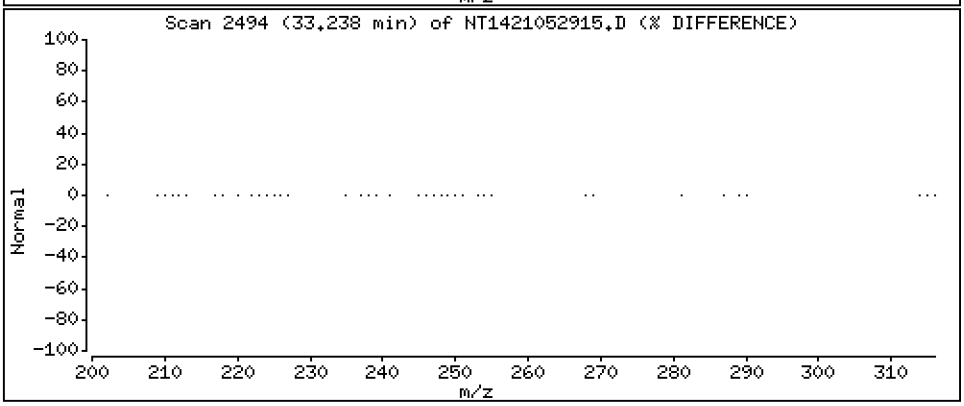












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

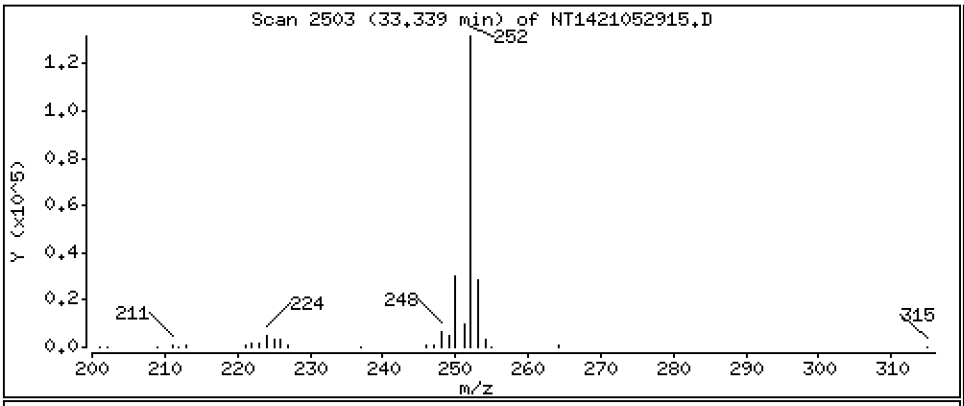
Operator: VTS

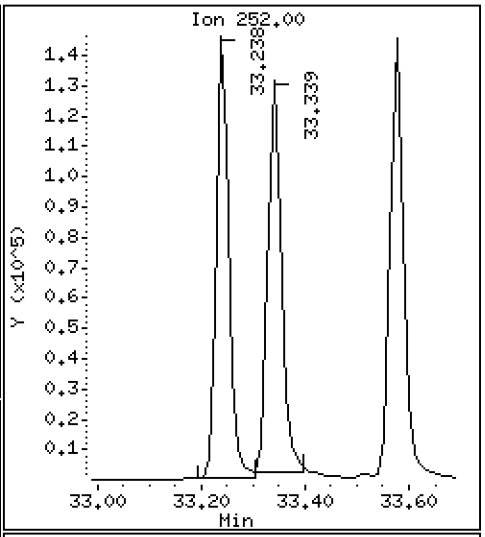
Column phase: Rxi-17Sil MS

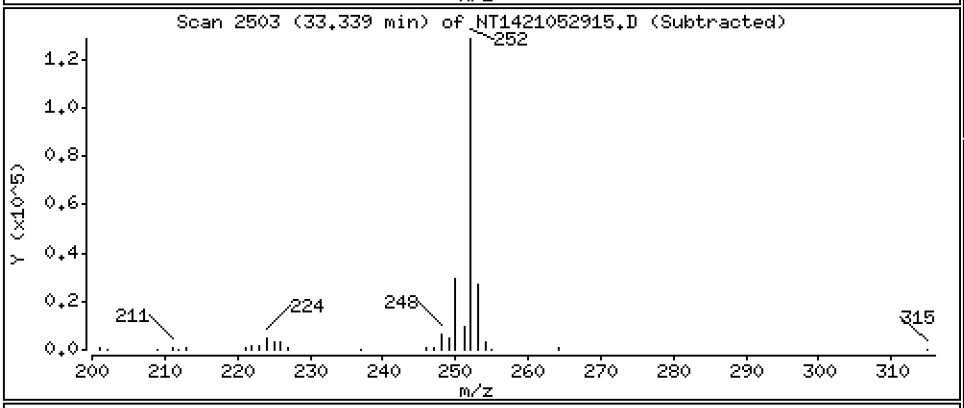
Column diameter: 0.25

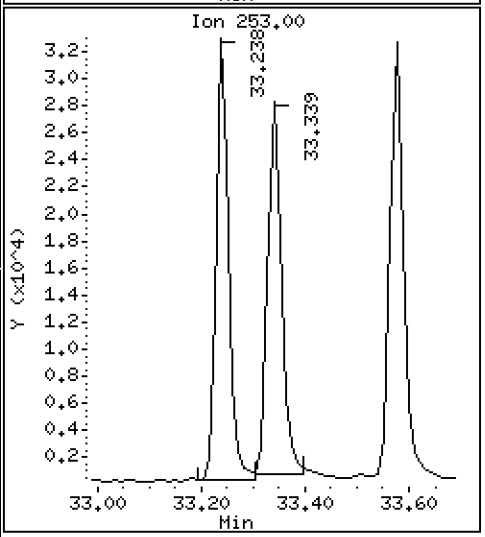
66 Benzo(a)pyrene

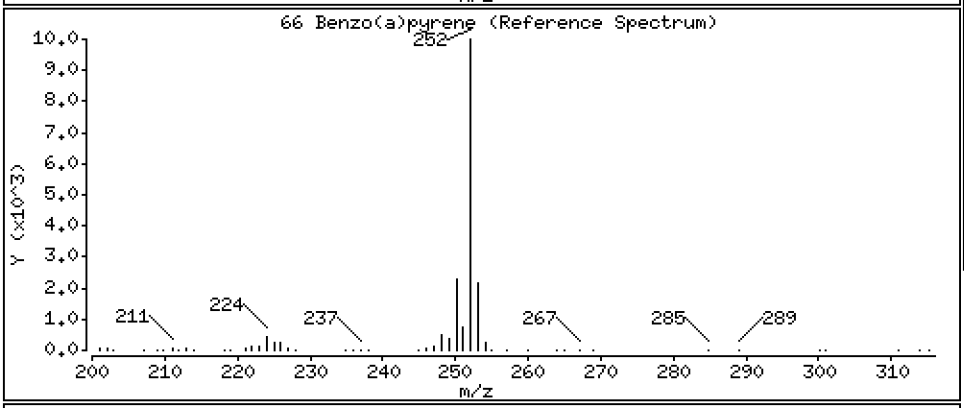
Concentration: 2.621 ug/mL

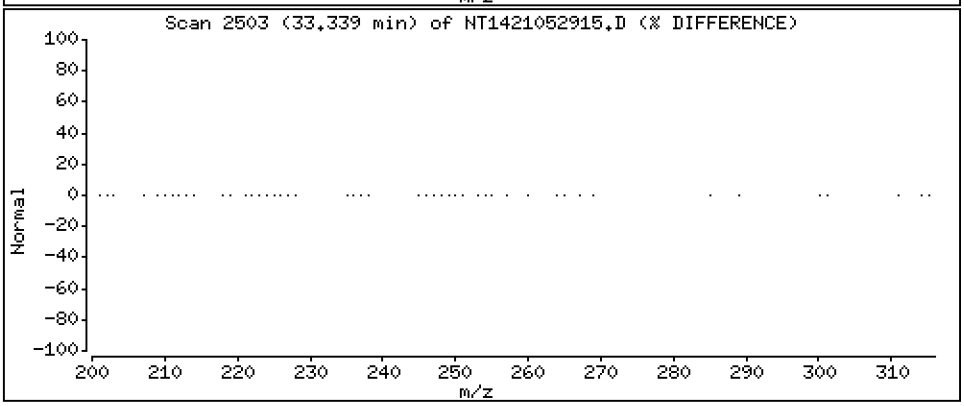












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

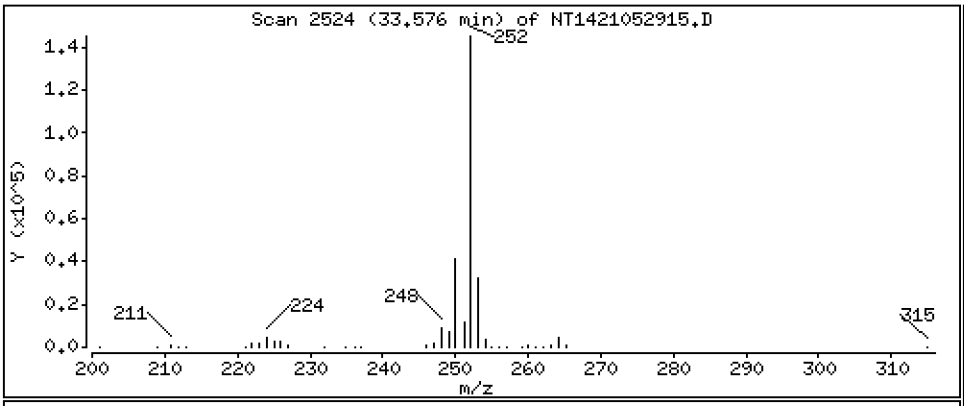
Operator: VTS

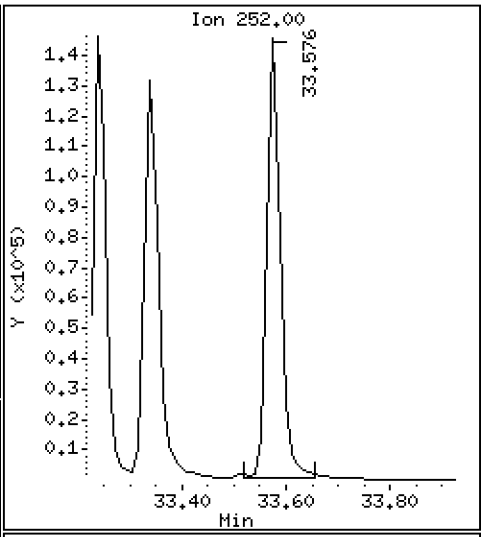
Column phase: Rxi-17Sil MS

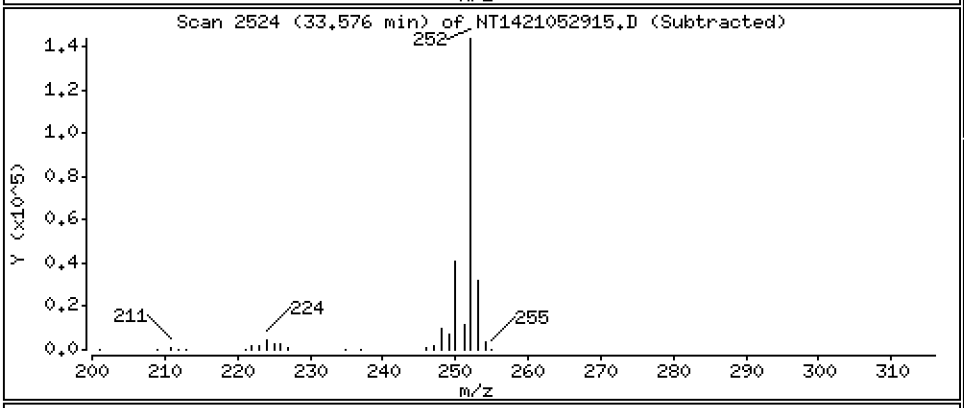
Column diameter: 0.25

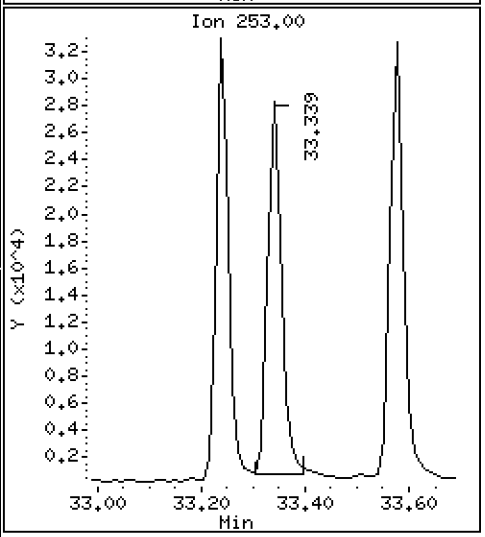
68 Perylene

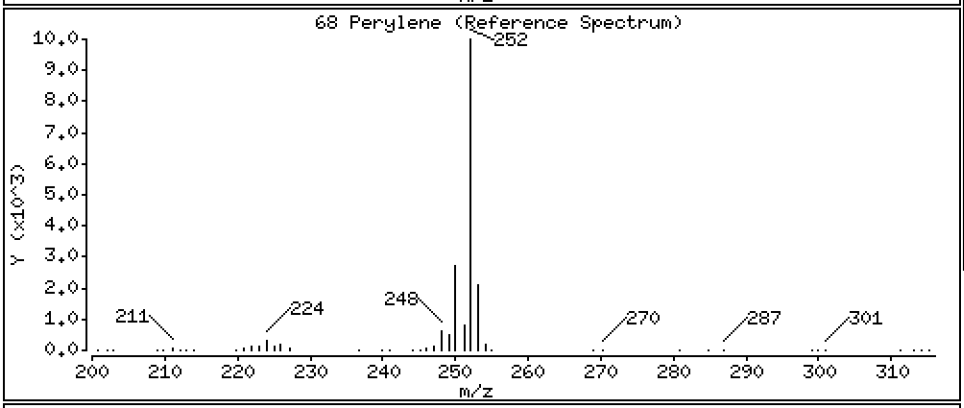
Concentration: 2.820 ug/mL

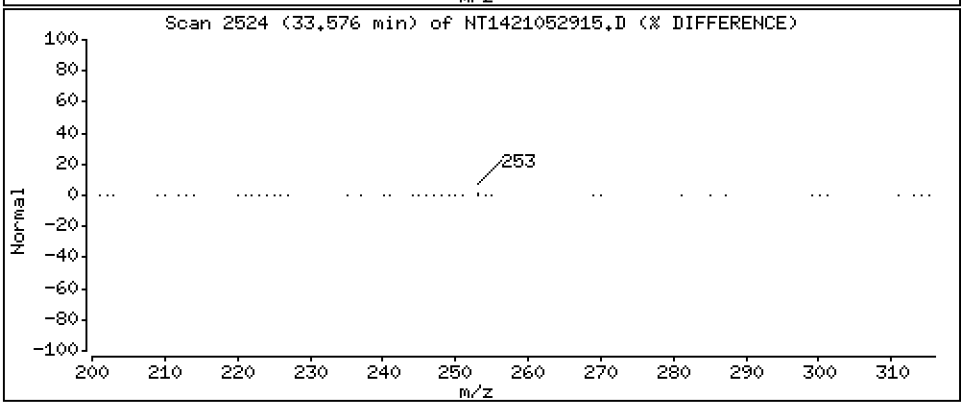












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

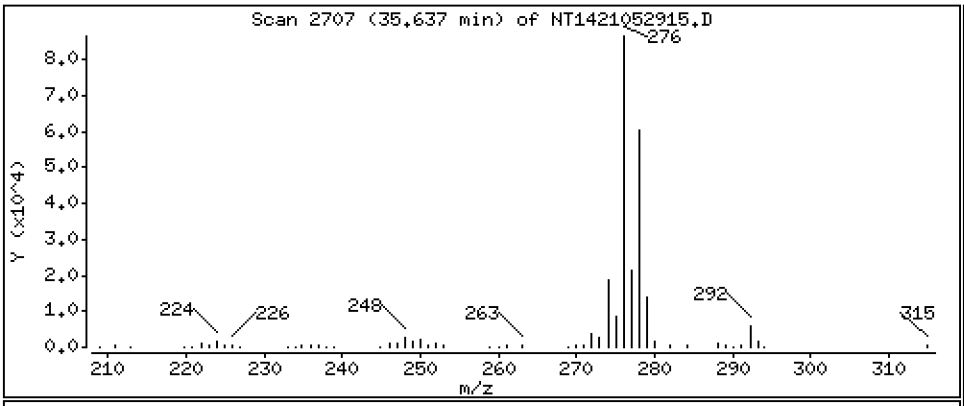
Operator: VTS

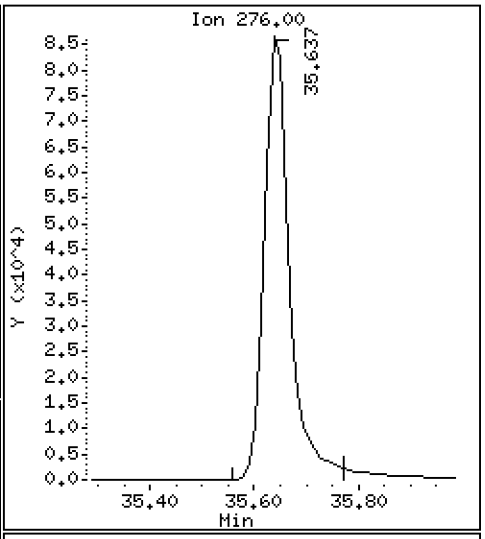
Column phase: Rxi-17Sil MS

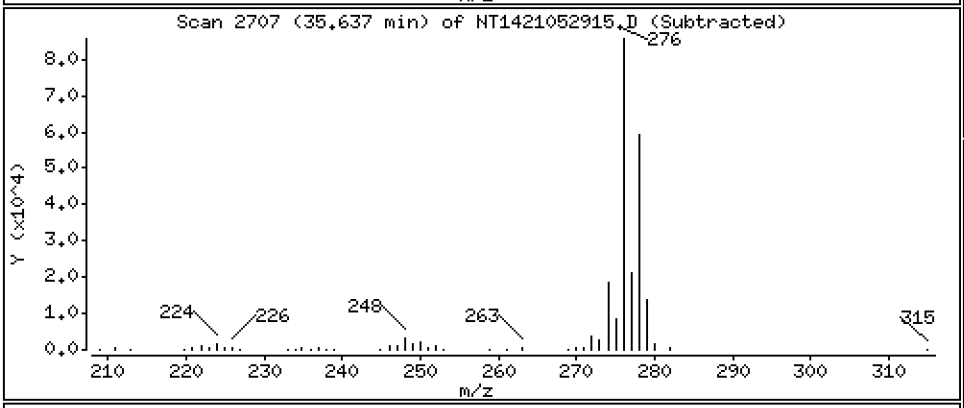
Column diameter: 0.25

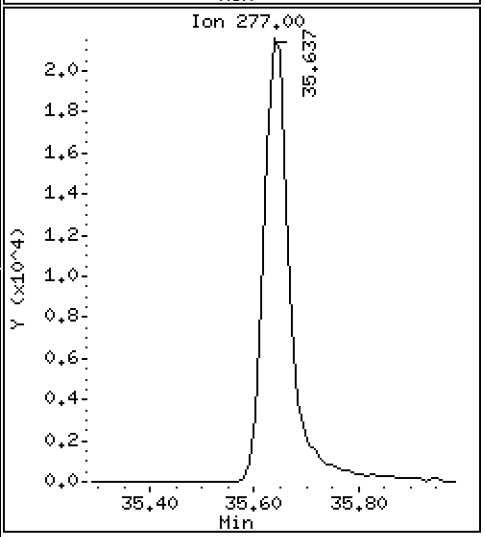
69 Indeno(1,2,3-cd)pyrene

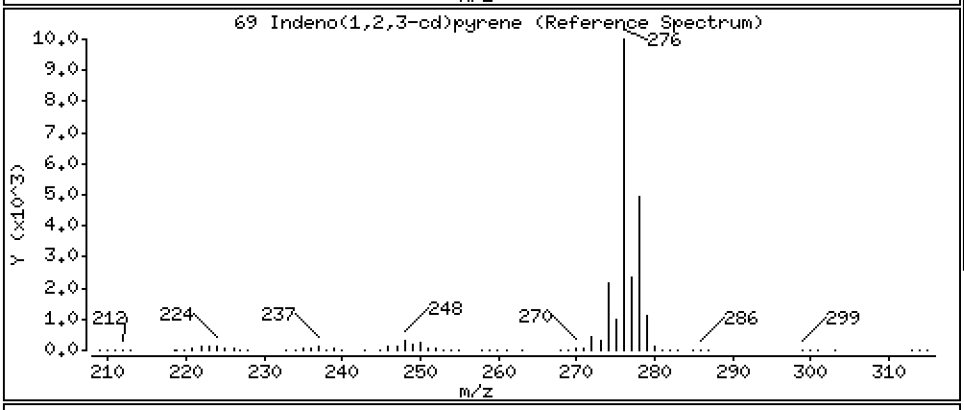
Concentration: 2.913 ug/mL

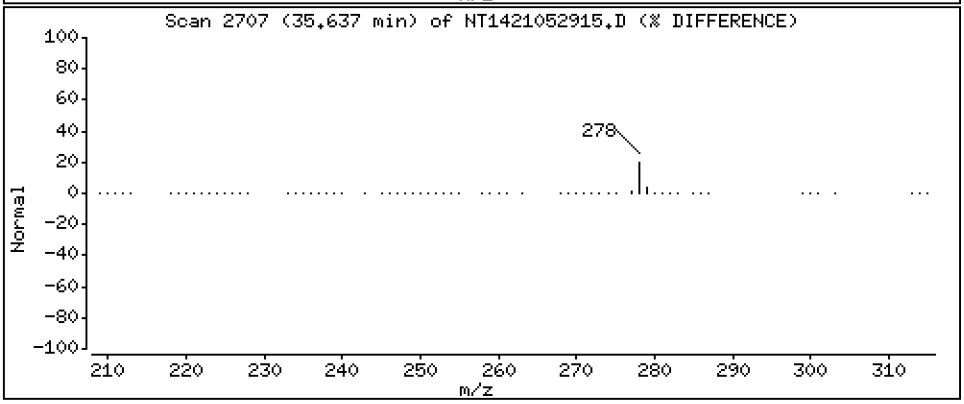












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

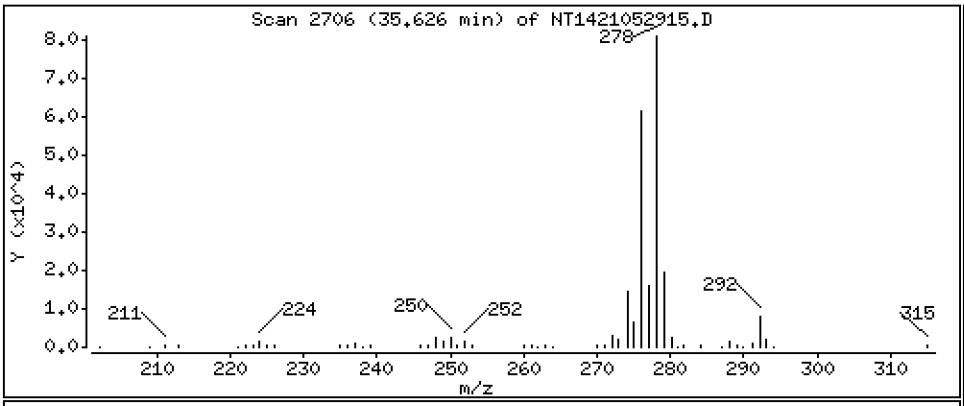
Operator: VTS

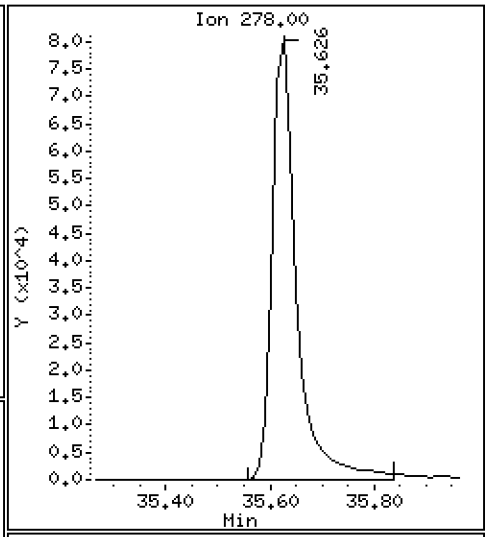
Column phase: Rxi-17Sil MS

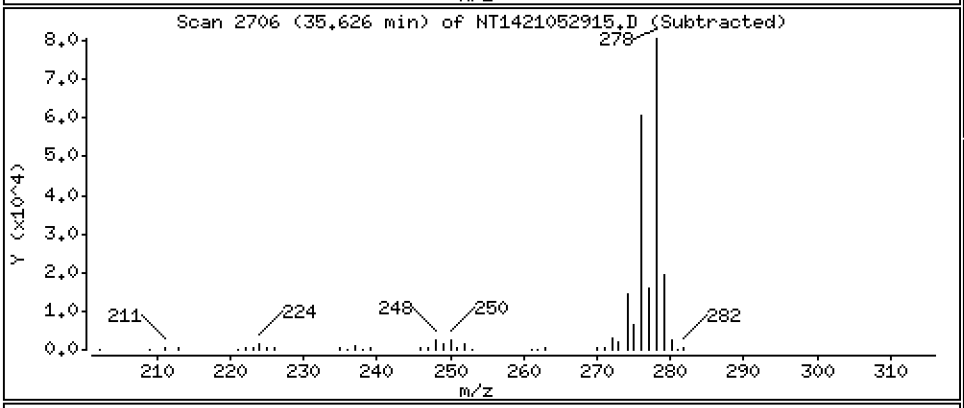
Column diameter: 0.25

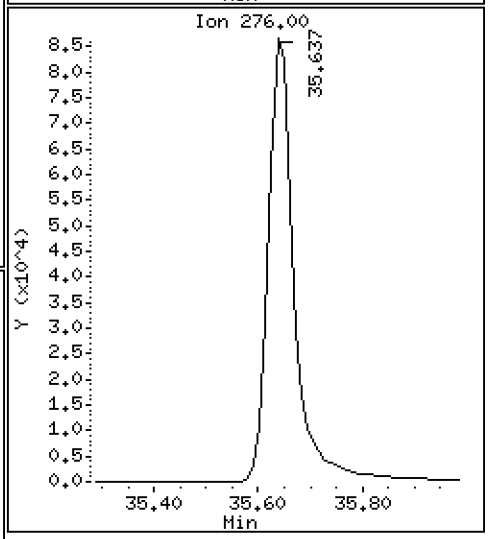
70 Dibenzo(a,h)anthracene

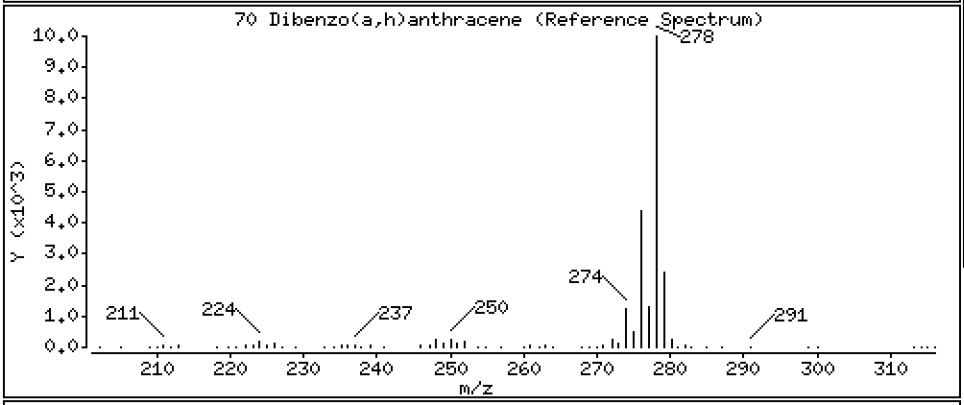
Concentration: 2.690 ug/mL

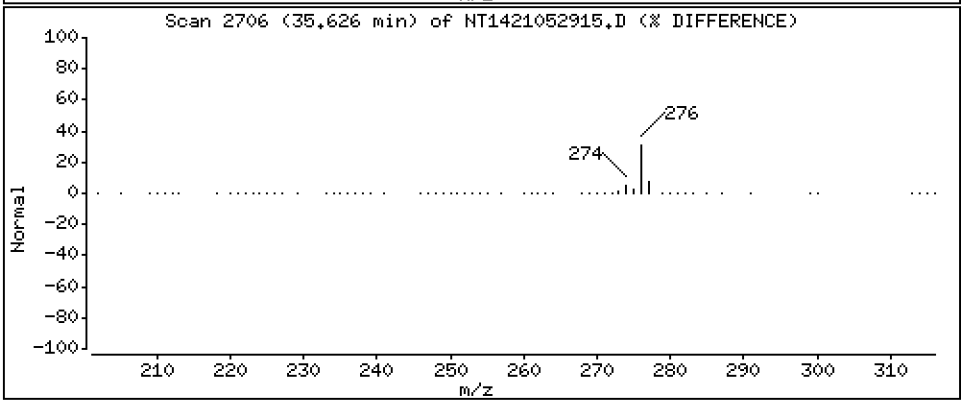












Data File: \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D

Date : 29-MAY-2021 19:38

Client ID:

Instrument: nt14.i

Sample Info: SJF0025-SCV1

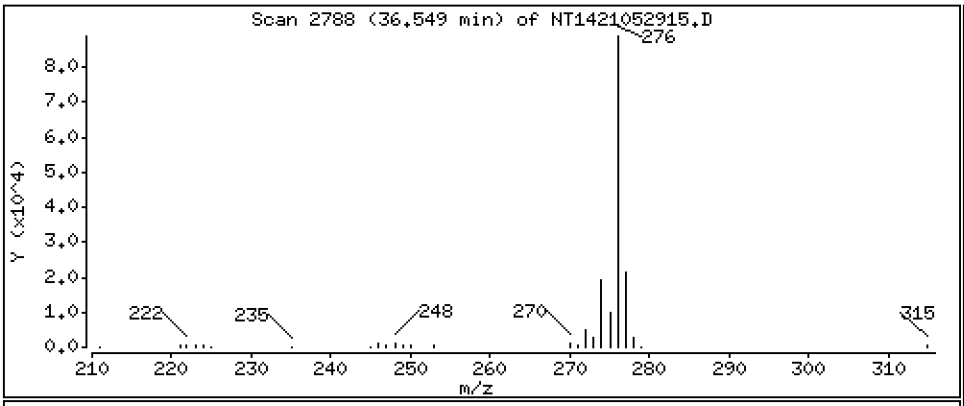
Operator: VTS

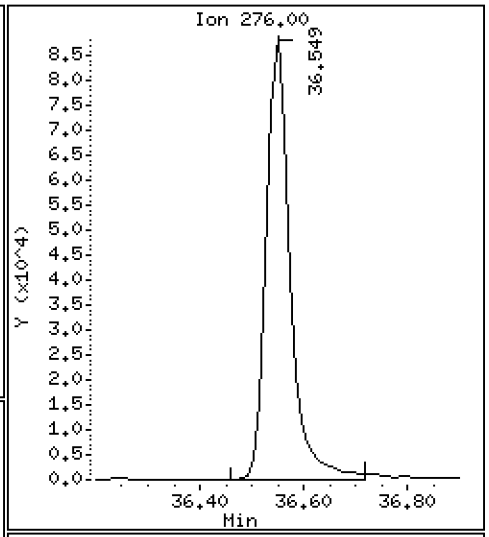
Column phase: Rxi-17Sil MS

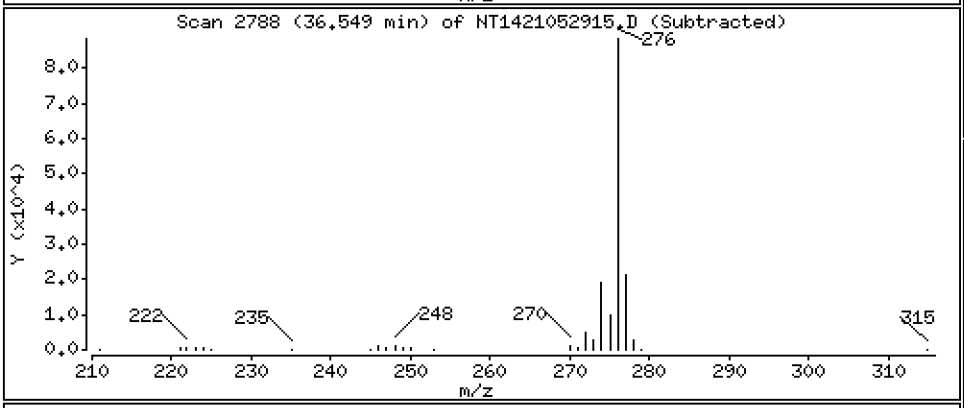
Column diameter: 0.25

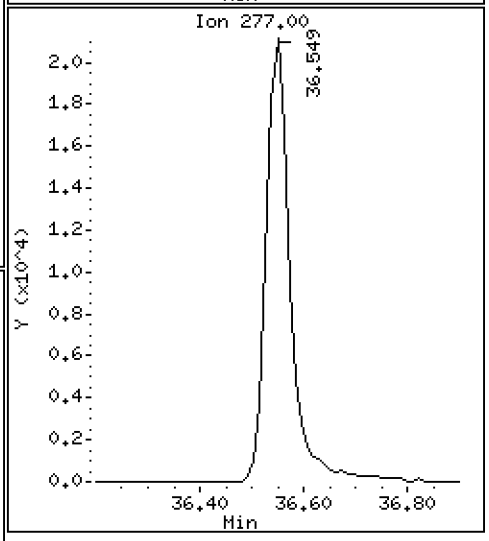
74 Benzo(g,h,i)perylene

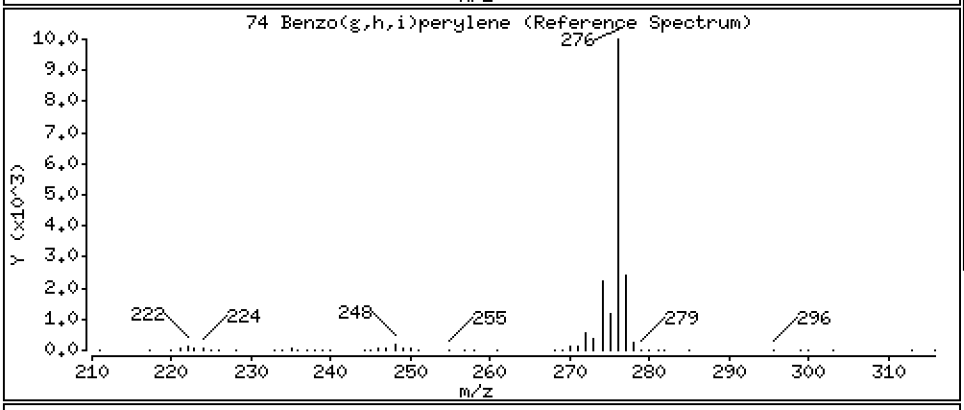
Concentration: 2.781 ug/mL

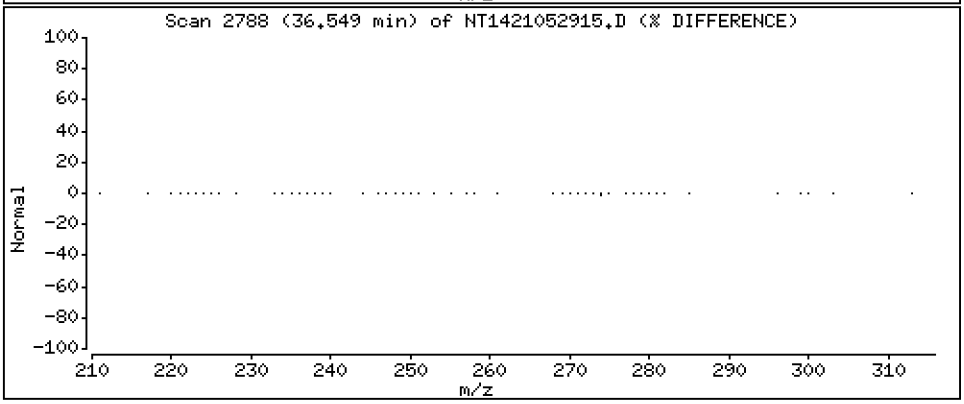












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210529.b\NT1421052915.D
Lab Smp Id: SJF0025-SCV1
Inj Date : 29-MAY-2021 19:38
Operator : VTS Inst ID: nt14.i
Smp Info : SJF0025-SCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Meth Date : 02-Jun-2021 19:03 yev Quant Type: ISTD
Cal Date : 29-MAY-2021 18:49 Cal File: NT1421052914.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	1 trans-Decalin	138	7.146	7.156	(0.378)	24405	2.93881	2.939
	2 cis-Decalin	138	8.266	8.246	(0.437)	17380	2.55518	2.555
$	6 Naphthalene-d8	136	11.897	11.897	(0.629)	223244	2.88377	2.884(R)
	7 Naphthalene	128	11.957	11.957	(0.632)	203089	2.62492	2.625
	12 Benzo(b)thiophene	134	12.409	12.409	(0.656)	166732	2.62140	2.621
	16 2-Methylnaphthalene	141	13.794	13.794	(0.730)	119639	2.64523	2.645
	17 1-methylnaphthalene	141	14.245	14.244	(0.753)	117019	2.65947	2.659
	18 Biphenyl	154	15.431	15.431	(0.816)	174317	2.60835	2.608
	19 2,6-Dimethylnaphthalene	156	15.508	15.508	(0.820)	127969	2.60384	2.604
	20 Acenaphthylene	152	17.091	17.091	(0.904)	220486	2.62443	2.624
$	21 Acenaphthene-d10	164	17.377	17.377	(0.919)	134362	2.82593	2.826(R)
	22 Acenaphthene	153	17.486	17.486	(0.925)	142697	2.75525	2.755
	23 Dibenzofuran	168	17.860	17.860	(0.945)	199363	2.59511	2.595
	24 1,6,7-Trimethylnaphthalene	170	18.091	18.080	(0.957)	132237	2.64202	2.642
*	25 Fluorene-d10	176	18.907	18.907	(1.000)	166522	2.00000	
	26 Fluorene	166	19.009	19.009	(1.005)	155403	2.61087	2.611
	30 Dibenzothiophene	184	21.931	21.931	(1.160)	221357	2.63418	2.634
$	35 Phenanthrene-d10	188	22.239	22.239	(0.995)	230950	2.85128	2.851(R)
	36 Phenanthrene	178	22.327	22.327	(0.999)	229127	2.63951	2.640
*	250 Anthracene-d10	188	22.360	22.360	(1.000)	168360	2.00000	
	37 Anthracene	178	22.426	22.425	(1.003)	219523	2.68776	2.688
	42 Carbazole	167	23.712	23.701	(1.060)	194800	2.70414	2.704
	43 1-Methylphenanthrene	192	24.162	24.151	(1.081)	166388	2.66719	2.667
	44 Fluoranthene	202	26.142	26.131	(1.169)	256004	2.67188	2.672
	46 Pyrene	202	26.977	26.977	(1.207)	270263	2.71212	2.712
	51 Naphthobenzothiophene	234	Compound Not Detected.					
	55 Benzo(a)anthracene	228	30.095	30.095	(0.907)	251589	2.75565	2.756
$	56 Chrysene-d12	240	30.219	30.219	(0.911)	227348	3.08546	3.085(R)
	57 Chrysene	228	30.287	30.287	(0.913)	247820	2.77007	2.770
	62 Benzo(b)fluoranthene	252	32.517	32.517	(0.980)	295325	3.11894	3.119
	63 Benzo(k)fluoranthene	252	32.562	32.562	(0.981)	252708	2.48737	2.487
	293 Benzo(j)fluoranthene	252	32.629	32.629	(0.983)	242480	2.59014	2.590(H)
	246 Total Benzofluoranthenes	252	32.562	32.562	(0.981)	759661	8.19091	8.191(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.181	33.181	(1.000)	235397	2.00000	
64 Benzo(e)pyrene	252	33.238	33.238	(1.002)	247681	2.66885	2.669
66 Benzo(a)pyrene	252	33.339	33.339	(1.005)	221317	2.62146	2.621
$ 67 Perylene-d12	264	33.519	33.519	(1.010)	232231	2.91960	2.920(R)
68 Perylene	252	33.575	33.575	(1.012)	245483	2.82022	2.820(M)
69 Indeno(1,2,3-cd)pyrene	276	35.637	35.637	(1.074)	288654	2.91280	2.913(M)
70 Dibenzo(a,h)anthracene	278	35.625	35.614	(1.074)	251294	2.69021	2.690(M)
74 Benzo(g,h,i)perylene	276	36.549	36.549	(1.101)	272250	2.78084	2.781(M)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421052915.D
Lab Smp Id: SJF0025-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210529.b\ALKYLPNA.m
Misc Info:

Calibration Date: 29-MAY-2021
Calibration Time: 14:01
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	159478	79739	318956	166522	4.42
250 Anthracene-d10	170161	85081	340322	168360	-1.06
251 Benzo(e)pyrene-d1	236612	118306	473224	235397	-0.51

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.91	18.41	19.41	18.91	0.00
250 Anthracene-d10	22.36	21.86	22.86	22.36	0.00
251 Benzo(e)pyrene-d1	33.18	32.68	33.68	33.18	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 - NT1421052915.D

Lab ID: SJF0025-SCV1
nt14.i, 20210529.b\ALKYLPNA.m,   29-MAY-2021 19:38

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

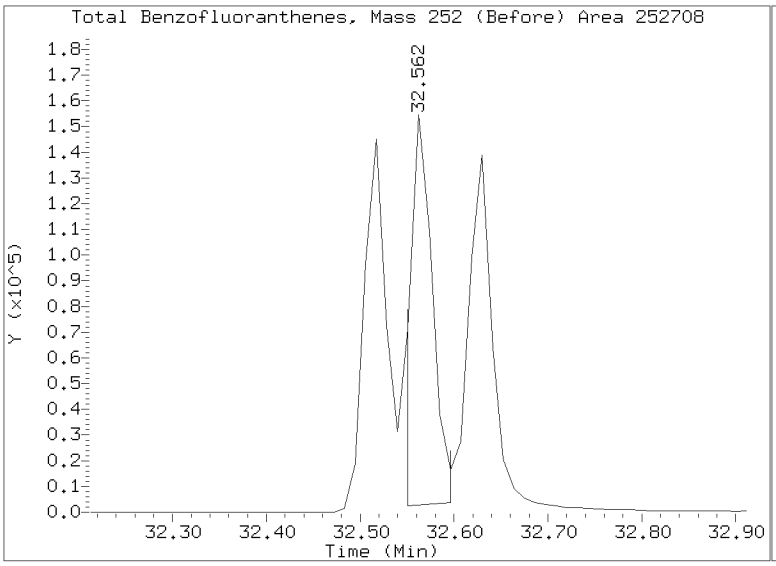
RRT check based on Ccal File: NT1421052914.D

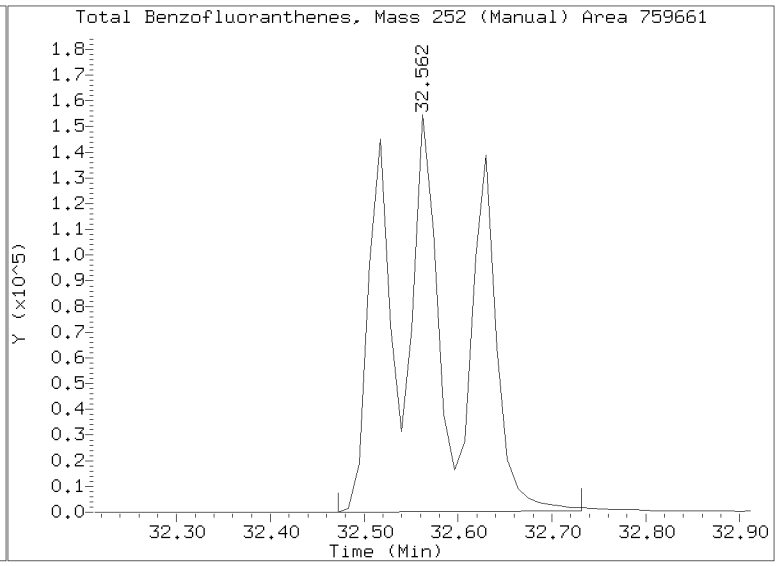
On Column LOD for nt14.i, 20210529.b\ALKYLPNA.m, TARGETS.sub = 0.0000

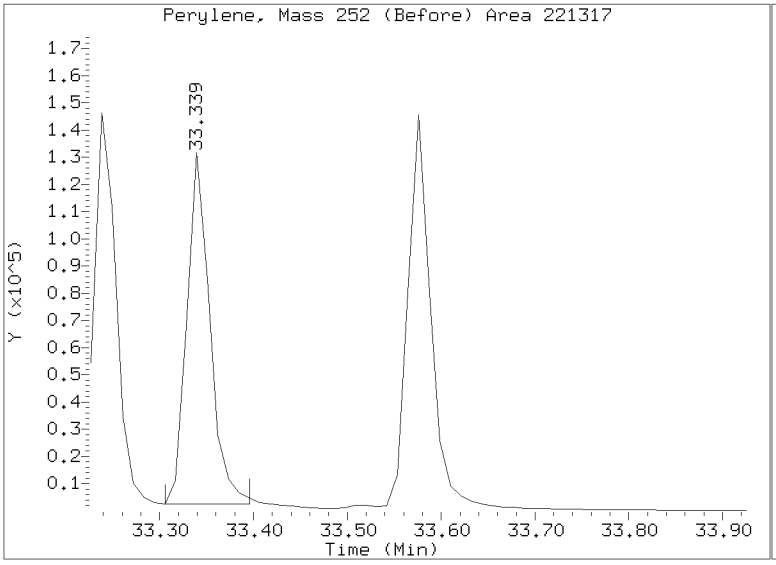
* Only compounds listed in the work order have been verified by the analyst *

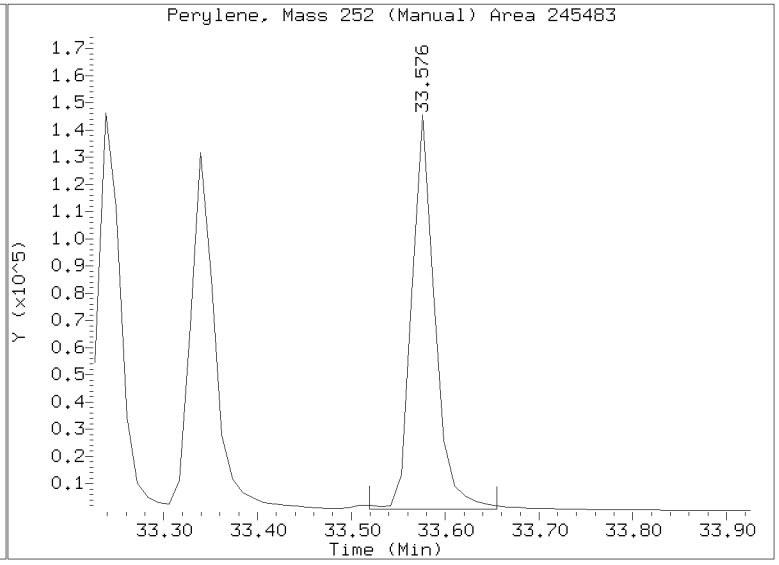
Quant Ion Manual Peak Adjustment Report

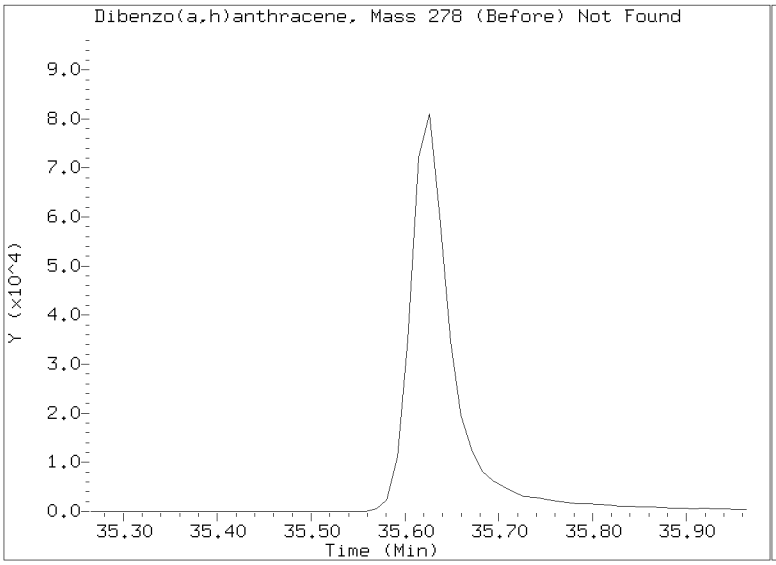
Datafile: //target/share/chem3/nt14.i/20210529.b/NT1421052915.D
Injection Date: 29-MAY-2021 19:38
Lab ID:SJF0025-SCV1 Client ID:
Report Date: 06/02/2021 19:03

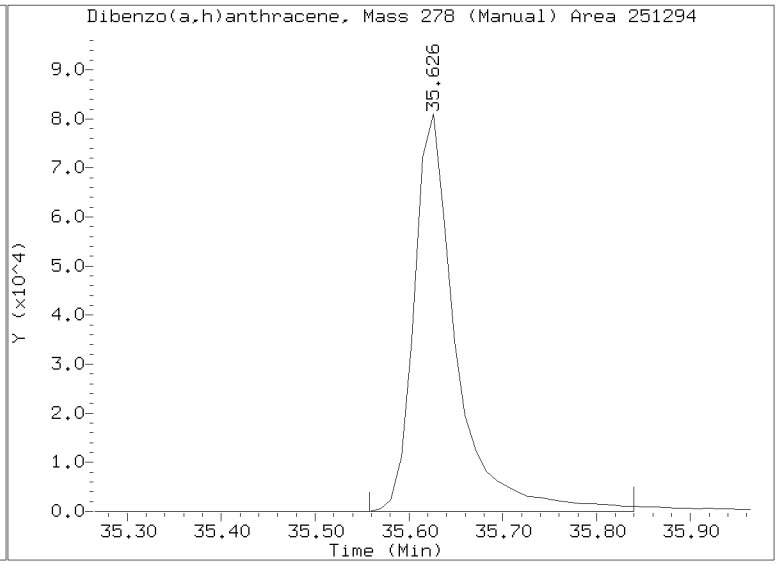






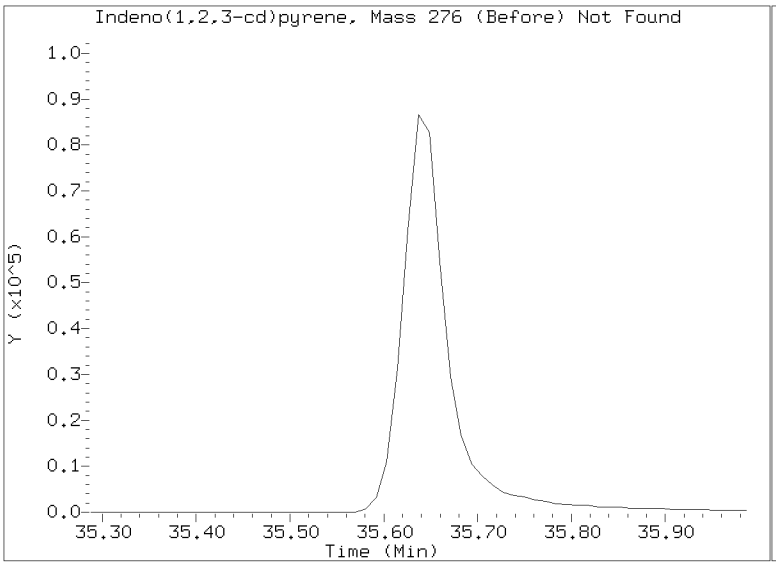


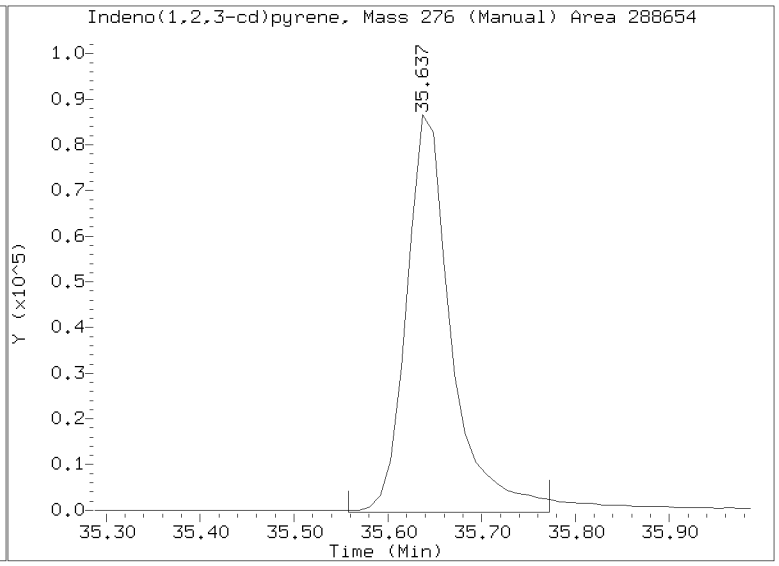


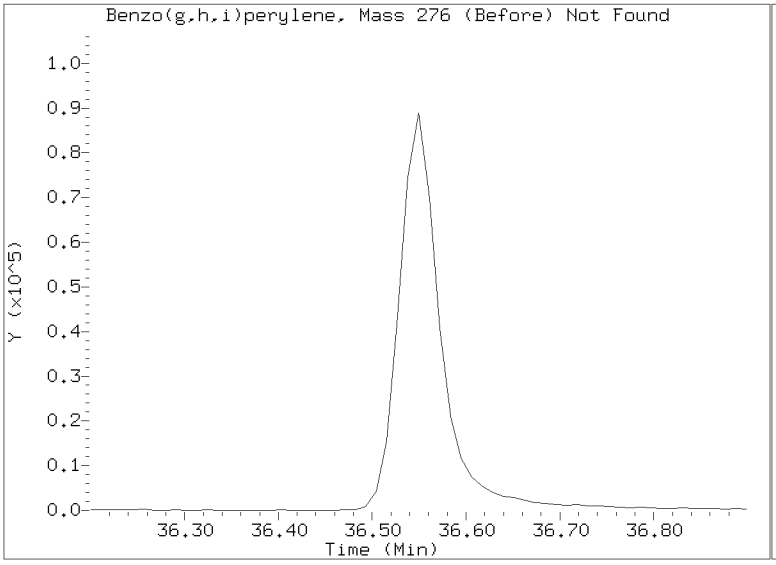


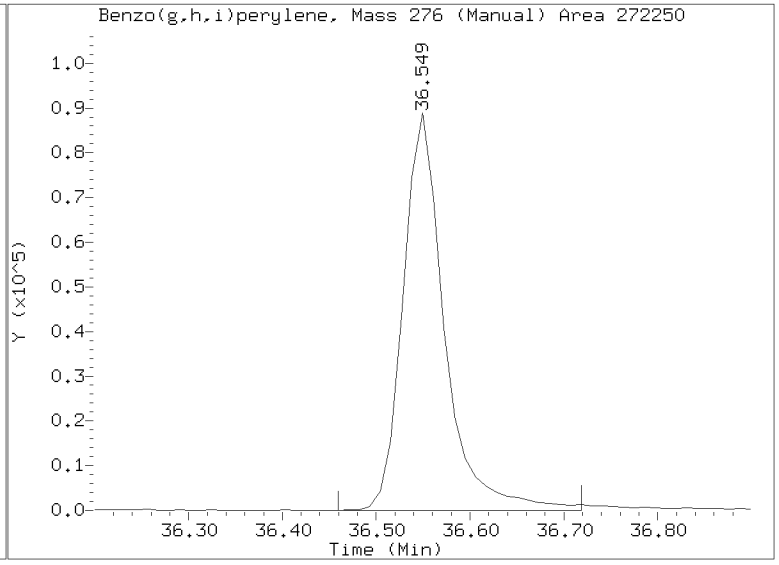
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210529.b/NT1421052915.D
Injection Date: 29-MAY-2021 19:38
Lab ID:SJF0025-SCV1 Client ID:
Report Date: 06/02/2021 19:03









CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	NT14	Calibration:	EF00008
Lab File ID:	NT1421060719.D	Calibration Date:	06/02/2021
Sequence:	SJF0173	Injection Date:	06/08/21
Lab Sample ID:	SJF0173-CCV1	Injection Time:	02:54
Sequence Name:	Calibration Check		

		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
trans-Decalin	A	2.5000	2.7	0.0997391	0.1070424		7.3	+/-50
cis-Decalin	A	2.5000	2.4	0.0700123	0.0787491		-3.8	+/-50
Naphthalene	A	2.5000	2.5	0.9292421	0.9453670		1.7	+/-50
1-Methylnaphthalene	A	2.5000	2.5	0.5284699	0.5302916		0.3	+/-50
2-Methylnaphthalene	A	2.5000	2.5	0.5432098	0.5540188		2.0	+/-50
Biphenyl	A	2.5000	2.5	0.8026611	0.8145836		1.5	+/-50
2,6-Dimethylnaphthalene	A	2.5000	2.5	0.5902664	0.5988104		1.4	+/-50
Acenaphthylene	A	2.5000	2.6	1.0090320	1.0371850		2.8	+/-50
Acenaphthene	A	2.5000	2.5	0.6220308	0.6245874		0.4	+/-50
Dibenzofuran	A	2.5000	2.6	0.9226724	0.9636588		4.4	+/-50
2,3,5-Trimethylnaphthalene	A	2.5000	2.6	0.6011392	0.6164320		2.5	+/-50
Fluorene	A	2.5000	2.6	0.7148800	0.7349514		2.8	+/-50
Benzo(b)thiophene	A	2.5000	2.5	0.7639133	0.7693939		0.7	+/-50
Phenanthrene	A	2.5000	2.5	1.0312030	1.0433480		1.2	+/-50
Anthracene	A	2.5000	2.5	0.9702418	0.9882540		1.9	+/-50
Carbazole	A	2.5000	2.4	0.8557591	0.8669273		-3.6	+/-50
1-Methylphenanthrene	A	2.5000	2.6	0.7410711	0.7612333		2.7	+/-50
Fluoranthene	A	2.5000	2.6	1.1382070	1.2002340		5.4	+/-50
Dibenzothiophene	A	2.5000	2.6	1.0092670	1.0582540		4.9	+/-50
Pyrene	A	2.5000	2.6	1.1837730	1.2536810		5.9	+/-50
Benzo(a)anthracene	A	2.5000	2.9	0.7757052	0.8909979		14.9	+/-50
Chrysene	A	2.5000	2.8	0.7601074	0.8484632		11.6	+/-50
Benzo(b)fluoranthene	A	2.5000	2.5	0.8044926	0.8097865		0.7	+/-50
Benzo(j)fluoranthene	A	2.5000	2.5	0.7953937	0.7827875		-1.6	+/-50
Benzo(k)fluoranthene	A	2.5000	2.8	0.8631910	0.9567737		10.8	+/-50
Benzofluoranthenes, Total	A	7.5000	8.1	0.7879832	0.8556882		8.6	+/-50
Benzo(e)pyrene	A	2.5000	2.5	0.7884934	0.8005431		1.5	+/-50
Benzo(a)pyrene	A	2.5000	2.7	0.7172983	0.7700623		7.4	+/-50
Indeno(1,2,3-cd)pyrene	A	2.5000	2.5	0.8419699	0.8394096		-0.3	+/-50
Dibenzo(a,h)anthracene	A	2.5000	2.3	0.7153598	0.7297809		-7.8	+/-50
Benzo(g,h,i)perylene	A	2.5000	2.4	0.8318028	0.7865770		-5.4	+/-50
Perylene	A	2.5000	2.6	0.7395491	0.7556040		2.2	+/-50
Benzo(b)naphtho(2,1-d)thiophene	A	2.5000	2.5	1.2719290	1.2730980		0.09	+/-50
Naphthalene-d8	A	2.5000	2.56	0.9297733	0.9528818		2.5	+/-50

* Values outside of QC limits

CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	NT14	Calibration:	EF00008
Lab File ID:	NT1421060719.D	Calibration Date:	06/02/2021
Sequence:	SJF0173	Injection Date:	06/08/21
Lab Sample ID:	SJF0173-CCV1	Injection Time:	02:54
Sequence Name:	Calibration Check		

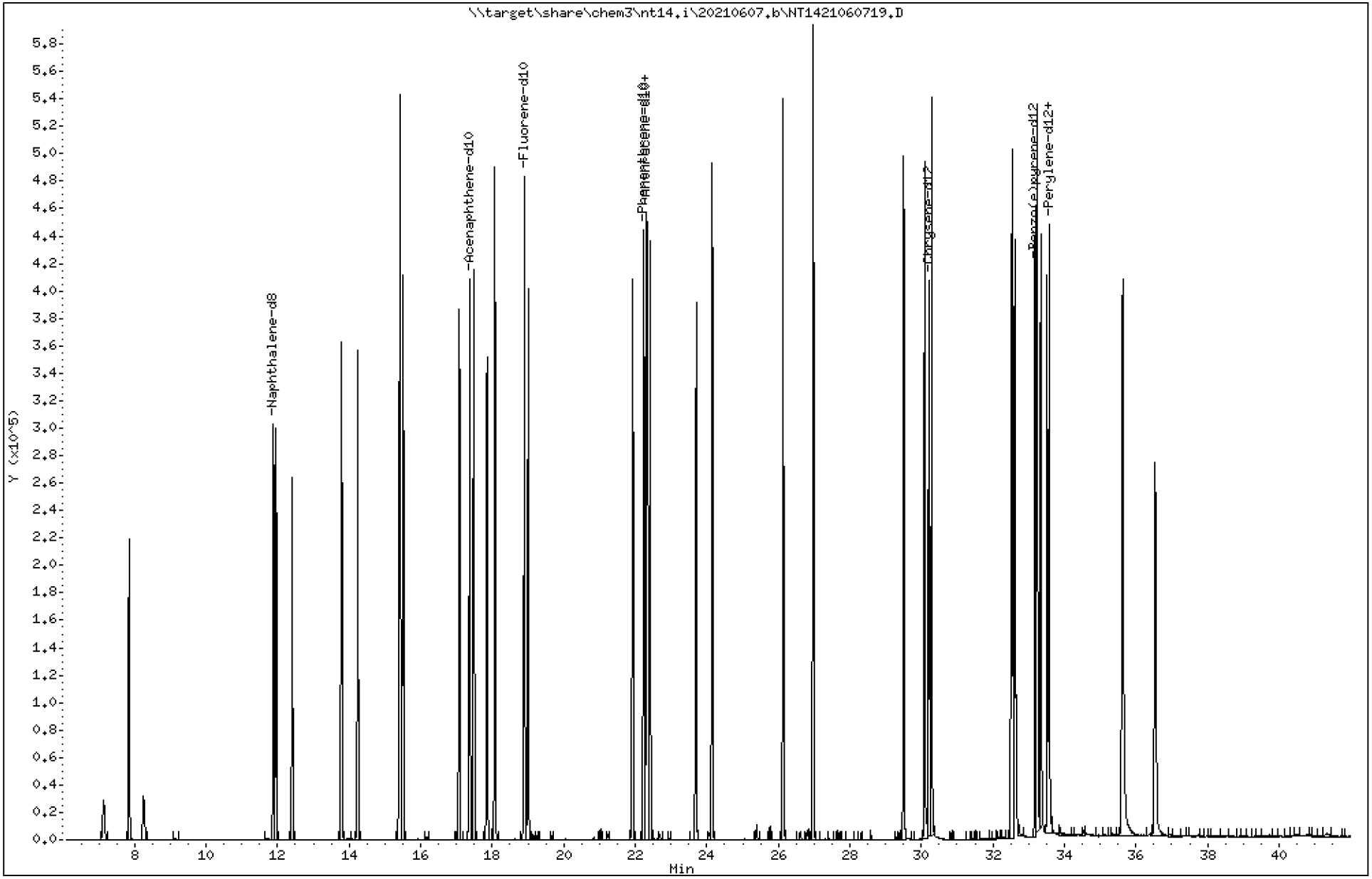
		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Acenaphthene-d10	A	2.5000	2.52	0.5710501	0.5754469		0.8	+/-50
Phenanthrene-d10	A	2.5000	2.49	0.9622084	0.9589427		-0.3	+/-50
Chrysene-d12	A	2.5000	2.81	0.6260378	0.7045764		12.5	+/-50
Perylene-d12	A	2.5000	2.51	0.6758124	0.6796638		0.6	+/-50

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060719.D
Date : 08-JUN-2021 02:54
Client ID:
Sample Info: SJF0173-CCV1

Instrument: nt14.i
Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS



Final Report 21E0099 06/15/2021 Page 560 of 957

Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060719.D

Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

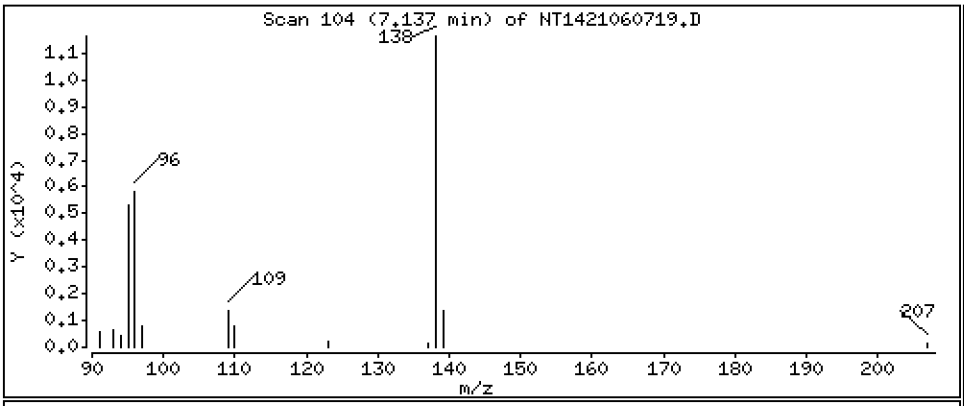
Operator: VTS

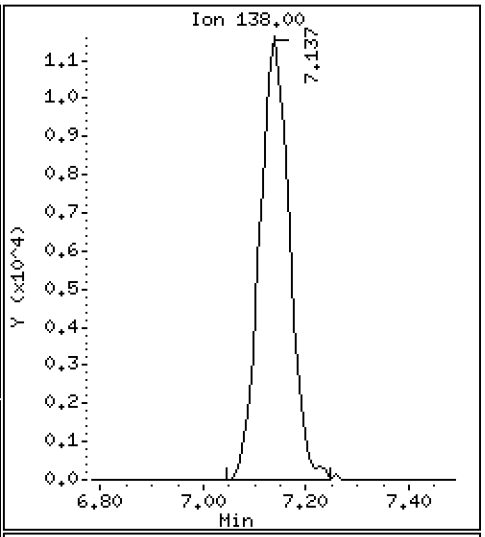
Column phase: Rxi-17Sil MS

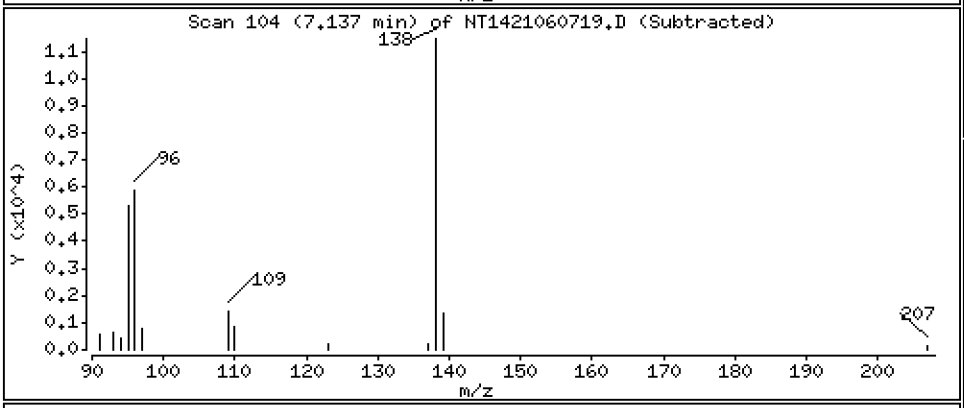
Column diameter: 0.25

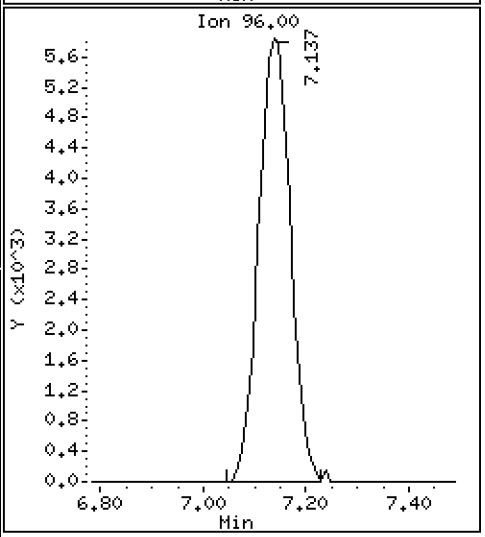
1 trans-Decalin

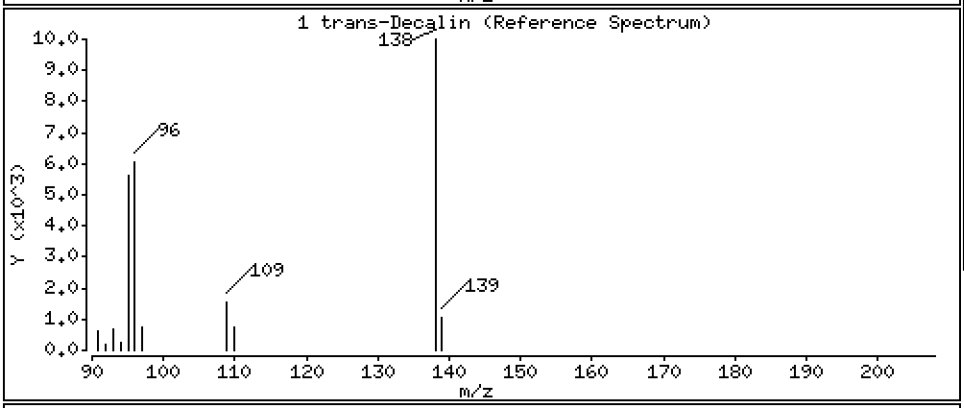
Concentration: 2.683 ug/mL

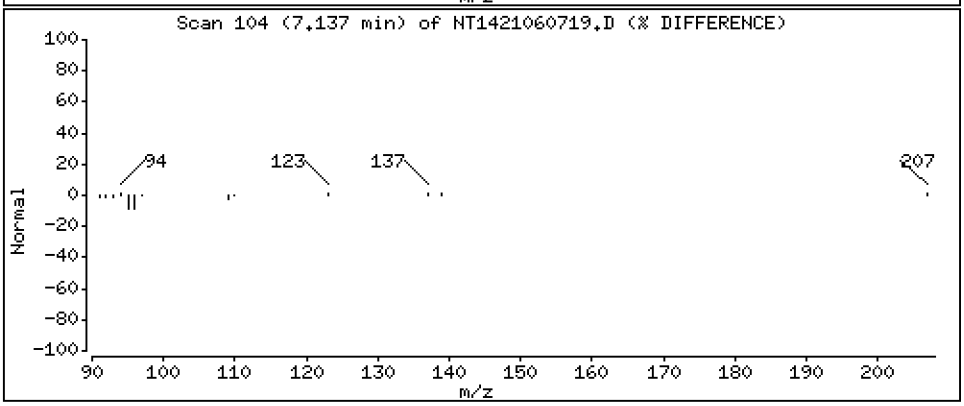












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060719.D

Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

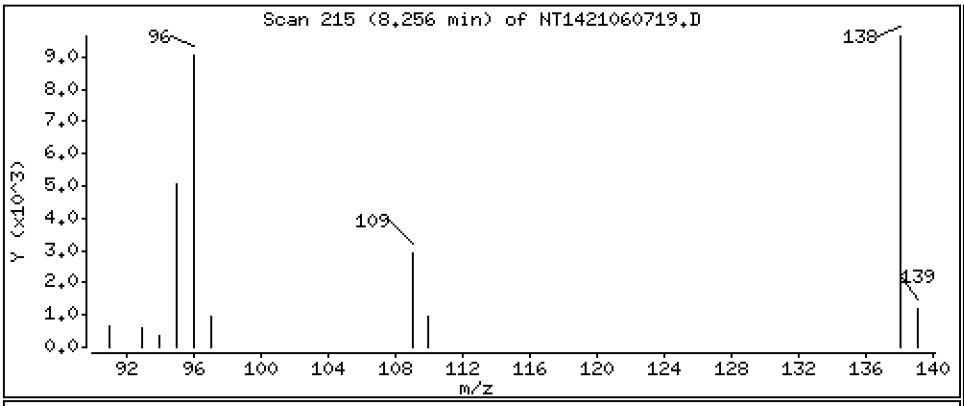
Operator: VTS

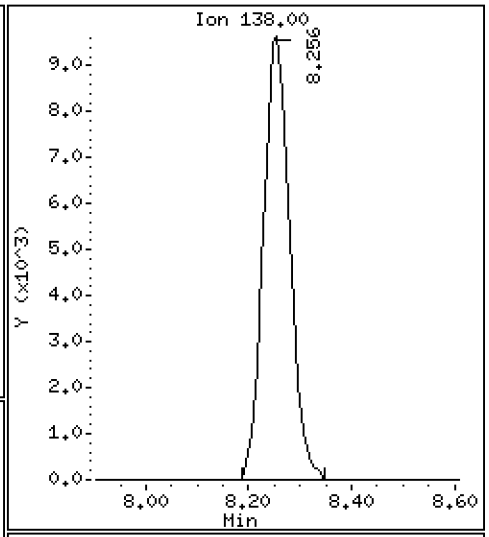
Column phase: Rxi-17Sil MS

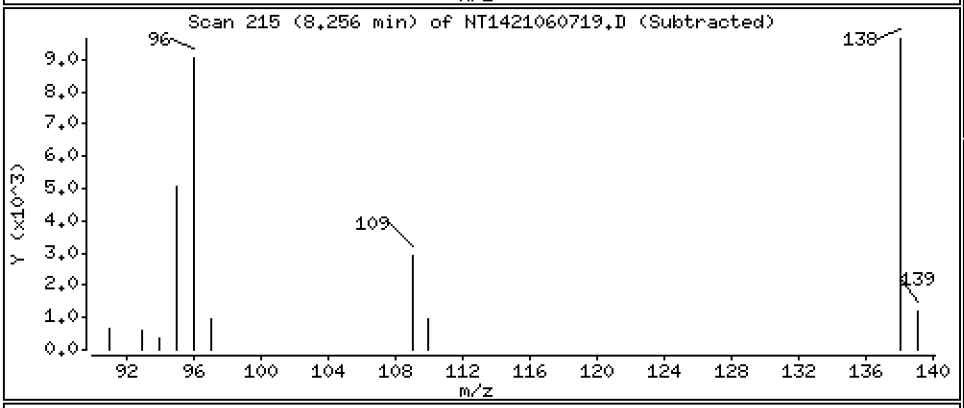
Column diameter: 0.25

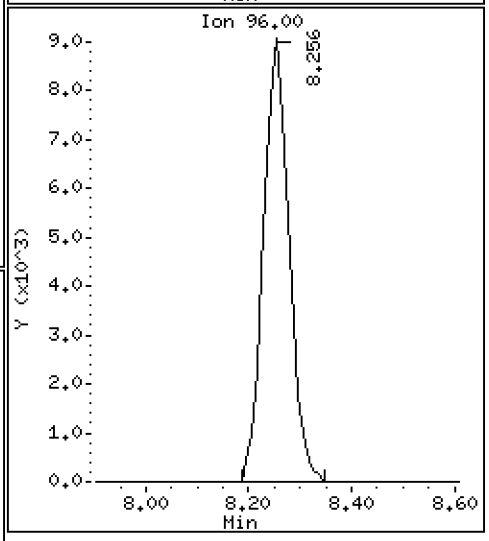
2 cis-Decalin

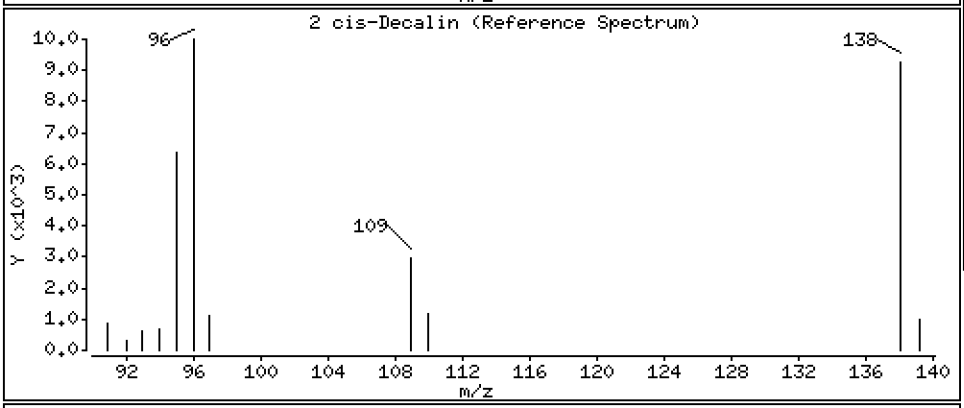
Concentration: 2.405 ug/mL

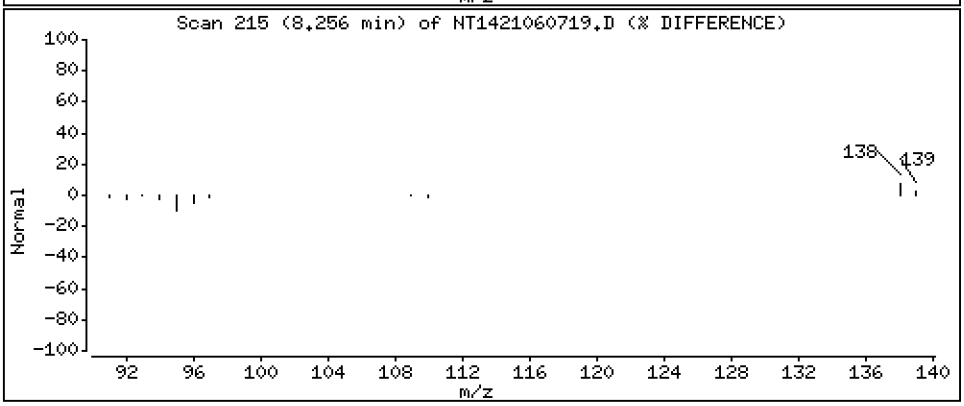












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060719.D

Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

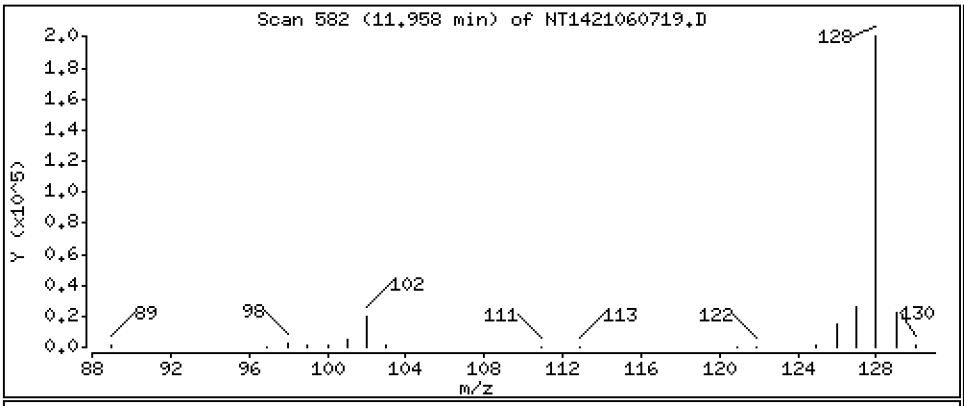
Operator: VTS

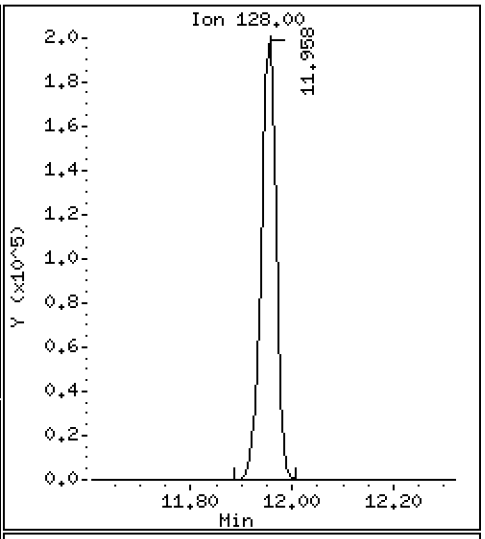
Column phase: Rxi-17Sil MS

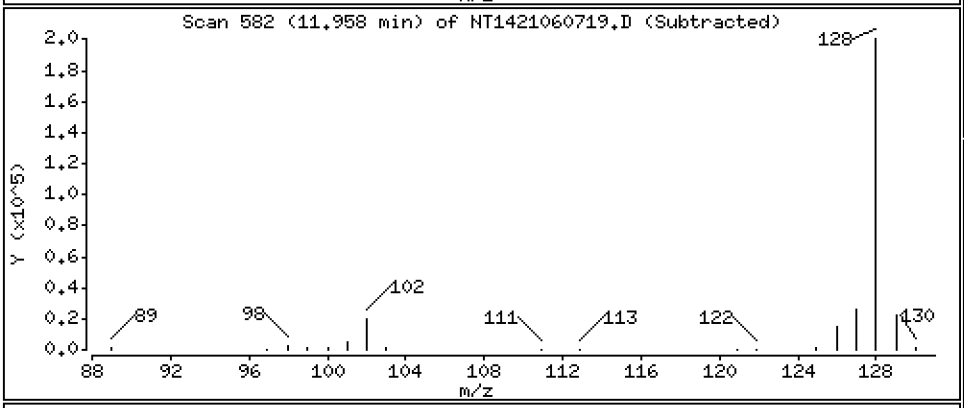
Column diameter: 0.25

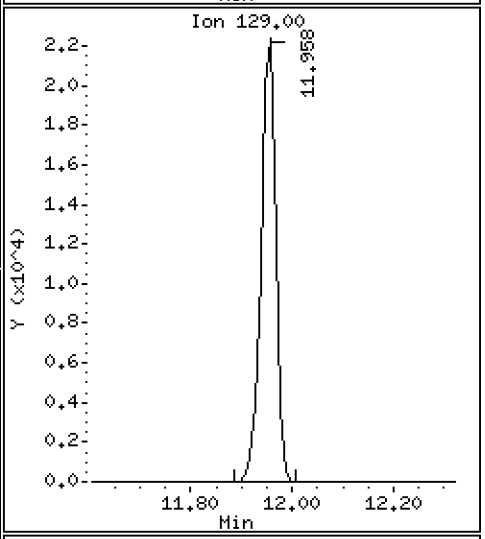
7 Naphthalene

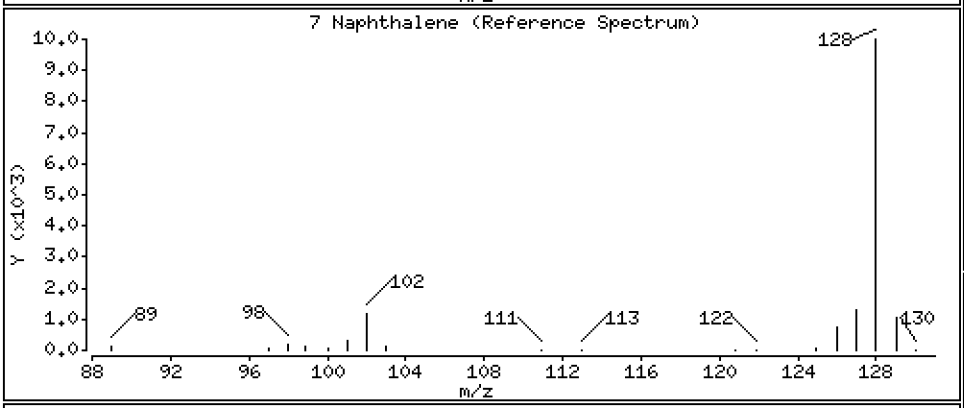
Concentration: 2.543 ug/mL

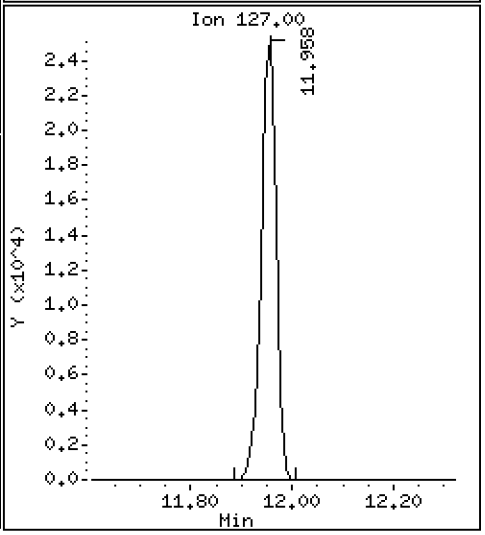


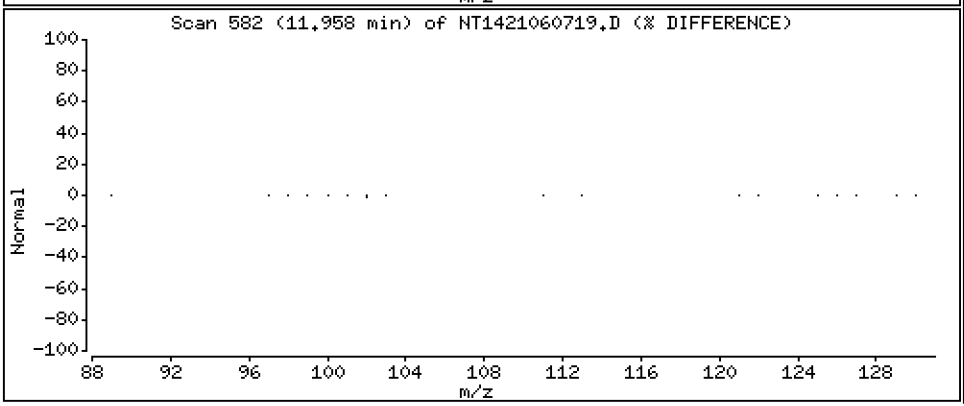












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060719.D

Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

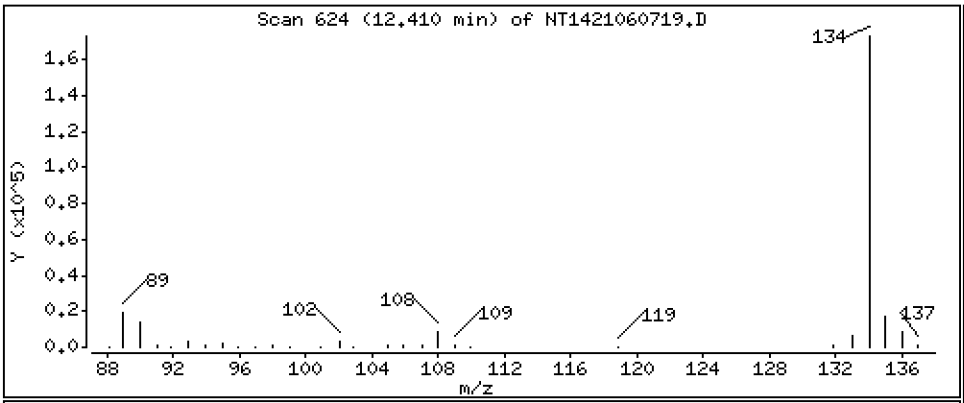
Operator: VTS

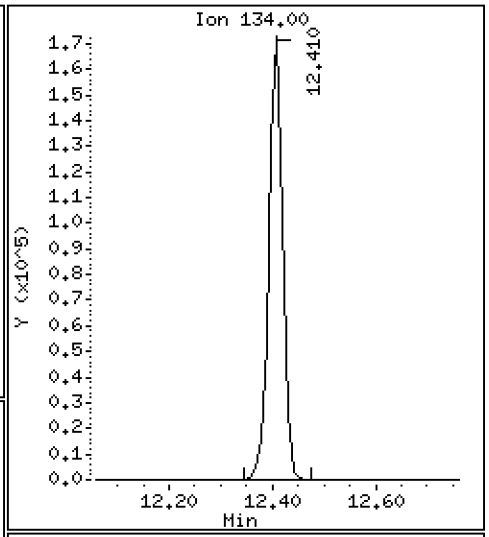
Column phase: Rxi-17Sil MS

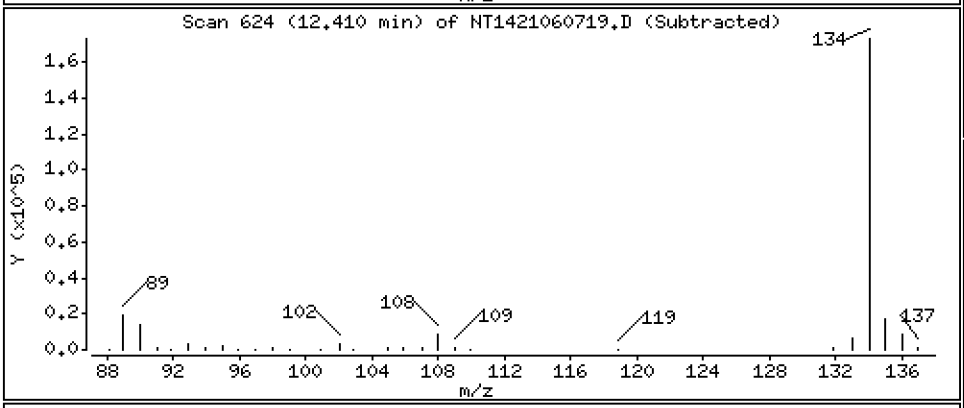
Column diameter: 0.25

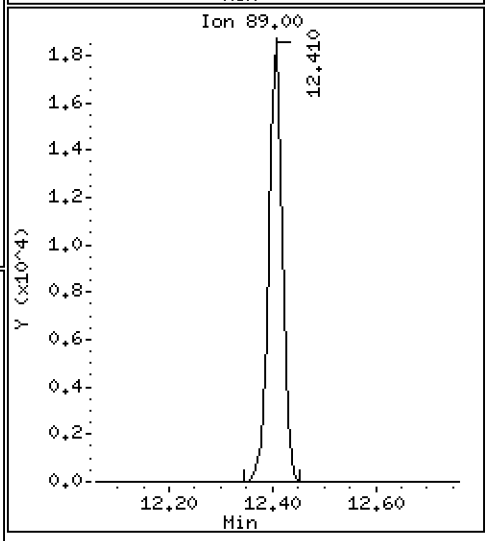
12 Benzo(b)thiophene

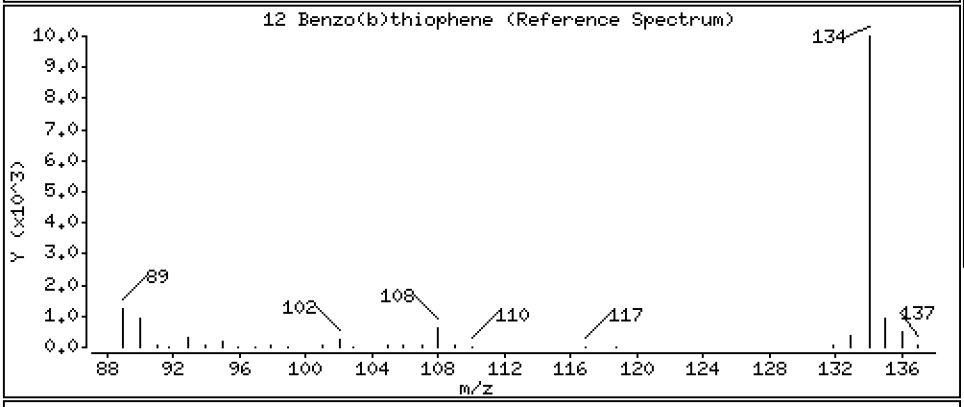
Concentration: 2.518 ug/mL

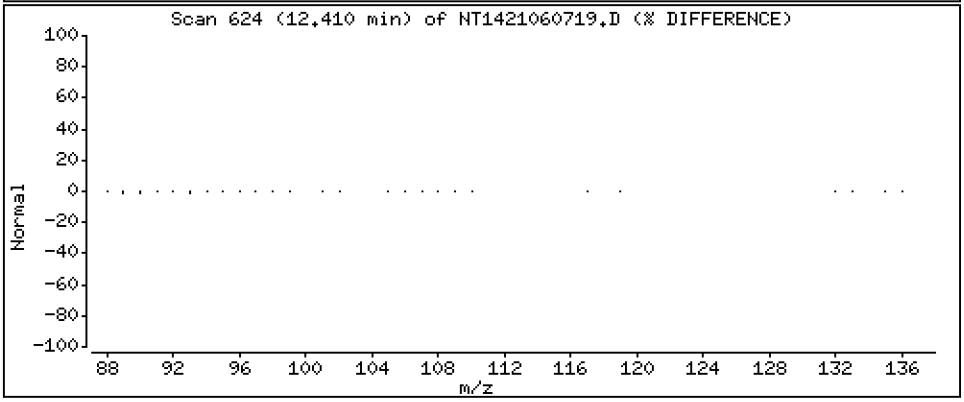












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060719.D

Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

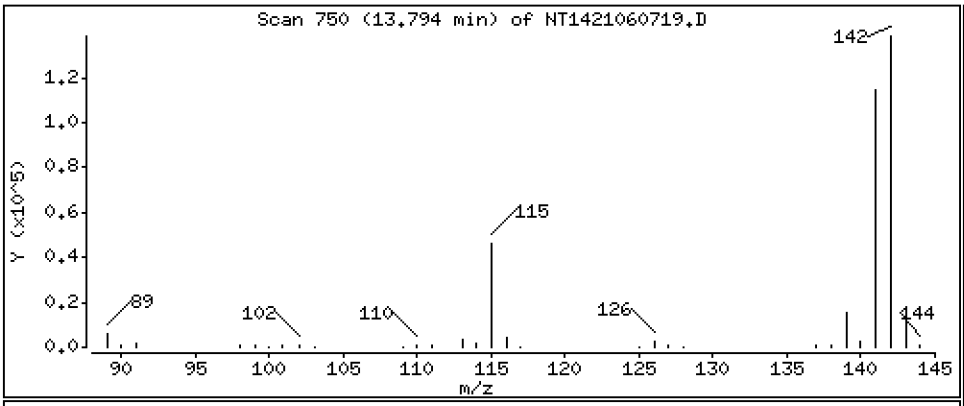
Operator: VTS

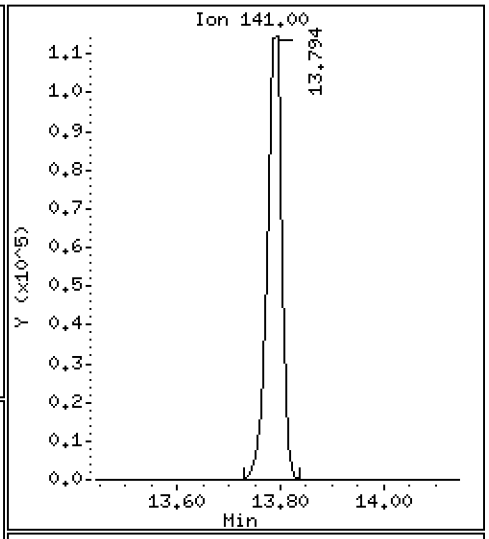
Column phase: Rxi-17Sil MS

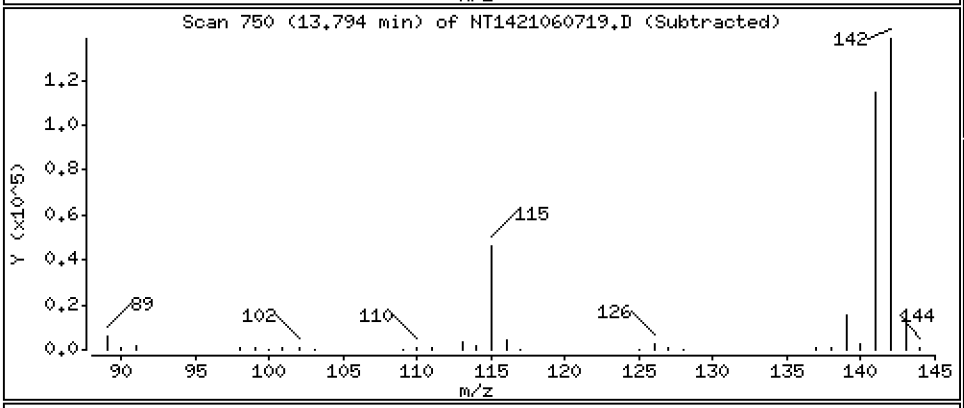
Column diameter: 0.25

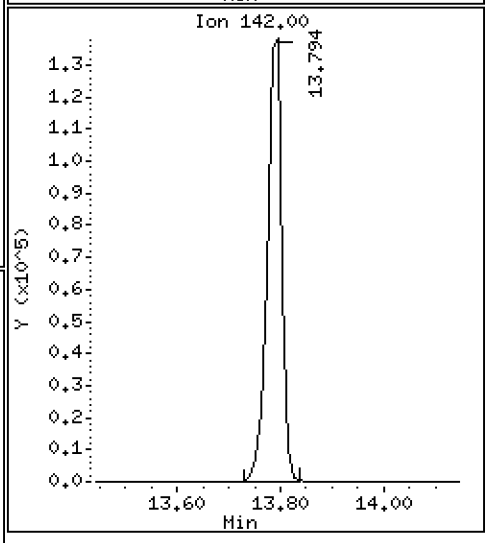
16 2-Methylnaphthalene

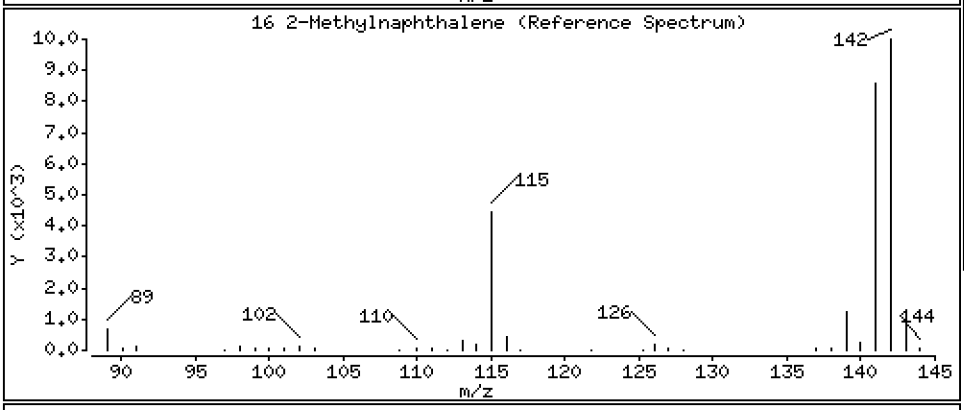
Concentration: 2.550 ug/mL

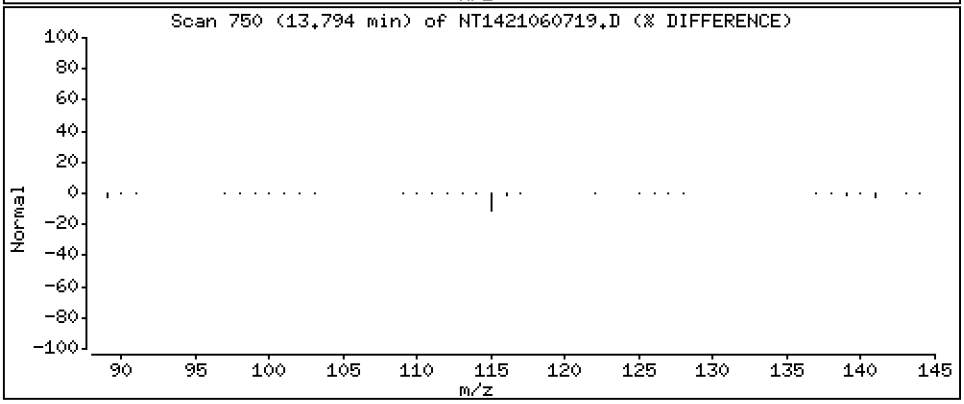












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060719.D

Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

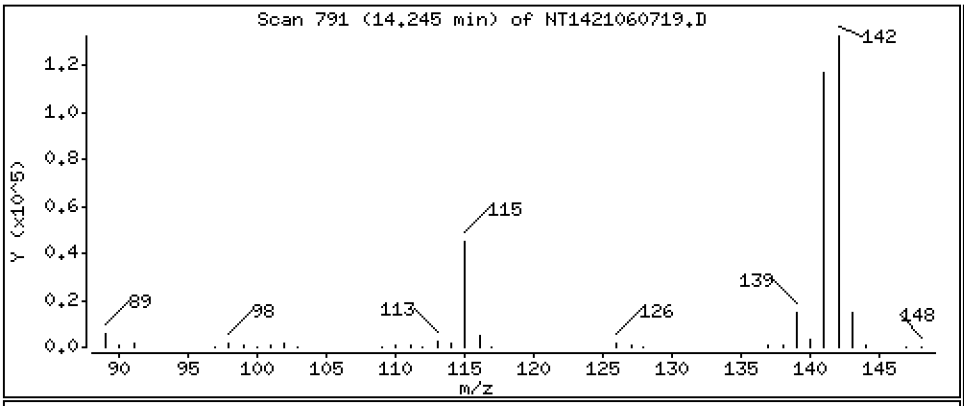
Operator: VTS

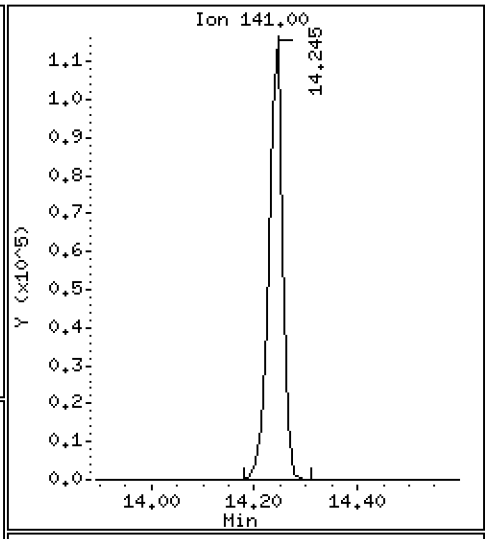
Column phase: Rxi-17Sil MS

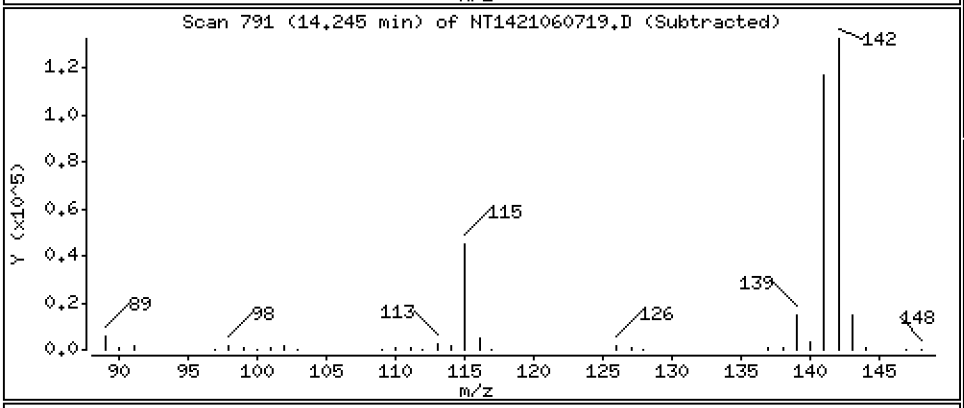
Column diameter: 0.25

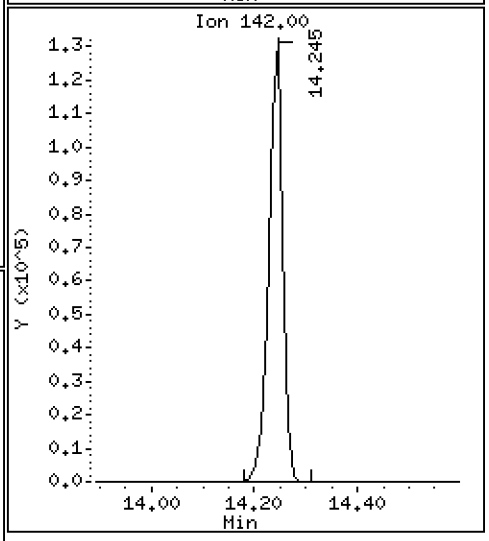
17 1-methylnaphthalene

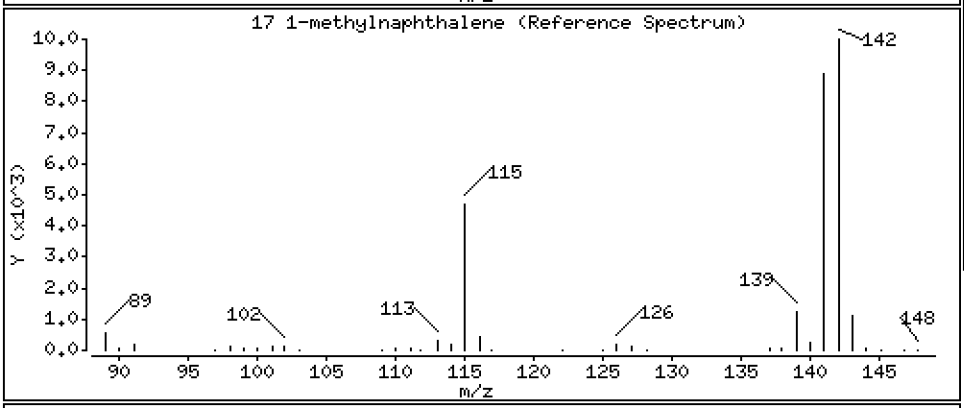
Concentration: 2.509 ug/mL

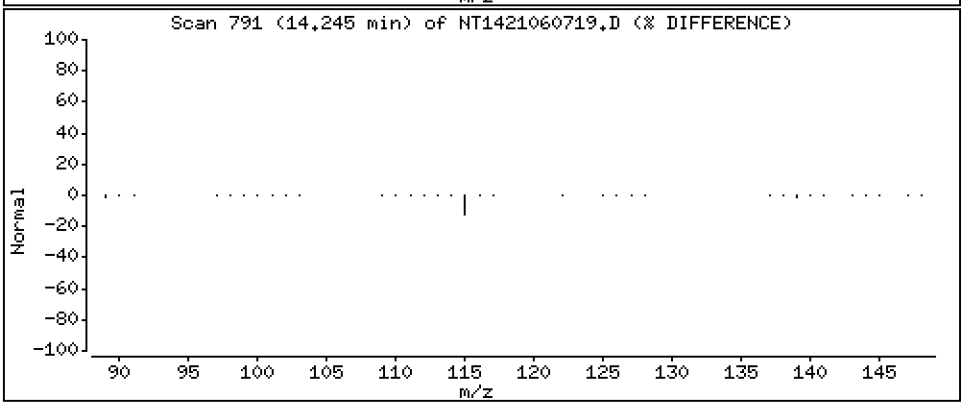












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060719.D

Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

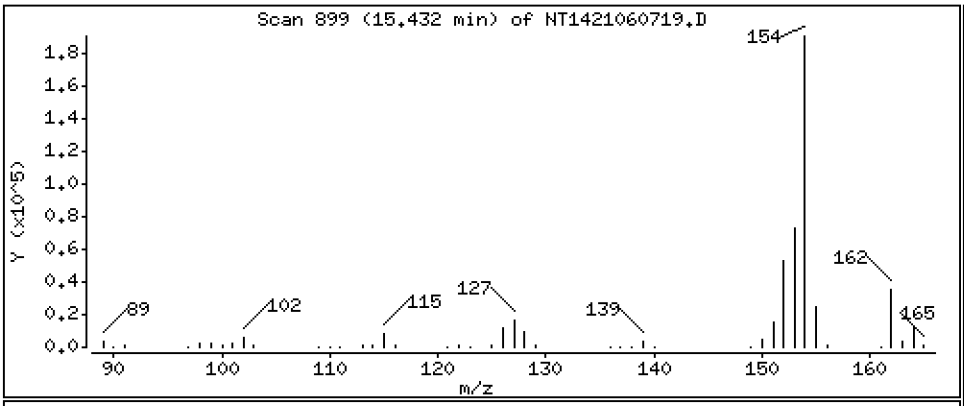
Operator: VTS

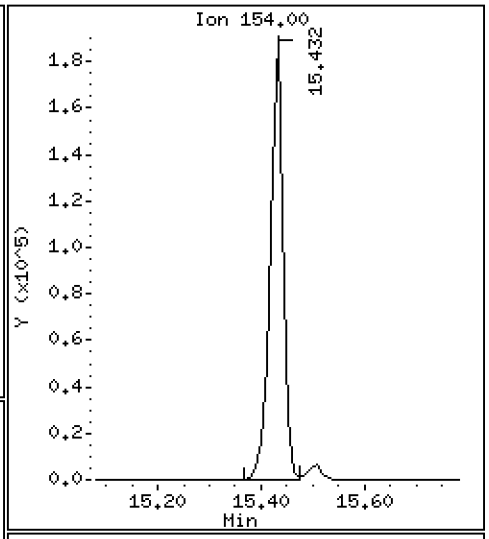
Column phase: Rxi-17Sil MS

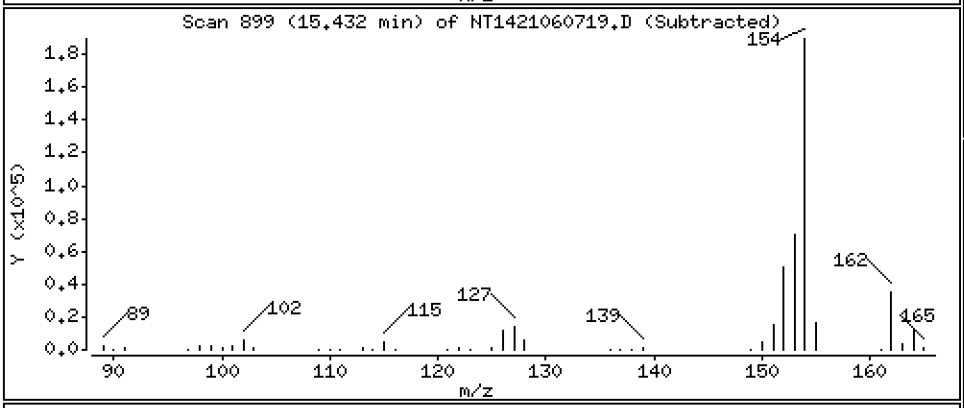
Column diameter: 0.25

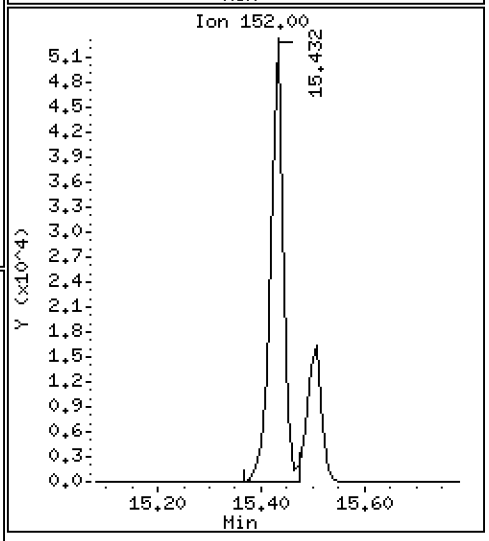
18 Biphenyl

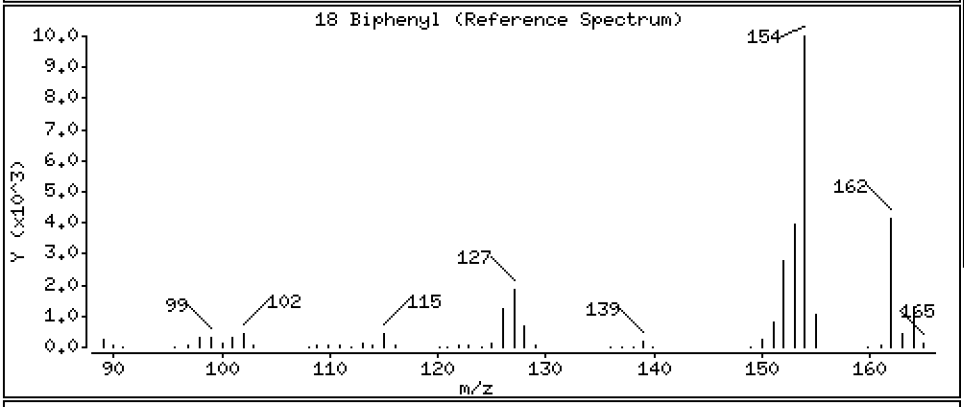
Concentration: 2.537 ug/mL

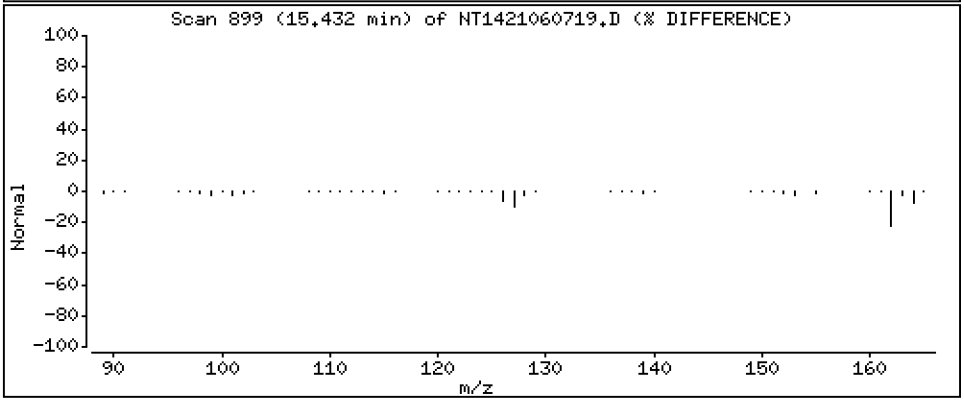












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Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

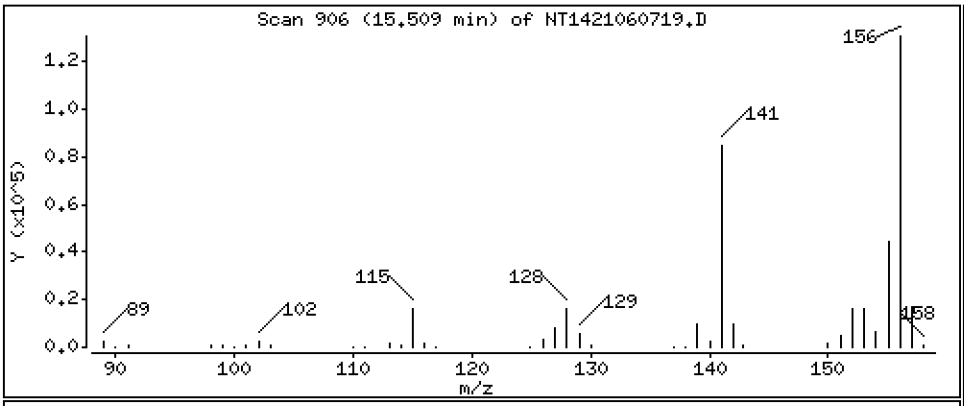
Operator: VTS

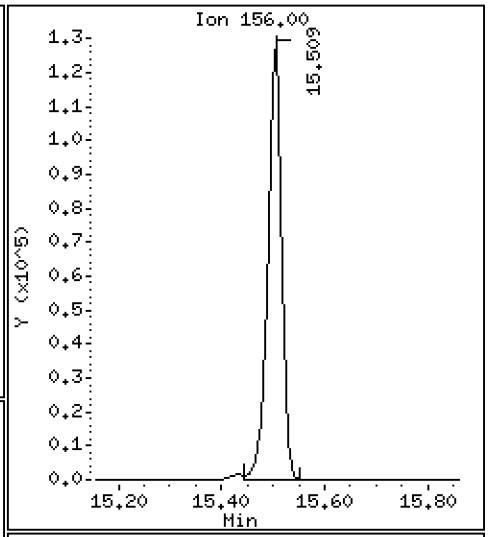
Column phase: Rxi-17Sil MS

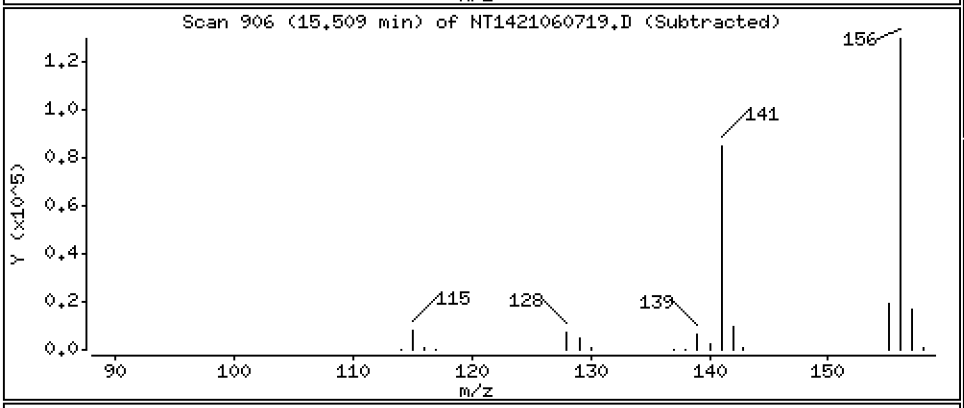
Column diameter: 0.25

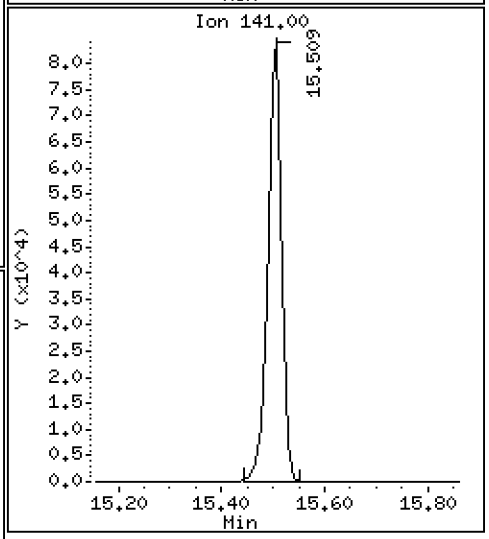
19 2,6-Dimethylnaphthalene

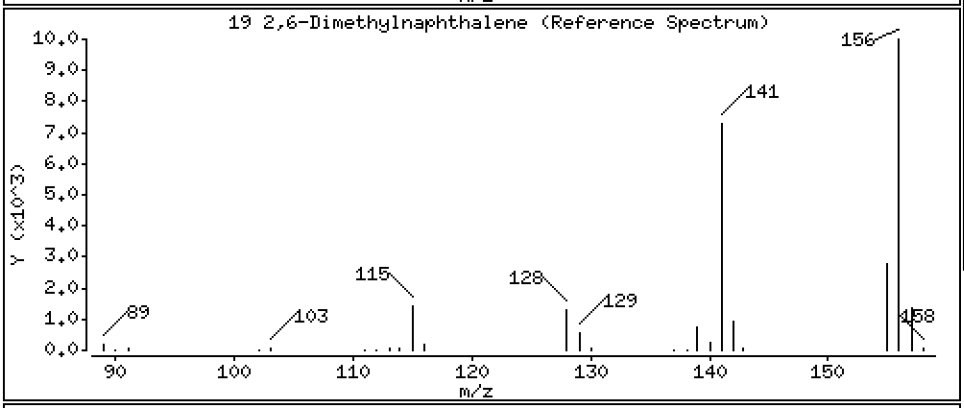
Concentration: 2.536 ug/mL

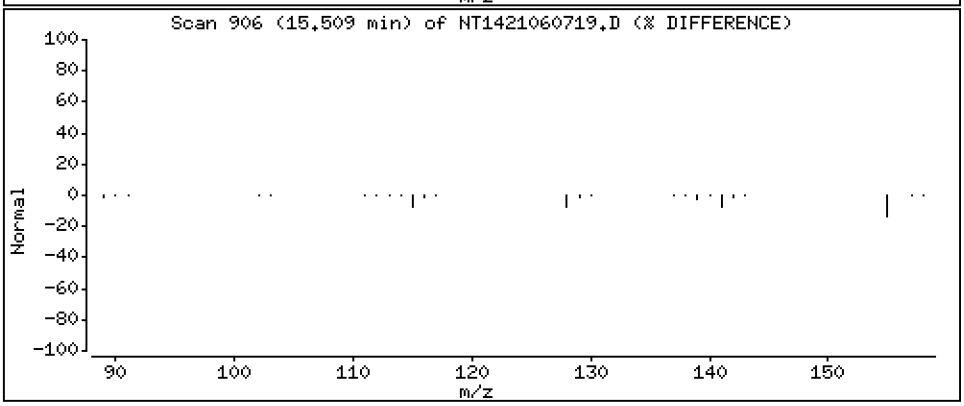












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Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

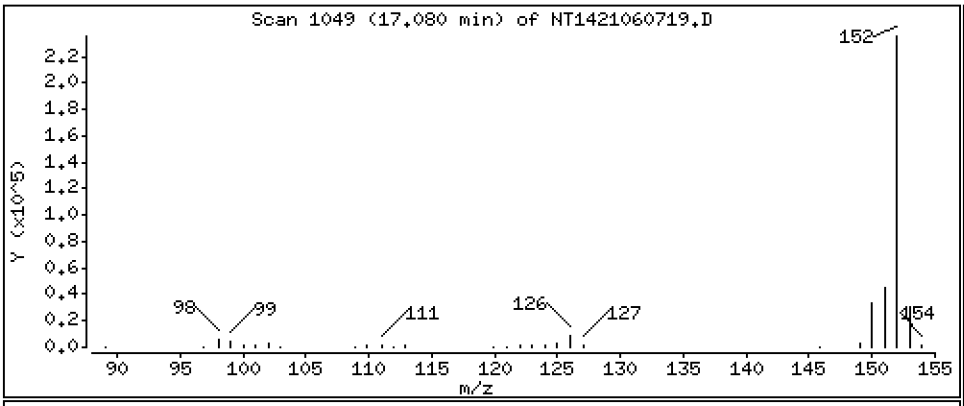
Operator: VTS

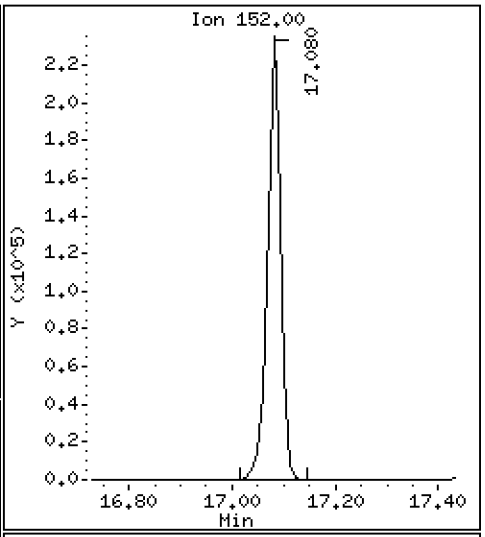
Column phase: Rxi-17Sil MS

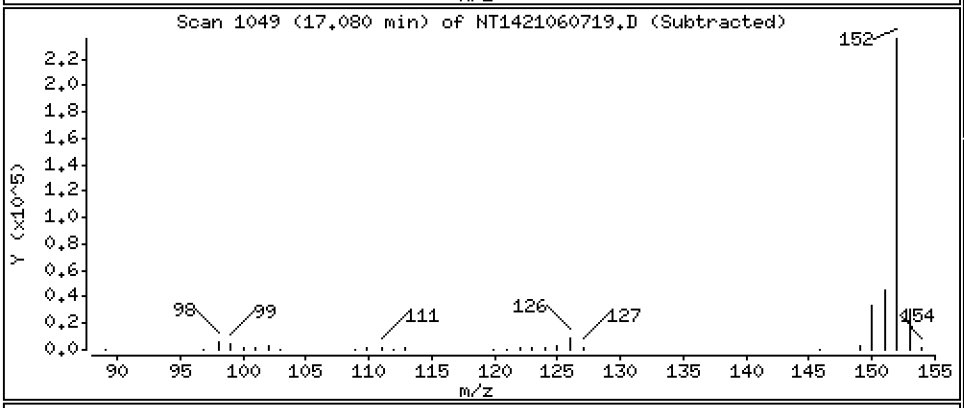
Column diameter: 0.25

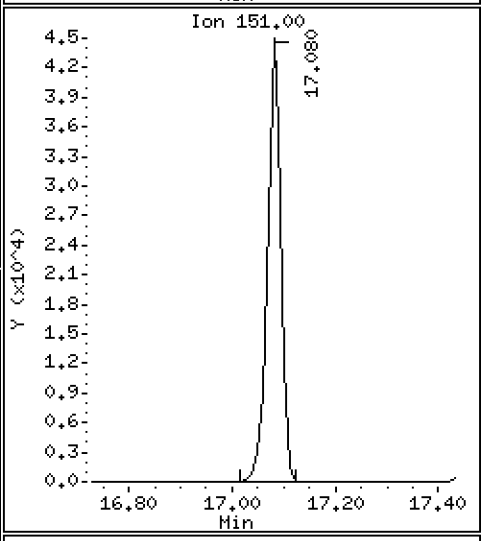
20 Acenaphthylene

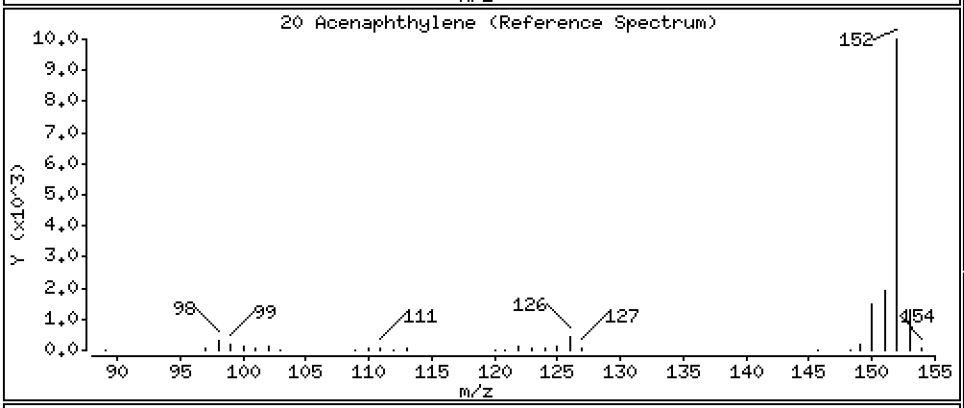
Concentration: 2.570 ug/mL

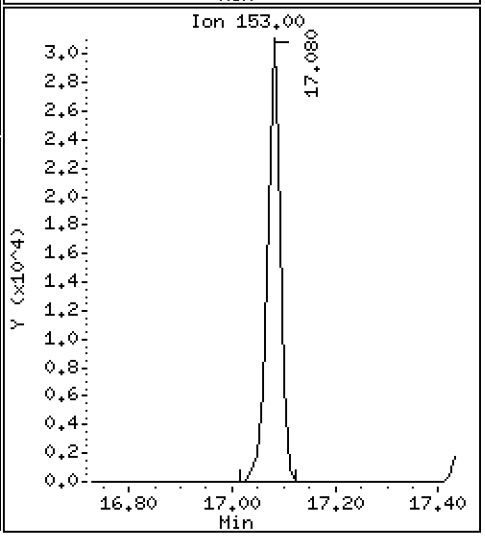


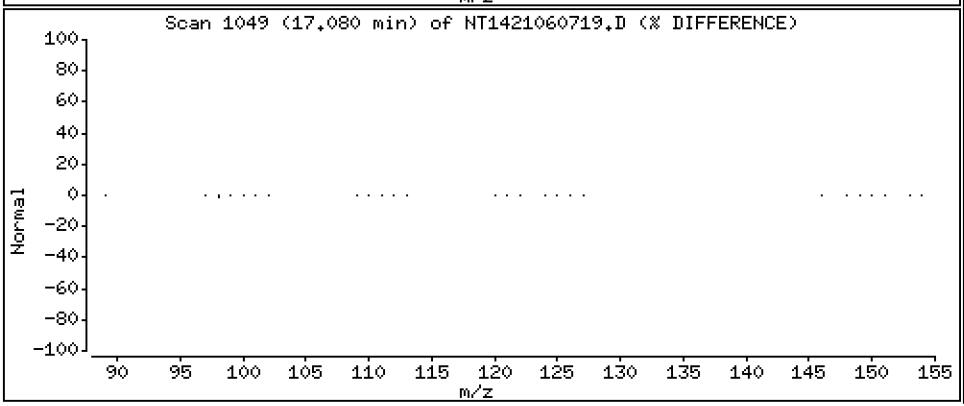












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Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

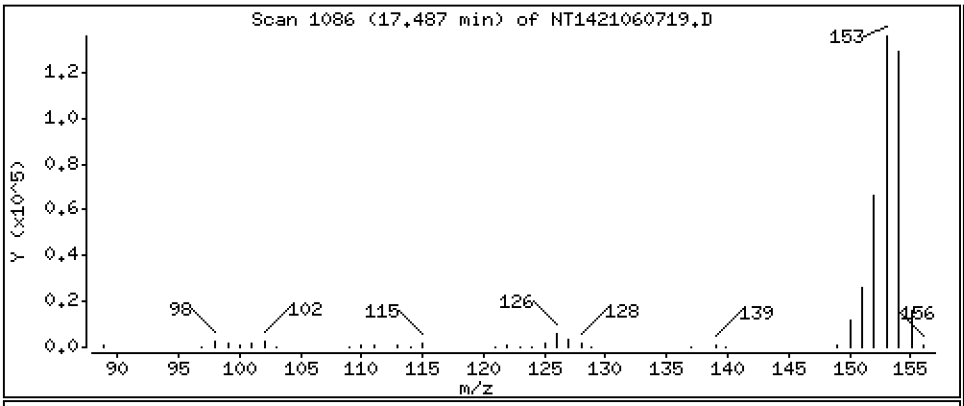
Operator: VTS

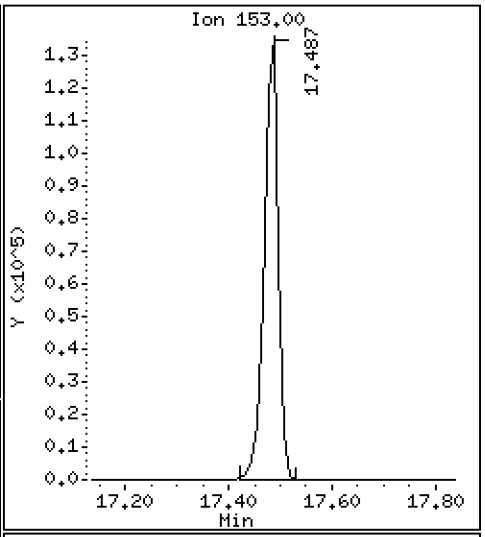
Column phase: Rxi-17Sil MS

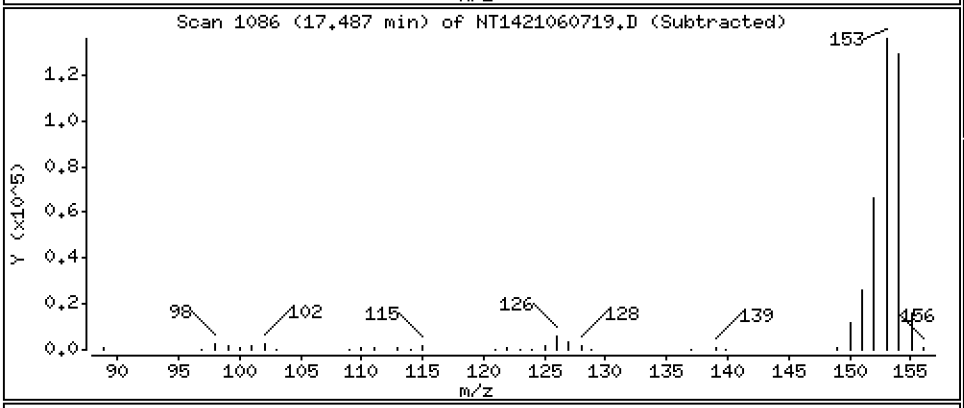
Column diameter: 0.25

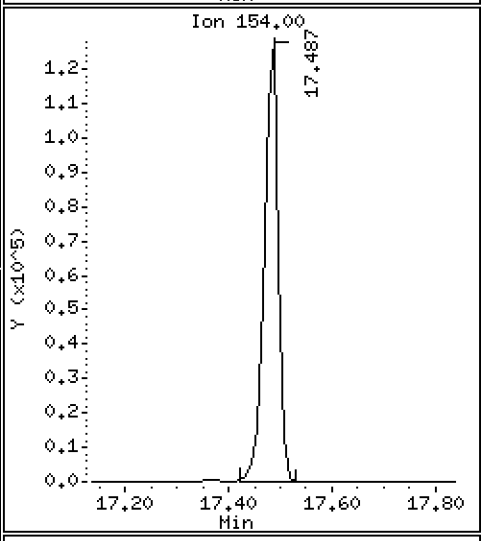
22 Acenaphthene

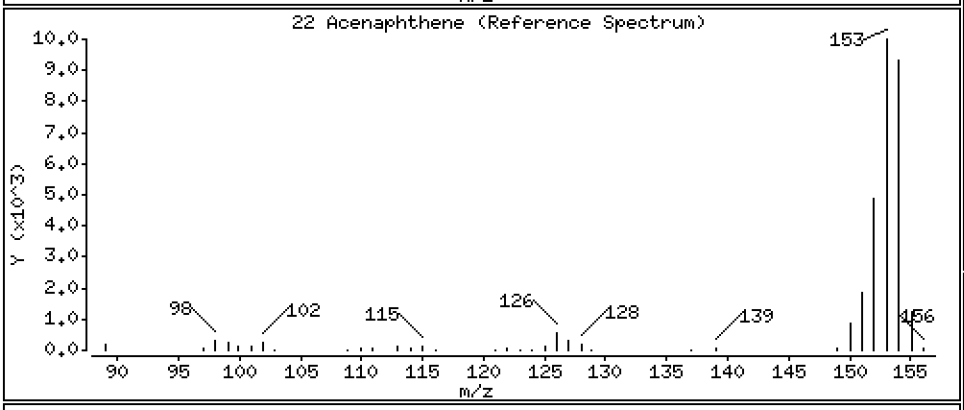
Concentration: 2.510 ug/mL

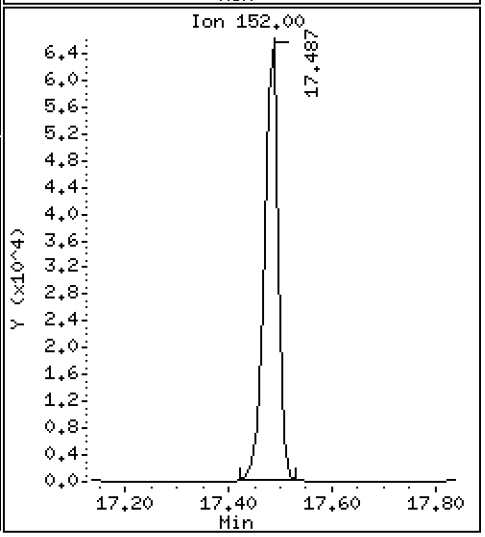


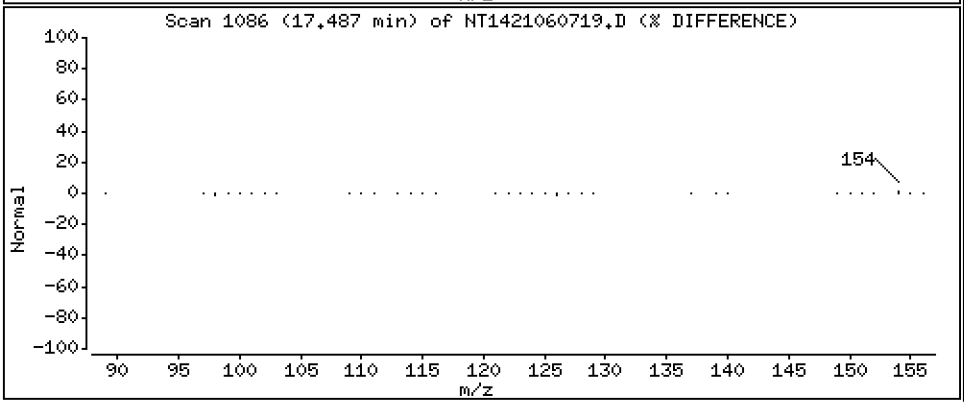












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060719.D

Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

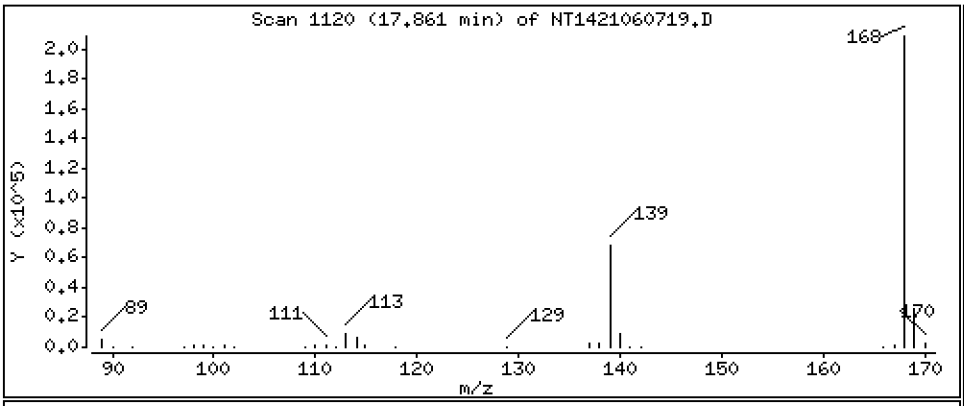
Operator: VTS

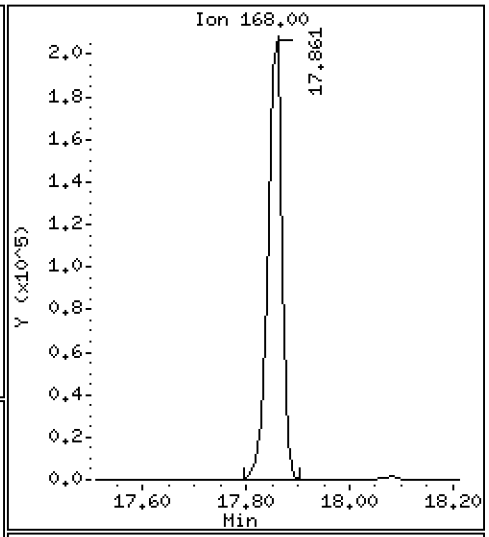
Column phase: Rxi-17Sil MS

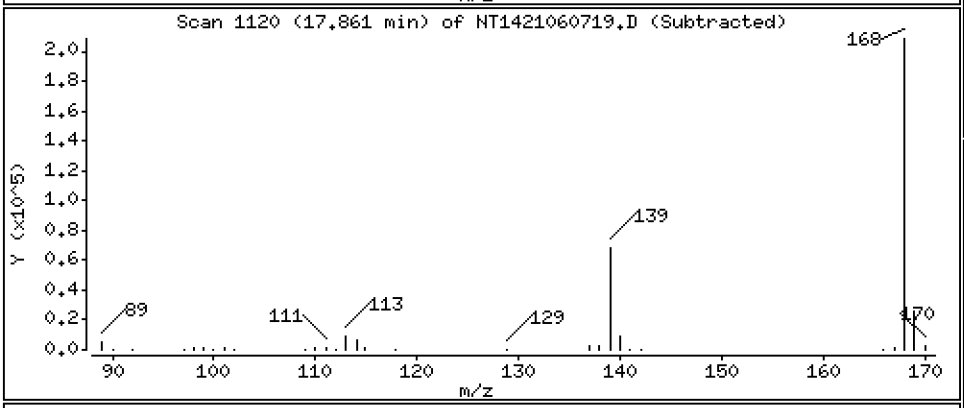
Column diameter: 0.25

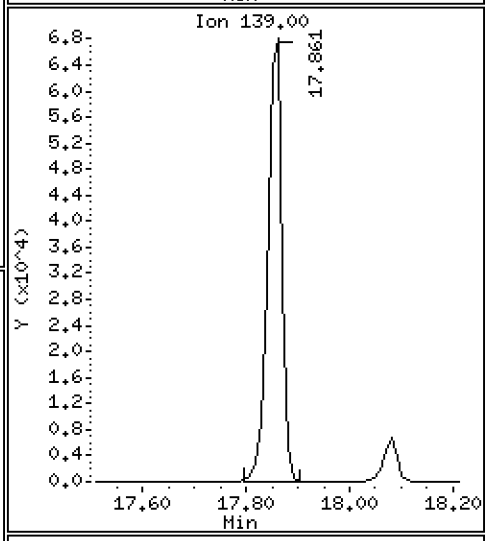
23 Dibenzofuran

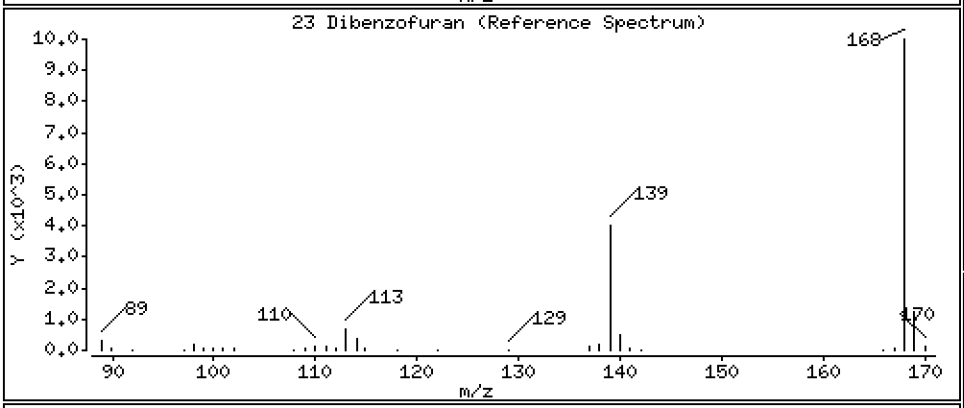
Concentration: 2.611 ug/mL

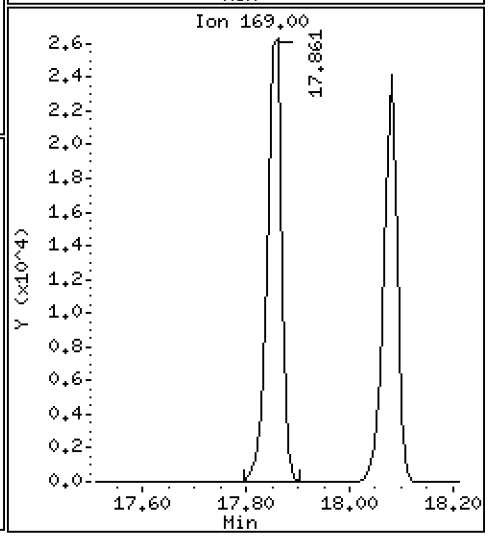


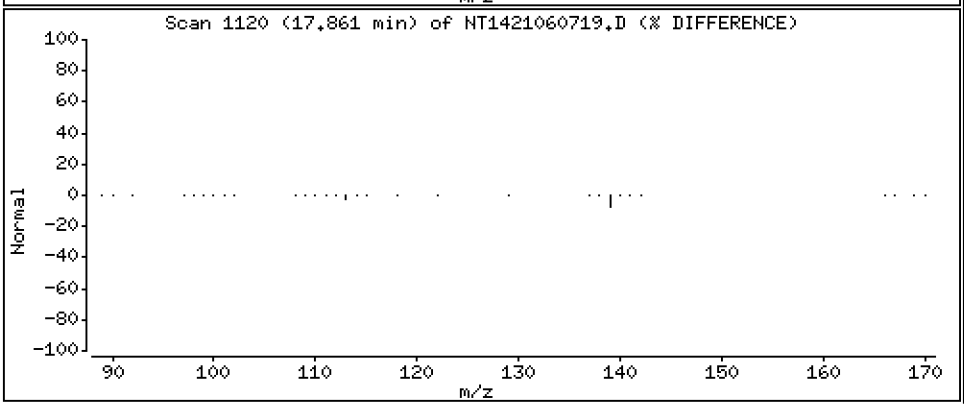












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Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

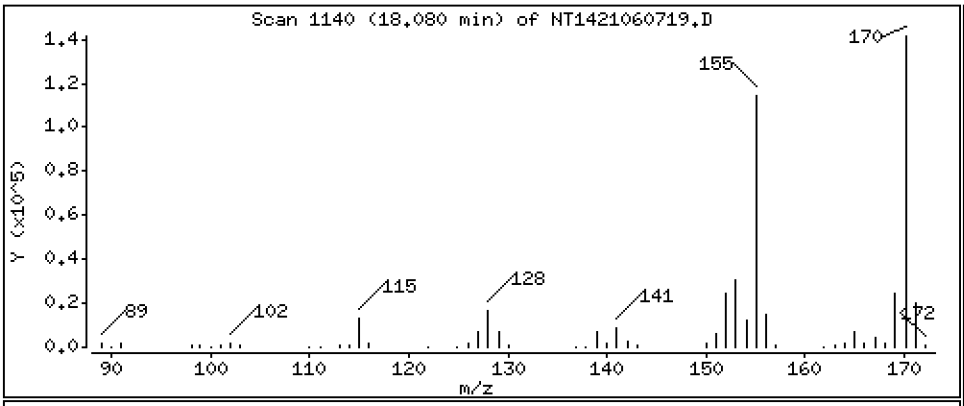
Operator: VTS

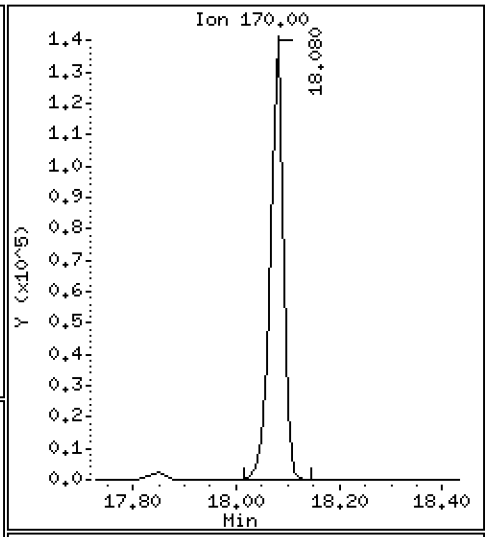
Column phase: Rxi-17Sil MS

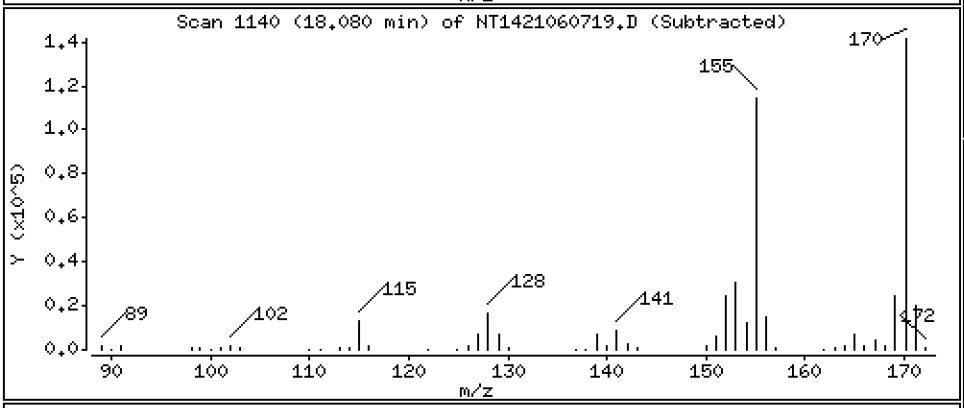
Column diameter: 0.25

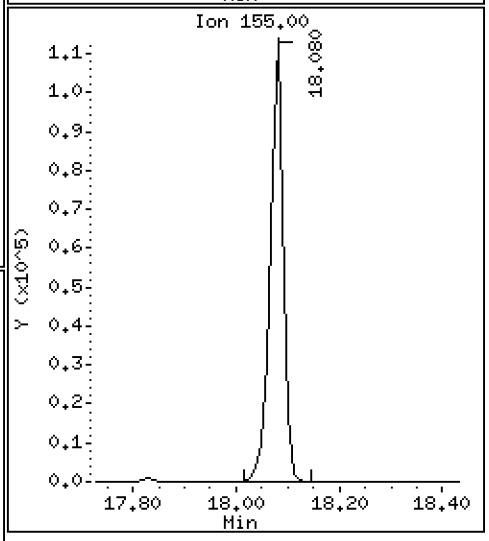
24 1,6,7-Trimethylnaphthalene

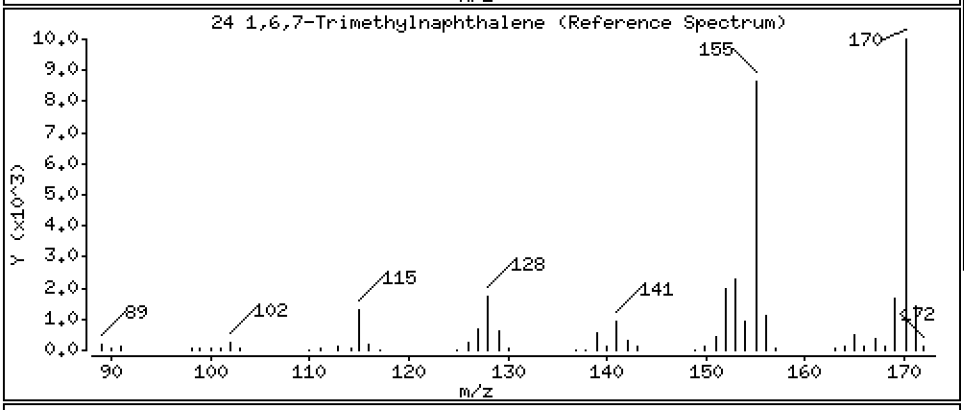
Concentration: 2.564 ug/mL

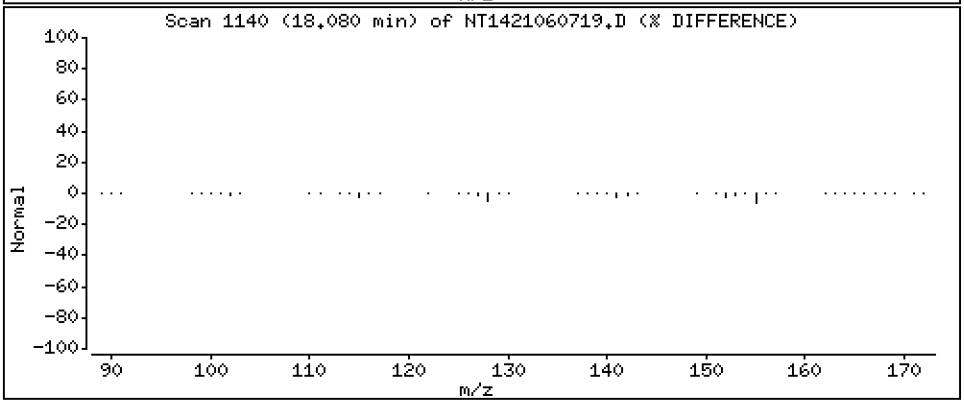












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Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

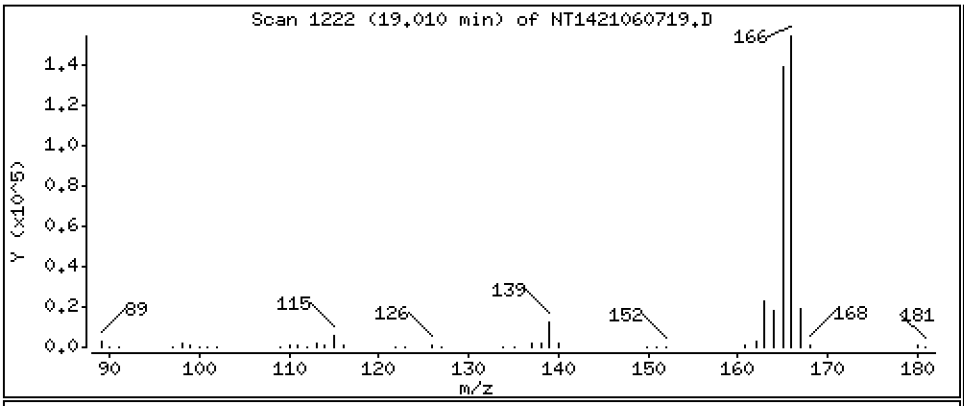
Operator: VTS

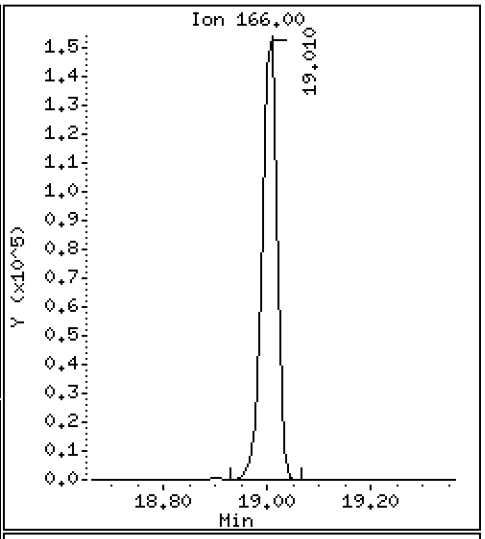
Column phase: Rxi-17Sil MS

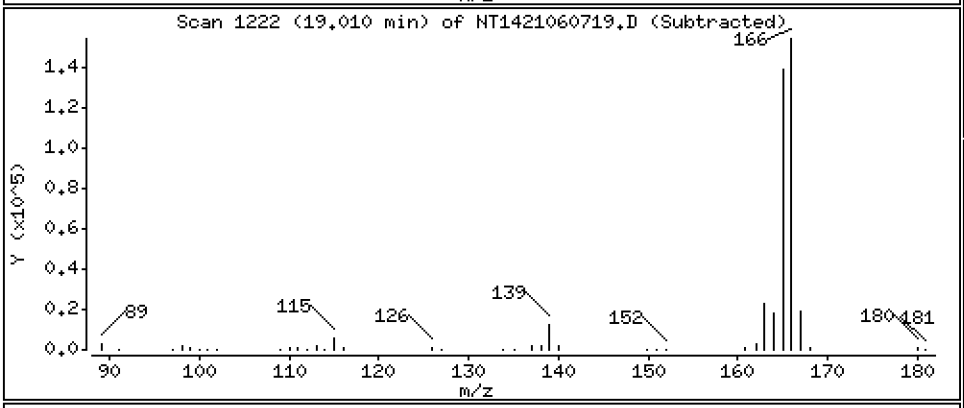
Column diameter: 0.25

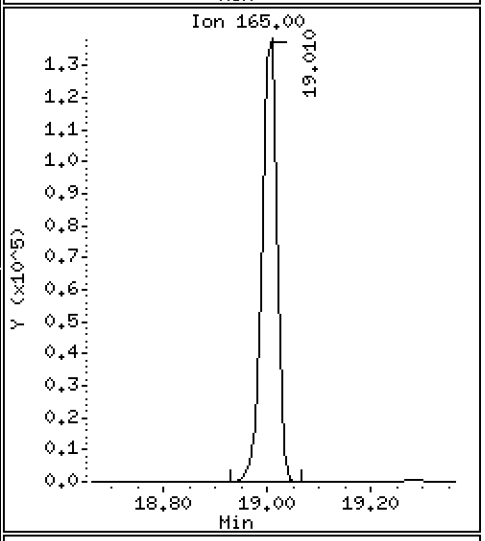
26 Fluorene

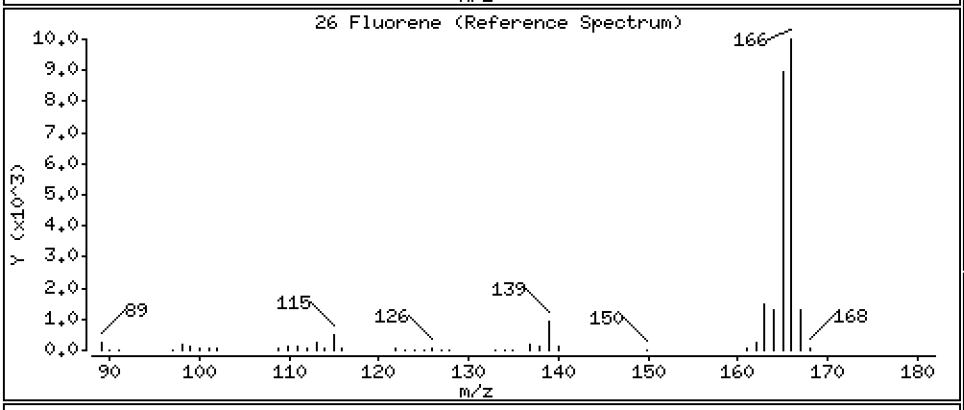
Concentration: 2.570 ug/mL

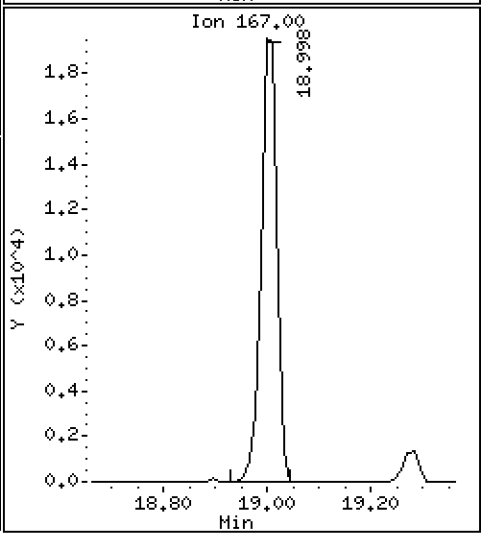


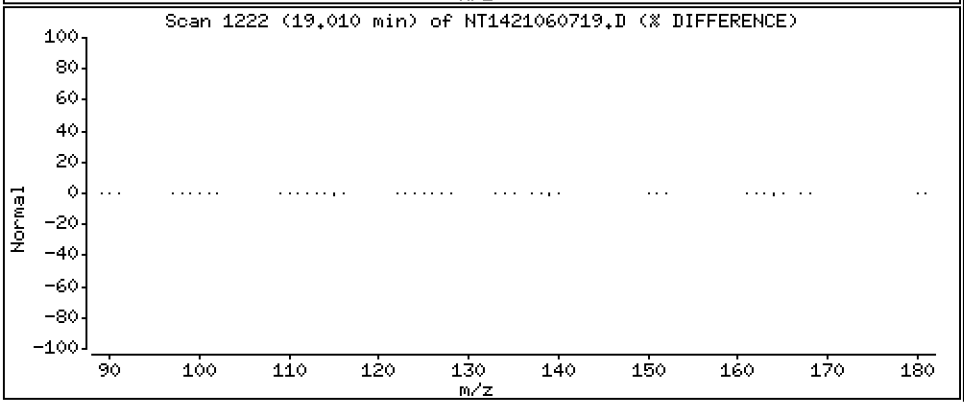












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Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

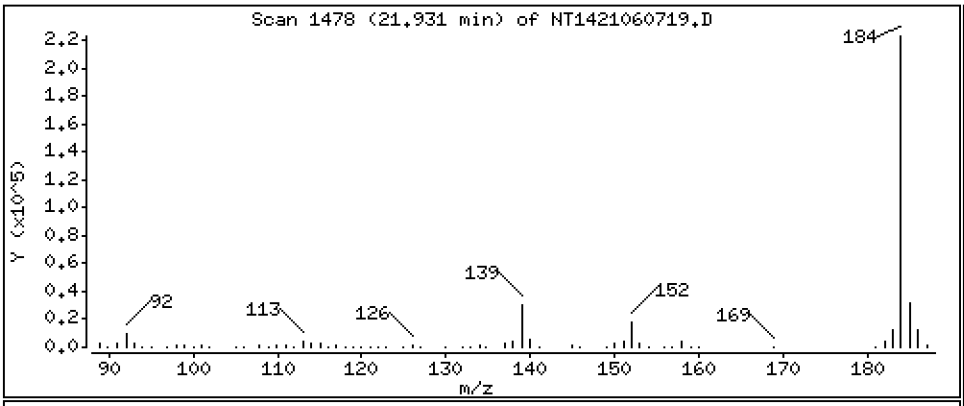
Operator: VTS

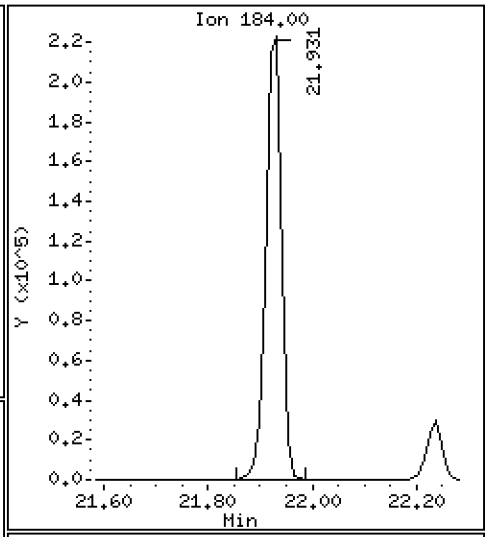
Column phase: Rxi-17Sil MS

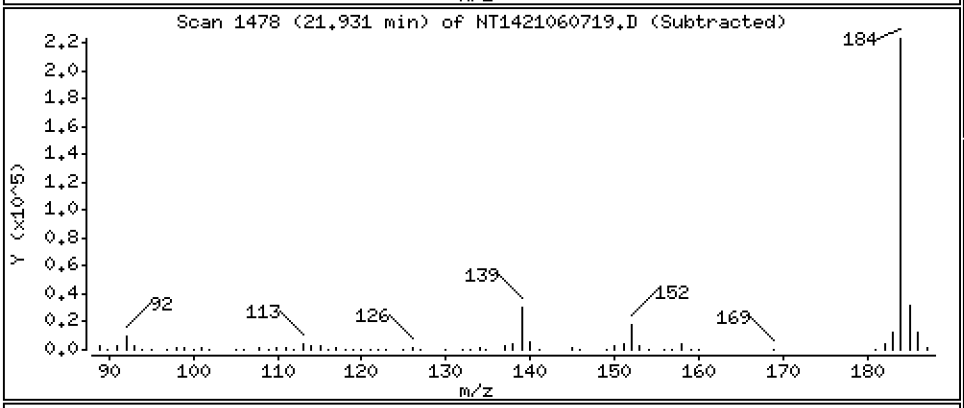
Column diameter: 0.25

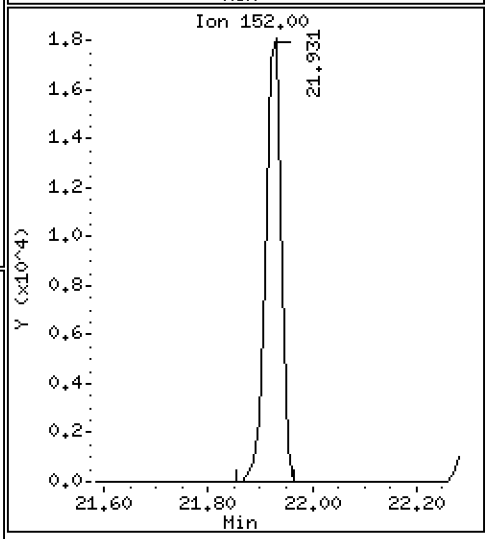
30 Dibenzothiophene

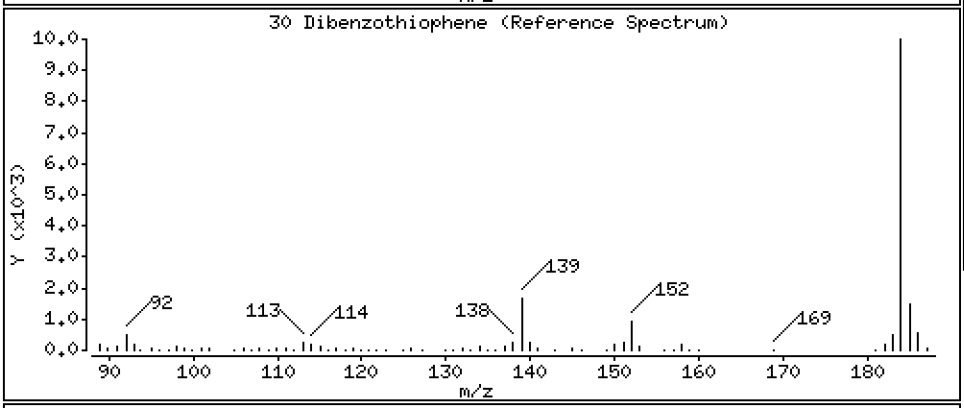
Concentration: 2.621 ug/mL

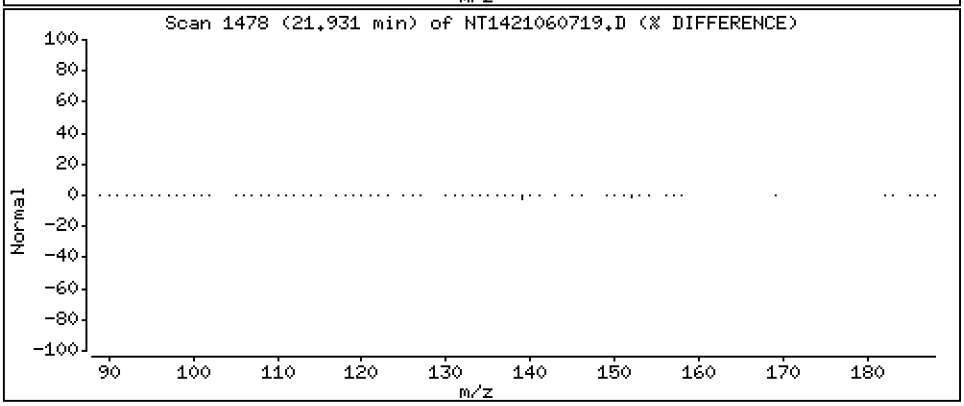












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Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

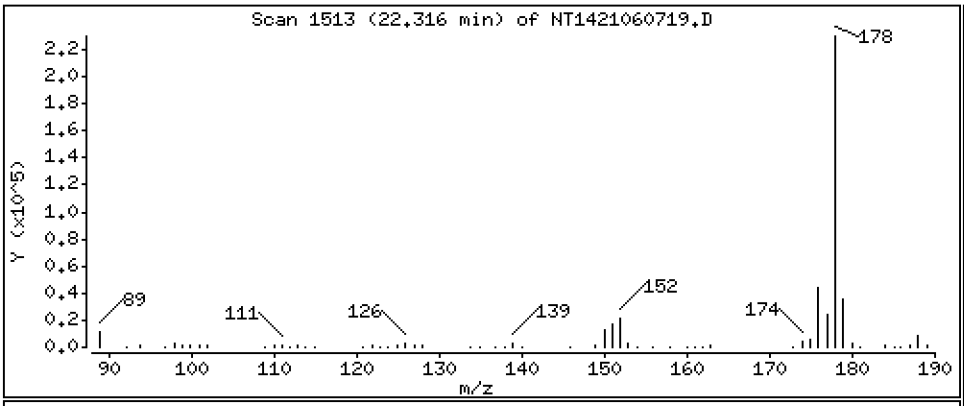
Operator: VTS

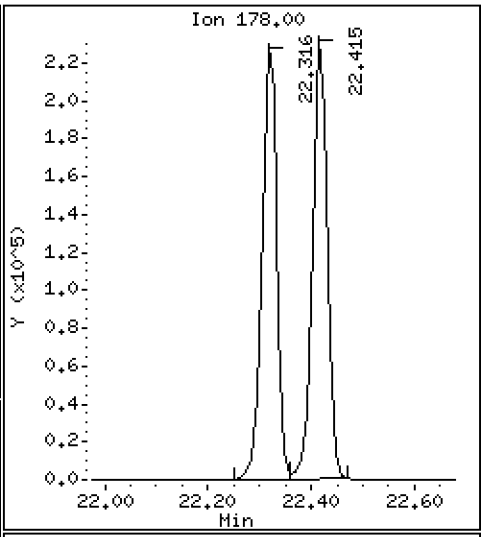
Column phase: Rxi-17Sil MS

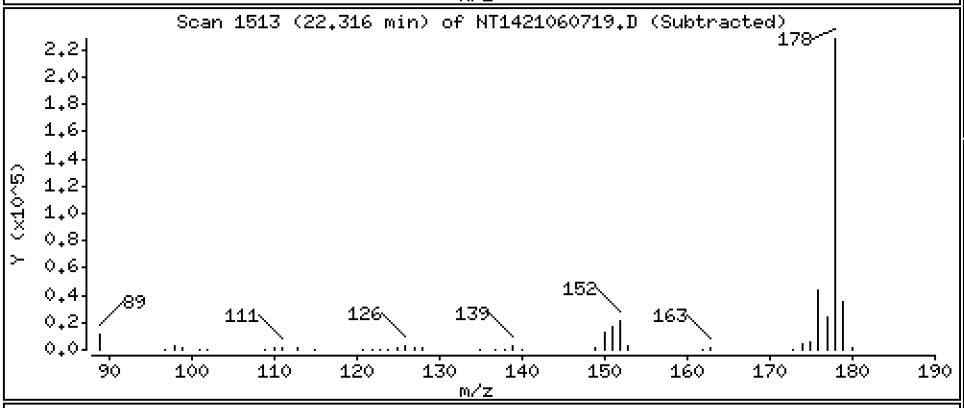
Column diameter: 0.25

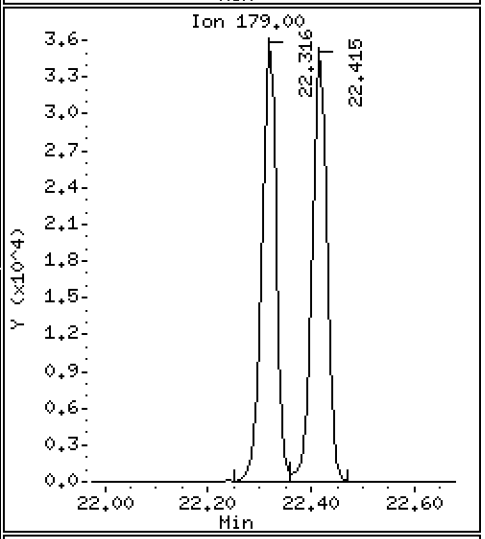
36 Phenanthrene

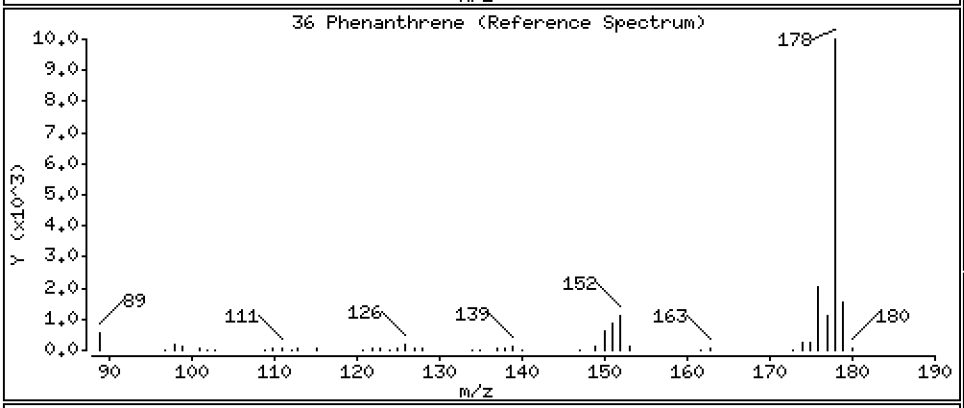
Concentration: 2.529 ug/mL

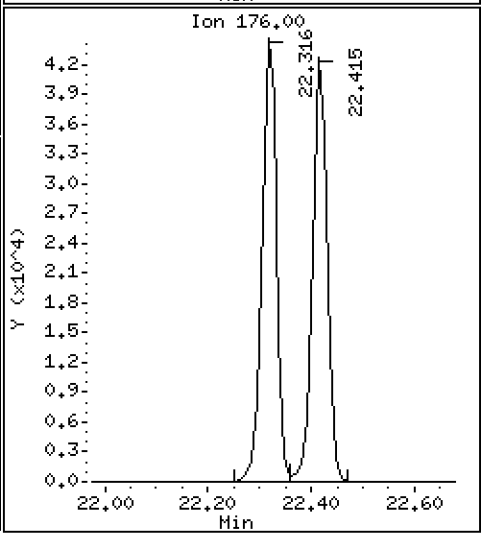


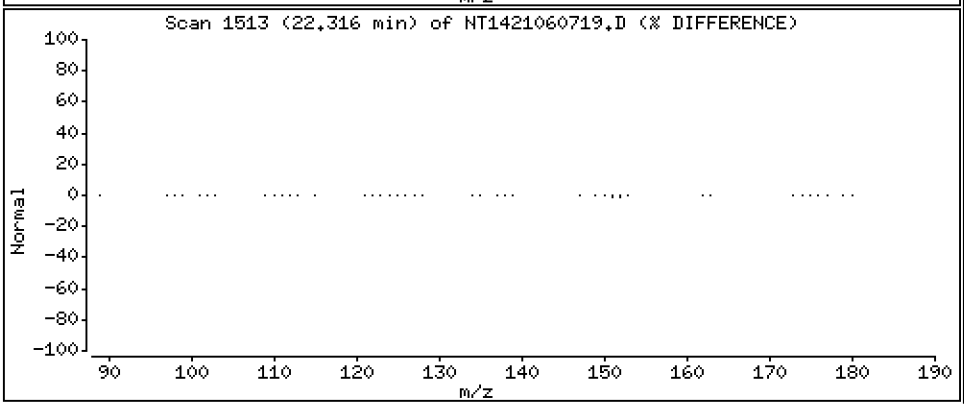












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Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

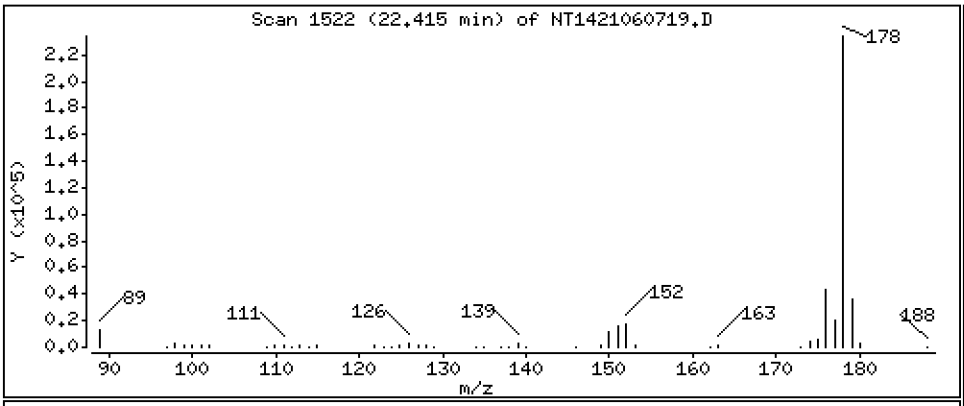
Operator: VTS

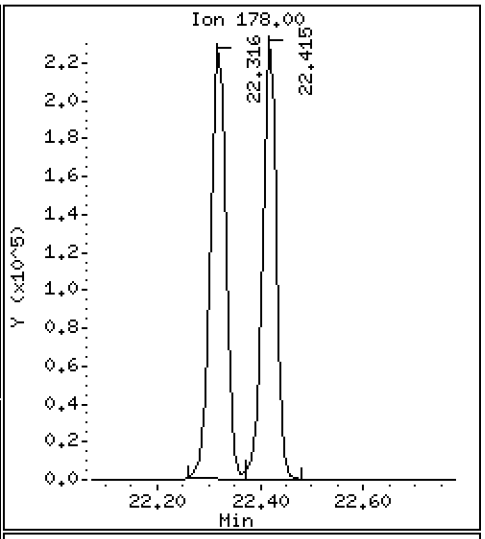
Column phase: Rxi-17Sil MS

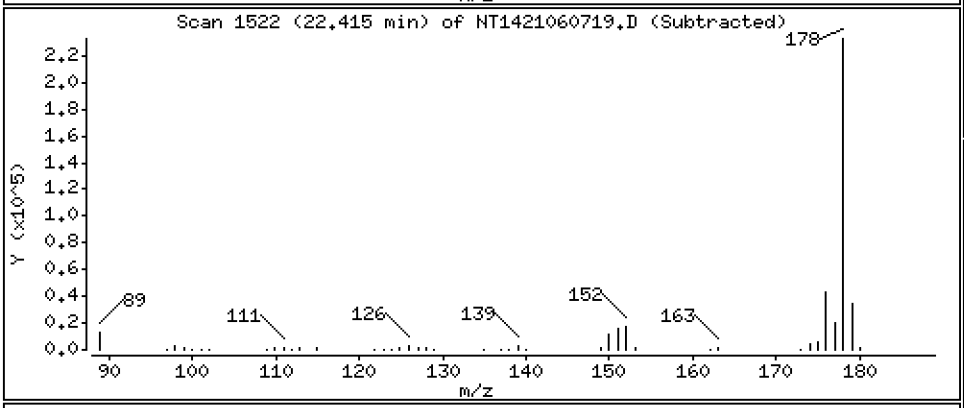
Column diameter: 0.25

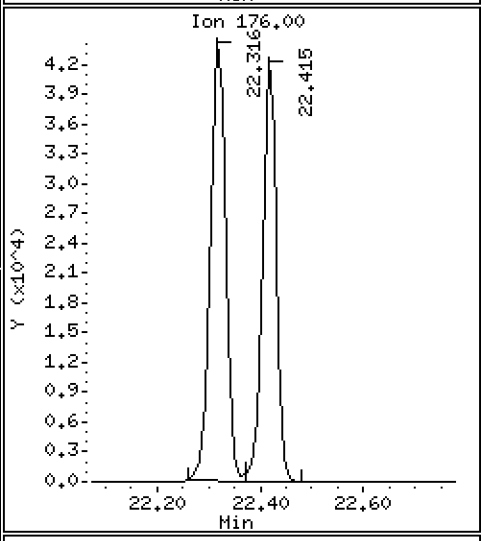
37 Anthracene

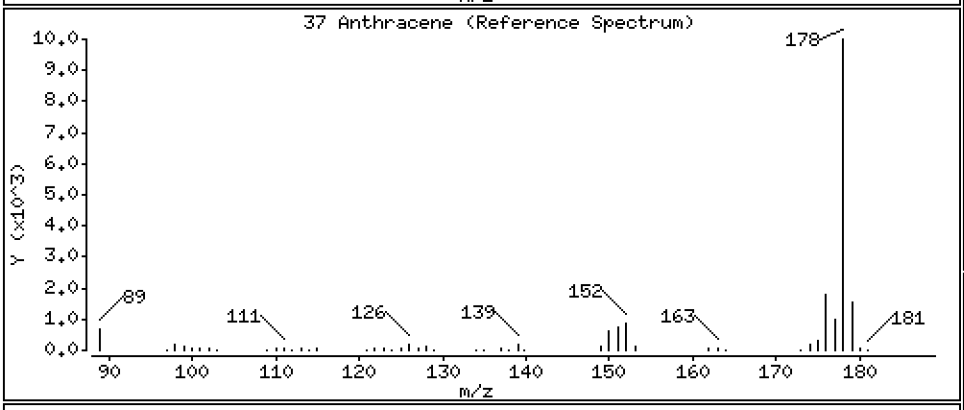
Concentration: 2.546 ug/mL

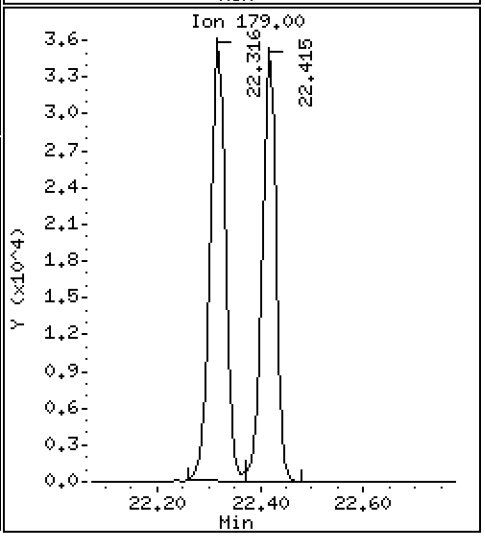


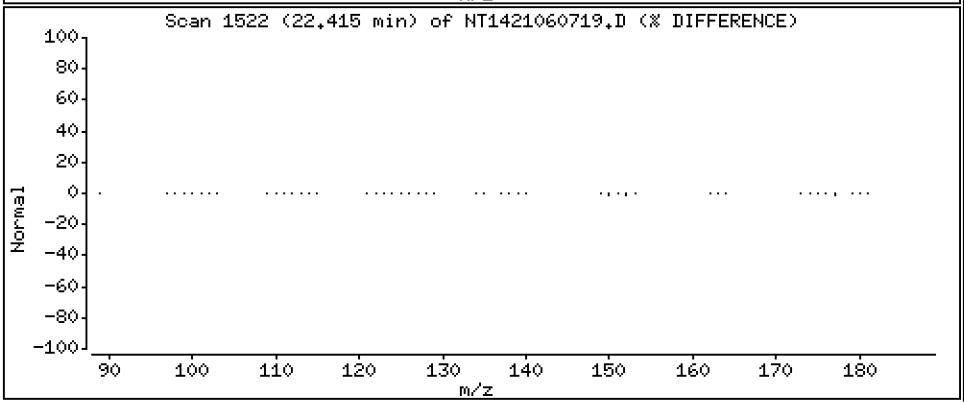












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Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

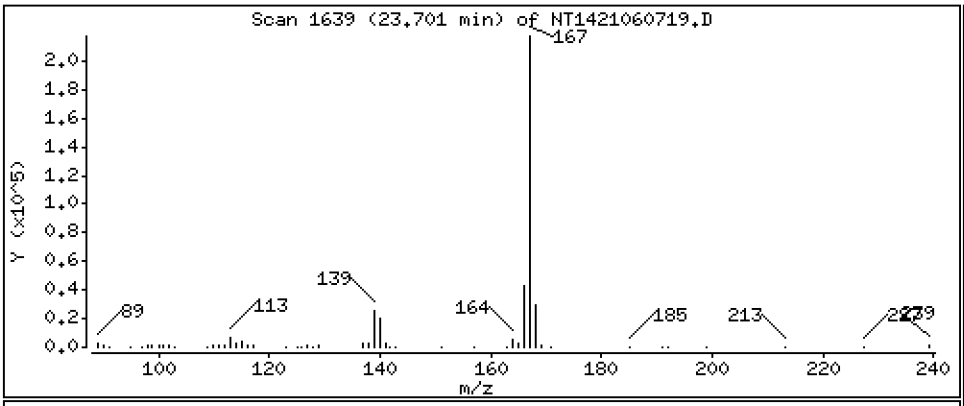
Operator: VTS

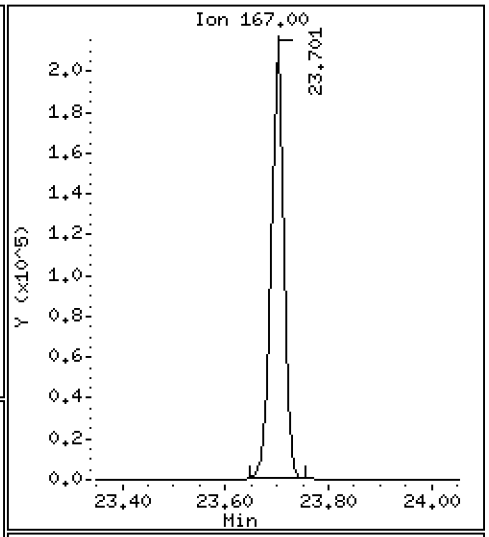
Column phase: Rxi-17Sil MS

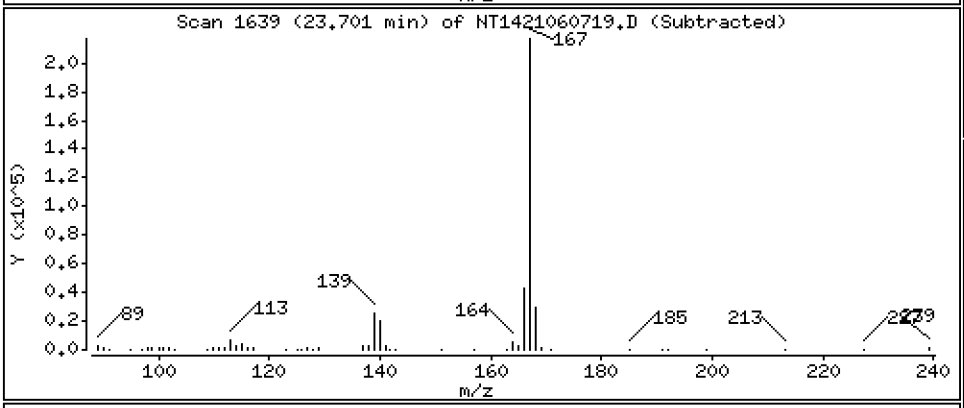
Column diameter: 0.25

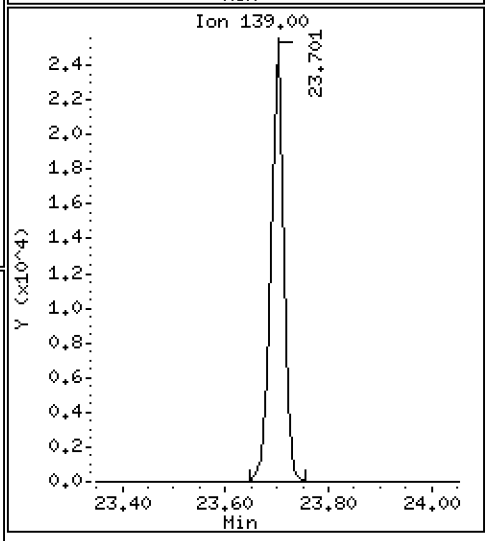
42 Carbazole

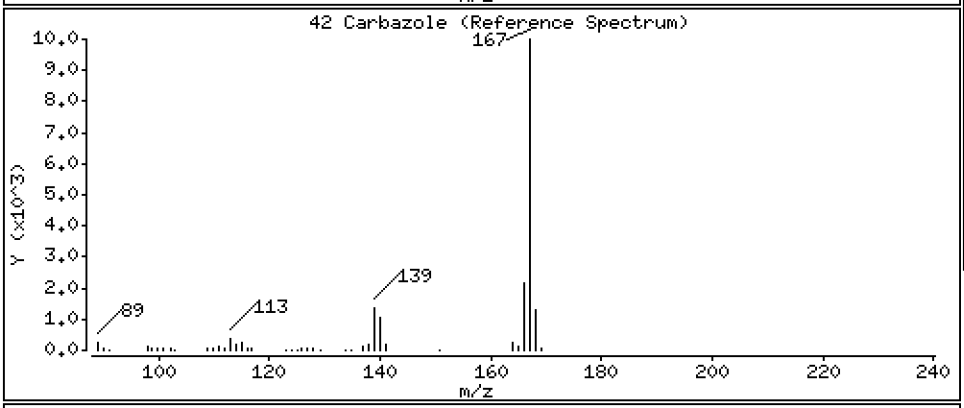
Concentration: 2.409 ug/mL

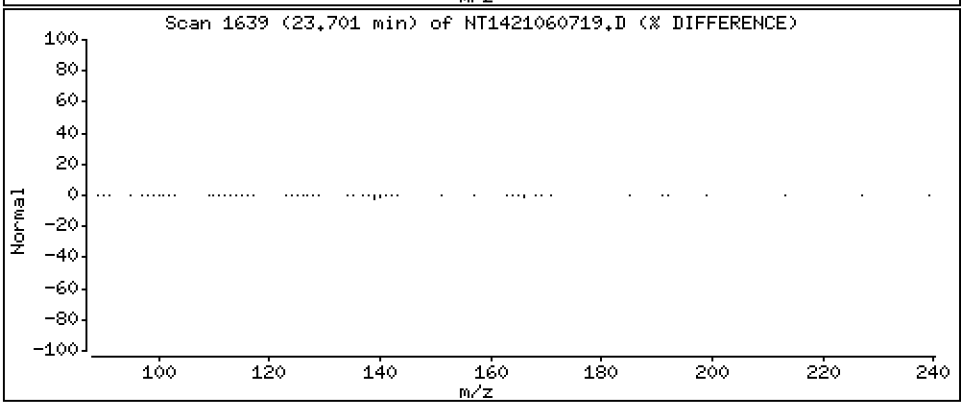












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060719.D

Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

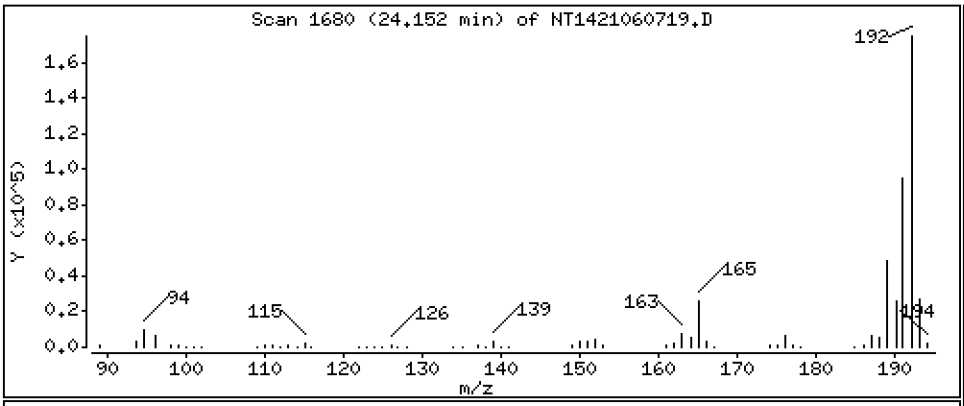
Operator: VTS

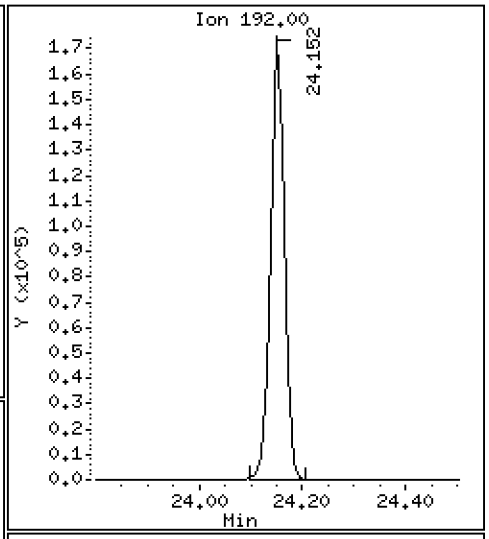
Column phase: Rxi-17Sil MS

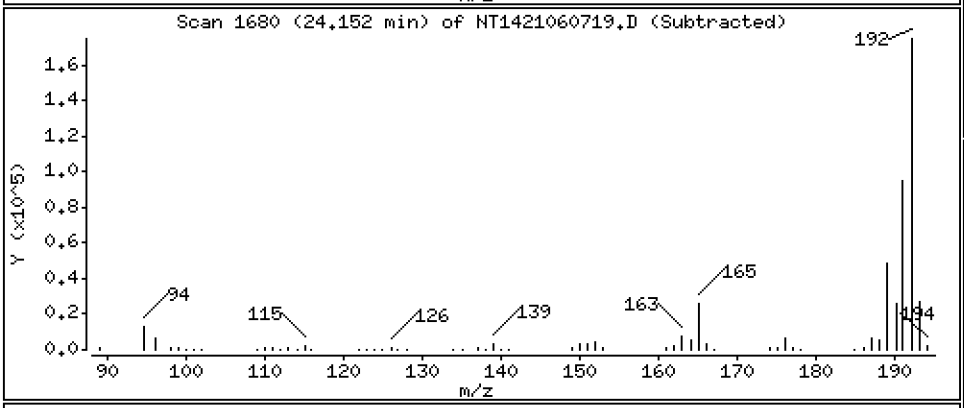
Column diameter: 0.25

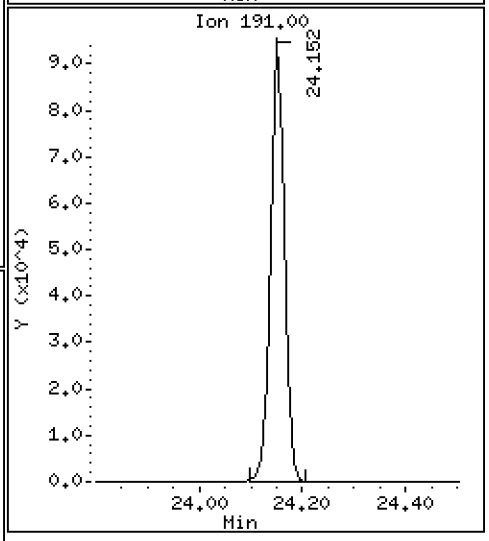
43 1-Methylphenanthrene

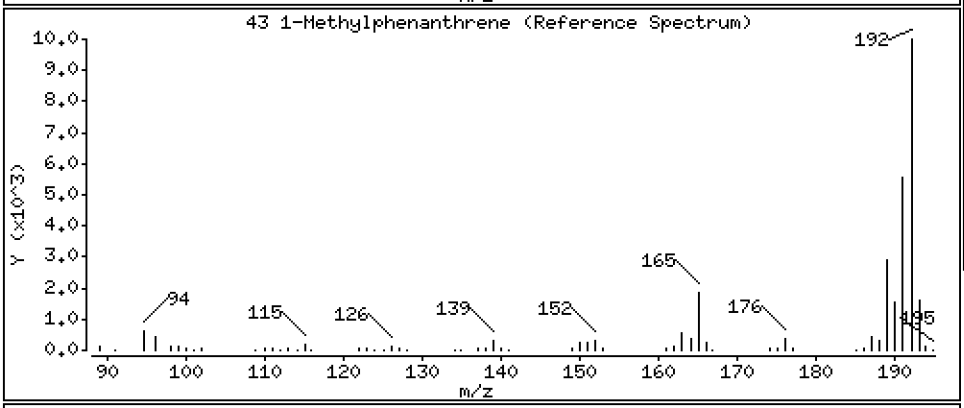
Concentration: 2.568 ug/mL

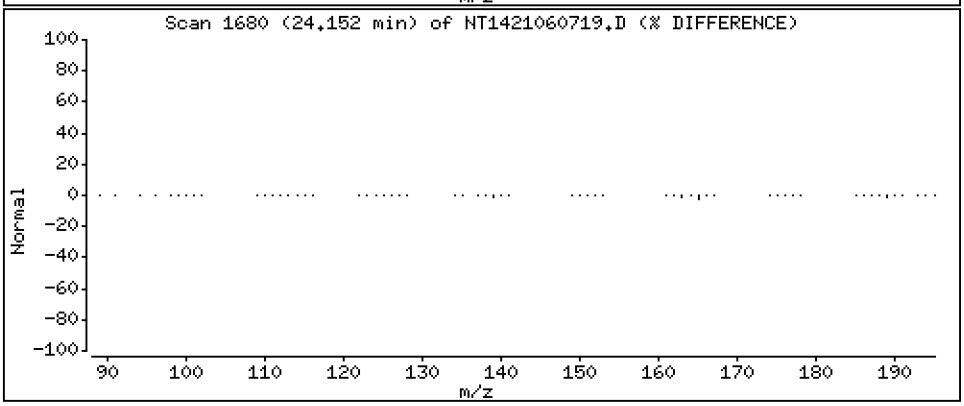












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060719.D

Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

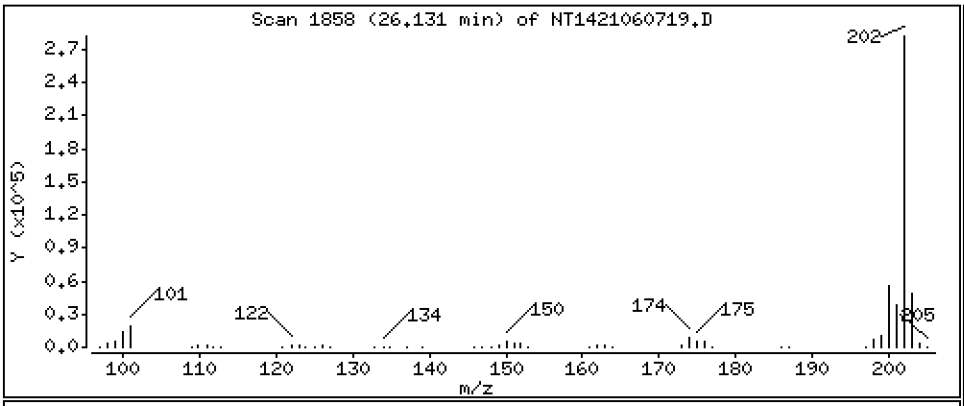
Operator: VTS

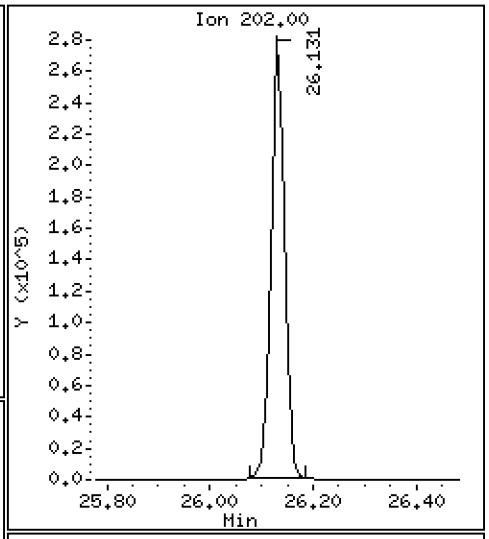
Column phase: Rxi-17Sil MS

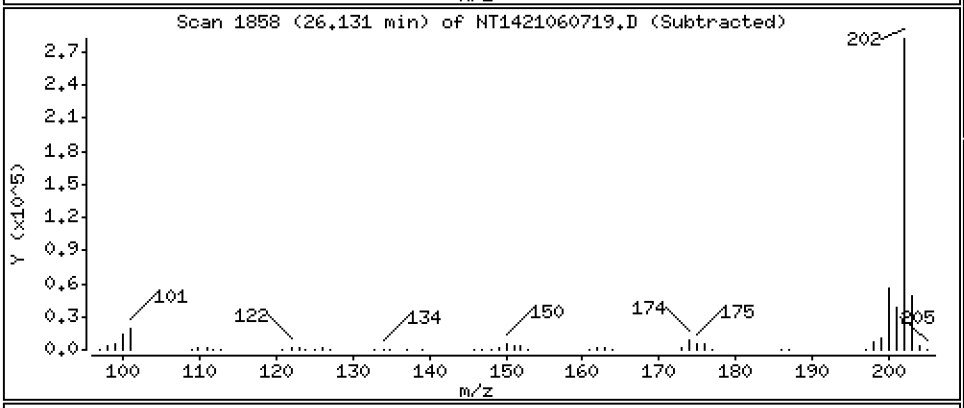
Column diameter: 0.25

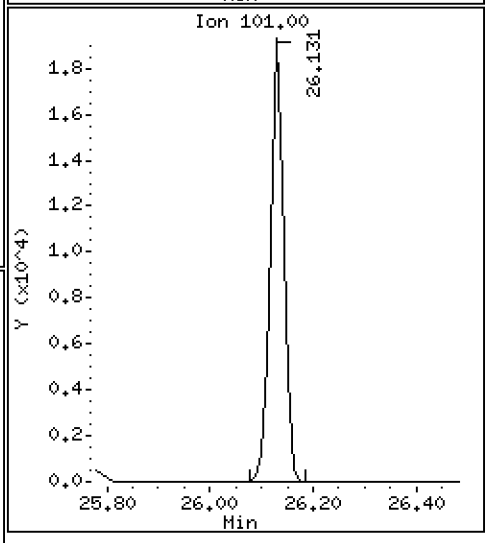
44 Fluoranthene

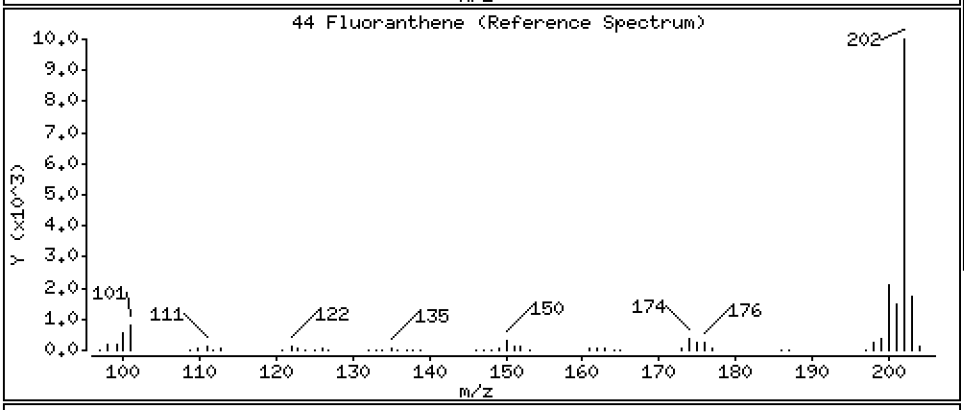
Concentration: 2.636 ug/mL

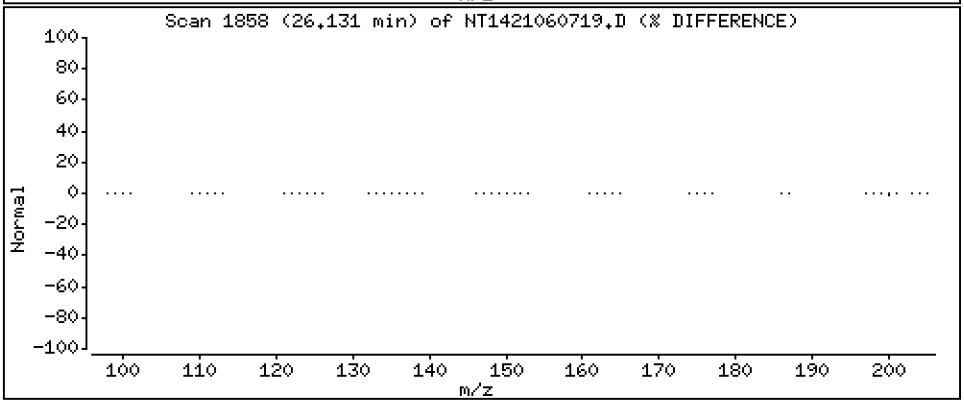












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060719.D

Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

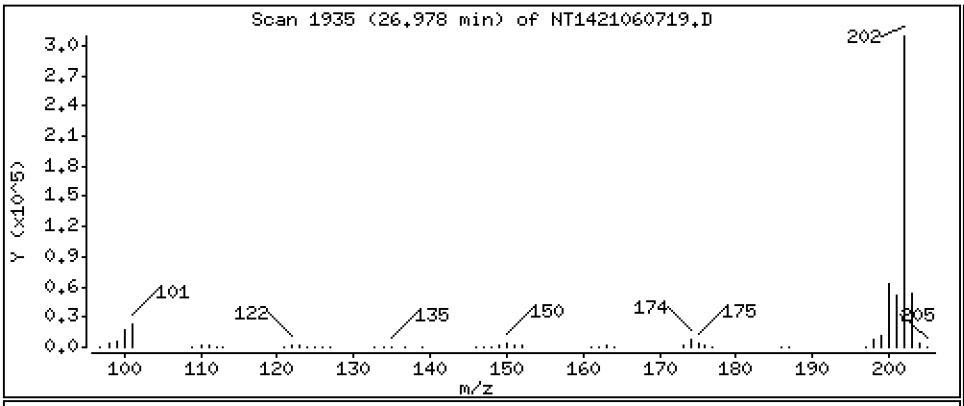
Operator: VTS

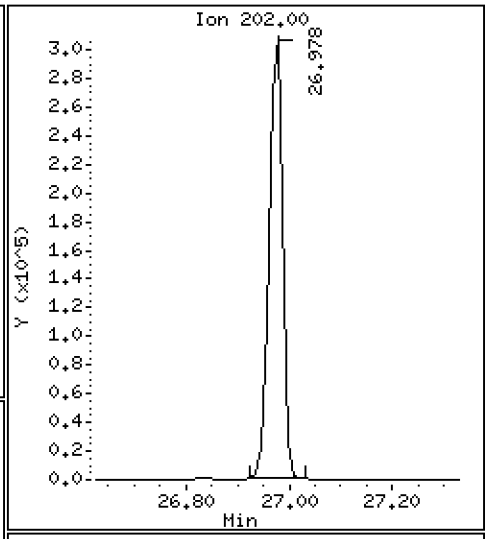
Column phase: Rxi-17Sil MS

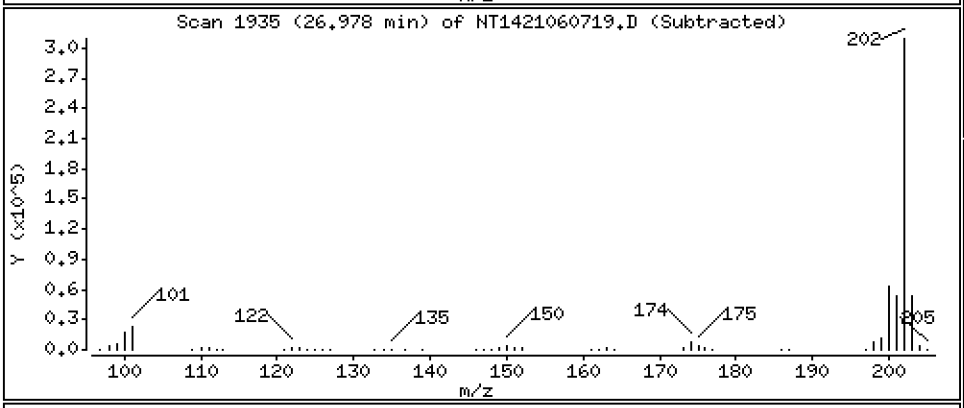
Column diameter: 0.25

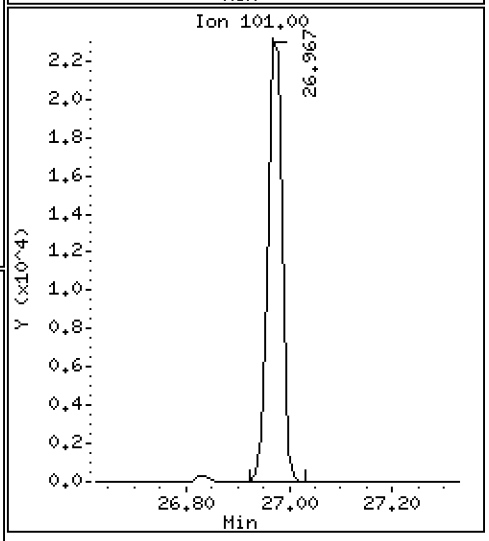
46 Pyrene

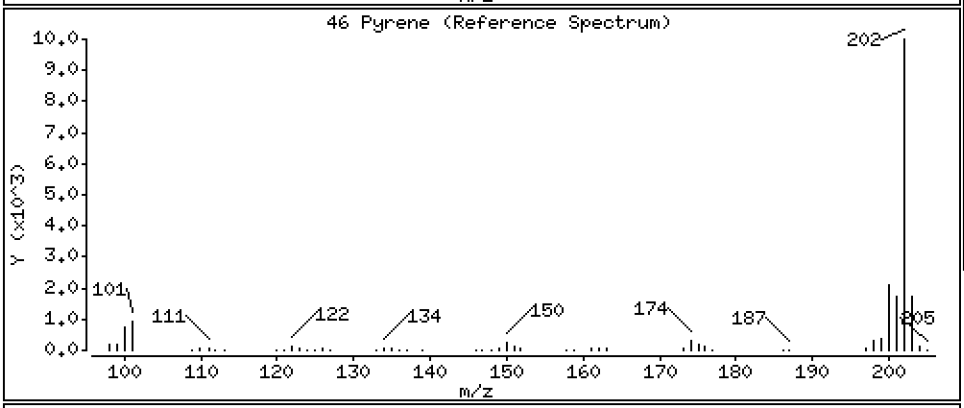
Concentration: 2.648 ug/mL

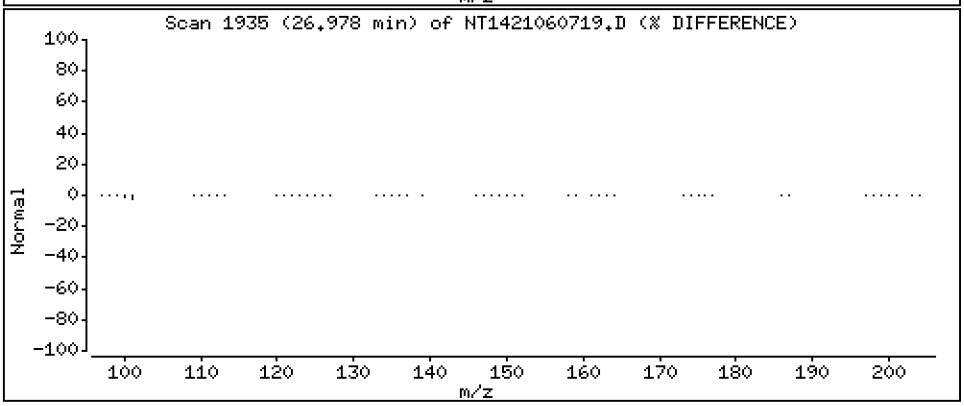












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060719.D

Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

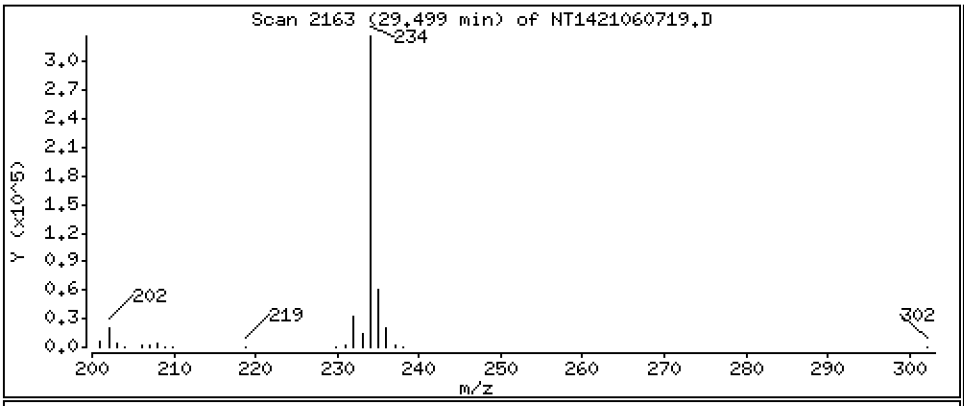
Operator: VTS

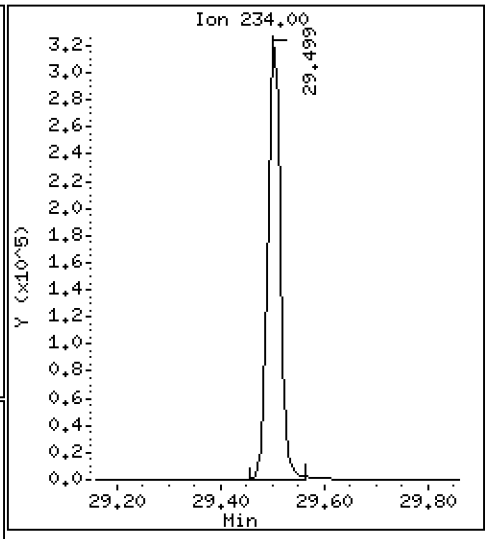
Column phase: Rxi-17Sil MS

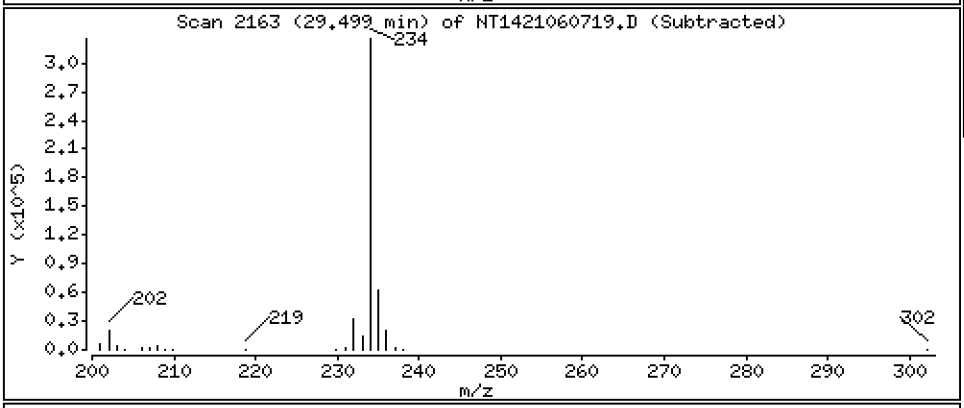
Column diameter: 0.25

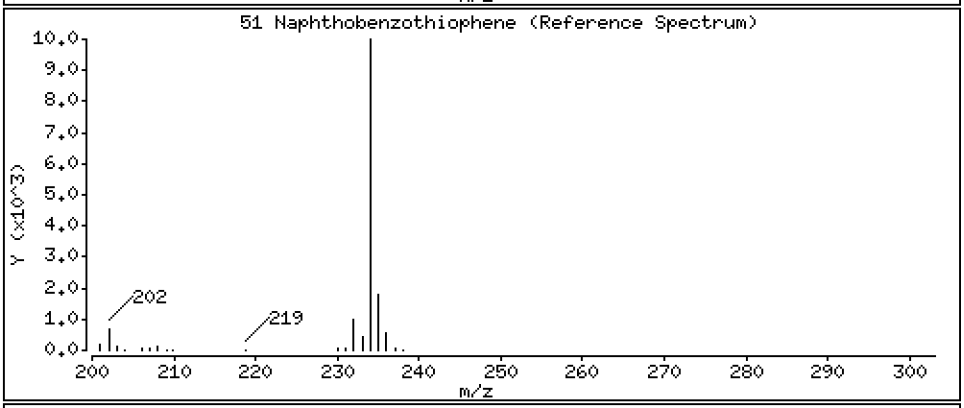
51 Naphthobenzothiophene

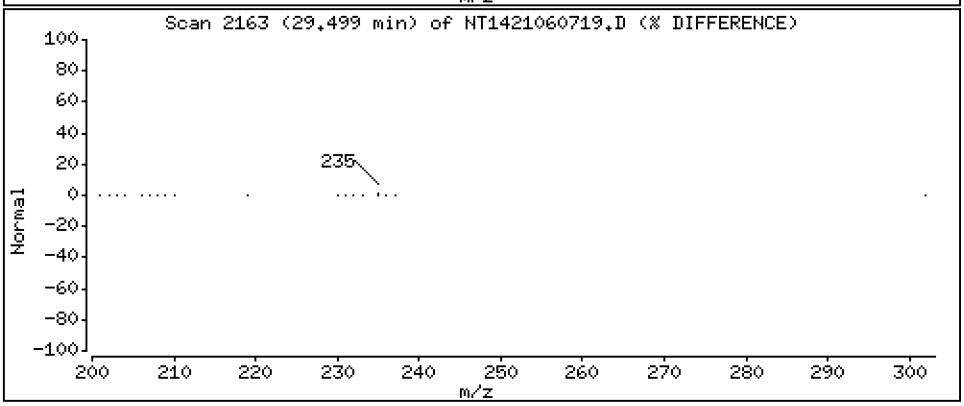
Concentration: 2.502 ug/mL











Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060719.D

Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

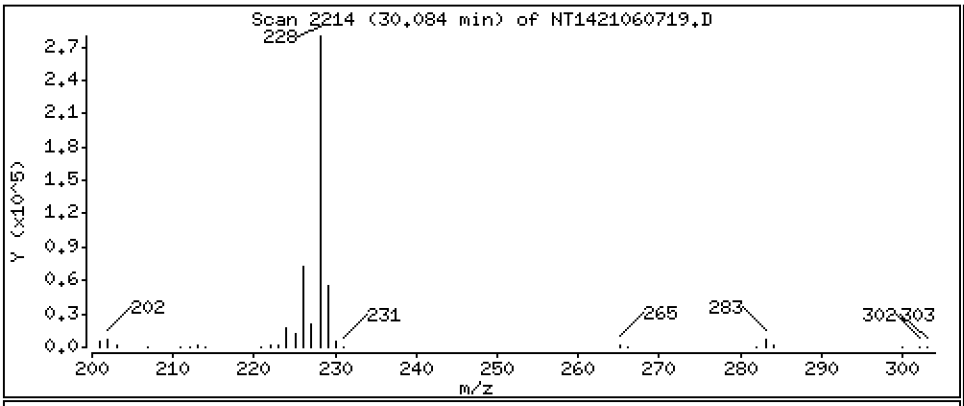
Operator: VTS

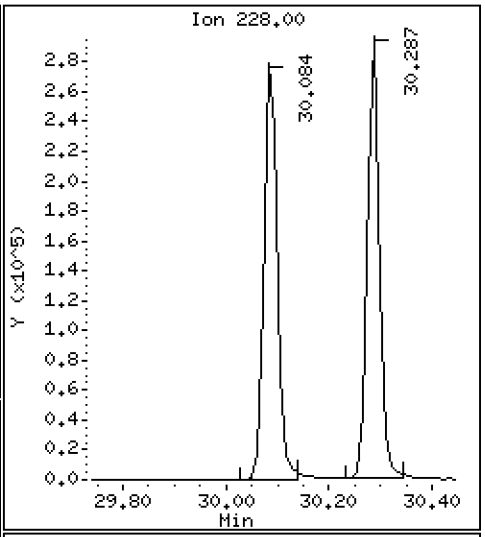
Column phase: Rxi-17Sil MS

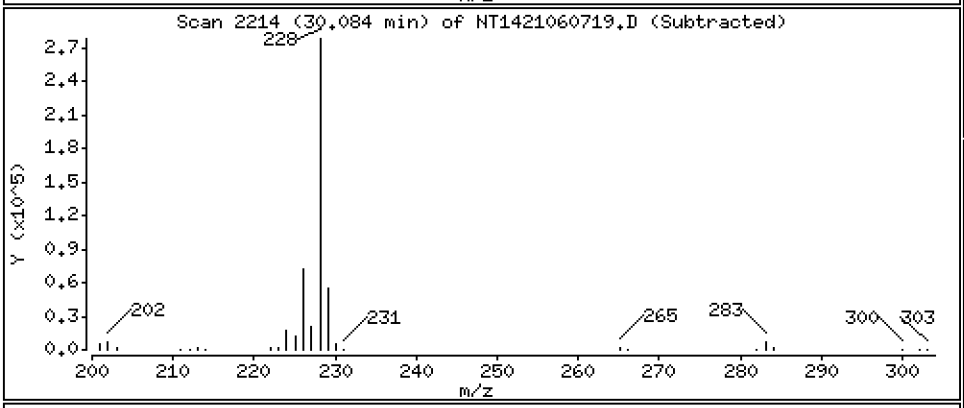
Column diameter: 0.25

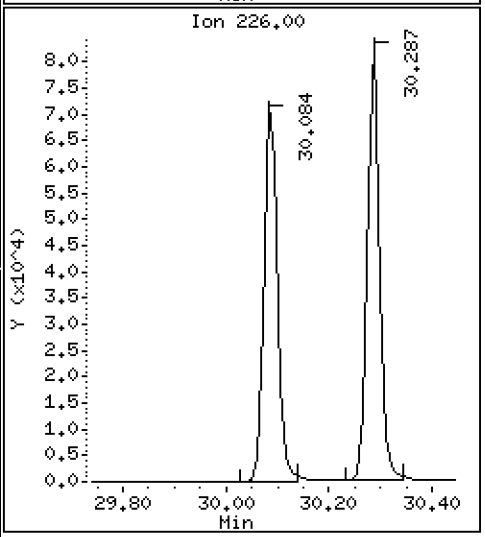
55 Benzo(a)anthracene

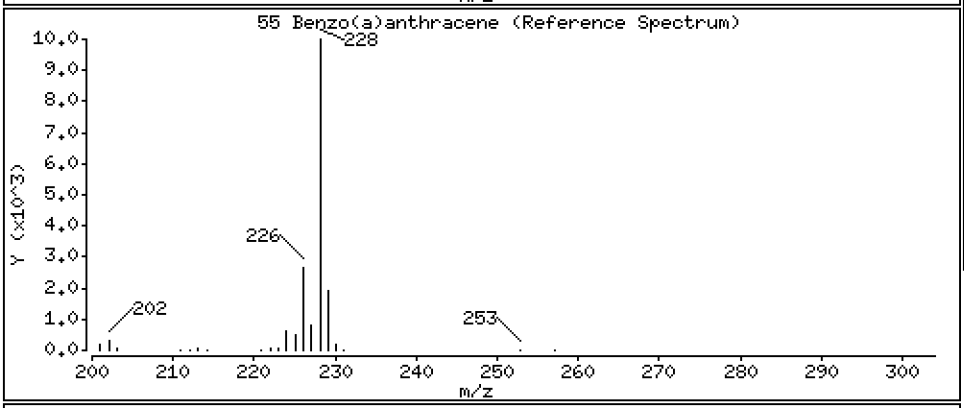
Concentration: 2.872 ug/mL

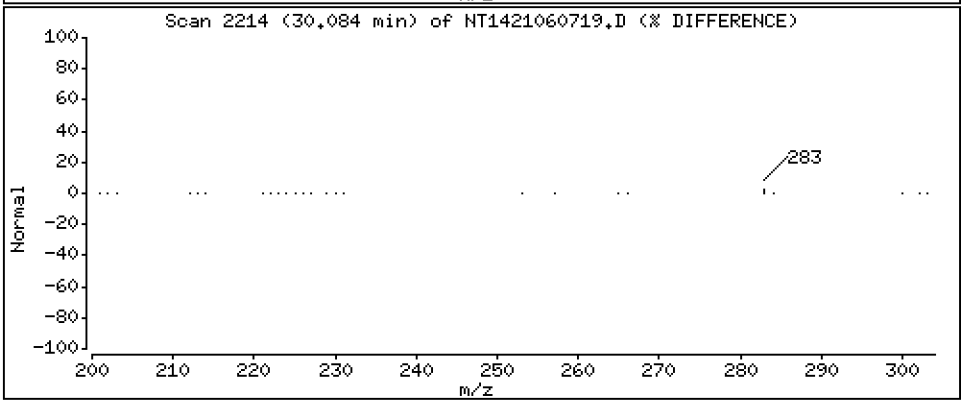












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060719.D

Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

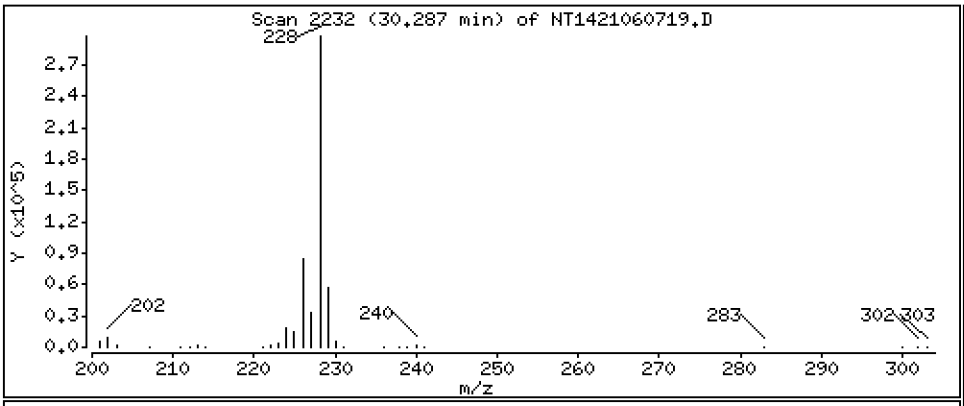
Operator: VTS

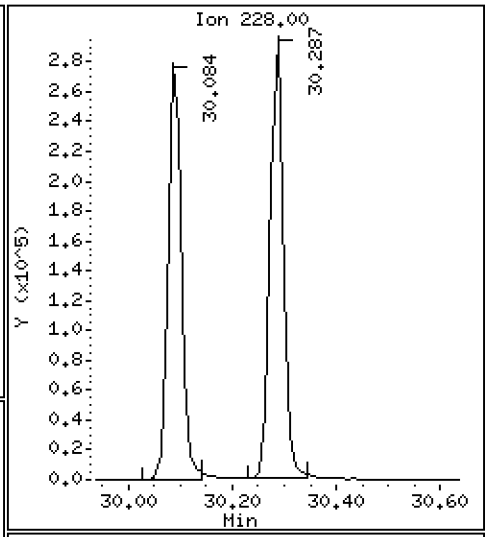
Column phase: Rxi-17Sil MS

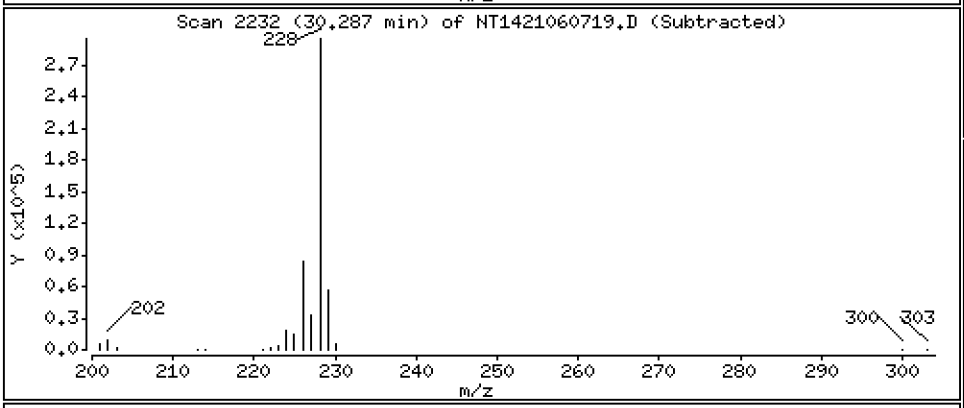
Column diameter: 0.25

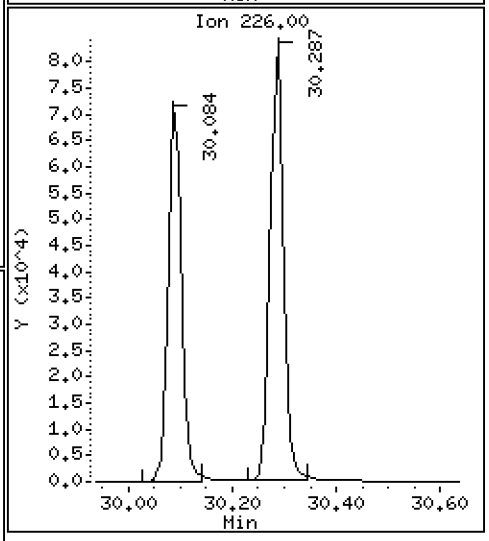
57 Chrysene

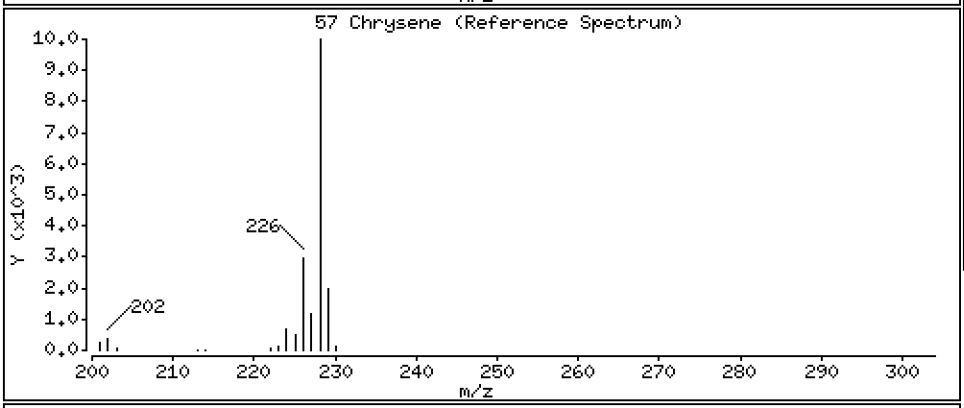
Concentration: 2.791 ug/mL

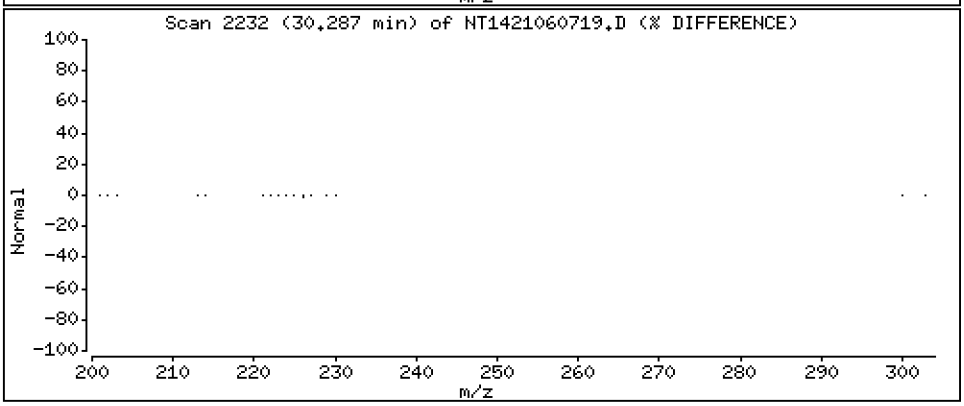












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060719.D

Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

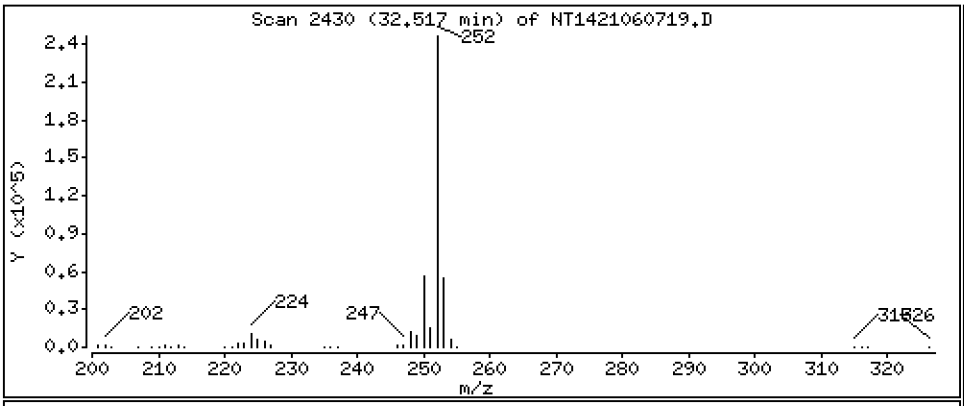
Operator: VTS

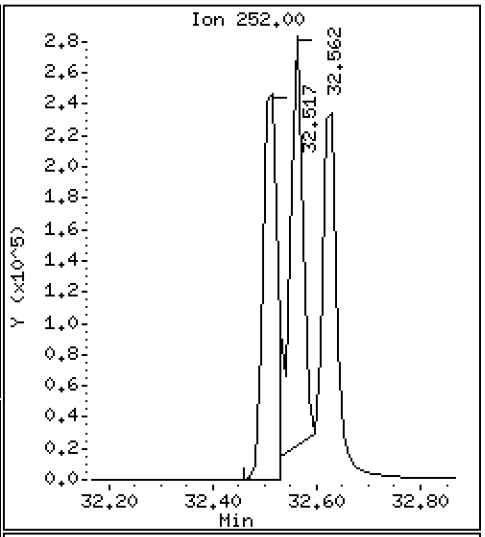
Column phase: Rxi-17Sil MS

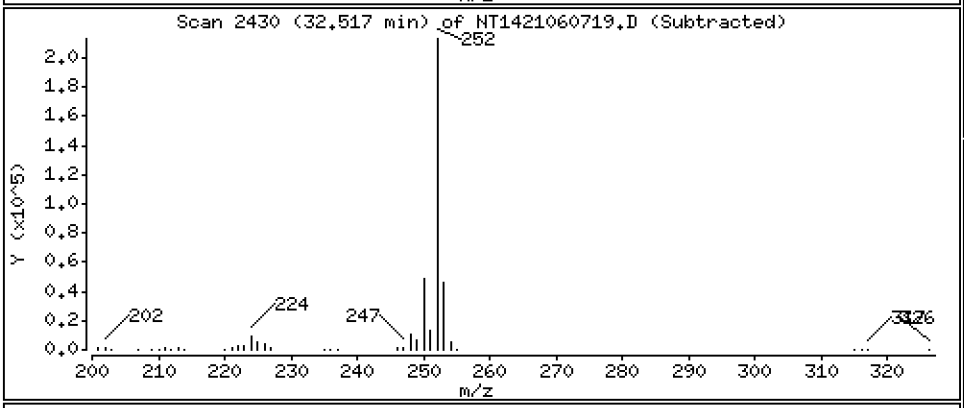
Column diameter: 0.25

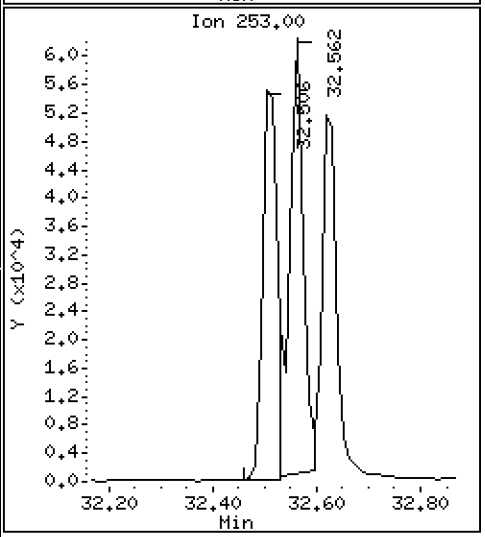
62 Benzo(b)fluoranthene

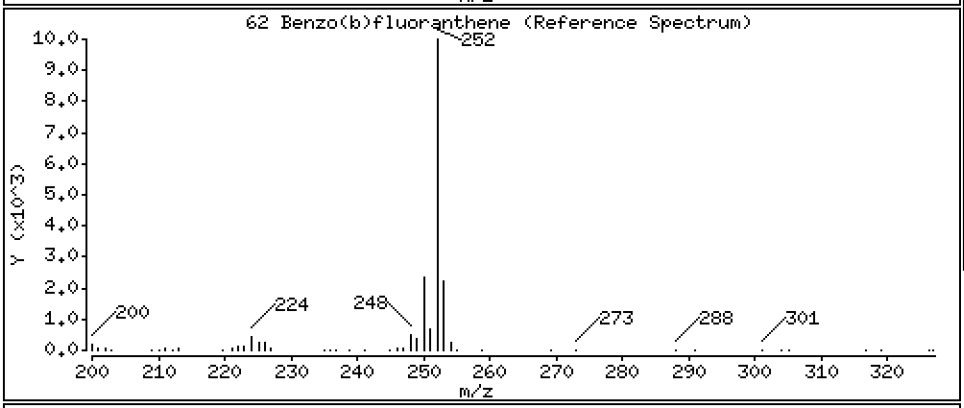
Concentration: 2.516 ug/mL

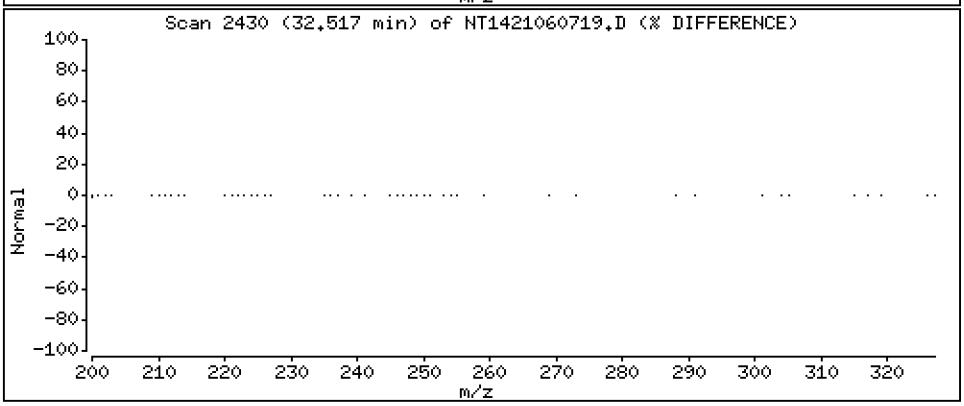












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060719.D

Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

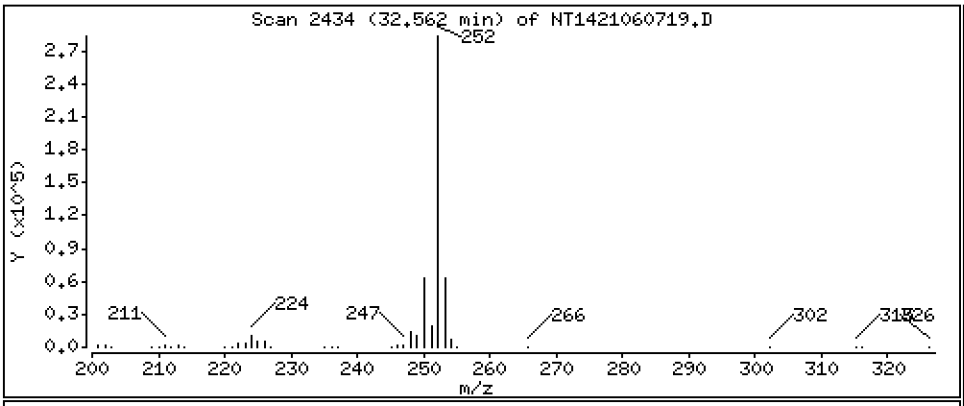
Operator: VTS

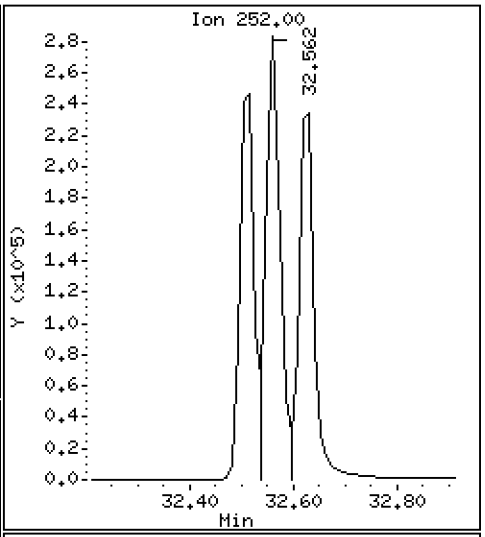
Column phase: Rxi-17Sil MS

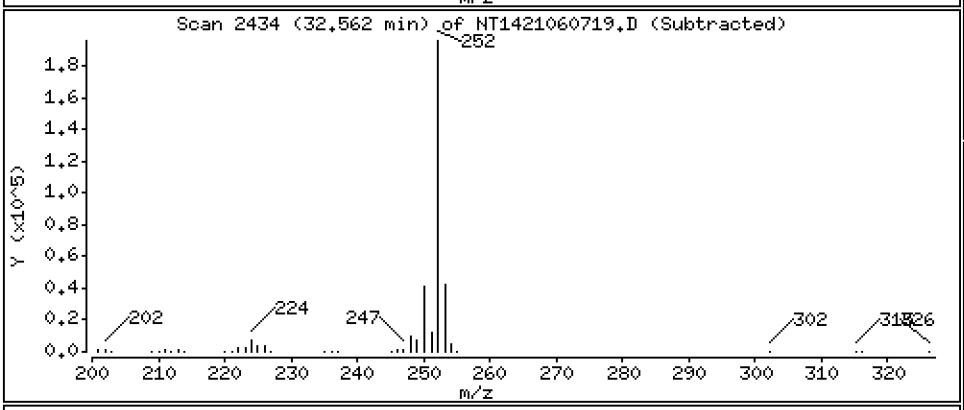
Column diameter: 0.25

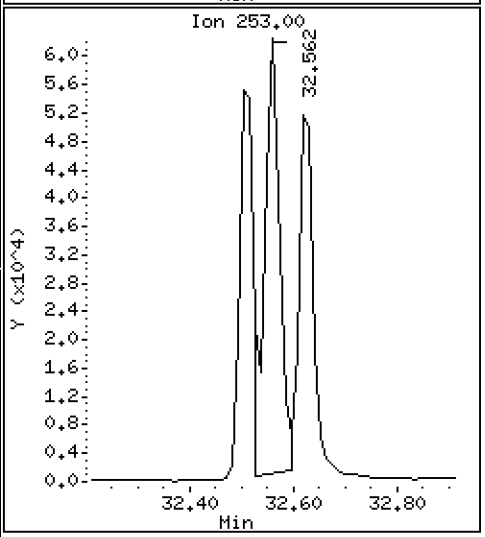
63 Benzo(k)fluoranthene

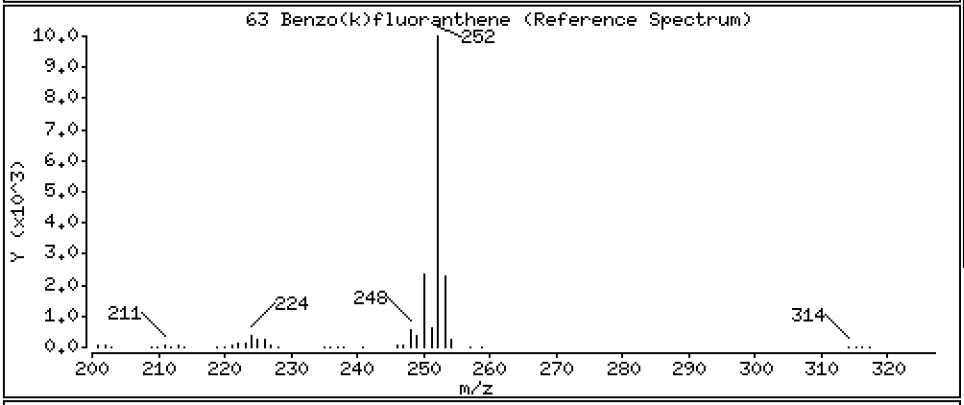
Concentration: 2.771 ug/mL

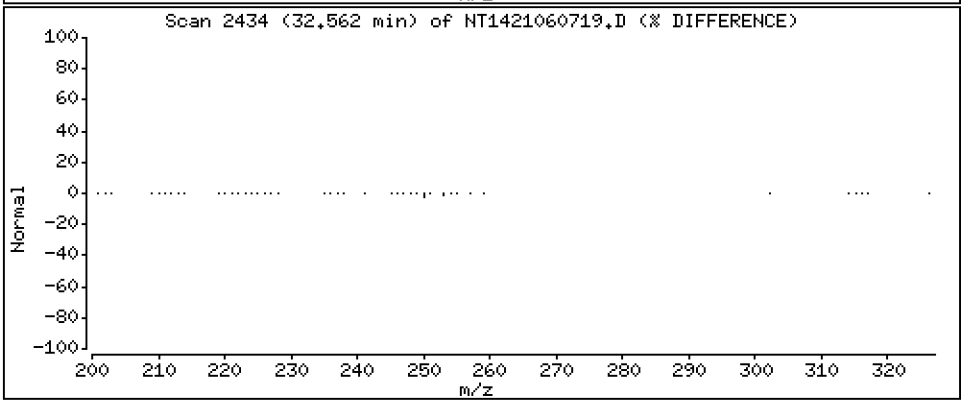












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060719.D

Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

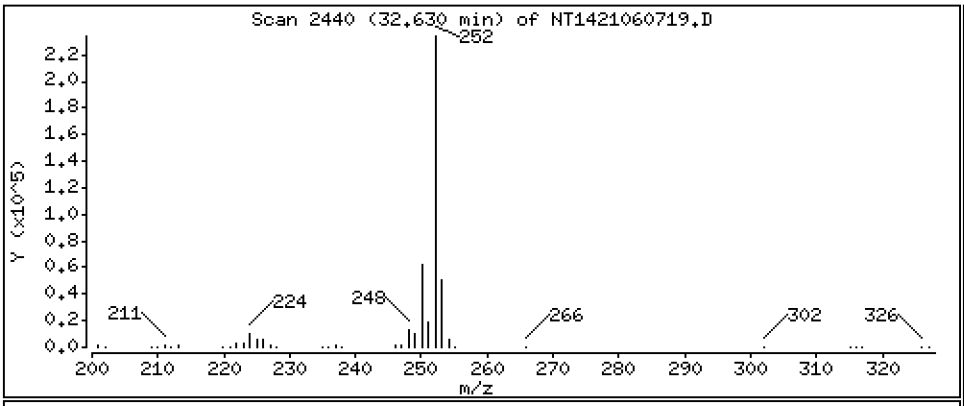
Operator: VTS

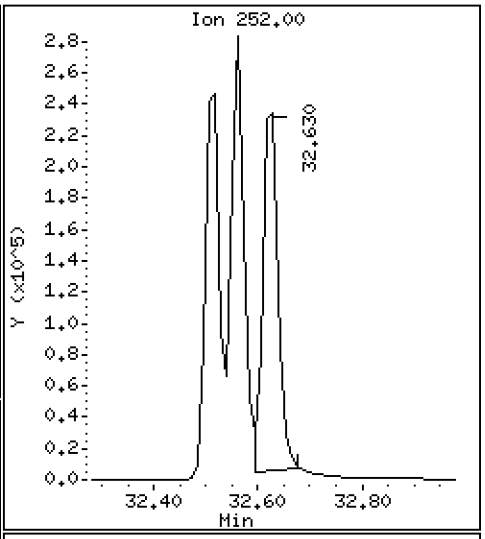
Column phase: Rxi-17Sil MS

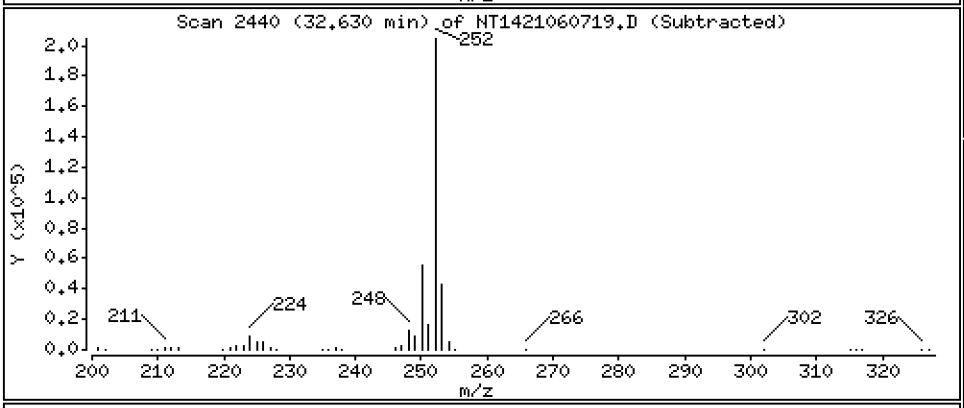
Column diameter: 0.25

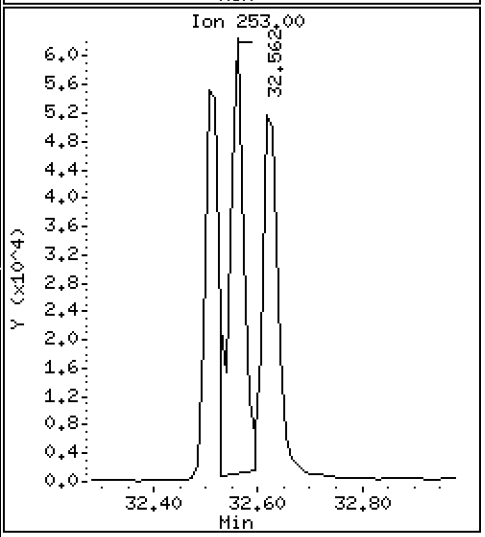
293 Benzo(j)fluoranthene

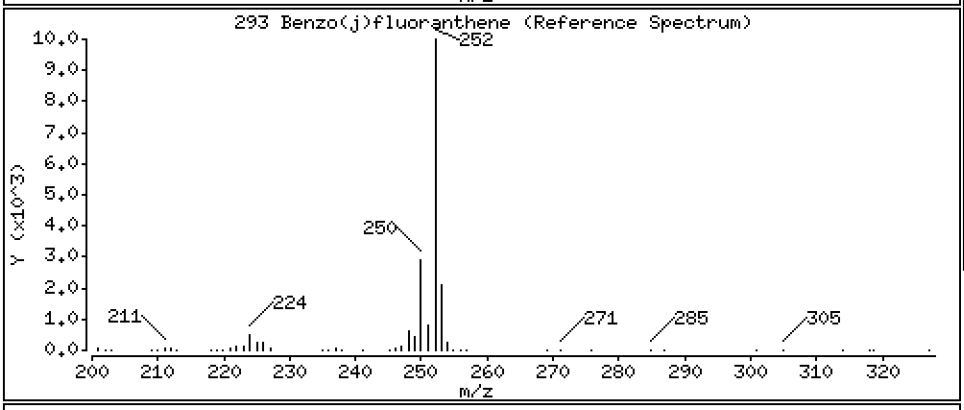
Concentration: 2.460 ug/mL

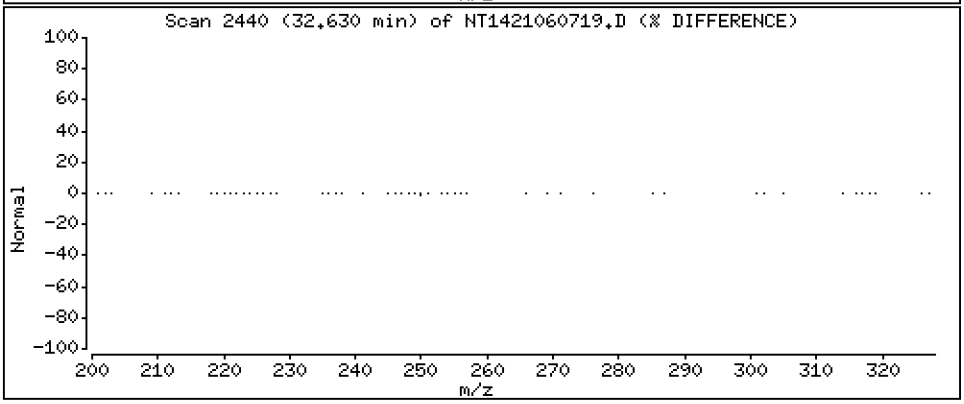












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Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

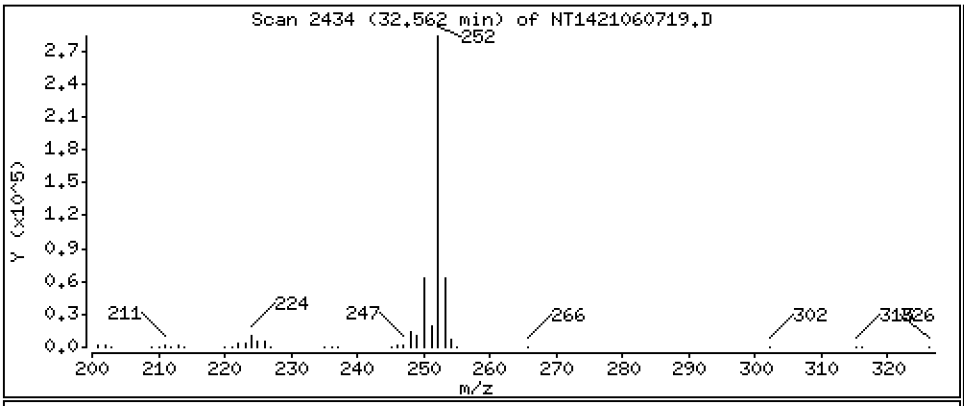
Operator: VTS

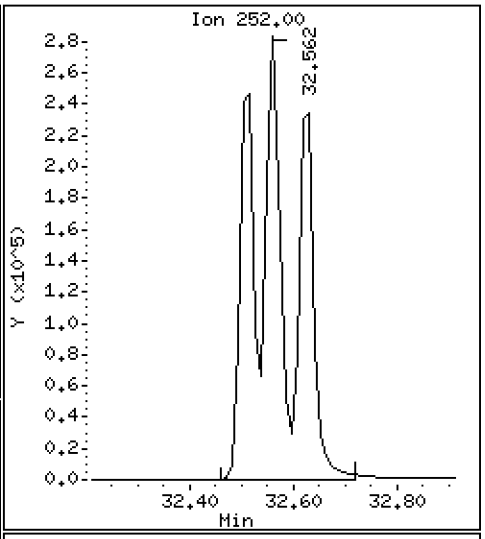
Column phase: Rxi-17Sil MS

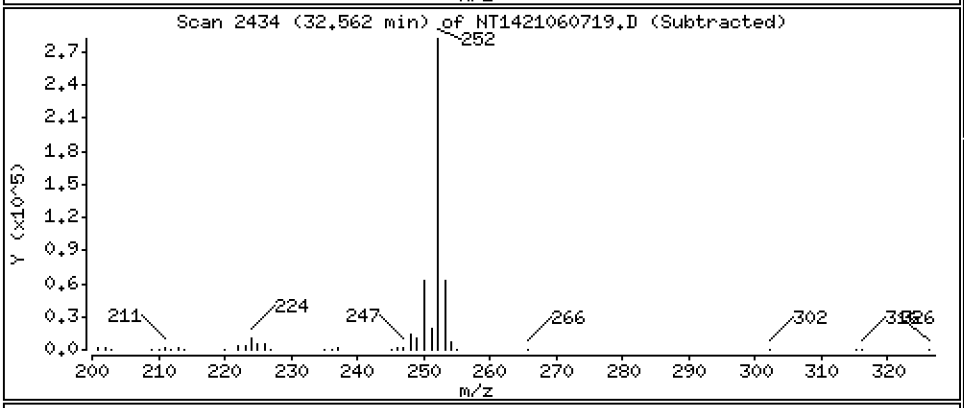
Column diameter: 0.25

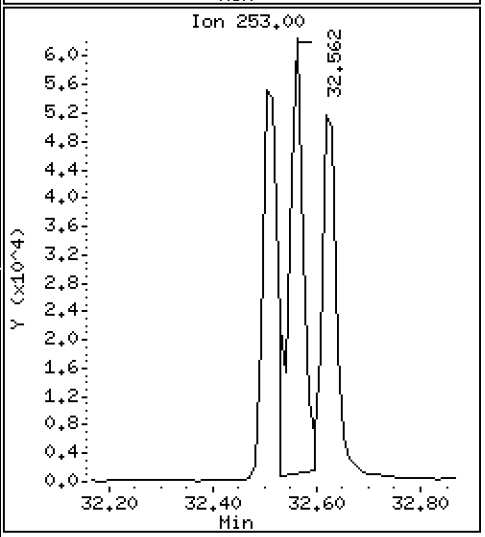
246 Total Benzofluoranthenes

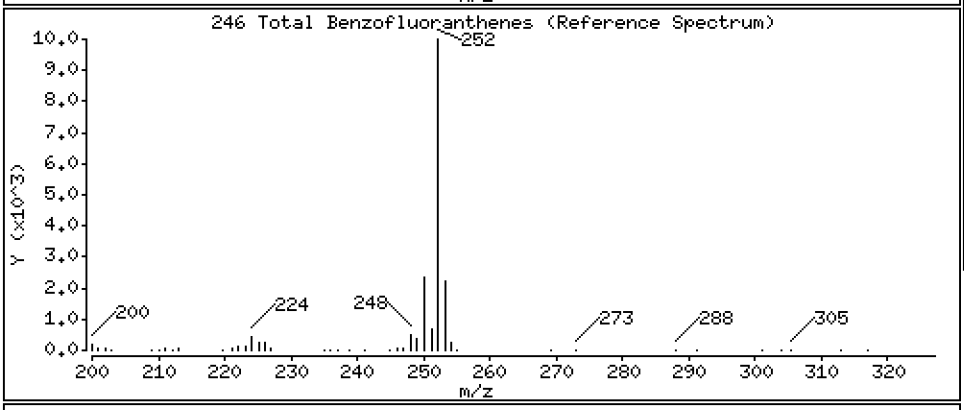
Concentration: 8.144 ug/mL

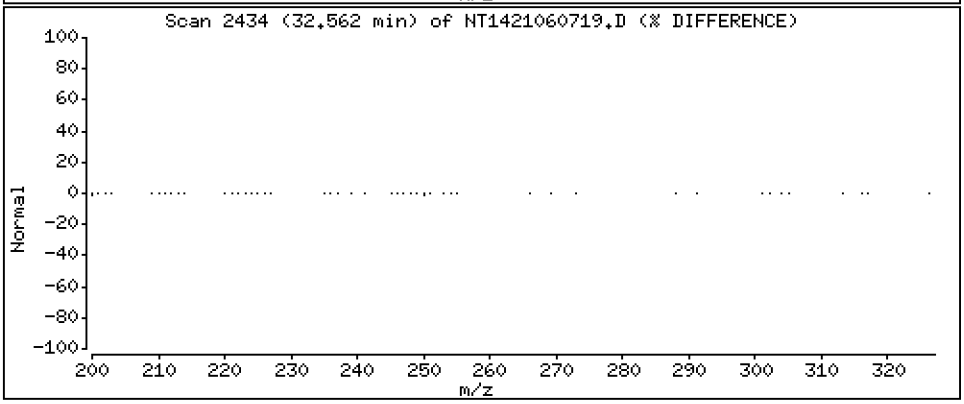












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Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

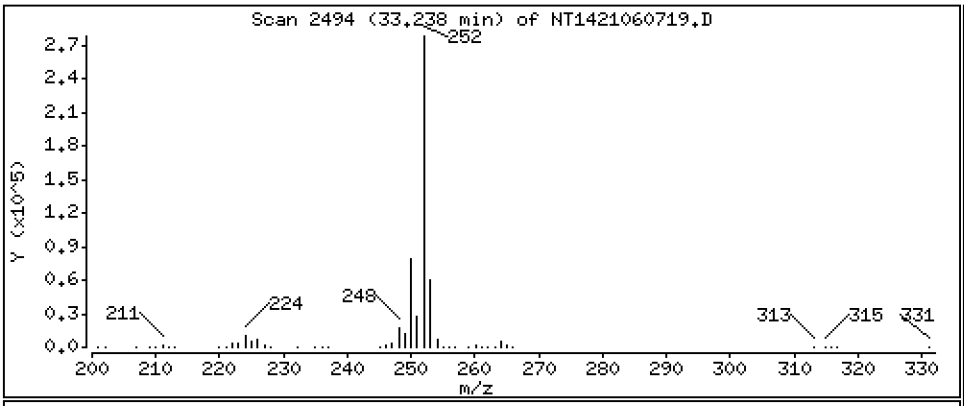
Operator: VTS

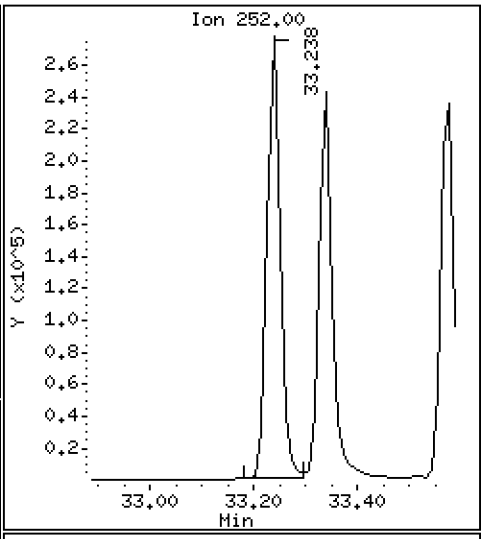
Column phase: Rxi-17Sil MS

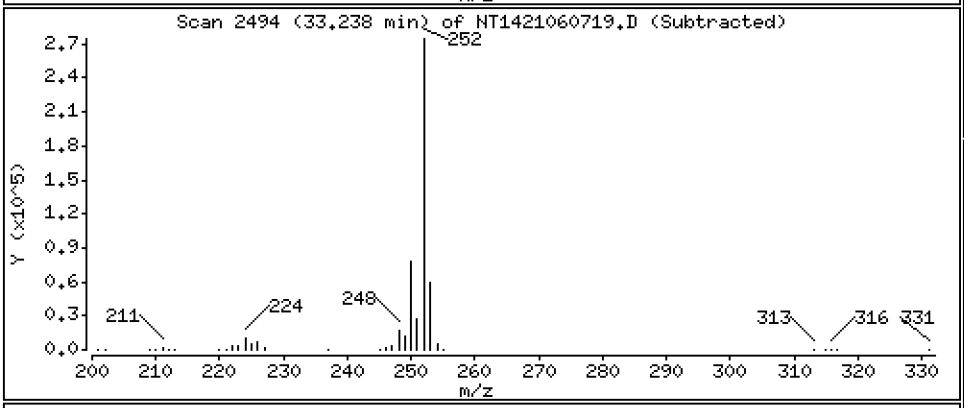
Column diameter: 0.25

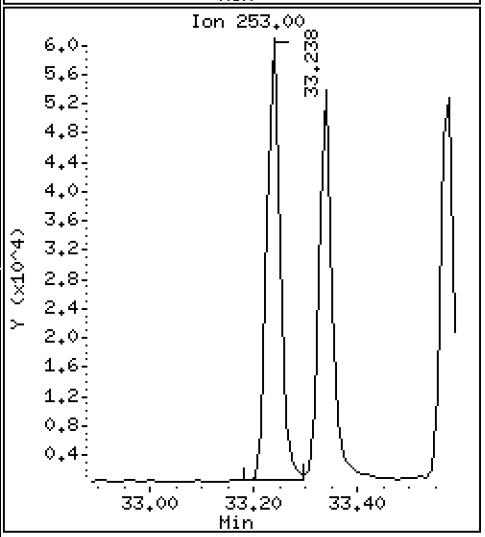
64 Benzo(e)pyrene

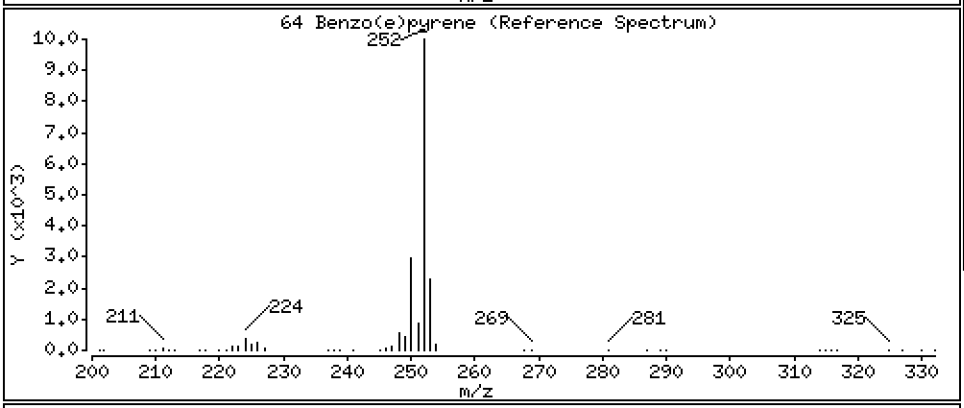
Concentration: 2.538 ug/mL

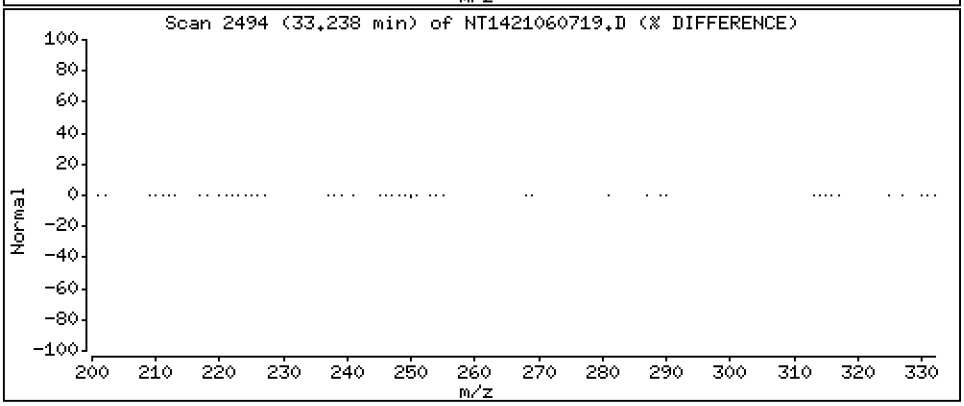












Data File: \\target\share\chem3\nt14.i\20210607.b\NT1421060719.D

Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

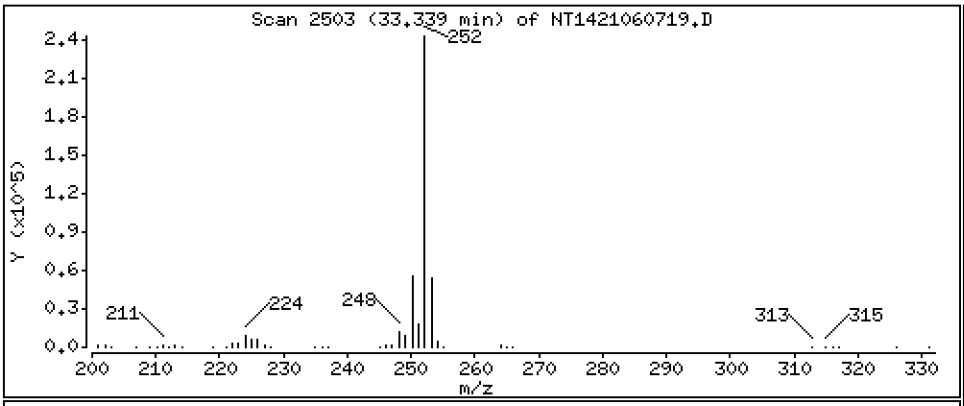
Operator: VTS

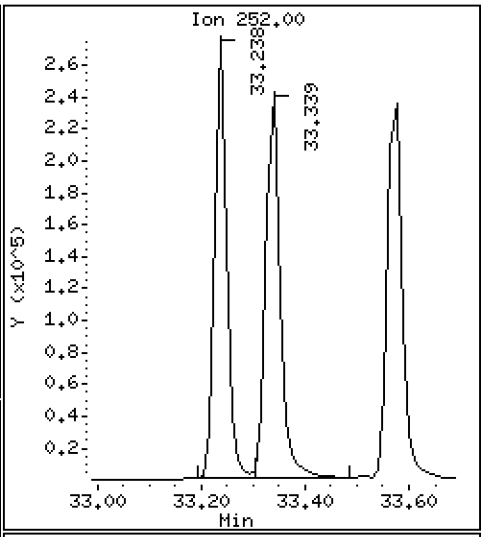
Column phase: Rxi-17Sil MS

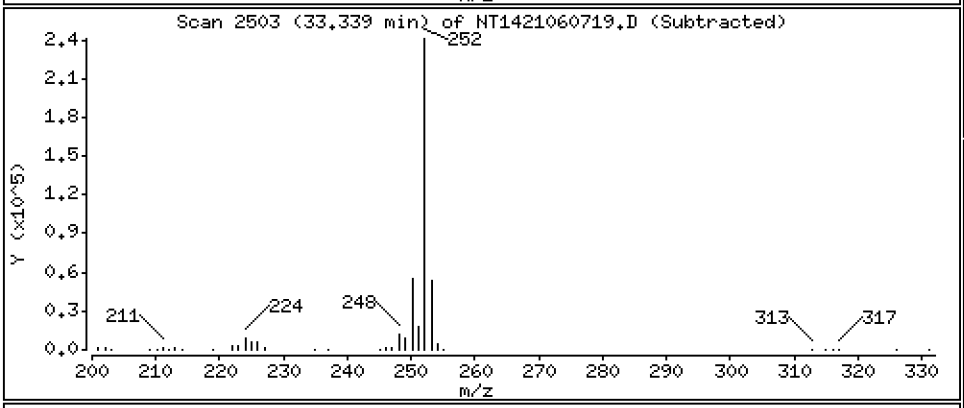
Column diameter: 0.25

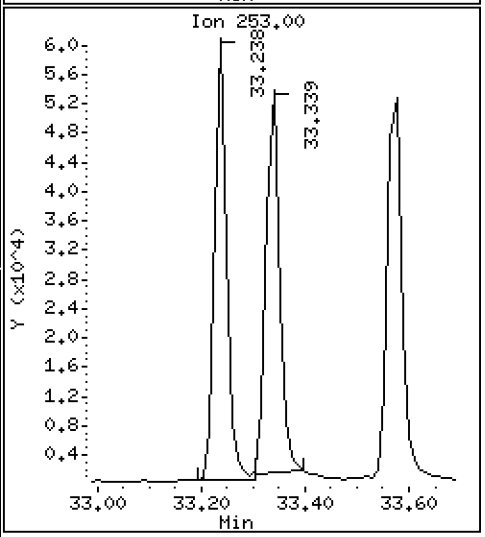
66 Benzo(a)pyrene

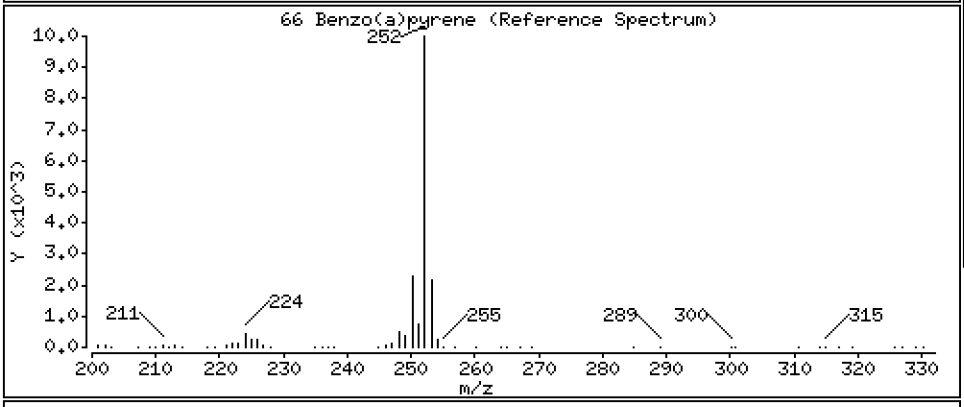
Concentration: 2.684 ug/mL

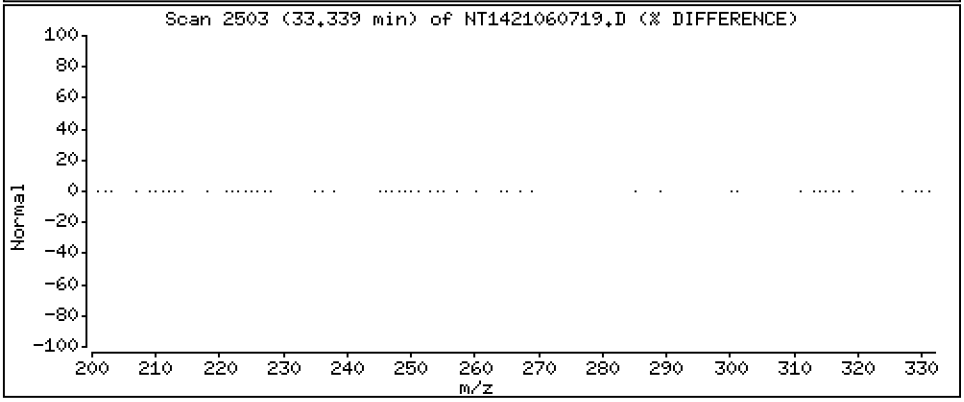












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Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

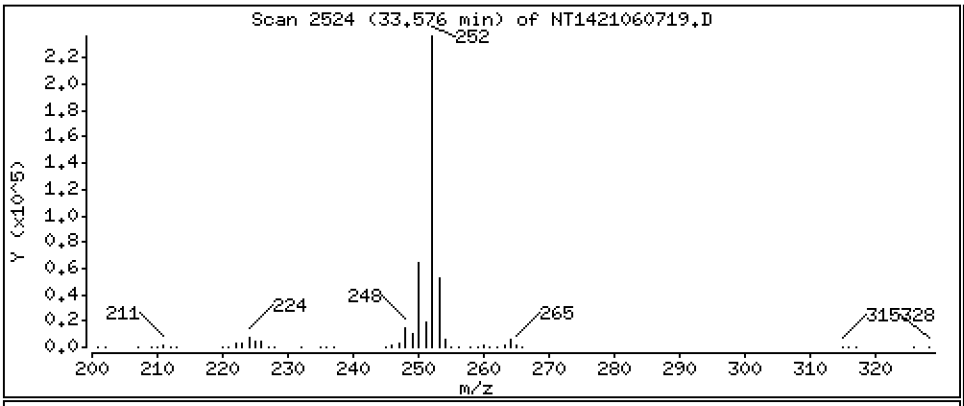
Operator: VTS

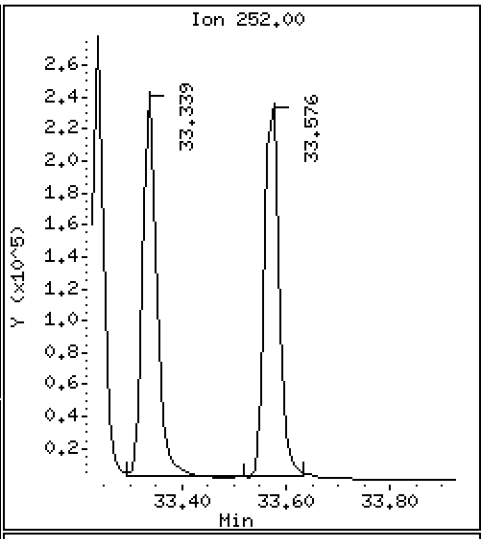
Column phase: Rxi-17Sil MS

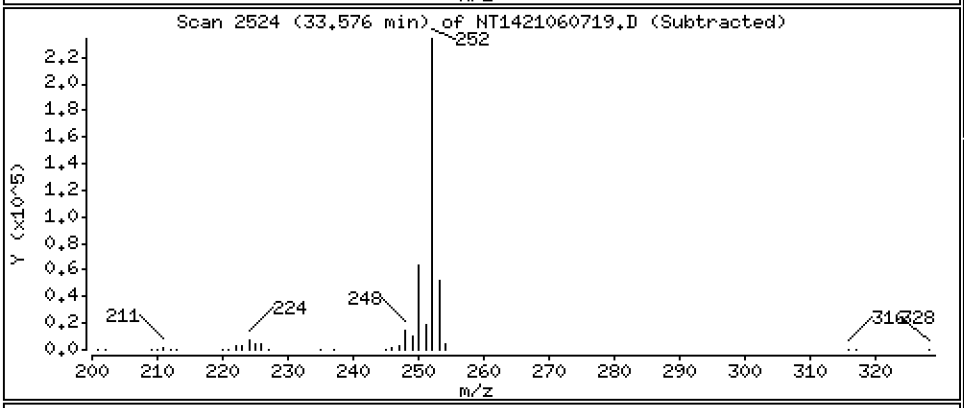
Column diameter: 0.25

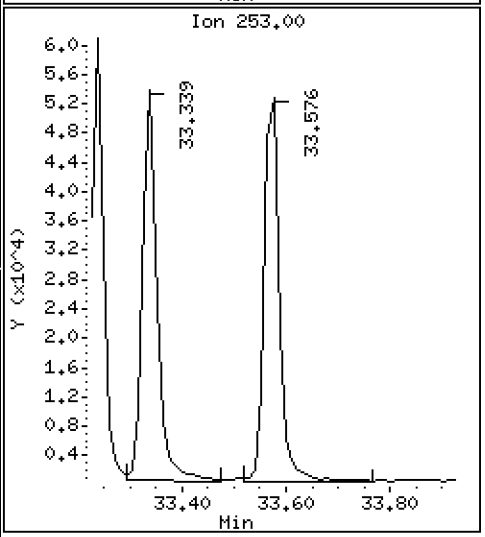
68 Perylene

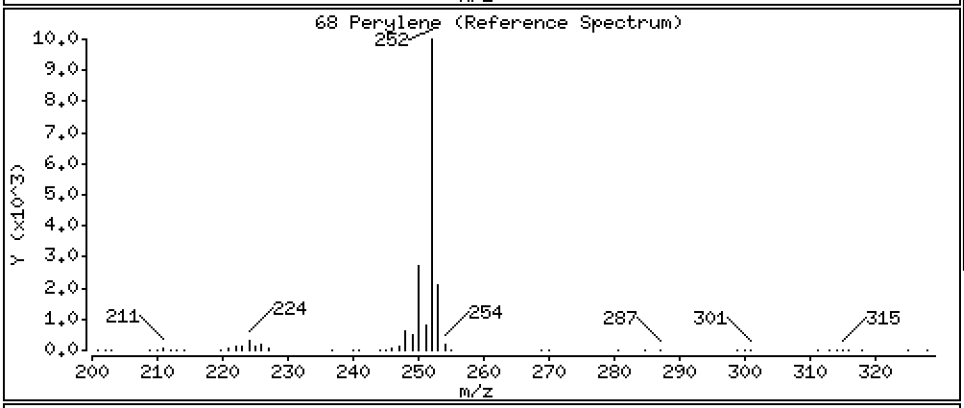
Concentration: 2.554 ug/mL

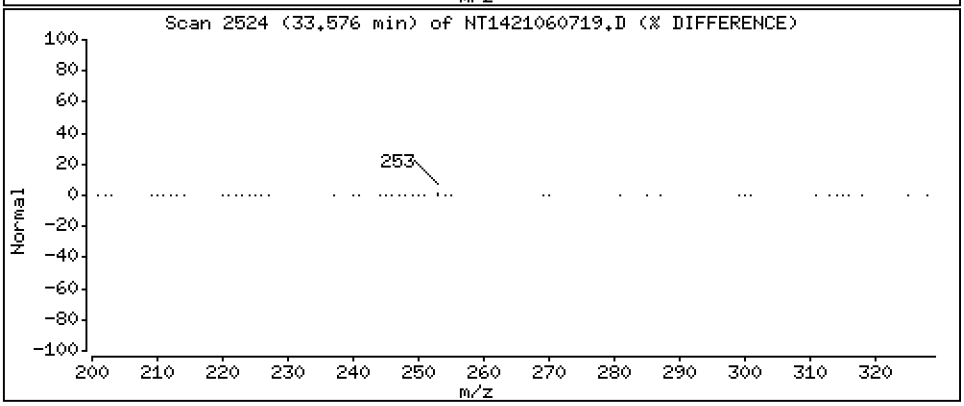












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Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

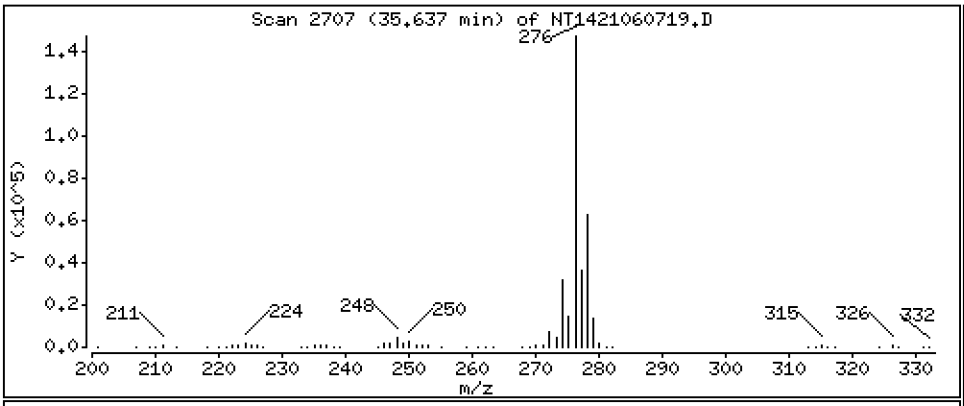
Operator: VTS

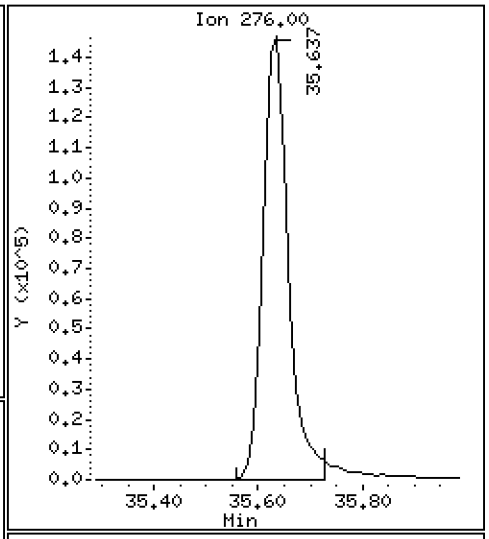
Column phase: Rxi-17Sil MS

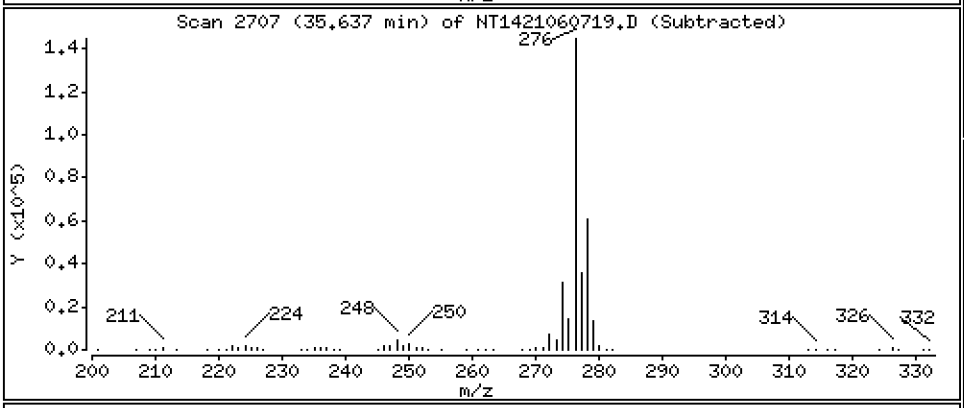
Column diameter: 0.25

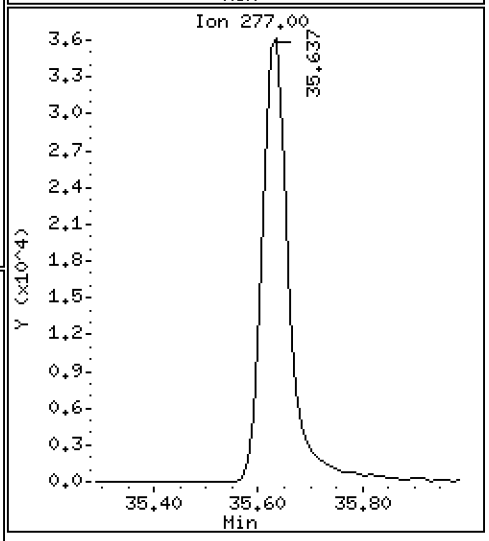
69 Indeno(1,2,3-cd)pyrene

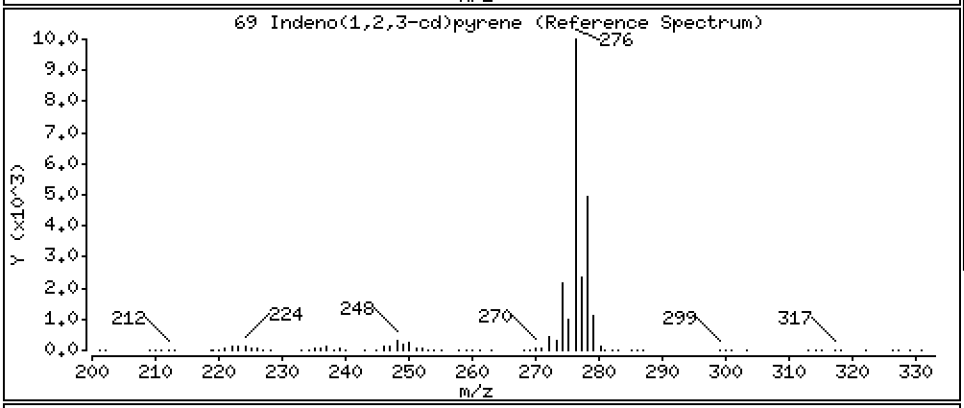
Concentration: 2.492 ug/mL

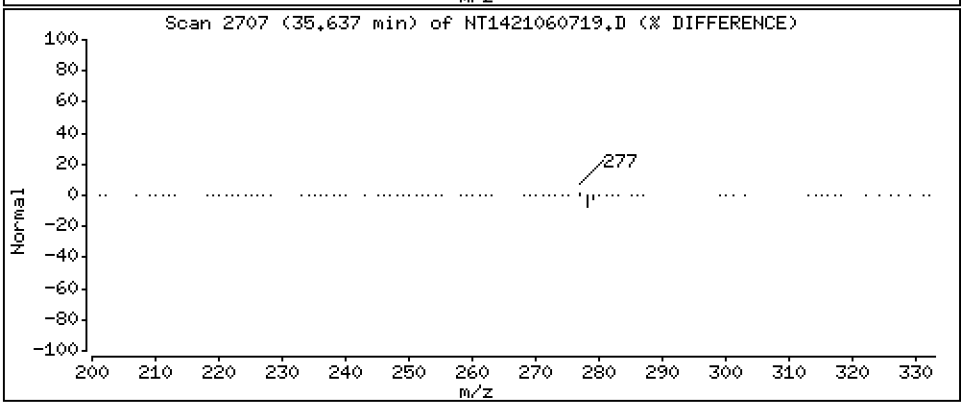












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Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

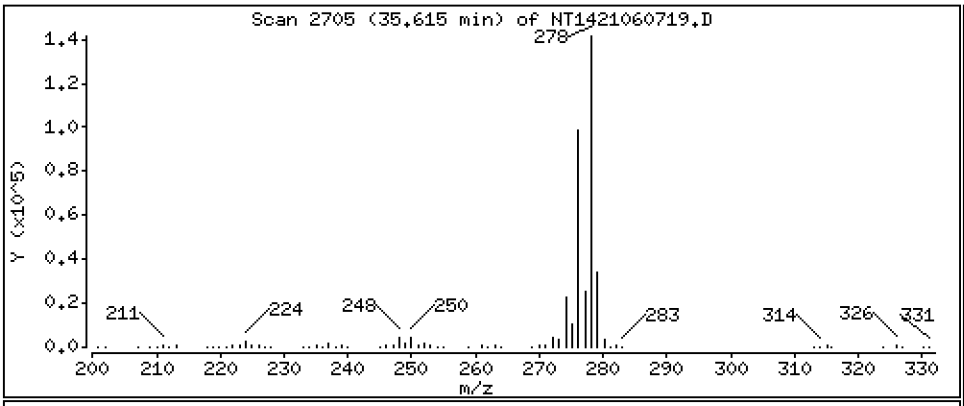
Operator: VTS

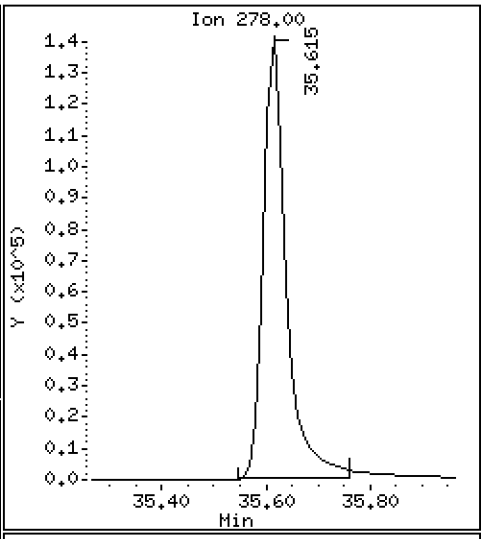
Column phase: Rxi-17Sil MS

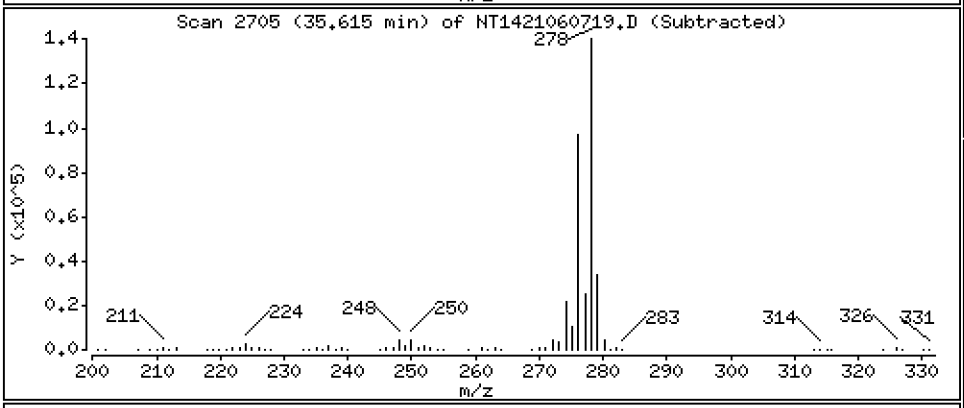
Column diameter: 0.25

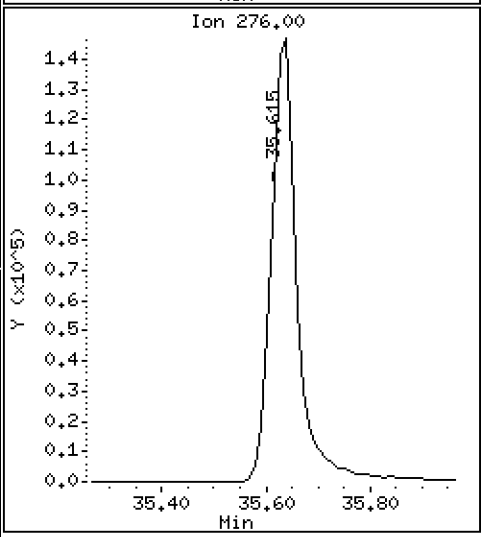
70 Dibenzo(a,h)anthracene

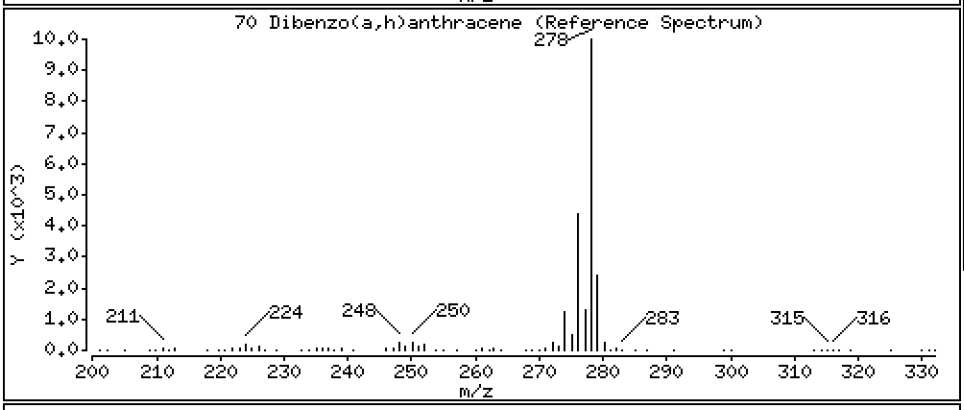
Concentration: 2.305 ug/mL

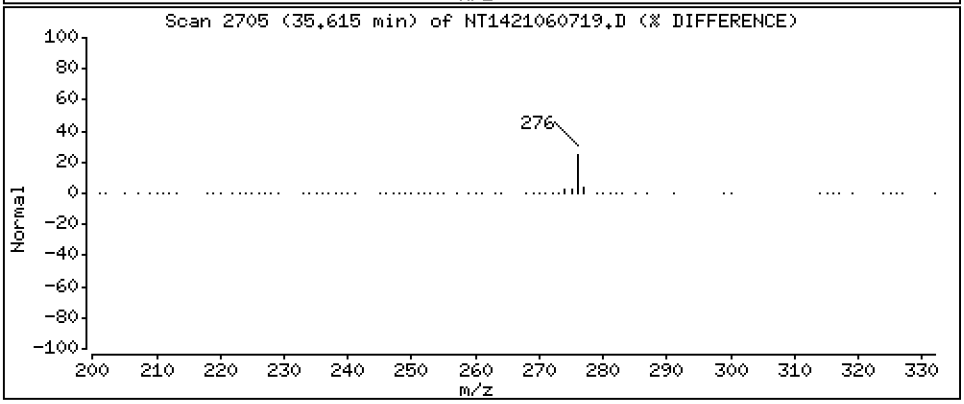












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Date : 08-JUN-2021 02:54

Client ID:

Instrument: nt14.i

Sample Info: SJF0173-CCV1

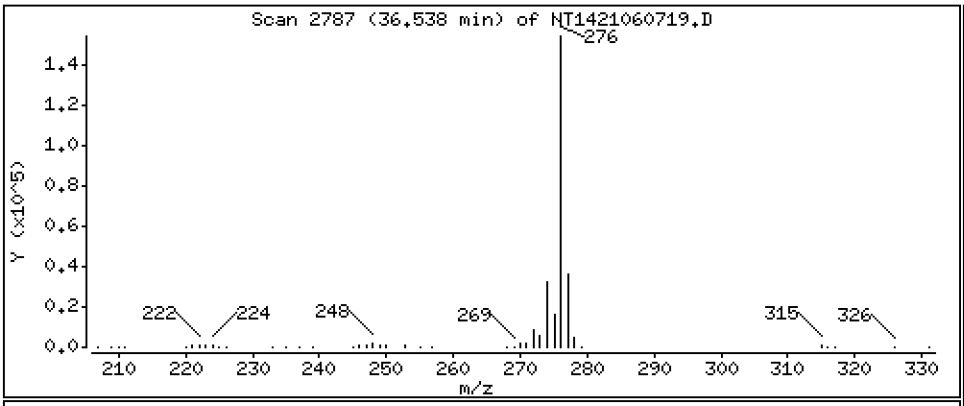
Operator: VTS

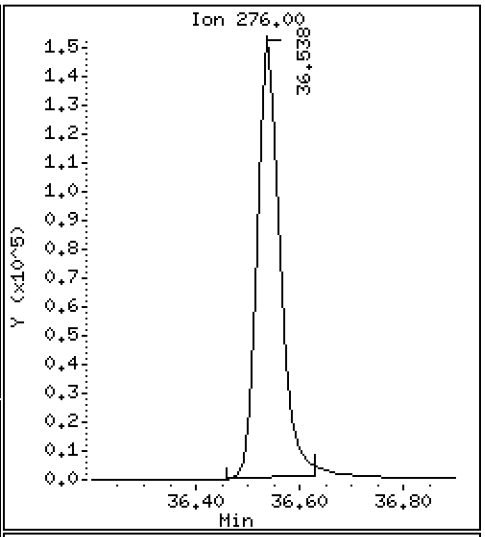
Column phase: Rxi-17Sil MS

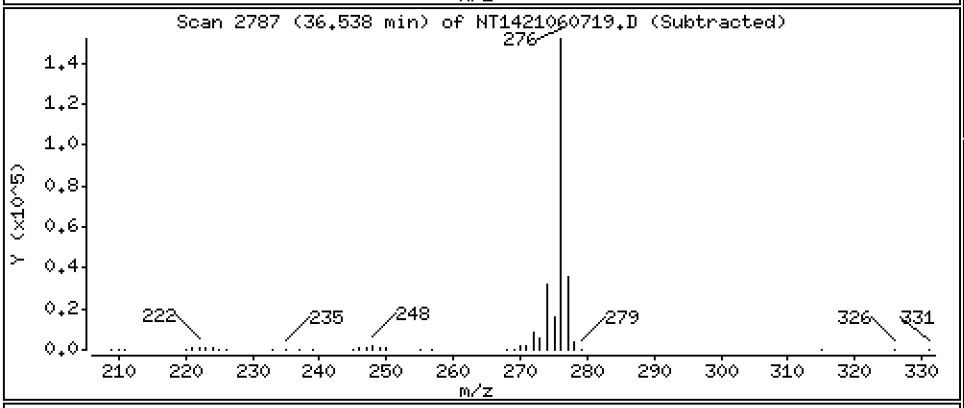
Column diameter: 0.25

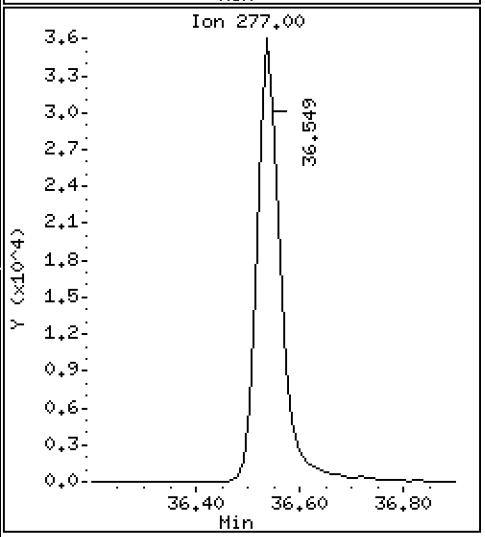
74 Benzo(g,h,i)perylene

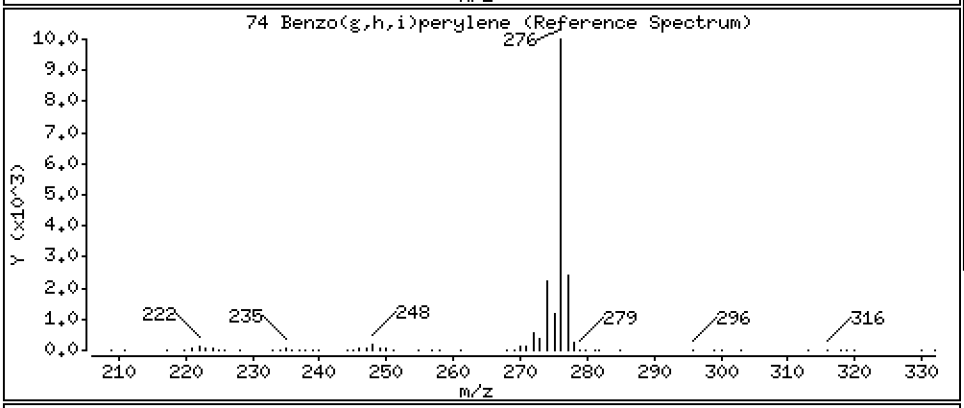
Concentration: 2.364 ug/mL

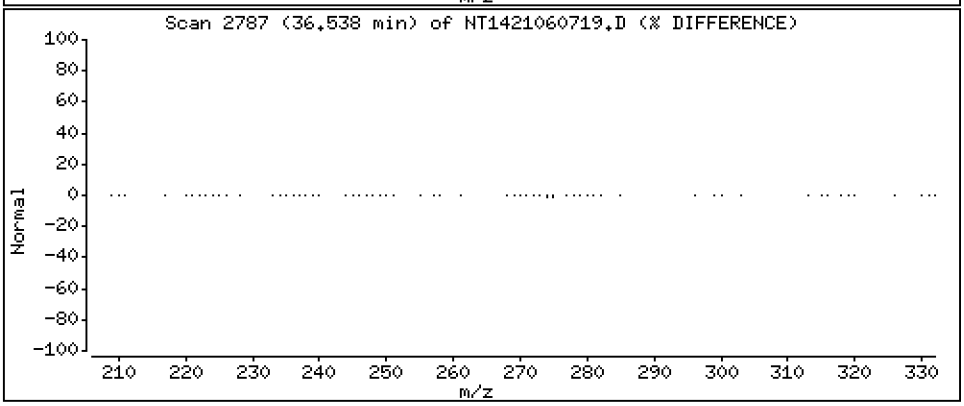












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210607.b\NT1421060719.D
Lab Smp Id: SJF0173-CCV1
Inj Date : 08-JUN-2021 02:54
Operator : VTS Inst ID: nt14.i
Smp Info : SJF0173-CCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210607.b\ALKYLPNA.m
Meth Date : 12-Jun-2021 14:57 yev Quant Type: ISTD
Cal Date : 29-MAY-2021 18:49 Cal File: NT1421052914.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: ORGDATA102

							CONCENTRATIONS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	1 trans-Decalin	138	7.136	7.136	(0.378)	46792	2.68306	2.683
	2 cis-Decalin	138	8.256	8.255	(0.437)	34424	2.40468	2.405
$	6 Naphthalene-d8	136	11.887	11.887	(0.629)	416538	2.56213	2.562(R)
	7 Naphthalene	128	11.957	11.957	(0.633)	413253	2.54338	2.543
	12 Benzo(b)thiophene	134	12.409	12.409	(0.657)	336329	2.51794	2.518
	16 2-Methylnaphthalene	141	13.794	13.794	(0.730)	242181	2.54975	2.550
	17 1-methylnaphthalene	141	14.245	14.244	(0.754)	231809	2.50862	2.509
	18 Biphenyl	154	15.431	15.431	(0.817)	356083	2.53713	2.537
	19 2,6-Dimethylnaphthalene	156	15.508	15.508	(0.821)	261761	2.53619	2.536
	20 Acenaphthylene	152	17.080	17.080	(0.904)	453390	2.56975	2.570
$	21 Acenaphthene-d10	164	17.366	17.365	(0.919)	251548	2.51925	2.519(R)
	22 Acenaphthene	153	17.486	17.486	(0.925)	273029	2.51027	2.510
	23 Dibenzofuran	168	17.860	17.860	(0.945)	421249	2.61105	2.611
	24 1,6,7-Trimethylnaphthalene	170	18.080	18.080	(0.957)	269464	2.56360	2.564
*	25 Fluorene-d10	176	18.896	18.896	(1.000)	349708	2.00000	
	26 Fluorene	166	19.009	19.009	(1.006)	321273	2.57019	2.570
	30 Dibenzothiophene	184	21.931	21.931	(1.161)	462600	2.62134	2.621
$	35 Phenanthrene-d10	188	22.239	22.238	(0.995)	439143	2.49151	2.492(R)
	36 Phenanthrene	178	22.316	22.326	(0.999)	477796	2.52944	2.529
*	250 Anthracene-d10	188	22.349	22.359	(1.000)	366356	2.00000	
	37 Anthracene	178	22.415	22.425	(1.003)	452566	2.54641	2.546
	42 Carbazole	167	23.701	23.701	(1.061)	397005	2.40921	2.409
	43 1-Methylphenanthrene	192	24.151	24.151	(1.081)	348603	2.56802	2.568
	44 Fluoranthene	202	26.131	26.130	(1.169)	549641	2.63624	2.636
	46 Pyrene	202	26.977	26.977	(1.207)	574117	2.64764	2.648
	51 Naphthobenzothiophene	234	29.499	29.509	(1.320)	583009	2.50230	2.502
	55 Benzo(a)anthracene	228	30.084	30.095	(0.907)	506931	2.87157	2.872
$	56 Chrysene-d12	240	30.219	30.219	(0.911)	400867	2.81363	2.814(R)
	57 Chrysene	228	30.287	30.286	(0.913)	482731	2.79060	2.791
	62 Benzo(b)fluoranthene	252	32.517	32.517	(0.980)	460726	2.51645	2.516
	63 Benzo(k)fluoranthene	252	32.562	32.562	(0.981)	544354	2.77104	2.771(M)
	293 Benzo(j)fluoranthene	252	32.629	32.629	(0.983)	445365	2.46038	2.460(M)
	246 Total Benzofluoranthenes	252	32.562	32.562	(0.981)	1460525	8.14441	8.144(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.181	33.181	(1.000)	455158	2.00000	
64 Benzo(e)pyrene	252	33.238	33.237	(1.002)	455467	2.53821	2.538
66 Benzo(a)pyrene	252	33.339	33.339	(1.005)	438125	2.68390	2.684
$ 67 Perylene-d12	264	33.519	33.519	(1.010)	386693	2.51425	2.514(RM)
68 Perylene	252	33.576	33.575	(1.012)	429899	2.55427	2.554
69 Indeno(1,2,3-cd)pyrene	276	35.637	35.636	(1.074)	477580	2.49240	2.492(M)
70 Dibenzo(a,h)anthracene	278	35.614	35.614	(1.073)	415207	2.30450	2.305(M)
74 Benzo(g,h,i)perylene	276	36.538	36.549	(1.101)	447521	2.36407	2.364(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
Lab File ID: NT1421060719.D
Lab Smp Id: SJF0173-CCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210607.b\ALKYLPNA.m
Misc Info:

Calibration Date: 07-JUN-2021
Calibration Time: 13:18
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	323874	161937	647748	349708	7.98
250 Anthracene-d10	339912	169956	679824	366356	7.78
251 Benzo(e)pyrene-d1	416427	208214	832854	455158	9.30

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.90	18.40	19.40	18.90	0.00
250 Anthracene-d10	22.36	21.86	22.86	22.35	-0.05
251 Benzo(e)pyrene-d1	33.18	32.68	33.68	33.18	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 - NT1421060719.D

Lab ID: SJF0173-CCV1
nt14.i, 20210607.b\ALKYLPNA.m,   08-JUN-2021 02:54

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

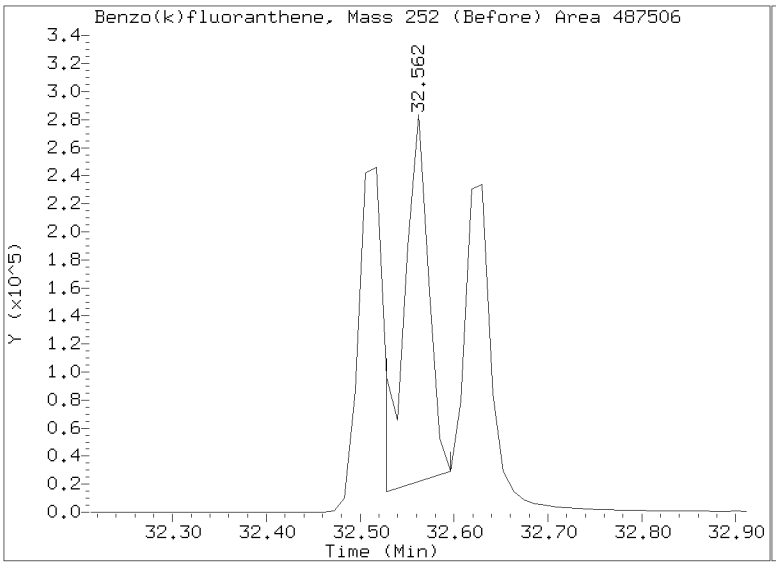
RRT check based on Ccal File: NT1421060702.D

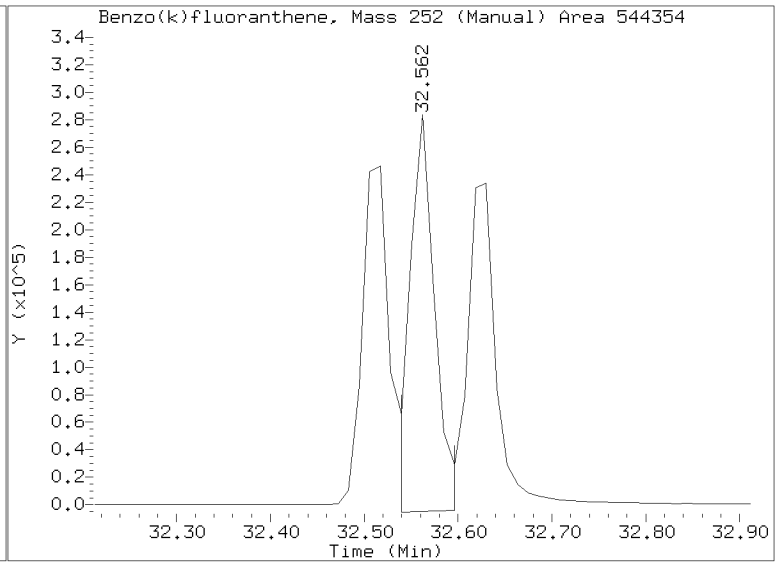
On Column LOD for nt14.i, 20210607.b\ALKYLPNA.m, TARGETS.sub = 0.0000

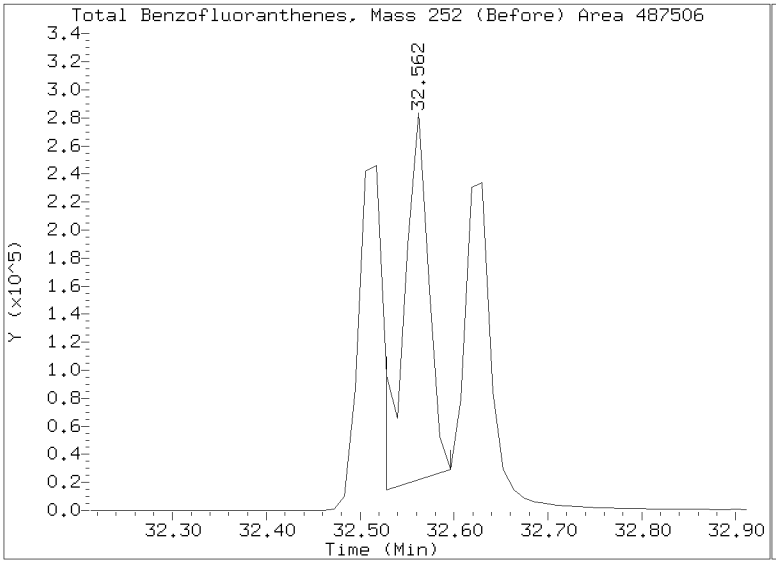
* Only compounds listed in the work order have been verified by the analyst *

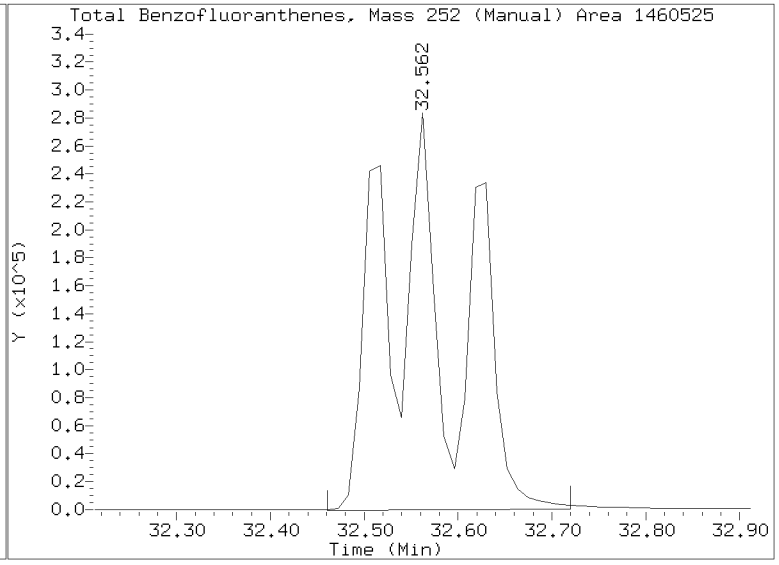
Quant Ion Manual Peak Adjustment Report

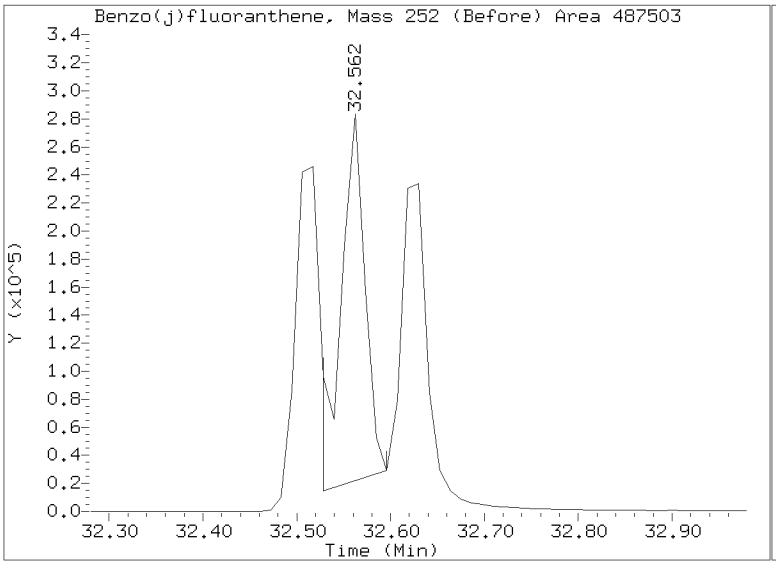
Datafile: //target/share/chem3/nt14.i/20210607.b/NT1421060719.D
Injection Date: 08-JUN-2021 02:54
Lab ID:SJF0173-CCV1 Client ID:
Report Date: 06/12/2021 15:51

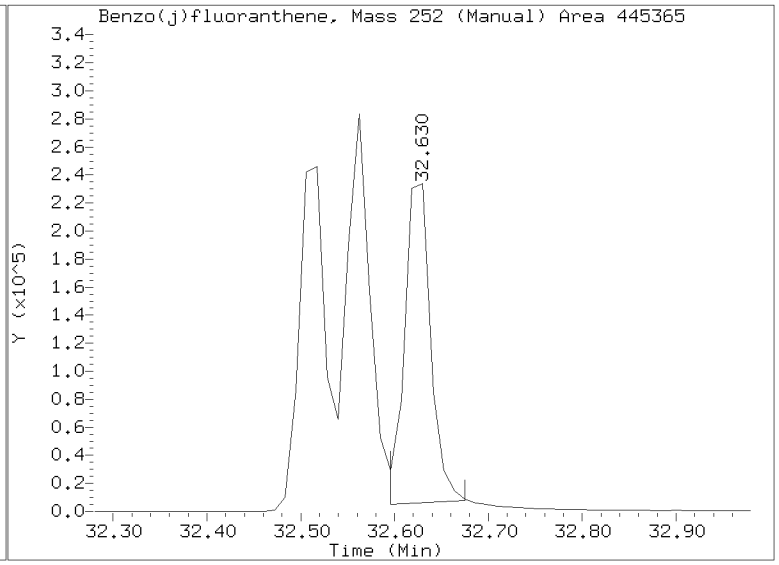






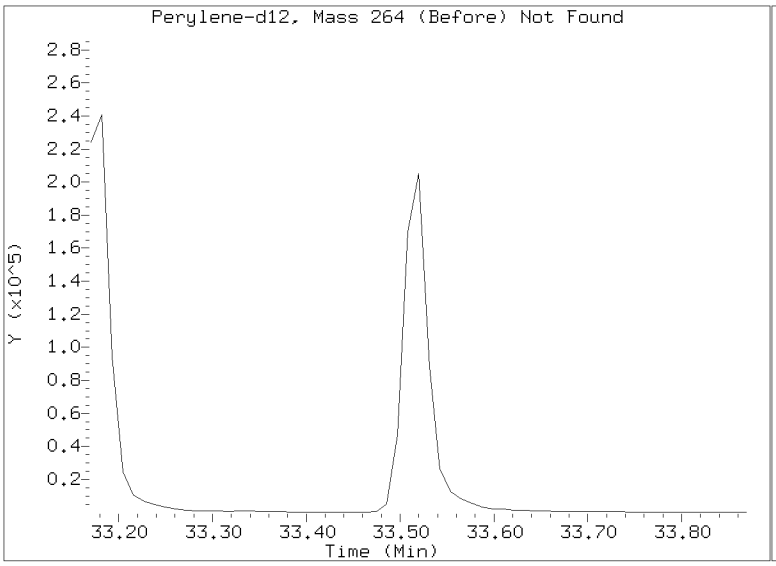


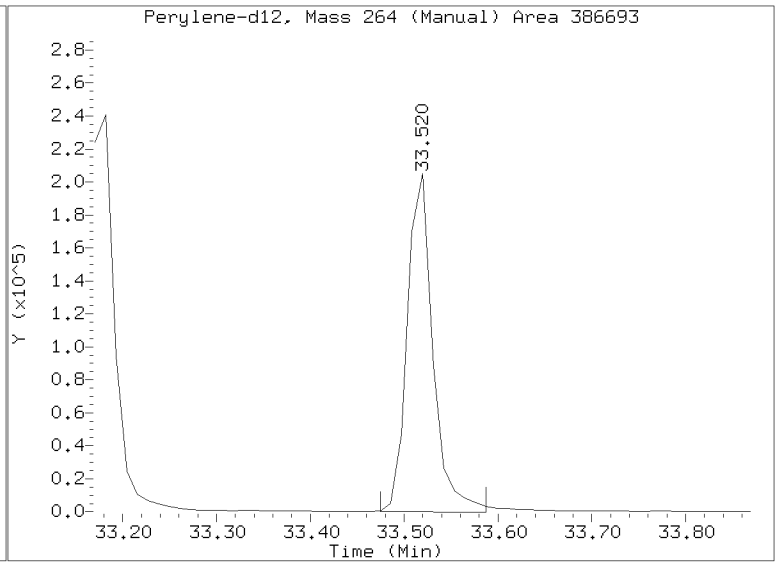


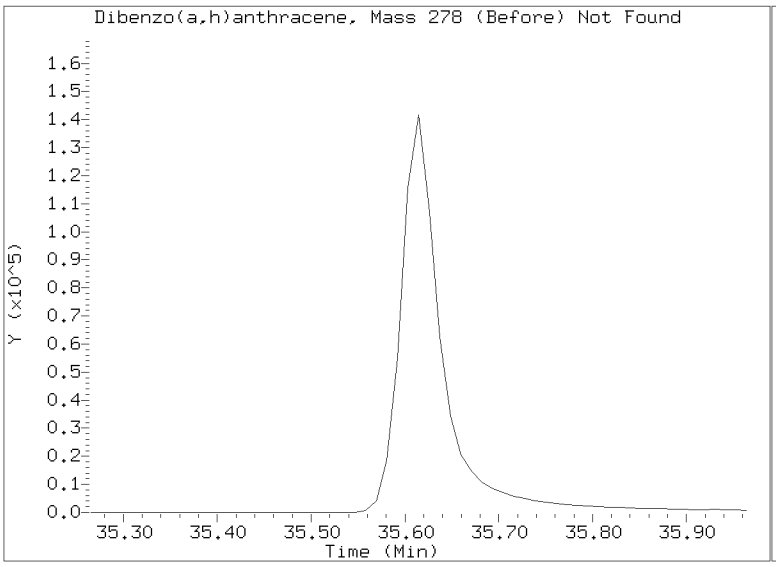


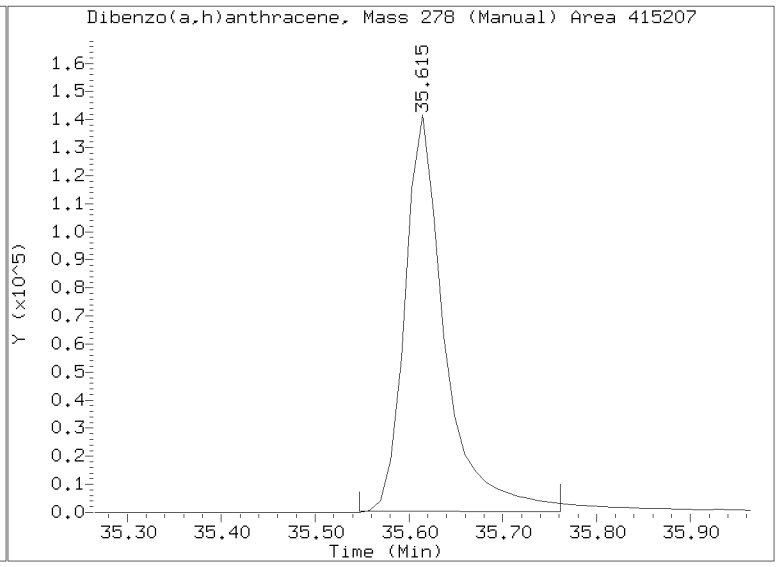
Quant Ion Manual Peak Adjustment Report

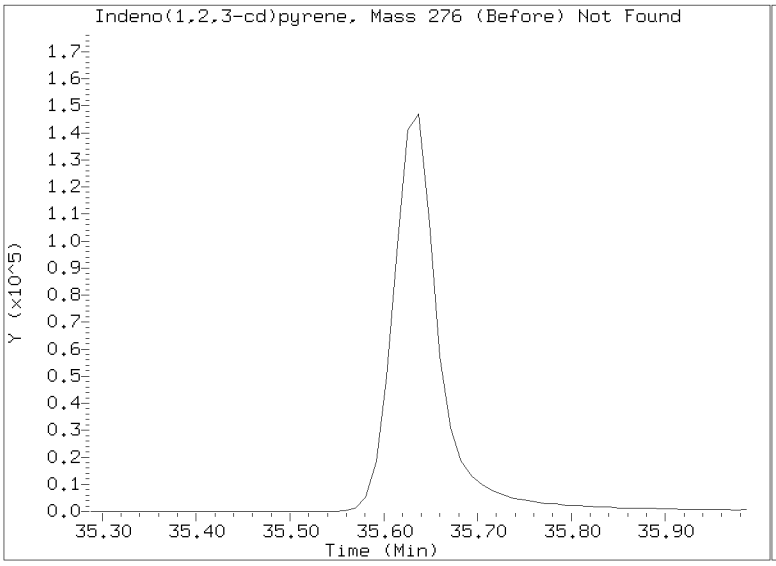
Datafile: //target/share/chem3/nt14.i/20210607.b/NT1421060719.D
Injection Date: 08-JUN-2021 02:54
Lab ID:SJF0173-CCV1 Client ID:
Report Date: 06/12/2021 15:51

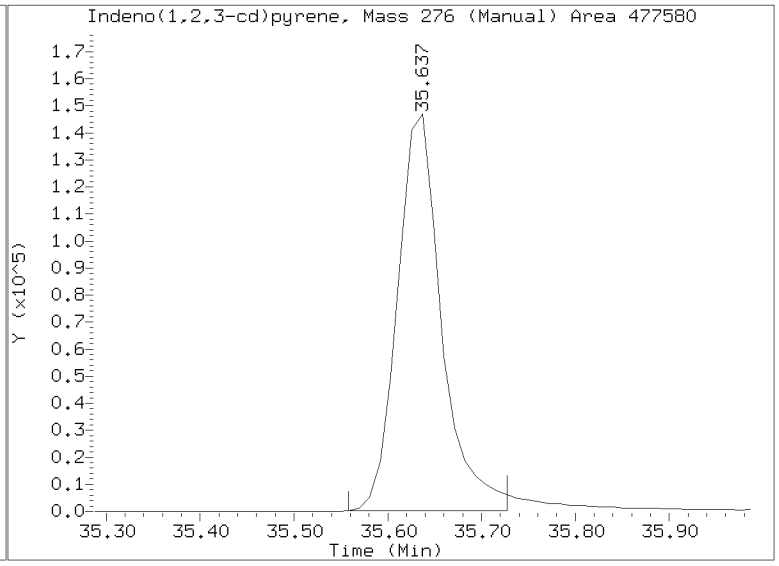






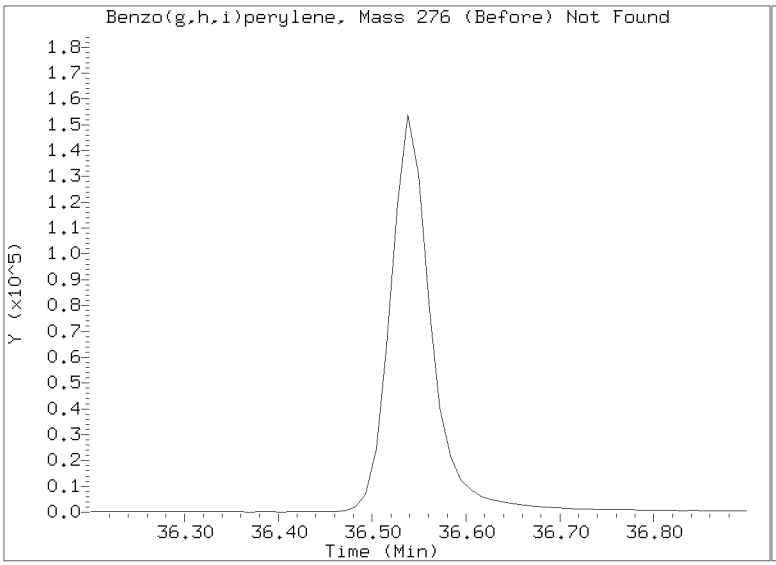


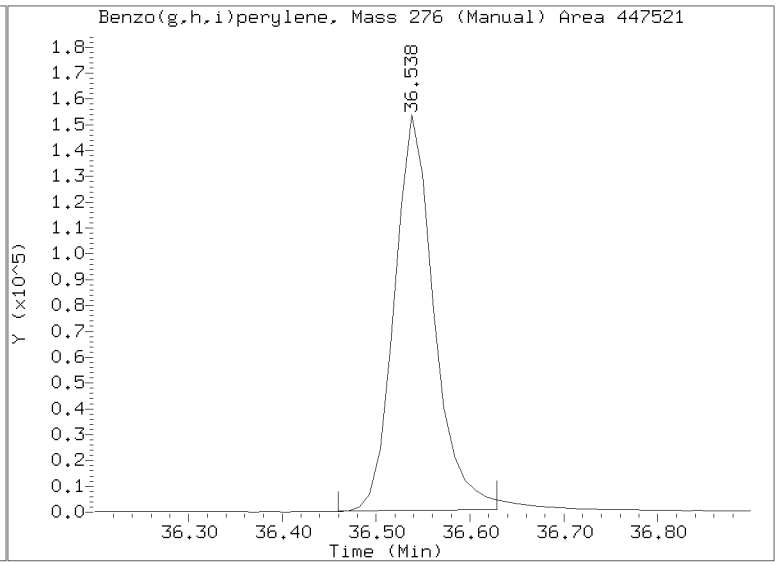




Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210607.b/NT1421060719.D
Injection Date: 08-JUN-2021 02:54
Lab ID:SJF0173-CCV1 Client ID:
Report Date: 06/12/2021 15:51





ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Sequence:	SJF0025	Instrument:	NT14
		Calibration:	EF00008

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SJF0025-TUN1	NT1421052907.D	NA	05/29/21 13:39
PAH 2.5	SJF0025-CAL5	NT1421052908.D	NA	05/29/21 14:01
PAH 10.0	SJF0025-CAL7	NT1421052909.D	NA	05/29/21 14:49
PAH 0.1	SJF0025-CAL1	NT1421052910.D	NA	05/29/21 15:37
PAH 5.0	SJF0025-CAL6	NT1421052911.D	NA	05/29/21 16:25
PAH 0.5	SJF0025-CAL3	NT1421052912.D	NA	05/29/21 17:13
PAH 1.0	SJF0025-CAL4	NT1421052913.D	NA	05/29/21 18:01
PAH 0.25	SJF0025-CAL2	NT1421052914.D	NA	05/29/21 18:49
Secondary Cal Check	SJF0025-SCV1	NT1421052915.D	NA	05/29/21 19:38
Initial Cal Blank	SJF0025-ICB1	NT1421052916.D	NA	05/29/21 20:26

Printed: 6/2/2021 6:40:59PM

ANALYSIS SEQUENCE

SJF0025

Instrument: NT14 Element Column ID: i008815
Calibration ID: UNASSIGNED Tune File: 200228u
EM Voltage: 1906

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SJF0025-TUN1	MS Tune	QC		1	I007631		
SJF0025-CAL1	PAH 0.1	QC		2	J004706	J004384	
SJF0025-CAL2	PAH 0.25	QC		3	J004705	J004384	
SJF0025-CAL3	PAH 0.5	QC		4	J004704	J004384	
SJF0025-CAL4	PAH 1.0	QC		5	J004703	J004384	
SJF0025-CAL5	PAH 2.5	QC		6	J004700	J004384	
SJF0025-CAL6	PAH 5.0	QC		7	J004702	J004384	
SJF0025-CAL7	PAH 10.0	QC		8	J004701	J004384	
SJF0025-SCV1	Secondary Cal Check	QC		9	J004707	J004384	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210529.b

	Time	Filename	LabID	ClientId	DF						
1	1339	NT1421052907.D	SJF0025-TUN1		1	|NO ISTDS FOUND||					
2	1401	NT1421052908.D	SJF0025-CAL5		1	|18.91	159478||22.36	170161||33.18	236612|		
3	1449	NT1421052909.D	SJF0025-CAL7		1	|18.91	163422||22.36	166127||33.18	247029|		
4	1537	NT1421052910.D	SJF0025-CAL1		1	|18.91	185817||22.36	194904||33.18	261838|		
5	1625	NT1421052911.D	SJF0025-CAL6		1	|18.91	174899||22.36	178057||33.18	261344|		
6	1713	NT1421052912.D	SJF0025-CAL3		1	|18.91	188390||22.36	196353||33.18	265323|		
7	1801	NT1421052913.D	SJF0025-CAL4		1	|18.91	180325||22.36	185169||33.18	261813|		
8	1849	NT1421052914.D	SJF0025-CAL2		1	|18.91	184642||22.36	192206||33.18	265187|		
9	1938	NT1421052915.D	SJF0025-SCV1		1	|18.91	166522||22.36	168360||33.18	235397|		
10	2026	NT1421052916.D	SJF0025-ICB1		1	|18.91	183758||22.36	189746||33.18	265253|		

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210529.b

ARI Job No.: SJF0 Method: DFTPP8270E.m Instrument: nt14.i Date: 29-MAY-2021

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1339	NT1421052907.D	SJF0025-TUN1		1	NO MANUAL INTEGRATION
1401	NT1421052908.D	SJF0025-CAL5		1	Benzo(b)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Perylene, Total Benzofluoranthen
1449	NT1421052909.D	SJF0025-CAL7		1	Benzo(g,h,i)perylene, Perylene, Total Benzofluoranthenes,
1537	NT1421052910.D	SJF0025-CAL1		1	Benzo(b)fluoranthene, Dibenzo(a,h)anthracene, Perylene, Total Benzofluoranthenes,
1625	NT1421052911.D	SJF0025-CAL6		1	Phenanthrene, Benzo(b)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
1713	NT1421052912.D	SJF0025-CAL3		1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Perylene, cis-Decalin, Total Benzofluoranthenes, Benzo(j)fluoranthene,
1801	NT1421052913.D	SJF0025-CAL4		1	Phenanthrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)peryle Perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
1849	NT1421052914.D	SJF0025-CAL2		1	Benzo(b)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Perylene, Total Benzofluoranthenes,
1938	NT1421052915.D	SJF0025-SCV1		1	Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Perylene, Total Benzofluoranthenes,
2026	NT1421052916.D	SJF0025-ICB1		1	NO MANUAL INTEGRATION

Security Status Report

Date: 02-Jun-2021 19:12

NT1421052907.D	Data Locked	yev, 02-
NT1421052908.D	Data Locked	yev, 02-
NT1421052909.D	Data Locked	yev, 02-
NT1421052910.D	Data Locked	yev, 02-
NT1421052911.D	Data Locked	yev, 02-
NT1421052912.D	Data Locked	yev, 02-
NT1421052913.D	Data Locked	yev, 02-
NT1421052914.D	Data Locked	yev, 02-
NT1421052915.D	Data Locked	yev, 02-
NT1421052916.D	Data Locked	yev, 02-

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Sequence:	SJF0173	Instrument:	NT14
		Calibration:	EF00008

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SJF0173-TUN1	NT1421060701.D	NA	06/07/21 13:04
Initial Cal Check	SJF0173-ICV1	NT1421060702.D	NA	06/07/21 13:18
Blank	BJE0209-BLK1	NT1421060704.D	Water	06/07/21 14:54
LCS	BJE0209-BS1	NT1421060705.D	Water	06/07/21 15:42
LCS Dup	BJE0209-BSD1	NT1421060706.D	Water	06/07/21 16:30
SC-FB-2105030940	21E0099-01	NT1421060707.D	Water	06/07/21 17:18
SC-RB-2105030901	21E0099-02	NT1421060708.D	Water	06/07/21 18:06
ZZZZZ	21E0105-07	NT1421060709.D	Solid	06/07/21 18:54
ZZZZZ	21E0106-01	NT1421060710.D	Solid	06/07/21 19:42
ZZZZZ	21E0106-02	NT1421060711.D	Solid	06/07/21 20:30
ZZZZZ	21E0106-03	NT1421060714.D	Solid	06/07/21 22:55
ZZZZZ	21E0106-04	NT1421060715.D	Solid	06/07/21 23:43
ZZZZZ	21E0096-02RE1	NT1421060716.D	Solid	06/08/21 00:31
Calibration Check	SJF0173-CCV1	NT1421060719.D	NA	06/08/21 02:54

Printed: 6/12/2021 3:04:29PM

ANALYSIS SEQUENCE

SJF0173

Instrument: NT14 Element Column ID: i008815
Calibration ID: EF00008 Tune File: 200104u
EM Voltage: 1906

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SJF0173-TUN1	MS Tune	QC		1	I007631		
SJF0173-ICV1	Initial Cal Check	QC		2	J004383	J005411	
BJE0209-BLK1	Blank	QC		3		J005411	
BJE0209-BS1	LCS	QC		4		J005411	
BJE0209-BSD1	LCS Dup	QC		5		J005411	
21E0105-07	USMPDI-030SC-B-02-05-21050	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 03	6		J005411	
21E0106-01	USMPDI-028SG-210504	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	7		J005411	
21E0106-03	USMPDI-031SG-210504	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	8		J005411	
21E0106-04	USMPDI-035SG-210504	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	9		J005411	
BJE0383-MS1	Matrix Spike	QC		10		J005411	
BJE0383-MSD1	Matrix Spike Dup	QC		11		J005411	
21E0106-02	USMPDI-030SG-210504	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	12		J005411	
21E0099-01	SC-FB-2105030940	8270E-SIM Alkyl PAH (Parents) Dual Scan	B 01	13		J005411	
21E0099-02	SC-RB-2105030901	8270E-SIM Alkyl PAH (Parents) Dual Scan	B 01	14		J005411	
21E0096-02RE1	USMPDI-015SC-A-06-07-21050	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 03	15		J005411	Added 6/3/2021 by YZ
SJF0173-CCV1	Calibration Check	QC		16	J004383	J005411	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210607.b

	Time	Filename	LabID	ClientId	DF								
1	1304	NT1421060701.D	SJF0173-TUN1		1	|NO ISTDS FOUND||							
2	1318	NT1421060702.D	SJF0173-ICV1		1	|18.90	323874||22.36	339912||33.18	416427|				
3	1406	NT1421060703.D	SJF0000-LCV1		1	|18.90	299703||22.35	313132||33.18	390846|				
4	1454	NT1421060704.D	BJE0209-BLK1		1	|18.90	311099||22.35	323596||33.18	409852|				
5	1542	NT1421060705.D	BJE0209-BS1		1	|18.90	324204||22.35	337302||33.18	451062|				
6	1630	NT1421060706.D	BJE0209-BSD1		1	|18.90	337497||22.35	344529||33.18	450572|				
7	1718	NT1421060707.D	21E0099-01		1	|18.90	324435||22.35	337230||33.18	433441|				
8	1806	NT1421060708.D	21E0099-02		1	|18.90	328958||22.35	339490||33.18	432962|				
9	1854	NT1421060709.D	21E0105-07		1	|18.90	299955||22.35	323079||33.18	420096|				
10	1942	NT1421060710.D	21E0106-01		1	|18.90	352791||22.35	369755||33.18	468246|				
11	2030	NT1421060711.D	21E0106-02		1	|18.90	332176||22.35	356066||33.18	435025|				
12	2118	NT1421060712.D	BJE0383-MS1		1	|18.90	325513||22.35	342885||33.18	417227|				
13	2207	NT1421060713.D	BJE0383-MSD1		1	|18.90	380730||22.35	404652||33.18	501609|				
14	2255	NT1421060714.D	21E0106-03		1	|18.90	351236||22.35	367693||33.18	451419|				
15	2343	NT1421060715.D	21E0106-04		1	|18.90	382617||22.35	399994||33.18	474075|				
16	0031	NT1421060716.D	21E0096-02RE1		20	|18.90	335139||22.35	347615||33.18	452607|				
17	0119	NT1421060717.D	21E0096-05RE1		10	|18.90	327571||22.36	337428||33.18	431172|				
18	0206	NT1421060718.D	21E0096-08RE1		1	|18.90	300362||22.36	313950||33.18	404331|				
19	0254	NT1421060719.D	SJF0173-ICV1		1	|18.90	349708||22.35	366356||33.18	455158|				

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210607.b

ARI Job No.: SJF0 Method: DFTPP8270E.m Instrument: nt14.i Date: 07-JUN-2021

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1304	NT1421060701.D	SJF0173-TUN1		1	NO MANUAL INTEGRATION
1318	NT1421060702.D	SJF0173-ICV1		1	Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes,
1406	NT1421060703.D	SJF0000-LCV1		1	NO MANUAL INTEGRATION
1454	NT1421060704.D	BJE0209-BLK1		1	NO MANUAL INTEGRATION
1542	NT1421060705.D	BJE0209-BS1		1	Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes,
1630	NT1421060706.D	BJE0209-BSD1		1	Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
1718	NT1421060707.D	21E0099-01		1	NO MANUAL INTEGRATION
1806	NT1421060708.D	21E0099-02		1	NO MANUAL INTEGRATION
1854	NT1421060709.D	21E0105-07		1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Total Benzofluoranthenes, Phenanthrene-d10, Perylene-d12,
1942	NT1421060710.D	21E0106-01		1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Total Benzofluoranthenes,
2030	NT1421060711.D	21E0106-02		1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Total Benzofluoranthenes,
2118	NT1421060712.D	BJE0383-MS1		1	Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Total Benzofluoranthenes,
2207	NT1421060713.D	BJE0383-MSD1		1	Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Total Benzofluoranthenes,
2255	NT1421060714.D	21E0106-03		1	Indeno(1,2,3-cd)pyrene, Total Benzofluoranthenes,
2343	NT1421060715.D	21E0106-04		1	Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Total Benzofluoranthenes,
0031	NT1421060716.D	21E0096-02RE1		20	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, 2,6-Dimethylnaphthalene, Total Benzofluoranthenes,
0119	NT1421060717.D	21E0096-05RE1		10	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210607.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0206	NT1421060718.D	21E0096-08RE1		1	NO MANUAL INTEGRATION
0254	NT1421060719.D	SJF0173-ICV1		1	Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Benzo(j)fluoranthene, Perylene-d

Security Status Report

Date: 12-Jun-2021 15:01

NT1421060701.D	Data Locked	yev, 12-
NT1421060702.D	Data Locked	yev, 12-
NT1421060703.D	Data Locked	yev, 12-
NT1421060704.D	Data Locked	yev, 12-
NT1421060705.D	Data Locked	yev, 12-
NT1421060706.D	Data Locked	yev, 12-
NT1421060707.D	Data Locked	yev, 12-
NT1421060708.D	Data Locked	yev, 12-
NT1421060709.D	Data Locked	yev, 12-
NT1421060710.D	Data Locked	yev, 12-
NT1421060711.D	Data Locked	yev, 12-
NT1421060712.D	Data Locked	yev, 12-
NT1421060713.D	Data Locked	yev, 12-
NT1421060714.D	Data Locked	yev, 12-
NT1421060715.D	Data Locked	yev, 12-
NT1421060716.D	Data Locked	yev, 12-
NT1421060717.D	Data Locked	yev, 12-
NT1421060718.D	Data Locked	yev, 12-
NT1421060719.D	Data Locked	yev, 12-

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Sequence:	SJF0198	Instrument:	NT14
		Calibration:	EF00019

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Blank	BJE0209-BLK2	NT1421060704S.D	Water	06/07/21 14:54
SC-FB-2105030940	21E0099-01	NT1421060707S.D	Water	06/07/21 17:18
SC-RB-2105030901	21E0099-02	NT1421060708S.D	Water	06/07/21 18:06
ZZZZZ	21E0105-07	NT1421060709S.D	Solid	06/07/21 18:54
ZZZZZ	21E0106-01	NT1421060710S.D	Solid	06/07/21 19:42
ZZZZZ	21E0106-02	NT1421060711S.D	Solid	06/07/21 20:30
ZZZZZ	21E0106-03	NT1421060714S.D	Solid	06/07/21 22:55
ZZZZZ	21E0106-04	NT1421060715S.D	Solid	06/07/21 23:43

Printed: 6/15/2021 12:20:04PM

ANALYSIS SEQUENCE

SJF0198

Instrument: NT14 Element Column ID: I008815
Calibration ID: EF00019 Tune File: 200104U
EM Voltage: 1906

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SJF0198-ICV1	Initial Cal Check	QC		1	J004383	J004384	
BJE0209-BLK2	Blank	QC		2			
21E0099-01	SC-FB-2105030940	8270E-SIM Alkyl PAH (Range) Dual Scan	B 02	3			
21E0099-02	SC-RB-2105030901	8270E-SIM Alkyl PAH (Range) Dual Scan	B 02	4			
21E0105-07	USMPDI-030SC-B-02-05-21050	8270E-SIM Alkyl PAH (Range) Dual Scan	A 04	5			
21E0106-01	USMPDI-028SG-210504	8270E-SIM Alkyl PAH (Range) Dual Scan	A 03	6			
21E0106-02	USMPDI-030SG-210504	8270E-SIM Alkyl PAH (Range) Dual Scan	A 03	7			
21E0106-03	USMPDI-031SG-210504	8270E-SIM Alkyl PAH (Range) Dual Scan	A 03	8			
21E0106-04	USMPDI-035SG-210504	8270E-SIM Alkyl PAH (Range) Dual Scan	A 03	9			

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210607.b\SIM.b

	Time	Filename	LabID	ClientId	DF							
1	1318	NT1421060702S.D	SJF0198-ICV1		1	18.90	311077	22.36	331614	33.18	416427	
2	1406	NT1421060703S.D	SJF0000-LCV1		1	18.90	336883	22.35	354452	33.17	463504	
3	1454	NT1421060704S.D	BJE0209-BLK1		1	18.90	354742	22.34	372260	33.17	488355	
4	1542	NT1421060705S.D	BJE0209-BS1		1	18.90	372414	22.35	393999	33.18	526547	
5	1630	NT1421060706S.D	BJE0209-BSD1		1	18.90	381992	22.35	398615	33.17	521133	
6	1718	NT1421060707S.D	21E0099-01		1	18.90	376090	22.34	390572	33.17	500411	
7	1806	NT1421060708S.D	21E0099-02		1	18.90	378018	22.34	391781	33.17	509409	
8	1854	NT1421060709S.D	21E0105-07		1	18.90	352998	22.34	374765	33.17	495361	
9	1942	NT1421060710S.D	21E0106-01		1	18.90	406826	22.35	430773	33.18	545830	
10	2030	NT1421060711S.D	21E0106-02		1	18.90	387046	22.35	412200	33.17	516591	
11	2118	NT1421060712S.D	BJE0383-MS1		1	18.90	377592	22.35	401553	33.17	492652	
12	2207	NT1421060713S.D	BJE0383-MSD1		1	18.90	445644	22.35	475026	33.17	582307	
13	2255	NT1421060714S.D	21E0106-03		1	18.90	407021	22.35	428732	33.17	528014	
14	2343	NT1421060715S.D	21E0106-04		1	18.90	441674	22.35	464608	33.17	567033	
15	0031	NT1421060716S.D	21E0096-02RE1		20	18.90	386417	22.35	406957	33.17	532651	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210607.b\SIM.b

ARI Job No.: SJF0 Method: SIM.b\ALKYLRANGES.m Instrument: nt14.i Date: 07-JUN-2021

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1318	NT14210607O2S.D	SJF0198-ICV1		1	Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, 2,6-Dimethylnaphthalene, 1,6,7-Fluorene-d10, Total Benzofluoranthenes, Anthracene-d10, Acenaphthene-d10,
1406	NT14210607O3S.D	SJF0000-LCV1		1	NO MANUAL INTEGRATION
1454	NT14210607O4S.D	BJE0209-BLK1		1	NO MANUAL INTEGRATION
1542	NT14210607O5S.D	BJE0209-BS1		1	NO MANUAL INTEGRATION
1630	NT14210607O6S.D	BJE0209-BSD1		1	NO MANUAL INTEGRATION
1718	NT14210607O7S.D	21E0099-01		1	NO MANUAL INTEGRATION
1806	NT14210607O8S.D	21E0099-02		1	NO MANUAL INTEGRATION
1854	NT14210607O9S.D	21E0105-07		1	C1-Decalin, C2-Decalin, C3-Decalin, C1-Naphthalenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C1-Phenanthrenes/Anthracenes, C3-Phenanthrenes/Anthracenes, C4-Phenanthrenes/Anthracen
1942	NT14210607O10S.D	21E0106-01		1	C2-Decalin, C1-Naphthalenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C1-Phenanthrenes/Anthracenes, C2-Phenanthrenes/Anthracenes, C3-Phenanthrenes/Anthracenes, C4-Phenanthrenes/Anthracenes, C1-Fluoran
2030	NT14210607O11S.D	21E0106-02		1	C1-Naphthalenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C1-Phenanthrenes/Anthracenes, C2-Phenanthrenes/Ant C3-Phenanthrenes/Anthracenes, C1-Fluoranthenes/Pyrenes, C2-Fluoranthenes/Pyrenes, C3-Fluoranthenes/Pyrenes, C1-Naphthobenzothiophe
2118	NT14210607O12S.D	BJE0383-MS1		1	NO MANUAL INTEGRATION
2207	NT14210607O13S.D	BJE0383-MSD1		1	NO MANUAL INTEGRATION
2255	NT14210607O14S.D	21E0106-03		1	C2-Decalin, C3-Decalin, C1-Naphthalenes, C4-Naphthobenzothiophenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C1-Phenanthrenes/Anthracenes, C2-Phenanthrenes/Anthracenes, C3-Phenanthrenes/Anthracen
2343	NT14210607O15S.D	21E0106-04		1	C3-Decalin, C1-Naphthalenes, C4-Naphthobenzothiophenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes,

C3-Dibenzothiophenes, C1-Phenanthrenes/Anthracenes, C2-Phenanthrenes/Anthracenes, C3-Phenanthrenes/Anthracenes, C4-Phenanthrenes/A

0031	NT1421060716S.D 21E0096-02RE1	20	NO MANUAL INTEGRATION	

Security Status Report

Date: 15-Jun-2021 12:34

NT1421060702S.D	Data Locked	yev, 15-
NT1421060703S.D	Data Locked	yev, 15-
NT1421060704S.D	Data Locked	yev, 15-
NT1421060705S.D	Data Locked	yev, 15-
NT1421060706S.D	Data Locked	yev, 15-
NT1421060707S.D	Data Locked	yev, 15-
NT1421060708S.D	Data Locked	yev, 15-
NT1421060709S.D	Data Locked	yev, 15-
NT1421060710S.D	Data Locked	yev, 15-
NT1421060711S.D	Data Locked	yev, 15-
NT1421060712S.D	Data Locked	yev, 15-
NT1421060713S.D	Data Locked	yev, 15-
NT1421060714S.D	Data Locked	yev, 15-
NT1421060715S.D	Data Locked	yev, 15-
NT1421060716S.D	Data Locked	yev, 15-

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG/WO:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Sequence:	SJF0025	Instrument:	NT14
Calibration:	EF00008	Calibration Date:	05/29/2021

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SJF0025-SCV1 (Solid)			Lab File ID: NT1421052915.D				Analyzed: 05/29/21 19:38	
Naphthalene-d8	2.5000	115	80 - 120	11.897	11.897	0.0000	N/A	
Acenaphthene-d10	2.5000	113	80 - 120	17.377	17.375	0.0020	N/A	
Phenanthrene-d10	2.5000	114	80 - 120	22.239	22.24014	-0.0011	N/A	
Chrysene-d12	2.5000	123	80 - 120	30.219	30.219	0.0000	N/A	
Perylene-d12	2.5000	117	80 - 120	33.519	33.519	0.0000	N/A	
SJF0025-ICB1 (Solid)			Lab File ID: NT1421052916.D				Analyzed: 05/29/21 20:26	
Naphthalene-d8	2.5000	105	30 - 160	11.897	11.897	0.0000	N/A	
Acenaphthene-d10	2.5000	107	30 - 160	17.377	17.375	0.0020	N/A	
Phenanthrene-d10	2.5000	108	30 - 160	22.239	22.24014	-0.0011	N/A	
Chrysene-d12	2.5000	114	30 - 160	30.219	30.219	0.0000	N/A	
Perylene-d12	2.5000	106	30 - 160	33.519	33.519	0.0000	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.
SDG/WO: 21E0099
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Sequence: SJF0173
Instrument: NT14
Calibration: EF00008
Calibration Date: 05/29/2021

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SJF0173-ICV1 (Solid)			Lab File ID: NT1421060702.D			Analyzed: 06/07/21 13:18		
Naphthalene-d8	2.5000	106	80 - 120	11.887	11.897	-0.0100	N/A	
Acenaphthene-d10	2.5000	103	80 - 120	17.365	17.375	-0.0100	N/A	
Phenanthrene-d10	2.5000	103	80 - 120	22.238	22.24014	-0.0021	N/A	
Chrysene-d12	2.5000	116	80 - 120	30.219	30.219	0.0000	N/A	
Perylene-d12	2.5000	102	80 - 120	33.519	33.519	0.0000	N/A	
BJE0209-BLK1 (Water)			Lab File ID: NT1421060704.D			Analyzed: 06/07/21 14:54		
Naphthalene-d8	3.0000	47.3	30 - 160	11.887	11.897	-0.0100	N/A	
Acenaphthene-d10	3.0000	49.4	30 - 160	17.365	17.375	-0.0100	N/A	
Phenanthrene-d10	3.0000	60.0	30 - 160	22.238	22.24014	-0.0021	N/A	
Chrysene-d12	3.0000	75.4	30 - 160	30.219	30.219	0.0000	N/A	
Perylene-d12	3.0000	31.6	30 - 160	33.519	33.519	0.0000	N/A	
BJE0209-BS1 (Water)			Lab File ID: NT1421060705.D			Analyzed: 06/07/21 15:42		
Naphthalene-d8	3.0000	42.8	30 - 160	11.887	11.897	-0.0100	N/A	
Acenaphthene-d10	3.0000	49.8	30 - 160	17.365	17.375	-0.0100	N/A	
Phenanthrene-d10	3.0000	61.8	30 - 160	22.238	22.24014	-0.0021	N/A	
Chrysene-d12	3.0000	76.1	30 - 160	30.219	30.219	0.0000	N/A	
Perylene-d12	3.0000	56.9	30 - 160	33.519	33.519	0.0000	N/A	
BJE0209-BSD1 (Water)			Lab File ID: NT1421060706.D			Analyzed: 06/07/21 16:30		
Naphthalene-d8	3.0000	52.0	30 - 160	11.887	11.897	-0.0100	N/A	
Acenaphthene-d10	3.0000	53.5	30 - 160	17.365	17.375	-0.0100	N/A	
Phenanthrene-d10	3.0000	60.8	30 - 160	22.238	22.24014	-0.0021	N/A	
Chrysene-d12	3.0000	70.8	30 - 160	30.219	30.219	0.0000	N/A	
Perylene-d12	3.0000	52.6	30 - 160	33.519	33.519	0.0000	N/A	
21E0099-01 (Water)			Lab File ID: NT1421060707.D			Analyzed: 06/07/21 17:18		
Naphthalene-d8	3.0000	54.8	30 - 160	11.887	11.897	-0.0100	N/A	
Acenaphthene-d10	3.0000	56.0	30 - 160	17.365	17.375	-0.0100	N/A	
Phenanthrene-d10	3.0000	61.3	30 - 160	22.238	22.24014	-0.0021	N/A	
Chrysene-d12	3.0000	69.5	30 - 160	30.219	30.219	0.0000	N/A	
Perylene-d12	3.0000	52.6	30 - 160	33.519	33.519	0.0000	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG/WO:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Sequence:	SJF0173	Instrument:	NT14
Calibration:	EF00008	Calibration Date:	05/29/2021

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
21E0099-02 (Water)			Lab File ID: NT1421060708.D			Analyzed: 06/07/21 18:06		
Naphthalene-d8	3.0000	51.2	30 - 160	11.887	11.897	-0.0100	N/A	
Acenaphthene-d10	3.0000	53.4	30 - 160	17.365	17.375	-0.0100	N/A	
Phenanthrene-d10	3.0000	59.1	30 - 160	22.238	22.24014	-0.0021	N/A	
Chrysene-d12	3.0000	72.6	30 - 160	30.219	30.219	0.0000	N/A	
Perylene-d12	3.0000	56.6	30 - 160	33.519	33.519	0.0000	N/A	
SJF0173-CCV1 (Solid)			Lab File ID: NT1421060719.D			Analyzed: 06/08/21 02:54		
Naphthalene-d8	2.5000	102	50 - 150	11.887	11.897	-0.0100	N/A	
Acenaphthene-d10	2.5000	101	50 - 150	17.366	17.375	-0.0090	N/A	
Phenanthrene-d10	2.5000	99.7	50 - 150	22.239	22.24014	-0.0011	N/A	
Chrysene-d12	2.5000	113	50 - 150	30.219	30.219	0.0000	N/A	
Perylene-d12	2.5000	101	50 - 150	33.519	33.519	0.0000	N/A	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Sequence:	SJF0025	Instrument:	NT14
		Calibration:	EF00008

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Secondary Cal Check (SJF0025-SCV1)		(Solid)		Lab File ID: NT1421052915.D				Analyzed: 05/29/21 19:38	
Fluorene-d10	166522	18.907	159478	18.907	104	50 - 200	0.000	+/-0.50	
Anthracene-d10	168360	22.36	170161	22.36	99	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	235397	33.181	236612	33.181	99	50 - 200	0.000	+/-0.50	
Initial Cal Blank (SJF0025-ICB1)		(Solid)		Lab File ID: NT1421052916.D				Analyzed: 05/29/21 20:26	
Fluorene-d10	183758	18.907	159478	18.907	115	50 - 200	0.000	+/-0.50	
Anthracene-d10	189746	22.36	170161	22.36	112	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	265253	33.181	236612	33.181	112	50 - 200	0.000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.
SDG: 21E0099
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Sequence: SJF0173
Instrument: NT14
Calibration: EF00008

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SJF0173-ICV1)		(Solid)	Lab File ID: NT1421060702.D				Analyzed: 06/07/21 13:18		
Fluorene-d10	311077	18.896	311077	18.896	100	50 - 200	0.000	+/-0.50	
Anthracene-d10	331614	22.359	331614	22.359	100	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	416427	33.181	416427	33.181	100	50 - 200	0.000	+/-0.50	
Blank (BJE0209-BLK1)		(Water)	Lab File ID: NT1421060704.D				Analyzed: 06/07/21 14:54		
Fluorene-d10	311099	18.896	311077	18.896	100	50 - 200	0.000	+/-0.50	
Anthracene-d10	323596	22.348	331614	22.359	98	50 - 200	-0.011	+/-0.50	
Benzo(e)pyrene-d12	409852	33.181	416427	33.181	98	50 - 200	0.000	+/-0.50	
LCS (BJE0209-BS1)		(Water)	Lab File ID: NT1421060705.D				Analyzed: 06/07/21 15:42		
Fluorene-d10	324204	18.896	311077	18.896	104	50 - 200	0.000	+/-0.50	
Anthracene-d10	337302	22.348	331614	22.359	102	50 - 200	-0.011	+/-0.50	
Benzo(e)pyrene-d12	451062	33.181	416427	33.181	108	50 - 200	0.000	+/-0.50	
LCS Dup (BJE0209-BSD1)		(Water)	Lab File ID: NT1421060706.D				Analyzed: 06/07/21 16:30		
Fluorene-d10	337497	18.896	311077	18.896	108	50 - 200	0.000	+/-0.50	
Anthracene-d10	344529	22.348	331614	22.359	104	50 - 200	-0.011	+/-0.50	
Benzo(e)pyrene-d12	450572	33.181	416427	33.181	108	50 - 200	0.000	+/-0.50	
SC-FB-2105030940 (21E0099-01)		(Water)	Lab File ID: NT1421060707.D				Analyzed: 06/07/21 17:18		
Fluorene-d10	324435	18.896	311077	18.896	104	50 - 200	0.000	+/-0.50	
Anthracene-d10	337230	22.348	331614	22.359	102	50 - 200	-0.011	+/-0.50	
Benzo(e)pyrene-d12	433441	33.181	416427	33.181	104	50 - 200	0.000	+/-0.50	
SC-RB-2105030901 (21E0099-02)		(Water)	Lab File ID: NT1421060708.D				Analyzed: 06/07/21 18:06		
Fluorene-d10	328958	18.896	311077	18.896	106	50 - 200	0.000	+/-0.50	
Anthracene-d10	339490	22.348	331614	22.359	102	50 - 200	-0.011	+/-0.50	
Benzo(e)pyrene-d12	432962	33.181	416427	33.181	104	50 - 200	0.000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Sequence:	SJF0198	Instrument:	NT14
		Calibration:	EF00019

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Blank (BJE0209-BLK2)		(Water)	Lab File ID: NT1421060704S.D					Analyzed: 06/07/21 14:54	
Fluorene-d10	354742	18.897	311077	18.896	114	50 - 200		+/-0.50	
Anthracene-d10	372260	22.339	331614	22.359	112	50 - 200		+/-0.50	
Benzo(e)pyrene-d12	488355	33.172	416427	33.181	117	50 - 200		+/-0.50	
SC-FB-2105030940 (21E0099-01)		(Water)	Lab File ID: NT1421060707S.D					Analyzed: 06/07/21 17:18	
Fluorene-d10	376090	18.897	311077	18.896	121	50 - 200		+/-0.50	
Anthracene-d10	390572	22.339	331614	22.359	118	50 - 200		+/-0.50	
Benzo(e)pyrene-d12	500411	33.172	416427	33.181	120	50 - 200		+/-0.50	
SC-RB-2105030901 (21E0099-02)		(Water)	Lab File ID: NT1421060708S.D					Analyzed: 06/07/21 18:06	
Fluorene-d10	378018	18.897	311077	18.896	122	50 - 200		+/-0.50	
Anthracene-d10	391781	22.339	331614	22.359	118	50 - 200		+/-0.50	
Benzo(e)pyrene-d12	509409	33.172	416427	33.181	122	50 - 200		+/-0.50	

HOLDING TIME SUMMARY

Analysis: EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21E0099

Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
SC-FB-2105030940 21E0099-01	05/03/21 09:40	05/05/21 10:53	05/10/21 15:58	7	7	06/07/21 17:18	28	40	
SC-FB-2105030940 21E0099-01	05/03/21 09:40	05/05/21 10:53	05/10/21 15:58	7	7	06/07/21 17:18	28	40	
SC-RB-2105030901 21E0099-02	05/03/21 09:00	05/05/21 10:53	05/10/21 15:58	7	7	06/07/21 18:06	28	40	
SC-RB-2105030901 21E0099-02	05/03/21 09:00	05/05/21 10:53	05/10/21 15:58	7	7	06/07/21 18:06	28	40	

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21E0099

Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings

Matrix: Solid Instrument: NT14

Analyte	MDL	RL	Units
trans-Decalin	0.03	5.0	ug/kg
cis-Decalin	0.5	5.0	ug/kg
Naphthalene	0.4	5.0	ug/kg
1-Methylnaphthalene	0.4	5.0	ug/kg
2-Methylnaphthalene	0.4	5.0	ug/kg
Biphenyl	0.3	5.0	ug/kg
2,6-Dimethylnaphthalene	0.4	5.0	ug/kg
Acenaphthylene	0.3	5.0	ug/kg
Acenaphthene	0.5	5.0	ug/kg
Dibenzofuran	0.4	5.0	ug/kg
2,3,5-Trimethylnaphthalene	0.4	5.0	ug/kg
Fluorene	0.5	5.0	ug/kg
Benzo(b)thiophene	0.4	5.0	ug/kg
Phenanthrene	0.9	5.0	ug/kg
Anthracene	0.05	5.0	ug/kg
Carbazole	0.7	5.0	ug/kg
1-Methylphenanthrene	0.5	5.0	ug/kg
Fluoranthene	1.4	5.0	ug/kg
Dibenzothiophene	0.7	5.0	ug/kg
Pyrene	1.0	5.0	ug/kg
Benzo(a)anthracene	1.4	5.0	ug/kg
Chrysene	0.7	5.0	ug/kg
Benzo(b)fluoranthene	0.8	5.0	ug/kg
Benzo(j)fluoranthene	0.7	5.0	ug/kg
Benzo(k)fluoranthene	0.8	5.0	ug/kg
Benzofluoranthenes, 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

METHOD DETECTION AND REPORTING LIMITS

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21E0099

Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings

Matrix: Water Instrument: NT14

Analyte	MDL	RL	Units
trans-Decalin	0.007	0.100	ug/L
cis-Decalin	0.007	0.100	ug/L
Naphthalene	0.011	0.100	ug/L
1-Methylnaphthalene	0.010	0.100	ug/L
2-Methylnaphthalene	0.010	0.100	ug/L
Biphenyl	0.012	0.100	ug/L
2,6-Dimethylnaphthalene	0.013	0.100	ug/L
Acenaphthylene	0.006	0.100	ug/L
Acenaphthene	0.011	0.100	ug/L
Dibenzofuran	0.009	0.100	ug/L
2,3,5-Trimethylnaphthalene	0.008	0.100	ug/L
Fluorene	0.007	0.100	ug/L
Benzo(b)thiophene	0.009	0.100	ug/L
Phenanthrene	0.009	0.100	ug/L
Anthracene	0.025	0.100	ug/L
Carbazole	0.028	0.100	ug/L
1-Methylphenanthrene	0.005	0.100	ug/L
Fluoranthene	0.007	0.100	ug/L
Dibenzothiophene	0.021	0.100	ug/L
Pyrene	0.014	0.100	ug/L
Benzo(a)anthracene	0.017	0.100	ug/L
Chrysene	0.010	0.100	ug/L
Benzo(b)fluoranthene	0.010	0.100	ug/L
Benzo(j)fluoranthene	0.038	0.100	ug/L
Benzo(k)fluoranthene	0.010	0.100	ug/L
Benzo(e)pyrene	0.014	0.100	ug/L
Benzo(a)pyrene	0.022	0.100	ug/L
Indeno(1,2,3-cd)pyrene	0.014	0.100	ug/L
Dibenzo(a,h)anthracene	0.013	0.100	ug/L
Benzo(g,h,i)perylene	0.009	0.100	ug/L
Perylene	0.032	0.100	ug/L
Benzo(b)naphtho(2,1-d)thiophene	0.100	0.100	ug/L
C1-Decalins		0.020	ug/L
C2-Decalins		0.020	ug/L
C3-Decalins		0.020	ug/L
C4-Decalins		0.020	ug/L

METHOD DETECTION AND REPORTING LIMITS

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21E0099

Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings

Matrix: Water Instrument: NT14

Analyte	MDL	RL	Units
C1-Naphthalenes		0.020	ug/L
C2-Naphthalenes		0.020	ug/L
C3-Naphthalenes		0.020	ug/L
C4-Naphthalenes		0.020	ug/L
C1-Fluorenes		0.020	ug/L
C4-Phenanthrenes/Anthracenes		0.020	ug/L
C1-Fluoranthenes/Pyrenes		0.020	ug/L
C2-Fluorenes		0.020	ug/L
C3-Fluorenes		0.020	ug/L
C1-Dibenzothiophenes		0.020	ug/L
C2-Dibenzothiophenes		0.020	ug/L
C3-Dibenzothiophenes		0.020	ug/L
C4-Dibenzothiophenes		0.020	ug/L
C1-Phenanthrenes/Anthracenes		0.020	ug/L
C2-Phenanthrenes/Anthracenes		0.020	ug/L
C3-Phenanthrenes/Anthracenes		0.020	ug/L
C2-Fluoranthenes/Pyrenes		0.020	ug/L
C3-Fluoranthenes/Pyrenes		0.020	ug/L
C4-Fluoranthenes/Pyrenes		0.020	ug/L
C1-Benzo(a)anthracenes/Chrysenes		0.020	ug/L
C2-Benzo(a)anthracenes/Chrysenes		0.020	ug/L
C3-Benzo(a)anthracenes/Chrysenes		0.020	ug/L
C4-Benzo(a)anthracenes/Chrysenes		0.020	ug/L
C1-Benzothiophenes		0.020	ug/L
C2-Benzothiophenes		0.020	ug/L
C3-Benzothiophenes		0.020	ug/L
C1-Naphthobenzothiophenes		0.020	ug/L
C2-Naphthobenzothiophenes		0.020	ug/L
C3-Naphthobenzothiophenes		0.020	ug/L
C4-Naphthobenzothiopenes		0.020	ug/L
C1-Dibenzo(a)anthracenes		0.020	ug/L
C2-Dibenzo(a)anthracenes		0.020	ug/L
C3-Dibenzo(a)anthracenes		0.020	ug/L

Certificate of Analysis

SIGMA-ALDRICH

Product Name	2,4,6-Tribromophenol, 99%
Product Number	137715
Product Brand	ALDRICH
CAS Number	118-79-6
Molecular Formula	$Br_3C_6H_2OH$
Molecular Weight	330.80

TEST	SPECIFICATION	LOT 03410KL RESULTS
APPEARANCE	WHITE TO OFF-WHITE TO PINK FLAKES, CHUNKS,	OFF-WHITE CHIPS
INFRARED SPECTRUM	CONFORMS TO STRUCTURE.	CONFORMS TO STRUCTURE
MELTING POINT		93 DEGREES CELSIUS
GAS LIQUID CHROMATOGRAPHY		99.4 %

Barbara Rajzer

Barbara Rajzer, Supervisor
Quality Control
Milwaukee, Wisconsin USA

Please wait...

I 8244

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
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info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

2-Chloronaphthalene

CATALOG NUMBER	N-10323-100MG
LOT NUMBER	7762100
DATE CERTIFIED	05/22/18
EXPIRATION DATE	05/31/24
CAS NUMBER	91-58-7
MOLECULAR FORMULA	C10H7Cl
MOLECULAR WEIGHT	162.62
STORAGE	Store in a cool dry place.
HANDLING	See Safety Data Sheet
INTENDED USE	For laboratory use only.
ISO GUIDE 34 CERTIFIED	[ ]

Analytical Test	Value
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

G010438
2-Chloronaphthalene NEAT
Solvent / Lot: NEAT
Prep: 11/10/2018 by VS
Exp: 5/31/2024
Location: BOX P

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

Chem Service, Inc. is accredited to ISO Guide 34:2009, ISO/IEC 17025:2005 and certified to ISO 9001:2008

ISO/IEC 17025
Accreditation Number: 3320

ISO GUIDE 34
Accreditation Number: 3320

COA Form
Revision 3 (3/2015)

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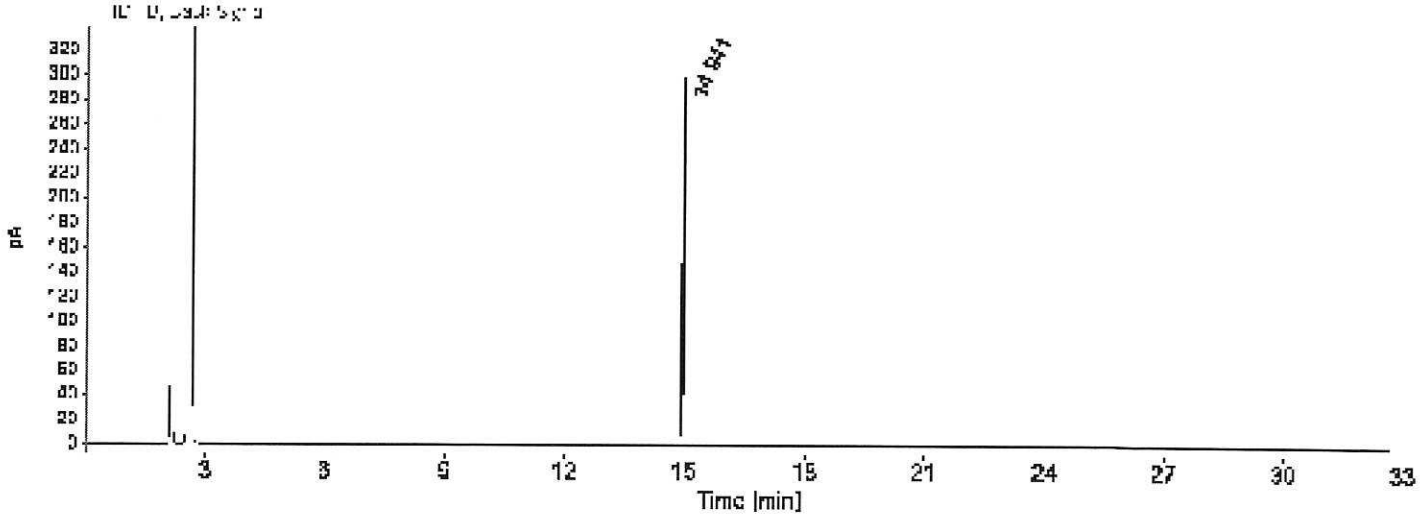
CERTIFICATE OF ANALYSIS

Gas Chromatography / Flame Ionization Detector (GC/FID)

Data file: C:\Chem32\1\Data\2018 Data\0518\2-Chloronaphthalene.D
Sample name: 2-Chloronaphthalene

Instrument: GC3 **Location:** 209
Injection date: 5/22/2018 1:12:52 PM **Injection volume:** 1.0uL
Acq. method: REAR_SCREEN.M
Col Type: pn# 7HG-G006-17-C **Diameter** 250.000 **Length** 30.000



Signal: FID1 B, Back Signal

RT [min]	Type	Width [min]	Area	Height	Area%
14.941	BB	0.0410	808.8124	308.5675	100.0000
		Sum	808.8124		

Chem Service, Inc. is accredited to ISO Guide 34:2009, ISO/IEC 17025:2005 and certified to ISO 9001:2008

ISO/IEC 17025 Accreditation Number:63520
ISO GUIDE 34 Accreditation Number:63520

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Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31206 **Lot No.:** A0149213

Description : SV Internal Standard Mix 2mg/ml

SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Dichlorobenzene-d4	2,018.3 µg/mL	+/- 11.7348 µg/mL	Gravimetric
	CAS # 3855-82-1 (Lot PR-18488)		+/- 90.9069 µg/mL	Unstressed
	Purity 99%		+/- 100.8725 µg/mL	Stressed
2	Naphthalene-d8	2,013.2 µg/mL	+/- 11.7047 µg/mL	Gravimetric
	CAS # 1146-65-2 (Lot M-1452)		+/- 90.6742 µg/mL	Unstressed
	Purity 99%		+/- 100.6143 µg/mL	Stressed
3	Acenaphthene-d10	2,017.4 µg/mL	+/- 11.7294 µg/mL	Gravimetric
	CAS # 15067-26-2 (Lot PR-28021)		+/- 90.8657 µg/mL	Unstressed
	Purity 99%		+/- 100.8267 µg/mL	Stressed
4	Phenanthrene-d10	2,013.3 µg/mL	+/- 11.7057 µg/mL	Gravimetric
	CAS # 1517-22-2 (Lot PR-27621)		+/- 90.6817 µg/mL	Unstressed
	Purity 99%		+/- 100.6226 µg/mL	Stressed
5	Chrysene-d12	2,016.5 µg/mL	+/- 11.7241 µg/mL	Gravimetric
	CAS # 1719-03-5 (Lot PR-29295)		+/- 90.8244 µg/mL	Unstressed
	Purity 99%		+/- 100.7809 µg/mL	Stressed
6	Perylene-d12	2,013.8 µg/mL	+/- 11.7086 µg/mL	Gravimetric
	CAS # 1520-96-3 (Lot PR-27342)		+/- 90.7043 µg/mL	Unstressed
	Purity 99%		+/- 100.6476 µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

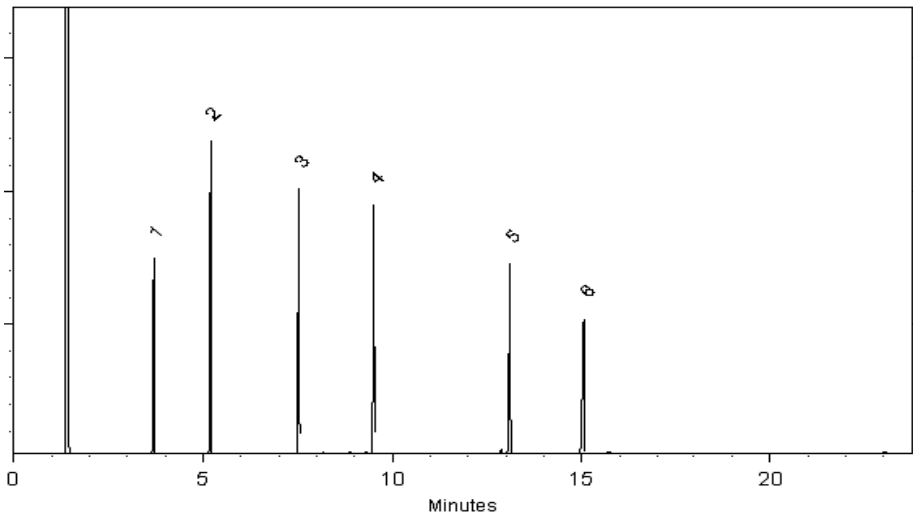
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Walker Workman - Operations Technician I

Date Mixed: 15-May-2019 **Balance:** B345965662

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 20-May-2019

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

SIGMA-ALDRICH®

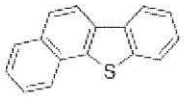
sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
1,2-Benzodiphenylene sulfide - 99%

Product Number:	**255122**
Batch Number:	**MKCL4273**
Brand:	ALDRICH
CAS Number:	239-35-0
MDL Number:	MFCD00010043
Formula:	C16H10S
Formula Weight:	234.32 g/mol
Quality Release Date:	25 NOV 2019



Test	Specification	Result
Appearance (Color)	White to Off White	White
Appearance (Form) Crystalline Powder or Solid	Conforms to Requirements	Powder
Infrared Spectrum	Conforms to Structure	Conforms
Carbon Content	80.8 - 83.2 %	82.0 %
Nitrogen Content	13.4 - 14.0 %	13.7 %
Purity (TLC)	≥ 99 %	> 99 %
Solubility (Turbidity) 2.5% in CHCL3	Clear to Slightly Hazy	Clear
Solubility (Color)	Colorless to Faint Yellow	Colorless

Michael Grady, Manager
Quality Control
Milwaukee, WI US

I000979
Benzo(b)naphtho(2,1-d)thiophene
Solvent / Lot: NA
Prep: 1/31/2020 by VS
Exp: 7/29/2040
Location: R-19

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Cambridge Isotope Laboratories, Inc.

Certificate of Analysis

Product Name: DI-N-OCTYL PHTHALATE
(Isotopic Label & Enrichment Specification) (RING-D4, 98%)

Lot Number: PR-14719

Catalog Number: DLM-1630-0

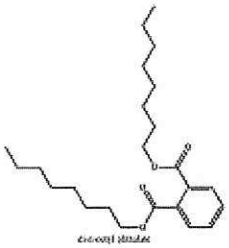
Product Information

Chemical Purity Specification: ≥ 98%

MW*: 394.58
** For isotopically labeled compounds, MW listed is for the fully enriched product.*

Labeled CAS Number: 93952-13-7

Unlabeled CAS Number: 117-84-0



Chemical Formula: C6D4-1,2-(CO2(CH2)7CH3)2

Storage: Store at room temperature away from light and moisture.

Intended Use: For Research Use Only. Not for use in diagnostic procedures.

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

The retest date for this chemical has been designated based on CIL's experience in working with chemical standards for over 30 years, and includes review of actual analytical results and relevant literature references. The retest date is valid only for unopened vials or ampoules that have been stored as recommended.

Approved by: Jeffrey O Neill
Jeffrey O'Neill, Quality Review

Quality Control Tests and Results

1H NMR for Chemical Purity	Pass
GC/MS for Chemical Purity	99.8%
GC/MS for Isotopic Enrichment	99.1%

I2078
I2079
I2080

Additional Testing Information:
Retest/Review Date: 01/17/23

CIL subscribes to the following standards for different products: ISO Guide 34, ISO/IEC 17025, ISO 13485 and cGMP as appropriate.

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Bellefonte, PA 16823-8812
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 33913 **Lot No.:** A0154854

Description : SOM01.0 SIM Analysis Standard

SOM01.0 SIM Analysis Standard 2000µg/mL, Methylene chloride, 1mL /ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2025 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2-Methylnaphthalene-d10	2,017.8 µg/mL	+/- 11.8417 µg/mL	Gravimetric
	CAS # 7297-45-2 (Lot AC-257)		+/- 90.8981 µg/mL	Unstressed
	Purity 98%		+/- 100.8597 µg/mL	Stressed
2	Fluoranthene-d10	1,999.2 µg/mL	+/- 11.7324 µg/mL	Gravimetric
	CAS # 93951-69-0 (Lot PR-20668)		+/- 90.0593 µg/mL	Unstressed
	Purity 98%		+/- 99.9290 µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

I 4369

Cambridge Isotope Laboratories, Inc.

Certificate of Analysis

Product Name: DIBENZ[A,H]ANTHRACENE
(Isotopic Label & Enrichment Specification) (D14, 98%)

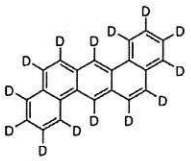
Lot Number: PR-30906

Catalog Number: DLM-677-0

Product Information

Chemical Purity Specification: ≥ 98%

MW*: 292.43
** For isotopically labeled compounds, MW listed is for the fully enriched product.*



Labeled CAS Number: 13250-98-1

Unlabeled CAS Number: 53-70-3

Chemical Formula: C22D14

I4874

Storage: Store at room temperature away from light and moisture.

Intended Use: For Research Use Only. Not for use in diagnostic procedures.

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

The retest date for this chemical has been designated based on CIL's experience in working with chemical standards for over 30 years, and includes review of actual analytical results and relevant literature references. The retest date is valid only for unopened vials or ampoules that have been stored as recommended.

Approved by: Sashi Sivendran-Basak

Sashi Sivendran-Basak, Ph.D., Quality Review

Quality Control Tests and Results

1H NMR for Chemical Purity	Pass
1H NMR for Isotopic Enrichment	99.4%
2H NMR for Chemical Purity	Pass
GC/FID for Chemical Purity	99.4%
GC/MS for Identification	Conforms
Melting Point Range Determination	261-267°C

Additional Testing Information:

CIL subscribes to the following standards for different products: ISO Guide 34, ISO/IEC 17025, ISO 13485 and cGMP as appropriate.

Certificate of Analysis

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Access your MSDS and digital C of A at **www.phenomenex.com/mysupport. Re-order at www.phenomenex.com/standards**

Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101291
Description: GC/MS Tuning Mix
Storage: 4 °C
Provided As: 1 mL in 2 mL Ampoule in Methylene chloride

Lot Number: CL10999
Certification Date: May 9, 2014
Expiration Date: December 31, 2023
Revision Date: June 19, 2015

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty (%)
Benzidine	92-87-5	1000	± 4.575%
Decafluorotriphenylphosphine (DFTPP)	5074-71-5	1000	± 2.420%
4,4'-DDT	50-29-3	1000	± 2.772%
Pentachlorophenol	87-86-5	1000	± 2.616%

I 5998

ACCREDITED
Reference Material Producer
Certificate No. 2427.02

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Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ilac-MRA ACCREDITED
Chemical Testing Laboratory
Certificate No. 2427.03

IL111106I3_us

Produced by Phenova
6390 Joyce Drive STE 100, Golden, CO 80403 USA ▪ Tel: 303-940-0033 ▪ Fax: 303-940-0043 ▪ info@phenova.com
Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31[1] and ISO Guide 35.[2]

2. Quality Standards: Phenova is accredited by A2LA to ISO 17034[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.

4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 25 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.

12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

[1] ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
[3] ISO 17034 – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
[5] ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

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www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number:	**93462**	**Solvent(s):**	**Lot#**	
Lot Number:	092220	Methylene chloride	102669	
Description:	PAH Standard 30 components			
Expiration Date:	092225			
Recommended Storage:	Refrigerate (4 °C)			
Nominal Concentration (µg/mL):	1000			
NIST Test ID#:	23060	5E-05	Balance Uncertainty	
Volume(s) shown below were combined and diluted to (mL):	20.0	0.003	Flask Uncertainty	

		092220
Formulated By:	Benson Chan	DATE
		092220
Reviewed By:	Pedro L. Rentas	DATE

	Compound	Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(ug/mL)	Final Conc.(ug/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acenaphthene	10007	060118	0.50	10.00	0.042	2000.1	999.5	9.3	83-32-9	N/A	ipr-rat 600mg/kg
2.	Acenaphthylene	10007	060118	0.50	10.00	0.042	2000.2	999.5	9.4	208-96-8	N/A	N/A
3.	Anthracene	10007	060118	0.50	10.00	0.042	2000.3	999.5	9.3	120-12-7	0.2mg/m3 (8H)	ipr-mus 430mg/kg
4.	Benzo(a)anthracene	10007	060118	0.50	10.00	0.042	2000.9	999.9	9.4	56-55-3	N/A	N/A
5.	Benzo(a)pyrene	10007	060118	0.50	10.00	0.042	2000.3	999.6	9.3	50-32-8	0.2mg/m3 (8H)	scu-rat 50mg/kg
6.	Benzo(b)fluoranthene	10007	060118	0.50	10.00	0.042	2000.7	999.8	9.4	205-99-2	N/A	N/A
7.	Benzo(k)fluoranthene	10007	060118	0.50	10.00	0.042	2000.6	999.7	9.4	207-08-9	N/A	N/A
8.	Benzo(g,h,i)perylene	10007	060118	0.50	10.00	0.042	2000.4	999.6	9.3	191-24-2	N/A	N/A
9.	Carbazole	10007	060118	0.50	10.00	0.042	2000.7	999.7	9.4	86-74-8	N/A	ipr-mus 200mg/kg
10.	Chrysene	10007	060118	0.50	10.00	0.042	2000.4	999.6	9.4	218-01-9	0.2mg/m3	N/A
11.	Dibenzo(a,h)anthracene	10007	060118	0.50	10.00	0.042	2000.5	999.7	9.4	53-70-3	0.2mg/m3	N/A
12.	Fluoranthene	10007	060118	0.50	10.00	0.042	2000.5	999.6	9.4	206-44-0	N/A	orl-rat 2000mg/kg
13.	Fluorene	10007	060118	0.50	10.00	0.042	2000.4	999.6	9.4	86-73-7	N/A	ipr-mus 2 g/kg
14.	Indeno(1,2,3-cd)pyrene	10007	060118	0.50	10.00	0.042	2000.3	999.5	9.4	193-39-5	N/A	N/A
15.	Naphthalene	10007	060118	0.50	10.00	0.042	2000.8	999.8	9.4	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
16.	Phenanthrene	10007	060118	0.50	10.00	0.042	2000.8	999.8	9.4	85-01-8	0.2mg/m3/8H	orl-mus 700mg/kg
17.	Pyrene	10007	060118	0.50	10.00	0.042	2000.0	999.4	9.4	129-00-0	0.2mg/m3/8H	orl-rat 2700mg/kg
18.	Benzo(e)pyrene	94851	021119	0.50	10.00	0.042	2001.6	1000.2	9.4	192-97-2	N/A	N/A
19.	Biphenyl	94851	021119	0.50	10.00	0.042	2003.6	1001.2	9.4	92-52-4	0.2 ppm(1mg/m3/8H)	orl-rat 2400mg/kg
20.	Decalin (49% cis, 51% trans)	94851	021119	0.50	10.00	0.042	2004.1	1001.4	9.4	91-17-8	N/A	N/A
21.	Dibenzofuran	94851	021119	0.50	10.00	0.042	2000.9	999.9	9.4	132-64-9	N/A	N/A
22.	Dibenzothiophene	94851	021119	0.50	10.00	0.042	2002.7	1000.7	9.4	132-65-0	N/A	orl-mus 470 mg/kg
23.	2,6-Dimethylnaphthalene	94851	021119	0.50	10.00	0.042	2000.7	999.8	9.4	581-42-0	N/A	N/A
24.	1-Methylnaphthalene	94851	021119	0.50	10.00	0.042	2001.0	999.9	9.4	90-12-0	N/A	orl-rat 1840mg/kg
25.	2-Methylnaphthalene	94851	021119	0.50	10.00	0.042	2001.6	1000.2	9.4	91-57-6	N/A	orl-rat 1630mg/kg
26.	1-Methylphenanthrene	94851	021119	0.50	10.00	0.042	2003.3	1001.1	13.2	832-69-9	N/A	N/A
27.	Pentachlorophenol	94851	021119	0.50	10.00	0.042	2003.0	1000.9	9.4	87-86-5	0.5mg/m3/8H (skin)	orl-rat 27mg/kg
28.	Perylene	94851	021119	0.50	10.00	0.042	2003.3	1001.0	9.4	198-55-0	N/A	N/A
29.	Thianaphthene	94851	021119	0.50	10.00	0.042	2000.3	999.6	9.4	95-15-8	N/A	N/A
30.	2,3,5-Trimethylnaphthalene	94851	021119	0.50	10.00	0.042	2003.3	1001.0	9.5	2245-38-7	N/A	N/A

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

I009060
SVOA PAH STD-RMP-1000ug/ml
Solvent / Lot: 092220
Prep: 10/3/2020 by VS
Exp: 9/22/2025
Location: Fridge 19

Absolute Standards, Inc.
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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 70476
Lot Number: 092220
Description: Benzo(j)fluoranthene

Expiration Date: 092225
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 23060

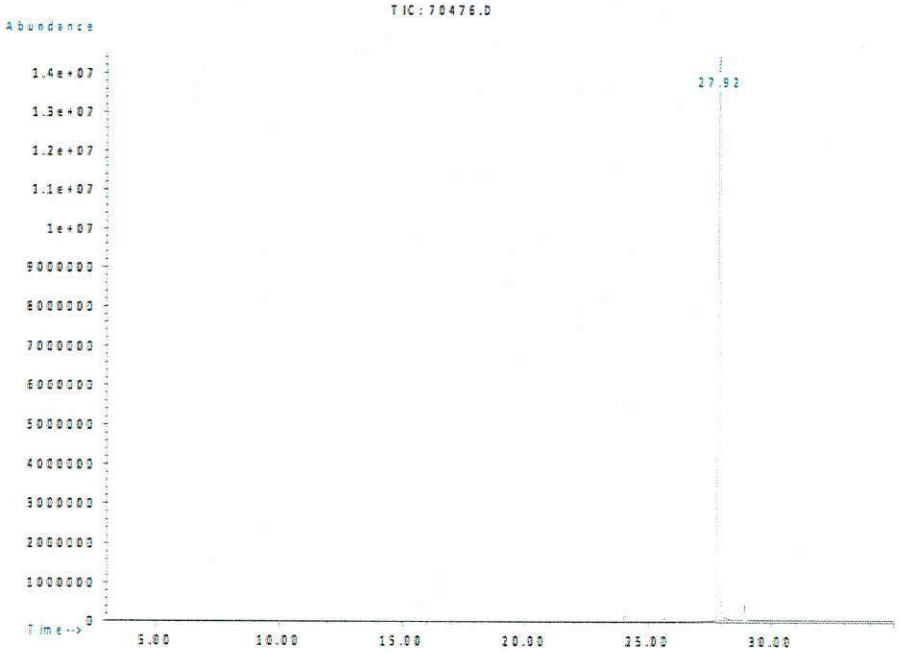
Solvent(s): **Lot#**
Methylene chloride 104929

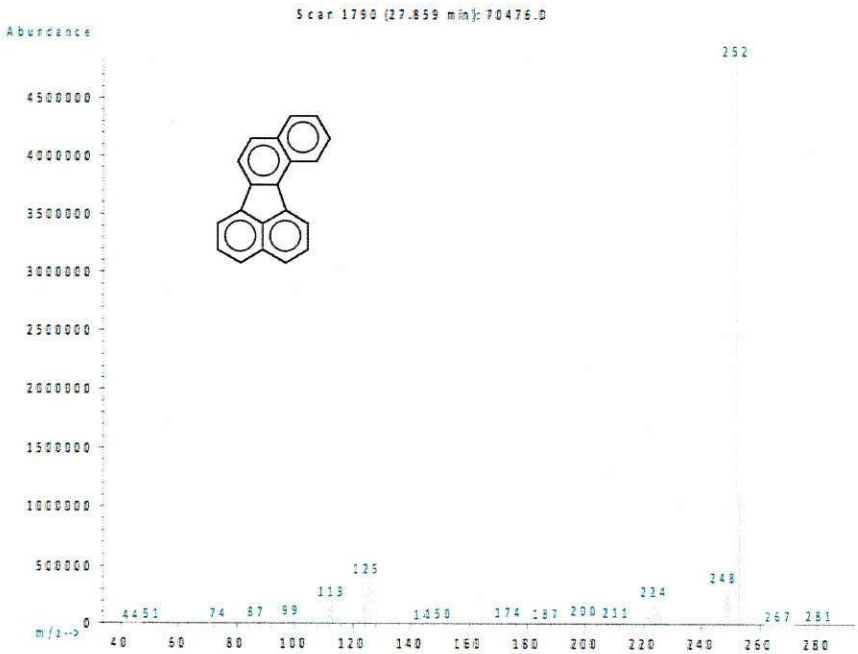
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 25.0 0.001 Flask Uncertainty

		092220
Formulated By:	Benson Chan	DATE
		092220
Reviewed By:	Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Benzo(j)fluoranthene	476	3-CSZ-153-20	1000	98.1	0.2	0.02547	0.02552	1001.8	5.7	205-82-3	0.2mg/m3	N/A

Method GC8MSD1M: Column:SBB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9 min.), Rate = 10°C/min., Injector B= 200°C, Detector B = 290°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by Candice Warren.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

I009061
Benzo(j)fluoranthene 1000ug/mL
Solvent / Lot: 092220
Prep: 10/3/2020 by VS
Exp: 9/22/2025
Location:

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

ilac-MRA

AB 11/19/2020

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31206 **Lot No.:** A0162879

Description : SV Internal Standard Mix 2mg/ml

SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2026 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

I010724
SVOA 8270 IS Mix-2mg/ml
Solvent / Lot: DCM
Prep: 11/19/2020 by JZ
Exp: 5/31/2026
Location: GC

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 (Lot PR-18488) **Purity** 99%	2,014.5 µg/mL	+/- 11.7123 µg/mL +/- 90.7328 µg/mL +/- 100.6792 µg/mL	Gravimetric Unstressed Stressed
2	Naphthalene-d8 **CAS #** 1146-65-2 (Lot M-1452) **Purity** 99%	2,014.9 µg/mL	+/- 11.7150 µg/mL +/- 90.7538 µg/mL +/- 100.7026 µg/mL	Gravimetric Unstressed Stressed
3	Acenaphthene-d10 **CAS #** 15067-26-2 (Lot PR-30913) **Purity** 99%	2,011.9 µg/mL	+/- 11.6972 µg/mL +/- 90.6157 µg/mL +/- 100.5493 µg/mL	Gravimetric Unstressed Stressed
4	Phenanthrene-d10 **CAS #** 1517-22-2 (Lot PR-29119) **Purity** 99%	2,015.7 µg/mL	+/- 11.7196 µg/mL +/- 90.7898 µg/mL +/- 100.7425 µg/mL	Gravimetric Unstressed Stressed
5	Chrysene-d12 **CAS #** 1719-03-5 (Lot PR-30486) **Purity** 99%	2,004.0 µg/mL	+/- 11.6514 µg/mL +/- 90.2614 µg/mL +/- 100.1561 µg/mL	Gravimetric Unstressed Stressed
6	Perylene-d12 **CAS #** 1520-96-3 (Lot PR-30020) **Purity** 99%	2,013.6 µg/mL	+/- 11.7072 µg/mL +/- 90.6938 µg/mL +/- 100.6359 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

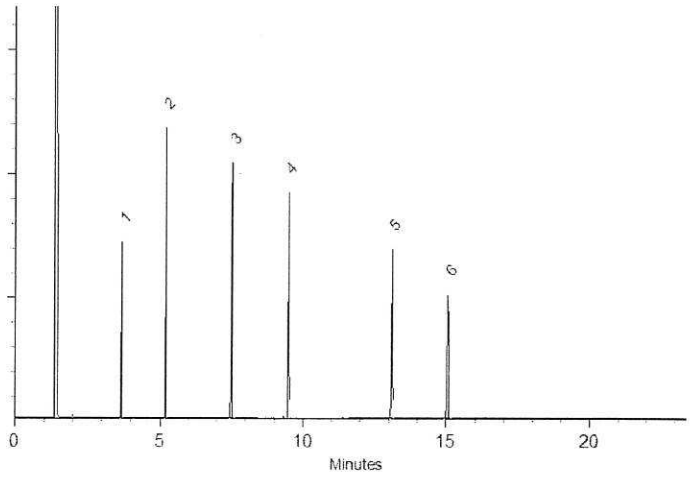
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cydnei L. Crust
Cydnei L. Crust - Mix Technician

Date Mixed: 23-Jul-2020 **Balance:** B251644995

Justine Albertson - Operations Tech-ARM QC

Date Passed: 24-Jul-2020

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

SC-FB-2105030940

Form I

ORGANIC ANALYSIS DATA SHEET

NWTPH-Dx

TPH (Extractables) low level

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Gasco Siltronic - US Moorings				
Matrix:	Water	Laboratory ID:	21E0099-01 A	SDG:	21E0099
Sampled:	05/03/21 09:40	Prepared:	05/10/21 12:19	File ID:	421E1120.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	05/11/21 17:11
Batch:	BJE0193	Sequence:	SJE0139	Initial/Final:	500 mL / 1 mL
Instrument:	FID4	Column:	RTX-1	Calibration:	ED00037

CAS NO.	COMPOUND	DILUTION	(mg/L)	Q	DL	RL
DRO	Diesel Range Organics (C12-C24)	1	0.100	U	0.033	0.100
RRO	Motor Oil Range Organics (C24-C38)	1	0.200	U	0.056	0.200

SURROGATES	ADDED:(mg/L)	(mg/L)	% REC	QC LIMITS	Q
o-Terphenyl	0.22500	0.202	90.0	50 - 150	

Data File: \\target\share\chem2\fid4a.i\20210511.b\421E1120.D

Date : 11-MAY-2021 17:11

Client ID:

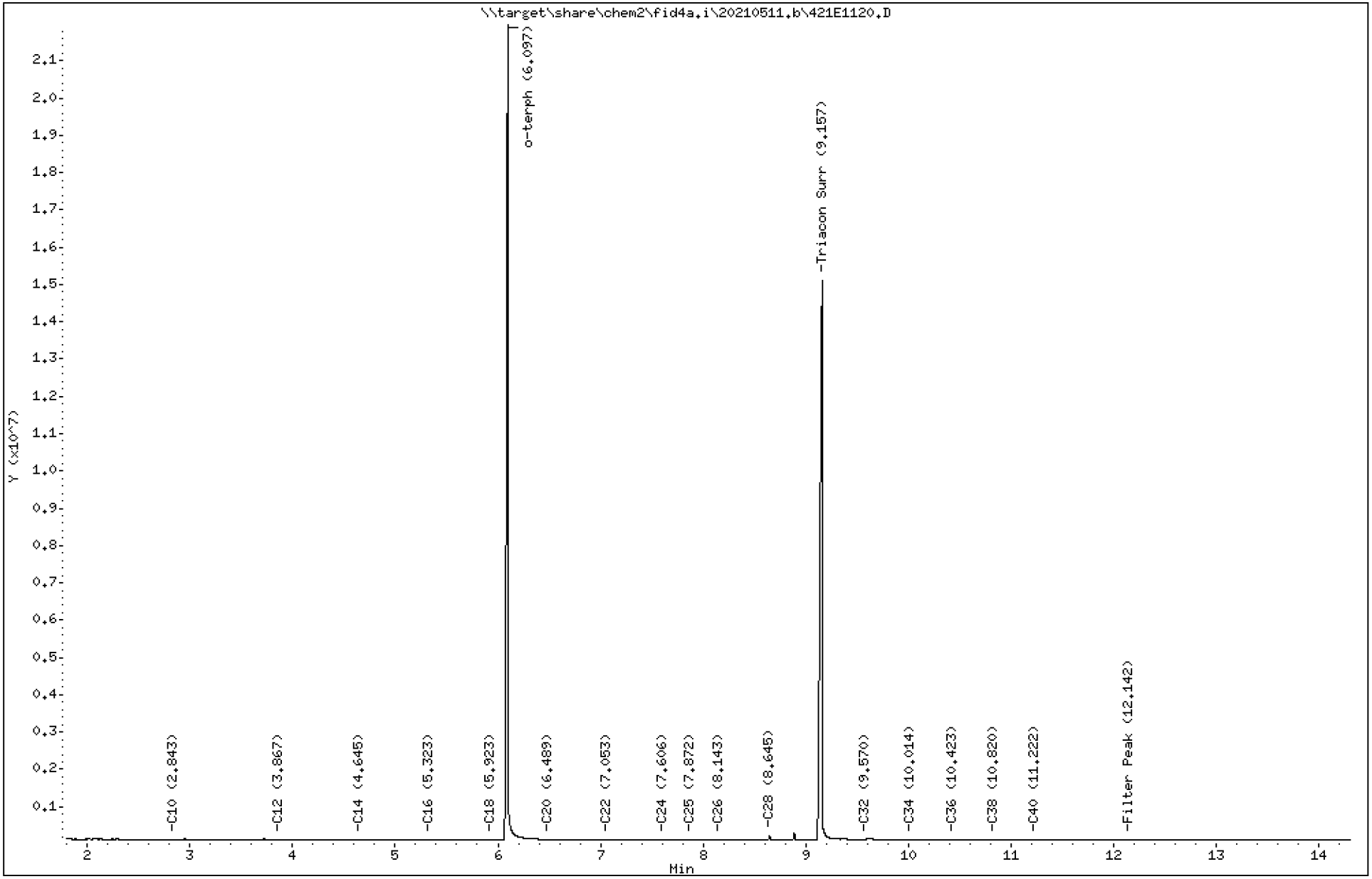
Instrument: fid4a.i

Sample Info: 21E0099-01

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25



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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210511.b/421E1120.D
Method: 20210511.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 05/12/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: 21E0099-01
Client ID:
Injection: 11-MAY-2021 17:11
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	1.588	0.022	104851	157574	WATPHD	(C12-C24)	1470028	8.0
C10	2.843	-0.007	11731	15726	WATPHM	(C24-C38)	1447983	11.0
C12	3.867	0.005	8014	1598	AK102	(C10-C25)	1983208	9.2
C14	4.645	-0.001	7783	3726	AK103	(C25-C36)	1203849	11.9
C16	5.323	0.004	8965	9501	OR.DIES	(C10-C28)	2130162	10.9
C18	5.923	0.002	4092	2366				
C20	6.489	0.001	12174	3605	JET-A	(C10-C18)	1333556	9.1
C22	7.053	0.002	1153	483				
C24	7.606	0.002	924	259				
C25	7.872	-0.003	1039	505				
C26	8.143	0.002	1604	745				
C28	8.645	-0.006	111085	88813				
C32	9.570	-0.018	10607	3684				
C34	10.014	-0.003	6447	2215				
Filter Peak	12.142	0.003	14089	6294	BUNKERC	(C10-C38)	3424385	76.3
C36	10.423	-0.001	7849	1560				
C38	10.820	0.002	11316	4479				
C40	11.222	-0.001	14001	6942				
o-terph	6.097	-0.002	21856658	25202082				
Triacon Surr	9.157	-0.003	15015446	21910428	NAS DIES	(C10-C24)	1976402	10.1

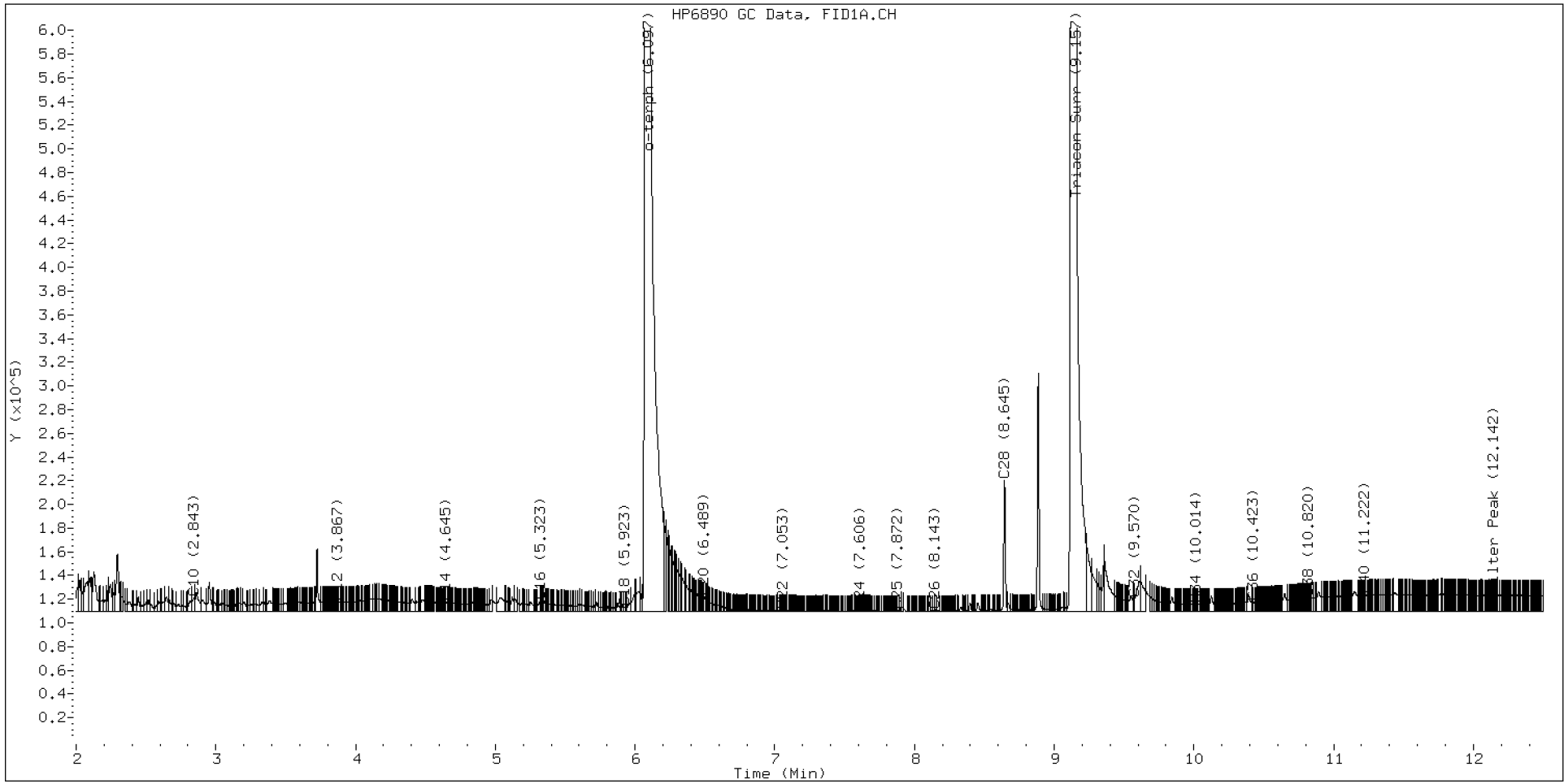
Range Times: NW Diesel(3.862 - 7.604) AK102(2.85 - 7.88) Jet A(2.85 - 5.92)
NW M.Oil(7.60 - 10.82) AK103(7.88 - 10.42) OR Diesel(2.85 - 8.65)

Surrogate	Area	Amount
o-Terphenyl	25202082	101.2
Triacontane	21910428	103.4

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021

Datafile: FID4A, 20210511.b/421E1120.D 21E0099-01



SC-RB-2105030901

Form I

ORGANIC ANALYSIS DATA SHEET

NWTPH-Dx

TPH (Extractables) low level

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Gasco Siltronic - US Moorings				
Matrix:	Water	Laboratory ID:	21E0099-02 A	SDG:	21E0099
Sampled:	05/03/21 09:00	Prepared:	05/10/21 12:19	File ID:	421E1121.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	05/11/21 17:33
Batch:	BJE0193	Sequence:	SJE0139	Initial/Final:	500 mL / 1 mL
Instrument:	FID4	Column:	RTX-1	Calibration:	ED00037

CAS NO.	COMPOUND	DILUTION	(mg/L)	Q	DL	RL
DRO	Diesel Range Organics (C12-C24)	1	0.100	U	0.033	0.100
RRO	Motor Oil Range Organics (C24-C38)	1	0.200	U	0.056	0.200

SURROGATES	ADDED:(mg/L)	(mg/L)	% REC	QC LIMITS	Q
o-Terphenyl	0.22500	0.211	93.6	50 - 150	

Data File: \\target\share\chem2\fid4a.i\20210511.b\421E1121.D

Date : 11-MAY-2021 17:33

Client ID:

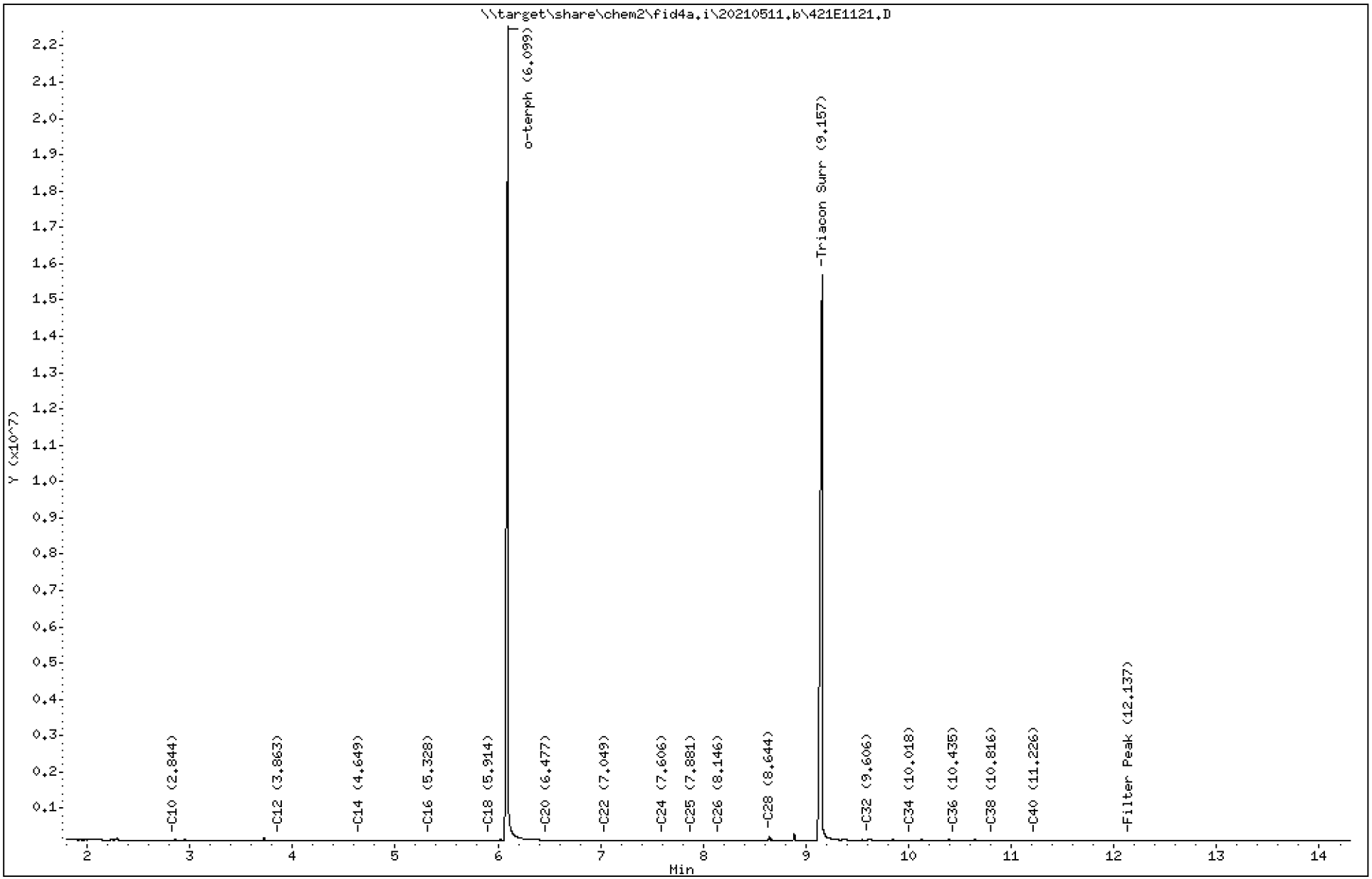
Instrument: fid4a.i

Sample Info: 21E0099-02

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25



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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210511.b/421E1121.D
Method: 20210511.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 05/12/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: 21E0099-02
Client ID:
Injection: 11-MAY-2021 17:33
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	1.561	-0.004	41571	14483	WATPHD	(C12-C24)	1702353	9.3
C10	2.844	-0.006	17333	23436	WATPHM	(C24-C38)	1114115	8.5
C12	3.863	0.001	11632	5756	AK102	(C10-C25)	2515885	11.7
C14	4.649	0.003	9935	9142	AK103	(C25-C36)	1007248	10.0
C16	5.328	0.009	11123	15400	OR.DIES	(C10-C28)	2684186	13.7
C18	5.914	-0.007	7280	5961				
C20	6.477	-0.011	14198	16430	JET-A	(C10-C18)	1781821	12.1
C22	7.049	-0.003	2365	997				
C24	7.606	0.002	1762	894				
C25	7.881	0.006	1781	724				
C26	8.146	0.005	2422	2191				
C28	8.644	-0.007	120119	89873				
C32	9.606	0.017	22820	37104				
C34	10.018	0.001	1443	340				
Filter Peak	12.137	-0.001	8222	3212	BUNKERC	(C10-C38)	3618686	80.6
C36	10.435	0.011	1948	1021				
C38	10.816	-0.001	4399	1087				
C40	11.226	0.003	6597	3572				
o-terph	6.099	-0.000	22433083	26222833				
Triacon Surr	9.157	-0.003	15589609	22475090	NAS DIES	(C10-C24)	2504571	12.8

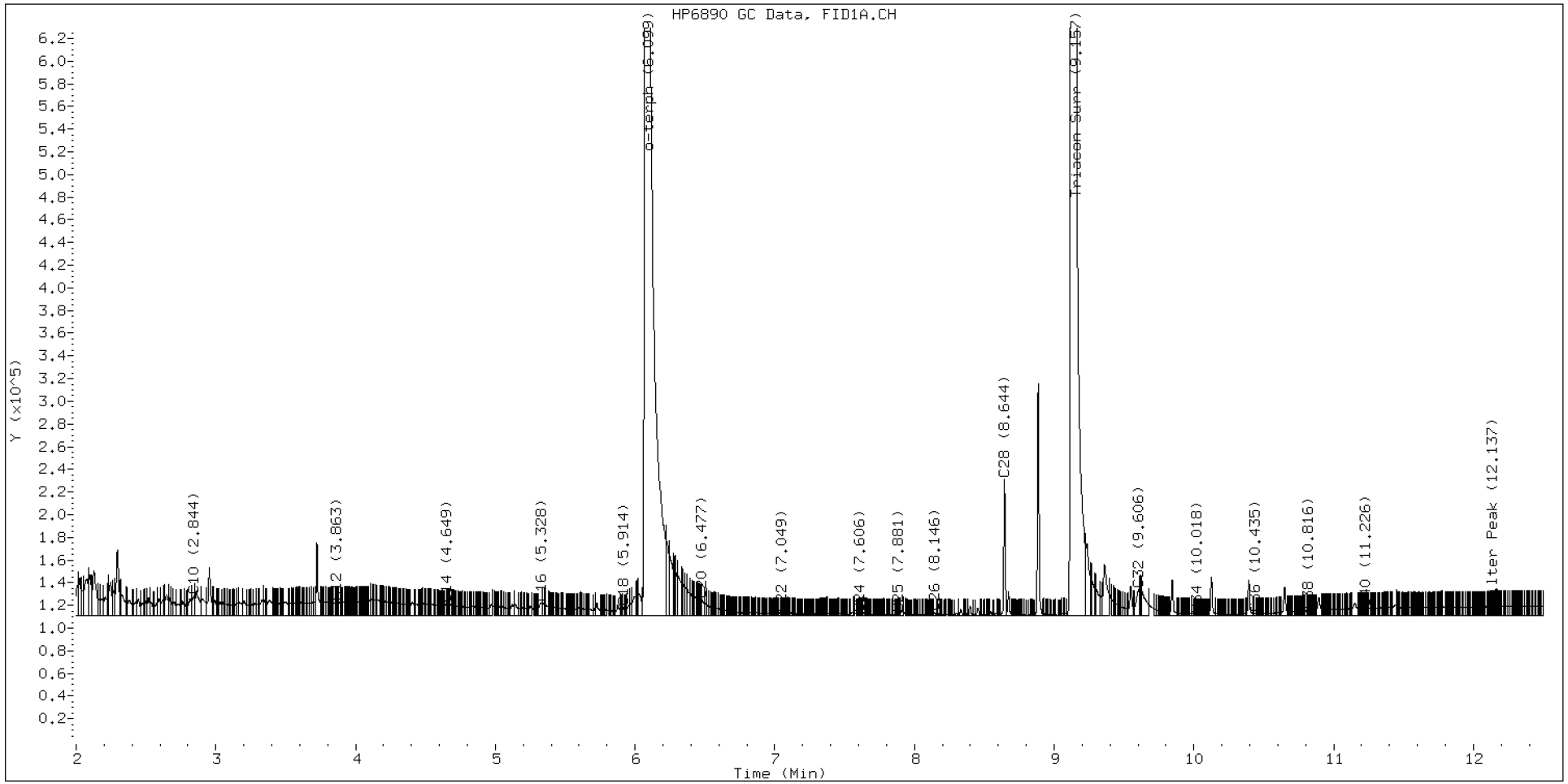
Range Times: NW Diesel(3.862 - 7.604) AK102(2.85 - 7.88) Jet A(2.85 - 5.92)
NW M.Oil(7.60 - 10.82) AK103(7.88 - 10.42) OR Diesel(2.85 - 8.65)

Surrogate	Area	Amount
o-Terphenyl	26222833	105.3
Triacontane	22475090	106.1

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021

Datafile: FID4A, 20210511.b/421E1121.D 21E0099-02



PREPARATION BATCH SUMMARY

NWTPH-Dx

Laboratory: Analytical Resources, Inc. SDG: 21E0099

Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings

Batch: BJE0193 Batch Matrix: Water Preparation: EPA 3510C SepF

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
SC-FB-2105030940	21E0099-01	421E1120.D	05/10/21 12:19	Do not use version unless COC list DRO only
SC-RB-2105030901	21E0099-02	421E1121.D	05/10/21 12:19	Do not use version unless COC list DRO only
Blank	BJE0193-BLK1	421E1111.D	05/10/21 12:19	
LCS	BJE0193-BS1	421E1112.D	05/10/21 12:19	
LCS Dup	BJE0193-BSD1	421E1113.D	05/10/21 12:19	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BJE0193

Prepared using: EPA 3510C SepF

TPH NW (Extractables) low level in Water (Version:)
TPH NW (Extractables) low level in Water

Matrix: Water **Date Prepared:** 5/10/2021 **Balance ID:** N/A **Set Up By:** CTO 5/7/21

The following standards may be missing from this batch!

Designator	Description
QLS 18	QLS Spike

Analysis: TPH NW (Extractables) low level

Lab Number & Container	Initial (mL) Actual	Acid Clean (1:1) (1mL) Y/N	Silica Clean (1:1) (1mL) Y/N	Final Effective Vol (mL)	Vol to Lab	Extraction Comments
21E0068-01 E	(500.000) 500	(1:1) Y / N	(1:1) Y / N	1	1.0	
21E0068-03 E	(500.000) 475	(1:1) Y / N	(1:1) Y / N	1	1.0	
21E0068-05 E	(500.000) 500	(1:1) Y / N	(1:1) Y / N	1	1.0	
21E0068-07 E	(500.000) ↓	(1:1) Y / N	(1:1) Y / N	1	1.0	
21E0068-09 E	(500.000) 475	(1:1) Y / N	(1:1) Y / N	1	1.0	
21E0068-11 E	(500.000) 500	(1:1) Y / N	(1:1) Y / N	1	1.0	
21E0099-01 A	(500.000) ↓	(1:1) Y / N	(1:1) Y / N	1	1.0	
21E0099-02 A	(500.000) ↓	(1:1) Y / N	(1:1) Y / N	1	1.0	

Batch QC

Lab Number	Initial (mL) Actual	Acid Clean (1:1) (1mL) Y/N	Silica Clean (1:1) (1mL) Y/N	Final Effective Vol (mL)	Vol to Lab	Extraction Comments
BJE0193-BLK1	(500.000) 500	(1:1) Y / N	(1:1) Y / N	1	1.0	
BJE0193-BS1	(500.000) ↓	(1:1) Y / N	(1:1) Y / N	1	1.0	
BJE0193-BSD1	(500.000) ↓	(1:1) Y / N	(1:1) Y / N	1	1.0	

TW 5/10/2021 BH 5/11/21 5/10/21 12:19

Client ID verified By | Date | Preparation Reviewed By | Date | Extraction Date and Time

Printed: 5/7/2021 3:22:49PM

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BJE0193

Prepared using: EPA 3510C SepF

TPH NW (Extractables) low level in Water (Version:)
TPH NW (Extractables) low level in Water

Prep Steps

KD 80-85°C

1 (2) 3 (4) 5 6

BH 5/11/21
Analyst/Date

TurboVap

1 2 3 (4) 5

BH 5/11/21
Analyst/Date

Vialing

BH 5/11/21
Analyst/Date

Reagents Used

Station/Reagent	Standard ID
Separatory Funnel Analyst: TW Date: 5/10/2021	
1:1 Sulfuric Acid/DI H2O	JB03678
Methylene Chloride	JB04317
Anhydrous Sodium Sulfate	JB04281
KD Analyst: BH Date: 5/11/21	
Methylene Chloride	JB04317
Vialing Analyst: BH Date: 5/11/21	
Methylene Chloride	JB04317
~~Concentrated Sulfuric Acid~~	
~~0% Silica Gel~~	

Surrogates & Spike Standards Used

Type	Vial ID / Standard ID	Vol uL	Analyst	Witness
Surrogate 1125µg/mL	P ~~J002741~~ J002741 Exp: 08/08/2021 TW	100µL	TW	
Spike 15000µg/mL	11 J004082 Exp: 12/01/2021 TW	100µL	TW	

(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 inthe 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).

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BJE0193

Prepared using: EPA 3510C SepF

TPH NW (Extractables) low level in Water (Version:)
TPH NW (Extractables) low level in Water

Prep Instructions	
SPECIAL INSTRUCTIONS: 1. Add Surr/Spk. 2. Acidify with 1 pipet of 1:1 Sulfuric Acid. 3. Check pH. 4. Extract 2X with 30mL DCM. 5. KD at 80°. 6. TurboVap. 7. Acid/Silica Clean-ups? Y / [N] 8. Vial in DCM. Archive [Y] N	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: TPHD Extraction Batch BTE0193

Total Solids Batch: N/A Work Order(s): 21E0068

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☐ Previously Frozen =	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☑ Turbid/Color= 68-01 = Blue tint 68-03 = Yellow, turbid 68-05 = turbid 68-07 = Brown, turbid 68-09 = yellow	TW 5/10/21
☑ Particulates(%)=(Note: >5%=Notify Supervisor/Lead) 68-07 = 15% flocculence	TW 5/10/21
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☐ Received in 1.0L Bottle(s)=No Bottle Rinse=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
☐ Share Samples Y / N	
☐ Multiple Jars Y / N	
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

Batch: BJE0193
Batch Comment: **NONE**
Project: Central Waterfront Port of Bellingham
Project Comments: <E> MS, MSD, BS, BSD</E> <C> MS/MSD</C> <M> MS, MSD</M>
Work Order:21E0068
Work Order Comments: <E> BS, BSD</E> <C> MS/MSD</C> <M> MS, MSD</M>
Sample: 21E0068-01
Sample Comments: **NONE**
Sample: 21E0068-03
Sample Comments: **NONE**
Sample: 21E0068-05
Sample Comments: **NONE**
Sample: 21E0068-07
Sample Comments: **NONE**
Sample: 21E0068-09
Sample Comments: **NONE**
Sample: 21E0068-11
Sample Comments: **NONE**
Project: Gasco Siltronic - US Moorings
Project Comments: <G> MS/MSD per 20 samples, please batch with other work orders, SM2540 Needed </G>
Work Order:21E0099
Work Order Comments: <G> MS/MSD per 20 samples, please batch with other work orders, SM2540 Needed </G>
Sample: 21E0099-01
Sample Comments: **NONE**
Sample: 21E0099-02
Sample Comments: **NONE**

Form I

METHOD BLANK DATA SHEET

NWTPH-Dx

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	21E0099
Client:	Anchor QEA, LLC			Project:	Gasco Siltronic - US Moorings
Matrix:	Water	Laboratory ID:	BJE0193-BLK1	File ID:	421E1111.D
Sampled:	N/A	Prepared:	05/10/21 12:19	Analyzed:	05/11/21 13:57
Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	500 mL / 1 mL
Batch:	BJE0193	Sequence:	SJE0139	Calibration:	ED00037
Instrument:	FID4	Column:	RTX-1		

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	Q	DL	RL
DRO	Diesel Range Organics (C12-C24)	1	0.100	U	0.033	0.100
RRO	Motor Oil Range Organics (C24-C38)	1	0.200	U	0.056	0.200

SURROGATES	ADDED (mg/L)	CONC. (mg/L)	% REC	QC LIMITS	Q
o-Terphenyl	0.22500	0.204	90.6	50 - 150	

Data File: \\target\share\chem2\fid4a.i\20210511.b\421E1111.D

Date : 11-MAY-2021 13:57

Client ID:

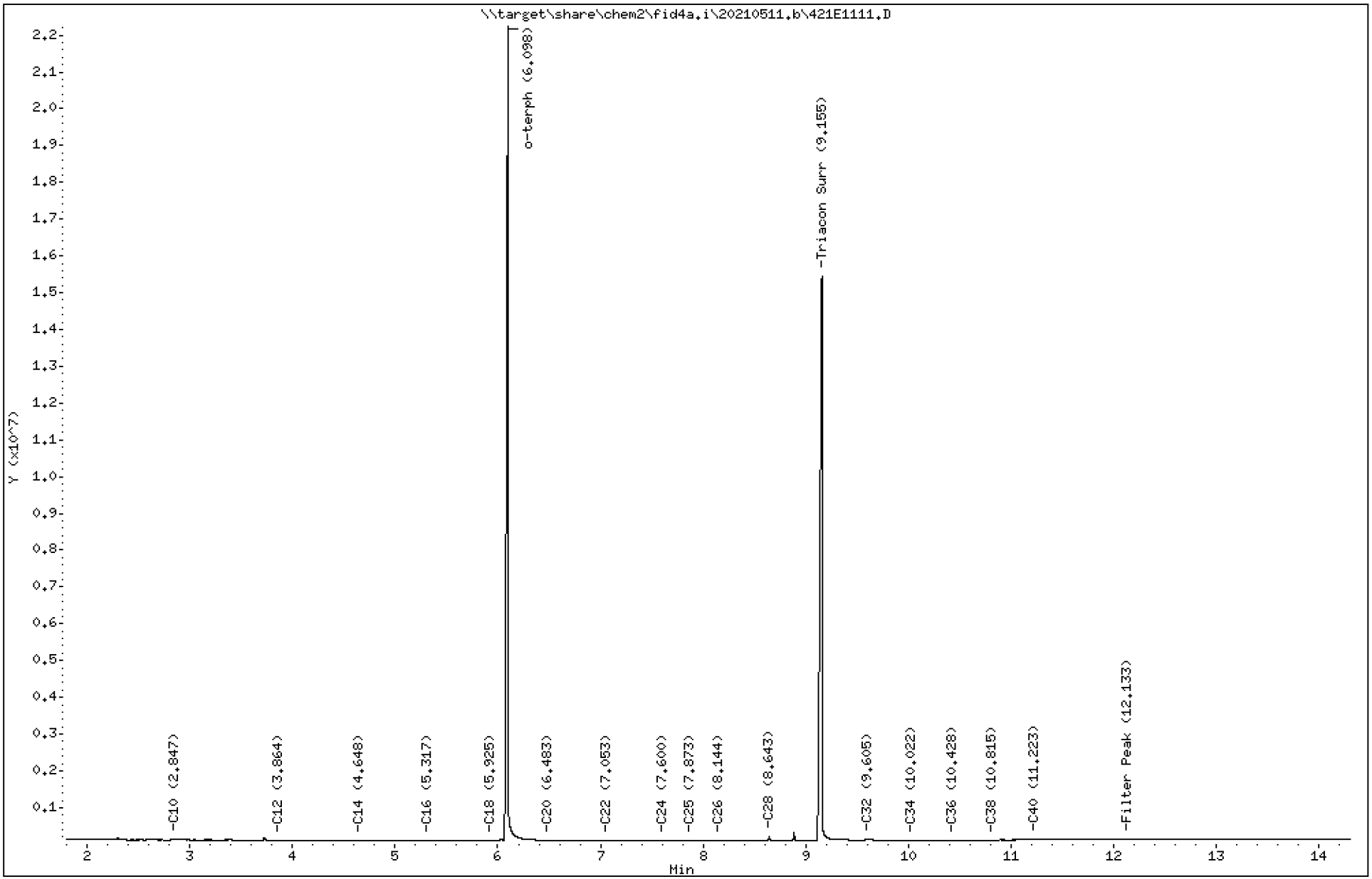
Instrument: fid4a.i

Sample Info: BJE0193-BLK1

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25



Final Report 21E0099 06/15/2021 Page 660 of 957

Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210511.b/421E1111.D
Method: 20210511.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 05/12/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: BJE0193-BLK1
Client ID:
Injection: 11-MAY-2021 13:57
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	1.591	0.025	131407	216622	WATPHD	(C12-C24)	1455413	8.0
C10	2.847	-0.003	26363	20963	WATPHM	(C24-C38)	1870315	14.2
C12	3.864	0.002	16934	14250	AK102	(C10-C25)	2678458	12.4
C14	4.648	0.002	9168	5007	AK103	(C25-C36)	1504208	14.9
C16	5.317	-0.002	4544	1332	OR.DIES	(C10-C28)	2923810	14.9
C18	5.925	0.005	3820	760				
C20	6.483	-0.005	9978	13430	JET-A	(C10-C18)	2071597	14.1
C22	7.053	0.001	1778	586				
C24	7.600	-0.005	2245	1344				
C25	7.873	-0.003	2353	1240				
C26	8.144	0.003	4039	3556				
C28	8.643	-0.008	122670	98146				
C32	9.605	0.016	34122	69739				
C34	10.022	0.005	9853	4842				
Filter Peak	12.133	-0.005	20241	6041	BUNKERC	(C10-C38)	4535556	101.0
C36	10.428	0.004	12493	3115				
C38	10.815	-0.002	16958	4222				
C40	11.223	-0.000	20021	5973				
o-terph	6.098	-0.001	22139298	25384085				
Triacon Surr	9.155	-0.005	15331881	22712701	NAS DIES	(C10-C24)	2665241	13.7

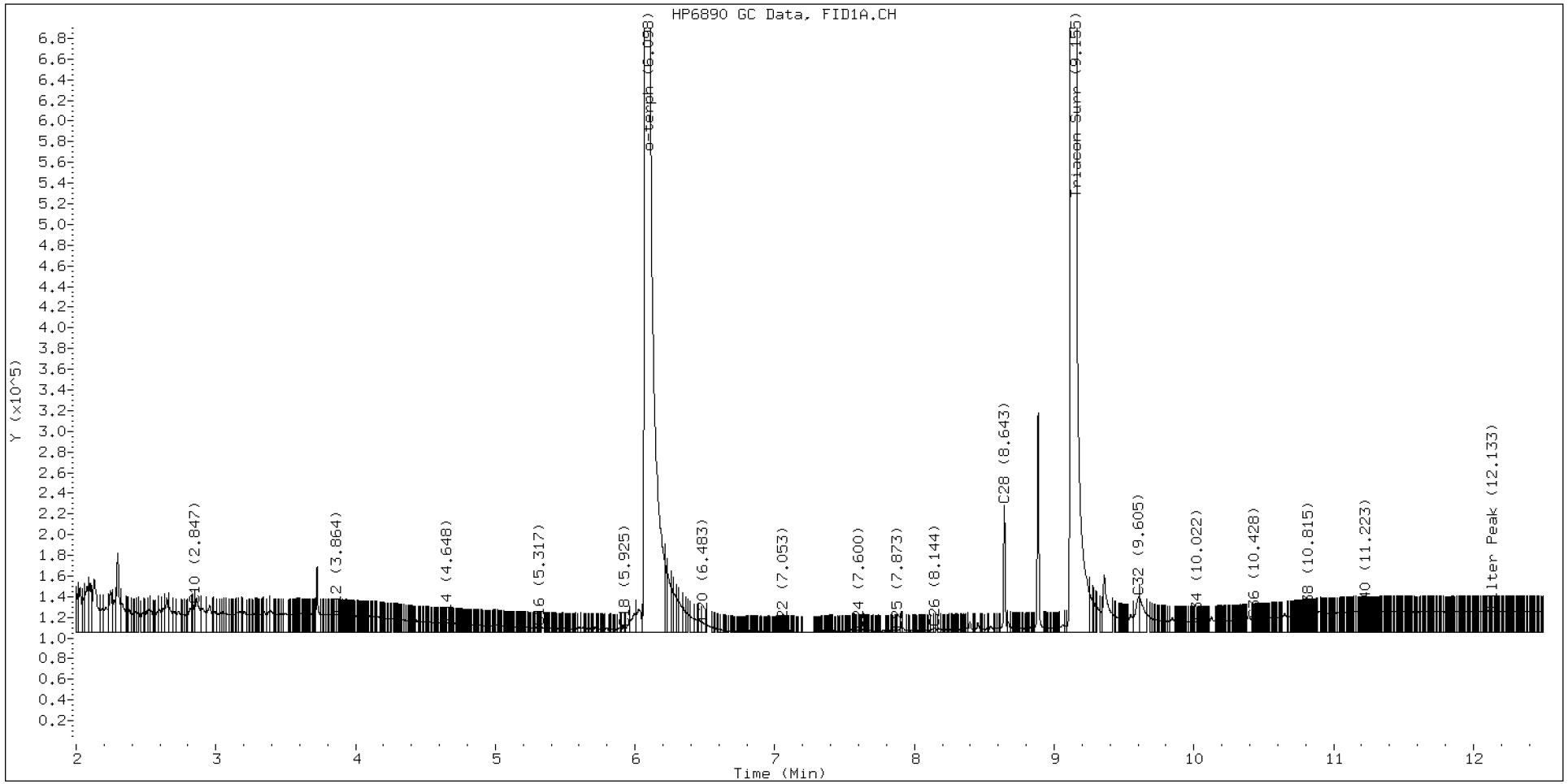
Range Times: NW Diesel(3.862 - 7.604) AK102(2.85 - 7.88) Jet A(2.85 - 5.92)
NW M.Oil(7.60 - 10.82) AK103(7.88 - 10.42) OR Diesel(2.85 - 8.65)

Surrogate	Area	Amount
o-Terphenyl	25384085	101.9
Triacontane	22712701	107.2

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021

Datafile: FID4A, 20210511.b/421E1111.D BJE0193-BLK1



LCS / LCS DUPLICATE RECOVERY

NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Matrix:	Water	Analyzed:	05/11/21 14:19
Batch:	BJE0193	Laboratory ID:	BJE0193-BS1
Preparation:	EPA 3510C SepF	Sequence Name:	LCS
Initial/Final:	500 mL / 1 mL		

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	Q	LCS % REC. #	QC LIMITS REC.
Diesel Range Organics (C12-C24)	3.00	2.57		85.6	56 - 120

* Indicates values outside of QC limits

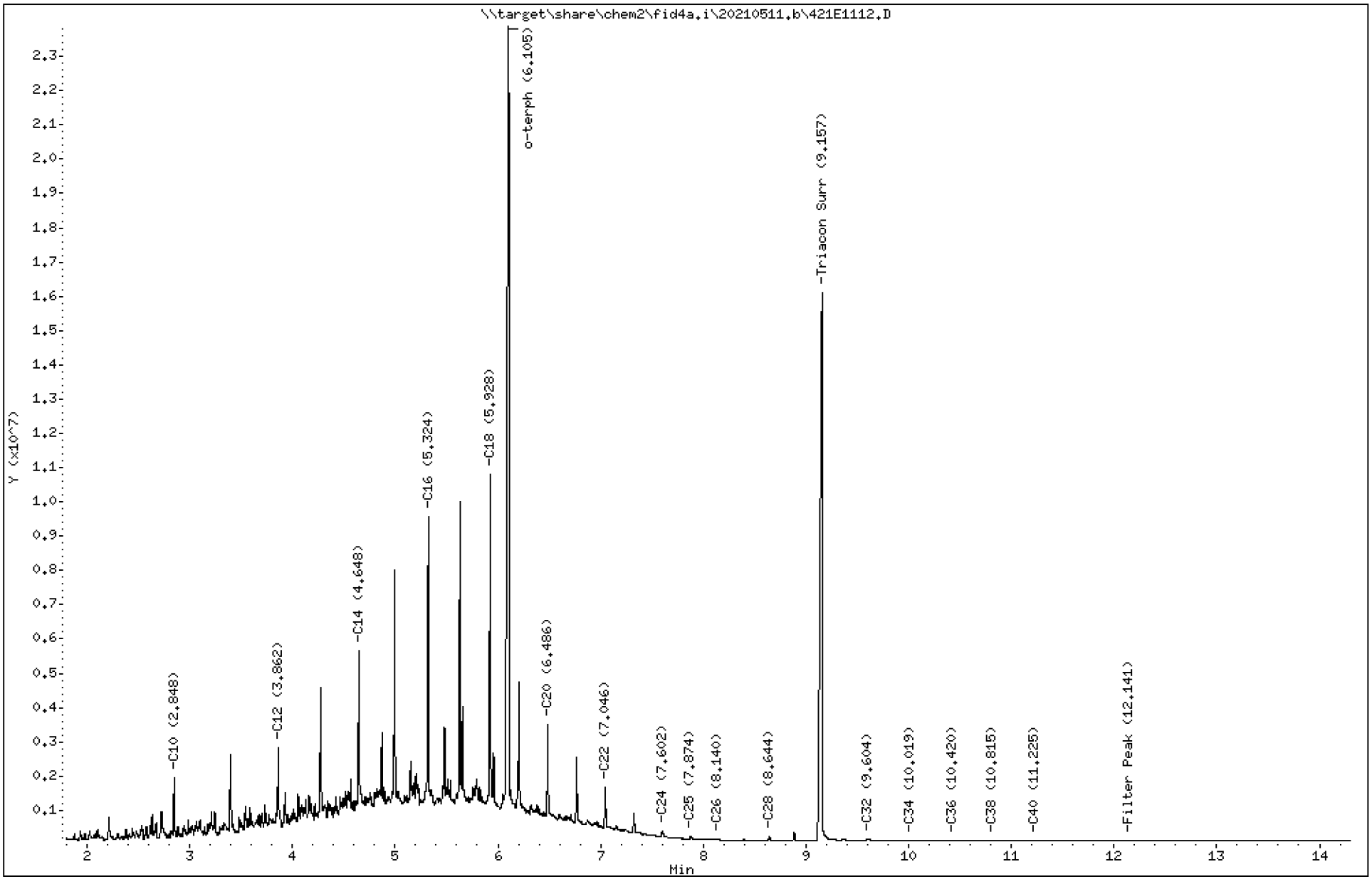
COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	Q	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Diesel Range Organics (C12-C24)	3.00	2.59		86.3	0.783	30	56 - 120

* Indicates values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210511.b\421E1112.D
Date : 11-MAY-2021 14:19
Client ID:
Sample Info: BJE0193-BS1

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

Column phase: RTX-1



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210511.b/421E1112.D
Method: 20210511.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 05/12/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: BJE0193-BS1
Client ID:
Injection: 11-MAY-2021 14:19
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	1.575	0.009	114508	83003	WATPHD	(C12-C24)	234772122	1284.1
C10	2.848	-0.002	1828423	1394206	WATPHM	(C24-C38)	2792243	21.2
C12	3.862	0.000	2730394	2937453	AK102	(C10-C25)	266931045	1239.1
C14	4.648	0.002	5560253	4913615	AK103	(C25-C36)	1976132	19.6
C16	5.324	0.004	9436682	10136864	OR.DIES	(C10-C28)	268162693	1368.2
C18	5.928	0.007	10683497	10386234				
C20	6.486	-0.002	3389178	3616966	JET-A	(C10-C18)	204020219	1391.2
C22	7.046	-0.006	1554002	1677191				
C24	7.602	-0.002	293755	504657				
C25	7.874	-0.001	120816	284074				
C26	8.140	-0.001	54428	106152				
C28	8.644	-0.007	134759	111066				
C32	9.604	0.016	29986	114957				
C34	10.019	0.002	1585	233				
Filter Peak	12.141	0.003	10381	5632	BUNKERC	(C10-C38)	269035233	5992.9
C36	10.420	-0.004	3121	1524				
C38	10.815	-0.002	6685	3611				
C40	11.225	0.002	8911	2650				
o-terph	6.105	0.006	22512502	26979775				
Triacon Surr	9.157	-0.003	15983444	24050506	NAS DIES	(C10-C24)	266242991	1364.3

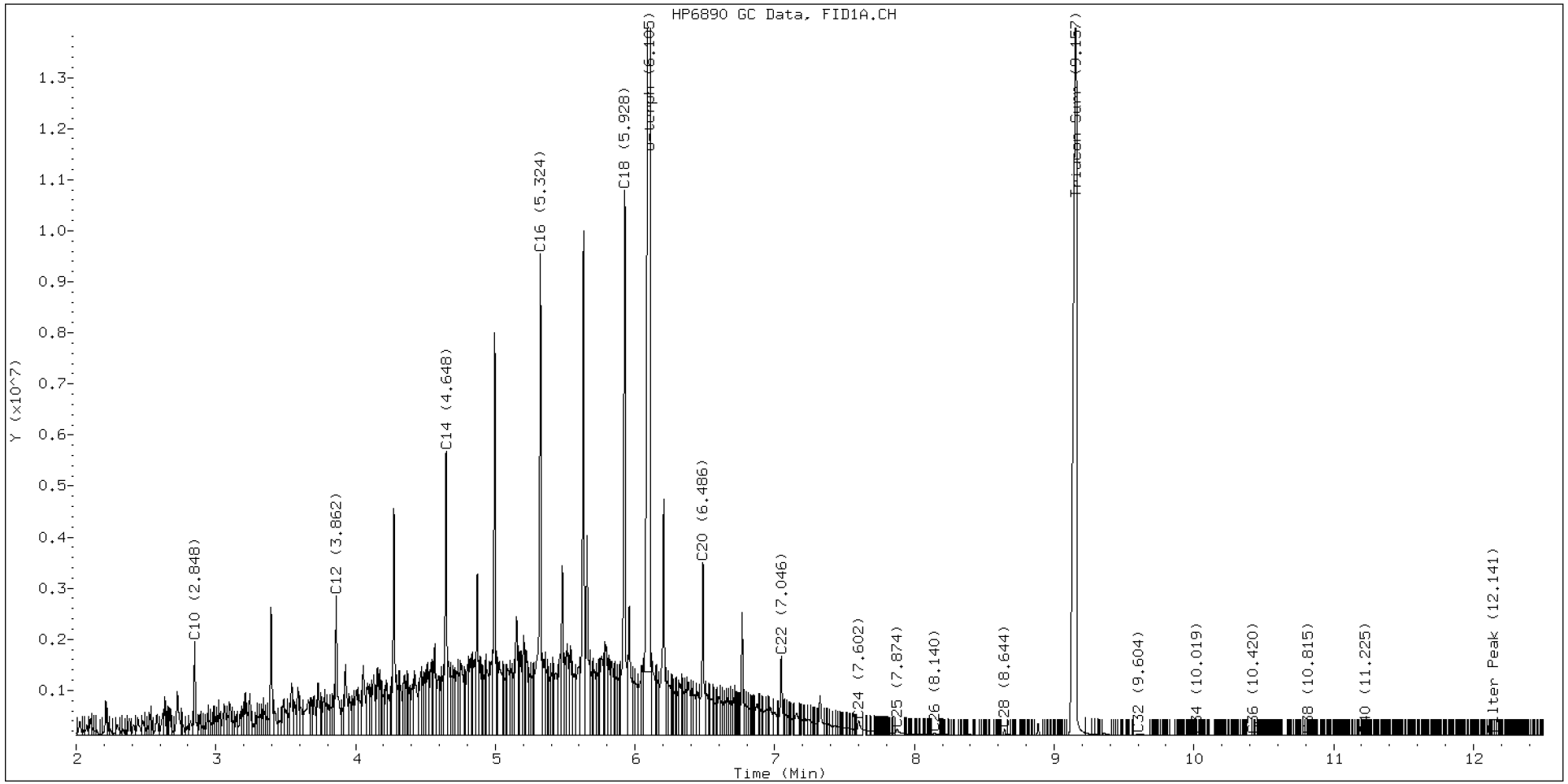
Range Times: NW Diesel(3.862 - 7.604) AK102(2.85 - 7.88) Jet A(2.85 - 5.92)
NW M.Oil(7.60 - 10.82) AK103(7.88 - 10.42) OR Diesel(2.85 - 8.65)

Surrogate	Area	Amount	
o-Terphenyl	26979775	108.3	M
Triacontane	24050506	113.5	

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021

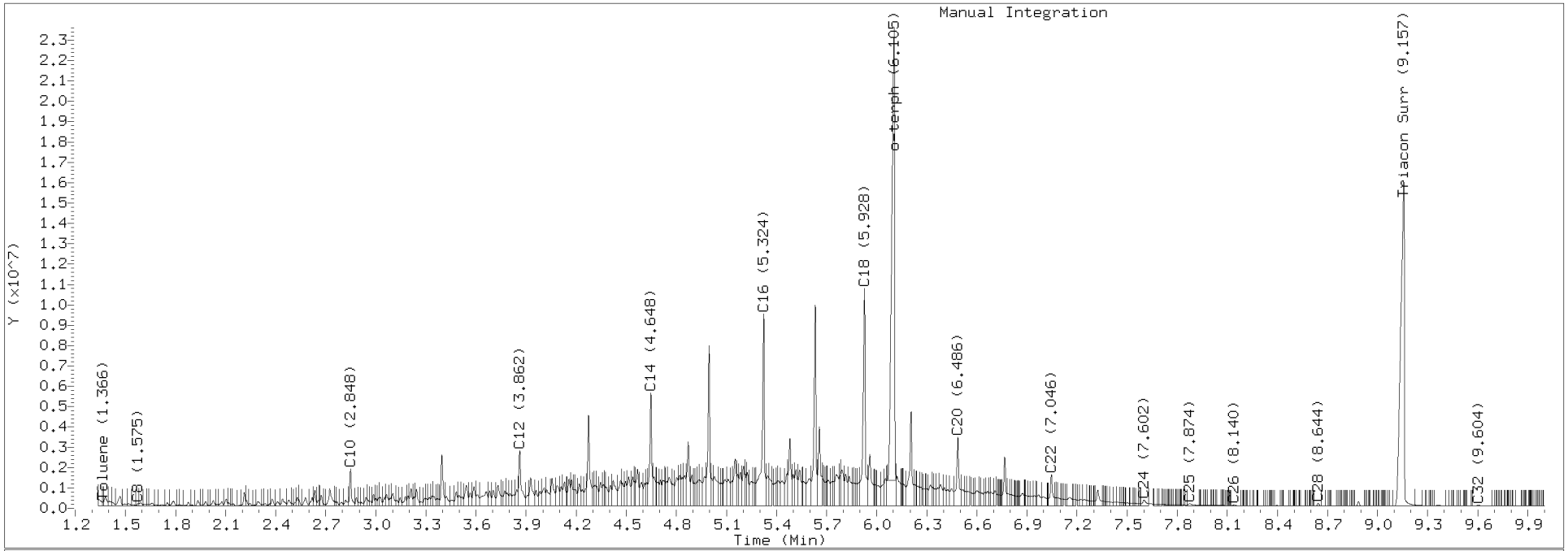
Datafile: FID4A, 20210511.b/421E1112.D BJE0193-BS1

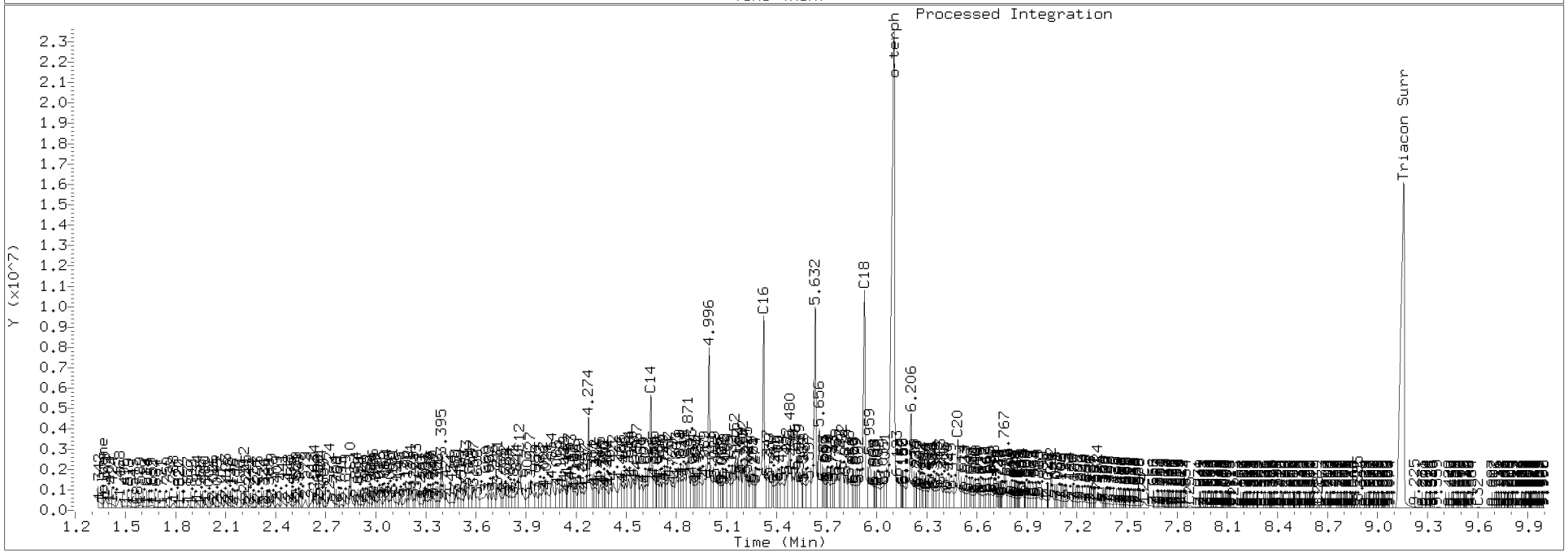


TPH Manual Integrations Report

Datafile: FID4A, 20210511.b/421E1112.D Injection: 11-MAY-2021 14:19

Lab ID:BJE0193-BS1



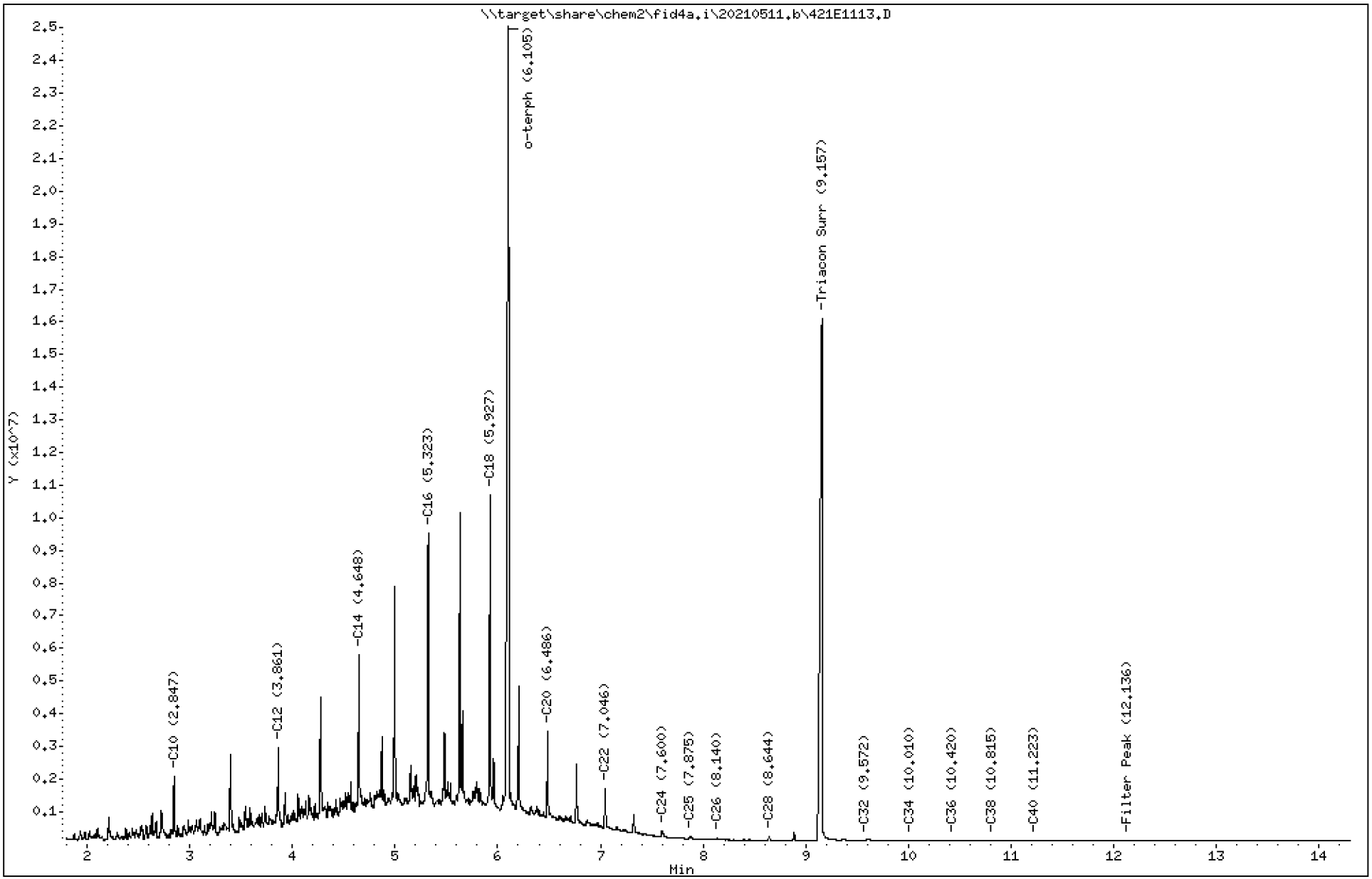


Data File: \\target\share\chem2\fid4a.i\20210511.b\421E1113.D
Date : 11-MAY-2021 14:41
Client ID:
Sample Info: BJE0193-BSD1

Column phase: RTX-1

Instrument: fid4a.i

Operator: CTO
Column diameter: 0.25



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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210511.b/421E1113.D
Method: 20210511.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 05/12/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: BJE0193-BSD1
Client ID:
Injection: 11-MAY-2021 14:41
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	1.573	0.007	125206	92139	WATPHD	(C12-C24)	236627306	1294.2
C10	2.847	-0.003	1971108	1493068	WATPHM	(C24-C38)	2983316	22.7
C12	3.861	-0.000	2865217	2214492	AK102	(C10-C25)	270638649	1256.3
C14	4.648	0.002	5686500	4957333	AK103	(C25-C36)	2130944	21.1
C16	5.323	0.004	9427701	10241983	OR.DIES	(C10-C28)	272070880	1388.1
C18	5.927	0.006	10593972	10296071				
C20	6.486	-0.002	3355743	3198112	JET-A	(C10-C18)	208483922	1421.6
C22	7.046	-0.005	1599997	1792369				
C24	7.600	-0.004	299919	675375				
C25	7.875	-0.001	123926	268140				
C26	8.140	-0.001	63309	114557				
C28	8.644	-0.007	142331	118412				
C32	9.572	-0.016	8565	3674				
C34	10.010	-0.007	532	284				
Filter Peak	12.136	-0.002	6592	4892	BUNKERC	(C10-C38)	272828529	6077.4
C36	10.420	-0.004	767	378				
C38	10.815	-0.002	3501	1544				
C40	11.223	-0.000	5813	1439				
o-terph	6.105	0.005	23708863	26905872				
Triacon Surr	9.157	-0.003	16002849	23716586	NAS DIES	(C10-C24)	269845213	1382.8

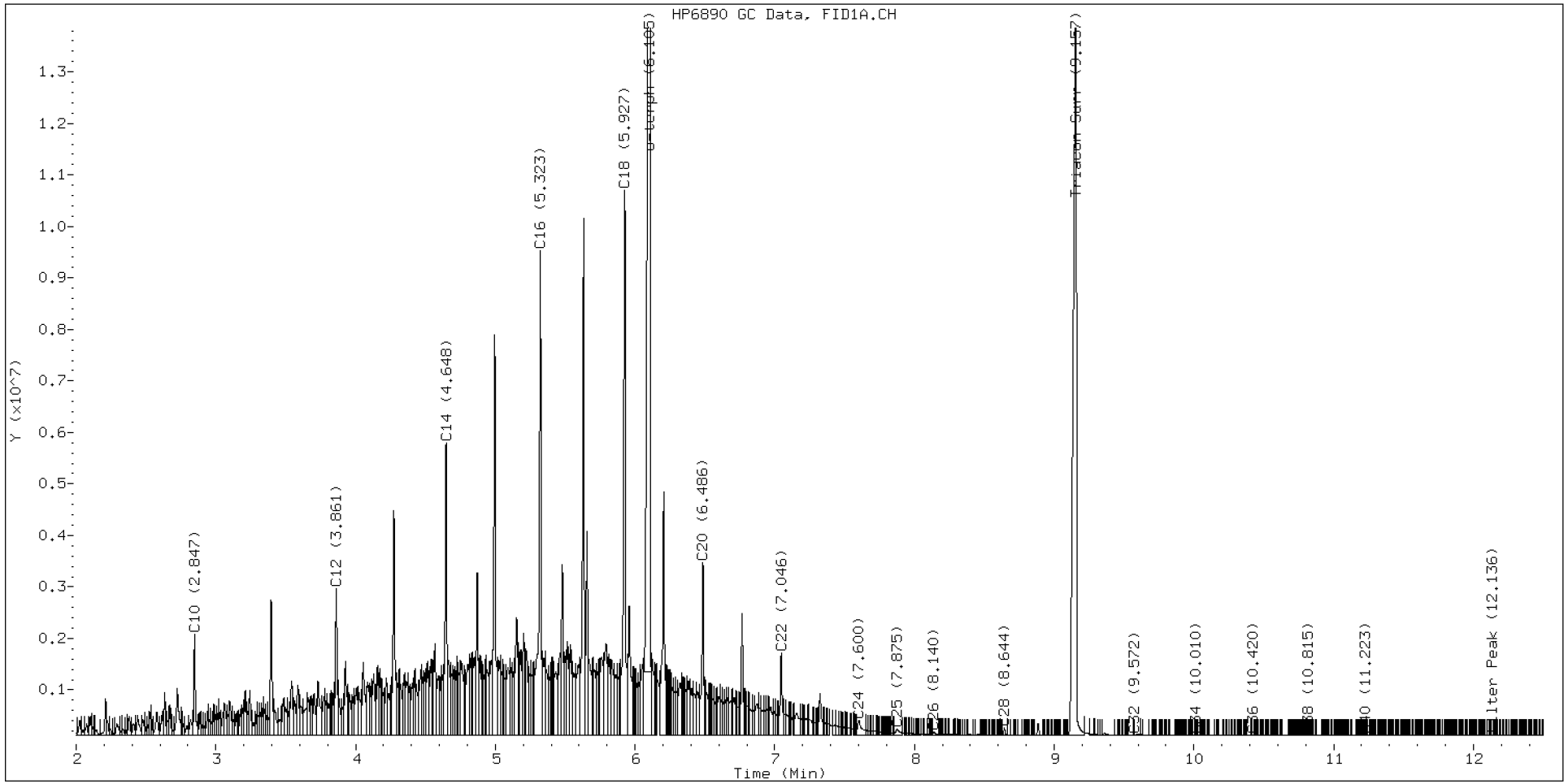
Range Times: NW Diesel(3.862 - 7.604) AK102(2.85 - 7.88) Jet A(2.85 - 5.92)
NW M.Oil(7.60 - 10.82) AK103(7.88 - 10.42) OR Diesel(2.85 - 8.65)

Surrogate	Area	Amount	
o-Terphenyl	26905872	108.1	M
Triacontane	23716586	112.0	

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021

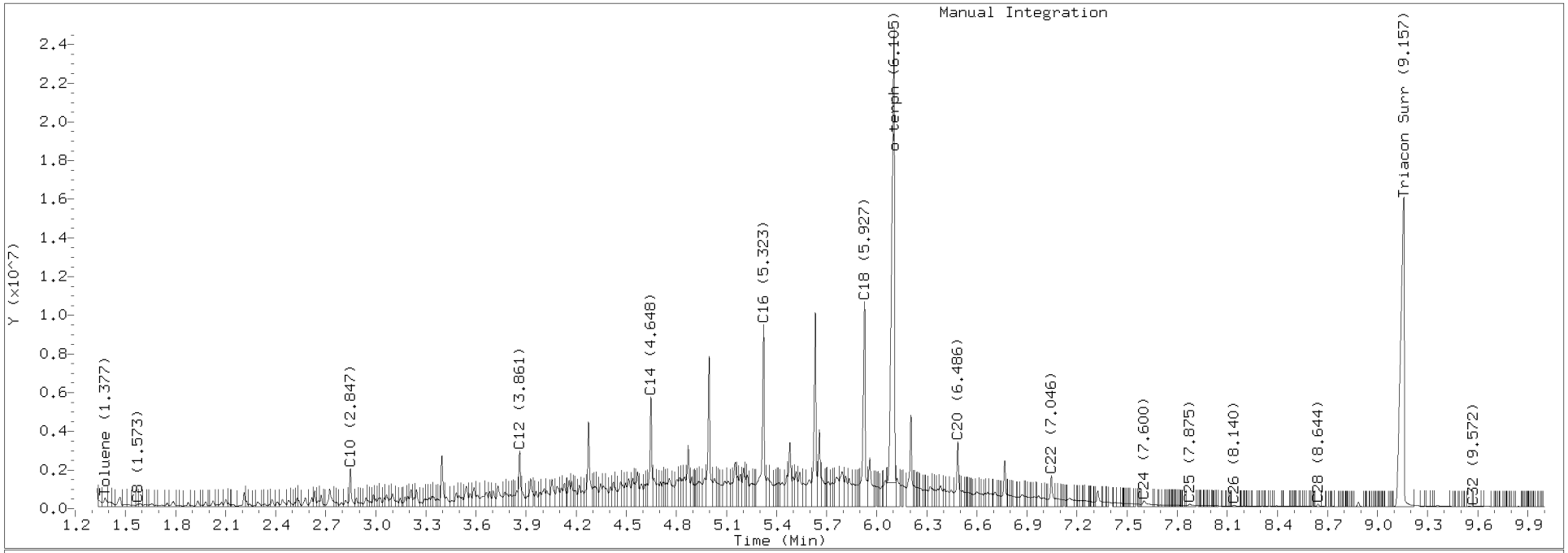
Datafile: FID4A, 20210511.b/421E1113.D BJE0193-BSD1

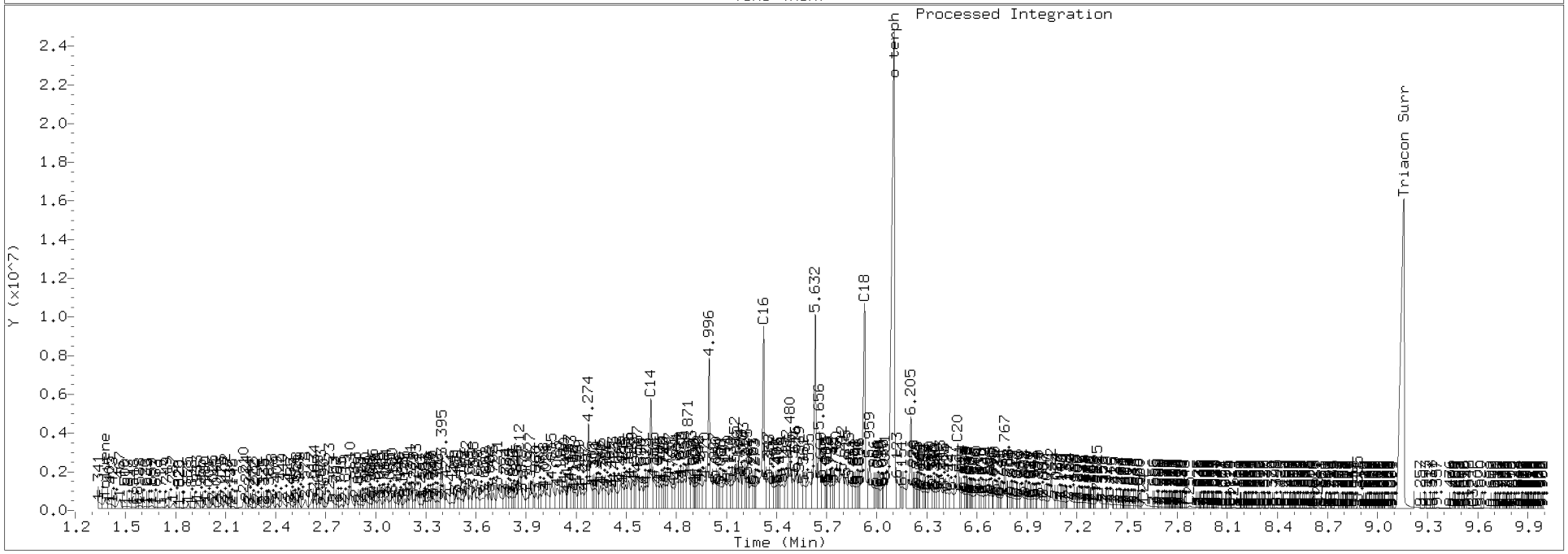


TPH Manual Integrations Report

Datafile: FID4A, 20210511.b/421E1113.D Injection: 11-MAY-2021 14:41

Lab ID:BJE0193-BSD1





INITIAL CALIBRATION DATA

NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	ED00037	Instrument:	FID4
Calibration Date:	04/13/2021	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	185091.5	100	192889.4	250	190655.4	500	180854	1000	186039.7	2500	161458
o-Terphenyl	9	255700.8	18	256232.4	45	251136.4	90	247098.2	180	257460.6	450	226439.8

INITIAL CALIBRATION DATA

NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	ED00037	Instrument:	FID4
Calibration Date:	04/13/2021	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	141072.4	250	134029.6	500	128843.9	1000	129766.7	2500	127391.3	5000	127540.4

INITIAL CALIBRATION DATA

NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	ED00037	Instrument:	FID4
Calibration Date:	04/13/2021	Column (1):	RTX-1

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	

INITIAL CALIBRATION DATA

NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	ED00037	Instrument:	FID4
Calibration Date:	04/13/2021	Column (1):	RTX-1

Compound	Level 19		Level 20		Level 21		Level 22		Level 23		Level 24	
		RF		RF		RF		RF		RF		RF
Creosote Range Organics (C12-C22)	100	43842.26	250	36736.52	500	36068.84	1000	42528.1	2500	36907.96	5000	38011.38

INITIAL CALIBRATION DATA

NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	ED00037	Instrument:	FID4
Calibration Date:	04/13/2021	Column (1):	RTX-1

Compound	Level 25		Level 26		Level 27		Level 28		Level 29		Level 30	
		RF		RF		RF		RF		RF		RF
Bunker C Range Organics (C10-C38)	100	42522.64	250	42298	500	41787.4	1000	44367.74	2500	49793.08	5000	48586.3

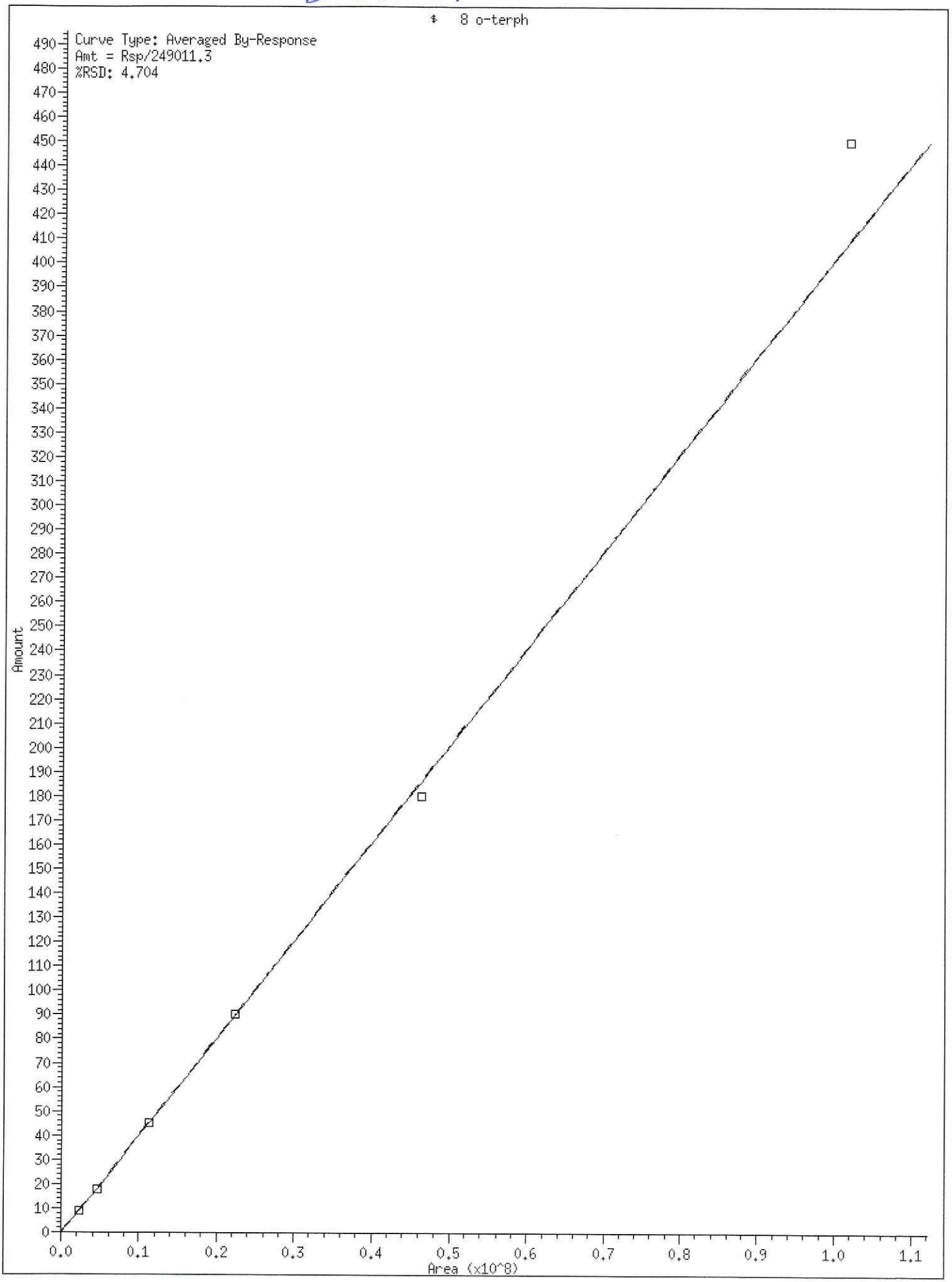
INITIAL CALIBRATION DATA

NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	ED00037	Instrument:	FID4
Calibration Date:	04/13/2021	Column (1):	RTX-1

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Diesel Range Organics (C12-C24)	182831.3	6.2			RSD (20)	
Motor Oil Range Organics (C24-C38)	131440.7	4.0			RSD (20)	
Creosote Range Organics (C12-C22)	39015.84	8.5			RSD (20)	
Bunker C Range Organics (C10-C38)	44892.53	7.7			RSD (20)	
o-Terphenyl	249011.4	4.7			RSD (20)	

ED00037


8 o-terph
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%RSD: 4.704
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20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
210
220
230
240
250
260
270
280
290
300
310
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370
380
390
400
410
420
430
440
450
460
470
480
490
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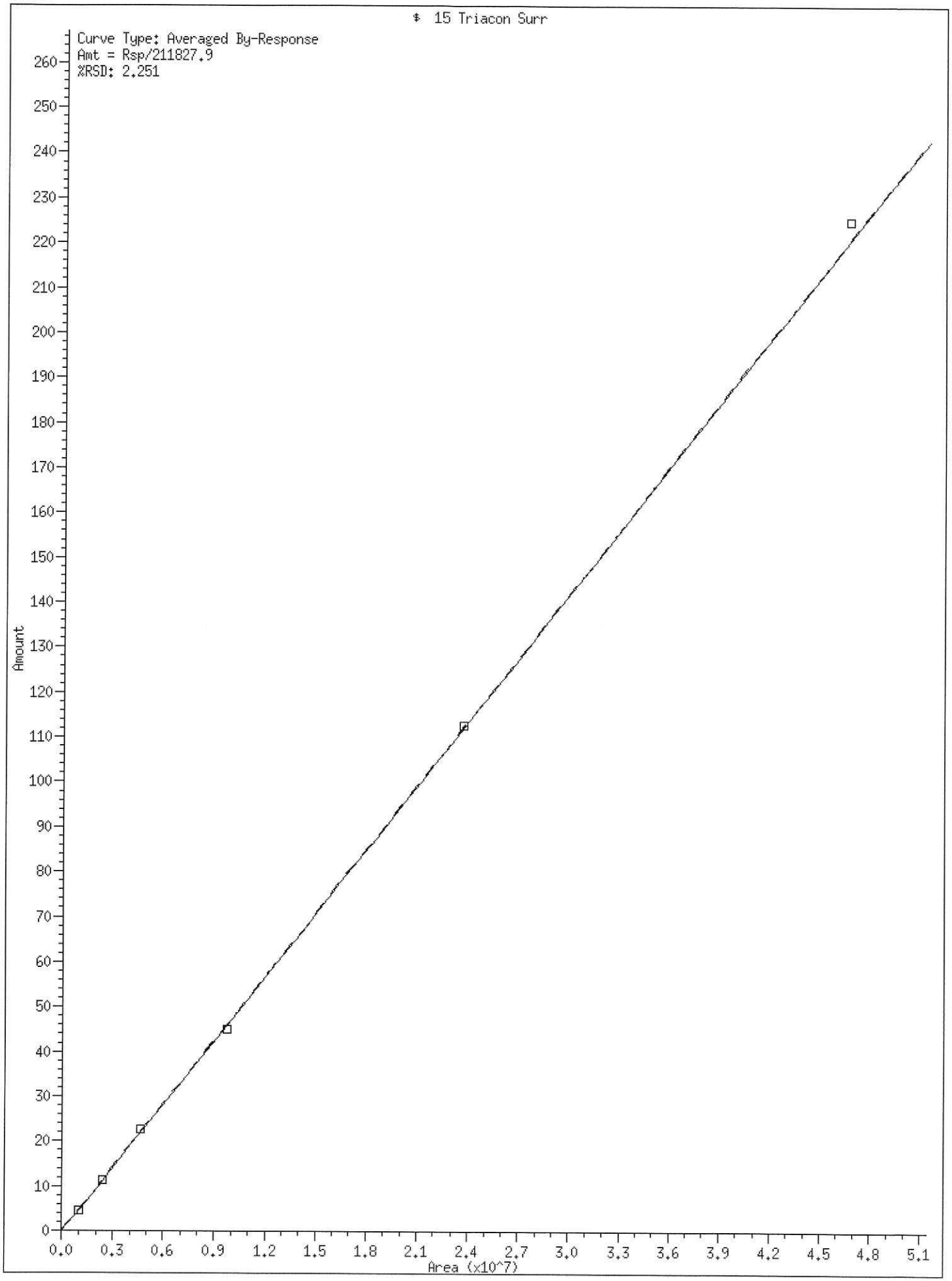
$ 15 Triacon Surr
Curve Type: Averaged By-Response
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%RSD: 2.251
Amount
Area (x10^7)
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
210
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230
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0.9
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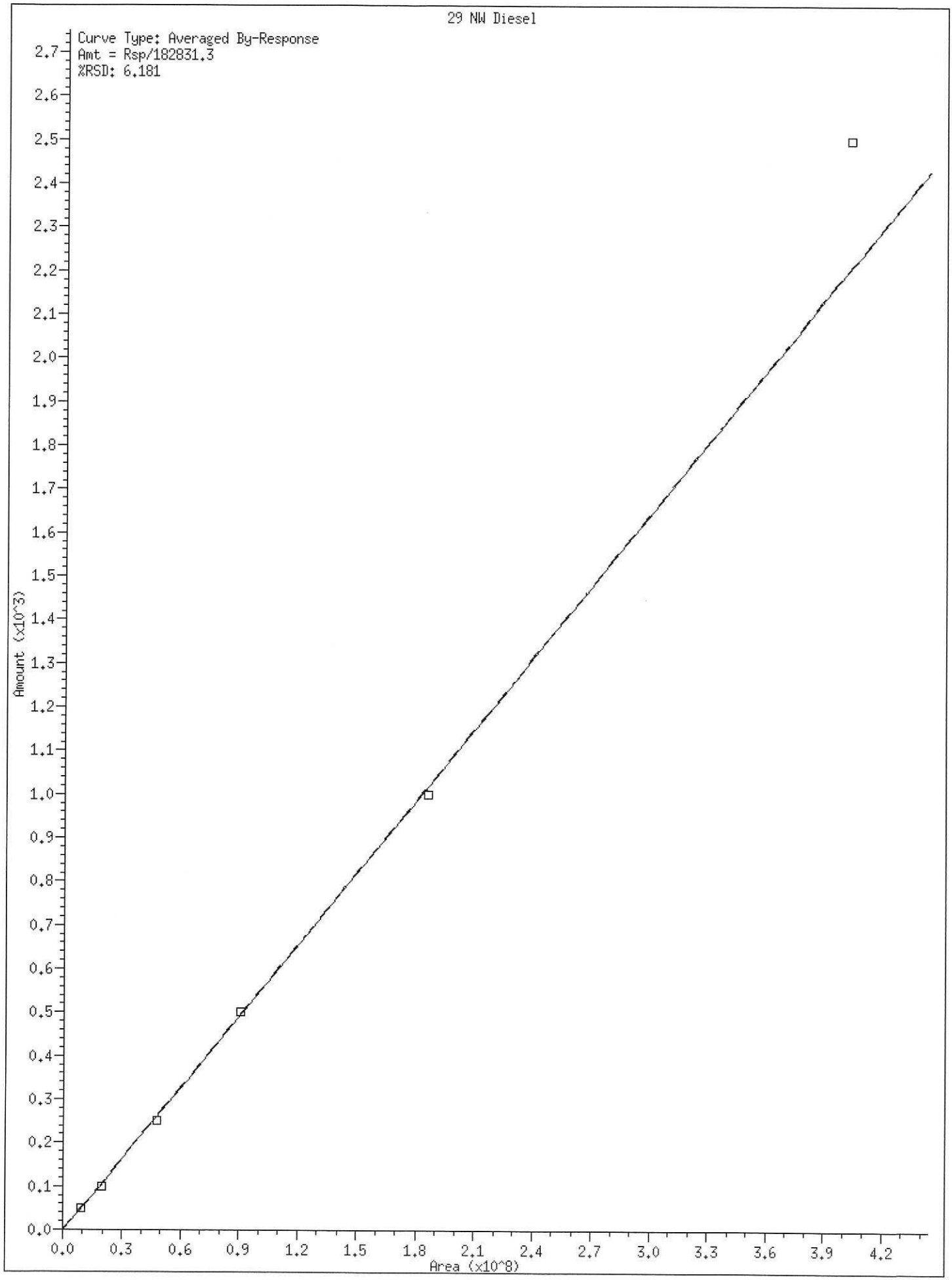
29 NW Diesel
Curve Type: Averaged By-Response
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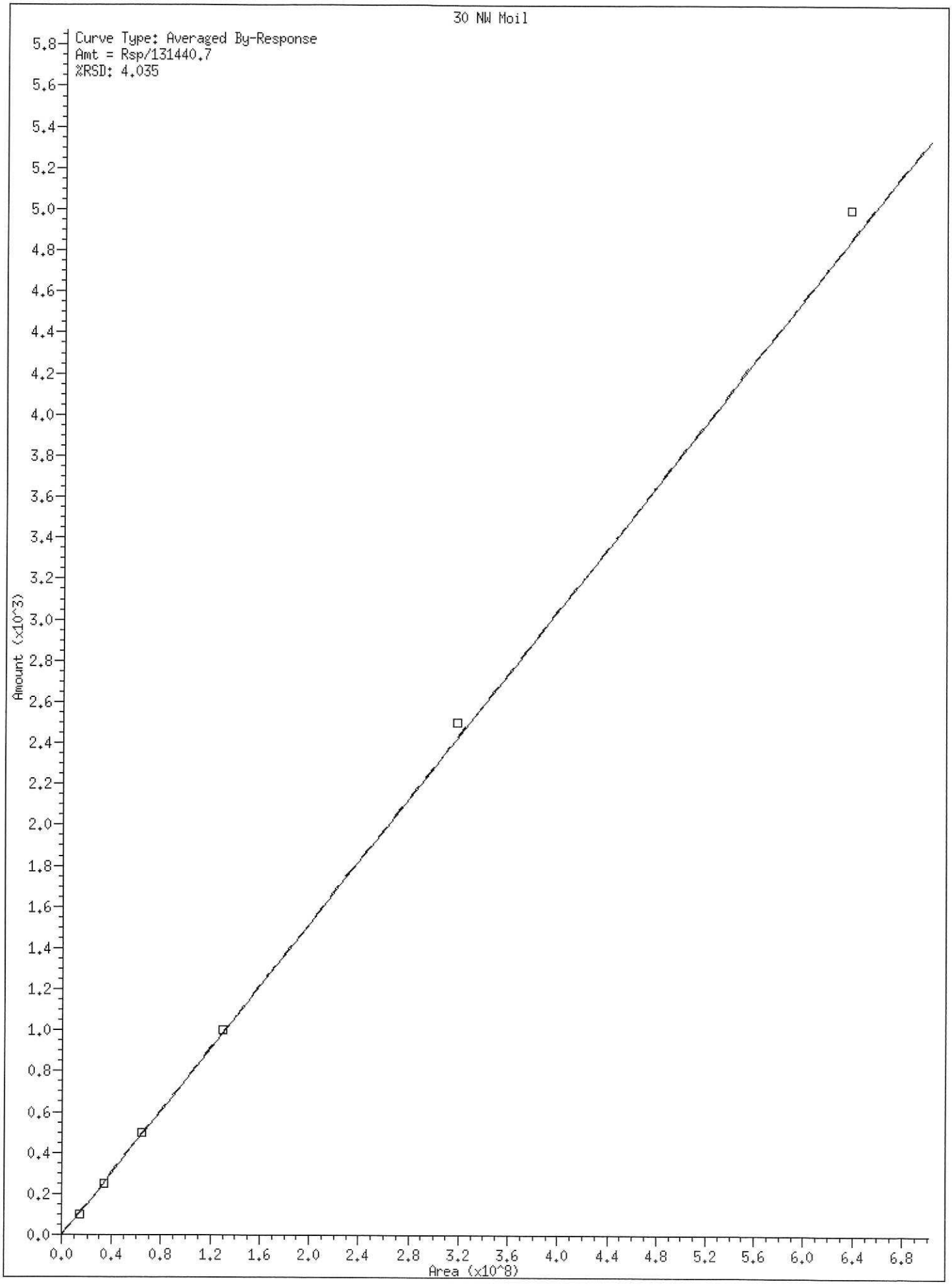
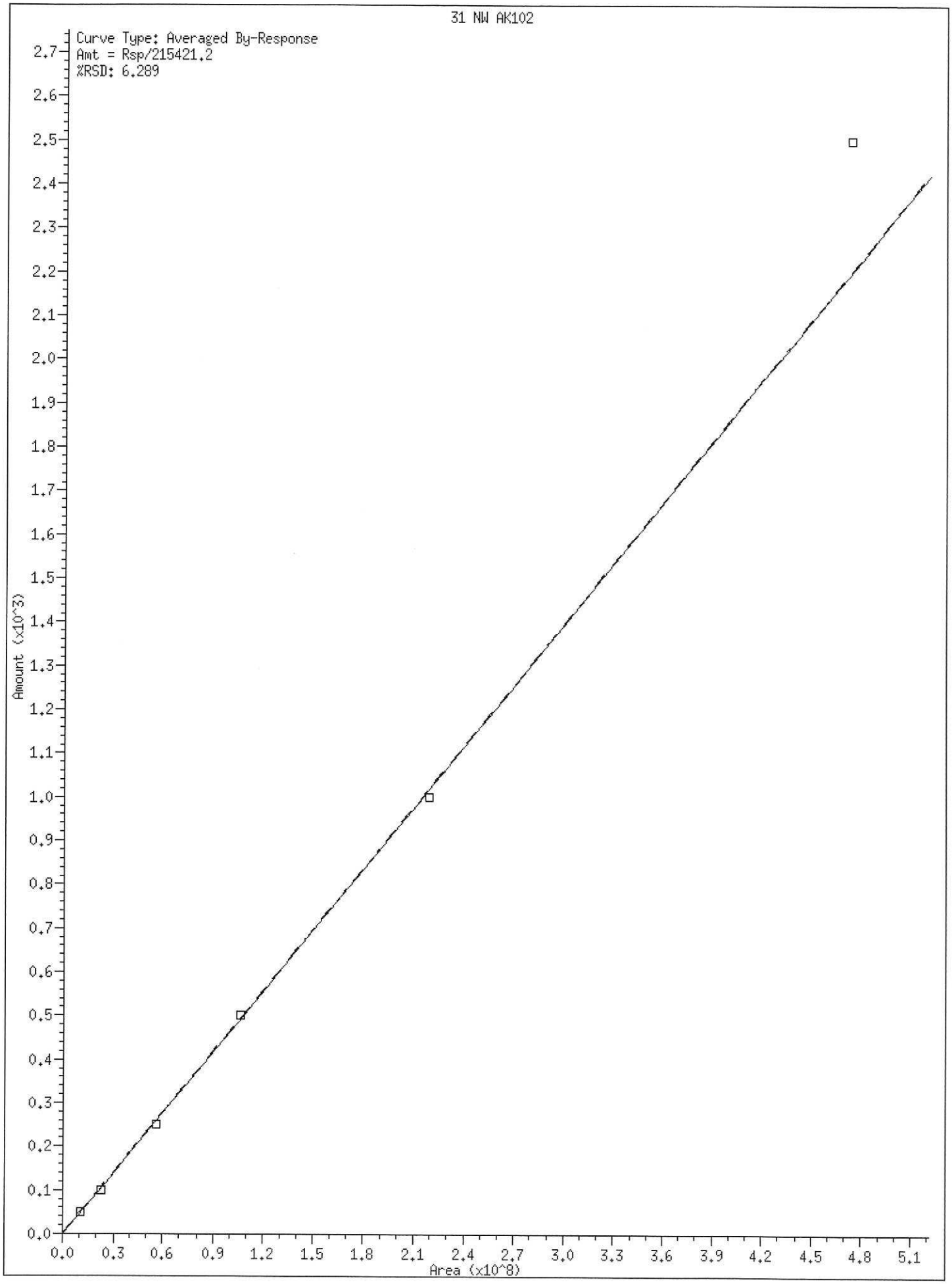
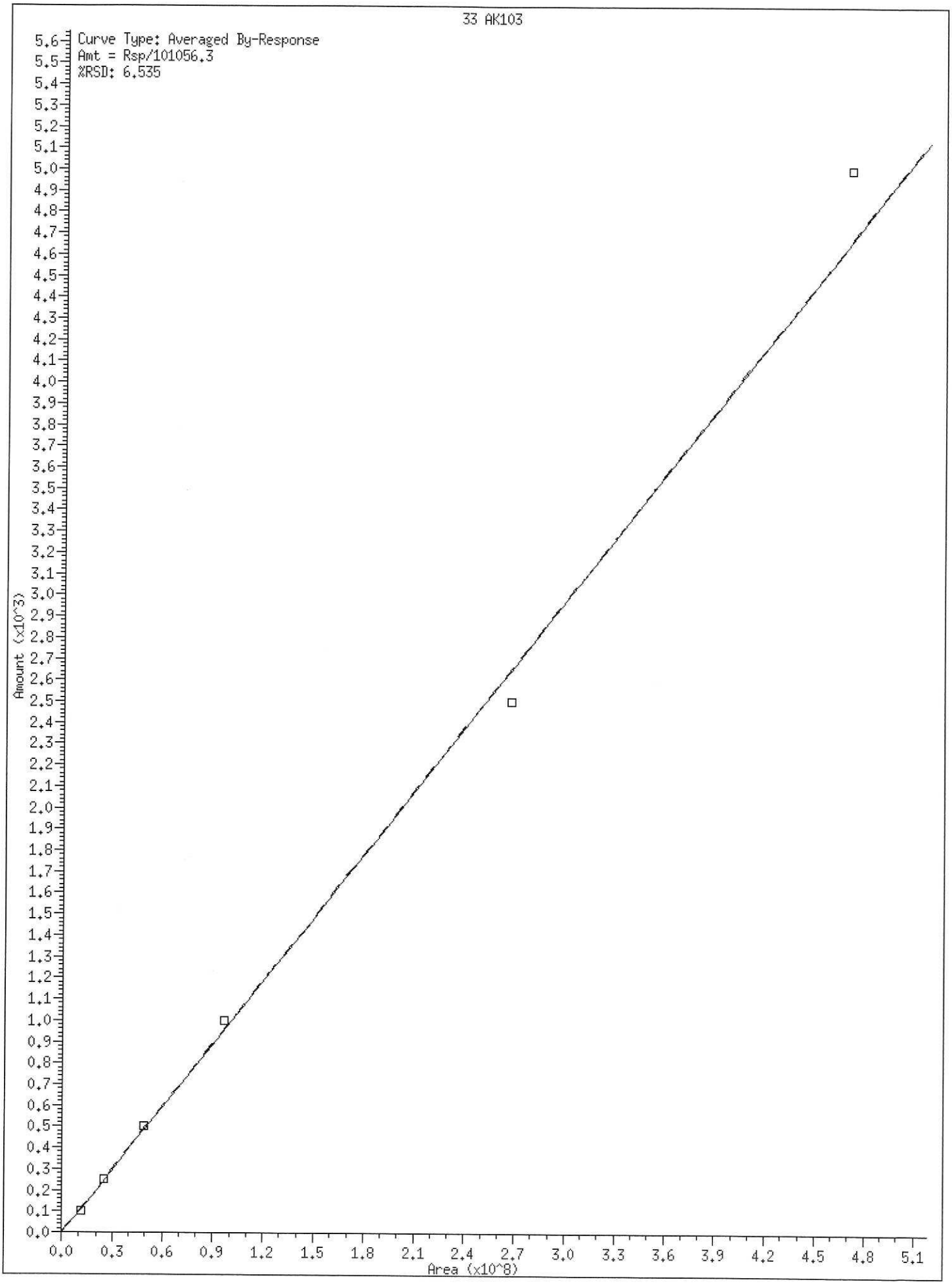
%RSD: 6.181
Amount (x10^3)
Area (x10^8)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
2.2
2.3
2.4
2.5
2.6
2.7
0.0
0.3
0.6
0.9
1.2
1.5
1.8
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2


30 NW Moil
Curve Type: Averaged By-Response
Amt = Rsp/131440.7
%RSD: 4.035
Amount (x10^3)
Area (x10^8)
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
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


31 NW AK102
Curve Type: Averaged By-Response
Amt = Rsp/215421.2
%RSD: 6.289
Amount (x10^3)
Area (x10^8)
0.0 0.3 0.6 0.9 1.2 1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8 5.1
0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.7


33 AK103
Curve Type: Averaged By-Response
Amt = Rsp/101056.3
%RSD: 6.535
Amount (x10^3)
Area (x10^8)

SECOND-SOURCE CALIBRATION VERIFICATION

NWTPH-Dx

Laboratory: Analytical Resources, Inc.
SDG: 21E0099
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Calibration: ED00037
Laboratory ID: SJD0189-SCV1
Sequence: SJD0189
Sequence Name: DIESEL SCV
Standard ID: I004025

ANALYTE	EXPECTED (mg/L)	FOUND (mg/L)	% DRIFT	QC LIMIT
Diesel Range Organics (C12-C24)	500.00	492	-1.7	30.00

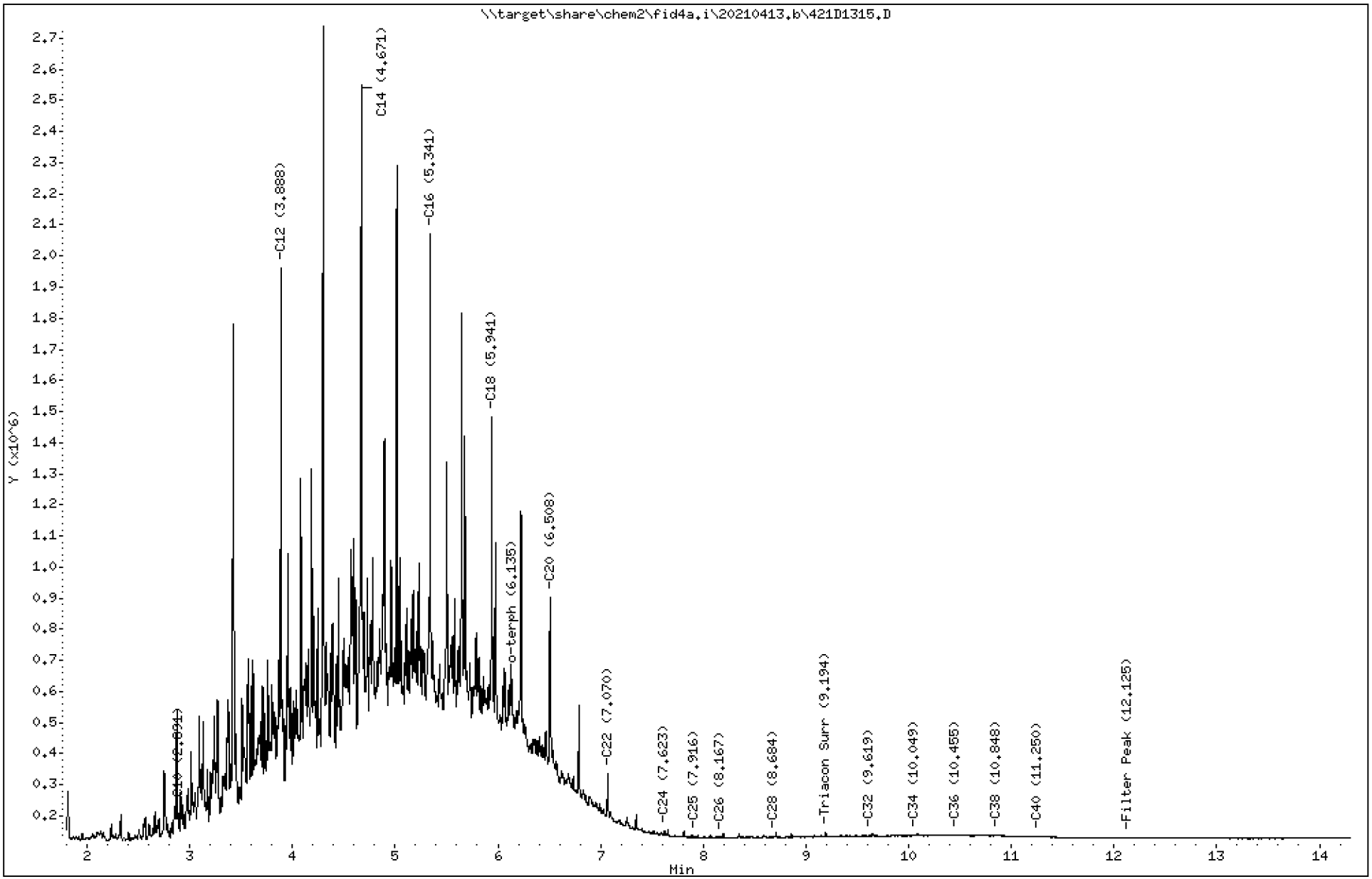
* Indicates values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210413.b\421D1315.D
Date : 13-APR-2021 15:37
Client ID:
Sample Info: SEQ-SCV1

Column phase: RTX-1

Instrument: fid4a.i

Operator: CTO
Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210413.b/421D1315.D
Method: 20210413.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/14/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-SCV1
Client ID:
Injection: 13-APR-2021 15:37
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	1.643	0.008	54603	64091	WATPHD	(C12-C24)	89863949	491.5
C10	2.891	0.001	88521	60047	WATPHM	(C24-C38)	2579689	19.6
C12	3.888	-0.007	1839965	1228653	AK102	(C10-C25)	107410855	498.6
C14	4.671	-0.006	2430486	1810508	AK103	(C25-C36)	2086166	20.6
C16	5.341	-0.007	1950234	1476241	OR.DIES	(C10-C28)	107974378	550.9
C18	5.941	-0.008	1361376	1097598				
C20	6.508	-0.009	783405	864803	JET-A	(C10-C18)	89494855	610.3
C22	7.070	-0.012	216300	223341				
C24	7.623	-0.012	29214	46183				
C25	7.916	0.008	13547	12777				
C26	8.167	-0.005	8723	1733				
C28	8.684	0.003	11097	3231				
C32	9.619	-0.004	16094	18913				
C34	10.049	-0.003	16451	8995				
Filter Peak	12.125	0.003	8610	2562	CREOSOT	(C12-C22)	88684804	8332.6
C36	10.455	-0.004	16099	8787				
C38	10.848	0.002	15723	4681				
C40	11.250	-0.002	12238	2441				
o-terph	6.135	0.005	518842	594571				
Triacon Surr	9.194	0.000	24981	26960	NAS DIES	(C10-C24)	107276298	549.7

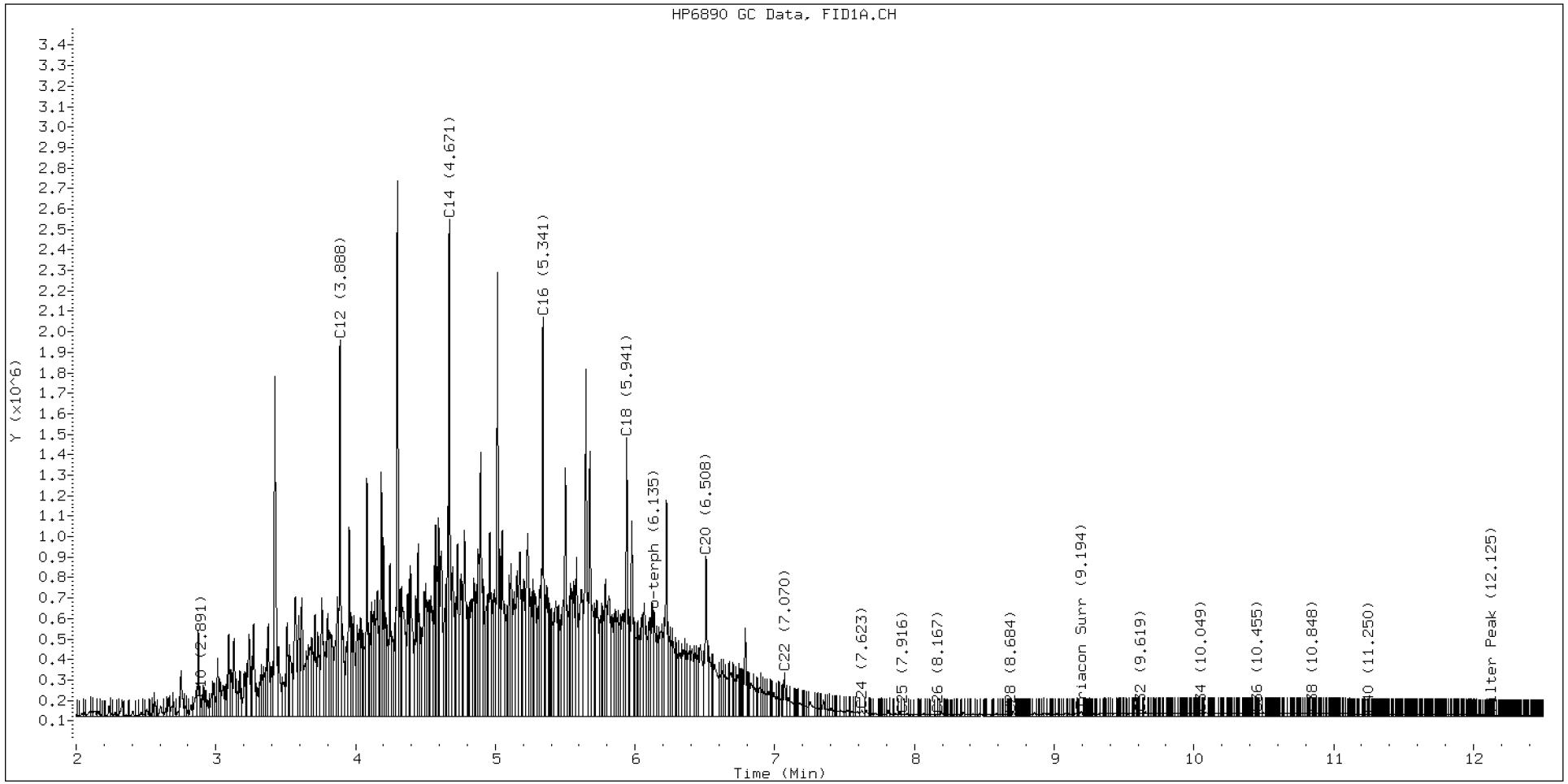
Range Times: NW Diesel(3.894 - 7.635) AK102(2.89 - 7.91) Jet A(2.89 - 5.95)
NW M.Oil(7.64 - 10.85) AK103(7.91 - 10.46) OR Diesel(2.89 - 8.68)

Surrogate	Area	Amount
o-Terphenyl	594571	2.4
Triacontane	26960	0.1

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	10643.2	30-MAR-2020

Datafile: FID4A, 20210413.b/421D1315.D SEQ-SCV1



SECOND-SOURCE CALIBRATION VERIFICATION

NWTPH-Dx

Laboratory: Analytical Resources, Inc.
SDG: 21E0099
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Calibration: ED00037
Laboratory ID: SJD0189-SCV2
Sequence: SJD0189
Sequence Name: MOIL SCV
Standard ID: I004757

ANALYTE	EXPECTED (mg/L)	FOUND (mg/L)	% DRIFT	QC LIMIT
Motor Oil Range Organics (C24-C38)	1000.0	918	-8.2	30.00

* Indicates values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210413.b\421D1322.D

Date : 13-APR-2021 18:07

Client ID:

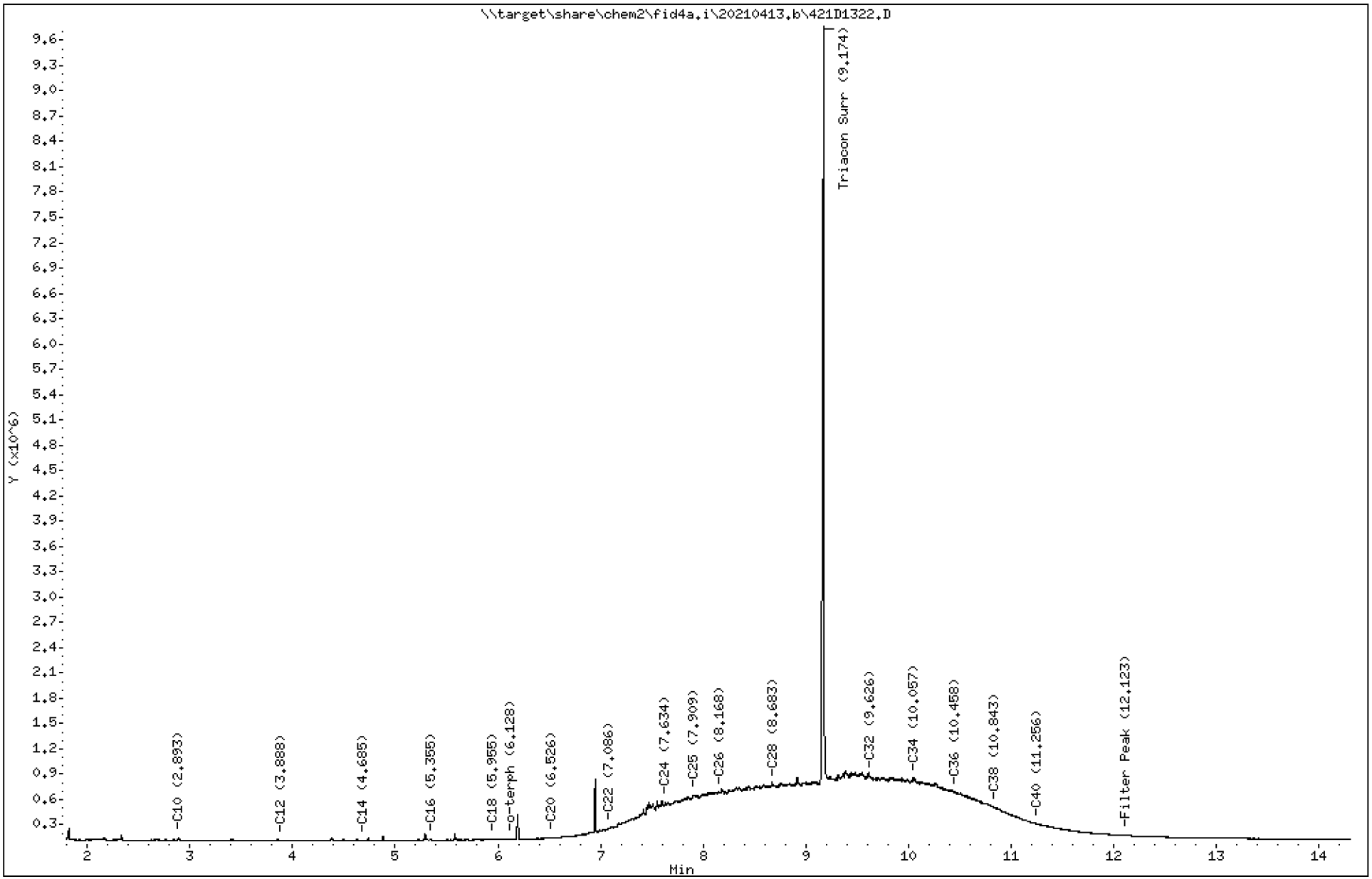
Instrument: fid4a.i

Sample Info: SEQ-SCV2

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25



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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210413.b/421D1322.D
Method: 20210413.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/14/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-SCV2
Client ID:
Injection: 13-APR-2021 18:07
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	1.626	-0.008	65747	96813	WATPHD	(C12-C24)	15532252	85.0
C10	2.893	0.003	32970	23142	WATPHM	(C24-C38)	120611856	917.6
C12	3.888	-0.006	5389	3628	AK102	(C10-C25)	20669789	96.0
C14	4.685	0.008	3945	1476	AK103	(C25-C36)	105207415	1041.1
C16	5.355	0.007	9584	10953	OR.DIES	(C10-C28)	51331560	261.9
C18	5.955	0.006	19031	17530				
C20	6.526	0.009	34956	39910	JET-A	(C10-C18)	962360	6.6
C22	7.086	0.004	142736	70767				
C24	7.634	-0.001	455529	454995				
C25	7.909	0.002	536300	187150				
C26	8.168	-0.004	569572	113374				
C28	8.683	0.001	657302	357915				
C32	9.626	0.003	760723	638055				
C34	10.057	0.005	726792	323841				
Filter Peak	12.123	0.002	60871	41807	CREOSOT	(C12-C22)	4882924	458.8
C36	10.458	-0.002	571891	252641				
C38	10.843	-0.003	392748	215443				
C40	11.256	0.004	196755	78044				
o-terph	6.128	-0.002	13513	9103				
Triacon Surr	9.174	-0.019	8966637	9459500	NAS DIES	(C10-C24)	15747411	80.7

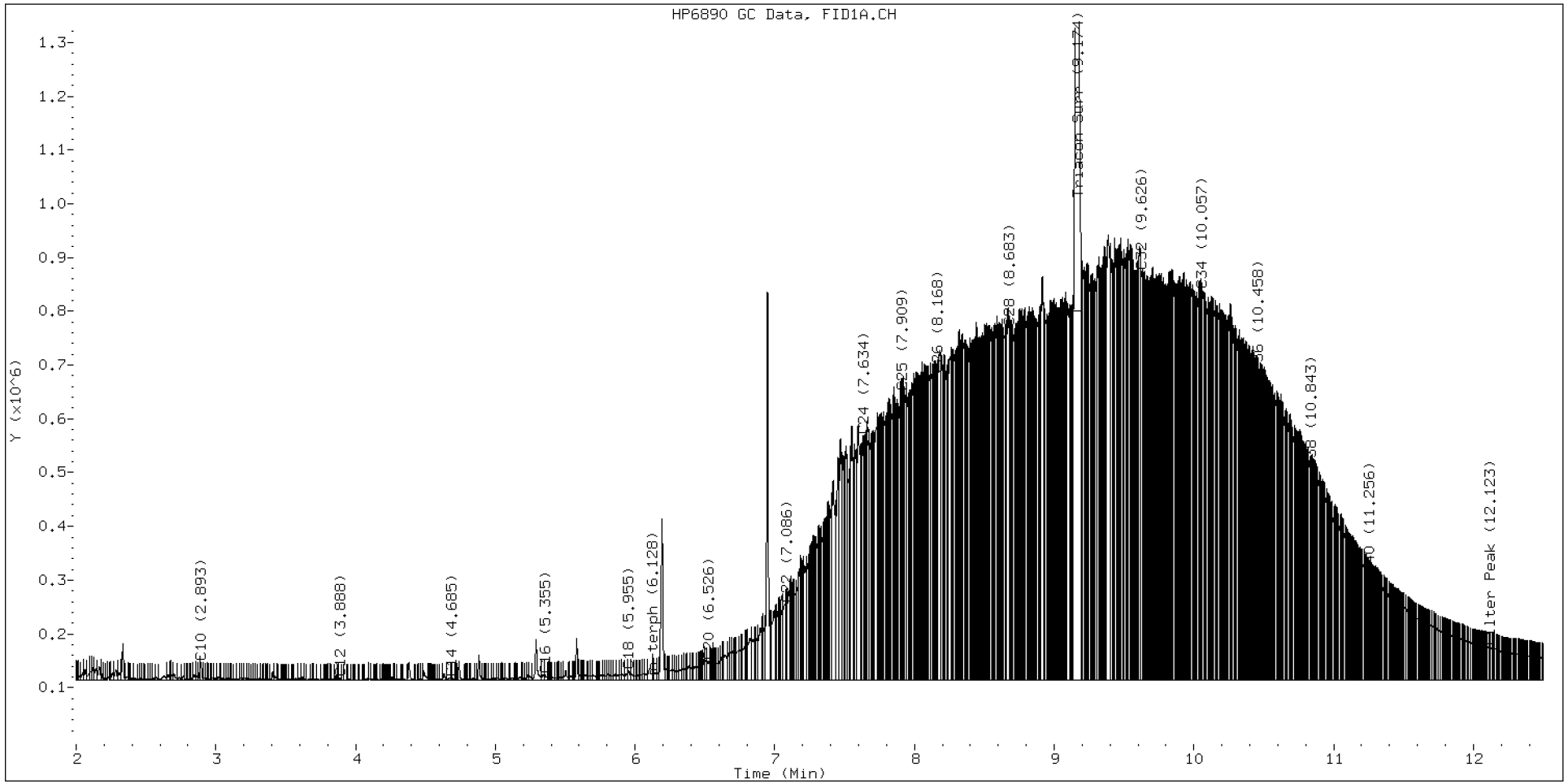
Range Times: NW Diesel(3.894 - 7.635) AK102(2.89 - 7.91) Jet A(2.89 - 5.95)
NW M.Oil(7.64 - 10.85) AK103(7.91 - 10.46) OR Diesel(2.89 - 8.68)

Surrogate	Area	Amount	
o-Terphenyl	9103	0.0	
Triacontane	9459500	44.7	M

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	10643.2	30-MAR-2020

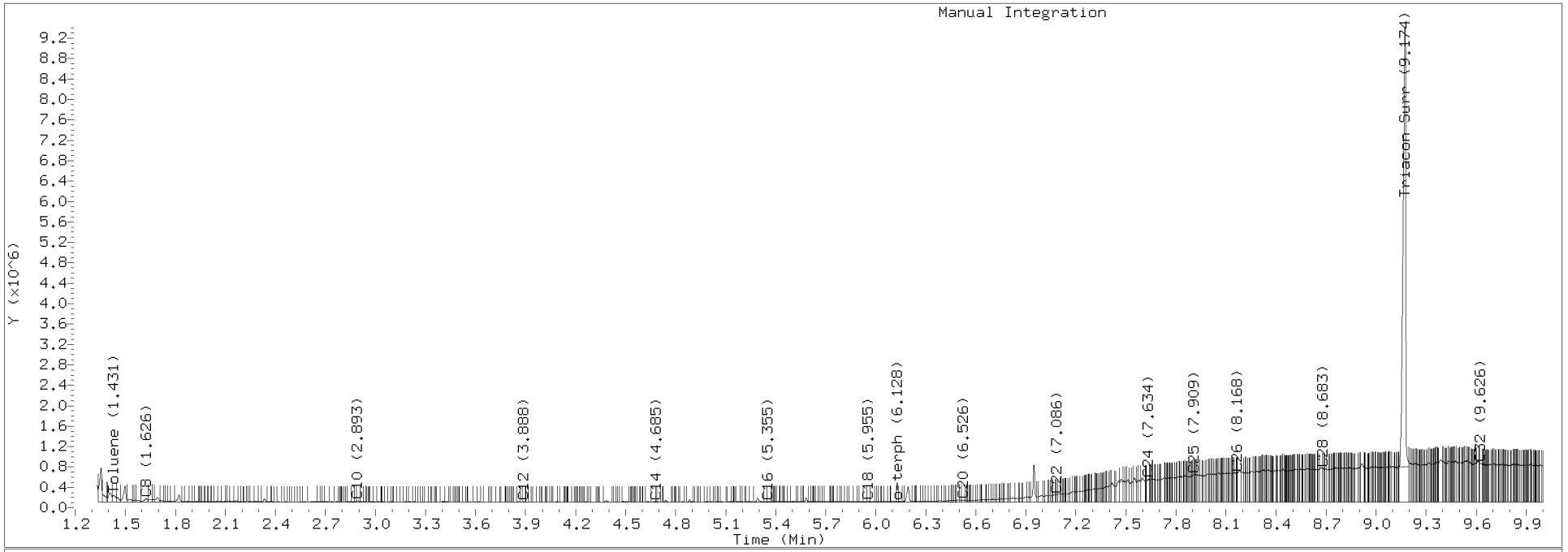
Datafile: FID4A, 20210413.b/421D1322.D SEQ-SCV2

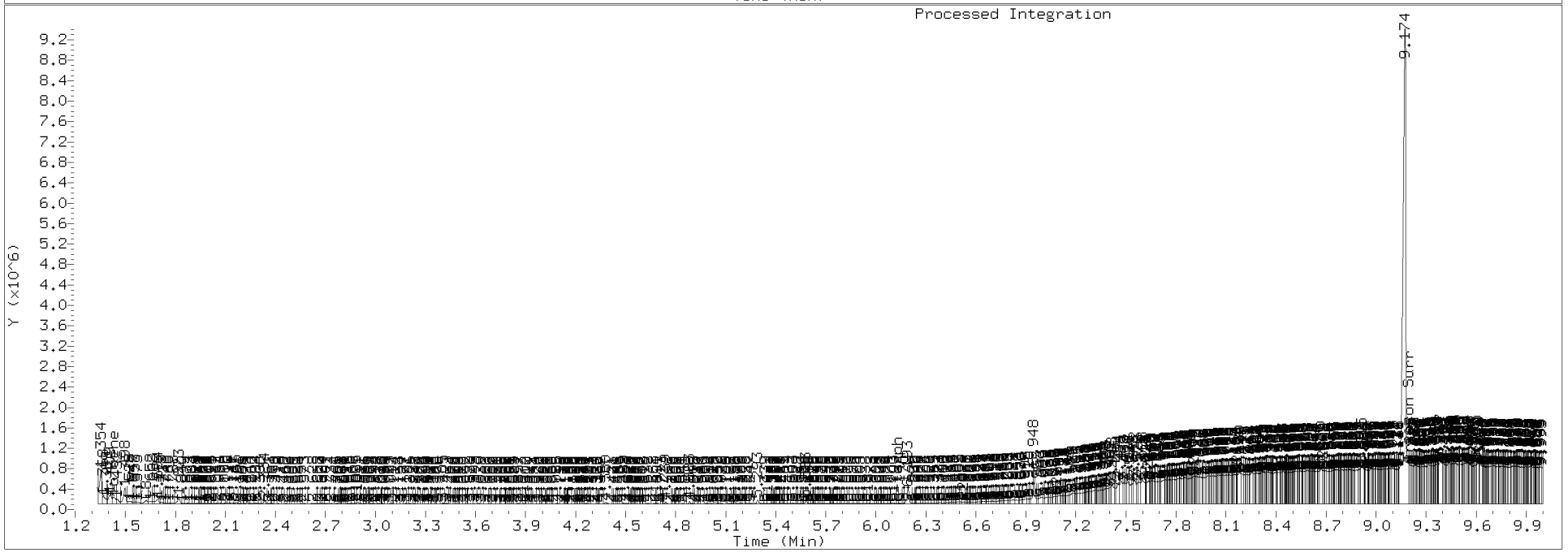


TPH Manual Integrations Report

Datafile: FID4A, 20210413.b/421D1322.D Injection: 13-APR-2021 18:07

Lab ID:SEQ-SCV2





INITIAL CALIBRATION CHECK

NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	FID4	Calibration:	ED00037
Lab File ID:	421D1561.D	Calibration Date:	04/13/2021
Sequence:	SJD0260	Injection Date:	04/16/21
Lab Sample ID:	SJD0260-ICV1	Injection Time:	06:21
Sequence Name:	DIESEL ICV		

		CONC. (mg/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Diesel Range Organics (C12-C24)	A	500.00	499	182831.3000	182439.2000		-0.2	+/-15
o-Terphenyl	A	90.000	87.0	249011.4000	240625.8000		-3.3	+/-15

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210415b.b\421D1561.D

Date : 16-APR-2021 06:21

Client ID:

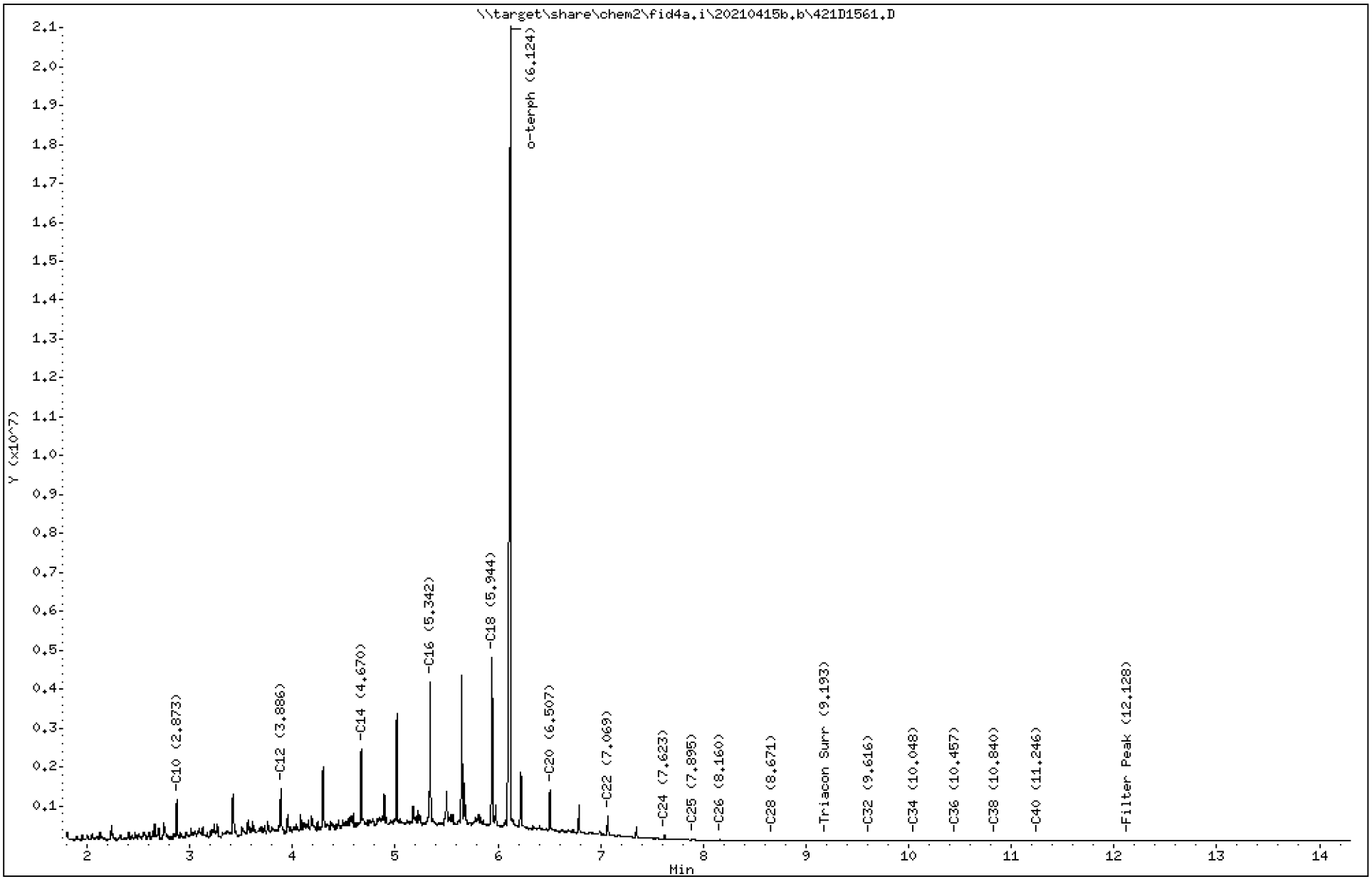
Instrument: fid4a.i

Sample Info: SEQ-ICV1

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25



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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210415b.b/421D1561.D
Method: 20210415b.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/19/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-ICV1
Client ID:
Injection: 16-APR-2021 06:21
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	1.609	-0.001	112644	125856	WATPHD	(C12-C24)	91219617	498.9
C10	2.873	-0.006	1038507	786922	WATPHM	(C24-C38)	877375	6.7
C12	3.886	-0.002	1337018	1070306	AK102	(C10-C25)	107631460	499.6
C14	4.670	-0.001	2351029	2027178	AK103	(C25-C36)	532809	5.3
C16	5.342	-0.001	4060546	3872792	OR.DIES	(C10-C28)	108018043	551.1
C18	5.944	-0.001	4691534	3670982				
C20	6.507	-0.007	1287445	1292118	JET-A	(C10-C18)	84182999	574.0
C22	7.069	-0.008	632412	655045				
C24	7.623	-0.008	140665	184376				
C25	7.895	-0.007	48878	80604				
C26	8.160	-0.007	17884	30824				
C28	8.671	-0.005	3768	5029				
C32	9.616	-0.000	702	162				
C34	10.048	0.002	1056	404				
Filter Peak	12.128	0.003	6822	1932	CREOSOT	(C12-C22)	88435872	2266.7
C36	10.457	0.003	2877	818				
C38	10.840	0.001	5073	3458				
C40	11.246	-0.001	6257	1849				
o-terph	6.124	0.001	20516680	21656325				
Triacon Surr	9.193	0.007	3523	3605	NAS DIES	(C10-C24)	107377182	550.2

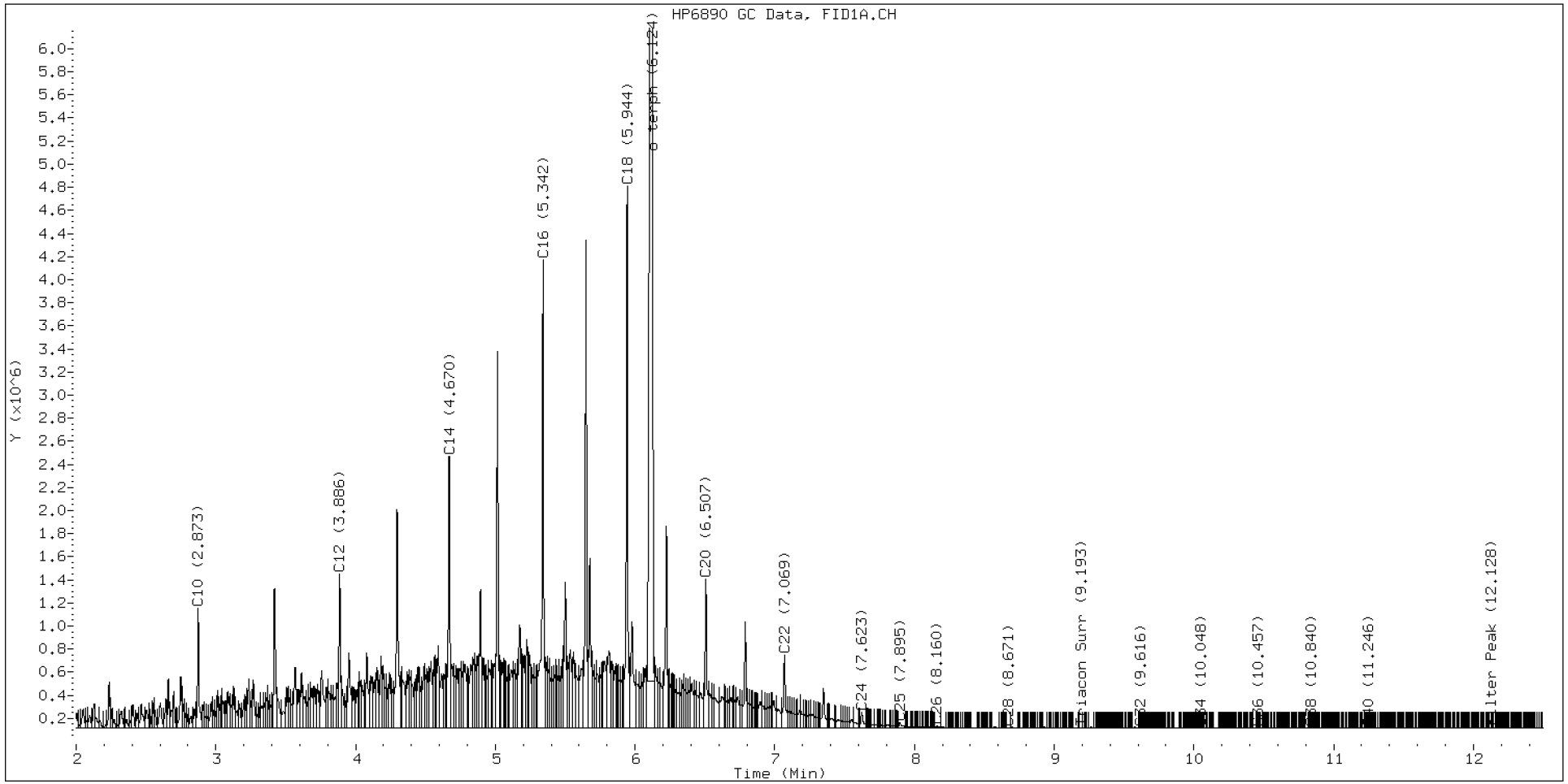
Range Times: NW Diesel(3.888 - 7.631) AK102(2.88 - 7.90) Jet A(2.88 - 5.95)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.68)

Surrogate	Area	Amount	
o-Terphenyl	21656325	87.0	M
Triacontane	3605	0.0	

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	39015.8	30-MAR-2020

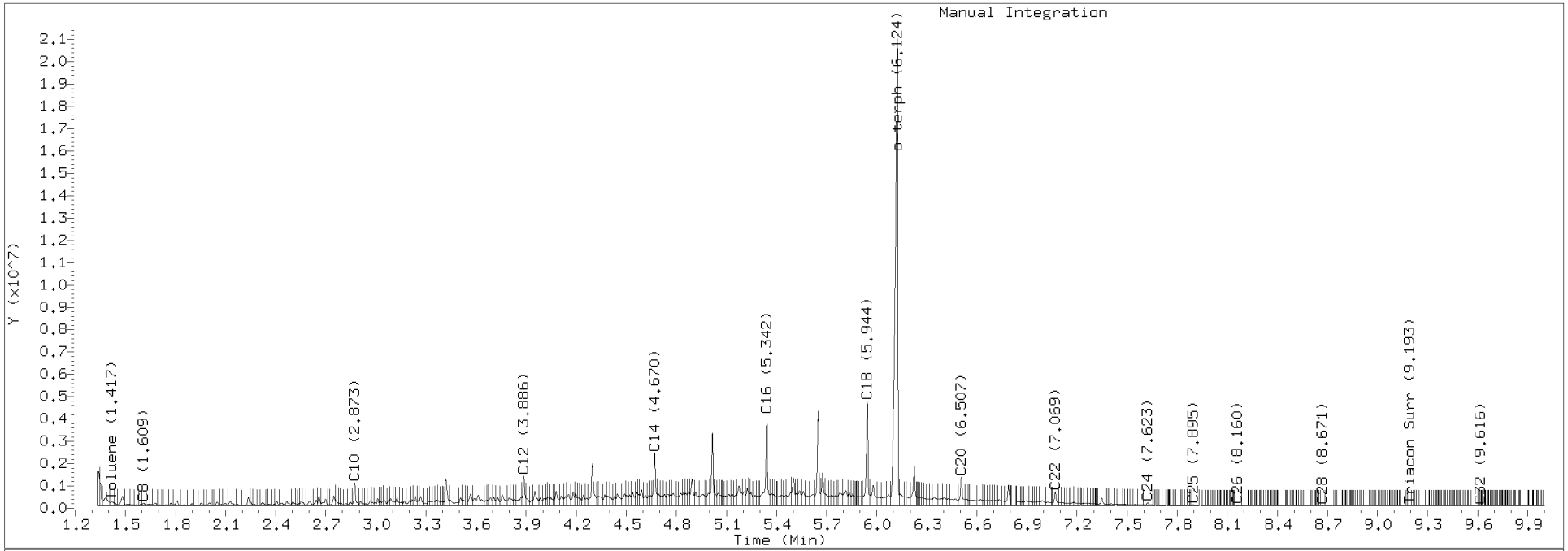
Datafile: FID4A, 20210415b.b/421D1561.D SEQ-ICV1

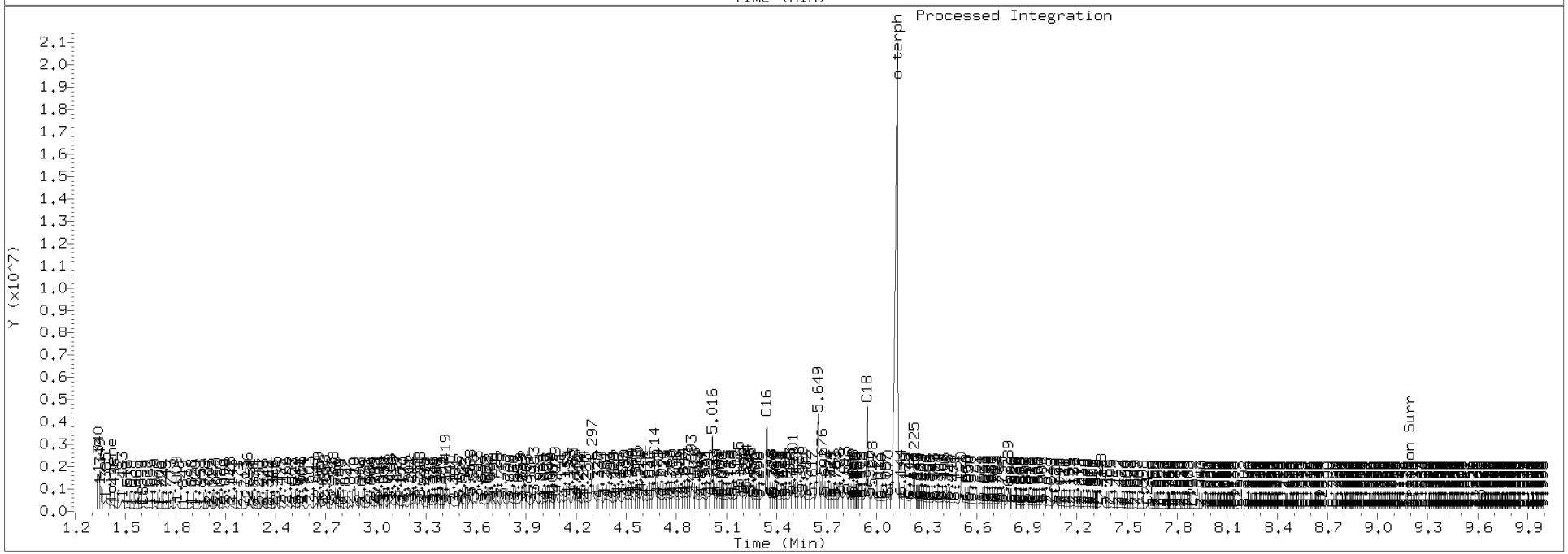


TPH Manual Integrations Report

Datafile: FID4A, 20210415b.b/421D1561.D Injection: 16-APR-2021 06:21

Lab ID:SEQ-ICV1





INITIAL CALIBRATION CHECK

NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	FID4	Calibration:	ED00037
Lab File ID:	421D1562.D	Calibration Date:	04/13/2021
Sequence:	SJD0260	Injection Date:	04/16/21
Lab Sample ID:	SJD0260-ICV2	Injection Time:	06:42
Sequence Name:	MOIL ICV		

		CONC. (mg/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Motor Oil Range Organics (C24-C38)	A	1000.0	1180	131440.7000	155644.0000		18.4	+/-15 *

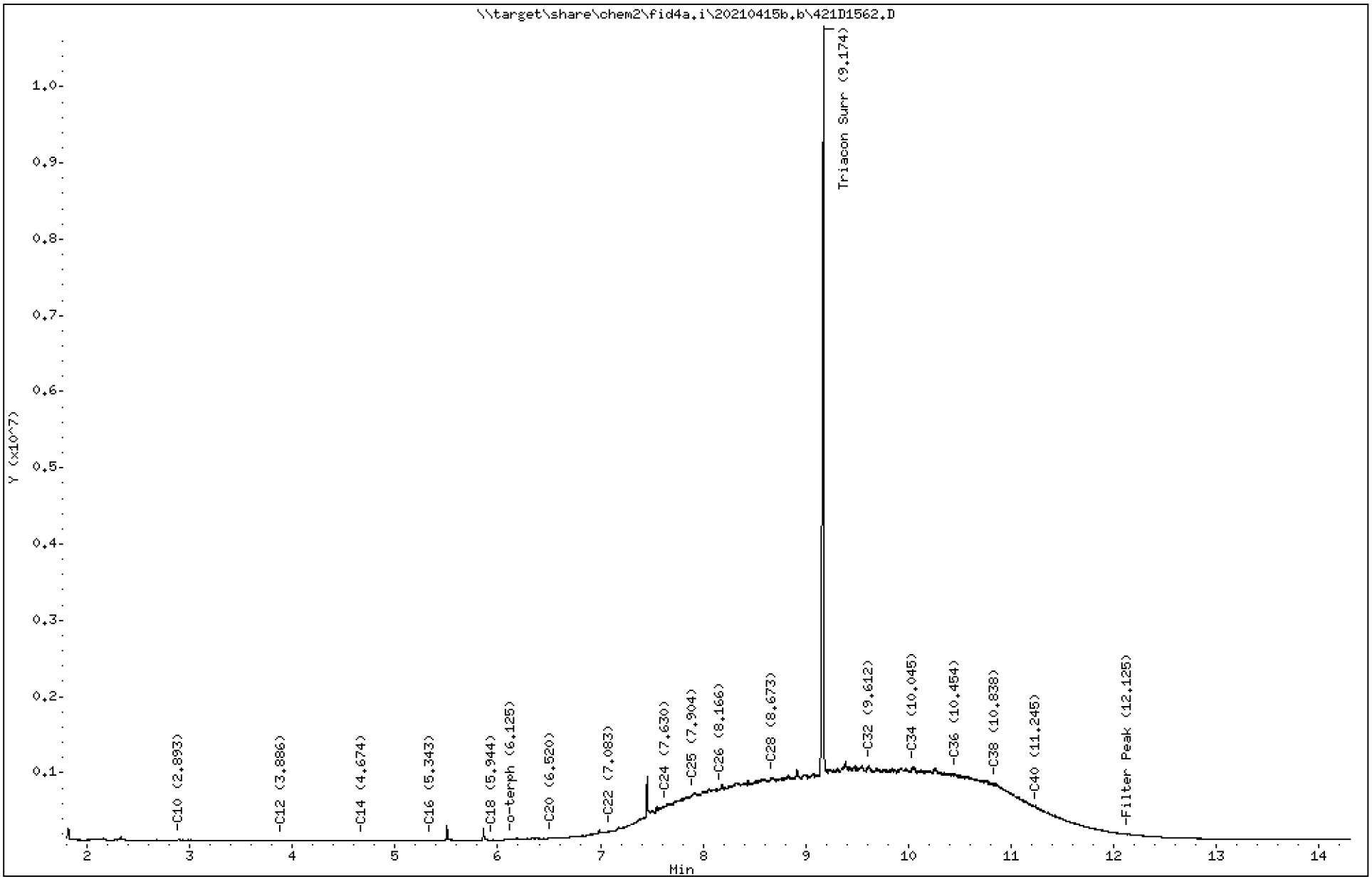
* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210415b.b\421D1562.D
Date : 16-APR-2021 06:42
Client ID:
Sample Info: SEQ-ICV2

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

Column phase: RTX-1



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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210415b.b/421D1562.D
Method: 20210415b.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/19/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-ICV2
Client ID:
Injection: 16-APR-2021 06:42
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	1.620	0.010	79445	114551	WATPHD	(C12-C24)	13969364	76.4
C10	2.893	0.014	21986	28723	WATPHM	(C24-C38)	155644038	1184.1
C12	3.886	-0.001	1914	1485	AK102	(C10-C25)	19406620	90.1
C14	4.674	0.003	3193	943	AK103	(C25-C36)	132173405	1307.9
C16	5.343	0.000	4315	2109	OR.DIES	(C10-C28)	56265963	287.1
C18	5.944	-0.001	8251	1644				
C20	6.520	0.006	30709	20749	JET-A	(C10-C18)	821458	5.6
C22	7.083	0.005	116656	28892				
C24	7.630	-0.001	451736	112436				
C25	7.904	0.002	610127	479843				
C26	8.166	-0.001	689125	272337				
C28	8.673	-0.003	832047	329420				
C32	9.612	-0.004	989937	532388				
C34	10.045	-0.001	964151	381225				
Filter Peak	12.125	-0.001	84250	29053	CREOSOT	(C12-C22)	3721874	95.4
C36	10.454	0.000	871779	518981				
C38	10.838	-0.001	751332	514765				
C40	11.245	-0.001	436685	108472				
o-terph	6.125	0.001	11073	3279				
Triacon Surr	9.174	-0.012	9847122	10778658	NAS DIES	(C10-C24)	14137722	72.4

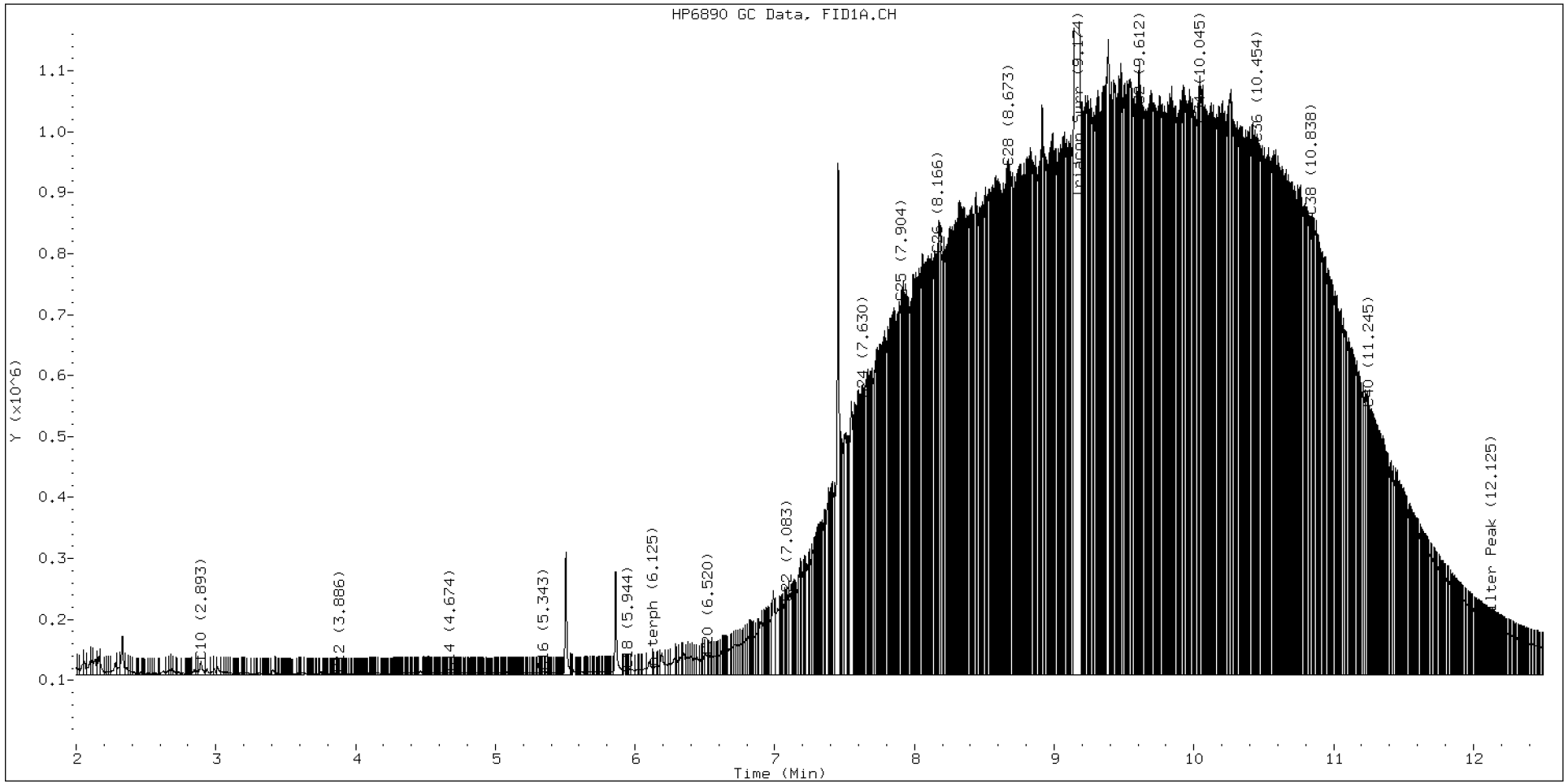
Range Times: NW Diesel(3.888 - 7.631) AK102(2.88 - 7.90) Jet A(2.88 - 5.95)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.68)

Surrogate	Area	Amount	
o-Terphenyl	3279	0.0	
Triacontane	10778658	50.9	M

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	39015.8	30-MAR-2020

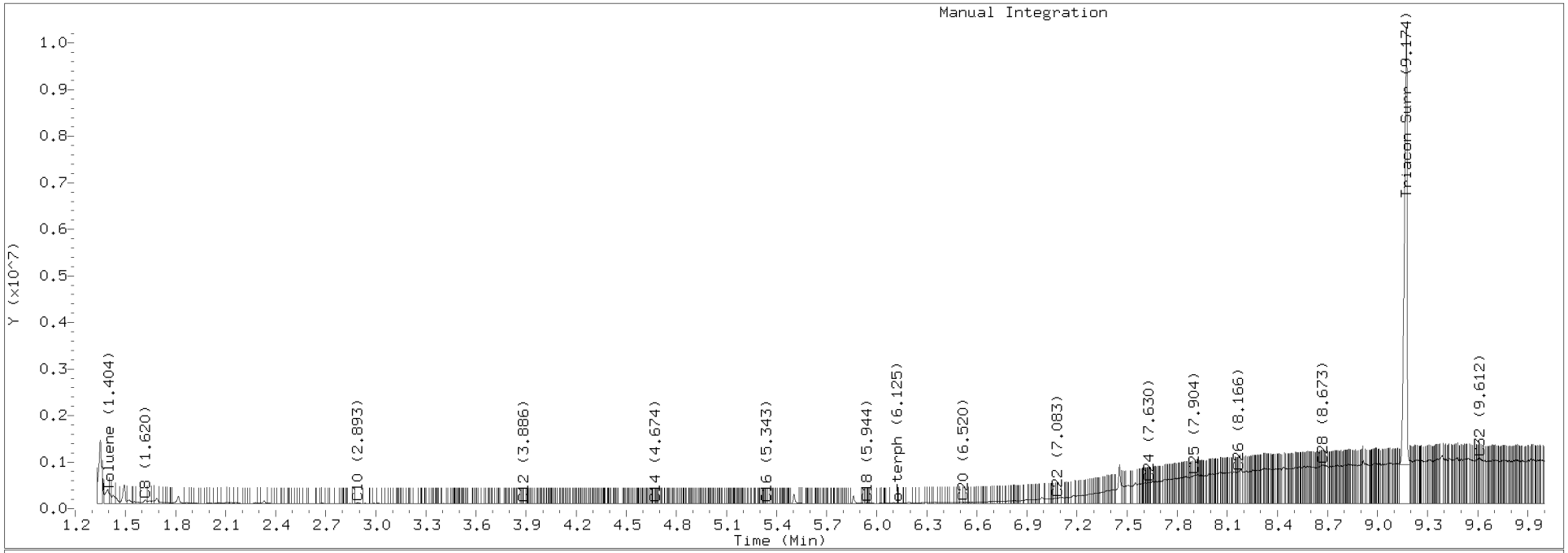
Datafile: FID4A, 20210415b.b/421D1562.D SEQ-ICV2

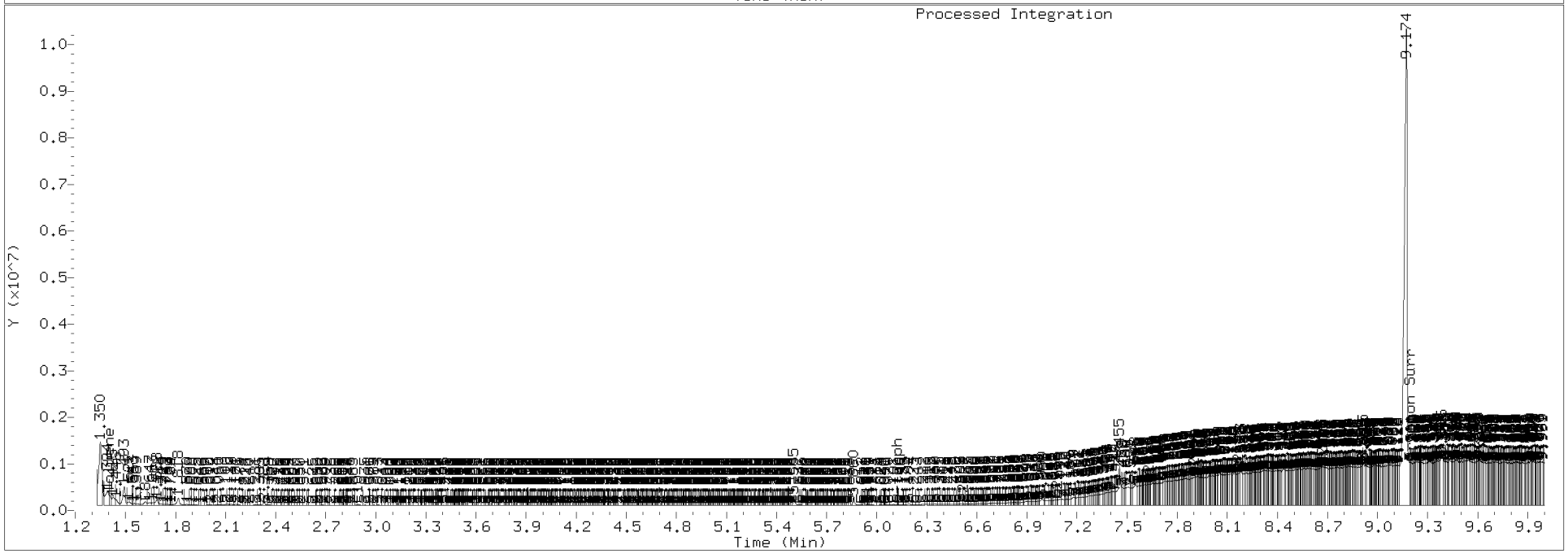


TPH Manual Integrations Report

Datafile: FID4A, 20210415b.b/421D1562.D Injection: 16-APR-2021 06:42

Lab ID:SEQ-ICV2





INITIAL CALIBRATION CHECK

NWTPH-Dx

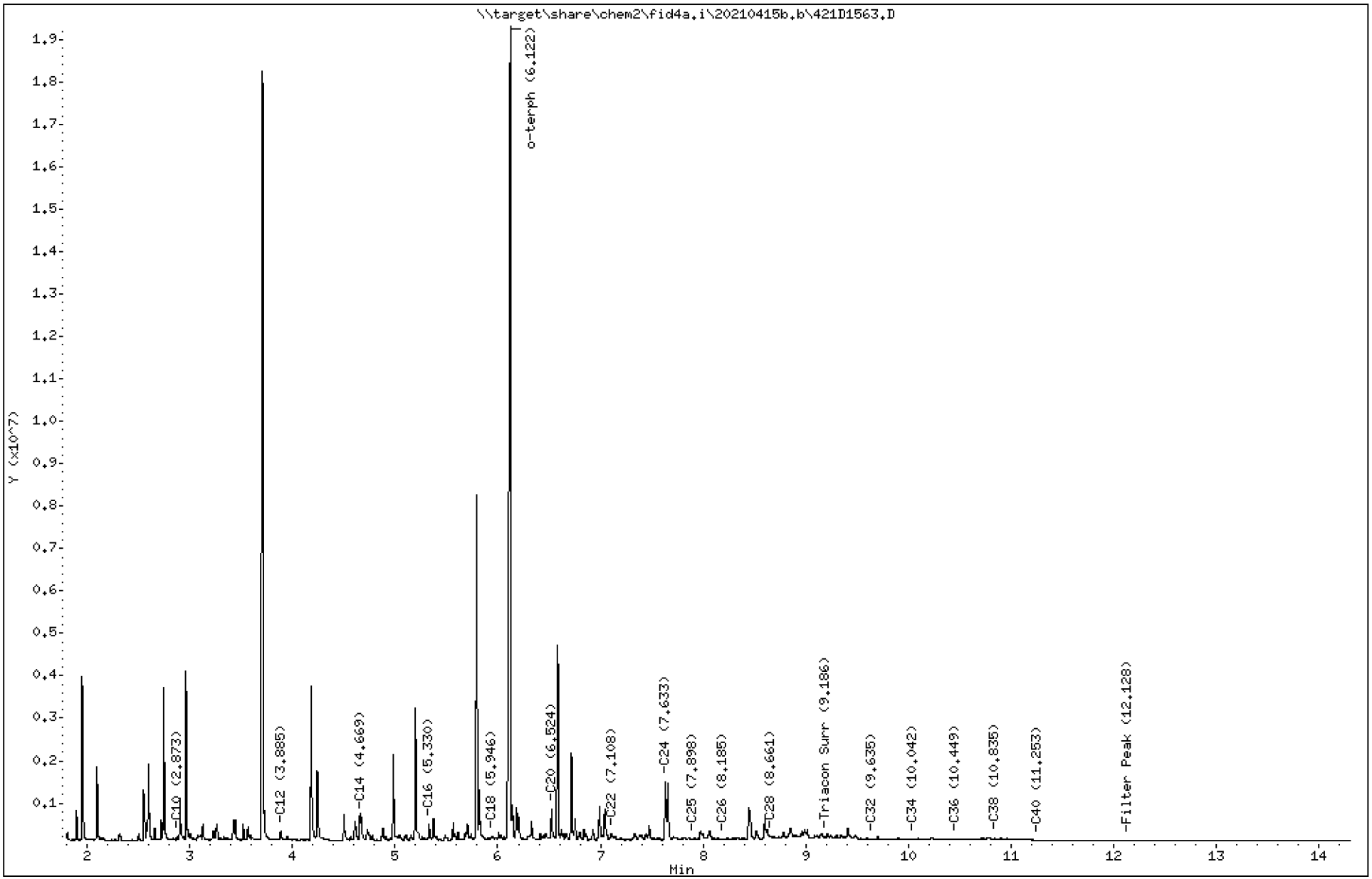
Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	FID4	Calibration:	ED00037
Lab File ID:	421D1563.D	Calibration Date:	04/13/2021
Sequence:	SJD0260	Injection Date:	04/16/21
Lab Sample ID:	SJD0260-ICV3	Injection Time:	07:03
Sequence Name:	A/S Creosote ICV		

		CONC. (mg/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Creosote Range Organics (C12-C22)	A	1000.0	942	39015.8400	36759.2300		-5.8	+/-15
o-Terphenyl	A	90.000	80.9	249011.4000	223885.7000		-10.1	+/-15

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210415b.b\421D1563.D
Date : 16-APR-2021 07:03
Client ID:
Sample Info: SEQ-ICV3

Instrument: fid4a.i
Operator: CTO
Column phase: RTX-1
Column diameter: 0.25



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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210415b.b/421D1563.D
Method: 20210415b.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/19/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-ICV3
Client ID:
Injection: 16-APR-2021 07:03
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	1.610	0.000	83533	121908	WATPHD	(C12-C24)	41084434	224.7
C10	2.873	-0.006	84020	54114	WATPHM	(C24-C38)	13445948	102.3
C12	3.885	-0.002	228898	243746	AK102	(C10-C25)	65972947	306.3
C14	4.669	-0.002	544251	492987	AK103	(C25-C36)	12179350	120.5
C16	5.330	-0.013	379787	343677	OR.DIES	(C10-C28)	71078269	362.6
C18	5.946	0.001	81234	101276				
C20	6.524	0.010	756175	690943	JET-A	(C10-C18)	47063943	320.9
C22	7.108	0.030	157344	256653				
C24	7.633	0.002	1383061	1245338				
C25	7.898	-0.004	39353	35911				
C26	8.185	0.019	28749	21842				
C28	8.661	-0.015	97719	140386				
C32	9.635	0.019	36560	57770				
C34	10.042	-0.004	30823	16346				
Filter Peak	12.128	0.003	4121	2203	CREOSOT	(C12-C22)	36759229	942.2
C36	10.449	-0.005	38987	62090				
C38	10.835	-0.005	48555	63116				
C40	11.253	0.006	13503	12291				
o-terph	6.122	-0.001	19198875	20149713				
Triacon Surr	9.186	0.000	89900	105769	NAS DIES	(C10-C24)	65524403	335.8

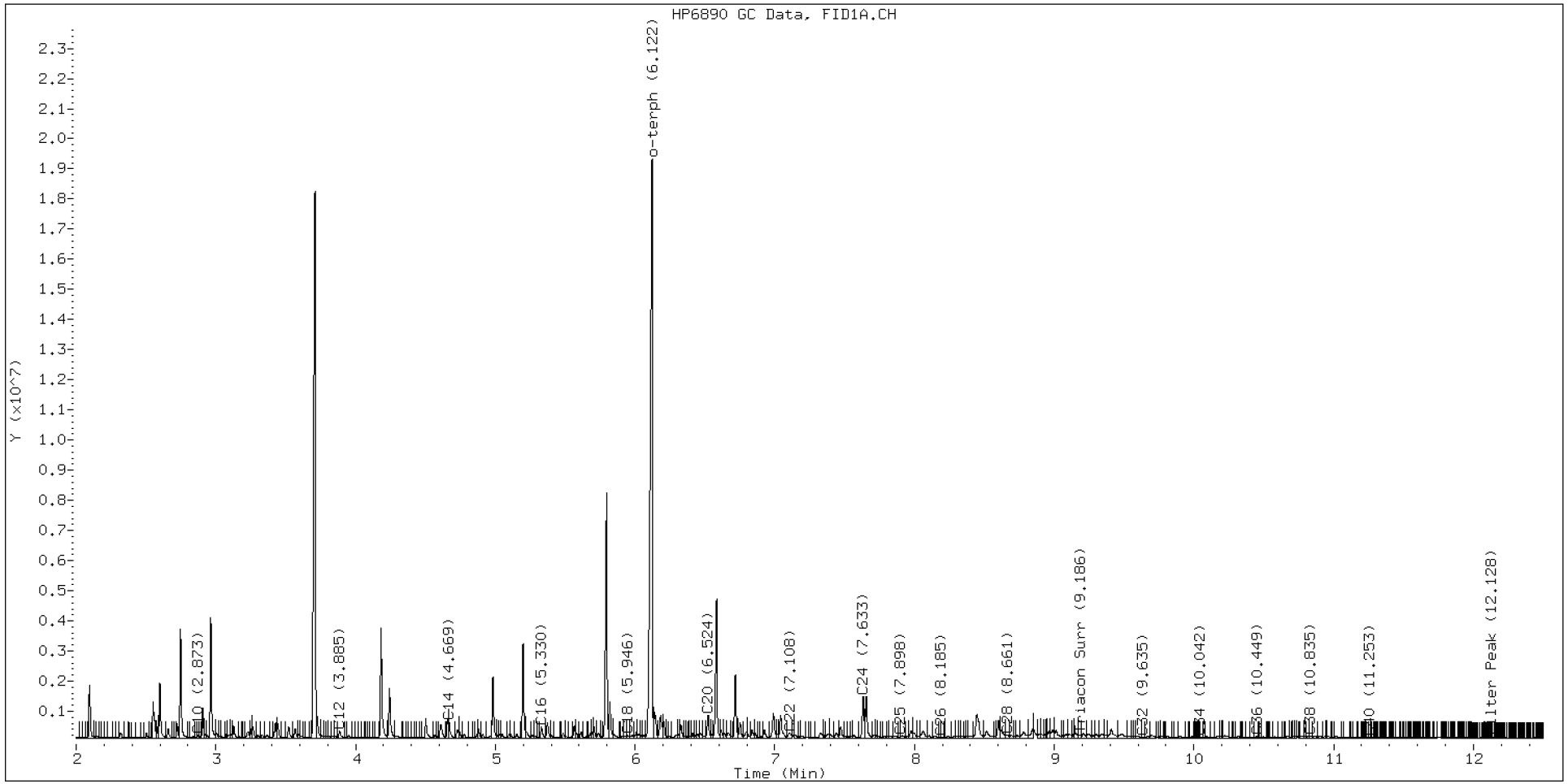
Range Times: NW Diesel(3.888 - 7.631) AK102(2.88 - 7.90) Jet A(2.88 - 5.95)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.68)

Surrogate	Area	Amount
o-Terphenyl	20149713	80.9
Triacontane	105769	0.5

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	39015.8	30-MAR-2020

Datafile: FID4A, 20210415b.b/421D1563.D SEQ-ICV3



INITIAL CALIBRATION CHECK

NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	FID4	Calibration:	ED00037
Lab File ID:	421D2011.D	Calibration Date:	04/13/2021
Sequence:	SJD0282	Injection Date:	04/20/21
Lab Sample ID:	SJD0282-ICV1	Injection Time:	17:08
Sequence Name:	DIESEL ICV		

		CONC. (mg/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Diesel Range Organics (C12-C24)	A	500.00	516	182831.3000	188573.8000		3.1	+/-15
o-Terphenyl	A	90.000	90.7	249011.4000	250908.6000		0.8	+/-15

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210420.b\421D2011.D

Date : 20-APR-2021 17:08

Client ID:

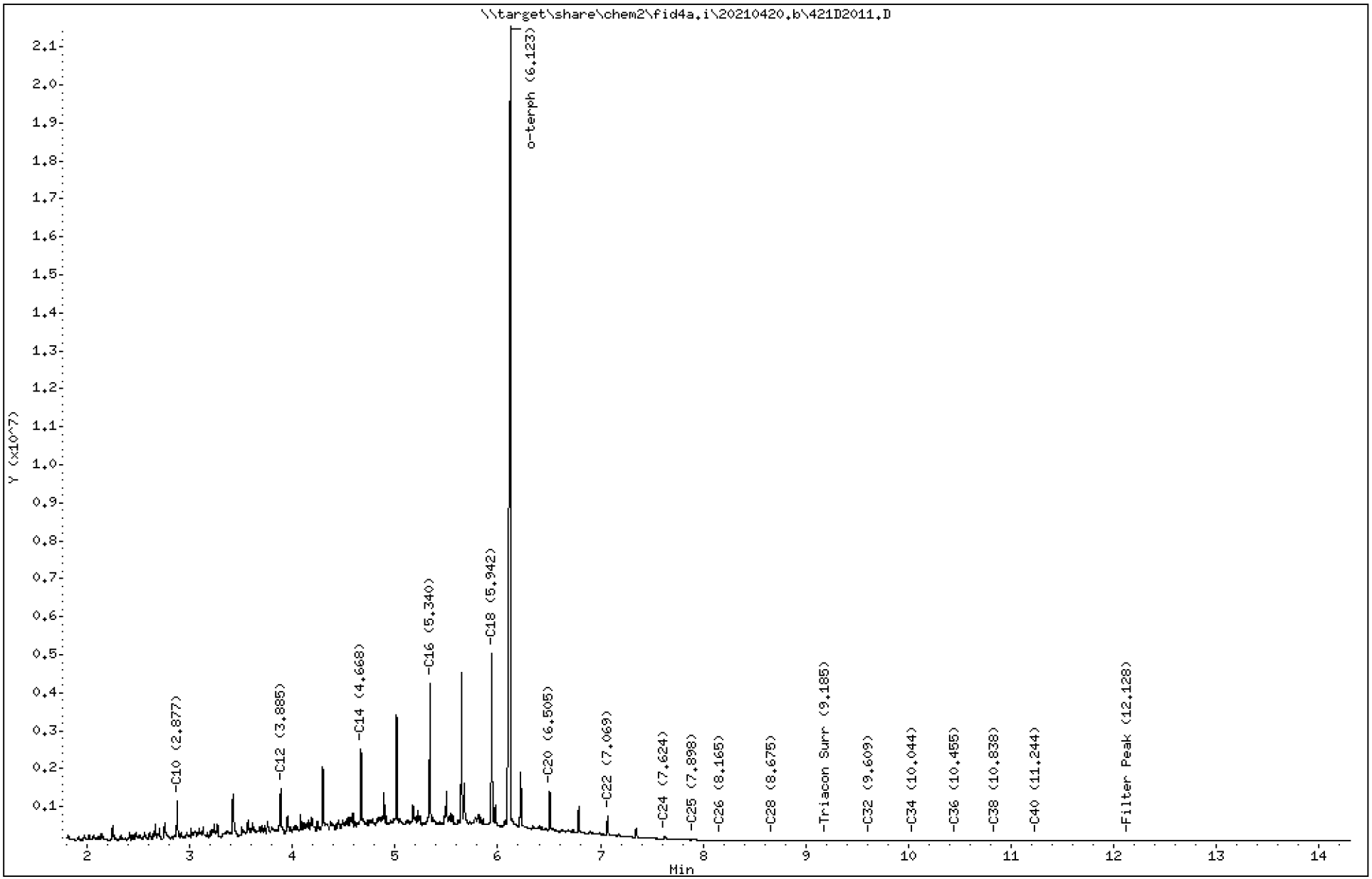
Instrument: fid4a.i

Sample Info: SEQ-ICV1

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25



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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210420.b/421D2011.D
Method: 20210420.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/21/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-ICV1
Client ID:
Injection: 20-APR-2021 17:08
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	1.619	0.001	103614	105478	WATPHD	(C12-C24)	94286922	515.7
C10	2.877	-0.004	1058088	793077	WATPHM	(C24-C38)	899507	6.8
C12	3.885	-0.002	1354738	1093753	AK102	(C10-C25)	110996676	515.3
C14	4.668	-0.003	2418638	2102930	AK103	(C25-C36)	554262	5.5
C16	5.340	-0.002	4151721	4161098	OR.DIES	(C10-C28)	111424849	568.5
C18	5.942	-0.002	4921098	3981609				
C20	6.505	-0.007	1301000	1397131	JET-A	(C10-C18)	86483930	589.7
C22	7.069	-0.007	637950	634934				
C24	7.624	-0.006	123389	210018				
C25	7.898	-0.003	42457	92565				
C26	8.165	-0.001	16568	32758				
C28	8.675	-0.001	2665	2524				
C32	9.609	-0.007	676	370				
C34	10.044	-0.002	1322	254				
Filter Peak	12.128	0.002	6596	2905	BUNKERC	(C10-C38)	111639644	2486.8
C36	10.455	0.003	2681	1046				
C38	10.838	-0.002	4581	2420				
C40	11.244	0.000	6106	1804				
o-terph	6.123	0.001	21002714	22581772				
Triacon Surr	9.185	0.001	1079	403	NAS DIES	(C10-C24)	110740137	567.5

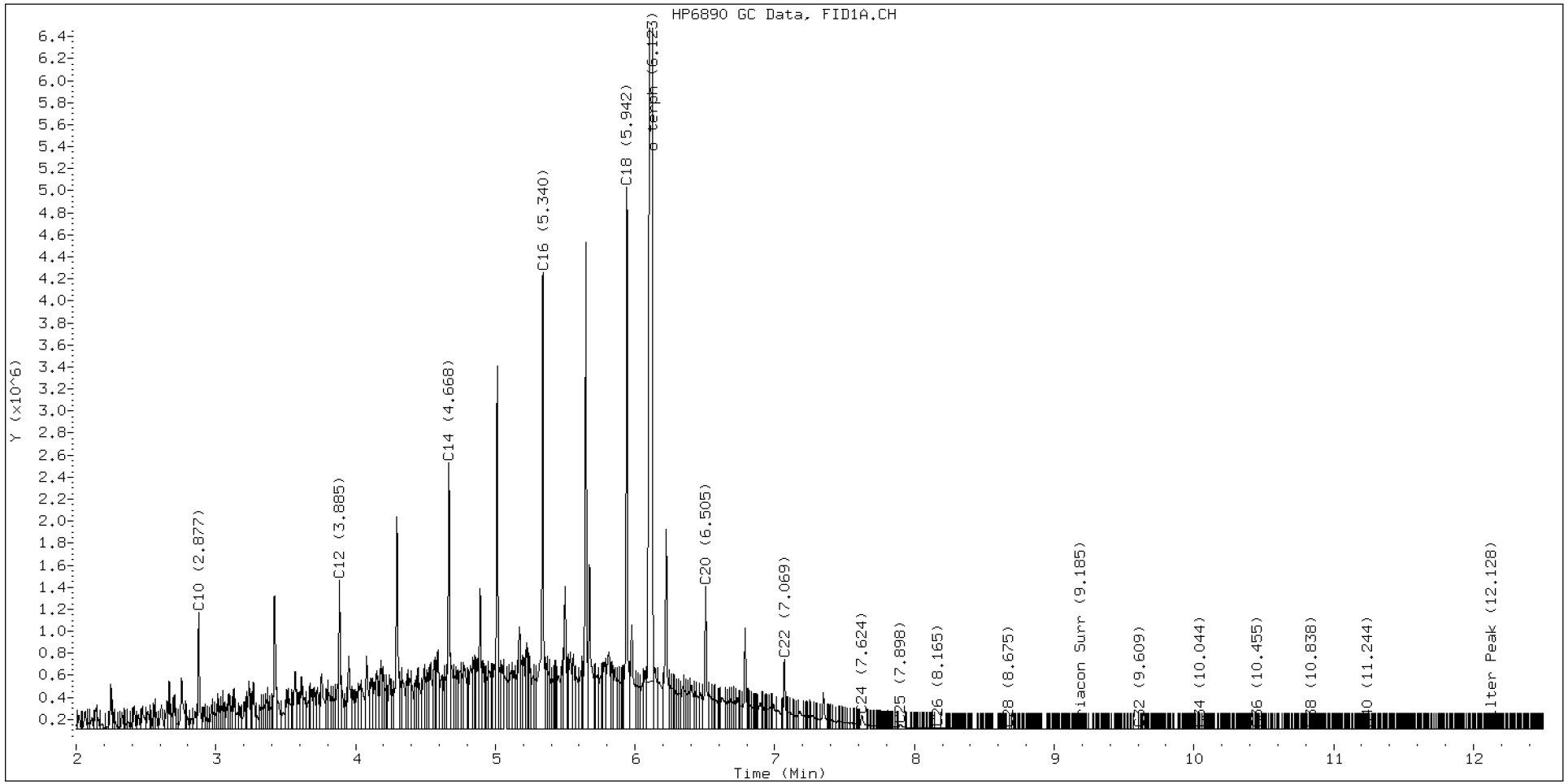
Range Times: NW Diesel(3.888 - 7.630) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.68)

Surrogate	Area	Amount	
o-Terphenyl	22581772	90.7	M
Triacontane	403	0.0	

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021

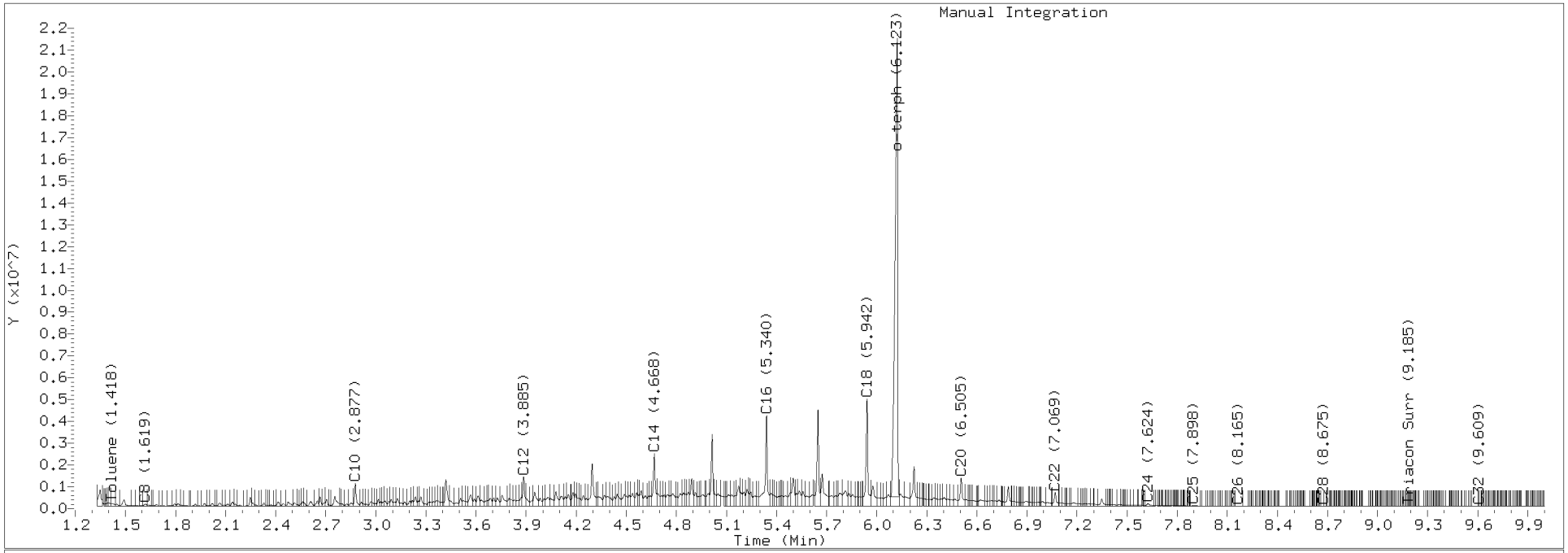
Datafile: FID4A, 20210420.b/421D2011.D SEQ-ICV1

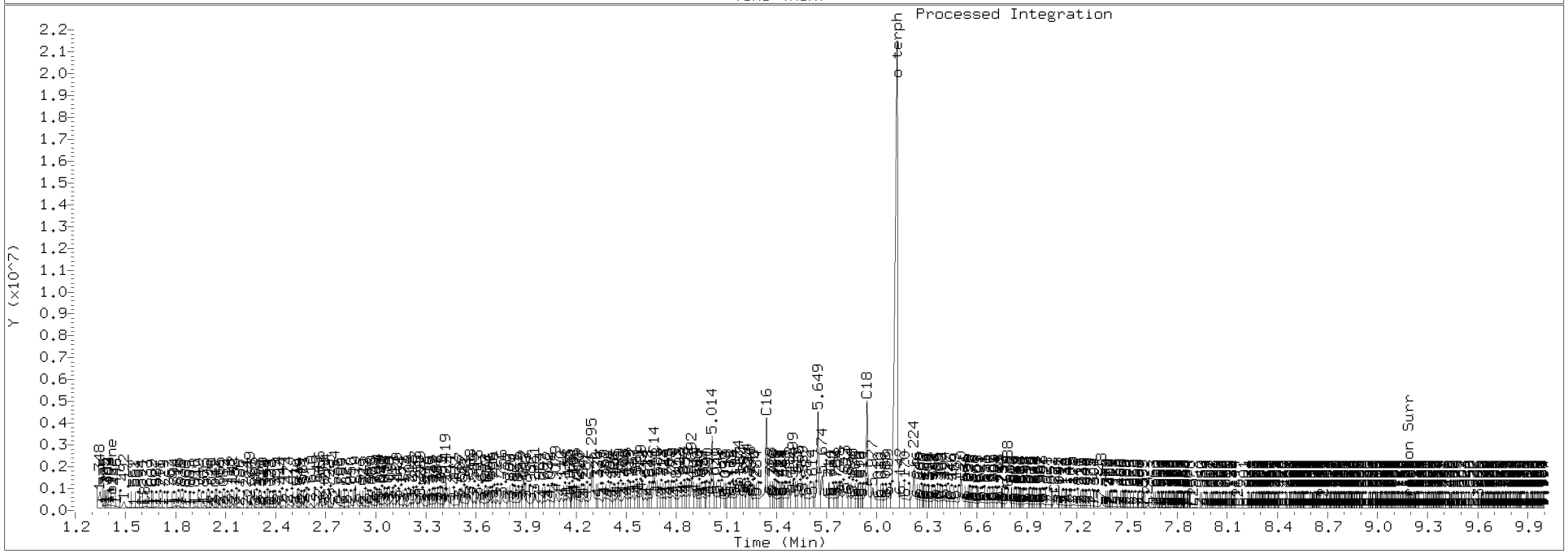


TPH Manual Integrations Report

Datafile: FID4A, 20210420.b/421D2011.D Injection: 20-APR-2021 17:08

Lab ID:SEQ-ICV1





INITIAL CALIBRATION CHECK

NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	FID4	Calibration:	ED00037
Lab File ID:	421D2012.D	Calibration Date:	04/13/2021
Sequence:	SJD0282	Injection Date:	04/20/21
Lab Sample ID:	SJD0282-ICV2	Injection Time:	17:30
Sequence Name:	MOIL ICV		

		CONC. (mg/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Motor Oil Range Organics (C24-C38)	A	1000.0	1030	131440.7000	135055.5000		2.8	+/-15

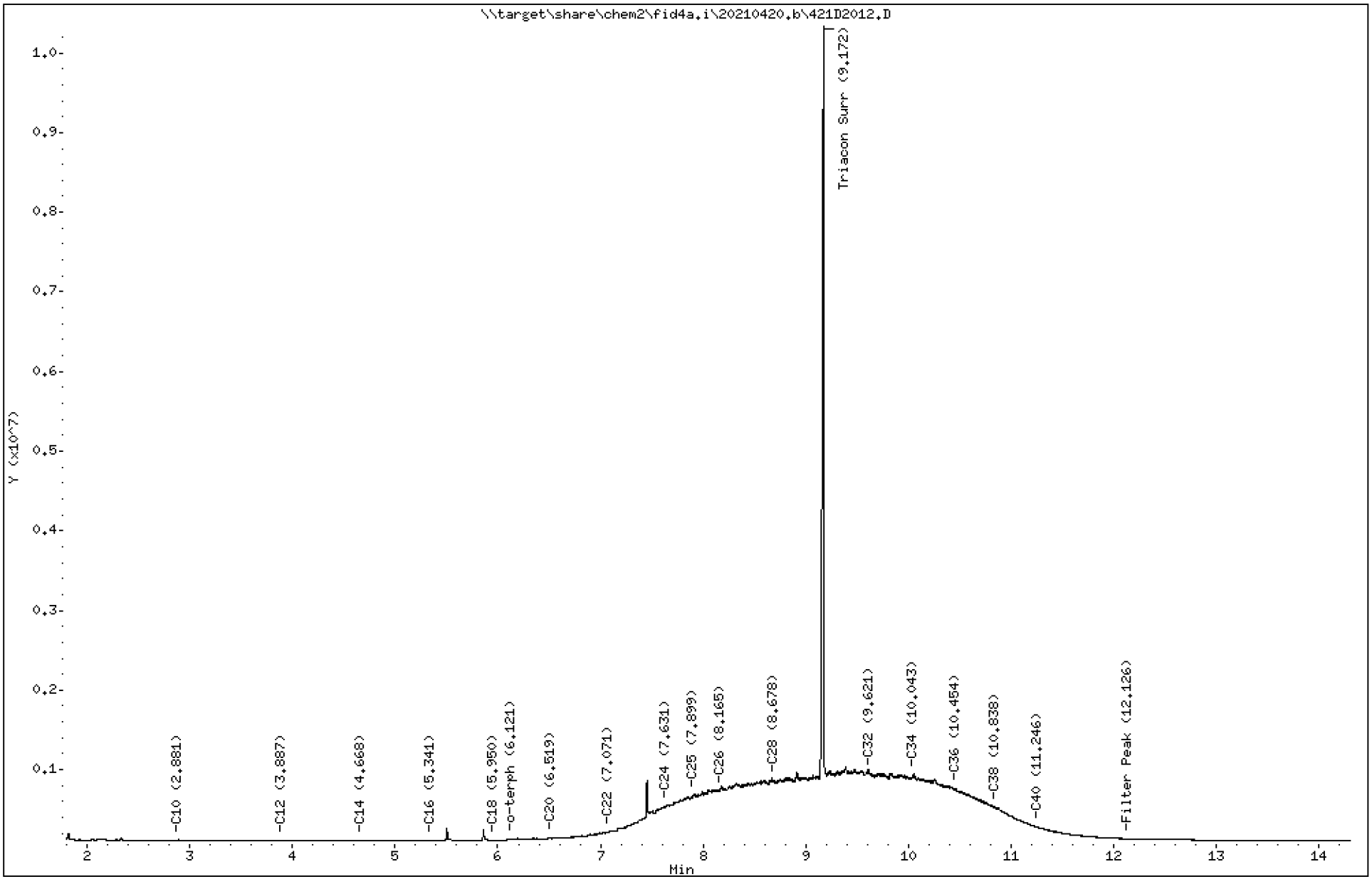
* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210420.b\421D2012.D
Date : 20-APR-2021 17:30
Client ID:
Sample Info: SEQ-ICV2

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

Column phase: RTX-1



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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210420.b/421D2012.D
Method: 20210420.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/21/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-ICV2
Client ID:
Injection: 20-APR-2021 17:30
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	1.621	0.004	53060	80480	WATPHD	(C12-C24)	12568205	68.7
C10	2.881	-0.000	6786	4387	WATPHM	(C24-C38)	135055495	1027.5
C12	3.887	-0.000	558	245	AK102	(C10-C25)	18071372	83.9
C14	4.668	-0.003	1753	835	AK103	(C25-C36)	117930032	1167.0
C16	5.341	-0.001	2390	1581	OR.DIES	(C10-C28)	52471110	267.7
C18	5.950	0.006	7086	6144				
C20	6.519	0.006	26720	16957	JET-A	(C10-C18)	561683	3.8
C22	7.071	-0.005	110635	147977				
C24	7.631	0.000	422151	105029				
C25	7.899	-0.002	561091	112008				
C26	8.165	-0.001	626123	93800				
C28	8.678	0.002	746837	111880				
C32	9.621	0.005	841443	125750				
C34	10.043	-0.002	818926	203248				
Filter Peak	12.126	0.000	22603	8933	BUNKERC	(C10-C38)	147709173	3290.3
C36	10.454	0.001	644112	160284				
C38	10.838	-0.001	412466	82315				
C40	11.246	0.002	171620	109739				
o-terph	6.121	-0.000	9962	3418				
Triacon Surr	9.172	-0.012	9430808	9858755	NAS DIES	(C10-C24)	12653678	64.8

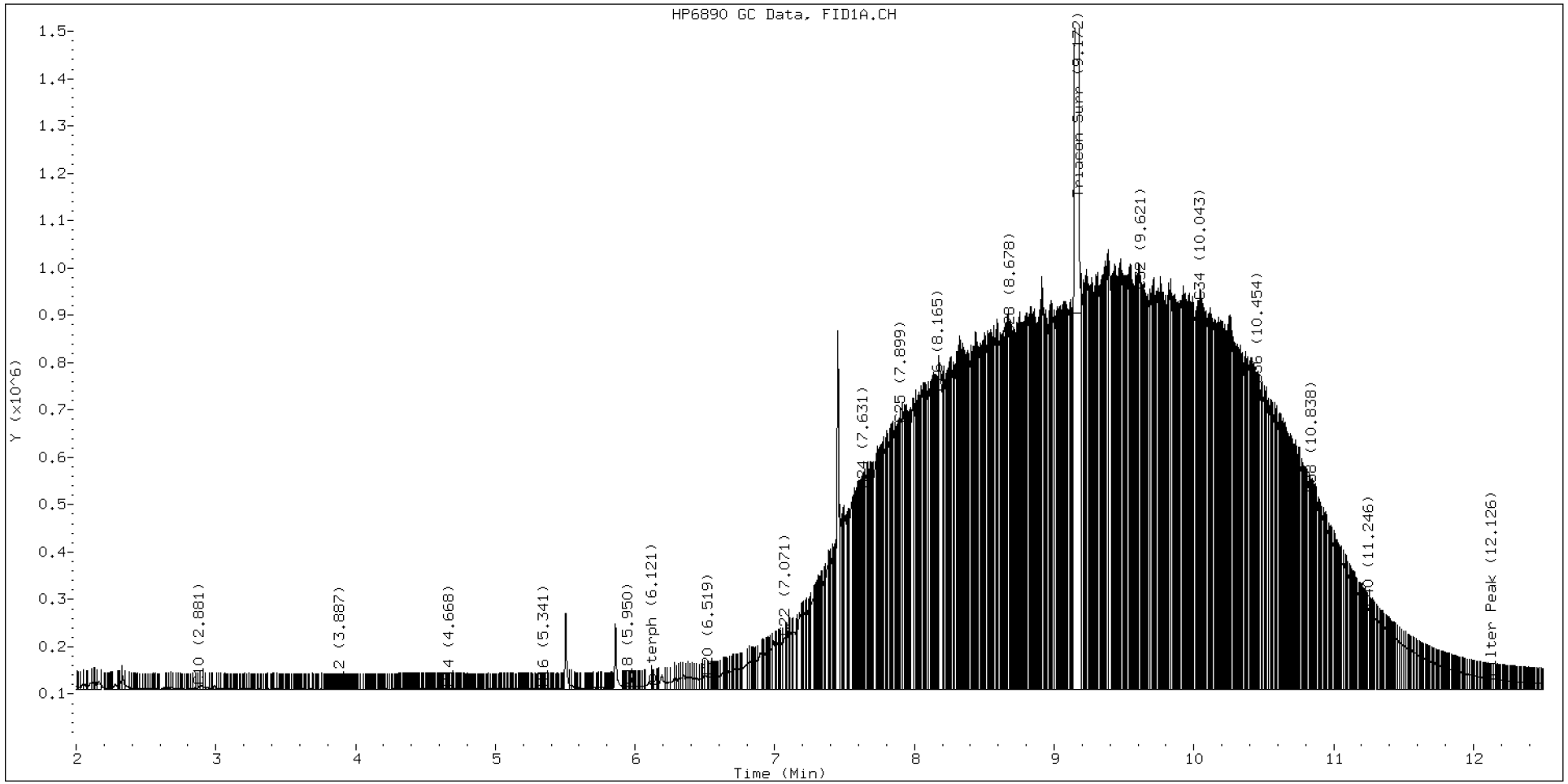
Range Times: NW Diesel(3.888 - 7.630) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.68)

Surrogate	Area	Amount	
o-Terphenyl	3418	0.0	
Triacontane	9858755	46.5	M

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021

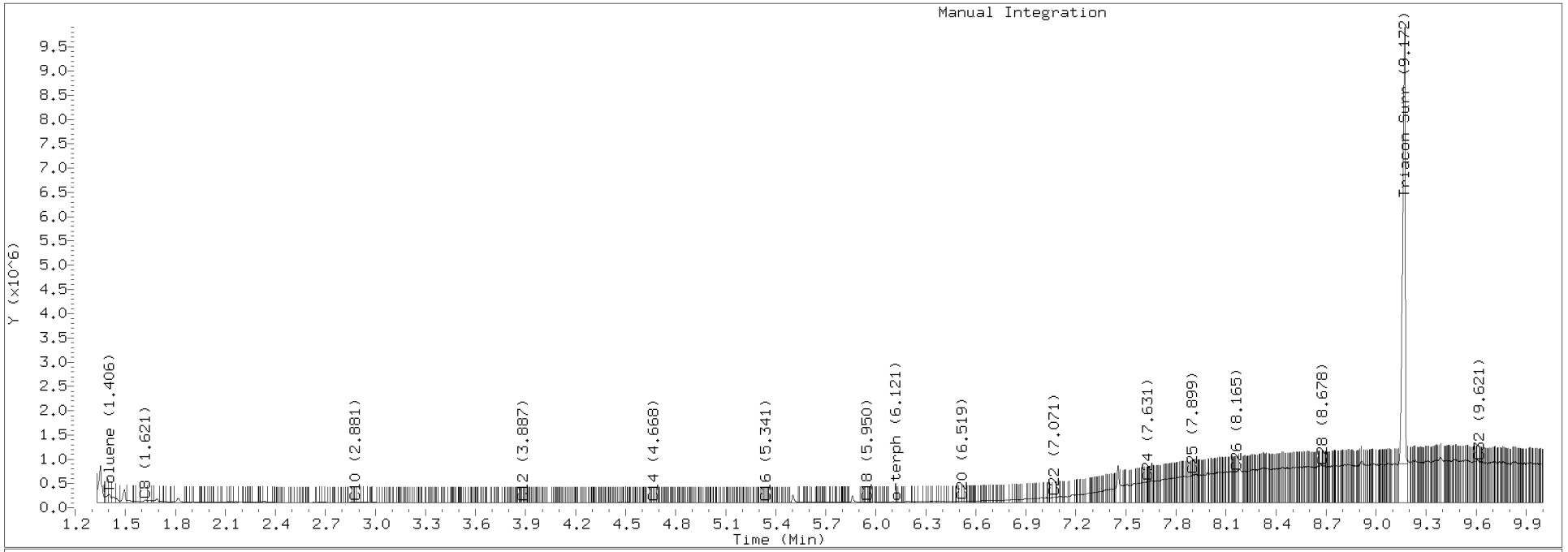
Datafile: FID4A, 20210420.b/421D2012.D SEQ-ICV2

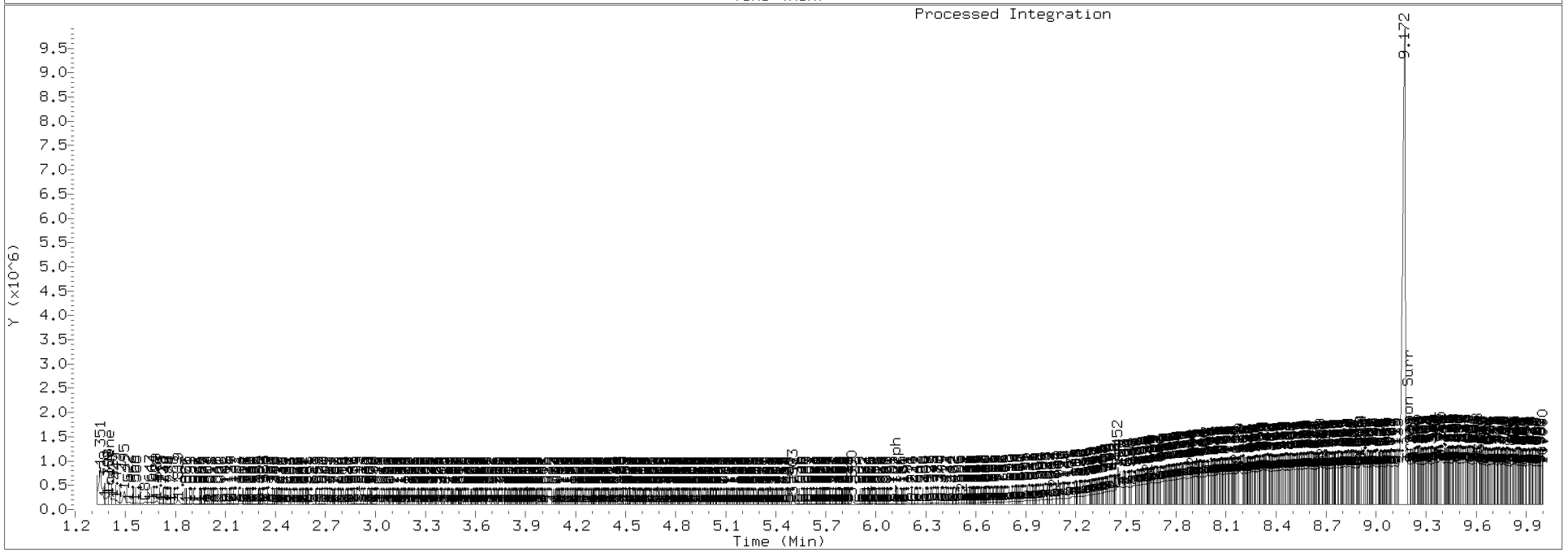


TPH Manual Integrations Report

Datafile: FID4A, 20210420.b/421D2012.D Injection: 20-APR-2021 17:30

Lab ID:SEQ-ICV2





INITIAL CALIBRATION CHECK

NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	FID4	Calibration:	ED00037
Lab File ID:	421D2013.D	Calibration Date:	04/13/2021
Sequence:	SJD0282	Injection Date:	04/20/21
Lab Sample ID:	SJD0282-ICV3	Injection Time:	17:51
Sequence Name:	A/S BUNKER C		

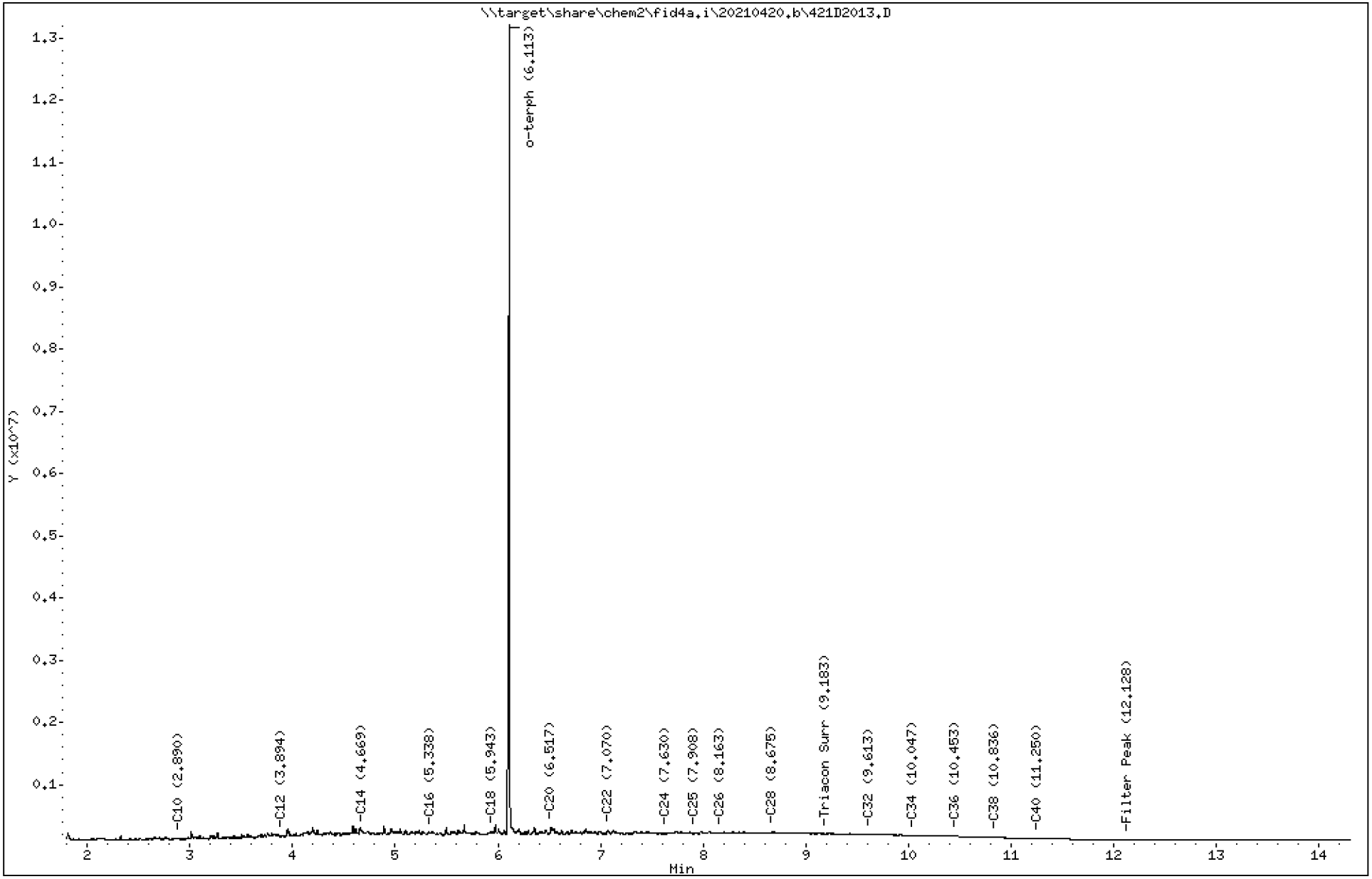
		CONC. (mg/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Bunker C Range Organics (C10-C38)	A	1000.0	990	44892.5300	44426.3000		-1.0	+/-15
o-Terphenyl	A	45.000	41.9	249011.4000	231845.8000		-6.9	+/-15

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210420.b\421D2013.D
Date : 20-APR-2021 17:51
Client ID:
Sample Info: SEQ-ICV3

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

Column phase: RTX-1



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210420.b/421D2013.D
Method: 20210420.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/21/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-ICV3
Client ID:
Injection: 20-APR-2021 17:51
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	1.618	-0.000	56846	81837	WATPHD	(C12-C24)	24686907	135.0
C10	2.890	0.009	31460	32944	WATPHM	(C24-C38)	16748650	127.4
C12	3.894	0.007	60229	54024	AK102	(C10-C25)	28783068	133.6
C14	4.669	-0.002	162251	193126	AK103	(C25-C36)	14611153	144.6
C16	5.338	-0.003	116117	72644	OR.DIES	(C10-C28)	34465621	175.8
C18	5.943	-0.000	128718	153387				
C20	6.517	0.004	203137	295452	JET-A	(C10-C18)	16273777	111.0
C22	7.070	-0.006	147032	356588				
C24	7.630	-0.000	101705	89852				
C25	7.908	0.007	99410	63450				
C26	8.163	-0.003	113186	39538				
C28	8.675	-0.001	123368	89655				
C32	9.613	-0.003	85304	59072				
C34	10.047	0.002	75936	26390				
Filter Peak	12.128	0.002	5931	1469	BUNKERC	(C10-C38)	44426295	989.6
C36	10.453	0.001	56466	27924				
C38	10.836	-0.003	38070	24375				
C40	11.250	0.007	18675	7354				
o-terph	6.113	-0.009	13005175	10433064				
Triacon Surr	9.183	-0.001	96919	19322	NAS DIES	(C10-C24)	27677645	141.8

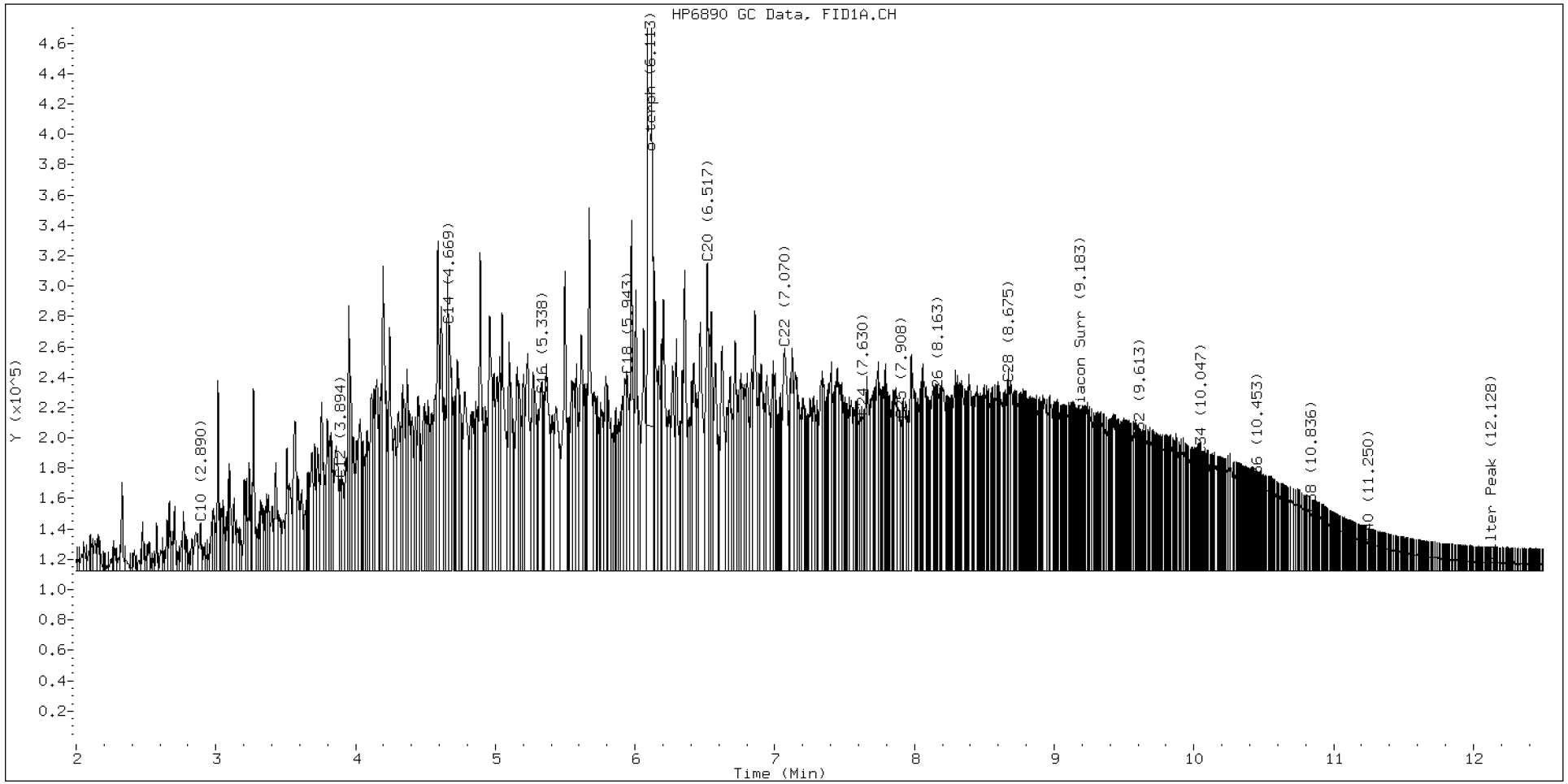
Range Times: NW Diesel(3.888 - 7.630) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.68)

Surrogate	Area	Amount	
o-Terphenyl	10433064	41.9	M
Triacontane	19322	0.1	

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021

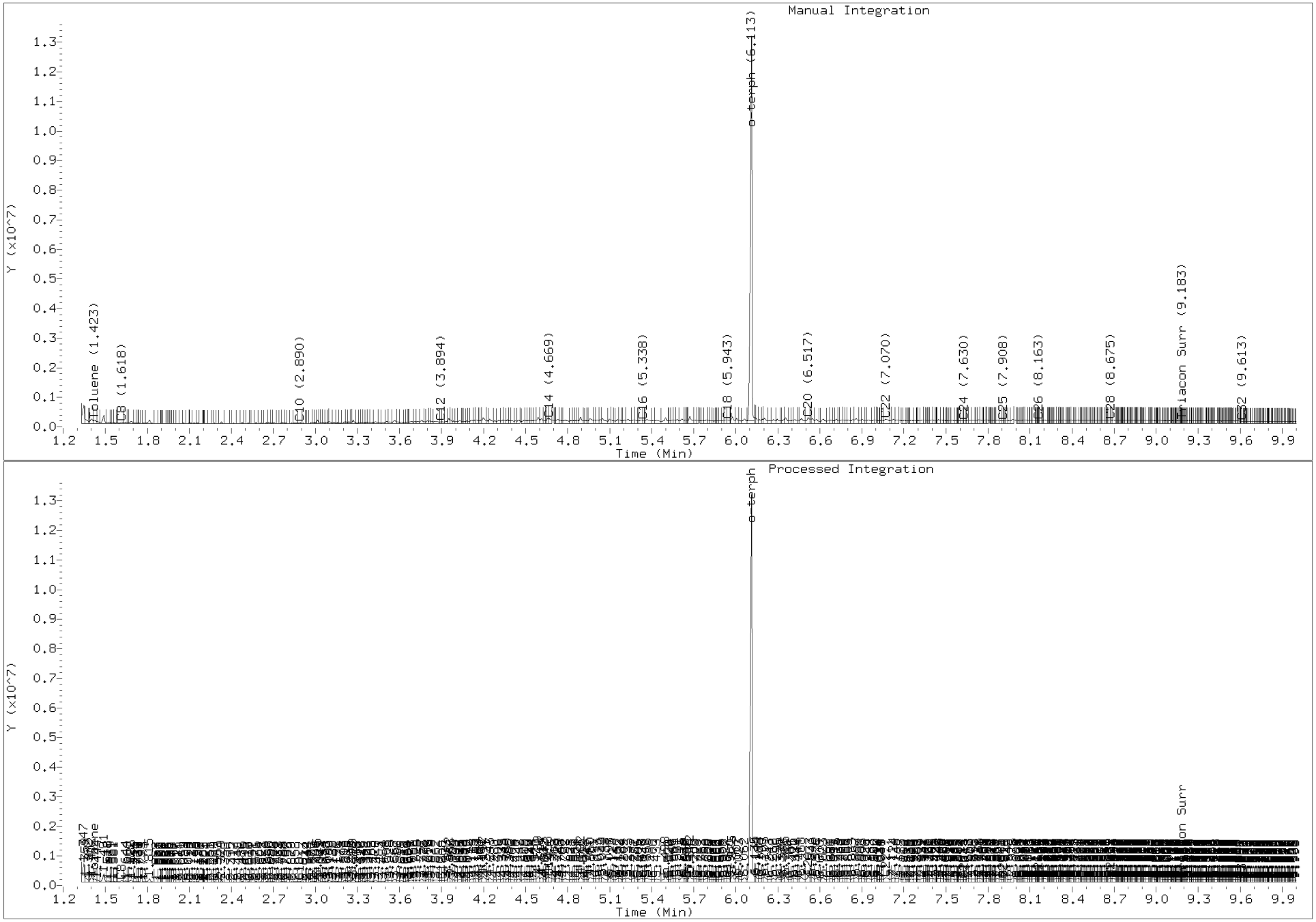
Datafile: FID4A, 20210420.b/421D2013.D SEQ-ICV3



TPH Manual Integrations Report

Datafile: FID4A, 20210420.b/421D2013.D Injection: 20-APR-2021 17:51

Lab ID:SEQ-ICV3



INITIAL CALIBRATION CHECK

NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	FID4	Calibration:	ED00037
Lab File ID:	421E1109.D	Calibration Date:	04/13/2021
Sequence:	SJE0139	Injection Date:	05/11/21
Lab Sample ID:	SJE0139-ICV1	Injection Time:	13:14
Sequence Name:	DIESEL ICV		

		CONC. (mg/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Diesel Range Organics (C12-C24)	A	500.00	486	182831.3000	177719.5000		-2.8	+/-15
o-Terphenyl	A	90.000	82.8	249011.4000	229110.6000		-8.0	+/-15

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210511.b\421E1109.D

Date : 11-MAY-2021 13:14

Client ID:

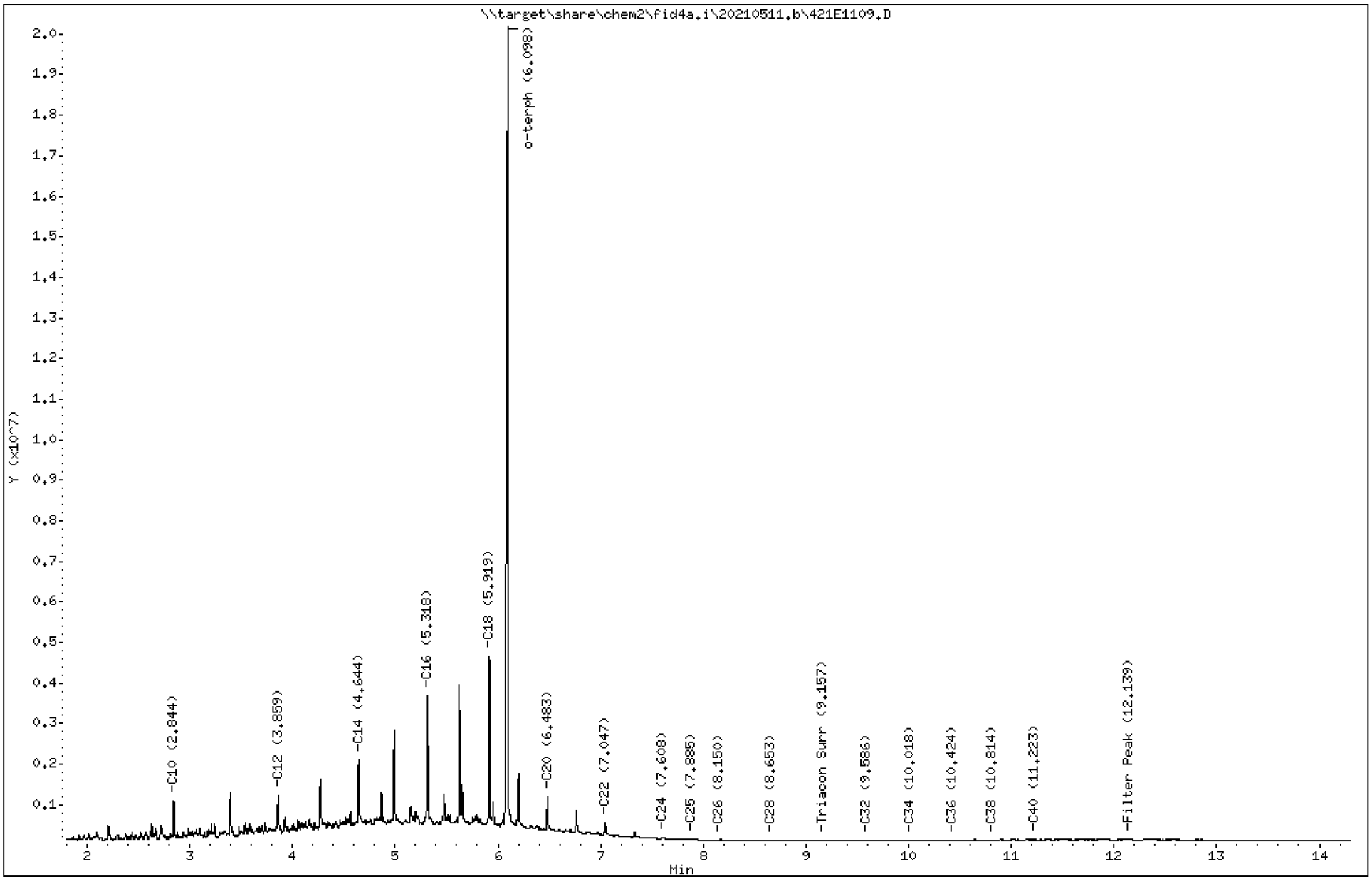
Instrument: fid4a.i

Sample Info: SEQ-ICV1

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25



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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210511.b/421E1109.D
Method: 20210511.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 05/12/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-ICV1
Client ID:
Injection: 11-MAY-2021 13:14
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	1.559	-0.006	82748	67599	WATPHD	(C12-C24)	88859725	486.0
C10	2.844	-0.006	968227	743274	WATPHM	(C24-C38)	1327900	10.1
C12	3.859	-0.002	1126923	1265492	AK102	(C10-C25)	103908029	482.3
C14	4.644	-0.002	1981778	1838947	AK103	(C25-C36)	810739	8.0
C16	5.318	-0.001	3564920	2834276	OR.DIES	(C10-C28)	104428638	532.8
C18	5.919	-0.001	4555221	3792404				
C20	6.483	-0.006	1092324	1308734	JET-A	(C10-C18)	80739919	550.6
C22	7.047	-0.005	441258	633604				
C24	7.608	0.004	84039	199520				
C25	7.885	0.009	33833	96371				
C26	8.150	0.009	15384	18280				
C28	8.653	0.002	2996	717				
C32	9.586	-0.002	1507	428				
C34	10.018	0.000	3596	1869				
Filter Peak	12.139	0.000	18023	9753	BUNKERC	(C10-C38)	104975013	2338.4
C36	10.424	0.000	7810	4595				
C38	10.814	-0.004	13034	5824				
C40	11.223	-0.001	17508	11951				
o-terph	6.098	-0.001	19659758	20619954				
Triacon Surr	9.157	-0.003	1118	774	NAS DIES	(C10-C24)	103647113	531.1

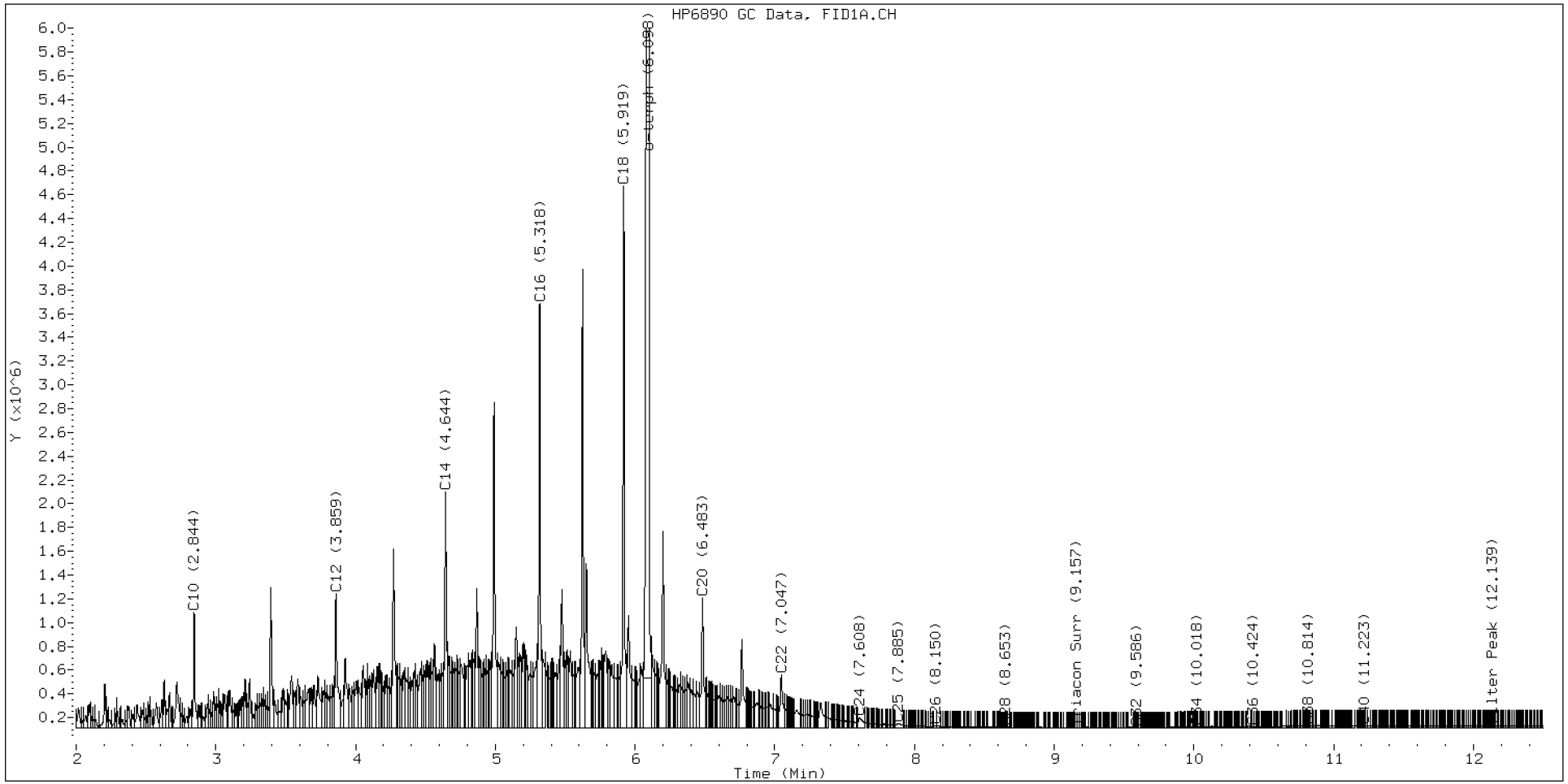
Range Times: NW Diesel(3.862 - 7.604) AK102(2.85 - 7.88) Jet A(2.85 - 5.92)
NW M.Oil(7.60 - 10.82) AK103(7.88 - 10.42) OR Diesel(2.85 - 8.65)

Surrogate	Area	Amount	
o-Terphenyl	20619954	82.8	M
Triacontane	774	0.0	

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021

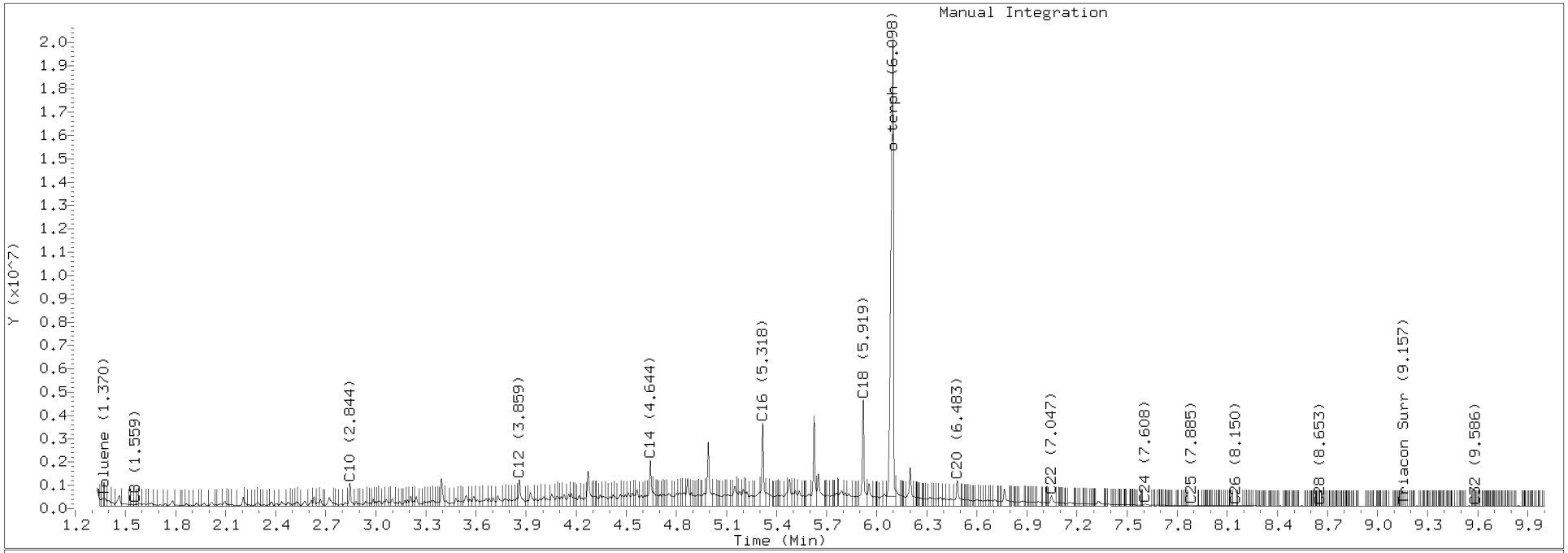
Datafile: FID4A, 20210511.b/421E1109.D SEQ-ICV1

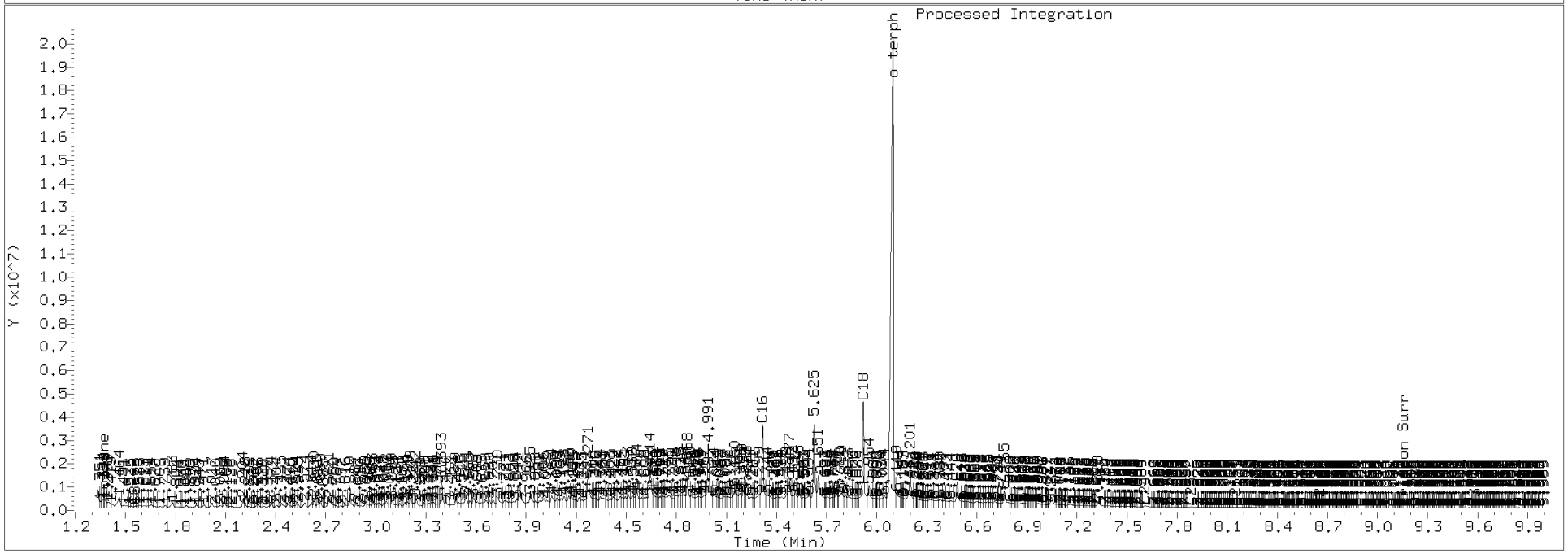


TPH Manual Integrations Report

Datafile: FID4A, 20210511.b/421E1109.D Injection: 11-MAY-2021 13:14

Lab ID:SEQ-ICV1





Analytical Resources, Incorporated
Analytical Chemists and Consultants

INITIAL CALIBRATION CHECK

NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	FID4	Calibration:	ED00037
Lab File ID:	421E1110.D	Calibration Date:	04/13/2021
Sequence:	SJE0139	Injection Date:	05/11/21
Lab Sample ID:	SJE0139-ICV2	Injection Time:	13:36
Sequence Name:	MOIL ICV		

		CONC. (mg/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Motor Oil Range Organics (C24-C38)	A	1000.0	871	131440.7000	114443.3000		-12.9	+/-15

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210511.b\421E1110.D

Date : 11-MAY-2021 13:36

Client ID:

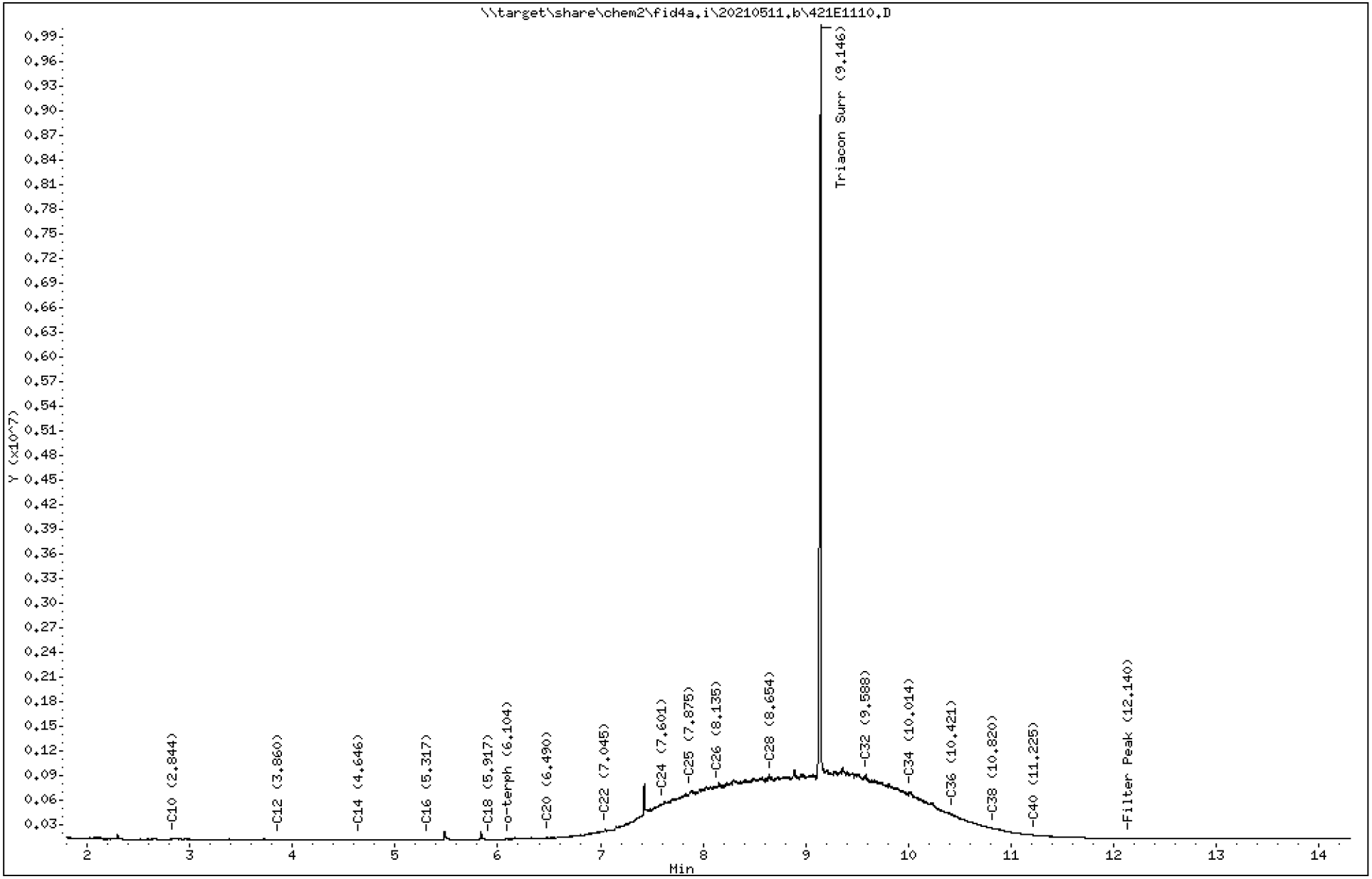
Instrument: fid4a.i

Sample Info: SEQ-ICV2

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25



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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210511.b/421E1110.D
Method: 20210511.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 05/12/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-ICV2
Client ID:
Injection: 11-MAY-2021 13:36
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	1.588	0.022	113490	168602	WATPHD	(C12-C24)	12767709	69.8
C10	2.844	-0.006	11219	15129	WATPHM	(C24-C38)	114443329	870.7
C12	3.860	-0.002	4904	3366	AK102	(C10-C25)	18156660	84.3
C14	4.646	0.000	2396	1836	AK103	(C25-C36)	104928904	1038.3
C16	5.317	-0.002	940	448	OR.DIES	(C10-C28)	53407178	272.5
C18	5.917	-0.004	3990	975				
C20	6.490	0.002	25191	24196	JET-A	(C10-C18)	878825	6.0
C22	7.045	-0.006	129309	177888				
C24	7.601	-0.003	434717	258994				
C25	7.875	-0.000	576972	142929				
C26	8.135	-0.005	641605	159790				
C28	8.654	0.003	759495	301487				
C32	9.588	-0.000	789544	270757				
C34	10.014	-0.004	583490	231355				
Filter Peak	12.140	0.001	17577	9510	BUNKERC	(C10-C38)	127610409	2842.6
C36	10.421	-0.003	313407	290180				
C38	10.820	0.003	141546	69900				
C40	11.225	0.002	56858	36259				
o-terph	6.104	0.005	7767	2675				
Triacon Surr	9.146	-0.014	9072254	9329606	NAS DIES	(C10-C24)	13167080	67.5

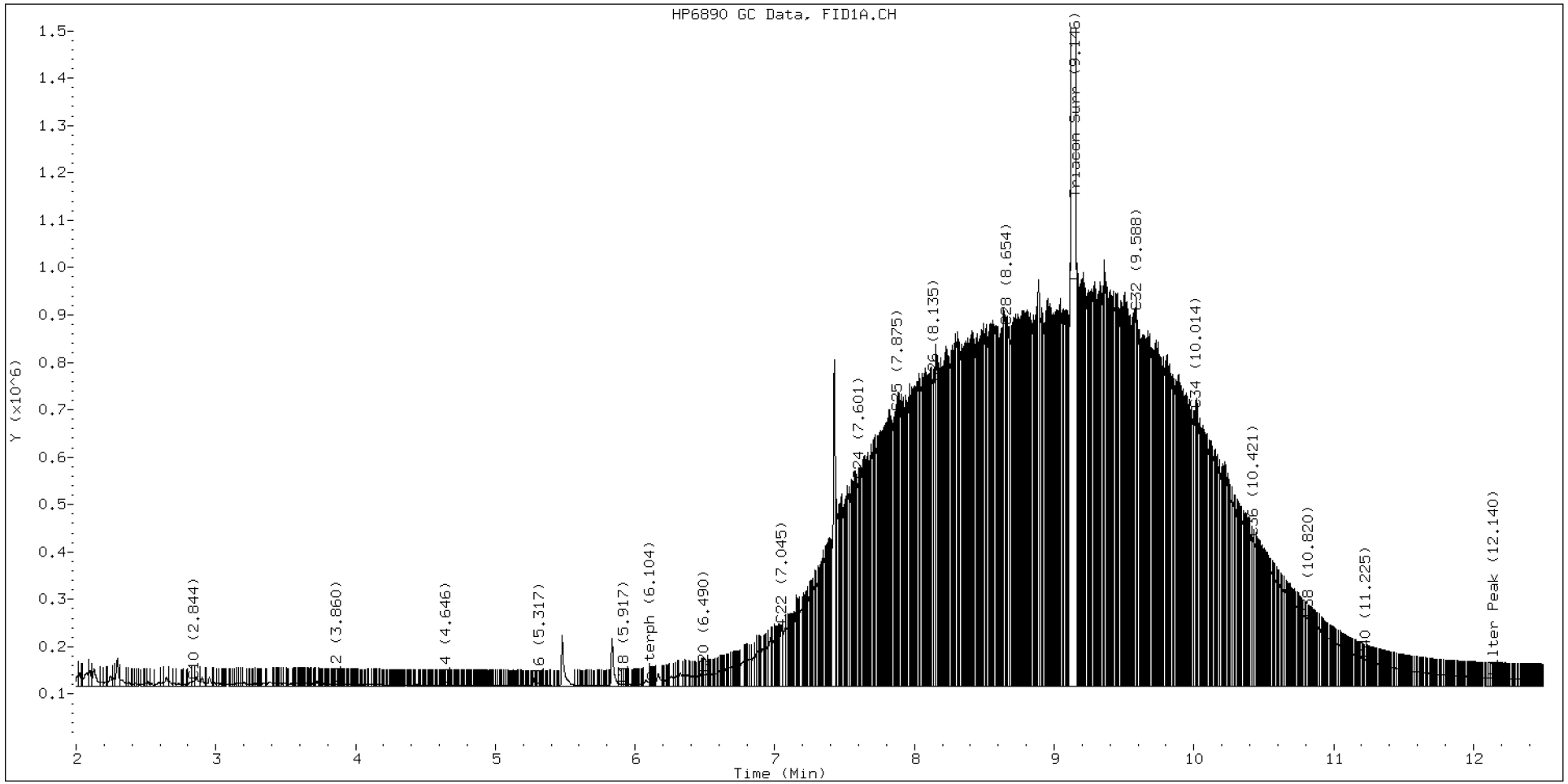
Range Times: NW Diesel(3.862 - 7.604) AK102(2.85 - 7.88) Jet A(2.85 - 5.92)
NW M.Oil(7.60 - 10.82) AK103(7.88 - 10.42) OR Diesel(2.85 - 8.65)

Surrogate	Area	Amount	
o-Terphenyl	2675	0.0	
Triacontane	9329606	44.0	M

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021

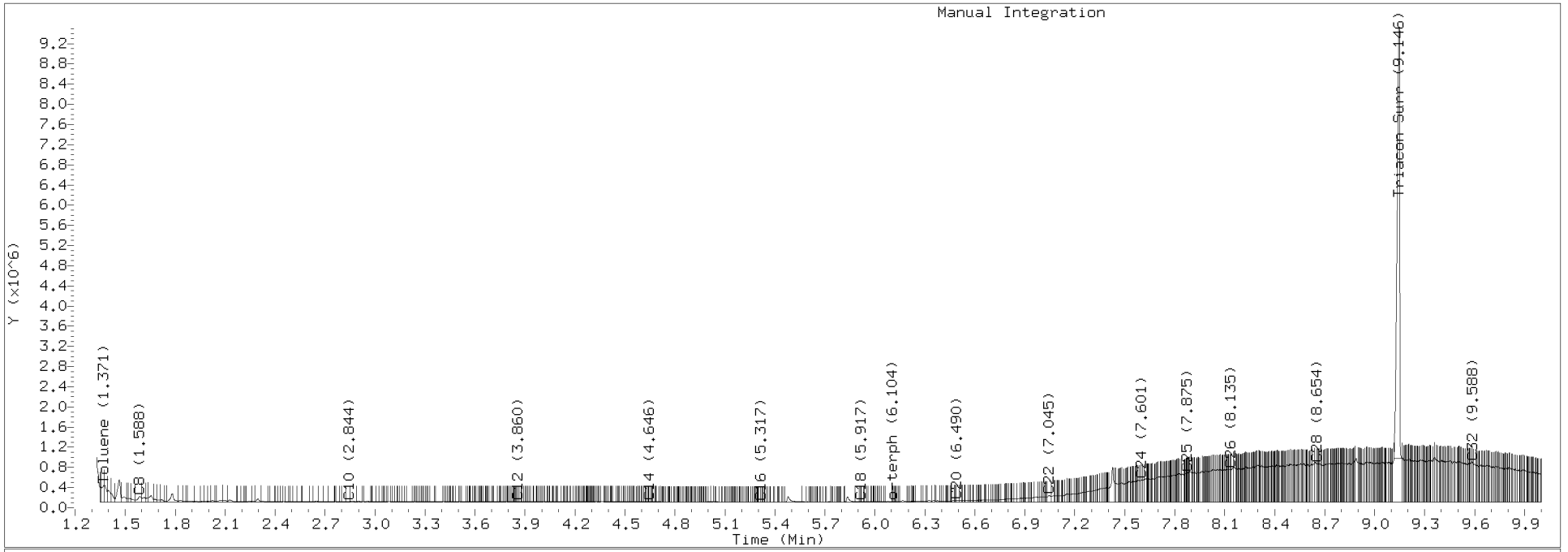
Datafile: FID4A, 20210511.b/421E1110.D SEQ-ICV2

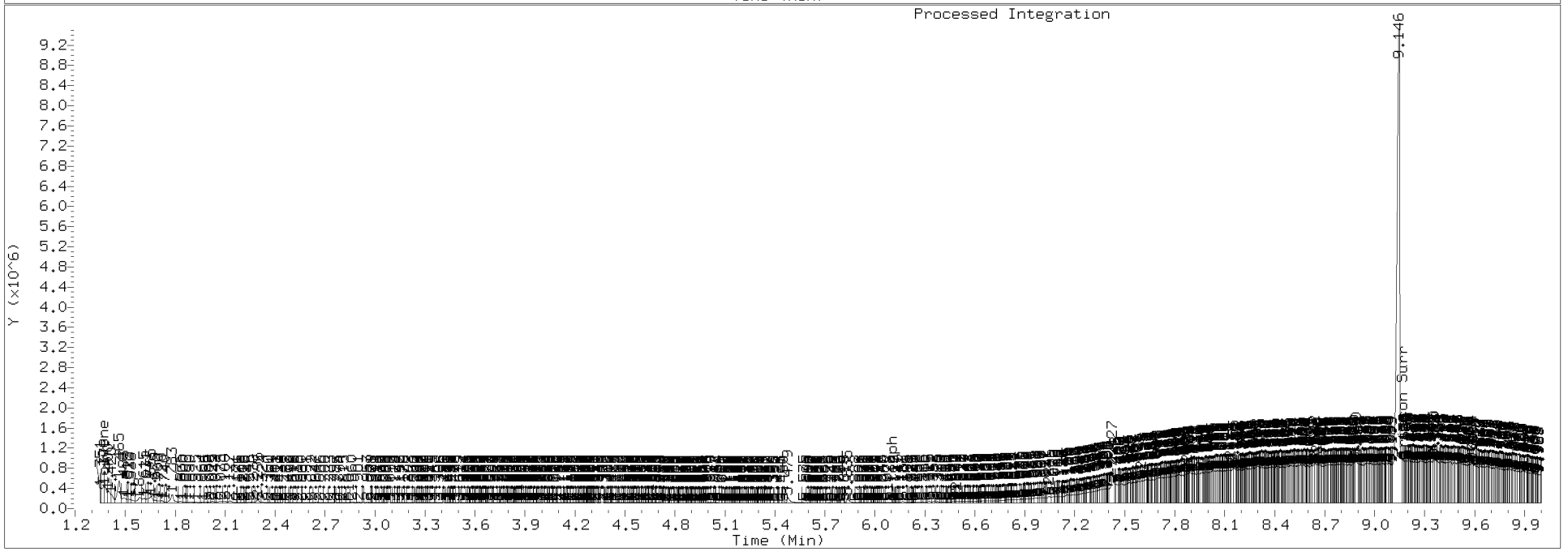


TPH Manual Integrations Report

Datafile: FID4A, 20210511.b/421E1110.D Injection: 11-MAY-2021 13:36

Lab ID:SEQ-ICV2





SECOND-SOURCE
CONTINUING CALIBRATION CHECK
NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	FID4	Calibration:	ED00037
Lab File ID:	421D1315.D	Calibration Date:	04/13/2021
Sequence:	SJD0189	Injection Date:	04/13/21
Lab Sample ID:	SJD0189-SCV1	Injection Time:	15:37
Sequence Name:	DIESEL SCV		

		CONC. (mg/L)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Diesel Range Organics (C12-C24)	A	500.00	492	182831.3	179727.9		-1.7	+/-30

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210413.b\421D1315.D

Page 1

Date : 13-APR-2021 15:37

Client ID:

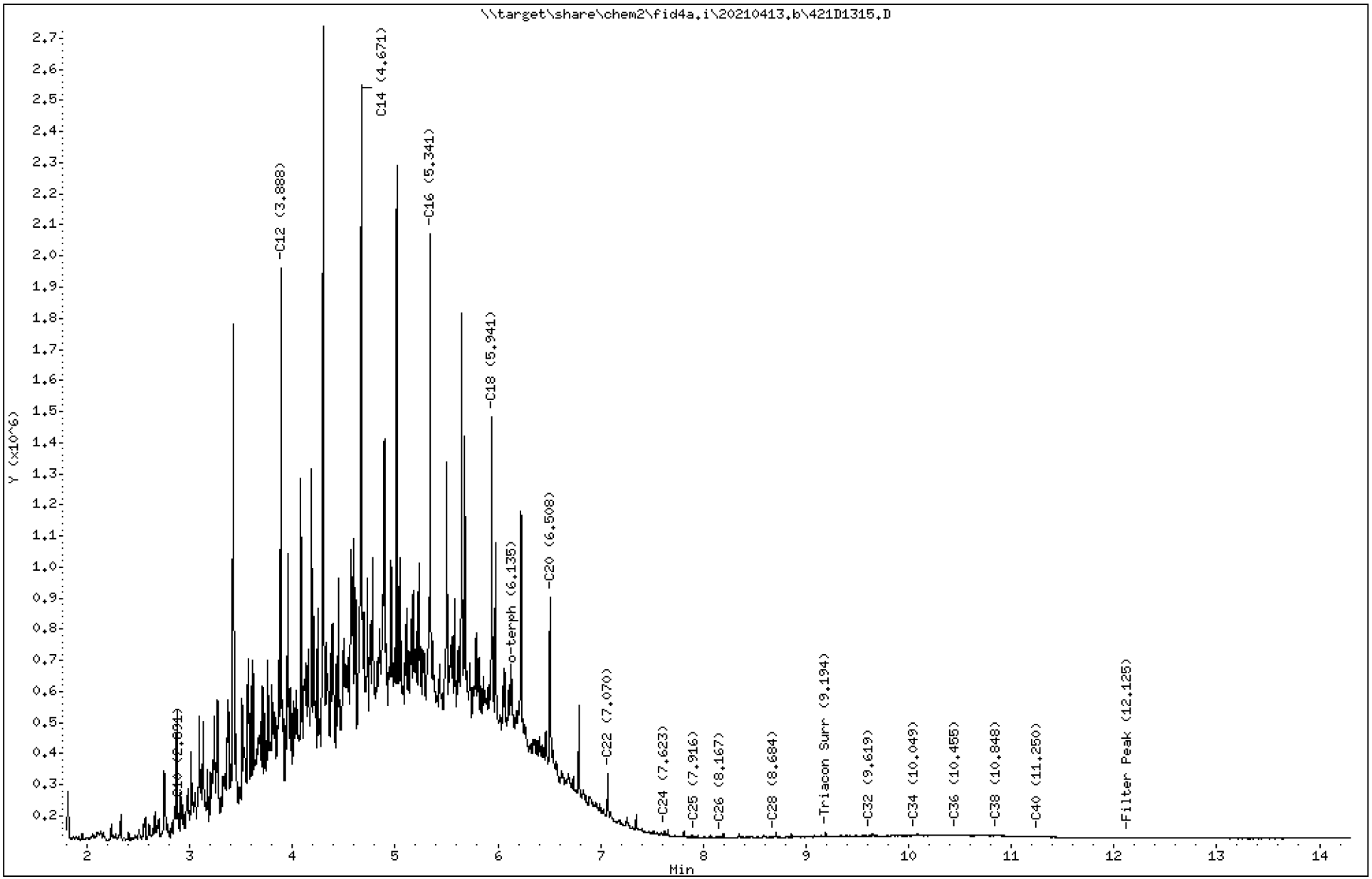
Instrument: fid4a.i

Sample Info: SEQ-SCV1

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25



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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210413.b/421D1315.D
Method: 20210413.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/14/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-SCV1
Client ID:
Injection: 13-APR-2021 15:37
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	1.643	0.008	54603	64091	WATPHD	(C12-C24)	89863949	491.5
C10	2.891	0.001	88521	60047	WATPHM	(C24-C38)	2579689	19.6
C12	3.888	-0.007	1839965	1228653	AK102	(C10-C25)	107410855	498.6
C14	4.671	-0.006	2430486	1810508	AK103	(C25-C36)	2086166	20.6
C16	5.341	-0.007	1950234	1476241	OR.DIES	(C10-C28)	107974378	550.9
C18	5.941	-0.008	1361376	1097598				
C20	6.508	-0.009	783405	864803	JET-A	(C10-C18)	89494855	610.3
C22	7.070	-0.012	216300	223341				
C24	7.623	-0.012	29214	46183				
C25	7.916	0.008	13547	12777				
C26	8.167	-0.005	8723	1733				
C28	8.684	0.003	11097	3231				
C32	9.619	-0.004	16094	18913				
C34	10.049	-0.003	16451	8995				
Filter Peak	12.125	0.003	8610	2562	CREOSOT	(C12-C22)	88684804	8332.6
C36	10.455	-0.004	16099	8787				
C38	10.848	0.002	15723	4681				
C40	11.250	-0.002	12238	2441				
o-terph	6.135	0.005	518842	594571				
Triacon Surr	9.194	0.000	24981	26960	NAS DIES	(C10-C24)	107276298	549.7

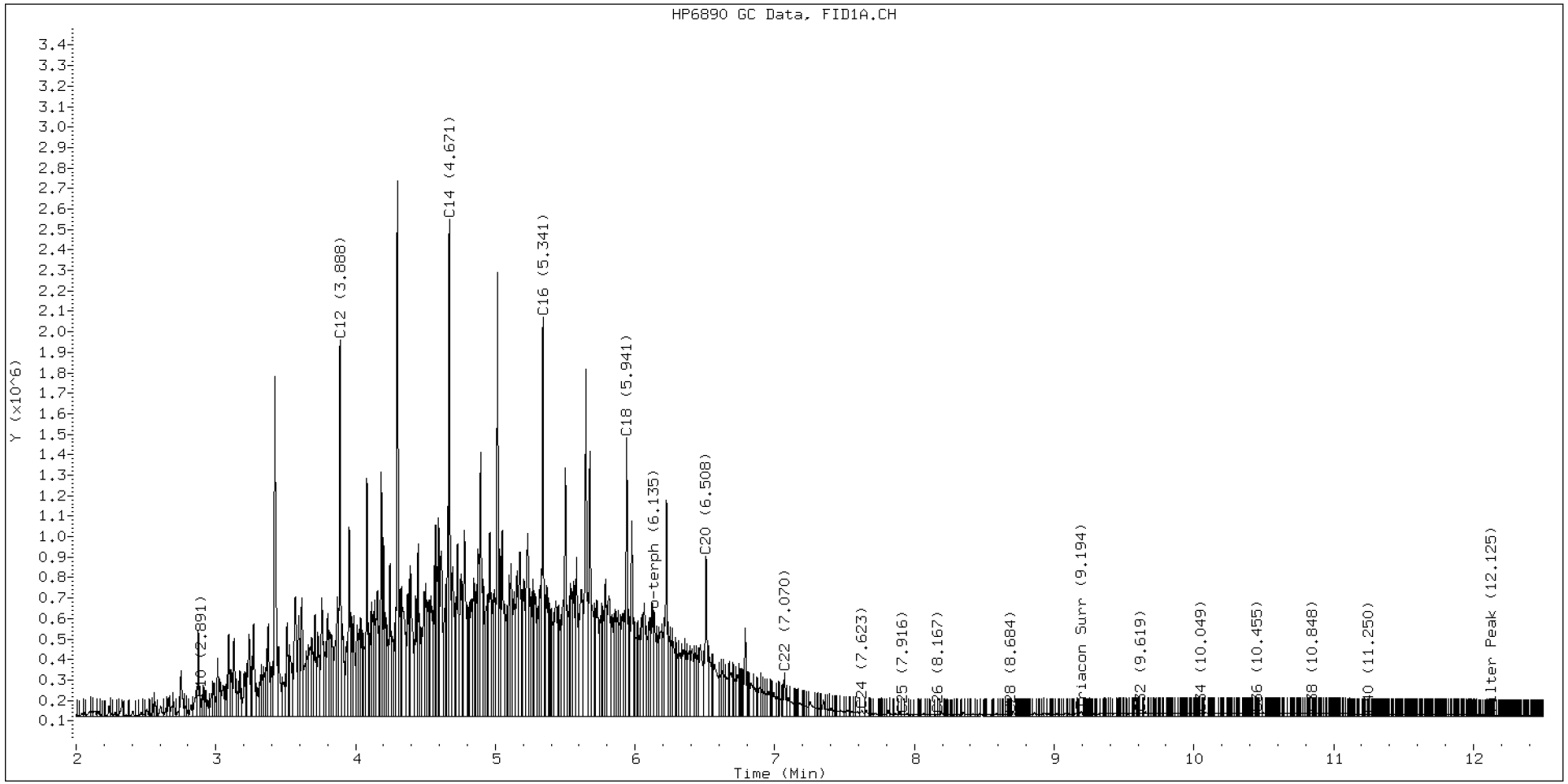
Range Times: NW Diesel(3.894 - 7.635) AK102(2.89 - 7.91) Jet A(2.89 - 5.95)
NW M.Oil(7.64 - 10.85) AK103(7.91 - 10.46) OR Diesel(2.89 - 8.68)

Surrogate	Area	Amount
o-Terphenyl	594571	2.4
Triacontane	26960	0.1

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	10643.2	30-MAR-2020

Datafile: FID4A, 20210413.b/421D1315.D SEQ-SCV1



SECOND-SOURCE
CONTINUING CALIBRATION CHECK
NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	FID4	Calibration:	ED00037
Lab File ID:	421D1322.D	Calibration Date:	04/13/2021
Sequence:	SJD0189	Injection Date:	04/13/21
Lab Sample ID:	SJD0189-SCV2	Injection Time:	18:07
Sequence Name:	MOIL SCV		

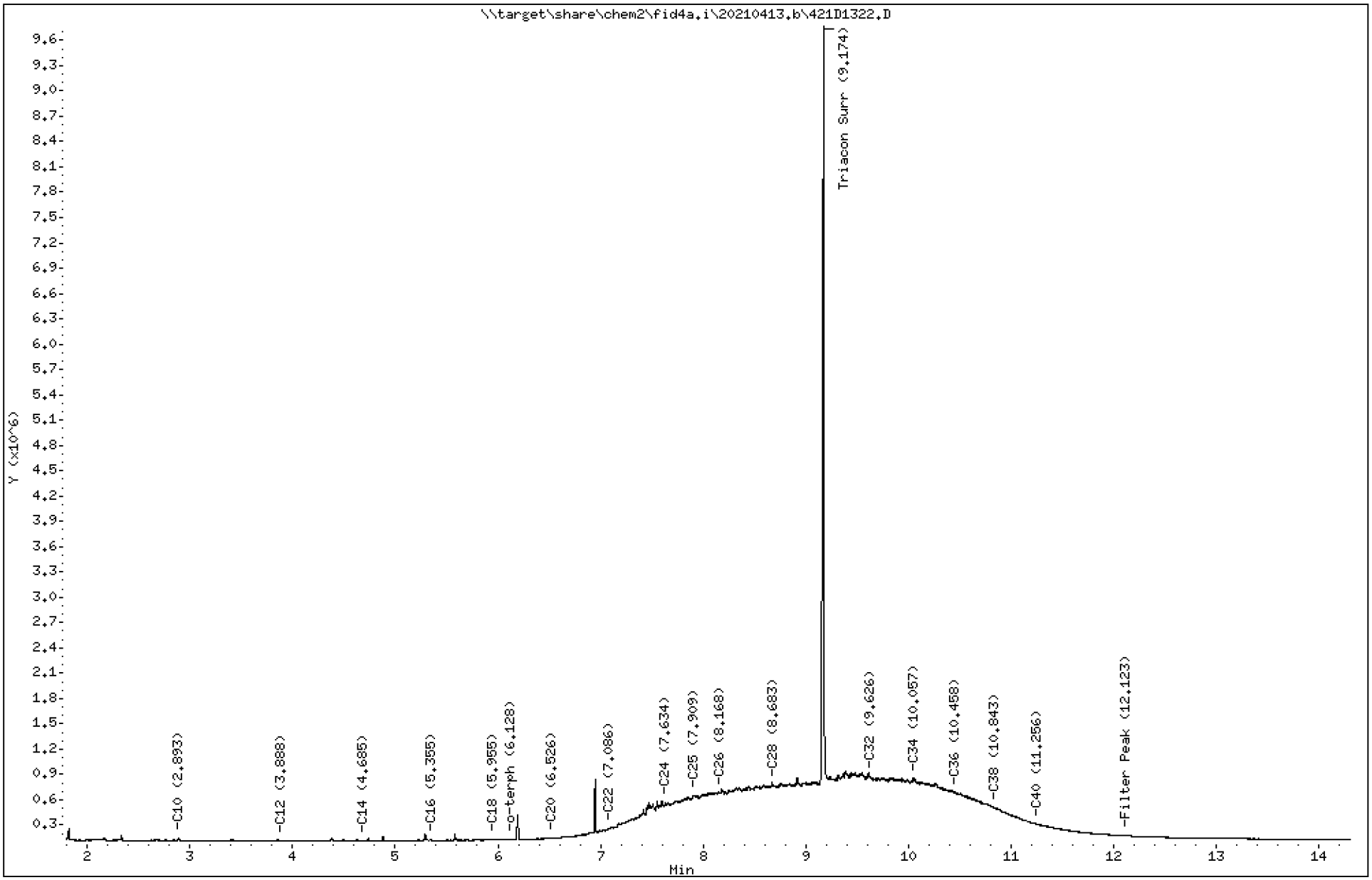
		CONC. (mg/L)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Motor Oil Range Organics (C24-C38)	A	1000.0	918	131440.7	120611.9		-8.2	+/-30

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210413.b\421D1322.D
Date : 13-APR-2021 18:07
Client ID:
Sample Info: SEQ-SCV2

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

Column phase: RTX-1



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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210413.b/421D1322.D
Method: 20210413.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/14/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-SCV2
Client ID:
Injection: 13-APR-2021 18:07
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	1.626	-0.008	65747	96813	WATPHD	(C12-C24)	15532252	85.0
C10	2.893	0.003	32970	23142	WATPHM	(C24-C38)	120611856	917.6
C12	3.888	-0.006	5389	3628	AK102	(C10-C25)	20669789	96.0
C14	4.685	0.008	3945	1476	AK103	(C25-C36)	105207415	1041.1
C16	5.355	0.007	9584	10953	OR.DIES	(C10-C28)	51331560	261.9
C18	5.955	0.006	19031	17530				
C20	6.526	0.009	34956	39910	JET-A	(C10-C18)	962360	6.6
C22	7.086	0.004	142736	70767				
C24	7.634	-0.001	455529	454995				
C25	7.909	0.002	536300	187150				
C26	8.168	-0.004	569572	113374				
C28	8.683	0.001	657302	357915				
C32	9.626	0.003	760723	638055				
C34	10.057	0.005	726792	323841				
Filter Peak	12.123	0.002	60871	41807	CREOSOT	(C12-C22)	4882924	458.8
C36	10.458	-0.002	571891	252641				
C38	10.843	-0.003	392748	215443				
C40	11.256	0.004	196755	78044				
o-terph	6.128	-0.002	13513	9103				
Triacon Surr	9.174	-0.019	8966637	9459500	NAS DIES	(C10-C24)	15747411	80.7

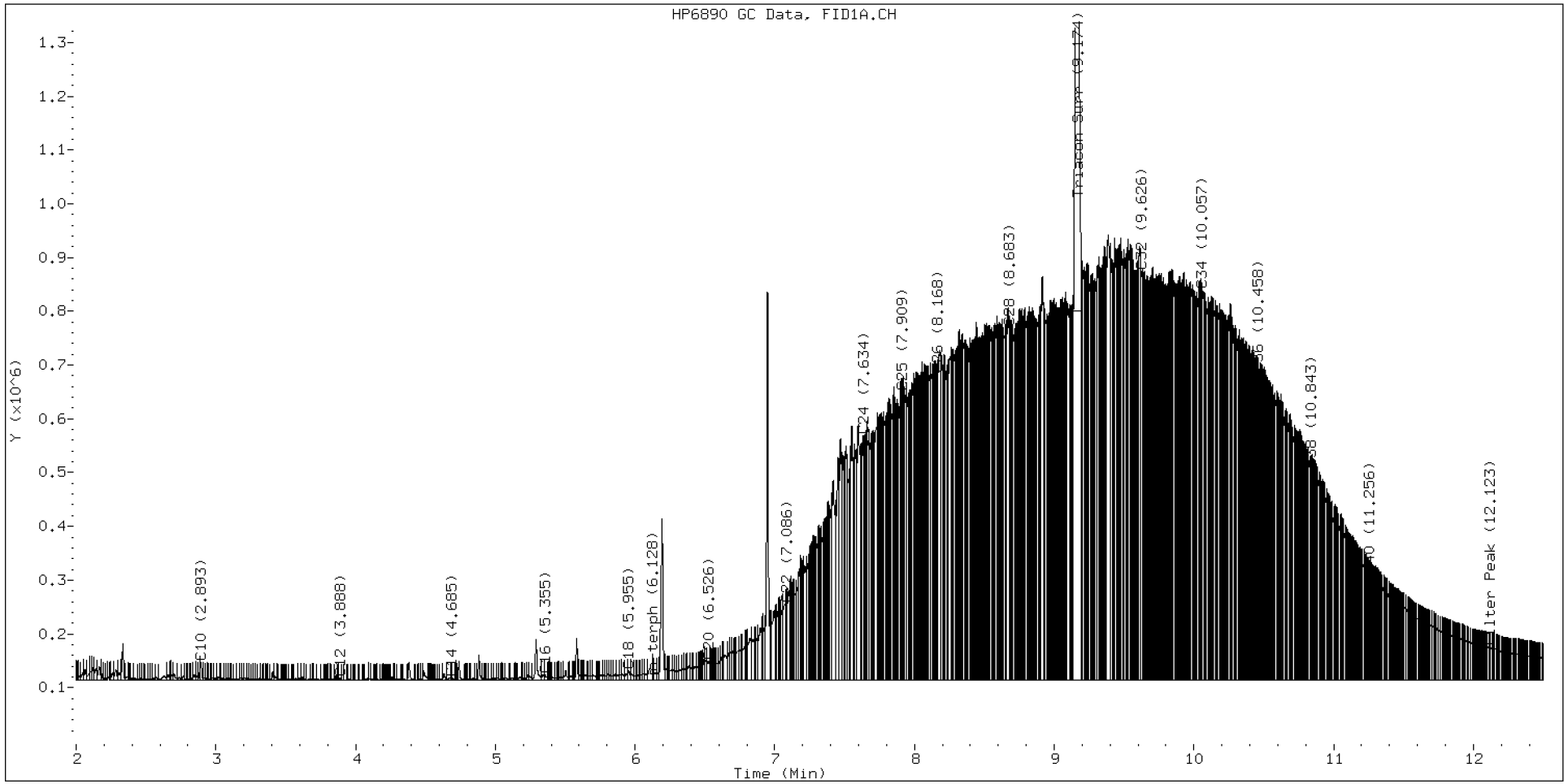
Range Times: NW Diesel(3.894 - 7.635) AK102(2.89 - 7.91) Jet A(2.89 - 5.95)
NW M.Oil(7.64 - 10.85) AK103(7.91 - 10.46) OR Diesel(2.89 - 8.68)

Surrogate	Area	Amount	
o-Terphenyl	9103	0.0	
Triacontane	9459500	44.7	M

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	10643.2	30-MAR-2020

Datafile: FID4A, 20210413.b/421D1322.D SEQ-SCV2



TPH Manual Integrations Report

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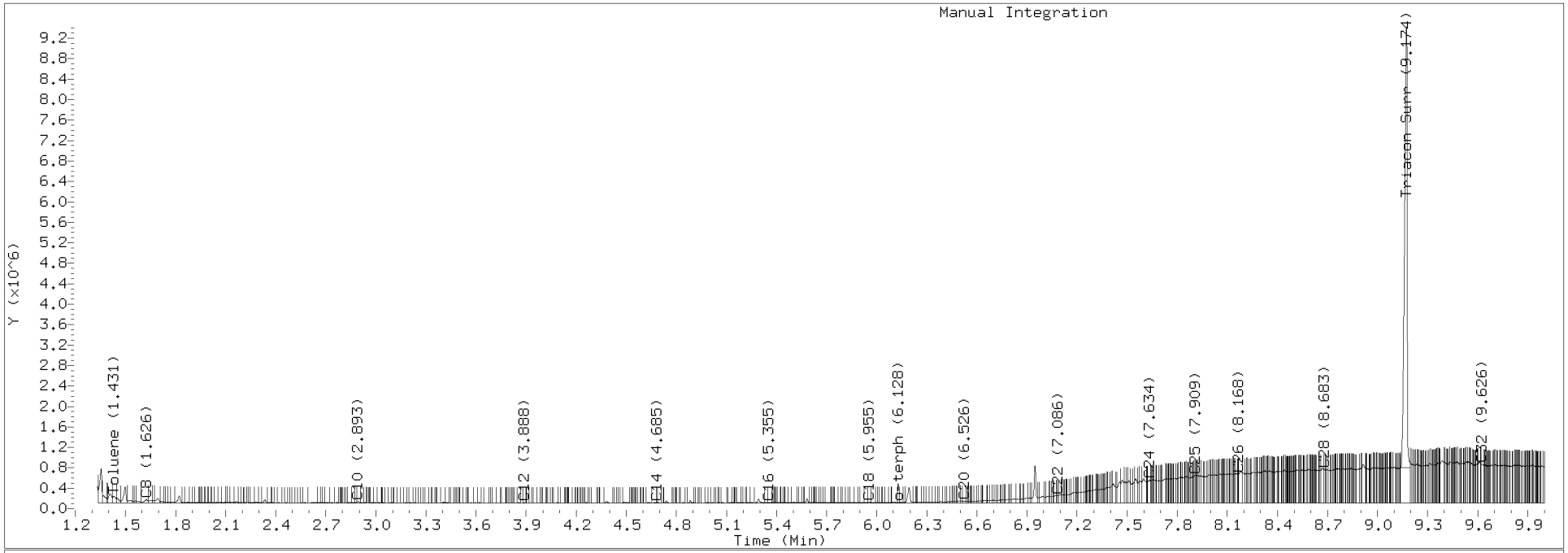
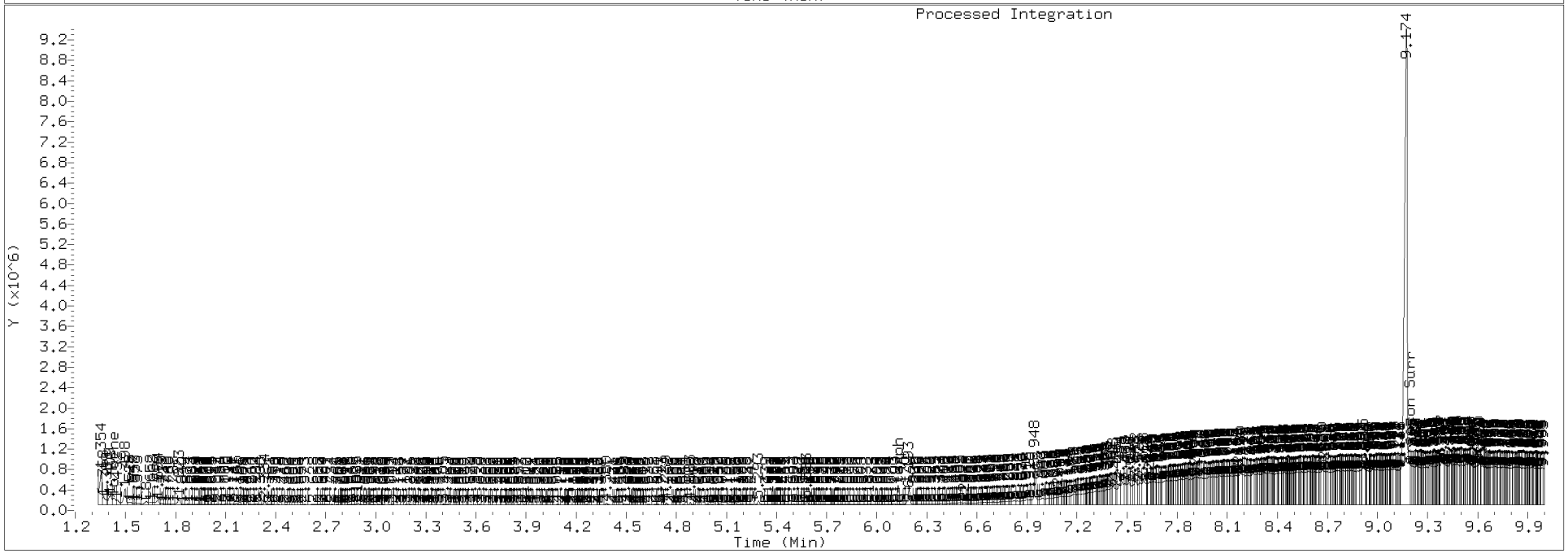
Lab ID:SEQ-SCV2





CONTINUING CALIBRATION CHECK
NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	FID4	Calibration:	ED00037
Lab File ID:	421D1577.D	Calibration Date:	04/13/2021
Sequence:	SJD0260	Injection Date:	04/16/21
Lab Sample ID:	SJD0260-CCV1	Injection Time:	11:57
Sequence Name:	DIESEL CCV		

		CONC. (mg/L)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Diesel Range Organics (C12-C24)	A	500.00	515	182831.3	188269		3.0	+/-15
o-Terphenyl	A	90.000	90.2	249011.4	249451.7		0.2	+/-15

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210415b.b\421D1577.D

Date : 16-APR-2021 11:57

Client ID:

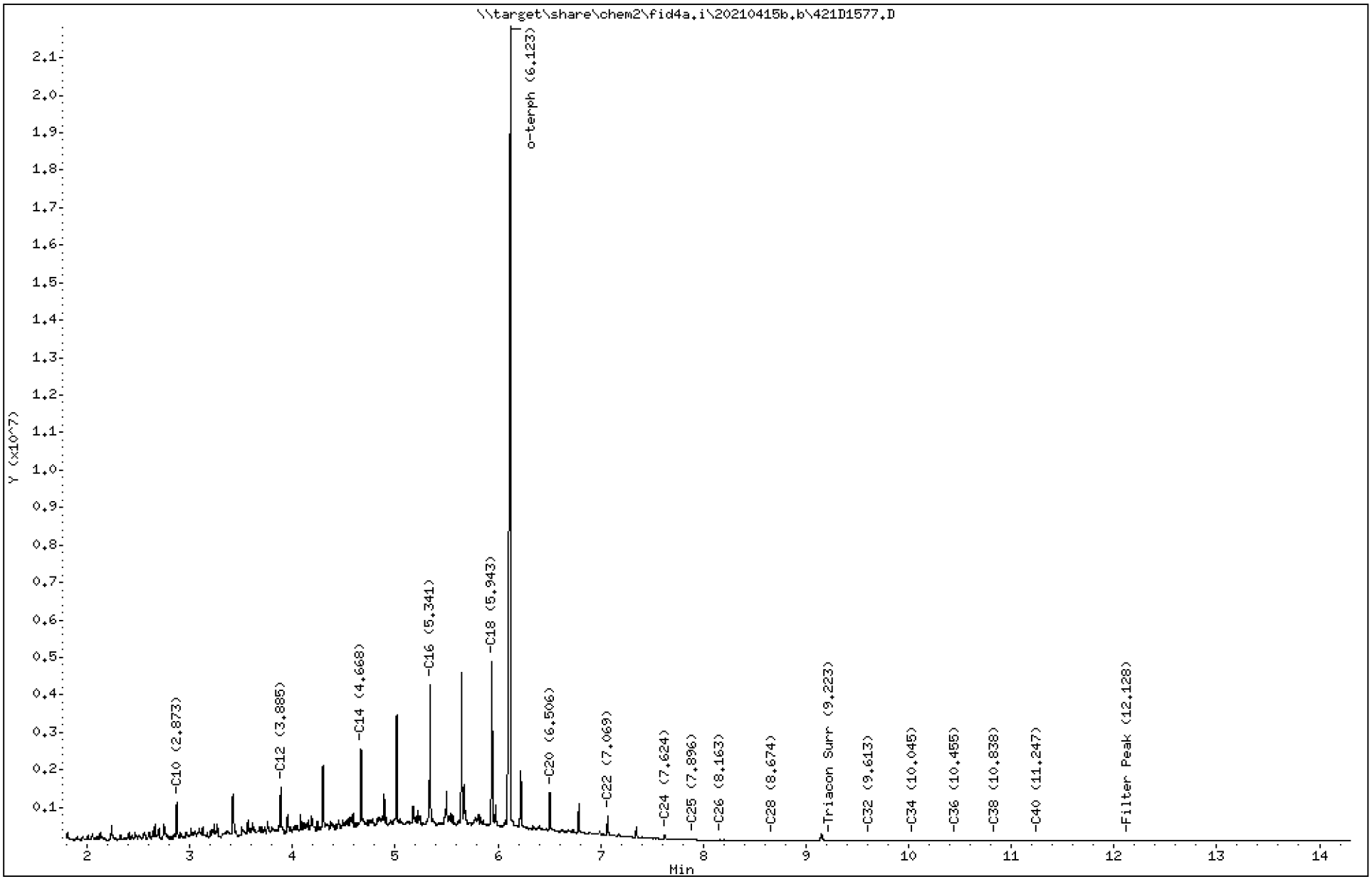
Instrument: fid4a.i

Sample Info: SEQ-CCV1

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25



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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210415b.b/421D1577.D
Method: 20210415b.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/19/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-CCV1
Client ID:
Injection: 16-APR-2021 11:57
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	1.612	0.001	114564	177969	WATPHD	(C12-C24)	94134493	514.9
C10	2.873	-0.006	1034638	810602	WATPHM	(C24-C38)	1468613	11.2
C12	3.885	-0.003	1407224	1128460	AK102	(C10-C25)	111146558	515.9
C14	4.668	-0.003	2455286	2074212	AK103	(C25-C36)	1060863	10.5
C16	5.341	-0.002	4174787	3340301	OR.DIES	(C10-C28)	111641998	569.6
C18	5.943	-0.003	4791783	4018537				
C20	6.506	-0.008	1290571	1389200	JET-A	(C10-C18)	87086990	593.8
C22	7.069	-0.009	655790	684291				
C24	7.624	-0.007	140932	208203				
C25	7.896	-0.006	50322	85262				
C26	8.163	-0.004	20433	37327				
C28	8.674	-0.002	6930	11139				
C32	9.613	-0.003	3397	2064				
C34	10.045	-0.001	2956	864				
Filter Peak	12.128	0.002	7502	2589	CREOSOT	(C12-C22)	91360417	2341.6
C36	10.455	0.001	4121	612				
C38	10.838	-0.001	5509	2412				
C40	11.247	-0.000	7077	2460				
o-terph	6.123	-0.000	21299849	22450648				
Triacon Surr	9.223	0.037	4283	3481	NAS DIES	(C10-C24)	110846579	568.0

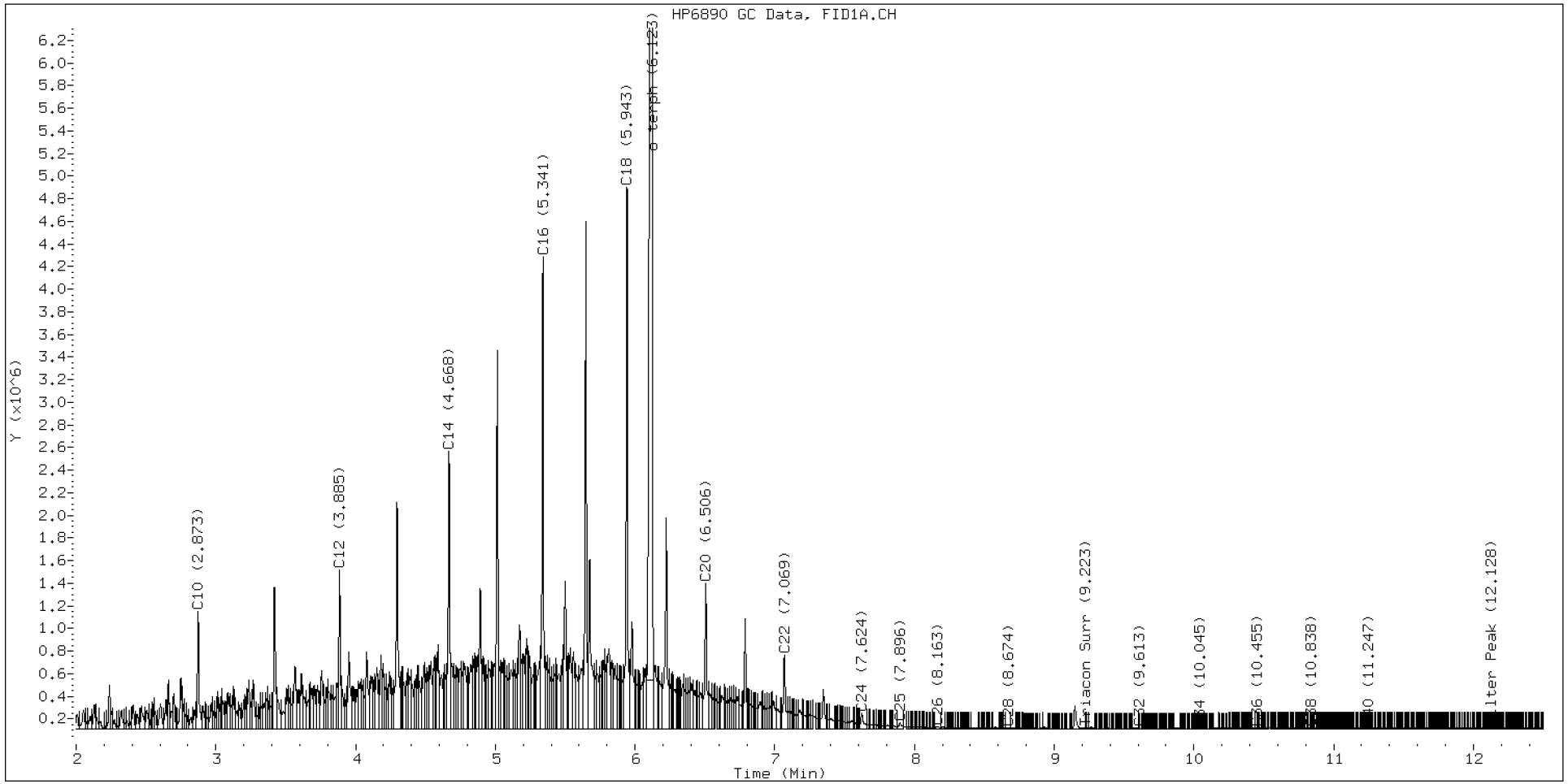
Range Times: NW Diesel(3.888 - 7.631) AK102(2.88 - 7.90) Jet A(2.88 - 5.95)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.68)

Surrogate	Area	Amount	
o-Terphenyl	22450648	90.2	M
Triacontane	3481	0.0	

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Creosote	39015.8	30-MAR-2020

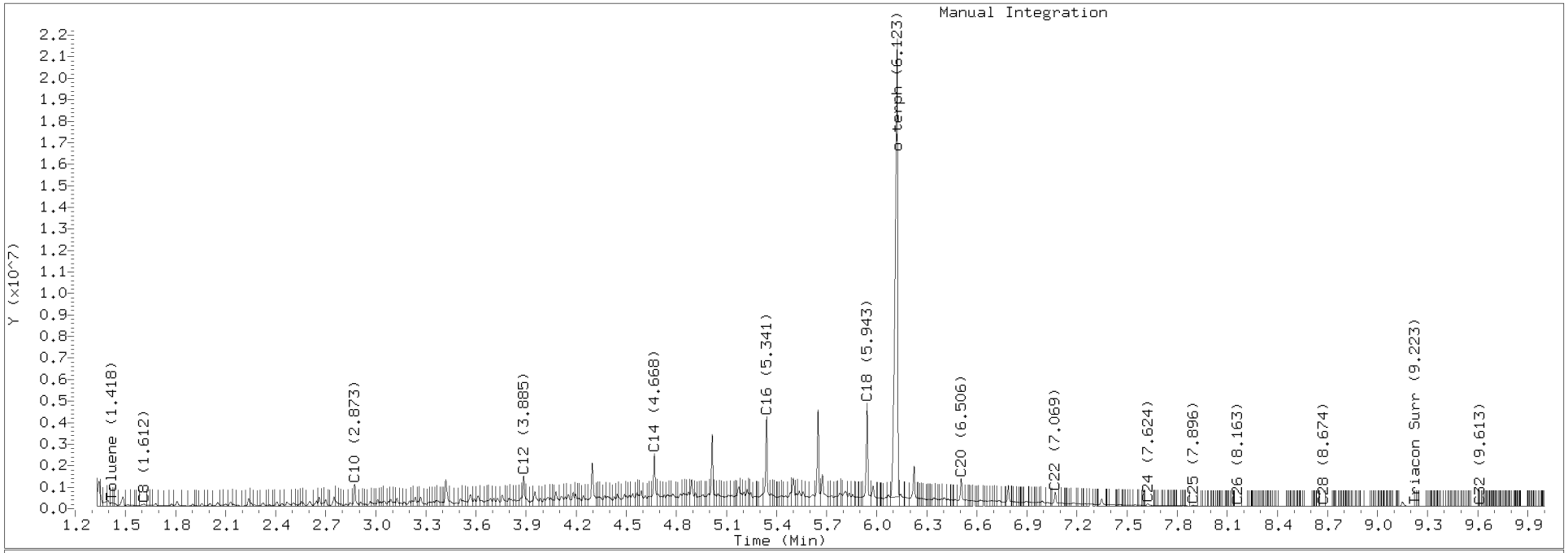
Datafile: FID4A, 20210415b.b/421D1577.D SEQ-CCV1

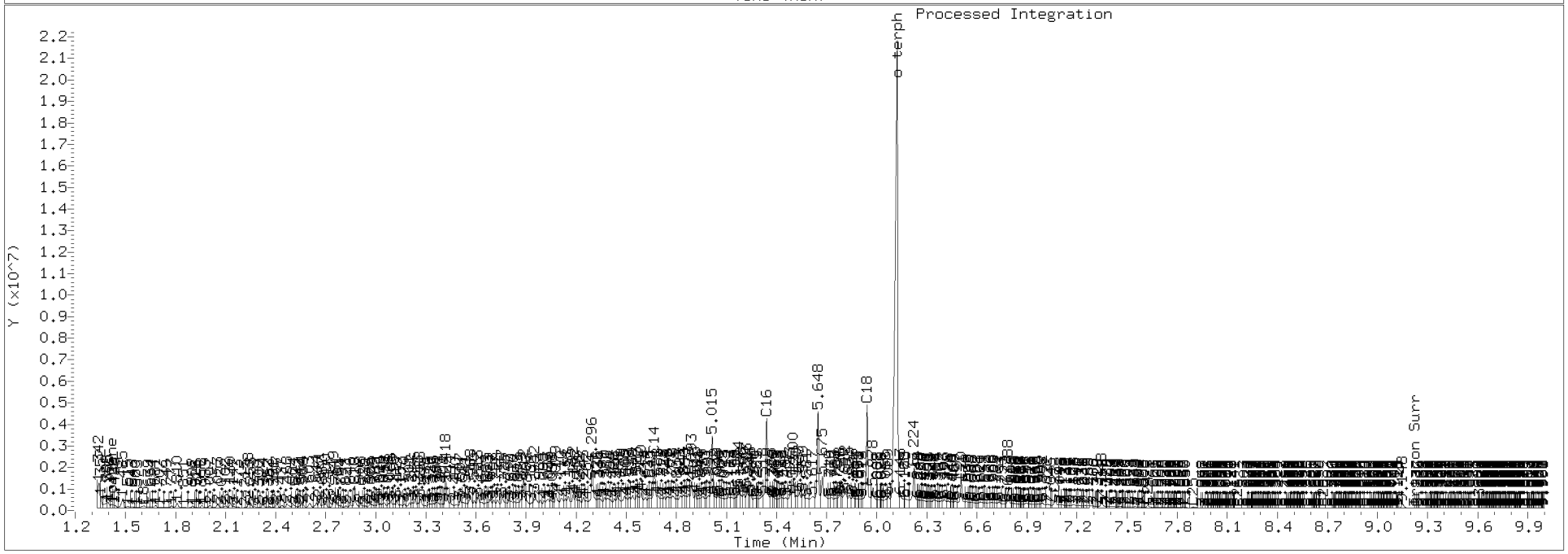


TPH Manual Integrations Report

Datafile: FID4A, 20210415b.b/421D1577.D Injection: 16-APR-2021 11:57

Lab ID:SEQ-CCV1





CONTINUING CALIBRATION CHECK
NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	FID4	Calibration:	ED00037
Lab File ID:	421D2029.D	Calibration Date:	04/13/2021
Sequence:	SJD0282	Injection Date:	04/21/21
Lab Sample ID:	SJD0282-CCV1	Injection Time:	23:31
Sequence Name:	DIESEL CCV		

		CONC. (mg/L)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Diesel Range Organics (C12-C24)	A	500.00	482	182831.3	176249.6		-3.6	+/-15
o-Terphenyl	A	90.000	84.8	249011.4	234688.2		-5.8	+/-15

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210420.b\421D2029.D

Date : 21-APR-2021 23:31

Client ID:

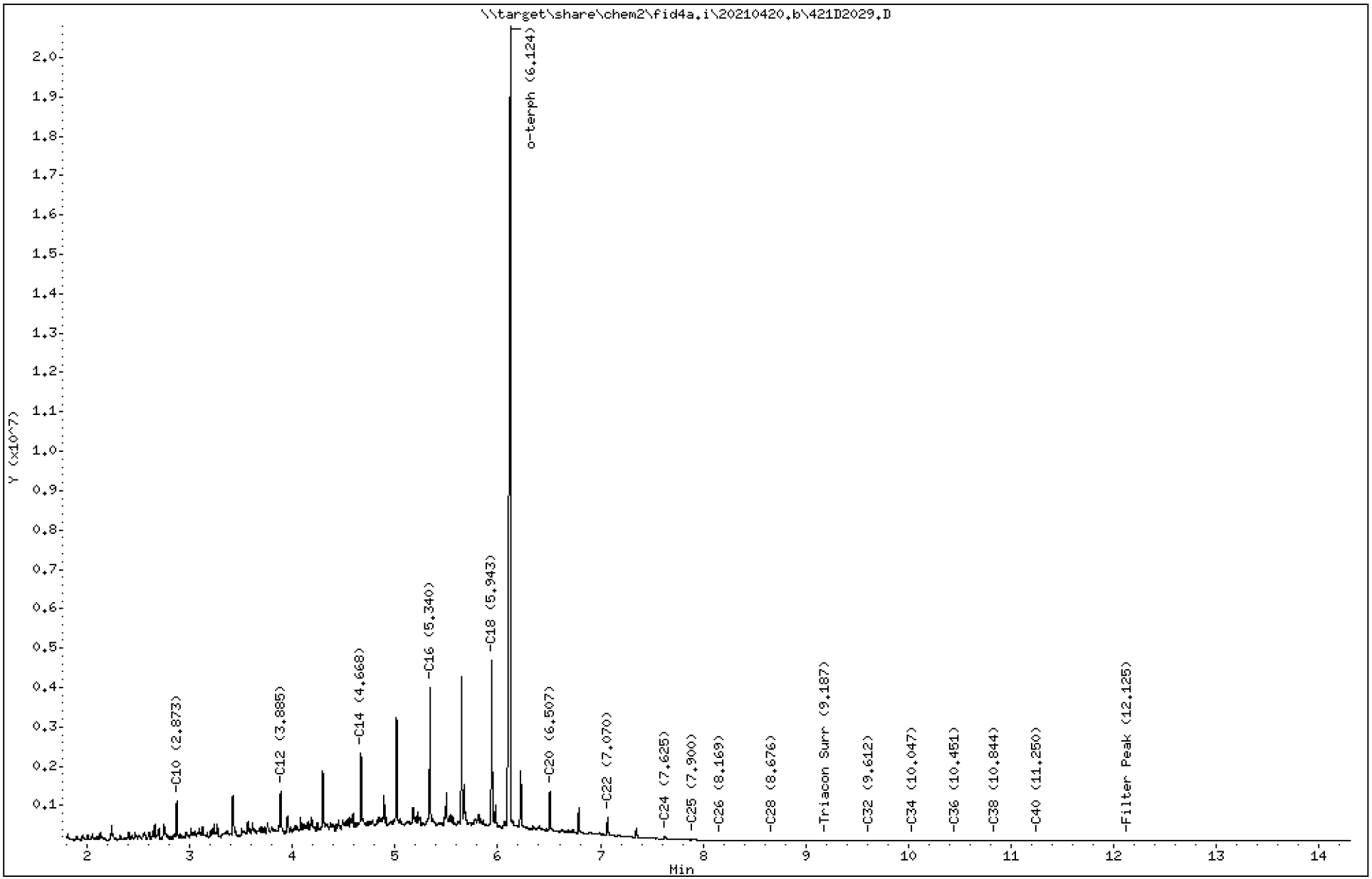
Instrument: fid4a.i

Sample Info: SEQ-CCV1

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25



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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210420.b/421D2029.D
Method: 20210420.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/21/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-CCV1
Client ID:
Injection: 21-APR-2021 23:31
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	1.613	-0.005	93917	105034	WATPHD	(C12-C24)	88124796	482.0
C10	2.873	-0.008	994047	753291	WATPHM	(C24-C38)	787518	6.0
C12	3.885	-0.003	1243946	1041847	AK102	(C10-C25)	103702663	481.4
C14	4.668	-0.003	2230259	1918845	AK103	(C25-C36)	492064	4.9
C16	5.340	-0.001	3899335	3006283	OR.DIES	(C10-C28)	104099901	531.1
C18	5.943	-0.001	4581380	3772430				
C20	6.507	-0.006	1249279	1279848	JET-A	(C10-C18)	80822380	551.1
C22	7.070	-0.006	576910	673910				
C24	7.625	-0.005	107559	187239				
C25	7.900	-0.001	36739	96562				
C26	8.169	0.003	13760	17559				
C28	8.676	0.000	2645	896				
C32	9.612	-0.003	619	294				
C34	10.047	0.002	735	225				
Filter Peak	12.125	-0.001	4128	2803	BUNKERC	(C10-C38)	104238929	2322.0
C36	10.451	-0.001	1377	390				
C38	10.844	0.004	2337	462				
C40	11.250	0.007	3571	2254				
o-terph	6.124	0.002	20299823	21121939				
Triacon Surr	9.187	0.003	1352	576	NAS DIES	(C10-C24)	103451411	530.1

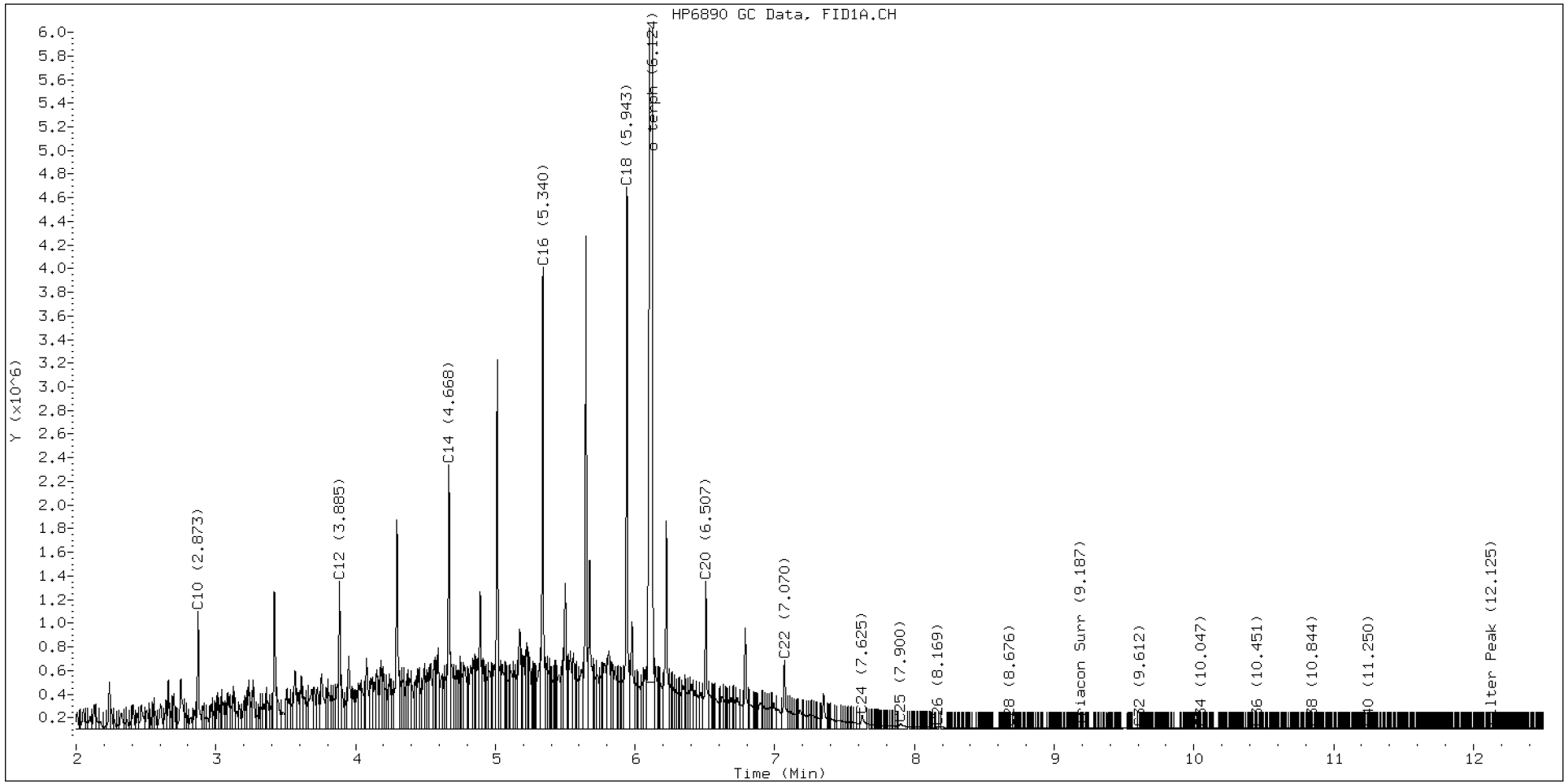
Range Times: NW Diesel(3.888 - 7.630) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.68)

Surrogate	Area	Amount	
o-Terphenyl	21121939	84.8	M
Triacontane	576	0.0	

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021

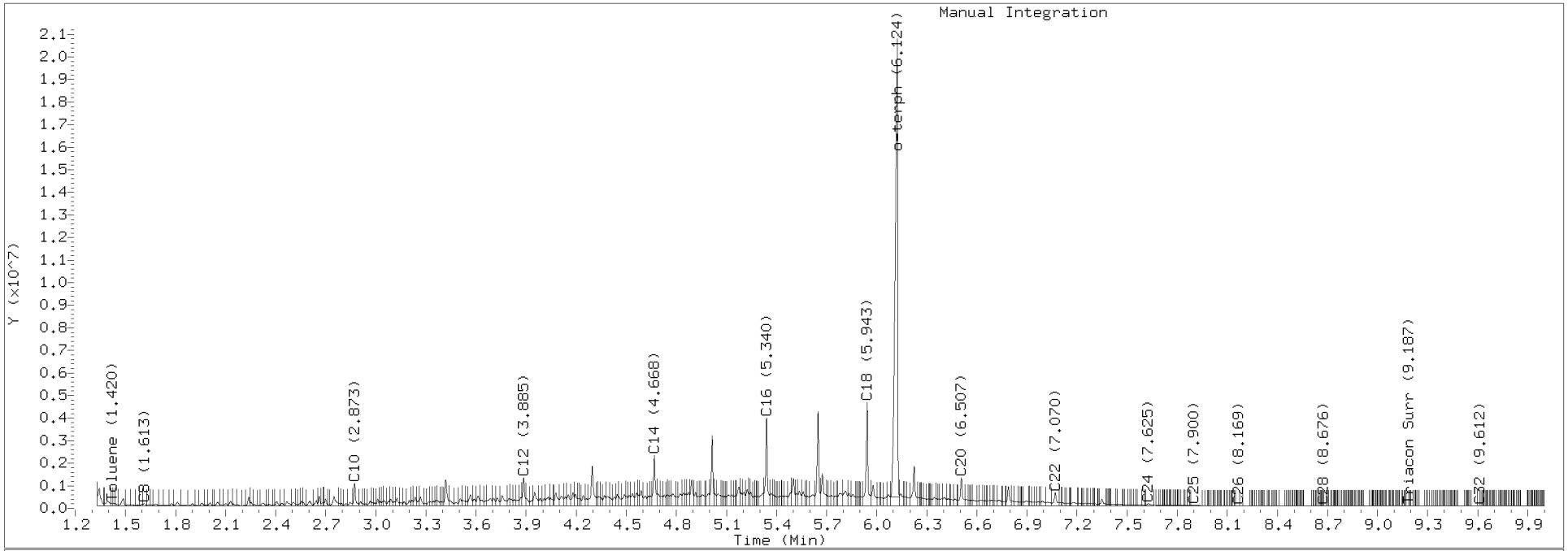
Datafile: FID4A, 20210420.b/421D2029.D SEQ-CCV1

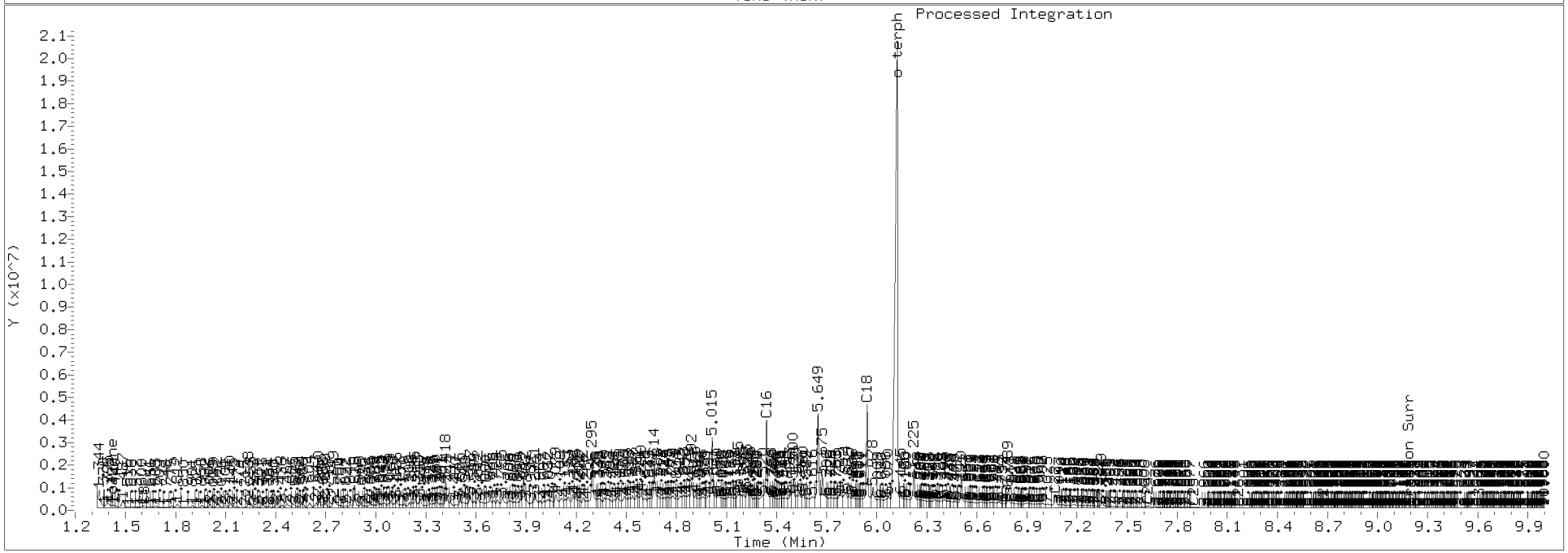


TPH Manual Integrations Report

Datafile: FID4A, 20210420.b/421D2029.D Injection: 21-APR-2021 23:31

Lab ID:SEQ-CCV1





CONTINUING CALIBRATION CHECK
NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	FID4	Calibration:	ED00037
Lab File ID:	421E1122.D	Calibration Date:	04/13/2021
Sequence:	SJE0139	Injection Date:	05/11/21
Lab Sample ID:	SJE0139-CCV1	Injection Time:	17:54
Sequence Name:	DIESEL CCV		

		CONC. (mg/L)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Diesel Range Organics (C12-C24)	A	500.00	494	182831.3	180718.1		-1.2	+/-15
o-Terphenyl	A	90.000	83.4	249011.4	230645.7		-7.3	+/-15

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210511.b\421E1122.D

Date : 11-MAY-2021 17:54

Client ID:

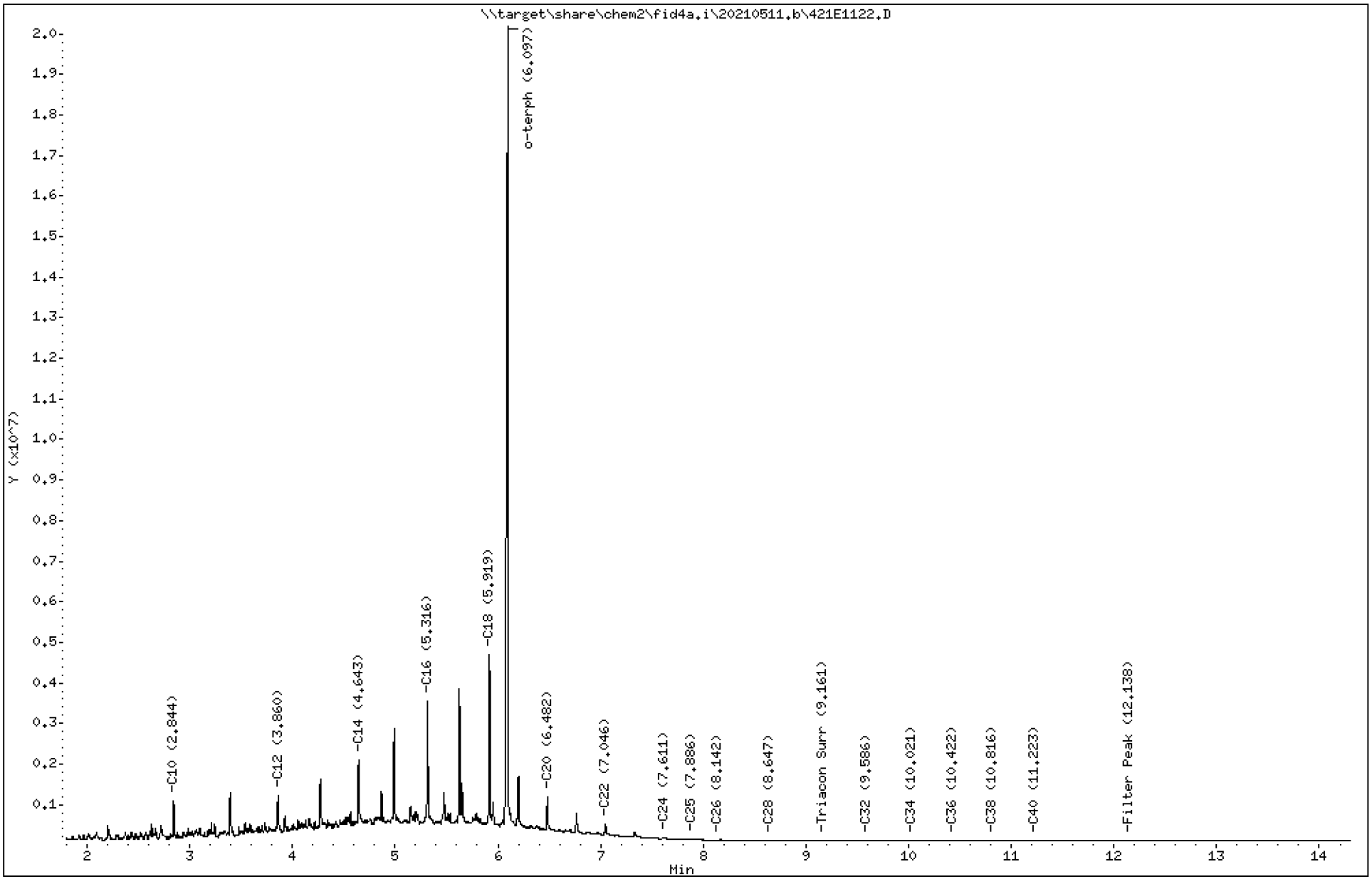
Instrument: fid4a.i

Sample Info: SEQ-CCV1

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25



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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210511.b/421E1122.D
Method: 20210511.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 05/12/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-CCV1
Client ID:
Injection: 11-MAY-2021 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	1.571	0.006	89368	64772	WATPHD	(C12-C24)	90359046	494.2
C10	2.844	-0.006	983680	684928	WATPHM	(C24-C38)	1124268	8.6
C12	3.860	-0.002	1122678	1282968	AK102	(C10-C25)	105872419	491.5
C14	4.643	-0.003	1980612	1858754	AK103	(C25-C36)	708017	7.0
C16	5.316	-0.003	3450937	3018941	OR.DIES	(C10-C28)	106434371	543.0
C18	5.919	-0.002	4578322	3591879				
C20	6.482	-0.006	1091064	1285125	JET-A	(C10-C18)	82200428	560.5
C22	7.046	-0.005	410144	723155				
C24	7.611	0.007	76806	222439				
C25	7.886	0.011	31469	31823				
C26	8.142	0.001	12355	4856				
C28	8.647	-0.004	3675	1967				
C32	9.586	-0.002	308	115				
C34	10.021	0.004	550	287				
Filter Peak	12.138	-0.000	10032	2492	BUNKERC	(C10-C38)	106693627	2376.6
C36	10.422	-0.002	2986	1736				
C38	10.816	-0.001	6261	1861				
C40	11.223	-0.000	9490	5142				
o-terph	6.097	-0.002	19603306	20758113				
Triacon Surr	9.161	0.001	1412	879	NAS DIES	(C10-C24)	105569359	541.0

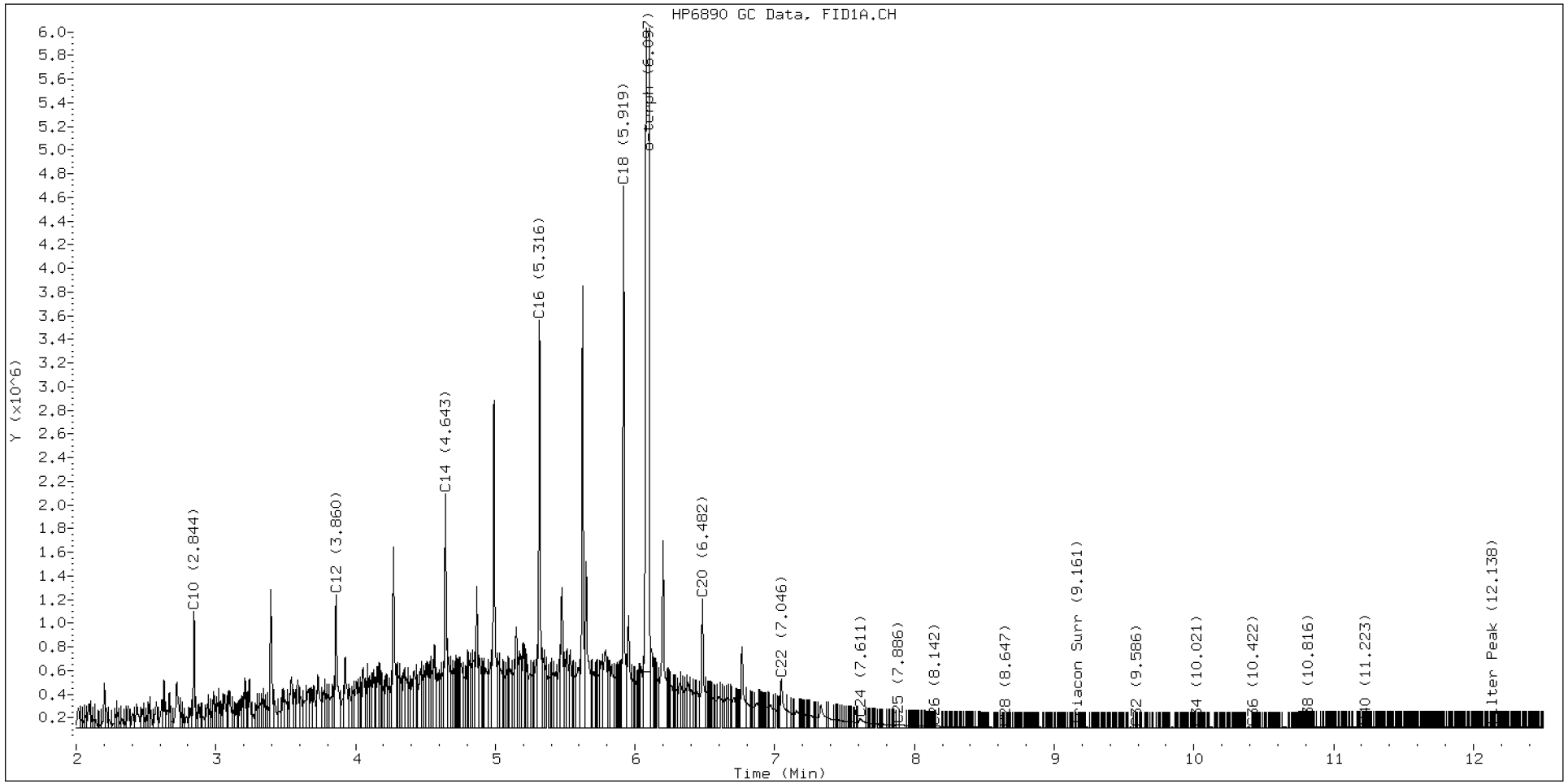
Range Times: NW Diesel(3.862 - 7.604) AK102(2.85 - 7.88) Jet A(2.85 - 5.92)
NW M.Oil(7.60 - 10.82) AK103(7.88 - 10.42) OR Diesel(2.85 - 8.65)

Surrogate	Area	Amount	
o-Terphenyl	20758113	83.4	M
Triacontane	879	0.0	

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021

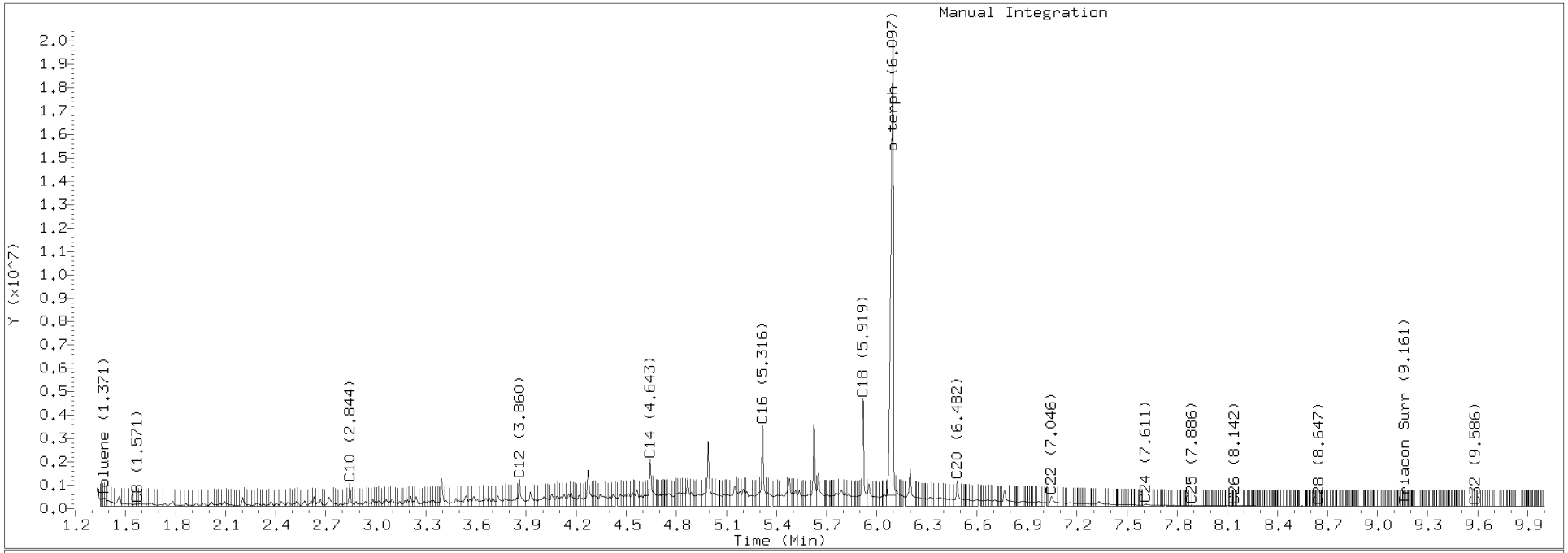
Datafile: FID4A, 20210511.b/421E1122.D SEQ-CCV1

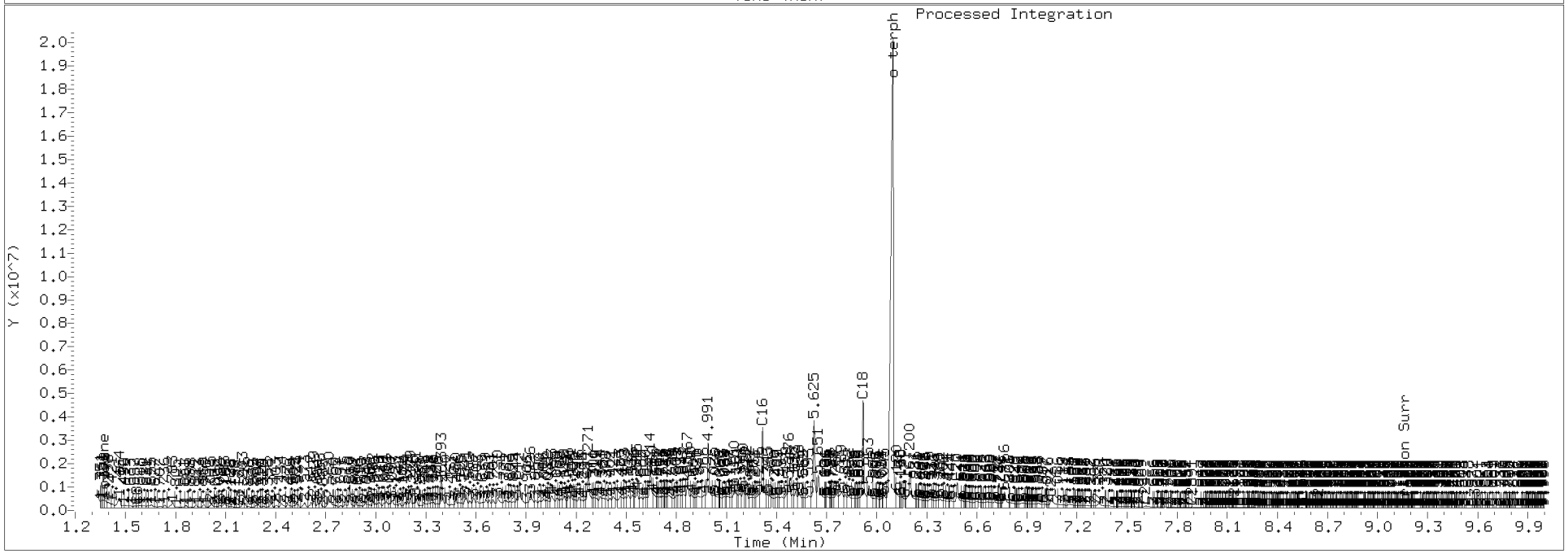


TPH Manual Integrations Report

Datafile: FID4A, 20210511.b/421E1122.D Injection: 11-MAY-2021 17:54

Lab ID:SEQ-CCV1





CONTINUING CALIBRATION CHECK
NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	FID4	Calibration:	ED00037
Lab File ID:	421E1123.D	Calibration Date:	04/13/2021
Sequence:	SJE0139	Injection Date:	05/11/21
Lab Sample ID:	SJE0139-CCV2	Injection Time:	18:16
Sequence Name:	MOIL CCV		

		CONC. (mg/L)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Motor Oil Range Organics (C24-C38)	A	1000.0	889	131440.7	116867.7		-11.1	+/-15

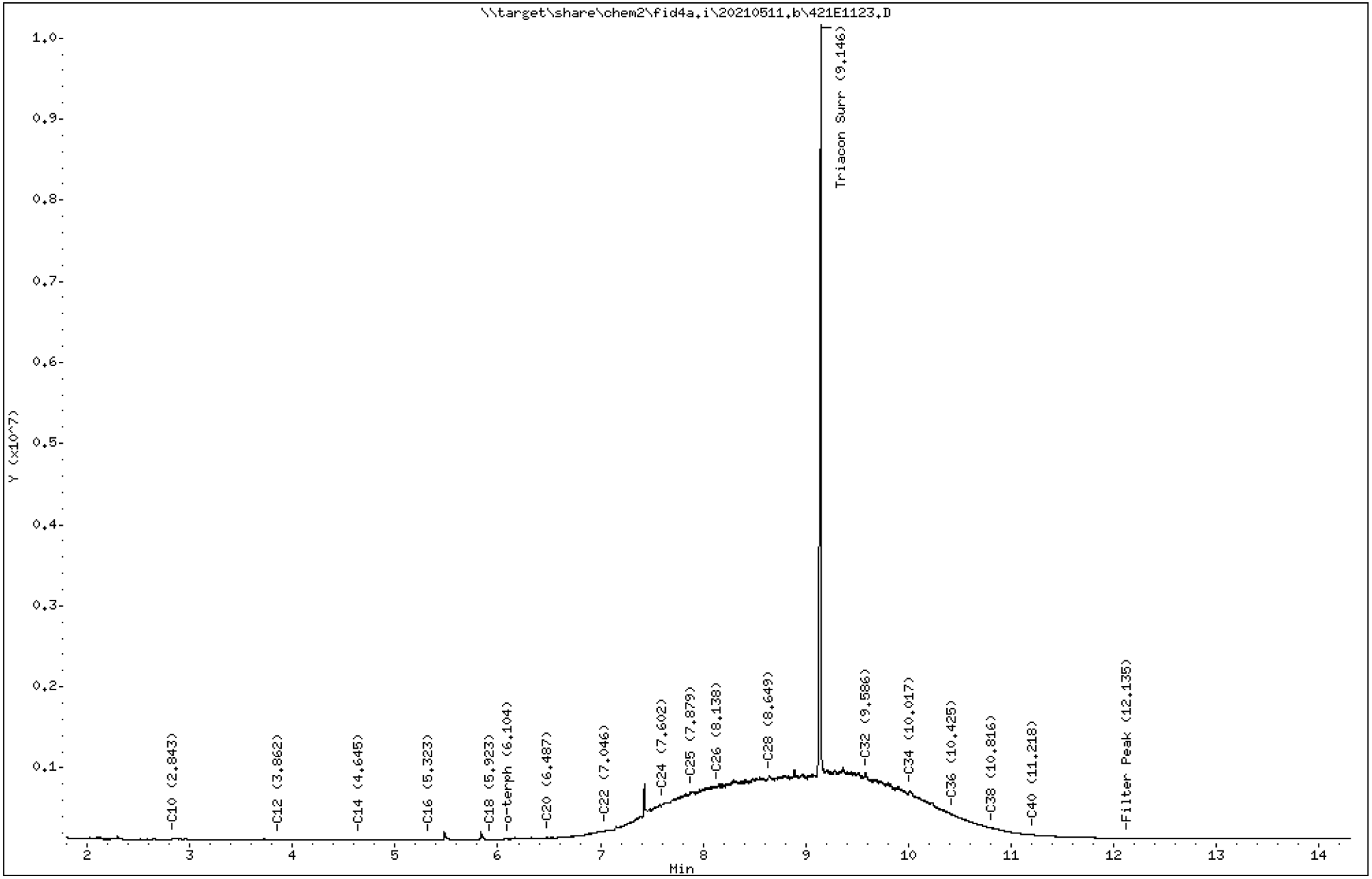
* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210511.b\421E1123.D
Date : 11-MAY-2021 18:16
Client ID:
Sample Info: SEQ-CCV2

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

Column phase: RTX-1



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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210511.b/421E1123.D
Method: 20210511.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 05/12/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-CCV2
Client ID:
Injection: 11-MAY-2021 18:16
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	1.587	0.021	107621	159783	WATPHD	(C12-C24)	12863170	70.4
C10	2.843	-0.007	10970	13608	WATPHM	(C24-C38)	116867718	889.1
C12	3.862	0.001	5804	3888	AK102	(C10-C25)	18138772	84.2
C14	4.645	-0.001	3065	893	AK103	(C25-C36)	107315935	1061.9
C16	5.323	0.004	1737	969	OR.DIES	(C10-C28)	53781241	274.4
C18	5.923	0.002	5286	2890				
C20	6.487	-0.001	26023	23644	JET-A	(C10-C18)	975783	6.7
C22	7.046	-0.005	124137	168938				
C24	7.602	-0.002	446029	474874				
C25	7.879	0.003	590164	322689				
C26	8.138	-0.003	644386	160447				
C28	8.649	-0.002	782007	348117				
C32	9.586	-0.003	812105	279058				
C34	10.017	-0.000	611291	417301				
Filter Peak	12.135	-0.004	19578	8765	BUNKERC	(C10-C38)	130146604	2899.1
C36	10.425	0.001	316881	109238				
C38	10.816	-0.002	143302	28515				
C40	11.218	-0.005	60217	41687				
o-terph	6.104	0.005	8417	3332				
Triacon Surr	9.146	-0.014	9179228	9452623	NAS DIES	(C10-C24)	13278885	68.0

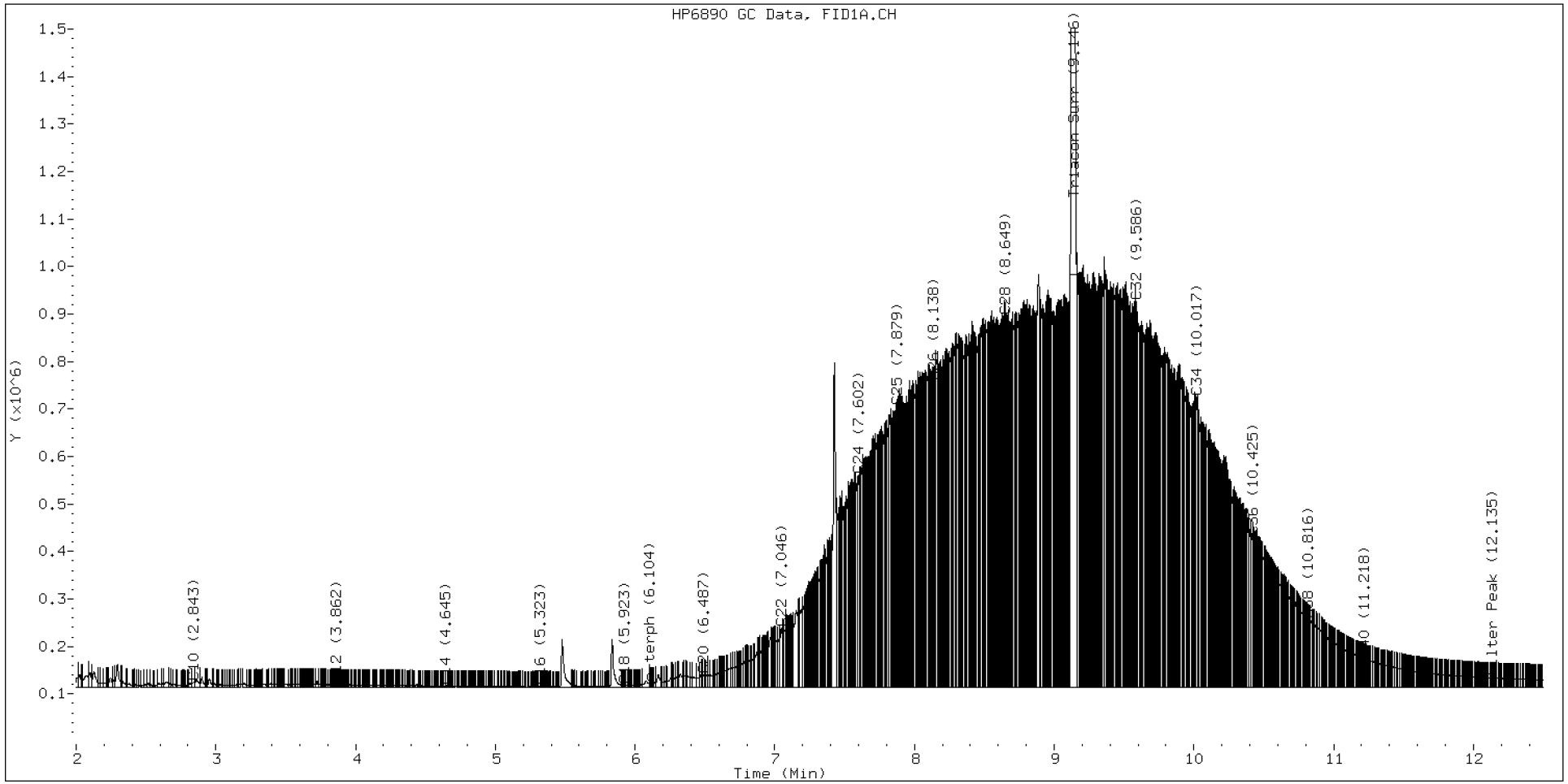
Range Times: NW Diesel(3.862 - 7.604) AK102(2.85 - 7.88) Jet A(2.85 - 5.92)
NW M.Oil(7.60 - 10.82) AK103(7.88 - 10.42) OR Diesel(2.85 - 8.65)

Surrogate	Area	Amount	
o-Terphenyl	3332	0.0	
Triacontane	9452623	44.6	M

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021

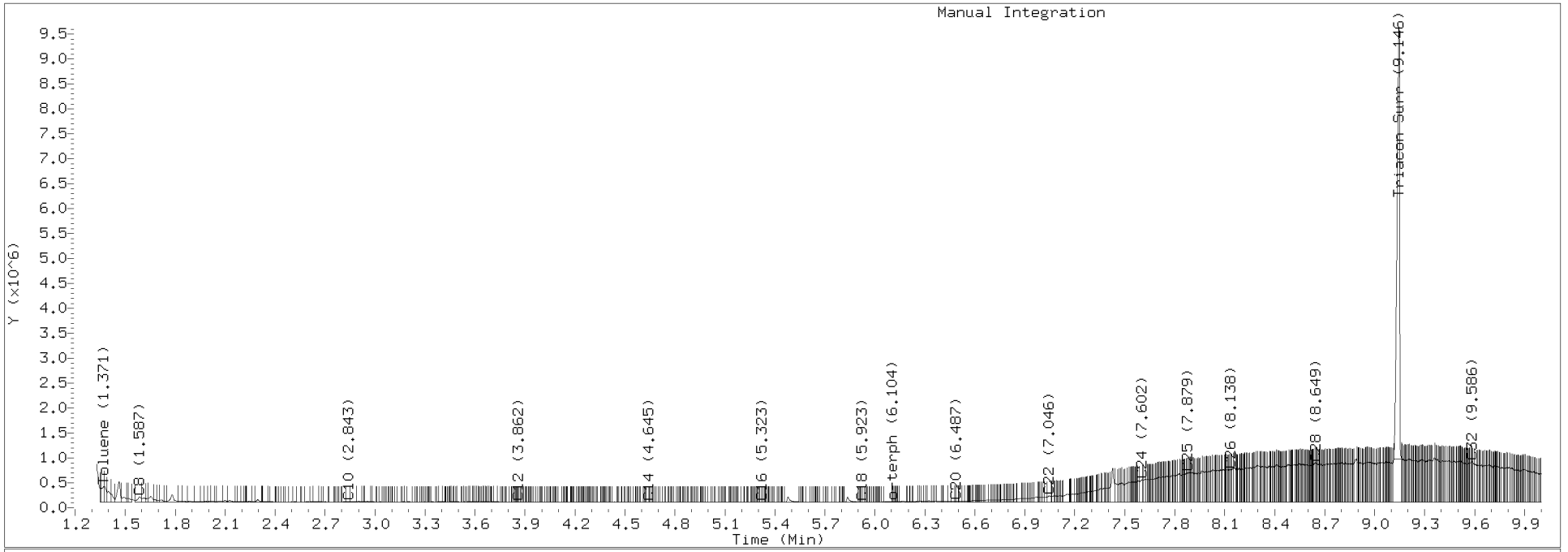
Datafile: FID4A, 20210511.b/421E1123.D SEQ-CCV2

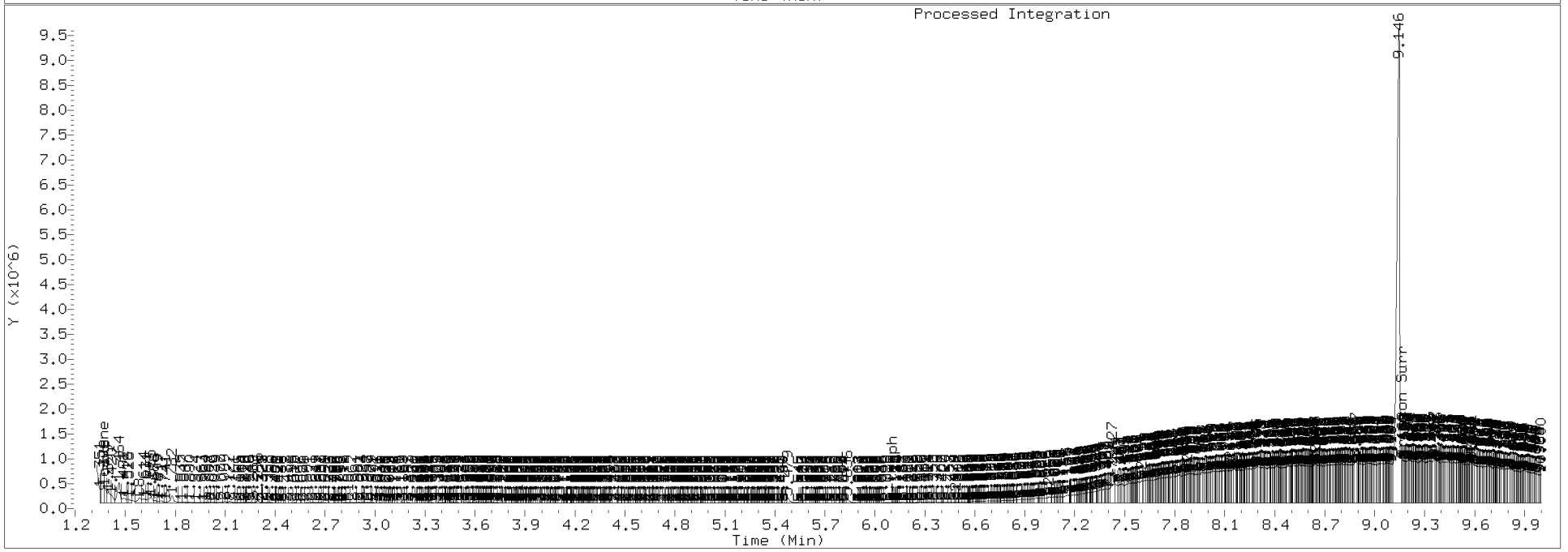


TPH Manual Integrations Report

Datafile: FID4A, 20210511.b/421E1123.D Injection: 11-MAY-2021 18:16

Lab ID:SEQ-CCV2





CONTINUING CALIBRATION CHECK
NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	FID4	Calibration:	ED00037
Lab File ID:	421E1128.D	Calibration Date:	04/13/2021
Sequence:	SJE0139	Injection Date:	05/11/21
Lab Sample ID:	SJE0139-CCV3	Injection Time:	20:03
Sequence Name:	DIESEL CCV		

		CONC. (mg/L)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Diesel Range Organics (C12-C24)	A	500.00	496	182831.3	181324.3		-0.8	+/-15
o-Terphenyl	A	90.000	81.3	249011.4	224918.4		-9.7	+/-15

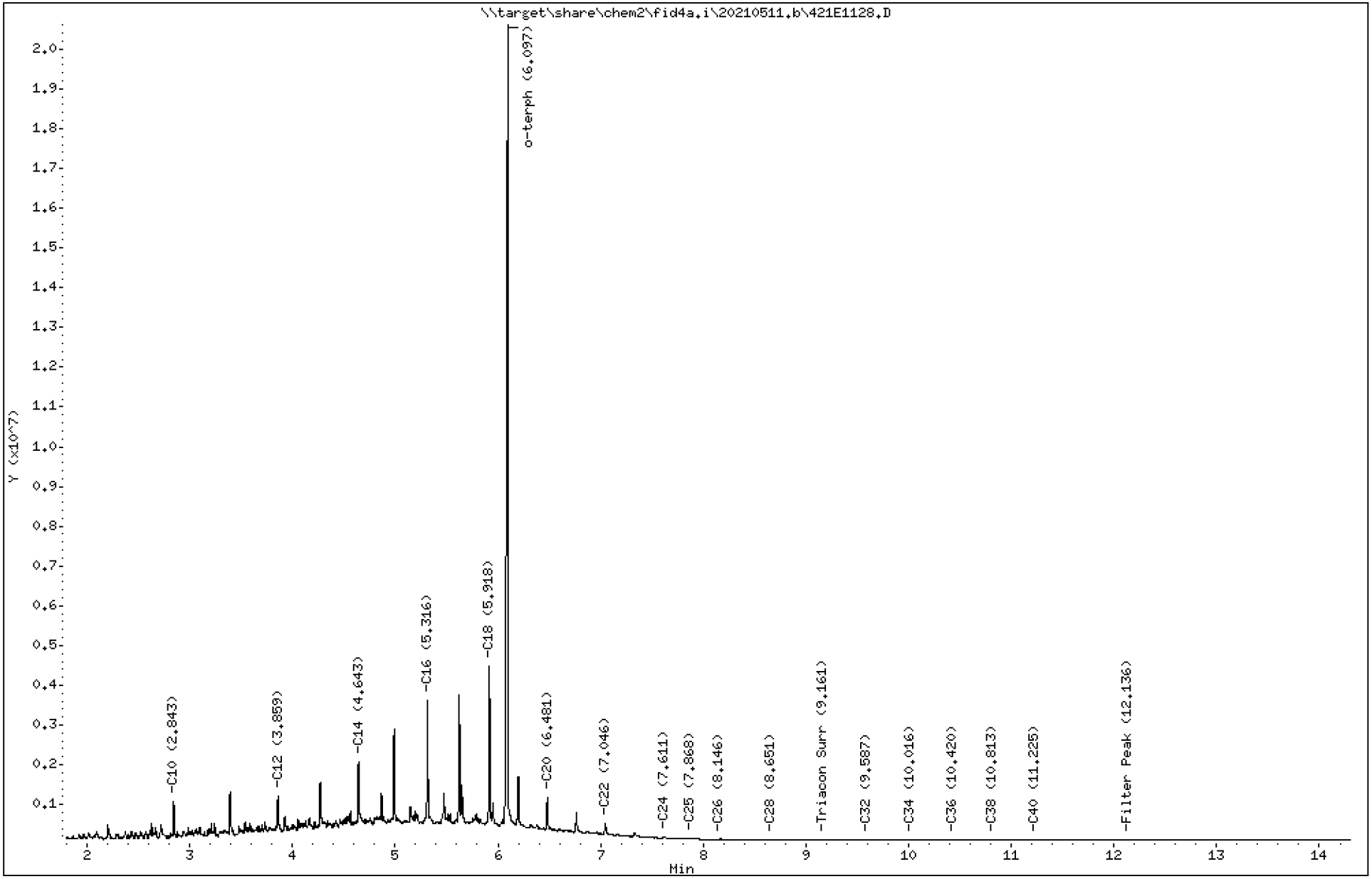
* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210511.b\421E1128.D
Date : 11-MAY-2021 20:03
Client ID:
Sample Info: SEQ-CCV3

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

Column phase: RTX-1



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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210511.b/421E1128.D
Method: 20210511.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 05/12/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-CCV3
Client ID:
Injection: 11-MAY-2021 20:03
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	1.558	-0.008	91505	86157	WATPHD	(C12-C24)	90662133	495.9
C10	2.843	-0.007	962971	693193	WATPHM	(C24-C38)	1032531	7.9
C12	3.859	-0.003	1112717	1310031	AK102	(C10-C25)	106407176	493.9
C14	4.643	-0.003	1965111	2511493	AK103	(C25-C36)	648829	6.4
C16	5.316	-0.004	3499757	2894140	OR.DIES	(C10-C28)	106892961	545.4
C18	5.918	-0.003	4381050	3758243				
C20	6.481	-0.007	1051722	1260699	JET-A	(C10-C18)	82732051	564.1
C22	7.046	-0.005	404452	736196				
C24	7.611	0.007	75033	253627				
C25	7.868	-0.008	21022	7308				
C26	8.146	0.005	11637	5583				
C28	8.651	-0.000	3161	1676				
C32	9.587	-0.001	535	186				
C34	10.016	-0.001	1116	408				
Filter Peak	12.136	-0.003	9563	4964	BUNKERC	(C10-C38)	107185613	2387.6
C36	10.420	-0.004	3459	2386				
C38	10.813	-0.004	6806	4045				
C40	11.225	0.001	8920	3540				
o-terph	6.097	-0.002	19981286	20242661				
Triacon Surr	9.161	0.001	726	223	NAS DIES	(C10-C24)	106153082	544.0

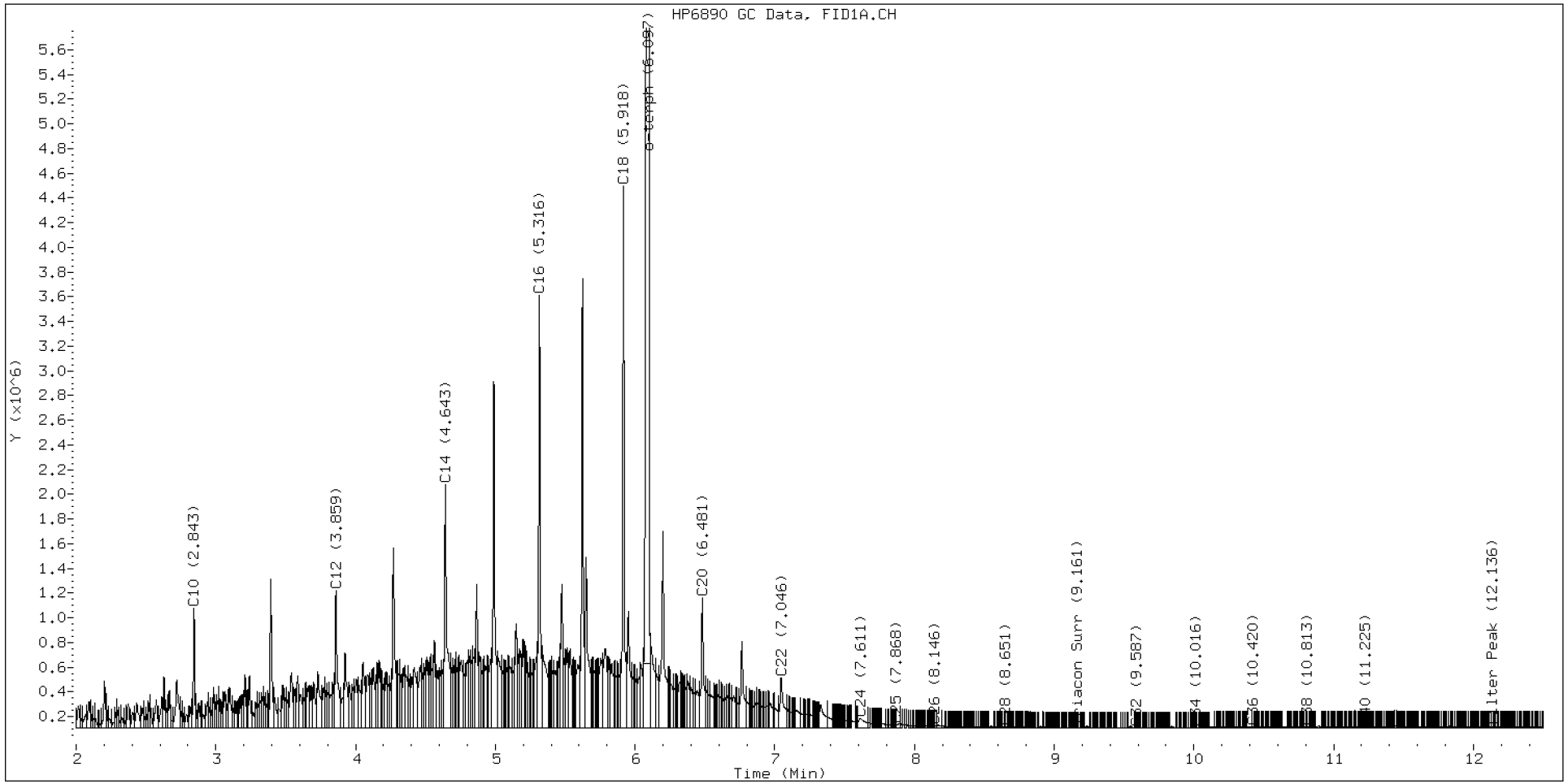
Range Times: NW Diesel(3.862 - 7.604) AK102(2.85 - 7.88) Jet A(2.85 - 5.92)
NW M.Oil(7.60 - 10.82) AK103(7.88 - 10.42) OR Diesel(2.85 - 8.65)

Surrogate	Area	Amount	
o-Terphenyl	20242661	81.3	M
Triacontane	223	0.0	

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021

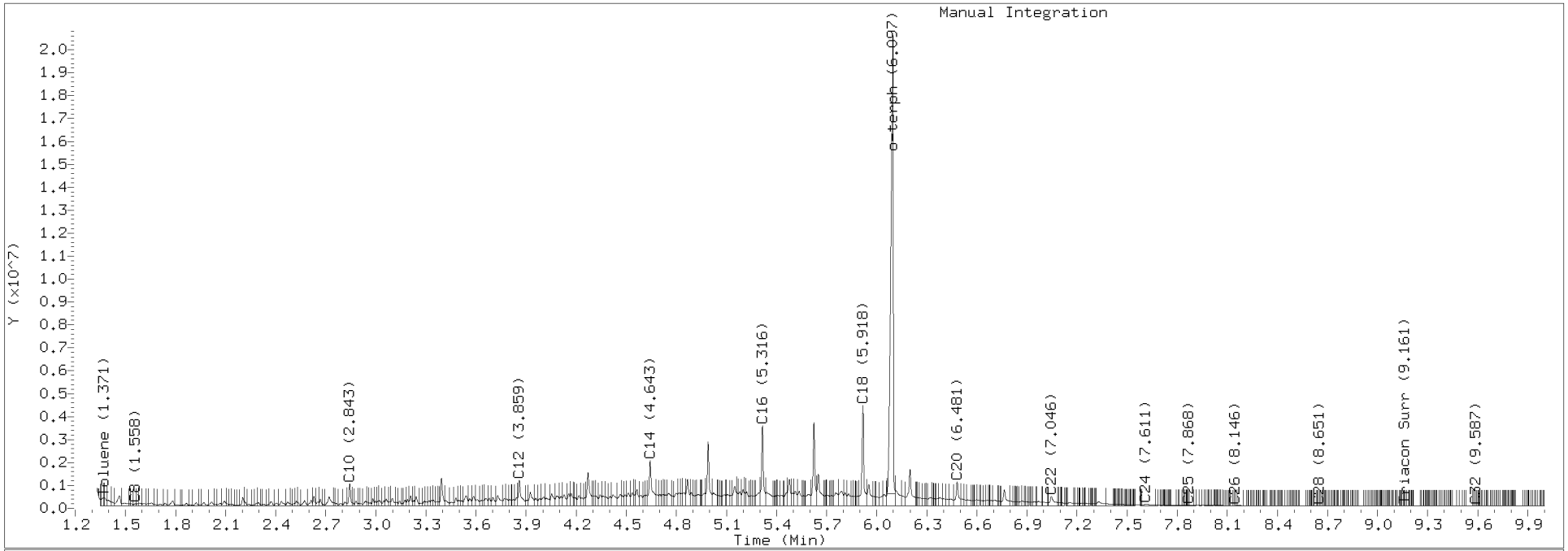
Datafile: FID4A, 20210511.b/421E1128.D SEQ-CCV3

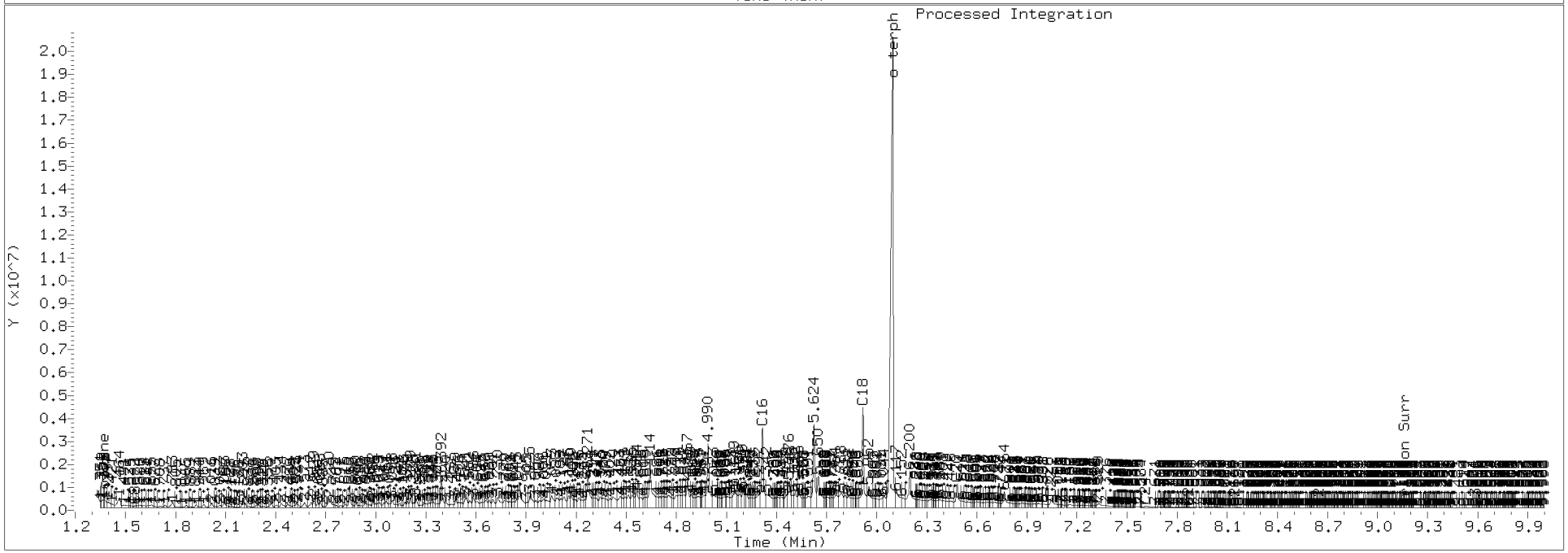


TPH Manual Integrations Report

Datafile: FID4A, 20210511.b/421E1128.D Injection: 11-MAY-2021 20:03

Lab ID:SEQ-CCV3





CONTINUING CALIBRATION CHECK
NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	FID4	Calibration:	ED00037
Lab File ID:	421E1129.D	Calibration Date:	04/13/2021
Sequence:	SJE0139	Injection Date:	05/11/21
Lab Sample ID:	SJE0139-CCV4	Injection Time:	20:24
Sequence Name:	MOIL CCV		

		CONC. (mg/L)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Motor Oil Range Organics (C24-C38)	A	1000.0	883	131440.7	116031.6		-11.7	+/-15

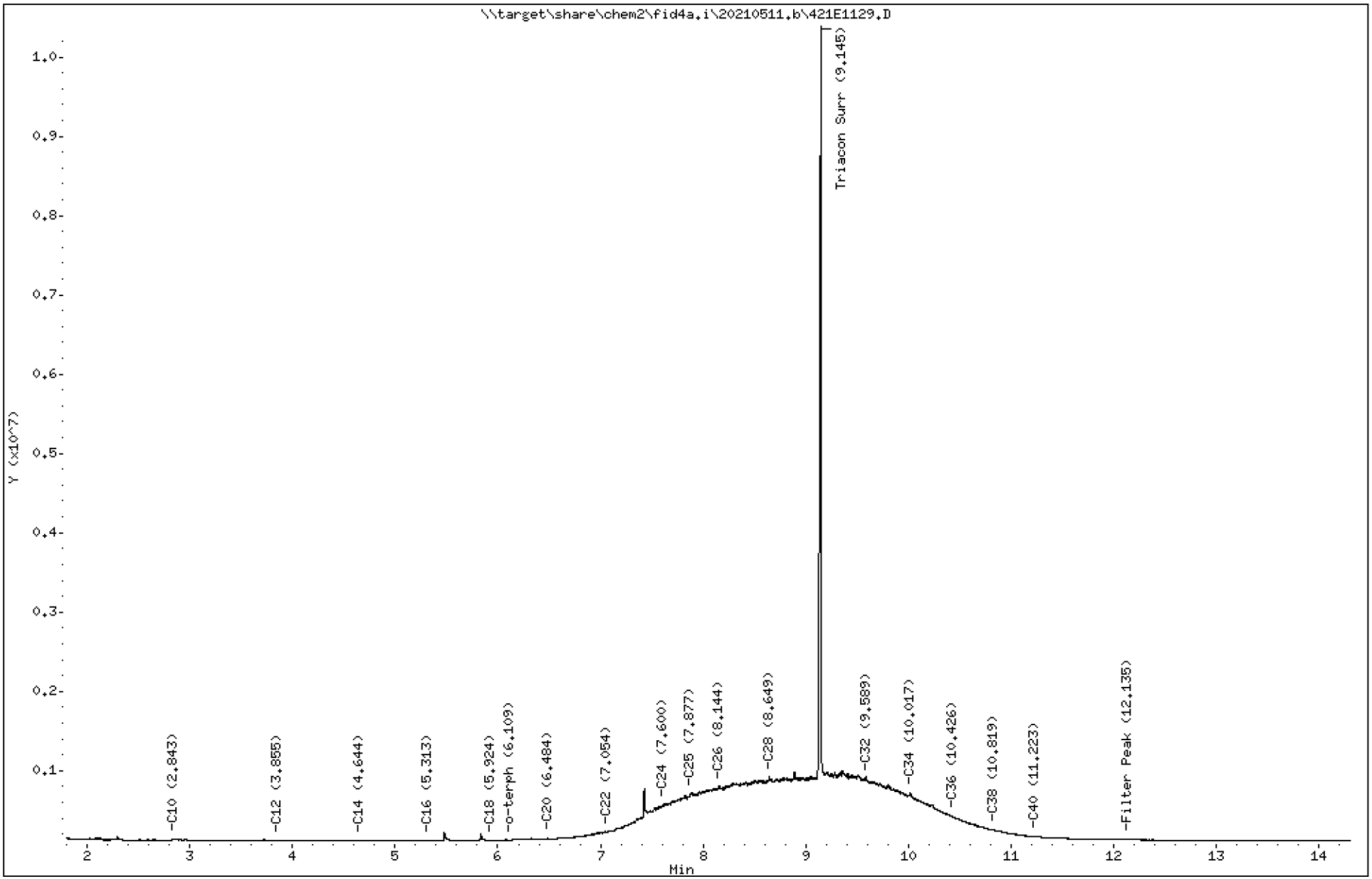
* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210511.b\421E1129.D
Date : 11-MAY-2021 20:24
Client ID:
Sample Info: SEQ-CCV4

Column phase: RTX-1

Instrument: fid4a.i

Operator: CTO
Column diameter: 0.25



Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210511.b/421E1129.D
Method: 20210511.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 05/12/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-CCV4
Client ID:
Injection: 11-MAY-2021 20:24
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Method	Range	Total Area	Conc(mg/L)
C8	1.586	0.020	111249	163657	WATPHD	(C12-C24)	12887234	70.5
C10	2.843	-0.007	11415	14899	WATPHM	(C24-C38)	116031596	882.8
C12	3.855	-0.006	5727	4281	AK102	(C10-C25)	18346291	85.2
C14	4.644	-0.001	3056	1539	AK103	(C25-C36)	106469223	1053.6
C16	5.313	-0.006	904	462	OR.DIES	(C10-C28)	53698563	274.0
C18	5.924	0.004	5131	4008				
C20	6.484	-0.005	25907	21425	JET-A	(C10-C18)	916757	6.3
C22	7.054	0.002	112018	60664				
C24	7.600	-0.004	441266	323665				
C25	7.877	0.001	585051	317775				
C26	8.144	0.004	664628	523731				
C28	8.649	-0.002	784706	422723				
C32	9.589	0.000	779413	417927				
C34	10.017	-0.001	596365	439758				
Filter Peak	12.135	-0.003	10633	3647	BUNKERC	(C10-C38)	129336302	2881.0
C36	10.426	0.002	304324	120773				
C38	10.819	0.002	135967	33829				
C40	11.223	-0.001	52233	27911				
o-terph	6.109	0.010	7245	1768				
Triacon Surr	9.145	-0.015	9399222	9402525	NAS DIES	(C10-C24)	13304706	68.2

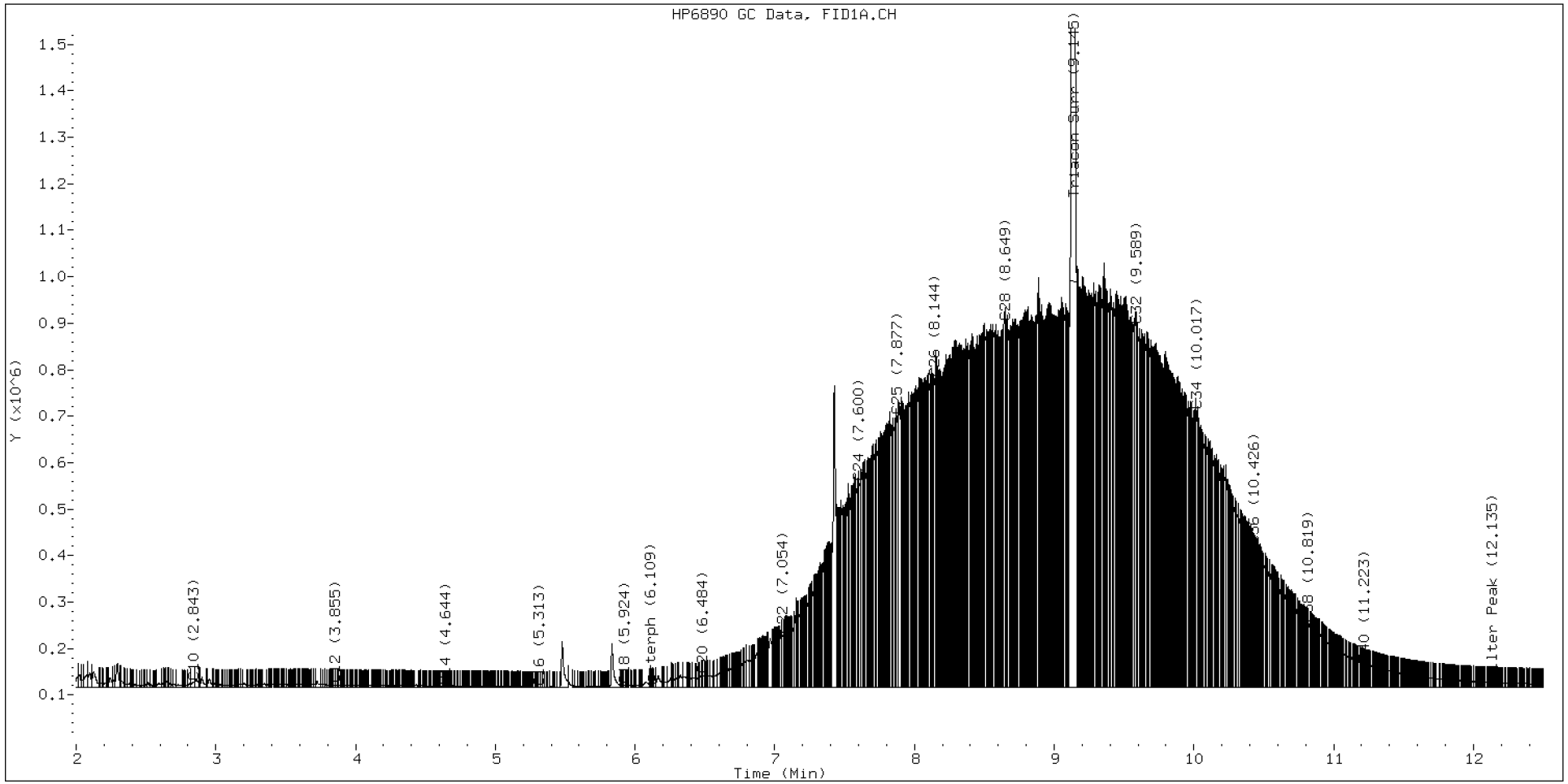
Range Times: NW Diesel(3.862 - 7.604) AK102(2.85 - 7.88) Jet A(2.85 - 5.92)
NW M.Oil(7.60 - 10.82) AK103(7.88 - 10.42) OR Diesel(2.85 - 8.65)

Surrogate	Area	Amount	
o-Terphenyl	1768	0.0	
Triacontane	9402525	44.4	M

M Indicates the peak was manually integrated

Analyte	RF	Curve Date
o-Terph Surr	249011.3	25-OCT-2019
Triacon Surr	211827.9	25-OCT-2019
Gas	15000.0	XX-XXX-XXXX
Diesel	182831.3	14-APR-2021
Motor Oil	131440.7	14-APR-2021
AK102	215421.2	14-APR-2021
AK103	101056.3	14-APR-2021
JetA	146652.4	20-MAY-2020
OR Diesel	195999.1	25-OCT-2019
NAS Diesel	195148.2	25-OCT-2019
Bunker C	44892.5	21-APR-2021

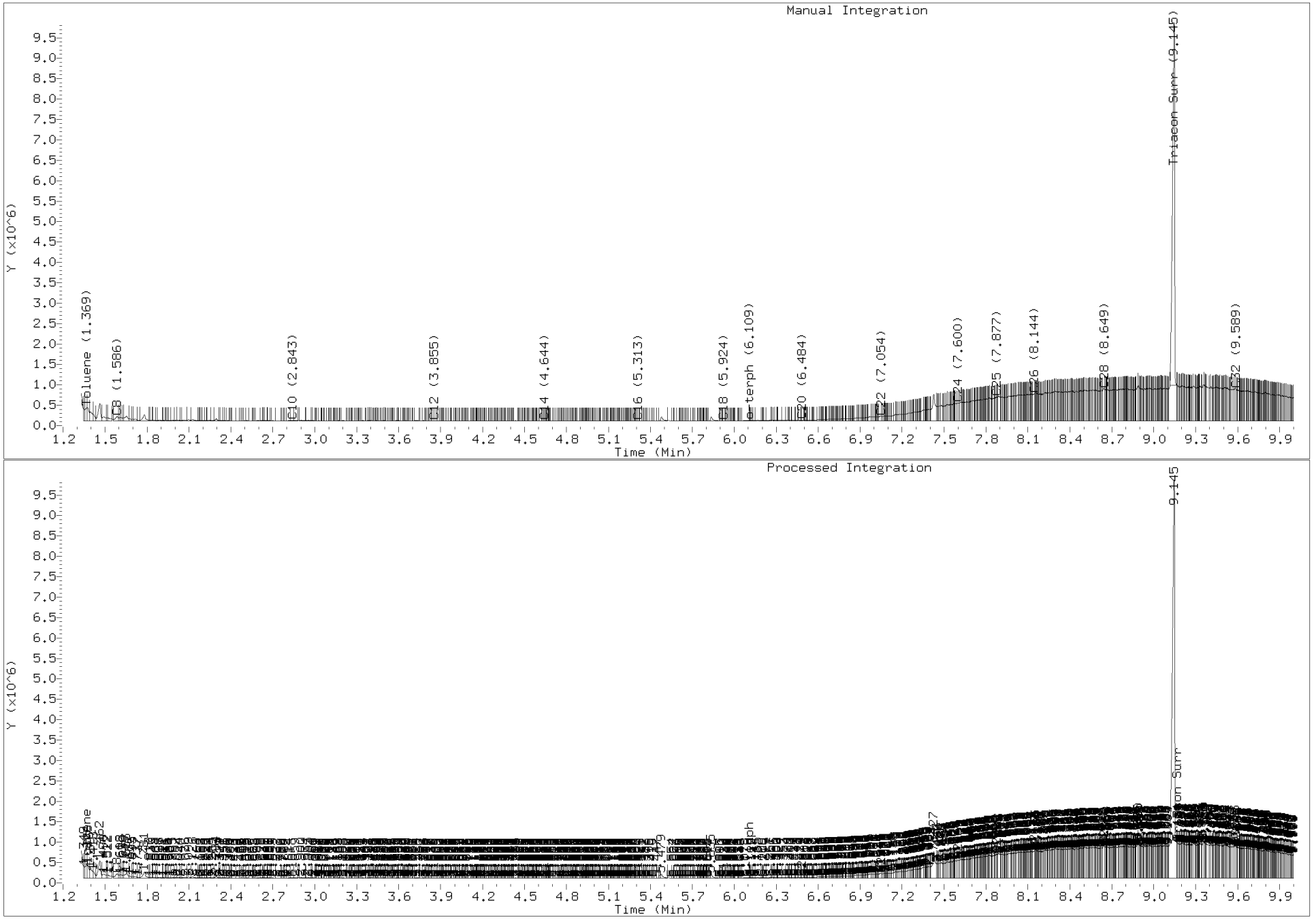
Datafile: FID4A, 20210511.b/421E1129.D SEQ-CCV4



TPH Manual Integrations Report

Datafile: FID4A, 20210511.b/421E1129.D Injection: 11-MAY-2021 20:24

Lab ID:SEQ-CCV4



ANALYSIS BATCH (SEQUENCE) SUMMARY

NWTPH-Dx

Laboratory: Analytical Resources, Inc.
SDG: 21E0099
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Sequence: SJD0189
Instrument: FID4
Calibration: ED00037

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Retention Time Standard	SJD0189-IBL1	421D1307.D	NA	04/13/21 12:46
Instrument Blank	SJD0189-IBL2	421D1308.D	NA	04/13/21 13:07
DIESEL 50	SJD0189-CAL1	421D1309.D	NA	04/13/21 13:29
DIESEL 100	SJD0189-CAL2	421D1310.D	NA	04/13/21 13:50
DIESEL 250	SJD0189-CAL3	421D1311.D	NA	04/13/21 14:11
DIESEL 500	SJD0189-CAL4	421D1312.D	NA	04/13/21 14:33
DIESEL 1000	SJD0189-CAL5	421D1313.D	NA	04/13/21 14:54
DIESEL 2500	SJD0189-CAL6	421D1314.D	NA	04/13/21 15:16
DIESEL SCV	SJD0189-SCV1	421D1315.D	NA	04/13/21 15:37
MOIL 100	SJD0189-CAL7	421D1316.D	NA	04/13/21 15:59
MOIL 250	SJD0189-CAL8	421D1317.D	NA	04/13/21 16:20
MOIL 500	SJD0189-CAL9	421D1318.D	NA	04/13/21 16:42
MOIL 1000	SJD0189-CALA	421D1319.D	NA	04/13/21 17:03
MOIL 2500	SJD0189-CALB	421D1320.D	NA	04/13/21 17:24
MOIL 5000	SJD0189-CALC	421D1321.D	NA	04/13/21 17:46
MOIL SCV	SJD0189-SCV2	421D1322.D	NA	04/13/21 18:07
AK103 100	SJD0189-CALD	421D1323.D	NA	04/13/21 18:28
AK103 250	SJD0189-CALE	421D1324.D	NA	04/13/21 18:50
AK103 500	SJD0189-CALF	421D1325.D	NA	04/13/21 19:11
AK103 1000	SJD0189-CALG	421D1326.D	NA	04/13/21 19:32
AK103 2500	SJD0189-CALH	421D1327.D	NA	04/13/21 19:53
AK103 5000	SJD0189-CALI	421D1328.D	NA	04/13/21 20:14

ANALYSIS BATCH (SEQUENCE) SUMMARY

NWTPH-Dx

Laboratory: Analytical Resources, Inc.
SDG: 21E0099
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Sequence: SJD0260
Instrument: FID4
Calibration: ED00037

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Retention Time Standard	SJD0260-IBL1	421D1553.D	NA	04/16/21 03:34
Instrument Blank	SJD0260-IBL2	421D1554.D	NA	04/16/21 03:55
A/S CREOSOTE 100	SJD0260-CAL1	421D1555.D	NA	04/16/21 04:16
A/S CREOSOTE 250	SJD0260-CAL2	421D1556.D	NA	04/16/21 04:37
A/S CREOSOTE 500	SJD0260-CAL3	421D1557.D	NA	04/16/21 04:57
A/S CREOSOTE 1000	SJD0260-CAL4	421D1558.D	NA	04/16/21 05:18
A/S CREOSOTE 2500	SJD0260-CAL5	421D1559.D	NA	04/16/21 05:39
A/S CREOSOTE 5000	SJD0260-CAL6	421D1560.D	NA	04/16/21 06:00
DIESEL ICV	SJD0260-ICV1	421D1561.D	NA	04/16/21 06:21
MOIL ICV	SJD0260-ICV2	421D1562.D	NA	04/16/21 06:42
A/S Creosote ICV	SJD0260-ICV3	421D1563.D	NA	04/16/21 07:03
ZZZZZ	BJC0355-BLK1	421D1564.D	Water	04/16/21 07:24
ZZZZZ	BJC0355-BS1	421D1565.D	Water	04/16/21 07:45
ZZZZZ	BJC0355-BSD1	421D1566.D	Water	04/16/21 08:06
ZZZZZ	21C0181-02RE1	421D1567.D	Water	04/16/21 08:27
ZZZZZ	21C0181-03RE1	421D1568.D	Water	04/16/21 08:48
ZZZZZ	21C0181-04RE1	421D1569.D	Water	04/16/21 09:09
ZZZZZ	21C0181-05RE1	421D1570.D	Water	04/16/21 09:30
ZZZZZ	21C0181-06RE1	421D1571.D	Water	04/16/21 09:51
ZZZZZ	21C0181-07RE1	421D1572.D	Water	04/16/21 10:12
ZZZZZ	21C0181-08RE1	421D1573.D	Water	04/16/21 10:33
ZZZZZ	21C0181-09RE1	421D1574.D	Water	04/16/21 10:54
ZZZZZ	21C0181-10RE1	421D1575.D	Water	04/16/21 11:15
ZZZZZ	21C0181-11RE2	421D1576.D	Water	04/16/21 11:36
DIESEL CCV	SJD0260-CCV1	421D1577.D	NA	04/16/21 11:57
MOIL CCV	SJD0260-CCV2	421D1578.D	NA	04/16/21 12:18
A/S CRESOTE CCV	SJD0260-CCV3	421D1579.D	NA	04/16/21 12:39
ZZZZZ	21C0181-12RE1	421D1580.D	Water	04/16/21 13:00
ZZZZZ	21C0181-13RE1	421D1581.D	Water	04/16/21 13:21
ZZZZZ	21C0181-14RE1	421D1582.D	Water	04/16/21 13:42

ANALYSIS BATCH (SEQUENCE) SUMMARY

NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Sequence:	SJD0260	Instrument:	FID4
		Calibration:	ED00037

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	21C0181-15RE2	421D1584.D	Water	04/16/21 14:24
ZZZZZ	21C0181-16RE1	421D1585.D	Water	04/16/21 14:45
DIESEL CCV	SJD0260-CCV4	421D1586.D	NA	04/16/21 15:06
MOIL CCV	SJD0260-CCV5	421D1587.D	NA	04/16/21 15:28
A/S CRESOTE CCV	SJD0260-CCV6	421D1588.D	NA	04/16/21 15:49

ANALYSIS BATCH (SEQUENCE) SUMMARY

NWTPH-Dx

Laboratory: Analytical Resources, Inc.
Client: Anchor QEA, LLC
Sequence: SJD0282

SDG: 21E0099
Project: Gasco Siltronic - US Moorings
Instrument: FID4
Calibration: ED00037

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Retention Time Standard	SJD0282-IBL1	421D2003.D	NA	04/20/21 14:16
Instrument Blank	SJD0282-IBL2	421D2004.D	NA	04/20/21 14:38
A/S LAI BUNKER C 100	SJD0282-CAL1	421D2005.D	NA	04/20/21 14:59
A/S LAI BUNKER C 250	SJD0282-CAL2	421D2006.D	NA	04/20/21 15:21
A/S LAI BUNKER C 500	SJD0282-CAL3	421D2007.D	NA	04/20/21 15:42
A/S LAI BUNKER C 1000	SJD0282-CAL4	421D2008.D	NA	04/20/21 16:04
A/S LAI BUNKER C 2500	SJD0282-CAL5	421D2009.D	NA	04/20/21 16:25
A/S LAI BUNKER C 5000	SJD0282-CAL6	421D2010.D	NA	04/20/21 16:47
DIESEL ICV	SJD0282-ICV1	421D2011.D	NA	04/20/21 17:08
MOIL ICV	SJD0282-ICV2	421D2012.D	NA	04/20/21 17:30
A/S BUNKER C	SJD0282-ICV3	421D2013.D	NA	04/20/21 17:51
ZZZZZ	BJC0848-BLK1	421D2014.D	Water	04/20/21 18:13
ZZZZZ	BJC0848-BS1	421D2015.D	Water	04/20/21 18:34
ZZZZZ	BJC0848-BSD1	421D2016.D	Water	04/20/21 18:55
ZZZZZ	21C0428-01	421D2017.D	Water	04/20/21 19:17
ZZZZZ	21C0428-02	421D2020.D	Water	04/20/21 20:21
ZZZZZ	21C0428-03	421D2021.D	Water	04/20/21 20:42
ZZZZZ	21C0428-04	421D2022.D	Water	04/20/21 21:03
ZZZZZ	21C0428-05	421D2023.D	Water	04/20/21 21:24
ZZZZZ	21C0428-06	421D2024.D	Water	04/20/21 21:45
ZZZZZ	21C0428-07	421D2025.D	Water	04/20/21 22:07
ZZZZZ	21C0428-08	421D2026.D	Water	04/20/21 22:28
ZZZZZ	21C0428-09	421D2027.D	Water	04/20/21 22:49
A/S BUNKER C	SJD0282-CCV3	421D2031.D	NA	04/21/21 00:13
ZZZZZ	21C0428-11	421D2032.D	Water	04/21/21 00:34
ZZZZZ	21C0428-12	421D2033.D	Water	04/21/21 00:55
ZZZZZ	21C0428-13	421D2034.D	Water	04/21/21 01:16
ZZZZZ	BJD0124-BLK1	421D2035.D	Water	04/21/21 01:37
ZZZZZ	BJD0124-BS1	421D2036.D	Water	04/21/21 01:58
ZZZZZ	21D0041-01	421D2037.D	Water	04/21/21 02:19

ANALYSIS BATCH (SEQUENCE) SUMMARY

NWTPH-Dx

Laboratory: Analytical Resources, Inc.
SDG: 21E0099
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Sequence: SJD0282
Instrument: FID4
Calibration: ED00037

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	21D0041-03	421D2038.D	Water	04/21/21 02:40
ZZZZZ	21D0041-05	421D2039.D	Water	04/21/21 03:01
ZZZZZ	21D0041-07	421D2040.D	Water	04/21/21 03:22
ZZZZZ	21D0041-09	421D2041.D	Water	04/21/21 03:43
ZZZZZ	21D0041-11	421D2042.D	Water	04/21/21 04:04
DIESEL CCV	SJD0282-CCV4	421D2043.D	NA	04/21/21 04:25
MOIL CCV	SJD0282-CCV5	421D2044.D	NA	04/21/21 04:46
A/S BUNKER C	SJD0282-CCV6	421D2045.D	NA	04/21/21 05:07
ZZZZZ	BJD0328-BLK1	421D2046.D	Water	04/21/21 05:28
ZZZZZ	BJD0328-BS1	421D2047.D	Water	04/21/21 05:49
ZZZZZ	BJD0328-BSD1	421D2048.D	Water	04/21/21 06:10
ZZZZZ	21D0104-01	421D2049.D	Water	04/21/21 06:31
ZZZZZ	21D0104-02	421D2050.D	Water	04/21/21 06:52
ZZZZZ	21D0104-03	421D2051.D	Water	04/21/21 07:13
ZZZZZ	21D0104-04	421D2052.D	Water	04/21/21 07:34
ZZZZZ	21D0104-05	421D2053.D	Water	04/21/21 07:55
ZZZZZ	21D0104-06	421D2054.D	Water	04/21/21 08:16
ZZZZZ	21D0104-07	421D2055.D	Water	04/21/21 08:37
ZZZZZ	21D0104-08	421D2056.D	Water	04/21/21 08:58
ZZZZZ	21D0116-01	421D2057.D	Water	04/21/21 09:19
DIESEL CCV	SJD0282-CCV7	421D2058.D	NA	04/21/21 09:40
MOIL CCV	SJD0282-CCV8	421D2059.D	NA	04/21/21 10:01
ZZZZZ	21D0116-03	421D2060.D	Water	04/21/21 10:22
ZZZZZ	21D0116-04	421D2061.D	Water	04/21/21 10:43
ZZZZZ	21D0116-05	421D2062.D	Water	04/21/21 11:04
ZZZZZ	21D0116-06	421D2063.D	Water	04/21/21 11:25
ZZZZZ	21D0116-07	421D2064.D	Water	04/21/21 11:46
ZZZZZ	21D0116-08	421D2065.D	Water	04/21/21 12:07
ZZZZZ	21D0116-09	421D2066.D	Water	04/21/21 12:28
ZZZZZ	21D0116-10	421D2067.D	Water	04/21/21 12:50

ANALYSIS BATCH (SEQUENCE) SUMMARY

NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Sequence:	SJD0282	Instrument:	FID4
		Calibration:	ED00037

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	21D0116-11	421D2068.D	Water	04/21/21 13:11
DIESEL CCV	SJD0282-CCV9	421D2069.D	NA	04/21/21 13:32
MOIL CCV	SJD0282-CCVA	421D2070.D	NA	04/21/21 13:53
ZZZZZ	21C0428-10	421D2028.D	Water	04/21/21 23:10
DIESEL CCV	SJD0282-CCV1	421D2029.D	NA	04/21/21 23:31
MOIL CCV	SJD0282-CCV2	421D2030.D	NA	04/21/21 23:52

ANALYSIS BATCH (SEQUENCE) SUMMARY

NWTPH-Dx

Laboratory: Analytical Resources, Inc.
Client: Anchor QEA, LLC
Sequence: SJE0139

SDG: 21E0099
Project: Gasco Siltronic - US Moorings
Instrument: FID4
Calibration: ED00037

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Retention Time Standard	SJE0139-IBL1	421E1103b.D	NA	05/11/21 11:05
Instrument Blank	SJE0139-IBL2	421E1104b.D	NA	05/11/21 11:26
DIESEL ICV	SJE0139-ICV1	421E1109.D	NA	05/11/21 13:14
MOIL ICV	SJE0139-ICV2	421E1110.D	NA	05/11/21 13:36
Blank	BJE0193-BLK1	421E1111.D	Water	05/11/21 13:57
LCS	BJE0193-BS1	421E1112.D	Water	05/11/21 14:19
LCS Dup	BJE0193-BSD1	421E1113.D	Water	05/11/21 14:41
ZZZZZ	21E0068-01	421E1114.D	Water	05/11/21 15:02
ZZZZZ	21E0068-03	421E1115.D	Water	05/11/21 15:24
ZZZZZ	21E0068-05	421E1116.D	Water	05/11/21 15:45
ZZZZZ	21E0068-07	421E1117.D	Water	05/11/21 16:07
ZZZZZ	21E0068-09	421E1118.D	Water	05/11/21 16:28
ZZZZZ	21E0068-11	421E1119.D	Water	05/11/21 16:50
SC-FB-2105030940	21E0099-01	421E1120.D	Water	05/11/21 17:11
SC-RB-2105030901	21E0099-02	421E1121.D	Water	05/11/21 17:33
DIESEL CCV	SJE0139-CCV1	421E1122.D	NA	05/11/21 17:54
MOIL CCV	SJE0139-CCV2	421E1123.D	NA	05/11/21 18:16
ZZZZZ	21E0017-02RE1	421E1124.D	Solid	05/11/21 18:37
ZZZZZ	21E0017-08RE1	421E1125.D	Solid	05/11/21 18:59
ZZZZZ	21E0017-09RE1	421E1126.D	Solid	05/11/21 19:20
ZZZZZ	21E0006-12RE1	421E1127.D	Solid	05/11/21 19:41
DIESEL CCV	SJE0139-CCV3	421E1128.D	NA	05/11/21 20:03
MOIL CCV	SJE0139-CCV4	421E1129.D	NA	05/11/21 20:24

SURROGATE RECOVERY AND RT SUMMARY

NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG/WO:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Sequence:	SJD0260	Instrument:	FID4
Calibration:	ED00037	Calibration Date:	04/13/2021

Surrogate Compound	Spike Level mg/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SJD0260-ICV1 (Water)			Lab File ID: 421D1561.D				Analyzed: 04/16/21 06:21	
o-Terphenyl	90.000	96.7	85 - 115	6.12	6.13	-0.0100	N/A	
SJD0260-ICV3 (Water)			Lab File ID: 421D1563.D				Analyzed: 04/16/21 07:03	
o-Terphenyl	90.000	89.9	85 - 115	6.12	6.13	-0.0100	N/A	
SJD0260-CCV1 (Water)			Lab File ID: 421D1577.D				Analyzed: 04/16/21 11:57	
o-Terphenyl	90.000	100	85 - 115	6.12	6.13	-0.0100	N/A	

SURROGATE RECOVERY AND RT SUMMARY

NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG/WO:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Sequence:	SJD0282	Instrument:	FID4
Calibration:	ED00037	Calibration Date:	04/13/2021

Surrogate Compound	Spike Level mg/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SJD0282-ICV1 (Water)			Lab File ID: 421D2011.D				Analyzed: 04/20/21 17:08	
o-Terphenyl	90.000	101	85 - 115	6.12	6.13	-0.0100	N/A	
SJD0282-ICV3 (Water)			Lab File ID: 421D2013.D				Analyzed: 04/20/21 17:51	
o-Terphenyl	45.000	93.1	85 - 115	6.11	6.13	-0.0200	N/A	
SJD0282-CCV1 (Water)			Lab File ID: 421D2029.D				Analyzed: 04/21/21 23:31	
o-Terphenyl	90.000	94.2	85 - 115	6.12	6.13	-0.0100	N/A	

SURROGATE RECOVERY AND RT SUMMARY

NWTPH-Dx

Laboratory:	Analytical Resources, Inc.	SDG/WO:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Sequence:	SJE0139	Instrument:	FID4
Calibration:	ED00037	Calibration Date:	04/20/2021

Surrogate Compound	Spike Level mg/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SJE0139-IBL1 (Water)				Lab File ID: 421E1103b.D			Analyzed: 05/11/21 11:05	
o-Terphenyl	100.00	88.8	50 - 150	6.1	6.13	-0.0300	N/A	
SJE0139-IBL2 (Water)				Lab File ID: 421E1104b.D			Analyzed: 05/11/21 11:26	
o-Terphenyl	100.00	85.8	50 - 150	6.1	6.13	-0.0300	N/A	
SJE0139-ICV1 (Water)				Lab File ID: 421E1109.D			Analyzed: 05/11/21 13:14	
o-Terphenyl	90.000	92.0	85 - 115	6.1	6.13	-0.0300	N/A	
BJE0193-BLK1 (Water)				Lab File ID: 421E1111.D			Analyzed: 05/11/21 13:57	
o-Terphenyl	0.22500	90.6	50 - 150	6.1	6.13	-0.0300	N/A	
BJE0193-BS1 (Water)				Lab File ID: 421E1112.D			Analyzed: 05/11/21 14:19	
o-Terphenyl	0.22500	96.3	50 - 150	6.11	6.13	-0.0200	N/A	
BJE0193-BSD1 (Water)				Lab File ID: 421E1113.D			Analyzed: 05/11/21 14:41	
o-Terphenyl	0.22500	96.1	50 - 150	6.1	6.13	-0.0300	N/A	
21E0099-01 (Water)				Lab File ID: 421E1120.D			Analyzed: 05/11/21 17:11	
o-Terphenyl	0.22500	90.0	50 - 150	6.1	6.13	-0.0300	N/A	
21E0099-02 (Water)				Lab File ID: 421E1121.D			Analyzed: 05/11/21 17:33	
o-Terphenyl	0.22500	93.6	50 - 150	6.1	6.13	-0.0300	N/A	
SJE0139-CCV1 (Water)				Lab File ID: 421E1122.D			Analyzed: 05/11/21 17:54	
o-Terphenyl	90.000	92.7	85 - 115	6.1	6.13	-0.0300	N/A	
SJE0139-CCV3 (Water)				Lab File ID: 421E1128.D			Analyzed: 05/11/21 20:03	
o-Terphenyl	90.000	90.3	85 - 115	6.1	6.13	-0.0300	N/A	

HOLDING TIME SUMMARY

Analysis: NWTPH-Dx

Laboratory: Analytical Resources, Inc. SDG: 21E0099

Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
SC-FB-2105030940 21E0099-01	05/03/21 09:40	05/05/21 10:53	05/10/21 12:19	7	7	05/11/21 17:11	1	40	
SC-RB-2105030901 21E0099-02	05/03/21 09:00	05/05/21 10:53	05/10/21 12:19	7	7	05/11/21 17:33	1	40	

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

NWTPH-Dx

Laboratory: Analytical Resources, Inc.
SDG: 21E0099
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Matrix: Solid
Instrument: FID4

Analyte	MDL	RL	Units
Diesel Range Organics (C12-C24)	2.34	5.00	mg/kg
Motor Oil Range Organics (C24-C38)	2.99	10.0	mg/kg

METHOD DETECTION AND REPORTING LIMITS

NWTPH-Dx

Laboratory: Analytical Resources, Inc.
SDG: 21E0099
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Matrix: Water
Instrument: FID4

Analyte	MDL	RL	Units
Diesel Range Organics (C12-C24)	0.033	0.100	mg/L
Motor Oil Range Organics (C24-C38)	0.056	0.200	mg/L

I-6884 - Chevron Motor Oil SAE30
I-6885 - Valvoline Motor Oil SAE30
I-6886 - Valvoline Motor Oil SAE 5W-30
I-6887 - Valvoline Motor Oil SAE 40
I-6888 - Mobil 1 Synthetic Motor Oil 10W30

5/13/11

5/13/11

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INVOICE TYPE CHG. CARD SALE
INVOICE DATE 5/13/11

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COUNTER NO.	SPECIAL INSTRUCTIONS	SHIP VIA	CUSTOMER ORDER NO.	TIME OF ORDER	FILLED BY	CHECKED BY
5				09:09:50		

TAX	R C	QTY.	LINE	ITEM NUMBER	UNIT MEAS.	CD.	DESCRIPTION	LIST PRICE	NET PRICE	DISC %	CORE PRICE	EXTENDED PRICE
T	*	1		CAS EDGE10 30	EA		10tMotorOil	14.77	5.99			5.99
T	*	1		CAS EDGE10 30	EA		10tMotorOil	14.77	5.99			5.99
T	*	1		MOB 1-10-30	EA		10tSynthcOil	13.99	8.19			8.19
T	*	1		VAL 5-30	EA		10tMotorOil	7.95	4.69			4.69
T	*	1		VAL HD30	EA		10tMotorOil	7.95	4.69			4.69
T	*	1		VAL HD40	EA		10tMotorOil	7.95	4.69			4.69
T	*	1		CHV HD30	EA		MOTOR OIL	6.25	3.69			3.69
	*	=		MFG. DEFECT WARRANTY								

CREDIT CARD-MASTER CARD 1264 EXPIRATION DATE-XX/XX AUTHORIZATION-966947

TOTALS	7	CUSTOMER COPY	"We appreciate your business"	PAGE 1	73.44	37.93	SUB-TOTAL	37.93
							MISC.	
							TAX / FEES	
					CASH TEND.		TOTAL	
					CHANGE			

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5				09:09:50		

TAX	R C	QTY.	LINE	ITEM NUMBER	UNIT MEAS.	CD.	DESCRIPTION	LIST PRICE	NET PRICE	DISC %	CORE PRICE	EXTENDED PRICE

I-6884 - Chevron Motor Oil SAE30
I-6885 - Valvoline Motor Oil SAE30
I-6886 - Valvoline Motor Oil SAE 5W-30
I-6887 - Valvoline Motor Oil SAE 40
I-6888 - Mobil 1 Synthetic Motor Oil 10W30

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INVOICE NUMBER 2508-248059
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COUNTER NO.	SPECIAL INSTRUCTIONS	SHIP VIA	CUSTOMER ORDER NO.	TIME OF ORDER	FILLED BY	CHECKED BY
5				00:00:50		

TAX	R C	QTY.	LINE	ITEM NUMBER	UNIT MEAS.	CD.	DESCRIPTION	LIST PRICE	NET PRICE	DISC %	CORE PRICE	EXTENDED PRICE
T	*	1		CAS EDGE10 30	EA		10tMotorOil	14.77	5.99			5.99
T	*	1		CAS EDGE10 30	EA		10tMotorOil	14.77	5.99			5.99
T	*	1		MOB 1-10-30	EA		10tSynthcOil	13.99	8.19			8.19
T	*	1		VAL 5-30	EA		10tMotorOil	7.95	4.69			4.69
T	*	1		VAL HD30	EA		10tMotorOil	7.95	4.69			4.69
T	*	1		VAL HD40	EA		10tMotorOil	7.95	4.69			4.69
T	*	1		CHV HD30	EA		MOTOR OIL	6.25	3.69			3.69
	*	=		MFG. DEFECT WARRANTY								

CREDIT CARD-MASTER CARD 1264 EXPIRATION DATE-XX/XX AUTHORIZATION-966947

TOTALS	7	CUSTOMER COPY	73.44	37.93	SUB-TOTAL	37.93
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					TAX/FEES	
					TOTAL	

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INVOICE NUMBER 2508-248059
INVOICE TYPE CHG. CARD SALE
INVOICE DATE 5/13/11

CASH SALE
CHEVRON INJECTOR CLEANER
SAVE INSTANTLY
BUY 1 GET 1 FREE 00000

COUNTER NO.	SPECIAL INSTRUCTIONS	SHIP VIA	CUSTOMER ORDER NO.	TIME OF ORDER	FILLED BY	CHECKED BY
5				00:00:50		

TAX	R C	QTY.	LINE	ITEM NUMBER	UNIT MEAS.	CD.	DESCRIPTION	LIST PRICE	NET PRICE	DISC %	CORE PRICE	EXTENDED PRICE

I 7906

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C003092
TPHD Triacontane NEAT
Solvent / Lot: NEAT
Prep: 8/19/2014 by VS
Exp: 2/15/2030
Location: GC

Certificate of Analysis

Product Name
Triacontane - 98%

$CH_3(CH_2)_{28}CH_3$

Product Number:	**263842**
Batch Number:	**MKBL2826V**
Brand:	ALDRICH
CAS Number:	638-68-6
MDL Number:	MFCD00009410
Formula:	C30H62
Formula Weight:	422.81 g/mol
Quality Release Date:	20 JUN 2012

Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form) Flakes or Crystalline Flakes	Conforms to Requirements	Flakes
Melting Point	65.0 - 69.0 °C	65.7 °C
Infrared spectrum	Conforms to Structure	Conforms
Purity (GC)	≥ 97.5 %	98.1 %

Jamie Gleason

Jamie Gleason, Manager
Quality Control
Milwaukee, Wisconsin US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

E003343

Alfa Aesar

Certificate of analysis

Product No.:	A19680
Product:	o-Terphenyl, 98%
Lot No.:	10114703

Appearance	White, crystalline powder
Melting point	55.0-55.9ºC
Assay (GC)	99.9+ %

This document has been electronically generated and does not require a signature.

SIGMA-ALDRICH®

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Triacontane - 98%

$CH_3(CH_2)_{28}CH_3$

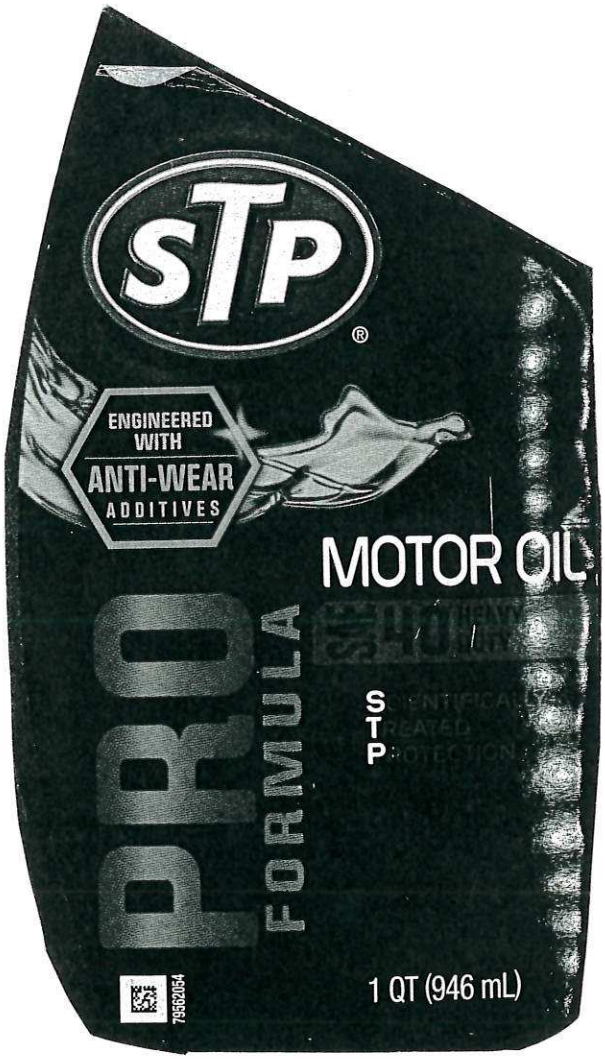
Product Number:	**263842**
Batch Number:	**MKCD2349**
Brand:	ALDRICH
CAS Number:	638-68-6
MDL Number:	MFCD00009410
Formula:	C30H62
Formula Weight:	422.81 g/mol
Quality Release Date:	01 JUN 2017

F8659
Recd-
09/21/17 JR

Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form) Flakes or Crystalline Flakes	Conforms to Requirements	Flakes
Melting Point	65.0 - 69.0 °C	65.4 °C
Infrared Spectrum	Conforms to Structure	Conforms
Purity (GC)	≥ 97.5 %	98.2 %

Michael Grady, Manager
Quality Control
Milwaukee, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.



front

back

G 004796

5264

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:	Turn-around Requested:	Page: 2 of 2	
ARI Client Company: Landau Asse Inc	Phone: 509 327-9737	Date: 3-27-19	Ice Present? Yes
Client Contact: Ryan Reich		No. of Coolers: 2	Cooler Temps: 2.7°C 2.4°C
Client Project Name: Avista Central Steam Plant (CSP)			
Client Project #: 0236040	Samplers: Ryan Reich		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	NWTPH-DX to Bunker C								Notes/Comments
MW 28-032719	3-27-19	15:45	W	2	X								
MW 25-032819	3-28-19	9:05	W	2	X								
MW 7-032819	3-28-19	9:55	W	2	X								
EW3-102418	10-24-18	13:00	Product Liquid	2									Site Bunker C Standard

H003225

Comments/Special Instructions	Relinquished by:	Received by:	Relinquished by:	Received by:
* w/ acid silica gel cleanup	(Signature) [signature]	(Signature) [signature]	(Signature)	(Signature)
	Printed Name: Ryan Reich	Printed Name: Jacob Walter	Printed Name:	Printed Name:
	Company: Landau Asse	Company: ARI	Company:	Company:
	Date & Time: 3-28-19 16:30	Date & Time: 03/29/19 0950	Date & Time:	Date & Time:

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: 7.16.19 - not requested.

Chemical: Pentacosane-N

Manufacturer: Chem Service

Product #: NA

Lot #: 184-125A

Purity: 99%

Analyst: VTS

H006758
n-Pentacosane-Neat
Solvent / Lot: NA
Prep: 7/15/2019 by VS
Exp: 1/12/2030
Location: GC

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: DRH-004S-R1-5X
Description: Calibration/Window Defining Hydrocarbon Standard
Lot: 219041075
Solvent: Chloroform
Hazards: *Refer to SDS for complete safety information*

Signal Word: Warning

Date Certified: Apr 8, 2019
Expiration: Apr 8, 2029
Sample Size: 1 mL
Components: 17
Storage Condition: Ambient (>5 °C)/Sonicate

Certified Reference Material

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463
ANAB ACCREDITED TESTING LABORATORY AT-1339
ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
n-Octane	111-65-9	100.0	1017	1017
Decane	124-18-5	100.0	1014	1014
Dodecane	112-40-3	98.1	1013	994
n-Tetradecane	629-59-4	99.9	1008	1007
Hexadecane	544-76-3	98.9	1004	993
n-Octadecane	593-45-3	99.1	1013	1004
Eicosane	112-95-8	99.8	1008	1006
Docosane	629-97-0	99.1	1002	993
n-Tetracosane	646-31-1	100.0	1000	1000
Hexacosane	630-01-3	99.5	1008	1003
n-Octacosane	630-02-4	99.0	1017	1007
n-Triacontane	638-68-6	100.0	1017	1017
Dotriacontane	544-85-4	98.0	1014	994
Tetratriacontane	14167-59-0	99.0	1012	1002
Hexatriacontane	630-06-8	98.0	1003	983
n-Octatriacontane	7194-85-6	98.5	1009	994
Tetracontane	4181-95-7	99.0	1009	999

H007050
Recd JL
07/24/19

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 5/18

Appendix 13.1

ALTERNATE CERTIFICATE OF ANALYSIS

An effort has been made to locate the Certificate of Analysis for the below chemical and the manufacturer of the chemical was unable to provide a certificate at the time of request by ARI. This form is serving as a substitute for documentation purposes.

Date Requested from Manufacturer: 09/20/19 purchased at gas station

Chemical: Diesel #2 NEAT

Manufacturer: 76 gas station

Product #: N/A

Lot #: N/A

Purity: NEAT

Analyst: JL

1+009117

Aug/20/19

13310 Interurban Ave S
Tukwila Wa 98168

STANLEY H & REBECCA
00061106449
13310 INTERURBAN A
TUKWILA , WA
09/20/2019 415774136
11:10:20 AM

3605
MASTERCRD

INVOICE 110939
AUTH 00-024386
REF370230920191109

PUMP# 8
DIESEL 2 0.056G
PRICE/GAL $3.599

FUEL TOTAL $ 0.20

CREDIT $ 0.20

COMPLETION
SWIPE Exp.Date:**/**
Batch: 37 Seq Num: 23
Term ID: 8
Workstation ID: 00
Your opinion
counts! Enter to
Win 1 of 60 $25
gas gift cards!!!
Provide feedback
www.gasvisit.com
Learn how to earn
50 cents/gallon in
fuel statement
credits. Go to
drivesavvy.com or
see details at the
pump. Restrictions
apply. Offer
expires 9/30/19.
18

COMPLETRE A SURVEY
WWW.GASVISIT.COM
REGISTER TO WIN!!

H009117
09/20/19

RESTEK®
110 Benner Circle
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Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31233 **Lot No.:** A0157505

Description : Diesel Fuel #2 Standard (Unweathered)

Diesel Fuel #2 Standard (Unweathered) 5,000 µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2027 **Storage:** 25°C nominal

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Diesel Fuel #2 - Single Source	5,000.0 µg/mL	+/- 29.3428 µg/mL	Gravimetric
	CAS # 68334-30-5.C (Lot 032404SZ)		+/- 148.9194 µg/mL	Unstressed
	Purity ----%		+/- 158.8208 µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

I 3995
Recd. JR
05/07/20

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Dioxin Extractions QC Benchsheet

Reagent and Standard QC

Chemical Receiving Inventory #	Reageant/ Standard	Brand	Lot #	Date Received/ Made	Intial Amount	Solvent Exchange	FEV	GC/ HRMS Pass Y/N
	Toluene	Omni Solv	I0405216	6/15/20	100mL	Nonane	10µL	
	DCM	Omni Solv			100mL	Nonane	10µL	
	Hexane	Omni Solv	OK		100mL	Nonane	10µL	
	MeOH	B&J		6/8/20	100mL	Nonane	10µL	
	Nonane	Acros Organics			100µL	N/A	10µL	
	Purified Sand	Sakrete			2 scoop	Nonane	10µL	
	Glasswool	Corning Life Sciences			1" in column	Nonane	10µL	
	0% Silica	Fisher			2 scoop	Nonane	10µL	
	Acid Silica	Fisher			2 scoop	Nonane	10µL	
	Basic Silica	Fisher			2 scoop	Nonane	10µL	
	Florisil	Fluka			1 scoop	Nonane	10µL	
	Rec Standard	Wellington Labs			1mL	Nonane	10µL	
	Clean-up Standard	Wellington Labs			1mL	Nonane	10µL	
	OPR Standard	Wellington Labs			20µL	Nonane	10µL	
	QLS Standard	Wellington Labs			20µL	Nonane	10µL	

Prep Analyst/Date: 6/24/20	**Inst. Run Date:**

Dataset: Untitled
Last Altered: Monday, June 29, 2020 10:03:07 Pacific Daylight Time
Printed: Monday, June 29, 2020 10:04:40 Pacific Daylight Time

Method: T:\Autospec\Methods\Dioxin200625.mdb 26 Jun 2020 07:56:21
Calibration: T:\Autospec\Curves\200530ICIH.cdb 01 Jun 2020 10:55:54

ID: TOL I5216, Name: 20062529, Date: 26-Jun-2020, Time: 13:22:47, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
2378-TCDF					0.795		0.770	502	912								
12378-PeCDF					0.797		1.550	617	1077								
23478-PeCDF	30.165	1.001	1.227e2	1.579e2	0.962	0.777	1.550	617	1077	2.10e3	3.93e3	3.4	YES	YES	bb	db	0.021
123478-HxCDF					0.973		1.240	730	521								
234678-HxCDF					0.984		1.240	730	521								
123678-HxCDF					0.916		1.240	730	521								
123789-HxCDF					0.922		1.240	730	521								
1234678-HpCDF					1.096		1.050	407	561								
1234789-HpCDF					1.055		1.050	407	561								
OCDF					1.325		0.890	699	892								
2378-TCDD					1.140		0.770	598	496								
12378-PeCDD					1.091		1.550	796	359								
123478-HxCDD					0.922		1.240	426	461								
123678-HxCDD					0.949		1.240	426	461								
123789-HxCDD					0.847		1.240	426	461								
1234678-HpCDD	39.214	1.000	1.780e2	1.648e2	1.124	1.080	1.050	623	450	5.26e3	4.42e3	8.4	YES	NO	db	bd	0.056
OCDD	43.632	1.001	7.460e2	8.959e2	1.237	0.833	0.890	548	755	1.46e4	1.18e4	26.6	YES	NO	db	bb	0.395
13C-2378-TCDF	24.683	1.007	8.253e5	1.052e6	2.214	0.784	0.770	2142	1231	1.27e7	1.60e7	5920.7	YES	NO	bb	bb	104.193
13C-12378-PeCDF	28.785	1.175	9.077e5	5.652e5	1.903	1.606	1.550	3236	2267	1.39e7	8.73e6	4292.3	YES	NO	bb	bb	95.101
13C-23478-PeCDF	30.132	1.230	8.542e5	5.386e5	1.845	1.586	1.550	3236	2267	1.36e7	8.60e6	4196.7	YES	NO	bb	bb	92.784
13C-123478-HxCDF	33.782	0.953	3.067e5	6.177e5	1.198	0.496	0.510	985	2180	4.77e6	9.43e6	4845.3	YES	NO	bd	bd	100.338
13C-123678-HxCDF	33.927	0.957	3.240e5	6.472e5	1.488	0.501	0.510	985	2180	4.94e6	9.69e6	5021.3	YES	NO	db	db	84.878
13C-234678-HxCDF	34.828	0.982	2.825e5	5.661e5	1.195	0.499	0.510	985	2180	4.58e6	9.04e6	4654.9	YES	NO	bb	bb	92.321
13C-123789-HxCDF	35.875	1.012	2.245e5	4.600e5	1.014	0.488	0.510	985	2180	3.58e6	7.24e6	3633.6	YES	NO	bb	bb	87.800
13C-1234678-HpCDF	37.756	1.065	2.347e5	5.376e5	1.197	0.437	0.440	1921	1828	3.90e6	8.90e6	2030.5	YES	NO	bb	bb	83.898
13C-1234789-HpCDF	39.893	1.125	1.546e5	3.545e5	0.893	0.436	0.440	1921	1828	2.31e6	5.25e6	1200.4	YES	NO	bb	bb	74.159
13C-1234-TCDD	24.501	0.000	3.592e5	4.546e5	1.000	0.790	0.770	1294	805	5.73e6	7.24e6	4430.9	YES	NO	bb	bb	100.000
13C-2378-TCDD	25.302	1.033	4.262e5	5.508e5	1.193	0.774	0.770	1294	805	6.55e6	8.49e6	5063.6	YES	NO	bb	bb	100.651
13C-12378-PeCDD	30.388	1.240	5.085e5	2.920e5	0.962	1.741	1.550	1585	769	8.14e6	4.57e6	5135.1	YES	NO	bb	bb	102.293
13C-123478-HxCDD	34.951	0.986	4.607e5	3.535e5	1.059	1.303	1.240	1709	1194	7.44e6	5.71e6	4354.5	YES	NO	bd	bd	99.975
13C-123678-HxCDD	35.062	0.989	4.656e5	3.558e5	1.278	1.309	1.240	1709	1194	7.41e6	5.66e6	4332.5	YES	NO	db	db	83.562
13C-1234678-HpCDD	39.203	1.105	2.827e5	2.610e5	0.843	1.083	1.050	1161	1015	4.45e6	4.04e6	3833.9	YES	NO	bb	bb	83.842
13C-OCDD	43.605	1.230	3.233e5	3.491e5	0.616	0.926	0.890	1678	2408	4.02e6	4.31e6	2392.6	YES	NO	bb	bb	141.987

Dataset: Untitled
Last Altered: Monday, June 29, 2020 10:03:07 Pacific Daylight Time
Printed: Monday, June 29, 2020 10:04:40 Pacific Daylight Time

ID: TOL I5216, Name: 20062529, Date: 26-Jun-2020, Time: 13:22:47, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
13C-123789-HxCDD	35.463	0.000	4.323e5	3.368e5	1.000	1.283	1.240	1709	1194	6.94e6	5.37e6	4058.0	YES	NO	bb	bb	100.000
37CL-2378-TCDD	25.227	1.030	1.071e2		1.258			1328		2.42e3		1.8	NO		db		0.010
1368-TCDF					1.007		0.770	502	912								
1289-TCDF					0.754		0.770	502	912								
13468-PECDF					1.099		1.550	293	640								
12389-PECDF	31.178	1.083	1.504e2	7.409e1	0.841	2.030	1.550	617	1077	2.46e3	2.87e3	4.0	NO	YES	bb	bb	0.018
123468-HXCDF					1.142		1.240	730	521								
1368-TCDD					1.214		0.770	598	496								
1289-TCDD					1.061		0.770	598	496								
12479-PECDD					2.040		1.550	796	359								
12389-PECDD					1.257		1.550	796	359								
124679-HXCDD					1.164		1.240	426	461								
1234679-HPCDD	38.245	0.976	8.609e1	1.019e2	1.378	0.845	1.050	623	450	1.89e3	2.90e3	3.0	YES	YES	bb	bb	0.025
Total-tetrafurans			0.000e0		0.852			502		0.00e0							
Total-penta1			0.000e0					293		0.00e0							
Total-pentafurans			0.000e0		0.867			617		0.00e0							
Total-hexafurans			0.000e0		0.987			730		0.00e0							
Total-heptafurans			0.000e0		1.076			407		0.00e0							
Total-Furans			0.000e0		0.978			502		0.00e0							
Total-tetradioxins			0.000e0		1.138			598		0.00e0							
Total-pentadioxins			0.000e0		1.463			796		0.00e0							
Total-hexadioxins			0.000e0		0.971			426		0.00e0							
Total-heptadioxins			1.780e2		1.251			623		5.26e3							0.056
Total-Dioxins			9.240e2		1.187			598		1.99e4							0.451
Total-TEQ			9.240e2					598		1.99e4							0.451
FUNCTION1 PFK			1.728e5					220633		4.73e6							
FUNCTION2 PFK			0.000e0					159655		0.00e0							
FUNCTION3 PFK			0.000e0					198585		0.00e0							
FUNCTION4 PFK			2.228e5					179610		7.02e6							
FUNCTION5 PFK			2.507e4					138501		1.09e6							
FUNCTION1 HXCDPE			0.000e0					189		0.00e0							
FUNCTION1 HPCDPE			4.279e2					738		9.46e3							0.000
FUNCTION2 HPCDPE			1.573e2					792		4.18e3							0.000
FUNCTION3 OCDPE			8.296e1					216		3.72e3							0.000
FUNCTION4 NCDPE			0.000e0					279		0.00e0							
FUNCTION5 DCDPE			0.000e0					233		0.00e0							

ThermoFisher SCIENTIFIC

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

ThermoFisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. ThermoFisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing.ThermoFisher does not maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	T291	Quality Test / Release Date	08/15/2018
Lot Number	184485		
Description	TOLUENE - OPTIMA		
Country of Origin	United States	Suggested Retest Date	Aug/2023
Chemical Origin	Organic - non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		
Chemical Comment			

N/A

Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear colorless liquid free of suspended matter
ASSAY	%	>= 99.8	99.9
BENZENE	%	<= 0.05	<0.05
COLOR	APHA	<= 10	<5
EVAPORATION RESIDUE	ppm	<= 1	<0.1
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
OPTICAL ABS AT 285 NM	ABSORBANCE UNITS	<= 1	0.69
WATER (H2O)	%	<= 0.02	0.02
OPTICAL ABS AT 325 NM	ABSORBANCE UNITS	<= 0.02	0.01
OPTICAL ABS AT 350 NM	ABSORBANCE UNITS	<= 0.005	0.001
PESTICIDE RESIDUE ANALYSIS	NG/L	<= 10	<1
REFRACTIVE INDEX @ 25 DEG C		Inclusive Between 1.4930 - 1.4950	1.4940
SUBSTANCES DARKENED BY H2SO4	PASS/FAIL	= PASS TEST	PASS TEST
SULFUR COMPOUNDS	%	<= 0.003	<0.0003
OPTICAL ABS AT 300 NM	ABSORBANCE UNITS	<= 0.1	0.07

Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

SC-FB-2105030940

Form I

ORGANIC ANALYSIS DATA SHEET

WA EPH

WA EPH-Aliphatics

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Gasco Siltronic - US Moorings				
Matrix:	Water	Laboratory ID:	21E0099-01 D	SDG:	21E0099
Sampled:	05/03/21 09:40	Prepared:	05/10/21 15:55	File ID:	821E2229.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	05/23/21 00:12
Batch:	BJE0211	Sequence:	SJE0400	Initial/Final:	1000 mL / 1 mL
Instrument:	FID8	Column:	ZB5	Calibration:	DJ00015
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	(ug/L)	Q	DL	RL
ALI->C10-C12	>C10-C12 Aliphatics	1	20	U		20

SURROGATES	ADDED:(ug/L)	(ug/L)	% REC	QC LIMITS	Q
1-Chloro-octadecane	150.00	86.3	57.5	36 - 120	

Data File: \\target\share\chem2\fid8.i\20210522aliph.b\821E2229.D

Page 1

Date : 23-MAY-2021 00:12

Client ID:

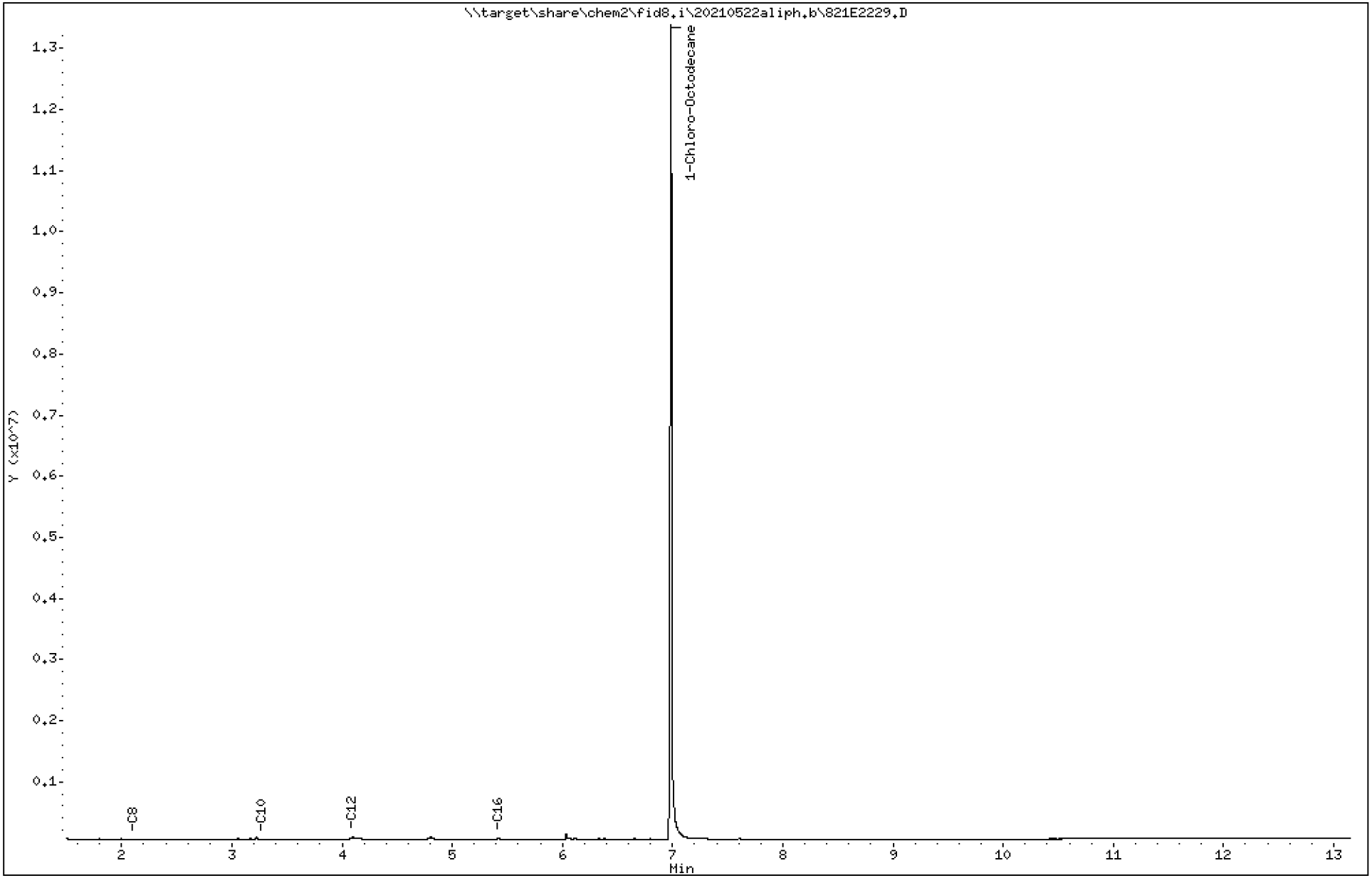
Instrument: fid8.i

Sample Info: 21E0099-01

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



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Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: 20210522aliph.b/821E2229.D
Method: 20210522aliph.b\EPHAliph.m
Instrument: fid8.i
Operator: JGR
Macro: ALIPH020217FID8

ARI ID: 21E0099-01
Client ID:
Injection: 23-MAY-2021 00:12
Matrix: NONE
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	197159	1.0	(2.001 - 3.348)
C10-C12	Aliph.	152576	0.7	(3.348 - 4.191)
C12-C16	Aliph.	233208	1.2	(4.191 - 5.530)
C16-C21	Aliph.	510356	2.6	(5.530 - 7.137)
C21-C34	Aliph.	416631	2.3	(7.137 - 10.756)

Surrogate Rec: 57.5% 86.3 ug/mL

SC-RB-2105030901

Form I

ORGANIC ANALYSIS DATA SHEET

WA EPH

WA EPH-Aliphatics

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Gasco Siltronic - US Moorings				
Matrix:	Water	Laboratory ID:	21E0099-02 D	SDG:	21E0099
Sampled:	05/03/21 09:00	Prepared:	05/10/21 15:55	File ID:	821E2230.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	05/23/21 00:37
Batch:	BJE0211	Sequence:	SJE0400	Initial/Final:	1000 mL / 1 mL
Instrument:	FID8	Column:	ZB5	Calibration:	DJ00015
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	(ug/L)	Q	DL	RL
ALI->C10-C12	>C10-C12 Aliphatics	1	20	U		20

SURROGATES	ADDED:(ug/L)	(ug/L)	% REC	QC LIMITS	Q
1-Chloro-octadecane	150.00	72.9	48.6	36 - 120	

Data File: \\target\share\chem2\fid8.i\20210522aliph.b\821E2230.D

Date : 23-MAY-2021 00:37

Client ID:

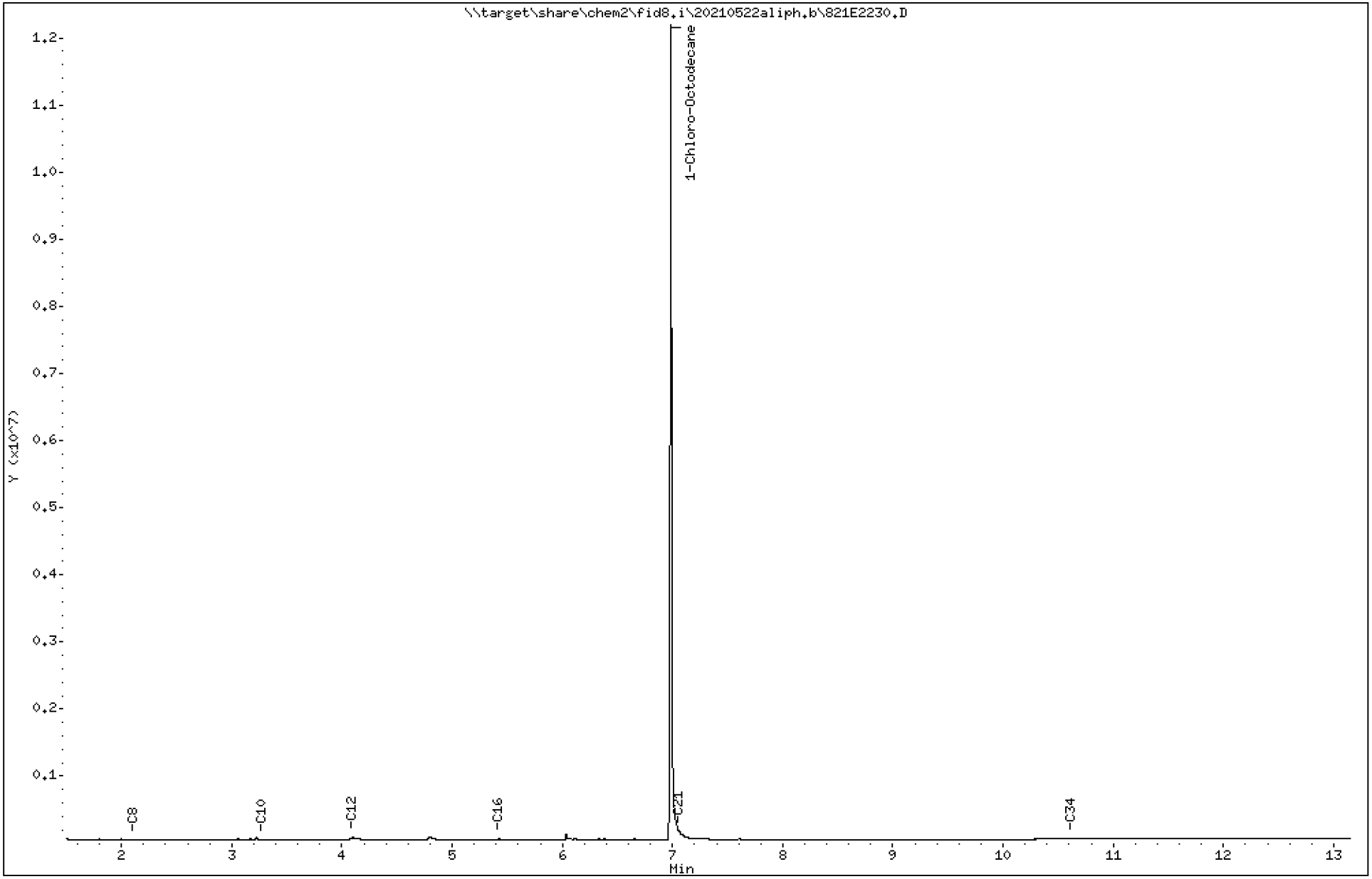
Sample Info: 21E0099-02

Instrument: fid8.i

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: 20210522aliph.b/821E2230.D
Method: 20210522aliph.b\EPHAliph.m
Instrument: fid8.i
Operator: JGR
Macro: ALIPH020217FID8

ARI ID: 21E0099-02
Client ID:
Injection: 23-MAY-2021 00:37
Matrix: NONE
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	159913	0.8	(2.001 - 3.348)
C10-C12	Aliph.	120246	0.6	(3.348 - 4.191)
C12-C16	Aliph.	231883	1.1	(4.191 - 5.530)
C16-C21	Aliph.	689963	3.5	(5.530 - 7.137)
C21-C34	Aliph.	466372	2.6	(7.137 - 10.756)

Surrogate Rec: 48.6% 72.9 ug/mL

PREPARATION BATCH SUMMARY

WA EPH

Laboratory: Analytical Resources, Inc.
SDG: 21E0099
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Batch: BJE0211 Batch Matrix: Water
Preparation: EPA 3510C SepF

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
SC-FB-2105030940	21E0099-01	821E2229.D	05/10/21 15:55	
SC-RB-2105030901	21E0099-02	821E2230.D	05/10/21 15:55	
Blank	BJE0211-BLK1	821E2226.D	05/10/21 15:55	
LCS	BJE0211-BS1	821E2227.D	05/10/21 15:55	
LCS Dup	BJE0211-BSD1	821E2228.D	05/10/21 15:55	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BJE0211

Prepared using: EPA 3510C SepF

WA EPH Aliphatic C10-C12 mod in Water

Matrix: Water **Date Prepared:** 5/10/2021 **Balance ID:** _____ **Set Up By:** CTO 5/10/21

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 (mL) Actual	Fractionate Aliphatic/ Aromatic (1:1)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
21E0099-01 D+E	(1,000.00) 1000	(1:1) 1mL	1	1.0	
21E0099-02 D+E	(1,000.00) ↓	(1:1) 1mL	1	1.0	

Batch QC

Lab Number	Initial (mL) Actual	Fractionate Aliphatic/ Aromatic (1:1)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
BJE0211-BLK1	(1,000.00) 1000	(1:1) 1mL	1	1.0	
BJE0211-BS1	(1,000.00) ↓	(1:1) 1mL	1	1.0	
BJE0211-BSD1	(1,000.00) ↓	(1:1) 1mL	1	1.0	

TW 5/10/2021 — Client ID verified By / Date

DM 5-21-21 — Preparation Reviewed By / Date

05/10/21 15:55 — Extraction Date and Time

Printed: 5/10/2021 8:25:54AM

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BJE0211

Prepared using: EPA 3510C SepF

WA EPH Aliphatic C10-C12 mod in Water

Prep Steps

KD
100°C to 1 mL
Exchange 2x w/
50mL Hexane
100°C to 1 mL

1 2 3 4 5 6

RT 05/18/21
Analyst/Date

TurboVap
Pre Fractionation

1 (2) 3 (4)

5-21-21
DM **Analyst/Date**

TurboVap
Post Fractionation

1 2 3 4 (6)

5-21-21
DM **Analyst/Date**

Final Vialing

5-21-21
DM **Analyst/Date**

Reagents Used

Station/Reagent	Standard ID
Separatory Funnel **Analyst:** TW **Date:** 5/10/2021	
~~1:1 HCL/DI H2O~~	
1:1 Sulfuric Acid/DI H2O	J003678
Methylene Chloride	J004317
Anhydrous Sodium Sulfate	J004201
KD **Analyst:** BT **Date:** 05/18/21	
Methylene Chloride	J003930
Pentane	—
Hexane	J002562
Vialing **Analyst:** DM **Date:** 5-21-21	
Methylene Chloride	J005192
Silica Gel Dart (EPH)	I011435
Hexane	J003533

Surrogates & Spike Standards Used

Type	Vial ID / Standard ID	Vol uL	Analyst	Witness
Surrogate 1500µg/mL	M I010814 Exp: 05/12/2021 J004890 TW	100µL	TW	BT
Spike 750µg/mL	5 (I009355) Exp: 10/08/2021 TW	200µL	TW	BT

(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 inthe 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).

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BJE0211

Prepared using: EPA 3510C SepF

WA EPH Aliphatic C10-C12 mod in Water

Prep Instructions	
SPECIAL INSTRUCTIONS: 1. If samples are listed as preserved with HCL Check pH is 2. Acidify HCL preserved samples with 1:1 HCL if ph >2 and note on Analyst Notes. 2. Add surr/spk. 3. Acidify blanks and unpreserved samples with 1:1 Sulfuric Acid. 4. Extract 3X with 30mL DCM. 5. Add 5 mL of Hexane to KD with sample. KD (no drying column) to 1mL at 100°C. 6. Exchange with 50mL Hexane. 7. KD to 1mL at 100°C. 8. Exchange a second time with 50mL Hexane and concentrate to 1mL again. 9. Let Cool: After cooling: volume should be 5mL. Transfer to turbo-tube with Hexane. 10. Turbovap to 3 mL then exchange with 10 mL of Hexane then turbovap to 1 mL. 11. Transfer to SPE culture tube to 1 mL using Hexane. 12. Exchange in culture tube with 1mL of Hexane and turbovap to 1mL for SPE. 13. Fractionate Aliphatic/Aromatic by SPE. 14. Turbovap Each fraction to 1 mL. 15. Vial Aliphatic fraction in Hexane and vial Aromatic fraction in DCM. Archive: (Y) / N	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: EPH Extraction Batch: BOE0211

Total Solids Batch: N/A Work Order(s): 21E0099

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☐ Previously Frozen =	
☐ Other (Details)=	
Aqueous:	
☑ No Anomalies	TW 5/10/21
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☐ Received in 1.0L Bottle(s)=No Bottle Rinse=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
☐ Share Samples Y / N	
☐ Multiple Jars Y / N	
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Cleanup Batch:	CJE0153	Cleanup Type:	Silica Gel
Cleanup Method:	EPA 3630C Silica Gel Cleanup	Analysis:	WA EPH

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
SC-FB-2105030940	21E0099-01	821E2229.D	05/21/2021	
SC-RB-2105030901	21E0099-02	821E2230.D	05/21/2021	
Blank	BJE0211-BLK1	821E2226.D	05/21/2021	
LCS	BJE0211-BS1	821E2227.D	05/21/2021	
LCS Dup	BJE0211-BSD1	821E2228.D	05/21/2021	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CJE0153

Matrix: Water **Cleanup using: Organics - EPA 3630C Silica Gel Cleanup** **Printed: 5/21/2021 10:21:57AM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
21E0099-01	D	SC-FB-2105030940	D 01	1	1	WA EPH Aliphatic C10-C12 mod	5/21/2021	DDM	
21E0099-02	D	SC-RB-2105030901	D 01	1	1	WA EPH Aliphatic C10-C12 mod	5/21/2021	DDM	
BJE0211-BLK1	-	Blank	-	1	1	-	5/21/2021	DDM	
BJE0211-BS1	-	LCS	-	1	1	-	5/21/2021	DDM	
BJE0211-BSD1	-	LCS Dup	-	1	1	-	5/21/2021	DDM	

Form I

METHOD BLANK DATA SHEET

WA EPH

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	21E0099
Client:	Anchor QEA, LLC			Project:	Gasco Siltronic - US Moorings
Matrix:	Water	Laboratory ID:	BJE0211-BLK1	File ID:	821E2226.D
Sampled:	N/A	Prepared:	05/10/21 15:55	Analyzed:	05/22/21 22:55
Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 1 mL
Batch:	BJE0211	Sequence:	SJE0400	Calibration:	DJ00015
Instrument:	FID8	Column:	ZB5	Cleanups:	Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
ALI->C10-C12	>C10-C12 Aliphatics	1	20	U		20

SURROGATES	ADDED (ug/L)	CONC. (ug/L)	% REC	QC LIMITS	Q
1-Chloro-octadecane	150.00	74.5	49.7	36 - 120	

Data File: \\target\share\chem2\fid8.i\20210522aliph.b\821E2226.D

Date : 22-MAY-2021 22:55

Client ID:

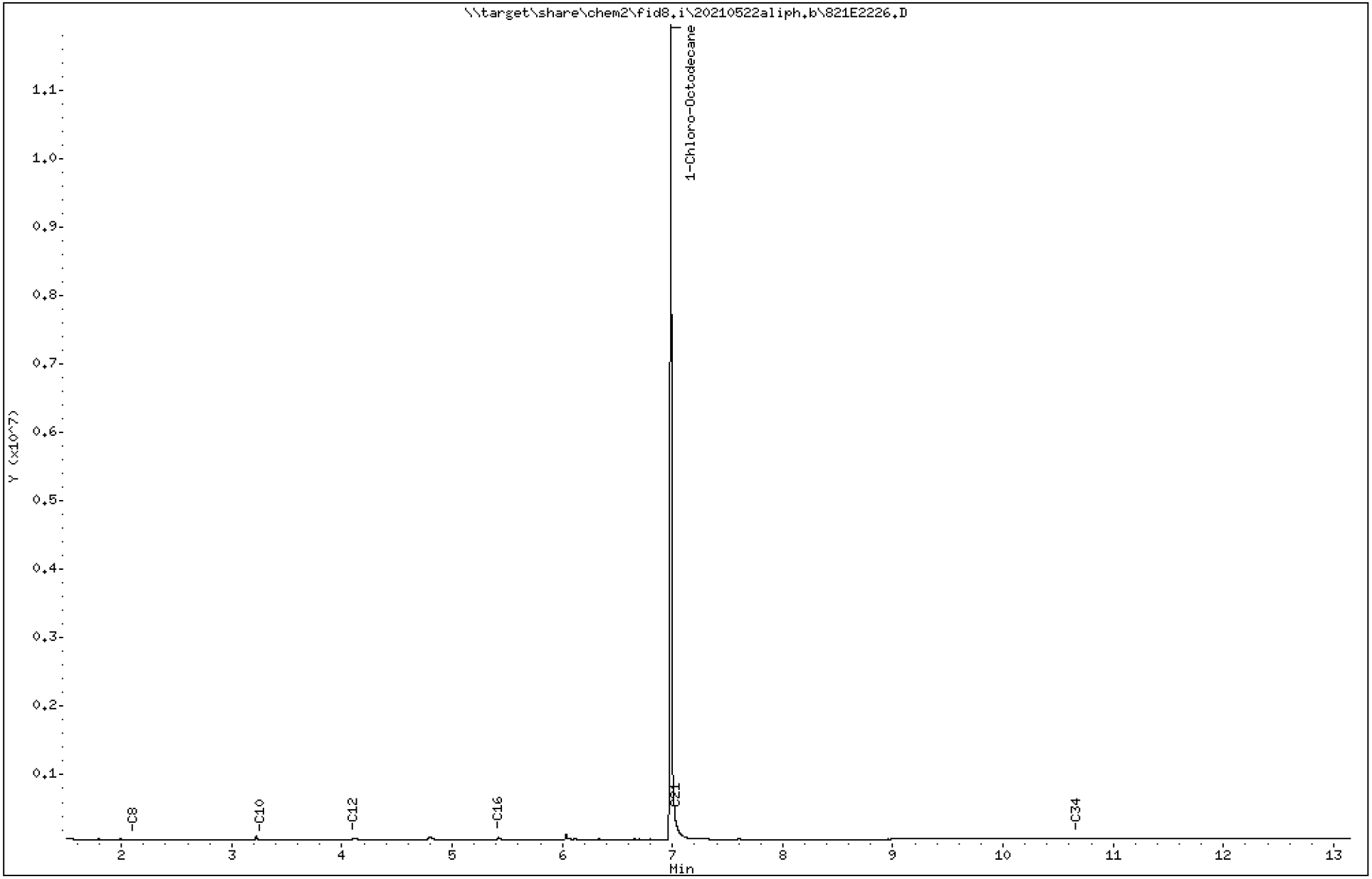
Sample Info: BJE0211-BLK1

Instrument: fid8.i

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



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Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: 20210522aliph.b/821E2226.D
Method: 20210522aliph.b\EPHAliph.m
Instrument: fid8.i
Operator: JGR
Macro: ALIPH020217FID8

ARI ID: BJE0211-BLK1
Client ID:
Injection: 22-MAY-2021 22:55
Matrix: NONE
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	175958	0.9	(2.001 - 3.348)
C10-C12	Aliph.	83674	0.4	(3.348 - 4.191)
C12-C16	Aliph.	212260	1.0	(4.191 - 5.530)
C16-C21	Aliph.	912832	4.7	(5.530 - 7.137)
C21-C34	Aliph.	933049	5.2	(7.137 - 10.756)

Surrogate Rec: 49.7% 74.5 ug/mL

LCS / LCS DUPLICATE RECOVERY

WA EPH

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Matrix:	Water	Analyzed:	05/22/21 23:21
Batch:	BJE0211	Laboratory ID:	BJE0211-BS1
Preparation:	EPA 3510C SepF	Sequence Name:	LCS
Initial/Final:	1000 mL / 1 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	Q	LCS % REC. #	QC LIMITS REC.
>C10-C12 Aliphatics	150	42.1		28.1	15 - 120

* Indicates values outside of QC limits

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	Q	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
>C10-C12 Aliphatics	150	37.1		24.7	12.6	30	15 - 120

* Indicates values outside of QC limits

Data File: \\target\share\chem2\fid8.i\20210522aliph.b\821E2227.D

Date : 22-MAY-2021 23:21

Client ID:

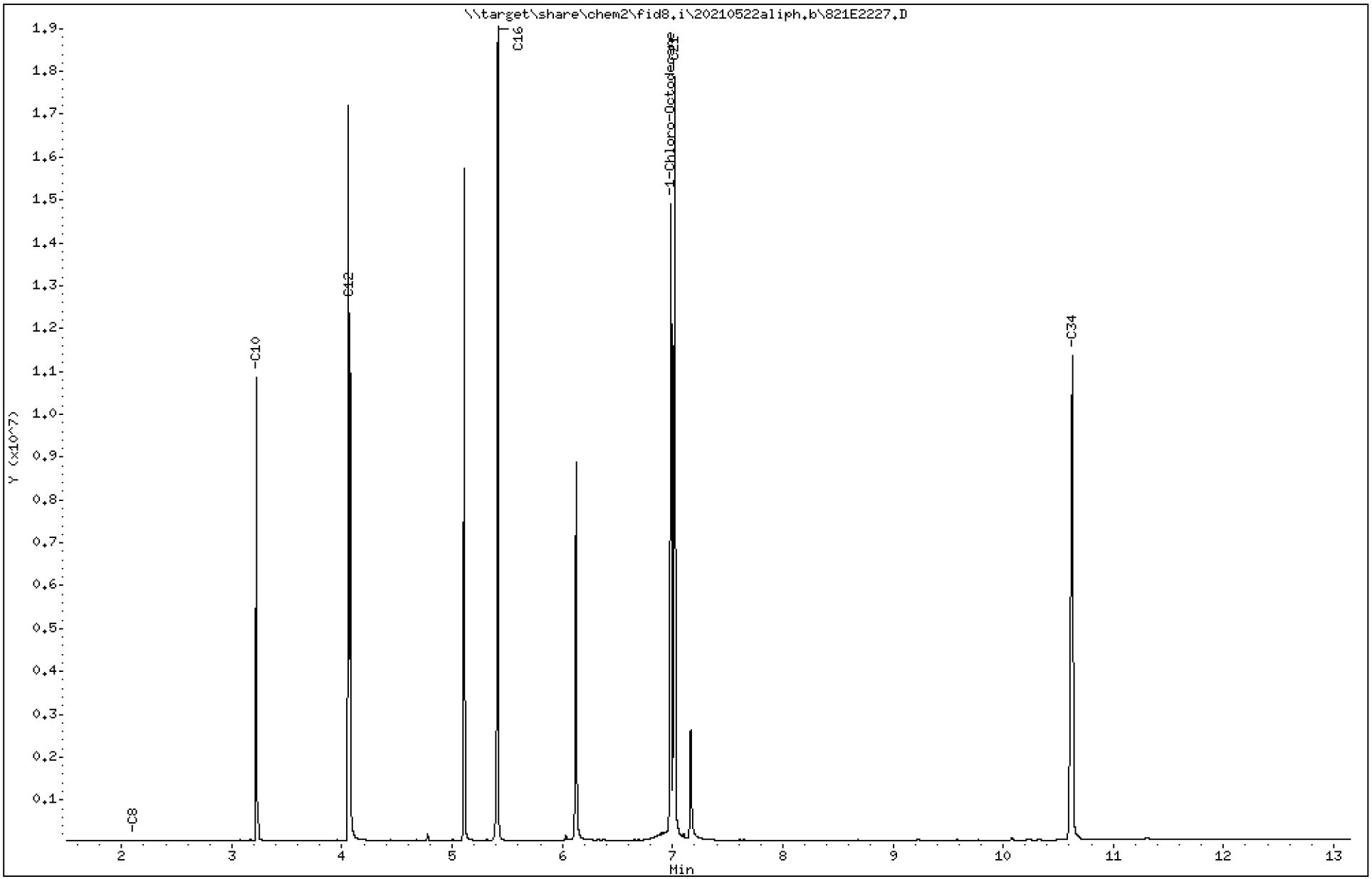
Instrument: fid8.i

Sample Info: BJE0211-BS1

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



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Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: 20210522aliph.b/821E2227.D
Method: 20210522aliph.b\EPHAliph.m
Instrument: fid8.i
Operator: JGR
Macro: ALIPH020217FID8

ARI ID: BJE0211-BS1
Client ID:
Injection: 22-MAY-2021 23:21
Matrix: NONE
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

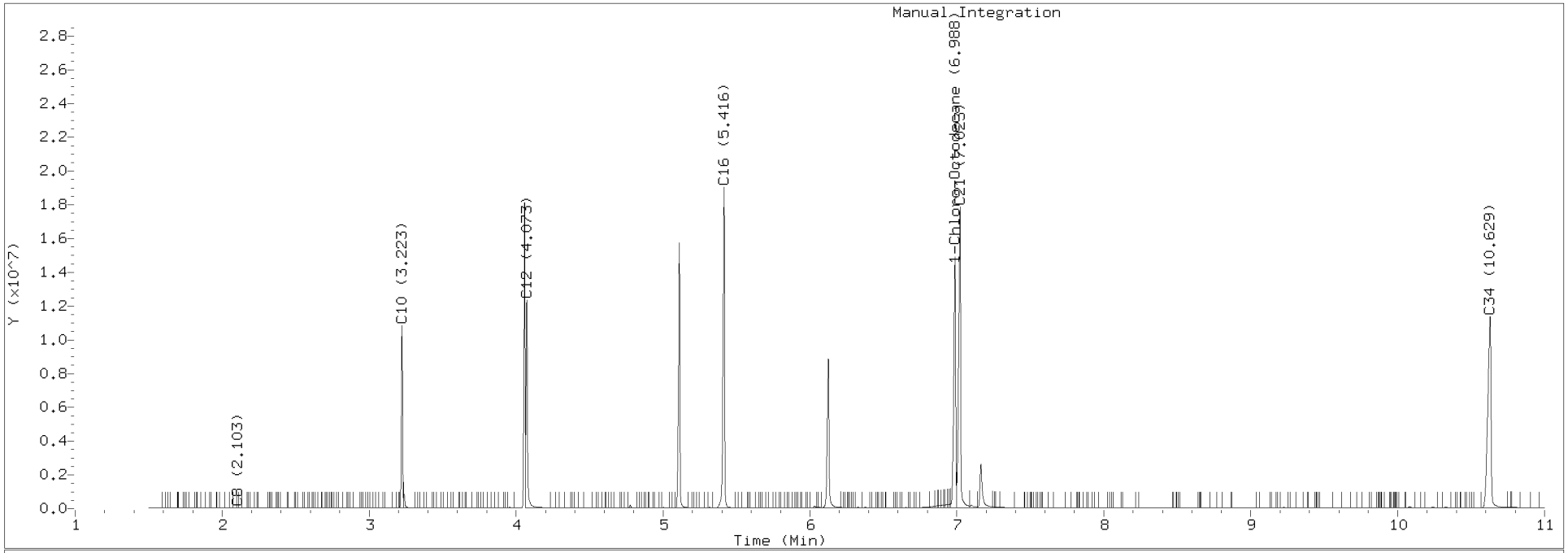
Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	6331511	32.9	(2.001 - 3.348)
C10-C12	Aliph.	8637401	42.1	(3.348 - 4.191)
C12-C16	Aliph.	25415924	125.5	(4.191 - 5.530)
C16-C21	Aliph.	27632482	141.7	(5.530 - 7.137)
C21-C34	Aliph.	22447323	125.4	(7.137 - 10.756)

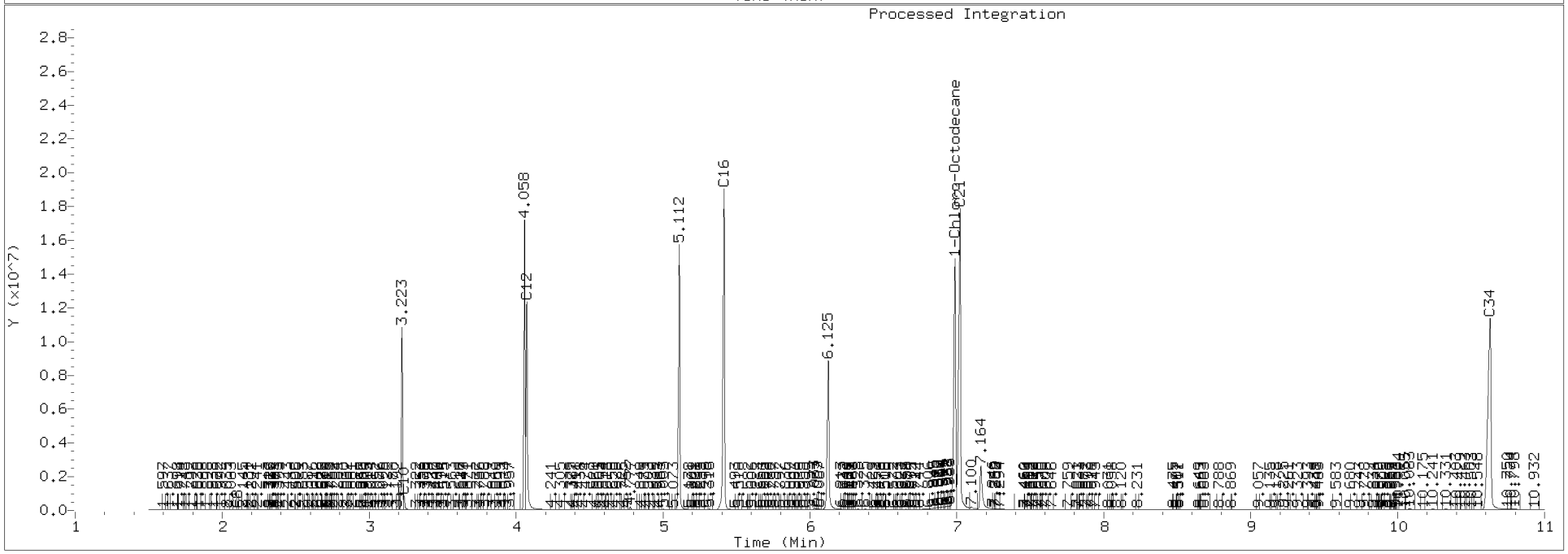
Surrogate Rec: 53.6% 80.4 ug/mL

EPH Aliphatics Manual Integrations Report

Datafile: FID8, 20210522aliph.b/821E2227.D Injection: 22-MAY-2021 23:21

Lab ID:BJE0211-BS1





Data File: \\target\share\chem2\fid8.i\20210522aliph.b\821E2228.D

Date : 22-MAY-2021 23:46

Client ID:

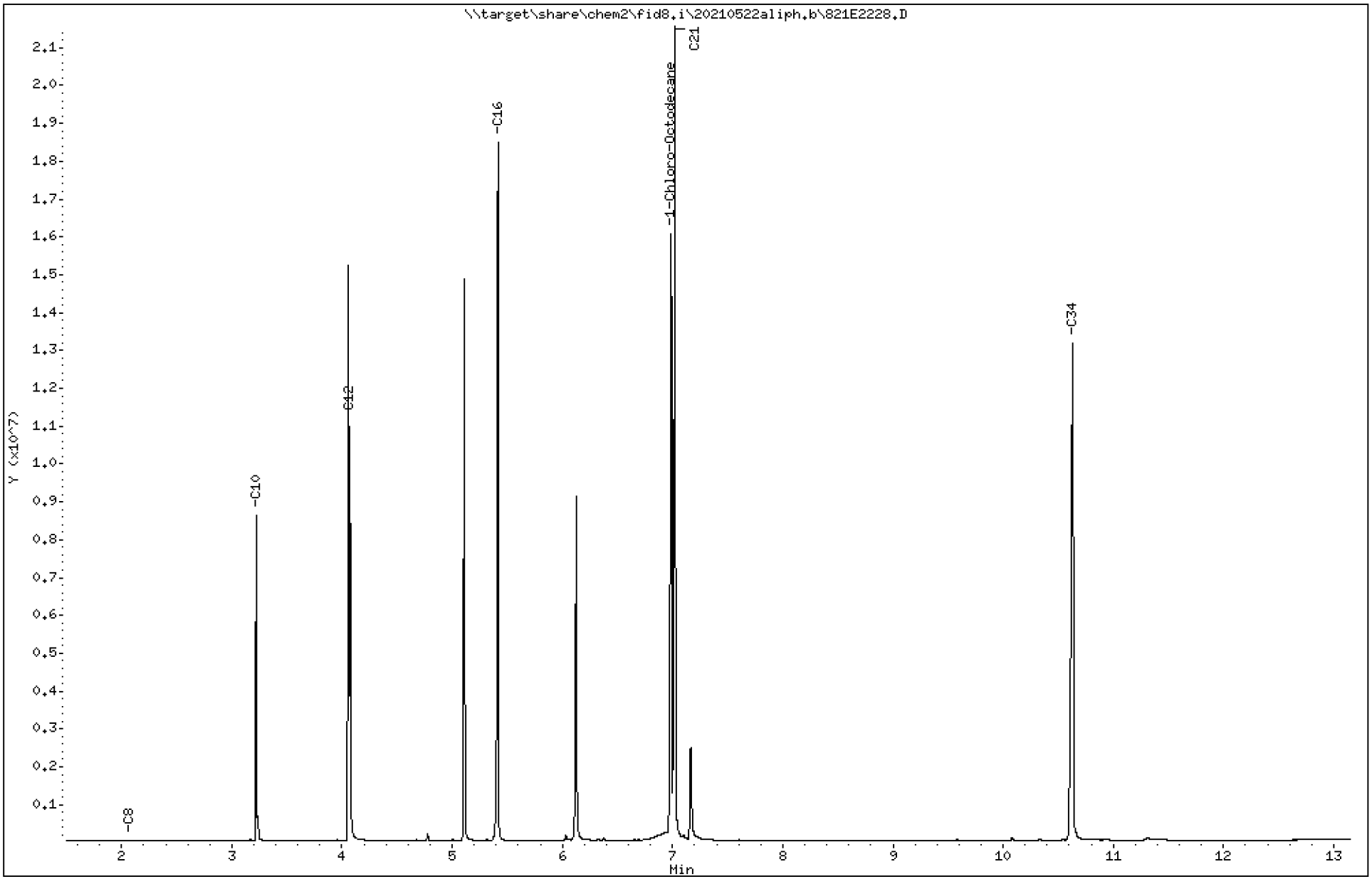
Instrument: fid8.i

Sample Info: BJE0211-BSD1

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



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Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: 20210522aliph.b/821E2228.D
Method: 20210522aliph.b\EPHAliph.m
Instrument: fid8.i
Operator: JGR
Macro: ALIPH020217FID8

ARI ID: BJE0211-BSD1
Client ID:
Injection: 22-MAY-2021 23:46
Matrix: NONE
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

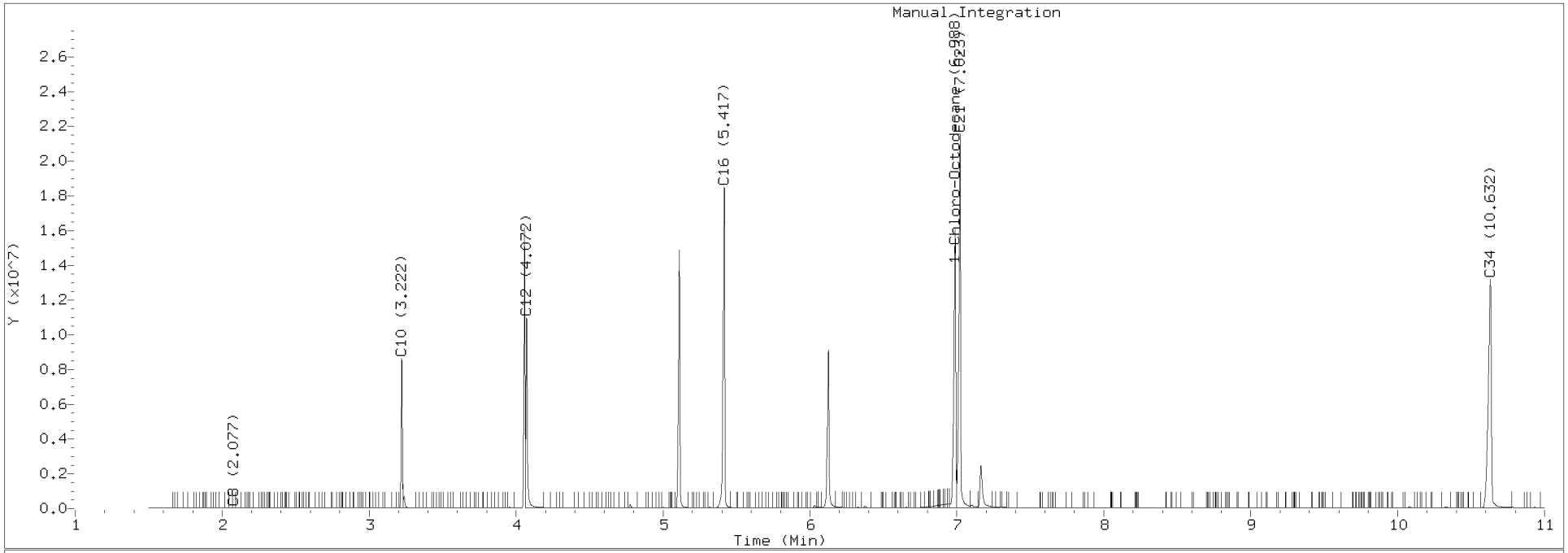
Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	5186063	26.9	(2.001 - 3.348)
C10-C12	Aliph.	7615125	37.1	(3.348 - 4.191)
C12-C16	Aliph.	25899725	127.9	(4.191 - 5.530)
C16-C21	Aliph.	28667876	147.0	(5.530 - 7.137)
C21-C34	Aliph.	23719293	132.5	(7.137 - 10.756)

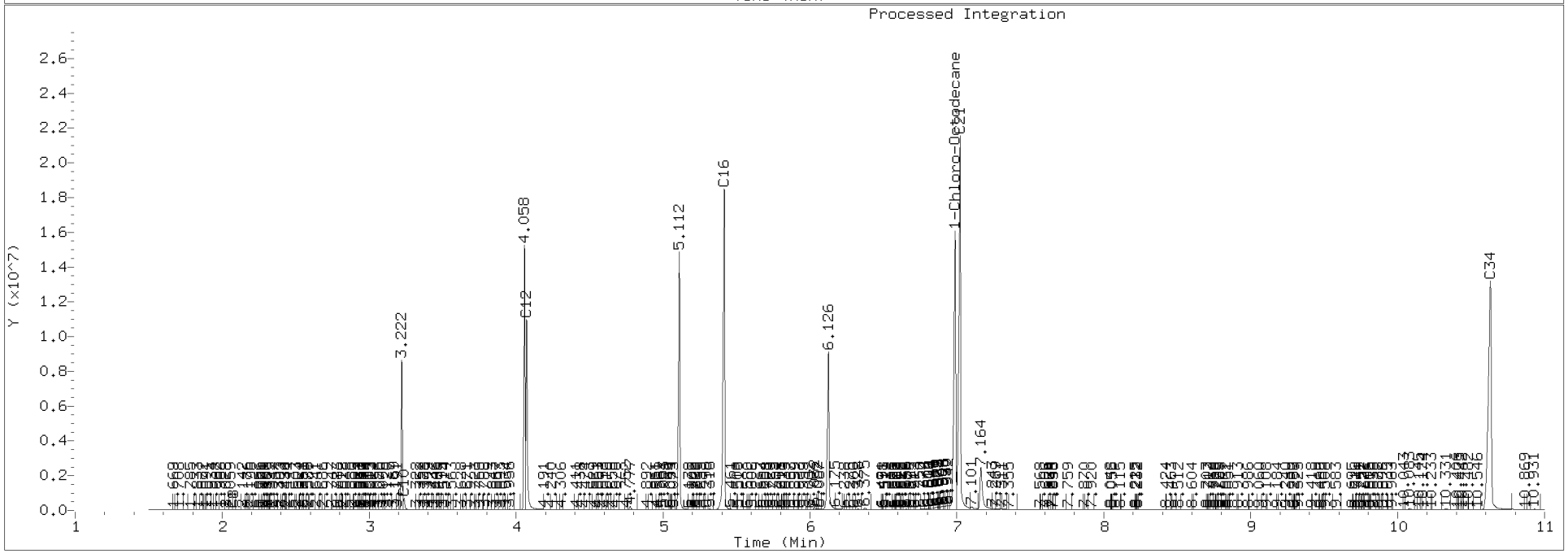
Surrogate Rec: 57.9% 86.9 ug/mL

EPH Aliphatics Manual Integrations Report

Datafile: FID8, 20210522aliph.b/821E2228.D Injection: 22-MAY-2021 23:46

Lab ID:BJE0211-BSD1





INITIAL CALIBRATION DATA

WA EPH

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	DJ00015	Instrument:	FID8
Calibration Date:	10/01/2020	Column (1):	ZB5

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RF		RF		RF		RF		RF		RF
>C10-C12 Aliphatics	20	195247.2	50	190901.5	100	206966.6	125	204131.5	150	217695.5	200	216877
C10-C12 Aliphatics	20	195247.2	50	190901.5	100	206966.6	125	204131.5	150	217695.5	200	216877
1-Chloro-octadecane	20	132313.3	50	153398.8	100	174966.8	125	173349	150	185446.5	200	188647.6

INITIAL CALIBRATION DATA

WA EPH

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
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)	
C10-C12 Aliphatics	205303.2	5.3			RSD (20)	
1-Chloro-octadecane	168020.3	12.7			RSD (20)	

Printed: 10/5/2020 5:49:00PM

ANALYSIS SEQUENCE

SIJ0055

Instrument: FID8 Element Column ID: d002555
Calibration ID: DJ00015

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-chlorooctodecane(AROMATIC), o-Terph Surr,
0518	820J0127.D	20I0109-05		1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0543	820J0128.D	20I0109-07		1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0609	820J0129.D	20I0109-08		1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0634	820J0130.D	20I0109-09		1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0659	820J0131.D	20I0109-10		1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0724	820J0132.D	BII0795-MS2		1	Benzo-ghi-per, 1-chlorooctodecane(AROMATIC), o-Terph Surr,
0749	820J0133.D	BII0795-MSD2		1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0814	820J0134.D	20I0109-11		1	NO MANUAL INTEGRATION
0839	820J0135.D	20I0149-01		1	NO MANUAL INTEGRATION
0905	820J0136.D	AROMCCV1		1	NO MANUAL INTEGRATION
0930	820J0137.D	20I0149-02		1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0955	820J0138.D	20I0149-05		1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
1021	820J0139.D	20I0149-07		1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
1046	820J0140.D	20I0149-08		1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
1112	820J0141.D	20I0149-09		1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
1137	820J0142.D	20I0149-10		1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
1203	820J0143.D	AROMCCV2		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-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

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

	20.000	50.000	100.000	150.000	200.000	0.000e+00		
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD
2 Toluene	202541	200103	210181	206834	218140	220027	209638	3.873
75 1-chlorooctodecane(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

	20.000	50.000	100.000	150.000	200.000	0.000e+00	___	
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	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\EPHArom.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	jrains, 05-Oct-2020 17:34
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Security Status Report

Date: 05-Oct-2020 17:40

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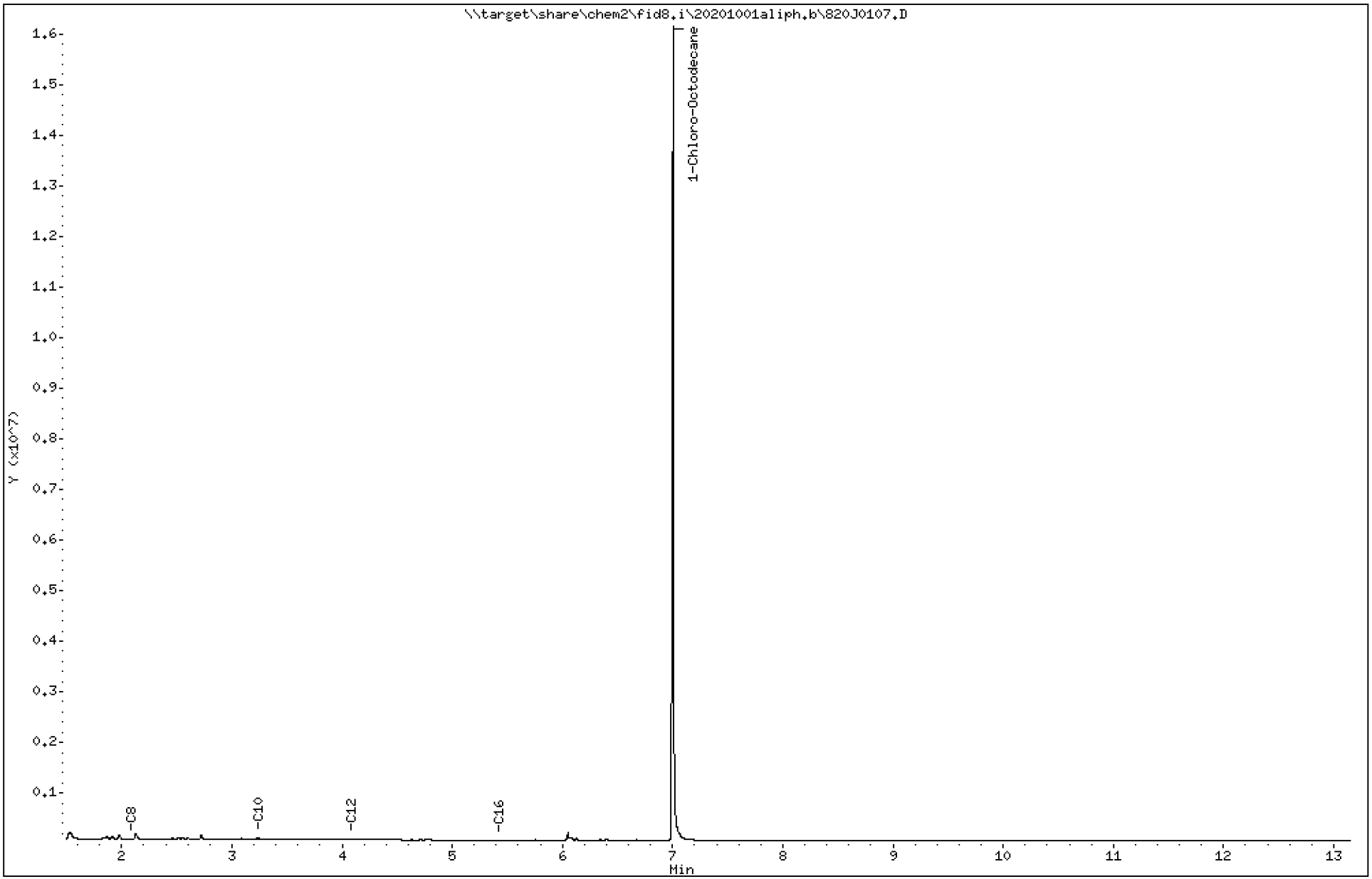
Data File: \\target\share\chem2\fid8.i\20201001aliph.b\820J0107.D
Date : 01-OCT-2020 20:50
Client ID:
Sample Info: ALIB

Instrument: fid8.i
Operator: JGR
Column diameter: 0.25

Column phase: RTX-1



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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.i\20201001arom.b\820J0108.D

Date : 01-OCT-2020 21:16

Client ID:

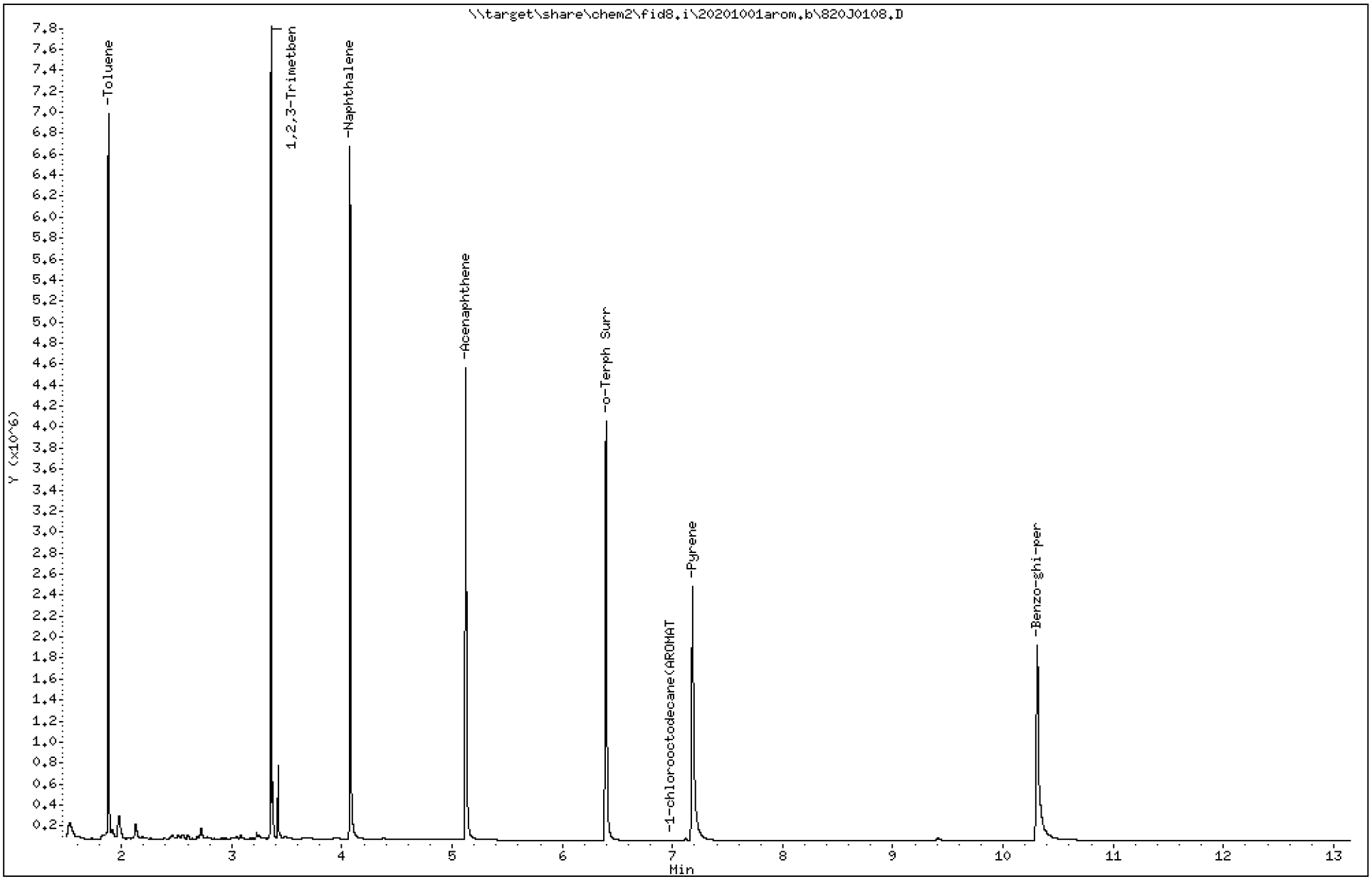
Instrument: fid8.i

Sample Info: 20AROM

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



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EPH AROMATIC CALIBRATION REPORT

Lab Name: ANALYTICAL RESOURCES, INC. Lab ID: 20AROM

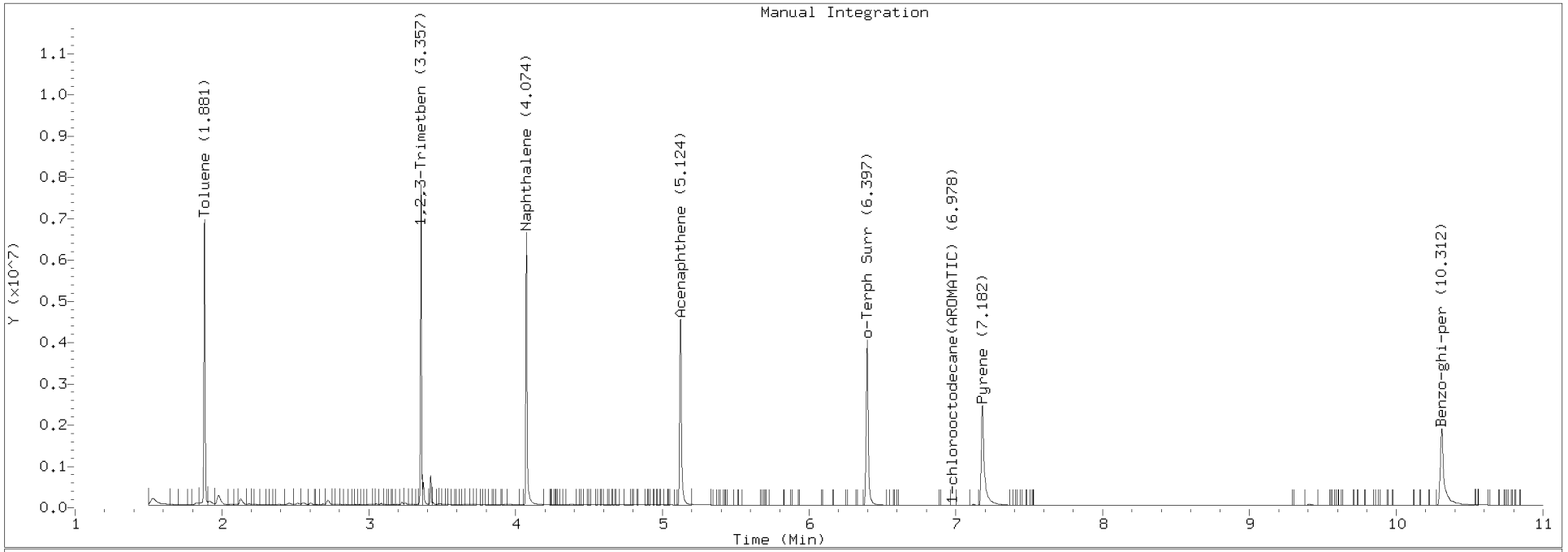
ICal Date: 01-OCT-2020 Instrument: FID8.I

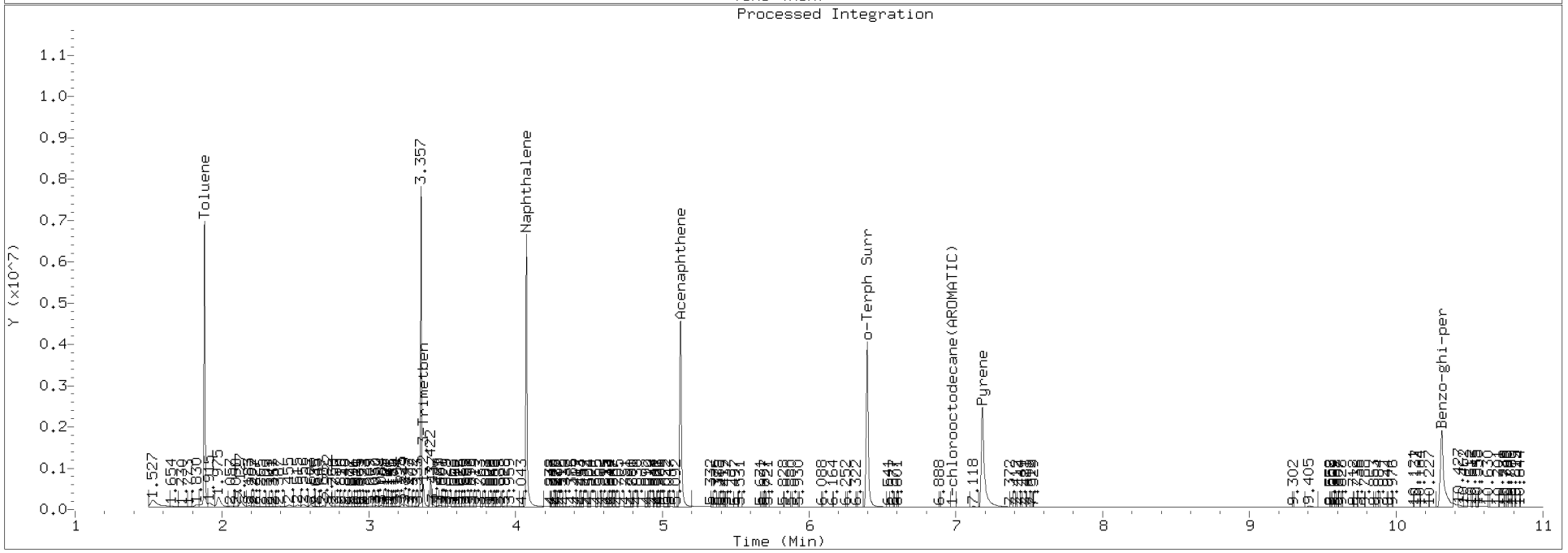
Analysis Time: 21:16 Lab File Name: 820J0108.D

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





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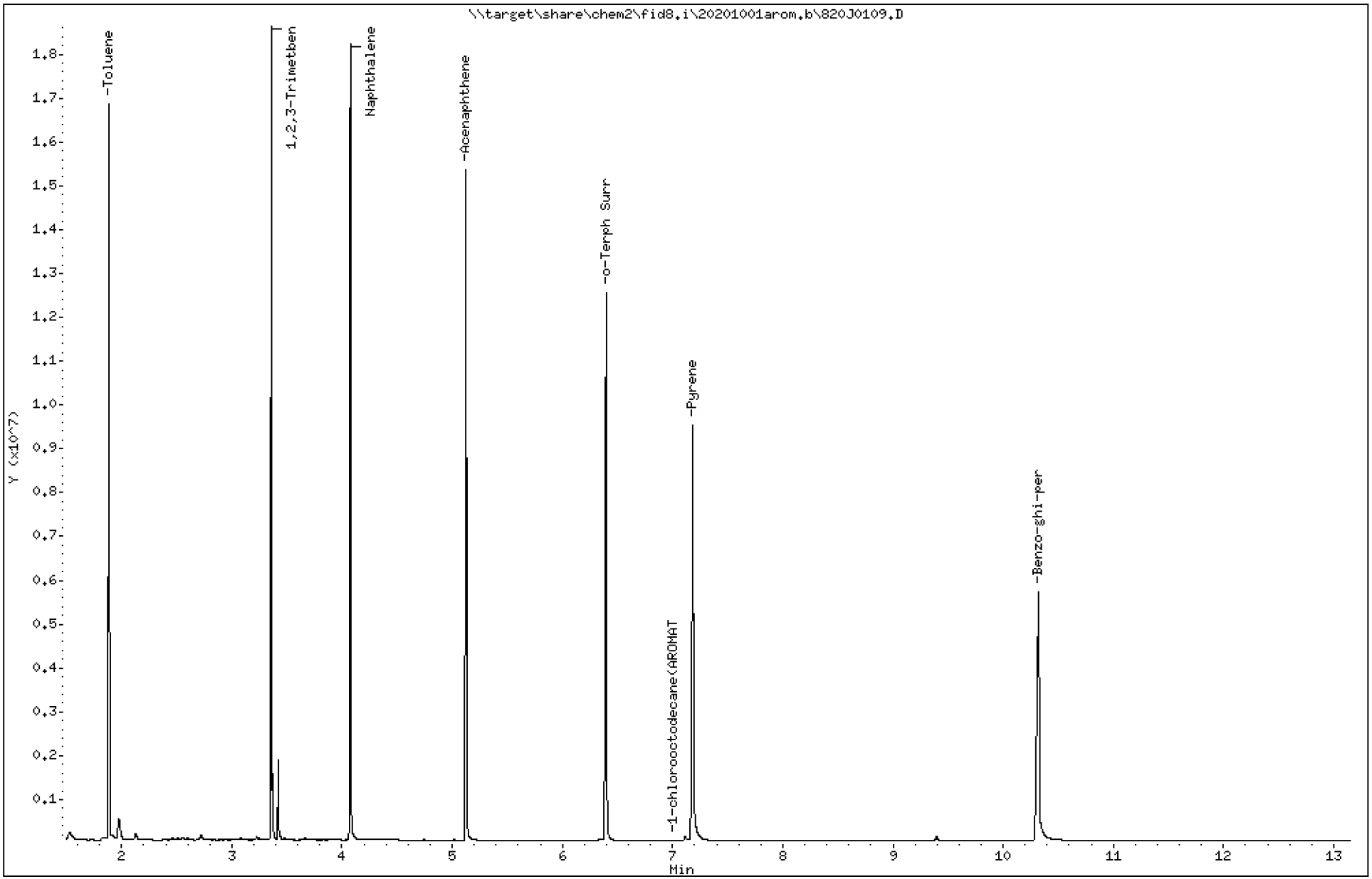
Date : 01-OCT-2020 21:41
Client ID:
Sample Info: 50AROM

Instrument: fid8.i
Operator: JGR
Column diameter: 0.25

Column phase: RTX-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

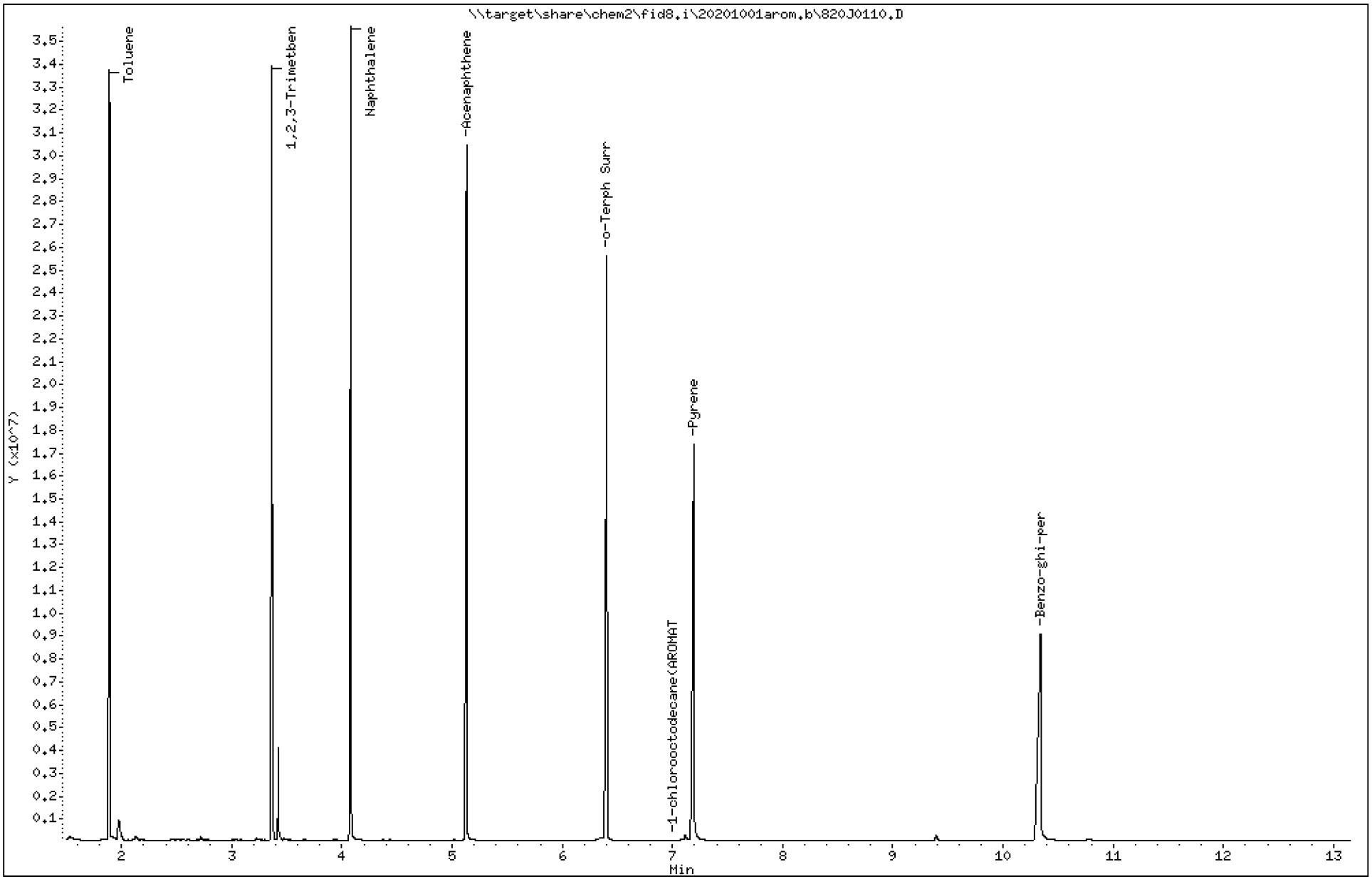
Quant Range		Area*	Conc
C8-C10	Arom.	19864827	92.7
C10-C12	Arom.	10827055	47.6
C12-C16	Arom.	10292755	47.0
C16-C21	Arom.	9562568	47.9
C21-C34	Arom.	9026865	47.5
Surrogate		10404619	47.4

* From Range Reference Peak(s)

Data File: \\target\share\chem2\fid8.i\20201001arom.b\820J0110.D
Date : 01-OCT-2020 22:07
Client ID:
Sample Info: 100AROM

Instrument: fid8.i
Operator: JGR
Column diameter: 0.25

Column phase: RTX-1



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

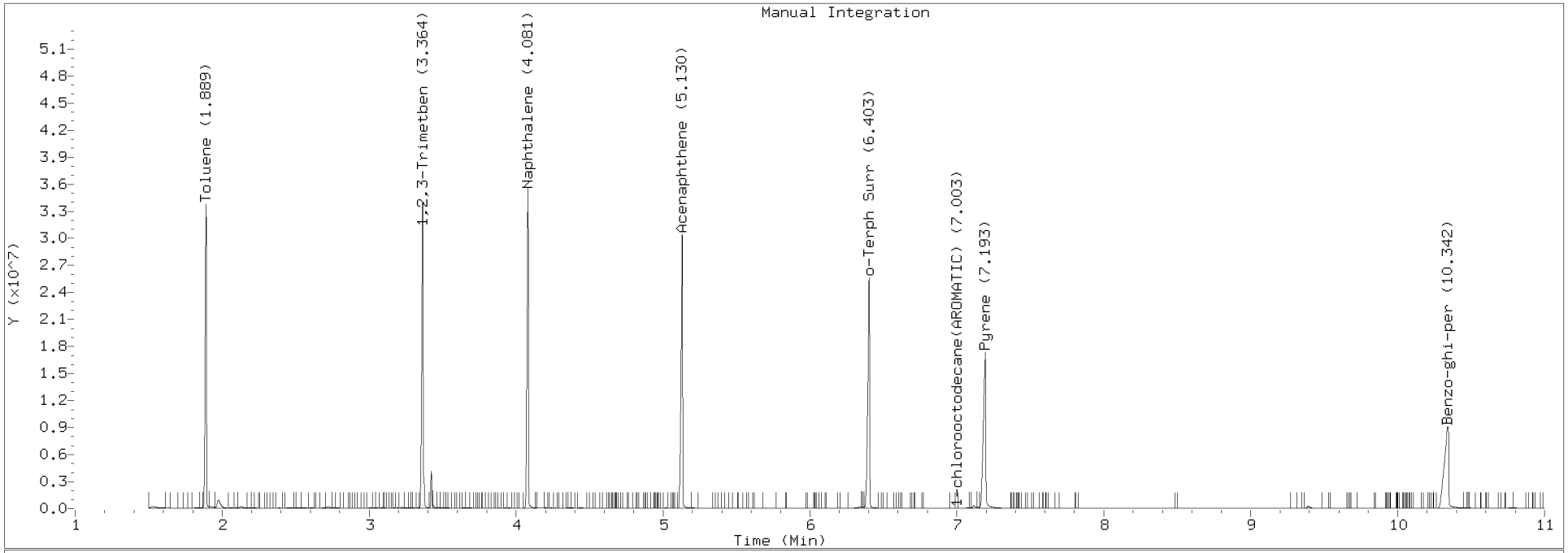
Quant Range		Area*	Conc
C8-C10	Arom.	43838545	204.3
C10-C12	Arom.	22921214	100.8
C12-C16	Arom.	22174890	101.2
C16-C21	Arom.	20322928	101.8
C21-C34	Arom.	19296272	101.4
Surrogate		22184280	101.0

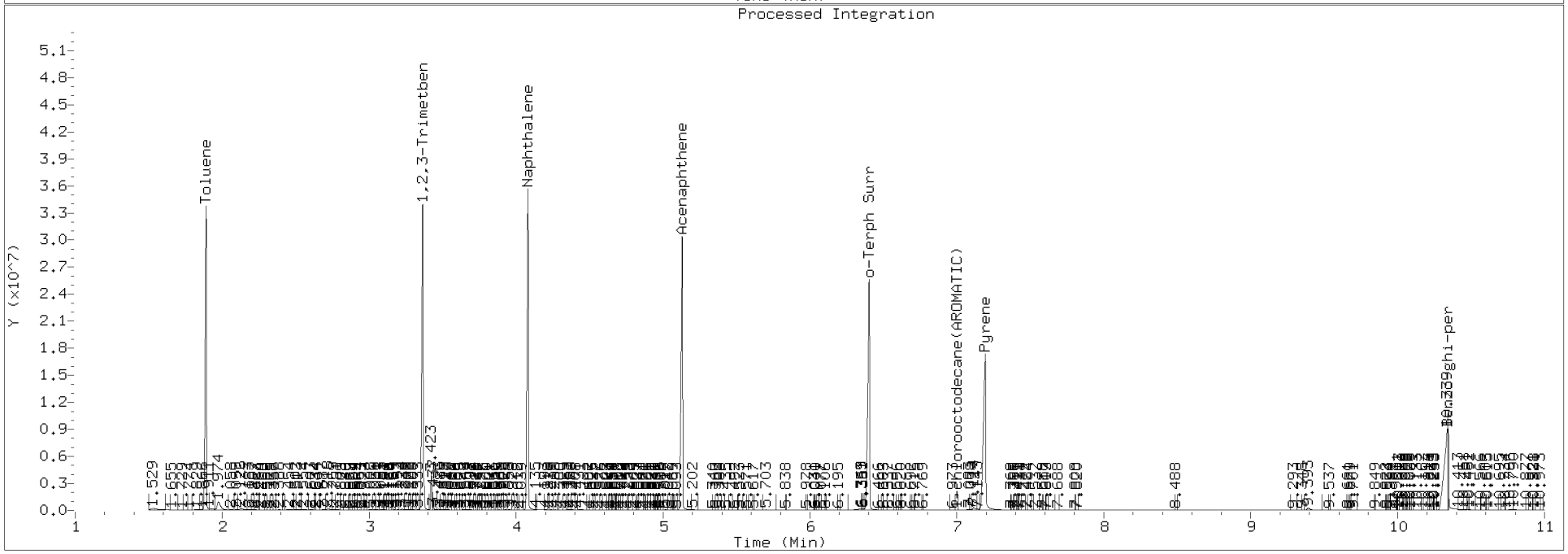
* From Range Reference Peak(s)

EPH Aromatics Manual Integrations Report

Datafile: FID8, 20201001arom.b/820J0110.D Injection: 01-OCT-2020 22:07

Lab ID:100AROM





Data File: \\target\share\chem2\fid8.i\20201001arom.b\820J0111.D

Page 1

Date : 01-OCT-2020 22:32

Client ID:

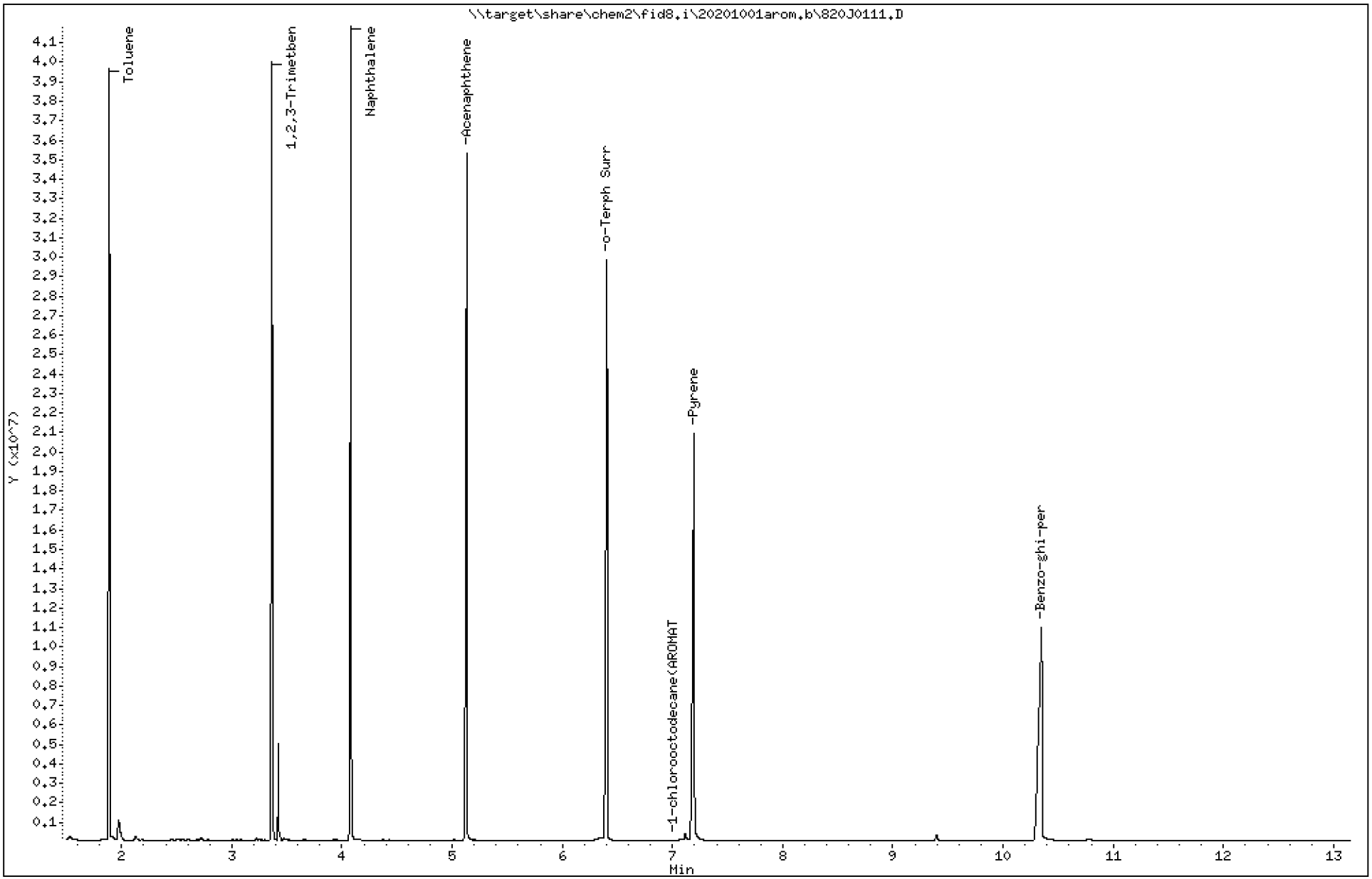
Instrument: fid8.i

Sample Info: 125AROM

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



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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.i\20201001arom.b\820J0112.D

Date : 01-OCT-2020 22:57

Client ID:

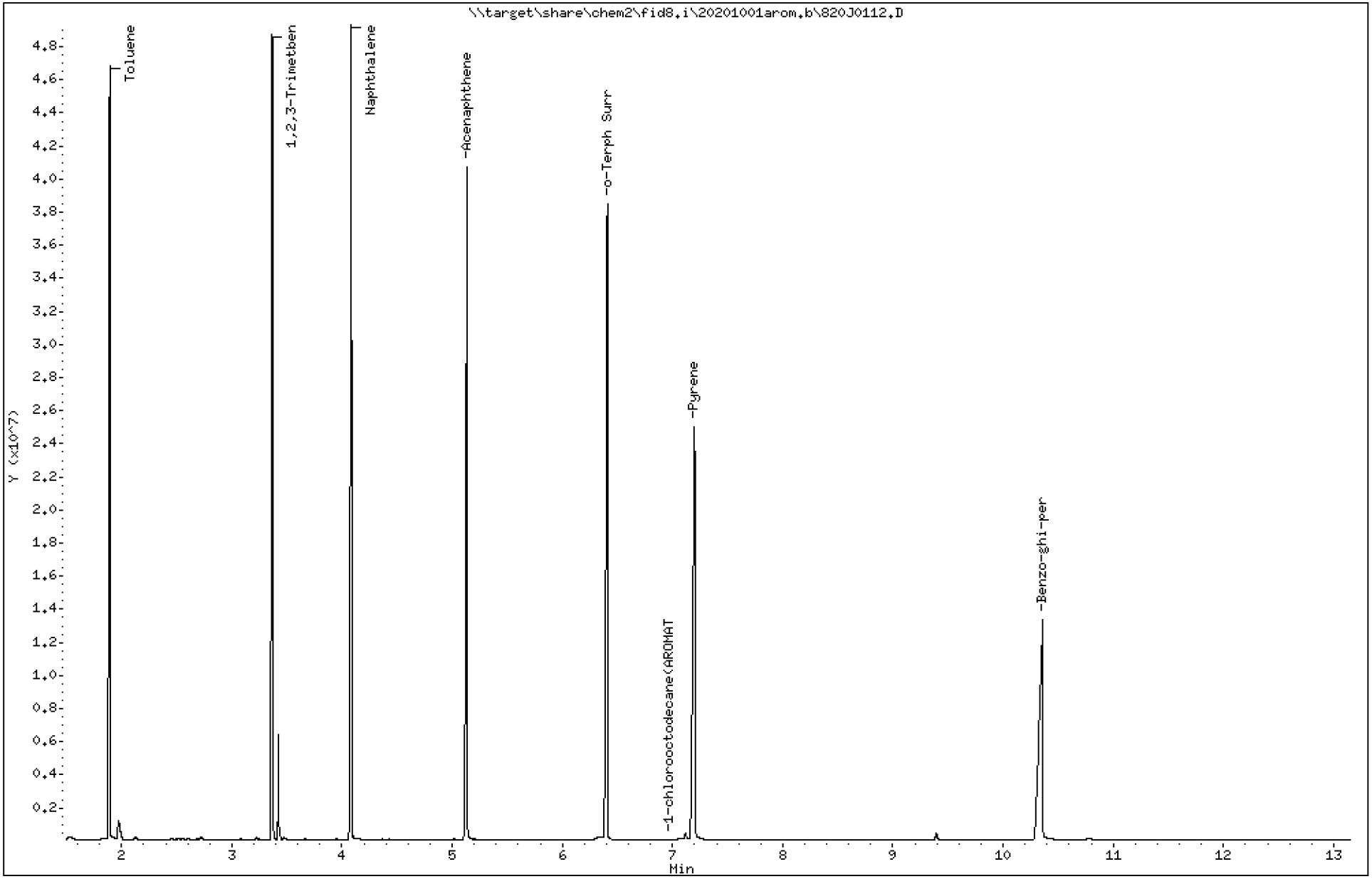
Instrument: fid8.i

Sample Info: 150AROM

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



Final Report 21E0099 06/15/2021 Page 855 of 957

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)

Data File: \\target\share\chem2\fid8.i\20201001arom.b\820J0113.D

Page 1

Date : 01-OCT-2020 23:23

Client ID:

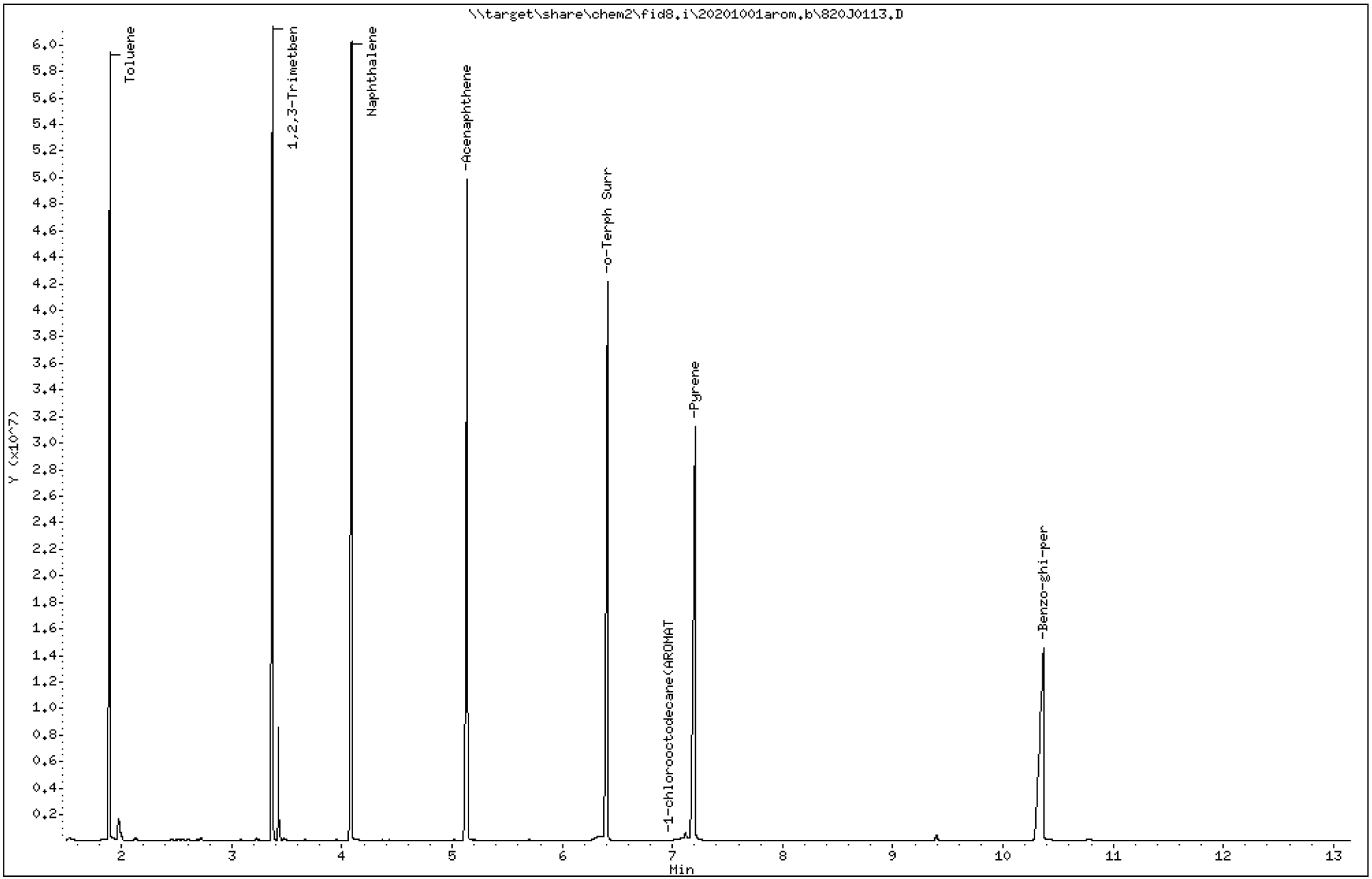
Instrument: fid8.i

Sample Info: 200AROM

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



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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

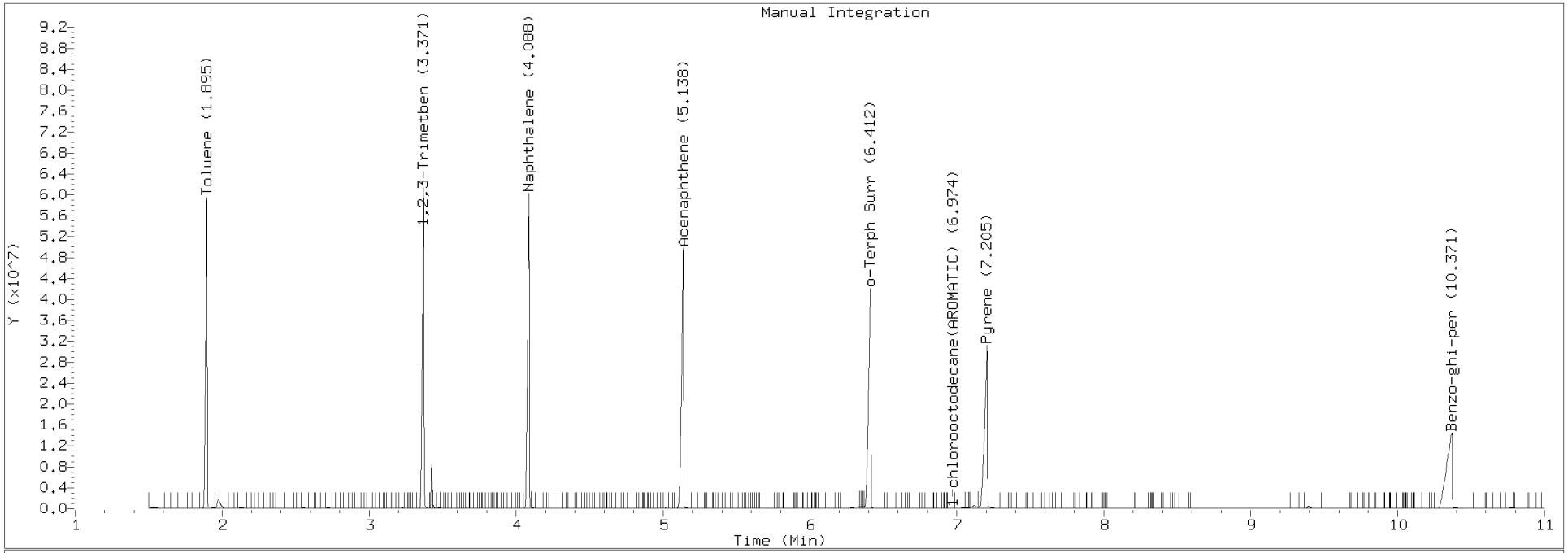
Quant Range		Area*	Conc
C8-C10	Arom.	91583324	426.8
C10-C12	Arom.	48052127	211.3
C12-C16	Arom.	46834541	213.7
C16-C21	Arom.	41455089	207.6
C21-C34	Arom.	39722566	208.8
Surrogate		46327076	210.9

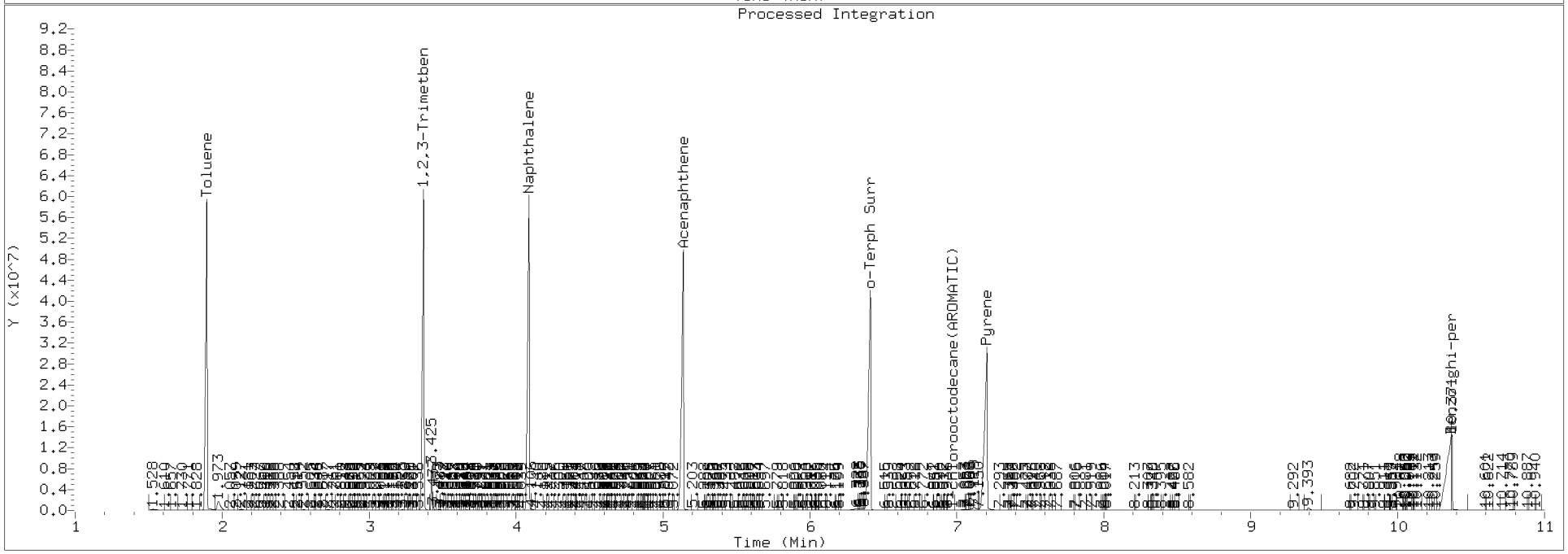
* From Range Reference Peak(s)

EPH Aromatics Manual Integrations Report

Datafile: FID8, 20201001arom.b/820J0113.D Injection: 01-OCT-2020 23:23

Lab ID:200AROM





Data File: \\target\share\chem2\fid8.i\20201001arom.b\820J0114.D

Page 1

Date : 01-OCT-2020 23:48

Client ID:

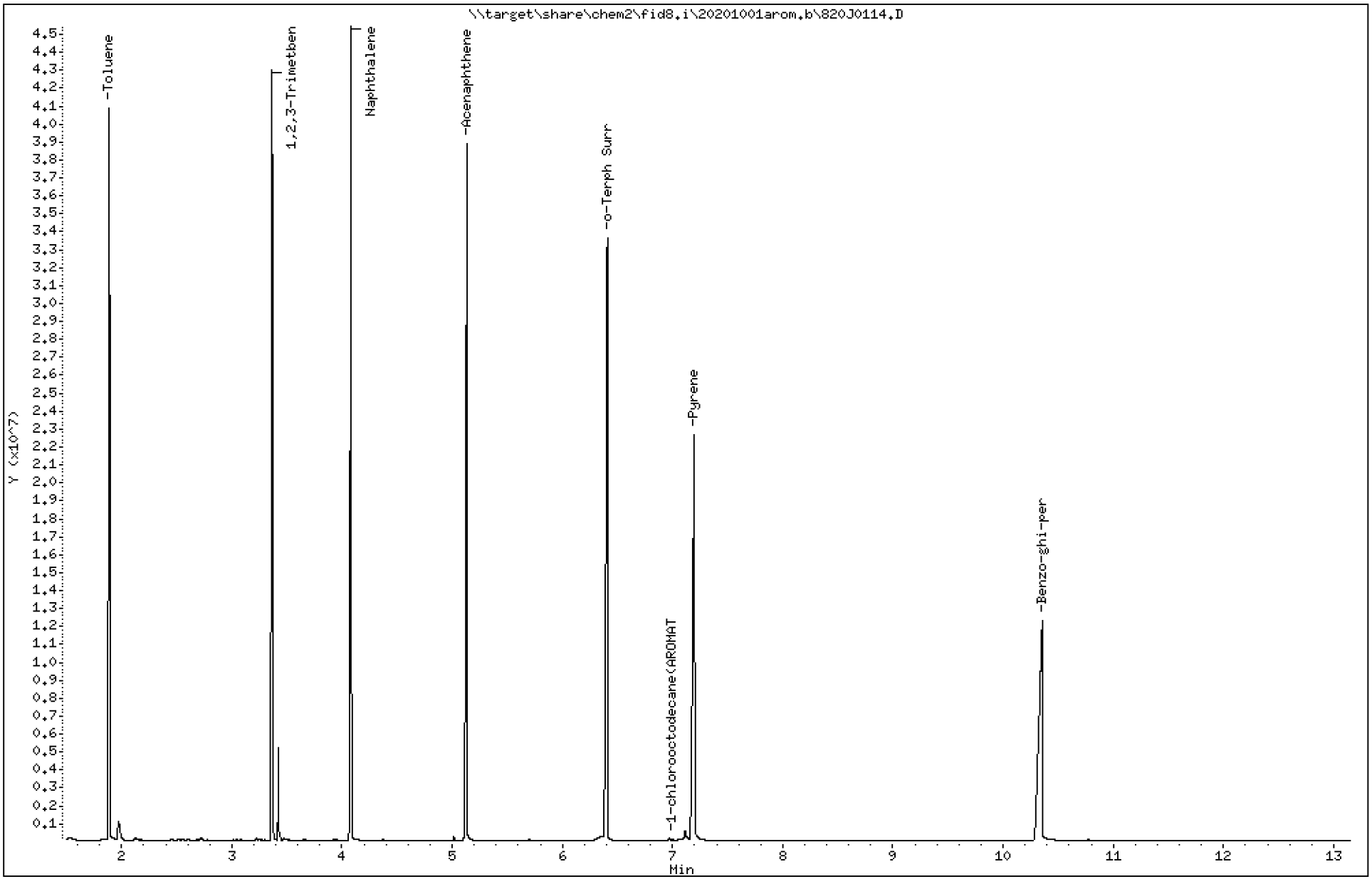
Instrument: fid8.i

Sample Info: AROMSCV1

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



Final Report 21E0099 06/15/2021 Page 860 of 957

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.i\20201001aliph.b\820J0115.D

Date : 02-OCT-2020 00:13

Client ID:

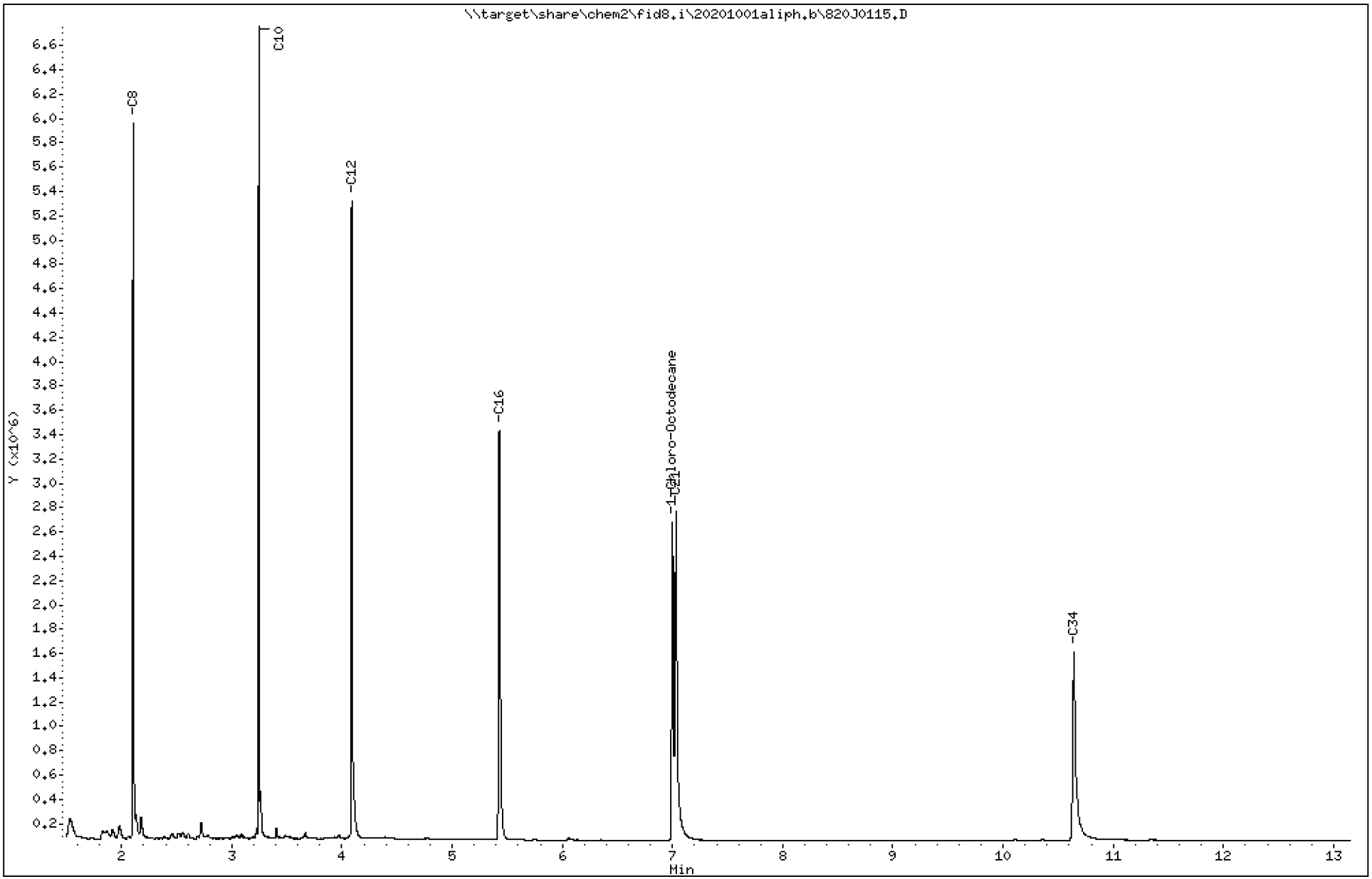
Instrument: fid8.i

Sample Info: 20ALIPH

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



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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

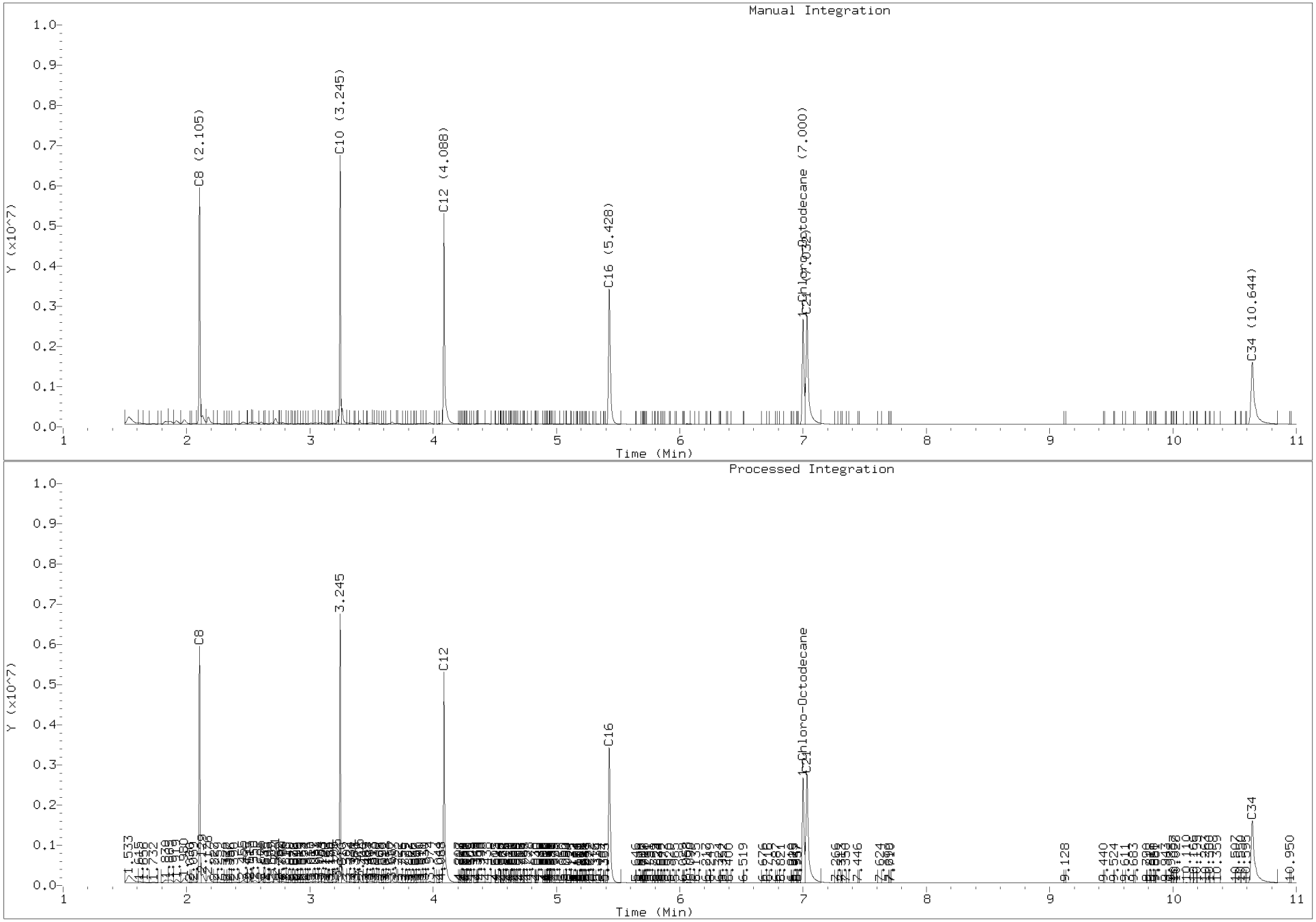
Quant Range		Area*	Conc
C8-C10	Aliph.	7055161	36.7
C10-C12	Aliph.	3904943	19.0
C12-C16	Aliph.	3748415	18.5
C16-C21	Aliph.	4047810	20.8
C21-C34	Aliph.	3332321	18.6
Surrogate		2646266	15.7

* From Range Reference Peak(s)

EPH Aliphatics Manual Integrations Report

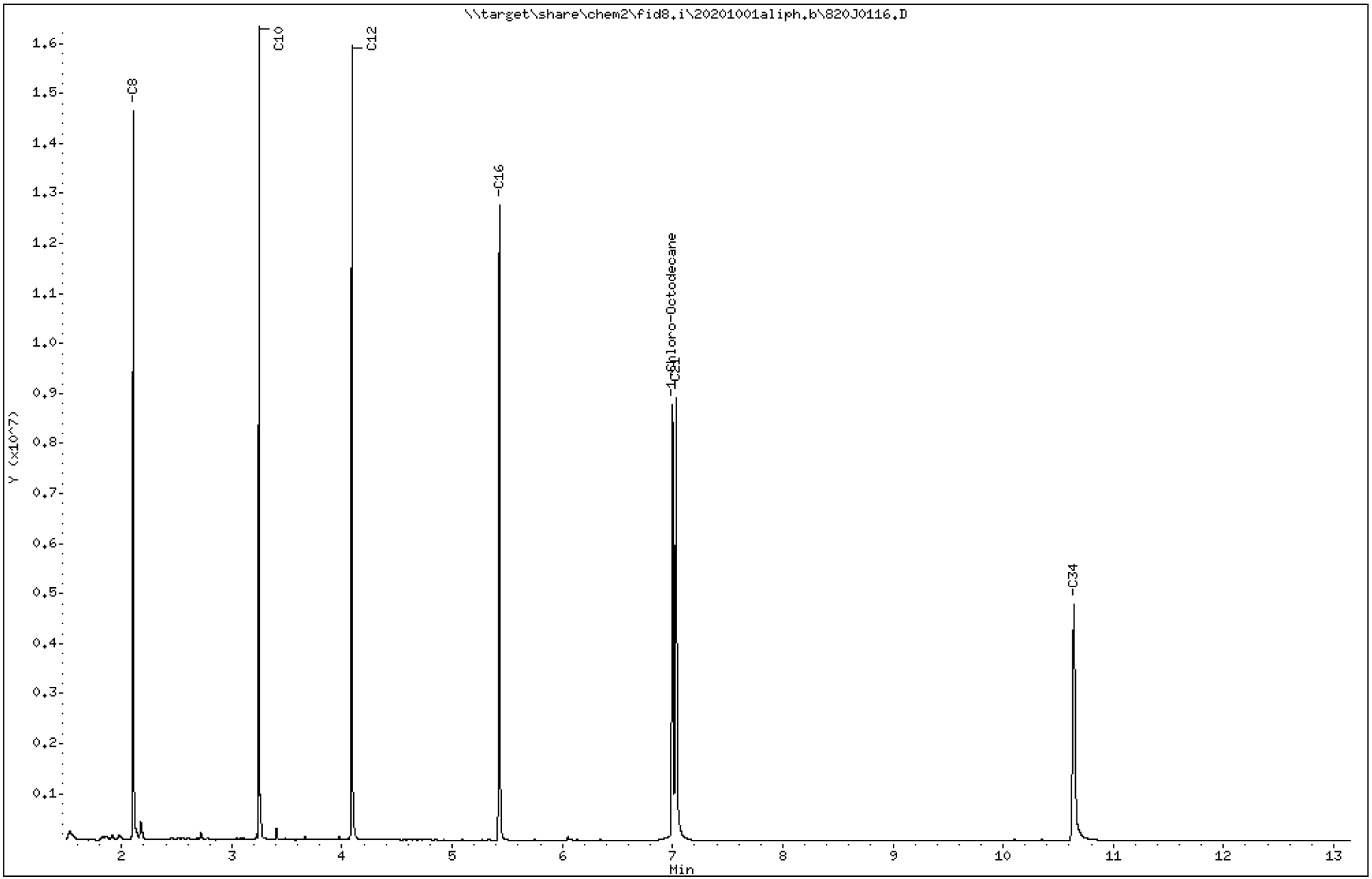
Datafile: FID8, 20201001aliph.b/820J0115.D Injection: 02-OCT-2020 00:13

Lab ID:20ALIPH



Data File: \\target\share\chem2\fid8.i\20201001aliph.b\820J0116.D
Date : 02-OCT-2020 00:39
Client ID:
Sample Info: 50ALPIH

Instrument: fid8.i
Operator: JGR
Column phase: RTX-1
Column diameter: 0.25



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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

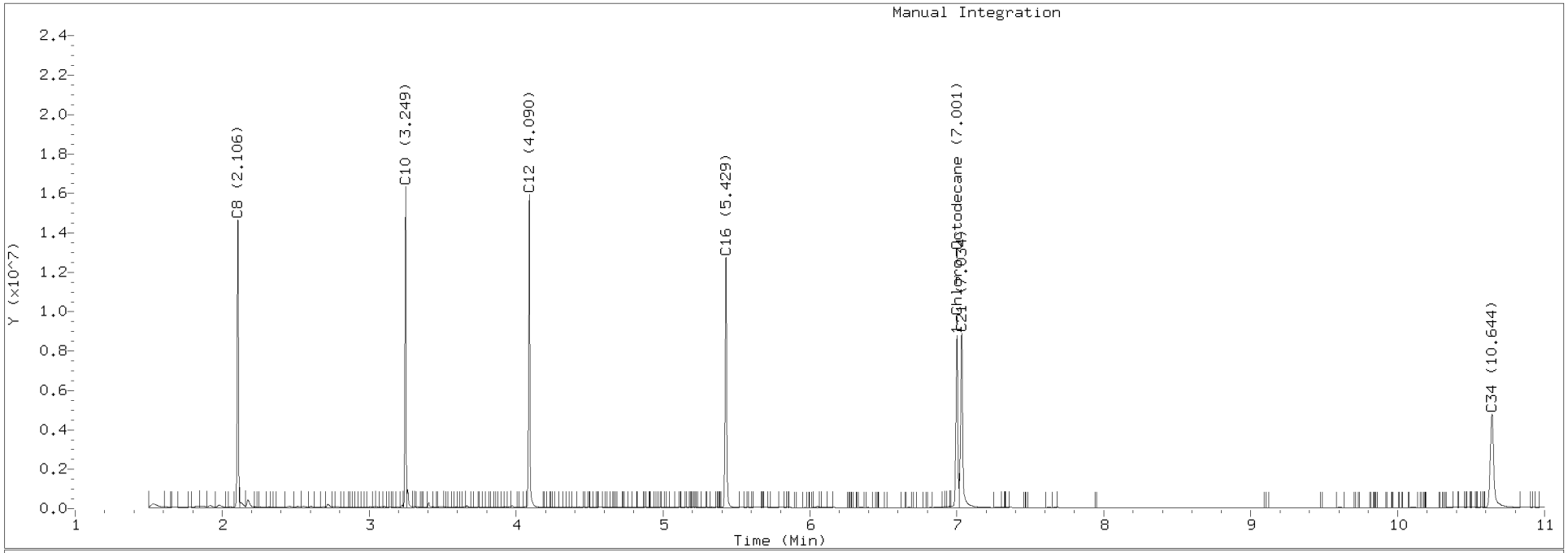
Quant Range		Area*	Conc
C8-C10	Aliph.	17627010	91.6
C10-C12	Aliph.	9545076	46.5
C12-C16	Aliph.	9382326	46.3
C16-C21	Aliph.	9416813	48.3
C21-C34	Aliph.	8354165	46.7
Surrogate		7669940	45.6

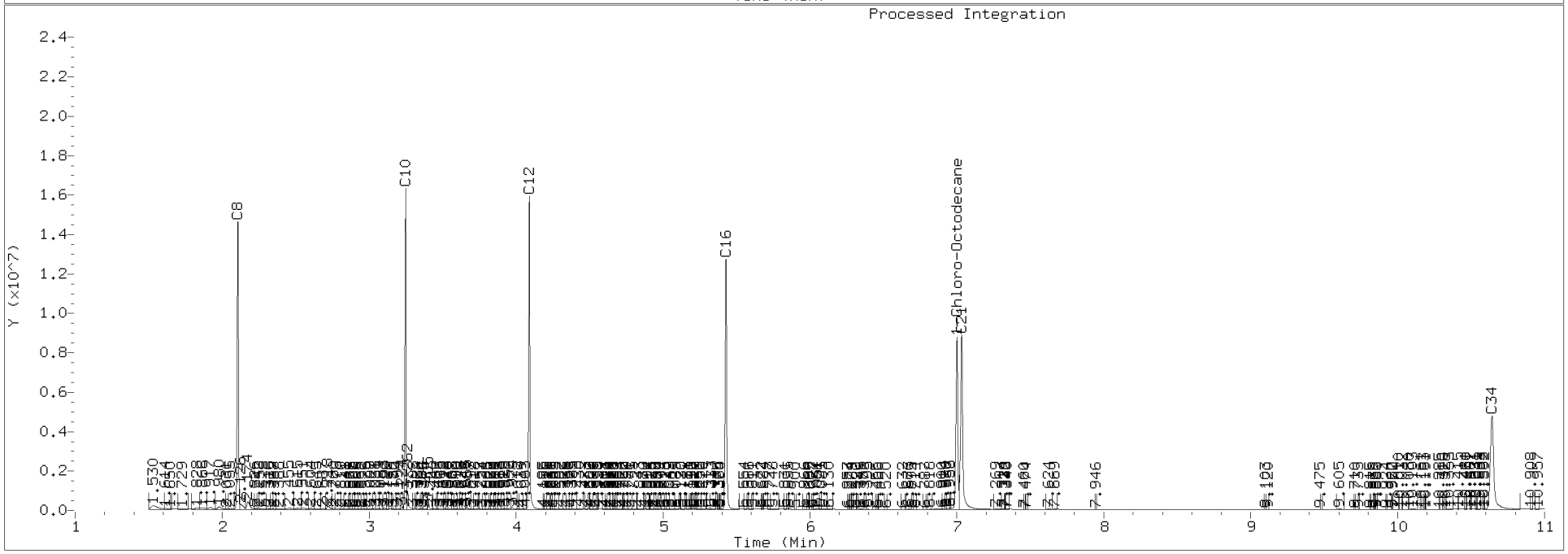
* From Range Reference Peak(s)

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.i\20201001aliph.b\820J0117.D

Page 1

Date : 02-OCT-2020 01:04

Client ID:

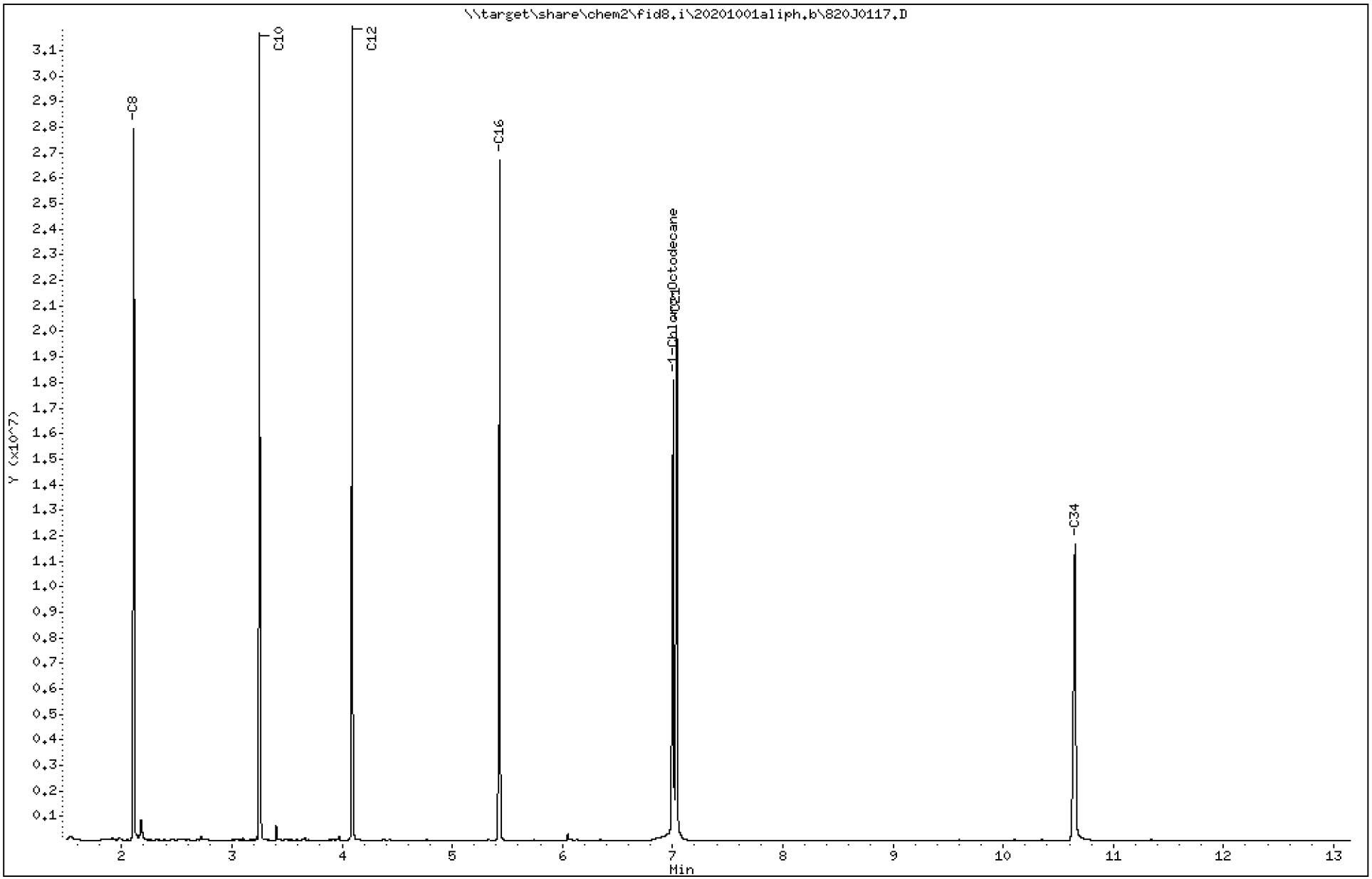
Instrument: fid8.i

Sample Info: 100ALIPH

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



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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.i\20201001aliph.b\820J0118.D

Page 1

Date : 02-OCT-2020 01:29

Client ID:

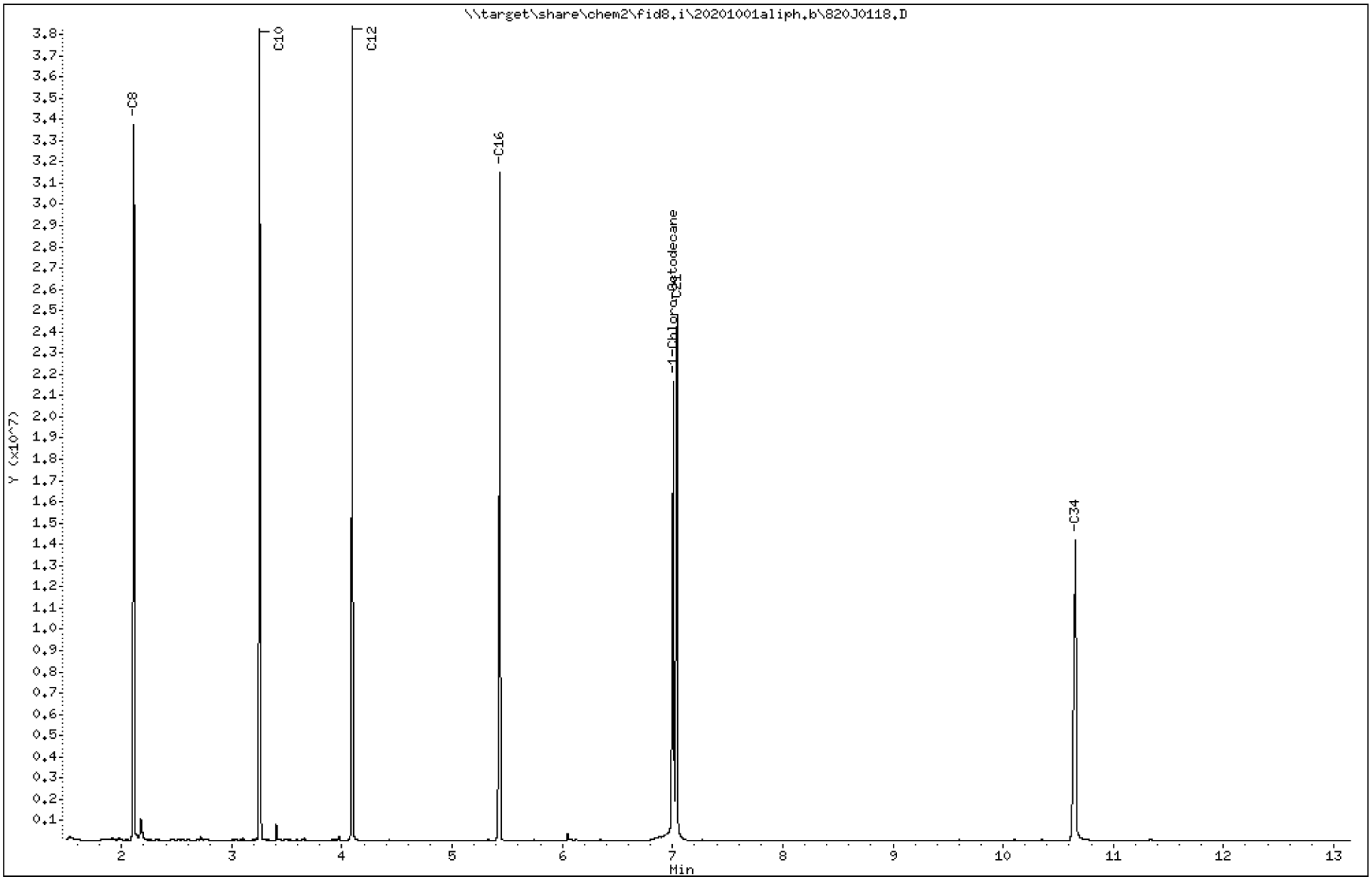
Instrument: fid8.i

Sample Info: 125ALIPH

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



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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

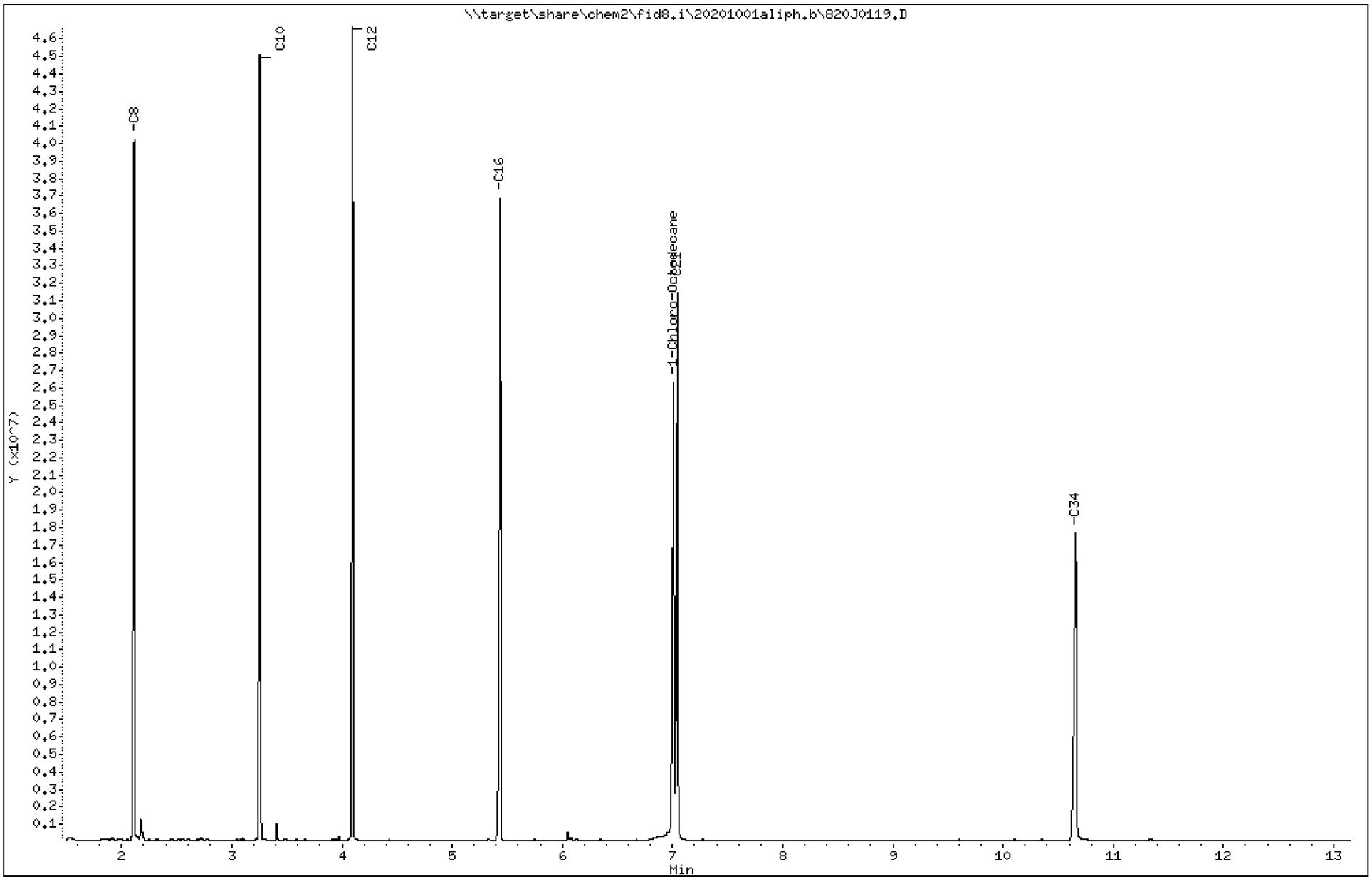
Quant Range		Area*	Conc
C8-C10	Aliph.	49525474	257.2
C10-C12	Aliph.	25516440	124.3
C12-C16	Aliph.	25101340	124.0
C16-C21	Aliph.	23780069	121.9
C21-C34	Aliph.	22633357	126.4
Surrogate		21668625	129.0

* From Range Reference Peak(s)

Data File: \\target\share\chem2\fid8.i\20201001aliph.b\820J0119.D
Date : 02-OCT-2020 01:54
Client ID:
Sample Info: 150ALIPH

Instrument: fid8.i
Operator: JGR
Column diameter: 0.25

Column phase: RTX-1



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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.i\20201001aliph.b\820J0120.D

Page 1

Date : 02-OCT-2020 02:19

Client ID:

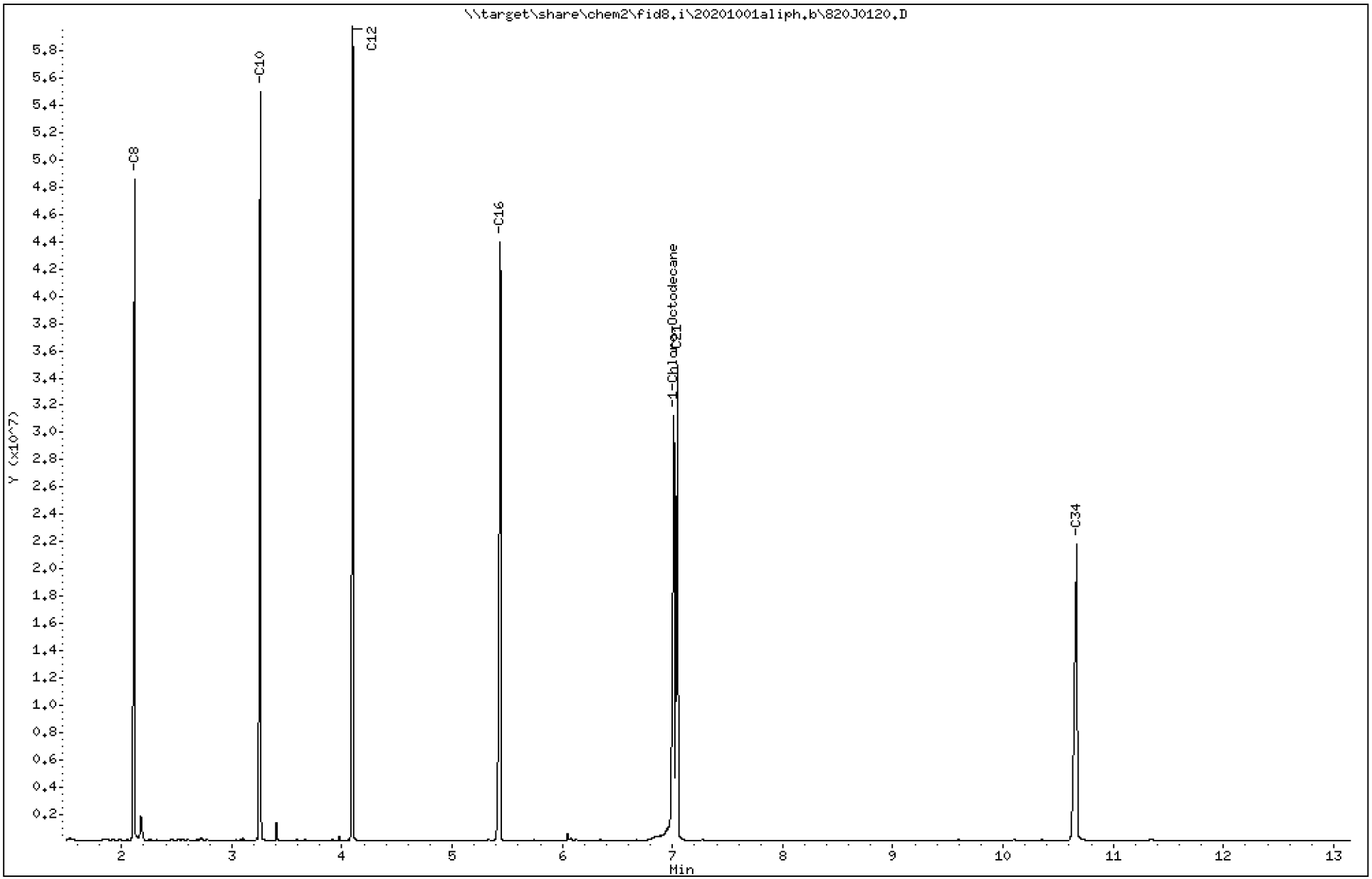
Instrument: fid8.i

Sample Info: 200ALIPH

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



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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.i\20201001aliph.b\820J0121.D

Date : 02-OCT-2020 02:45

Client ID:

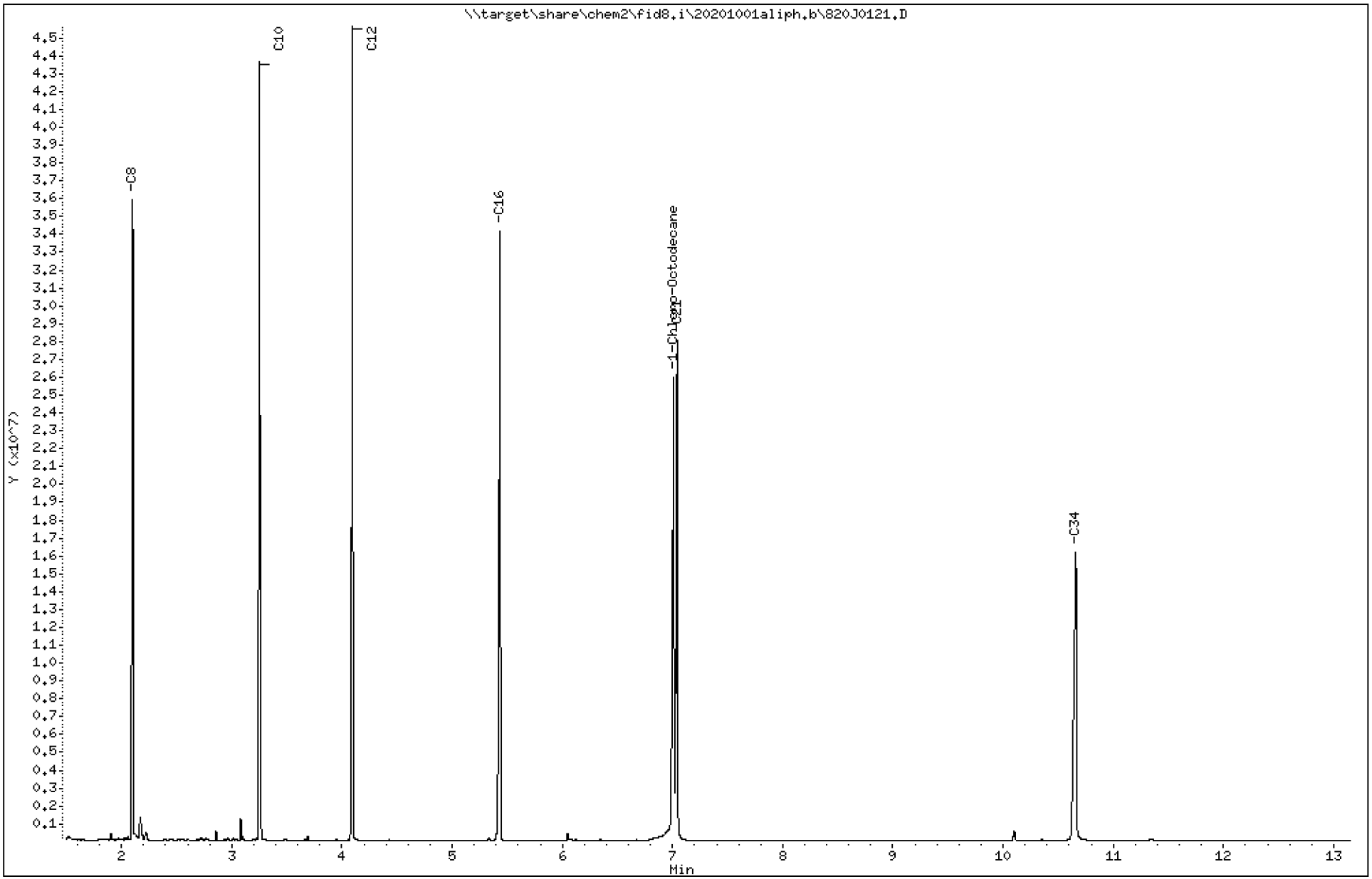
Sample Info: ALIPHSC2

Column phase: RTX-1

Instrument: fid8.i

Operator: JGR

Column diameter: 0.25



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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

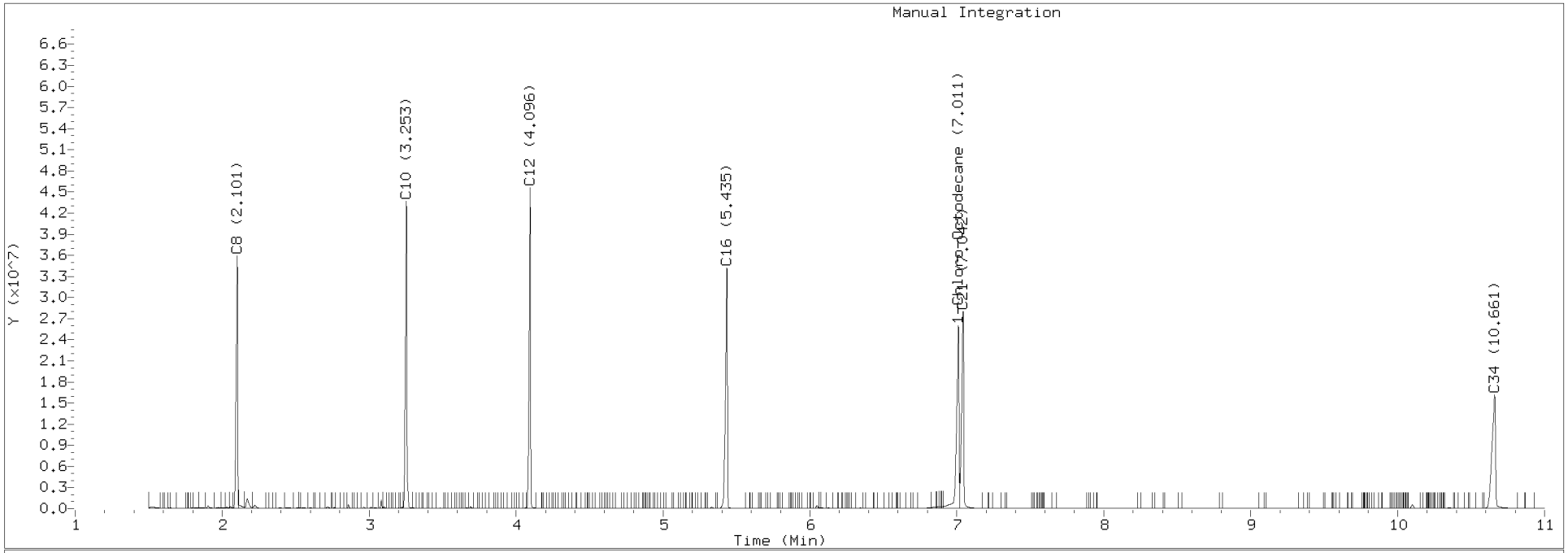
Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	61966510	321.9	(2.018 - 3.359)
C10-C12	Aliph.	31342373	152.7	(3.359 - 4.199)
C12-C16	Aliph.	31575101	156.0	(4.199 - 5.538)
C16-C21	Aliph.	29727101	152.4	(5.538 - 7.147)
C21-C34	Aliph.	28321380	158.2	(7.147 - 10.769)

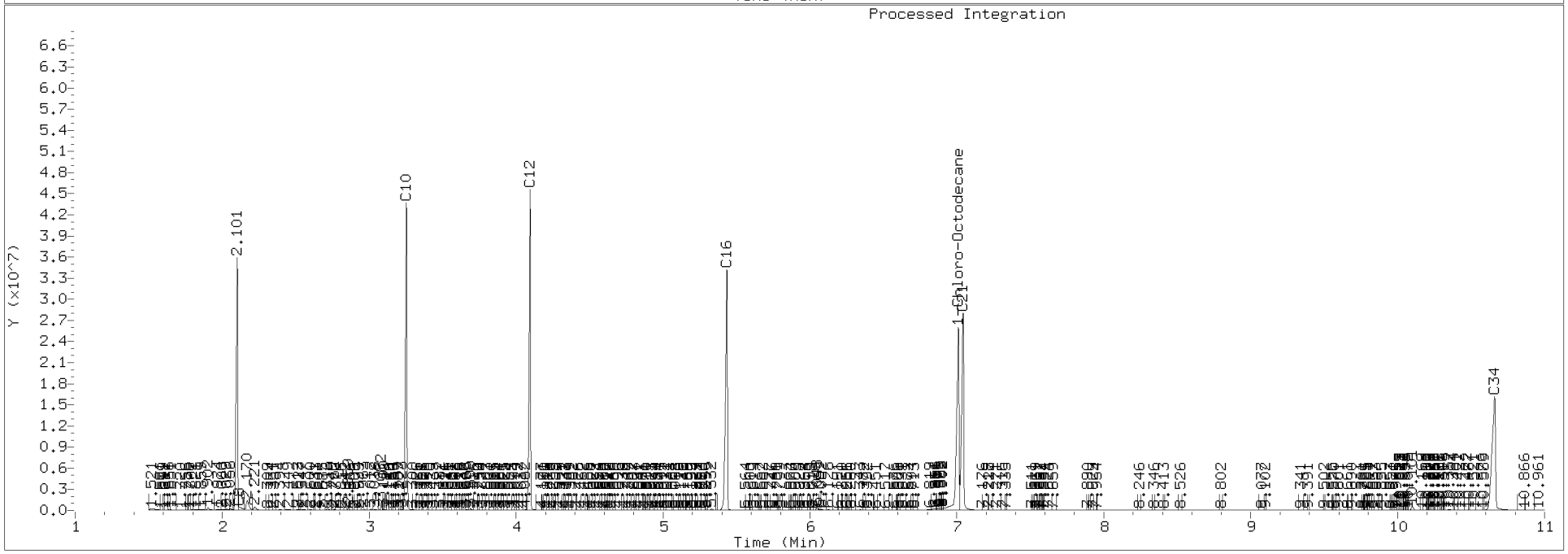
Surrogate Rec: 116.1% 174.2 ug/mL

EPH Aliphatics Manual Integrations Report

Datafile: FID8, 20201001aliph.b/820J0121.D Injection: 02-OCT-2020 02:45

Lab ID:ALIPHSC2





SECOND-SOURCE CALIBRATION VERIFICATION

WA EPH

Laboratory: Analytical Resources, Inc.
SDG: 21E0099
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
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.i\20201001aliph.b\820J0121.D

Date : 02-OCT-2020 02:45

Client ID:

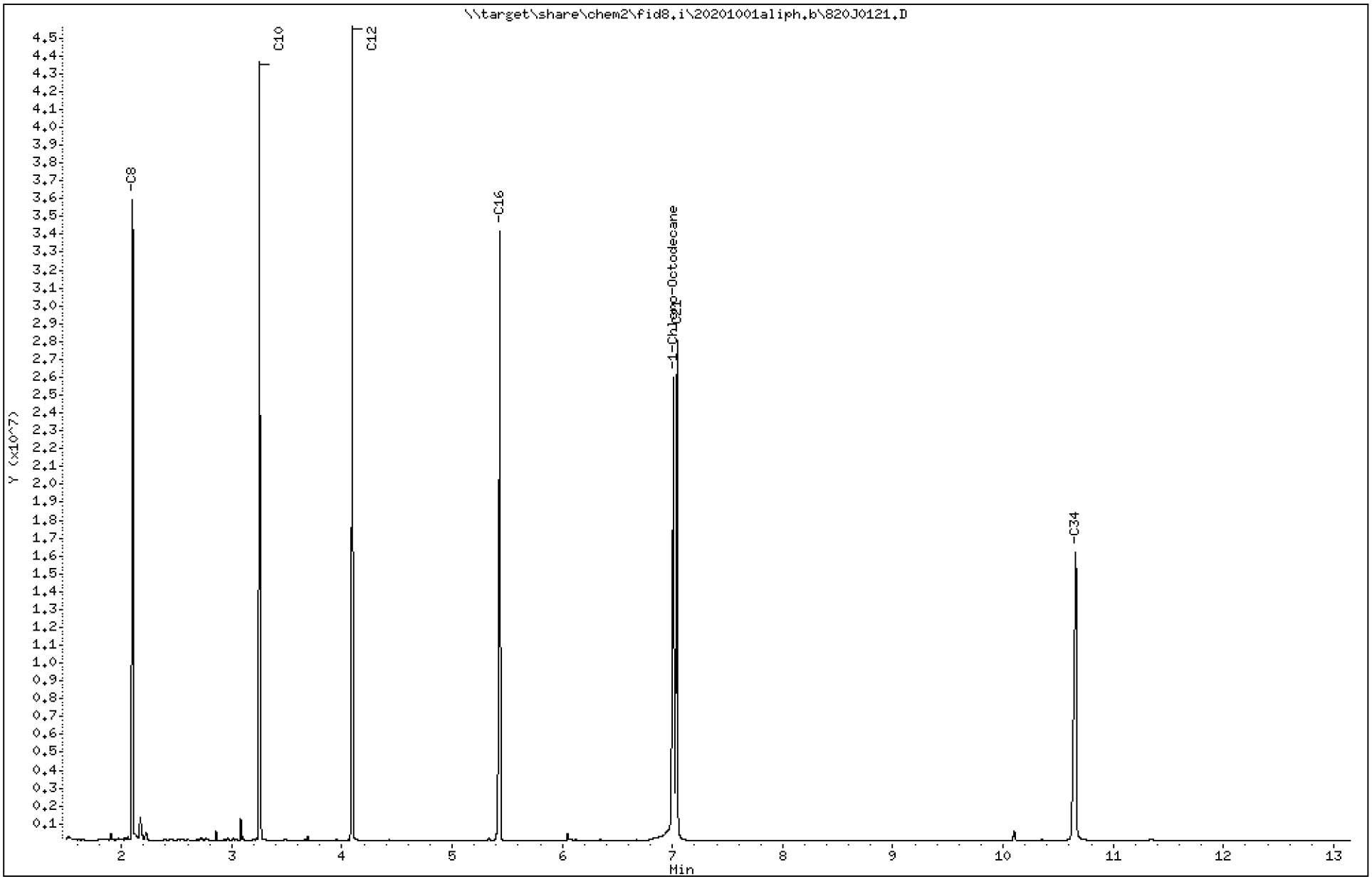
Sample Info: ALIPHSC2

Column phase: RTX-1

Instrument: fid8.i

Operator: JGR

Column diameter: 0.25



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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

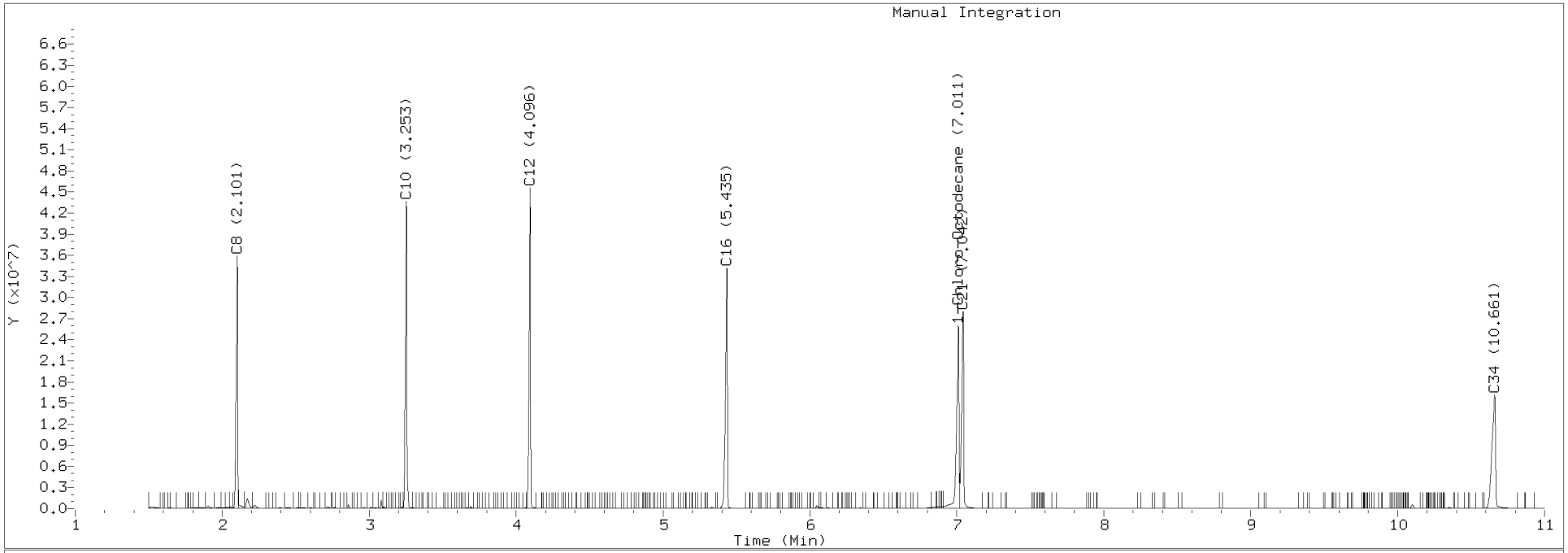
Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	61966510	321.9	(2.018 - 3.359)
C10-C12	Aliph.	31342373	152.7	(3.359 - 4.199)
C12-C16	Aliph.	31575101	156.0	(4.199 - 5.538)
C16-C21	Aliph.	29727101	152.4	(5.538 - 7.147)
C21-C34	Aliph.	28321380	158.2	(7.147 - 10.769)

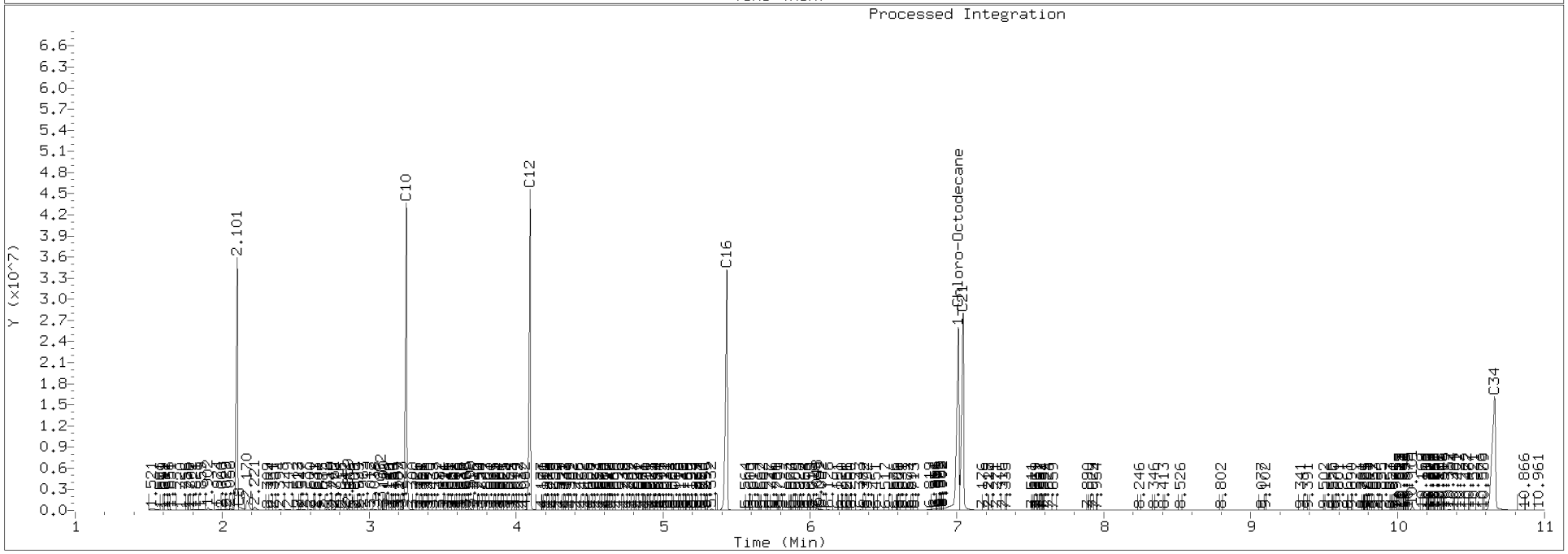
Surrogate Rec: 116.1% 174.2 ug/mL

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:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	FID8	Calibration:	DJ00015
Lab File ID:	821E2204.D	Calibration Date:	10/01/2020
Sequence:	SJE0400	Injection Date:	05/22/21
Lab Sample ID:	SJE0400-ICV1	Injection Time:	13:44
Sequence Name:	ALIPHATICS		

		CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
>C10-C12 Aliphatics	A	125.00	120	205303.2000	197130.4000		-4.0	+/-20
1-Chloro-octadecane	A	125.00	111	168020.3000	148944.4000		-11.4	+/-20

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem2\fid8.i\20210522aliph.b\821E2204.D

Date : 22-MAY-2021 13:44

Client ID:

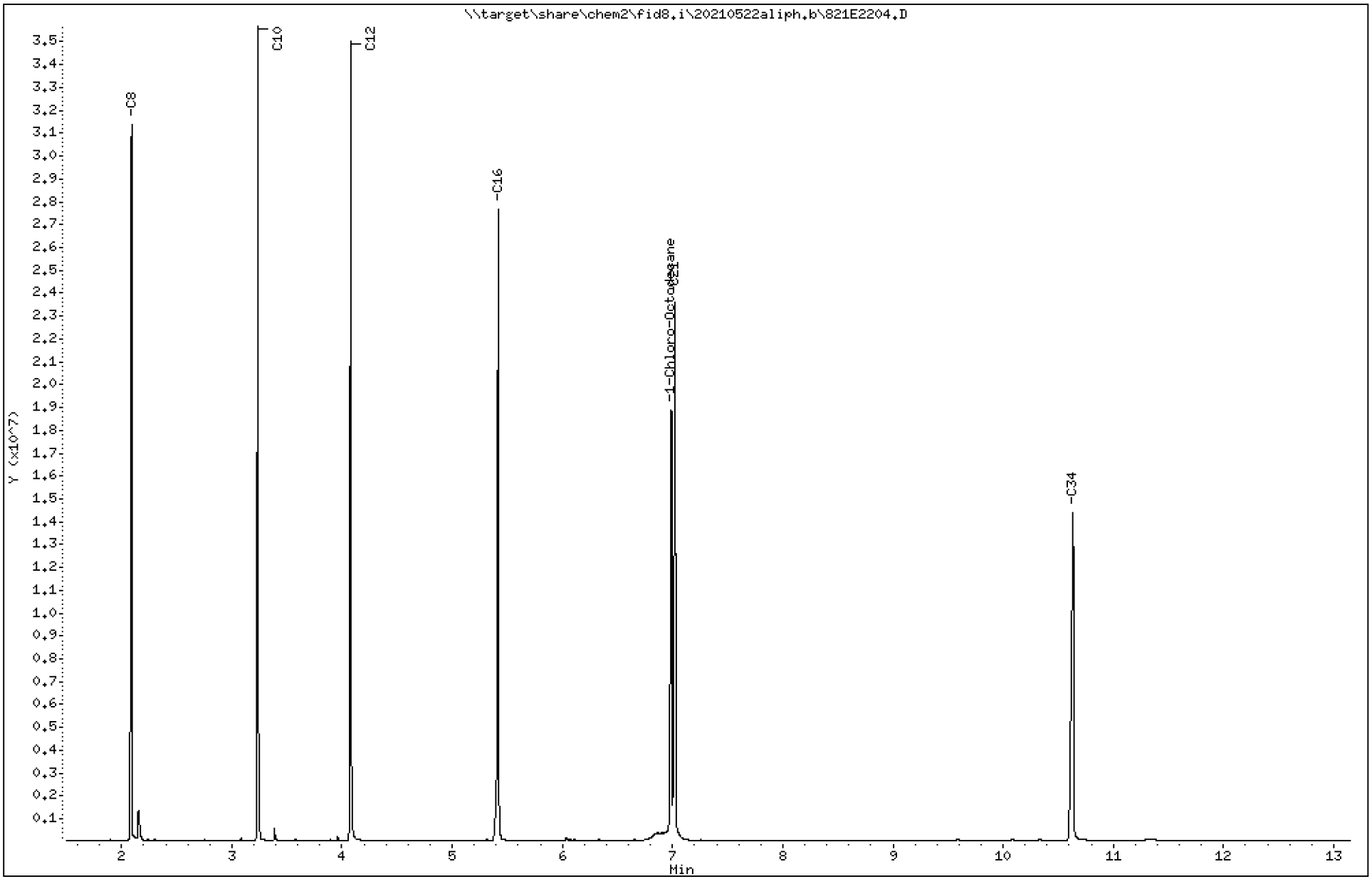
Instrument: fid8.i

Sample Info: ALIPHICV1

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



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Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: 20210522aliph.b/821E2204.D
Method: 20210522aliph.b\EPHAliph.m
Instrument: fid8.i
Operator: JGR
Macro: ALIPH020217FID8

ARI ID: ALIPHICV1
Client ID:
Injection: 22-MAY-2021 13:44
Matrix: NONE
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

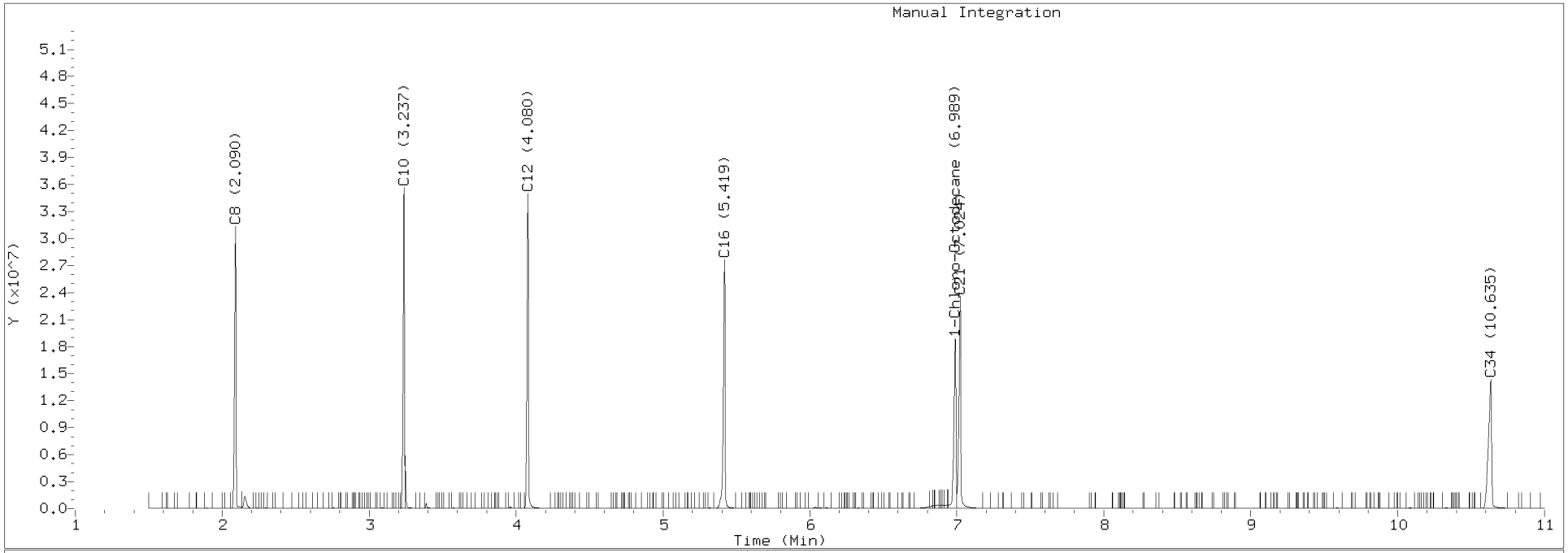
Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	48157804	250.1	(2.001 - 3.348)
C10-C12	Aliph.	24641300	120.0	(3.348 - 4.191)
C12-C16	Aliph.	23572659	116.4	(4.191 - 5.530)
C16-C21	Aliph.	25009815	128.2	(5.530 - 7.137)
C21-C34	Aliph.	22997175	128.5	(7.137 - 10.756)

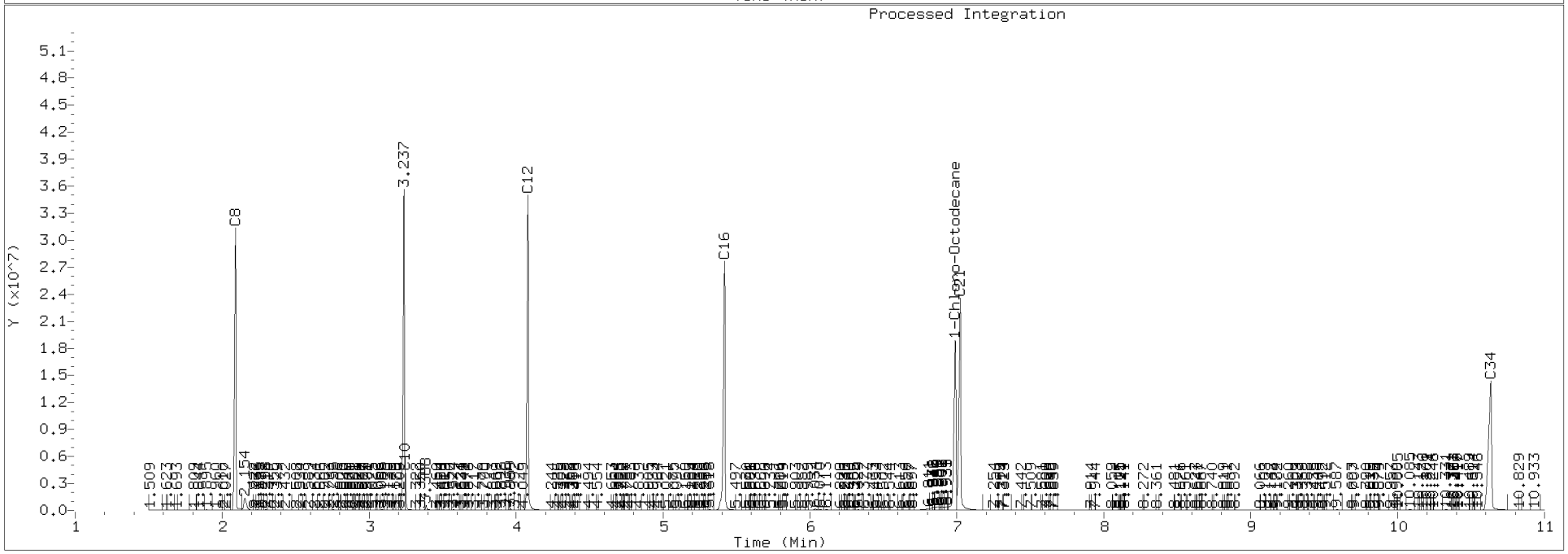
Surrogate Rec: 73.9% 110.8 ug/mL

EPH Aliphatics Manual Integrations Report

Datafile: FID8, 20210522aliph.b/821E2204.D Injection: 22-MAY-2021 13:44

Lab ID:ALIPHICV1





Analytical Resources, Incorporated
Analytical Chemists and Consultants

INITIAL CALIBRATION CHECK

WA EPH

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	FID8	Calibration:	DJ00015
Lab File ID:	821E2504.D	Calibration Date:	10/01/2020
Sequence:	SJE0400	Injection Date:	05/25/21
Lab Sample ID:	SJE0400-ICV2	Injection Time:	19:46
Sequence Name:	ALIPHATICS		

		CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
>C10-C12 Aliphatics	A	125.00	119	205303.2000	195394.2000		-4.8	+/-20
1-Chloro-octadecane	A	125.00	105	168020.3000	140956.6000		-16.1	+/-20

* Values outside of QC limits

Data File: \\target\share\chem2\fid8.i\20210525aliph.b\821E2504.D

Date : 25-MAY-2021 19:46

Client ID:

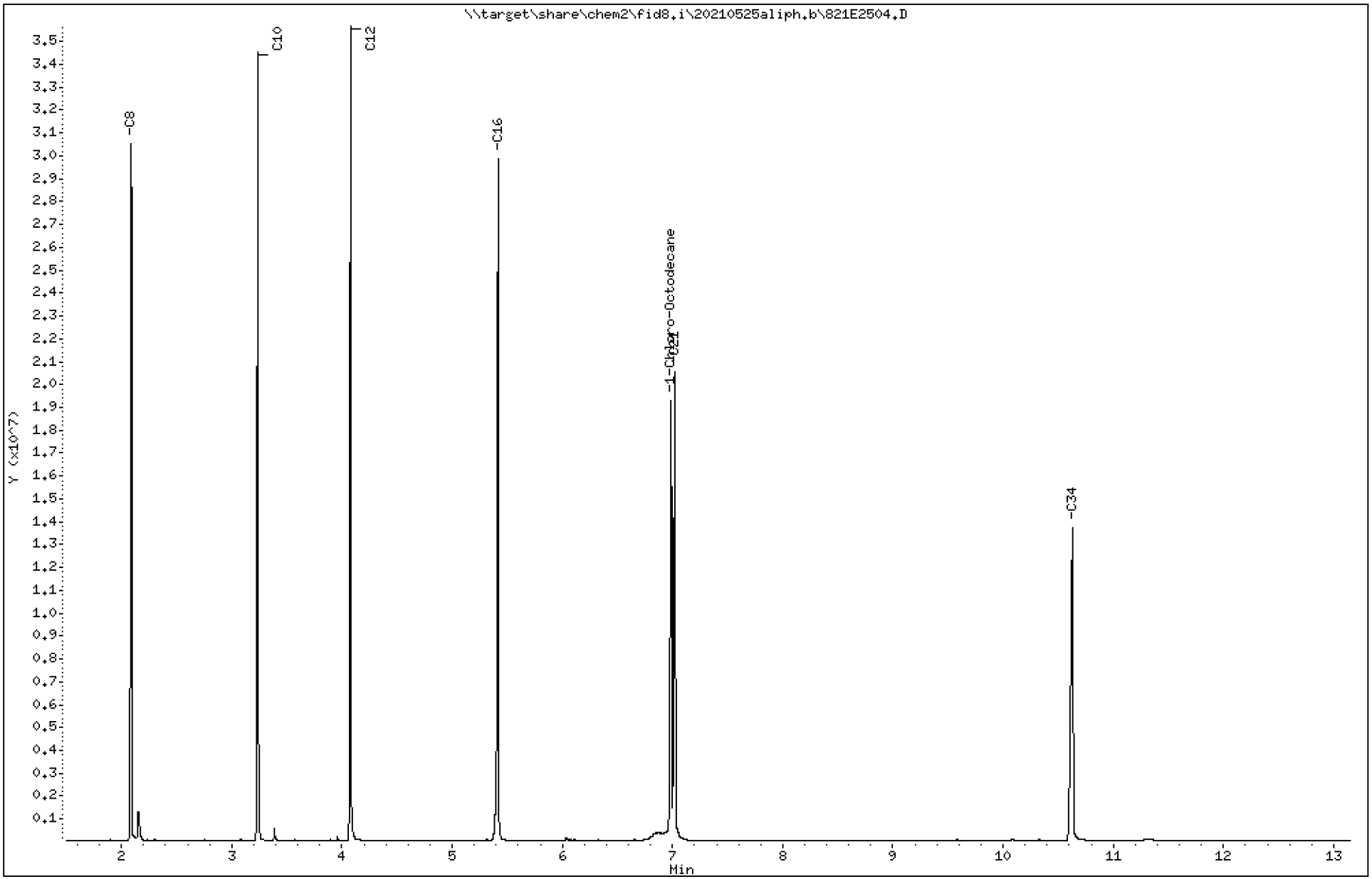
Instrument: fid8.i

Sample Info: ALIPHICV1

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: 20210525aliph.b/821E2504.D
Method: 20210525aliph.b\EPHAliph.m
Instrument: fid8.i
Operator: JGR
Macro: ALIPH020217FID8

ARI ID: ALIPHICV1
Client ID:
Injection: 25-MAY-2021 19:46
Matrix: NONE
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	46712674	242.6	(2.001 - 3.348)
C10-C12	Aliph.	24424279	119.0	(3.348 - 4.191)
C12-C16	Aliph.	23199139	114.6	(4.191 - 5.530)
C16-C21	Aliph.	23904003	122.6	(5.530 - 7.137)
C21-C34	Aliph.	22171239	123.8	(7.137 - 10.756)

Surrogate Rec: 69.9% 104.9 ug/mL

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
WA EPH

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	FID8	Calibration:	DJ00015
Lab File ID:	820J0121.D	Calibration Date:	10/01/2020
Sequence:	SIJ0055	Injection Date:	10/02/20
Lab Sample ID:	SIJ0055-SCV2	Injection Time:	02:45
Sequence Name:	ALIPH SCV		

		CONC. (ug/mL)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
>C10-C12 Aliphatics	A	125.00	153	205303.2	250739		22.2	+/-30
C10-C12 Aliphatics	A	125.00	153	205303.2	250739		22.2	+/-30
1-Chloro-octadecane	A	125.00	174	168020.3	234097.1		39.4	+/-30 *

* Values outside of QC limits

Data File: \\target\share\chem2\fid8.i\20201001aliph.b\820J0121.D

Date : 02-OCT-2020 02:45

Client ID:

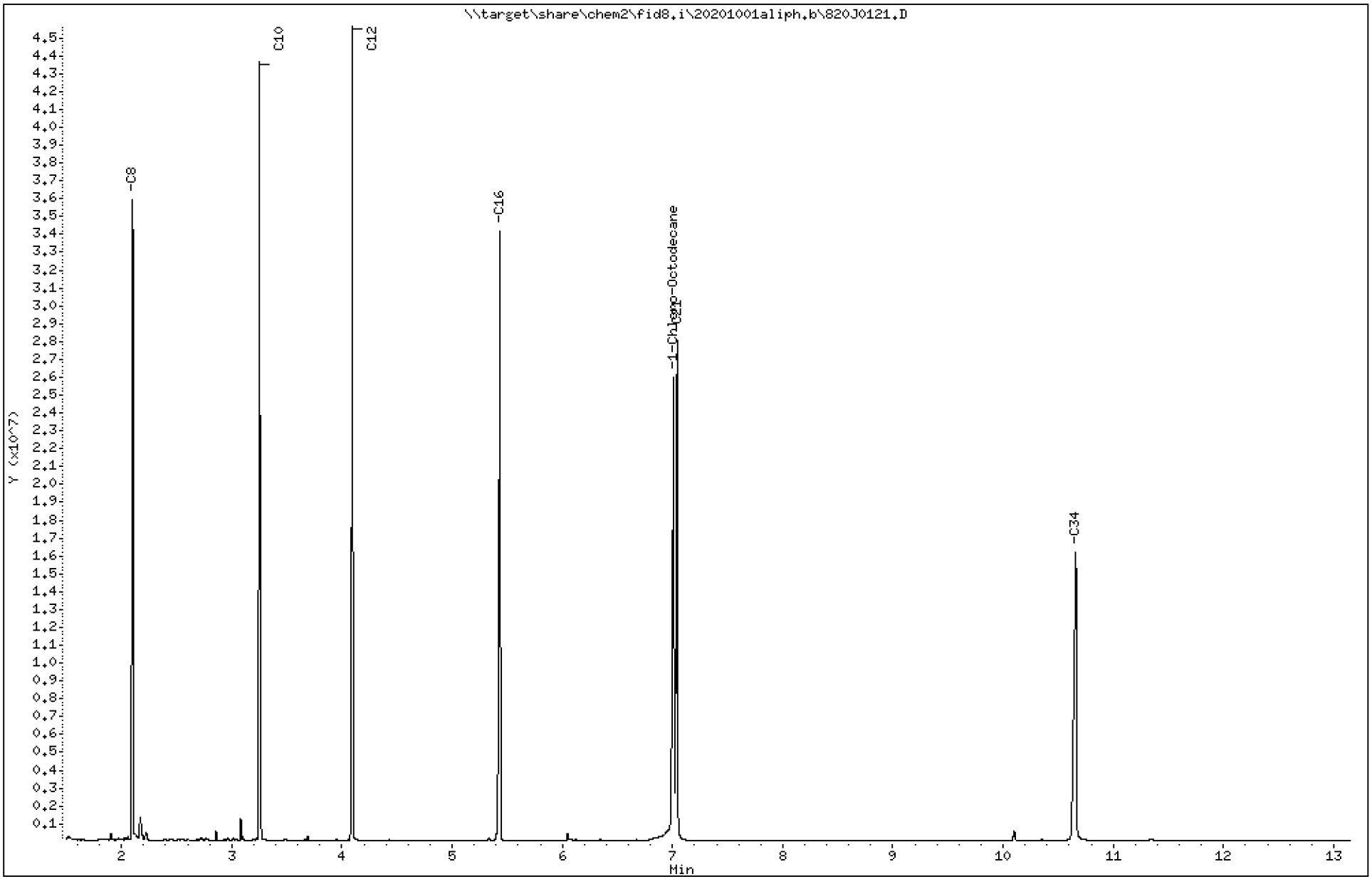
Sample Info: ALIPHSC2

Column phase: RTX-1

Instrument: fid8.i

Operator: JGR

Column diameter: 0.25



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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

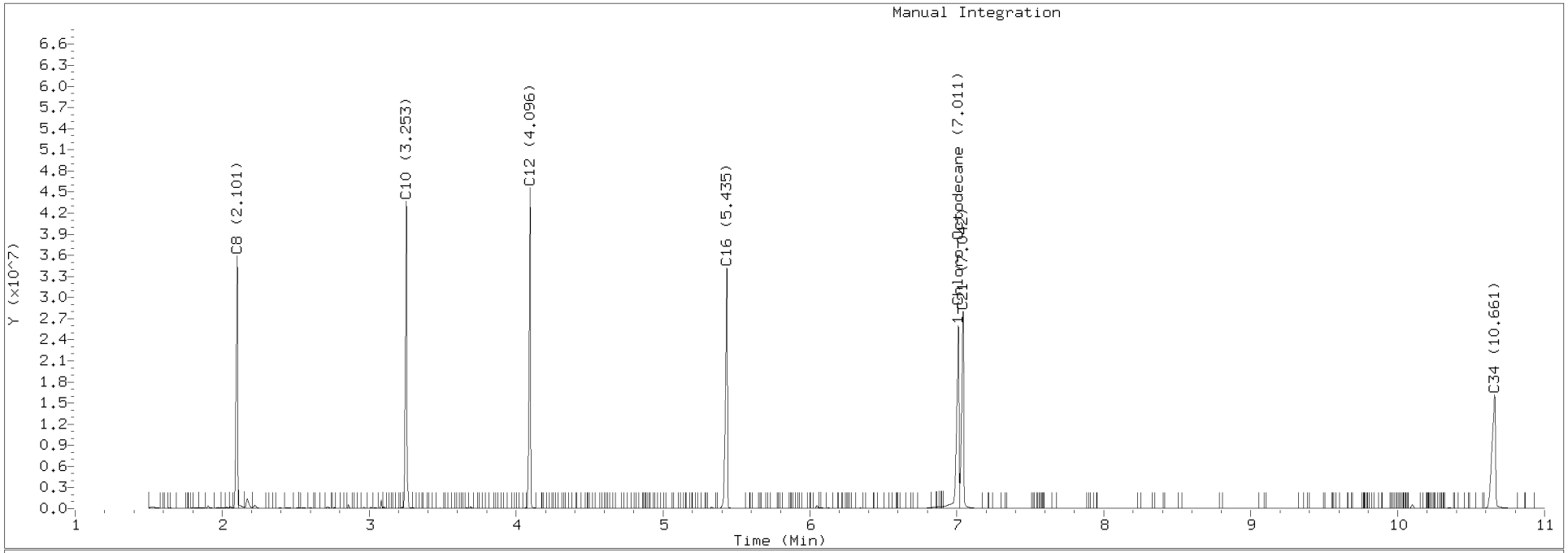
Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	61966510	321.9	(2.018 - 3.359)
C10-C12	Aliph.	31342373	152.7	(3.359 - 4.199)
C12-C16	Aliph.	31575101	156.0	(4.199 - 5.538)
C16-C21	Aliph.	29727101	152.4	(5.538 - 7.147)
C21-C34	Aliph.	28321380	158.2	(7.147 - 10.769)

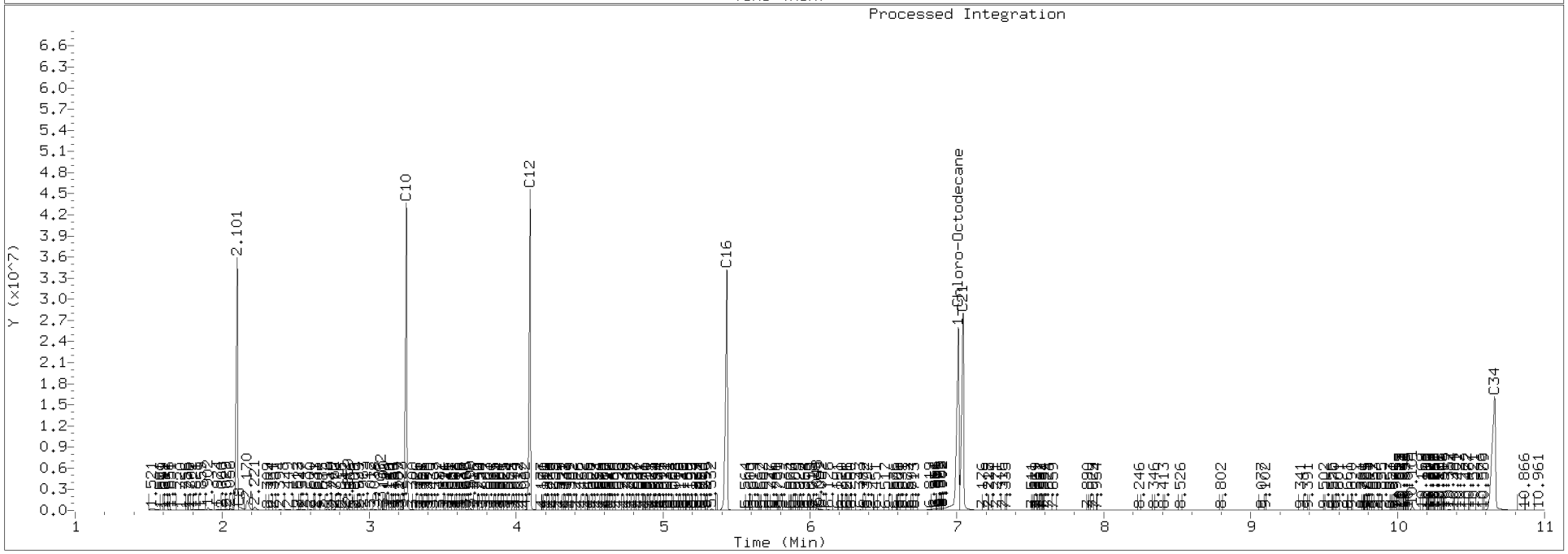
Surrogate Rec: 116.1% 174.2 ug/mL

EPH Aliphatics Manual Integrations Report

Datafile: FID8, 20201001aliph.b/820J0121.D Injection: 02-OCT-2020 02:45

Lab ID:ALIPHSC2





CONTINUING CALIBRATION CHECK
WA EPH

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	FID8	Calibration:	DJ00015
Lab File ID:	821E2219.D	Calibration Date:	10/01/2020
Sequence:	SJE0400	Injection Date:	05/22/21
Lab Sample ID:	SJE0400-CCV1	Injection Time:	19:58
Sequence Name:	ALIPHATICS		

		CONC. (ug/mL)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
>C10-C12 Aliphatics	A	125.00	118	205303.2	193069.5		-5.9	+/-20
1-Chloro-octadecane	A	125.00	107	168020.3	143889.2		-14.4	+/-20

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem2\fid8.i\20210522aliph.b\821E2219.D

Date : 22-MAY-2021 19:58

Client ID:

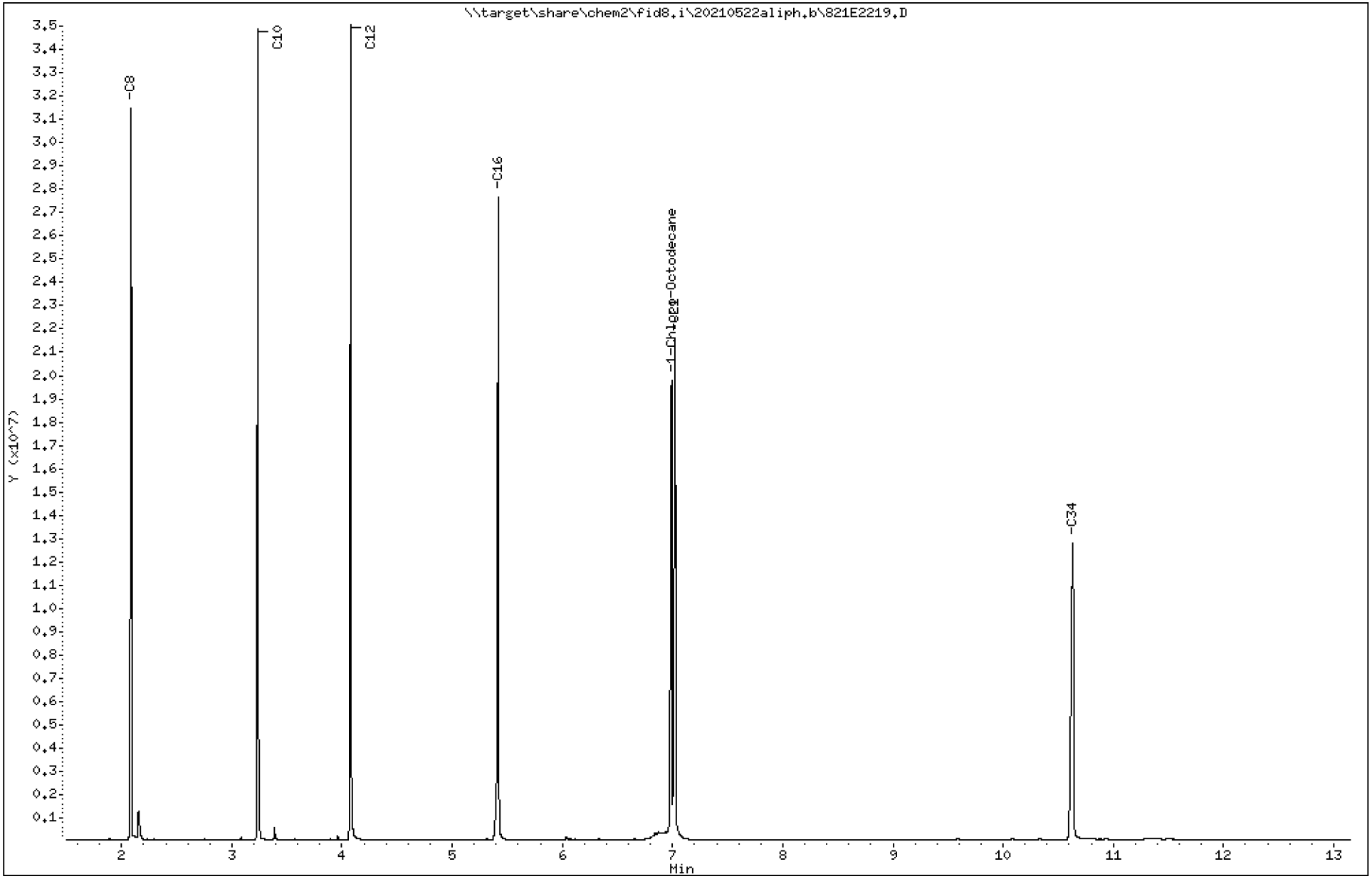
Instrument: fid8.i

Sample Info: ALIPHCCV1

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



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Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: 20210522aliph.b/821E2219.D
Method: 20210522aliph.b\EPHAliph.m
Instrument: fid8.i
Operator: JGR
Macro: ALIPH020217FID8

ARI ID: ALIPHCCV1
Client ID:
Injection: 22-MAY-2021 19:58
Matrix: NONE
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	46821614	243.2	(2.001 - 3.348)
C10-C12	Aliph.	24133688	117.6	(3.348 - 4.191)
C12-C16	Aliph.	22848867	112.9	(4.191 - 5.530)
C16-C21	Aliph.	24382445	125.0	(5.530 - 7.137)
C21-C34	Aliph.	23197246	129.6	(7.137 - 10.756)

Surrogate Rec: 71.4% 107.0 ug/mL

CONTINUING CALIBRATION CHECK
WA EPH

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	FID8	Calibration:	DJ00015
Lab File ID:	821E2235.D	Calibration Date:	10/01/2020
Sequence:	SJE0400	Injection Date:	05/23/21
Lab Sample ID:	SJE0400-CCV2	Injection Time:	02:42
Sequence Name:	ALIPHATICS		

		CONC. (ug/mL)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
>C10-C12 Aliphatics	A	125.00	121	205303.2	198118.2		-3.5	+/-20
1-Chloro-octadecane	A	125.00	111	168020.3	149321.6		-11.1	+/-20

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem2\fid8.i\20210522aliph.b\821E2235.D

Page 1

Date : 23-MAY-2021 02:42

Client ID:

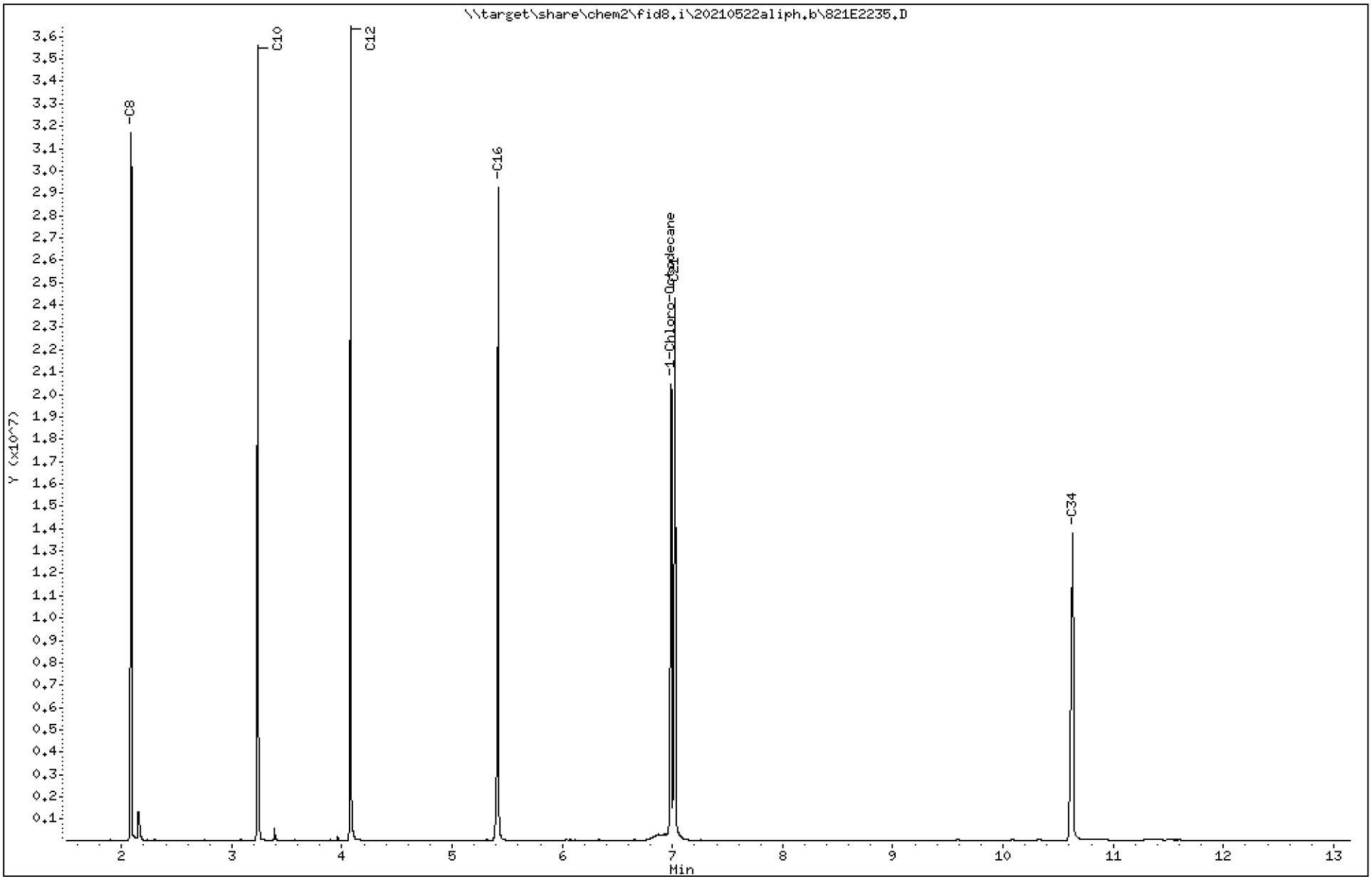
Instrument: fid8.i

Sample Info: ALIPHCCV2

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



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Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: 20210522aliph.b/821E2235.D
Method: 20210522aliph.b\EPHAliph.m
Instrument: fid8.i
Operator: JGR
Macro: ALIPH020217FID8

ARI ID: ALIPHCCV2
Client ID:
Injection: 23-MAY-2021 02:42
Matrix: NONE
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

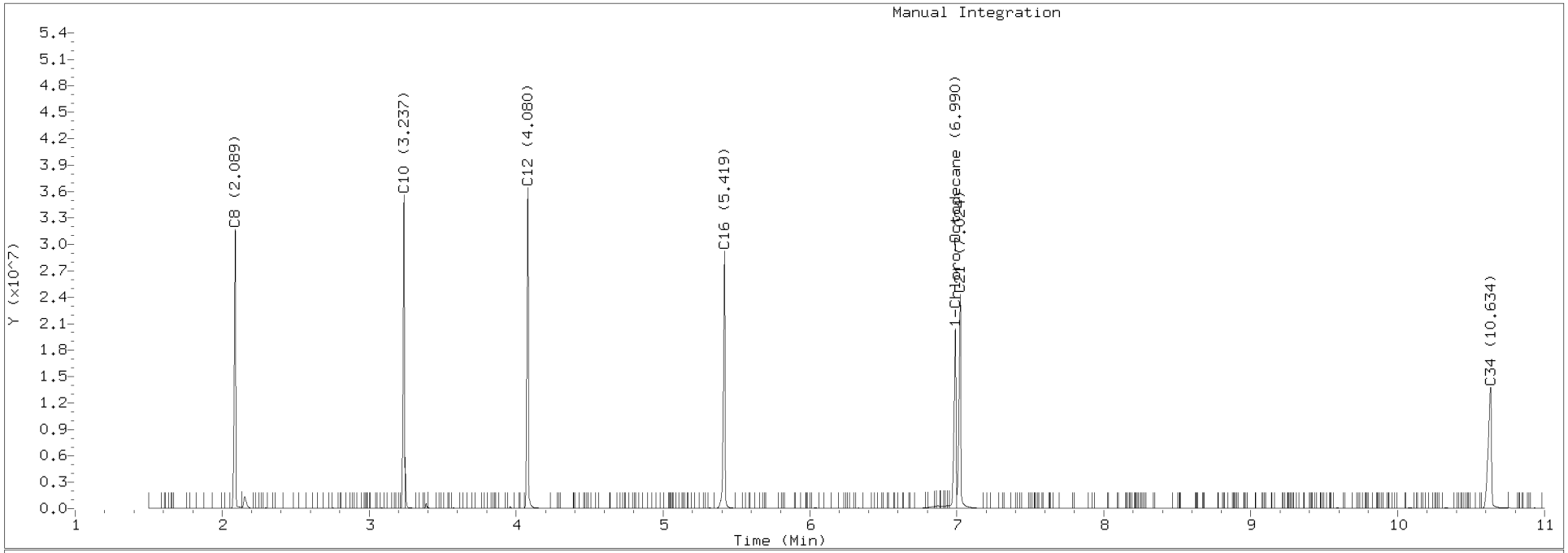
Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	48428144	251.5	(2.001 - 3.348)
C10-C12	Aliph.	24764772	120.6	(3.348 - 4.191)
C12-C16	Aliph.	23417055	115.7	(4.191 - 5.530)
C16-C21	Aliph.	24938840	127.9	(5.530 - 7.137)
C21-C34	Aliph.	23856365	133.3	(7.137 - 10.756)

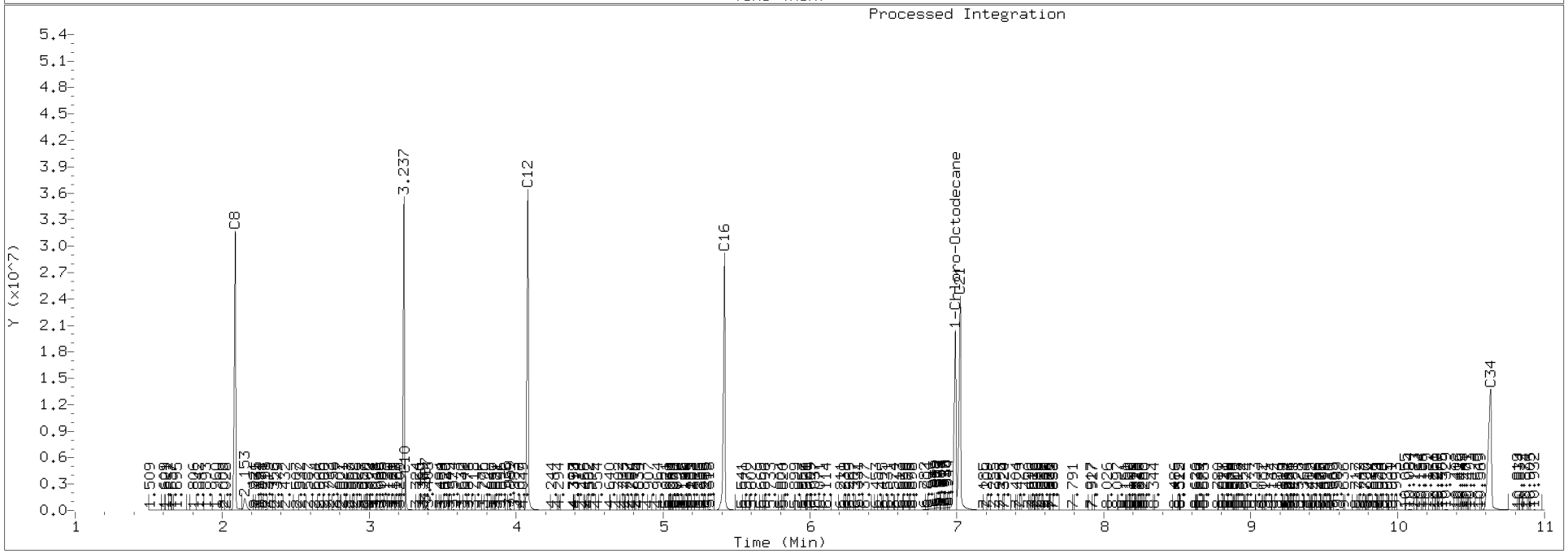
Surrogate Rec: 74.1% 111.1 ug/mL

EPH Aliphatics Manual Integrations Report

Datafile: FID8, 20210522aliph.b/821E2235.D Injection: 23-MAY-2021 02:42

Lab ID:ALIPHCCV2





CONTINUING CALIBRATION CHECK
WA EPH

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	FID8	Calibration:	DJ00015
Lab File ID:	821E2247.D	Calibration Date:	10/01/2020
Sequence:	SJE0400	Injection Date:	05/23/21
Lab Sample ID:	SJE0400-CCV3	Injection Time:	07:44
Sequence Name:	ALIPHATICS		

		CONC. (ug/mL)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
>C10-C12 Aliphatics	A	125.00	119	205303.2	195362.2		-4.9	+/-20
1-Chloro-octadecane	A	125.00	107	168020.3	143707.7		-14.5	+/-20

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem2\fid8.i\20210522aliph.b\821E2247.D

Page 1

Date : 23-MAY-2021 07:44

Client ID:

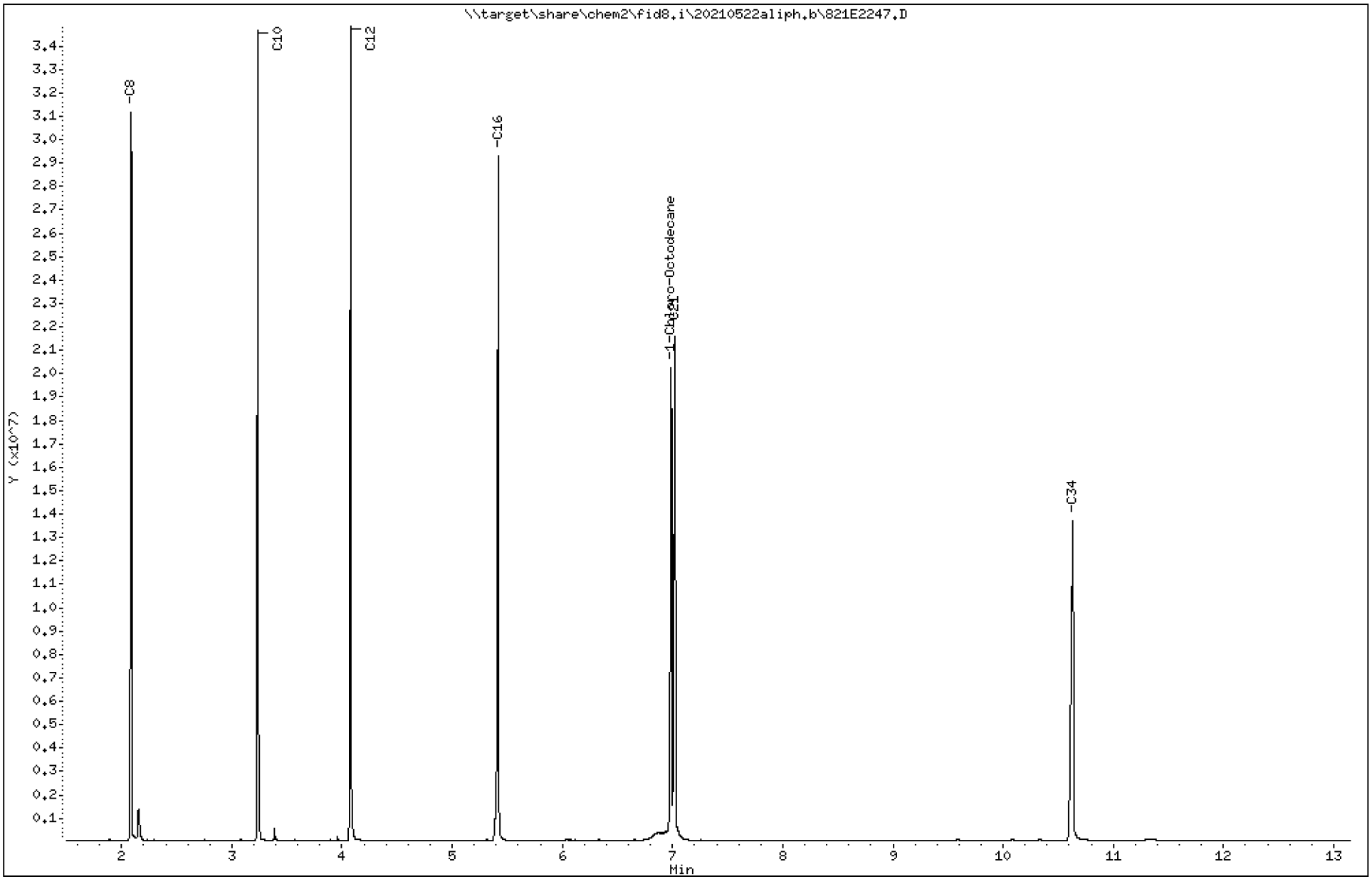
Instrument: fid8.i

Sample Info: ALIPHCCV3

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



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Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: 20210522aliph.b/821E2247.D
Method: 20210522aliph.b\EPHAliph.m
Instrument: fid8.i
Operator: JGR
Macro: ALIPH020217FID8

ARI ID: ALIPHCCV3
Client ID:
Injection: 23-MAY-2021 07:44
Matrix: NONE
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	47135182	244.8	(2.001 - 3.348)
C10-C12	Aliph.	24420284	118.9	(3.348 - 4.191)
C12-C16	Aliph.	23220403	114.7	(4.191 - 5.530)
C16-C21	Aliph.	25078806	128.6	(5.530 - 7.137)
C21-C34	Aliph.	22684407	126.7	(7.137 - 10.756)

Surrogate Rec: 71.3% 106.9 ug/mL

CONTINUING CALIBRATION CHECK
WA EPH

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	FID8	Calibration:	DJ00015
Lab File ID:	821E2255.D	Calibration Date:	10/01/2020
Sequence:	SJE0400	Injection Date:	05/23/21
Lab Sample ID:	SJE0400-CCV4	Injection Time:	11:04
Sequence Name:	ALIPHATICS		

		CONC. (ug/mL)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
>C10-C12 Aliphatics	A	125.00	121	205303.2	198915.4		-3.1	+/-20
1-Chloro-octadecane	A	125.00	113	168020.3	151176.6		-10.0	+/-20

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem2\fid8.i\20210522aliph.b\821E2255.D

Date : 23-MAY-2021 11:04

Client ID:

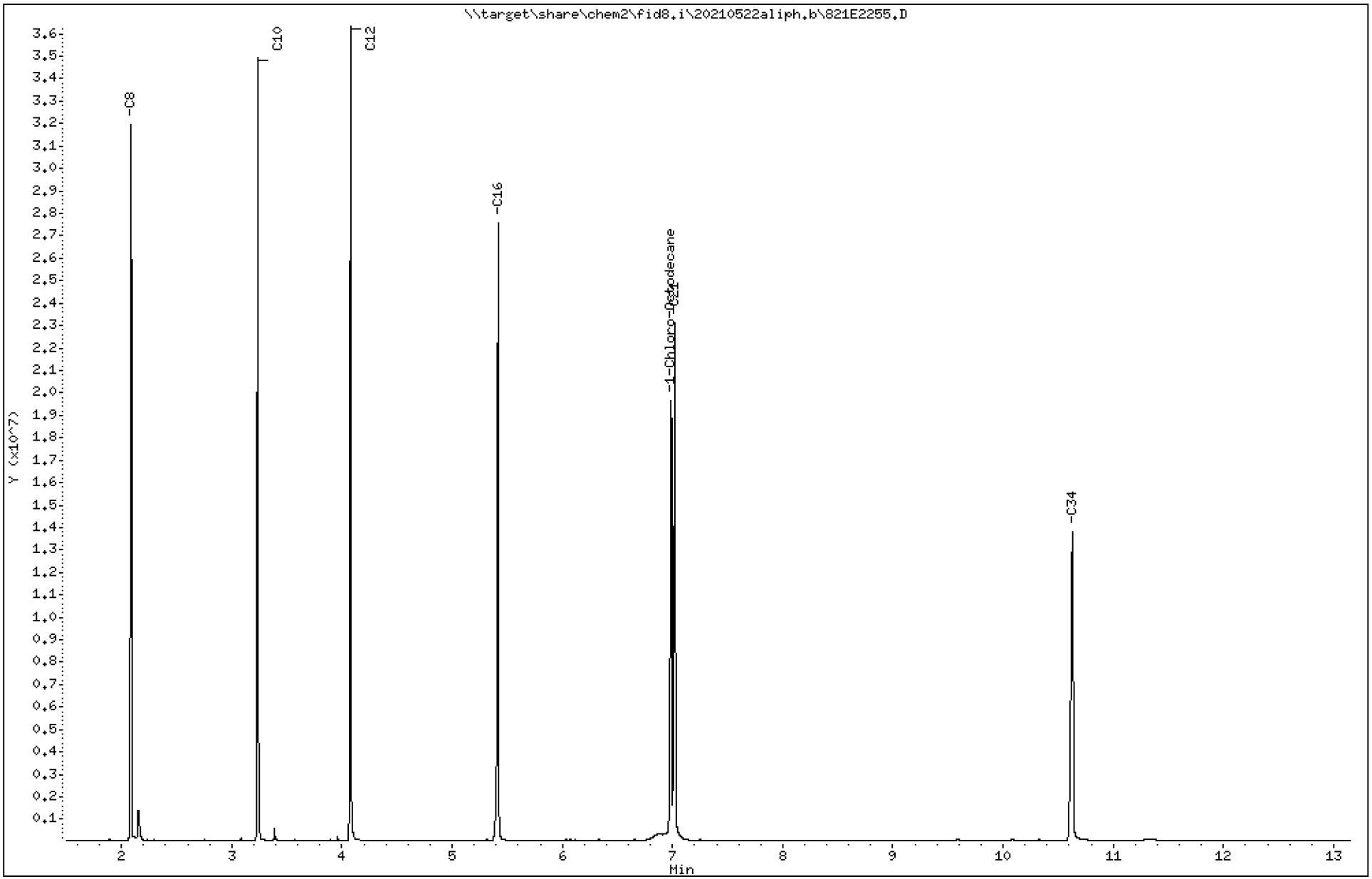
Instrument: fid8.i

Sample Info: ALIPHCCV4

Operator: JGR

Column phase: RTX-1

Column diameter: 0.25



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Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: 20210522aliph.b/821E2255.D
Method: 20210522aliph.b\EPHAliph.m
Instrument: fid8.i
Operator: JGR
Macro: ALIPH020217FID8

ARI ID: ALIPHCCV4
Client ID:
Injection: 23-MAY-2021 11:04
Matrix: NONE
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	48410803	251.5	(2.001 - 3.348)
C10-C12	Aliph.	24864423	121.1	(3.348 - 4.191)
C12-C16	Aliph.	23643096	116.8	(4.191 - 5.530)
C16-C21	Aliph.	25150529	128.9	(5.530 - 7.137)
C21-C34	Aliph.	23258075	129.9	(7.137 - 10.756)

Surrogate Rec: 75.0% 112.5 ug/mL

CONTINUING CALIBRATION CHECK
WA EPH

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	FID8	Calibration:	DJ00015
Lab File ID:	821E2508.D	Calibration Date:	10/01/2020
Sequence:	SJE0400	Injection Date:	05/25/21
Lab Sample ID:	SJE0400-CCV5	Injection Time:	21:27
Sequence Name:	ALIPHATICS		

		CONC. (ug/mL)		RESPONSE FACTOR (RF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
>C10-C12 Aliphatics	A	125.00	118	205303.2	193384.6		-5.8	+/-20
1-Chloro-octadecane	A	125.00	106	168020.3	142376.5		-15.3	+/-20

* Values outside of QC limits

Data File: \\target\share\chem2\fid8.i\20210525aliph.b\821E2508.D

Date : 25-MAY-2021 21:27

Client ID:

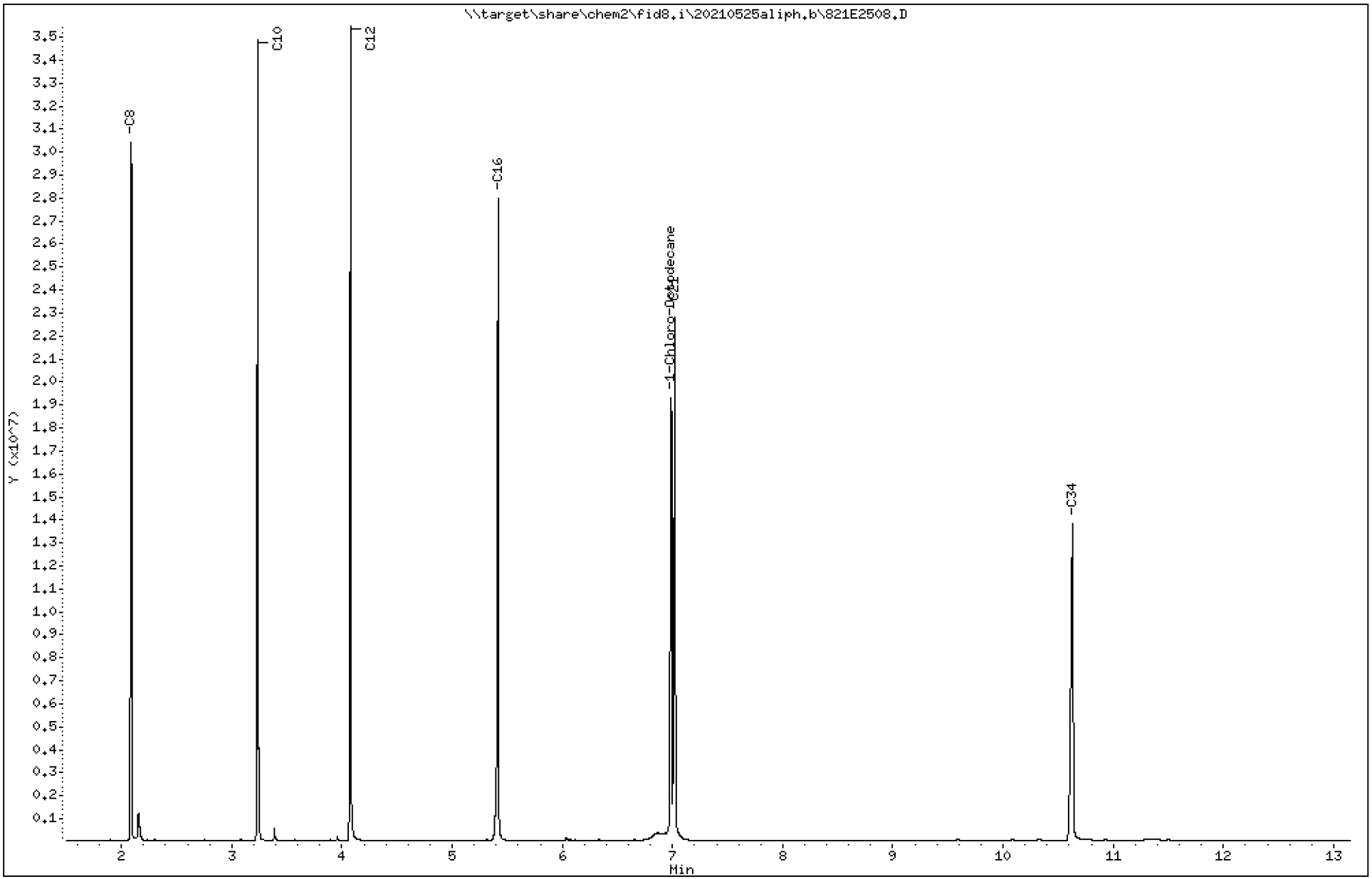
Sample Info: ALIPHCCV1

Column phase: RTX-1

Instrument: fid8.i

Operator: JGR

Column diameter: 0.25



Final Report 21E0099 06/15/2021 Page 908 of 957

Analytical Resources Inc.
WA. EPH Aliphatics Report

Data file: 20210525aliph.b/821E2508.D
Method: 20210525aliph.b\EPHAliph.m
Instrument: fid8.i
Operator: JGR
Macro: ALIPH020217FID8

ARI ID: ALIPHCCV1
Client ID:
Injection: 25-MAY-2021 21:27
Matrix: NONE
Dilution Factor: 1

EPH-ALIPHATIC RESULTS

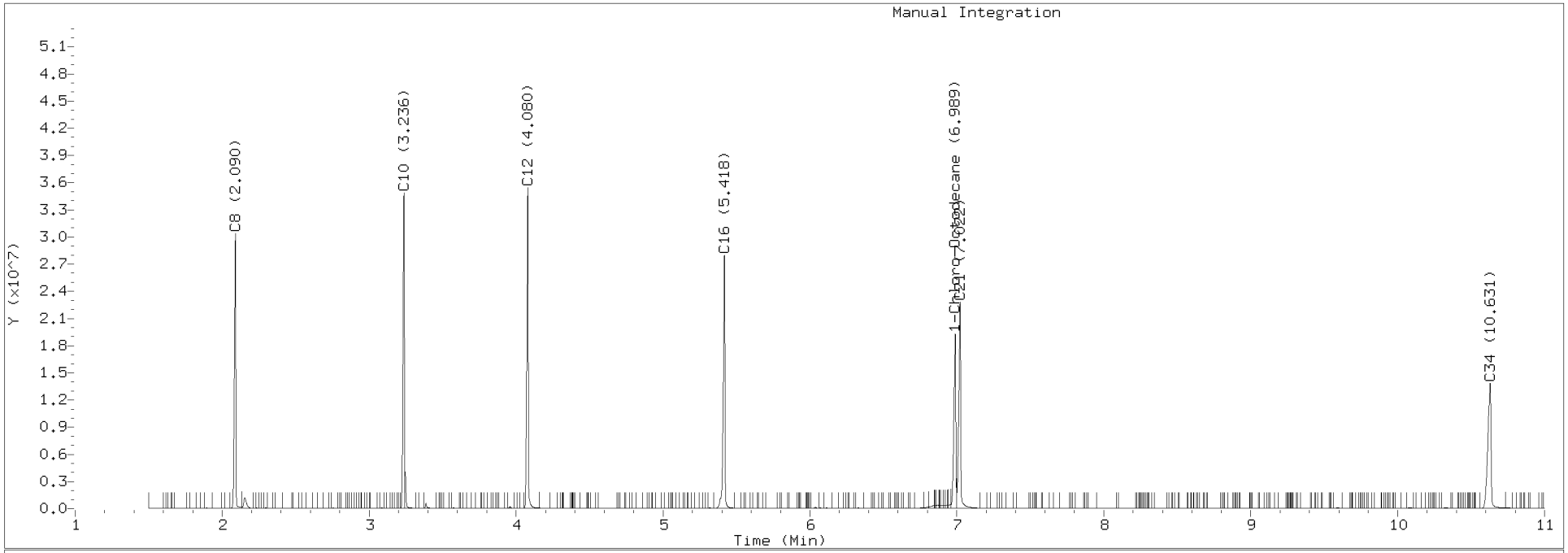
Quant Range		Area	Conc	Time Range
C8-C10	Aliph.	46263800	240.3	(2.001 - 3.348)
C10-C12	Aliph.	24173078	117.7	(3.348 - 4.191)
C12-C16	Aliph.	22962666	113.4	(4.191 - 5.530)
C16-C21	Aliph.	24865255	127.5	(5.530 - 7.137)
C21-C34	Aliph.	23211142	129.7	(7.137 - 10.756)

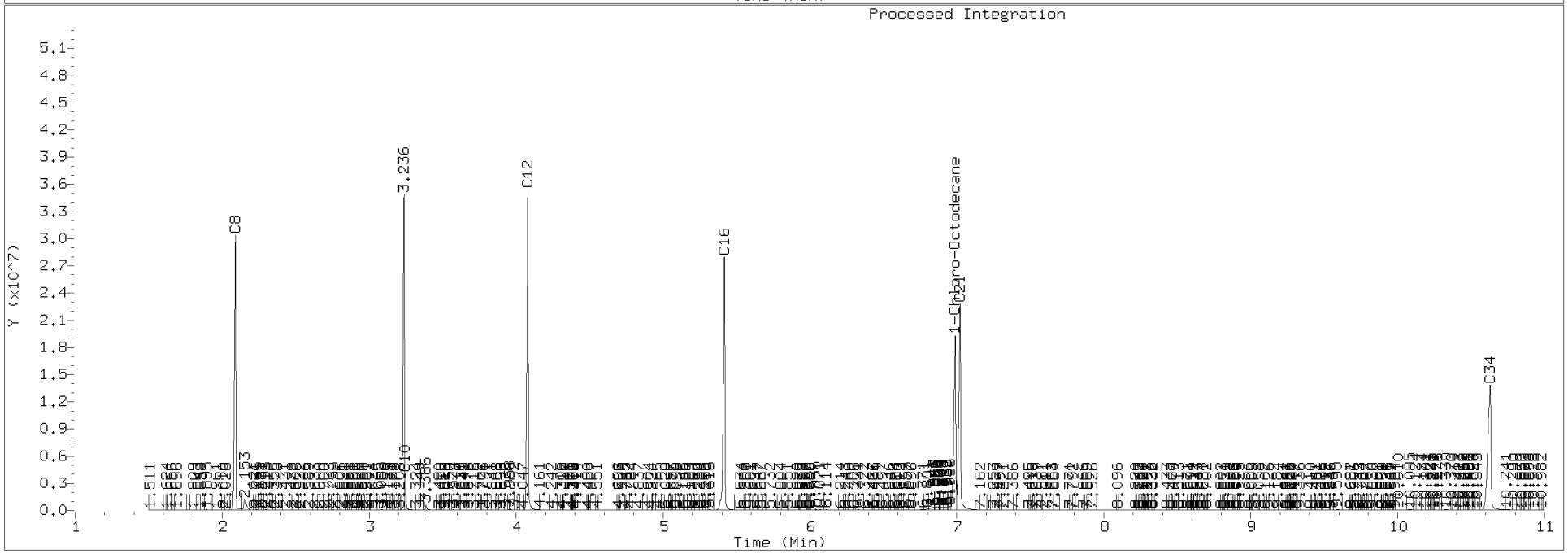
Surrogate Rec: 70.6% 105.9 ug/mL

EPH Aliphatics Manual Integrations Report

Datafile: FID8, 20210525aliph.b/821E2508.D Injection: 25-MAY-2021 21:27

Lab ID:ALIPHCCV1





ANALYSIS BATCH (SEQUENCE) SUMMARY

WA EPH

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
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

Printed: 10/5/2020 5:49:00PM

ANALYSIS SEQUENCE

SIJ0055

Instrument: FID8 Element Column ID: d002555
Calibration ID: DJ00015

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-chlorooctodecane(AROMATIC), o-Terph Surr,
0518	820J0127.D	20I0109-05		1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0543	820J0128.D	20I0109-07		1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0609	820J0129.D	20I0109-08		1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0634	820J0130.D	20I0109-09		1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0659	820J0131.D	20I0109-10		1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0724	820J0132.D	BII0795-MS2		1	Benzo-ghi-per, 1-chlorooctodecane(AROMATIC), o-Terph Surr,
0749	820J0133.D	BII0795-MSD2		1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0814	820J0134.D	20I0109-11		1	NO MANUAL INTEGRATION
0839	820J0135.D	20I0149-01		1	NO MANUAL INTEGRATION
0905	820J0136.D	AROMCCV1		1	NO MANUAL INTEGRATION
0930	820J0137.D	20I0149-02		1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
0955	820J0138.D	20I0149-05		1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
1021	820J0139.D	20I0149-07		1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
1046	820J0140.D	20I0149-08		1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
1112	820J0141.D	20I0149-09		1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
1137	820J0142.D	20I0149-10		1	1-chlorooctodecane(AROMATIC), o-Terph Surr,
1203	820J0143.D	AROMCCV2		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
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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
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820J0158.D	Data Locked	jrains, 05-Oct-2020 17:34
820J0159.D	Data Locked	jrains, 05-Oct-2020 17:34
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820J0161.D	Data Locked	jrains, 05-Oct-2020 17:34
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820J0167.D	Data Locked	jrains, 05-Oct-2020 17:34
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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
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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	Data Locked	jrains, 05-Oct-2020 17:34
820J0197.D	Data Locked	jrains, 05-Oct-2020 17:34

Security Status Report

Date: 05-Oct-2020 17:40

820J0101.D	Data Locked	jrains, 05-Oct-2020 17:40
820J0102.D	Data Locked	jrains, 05-Oct-2020 17:40
820J0103.D	Data Locked	jrains, 05-Oct-2020 17:40
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820J0105.D	Data Locked	jrains, 05-Oct-2020 17:40
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820J0182.D	Data Locked	jrains, 05-Oct-2020 17:40
820J0183.D	Data Locked	jrains, 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

ANALYSIS BATCH (SEQUENCE) SUMMARY

WA EPH

Laboratory: Analytical Resources, Inc.
Client: Anchor QEA, LLC
Sequence: SJE0400

SDG: 21E0099
Project: Gasco Siltronic - US Moorings
Instrument: FID8
Calibration: DJ00015

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ALIPHATICS	SJE0400-ICV1	821E2204.D	NA	05/22/21 13:44
ZZZZZ	BJE0251-BLK1	821E2205.D	Solid	05/22/21 14:09
ZZZZZ	BJE0251-BS1	821E2206.D	Solid	05/22/21 14:34
ZZZZZ	21E0081-06	821E2207.D	Solid	05/22/21 14:59
ZZZZZ	21E0081-07	821E2208.D	Solid	05/22/21 15:23
ZZZZZ	21E0081-08	821E2209.D	Solid	05/22/21 15:48
ZZZZZ	21E0081-14	821E2210.D	Solid	05/22/21 16:13
ZZZZZ	21E0081-15	821E2211.D	Solid	05/22/21 16:38
ZZZZZ	21E0081-21	821E2212.D	Solid	05/22/21 17:03
ZZZZZ	21E0081-22	821E2213.D	Solid	05/22/21 17:28
ZZZZZ	21E0081-23	821E2214.D	Solid	05/22/21 17:52
ZZZZZ	21E0081-24	821E2215.D	Solid	05/22/21 18:17
ZZZZZ	21E0081-25	821E2218.D	Solid	05/22/21 19:32
ALIPHATICS	SJE0400-CCV1	821E2219.D	NA	05/22/21 19:58
ZZZZZ	21E0081-26	821E2220.D	Solid	05/22/21 20:23
ZZZZZ	21E0081-30	821E2221.D	Solid	05/22/21 20:48
ZZZZZ	21E0081-31	821E2222.D	Solid	05/22/21 21:13
ZZZZZ	21E0081-32	821E2223.D	Solid	05/22/21 21:39
ZZZZZ	21E0081-33	821E2224.D	Solid	05/22/21 22:04
ZZZZZ	21E0081-34	821E2225.D	Solid	05/22/21 22:30
Blank	BJE0211-BLK1	821E2226.D	Water	05/22/21 22:55
LCS	BJE0211-BS1	821E2227.D	Water	05/22/21 23:21
LCS Dup	BJE0211-BSD1	821E2228.D	Water	05/22/21 23:46
SC-FB-2105030940	21E0099-01	821E2229.D	Water	05/23/21 00:12
SC-RB-2105030901	21E0099-02	821E2230.D	Water	05/23/21 00:37
ZZZZZ	BJE0337-BLK1	821E2231.D	Solid	05/23/21 01:02
ZZZZZ	BJE0337-BS1	821E2232.D	Solid	05/23/21 01:27
ZZZZZ	21E0096-04	821E2233.D	Solid	05/23/21 01:52
ZZZZZ	21E0096-05	821E2234.D	Solid	05/23/21 02:17
ALIPHATICS	SJE0400-CCV2	821E2235.D	NA	05/23/21 02:42

ANALYSIS BATCH (SEQUENCE) SUMMARY

WA EPH

Laboratory:	Analytical Resources, Inc.	SDG:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Sequence:	SJE0400	Instrument:	FID8
		Calibration:	DJ00015

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	21E0096-06	821E2236.D	Solid	05/23/21 03:07
ZZZZZ	21E0096-10	821E2237.D	Solid	05/23/21 03:32
ZZZZZ	21E0096-11	821E2238.D	Solid	05/23/21 03:57
ZZZZZ	21E0096-12	821E2239.D	Solid	05/23/21 04:22
ZZZZZ	21E0096-13	821E2240.D	Solid	05/23/21 04:48
ZZZZZ	21E0096-17	821E2241.D	Solid	05/23/21 05:13
ZZZZZ	21E0096-18	821E2242.D	Solid	05/23/21 05:38
ZZZZZ	21E0096-19	821E2243.D	Solid	05/23/21 06:03
ZZZZZ	21E0096-20	821E2244.D	Solid	05/23/21 06:29
ZZZZZ	21E0096-25	821E2246.D	Solid	05/23/21 07:19
ALIPHATICS	SJE0400-CCV3	821E2247.D	NA	05/23/21 07:44
ZZZZZ	21E0096-27	821E2251.D	Solid	05/23/21 09:24
ZZZZZ	21E0096-28	821E2252.D	Solid	05/23/21 09:50
ZZZZZ	21E0096-29	821E2253.D	Solid	05/23/21 10:15
ALIPHATICS	SJE0400-CCV4	821E2255.D	NA	05/23/21 11:04
ALIPHATICS	SJE0400-ICV2	821E2504.D	NA	05/25/21 19:46
ZZZZZ	21E0096-21	821E2505.D	Solid	05/25/21 20:11
ZZZZZ	21E0096-26	821E2506.D	Solid	05/25/21 20:36
ZZZZZ	21E0096-30	821E2507.D	Solid	05/25/21 21:02
ALIPHATICS	SJE0400-CCV5	821E2508.D	NA	05/25/21 21:27

Printed: 5/28/2021 12:34:39PM

ANALYSIS SEQUENCE

SJE0400

Instrument: FID8 Element Column ID: d002555
Calibration ID: DJ00015

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SJE0400-ICV1	ALIPHATICS	QC		1	J005376		
BJE0251-BLK1	Blank	QC		2			
BJE0251-BS1	LCS	QC		3			
21E0081-06	USMPDI-005SC-B-00-02-21050	WA EPH Aliphatic C10-C12 mod	A 02	4			
21E0081-07	USMPDI-005SC-B-02-05-21050	WA EPH Aliphatic C10-C12 mod	A 02	5			
21E0081-08	SMPDI-005SC-A-5.0-6.6-2105(	WA EPH Aliphatic C10-C12 mod	A 02	6			
21E0081-14	USMPDI-008SC-B-00-02-21050	WA EPH Aliphatic C10-C12 mod	A 02	7			
21E0081-15	SMPDI-008SC-B-02-3.8-2105(	WA EPH Aliphatic C10-C12 mod	A 02	8			
21E0081-21	USMPDI-010SC-B-00-02-21050	WA EPH Aliphatic C10-C12 mod	A 02	9			
21E0081-22	USMPDI-010SC-B-02-05-21050	WA EPH Aliphatic C10-C12 mod	A 02	10			
21E0081-23	USMPDI-010SC-B-05-07-21050	WA EPH Aliphatic C10-C12 mod	A 02	11			
21E0081-24	USMPDI-010SC-B-07-10-21050	WA EPH Aliphatic C10-C12 mod	A 02	12			
BJE0251-MS1	Matrix Spike	QC		13			
BJE0251-MSD1	Matrix Spike Dup	QC		14			
21E0081-25	SMPDI-010SC-B-10-11.5-2105(	WA EPH Aliphatic C10-C12 mod	A 02	15			
SJE0400-CCV1	ALIPHATICS	QC		16	J005376		
21E0081-26	SMPDI-1010SC-B-02-05-2105(	WA EPH Aliphatic C10-C12 mod	A 02	17			
21E0081-30	USMPDI-019SC-B-00-02-21050	WA EPH Aliphatic C10-C12 mod	A 02	18			
21E0081-31	USMPDI-019SC-B-02-05-21050	WA EPH Aliphatic C10-C12 mod	A 02	19			
21E0081-32	USMPDI-019SC-B-05-07-21050	WA EPH Aliphatic C10-C12 mod	A 01	20			
21E0081-33	USMPDI-019SC-B-07-10-21050	WA EPH Aliphatic C10-C12 mod	A 01	21			
21E0081-34	SMPDI-019SC-B-10-11.6-2105(	WA EPH Aliphatic C10-C12 mod	A 01	22			

Printed: 5/28/2021 12:34:39PM

ANALYSIS SEQUENCE

SJE0400

Instrument: FID8 Element Column ID: d002555
Calibration ID: DJ00015

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
BJE0211-BLK1	Blank	QC		23			
BJE0211-BS1	LCS	QC		24			
BJE0211-BSD1	LCS Dup	QC		25			
21E0099-01	SC-FB-2105030940	WA EPH Aliphatic C10-C12 mod	D 01	26			
21E0099-02	SC-RB-2105030901	WA EPH Aliphatic C10-C12 mod	D 01	27			
BJE0337-BLK1	Blank	QC		28			
BJE0337-BS1	LCS	QC		29			
21E0096-04	USMPDI-015SC-B-00-02-21050	WA EPH Aliphatic C10-C12 mod	A 02	30			
21E0096-05	USMPDI-015SC-B-02-05-21050	WA EPH Aliphatic C10-C12 mod	A 02	31			
SJE0400-CCV2	ALIPHATICS	QC		32	J005376		
21E0096-06	USMPDI-015SC-B-05-07-21050	WA EPH Aliphatic C10-C12 mod	A 02	33			
21E0096-10	USMPDI-016SC-B-00-02-21050	WA EPH Aliphatic C10-C12 mod	A 02	34			
21E0096-11	USMPDI-016SC-B-02-05-21050	WA EPH Aliphatic C10-C12 mod	A 02	35			
21E0096-12	USMPDI-016SC-B-05-07-21050	WA EPH Aliphatic C10-C12 mod	A 02	36			
21E0096-13	USMPDI-016SC-B-07-10-21050	WA EPH Aliphatic C10-C12 mod	A 02	37			
21E0096-17	USMPDI-036SC-B-00-02-21050	WA EPH Aliphatic C10-C12 mod	A 02	38			
21E0096-18	USMPDI-036SC-B-02-05-21050	WA EPH Aliphatic C10-C12 mod	A 02	39			
21E0096-19	USMPDI-036SC-B-05-07-21050	WA EPH Aliphatic C10-C12 mod	A 02	40			
21E0096-20	USMPDI-036SC-B-07-10-21050	WA EPH Aliphatic C10-C12 mod	A 02	41			
21E0096-25	USMPDI-037SC-B-00-02-21050	WA EPH Aliphatic C10-C12 mod	A 02	42			
SJE0400-CCV3	ALIPHATICS	QC		43	J005376		
BJE0337-MS1	Matrix Spike	QC		44			

ANALYSIS SEQUENCE

SJE0400

Instrument: FID8 Element Column ID: d002555
Calibration ID: DJ00015

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
BJE0337-MSD1	Matrix Spike Dup	QC		45			
21E0096-27	USMPDI-037SC-B-05-07-21050	WA EPH Aliphatic C10-C12 mod	A 02	46			
21E0096-28	USMPDI-037SC-B-07-10-21050	WA EPH Aliphatic C10-C12 mod	A 02	47			
21E0096-29	SMPDI-037SC-B-10-12.1-2105	WA EPH Aliphatic C10-C12 mod	A 02	48			
SJE0400-CCV4	ALIPHATICS	QC		49	J005376		
SJE0400-ICV2	ALIPHATICS	QC		50	J005376		
21E0096-21	SMPDI-036SC-B-10-12.1-2105	WA EPH Aliphatic C10-C12 mod	A 02	51			
21E0096-26	USMPDI-037SC-B-02-05-21050	WA EPH Aliphatic C10-C12 mod	A 02	52			
21E0096-30	SMPDI-1037SC-B-07-10-2105	WA EPH Aliphatic C10-C12 mod	A 02	53			
SJE0400-CCV5	ALIPHATICS	QC		54	J005376		

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20210522aliph.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	22-MAY-2021 12:30	821E2201.D	1	DCM	
2	22-MAY-2021 12:54	821E2202.D	1	DCM	
3	22-MAY-2021 13:19	821E2203.D	1	DCM	
4	22-MAY-2021 13:44	821E2204.D	1	ALIPHICV1	
5	22-MAY-2021 14:09	821E2205.D	1	BJE0251-BLK1	
6	22-MAY-2021 14:34	821E2206.D	1	BJE0251-BS1	
7	22-MAY-2021 14:59	821E2207.D	1	21E0081-06	
8	22-MAY-2021 15:23	821E2208.D	1	21E0081-07	
9	22-MAY-2021 15:48	821E2209.D	1	21E0081-08	
10	22-MAY-2021 16:13	821E2210.D	1	21E0081-14	
11	22-MAY-2021 16:38	821E2211.D	1	21E0081-15	
12	22-MAY-2021 17:03	821E2212.D	1	21E0081-21	
13	22-MAY-2021 17:28	821E2213.D	1	21E0081-22	
14	22-MAY-2021 17:52	821E2214.D	1	21E0081-23	
15	22-MAY-2021 18:17	821E2215.D	1	21E0081-24	
16	22-MAY-2021 18:42	821E2216.D	1	BJE0251-MS1	
17	22-MAY-2021 19:07	821E2217.D	1	BJE0251-MSD1	
18	22-MAY-2021 19:32	821E2218.D	1	21E0081-25	
19	22-MAY-2021 19:58	821E2219.D	1	ALIPHCCV1	
20	22-MAY-2021 20:23	821E2220.D	1	21E0081-26	
21	22-MAY-2021 20:48	821E2221.D	1	21E0081-30	
22	22-MAY-2021 21:13	821E2222.D	1	21E0081-31	
23	22-MAY-2021 21:39	821E2223.D	1	21E0081-32	
24	22-MAY-2021 22:04	821E2224.D	1	21E0081-33	
25	22-MAY-2021 22:30	821E2225.D	1	21E0081-34	
26	22-MAY-2021 22:55	821E2226.D	1	BJE0211-BLK1	
27	22-MAY-2021 23:21	821E2227.D	1	BJE0211-BS1	
28	22-MAY-2021 23:46	821E2228.D	1	BJE0211-BSD1	
29	23-MAY-2021 00:12	821E2229.D	1	21E0099-01	
30	23-MAY-2021 00:37	821E2230.D	1	21E0099-02	
31	23-MAY-2021 01:02	821E2231.D	1	BJE0337-BLK1	
32	23-MAY-2021 01:27	821E2232.D	1	BJE0337-BS1	
33	23-MAY-2021 01:52	821E2233.D	1	21E0096-04	
34	23-MAY-2021 02:17	821E2234.D	1	21E0096-05	
35	23-MAY-2021 02:42	821E2235.D	1	ALIPHCCV2	
36	23-MAY-2021 03:07	821E2236.D	1	21E0096-06	
37	23-MAY-2021 03:32	821E2237.D	1	21E0096-10	
38	23-MAY-2021 03:57	821E2238.D	1	21E0096-11	
39	23-MAY-2021 04:22	821E2239.D	1	21E0096-12	
40	23-MAY-2021 04:48	821E2240.D	1	21E0096-13	
41	23-MAY-2021 05:13	821E2241.D	1	21E0096-17	
42	23-MAY-2021 05:38	821E2242.D	1	21E0096-18	
43	23-MAY-2021 06:03	821E2243.D	1	21E0096-19	
44	23-MAY-2021 06:29	821E2244.D	1	21E0096-20	
45	23-MAY-2021 06:53	821E2245.D	1	21E0096-21	
46	23-MAY-2021 07:19	821E2246.D	1	21E0096-25	
47	23-MAY-2021 07:44	821E2247.D	1	ALIPHCCV3	
48	23-MAY-2021 08:09	821E2248.D	1	21E0096-26	
49	23-MAY-2021 08:34	821E2249.D	1	BJE0337-MS1	
50	23-MAY-2021 08:59	821E2250.D	1	BJE0337-MSD1	

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20210522aliph.b

	Inject Date/Time	Filename	DF	LabID	ClientID
51	23-MAY-2021 09:24	821E2251.D	1	21E0096-27	
52	23-MAY-2021 09:50	821E2252.D	1	21E0096-28	
53	23-MAY-2021 10:15	821E2253.D	1	21E0096-29	
54	23-MAY-2021 10:39	821E2254.D	1	21E0096-30	
55	23-MAY-2021 11:04	821E2255.D	1	ALIPHCCV4	
56	23-MAY-2021 11:29	821E2256.D	1	DCM	
57	23-MAY-2021 11:54	821E2257.D	1	DCM	
58	23-MAY-2021 12:18	821E2258.D	1	DCM	
59	23-MAY-2021 12:43	821E2259.D	1	BJE0337-BLK2	
60	23-MAY-2021 13:08	821E2260.D	1	BJE0337-BS2	
61	23-MAY-2021 13:33	821E2261.D	1	BJE0337-MS2	
62	23-MAY-2021 13:58	821E2262.D	1	BJE0337-MSD2	
63	23-MAY-2021 14:22	821E2263.D	1	BJE0211-BLK2	
64	23-MAY-2021 14:47	821E2264.D	1	BJE0211-BS2	
65	23-MAY-2021 15:12	821E2265.D	1	BJE0211-BSD2	
66	23-MAY-2021 15:36	821E2266.D	1	BJE0235-BLK2	
67	23-MAY-2021 16:01	821E2267.D	1	BJE0235-BS2	
68	23-MAY-2021 16:26	821E2268.D	1	BJE0235-BSD2	
69	23-MAY-2021 16:51	821E2269.D	1	BJE0235-MS2	
70	23-MAY-2021 17:15	821E2270.D	1	BJE0235-MSD2	
71	23-MAY-2021 17:40	821E2271.D	1	BJE0307-BLK1	
72	23-MAY-2021 18:05	821E2272.D	1	BJE0307-BS1	
73	23-MAY-2021 18:30	821E2273.D	1	BJE0307-MS1	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20210522aliph.b

ARI Job No.: DCM Method: EPHAliph.m Instrument: fid8.i Date: 22-MAY-2021

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1230	821E2201.D	DCM		1	NO MANUAL INTEGRATION
1254	821E2202.D	DCM		1	NO MANUAL INTEGRATION
1319	821E2203.D	DCM		1	NO MANUAL INTEGRATION
1344	821E2204.D	ALIPHICV1		1	C10,
1409	821E2205.D	BJE0251-BLK1		1	NO MANUAL INTEGRATION
1434	821E2206.D	BJE0251-BS1		1	C10,
1459	821E2207.D	21E0081-06		1	1-Chloro-Octodecane,
1523	821E2208.D	21E0081-07		1	1-Chloro-Octodecane,
1548	821E2209.D	21E0081-08		1	1-Chloro-Octodecane,
1613	821E2210.D	21E0081-14		1	NO MANUAL INTEGRATION
1638	821E2211.D	21E0081-15		1	1-Chloro-Octodecane,
1703	821E2212.D	21E0081-21		1	NO MANUAL INTEGRATION
1728	821E2213.D	21E0081-22		1	NO MANUAL INTEGRATION
1752	821E2214.D	21E0081-23		1	1-Chloro-Octodecane,
1817	821E2215.D	21E0081-24		1	1-Chloro-Octodecane,
1842	821E2216.D	BJE0251-MS1		1	C10, C34, 1-Chloro-Octodecane,
1907	821E2217.D	BJE0251-MSD1		1	C10, C34, 1-Chloro-Octodecane,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20210522aliph.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1932	821E2218.D	21E0081-25		1	1-Chloro-Octodecane,
1958	821E2219.D	ALIPHCCV1		1	NO MANUAL INTEGRATION
2023	821E2220.D	21E0081-26		1	1-Chloro-Octodecane,
2048	821E2221.D	21E0081-30		1	NO MANUAL INTEGRATION
2113	821E2222.D	21E0081-31		1	1-Chloro-Octodecane,
2139	821E2223.D	21E0081-32		1	1-Chloro-Octodecane,
2204	821E2224.D	21E0081-33		1	1-Chloro-Octodecane,
2230	821E2225.D	21E0081-34		1	1-Chloro-Octodecane,
2255	821E2226.D	BJE0211-BLK1		1	NO MANUAL INTEGRATION
2321	821E2227.D	BJE0211-BS1		1	C10,
2346	821E2228.D	BJE0211-BSD1		1	C10,
0012	821E2229.D	21E0099-01		1	NO MANUAL INTEGRATION
0037	821E2230.D	21E0099-02		1	NO MANUAL INTEGRATION
0102	821E2231.D	BJE0337-BLK1		1	NO MANUAL INTEGRATION
0127	821E2232.D	BJE0337-BS1		1	C10,
0152	821E2233.D	21E0096-04		1	1-Chloro-Octodecane,
0217	821E2234.D	21E0096-05		1	1-Chloro-Octodecane,
0242	821E2235.D	ALIPHCCV2		1	C10,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20210522aliph.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0307	821E2236.D	21E0096-06		1	1-Chloro-Octodecane,
0332	821E2237.D	21E0096-10		1	NO MANUAL INTEGRATION
0357	821E2238.D	21E0096-11		1	1-Chloro-Octodecane,
0422	821E2239.D	21E0096-12		1	1-Chloro-Octodecane,
0448	821E2240.D	21E0096-13		1	1-Chloro-Octodecane,
0513	821E2241.D	21E0096-17		1	NO MANUAL INTEGRATION
0538	821E2242.D	21E0096-18		1	NO MANUAL INTEGRATION
0603	821E2243.D	21E0096-19		1	1-Chloro-Octodecane,
0629	821E2244.D	21E0096-20		1	1-Chloro-Octodecane,
0653	821E2245.D	21E0096-21		1	NO MANUAL INTEGRATION
0719	821E2246.D	21E0096-25		1	NO MANUAL INTEGRATION
0744	821E2247.D	ALIPHCCV3		1	NO MANUAL INTEGRATION
0809	821E2248.D	21E0096-26		1	C21, 1-Chloro-Octodecane,
0834	821E2249.D	BJE0337-MS1		1	C10, C21, C34, 1-Chloro-Octodecane,
0859	821E2250.D	BJE0337-MSD1		1	C10, C21, C34, 1-Chloro-Octodecane,
0924	821E2251.D	21E0096-27		1	1-Chloro-Octodecane,
0950	821E2252.D	21E0096-28		1	1-Chloro-Octodecane,
1015	821E2253.D	21E0096-29		1	1-Chloro-Octodecane,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20210522aliph.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1039	821E2254.D	21E0096-30		1	NO MANUAL INTEGRATION
1104	821E2255.D	ALIPHCCV4		1	NO MANUAL INTEGRATION
1129	821E2256.D	DCM		1	NO MANUAL INTEGRATION
1154	821E2257.D	DCM		1	NO MANUAL INTEGRATION
1218	821E2258.D	DCM		1	NO MANUAL INTEGRATION
1243	821E2259.D	BJE0337-BLK2		1	NO MANUAL INTEGRATION
1308	821E2260.D	BJE0337-BS2		1	NO MANUAL INTEGRATION
1333	821E2261.D	BJE0337-MS2		1	NO MANUAL INTEGRATION
1358	821E2262.D	BJE0337-MSD2		1	NO MANUAL INTEGRATION
1422	821E2263.D	BJE0211-BLK2		1	NO MANUAL INTEGRATION
1447	821E2264.D	BJE0211-BS2		1	NO MANUAL INTEGRATION
1512	821E2265.D	BJE0211-BSD2		1	NO MANUAL INTEGRATION
1536	821E2266.D	BJE0235-BLK2		1	NO MANUAL INTEGRATION
1601	821E2267.D	BJE0235-BS2		1	NO MANUAL INTEGRATION
1626	821E2268.D	BJE0235-BSD2		1	NO MANUAL INTEGRATION
1651	821E2269.D	BJE0235-MS2		1	NO MANUAL INTEGRATION
1715	821E2270.D	BJE0235-MSD2		1	NO MANUAL INTEGRATION
1740	821E2271.D	BJE0307-BLK1		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem2\fid8.i\20210522aliph.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1805	821E2272.D	BJE0307-BS1		1	NO MANUAL INTEGRATION
1830	821E2273.D	BJE0307-MS1		1	NO MANUAL INTEGRATION

Security Status Report

Date: 28-May-2021 12:34

821E2201.D	Data Locked	jrains, 28-May-2021 12:34
821E2202.D	Data Locked	jrains, 28-May-2021 12:34
821E2203.D	Data Locked	jrains, 28-May-2021 12:34
821E2204.D	Data Locked	jrains, 28-May-2021 12:34
821E2205.D	Data Locked	jrains, 28-May-2021 12:34
821E2206.D	Data Locked	jrains, 28-May-2021 12:34
821E2207.D	Data Locked	jrains, 28-May-2021 12:34
821E2208.D	Data Locked	jrains, 28-May-2021 12:34
821E2209.D	Data Locked	jrains, 28-May-2021 12:34
821E2210.D	Data Locked	jrains, 28-May-2021 12:34
821E2211.D	Data Locked	jrains, 28-May-2021 12:34
821E2212.D	Data Locked	jrains, 28-May-2021 12:34
821E2213.D	Data Locked	jrains, 28-May-2021 12:34
821E2214.D	Data Locked	jrains, 28-May-2021 12:34
821E2215.D	Data Locked	jrains, 28-May-2021 12:34
821E2216.D	Data Locked	jrains, 28-May-2021 12:34
821E2217.D	Data Locked	jrains, 28-May-2021 12:34
821E2218.D	Data Locked	jrains, 28-May-2021 12:34
821E2219.D	Data Locked	jrains, 28-May-2021 12:34
821E2220.D	Data Locked	jrains, 28-May-2021 12:34
821E2221.D	Data Locked	jrains, 28-May-2021 12:34
821E2222.D	Data Locked	jrains, 28-May-2021 12:34
821E2223.D	Data Locked	jrains, 28-May-2021 12:34
821E2224.D	Data Locked	jrains, 28-May-2021 12:34
821E2225.D	Data Locked	jrains, 28-May-2021 12:34
821E2226.D	Data Locked	jrains, 28-May-2021 12:34
821E2227.D	Data Locked	jrains, 28-May-2021 12:34
821E2228.D	Data Locked	jrains, 28-May-2021 12:34
821E2229.D	Data Locked	jrains, 28-May-2021 12:34
821E2230.D	Data Locked	jrains, 28-May-2021 12:34
821E2231.D	Data Locked	jrains, 28-May-2021 12:34
821E2232.D	Data Locked	jrains, 28-May-2021 12:34
821E2233.D	Data Locked	jrains, 28-May-2021 12:34
821E2234.D	Data Locked	jrains, 28-May-2021 12:34
821E2235.D	Data Locked	jrains, 28-May-2021 12:34
821E2236.D	Data Locked	jrains, 28-May-2021 12:34
821E2237.D	Data Locked	jrains, 28-May-2021 12:34
821E2238.D	Data Locked	jrains, 28-May-2021 12:34
821E2239.D	Data Locked	jrains, 28-May-2021 12:34
821E2240.D	Data Locked	jrains, 28-May-2021 12:34
821E2241.D	Data Locked	jrains, 28-May-2021 12:34
821E2242.D	Data Locked	jrains, 28-May-2021 12:34
821E2243.D	Data Locked	jrains, 28-May-2021 12:34
821E2244.D	Data Locked	jrains, 28-May-2021 12:34

821E2245.D	Data Locked	jrains, 28-May-2021 12:34
821E2246.D	Data Locked	jrains, 28-May-2021 12:34
821E2247.D	Data Locked	jrains, 28-May-2021 12:34
821E2249.D	Data Locked	jrains, 28-May-2021 12:34
821E2250.D	Data Locked	jrains, 28-May-2021 12:34
821E2251.D	Data Locked	jrains, 28-May-2021 12:34
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821E2253.D	Data Locked	jrains, 28-May-2021 12:34
821E2254.D	Data Locked	jrains, 28-May-2021 12:34
821E2255.D	Data Locked	jrains, 28-May-2021 12:34
821E2256.D	Data Locked	jrains, 28-May-2021 12:34
821E2257.D	Data Locked	jrains, 28-May-2021 11:21
821E2258.D	Data Locked	jrains, 28-May-2021 11:21
821E2259.D	Data Locked	jrains, 28-May-2021 11:21
821E2260.D	Data Locked	jrains, 28-May-2021 11:21
821E2261.D	Data Locked	jrains, 28-May-2021 11:21
821E2262.D	Data Locked	jrains, 28-May-2021 11:21
821E2263.D	Data Locked	jrains, 28-May-2021 11:21
821E2264.D	Data Locked	jrains, 28-May-2021 11:21
821E2265.D	Data Locked	jrains, 28-May-2021 11:21
821E2266.D	Data Locked	jrains, 28-May-2021 11:21
821E2267.D	Data Locked	jrains, 28-May-2021 11:21
821E2268.D	Data Locked	jrains, 28-May-2021 11:21
821E2269.D	Data Locked	jrains, 28-May-2021 11:21
821E2270.D	Data Locked	jrains, 28-May-2021 11:21
821E2271.D	Data Locked	jrains, 28-May-2021 11:21
821E2272.D	Data Locked	jrains, 28-May-2021 11:21
821E2273.D	Data Locked	jrains, 28-May-2021 11:21

SURROGATE RECOVERY AND RT SUMMARY

WA EPH

Laboratory:	Analytical Resources, Inc.	SDG/WO:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
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
SIJ0055-SCV2 (Water)				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:	21E0099
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Sequence:	SJE0400	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
SJE0400-ICV1 (Solid)				Lab File ID: 821E2204.D			Analyzed: 05/22/21 13:44	
1-Chloro-octadecane	125.00	88.6	80 - 120	6.99	7.01	-0.0200	N/A	
SJE0400-CCV1 (Solid)				Lab File ID: 821E2219.D			Analyzed: 05/22/21 19:58	
1-Chloro-octadecane	125.00	85.6	80 - 120	6.99	7.01	-0.0200	N/A	
BJE0211-BLK1 (Water)				Lab File ID: 821E2226.D			Analyzed: 05/22/21 22:55	
1-Chloro-octadecane	150.00	49.7	36 - 120	6.99	7.01	-0.0200	N/A	
BJE0211-BS1 (Water)				Lab File ID: 821E2227.D			Analyzed: 05/22/21 23:21	
1-Chloro-octadecane	150.00	53.6	36 - 120	6.99	7.01	-0.0200	N/A	
BJE0211-BSD1 (Water)				Lab File ID: 821E2228.D			Analyzed: 05/22/21 23:46	
1-Chloro-octadecane	150.00	57.9	36 - 120	6.99	7.01	-0.0200	N/A	
21E0099-01 (Water)				Lab File ID: 821E2229.D			Analyzed: 05/23/21 00:12	
1-Chloro-octadecane	150.00	57.5	36 - 120	6.99	7.01	-0.0200	N/A	
21E0099-02 (Water)				Lab File ID: 821E2230.D			Analyzed: 05/23/21 00:37	
1-Chloro-octadecane	150.00	48.6	36 - 120	6.99	7.01	-0.0200	N/A	
SJE0400-CCV2 (Solid)				Lab File ID: 821E2235.D			Analyzed: 05/23/21 02:42	
1-Chloro-octadecane	125.00	88.9	80 - 120	6.99	7.01	-0.0200	N/A	
SJE0400-CCV3 (Solid)				Lab File ID: 821E2247.D			Analyzed: 05/23/21 07:44	
1-Chloro-octadecane	125.00	85.5	80 - 120	6.99	7.01	-0.0200	N/A	
SJE0400-CCV4 (Solid)				Lab File ID: 821E2255.D			Analyzed: 05/23/21 11:04	
1-Chloro-octadecane	125.00	90.0	80 - 120	6.99	7.01	-0.0200	N/A	
SJE0400-ICV2 (Solid)				Lab File ID: 821E2504.D			Analyzed: 05/25/21 19:46	
1-Chloro-octadecane	125.00	83.9	80 - 120	6.99	7.01	-0.0200	N/A	
SJE0400-CCV5 (Solid)				Lab File ID: 821E2508.D			Analyzed: 05/25/21 21:27	
1-Chloro-octadecane	125.00	84.7	80 - 120	6.99	7.01	-0.0200	N/A	

HOLDING TIME SUMMARY

Analysis: WA EPH

Laboratory: Analytical Resources, Inc. SDG: 21E0099

Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
SC-FB-2105030940 21E0099-01	05/03/21 09:40	05/05/21 10:53	05/10/21 15:55	7	7	05/23/21 00:12	12	40	
SC-RB-2105030901 21E0099-02	05/03/21 09:00	05/05/21 10:53	05/10/21 15:55	7	7	05/23/21 00:37	12	40	

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

WA EPH

Laboratory: Analytical Resources, Inc.
SDG: 21E0099
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Matrix: Solid
Instrument: FID8

Analyte	MDL	RL	Units
>C10-C12 Aliphatics		2000	ug/kg

METHOD DETECTION AND REPORTING LIMITS

WA EPH

Laboratory: Analytical Resources, Inc.
SDG: 21E0099
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Matrix: Water
Instrument: FID8

Analyte	MDL	RL	Units
>C10-C12 Aliphatics		20	ug/L

Certificate of Analysis

I6955
(B000658)
cert received 6/18/13
PC

TCI America
9211 N. Harborgate St., Portland, OR 97203

Chemical Name: 1-Chlorooctadecane		
Product Number: C0235 CAS #: 3386-33-2	Lot: OGM01	

Tests	Results	Specifications
Purity (GC) Freezing Point	99.4 % 20.7 °C	min. 98.0 % 20.0 to 21.0 °C

Customer Service:
TCI America
Tel: 1-800-423-8616 / 1-503-283-1681
Fax: 1-888-520-1075 / 1-503-283-1987
Email: sales@tciamerica.com

Certificate of Analysis

Product **20134**
Acenaphthene,99%

General Product Data

Version	0
CAS No	83-32-9
Country of origin	UNITED KINGDOM
Molecular weight	154.21
Molecular formula	C12 H10
Linear formula	
Flash point (°C)	135

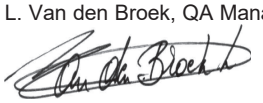
Product Specifications

Appearance	brown crystalline powder and chunks
Infrared spectrometry	authentic
Melting point	91°C to 95°C
Separat. techn. GC	>=98.5 %

Lot Specific Data : A0255961

Appearance	brown crystalline chunks
Infrared spectrometry	authentic
Melting point	91.3°C
Separat. techn. GC	99.65 %

Issued: September 06, 2013
L. Van den Broek, QA Manager



Acros Organics
ENA23, zone 1, nr 1350, Janssen Pharmaceuticalaan 3a, B-2440 Geel, Belgium
Tel +32 14/57.52.11 - Fax +32 14/59.34.34 Internet: http://www.acros.com
1 Reagent Lane, Fair Lawn, NJ 07410,USA
Fax 201-796-1329

Certificate of Analysis

Product **10486**
Anthracene,99%

General Product Data

Version	0
CAS No	120-12-7
Country of origin	CHINA
Molecular weight	178.23
Molecular formula	C14 H10
Linear formula	
Flash point (°C)	121

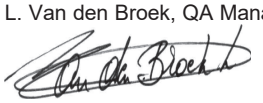
Product Specifications

Appearance	yellowish crystalline powder
Infrared spectrometry	authentic
Melting point	215°C to 218°C
Separat. techn. HPLC	>=98.5 %

Lot Specific Data : A0284308

Appearance	yellowish crystalline powder
Infrared spectrometry	authentic
Melting point	217.9°C
Separat. techn. HPLC	99.9 %

Issued: September 06, 2013
L. Van den Broek, QA Manager



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Tel +32 14/57.52.11 - Fax +32 14/59.34.34 Internet: http://www.acros.com
1 Reagent Lane, Fair Lawn, NJ 07410,USA
Fax 201-796-1329

ULTRA SCIENTIFIC
Analytical Solutions

BOO1729

Certificate of Analysis

n-Dodecane

Product Number: RNA-003 **Page:** 1 of 1

Lot Number: RM01074 **Lot Issue Date:** Dec-2008 **Expiration Date:** Jan-2014

This reference material has been prepared under ULTRA's ISO 9001 quality system, verified by ULTRA's ISO 17025 accredited laboratory, and found to meet the specifications stated below.

Compound	CAS #	Purity
n-dodecane	000112-40-3	99%

The estimated uncertainty of a single measurement of the assay can be expected to be 0.5% relative at a confidence level of 95%.

Storage: Store at Room Temperature (18-25° C)

IS809 ✓
Rec'd
08/30/10

Balances used to measure the weight of the material in the container are calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001.

ACCREDITED

ISO 17025
Accredited
A2LA
Cert. No. 0851-01

ISO 9001:2000
Registered
TUV USA, Inc.
Cert. No. 06-1004

250 Smith Street, North Kingstown, RI 02852 USA
401-294-9400 Fax: 295-2330
www.ultrasci.com

William J. Leary
Quality Assurance Manager

Certificate of Analysis

Product **35277**
n-Heneicosane,98%

General Product Data

Version	0
CAS No	629-94-7
Country of origin	JAPAN
Molecular weight	296.58
Molecular formula	C21 H44
Linear formula	CH3(CH2)19CH3
Flash point (°C)	>110

Product Specifications

Appearance	white crystalline chunks, crystals or flakes
Infrared spectrometry	authentic
Separat. techn. GC	>=97.5 %
Melting point	39°C to 43°C

Lot Specific Data : A0260437

Appearance	white crystalline chunks
Infrared spectrometry	authentic
Separat. techn. GC	99.4 %
Melting point	40.1°C

Issued: September 06, 2013
L. Van den Broek, QA Manager

Acros Organics
ENA23, zone 1, nr 1350, Janssen Pharmaceuticalaan 3a, B-2440 Geel, Belgium
Tel +32 14/57.52.11 - Fax +32 14/59.34.34 Internet: http://www.acros.com
1 Reagent Lane, Fair Lawn, NJ 07410,USA
Fax 201-796-1329

Certificate of Analysis

SIGMA-ALDRICH

Product Name	Hexadecane, *ReagentPlus*®, 99%
Product Number	H6703
Product Brand	SIAL
CAS Number	544-76-3
Molecular Formula	$CH_3(CH_2)_{14}CH_3$
Molecular Weight	226.44

TEST	SPECIFICATION	LOT 06026EU RESULTS
GAS LIQUID	98.5% (MINIMUM)	99.77 %
COLOR TEST	20 APHA (MAXIMUM)	<10 APHA
QUALITY CONTROL		JUNE; 1999

Barbara Rajzer, Supervisor
Quality Control
Milwaukee, Wisconsin USA

Certificate of Analysis

Product 18083
Pyrene,98%

General Product Data

Version	0
CAS No	129-00-0
Country of origin	BELGIUM
Molecular weight	202.25
Molecular formula	C16 H10
Linear formula	
Flash point (°C)	210

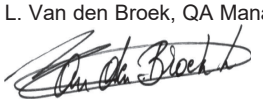
Product Specifications

Appearance	pale yellow to yellow-greenish crystals or chunks
Infrared spectrometry	authentic
Separat. techn. GC	>=97.5 %
Melting point	>=148°C

Lot Specific Data : A0273077

Appearance	pale yellow-greenish crystalline chunks
Infrared spectrometry	authentic
Separat. techn. GC	99.2 %
Melting point	149.7°C

Issued: September 06, 2013
L. Van den Broek, QA Manager



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Tel +32 14/57.52.11 - Fax +32 14/59.34.34 Internet: http://www.acros.com
1 Reagent Lane, Fair Lawn, NJ 07410,USA
Fax 201-796-1329

Certificate of Analysis

SIGMA-ALDRICH

Product Name	Tetratriacontane, 98%
Product Number	287261
Product Brand	ALDRICH
CAS Number	14167-59-0
Molecular Formula	$CH_3(CH_2)_{32}CH_3$
Molecular Weight	478.92

B001736
BW
9/6/13

TEST	LOT 11318BD RESULTS
APPEARANCE	WHITE FLAKES
INFRARED SPECTRUM	CONFORMS TO STRUCTURE.
ELEMENTAL ANALYSIS	CARBON 85.35%
GAS LIQUID CHROMATOGRAPHY	98.5%
PRODUCT CROSS REFERENCE INFORMATION	REPLACES PRODUCT NUMBER T4883
QUALITY CONTROL ACCEPTANCE DATE	MARCH 2005

Barbara Rajzer

Barbara Rajzer, Supervisor
Quality Control
Milwaukee, Wisconsin USA

E003343

Alfa Aesar

Certificate of analysis

Product No.:	A19680
Product:	o-Terphenyl, 98%
Lot No.:	10114703

Appearance	White, crystalline powder
Melting point	55.0-55.9ºC
Assay (GC)	99.9+ %

This document has been electronically generated and does not require a signature.

Certificate of Analysis

Agilent

EPH Aliphatic Hydrocarbon Standard

Product Number: SWA-310 **Page:** 1 of 1

Lot Number: CR-5939 **Lot Issue Date:** 20-Dec-2017 **Expiration Date:** 31-Jan-2022

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
n-octane	000111-65-9	NT01970	1003 ± 5 µg/mL
n-decane	000124-18-5	RM11945	1002 ± 5 µg/mL
n-dodecane	000112-40-3	RM12672	1003 ± 5 µg/mL
n-hexadecane	000544-76-3	NT01442	1003 ± 5 µg/mL
n-heneicosane	000629-94-7	RM04170	1003 ± 5 µg/mL
n-tetratriacontane	014167-59-0	RM09562	1004 ± 5 µg/mL

Matrix: hexane

Storage: Store at Room Temperature (15° to 30°C).

H9147

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

John Russo
President

Monica Bourgeois
Director of QA/RA

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 9001
Registered
TUV USA, Inc.

Certificate of Analysis

SIGMA-ALDRICH

Product Name
Product Number D901
Product Brand

TEST	SPECIFICATION	LOT 03112EE RESULTS
APPEARANCE	COLORLESS LIQUID	COLORLESS LIQUID
REFRACTIVE INDEX AT	1.411 +/- 0.002	1.411
INFRARED SPECTRUM		CONFORMS TO STRUCTURE.
GAS LIQUID	99.0% (MINIMUM)	99.8%
RECOMMENDED RETEST	THREE YEARS	MAY 2009
PRODUCT CROSS		REPLACES PRODUCT NUMBER D4384
QUALITY CONTROL		MAY 2006

Barbara Rajzer, Supervisor
Quality Control
Milwaukee, Wisconsin USA

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: EPH-WA-ALI-R1
Description: Revised EPH Aliphatic Check Mix
Lot: 213021207
Solvent: Dichloromethane
Hazards: *Refer to SDS for complete safety information*

Signal Word: Warning

Date Certified: Feb 19, 2013
Expiration: Feb 19, 2023
Sample Size: 1 mL
Components: 6
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED AR-1463 ANAB ACCREDITED AT-1339 ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
n-Octane	111-65-9	100.0	1002	1002
n-Decane	124-18-5	100.0	1001	1001
n-Dodecane	112-40-3	99.6	1000	996
n-Hexadecane	544-76-3	99.4	1001	995
n-Heneicosane	629-94-7	100.0	1001	1001
n-Tetratriacontane	14167-59-0	99.8	1001	999

I002965

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 822-275872-11

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
Rev. 5/18

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: EPH-WA-ALI-R1
Description: Revised EPH Aliphatic Check Mix
Lot: 213021207
Solvent: Dichloromethane
Hazards: *Refer to SDS for complete safety information*

Signal Word: Warning

Date Certified: Feb 19, 2013
Expiration: Feb 19, 2023
Sample Size: 1 mL
Components: 6
Storage Condition: Ambient (>5 °C)

Certified Reference Material

ANAB ACCREDITED AR-1463 ANAB ACCREDITED AT-1339 ilac-MRA

Component	CAS #	Purity % (GC/MS)	Prepared Concentration[2] (µg/mL)	Certified Analyte Concentration[1] (µg/mL)
n-Octane	111-65-9	100.0	1002	1002
n-Decane	124-18-5	100.0	1001	1001
n-Dodecane	112-40-3	99.6	1000	996
n-Hexadecane	544-76-3	99.4	1001	995
n-Heneicosane	629-94-7	100.0	1001	1001
n-Tetratriacontane	14167-59-0	99.8	1001	999

I009981
EPH Aliphatics hydrocarbon
Solvent / Lot: DCM
Prep: 10/23/2020 by VS
Exp: 2/19/2023
Location:

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 822-275872-11

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Hazard Information: Please refer to the SDS for information regarding the hazards associated with using this material.

This product was prepared according to in-house procedures and is guaranteed to be homogeneous.

Certified By: Larry Decker, Organic QC Manager

For use in routine laboratory analysis.

AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015

QR-ORG/INO-001
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