Analytical Resources, Incorporated
Analytical Chemists and Consultants

02 April 2021

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

RE: 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)
21B0118	N/A

Susan Dunnihoo
Digitally signed by Susan Dunnihoo
Date: 2021.04.02 16:37:02 -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.

Susan Dunnihoo For Amanda Volgardsen Johnson, Project Manager

Accredited in accordance with nelac
Cert# 100006-012

ARI Job #: 20K0188 / 21B0118

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

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID: ARI-20201104-163501
Sample Custodian: SN
Lab: Analytical Resources Inc.

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

Project: GascoSiltronic: US Moorings
Client: NW Natural

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
001	USMPDI-039SC-A-00-01-201104	N	SE	11/04/2020	13:20	1	☐				
								PAHs and Alk. PAHs	SW8270ESIM	30	4°C
								TPH	NWTPHDx	30	
								Total solids (ARI)	SM2540G	30	
002	USMPDI-039SC-B-00-02-201104	N	SE	11/04/2020	13:15	1	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								Total solids (ARI)	SM2540G	30	
003	USMPDI-039SC-B-02-04-201104	N	SE	11/04/2020	13:15	2	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								PAHs and Alk. PAHs	SW8270ESIM	30	4°C
								TPH	NWTPHDx	30	
								Total solids (ARI)	SM2540G	30	
004	USMPDI-039SC-B-04-06-201104	N	SE	11/04/2020	13:15	2	x				
								EPH (QAPP C-4)	EPH	30	4°C
								Total solids (ARI)	SM2540G	30	
005	USMPDI-039SC-B-06-08-201104	N	SE	11/04/2020	13:15	1	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								Total solids (ARI)	SM2540G	30	
006	USMPDI-039SC-B-08-10-201104	N	SE	11/04/2020	13:15	1	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								Total solids (ARI)	SM2540G	30	

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature [signature]	Signature [signature]	Signature	Signature	Signature	Signature
Print Name Jamie Newton	Print Name Samantha Colon	Print Name	Print Name	Print Name	Print Name
Company AQ	Company ARI	Company	Company	Company	Company
Date/Time 11/5/20 0500	Date/Time 11/10/2020 1155	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: 11/4/2020

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

ARI Job #: 20K0188 / 21B0118

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID: ARI-20201104-163501
Sample Custodian: SN
Lab: Analytical Resources Inc.

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

Project: GascoSiltronic: US Moorings
Client: NW Natural

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	# Containers	Lab QC*	Test Request	Method	TAT**	Preservative
007	USMPDI-039SC-B-10-12-201104	N	SE	11/04/2020	13:15	1	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								Total solids (ARI)	SM2540G	30	
008	USMPDI-039SC-B-12-14-201104	N	SE	11/04/2020	13:15	1	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								Total solids (ARI)	SM2540G	30	
009	USMPDI-039SC-B-14-16-201104	N	SE	11/04/2020	13:15	1	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								Total solids (ARI)	SM2540G	30	
010	USMPDI-044SC-A-00-01-201104	N	SE	11/04/2020	8:45	1	☐				
								PAHs and Alk. PAHs	SW8270ESIM	30	4°C
								TPH	NWTPHDx	30	
								Total solids (ARI)	SM2540G	30	
011	USMPDI-044SC-A-10-11-201104	N	SE	11/04/2020	8:45	1	☐				
								PAHs and Alk. PAHs	SW8270ESIM	30	4°C
								TPH	NWTPHDx	30	
								Total solids (ARI)	SM2540G	30	
012	USMPDI-044SC-B-00-02-201104	N	SE	11/04/2020	8:35	1	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								Total solids (ARI)	SM2540G	30	

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature [signature]	Signature [signature]	Signature	Signature	Signature	Signature
Print Name James Nelson	Print Name Samantha Colon	Print Name	Print Name	Print Name	Print Name
Company AQ	Company ARI	Company	Company	Company	Company
Date/Time 11/5/20 0800	Date/Time 11/10/2020 1155	Date/Time	Date/Time	Date/Time	Date/Time

Date Printed: 11/4/2020

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

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

ARI Job #: 20K0188 / 21B0118

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID: ARI-20201104-163501

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

Project: GascoSiltronic: US Moorings
Client: NW Natural

Sample Custodian: SN
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
013	USMPDI-044SC-B-02-04-201104	N	SE	11/04/2020	8:35	2	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								PAHs and Alk. PAHs	SW8270ESIM	30	4°C
								TPH	NWTPHDx	30	
								Total solids (ARI)	SM2540G	30	
014	USMPDI-044SC-B-04-06-201104	N	SE	11/04/2020	8:35	2	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								PAHs and Alk. PAHs	SW8270ESIM	30	4°C
								TPH	NWTPHDx	30	
								Total solids (ARI)	SM2540G	30	
015	USMPDI-044SC-B-06-08-201104	N	SE	11/04/2020	8:35	2	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								PAHs and Alk. PAHs	SW8270ESIM	30	4°C
								TPH	NWTPHDx	30	
								Total solids (ARI)	SM2540G	30	
016	USMPDI-044SC-B-08-10-201104	N	SE	11/04/2020	8:35	2	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								PAHs and Alk. PAHs	SW8270ESIM	30	4°C
								TPH	NWTPHDx	30	
								Total solids (ARI)	SM2540G	30	
017	USMPDI-044SC-B-10-12-201104	N	SE	11/04/2020	8:35	2	☐				

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature [illegible]	Signature [illegible]	Signature	Signature	Signature	Signature
Print Name James Newton	Print Name Samantha Carlson	Print Name	Print Name	Print Name	Print Name
Company AQ	Company ARI	Company	Company	Company	Company
Date/Time 11/5/20 0800	Date/Time 11/10/2020 1155	Date/Time	Date/Time	Date/Time	Date/Time

Date Printed: 11/4/2020

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

ARI Job #: 20K0188 / 21B0118

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

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID: ARI-20201104-163501

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

Project: GascoSiltronic: US Moorings
Client: NW Natural

Sample Custodian: SN
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
017	USMPDI-044SC-B-10-12-201104	N	SE	11/04/2020	8:35	2	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								PAHs and Alk. PAHs	SW8270ESIM	30	4°C
								TPH	NWTPHDx	30	
								Total solids (ARI)	SM2540G	30	
018	USMPDI-044SC-B-12-14-201104	N	SE	11/04/2020	8:35	1	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								Total solids (ARI)	SM2540G	30	
019	USMPDI-044SC-B-14-16-201104	N	SE	11/04/2020	8:35	1	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								Total solids (ARI)	SM2540G	30	
020	USMPDI-044SC-B-16-17.3-201104	N	SE	11/04/2020	8:35	1	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								Total solids (ARI)	SM2540G	30	
021	USMPDI-1044SC-B-02-04-201104	FD	SE	11/04/2020		2	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								PAHs and Alk. PAHs	SW8270ESIM	30	4°C
								TPH	NWTPHDx	30	
								Total solids (ARI)	SM2540G	30	
022	USMPDI-049SC-A-00-01-201104	N	SE	11/04/2020	15:30	1	☐				
								PAHs and Alk. PAHs	SW8270ESIM	30	4°C

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Print Name James Hoffman	Print Name Samantha Kim Catson	Print Name	Print Name	Print Name	Print Name
Company AQ	Company ARI	Company	Company	Company	Company
Date/Time 11/5/20 0800	Date/Time 11/10/2020 1155	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: 11/4/2020

ARI Job #: 20W0188 / 21B0118

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

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID: ARI-20201104-163501

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

Project: GascoSiltronic: US Moorings
Client: NW Natural

Sample Custodian: SN
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
022	USMPDI-049SC-A-00-01-201104	N	SE	11/04/2020	15:30	1	☐				
								TPH	NWTPHDx	30	
								Total solids (ARI)	SM2540G	30	
023	USMPDI-049SC-A-14-15-201104	N	SE	11/04/2020	15:30	1	☐				
								PAHs and Alk. PAHs	SW8270ESIM	30	4°C
								TPH	NWTPHDx	30	
								Total solids (ARI)	SM2540G	30	
024	USMPDI-049SC-B-00-02-201104	N	SE	11/04/2020	15:20	1	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								Total solids (ARI)	SM2540G	30	
025	USMPDI-049SC-B-02-04-201104	N	SE	11/04/2020	15:20	2	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								PAHs and Alk. PAHs	SW8270ESIM	30	4°C
								TPH	NWTPHDx	30	
								Total solids (ARI)	SM2540G	30	
026	USMPDI-049SC-B-04-06-201104	N	SE	11/04/2020	15:20	2	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								PAHs and Alk. PAHs	SW8270ESIM	30	4°C
								TPH	NWTPHDx	30	
								Total solids (ARI)	SM2540G	30	
027	USMPDI-049SC-B-06-08-201104	N	SE	11/04/2020	15:20	2	☐				

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: [signature]	Signature: [signature]	Signature:	Signature:	Signature:	Signature:
Print Name: James Merton	Print Name: Samantha Colon	Print Name:	Print Name:	Print Name:	Print Name:
Company: AQ	Company: ARI	Company:	Company:	Company:	Company:
Date/Time: 11/5/20 0800	Date/Time: 11/10/2020 1155	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: 11/4/2020

ARI Job #: 20ko188 / 21B0118

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

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

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

Project: GascoSiltronic: US Moorings
Client: NW Natural

COC ID: ARI-20201104-163501
Sample Custodian: SN
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
027	USMPDI-049SC-B-06-08-201104	N	SE	11/04/2020	15:20	2	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								PAHs and Alk. PAHs	SW8270ESIM	30	4°C
								TPH	NWTPHDx	30	
								Total solids (ARI)	SM2540G	30	
028	USMPDI-049SC-B-08-10-201104	N	SE	11/04/2020	15:20	2	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								PAHs and Alk. PAHs	SW8270ESIM	30	4°C
								TPH	NWTPHDx	30	
								Total solids (ARI)	SM2540G	30	
029	USMPDI-049SC-B-10-12-201104	N	SE	11/04/2020	15:20	2	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								PAHs and Alk. PAHs	SW8270ESIM	30	4°C
								TPH	NWTPHDx	30	
								Total solids (ARI)	SM2540G	30	
030	USMPDI-049SC-B-12-14-201104	N	SE	11/04/2020	15:20	1	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								Total solids (ARI)	SM2540G	30	
031	USMPDI-049SC-B-14-16-201104	N	SE	11/04/2020	15:20	1	☐				
								EPH (QAPP C-4)	EPH	30	4°C
								Total solids (ARI)	SM2540G	30	

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature: [signature]	Signature: [signature]	Signature	Signature	Signature	Signature
Print Name: James Nelson	Print Name: Samantha Colon	Print Name	Print Name	Print Name	Print Name
Company: AQE	Company: ARI	Company	Company	Company	Company
Date/Time: 11/5/20 0800	Date/Time: 11/10/2020 1155	Date/Time	Date/Time	Date/Time	Date/Time

Date Printed: 11/4/2020

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

Reply all Delete Junk Block ...

20K0188 RE

Amanda Volgardsen Johnson
Fri 2/5/2021 12:51 PM
To: Sample Receiving

21B0118

Will you please pull the sample below and log on a new work order for the SIM Alkyl PAH's, PSEP and Conv %TS?

The sample is: USMPDI-049SC-A-00-01-201104/20K0188-22

Regards,
Amanda Volgardsen Johnson
Analytical Resources, Inc.
Project Manager

I will be offline the morning of Thursday February 4th as well as early afternoon returning Friday February 5th.

- Direct: 206-695-6220
- Office: 206-695-6200
- Cell: 253-797-5154 (preferred as I mainly work remotely)

https://www.arilabs.com

Effective **February 1, 2021** ARI Labs, Inc. will be migrating metals analysis methods SW6010C to SW6010D (ICP) and SW6020A to SW6020B (ICPMS). Please see this post for more information.

"This is the way" - The Mandalorian

Reply | Reply all | Forward

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Anchor QEA, LLC	Project:	US Moorings	
1201 3rd Ave, Suite 2600	Project Number:	Willamette River USM	**Reported:**
Seattle, WA 98101	Project Manager:	Delaney Peterson	04/02/2021 16:12

ANALYTICAL REPORT FOR SAMPLES

Laboratory ID	Sample ID	Matrix	Date Sampled	Date Received
21B0118-01	USMPDI-049SC-A-00-01-201104	Solid	11/04/20 15:30	11/10/20 11:55

Anchor QEA, LLC	Project: US Moorings	
1201 3rd Ave, Suite 2600	Project Number: Willamette River USM	**Reported:**
Seattle WA, 98101	Project Manager: Delaney Peterson	02-Apr-2021 16:12

Case Narrative

Sample receipt

The sample as listed on the preceding page was received 11/10/2020 under ARI work order 20K0188. On 2/5/2021 the associated sample was removed from frozen hold and logged for the analyses listed below under ARI work order 21B0118. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Alkyl PAH - EPA Method SW8270E-SIM (Parents and Range)

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

Initial and continuing calibrations were within method requirements with the exception of ICV1-SJC0183 which is out of control low for trans-Decalin and out of control high for benzo(j)fluoranthene and Dibenzothiophene. All associated positive results in samples and QC been flagged with a "Q" qualifier.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

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

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

Several matrix spike/matrix spike duplicate (MS/MSD) percent recoveries were outside advisory limits high, attributed to high concentrations in the parent sample. Relative percent differences (RPD) were within advisory control limits with the exception of analytes flagged on the associated forms.

The sample was reanalyzed at dilution for parent PAH only, due to response above the calibration range of the instrument.

Wet Chemistry

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

Initial and continuing calibrations were within method requirements.

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

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).
Q	Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20% RSD, <20% drift or minimum RRF)
J	Estimated concentration value detected below the reporting limit.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL)
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

Analytical Resources, Incorporated
Analytical Chemists and Consultants

USMPDI-049SC-A-00-01-201104

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

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	US Moorings				
Matrix:	Sediment	Laboratory ID:	21B0118-01 A	SDG:	21B0118
Sampled:	11/04/20 15:30	Prepared:	03/04/21 10:33	File ID:	NT1421031306.D
% Solids:	44.88	Preparation:	EPA 3546 (Microwave)	Analyzed:	03/13/21 14:47
Batch:	BJC0107	Sequence:	SJC0183	Initial/Final:	22.31 g Wet / 0.5 mL
Instrument:	NT14	Column:	ZB-5MS	Calibration:	EA00040
Cleanups:	GPC, Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
493-02-7	trans-Decalin	1	5.0	U	0.03	5.0
493-01-6	cis-Decalin	1	5.0	U	0.5	5.0
91-20-3	Naphthalene	1	298		0.4	5.0
90-12-0	1-Methylnaphthalene	1	65.3		0.4	5.0
91-57-6	2-Methylnaphthalene	1	150		0.4	5.0
92-52-4	Biphenyl	1	46.7		0.3	5.0
581-42-0	2,6-Dimethylnaphthalene	1	56.5		0.4	5.0
208-96-8	Acenaphthylene	1	69.5		0.3	5.0
83-32-9	Acenaphthene	1	171		0.5	5.0
132-64-9	Dibenzofuran	1	58.0		0.4	5.0
2245-38-7	2,3,5-Trimethylnaphthalene	1	41.8		0.4	5.0
86-73-7	Fluorene	1	246		0.5	5.0
95-15-8	Benzo(b)thiophene	1	25.1		0.4	5.0
85-01-8	Phenanthrene	1	1250	E	0.9	5.0
120-12-7	Anthracene	1	774	E	0.05	5.0
86-74-8	Carbazole	1	155		0.7	5.0
832-69-9	1-Methylphenanthrene	1	173		0.5	5.0
206-44-0	Fluoranthene	1	2050	E	1.4	5.0
132-65-0	Dibenzothiophene	1	181	Q	0.7	5.0
129-00-0	Pyrene	1	2110	E	1.0	5.0
56-55-3	Benzo(a)anthracene	1	714	E	1.4	5.0
218-01-9	Chrysene	1	921	E	0.7	5.0
205-99-2	Benzo(b)fluoranthene	1	711	E	0.8	5.0
205-82-3	Benzo(j)fluoranthene	1	419	Q	0.7	5.0
207-08-9	Benzo(k)fluoranthene	1	415		0.8	5.0
197-97-2	Benzo(e)pyrene	1	739	E	0.6	5.0
50-32-8	Benzo(a)pyrene	1	1000	E	1.0	5.0
193-39-5	Indeno(1,2,3-cd)pyrene	1	755	E	0.4	5.0
53-70-3	Dibenzo(a,h)anthracene	1	122		0.7	5.0
191-24-2	Benzo(g,h,i)perylene	1	967	E	0.5	5.0

Analytical Resources, Incorporated
Analytical Chemists and Consultants

USMPDI-049SC-A-00-01-201104

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

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	US Moorings				
Matrix:	Sediment	Laboratory ID:	21B0118-01 A	SDG:	21B0118
Sampled:	11/04/20 15:30	Prepared:	03/04/21 10:33	File ID:	NT1421031306.D
% Solids:	44.88	Preparation:	EPA 3546 (Microwave)	Analyzed:	03/13/21 14:47
Batch:	BJC0107	Sequence:	SJC0183	Initial/Final:	22.31 g Wet / 0.5 mL
Instrument:	NT14	Column:	ZB-5MS	Calibration:	EA00040
Cleanups:	GPC, Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
1985-5-0	Perylene	1	426		0.4	5.0
239-35-0	Benzo(b)naphtho(2,1-d)thiophene	1	238		5.0	5.0

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
Naphthalene-d8	149.81	74.2	49.5	30 - 160	
Acenaphthene-d10	149.81	109	72.8	30 - 160	
Phenanthrene-d10	149.81	124	82.8	30 - 160	
Chrysene-d12	149.81	109	72.6	30 - 160	
Perylene-d12	149.81	132	88.0	30 - 160	

Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031306.D

Date : 13-MAR-2021 14:47

Client ID:

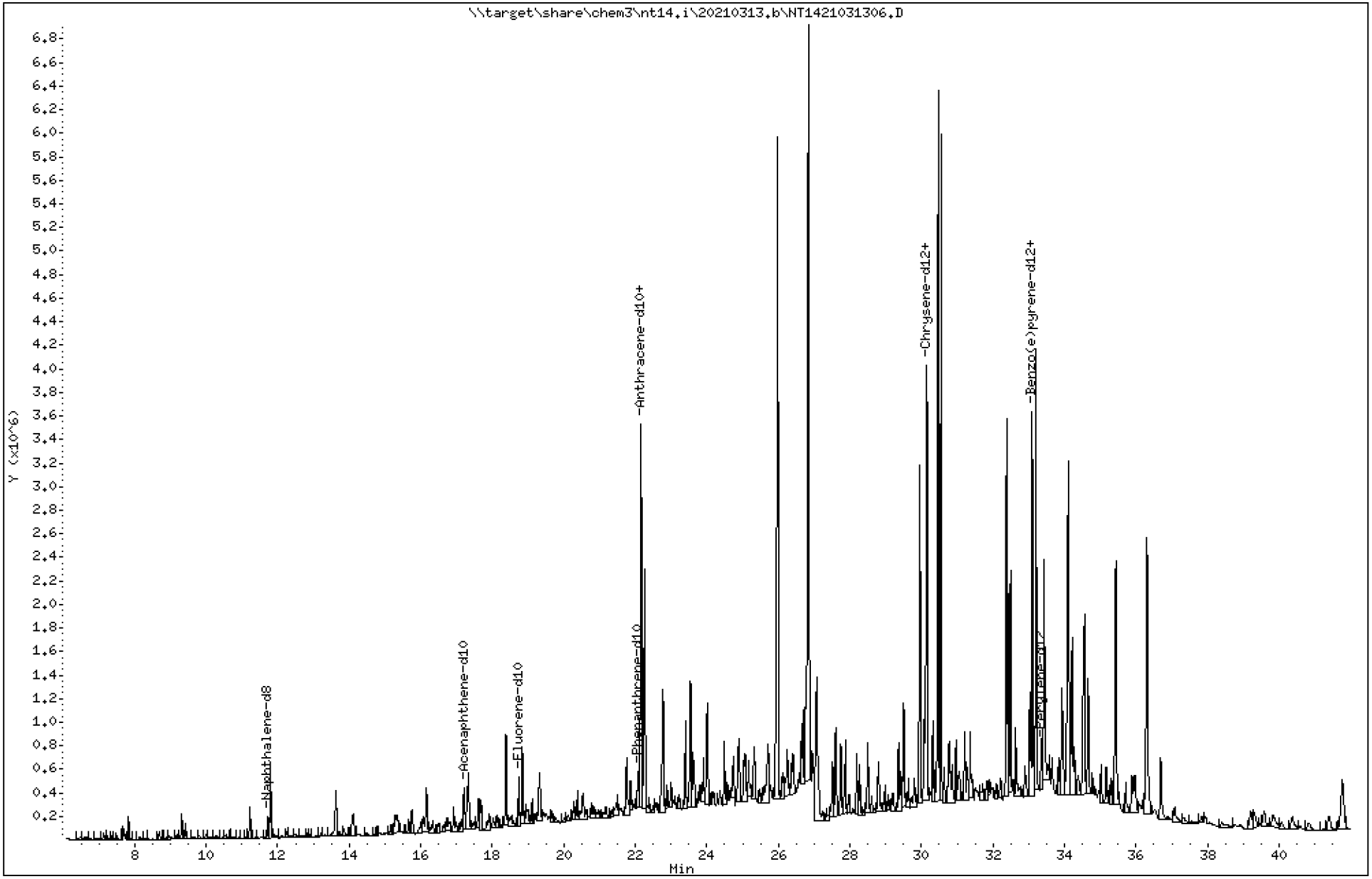
Instrument: nt14.i

Sample Info: 21B0118-01

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

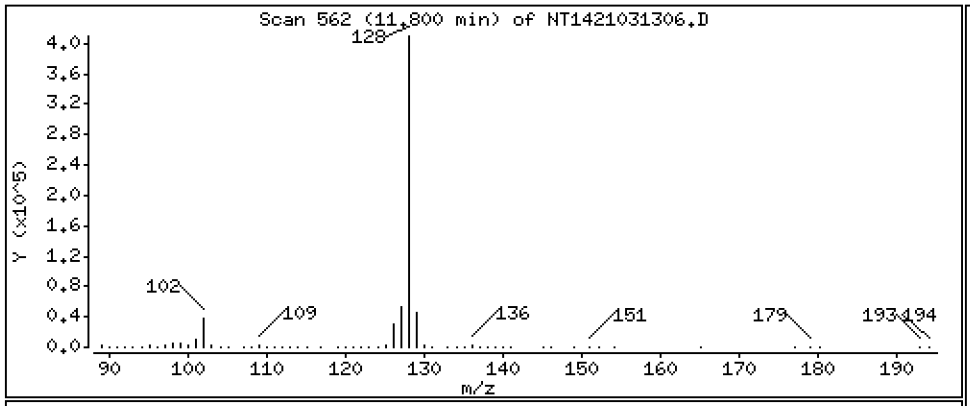
Operator: VTS

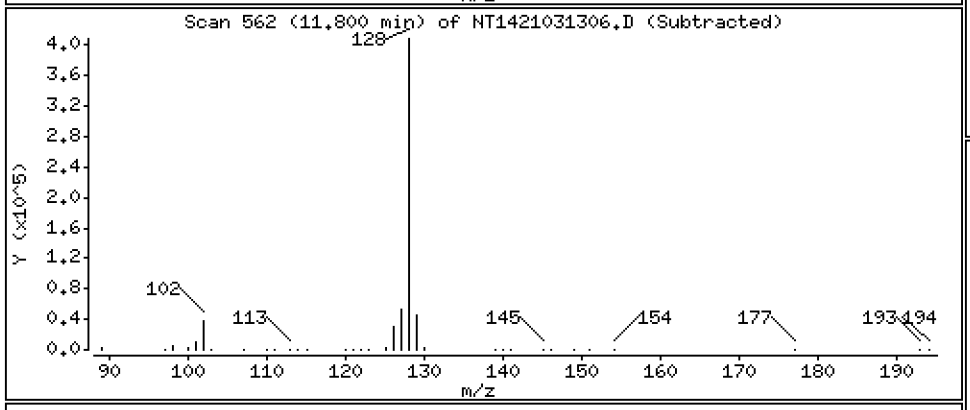
Column phase: Rxi-17Sil MS

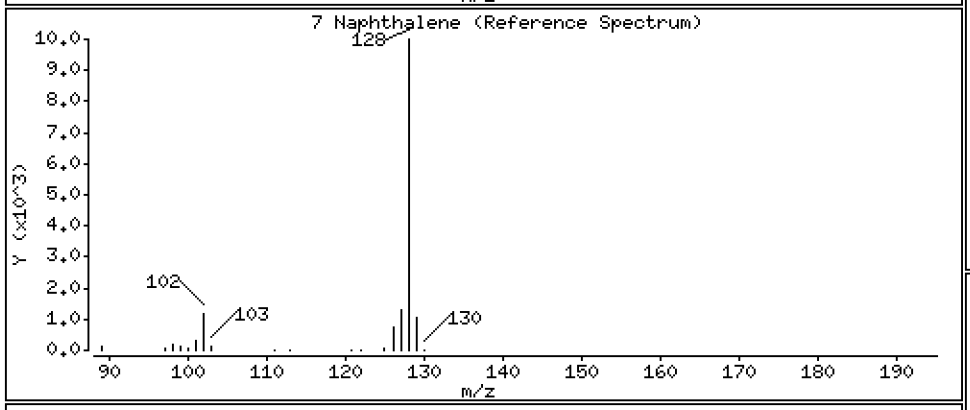
Column diameter: 0.25

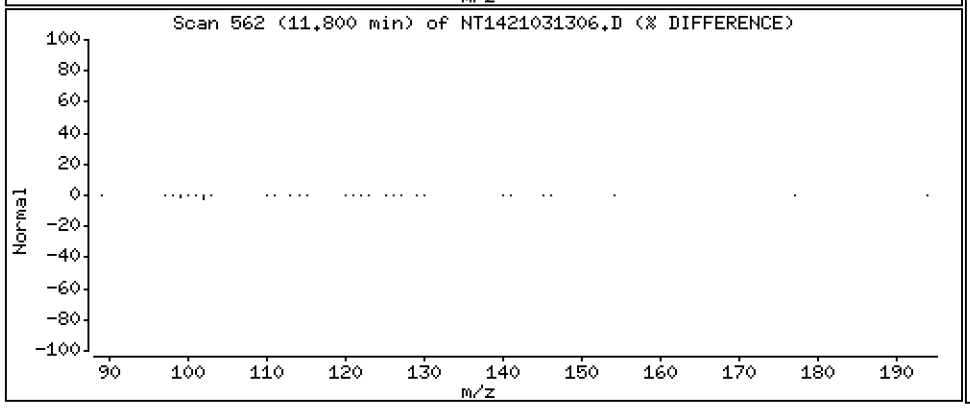
7 Naphthalene

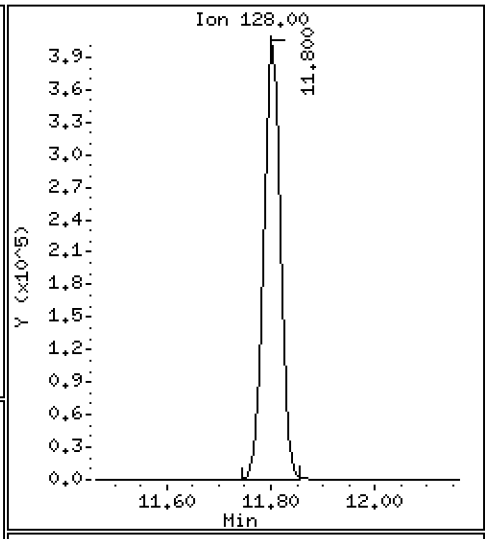
Concentration: 5.960 ug/mL

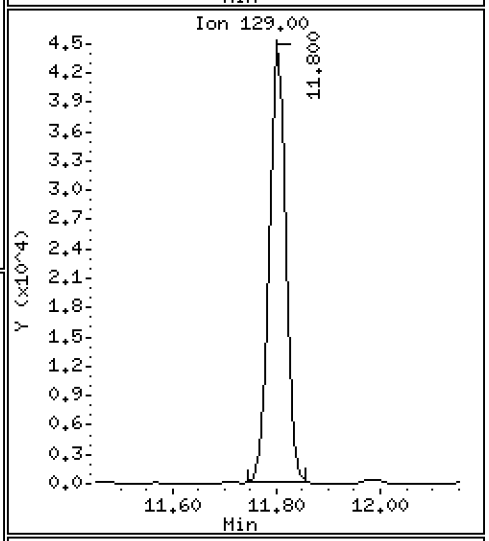


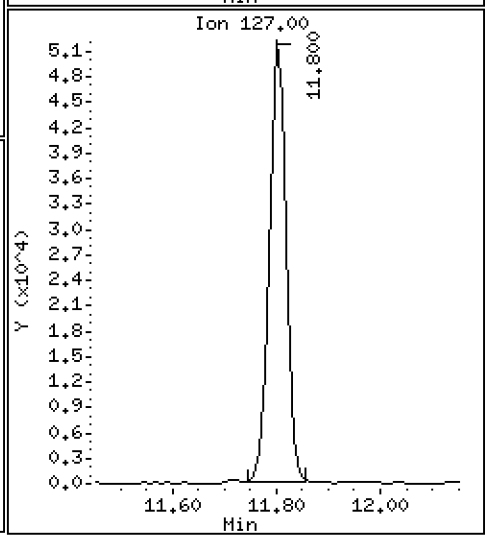












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

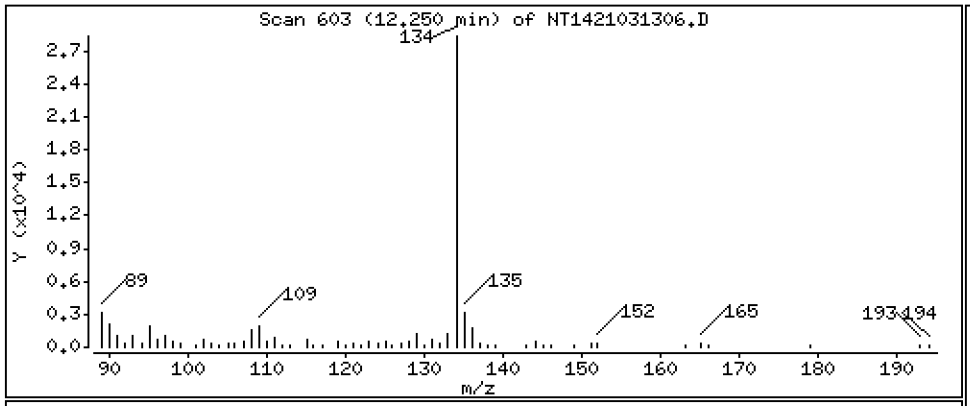
Operator: VTS

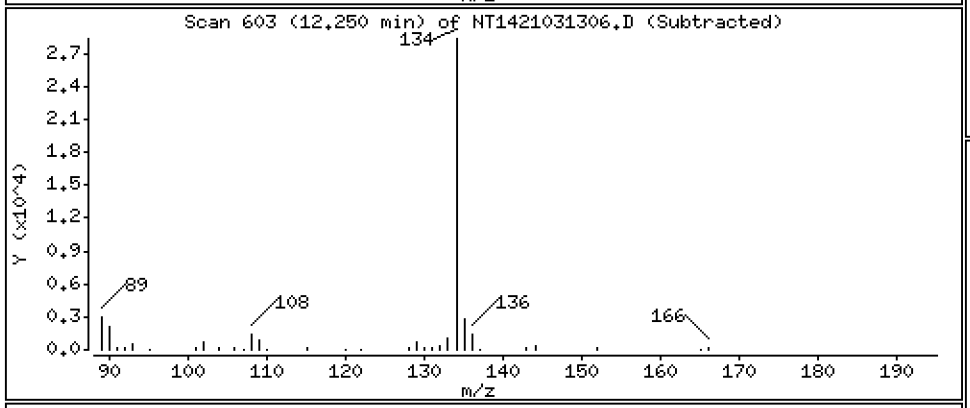
Column phase: Rxi-17Sil MS

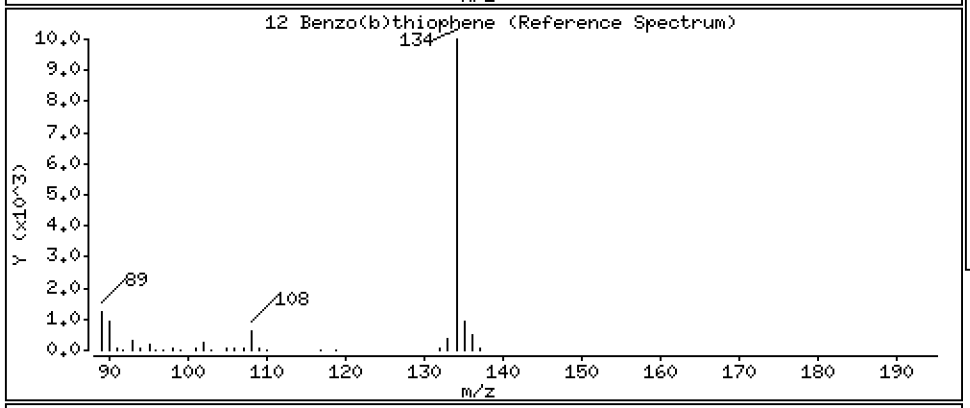
Column diameter: 0.25

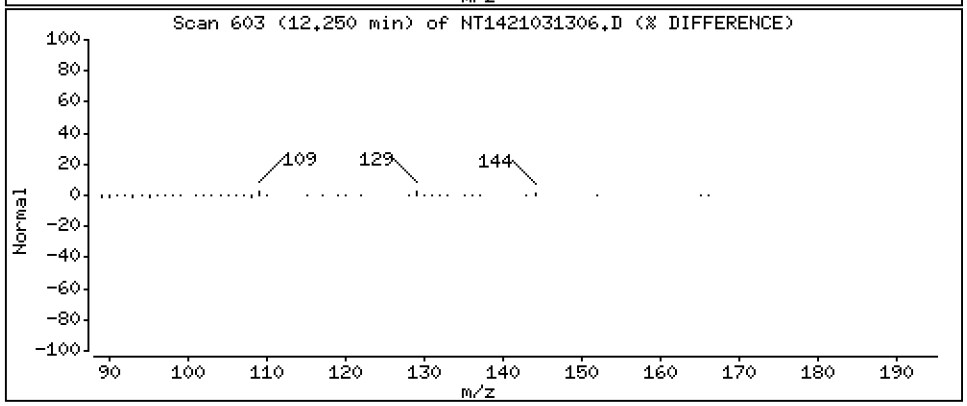
12 Benzo(b)thiophene

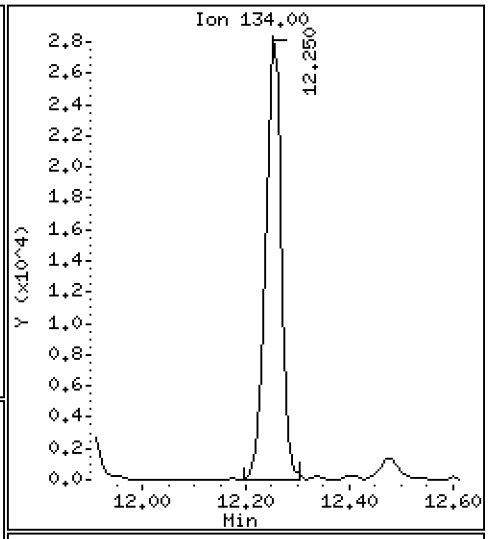
Concentration: 0.5032 ug/mL

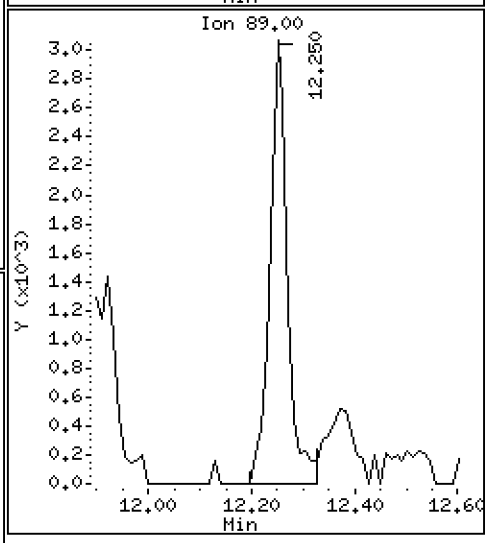












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Date : 13-MAR-2021 14:47

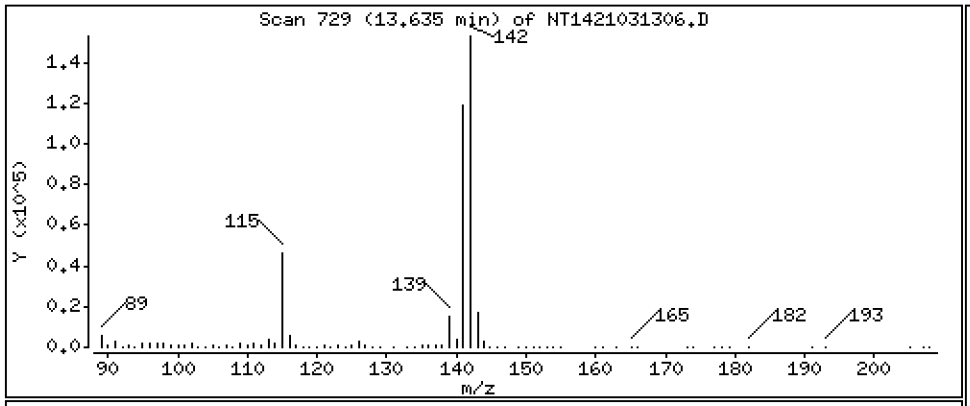
Client ID: Instrument: nt14.i

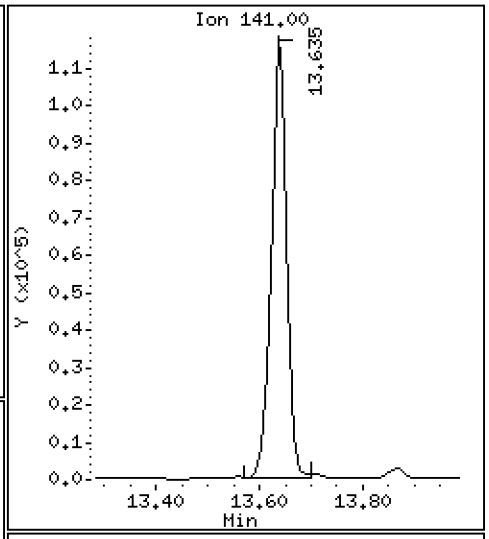
Sample Info: 21B0118-01

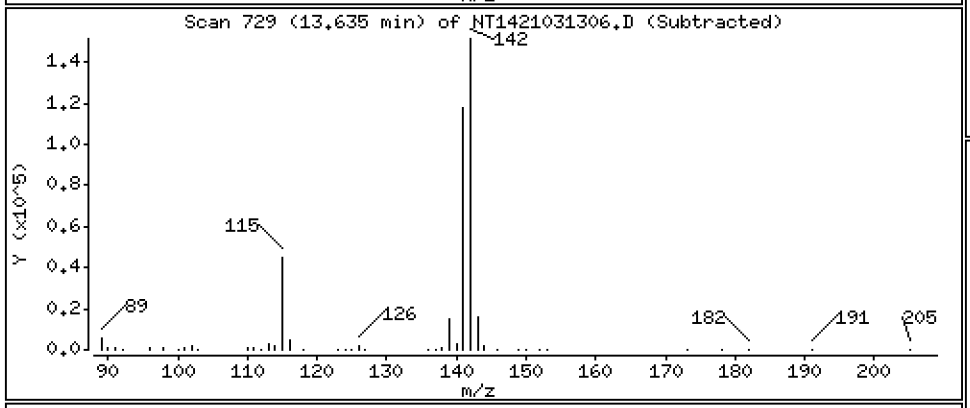
Operator: VTS

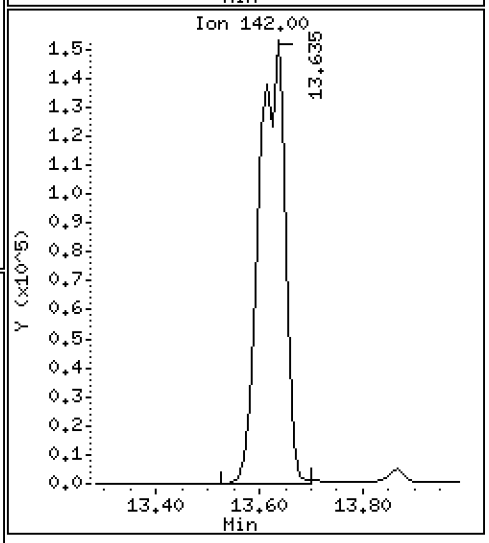
Column phase: Rxi-17Sil MS Column diameter: 0.25

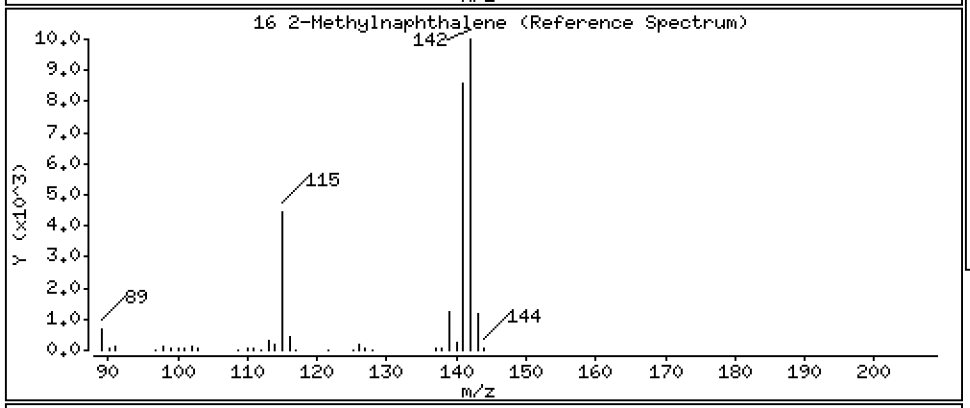
16 2-Methylnaphthalene Concentration: 2.999 ug/mL

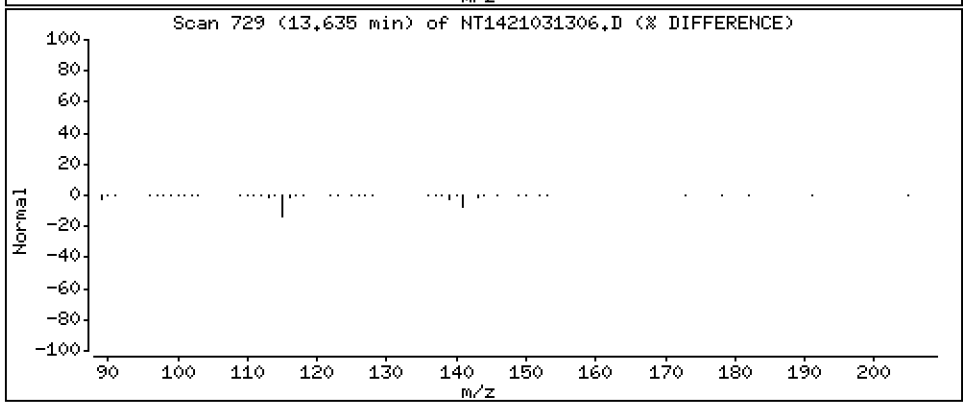












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Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

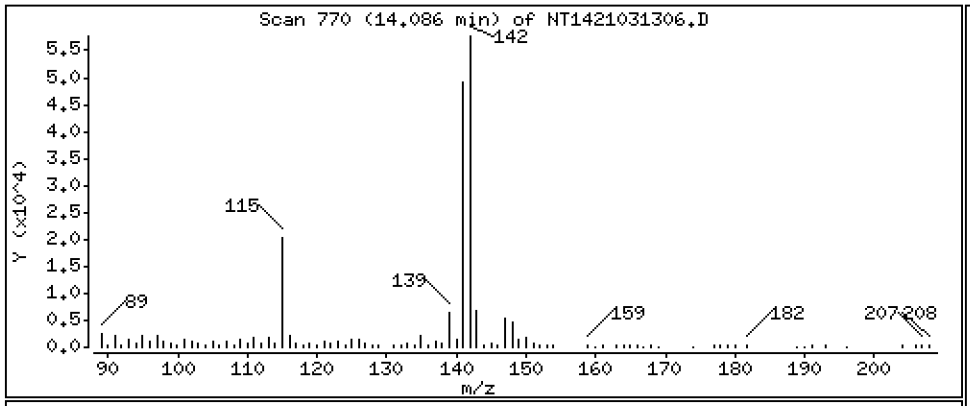
Operator: VTS

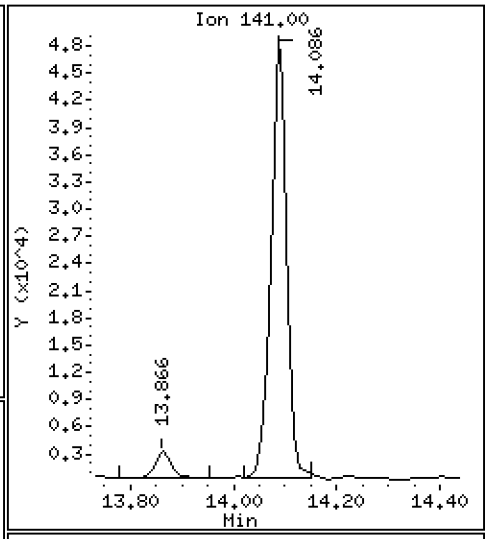
Column phase: Rxi-17Sil MS

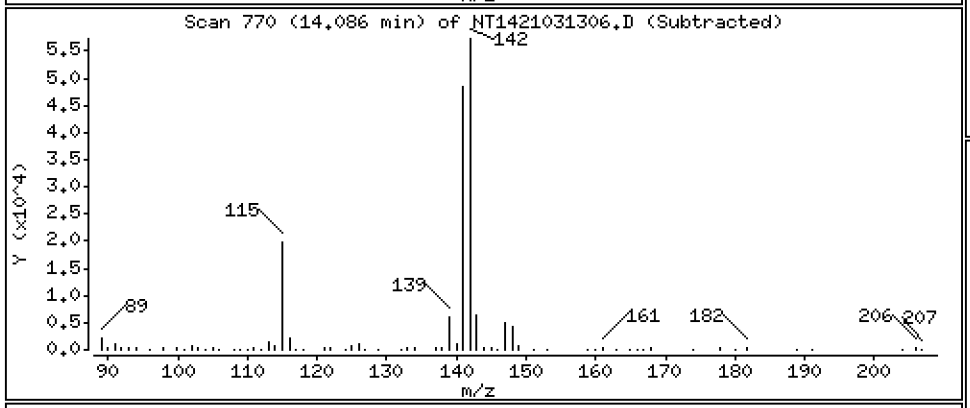
Column diameter: 0.25

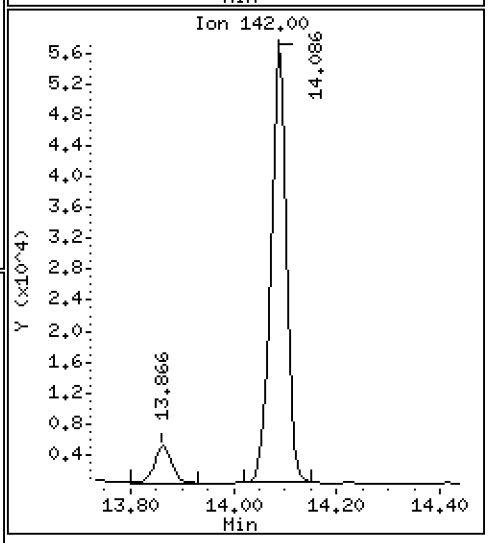
17 1-methylnaphthalene

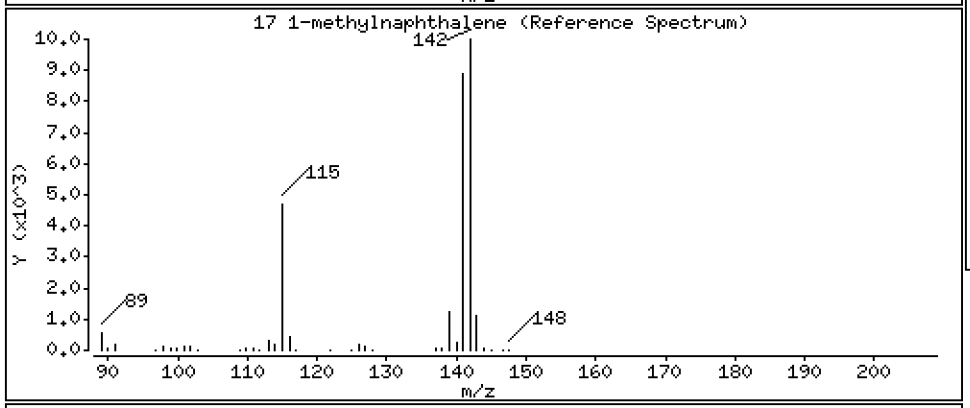
Concentration: 1.308 ug/mL

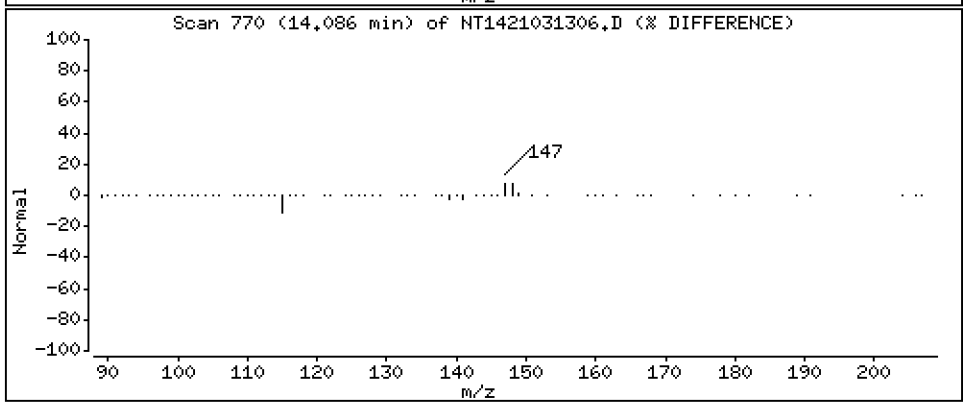












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Instrument: nt14.i

Sample Info: 21B0118-01

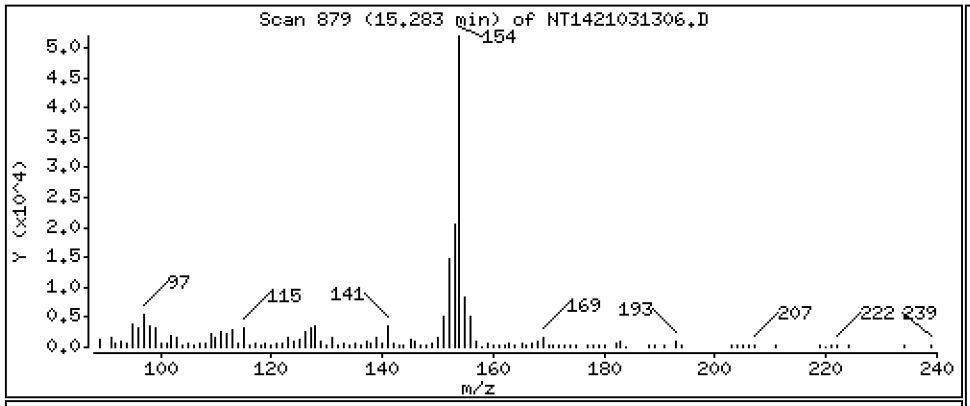
Operator: VTS

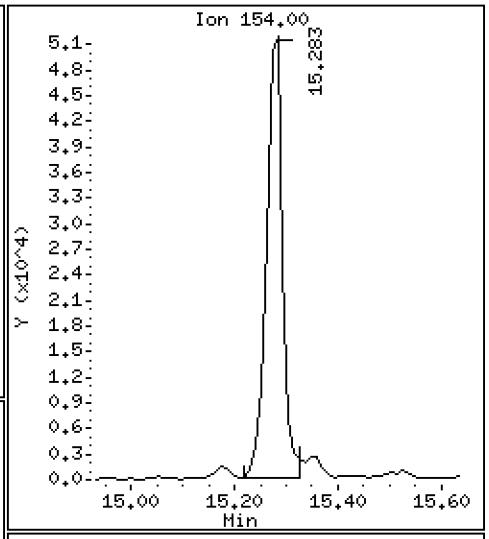
Column phase: Rxi-17Sil MS

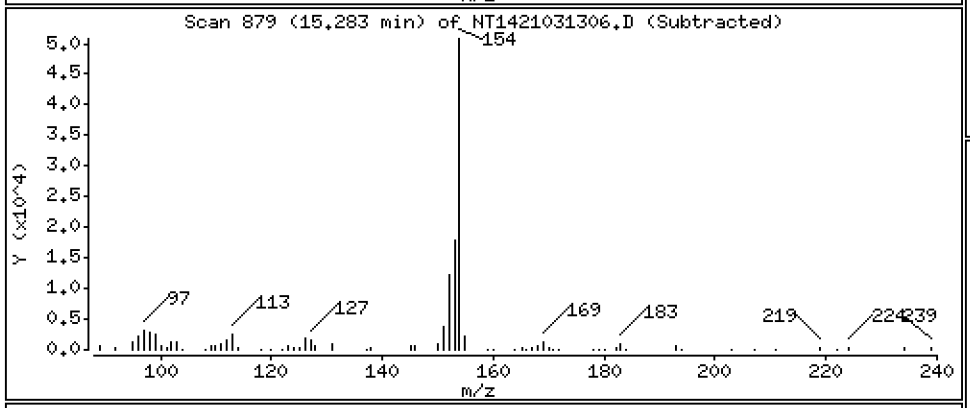
Column diameter: 0.25

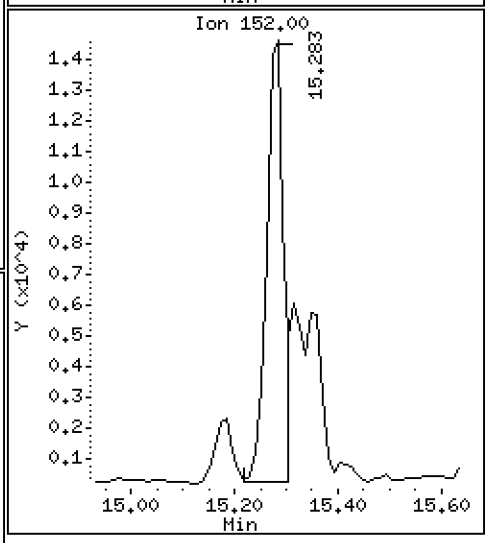
18 Biphenyl

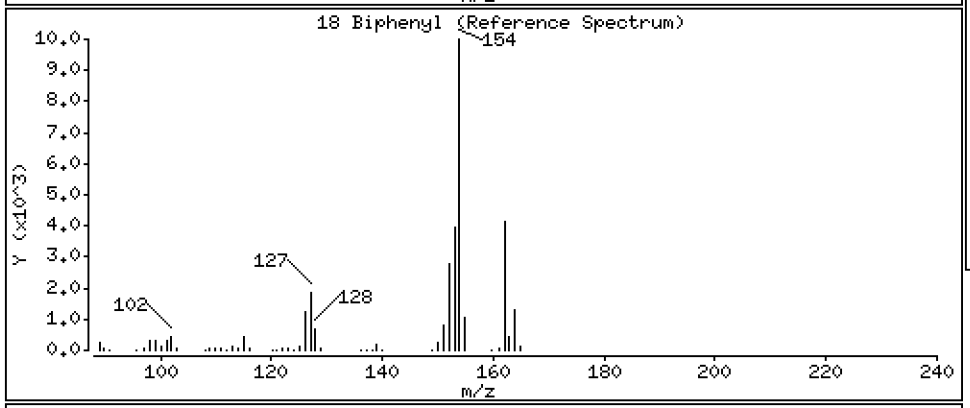
Concentration: 0.9355 ug/mL

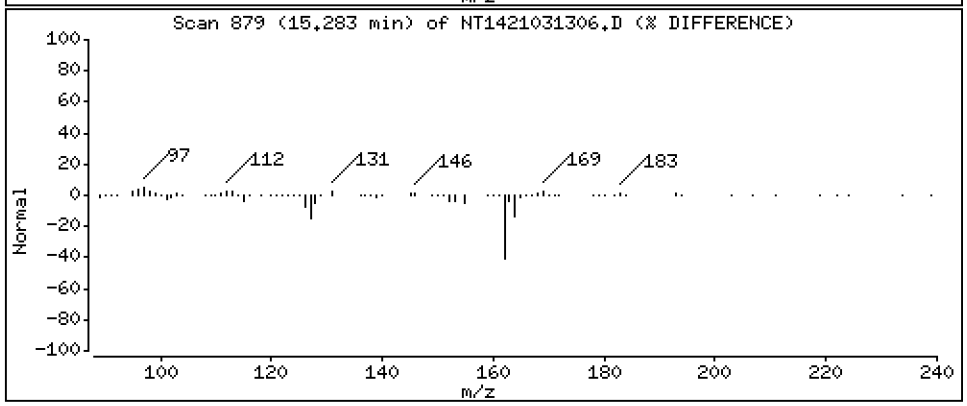












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Instrument: nt14.i

Sample Info: 21B0118-01

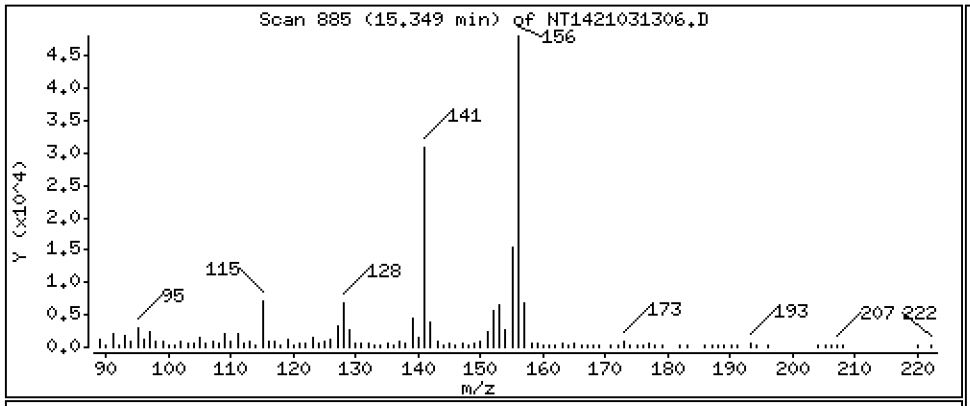
Operator: VTS

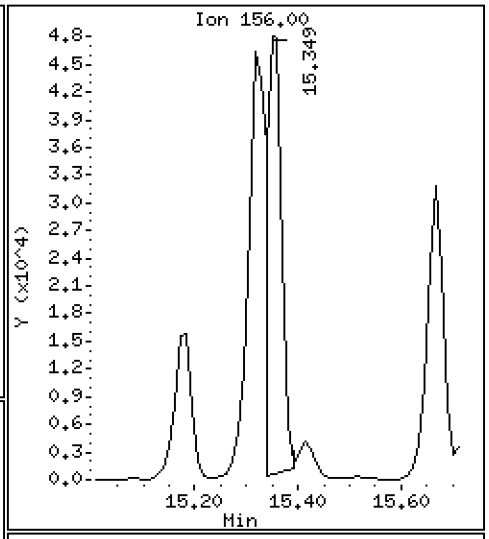
Column phase: Rxi-17Sil MS

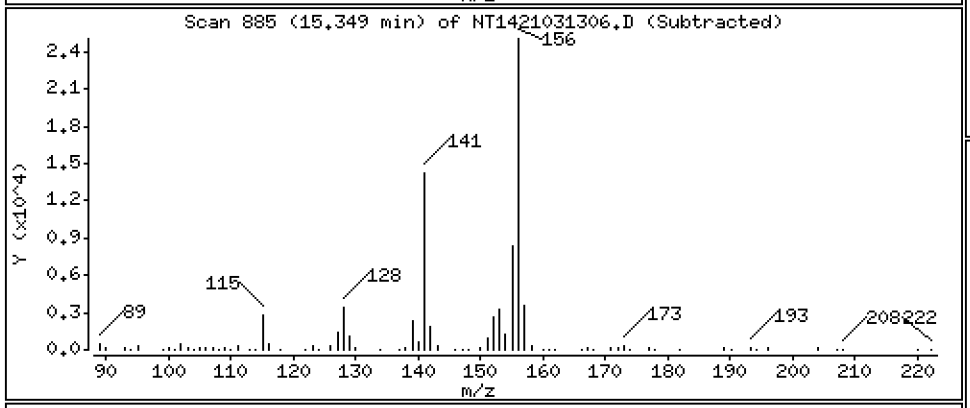
Column diameter: 0.25

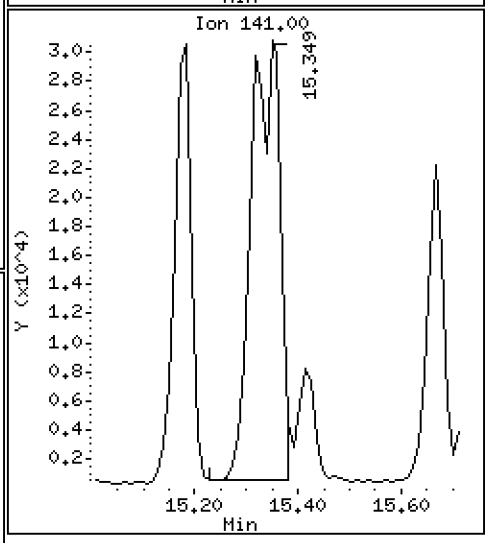
19 2,6-Dimethylnaphthalene

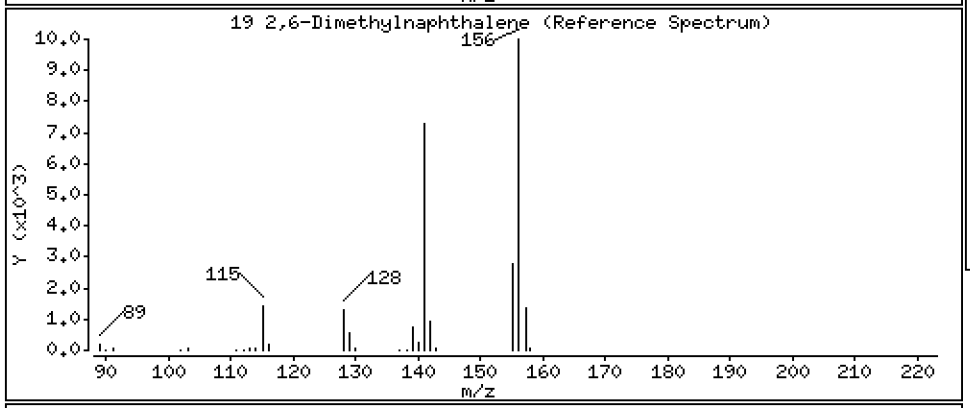
Concentration: 1.132 ug/mL

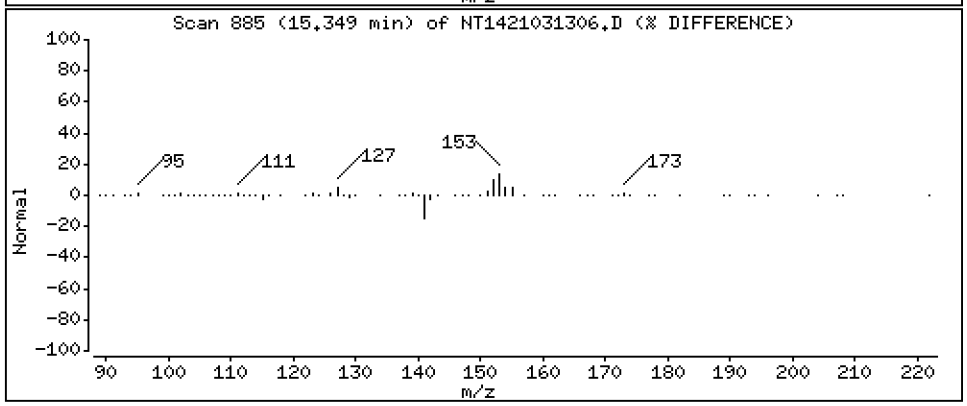












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Sample Info: 21B0118-01

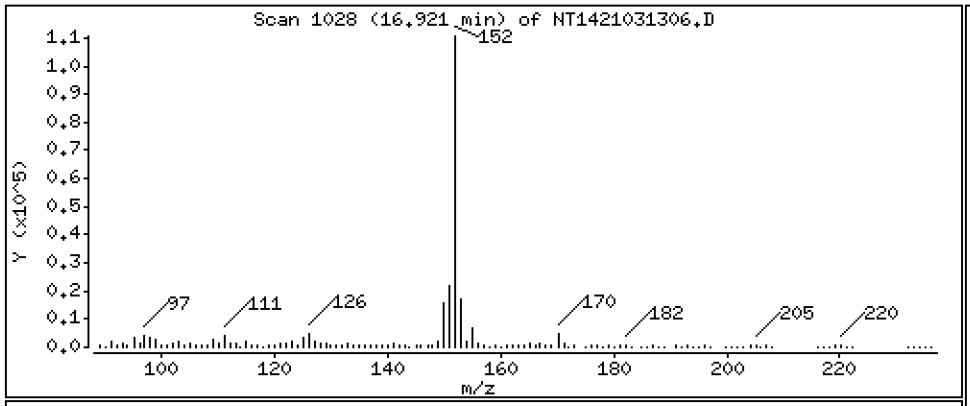
Operator: VTS

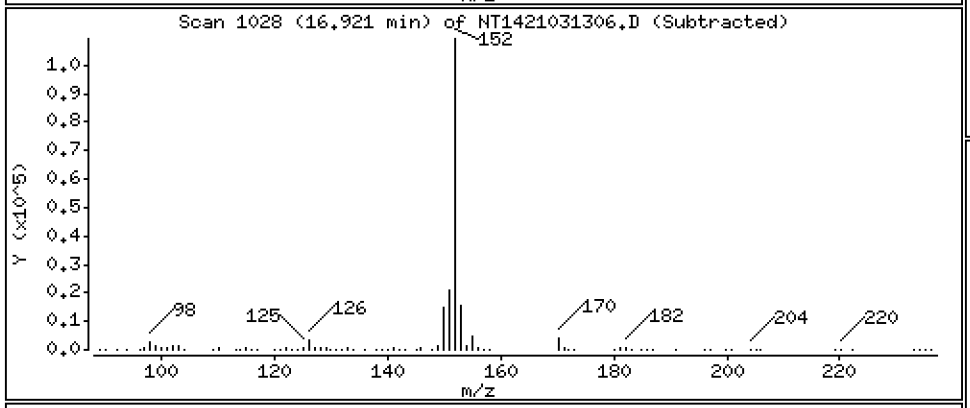
Column phase: Rxi-17Sil MS

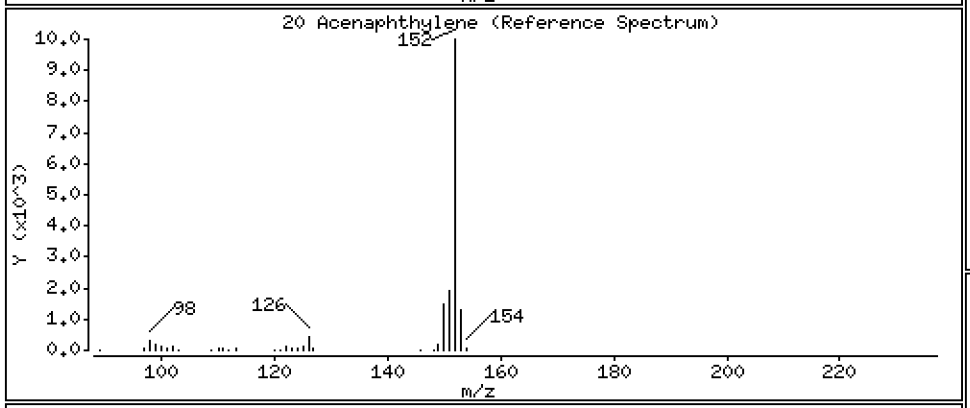
Column diameter: 0.25

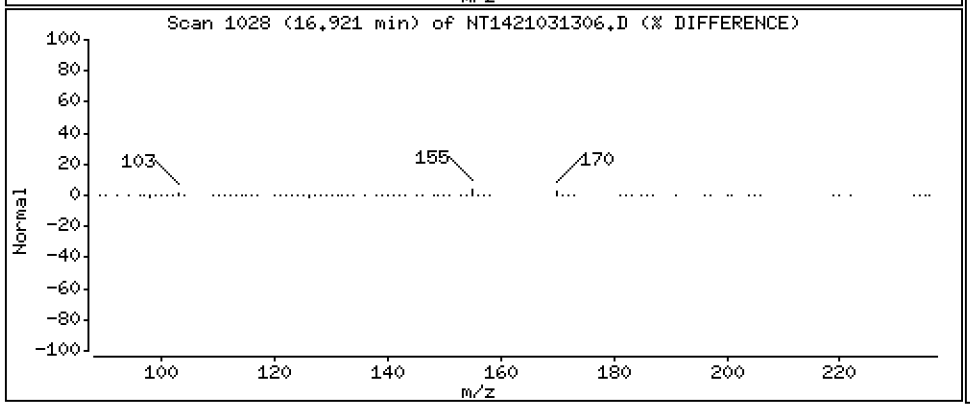
20 Acenaphthylene

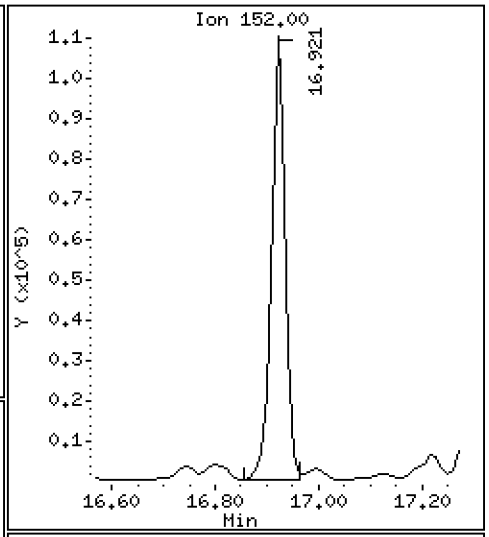
Concentration: 1.392 ug/mL

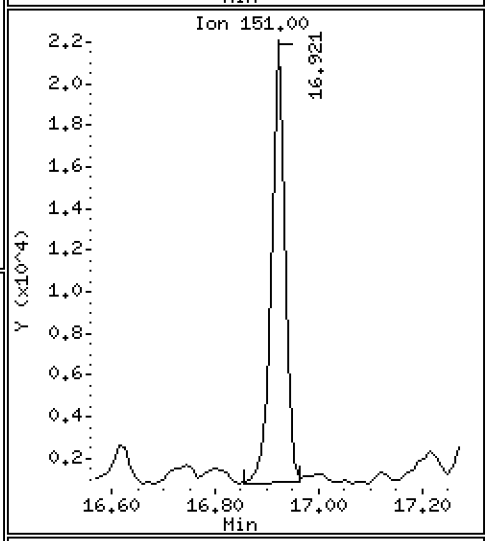


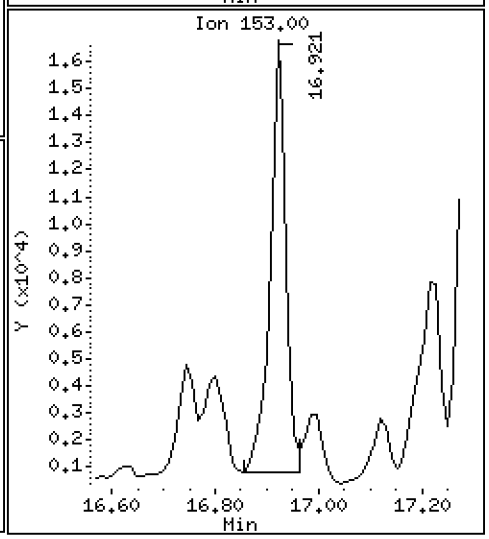












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Instrument: nt14.i

Sample Info: 21B0118-01

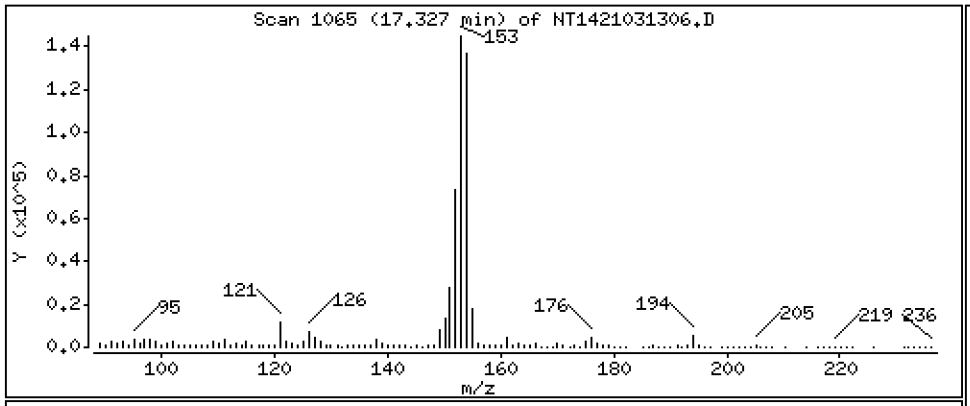
Operator: VTS

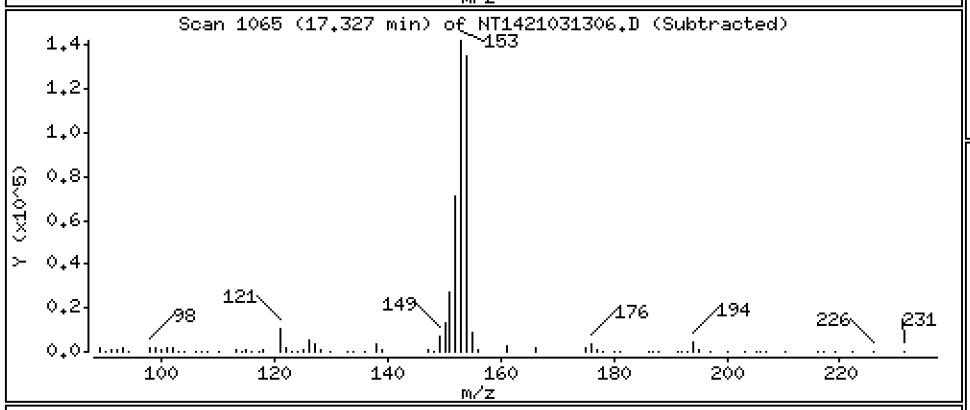
Column phase: Rxi-17Sil MS

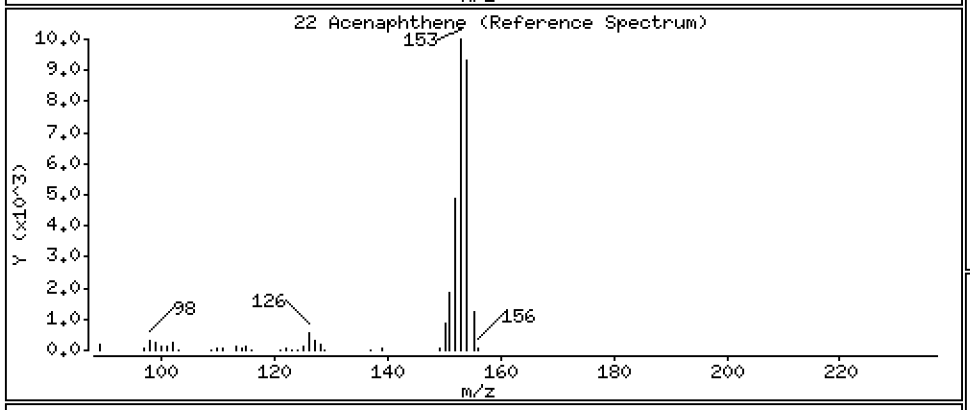
Column diameter: 0.25

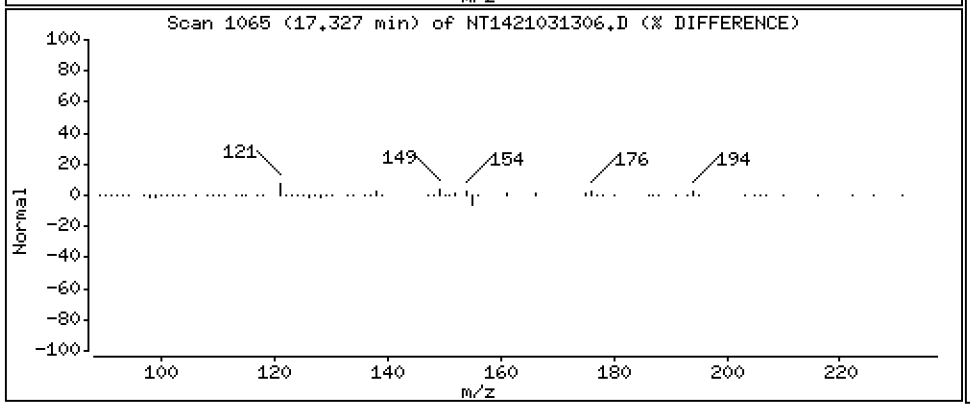
22 Acenaphthene

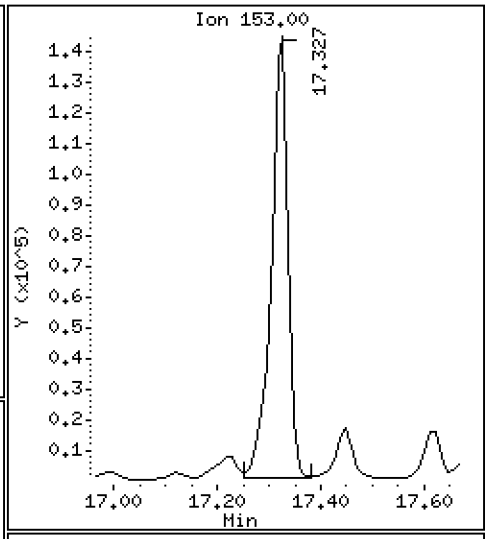
Concentration: 3.424 ug/mL

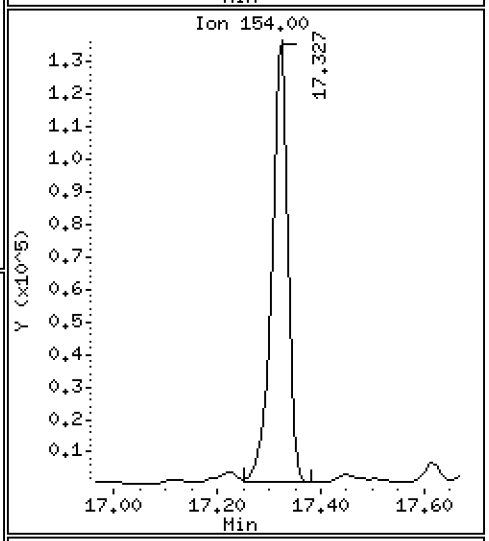


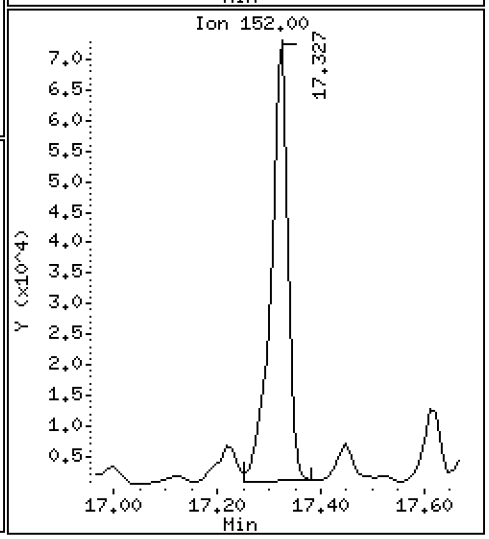












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031306.D

Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

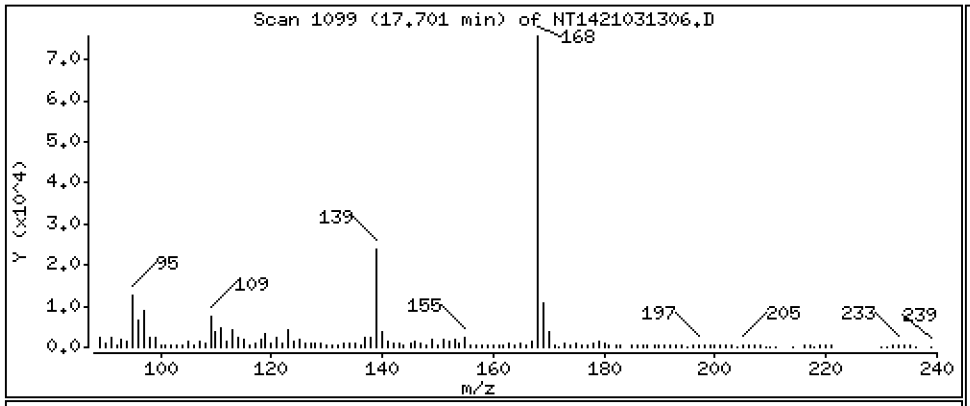
Operator: VTS

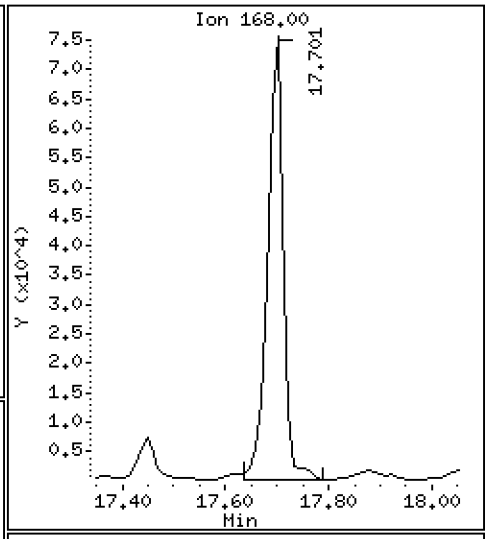
Column phase: Rxi-17Sil MS

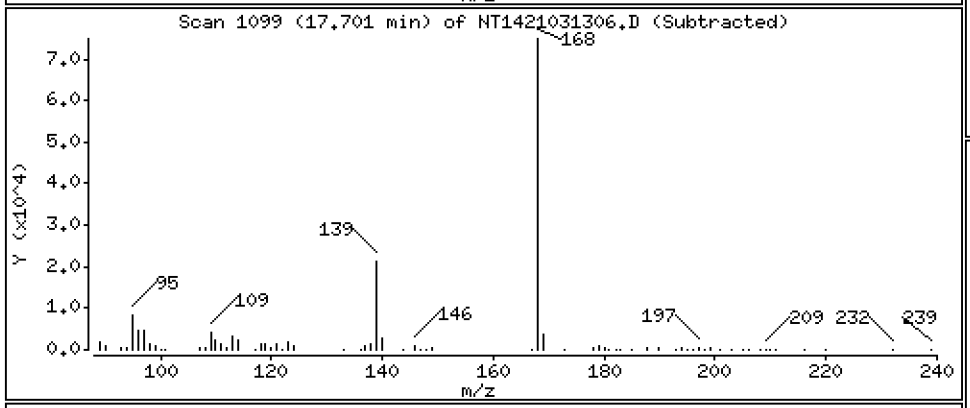
Column diameter: 0.25

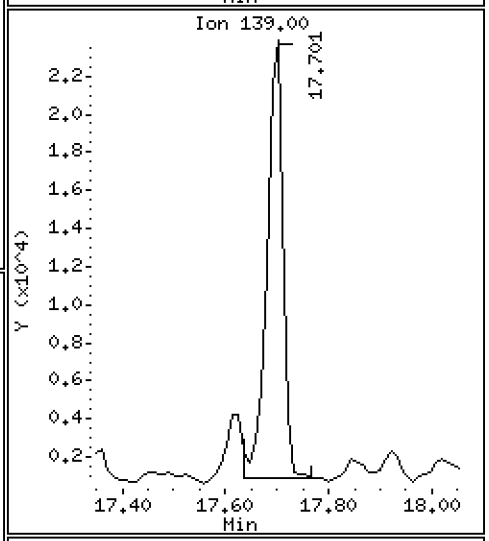
23 Dibenzofuran

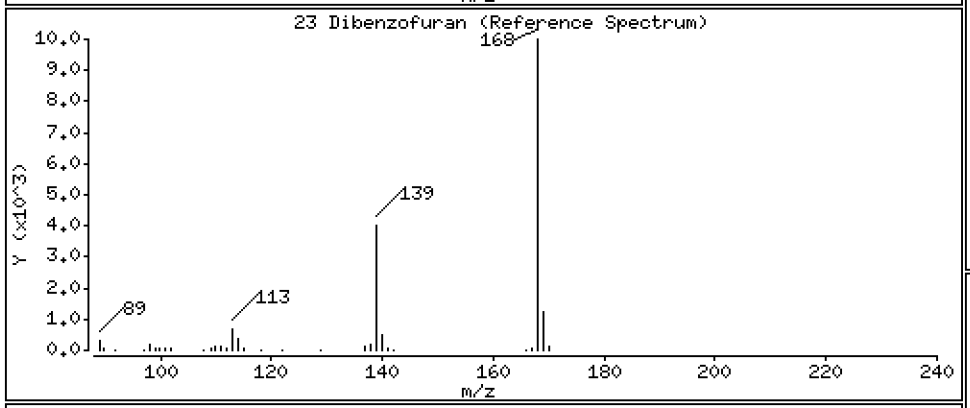
Concentration: 1.161 ug/mL

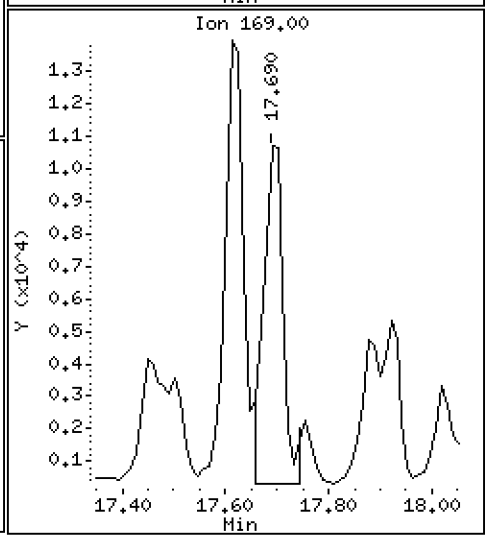


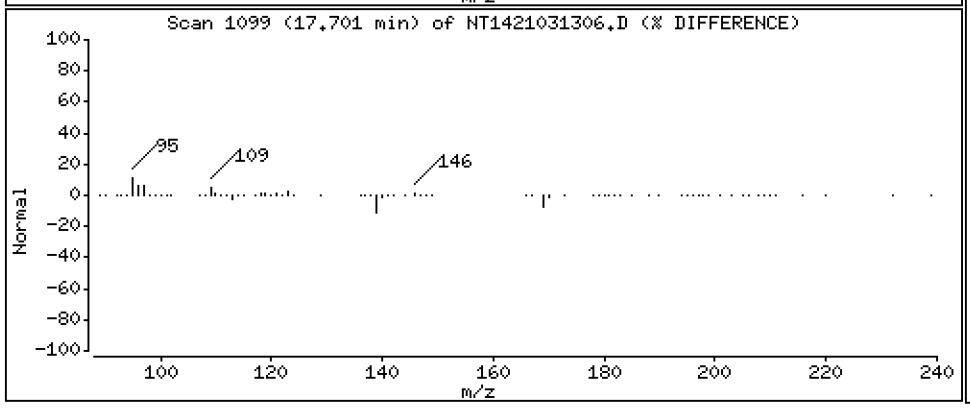












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

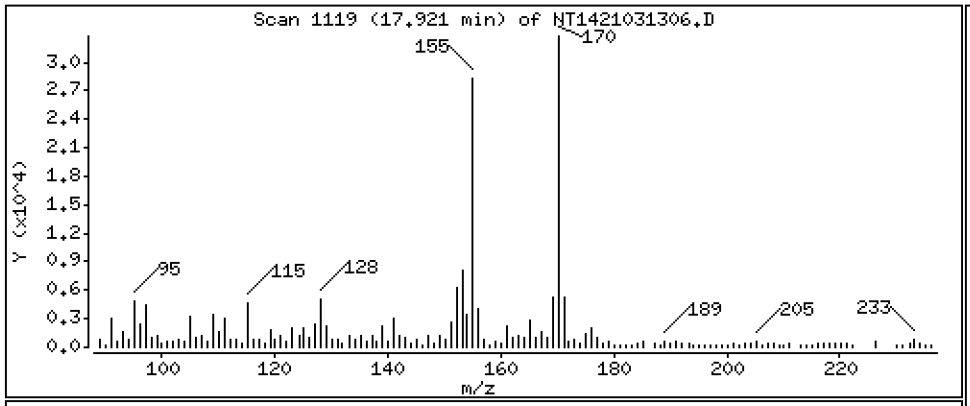
Operator: VTS

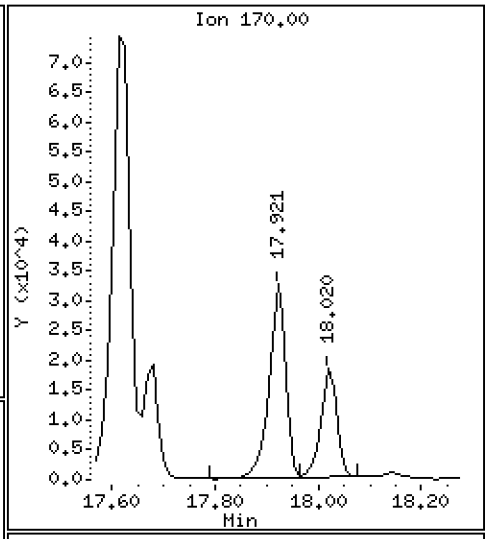
Column phase: Rxi-17Sil MS

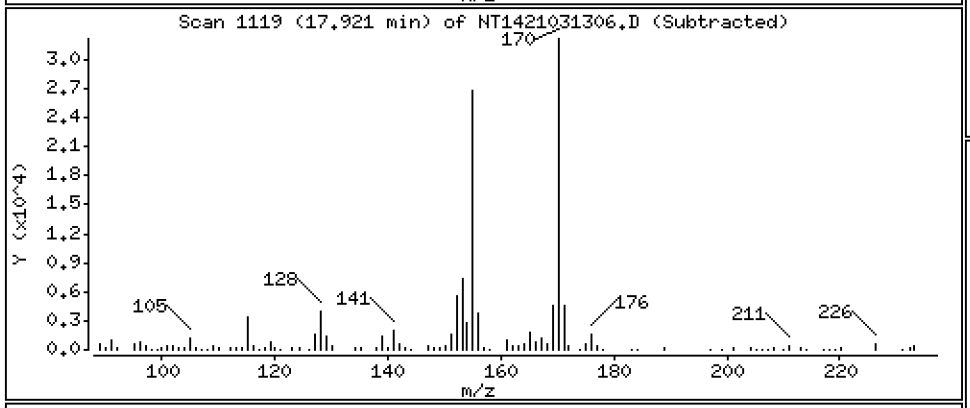
Column diameter: 0.25

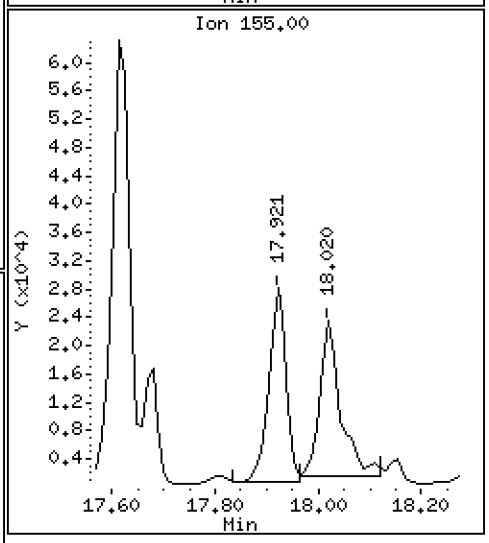
24 1,6,7-Trimethylnaphthalene

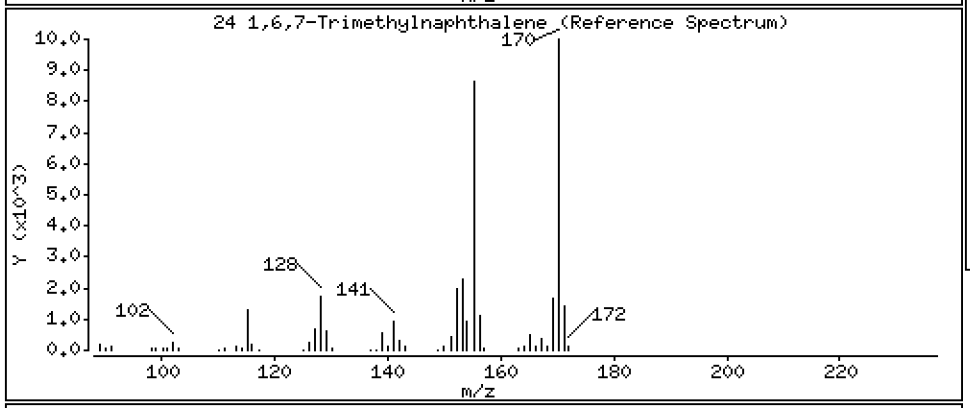
Concentration: 0.8362 ug/mL

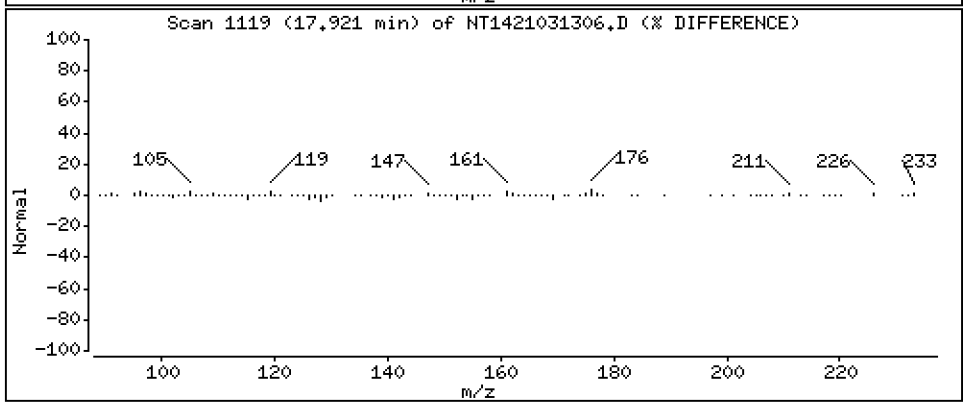












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

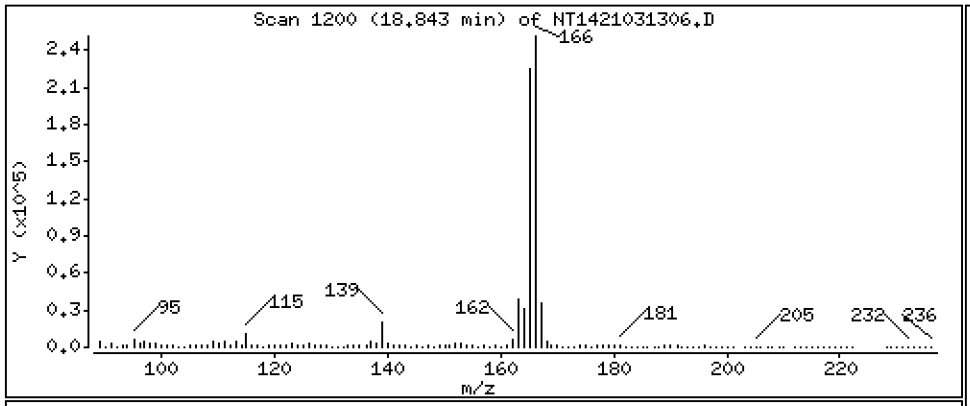
Operator: VTS

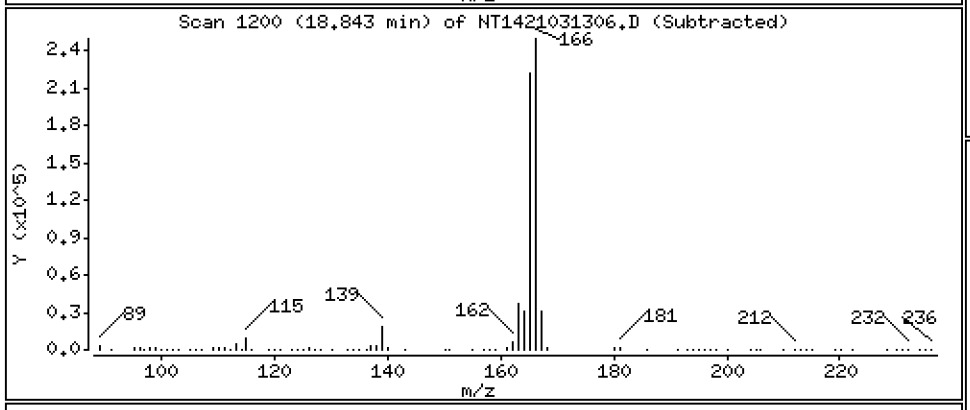
Column phase: Rxi-17Sil MS

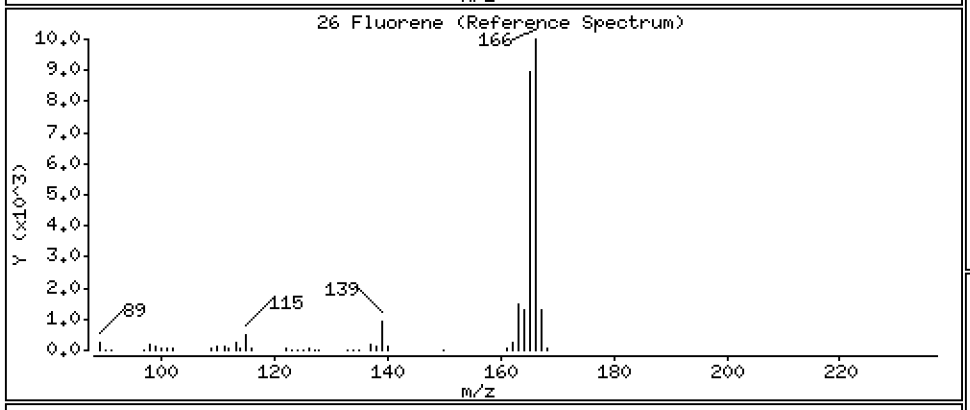
Column diameter: 0.25

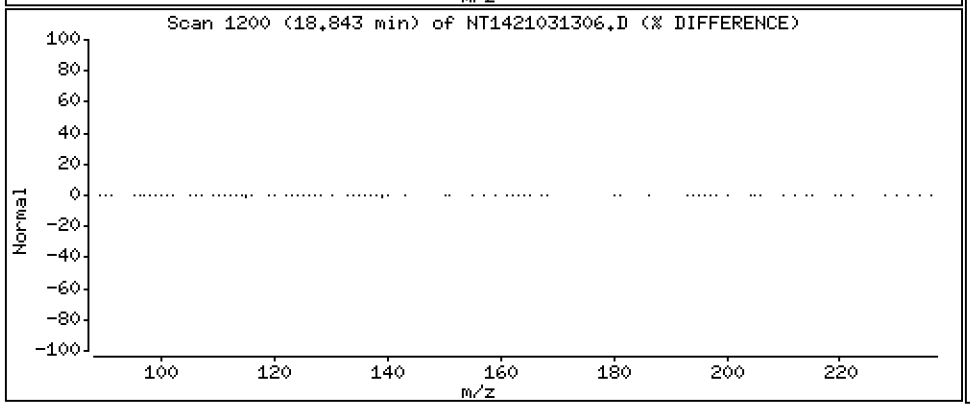
26 Fluorene

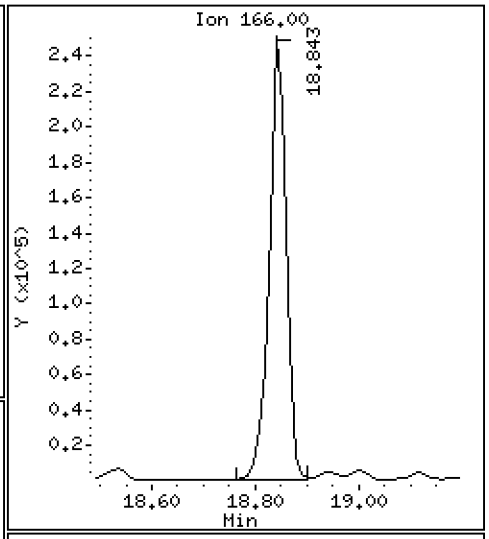
Concentration: 4.916 ug/mL

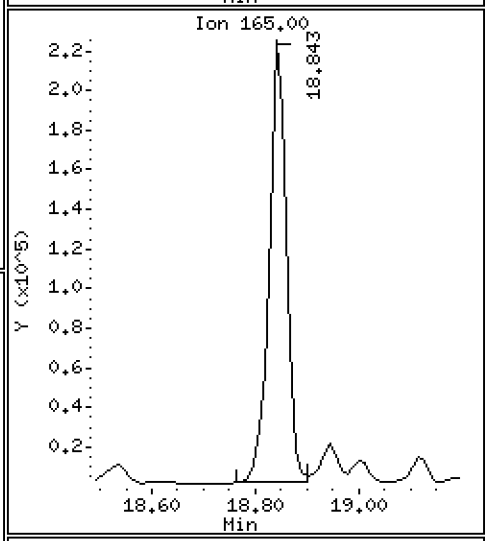


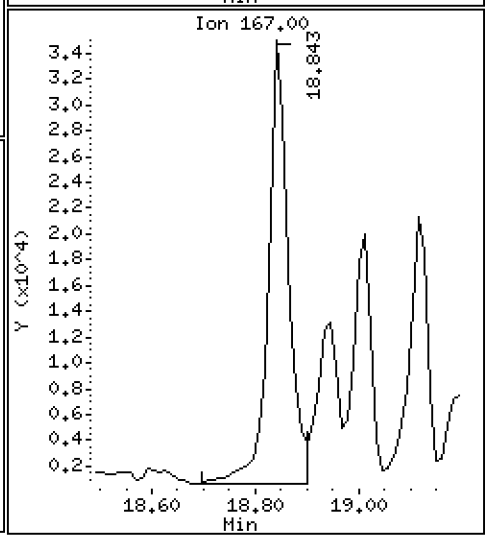












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

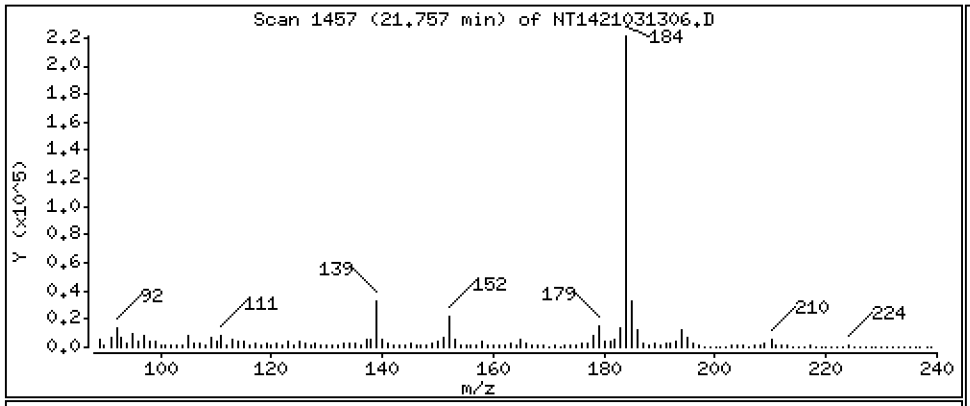
Operator: VTS

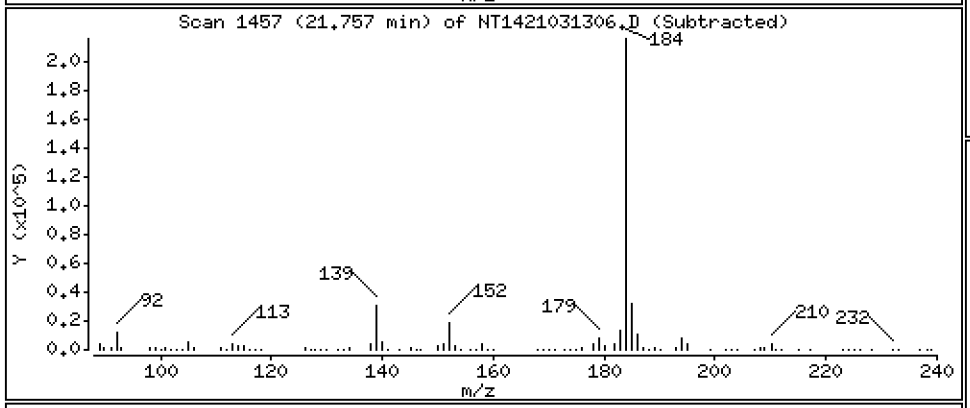
Column phase: Rxi-17Sil MS

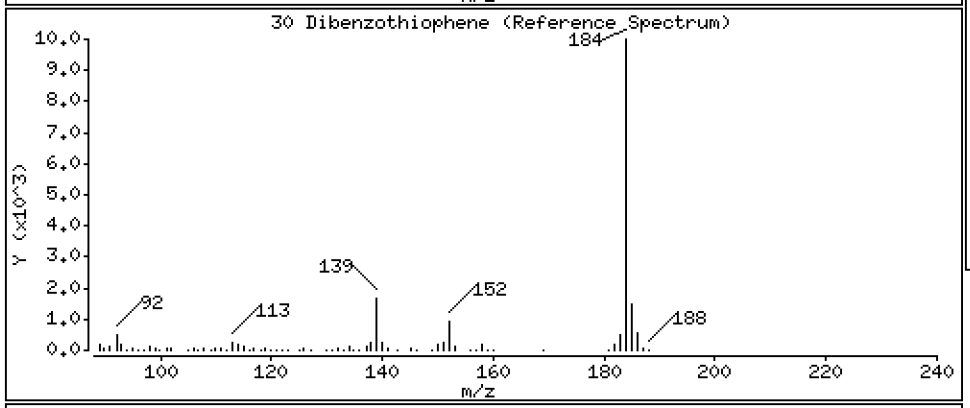
Column diameter: 0.25

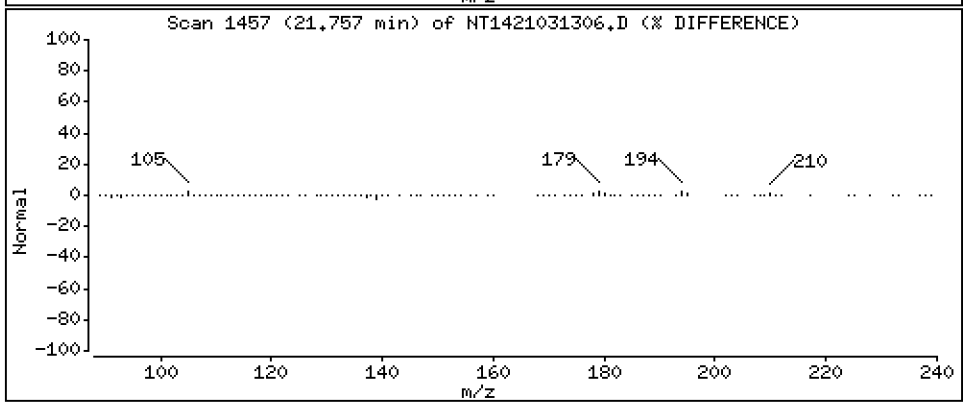
30 Dibenzothiophene

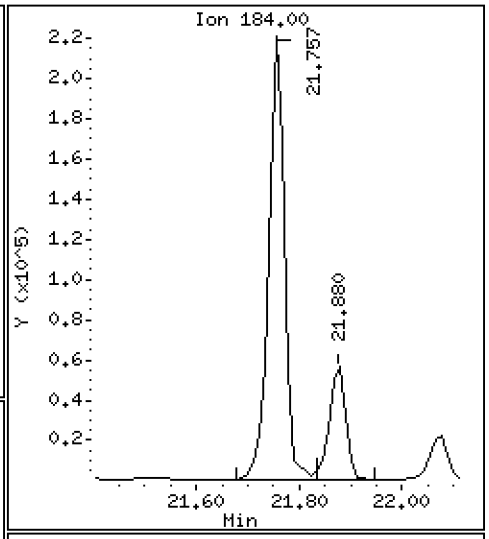
Concentration: 3.633 ug/mL

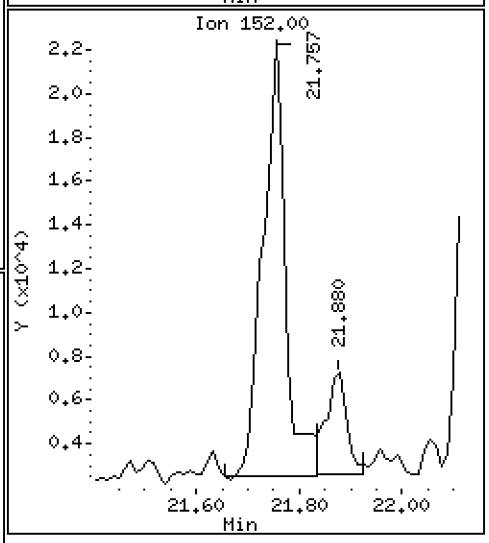












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

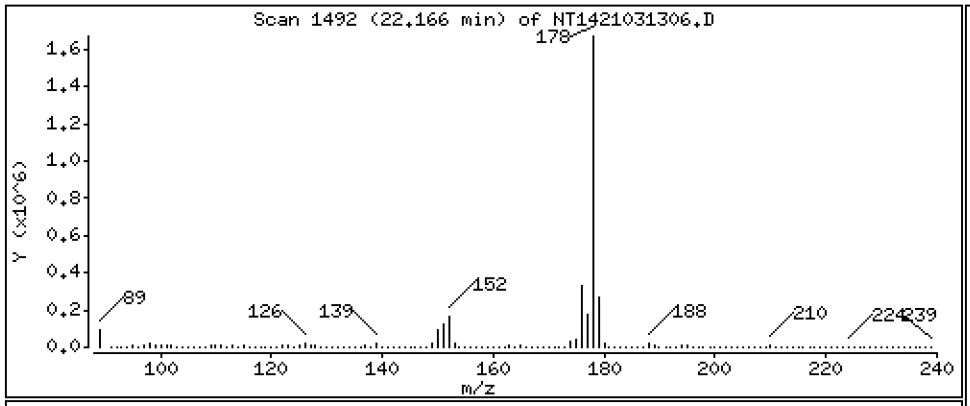
Operator: VTS

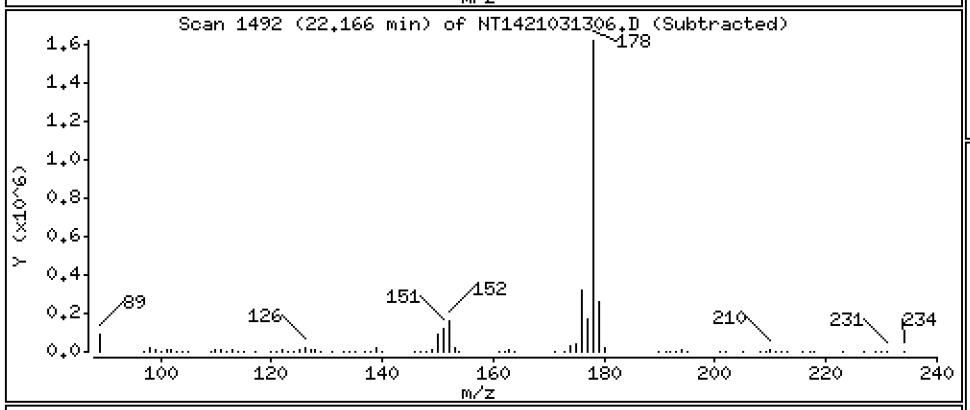
Column phase: Rxi-17Sil MS

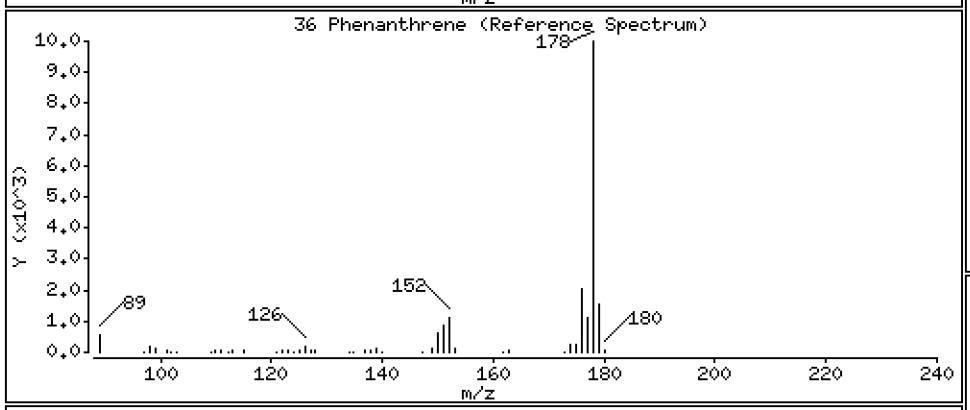
Column diameter: 0.25

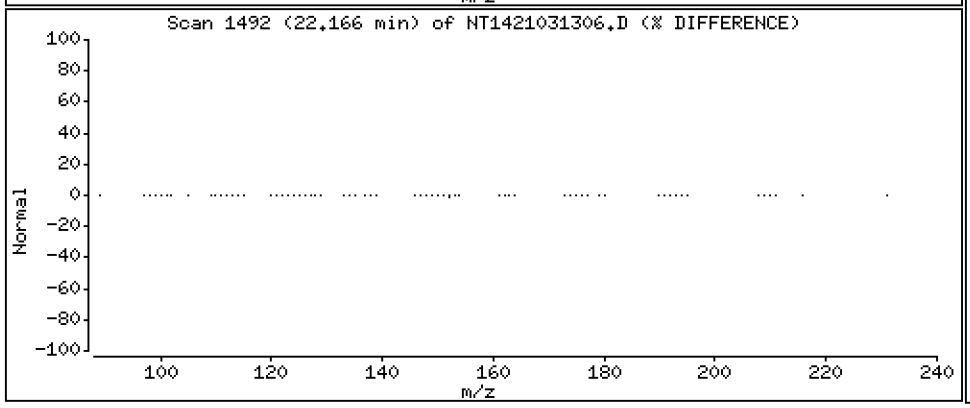
36 Phenanthrene

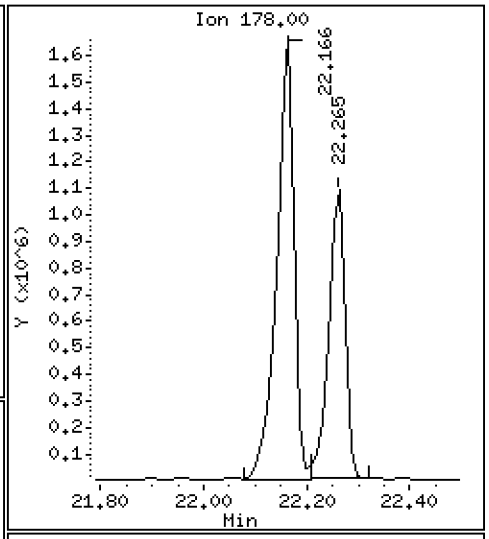
Concentration: 24.99 ug/mL

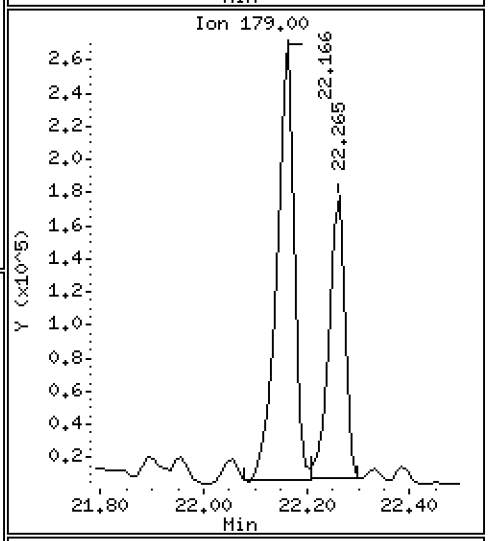


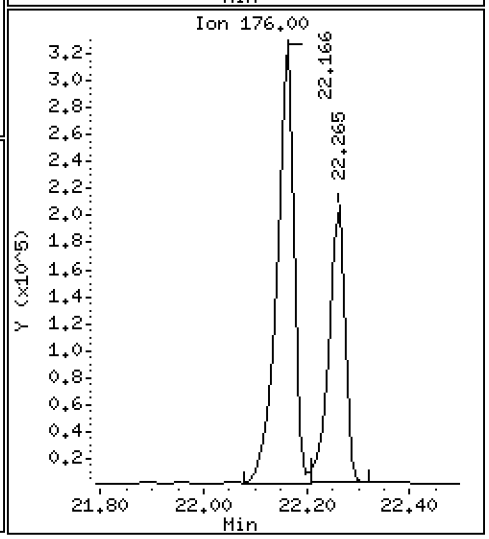












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

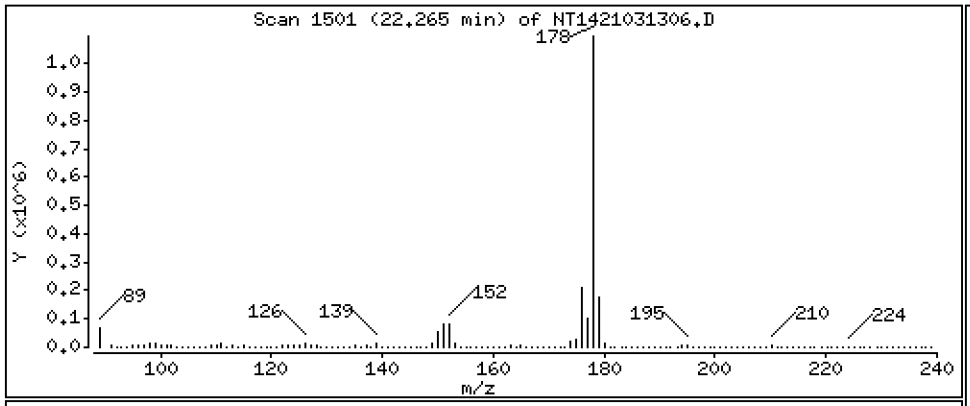
Operator: VTS

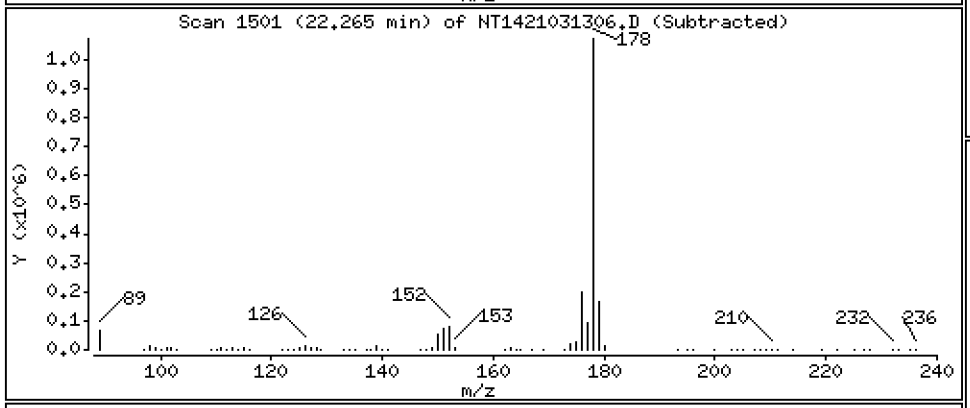
Column phase: Rxi-17Sil MS

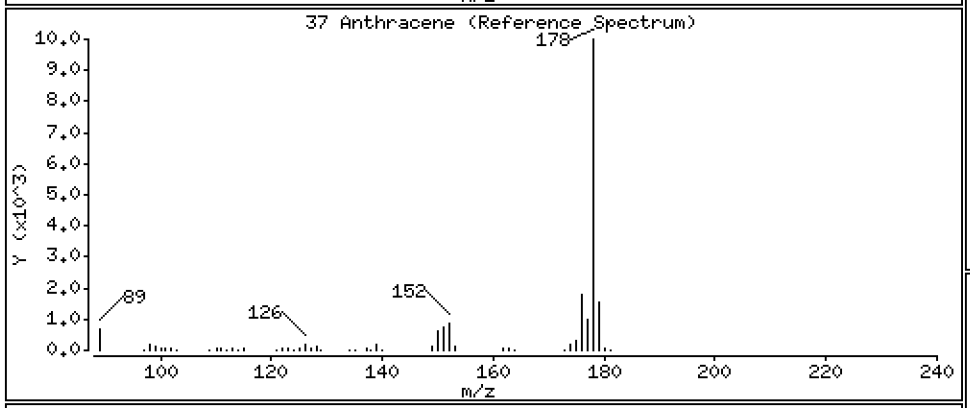
Column diameter: 0.25

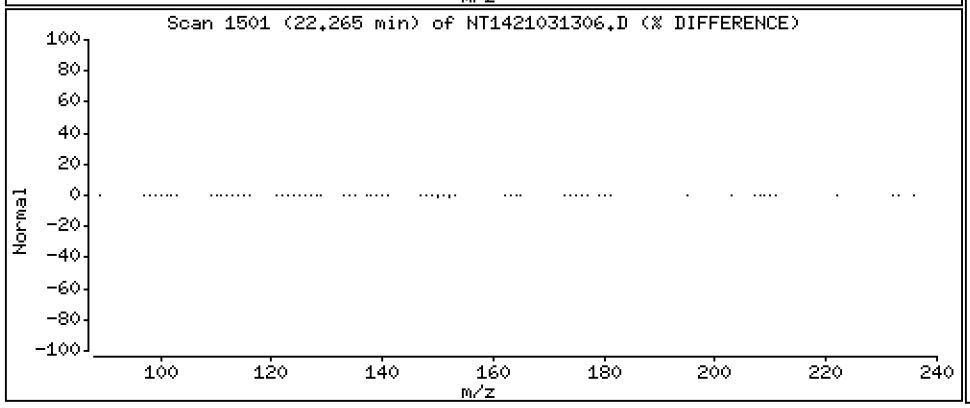
37 Anthracene

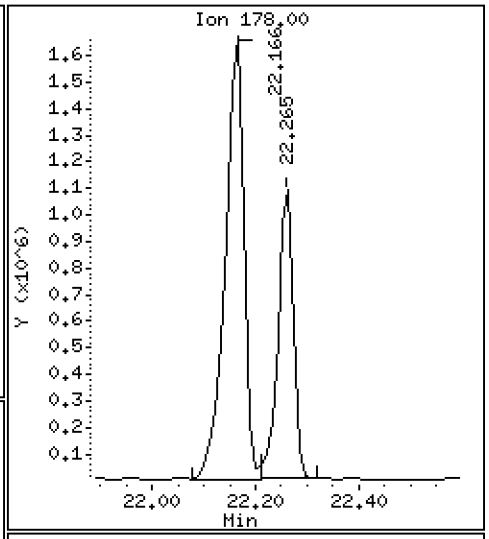
Concentration: 15.50 ug/mL

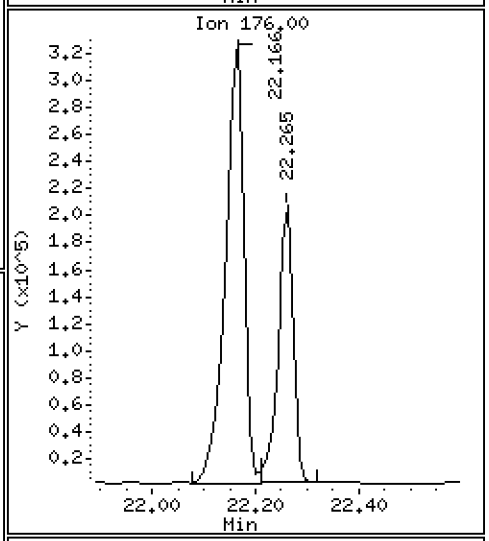


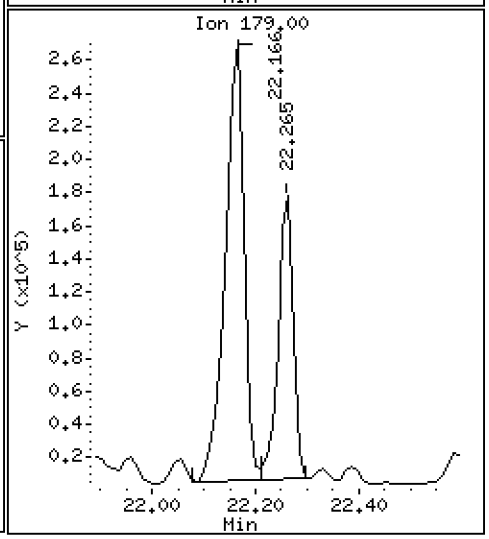












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

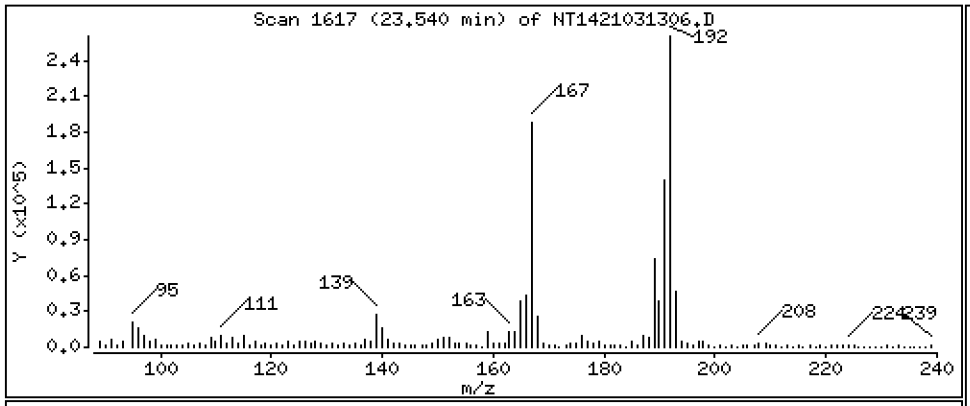
Operator: VTS

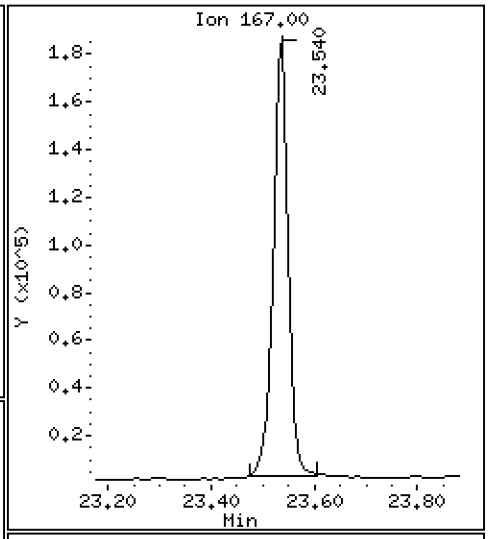
Column phase: Rxi-17Sil MS

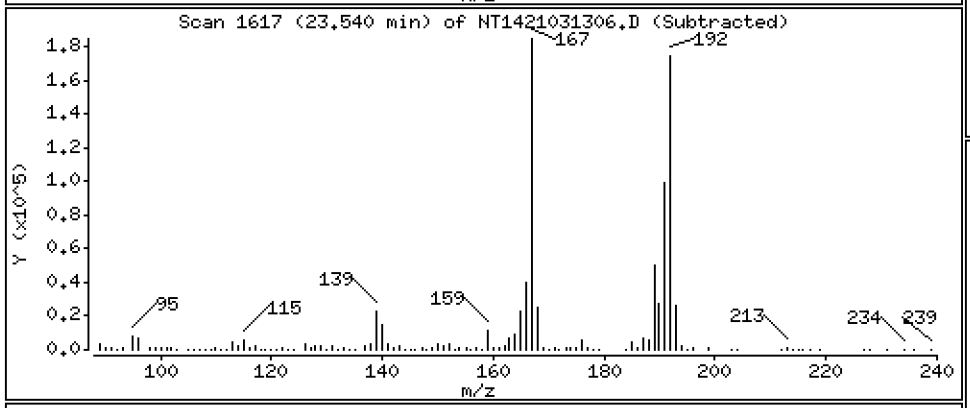
Column diameter: 0.25

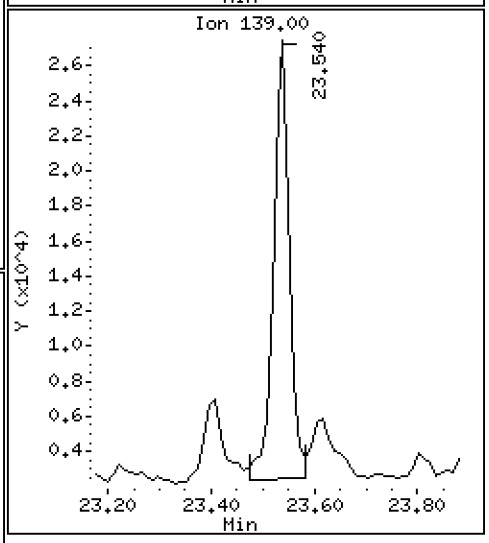
42 Carbazole

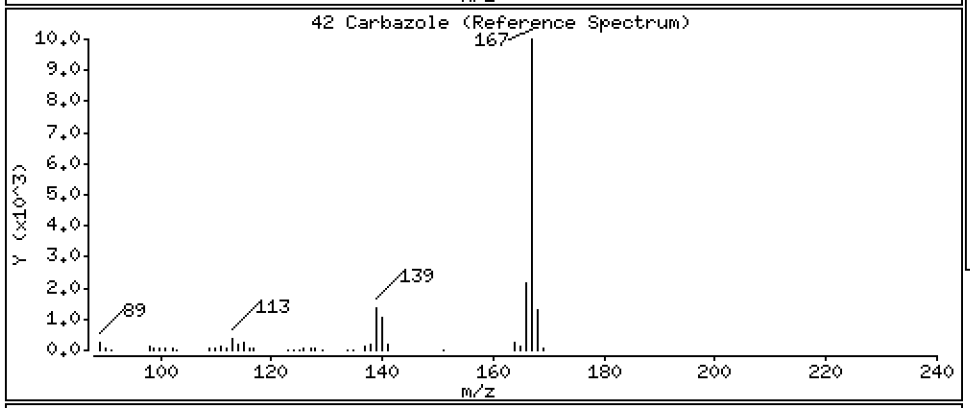
Concentration: 3.097 ug/mL

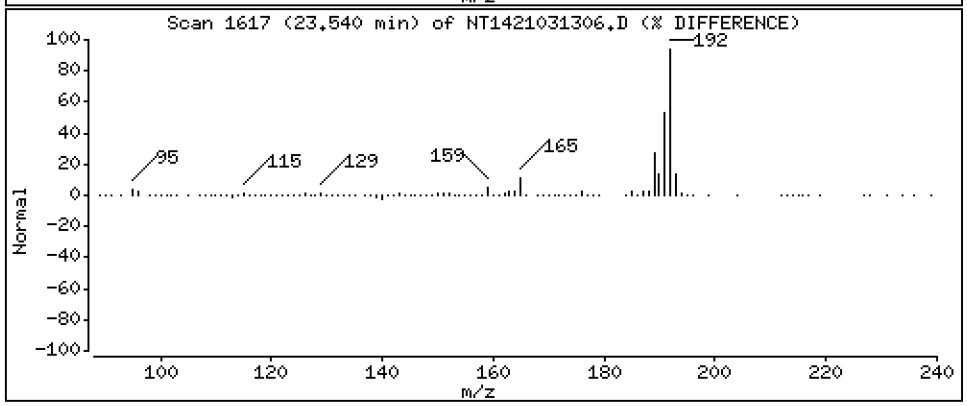












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031306.D

Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

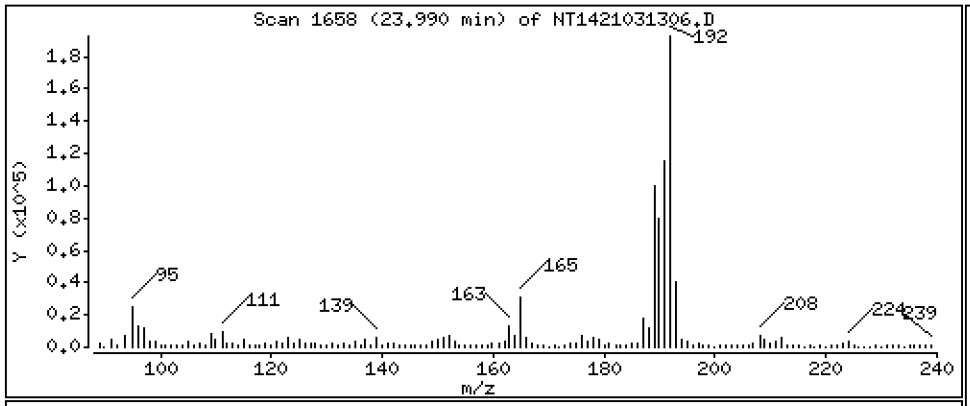
Operator: VTS

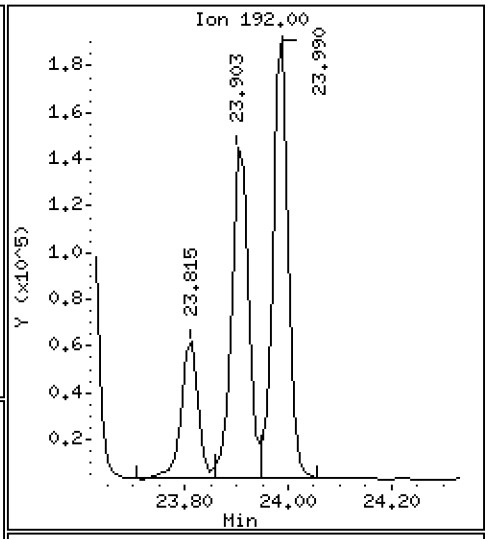
Column phase: Rxi-17Sil MS

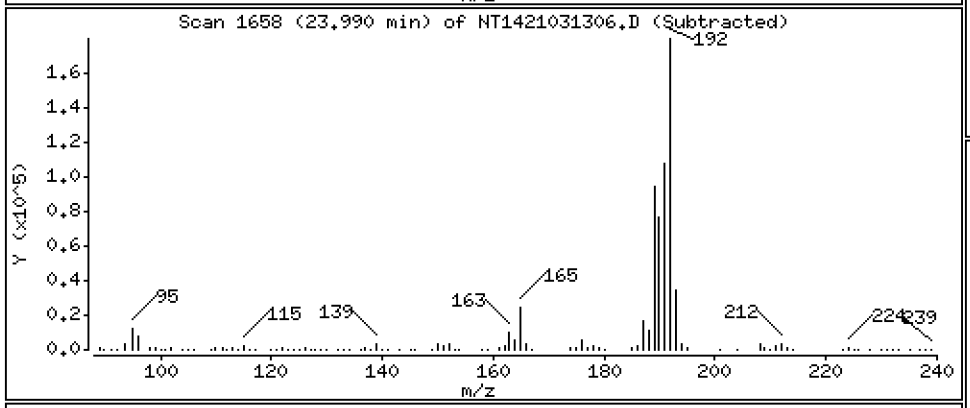
Column diameter: 0.25

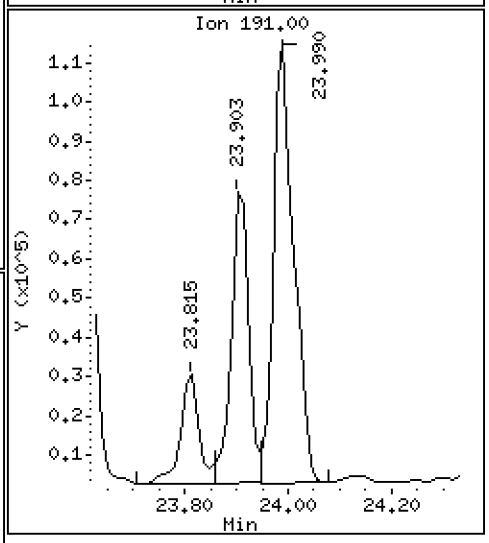
43 1-Methylphenanthrene

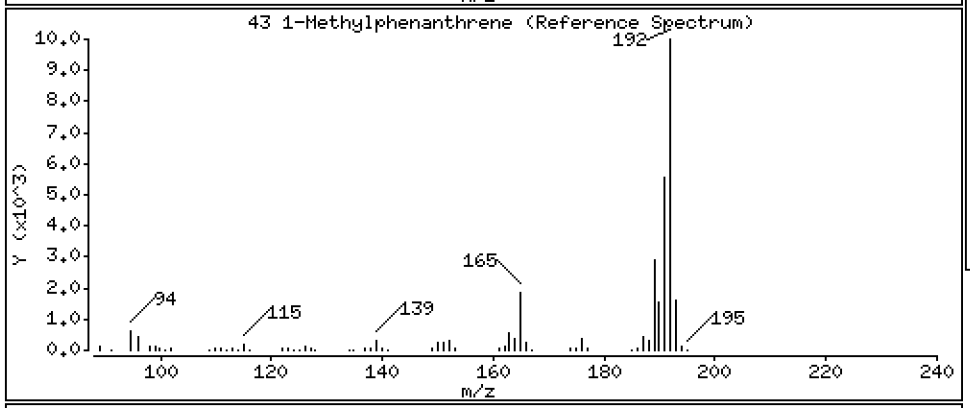
Concentration: 3.473 ug/mL

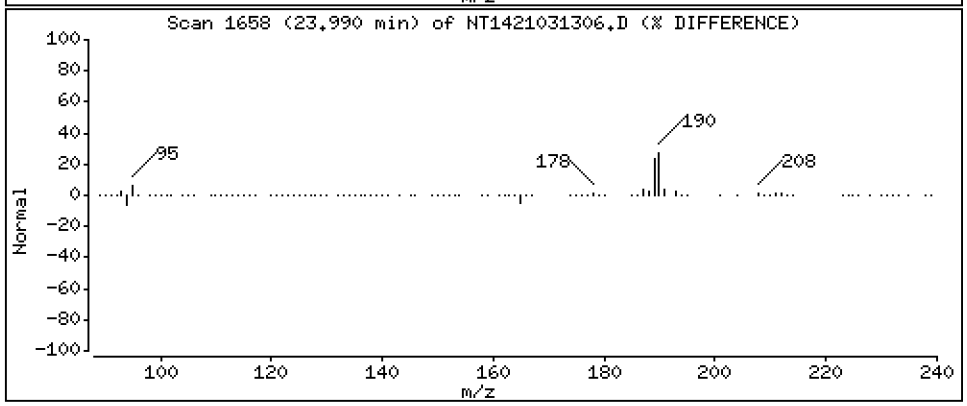












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031306.D

Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

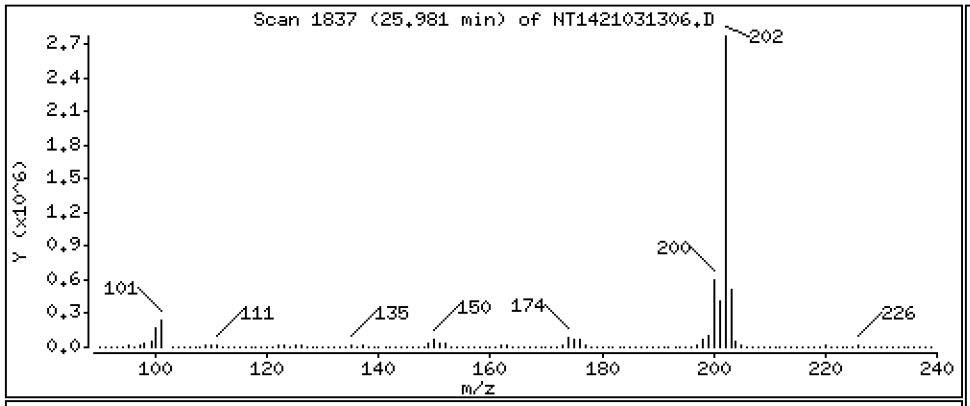
Operator: VTS

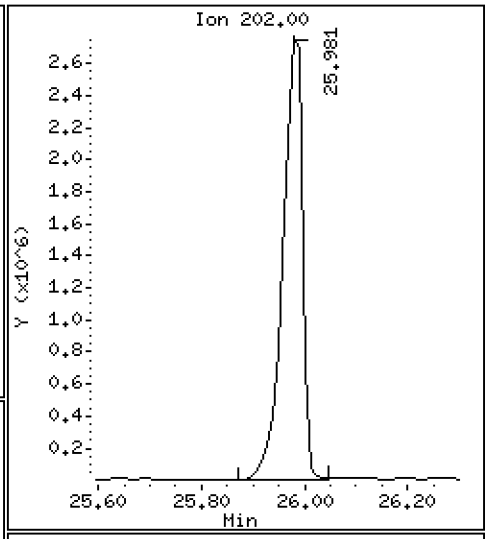
Column phase: Rxi-17Sil MS

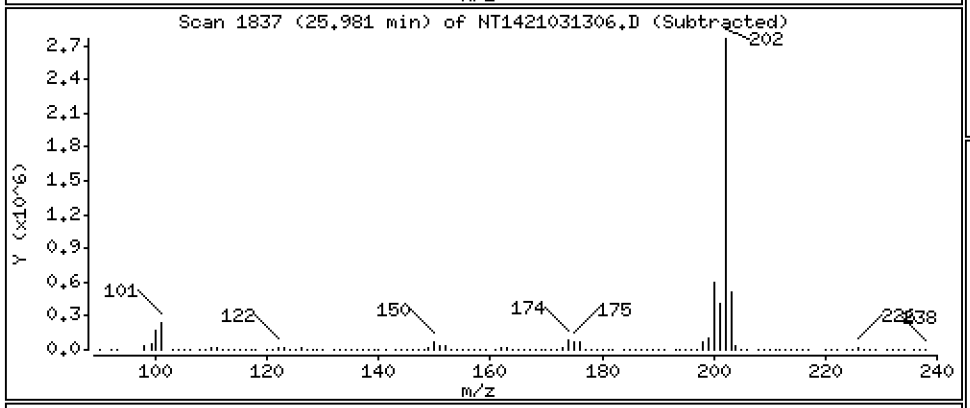
Column diameter: 0.25

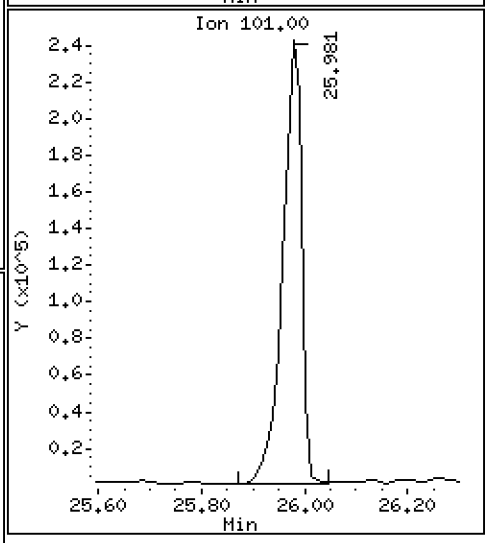
44 Fluoranthene

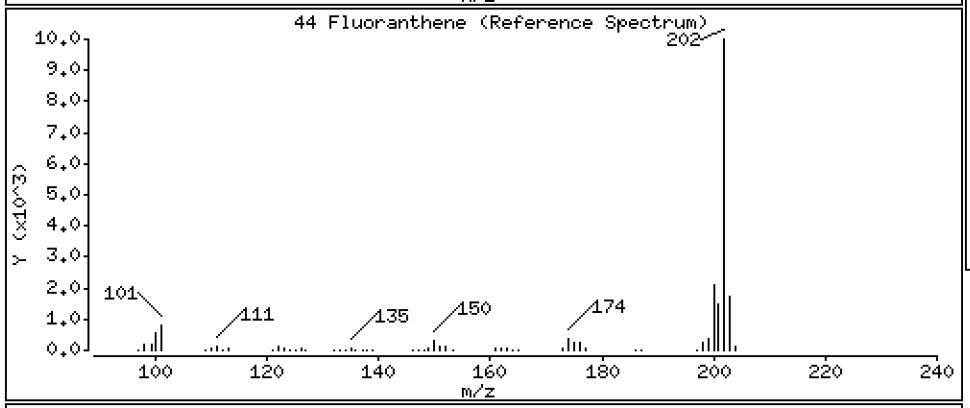
Concentration: 41.02 ug/mL

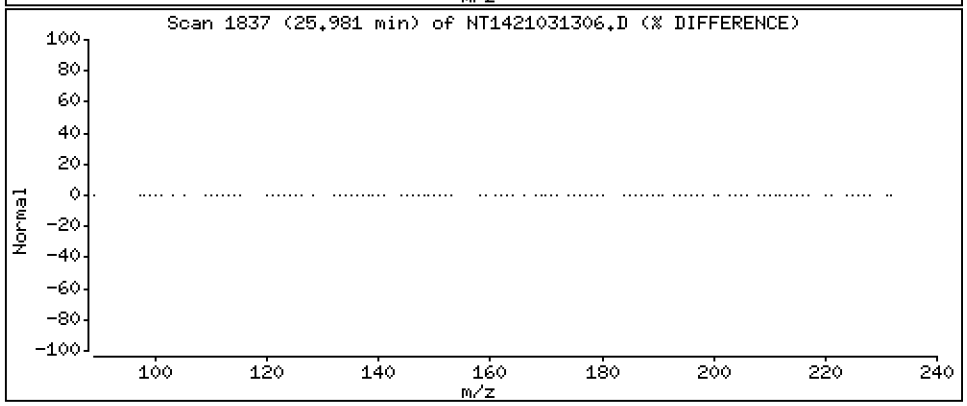












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

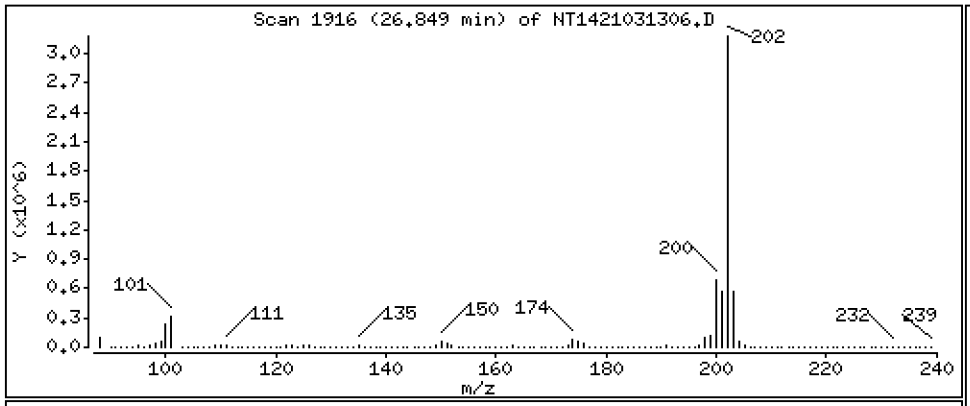
Operator: VTS

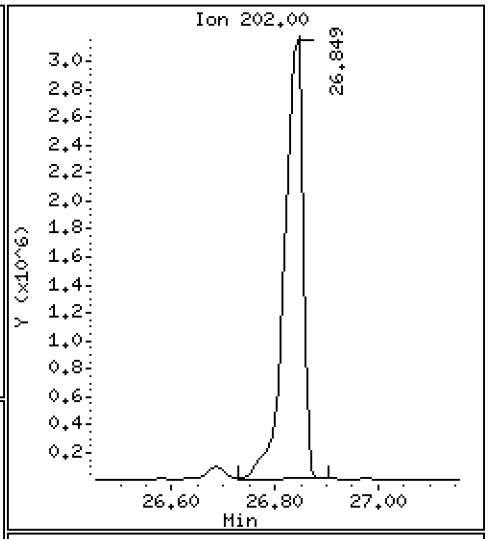
Column phase: Rxi-17Sil MS

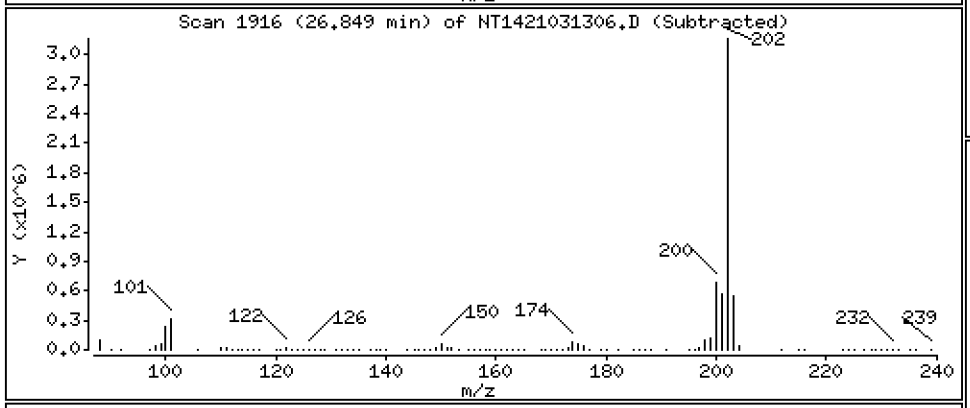
Column diameter: 0.25

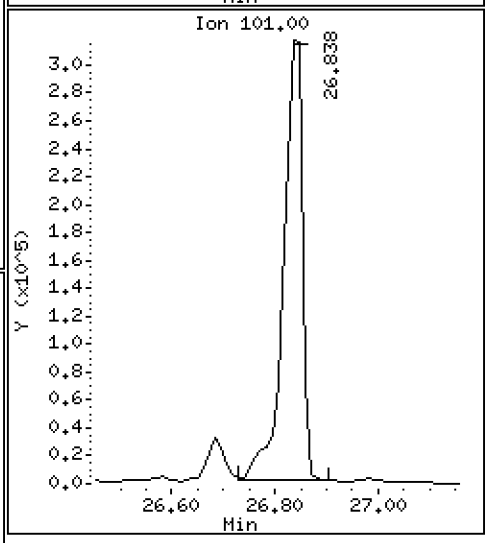
46 Pyrene

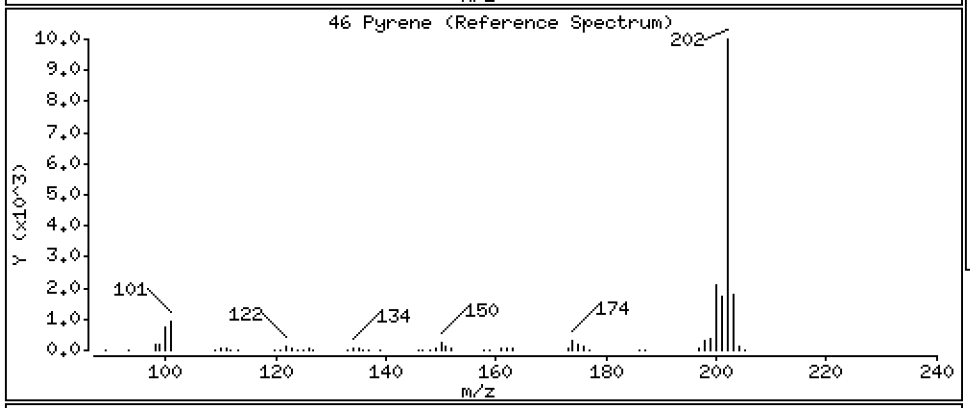
Concentration: 42.16 ug/mL

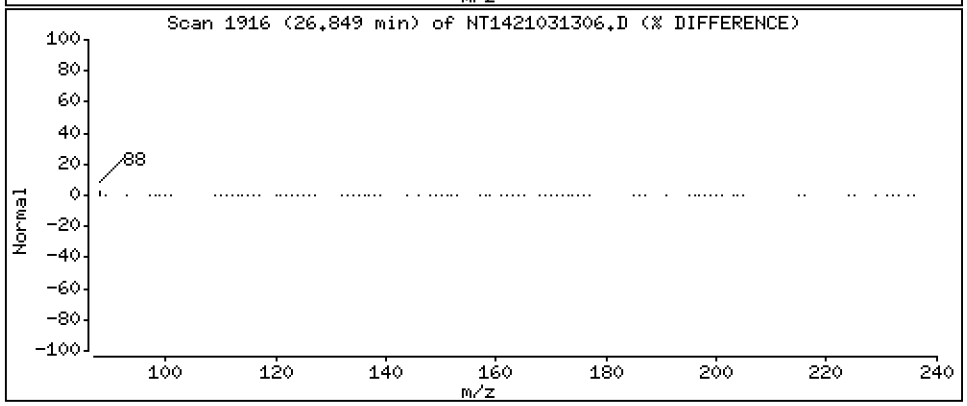












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

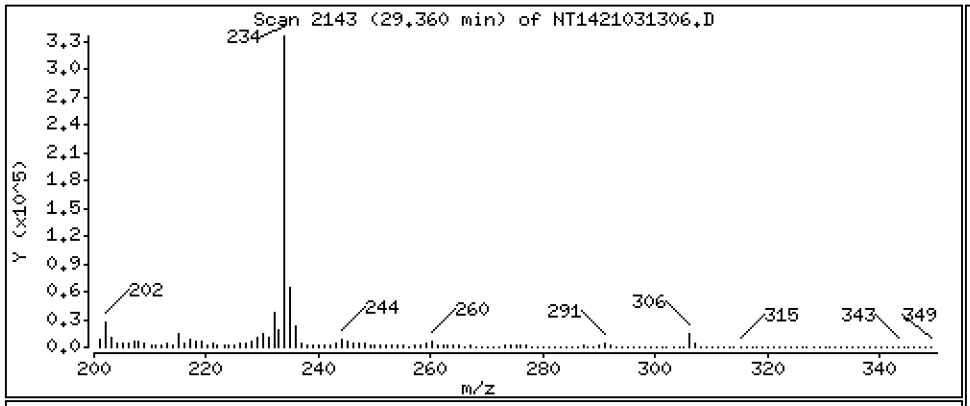
Operator: VTS

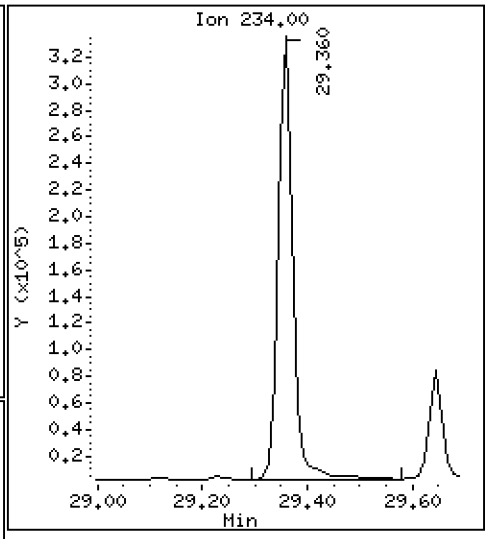
Column phase: Rxi-17Sil MS

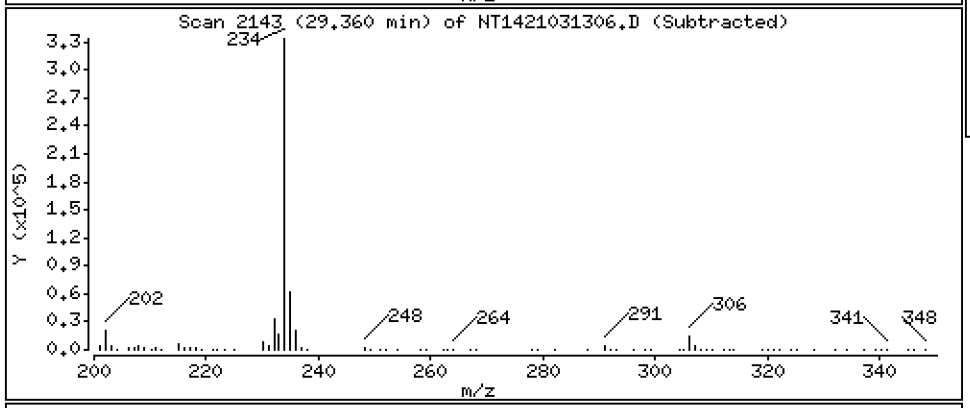
Column diameter: 0.25

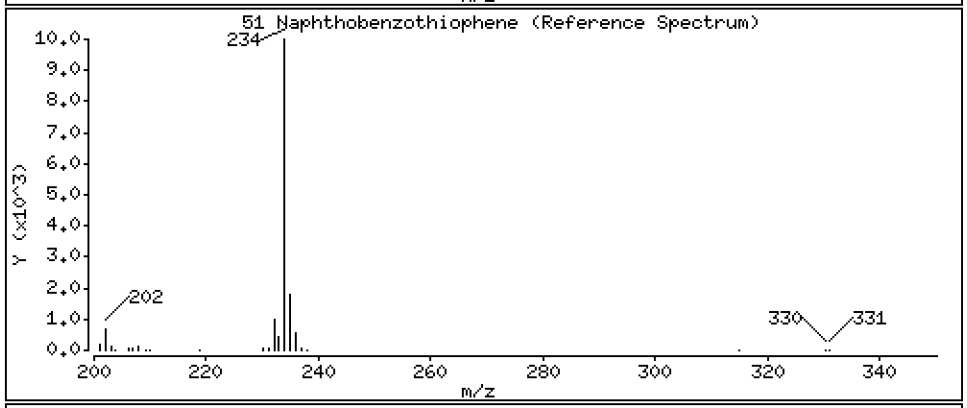
51 Naphthobenzothiophene

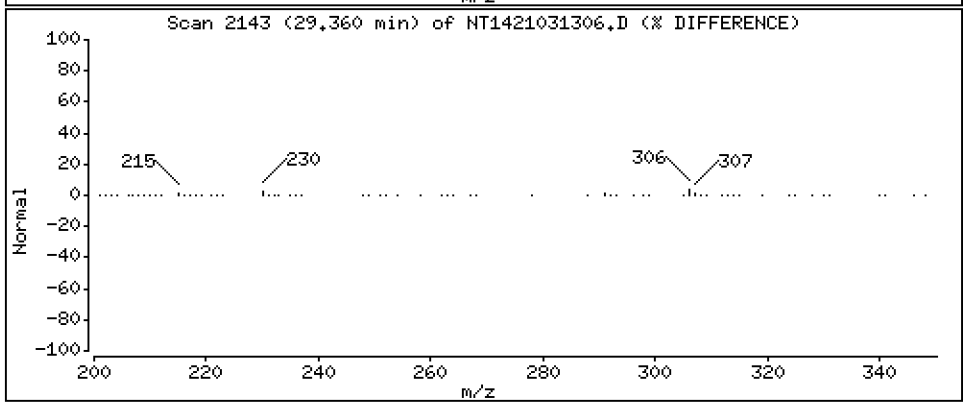
Concentration: 4.764 ug/mL











Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031306.D

Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

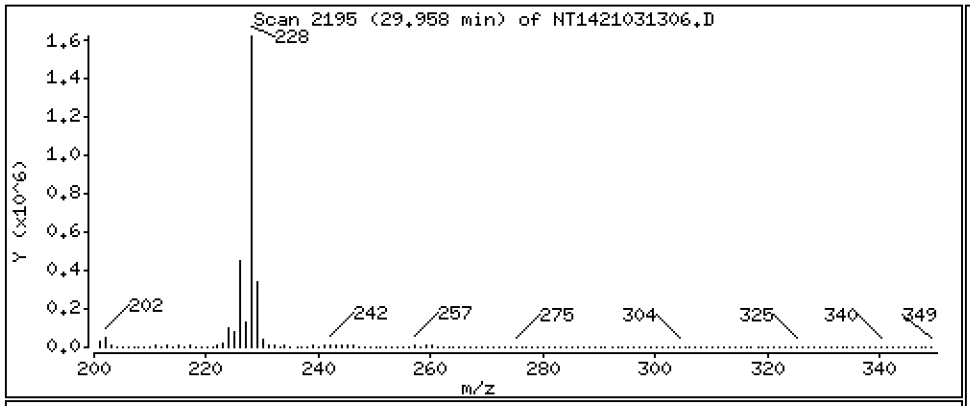
Operator: VTS

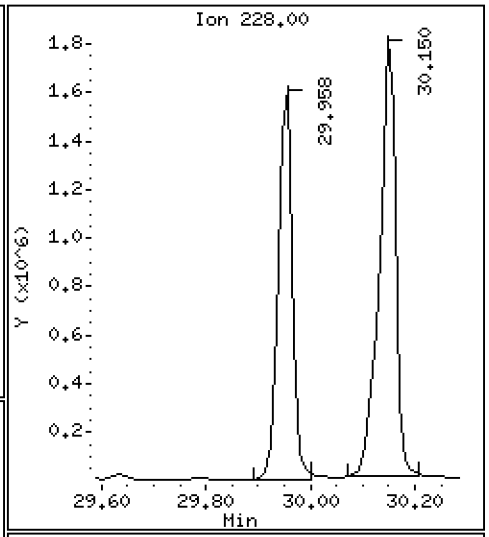
Column phase: Rxi-17Sil MS

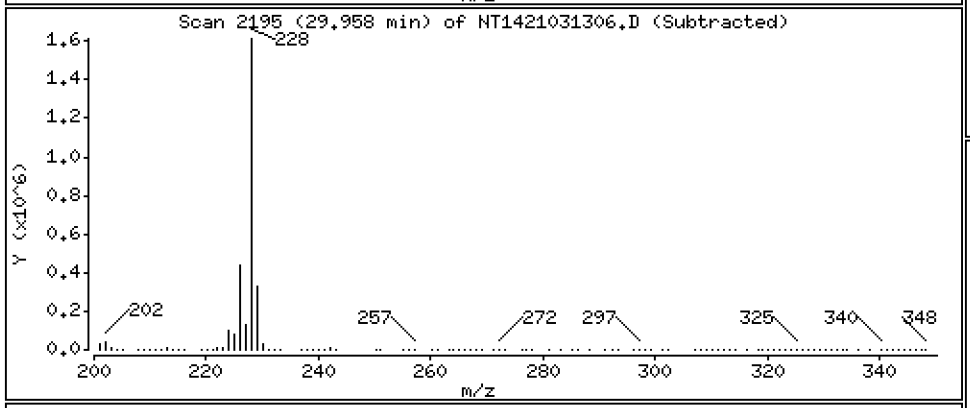
Column diameter: 0.25

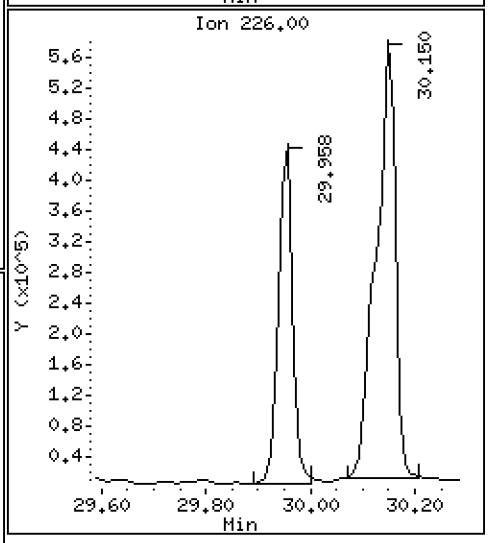
55 Benzo(a)anthracene

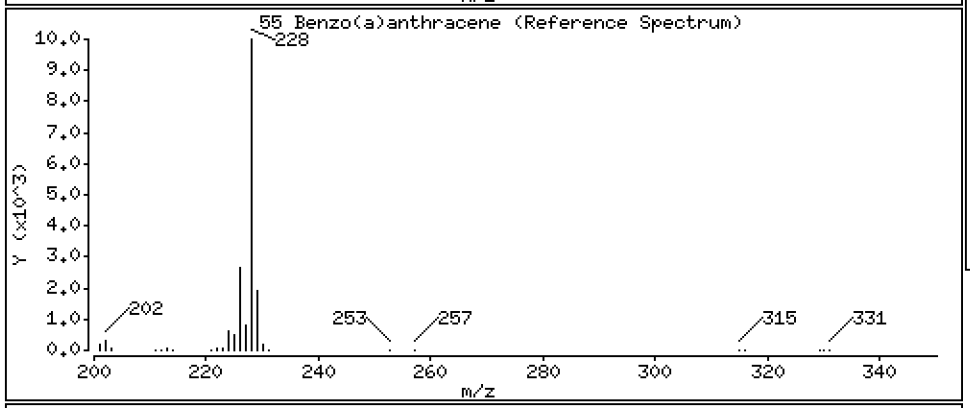
Concentration: 14.30 ug/mL

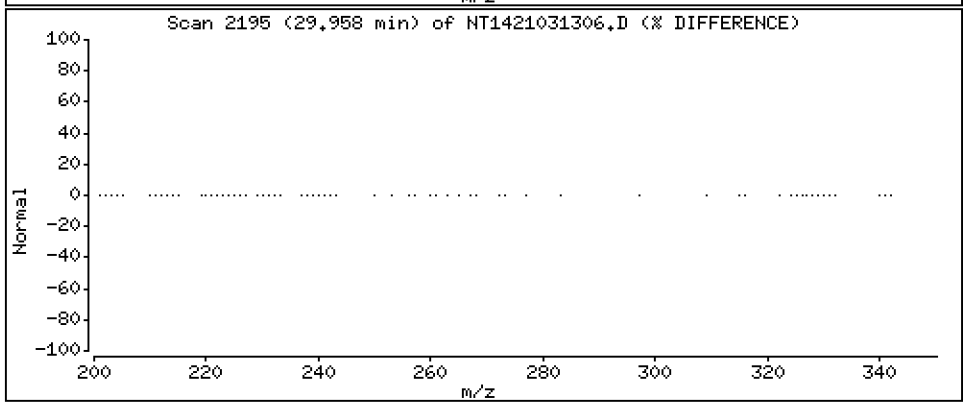












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031306.D

Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

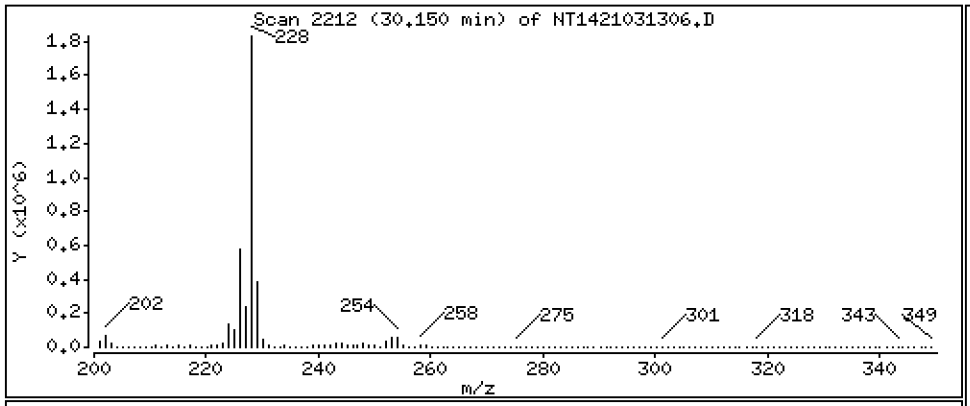
Operator: VTS

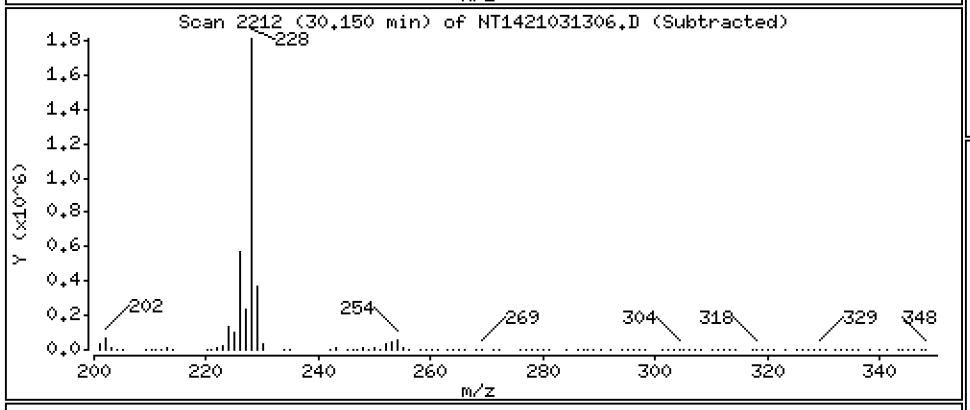
Column phase: Rxi-17Sil MS

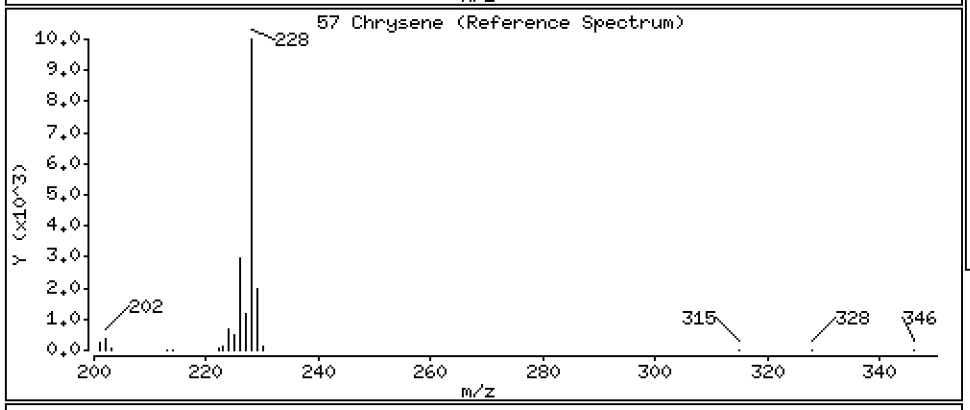
Column diameter: 0.25

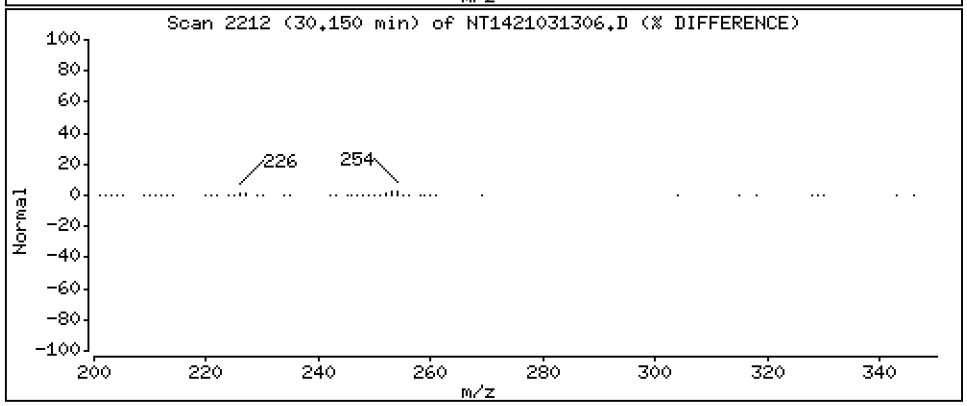
57 Chrysene

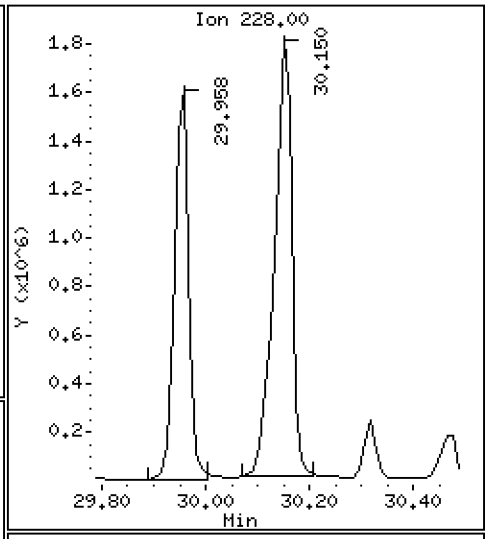
Concentration: 18.45 ug/mL

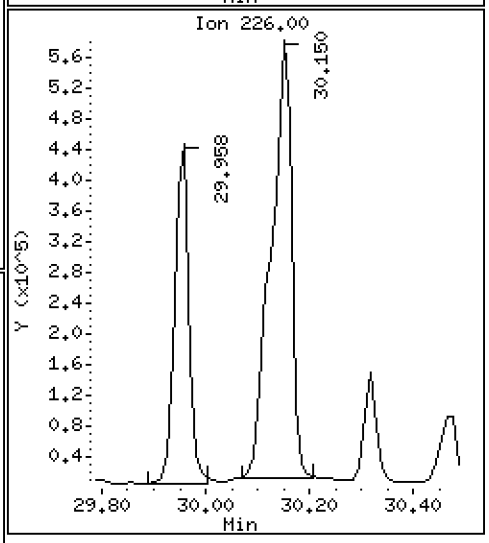












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031306.D

Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

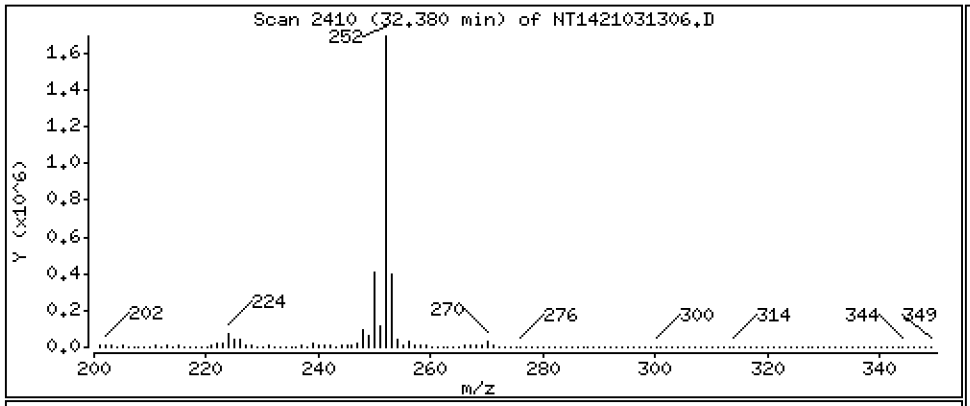
Operator: VTS

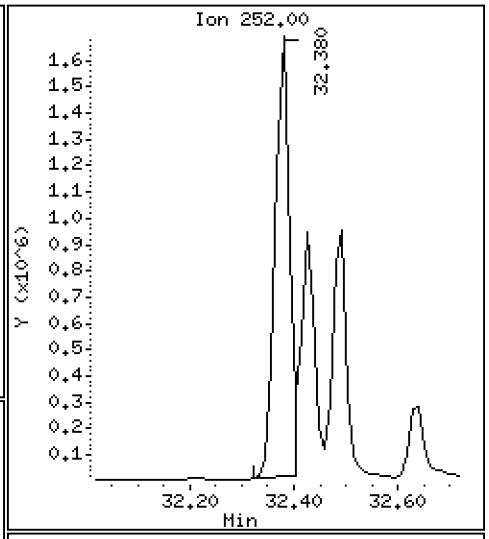
Column phase: Rxi-17Sil MS

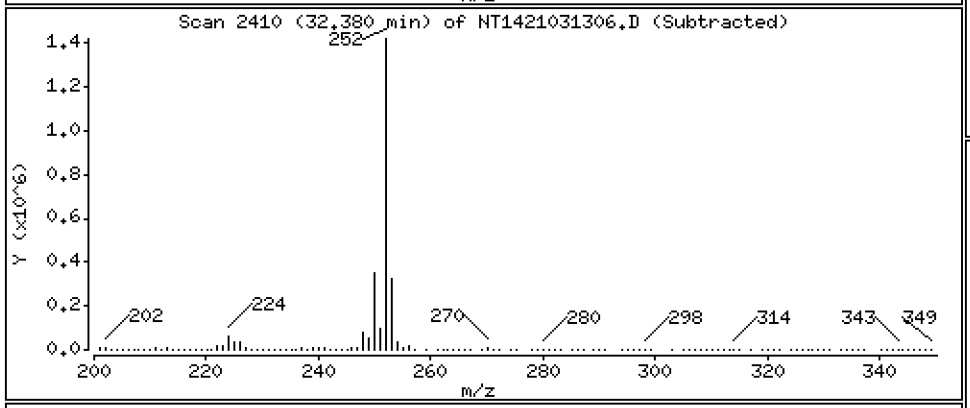
Column diameter: 0.25

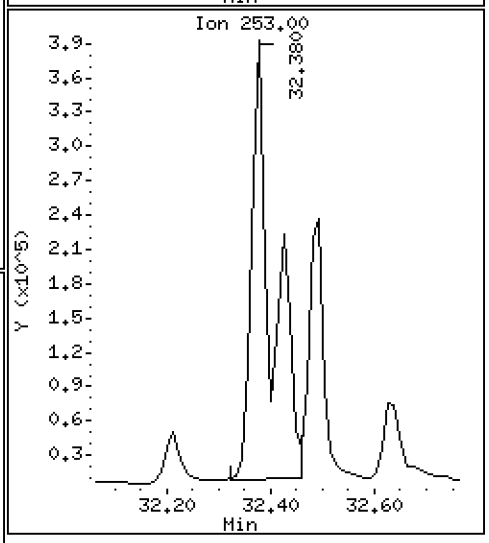
62 Benzo(b)fluoranthene

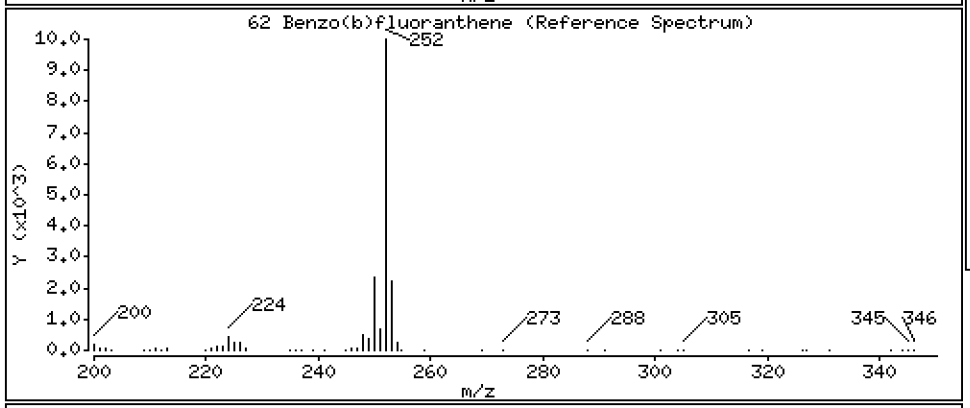
Concentration: 14.24 ug/mL

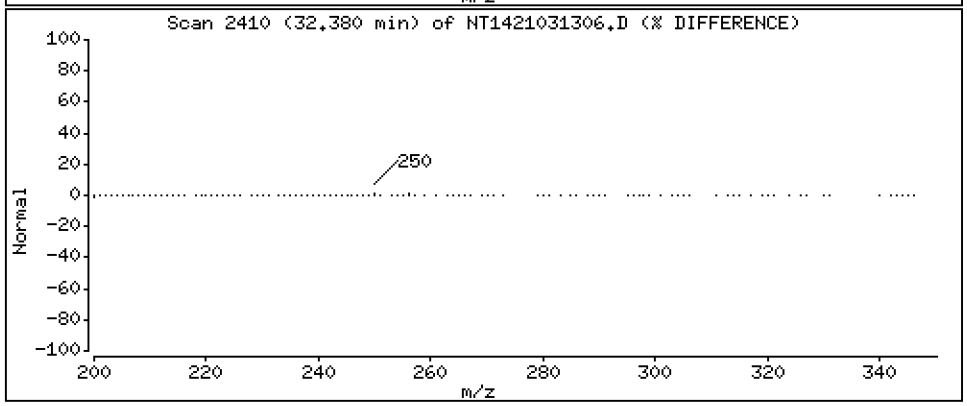












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031306.D

Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

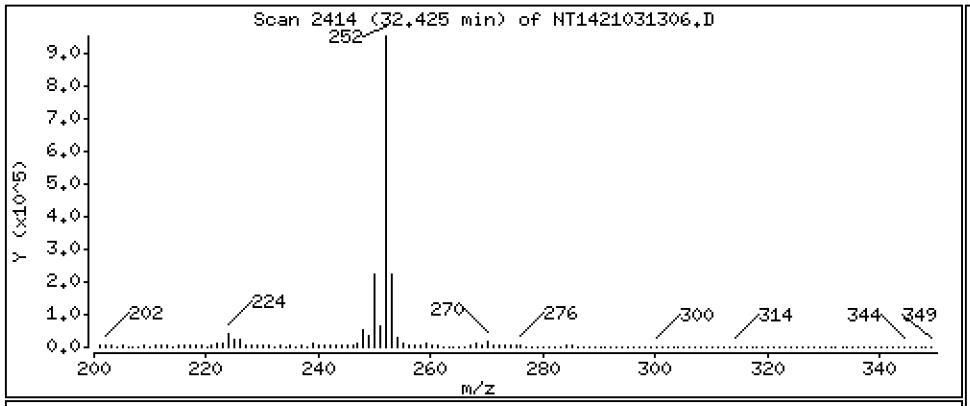
Operator: VTS

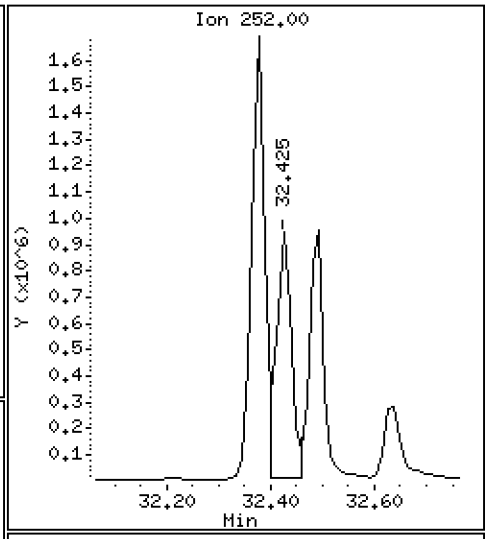
Column phase: Rxi-17Sil MS

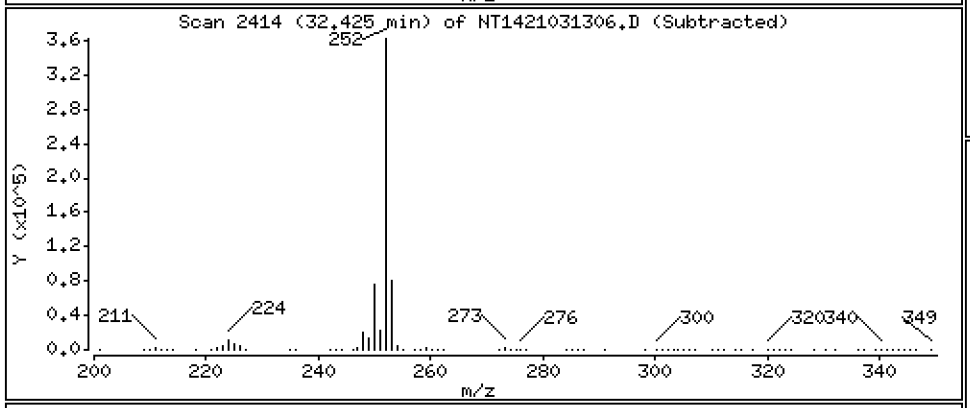
Column diameter: 0.25

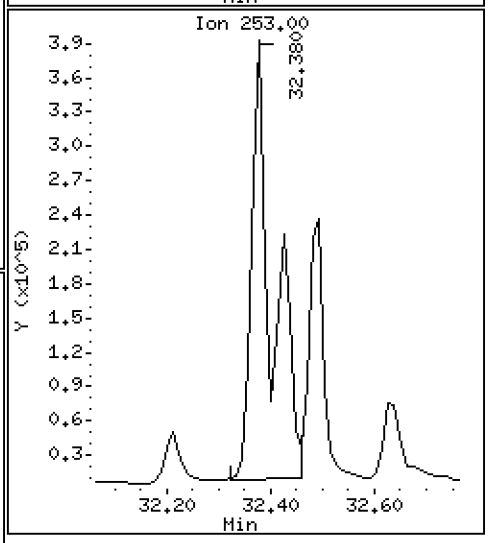
63 Benzo(k)fluoranthene

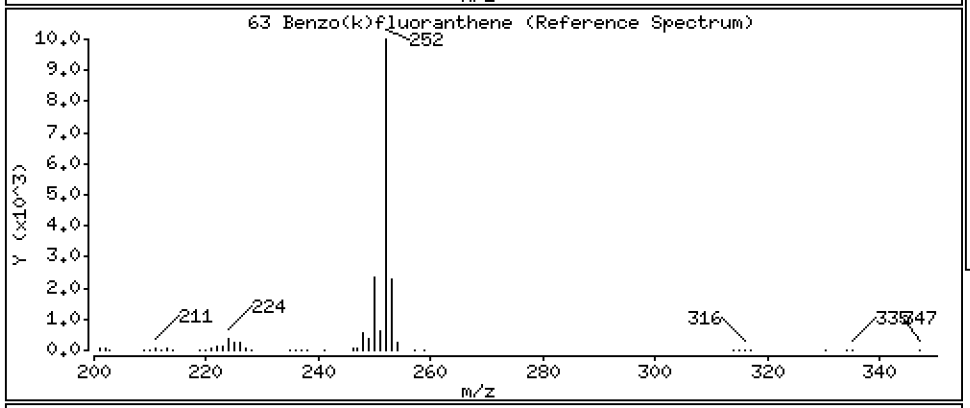
Concentration: 8.303 ug/mL

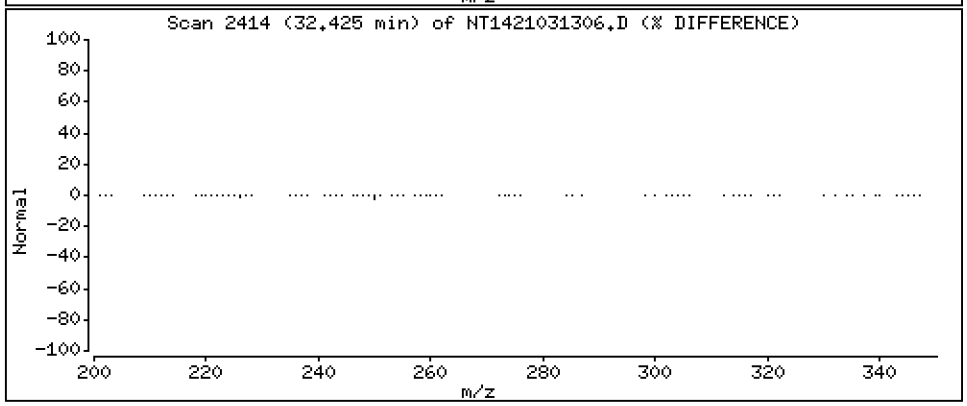












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031306.D

Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

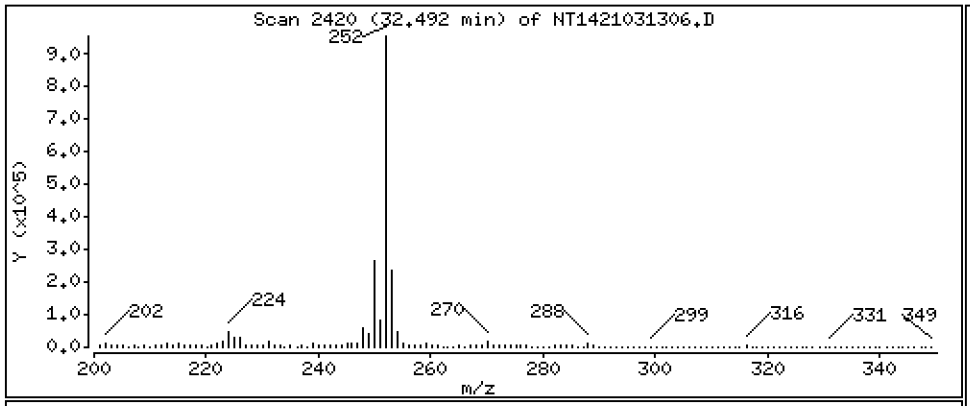
Operator: VTS

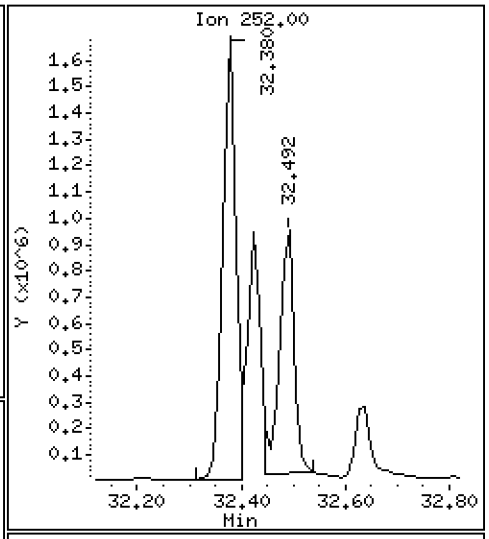
Column phase: Rxi-17Sil MS

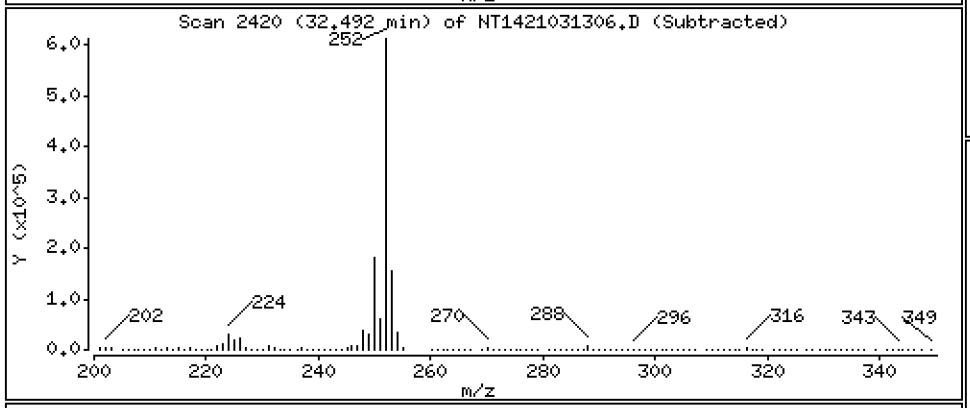
Column diameter: 0.25

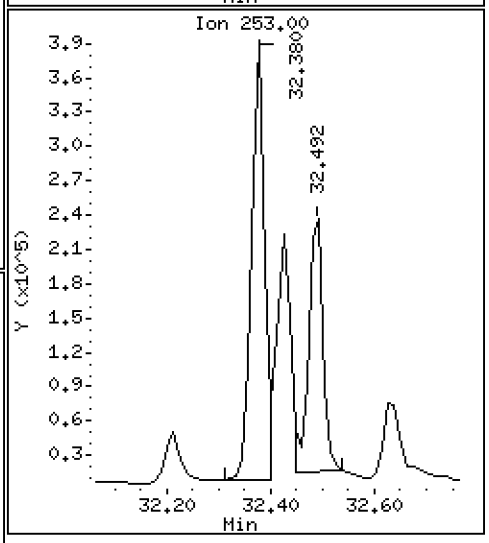
293 Benzo(j)fluoranthene

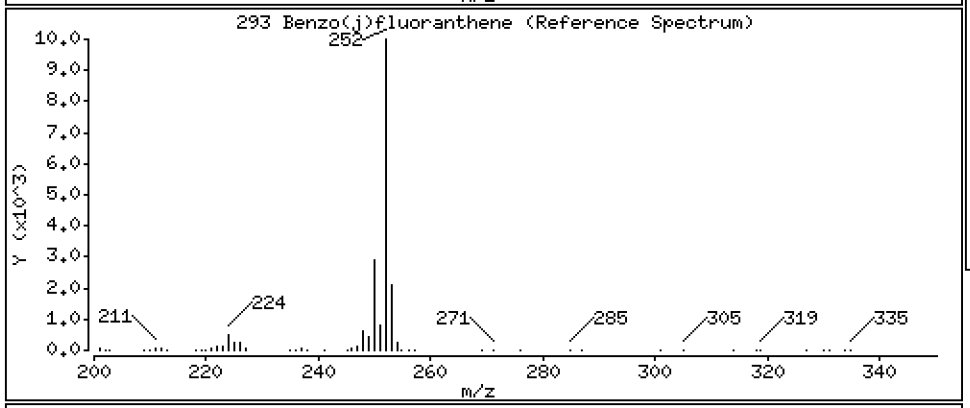
Concentration: 8.382 ug/mL

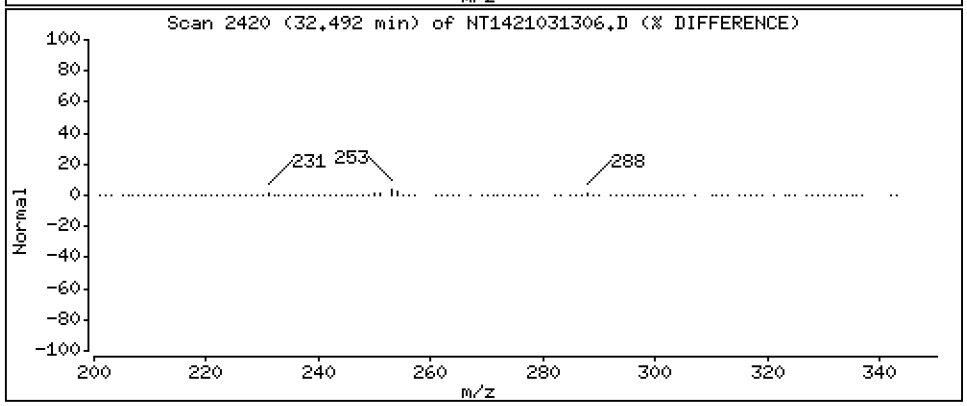












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031306.D

Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

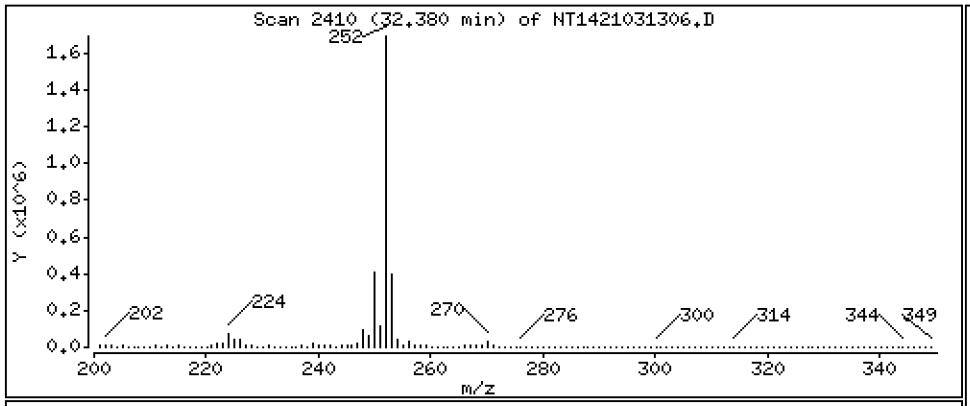
Operator: VTS

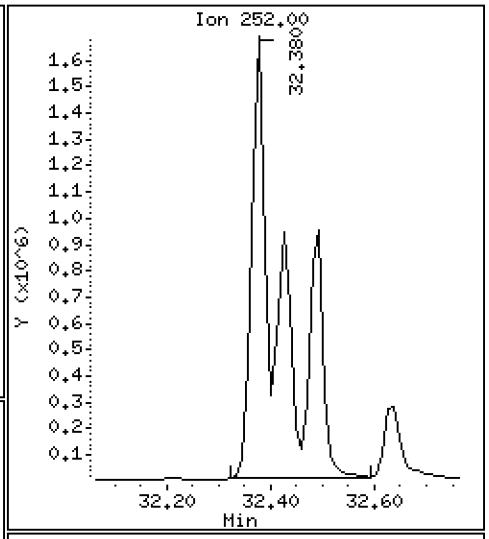
Column phase: Rxi-17Sil MS

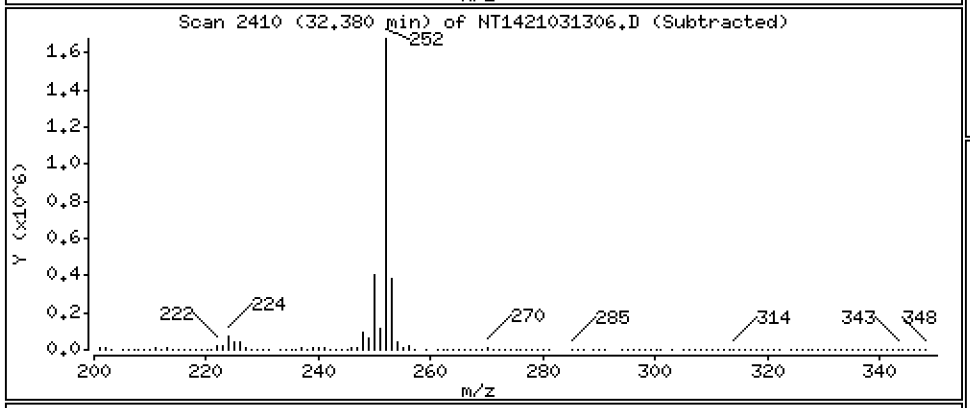
Column diameter: 0.25

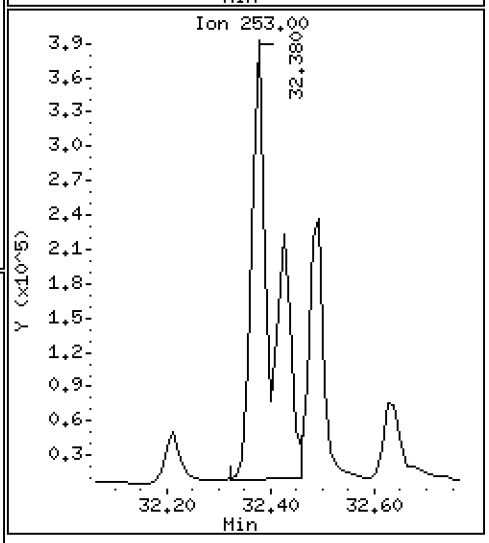
246 Total Benzofluoranthenes

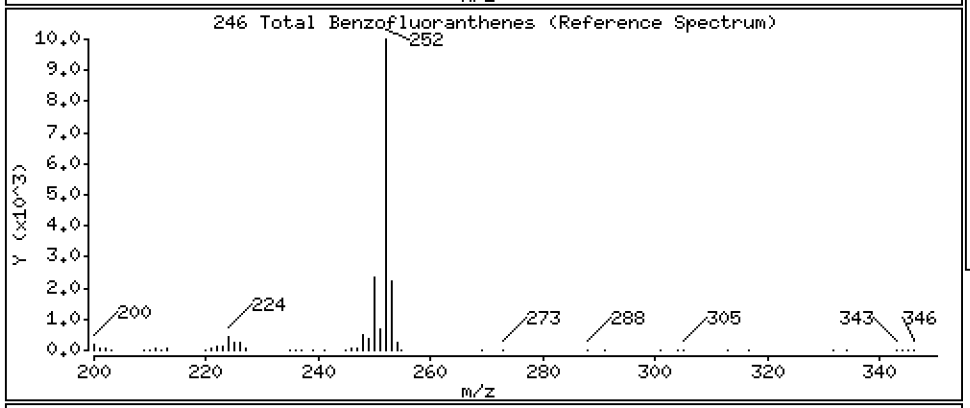
Concentration: 30.42 ug/mL

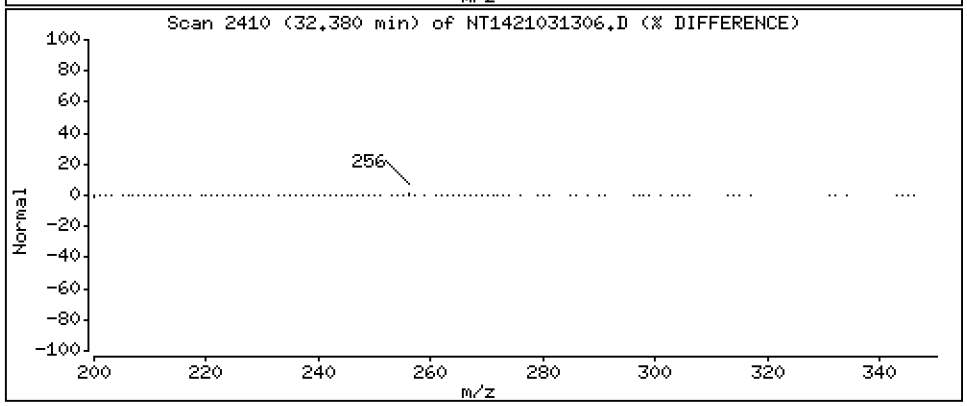












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

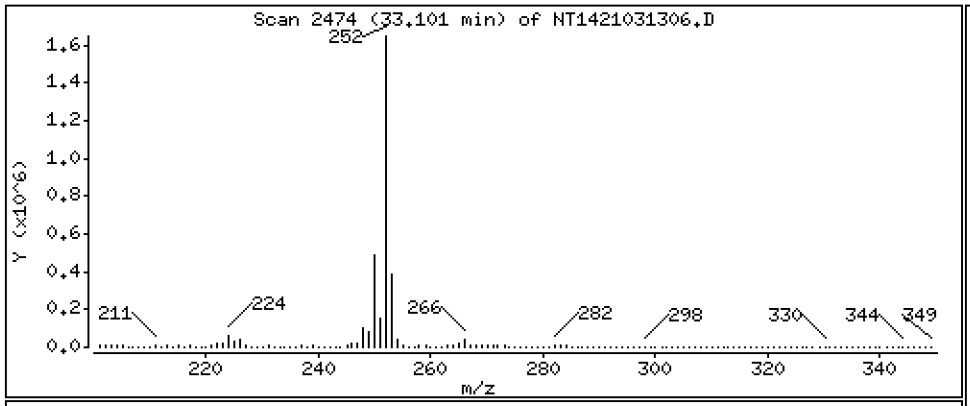
Operator: VTS

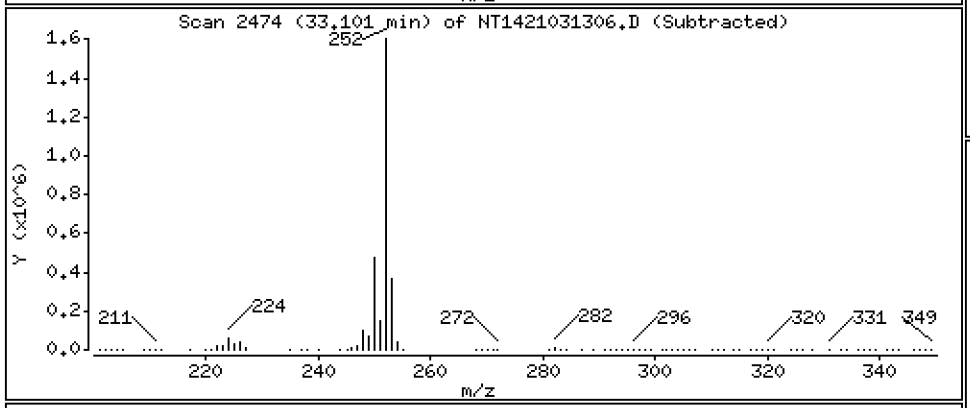
Column phase: Rxi-17Sil MS

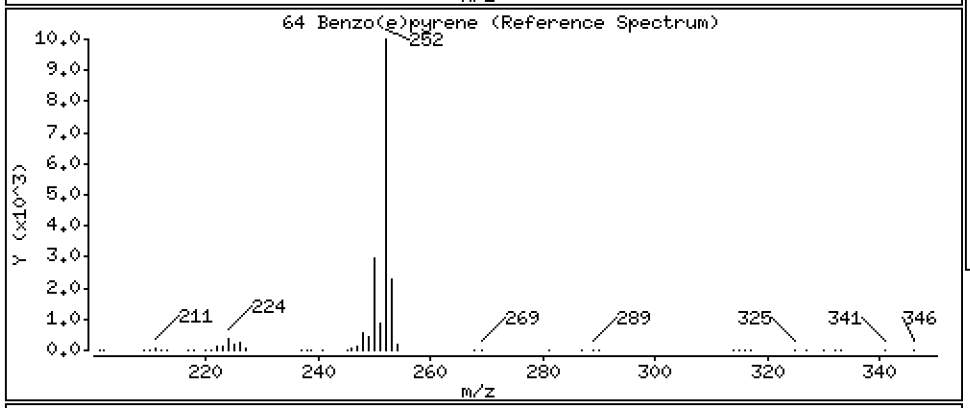
Column diameter: 0.25

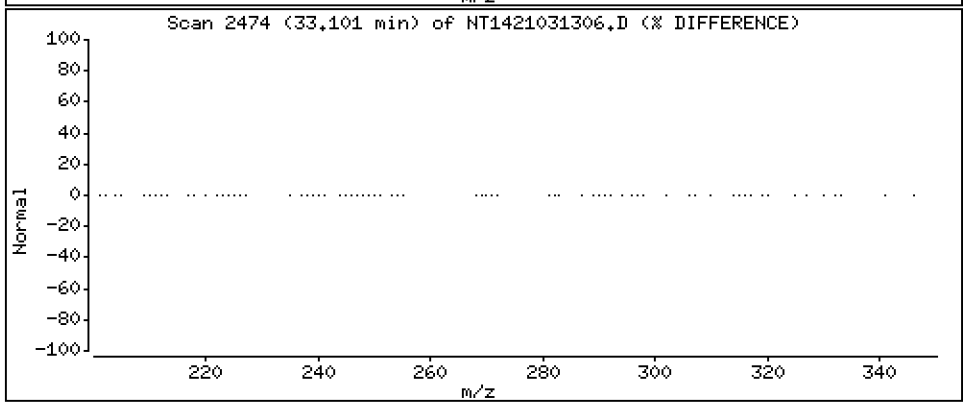
64 Benzo(e)pyrene

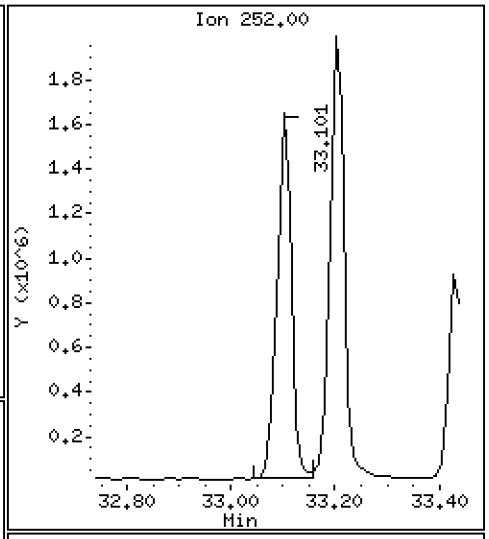
Concentration: 14.80 ug/mL

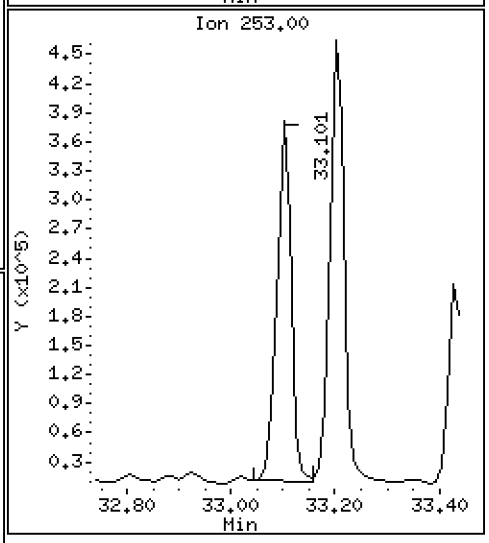












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031306.D

Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

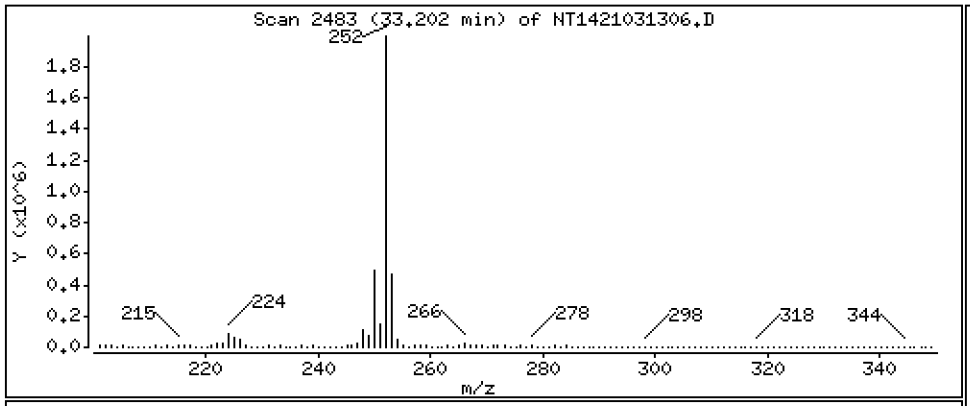
Operator: VTS

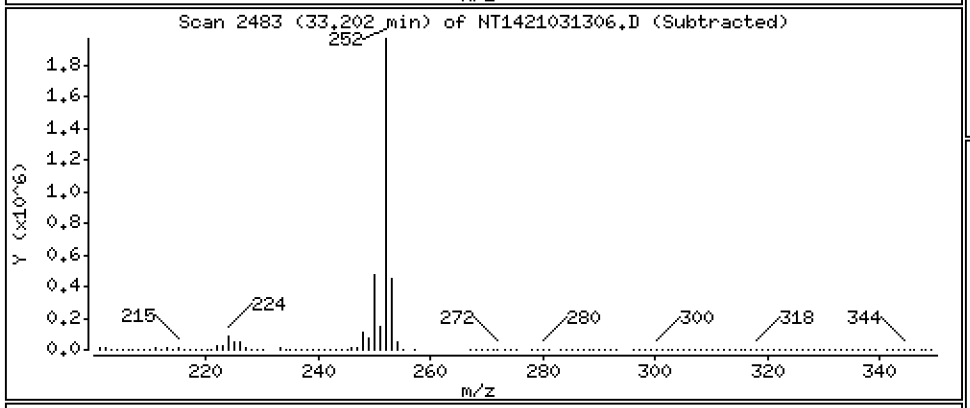
Column phase: Rxi-17Sil MS

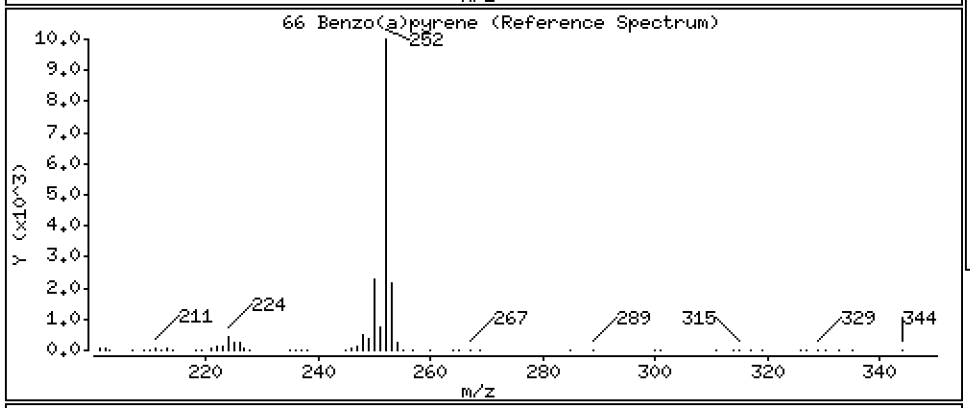
Column diameter: 0.25

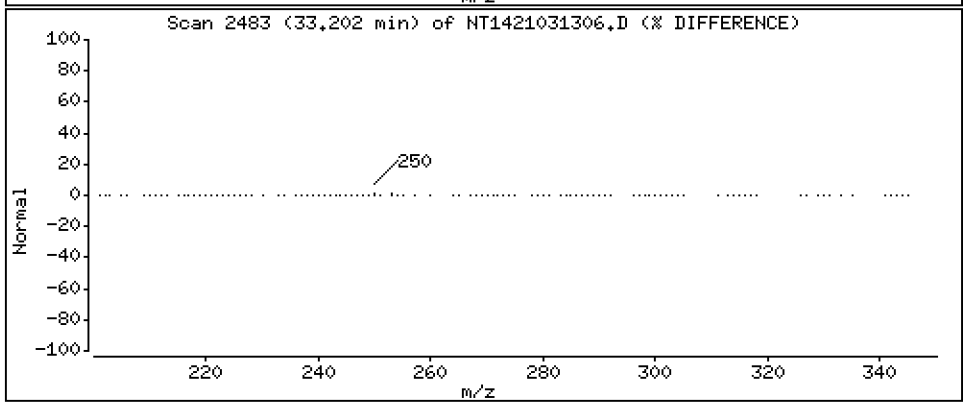
66 Benzo(a)pyrene

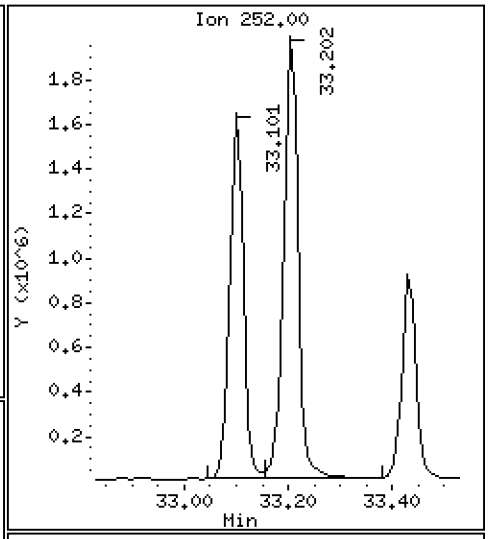
Concentration: 20.08 ug/mL

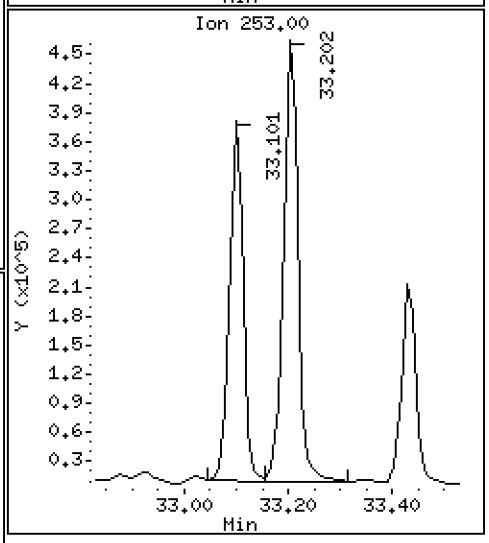












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031306.D

Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

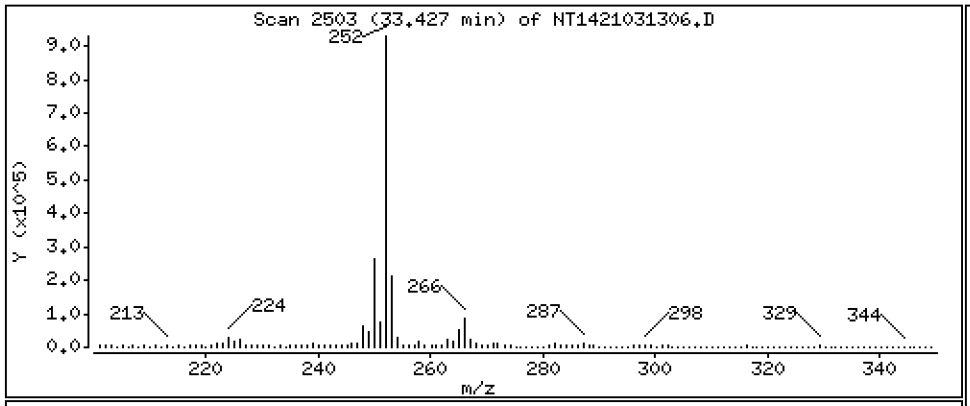
Operator: VTS

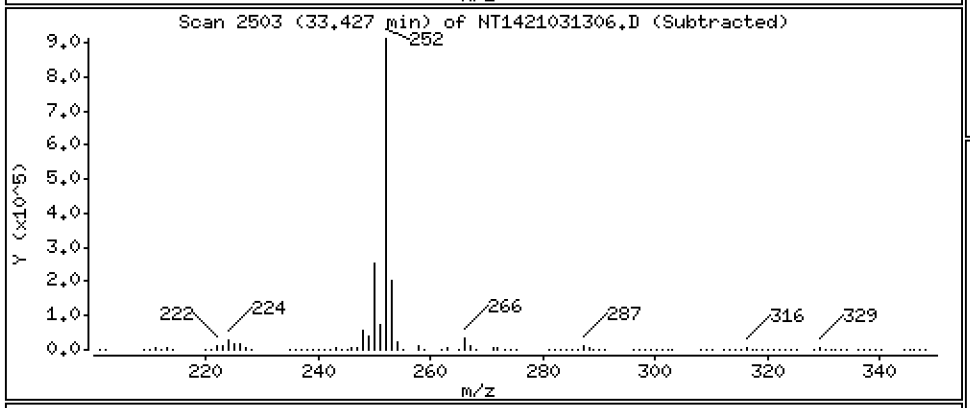
Column phase: Rxi-17Sil MS

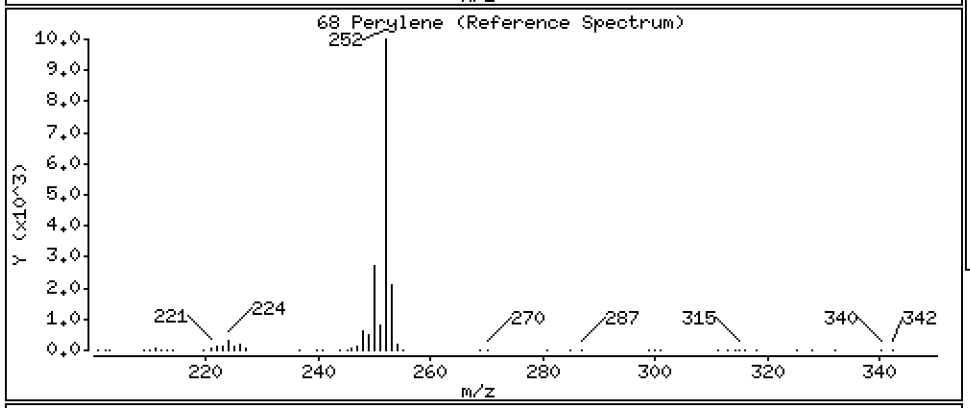
Column diameter: 0.25

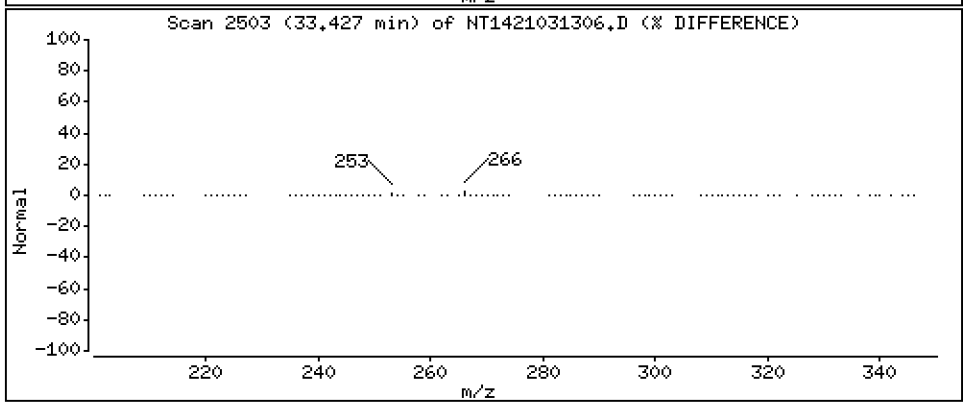
68 Perylene

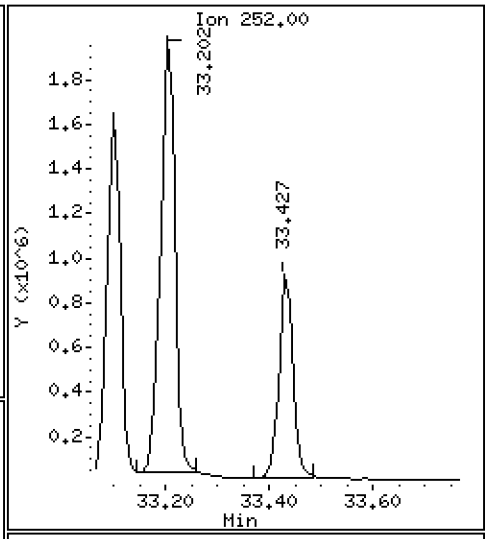
Concentration: 8.528 ug/mL

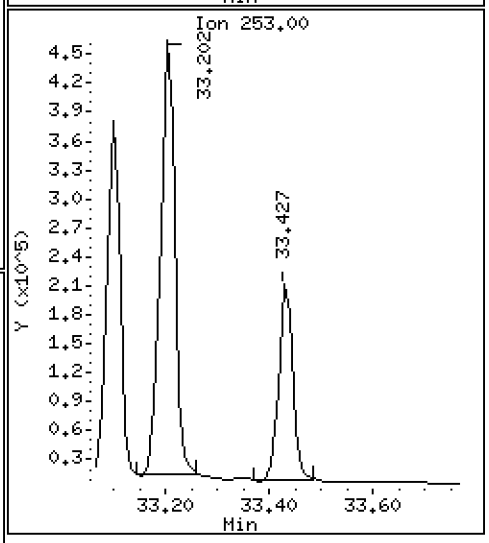












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

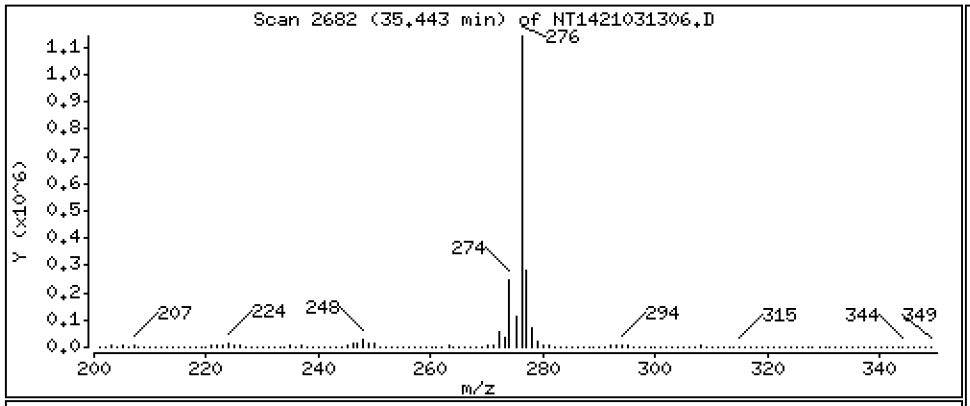
Operator: VTS

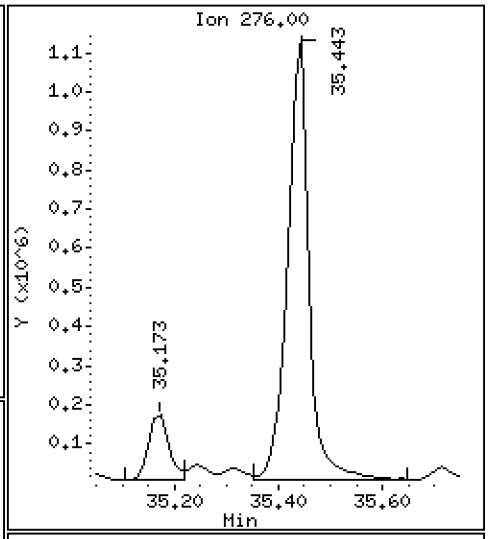
Column phase: Rxi-17Sil MS

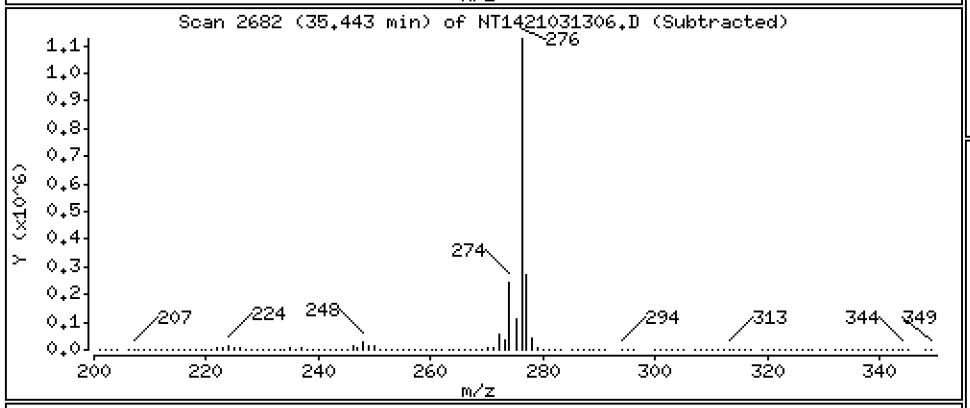
Column diameter: 0.25

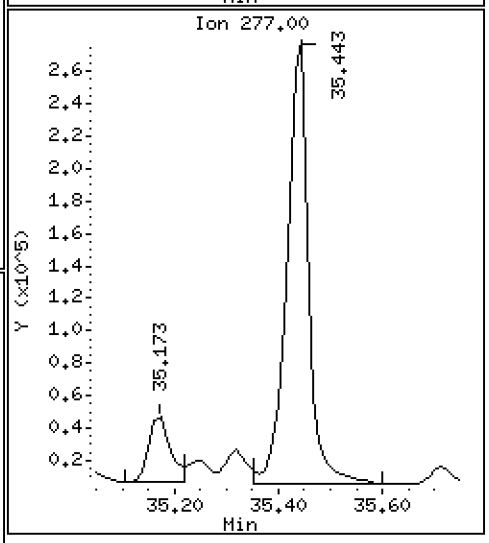
69 Indeno(1,2,3-cd)pyrene

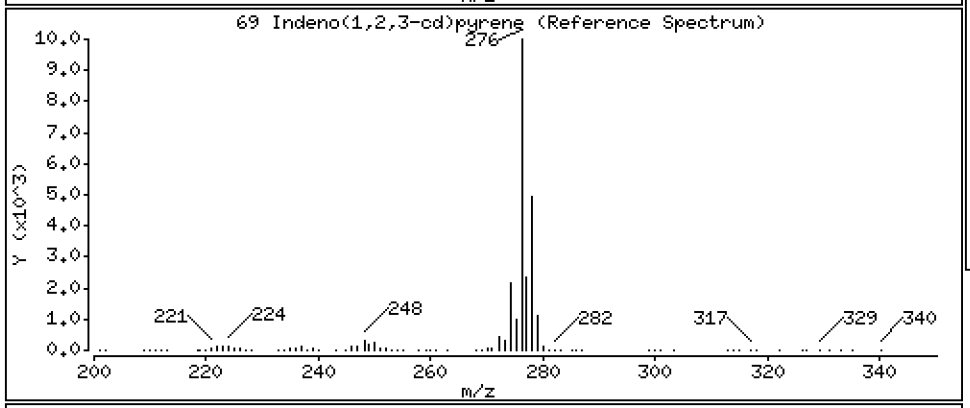
Concentration: 15.13 ug/mL

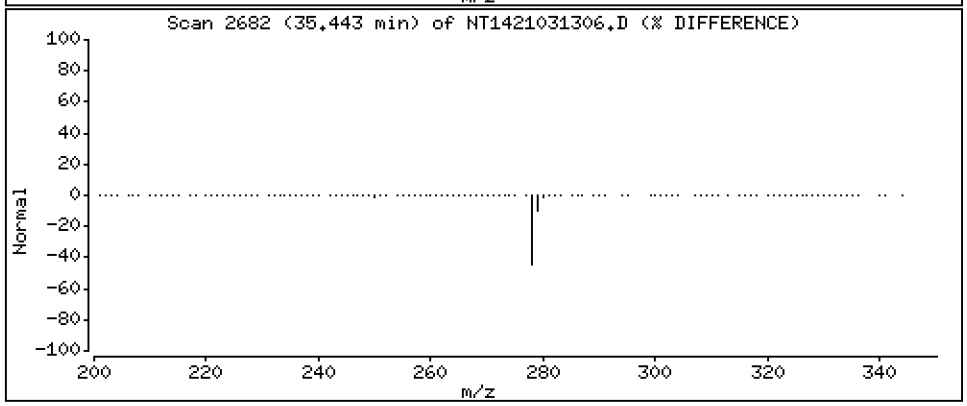












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

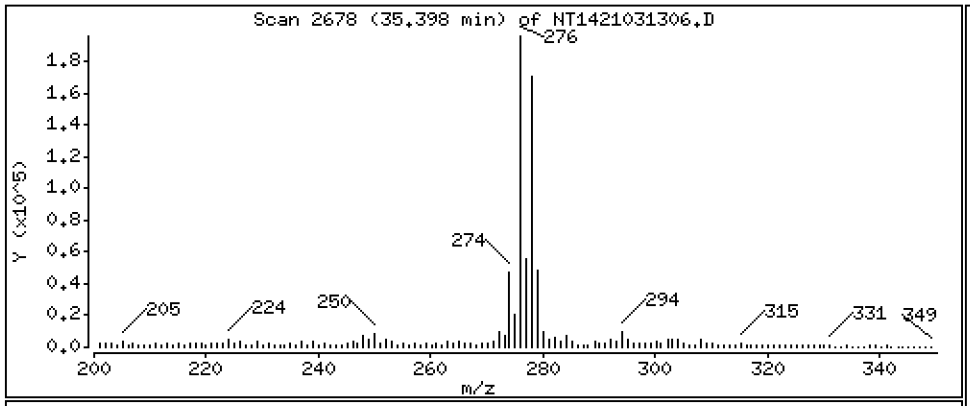
Operator: VTS

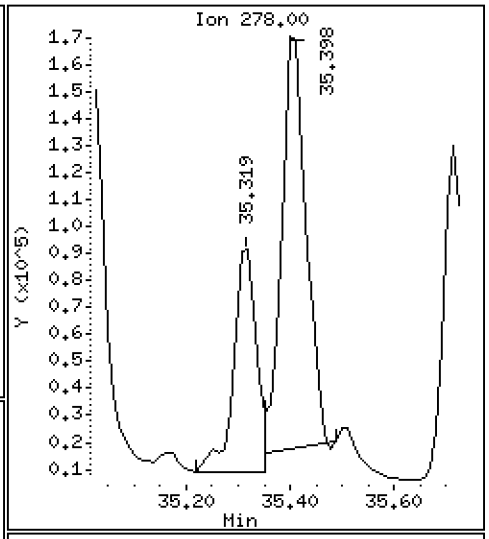
Column phase: Rxi-17Sil MS

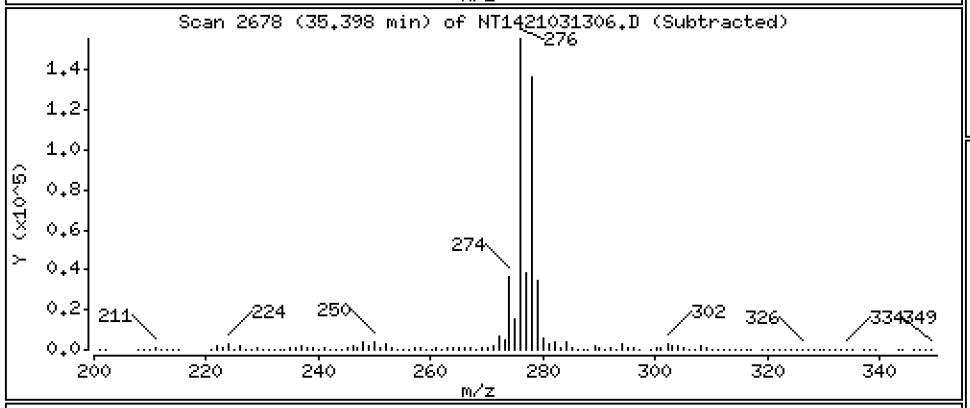
Column diameter: 0.25

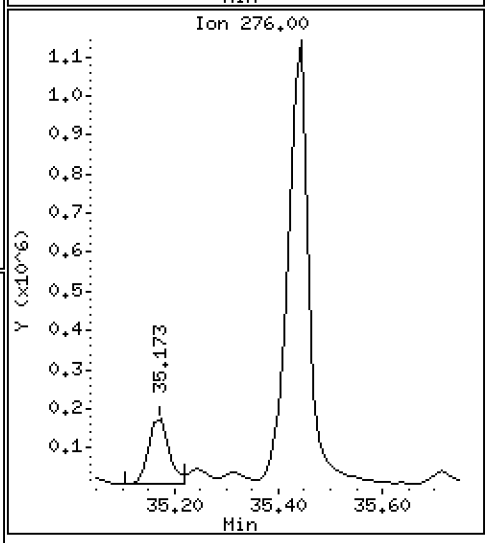
70 Dibenzo(a,h)anthracene

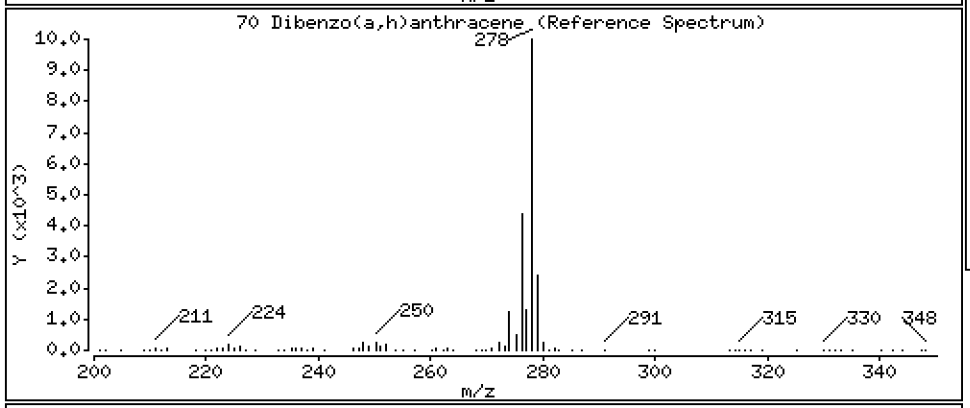
Concentration: 2.440 ug/mL

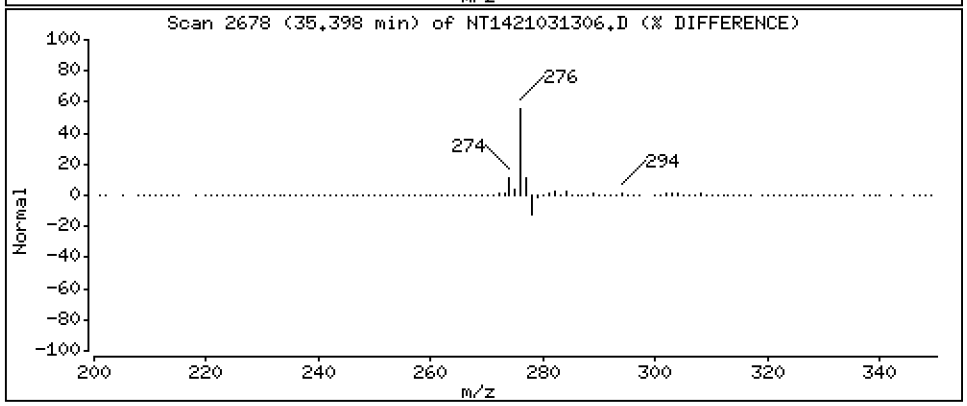












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031306.D

Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

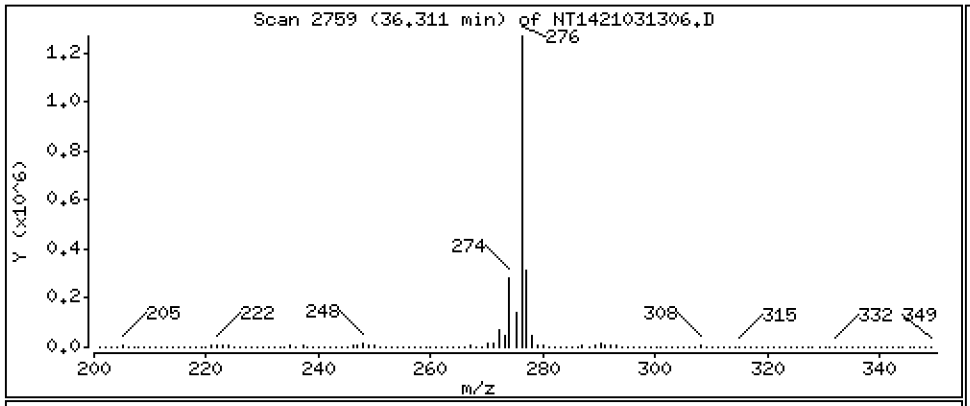
Operator: VTS

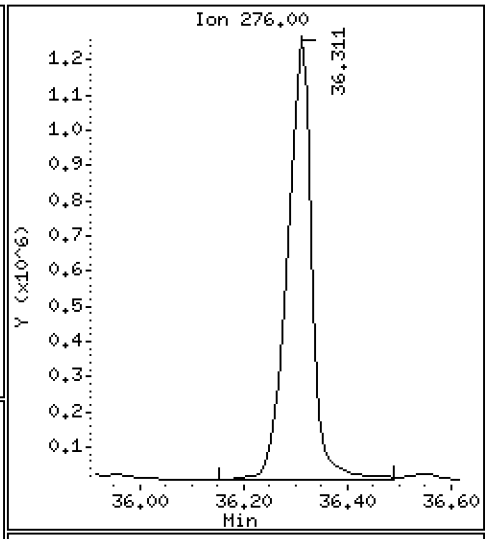
Column phase: Rxi-17Sil MS

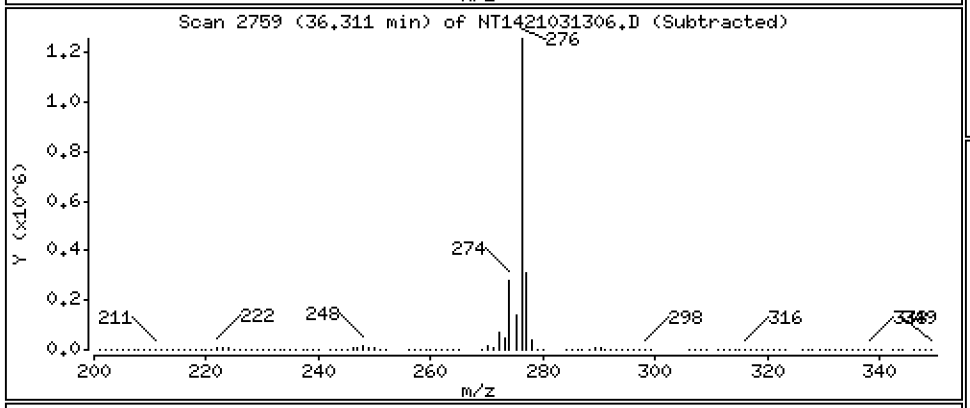
Column diameter: 0.25

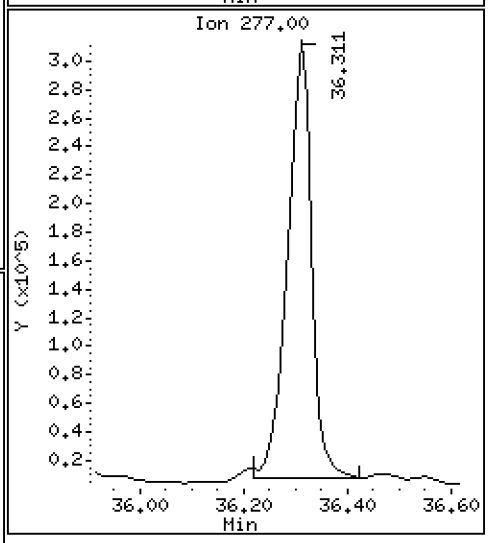
74 Benzo(g,h,i)perylene

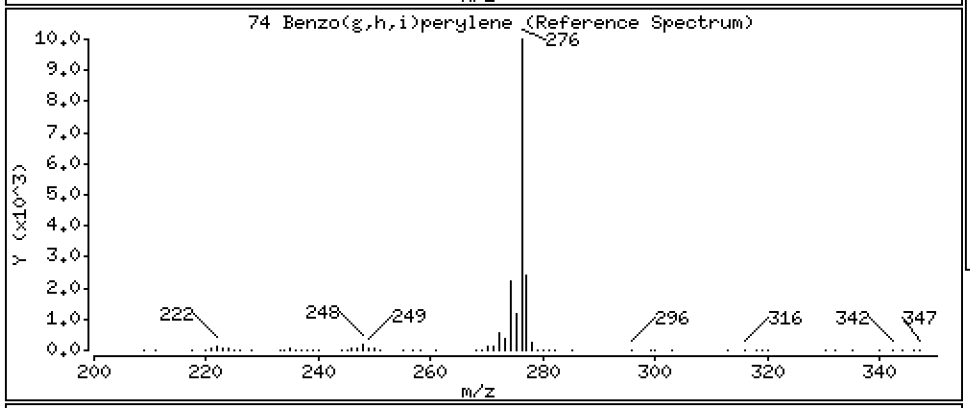
Concentration: 19.36 ug/mL

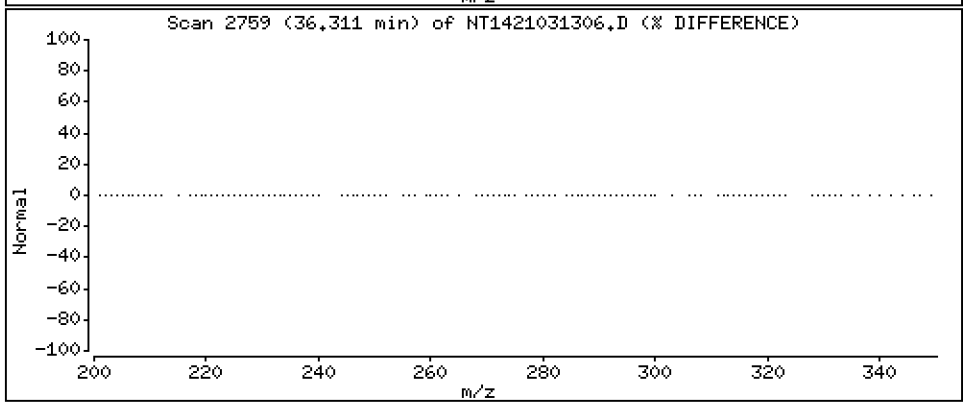












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210313.b\NT1421031306.D
Lab Smp Id: 21B0118-01
Inj Date : 13-MAR-2021 14:47
Operator : VTS Inst ID: nt14.i
Smp Info : 21B0118-01
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210313.b\ALKYLPNA.m
Meth Date : 13-Mar-2021 12:11 van Quant Type: ISTD
Cal Date : 07-JAN-2021 16:44 Cal File: NT1421010708.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14

	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	11.733	11.744	(0.626)	224522	1.48491	1.485(R)
	7 Naphthalene	128	11.799	11.810	(0.630)	902164	5.96002	5.960
	12 Benzo(b)thiophene	134	12.250	12.261	(0.654)	62996	0.50323	0.5032
	16 2-Methylnaphthalene	141	13.634	13.634	(0.728)	259515	2.99901	2.999
	17 1-methylnaphthalene	141	14.085	14.085	(0.752)	109704	1.30834	1.308
	18 Biphenyl	154	15.283	15.283	(0.816)	119047	0.93550	0.9355
	19 2,6-Dimethylnaphthalene	156	15.349	15.360	(0.819)	105399	1.13193	1.132(M)
	20 Acenaphthylene	152	16.920	16.920	(0.903)	220313	1.39194	1.392
$	21 Acenaphthene-d10	164	17.206	17.206	(0.918)	174374	2.18352	2.184(R)
	22 Acenaphthene	153	17.327	17.316	(0.925)	348402	3.42370	3.424
	23 Dibenzofuran	168	17.701	17.701	(0.945)	169056	1.16087	1.161
	24 1,6,7-Trimethylnaphthalene	170	17.920	17.920	(0.956)	78195	0.83621	0.8362
*	25 Fluorene-d10	176	18.741	18.741	(1.000)	326810	2.00000	
	26 Fluorene	166	18.843	18.843	(1.005)	542590	4.91642	4.916
	30 Dibenzothiophene	184	21.757	21.757	(1.161)	548567	3.63293	3.633
$	35 Phenanthrene-d10	188	22.077	22.066	(0.995)	379240	2.48269	2.483(R)
	36 Phenanthrene	178	22.165	22.143	(0.999)	4155228	24.9857	24.99
*	250 Anthracene-d10	188	22.187	22.176	(1.000)	333649	2.00000	
	37 Anthracene	178	22.264	22.242	(1.003)	2383614	15.4992	15.50
	42 Carbazole	167	23.539	23.528	(1.061)	398156	3.09707	3.097
	43 1-Methylphenanthrene	192	23.990	23.979	(1.081)	410315	3.47330	3.473
	44 Fluoranthene	202	25.980	25.947	(1.171)	7454061	41.0177	41.02
	46 Pyrene	202	26.849	26.805	(1.210)	8039596	42.1573	42.16
	51 Naphthobenzothiophene	234	29.359	29.348	(1.323)	650585	4.76413	4.764
	55 Benzo(a)anthracene	228	29.958	29.935	(0.907)	3107760	14.2955	14.30
$	56 Chrysene-d12	240	30.070	30.059	(0.910)	365596	2.17939	2.179(R)
	57 Chrysene	228	30.149	30.138	(0.913)	4007867	18.4519	18.45
	62 Benzo(b)fluoranthene	252	32.379	32.368	(0.980)	3039804	14.2367	14.24(M)
	63 Benzo(k)fluoranthene	252	32.424	32.413	(0.982)	1851210	8.30316	8.303(M)
	293 Benzo(j)fluoranthene	252	32.492	32.469	(0.984)	1803457	8.38224	8.382
	246 Total Benzofluoranthenes	252	32.379	32.413	(0.980)	6484570	30.4166	30.42(M)
*	251 Benzo(e)pyrene-d12	264	33.033	33.021	(1.000)	532721	2.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	64 Benzo(e)pyrene	252	33.100	33.089	(1.002)	3065666	14.7952	14.80
	66 Benzo(a)pyrene	252	33.201	33.179	(1.005)	3914269	20.0758	20.08
$	67 Perylene-d12	264	33.370	33.359	(1.010)	474852	2.63890	2.639(R)
	68 Perylene	252	33.427	33.416	(1.012)	1686812	8.52794	8.528
	69 Indeno(1,2,3-cd)pyrene	276	35.443	35.398	(1.073)	3219705	15.1275	15.13
	70 Dibenzo(a,h)anthracene	278	35.398	35.375	(1.072)	495334	2.44025	2.440
	74 Benzo(g,h,i)perylene	276	36.310	36.265	(1.099)	4149652	19.3621	19.36

QC Flag Legend

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

Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031306.D Page 1
Report Date: 16-Mar-2021 15:59

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421031306.D
Lab Smp Id: 21B0118-01
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210313.b\ALKYLPNA.m
Misc Info:

Calibration Date: 13-MAR-2021
Calibration Time: 11:19
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	366886	183443	733772	326810	-10.92
250 Anthracene-d10	368886	184443	737772	333649	-9.55
251 Benzo(e)pyrene-d1	446096	223048	892192	532721	19.42

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.74	18.24	19.24	18.74	-0.00
250 Anthracene-d10	22.18	21.68	22.68	22.19	0.05
251 Benzo(e)pyrene-d1	33.02	32.52	33.52	33.03	0.03

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

REVIEW SUMMARY FOR FILE - NT1421031306.D

Lab ID: 21B0118-01
nt14.i, 20210313.b\ALKYLPNA.m, 13-MAR-2021 14:47

RT	CO-ELUTION COMPOUNDS
	NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

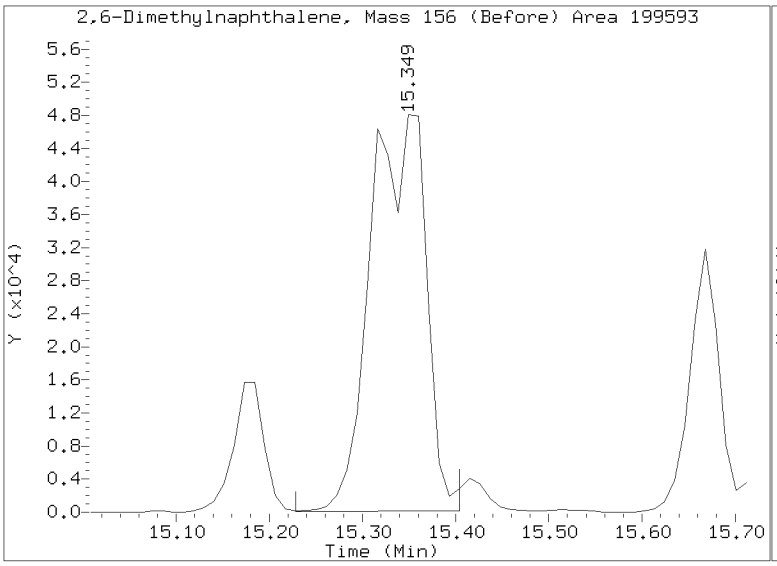
RRT check based on Ccal File: NT1421031302.D

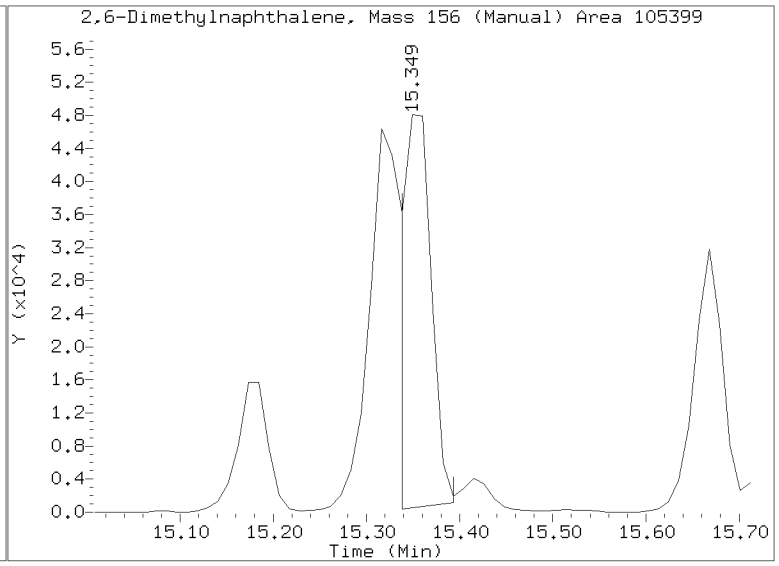
On Column LOD for nt14.i, 20210313.b\ALKYLPNA.m, TARGETS.sub = 0.0000

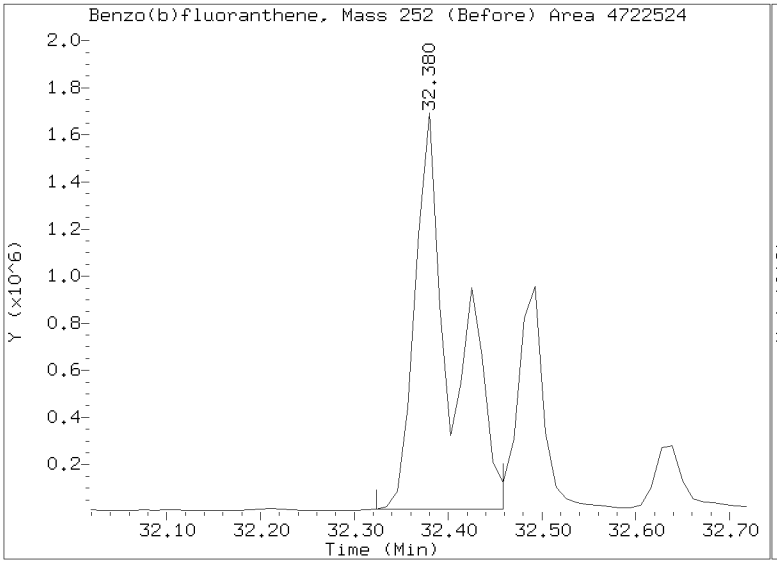
* Only compounds listed in the work order have been verified by the analyst *

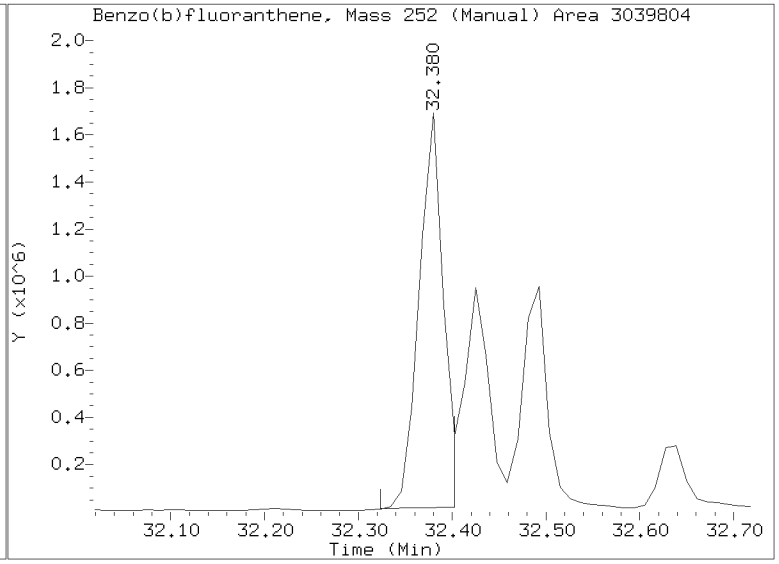
Quant Ion Manual Peak Adjustment Report

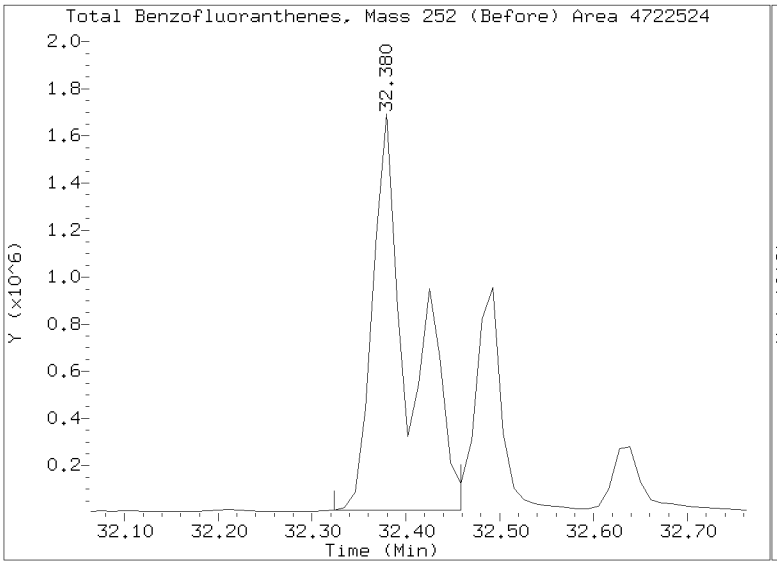
Datafile: //target/share/chem3/nt14.i/20210313.b/NT1421031306.D
Injection Date: 13-MAR-2021 14:47
Lab ID:21B0118-01 Client ID:
Report Date: 03/16/2021 15:59

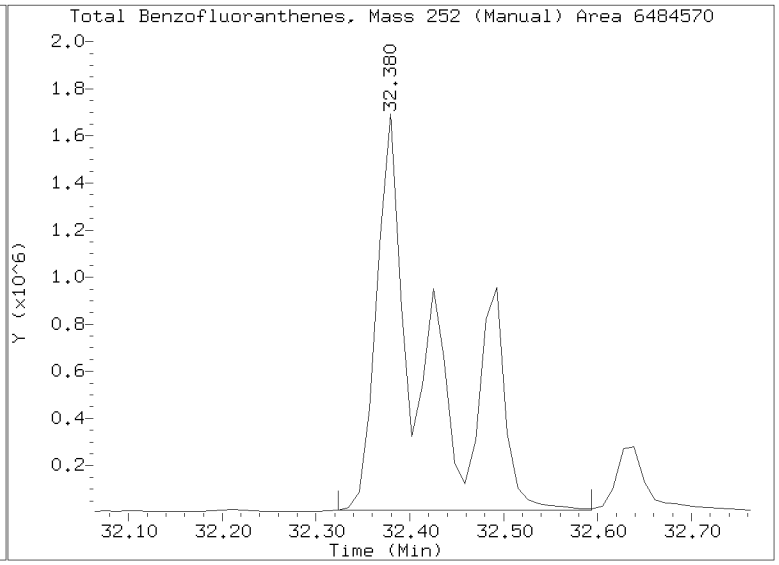






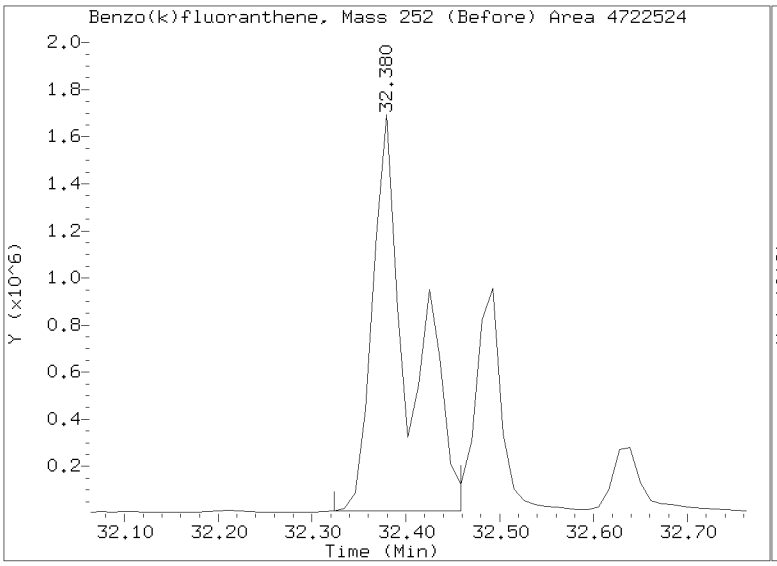


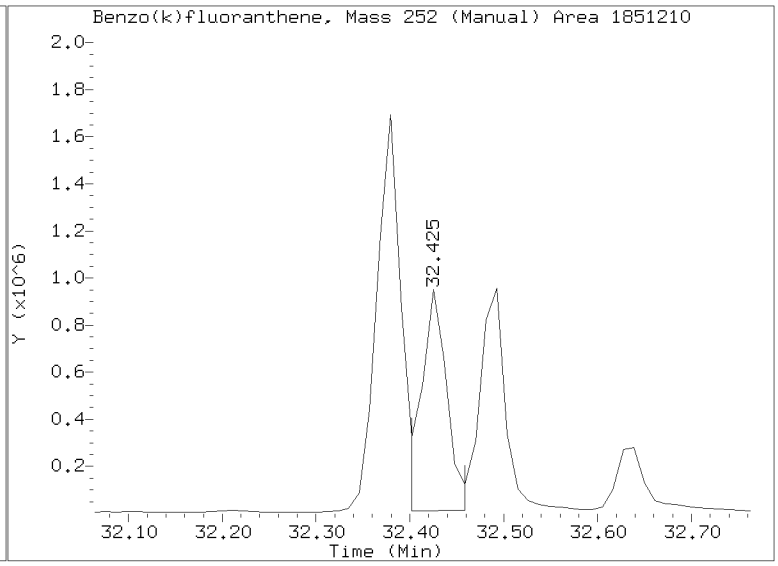




Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210313.b/NT1421031306.D
Injection Date: 13-MAR-2021 14:47
Lab ID:21B0118-01 Client ID:
Report Date: 03/16/2021 15:59





Analytical Resources, Incorporated
Analytical Chemists and Consultants

USMPDI-049SC-A-00-01-201104

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

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	US Moorings				
Matrix:	Sediment	Laboratory ID:	21B0118-01 A	SDG:	21B0118
Sampled:	11/04/20 15:30	Prepared:	03/04/21 10:33	File ID:	NT1421031306S.D
% Solids:	44.88	Preparation:	EPA 3546 (Microwave)	Analyzed:	03/13/21 14:47
Batch:	BJC0107	Sequence:	SJC0307	Initial/Final:	22.31 g Wet / 0.5 mL
Instrument:	NT14	Column:	ZB-5MS	Calibration:	EC00010
Cleanups:	GPC, Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
C1DEC	C1-Decalins	1	18.2		0.5	5.0
C2DEC	C2-Decalins	1	63.7		0.5	5.0
C3DEC	C3-Decalins	1	43.9		0.5	5.0
C4DEC	C4-Decalins	1	77.0		0.5	5.0
C1NAPH	C1-Naphthalenes	1	240		0.4	5.0
C2NAPH	C2-Naphthalenes	1	267		0.4	5.0
C3NAPH	C3-Naphthalenes	1	315		0.4	5.0
C4NAPH	C4-Naphthalenes	1	173		0.4	5.0
C1FLR	C1-Fluorenes	1	171		0.5	5.0
C2FLR	C2-Fluorenes	1	177		0.5	5.0
C3FLR	C3-Fluorenes	1	132		0.5	5.0
C1DBTPH	C1-Dibenzothiophenes	1	144		0.7	5.0
C2DBTPH	C2-Dibenzothiophenes	1	192		0.7	5.0
C3DBTPH	C3-Dibenzothiophenes	1	131		0.7	5.0
C4DBTPH	C4-Dibenzothiophenes	1	68.4		0.7	5.0
C1PHNANT	C1-Phenanthrenes/Anthracenes	1	595		0.9	5.0
C2PHNANT	C2-Phenanthrenes/Anthracenes	1	545		0.9	5.0
C3PHNANT	C3-Phenanthrenes/Anthracenes	1	337		0.9	5.0
C4PHNANT	C4-Phenanthrenes/Anthracenes	1	170		0.9	5.0
C1FLPYR	C1-Fluoranthenes/Pyrenes	1	738		1.0	5.0
C2FLPYR	C2-Fluoranthenes/Pyrenes	1	406		1.0	5.0
C3FLPYR	C3-Fluoranthenes/Pyrenes	1	207		1.0	5.0
C4FLPYR	C4-Fluoranthenes/Pyrenes	1	160		1.0	5.0
C1BAACYR	C1-Benzo(a)anthracenes/Chrysenes	1	647		0.7	5.0
C2BAACYR	C2-Benzo(a)anthracenes/Chrysenes	1	352		0.7	5.0
C3BAACYR	C3-Benzo(a)anthracenes/Chrysenes	1	175		0.7	5.0
C4BAACYR	C4-Benzo(a)anthracenes/Chrysenes	1	58.5		0.7	5.0
C1BZTPH	C1-Benzothiophenes	1	22.6		0.4	5.0
C2BZTPH	C2-Benzothiophenes	1	40.4		0.4	5.0
C3BZTPH	C3-Benzothiophenes	1	37.9		0.4	5.0

Analytical Resources, Incorporated
Analytical Chemists and Consultants

USMPDI-049SC-A-00-01-201104

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

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	US Moorings				
Matrix:	Sediment	Laboratory ID:	21B0118-01 A	SDG:	21B0118
Sampled:	11/04/20 15:30	Prepared:	03/04/21 10:33	File ID:	NT1421031306S.D
% Solids:	44.88	Preparation:	EPA 3546 (Microwave)	Analyzed:	03/13/21 14:47
Batch:	BJC0107	Sequence:	SJC0307	Initial/Final:	22.31 g Wet / 0.5 mL
Instrument:	NT14	Column:	ZB-5MS	Calibration:	EC00010
Cleanups:	GPC, Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
C1NPBTP	C1-Naphthobenzothiophenes	1	94.4		2.5	5.0
C2NPBTP	C2-Naphthobenzothiophenes	1	102		2.5	5.0
C3NPBTP	C3-Naphthobenzothiophenes	1	68.9		2.5	5.0
C4NPBTP	C4-Naphthobenzothiopenes	1	8.9		2.5	5.0
C1DBA	C1-Dibenzo(a)anthracenes	1	166		0.7	5.0
C2DBA	C2-Dibenzo(a)anthracenes	1	71.7		0.7	5.0
C3DBA	C3-Dibenzo(a)anthracenes	1	24.1		0.7	5.0

Data File: \\target\share\chem3\nt14.i\20210313.b\SIM.b\NT1421031306S.D

Date : 13-MAR-2021 14:47

Client ID:

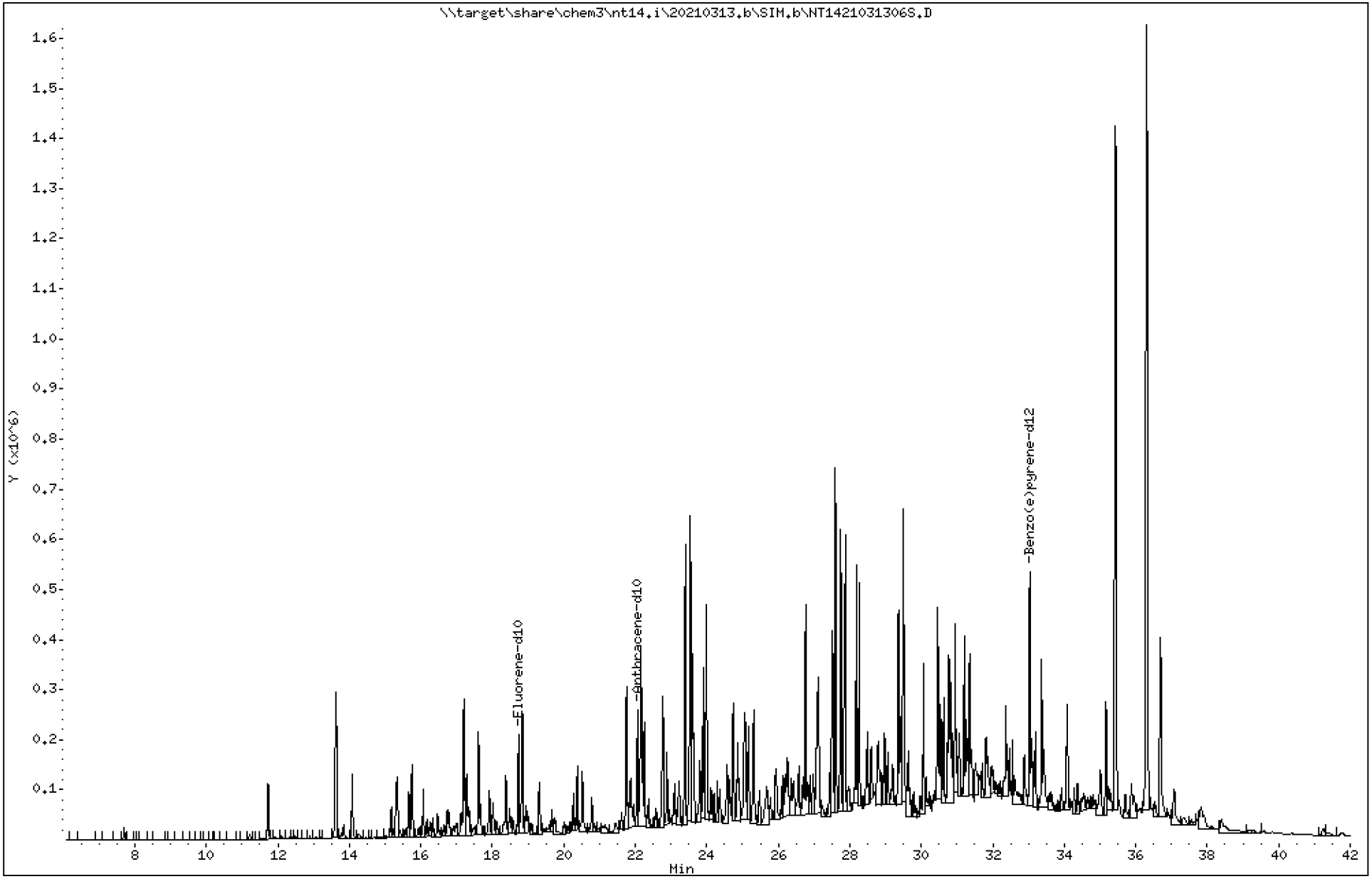
Instrument: nt14.i

Sample Info: 21B0118-01

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

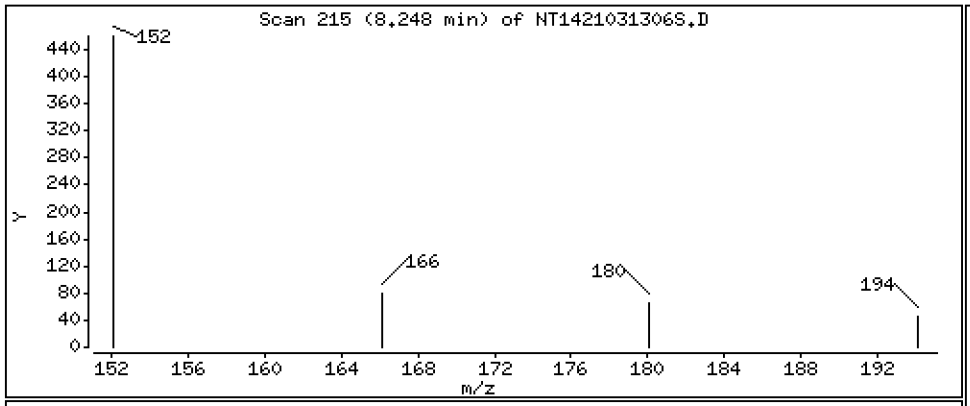
Operator: VTS

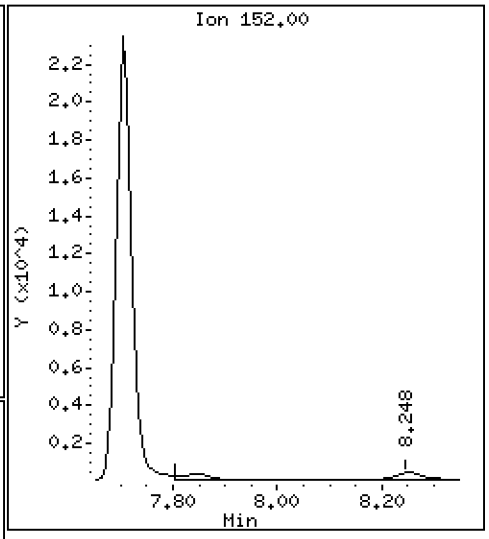
Column phase: Rxi-17Sil MS

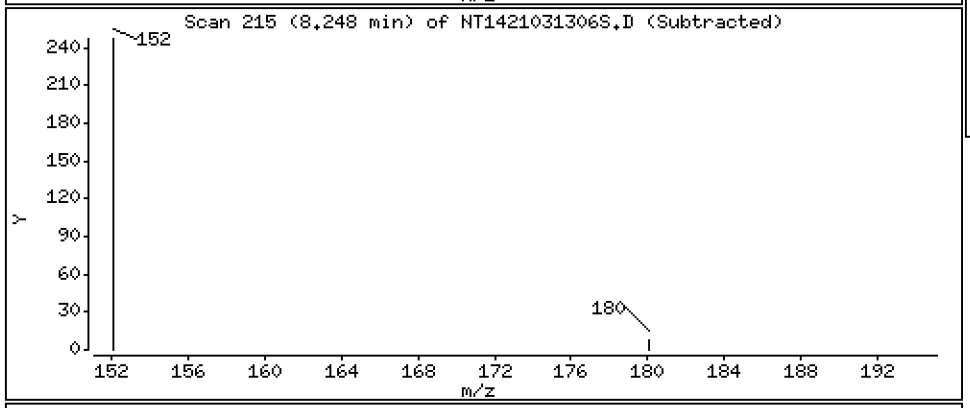
Column diameter: 0.25

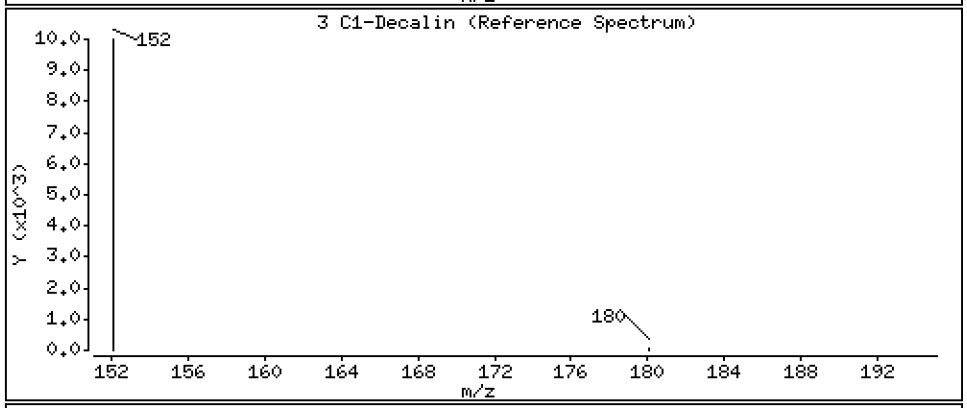
3 C1-Decalin

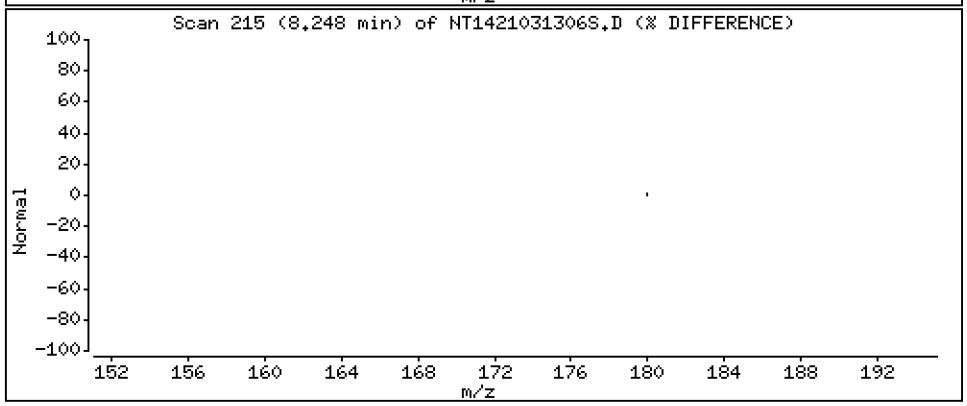
Concentration: 0.3650 ug/mL











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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

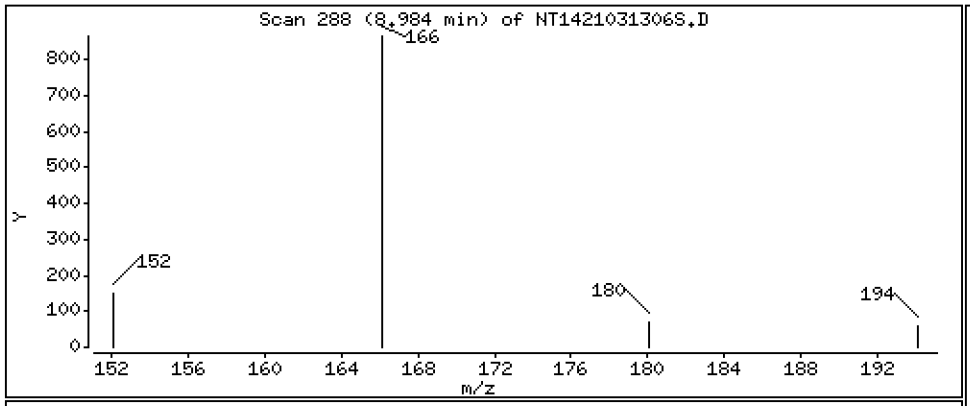
Operator: VTS

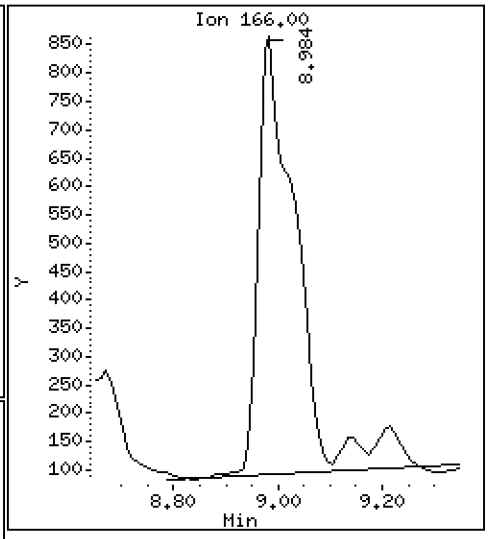
Column phase: Rxi-17Sil MS

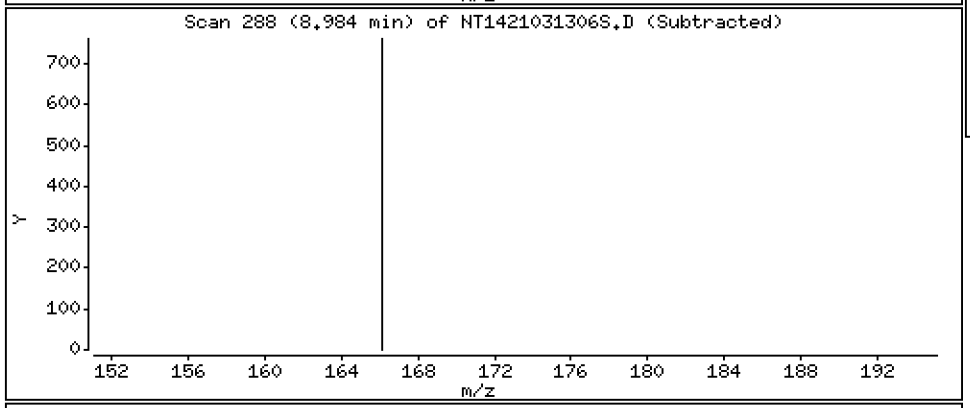
Column diameter: 0.25

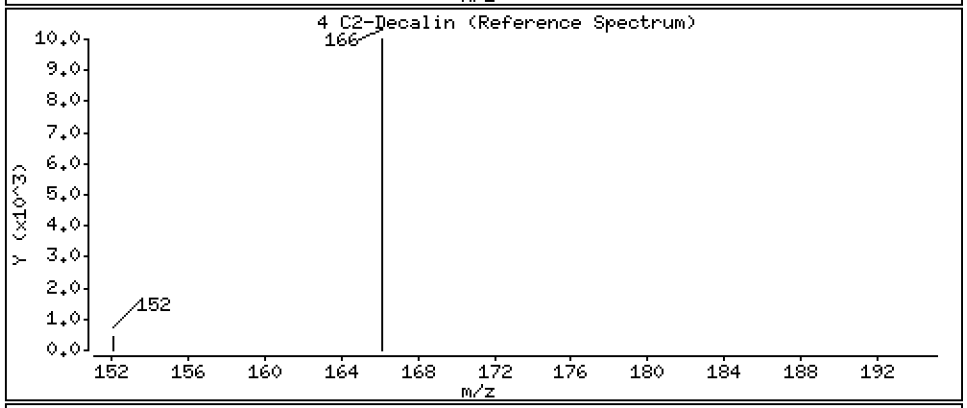
4 C2-Decalin

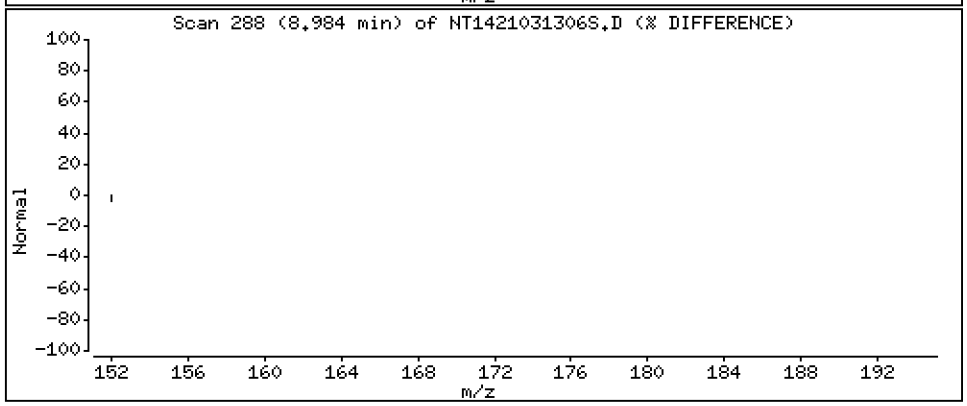
Concentration: 1.276 ug/mL











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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

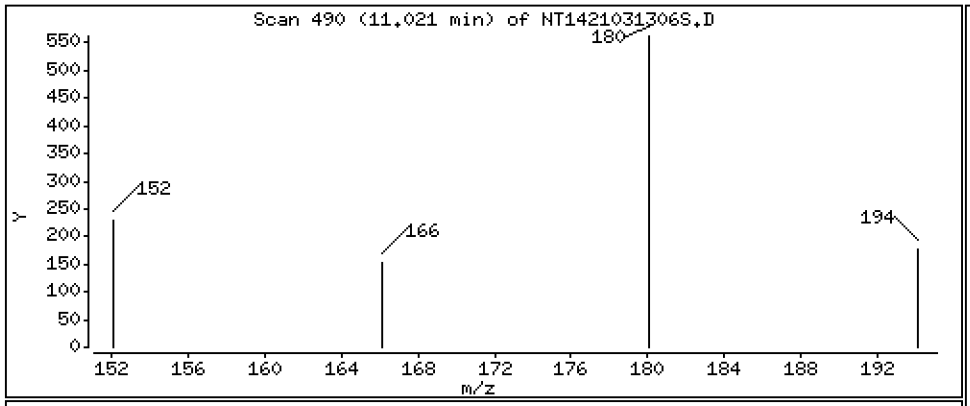
Operator: VTS

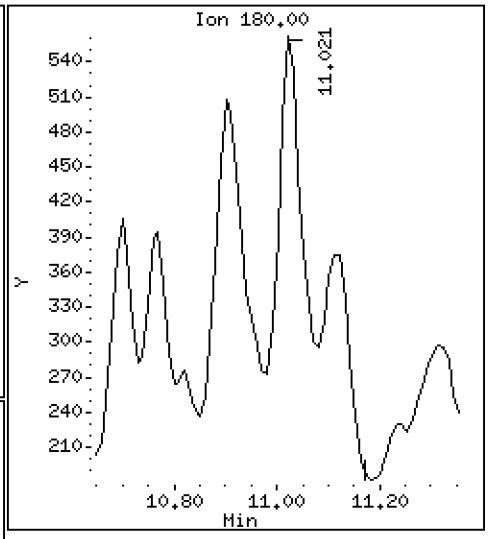
Column phase: Rxi-17Sil MS

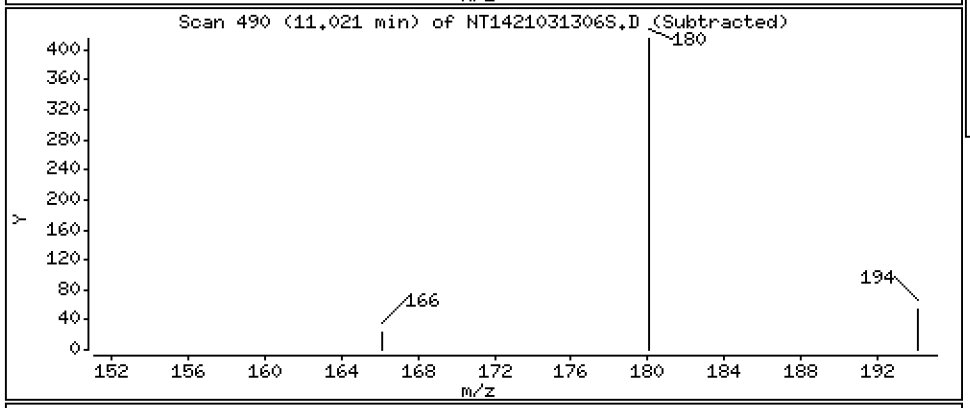
Column diameter: 0.25

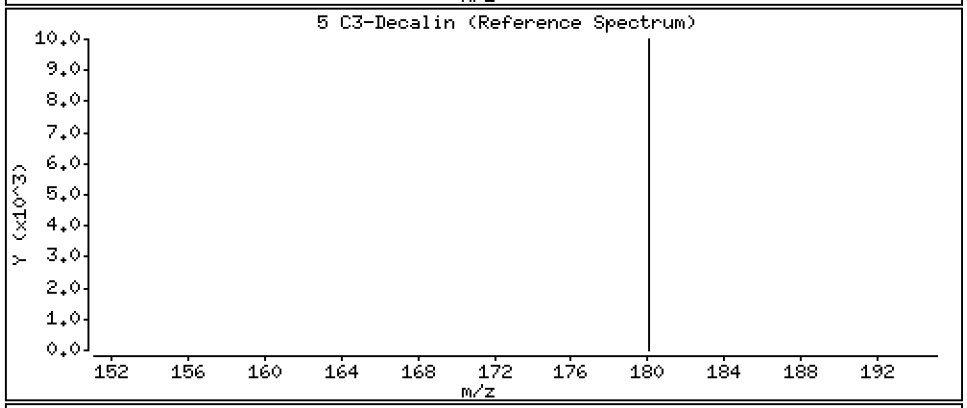
5 C3-Decalin

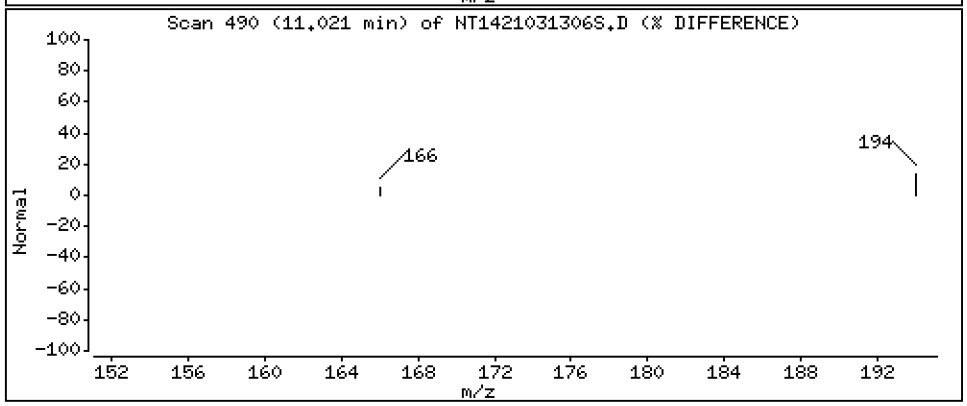
Concentration: 0.8797 ug/mL











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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

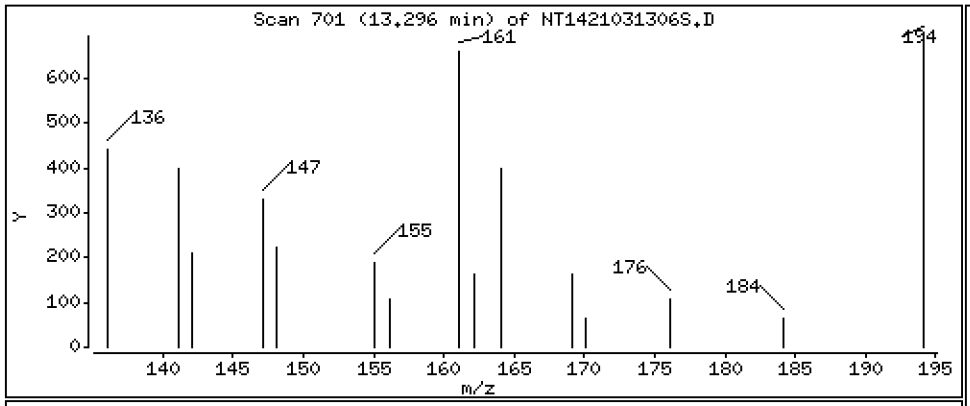
Operator: VTS

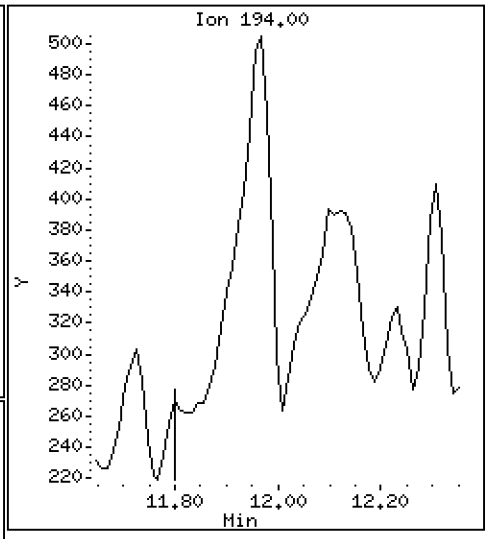
Column phase: Rxi-17Sil MS

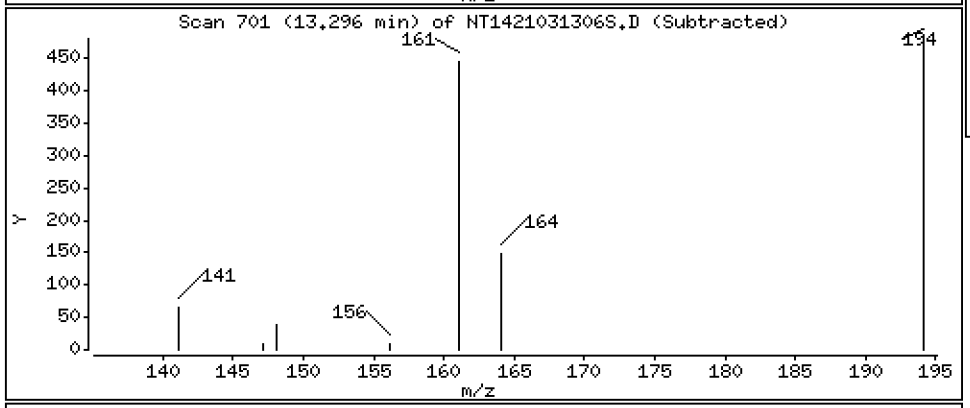
Column diameter: 0.25

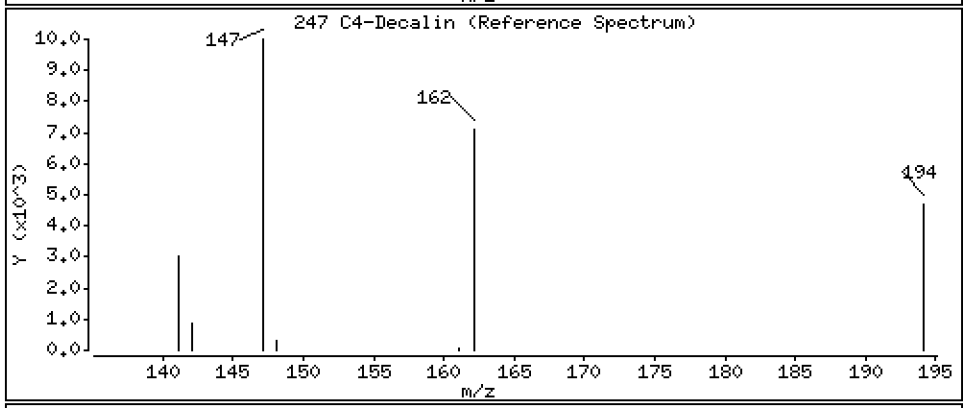
247 C4-Decalin

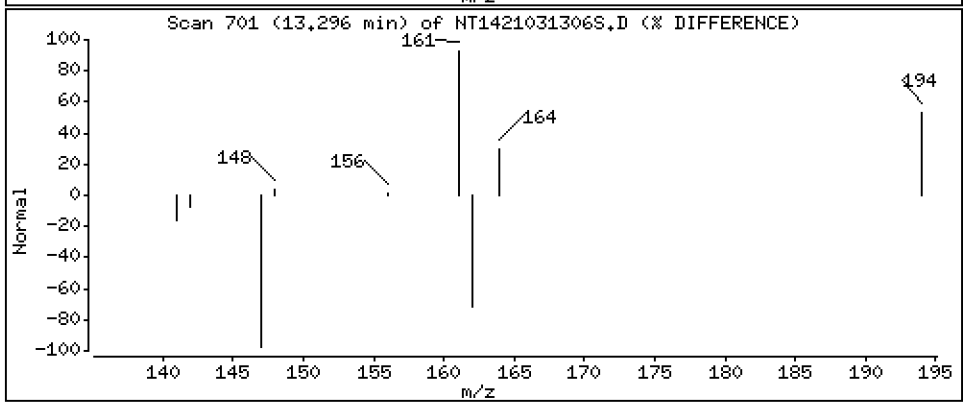
Concentration: 1.542 ug/mL











Data File: \\target\share\chem3\nt14.i\20210313.b\SIM.b\NT1421031306S.D

Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

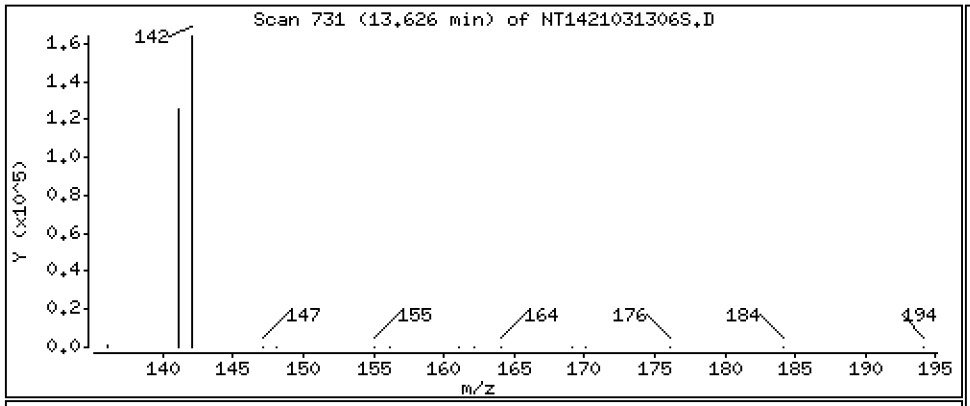
Operator: VTS

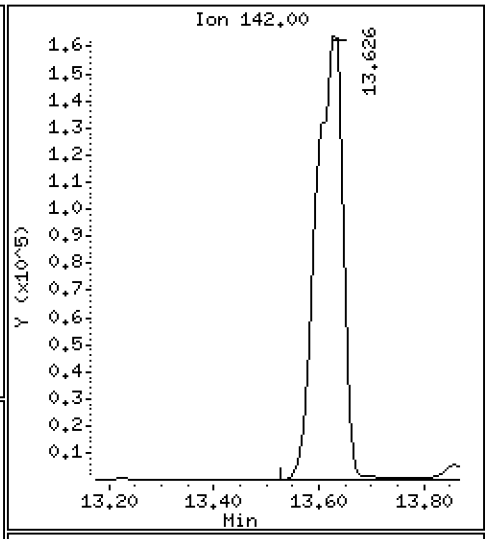
Column phase: Rxi-17Sil MS

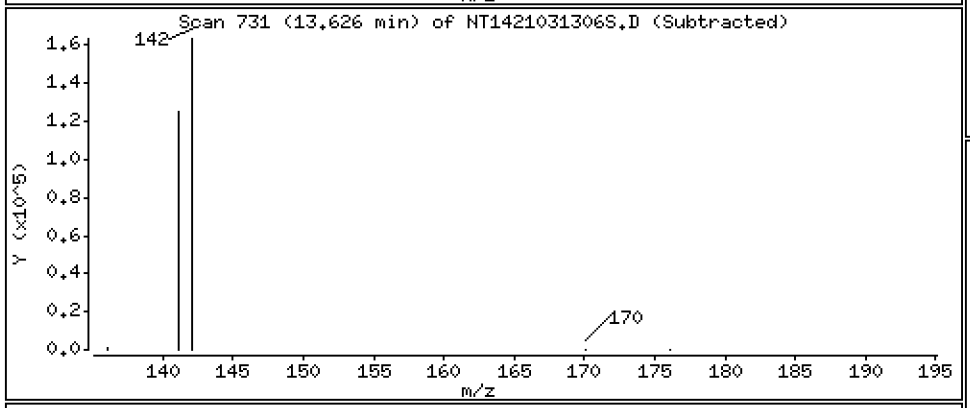
Column diameter: 0.25

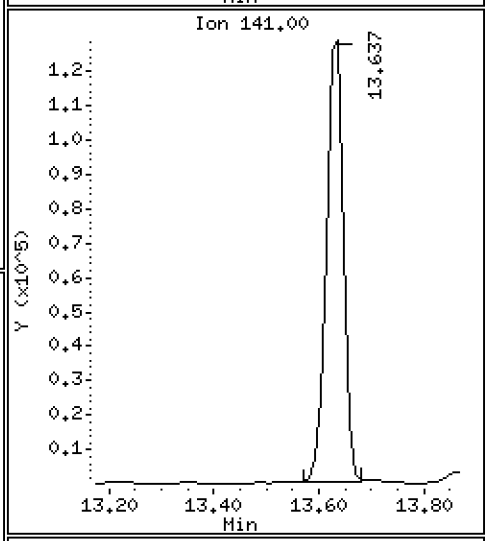
8 C1-Naphthalenes

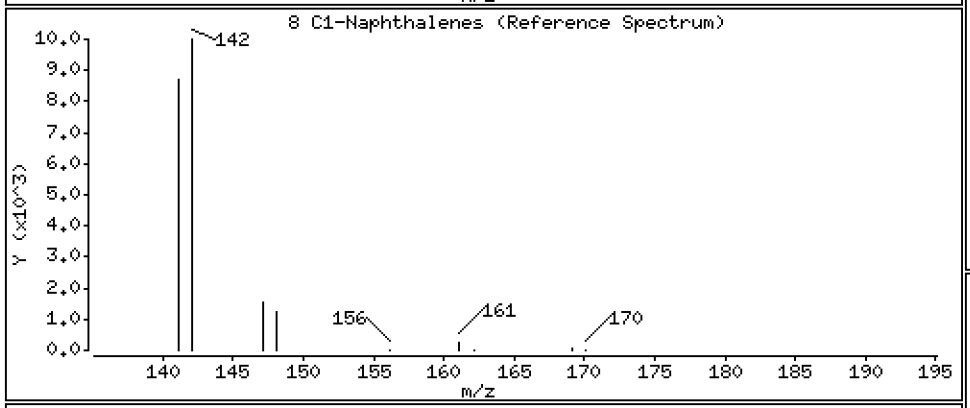
Concentration: 4.807 ug/mL

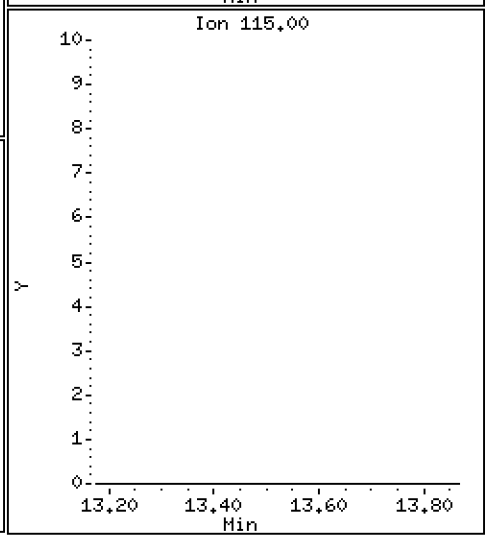


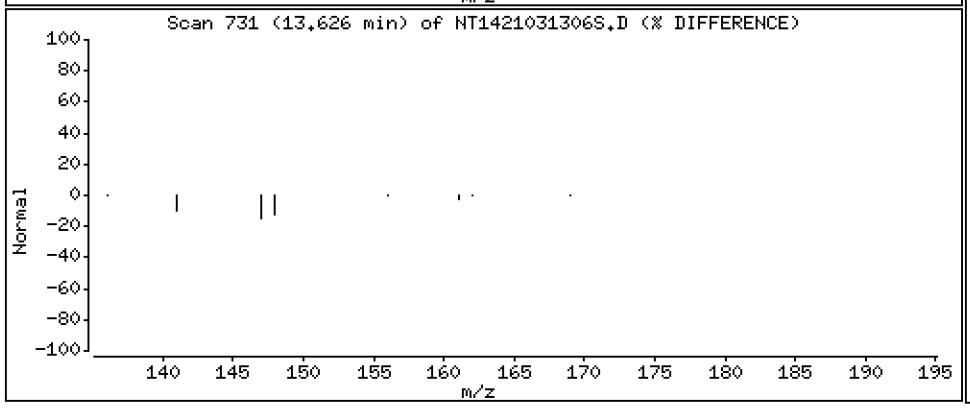












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

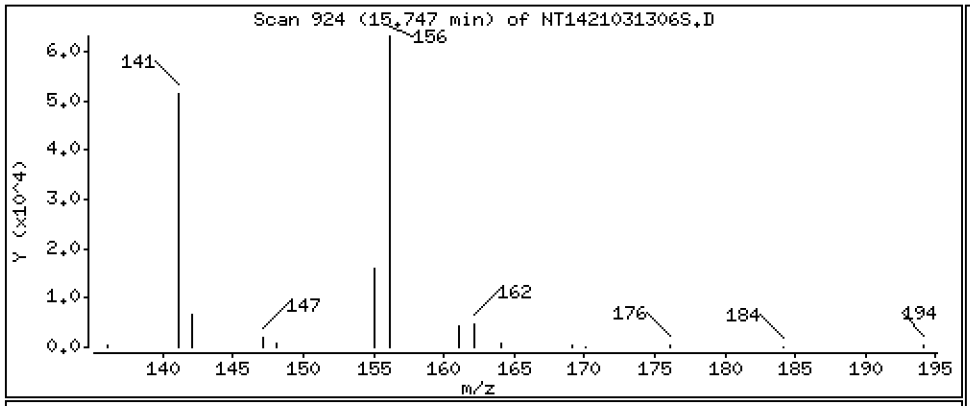
Operator: VTS

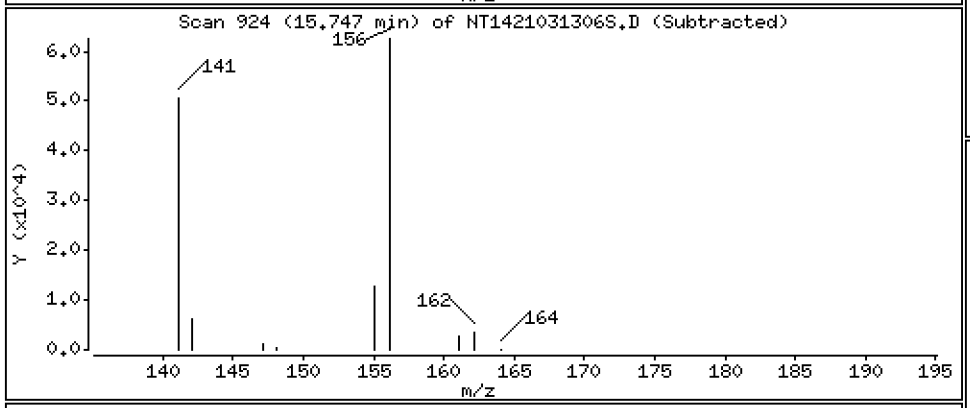
Column phase: Rxi-17Sil MS

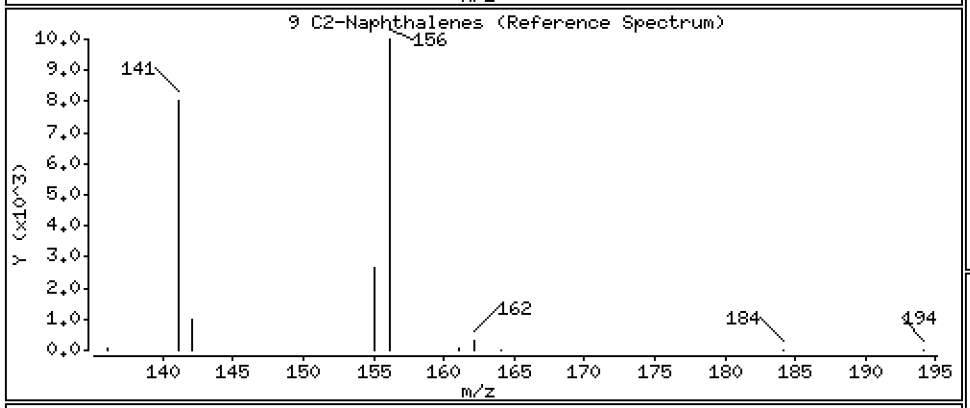
Column diameter: 0.25

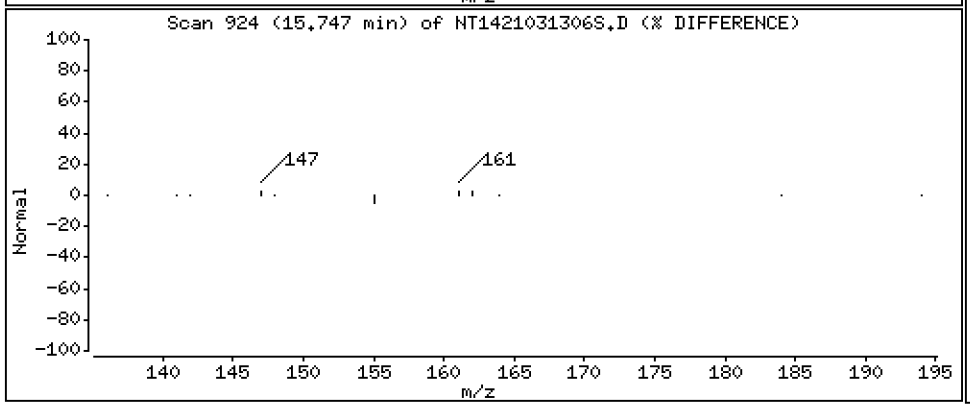
9 C2-Naphthalenes

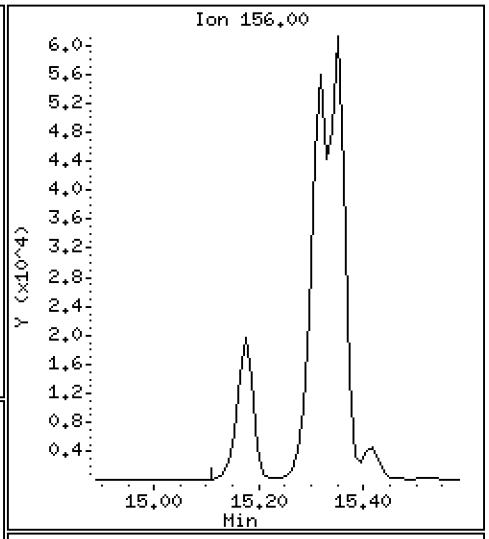
Concentration: 5.348 ug/mL

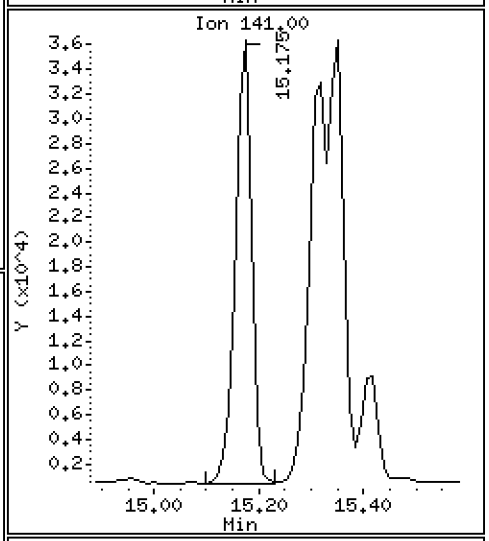


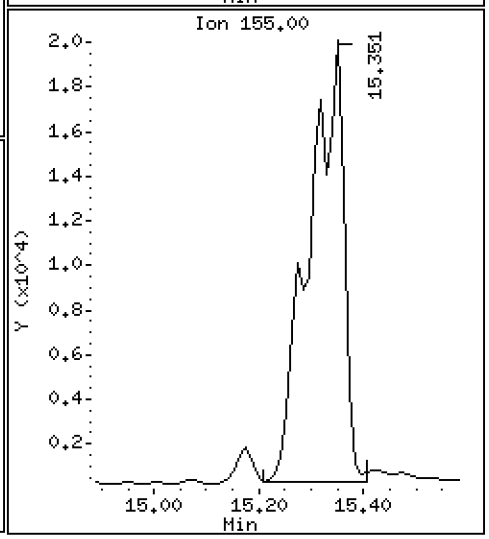












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

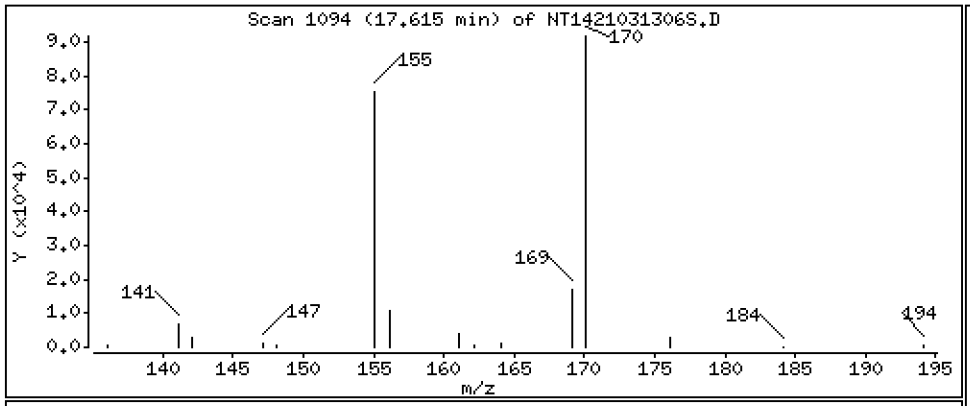
Operator: VTS

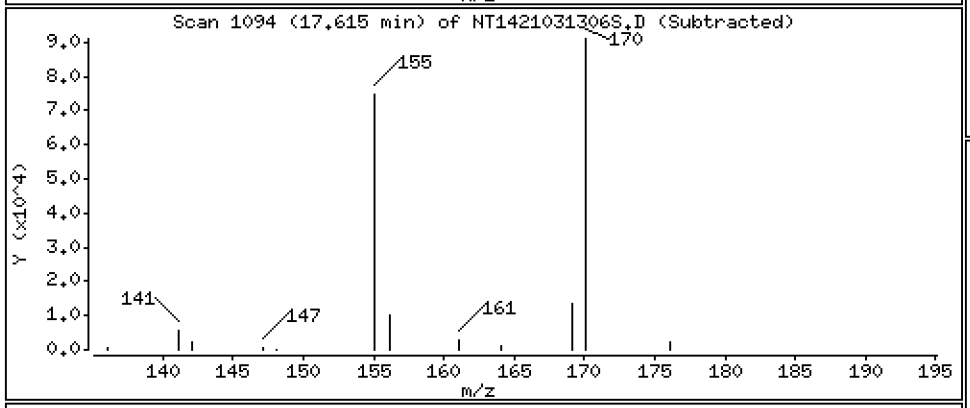
Column phase: Rxi-17Sil MS

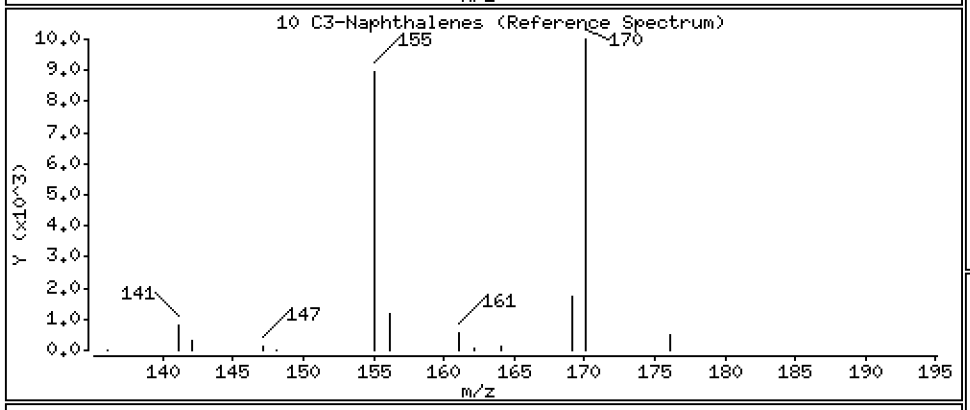
Column diameter: 0.25

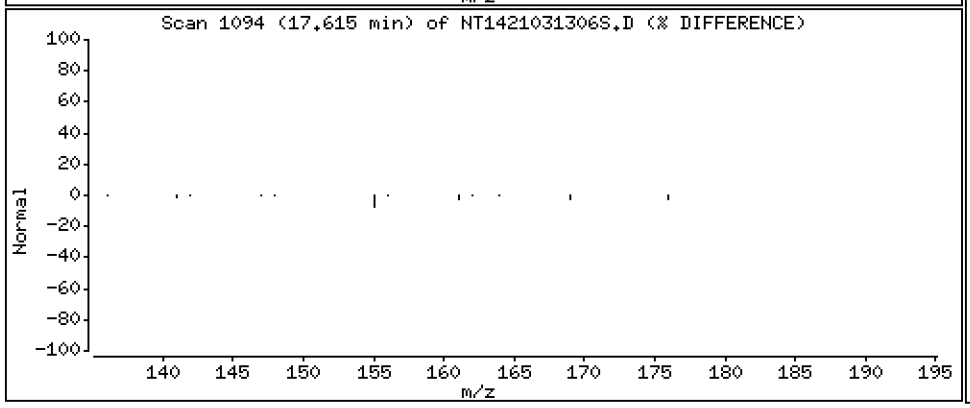
10 C3-Naphthalenes

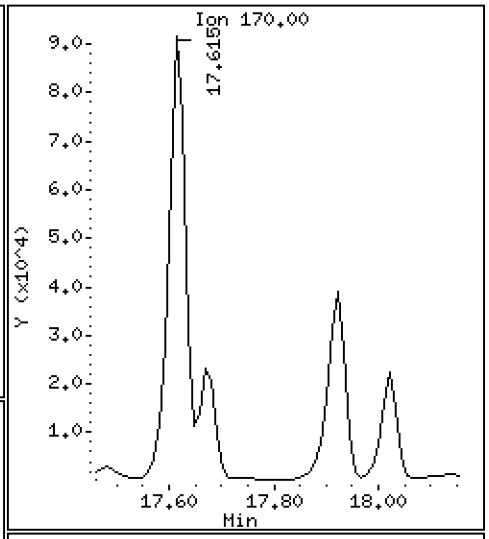
Concentration: 6.305 ug/mL

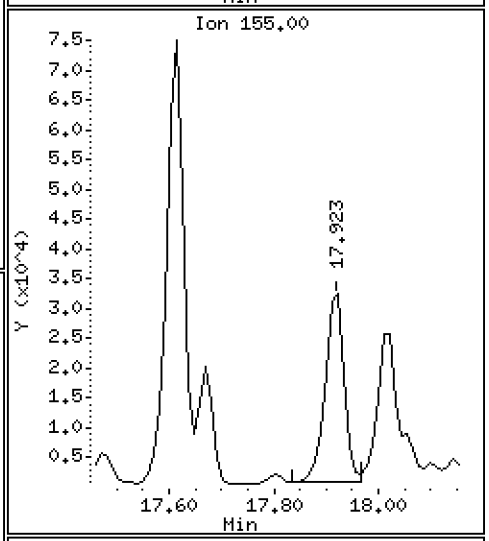


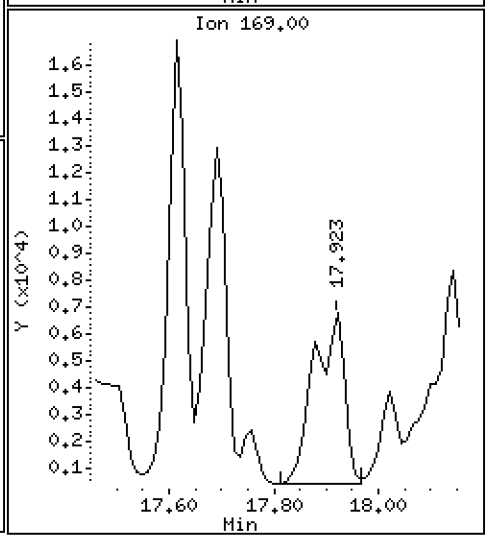












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

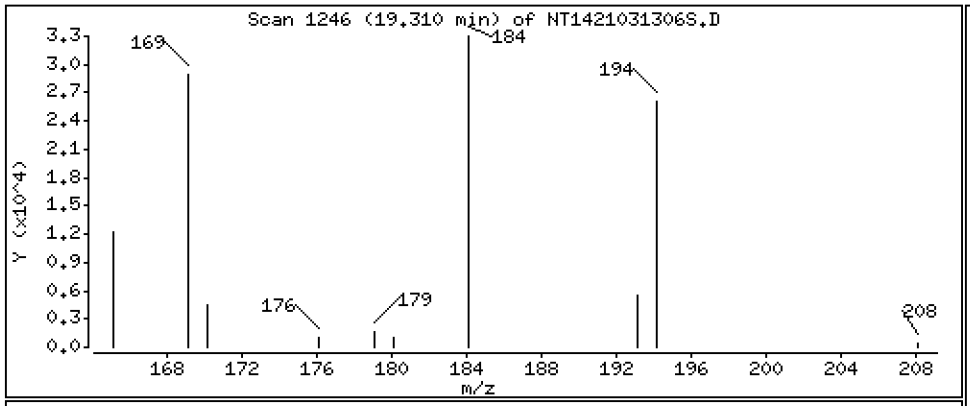
Operator: VTS

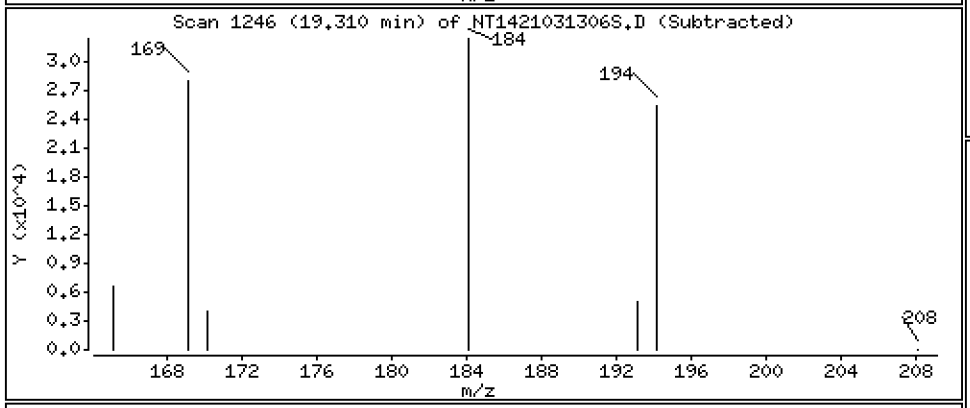
Column phase: Rxi-17Sil MS

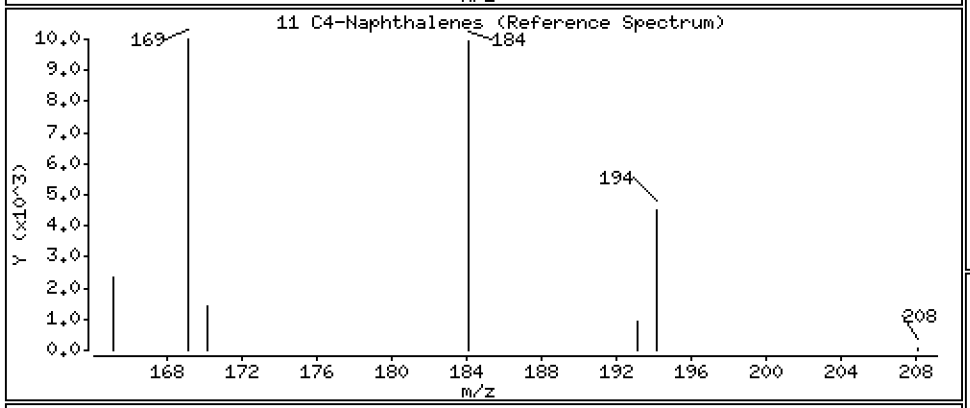
Column diameter: 0.25

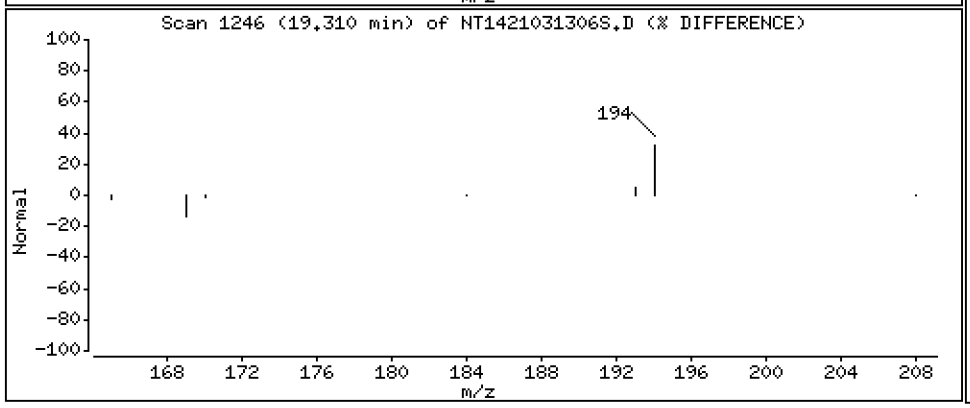
11 C4-Naphthalenes

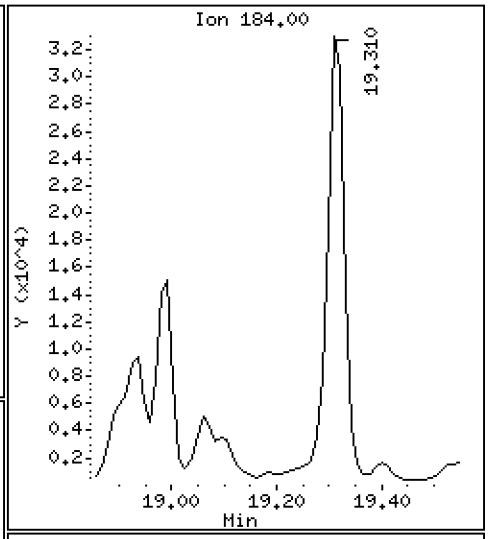
Concentration: 3.474 ug/mL

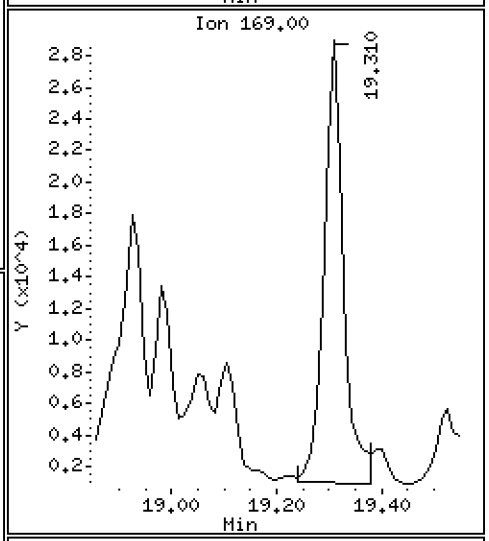


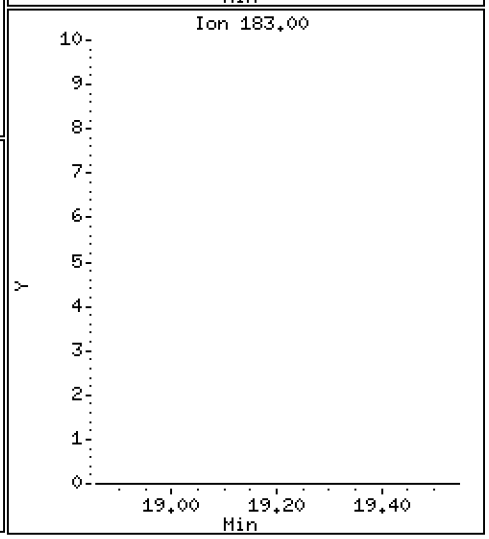












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

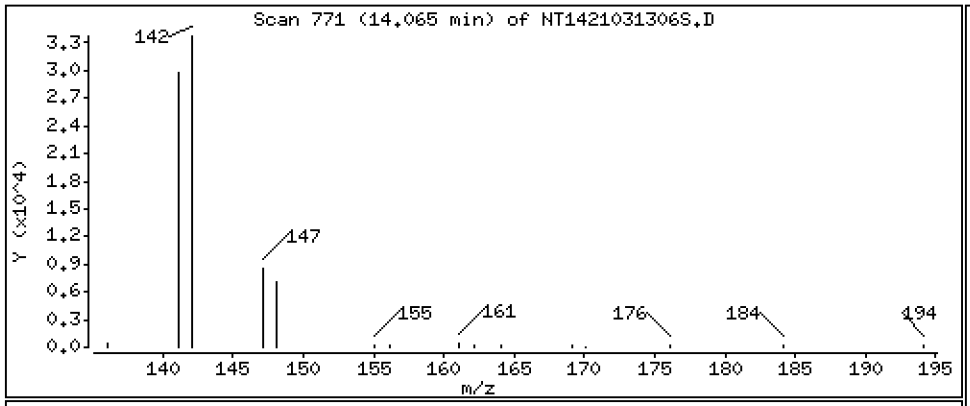
Operator: VTS

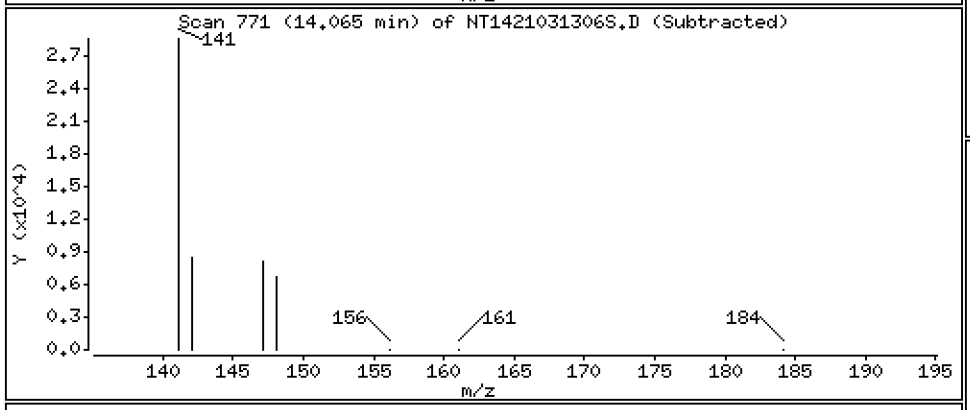
Column phase: Rxi-17Sil MS

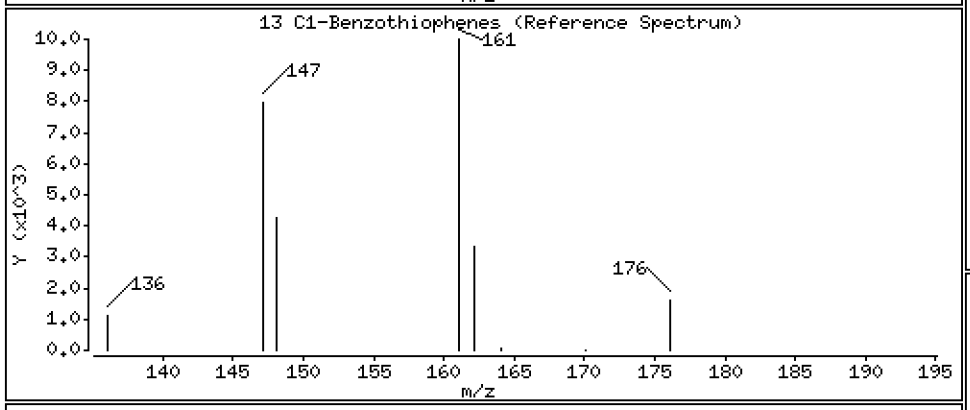
Column diameter: 0.25

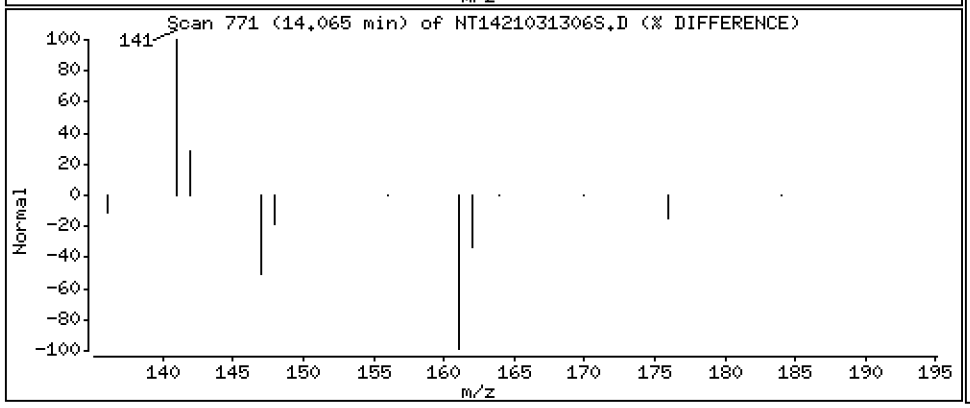
13 C1-Benzothiophenes

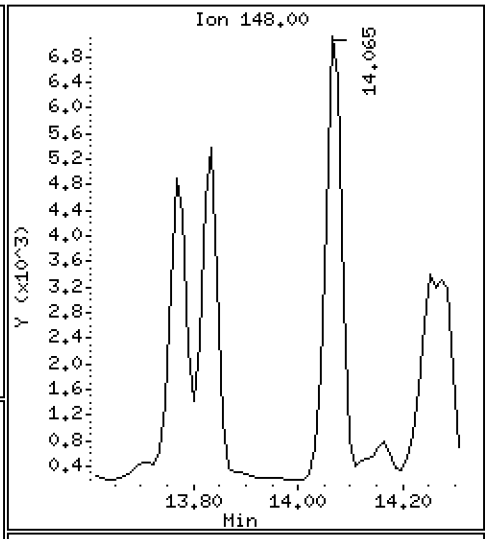
Concentration: 0.4522 ug/mL

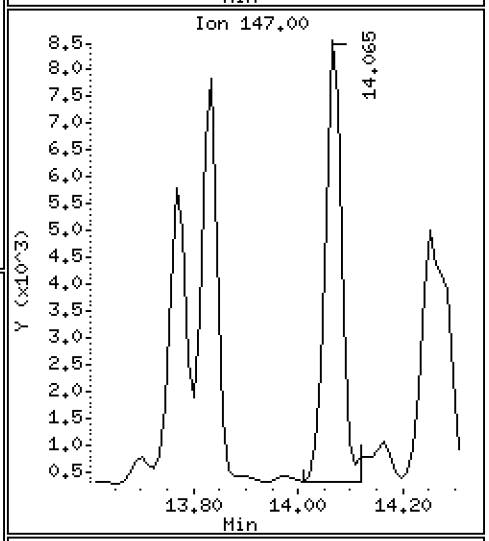


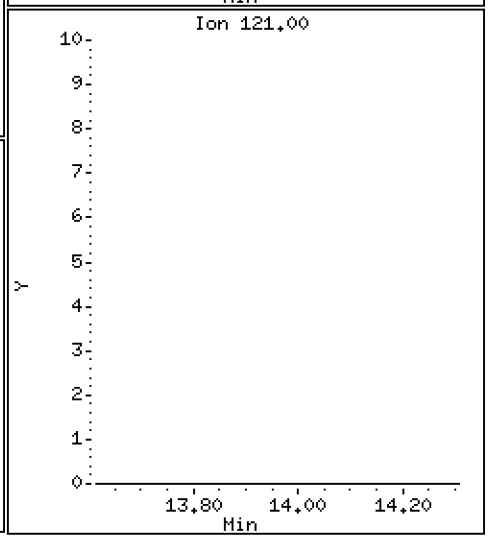












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

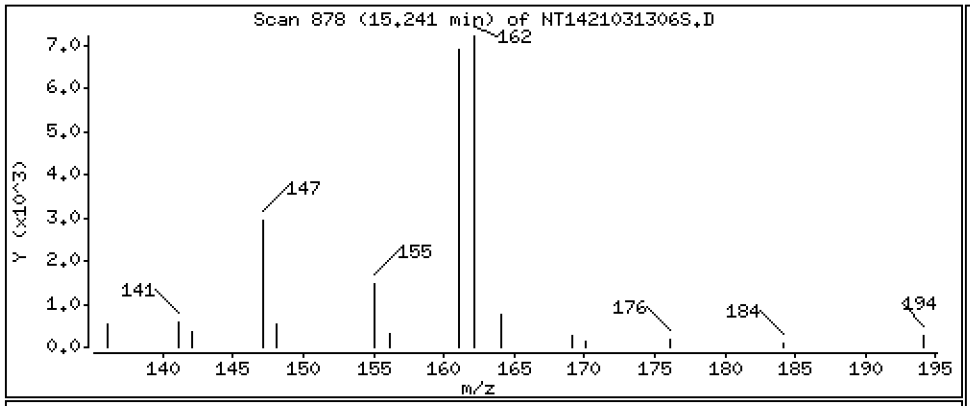
Operator: VTS

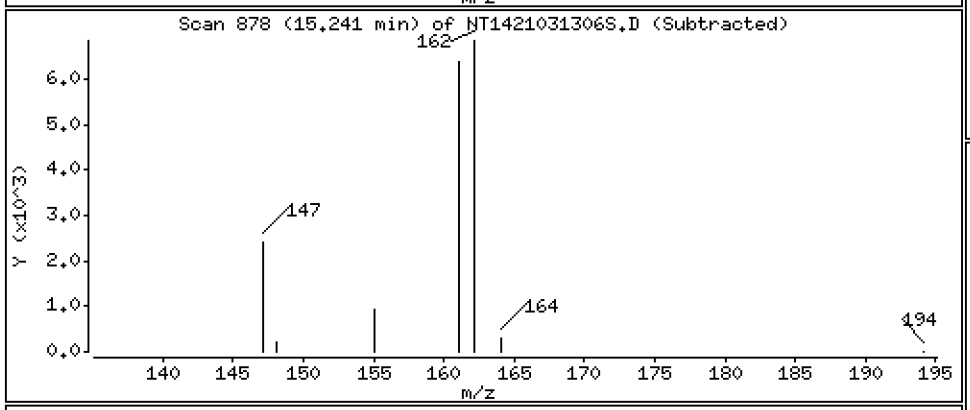
Column phase: Rxi-17Sil MS

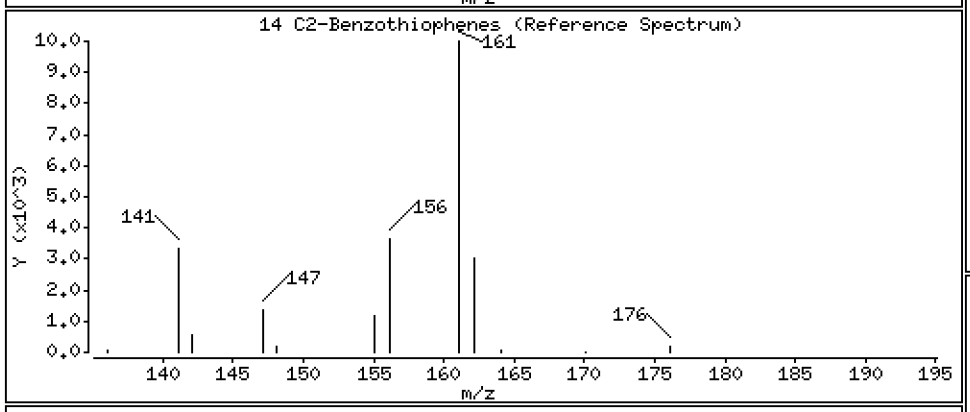
Column diameter: 0.25

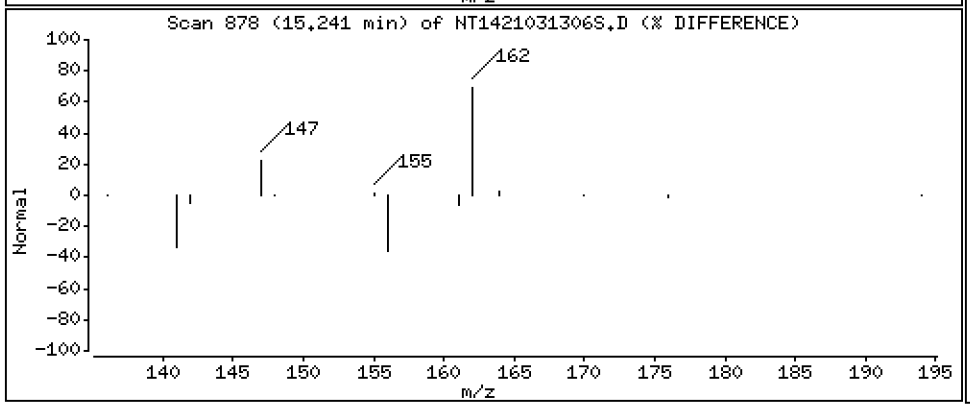
14 C2-Benzothiophenes

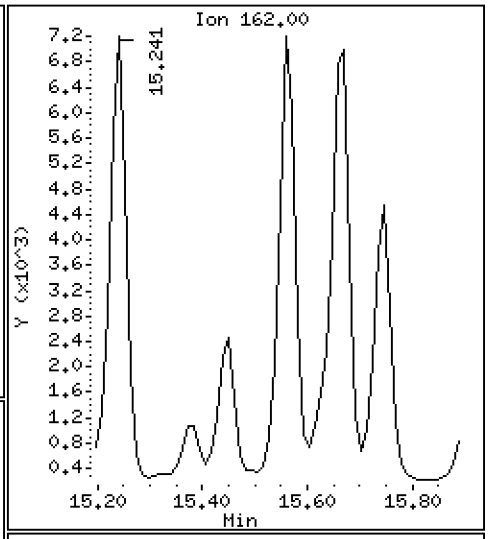
Concentration: 0.8087 ug/mL

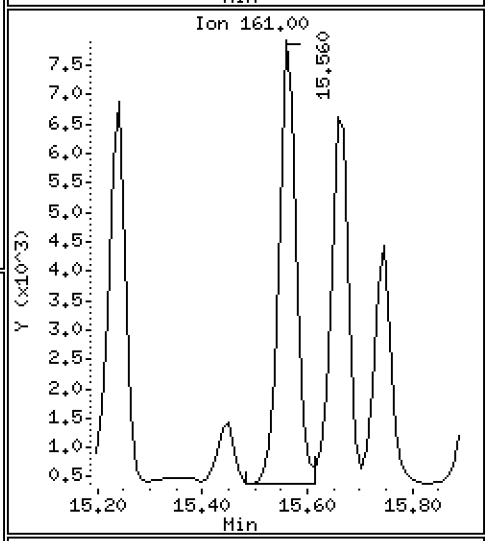


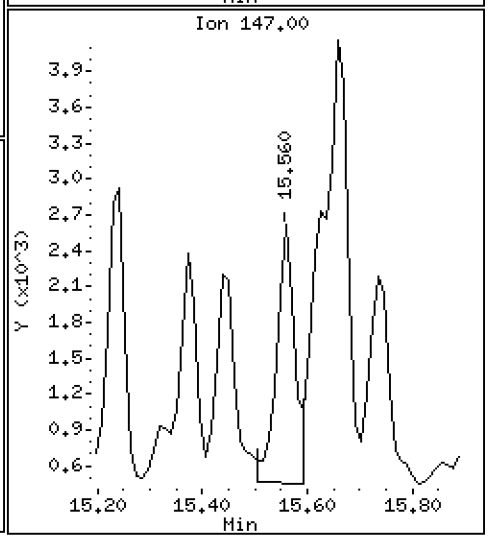












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

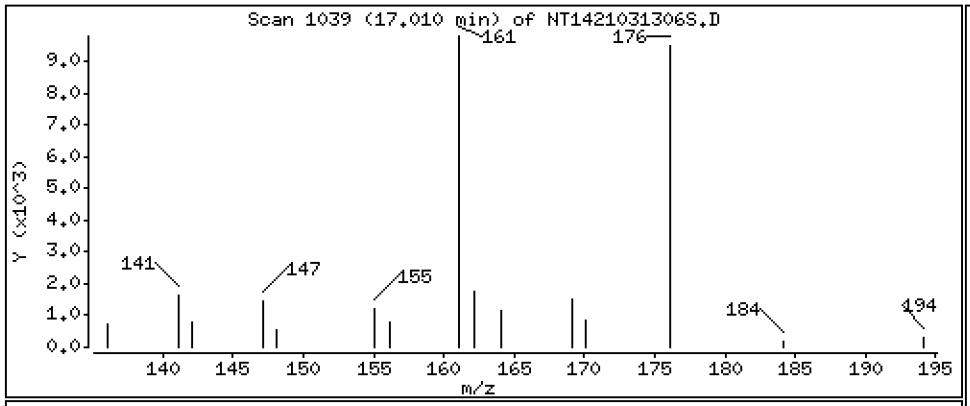
Operator: VTS

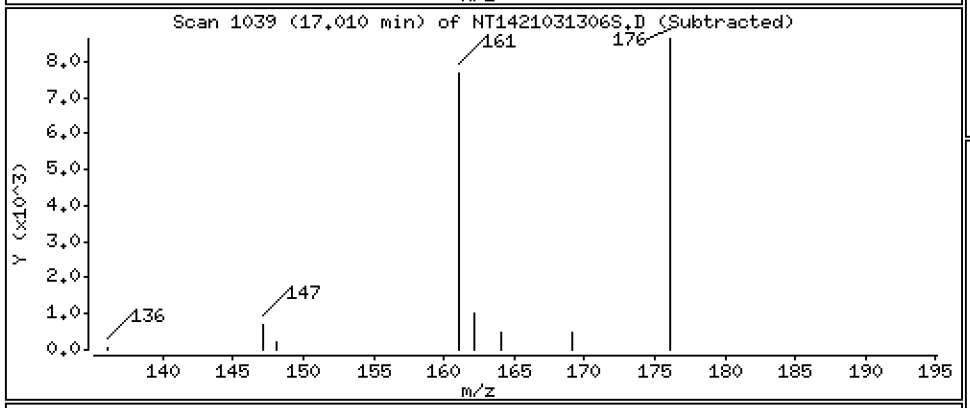
Column phase: Rxi-17Sil MS

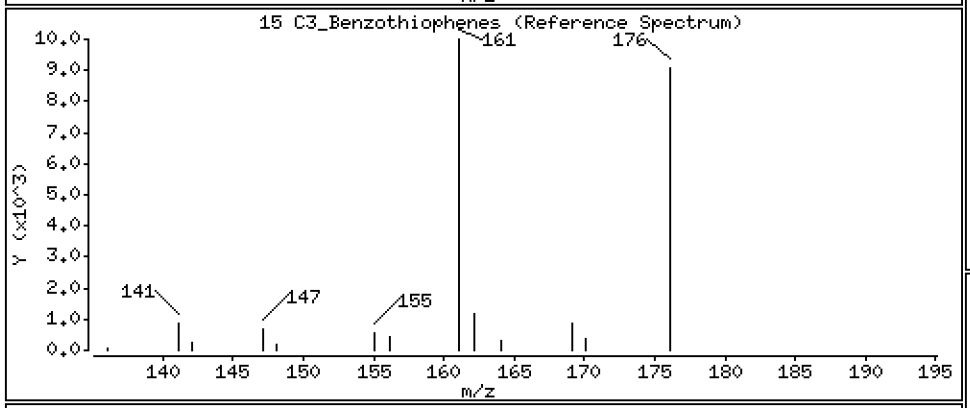
Column diameter: 0.25

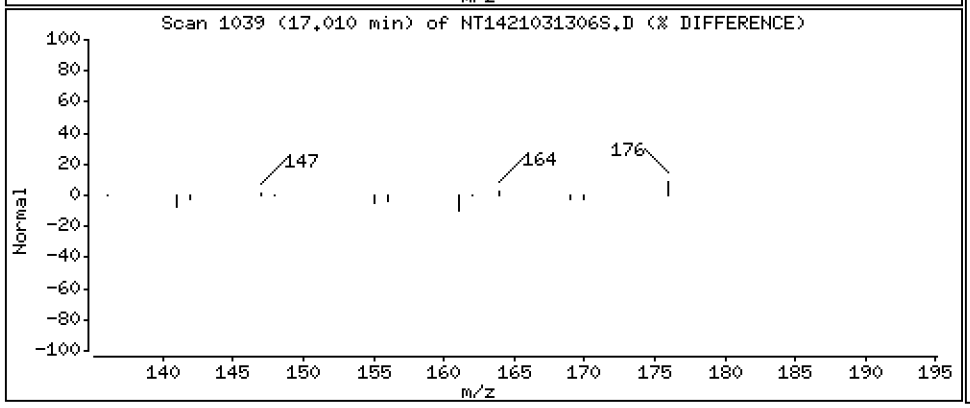
15 C3_Benzothiophenes

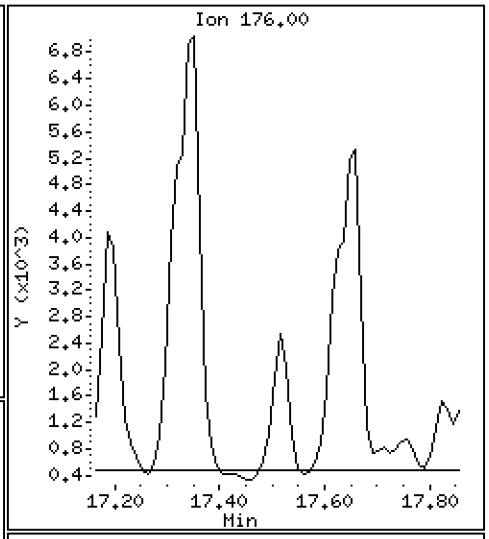
Concentration: 0.7581 ug/mL

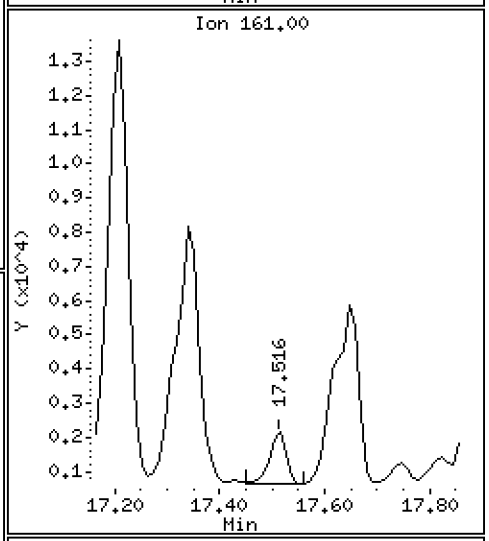


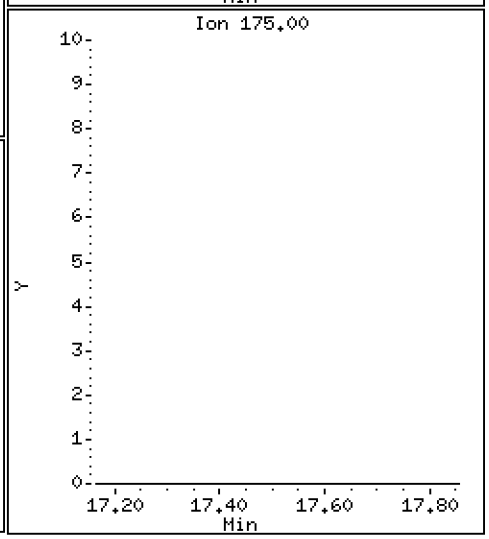












Data File: \\target\share\chem3\nt14.i\20210313.b\SIM.b\NT1421031306S.D

Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

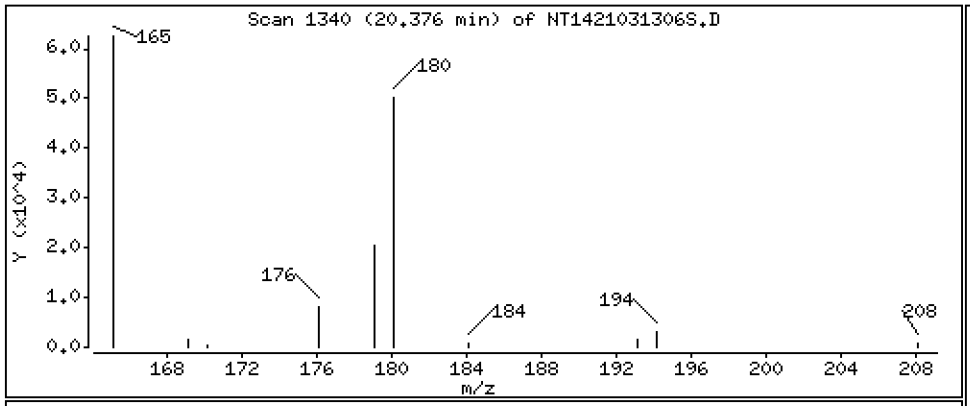
Operator: VTS

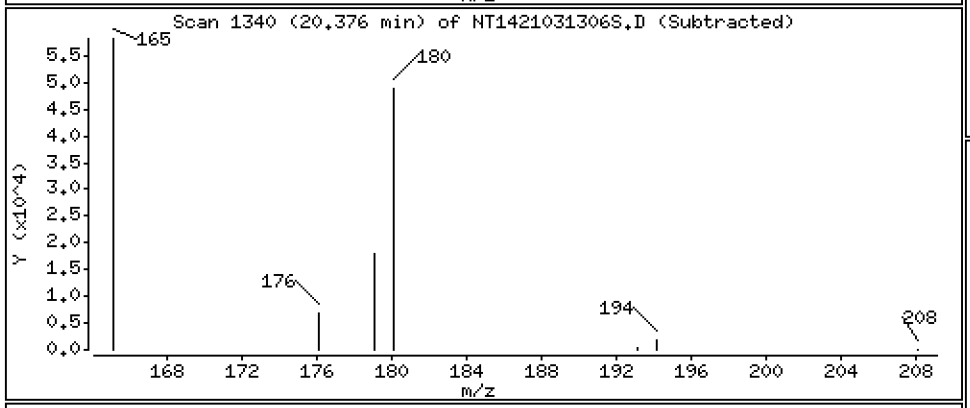
Column phase: Rxi-17Sil MS

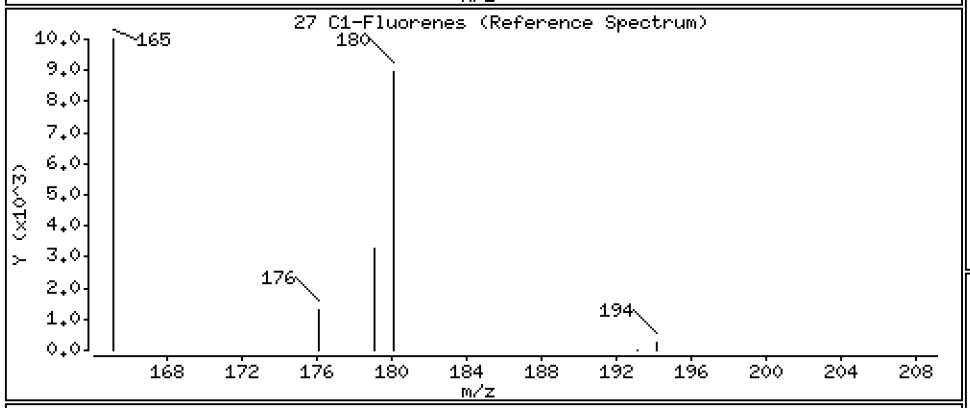
Column diameter: 0.25

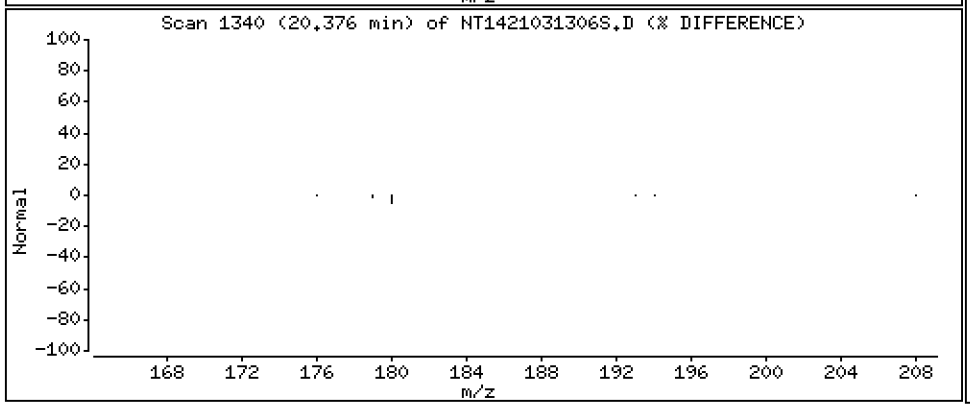
27 C1-Fluorenes

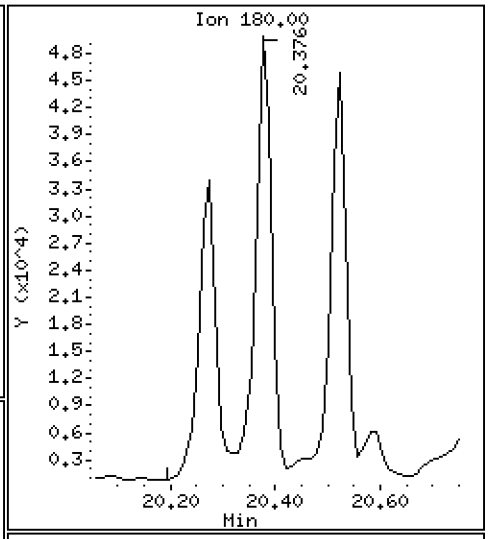
Concentration: 3.422 ug/mL

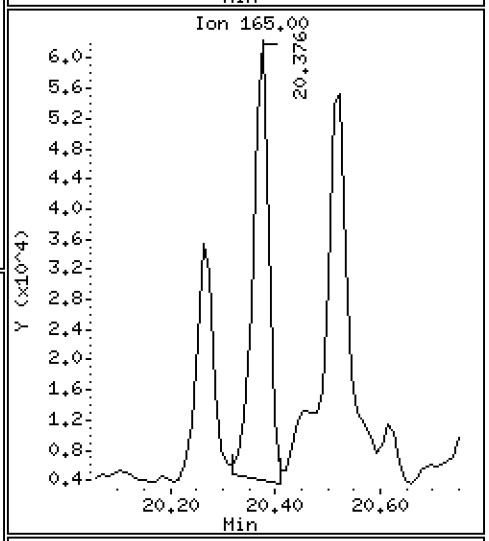


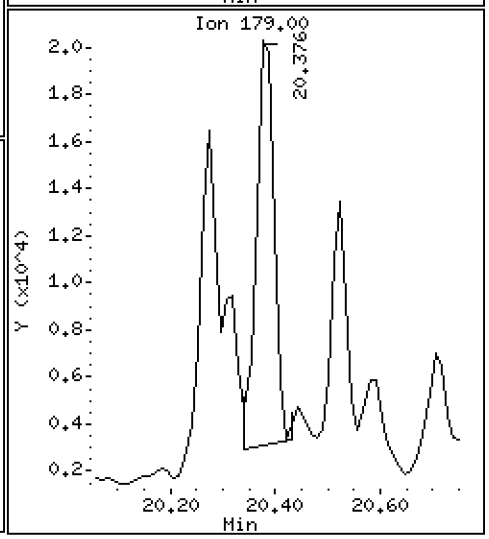












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

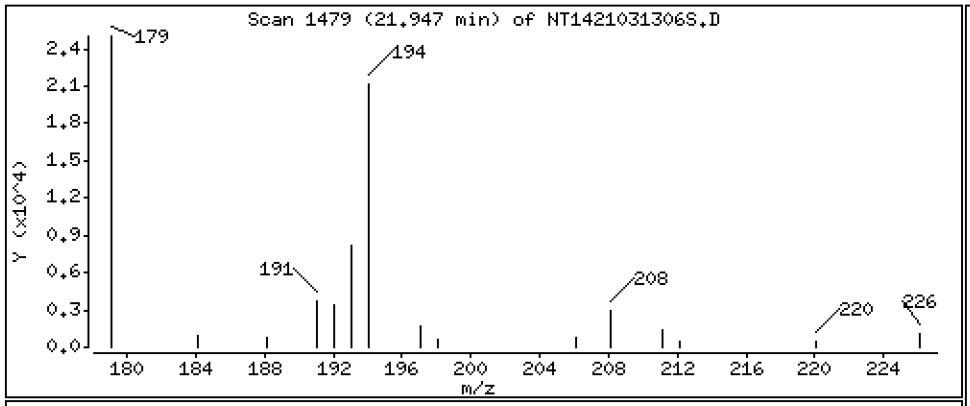
Operator: VTS

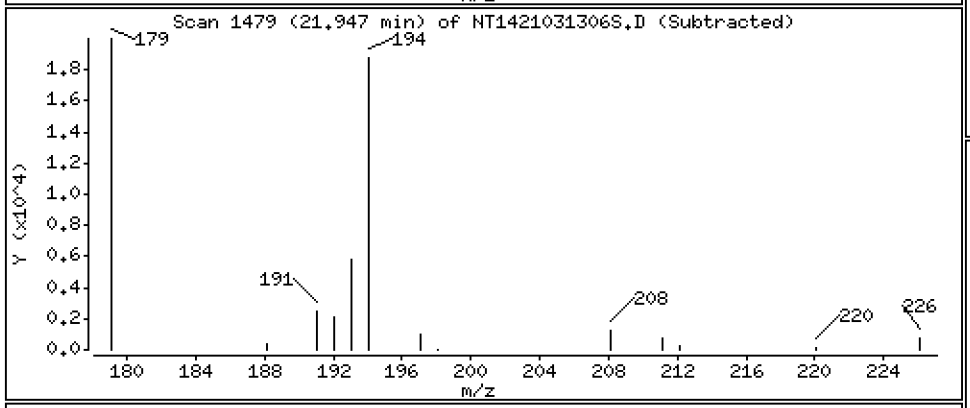
Column phase: Rxi-17Sil MS

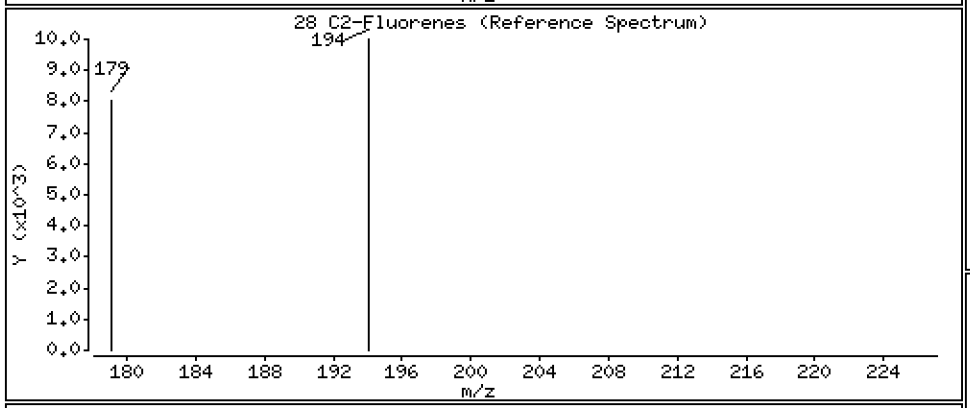
Column diameter: 0.25

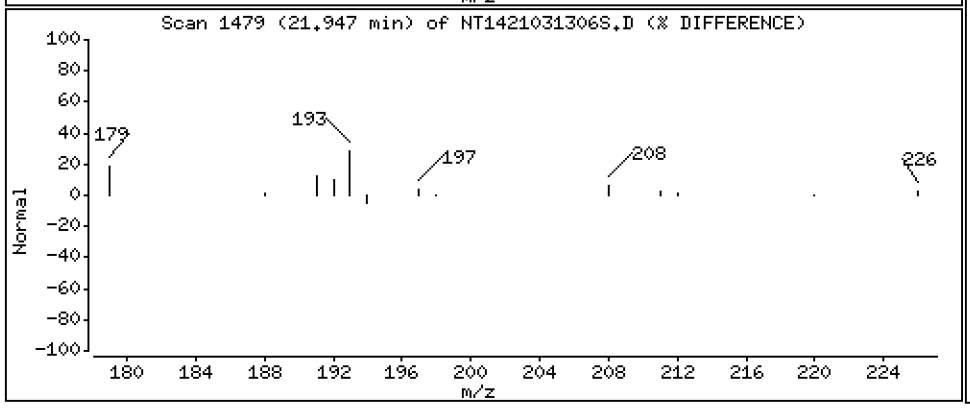
28 C2-Fluorenes

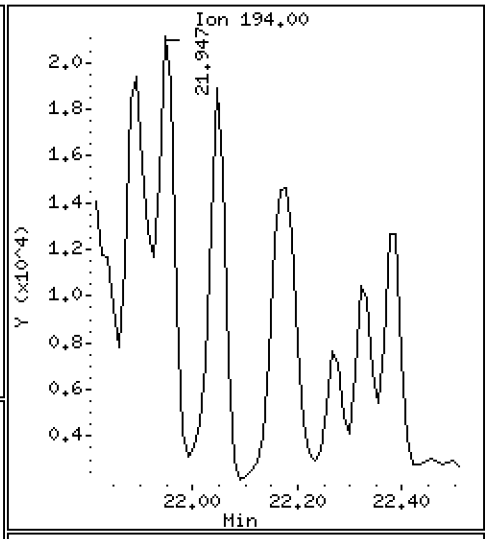
Concentration: 3.543 ug/mL

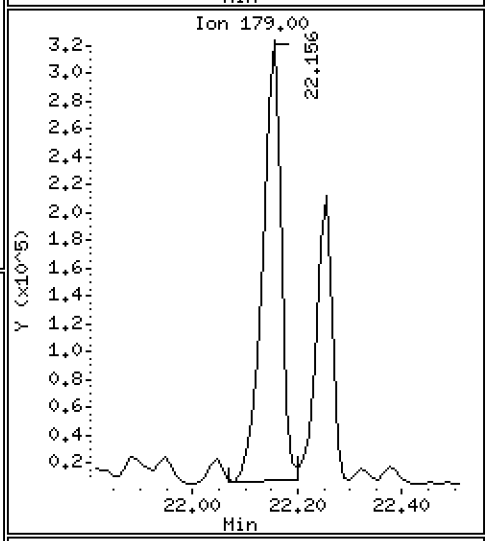


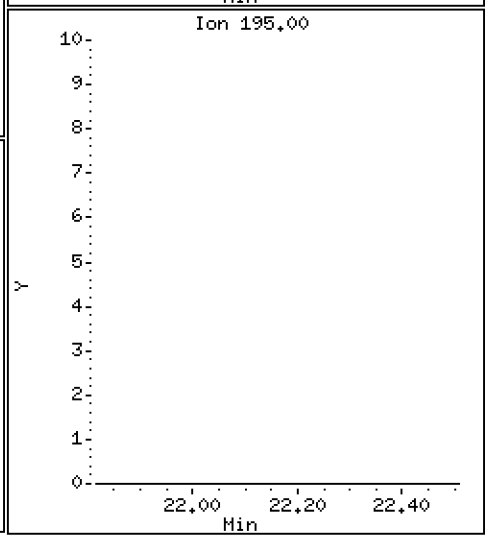












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

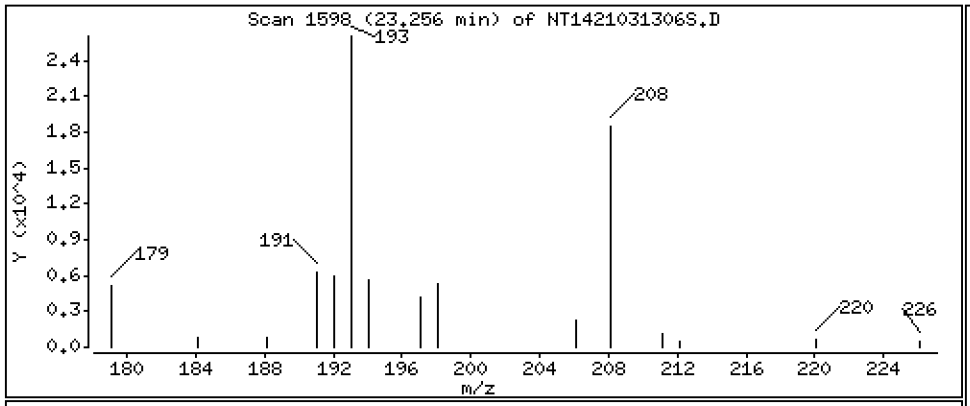
Operator: VTS

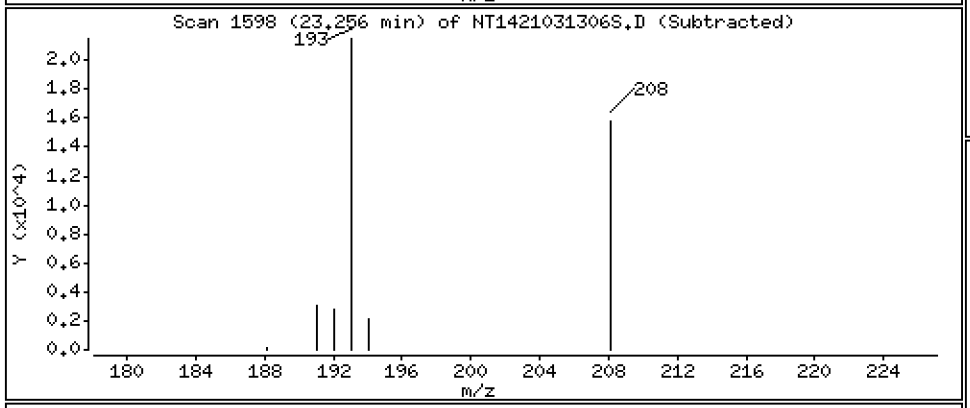
Column phase: Rxi-17Sil MS

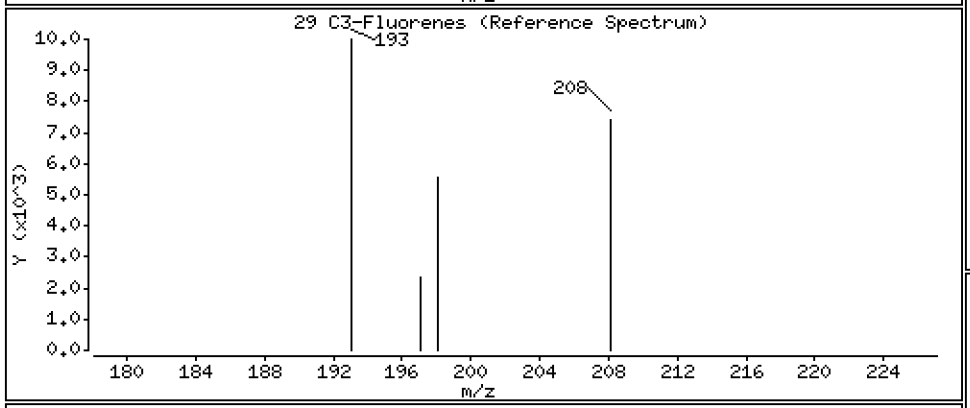
Column diameter: 0.25

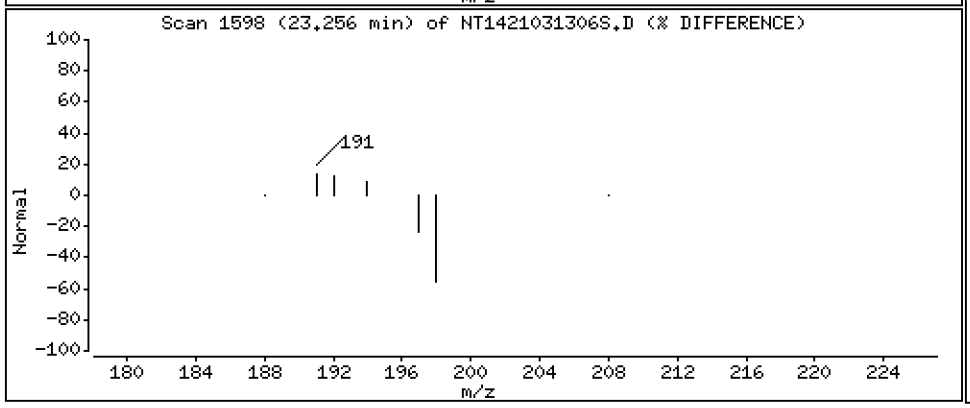
29 C3-Fluorenes

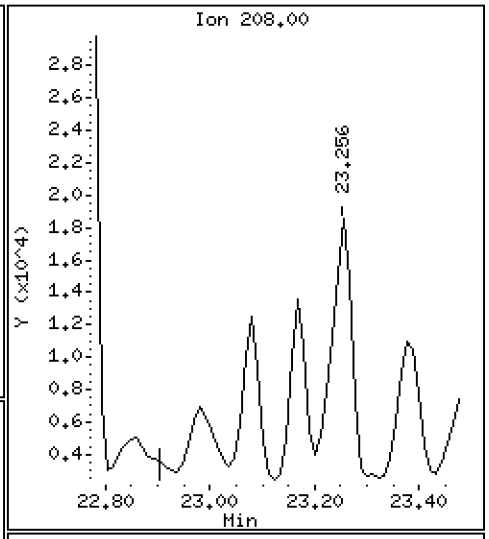
Concentration: 2.653 ug/mL

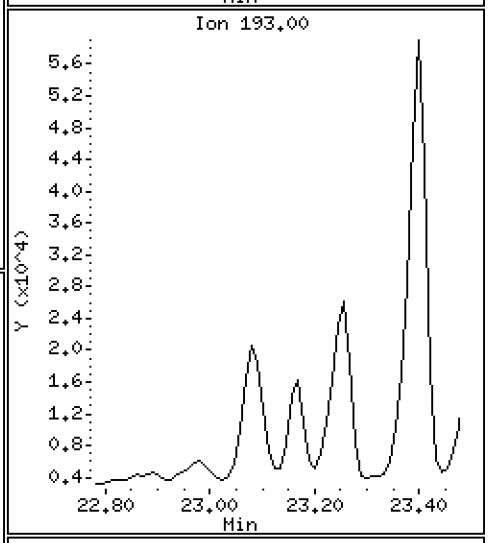


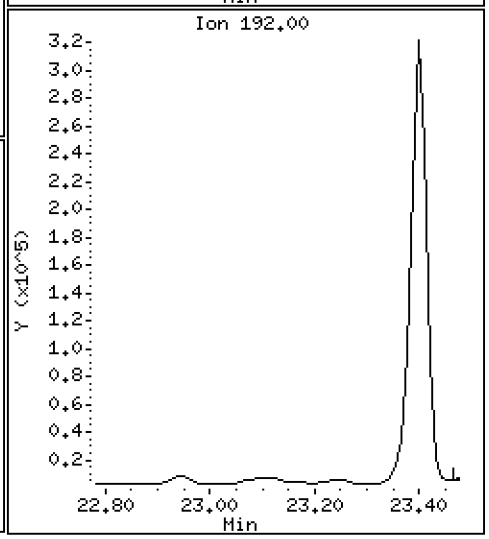












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

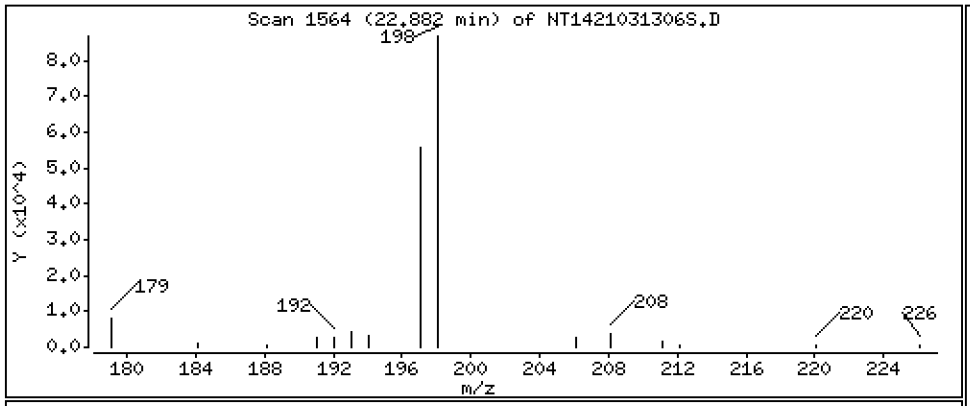
Operator: VTS

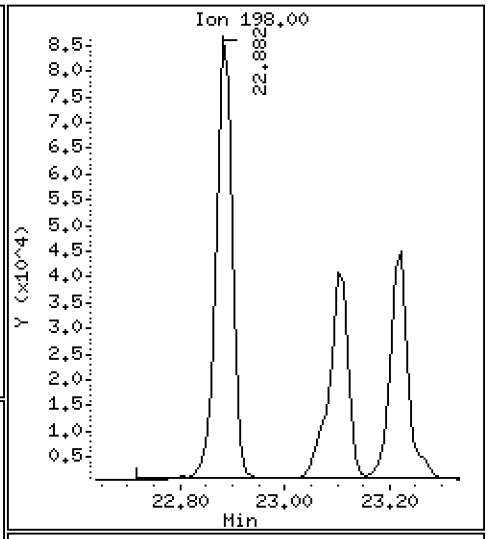
Column phase: Rxi-17Sil MS

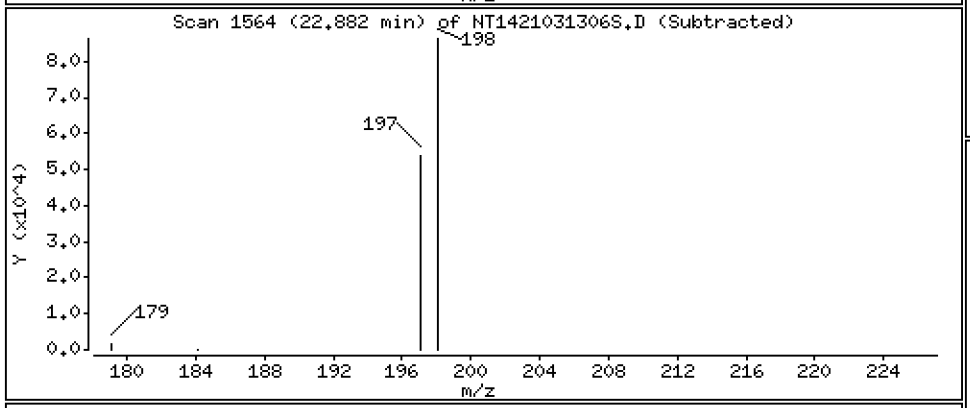
Column diameter: 0.25

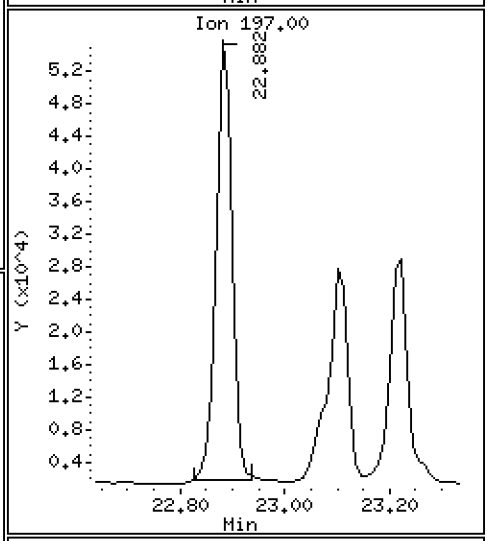
31 C1-Dibenzothiophenes

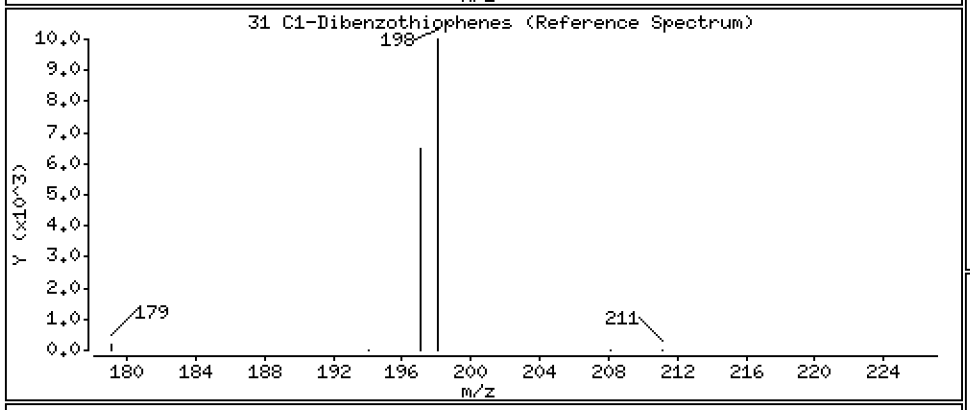
Concentration: 2.876 ug/mL

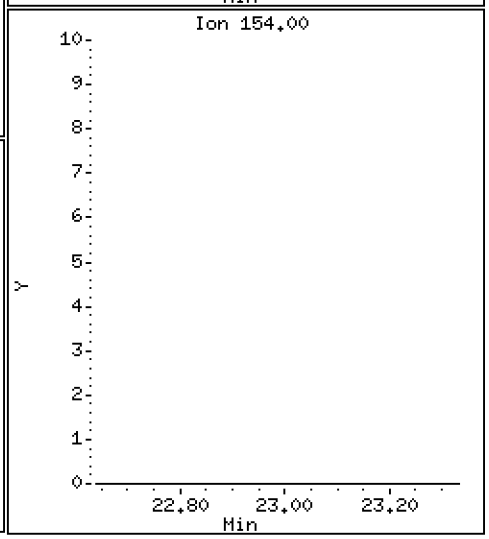


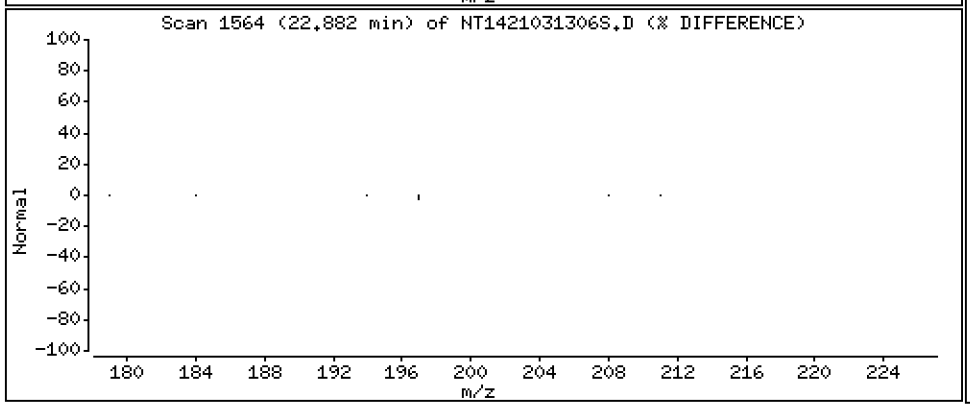












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

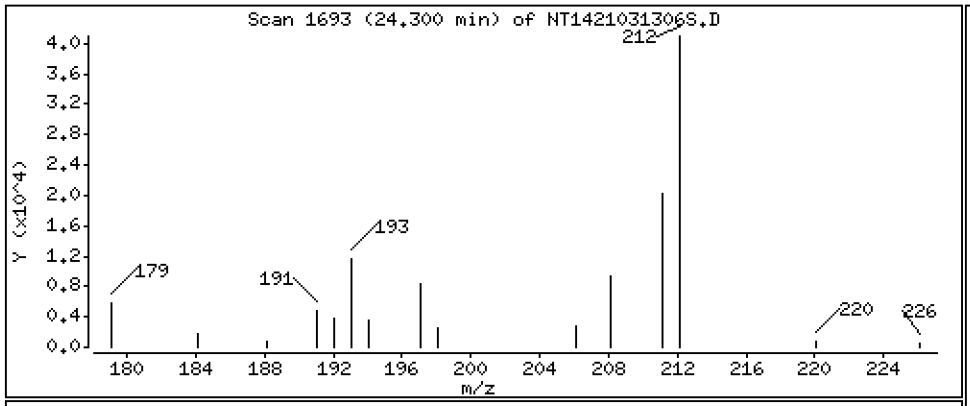
Operator: VTS

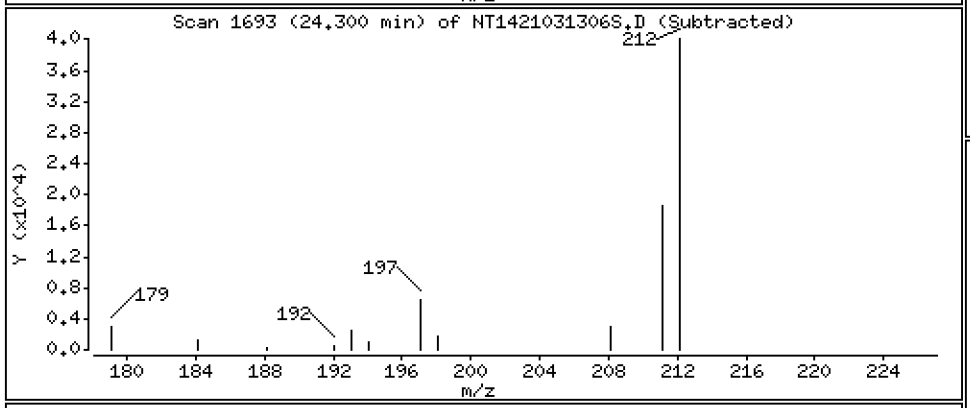
Column phase: Rxi-17Sil MS

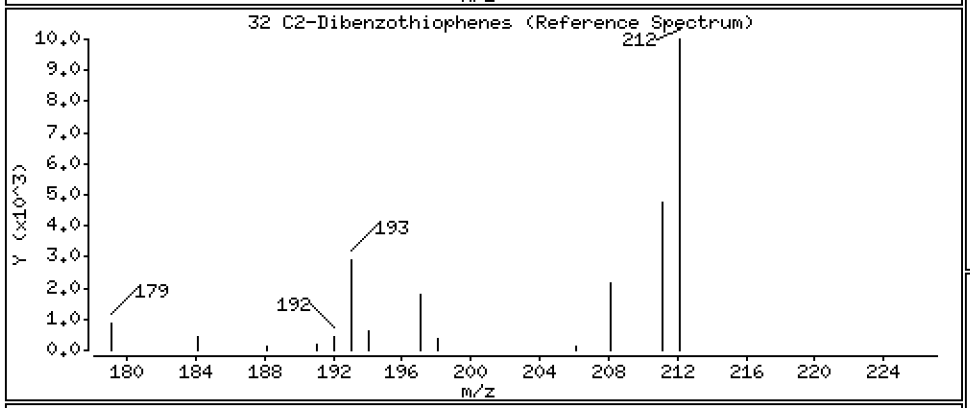
Column diameter: 0.25

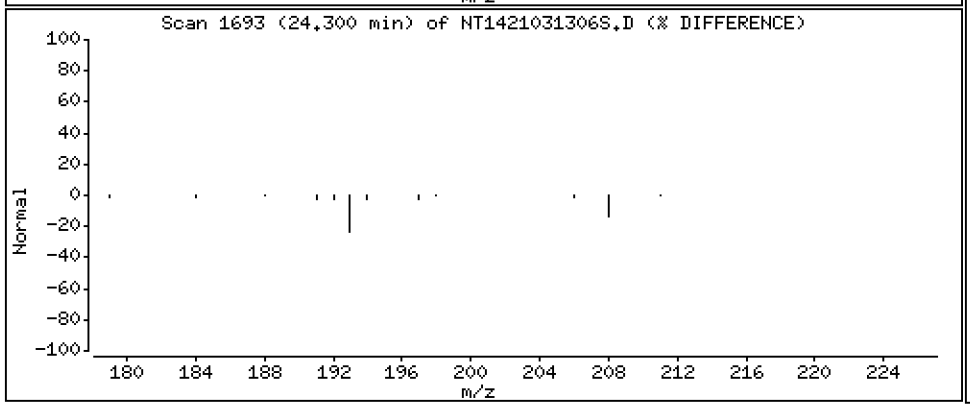
32 C2-Dibenzothiophenes

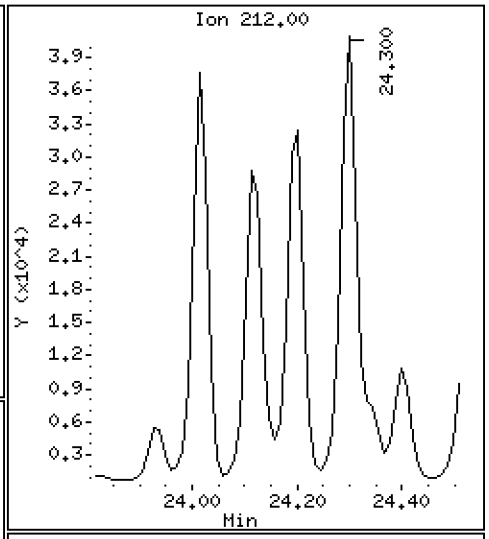
Concentration: 3.843 ug/mL

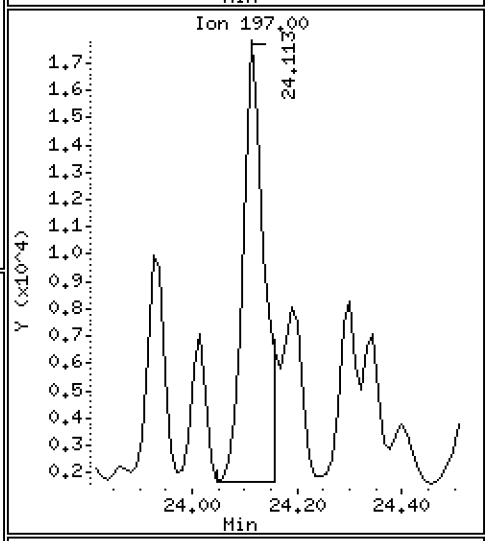


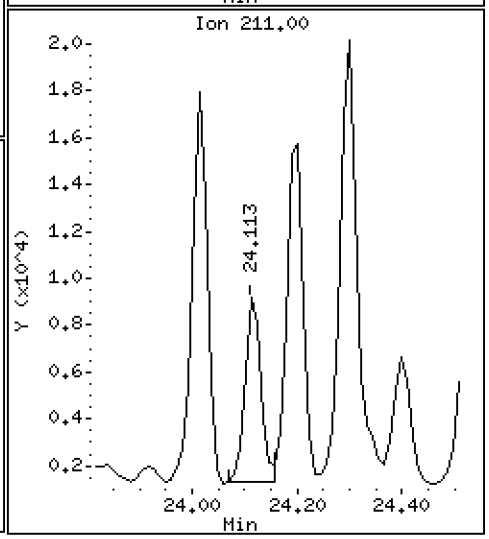












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

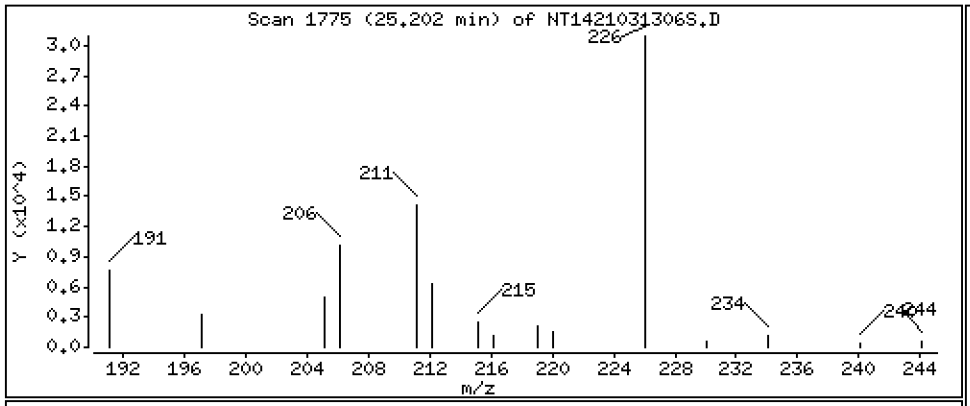
Operator: VTS

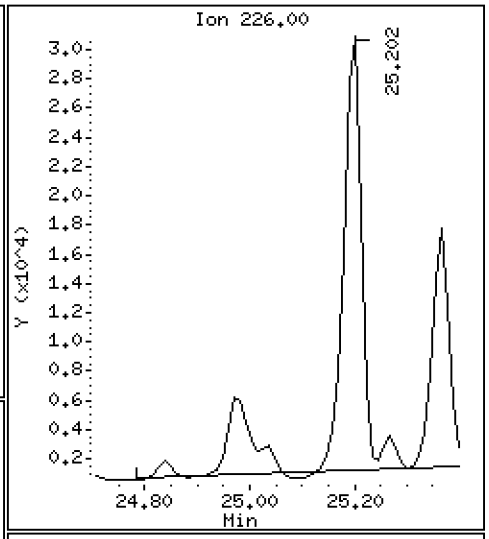
Column phase: Rxi-17Sil MS

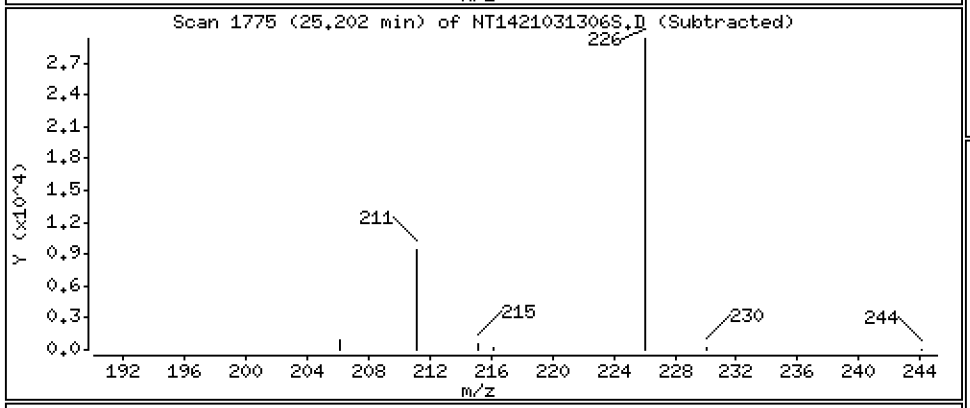
Column diameter: 0.25

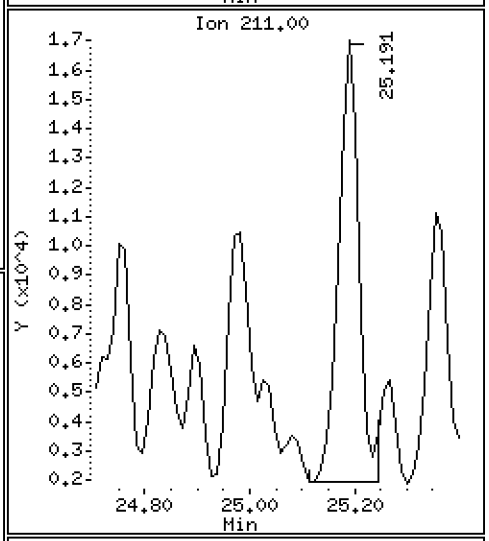
33 C3-Dibenzothiophenes

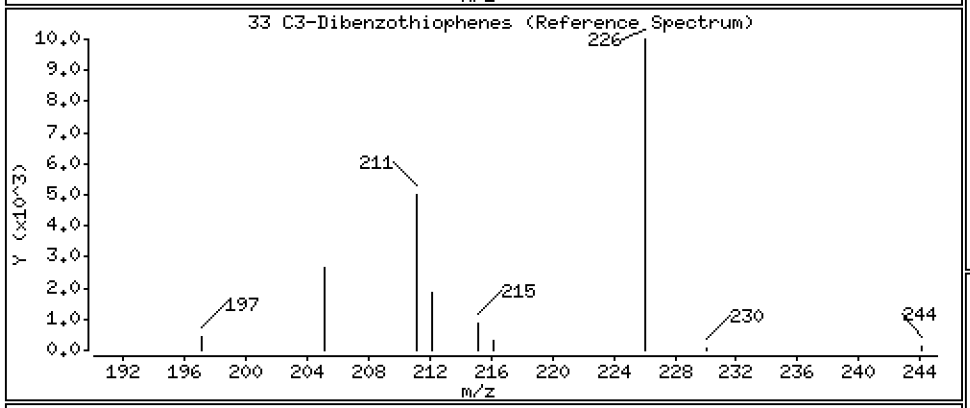
Concentration: 2.621 ug/mL

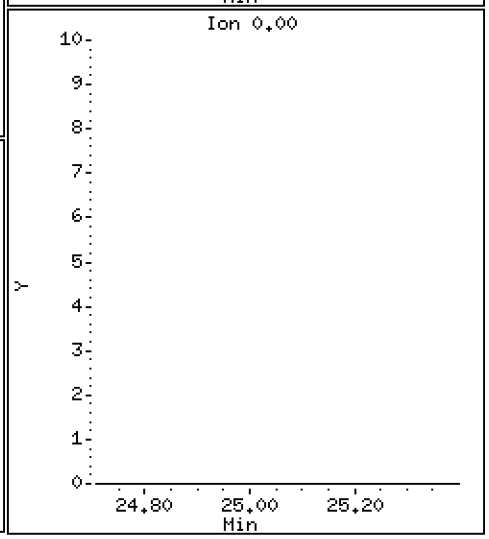


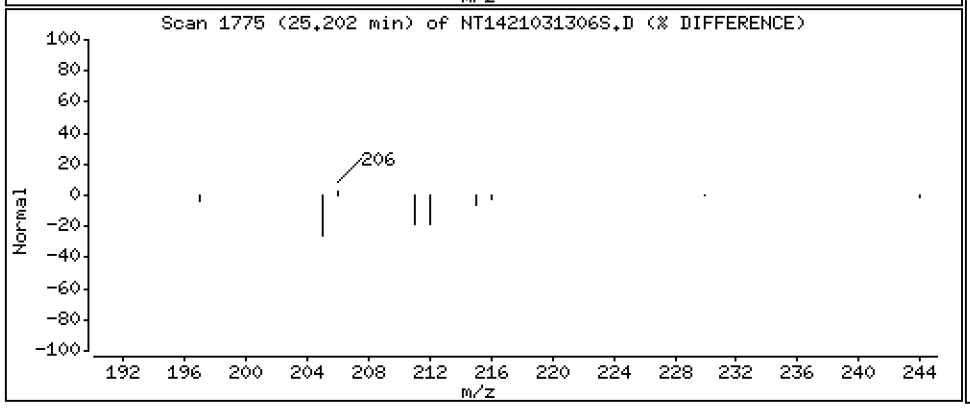












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

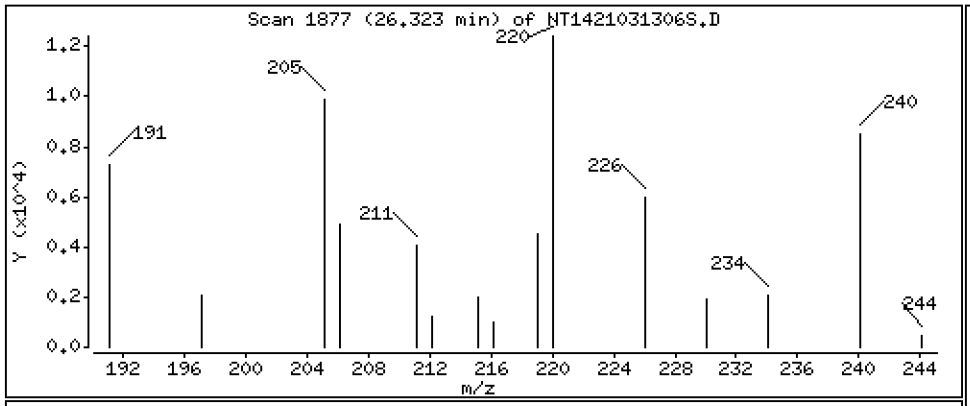
Operator: VTS

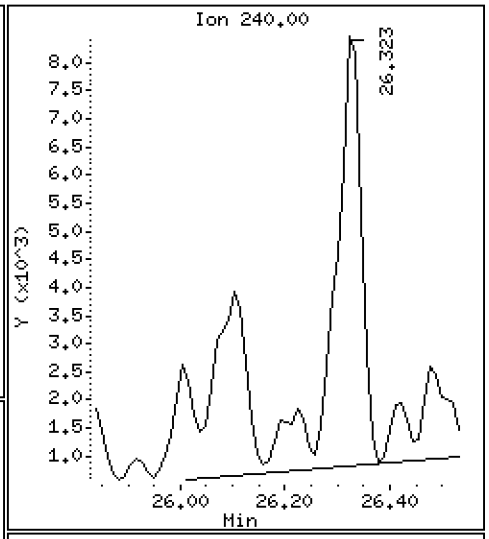
Column phase: Rxi-17Sil MS

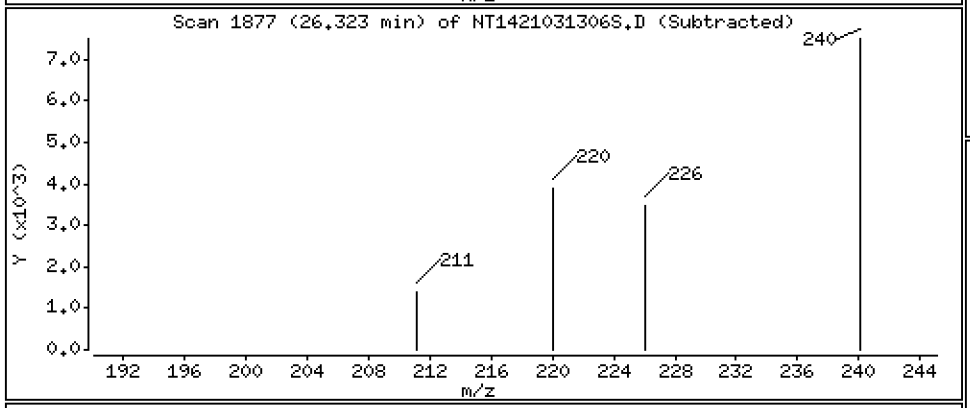
Column diameter: 0.25

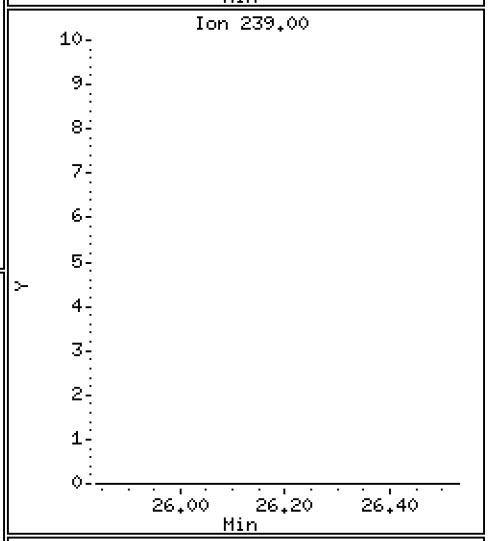
34 C4-Dibenzothiophenes

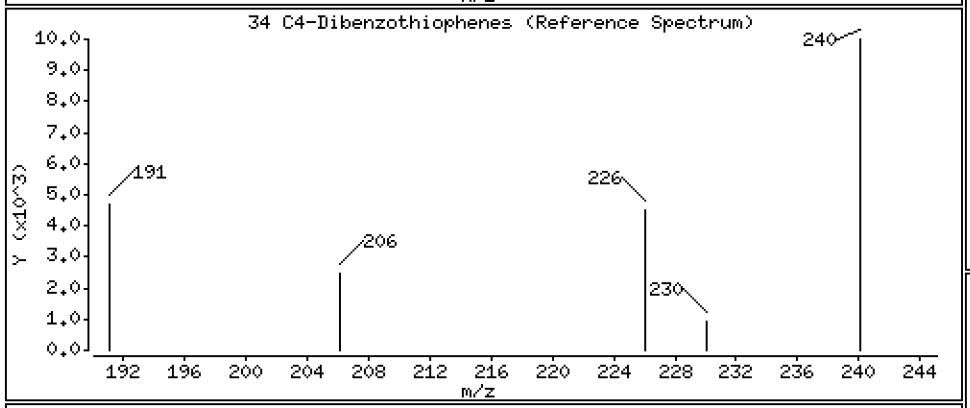
Concentration: 1.369 ug/mL

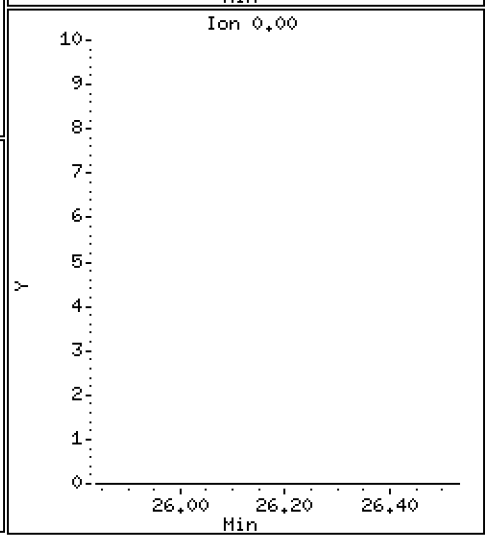


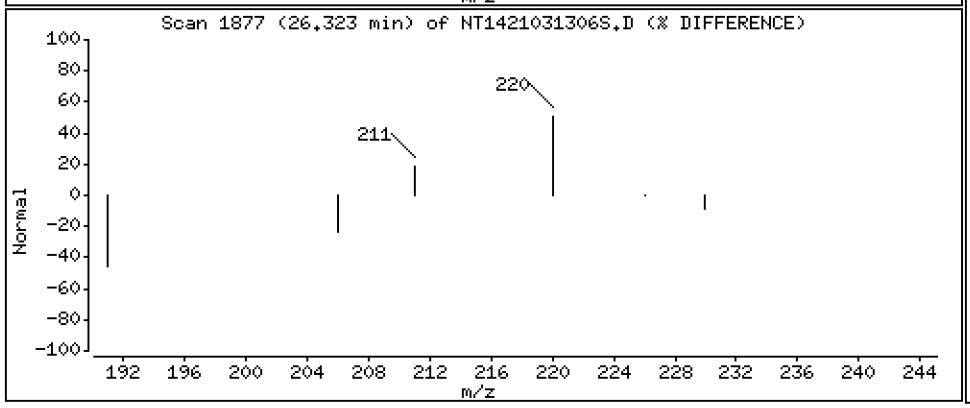












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Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

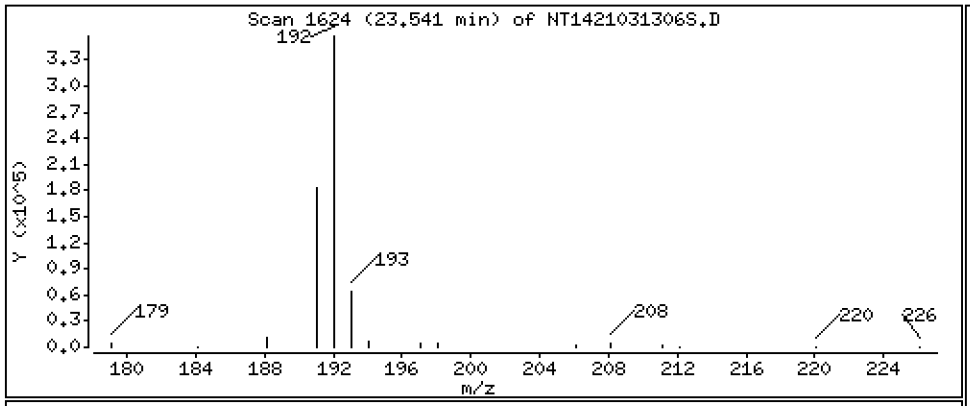
Operator: VTS

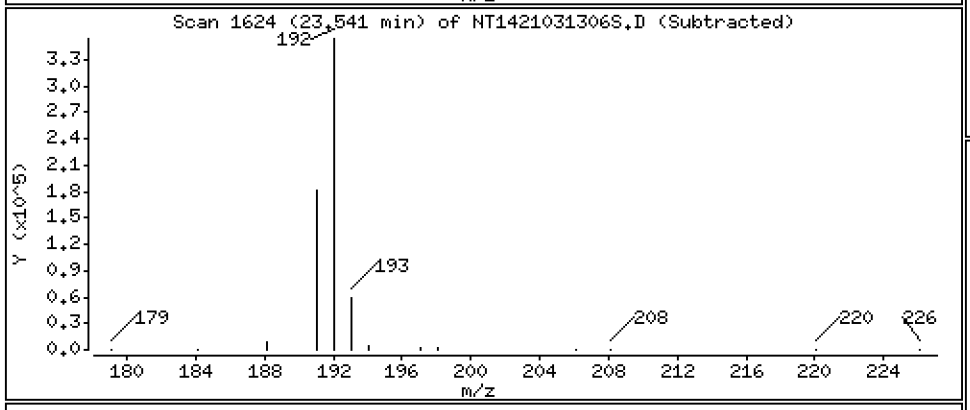
Column phase: Rxi-17Sil MS

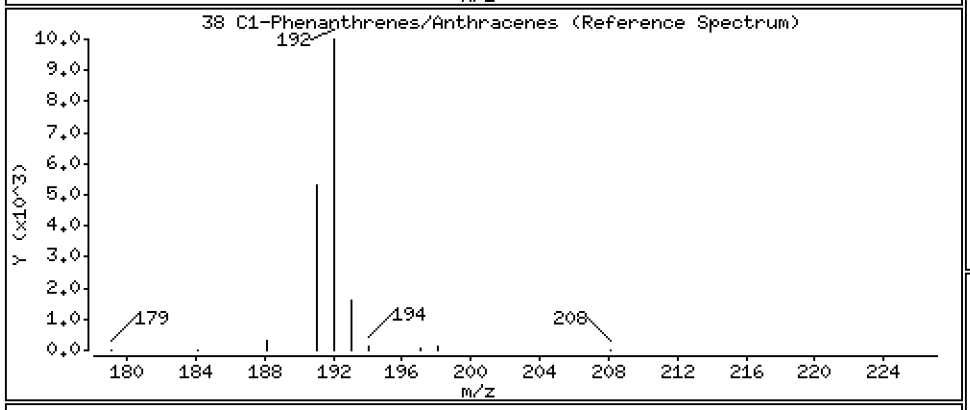
Column diameter: 0.25

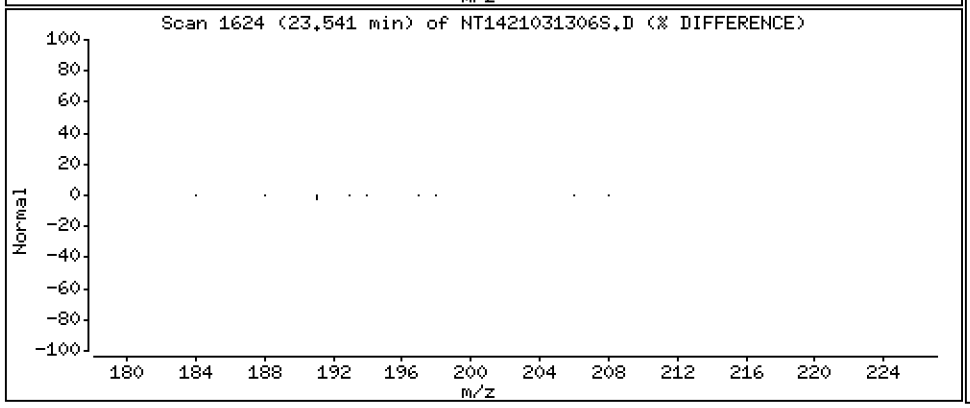
38 C1-Phenanthrenes/Anthracenes

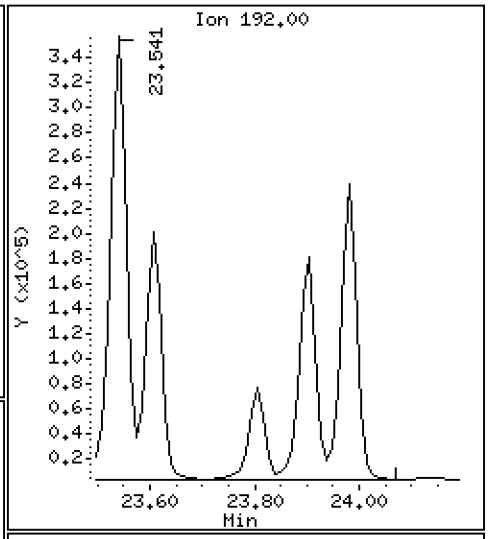
Concentration: 11.92 ug/mL

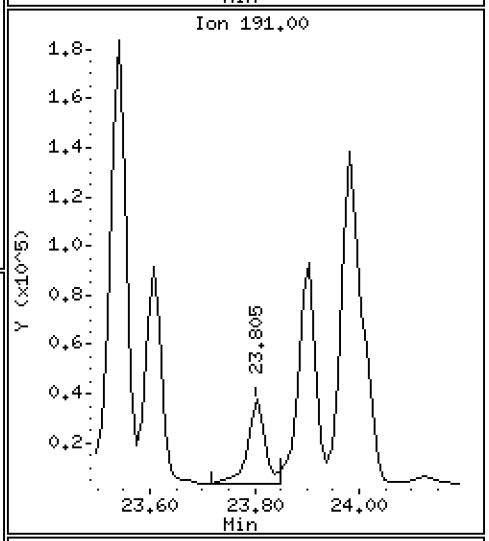


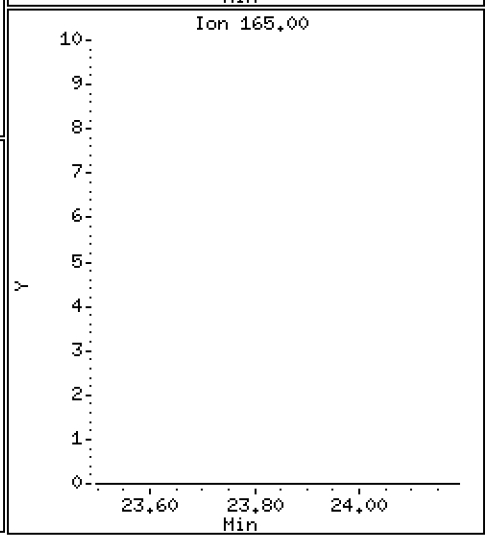












Data File: \\target\share\chem3\nt14.i\20210313.b\SIM.b\NT1421031306S.D

Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

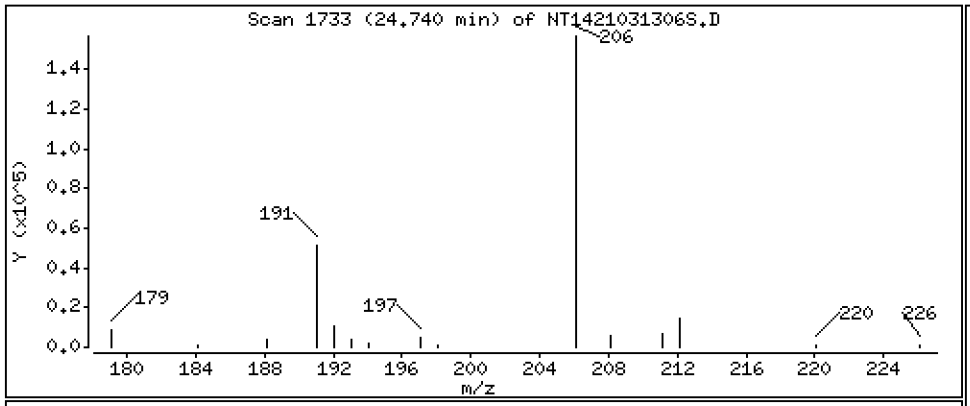
Operator: VTS

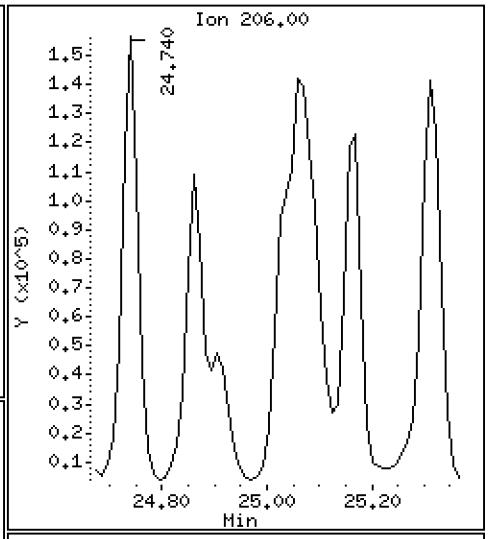
Column phase: Rxi-17Sil MS

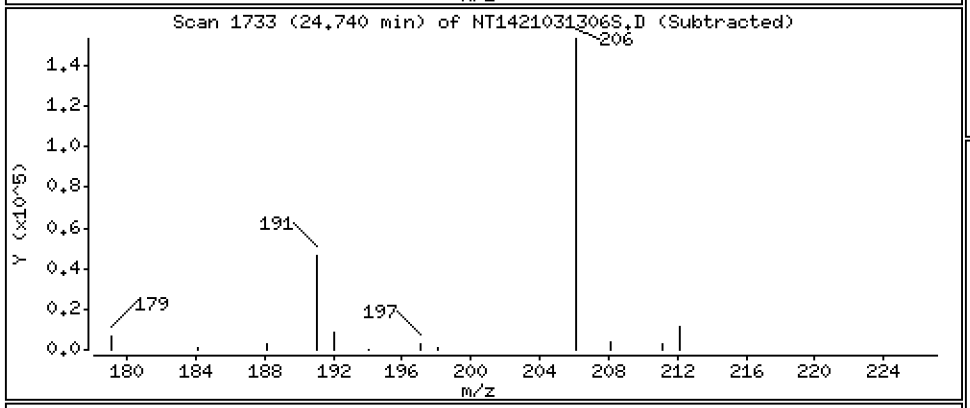
Column diameter: 0.25

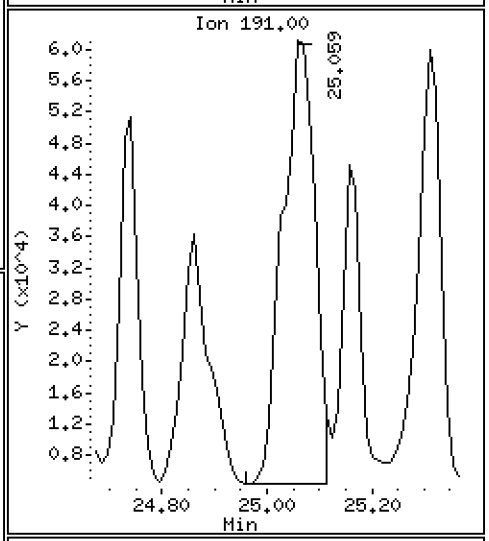
39 C2-Phenanthrenes/Anthracenes

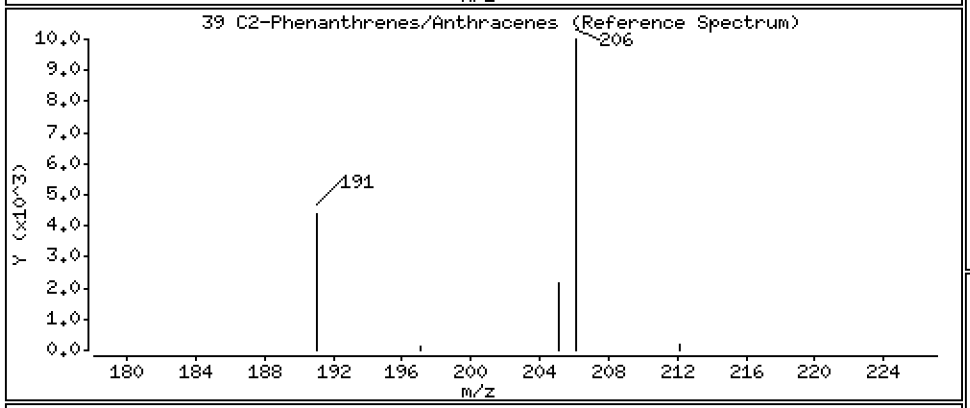
Concentration: 10.92 ug/mL

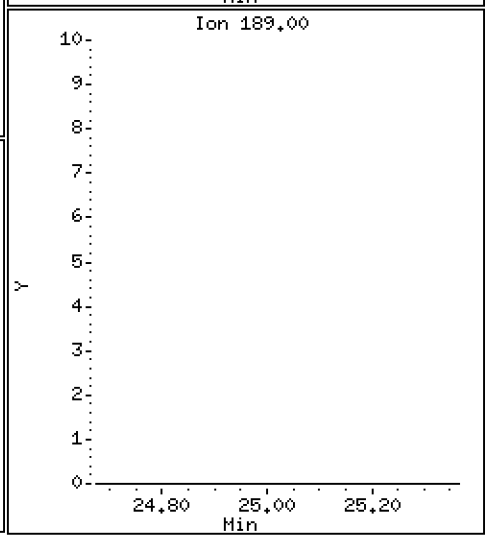


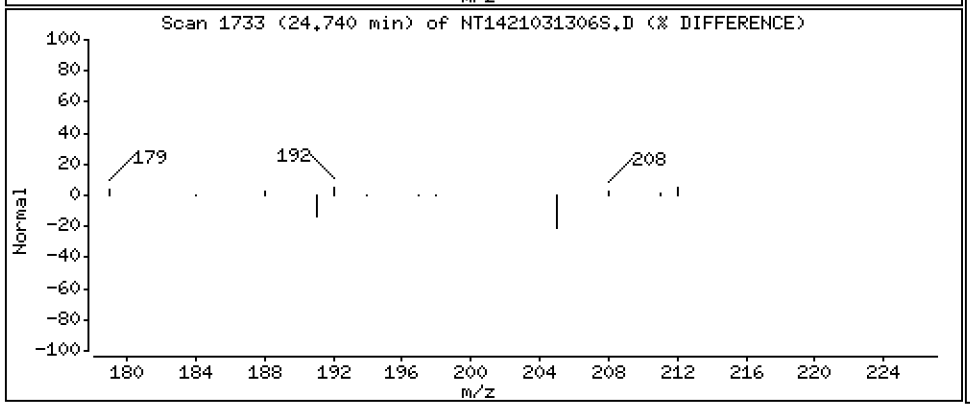












Data File: \\target\share\chem3\nt14.i\20210313.b\SIM.b\NT1421031306S.D

Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

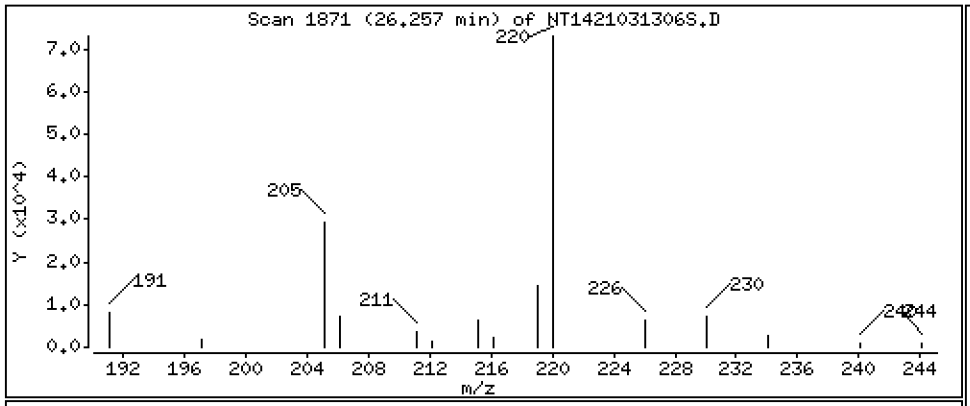
Operator: VTS

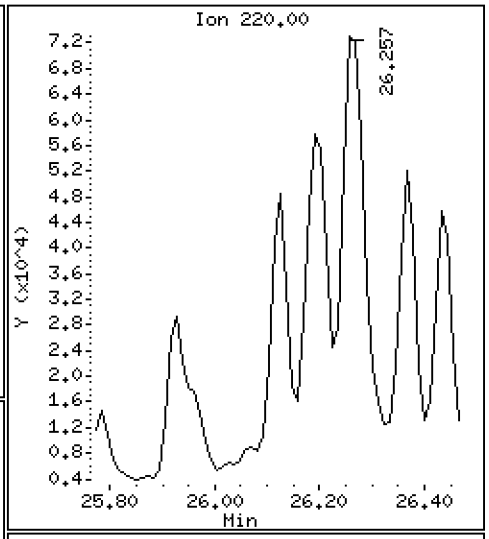
Column phase: Rxi-17Sil MS

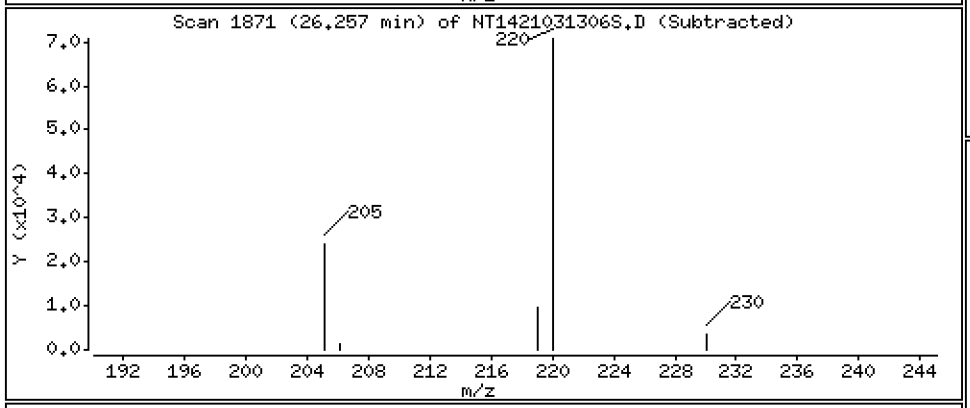
Column diameter: 0.25

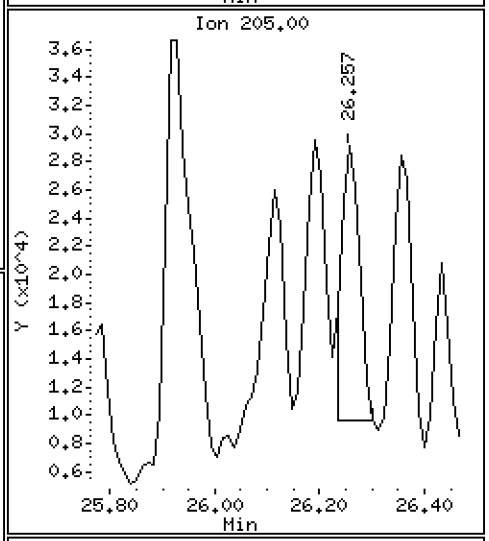
40 C3-Phenanthrenes/Anthracenes

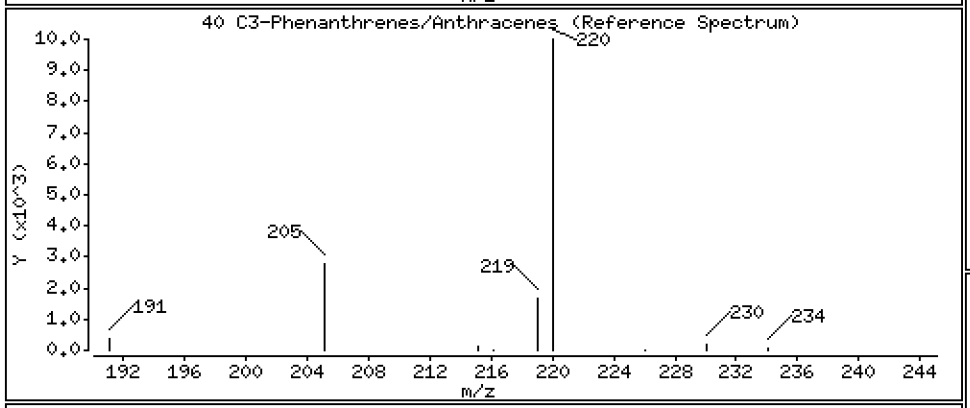
Concentration: 6.757 ug/mL

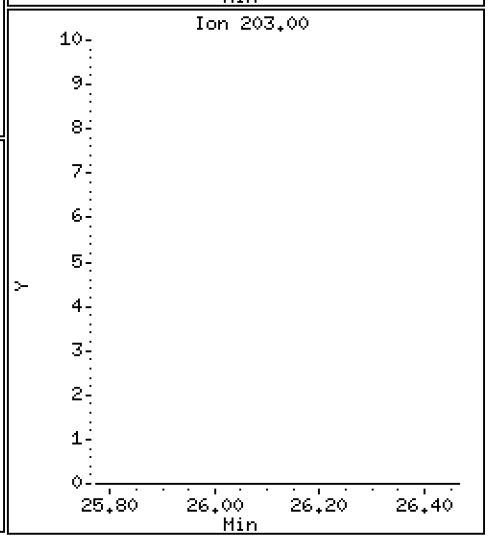


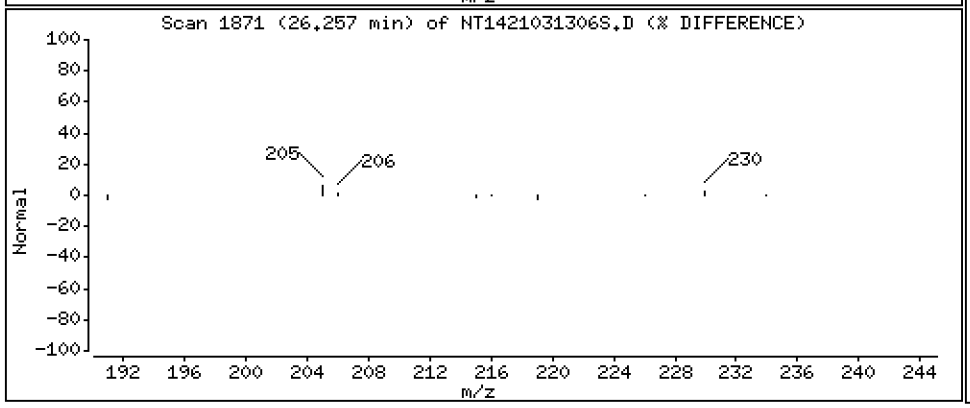












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

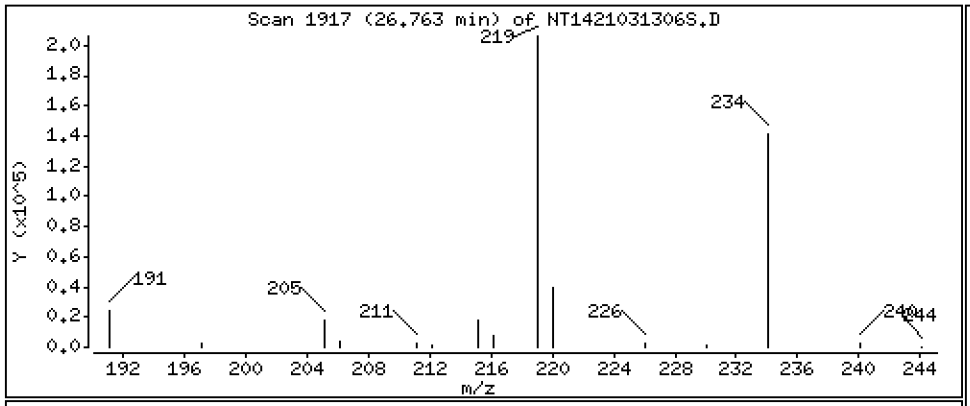
Operator: VTS

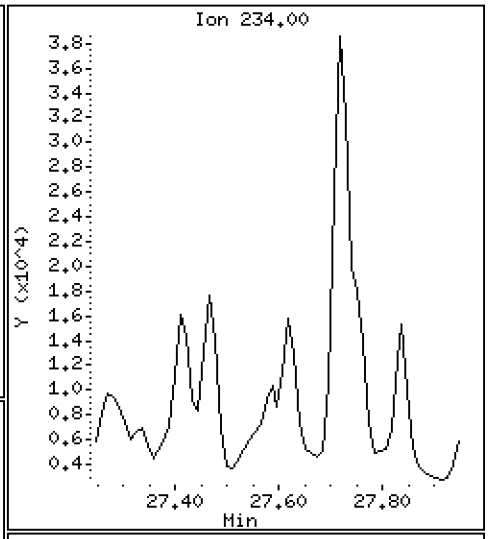
Column phase: Rxi-17Sil MS

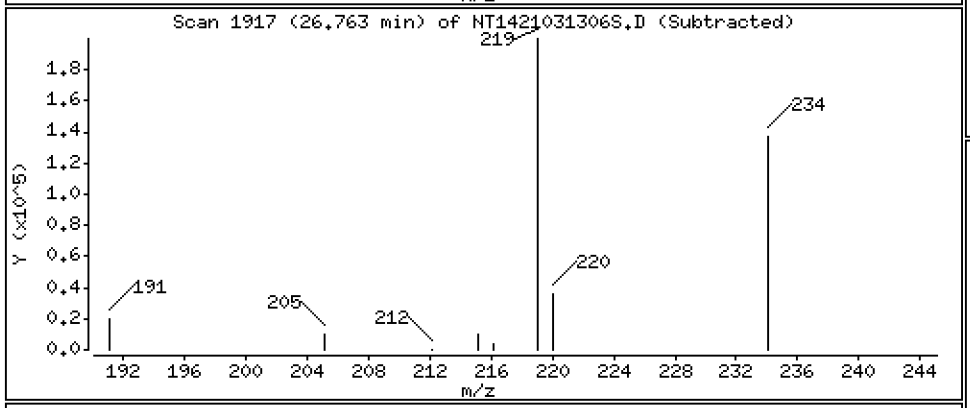
Column diameter: 0.25

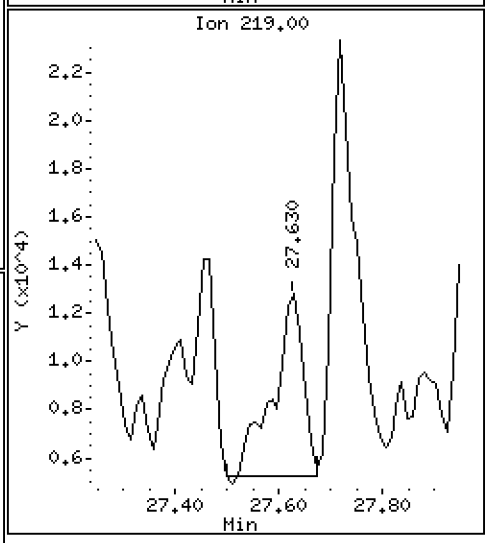
41 C4-Phenanthrenes/Anthracenes

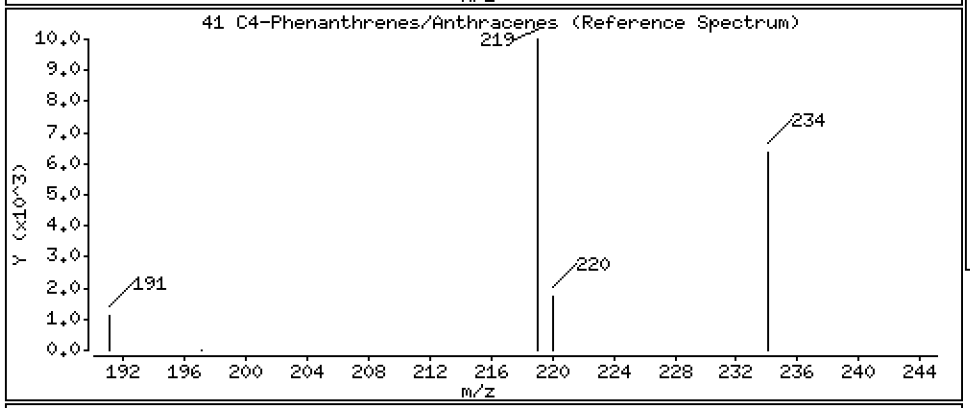
Concentration: 3.400 ug/mL

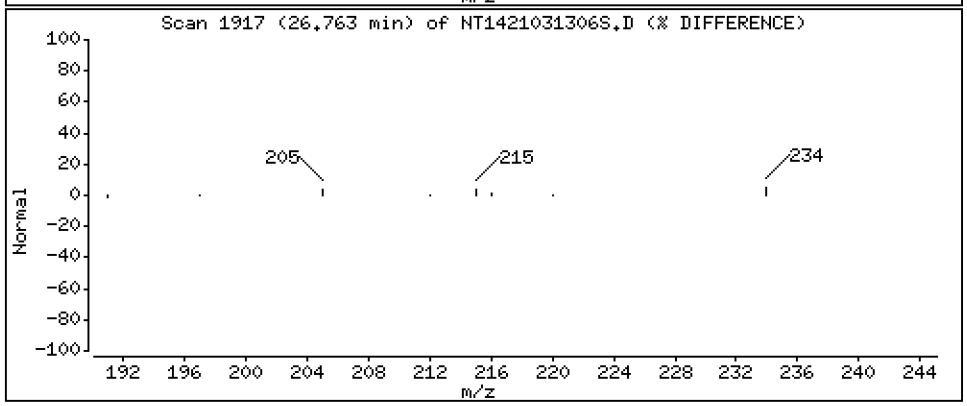












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

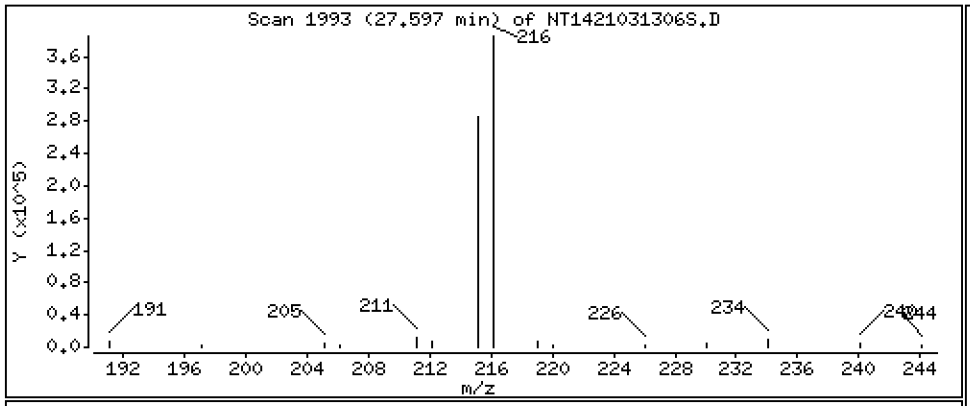
Operator: VTS

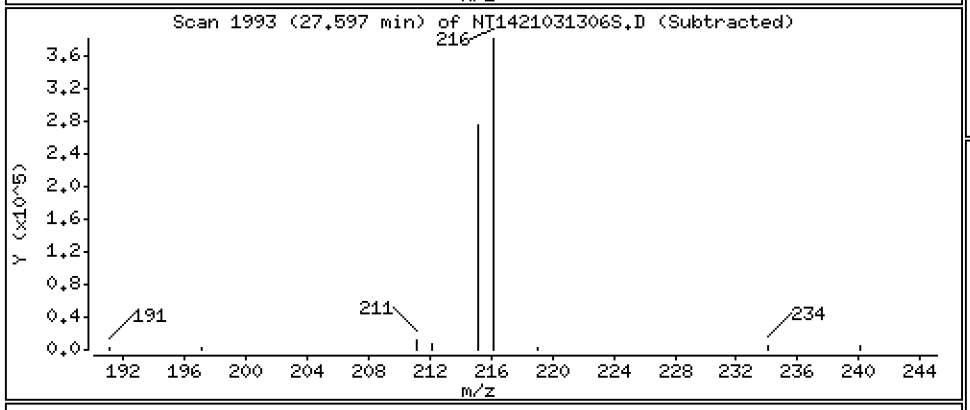
Column phase: Rxi-17Sil MS

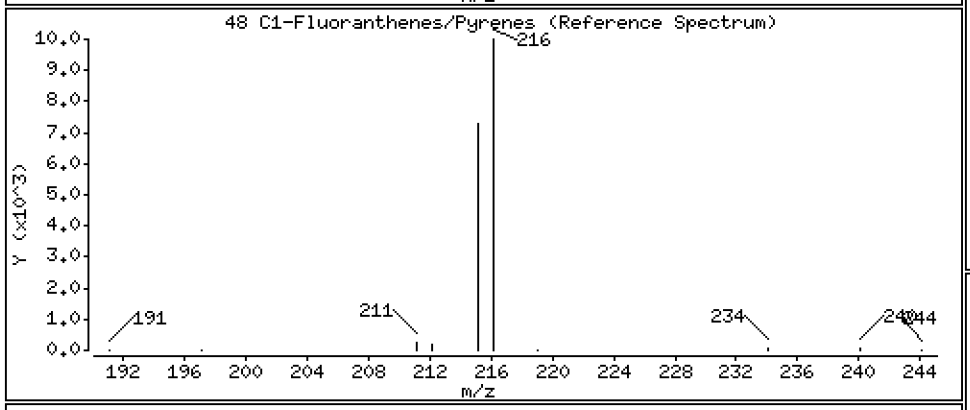
Column diameter: 0.25

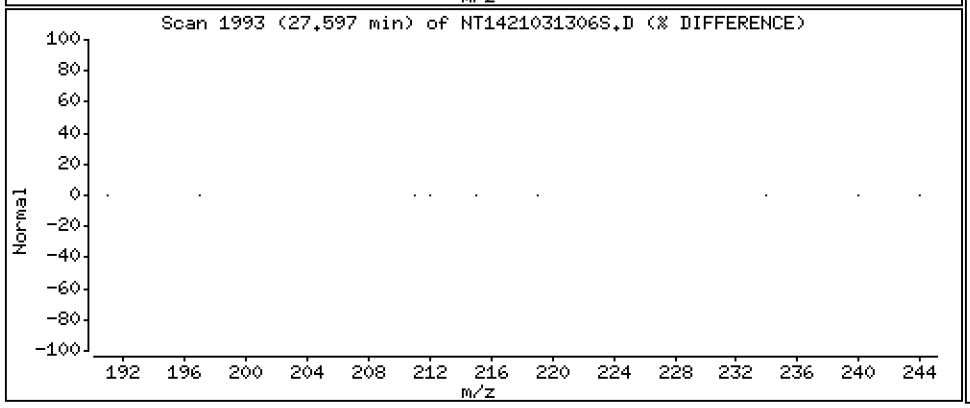
48 C1-Fluoranthenes/Pyrenes

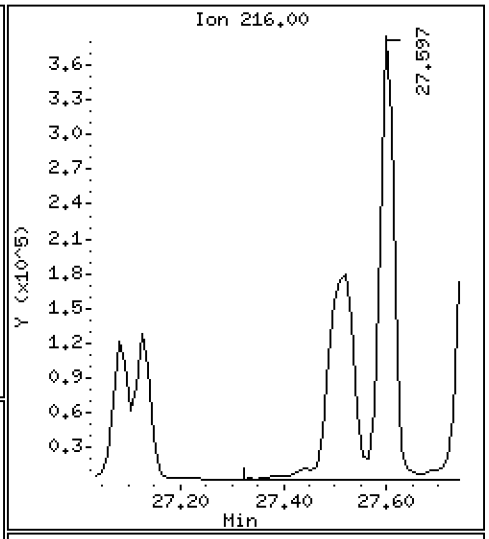
Concentration: 14.77 ug/mL

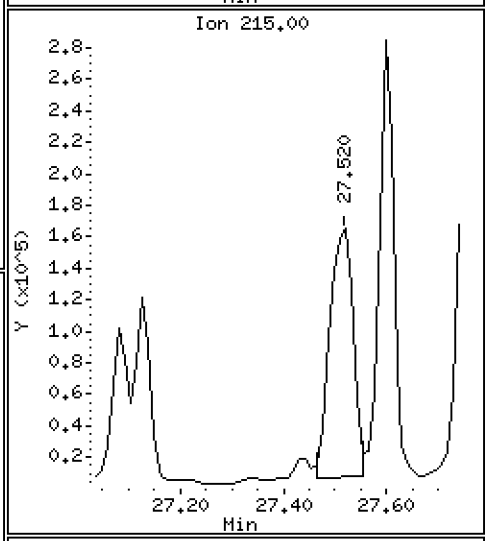


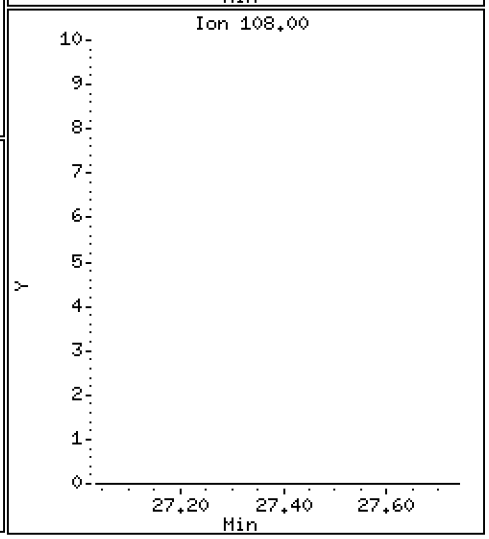












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

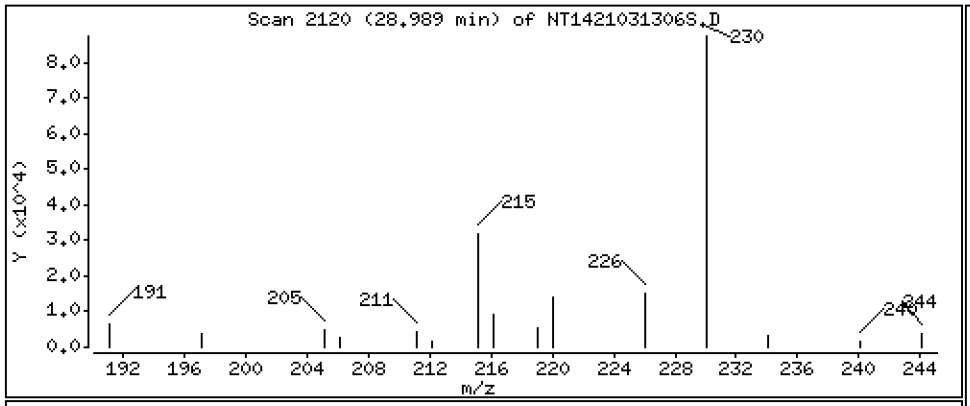
Operator: VTS

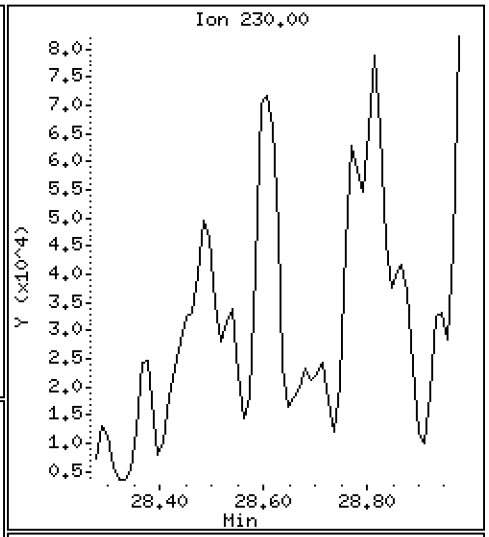
Column phase: Rxi-17Sil MS

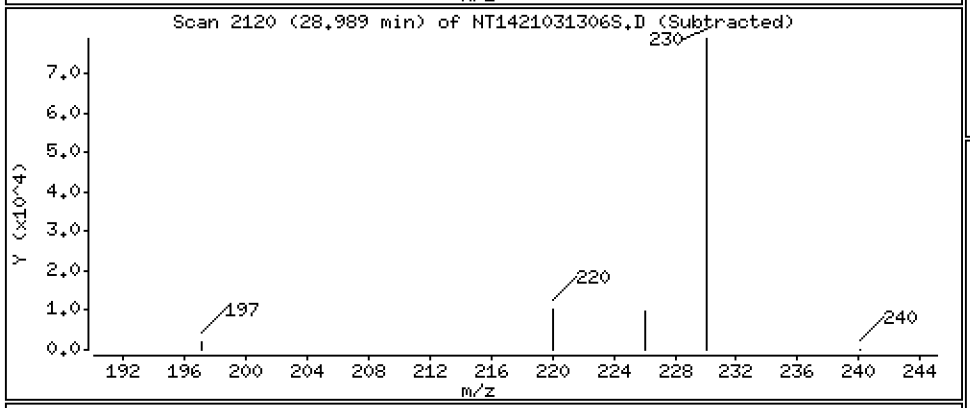
Column diameter: 0.25

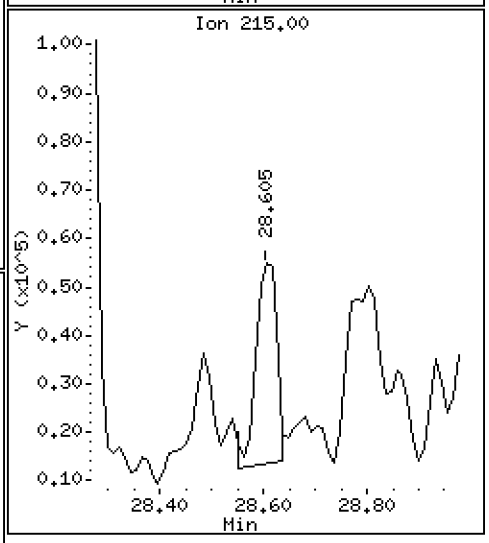
49 C2-Fluoranthenes/Pyrenes

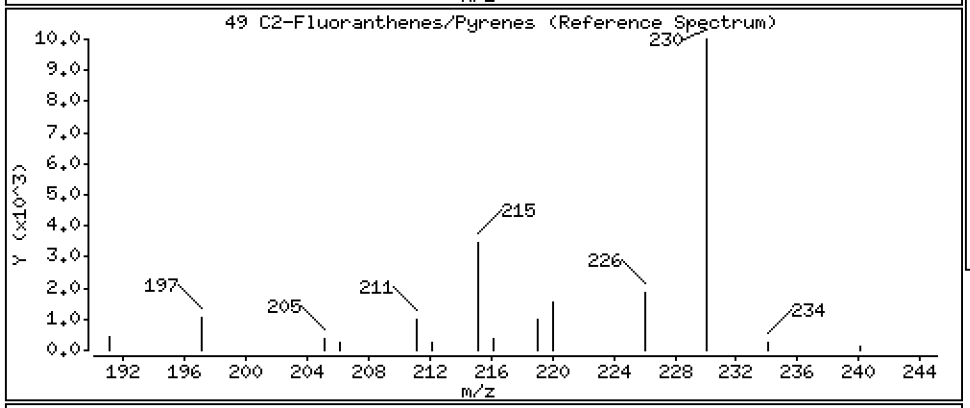
Concentration: 8.122 ug/mL

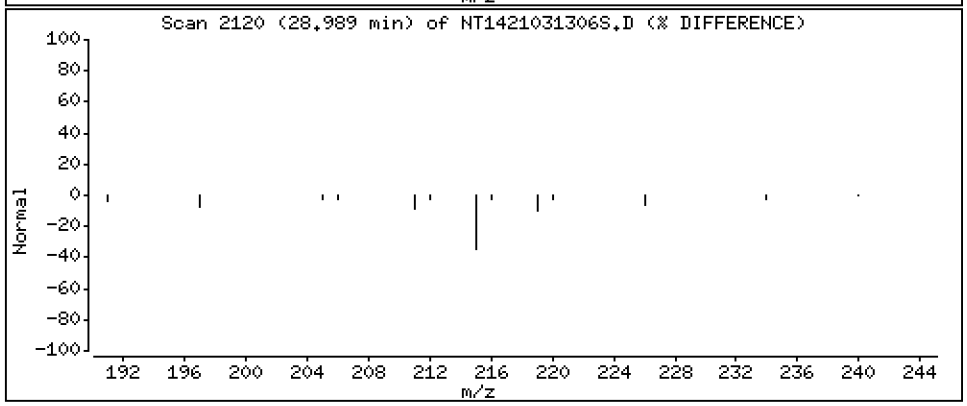












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

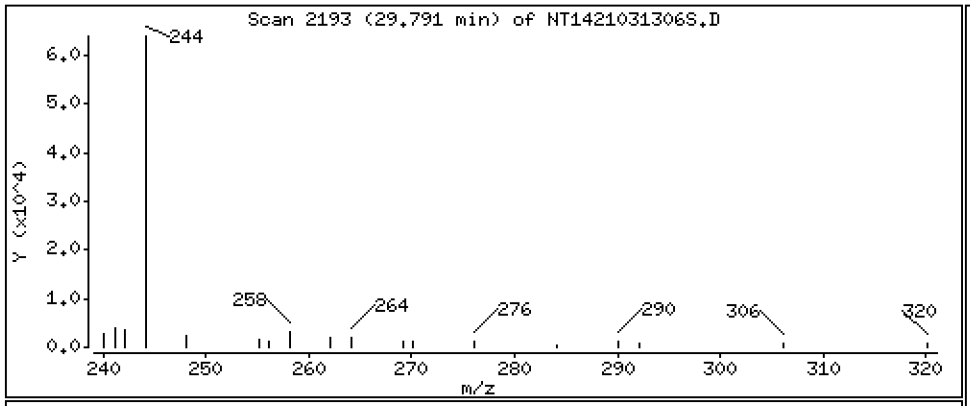
Operator: VTS

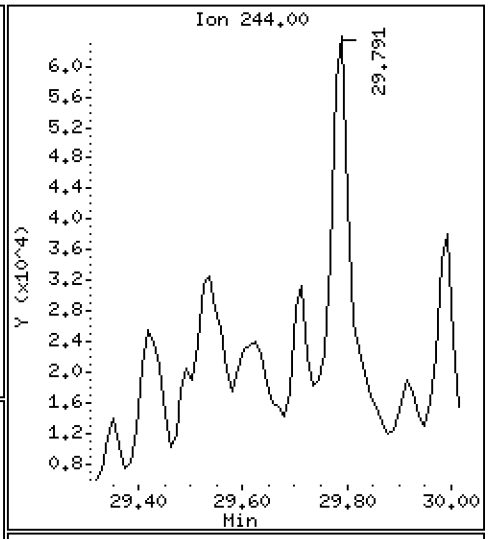
Column phase: Rxi-17Sil MS

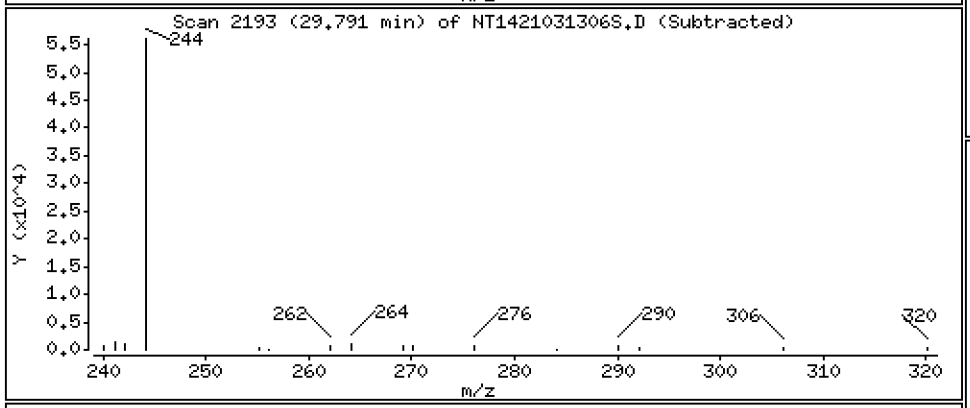
Column diameter: 0.25

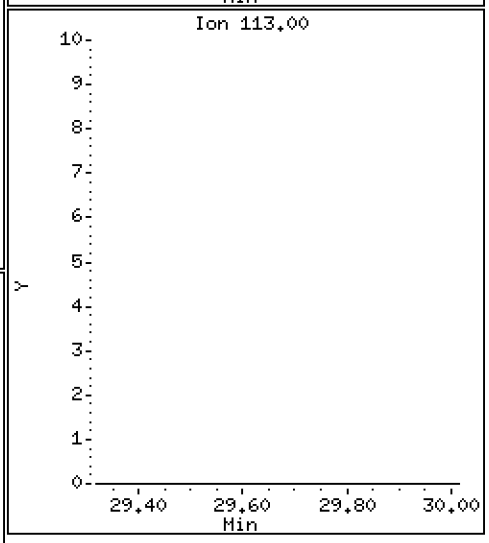
50 C3-Fluoranthenes/Pyrenes

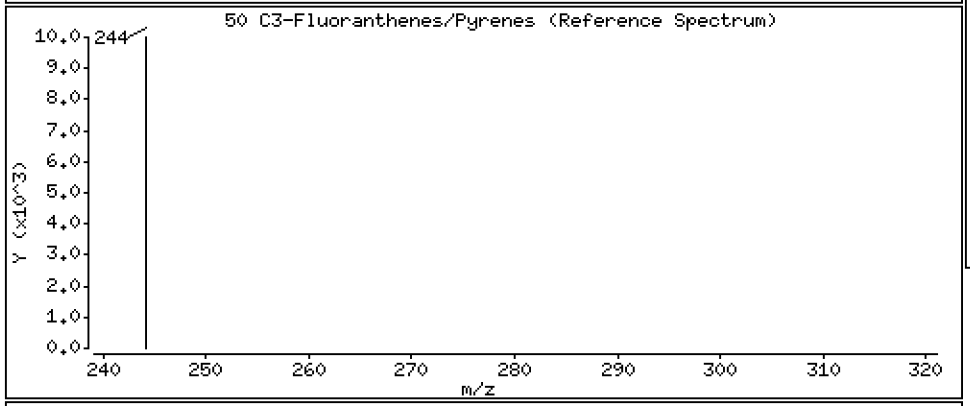
Concentration: 4.139 ug/mL

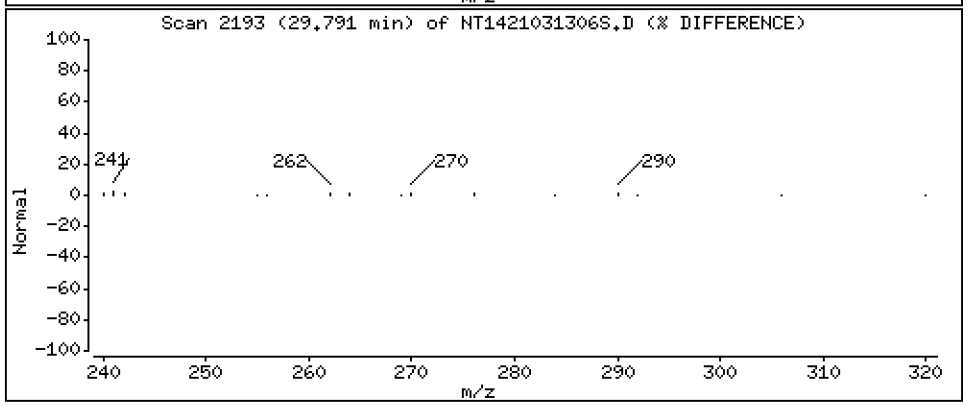












Data File: \\target\share\chem3\nt14.i\20210313.b\SIM.b\NT1421031306S.D

Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

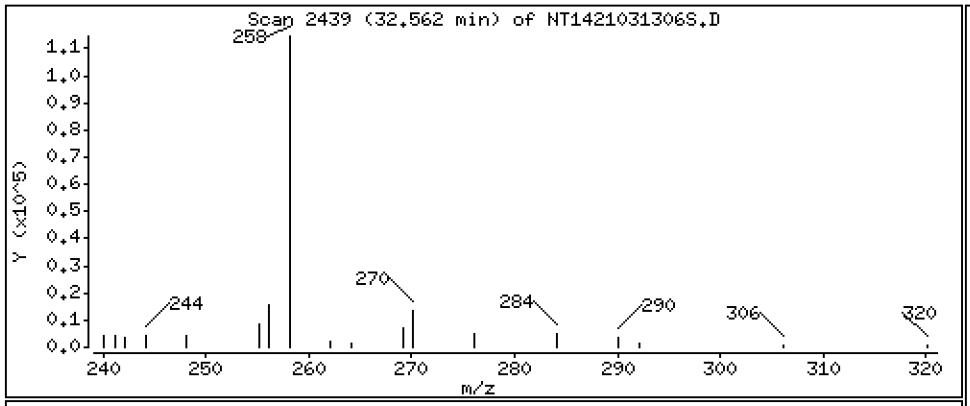
Operator: VTS

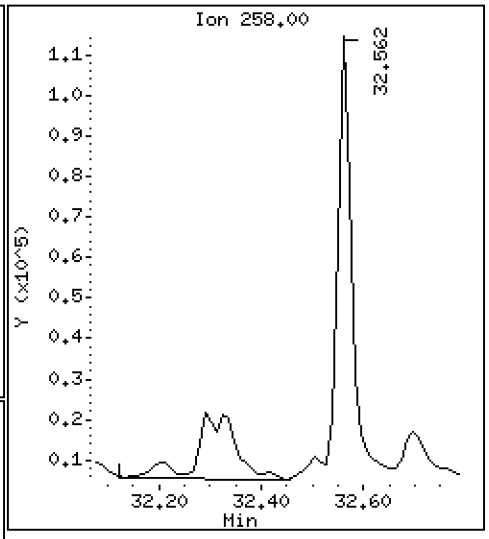
Column phase: Rxi-17Sil MS

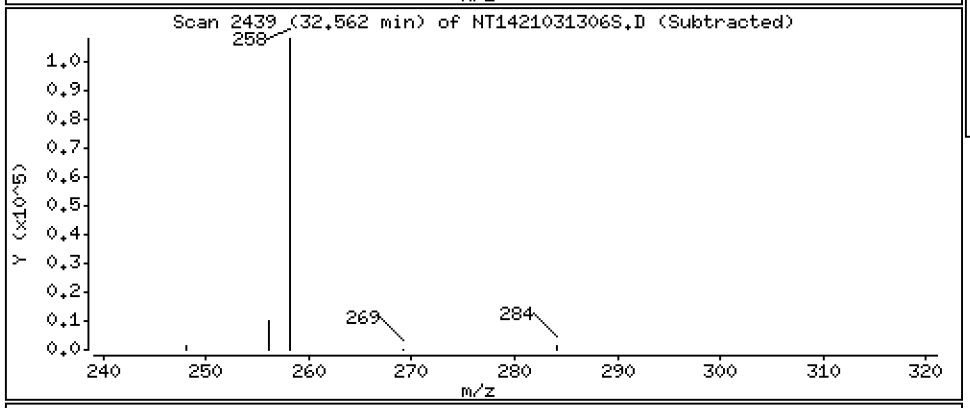
Column diameter: 0.25

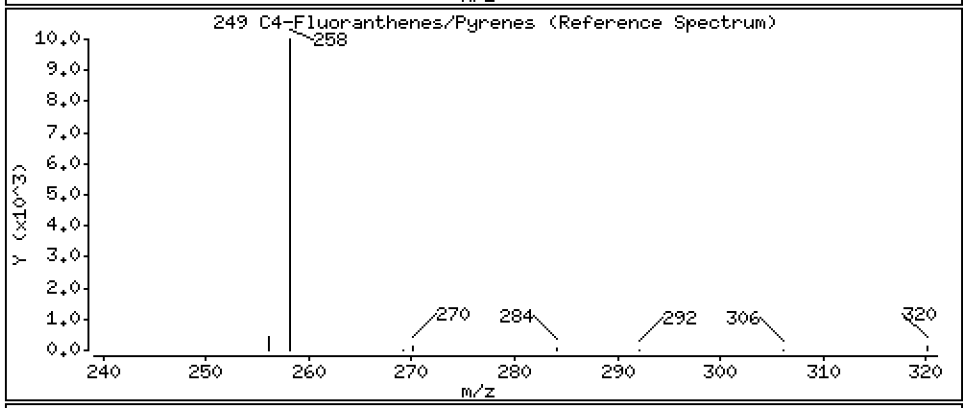
249 C4-Fluoranthenes/Pyrenes

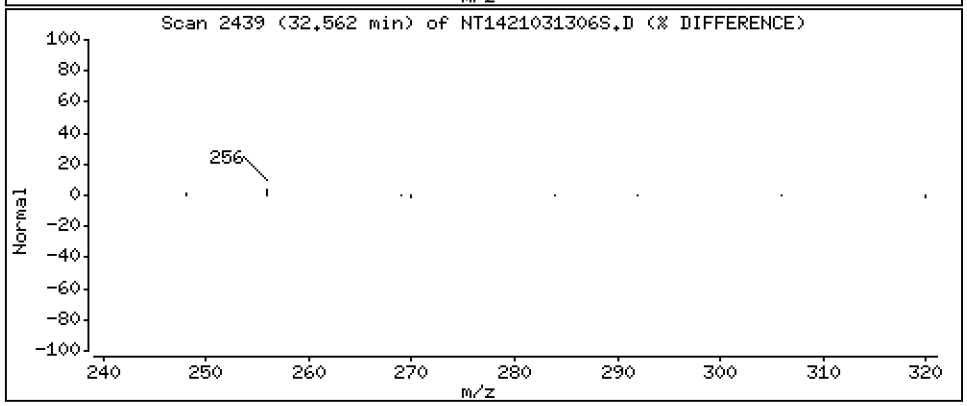
Concentration: 3.202 ug/mL











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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

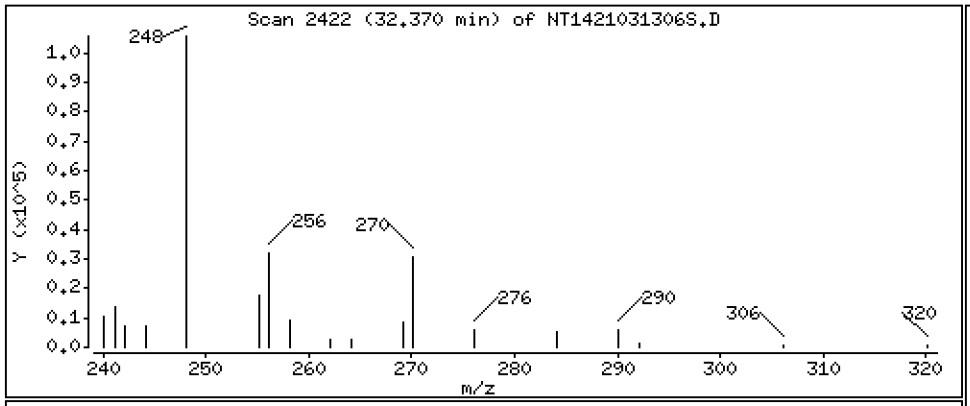
Operator: VTS

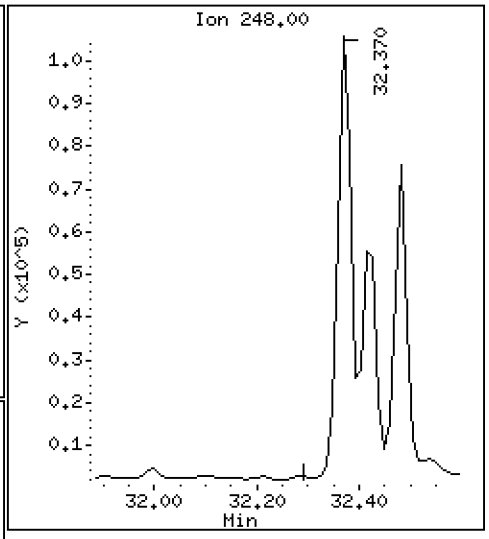
Column phase: Rxi-17Sil MS

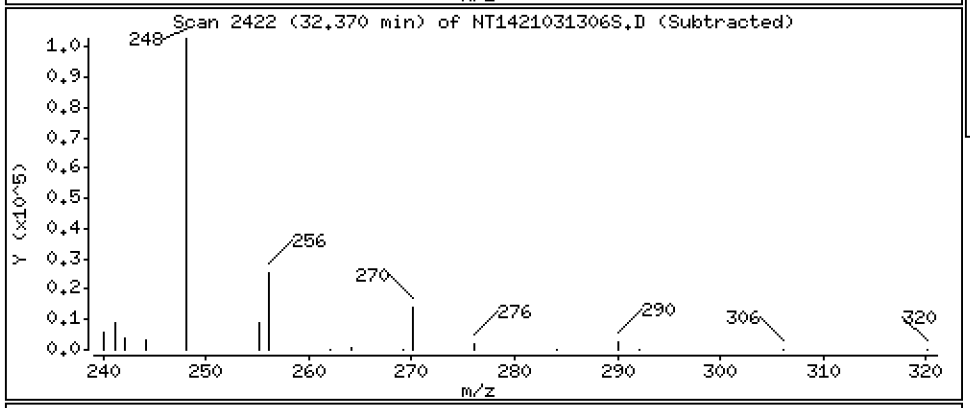
Column diameter: 0.25

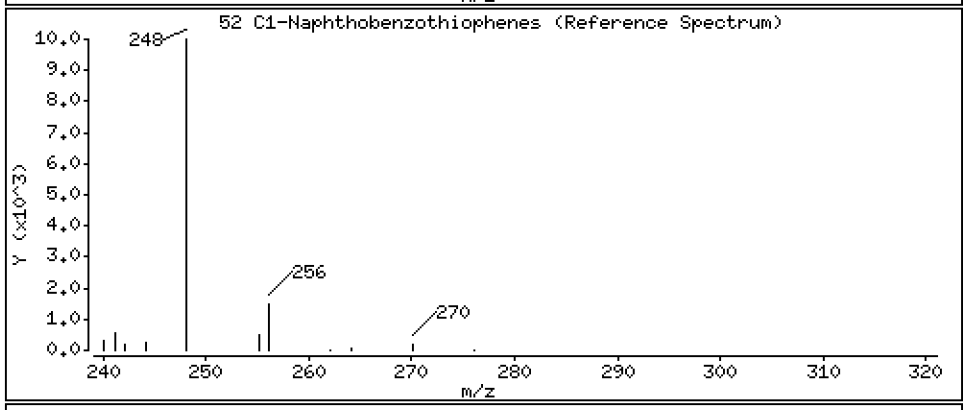
52 C1-Naphthobenzothiophenes

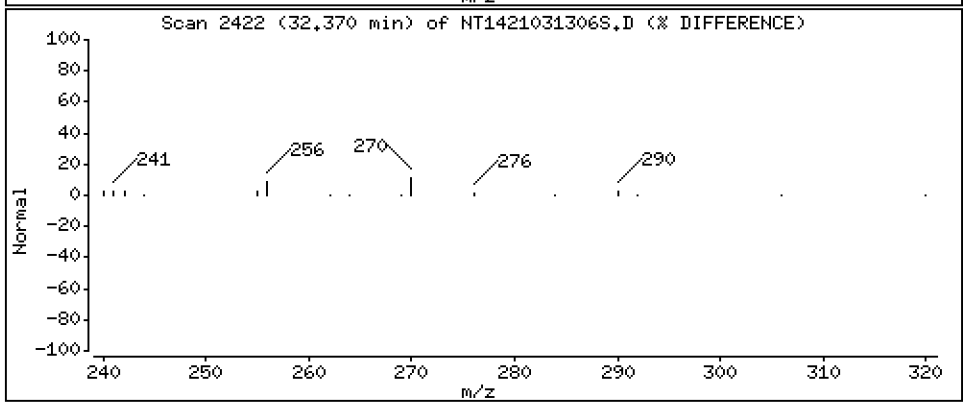
Concentration: 1.890 ug/mL











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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

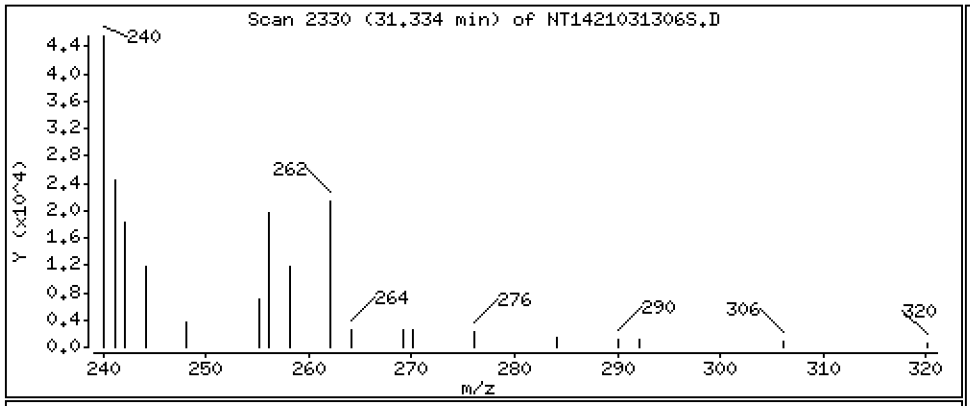
Operator: VTS

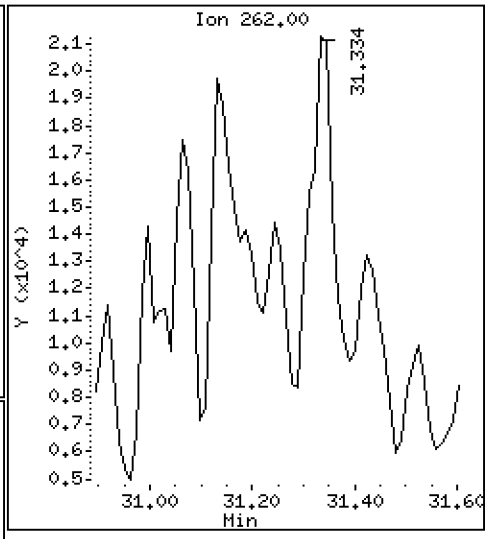
Column phase: Rxi-17Sil MS

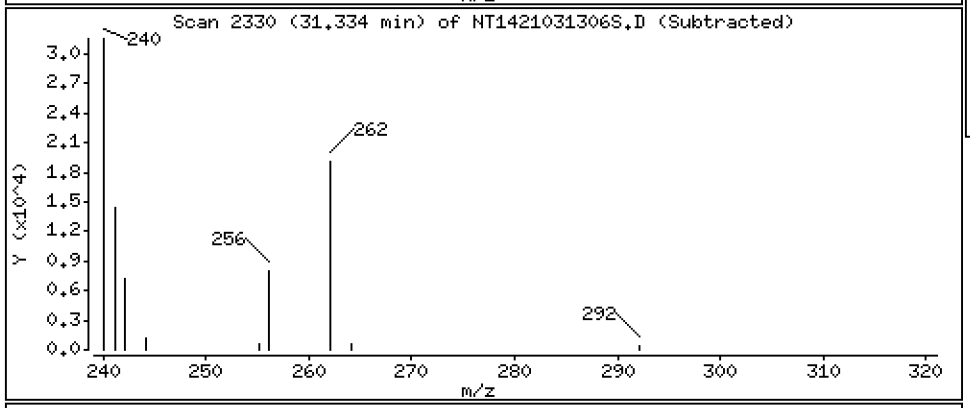
Column diameter: 0.25

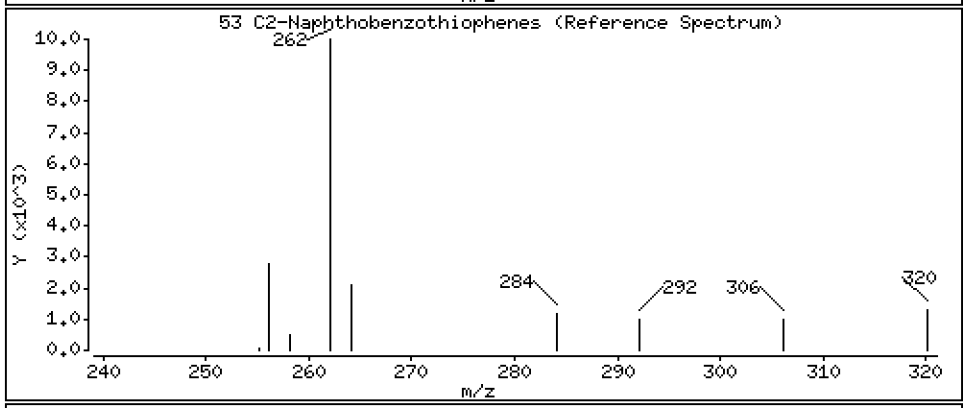
53 C2-Naphthobenzothiophenes

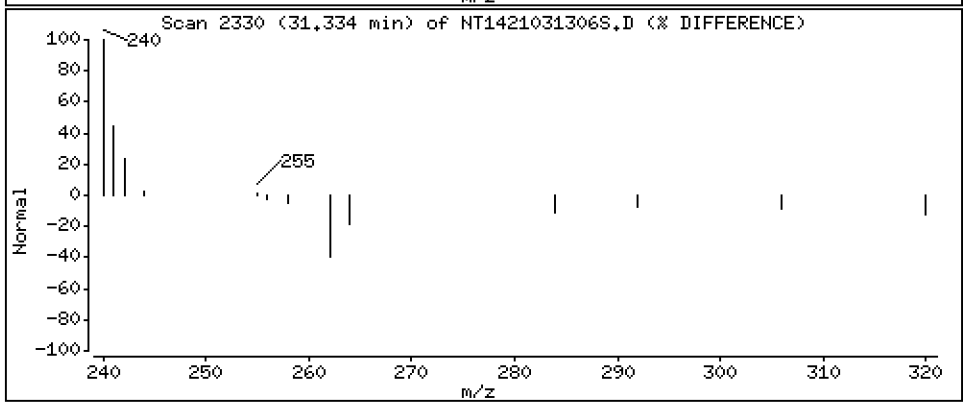
Concentration: 2.042 ug/mL











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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

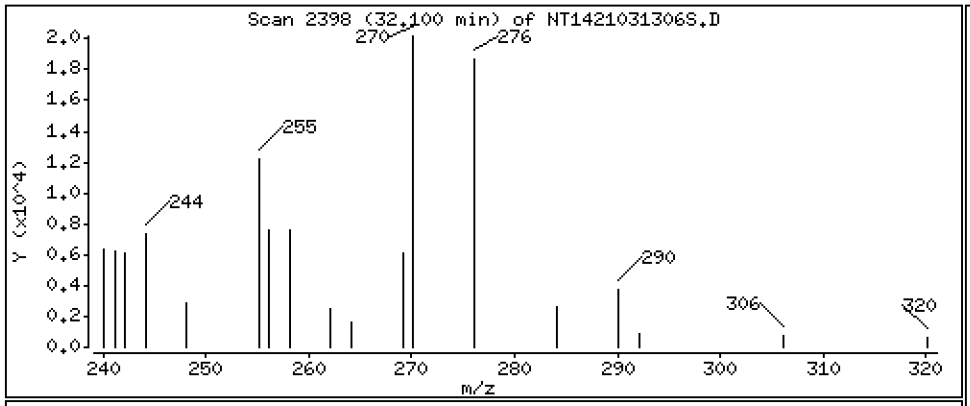
Operator: VTS

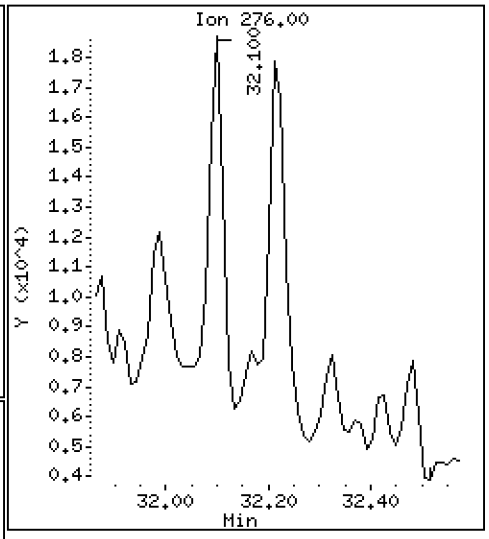
Column phase: Rxi-17Sil MS

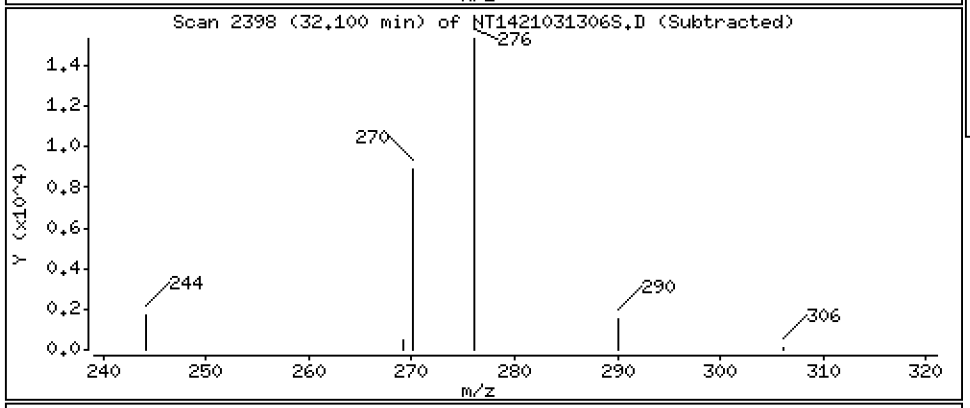
Column diameter: 0.25

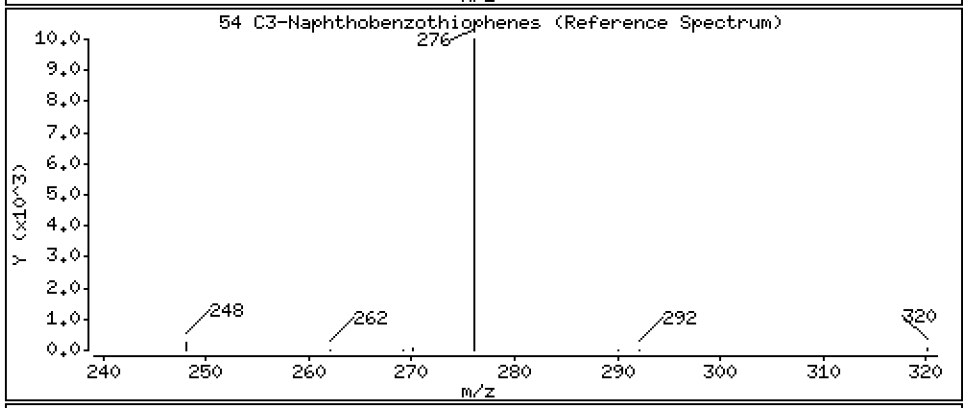
54 C3-Naphthobenzothiophenes

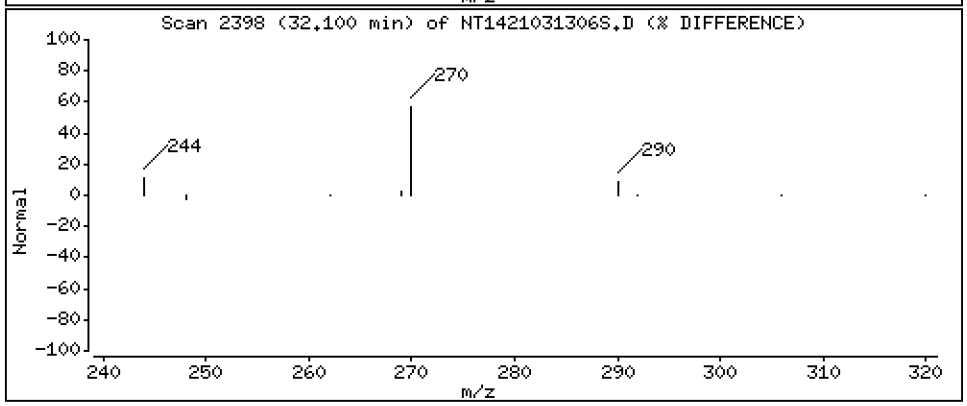
Concentration: 1.380 ug/mL











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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

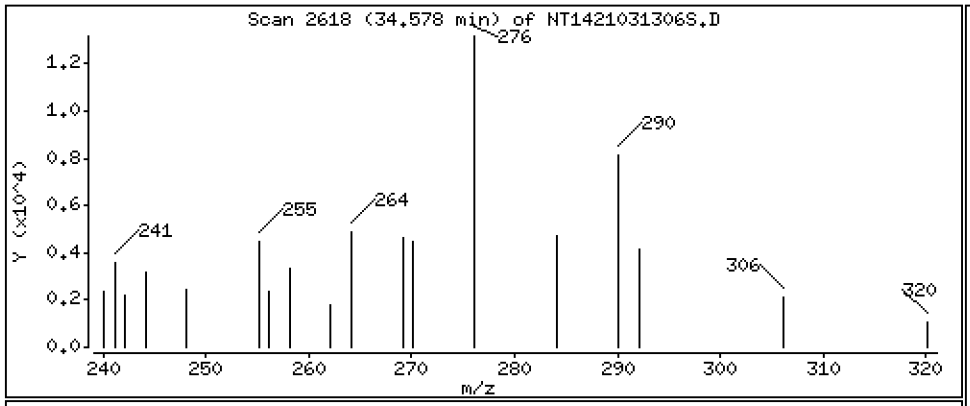
Operator: VTS

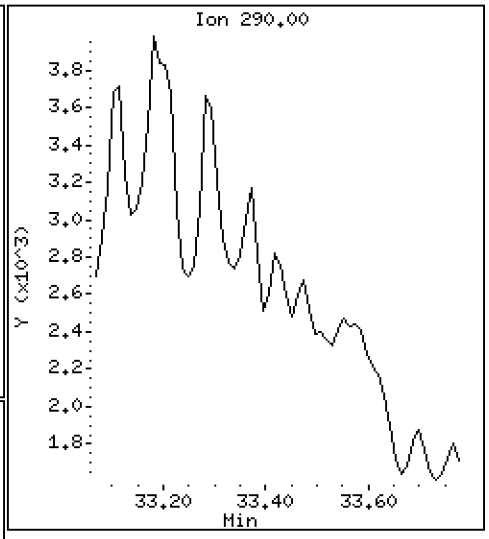
Column phase: Rxi-17Sil MS

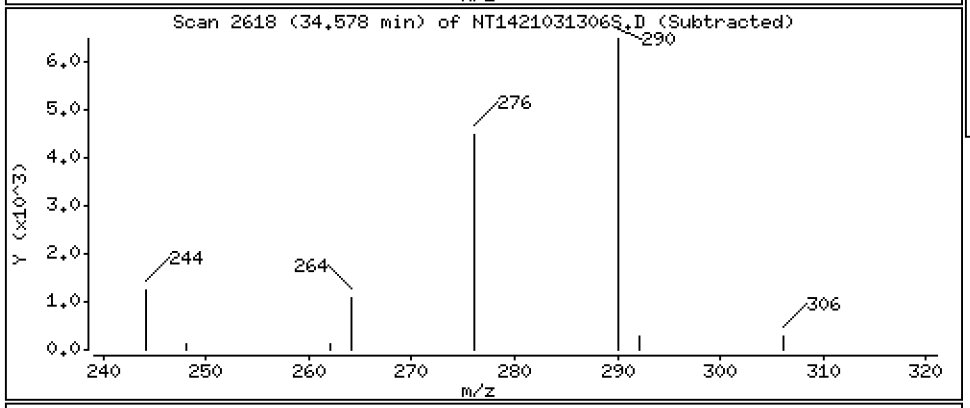
Column diameter: 0.25

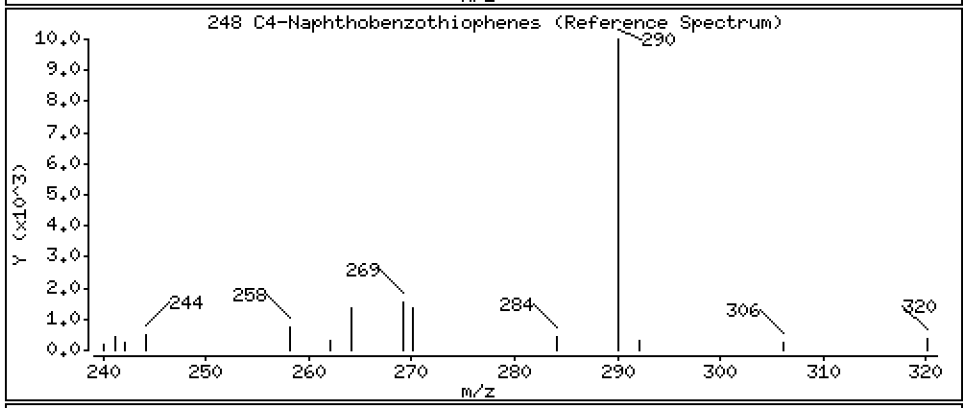
248 C4-Naphthobenzothiophenes

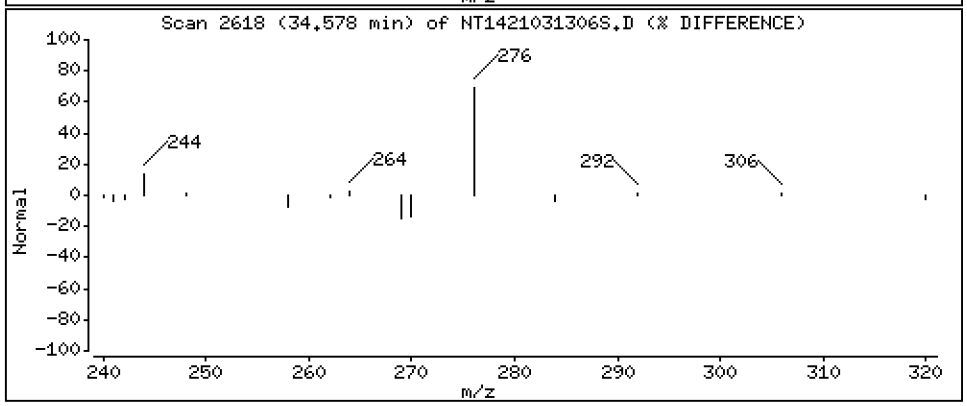
Concentration: 0.1788 ug/mL











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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

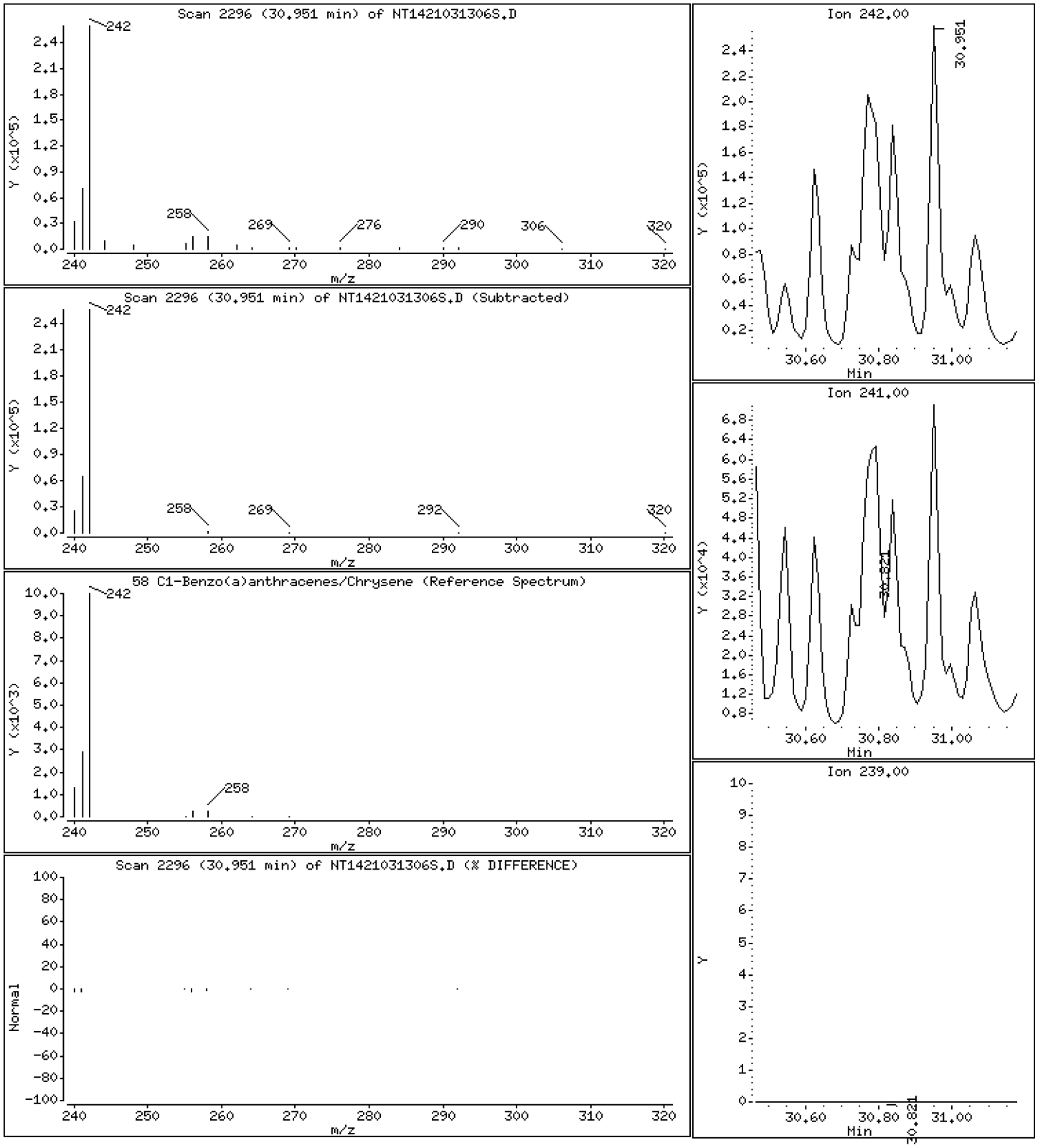
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

58 C1-Benzo(a)anthracenes/Chrysene

Concentration: 12.96 ug/mL



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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

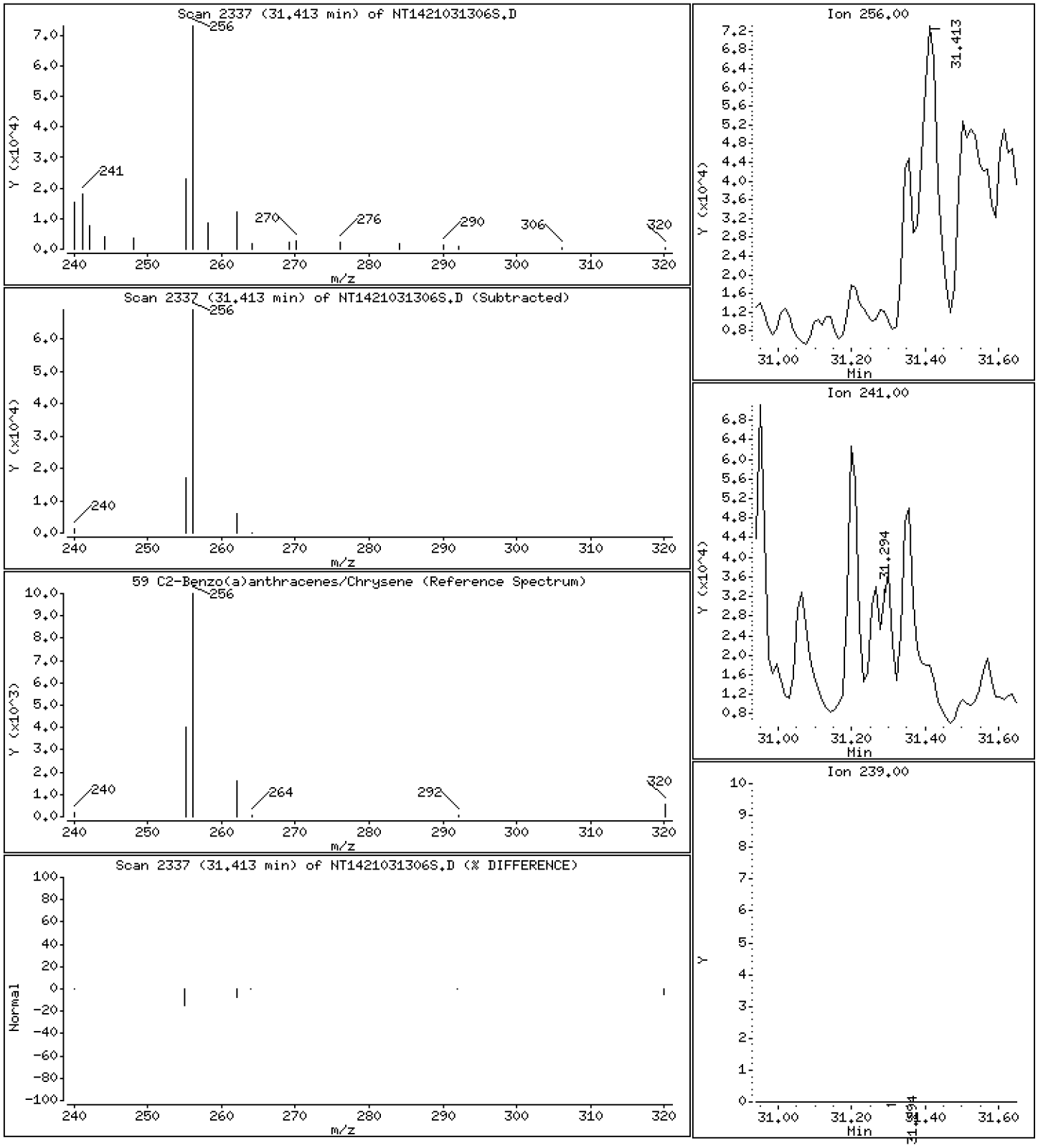
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

59 C2-Benzo(a)anthracenes/Chrysene

Concentration: 7.048 ug/mL



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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

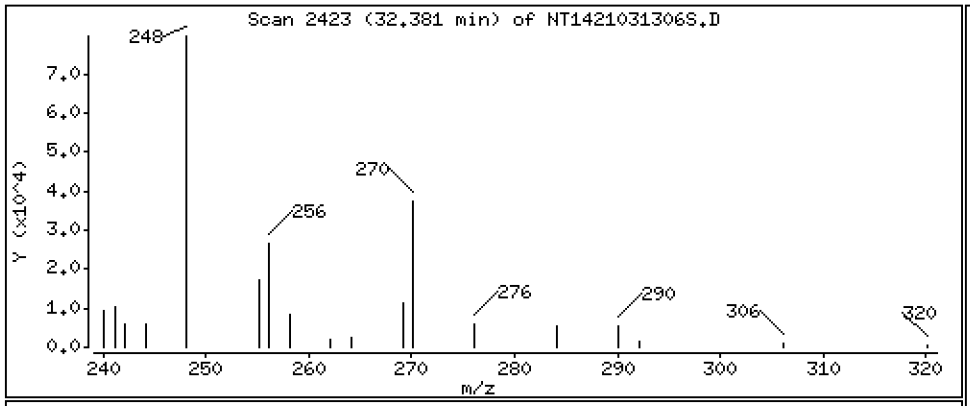
Operator: VTS

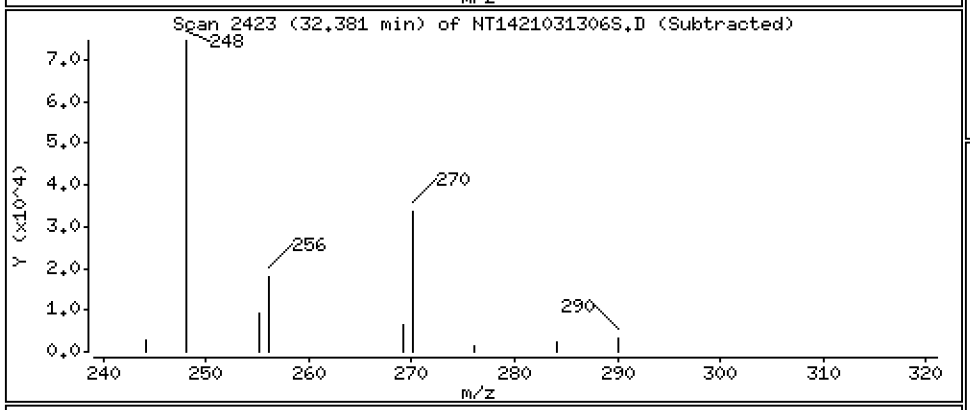
Column phase: Rxi-17Sil MS

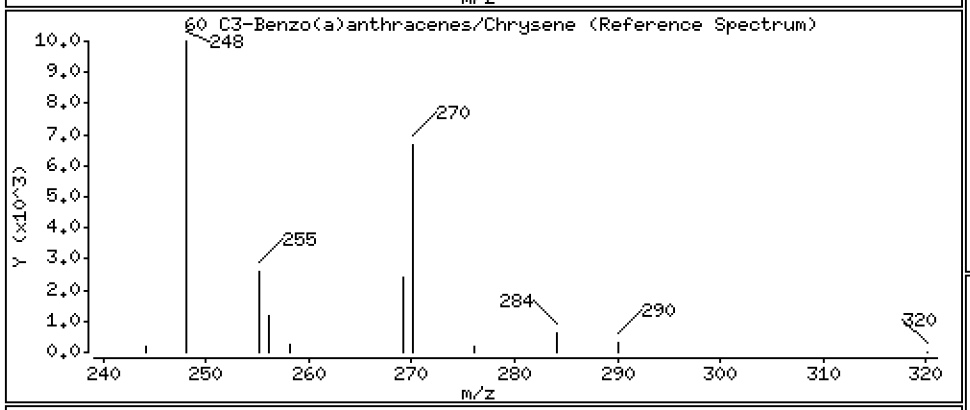
Column diameter: 0.25

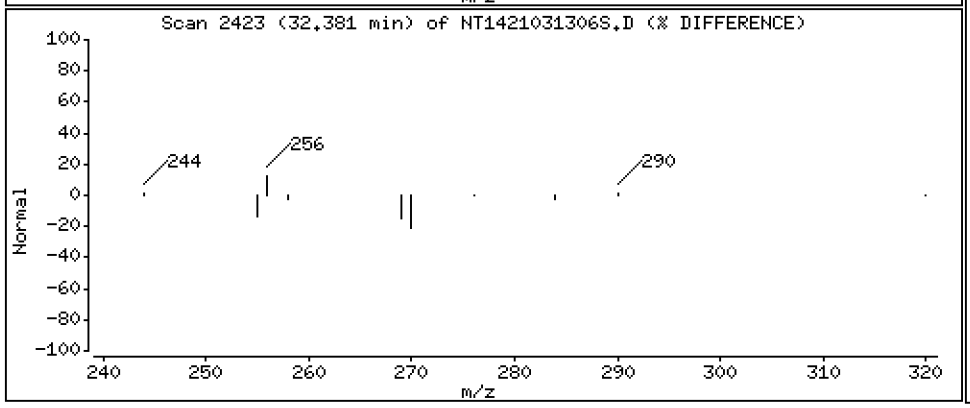
60 C3-Benzo(a)anthracenes/Chrysene

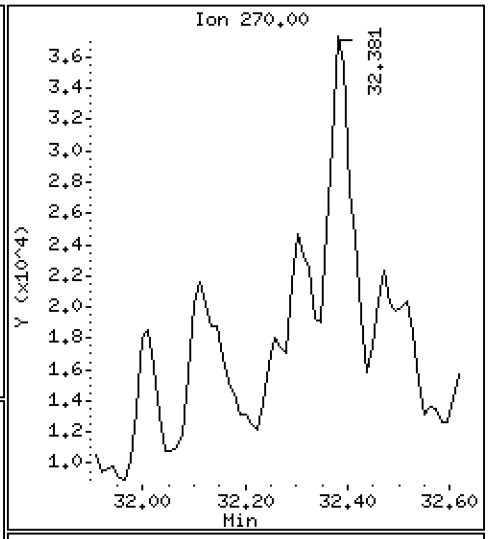
Concentration: 3.502 ug/mL

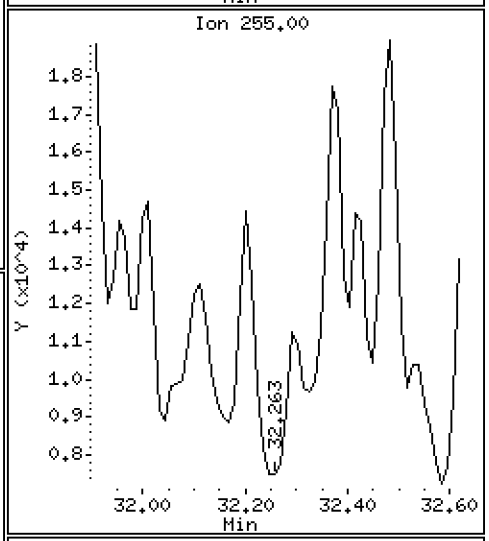


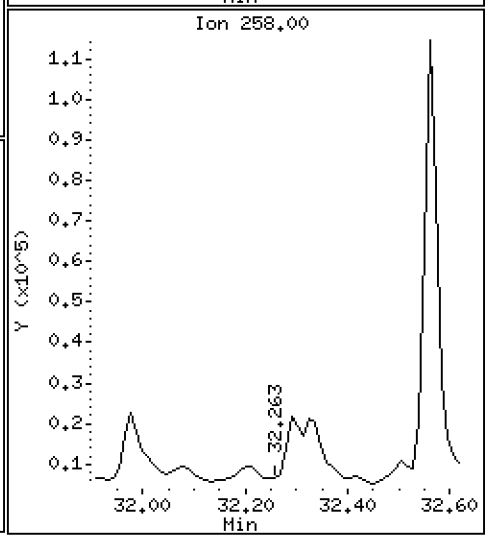












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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

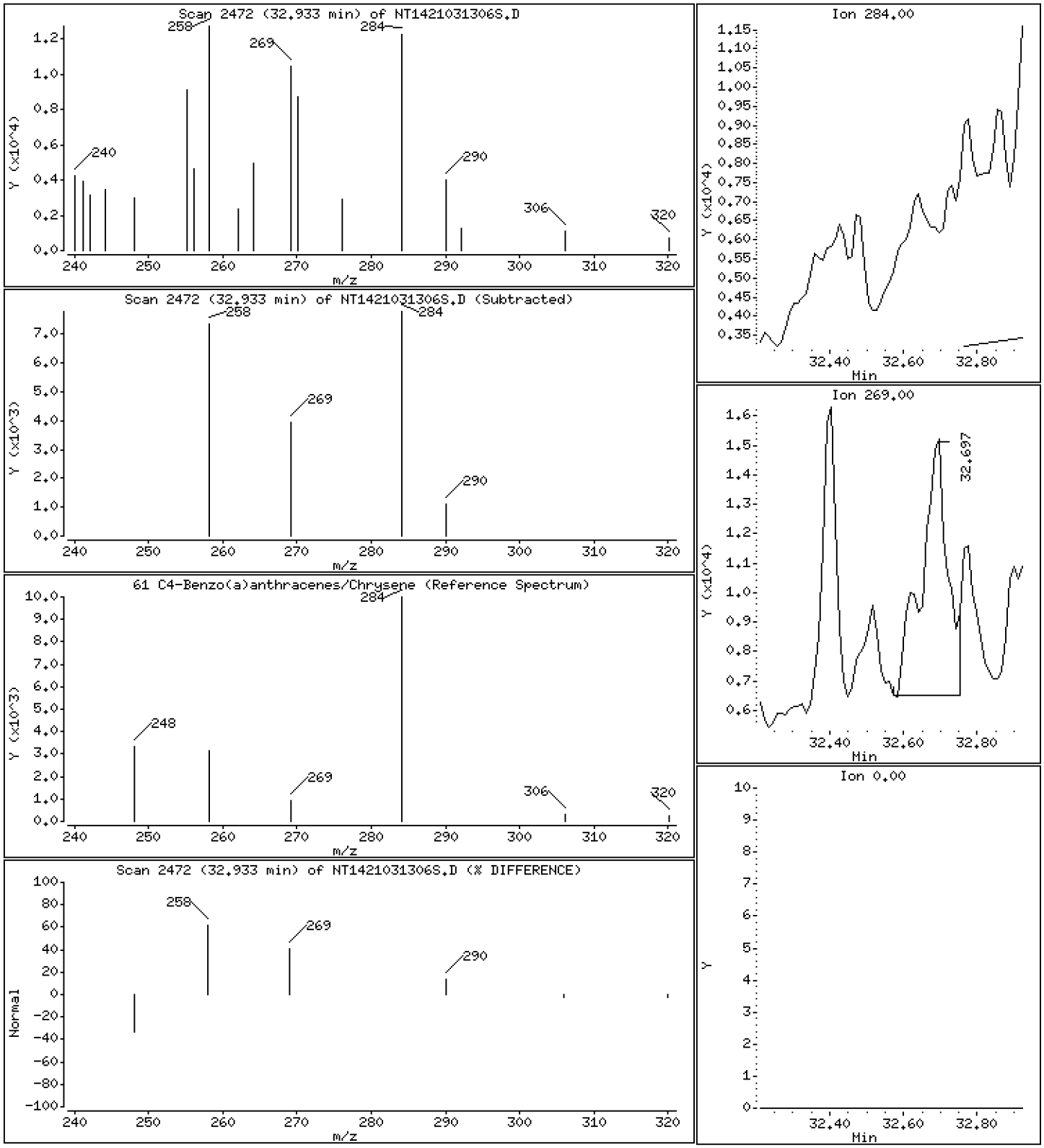
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

61 C4-Benzo(a)anthracenes/Chrysene

Concentration: 1.172 ug/mL



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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

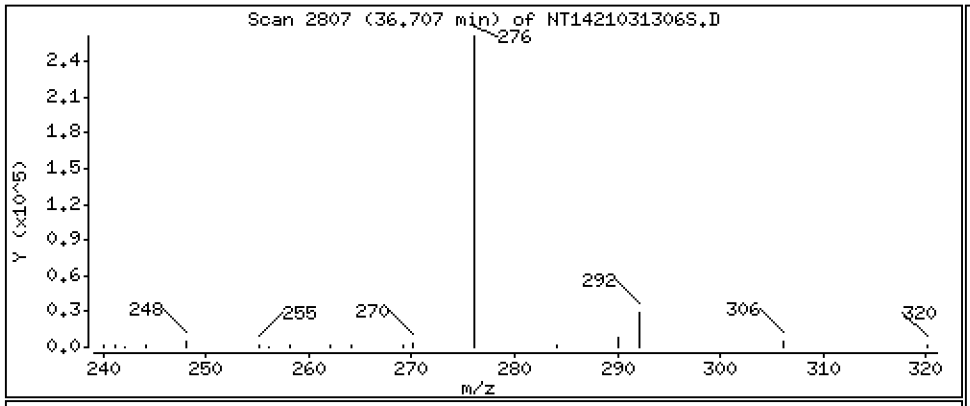
Operator: VTS

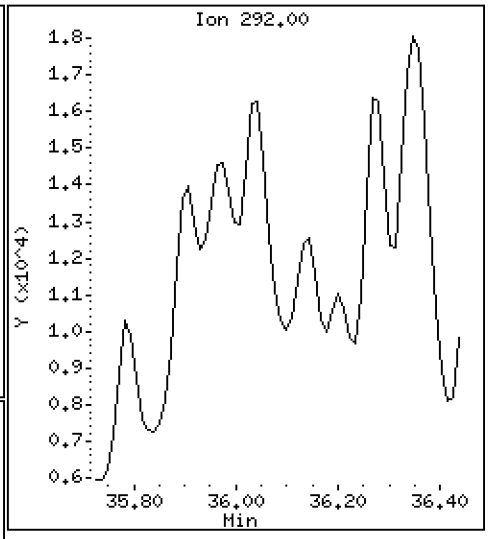
Column phase: Rxi-17Sil MS

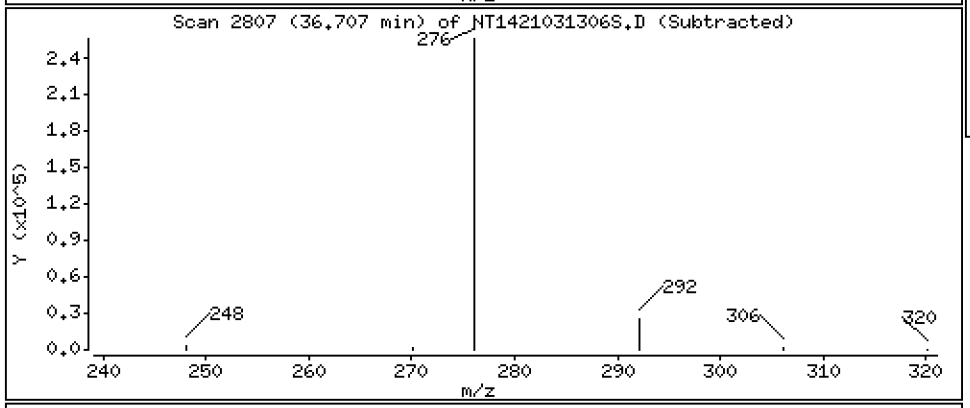
Column diameter: 0.25

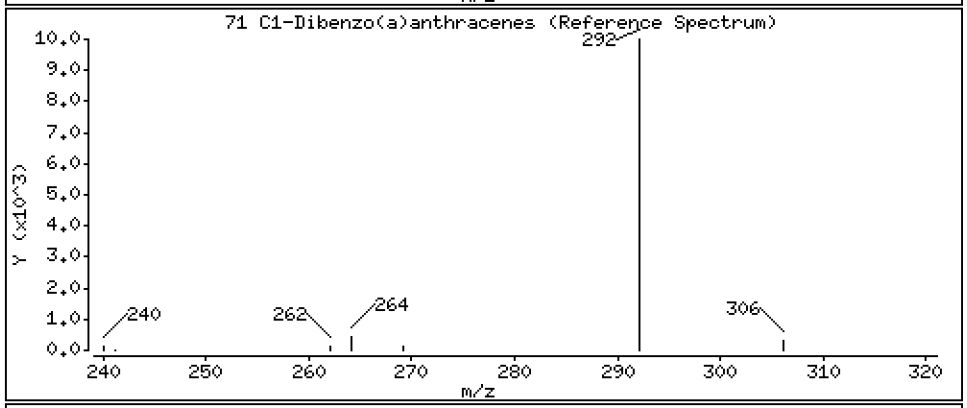
71 C1-Dibenzo(a)anthracenes

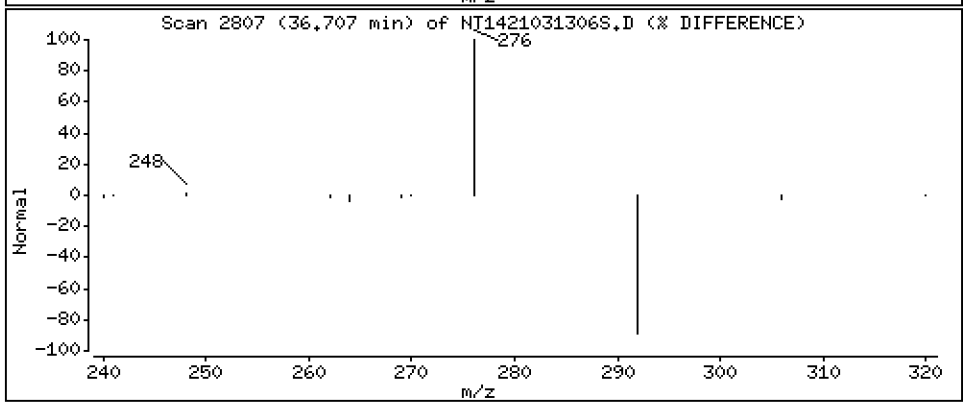
Concentration: 3.323 ug/mL











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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

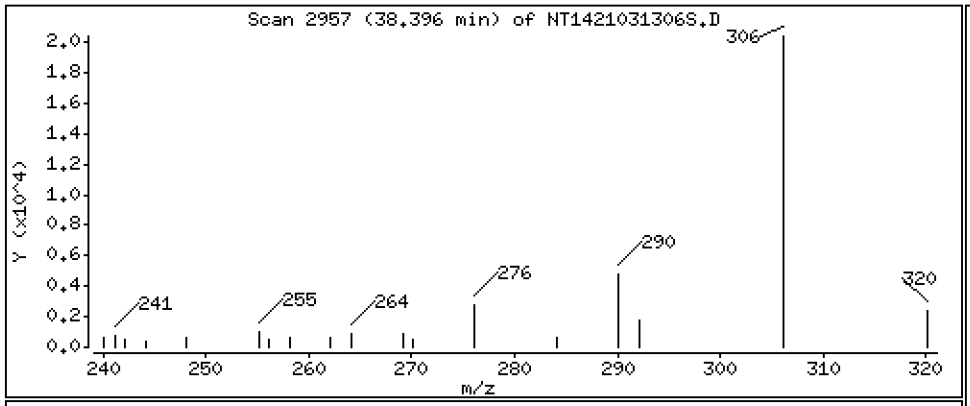
Operator: VTS

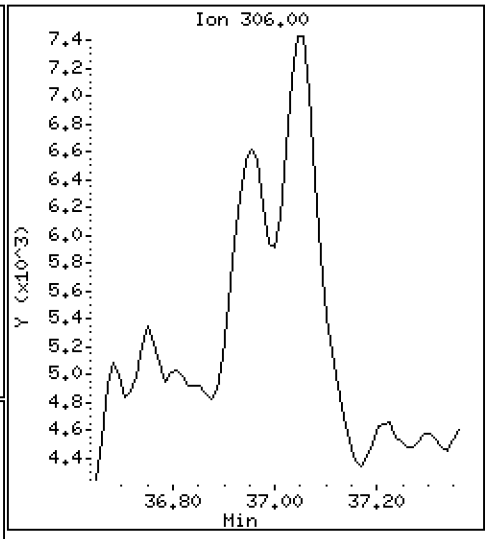
Column phase: Rxi-17Sil MS

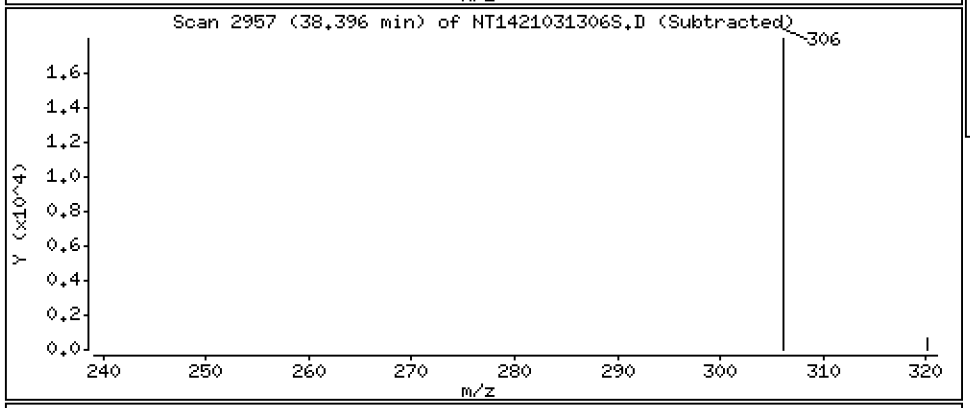
Column diameter: 0.25

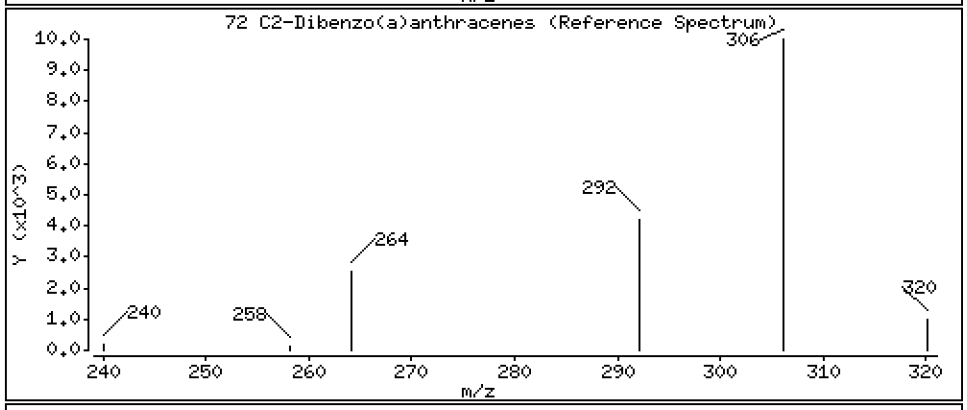
72 C2-Dibenzo(a)anthracenes

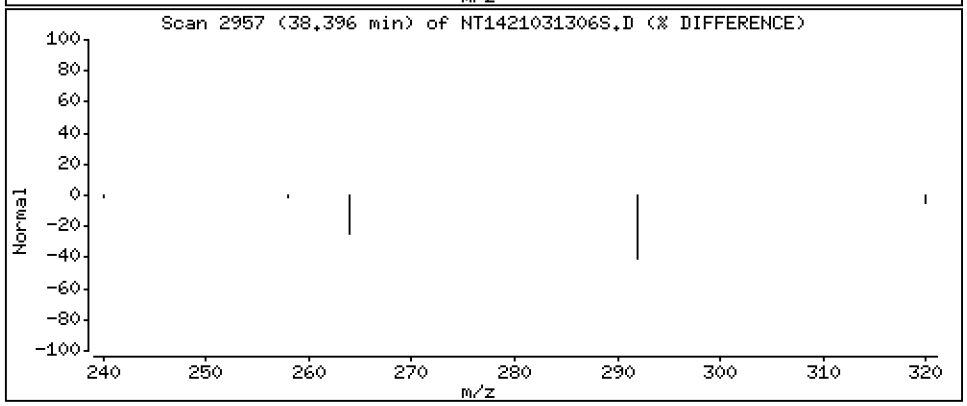
Concentration: 1.436 ug/mL











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Date : 13-MAR-2021 14:47

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01

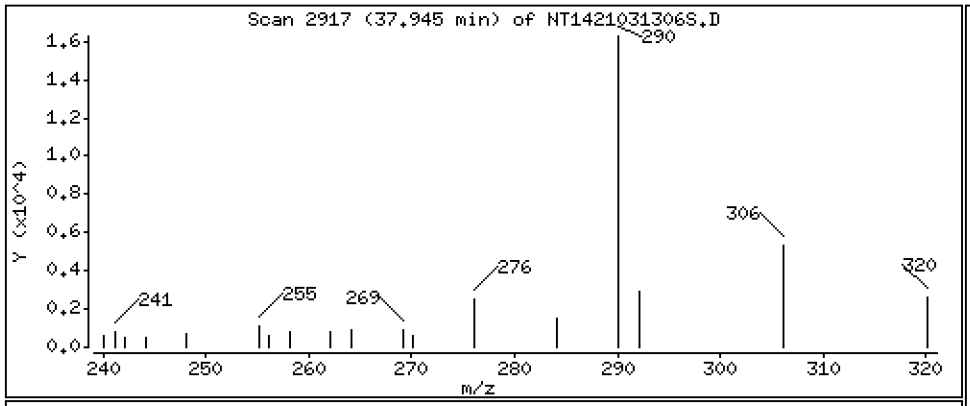
Operator: VTS

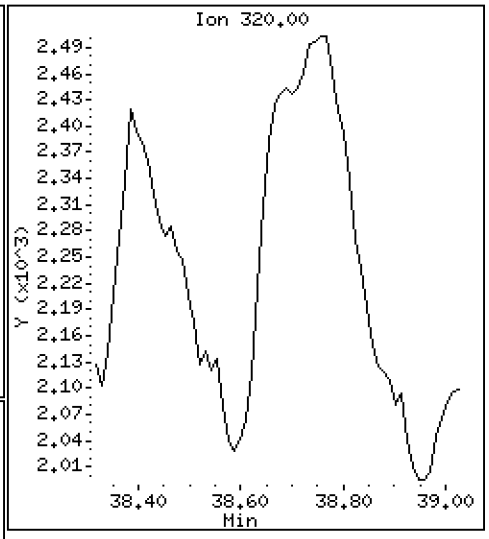
Column phase: Rxi-17Sil MS

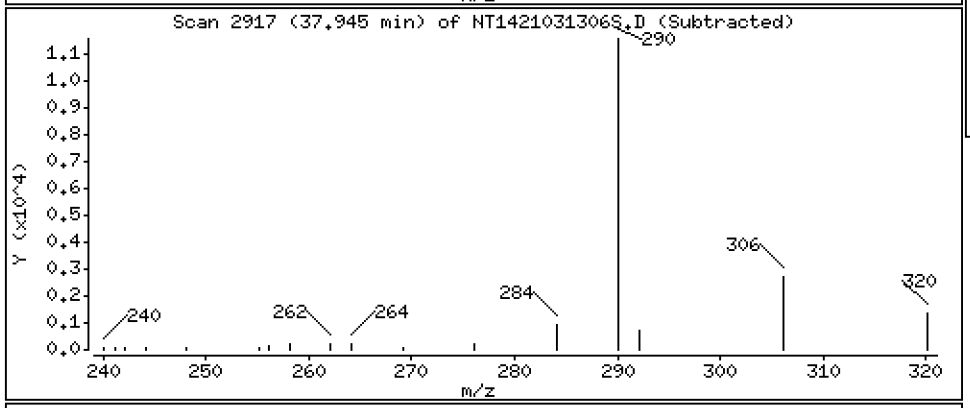
Column diameter: 0.25

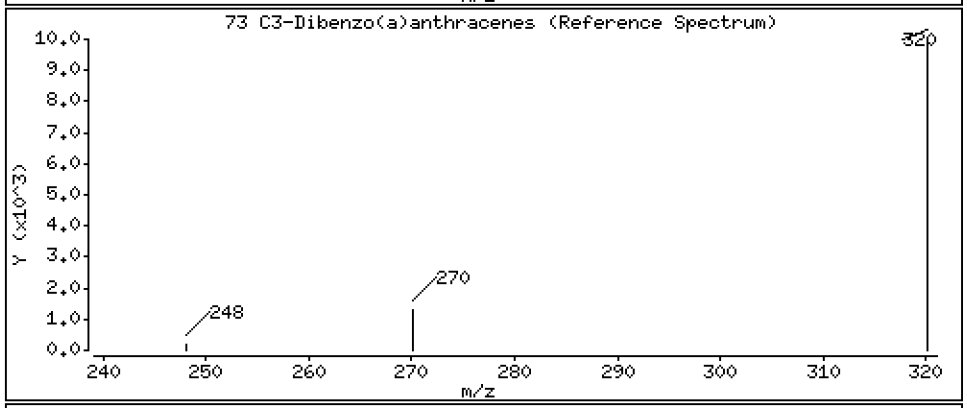
73 C3-Dibenzo(a)anthracenes

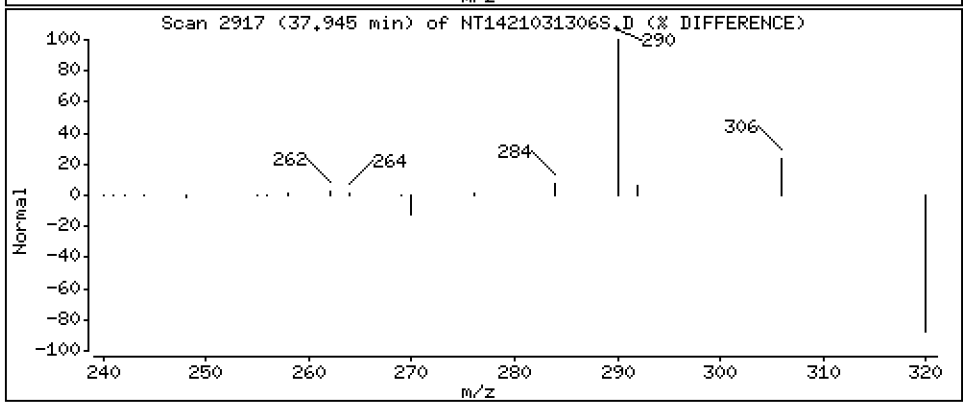
Concentration: 0.4822 ug/mL











ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210313.b\SIM.b\NT1421031306S.D
Lab Smp Id: 21B0118-01
Inj Date : 13-MAR-2021 14:47
Operator : VTS Inst ID: nt14.i
Smp Info : 21B0118-01
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210313.b\SIM.b\ALKYLRANGE.m
Meth Date : 03-Mar-2021 16:26 yev Quant Type: ISTD
Cal Date : 17-OCT-2020 17:58 Cal File: NT1420101709S.D
Als bottle: 6
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	8.247	8.000	(0.440)	4432	0.36496	0.3650(M)
4 C2-Decalin	166	8.983	9.000	(0.480)	15494	1.27587	1.276(M)
5 C3-Decalin	180	11.021	11.000	(0.588)	10683	0.87970	0.8797(M)
247 C4-Decalin	194	13.295	12.000	(0.710)	18725	1.54193	1.542(M)
8 C1-Naphthalenes	142	13.625	13.522	(0.727)	757755	4.80696	4.807(M)
9 C2-Naphthalenes	156	15.746	15.236	(0.841)	842967	5.34752	5.348(M)
10 C3-Naphthalenes	170	17.614	17.808	(0.940)	993903	6.30501	6.305(M)
11 C4-Naphthalenes	184	19.309	19.201	(1.031)	547625	3.47396	3.474(M)
13 C1-Benzothiophenes	148	14.065	13.961	(0.751)	59378	0.45223	0.4522(M)
14 C2-Benzothiophenes	162	15.241	15.544	(0.814)	106185	0.80871	0.8087(M)
15 C3_Benzothiophenes	176	17.010	17.511	(0.908)	99539	0.75810	0.7581(M)
27 C1-Fluorenes	180	20.375	20.403	(1.088)	438903	3.42186	3.422(M)
28 C2-Fluorenes	194	21.947	22.162	(1.172)	454456	3.54312	3.543(M)
29 C3-Fluorenes	208	23.255	23.130	(1.242)	340247	2.65270	2.653(M)
31 C1-Dibenzothiophenes	198	22.881	22.987	(1.222)	530997	2.87650	2.876(M)
* 25 Fluorene-d10	176	18.731	18.742	(1.000)	386157	2.00000	
32 C2-Dibenzothiophenes	212	24.299	24.163	(1.297)	709366	3.84275	3.843(M)
33 C3-Dibenzothiophenes	226	25.201	25.054	(1.345)	483861	2.62115	2.621(M)
34 C4-Dibenzothiophenes	240	26.323	26.186	(1.405)	252749	1.36918	1.369(M)
38 C1-Phenanthrenes/Anthracenes	192	23.541	23.844	(1.067)	2921764	11.9241	11.92(M)
39 C2-Phenanthrenes/Anthracenes	206	24.739	25.021	(1.121)	2675028	10.9171	10.92(M)
40 C3-Phenanthrenes/Anthracenes	220	26.257	26.120	(1.190)	1655711	6.75715	6.757(M)
41 C4-Phenanthrenes/Anthracenes	234	26.763	27.592	(1.213)	833083	3.39991	3.400(M)
48 C1-Fluoranthenes/Pyrenes	216	27.597	27.384	(1.251)	4065149	14.7729	14.77(M)
* 250 Anthracene-d10	188	22.068	22.068	(1.000)	450213	2.00000	
49 C2-Fluoranthenes/Pyrenes	230	28.988	28.622	(1.314)	2235020	8.12216	8.122(M)
50 C3-Fluoranthenes/Pyrenes	244	29.790	29.663	(1.350)	1138850	4.13863	4.139(M)
249 C4-Fluoranthenes/Pyrenes	258	32.561	32.431	(1.475)	881111	3.20200	3.202(M)
52 C1-Naphthobenzothiophenes	248	32.370	32.240	(1.467)	500331	1.89037	1.890(M)
53 C2-Naphthobenzothiophenes	262	31.333	31.249	(1.420)	540378	2.04168	2.042(M)
54 C3-Naphthobenzothiophenes	276	32.099	32.217	(1.455)	365377	1.38048	1.380(M)
248 C4-Naphthobenzothiophenes	290	34.577	33.422	(1.567)	47331	0.17883	0.1788(M)
58 C1-Benzo(a)anthracenes/Chrysen	242	30.951	30.821	(0.937)	3600376	12.9584	12.96(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	33.034	33.023	(1.000)	647533	2.00000	
59 C2-Benzo(a)anthracenes/Chrysen	256	31.412	31.294	(0.951)	1958131	7.04767	7.048(M)
60 C3-Benzo(a)anthracenes/Chrysen	270	32.381	32.262	(0.980)	973035	3.50213	3.502(M)
61 C4-Benzo(a)anthracenes/Chrysen	284	32.933	32.566	(0.997)	325659	1.17211	1.172(M)
71 C1-Dibenzo(a)anthracenes	292	36.706	36.081	(1.111)	992565	3.32264	3.323(M)
72 C2-Dibenzo(a)anthracenes	306	38.395	37.004	(1.162)	429005	1.43611	1.436(M)
73 C3-Dibenzo(a)anthracenes	320	37.945	38.671	(1.149)	144045	0.48219	0.4822(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: NT1421031306S.D
Lab Smp Id: 21B0118-01
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210313.b\SIM.b\ALKYLRANGE.m
Misc Info:

Calibration Date: 02-MAR-2021
Calibration Time: 11:58
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

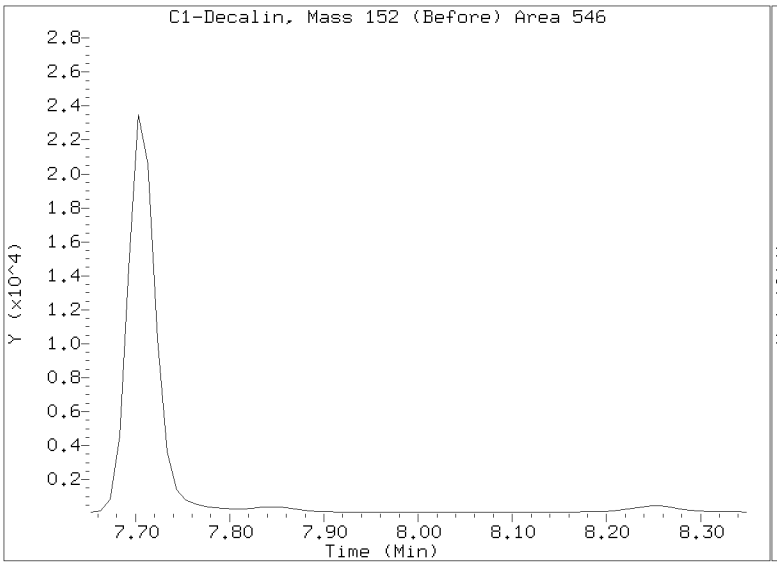
COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	557701	278851	1115402	386157	-30.76
250 Anthracene-d10	647695	323848	1295390	450213	-30.49
251 Benzo(e)pyrene-d1	730879	365440	1461758	647533	-11.40

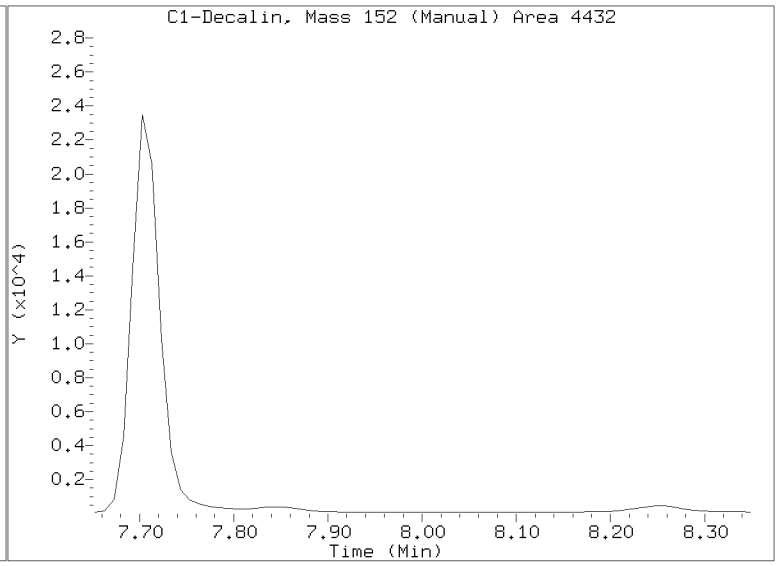
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.74	18.24	19.24	18.73	-0.06
250 Anthracene-d10	22.07	21.57	22.57	22.07	-0.00
251 Benzo(e)pyrene-d1	33.02	32.52	33.52	33.03	0.03

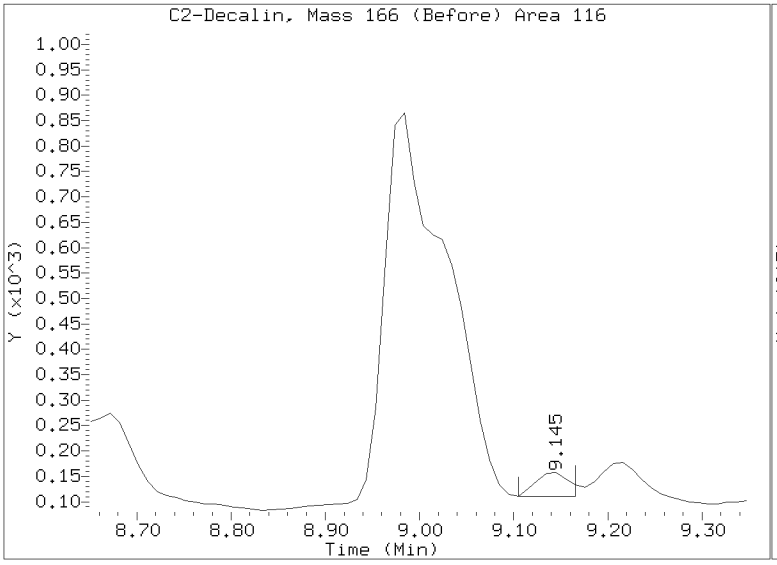
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

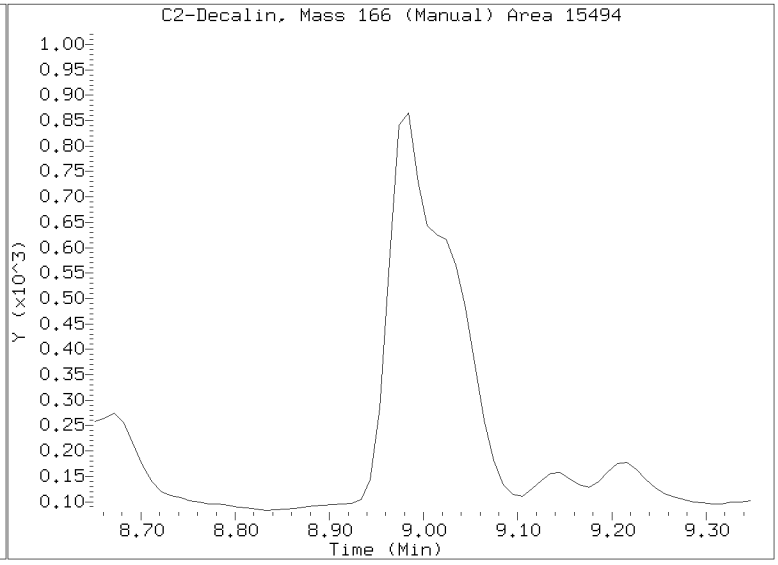
Quant Ion Manual Peak Adjustment Report

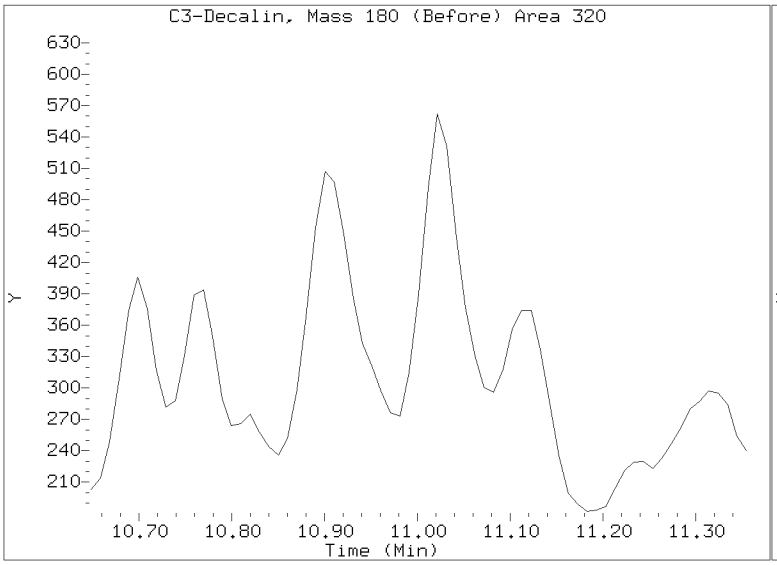
Datafile: //target/share/chem3/nt14.i/20210313.b/SIM.b/NT1421031306S.D
Injection Date: 13-MAR-2021 14:47
Lab ID:21B0118-01 Client ID:
Report Date: 03/19/2021 09:08

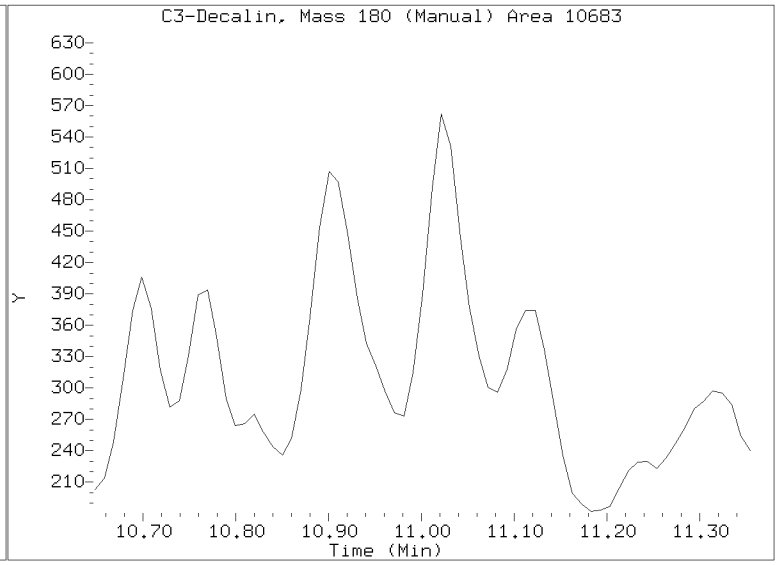












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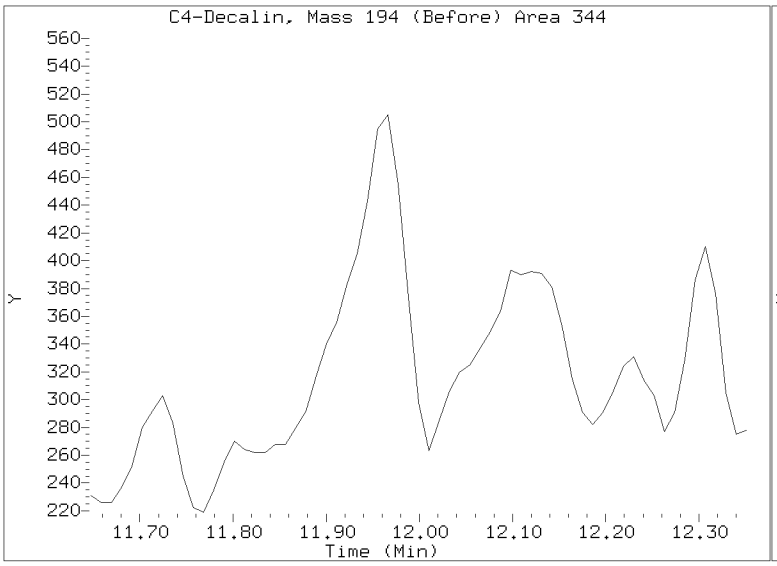
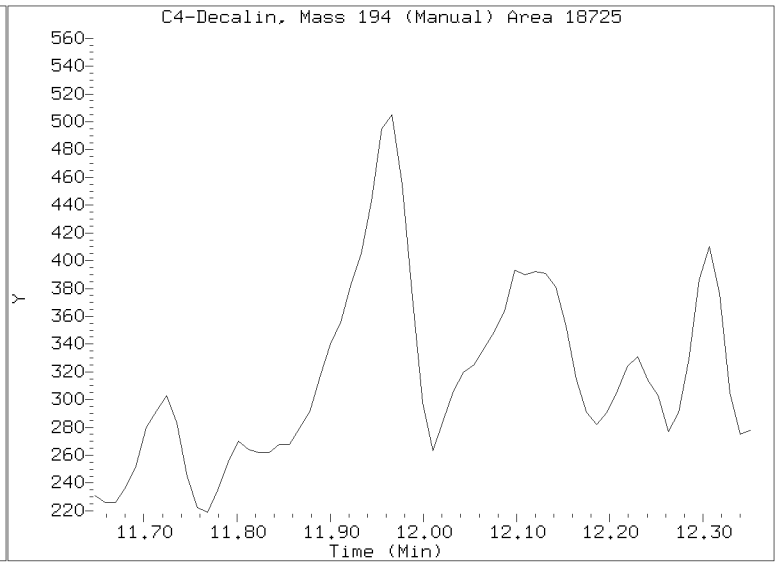
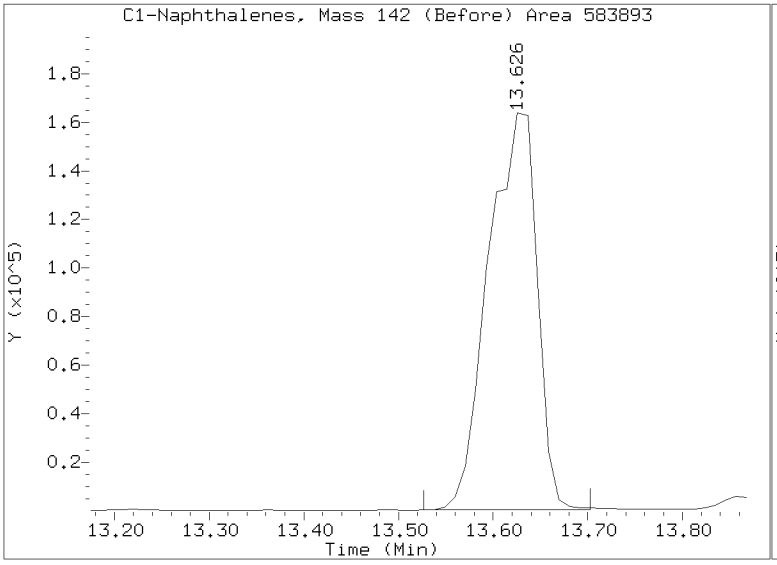
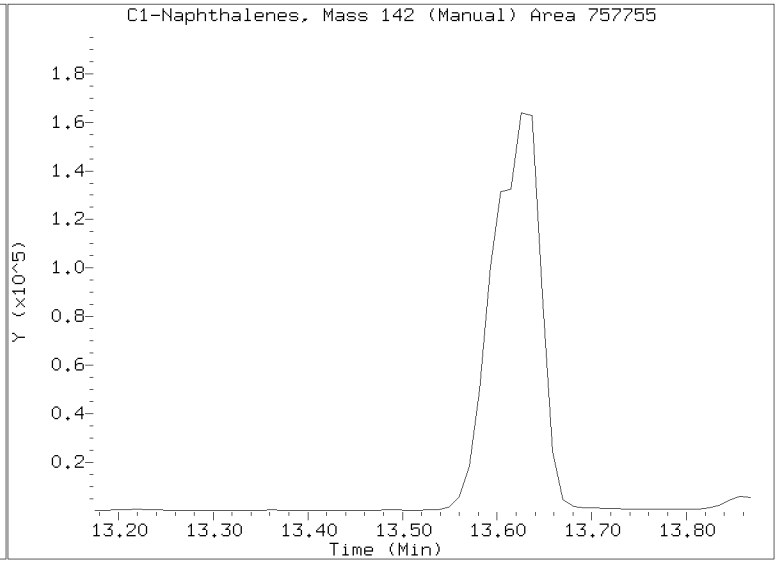
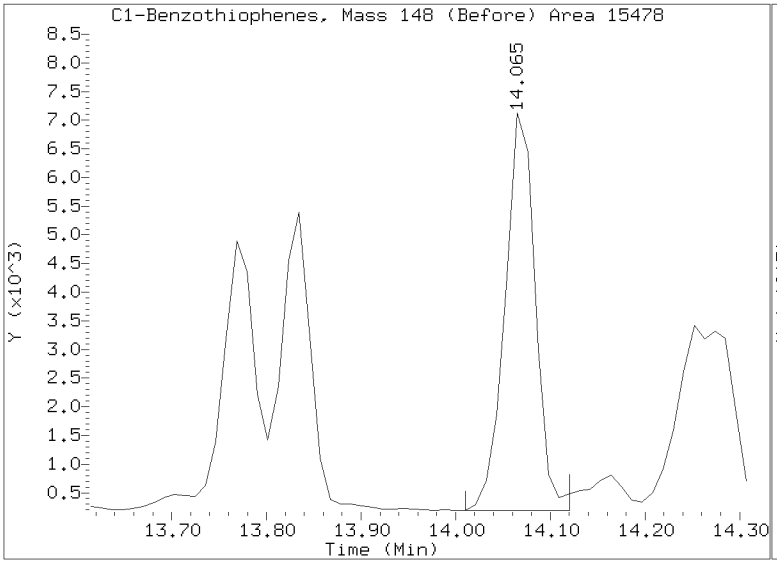
Report Date: 03/19/2021 09:08

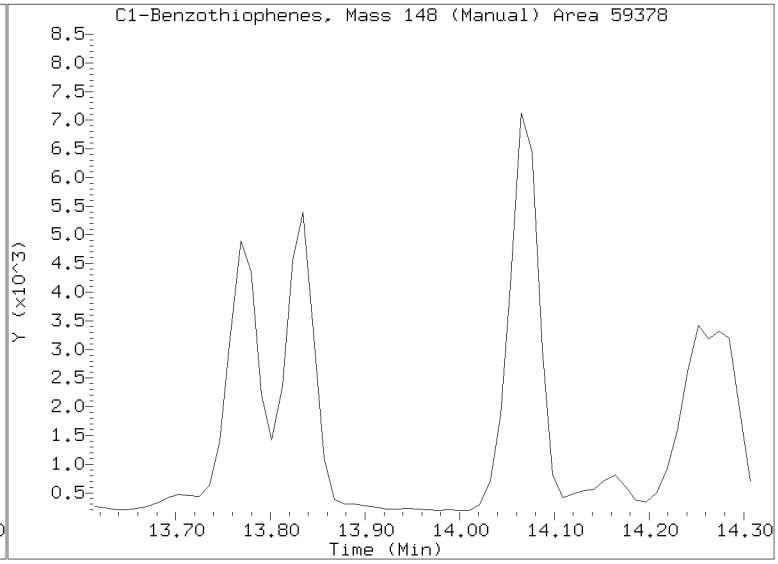












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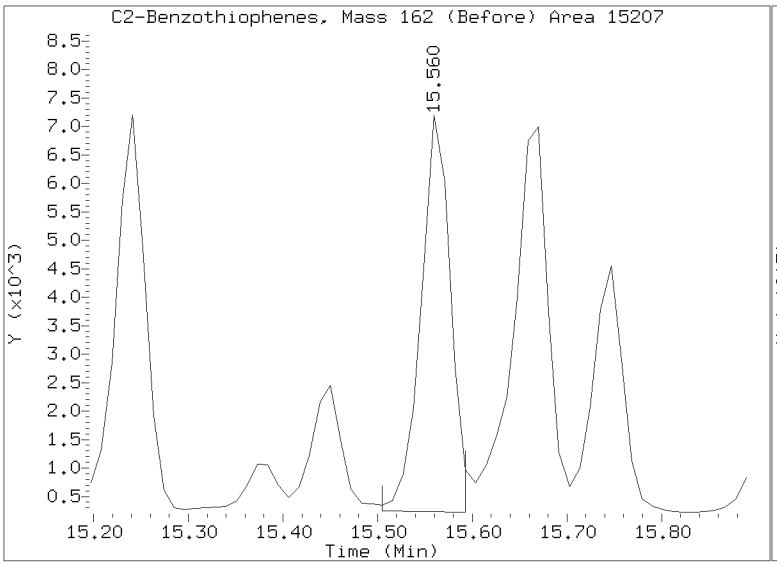

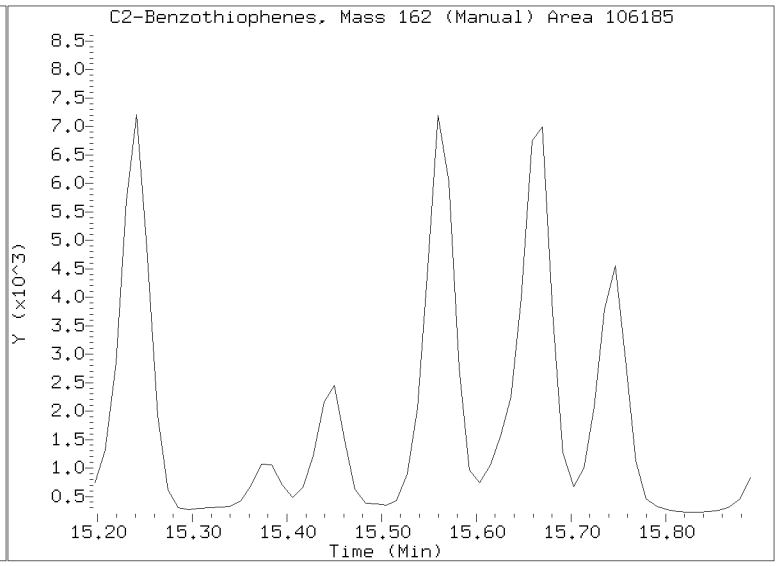

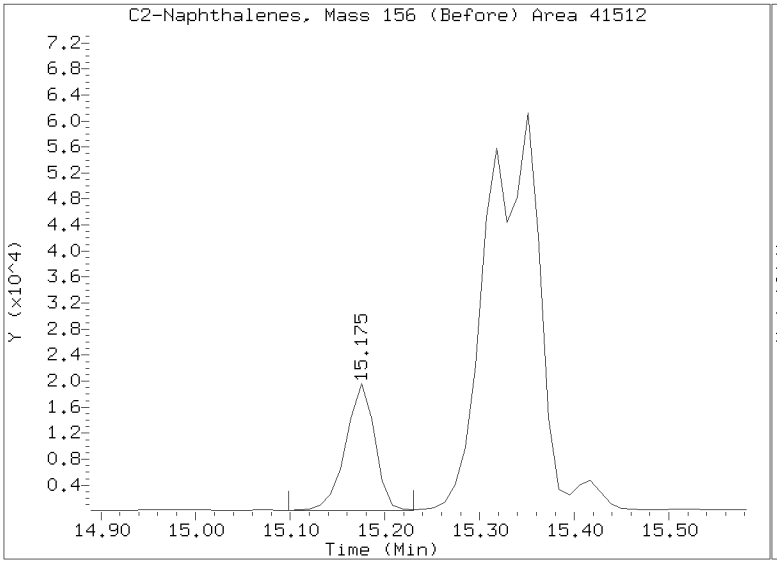

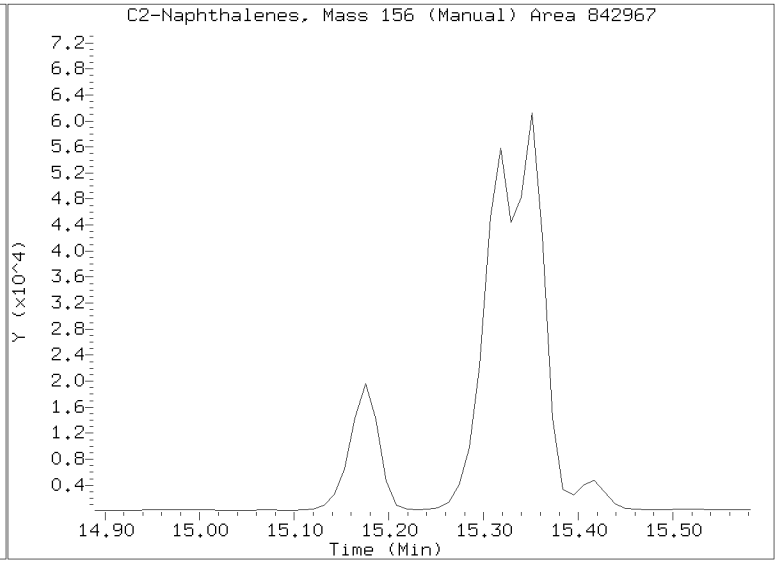

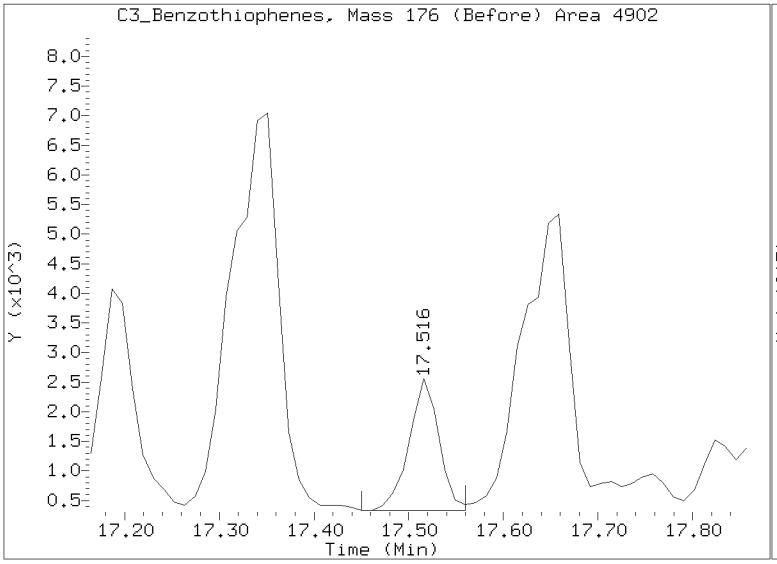

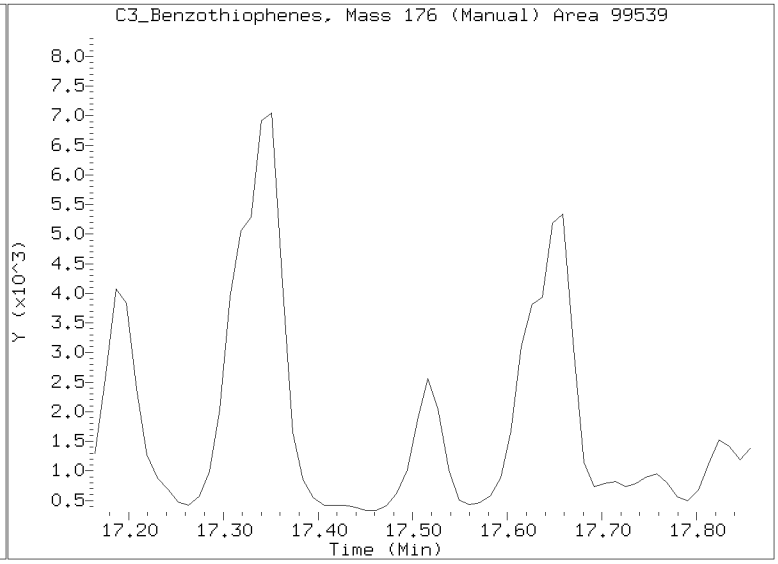

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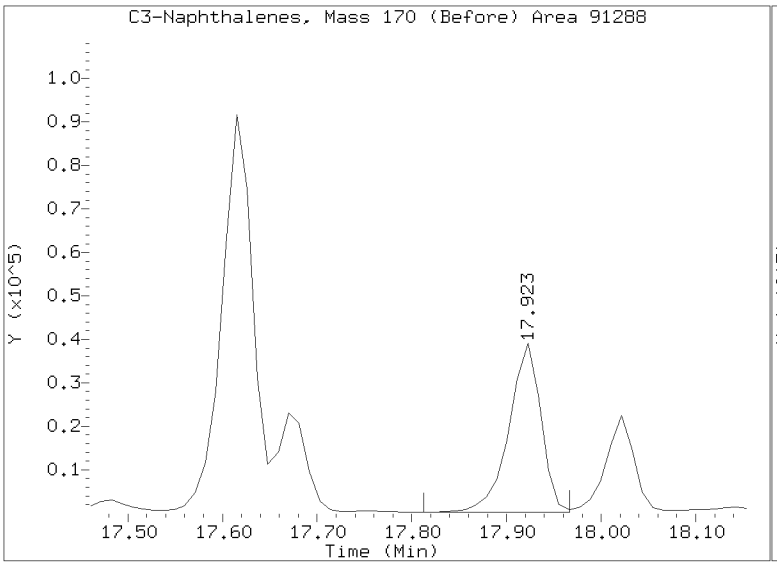

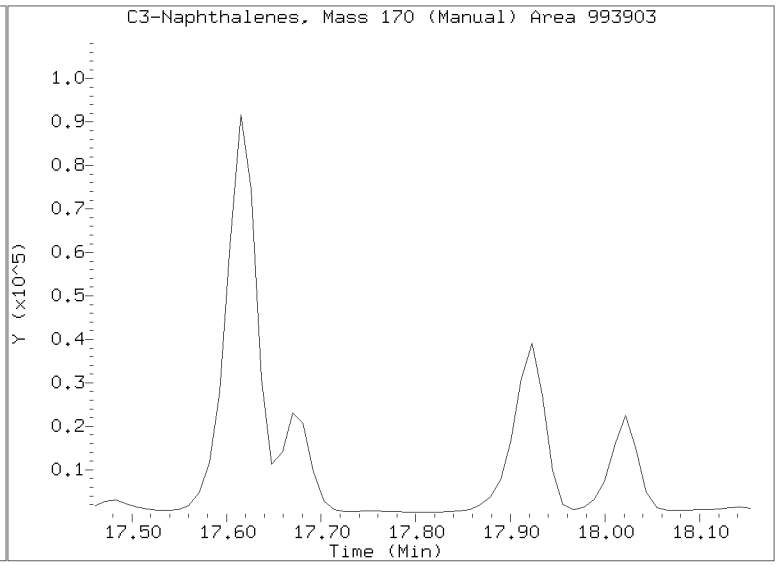

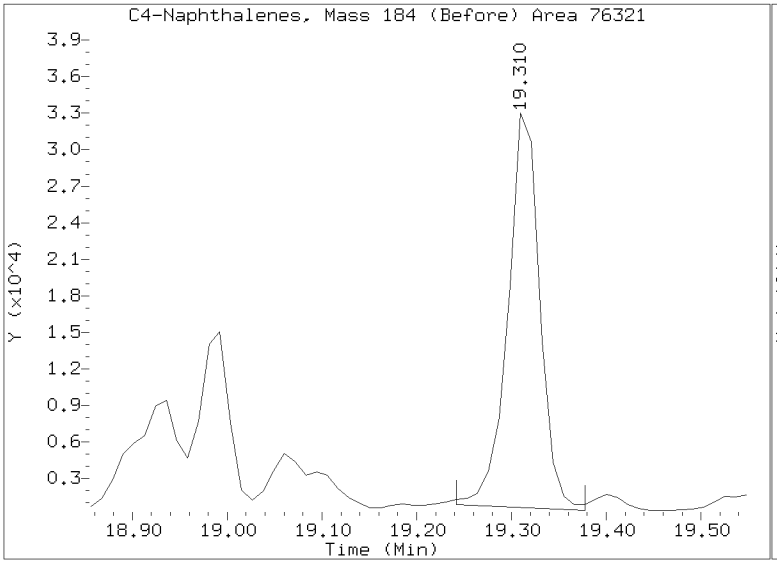

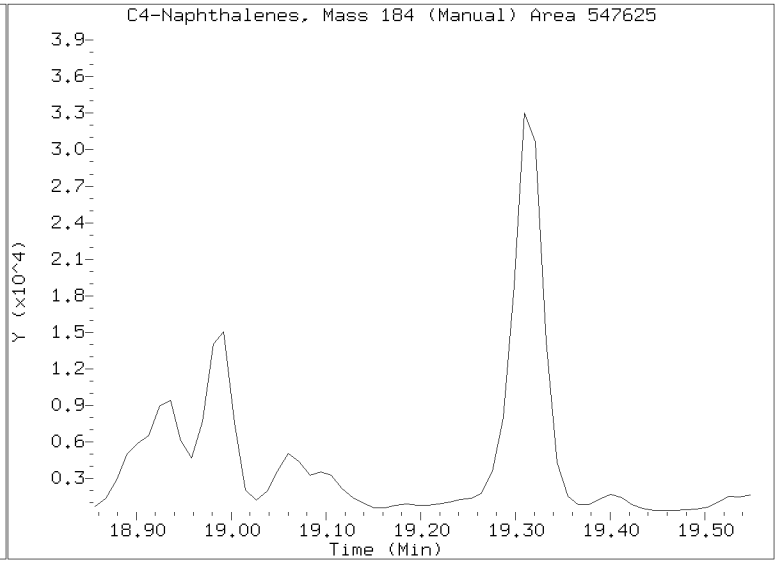

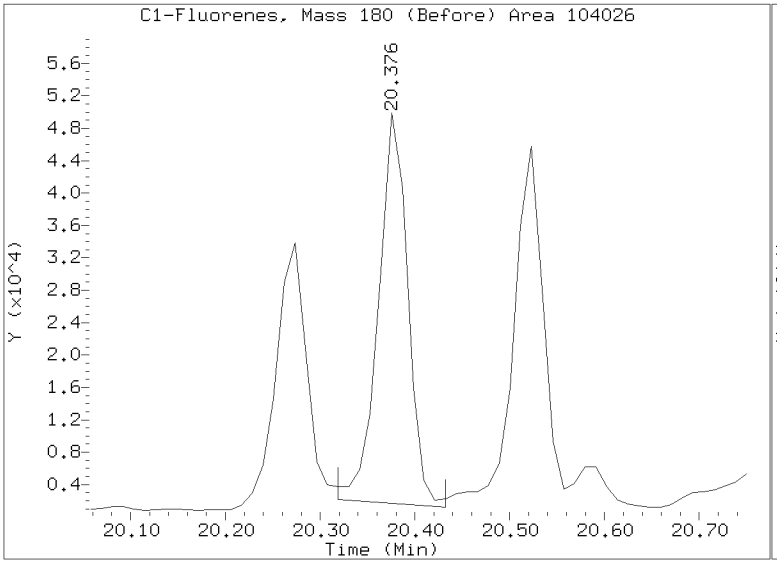

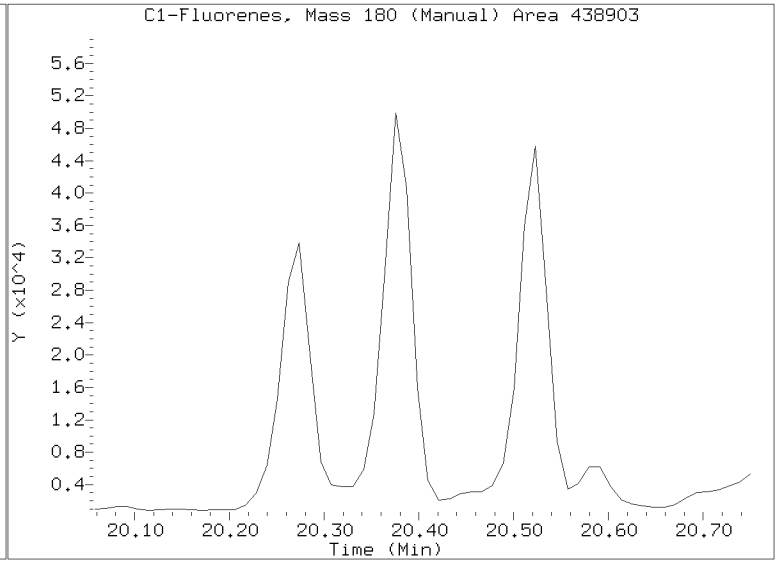

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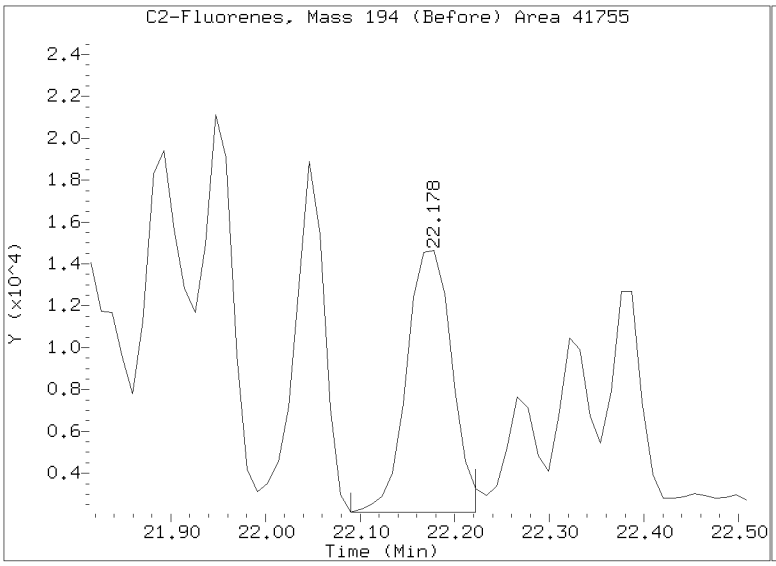

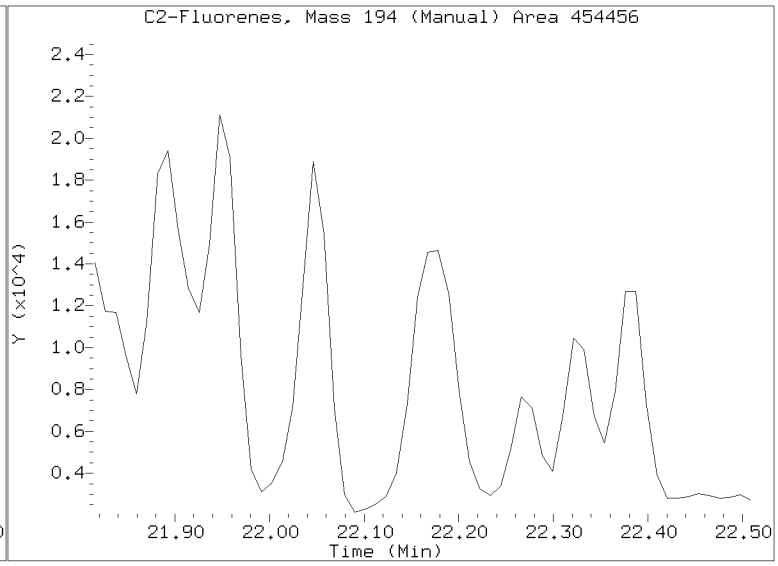

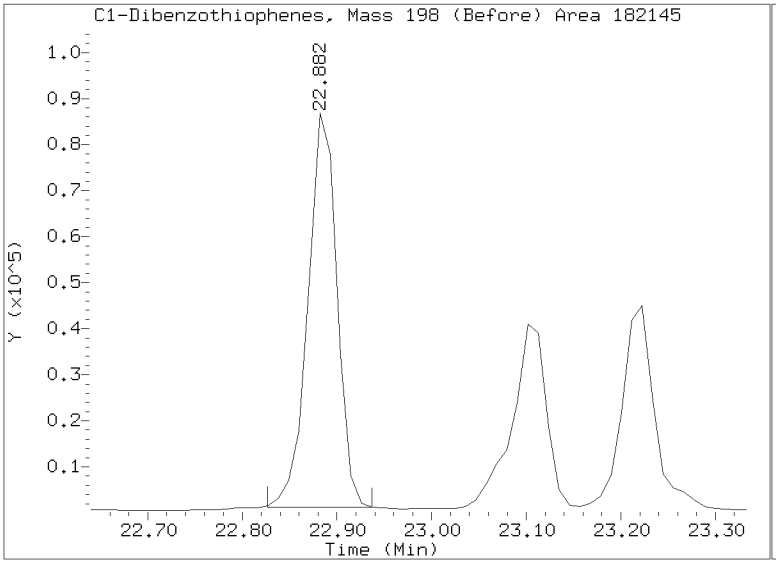

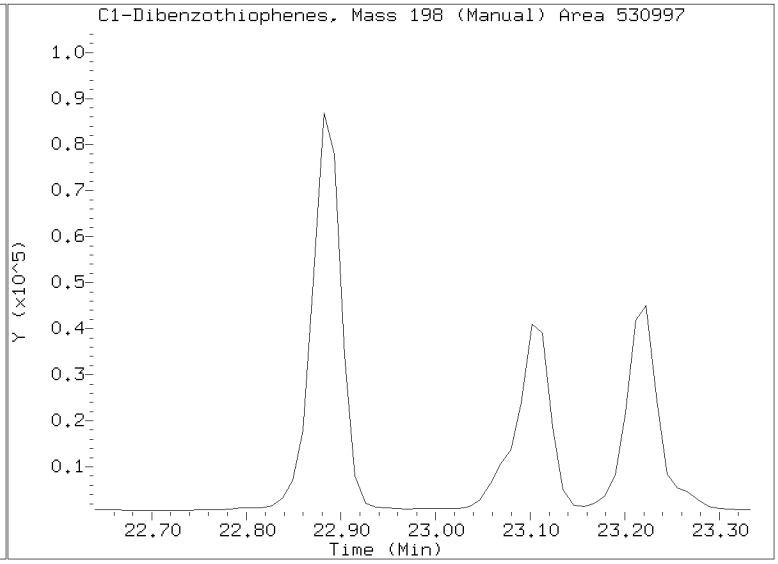

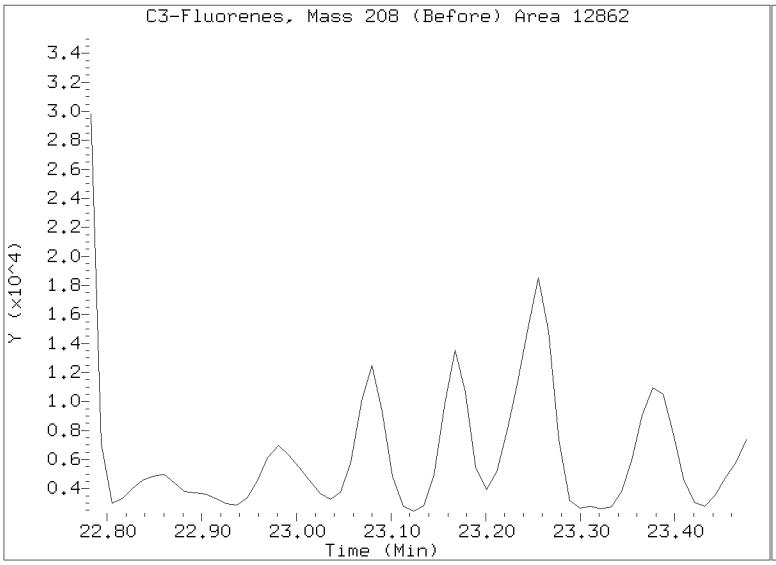

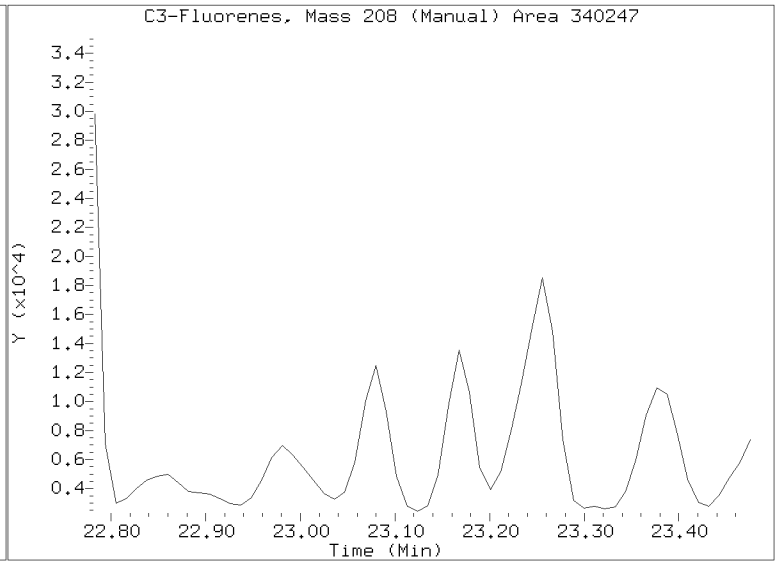

Quant Ion Manual Peak Adjustment Report

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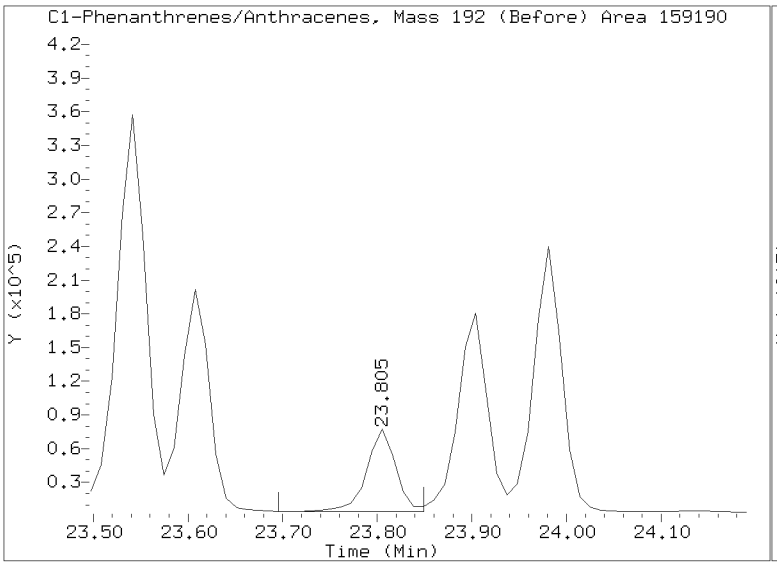

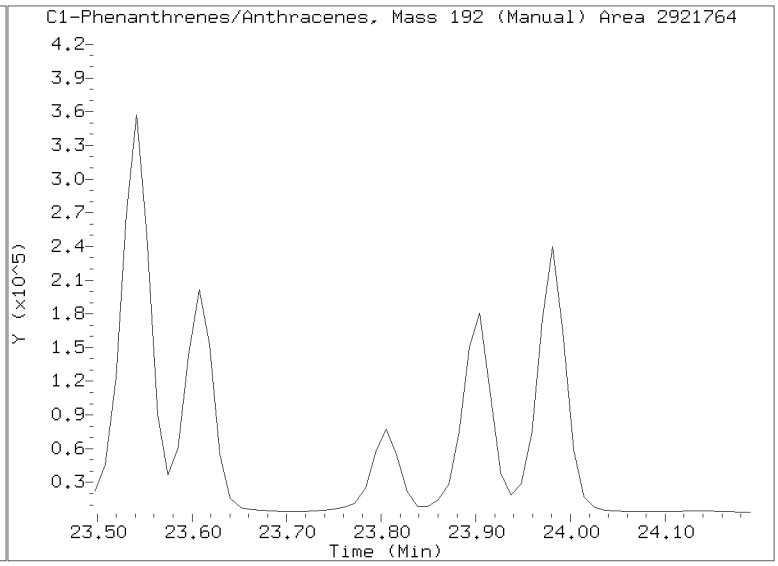

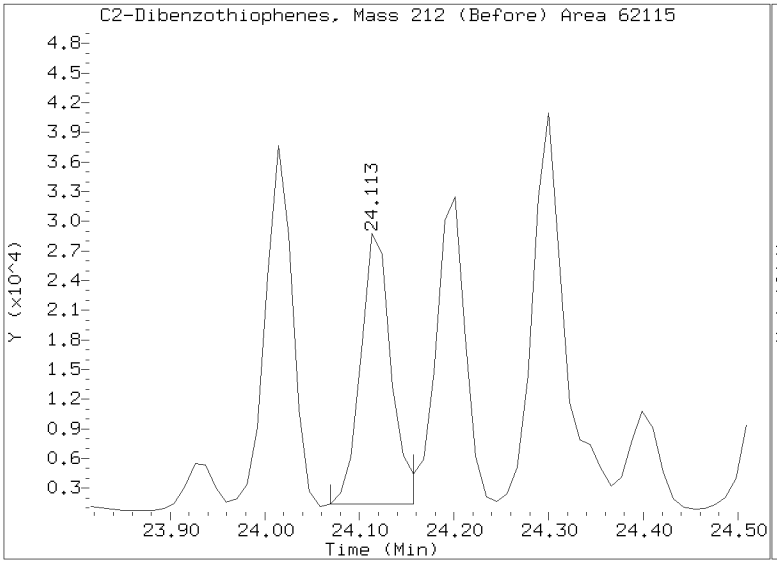

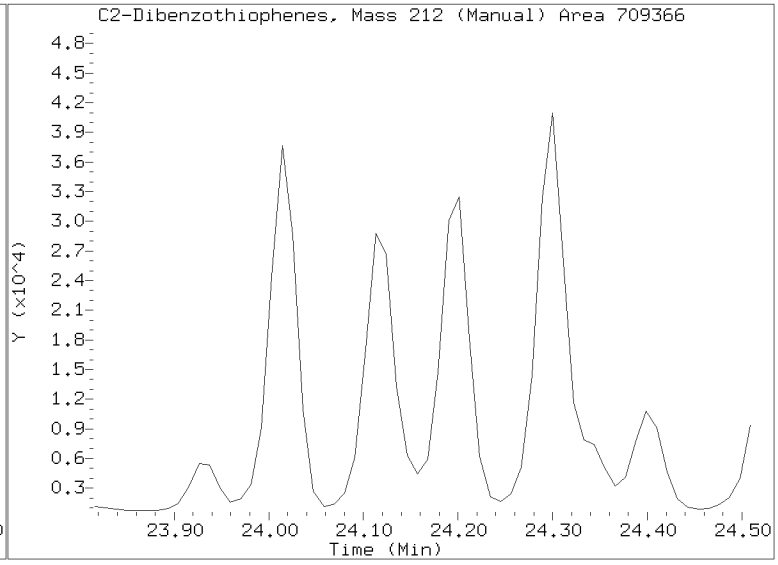

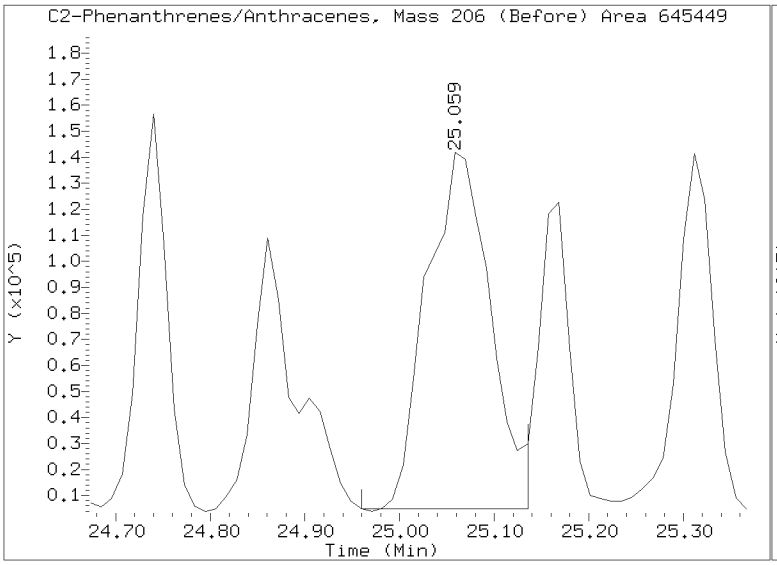

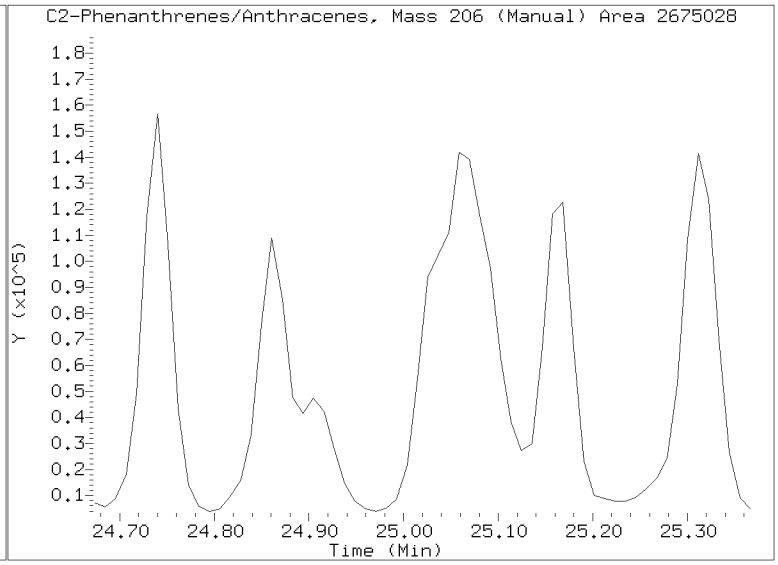

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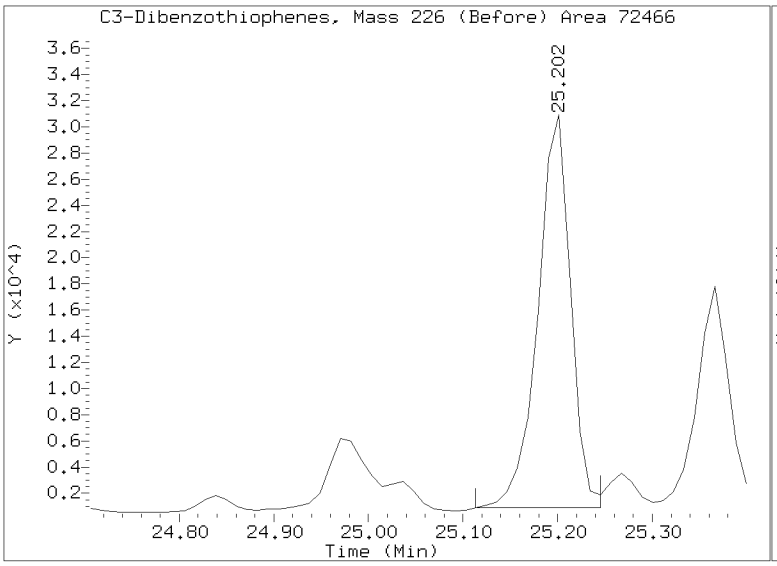

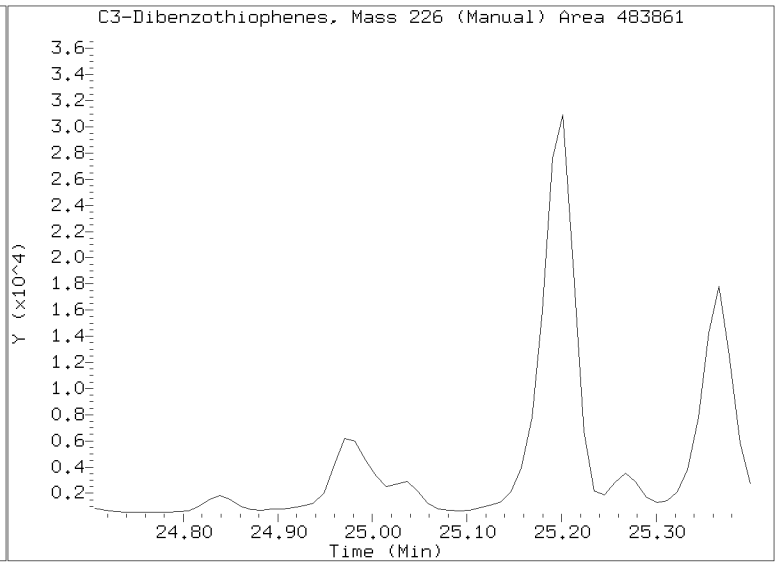

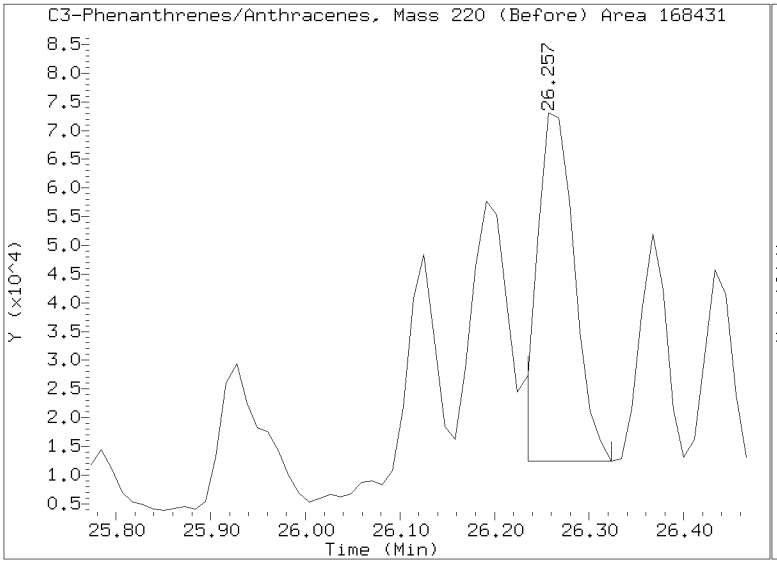

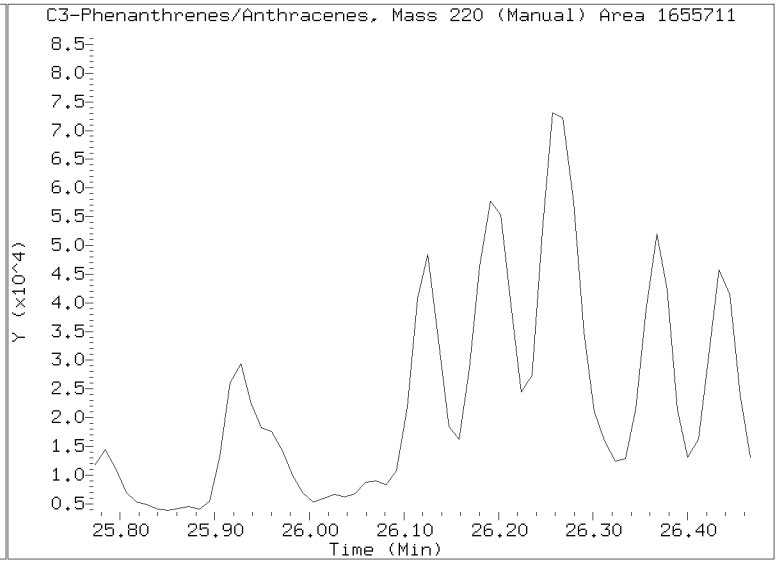

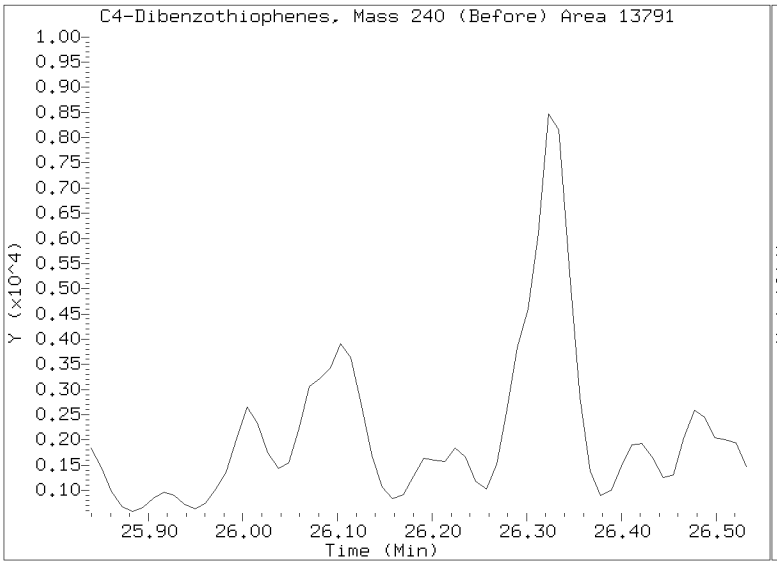

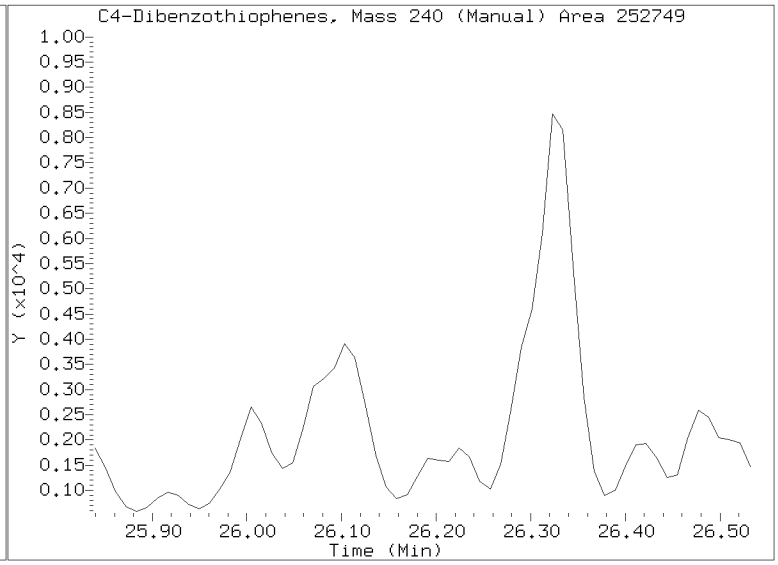

Quant Ion Manual Peak Adjustment Report

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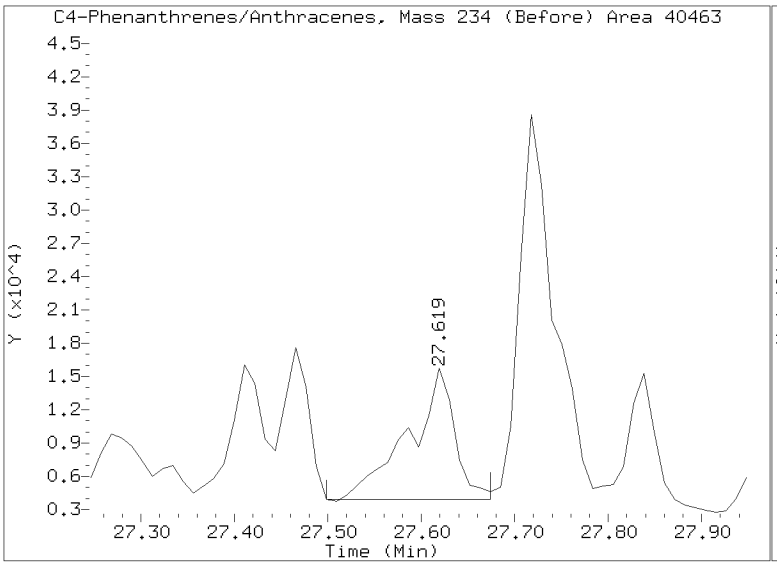
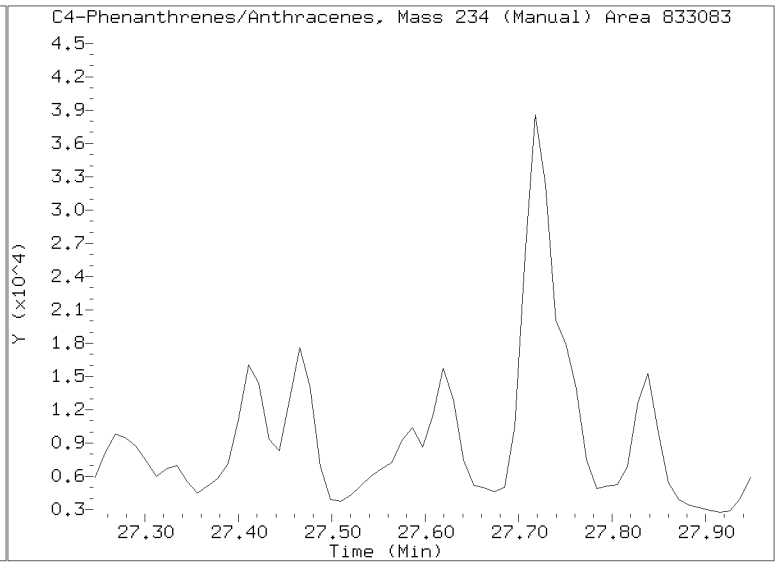
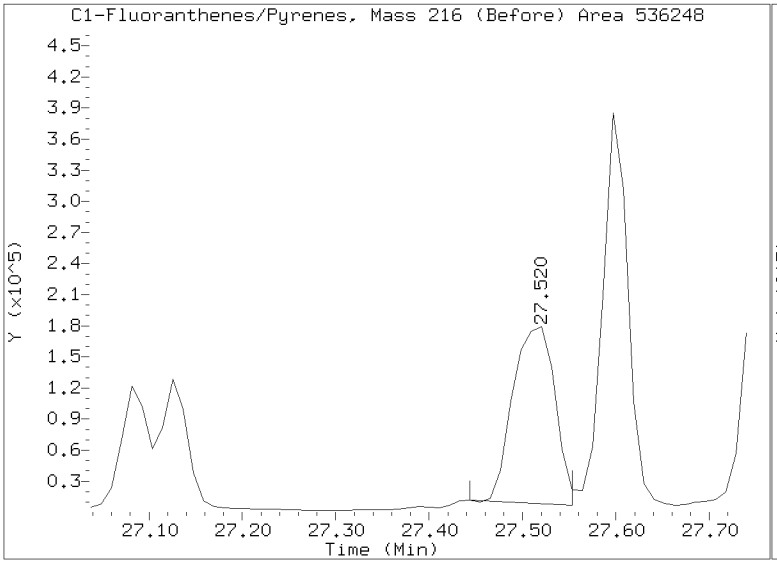
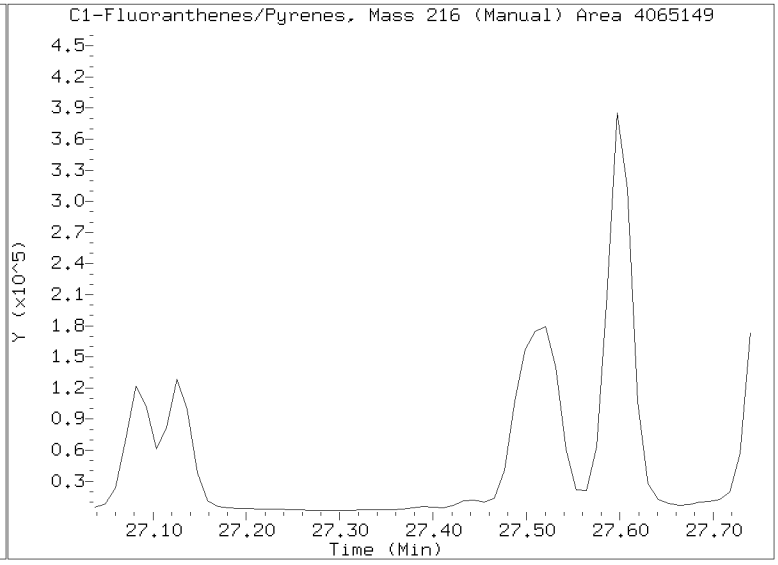
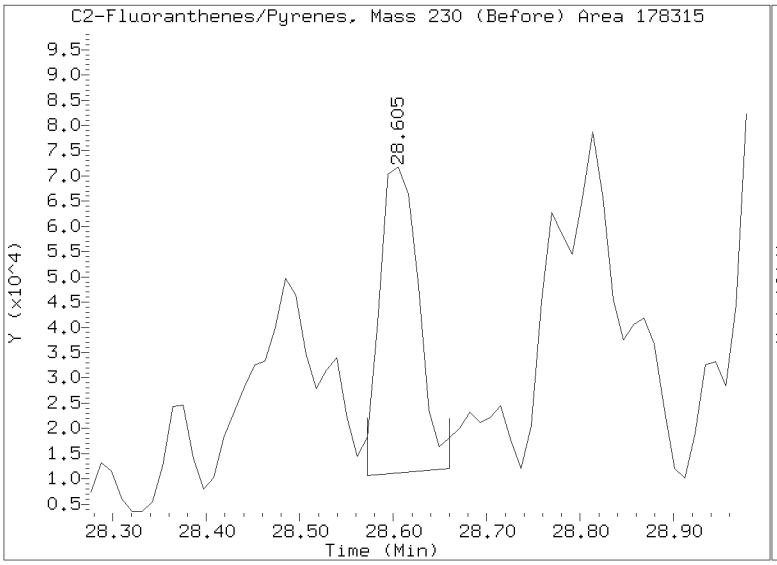
Injection Date: 13-MAR-2021 14:47
Lab ID:21B0118-01 Client ID:
Report Date: 03/19/2021 09:08

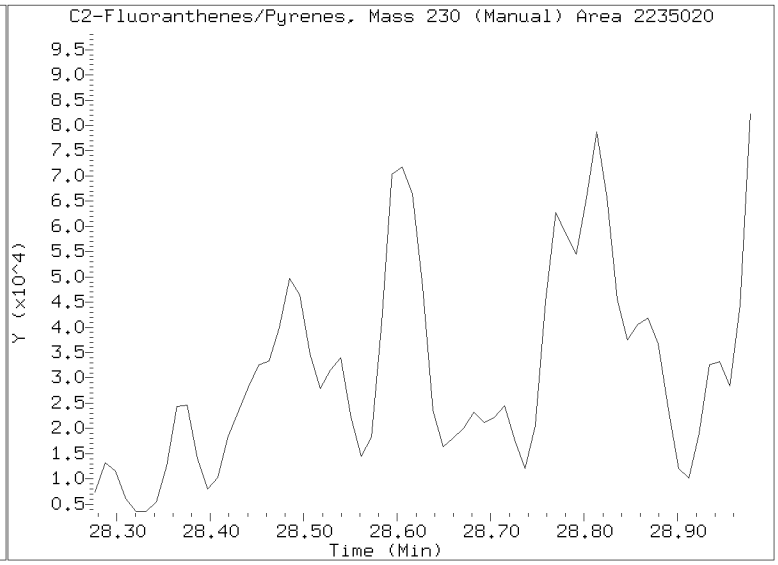






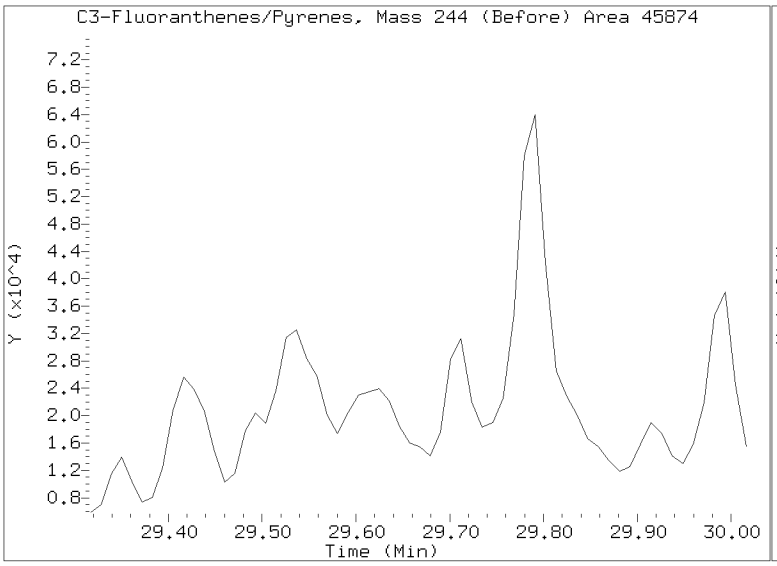


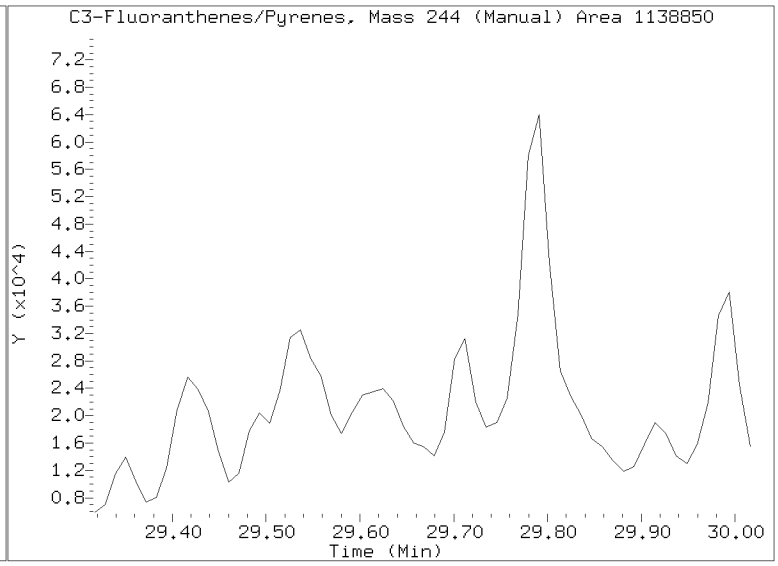


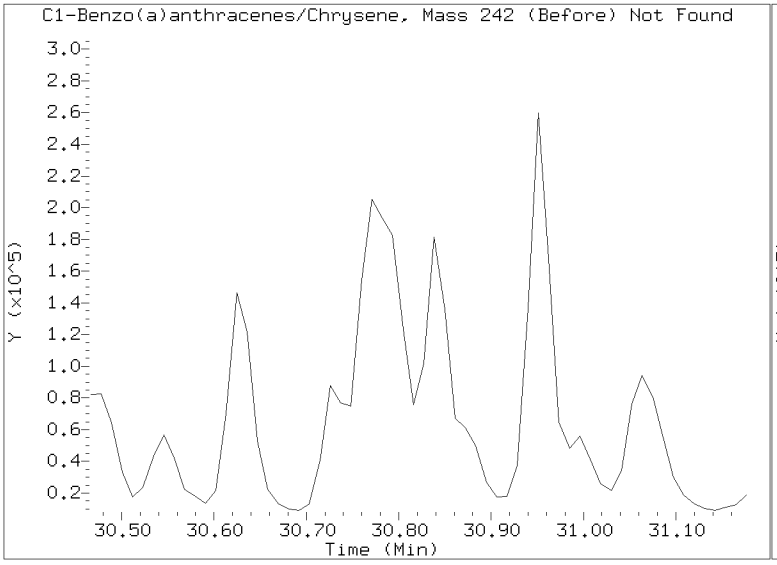


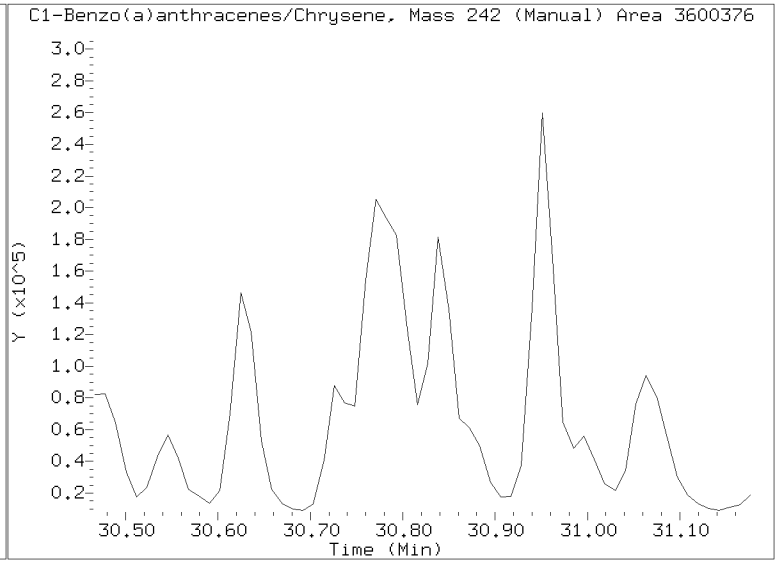
Quant Ion Manual Peak Adjustment Report

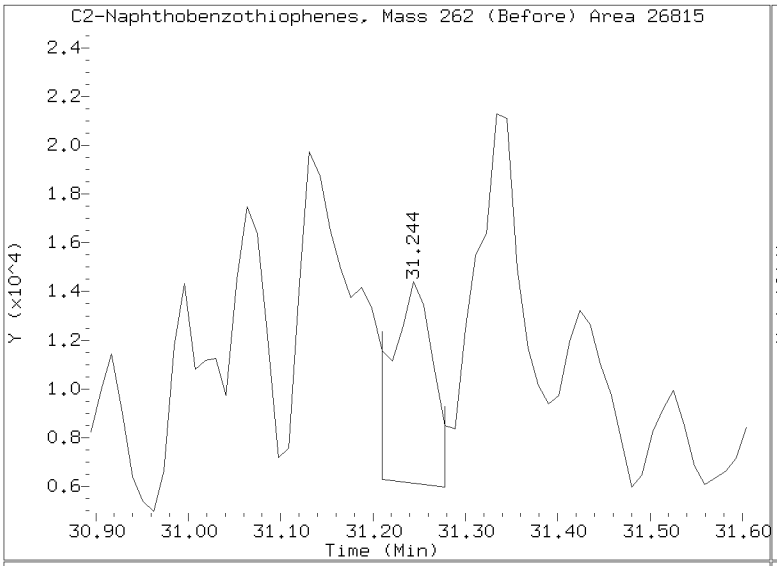
Datafile: //target/share/chem3/nt14.i/20210313.b/SIM.b/NT1421031306S.D
Injection Date: 13-MAR-2021 14:47
Lab ID:21B0118-01 Client ID:
Report Date: 03/19/2021 09:08

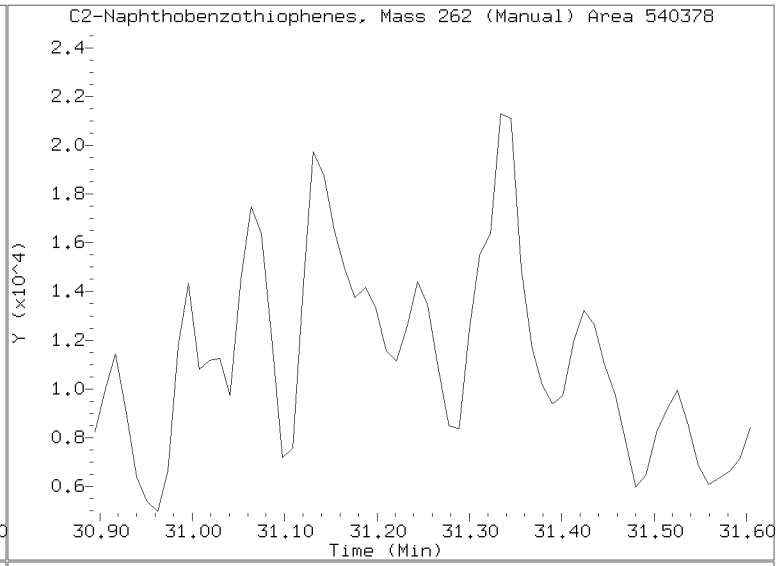


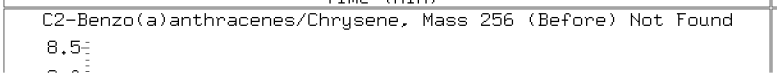


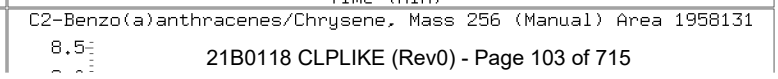












Analytical Resources, Incorporated
Analytical Chemists and Consultants

USMPDI-049SC-A-00-01-201104

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

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	US Moorings				
Matrix:	Sediment	Laboratory ID:	21B0118-01RE1 A	SDG:	21B0118
Sampled:	11/04/20 15:30	Prepared:	03/04/21 10:33	File ID:	NT1421031309.D
% Solids:	44.88	Preparation:	EPA 3546 (Microwave)	Analyzed:	03/13/21 17:12
Batch:	BJC0107	Sequence:	SJC0183	Initial/Final:	22.31 g Wet / 0.5 mL
Instrument:	NT14	Column:	ZB-5MS	Calibration:	EA00040
Cleanups:	GPC, Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
493-02-7	trans-Decalin	10	49.9	U	0.3	49.9
493-01-6	cis-Decalin	10	49.9	U	4.9	49.9
91-20-3	Naphthalene	10	345	D	4.5	49.9
90-12-0	1-Methylnaphthalene	10	74.4	D	3.8	49.9
91-57-6	2-Methylnaphthalene	10	171	D	4.4	49.9
92-52-4	Biphenyl	10	51.7	D	3.3	49.9
581-42-0	2,6-Dimethylnaphthalene	10	68.6	D	3.9	49.9
208-96-8	Acenaphthylene	10	74.5	D	2.6	49.9
83-32-9	Acenaphthene	10	197	D	4.6	49.9
132-64-9	Dibenzofuran	10	61.8	D	4.1	49.9
2245-38-7	2,3,5-Trimethylnaphthalene	10	45.7	J, D	4.5	49.9
86-73-7	Fluorene	10	259	D	4.7	49.9
95-15-8	Benzo(b)thiophene	10	27.1	J, D	3.6	49.9
85-01-8	Phenanthrene	10	1430	D	9.3	49.9
120-12-7	Anthracene	10	809	D	0.5	49.9
86-74-8	Carbazole	10	158	D	7.1	49.9
832-69-9	1-Methylphenanthrene	10	170	D	5.0	49.9
206-44-0	Fluoranthene	10	2360	D	13.6	49.9
132-65-0	Dibenzothiophene	10	195	Q, D	6.5	49.9
129-00-0	Pyrene	10	2570	D	10.2	49.9
56-55-3	Benzo(a)anthracene	10	799	D	14.1	49.9
218-01-9	Chrysene	10	1090	D	7.1	49.9
205-99-2	Benzo(b)fluoranthene	10	794	D	7.9	49.9
205-82-3	Benzo(j)fluoranthene	10	440	Q, D	6.8	49.9
207-08-9	Benzo(k)fluoranthene	10	451	D	7.9	49.9
197-97-2	Benzo(e)pyrene	10	781	D	6.2	49.9
50-32-8	Benzo(a)pyrene	10	1020	D	9.8	49.9
193-39-5	Indeno(1,2,3-cd)pyrene	10	832	D	3.7	49.9
53-70-3	Dibenzo(a,h)anthracene	10	150	D	6.7	49.9
191-24-2	Benzo(g,h,i)perylene	10	1060	D	5.2	49.9

Analytical Resources, Incorporated
Analytical Chemists and Consultants

USMPDI-049SC-A-00-01-201104

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

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	US Moorings				
Matrix:	Sediment	Laboratory ID:	21B0118-01RE1 A	SDG:	21B0118
Sampled:	11/04/20 15:30	Prepared:	03/04/21 10:33	File ID:	NT1421031309.D
% Solids:	44.88	Preparation:	EPA 3546 (Microwave)	Analyzed:	03/13/21 17:12
Batch:	BJC0107	Sequence:	SJC0183	Initial/Final:	22.31 g Wet / 0.5 mL
Instrument:	NT14	Column:	ZB-5MS	Calibration:	EA00040
Cleanups:	GPC, Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC: (ug/kg dry)	Q	DL	RL
1985-5-0	Perylene	10	454	D	4.5	49.9
239-35-0	Benzo(b)naphtho(2,1-d)thiophene	10	220	D	49.9	49.9

SURROGATES	ADDED: (ug/kg dry)	FOUND: (ug/kg dry)	% REC	QC LIMITS	Q
Naphthalene-d8	149.81	82.9	55.3	30 - 160	
Acenaphthene-d10	149.81	128	85.3	30 - 160	
Phenanthrene-d10	149.81	126	83.9	30 - 160	
Chrysene-d12	149.81	120	80.3	30 - 160	
Perylene-d12	149.81	130	86.5	30 - 160	

Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031309.D

Date : 13-MAR-2021 17:12

Client ID:

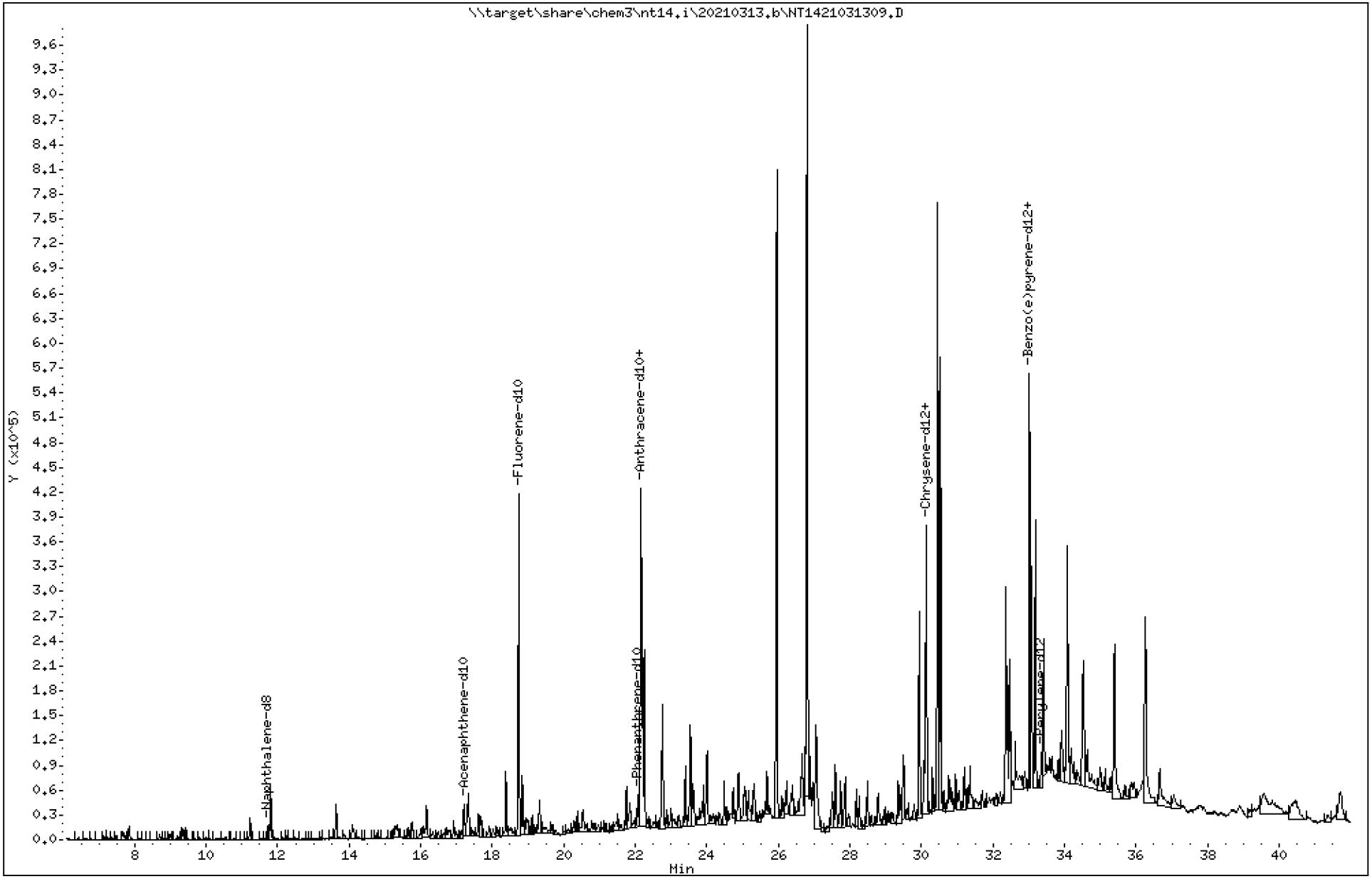
Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

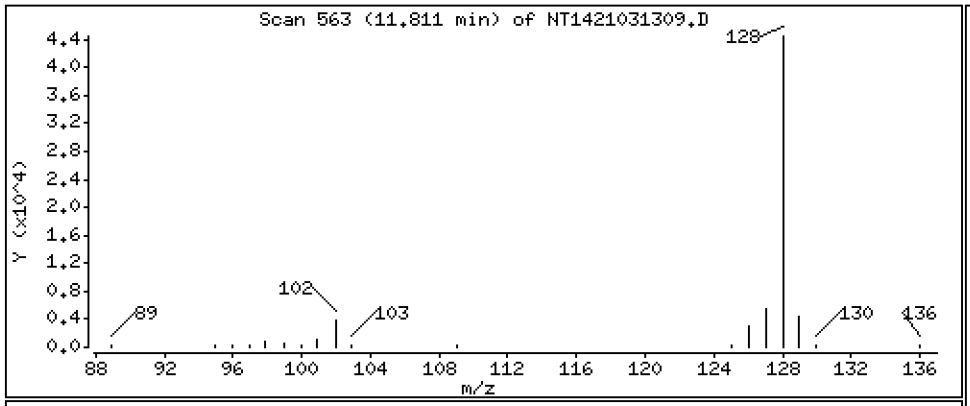
Operator: VTS

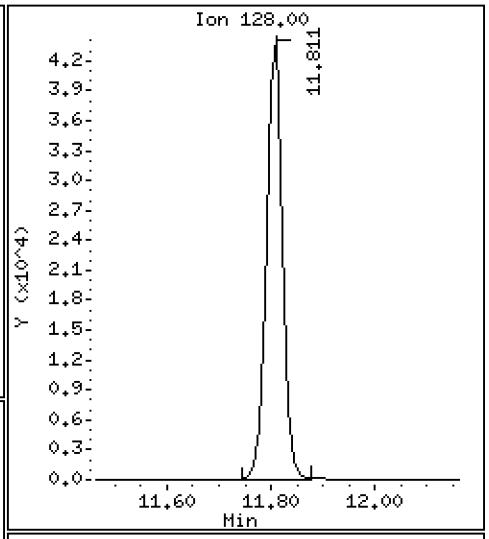
Column phase: Rxi-17Sil MS

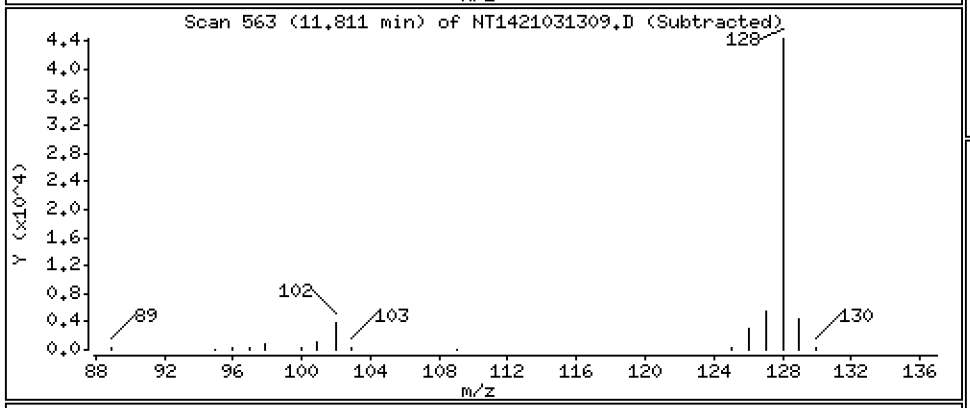
Column diameter: 0.25

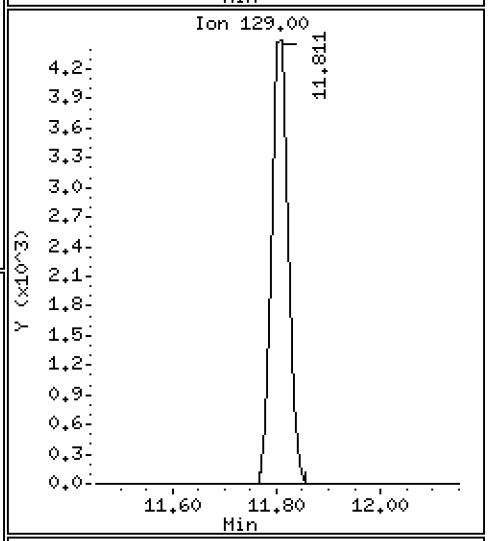
7 Naphthalene

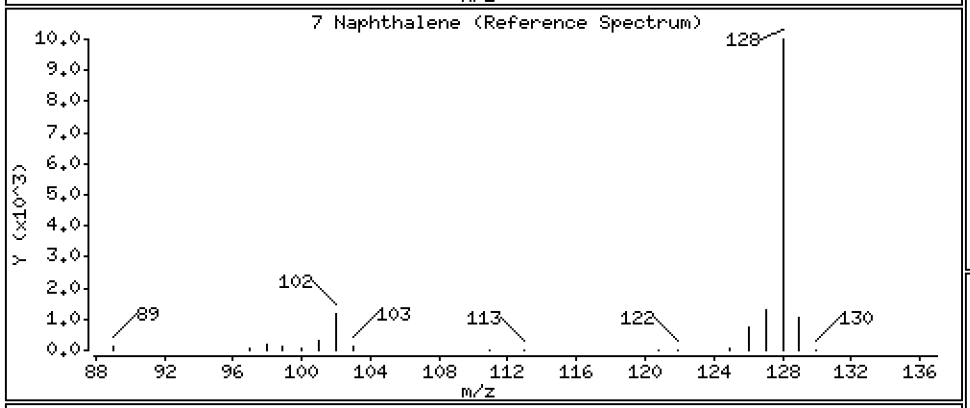
Concentration: 6.901 ug/mL

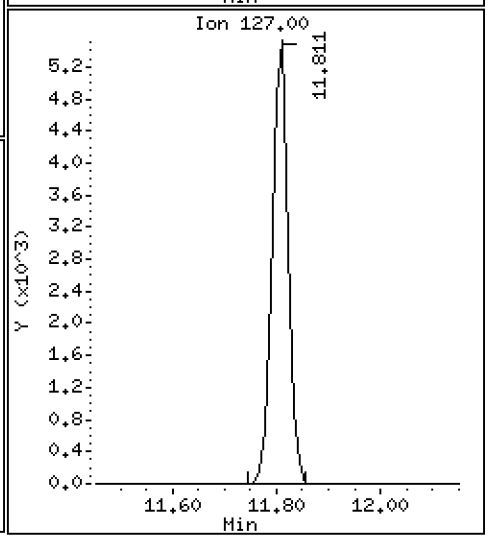


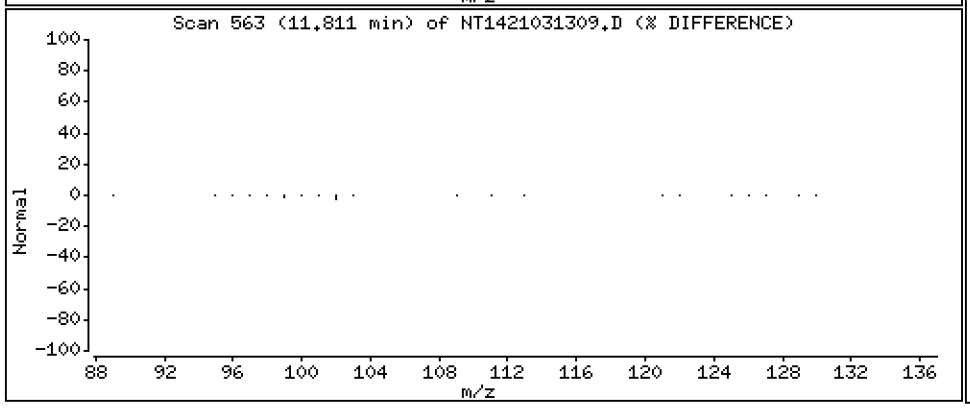












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Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

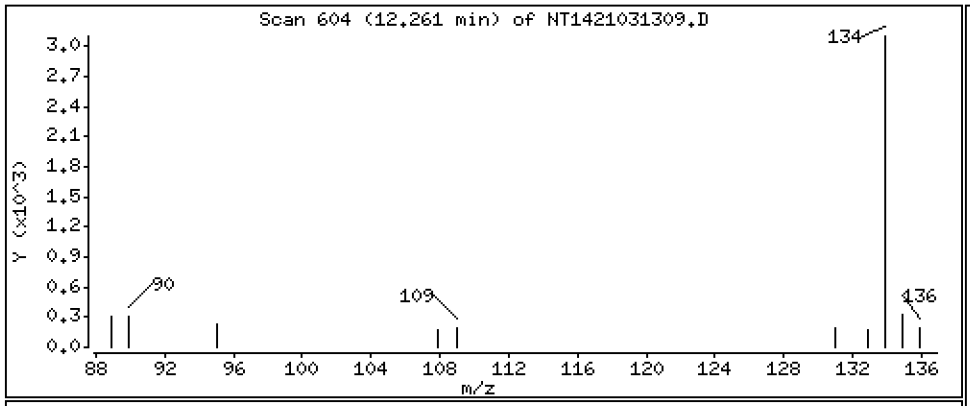
Operator: VTS

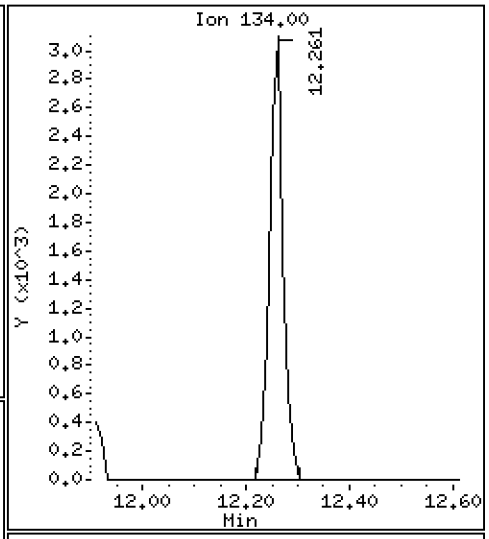
Column phase: Rxi-17Sil MS

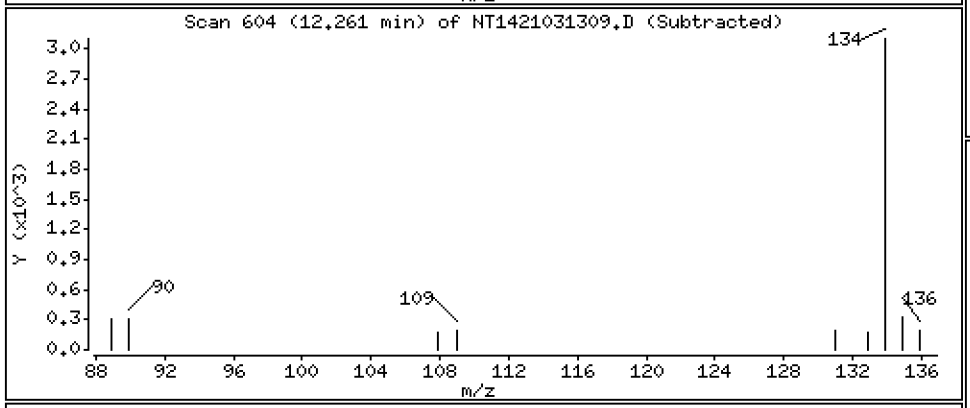
Column diameter: 0.25

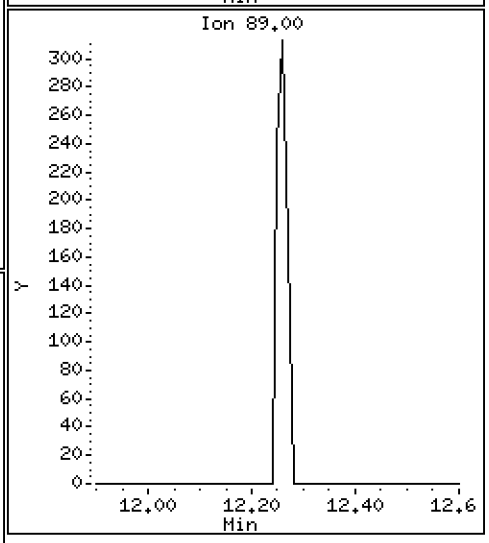
12 Benzo(b)thiophene

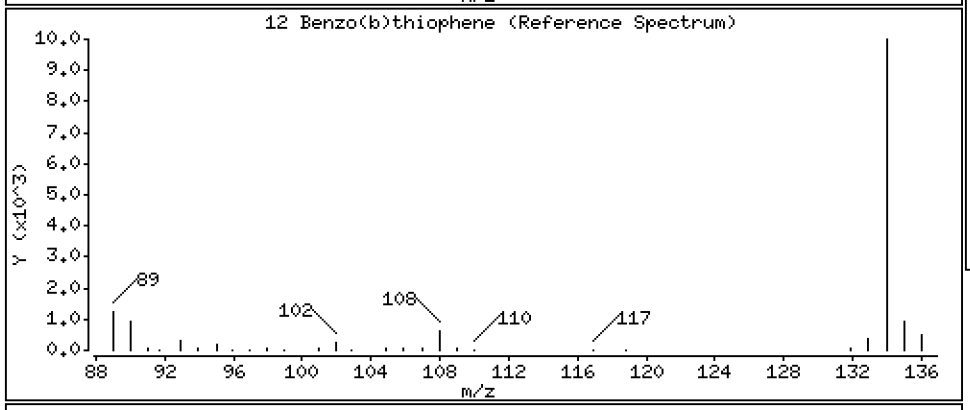
Concentration: 0.5421 ug/mL

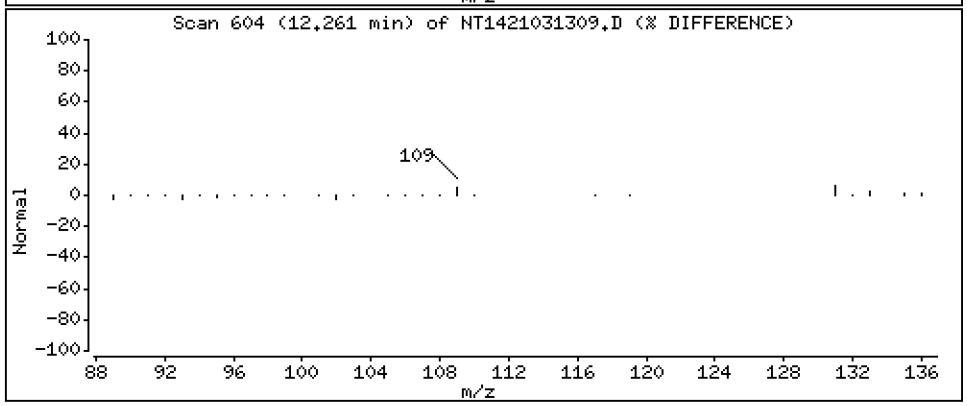












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Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

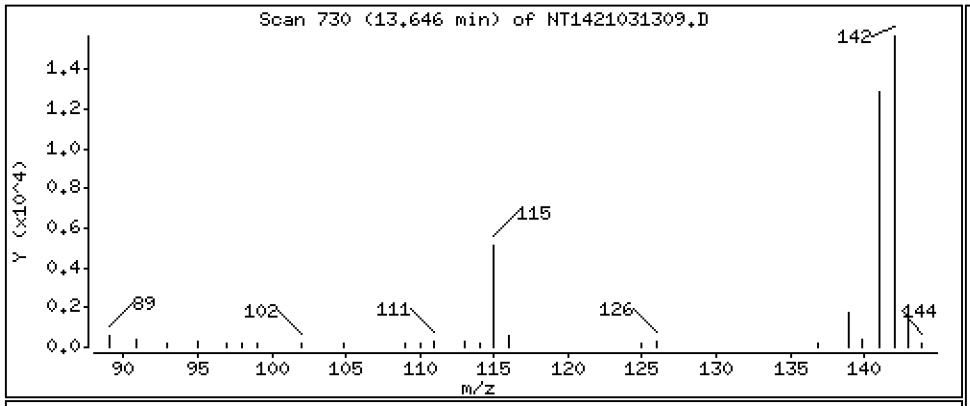
Operator: VTS

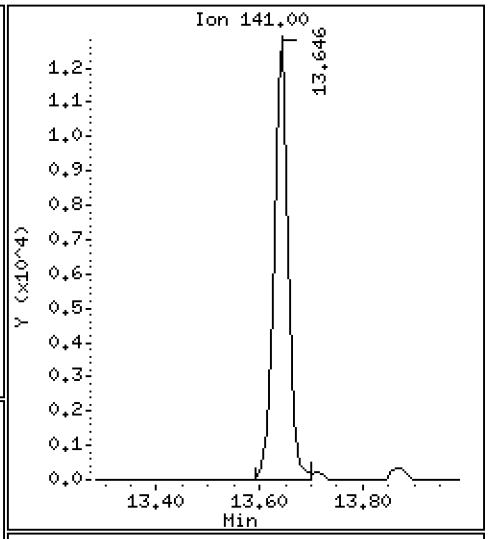
Column phase: Rxi-17Sil MS

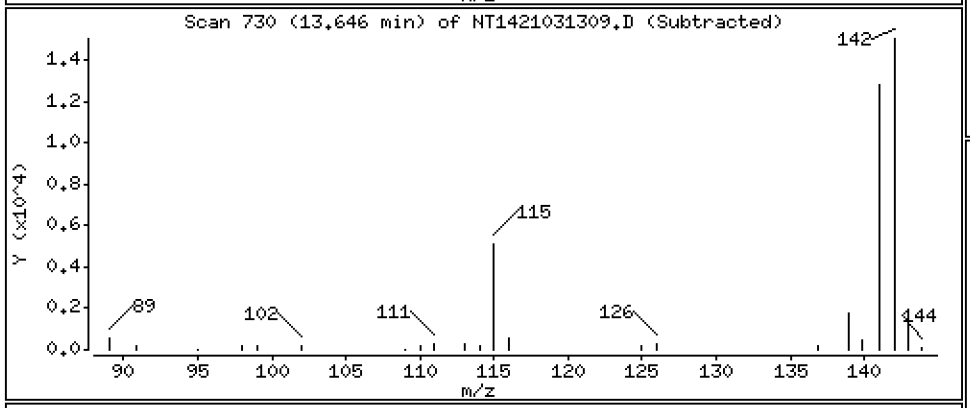
Column diameter: 0.25

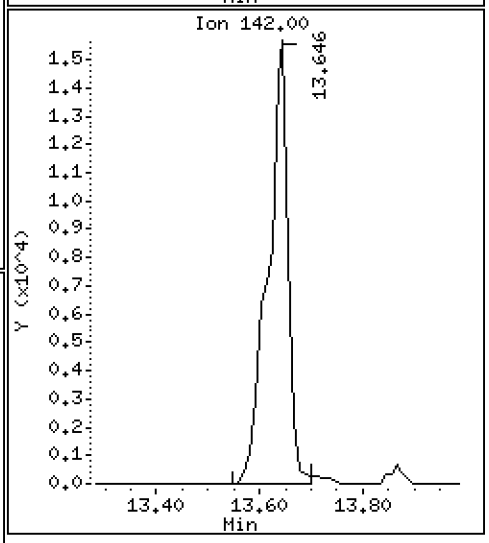
16 2-Methylnaphthalene

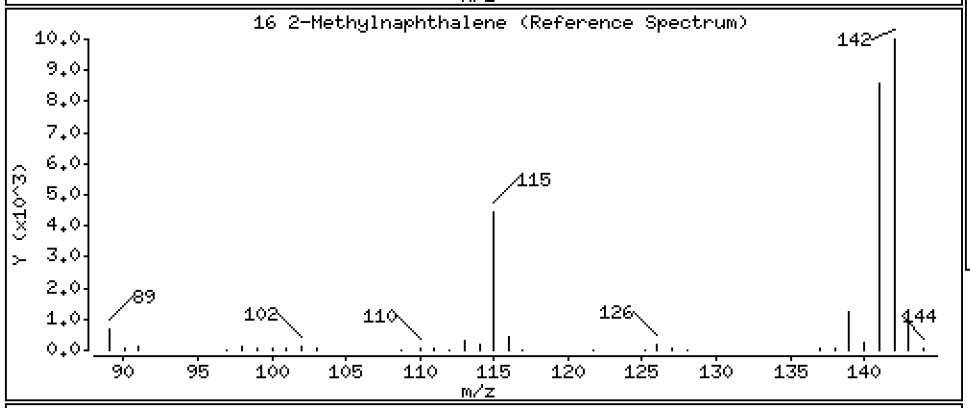
Concentration: 3.424 ug/mL

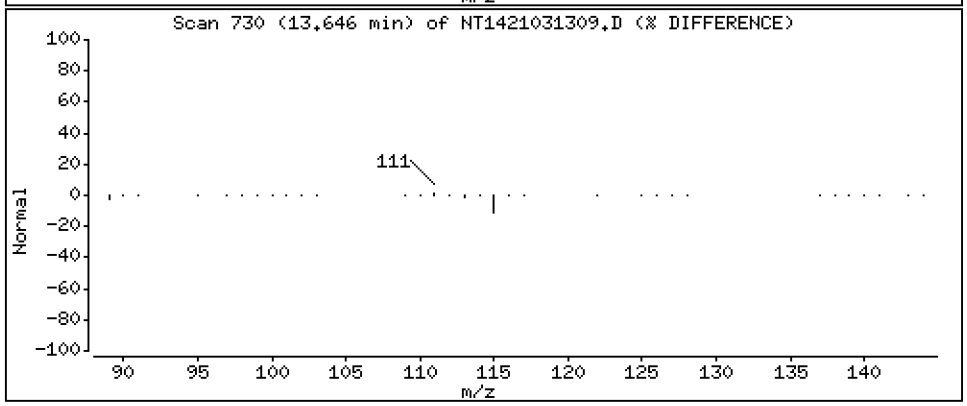












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Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

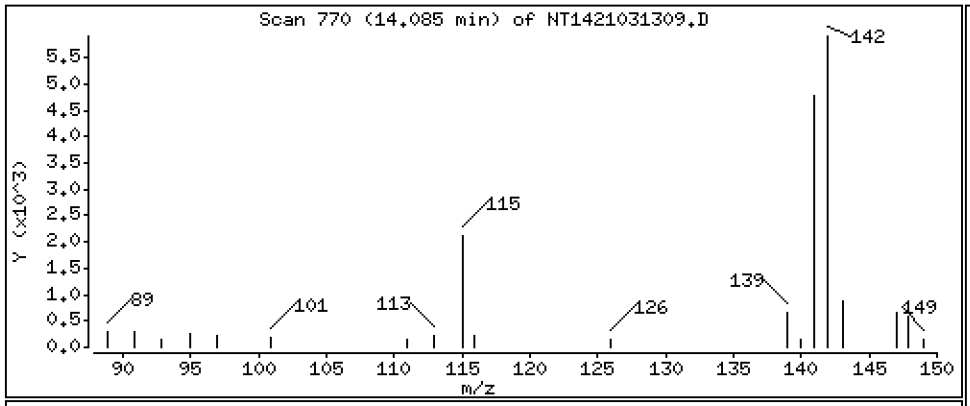
Operator: VTS

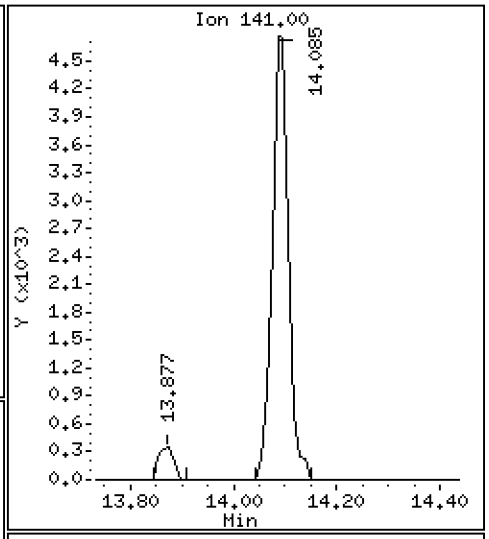
Column phase: Rxi-17Sil MS

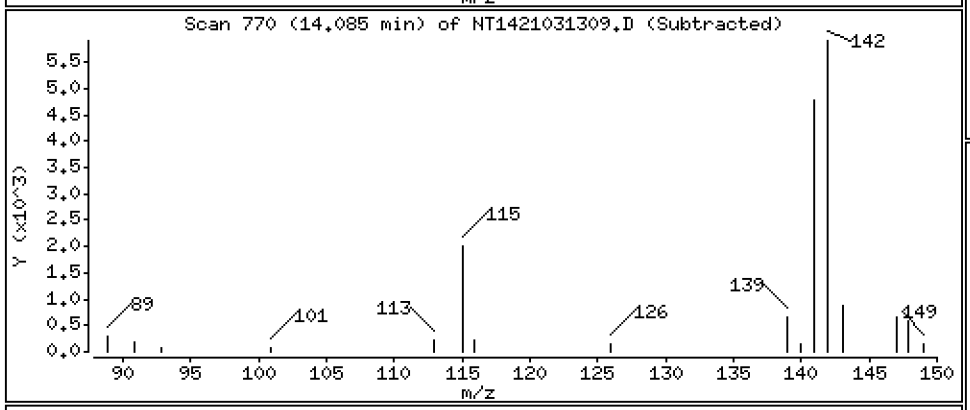
Column diameter: 0.25

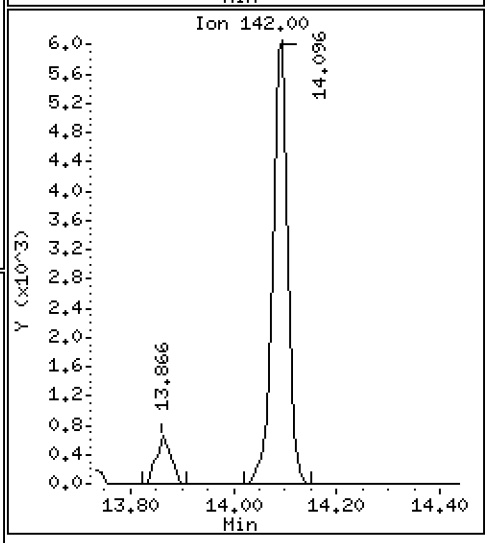
17 1-methylnaphthalene

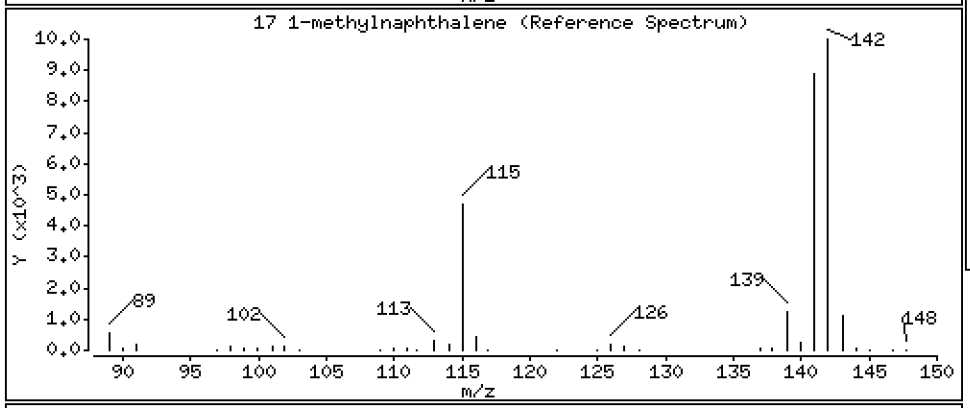
Concentration: 1.490 ug/mL

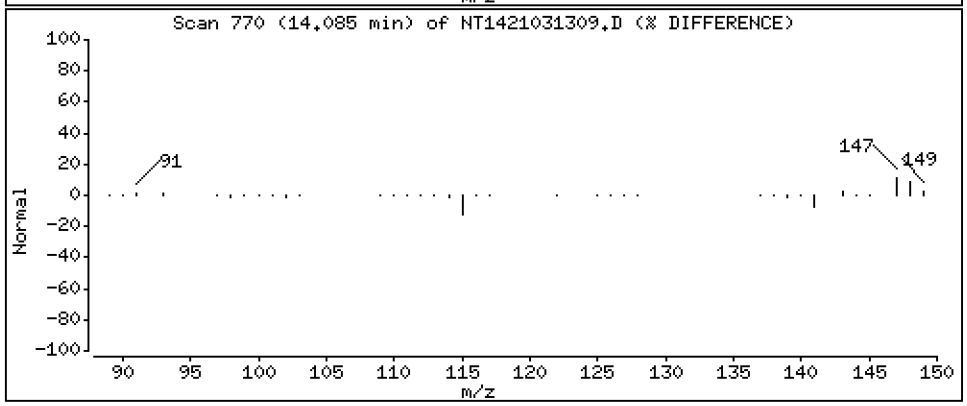












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031309.D

Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

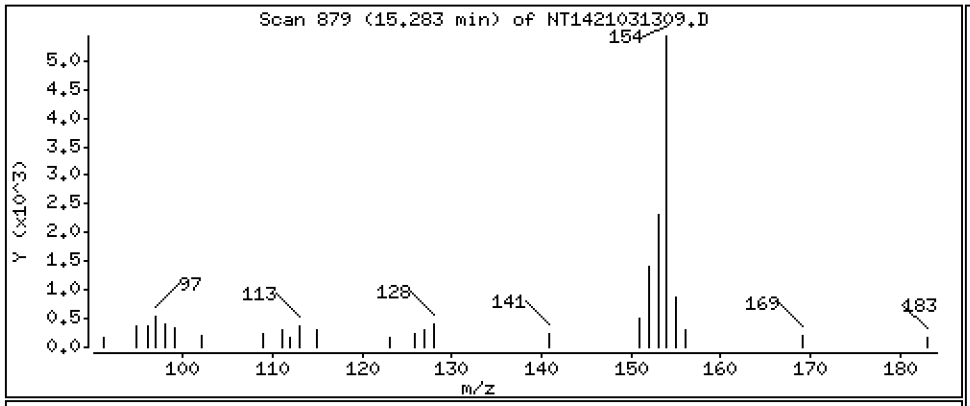
Operator: VTS

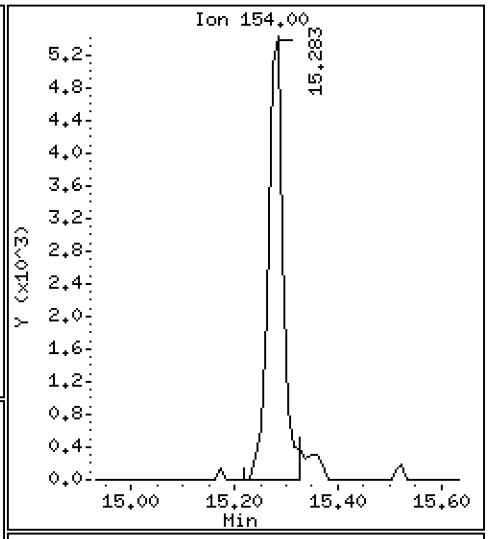
Column phase: Rxi-17Sil MS

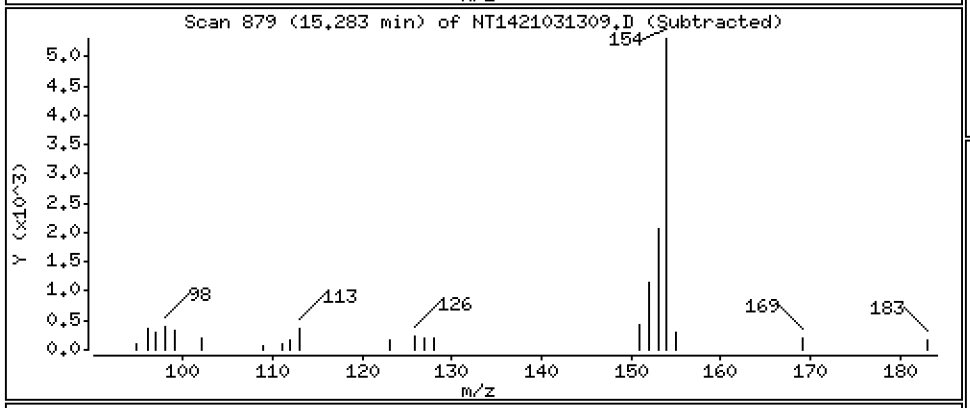
Column diameter: 0.25

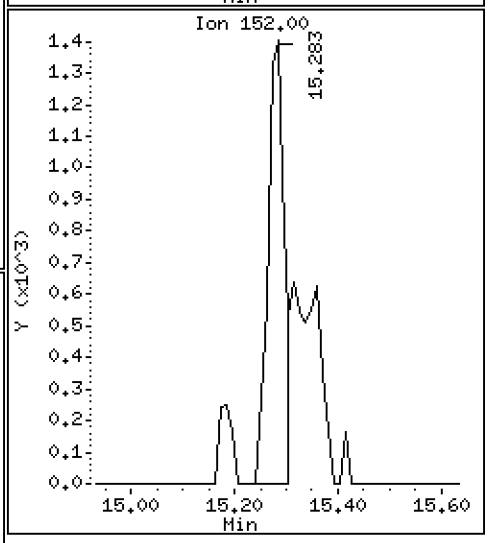
18 Biphenyl

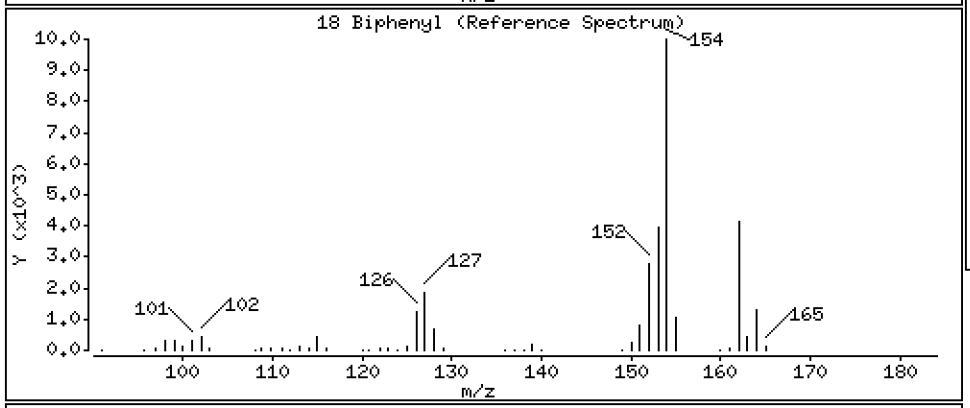
Concentration: 1.035 ug/mL

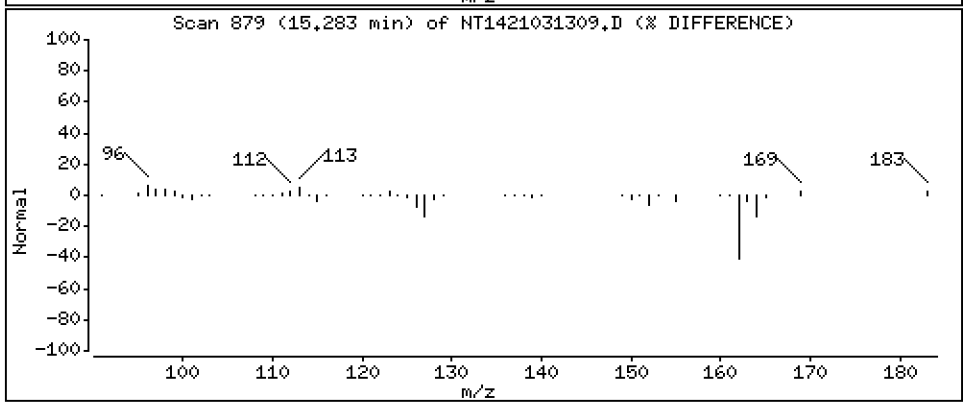












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Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

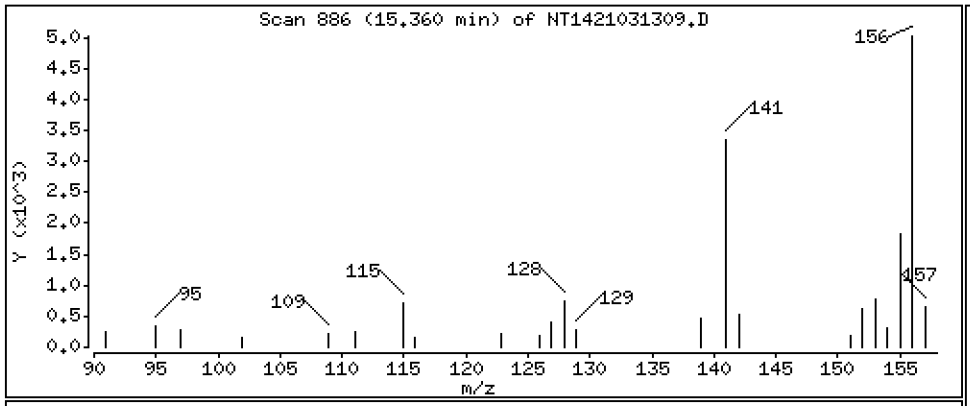
Operator: VTS

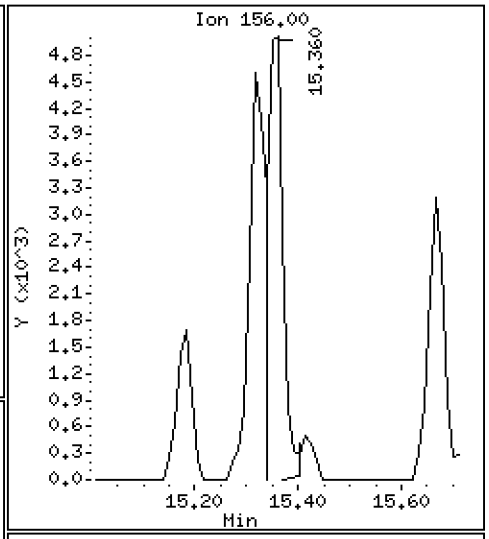
Column phase: Rxi-17Sil MS

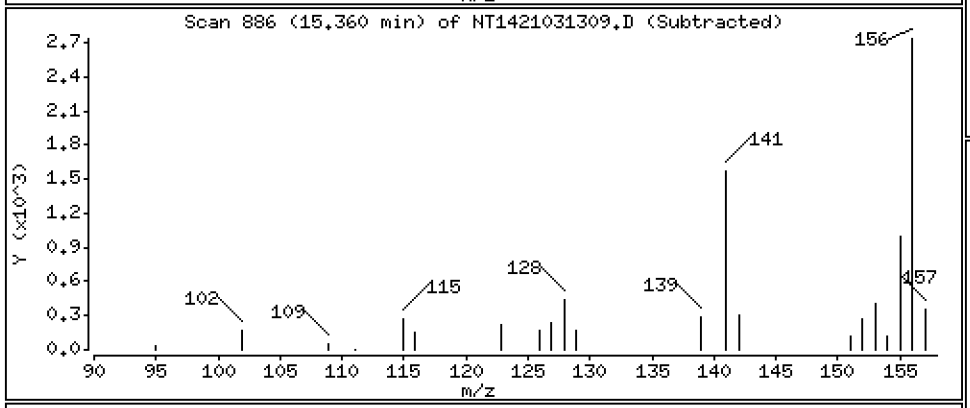
Column diameter: 0.25

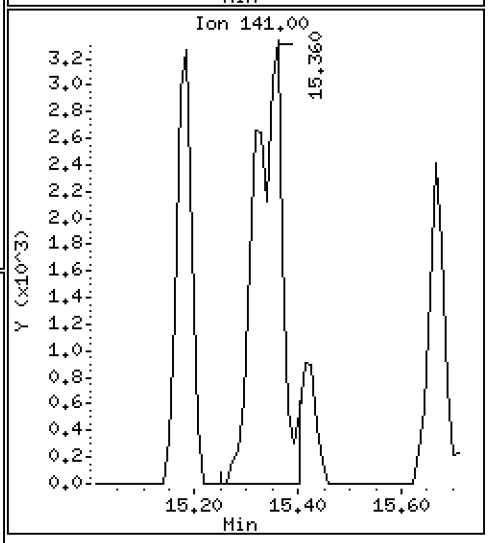
19 2,6-Dimethylnaphthalene

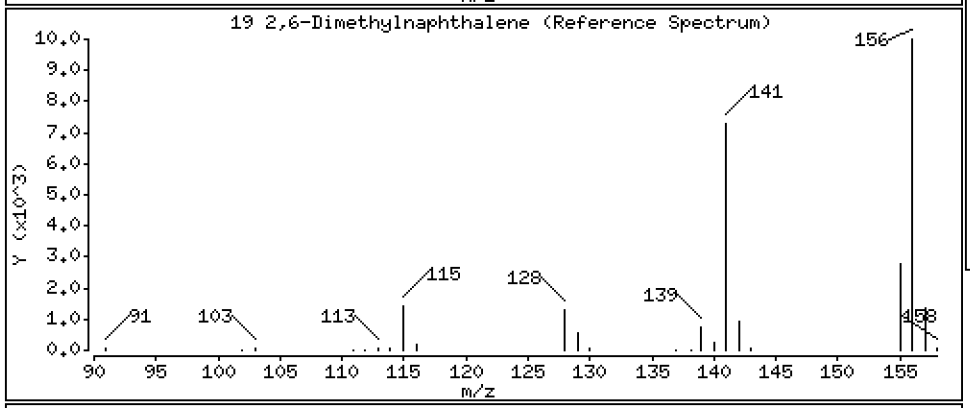
Concentration: 1.374 ug/mL

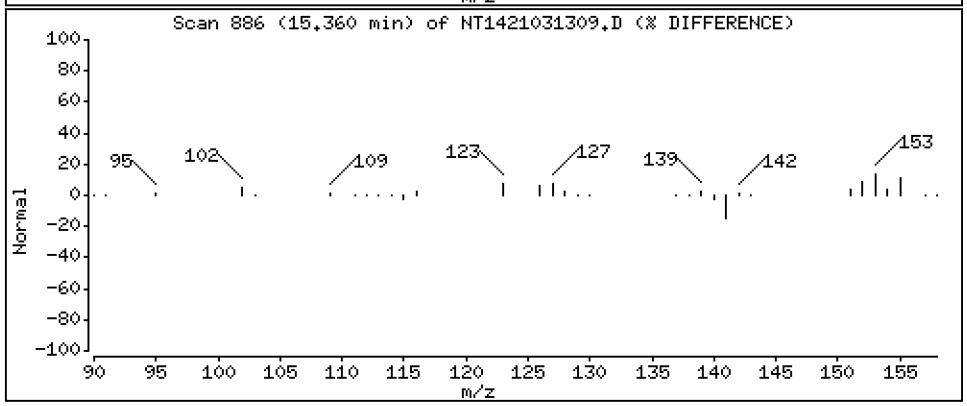












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Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

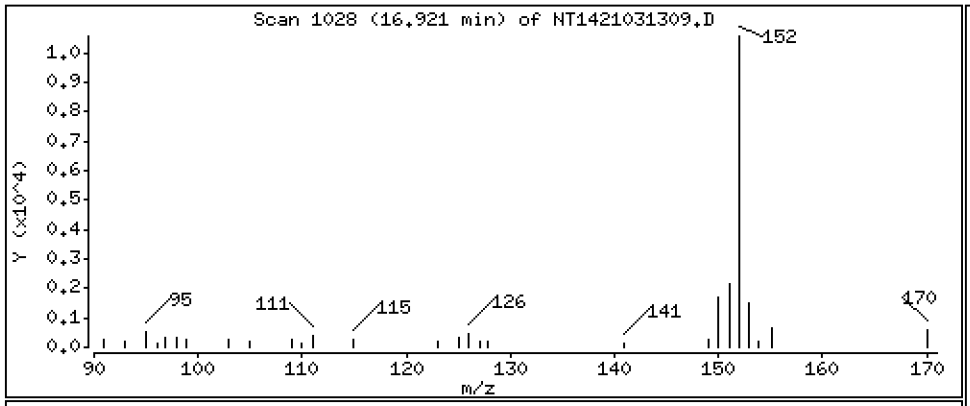
Operator: VTS

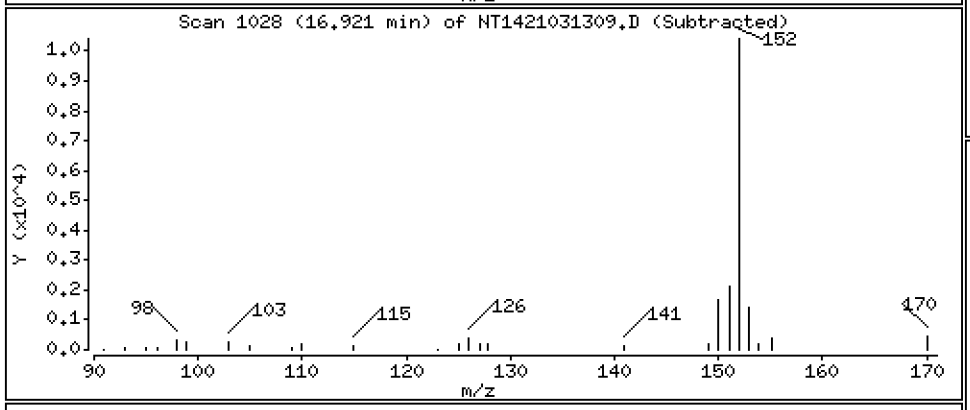
Column phase: Rxi-17Sil MS

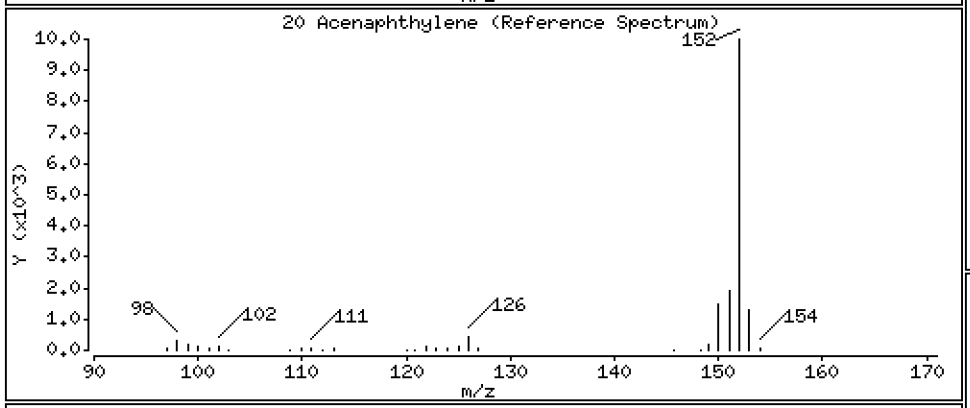
Column diameter: 0.25

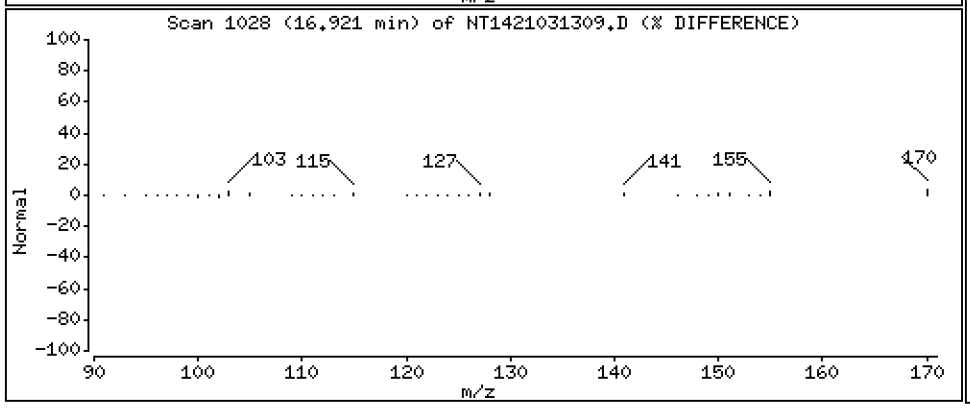
20 Acenaphthylene

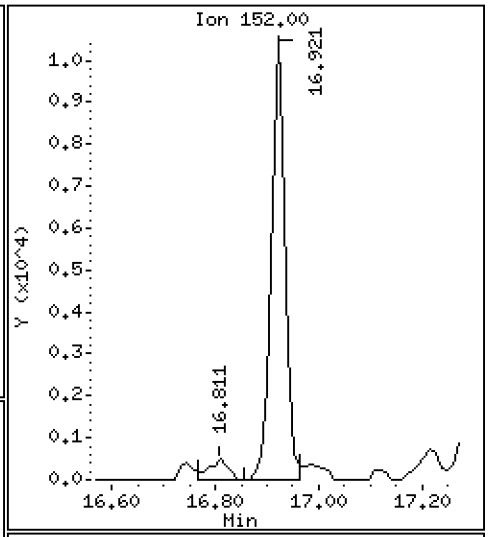
Concentration: 1.492 ug/mL

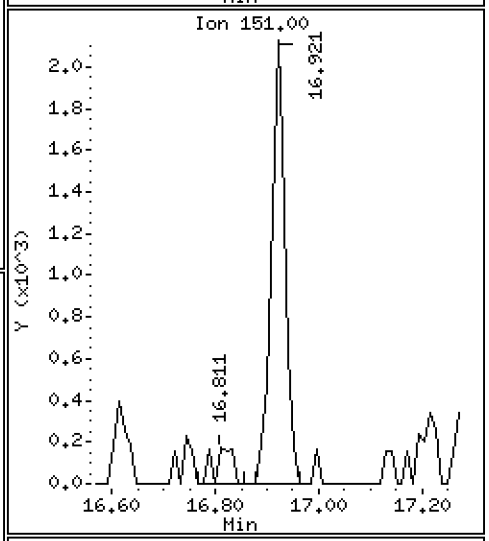


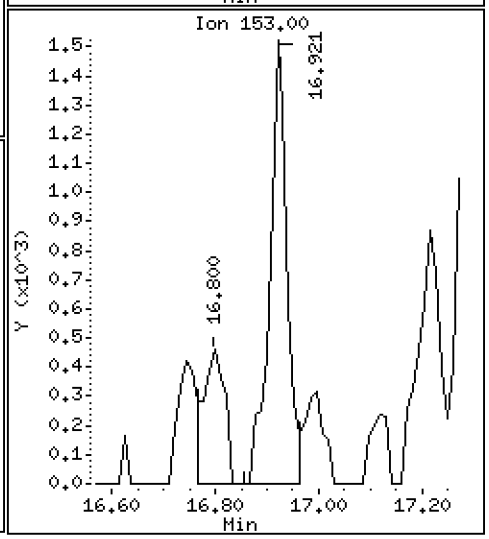












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Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

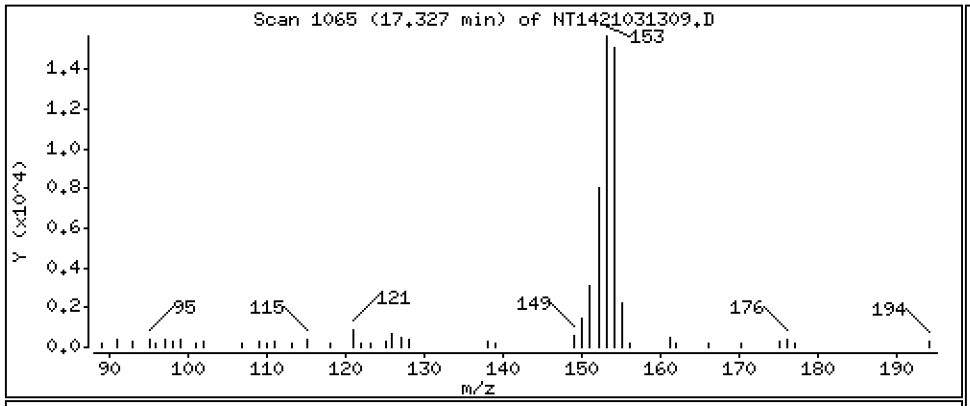
Operator: VTS

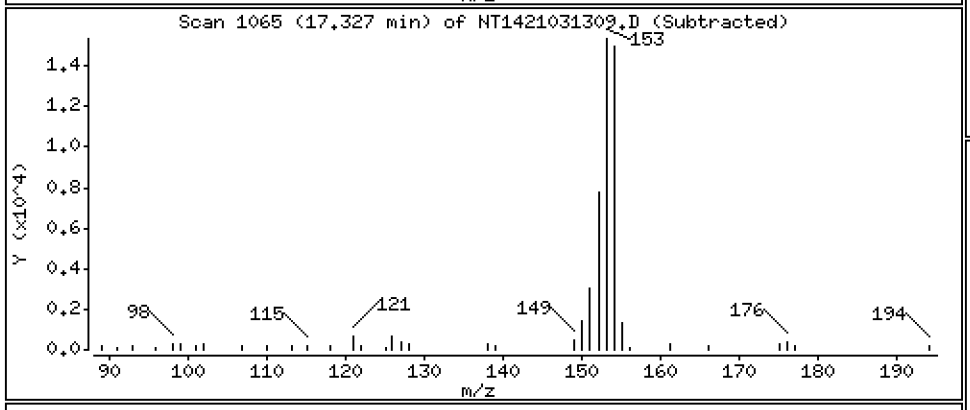
Column phase: Rxi-17Sil MS

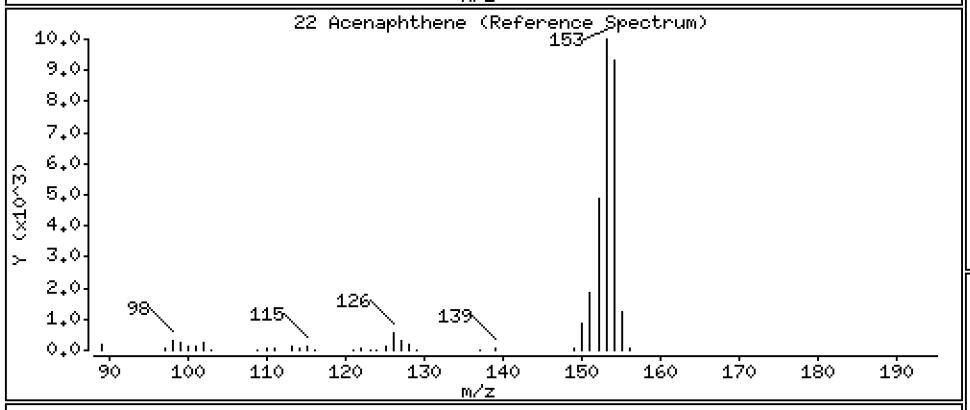
Column diameter: 0.25

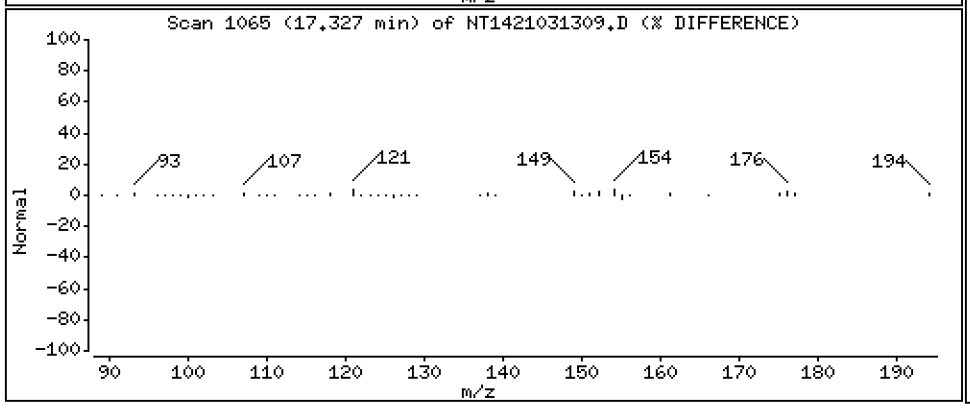
22 Acenaphthene

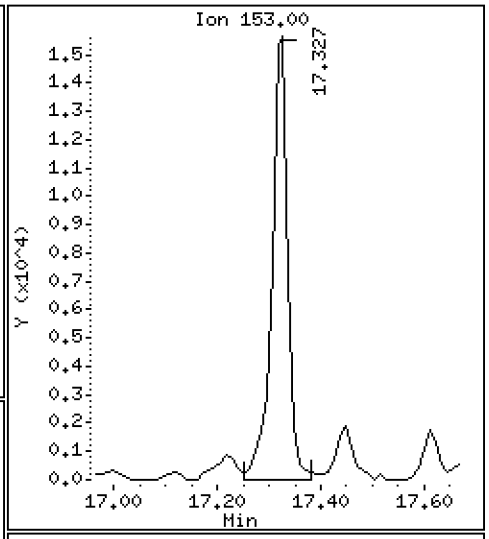
Concentration: 3.953 ug/mL

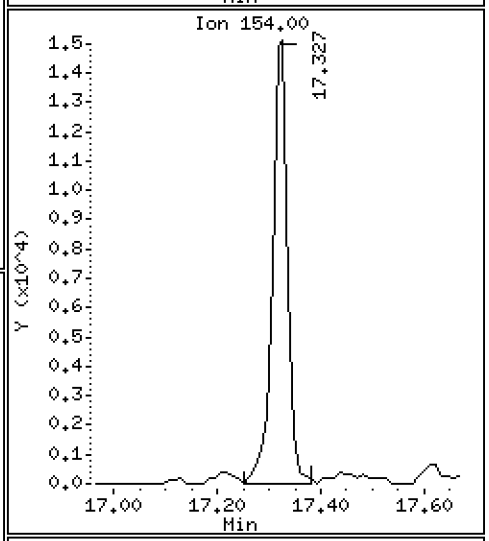


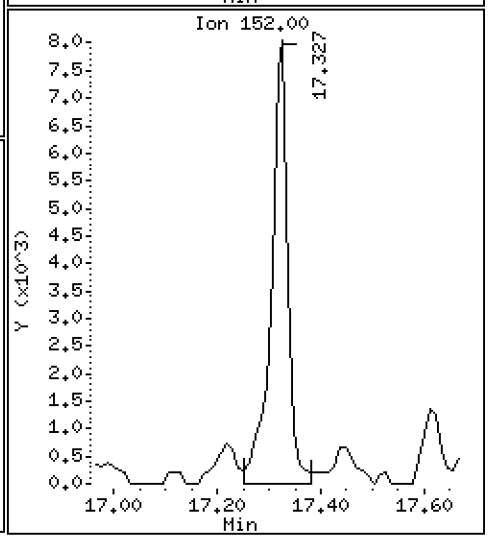












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Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

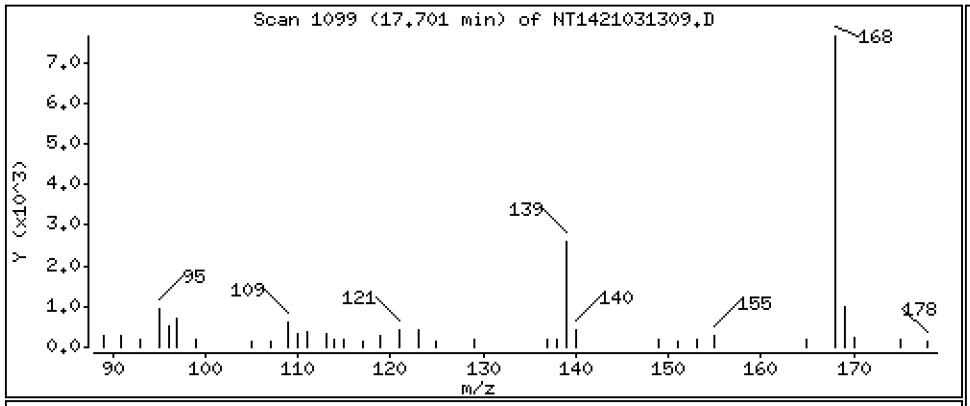
Operator: VTS

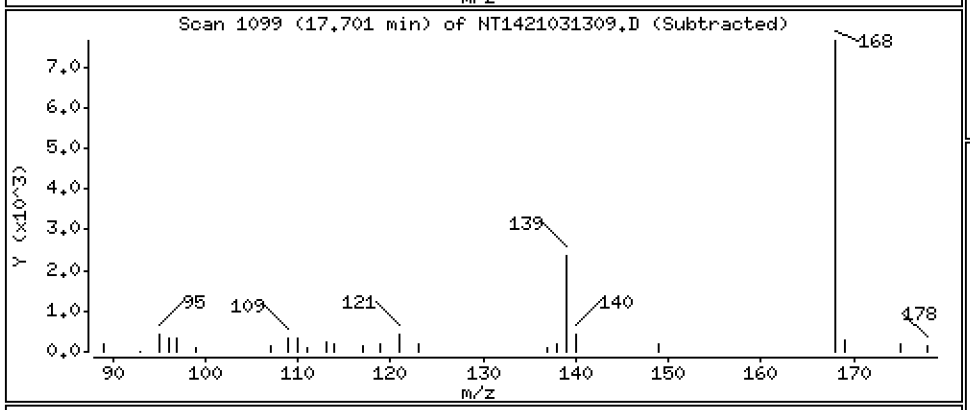
Column phase: Rxi-17Sil MS

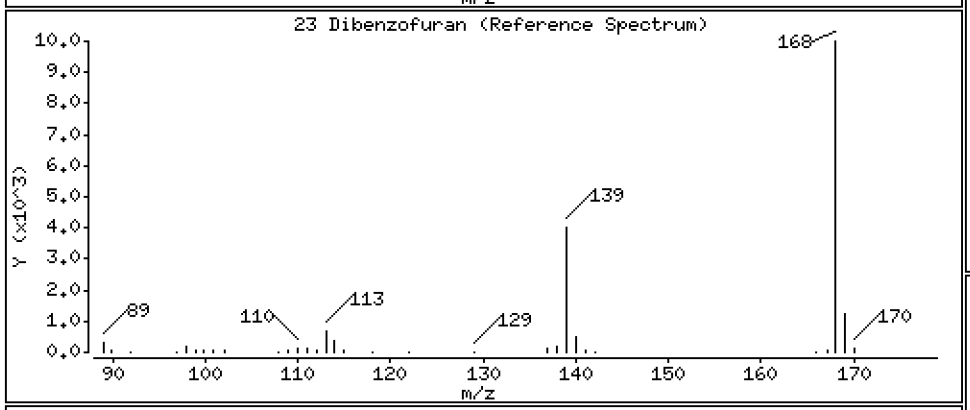
Column diameter: 0.25

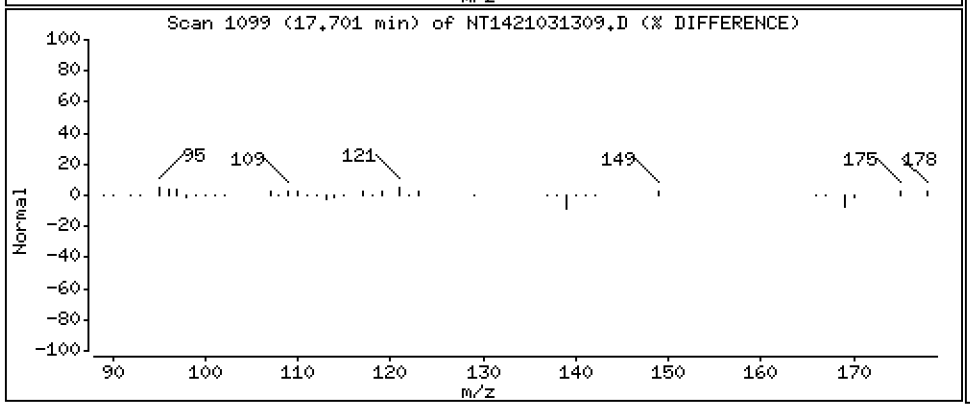
23 Dibenzofuran

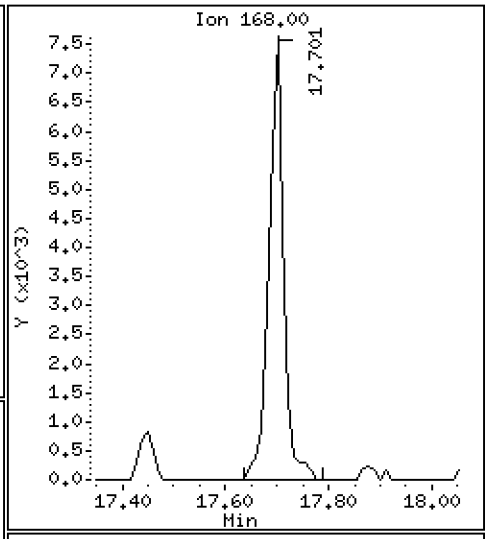
Concentration: 1.237 ug/mL

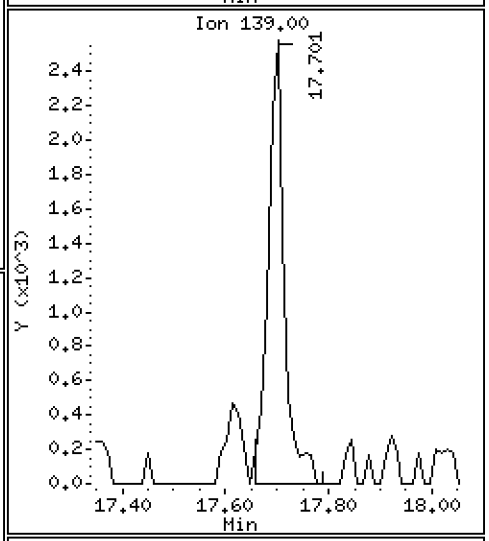


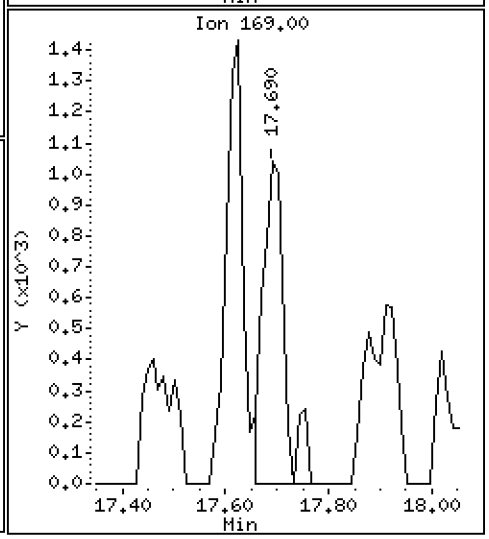












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Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

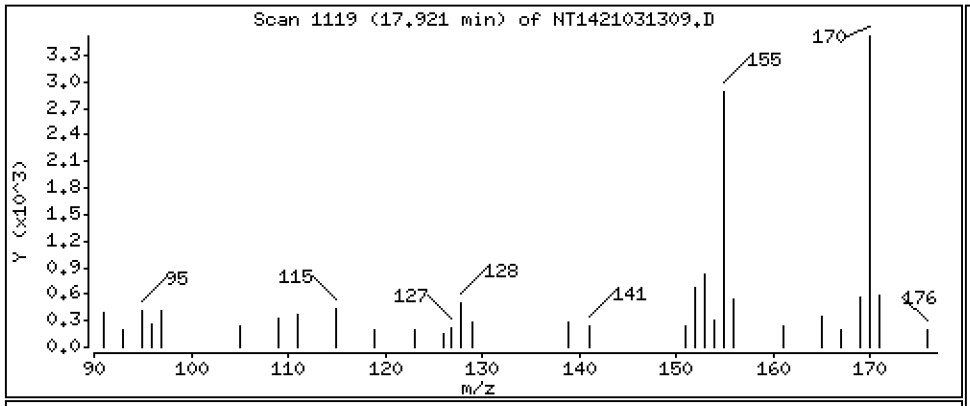
Operator: VTS

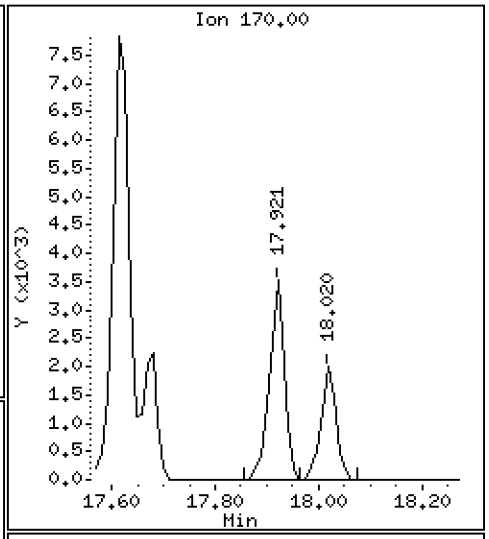
Column phase: Rxi-17Sil MS

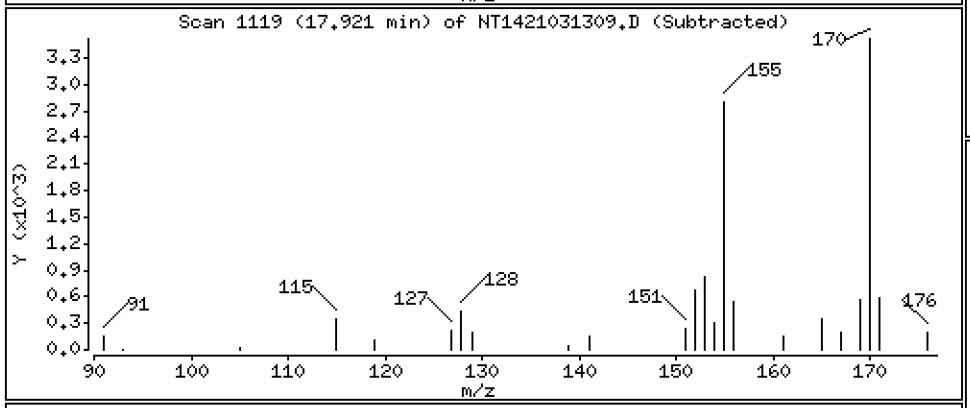
Column diameter: 0.25

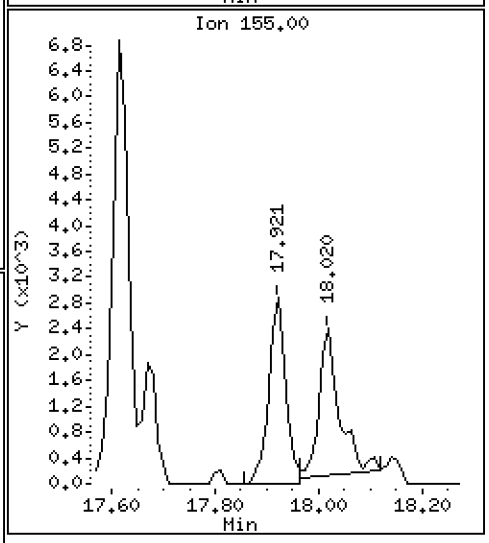
24 1,6,7-Trimethylnaphthalene

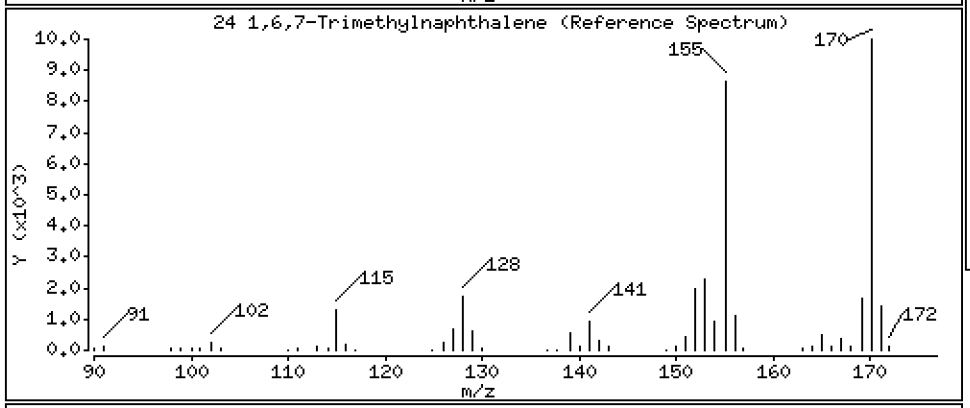
Concentration: 0.9157 ug/mL

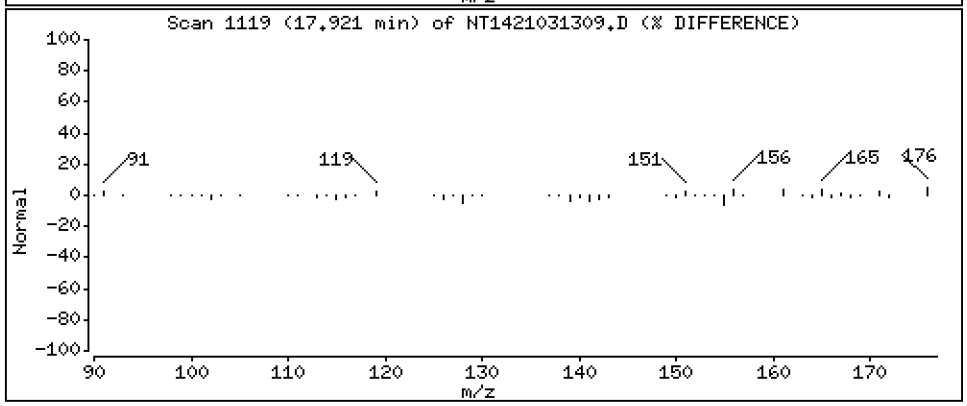












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Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

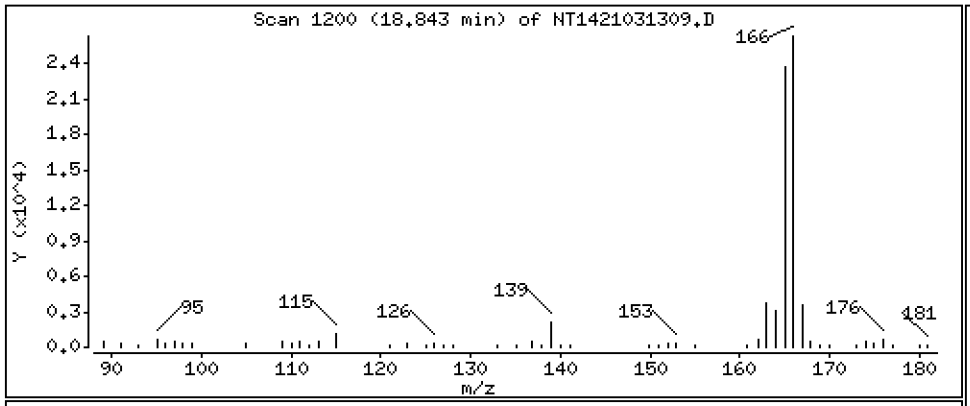
Operator: VTS

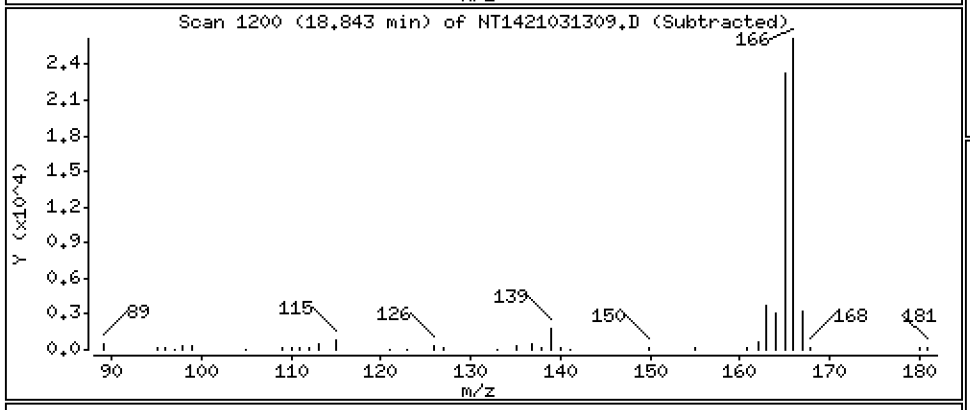
Column phase: Rxi-17Sil MS

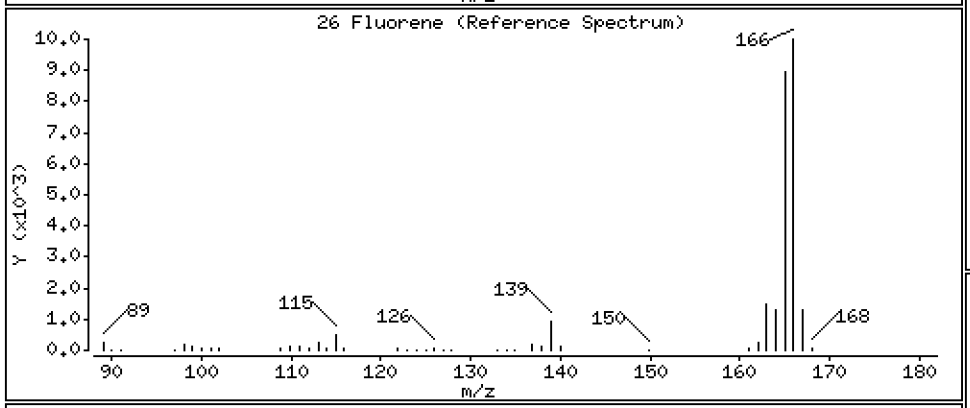
Column diameter: 0.25

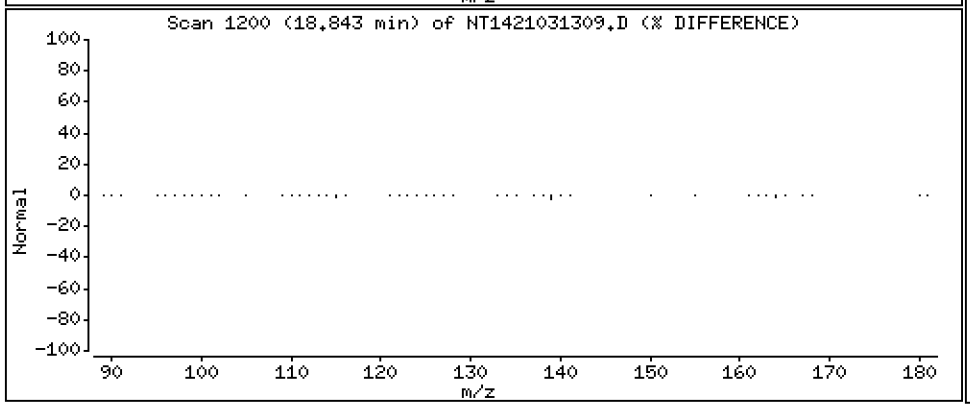
26 Fluorene

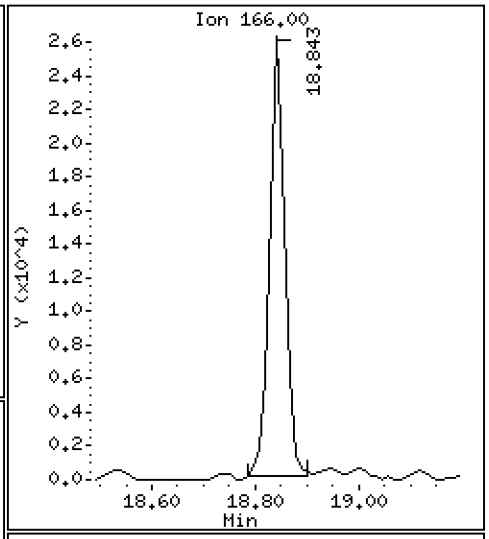
Concentration: 5.194 ug/mL

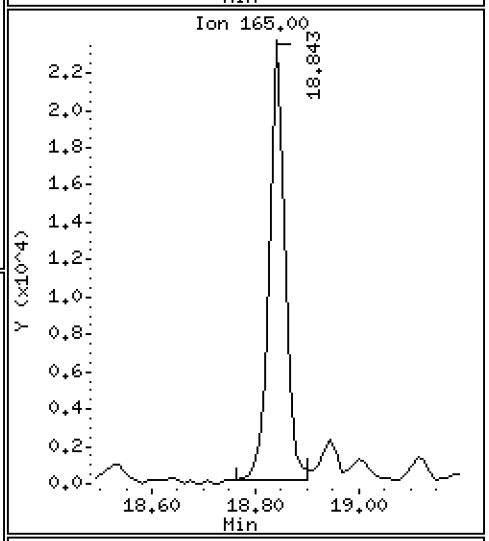


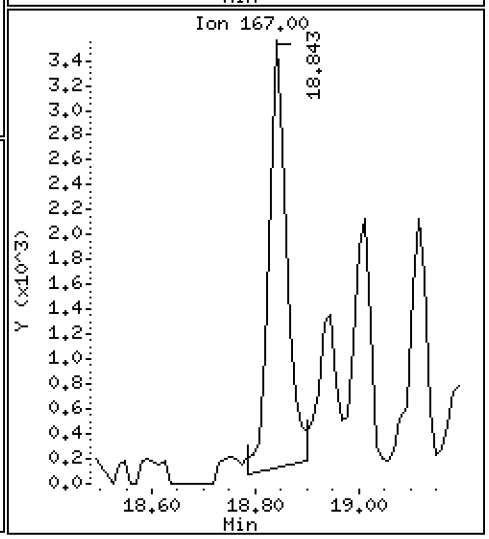












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Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

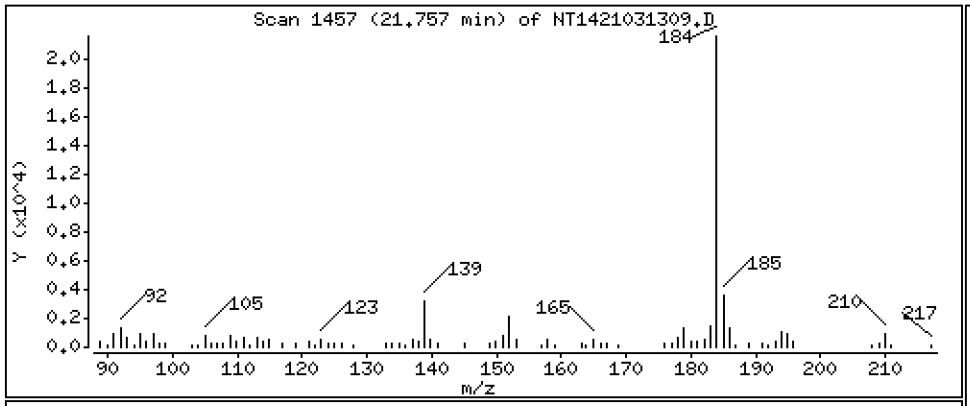
Operator: VTS

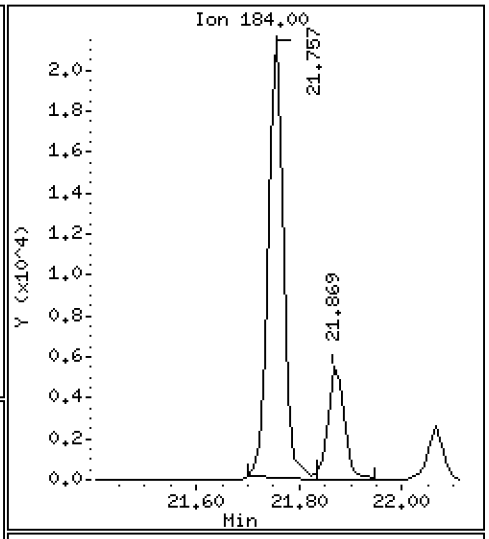
Column phase: Rxi-17Sil MS

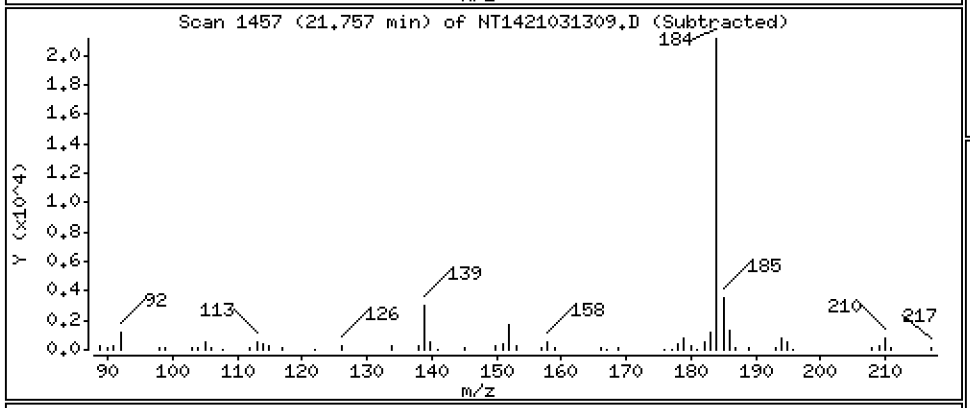
Column diameter: 0.25

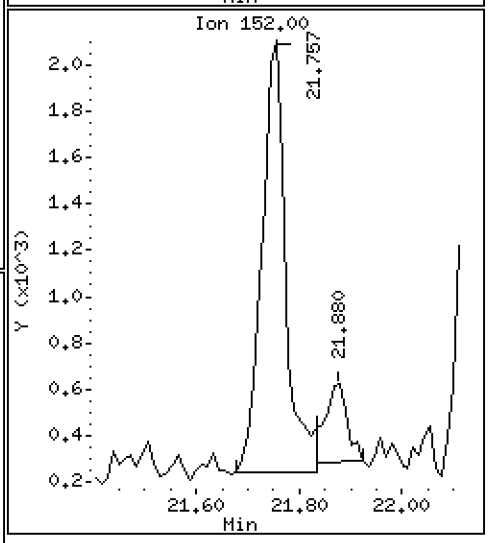
30 Dibenzothiophene

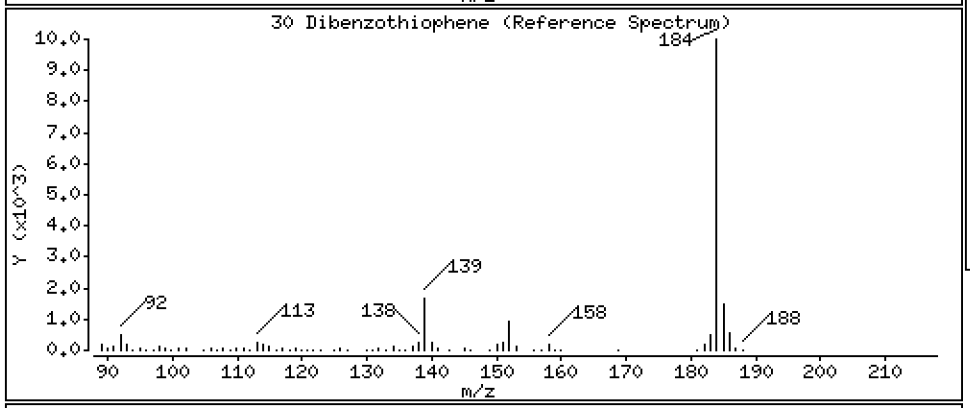
Concentration: 3.899 ug/mL

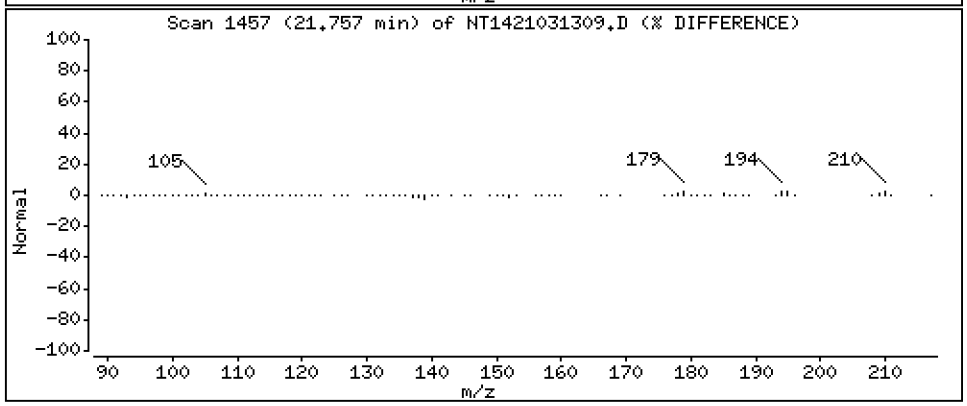












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031309.D

Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

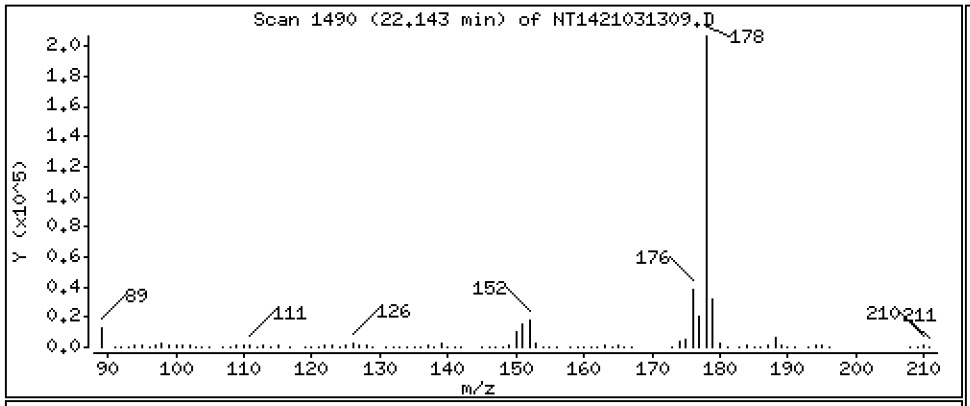
Operator: VTS

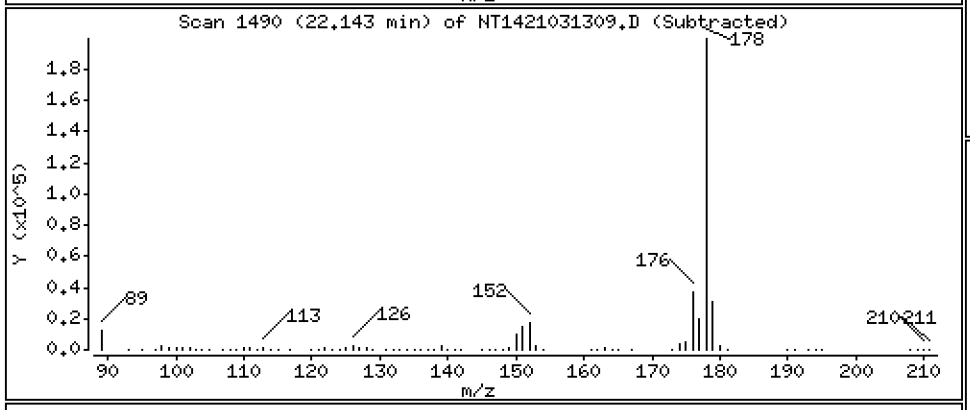
Column phase: Rxi-17Sil MS

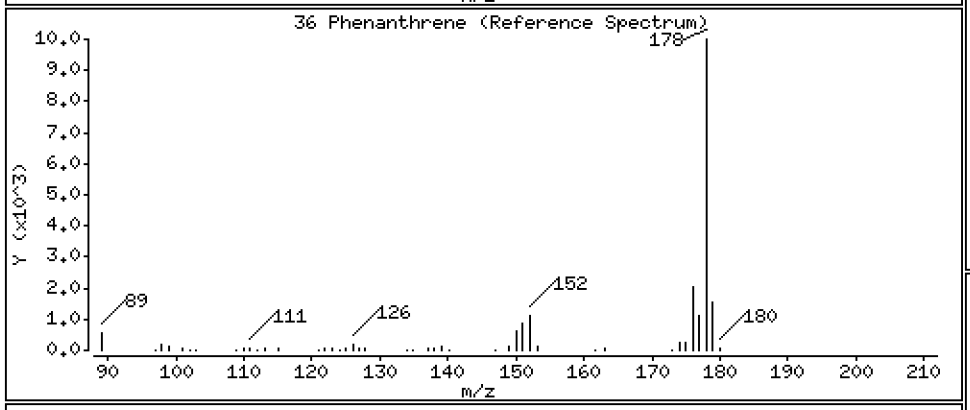
Column diameter: 0.25

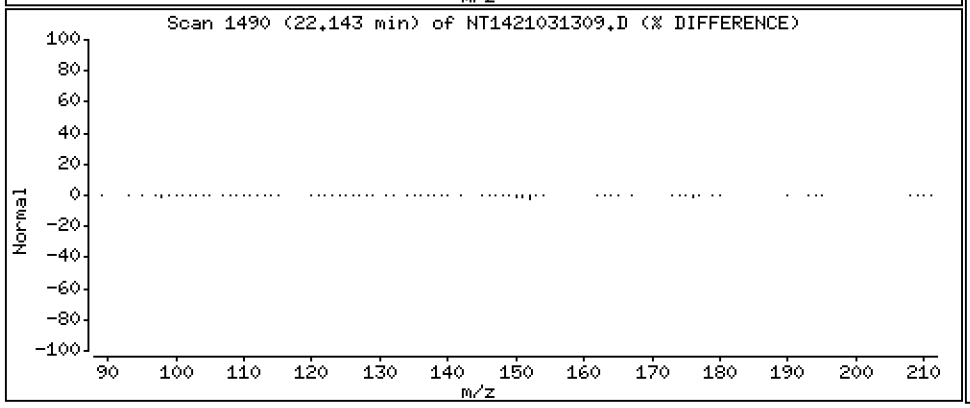
36 Phenanthrene

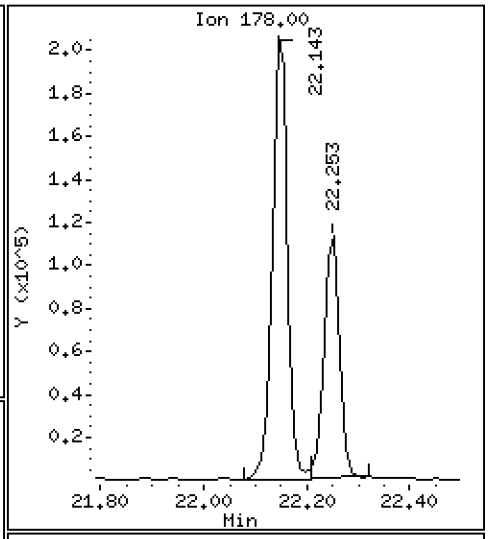
Concentration: 28.70 ug/mL

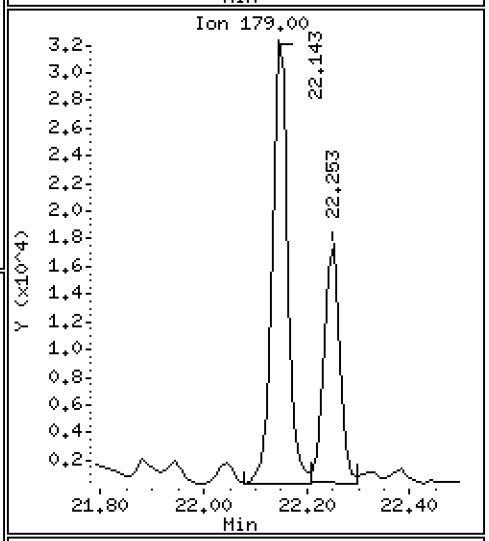


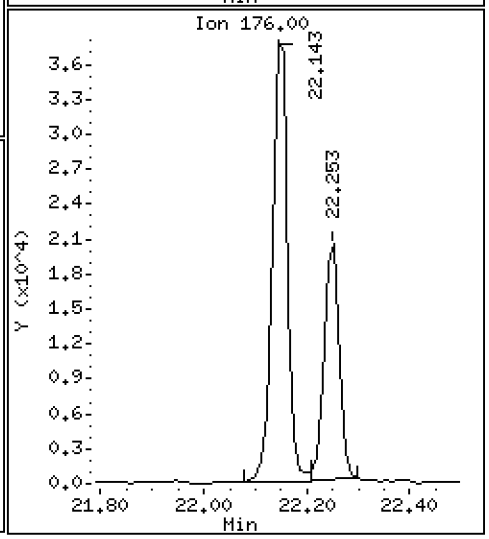












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031309.D

Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

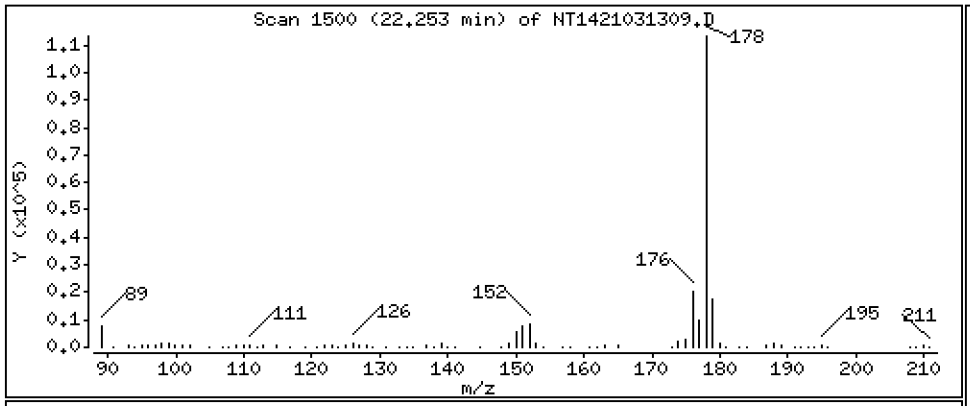
Operator: VTS

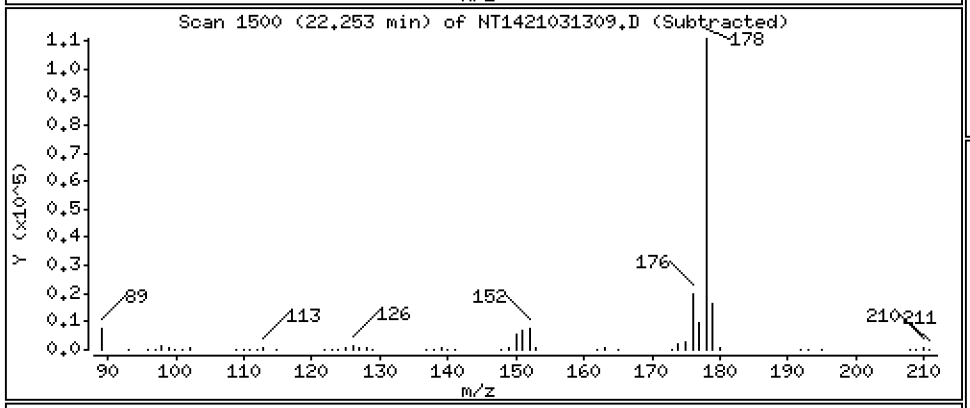
Column phase: Rxi-17Sil MS

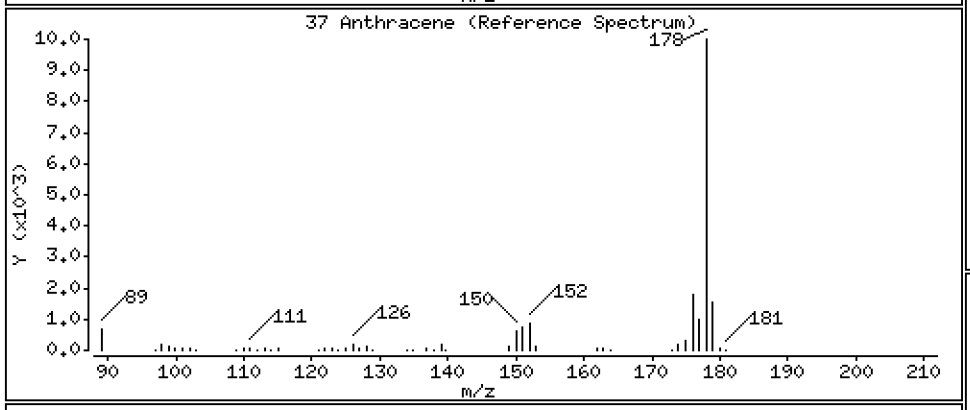
Column diameter: 0.25

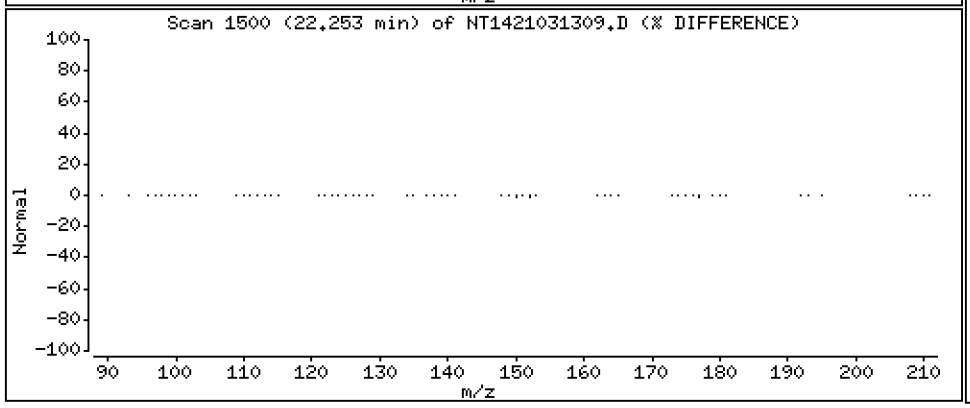
37 Anthracene

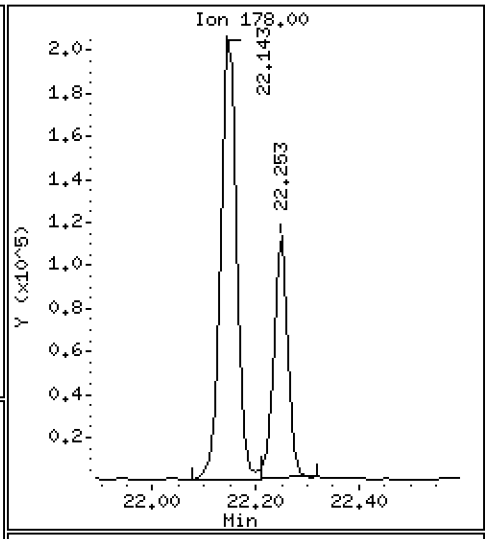
Concentration: 16.20 ug/mL

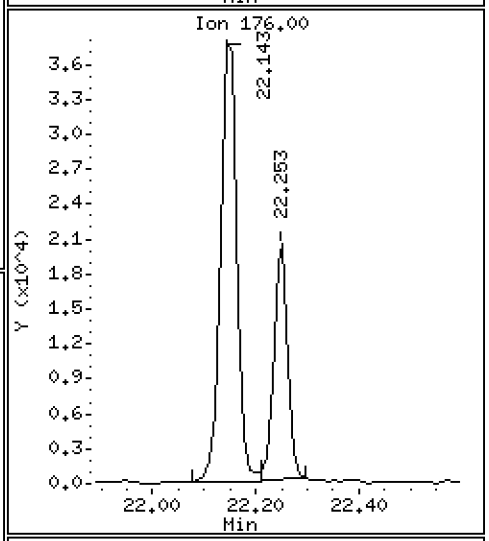


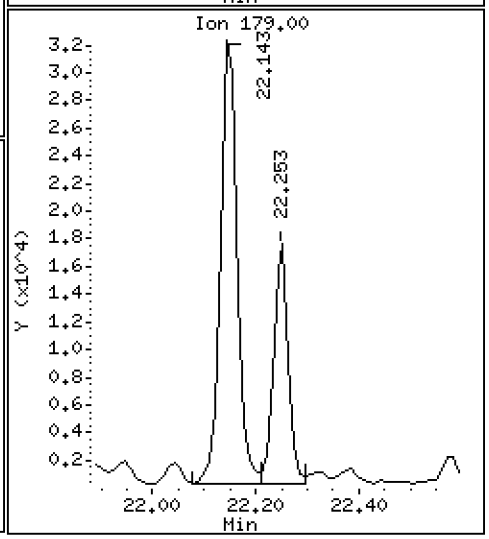












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Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

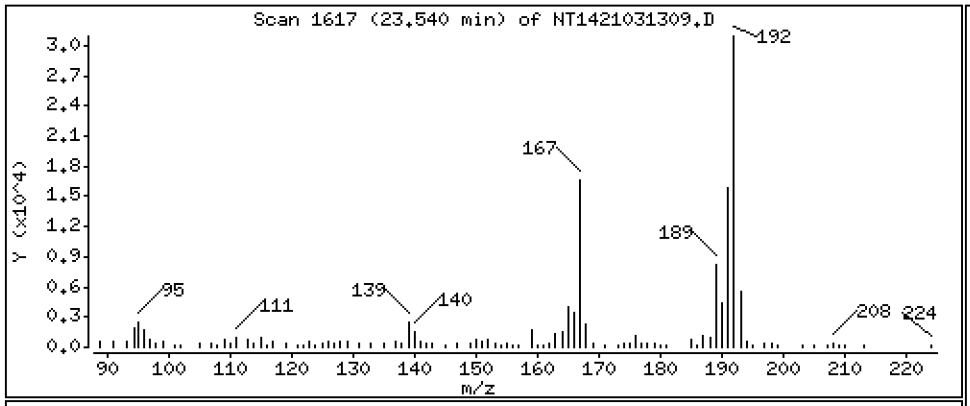
Operator: VTS

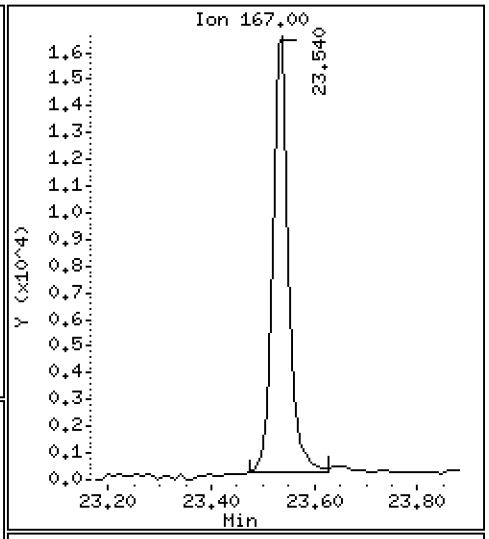
Column phase: Rxi-17Sil MS

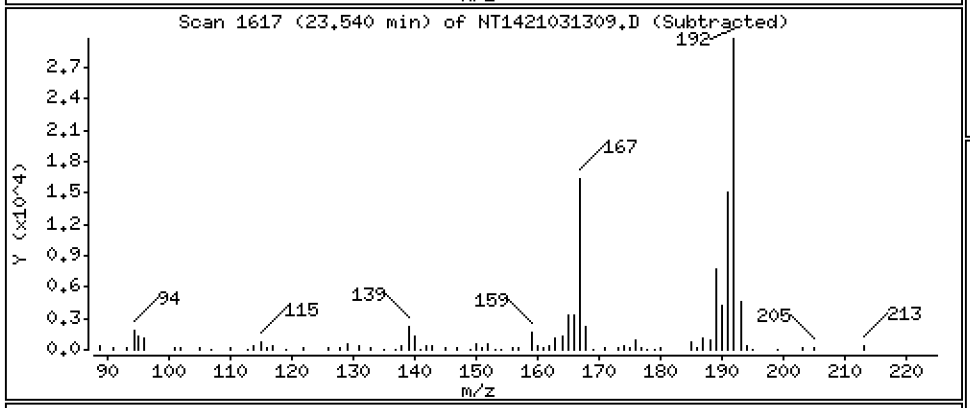
Column diameter: 0.25

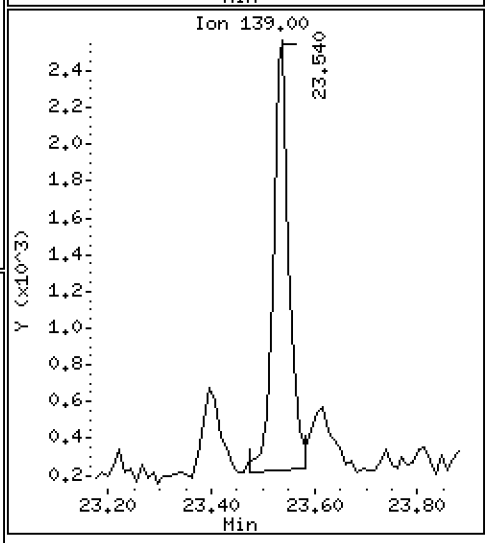
42 Carbazole

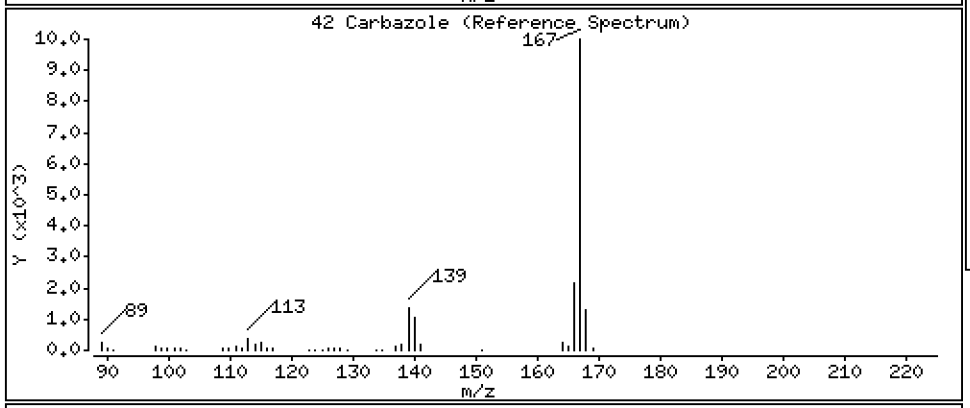
Concentration: 3.162 ug/mL

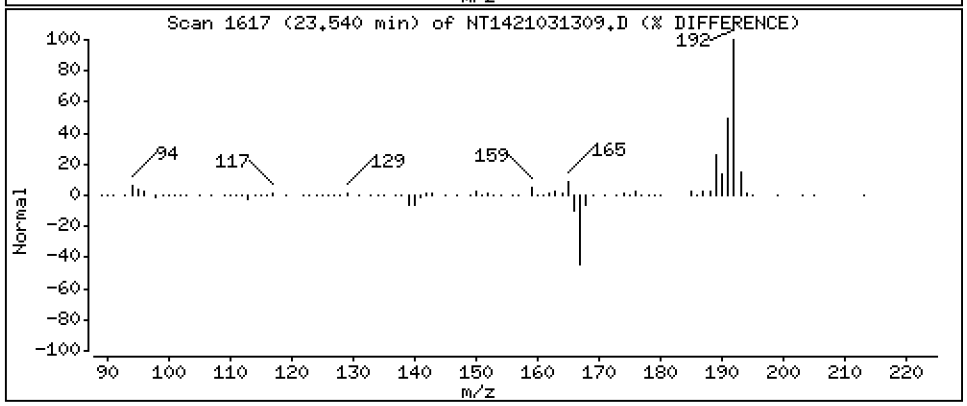












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Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

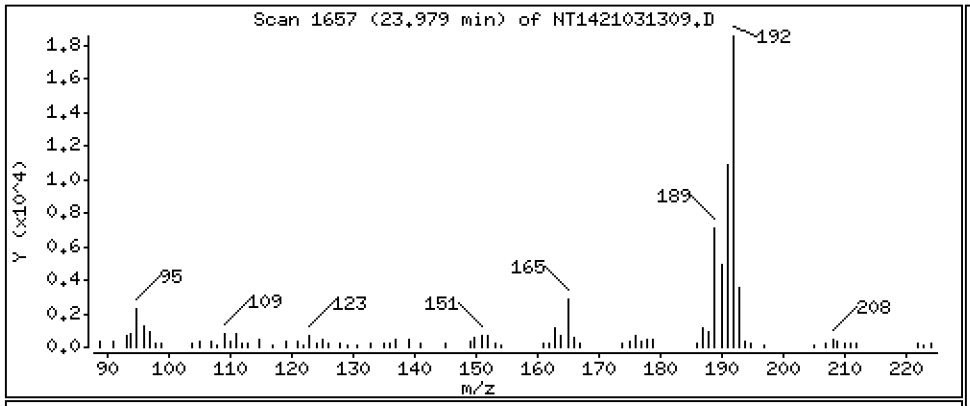
Operator: VTS

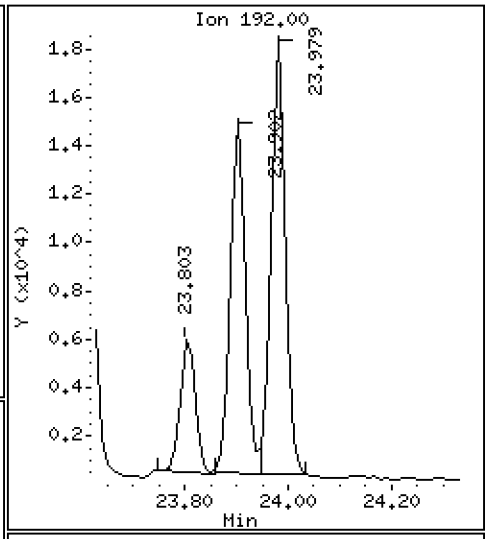
Column phase: Rxi-17Sil MS

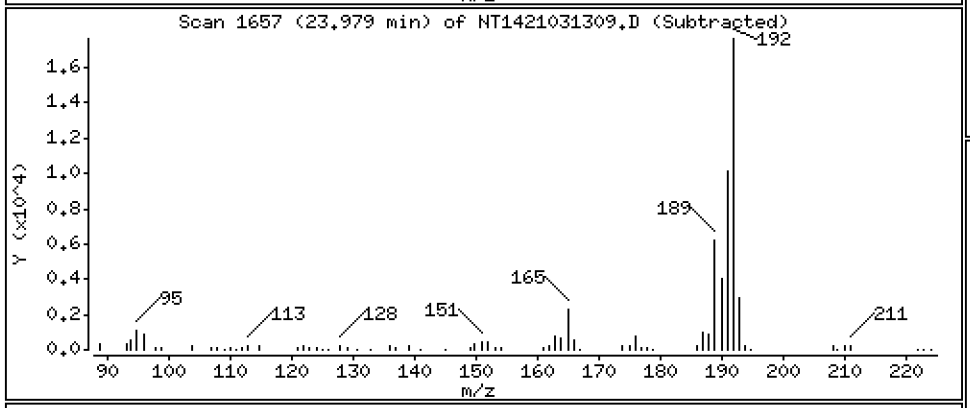
Column diameter: 0.25

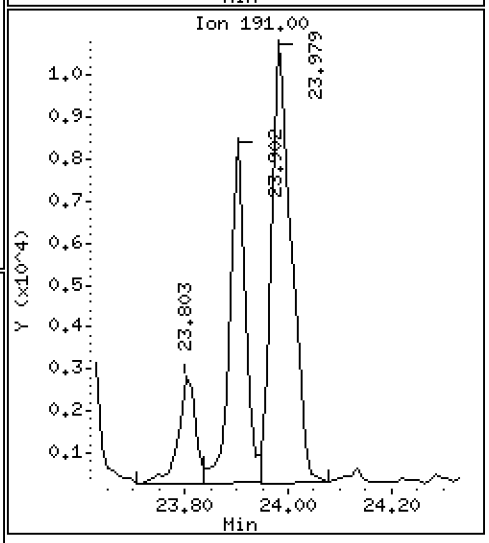
43 1-Methylphenanthrene

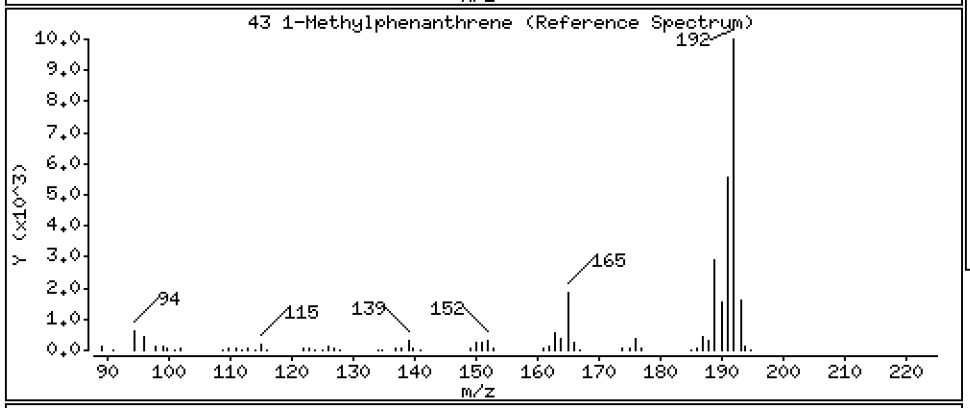
Concentration: 3.413 ug/mL

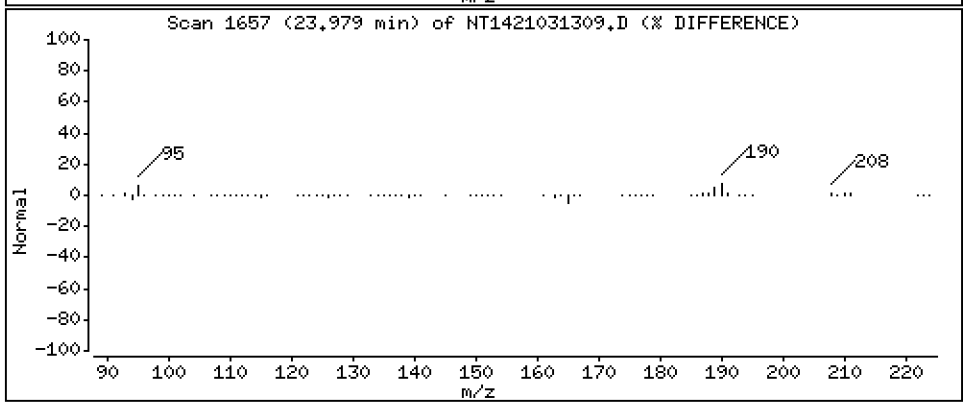












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Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

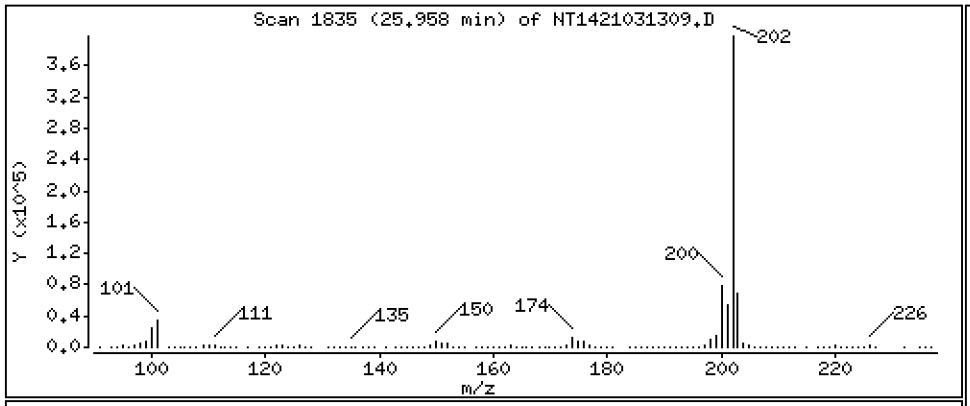
Operator: VTS

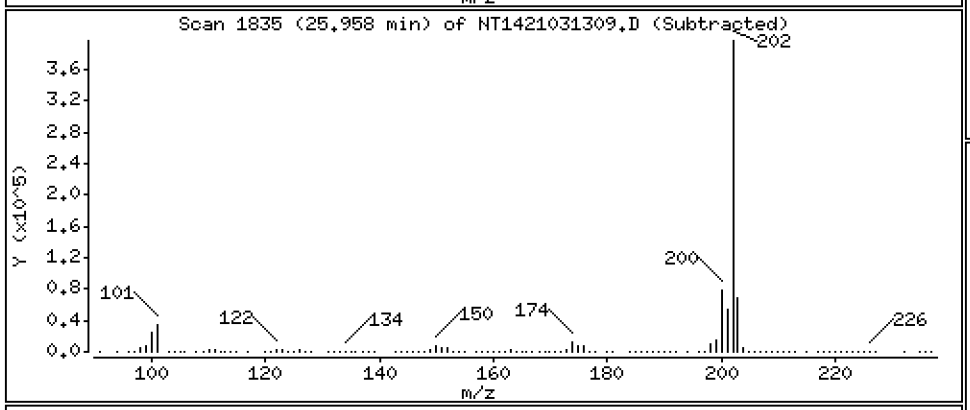
Column phase: Rxi-17Sil MS

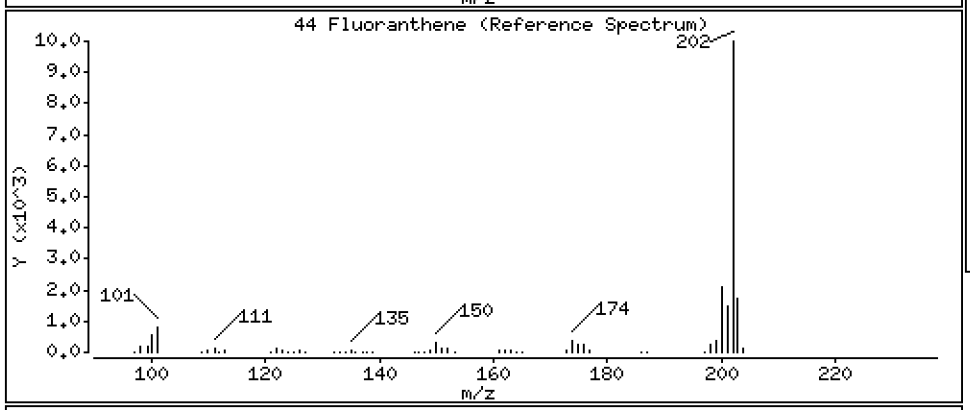
Column diameter: 0.25

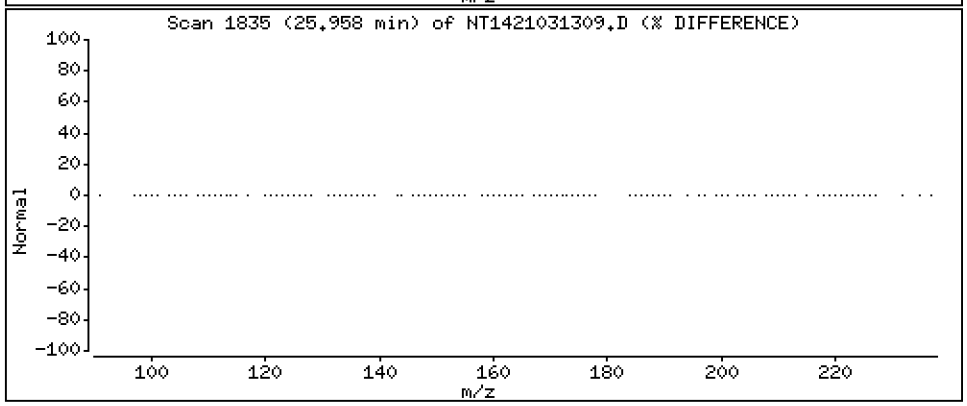
44 Fluoranthene

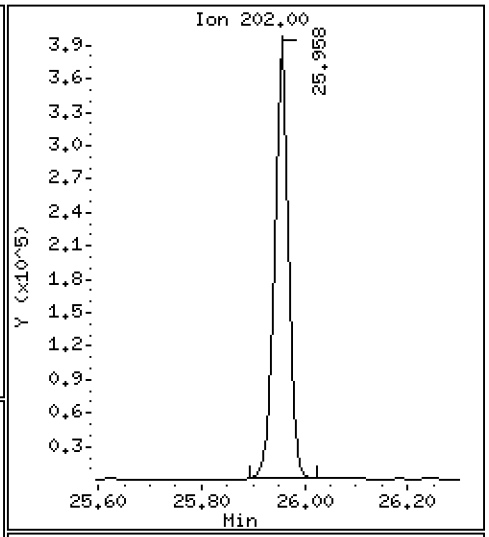
Concentration: 47.33 ug/mL

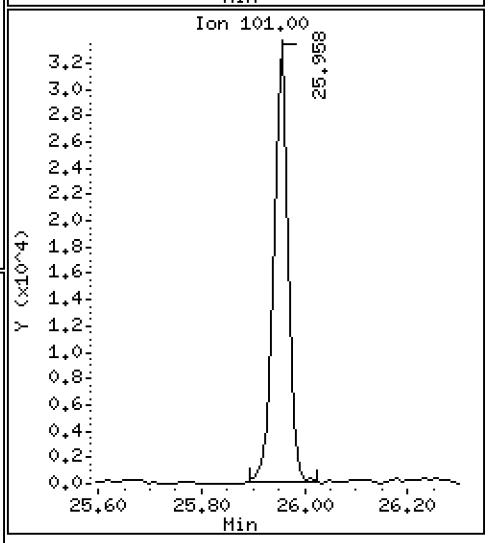












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Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

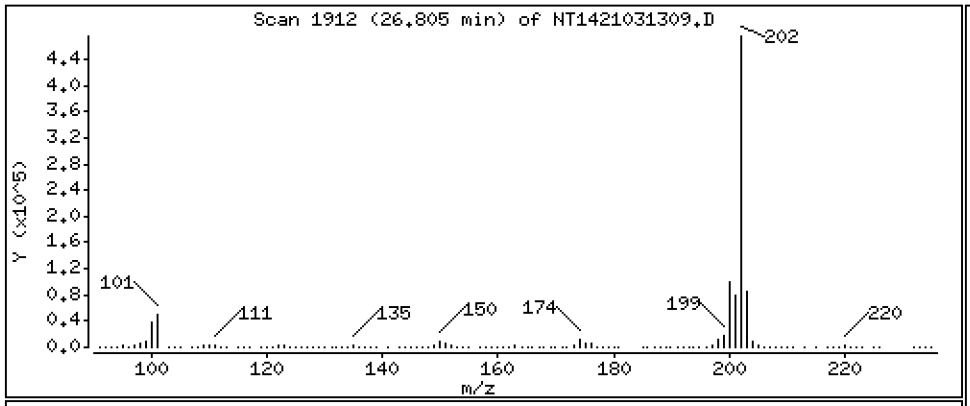
Operator: VTS

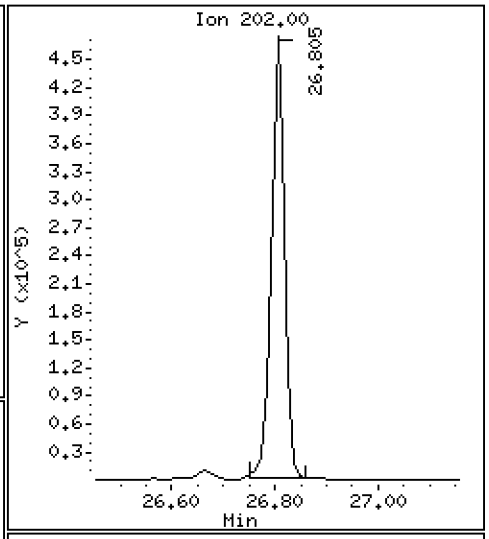
Column phase: Rxi-17Sil MS

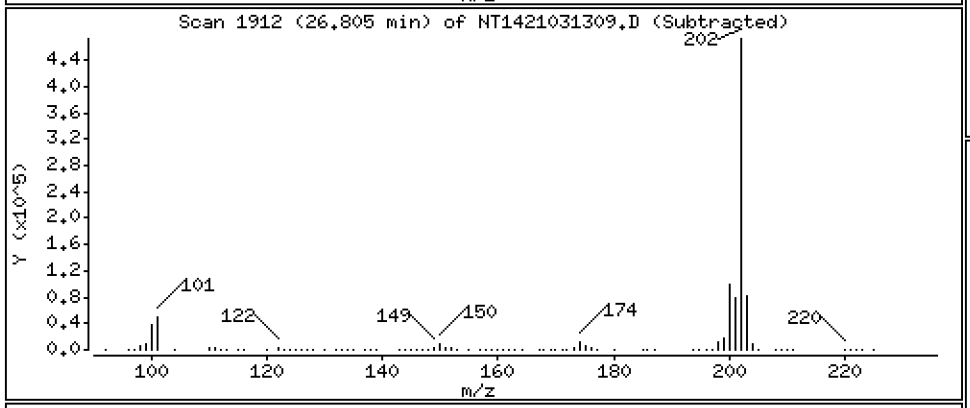
Column diameter: 0.25

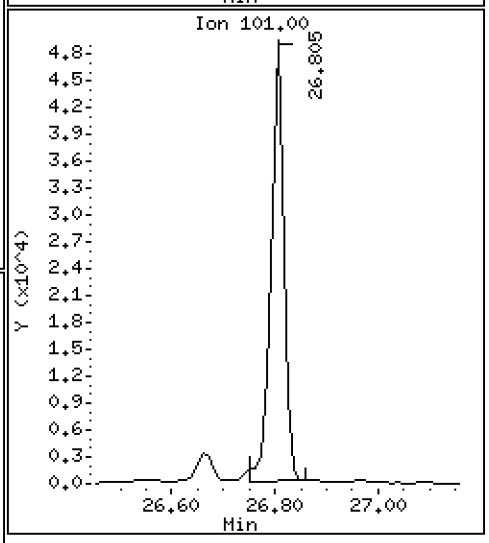
46 Pyrene

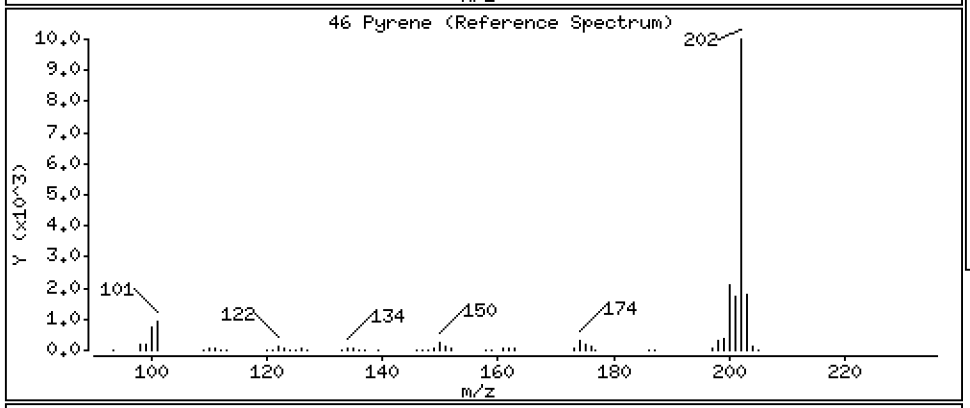
Concentration: 51.51 ug/mL

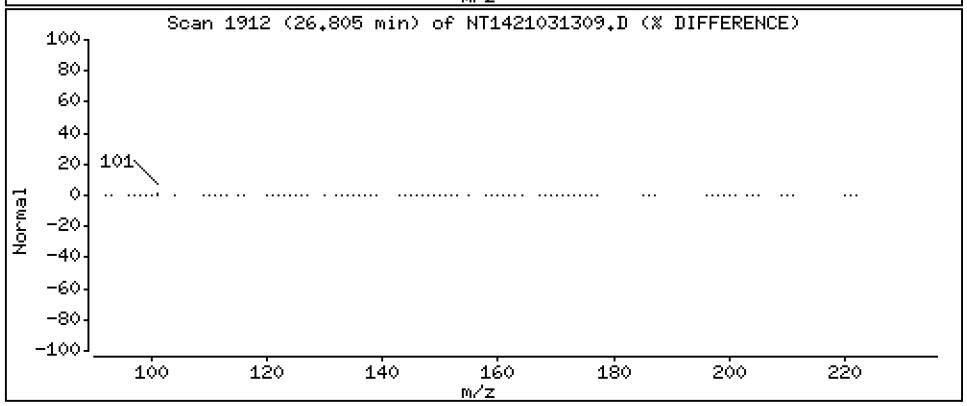












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031309.D

Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

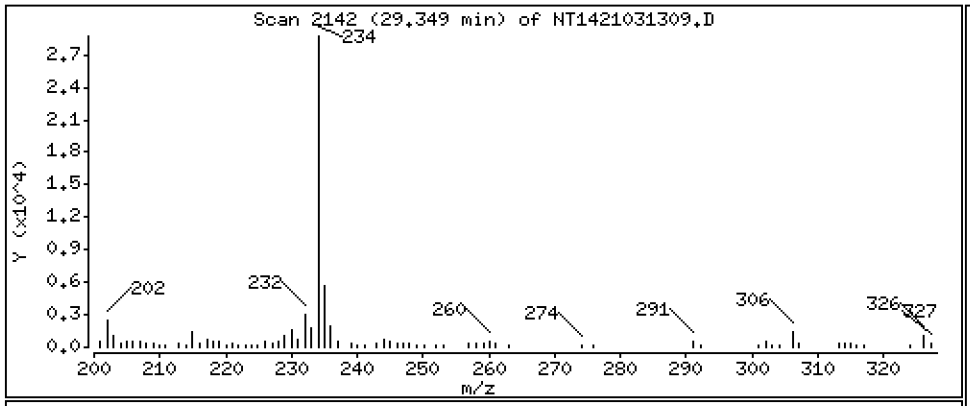
Operator: VTS

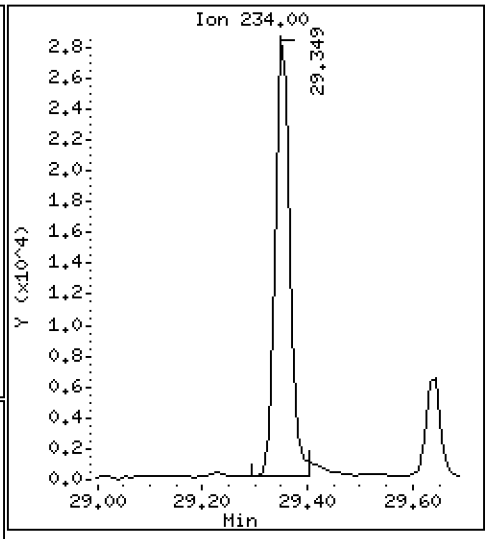
Column phase: Rxi-17Sil MS

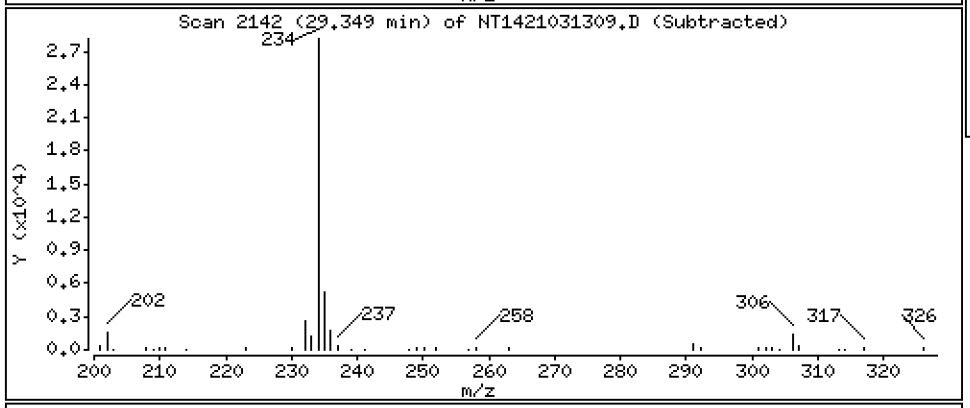
Column diameter: 0.25

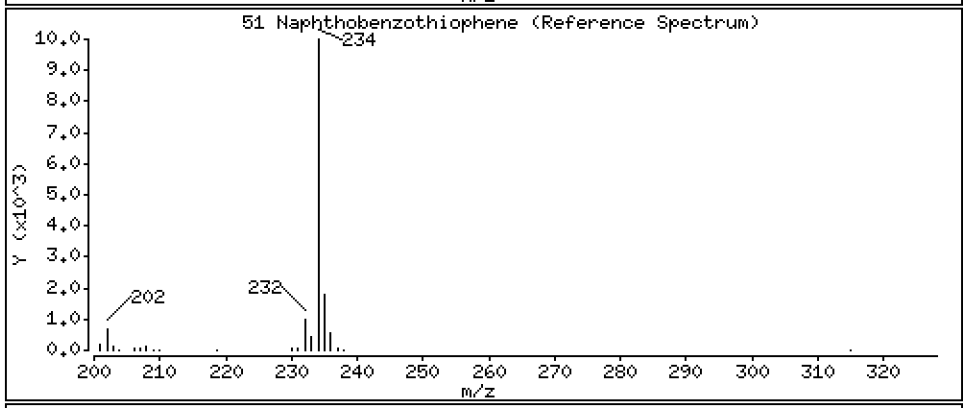
51 Naphthobenzothiophene

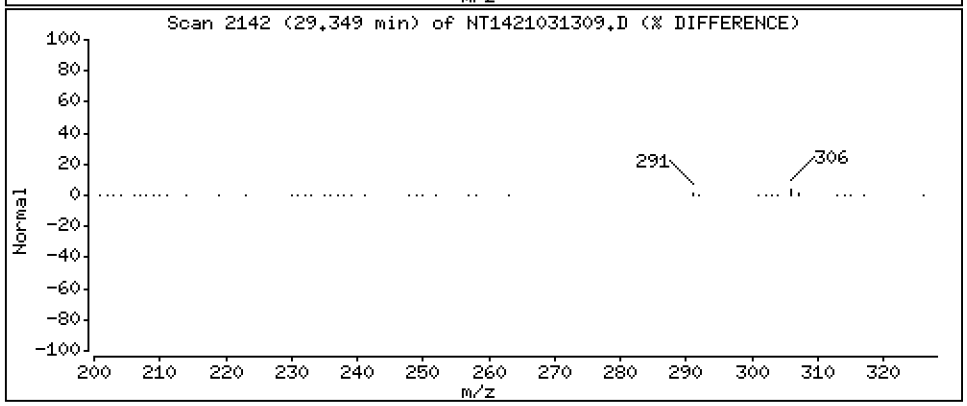
Concentration: 4.405 ug/mL











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Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

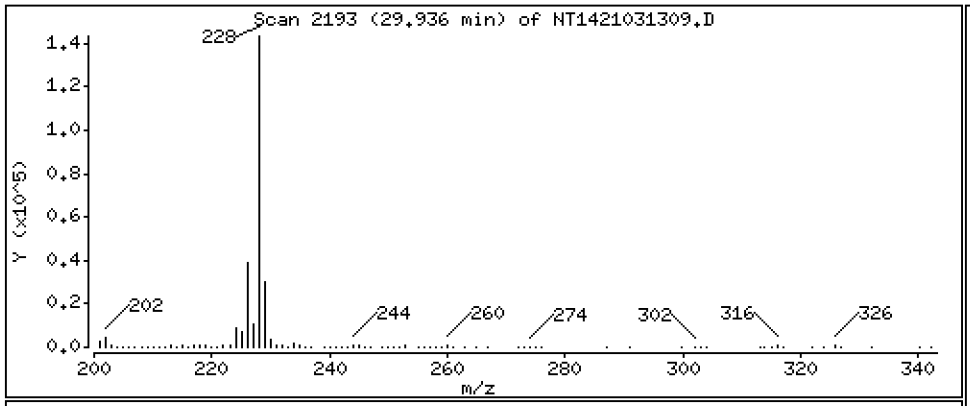
Operator: VTS

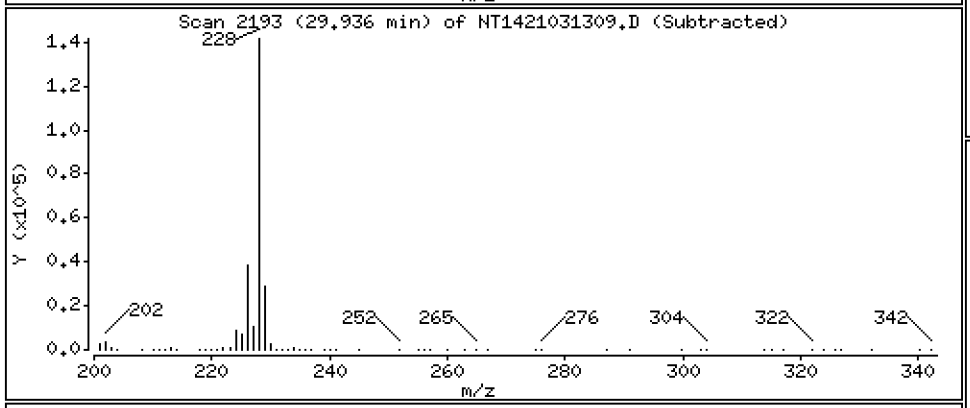
Column phase: Rxi-17Sil MS

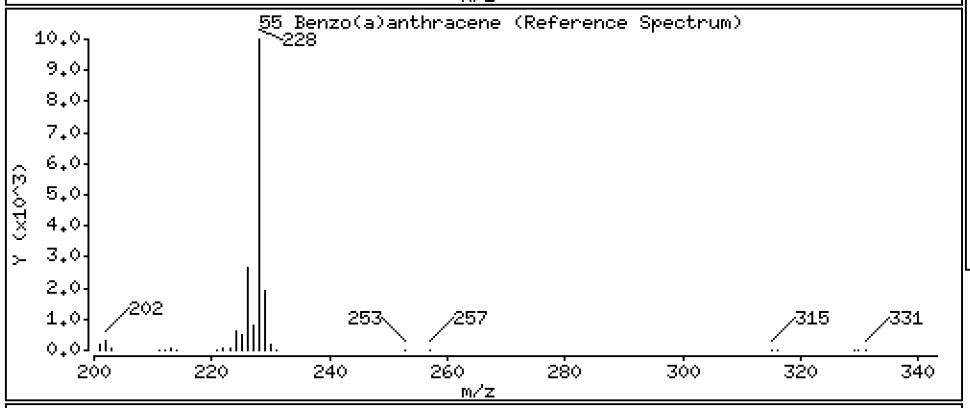
Column diameter: 0.25

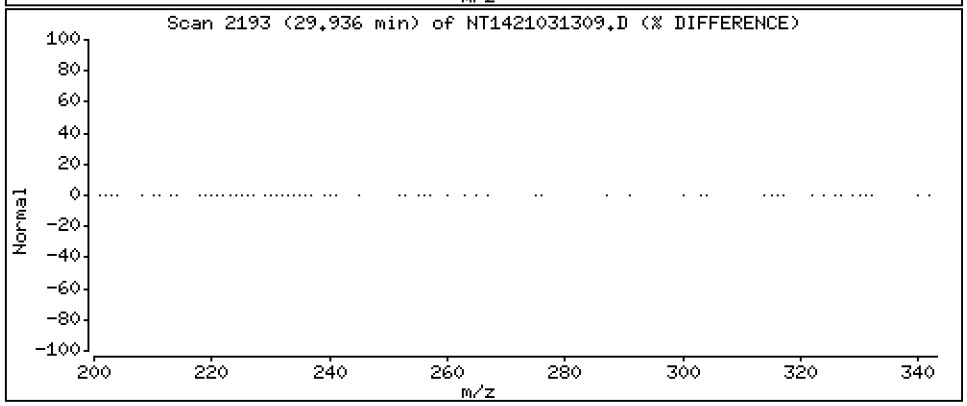
55 Benzo(a)anthracene

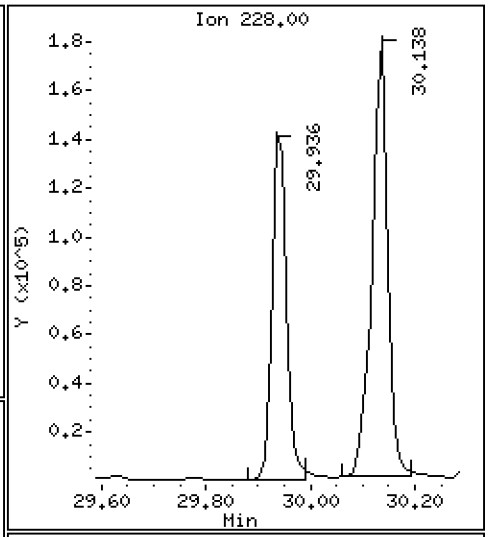
Concentration: 16.01 ug/mL

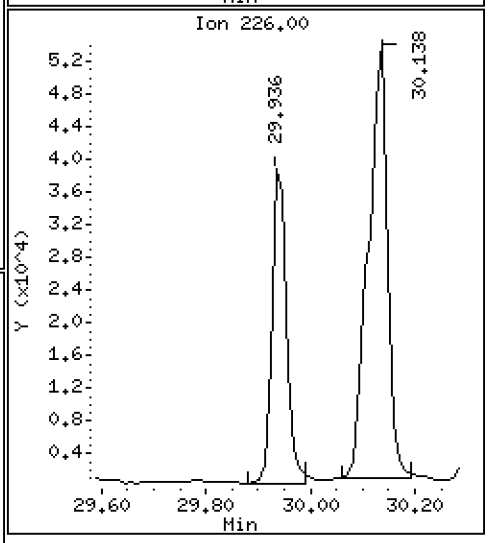












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031309.D

Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

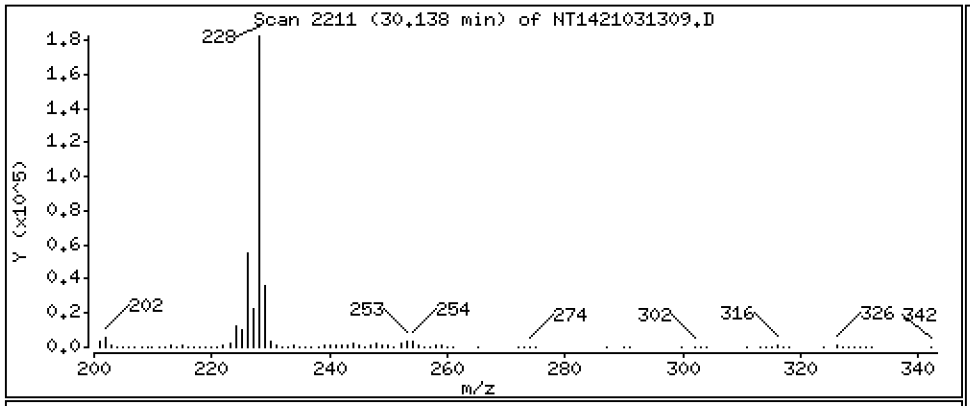
Operator: VTS

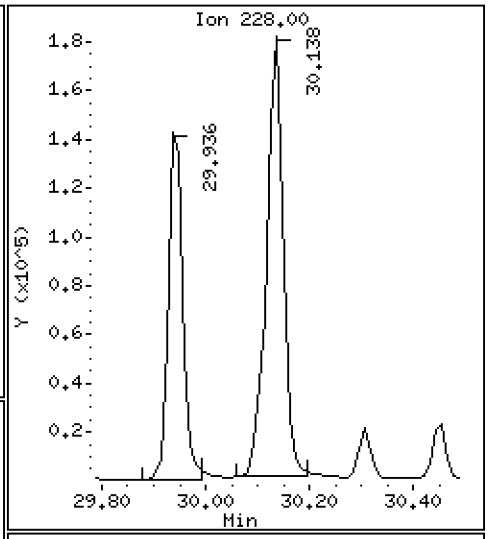
Column phase: Rxi-17Sil MS

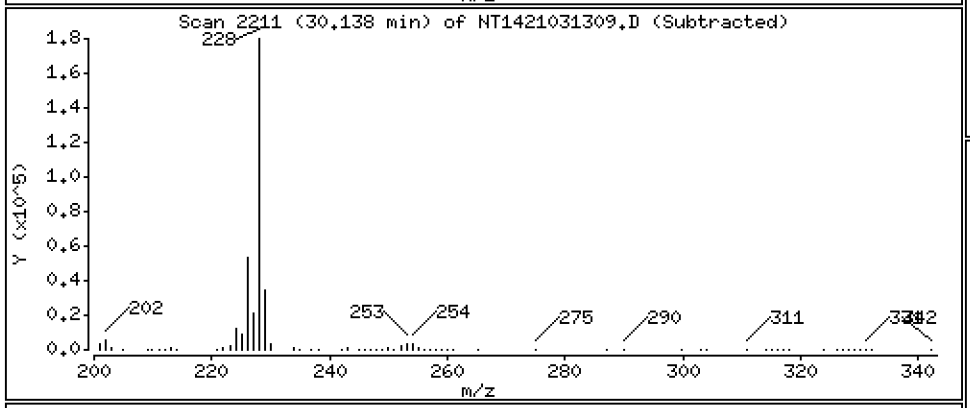
Column diameter: 0.25

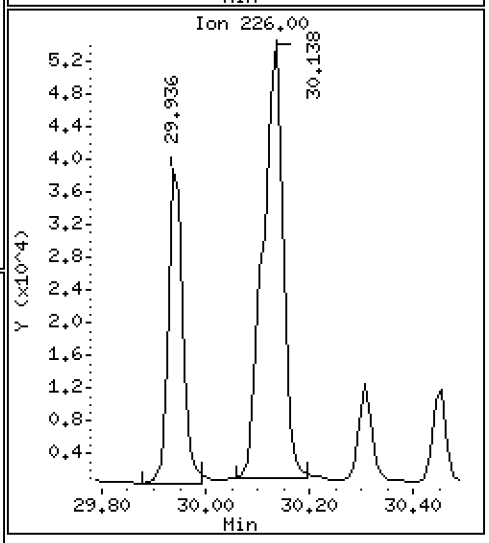
57 Chrysene

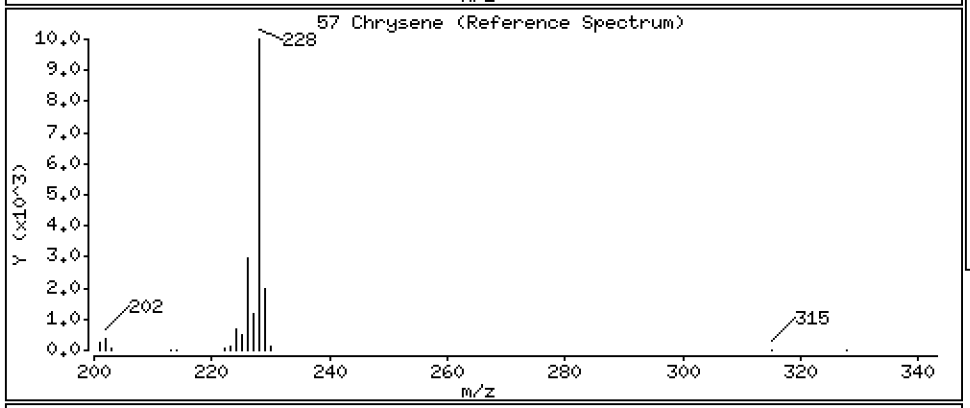
Concentration: 21.80 ug/mL

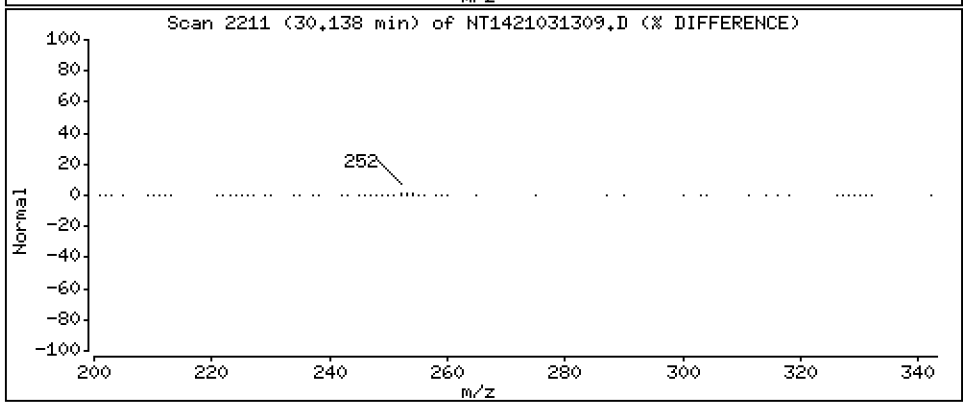












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Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

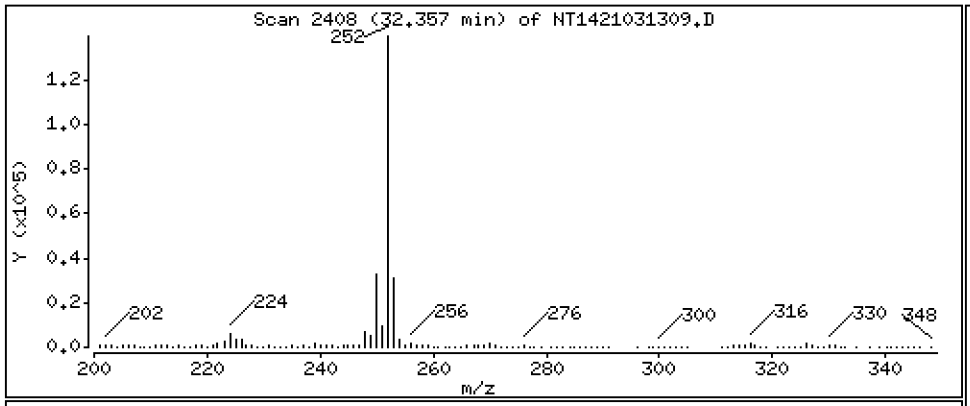
Operator: VTS

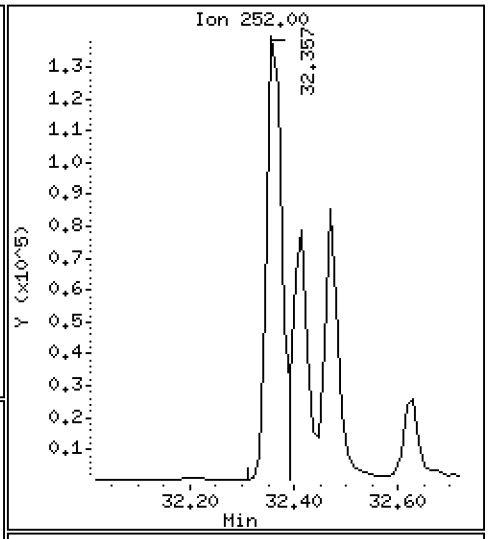
Column phase: Rxi-17Sil MS

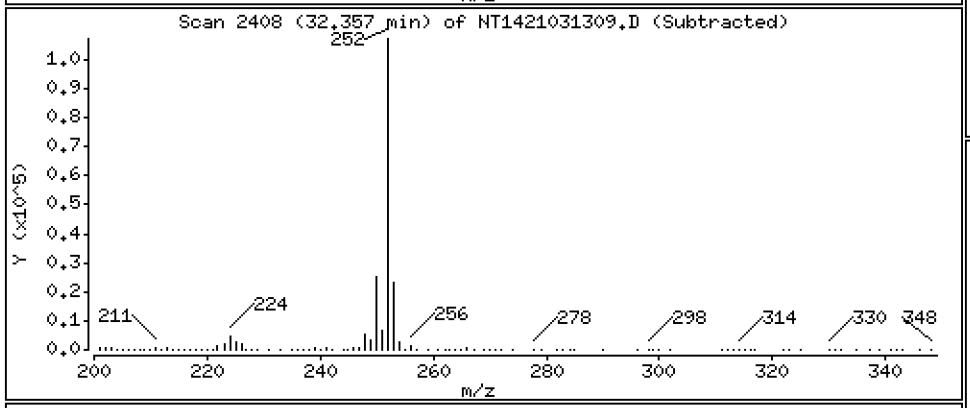
Column diameter: 0.25

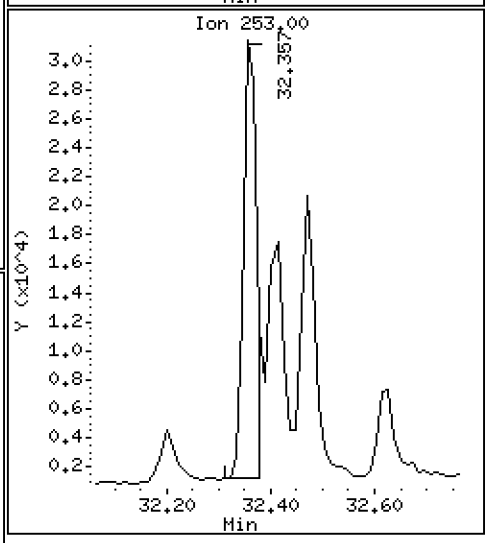
62 Benzo(b)fluoranthene

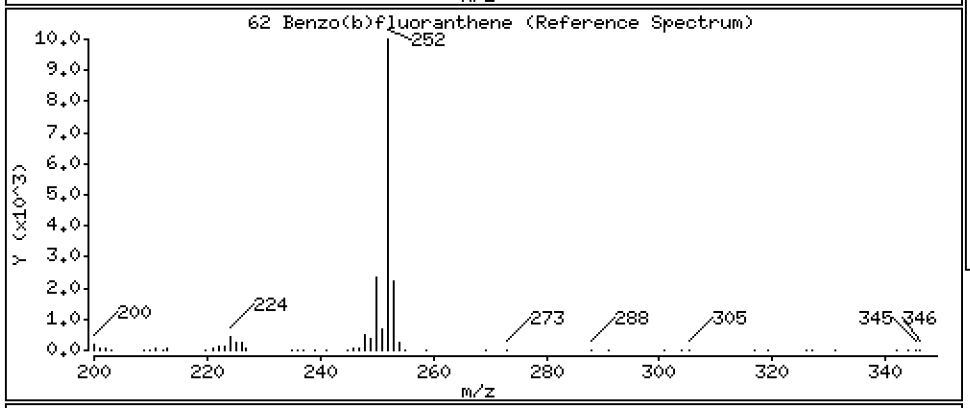
Concentration: 15.90 ug/mL

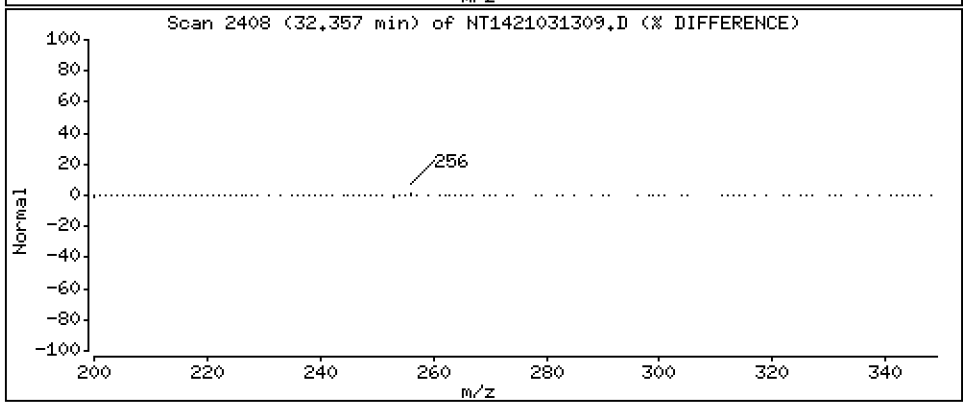












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031309.D

Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

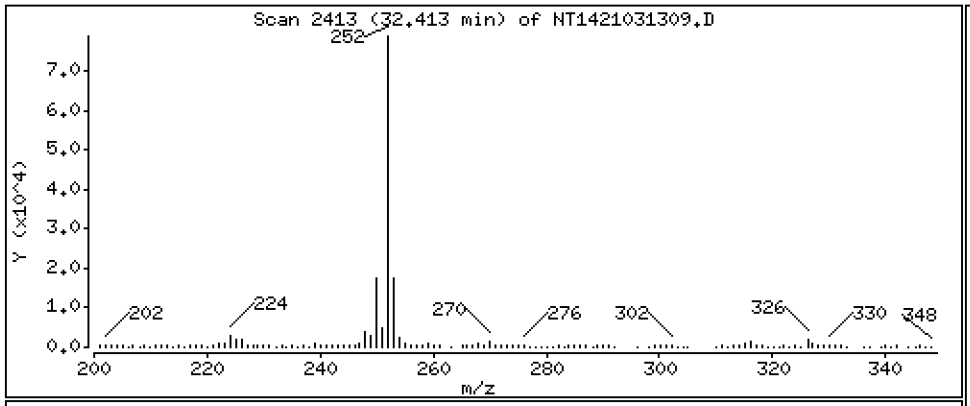
Operator: VTS

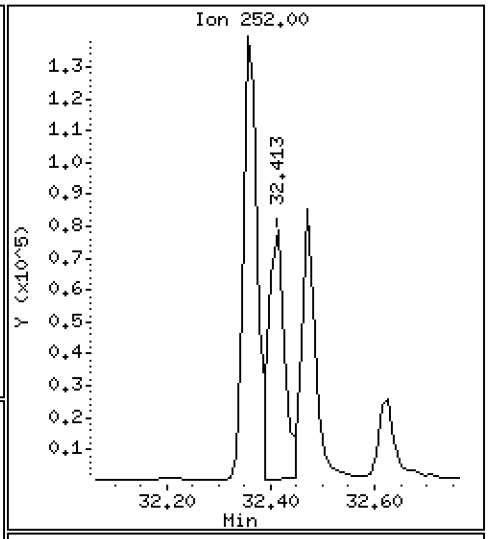
Column phase: Rxi-17Sil MS

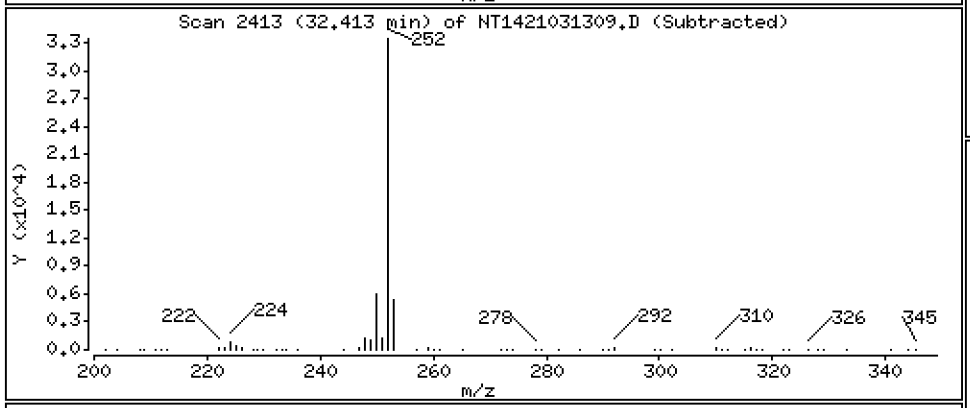
Column diameter: 0.25

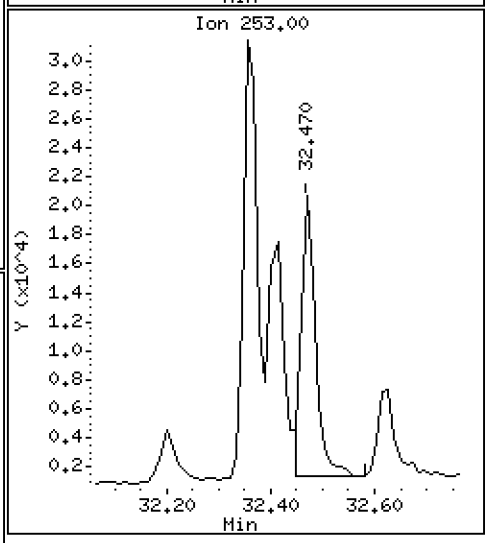
63 Benzo(k)fluoranthene

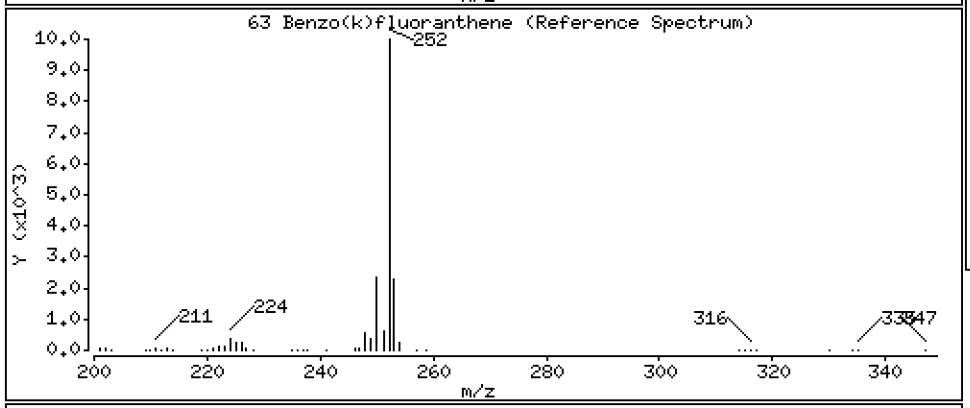
Concentration: 9.032 ug/mL

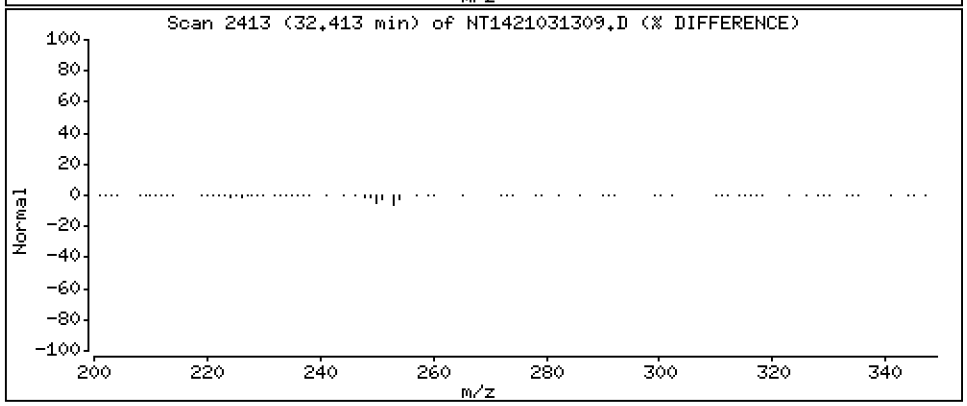












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031309.D

Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

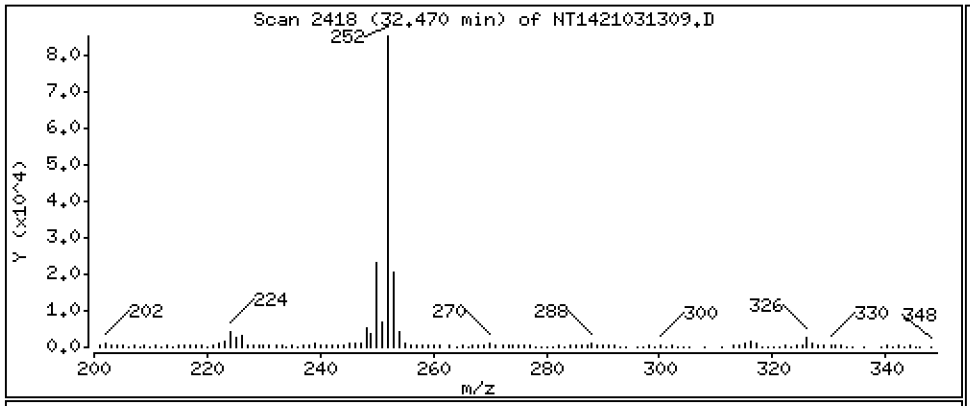
Operator: VTS

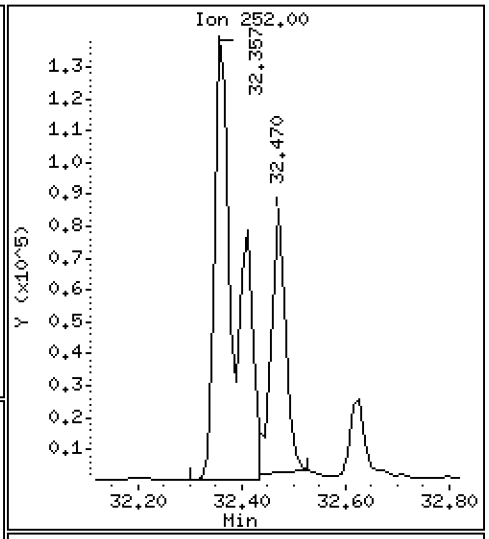
Column phase: Rxi-17Sil MS

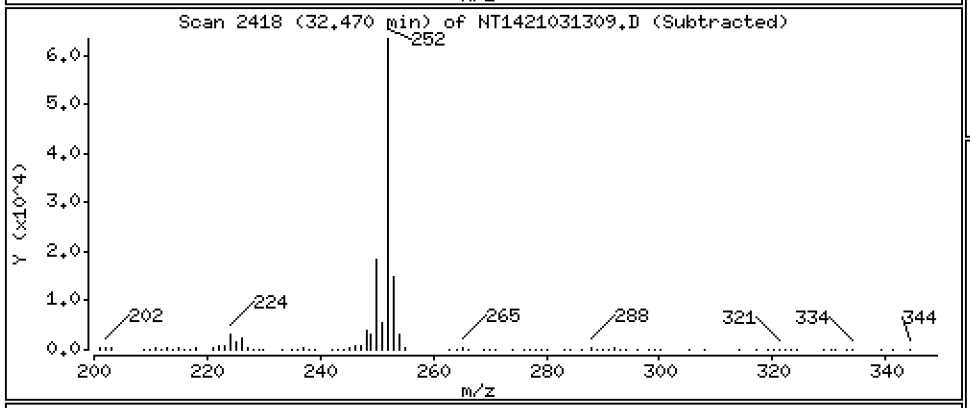
Column diameter: 0.25

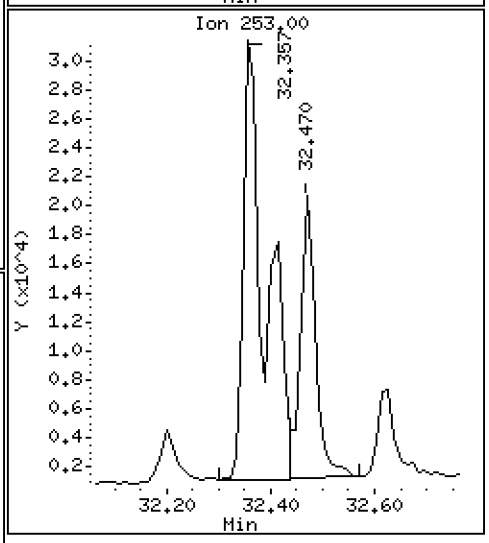
293 Benzo(j)fluoranthene

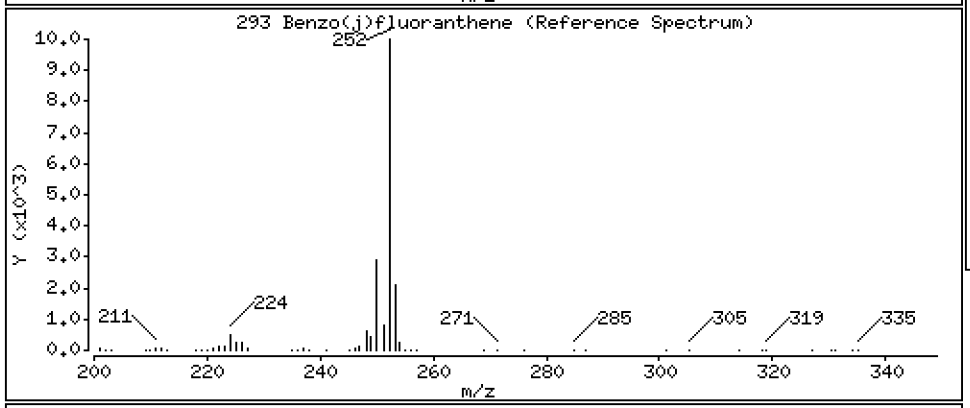
Concentration: 8.809 ug/mL

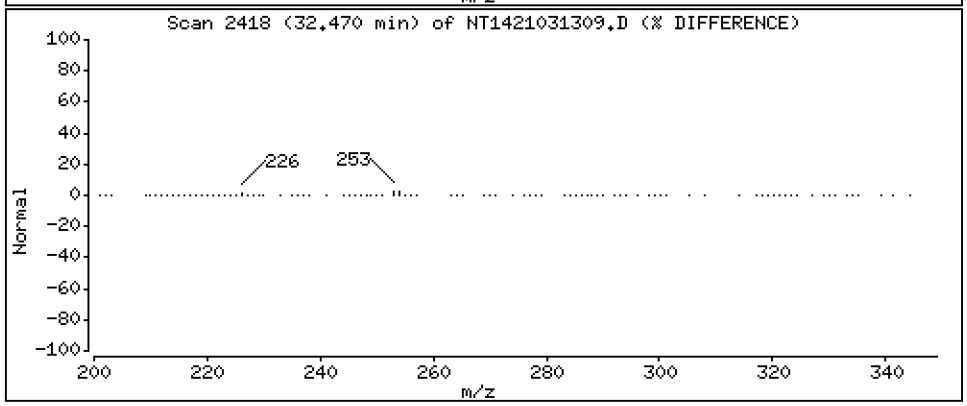












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Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

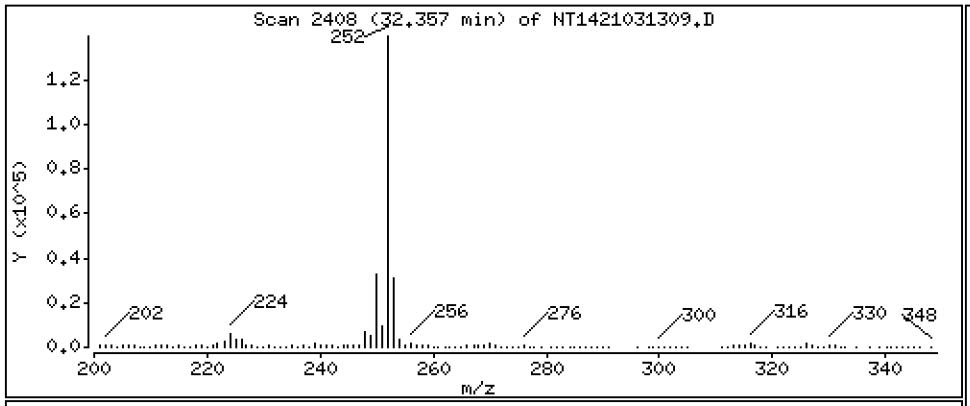
Operator: VTS

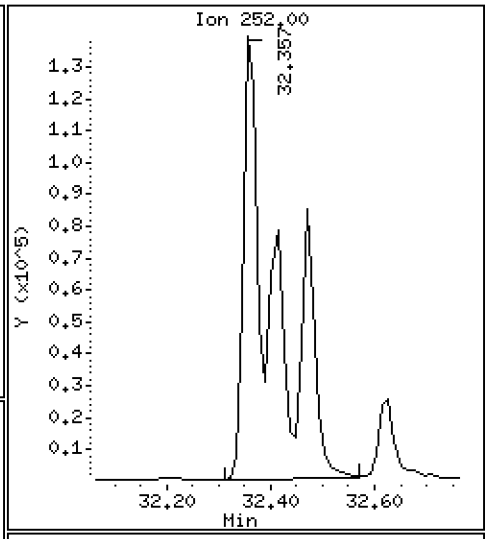
Column phase: Rxi-17Sil MS

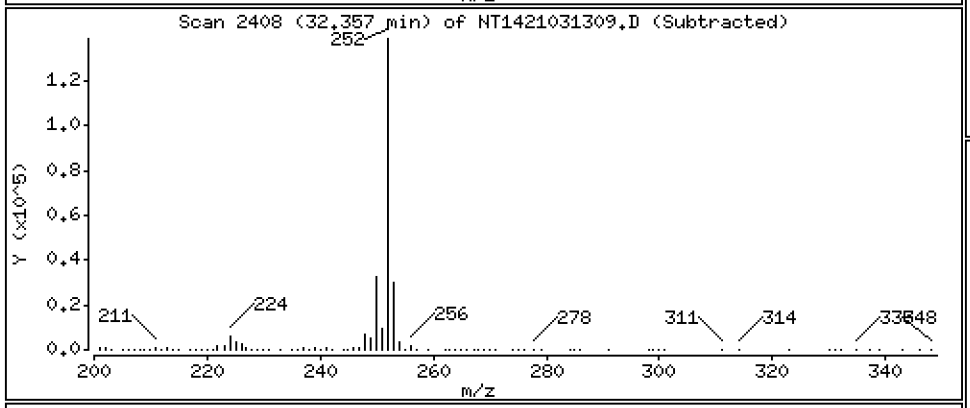
Column diameter: 0.25

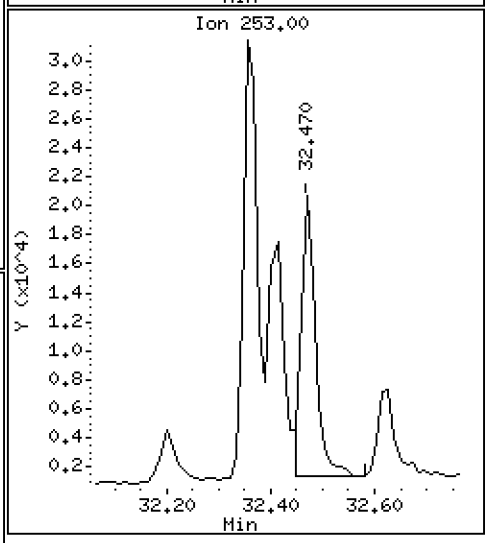
246 Total Benzofluoranthenes

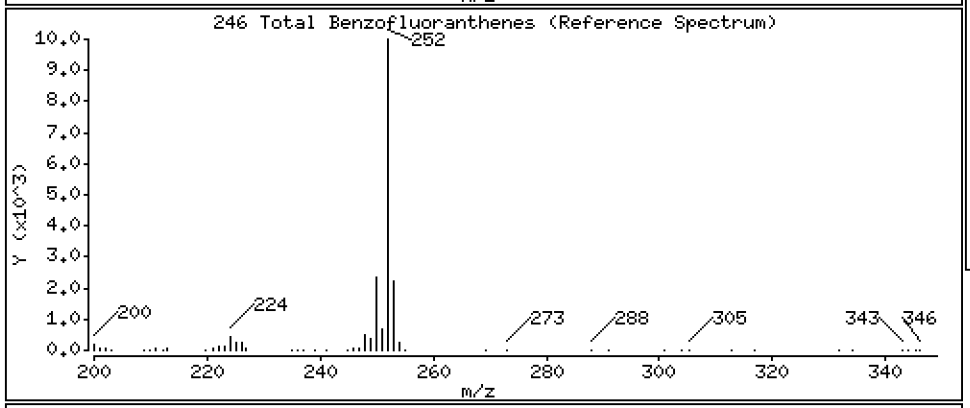
Concentration: 32.67 ug/mL

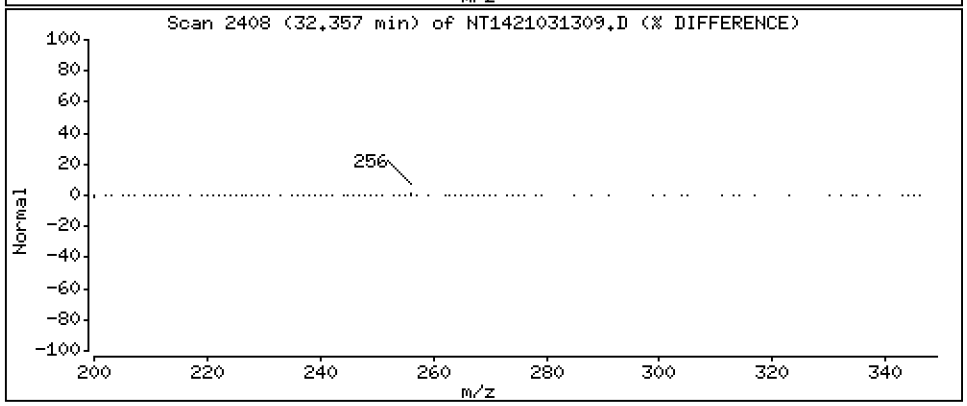












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031309.D

Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

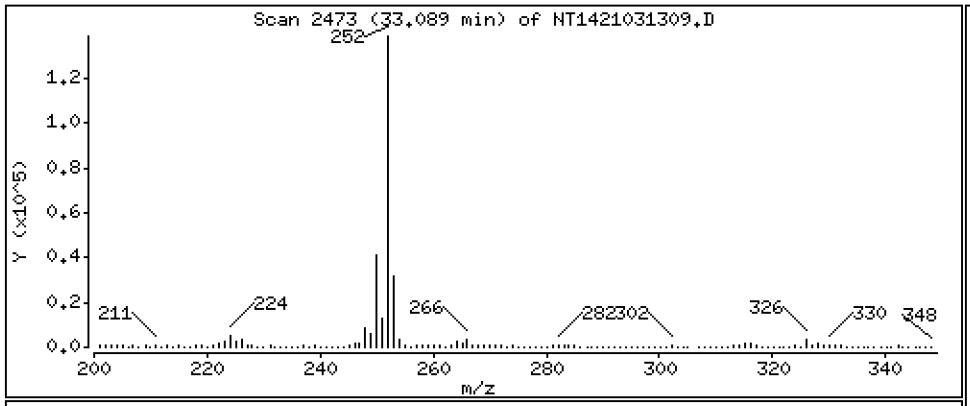
Operator: VTS

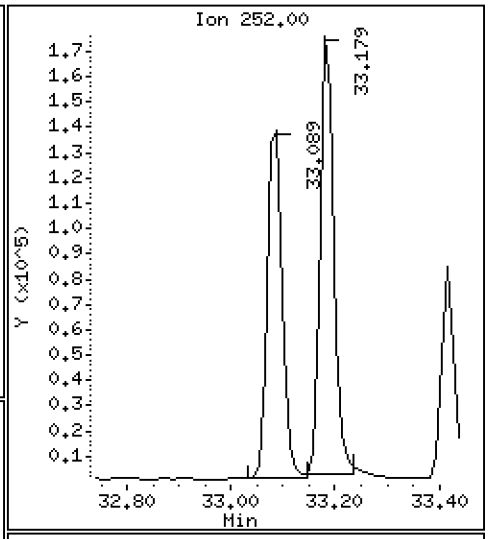
Column phase: Rxi-17Sil MS

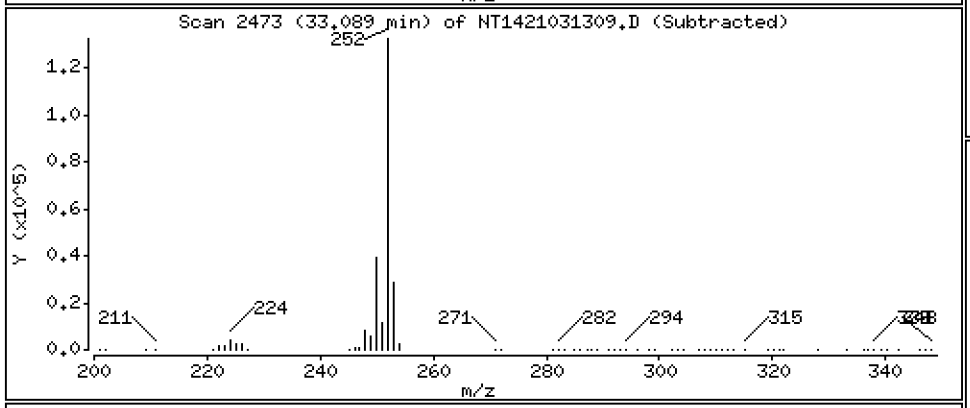
Column diameter: 0.25

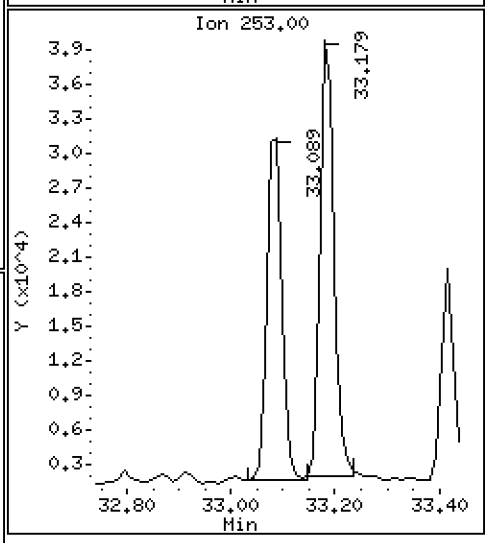
64 Benzo(e)pyrene

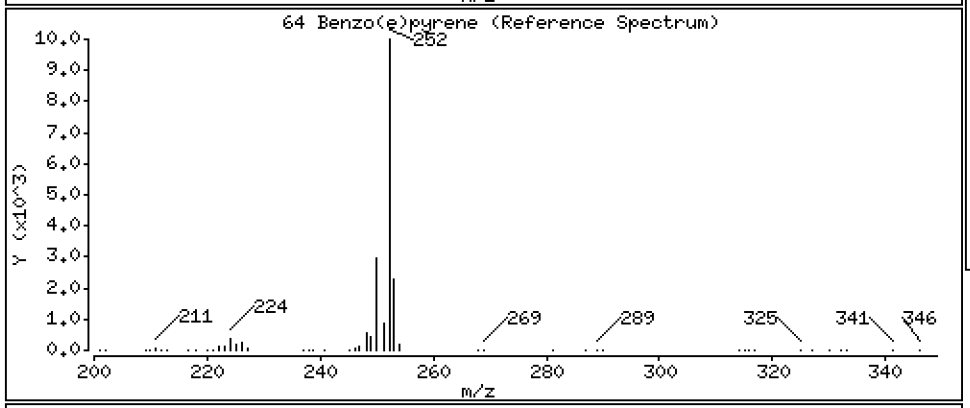
Concentration: 15.63 ug/mL

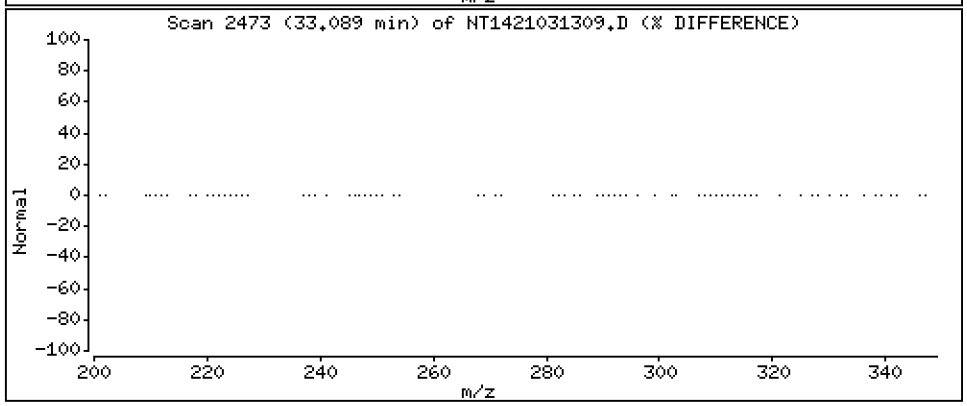












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031309.D

Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

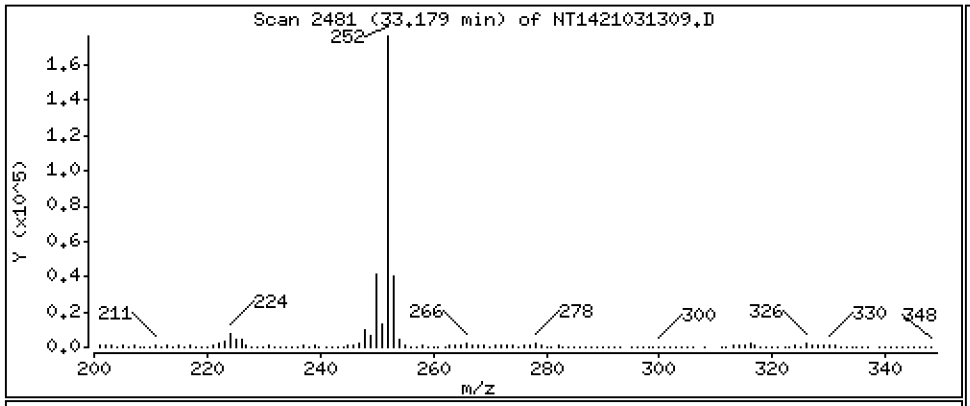
Operator: VTS

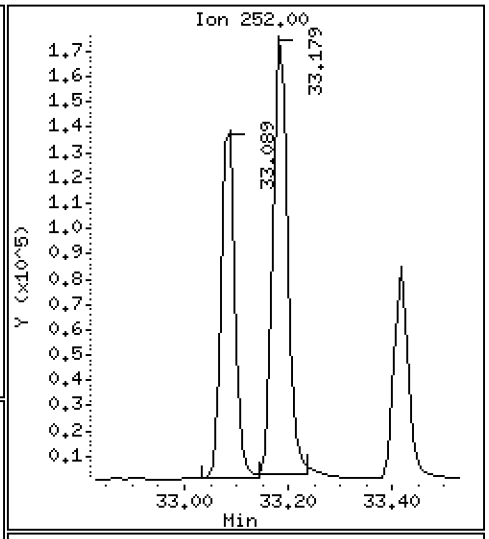
Column phase: Rxi-17Sil MS

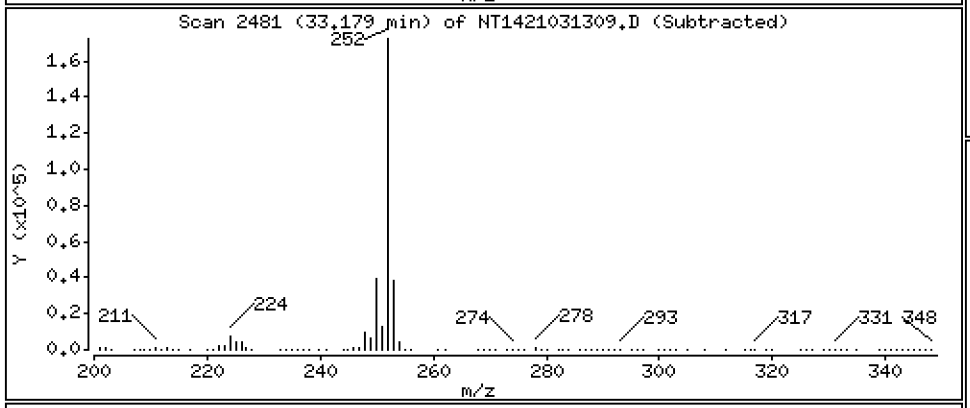
Column diameter: 0.25

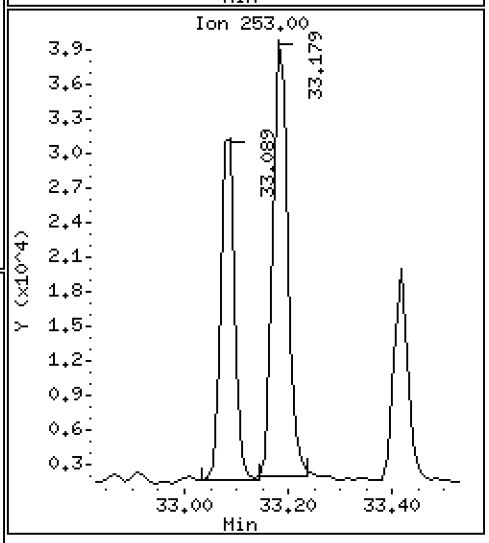
66 Benzo(a)pyrene

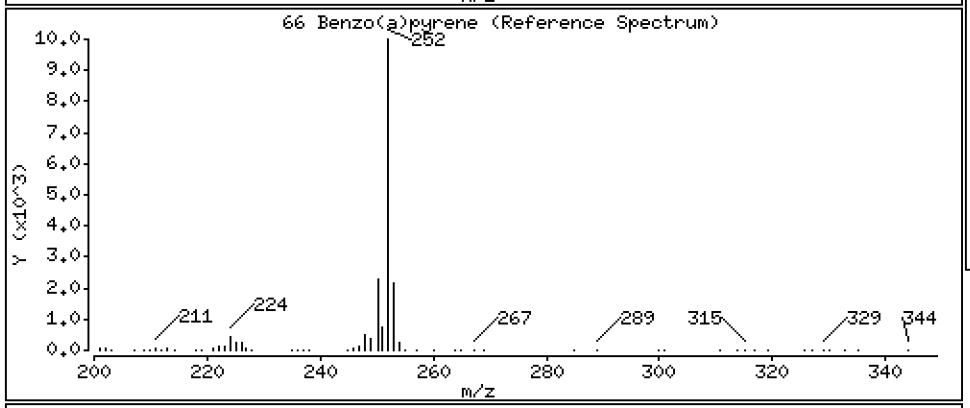
Concentration: 20.46 ug/mL

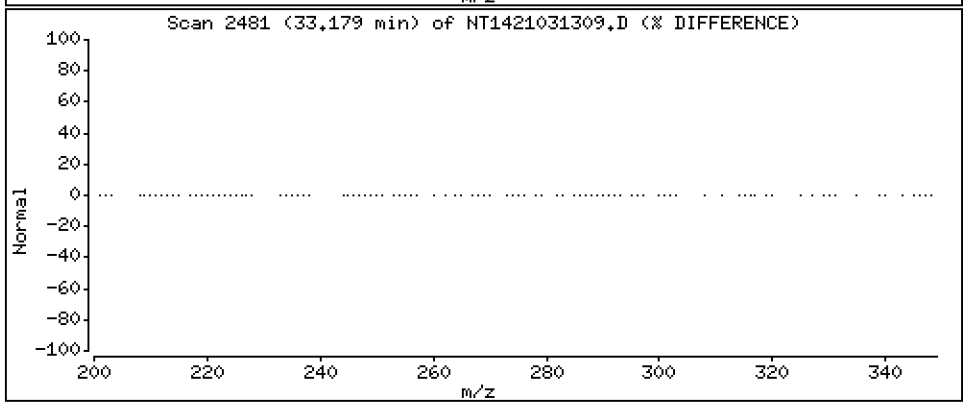












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031309.D

Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

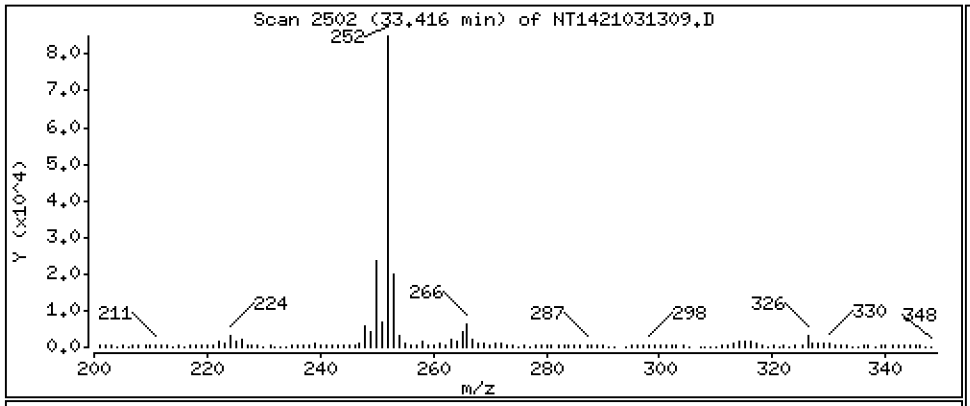
Operator: VTS

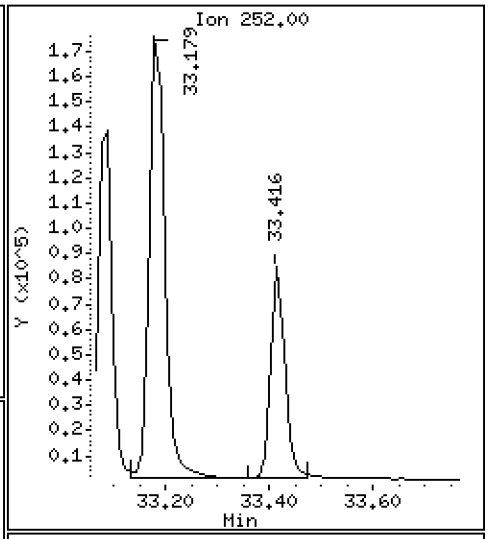
Column phase: Rxi-17Sil MS

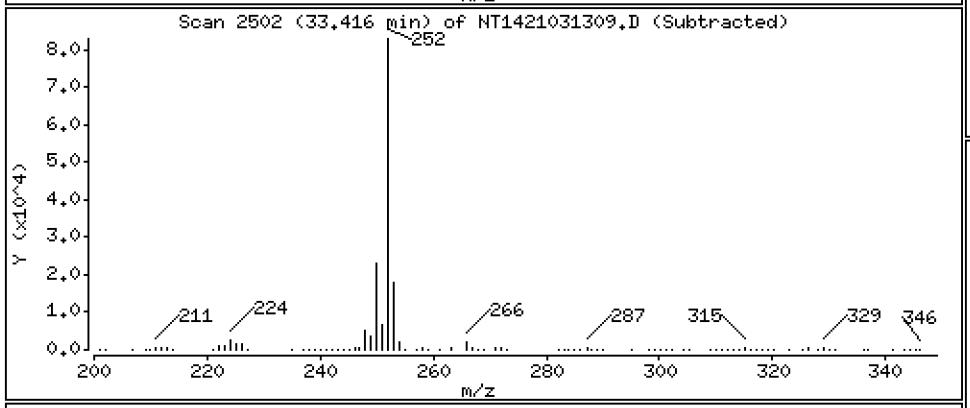
Column diameter: 0.25

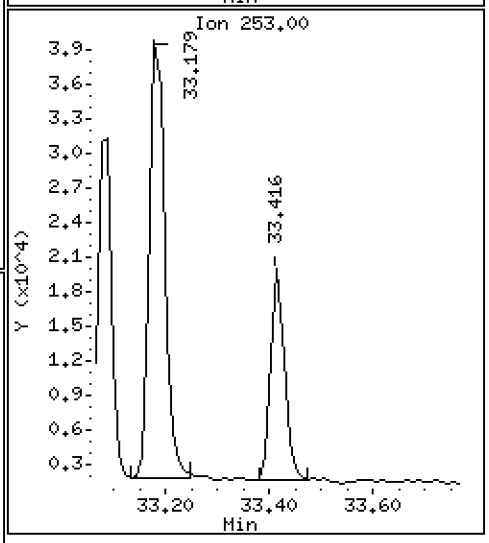
68 Perylene

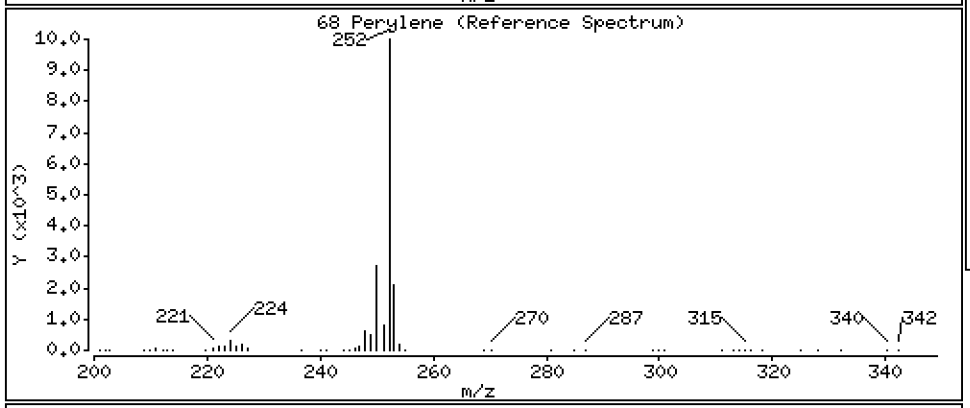
Concentration: 9.084 ug/mL

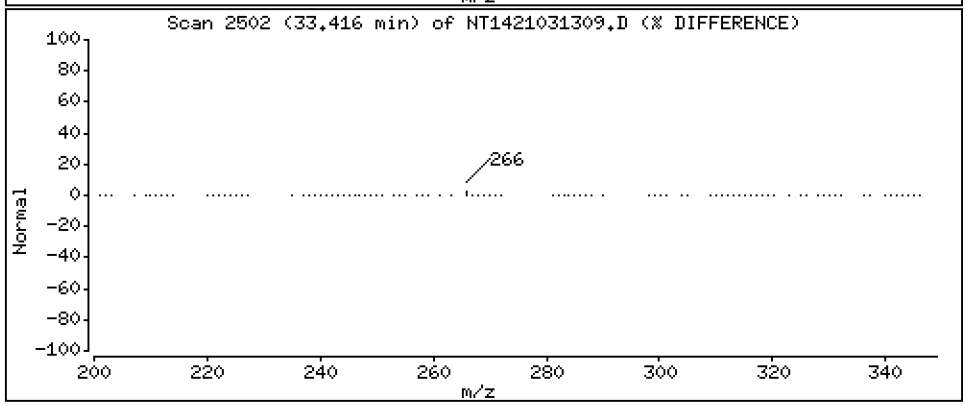












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031309.D

Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

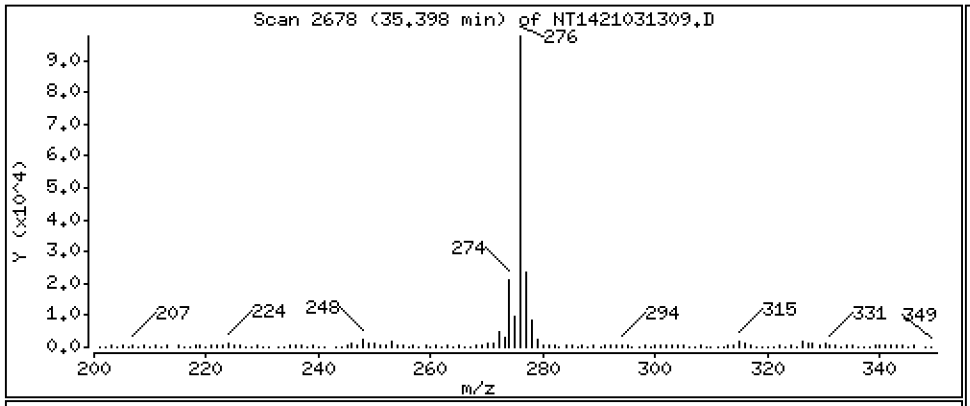
Operator: VTS

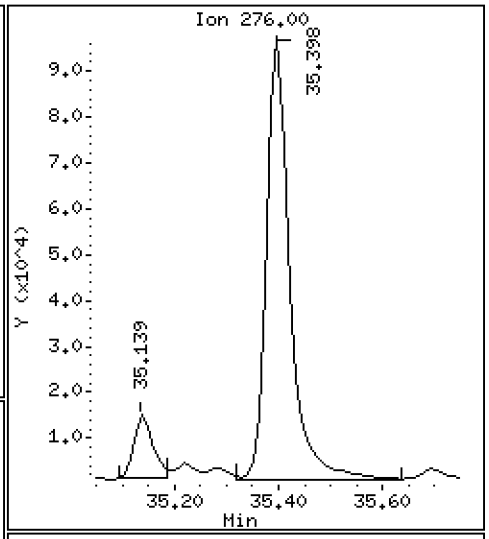
Column phase: Rxi-17Sil MS

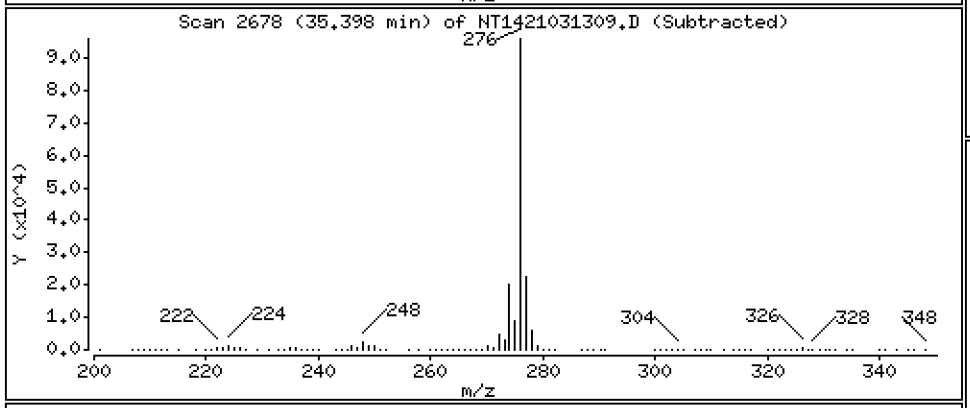
Column diameter: 0.25

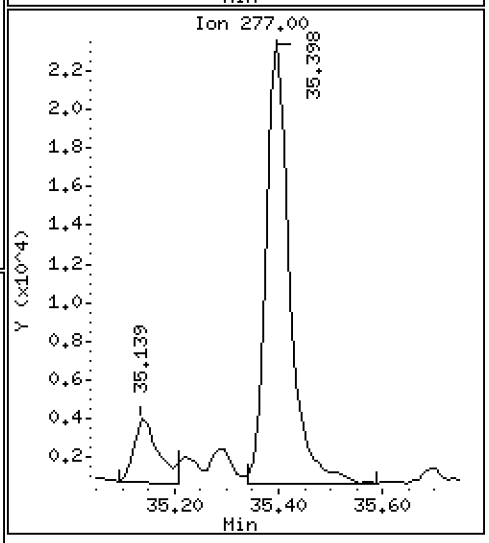
69 Indeno(1,2,3-cd)pyrene

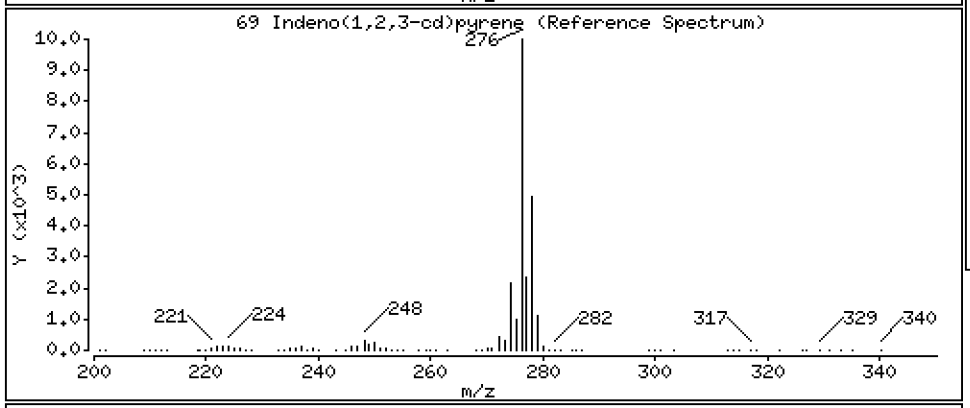
Concentration: 16.67 ug/mL

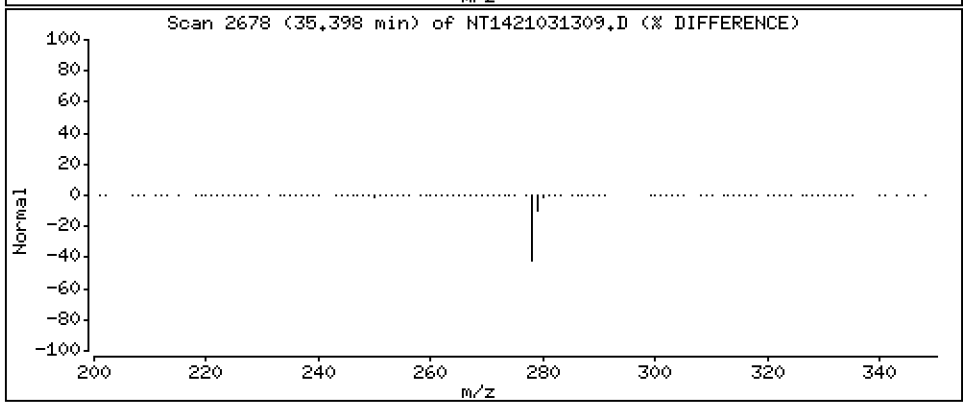












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031309.D

Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

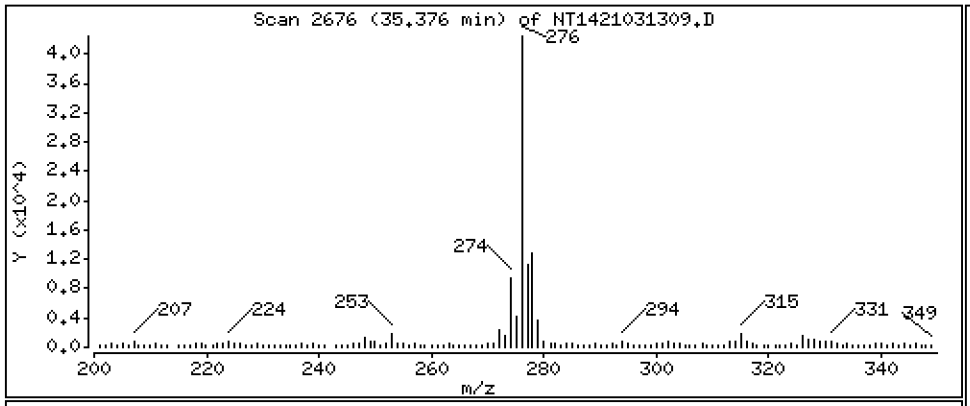
Operator: VTS

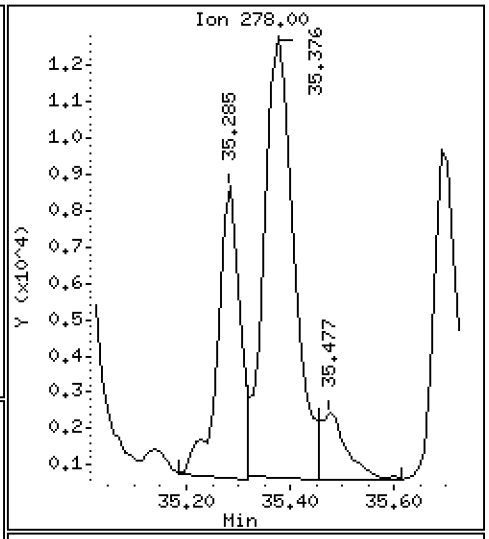
Column phase: Rxi-17Sil MS

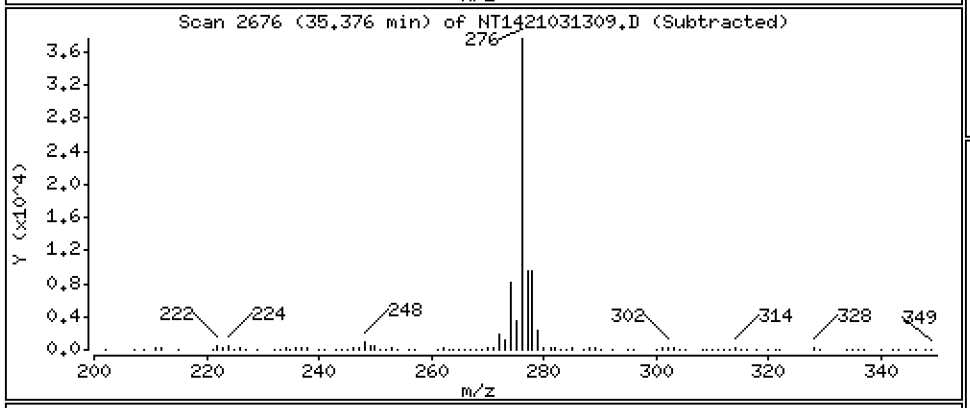
Column diameter: 0.25

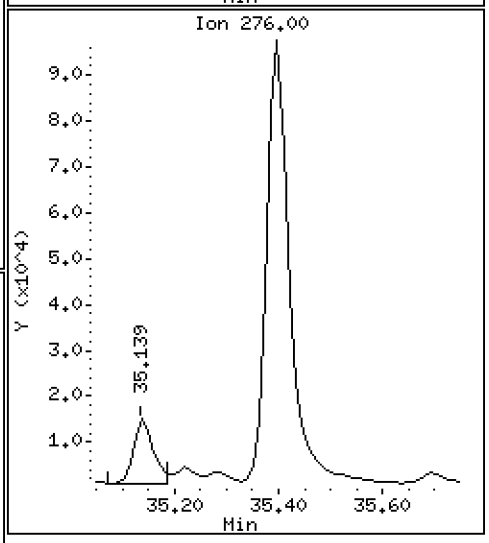
70 Dibenzo(a,h)anthracene

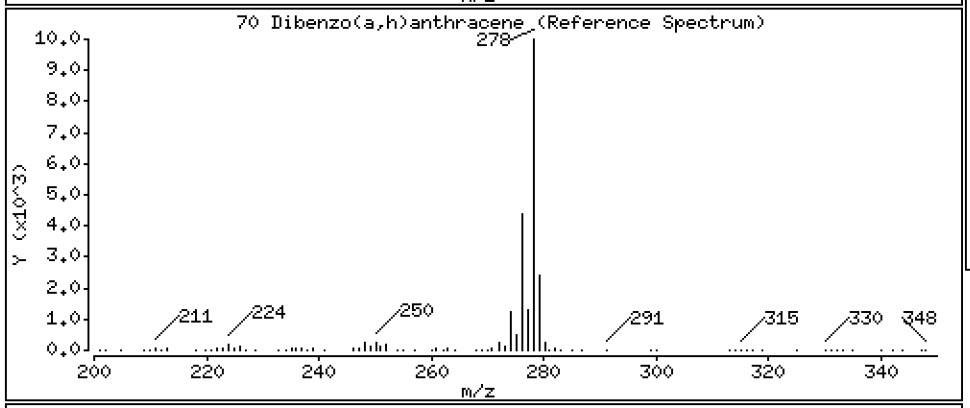
Concentration: 3.005 ug/mL

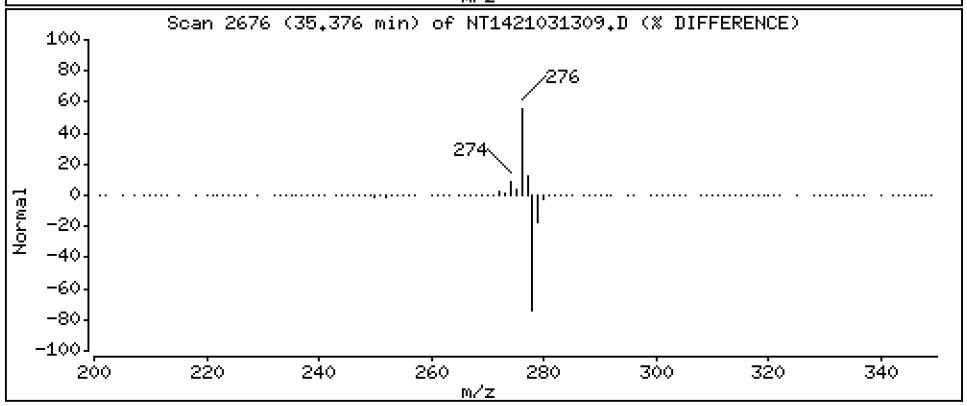












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031309.D

Date : 13-MAR-2021 17:12

Client ID:

Instrument: nt14.i

Sample Info: 21B0118-01RE1,10

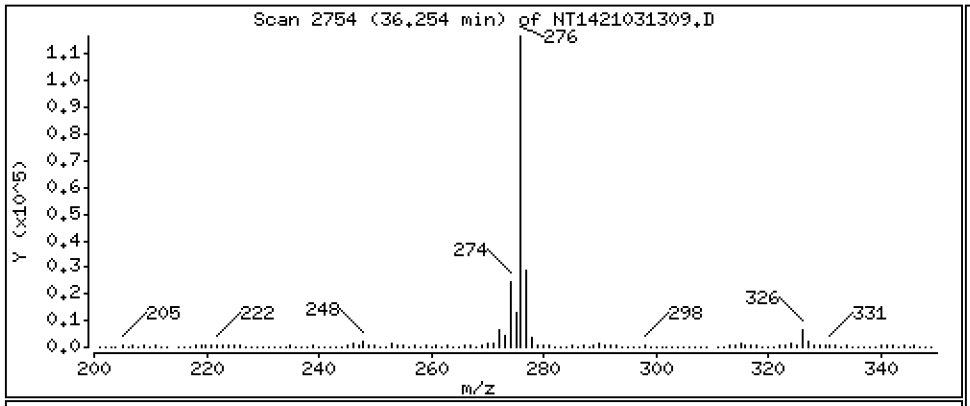
Operator: VTS

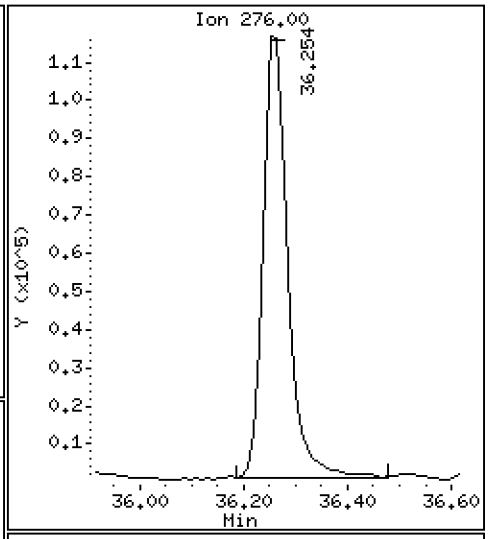
Column phase: Rxi-17Sil MS

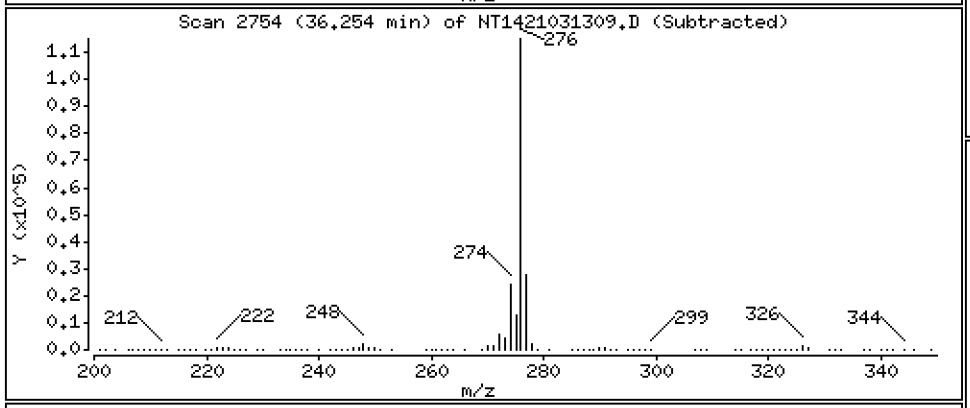
Column diameter: 0.25

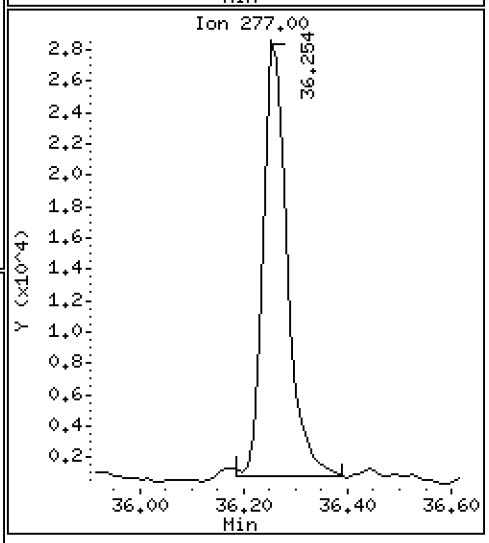
74 Benzo(g,h,i)perylene

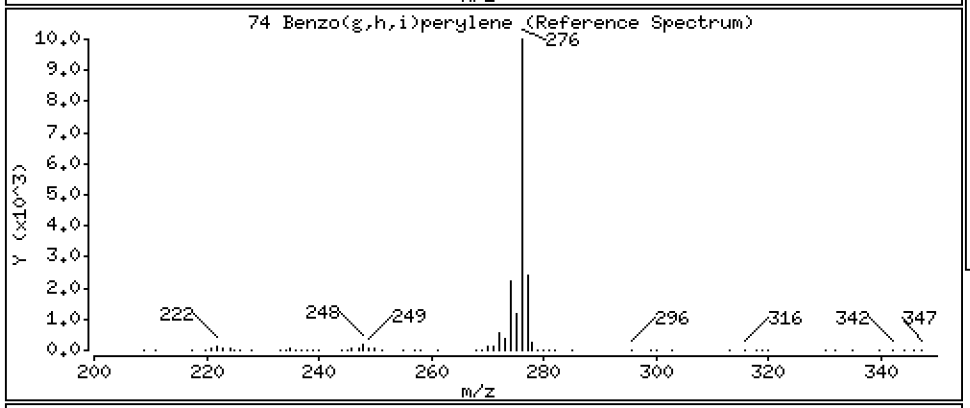
Concentration: 21.21 ug/mL

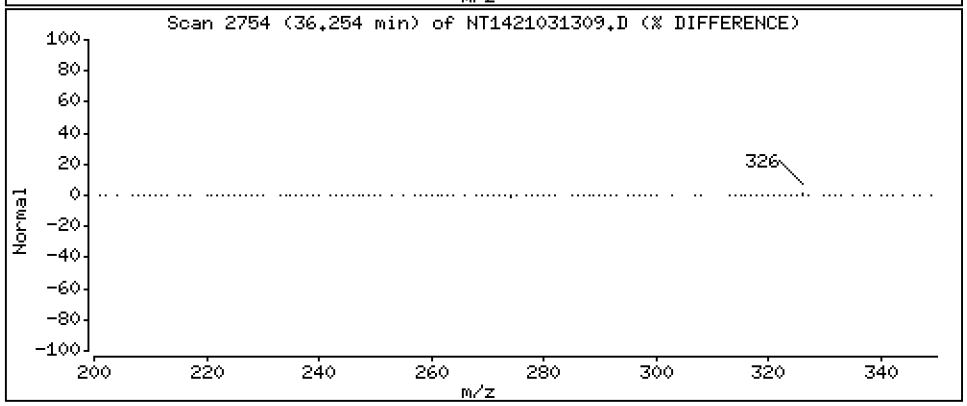












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210313.b\NT1421031309.D
Lab Smp Id: 21B0118-01RE1
Inj Date : 13-MAR-2021 17:12
Operator : VTS Inst ID: nt14.i
Smp Info : 21B0118-01RE1,10
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210313.b\ALKYLPNA.m
Meth Date : 13-Mar-2021 12:11 van Quant Type: ISTD
Cal Date : 07-JAN-2021 16:44 Cal File: NT1421010708.D
Als bottle: 9
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14

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	11.744	11.744	(0.627)	22578	0.16597	1.660(R)
7 Naphthalene	128	11.810	11.810	(0.630)	93976	0.69006	6.901
12 Benzo(b)thiophene	134	12.261	12.261	(0.654)	6106	0.05421	0.5421
16 2-Methylnaphthalene	141	13.645	13.634	(0.728)	26660	0.34244	3.424
17 1-methylnaphthalene	141	14.085	14.085	(0.752)	11241	0.14901	1.490
18 Biphenyl	154	15.283	15.283	(0.815)	11850	0.10350	1.035
19 2,6-Dimethylnaphthalene	156	15.360	15.360	(0.820)	11508	0.13737	1.374(M)
20 Acenaphthylene	152	16.920	16.920	(0.903)	21247	0.14921	1.492
$ 21 Acenaphthene-d10	164	17.206	17.206	(0.918)	18375	0.25575	2.557(R)
22 Acenaphthene	153	17.327	17.316	(0.925)	36189	0.39528	3.953
23 Dibenzofuran	168	17.700	17.701	(0.945)	16213	0.12374	1.237
24 1,6,7-Trimethylnaphthalene	170	17.920	17.920	(0.956)	7704	0.09157	0.9157
* 25 Fluorene-d10	176	18.740	18.741	(1.000)	294026	2.00000	
26 Fluorene	166	18.843	18.843	(1.005)	51571	0.51939	5.194
30 Dibenzothiophene	184	21.756	21.757	(1.161)	52968	0.38990	3.899
$ 35 Phenanthrene-d10	188	22.066	22.066	(0.995)	35574	0.25157	2.516(R)
36 Phenanthrene	178	22.143	22.143	(0.998)	441846	2.87007	28.70
* 250 Anthracene-d10	188	22.187	22.176	(1.000)	308863	2.00000	
37 Anthracene	178	22.253	22.242	(1.003)	230698	1.62047	16.20
42 Carbazole	167	23.539	23.528	(1.061)	37633	0.31622	3.162
43 1-Methylphenanthrene	192	23.979	23.979	(1.081)	37325	0.34131	3.413
44 Fluoranthene	202	25.958	25.947	(1.170)	796153	4.73259	47.33
46 Pyrene	202	26.805	26.805	(1.208)	909286	5.15067	51.51
51 Naphthobenzothiophene	234	29.348	29.348	(1.323)	55680	0.44046	4.405
55 Benzo(a)anthracene	228	29.935	29.935	(0.907)	280912	1.60102	16.01
$ 56 Chrysene-d12	240	30.070	30.059	(0.911)	32633	0.24103	2.410(R)
57 Chrysene	228	30.138	30.138	(0.913)	382154	2.17992	21.80
62 Benzo(b)fluoranthene	252	32.357	32.368	(0.980)	274026	1.59012	15.90(M)
63 Benzo(k)fluoranthene	252	32.413	32.413	(0.982)	162517	0.90315	9.032(M)
293 Benzo(j)fluoranthene	252	32.469	32.469	(0.983)	152974	0.88094	8.809
246 Total Benzofluoranthenes	252	32.357	32.413	(0.980)	562056	3.26650	32.67(M)
* 251 Benzo(e)pyrene-d12	264	33.021	33.021	(1.000)	429958	2.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	64 Benzo(e)pyrene	252	33.089	33.089	(1.002)	261418	1.56317	15.63
	66 Benzo(a)pyrene	252	33.179	33.179	(1.005)	321927	2.04575	20.46
$	67 Perylene-d12	264	33.359	33.359	(1.010)	37668	0.25936	2.594(R)
	68 Perylene	252	33.415	33.416	(1.012)	145019	0.90840	9.084
	69 Indeno(1,2,3-cd)pyrene	276	35.398	35.398	(1.072)	286322	1.66678	16.67
	70 Dibenzo(a,h)anthracene	278	35.375	35.375	(1.071)	48473	0.30054	3.005
	74 Benzo(g,h,i)perylene	276	36.254	36.265	(1.098)	366838	2.12075	21.21

QC Flag Legend

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

Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031309.D Page 1
Report Date: 16-Mar-2021 15:33

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421031309.D
Lab Smp Id: 21B0118-01RE1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210313.b\ALKYLPNA.m
Misc Info:

Calibration Date: 13-MAR-2021
Calibration Time: 11:19
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	366886	183443	733772	294026	-19.86
250 Anthracene-d10	368886	184443	737772	308863	-16.27
251 Benzo(e)pyrene-d1	446096	223048	892192	429958	-3.62

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.74	18.24	19.24	18.74	-0.00
250 Anthracene-d10	22.18	21.68	22.68	22.19	0.05
251 Benzo(e)pyrene-d1	33.02	32.52	33.52	33.02	-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 - NT1421031309.D

Lab ID: 21B0118-01RE1
nt14.i, 20210313.b\ALKYLPNA.m, 13-MAR-2021 17:12

RT	CO-ELUTION COMPOUNDS
	NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

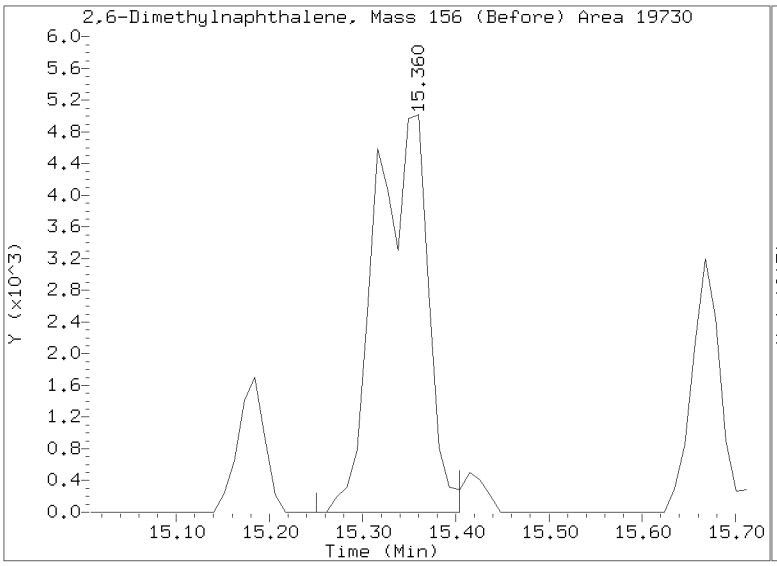
RRT check based on Ccal File: NT1421031302.D

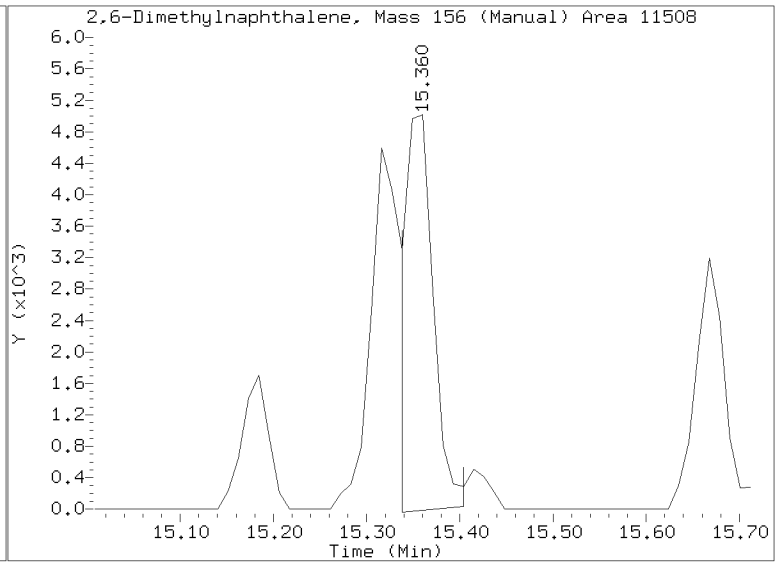
On Column LOD for nt14.i, 20210313.b\ALKYLPNA.m, TARGETS.sub = 0.0000

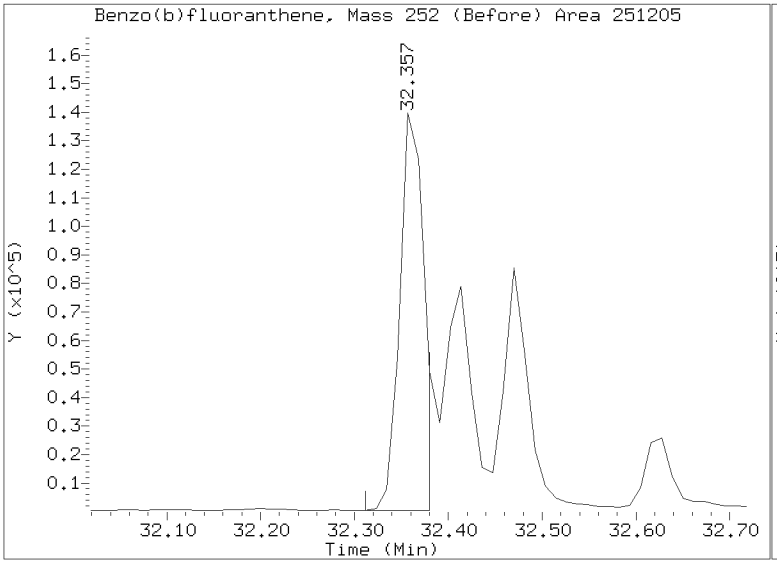
* Only compounds listed in the work order have been verified by the analyst *

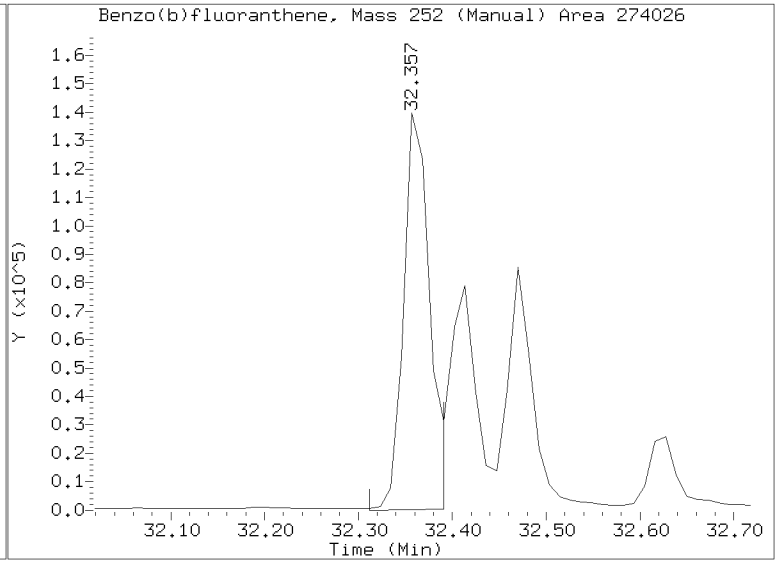
Quant Ion Manual Peak Adjustment Report

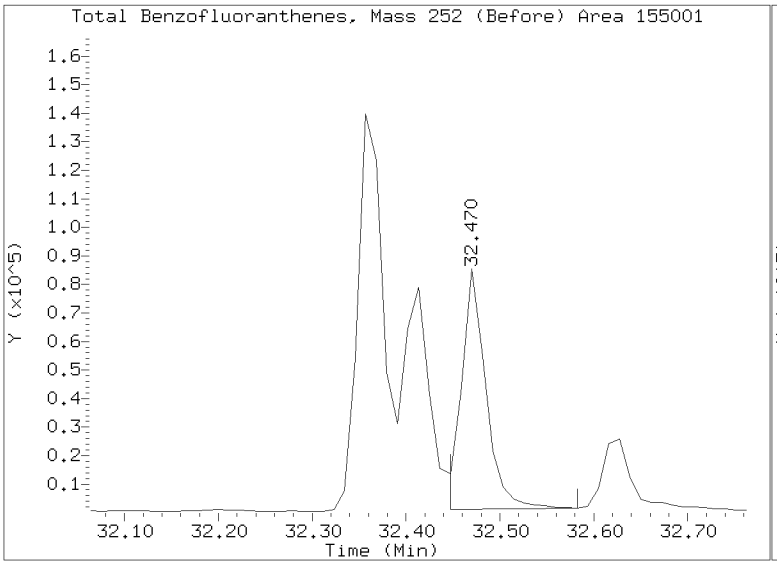
Datafile: //target/share/chem3/nt14.i/20210313.b/NT1421031309.D
Injection Date: 13-MAR-2021 17:12
Lab ID:21B0118-01RE1 Client ID:
Report Date: 03/16/2021 15:33

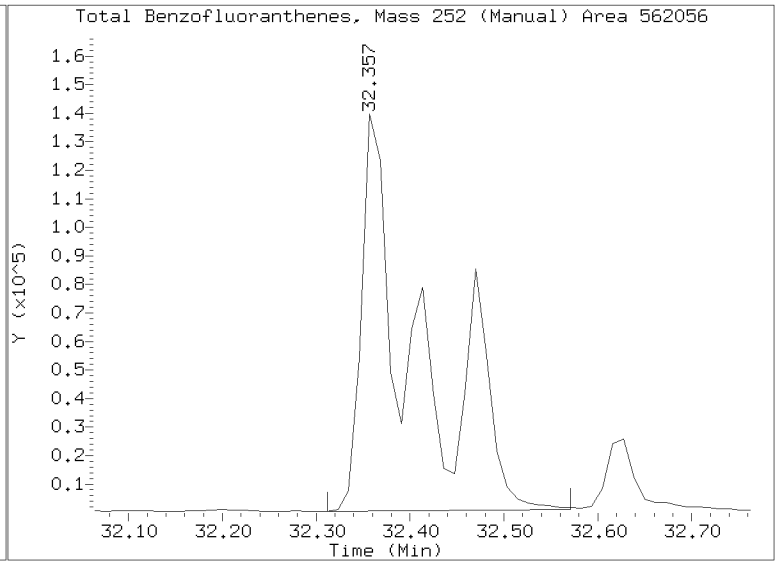






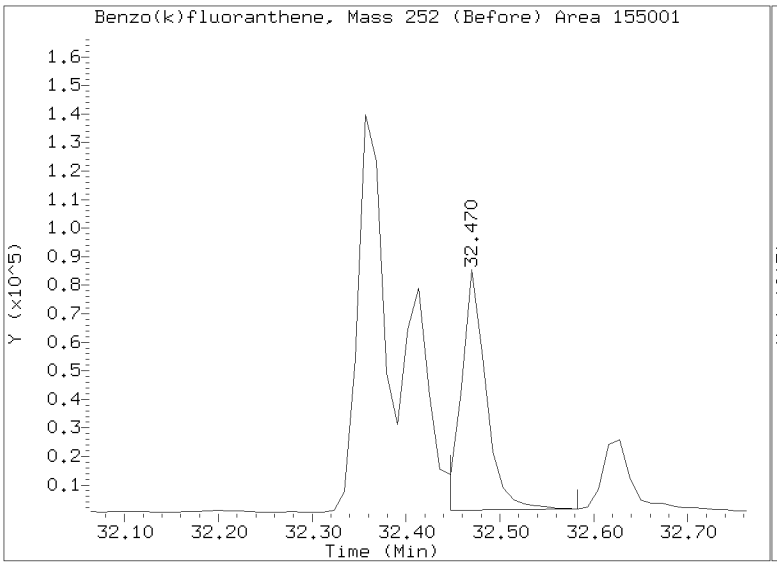


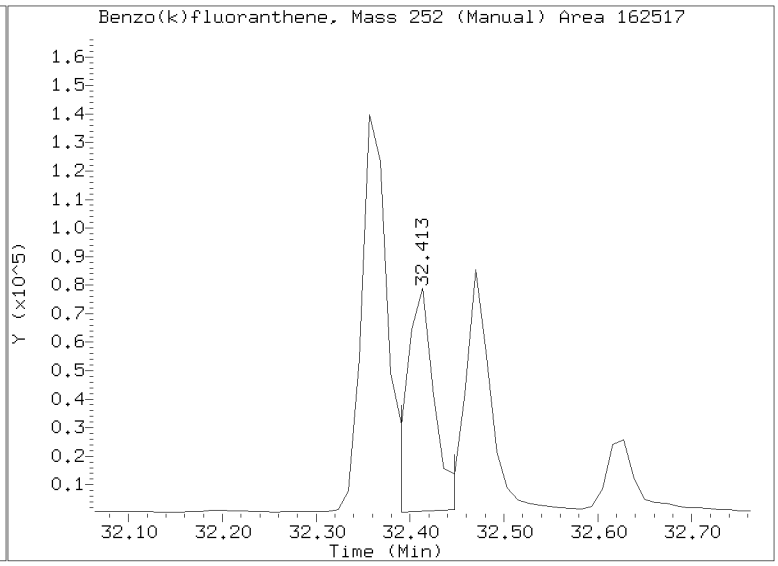




Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210313.b/NT1421031309.D
Injection Date: 13-MAR-2021 17:12
Lab ID:21B0118-01RE1 Client ID:
Report Date: 03/16/2021 15:33





Analytical Resources, Incorporated
Analytical Chemists and Consultants

PREPARATION BATCH SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Batch:	BJC0107 Batch Matrix: Solid	Preparation:	EPA 3546 (Microwave)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
USMPDI-049SC-A-00-01-201104	21B0118-01	NT1421031306S.D	03/04/21 10:33	
USMPDI-049SC-A-00-01-201104	21B0118-01	NT1421031306.D	03/04/21 10:33	
USMPDI-049SC-A-00-01-201104	21B0118-01RE1	NT1421031309.D	03/04/21 10:33	Added 3/16/2021 by PK
Blank	BJC0107-BLK1	NT1421031304.D	03/04/21 10:33	
LCS	BJC0107-BS1	NT1421031305.D	03/04/21 10:33	
USMPDI-049SC-A-00-01-201104	BJC0107-MS1	NT1421031307.D	03/04/21 10:33	
USMPDI-049SC-A-00-01-201104	BJC0107-MSD1	NT1421031308.D	03/04/21 10:33	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BJC0107

Prepared using: EPA 3546 (Microwave)

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

Matrix: Solid **Date Prepared:** 03/04/21 **Balance ID:** B146462614 **Set Up By:** CTO 3/4/21

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

Lab Number & Container	% Solids	Initial (g) Target Dry: 10 (Wet) Actual	(REQ/Opt) GPC C/U (1:1) 1 2 3	(REQ/Opt) Sulfur C/U (1:1) Y/N (Transfer Rinse)	(REQ) Silica Gel C/U (1:1)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
21B0118-01 A	44.9	(22.28) 22.31	(1:1) Y / N	(1:1) Y / N	(1:1)	0.5	0.5	

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

Lab Number & Container	% Solids	Initial (g) Target Dry: 10 (Wet) Actual	(REQ/Opt) GPC C/U (1:1) 1 2 3	(REQ/Opt) Sulfur C/U (1:1) Y/N (Transfer Rinse)	(REQ) Silica Gel C/U (1:1)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
21B0118-01 A	44.9	(22.28) 22.31	(1:1) Y / N	(1:1) Y / N	(1:1)	0.5	0.5	

Batch QC

Lab Number	% Solids	Initial (g) Target Dry: 10 (Wet) Actual	(REQ/Opt) GPC C/U (1:1) 1 2 3	(REQ/Opt) Sulfur C/U (1:1) Y/N (Transfer Rinse)	(REQ) Silica Gel C/U (1:1)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
BJC0107-BLK1	100.0	(10.00) 10.00	(1:1) Y / N	(1:1) Y / N	(1:1)	0.5	0.5	
BJC0107-BS1	100.0	(10.00) 10.00	(1:1) Y / N	(1:1) Y / N	(1:1)	0.5	0.5	
BJC0107-MS1	44.9	(22.28) 22.31	(1:1) Y / N	(1:1) Y / N	(1:1)	0.5	0.5	Use 21B0118-01
BJC0107-MSD1	44.9	(22.28) 22.31	(1:1) Y / N	(1:1) Y / N	(1:1)	0.5	0.5	Use 21B0118-01

DeP 03/04/21 — Client ID verified By / Date

CG 3/9/21 — Preparation Reviewed By / Date

03/04/21 10:33 — Extraction Date and Time

Printed: 3/4/2021 8:58:03AM

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BJC0107

Prepared using: EPA 3546 (Microwave)

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

Prep Steps

Microwave
1 (2) 3
DP 03/04/21
CT Analyst/Date

Pre-GPC KD 100°C (No Exchange)
1 2 3 4 5 (6)
AR 03/05/21
Analyst/Date

Pre GPC TurboVap
1 2 3 (4)
TWC 3/8/21
Analyst/Date

Post-GPC KD 80°C Hexane Exchange 2 x 20 mL 100°C
1 2 3 4 (5) (6)
AR 03/09/21
Analyst/Date

Pre-Cleanup TurboVap
1 (2) 3 (4)
CJ 3/9/21
Analyst/Date

Post-Cleanup TurboVap
1 (2) 3 4
CJ 3/9/21
Analyst/Date

Vialing
SLT 3/9/21
Analyst/Date

Reagents Used

Station/Reagent	Standard ID
Microwave Analyst: CT/DP Date: 03/04/21	
1:1 Methylene Chloride/Acetone	J001943
Methylene Chloride	J002138
Anhydrous Sodium Sulfate	J002141
Pre-Deactivated Glass Wool	J001974
Pre GPC KD Analyst: AR Date: 03/05/21	
Methylene Chloride	J001269
Hexane	J000231
GPC Filter Prep Analyst: TWC Date: 3/8/21	
Methylene Chloride	J002138
GPC Analyst: TWC Date: 3/8/21	
Methylene Chloride	J002138
GPC Calibration File	CJA0220
Post GPC KD Analyst: AR Date: 03/09/21	
Hexane	J000231
Methylene Chloride	J002138
Vialing Analyst: CJ Date: 3/9/21	
Silica Gel (SPE) darts	J001220
Methylene Chloride	J002138
Hexane	J000231
Tetrabutylammonium hydrogensulfate (TBAS)	J002477
Sodium Sulfite	I006339

Surrogates & Spike Standards Used

Type	Vial ID / Standard ID	Vol uL	Analyst	Witness
Surr 15µg/mL	T I010873 Exp: 11/24/2021	100µL	DP	
Spike 15/75µg/mL	15 I010207 Exp: 10/03/2021	100µL	DP	
Spike 15µg/mL	42 ~~I008202~~ Exp: 03/13/2021 I010826 03/16/21	100µL	DP	

(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: BJC0107

Prepared using: EPA 3546 (Microwave)

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

Prep Instructions	
SPECIAL INSTRUCTIONS: 1. Weigh into beakers dry with Sodium Sulfate. 2. Transfer to microwave vessel. 3. Add DCM ONLY to the vessels (until solvent is 3 inches above soil layer after homogenization). 4. Add surr/spike. 5. Microwave on appropriate power setting determined by # of samples. 6. After microwave-re-homogenize while hot then let cool 10-15 min in Refridgerator 05. Re-homogenize while cool. 7. Decant DCM into Erlenmeyer flask with a funnel containing pre-deactivated glasswool. 8. Rinse with DCM 9. Microwave a 2nd time using 1:1 DCM/ACE. 10. Let cool and decant the solvent then empty the soil into the funnel and rinse with DCM. 11. If GPC is Req add 10mL Hexane and KD to 5mL at 100ºC (NO EXCHANGE) 12. If GPC is NOT Req = KD to 5mL at 100ºC. Exchange to Hexane (2X with 10mL) to 5mL at 100ºC. 13. TurboVap. 14. Sulfur clean = Hexane transfer rinse. 15. Silica Clean-up REQ. 16. TurboVap 17. Vial in DCM. A. Need Total Solids Y [N] B. Archive/Freeze [Y] / N	

3326F

Printed: 3/4/2021 8:53:54AM

Analytical Resources, Incorporated
Analytical Chemists and Consultants

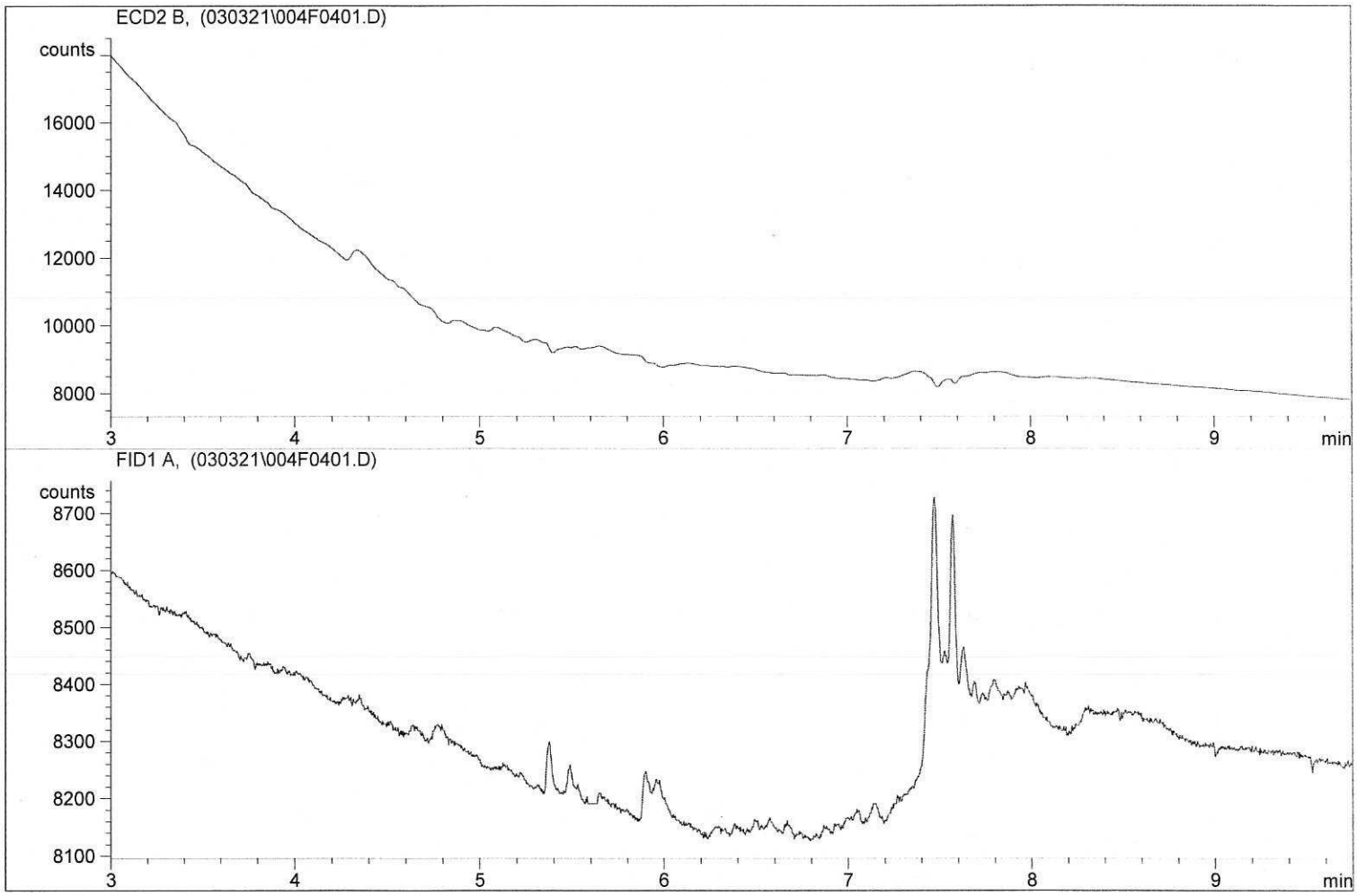
Organic Extractions Laboratory Analyst Notes

Extraction Parameter: SIM ALKYL PNA Extraction Batch BJC0107

Total Solids Batch: BJC0072 Work Order(s): 21B0118

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= Sulfur odor = 01.	03/03/21
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☐ Previously Frozen =	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ 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	03/03/21
☒ Multiple Jars Y / N	03/03/21
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

Injection Date	: 3/3/2021 3:25:29 PM	Seq. Line :	4
Sample Name	: 21B0118 01	Location :	Vial 4
Acq. Operator	: YL	Inj :	1
		Inj Volume :	1 µl
Sequence File	: C:\HPCHEM\1\SEQUENCE\030321.S		
Method	: C:\HPCHEM\1\METHODS\SCREEN.M		
Last changed	: 2/4/2021 10:37:36 AM by DXP		
SCREEN METHOD			



*** End of Report ***

Batch: BJC0107
Batch Comment: **NONE**
Project: US Moorings
Project Comments: <G> MS/MSD per 20 samples, please batch with other work orders, SM2540 Needed </G>
Work Order:21B0118
Work Order Comments: Copy/Relog from 20K0188. <G> MS/MSD per 20 samples, please batch with other work orders, SM2540 Needed </G>
Sample: 21B0118-01
Sample Comments: Re-logged from frozen archive

Blk1

BJB0731/BJC0009/107 21B0266/306/118/20K0374/377 PNA/PEST

Date:2021-03-08,11:09:29 PM
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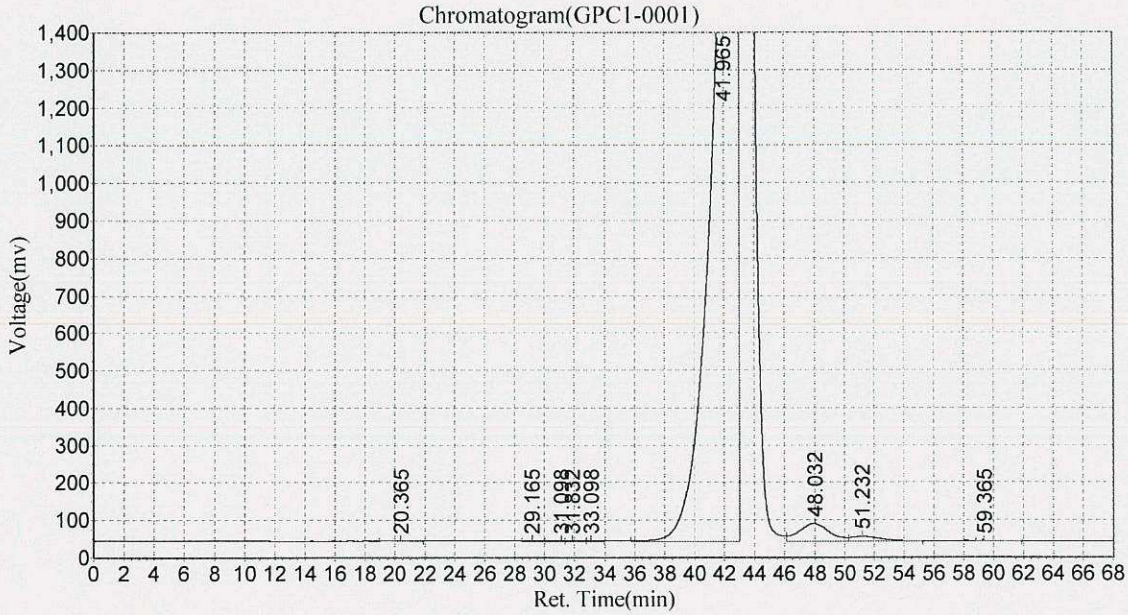
Method File:C:\N2000\GPC1_InHouse.mtd

Analyst£ºTWC
Date/Time2021-03-08,11:09:30 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		20.365	1705.185	177382.188	0.0849
2		29.165	1788.061	141382.578	0.0677
3		31.098	1768.935	119697.836	0.0573
4		31.832	1934.508	145474.531	0.0696
5		33.098	1663.770	112164.898	0.0537
6		41.965	1382134.625	199787408.000	95.6278
7		48.032	46546.074	6663893.500	3.1897
8		51.232	12258.211	1674156.625	0.8013
9		59.365	948.475	100255.438	0.0480
Total			1450747.843	208921815.594	100.000

Ingredient Table

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

2021-03-08 *Analytical Resources, Inc.*

BJB0731/BJC0009/107 21B0266/306/118/20K0374/377 PNA/PEST

B51

Date:2021-03-09,12:19:13 AM
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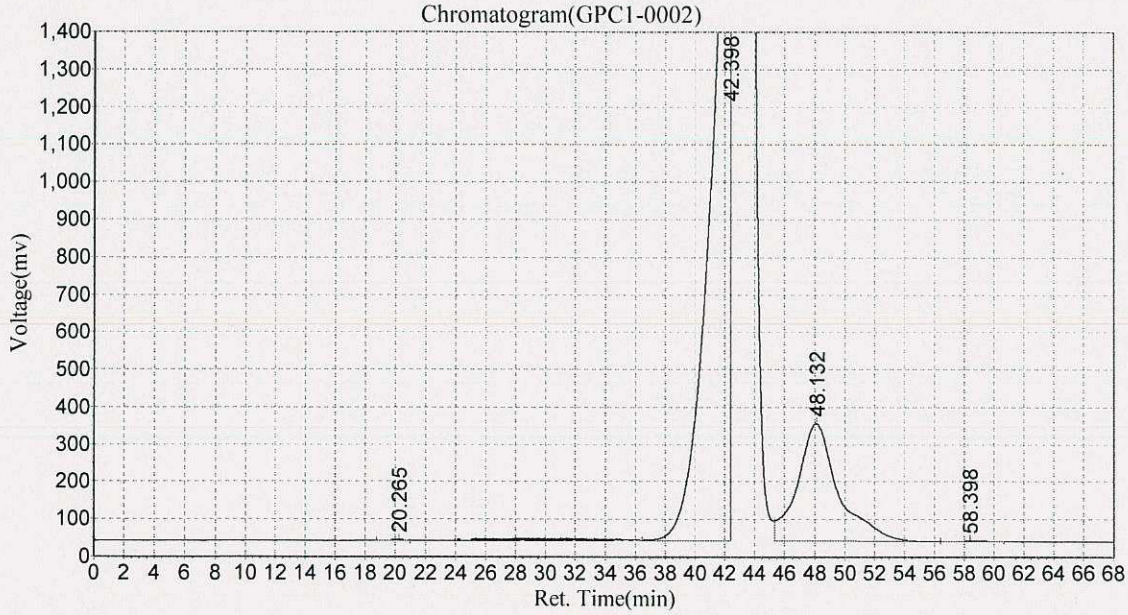
Method File:C:\N2000\GPC1_InHouse.mtd

Analyst£°TWC
Date/Time2021-03-09,12:19:14 AM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		20.265	2095.321	186555.422	0.0864
2		42.398	1383013.375	156247360.000	72.3733
3		48.132	313975.438	59238284.000	27.4390
4		58.398	1693.250	218816.000	0.1014
Total			1700777.384	215891015.422	100.000

Ingredient Table

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

-01

BJB0731/BJC0009/107 21B0266/306/118/20K0374/377 PNA/PEST

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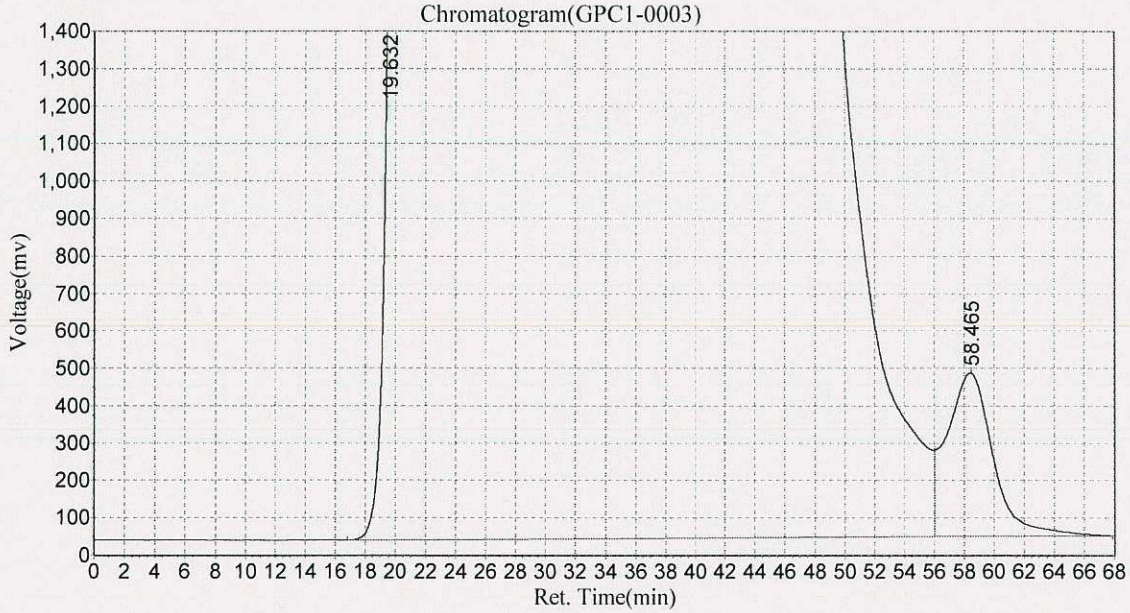
Analyst£°TWC
Date/Time2021-03-09,1:28:56 AM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		19.632	1384388.000	2749175296.000	96.6802
2		58.465	438089.375	94400960.000	3.3198
Total			1822477.375	2843576256.000	100.000

Ingredient Table

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

MS1

BJB0731/BJC0009/107 21B0266/306/118/20K0374/377 PNA/PEST

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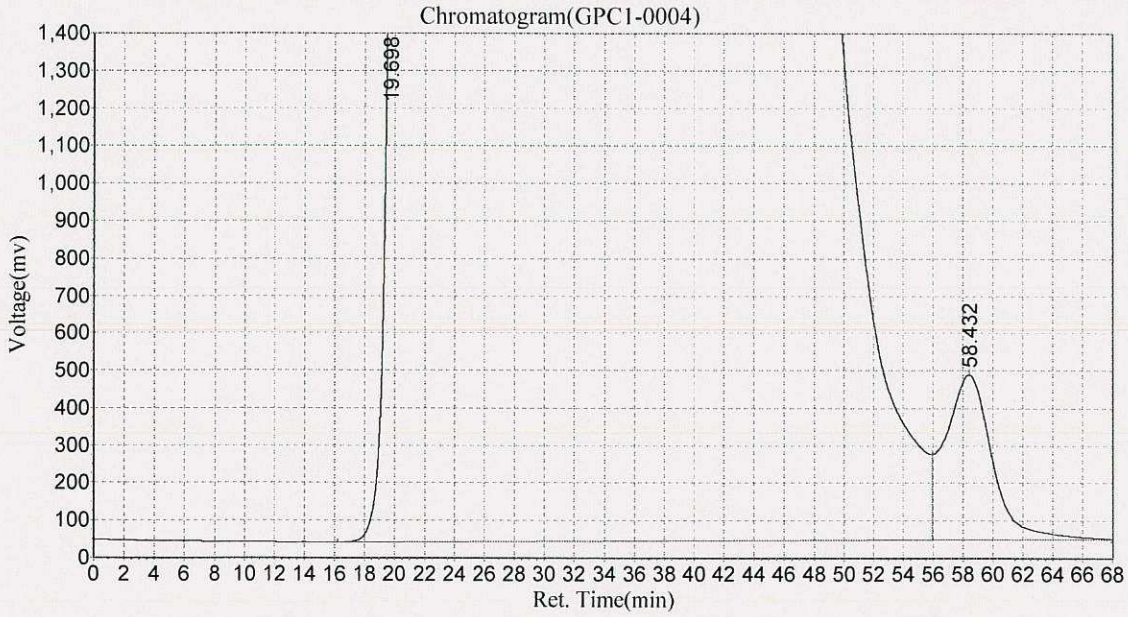
Method File:C:\N2000\GPC1_InHouse.mtd

Analyst£ºTWC
Date/Time2021-03-09,2:38:39 AM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		19.698	1383304.625	2742906624.000	96.5914
2		58.432	439981.406	96794912.000	3.4086
Total			1823286.031	2839701536.000	100.000

Ingredient Table

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

MSD1

BJB0731/BJC0009/107 21B0266/306/118/20K0374/377 PNA/PEST

Date:2021-03-09,3:48:20 AM
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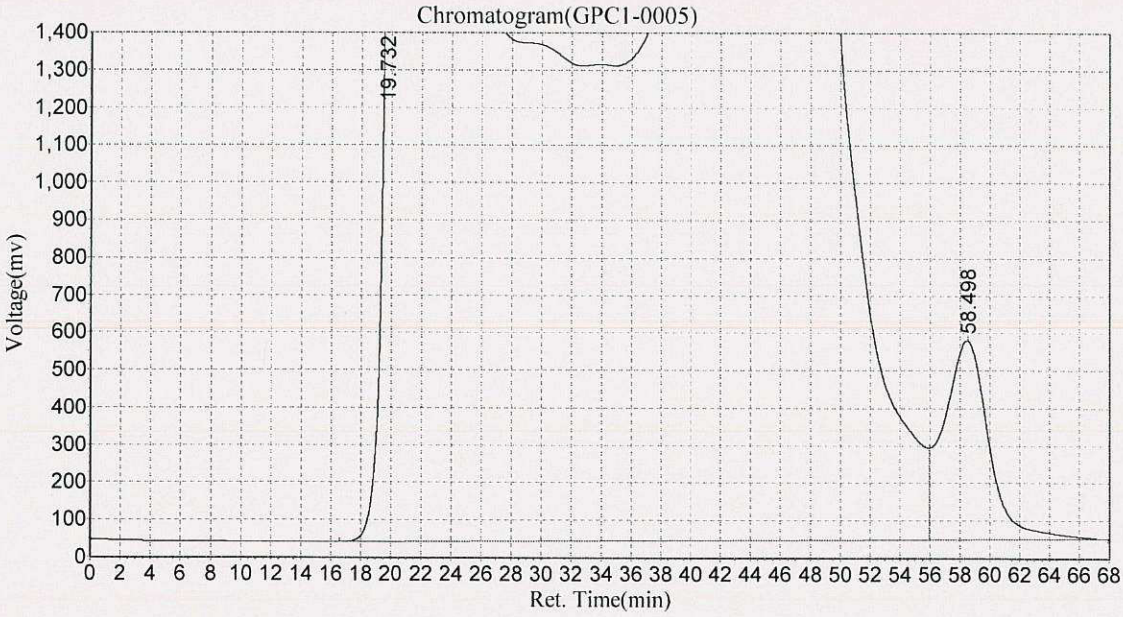
Method File:C:\N2000\GPC1_InHouse.mtd

Analyst£°TWC
Date/Time2021-03-09,3:48:21 AM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		19.732	1383789.000	2700941568.000	96.0122
2		58.498	531838.188	112181776.000	3.9878
Total			1915627.188	2813123344.000	100.000

Ingredient Table

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

Analytical Resources, Incorporated
Analytical Chemists and Consultants

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Cleanup Batch:	CJC0102	Cleanup Type:	Silica Gel
Cleanup Method:	EPA 3630C Silica Gel Cleanup	Analysis:	EPA 8270E-SIM

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
USMPDI-049SC-A-00-01-201104	21B0118-01	NT1421031306.D	03/09/2021	
USMPDI-049SC-A-00-01-201104	21B0118-01	NT1421031306S.D	03/09/2021	
USMPDI-049SC-A-00-01-201104	21B0118-01RE1	NT1421031309.D	03/09/2021	Added 3/16/2021 by PK
Blank	BJC0107-BLK1	NT1421031304.D	03/09/2021	
LCS	BJC0107-BS1	NT1421031305.D	03/09/2021	
Matrix Spike	BJC0107-MS1	NT1421031307.D	03/09/2021	
Matrix Spike Dup	BJC0107-MSD1	NT1421031308.D	03/09/2021	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CJC0102

Matrix: Solid | **Cleanup using: Organics - EPA 3630C Silica Gel Cleanup** | **Printed: 3/9/2021 3:42:29PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
21B0118-01	A	USMPDI-049SC-A-00-01-20 1104	A 01	0.5	0.5	70E-SIM Alkyl PAH (Parents) Dual Sc	3/9/2021	CCT	
21B0118-01	A	USMPDI-049SC-A-00-01-20 1104	A 02	0.5	0.5	270E-SIM Alkyl PAH (Range) Dual Sca	3/9/2021	CCT	
BJC0107-BLK1	-	Blank	-	0.5	0.5	-	3/9/2021	CCT	
BJC0107-BS1	-	LCS	-	0.5	0.5	-	3/9/2021	CCT	
BJC0107-MS1	-	Matrix Spike	-	0.5	0.5	-	3/9/2021	CCT	
BJC0107-MSD1	-	Matrix Spike Dup	-	0.5	0.5	-	3/9/2021	CCT	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Form I
METHOD BLANK DATA SHEET
EPA 8270E-SIM

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	21B0118
Client:	Anchor QEA, LLC			Project:	US Moorings
Matrix:	Solid	Laboratory ID:	BJC0107-BLK1	File ID:	NT1421031304.D
Sampled:	N/A	Prepared:	03/04/21 10:33	Analyzed:	03/13/21 13:10
Solids:		Preparation:	EPA 3546 (Microwave)	Initial/Final:	10 g / 0.5 mL
Batch:	BJC0107	Sequence:	SJC0183	Calibration:	EA00040
Instrument:	NT14	Column:	ZB-5MS	Cleanups:	GPC, Silica Gel

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

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
Naphthalene-d8	150.00	72.4	48.3	30 - 160	
Acenaphthene-d10	150.00	96.7	64.5	30 - 160	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Form I
METHOD BLANK DATA SHEET
EPA 8270E-SIM

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	21B0118
Client:	Anchor QEA, LLC			Project:	US Moorings
Matrix:	Solid	Laboratory ID:	BJC0107-BLK1	File ID:	NT1421031304.D
Sampled:	N/A	Prepared:	03/04/21 10:33	Analyzed:	03/13/21 13:10
Solids:		Preparation:	EPA 3546 (Microwave)	Initial/Final:	10 g / 0.5 mL
Batch:	BJC0107	Sequence:	SJC0183	Calibration:	EA00040
Instrument:	NT14	Column:	ZB-5MS	Cleanups:	GPC, Silica Gel

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
Phenanthrene-d10	150.00	105	70.0	30 - 160	
Chrysene-d12	150.00	125	83.1	30 - 160	
Perylene-d12	150.00	126	83.7	30 - 160	

Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031304.D

Date : 13-MAR-2021 13:10

Client ID:

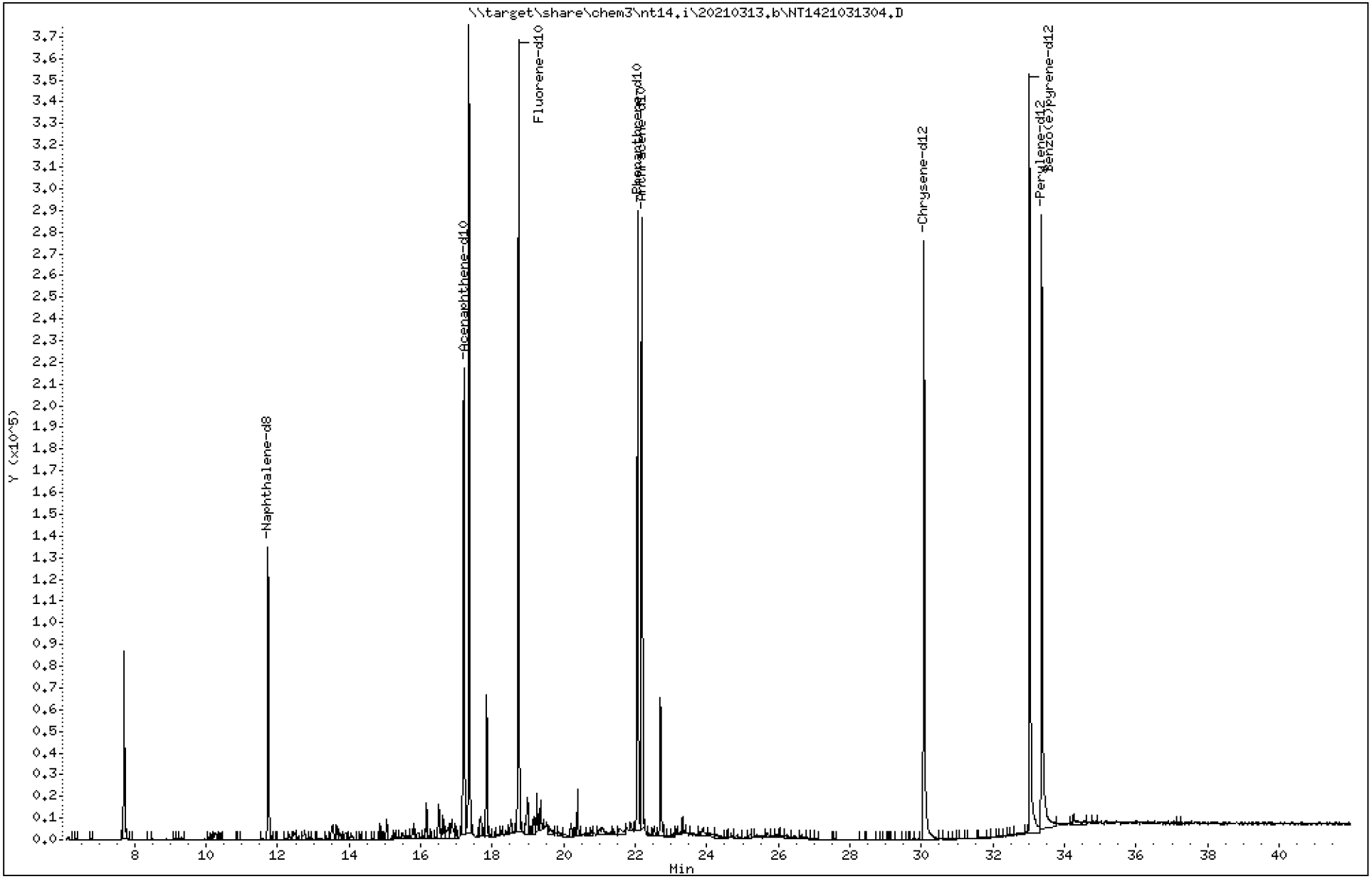
Instrument: nt14.i

Sample Info: BJC0107-BLK1

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\20210313.b\NT1421031304.D
Lab Smp Id: BJC0107-BLK1
Inj Date : 13-MAR-2021 13:10
Operator : VTS Inst ID: nt14.i
Smp Info : BJC0107-BLK1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210313.b\ALKYLPNA.m
Meth Date : 13-Mar-2021 12:11 van Quant Type: ISTD
Cal Date : 07-JAN-2021 16:44 Cal File: NT1421010708.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14

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	11.733	11.744	(0.626)	201374	1.44766	1.448(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	17.206	17.206	(0.918)	142056	1.93355	1.934(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	18.740	18.741	(1.000)	300659	2.00000	
26 Fluorene	166	Compound Not Detected.					
30 Dibenzothiophene	184	Compound Not Detected.					
$ 35 Phenanthrene-d10	188	22.066	22.066	(0.995)	305555	2.10114	2.101(R)
36 Phenanthrene	178	Compound Not Detected.					
* 250 Anthracene-d10	188	22.176	22.176	(1.000)	317638	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	30.070	30.059	(0.911)	323967	2.49315	2.493(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.					
* 251 Benzo(e)pyrene-d12	264	33.021	33.021	(1.000)	412654	2.00000	
64 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	66 Benzo(a)pyrene	252	Compound Not Detected.					
$	67 Perylene-d12	264	33.359	33.359	(1.010)	350191	2.51237	2.512(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.

Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031304.D Page 1
Report Date: 16-Mar-2021 15:32

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421031304.D
Lab Smp Id: BJC0107-BLK1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210313.b\ALKYLPNA.m
Misc Info:

Calibration Date: 13-MAR-2021
Calibration Time: 11:19
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	366886	183443	733772	300659	-18.05
250 Anthracene-d10	368886	184443	737772	317638	-13.89
251 Benzo(e)pyrene-d1	446096	223048	892192	412654	-7.50

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.74	18.24	19.24	18.74	-0.00
250 Anthracene-d10	22.18	21.68	22.68	22.18	-0.00
251 Benzo(e)pyrene-d1	33.02	32.52	33.52	33.02	-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 - NT1421031304.D

Lab ID: BJC0107-BLK1
nt14.i, 20210313.b\ALKYLPNA.m, 13-MAR-2021 13:10

RT	CO-ELUTION COMPOUNDS
	NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

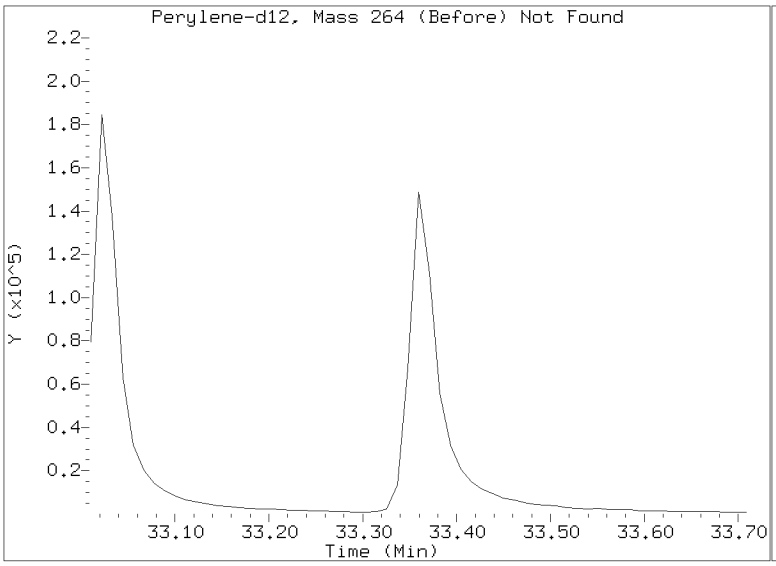
RRT check based on Ccal File: NT1421031302.D

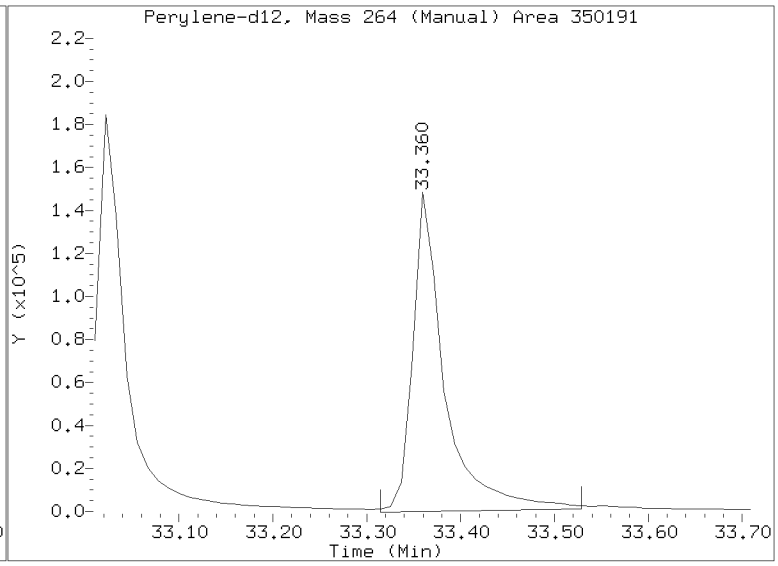
On Column LOD for nt14.i, 20210313.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* 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/20210313.b/NT1421031304.D
Injection Date: 13-MAR-2021 13:10
Lab ID:BJC0107-BLK1 Client ID:
Report Date: 03/16/2021 15:32





Analytical Resources, Incorporated
Analytical Chemists and Consultants

Form I
METHOD BLANK DATA SHEET
EPA 8270E-SIM

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	21B0118
Client:	Anchor QEA, LLC			Project:	US Moorings
Matrix:	Solid	Laboratory ID:	BJC0107-BLK1	File ID:	NT1421031304.D
Sampled:	N/A	Prepared:	03/04/21 10:33	Analyzed:	03/13/21 13:10
Solids:		Preparation:	EPA 3546 (Microwave)	Initial/Final:	10 g / 0.5 mL
Batch:	BJC0107	Sequence:	SJC0183	Calibration:	EA00040
Instrument:	NT14	Column:	ZB-5MS	Cleanups:	GPC, Silica Gel

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

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
Naphthalene-d8	150.00	72.4	48.3	30 - 160	
Acenaphthene-d10	150.00	96.7	64.5	30 - 160	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Form I
METHOD BLANK DATA SHEET
EPA 8270E-SIM

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	21B0118
Client:	Anchor QEA, LLC			Project:	US Moorings
Matrix:	Solid	Laboratory ID:	BJC0107-BLK1	File ID:	NT1421031304.D
Sampled:	N/A	Prepared:	03/04/21 10:33	Analyzed:	03/13/21 13:10
Solids:		Preparation:	EPA 3546 (Microwave)	Initial/Final:	10 g / 0.5 mL
Batch:	BJC0107	Sequence:	SJC0183	Calibration:	EA00040
Instrument:	NT14	Column:	ZB-5MS	Cleanups:	GPC, Silica Gel

SURROGATES	ADDED: (ug/kg wet)	FOUND: (ug/kg wet)	% REC	QC LIMITS	Q
Phenanthrene-d10	150.00	105	70.0	30 - 160	
Chrysene-d12	150.00	125	83.1	30 - 160	
Perylene-d12	150.00	126	83.7	30 - 160	

Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031304.D

Date : 13-MAR-2021 13:10

Client ID:

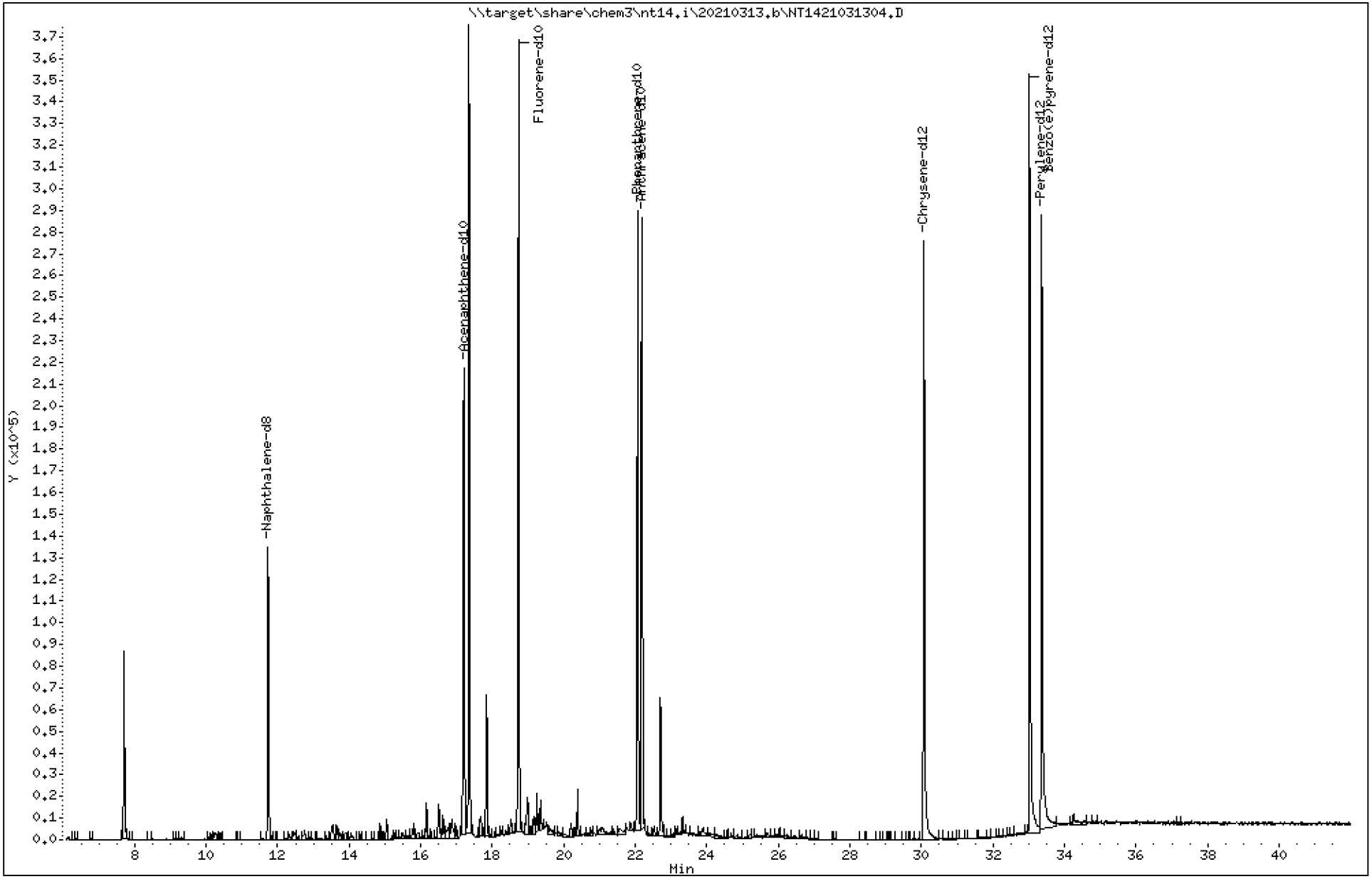
Instrument: nt14.i

Sample Info: BJC0107-BLK1

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\20210313.b\NT1421031304.D
Lab Smp Id: BJC0107-BLK1
Inj Date : 13-MAR-2021 13:10
Operator : VTS Inst ID: nt14.i
Smp Info : BJC0107-BLK1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210313.b\ALKYLPNA.m
Meth Date : 13-Mar-2021 12:11 van Quant Type: ISTD
Cal Date : 07-JAN-2021 16:44 Cal File: NT1421010708.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14

	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	11.733	11.744	(0.626)	201374	1.44766	1.448(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	17.206	17.206	(0.918)	142056	1.93355	1.934(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	18.740	18.741	(1.000)	300659	2.00000	
	26 Fluorene	166	Compound Not Detected.					
	30 Dibenzothiophene	184	Compound Not Detected.					
$	35 Phenanthrene-d10	188	22.066	22.066	(0.995)	305555	2.10114	2.101(R)
	36 Phenanthrene	178	Compound Not Detected.					
*	250 Anthracene-d10	188	22.176	22.176	(1.000)	317638	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	30.070	30.059	(0.911)	323967	2.49315	2.493(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.					
*	251 Benzo(e)pyrene-d12	264	33.021	33.021	(1.000)	412654	2.00000	
	64 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	66 Benzo(a)pyrene	252	Compound Not Detected.					
$	67 Perylene-d12	264	33.359	33.359	(1.010)	350191	2.51237	2.512(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.

Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031304.D Page 1
Report Date: 16-Mar-2021 15:32

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421031304.D
Lab Smp Id: BJC0107-BLK1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210313.b\ALKYLPNA.m
Misc Info:

Calibration Date: 13-MAR-2021
Calibration Time: 11:19
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	366886	183443	733772	300659	-18.05
250 Anthracene-d10	368886	184443	737772	317638	-13.89
251 Benzo(e)pyrene-d1	446096	223048	892192	412654	-7.50

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.74	18.24	19.24	18.74	-0.00
250 Anthracene-d10	22.18	21.68	22.68	22.18	-0.00
251 Benzo(e)pyrene-d1	33.02	32.52	33.52	33.02	-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 - NT1421031304.D

Lab ID: BJC0107-BLK1
nt14.i, 20210313.b\ALKYLPNA.m, 13-MAR-2021 13:10

RT	CO-ELUTION COMPOUNDS
	NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

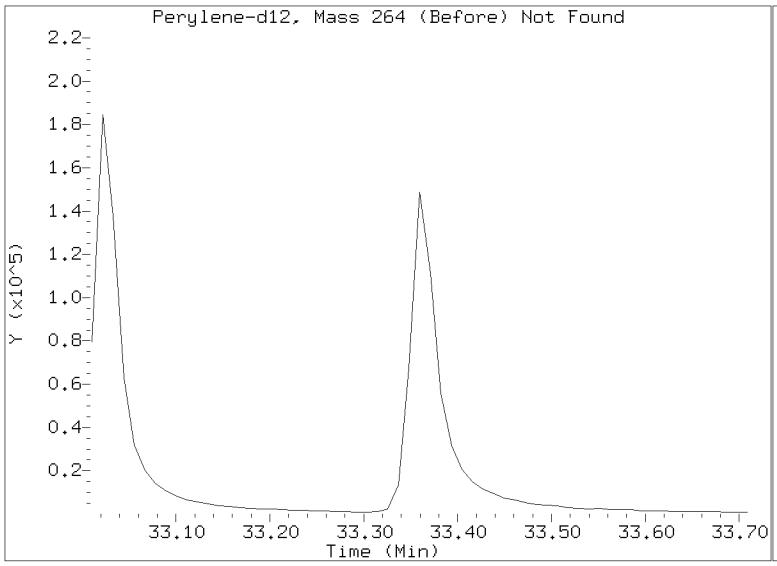
RRT check based on Ccal File: NT1421031302.D

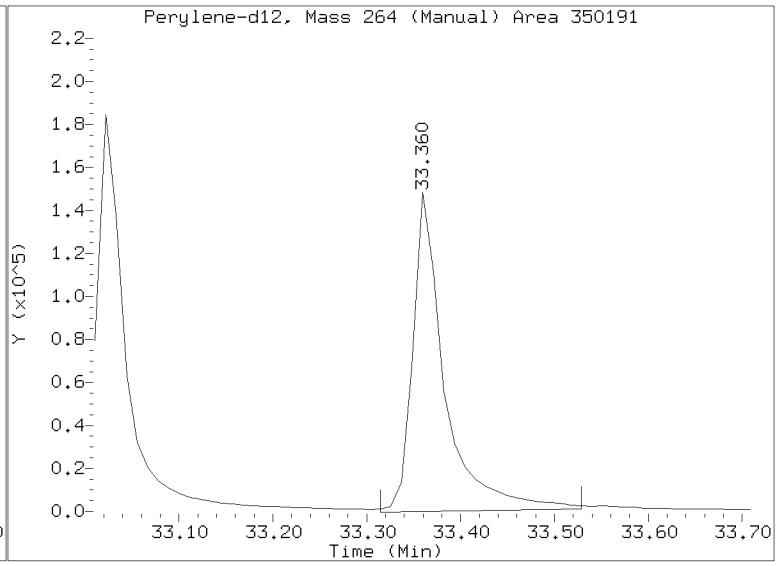
On Column LOD for nt14.i, 20210313.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* 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/20210313.b/NT1421031304.D
Injection Date: 13-MAR-2021 13:10
Lab ID:BJC0107-BLK1 Client ID:
Report Date: 03/16/2021 15:32





Analytical Resources, Incorporated
Analytical Chemists and Consultants

LCS / LCS DUPLICATE RECOVERY
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Matrix:	Solid	Analyzed:	03/13/21 13:58
Batch:	BJC0107	Laboratory ID:	BJC0107-BS1
Preparation:	EPA 3546 (Microwave)	Sequence Name:	LCS
Initial/Final:	10 g / 0.5 mL		

COMPOUND	SPIKE ADDED (ug/kg wet)	LCS CONCENTRATION (ug/kg wet)	Q	LCS % REC. #	QC LIMITS REC.
trans-Decalin	150	62.9	Q	41.9	30 - 160
cis-Decalin	150	69.4		46.2	30 - 160
Naphthalene	150	84.7		56.4	37 - 120
1-Methylnaphthalene	150	90.9		60.6	30 - 160
2-Methylnaphthalene	150	90.1		60.1	37 - 120
Biphenyl	150	95.2		63.4	30 - 160
2,6-Dimethylnaphthalene	150	94.0		62.7	30 - 160
Acenaphthylene	150	90.2		60.1	35 - 120
Acenaphthene	150	103		68.8	39 - 120
Dibenzofuran	150	106		70.6	39 - 120
2,3,5-Trimethylnaphthalene	150	112		74.8	30 - 160
Fluorene	150	113		75.1	42 - 120
Benzo(b)thiophene	150	81.0		54.0	30 - 160
Phenanthrene	150	139		92.5	47 - 120
Anthracene	150	131		87.6	41 - 120
Carbazole	150	166		111	30 - 160
1-Methylphenanthrene	150	156		104	30 - 160
Fluoranthene	150	164		109	52 - 120
Dibenzothiophene	150	148	Q	98.9	30 - 160
Pyrene	150	166		111	47 - 120
Benzo(a)anthracene	150	136		90.9	47 - 120
Chrysene	150	138		92.3	51 - 120
Benzo(b)fluoranthene	150	109		72.4	35 - 127
Benzo(j)fluoranthene	150	175	Q	117	40 - 120
Benzo(k)fluoranthene	150	171		114	37 - 129
Benzo(e)pyrene	150	142		95.0	30 - 160
Benzo(a)pyrene	150	127		84.8	44 - 120
Indeno(1,2,3-cd)pyrene	150	131		87.1	41 - 120
Dibenzo(a,h)anthracene	150	111		74.0	42 - 120
Benzo(g,h,i)perylene	150	135		89.9	37 - 120
Perylene	150	126		84.2	30 - 160
Benzo(b)naphtho(2,1-d)thiophene	150	184		122	30 - 160

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031305.D

Page 1

Date : 13-MAR-2021 13:58

Client ID:

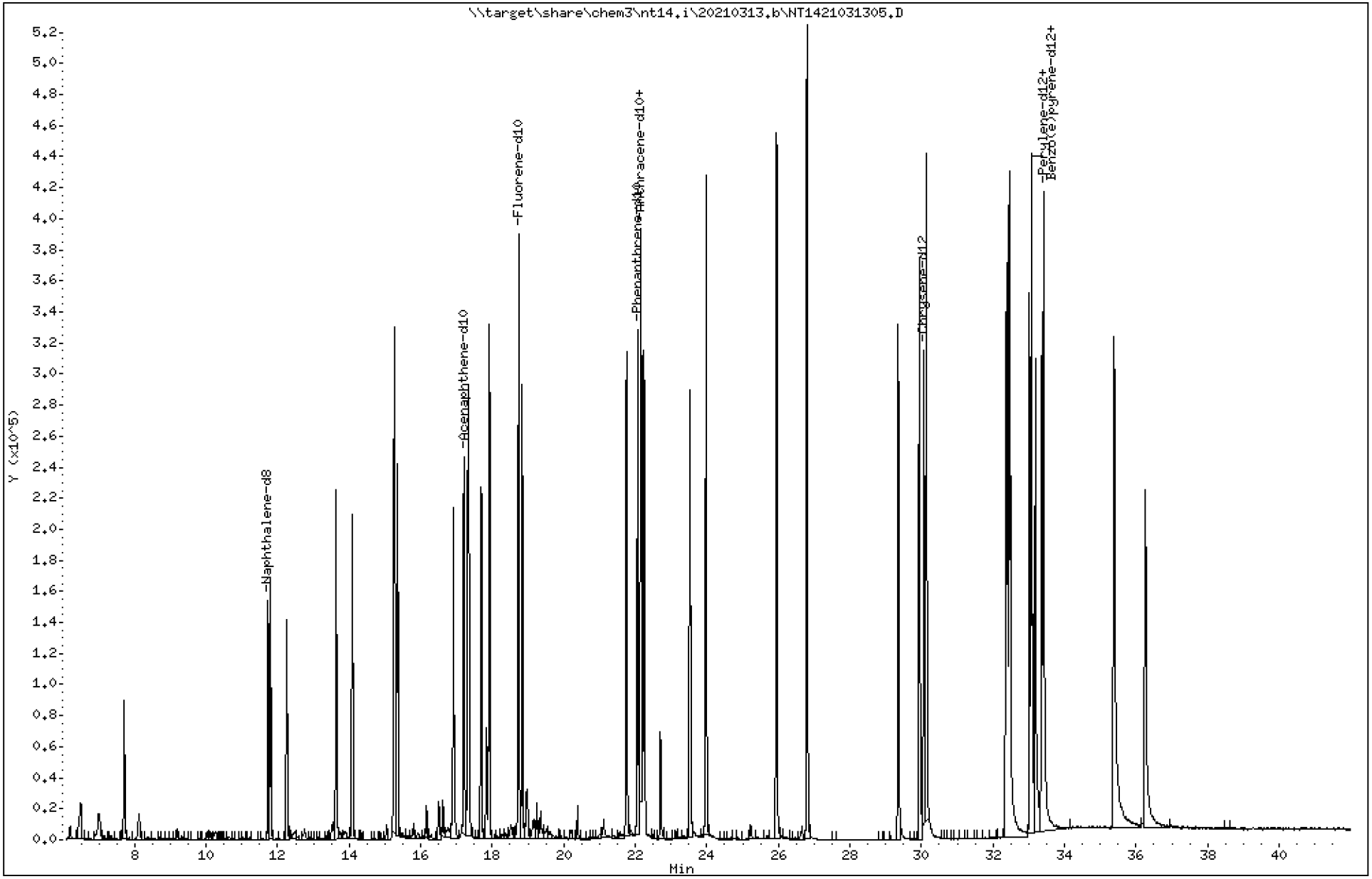
Instrument: nt14.i

Sample Info: BJC0107-BS1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

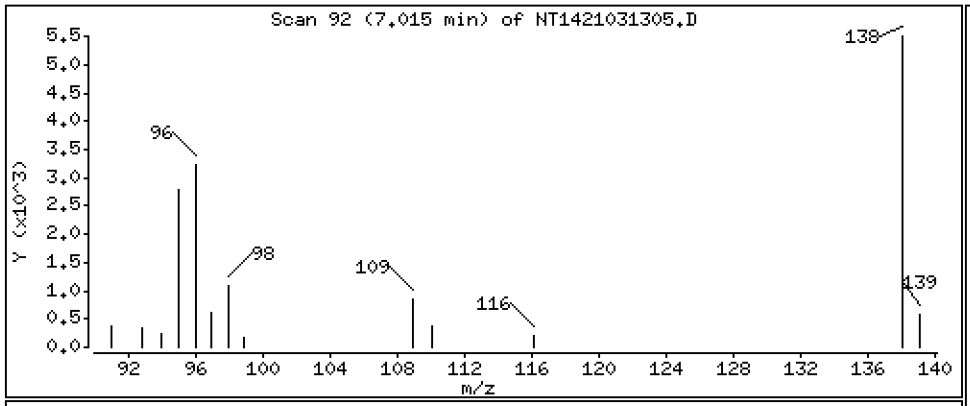
Operator: VTS

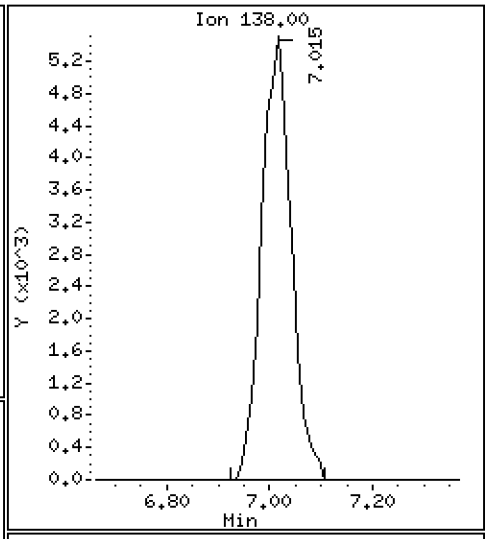
Column phase: Rxi-17Sil MS

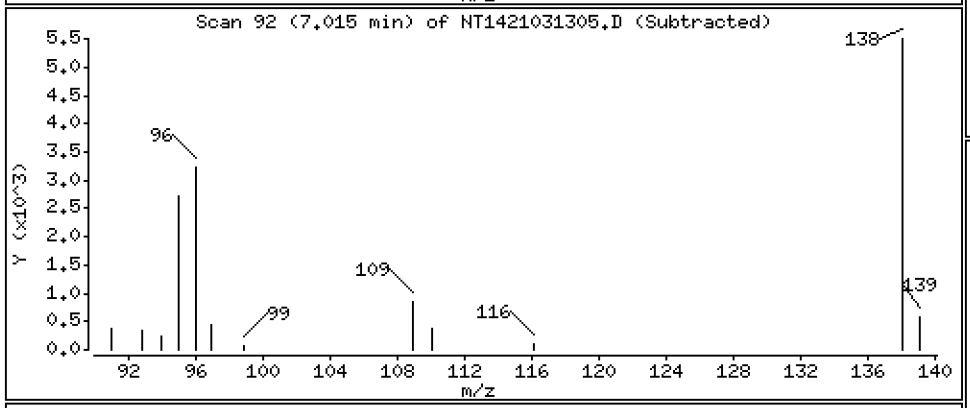
Column diameter: 0.25

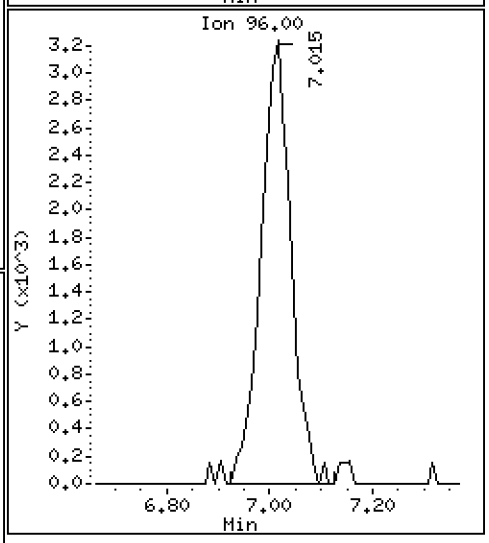
1 trans-Decalin

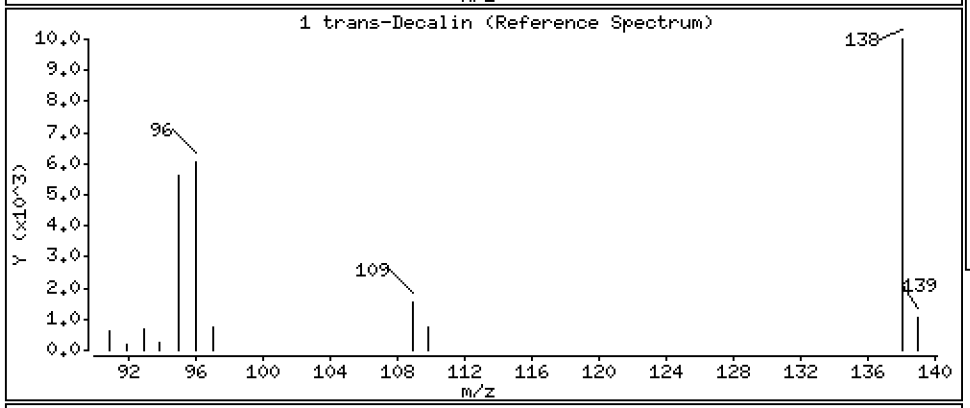
Concentration: 1.257 ug/mL

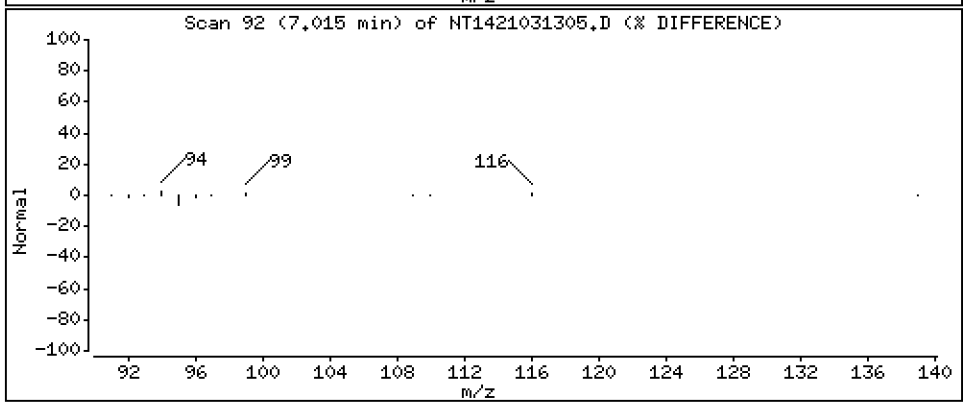












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Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

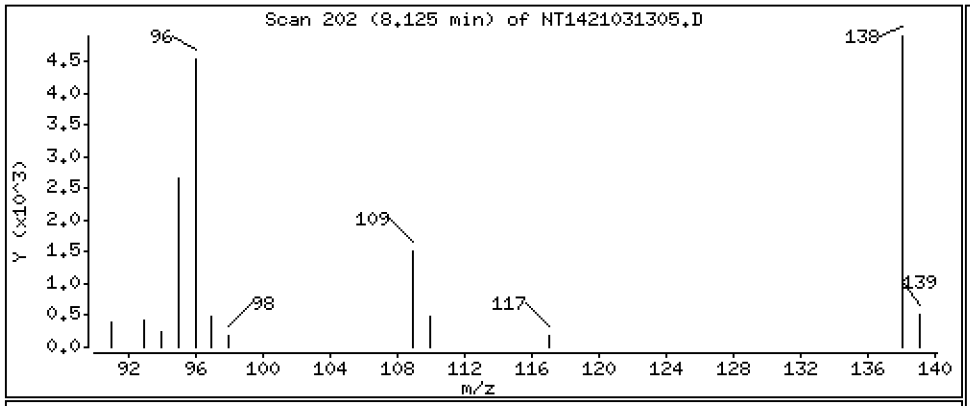
Operator: VTS

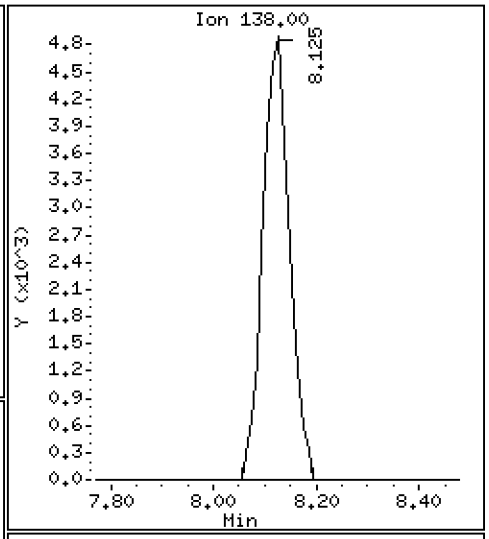
Column phase: Rxi-17Sil MS

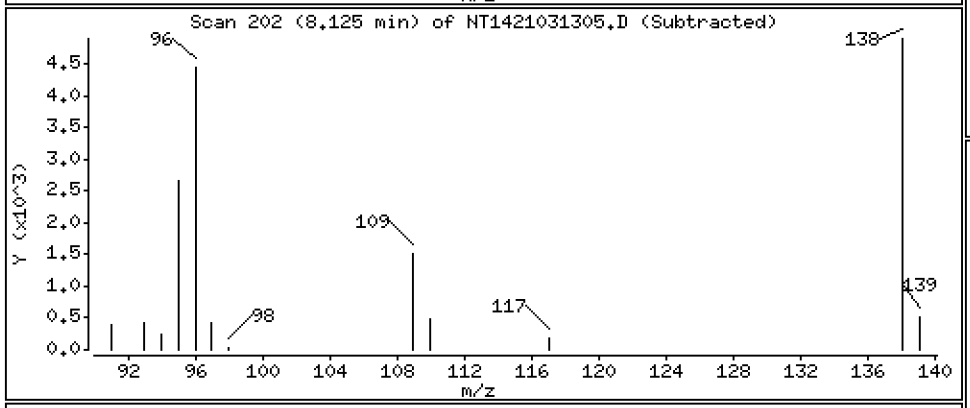
Column diameter: 0.25

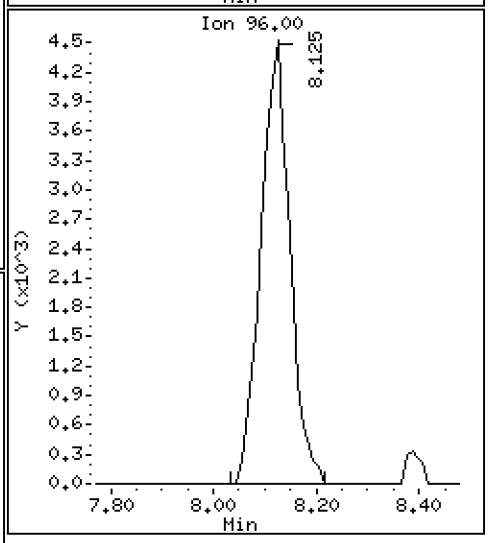
2 cis-Decalin

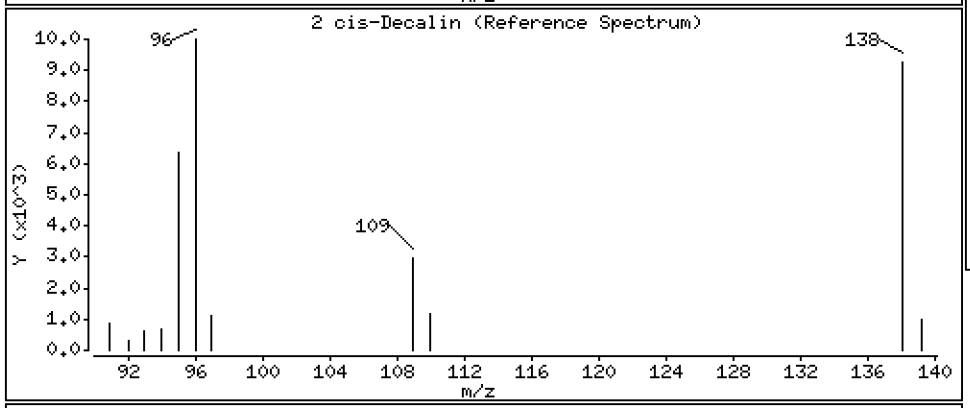
Concentration: 1.387 ug/mL

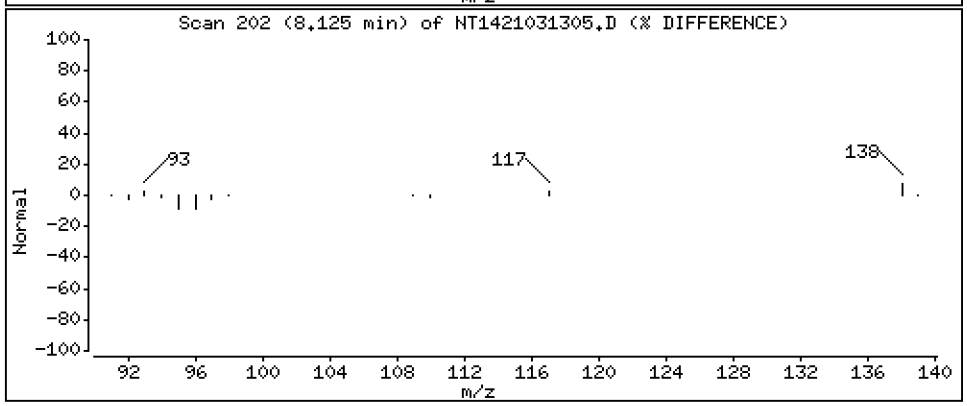












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Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

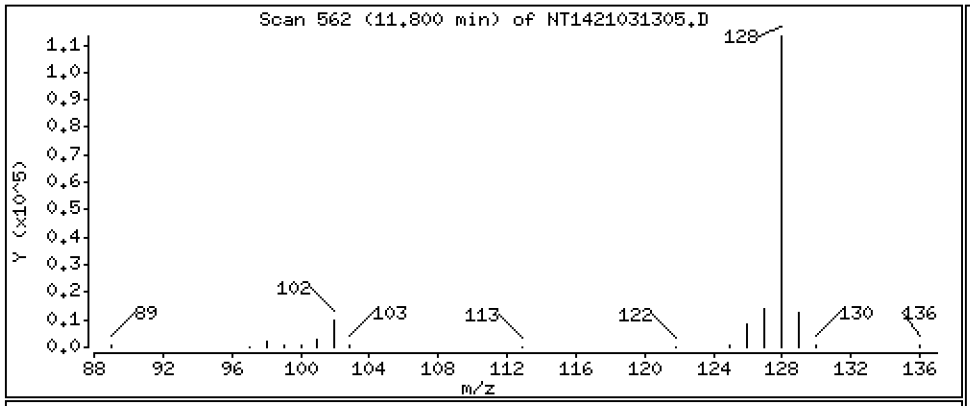
Operator: VTS

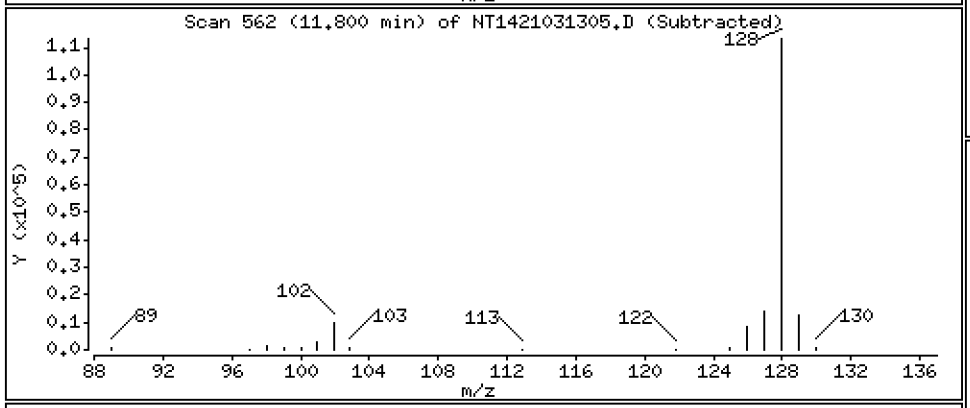
Column phase: Rxi-17Sil MS

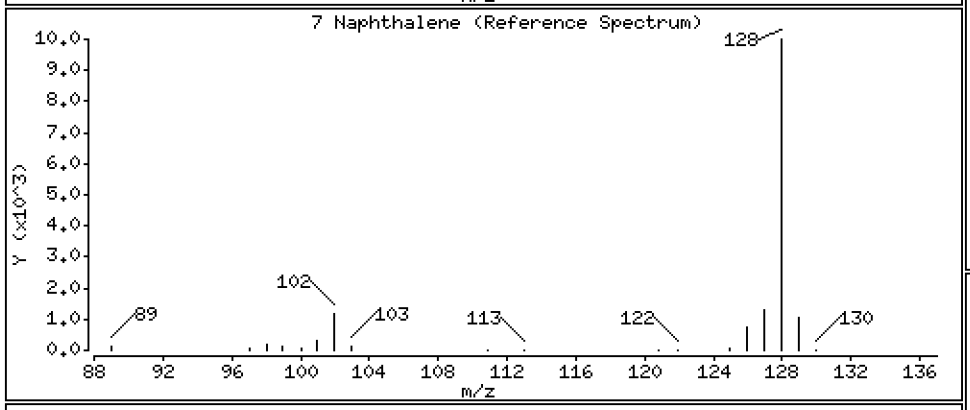
Column diameter: 0.25

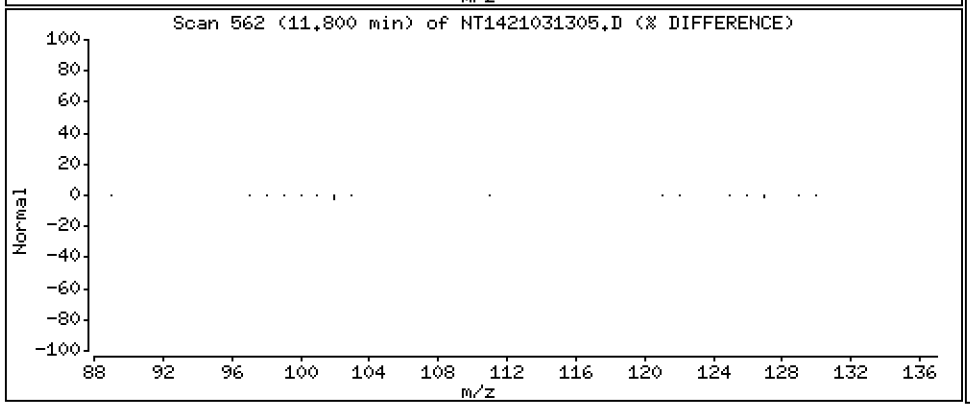
7 Naphthalene

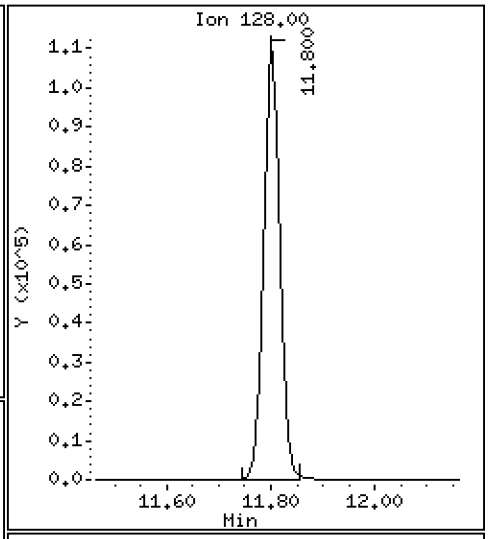
Concentration: 1.693 ug/mL

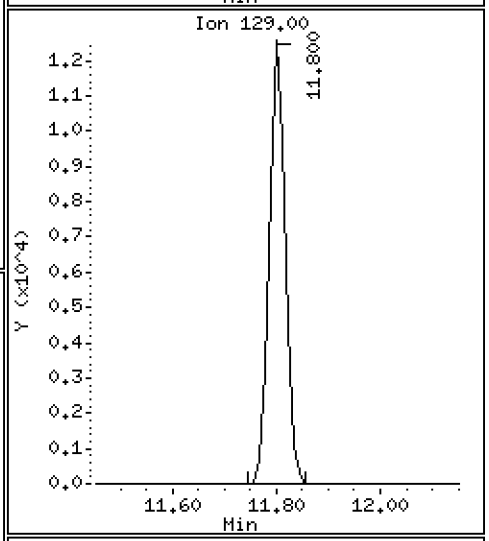


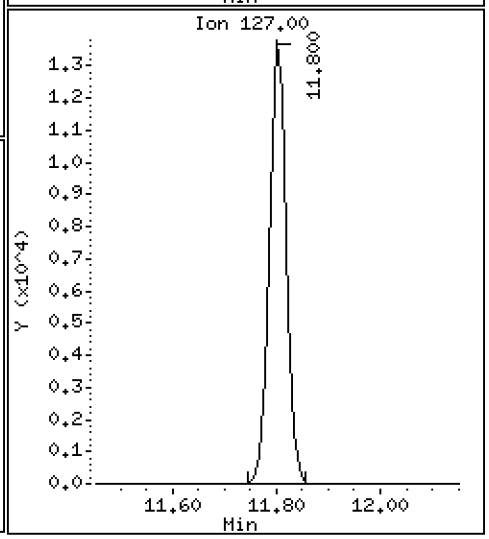












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Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

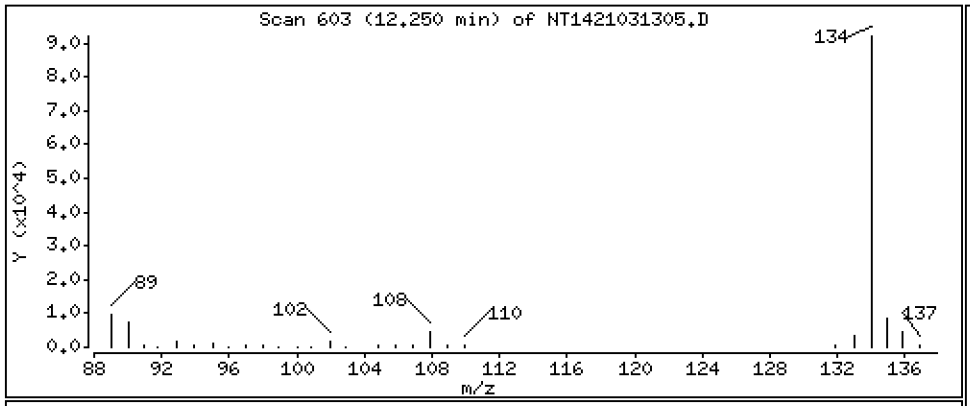
Operator: VTS

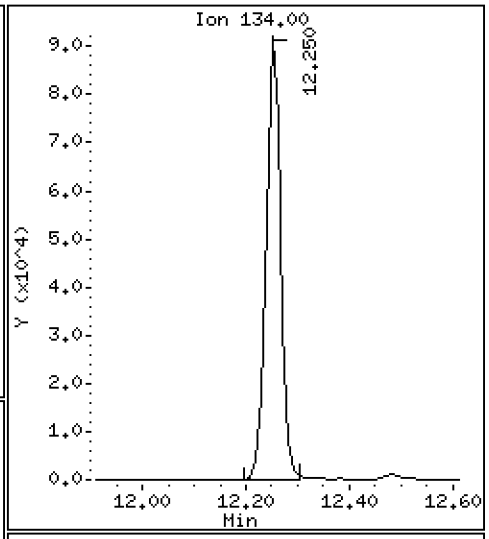
Column phase: Rxi-17Sil MS

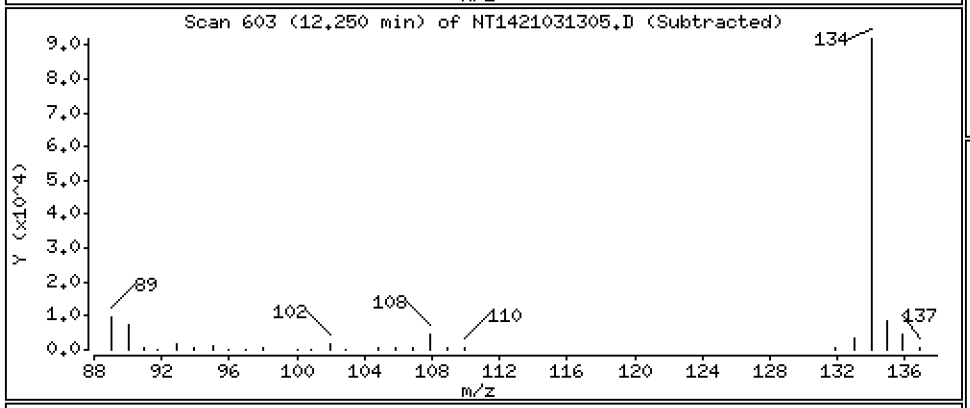
Column diameter: 0.25

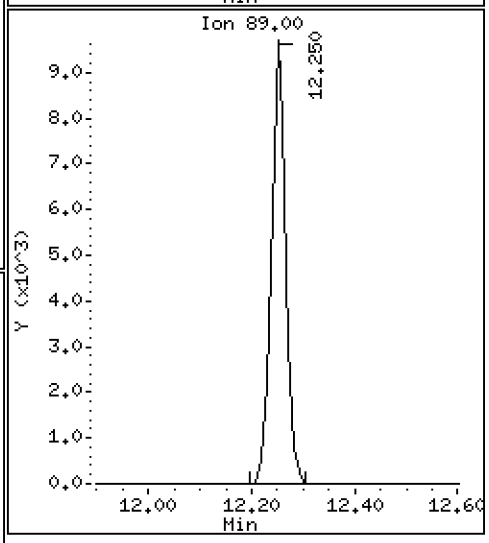
12 Benzo(b)thiophene

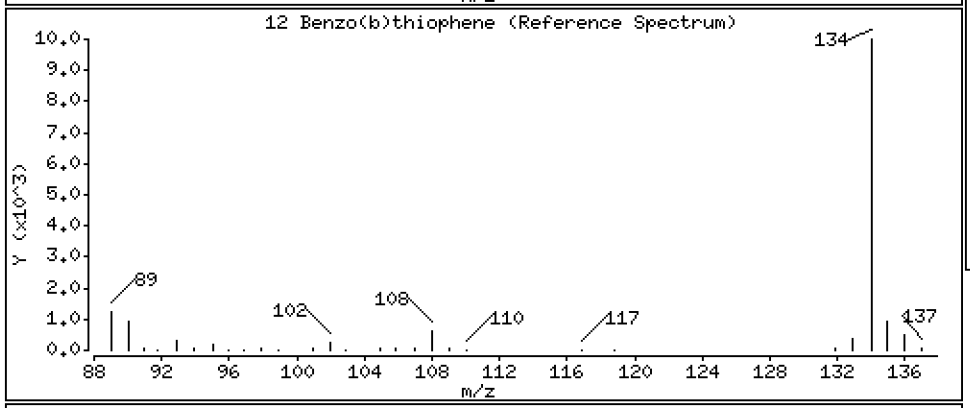
Concentration: 1.620 ug/mL

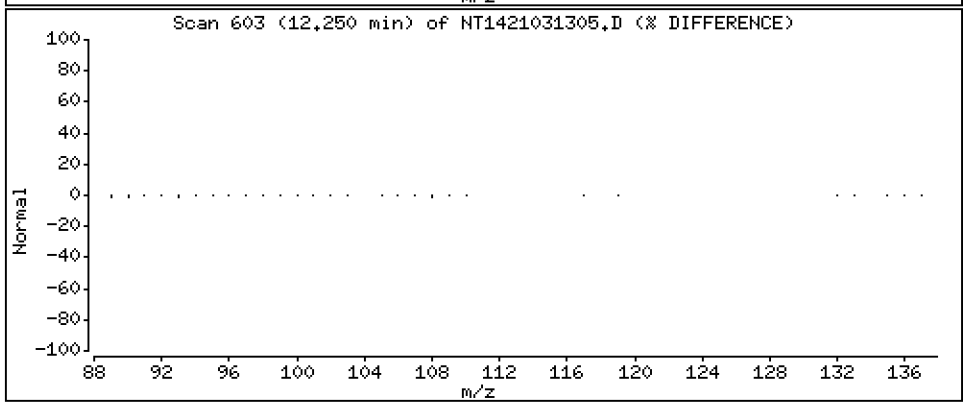












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031305.D

Date : 13-MAR-2021 13:58

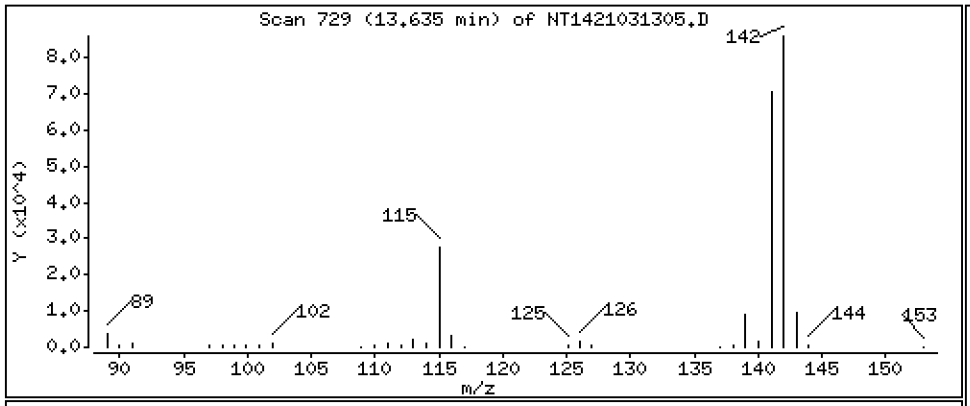
Client ID: Instrument: nt14.i

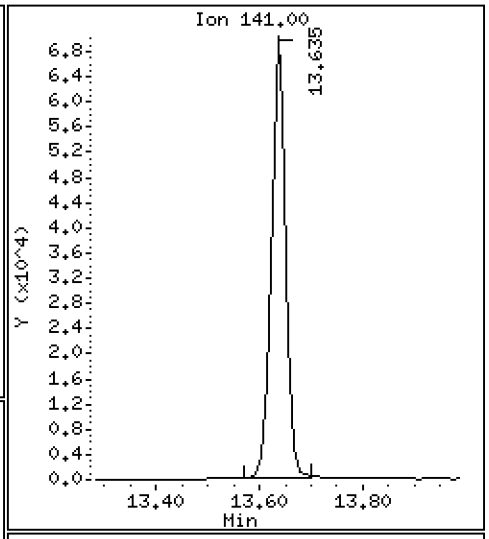
Sample Info: BJC0107-BS1

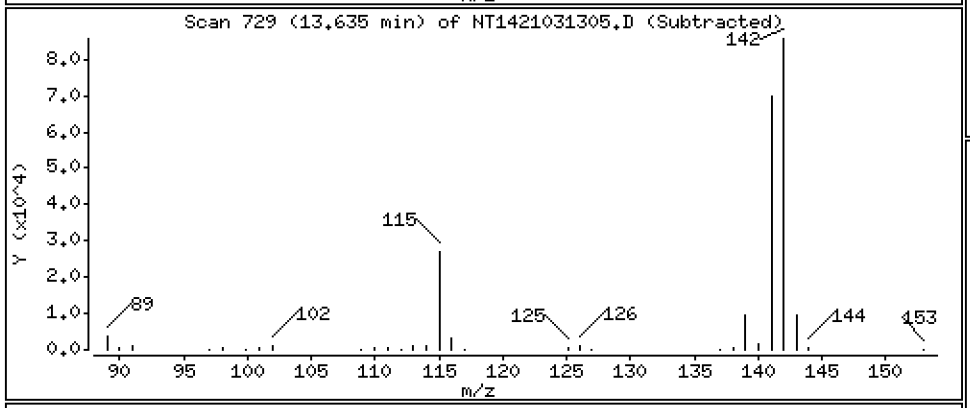
Operator: VTS

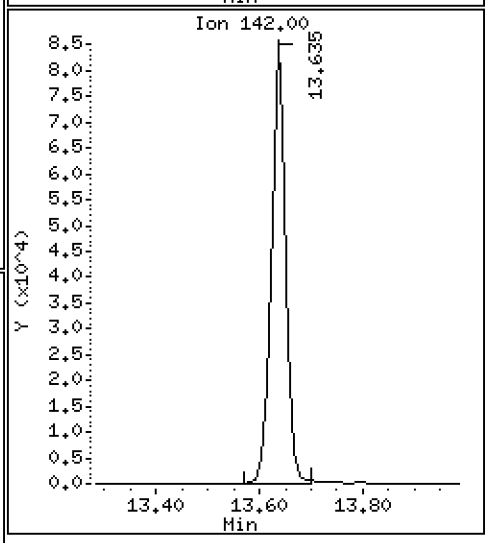
Column phase: Rxi-17Sil MS Column diameter: 0.25

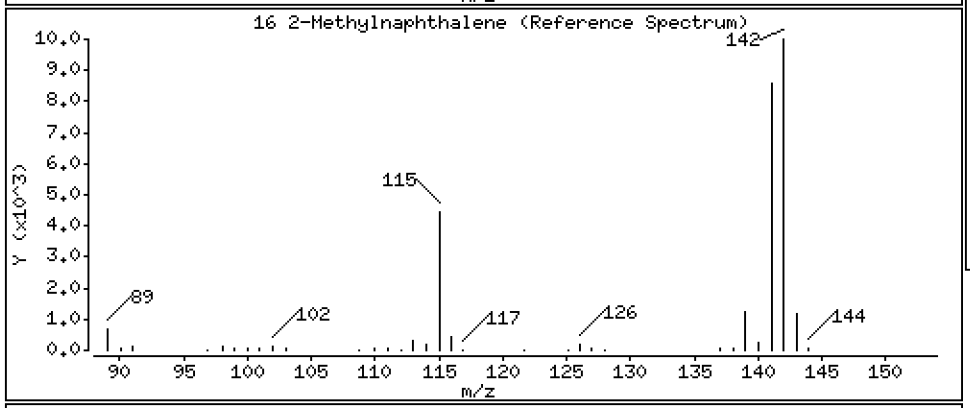
16 2-Methylnaphthalene Concentration: 1.802 ug/mL

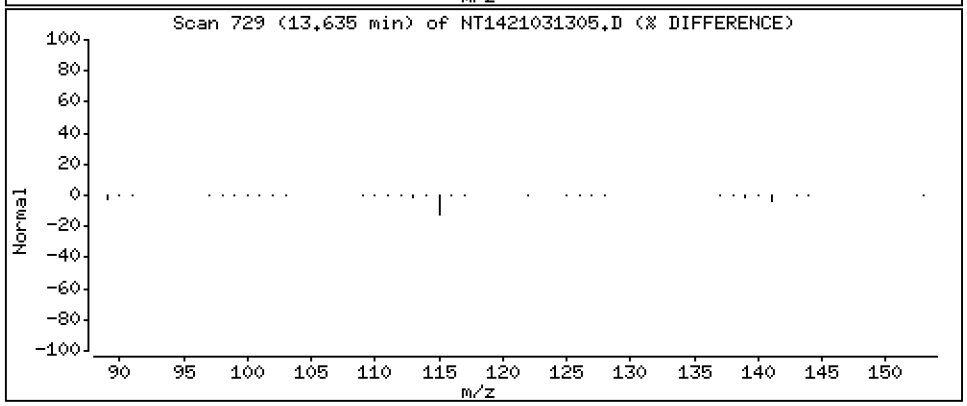












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Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

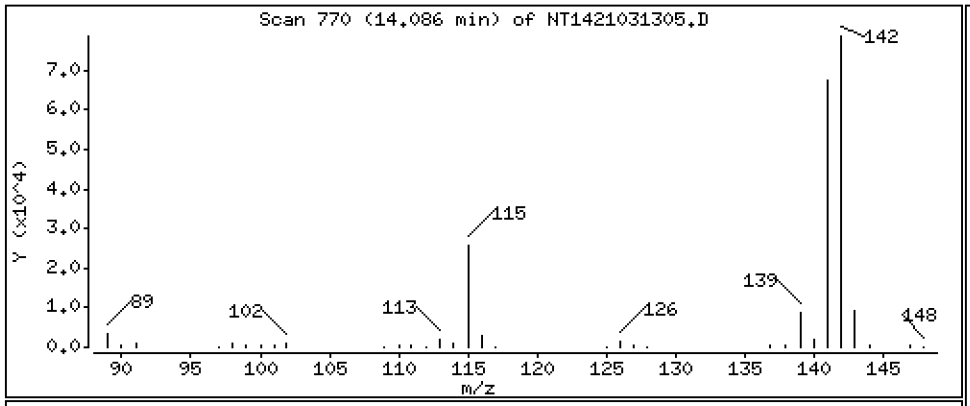
Operator: VTS

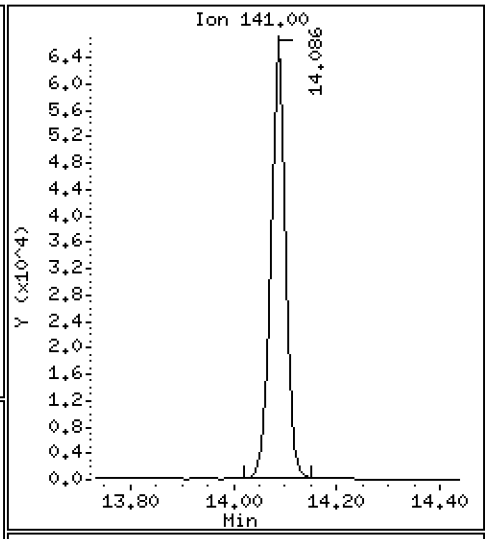
Column phase: Rxi-17Sil MS

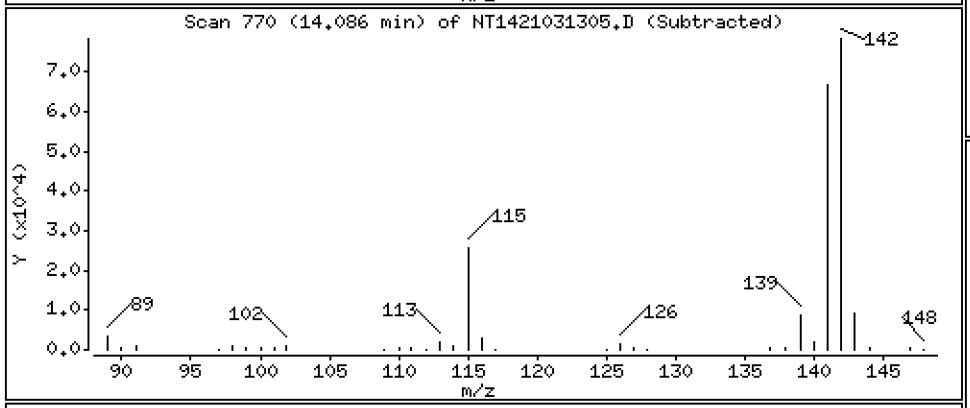
Column diameter: 0.25

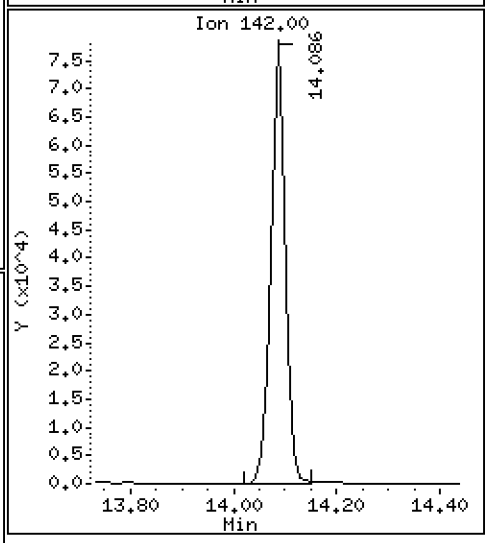
17 1-methylnaphthalene

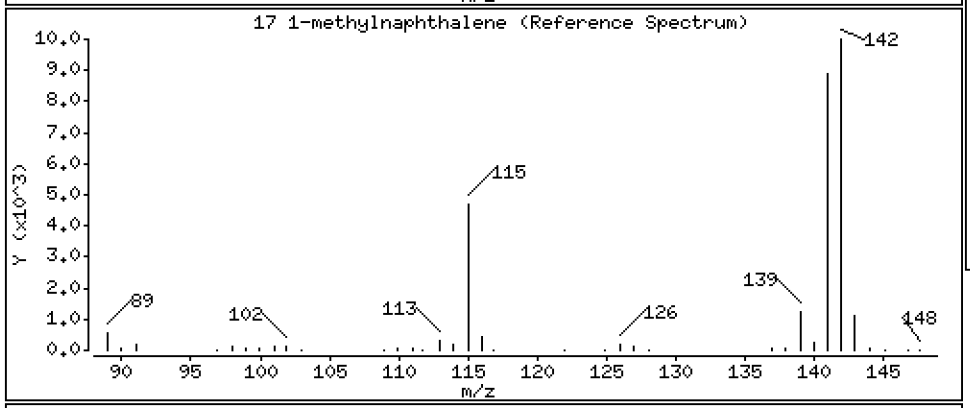
Concentration: 1.818 ug/mL

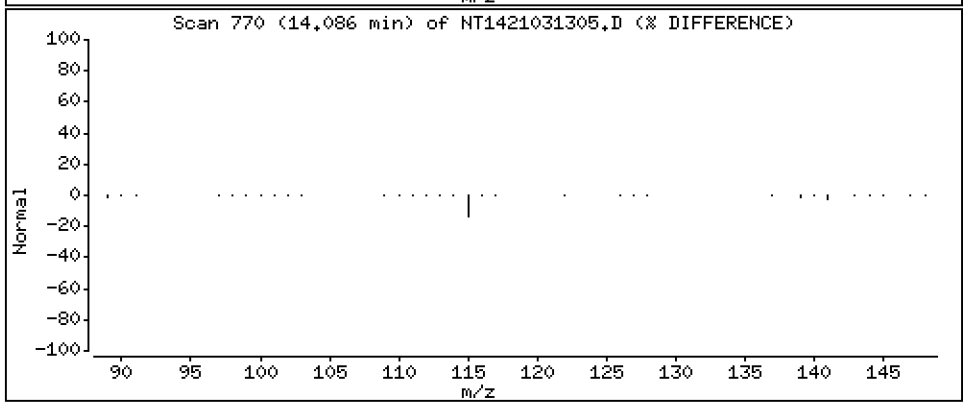












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031305.D

Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

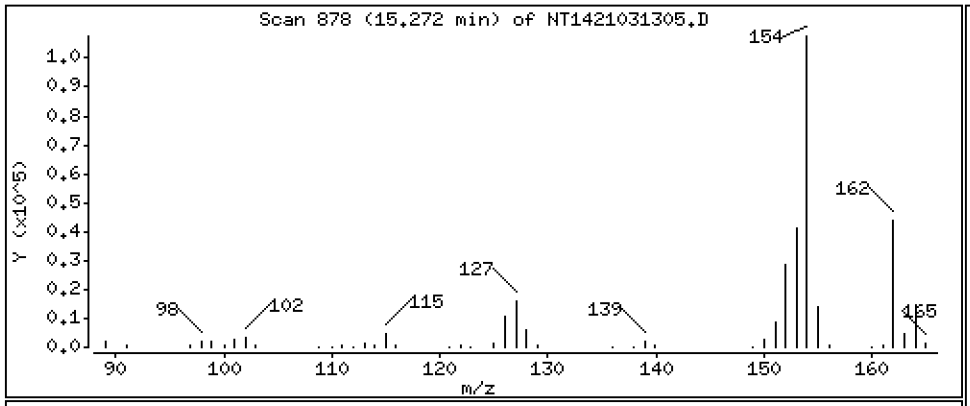
Operator: VTS

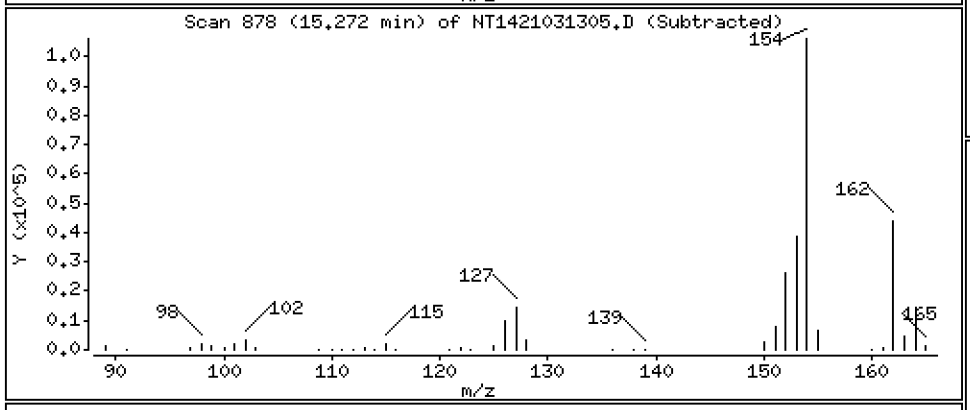
Column phase: Rxi-17Sil MS

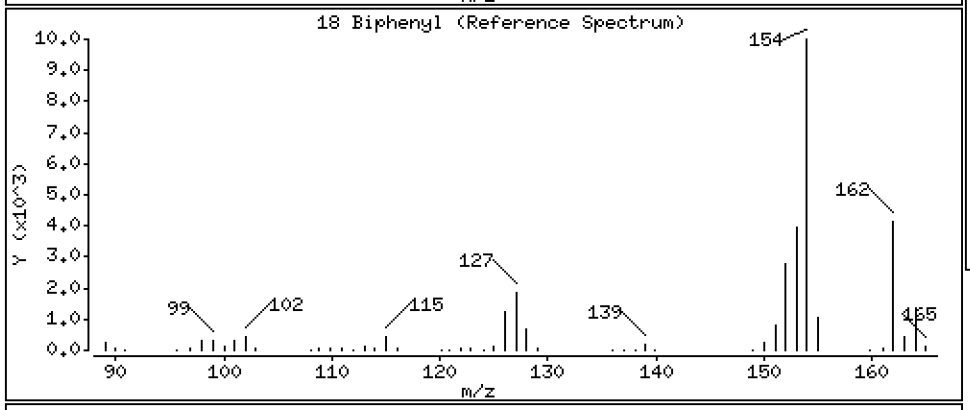
Column diameter: 0.25

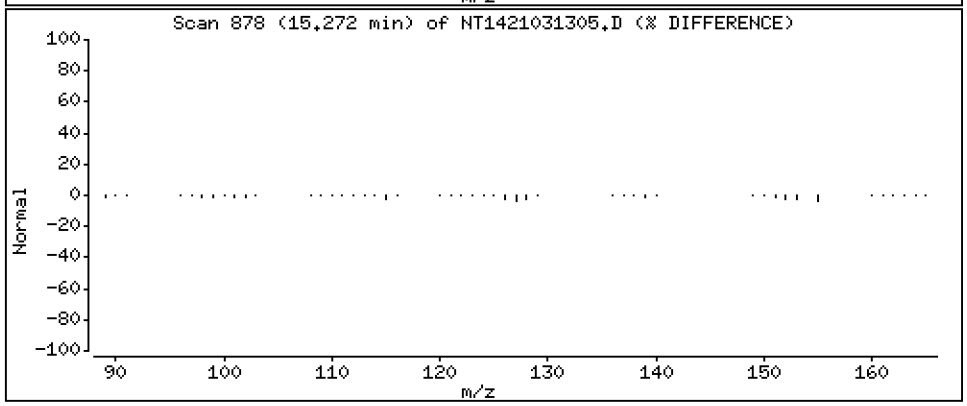
18 Biphenyl

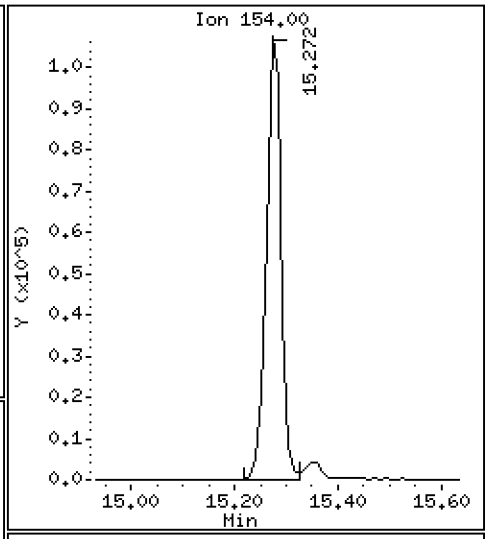
Concentration: 1.903 ug/mL

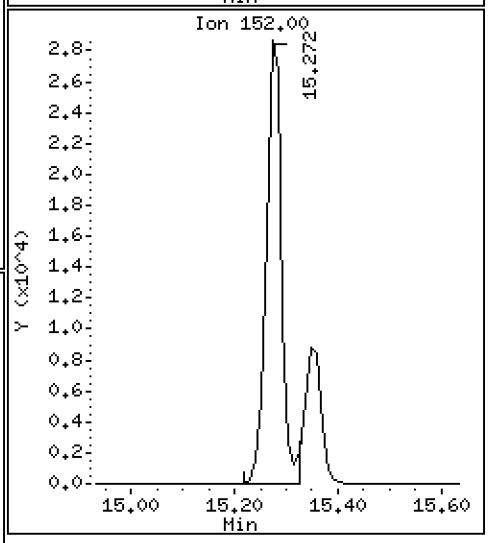












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Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

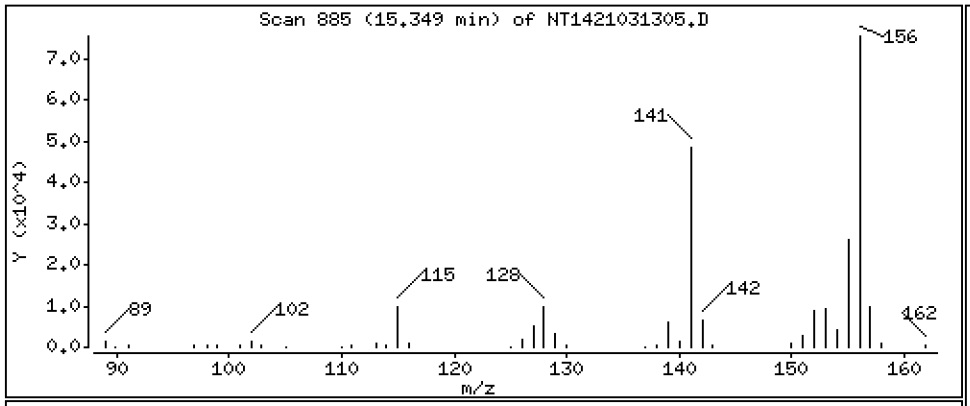
Operator: VTS

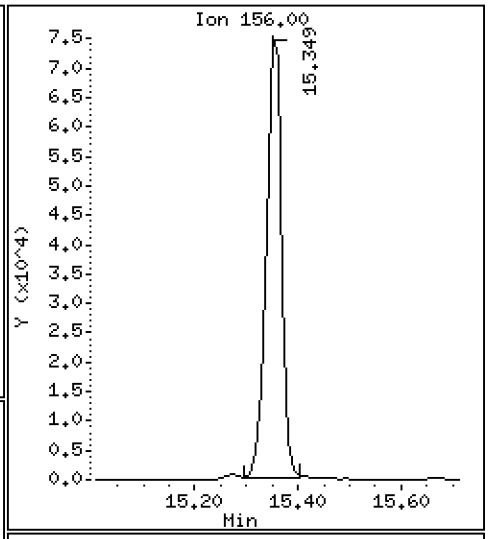
Column phase: Rxi-17Sil MS

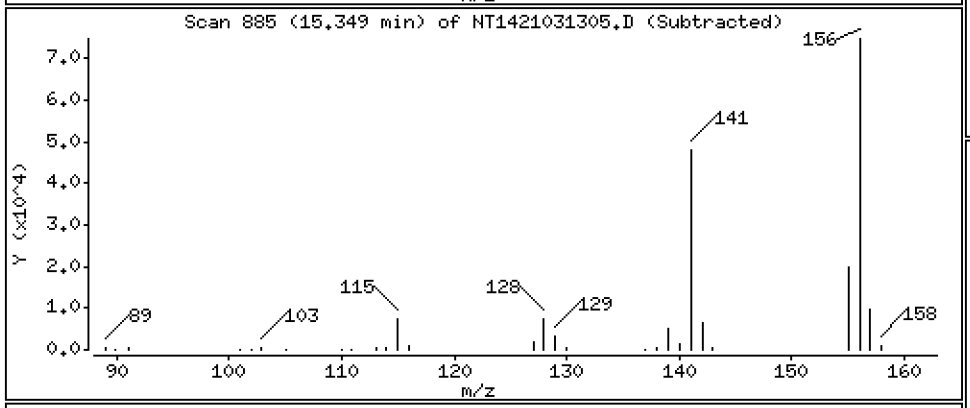
Column diameter: 0.25

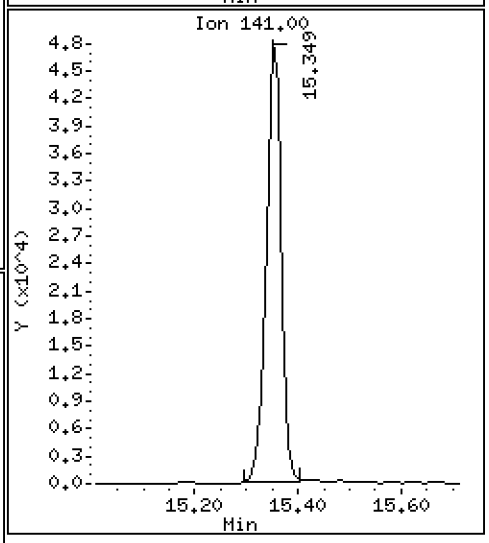
19 2,6-Dimethylnaphthalene

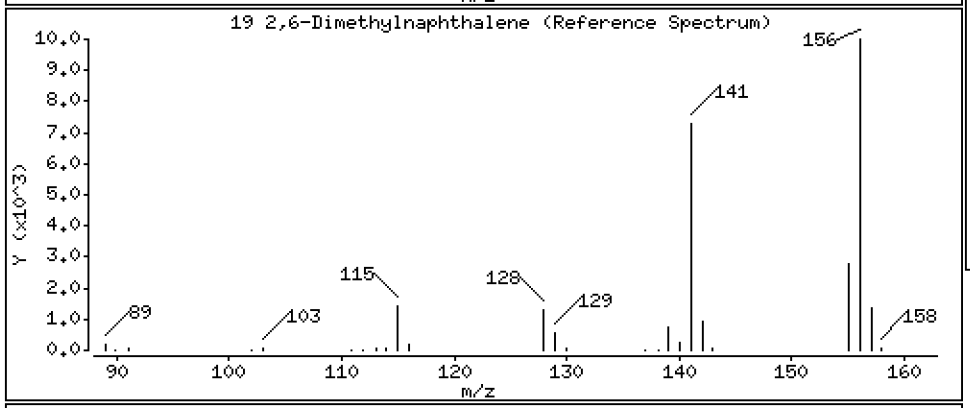
Concentration: 1.880 ug/mL

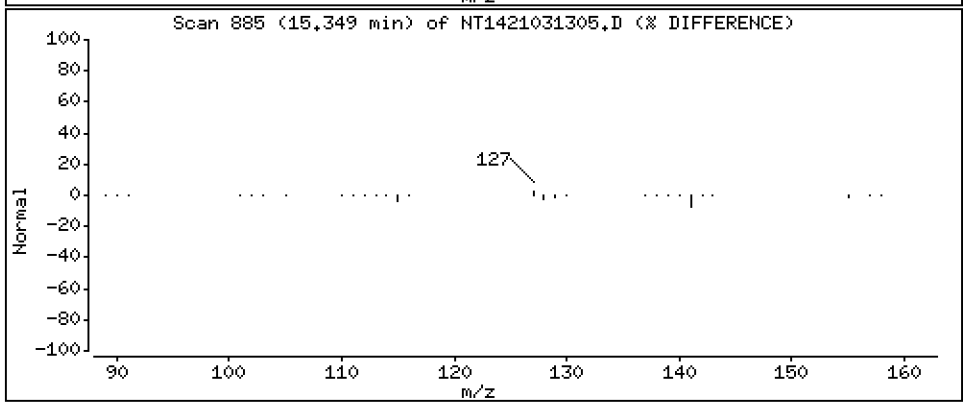












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031305.D

Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

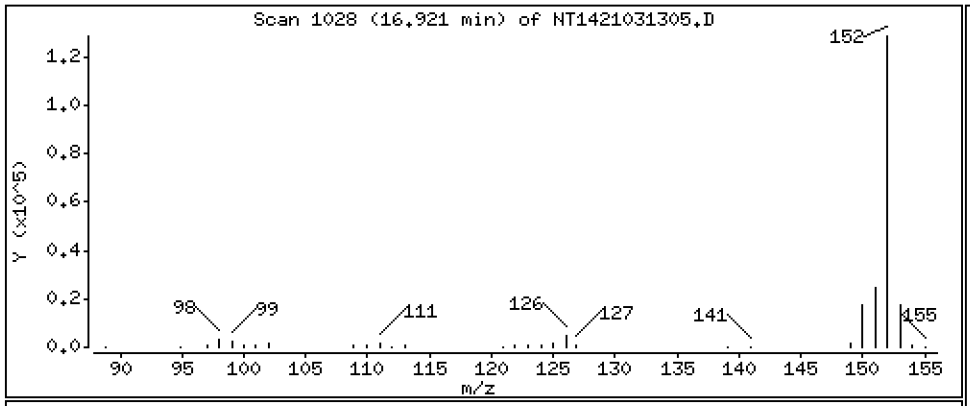
Operator: VTS

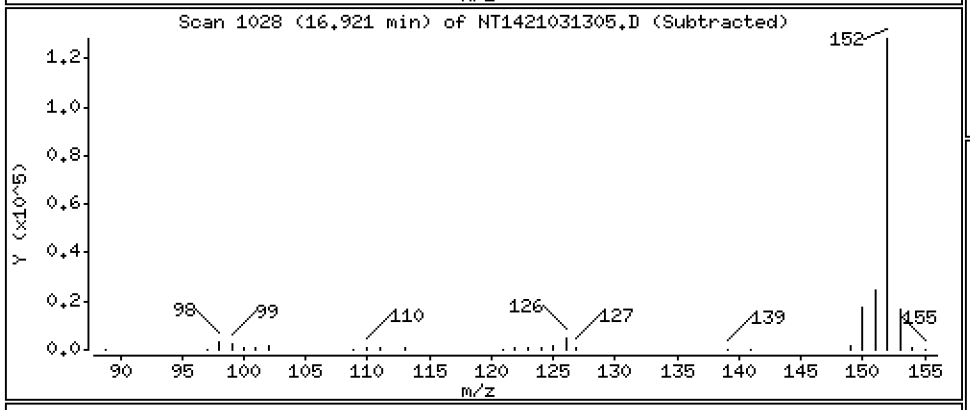
Column phase: Rxi-17Sil MS

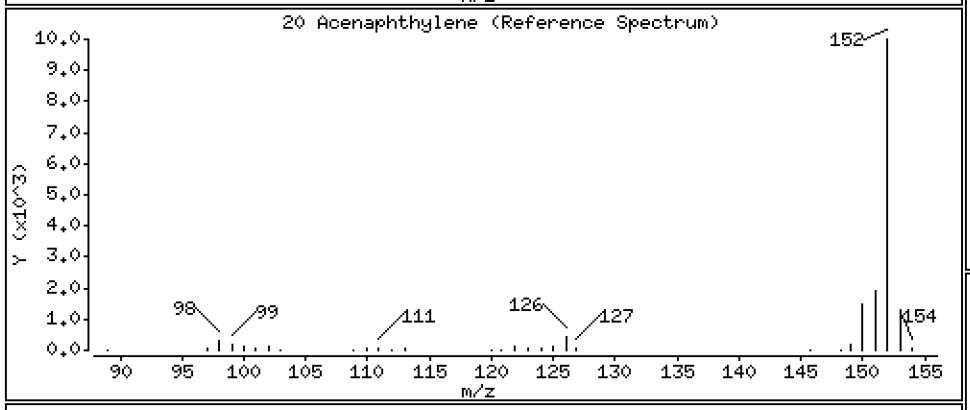
Column diameter: 0.25

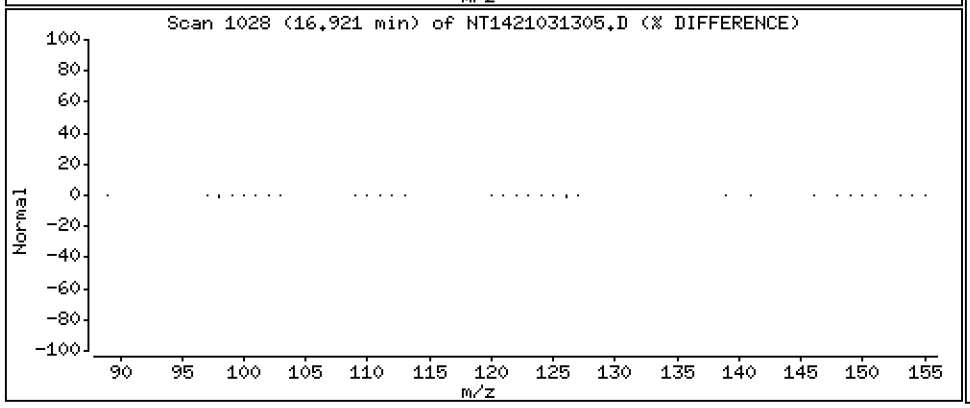
20 Acenaphthylene

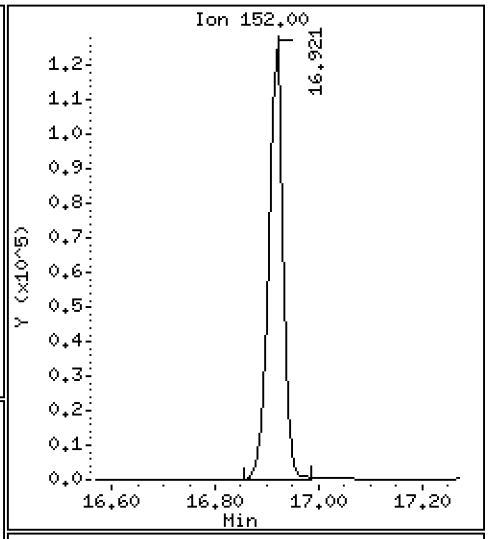
Concentration: 1.803 ug/mL

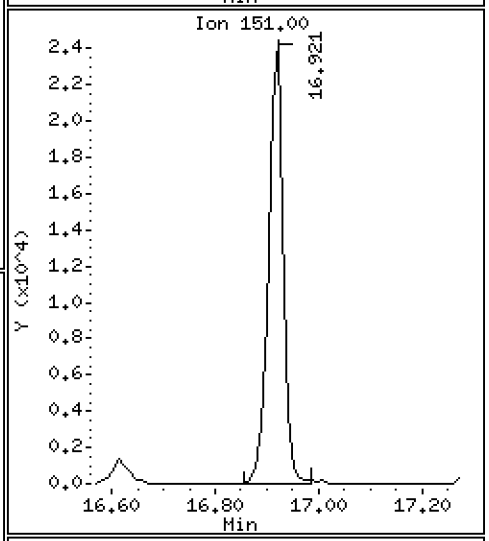


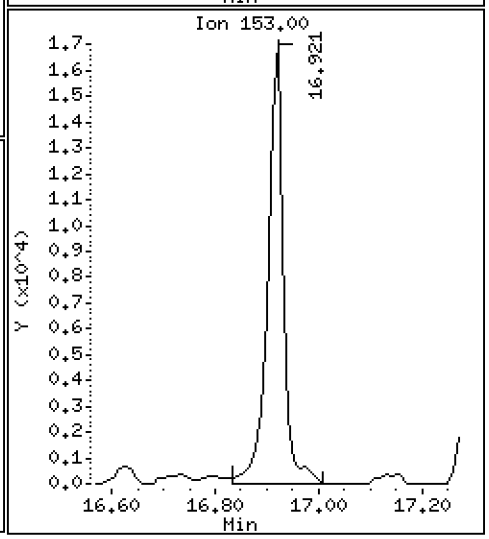












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Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

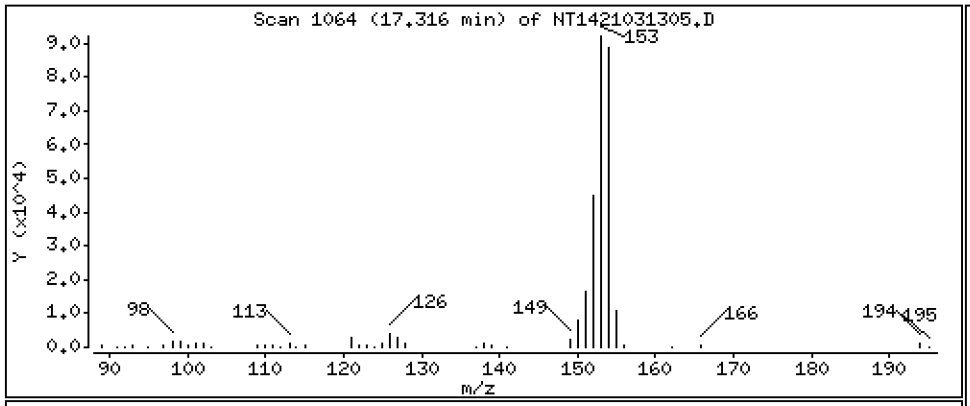
Operator: VTS

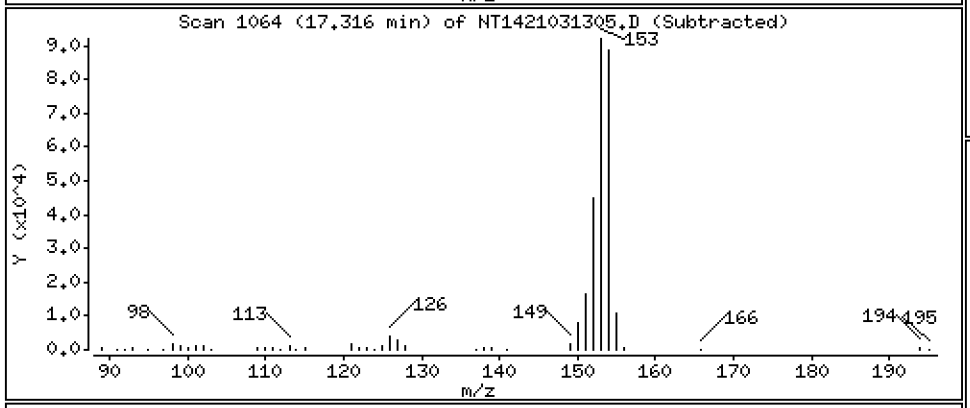
Column phase: Rxi-17Sil MS

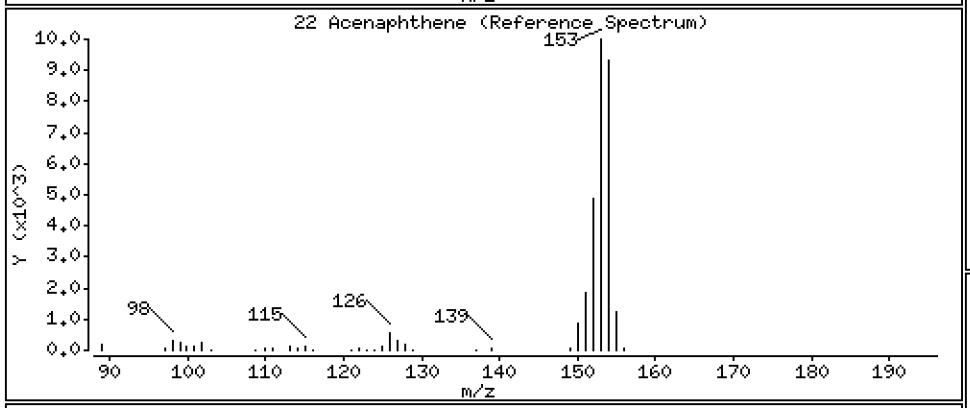
Column diameter: 0.25

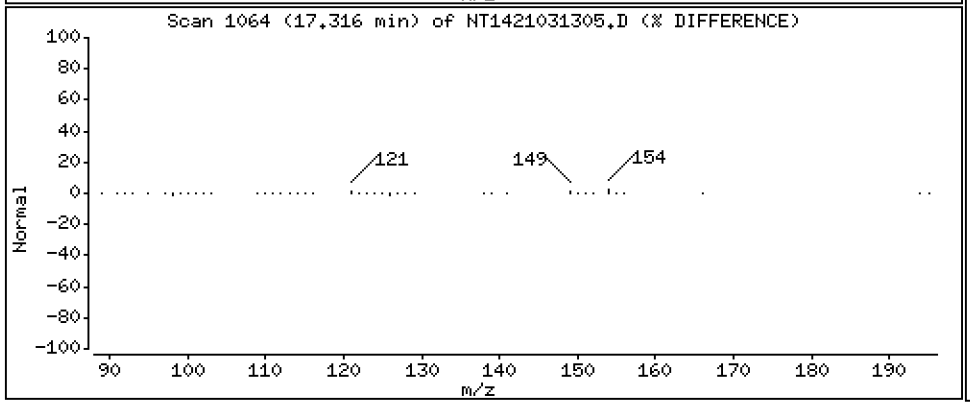
22 Acenaphthene

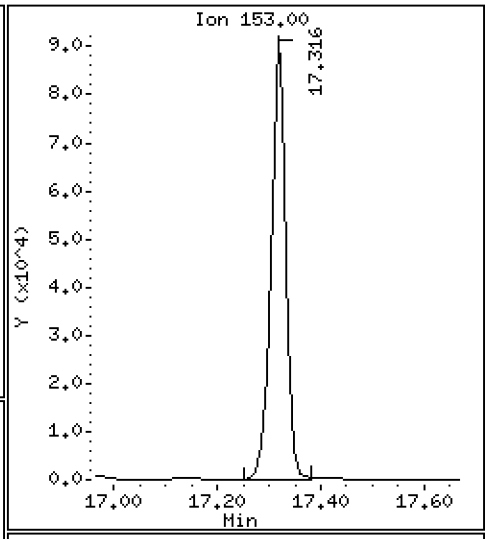
Concentration: 2.063 ug/mL

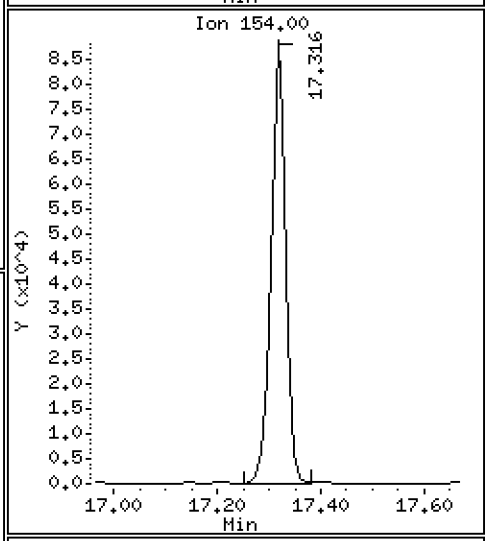


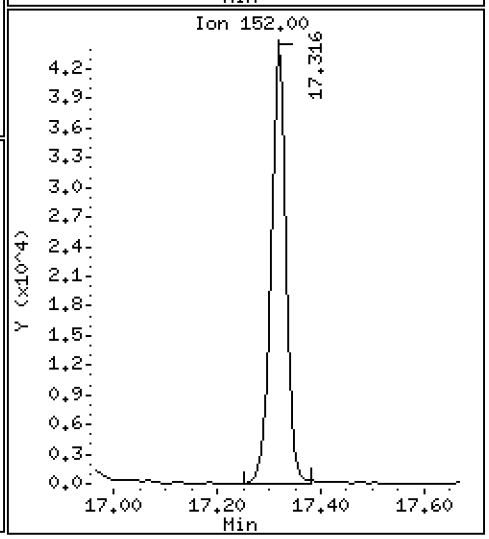












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Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

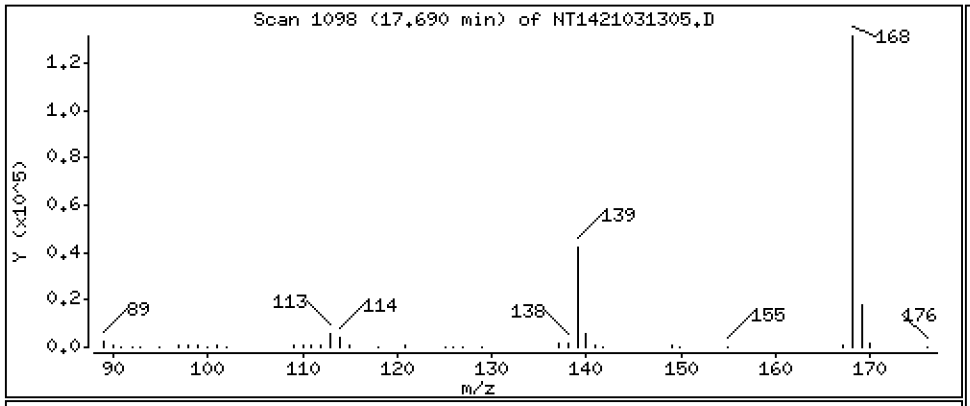
Operator: VTS

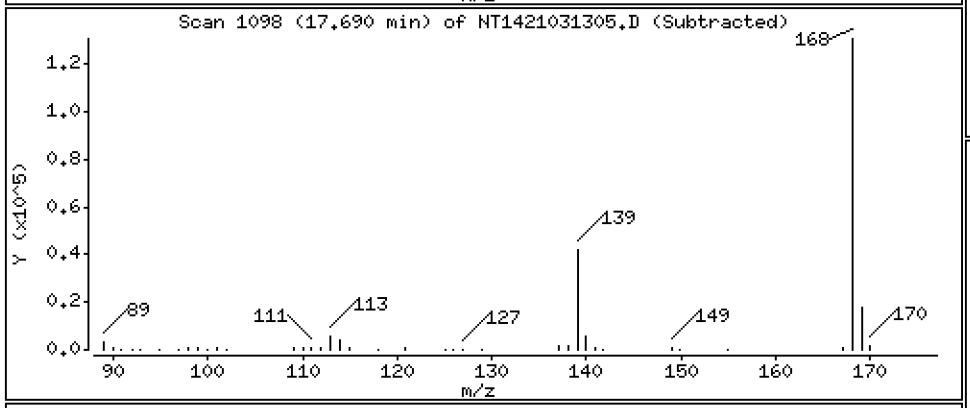
Column phase: Rxi-17Sil MS

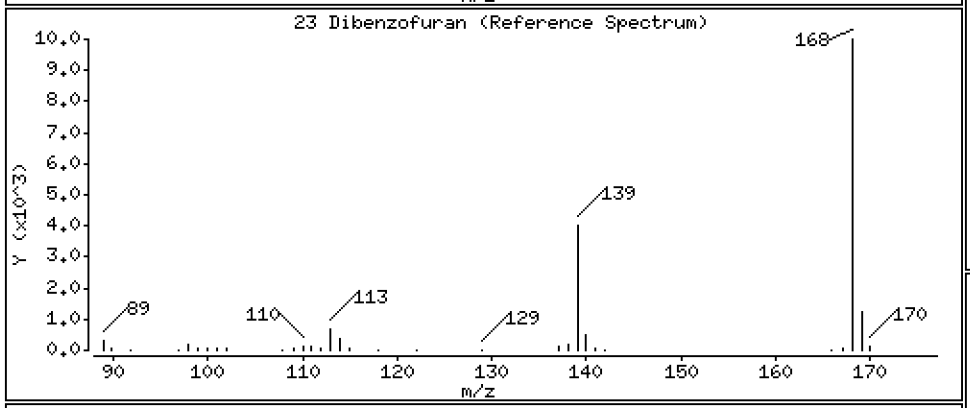
Column diameter: 0.25

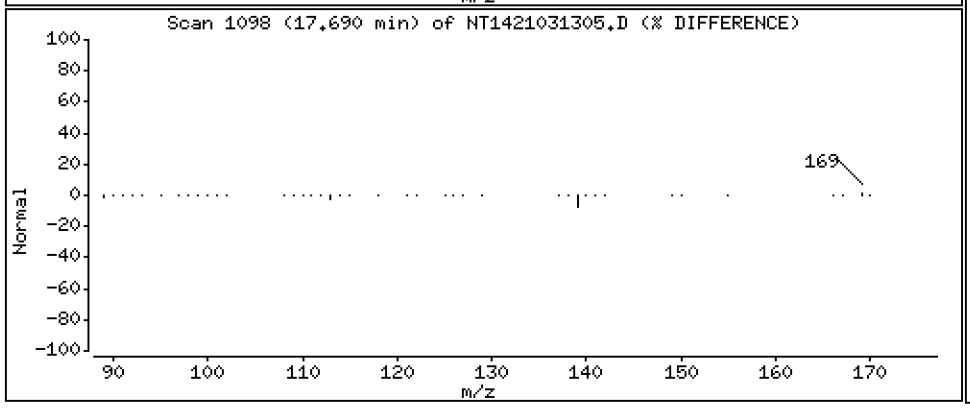
23 Dibenzofuran

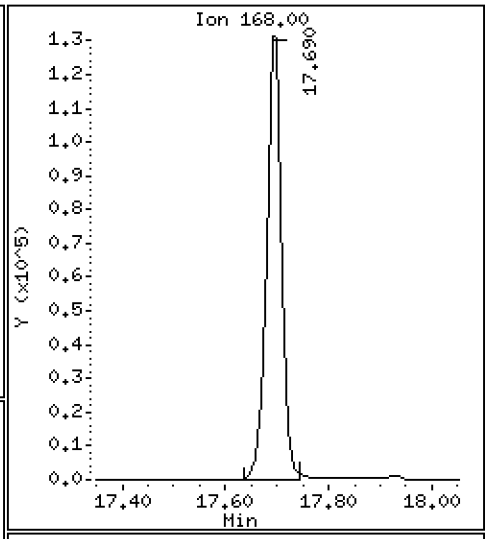
Concentration: 2.119 ug/mL

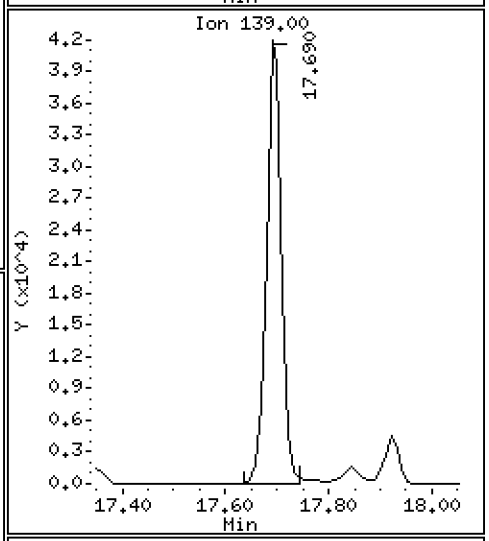


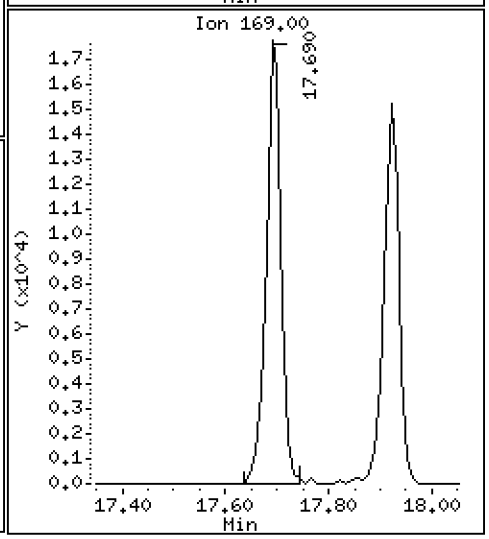












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Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

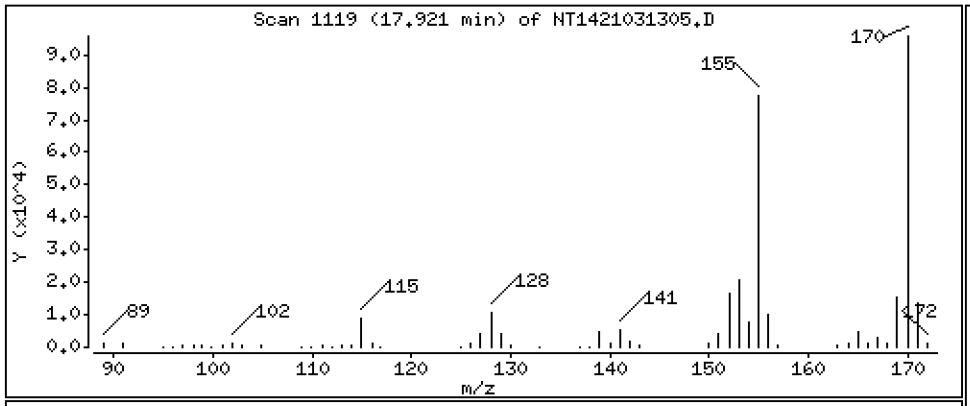
Operator: VTS

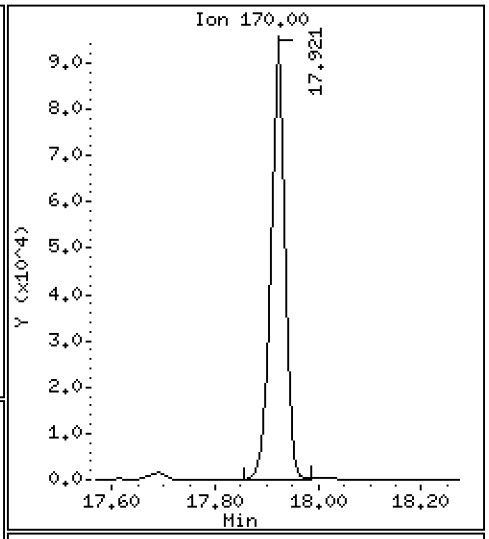
Column phase: Rxi-17Sil MS

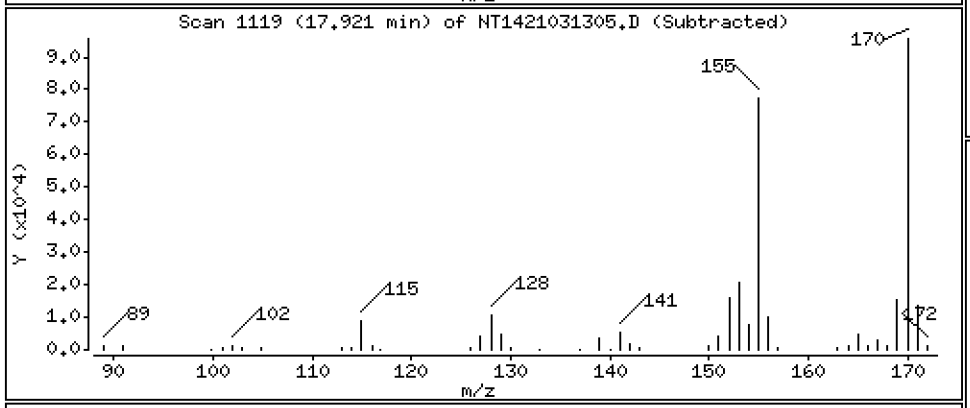
Column diameter: 0.25

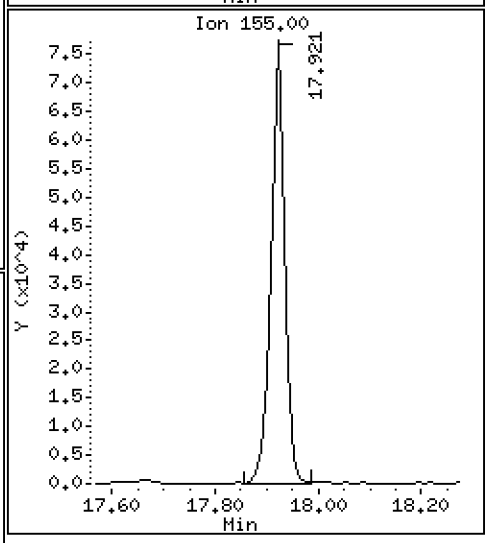
24 1,6,7-Trimethylnaphthalene

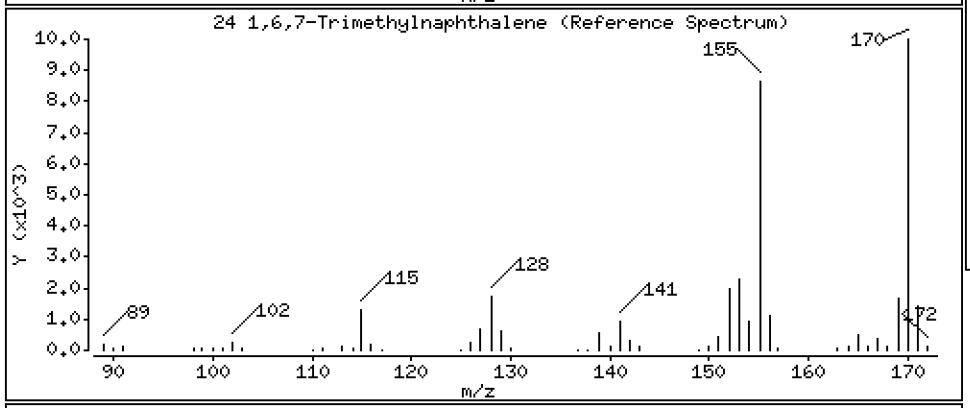
Concentration: 2.244 ug/mL

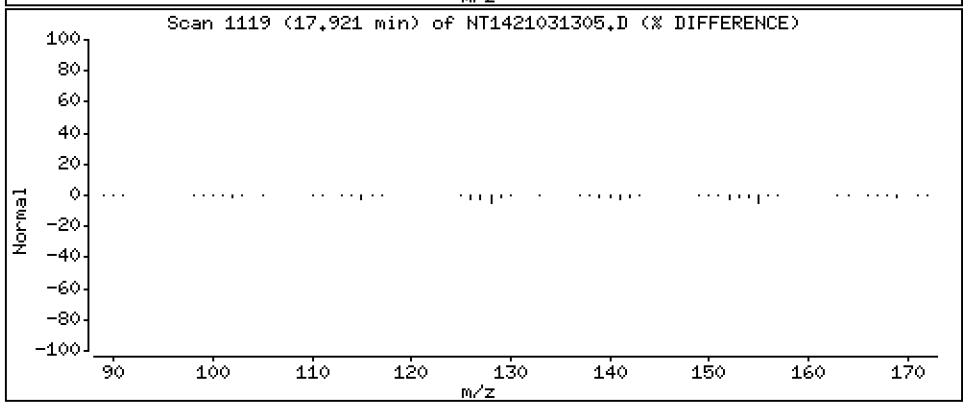












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Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

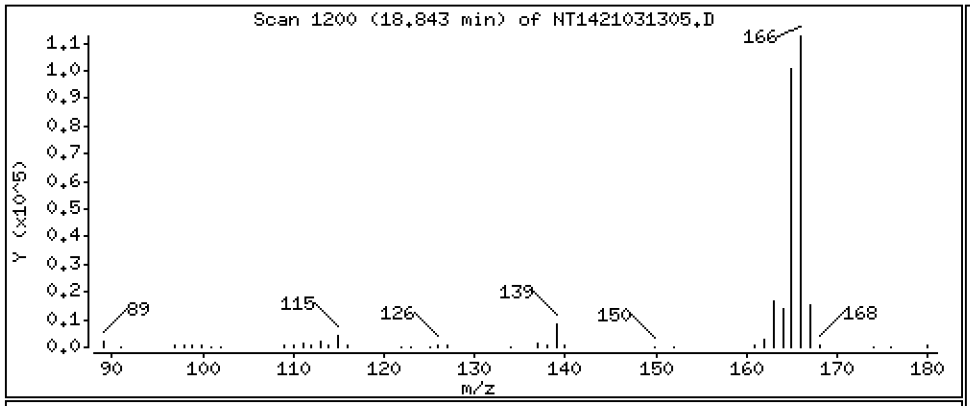
Operator: VTS

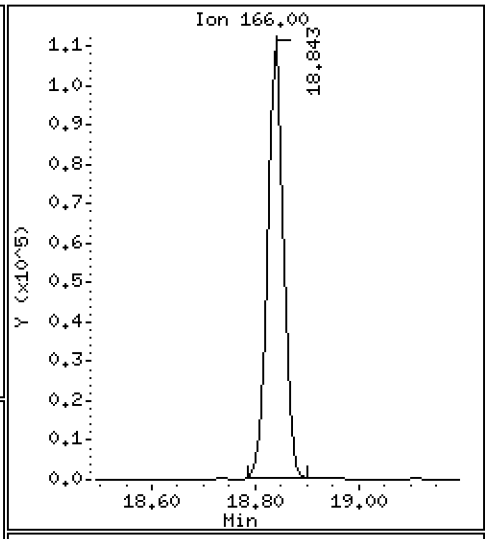
Column phase: Rxi-17Sil MS

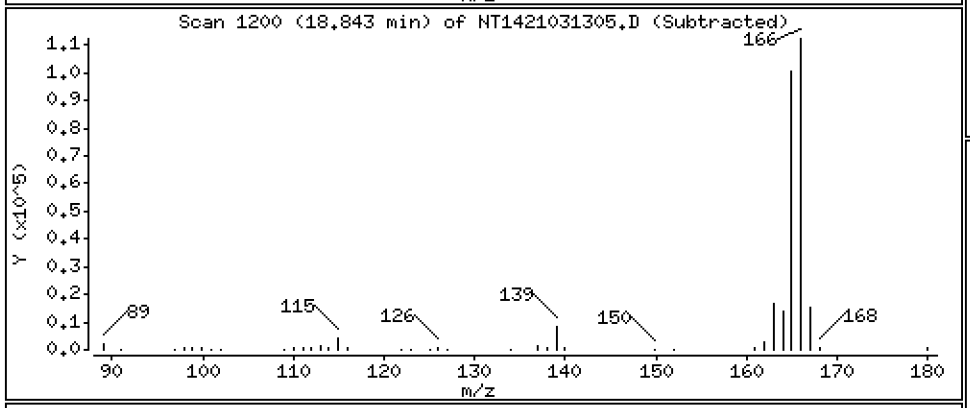
Column diameter: 0.25

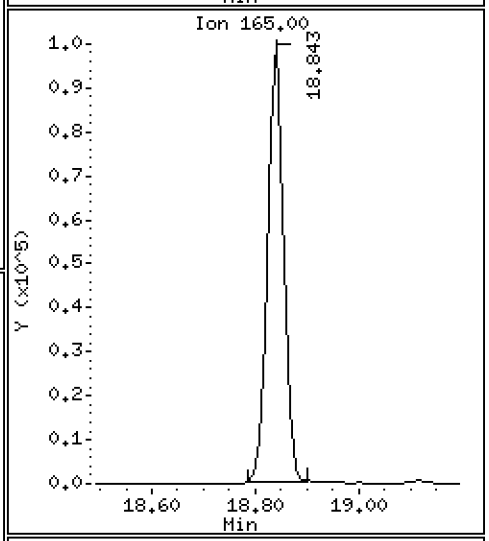
26 Fluorene

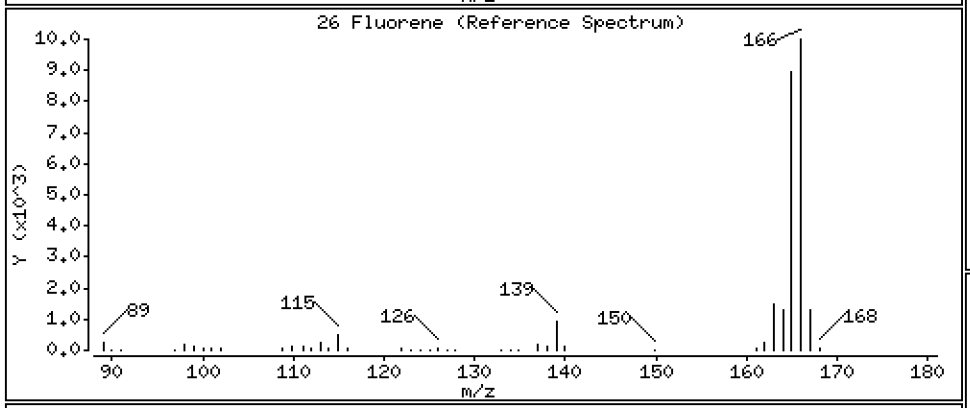
Concentration: 2.252 ug/mL

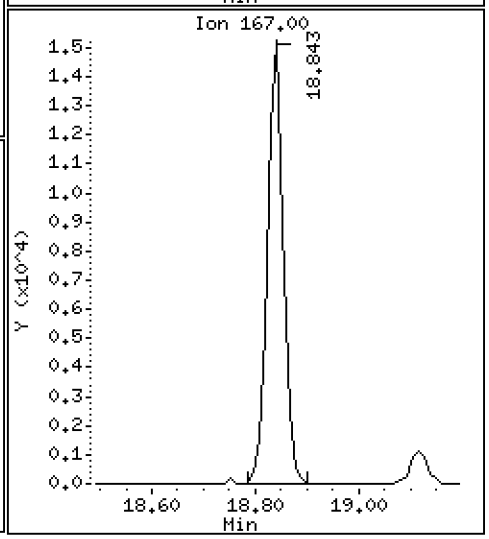


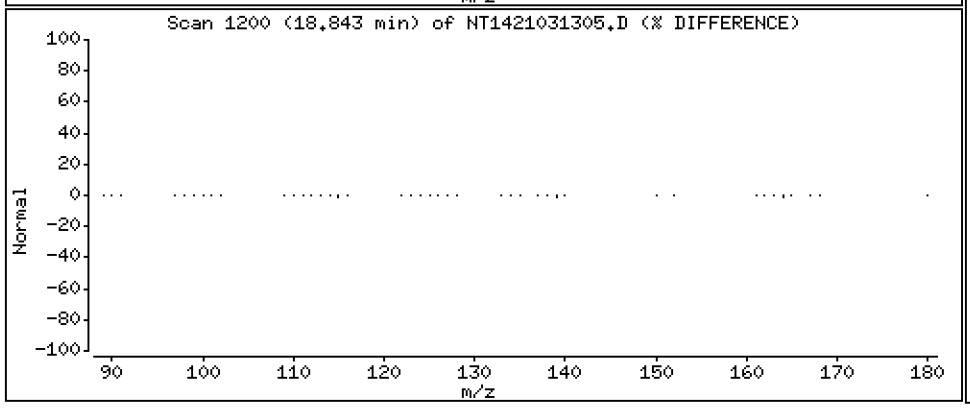












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Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

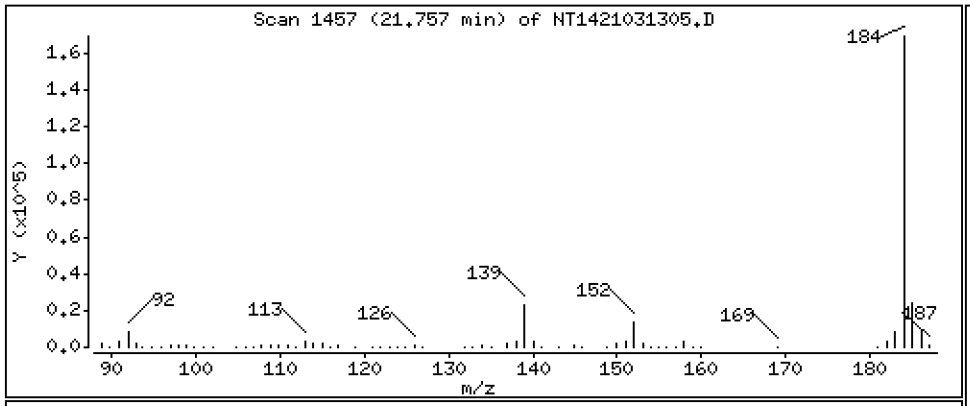
Operator: VTS

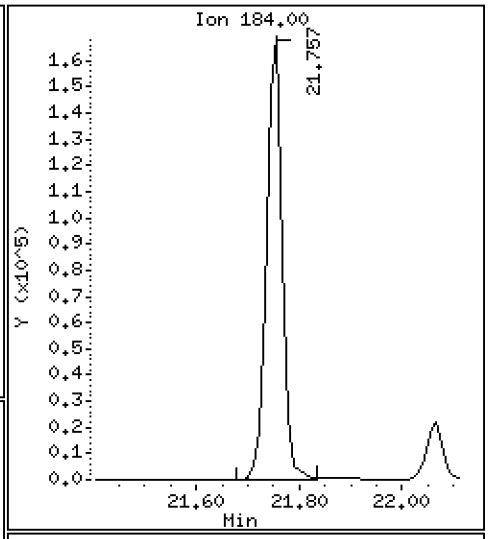
Column phase: Rxi-17Sil MS

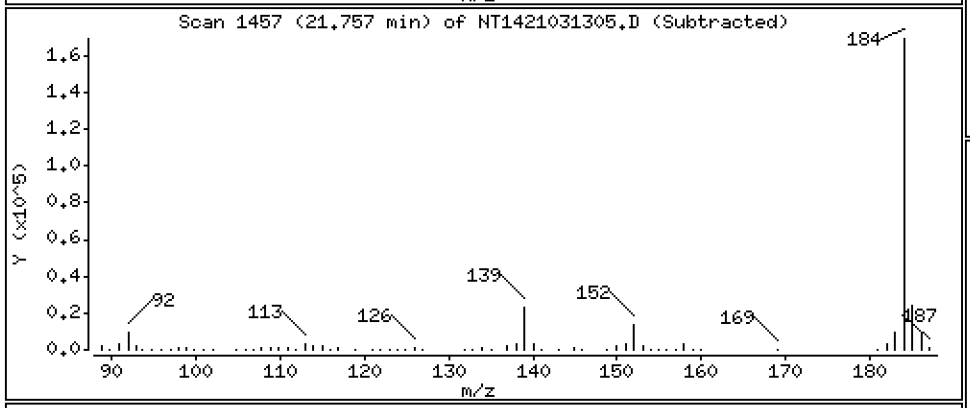
Column diameter: 0.25

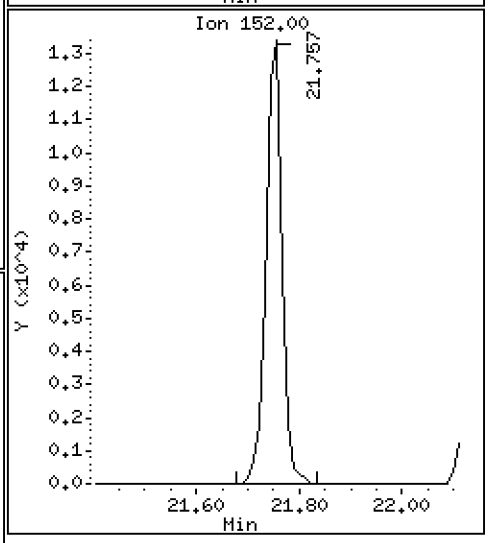
30 Dibenzothiophene

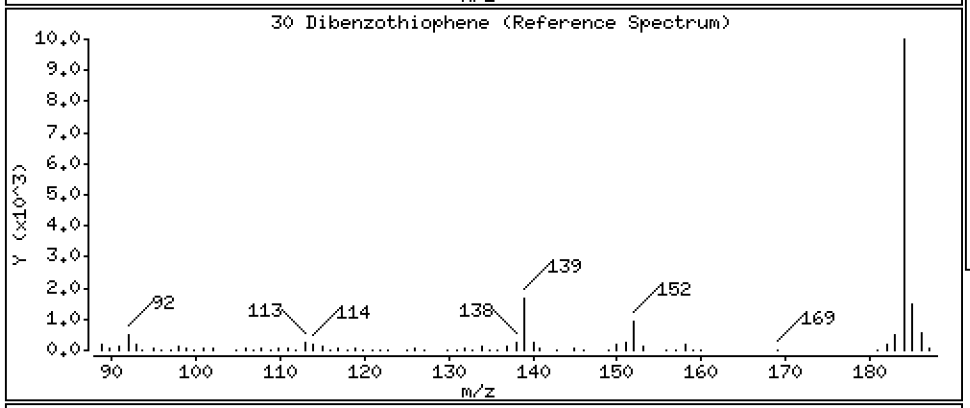
Concentration: 2.966 ug/mL

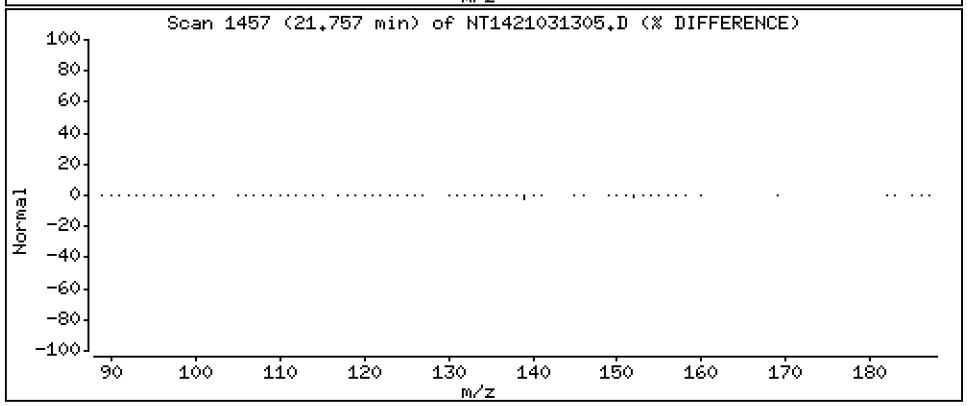












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Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

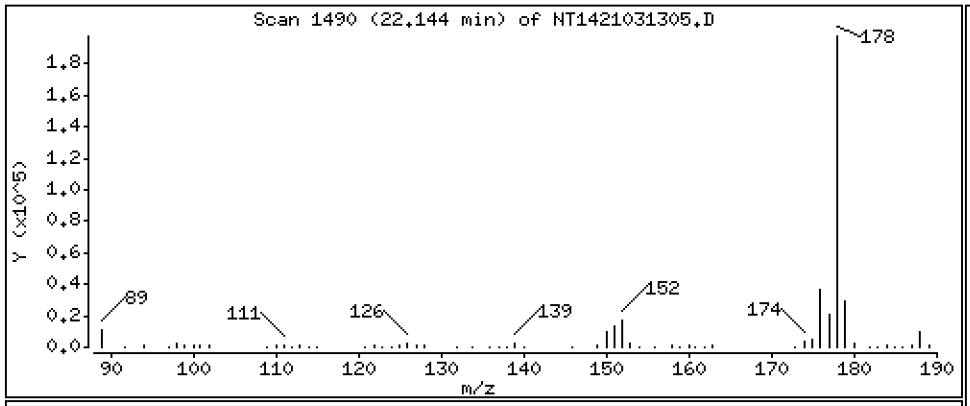
Operator: VTS

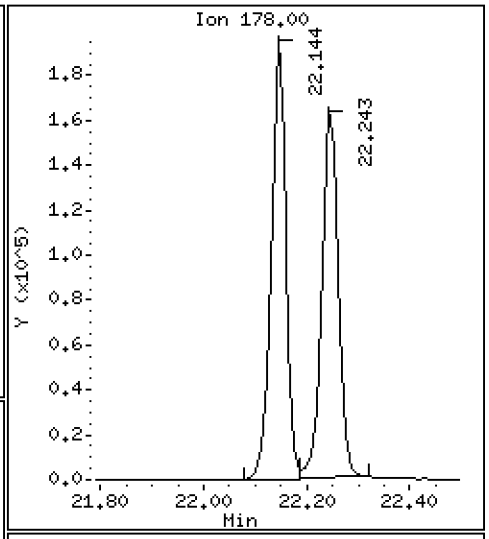
Column phase: Rxi-17Sil MS

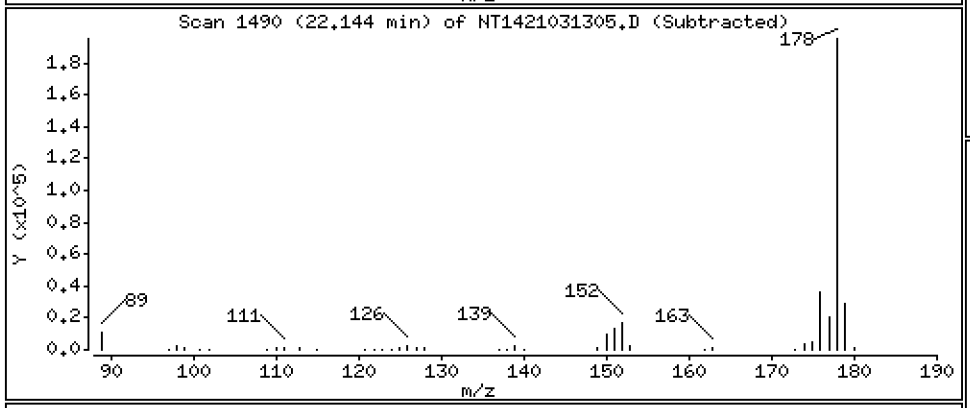
Column diameter: 0.25

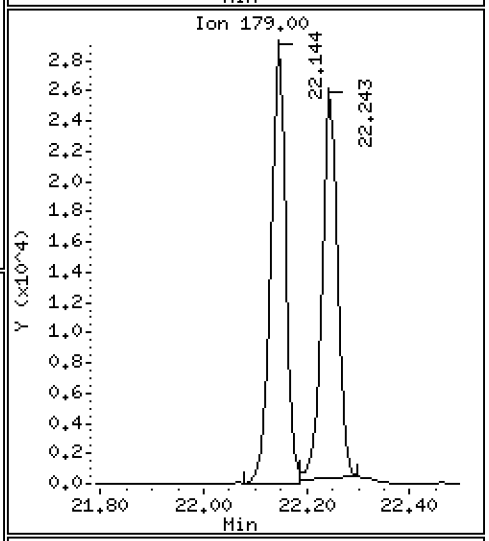
36 Phenanthrene

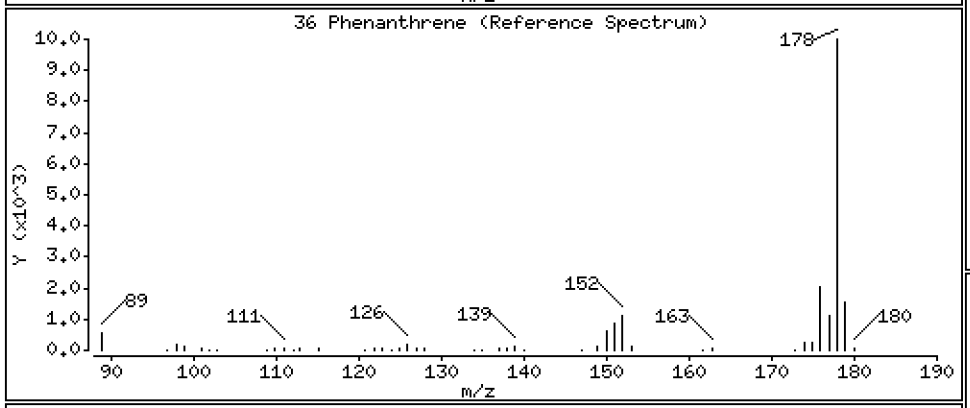
Concentration: 2.775 ug/mL

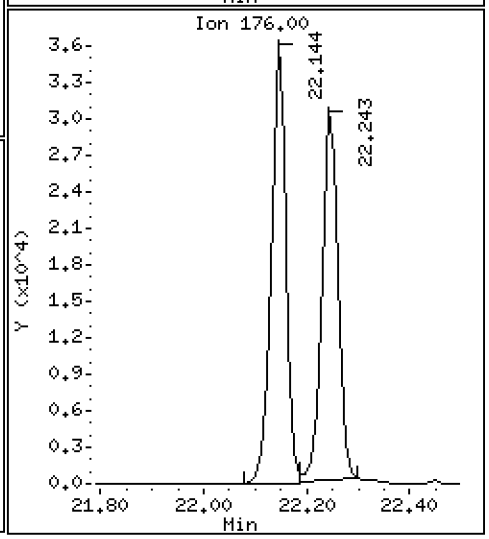


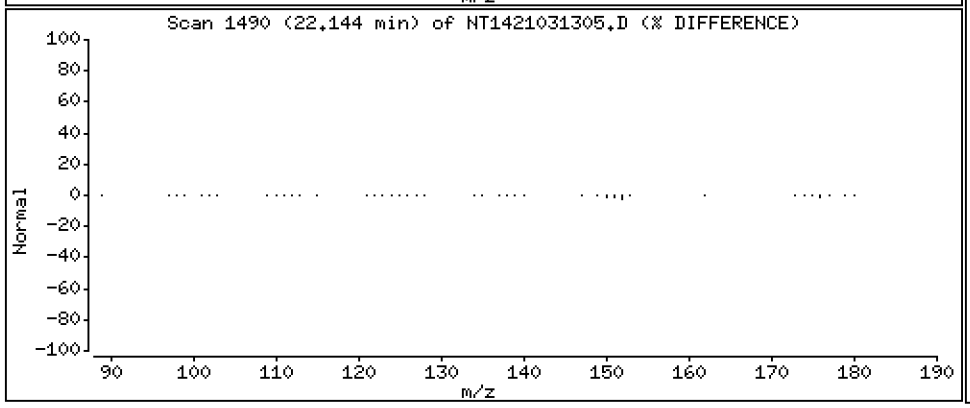












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Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

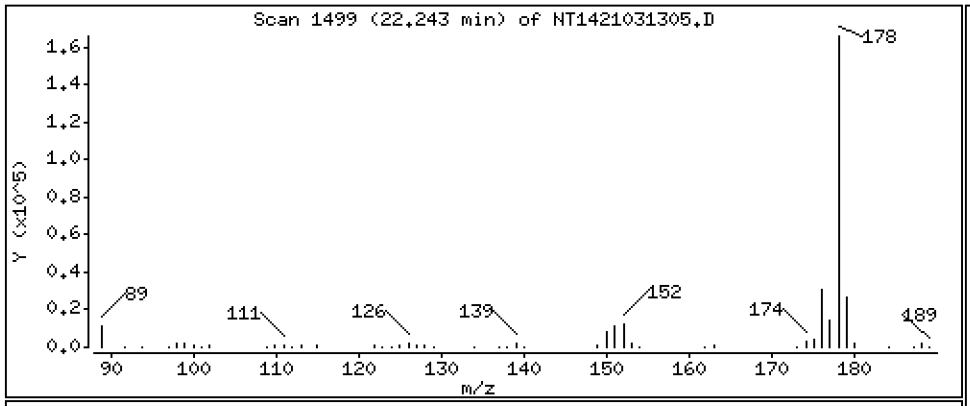
Operator: VTS

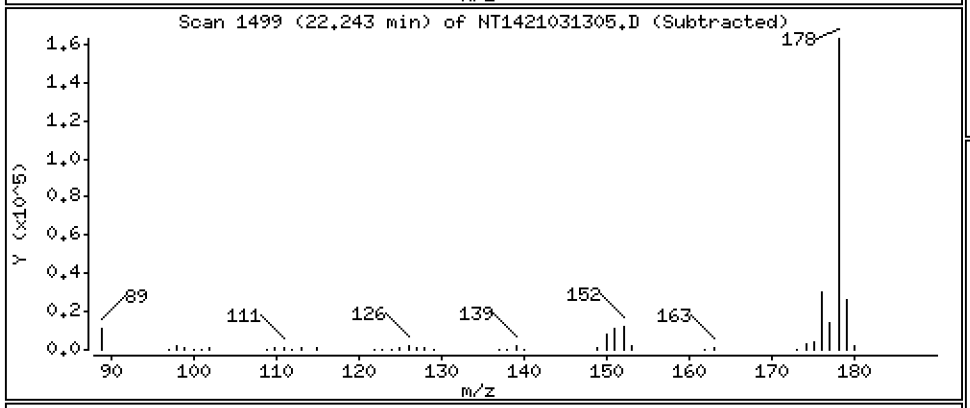
Column phase: Rxi-17Sil MS

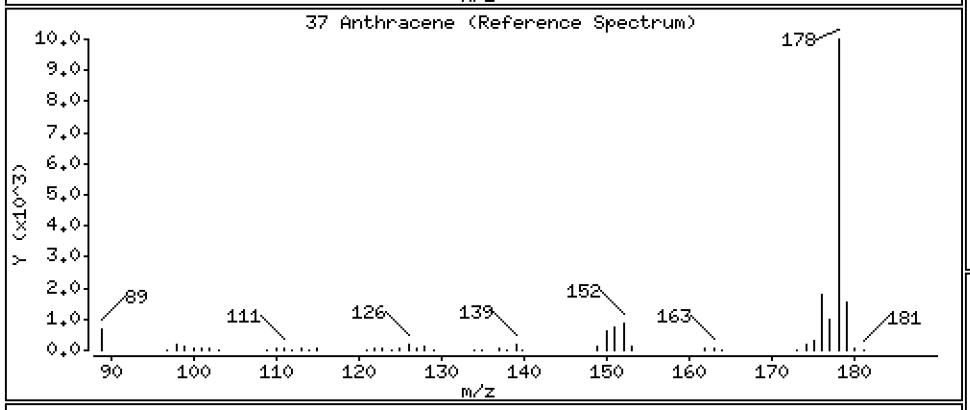
Column diameter: 0.25

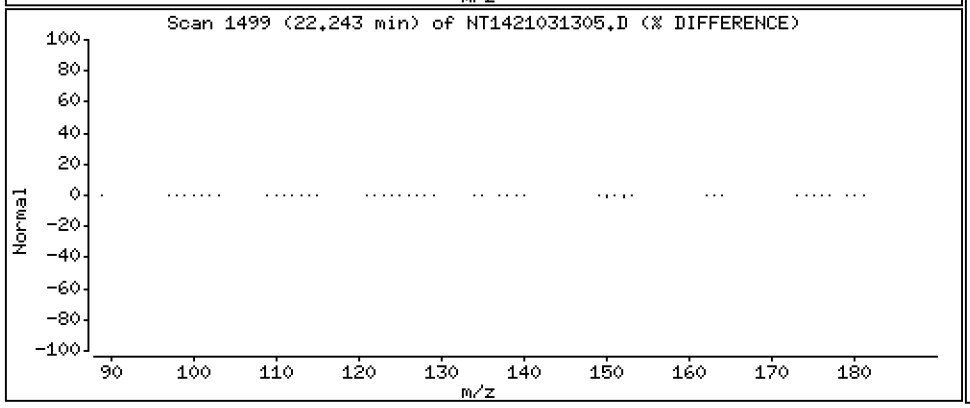
37 Anthracene

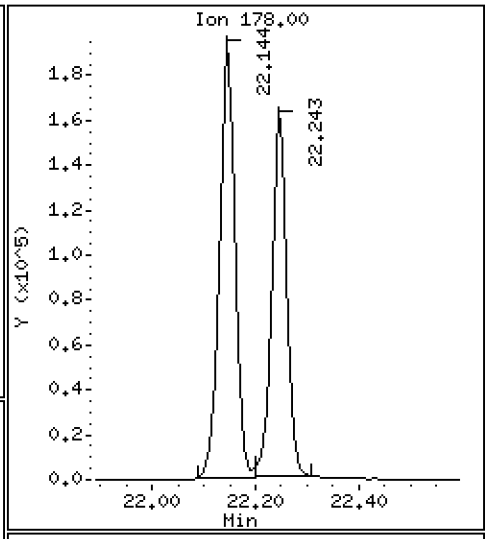
Concentration: 2.627 ug/mL

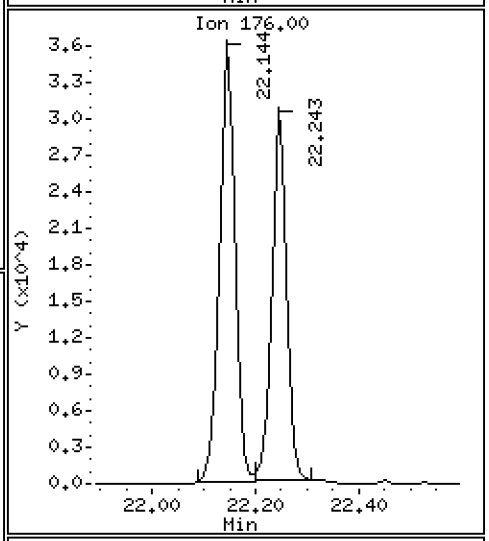


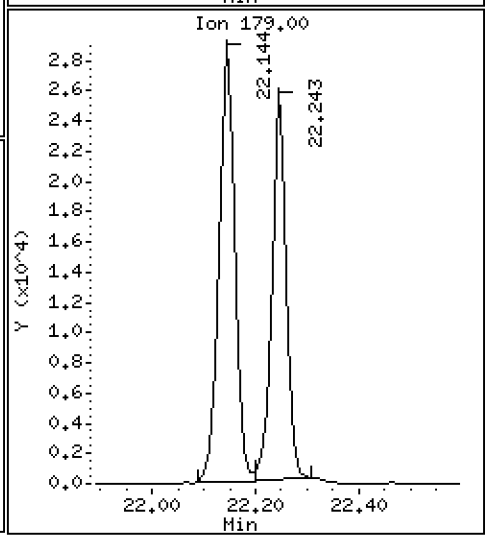












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Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

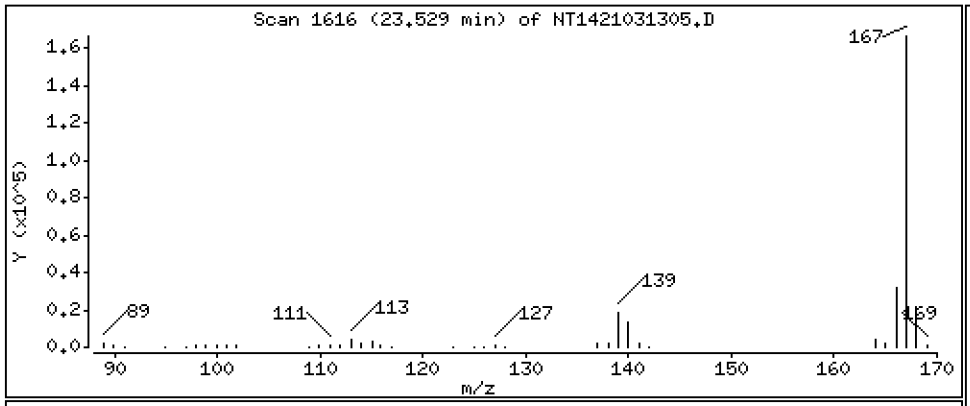
Operator: VTS

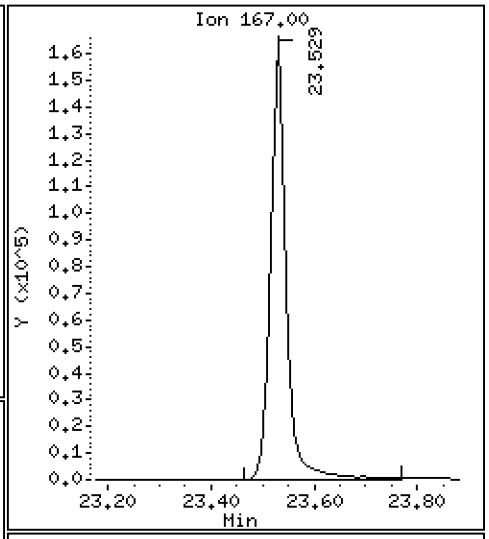
Column phase: Rxi-17Sil MS

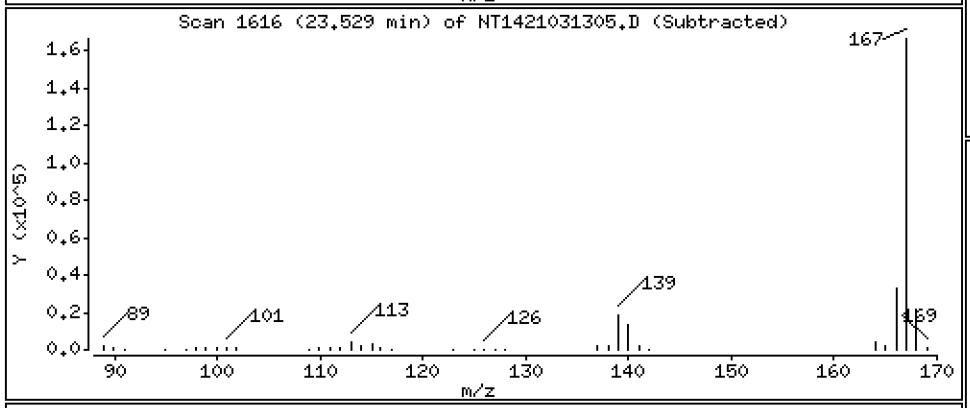
Column diameter: 0.25

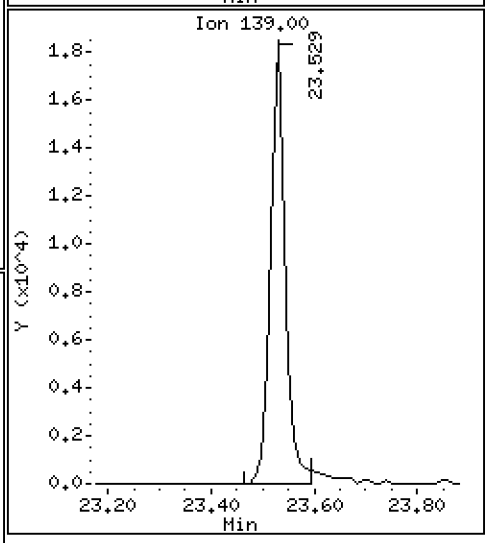
42 Carbazole

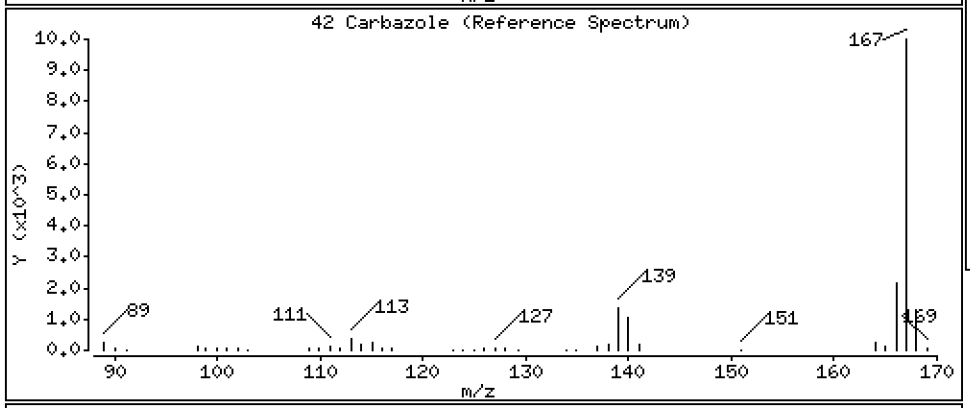
Concentration: 3.320 ug/mL

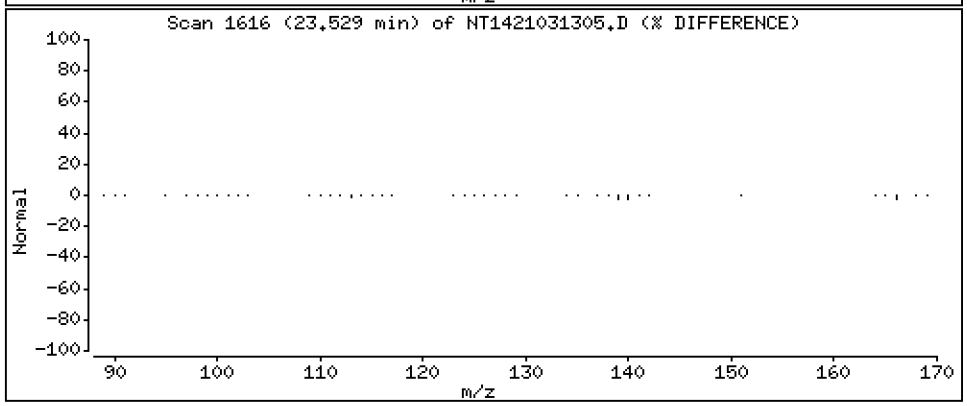












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Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

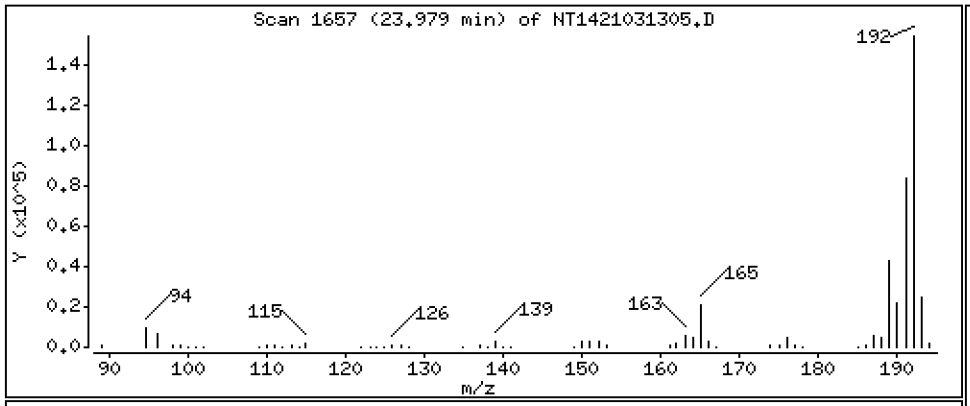
Operator: VTS

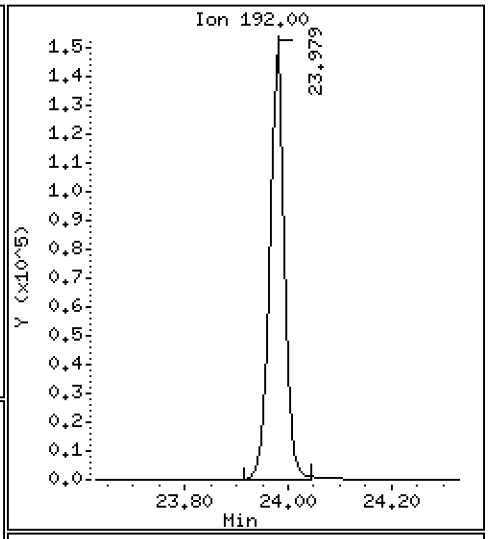
Column phase: Rxi-17Sil MS

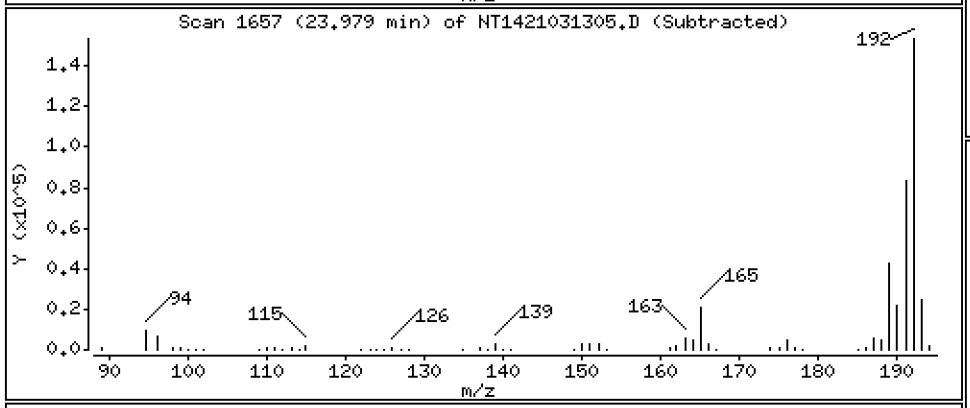
Column diameter: 0.25

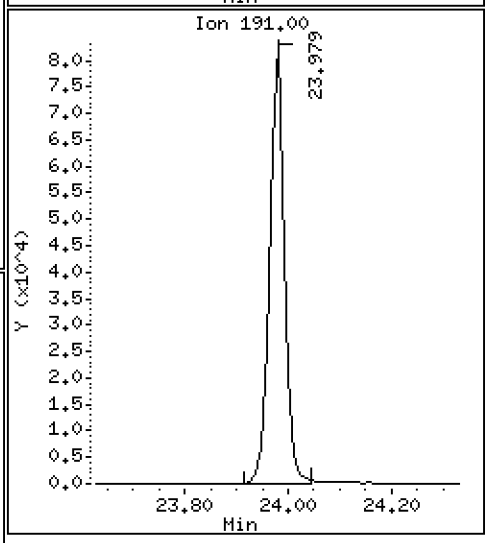
43 1-Methylphenanthrene

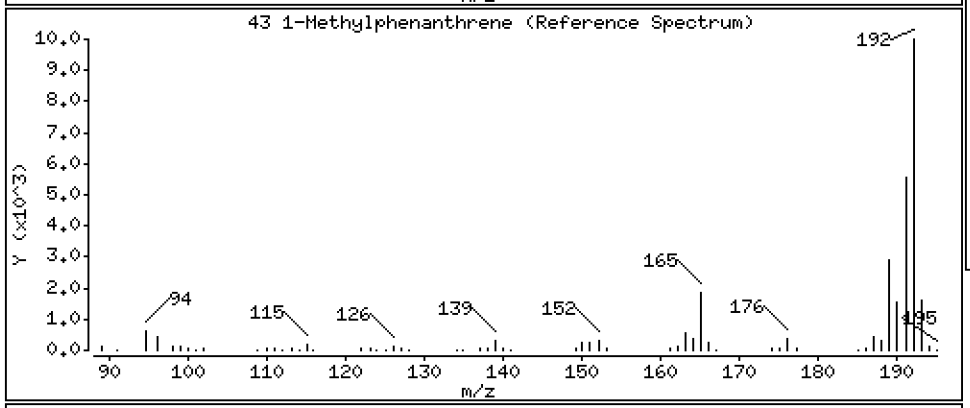
Concentration: 3.117 ug/mL

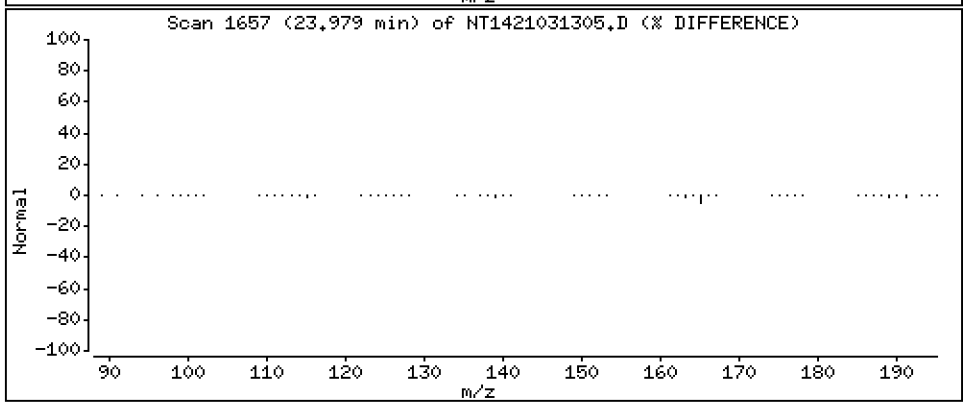












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Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

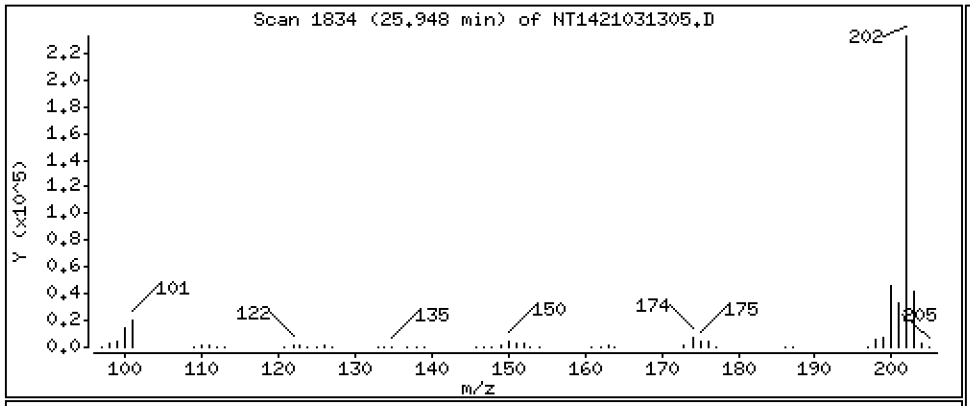
Operator: VTS

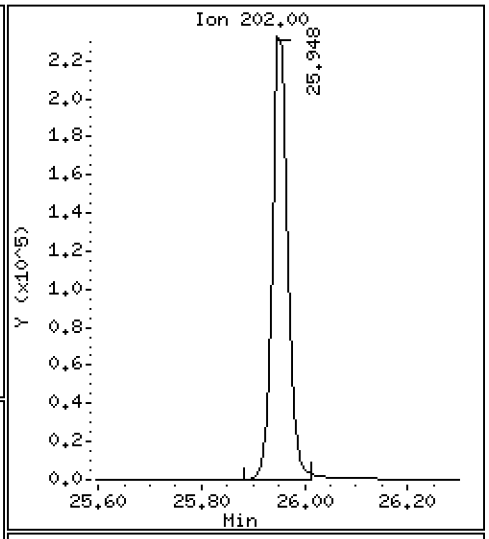
Column phase: Rxi-17Sil MS

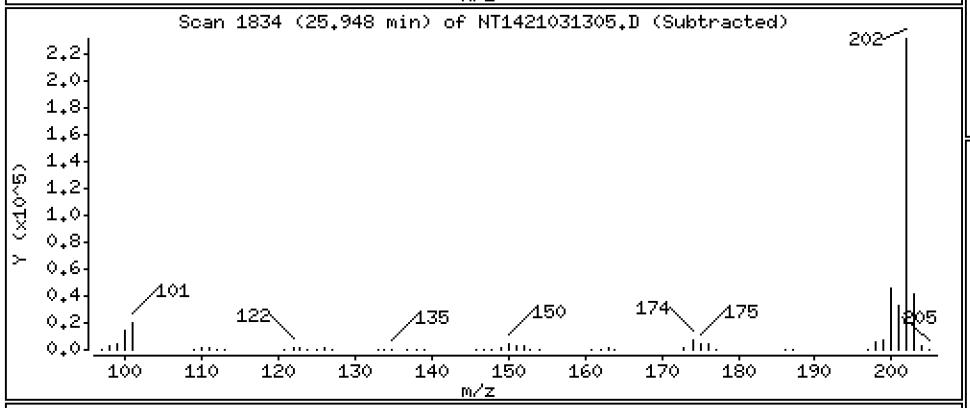
Column diameter: 0.25

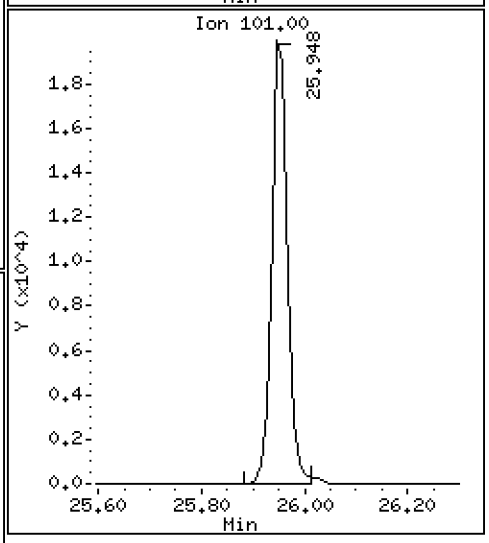
44 Fluoranthene

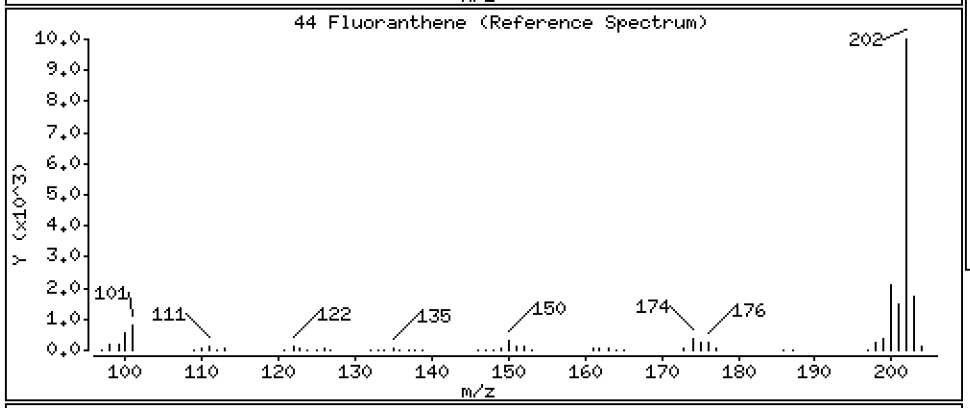
Concentration: 3.274 ug/mL

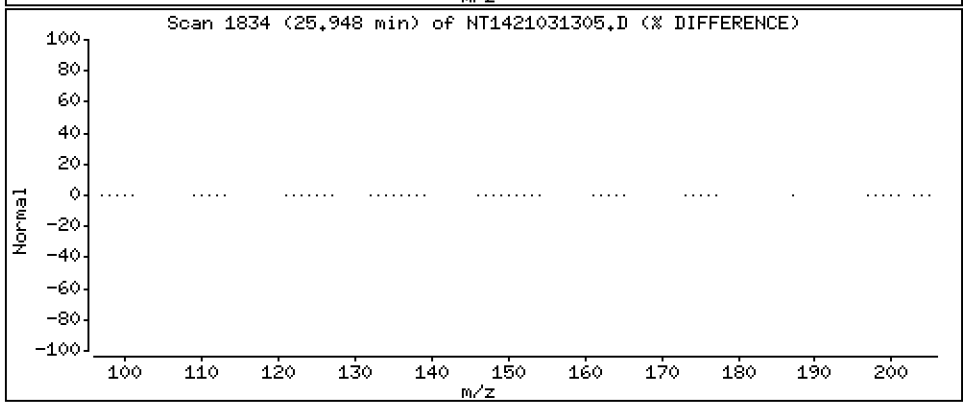












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Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

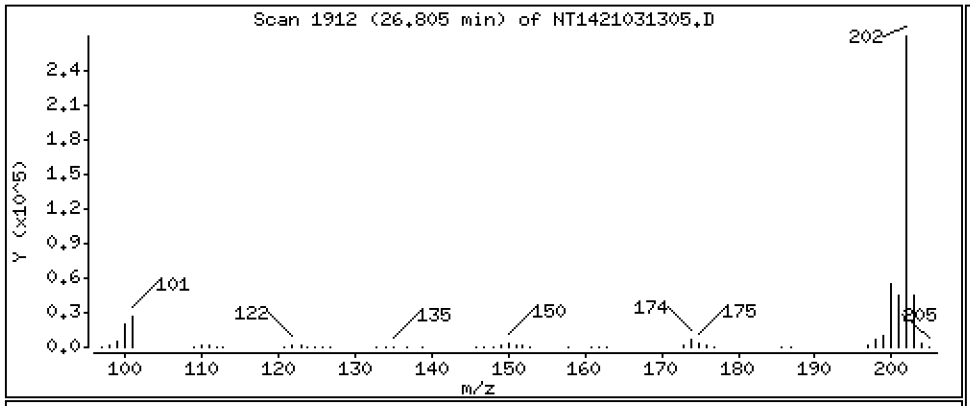
Operator: VTS

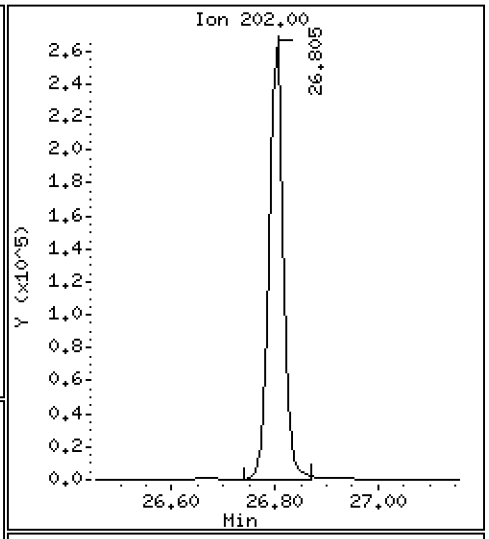
Column phase: Rxi-17Sil MS

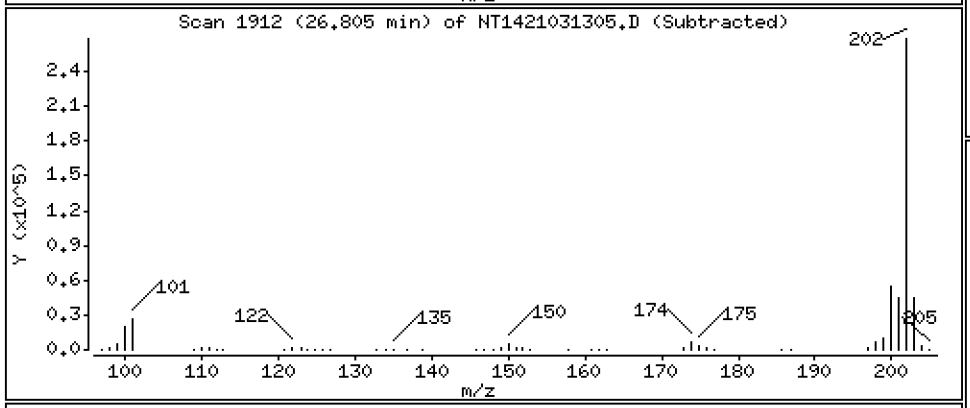
Column diameter: 0.25

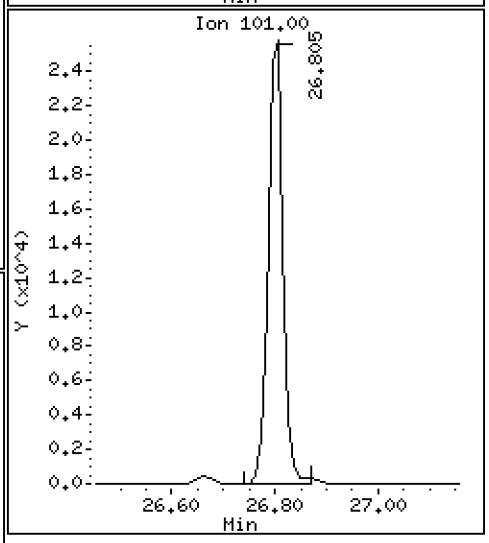
46 Pyrene

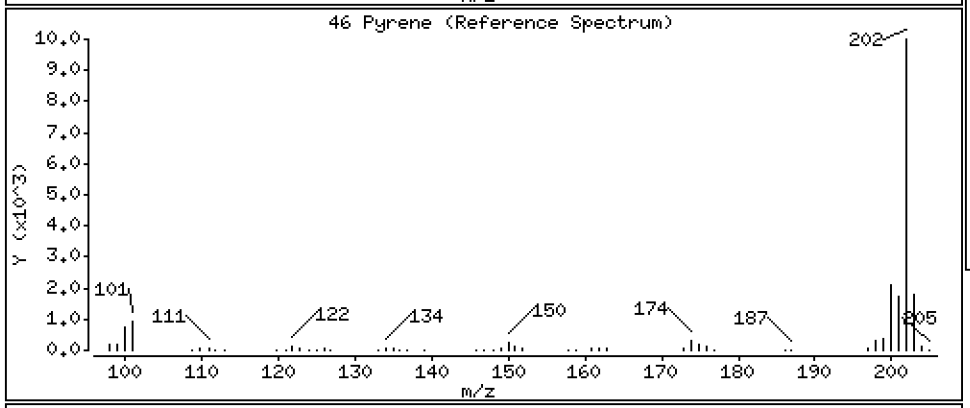
Concentration: 3.322 ug/mL

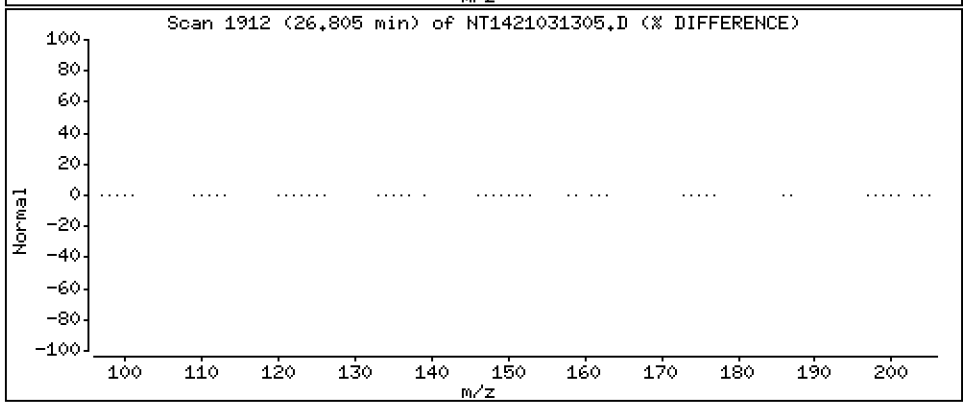












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Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

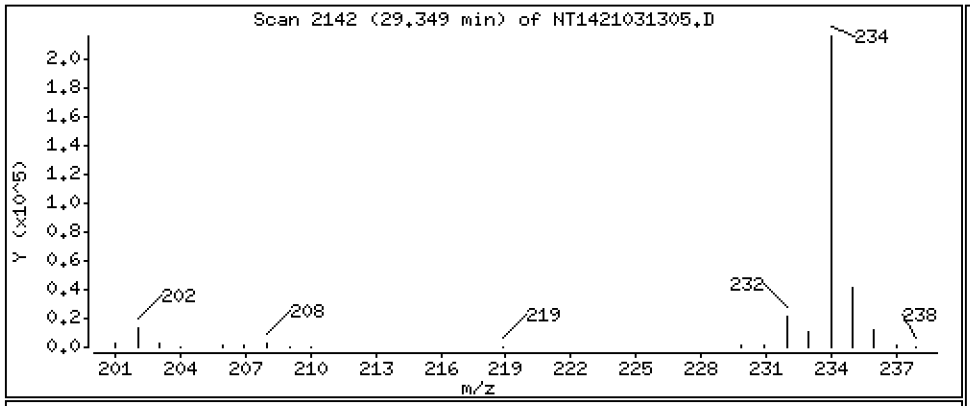
Operator: VTS

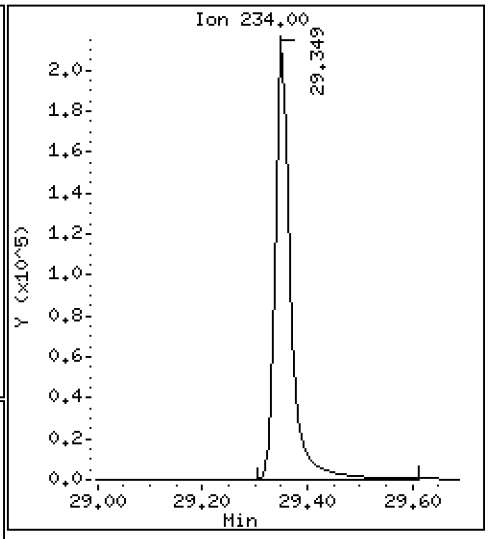
Column phase: Rxi-17Sil MS

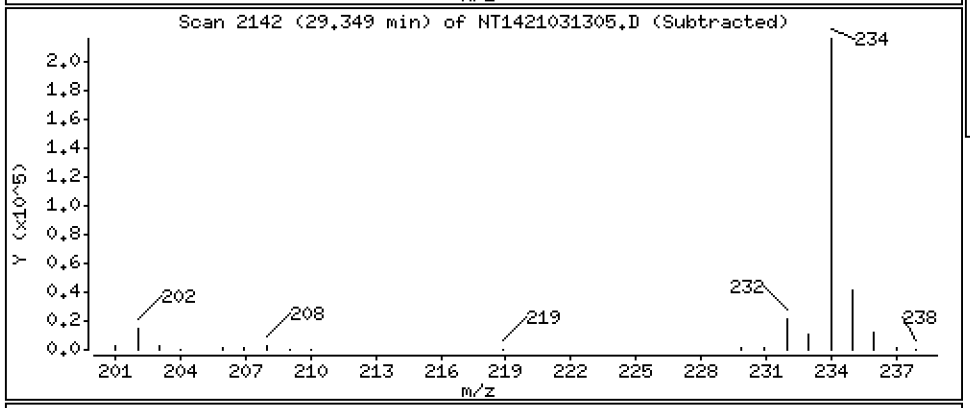
Column diameter: 0.25

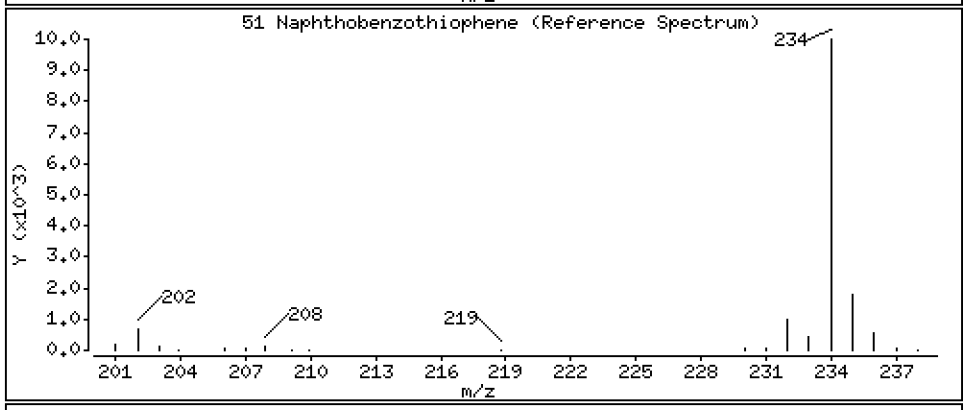
51 Naphthobenzothiophene

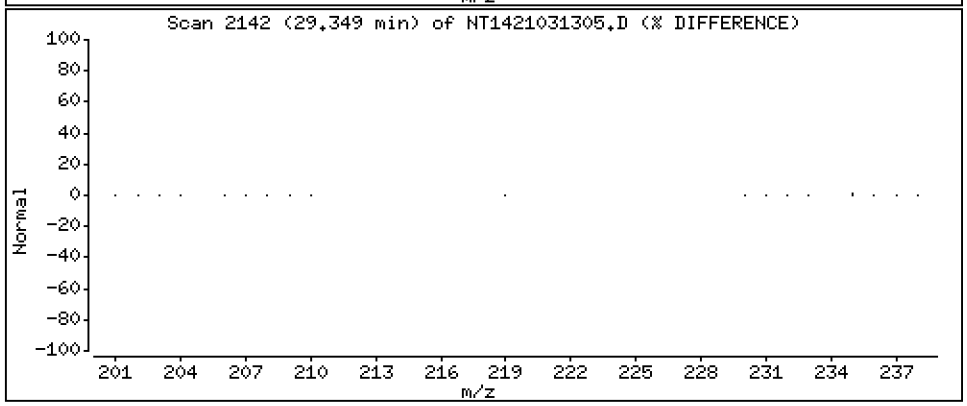
Concentration: 3.671 ug/mL











Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031305.D

Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

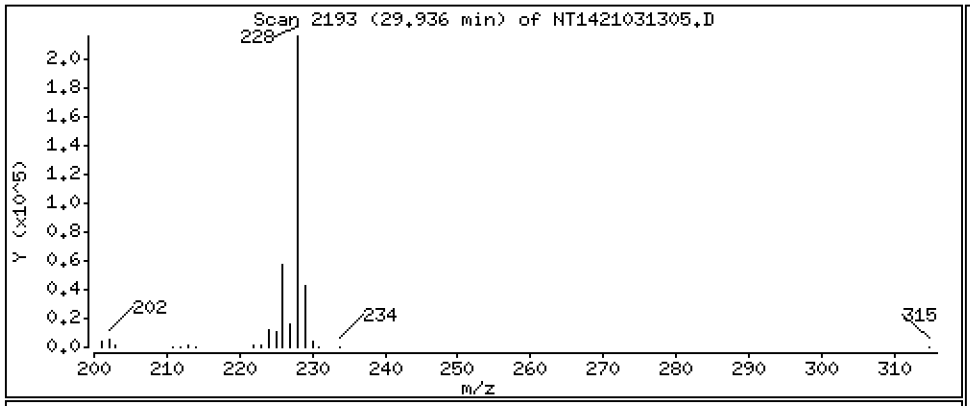
Operator: VTS

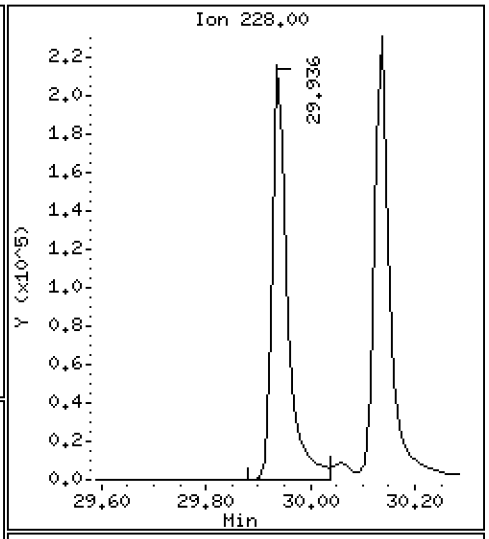
Column phase: Rxi-17Sil MS

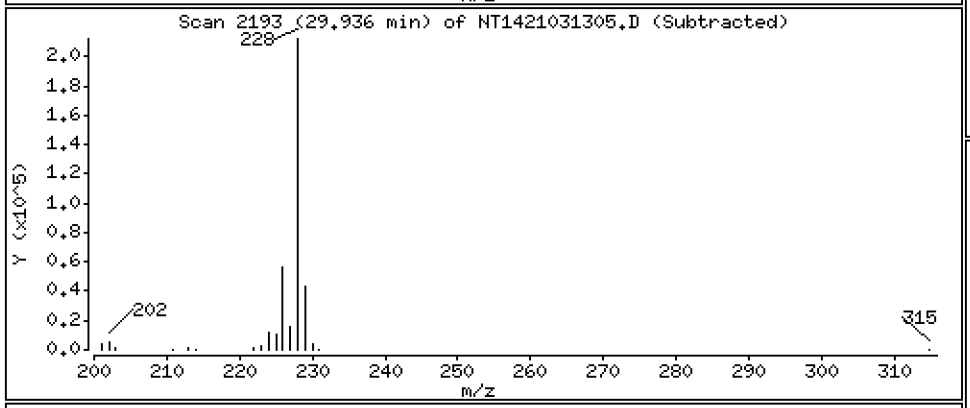
Column diameter: 0.25

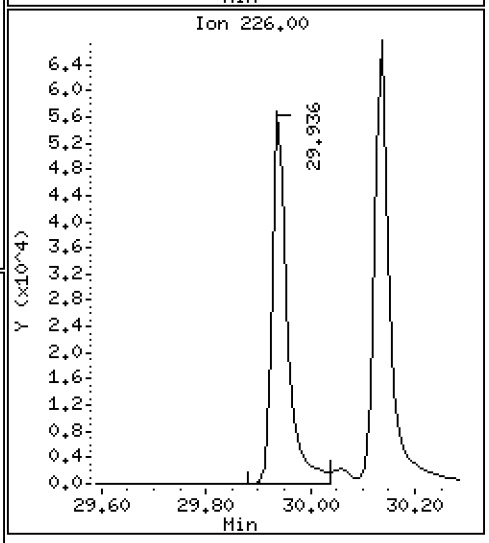
55 Benzo(a)anthracene

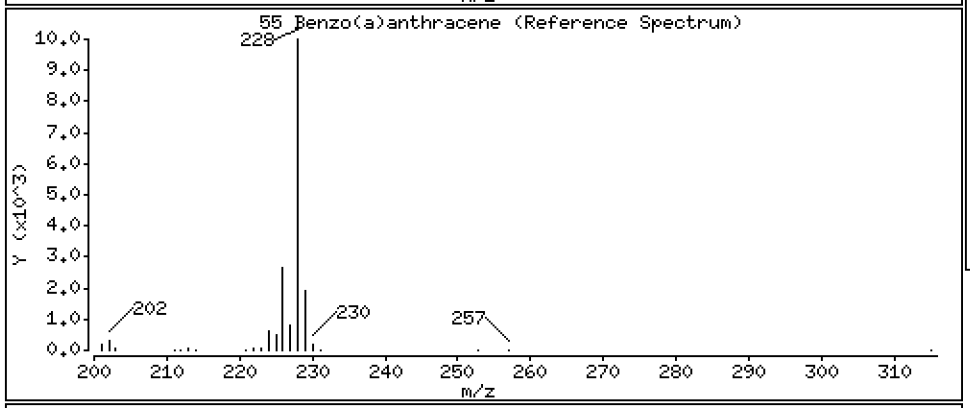
Concentration: 2.726 ug/mL

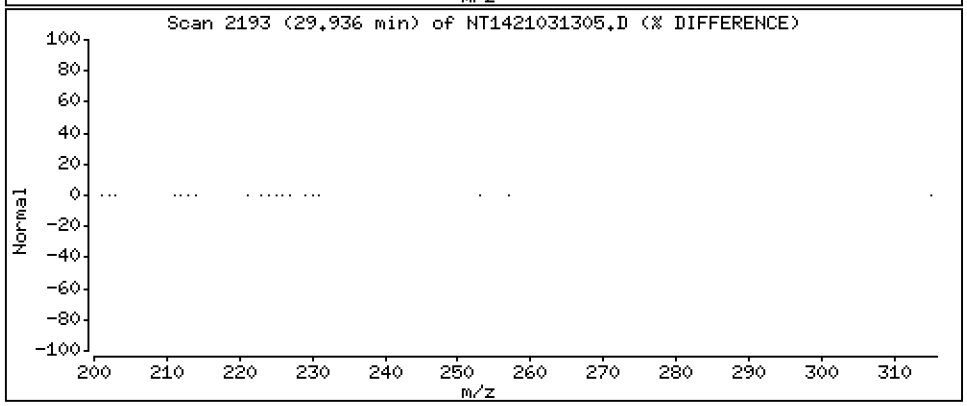












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031305.D

Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

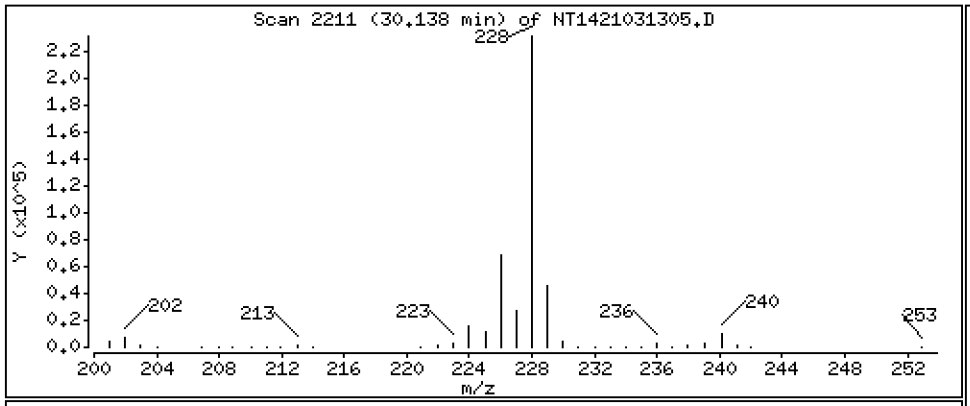
Operator: VTS

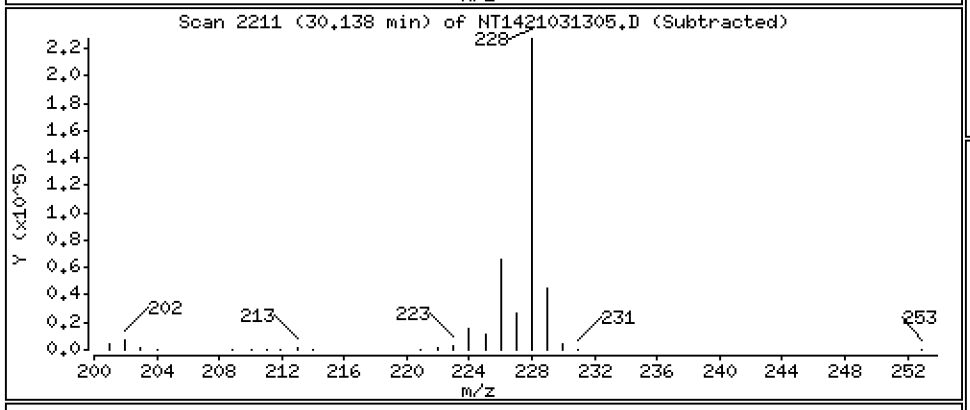
Column phase: Rxi-17Sil MS

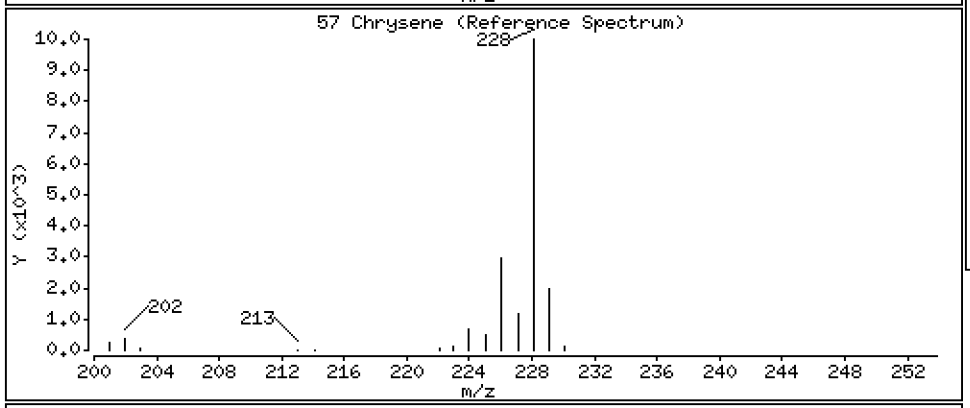
Column diameter: 0.25

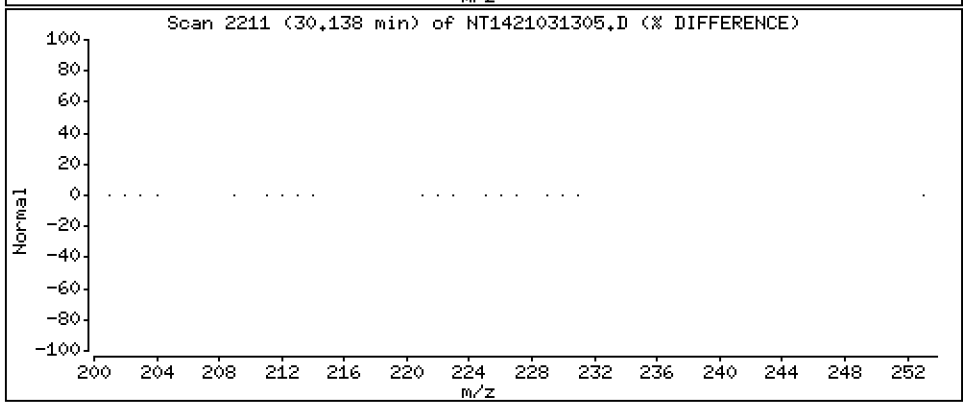
57 Chrysene

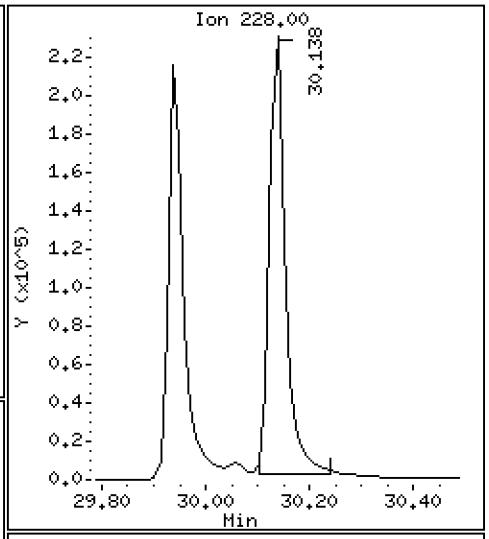
Concentration: 2.769 ug/mL

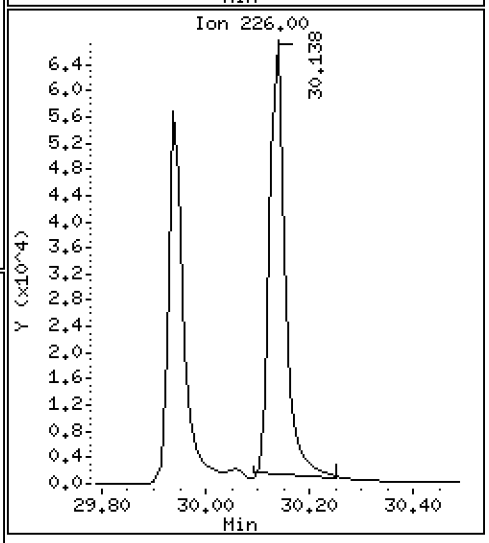












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031305.D

Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

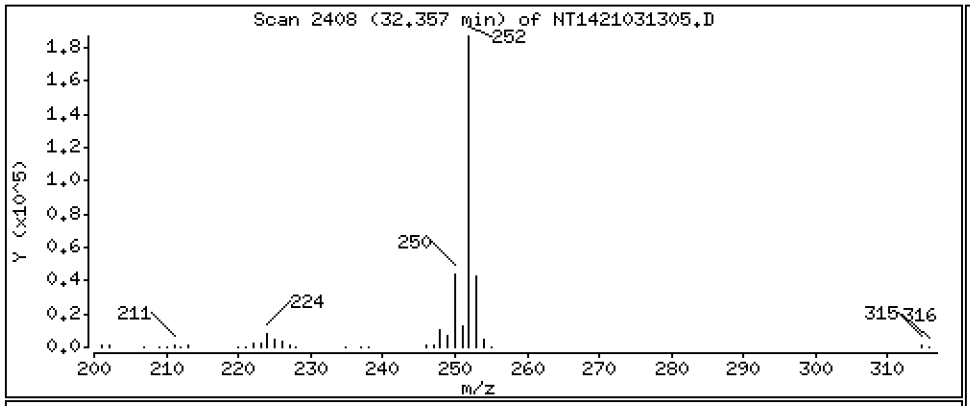
Operator: VTS

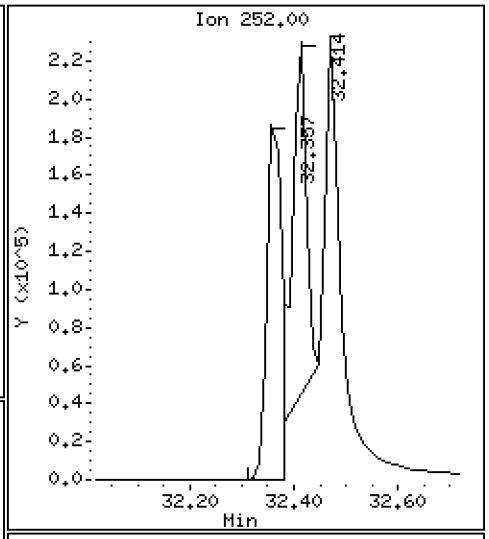
Column phase: Rxi-17Sil MS

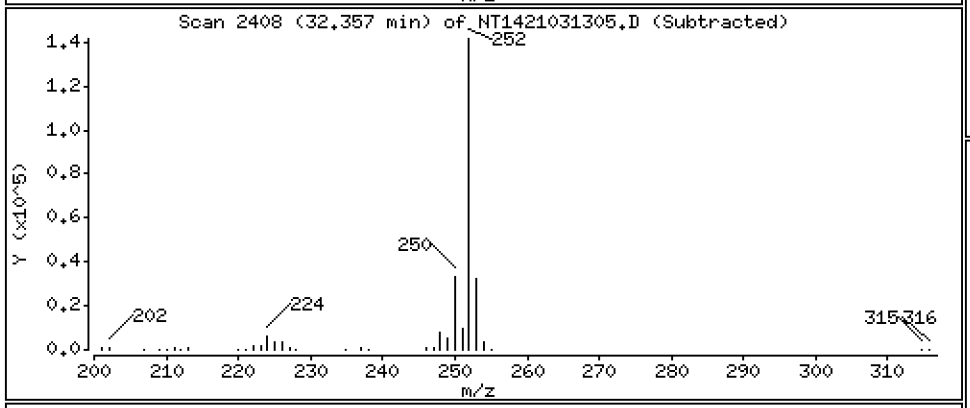
Column diameter: 0.25

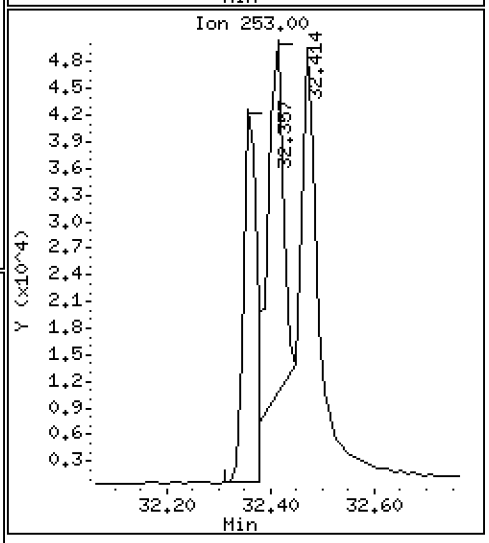
62 Benzo(b)fluoranthene

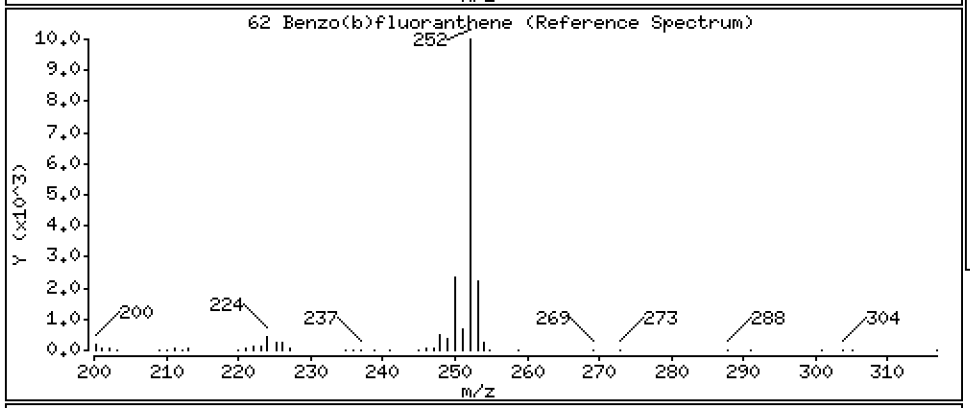
Concentration: 2.172 ug/mL

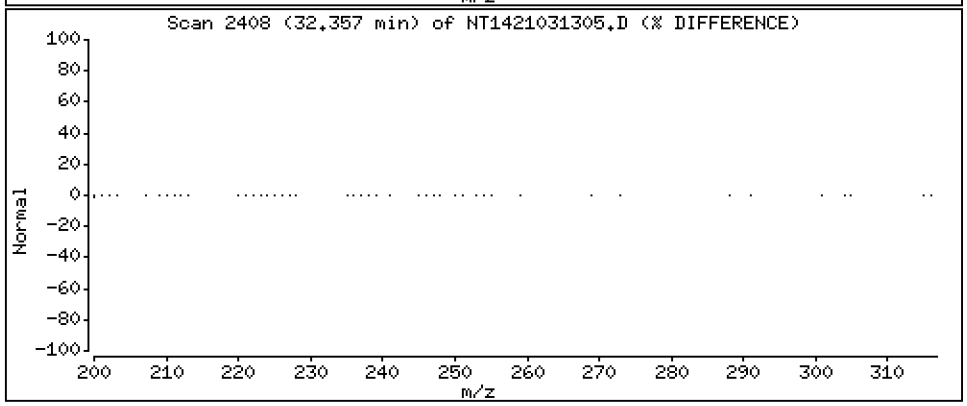












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031305.D

Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

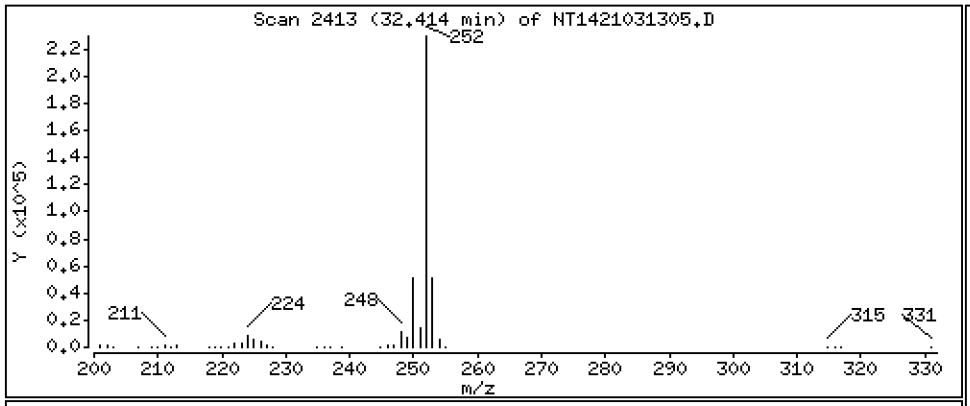
Operator: VTS

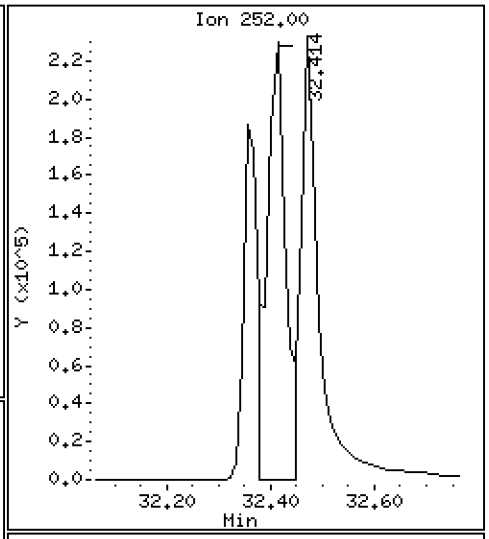
Column phase: Rxi-17Sil MS

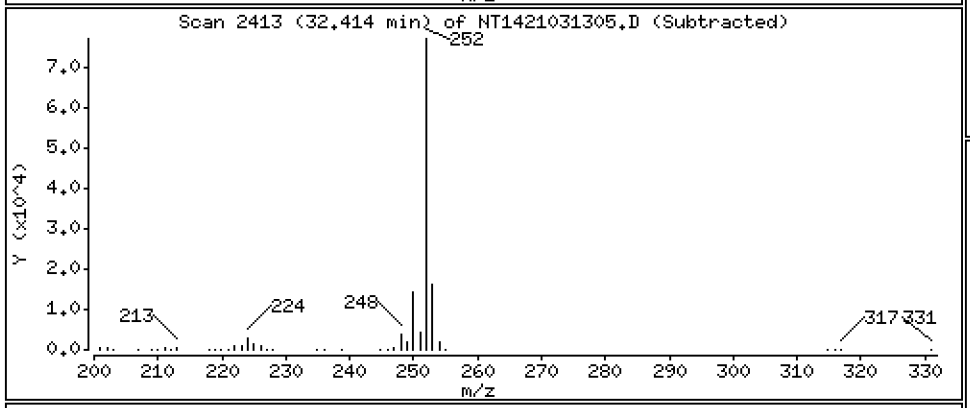
Column diameter: 0.25

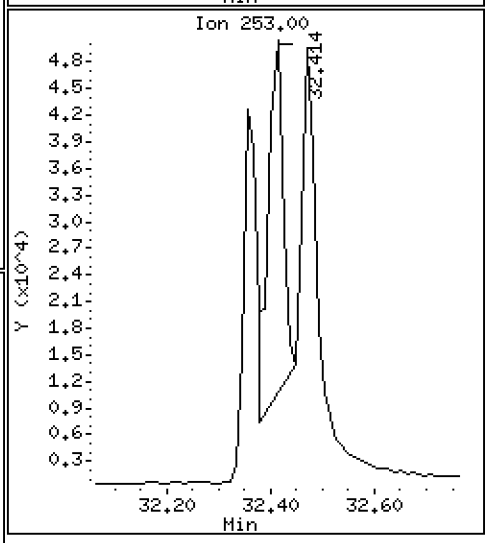
63 Benzo(k)fluoranthene

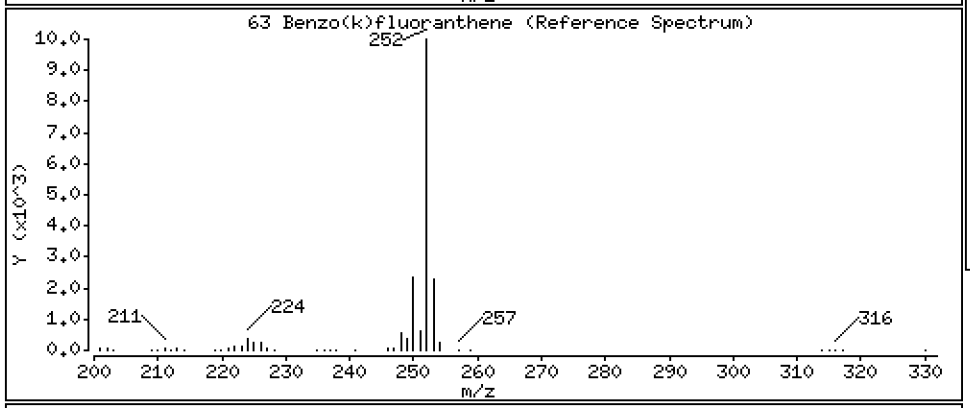
Concentration: 3.412 ug/mL

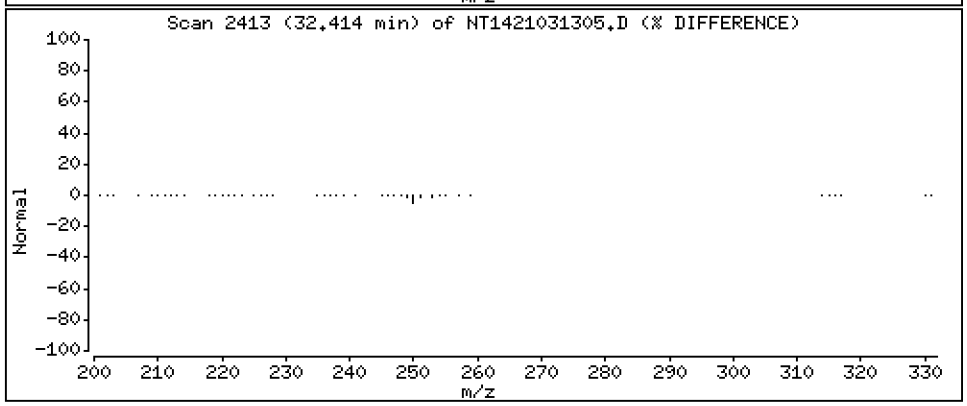












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031305.D

Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

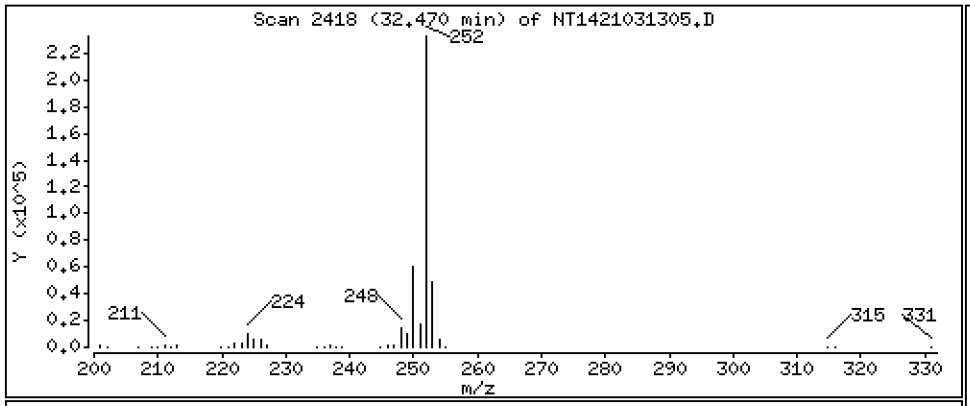
Operator: VTS

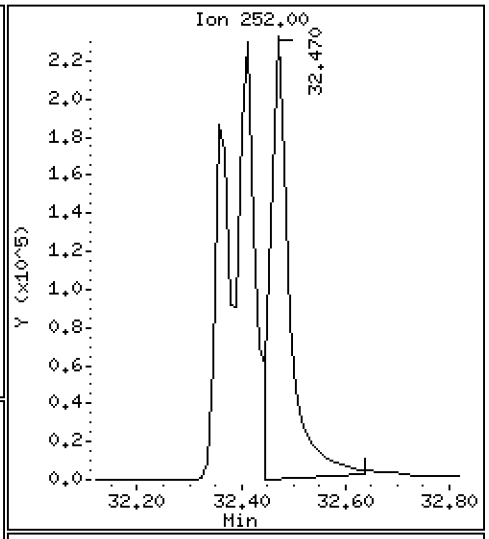
Column phase: Rxi-17Sil MS

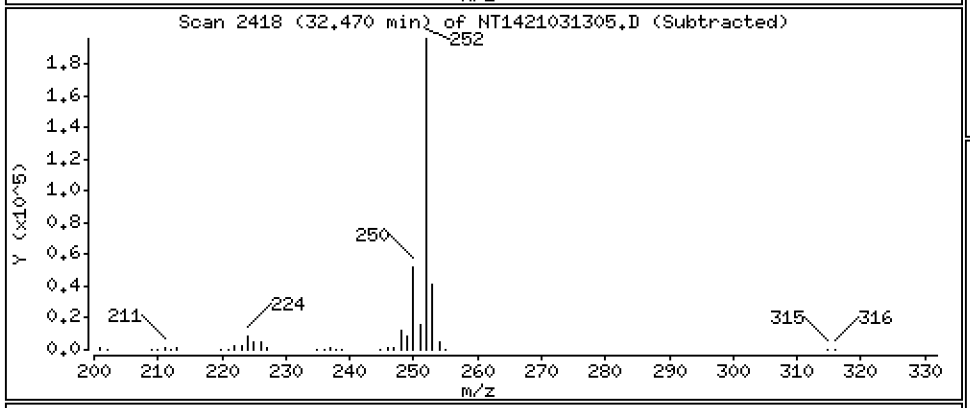
Column diameter: 0.25

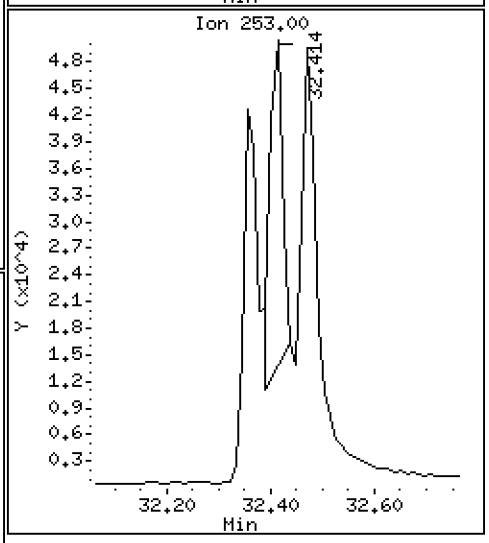
293 Benzo(j)fluoranthene

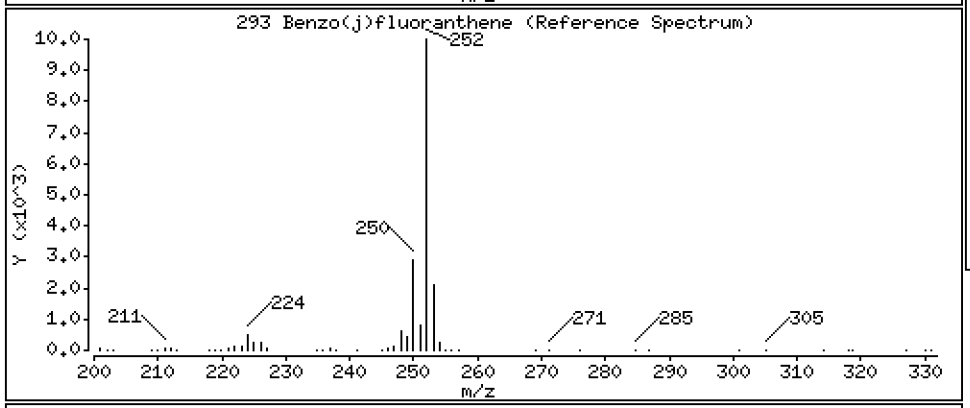
Concentration: 3.507 ug/mL

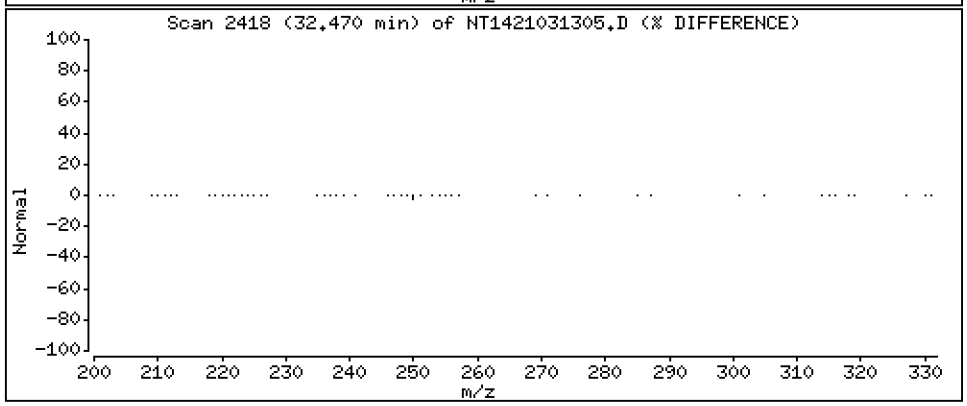












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Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

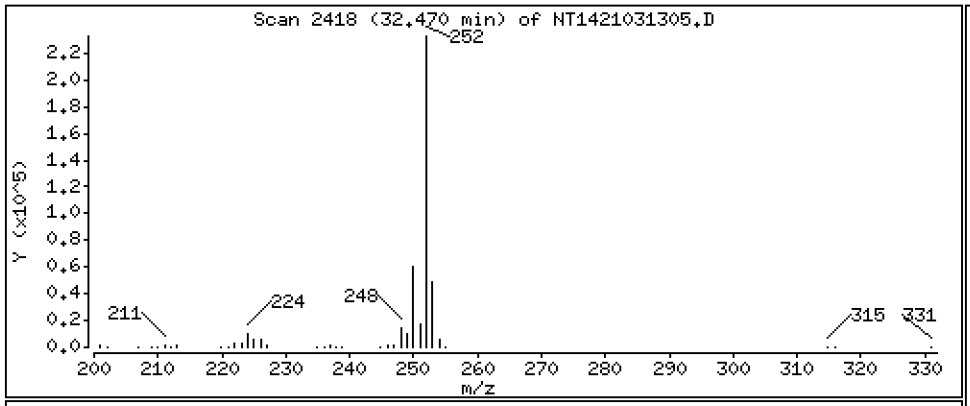
Operator: VTS

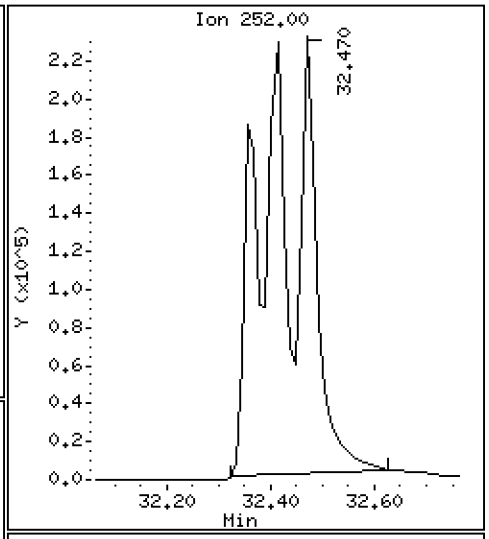
Column phase: Rxi-17Sil MS

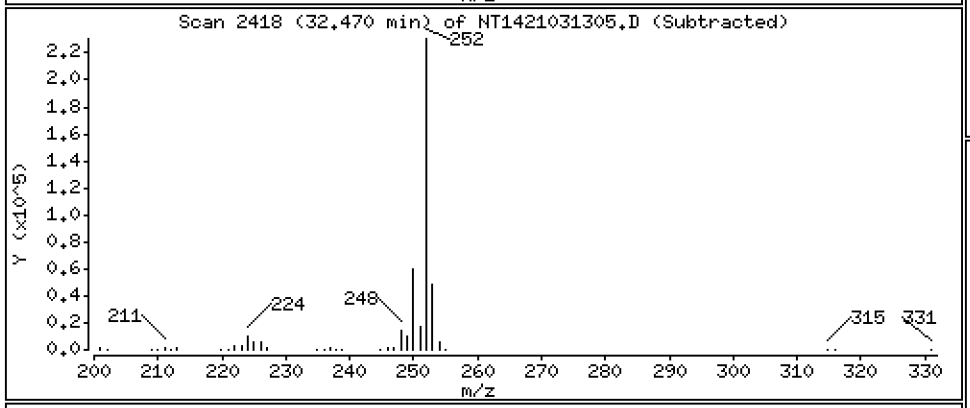
Column diameter: 0.25

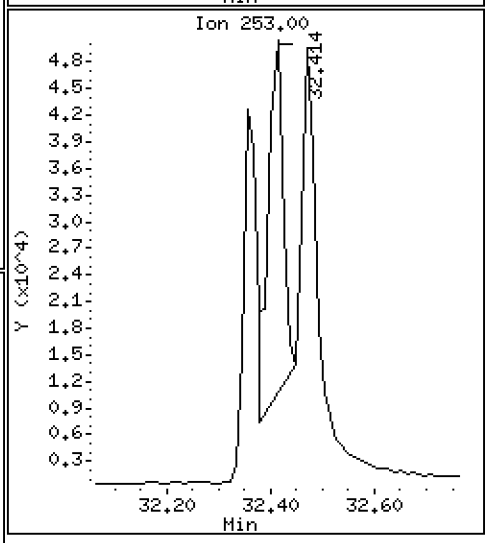
246 Total Benzofluoranthenes

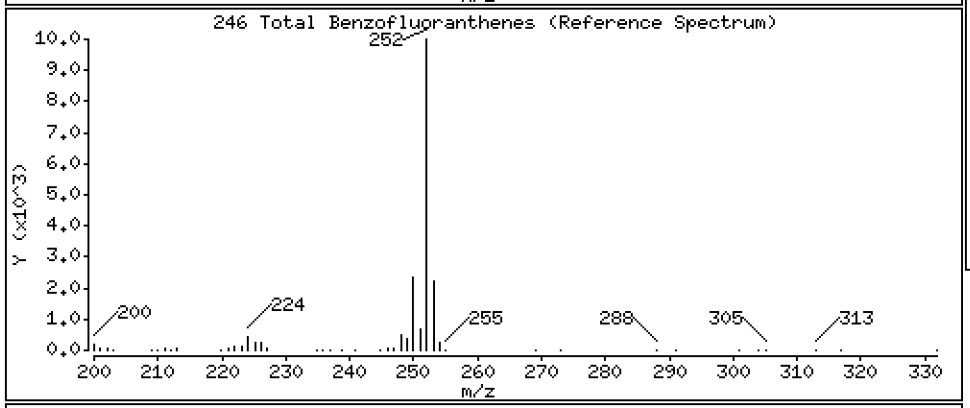
Concentration: 8.378 ug/mL

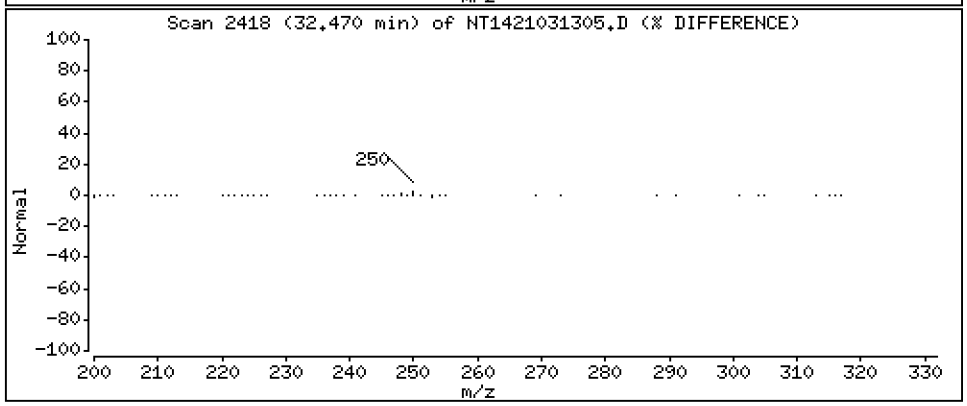












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031305.D

Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

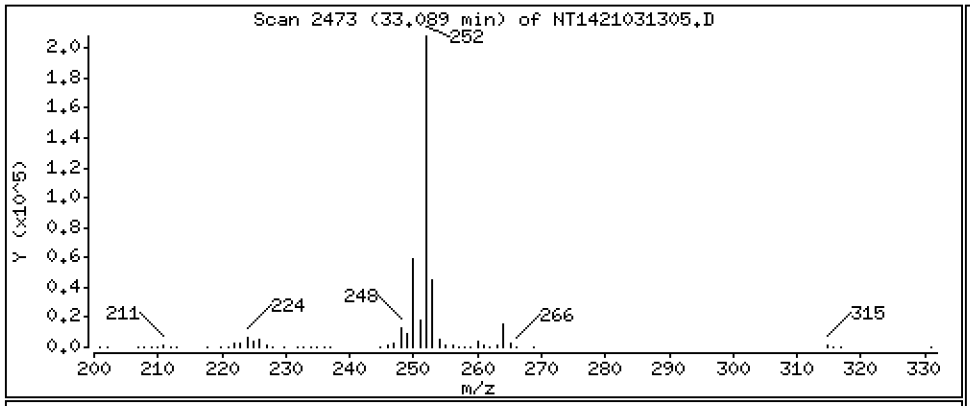
Operator: VTS

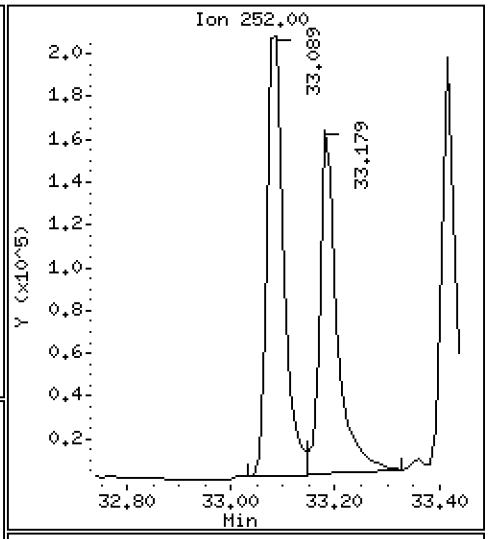
Column phase: Rxi-17Sil MS

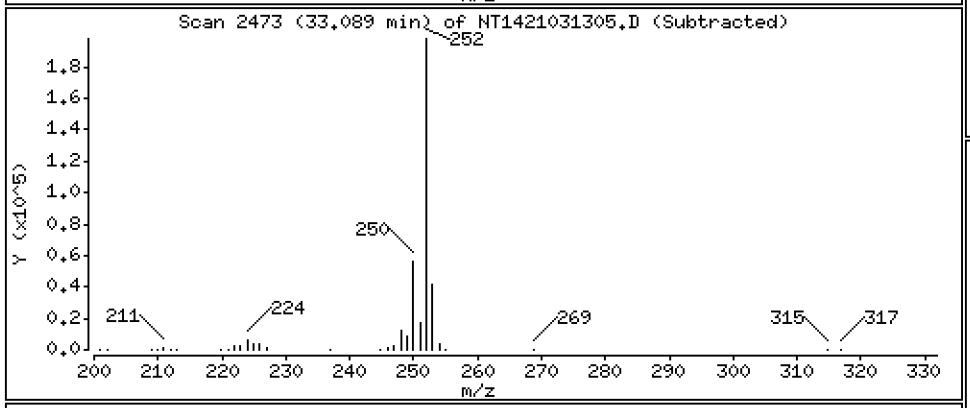
Column diameter: 0.25

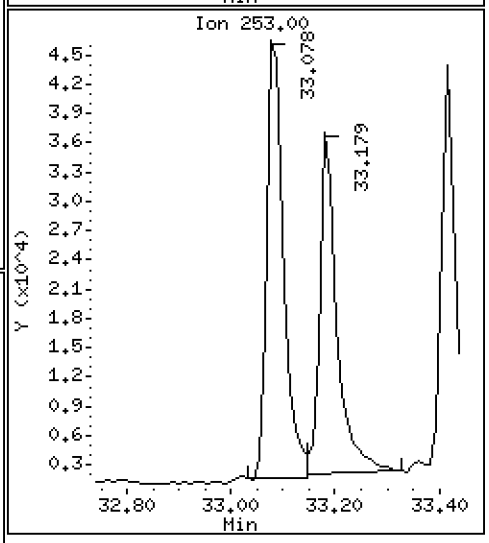
64 Benzo(e)pyrene

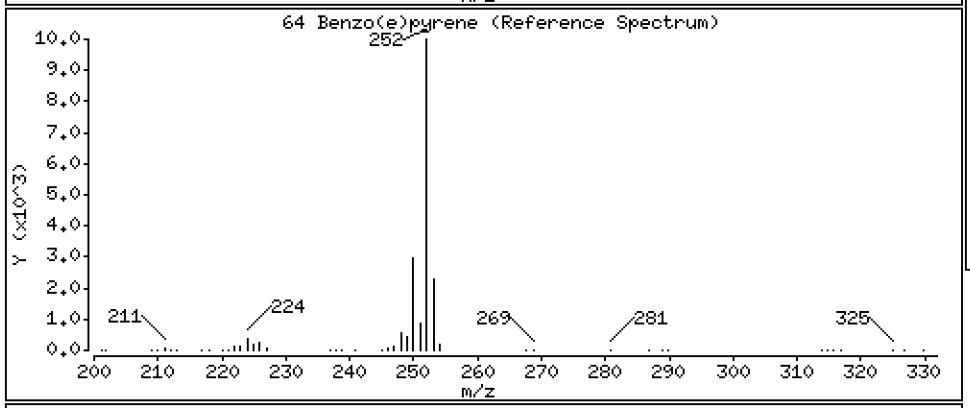
Concentration: 2.850 ug/mL

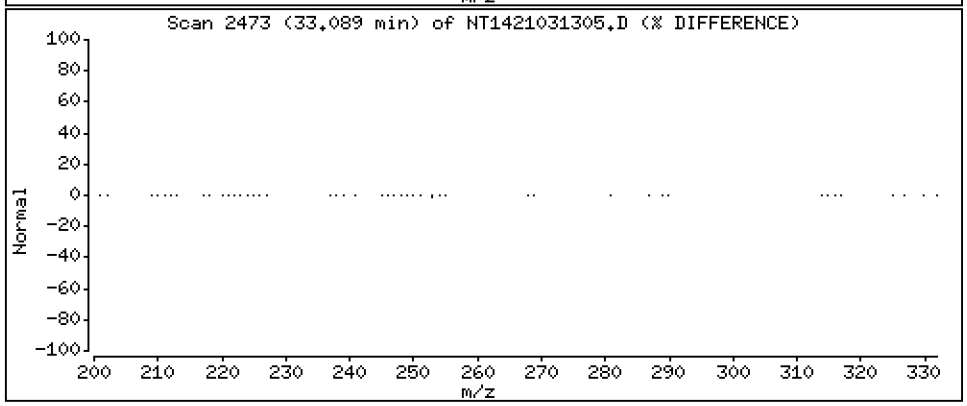












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031305.D

Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

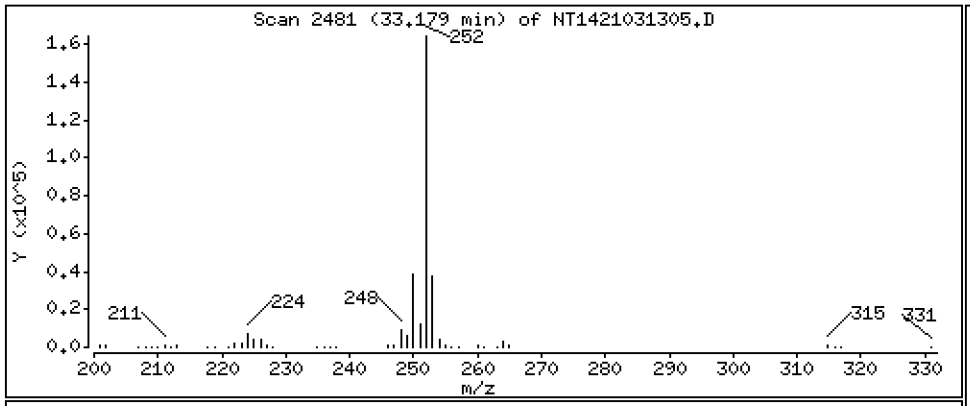
Operator: VTS

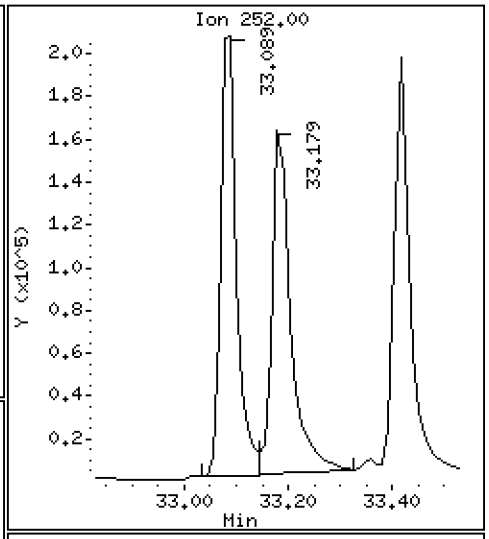
Column phase: Rxi-17Sil MS

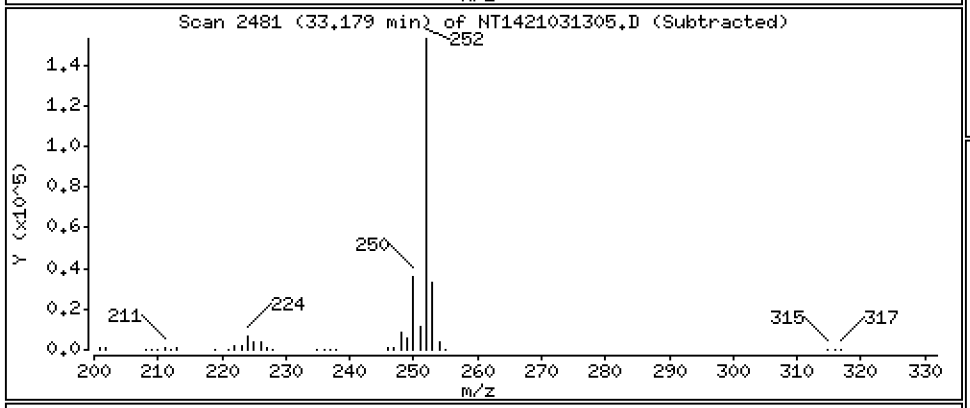
Column diameter: 0.25

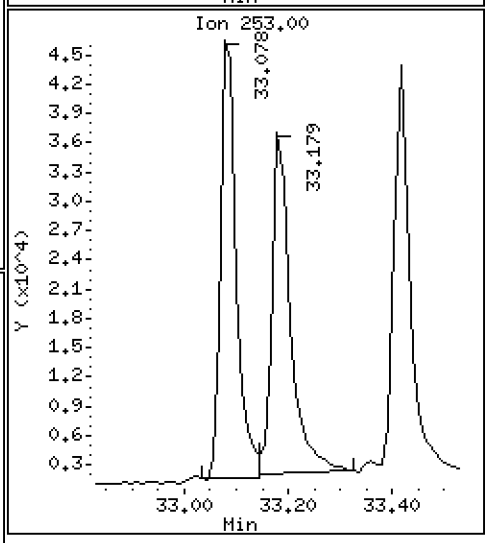
66 Benzo(a)pyrene

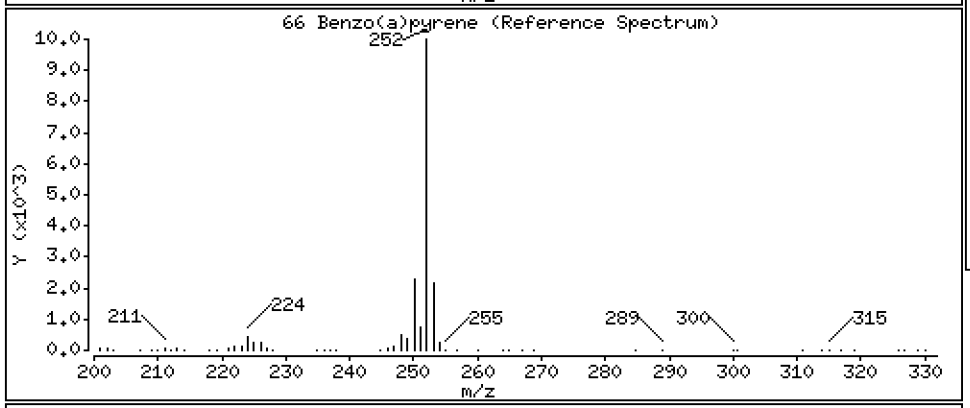
Concentration: 2.544 ug/mL

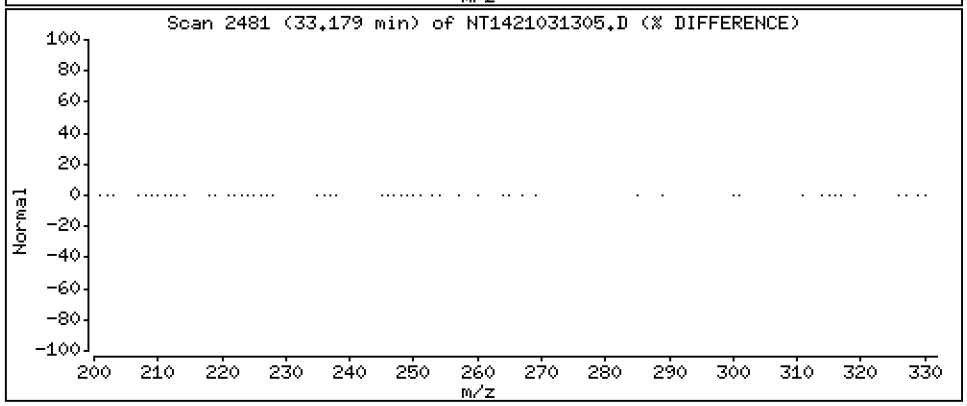












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Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

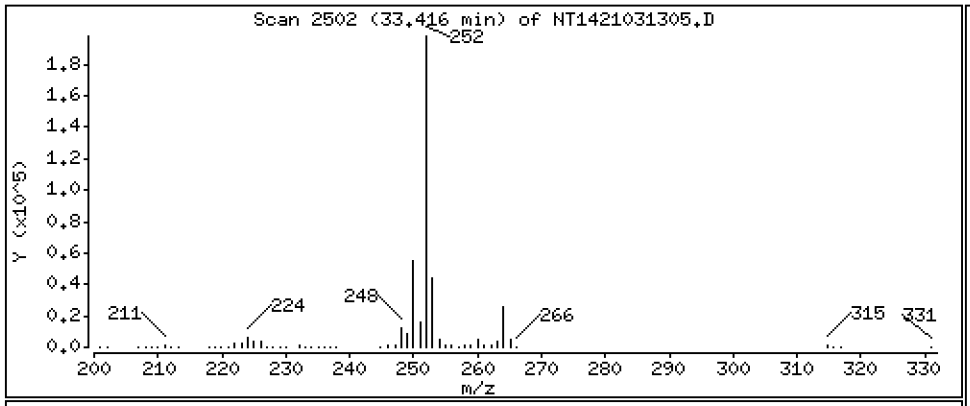
Operator: VTS

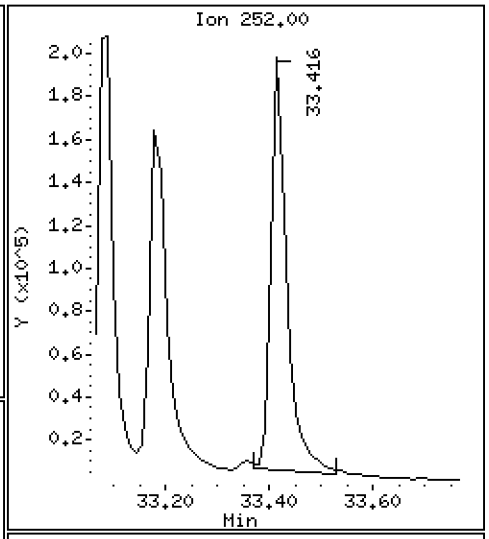
Column phase: Rxi-17Sil MS

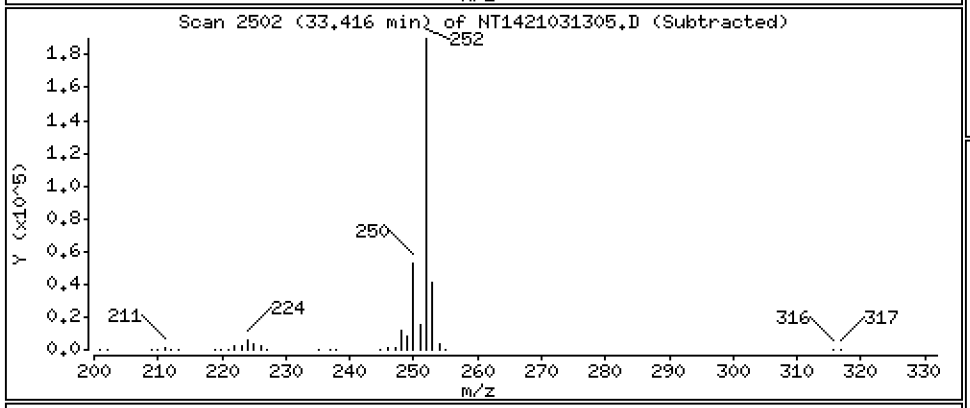
Column diameter: 0.25

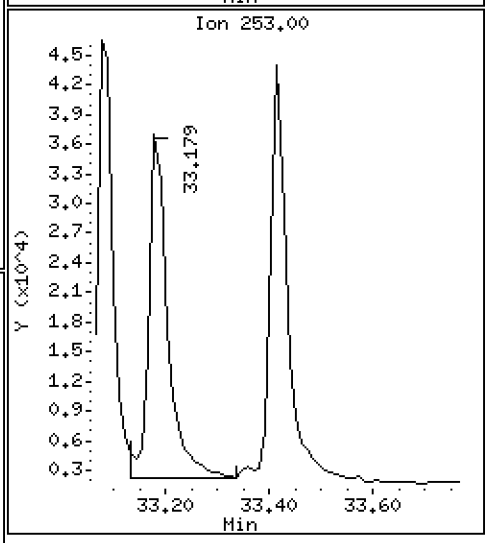
68 Perylene

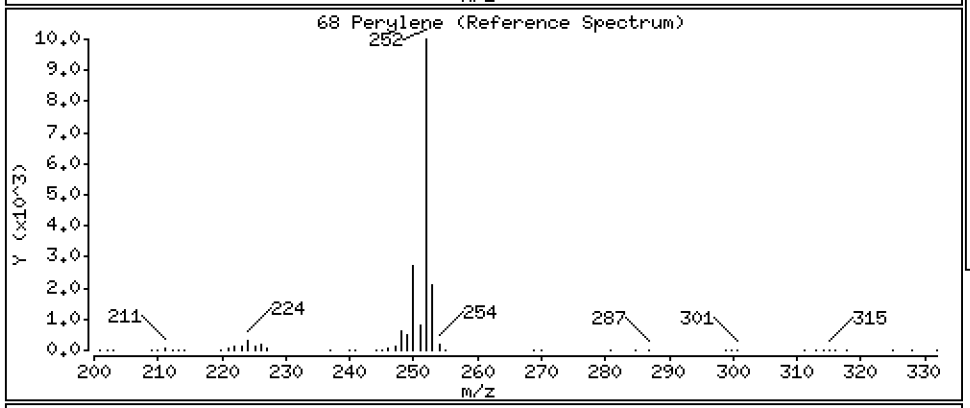
Concentration: 2.525 ug/mL

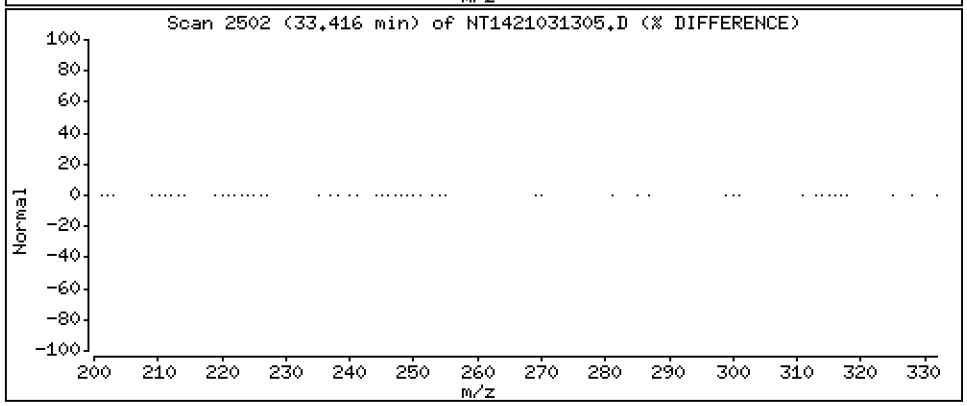












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Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

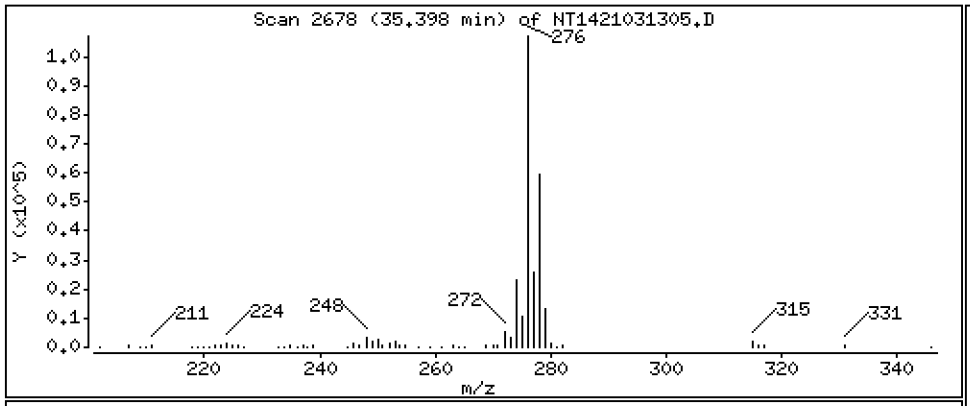
Operator: VTS

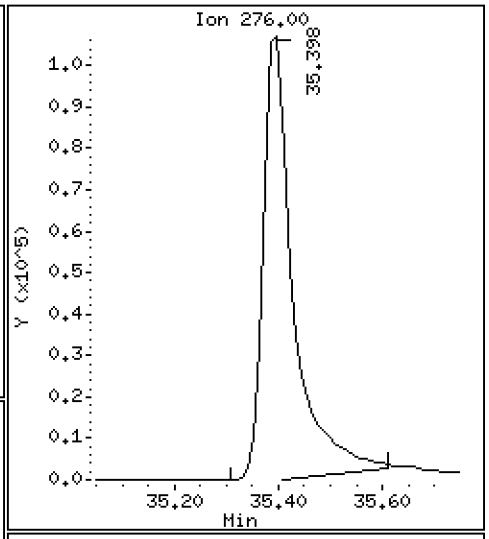
Column phase: Rxi-17Sil MS

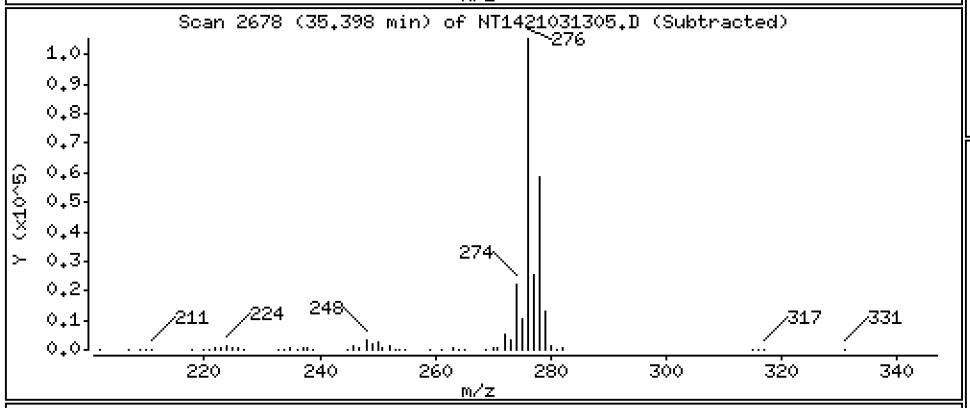
Column diameter: 0.25

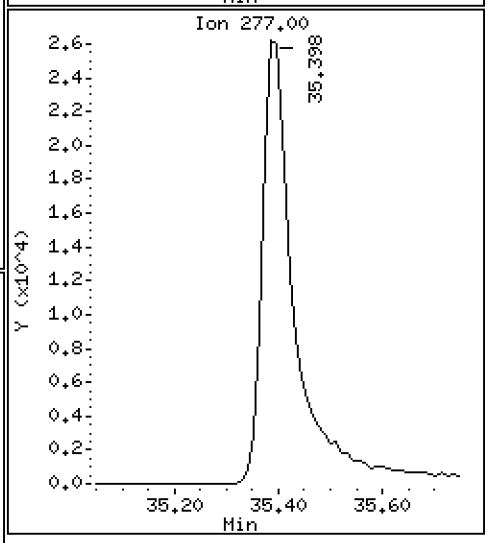
69 Indeno(1,2,3-cd)pyrene

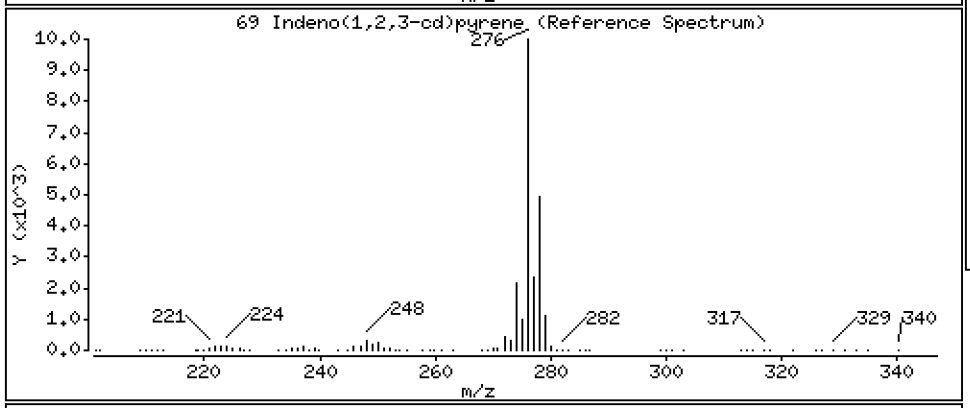
Concentration: 2.613 ug/mL

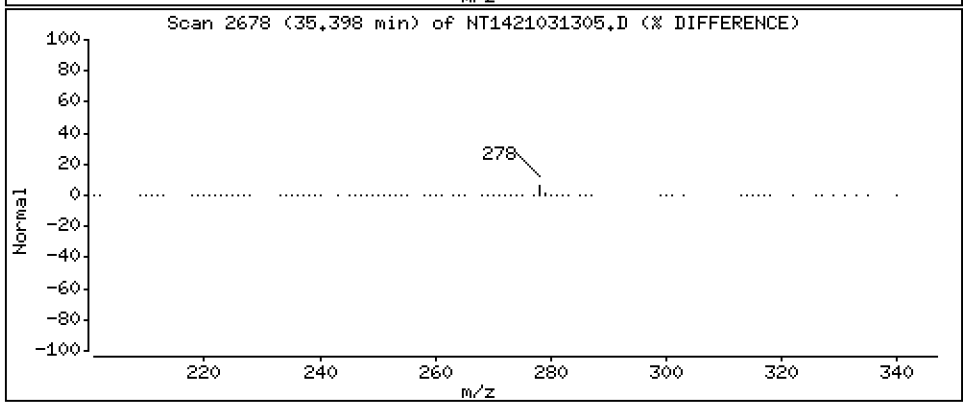












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031305.D

Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

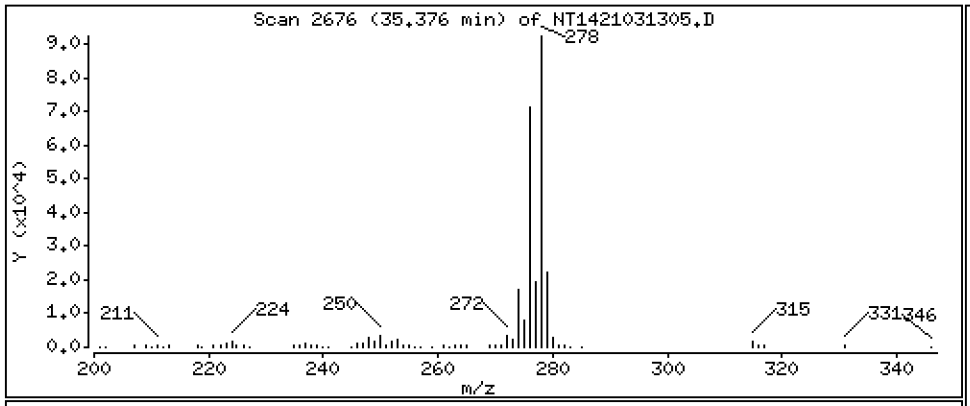
Operator: VTS

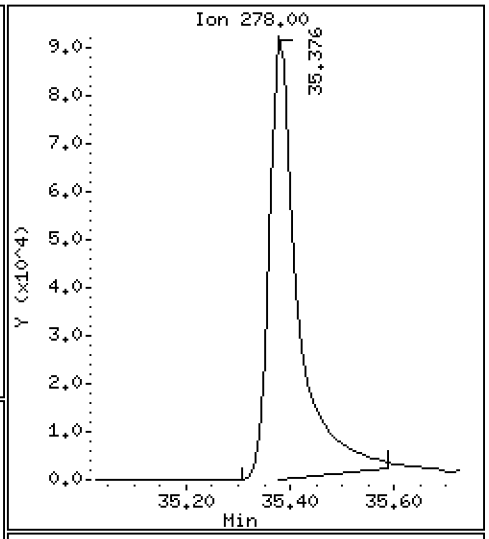
Column phase: Rxi-17Sil MS

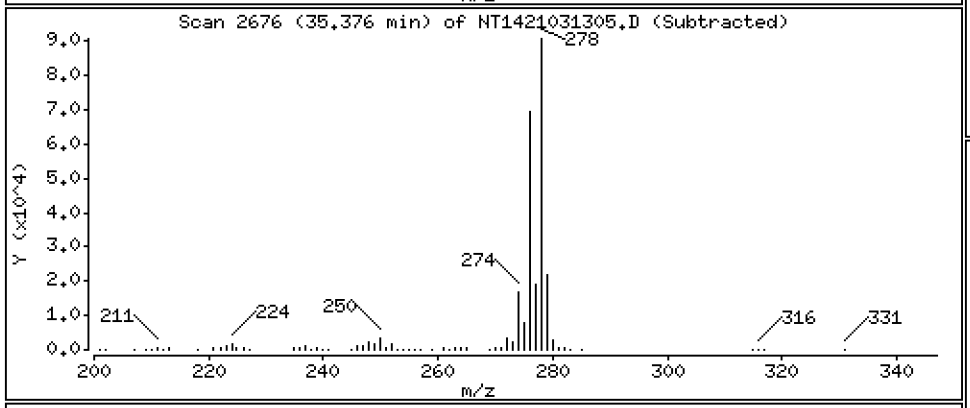
Column diameter: 0.25

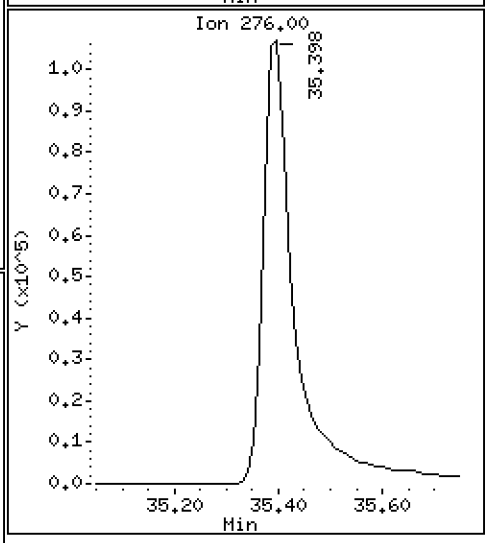
70 Dibenzo(a,h)anthracene

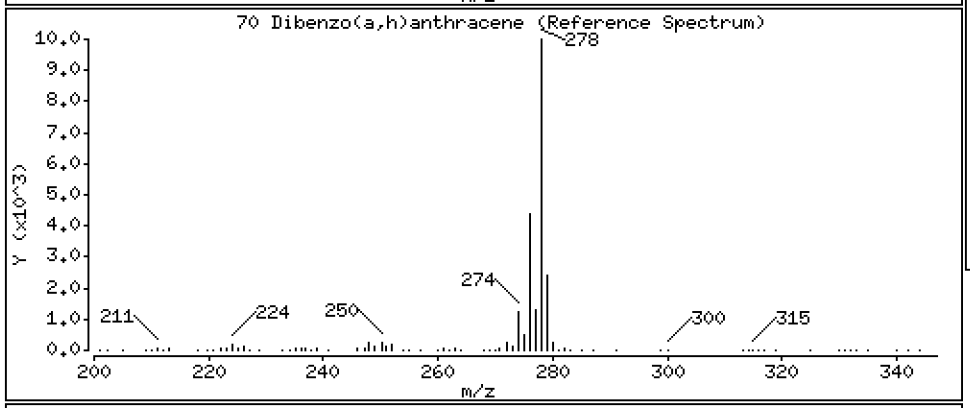
Concentration: 2.219 ug/mL

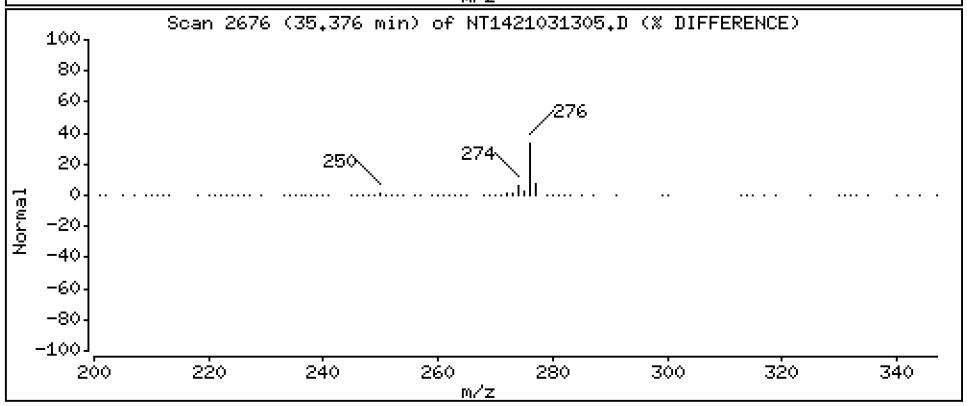












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031305.D

Date : 13-MAR-2021 13:58

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-BS1

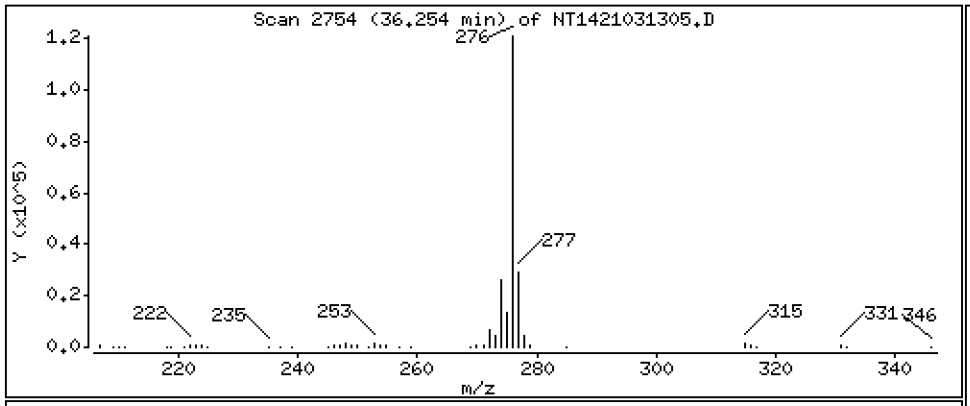
Operator: VTS

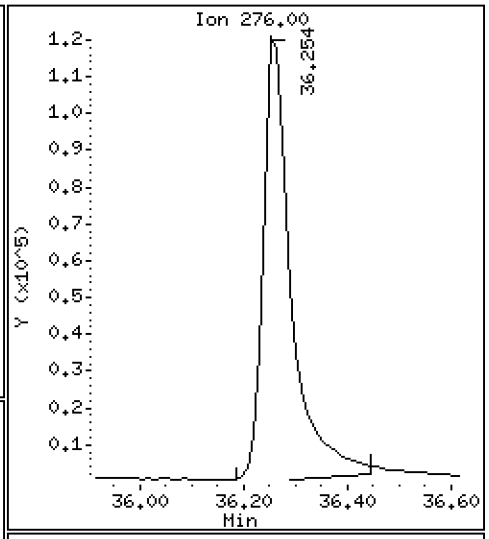
Column phase: Rxi-17Sil MS

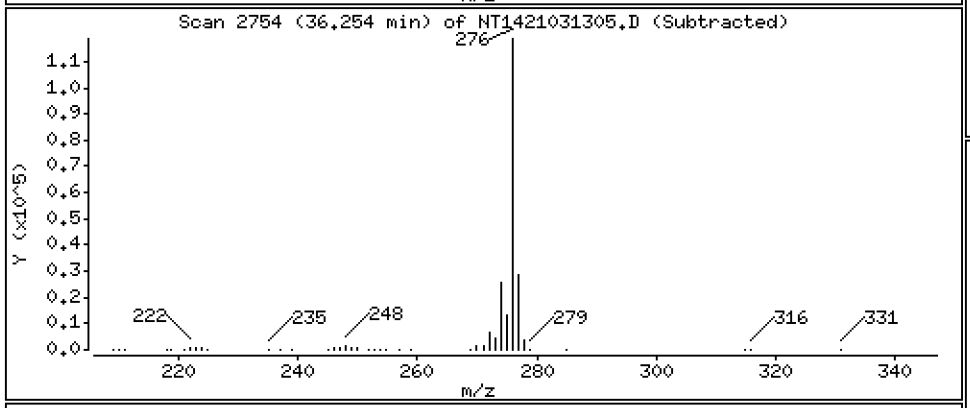
Column diameter: 0.25

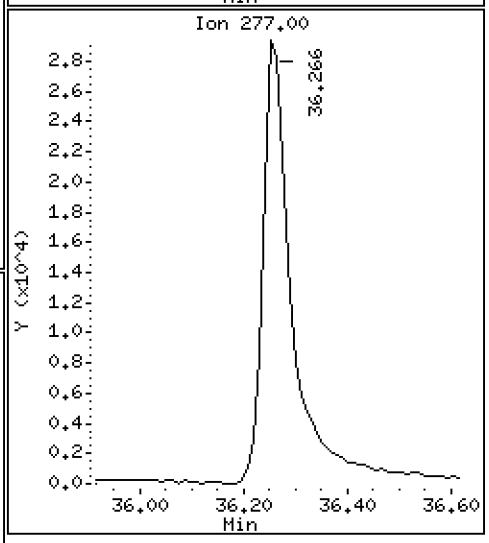
74 Benzo(g,h,i)perylene

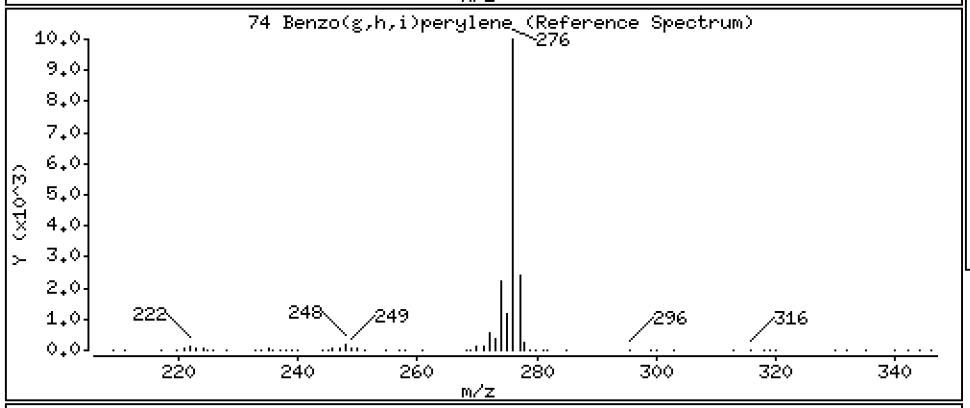
Concentration: 2.698 ug/mL

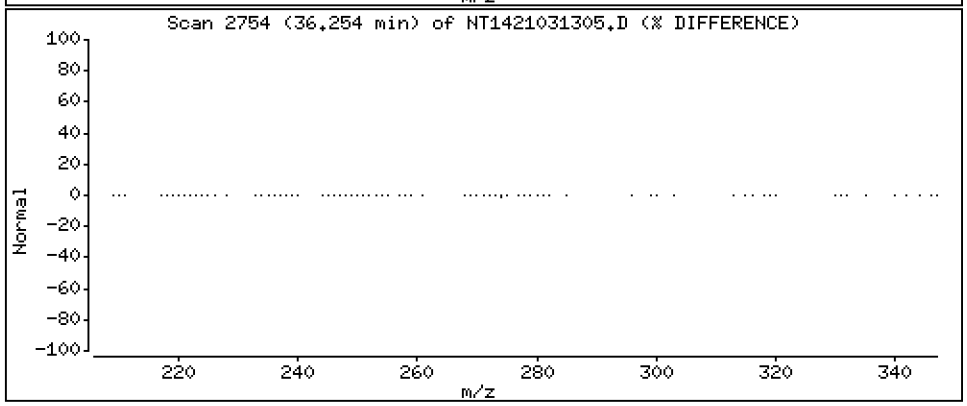












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210313.b\NT1421031305.D
Lab Smp Id: BJC0107-BS1
Inj Date : 13-MAR-2021 13:58
Operator : VTS Inst ID: nt14.i
Smp Info : BJC0107-BS1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210313.b\ALKYLPNA.m
Meth Date : 13-Mar-2021 12:11 van Quant Type: ISTD
Cal Date : 07-JAN-2021 16:44 Cal File: NT1421010708.D
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
1 trans-Decalin	138	7.015	7.015	(0.374)	22136	1.25726	1.257
2 cis-Decalin	138	8.124	8.124	(0.434)	17590	1.38719	1.387
$ 6 Naphthalene-d8	136	11.733	11.744	(0.626)	217144	1.54568	1.546(R)
7 Naphthalene	128	11.799	11.810	(0.630)	238114	1.69308	1.693
12 Benzo(b)thiophene	134	12.250	12.261	(0.654)	188368	1.61954	1.620
16 2-Methylnaphthalene	141	13.634	13.634	(0.728)	144873	1.80191	1.802
17 1-methylnaphthalene	141	14.085	14.085	(0.752)	141655	1.81828	1.818
18 Biphenyl	154	15.272	15.283	(0.815)	225026	1.90323	1.903
19 2,6-Dimethylnaphthalene	156	15.349	15.360	(0.819)	162689	1.88050	1.880
20 Acenaphthylene	152	16.920	16.920	(0.903)	265146	1.80301	1.803
$ 21 Acenaphthene-d10	164	17.206	17.206	(0.918)	155473	2.09537	2.095(R)
22 Acenaphthene	153	17.316	17.316	(0.924)	195047	2.06293	2.063
23 Dibenzofuran	168	17.690	17.701	(0.944)	286745	2.11924	2.119
24 1,6,7-Trimethylnaphthalene	170	17.920	17.920	(0.956)	194994	2.24433	2.244
* 25 Fluorene-d10	176	18.741	18.741	(1.000)	303644	2.00000	
26 Fluorene	166	18.843	18.843	(1.005)	230910	2.25191	2.252
30 Dibenzothiophene	184	21.757	21.757	(1.161)	416095	2.96586	2.966
$ 35 Phenanthrene-d10	188	22.066	22.066	(0.995)	334173	2.50936	2.509(R)
36 Phenanthrene	178	22.143	22.143	(0.999)	402259	2.77451	2.775
* 250 Anthracene-d10	188	22.176	22.176	(1.000)	290875	2.00000	
37 Anthracene	178	22.242	22.242	(1.003)	352208	2.62697	2.627
42 Carbazole	167	23.528	23.528	(1.061)	372063	3.31970	3.320
43 1-Methylphenanthrene	192	23.979	23.979	(1.081)	321029	3.11711	3.117
44 Fluoranthene	202	25.947	25.947	(1.170)	518662	3.27375	3.274
46 Pyrene	202	26.805	26.805	(1.209)	552297	3.32197	3.322
51 Naphthobenzothiophene	234	29.348	29.348	(1.323)	437098	3.67149	3.671
55 Benzo(a)anthracene	228	29.935	29.935	(0.907)	451391	2.72597	2.726
$ 56 Chrysene-d12	240	30.059	30.059	(0.910)	353324	2.76518	2.765(R)
57 Chrysene	228	30.138	30.138	(0.913)	458051	2.76858	2.769(M)
62 Benzo(b)fluoranthene	252	32.357	32.368	(0.980)	353302	2.17233	2.172
63 Benzo(k)fluoranthene	252	32.413	32.413	(0.982)	579377	3.41165	3.412(M)
293 Benzo(j)fluoranthene	252	32.469	32.469	(0.983)	574652	3.50651	3.507(M)
246 Total Benzofluoranthenes	252	32.469	32.413	(0.983)	1360528	8.37824	8.378(M)
* 251 Benzo(e)pyrene-d12	264	33.021	33.021	(1.000)	405774	2.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
	64 Benzo(e)pyrene	252	33.089	33.089	(1.002)	449812	2.84999	2.850
	66 Benzo(a)pyrene	252	33.179	33.179	(1.005)	377784	2.54379	2.544
$	67 Perylene-d12	264	33.359	33.359	(1.010)	354789	2.58851	2.589(RM)
	68 Perylene	252	33.415	33.416	(1.012)	380356	2.52455	2.525(M)
	69 Indeno(1,2,3-cd)pyrene	276	35.398	35.398	(1.072)	423686	2.61343	2.613(M)
	70 Dibenzo(a,h)anthracene	278	35.375	35.375	(1.071)	342518	2.21898	2.219(M)
	74 Benzo(g,h,i)perylene	276	36.254	36.265	(1.098)	440421	2.69790	2.698(M)

QC Flag Legend

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

Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031305.D Page 1
Report Date: 16-Mar-2021 15:32

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421031305.D
Lab Smp Id: BJC0107-BS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210313.b\ALKYLPNA.m
Misc Info:

Calibration Date: 13-MAR-2021
Calibration Time: 11:19
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	366886	183443	733772	303644	-17.24
250 Anthracene-d10	368886	184443	737772	290875	-21.15
251 Benzo(e)pyrene-d1	446096	223048	892192	405774	-9.04

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.74	18.24	19.24	18.74	-0.00
250 Anthracene-d10	22.18	21.68	22.68	22.18	-0.00
251 Benzo(e)pyrene-d1	33.02	32.52	33.52	33.02	-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 - NT1421031305.D

Lab ID: BJC0107-BS1
nt14.i, 20210313.b\ALKYLPNA.m, 13-MAR-2021 13:58

RT	CO-ELUTION COMPOUNDS
	NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

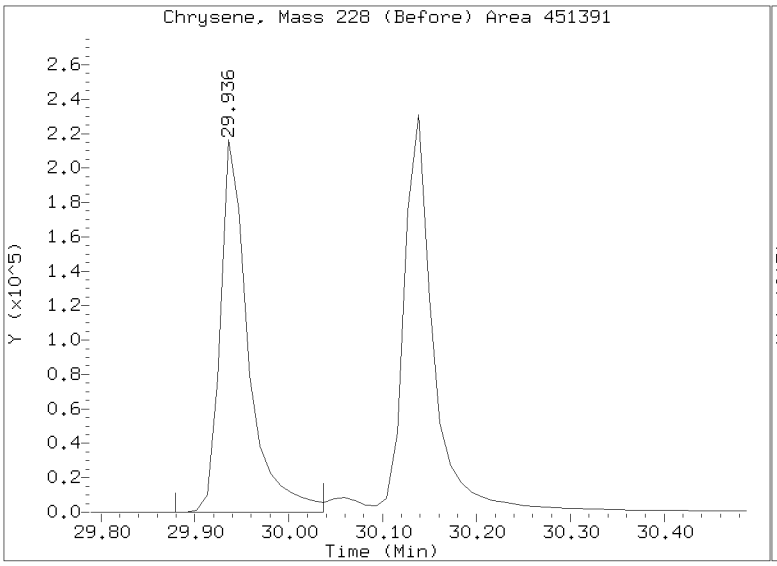
RRT check based on Ccal File: NT1421031302.D

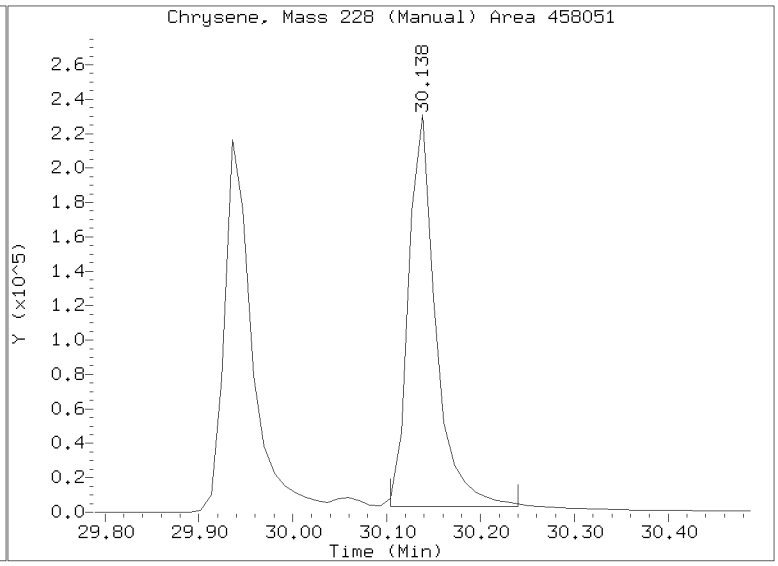
On Column LOD for nt14.i, 20210313.b\ALKYLPNA.m, TARGETS.sub = 0.0000

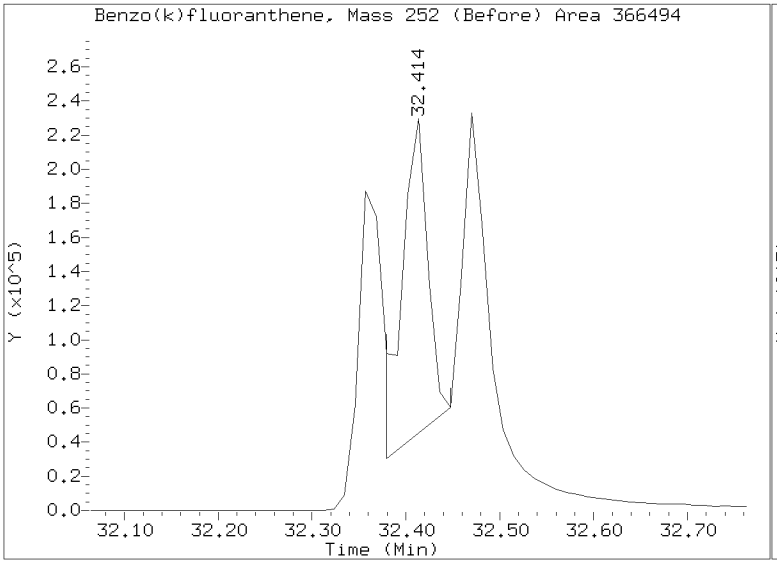
* Only compounds listed in the work order have been verified by the analyst *

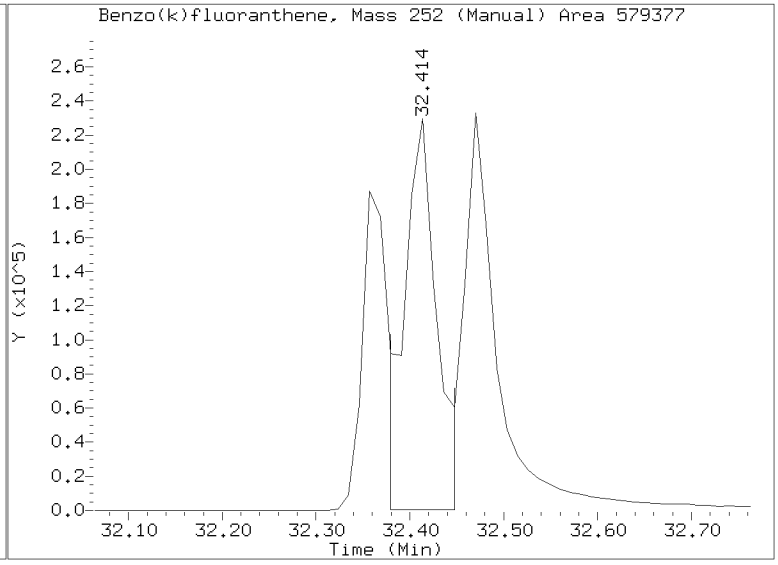
Quant Ion Manual Peak Adjustment Report

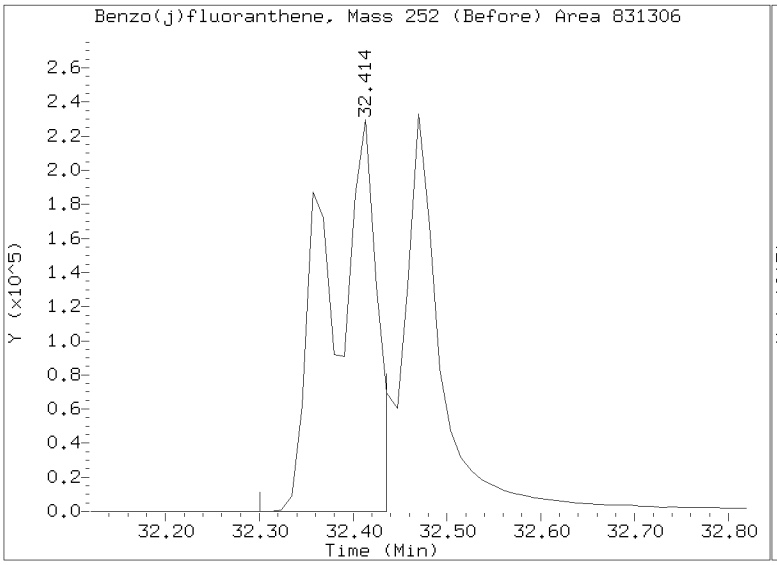
Datafile: //target/share/chem3/nt14.i/20210313.b/NT1421031305.D
Injection Date: 13-MAR-2021 13:58
Lab ID:BJC0107-BS1 Client ID:
Report Date: 03/16/2021 15:32

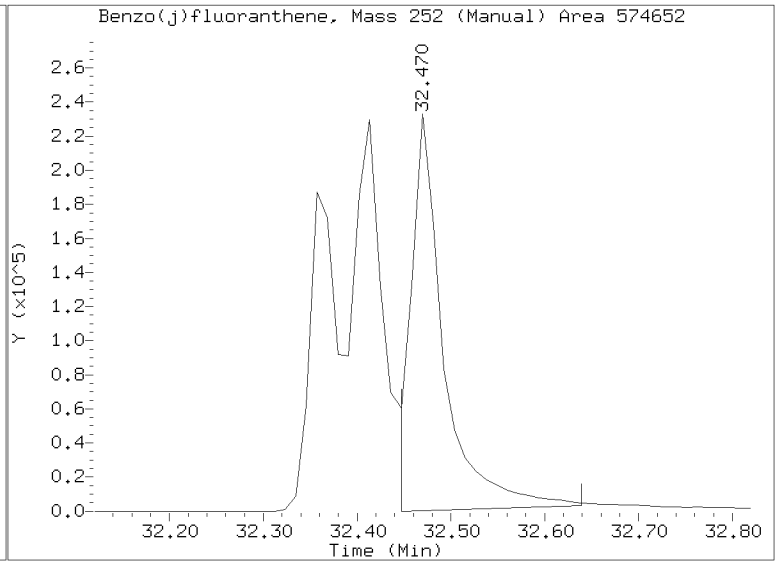






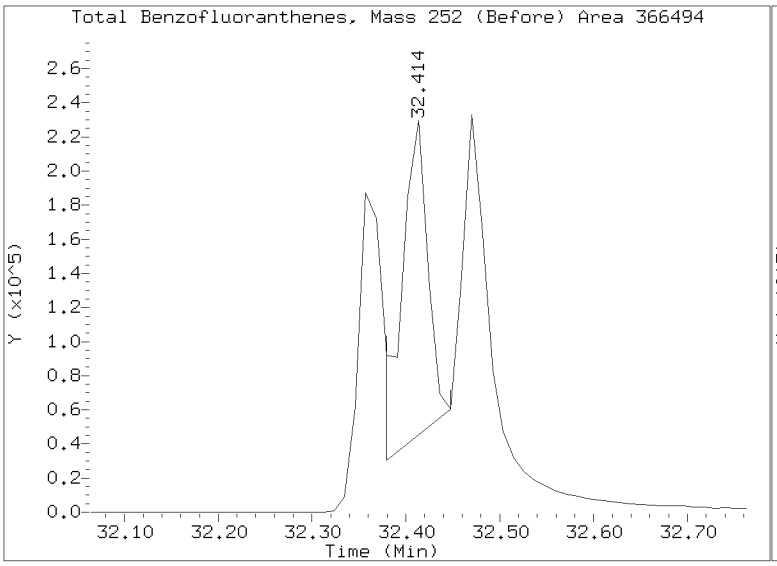


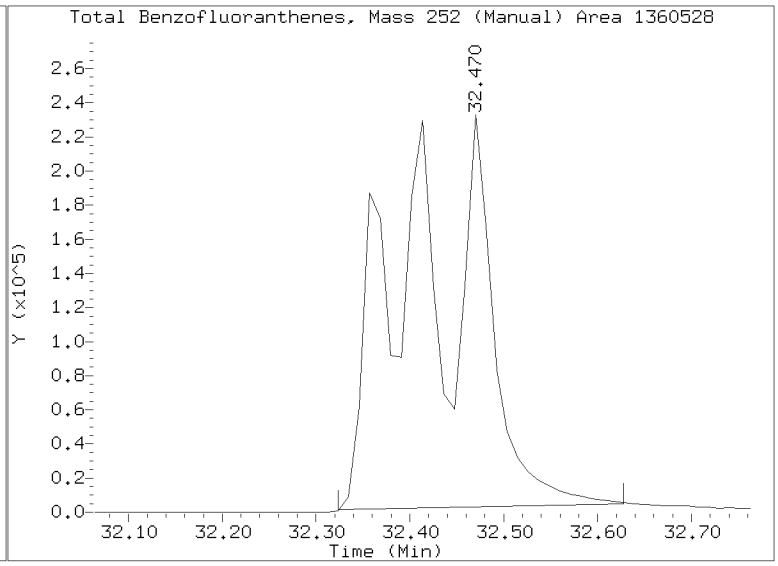


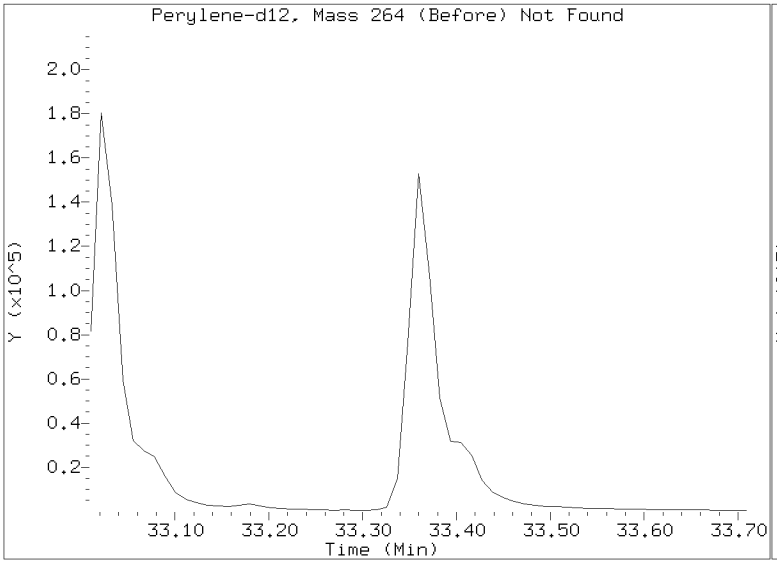


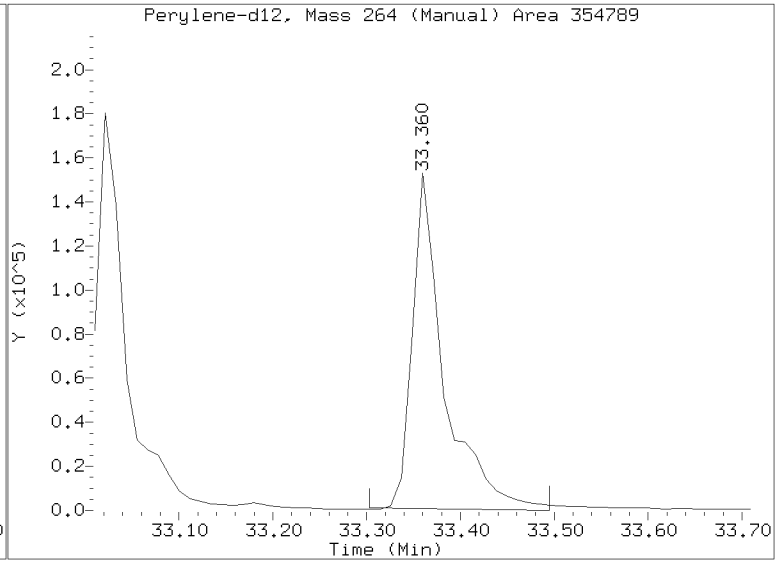
Quant Ion Manual Peak Adjustment Report

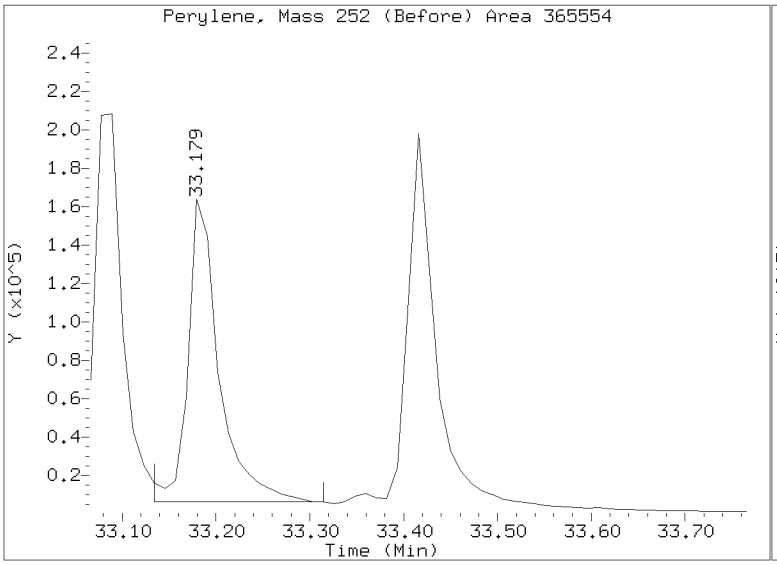
Datafile: //target/share/chem3/nt14.i/20210313.b/NT1421031305.D
Injection Date: 13-MAR-2021 13:58
Lab ID:BJC0107-BS1 Client ID:
Report Date: 03/16/2021 15:32

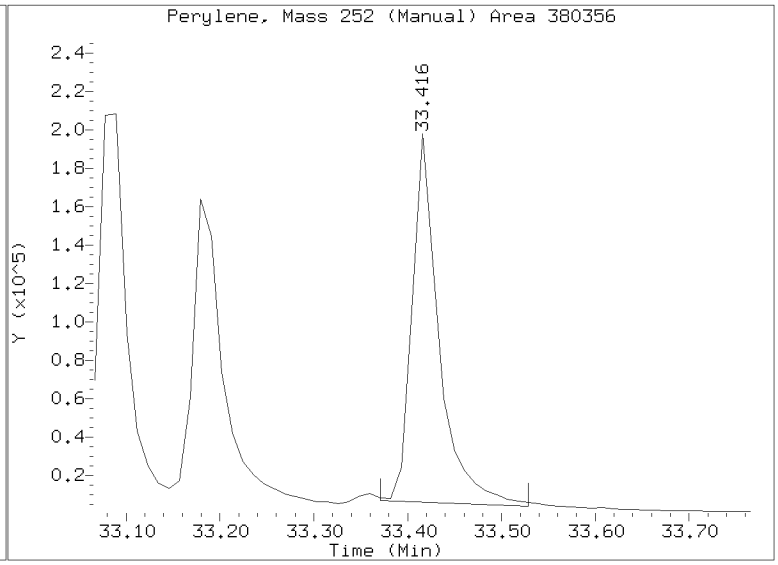






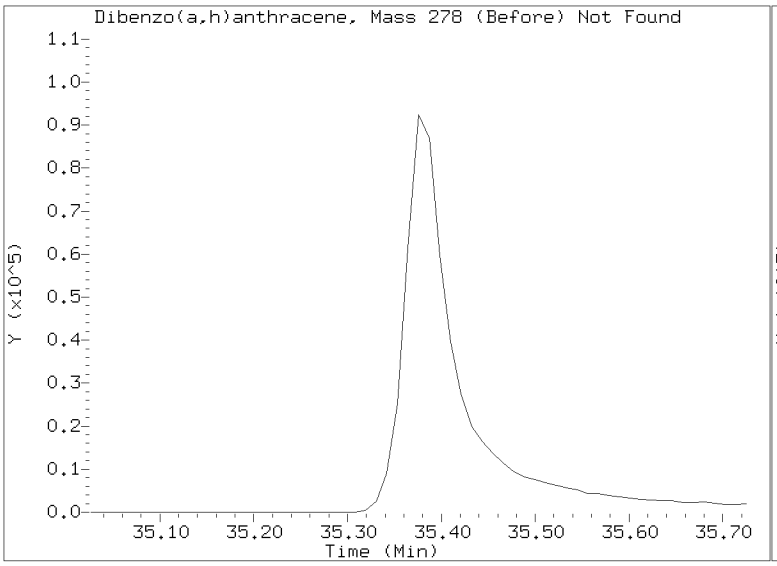


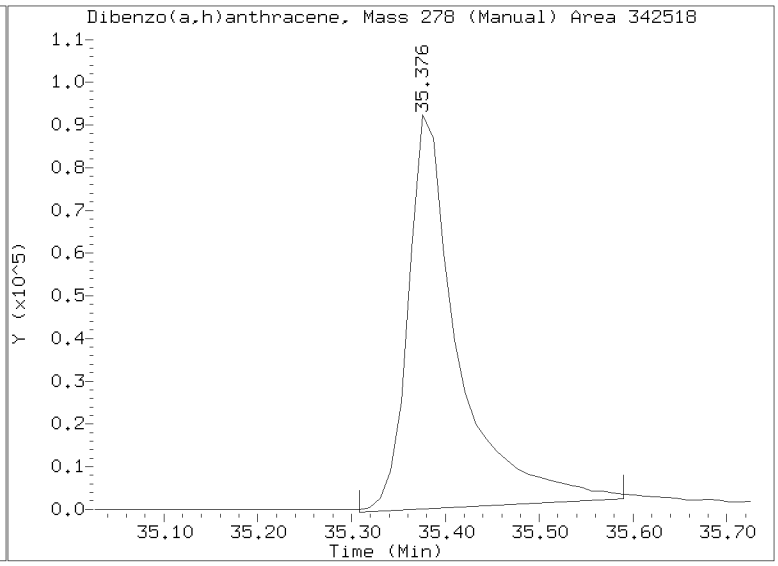


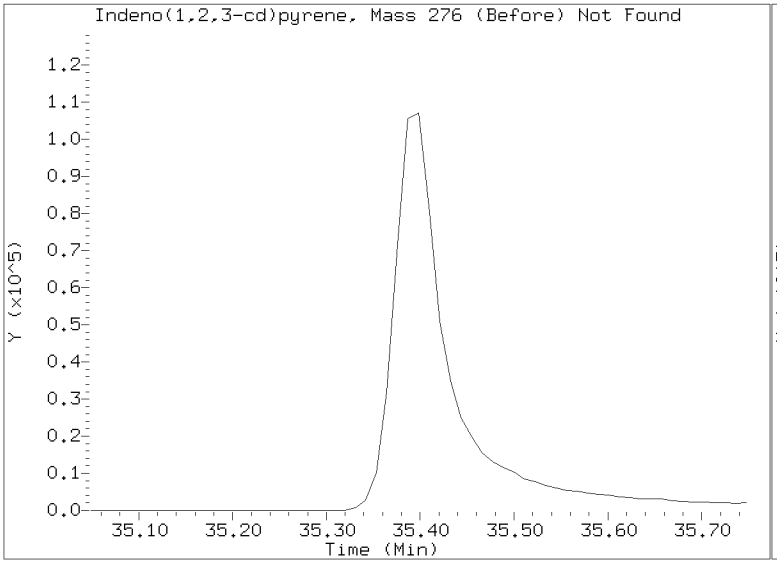


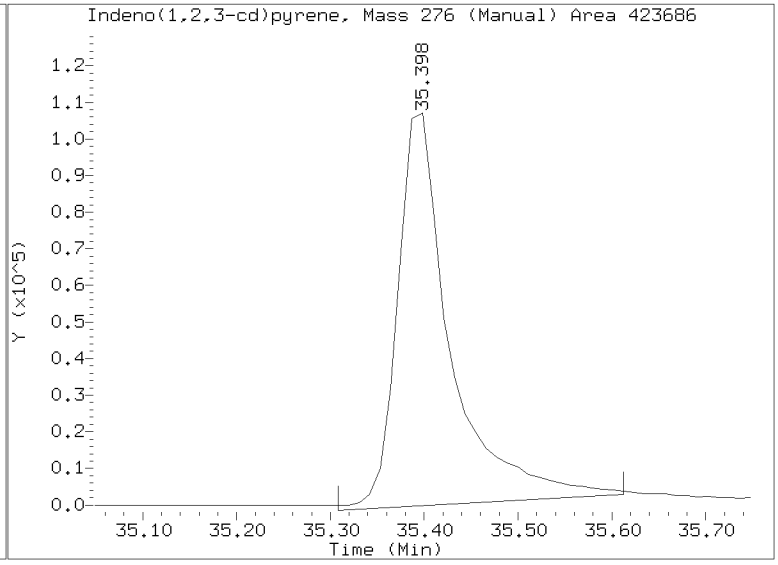
Quant Ion Manual Peak Adjustment Report

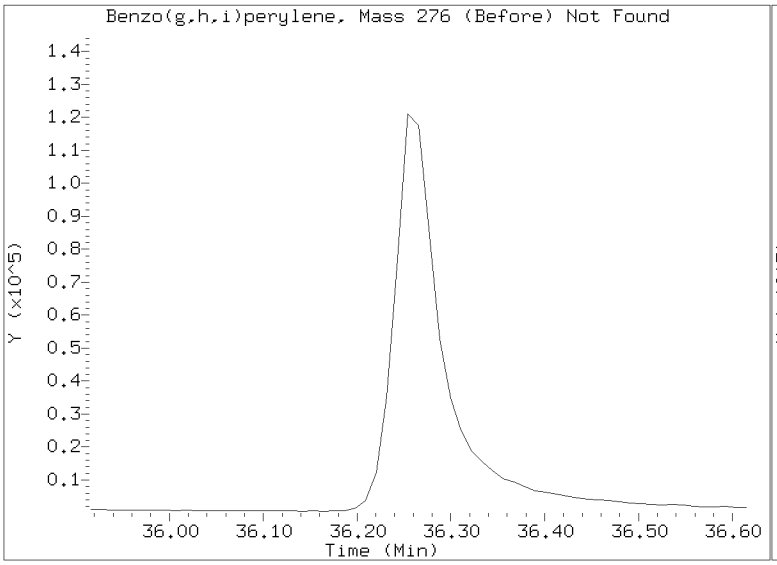
Datafile: //target/share/chem3/nt14.i/20210313.b/NT1421031305.D
Injection Date: 13-MAR-2021 13:58
Lab ID:BJC0107-BS1 Client ID:
Report Date: 03/16/2021 15:32

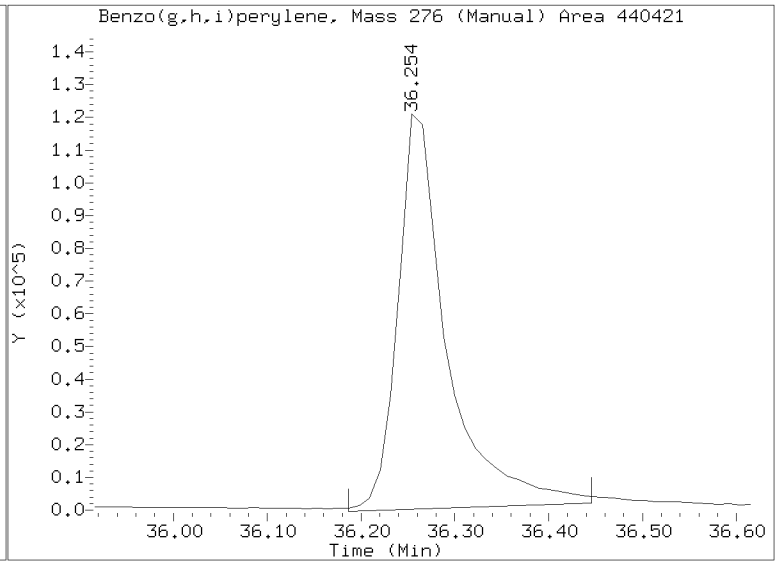












Analytical Resources, Incorporated
Analytical Chemists and Consultants

USMPDI-049SC-A-00-01-201104

MS / MS DUPLICATE RECOVERY
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Matrix:	Solid	Analyzed:	03/13/21 15:35
Batch:	BJC0107	Laboratory ID:	BJC0107-MS1
Preparation:	EPA 3546 (Microwave)	Sequence Name:	Matrix Spike
Initial/Final:	22.31 g / 0.5 mL	Source Sample:	USMPDI-049SC-A-00-01-201104

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	Q	MS CONCENTRATION (ug/kg dry)	Q	MS % REC. #	QC LIMITS REC.
trans-Decalin	150	ND	U	52.1	Q	34.8	30 - 160
cis-Decalin	150	ND	U	61.8		41.2	30 - 160
Naphthalene	150	298		510	*, E	142 *	37 - 120
1-Methylnaphthalene	150	65.3		147		54.2	30 - 160
2-Methylnaphthalene	150	150		213		42.3	37 - 120
Biphenyl	150	46.7		136		59.8	30 - 160
2,6-Dimethylnaphthalene	150	56.5		187		87.1	30 - 160
Acenaphthylene	150	69.5		164		63.1	35 - 120
Acenaphthene	150	171		261		60.2	39 - 120
Dibenzofuran	150	58.0		151		62.4	39 - 120
2,3,5-Trimethylnaphthalene	150	41.8		151		72.8	30 - 160
Fluorene	150	246		311		44.0	42 - 120
Benzo(b)thiophene	150	25.1		110		56.7	30 - 160
Phenanthrene	150	1250	E	1220	*, E	-21.1 *	47 - 120
Anthracene	150	774	E	518	*, E	-171 *	41 - 120
Carbazole	150	155		176	*	14.5 *	30 - 160
1-Methylphenanthrene	150	173		295		80.8	30 - 160
Fluoranthene	150	2050	E	1970	*, E	-52.3 *	52 - 120
Dibenzothiophene	150	181	Q	303	Q	81.4	30 - 160
Pyrene	150	2110	E	2060	*, E	-28.6 *	47 - 120
Benzo(a)anthracene	150	714	E	751	*, E	24.7 *	47 - 120
Chrysene	150	921	E	949	*, E	18.5 *	51 - 120
Benzo(b)fluoranthene	150	711	E	779	E	45.1	35 - 127
Benzo(j)fluoranthene	150	419	Q	465	*, Q	30.7 *	40 - 120
Benzo(k)fluoranthene	150	415		495		53.7	37 - 129
Benzo(e)pyrene	150	739	E	793	E	36.0	30 - 160
Benzo(a)pyrene	150	1000	E	1020	*, E	14.9 *	44 - 120
Indeno(1,2,3-cd)pyrene	150	755	E	849	E	62.3	41 - 120
Dibenzo(a,h)anthracene	150	122		237		77.1	42 - 120
Benzo(g,h,i)perylene	150	967	E	1010	*, E	25.6 *	37 - 120

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

USMPDI-049SC-A-00-01-201104

MS / MS DUPLICATE RECOVERY
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Matrix:	Solid	Analyzed:	03/13/21 15:35
Batch:	BJC0107	Laboratory ID:	BJC0107-MS1
Preparation:	EPA 3546 (Microwave)	Sequence Name:	Matrix Spike
Initial/Final:	22.31 g / 0.5 mL	Source Sample:	USMPDI-049SC-A-00-01-201104

COMPOUND	SPIKE ADDED (ug/kg dry)	SAMPLE CONCENTRATION (ug/kg dry)	Q	MS CONCENTRATION (ug/kg dry)	Q	MS % REC. #	QC LIMITS REC.
Perylene	150	426		516	E	60.1	30 - 160
Benzo(b)naphtho(2,1-d)thiophene	150	238		375		91.5	30 - 160

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

USMPDI-049SC-A-00-01-201104

MS / MS DUPLICATE RECOVERY
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Matrix:	Solid	Analyzed:	03/13/21 16:23
Batch:	BJC0107	Laboratory ID:	BJC0107-MSD1
Preparation:	EPA 3546 (Microwave)	Sequence Name:	Matrix Spike Dup
Initial/Final:	22.31 g / 0.5 mL	Source Sample:	USMPDI-049SC-A-00-01-201104

COMPOUND	SPIKE ADDED (ug/kg dry)	MSD CONCENTRATION (ug/kg dry)	Q	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
trans-Decalin	150	59.5	Q	39.7	13.1	30	30 - 160
cis-Decalin	150	68.1		45.4	9.71	30	30 - 160
Naphthalene	150	374	*	51.3	30.7 *	30	37 - 120
1-Methylnaphthalene	150	161		63.6	9.11	30	30 - 160
2-Methylnaphthalene	150	233		55.6	8.88	30	37 - 120
Biphenyl	150	145		65.4	5.95	30	30 - 160
2,6-Dimethylnaphthalene	150	210		103	11.7	30	30 - 160
Acenaphthylene	150	185		77.4	12.2	30	35 - 120
Acenaphthene	150	286		76.8	9.06	30	39 - 120
Dibenzofuran	150	167		72.8	9.84	30	39 - 120
2,3,5-Trimethylnaphthalene	150	160		78.9	5.91	30	30 - 160
Fluorene	150	373		84.8	17.9	30	42 - 120
Benzo(b)thiophene	150	106		54.3	3.35	30	30 - 160
Phenanthrene	150	1360	E	72.2	10.9	30	47 - 120
Anthracene	150	985	*, E	141 *	62.0 *	30	41 - 120
Carbazole	150	303	*	98.7	52.6 *	30	30 - 160
1-Methylphenanthrene	150	323		100	9.35	30	30 - 160
Fluoranthene	150	2160	E	72.7	9.07	30	52 - 120
Dibenzothiophene	150	332	Q	101	9.06	30	30 - 160
Pyrene	150	2270	E	112	9.70	30	47 - 120
Benzo(a)anthracene	150	833	E	79.8	10.4	30	47 - 120
Chrysene	150	1040	E	79.7	9.22	30	51 - 120
Benzo(b)fluoranthene	150	885	E	116	12.8	30	35 - 127
Benzo(j)fluoranthene	150	515	Q, E	64.1	10.2	30	40 - 120
Benzo(k)fluoranthene	150	562	E	98.4	12.7	30	37 - 129
Benzo(e)pyrene	150	888	E	99.7	11.3	30	30 - 160
Benzo(a)pyrene	150	1150	E	95.1	11.1	30	44 - 120
Indeno(1,2,3-cd)pyrene	150	966	*, E	140 *	12.9	30	41 - 120
Dibenzo(a,h)anthracene	150	270		98.7	12.8	30	42 - 120
Benzo(g,h,i)perylene	150	1130	E	109	11.7	30	37 - 120
Perylene	150	552	E	84.5	6.84	30	30 - 160

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

USMPDI-049SC-A-00-01-201104

MS / MS DUPLICATE RECOVERY
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Matrix:	Solid	Analyzed:	03/13/21 16:23
Batch:	BJC0107	Laboratory ID:	BJC0107-MSD1
Preparation:	EPA 3546 (Microwave)	Sequence Name:	Matrix Spike Dup
Initial/Final:	22.31 g / 0.5 mL	Source Sample:	USMPDI-049SC-A-00-01-201104

COMPOUND	SPIKE ADDED (ug/kg dry)	MSD CONCENTRATION (ug/kg dry)	Q	MSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Benzo(b)naphtho(2,1-d)thiophene	150	418		120	10.9	30	30 - 160

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031307.D

Date : 13-MAR-2021 15:35

Client ID:

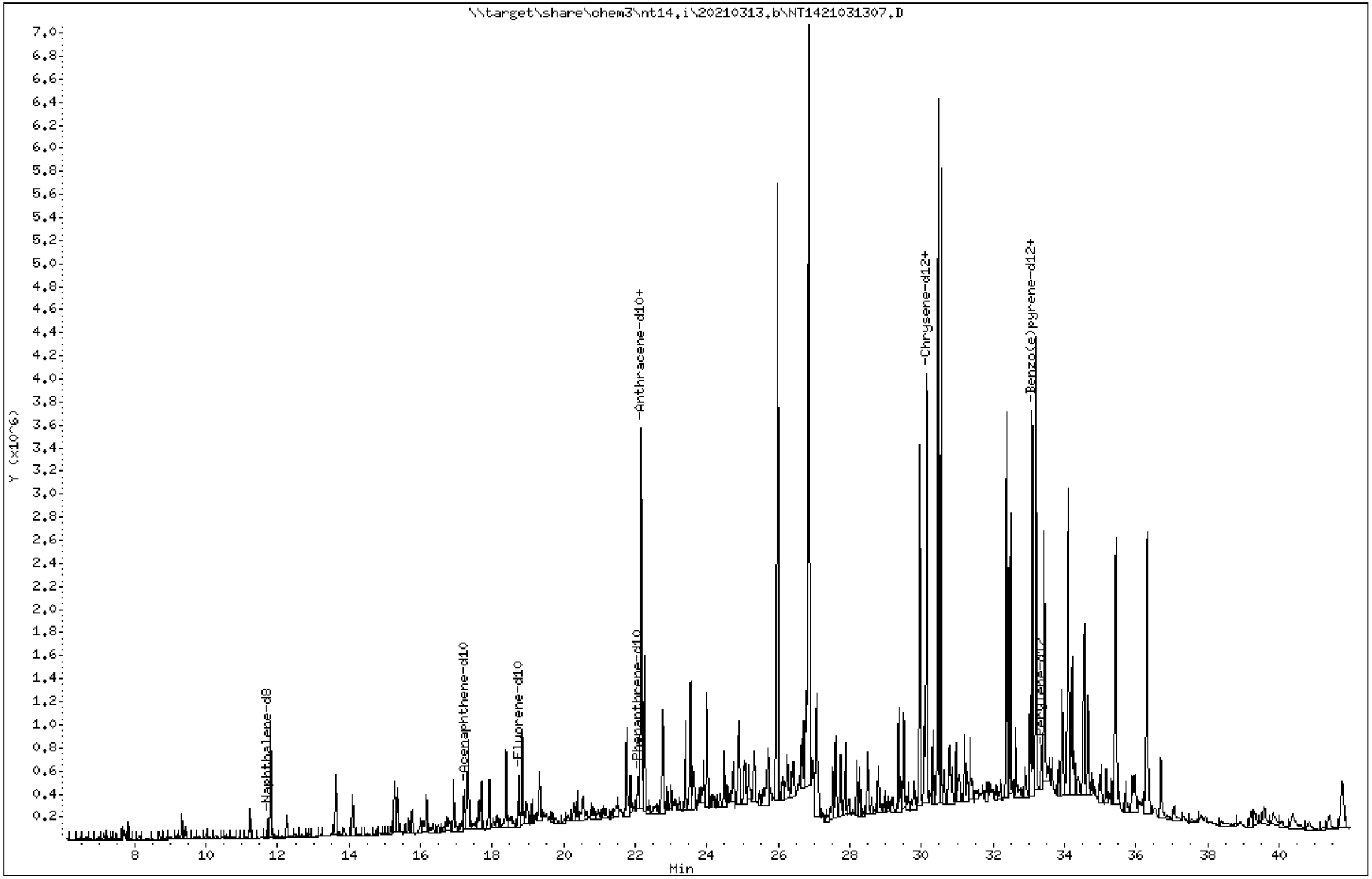
Instrument: nt14.i

Sample Info: BJC0107-MS1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

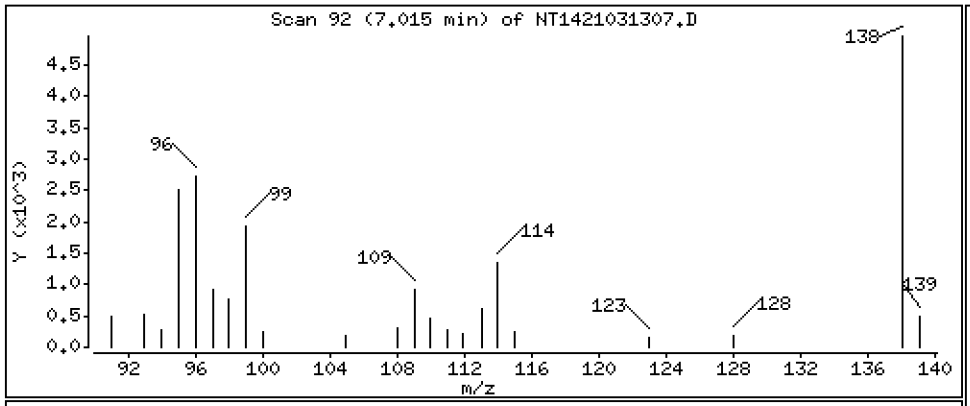
Operator: VTS

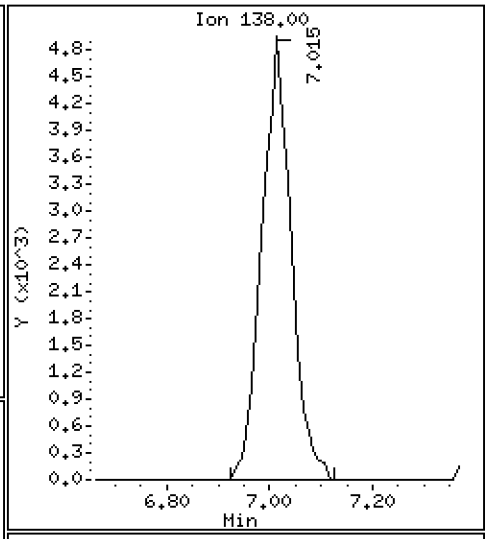
Column phase: Rxi-17Sil MS

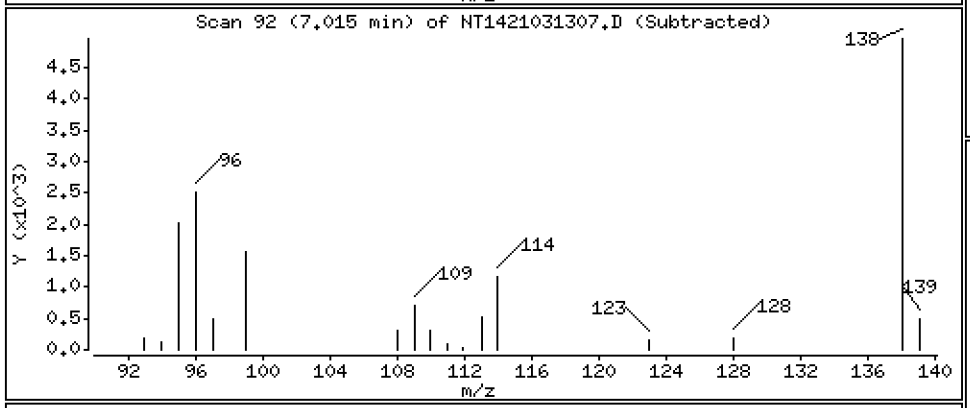
Column diameter: 0.25

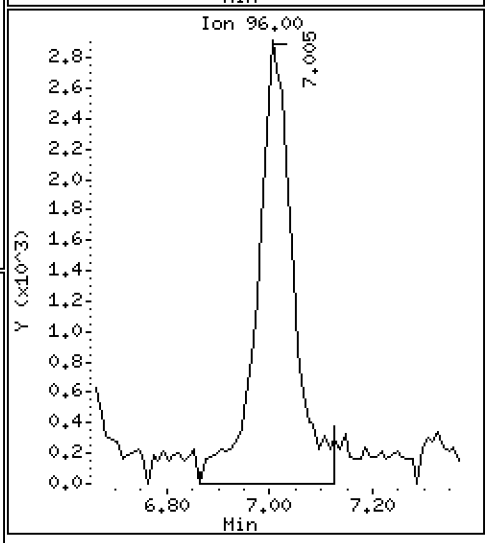
1 trans-Decalin

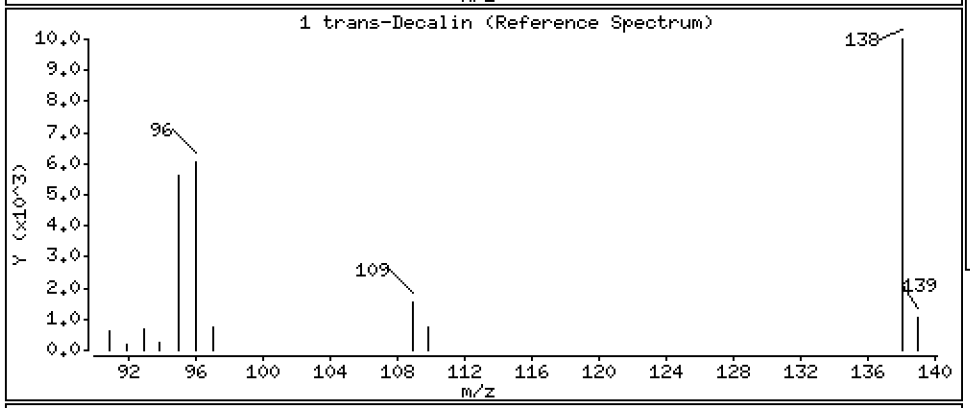
Concentration: 1.044 ug/mL

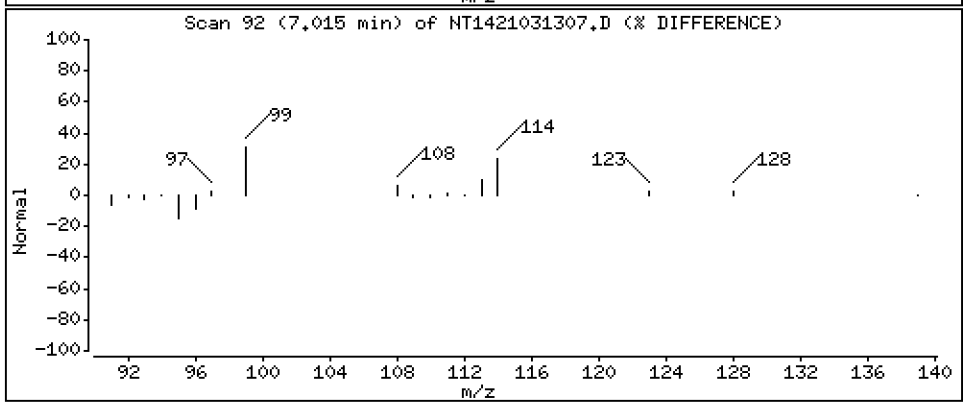












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Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

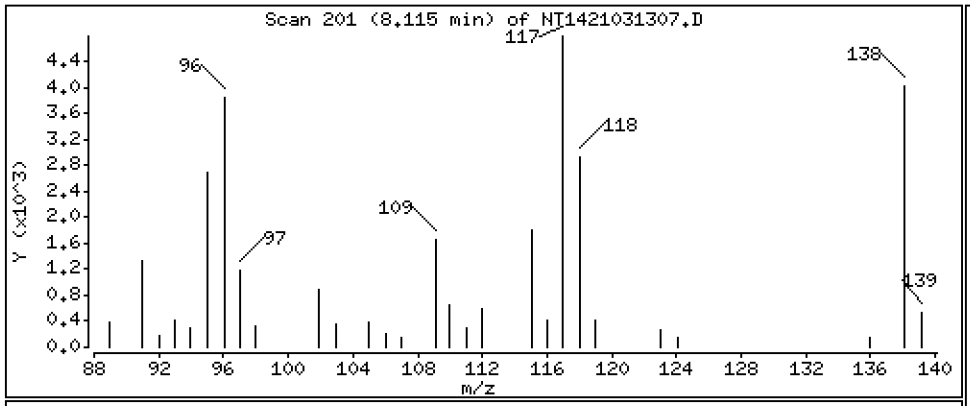
Operator: VTS

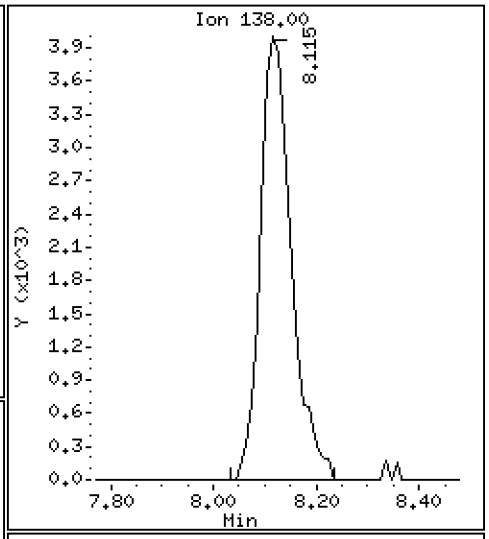
Column phase: Rxi-17Sil MS

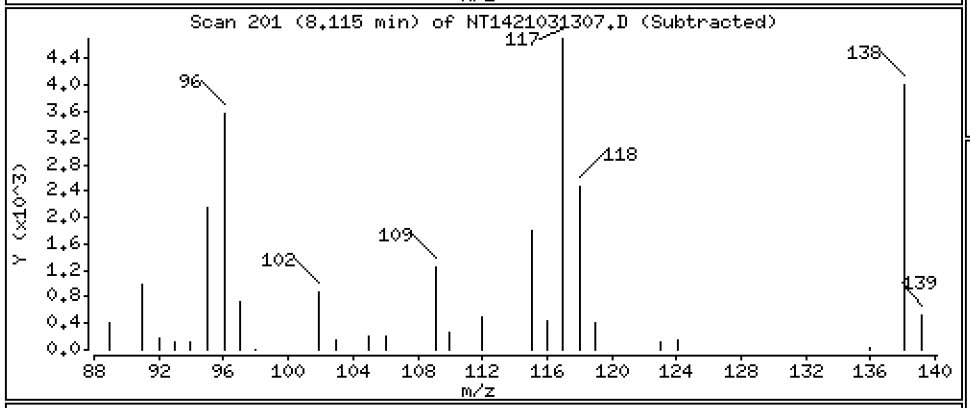
Column diameter: 0.25

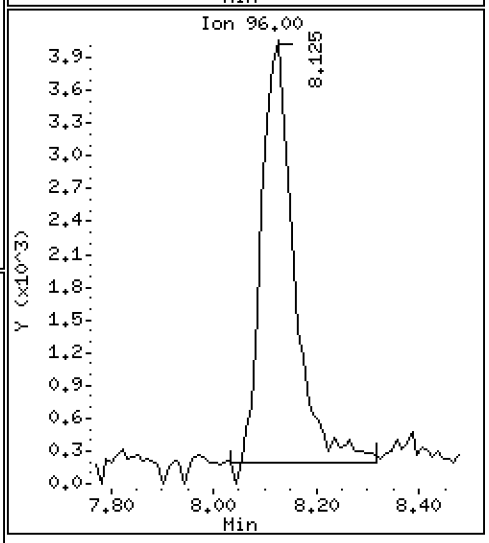
2 cis-Decalin

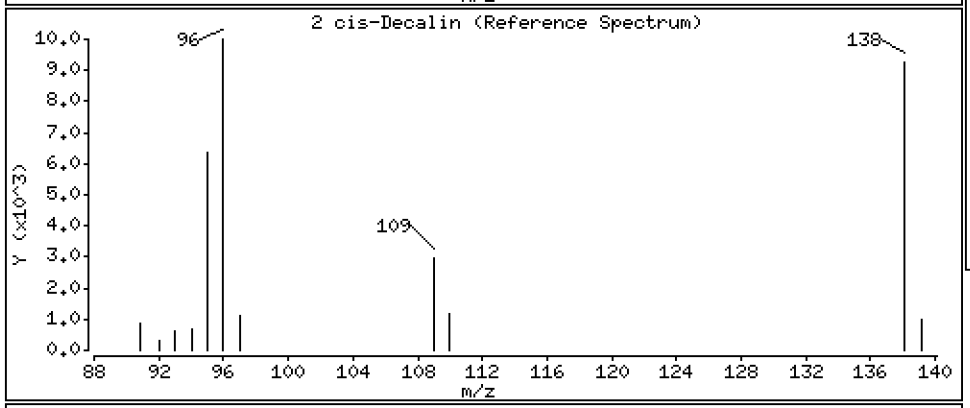
Concentration: 1.237 ug/mL

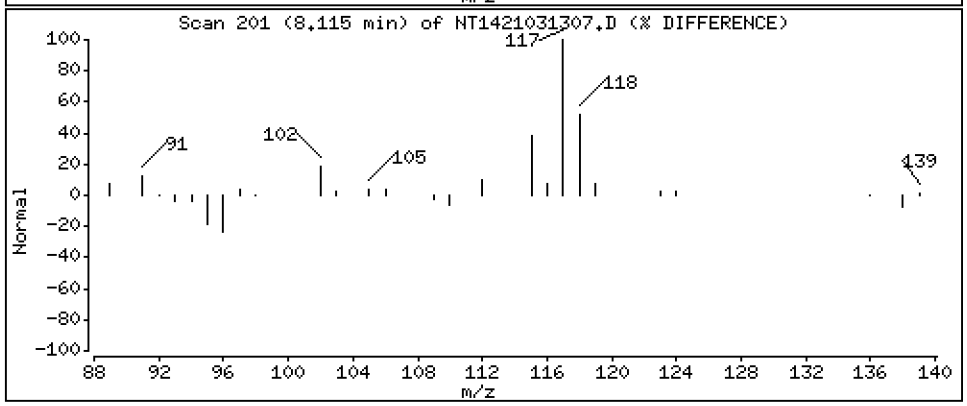












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Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

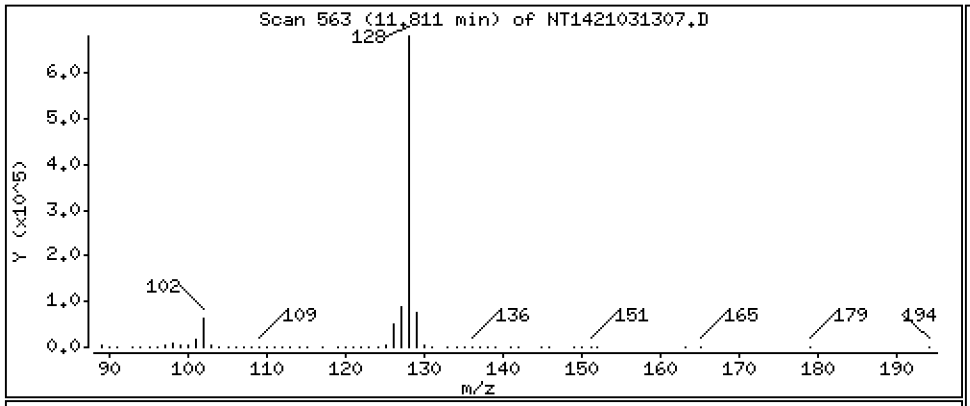
Operator: VTS

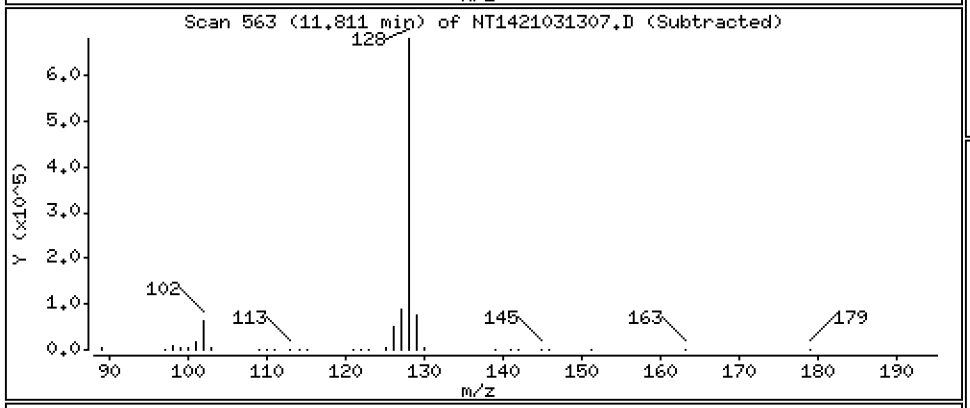
Column phase: Rxi-17Sil MS

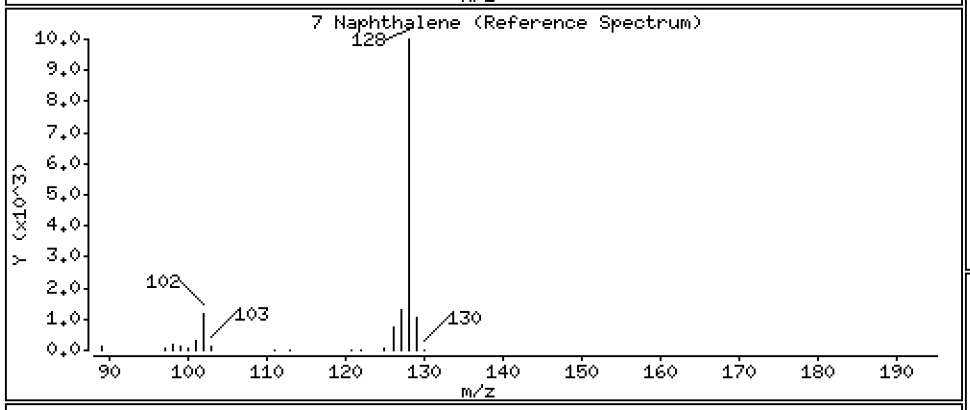
Column diameter: 0.25

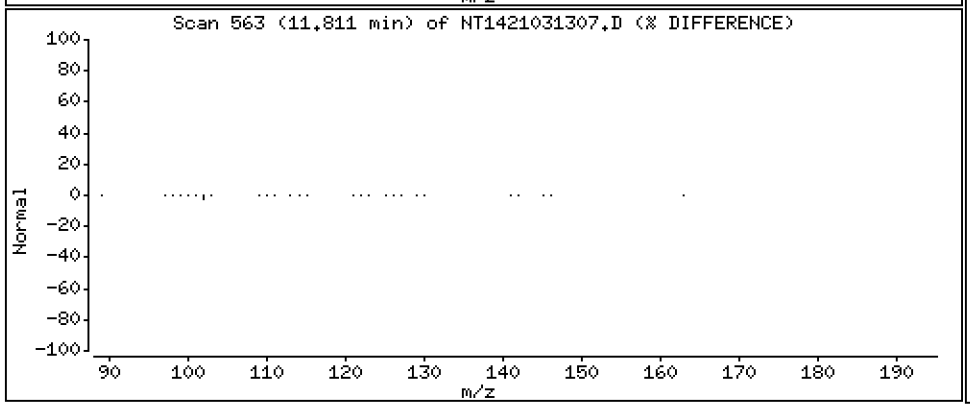
7 Naphthalene

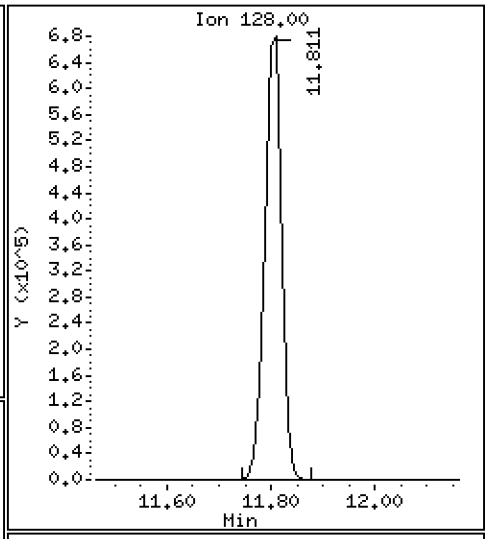
Concentration: 10.22 ug/mL

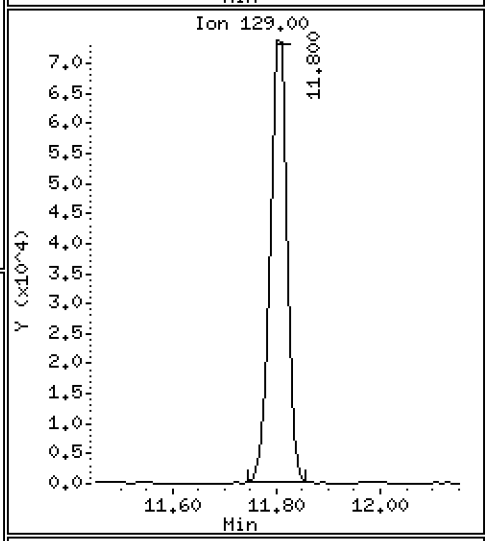


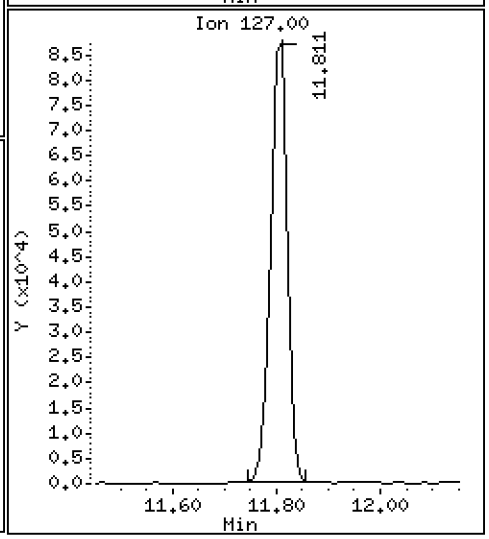












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031307.D

Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

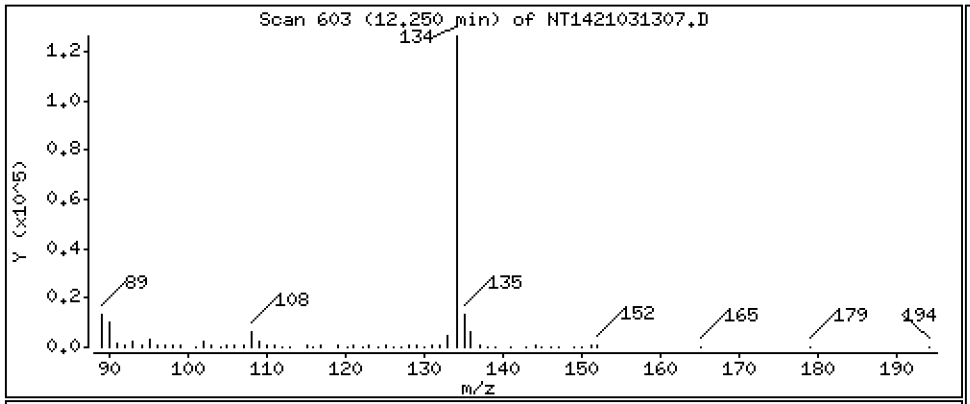
Operator: VTS

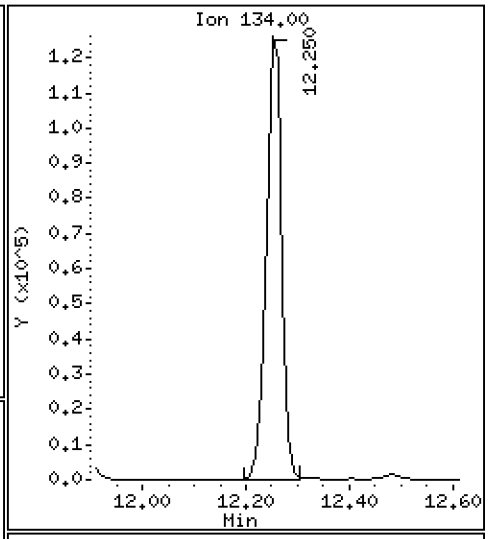
Column phase: Rxi-17Sil MS

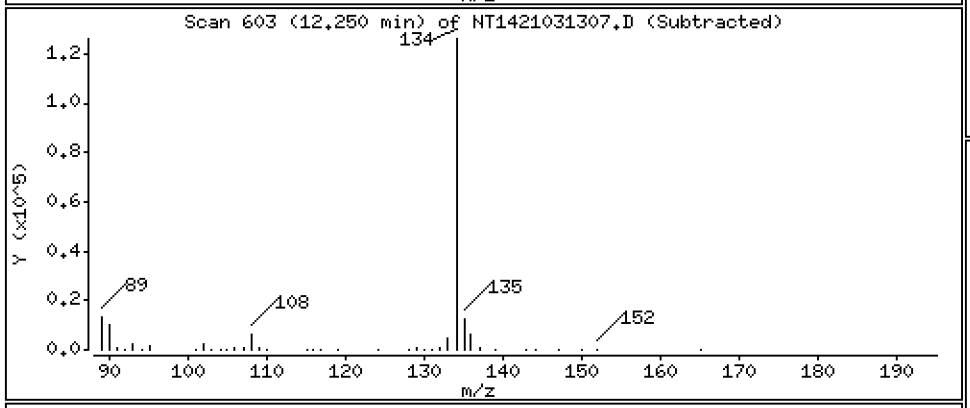
Column diameter: 0.25

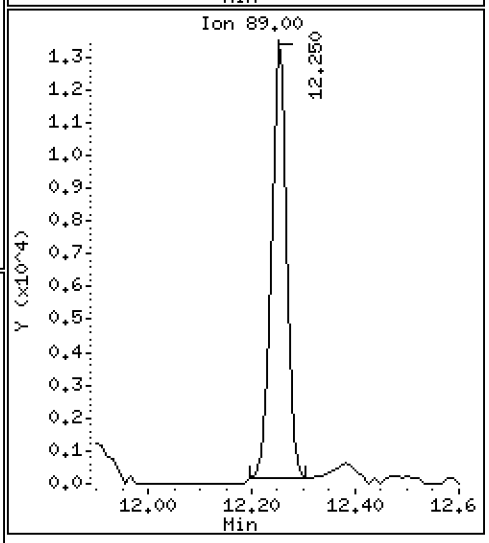
12 Benzo(b)thiophene

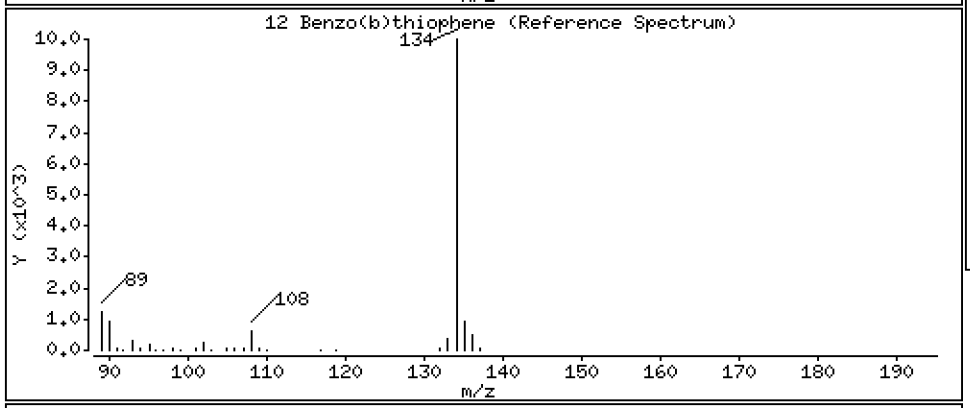
Concentration: 2.204 ug/mL

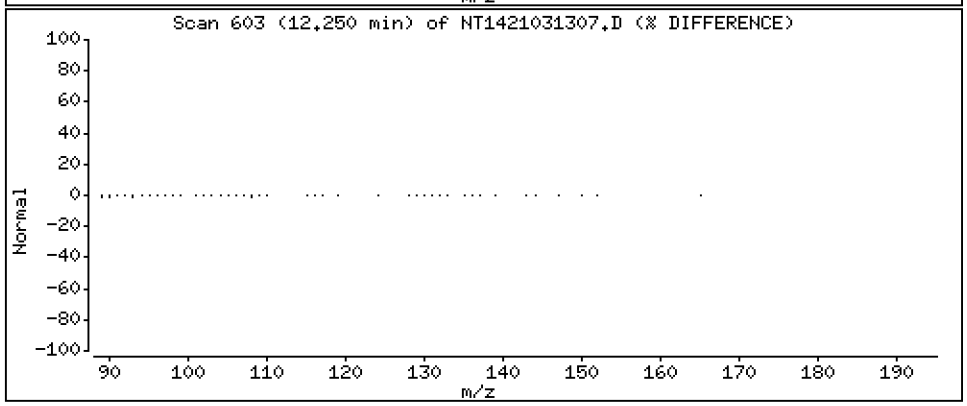












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031307.D

Date : 13-MAR-2021 15:35

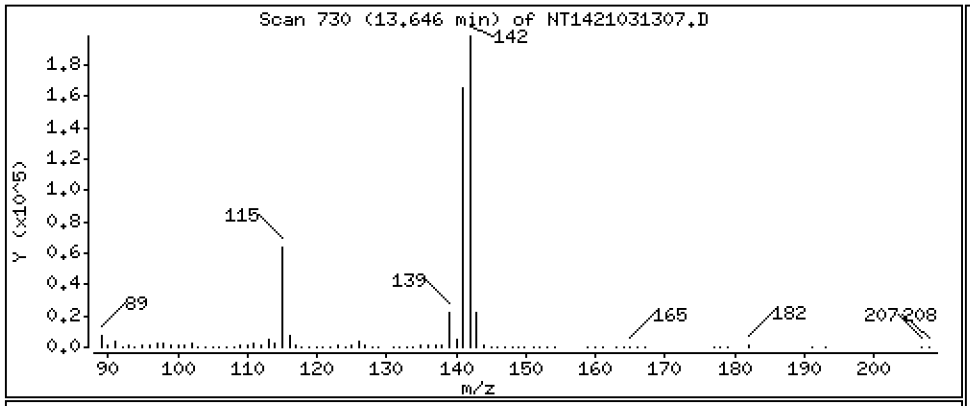
Client ID: Instrument: nt14.i

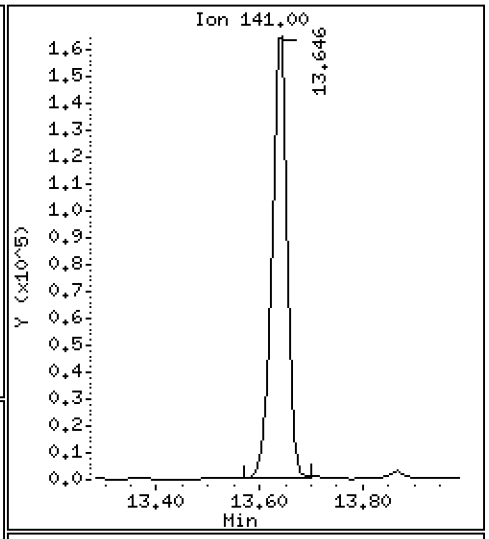
Sample Info: BJC0107-MS1

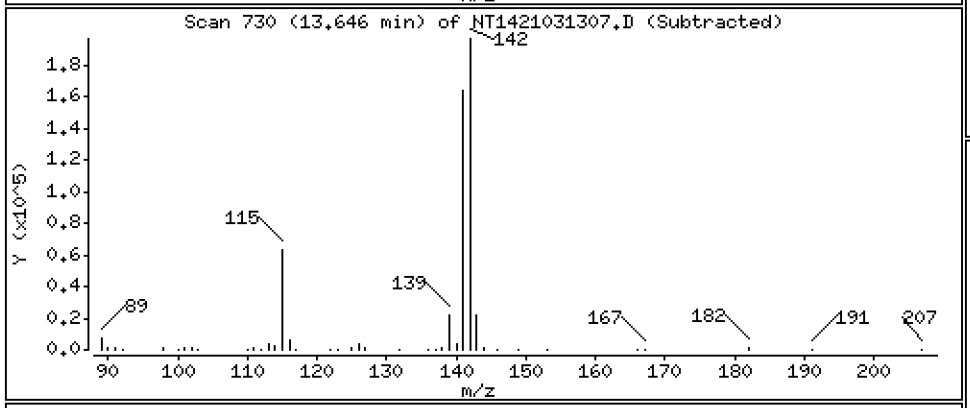
Operator: VTS

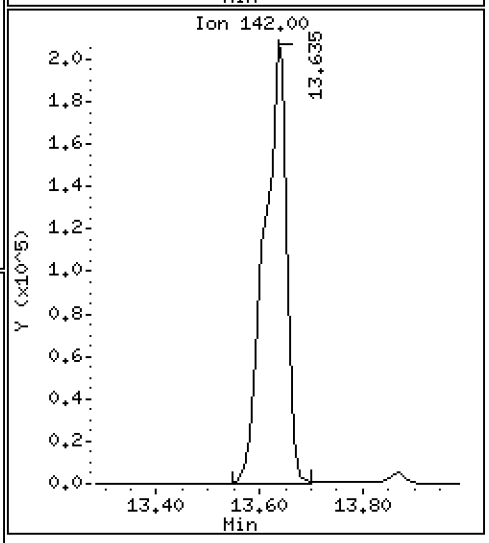
Column phase: Rxi-17Sil MS Column diameter: 0.25

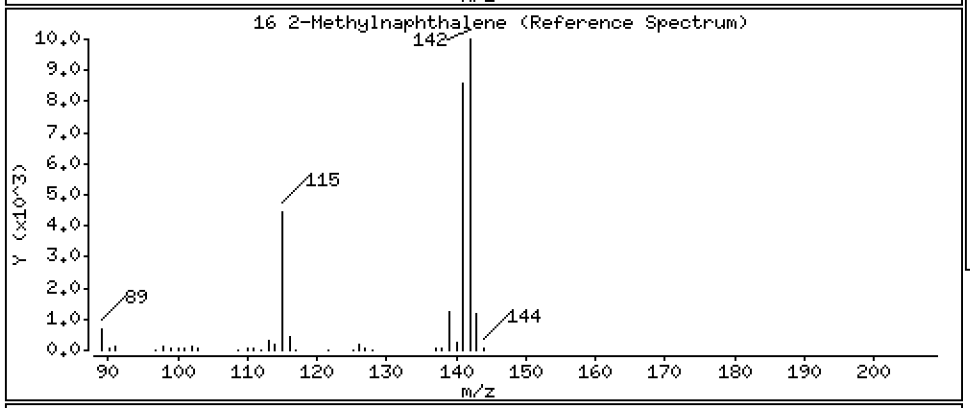
16 2-Methylnaphthalene Concentration: 4.269 ug/mL

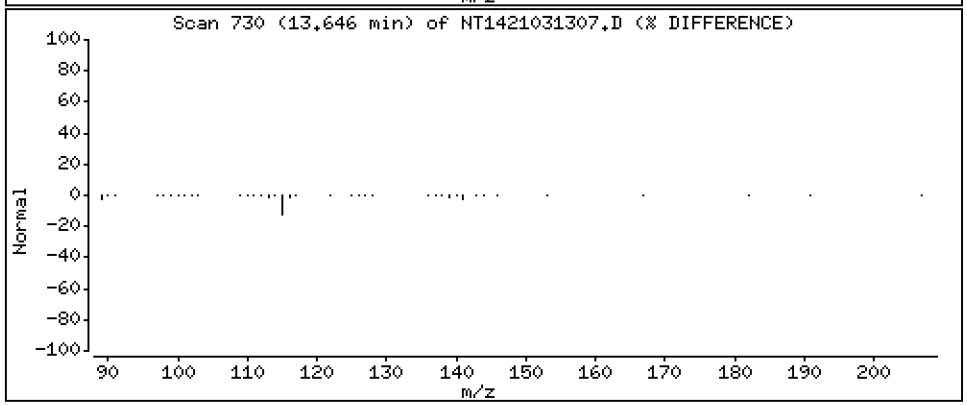












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Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

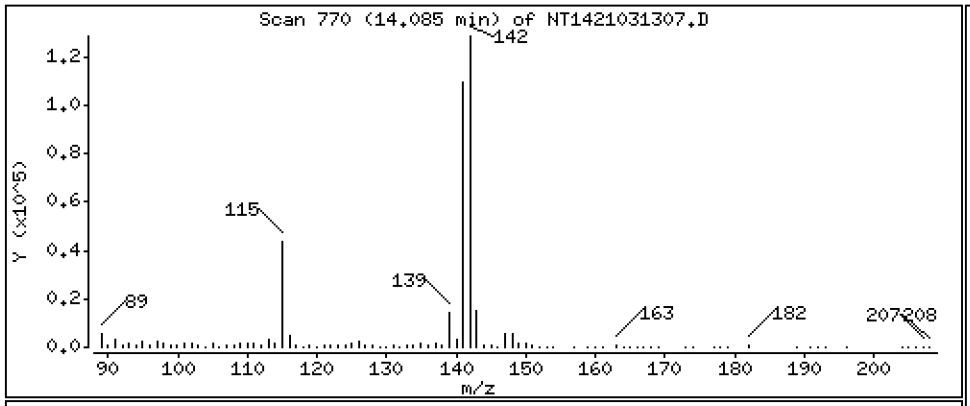
Operator: VTS

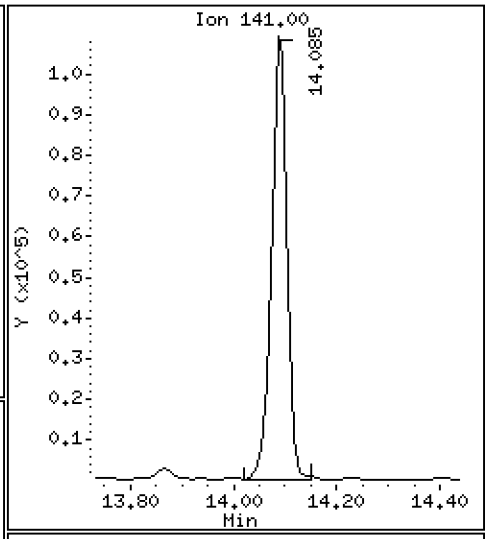
Column phase: Rxi-17Sil MS

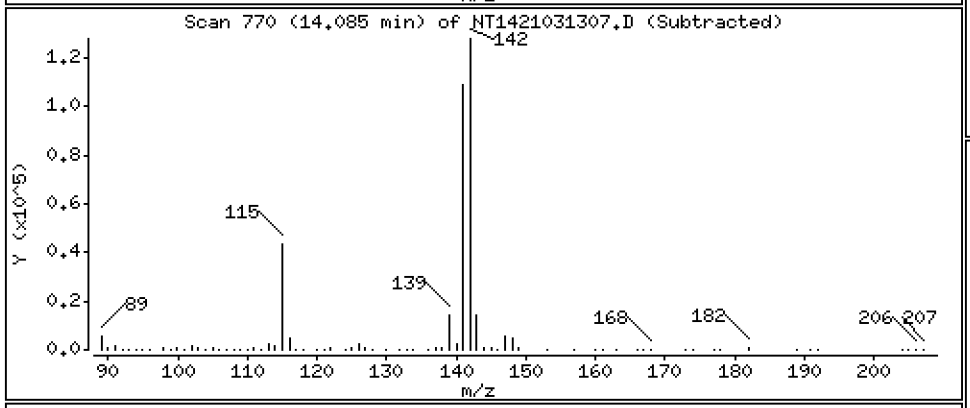
Column diameter: 0.25

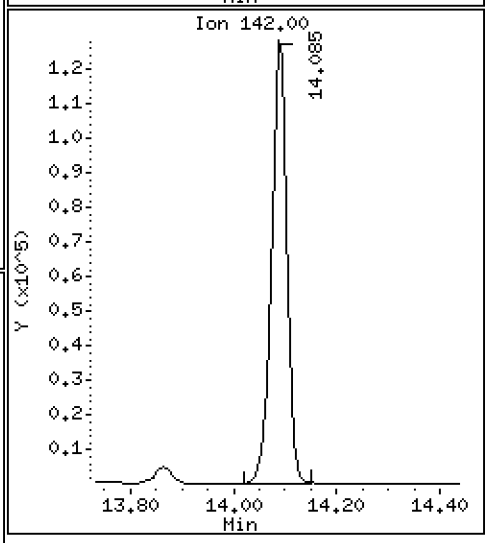
17 1-methylnaphthalene

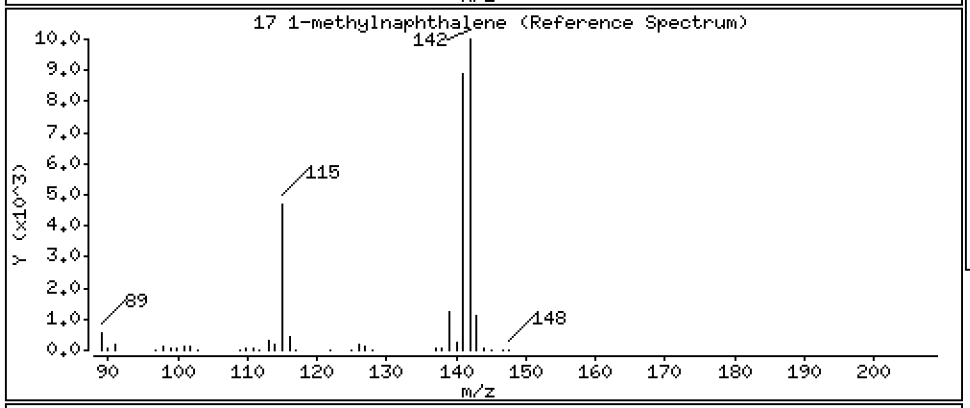
Concentration: 2.936 ug/mL

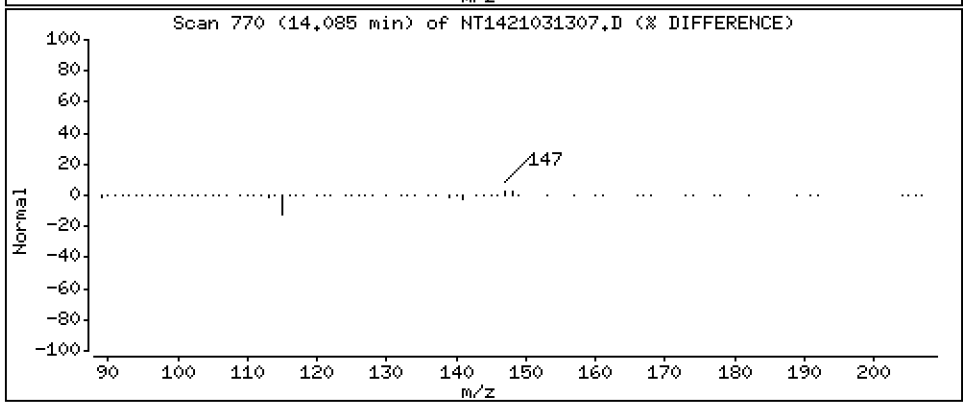












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031307.D

Date : 13-MAR-2021 15:35

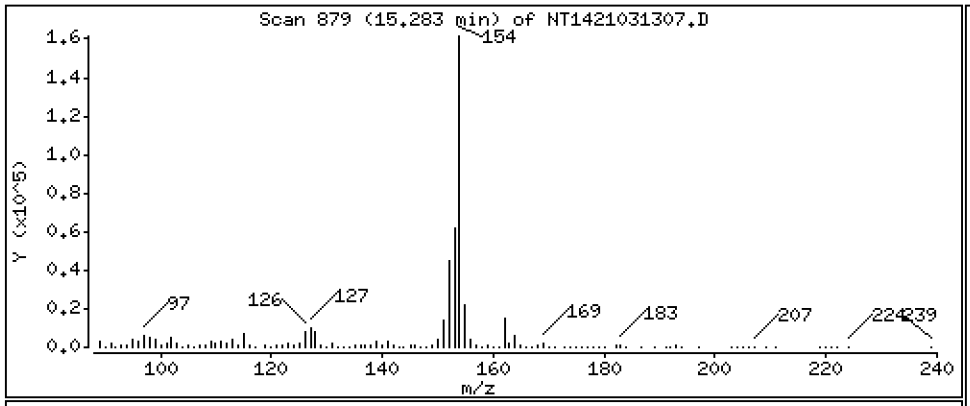
Client ID: Instrument: nt14.i

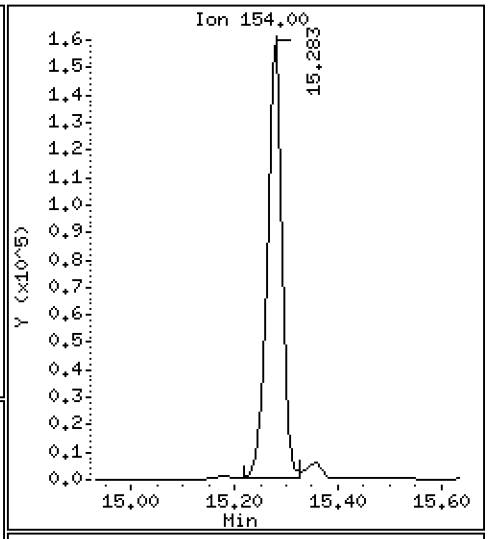
Sample Info: BJC0107-MS1

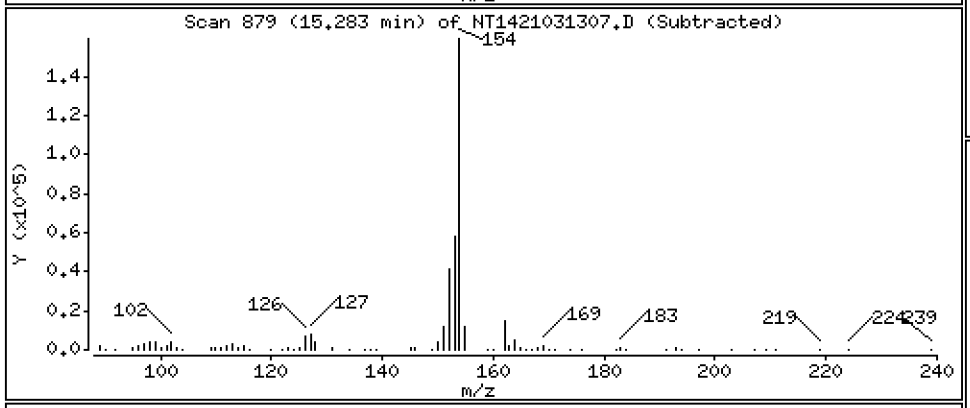
Operator: VTS

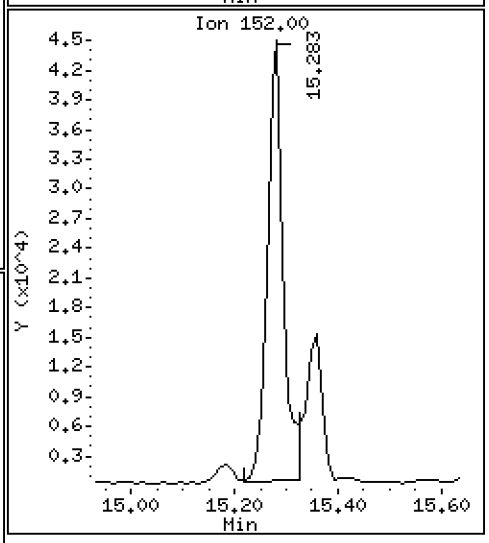
Column phase: Rxi-17Sil MS Column diameter: 0.25

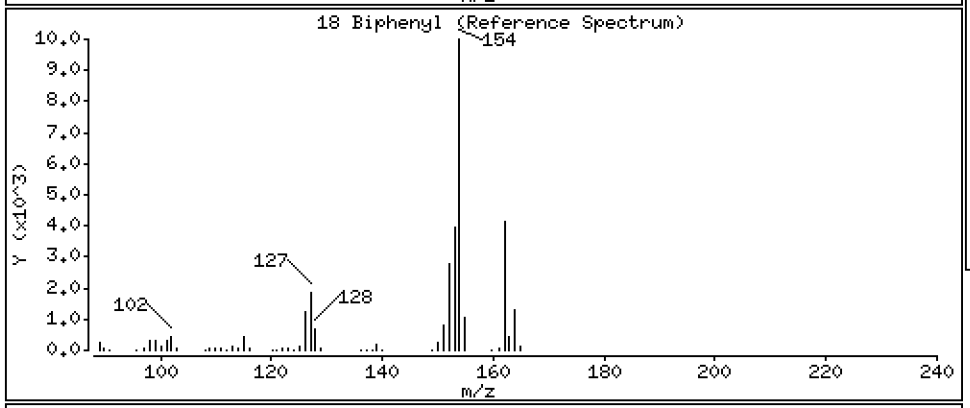
18 Biphenyl Concentration: 2.730 ug/mL

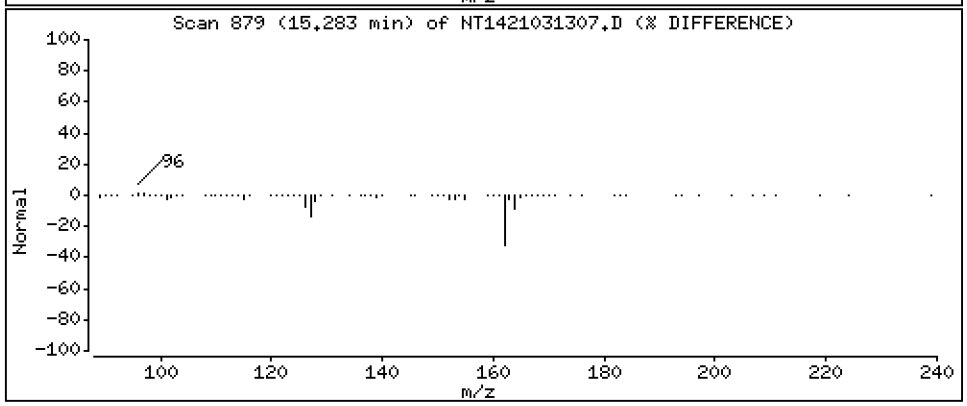












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Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

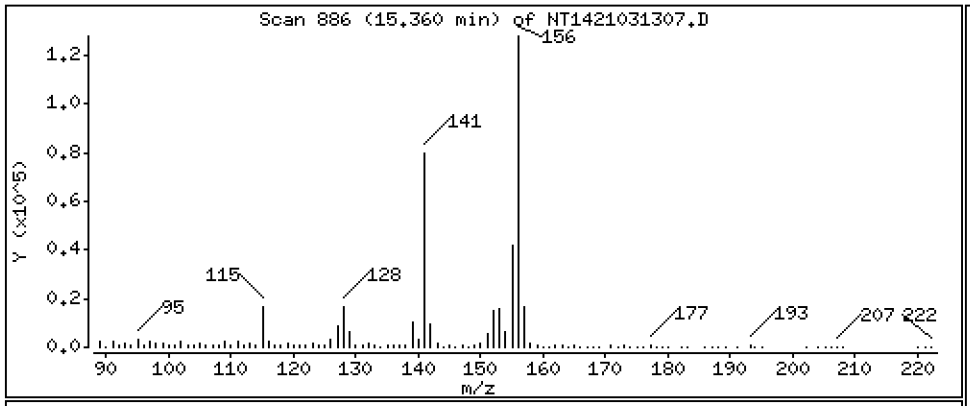
Operator: VTS

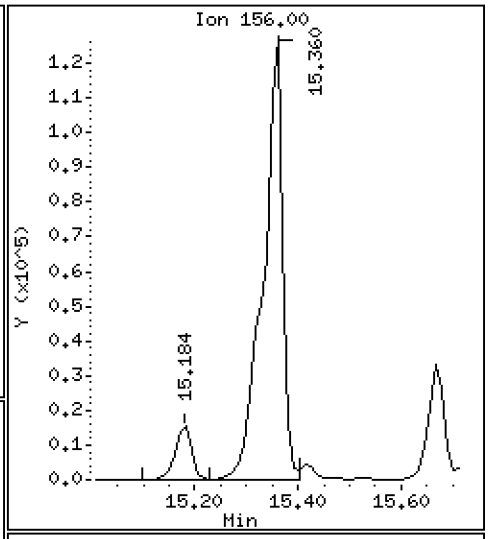
Column phase: Rxi-17Sil MS

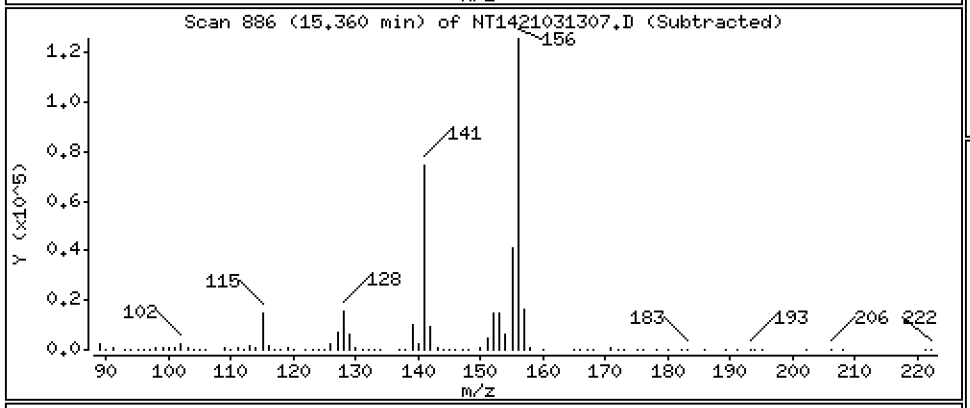
Column diameter: 0.25

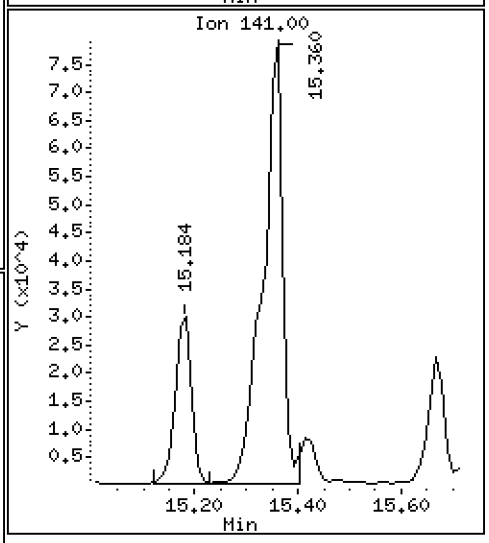
19 2,6-Dimethylnaphthalene

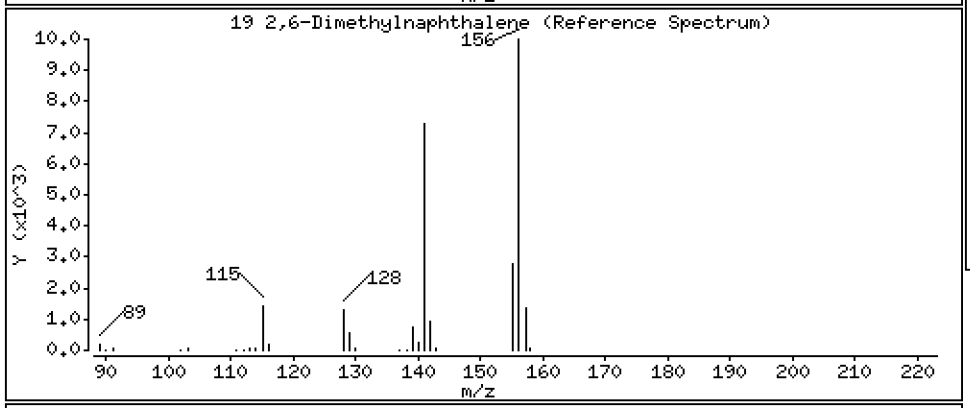
Concentration: 3.745 ug/mL

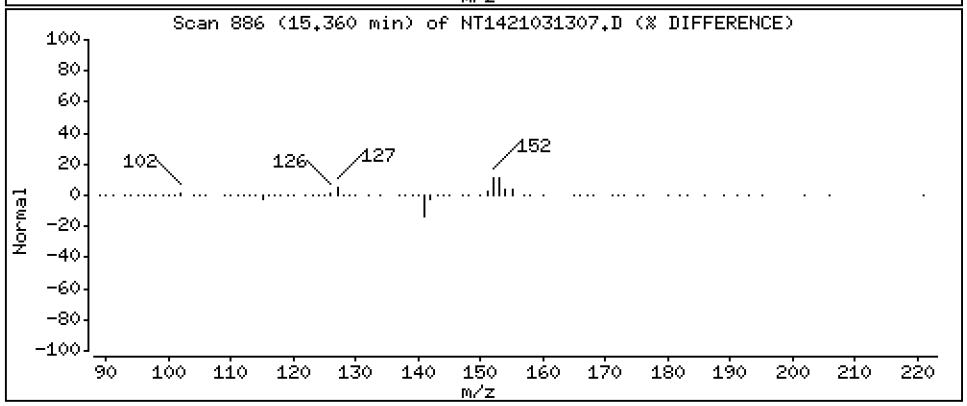












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031307.D

Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

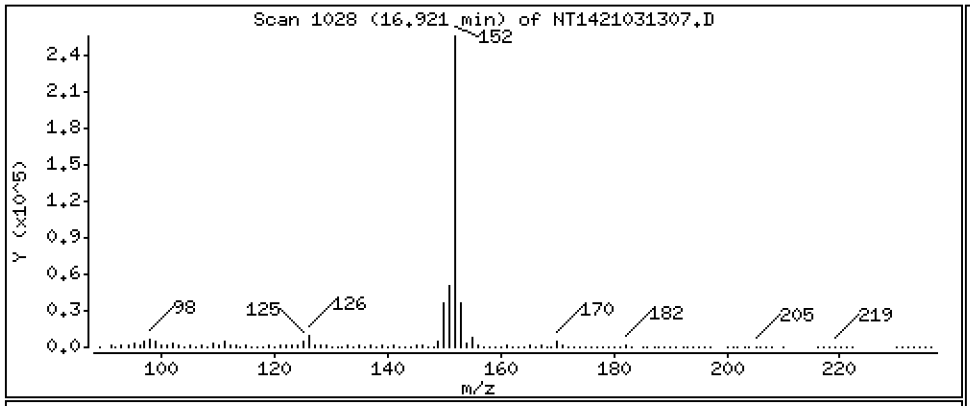
Operator: VTS

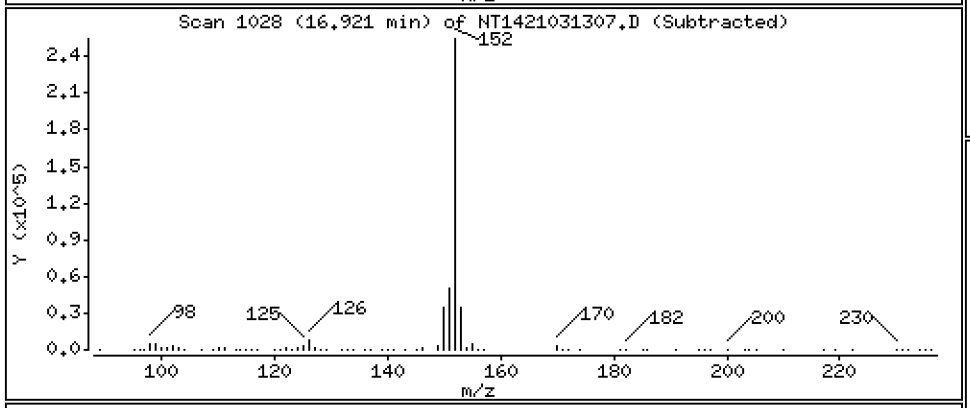
Column phase: Rxi-17Sil MS

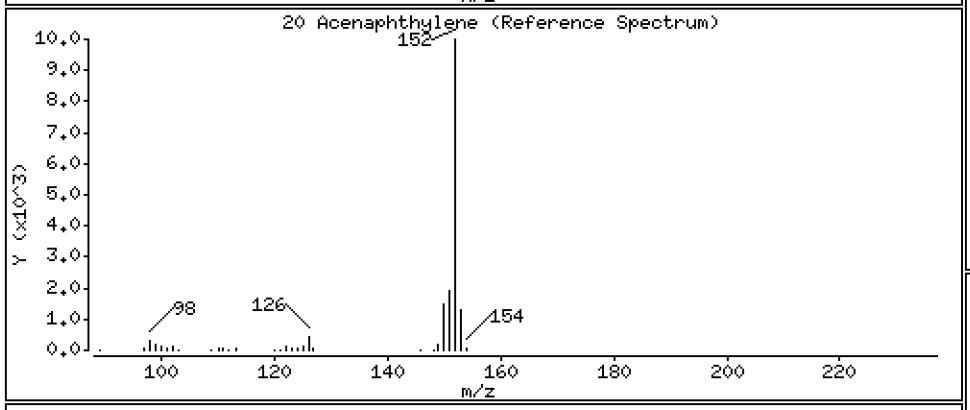
Column diameter: 0.25

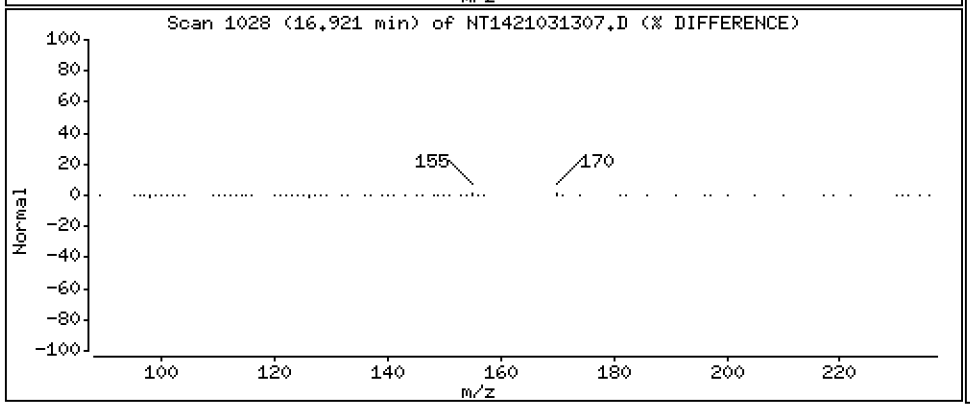
20 Acenaphthylene

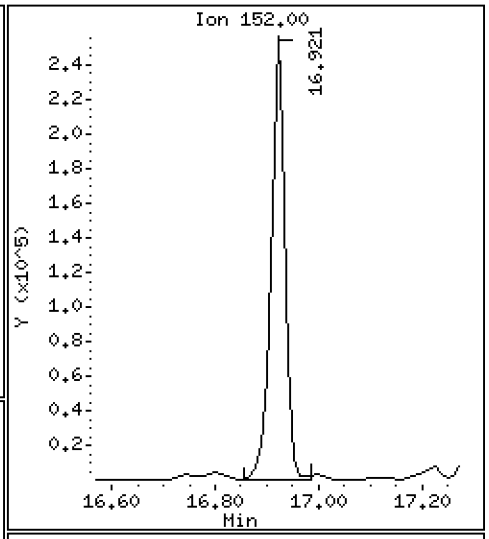
Concentration: 3.286 ug/mL

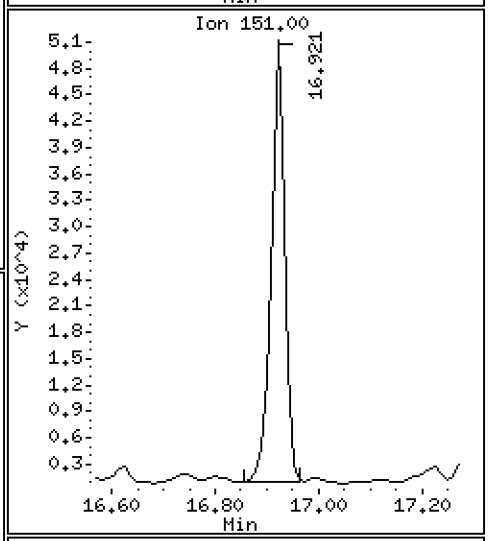


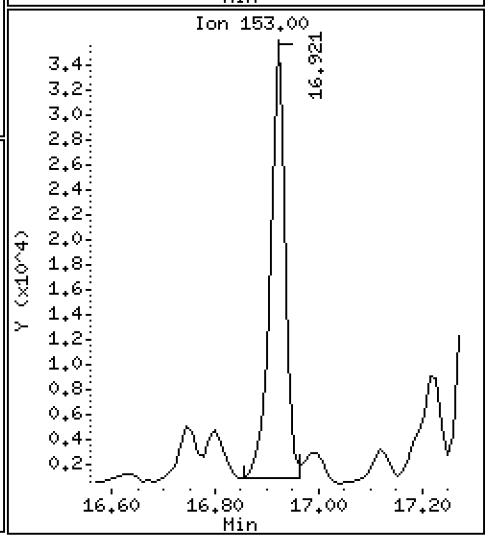












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Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

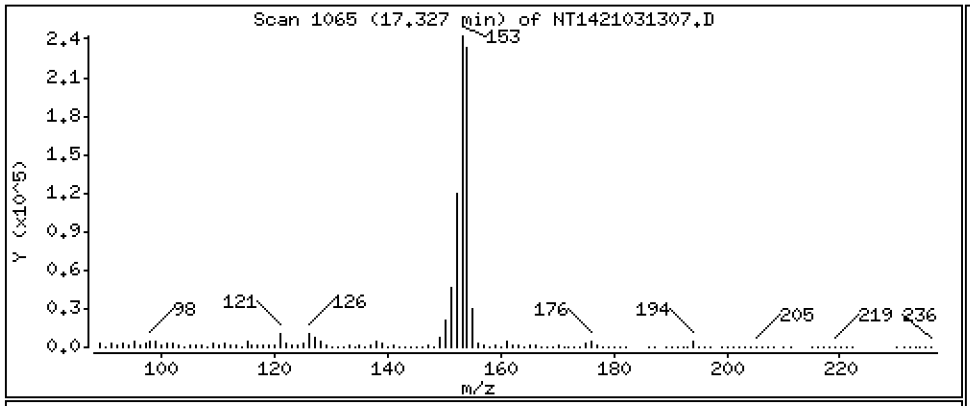
Operator: VTS

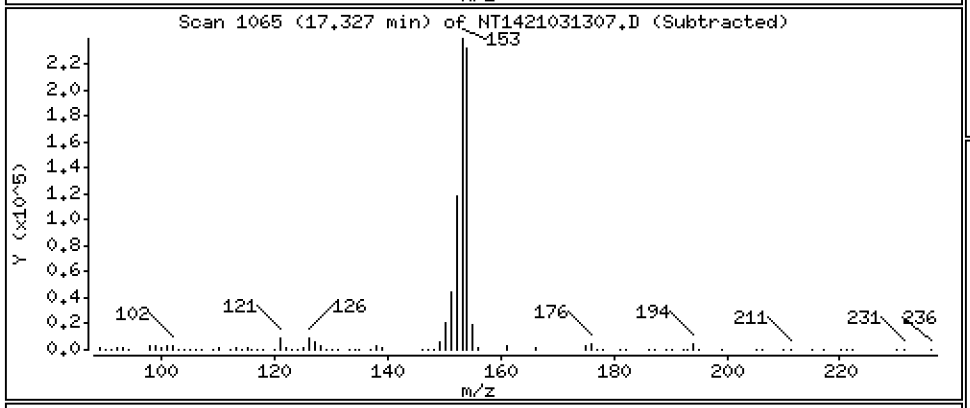
Column phase: Rxi-17Sil MS

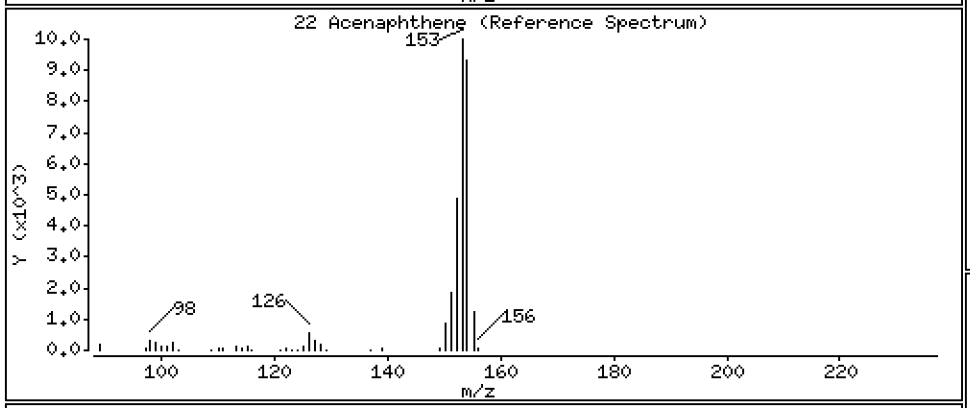
Column diameter: 0.25

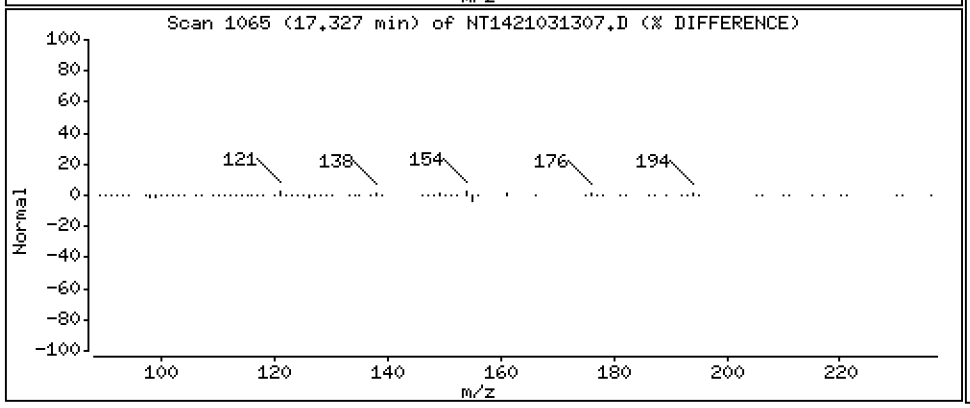
22 Acenaphthene

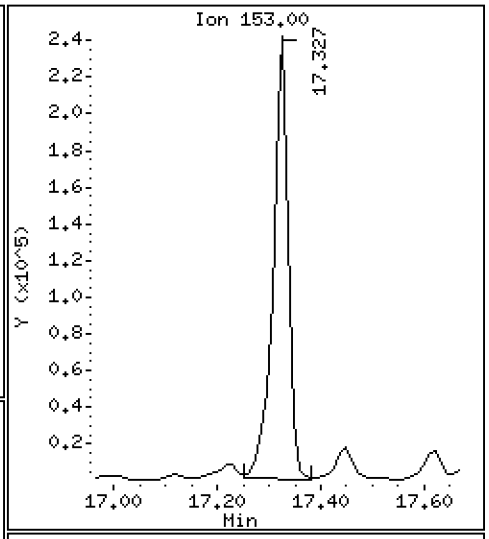
Concentration: 5.230 ug/mL

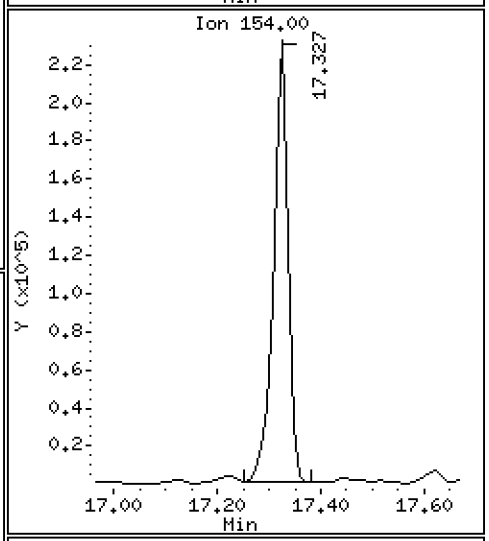


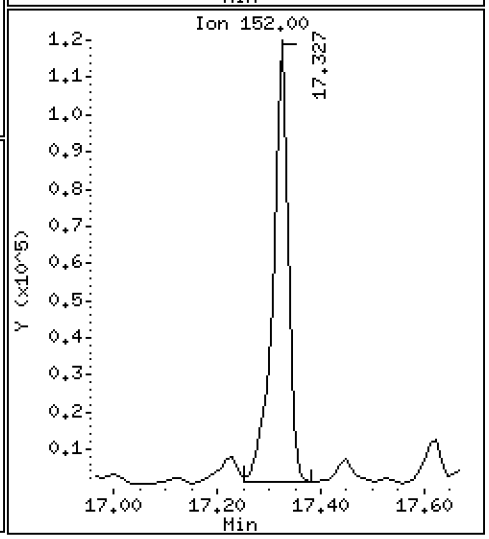












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Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

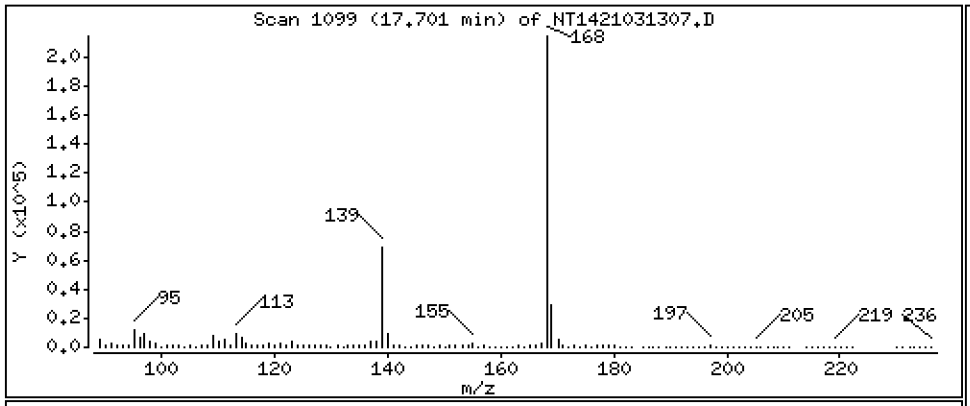
Operator: VTS

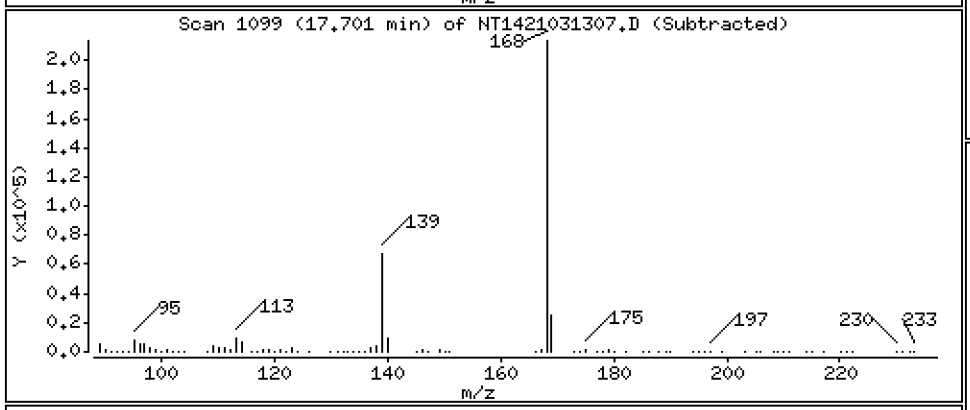
Column phase: Rxi-17Sil MS

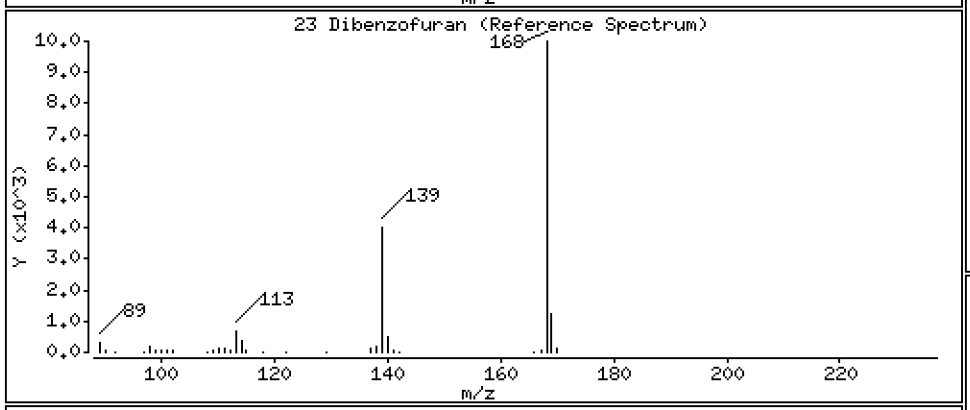
Column diameter: 0.25

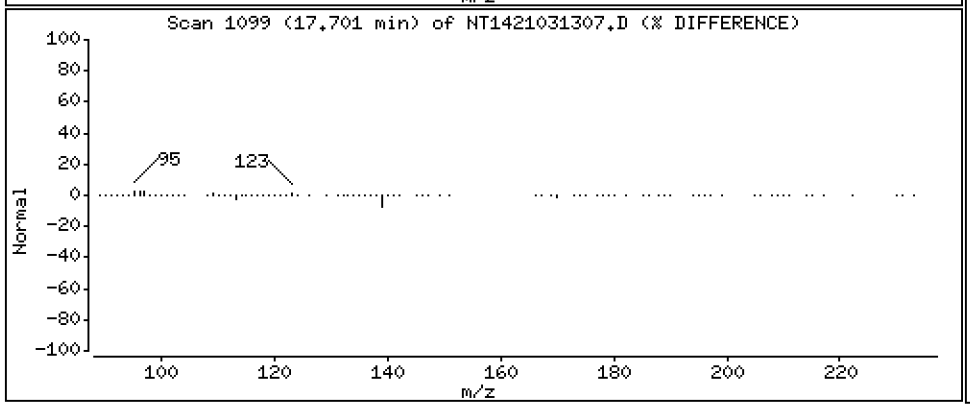
23 Dibenzofuran

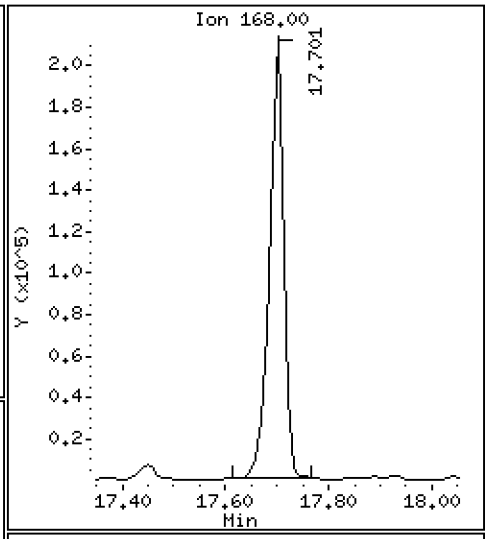
Concentration: 3.033 ug/mL

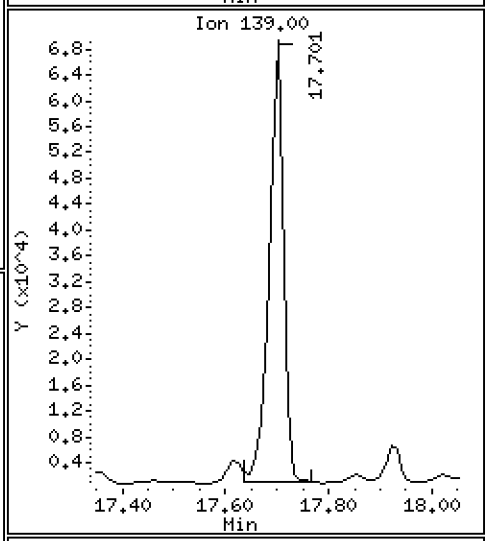


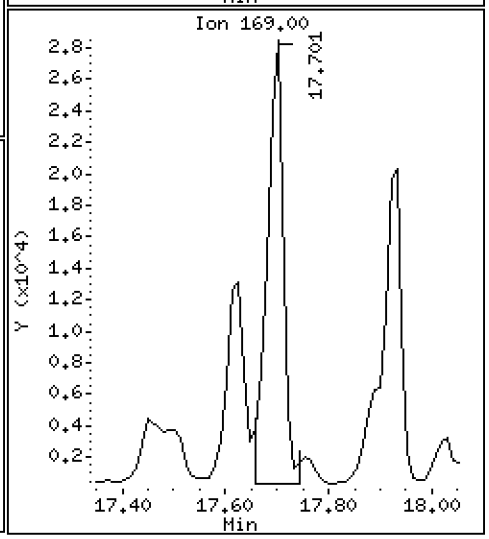












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Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

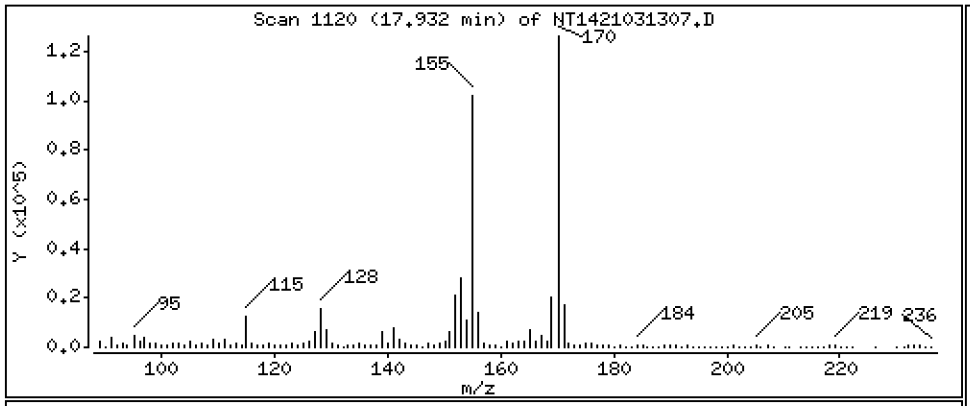
Operator: VTS

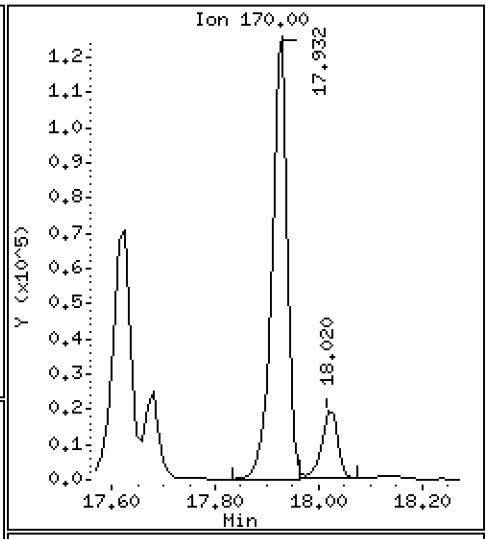
Column phase: Rxi-17Sil MS

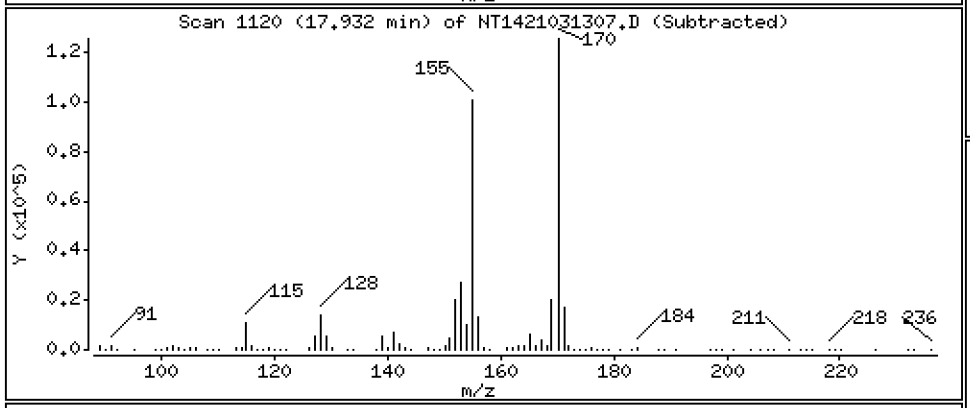
Column diameter: 0.25

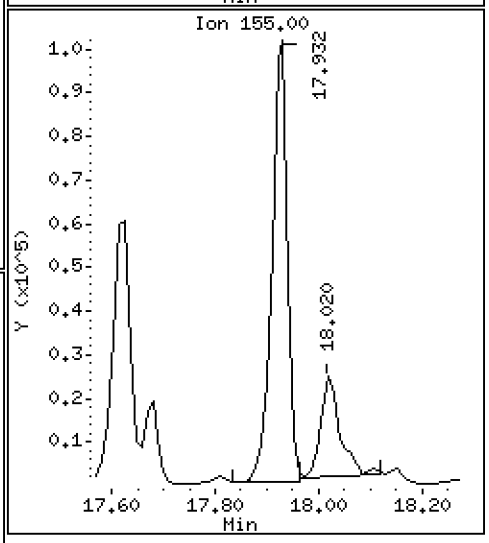
24 1,6,7-Trimethylnaphthalene

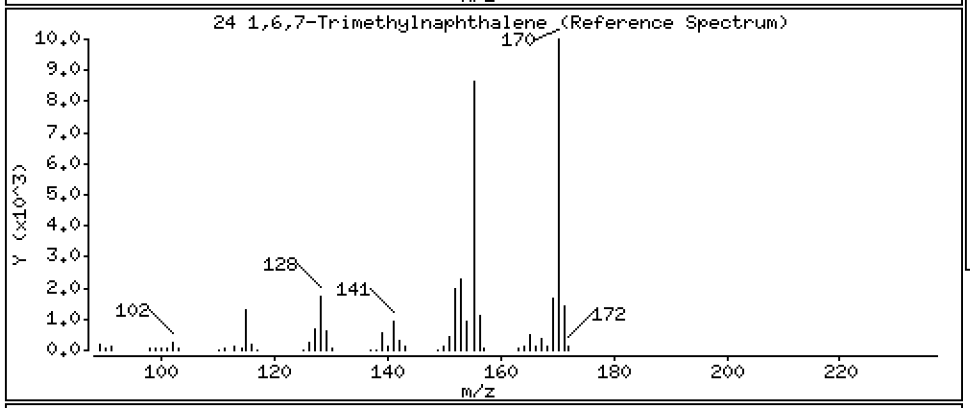
Concentration: 3.019 ug/mL

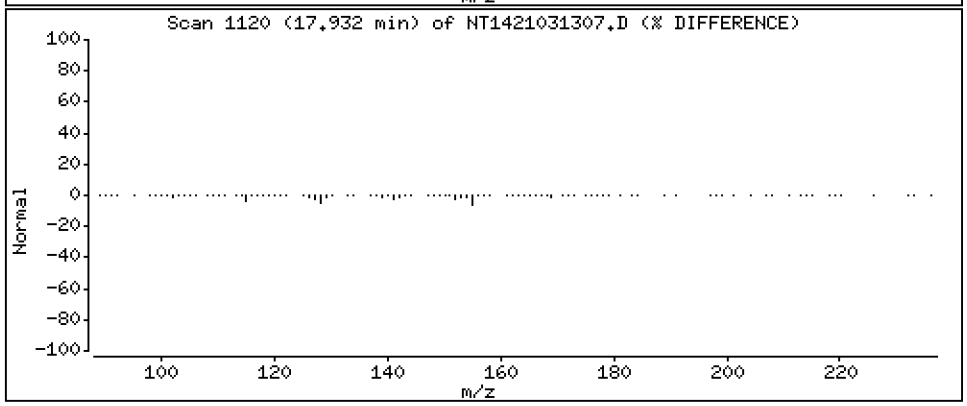












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Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

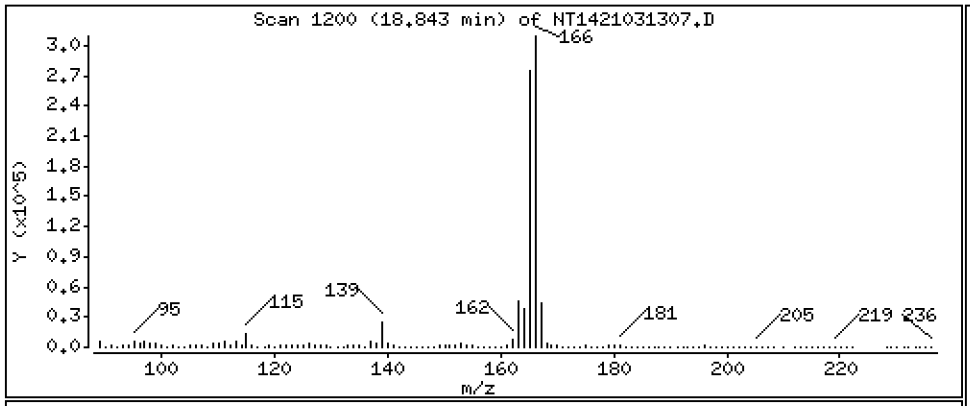
Operator: VTS

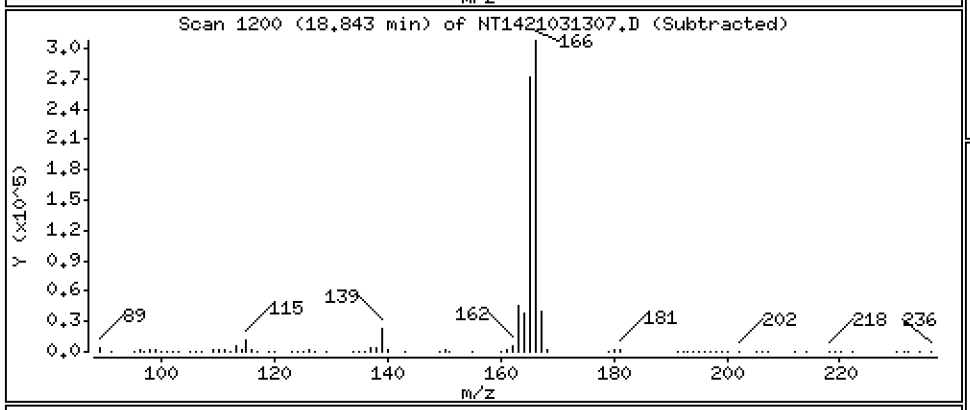
Column phase: Rxi-17Sil MS

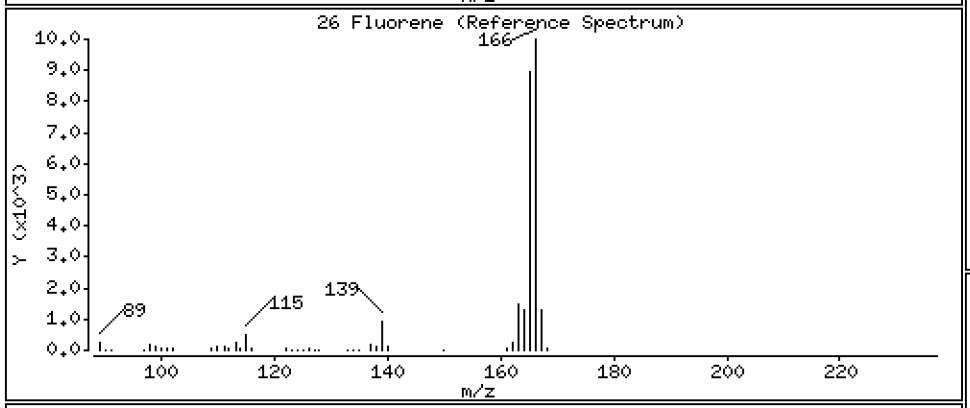
Column diameter: 0.25

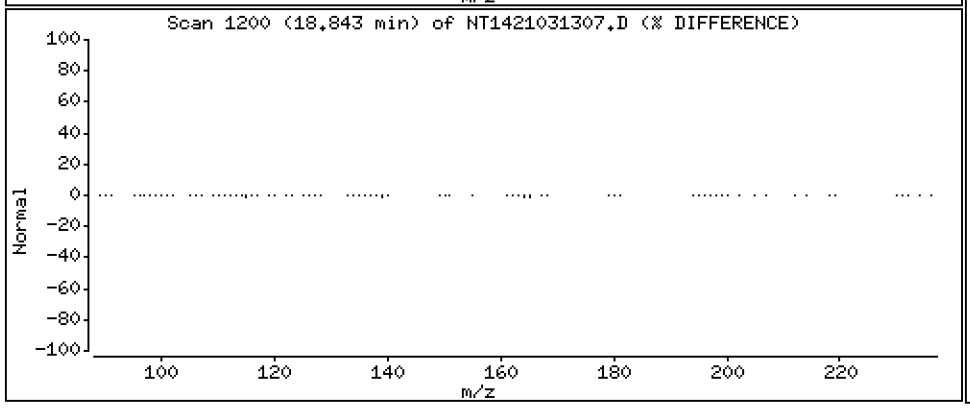
26 Fluorene

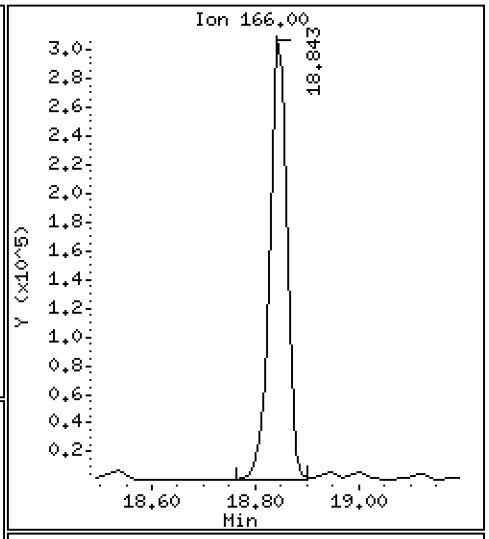
Concentration: 6.238 ug/mL

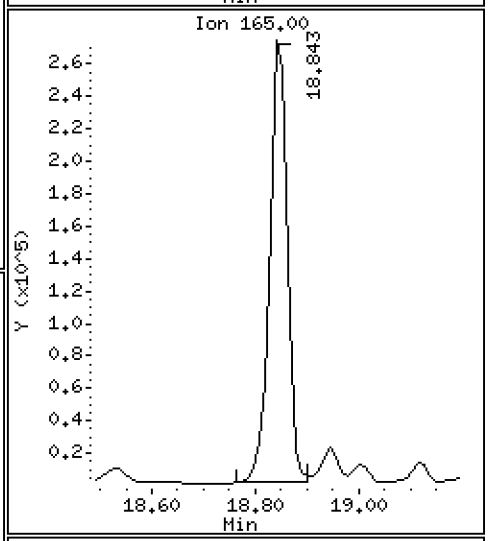


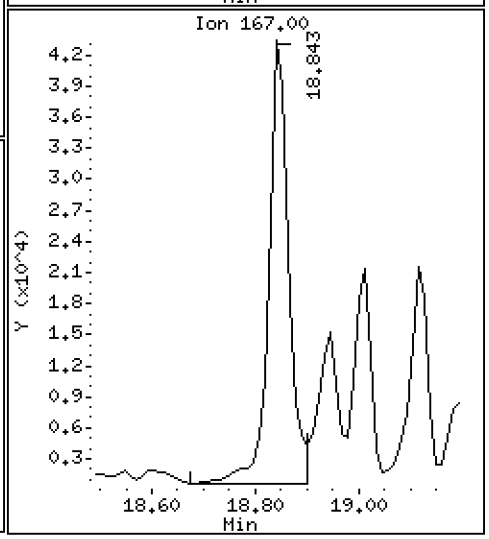












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Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

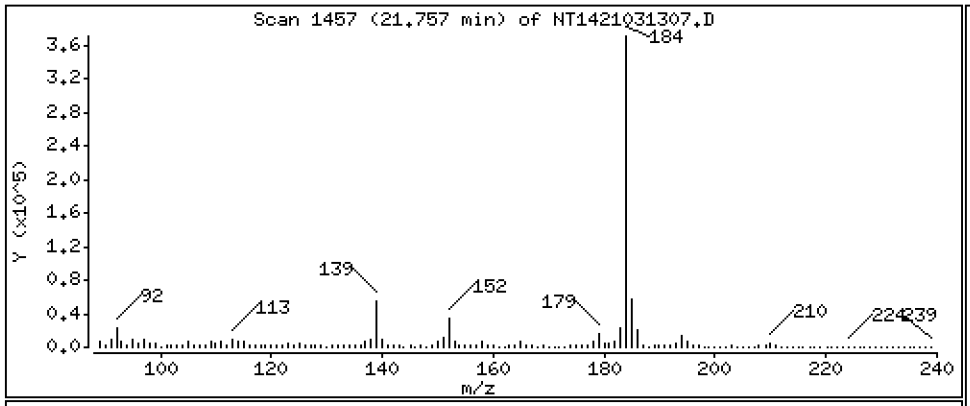
Operator: VTS

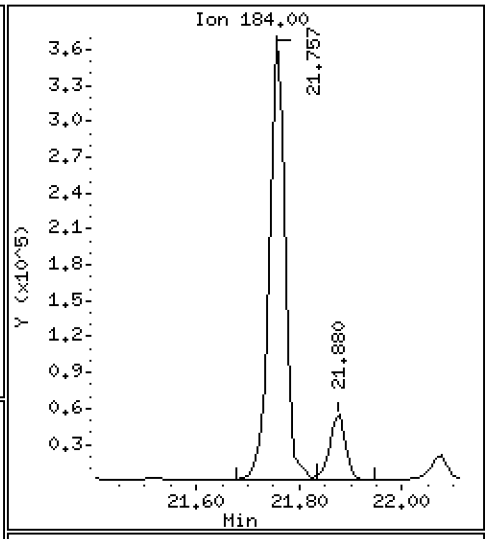
Column phase: Rxi-17Sil MS

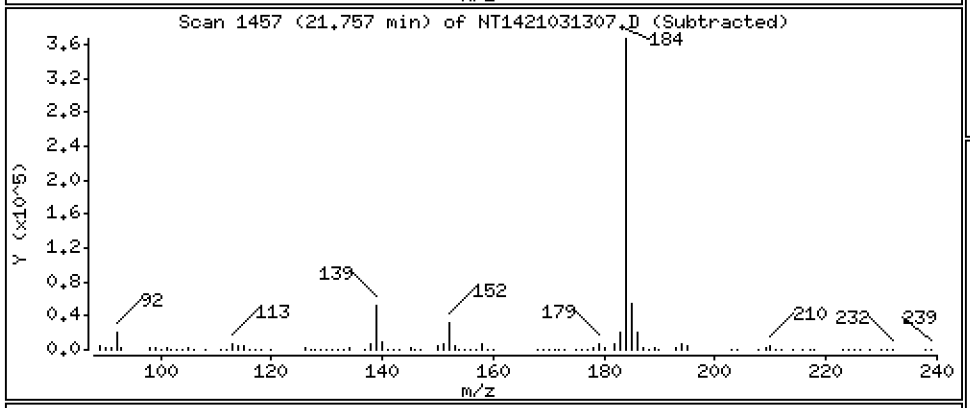
Column diameter: 0.25

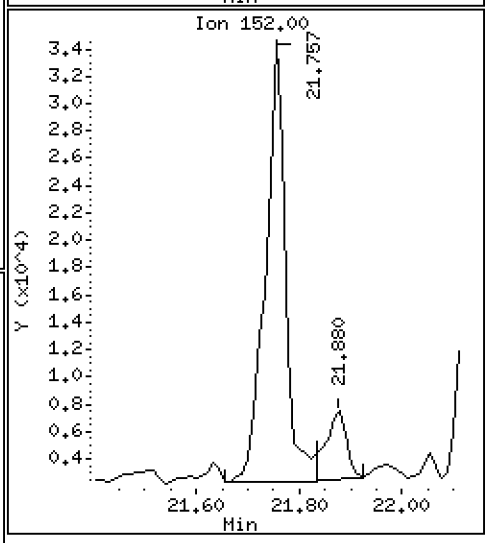
30 Dibenzothiophene

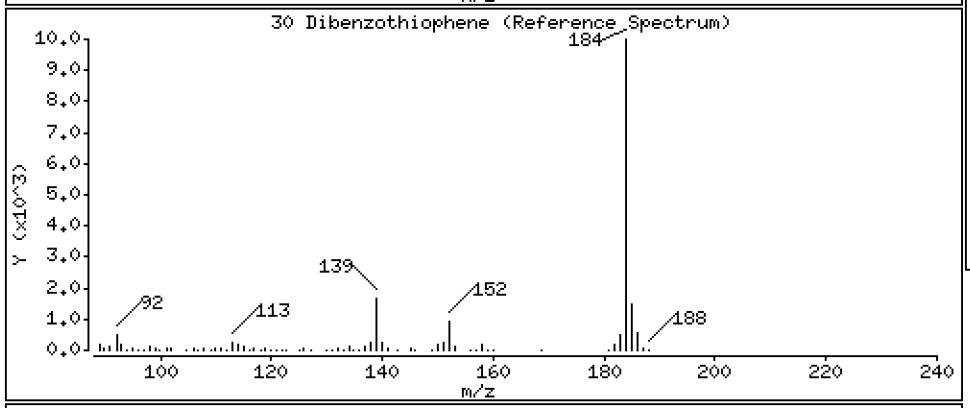
Concentration: 6.074 ug/mL

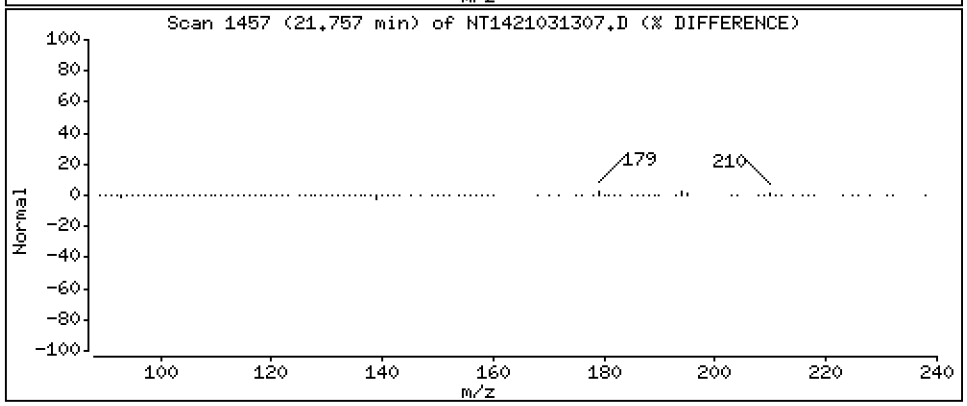












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Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

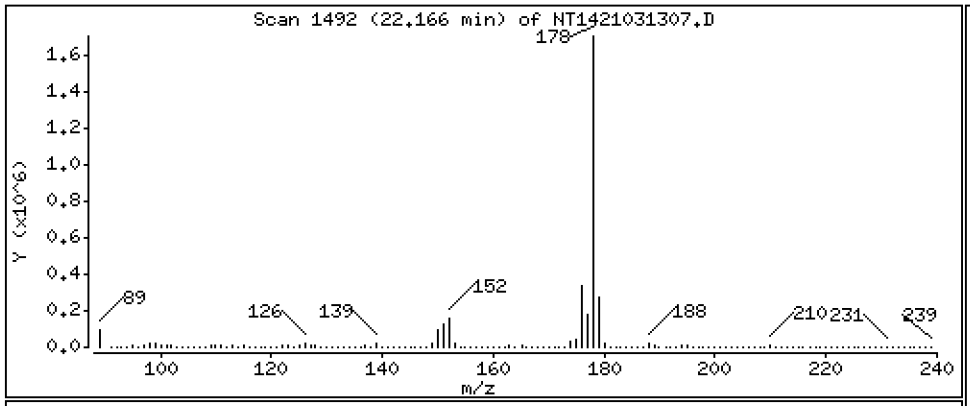
Operator: VTS

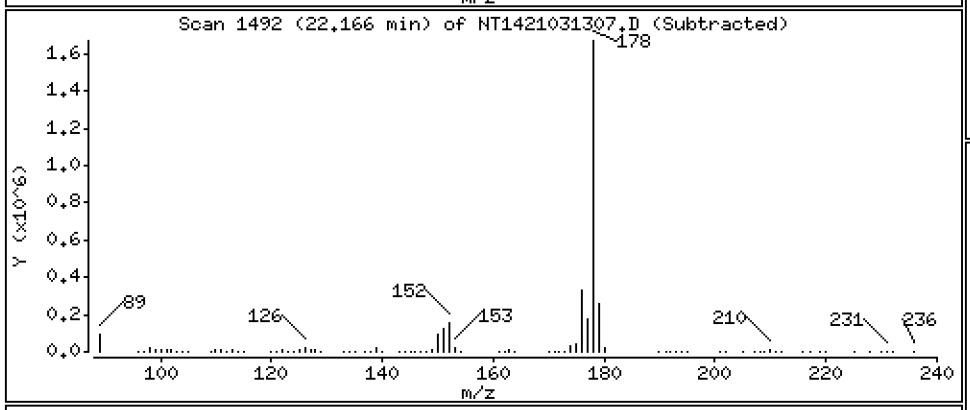
Column phase: Rxi-17Sil MS

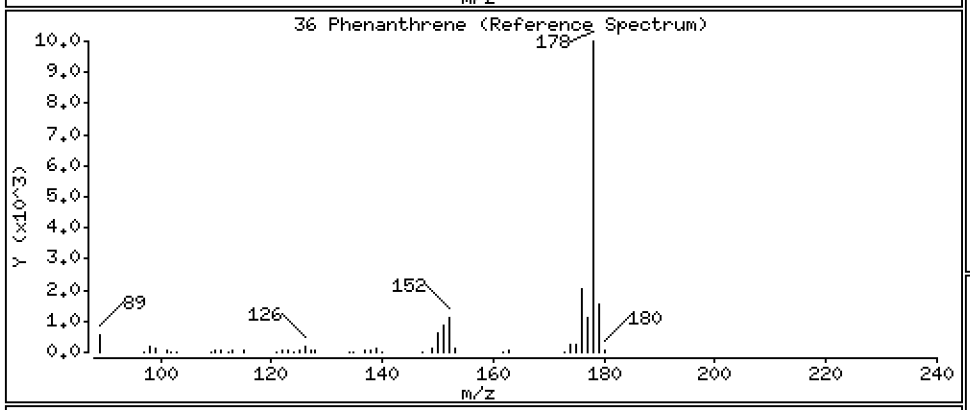
Column diameter: 0.25

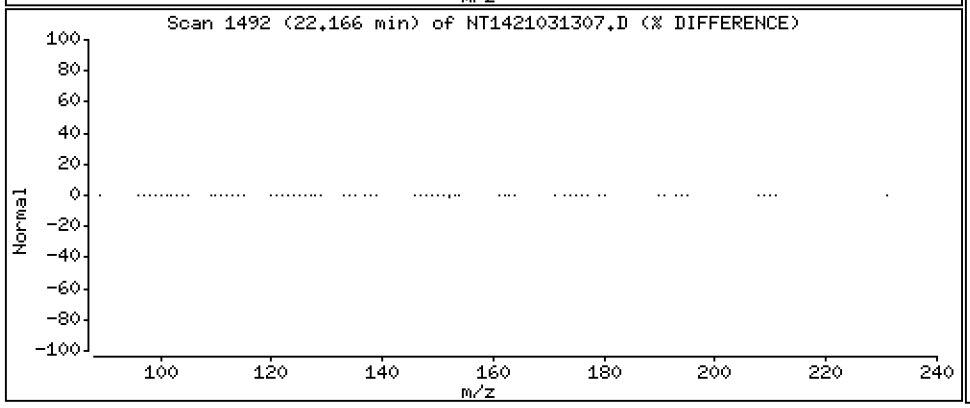
36 Phenanthrene

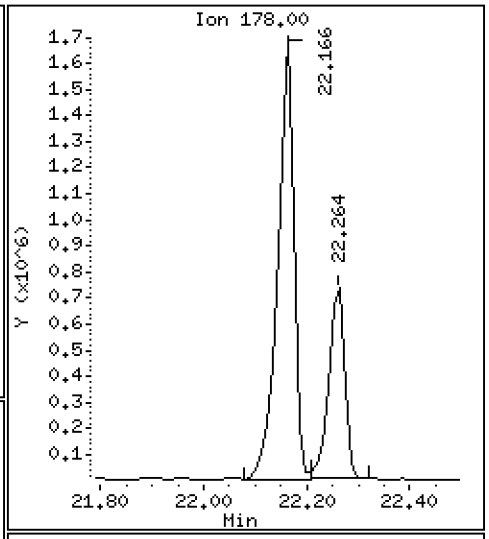
Concentration: 24.35 ug/mL

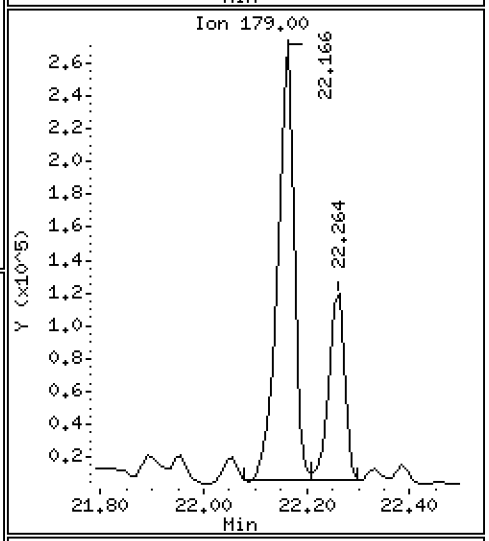


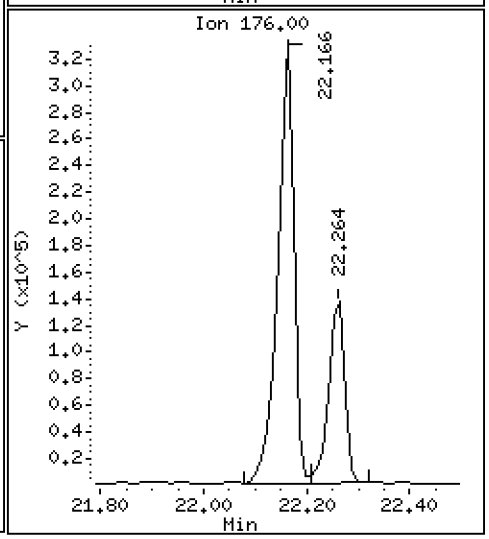












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031307.D

Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

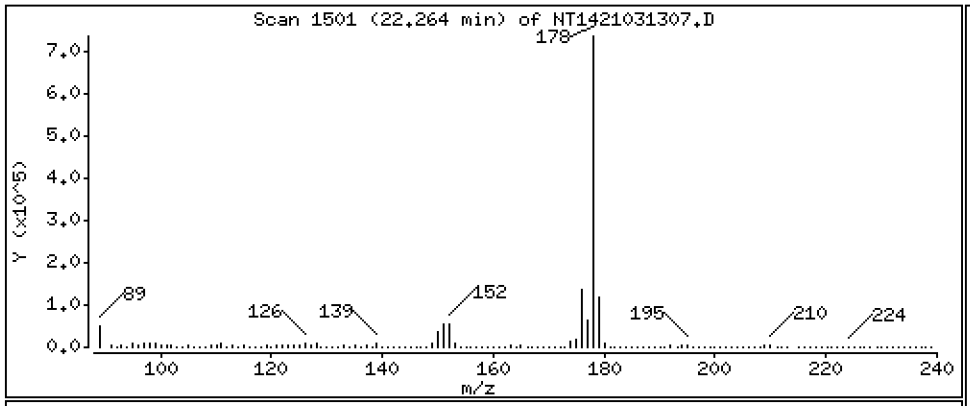
Operator: VTS

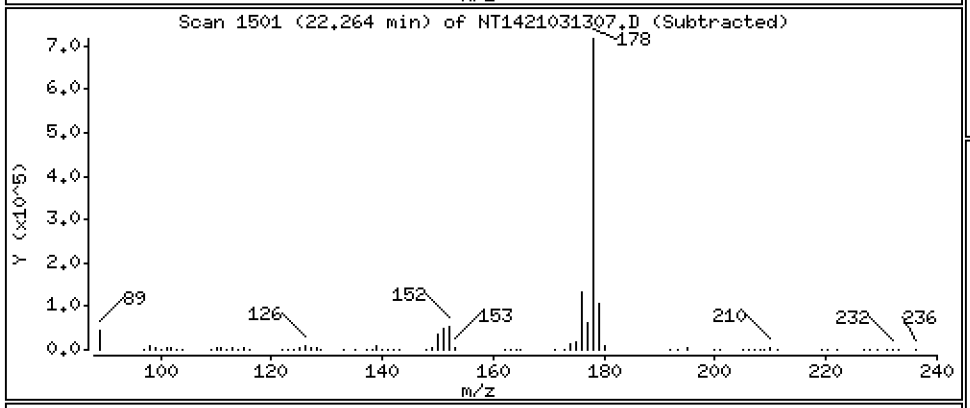
Column phase: Rxi-17Sil MS

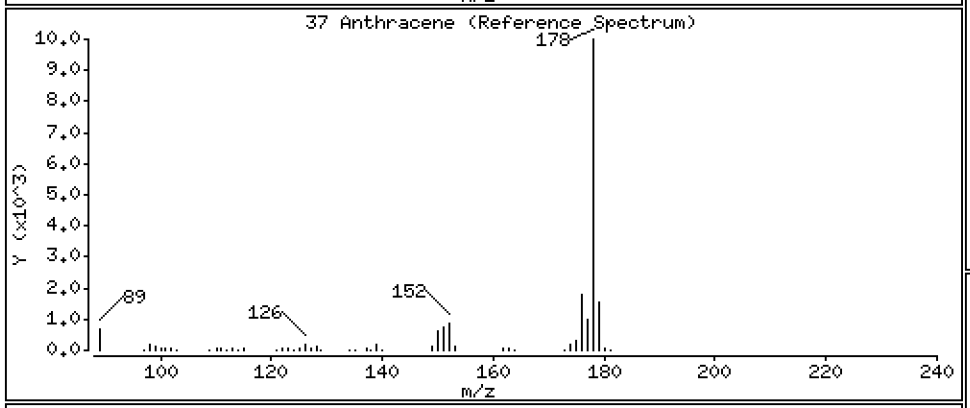
Column diameter: 0.25

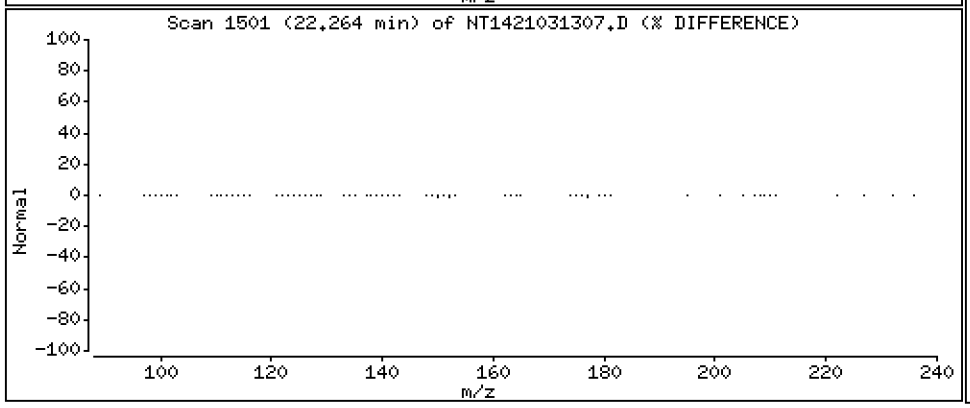
37 Anthracene

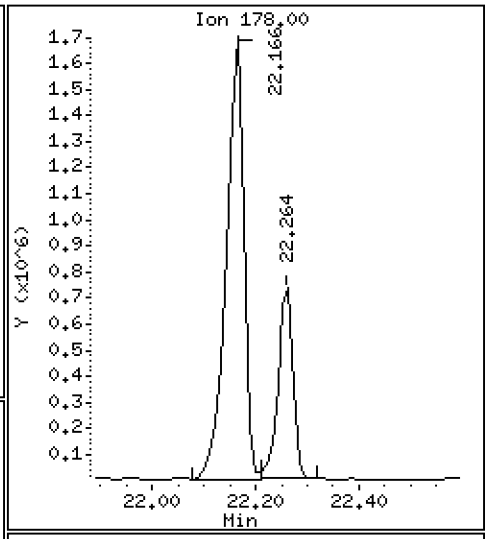
Concentration: 10.38 ug/mL

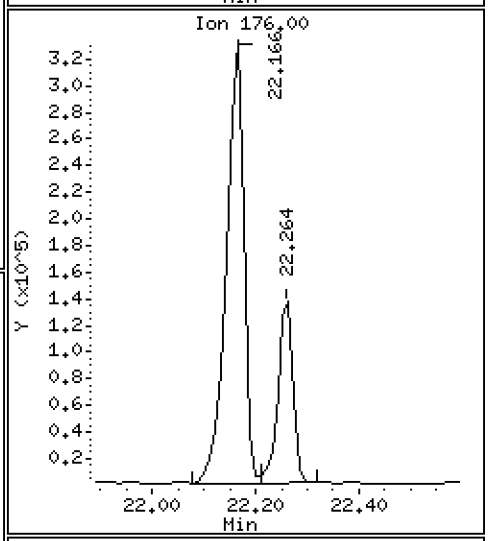


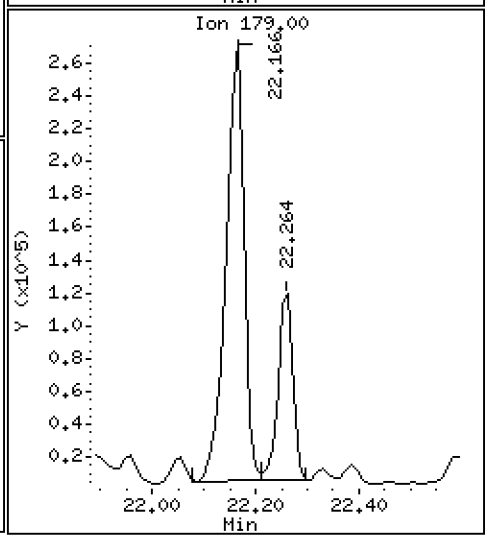












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031307.D

Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

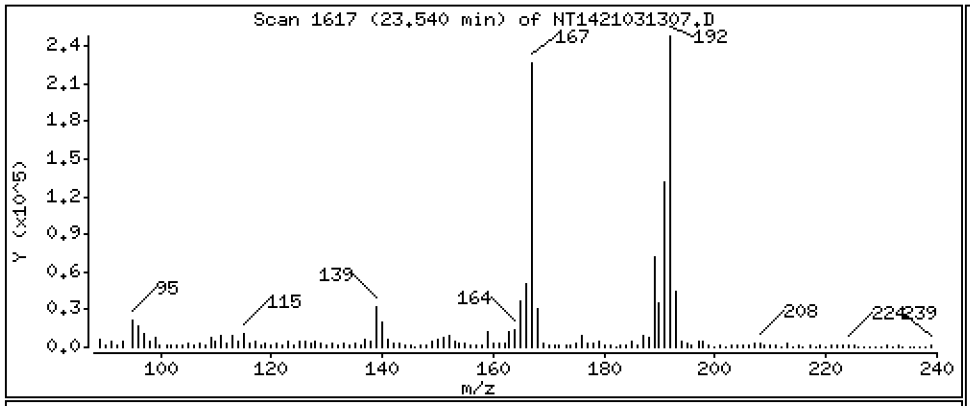
Operator: VTS

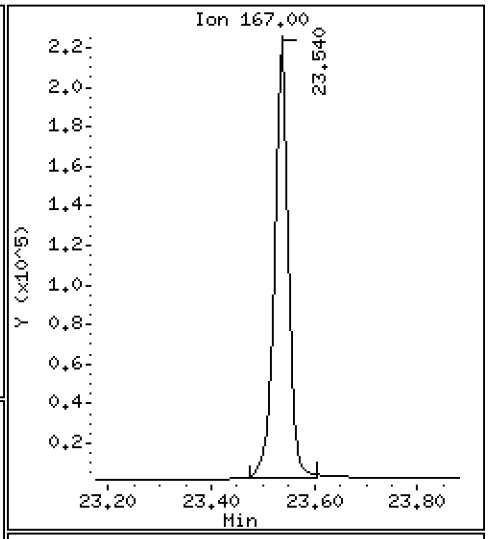
Column phase: Rxi-17Sil MS

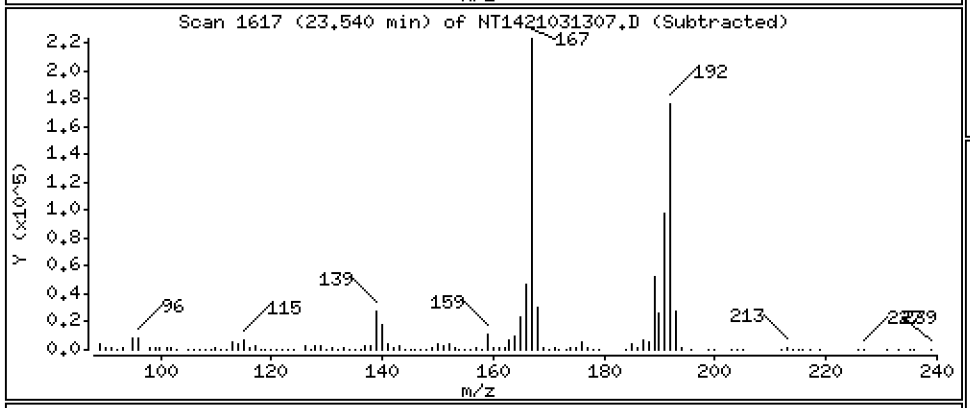
Column diameter: 0.25

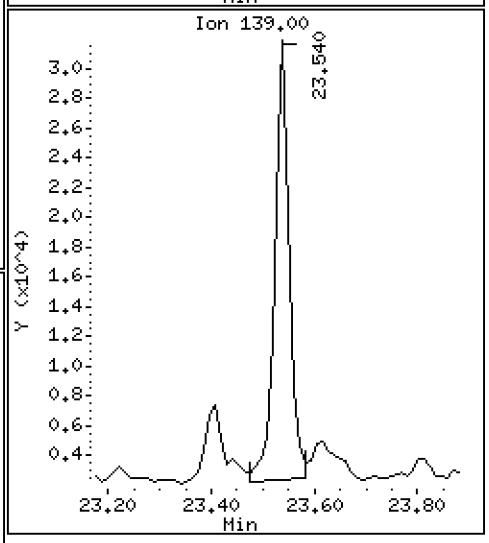
42 Carbazole

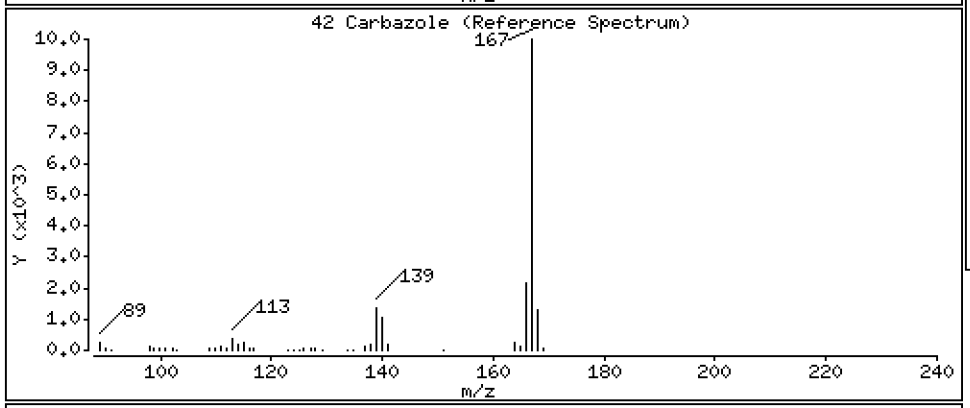
Concentration: 3.533 ug/mL

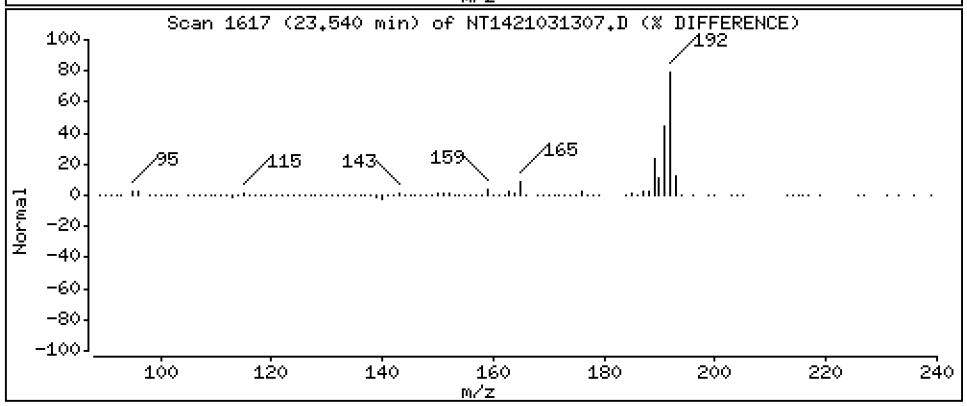












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Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

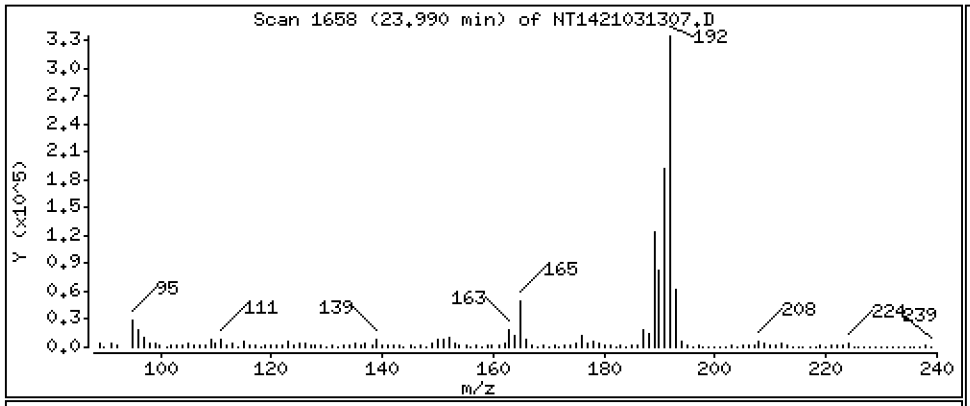
Operator: VTS

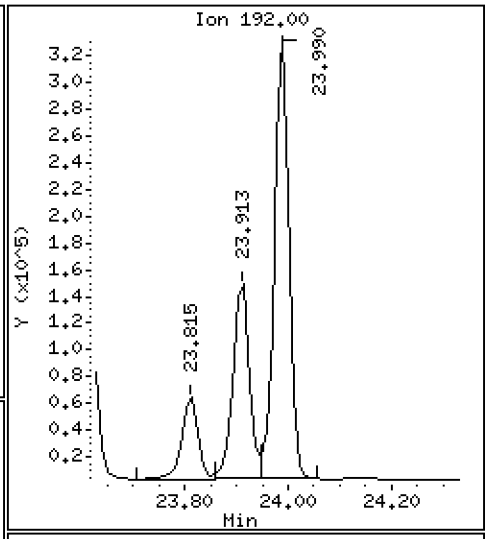
Column phase: Rxi-17Sil MS

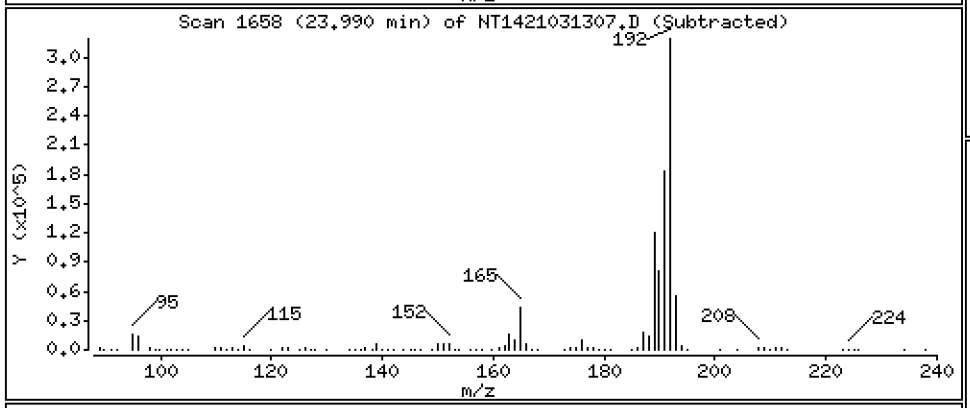
Column diameter: 0.25

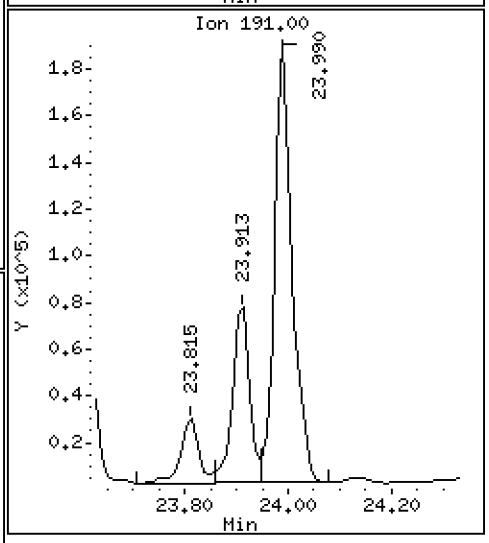
43 1-Methylphenanthrene

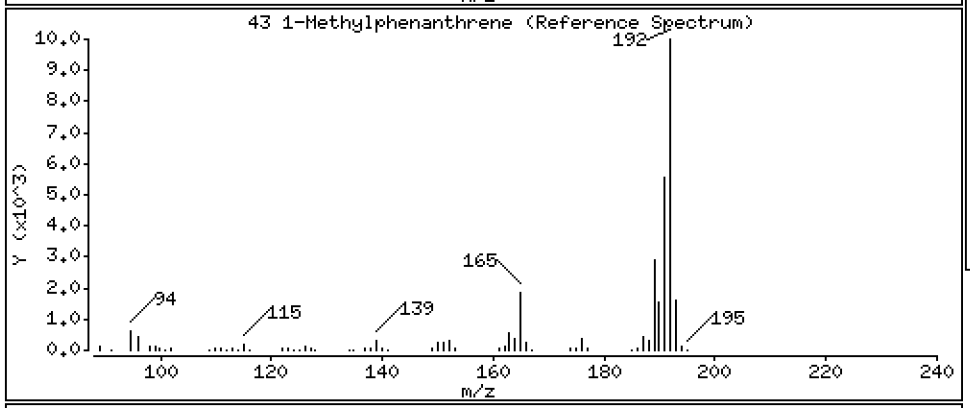
Concentration: 5.898 ug/mL

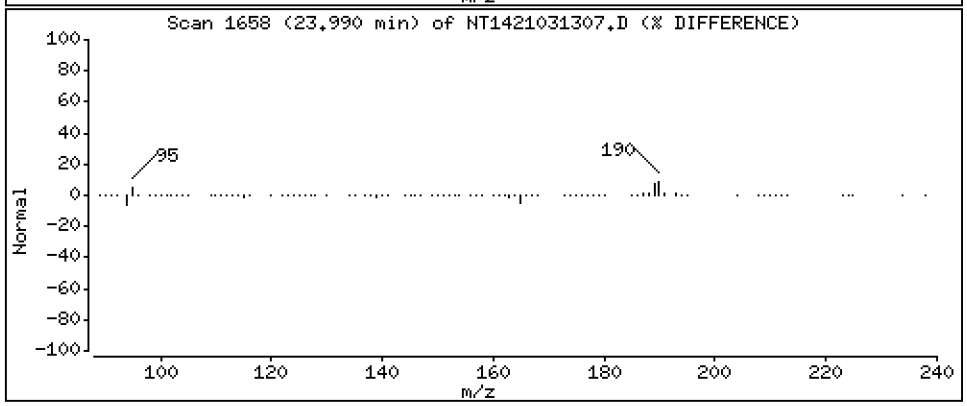












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Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

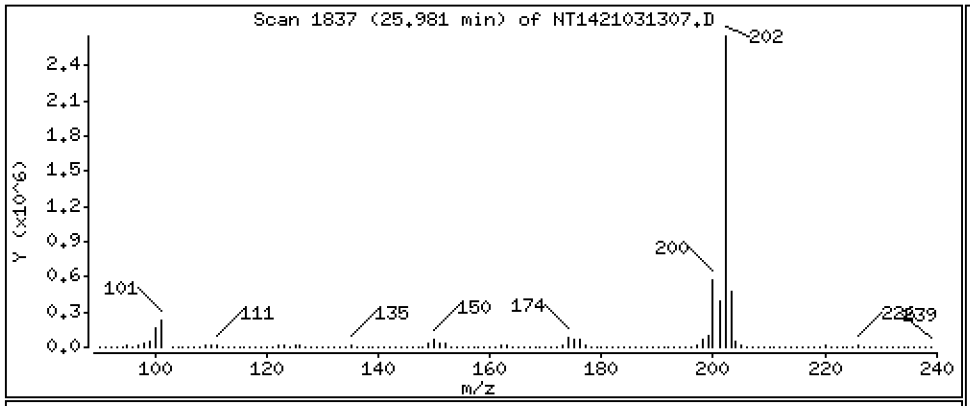
Operator: VTS

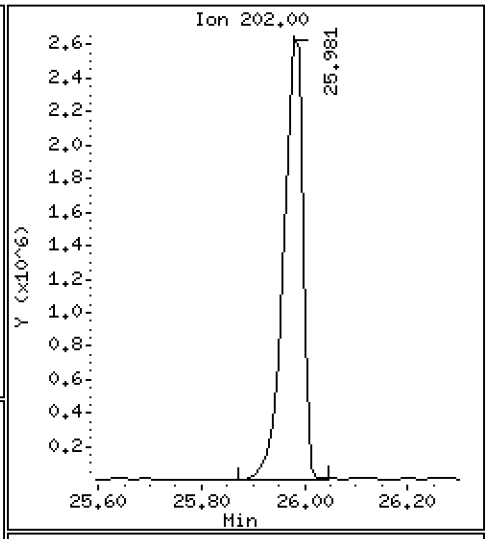
Column phase: Rxi-17Sil MS

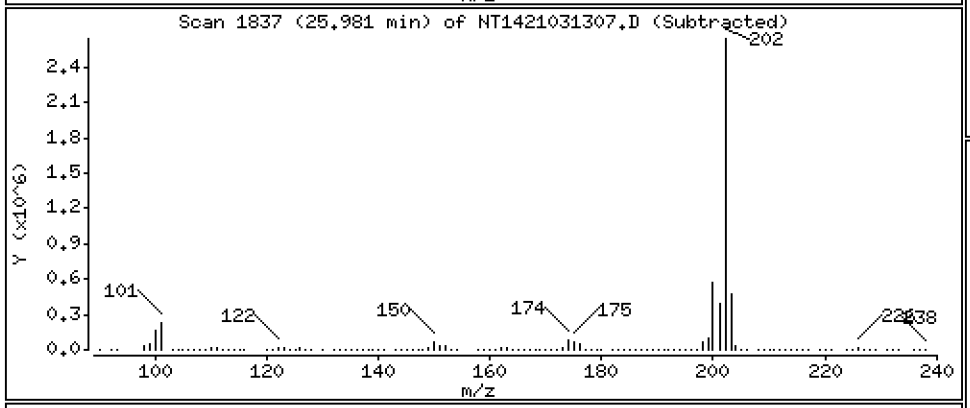
Column diameter: 0.25

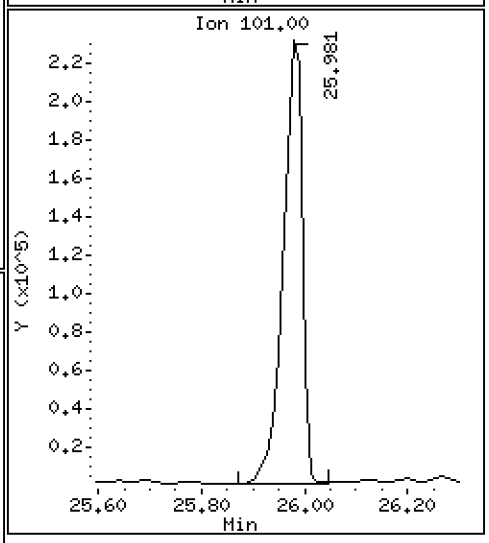
44 Fluoranthene

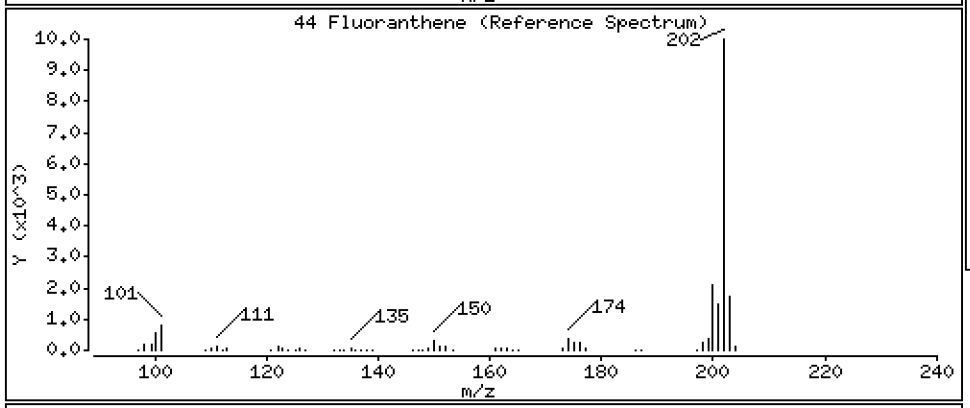
Concentration: 39.45 ug/mL

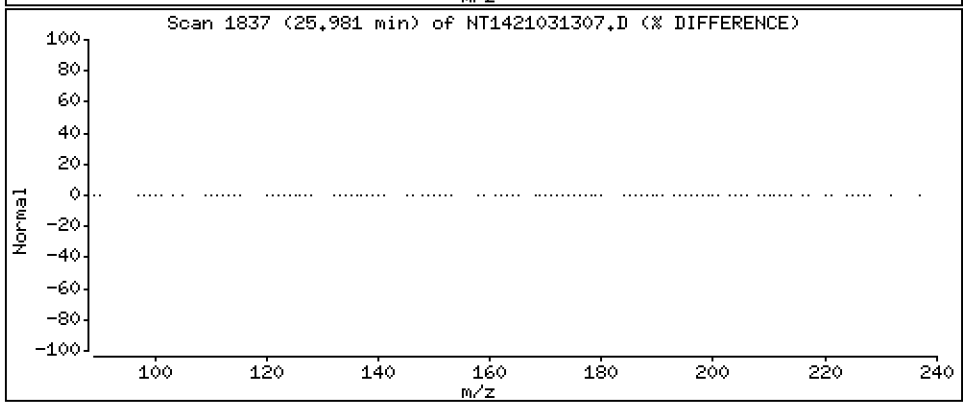












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031307.D

Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

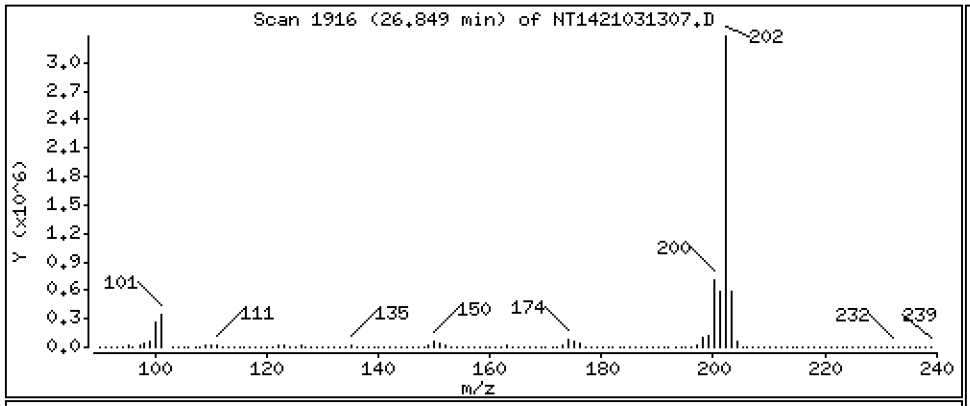
Operator: VTS

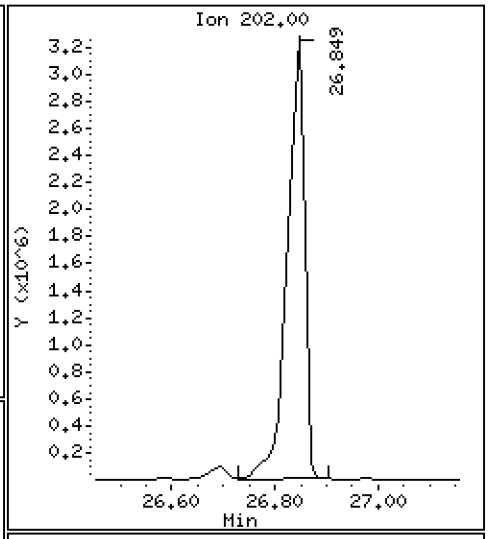
Column phase: Rxi-17Sil MS

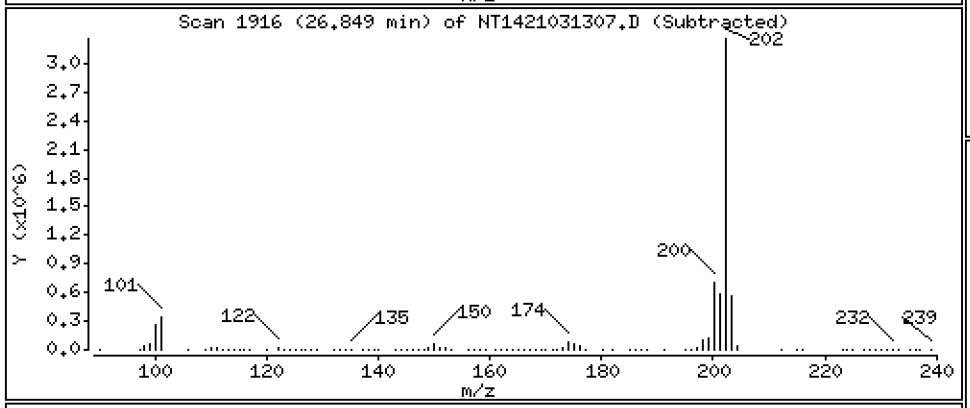
Column diameter: 0.25

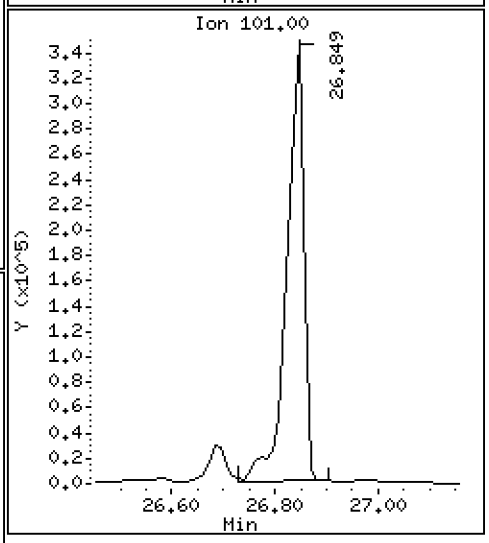
46 Pyrene

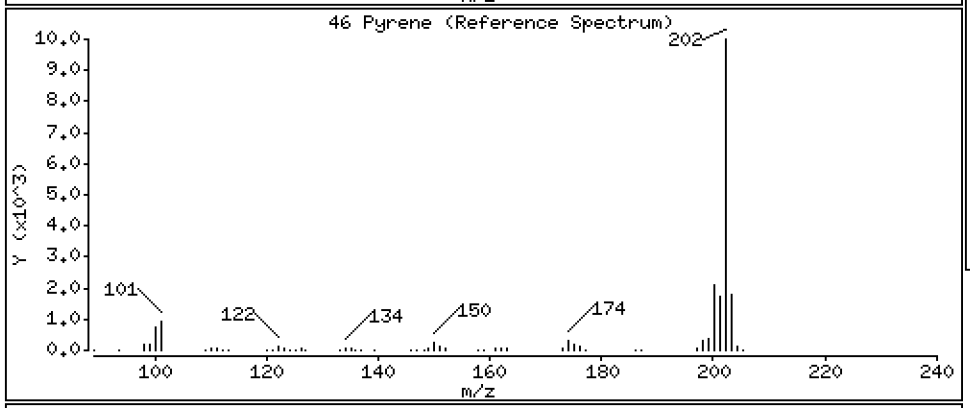
Concentration: 41.30 ug/mL

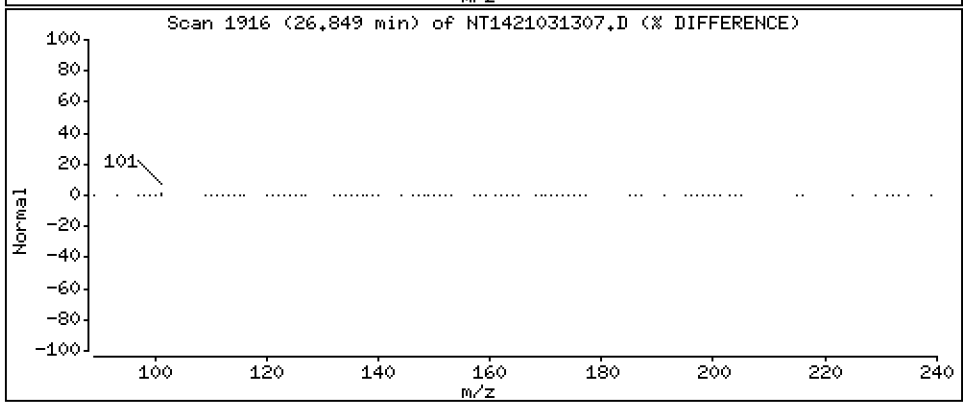












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Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

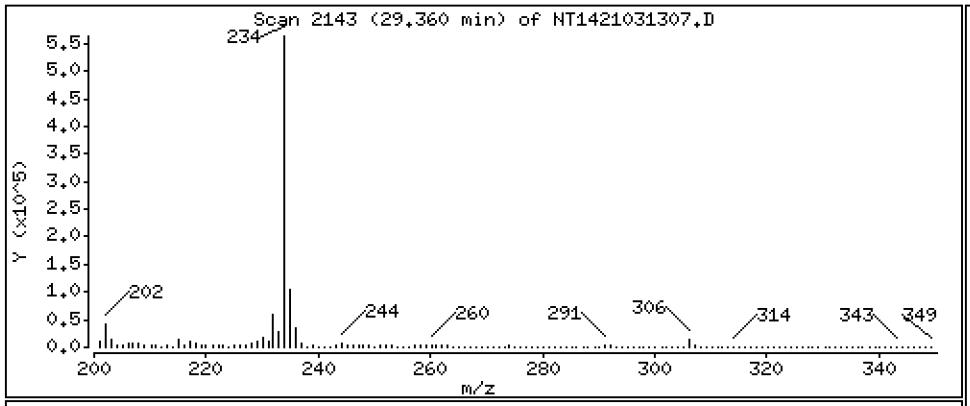
Operator: VTS

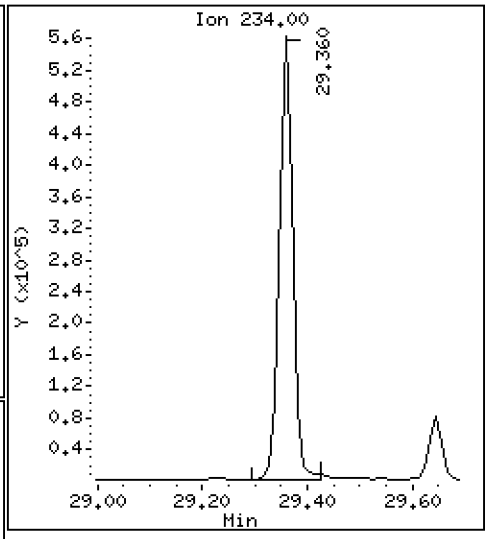
Column phase: Rxi-17Sil MS

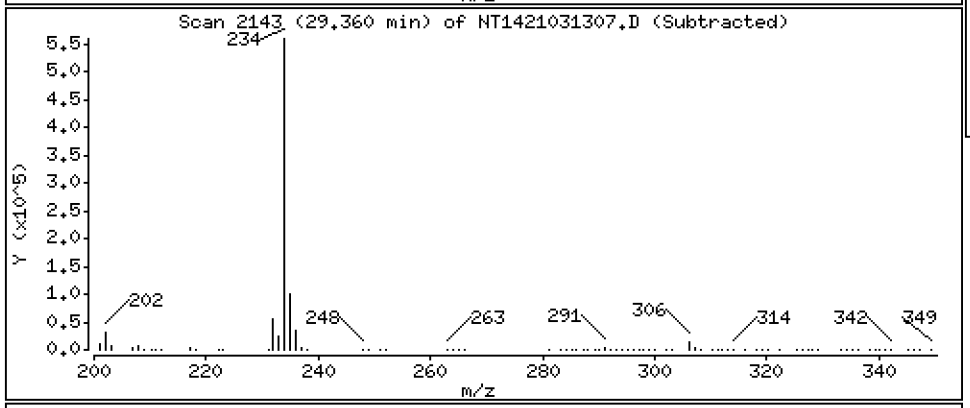
Column diameter: 0.25

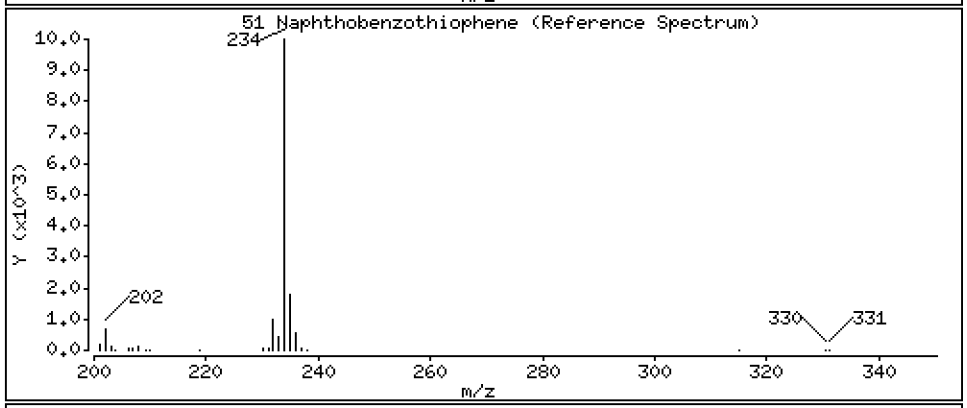
51 Naphthobenzothiophene

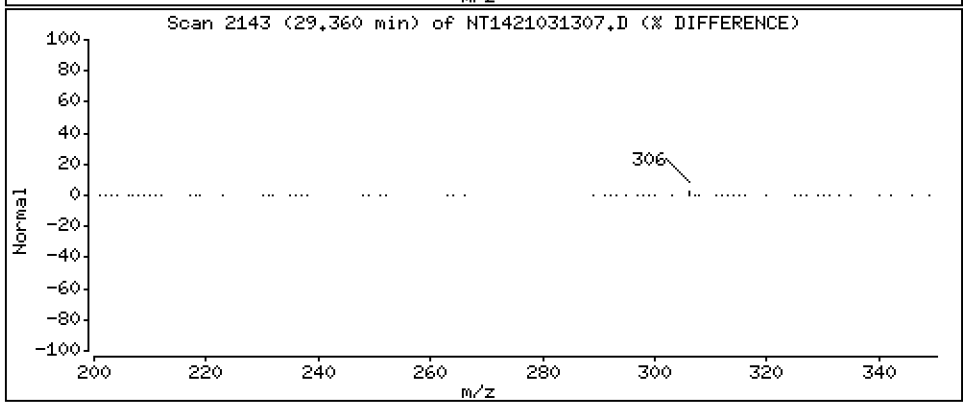
Concentration: 7.510 ug/mL











Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031307.D

Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

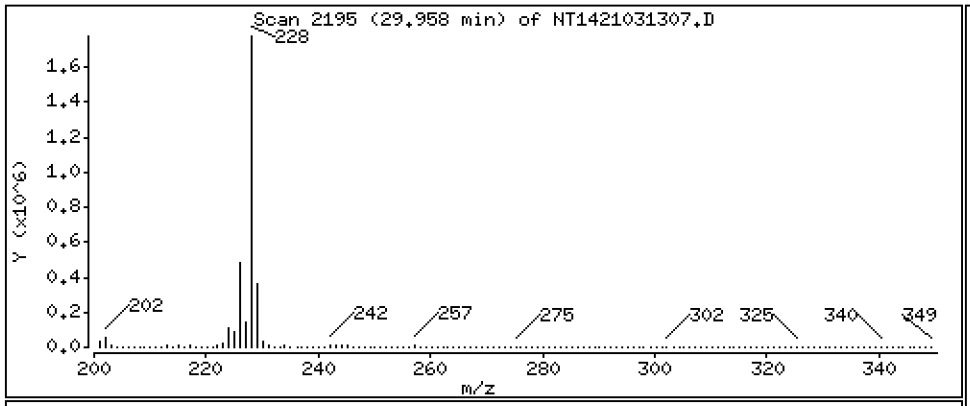
Operator: VTS

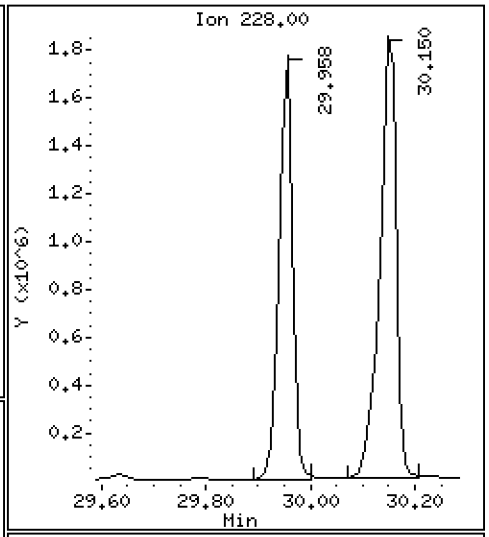
Column phase: Rxi-17Sil MS

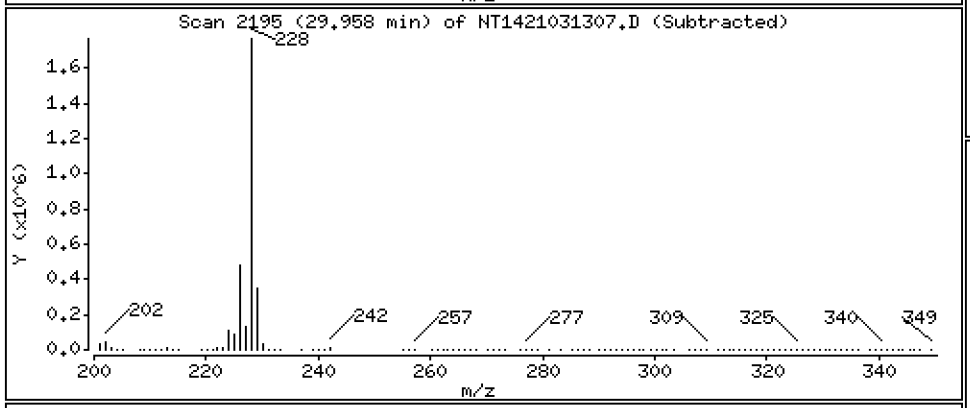
Column diameter: 0.25

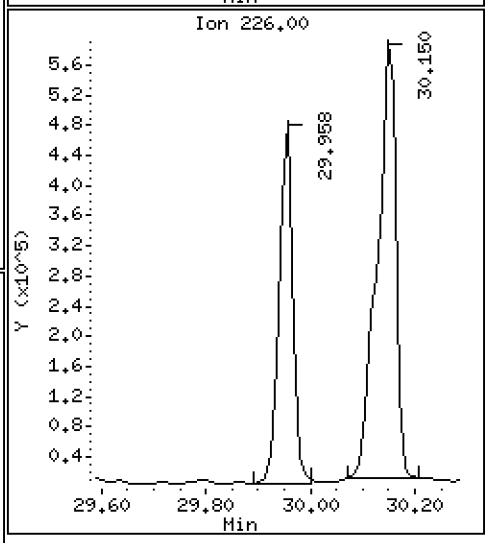
55 Benzo(a)anthracene

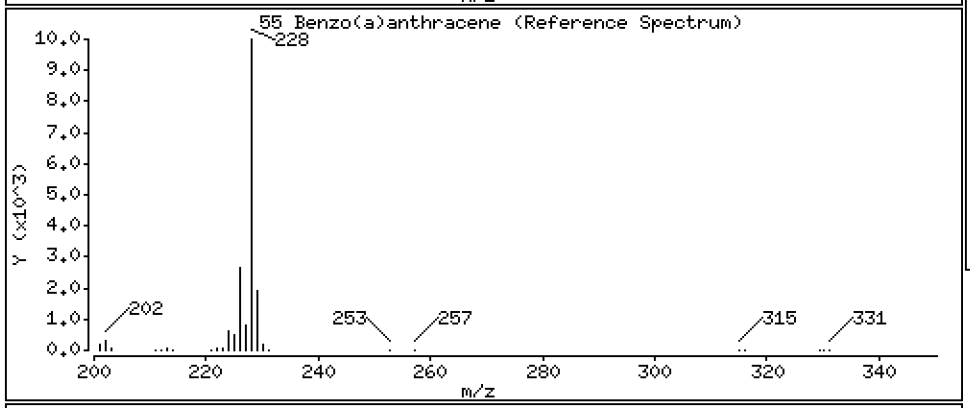
Concentration: 15.04 ug/mL

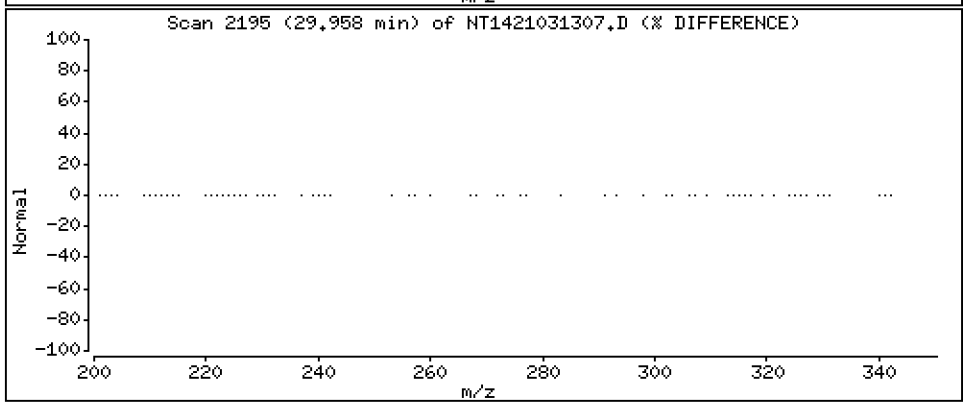












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031307.D

Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

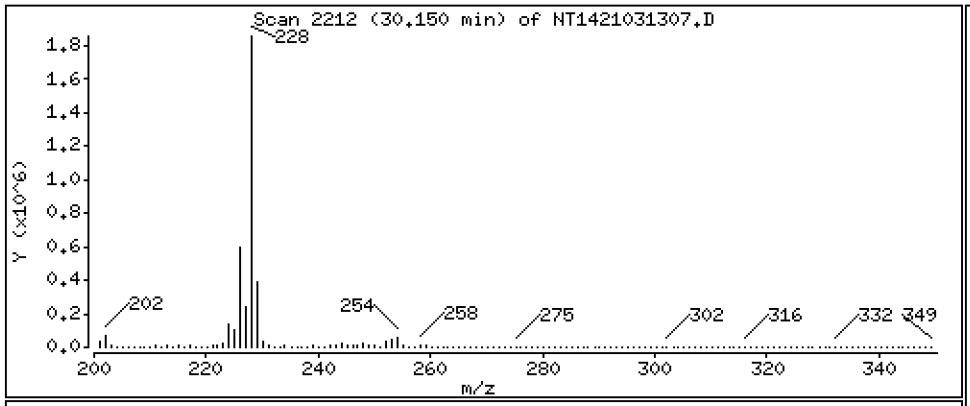
Operator: VTS

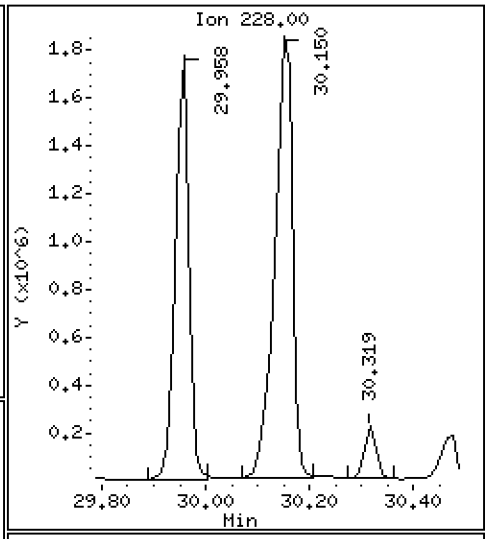
Column phase: Rxi-17Sil MS

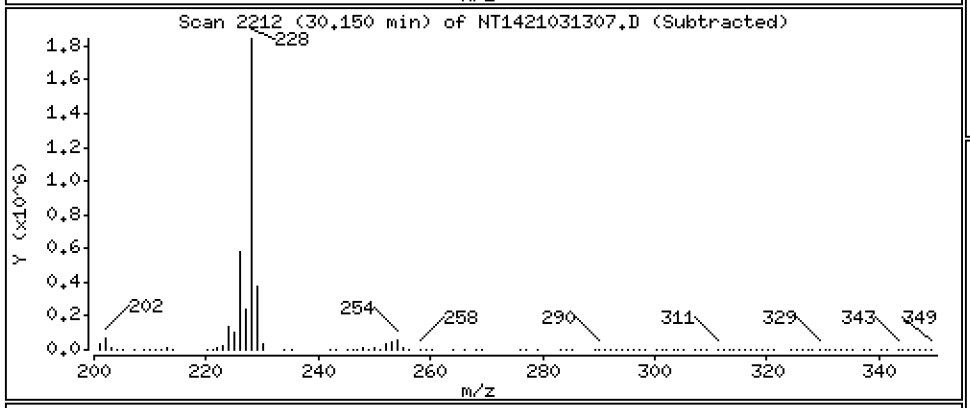
Column diameter: 0.25

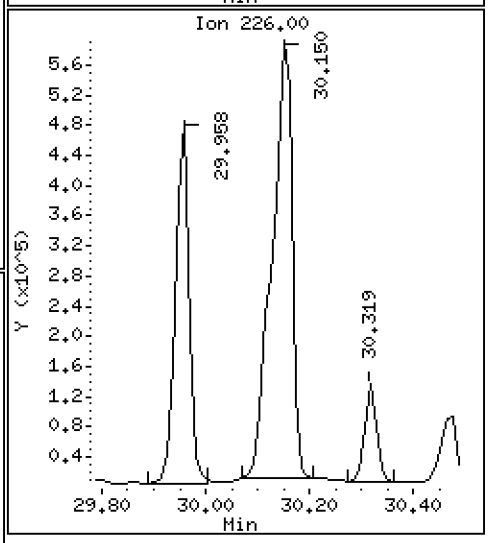
57 Chrysene

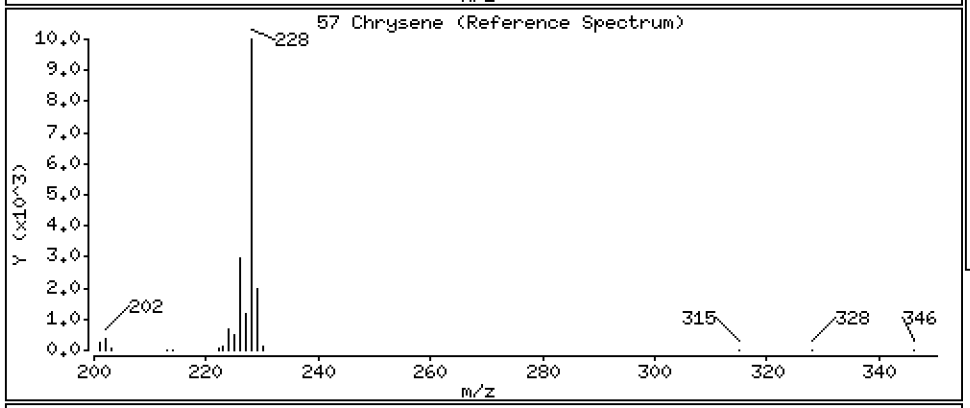
Concentration: 19.01 ug/mL

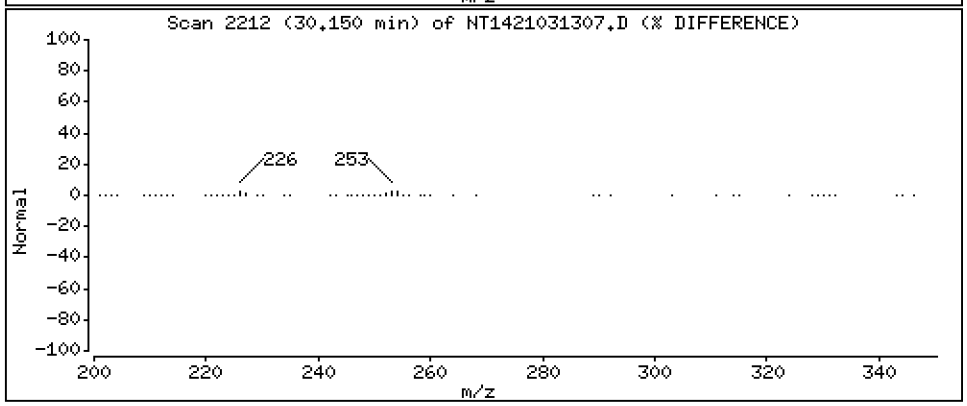












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031307.D

Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

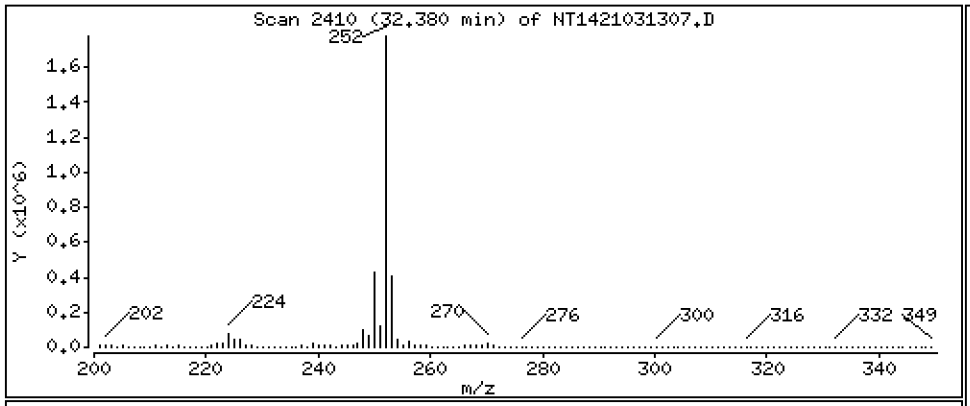
Operator: VTS

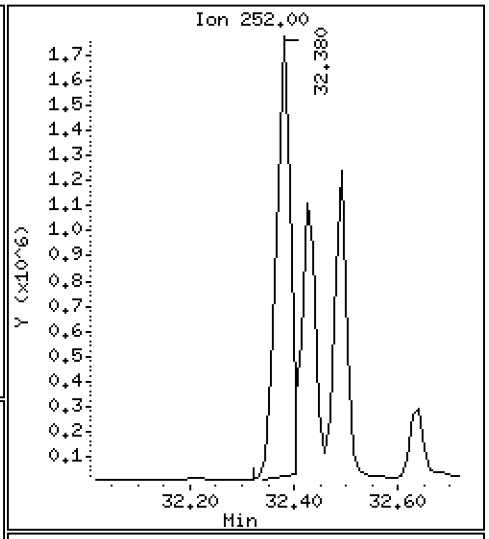
Column phase: Rxi-17Sil MS

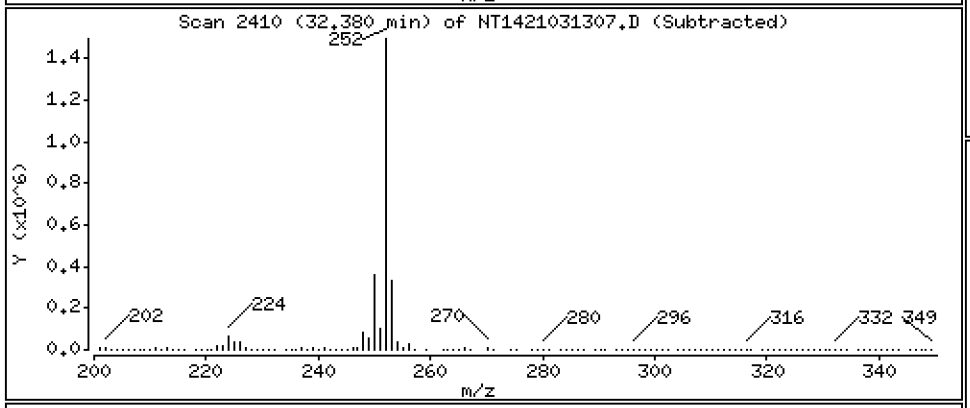
Column diameter: 0.25

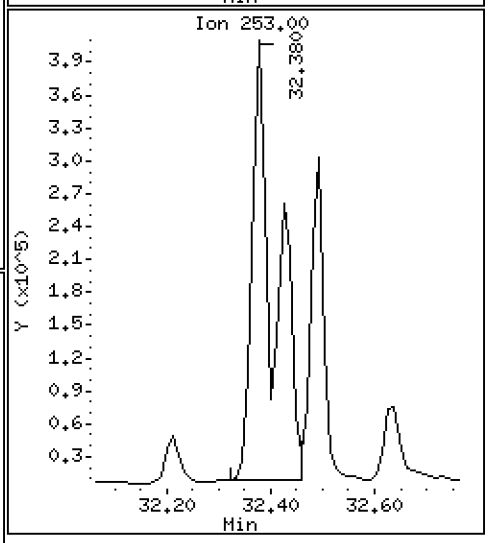
62 Benzo(b)fluoranthene

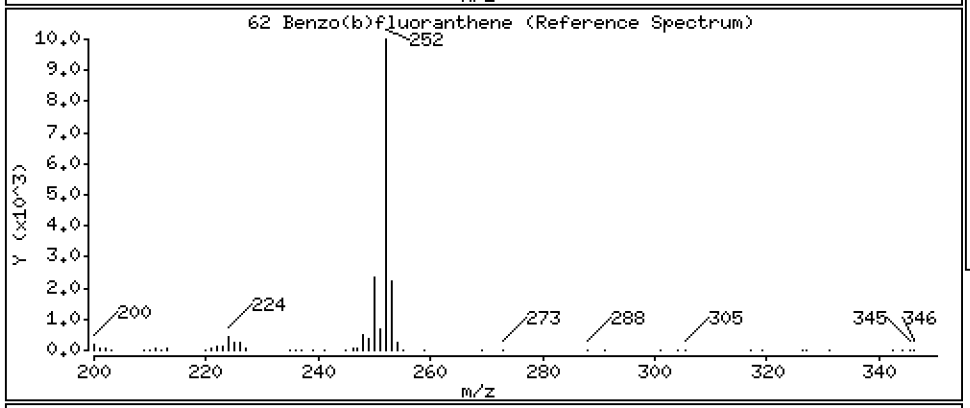
Concentration: 15.59 ug/mL

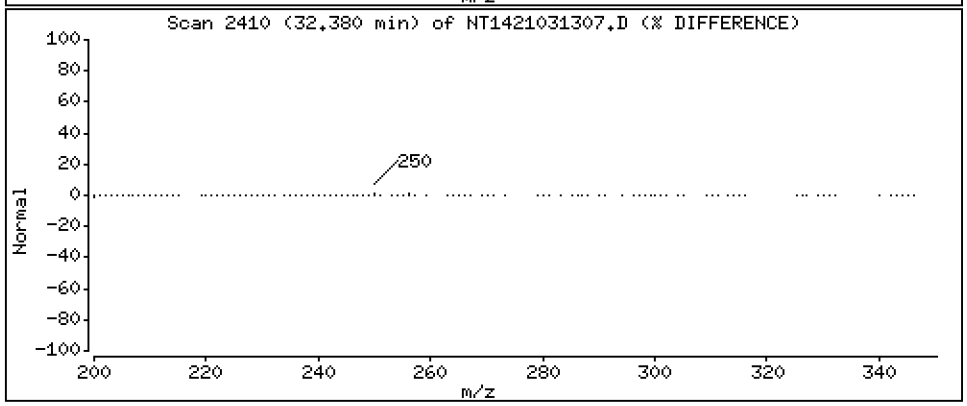












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031307.D

Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

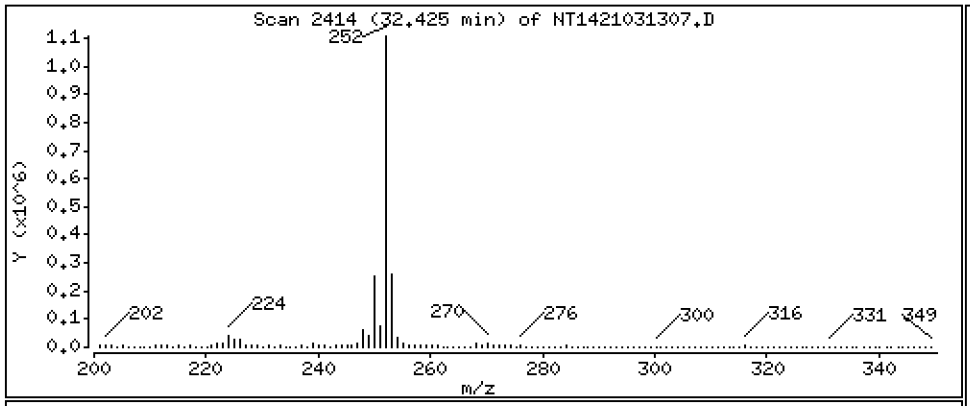
Operator: VTS

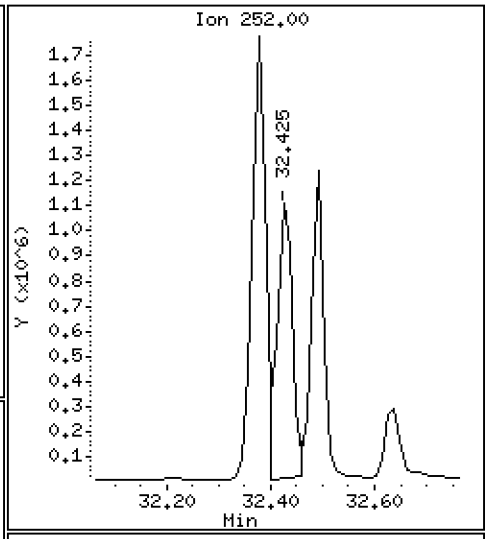
Column phase: Rxi-17Sil MS

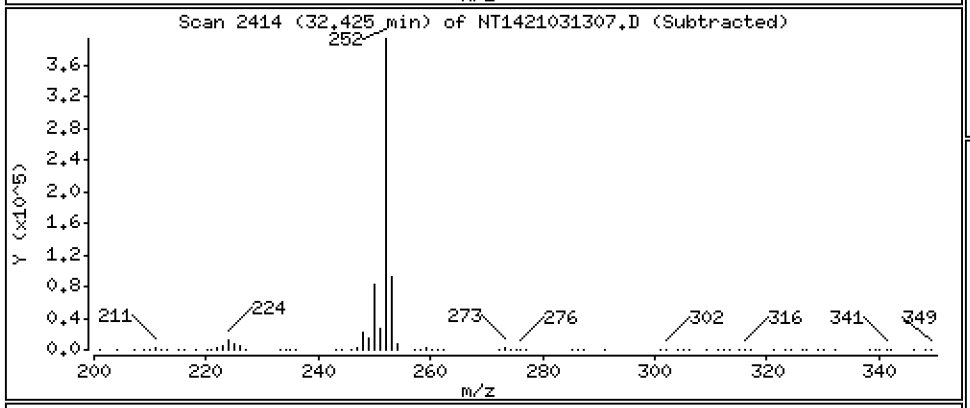
Column diameter: 0.25

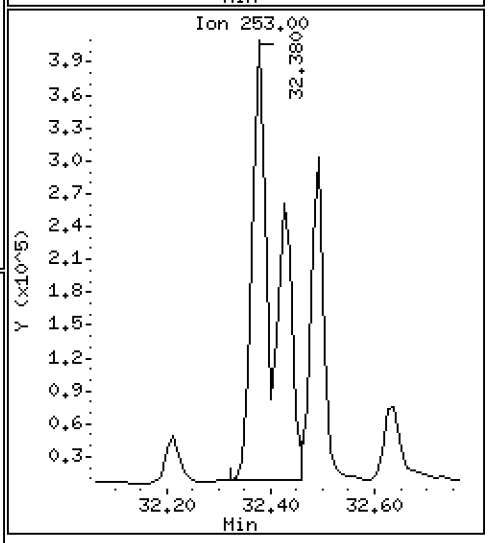
63 Benzo(k)fluoranthene

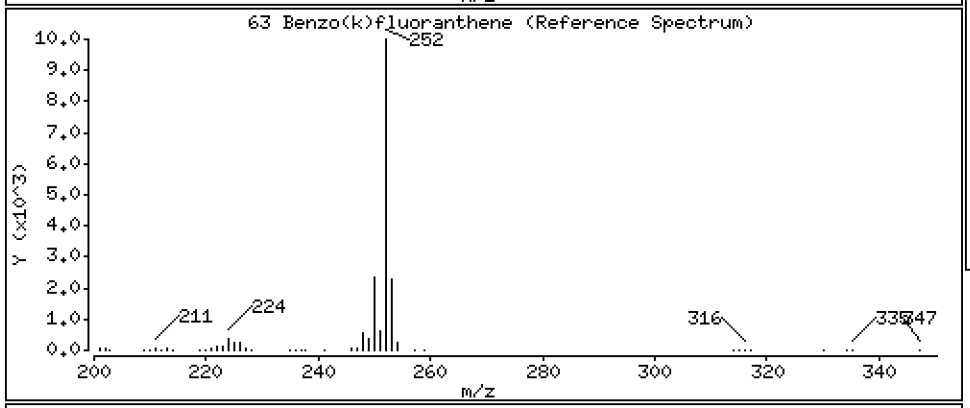
Concentration: 9.915 ug/mL

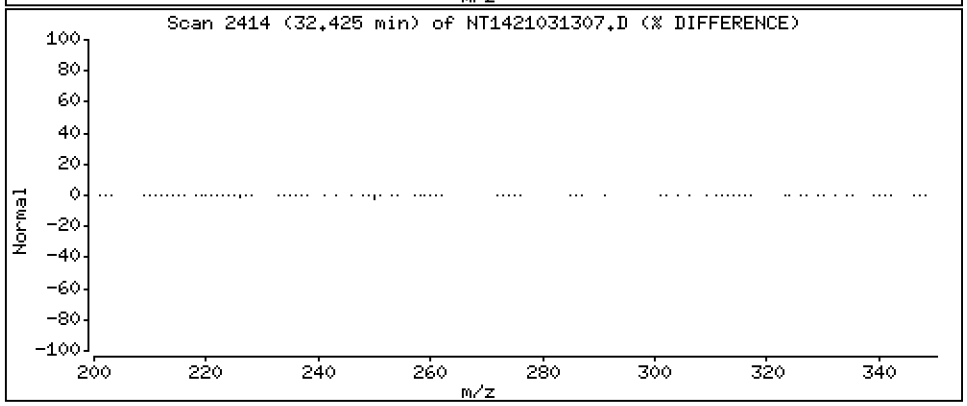












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031307.D

Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

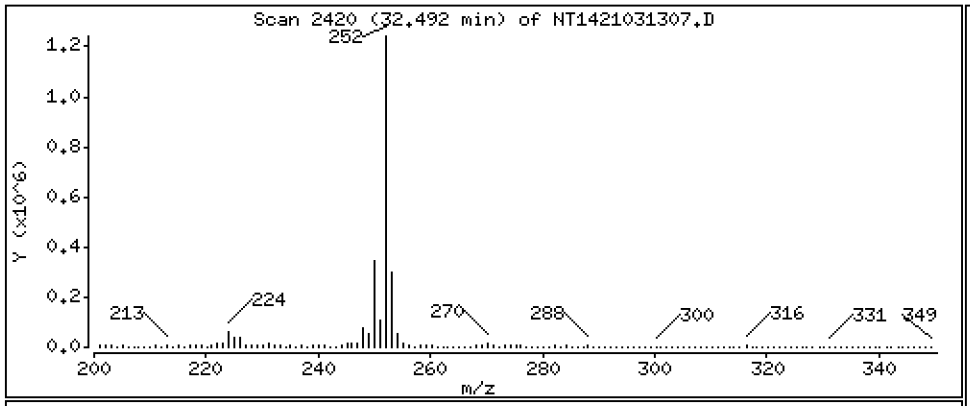
Operator: VTS

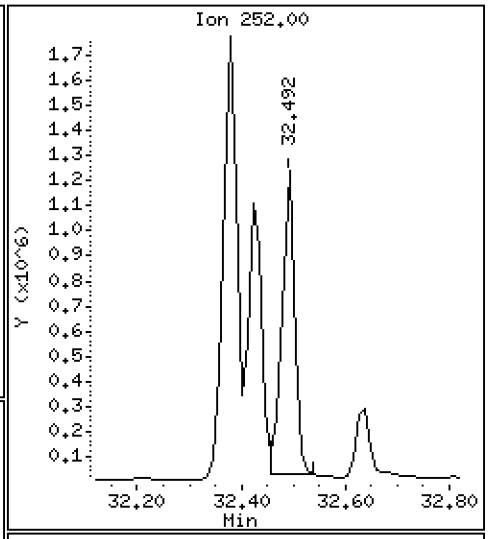
Column phase: Rxi-17Sil MS

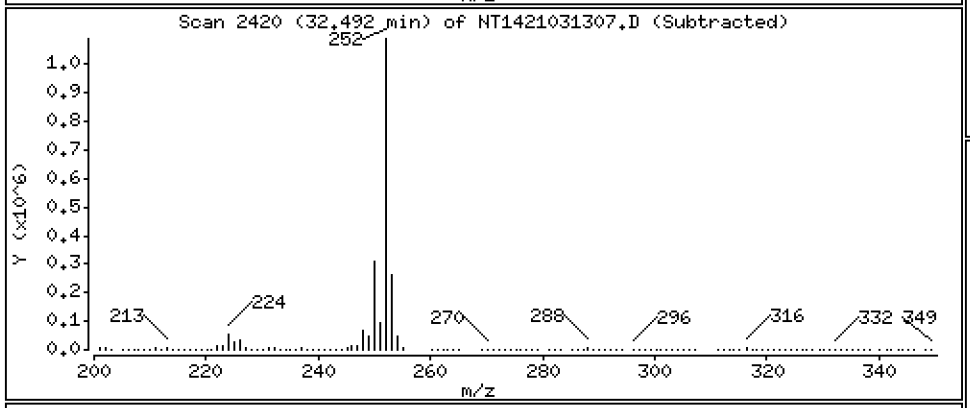
Column diameter: 0.25

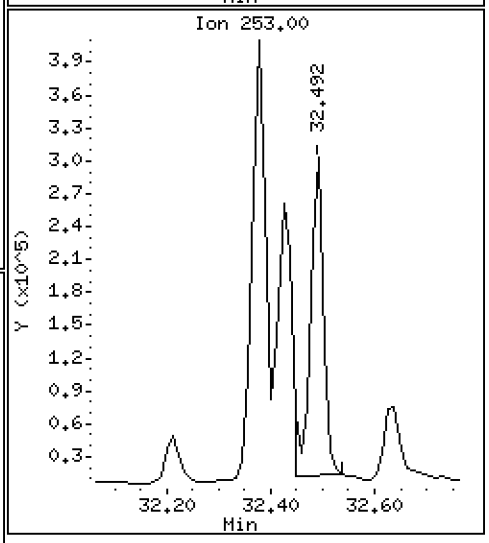
293 Benzo(j)fluoranthene

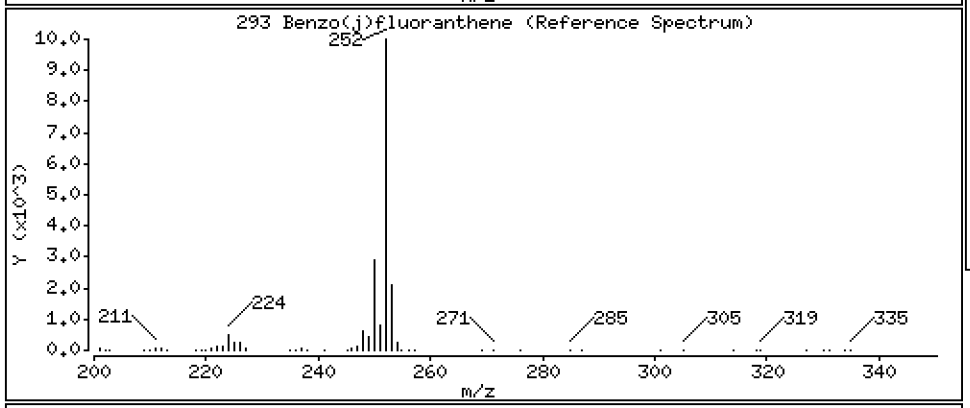
Concentration: 9.303 ug/mL

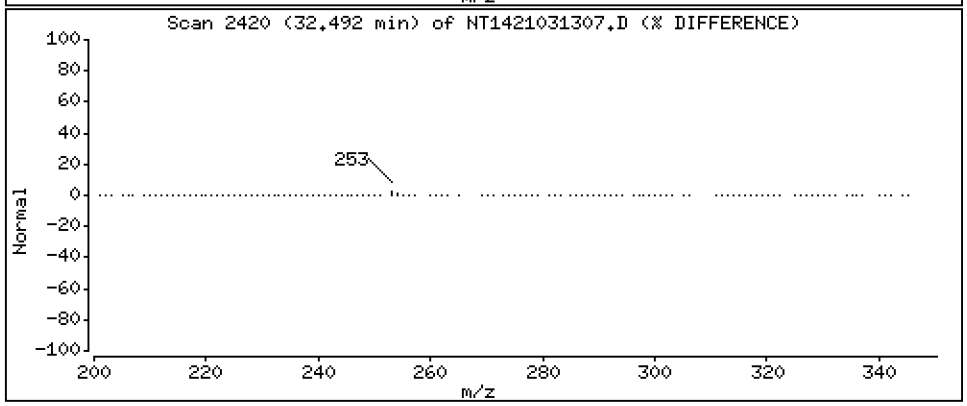












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031307.D

Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

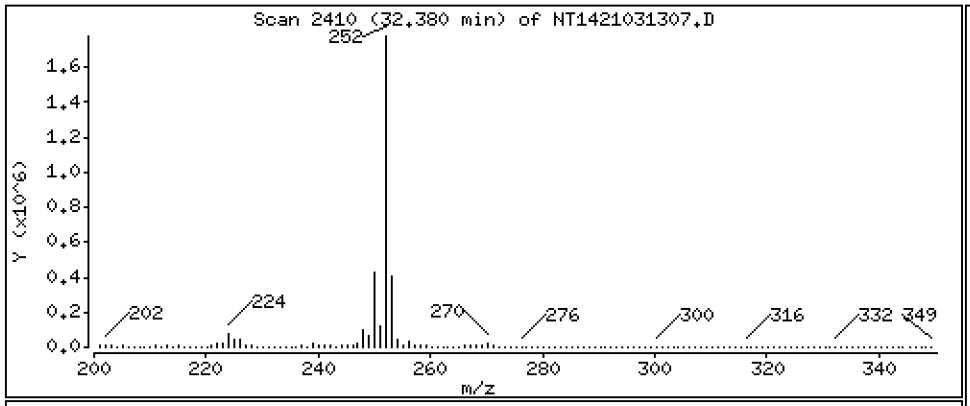
Operator: VTS

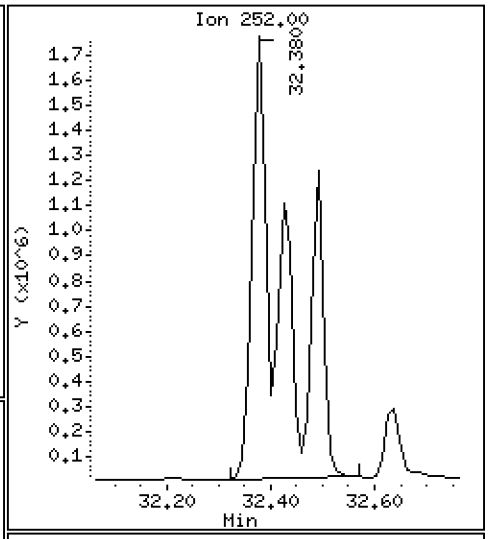
Column phase: Rxi-17Sil MS

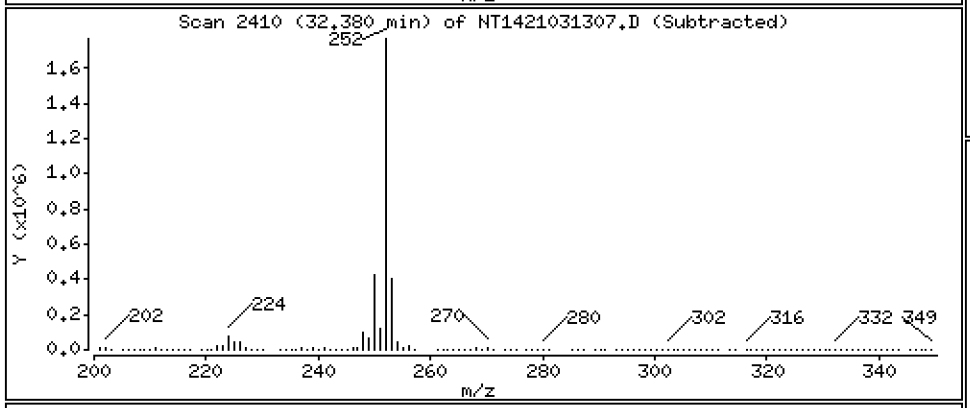
Column diameter: 0.25

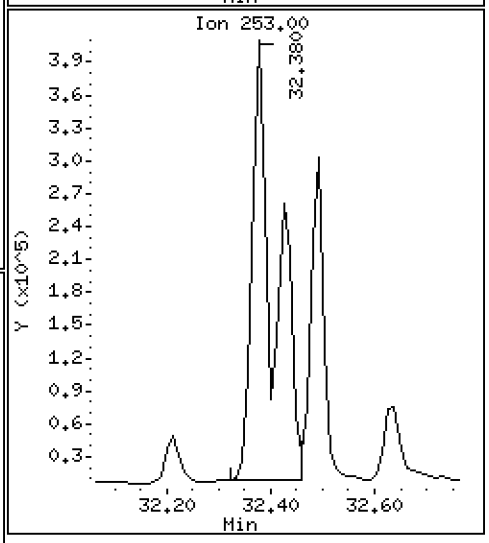
246 Total Benzofluoranthenes

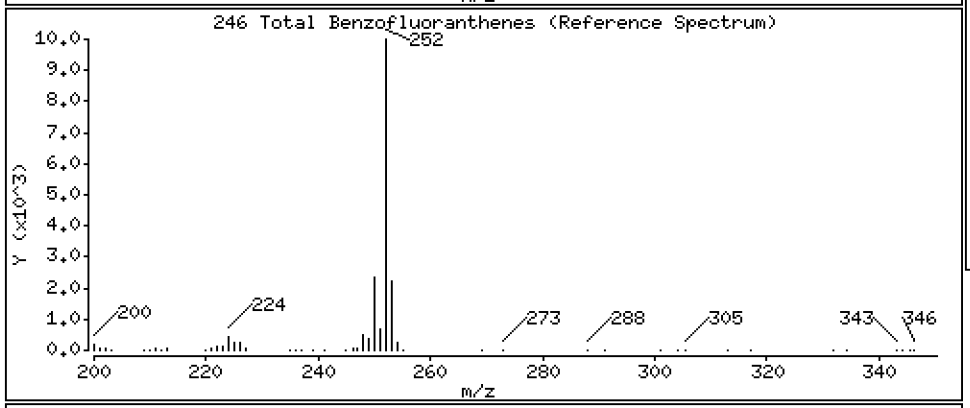
Concentration: 34.38 ug/mL

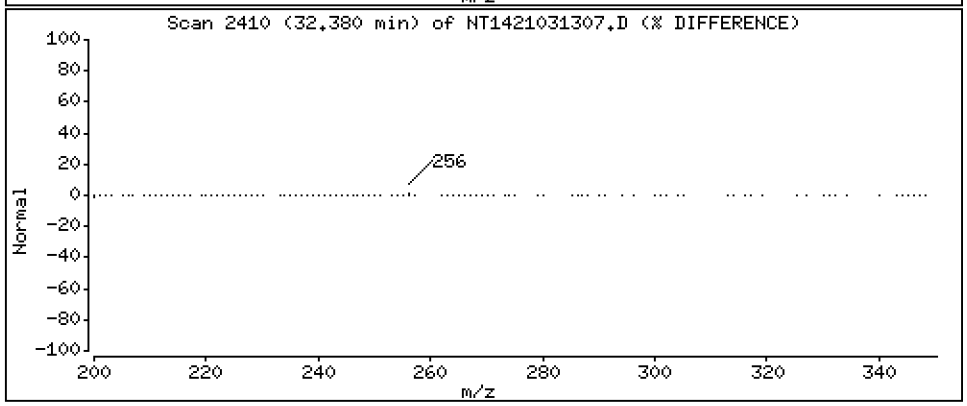












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031307.D

Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

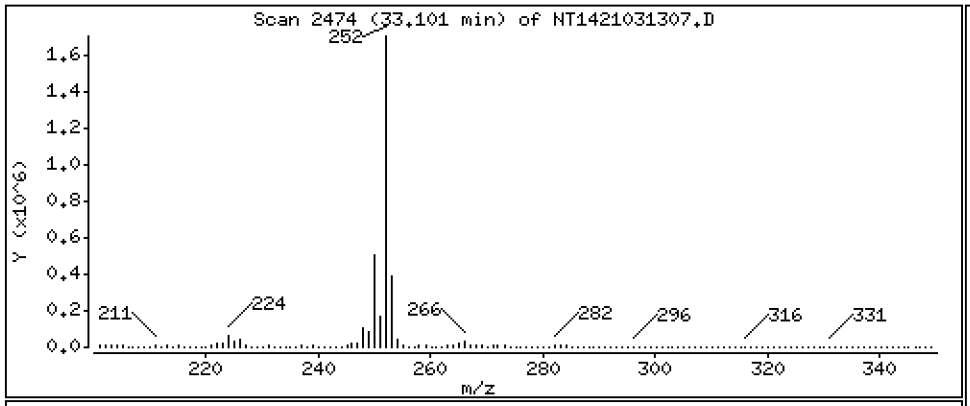
Operator: VTS

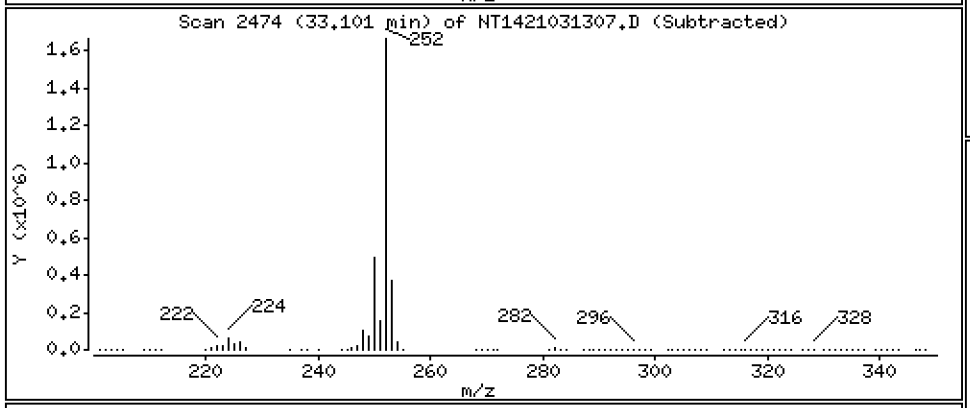
Column phase: Rxi-17Sil MS

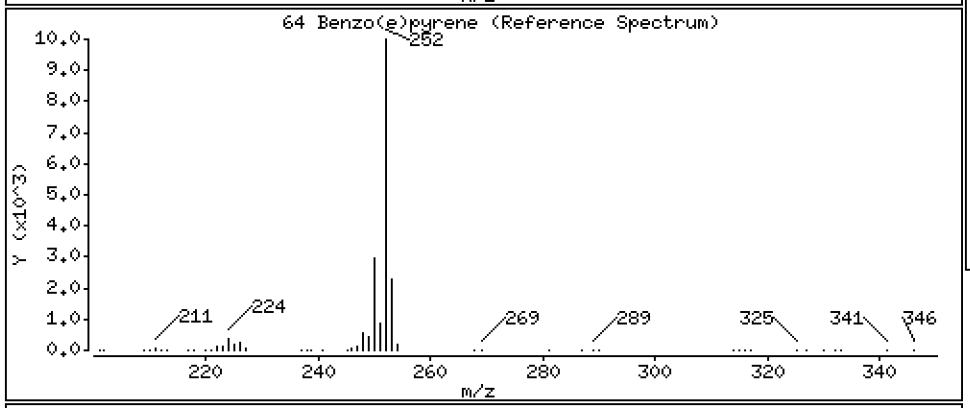
Column diameter: 0.25

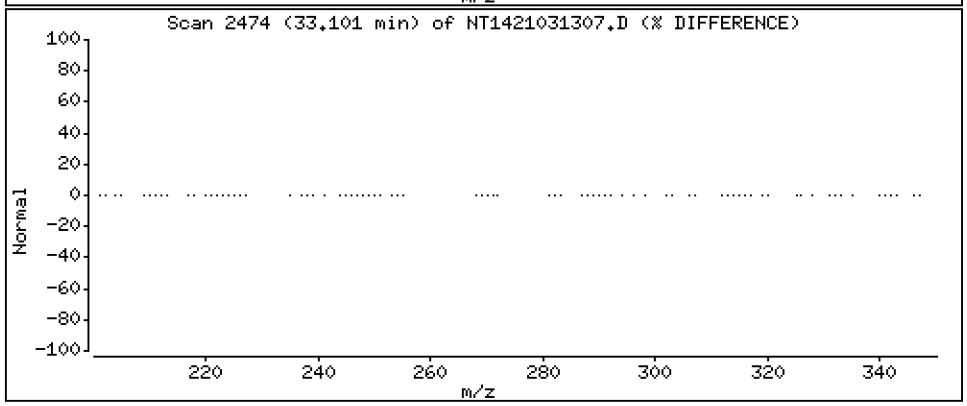
64 Benzo(e)pyrene

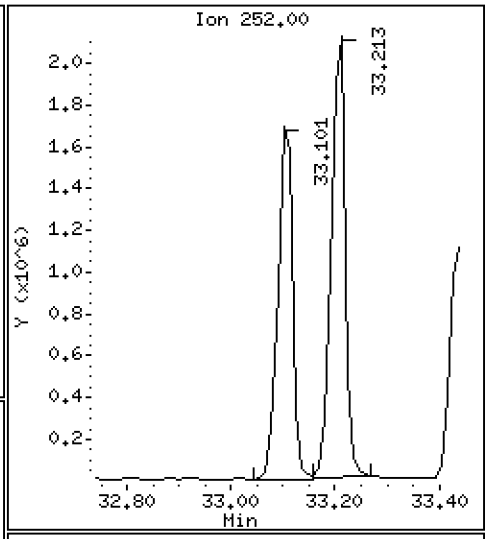
Concentration: 15.87 ug/mL

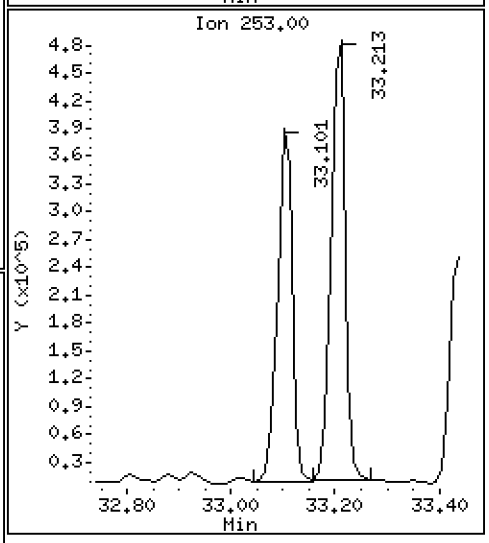












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031307.D

Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

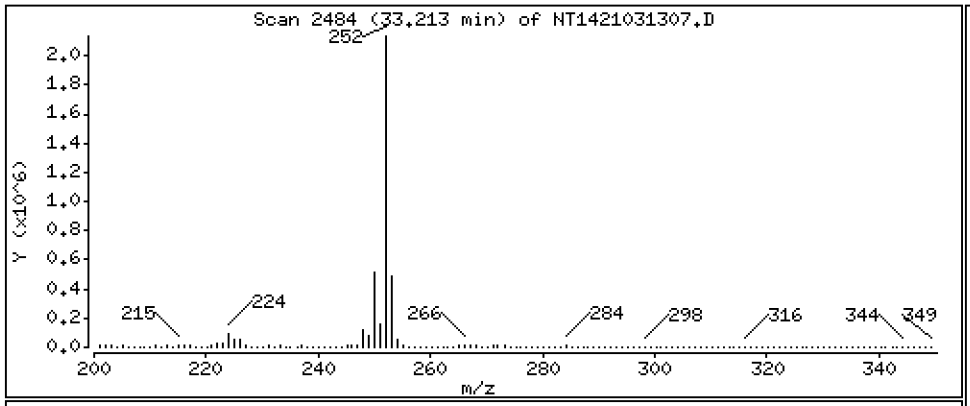
Operator: VTS

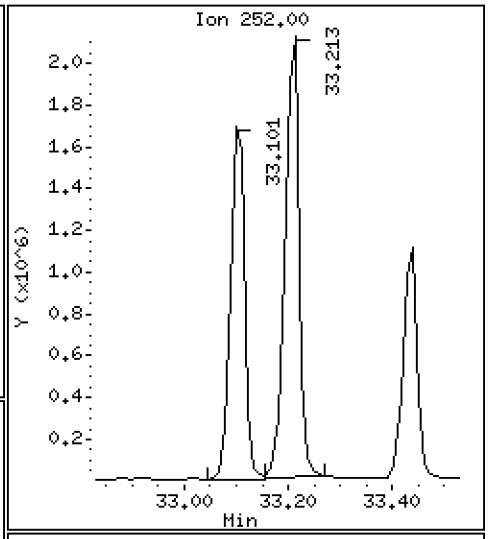
Column phase: Rxi-17Sil MS

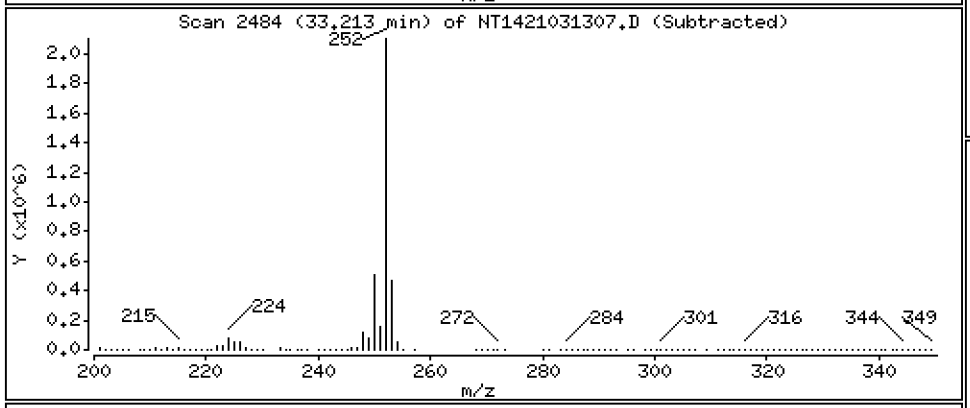
Column diameter: 0.25

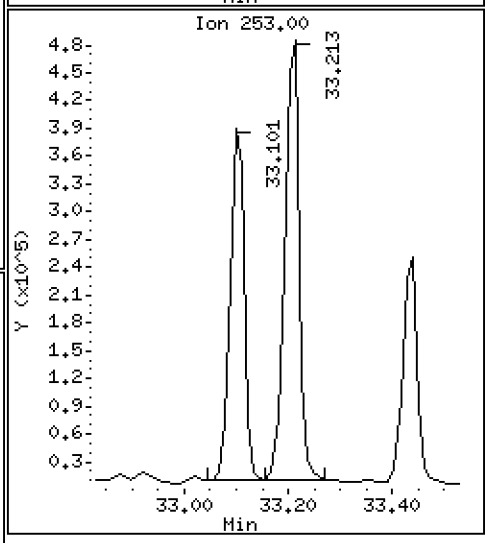
66 Benzo(a)pyrene

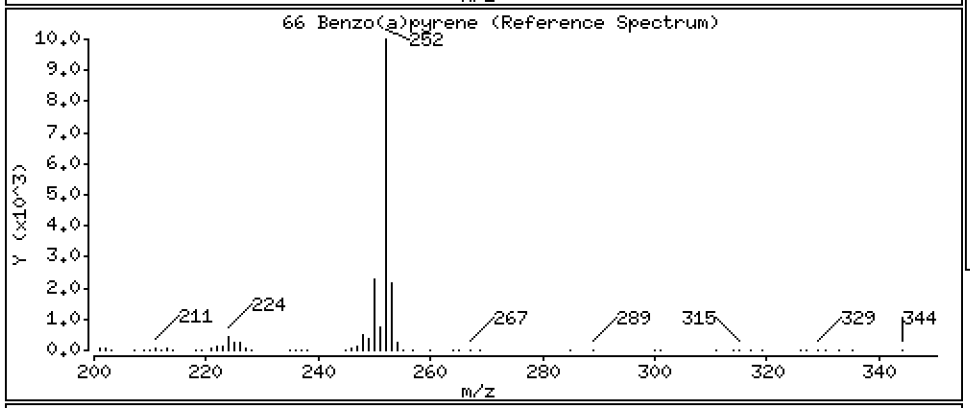
Concentration: 20.52 ug/mL

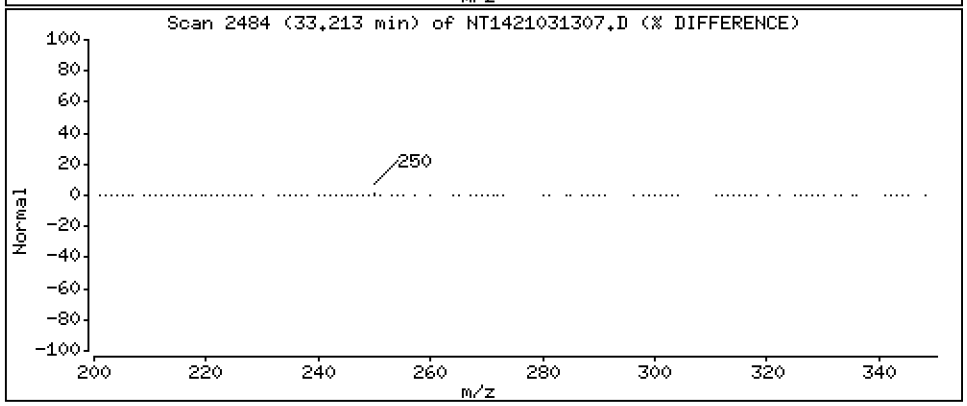












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031307.D

Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

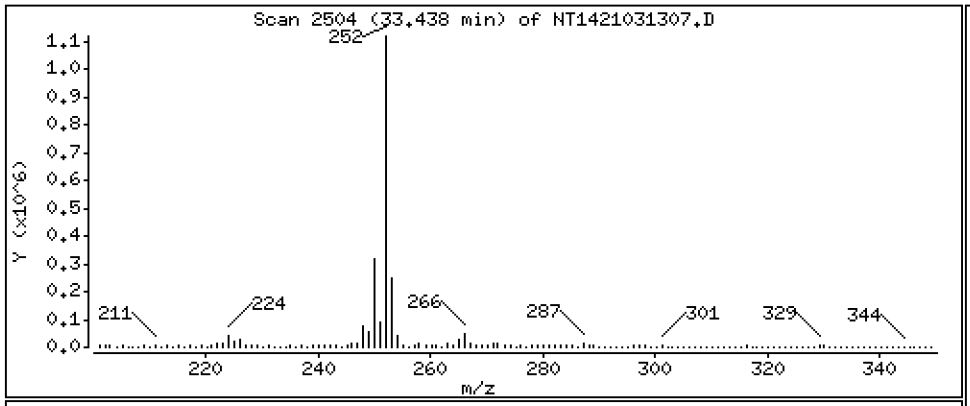
Operator: VTS

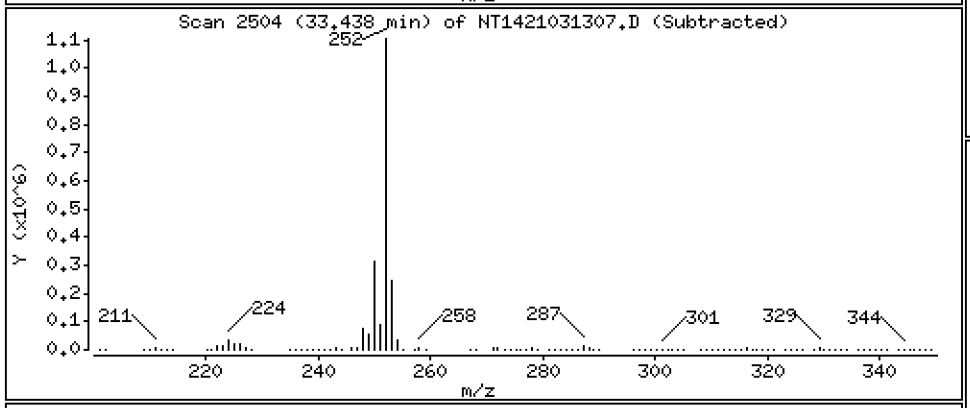
Column phase: Rxi-17Sil MS

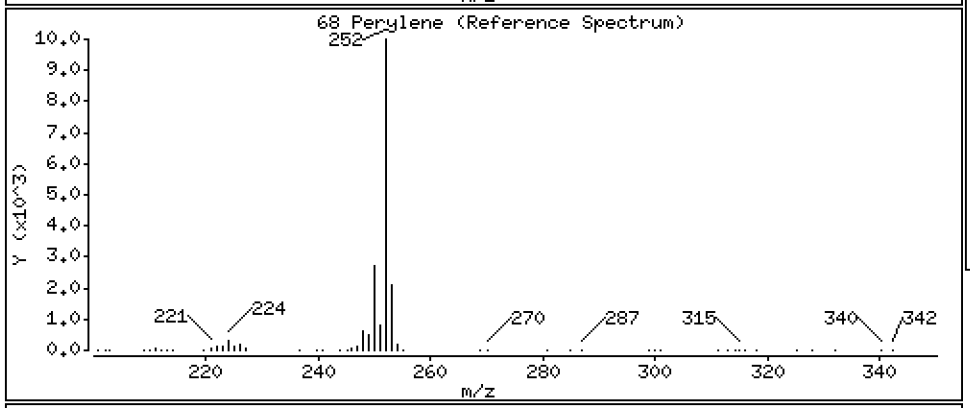
Column diameter: 0.25

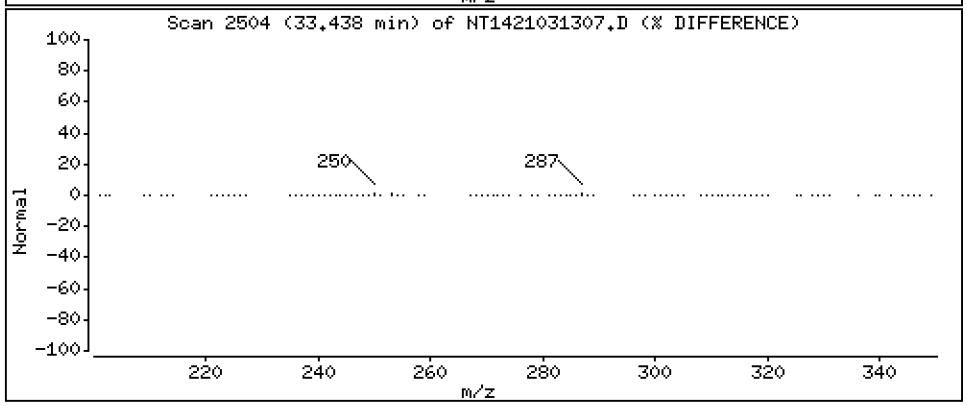
68 Perylene

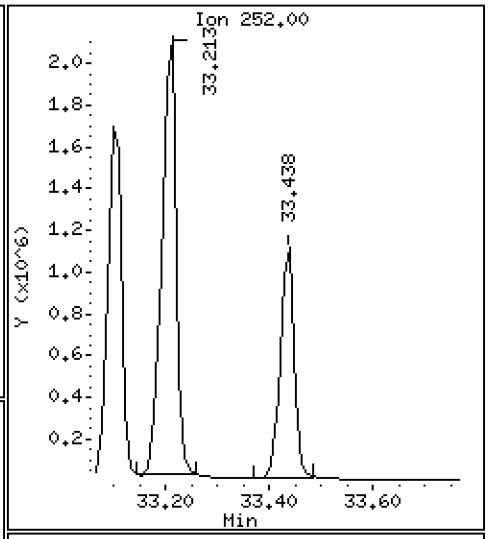
Concentration: 10.33 ug/mL

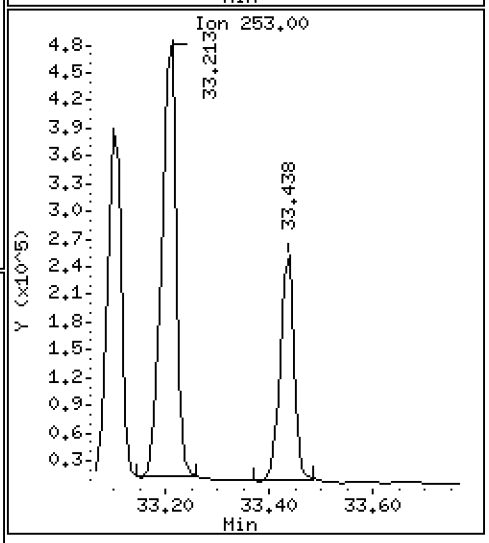












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031307.D

Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

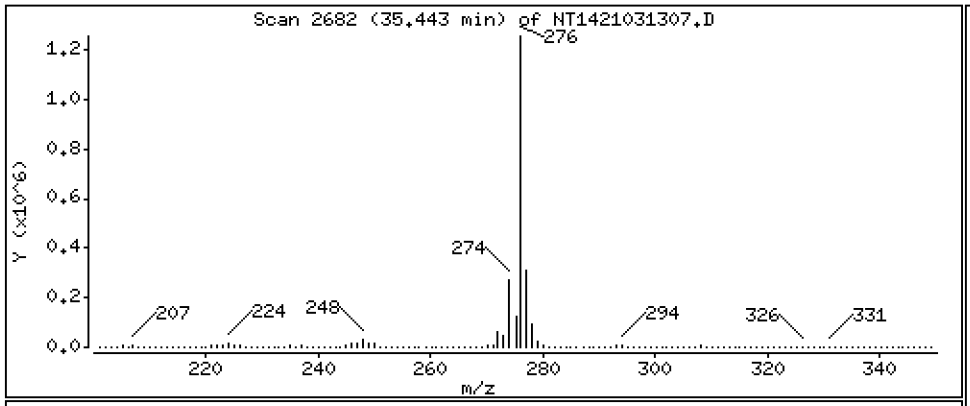
Operator: VTS

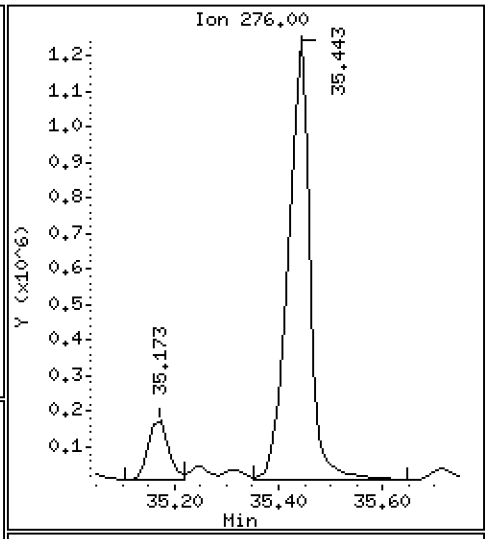
Column phase: Rxi-17Sil MS

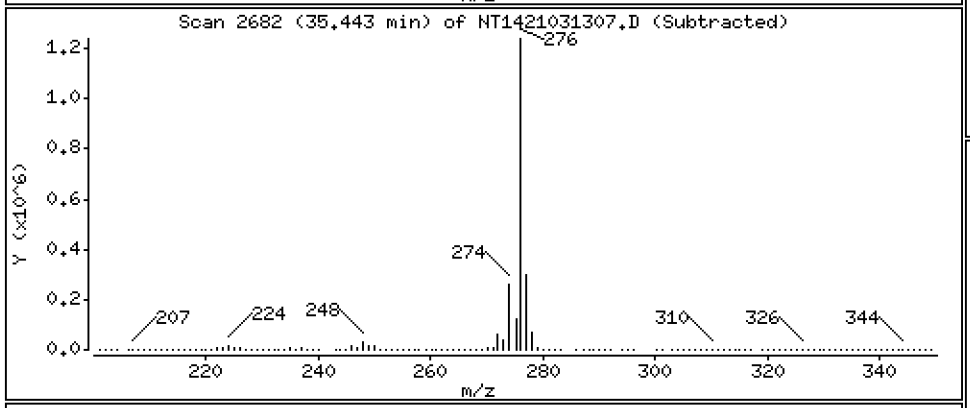
Column diameter: 0.25

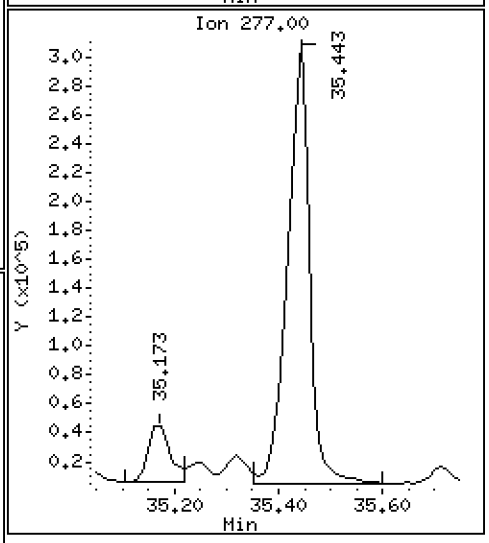
69 Indeno(1,2,3-cd)pyrene

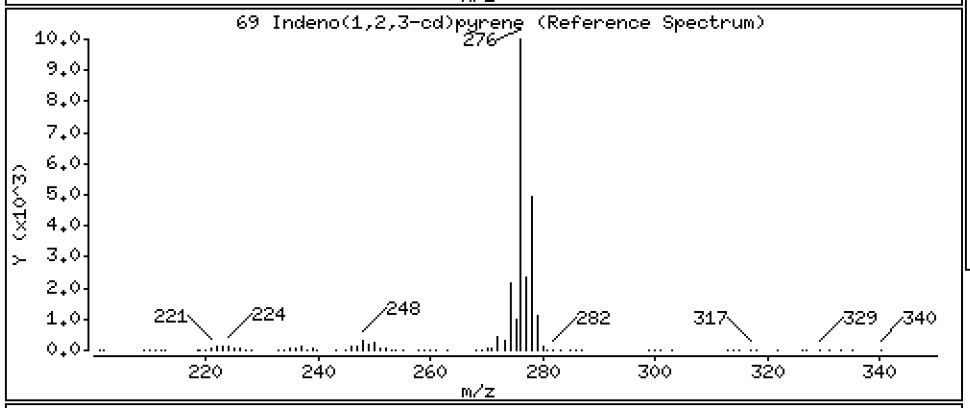
Concentration: 17.00 ug/mL

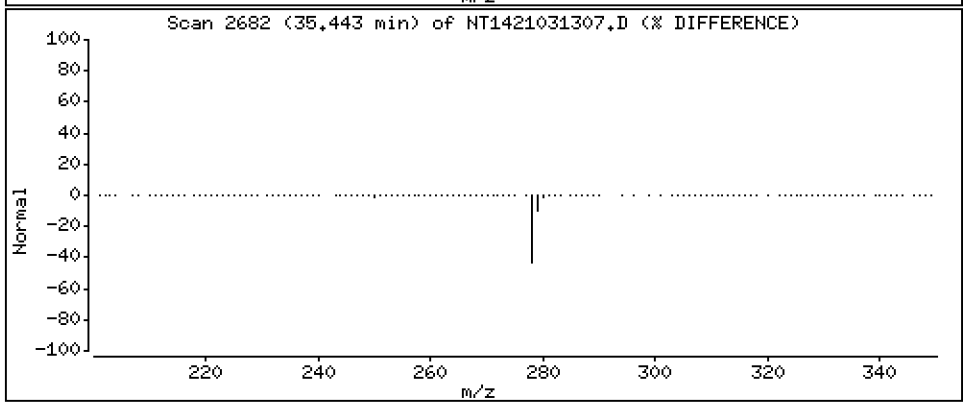












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031307.D

Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

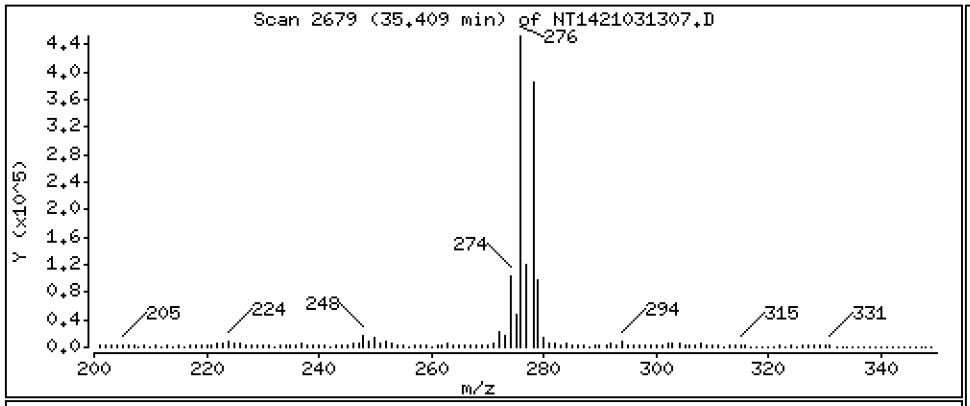
Operator: VTS

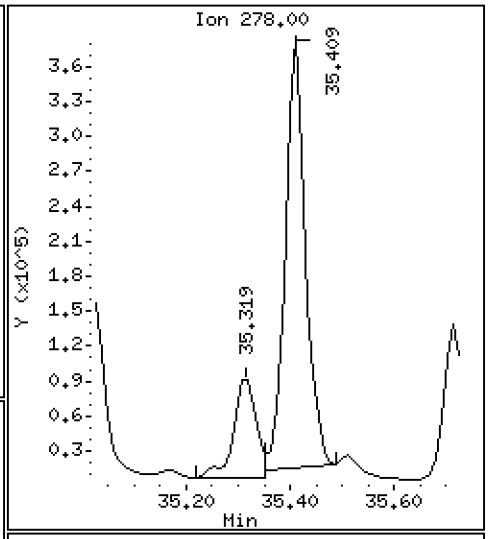
Column phase: Rxi-17Sil MS

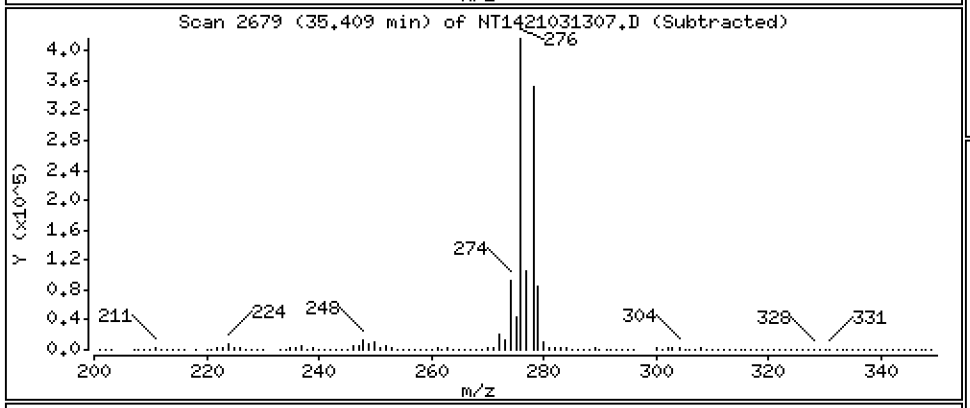
Column diameter: 0.25

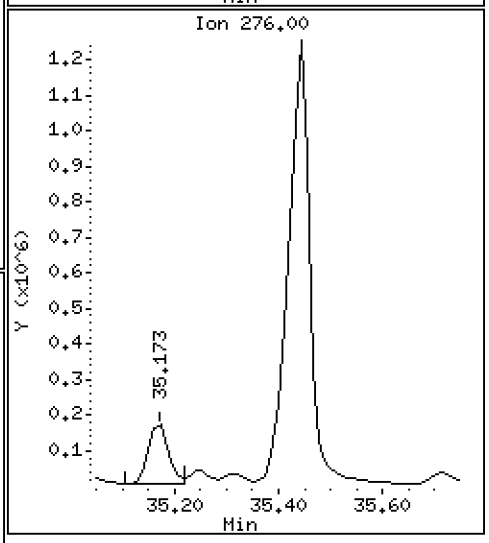
70 Dibenzo(a,h)anthracene

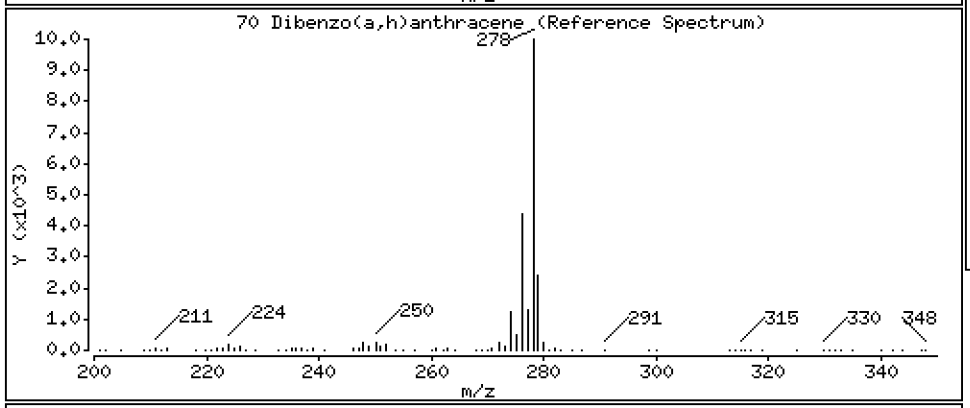
Concentration: 4.753 ug/mL

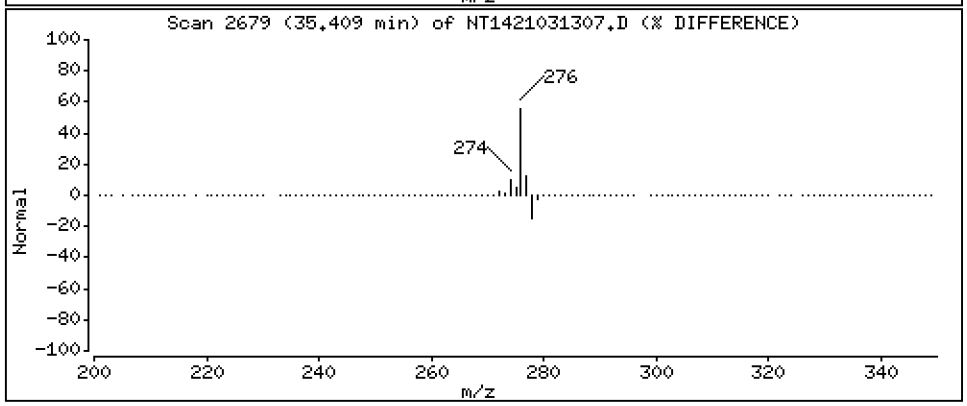












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031307.D

Date : 13-MAR-2021 15:35

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MS1

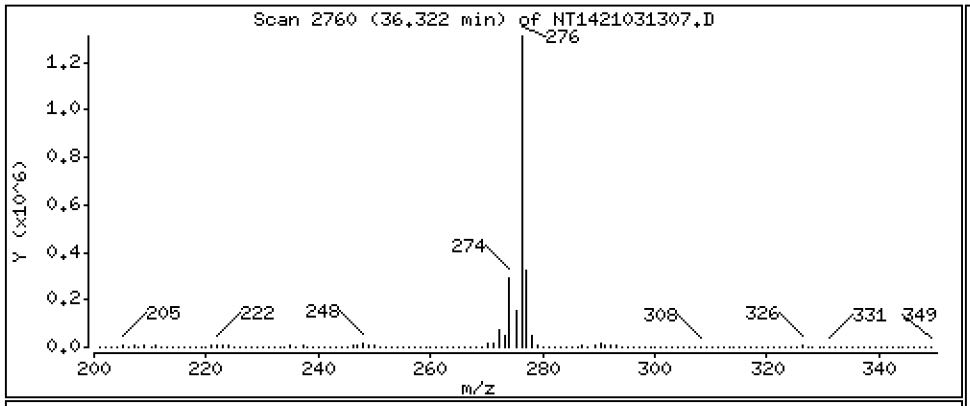
Operator: VTS

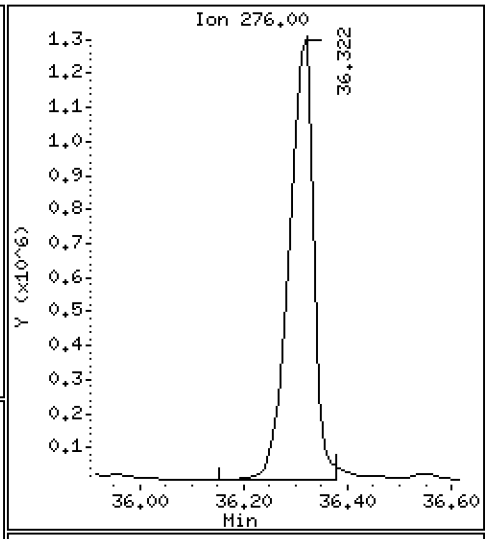
Column phase: Rxi-17Sil MS

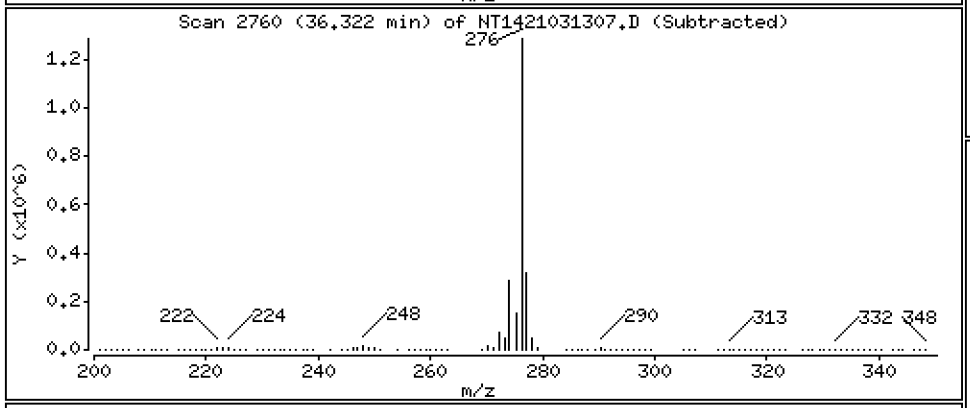
Column diameter: 0.25

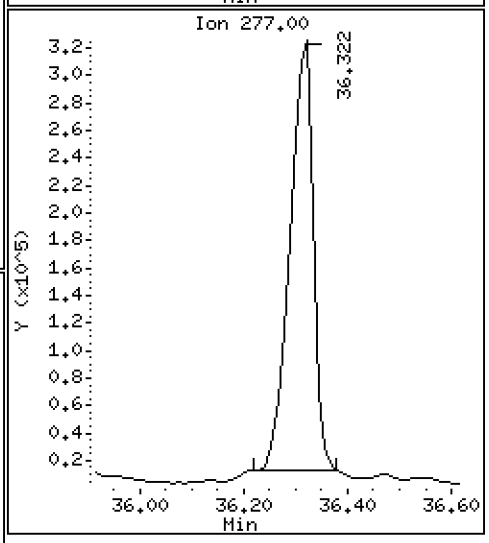
74 Benzo(g,h,i)perylene

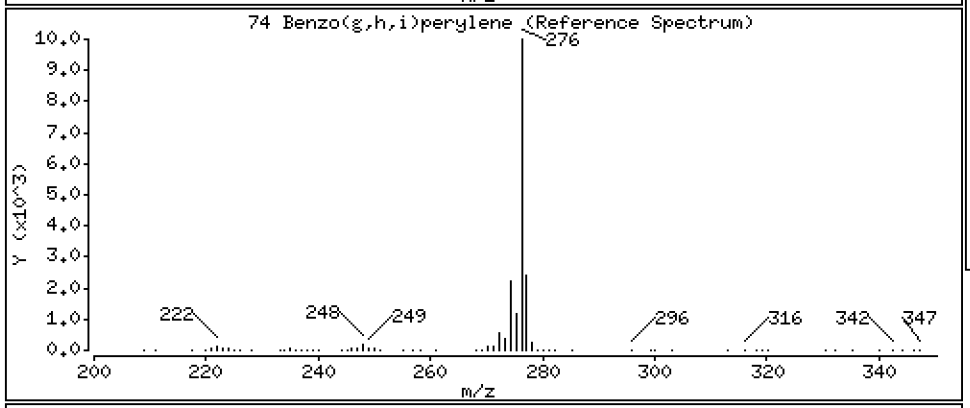
Concentration: 20.13 ug/mL

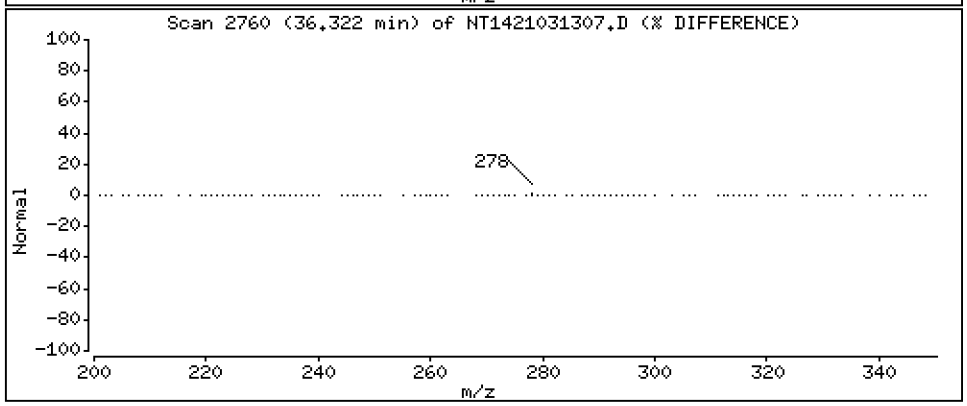












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210313.b\NT1421031307.D
Lab Smp Id: BJC0107-MS1
Inj Date : 13-MAR-2021 15:35
Operator : VTS Inst ID: nt14.i
Smp Info : BJC0107-MS1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210313.b\ALKYLPNA.m
Meth Date : 13-Mar-2021 12:11 van Quant Type: ISTD
Cal Date : 07-JAN-2021 16:44 Cal File: NT1421010708.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
1 trans-Decalin	138	7.015	7.015	(0.374)	19669	1.04381	1.044
2 cis-Decalin	138	8.114	8.124	(0.433)	16790	1.23719	1.237
$ 6 Naphthalene-d8	136	11.733	11.744	(0.626)	213962	1.42306	1.423(R)
7 Naphthalene	128	11.810	11.810	(0.630)	1538603	10.2220	10.22
12 Benzo(b)thiophene	134	12.250	12.261	(0.654)	274318	2.20370	2.204
16 2-Methylnaphthalene	141	13.645	13.634	(0.728)	367339	4.26901	4.269
17 1-methylnaphthalene	141	14.085	14.085	(0.752)	244780	2.93575	2.936
18 Biphenyl	154	15.283	15.283	(0.815)	345410	2.72965	2.730
19 2,6-Dimethylnaphthalene	156	15.360	15.360	(0.820)	346751	3.74496	3.745
20 Acenaphthylene	152	16.920	16.920	(0.903)	517118	3.28562	3.286
$ 21 Acenaphthene-d10	164	17.206	17.206	(0.918)	162636	2.04803	2.048(R)
22 Acenaphthene	153	17.327	17.316	(0.925)	529239	5.23013	5.230
23 Dibenzofuran	168	17.701	17.701	(0.945)	439145	3.03254	3.033
24 1,6,7-Trimethylnaphthalene	170	17.931	17.920	(0.957)	280724	3.01897	3.019
* 25 Fluorene-d10	176	18.741	18.741	(1.000)	324975	2.00000	
26 Fluorene	166	18.843	18.843	(1.005)	684539	6.23764	6.238
30 Dibenzothiophene	184	21.757	21.757	(1.161)	911997	6.07387	6.074
$ 35 Phenanthrene-d10	188	22.077	22.066	(0.995)	341533	2.28045	2.280(R)
36 Phenanthrene	178	22.165	22.143	(0.999)	3970979	24.3542	24.35
* 250 Anthracene-d10	188	22.187	22.176	(1.000)	327123	2.00000	
37 Anthracene	178	22.264	22.242	(1.003)	1565140	10.3802	10.38
42 Carbazole	167	23.539	23.528	(1.061)	445375	3.53348	3.533
43 1-Methylphenanthrene	192	23.990	23.979	(1.081)	683175	5.89841	5.898
44 Fluoranthene	202	25.980	25.947	(1.171)	7028828	39.4493	39.45
46 Pyrene	202	26.849	26.805	(1.210)	7721732	41.2983	41.30
51 Naphthobenzothiophene	234	29.359	29.348	(1.323)	1005560	7.51046	7.510
55 Benzo(a)anthracene	228	29.958	29.935	(0.907)	3262704	15.0368	15.04
$ 56 Chrysene-d12	240	30.070	30.059	(0.910)	331598	1.98048	1.980(R)
57 Chrysene	228	30.149	30.138	(0.913)	4120447	19.0063	19.01
62 Benzo(b)fluoranthene	252	32.379	32.368	(0.980)	3322589	15.5907	15.59(M)
63 Benzo(k)fluoranthene	252	32.424	32.413	(0.982)	2206372	9.91497	9.915(M)
293 Benzo(j)fluoranthene	252	32.492	32.469	(0.984)	1997758	9.30298	9.303(M)
246 Total Benzofluoranthenes	252	32.379	32.413	(0.980)	7316161	34.3826	34.38(M)
* 251 Benzo(e)pyrene-d12	264	33.032	33.021	(1.000)	531710	2.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	64 Benzo(e)pyrene	252	33.100	33.089	(1.002)	3283128	15.8749	15.87
	66 Benzo(a)pyrene	252	33.213	33.179	(1.005)	3993554	20.5214	20.52
$	67 Perylene-d12	264	33.370	33.359	(1.010)	420976	2.34394	2.344(R)
	68 Perylene	252	33.438	33.416	(1.012)	2039452	10.3304	10.33
	69 Indeno(1,2,3-cd)pyrene	276	35.443	35.398	(1.073)	3610916	16.9978	17.00
	70 Dibenzo(a,h)anthracene	278	35.409	35.375	(1.072)	980212	4.75288	4.753
	74 Benzo(g,h,i)perylene	276	36.321	36.265	(1.100)	4305810	20.1290	20.13

QC Flag Legend

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

Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031307.D Page 1
Report Date: 16-Mar-2021 15:32

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421031307.D
Lab Smp Id: BJC0107-MS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210313.b\ALKYLPNA.m
Misc Info:

Calibration Date: 13-MAR-2021
Calibration Time: 11:19
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	366886	183443	733772	324975	-11.42
250 Anthracene-d10	368886	184443	737772	327123	-11.32
251 Benzo(e)pyrene-d1	446096	223048	892192	531710	19.19

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.74	18.24	19.24	18.74	-0.00
250 Anthracene-d10	22.18	21.68	22.68	22.19	0.05
251 Benzo(e)pyrene-d1	33.02	32.52	33.52	33.03	0.03

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

REVIEW SUMMARY FOR FILE - NT1421031307.D

Lab ID: BJC0107-MS1
nt14.i, 20210313.b\ALKYLPNA.m, 13-MAR-2021 15:35

RT	CO-ELUTION COMPOUNDS
	NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

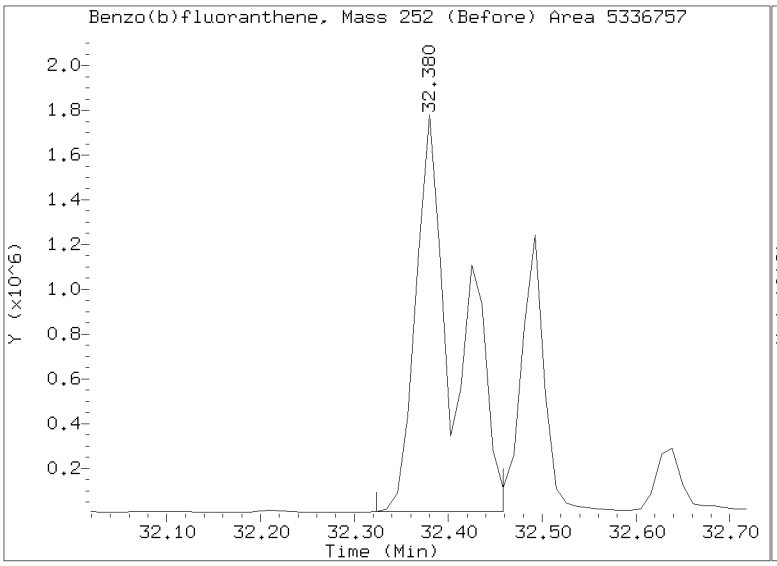
RRT check based on Ccal File: NT1421031302.D

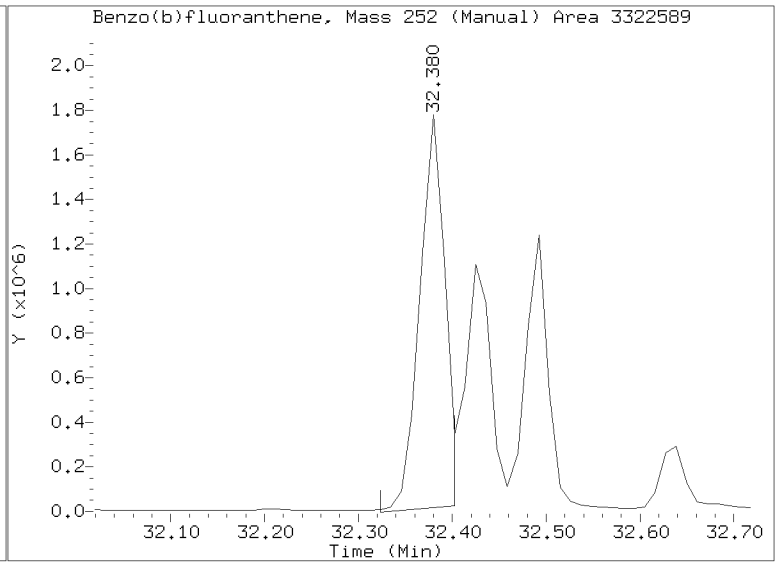
On Column LOD for nt14.i, 20210313.b\ALKYLPNA.m, TARGETS.sub = 0.0000

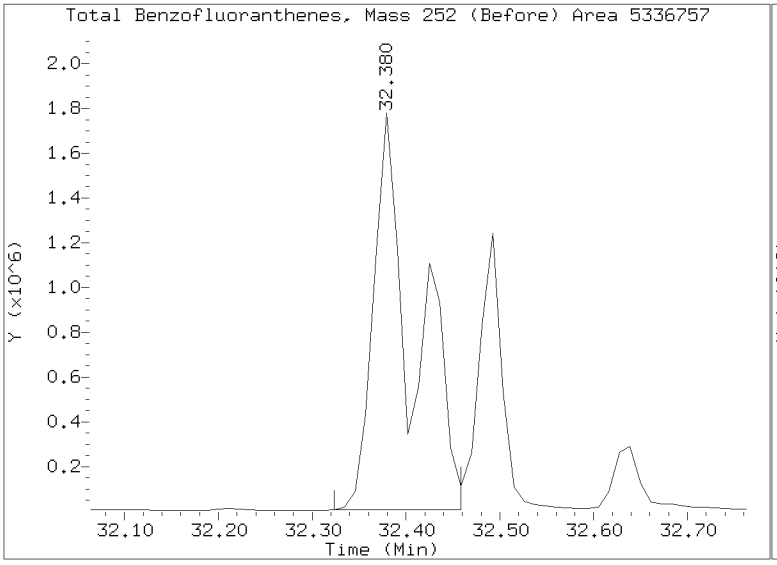
* Only compounds listed in the work order have been verified by the analyst *

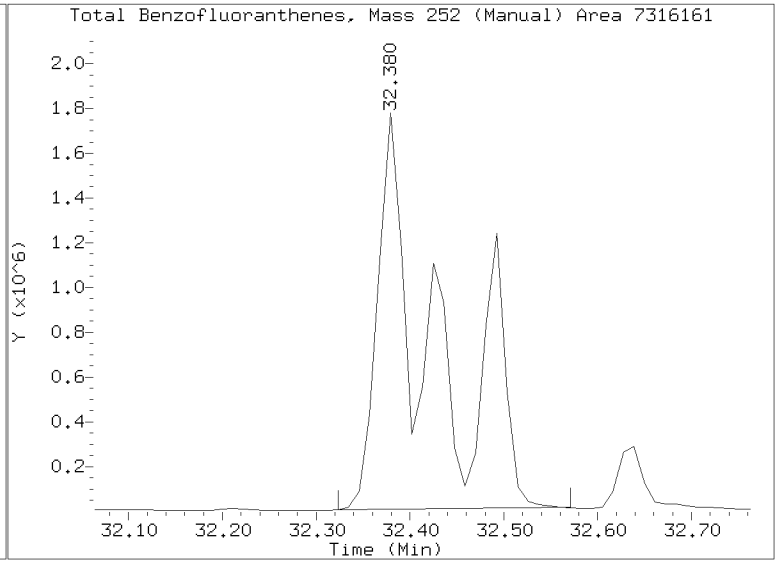
Quant Ion Manual Peak Adjustment Report

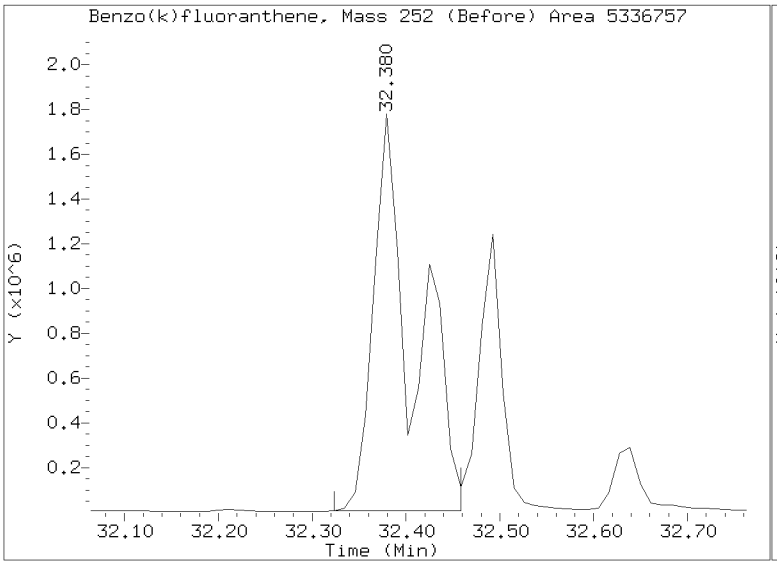
Datafile: //target/share/chem3/nt14.i/20210313.b/NT1421031307.D
Injection Date: 13-MAR-2021 15:35
Lab ID:BJC0107-MS1 Client ID:
Report Date: 03/16/2021 15:32

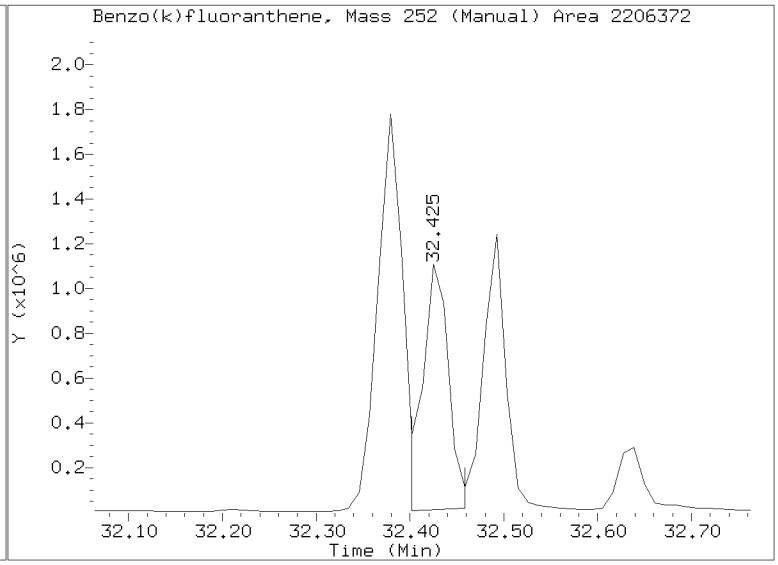






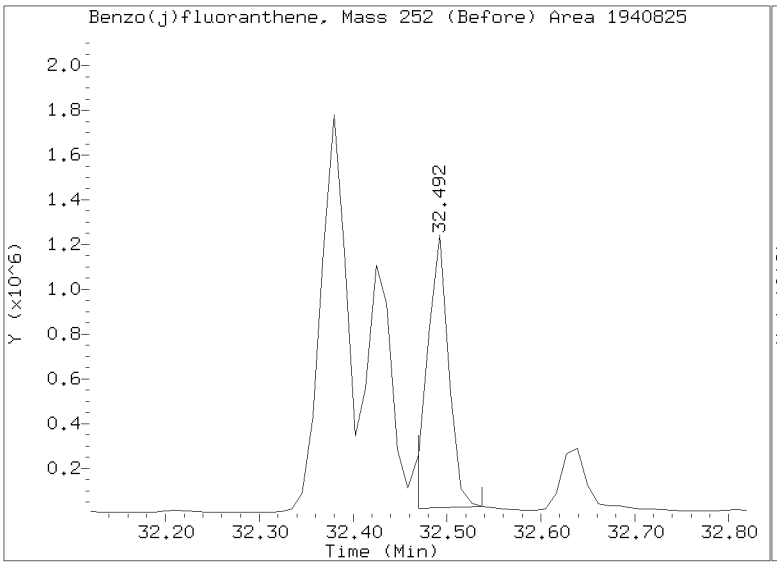


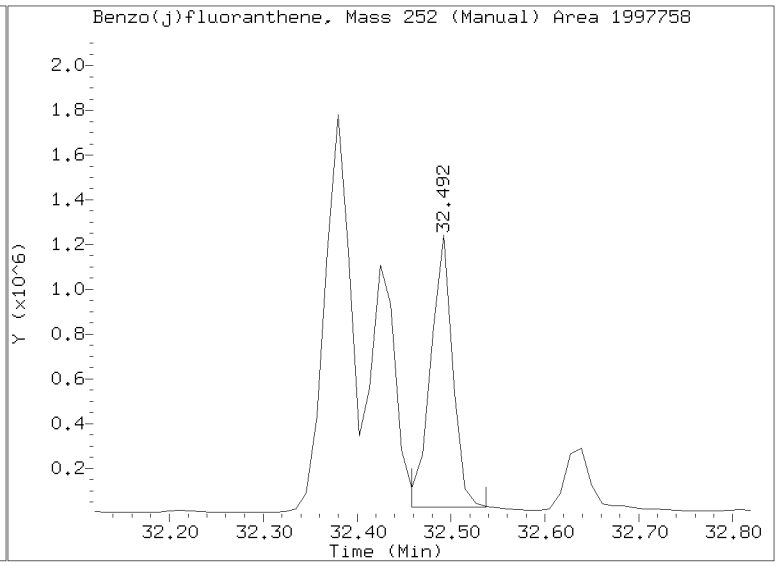




Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210313.b/NT1421031307.D
Injection Date: 13-MAR-2021 15:35
Lab ID:BJC0107-MS1 Client ID:
Report Date: 03/16/2021 15:32





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Date : 13-MAR-2021 16:23

Client ID:

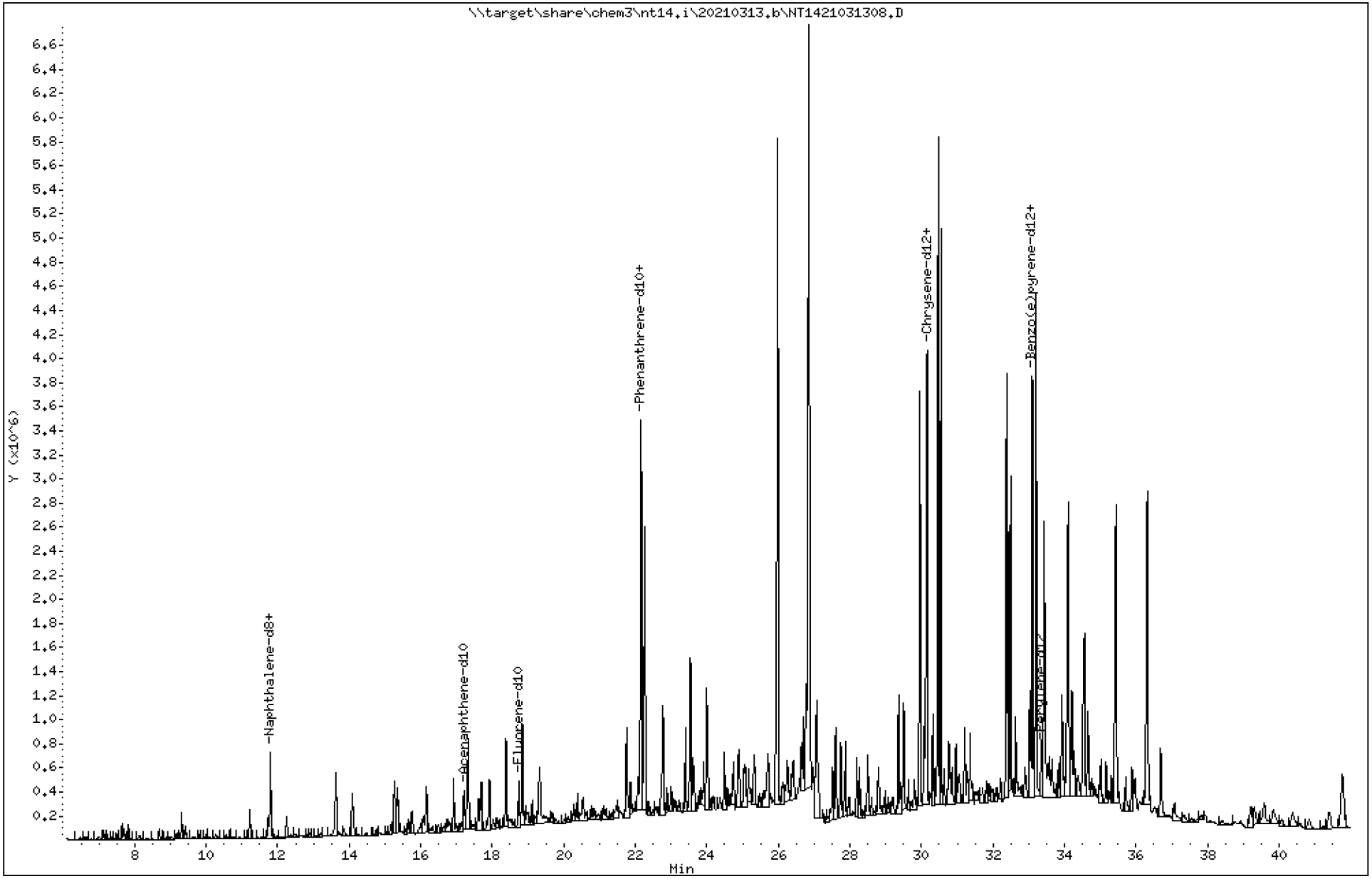
Instrument: nt14.i

Sample Info: BJC0107-MSD1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

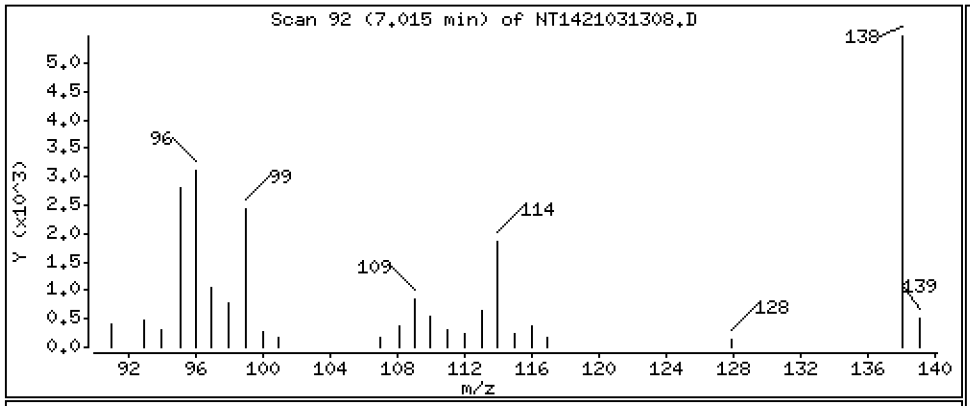
Operator: VTS

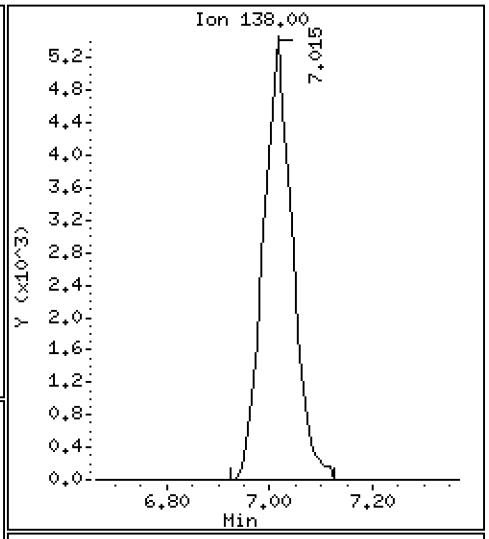
Column phase: Rxi-17Sil MS

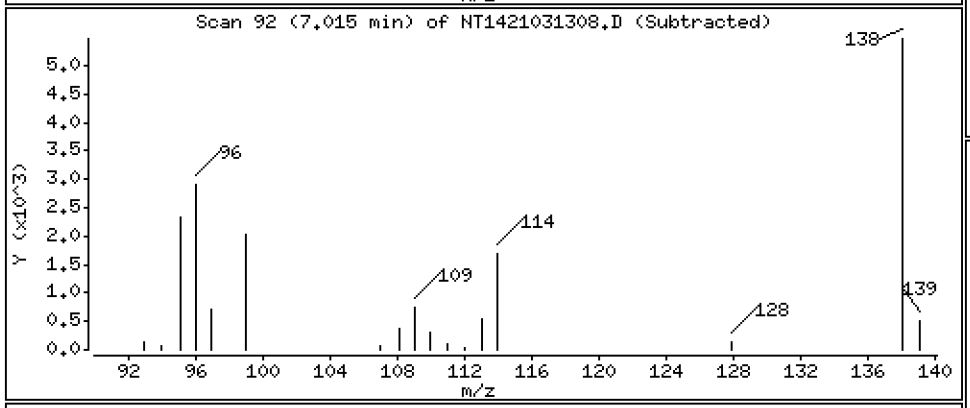
Column diameter: 0.25

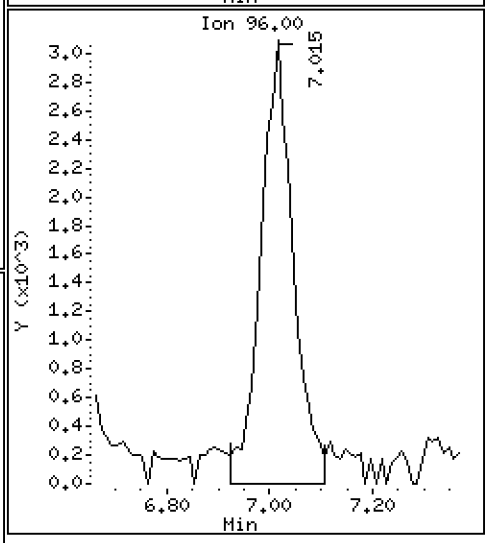
1 trans-Decalin

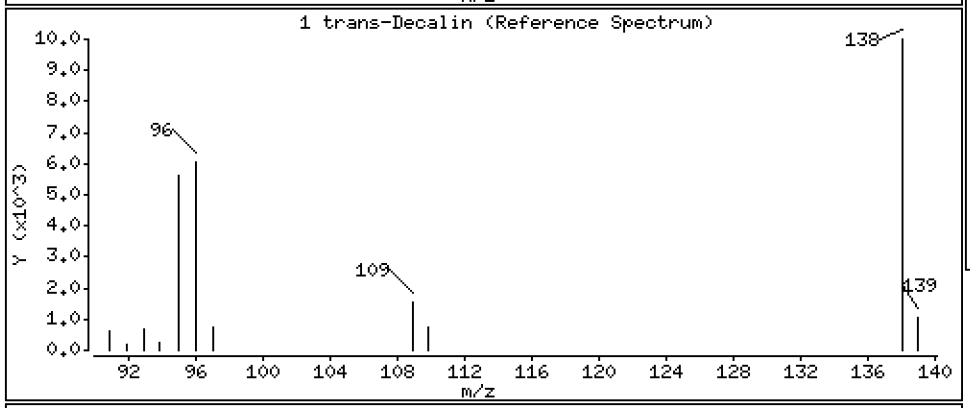
Concentration: 1.191 ug/mL

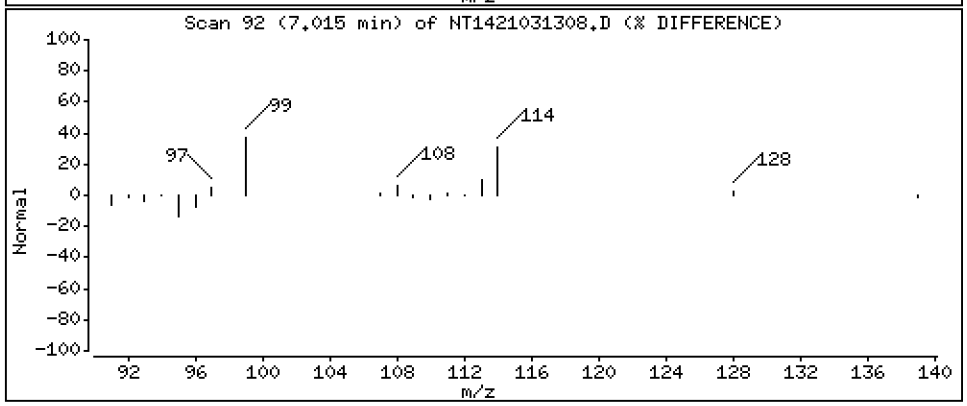












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031308.D

Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

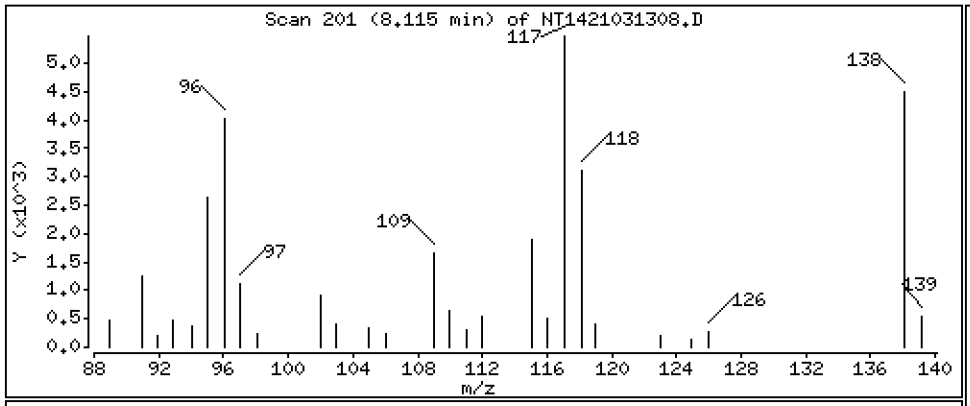
Operator: VTS

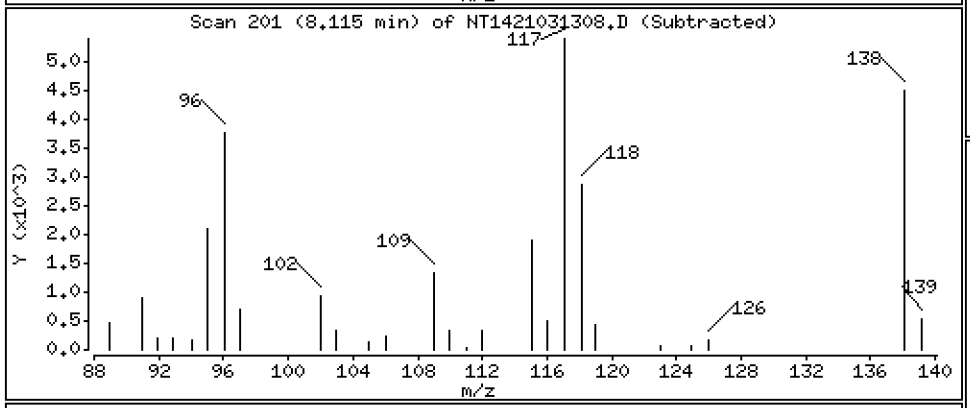
Column phase: Rxi-17Sil MS

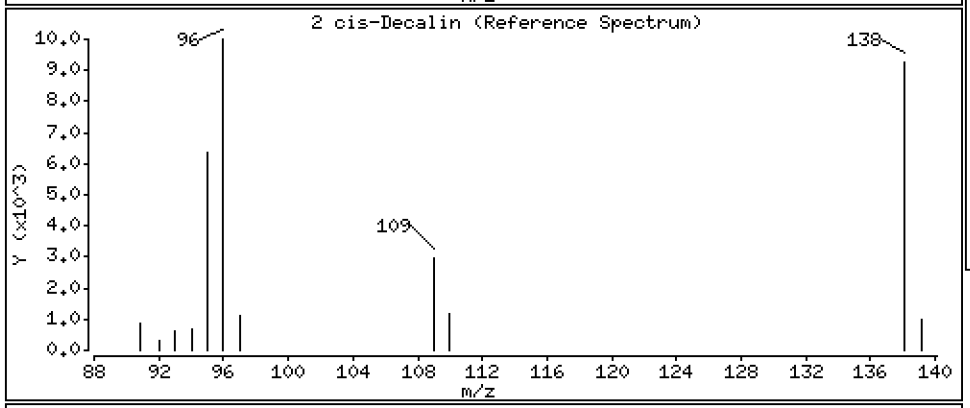
Column diameter: 0.25

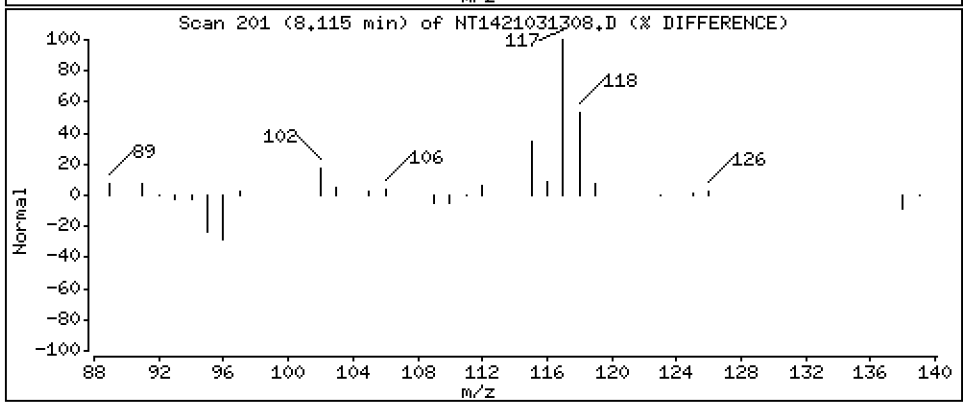
2 cis-Decalin

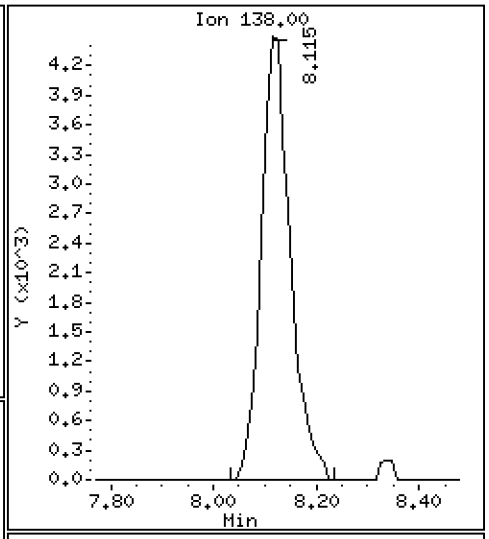
Concentration: 1.363 ug/mL

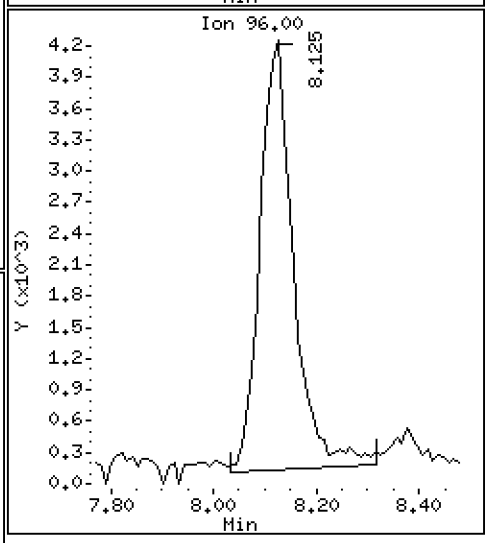












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031308.D

Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

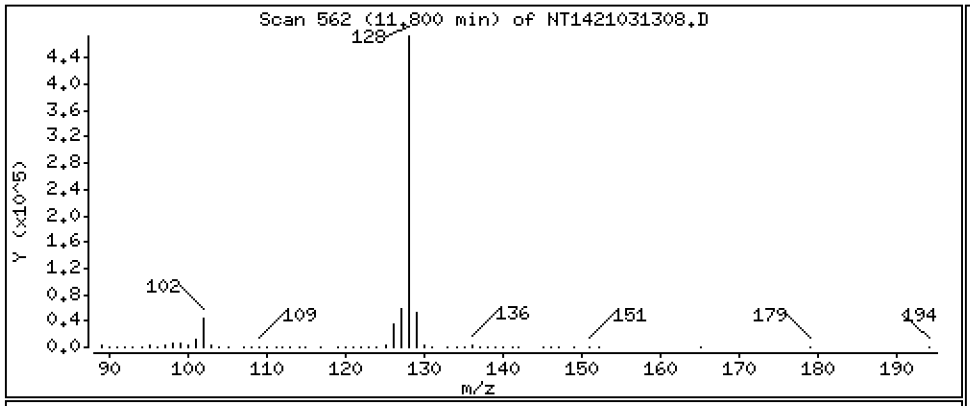
Operator: VTS

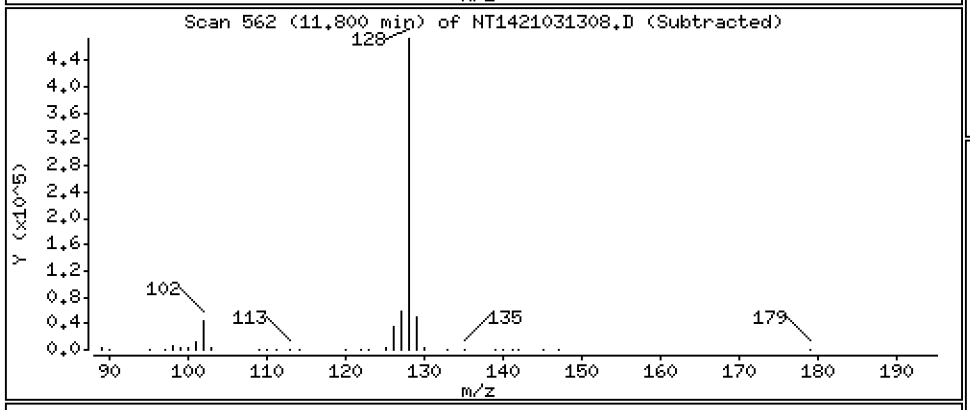
Column phase: Rxi-17Sil MS

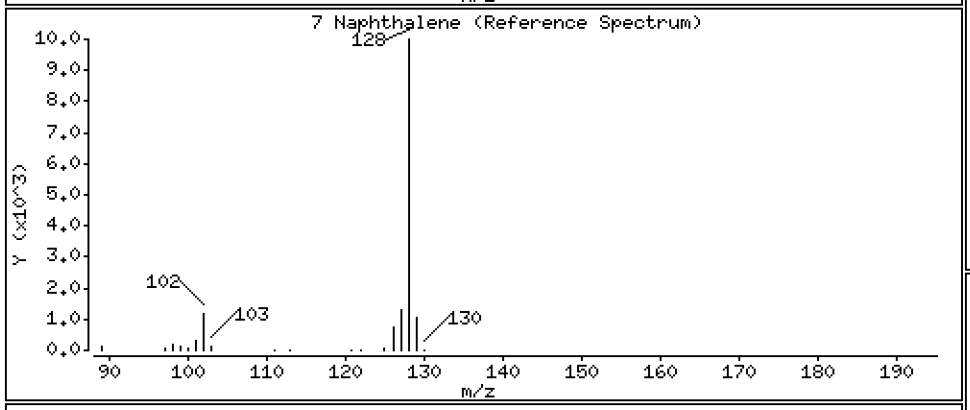
Column diameter: 0.25

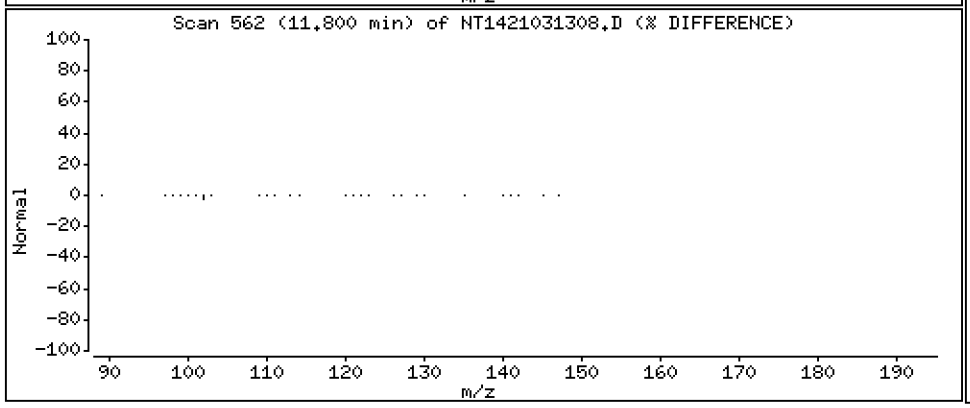
7 Naphthalene

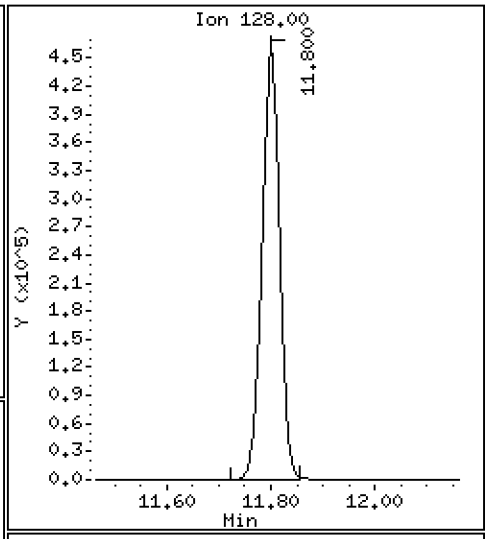
Concentration: 7.499 ug/mL

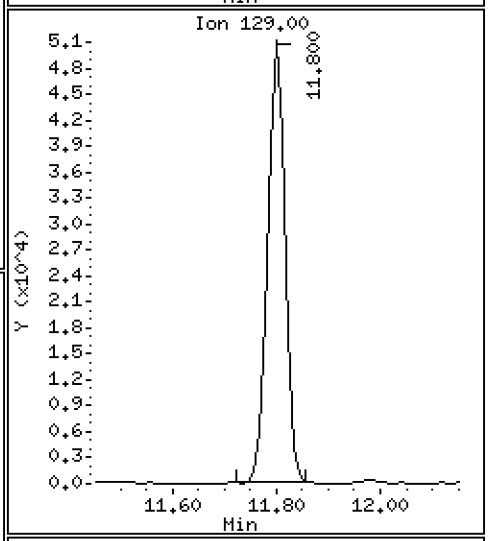


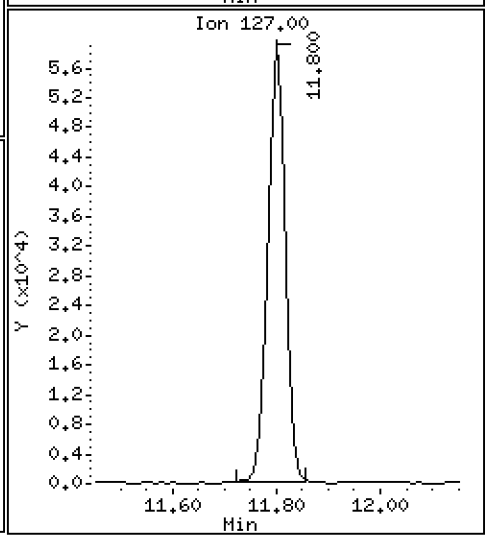












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031308.D

Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

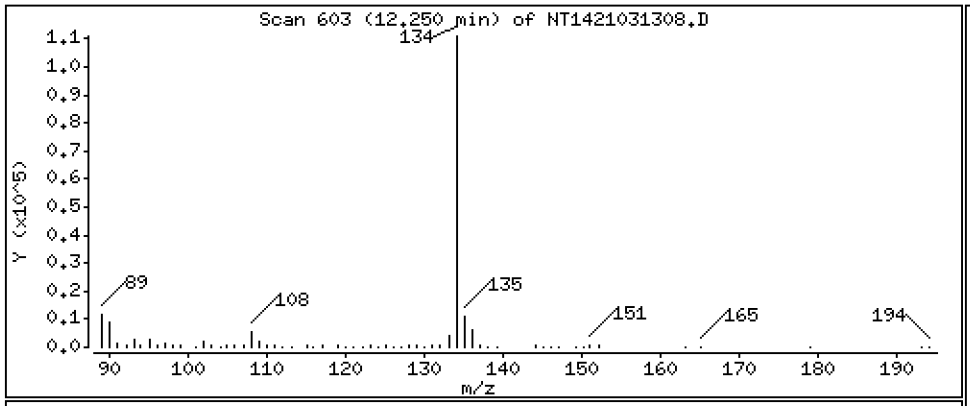
Operator: VTS

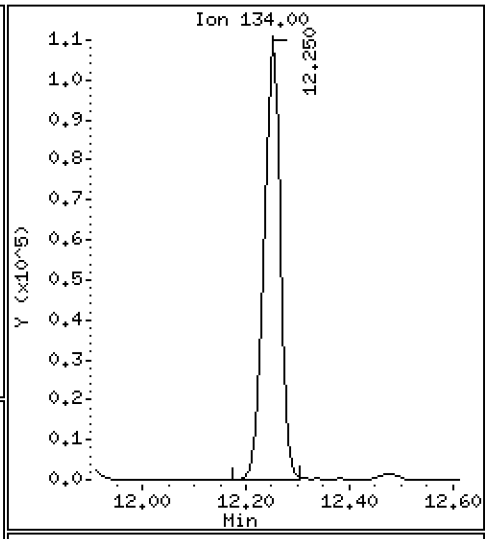
Column phase: Rxi-17Sil MS

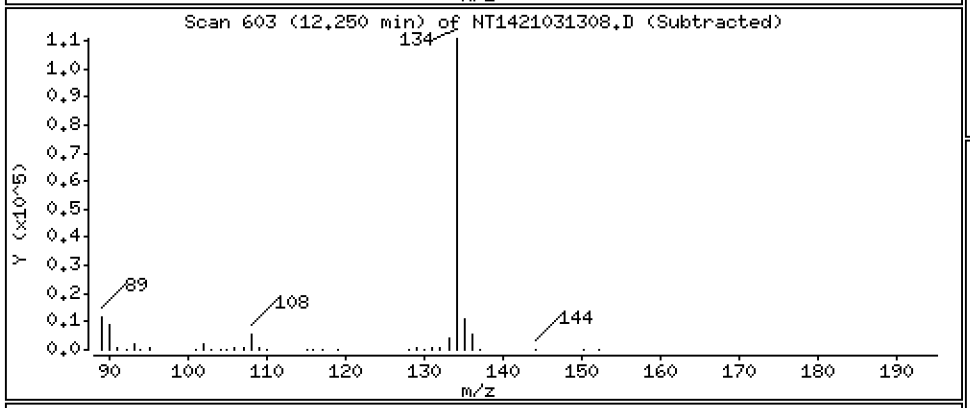
Column diameter: 0.25

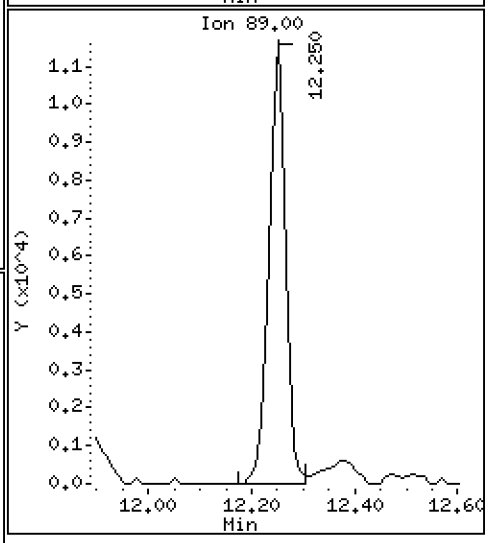
12 Benzo(b)thiophene

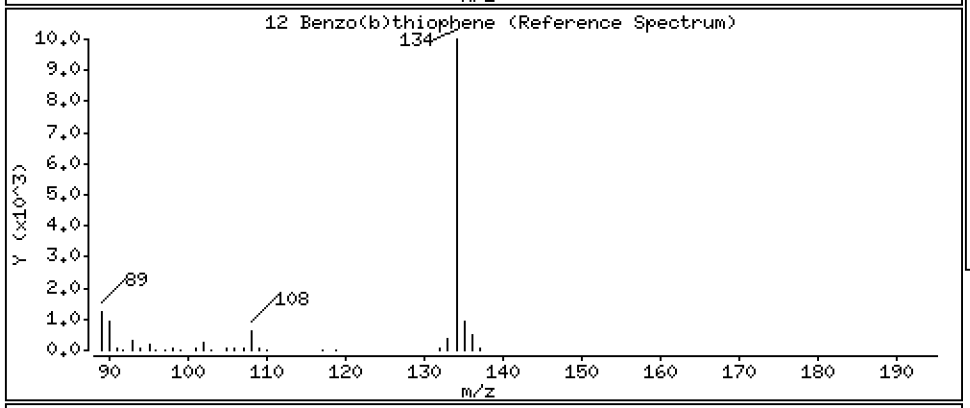
Concentration: 2.131 ug/mL

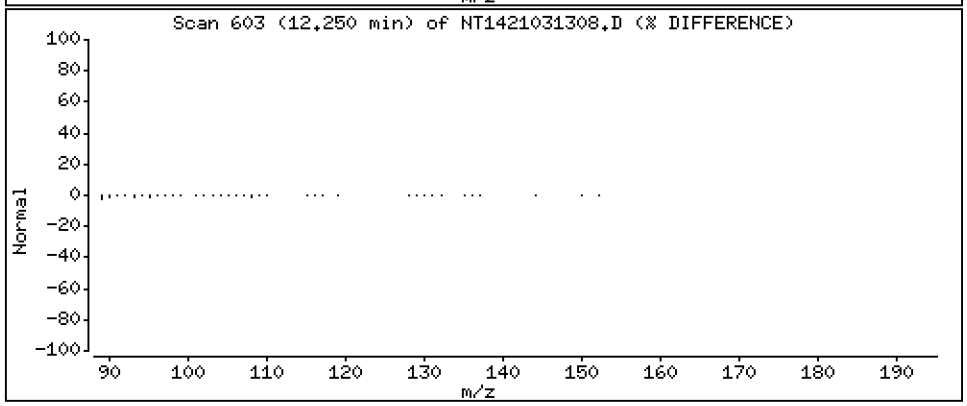












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031308.D

Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

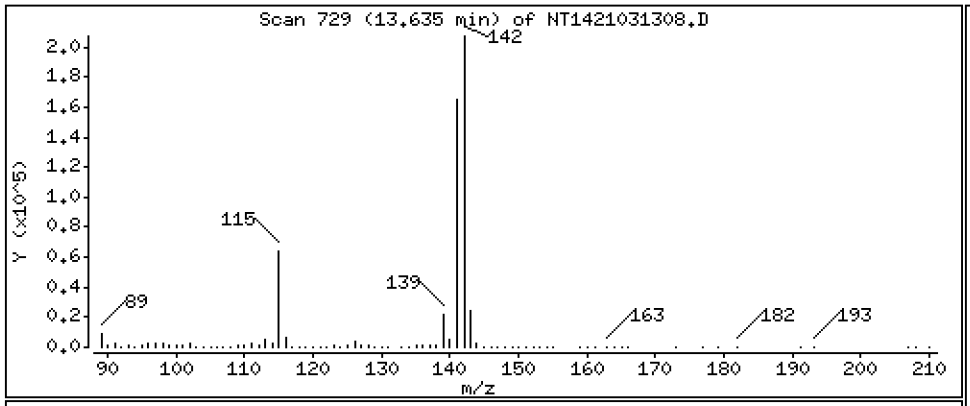
Operator: VTS

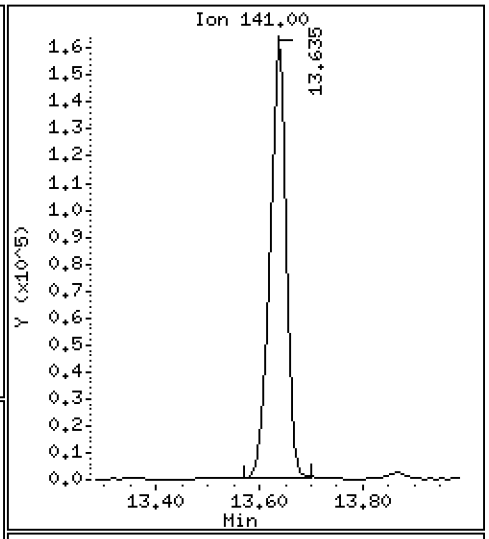
Column phase: Rxi-17Sil MS

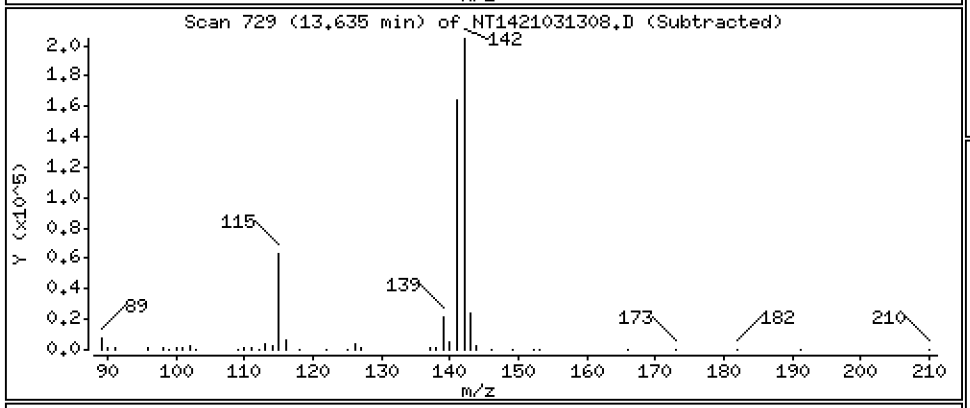
Column diameter: 0.25

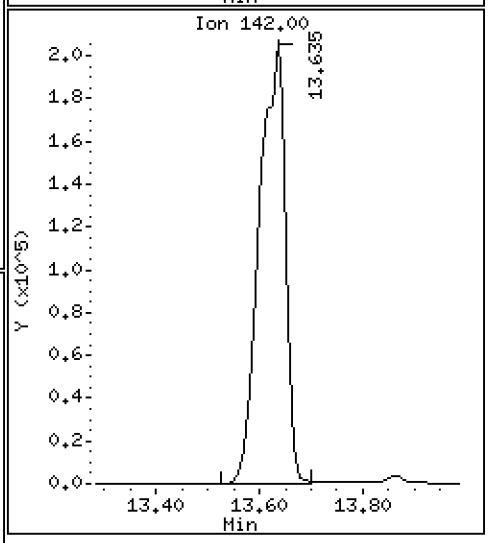
16 2-Methylnaphthalene

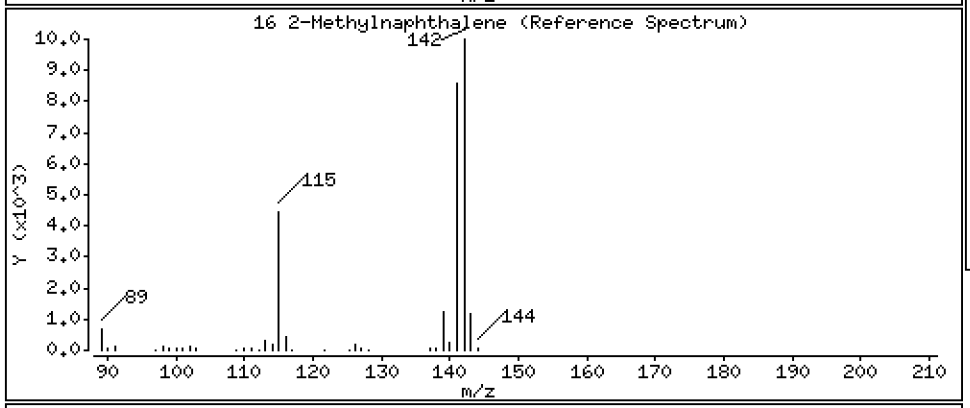
Concentration: 4.666 ug/mL

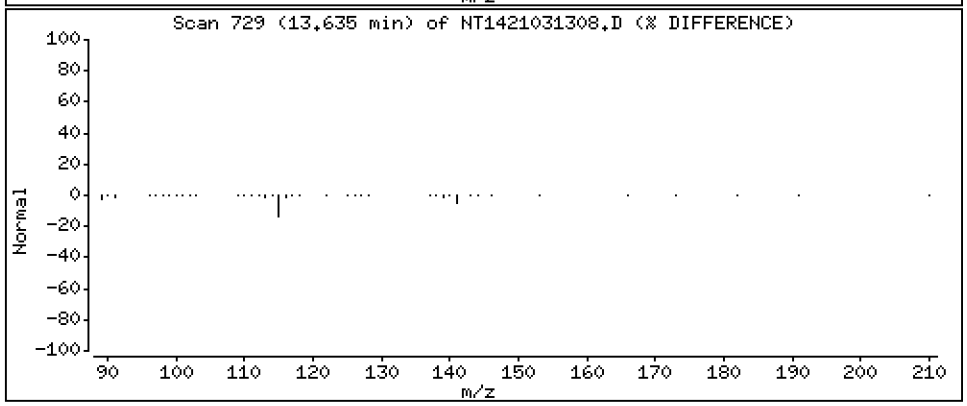












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Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

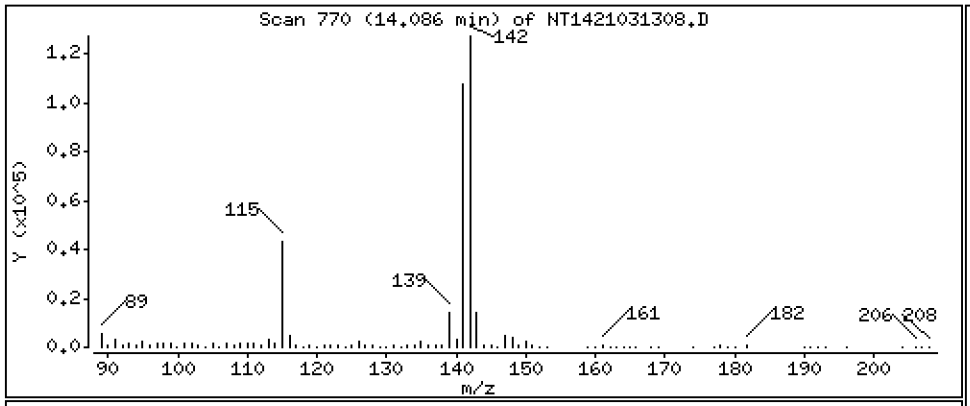
Operator: VTS

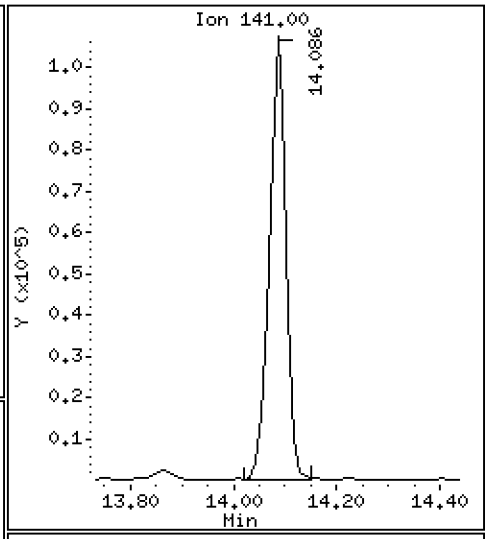
Column phase: Rxi-17Sil MS

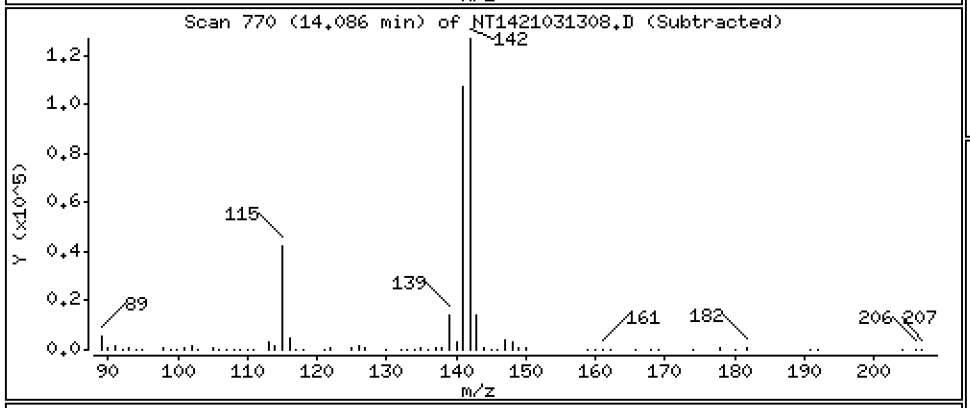
Column diameter: 0.25

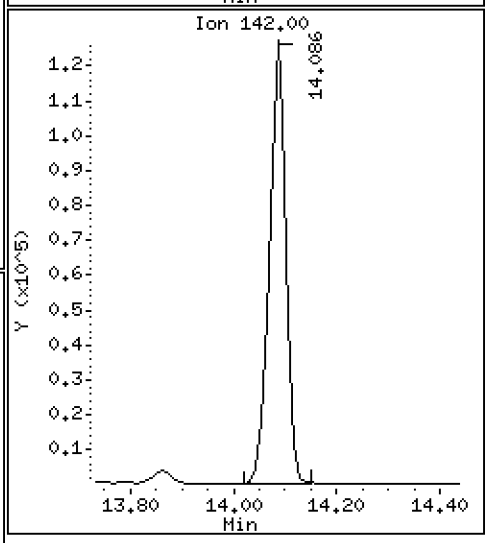
17 1-methylnaphthalene

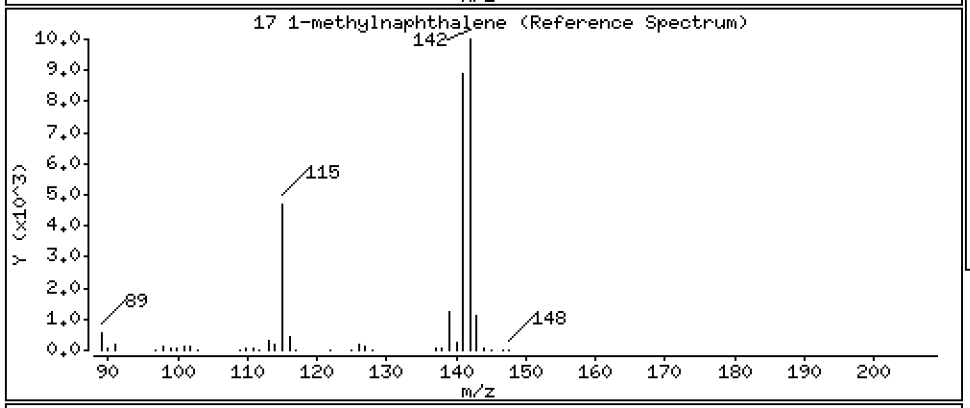
Concentration: 3.216 ug/mL

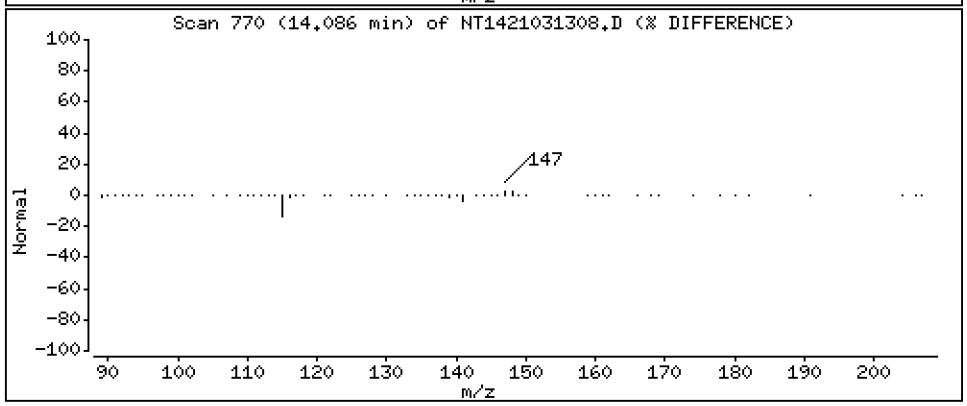












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031308.D

Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

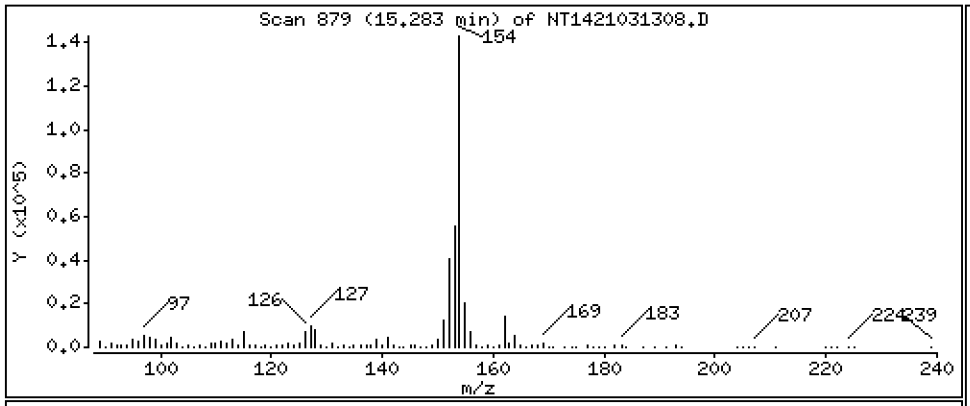
Operator: VTS

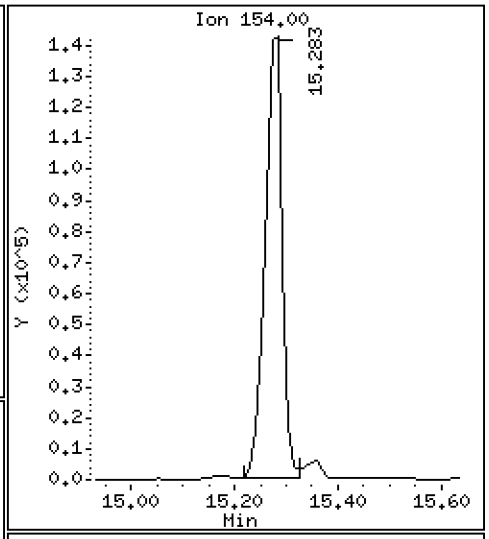
Column phase: Rxi-17Sil MS

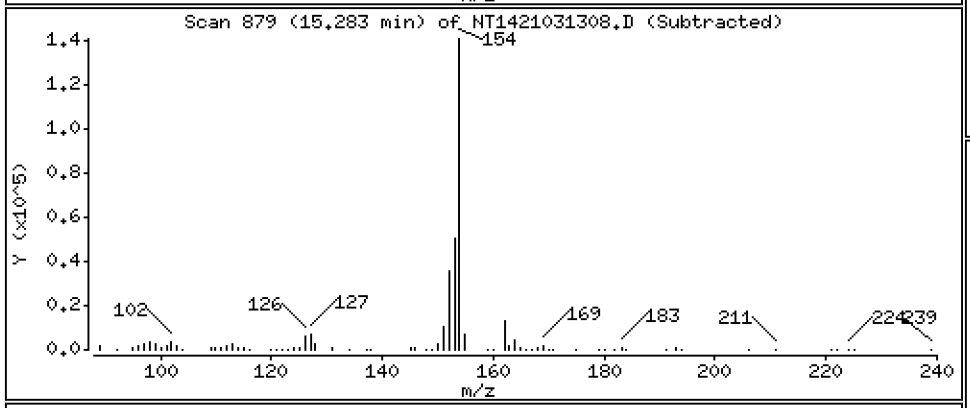
Column diameter: 0.25

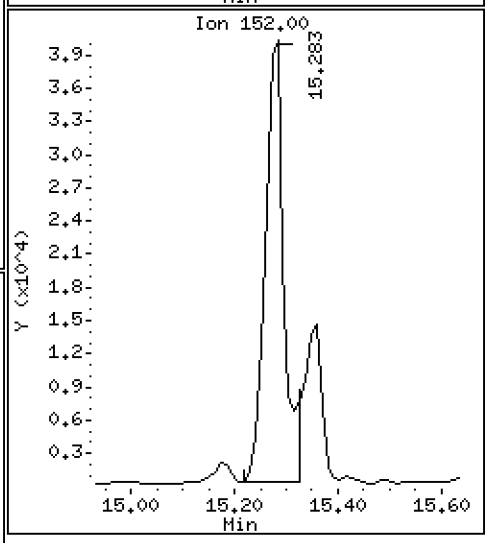
18 Biphenyl

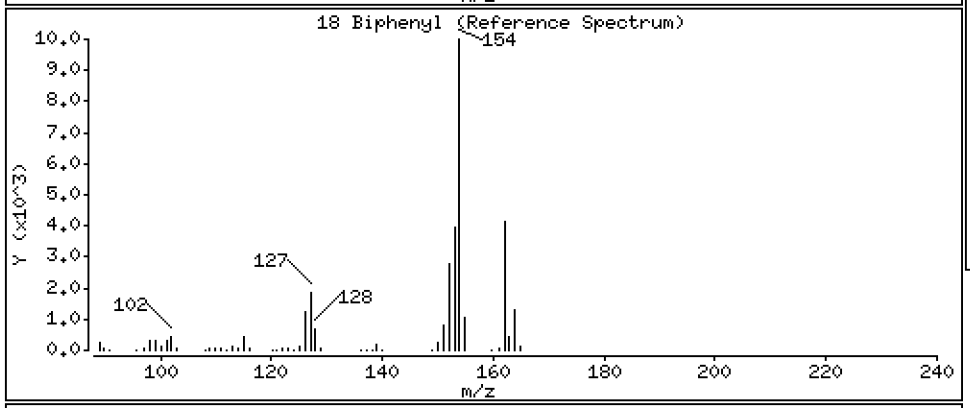
Concentration: 2.897 ug/mL

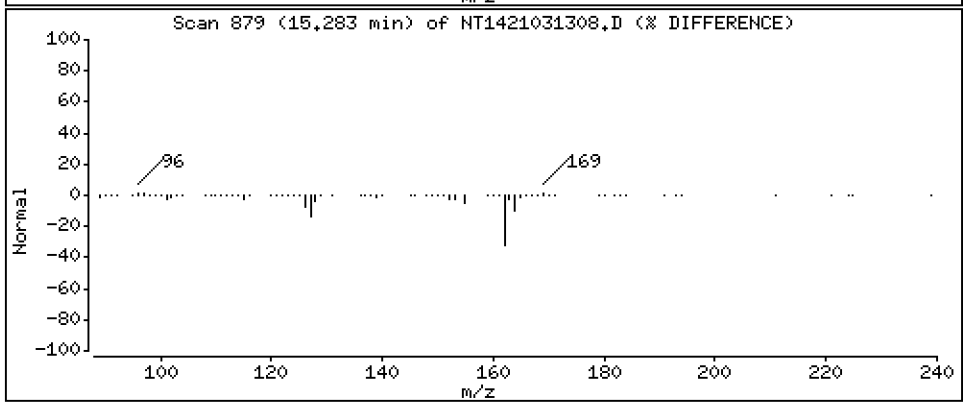












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031308.D

Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

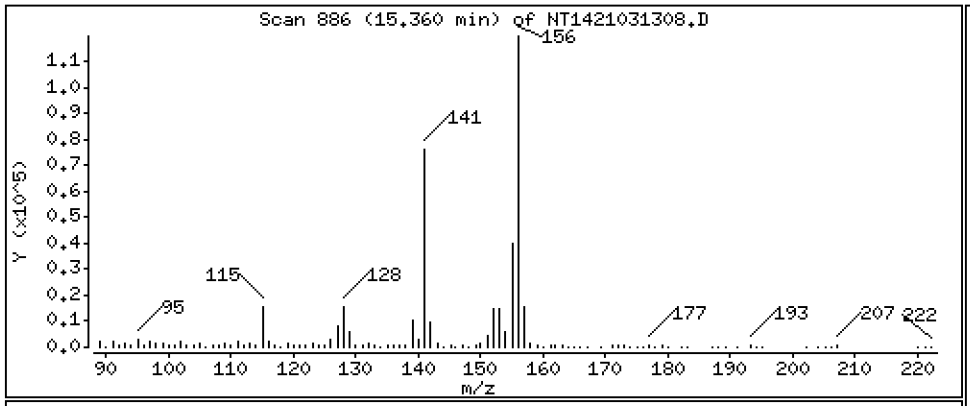
Operator: VTS

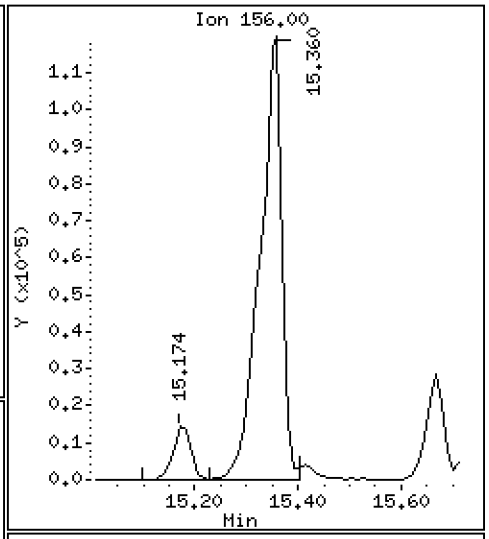
Column phase: Rxi-17Sil MS

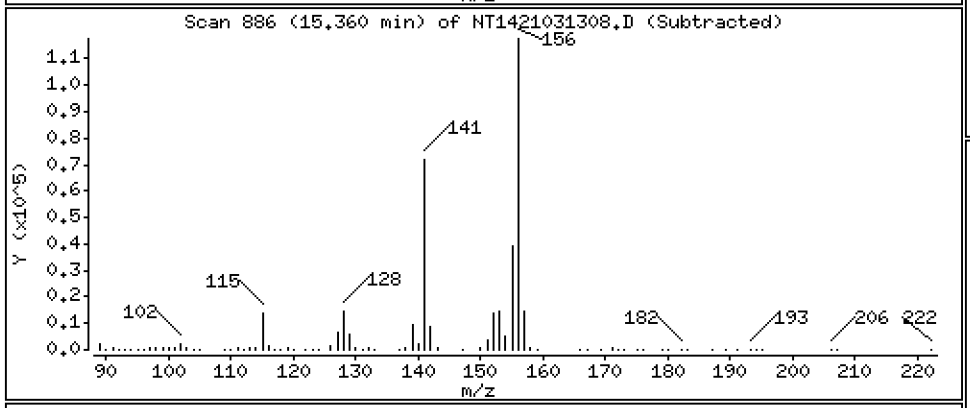
Column diameter: 0.25

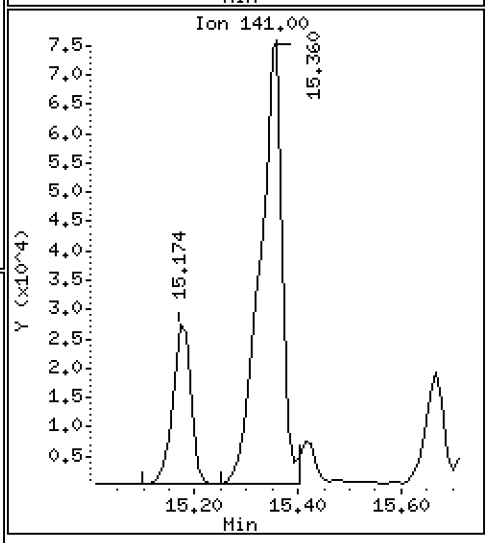
19 2,6-Dimethylnaphthalene

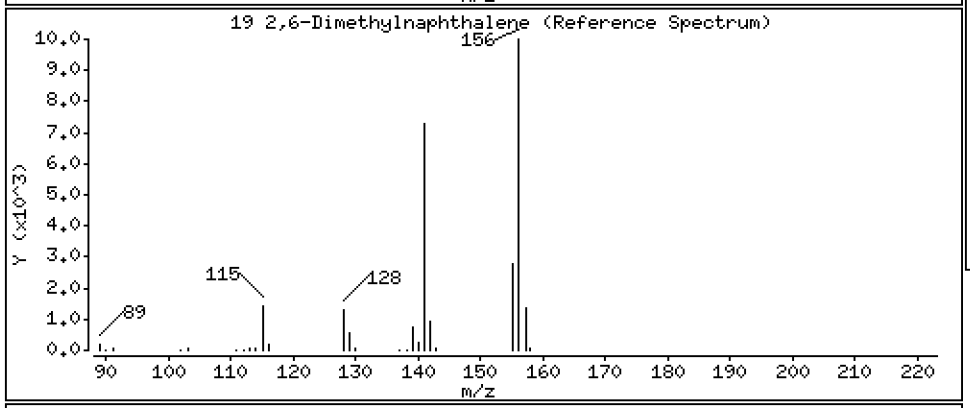
Concentration: 4.210 ug/mL

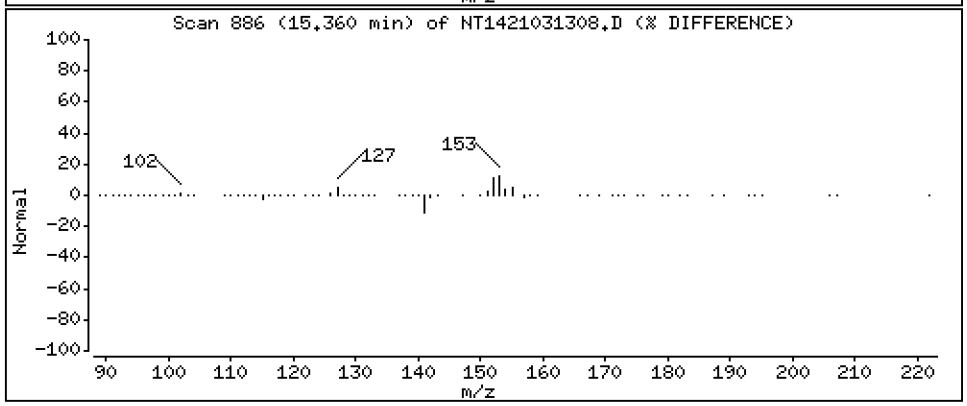












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031308.D

Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

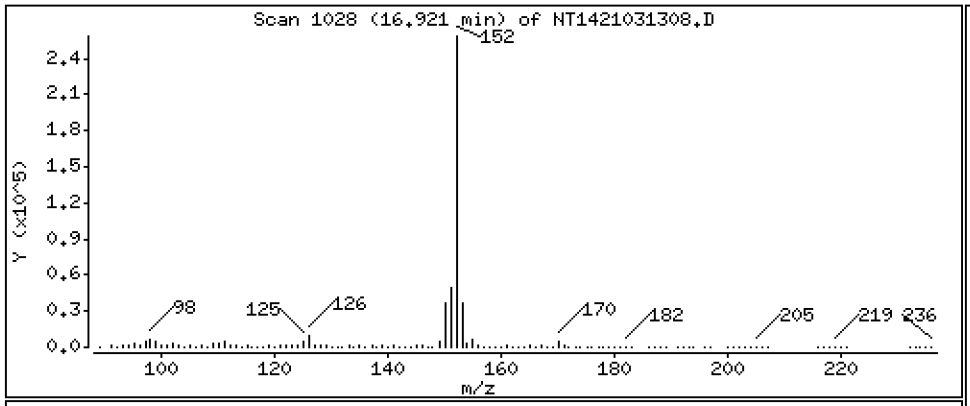
Operator: VTS

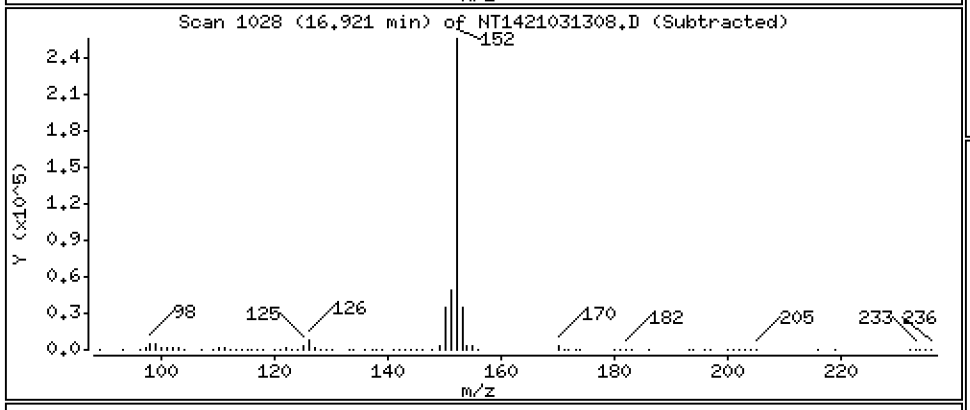
Column phase: Rxi-17Sil MS

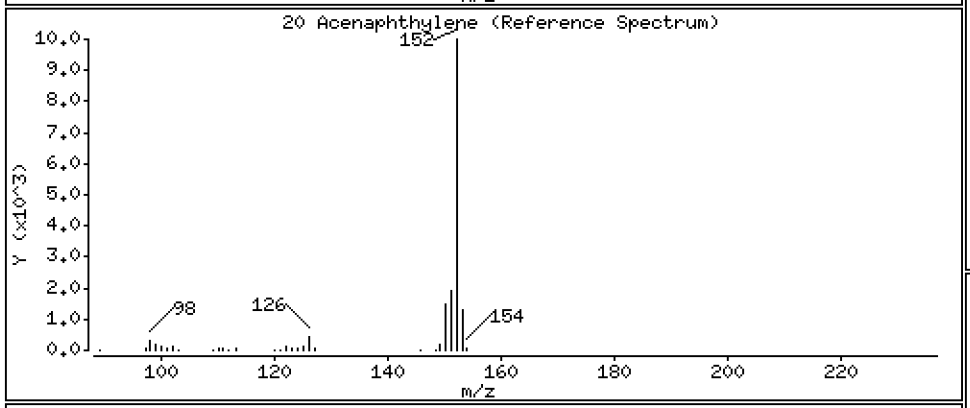
Column diameter: 0.25

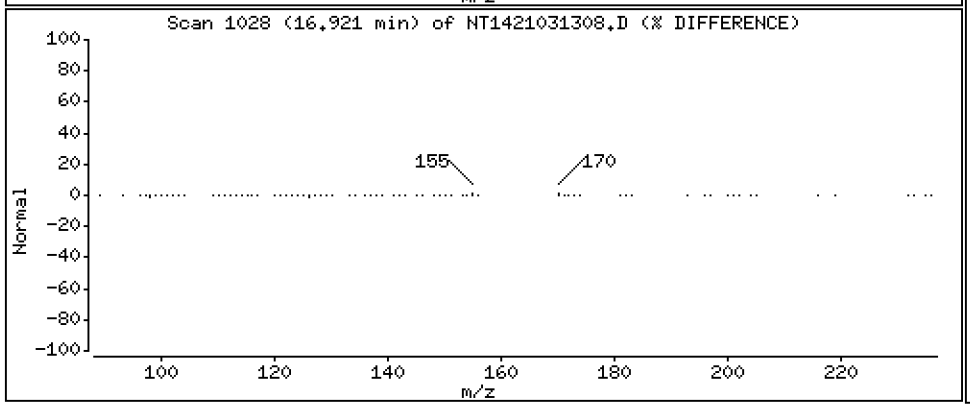
20 Acenaphthylene

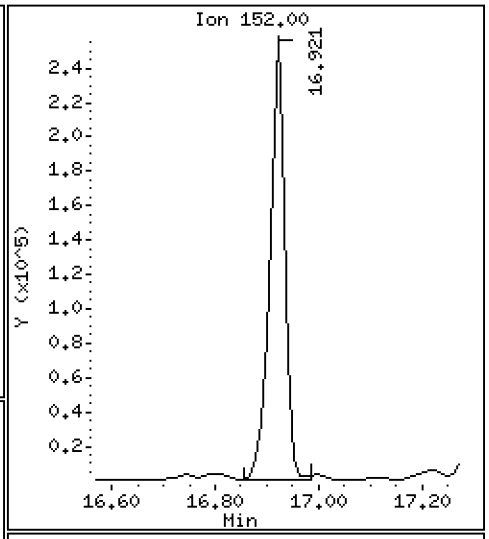
Concentration: 3.713 ug/mL

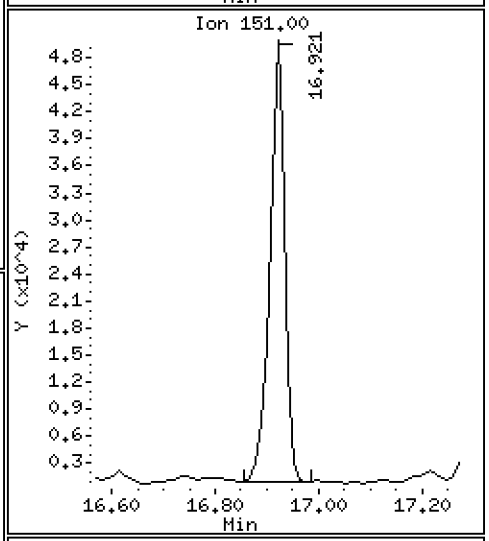


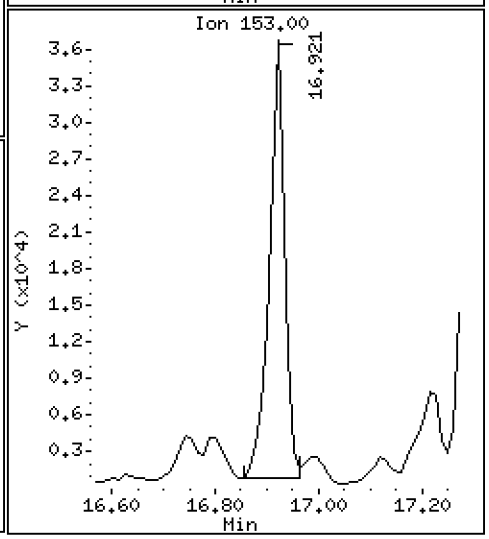












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Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

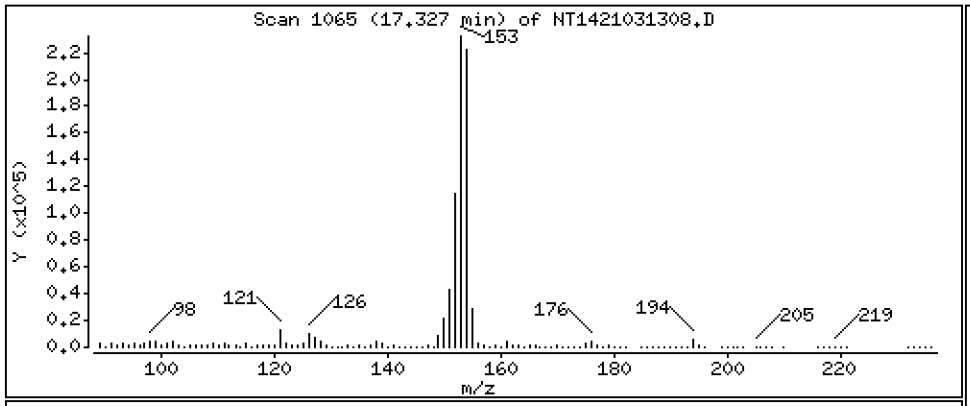
Operator: VTS

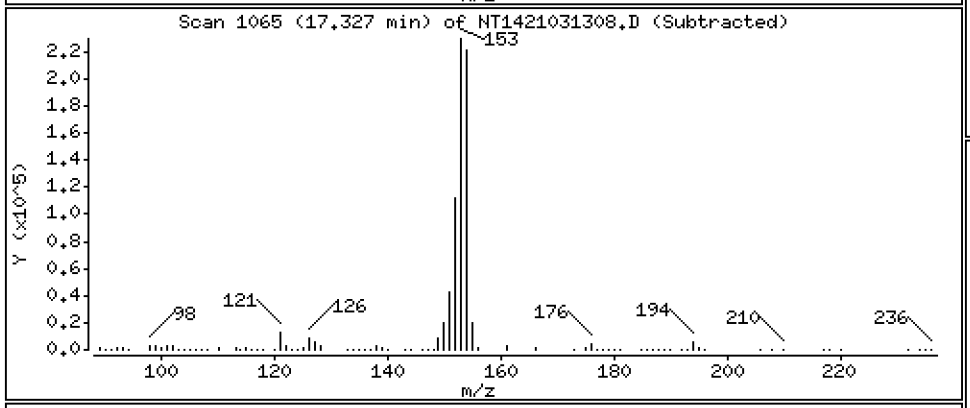
Column phase: Rxi-17Sil MS

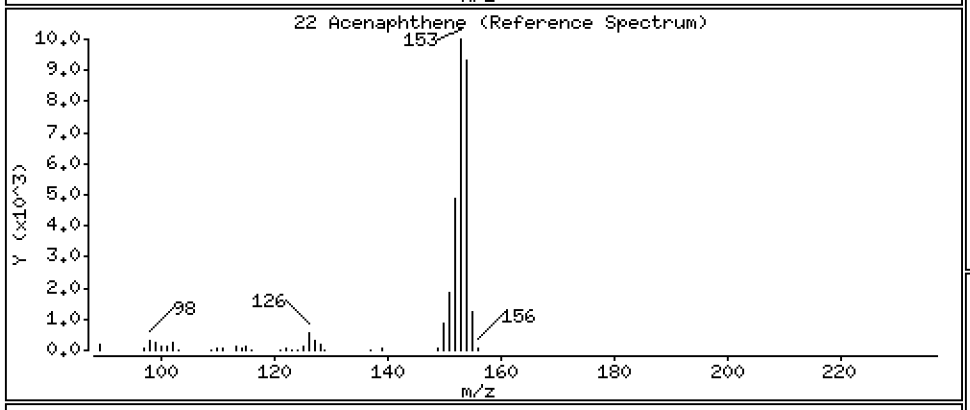
Column diameter: 0.25

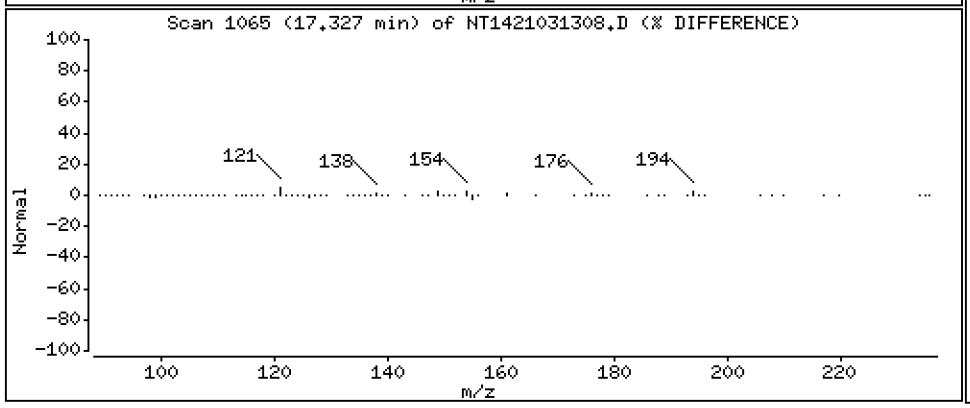
22 Acenaphthene

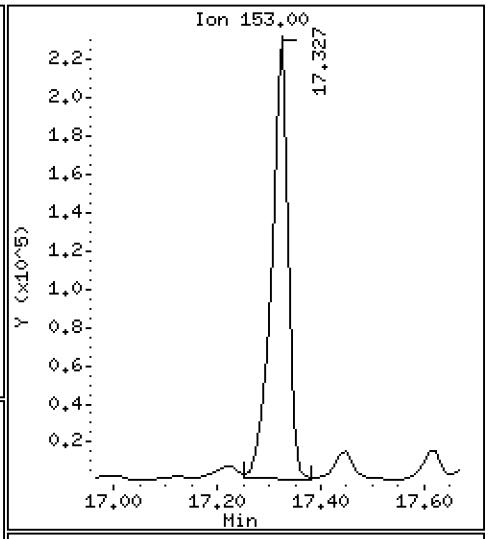
Concentration: 5.726 ug/mL

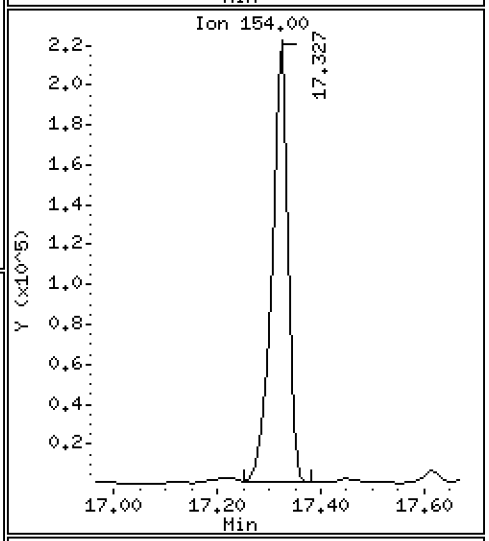


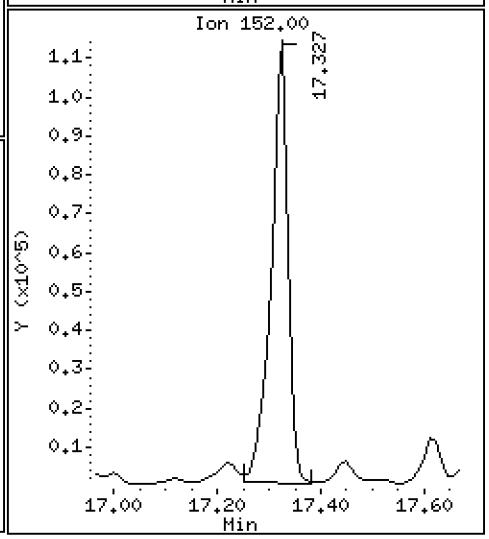












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Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

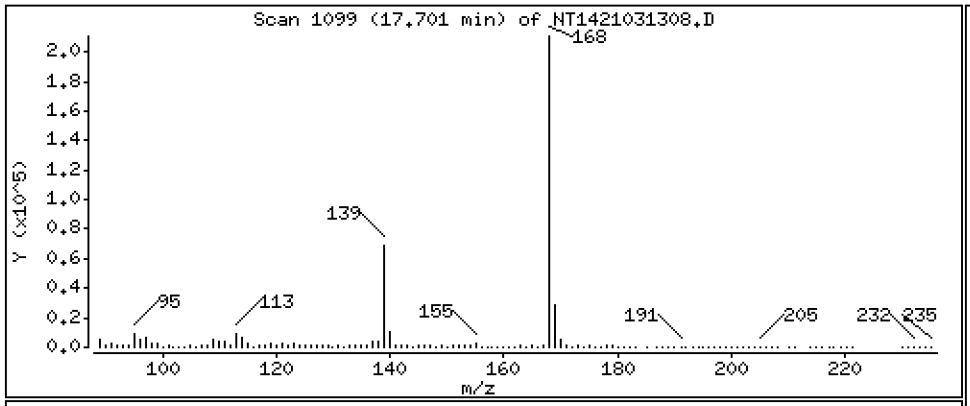
Operator: VTS

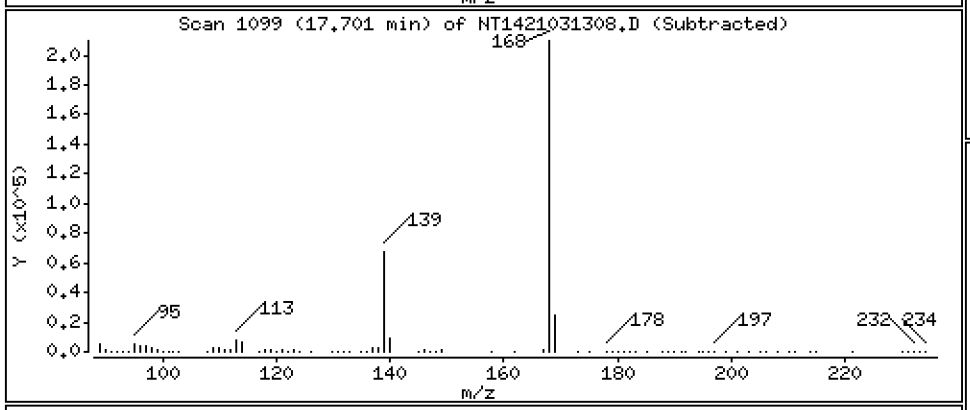
Column phase: Rxi-17Sil MS

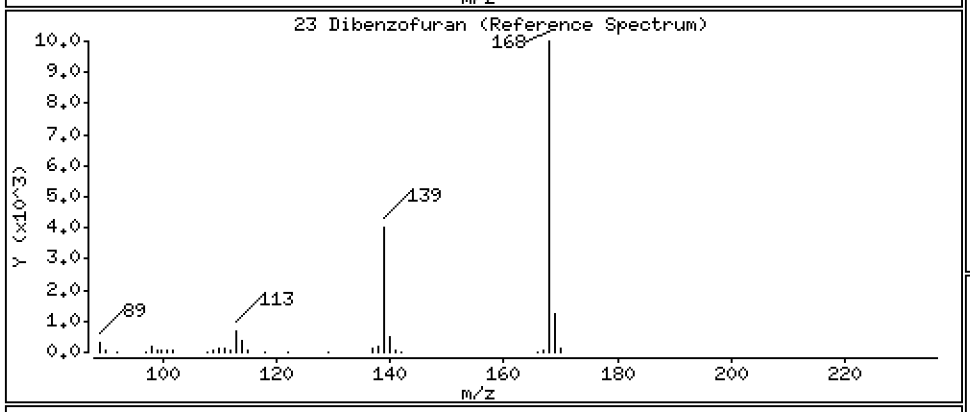
Column diameter: 0.25

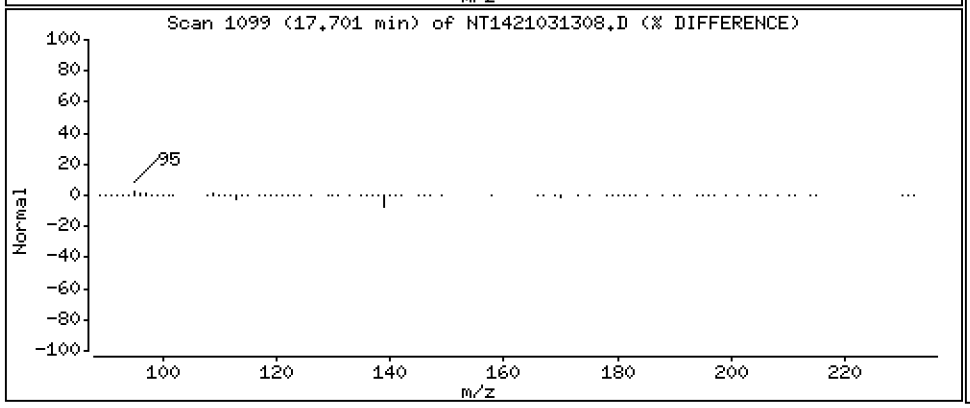
23 Dibenzofuran

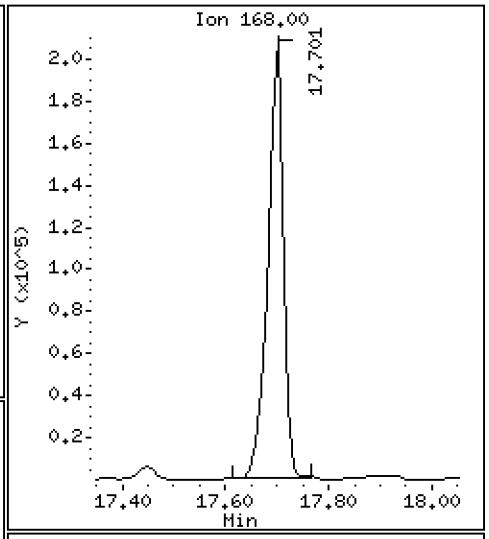
Concentration: 3.346 ug/mL

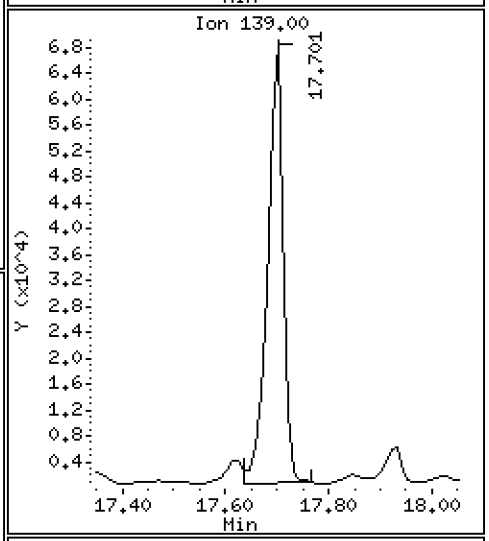


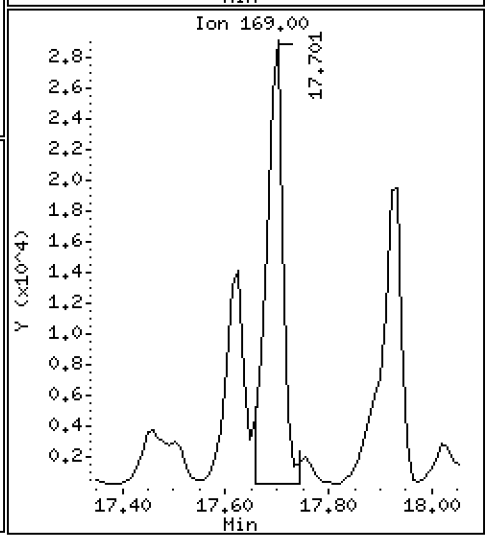












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Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

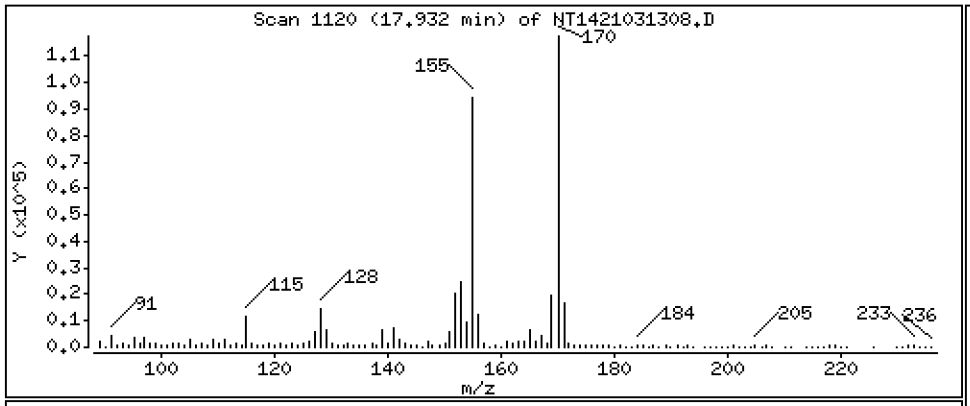
Operator: VTS

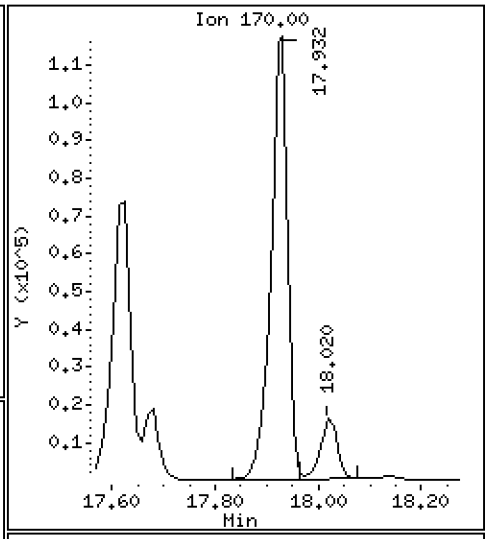
Column phase: Rxi-17Sil MS

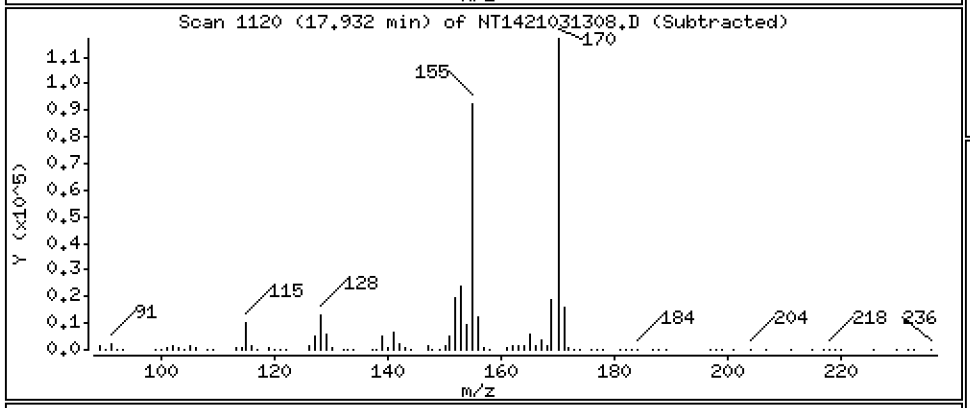
Column diameter: 0.25

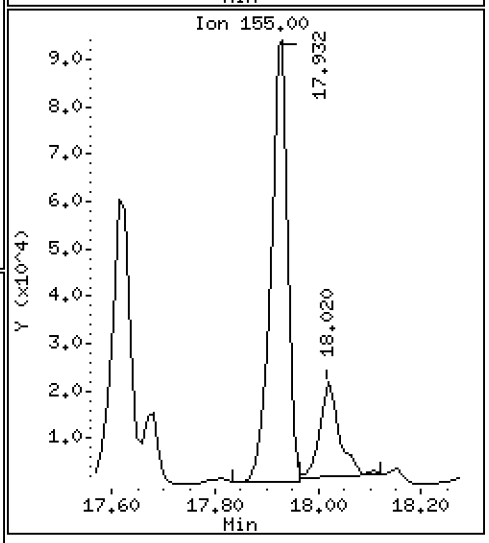
24 1,6,7-Trimethylnaphthalene

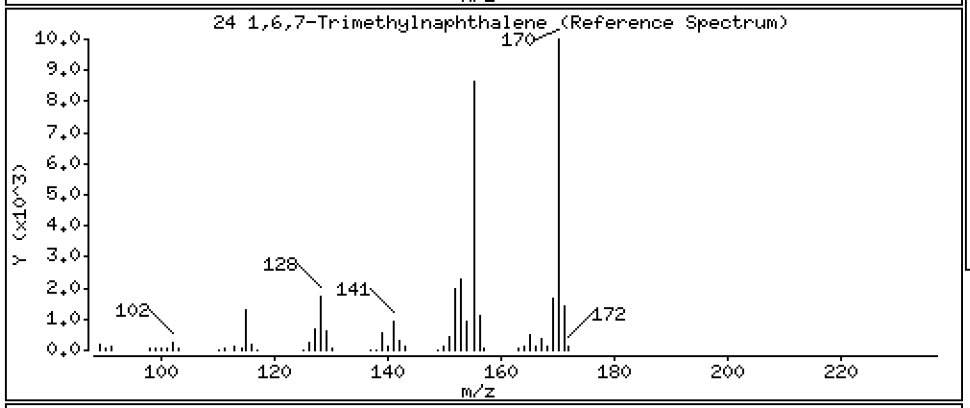
Concentration: 3.203 ug/mL

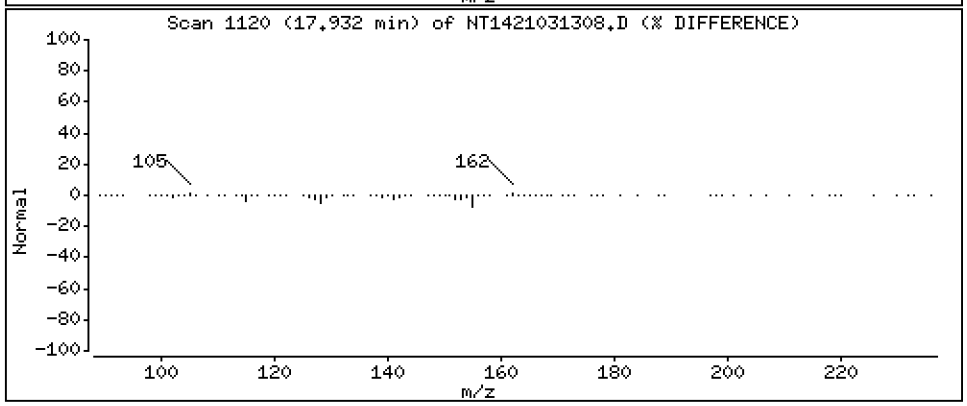












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Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

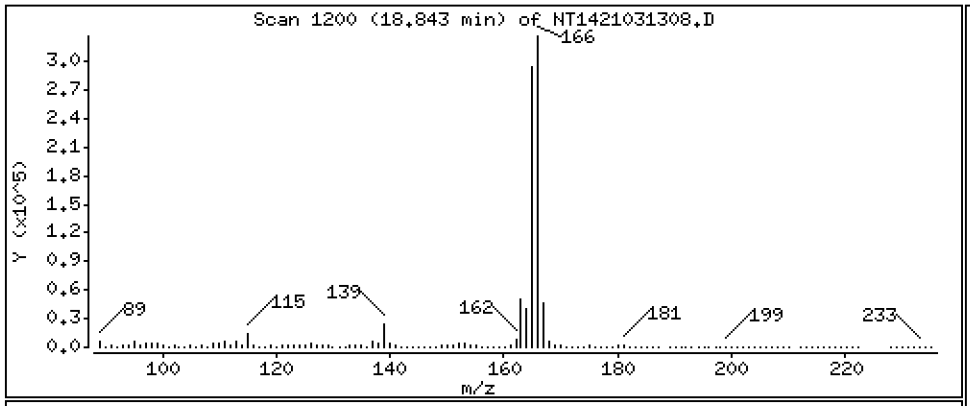
Operator: VTS

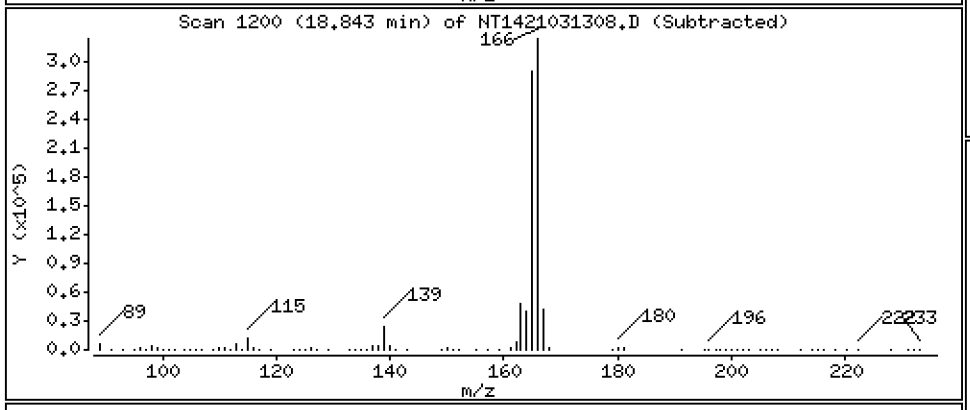
Column phase: Rxi-17Sil MS

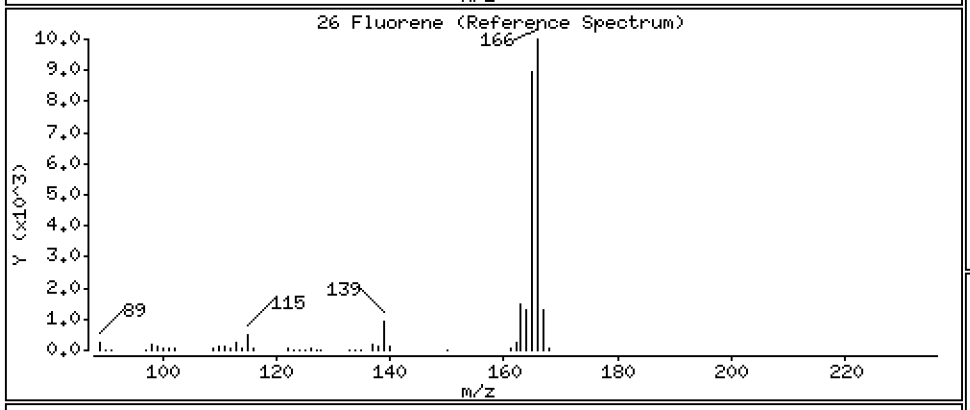
Column diameter: 0.25

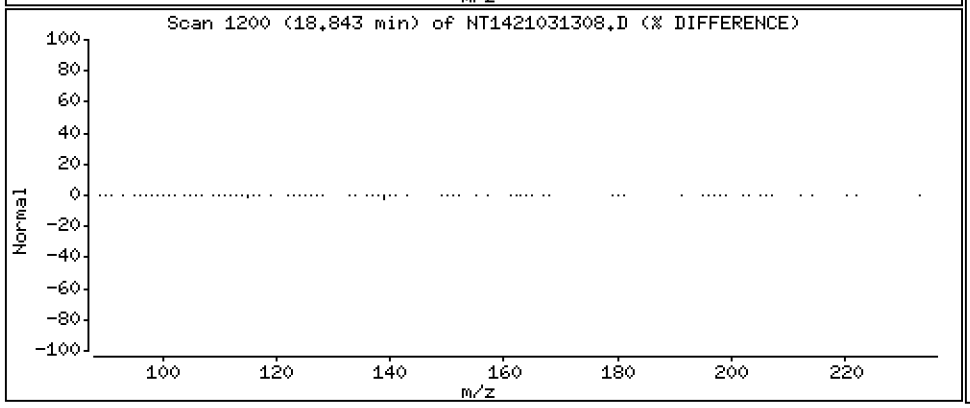
26 Fluorene

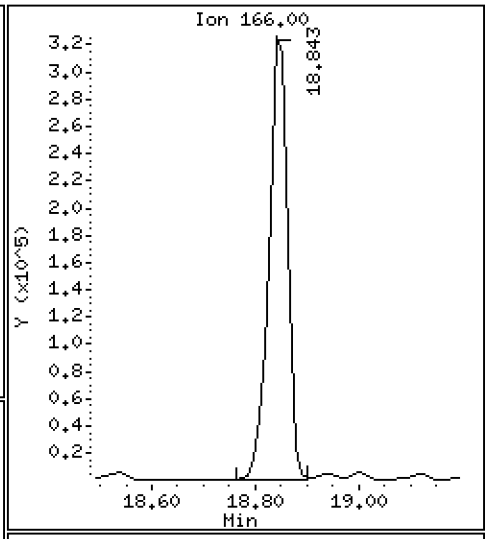
Concentration: 7.462 ug/mL

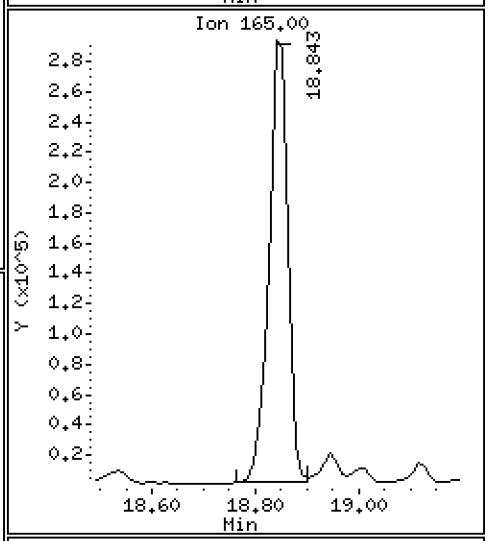


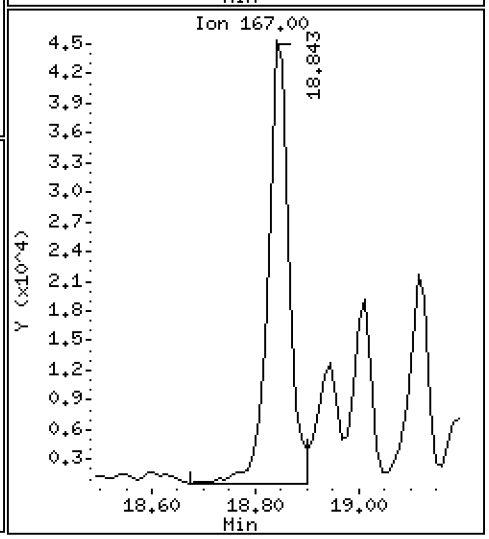












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Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

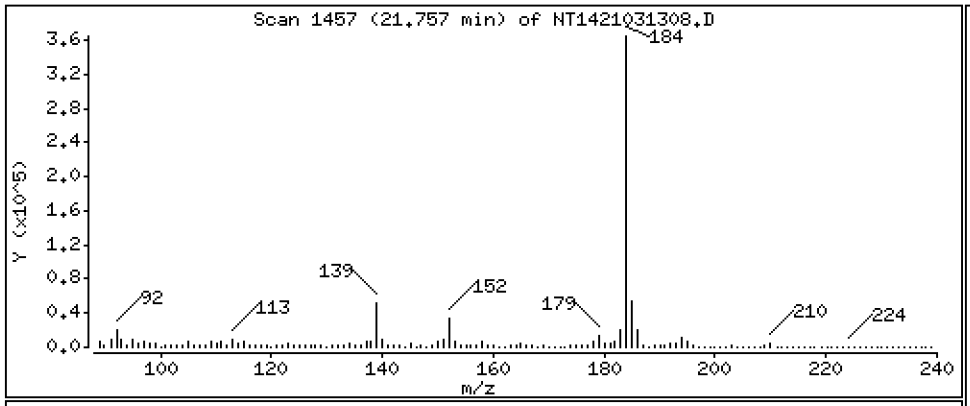
Operator: VTS

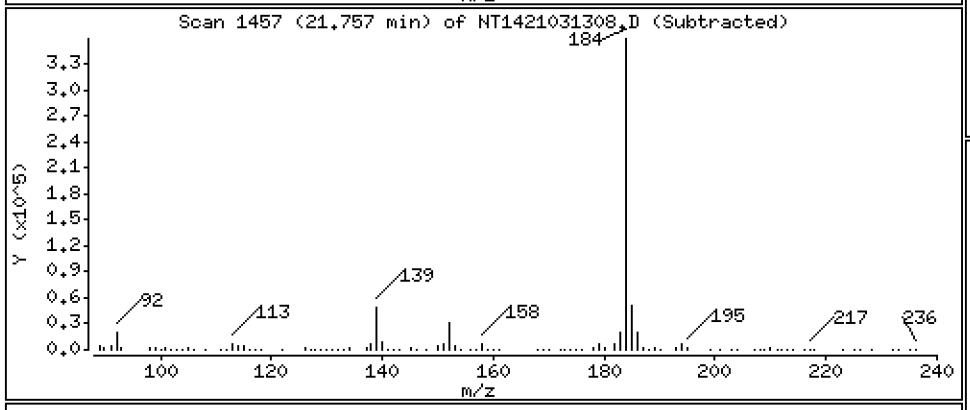
Column phase: Rxi-17Sil MS

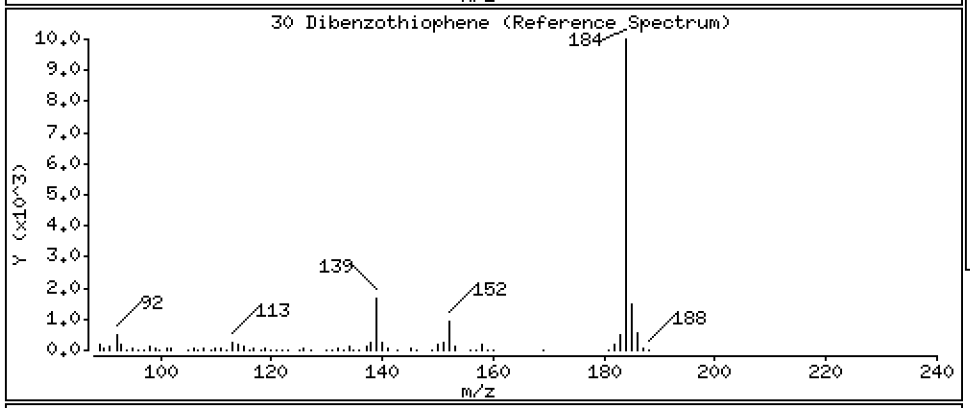
Column diameter: 0.25

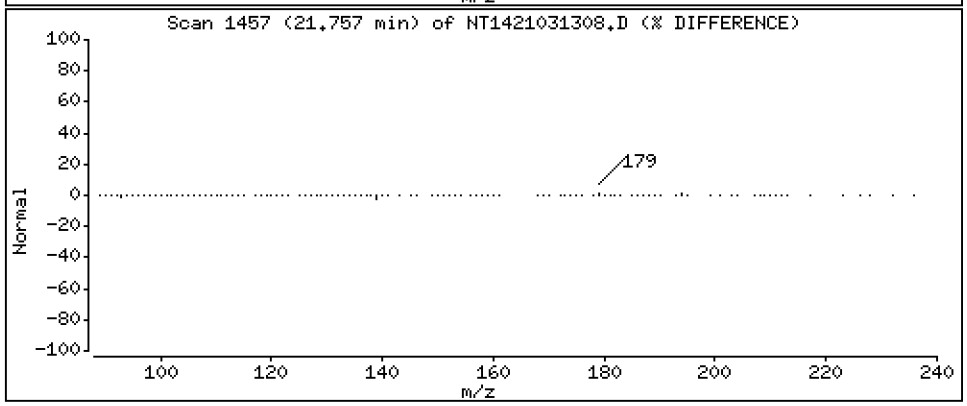
30 Dibenzothiophene

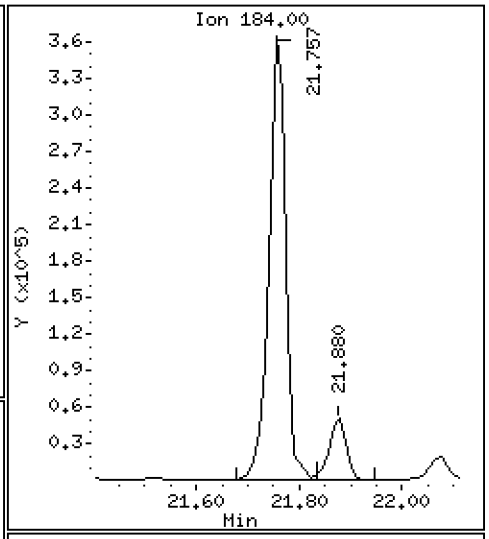
Concentration: 6.650 ug/mL

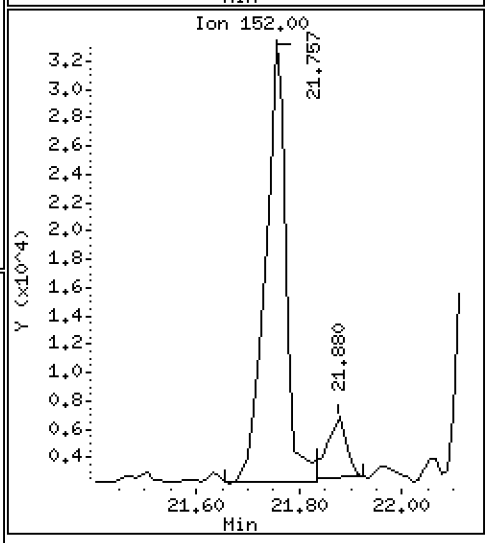












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Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

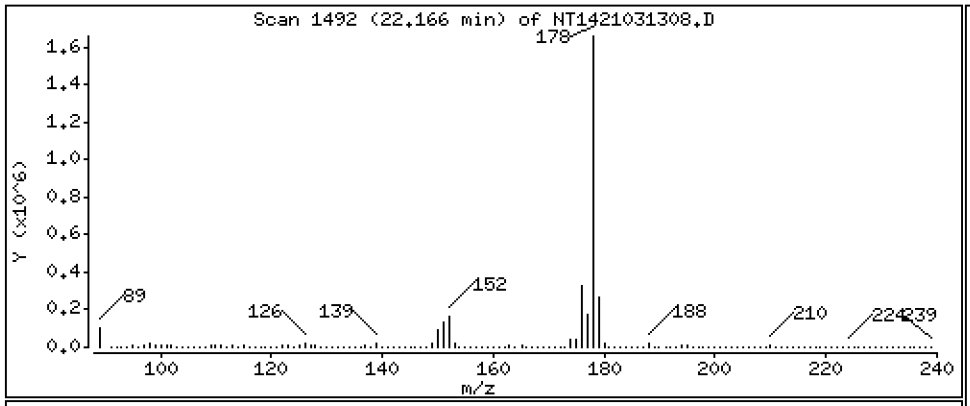
Operator: VTS

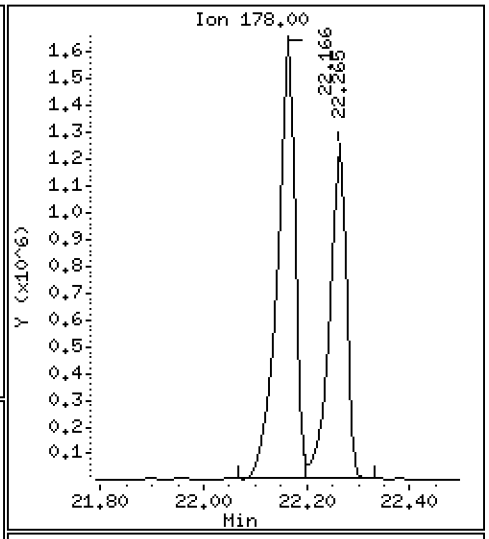
Column phase: Rxi-17Sil MS

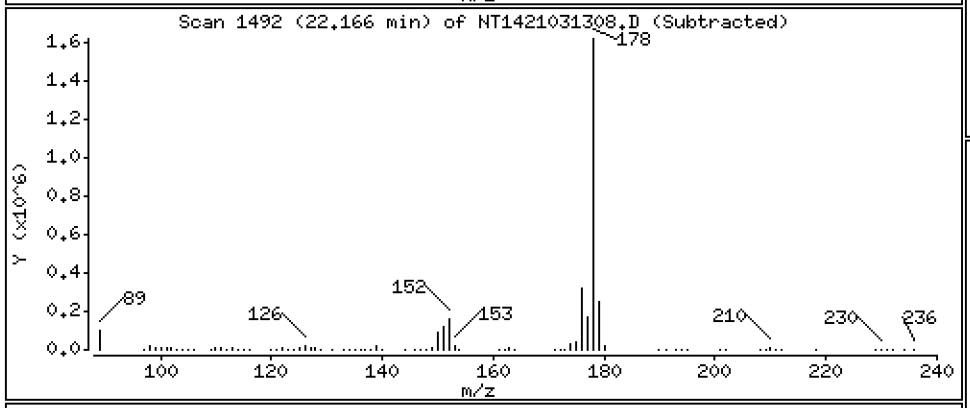
Column diameter: 0.25

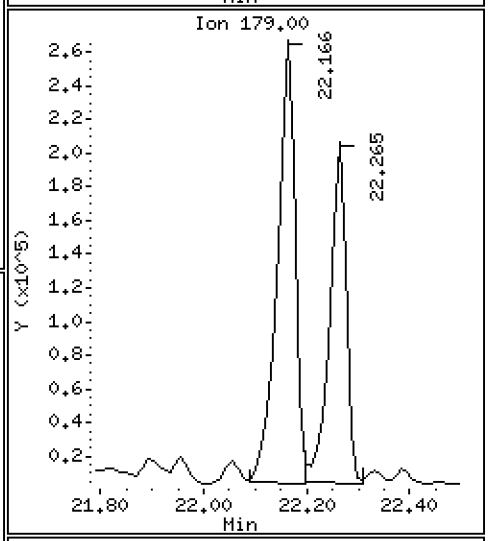
36 Phenanthrene

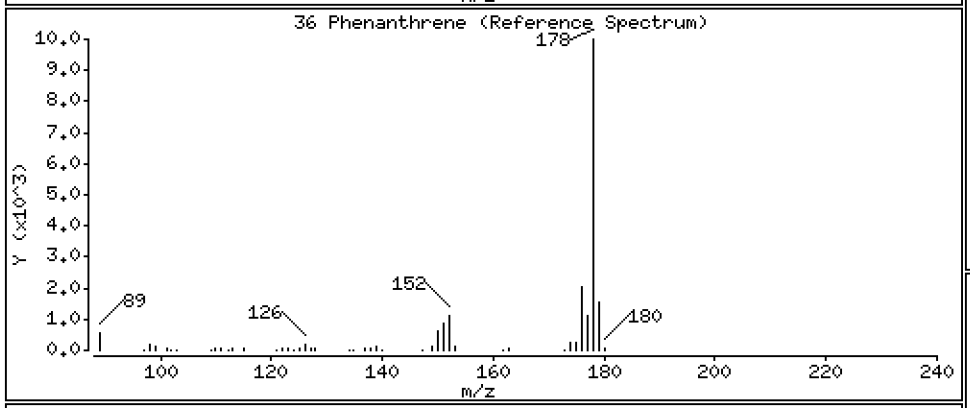
Concentration: 27.15 ug/mL

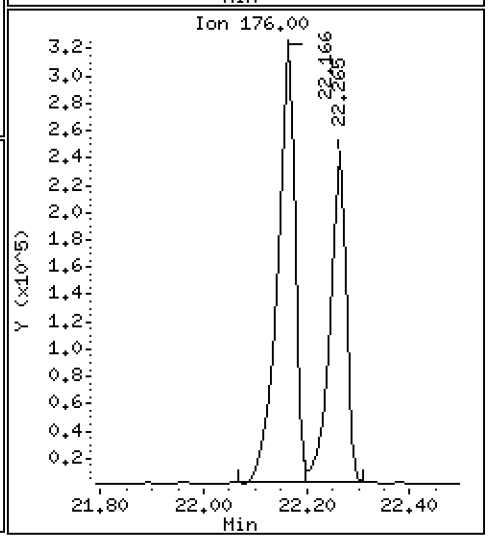


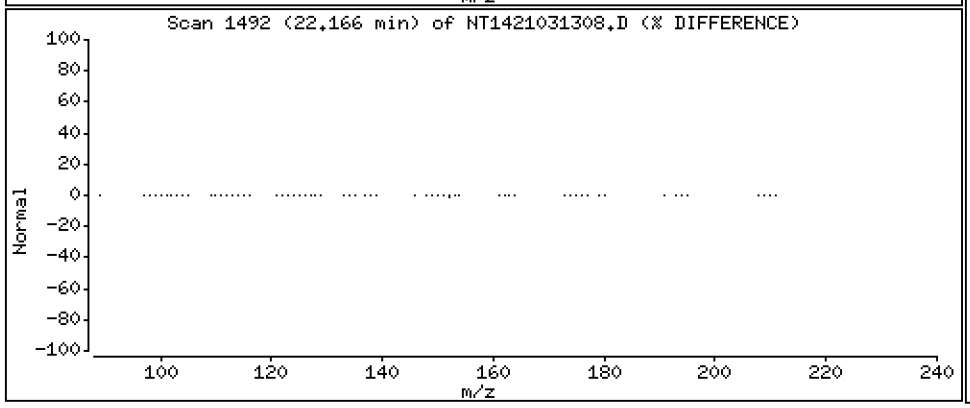












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Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

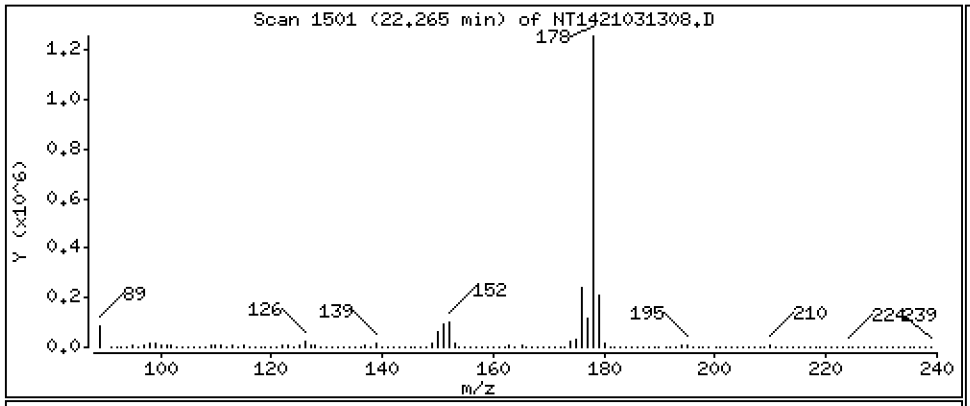
Operator: VTS

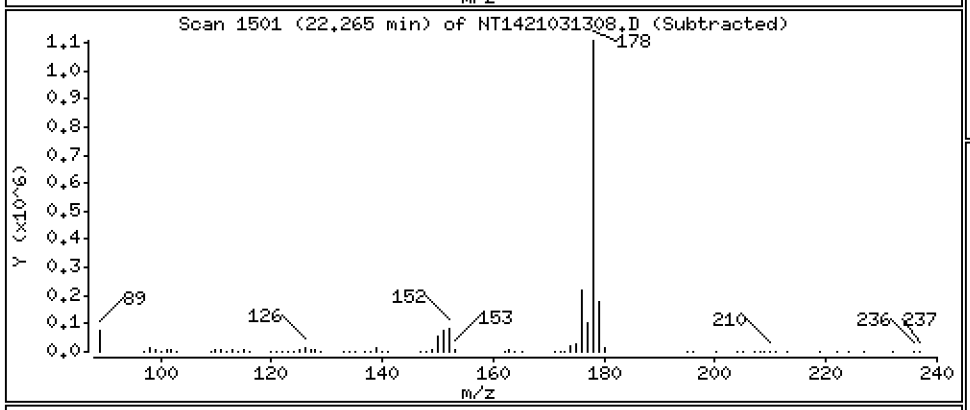
Column phase: Rxi-17Sil MS

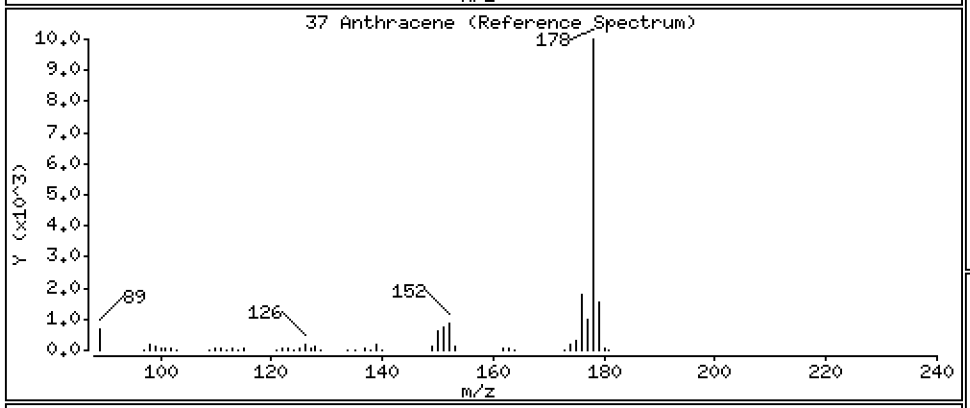
Column diameter: 0.25

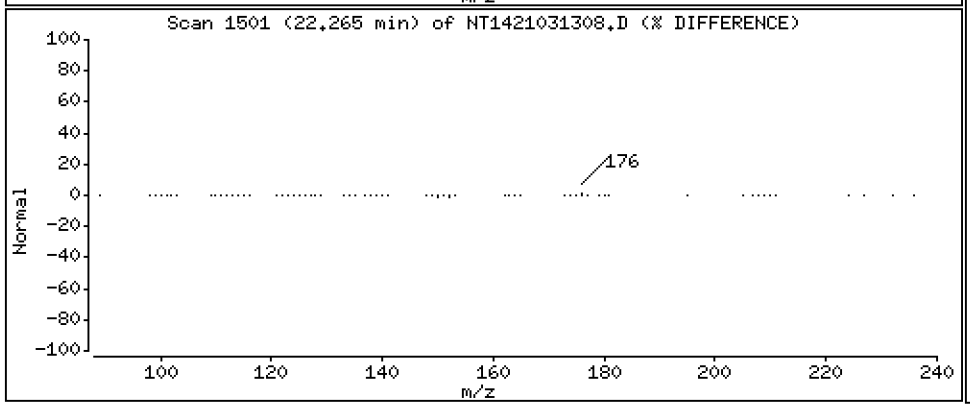
37 Anthracene

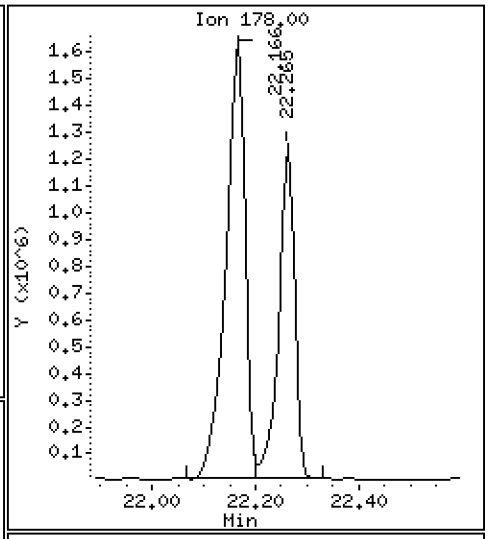
Concentration: 19.72 ug/mL

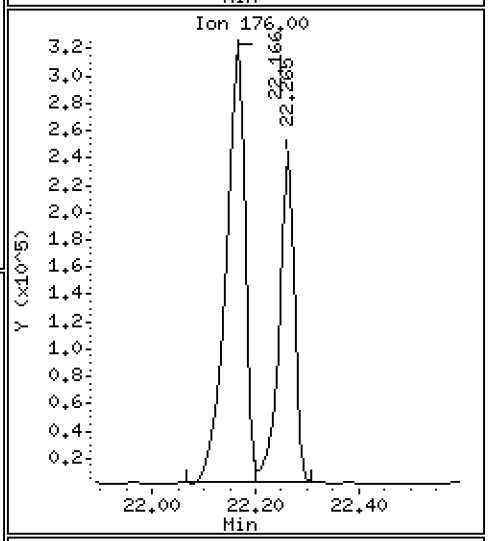


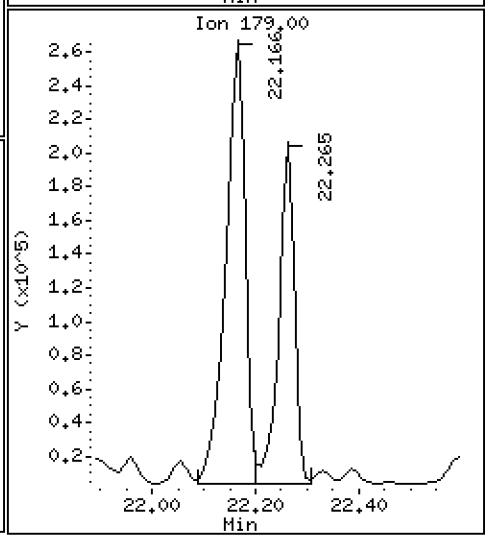












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Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

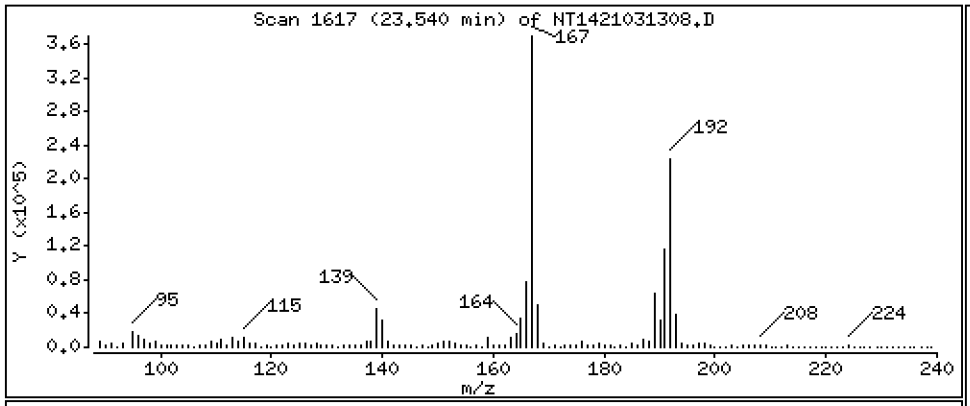
Operator: VTS

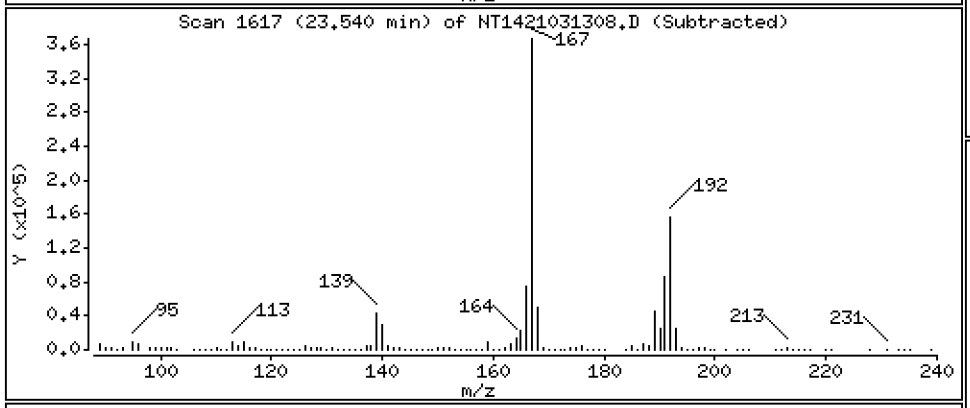
Column phase: Rxi-17Sil MS

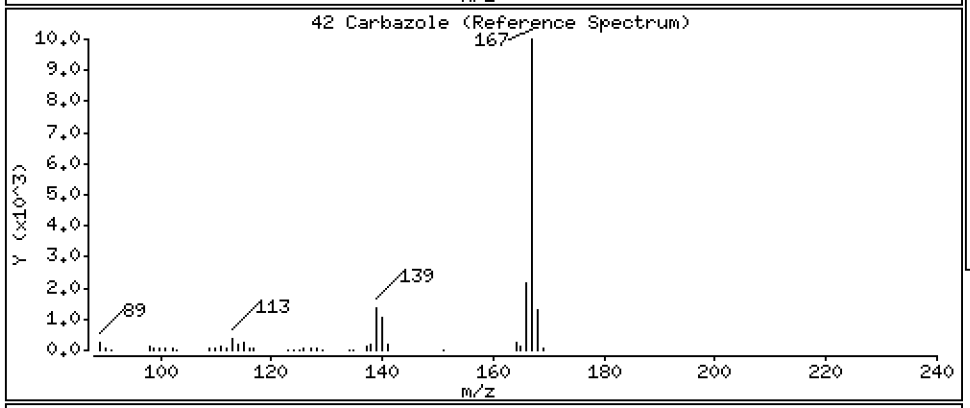
Column diameter: 0.25

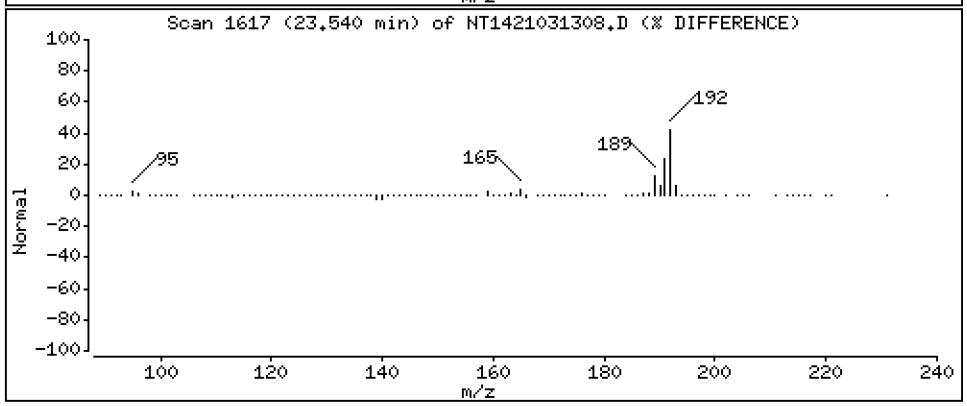
42 Carbazole

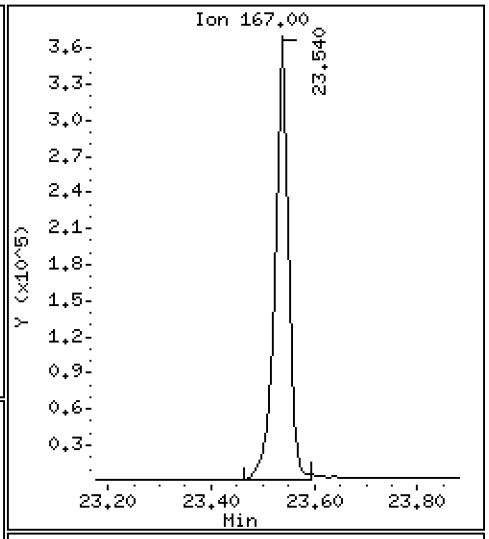
Concentration: 6.058 ug/mL

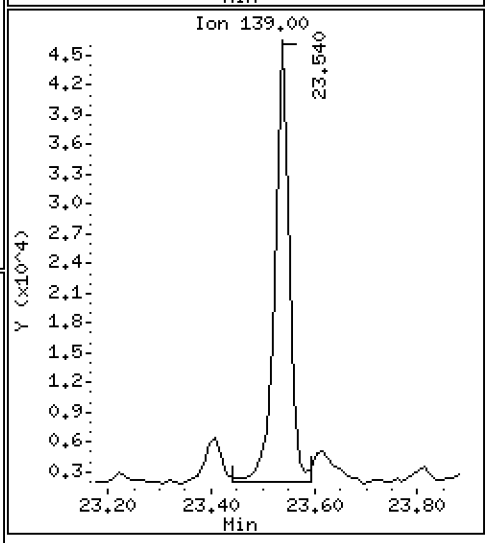












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Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

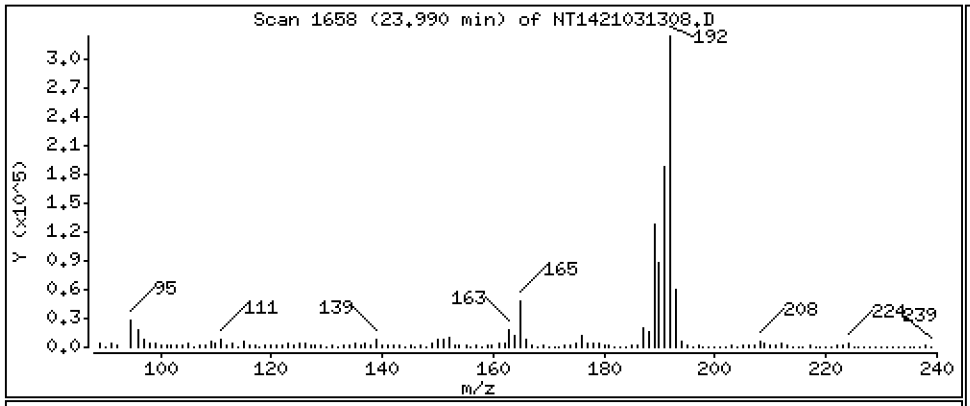
Operator: VTS

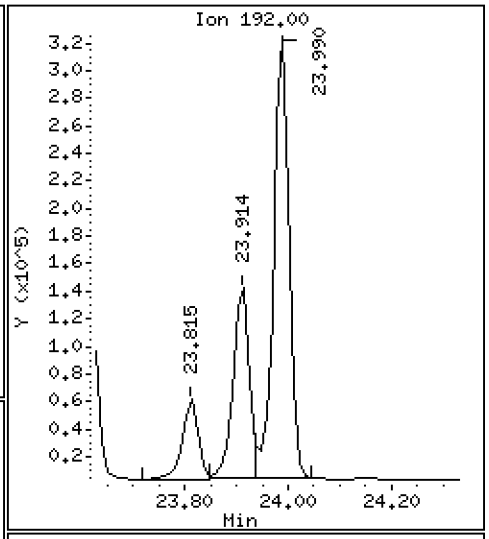
Column phase: Rxi-17Sil MS

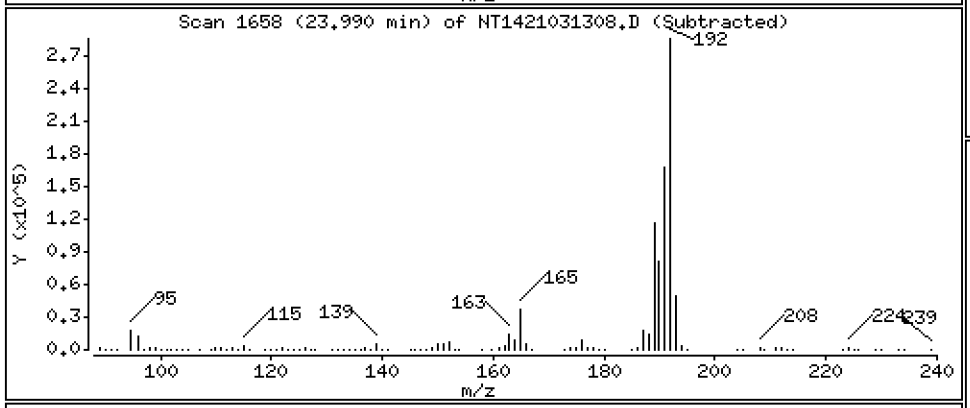
Column diameter: 0.25

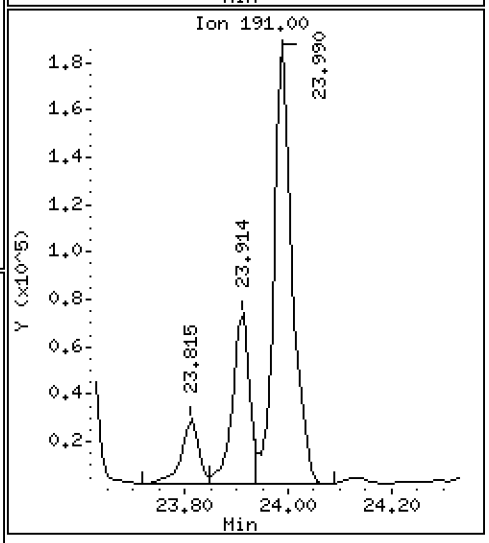
43 1-Methylphenanthrene

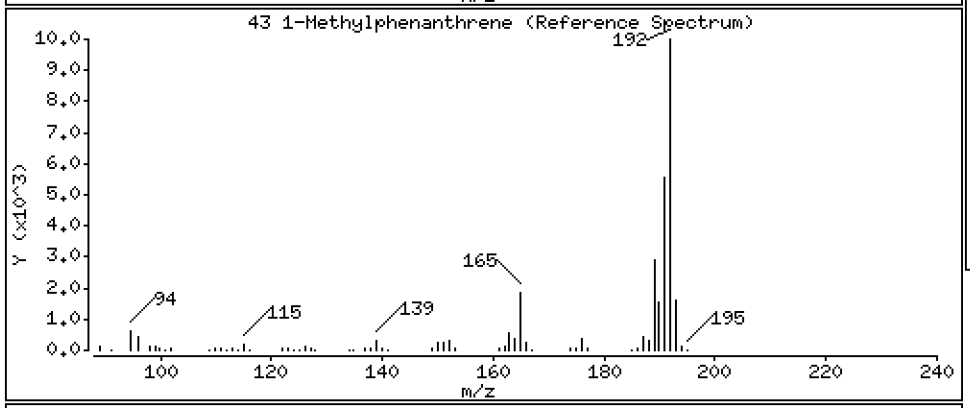
Concentration: 6.477 ug/mL

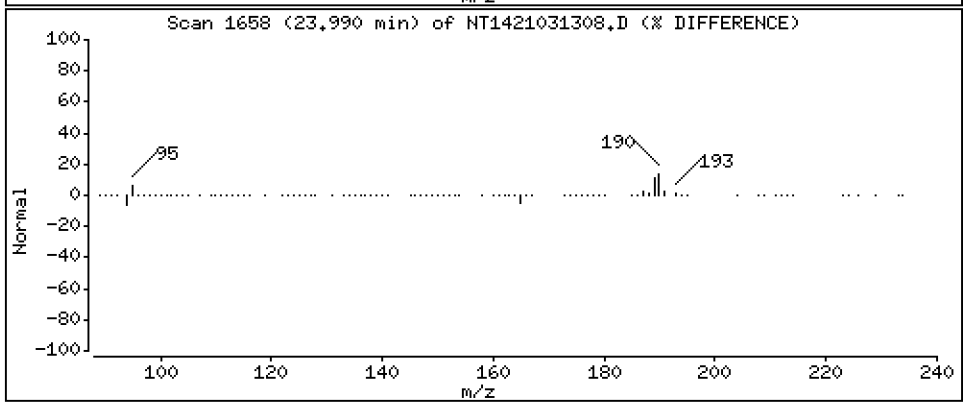












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Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

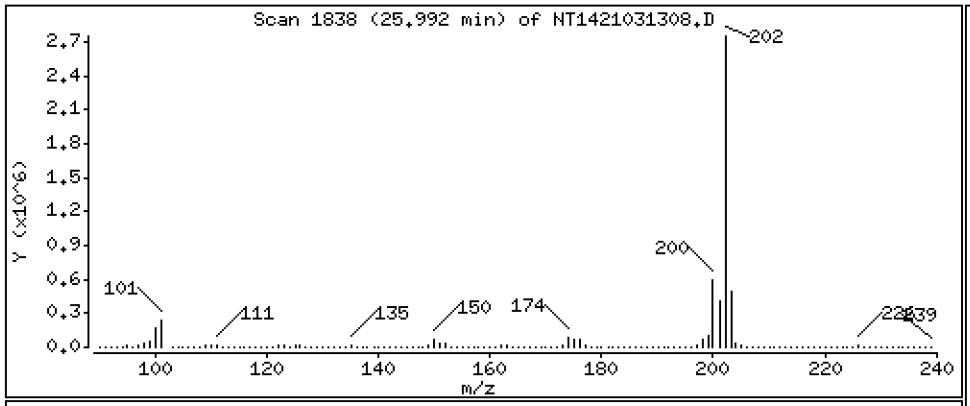
Operator: VTS

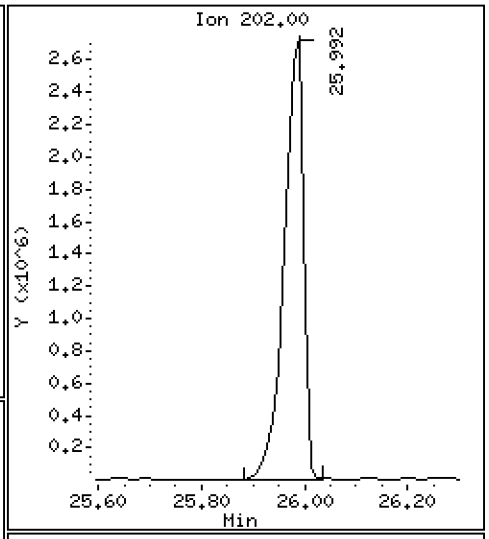
Column phase: Rxi-17Sil MS

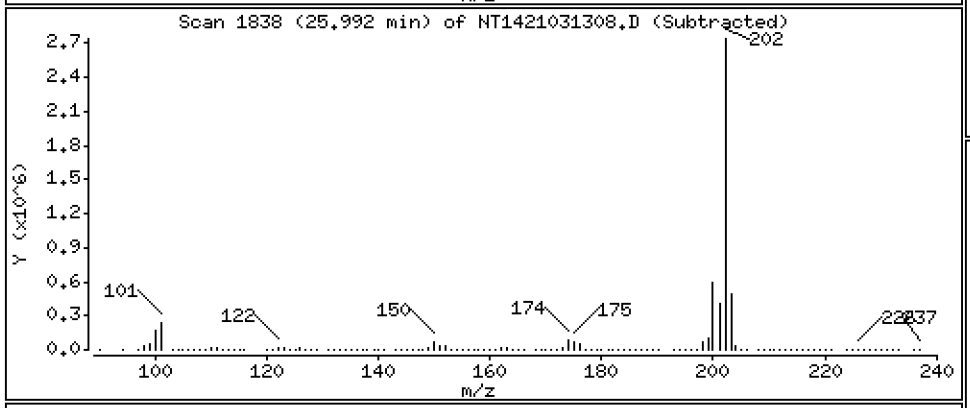
Column diameter: 0.25

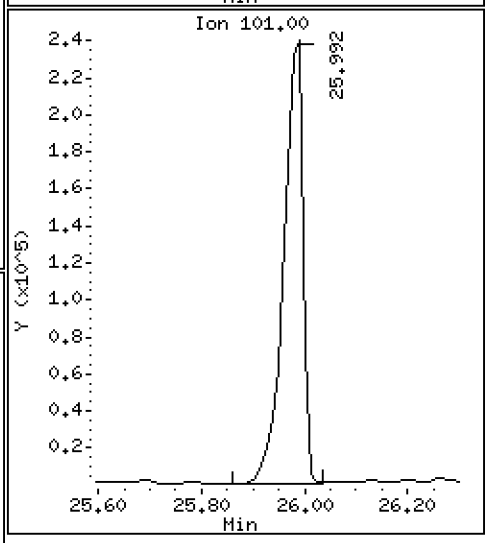
44 Fluoranthene

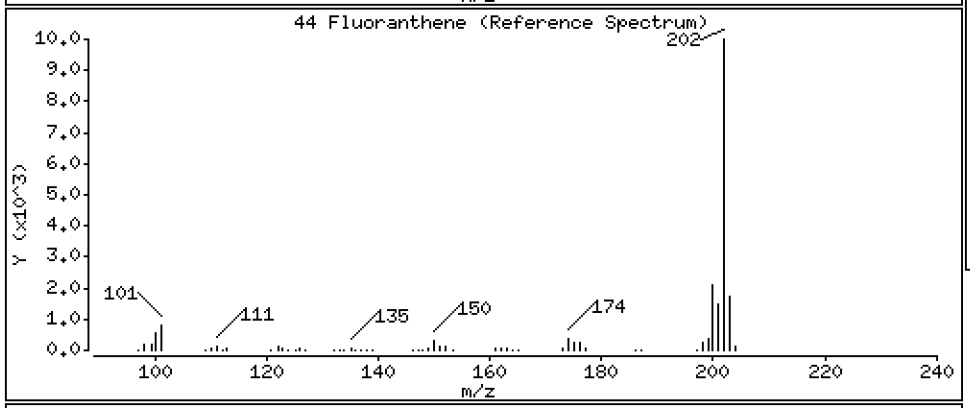
Concentration: 43.20 ug/mL

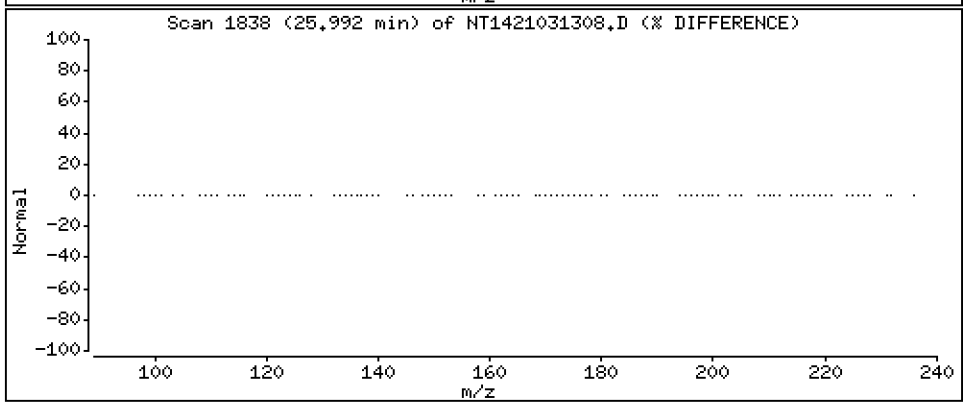












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031308.D

Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

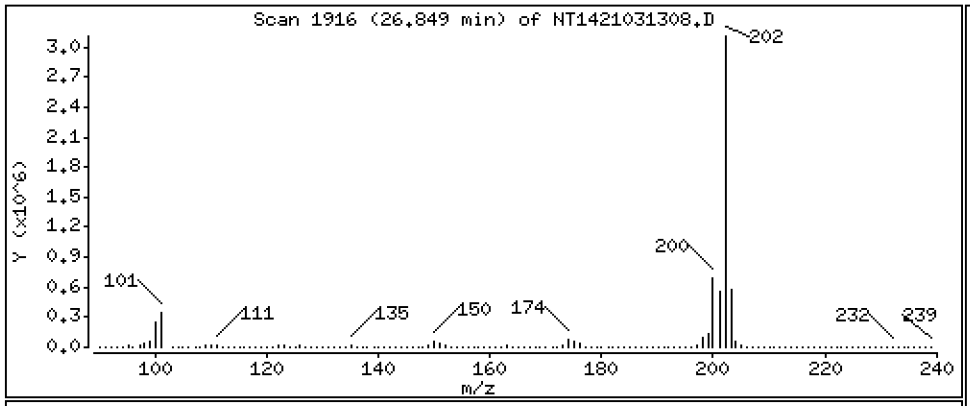
Operator: VTS

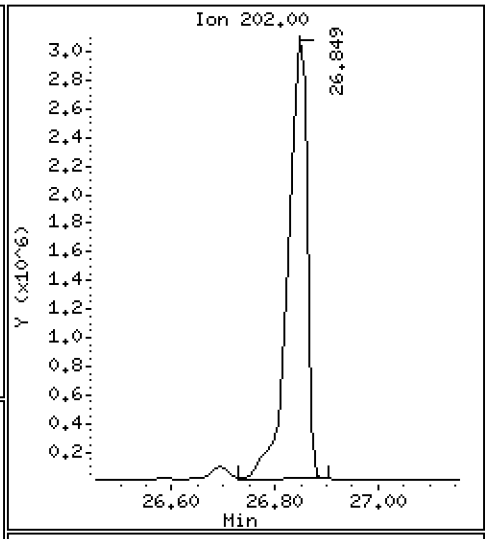
Column phase: Rxi-17Sil MS

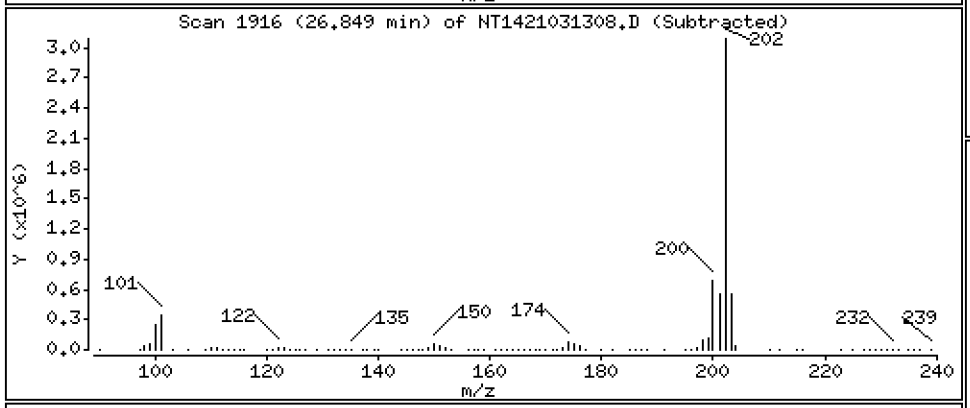
Column diameter: 0.25

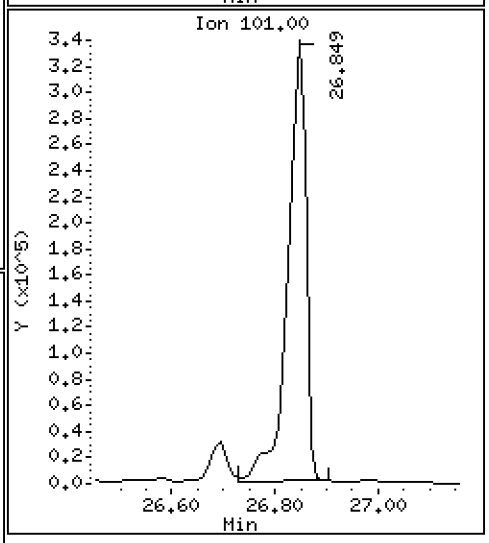
46 Pyrene

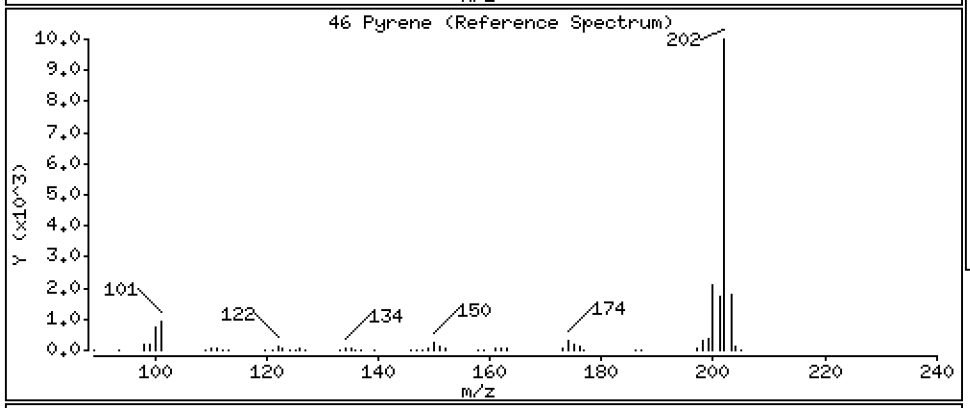
Concentration: 45.51 ug/mL

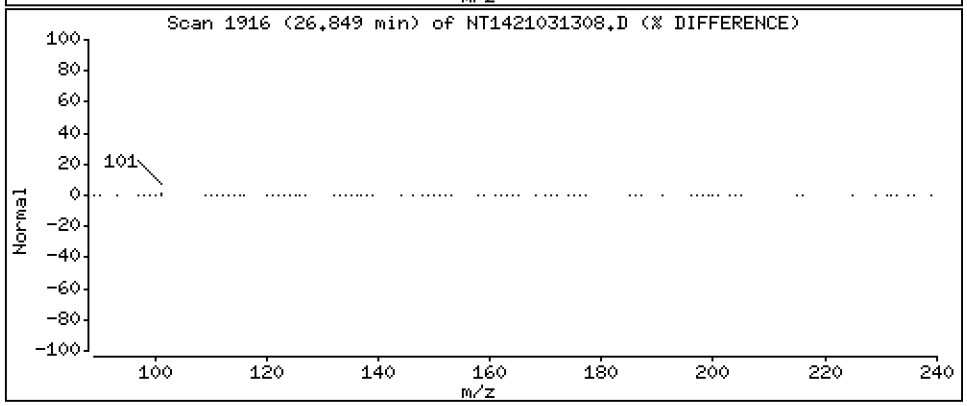












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Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

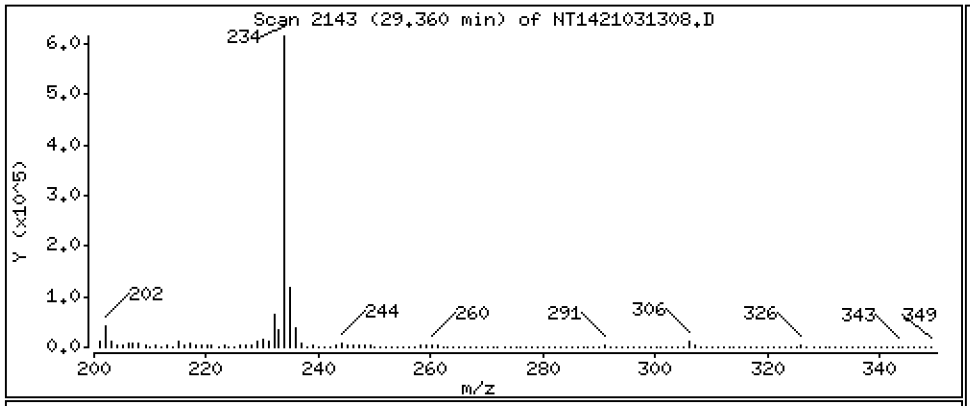
Operator: VTS

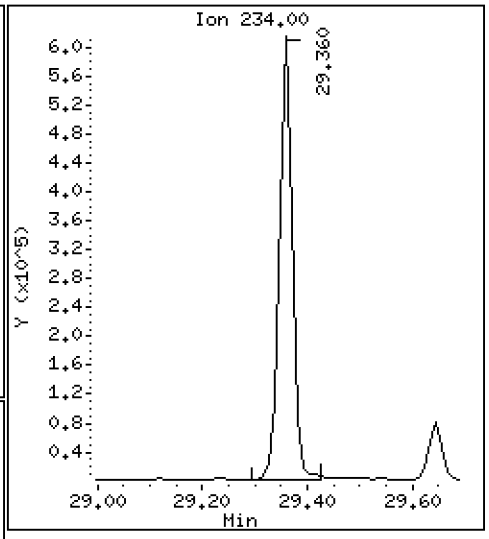
Column phase: Rxi-17Sil MS

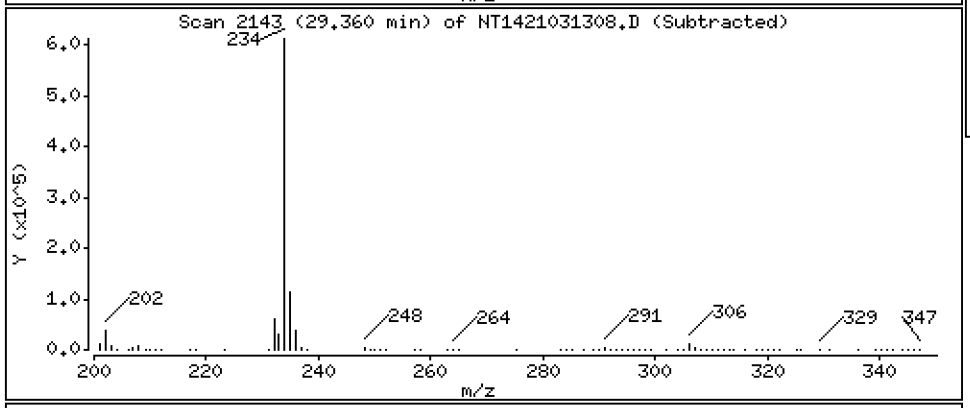
Column diameter: 0.25

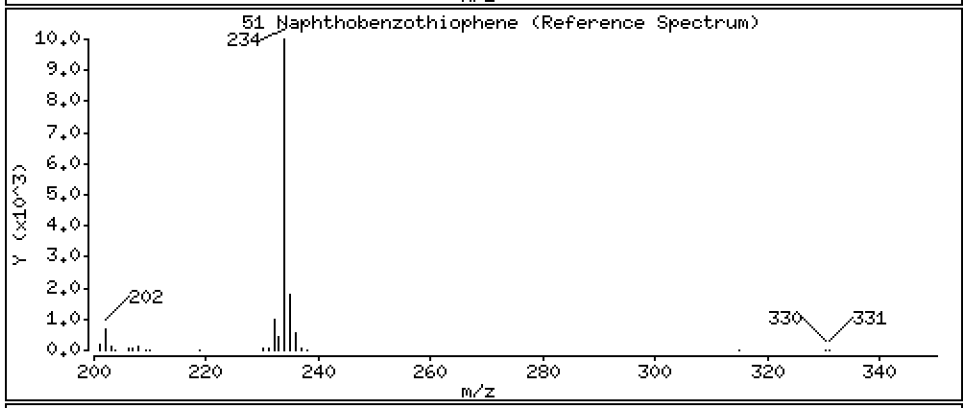
51 Naphthobenzothiophene

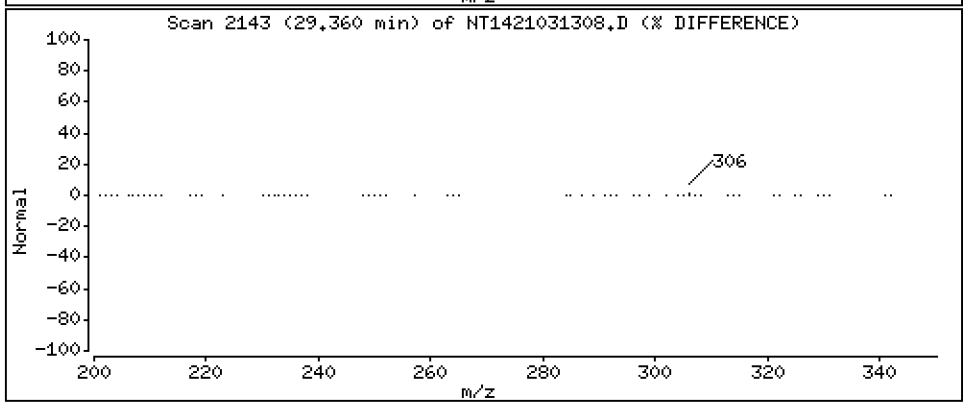
Concentration: 8.377 ug/mL











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Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

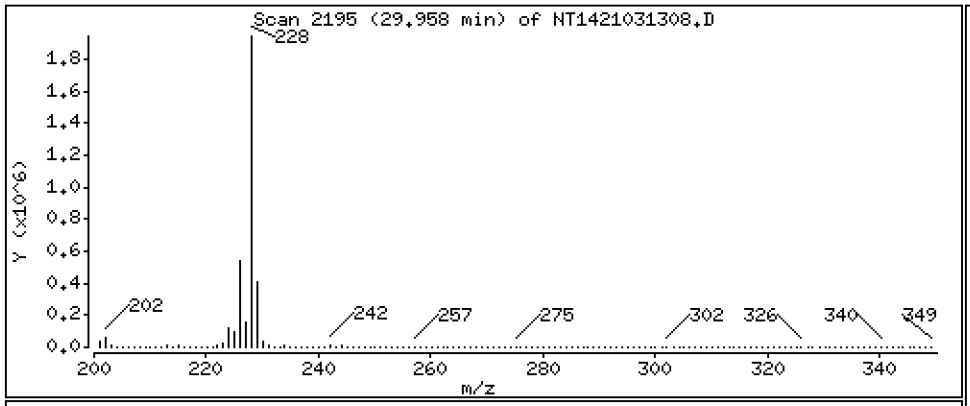
Operator: VTS

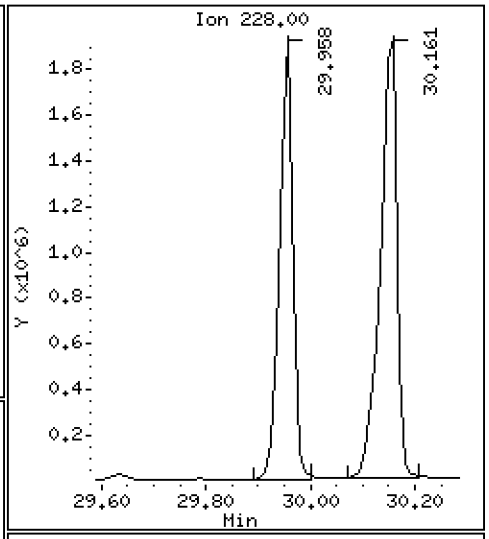
Column phase: Rxi-17Sil MS

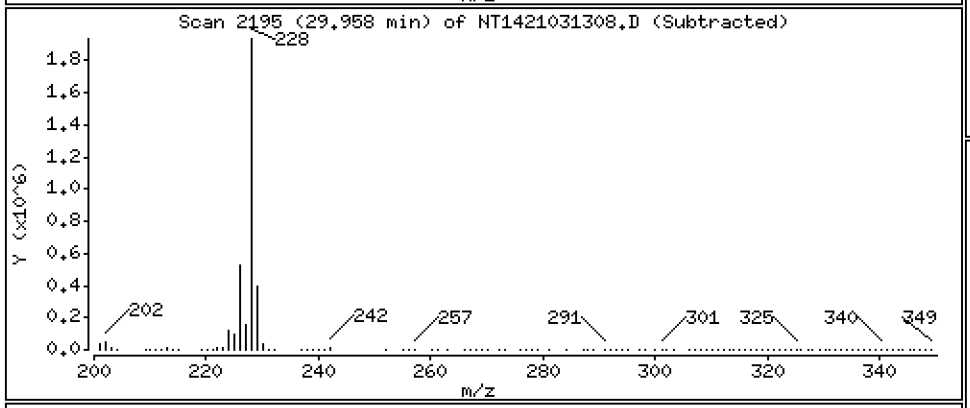
Column diameter: 0.25

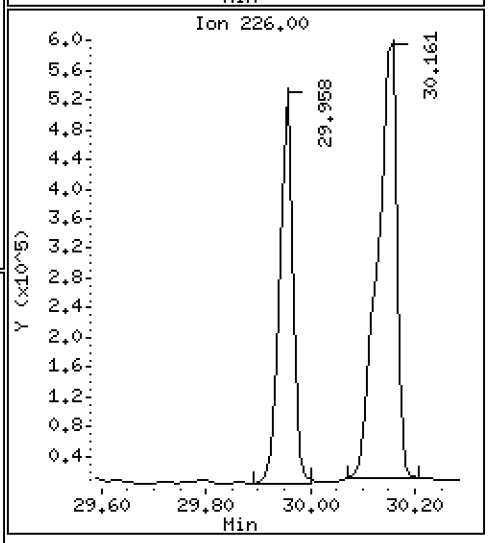
55 Benzo(a)anthracene

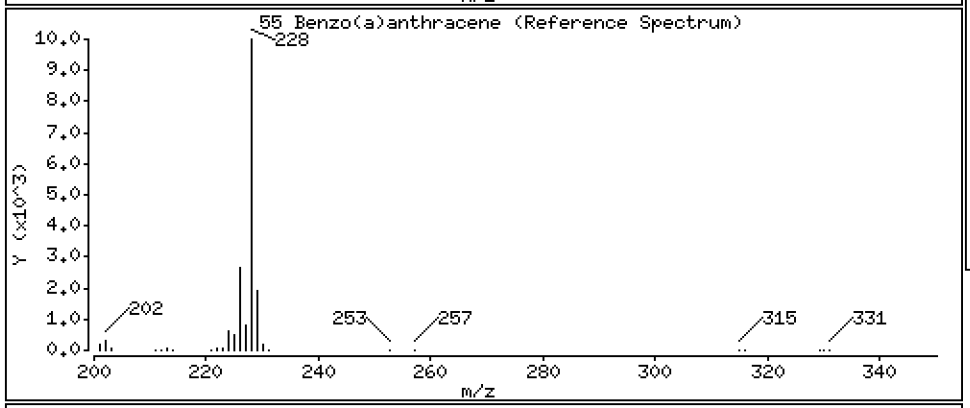
Concentration: 16.69 ug/mL

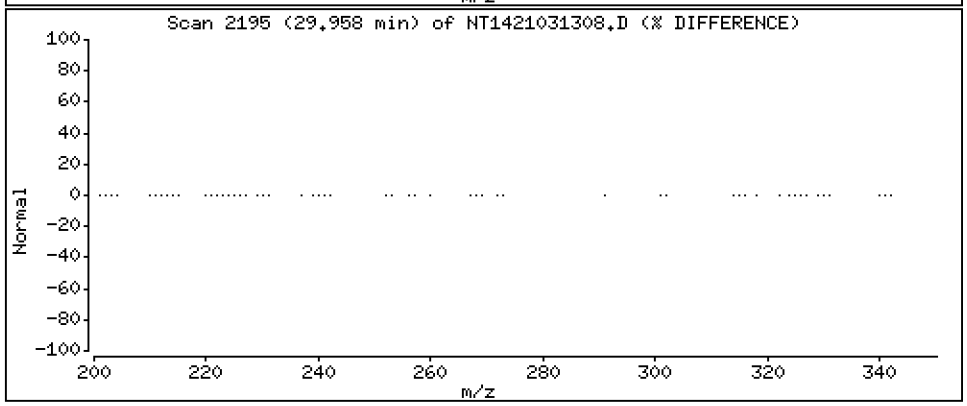












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031308.D

Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

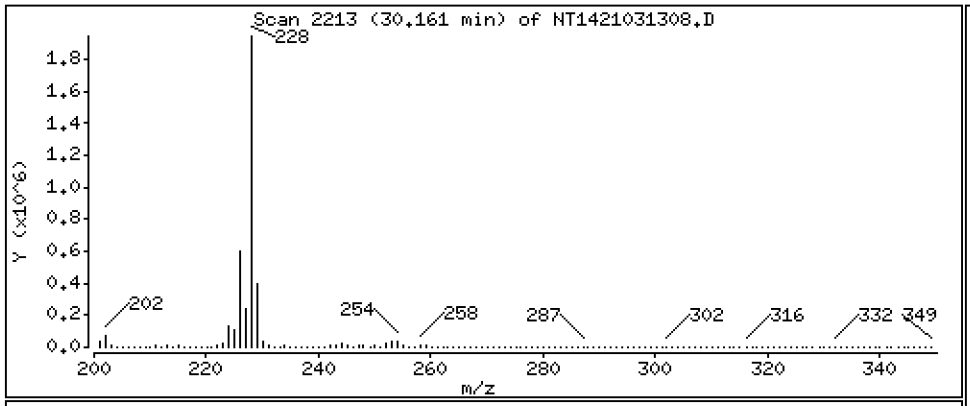
Operator: VTS

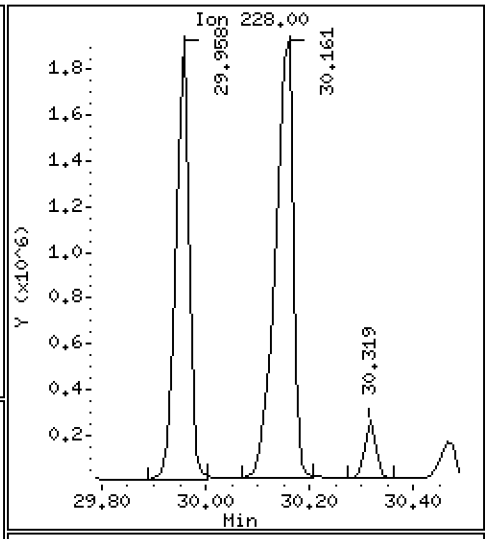
Column phase: Rxi-17Sil MS

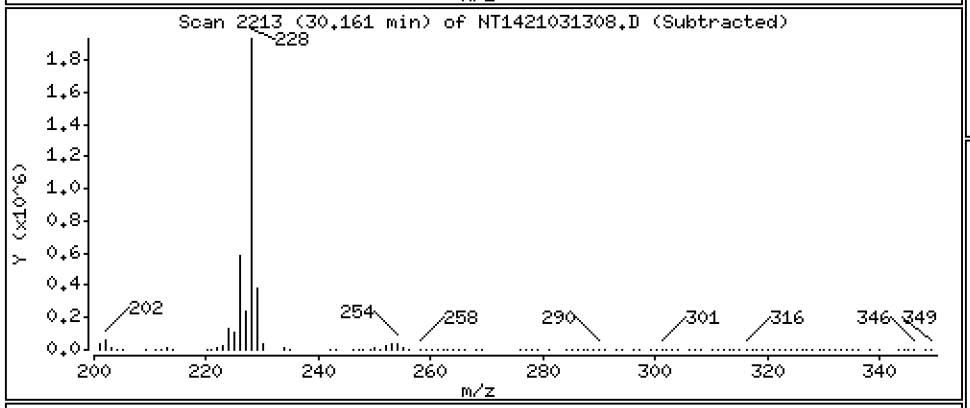
Column diameter: 0.25

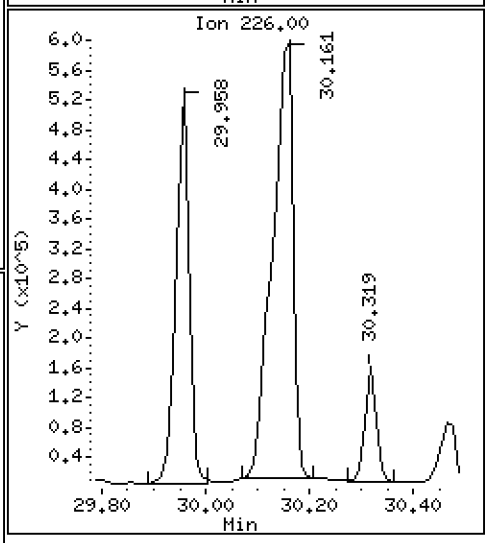
57 Chrysene

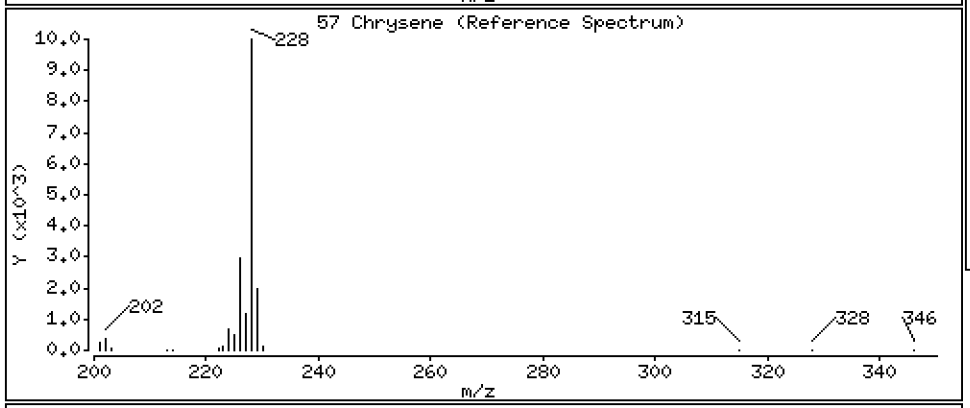
Concentration: 20.84 ug/mL

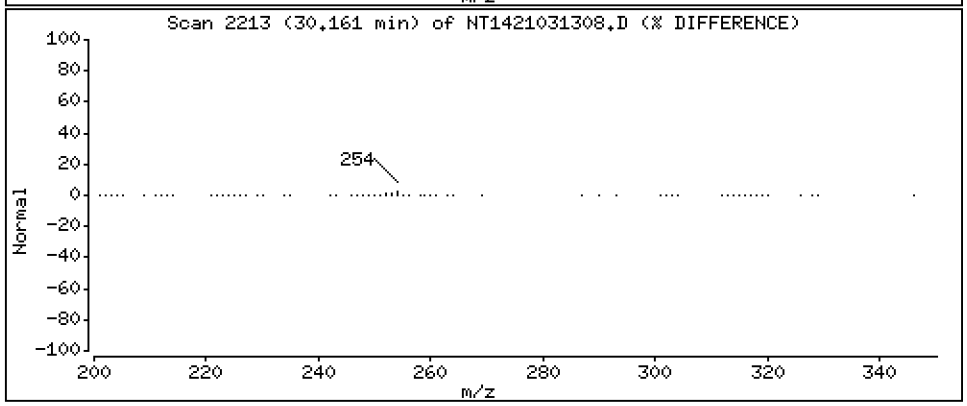












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031308.D

Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

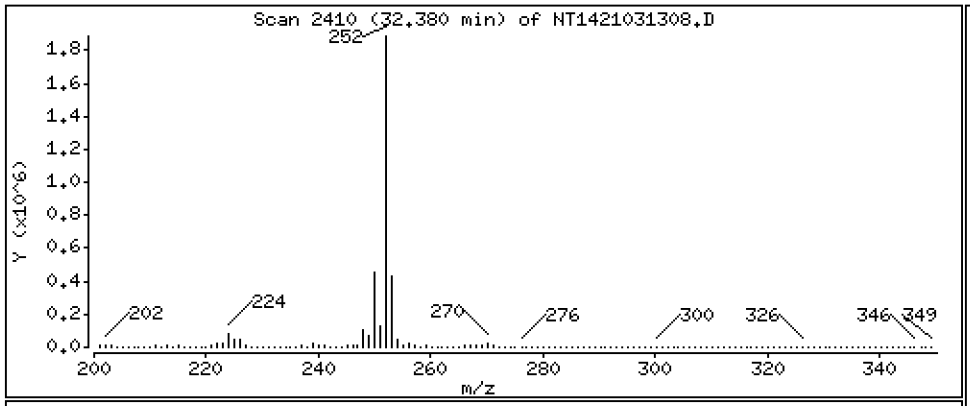
Operator: VTS

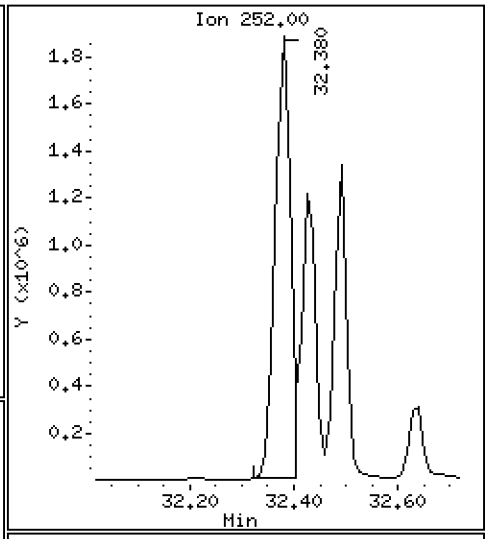
Column phase: Rxi-17Sil MS

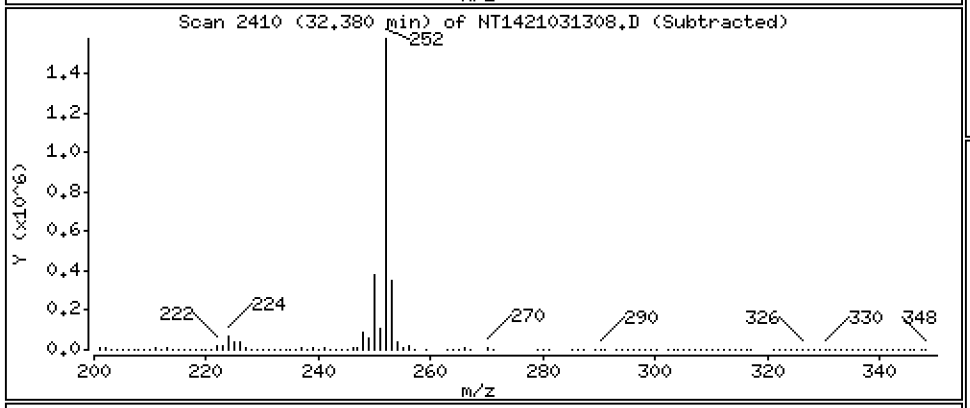
Column diameter: 0.25

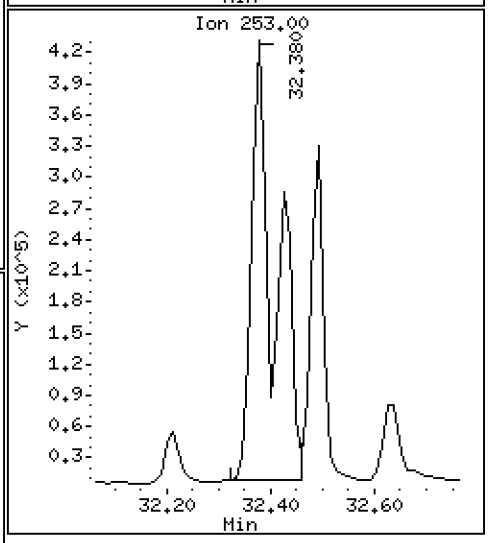
62 Benzo(b)fluoranthene

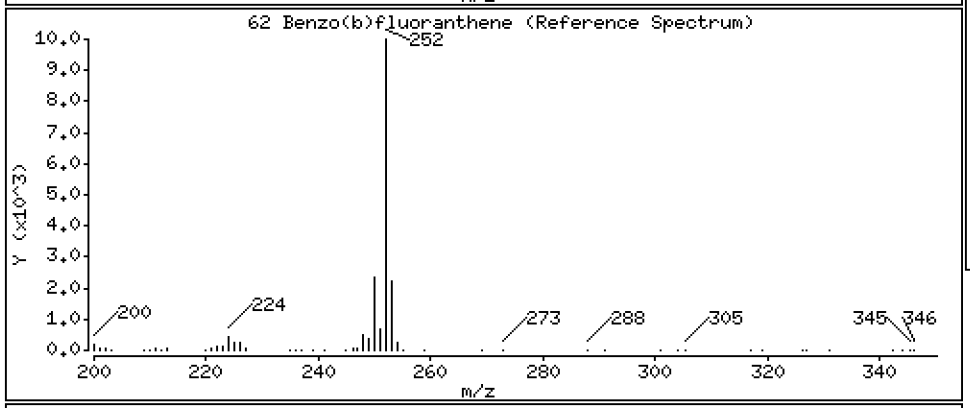
Concentration: 17.73 ug/mL

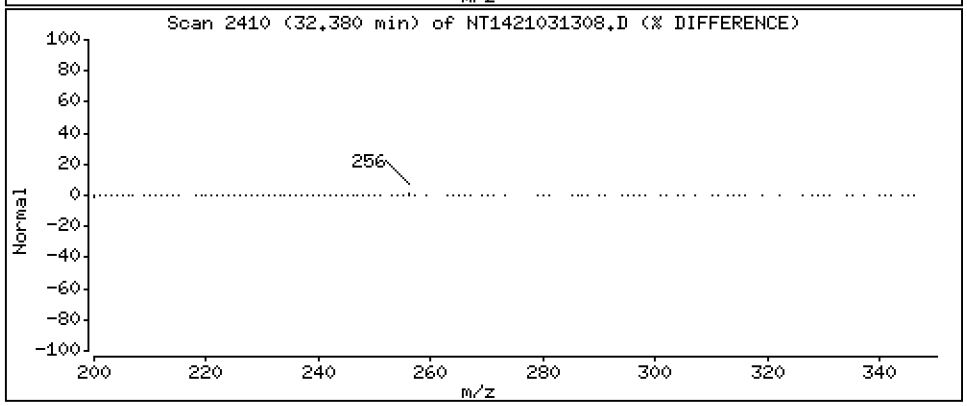












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Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

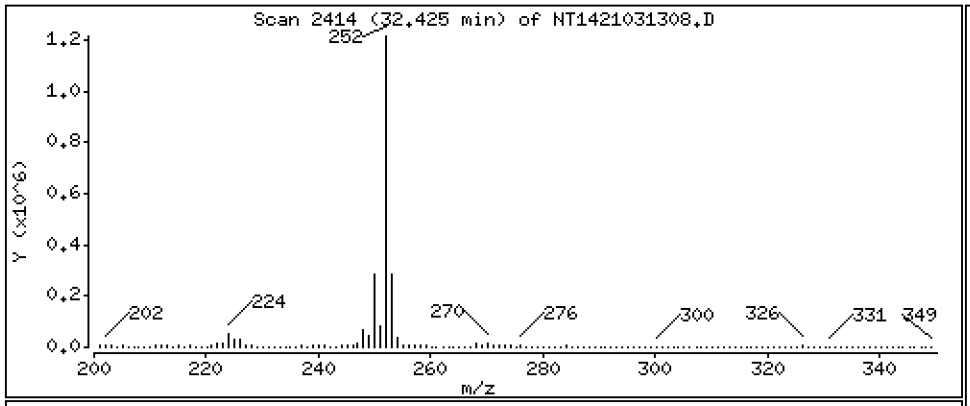
Operator: VTS

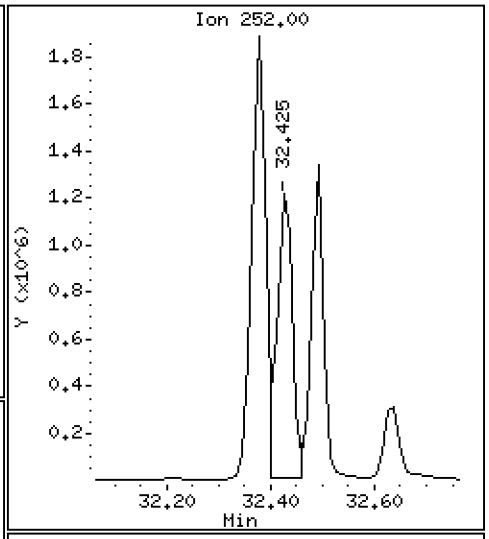
Column phase: Rxi-17Sil MS

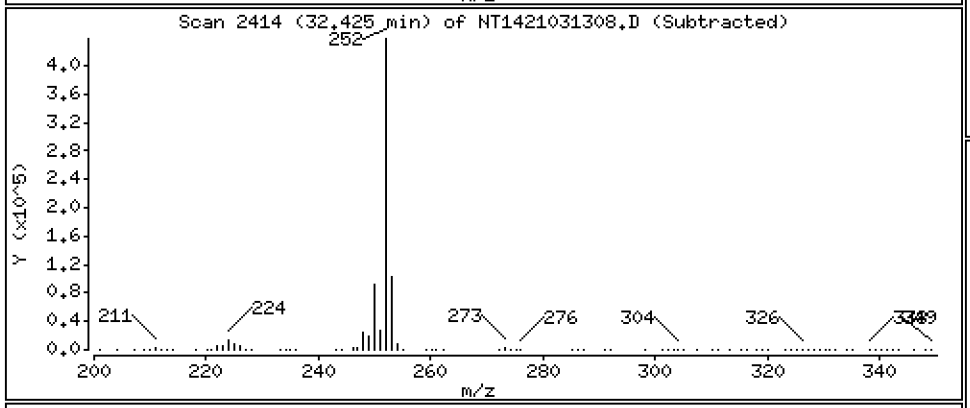
Column diameter: 0.25

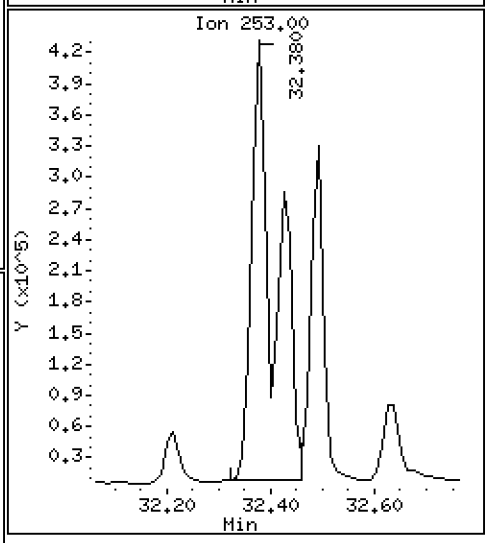
63 Benzo(k)fluoranthene

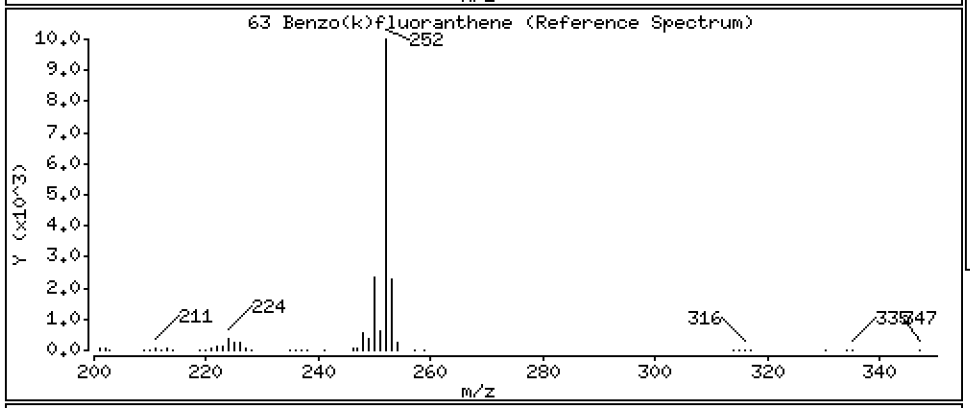
Concentration: 11.26 ug/mL

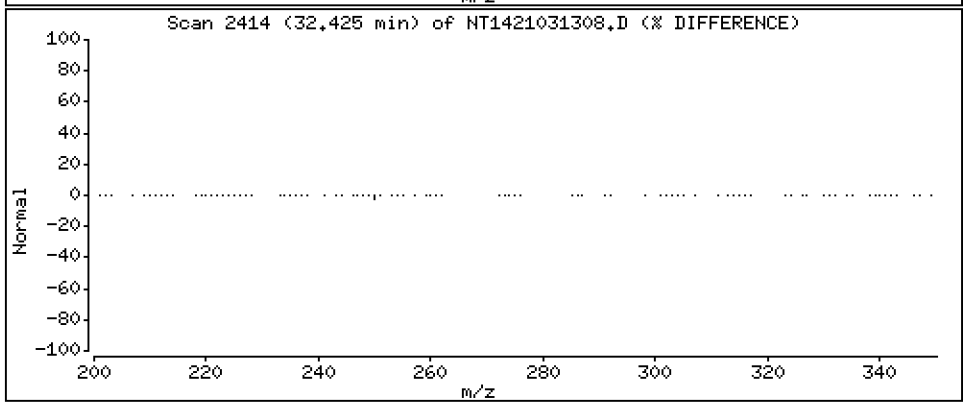












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Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

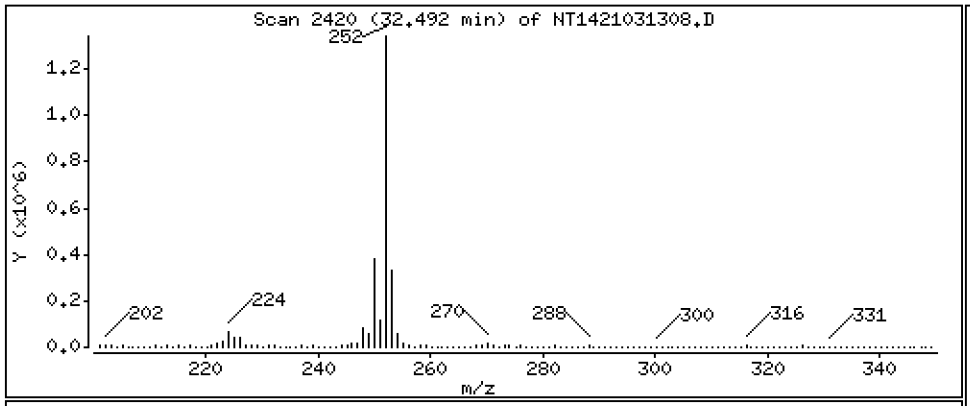
Operator: VTS

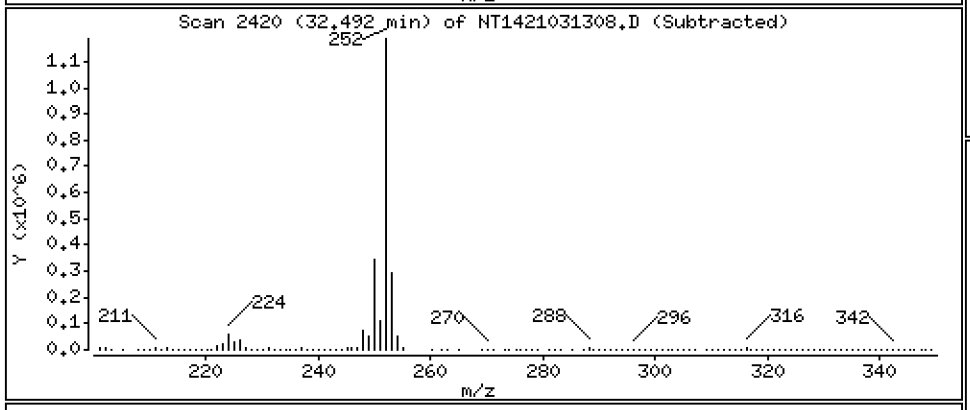
Column phase: Rxi-17Sil MS

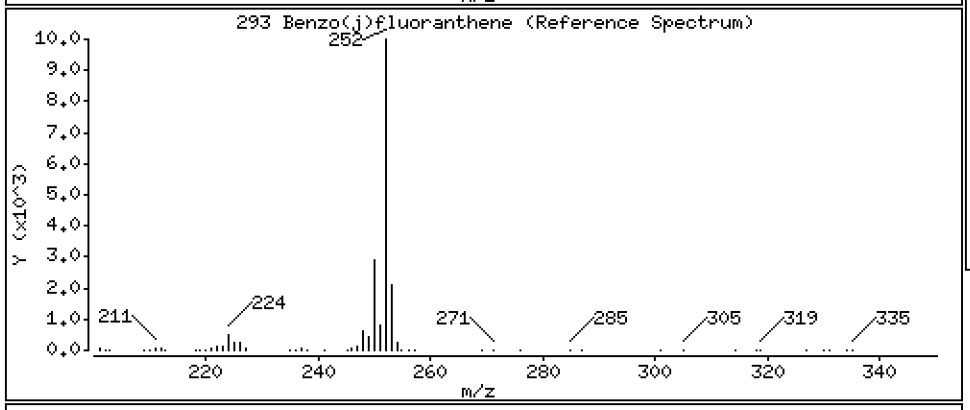
Column diameter: 0.25

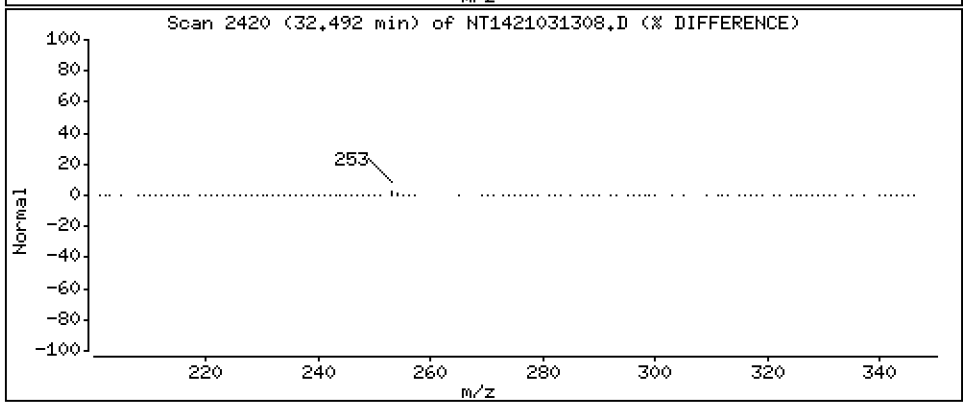
293 Benzo(j)fluoranthene

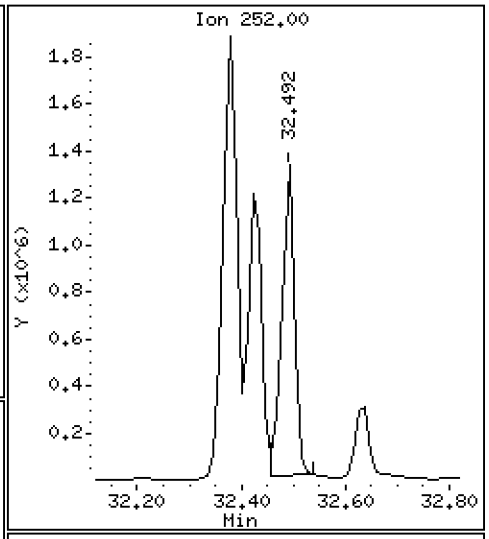
Concentration: 10.31 ug/mL

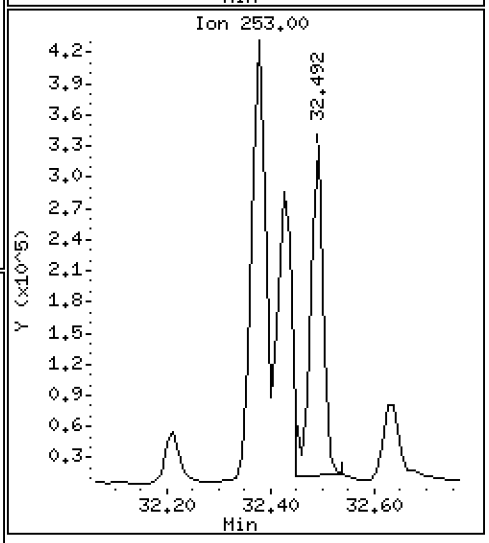












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031308.D

Date : 13-MAR-2021 16:23

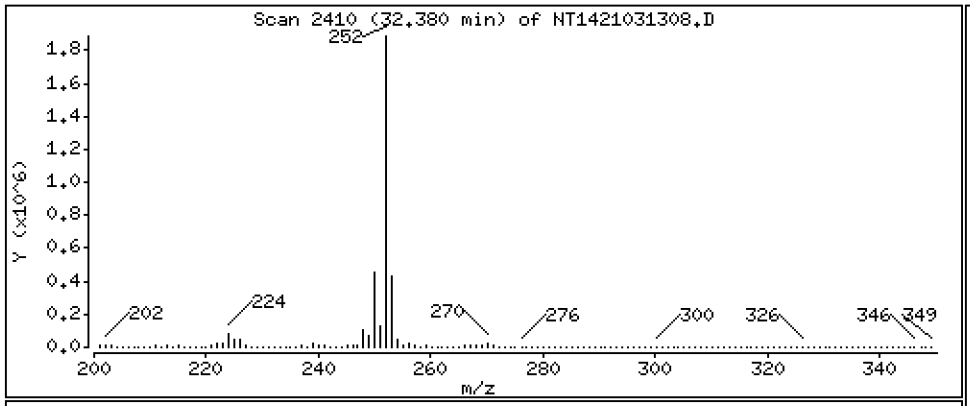
Client ID: Instrument: nt14.i

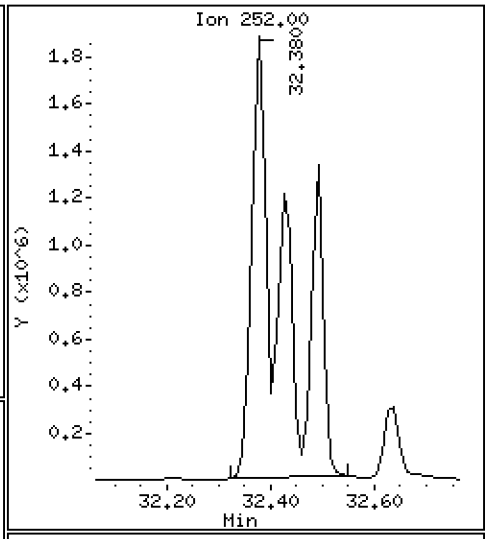
Sample Info: BJC0107-MSD1

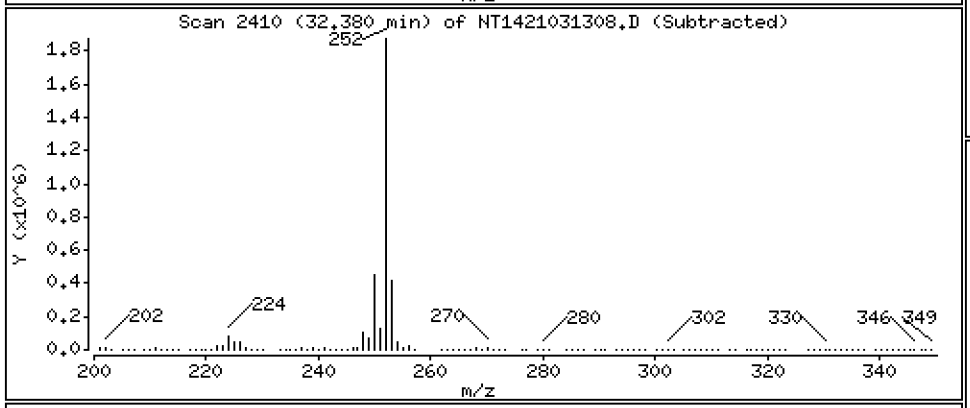
Operator: VTS

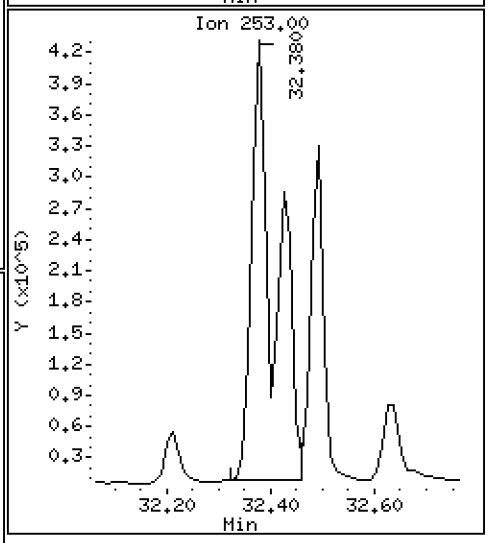
Column phase: Rxi-17Sil MS Column diameter: 0.25

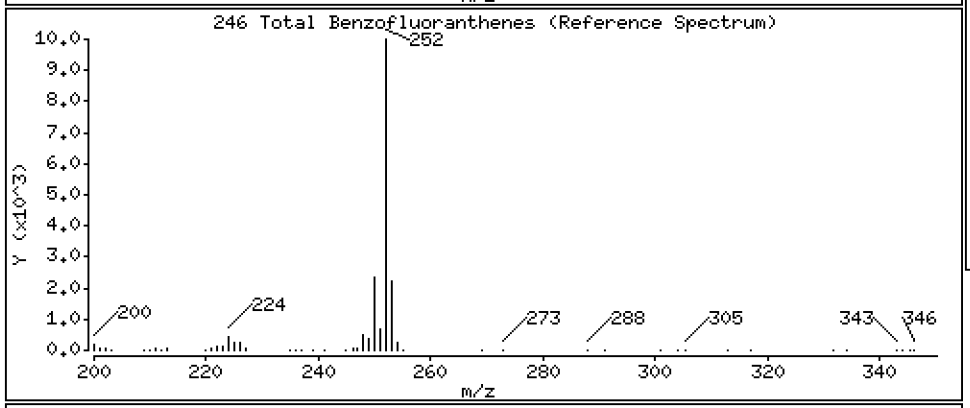
246 Total Benzofluoranthenes Concentration: 38.66 ug/mL

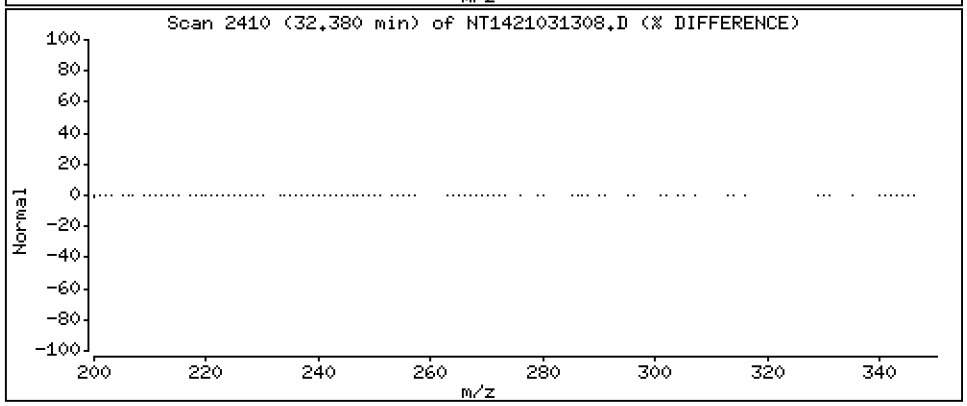












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031308.D

Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

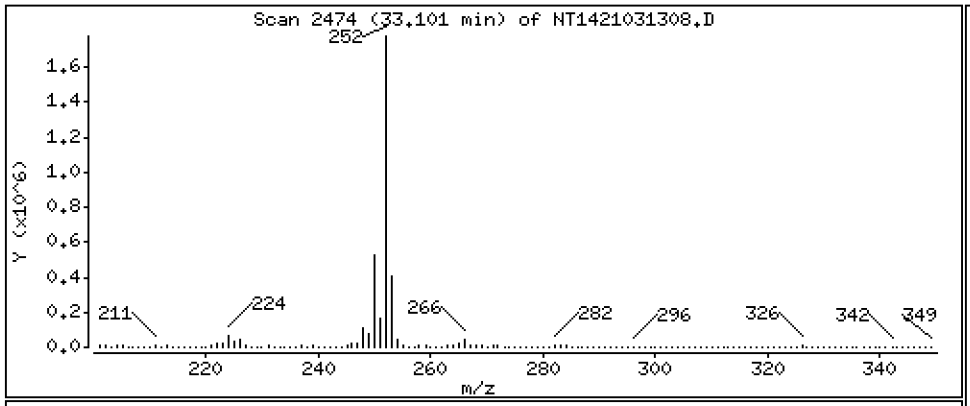
Operator: VTS

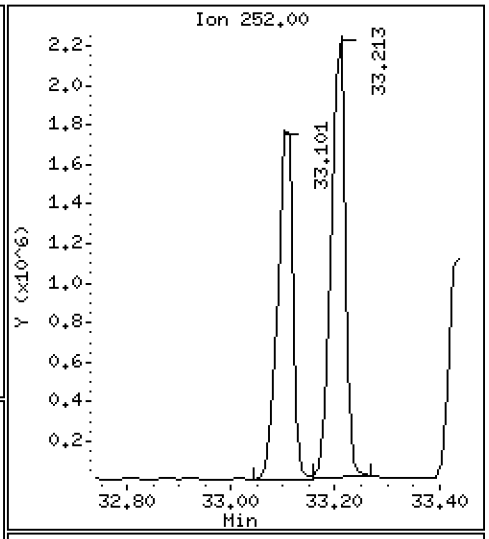
Column phase: Rxi-17Sil MS

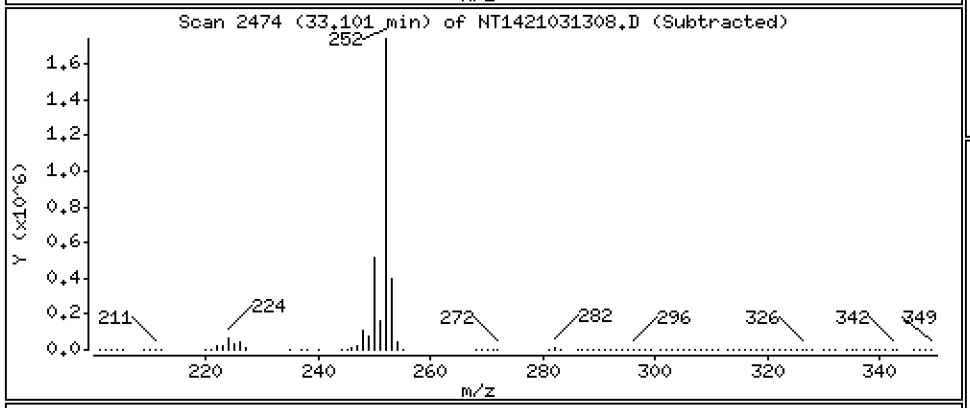
Column diameter: 0.25

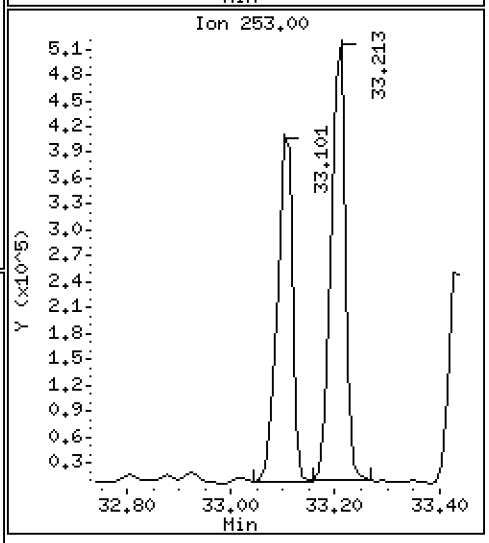
64 Benzo(e)pyrene

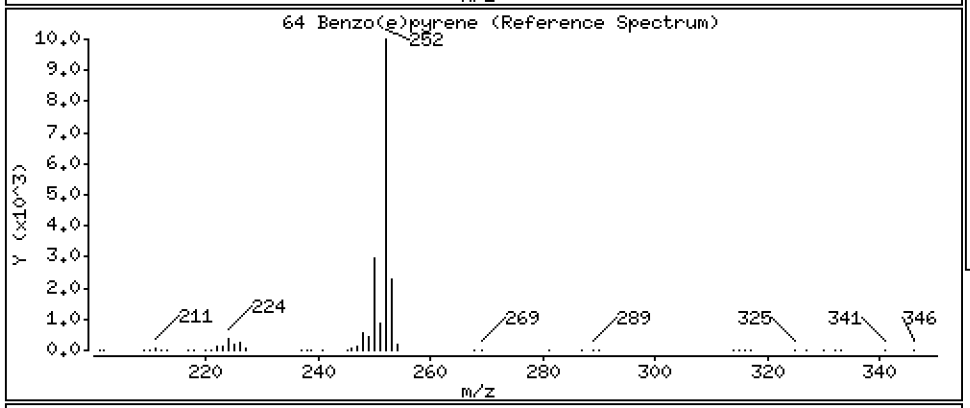
Concentration: 17.79 ug/mL

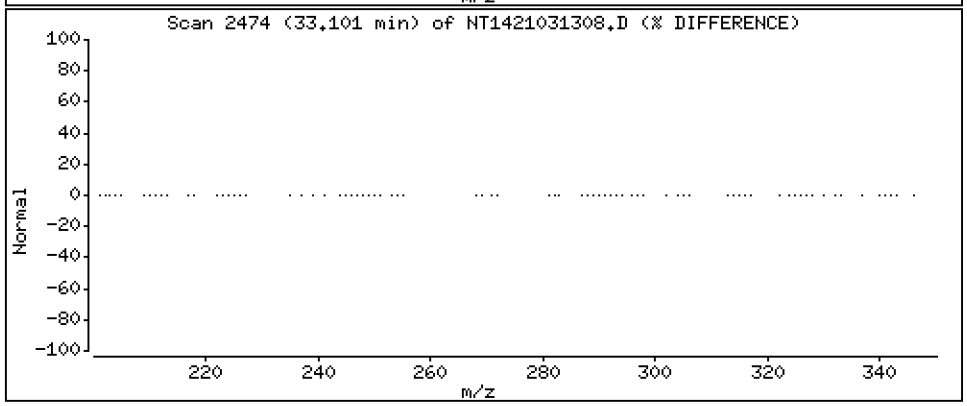












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Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

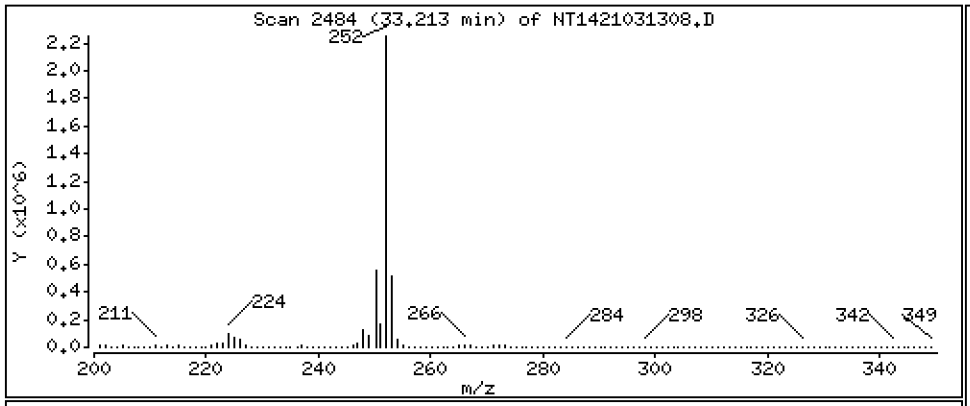
Operator: VTS

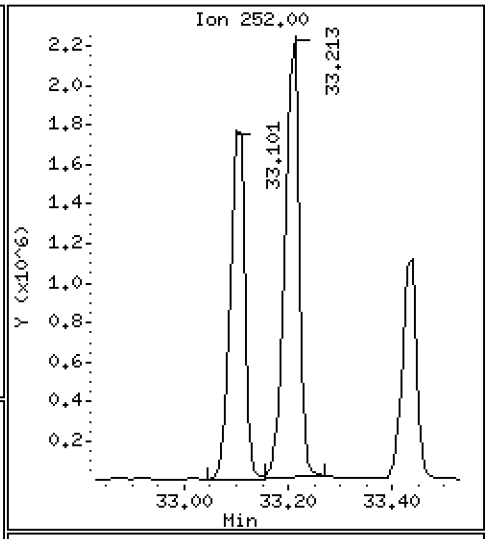
Column phase: Rxi-17Sil MS

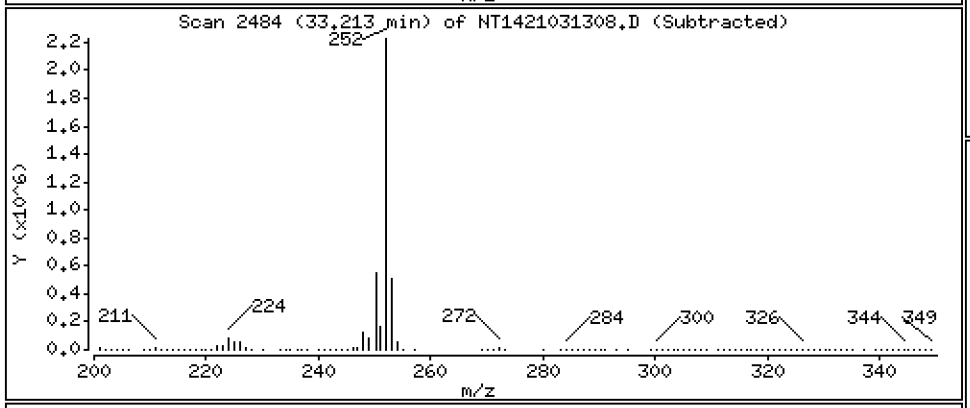
Column diameter: 0.25

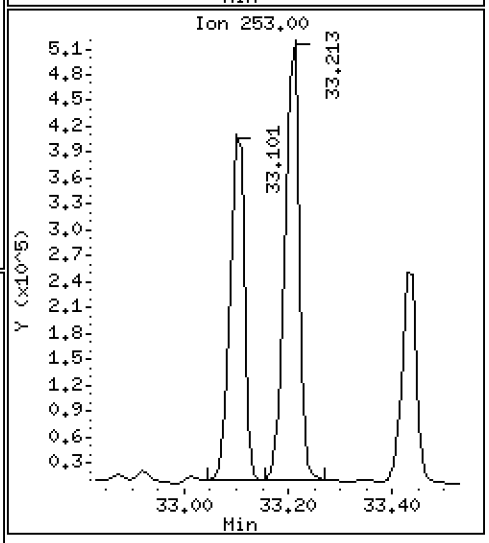
66 Benzo(a)pyrene

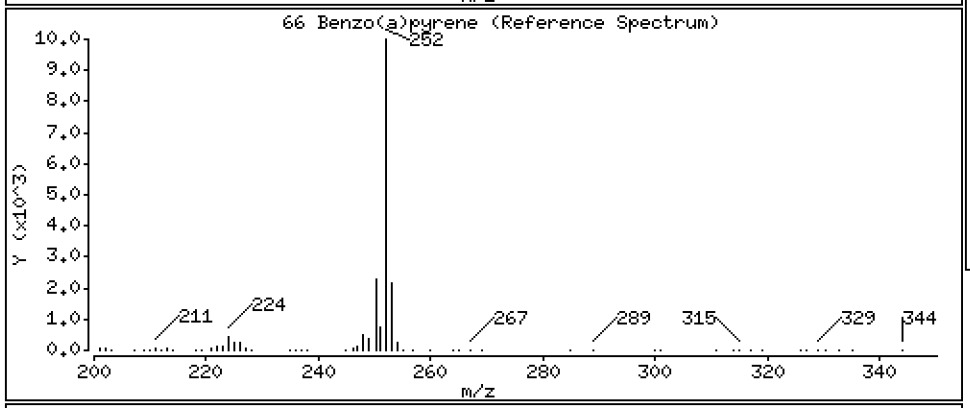
Concentration: 22.93 ug/mL

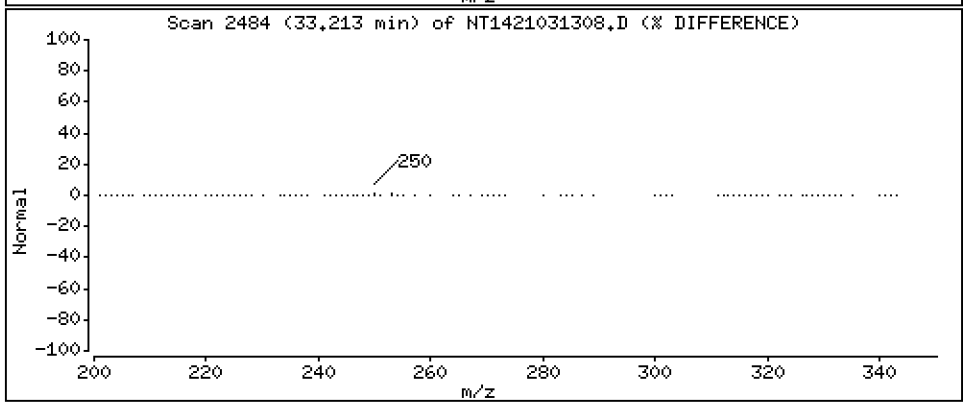












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031308.D

Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

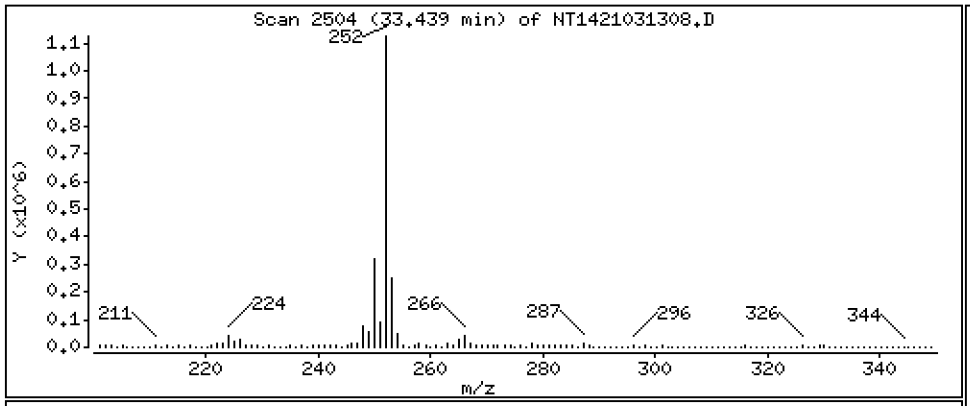
Operator: VTS

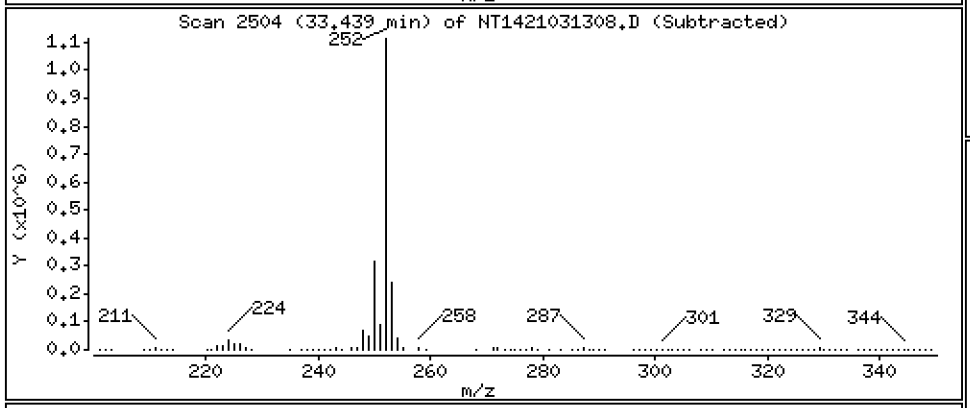
Column phase: Rxi-17Sil MS

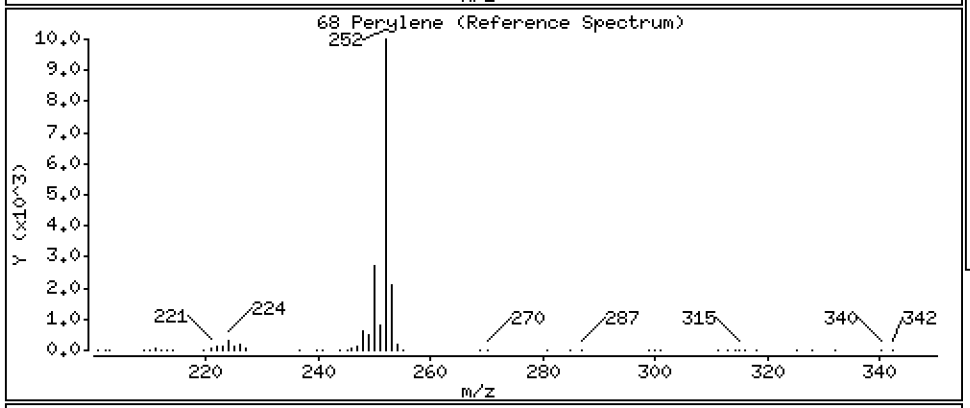
Column diameter: 0.25

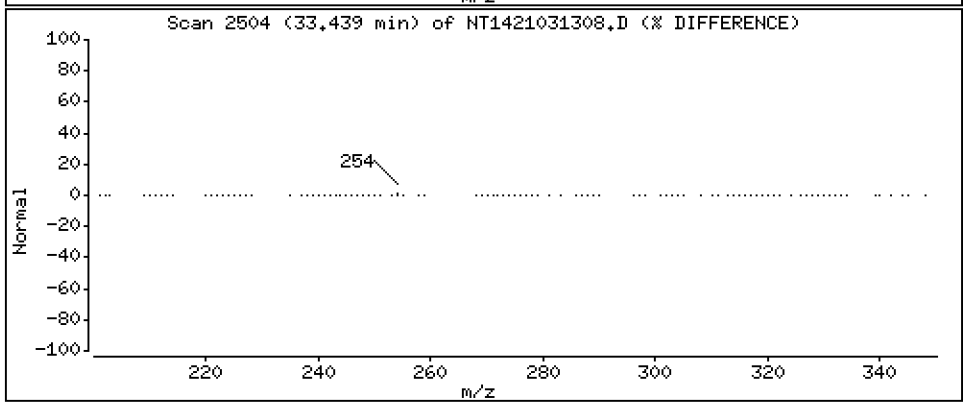
68 Perylene

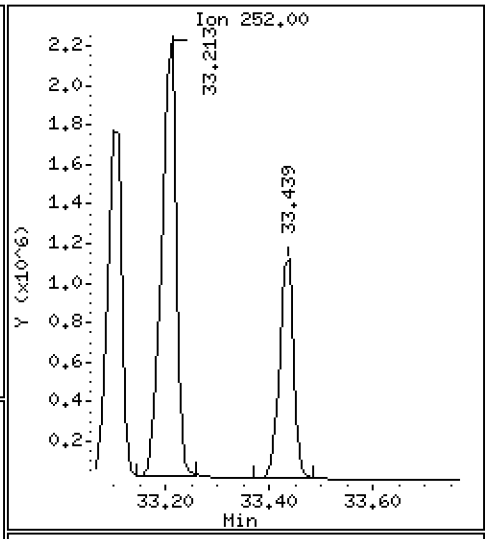
Concentration: 11.06 ug/mL

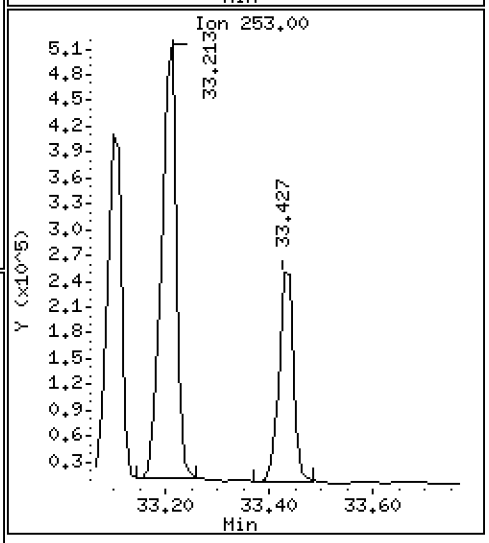












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Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

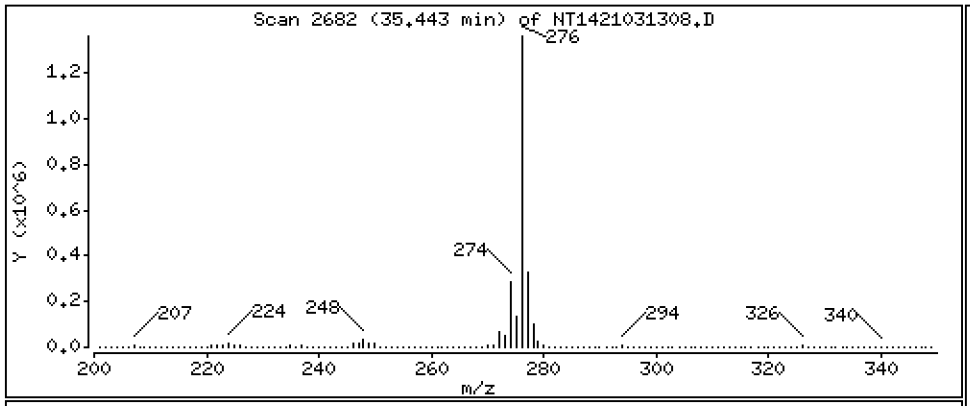
Operator: VTS

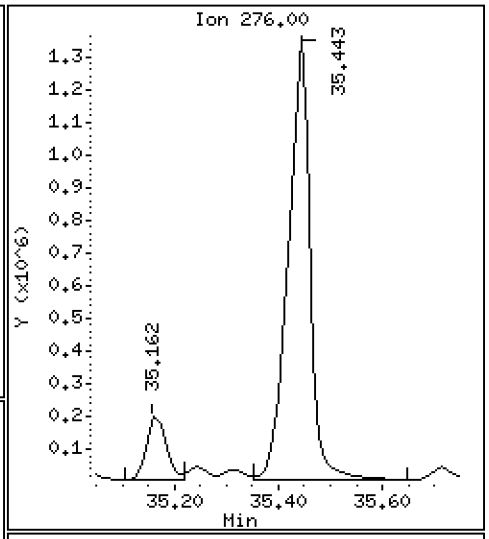
Column phase: Rxi-17Sil MS

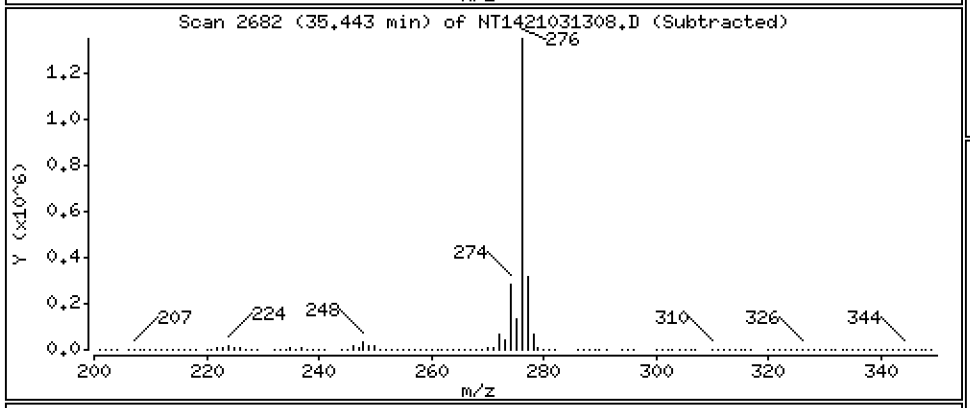
Column diameter: 0.25

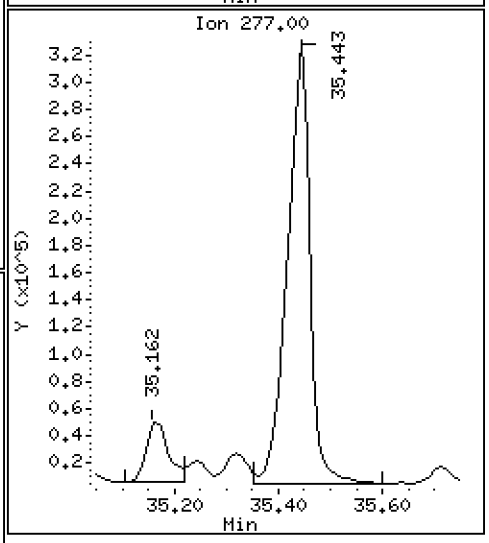
69 Indeno(1,2,3-cd)pyrene

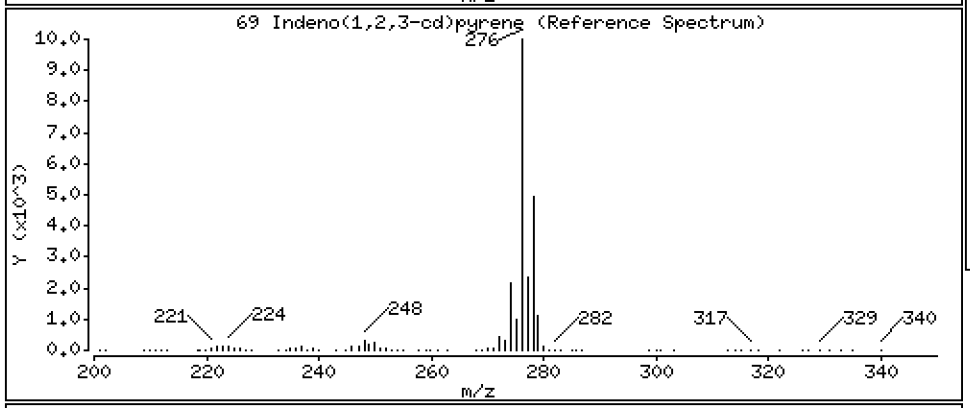
Concentration: 19.34 ug/mL

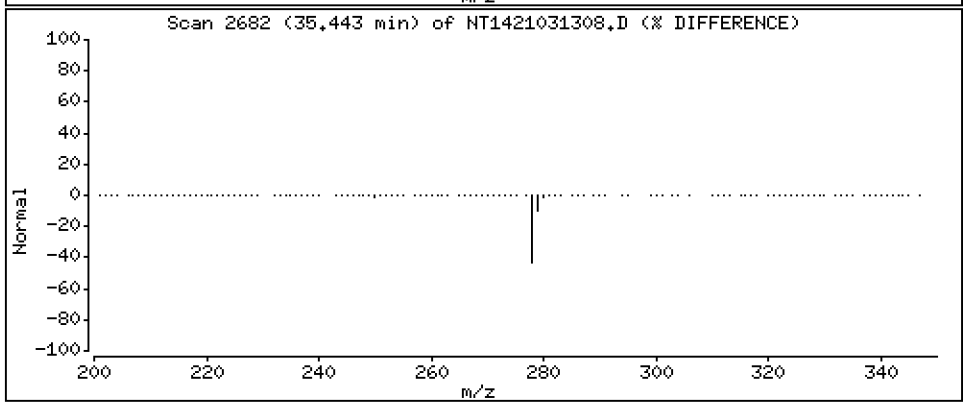












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Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

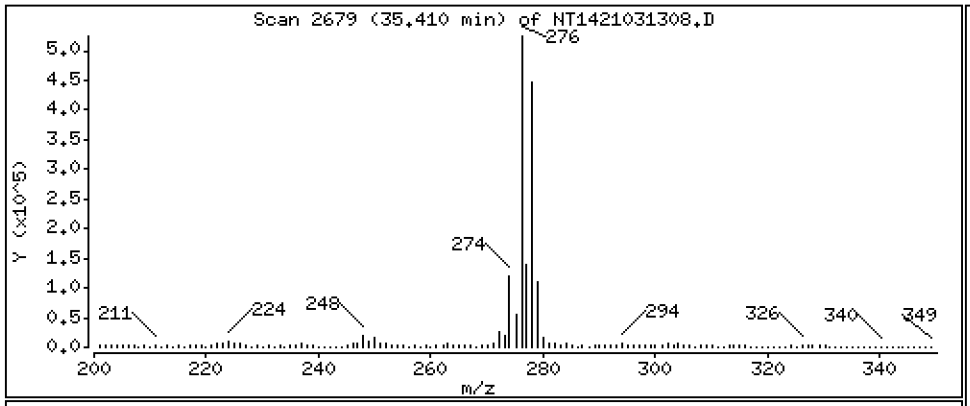
Operator: VTS

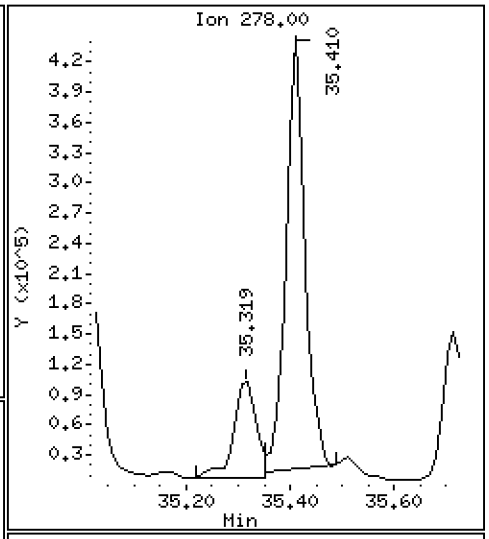
Column phase: Rxi-17Sil MS

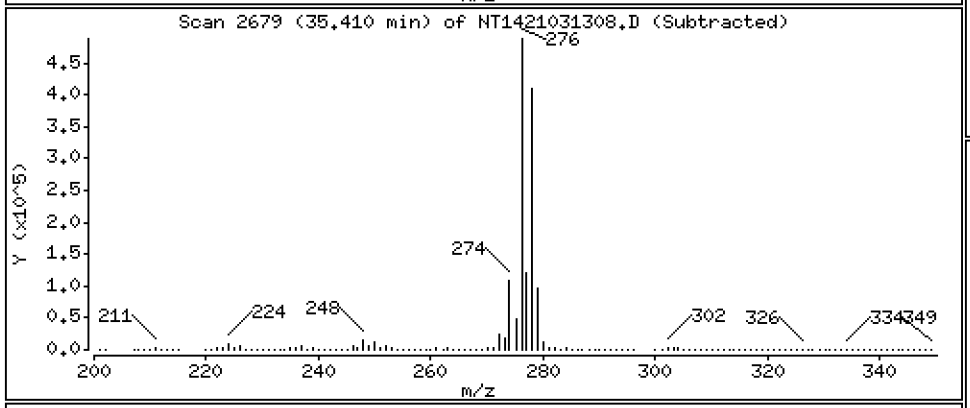
Column diameter: 0.25

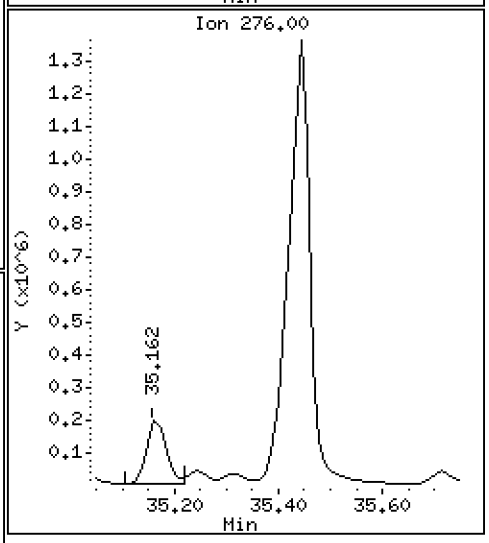
70 Dibenzo(a,h)anthracene

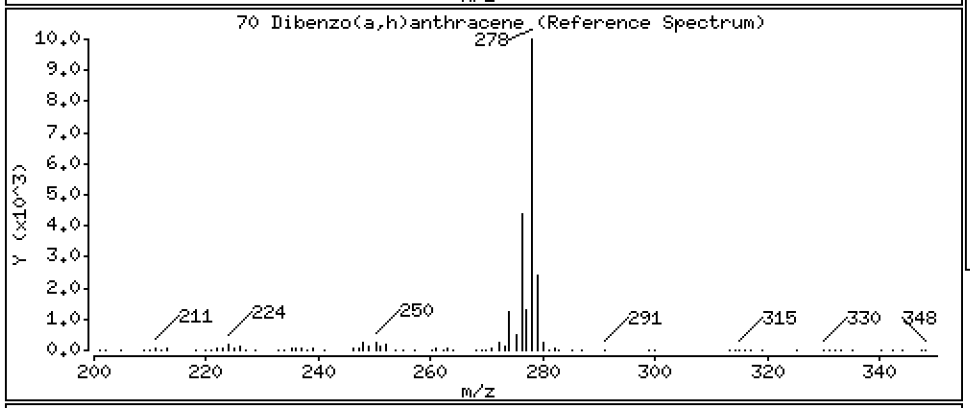
Concentration: 5.401 ug/mL

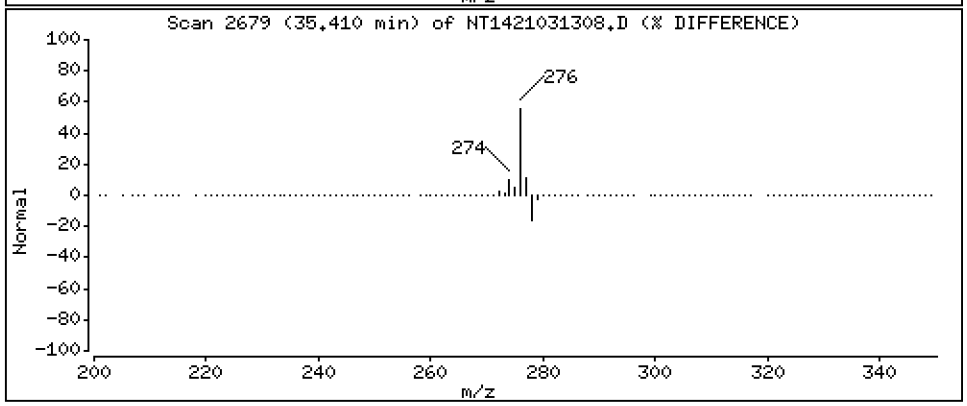












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Date : 13-MAR-2021 16:23

Client ID:

Instrument: nt14.i

Sample Info: BJC0107-MSD1

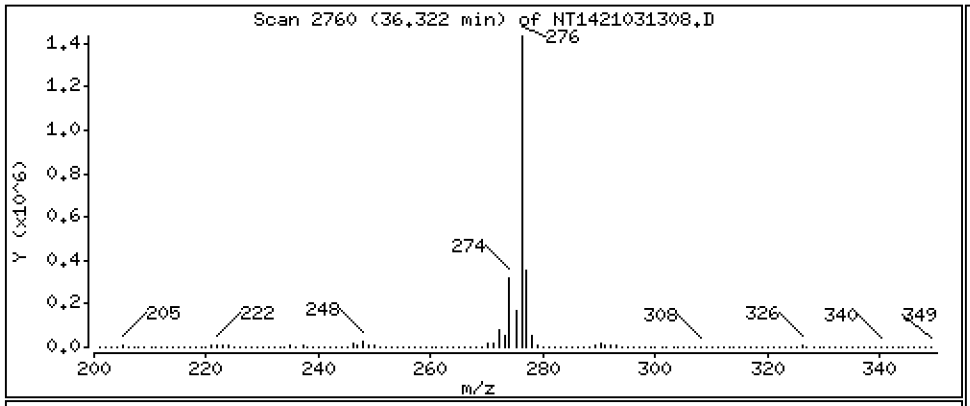
Operator: VTS

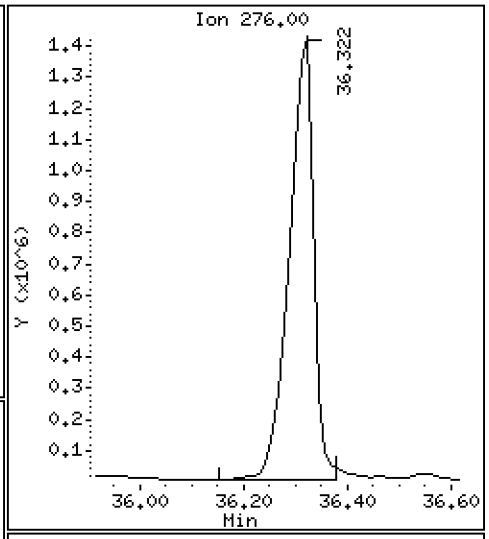
Column phase: Rxi-17Sil MS

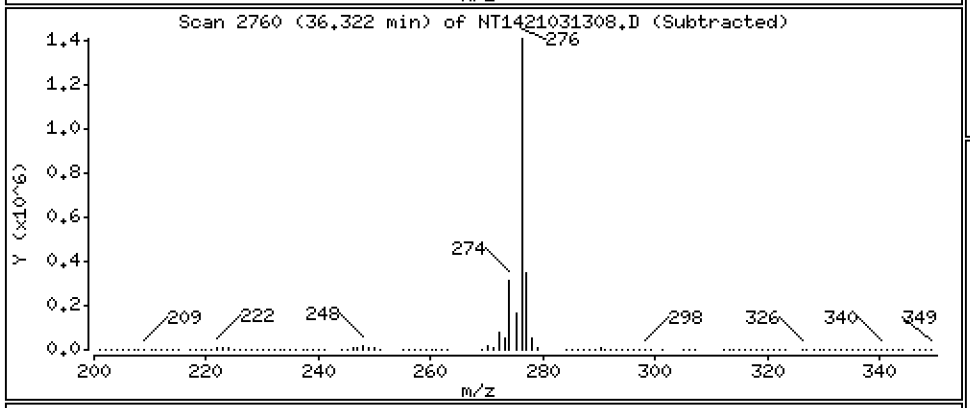
Column diameter: 0.25

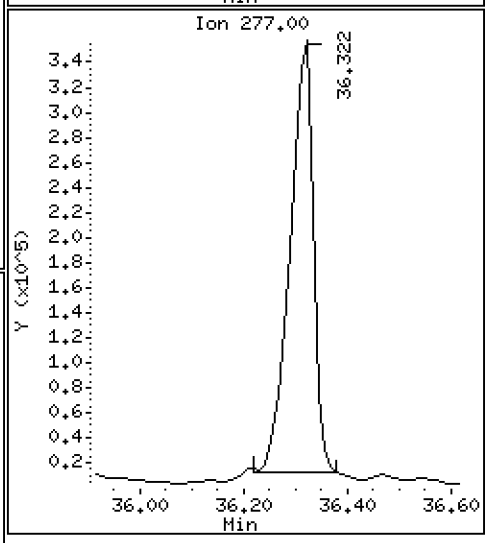
74 Benzo(g,h,i)perylene

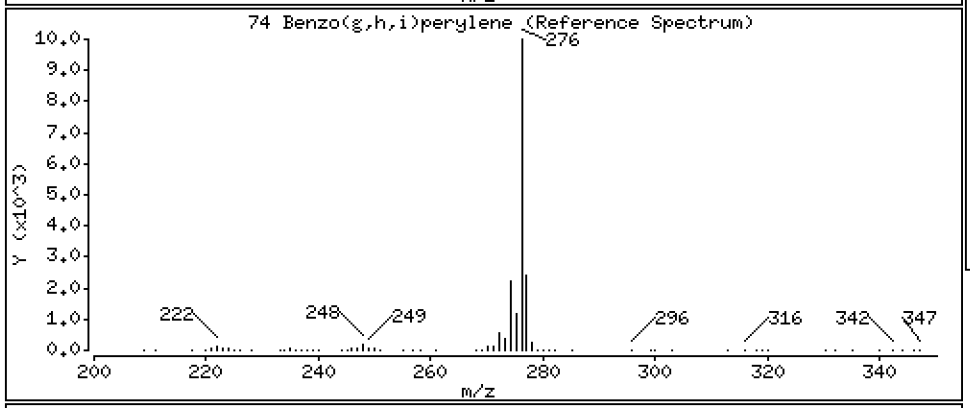
Concentration: 22.62 ug/mL

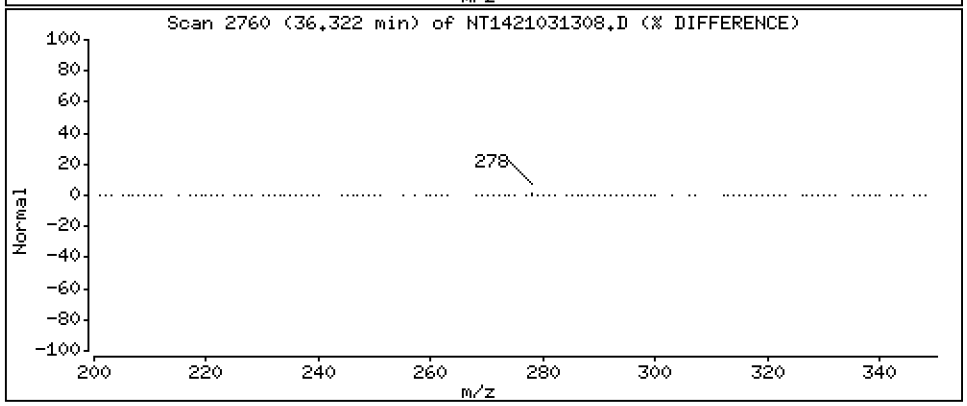












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210313.b\NT1421031308.D
Lab Smp Id: BJC0107-MSD1
Inj Date : 13-MAR-2021 16:23
Operator : VTS Inst ID: nt14.i
Smp Info : BJC0107-MSD1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210313.b\ALKYLPNA.m
Meth Date : 13-Mar-2021 12:11 van Quant Type: ISTD
Cal Date : 07-JAN-2021 16:44 Cal File: NT1421010708.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
1 trans-Decalin	138	7.015	7.015	(0.374)	21409	1.19065	1.191
2 cis-Decalin	138	8.114	8.124	(0.433)	17656	1.36340	1.363
$ 6 Naphthalene-d8	136	11.733	11.744	(0.626)	224761	1.56659	1.567(R)
7 Naphthalene	128	11.799	11.810	(0.630)	1077025	7.49862	7.499
12 Benzo(b)thiophene	134	12.250	12.261	(0.654)	253136	2.13108	2.131
16 2-Methylnaphthalene	141	13.634	13.634	(0.728)	383084	4.66555	4.666
17 1-methylnaphthalene	141	14.085	14.085	(0.752)	255873	3.21600	3.216
18 Biphenyl	154	15.283	15.283	(0.816)	349809	2.89702	2.897
19 2,6-Dimethylnaphthalene	156	15.360	15.360	(0.820)	371999	4.21036	4.210
20 Acenaphthylene	152	16.920	16.920	(0.903)	557634	3.71300	3.713
$ 21 Acenaphthene-d10	164	17.206	17.206	(0.918)	169128	2.23195	2.232(R)
22 Acenaphthene	153	17.327	17.316	(0.925)	552917	5.72623	5.726
23 Dibenzofuran	168	17.701	17.701	(0.945)	462390	3.34622	3.346
24 1,6,7-Trimethylnaphthalene	170	17.931	17.920	(0.957)	284187	3.20281	3.203
* 25 Fluorene-d10	176	18.741	18.741	(1.000)	310100	2.00000	
26 Fluorene	166	18.843	18.843	(1.005)	781393	7.46174	7.462
30 Dibenzothiophene	184	21.757	21.757	(1.161)	952860	6.65043	6.650
$ 35 Phenanthrene-d10	188	22.077	22.066	(0.995)	350207	2.48525	2.485(R)
36 Phenanthrene	178	22.165	22.143	(0.999)	4165462	27.1517	27.15
* 250 Anthracene-d10	188	22.198	22.176	(1.000)	307789	2.00000	
37 Anthracene	178	22.264	22.242	(1.003)	2797050	19.7156	19.72
42 Carbazole	167	23.539	23.528	(1.060)	718490	6.05837	6.058
43 1-Methylphenanthrene	192	23.990	23.979	(1.081)	705831	6.47682	6.477
44 Fluoranthene	202	25.991	25.947	(1.171)	7241943	43.1986	43.20
46 Pyrene	202	26.849	26.805	(1.210)	8005811	45.5073	45.51
51 Naphthobenzothiophene	234	29.359	29.348	(1.323)	1055242	8.37662	8.377
55 Benzo(a)anthracene	228	29.958	29.935	(0.907)	3492587	16.6886	16.69
$ 56 Chrysene-d12	240	30.070	30.059	(0.910)	355453	2.20108	2.201(R)
57 Chrysene	228	30.160	30.138	(0.913)	4358249	20.8430	20.84
62 Benzo(b)fluoranthene	252	32.379	32.368	(0.980)	3644684	17.7314	17.73(M)
63 Benzo(k)fluoranthene	252	32.424	32.413	(0.982)	2416006	11.2565	11.26(M)
293 Benzo(j)fluoranthene	252	32.492	32.469	(0.984)	2134392	10.3050	10.31(M)
246 Total Benzofluoranthenes	252	32.379	32.413	(0.980)	7935345	38.6648	38.66(M)
* 251 Benzo(e)pyrene-d12	264	33.033	33.021	(1.000)	512838	2.00000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	64 Benzo(e)pyrene	252	33.100	33.089	(1.002)	3547622	17.7850	17.79
	66 Benzo(a)pyrene	252	33.213	33.179	(1.005)	4303858	22.9297	22.93
$	67 Perylene-d12	264	33.370	33.359	(1.010)	453642	2.61877	2.619(R)
	68 Perylene	252	33.438	33.416	(1.012)	2106454	11.0624	11.06
	69 Indeno(1,2,3-cd)pyrene	276	35.443	35.398	(1.073)	3962432	19.3389	19.34
	70 Dibenzo(a,h)anthracene	278	35.409	35.375	(1.072)	1079912	5.40103	5.401
	74 Benzo(g,h,i)perylene	276	36.321	36.265	(1.100)	4667001	22.6203	22.62

QC Flag Legend

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

Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031308.D Page 1
Report Date: 16-Mar-2021 15:32

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421031308.D
Lab Smp Id: BJC0107-MSD1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210313.b\ALKYLPNA.m
Misc Info:

Calibration Date: 13-MAR-2021
Calibration Time: 11:19
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	366886	183443	733772	310100	-15.48
250 Anthracene-d10	368886	184443	737772	307789	-16.56
251 Benzo(e)pyrene-d1	446096	223048	892192	512838	14.96

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.74	18.24	19.24	18.74	-0.00
250 Anthracene-d10	22.18	21.68	22.68	22.20	0.10
251 Benzo(e)pyrene-d1	33.02	32.52	33.52	33.03	0.03

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

REVIEW SUMMARY FOR FILE - NT1421031308.D

Lab ID: BJC0107-MSD1
nt14.i, 20210313.b\ALKYLPNA.m, 13-MAR-2021 16:23

RT	CO-ELUTION COMPOUNDS
	NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

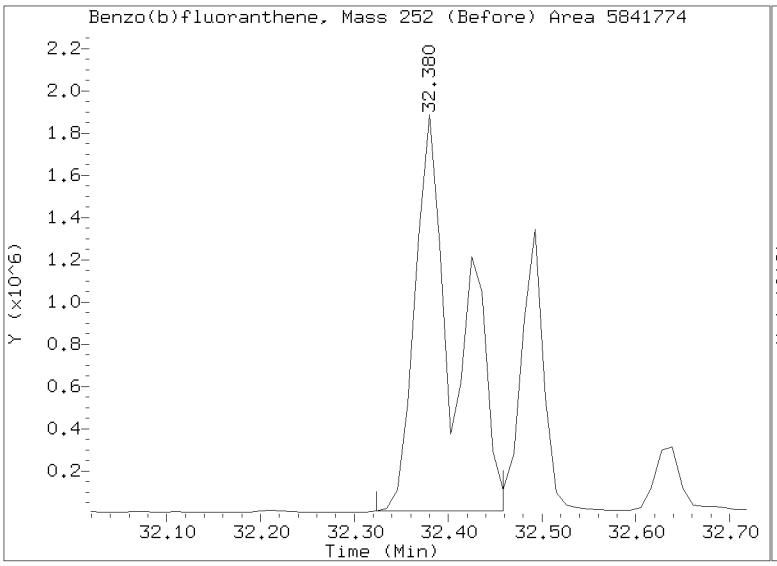
RRT check based on Ccal File: NT1421031302.D

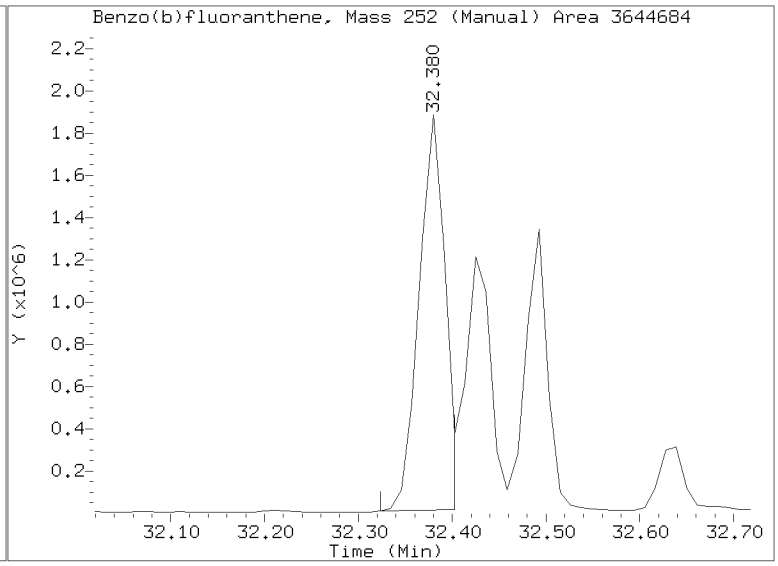
On Column LOD for nt14.i, 20210313.b\ALKYLPNA.m, TARGETS.sub = 0.0000

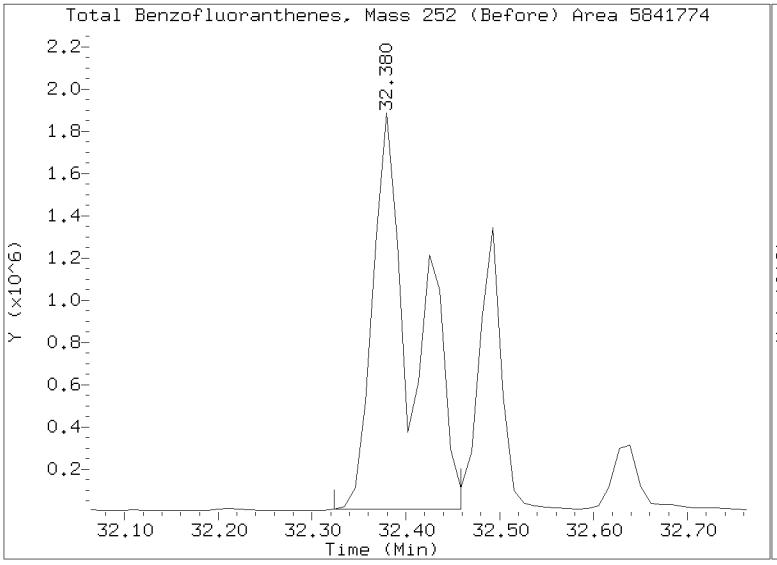
* Only compounds listed in the work order have been verified by the analyst *

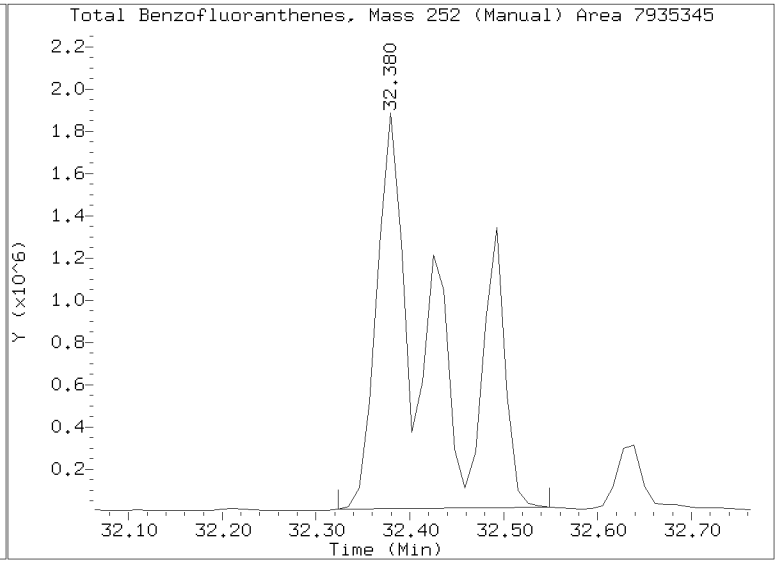
Quant Ion Manual Peak Adjustment Report

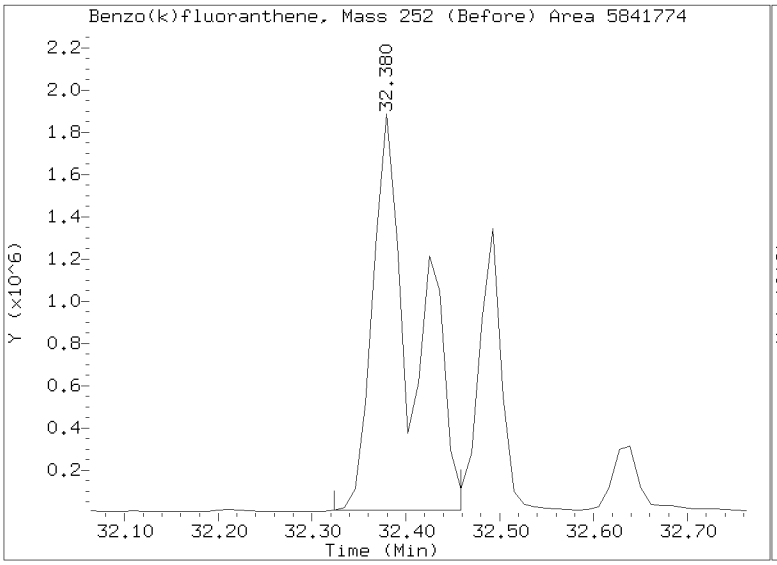
Datafile: //target/share/chem3/nt14.i/20210313.b/NT1421031308.D
Injection Date: 13-MAR-2021 16:23
Lab ID:BJC0107-MSD1 Client ID:
Report Date: 03/16/2021 15:33

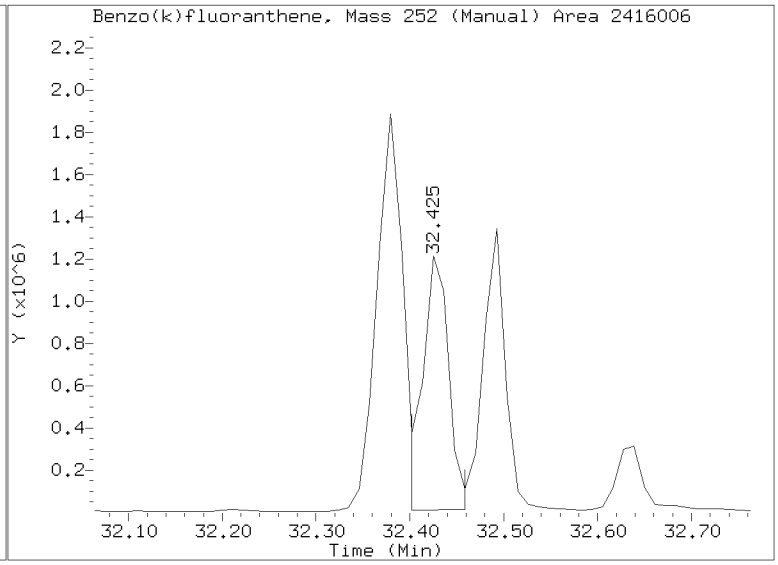






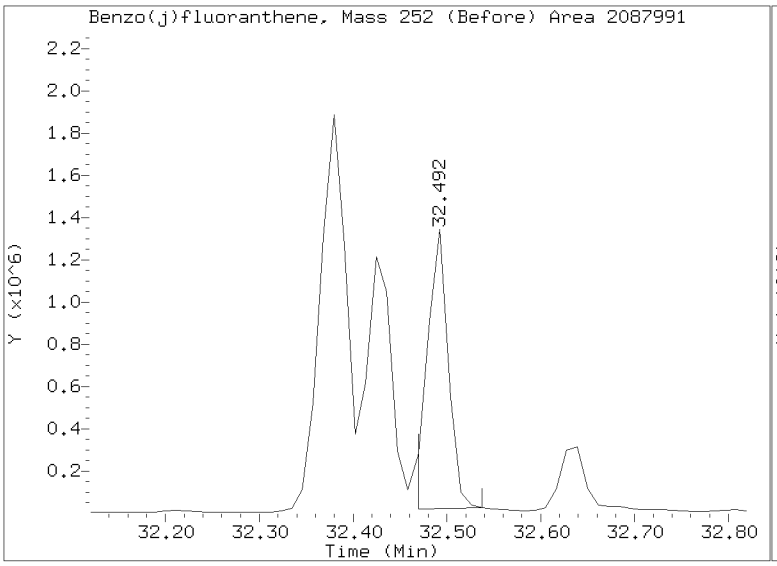


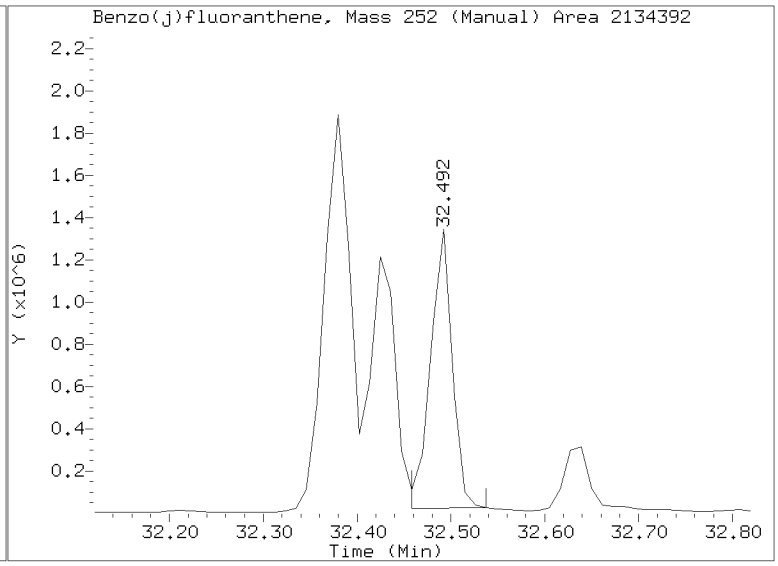




Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210313.b/NT1421031308.D
Injection Date: 13-MAR-2021 16:23
Lab ID:BJC0107-MSD1 Client ID:
Report Date: 03/16/2021 15:33





Analytical Resources, Incorporated
Analytical Chemists and Consultants

MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270E-SIM

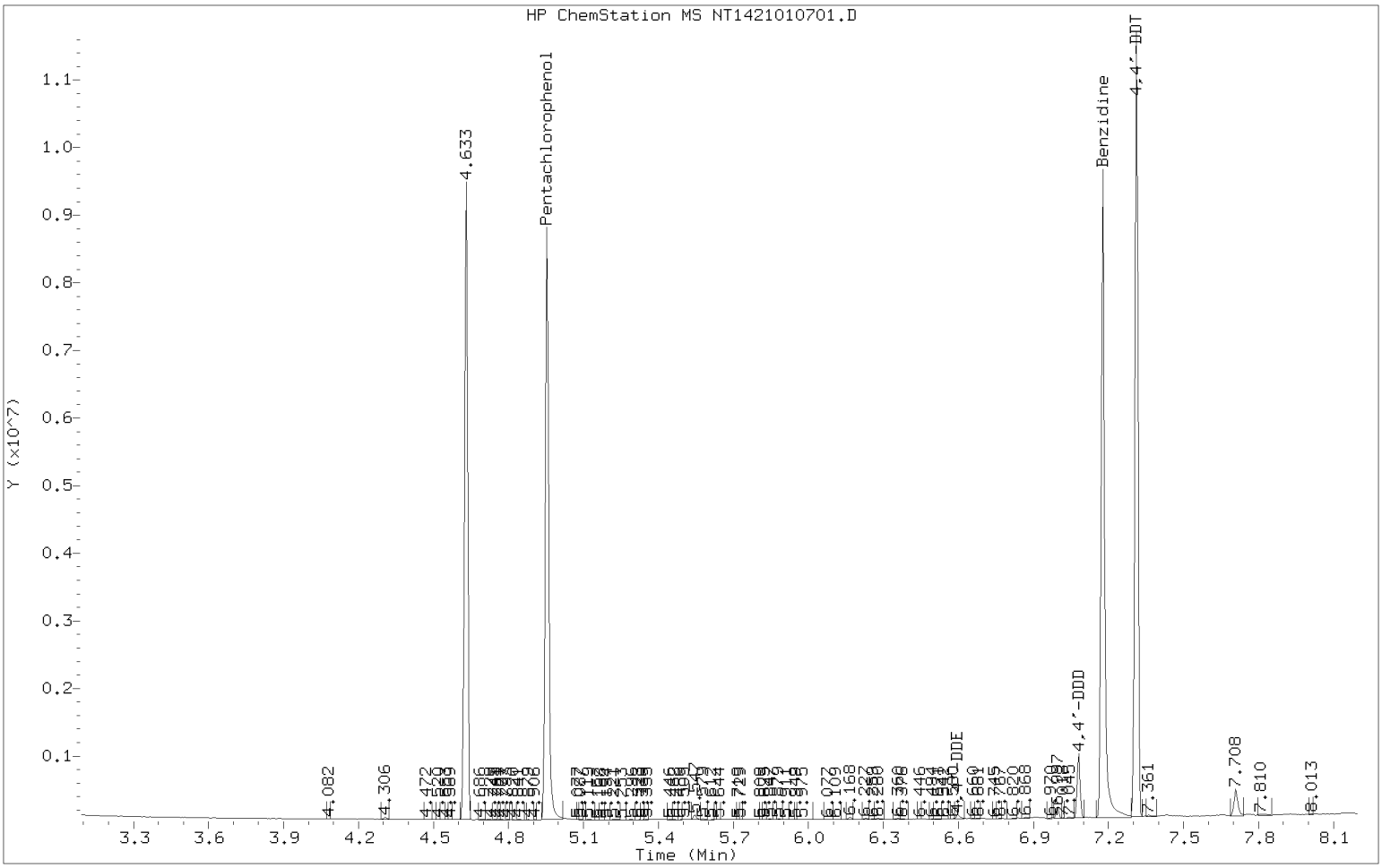
Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Lab File ID:	NT1421010701.D	Injection Date:	01/07/21
Instrument ID:	NT14	Injection Time:	11:42
Sequence:	SJA0059	Lab Sample ID:	SJA0059-TUN1

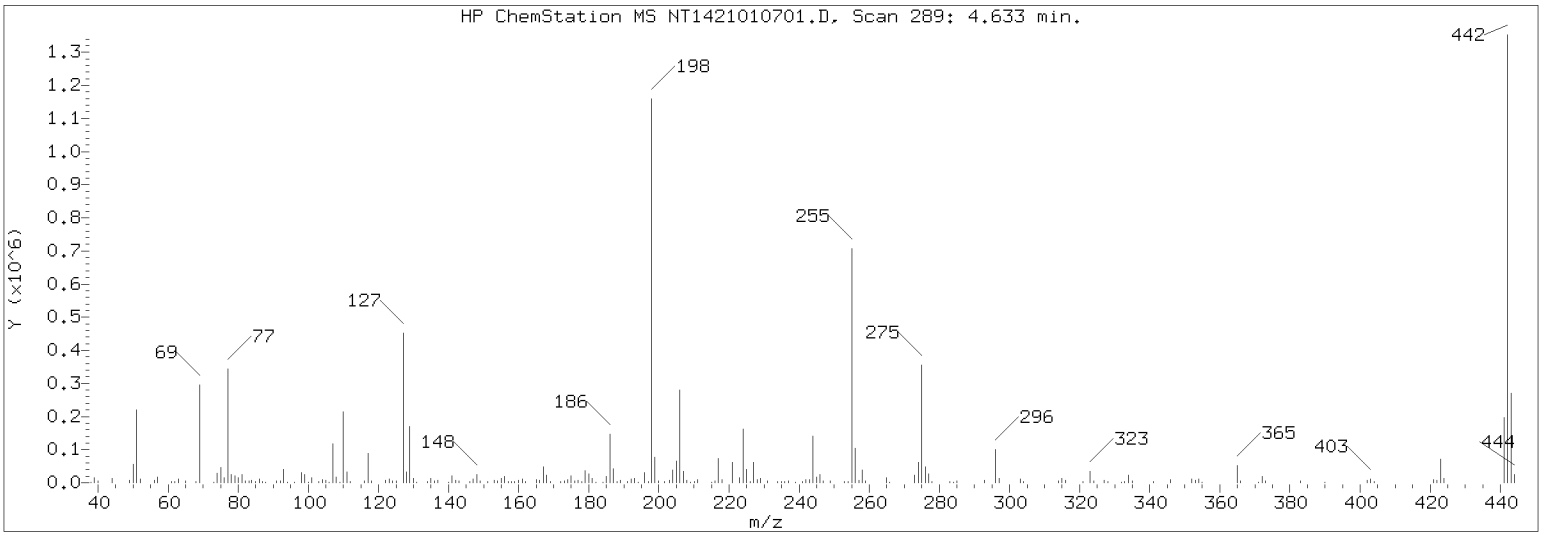
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
68	Less than 2% of 69	1.34	PASS
69	Less than 100% of 198	26	PASS
70	Less than 2% of 69	0	PASS
197	Less than 2% of 198	0.157	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.66	PASS
365	1 - 100% of 198	4.31	PASS
441	Less than 150% of 443	72.2	PASS
442	1 - 200% of 198	115	PASS
443	15 - 24% of 442	19.8	PASS
4,4'-DDD	Less than 20% of 4,4'-DDT		
4,4'-DDE	Less than 20% of 4,4'-DDT		
4,4'-DDT	Base peak, 100% relative abundance		

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SJA0059-TUN1	NT1421010701.D	01/07/2021	11:42
Cal Standard	SJA0059-CAL4	NT1421010702.D	01/07/2021	11:56
Initial Cal Check	SJA0059-ICV1	NT1421010702ICV1.D	01/07/2021	11:56
Cal Standard	SJA0059-CAL6	NT1421010703.D	01/07/2021	12:44
Cal Standard	SJA0059-CAL1	NT1421010704.D	01/07/2021	13:32
Cal Standard	SJA0059-CAL5	NT1421010705.D	01/07/2021	14:20
Cal Standard	SJA0059-CAL2	NT1421010706.D	01/07/2021	15:08
Cal Standard	SJA0059-CAL3	NT1421010708.D	01/07/2021	16:44
Secondary Cal Check	SJA0059-SCV1	NT1421010709.D	01/07/2021	17:32
Initial Cal Blank	SJA0059-ICB1	NT1421010710.D	01/07/2021	18:20
ZZZZZ	20K0170-01RE1	NT1421010711.D	01/07/2021	19:08
ZZZZZ	20K0170-02RE1	NT1421010712.D	01/07/2021	19:56
ZZZZZ	20K0170-11RE1	NT1421010713.D	01/07/2021	20:44
ZZZZZ	20K0170-23RE1	NT1421010714.D	01/07/2021	21:32
ZZZZZ	20K0170-24RE1	NT1421010715.D	01/07/2021	22:20
ZZZZZ	20K0318-02RE1	NT1421010716.D	01/07/2021	23:08
ZZZZZ	20K0318-03RE1	NT1421010717.D	01/07/2021	23:56
Calibration Check	SJA0059-CCV1	NT1421010721.D	01/08/2021	3:08

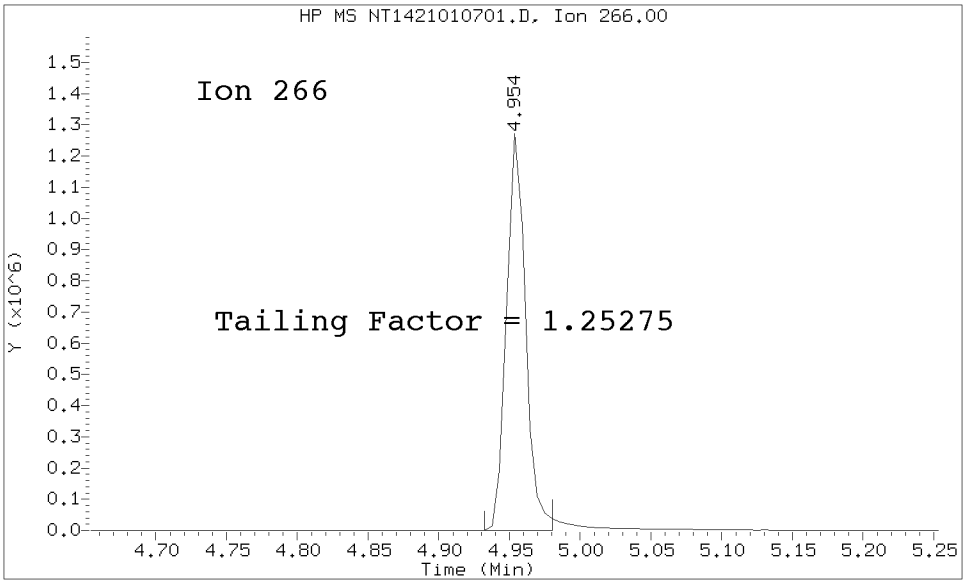
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20210107.b/NT1421010701.D/NT1421010701.D
Method Used: \20210107.b\DFTPP8270E.m Inst: nt14
Injection Date: 07-JAN-2021 11:42 Operator: VTS
Sample Info: SJA0059-TUN1 SJA0059-TUN1
Report Date: 01/14/2021 10:32



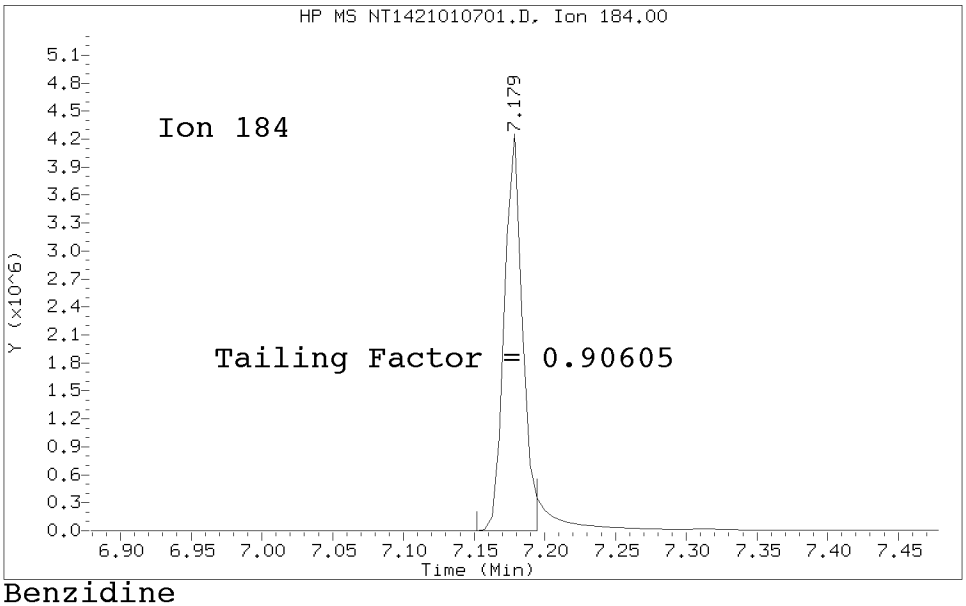


Datafile Analyzed: /20210107.b/NT1421010701.D/NT1421010701.D
Method Used: \20210107.b\DFTPP8270E.m\sw846ddt.m Inst: nt14
Injection Date: 07-JAN-2021 11:42 Operator: JZ
Sample Info: SJA0059-TUN1
Report Date: 01/14/2021 10:32



Pentachlorophenol
==========
Exp. RT = 4.900
Found RT = 4.954

Tail Factor = 1.253 Maximum Allowed = 2.0



Benzidine
==========
Exp. RT = 7.114
Found RT = 7.179

Tail Factor = 0.906 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.2527473	2.000	PASS
Benzidine	0.9060489	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	2065114			N/A
4,4-DDE	7505	0.4	20.0	PASS
4,4-DDD	186316	8.3	20.0	PASS
4,4-DDD + DDE	193821	8.6	20.0	PASS

Tuning Sample, nt14.i/20210107.b/NT1421010701.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	0.35 (1.34)
69	Mass 69 relative abundance	25.95
70	Less than 2.00% of mass 69	0.00 (0.00)
197	Less than 2.00% of mass 198	0.16
199	5.00 - 9.00% of mass 198	6.66
365	1.00 - 100.00% of mass 198	4.31
441	Less than 150.00% of mass 443	16.39 (72.19)
442	Less than 200.00% of mass 198	114.60
443	15.00 - 24.00% of mass 442	22.70 (19.81)

Data File: NT1421010701.D
Spectrum: Avg. Scans 288-290 (4.63), Background Scan 282
Location of Maximum: 442.00
Number of points: 208

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	1752	125.00	3516	193.00	10609	274.00	45632
39.00	12156	127.00	347584	194.00	1701	275.00	264192
50.00	44912	128.00	25632	196.00	23952	276.00	35304
51.00	172480	129.00	130504	197.00	1395	277.00	20344
52.00	9506	130.00	10793	198.00	890176	278.00	3380
56.00	5798	131.00	1679	199.00	59256	283.00	1951
57.00	13257	134.00	3032	200.00	4429	284.00	682
61.00	2042	135.00	10680	201.00	3765	285.00	3989
62.00	2488	136.00	3581	203.00	5178	293.00	5132
63.00	8207	137.00	5711	204.00	28488	296.00	74912
65.00	3772	140.00	1351	205.00	49744	297.00	10729
68.00	3087	141.00	16608	206.00	216128	303.00	9105
69.00	231040	142.00	5466	207.00	27592	304.00	1914
73.00	1496	143.00	3386	208.00	6183	314.00	4025
74.00	22448	146.00	2370	209.00	1795	315.00	9783
75.00	36712	147.00	8519	210.00	2644	316.00	5573
76.00	12625	148.00	19088	211.00	7921	321.00	2061
77.00	268864	149.00	3346	215.00	1572	323.00	26584
78.00	19624	151.00	1957	216.00	4095	324.00	4846
79.00	16126	153.00	5612	217.00	55080	327.00	5108
80.00	12724	154.00	4462	218.00	7025	328.00	2035
81.00	19336	155.00	10171	221.00	47312	332.00	1491
82.00	5045	156.00	15842	223.00	12600	333.00	1709
83.00	4859	157.00	2617	224.00	123272	334.00	17544
85.00	2755	158.00	2488	225.00	30656	335.00	4247
86.00	3114	159.00	2172	226.00	2429	341.00	3233
87.00	2227	160.00	5463	227.00	46672	346.00	6556
88.00	1370	161.00	8393	228.00	6551	352.00	8305
91.00	4909	162.00	1963	229.00	10752	353.00	5691
92.00	4900	165.00	6693	231.00	4775	354.00	8347
93.00	30608	166.00	5074	234.00	2418	355.00	769
94.00	2036	167.00	35888	235.00	3545	365.00	38360
96.00	1506	168.00	17488	236.00	1873	366.00	5098
98.00	23280	169.00	2555	237.00	4048	371.00	922
99.00	19112	172.00	2536	239.00	1461	372.00	14769
100.00	1358	173.00	4095	241.00	2190	373.00	3662
101.00	11445	174.00	7715	242.00	7003	383.00	4050
103.00	2874	175.00	15536	243.00	7074	390.00	913
104.00	6773	176.00	4230	244.00	106168	402.00	5812
105.00	6619	177.00	6567	245.00	13785	403.00	8445
106.00	1814	178.00	1729	246.00	18352	404.00	3042
107.00	90544	179.00	27896	247.00	3807	421.00	7163
108.00	13941	180.00	20360	249.00	3703	422.00	6550
109.00	1922	181.00	10019	253.00	1853	423.00	52768
110.00	164160	182.00	714	254.00	2210	424.00	10070
111.00	25320	184.00	1824	255.00	533120	441.00	145856
112.00	2632	185.00	13934	256.00	78752	442.00	1020160
116.00	4610	186.00	111032	257.00	5999	443.00	202048
117.00	69224	187.00	32464	258.00	29280	444.00	17680

118.00	5044	188.00	2649	259.00	4767		
122.00	5910	189.00	6209	265.00	11923		
123.00	9506	191.00	2429	266.00	757		
124.00	4202	192.00	9238	273.00	17424		

Analytical Resources, Incorporated
Analytical Chemists and Consultants

INITIAL CALIBRATION DATA
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Calibration:	EA00040	Instrument:	NT14
Calibration Date:	01/14/2021	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	0.1192252	0.25	0.116336	0.5	0.1159943	2.5	0.1164565	5	0.114464	10	0.1133353
cis-Decalin	0.1	8.634433E-02	0.25	8.513896E-02	0.5	8.826184E-02	2.5	8.112532E-02	5	8.133035E-02	10	7.892549E-02
Naphthalene	0.1	1.00643	0.25	0.9648953	0.5	0.9668314	2.5	0.9292988	5	0.8749491	10	0.815662
1-Methylnaphthalene	0.1	0.5665203	0.25	0.5380684	0.5	0.5277038	2.5	0.5135863	5	0.4807606	10	0.4522029
2-Methylnaphthalene	0.1	0.5718185	0.25	0.5460188	0.5	0.5471815	2.5	0.5386075	5	0.505444	10	0.4683218
Biphenyl	0.1	0.8769296	0.25	0.8198066	0.5	0.8030569	2.5	0.7682813	5	0.7259964	10	0.6785328
2,6-Dimethylnaphthalene	0.1	0.6183462	0.25	0.585192	0.5	0.5887245	2.5	0.575442	5	0.5413472	10	0.5099708
Acenaphthylene	0.1	0.9677052	0.25	0.9496763	0.5	0.9537677	2.5	1.013963	5	0.9789238	10	0.947675
Acenaphthene	0.1	0.6481765	0.25	0.6363938	0.5	0.6295797	2.5	0.6408902	5	0.6011752	10	0.5803309
Dibenzofuran	0.1	0.9334757	0.25	0.9085991	0.5	0.8851276	2.5	0.9132235	5	0.8768995	10	0.8299556
2,3,5-Trimethylnaphthalene	0.1	0.5900892	0.25	0.5737553	0.5	0.5702559	2.5	0.5983291	5	0.5624444	10	0.5387436
Fluorene	0.1	0.6946721	0.25	0.6745378	0.5	0.6728393	2.5	0.7106703	5	0.6674297	10	0.6322211
Benzo(b)thiophene	0.1	0.8251038	0.25	0.7742139	0.5	0.7890105	2.5	0.7680972	5	0.7376864	10	0.7024504
Phenanthrene	0.1	1.034403	0.25	1.009004	0.5	0.9903447	2.5	1.02913	5	0.9829322	10	0.9354691
Anthracene	0.1	0.8990466	0.25	0.8694881	0.5	0.8829093	2.5	0.9795544	5	0.9588689	10	0.9413227
Carbazole	0.1	0.6868614	0.25	0.6763528	0.5	0.6798204	2.5	0.8722369	5	0.8470231	10	0.8614407
1-Methylphenanthrene	0.1	0.6886254	0.25	0.6719969	0.5	0.6924987	2.5	0.7649206	5	0.7292544	10	0.7015121
Fluoranthene	0.1	1.032828	0.25	1.004301	0.5	1.028353	2.5	1.175561	5	1.150561	10	1.144418
Dibenzothiophene	0.1	1.00187	0.25	0.9708645	0.5	0.9354759	2.5	0.9966473	5	0.8778201	10	0.7617781
Pyrene	0.1	1.093151	0.25	1.048695	0.5	1.06675	2.5	1.231519	5	1.210965	10	1.207789
Benzo(a)anthracene	0.1	0.8095903	0.25	0.7551481	0.5	0.7392979	2.5	0.904842	5	0.8442709	10	0.8438302
Chrysene	0.1	0.8148476	0.25	0.820307	0.5	0.7769289	2.5	0.8790903	5	0.8108762	10	0.7907035
Benzo(b)fluoranthene	0.1	0.7101608	0.25	0.7577058	0.5	0.7245038	2.5	0.852299	5	0.8782604	10	0.8867582
Benzo(j)fluoranthene	0.1	0.78875	0.25	0.8378813	0.5	0.818183	2.5	0.818049	5	0.7802496	10	0.803375
Benzo(k)fluoranthene	0.1	0.8370628	0.25	0.7421891	0.5	0.8783436	2.5	0.8554401	5	0.8495081	10	0.8596548
Benzo(e)pyrene	0.1	0.7659416	0.25	0.7399724	0.5	0.7267903	2.5	0.8198732	5	0.7989418	10	0.8159809
Benzo(a)pyrene	0.1	0.7418391	0.25	0.6811111	0.5	0.6432639	2.5	0.7755997	5	0.7537925	10	0.7963704
Indeno(1,2,3-cd)pyrene	0.1	0.7488218	0.25	0.6985603	0.5	0.6910363	2.5	0.8574964	5	0.8841164	10	0.9143282

Analytical Resources, Incorporated
Analytical Chemists and Consultants

INITIAL CALIBRATION DATA
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Calibration:	EA00040	Instrument:	NT14
Calibration Date:	01/14/2021	Column (1):	ZB-5MS

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RRF		RRF		RRF		RRF		RRF		RRF
Dibenzo(a,h)anthracene	0.1	0.6078196	0.25	0.606949	0.5	0.5427479	2.5	0.7649911	5	0.7798533	10	0.8106138
Benzo(g,h,i)perylene	0.1	0.8195117	0.25	0.7859429	0.5	0.6789098	2.5	0.85363	5	0.8352254	10	0.8544754
Perylene	0.1	0.7695543	0.25	0.6630139	0.5	0.6432639	2.5	0.7994473	5	0.777282	10	0.8030141
Benzo(b)naphtho(2,1-d)thiophene	0.1	0.7733609	0.25	0.7784905	0.5	0.7461768	2.5	0.8778705	5	0.8673539	10	0.8682173
Naphthalene-d8	0.1	1.022132	0.25	0.9631328	0.5	0.9539118	2.5	0.9226536	5	0.8754697	10	0.8146468
Acenaphthene-d10	0.1	0.5172311	0.25	0.501108	0.5	0.4801203	2.5	0.5026455	5	0.4797385	10	0.4514738
Phenanthrene-d10	0.1	1.047822	0.25	0.915835	0.5	0.8915547	2.5	0.9217163	5	0.8769306	10	0.840069
Chrysene-d12	0.1	0.6891857	0.25	0.6089724	0.5	0.5894737	2.5	0.6744882	5	0.6184671	10	0.5981562
Perylene-d12	0.1	0.6777006	0.25	0.6707893	0.5	0.5372079	2.5	0.7397478	5	0.7104899	10	0.7174415

Analytical Resources, Incorporated
Analytical Chemists and Consultants

INITIAL CALIBRATION DATA
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Calibration:	EA00040	Instrument:	NT14
Calibration Date:	01/14/2021	Column (1):	ZB-5MS

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
trans-Decalin	0.1159685	1.7			RSD (15)	
cis-Decalin	8.352105E-02	4.3			RSD (15)	
Naphthalene	0.9263444	7.5			RSD (15)	
1-Methylnaphthalene	0.5131404	8.0			RSD (15)	
2-Methylnaphthalene	0.5295653	7.0			RSD (15)	
Biphenyl	0.7787672	9.1			RSD (15)	
2,6-Dimethylnaphthalene	0.5698371	6.7			RSD (15)	
Acenaphthylene	0.9686185	2.6			RSD (15)	
Acenaphthene	0.6227577	4.2			RSD (15)	
Dibenzofuran	0.8912135	4.1			RSD (15)	
2,3,5-Trimethylnaphthalene	0.5722696	3.7			RSD (15)	
Fluorene	0.675395	3.9			RSD (15)	
Benzo(b)thiophene	0.7660937	5.5			RSD (15)	
Phenanthrene	0.9968805	3.6			RSD (15)	
Anthracene	0.921865	4.8			RSD (15)	
Carbazole	0.7706226	12.8			RSD (15)	
1-Methylphenanthrene	0.7081347	4.7			RSD (15)	
Fluoranthene	1.089337	6.9			RSD (15)	
Dibenzothiophene	0.924076	9.9			RSD (15)	
Pyrene	1.143145	7.2			RSD (15)	
Benzo(a)anthracene	0.8161632	7.6			RSD (15)	
Chrysene	0.8154589	4.3			RSD (15)	
Benzo(b)fluoranthene	0.8016147	10.0			RSD (15)	
Benzo(j)fluoranthene	0.807748	2.6			RSD (15)	
Benzo(k)fluoranthene	0.8370331	5.8			RSD (15)	
Benzo(e)pyrene	0.7779167	5.1			RSD (15)	
Benzo(a)pyrene	0.7319961	8.0			RSD (15)	
Indeno(1,2,3-cd)pyrene	0.7990599	12.3			RSD (15)	
Dibenzo(a,h)anthracene	0.6854958	16.4		0.9997	QCOD (0.99)	
Benzo(g,h,i)perylene	0.8046159	8.3			RSD (15)	
Perylene	0.7425959	9.5			RSD (15)	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

INITIAL CALIBRATION DATA
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Calibration:	EA00040	Instrument:	NT14
Calibration Date:	01/14/2021	Column (1):	ZB-5MS

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Benzo(b)naphtho(2,1-d)thiophene	0.8185783	7.2			RSD (15)	
Naphthalene-d8	0.9253244	7.8			RSD (15)	
Acenaphthene-d10	0.4887195	4.8			RSD (15)	
Phenanthrene-d10	0.9156546	7.8			RSD (15)	
Chrysene-d12	0.6297905	6.6			RSD (15)	
Perylene-d12	0.6755628	10.7			RSD (15)	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Printed: 1/14/2021 10:10:30AM

ANALYSIS SEQUENCE

SJA0059

Instrument: NT14 Element Column ID: i005863
Calibration ID: EA00040 Tune File: 200104u
EM Voltage: 1906

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SJA0059-TUN1	MS Tune	QC		1	I007631		
SJA0059-CAL1	PAH 0.1	QC		2	I007926	I007919	
SJA0059-CAL2	PAH 0.25	QC		3	I007925	I007919	
SJA0059-CAL3	PAH 0.5	QC		4	I007924	I007919	
SJA0059-CAL4	PAH 2.5	QC		5	I007920	I007919	
SJA0059-CAL5	PAH 5.0	QC		6	I007922	I007919	
SJA0059-CAL6	PAH 10	QC		7	I007921	I007919	
SJA0059-SCV1	Secondary Cal Check	QC		8		I007919	
SJA0059-ICB1	Initial Cal Blank	QC		9		I007919	
SJA0059-ICV1	Initial Cal Check	QC		10	I007920	I007919	
20K0170-01RE1	JSMPDI-013SC-A-00-01-20110	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	11		I007919	Added 12/31/2020 by VTS
20K0170-02RE1	JSMPDI-013SC-A-01-02-20110	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	12		I007919	Added 12/31/2020 by VTS
20K0170-11RE1	JSMPDI-018SC-A-00-01-20110	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	13		I007919	Added 12/31/2020 by VTS
20K0170-23RE1	JSMPDI-022SC-A-00-01-20110	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	14		I007919	Added 12/31/2020 by VTS
20K0170-24RE1	JSMPDI-022SC-A-02-03-20110	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	15		I007919	Added 12/31/2020 by VTS
20K0318-02RE1	NCPDI-045SG-201117	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 03	16		I007919	Added 12/31/2020 by VTS
20K0318-03RE1	NCPDI-047SG-201117	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	17		I007919	Added 12/31/2020 by VTS
SJA0059-CCV1	Calibration Check	QC		18	I007920	I007919	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210107.b

	Time	Filename	LabID	ClientId	DF	
1	1142	NT1421010701.D	SJA0059-TUN1		1	|NO ISTDS FOUND||
2	1156	NT1421010702.D	SJA0059-CAL4		1	|18.76 642877||22.21 641722||33.06 741138|
3	1156	NT1421010702ICV1.d	SJA0059-ICV1		1	|18.76 642877||22.21 641722||33.06 741138|
4	1244	NT1421010703.D	SJA0059-CAL6		1	|18.76 622387||22.22 606119||33.06 752586|
5	1332	NT1421010704.D	SJA0059-CAL1		1	|18.76 622855||22.21 634917||33.06 741832|
6	1420	NT1421010705.D	SJA0059-CAL5		1	|18.76 626964||22.21 613613||33.06 751844|
7	1508	NT1421010706.D	SJA0059-CAL2		1	|18.76 621854||22.21 622610||33.06 703756|
8	1556	NT1421010707.D	SJA0059-CAL4		1	|18.76 639312||22.21 625499||33.06 719987|
9	1644	NT1421010708.D	SJA0059-CAL3		1	|18.76 610547||22.21 607025||33.06 703251|
10	1732	NT1421010709.D	SJA0059-SCV1		1	|18.76 462832||22.21 454007||33.06 502859|
11	1820	NT1421010710.D	SJA0059-ICB1		1	|18.76 501393||22.21 484652||33.06 571933|
12	1908	NT1421010711.D	20K0170-01RE1		5	|18.76 603143||22.21 601856||33.06 747797|
13	1956	NT1421010712.D	20K0170-02RE1		5	|18.76 637490||22.21 643334||33.06 795788|
14	2044	NT1421010713.D	20K0170-11RE1		50	|18.76 632530||22.21 643898||33.06 778385|
15	2132	NT1421010714.D	20K0170-23RE1		5	|18.76 658495||22.21 671713||33.06 807811|
16	2220	NT1421010715.D	20K0170-24RE1		10	|18.76 636627||22.21 640010||33.06 779358|
17	2308	NT1421010716.D	20K0318-02RE1		2	|18.76 638105||22.21 625787||33.06 805059|
18	2356	NT1421010717.D	20K0318-03RE1		2	|18.76 638434||22.21 638027||33.06 785512|
19	0044	NT1421010718.D	20K0318-04RE1		2	|18.76 656276||22.21 642501||33.06 862137|
20	0132	NT1421010719.D	20K0319-01RE1		2	|18.76 682408||22.21 680405||33.06 868743|

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210107.b

	Time	Filename	LabID	ClientId	DF						
21	0220	NT1421010720.D	20K0319-05RE1		5	|18.76	648654||	22.21	657367||	33.06	830740|
22	0308	NT1421010721.D	SJA0059-CCV1		1	|18.76	733237||	22.21	746955||	33.06	949706|

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210107.b

ARI Job No.: SJA0 Method: DFTPP8270E.m Instrument: nt14.i Date: 07-JAN-2021

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1142	NT1421010701.D	SJA0059-TUN1		1	NO MANUAL INTEGRATION
1156	NT1421010702.D	SJA0059-CAL4		1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benz
1156	NT1421010702ICV1.d	SJA0059-ICV1		1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total
1244	NT1421010703.D	SJA0059-CAL6		1	Benzo(b)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes,
1332	NT1421010704.D	SJA0059-CAL1		1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Total Benzofluoranthenes, Benzo(j)fluoranthene, Phenanth
1420	NT1421010705.D	SJA0059-CAL5		1	Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
1508	NT1421010706.D	SJA0059-CAL2		1	Benzo(b)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes, Benzo(Benzo(j)fluoranthene, Perylene-d12,
1556	NT1421010707.D	SJA0059-CAL4		1	Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes, Benzo(Perylene-d12,
1644	NT1421010708.D	SJA0059-CAL3		1	Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes, Perylene-d12,
1732	NT1421010709.D	SJA0059-SCV1		1	Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Perylene, Total Benzofluoranthenes,
1820	NT1421010710.D	SJA0059-ICB1		1	NO MANUAL INTEGRATION
1908	NT1421010711.D	20K0170-01RE1		5	Benzo(b)fluoranthene, Total Benzofluoranthenes,
1956	NT1421010712.D	20K0170-02RE1		5	Benzo(b)fluoranthene, Total Benzofluoranthenes,
2044	NT1421010713.D	20K0170-11RE1		50	Benzo(b)fluoranthene, Total Benzofluoranthenes,
2132	NT1421010714.D	20K0170-23RE1		5	Benzo(b)fluoranthene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
2220	NT1421010715.D	20K0170-24RE1		10	Benzo(b)fluoranthene, Total Benzofluoranthenes,
2308	NT1421010716.D	20K0318-02RE1		2	Benzo(b)fluoranthene, Total Benzofluoranthenes,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210107.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2356	NT1421010717.D	20K0318-03RE1		2	Benzo(b)fluoranthene, Biphenyl, Total Benzofluoranthenes,
0044	NT1421010718.D	20K0318-04RE1		2	Total Benzofluoranthenes,
0132	NT1421010719.D	20K0319-01RE1		2	Benzo(b)fluoranthene, Total Benzofluoranthenes,
0220	NT1421010720.D	20K0319-05RE1		5	Benzo(b)fluoranthene, Total Benzofluoranthenes,
0308	NT1421010721.D	SJA0059-CCV1		1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benz

Security Status Report

Date: 14-Jan-2021 10:26

NT1421010701.D	Data Locked	yev, 14-
NT1421010702.D	Data Locked	yev, 14-
NT1421010702ICV1.d	Data Locked	yev, 14-
NT1421010703.D	Data Locked	yev, 14-
NT1421010704.D	Data Locked	yev, 14-
NT1421010705.D	Data Locked	yev, 14-
NT1421010706.D	Data Locked	yev, 14-
NT1421010707.D	Data Locked	yev, 14-
NT1421010708.D	Data Locked	yev, 14-
NT1421010709.D	Data Locked	yev, 14-
NT1421010710.D	Data Locked	yev, 14-
NT1421010711.D	Data Locked	yev, 14-
NT1421010712.D	Data Locked	yev, 14-
NT1421010713.D	Data Locked	yev, 14-
NT1421010714.D	Data Locked	yev, 14-
NT1421010715.D	Data Locked	yev, 14-
NT1421010716.D	Data Locked	yev, 14-
NT1421010717.D	Data Locked	yev, 14-
NT1421010718.D	Data Locked	yev, 14-
NT1421010719.D	Data Locked	yev, 14-
NT1421010720.D	Data Locked	yev, 14-
NT1421010721.D	Data Locked	yev, 14-

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Batch File: \\target\share\chem3\nt14.i\20210107.b
Inst ID: nt14.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	NT1421010702	NT1421010703	NT1421010704	NT1421010705	NT1421010706	NT1421010707	NT1421010708
INJ.DATE:	07-JAN-2021	07-JAN-2021	07-JAN-2021	07-JAN-2021	07-JAN-2021	07-JAN-2021	07-JAN-2021
INJ.TIME:	11:56	12:44	13:32	14:20	15:08	15:56	16:44

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 trans-Decalin	7.036	7.036	7.046	7.036	7.036	7.035	7.046	7.036	4.036-10.036	7.038	0.005
2 cis-Decalin	8.145	8.145	8.155	8.145	8.145	8.145	8.145	8.145	5.145-11.145	8.146	0.004
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	11.767	11.767	11.767	11.767	11.767	11.767	11.767	11.767	8.767-14.767	11.767	0.000
7 Naphthalene	11.833	11.833	11.832	11.833	11.833	11.833	11.833	11.833	8.833-14.833	11.833	0.000
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	12.283	12.283	12.283	12.283	12.283	12.283	12.283	12.283	9.283-15.283	12.283	0.000
13 C1-Benzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.200	11.200-17.200	+++++	+++++
14 C2-Benzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.800	12.800-18.800	+++++	+++++
15 C3_Benzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.200	14.200-20.200	+++++	+++++
16 2-Methylnaphthalene	13.668	13.668	13.668	13.668	13.668	13.668	13.668	13.668	10.668-16.668	13.668	0.000

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Batch File: \\target\share\chem3\nt14.i\20210107.b
Inst ID: nt14.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
17 1-methylnaphthalene	14.119	14.119	14.118	14.118	14.118	14.118	14.118	14.119	11.119-17.119	14.118	0.000
18 Biphenyl	15.305	15.305	15.305	15.305	15.305	15.305	15.305	15.305	12.305-18.305	15.305	0.000
19 2,6-Dimethylnaphthalen	15.382	15.382	15.382	15.382	15.382	15.382	15.382	15.382	12.382-18.382	15.382	0.000
20 Acenaphthylene	16.954	16.954	16.943	16.954	16.943	16.943	16.943	16.954	13.954-19.954	16.947	0.006
$ 21 Acenaphthene-d10	17.240	17.240	17.239	17.239	17.228	17.228	17.229	17.240	14.240-20.240	17.235	0.006
22 Acenaphthene	17.350	17.349	17.349	17.349	17.349	17.349	17.349	17.350	14.350-20.350	17.349	0.000
23 Dibenzofuran	17.723	17.734	17.723	17.723	17.723	17.723	17.723	17.723	14.723-20.723	17.725	0.004
24 1,6,7-Trimethylnaphtha	17.954	17.954	17.954	17.954	17.954	17.954	17.954	17.954	14.954-20.954	17.954	0.000
* 25 Fluorene-d10	18.764	18.764	18.764	18.764	18.764	18.764	18.764	18.764	15.764-21.764	18.764	0.000
26 Fluorene	18.877	18.877	18.866	18.877	18.866	18.877	18.866	18.877	15.877-21.877	18.872	0.006
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	21.791	21.791	21.780	21.791	21.791	21.780	21.780	21.791	18.791-24.791	21.786	0.006
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	22.100	22.100	22.100	22.100	22.100	22.100	22.100	22.100	19.100-25.100	22.100	0.000
* 250 Anthracene-d10	22.210	22.221	22.209	22.209	22.210	22.209	22.210	22.210	19.210-25.210	22.211	0.004
36 Phenanthrene	22.177	22.188	22.176	22.176	22.177	22.176	22.177	22.177	19.177-25.177	22.178	0.004
37 Anthracene	22.276	22.287	22.275	22.286	22.275	22.275	22.275	22.276	19.276-25.276	22.279	0.005

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Batch File: \\target\share\chem3\nt14.i\20210107.b
Inst ID: nt14.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
38 C1-Phenanthrenes/Anthr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.800	20.800-26.800	+++++	+++++
39 C2-Phenanthrenes/Anthr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.000	22.000-28.000	+++++	+++++
40 C3-Phenanthrenes/Anthr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.000	24.000-30.000	+++++	+++++
41 C4-Phenanthrenes/Anthr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	28.000	25.000-31.000	+++++	+++++
42 Carbazole	23.562	23.562	23.562	23.562	23.562	23.562	23.562	23.562	20.562-26.562	23.562	0.000
43 1-Methylphenanthrene	24.013	24.023	24.012	24.012	24.012	24.012	24.012	24.013	21.013-27.013	24.014	0.004
44 Fluoranthene	25.992	25.992	25.991	25.991	25.992	25.991	25.992	25.992	22.992-28.992	25.992	0.000
45 Pyrene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.628	15.628-21.628	+++++	+++++
46 Pyrene	26.838	26.838	26.838	26.838	26.838	26.838	26.838	26.838	23.838-29.838	26.838	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	29.382	29.382	29.381	29.382	29.382	29.382	29.382	29.382	26.382-32.382	29.382	0.000
52 C1-Naphthobenzothiophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	32.500	29.500-35.500	+++++	+++++
53 C2-Naphthobenzothiophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	33.500	30.500-36.500	+++++	+++++
54 C3-Naphthobenzothiophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	35.000	32.000-38.000	+++++	+++++
248 C4-Naphthobenzothiophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	36.000	33.000-39.000	+++++	+++++
55 Benzo(a)anthracene	29.970	29.981	29.969	29.969	29.969	29.969	29.969	29.970	26.970-32.970	29.971	0.004
56 Chrysene-d12	30.093	30.105	30.093	30.093	30.093	30.093	30.093	30.093	27.093-33.093	30.095	0.004
57 Chrysene	30.172	30.172	30.172	30.172	30.172	30.172	30.172	30.172	27.172-33.172	30.172	0.000
58 C1-Benzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	31.000	28.000-34.000	+++++	+++++
59 C2-Benzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	31.800	28.800-34.800	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt14.i\20210107.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
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	32.391	32.402	32.391	32.402	32.391	32.391	32.391	32.391	29.391-35.391	32.394	0.006
293 Benzo(j)fluoranthene	32.504	32.515	32.504	32.504	32.504	32.504	32.504	32.504	29.504-35.504	32.505	0.004
63 Benzo(k)fluoranthene	32.447	32.447	32.436	32.447	32.447	32.447	32.447	32.447	29.447-35.447	32.446	0.004
* 251 Benzo(e)pyrene-d12	33.056	33.056	33.055	33.055	33.055	33.055	33.056	33.056	30.056-36.056	33.055	0.000
64 Benzo(e)pyrene	33.112	33.123	33.112	33.123	33.112	33.112	33.123	33.112	30.112-36.112	33.117	0.006
246 Total Benzofluoranthen	32.391	32.515	32.504	32.447	32.504	32.447	32.447	32.391	29.391-35.391	32.465	0.044
65 Benzo(a)pyrene-d12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.348	22.348-28.348	+++++	+++++
66 Benzo(a)pyrene	33.213	33.225	33.213	33.224	33.213	33.213	33.213	33.213	30.213-36.213	33.216	0.006
$ 67 Perylene-d12	33.394	33.405	33.393	33.393	33.393	33.393	33.393	33.394	30.394-36.394	33.395	0.004
68 Perylene	33.450	33.461	33.450	33.450	33.213	33.213	33.213	33.450	30.450-36.450	33.350	0.128
69 Indeno(1,2,3-cd)pyrene	35.443	35.455	35.432	35.443	35.443	35.443	35.443	35.443	32.443-38.443	35.443	0.007
70 Dibenzo(a,h)anthracene	35.421	35.443	35.421	35.432	35.421	35.432	35.432	35.421	32.421-38.421	35.429	0.009
71 C1-Dibenzo(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	36.000	33.000-39.000	+++++	+++++
72 C2-Dibenzo(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	37.000	34.000-40.000	+++++	+++++
73 C3-Dibenzo(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	38.000	35.000-41.000	+++++	+++++
74 Benzo(g,h,i)perylene	36.311	36.333	36.310	36.322	36.311	36.310	36.311	36.311	33.311-39.311	36.315	0.009
253 n-Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.322	2.322-8.322	+++++	+++++
254 n-Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.986	3.986-9.986	+++++	+++++
262 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.446	5.446-11.446	+++++	+++++
255 n-Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.869	6.869-12.869	+++++	+++++
256 n-Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.131	8.131-14.131	+++++	+++++

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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 : 07-JAN-2021 11:56
End Cal Date : 07-JAN-2021 16:44
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Last Edit : 09-Jan-2021 12:24 yev

Calibration File Names:
Level 1: \\target\share\chem3\nt14.i\20210107.b\NT1421010704.D
Level 2: \\target\share\chem3\nt14.i\20210107.b\NT1421010706.D
Level 3: \\target\share\chem3\nt14.i\20210107.b\NT1421010708.D
Level 4: \\target\share\chem3\nt14.i\20210107.b\NT1421010707.D
Level 5: \\target\share\chem3\nt14.i\20210107.b\NT1421010702.D
Level 6: \\target\share\chem3\nt14.i\20210107.b\NT1421010705.D
Level 7: \\target\share\chem3\nt14.i\20210107.b\NT1421010703.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	0.11923	0.11634	0.11599	+++++	0.11646	0.11446					
	0.11334						AVRG		0.11614		1.62640
2 cis-Decalin	0.08634	0.08514	0.08826	+++++	0.08113	0.08133					
	0.07893						AVRG		0.08370		3.96516
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 / 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	
5 C3-Decalin	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
247 C4-Decalin	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
7 Naphthalene	1.00643	0.96490	0.96683	+++++	0.92930	0.87495						
	0.81566						AVRG		0.93236		7.05490	
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.

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Last Edit : 09-Jan-2021 12:24 yev

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
12 Benzo(b)thiophene	0.82510	0.77421	0.78901	+++++	0.76810	0.73769					
	0.70245						AVRG		0.76778		5.05964
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	0.57182	0.54602	0.54718	+++++	0.53861	0.50544					
	0.46832						AVRG		0.52957		6.95399
17 1-methylnaphthalene	0.56652	0.53807	0.52770	+++++	0.51359	0.48076					
	0.45220						AVRG		0.51314		8.00898
18 Biphenyl	0.87693	0.81981	0.80306	+++++	0.76828	0.72600					
	0.67853						AVRG		0.78397		8.39507

ARI Labs, Inc.

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Last Edit : 09-Jan-2021 12:24 yev

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	
19 2,6-Dimethylnaphthalene	0.61835	0.58519	0.58872	+++++	0.57544	0.54135						
	0.50997						AVRG		0.57272		6.26389	
20 Acenaphthylene	0.96771	0.94968	0.95377	+++++	1.01396	0.97892						
	0.94767						AVRG		0.97171		2.51488	
22 Acenaphthene	0.64818	0.63639	0.62958	+++++	0.64089	0.60118						
	0.58033						AVRG		0.62530		3.99477	
23 Dibenzofuran	0.93348	0.90860	0.88513	+++++	0.91322	0.87690						
	0.82996						AVRG		0.89588		3.94212	
24 1,6,7-Trimethylnaphthalene	0.59009	0.57376	0.57026	+++++	0.59833	0.56244						
	0.53874						AVRG		0.57697		3.97286	
26 Fluorene	0.69467	0.67454	0.67284	+++++	0.71067	0.66743						
	0.63222						AVRG		0.68038		4.06627	
27 C1-Fluorenes	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-

ARI Labs, Inc.

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Last Edit : 09-Jan-2021 12:24 yev

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	
28 C2-Fluorenes	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
29 C3-Fluorenes	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
30 Dibenzothiophene	1.00187	0.97086	0.93548	+++++	0.99665	0.87782						
	0.76178						AVRG		0.93679		9.63731	
31 C1-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
32 C2-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
33 C3-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
34 C4-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-

ARI Labs, Inc.

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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	
36 Phenanthrene	1.03440	1.00900	0.99034	+++++	1.02913	0.98293						
	0.93547						AVRG		1.00723		4.27136	
37 Anthracene	0.89905	0.86949	0.88291	+++++	0.97955	0.95887						
	0.94132						AVRG		0.93055		5.00759	
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	0.68686	0.67635	0.67982	+++++	0.87224	0.84702						
	0.86144						AVRG		0.77546		11.71794	

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Last Edit : 09-Jan-2021 12:24 yev

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	
43 1-Methylphenanthrene	0.68863	0.67200	0.69250	+++++	0.76492	0.72925						
	0.70151						AVRG		0.71376		4.77661	
44 Fluoranthene	1.03283	1.00430	1.02835	+++++	1.17556	1.15056						
	1.14442						AVRG		1.09640		6.49835	
45 Pyrene-d10	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
46 Pyrene	1.09315	1.04870	1.06675	+++++	1.23152	1.21096						
	1.20779						AVRG		1.15159		6.80440	
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 / 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	
50 C3-Fluoranthenes/Pyrenes	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
249 C4-Fluoranthenes/Pyrenes	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
51 Naphthobenzothiophene	0.77336	0.77849	0.74618	+++++	0.87787	0.86735						
	0.86822						AVRG		0.82392		6.73056	
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	0.80959	0.75515	0.73930	++++++	0.90484	0.84427					
	0.84383						AVRG		0.81951		6.96770
57 Chrysene	0.81485	0.82031	0.77693	++++++	0.87909	0.81088					
	0.79070						AVRG		0.82414		4.79086
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	0.71016	0.75771	0.72450	++++++	0.85230	0.87826					
	0.88676						AVRG		0.80744		9.23405

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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
293 Benzo(j)fluoranthene	0.78875	0.83788	0.81818	+++++	0.81805	0.78025					
	0.80338						AVRG		0.80966		2.47679
63 Benzo(k)fluoranthene	0.83706	0.74219	0.87834	+++++	0.85544	0.84951					
	0.85965						AVRG		0.84697		6.06943
64 Benzo(e)pyrene	0.76594	0.73997	0.72679	+++++	0.81987	0.79894					
	0.81598						AVRG		0.78071		4.72859
246 Total Benzofluoranthenes	0.79149	0.74933	0.72831	+++++	0.83752	0.83097					
	0.86471						AVRG		1.04241		61.60596 <-
65 Benzo(a)pyrene-d12	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-
66 Benzo(a)pyrene	0.74184	0.68111	0.64326	+++++	0.77560	0.75379					
	0.79637						AVRG		0.73275		7.28644
68 Perylene	0.76955	0.66301	0.64326	+++++	0.79945	0.77728					
	0.80301						AVRG		0.74183		8.70778

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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	
69 Indeno(1,2,3-cd)pyrene	0.74882	0.69856	0.69104	+++++	0.85750	0.88412						
	0.91433						AVRG		0.79791		11.24281	
70 Dibenzo(a,h)anthracene	22545	53393	95422	+++++	708705	1465820						
	3050283						QUAD	0.000e+000	1.34741	-0.02836	0.99974	
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	0.81951	0.78594	0.67891	+++++	0.85363	0.83523						
	0.85448						AVRG		0.80032		7.73193	
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 / 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	
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 / 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	
283 n-Pentatriacontane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
284 n-Hexatriacontane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
285 n-Heptatriacontane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
286 n-Octatriacontane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
292 n-Nonatriacontane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
287 n-Tetracontane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
6 Naphthalene-d8	1.02213	0.96313	0.95391	+++++	0.92265	0.87547						
	0.81465						AVRG		0.92869		7.20147	

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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
$ 21 Acenaphthene-d10	0.51723	0.50111	0.48012	+++++	0.50265	0.47974					
	0.45147						AVRG		0.49092		4.48198
$ 35 Phenanthrene-d10	1.04782	0.91583	0.89155	+++++	0.92172	0.87693					
	0.84007						AVRG		0.92026		7.17924
$ 56 Chrysene-d12	0.68919	0.60897	0.58947	+++++	0.67449	0.61847					
	0.59816						AVRG		0.62979		6.62848
67 Perylene-d12	0.67770	0.67079	0.53721	+++++	0.73975	0.71049					
	0.71744						AVRG		0.67934		9.84931

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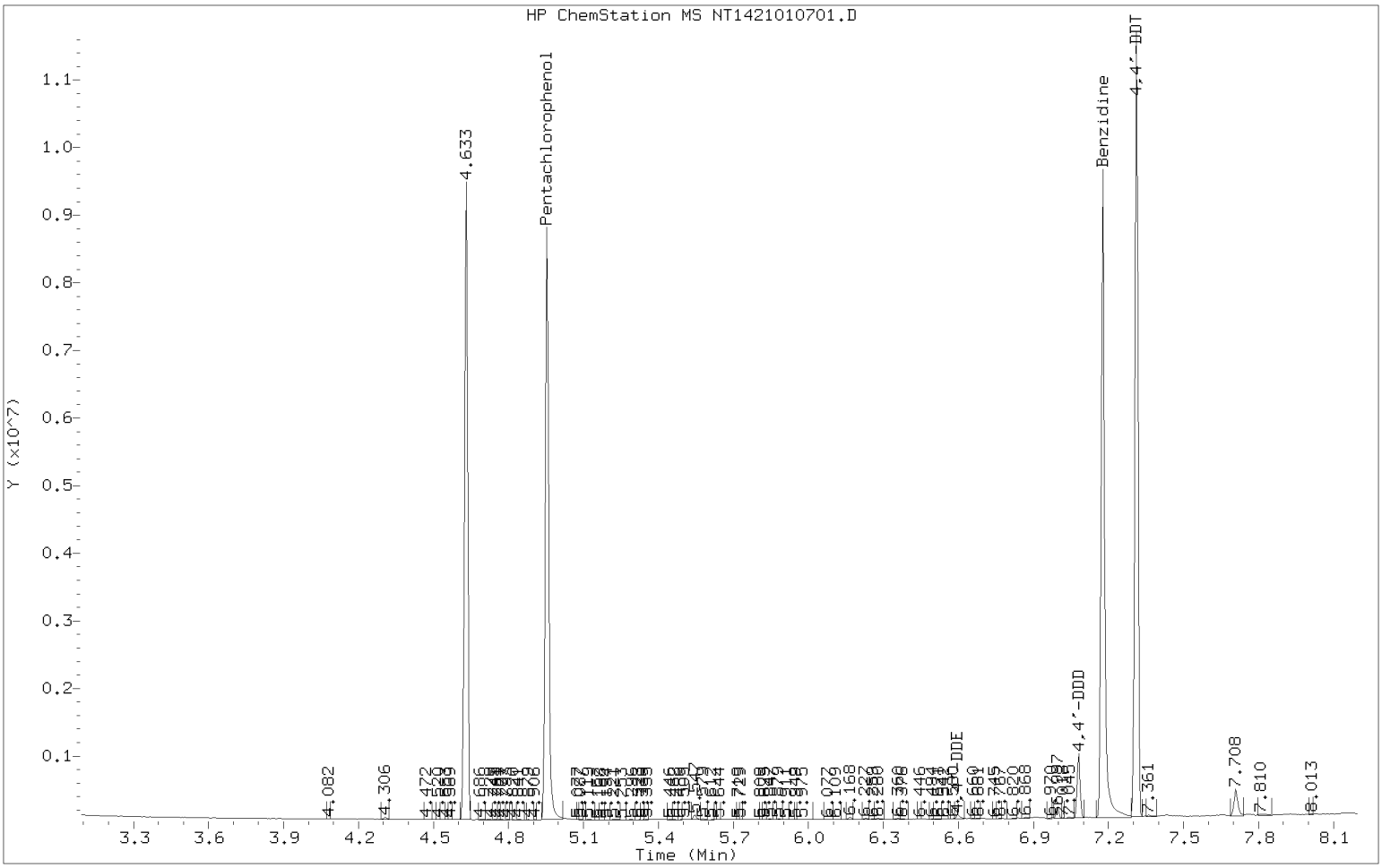
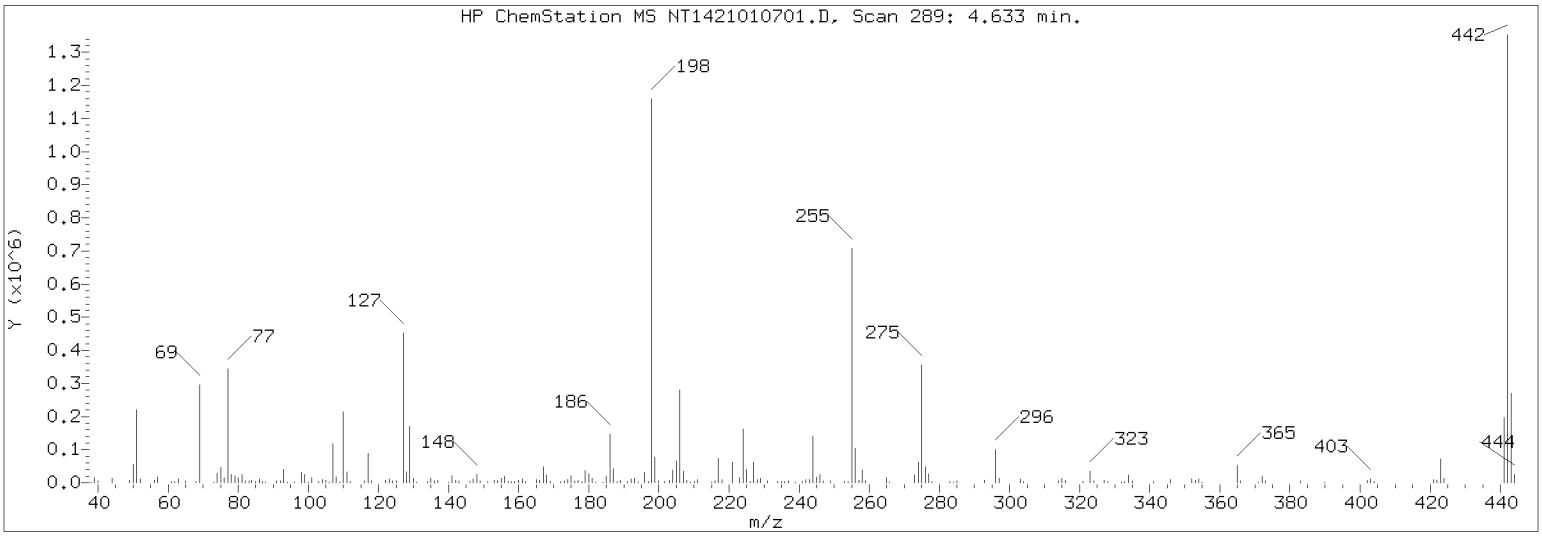
Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

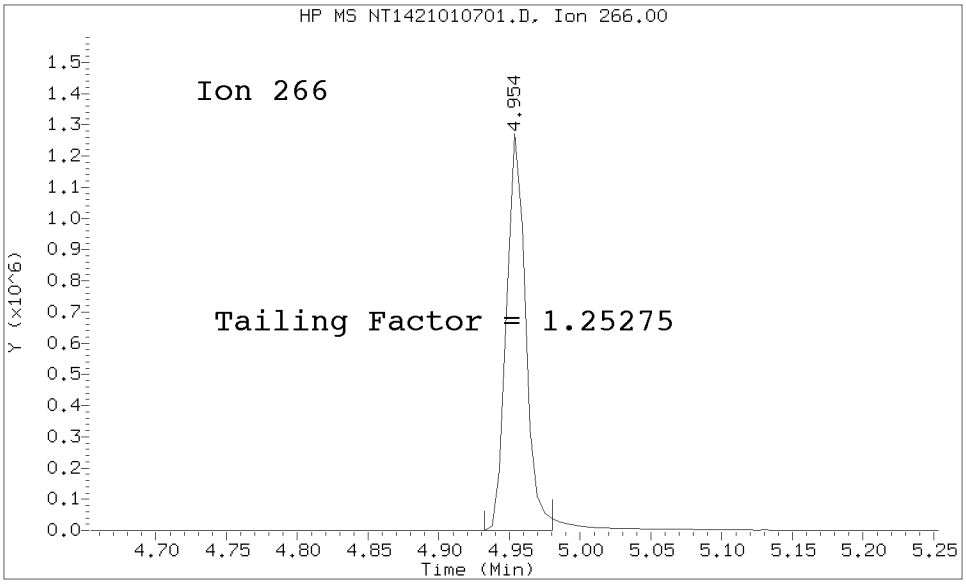
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20210107.b/NT1421010701.D/NT1421010701.D
Method Used: \20210107.b\DFTPP8270E.m Inst: nt14
Injection Date: 07-JAN-2021 11:42 Operator: VTS
Sample Info: SJA0059-TUN1 SJA0059-TUN1
Report Date: 01/14/2021 10:32



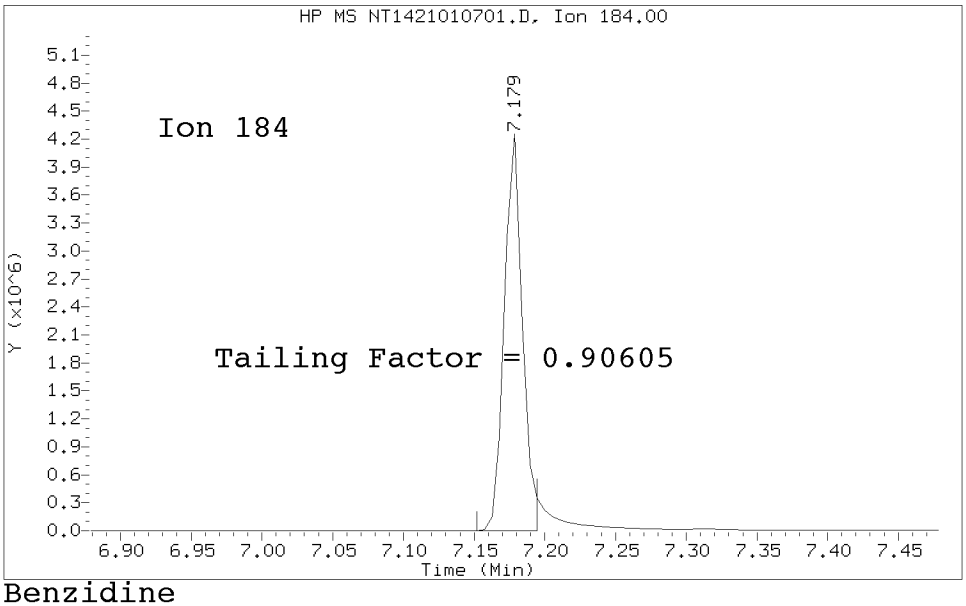


Datafile Analyzed: /20210107.b/NT1421010701.D/NT1421010701.D
Method Used: \20210107.b\DFTPP8270E.m\sw846ddt.m Inst: nt14
Injection Date: 07-JAN-2021 11:42 Operator: JZ
Sample Info: SJA0059-TUN1
Report Date: 01/14/2021 10:32



Pentachlorophenol
==========
Exp. RT = 4.900
Found RT = 4.954

Tail Factor = 1.253 Maximum Allowed = 2.0



Benzidine
==========
Exp. RT = 7.114
Found RT = 7.179

Tail Factor = 0.906 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.2527473	2.000	PASS
Benzidine	0.9060489	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	2065114			N/A
4,4-DDE	7505	0.4	20.0	PASS
4,4-DDD	186316	8.3	20.0	PASS
4,4-DDD + DDE	193821	8.6	20.0	PASS

Tuning Sample, nt14.i/20210107.b/NT1421010701.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	0.35 (1.34)
69	Mass 69 relative abundance	25.95
70	Less than 2.00% of mass 69	0.00 (0.00)
197	Less than 2.00% of mass 198	0.16
199	5.00 - 9.00% of mass 198	6.66
365	1.00 - 100.00% of mass 198	4.31
441	Less than 150.00% of mass 443	16.39 (72.19)
442	Less than 200.00% of mass 198	114.60
443	15.00 - 24.00% of mass 442	22.70 (19.81)

Data File: NT1421010701.D
Spectrum: Avg. Scans 288-290 (4.63), Background Scan 282
Location of Maximum: 442.00
Number of points: 208

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	1752	125.00	3516	193.00	10609	274.00	45632
39.00	12156	127.00	347584	194.00	1701	275.00	264192
50.00	44912	128.00	25632	196.00	23952	276.00	35304
51.00	172480	129.00	130504	197.00	1395	277.00	20344
52.00	9506	130.00	10793	198.00	890176	278.00	3380
56.00	5798	131.00	1679	199.00	59256	283.00	1951
57.00	13257	134.00	3032	200.00	4429	284.00	682
61.00	2042	135.00	10680	201.00	3765	285.00	3989
62.00	2488	136.00	3581	203.00	5178	293.00	5132
63.00	8207	137.00	5711	204.00	28488	296.00	74912
65.00	3772	140.00	1351	205.00	49744	297.00	10729
68.00	3087	141.00	16608	206.00	216128	303.00	9105
69.00	231040	142.00	5466	207.00	27592	304.00	1914
73.00	1496	143.00	3386	208.00	6183	314.00	4025
74.00	22448	146.00	2370	209.00	1795	315.00	9783
75.00	36712	147.00	8519	210.00	2644	316.00	5573
76.00	12625	148.00	19088	211.00	7921	321.00	2061
77.00	268864	149.00	3346	215.00	1572	323.00	26584
78.00	19624	151.00	1957	216.00	4095	324.00	4846
79.00	16126	153.00	5612	217.00	55080	327.00	5108
80.00	12724	154.00	4462	218.00	7025	328.00	2035
81.00	19336	155.00	10171	221.00	47312	332.00	1491
82.00	5045	156.00	15842	223.00	12600	333.00	1709
83.00	4859	157.00	2617	224.00	123272	334.00	17544
85.00	2755	158.00	2488	225.00	30656	335.00	4247
86.00	3114	159.00	2172	226.00	2429	341.00	3233
87.00	2227	160.00	5463	227.00	46672	346.00	6556
88.00	1370	161.00	8393	228.00	6551	352.00	8305
91.00	4909	162.00	1963	229.00	10752	353.00	5691
92.00	4900	165.00	6693	231.00	4775	354.00	8347
93.00	30608	166.00	5074	234.00	2418	355.00	769
94.00	2036	167.00	35888	235.00	3545	365.00	38360
96.00	1506	168.00	17488	236.00	1873	366.00	5098
98.00	23280	169.00	2555	237.00	4048	371.00	922
99.00	19112	172.00	2536	239.00	1461	372.00	14769
100.00	1358	173.00	4095	241.00	2190	373.00	3662
101.00	11445	174.00	7715	242.00	7003	383.00	4050
103.00	2874	175.00	15536	243.00	7074	390.00	913
104.00	6773	176.00	4230	244.00	106168	402.00	5812
105.00	6619	177.00	6567	245.00	13785	403.00	8445
106.00	1814	178.00	1729	246.00	18352	404.00	3042
107.00	90544	179.00	27896	247.00	3807	421.00	7163
108.00	13941	180.00	20360	249.00	3703	422.00	6550
109.00	1922	181.00	10019	253.00	1853	423.00	52768
110.00	164160	182.00	714	254.00	2210	424.00	10070
111.00	25320	184.00	1824	255.00	533120	441.00	145856
112.00	2632	185.00	13934	256.00	78752	442.00	1020160
116.00	4610	186.00	111032	257.00	5999	443.00	202048
117.00	69224	187.00	32464	258.00	29280	444.00	17680

118.00	5044	188.00	2649	259.00	4767		
122.00	5910	189.00	6209	265.00	11923		
123.00	9506	191.00	2429	266.00	757		
124.00	4202	192.00	9238	273.00	17424		

Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010702.D

Page 1

Date : 07-JAN-2021 11:56

Client ID:

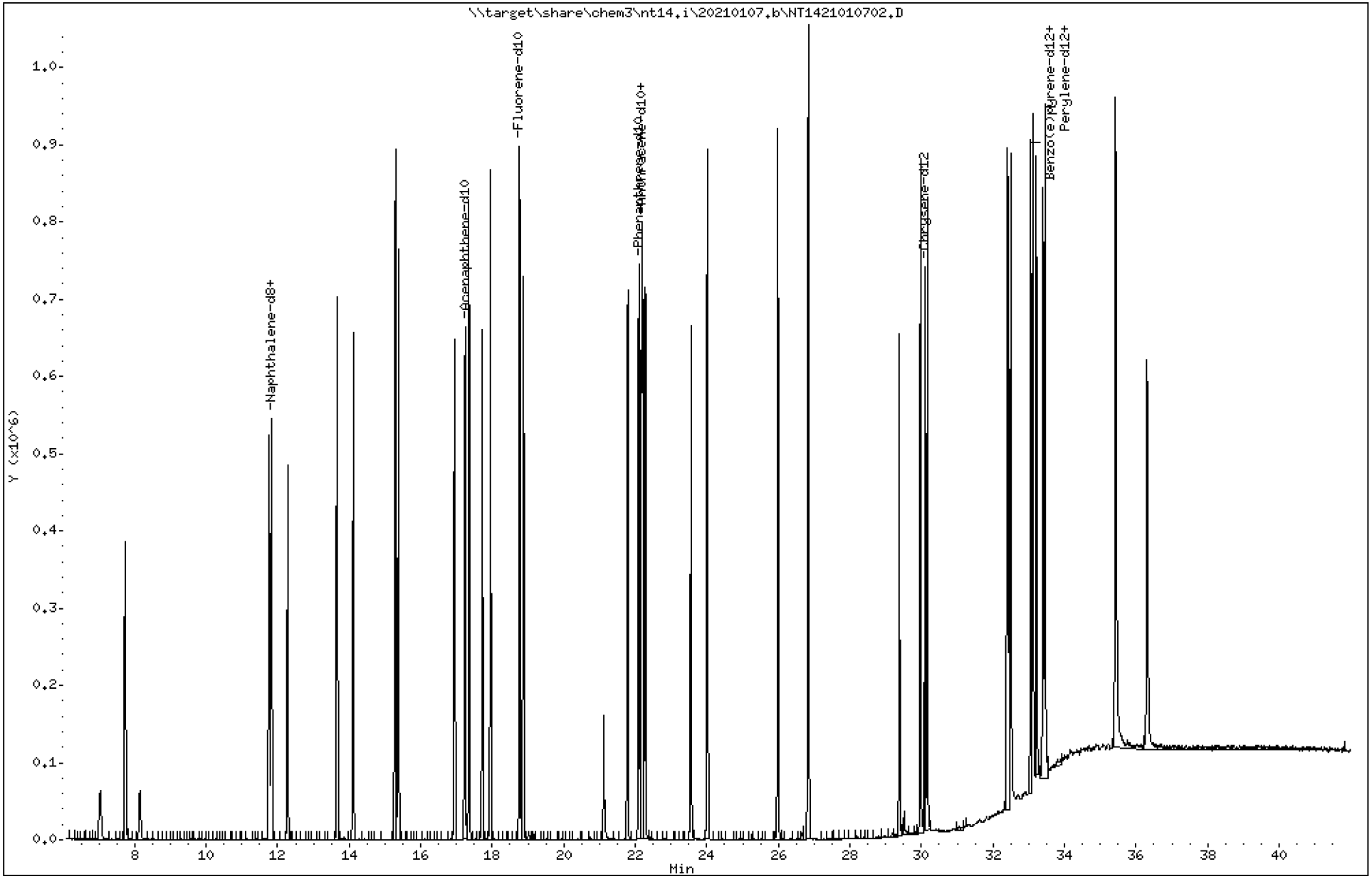
Instrument: nt14.i

Sample Info: SJA0059-CAL4

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\20210107.b\NT1421010702.D
Lab Smp Id: SJA0059-CAL4
Inj Date : 07-JAN-2021 11:56
Operator : VTS Inst ID: nt14.i
Smp Info : SJA0059-CAL4
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Meth Date : 14-Jan-2021 09:57 yev Quant Type: ISTD
Cal Date : 07-JAN-2021 11:56 Cal File: NT1421010702.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)	AMOUNTS ON-COL (ug/mL)
	1 trans-Decalin	138	7.035	7.035	(0.375)	93584	2.50000	2.511
	2 cis-Decalin	138	8.145	8.145	(0.434)	65192	2.50000	2.428
$	6 Naphthalene-d8	136	11.766	11.766	(0.627)	741441	2.50000	2.493
	7 Naphthalene	128	11.832	11.832	(0.631)	746781	2.50000	2.508
	12 Benzo(b)thiophene	134	12.283	12.283	(0.655)	617240	2.50000	2.507
	16 2-Methylnaphthalene	141	13.668	13.668	(0.728)	432823	2.50000	2.543
	17 1-methylnaphthalene	141	14.118	14.118	(0.752)	412716	2.50000	2.502
	18 Biphenyl	154	15.305	15.305	(0.816)	617388	2.50000	2.466
	19 2,6-Dimethylnaphthalene	156	15.382	15.382	(0.820)	462423	2.50000	2.525
	20 Acenaphthylene	152	16.953	16.953	(0.904)	814817	2.50000	2.617
$	21 Acenaphthene-d10	164	17.239	17.239	(0.919)	403924	2.50000	2.571
	22 Acenaphthene	153	17.349	17.349	(0.925)	515017	2.50000	2.573
	23 Dibenzofuran	168	17.723	17.723	(0.945)	733863	2.50000	2.562
	24 1,6,7-Trimethylnaphthalene	170	17.953	17.953	(0.957)	480815	2.50000	2.614
*	25 Fluorene-d10	176	18.763	18.763	(1.000)	642877	2.00000	
	26 Fluorene	166	18.877	18.877	(1.006)	571092	2.50000	2.631
	30 Dibenzothiophene	184	21.791	21.791	(1.161)	800902	2.50000	2.696
$	35 Phenanthrene-d10	188	22.099	22.099	(0.995)	739357	2.50000	2.517
	36 Phenanthrene	178	22.176	22.176	(0.999)	825519	2.50000	2.581
*	250 Anthracene-d10	188	22.209	22.209	(1.000)	641722	2.00000	
	37 Anthracene	178	22.275	22.275	(1.003)	785752	2.50000	2.656
	42 Carbazole	167	23.561	23.561	(1.061)	699667	2.50000	2.830
	43 1-Methylphenanthrene	192	24.012	24.012	(1.081)	613583	2.50000	2.700
	44 Fluoranthene	202	25.991	25.991	(1.170)	942979	2.50000	2.698
	46 Pyrene	202	26.838	26.838	(1.208)	987866	2.50000	2.693
	51 Naphthobenzothiophene	234	29.381	29.381	(1.323)	704186	2.50000	2.681
	55 Benzo(a)anthracene	228	29.969	29.969	(0.907)	838266	2.50000	2.772
$	56 Chrysene-d12	240	30.093	30.093	(0.910)	624861	2.50000	2.677
	57 Chrysene	228	30.172	30.172	(0.913)	814409	2.50000	2.695
	62 Benzo(b)fluoranthene	252	32.391	32.391	(0.980)	789589	2.50000	2.658(M)
	63 Benzo(k)fluoranthene	252	32.447	32.447	(0.982)	792499	2.50000	2.555(M)
	293 Benzo(j)fluoranthene	252	32.503	32.503	(0.983)	757859	2.50000	2.532
	246 Total Benzofluoranthenes	252	32.391	32.391	(0.980)	2327679	7.50000	7.848(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	33.055	33.055	(1.000)	741138	2.00000	
64 Benzo(e)pyrene	252	33.111	33.111	(1.002)	759549	2.50000	2.635
66 Benzo(a)pyrene	252	33.213	33.213	(1.005)	718533	2.50000	2.649
$ 67 Perylene-d12	264	33.393	33.393	(1.010)	685319	2.50000	2.738
68 Perylene	252	33.449	33.449	(1.012)	740626	2.50000	2.691
69 Indeno(1,2,3-cd)pyrene	276	35.443	35.443	(1.072)	794404	2.50000	2.683(M)
70 Dibenzo(a,h)anthracene	278	35.420	35.420	(1.072)	708705	2.50000	2.508(M)
74 Benzo(g,h,i)perylene	276	36.310	36.310	(1.098)	790822	2.50000	2.652(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: NT1421010702.D
Lab Smp Id: SJA0059-CAL4
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Misc Info:

Calibration Date: 07-JAN-2021
Calibration Time: 11:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	642877	321439	1285754	642877	0.00
250 Anthracene-d10	641722	320861	1283444	641722	0.00
251 Benzo(e)pyrene-d1	741138	370569	1482276	741138	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.76	18.26	19.26	18.76	0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	0.00
251 Benzo(e)pyrene-d1	33.06	32.56	33.56	33.06	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 - NT1421010702.D

Lab ID: SJA0059-CAL4
nt14.i, 20210107.b\ALKYLPNA.m, 07-JAN-2021 11:56

RT	CO-ELUTION COMPOUNDS
	NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

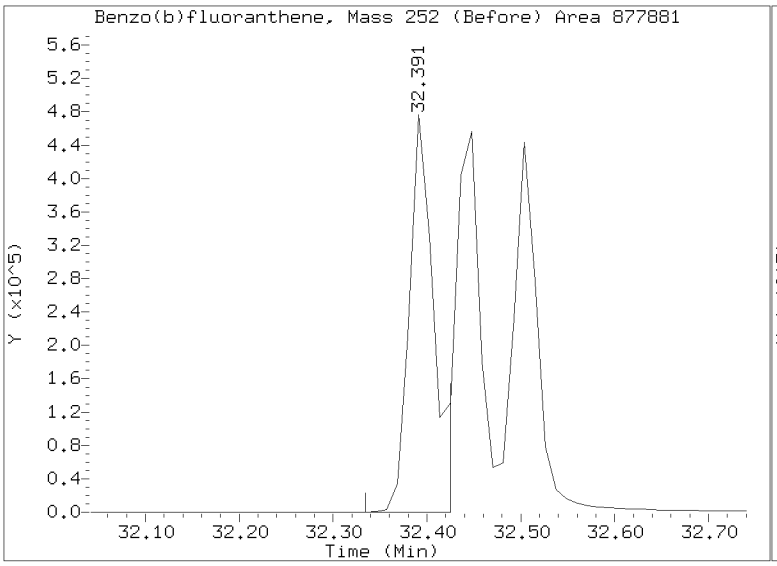
RRT check based on Ccal File: NT1421010702.D

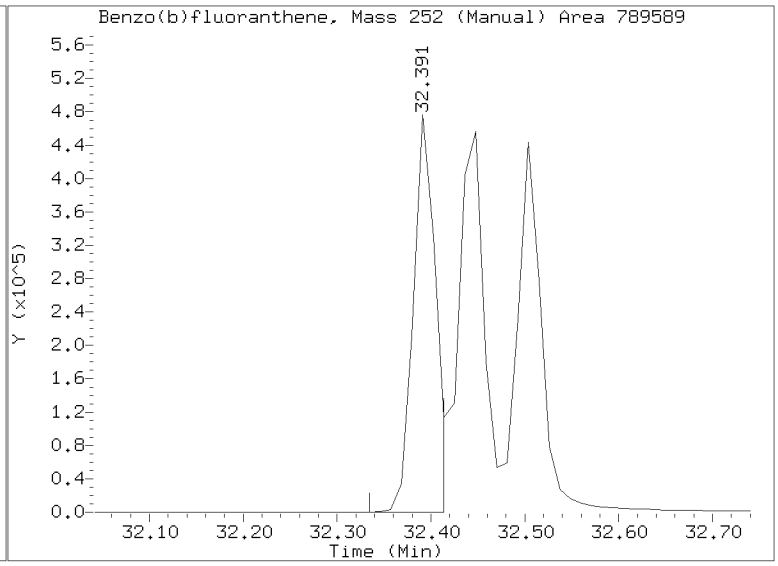
On Column LOD for nt14.i, 20210107.b\ALKYLPNA.m, TARGETS.sub = 0.0000

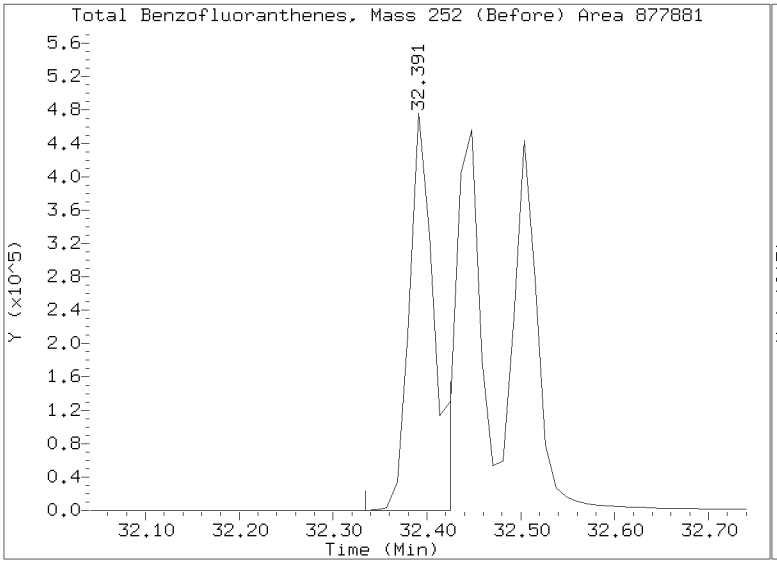
* Only compounds listed in the work order have been verified by the analyst *

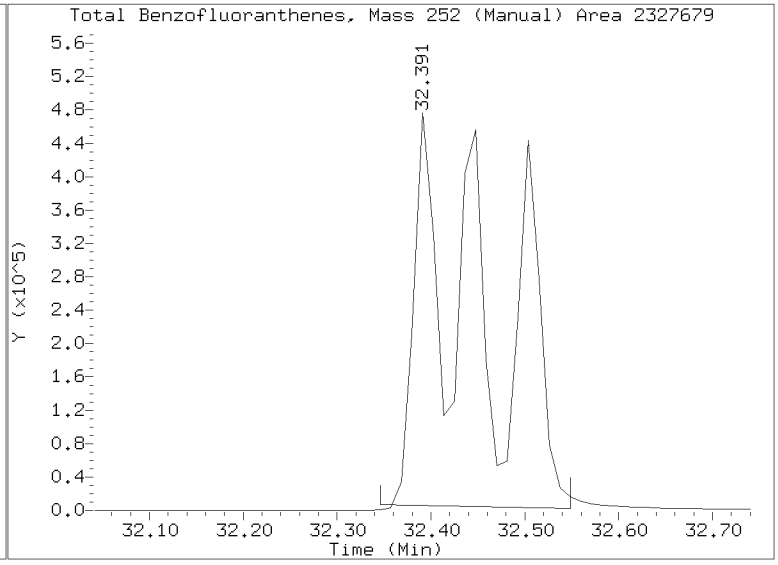
Quant Ion Manual Peak Adjustment Report

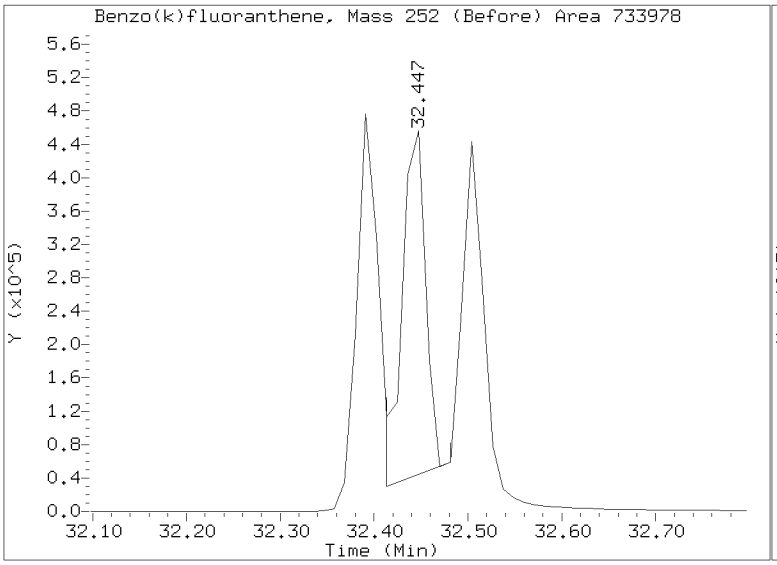
Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010702.D
Injection Date: 07-JAN-2021 11:56
Lab ID:SJA0059-CAL4 Client ID:
Report Date: 01/14/2021 09:57

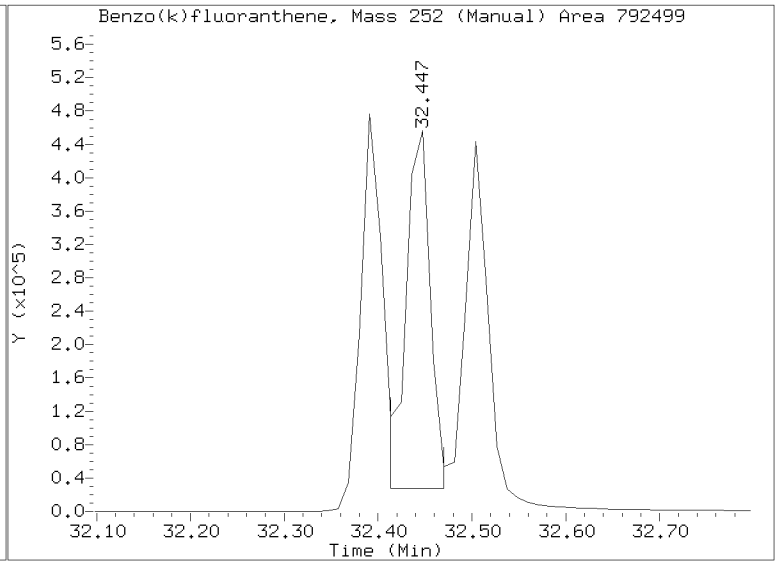






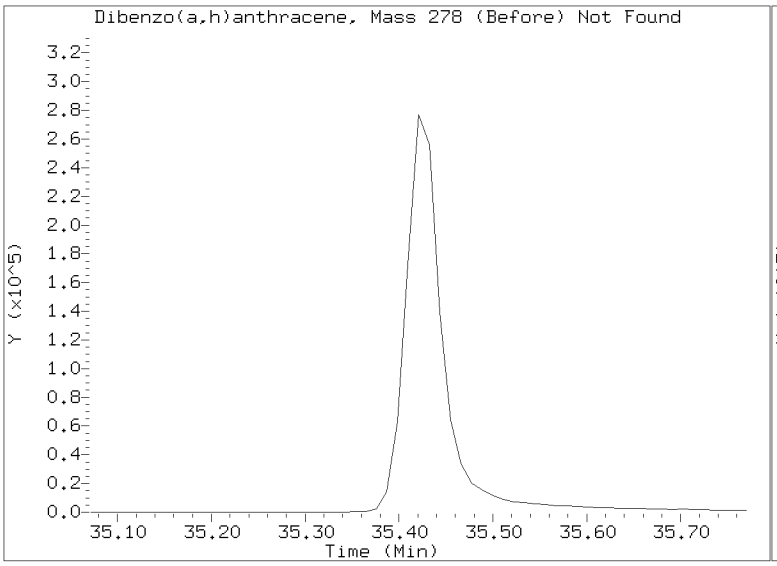


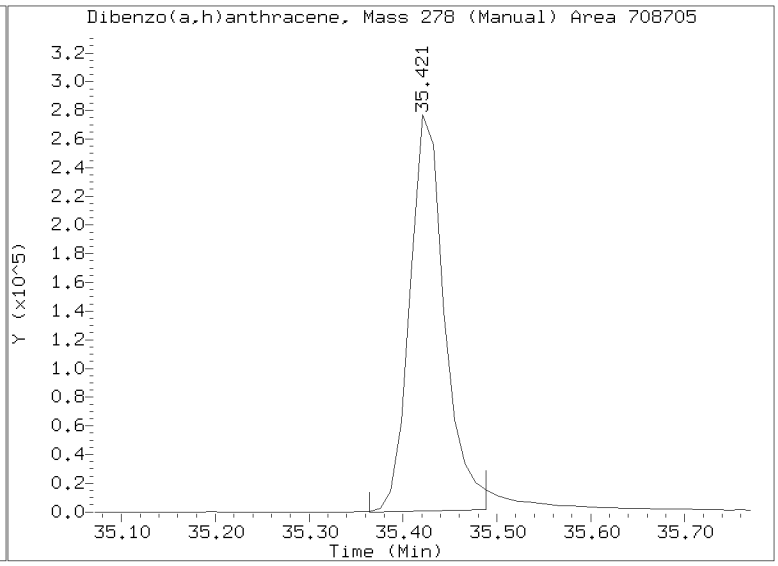


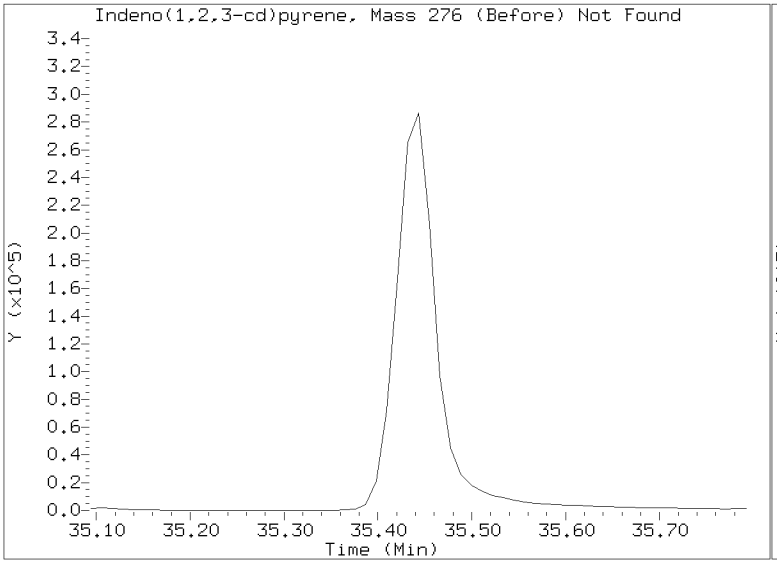


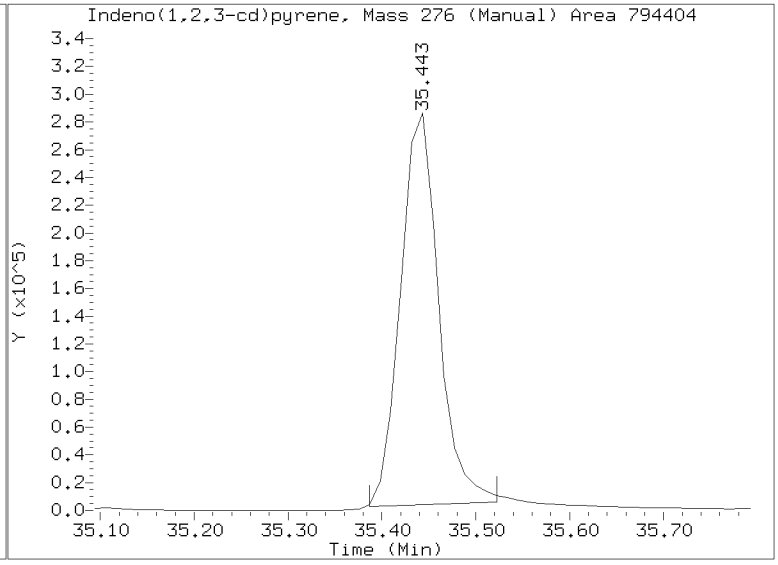
Quant Ion Manual Peak Adjustment Report

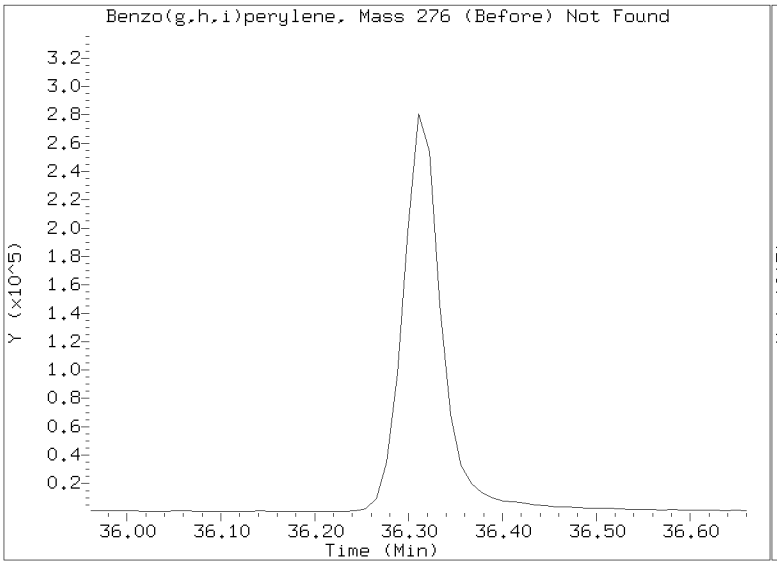
Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010702.D
Injection Date: 07-JAN-2021 11:56
Lab ID:SJA0059-CAL4 Client ID:
Report Date: 01/14/2021 09:57

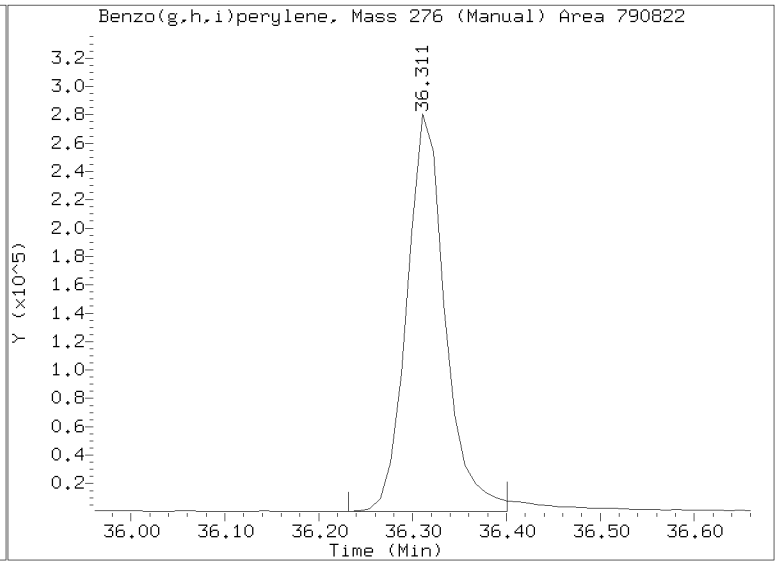












Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210107.b

Instrument: nt14.i Date: 07-JAN-2021 Method: 20210107.b\ALKYLPNA.m

INITIAL CAL: 26-DEC-2020

Compound	%RSD or R^2
Carbazole	33.6
Benzo(a)anthracene	33.7
Benzo(b)fluoranthene	41.0
Benzo(k)fluoranthene	32.7
Benzo(a)pyrene	27.6
Indeno(1,2,3-cd)pyrene	40.2
Dibenzo(a,h)anthracene	44.4
Benzo(g,h,i)perylene	24.2
cis-Decalin	29.9
Naphthobenzothiophene	22.5
Total Benzofluoranthenes	22.9
Phenanthrene-d10	184.5
Perylene-d12	25.2

ICV CAL: NT1421010702.D 07-JAN-2021 11:56

Compound	%D
Naphthalene	-23.6
2-Methylnaphthalene	-23.4
Acenaphthylene	23.2
Carbazole	47.9
Benzo(a)anthracene	32.4
Benzo(b)fluoranthene	54.2
Indeno(1,2,3-cd)pyrene	ND
Dibenzo(a,h)anthracene	ND
Benzo(g,h,i)perylene	ND
1-methylnaphthalene	-25.2
Benzo(b)thiophene	-25.8
Total Benzofluoranthenes	-56.9
Naphthalene-d8	-28.9
Phenanthrene-d10	-76.5

Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010703.D

Date : 07-JAN-2021 12:44

Client ID:

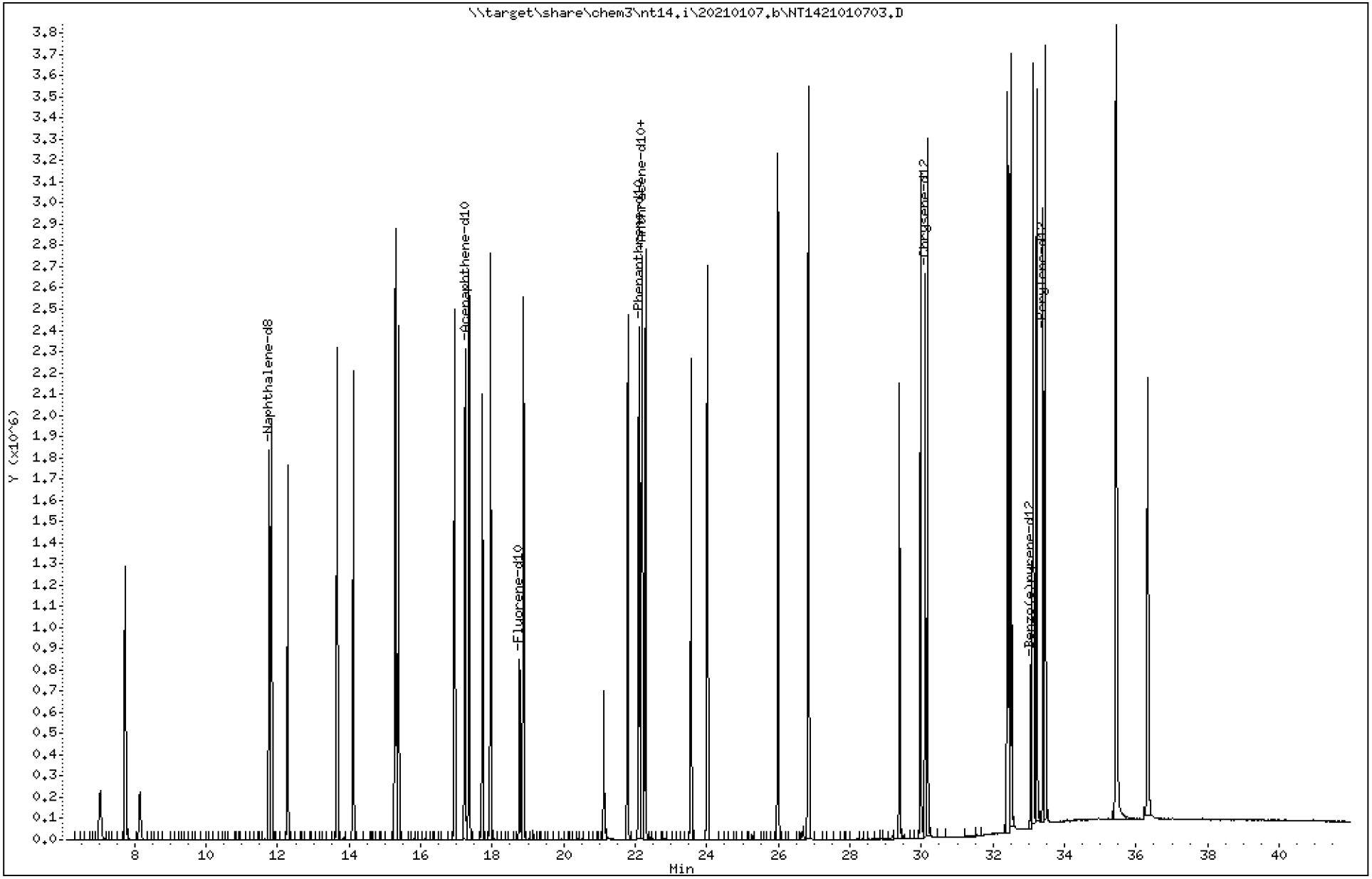
Instrument: nt14.i

Sample Info: SJA0059-CAL6

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\20210107.b\NT1421010703.D
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Inj Date : 07-JAN-2021 12:44
Operator : VTS Inst ID: nt14.i
Smp Info : SJA0059-CAL6
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Meth Date : 14-Jan-2021 09:57 yev Quant Type: ISTD
Cal Date : 07-JAN-2021 12:44 Cal File: NT1421010703.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)	AMOUNTS ON-COL (ug/mL)
1 trans-Decalin	138	7.035	7.035	(0.375)	352692	10.0000	9.773
2 cis-Decalin	138	8.145	8.145	(0.434)	245611	10.0000	9.450
$ 6 Naphthalene-d8	136	11.766	11.766	(0.627)	2535128	10.0000	8.804
7 Naphthalene	128	11.832	11.832	(0.631)	2538287	10.0000	8.805
12 Benzo(b)thiophene	134	12.283	12.283	(0.655)	2185980	10.0000	9.169
16 2-Methylnaphthalene	141	13.667	13.667	(0.728)	1457387	10.0000	8.844
17 1-methylnaphthalene	141	14.118	14.118	(0.752)	1407226	10.0000	8.812
18 Biphenyl	154	15.305	15.305	(0.816)	2111550	10.0000	8.713
19 2,6-Dimethylnaphthalene	156	15.382	15.382	(0.820)	1586996	10.0000	8.949
20 Acenaphthylene	152	16.953	16.953	(0.904)	2949103	10.0000	9.784
$ 21 Acenaphthene-d10	164	17.239	17.239	(0.919)	1404957	10.0000	9.238
22 Acenaphthene	153	17.349	17.349	(0.925)	1805952	10.0000	9.319
23 Dibenzofuran	168	17.734	17.734	(0.945)	2582768	10.0000	9.313
24 1,6,7-Trimethylnaphthalene	170	17.953	17.953	(0.957)	1676535	10.0000	9.414
* 25 Fluorene-d10	176	18.763	18.763	(1.000)	622387	2.00000	
26 Fluorene	166	18.877	18.877	(1.006)	1967431	10.0000	9.361
30 Dibenzothiophene	184	21.791	21.791	(1.161)	2370604	10.0000	8.244
$ 35 Phenanthrene-d10	188	22.099	22.099	(0.995)	2545909	10.0000	9.175
36 Phenanthrene	178	22.187	22.187	(0.999)	2835028	10.0000	9.384
* 250 Anthracene-d10	188	22.220	22.220	(1.000)	606119	2.00000	
37 Anthracene	178	22.286	22.286	(1.003)	2852768	10.0000	10.21
42 Carbazole	167	23.561	23.561	(1.060)	2610678	10.0000	11.18
43 1-Methylphenanthrene	192	24.023	24.023	(1.081)	2125999	10.0000	9.906
44 Fluoranthene	202	25.991	25.991	(1.170)	3468266	10.0000	10.51
46 Pyrene	202	26.838	26.838	(1.208)	3660318	10.0000	10.57
51 Naphthobenzothiophene	234	29.381	29.381	(1.322)	2631215	10.0000	10.61
55 Benzo(a)anthracene	228	29.980	29.980	(0.907)	3175274	10.0000	10.34
$ 56 Chrysene-d12	240	30.104	30.104	(0.911)	2250820	10.0000	9.498
57 Chrysene	228	30.172	30.172	(0.913)	2975362	10.0000	9.696
62 Benzo(b)fluoranthene	252	32.402	32.402	(0.980)	3336809	10.0000	11.06(M)
63 Benzo(k)fluoranthene	252	32.447	32.447	(0.982)	3234821	10.0000	10.27
293 Benzo(j)fluoranthene	252	32.514	32.514	(0.984)	3023044	10.0000	9.946
246 Total Benzofluoranthenes	252	32.514	32.514	(0.984)	9761508	30.0000	32.41(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	33.055	33.055	(1.000)	752586	2.00000	
64 Benzo(e)pyrene	252	33.123	33.123	(1.002)	3070479	10.0000	10.49
66 Benzo(a)pyrene	252	33.224	33.224	(1.005)	2996686	10.0000	10.88
$ 67 Perylene-d12	264	33.404	33.404	(1.011)	2699682	10.0000	10.62
68 Perylene	252	33.461	33.461	(1.012)	3021686	10.0000	10.81
69 Indeno(1,2,3-cd)pyrene	276	35.454	35.454	(1.073)	3440553	10.0000	11.44(M)
70 Dibenzo(a,h)anthracene	278	35.443	35.443	(1.072)	3050283	10.0000	9.996(M)
74 Benzo(g,h,i)perylene	276	36.333	36.333	(1.099)	3215331	10.0000	10.62(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: NT1421010703.D
Lab Smp Id: SJA0059-CAL6
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Misc Info:

Calibration Date: 07-JAN-2021
Calibration Time: 11:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	642877	321439	1285754	622387	-3.19
250 Anthracene-d10	641722	320861	1283444	606119	-5.55
251 Benzo(e)pyrene-d1	741138	370569	1482276	752586	1.54

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.76	18.26	19.26	18.76	-0.00
250 Anthracene-d10	22.21	21.71	22.71	22.22	0.05
251 Benzo(e)pyrene-d1	33.06	32.56	33.56	33.06	-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 - NT1421010703.D

Lab ID: SJA0059-CAL6
nt14.i, 20210107.b\ALKYLPNA.m, 07-JAN-2021 12:44

RT	CO-ELUTION COMPOUNDS
	NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

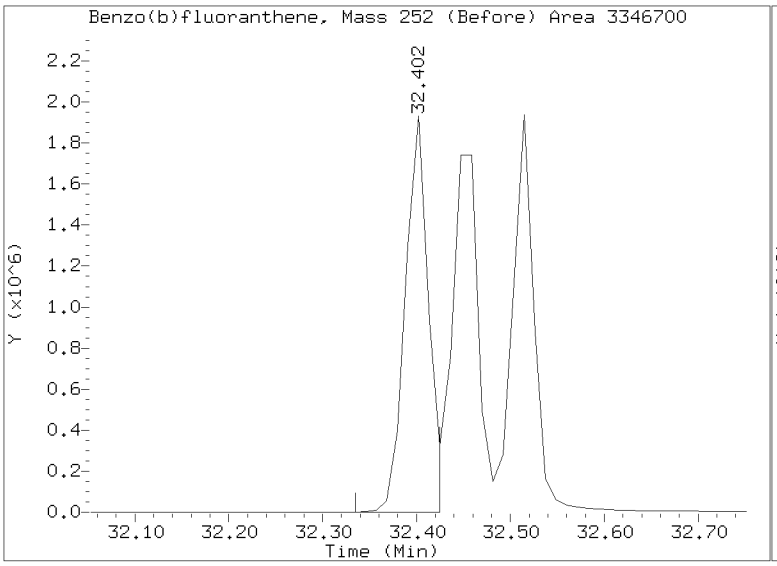
RRT check based on Ccal File: NT1421010703.D

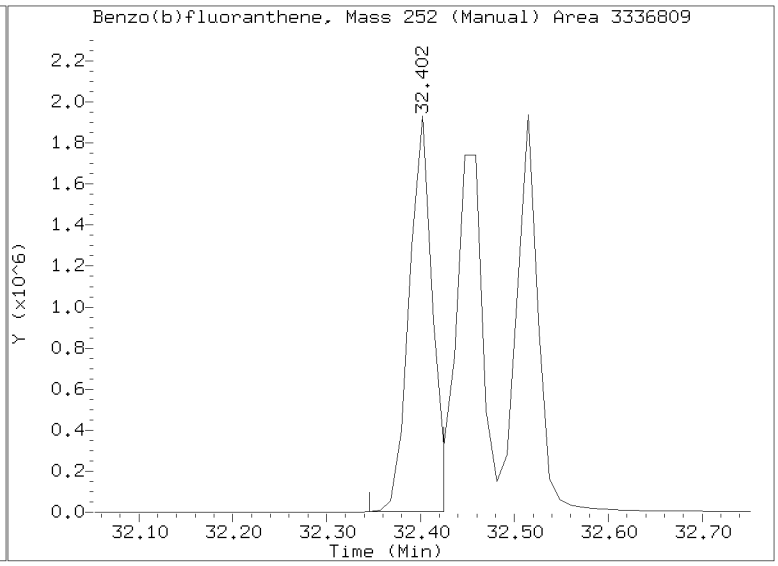
On Column LOD for nt14.i, 20210107.b\ALKYLPNA.m, TARGETS.sub = 0.0000

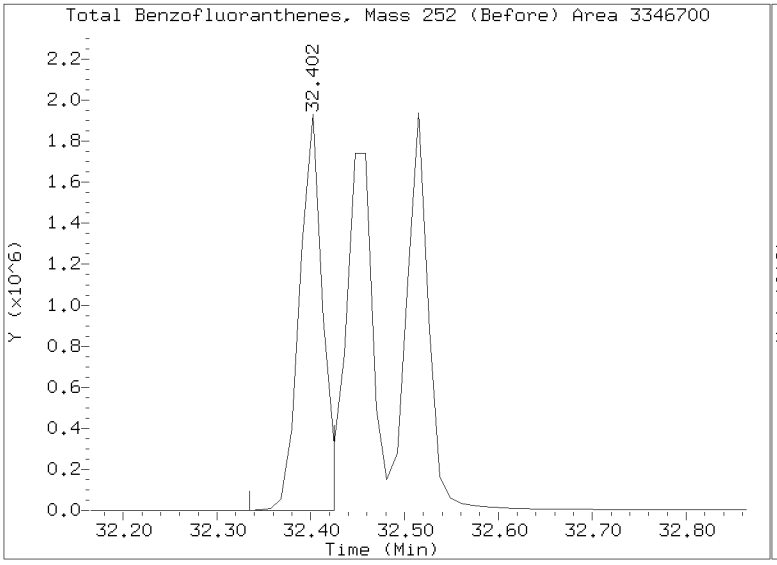
* Only compounds listed in the work order have been verified by the analyst *

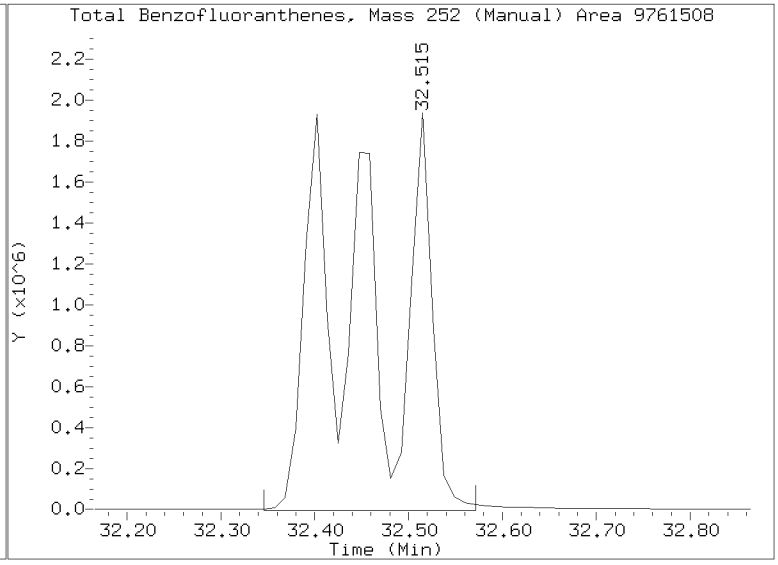
Quant Ion Manual Peak Adjustment Report

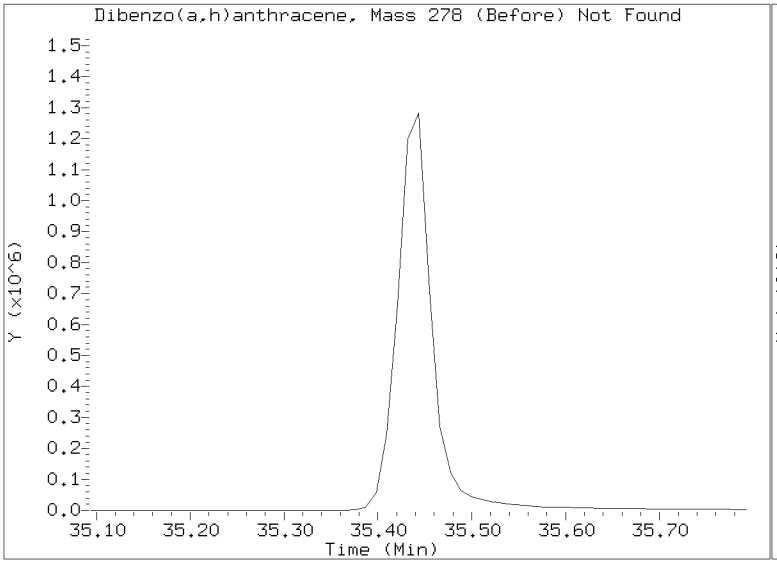
Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010703.D
Injection Date: 07-JAN-2021 12:44
Lab ID:SJA0059-CAL6 Client ID:
Report Date: 01/14/2021 09:57

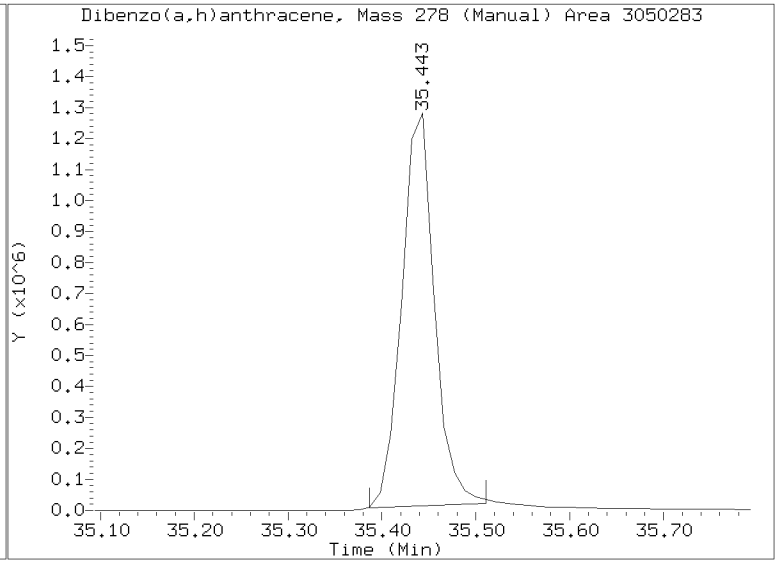






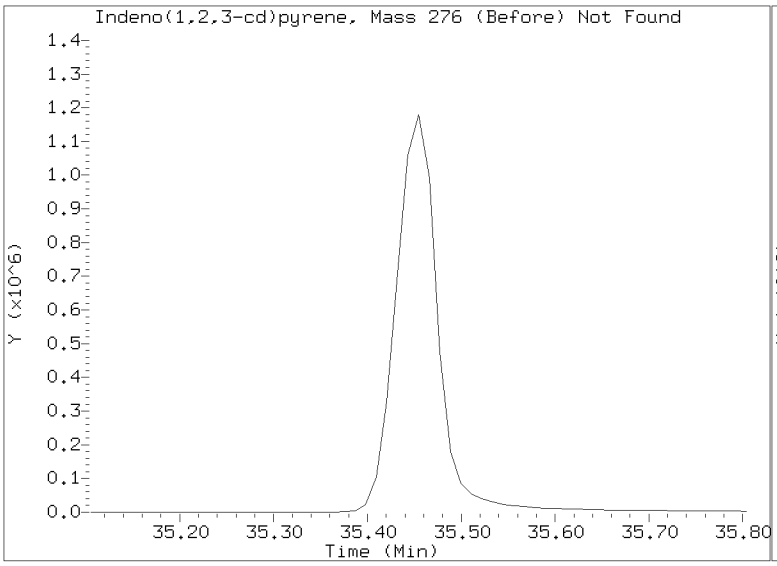


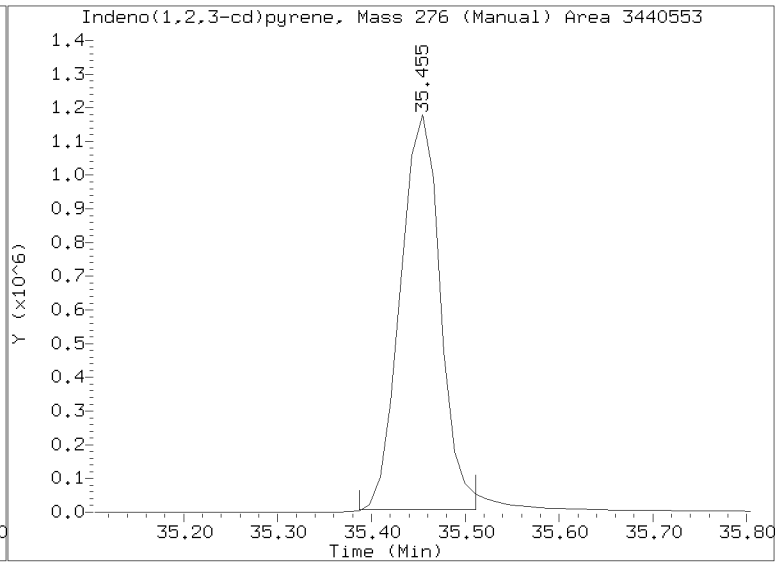


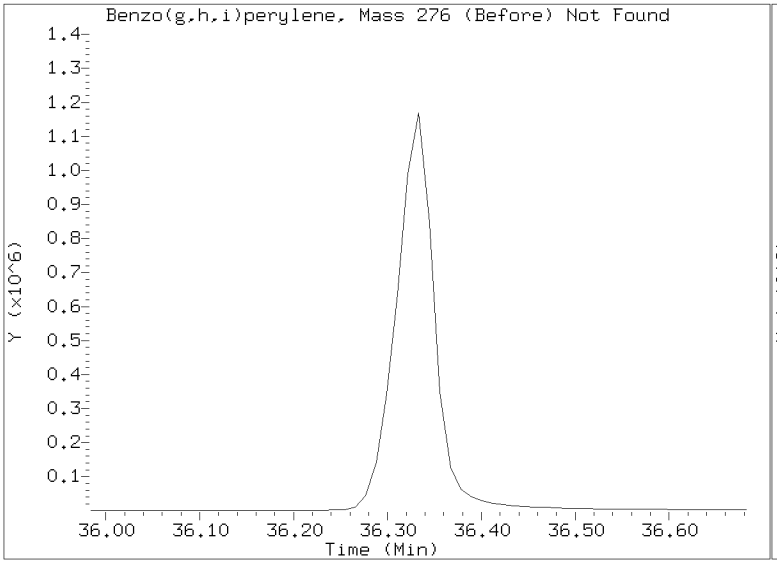


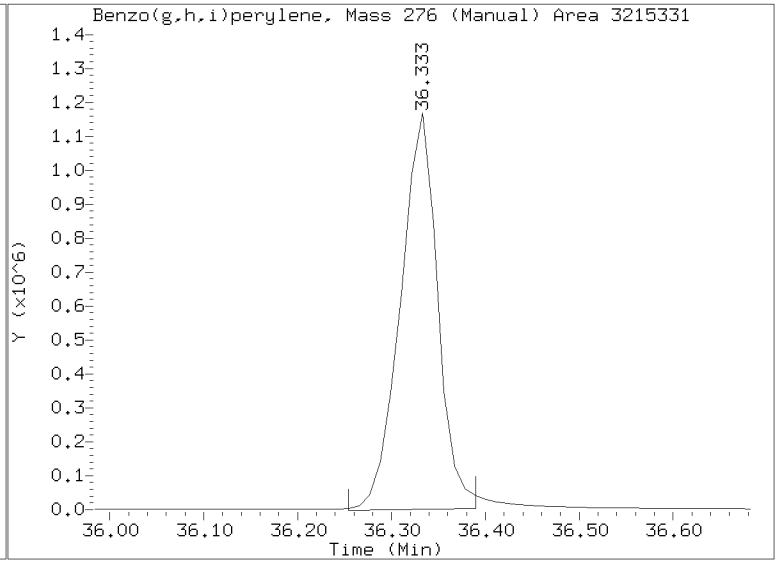
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010703.D
Injection Date: 07-JAN-2021 12:44
Lab ID:SJA0059-CAL6 Client ID:
Report Date: 01/14/2021 09:57









Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010704.D

Date : 07-JAN-2021 13:32

Client ID:

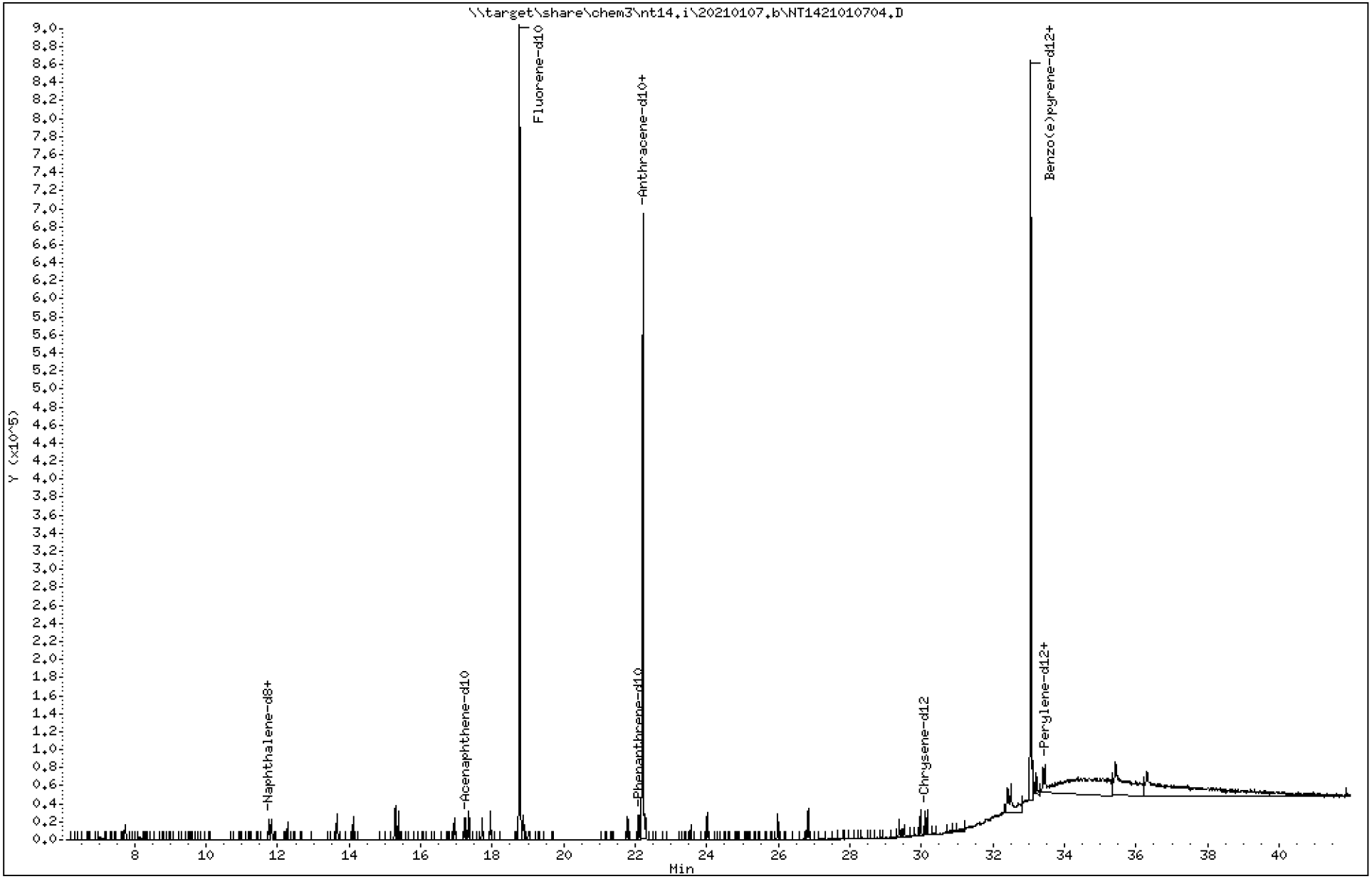
Instrument: nt14.i

Sample Info: SJA0059-CAL1

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\20210107.b\NT1421010704.D
Lab Smp Id: SJA0059-CAL1
Inj Date : 07-JAN-2021 13:32
Operator : VTS Inst ID: nt14.i
Smp Info : SJA0059-CAL1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Meth Date : 14-Jan-2021 09:57 yev Quant Type: ISTD
Cal Date : 07-JAN-2021 13:32 Cal File: NT1421010704.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

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
1 trans-Decalin	138	7.045	7.045	(0.375)	3713	0.10000	0.1028
2 cis-Decalin	138	8.155	8.155	(0.435)	2689	0.10000	0.1034
$ 6 Naphthalene-d8	136	11.766	11.766	(0.627)	31832	0.10000	0.1105
7 Naphthalene	128	11.832	11.832	(0.631)	31343	0.10000	0.1086
12 Benzo(b)thiophene	134	12.283	12.283	(0.655)	25696	0.10000	0.1077
16 2-Methylnaphthalene	141	13.667	13.667	(0.728)	17808	0.10000	0.1080
17 1-methylnaphthalene	141	14.118	14.118	(0.752)	17643	0.10000	0.1104
18 Biphenyl	154	15.305	15.305	(0.816)	27310	0.10000	0.1126
19 2,6-Dimethylnaphthalene	156	15.382	15.382	(0.820)	19257	0.10000	0.1085
20 Acenaphthylene	152	16.942	16.942	(0.903)	30137	0.10000	0.09991
$ 21 Acenaphthene-d10	164	17.239	17.239	(0.919)	16108	0.10000	0.1058
22 Acenaphthene	153	17.349	17.349	(0.925)	20186	0.10000	0.1041
23 Dibenzofuran	168	17.722	17.722	(0.945)	29071	0.10000	0.1047
24 1,6,7-Trimethylnaphthalene	170	17.953	17.953	(0.957)	18377	0.10000	0.1031
* 25 Fluorene-d10	176	18.763	18.763	(1.000)	622855	2.00000	
26 Fluorene	166	18.865	18.865	(1.005)	21634	0.10000	0.1029
30 Dibenzothiophene	184	21.779	21.779	(1.161)	31201	0.10000	0.1084
$ 35 Phenanthrene-d10	188	22.099	22.099	(0.995)	33264	0.10000	0.1144(M)
36 Phenanthrene	178	22.176	22.176	(0.999)	32838	0.10000	0.1038
* 250 Anthracene-d10	188	22.209	22.209	(1.000)	634917	2.00000	
37 Anthracene	178	22.275	22.275	(1.003)	28541	0.10000	0.09752
42 Carbazole	167	23.561	23.561	(1.061)	21805	0.10000	0.08913
43 1-Methylphenanthrene	192	24.012	24.012	(1.081)	21861	0.10000	0.09724
44 Fluoranthene	202	25.991	25.991	(1.170)	32788	0.10000	0.09481
46 Pyrene	202	26.838	26.838	(1.208)	34703	0.10000	0.09563
51 Naphthobenzothiophene	234	29.381	29.381	(1.323)	24551	0.10000	0.09448
55 Benzo(a)anthracene	228	29.969	29.969	(0.907)	30029	0.10000	0.09919
$ 56 Chrysene-d12	240	30.093	30.093	(0.910)	25563	0.10000	0.1094
57 Chrysene	228	30.172	30.172	(0.913)	30224	0.10000	0.09993
62 Benzo(b)fluoranthene	252	32.390	32.390	(0.980)	26341	0.10000	0.08859(M)
63 Benzo(k)fluoranthene	252	32.435	32.435	(0.981)	31048	0.10000	0.1000(M)
293 Benzo(j)fluoranthene	252	32.503	32.503	(0.983)	29256	0.10000	0.09765(M)
246 Total Benzofluoranthenes	252	32.503	32.503	(0.983)	88073	0.30000	0.2967(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	33.055	33.055	(1.000)	741832	2.00000	
64 Benzo(e)pyrene	252	33.111	33.111	(1.002)	28410	0.10000	0.09846
66 Benzo(a)pyrene	252	33.213	33.213	(1.005)	27516	0.10000	0.1013
$ 67 Perylene-d12	264	33.393	33.393	(1.010)	25137	0.10000	0.1003
68 Perylene	252	33.449	33.449	(1.012)	28544	0.10000	0.1036
69 Indeno(1,2,3-cd)pyrene	276	35.431	35.431	(1.072)	27775	0.10000	0.09371
70 Dibenzo(a,h)anthracene	278	35.420	35.420	(1.072)	22545	0.10000	0.08114(M)
74 Benzo(g,h,i)perylene	276	36.310	36.310	(1.098)	30397	0.10000	0.1019

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421010704.D
Lab Smp Id: SJA0059-CAL1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Misc Info:

Calibration Date: 07-JAN-2021
Calibration Time: 11:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	642877	321439	1285754	622855	-3.11
250 Anthracene-d10	641722	320861	1283444	634917	-1.06
251 Benzo(e)pyrene-d1	741138	370569	1482276	741832	0.09

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.76	18.26	19.26	18.76	-0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	-0.00
251 Benzo(e)pyrene-d1	33.06	32.56	33.56	33.06	-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 - NT1421010704.D

Lab ID: SJA0059-CAL1
nt14.i, 20210107.b\ALKYLPNA.m, 07-JAN-2021 13:32

RT	CO-ELUTION COMPOUNDS
	NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

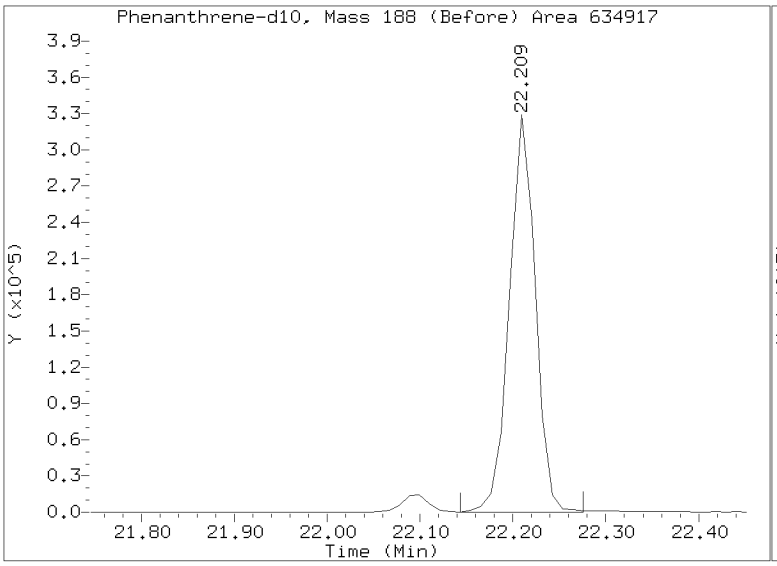
RRT check based on Ccal File: NT1421010704.D

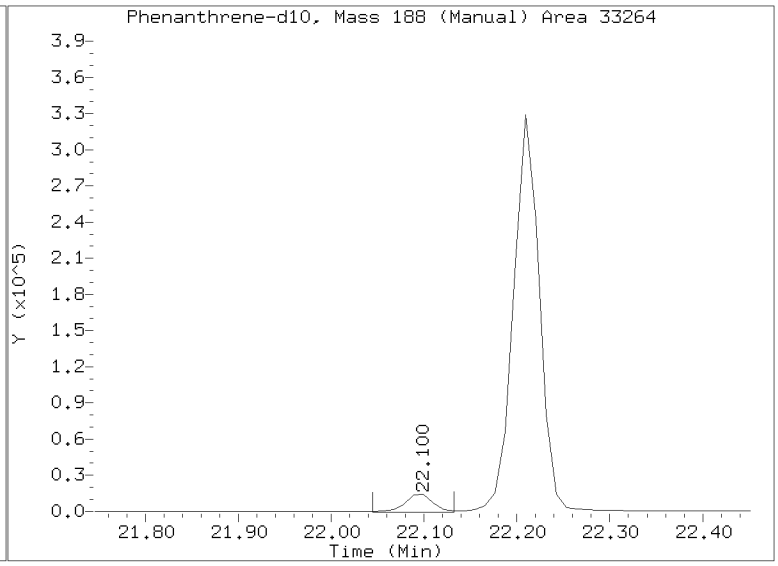
On Column LOD for nt14.i, 20210107.b\ALKYLPNA.m, TARGETS.sub = 0.0000

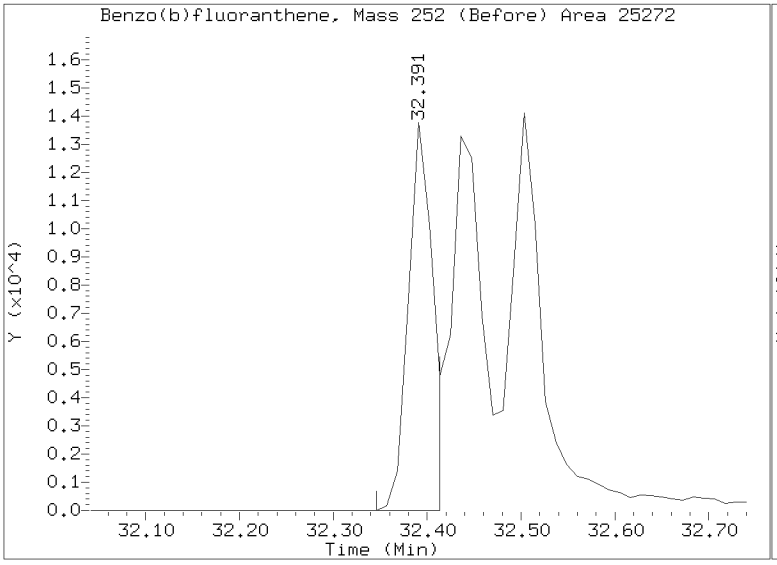
* Only compounds listed in the work order have been verified by the analyst *

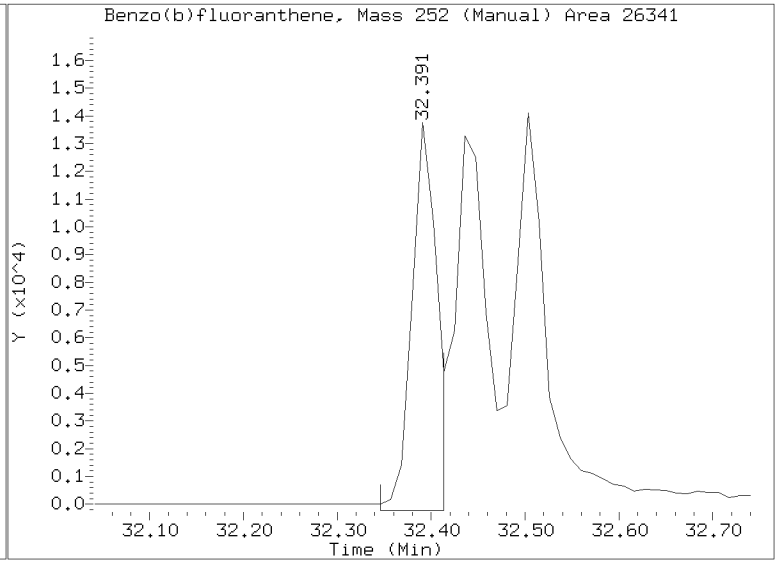
Quant Ion Manual Peak Adjustment Report

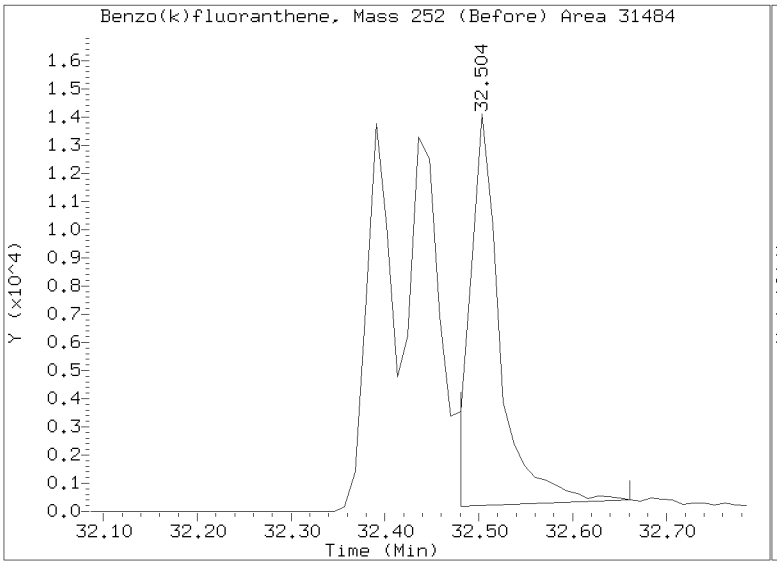
Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010704.D
Injection Date: 07-JAN-2021 13:32
Lab ID:SJA0059-CAL1 Client ID:
Report Date: 01/14/2021 09:57

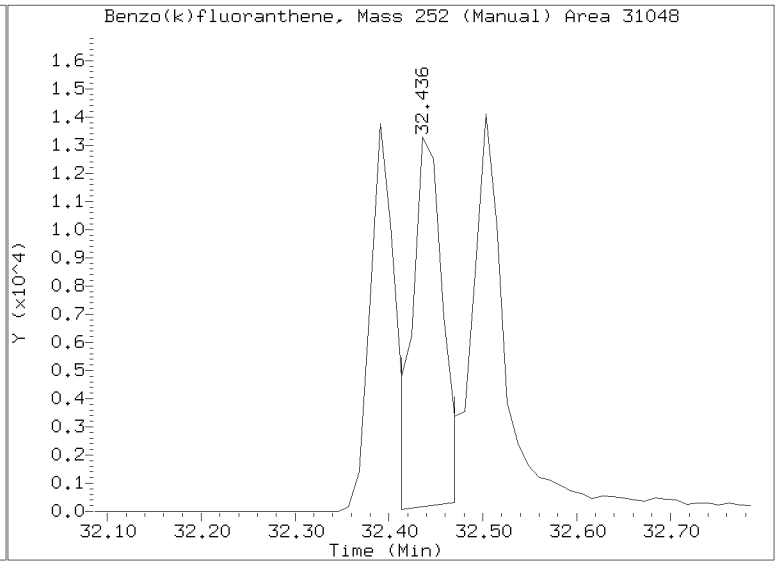






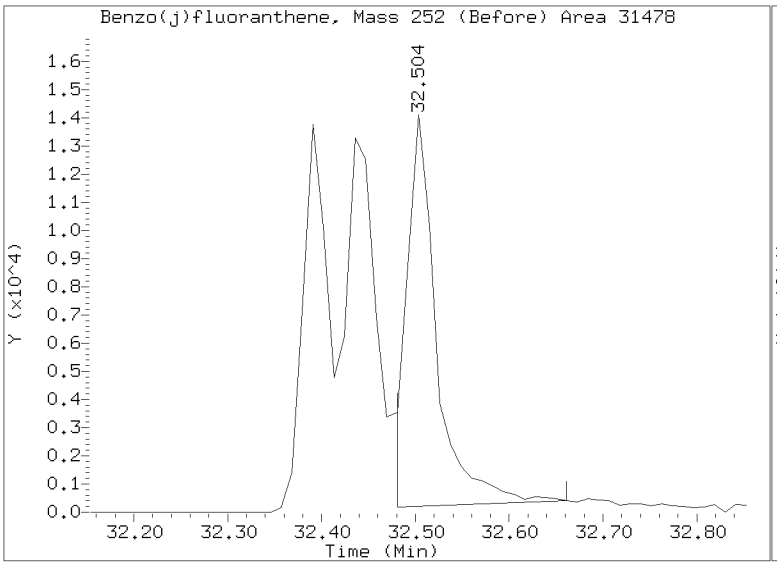


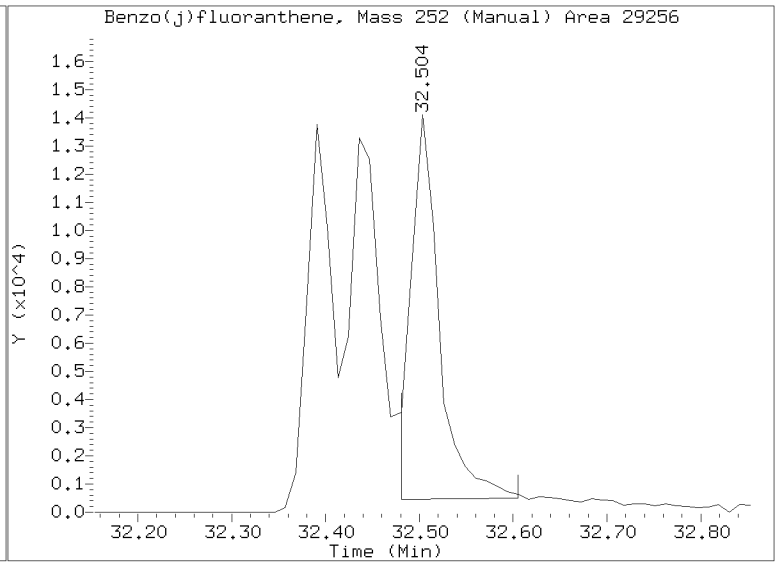


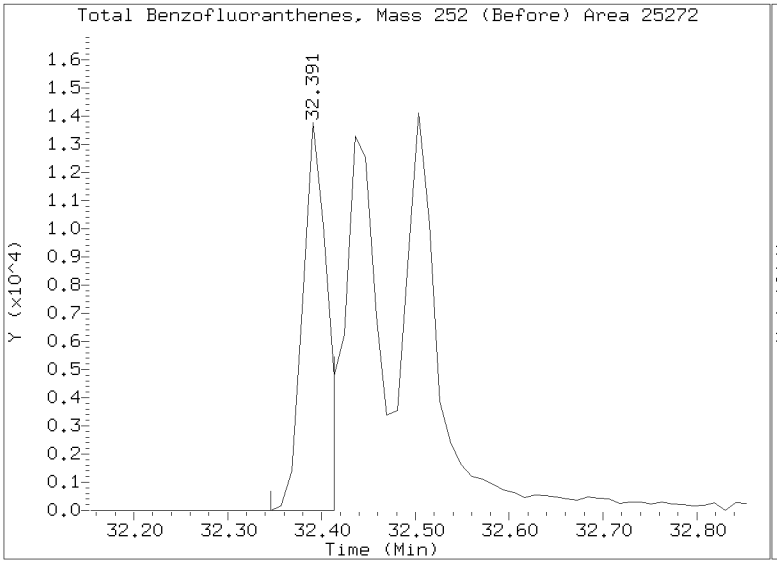


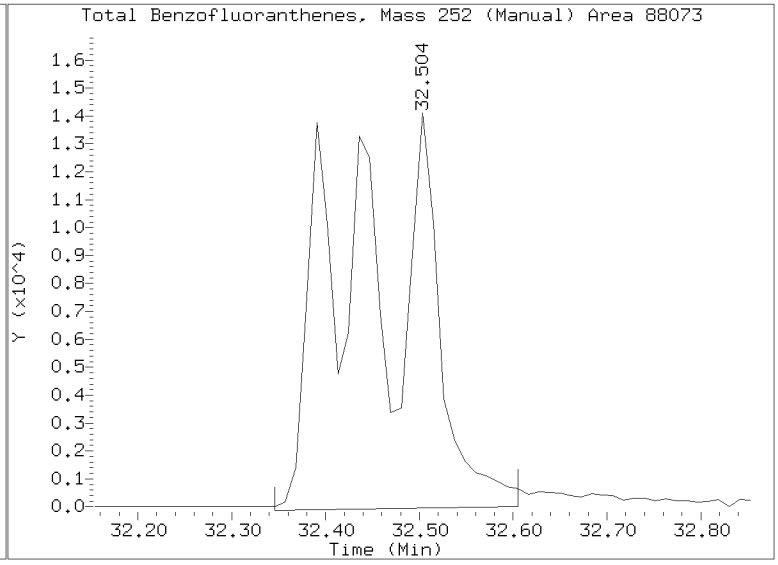
Quant Ion Manual Peak Adjustment Report

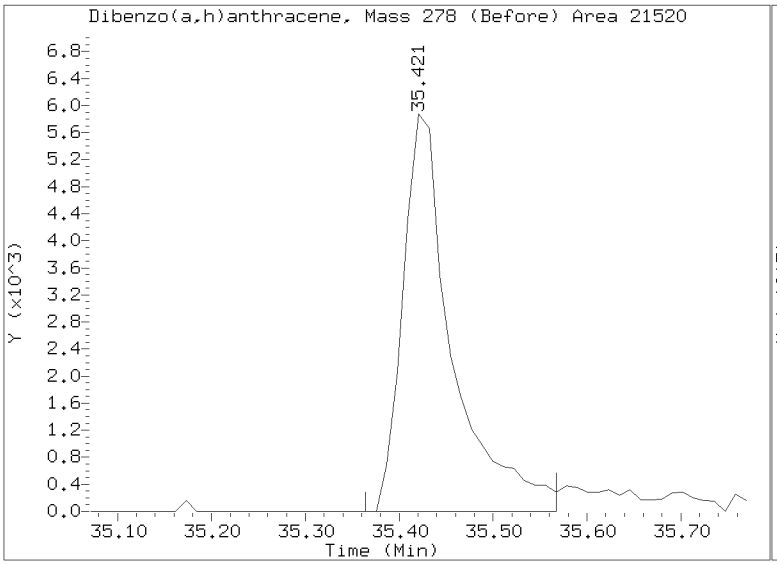
Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010704.D
Injection Date: 07-JAN-2021 13:32
Lab ID:SJA0059-CAL1 Client ID:
Report Date: 01/14/2021 09:57

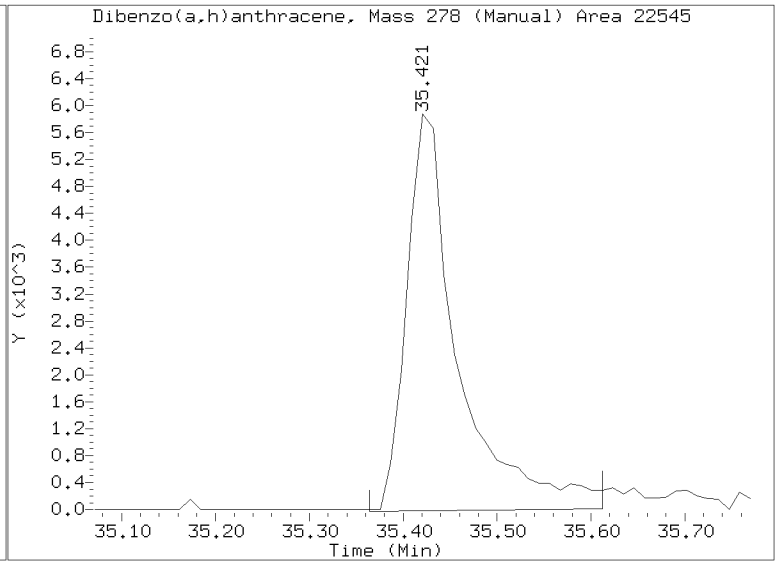












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010705.D

Page 1

Date : 07-JAN-2021 14:20

Client ID:

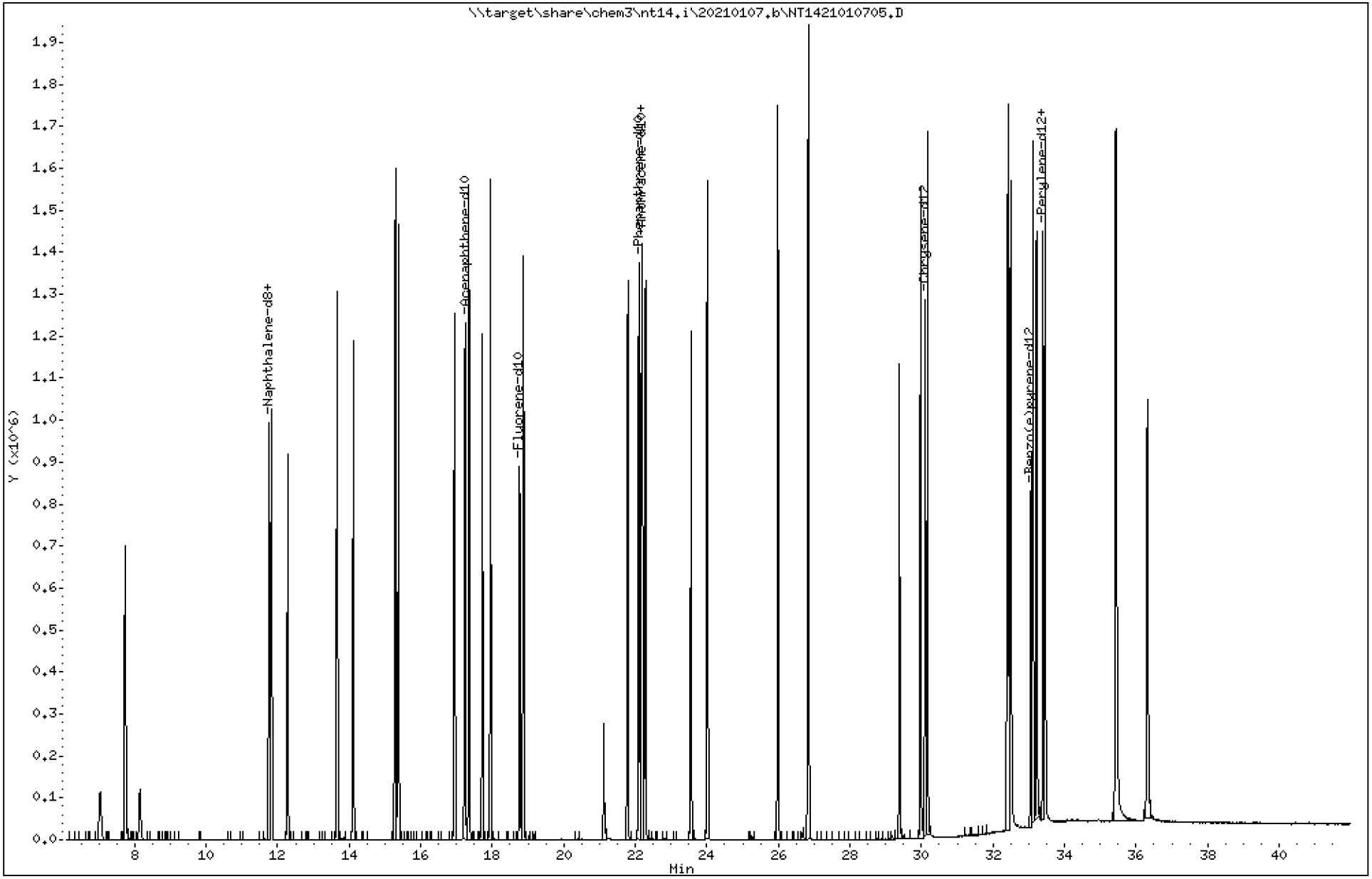
Instrument: nt14.i

Sample Info: SJA0059-CAL5

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\20210107.b\NT1421010705.D
Lab Smp Id: SJA0059-CAL5
Inj Date : 07-JAN-2021 14:20
Operator : VTS Inst ID: nt14.i
Smp Info : SJA0059-CAL5
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Meth Date : 14-Jan-2021 09:57 yev Quant Type: ISTD
Cal Date : 07-JAN-2021 14:20 Cal File: NT1421010705.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)	AMOUNTS ON-COL (ug/mL)
	1 trans-Decalin	138	7.035	7.035	(0.375)	179412	5.00000	4.935
	2 cis-Decalin	138	8.145	8.145	(0.434)	127478	5.00000	4.869
$	6 Naphthalene-d8	136	11.766	11.766	(0.627)	1372220	5.00000	4.731
	7 Naphthalene	128	11.832	11.832	(0.631)	1371404	5.00000	4.723
	12 Benzo(b)thiophene	134	12.283	12.283	(0.655)	1156257	5.00000	4.815
	16 2-Methylnaphthalene	141	13.667	13.667	(0.728)	792238	5.00000	4.772
	17 1-methylnaphthalene	141	14.118	14.118	(0.752)	753549	5.00000	4.684
	18 Biphenyl	154	15.305	15.305	(0.816)	1137934	5.00000	4.661
	19 2,6-Dimethylnaphthalene	156	15.382	15.382	(0.820)	848513	5.00000	4.750
	20 Acenaphthylene	152	16.953	16.953	(0.904)	1534375	5.00000	5.053
$	21 Acenaphthene-d10	164	17.239	17.239	(0.919)	751947	5.00000	4.908
	22 Acenaphthene	153	17.349	17.349	(0.925)	942288	5.00000	4.827
	23 Dibenzofuran	168	17.722	17.722	(0.945)	1374461	5.00000	4.920
	24 1,6,7-Trimethylnaphthalene	170	17.953	17.953	(0.957)	881581	5.00000	4.914
*	25 Fluorene-d10	176	18.763	18.763	(1.000)	626964	2.00000	
	26 Fluorene	166	18.877	18.877	(1.006)	1046136	5.00000	4.941
	30 Dibenzothiophene	184	21.791	21.791	(1.161)	1375904	5.00000	4.750
$	35 Phenanthrene-d10	188	22.099	22.099	(0.995)	1345240	5.00000	4.789(H)
	36 Phenanthrene	178	22.176	22.176	(0.999)	1507850	5.00000	4.930
*	250 Anthracene-d10	188	22.209	22.209	(1.000)	613613	2.00000	
	37 Anthracene	178	22.286	22.286	(1.003)	1470936	5.00000	5.201
	42 Carbazole	167	23.561	23.561	(1.061)	1299361	5.00000	5.496
	43 1-Methylphenanthrene	192	24.012	24.012	(1.081)	1118700	5.00000	5.149
	44 Fluoranthene	202	25.991	25.991	(1.170)	1764998	5.00000	5.281
	46 Pyrene	202	26.838	26.838	(1.208)	1857659	5.00000	5.297
	51 Naphthobenzothiophene	234	29.381	29.381	(1.323)	1330549	5.00000	5.298
	55 Benzo(a)anthracene	228	29.969	29.969	(0.907)	1586900	5.00000	5.172
$	56 Chrysene-d12	240	30.093	30.093	(0.910)	1162477	5.00000	4.910
	57 Chrysene	228	30.172	30.172	(0.913)	1524131	5.00000	4.972
	62 Benzo(b)fluoranthene	252	32.402	32.402	(0.980)	1650787	5.00000	5.478
	63 Benzo(k)fluoranthene	252	32.447	32.447	(0.982)	1596744	5.00000	5.075(H)
	293 Benzo(j)fluoranthene	252	32.503	32.503	(0.983)	1466565	5.00000	4.830(M)
	246 Total Benzofluoranthenes	252	32.447	32.447	(0.982)	4685707	15.0000	15.57(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	33.055	33.055	(1.000)	751844	2.00000	
64 Benzo(e)pyrene	252	33.123	33.123	(1.002)	1501699	5.00000	5.135
66 Benzo(a)pyrene	252	33.224	33.224	(1.005)	1416836	5.00000	5.149
$ 67 Perylene-d12	264	33.393	33.393	(1.010)	1335444	5.00000	5.259
68 Perylene	252	33.449	33.449	(1.012)	1460987	5.00000	5.234
69 Indeno(1,2,3-cd)pyrene	276	35.443	35.443	(1.072)	1661794	5.00000	5.532(M)
70 Dibenzo(a,h)anthracene	278	35.431	35.431	(1.072)	1465820	5.00000	5.016(M)
74 Benzo(g,h,i)perylene	276	36.321	36.321	(1.099)	1569898	5.00000	5.190(M)

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: NT1421010705.D
Lab Smp Id: SJA0059-CAL5
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Misc Info:

Calibration Date: 07-JAN-2021
Calibration Time: 11:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	642877	321439	1285754	626964	-2.48
250 Anthracene-d10	641722	320861	1283444	613613	-4.38
251 Benzo(e)pyrene-d1	741138	370569	1482276	751844	1.44

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.76	18.26	19.26	18.76	-0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	-0.00
251 Benzo(e)pyrene-d1	33.06	32.56	33.56	33.06	-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 - NT1421010705.D

Lab ID: SJA0059-CAL5
nt14.i, 20210107.b\ALKYLPNA.m, 07-JAN-2021 14:20

RT	CO-ELUTION COMPOUNDS
	NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

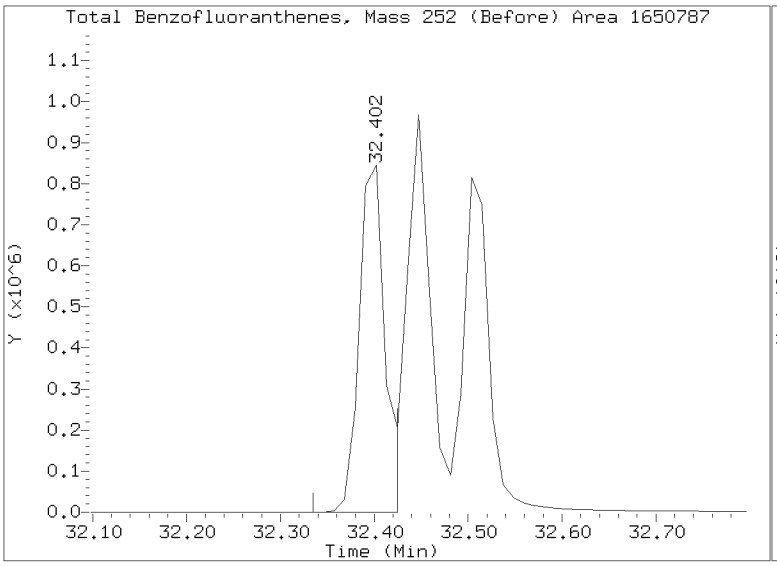
RRT check based on Ccal File: NT1421010705.D

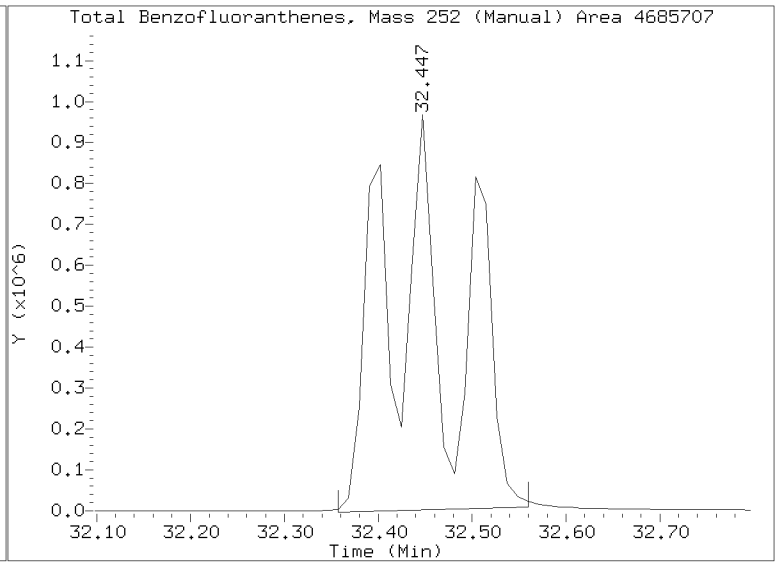
On Column LOD for nt14.i, 20210107.b\ALKYLPNA.m, TARGETS.sub = 0.0000

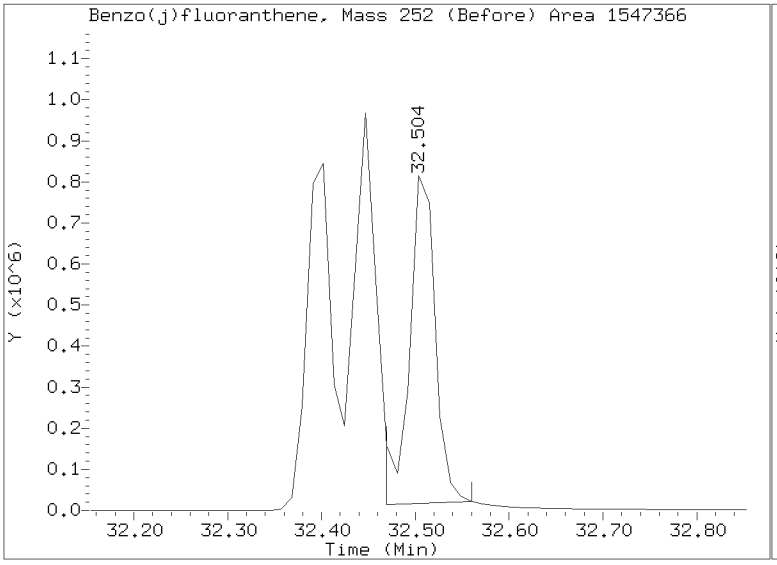
* Only compounds listed in the work order have been verified by the analyst *

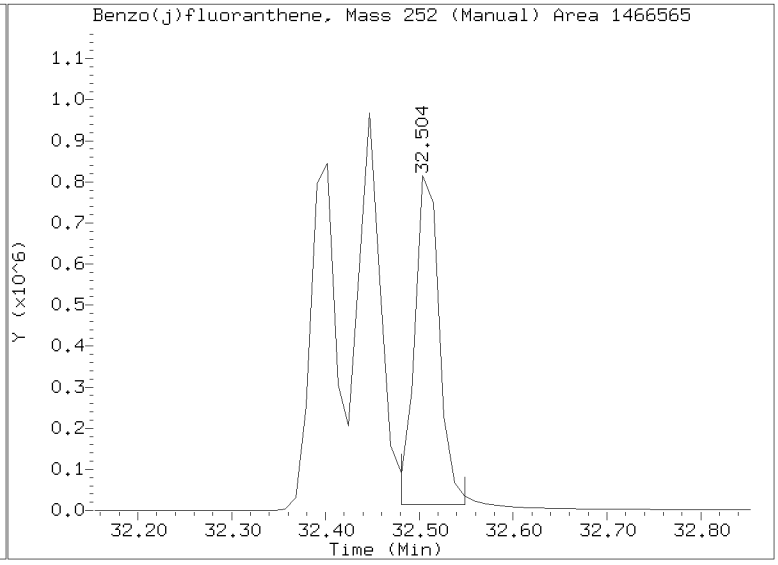
Quant Ion Manual Peak Adjustment Report

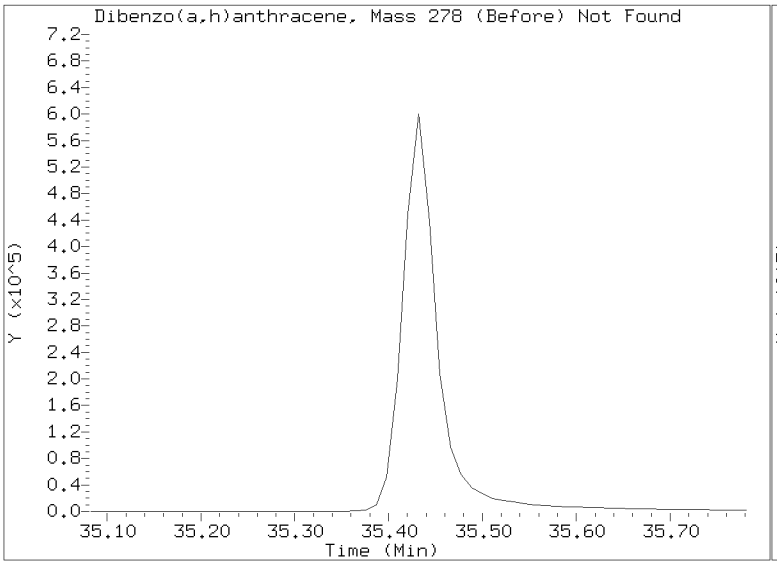
Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010705.D
Injection Date: 07-JAN-2021 14:20
Lab ID:SJA0059-CAL5 Client ID:
Report Date: 01/14/2021 09:57

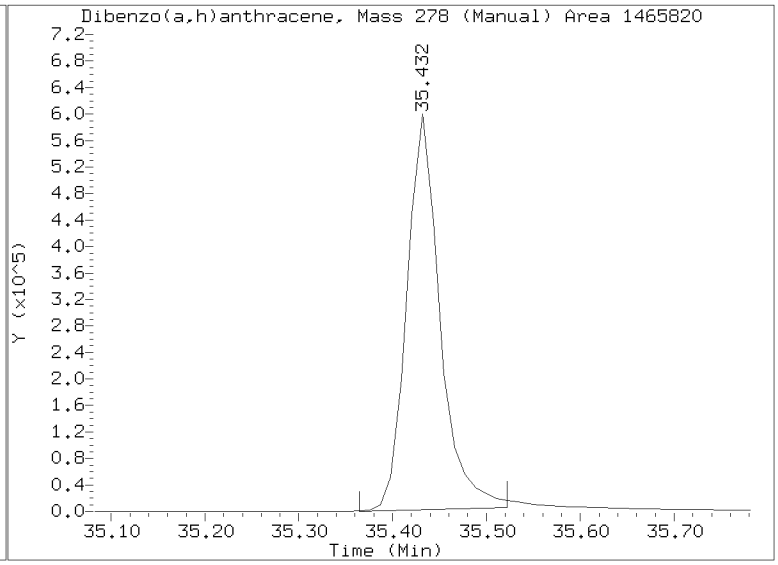






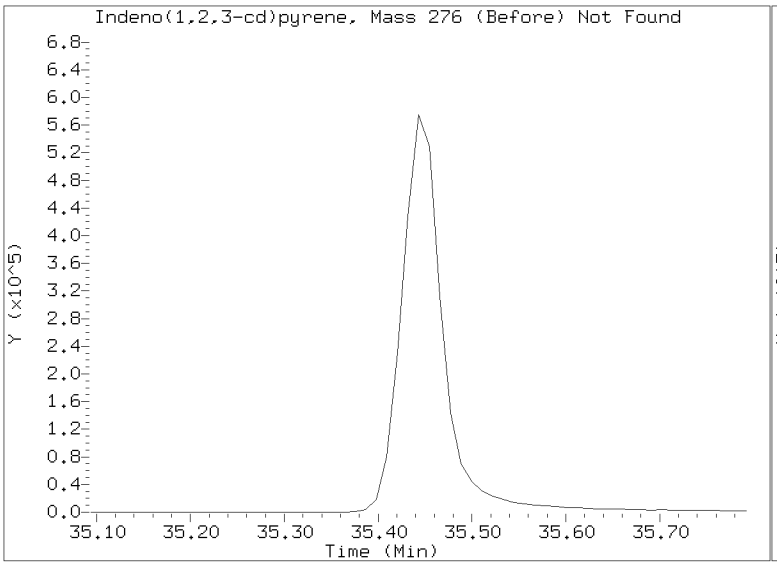


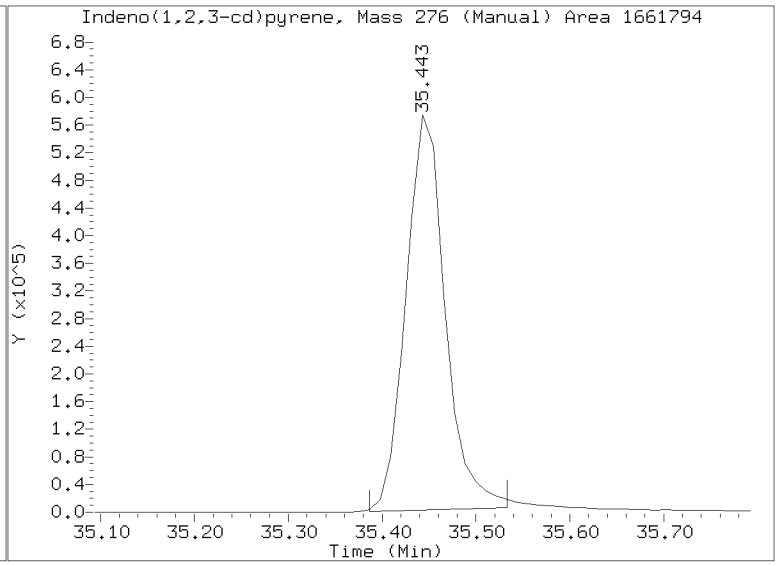


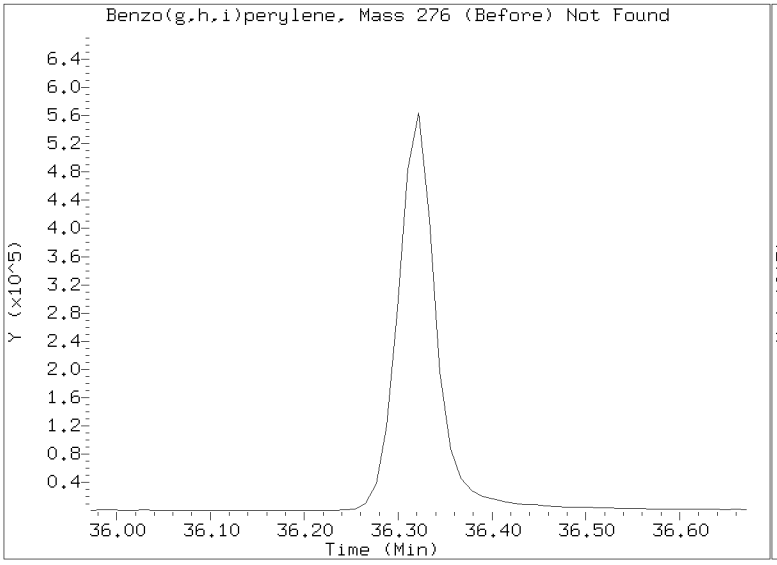


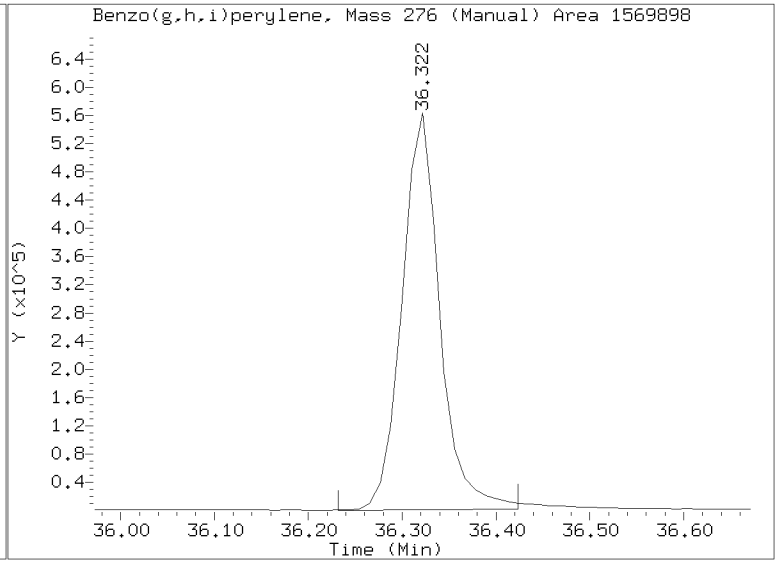
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010705.D
Injection Date: 07-JAN-2021 14:20
Lab ID:SJA0059-CAL5 Client ID:
Report Date: 01/14/2021 09:57









Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010706.D

Date : 07-JAN-2021 15:08

Client ID:

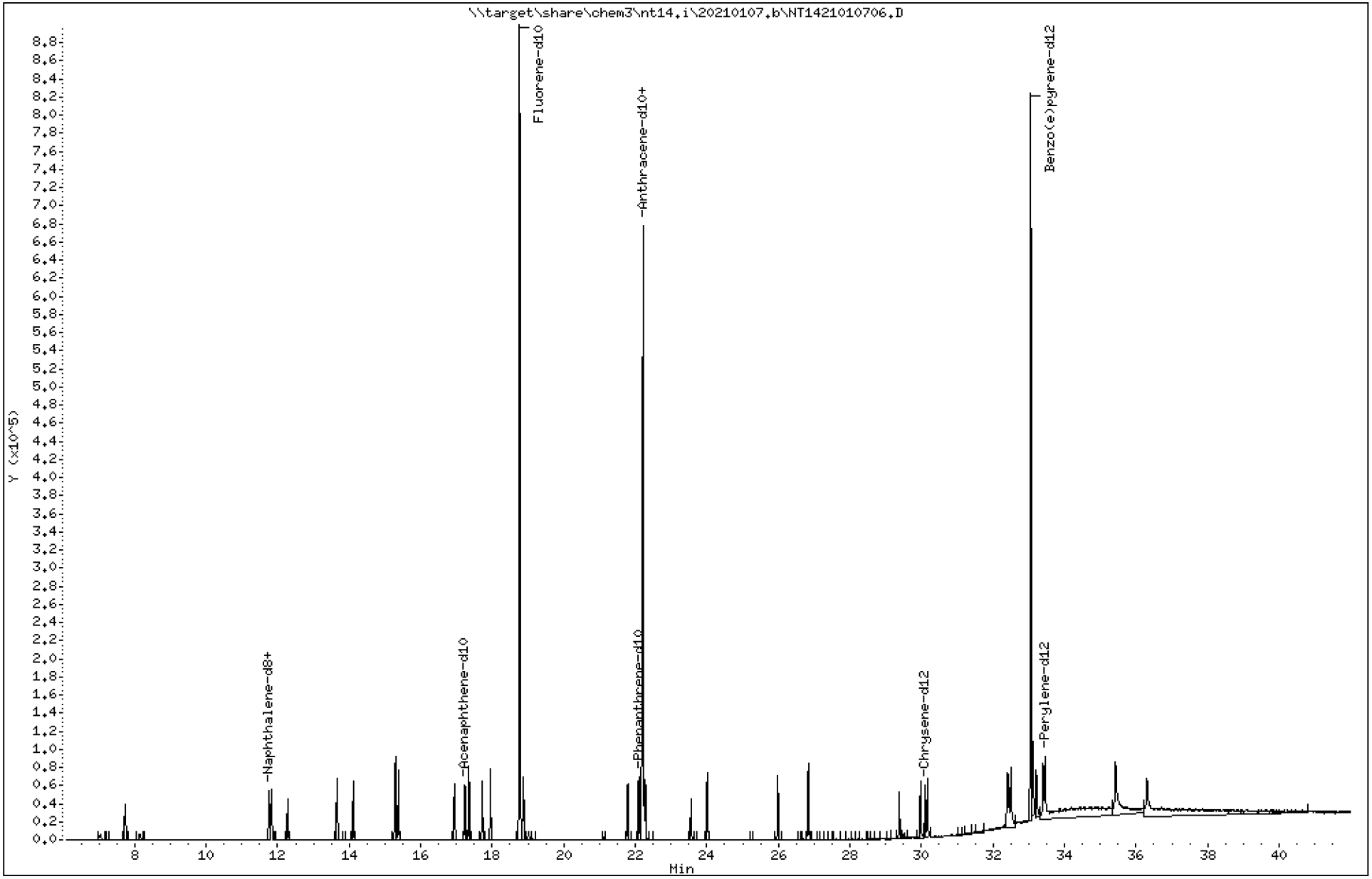
Instrument: nt14.i

Sample Info: SJA0059-CAL2

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\20210107.b\NT1421010706.D
Lab Smp Id: SJA0059-CAL2
Inj Date : 07-JAN-2021 15:08
Operator : VTS Inst ID: nt14.i
Smp Info : SJA0059-CAL2
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Meth Date : 14-Jan-2021 09:57 yev Quant Type: ISTD
Cal Date : 07-JAN-2021 15:08 Cal File: NT1421010706.D
Als bottle: 6 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)	AMOUNTS ON-COL (ug/mL)
1 trans-Decalin	138	7.035	7.035	(0.375)	9043	0.25000	0.2508
2 cis-Decalin	138	8.145	8.145	(0.434)	6618	0.25000	0.2548
$ 6 Naphthalene-d8	136	11.766	11.766	(0.627)	74866	0.25000	0.2602
7 Naphthalene	128	11.832	11.832	(0.631)	75003	0.25000	0.2604
12 Benzo(b)thiophene	134	12.283	12.283	(0.655)	60181	0.25000	0.2526
16 2-Methylnaphthalene	141	13.667	13.667	(0.728)	42443	0.25000	0.2578
17 1-methylnaphthalene	141	14.118	14.118	(0.752)	41825	0.25000	0.2621
18 Biphenyl	154	15.305	15.305	(0.816)	63725	0.25000	0.2632
19 2,6-Dimethylnaphthalene	156	15.382	15.382	(0.820)	45488	0.25000	0.2567
20 Acenaphthylene	152	16.942	16.942	(0.903)	73820	0.25000	0.2451
$ 21 Acenaphthene-d10	164	17.228	17.228	(0.918)	38952	0.25000	0.2563
22 Acenaphthene	153	17.349	17.349	(0.925)	49468	0.25000	0.2555
23 Dibenzofuran	168	17.723	17.723	(0.945)	70627	0.25000	0.2549
24 1,6,7-Trimethylnaphthalene	170	17.953	17.953	(0.957)	44599	0.25000	0.2506
* 25 Fluorene-d10	176	18.763	18.763	(1.000)	621854	2.00000	
26 Fluorene	166	18.865	18.865	(1.005)	52433	0.25000	0.2497
30 Dibenzothiophene	184	21.791	21.791	(1.161)	75467	0.25000	0.2627
$ 35 Phenanthrene-d10	188	22.099	22.099	(0.995)	71276	0.25000	0.2500(H)
36 Phenanthrene	178	22.176	22.176	(0.999)	78527	0.25000	0.2530
* 250 Anthracene-d10	188	22.209	22.209	(1.000)	622610	2.00000	
37 Anthracene	178	22.275	22.275	(1.003)	67669	0.25000	0.2358
42 Carbazole	167	23.561	23.561	(1.061)	52638	0.25000	0.2194
43 1-Methylphenanthrene	192	24.012	24.012	(1.081)	52299	0.25000	0.2372
44 Fluoranthene	202	25.991	25.991	(1.170)	78161	0.25000	0.2305
46 Pyrene	202	26.838	26.838	(1.208)	81616	0.25000	0.2293
51 Naphthobenzothiophene	234	29.381	29.381	(1.323)	60587	0.25000	0.2378
55 Benzo(a)anthracene	228	29.969	29.969	(0.907)	66430	0.25000	0.2313
$ 56 Chrysene-d12	240	30.093	30.093	(0.910)	53571	0.25000	0.2417
57 Chrysene	228	30.172	30.172	(0.913)	72162	0.25000	0.2515
62 Benzo(b)fluoranthene	252	32.390	32.390	(0.980)	66655	0.25000	0.2363(M)
63 Benzo(k)fluoranthene	252	32.447	32.447	(0.982)	65290	0.25000	0.2217(H)
293 Benzo(j)fluoranthene	252	32.503	32.503	(0.983)	73708	0.25000	0.2593(M)
246 Total Benzofluoranthenes	252	32.503	32.503	(0.983)	197755	0.75000	0.7022(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	33.055	33.055	(1.000)	703756	2.00000	(M)
64 Benzo(e)pyrene	252	33.111	33.111	(1.002)	65095	0.25000	0.2378
66 Benzo(a)pyrene	252	33.213	33.213	(1.005)	59917	0.25000	0.2326
$ 67 Perylene-d12	264	33.393	33.393	(1.010)	59009	0.25000	0.2482(M)
68 Perylene	252	33.213	33.213	(1.005)	58325	0.25000	0.2232
69 Indeno(1,2,3-cd)pyrene	276	35.443	35.443	(1.072)	61452	0.25000	0.2186(M)
70 Dibenzo(a,h)anthracene	278	35.420	35.420	(1.072)	53393	0.25000	0.2024(M)
74 Benzo(g,h,i)perylene	276	36.310	36.310	(1.098)	69139	0.25000	0.2442(M)

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: NT1421010706.D
Lab Smp Id: SJA0059-CAL2
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Misc Info:

Calibration Date: 07-JAN-2021
Calibration Time: 11:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	642877	321439	1285754	621854	-3.27
250 Anthracene-d10	641722	320861	1283444	622610	-2.98
251 Benzo(e)pyrene-d1	741138	370569	1482276	703756	-5.04

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.76	18.26	19.26	18.76	-0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	-0.00
251 Benzo(e)pyrene-d1	33.06	32.56	33.56	33.06	-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 - NT1421010706.D

Lab ID: SJA0059-CAL2
nt14.i, 20210107.b\ALKYLPNA.m, 07-JAN-2021 15:08

RT	CO-ELUTION COMPOUNDS
33.213	Perylene and Benzo(a)pyrene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

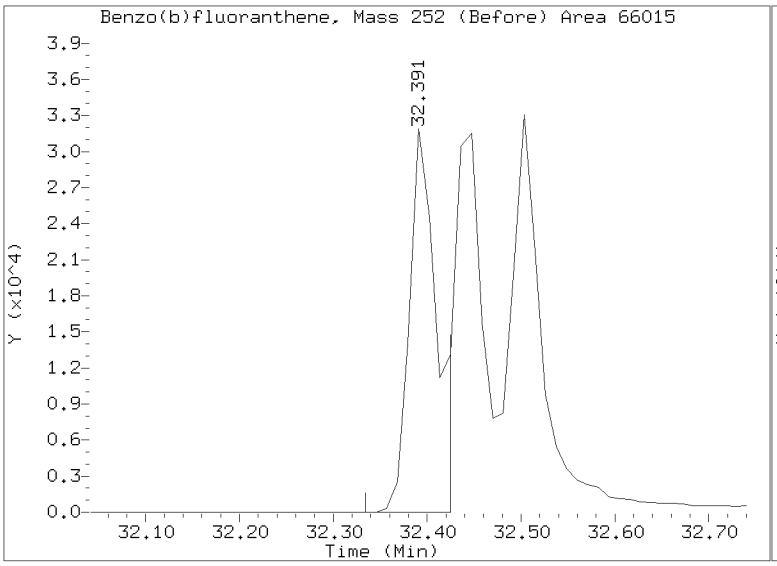
RRT check based on Ccal File: NT1421010706.D

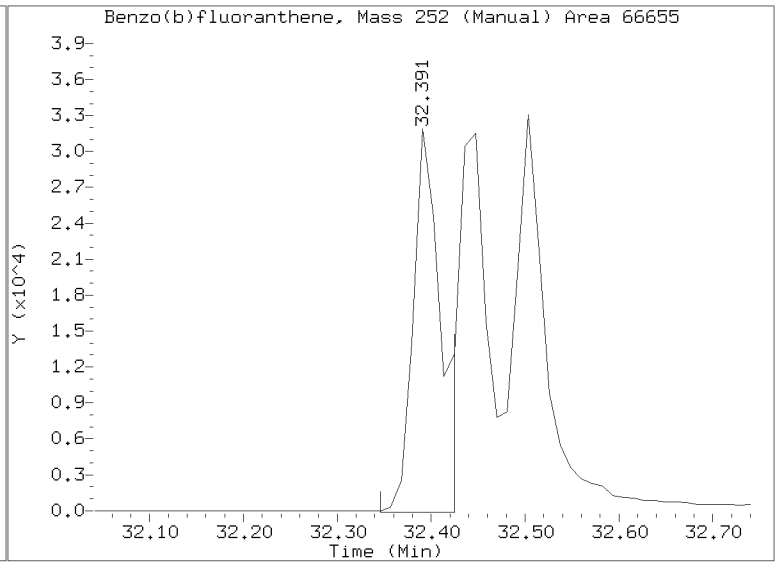
On Column LOD for nt14.i, 20210107.b\ALKYLPNA.m, TARGETS.sub = 0.0000

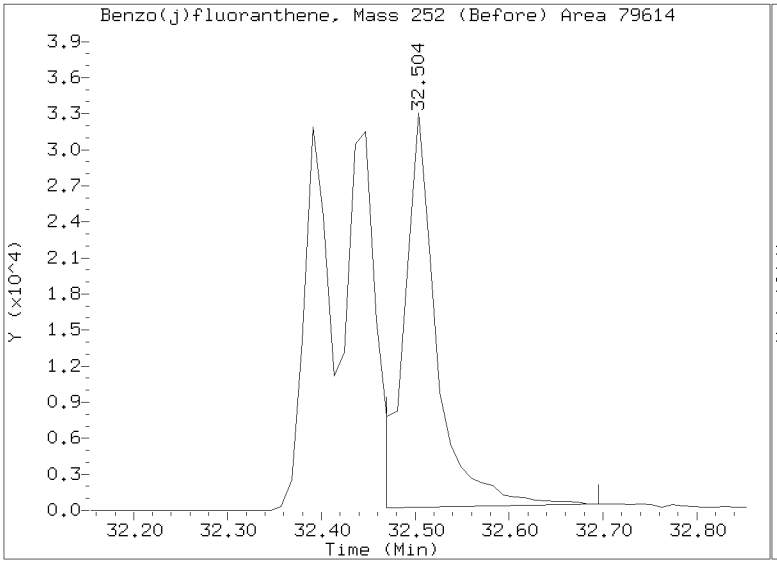
* Only compounds listed in the work order have been verified by the analyst *

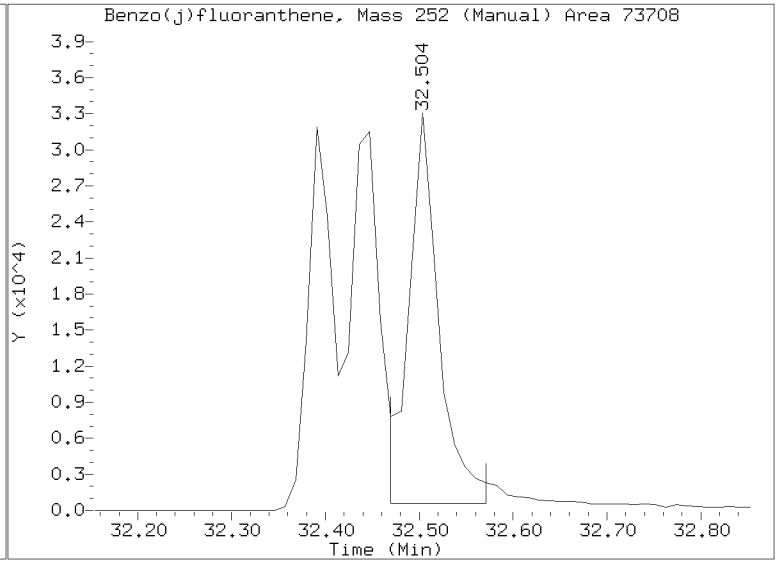
Quant Ion Manual Peak Adjustment Report

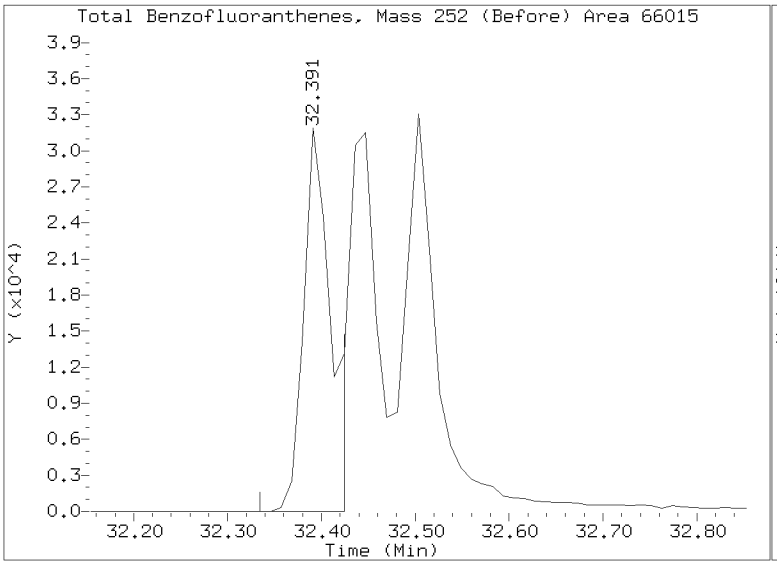
Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010706.D
Injection Date: 07-JAN-2021 15:08
Lab ID:SJA0059-CAL2 Client ID:
Report Date: 01/14/2021 09:57

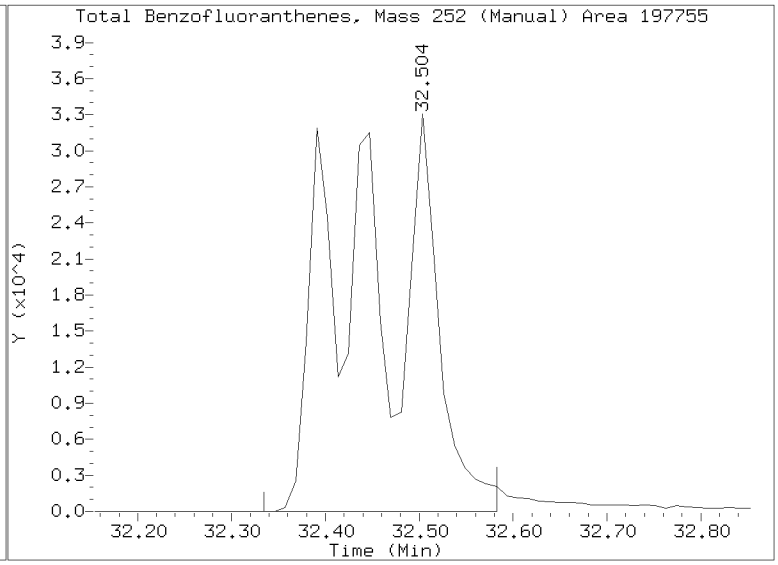






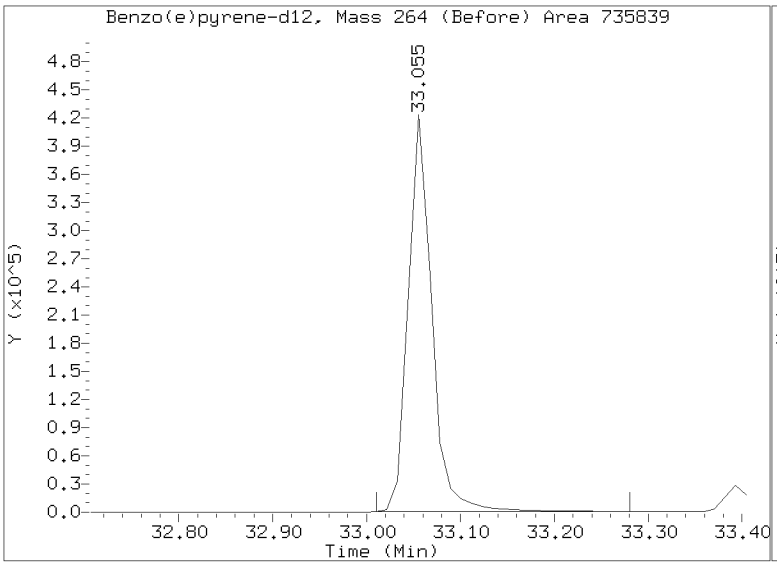


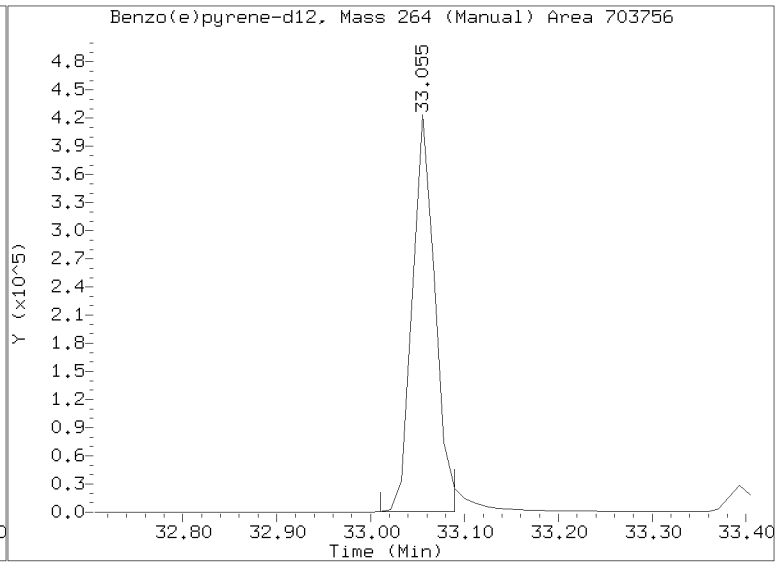


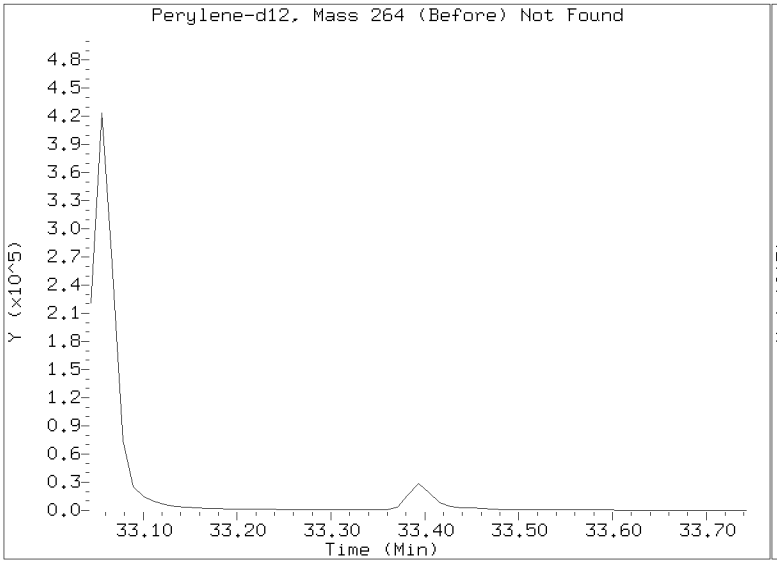


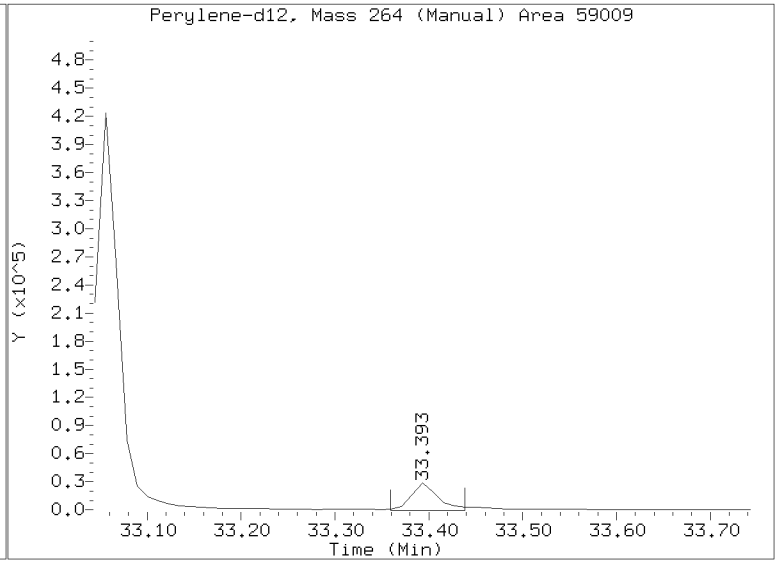
Quant Ion Manual Peak Adjustment Report

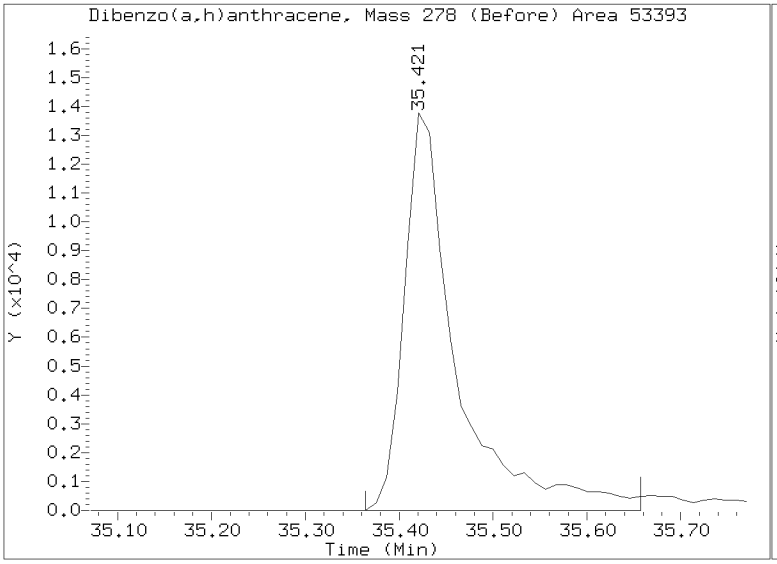
Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010706.D
Injection Date: 07-JAN-2021 15:08
Lab ID:SJA0059-CAL2 Client ID:
Report Date: 01/14/2021 09:57

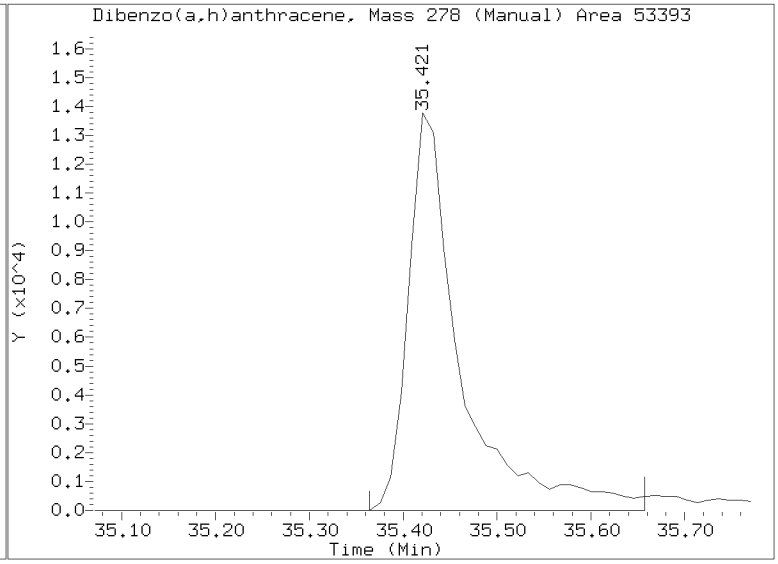






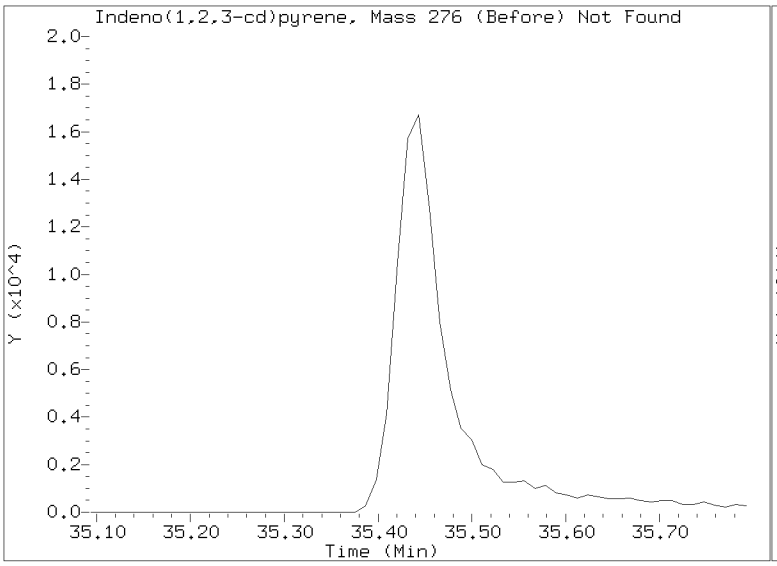


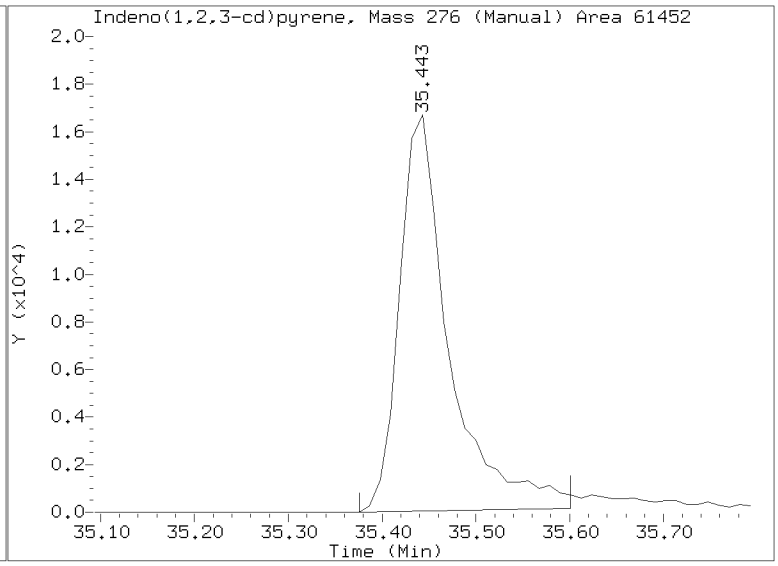


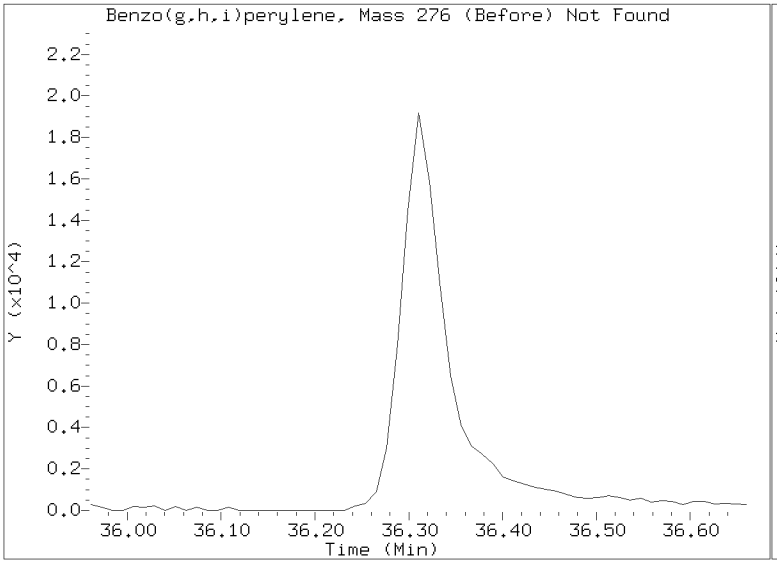


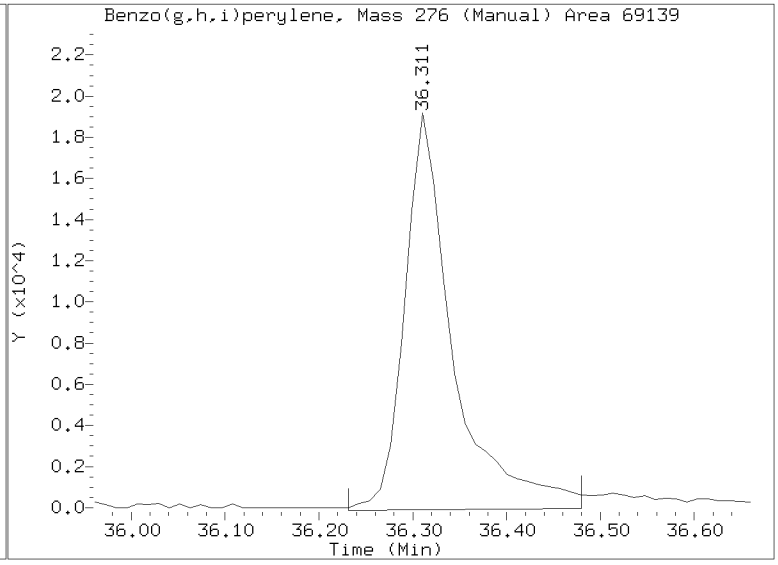
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010706.D
Injection Date: 07-JAN-2021 15:08
Lab ID:SJA0059-CAL2 Client ID:
Report Date: 01/14/2021 09:57









Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010708.D

Date : 07-JAN-2021 16:44

Client ID:

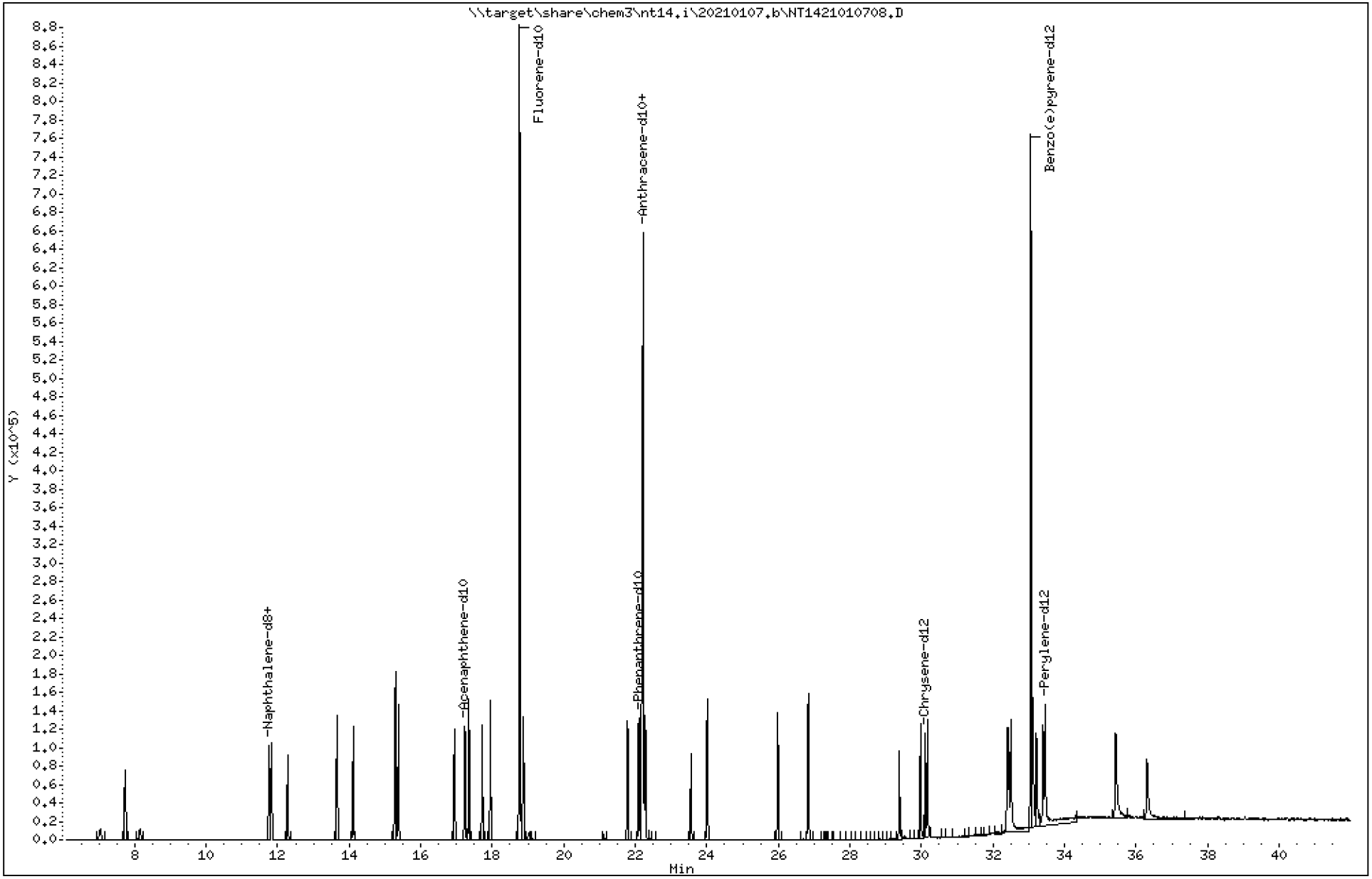
Instrument: nt14.i

Sample Info: SJA0059-CAL3

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\20210107.b\NT1421010708.D
Lab Smp Id: SJA0059-CAL3
Inj Date : 07-JAN-2021 16:44
Operator : VTS Inst ID: nt14.i
Smp Info : SJA0059-CAL3
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Meth Date : 14-Jan-2021 09:57 yev Quant Type: ISTD
Cal Date : 07-JAN-2021 16:44 Cal File: NT1421010708.D
Als bottle: 8 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)	AMOUNTS ON-COL (ug/mL)
1 trans-Decalin	138	7.045	7.045	(0.375)	17705	0.50000	0.5001
2 cis-Decalin	138	8.145	8.145	(0.434)	13472	0.50000	0.5284
$ 6 Naphthalene-d8	136	11.766	11.766	(0.627)	145602	0.50000	0.5154
7 Naphthalene	128	11.832	11.832	(0.631)	147574	0.50000	0.5219
12 Benzo(b)thiophene	134	12.283	12.283	(0.655)	120432	0.50000	0.5150
16 2-Methylnaphthalene	141	13.667	13.667	(0.728)	83520	0.50000	0.5166
17 1-methylnaphthalene	141	14.118	14.118	(0.752)	80547	0.50000	0.5142
18 Biphenyl	154	15.305	15.305	(0.816)	122576	0.50000	0.5156
19 2,6-Dimethylnaphthalene	156	15.382	15.382	(0.820)	89861	0.50000	0.5166
20 Acenaphthylene	152	16.942	16.942	(0.903)	145580	0.50000	0.4923
$ 21 Acenaphthene-d10	164	17.228	17.228	(0.918)	73284	0.50000	0.4912
22 Acenaphthene	153	17.349	17.349	(0.925)	96097	0.50000	0.5055
23 Dibenzofuran	168	17.723	17.723	(0.945)	135103	0.50000	0.4966
24 1,6,7-Trimethylnaphthalene	170	17.953	17.953	(0.957)	87042	0.50000	0.4982
* 25 Fluorene-d10	176	18.763	18.763	(1.000)	610547	2.00000	
26 Fluorene	166	18.865	18.865	(1.005)	102700	0.50000	0.4981
30 Dibenzothiophene	184	21.779	21.779	(1.161)	142788	0.50000	0.5062
$ 35 Phenanthrene-d10	188	22.099	22.099	(0.995)	135299	0.50000	0.4868(H)
36 Phenanthrene	178	22.176	22.176	(0.999)	150291	0.50000	0.4967
* 250 Anthracene-d10	188	22.209	22.209	(1.000)	607025	2.00000	
37 Anthracene	178	22.275	22.275	(1.003)	133987	0.50000	0.4789
42 Carbazole	167	23.561	23.561	(1.061)	103167	0.50000	0.4411
43 1-Methylphenanthrene	192	24.012	24.012	(1.081)	105091	0.50000	0.4890
44 Fluoranthene	202	25.991	25.991	(1.170)	156059	0.50000	0.4720
46 Pyrene	202	26.838	26.838	(1.208)	161886	0.50000	0.4666
51 Naphthobenzothiophene	234	29.381	29.381	(1.323)	113237	0.50000	0.4558
55 Benzo(a)anthracene	228	29.969	29.969	(0.907)	129978	0.50000	0.4529
$ 56 Chrysene-d12	240	30.093	30.093	(0.910)	103637	0.50000	0.4680
57 Chrysene	228	30.172	30.172	(0.913)	136594	0.50000	0.4764
62 Benzo(b)fluoranthene	252	32.390	32.390	(0.980)	127377	0.50000	0.4519
63 Benzo(k)fluoranthene	252	32.447	32.447	(0.982)	154424	0.50000	0.5247
293 Benzo(j)fluoranthene	252	32.503	32.503	(0.983)	143847	0.50000	0.5065(H)
246 Total Benzofluoranthenes	252	32.447	32.447	(0.982)	384137	1.50000	1.365(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	33.055	33.055	(1.000)	703251	2.00000	
64 Benzo(e)pyrene	252	33.123	33.123	(1.002)	127779	0.50000	0.4671
66 Benzo(a)pyrene	252	33.213	33.213	(1.005)	113094	0.50000	0.4394
$ 67 Perylene-d12	264	33.393	33.393	(1.010)	94448	0.50000	0.3976(M)
68 Perylene	252	33.213	33.213	(1.005)	113094	0.50000	0.4331
69 Indeno(1,2,3-cd)pyrene	276	35.443	35.443	(1.072)	121493	0.50000	0.4324
70 Dibenzo(a,h)anthracene	278	35.432	35.432	(1.072)	95422	0.50000	0.3616(M)
74 Benzo(g,h,i)perylene	276	36.310	36.310	(1.098)	119361	0.50000	0.4219(M)

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: NT1421010708.D
Lab Smp Id: SJA0059-CAL3
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Misc Info:

Calibration Date: 07-JAN-2021
Calibration Time: 11:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	642877	321439	1285754	610547	-5.03
250 Anthracene-d10	641722	320861	1283444	607025	-5.41
251 Benzo(e)pyrene-d1	741138	370569	1482276	703251	-5.11

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.76	18.26	19.26	18.76	-0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	-0.00
251 Benzo(e)pyrene-d1	33.06	32.56	33.56	33.06	-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 - NT1421010708.D

Lab ID: SJA0059-CAL3
nt14.i, 20210107.b\ALKYLPNA.m, 07-JAN-2021 16:44

RT	CO-ELUTION COMPOUNDS
33.213	Perylene and Benzo(a)pyrene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

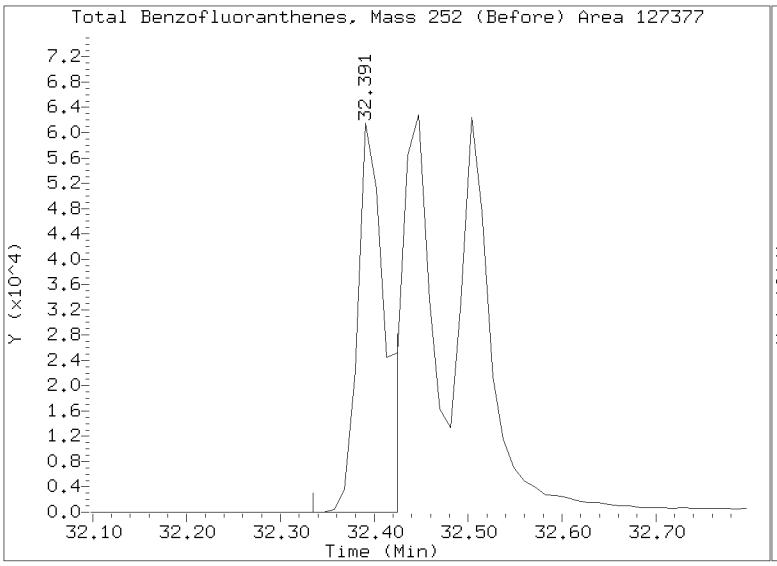
RRT check based on Ccal File: NT1421010708.D

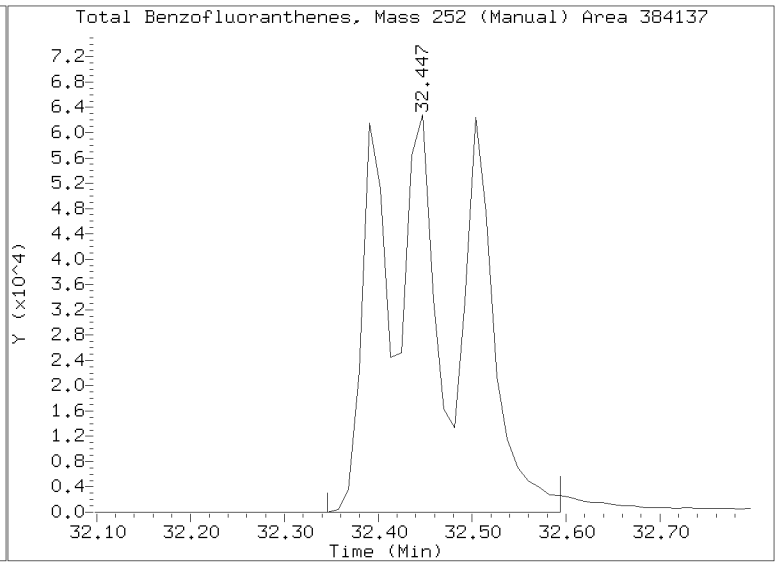
On Column LOD for nt14.i, 20210107.b\ALKYLPNA.m, TARGETS.sub = 0.0000

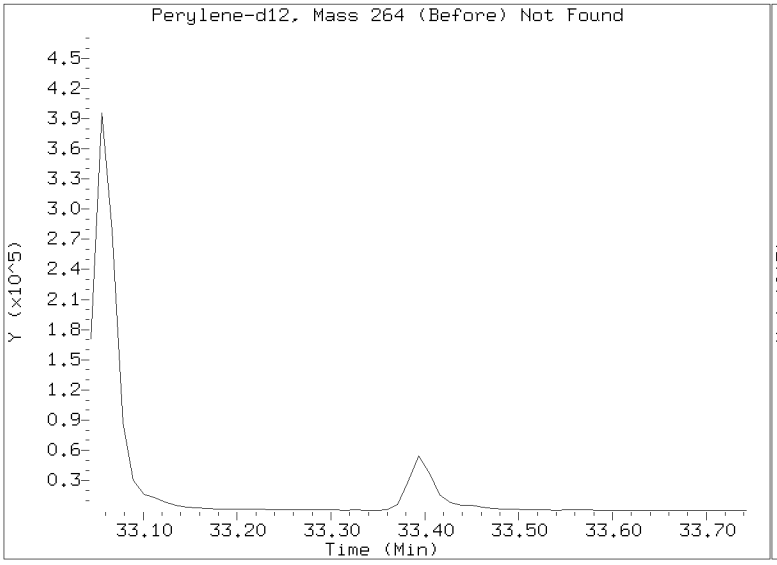
* Only compounds listed in the work order have been verified by the analyst *

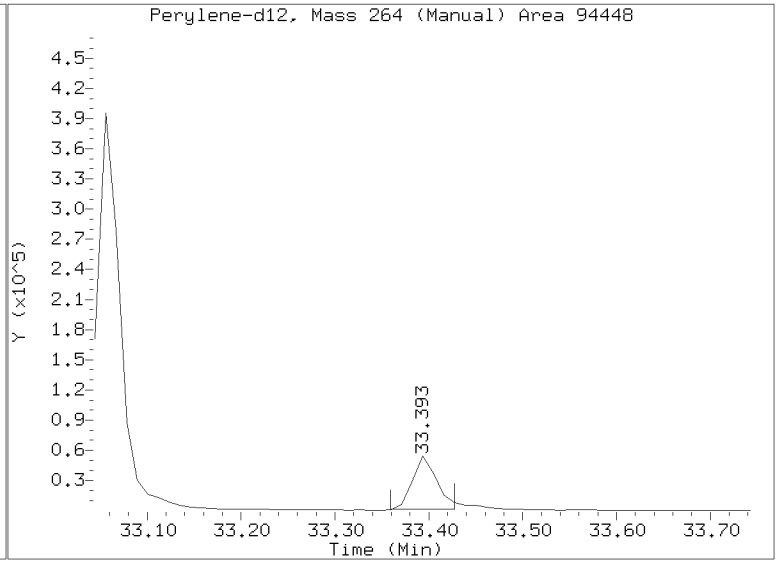
Quant Ion Manual Peak Adjustment Report

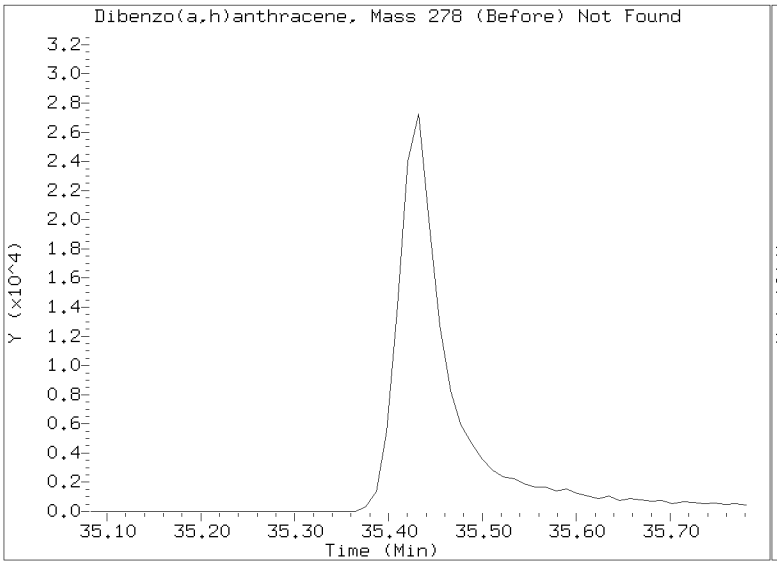
Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010708.D
Injection Date: 07-JAN-2021 16:44
Lab ID:SJA0059-CAL3 Client ID:
Report Date: 01/14/2021 09:57

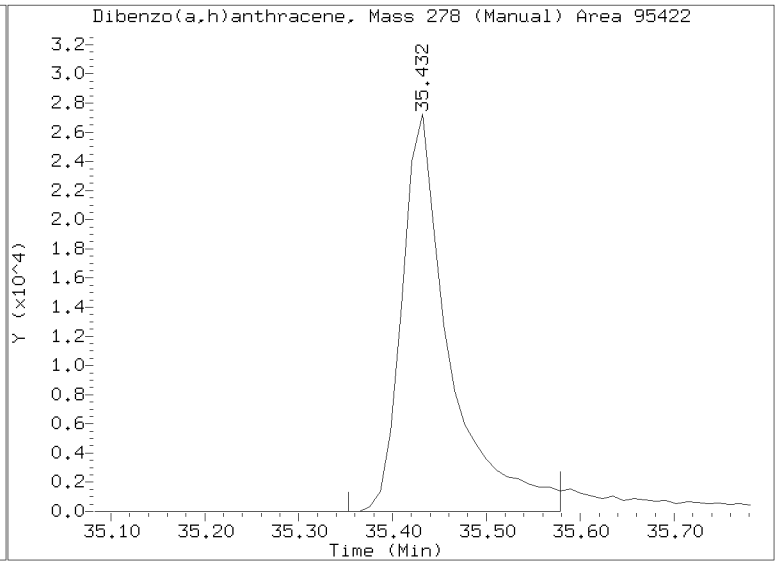






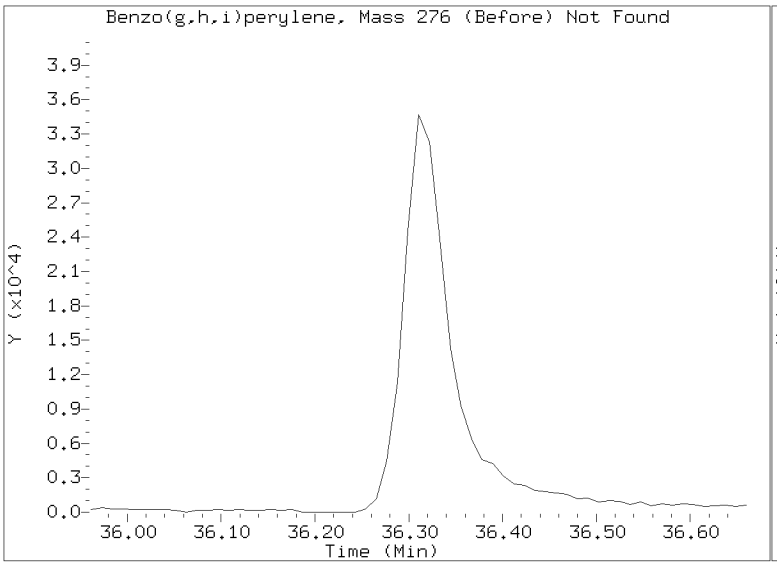


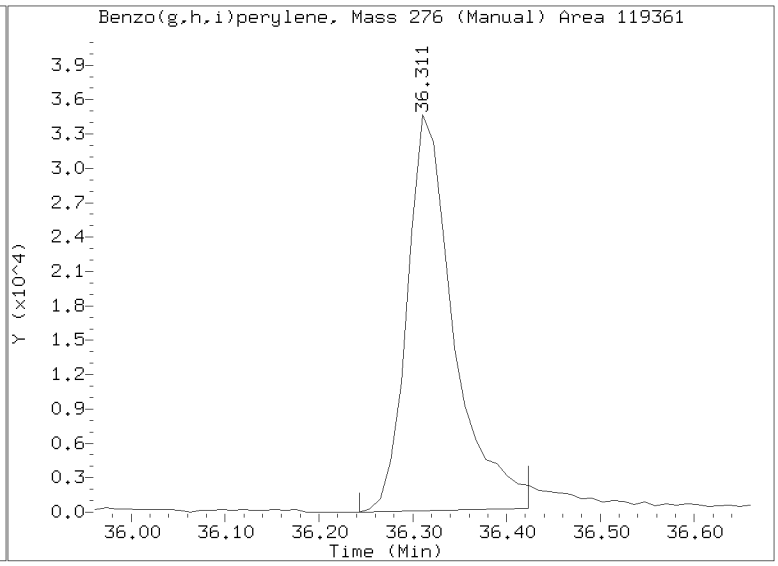




Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010708.D
Injection Date: 07-JAN-2021 16:44
Lab ID:SJA0059-CAL3 Client ID:
Report Date: 01/14/2021 09:57





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Page 1

Date : 07-JAN-2021 17:32

Client ID:

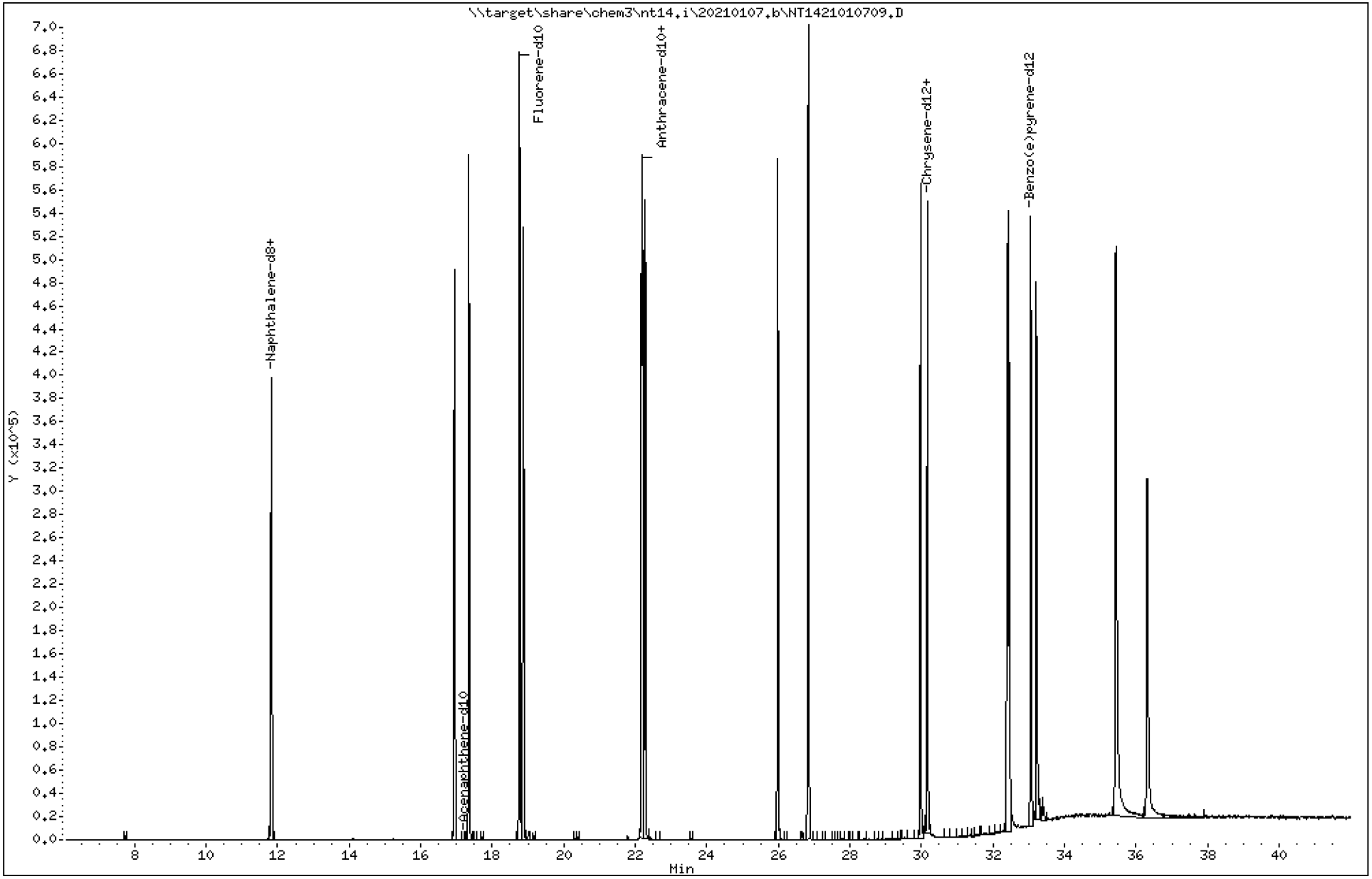
Instrument: nt14.i

Sample Info: SJA0059-SCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

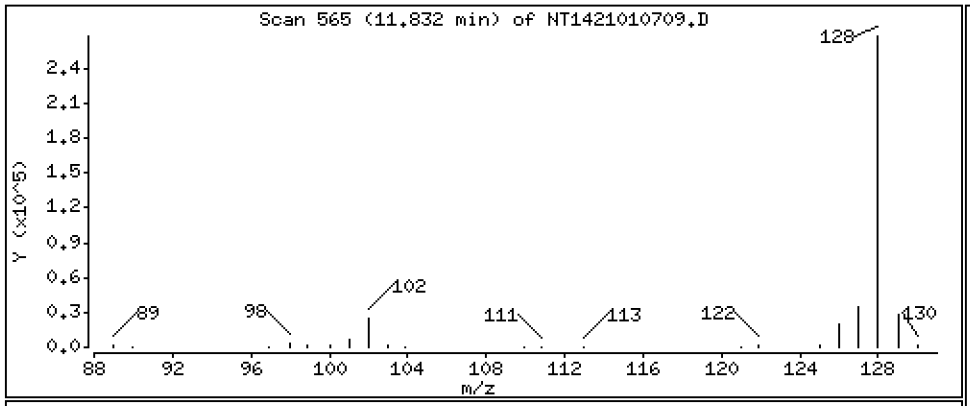
Operator: VTS

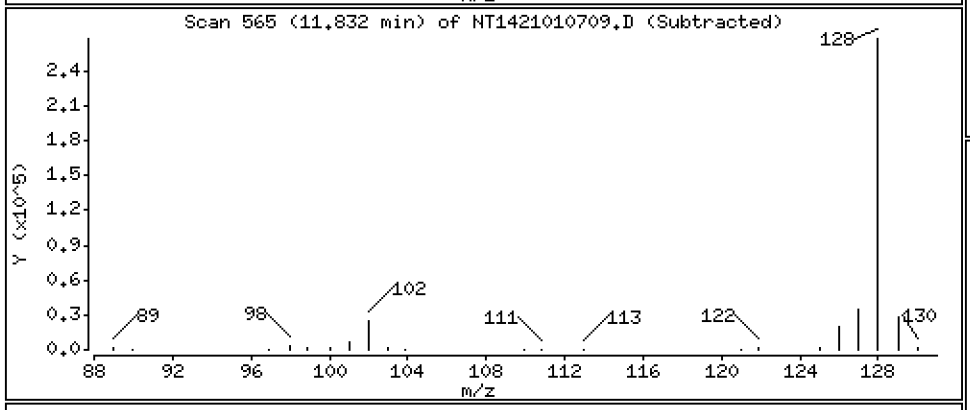
Column phase: Rxi-17Sil MS

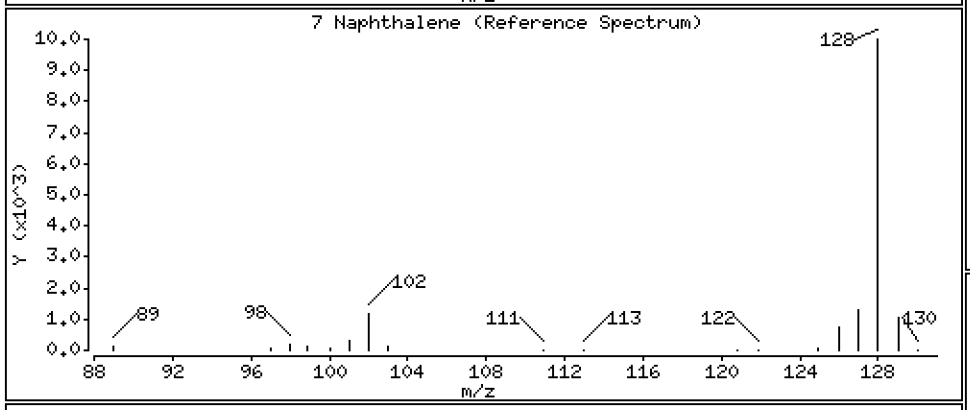
Column diameter: 0.25

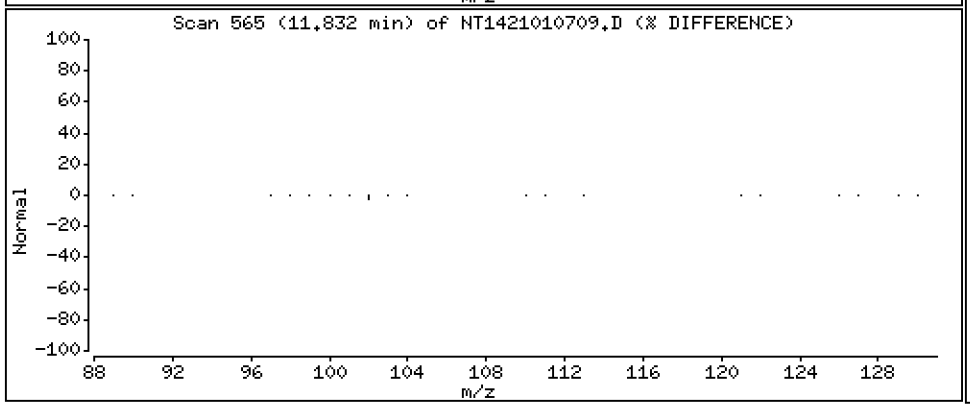
7 Naphthalene

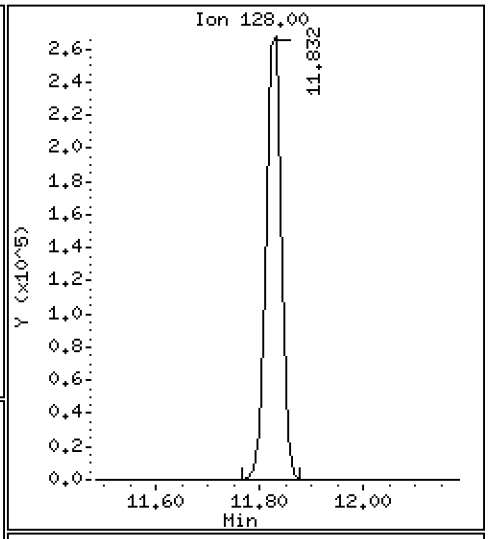
Concentration: 2.560 ug/mL

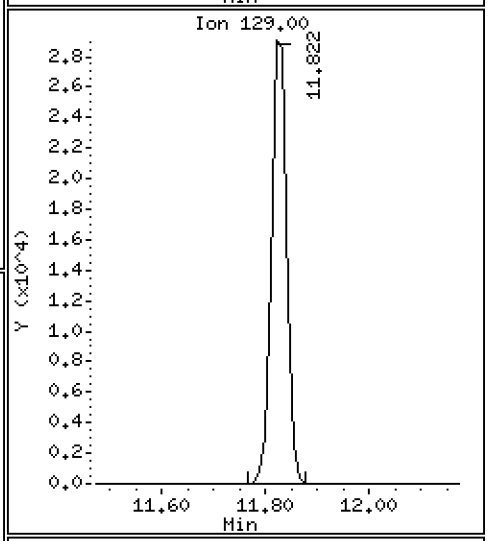


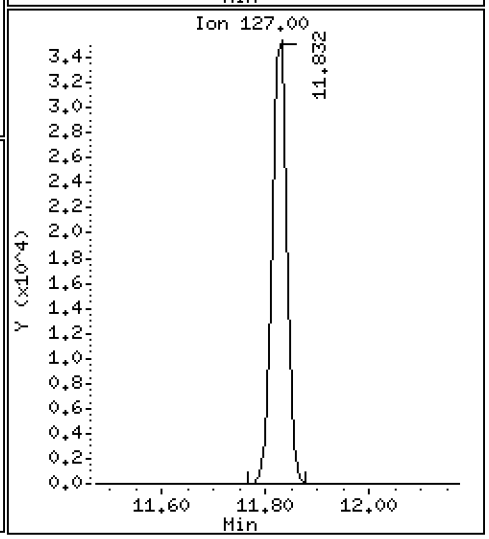












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

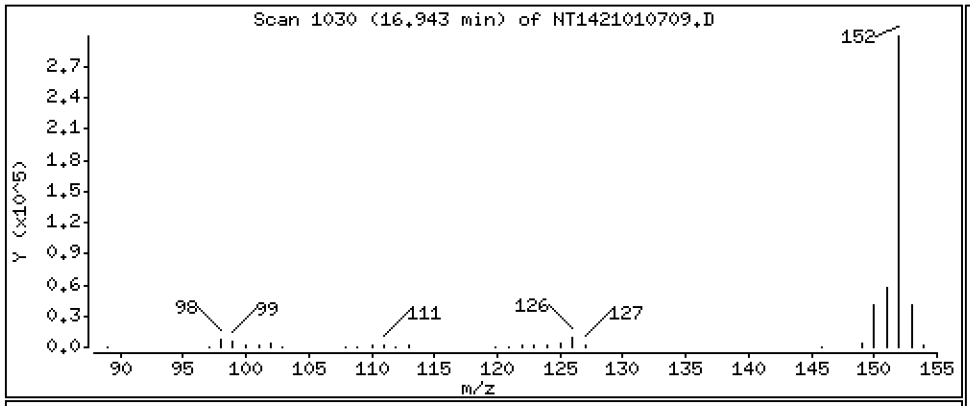
Operator: VTS

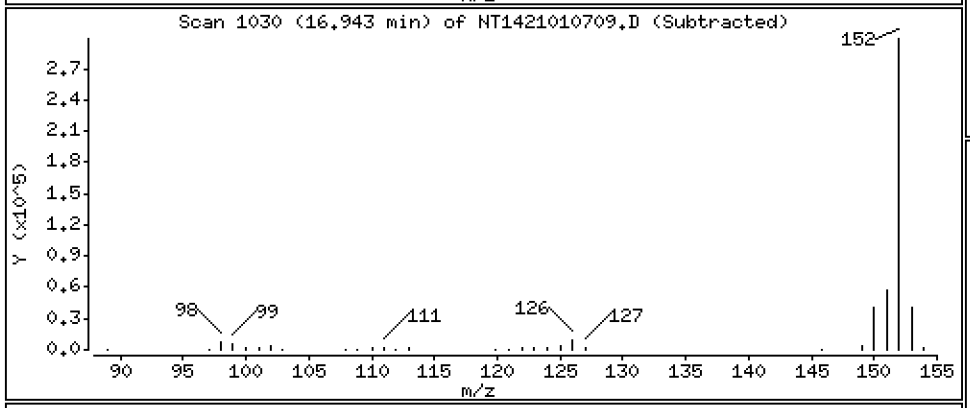
Column phase: Rxi-17Sil MS

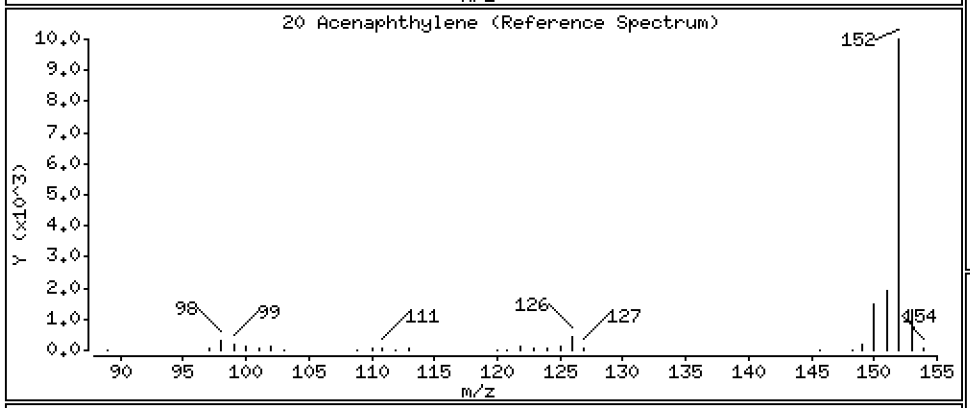
Column diameter: 0.25

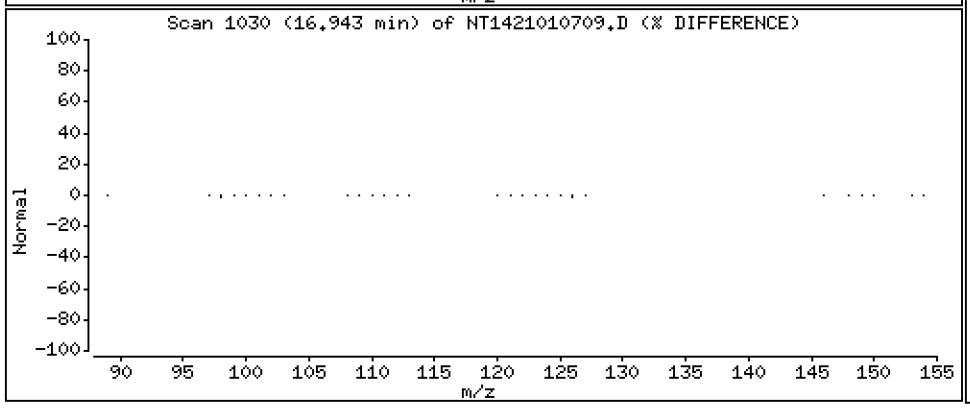
20 Acenaphthylene

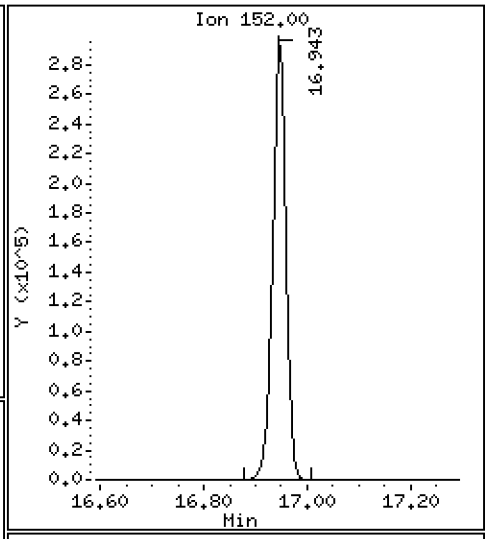
Concentration: 2.614 ug/mL

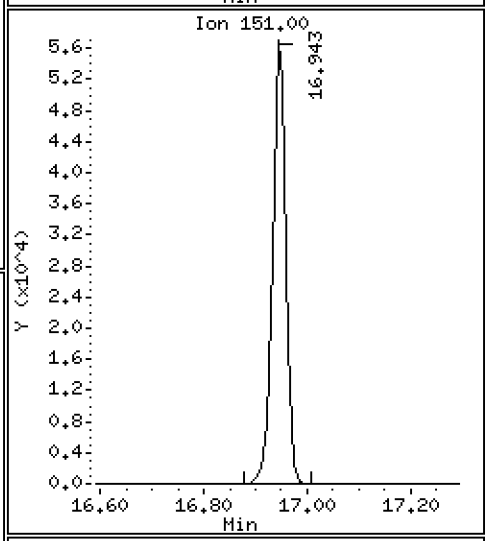


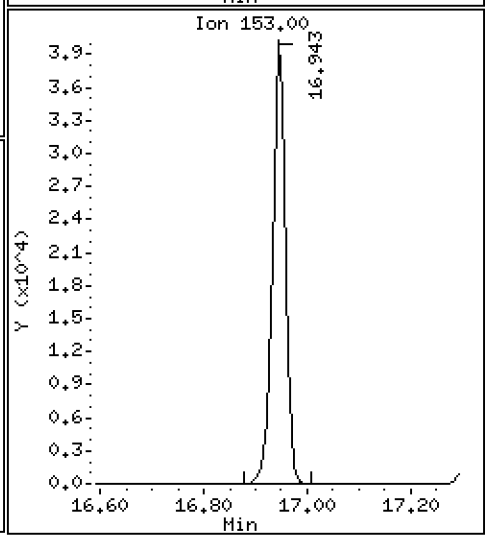












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

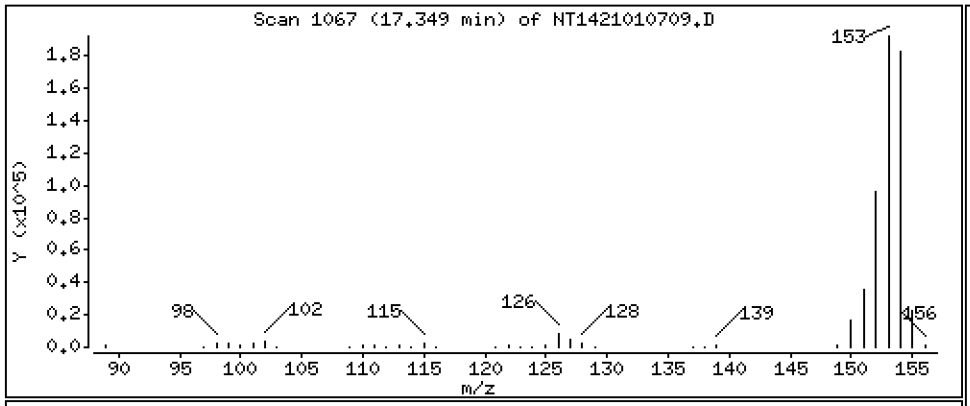
Operator: VTS

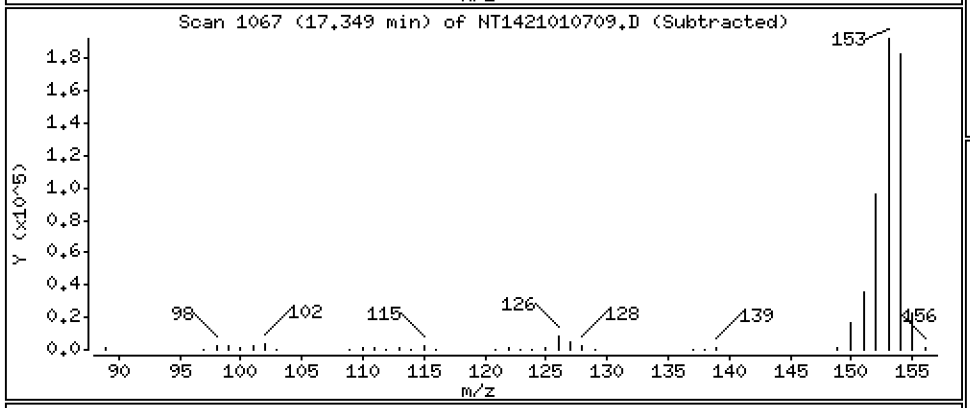
Column phase: Rxi-17Sil MS

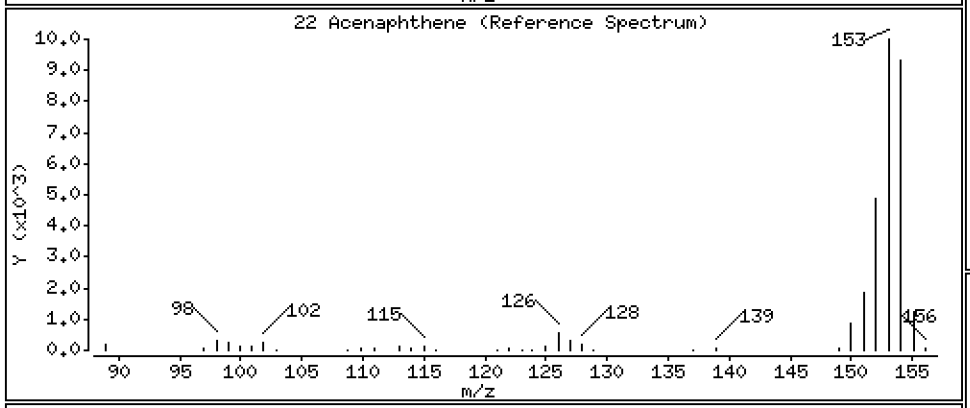
Column diameter: 0.25

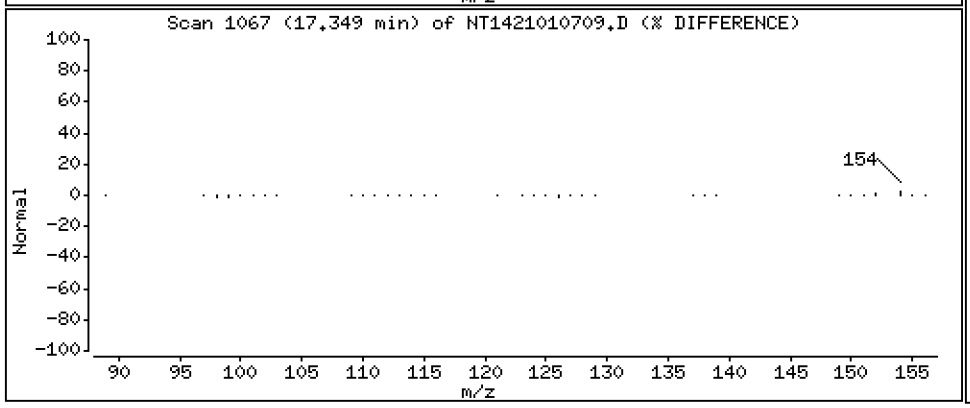
22 Acenaphthene

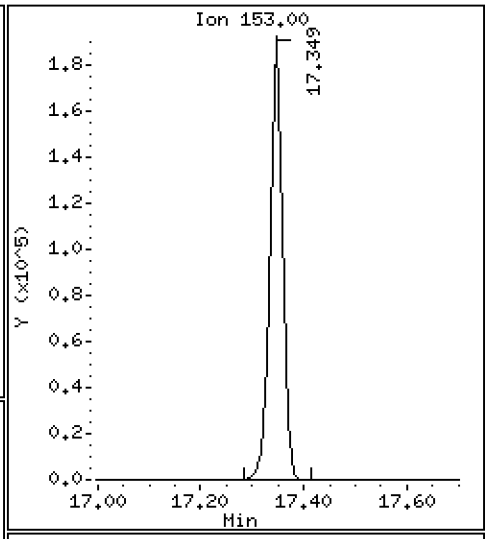
Concentration: 2.462 ug/mL

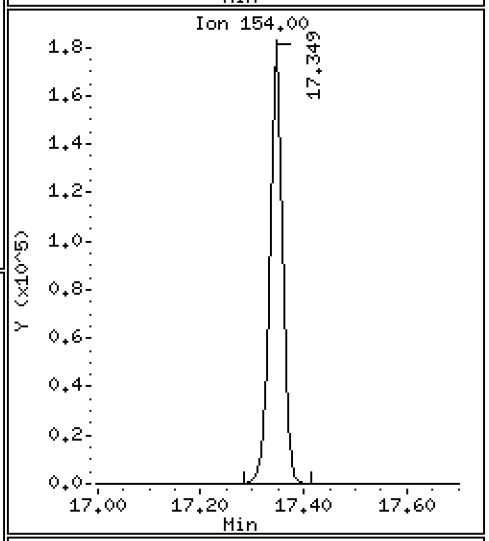


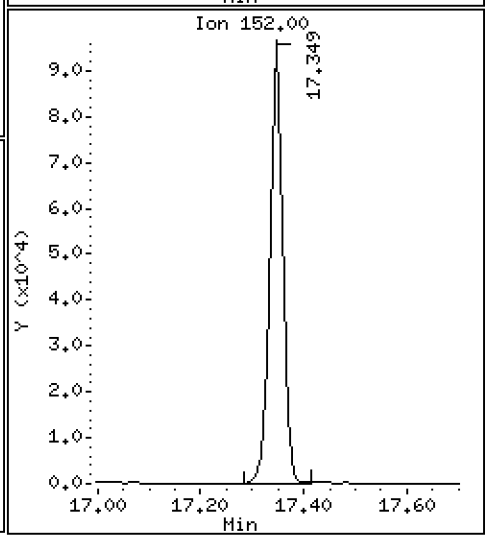












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

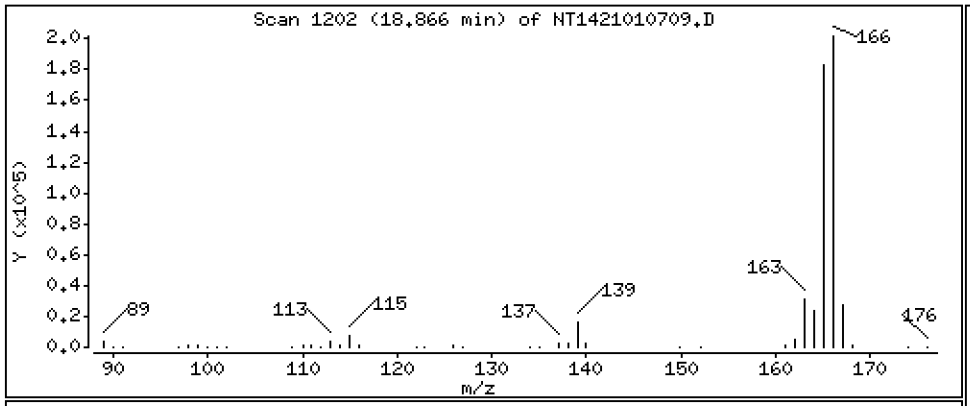
Operator: VTS

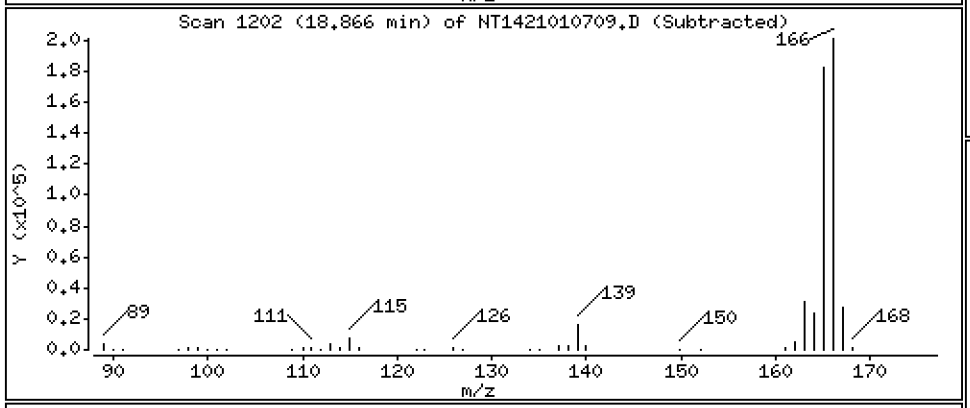
Column phase: Rxi-17Sil MS

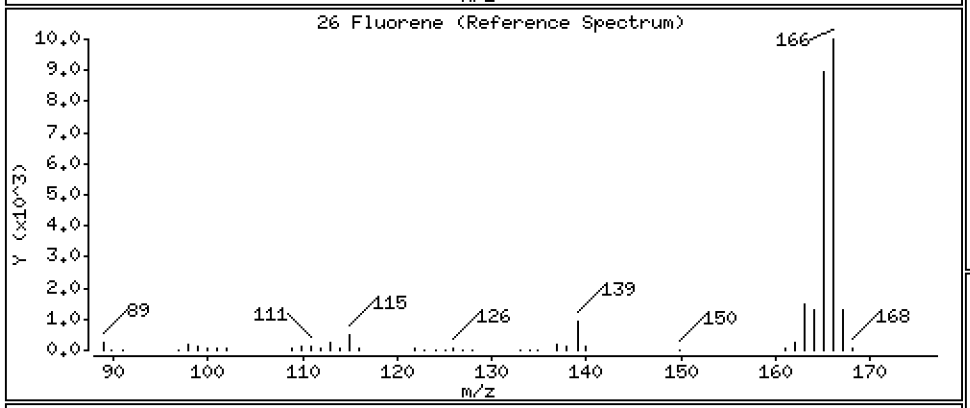
Column diameter: 0.25

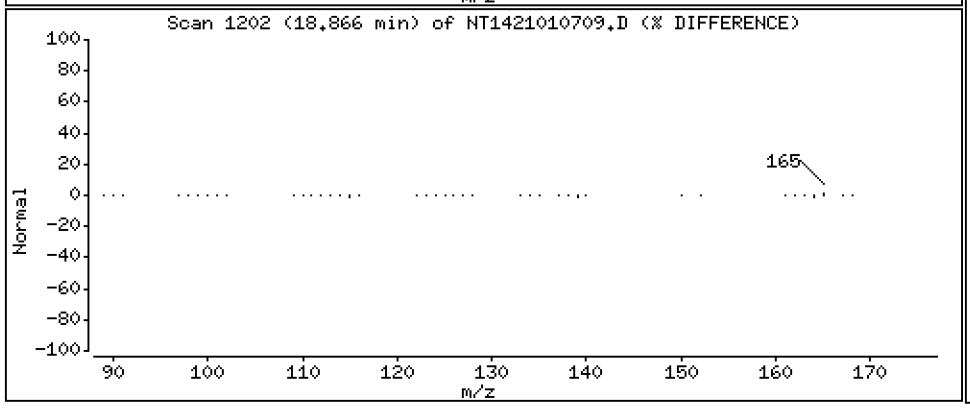
26 Fluorene

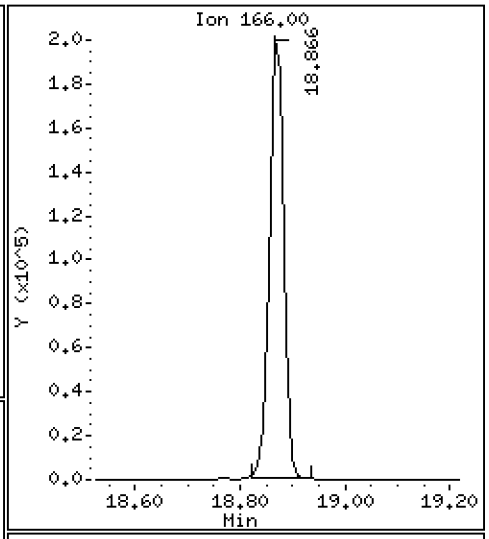
Concentration: 2.531 ug/mL

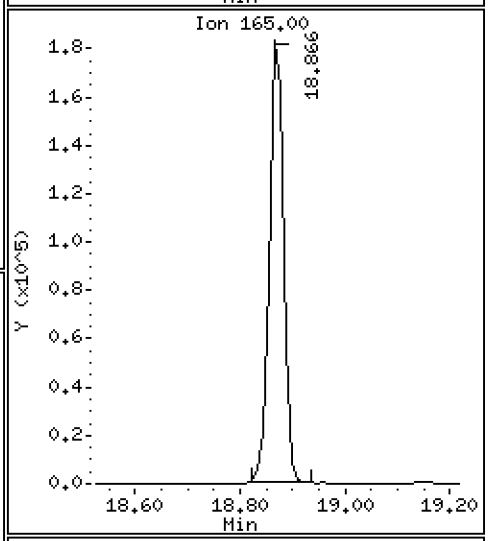


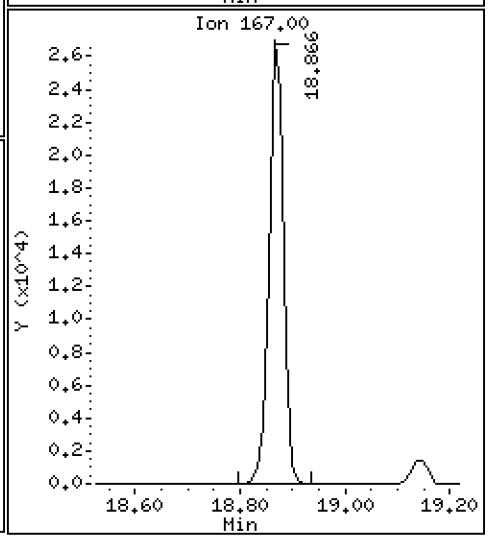












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

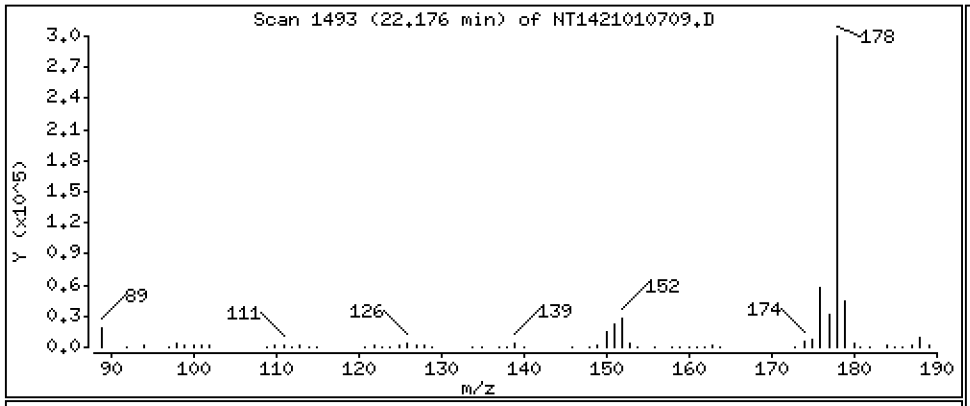
Operator: VTS

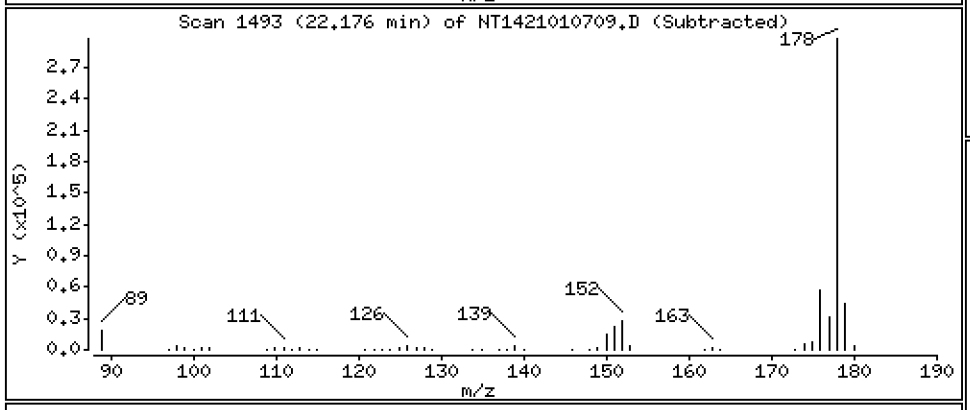
Column phase: Rxi-17Sil MS

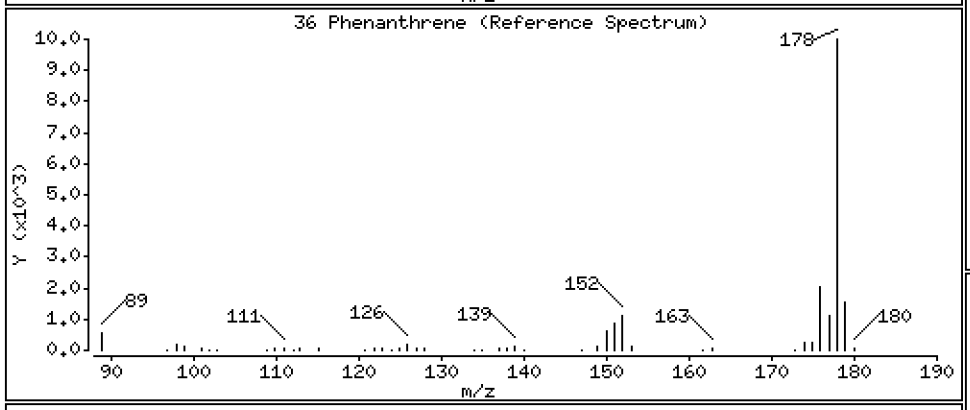
Column diameter: 0.25

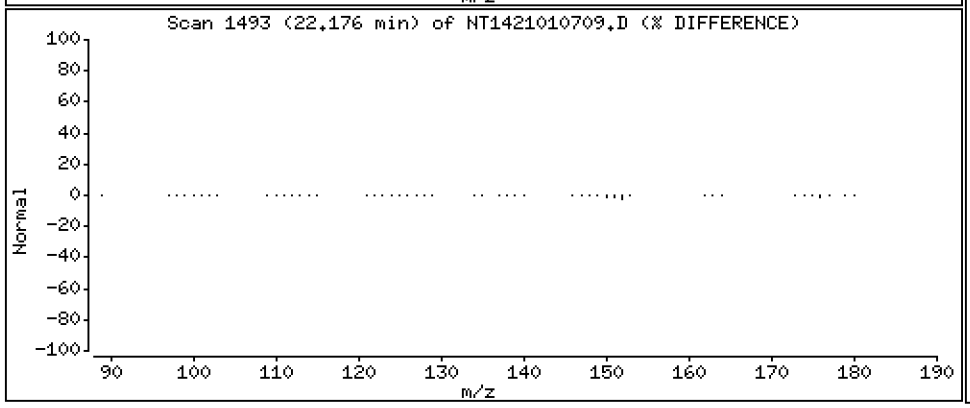
36 Phenanthrene

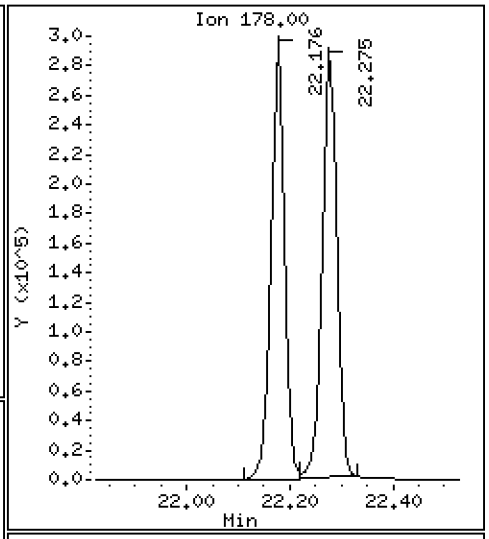
Concentration: 2.594 ug/mL

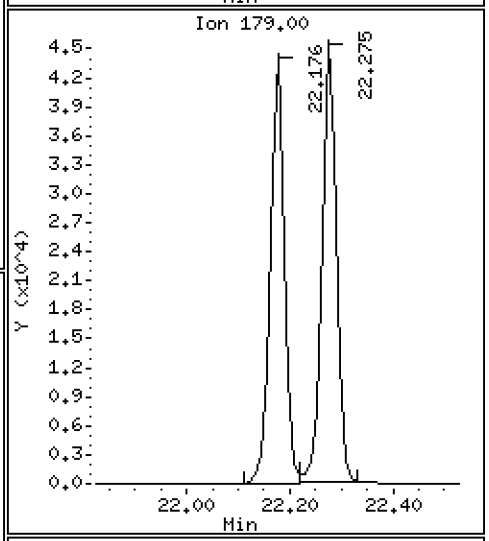


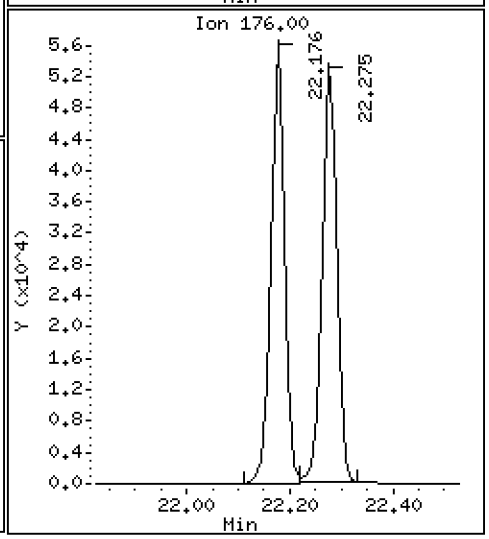












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

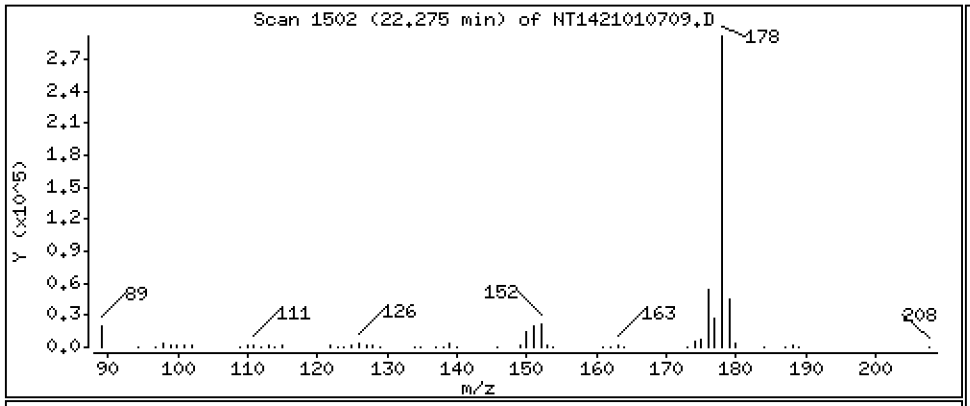
Operator: VTS

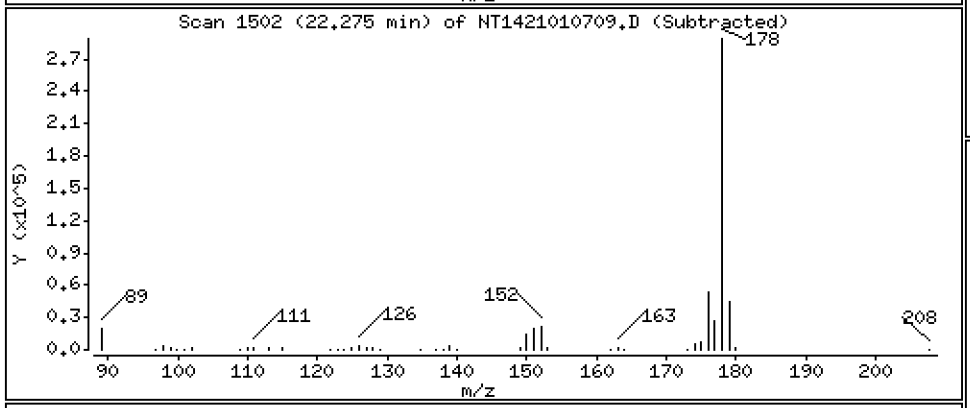
Column phase: Rxi-17Sil MS

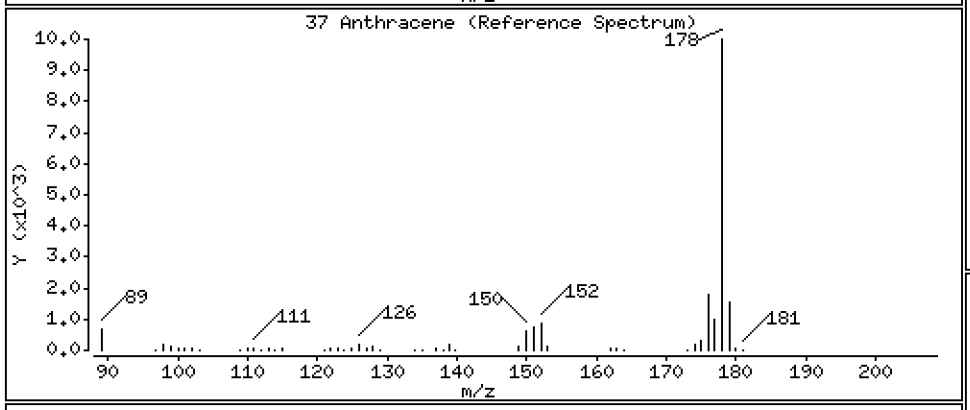
Column diameter: 0.25

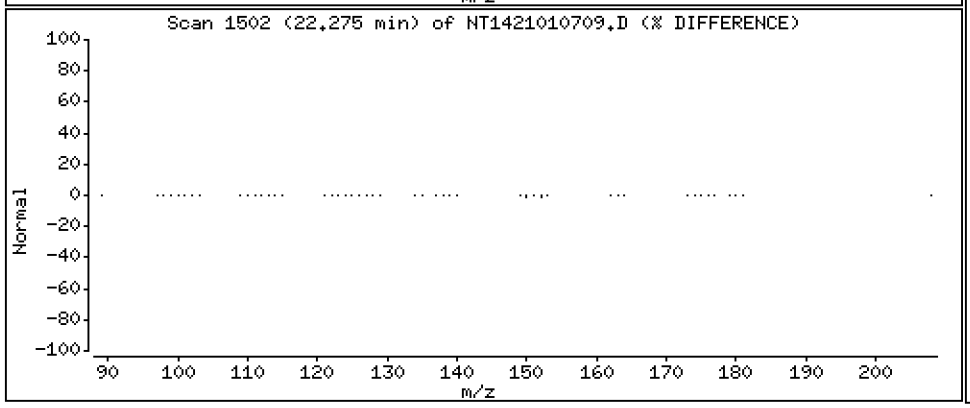
37 Anthracene

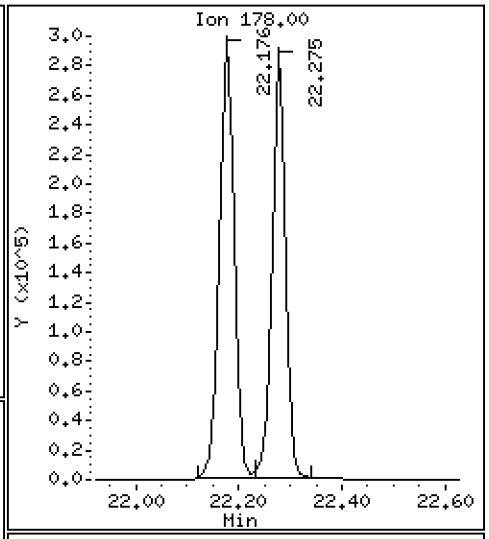
Concentration: 2.679 ug/mL

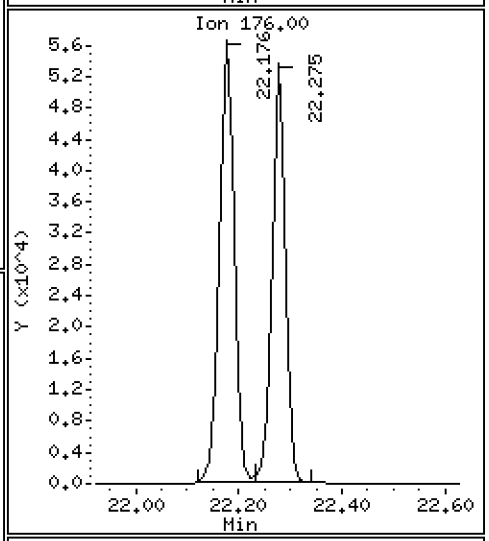


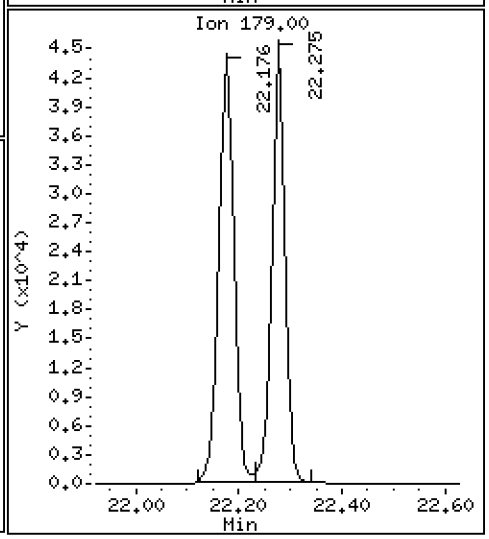












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Date : 07-JAN-2021 17:32

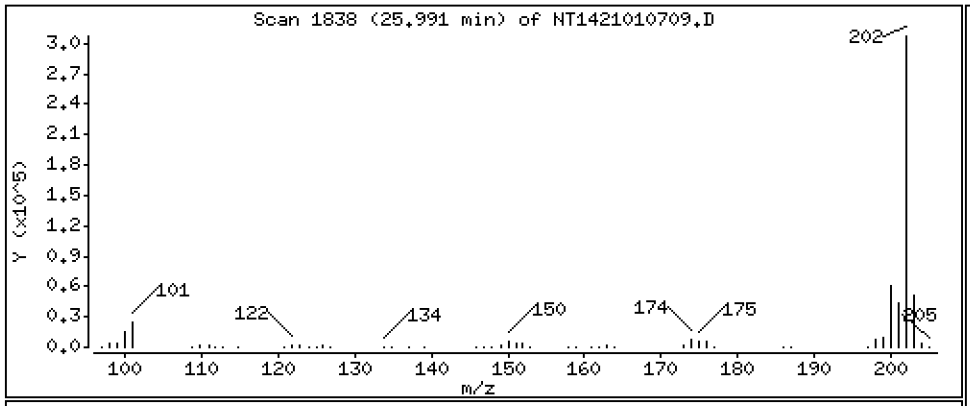
Client ID: Instrument: nt14.i

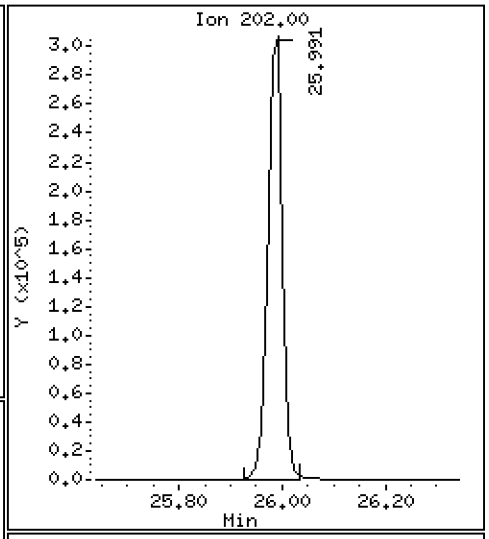
Sample Info: SJA0059-SCV1

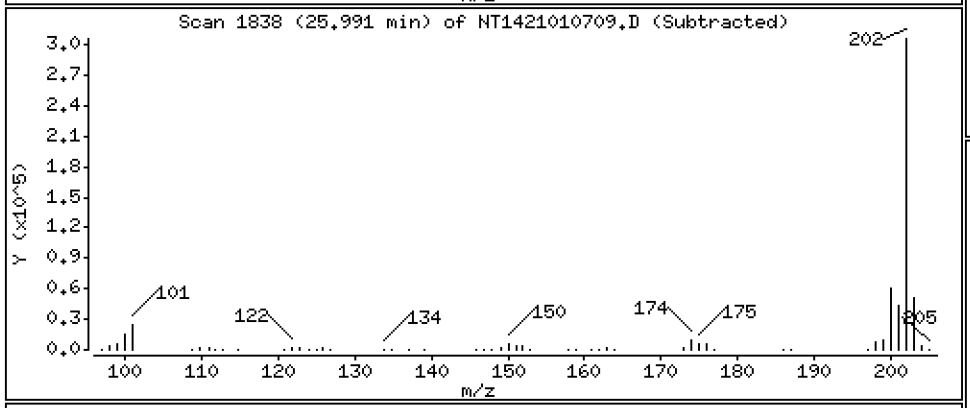
Operator: VTS

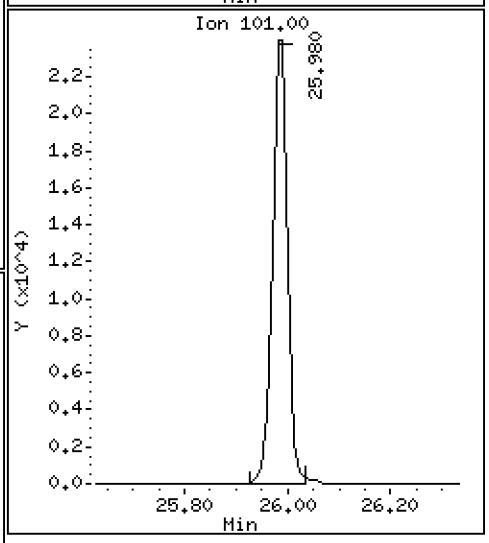
Column phase: Rxi-17Sil MS Column diameter: 0.25

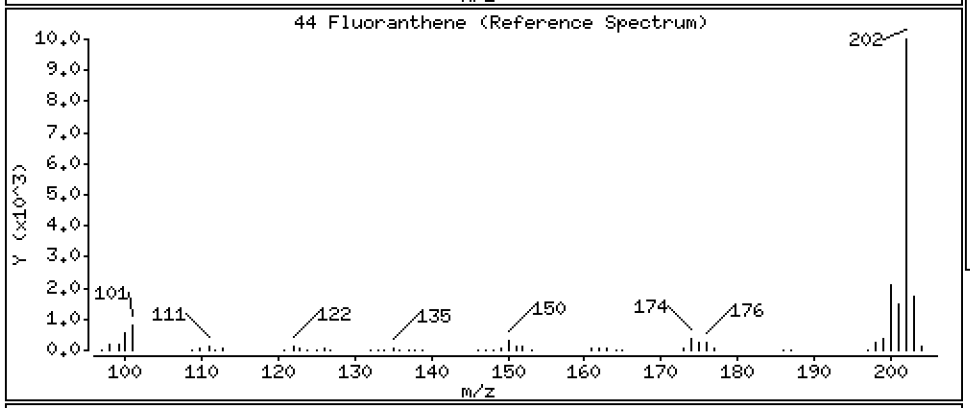
44 Fluoranthene Concentration: 2.583 ug/mL

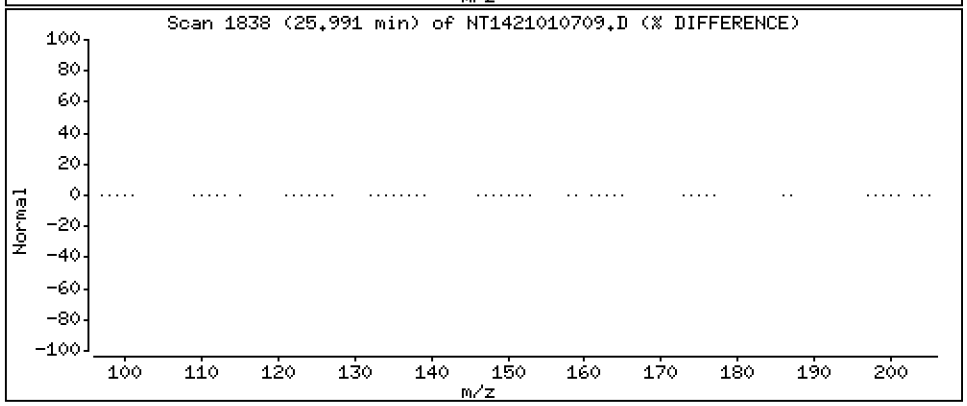












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

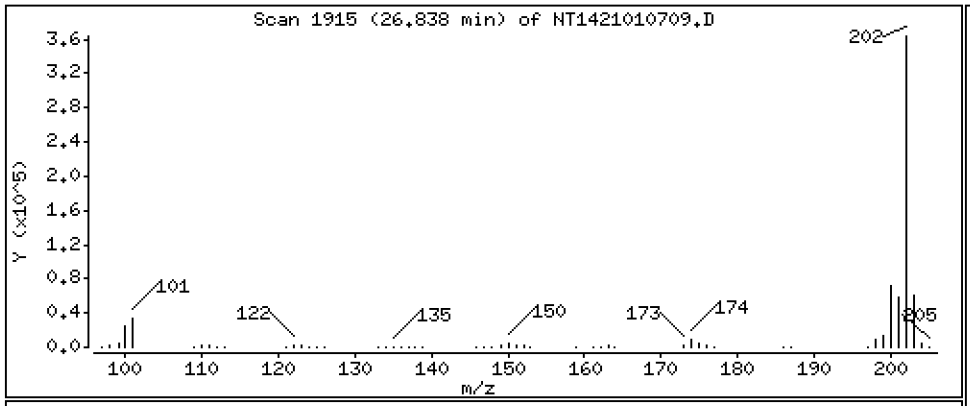
Operator: VTS

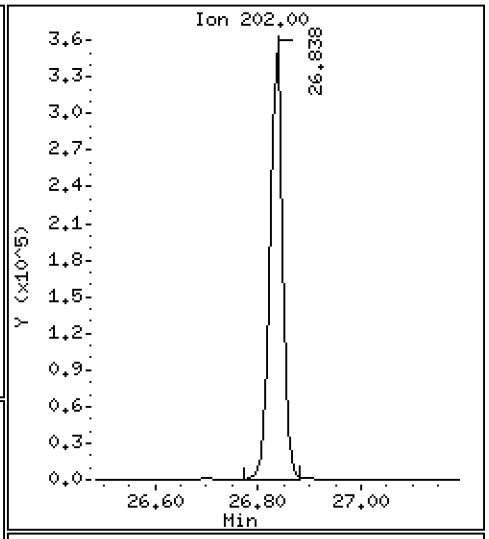
Column phase: Rxi-17Sil MS

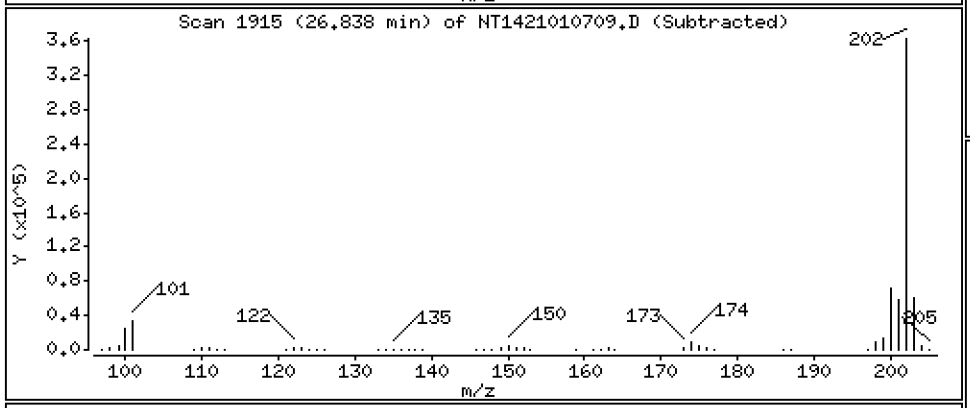
Column diameter: 0.25

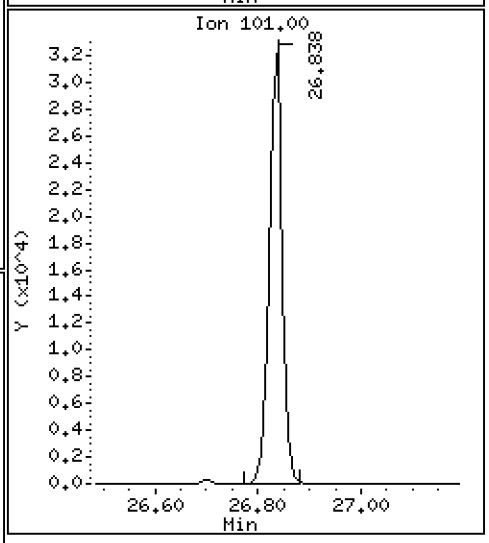
46 Pyrene

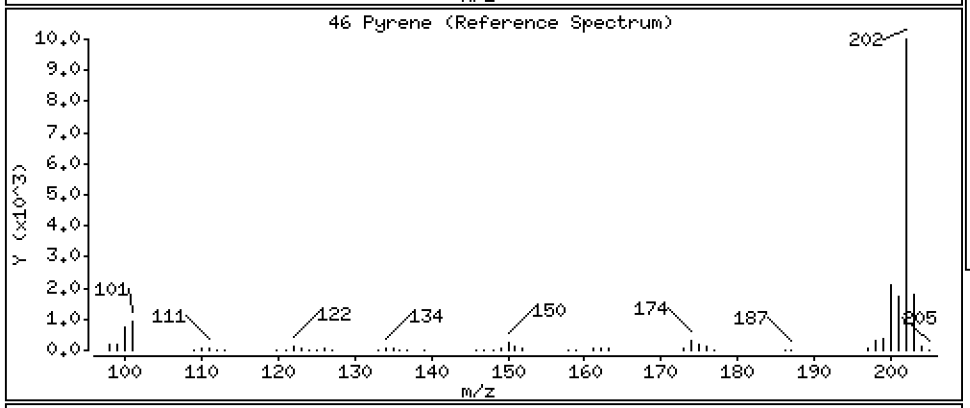
Concentration: 2.546 ug/mL

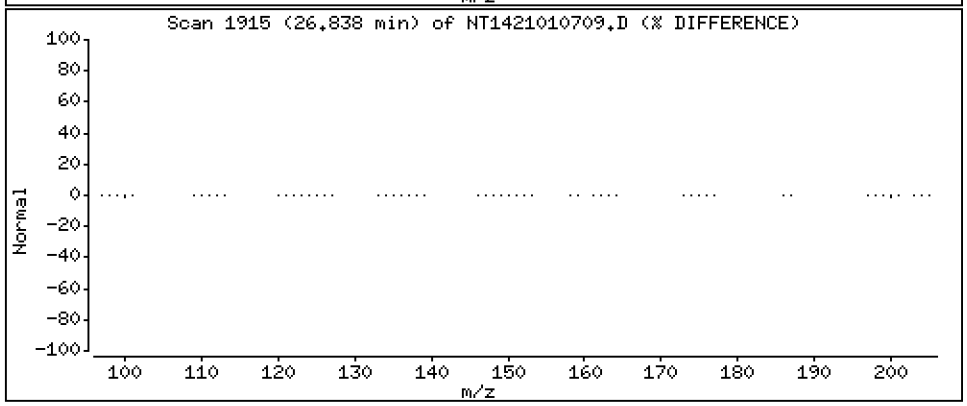












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

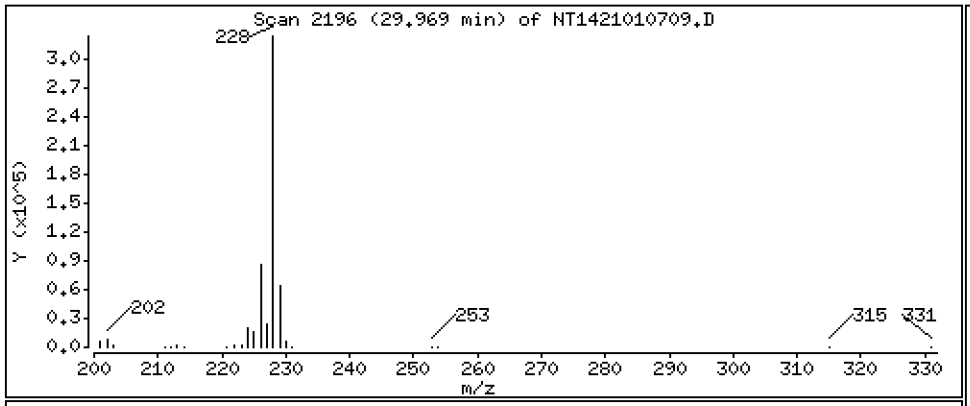
Operator: VTS

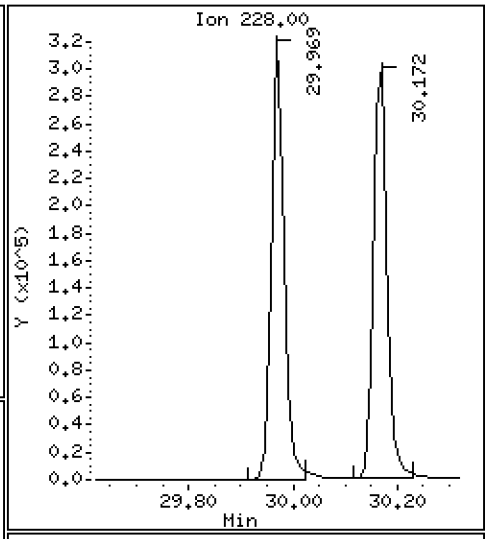
Column phase: Rxi-17Sil MS

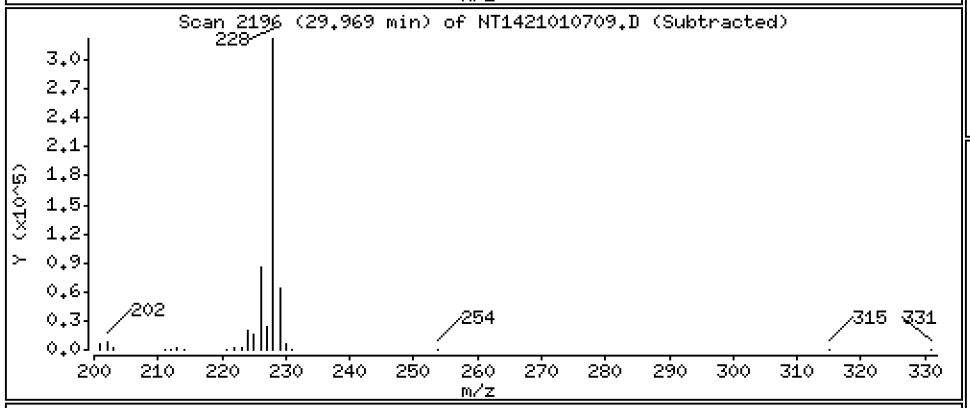
Column diameter: 0.25

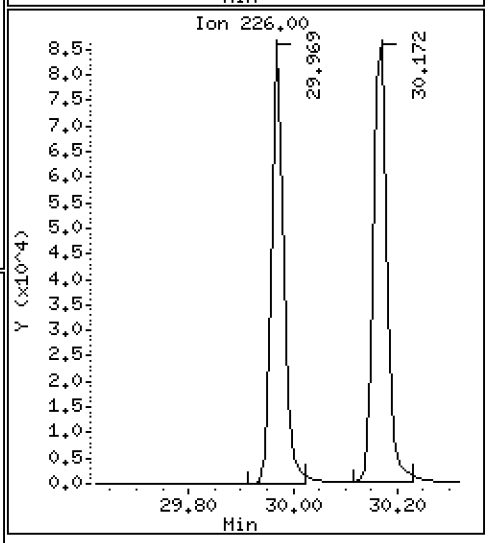
55 Benzo(a)anthracene

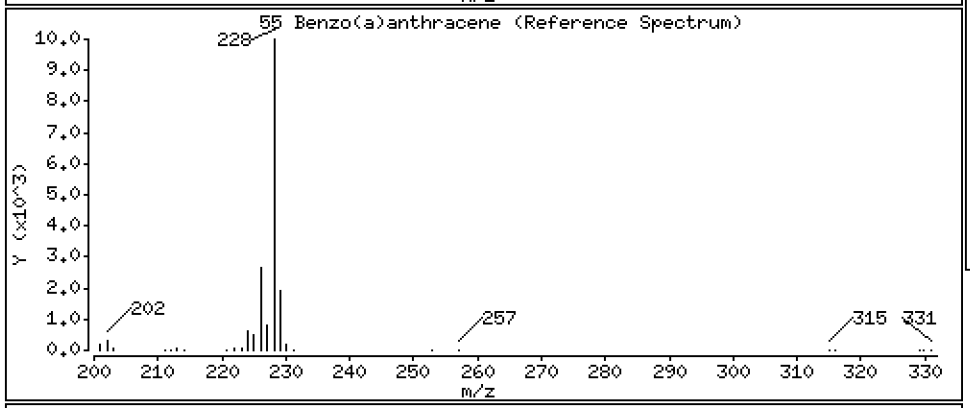
Concentration: 2.687 ug/mL

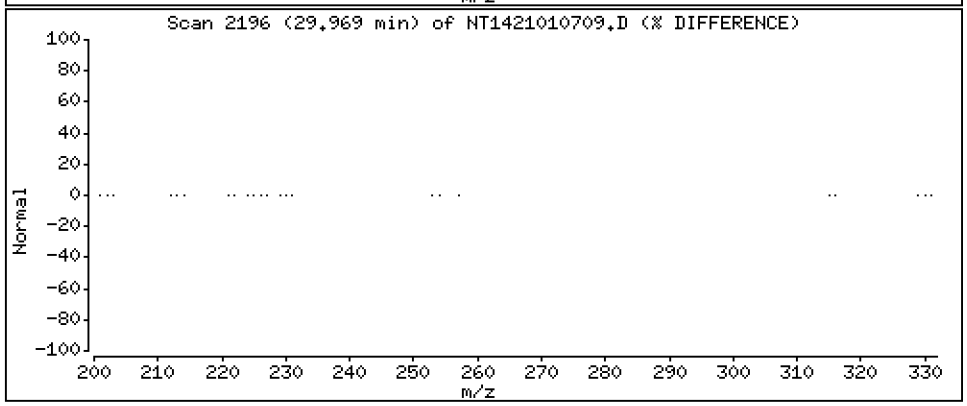












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

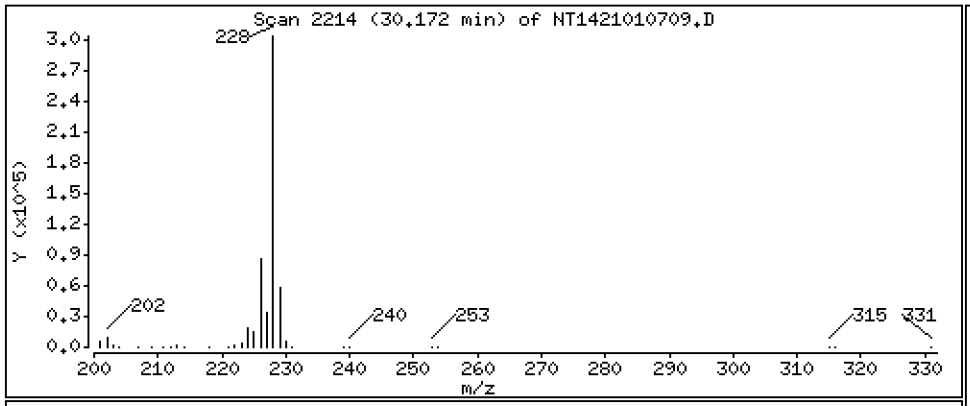
Operator: VTS

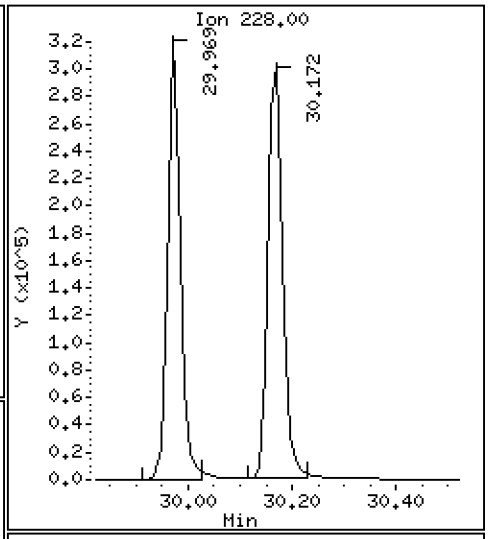
Column phase: Rxi-17Sil MS

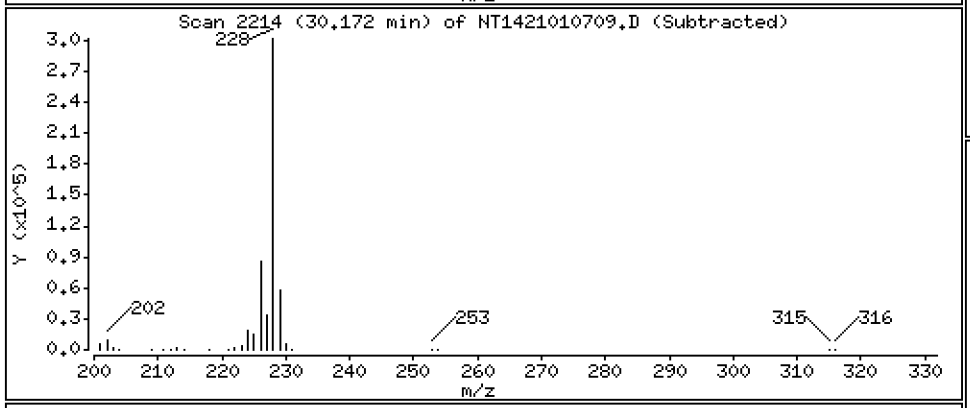
Column diameter: 0.25

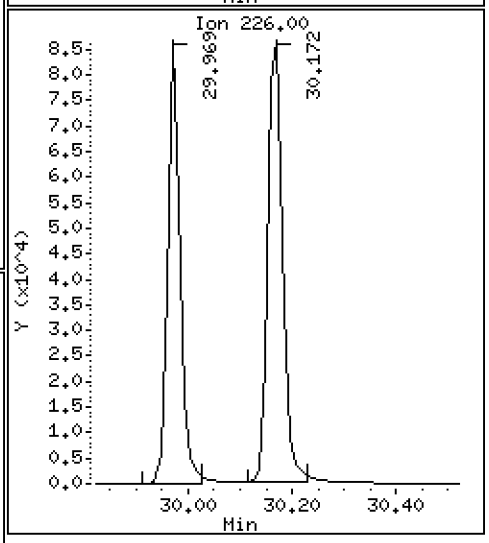
57 Chrysene

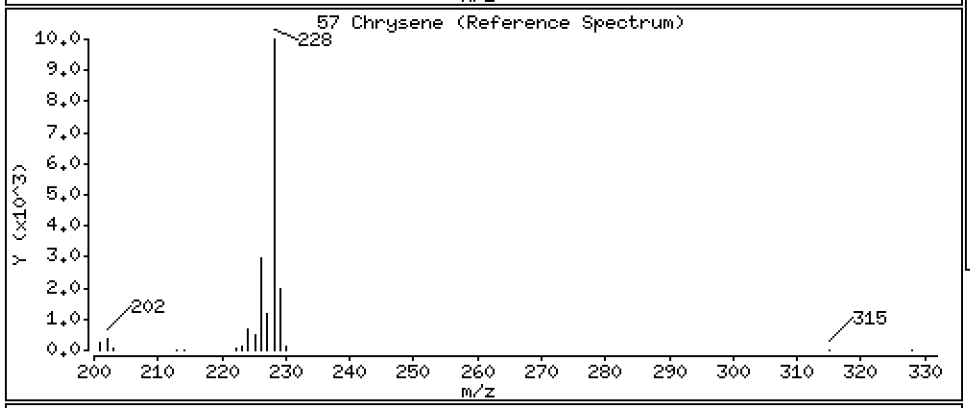
Concentration: 2.746 ug/mL

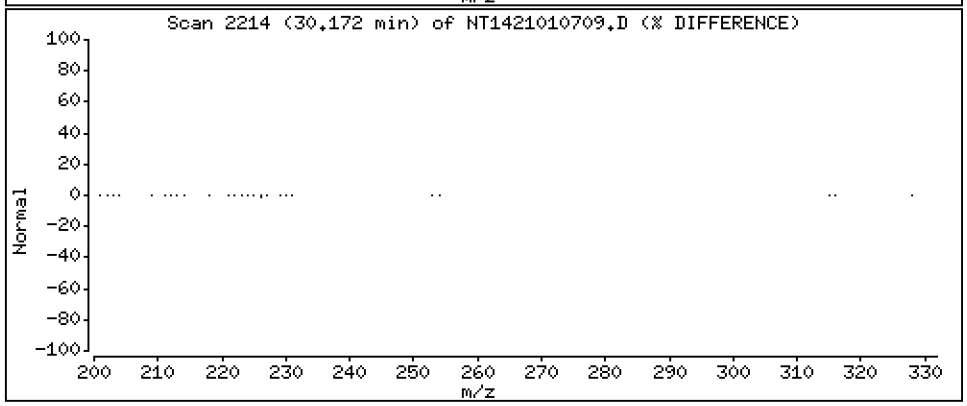












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

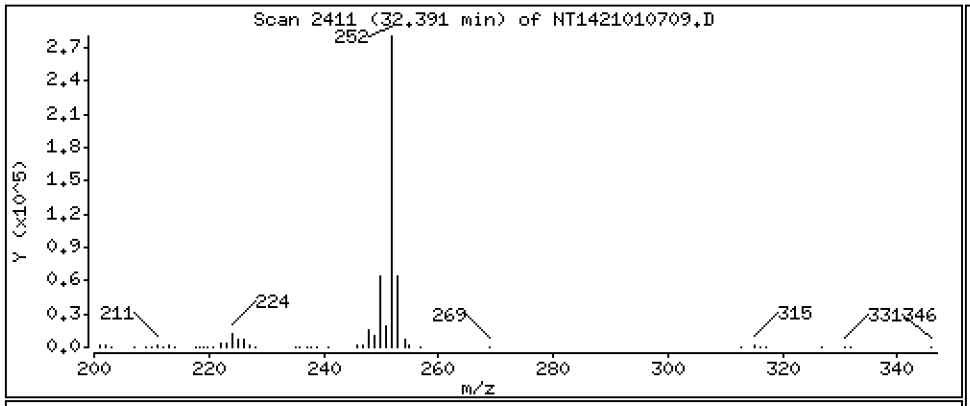
Operator: VTS

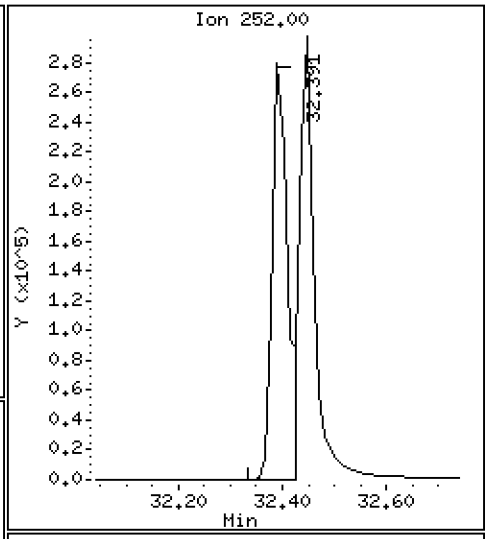
Column phase: Rxi-17Sil MS

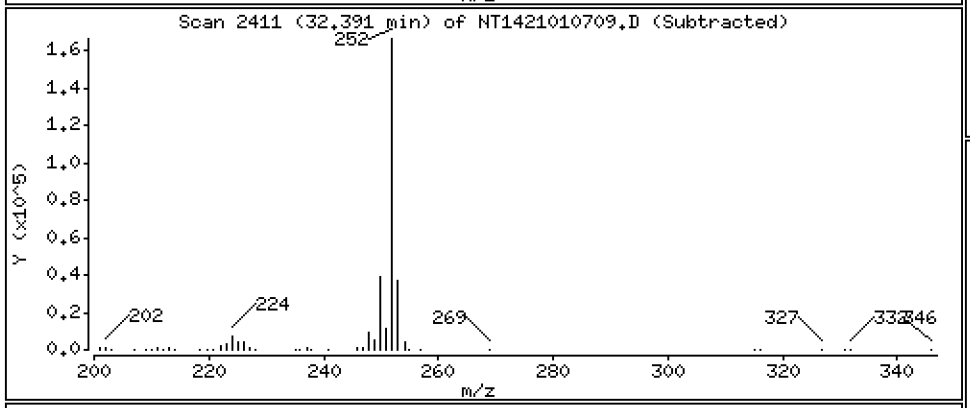
Column diameter: 0.25

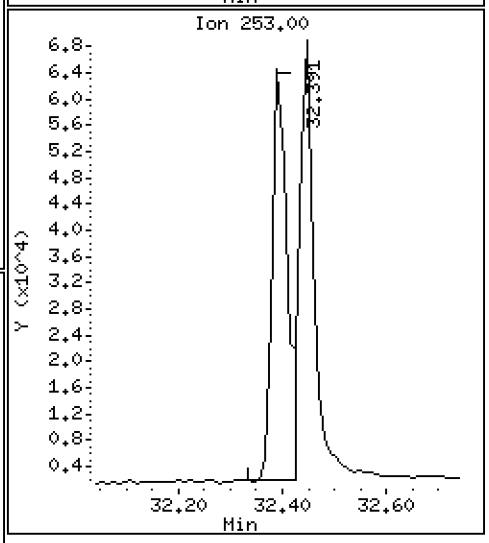
62 Benzo(b)fluoranthene

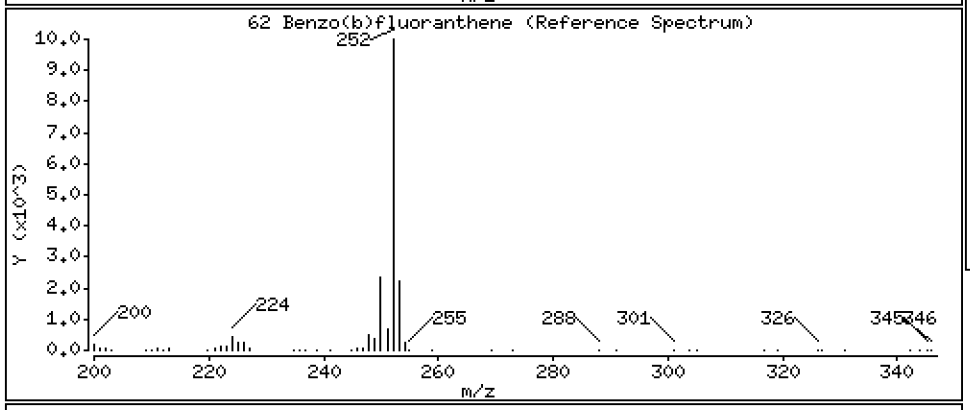
Concentration: 2.682 ug/mL

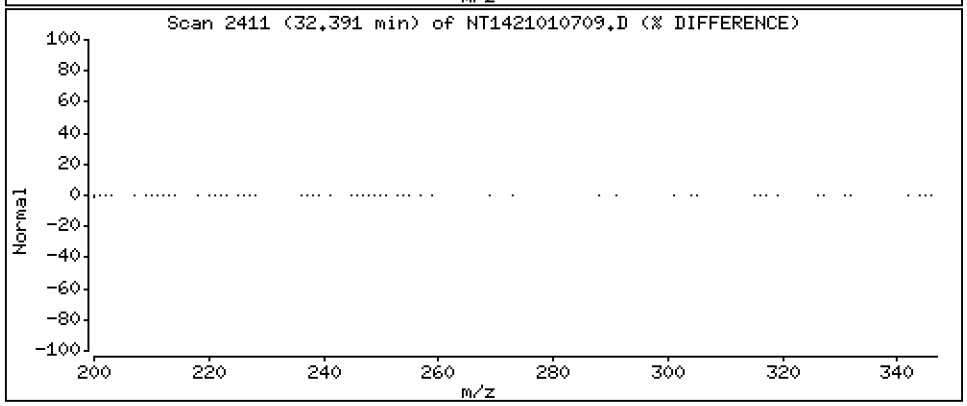












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

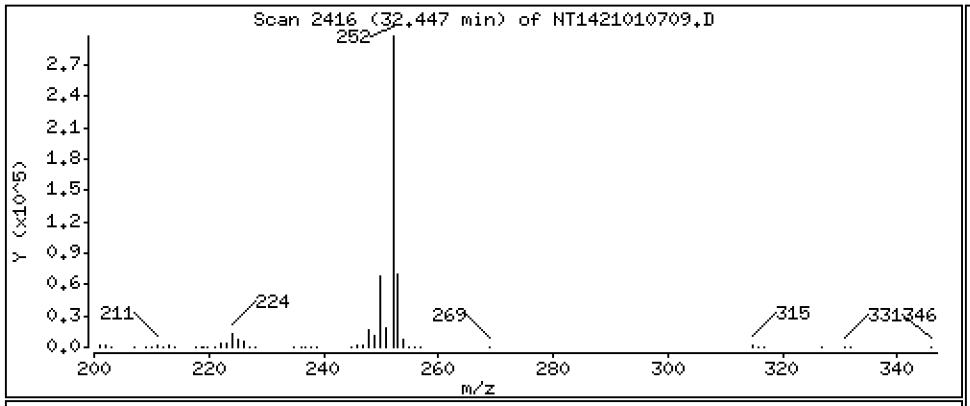
Operator: VTS

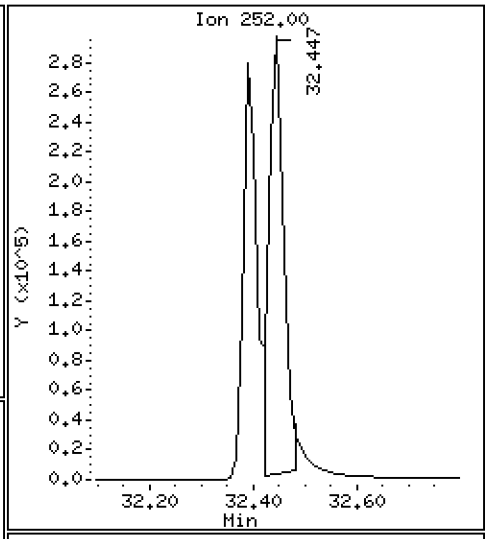
Column phase: Rxi-17Sil MS

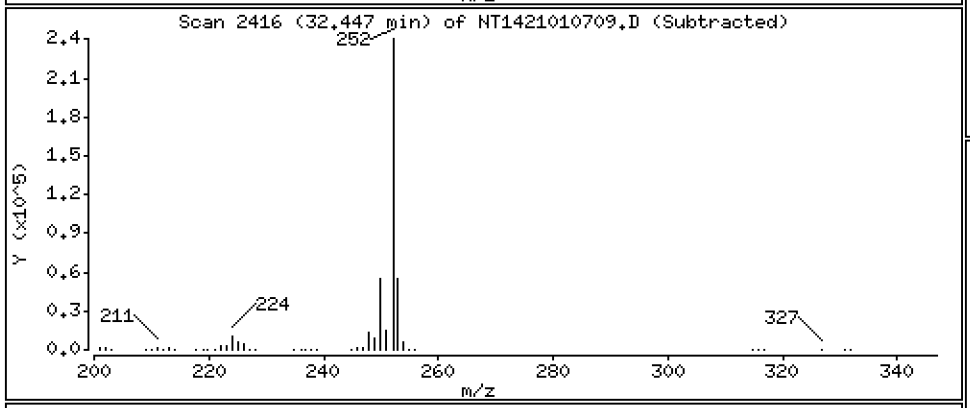
Column diameter: 0.25

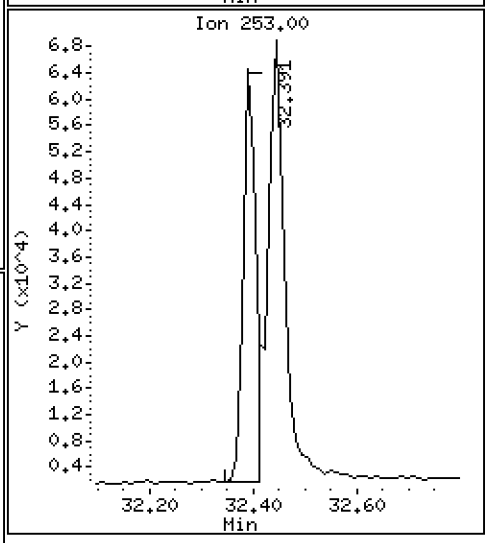
63 Benzo(k)fluoranthene

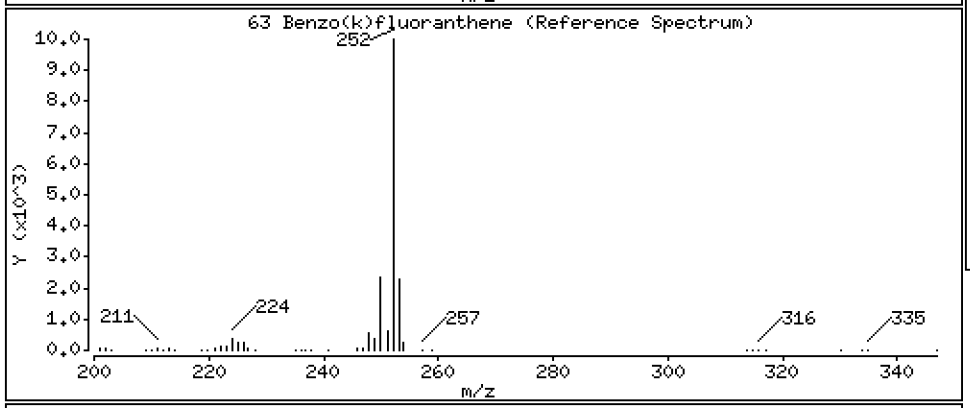
Concentration: 2.393 ug/mL

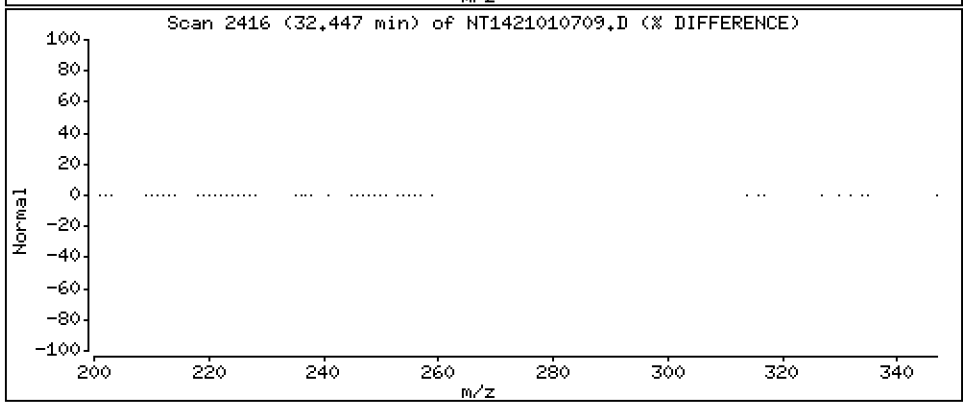












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

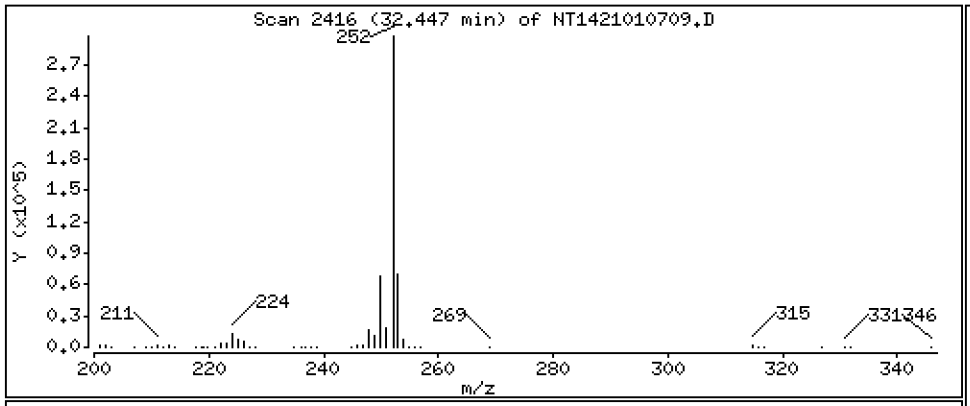
Operator: VTS

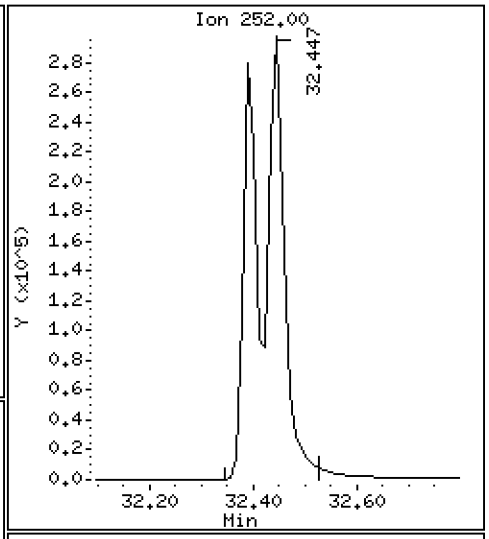
Column phase: Rxi-17Sil MS

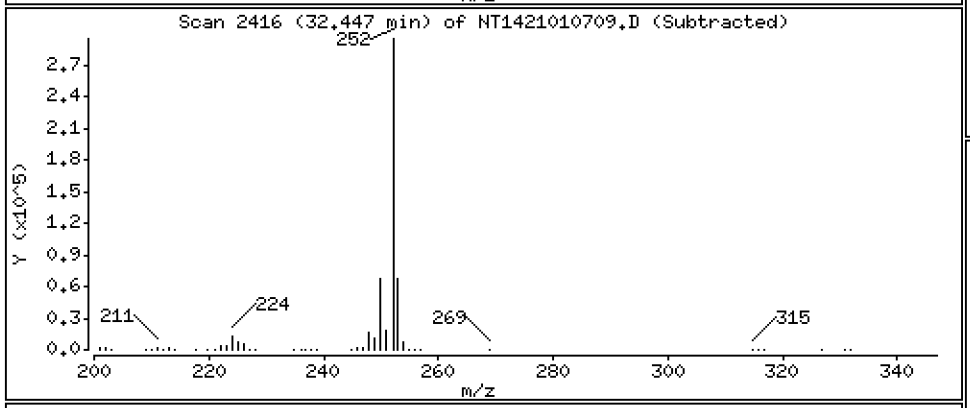
Column diameter: 0.25

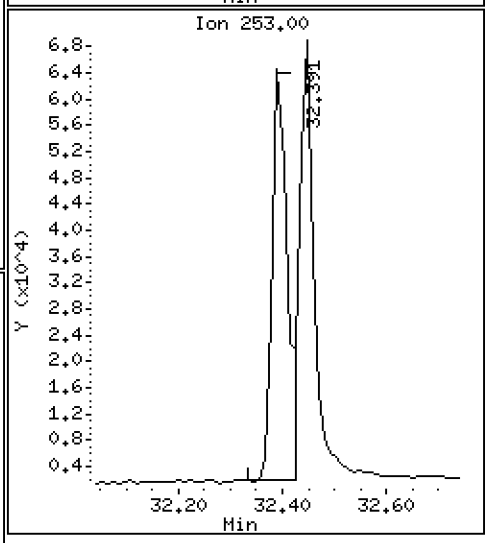
246 Total Benzofluoranthenes

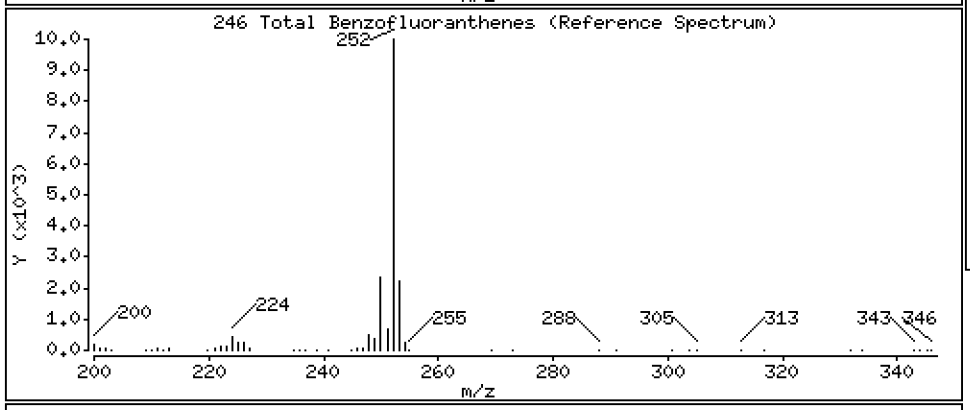
Concentration: 5.584 ug/mL

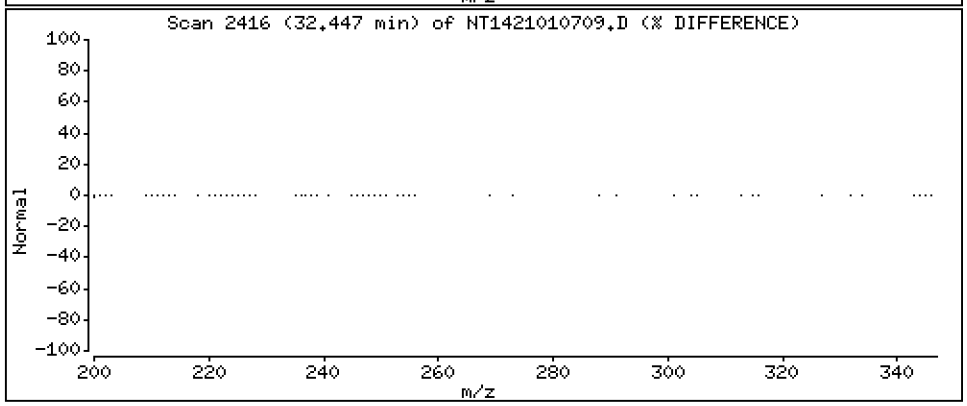












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

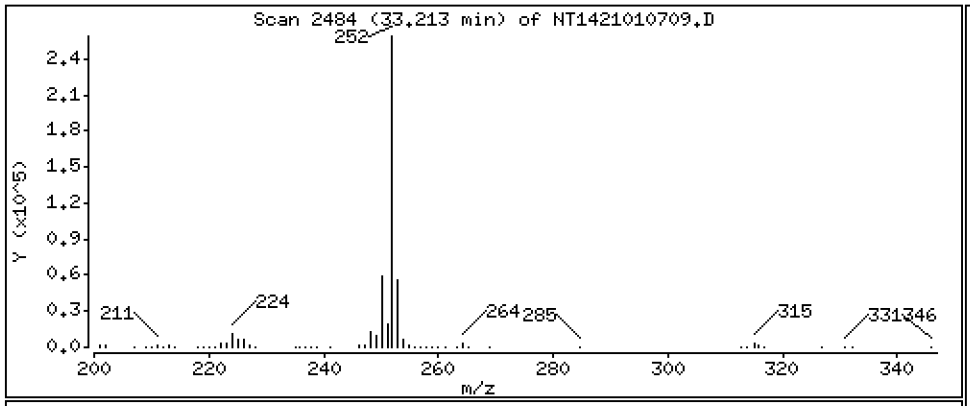
Operator: VTS

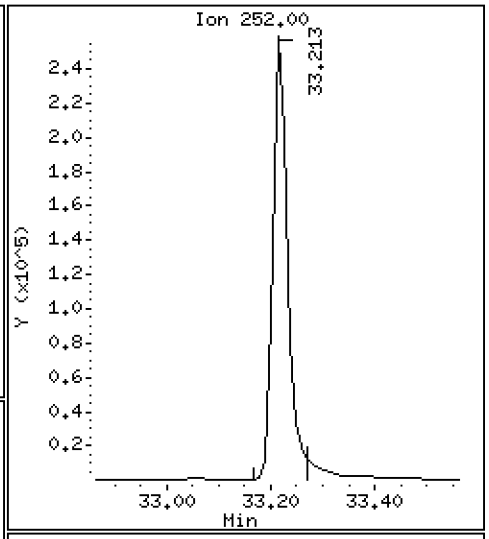
Column phase: Rxi-17Sil MS

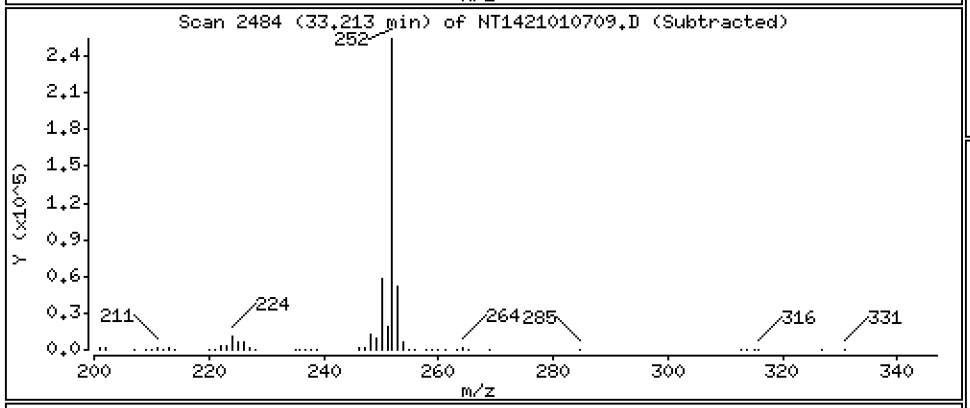
Column diameter: 0.25

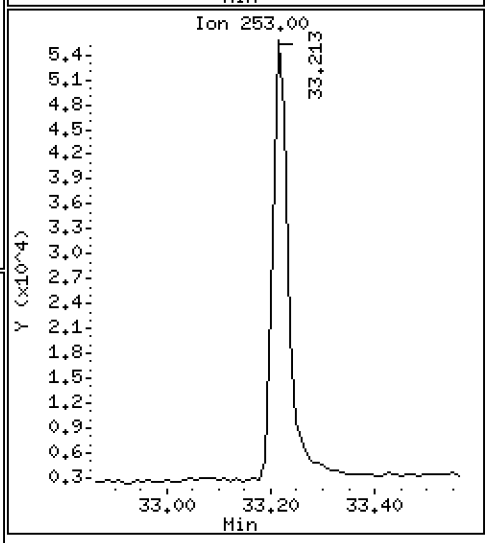
66 Benzo(a)pyrene

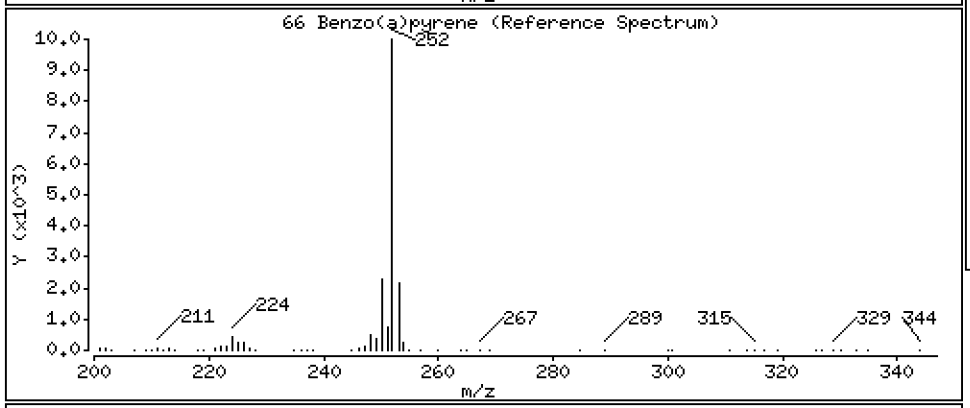
Concentration: 2.801 ug/mL

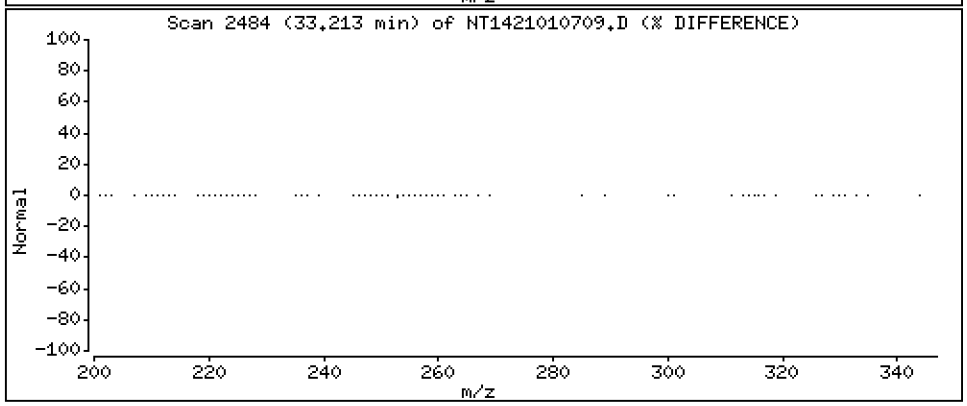












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

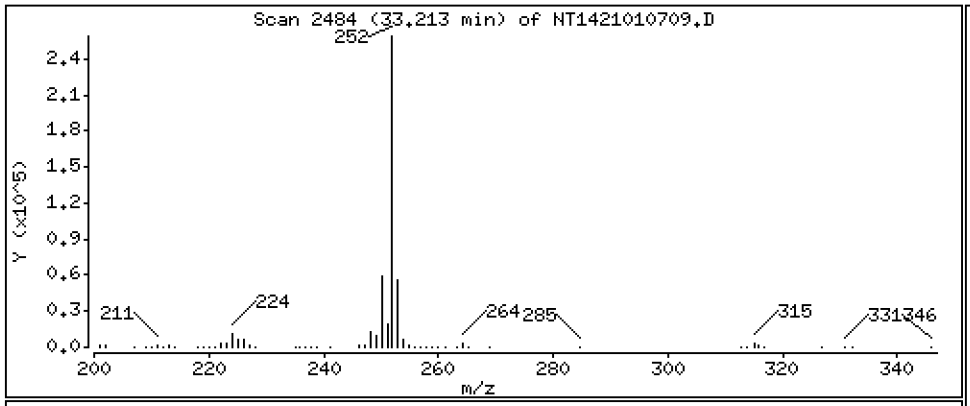
Operator: VTS

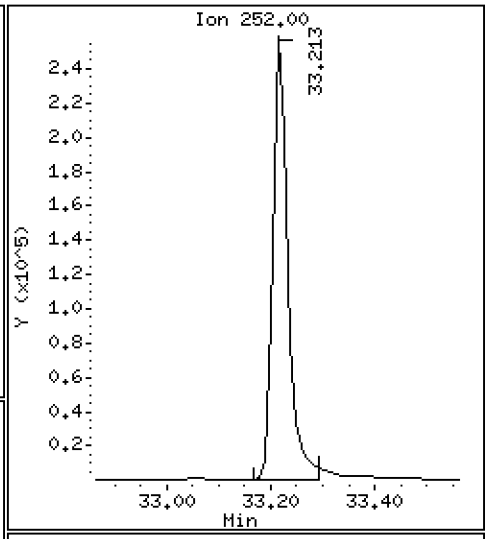
Column phase: Rxi-17Sil MS

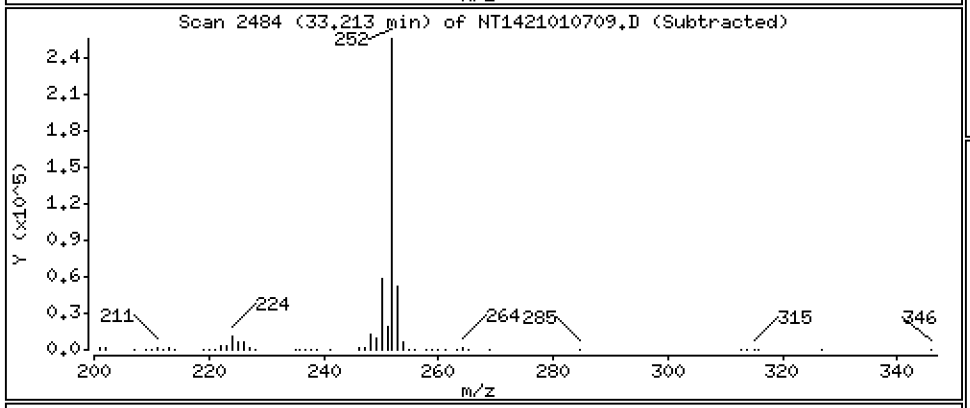
Column diameter: 0.25

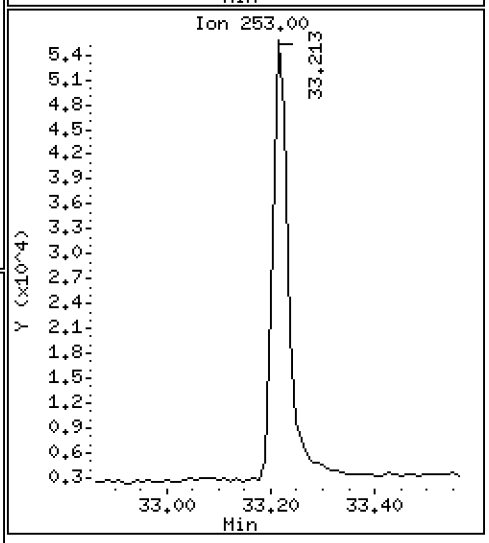
68 Perylene

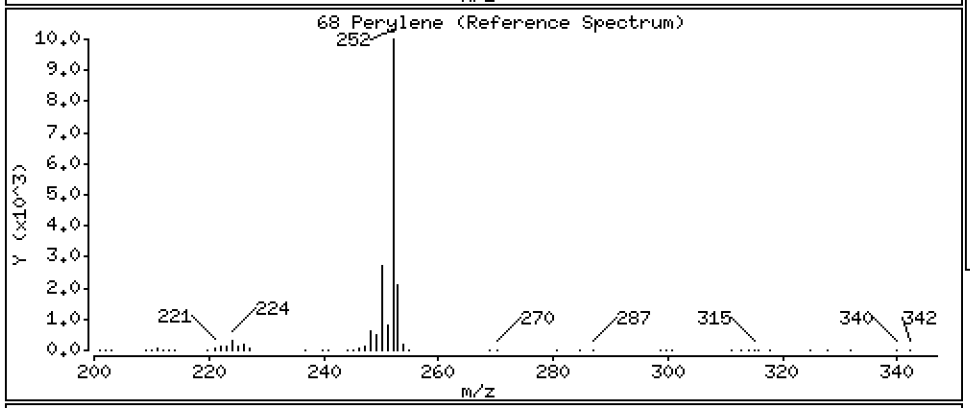
Concentration: 2.645 ug/mL

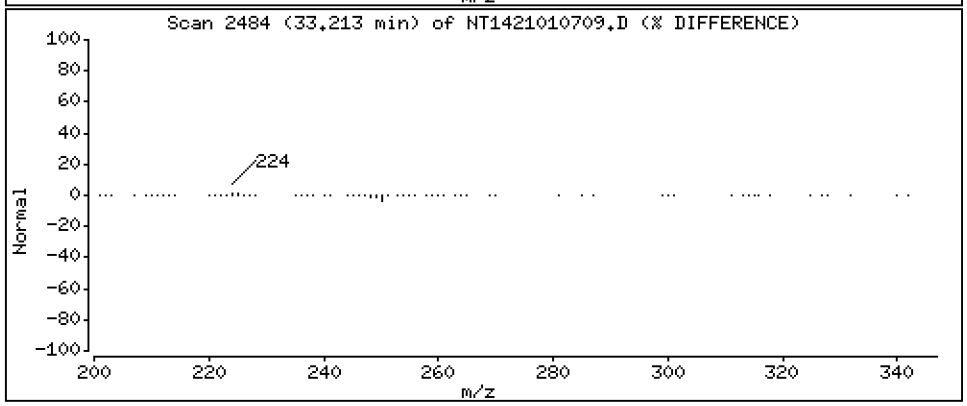












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

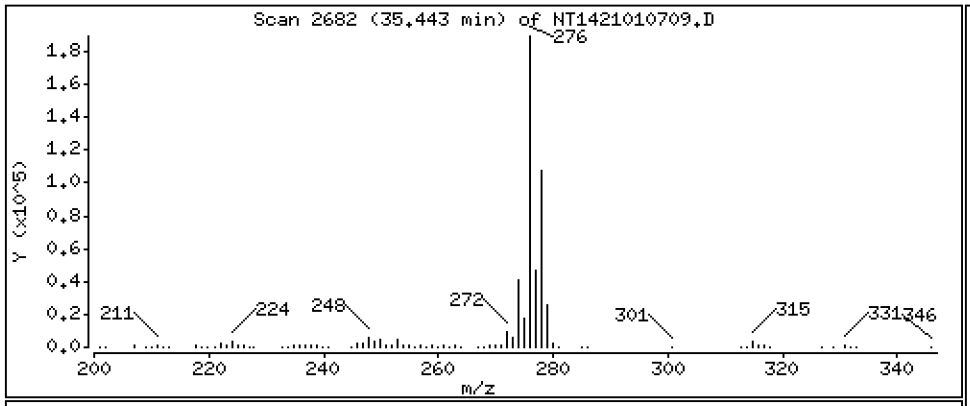
Operator: VTS

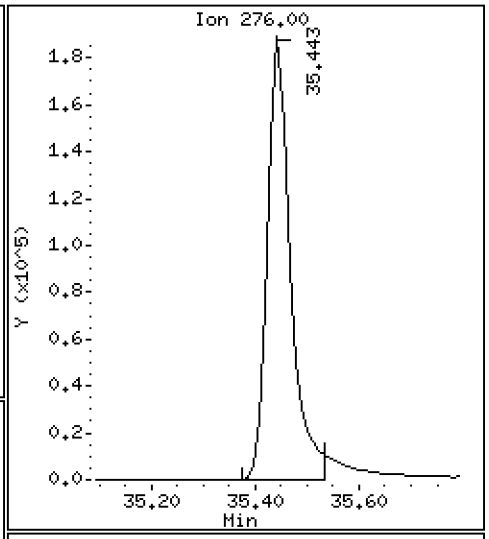
Column phase: Rxi-17Sil MS

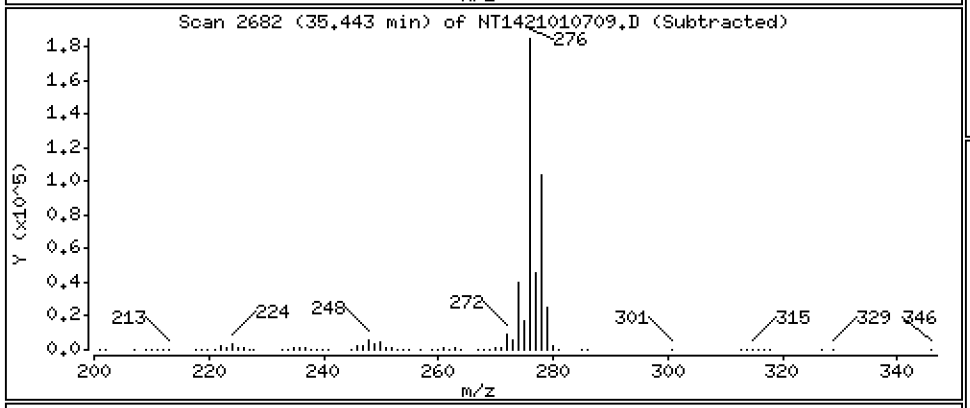
Column diameter: 0.25

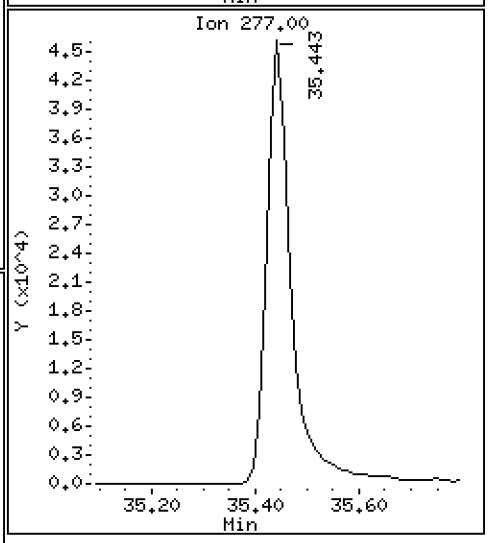
69 Indeno(1,2,3-cd)pyrene

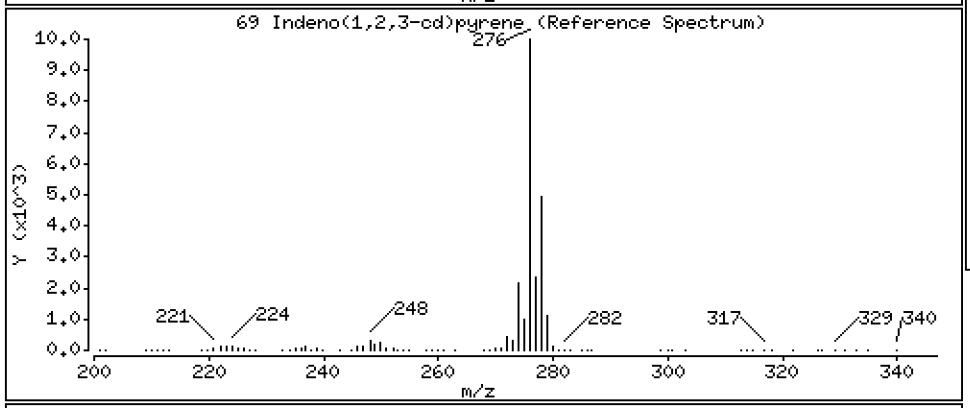
Concentration: 2.717 ug/mL

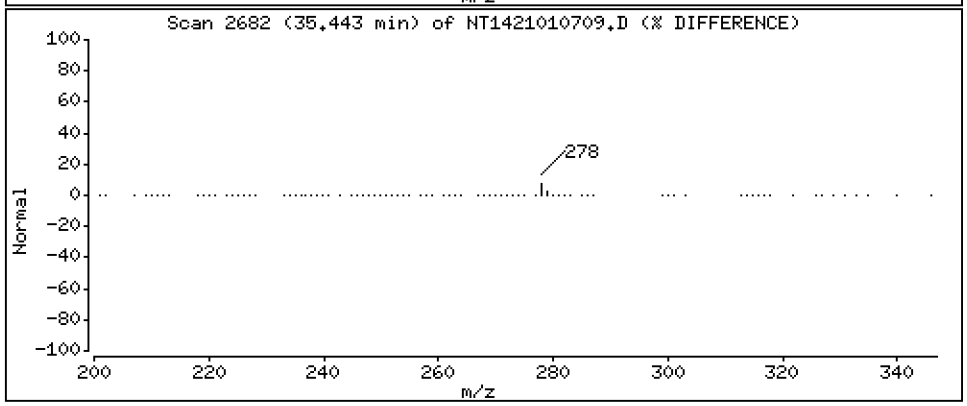












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

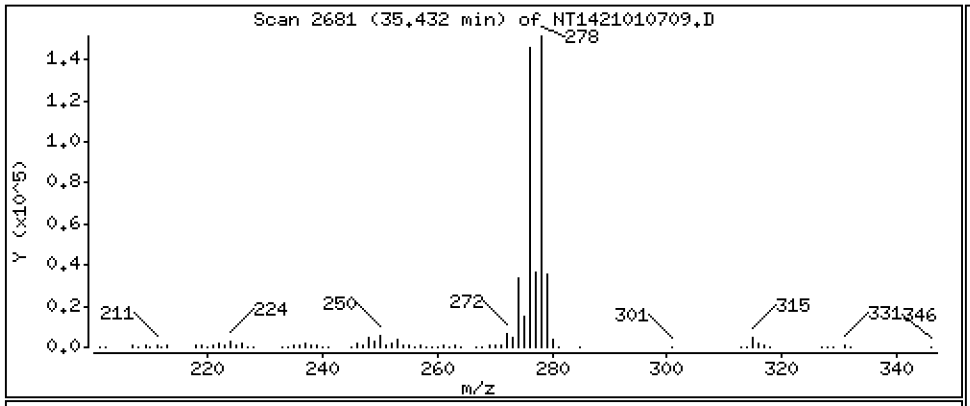
Operator: VTS

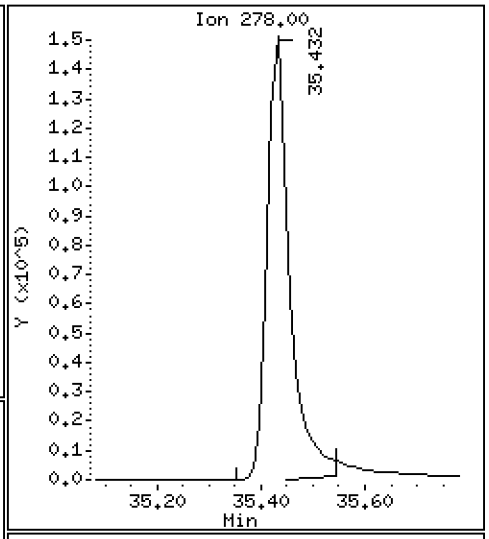
Column phase: Rxi-17Sil MS

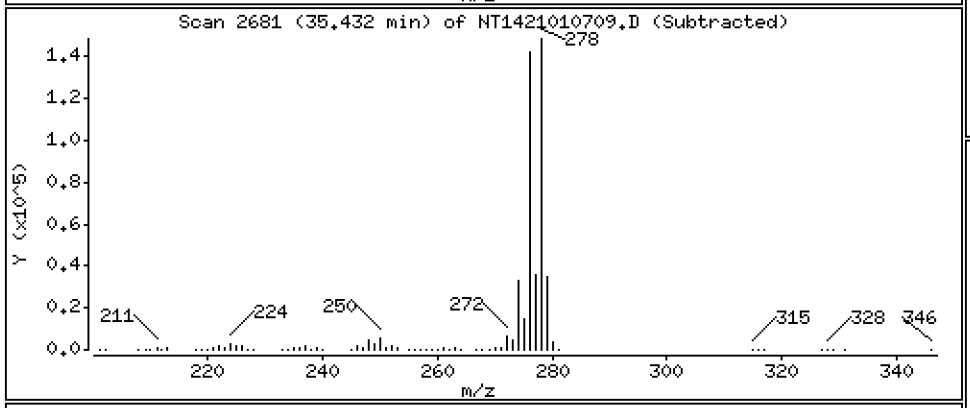
Column diameter: 0.25

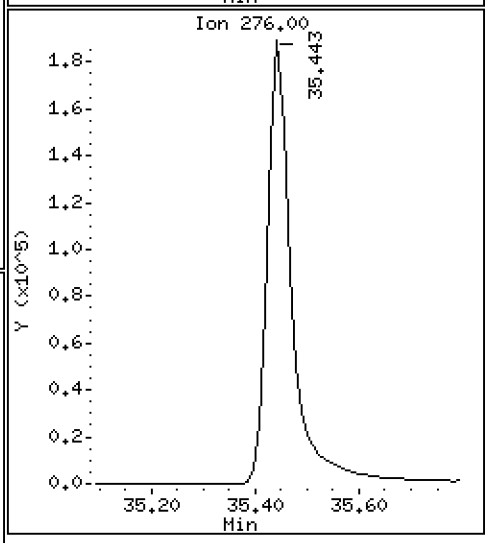
70 Dibenzo(a,h)anthracene

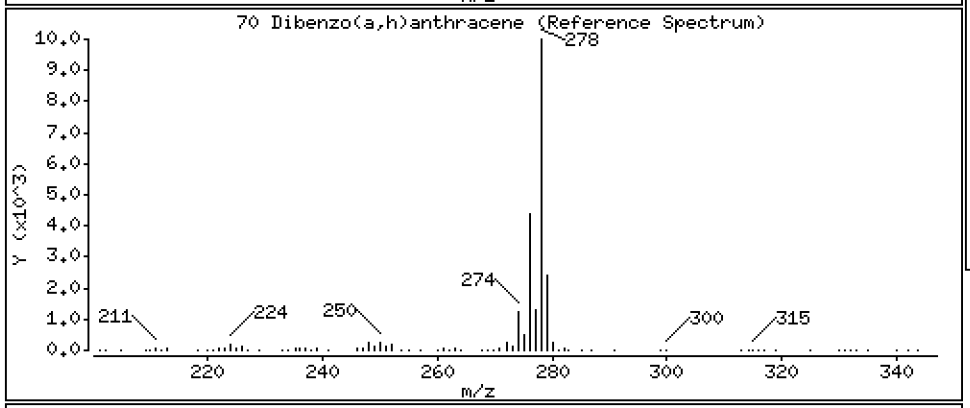
Concentration: 2.515 ug/mL

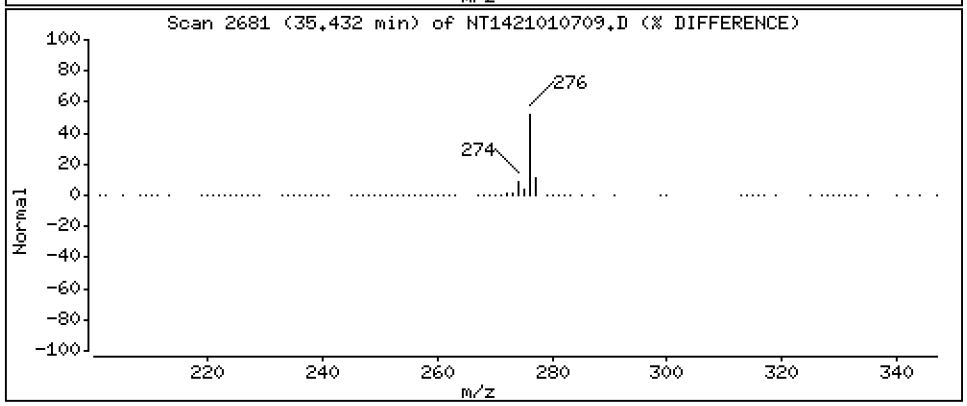












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

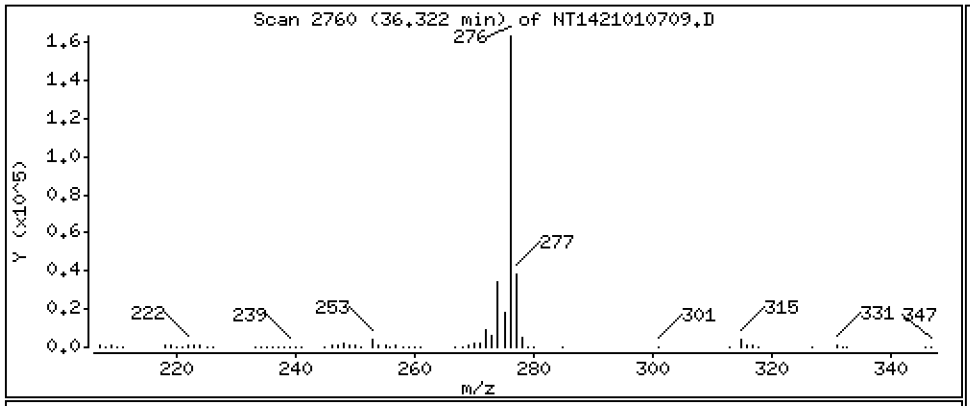
Operator: VTS

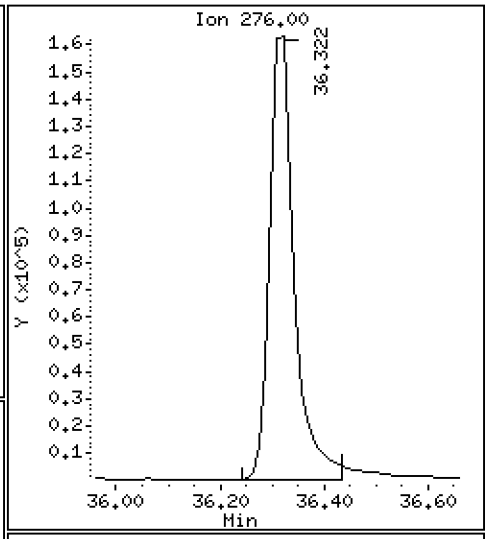
Column phase: Rxi-17Sil MS

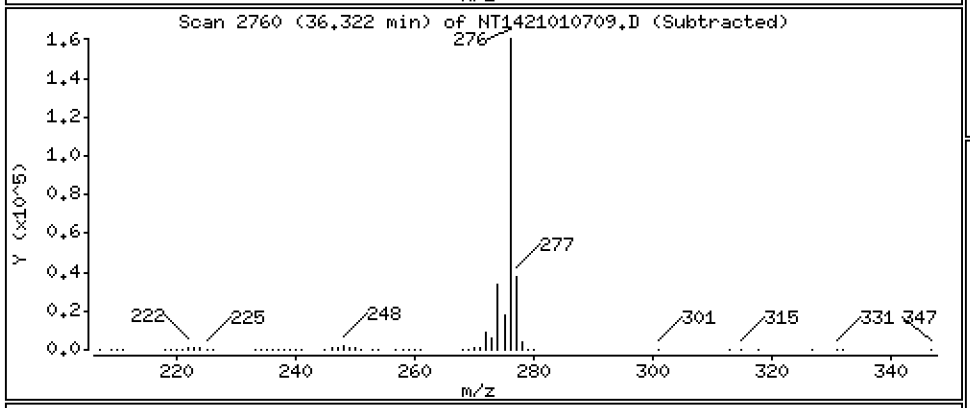
Column diameter: 0.25

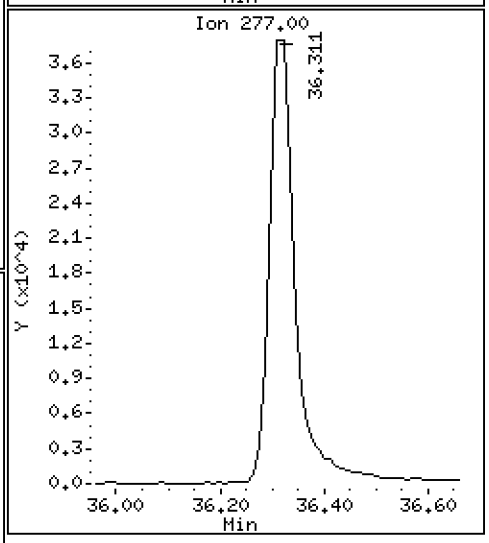
74 Benzo(g,h,i)perylene

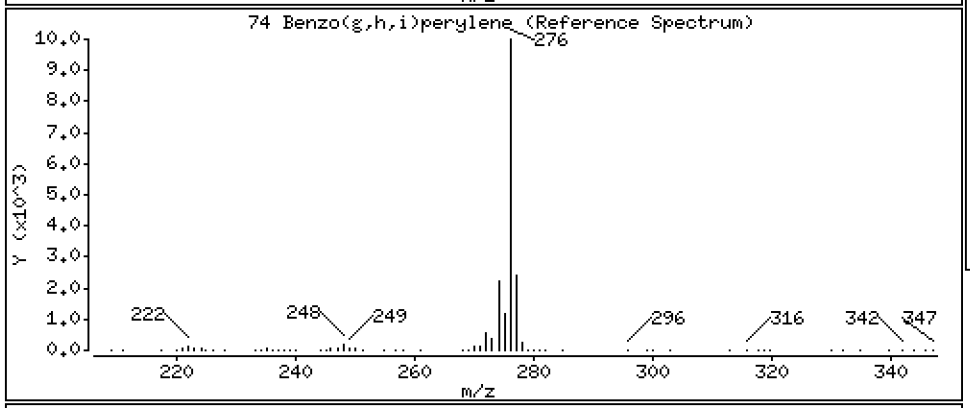
Concentration: 2.559 ug/mL

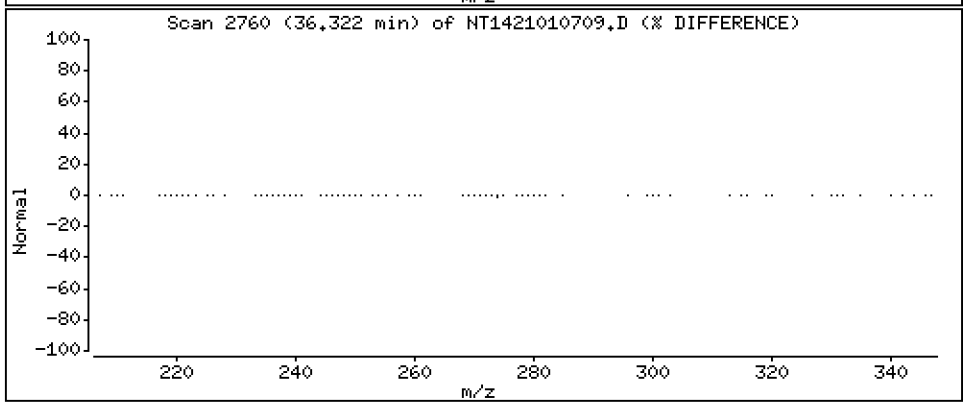












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D
Lab Smp Id: SJA0059-SCV1
Inj Date : 07-JAN-2021 17:32
Operator : VTS Inst ID: nt14.i
Smp Info : SJA0059-SCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Meth Date : 08-Jan-2021 16:59 yev Quant Type: ISTD
Cal Date : 07-JAN-2021 16:44 Cal File: NT1421010708.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	Compound Not Detected.					
	2 cis-Decalin	138	Compound Not Detected.					
$	6 Naphthalene-d8	136	11.755	11.766	(0.627)	6860	0.03204	0.03204(R)
	7 Naphthalene	128	11.832	11.832	(0.631)	548838	2.56023	2.560
	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	16.942	16.942	(0.903)	585844	2.61358	2.614
$	21 Acenaphthene-d10	164	17.239	17.228	(0.919)	991	0.00876	0.008762(R)
	22 Acenaphthene	153	17.349	17.349	(0.925)	354827	2.46209	2.462
	23 Dibenzofuran	168	Compound Not Detected.					
	24 1,6,7-Trimethylnaphthalene	170	Compound Not Detected.					
*	25 Fluorene-d10	176	18.763	18.763	(1.000)	462832	2.00000	
	26 Fluorene	166	18.865	18.865	(1.005)	395543	2.53071	2.531
	30 Dibenzothiophene	184	Compound Not Detected.					
$	35 Phenanthrene-d10	188	Compound Not Detected.					
	36 Phenanthrene	178	22.176	22.176	(0.999)	587041	2.59414	2.594
*	250 Anthracene-d10	188	22.209	22.209	(1.000)	454007	2.00000	
	37 Anthracene	178	22.275	22.275	(1.003)	560639	2.67907	2.679
	42 Carbazole	167	Compound Not Detected.					
	43 1-Methylphenanthrene	192	Compound Not Detected.					
	44 Fluoranthene	202	25.991	25.991	(1.170)	638724	2.58296	2.583
	46 Pyrene	202	26.838	26.838	(1.208)	660626	2.54579	2.546
	51 Naphthobenzothiophene	234	Compound Not Detected.					
	55 Benzo(a)anthracene	228	29.969	29.969	(0.907)	547714	2.68714	2.687
$	56 Chrysene-d12	240	30.093	30.093	(0.910)	19125	0.12163	0.1216(R)
	57 Chrysene	228	30.172	30.172	(0.913)	558840	2.74572	2.746
	62 Benzo(b)fluoranthene	252	32.390	32.390	(0.980)	547976	2.68179	2.682
	63 Benzo(k)fluoranthene	252	32.447	32.447	(0.982)	558973	2.39308	2.393(M)
	293 Benzo(j)fluoranthene	252	Compound Not Detected.					
	246 Total Benzofluoranthenes	252	32.447	32.447	(0.982)	1116031	5.58373	5.584(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	33.055	33.055	(1.000)	502859	2.00000	
64 Benzo(e)pyrene	252	Compound Not Detected.					
66 Benzo(a)pyrene	252	33.213	33.213	(1.005)	512056	2.80117	2.801(M)
$ 67 Perylene-d12	264	Compound Not Detected.					
68 Perylene	252	33.213	33.213	(1.005)	490665	2.64511	2.645(M)
69 Indeno(1,2,3-cd)pyrene	276	35.443	35.443	(1.072)	559089	2.71709	2.717(M)
70 Dibenzo(a,h)anthracene	278	35.431	35.432	(1.072)	441900	2.51483	2.515(M)
74 Benzo(g,h,i)perylene	276	36.321	36.310	(1.099)	514850	2.55879	2.559(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: NT1421010709.D
Lab Smp Id: SJA0059-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Misc Info:

Calibration Date: 07-JAN-2021
Calibration Time: 11:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	642877	321439	1285754	462832	-28.01
250 Anthracene-d10	641722	320861	1283444	454007	-29.25
251 Benzo(e)pyrene-d1	741138	370569	1482276	502859	-32.15

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.76	18.26	19.26	18.76	-0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	-0.00
251 Benzo(e)pyrene-d1	33.06	32.56	33.56	33.06	-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 - NT1421010709.D

Lab ID: SJA0059-SCV1
nt14.i, 20210107.b\ALKYLPNA.m, 07-JAN-2021 17:32

RT	CO-ELUTION COMPOUNDS
33.213	Perylene and Benzo(a)pyrene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

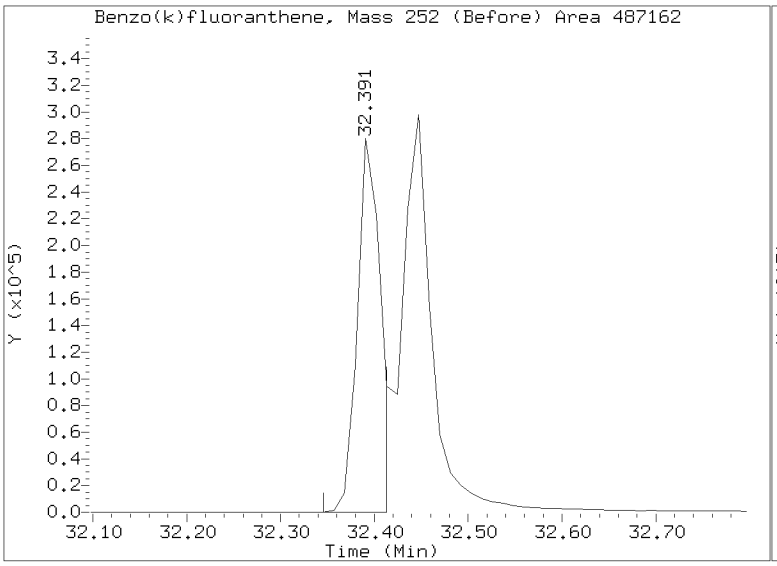
RRT check based on Ccal File: NT1421010708.D

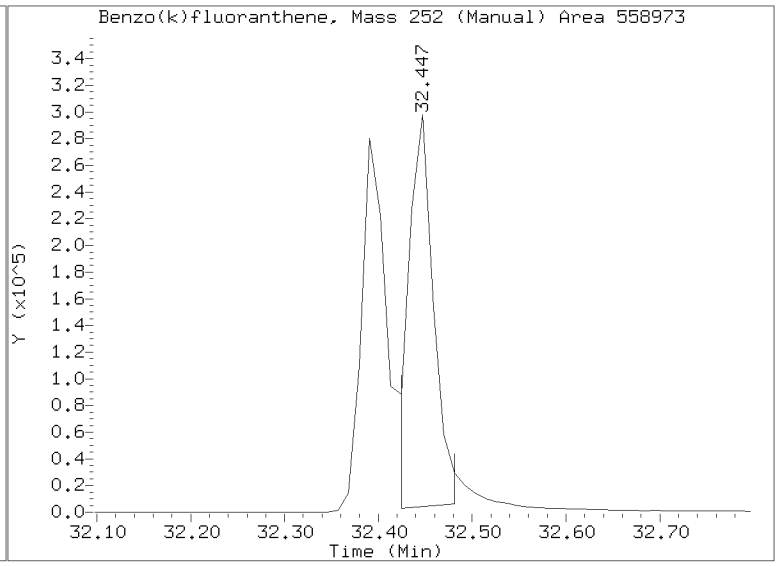
On Column LOD for nt14.i, 20210107.b\ALKYLPNA.m, TARGETS.sub = 0.0000

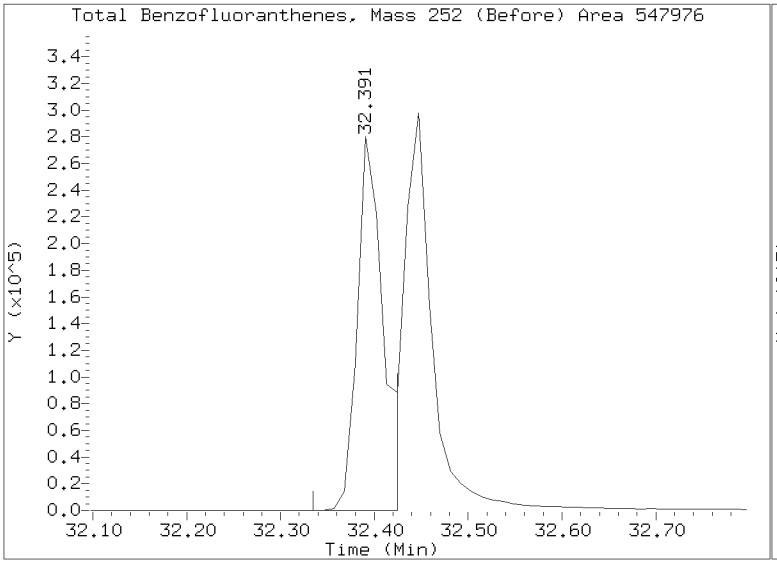
* Only compounds listed in the work order have been verified by the analyst *

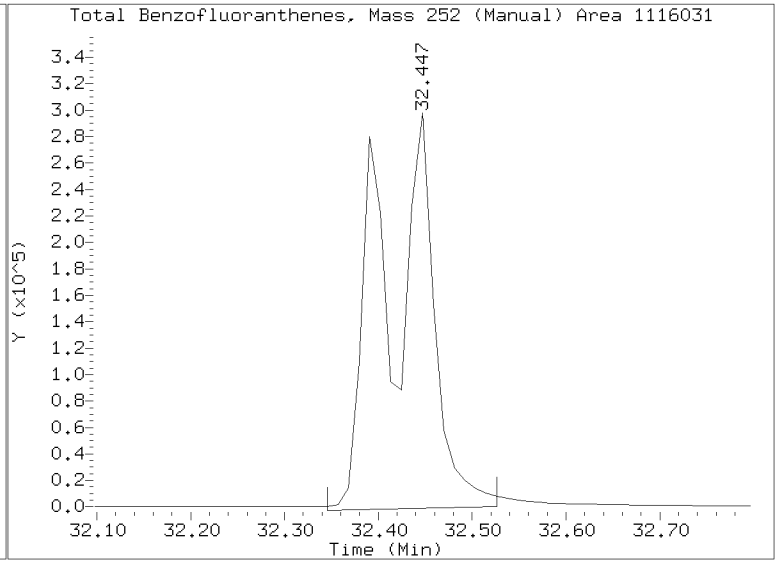
Quant Ion Manual Peak Adjustment Report

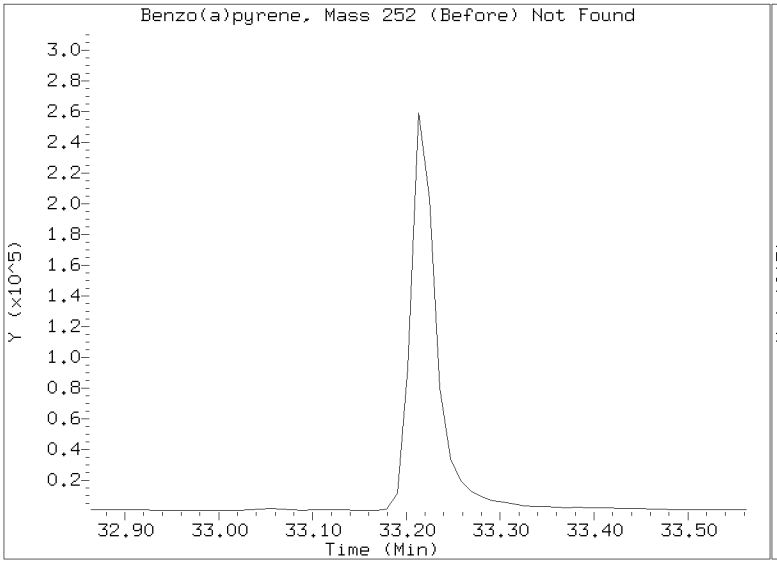
Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010709.D
Injection Date: 07-JAN-2021 17:32
Lab ID:SJA0059-SCV1 Client ID:
Report Date: 01/08/2021 16:59

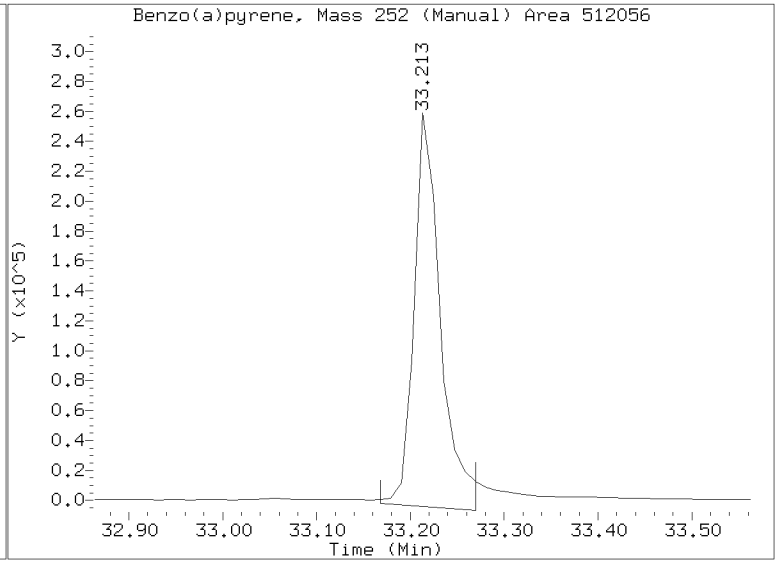






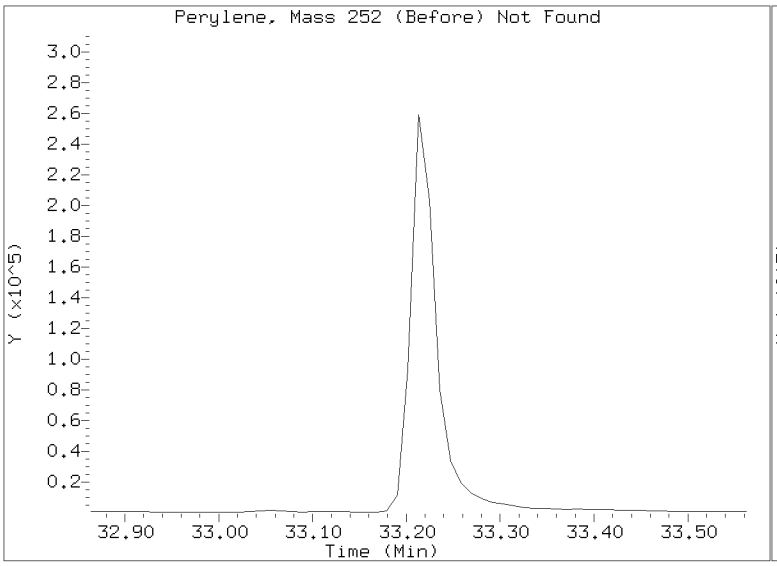


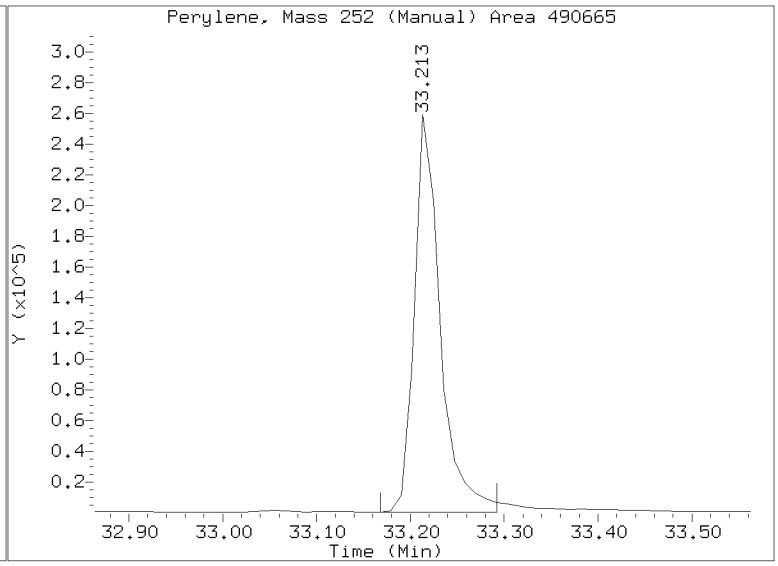


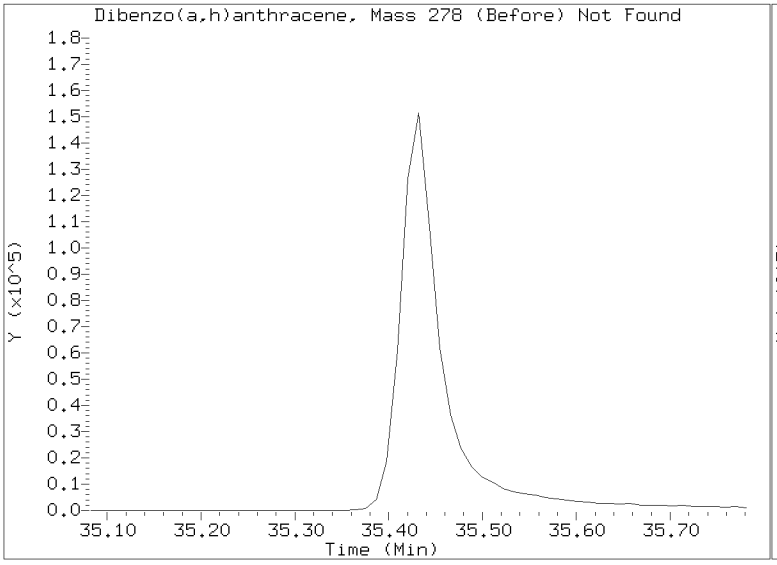


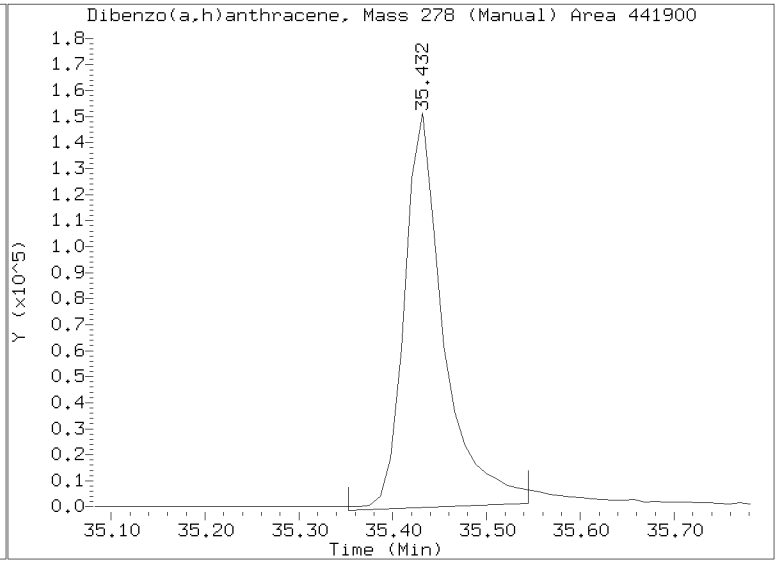
Quant Ion Manual Peak Adjustment Report

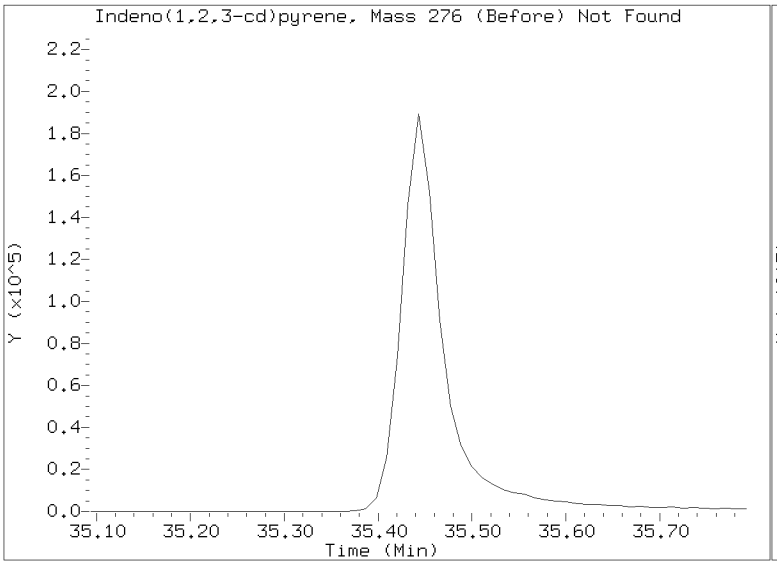
Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010709.D
Injection Date: 07-JAN-2021 17:32
Lab ID:SJA0059-SCV1 Client ID:
Report Date: 01/08/2021 16:59

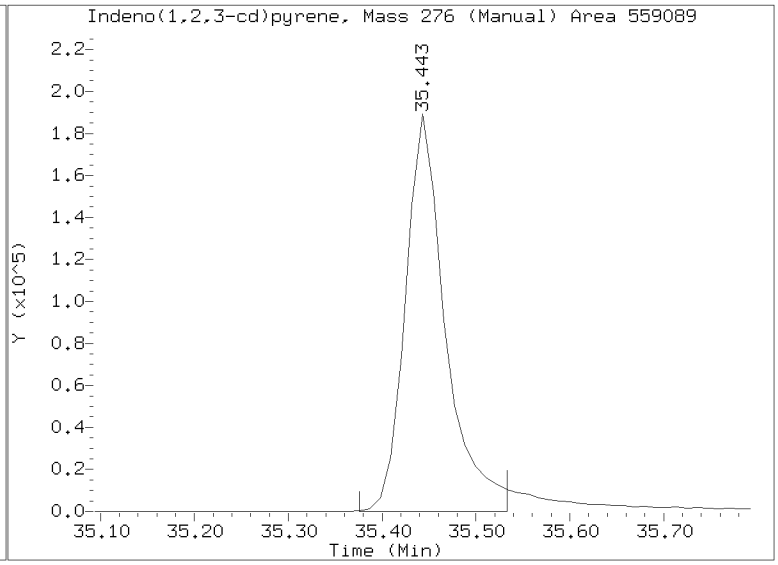






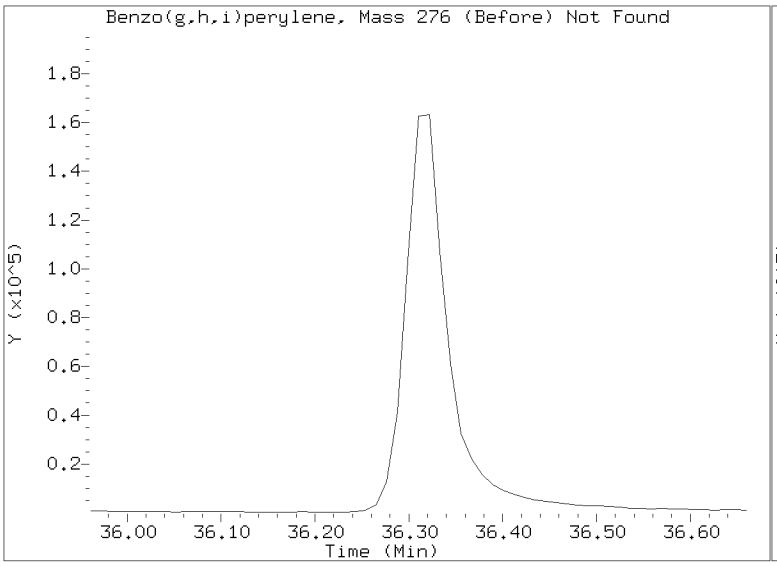


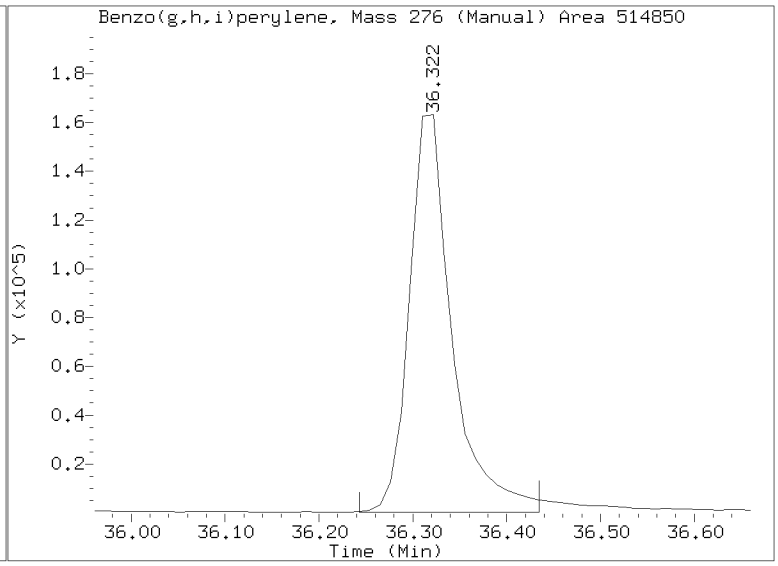




Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010709.D
Injection Date: 07-JAN-2021 17:32
Lab ID:SJA0059-SCV1 Client ID:
Report Date: 01/08/2021 16:59





Analytical Resources, Incorporated
Analytical Chemists and Consultants

INITIAL CALIBRATION DATA
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Calibration:	EC00010	Instrument:	NT14
Calibration Date:	03/03/2021	Column (1):	ZB-5MS

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RRF		RRF		RRF		RRF		RRF		RRF
Fluorene-d10	2	278850.5										
Anthracene-d10	2	323847.5										
Benzo(e)pyrene-d12	2	365439.5										

Analytical Resources, Incorporated
Analytical Chemists and Consultants

INITIAL CALIBRATION DATA
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Calibration:	EC00010	Instrument:	NT14
Calibration Date:	03/03/2021	Column (1):	ZB-5MS

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Fluorene-d10		0.0			RSD (15)	
Anthracene-d10		0.0			RSD (15)	
Benzo(e)pyrene-d12		0.0			RSD (15)	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.
Client: Anchor QEA, LLC
Calibration: EA00040
Sequence: SJA0059

SDG: 21B0118
Project: US Moorings
Laboratory ID: SJA0059-SCV1
Sequence Name: Secondary Cal Check
Standard ID: I009393

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Naphthalene	2.5000	2.6	2.4	20.00
1-Methylnaphthalene	2.5000	0.0		20.00
2-Methylnaphthalene	2.5000	0.0		20.00
Acenaphthylene	2.5000	2.6	4.5	20.00
Acenaphthene	2.5000	2.5	-1.5	20.00
Dibenzofuran	2.5000	0.0		20.00
Fluorene	2.5000	2.5	1.2	20.00
Phenanthrene	2.5000	2.6	3.8	20.00
Anthracene	2.5000	2.7	7.2	20.00
Carbazole	2.5000	0.0		20.00
Fluoranthene	2.5000	2.6	3.3	20.00
Pyrene	2.5000	2.5	1.8	20.00
Benzo(a)anthracene	2.5000	2.7	7.5	20.00
Chrysene	2.5000	2.7	9.8	20.00
Benzo(b)fluoranthene	2.5000	2.7	7.3	
Benzo(k)fluoranthene	2.5000	2.4	-4.3	
Benzo(a)pyrene	2.5000	2.8	12.0	20.00
Indeno(1,2,3-cd)pyrene	2.5000	2.7	8.7	20.00
Dibenzo(a,h)anthracene	2.5000	2.5	0.6	20.00
Benzo(g,h,i)perylene	2.5000	2.6	2.4	20.00

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

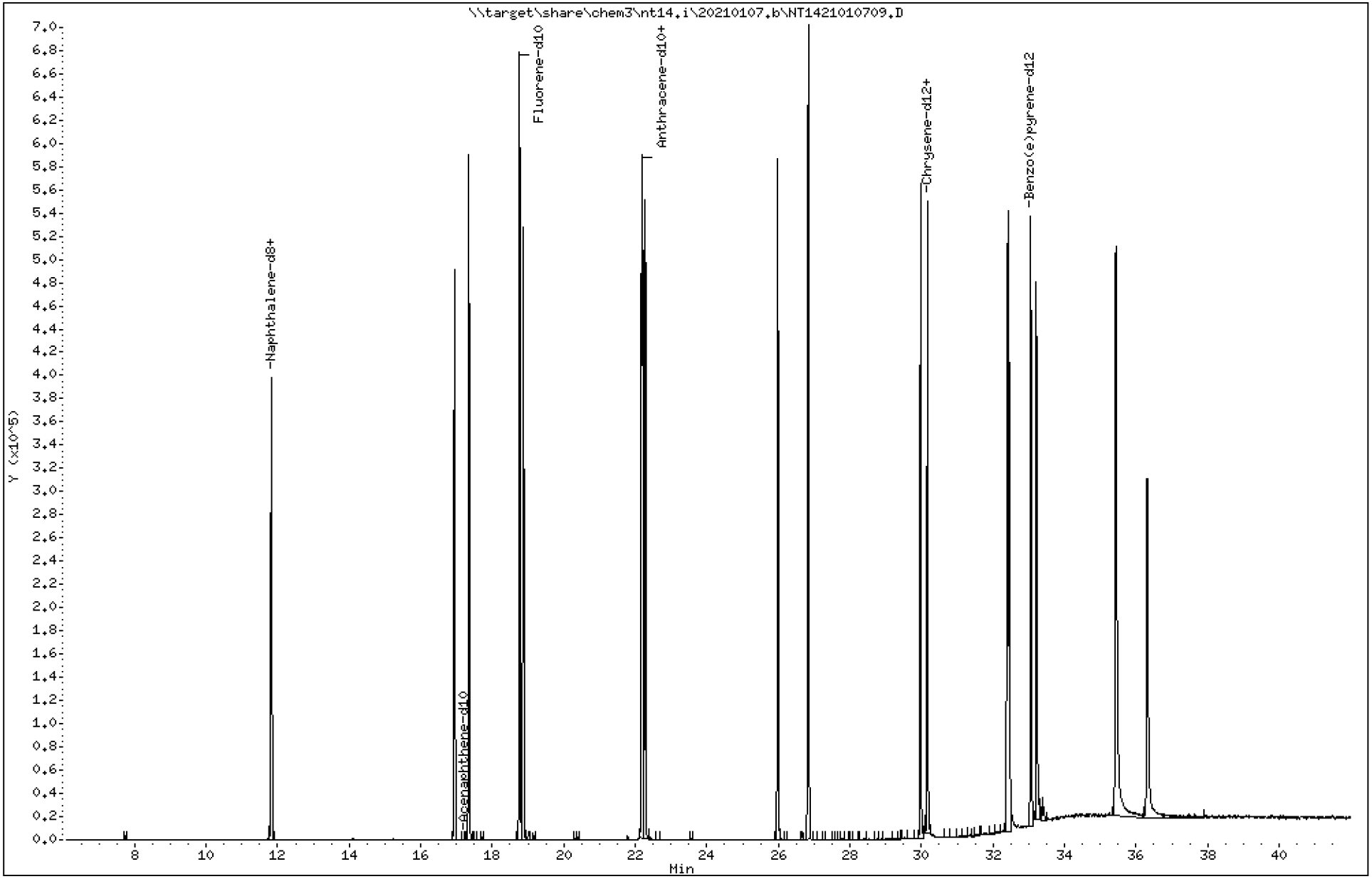
Instrument: nt14.i

Sample Info: SJA0059-SCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

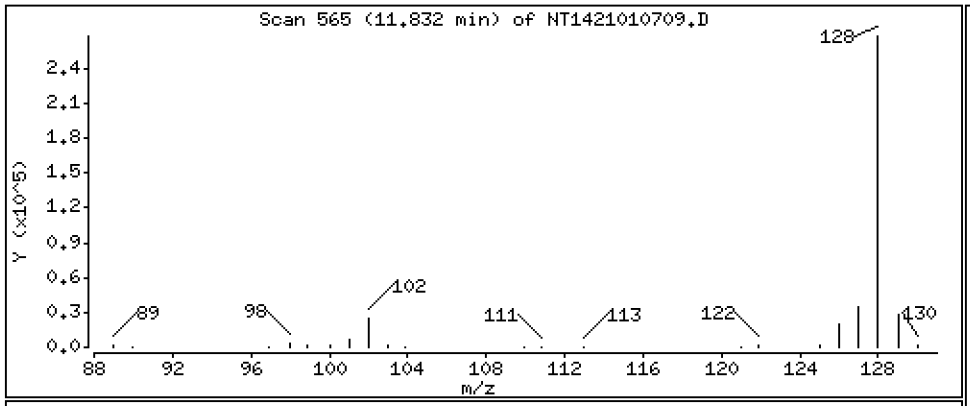
Operator: VTS

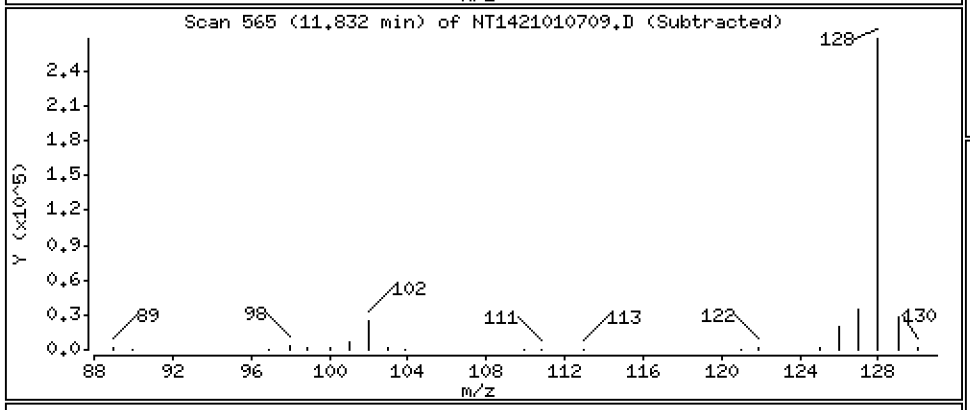
Column phase: Rxi-17Sil MS

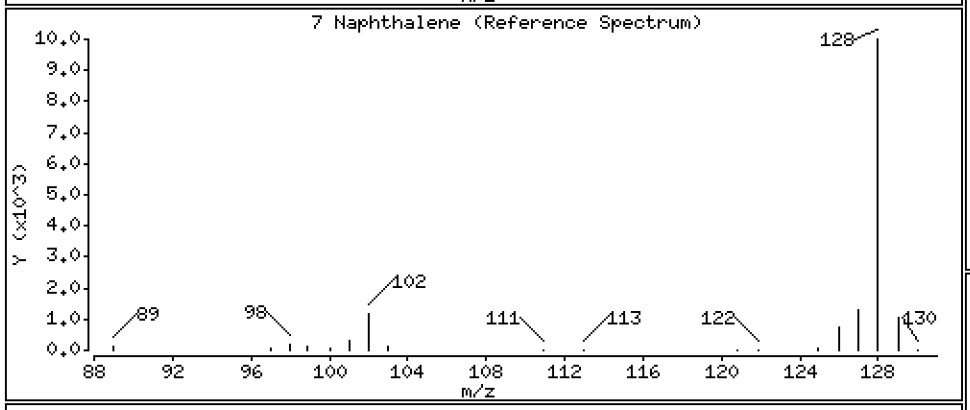
Column diameter: 0.25

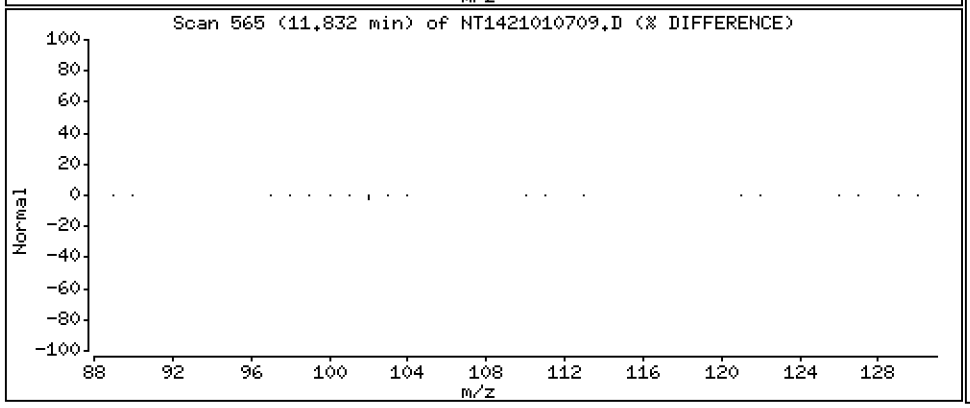
7 Naphthalene

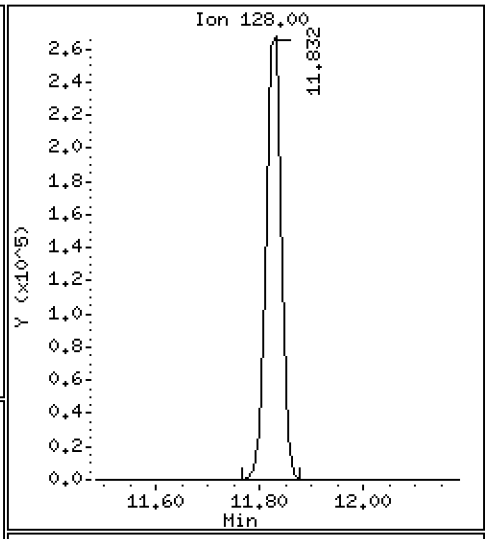
Concentration: 2.560 ug/mL

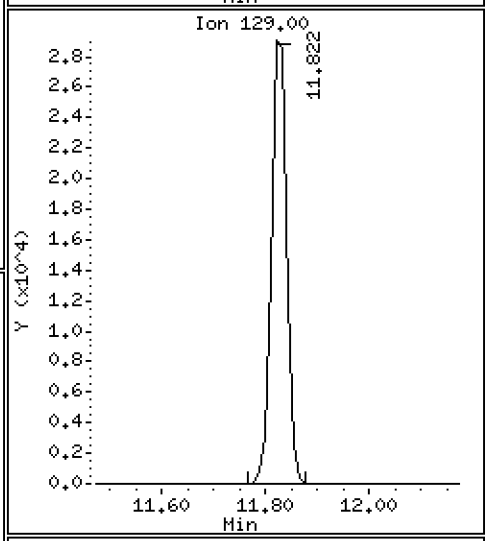


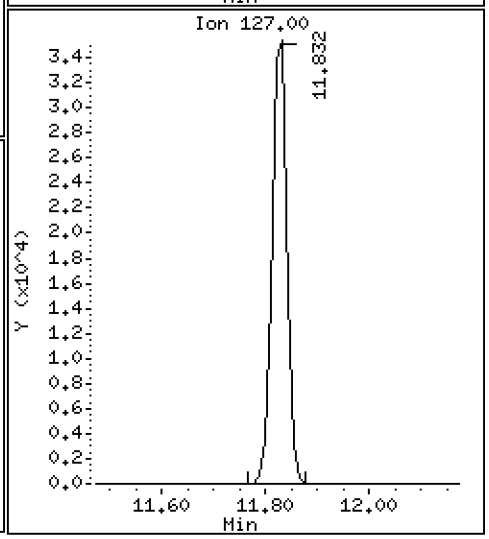












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

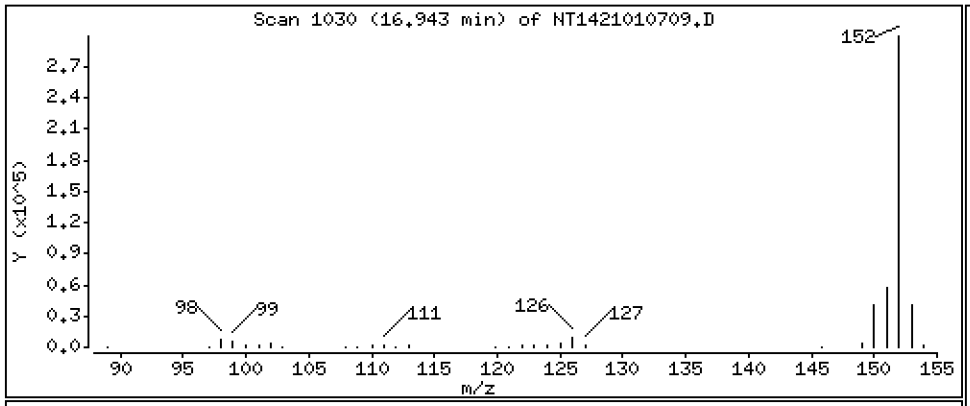
Client ID: Instrument: nt14.i

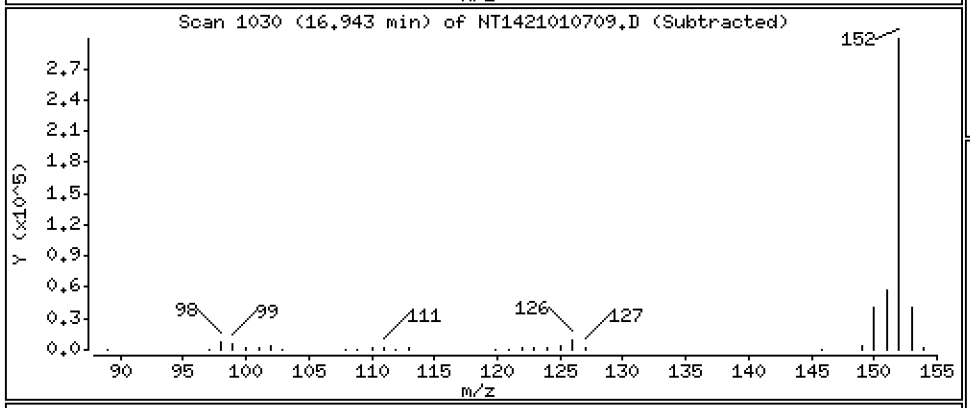
Sample Info: SJA0059-SCV1

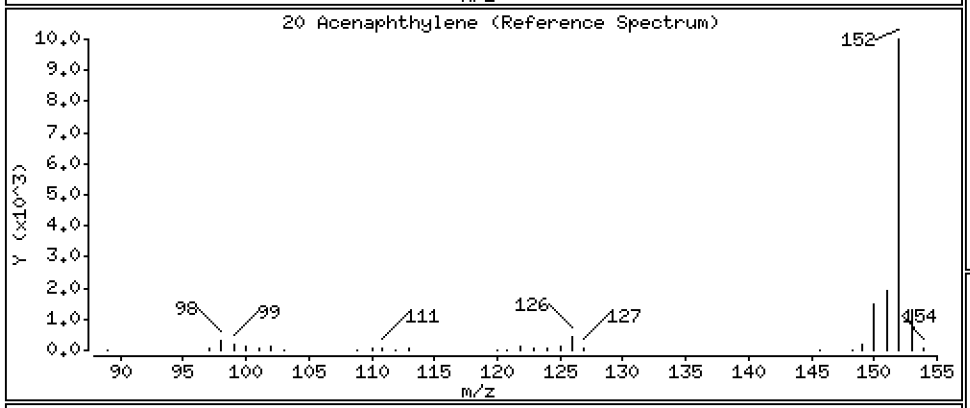
Operator: VTS

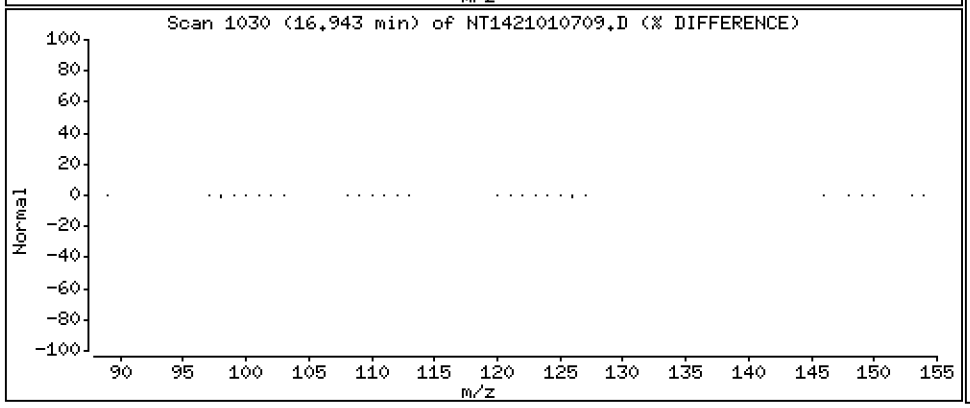
Column phase: Rxi-17Sil MS Column diameter: 0.25

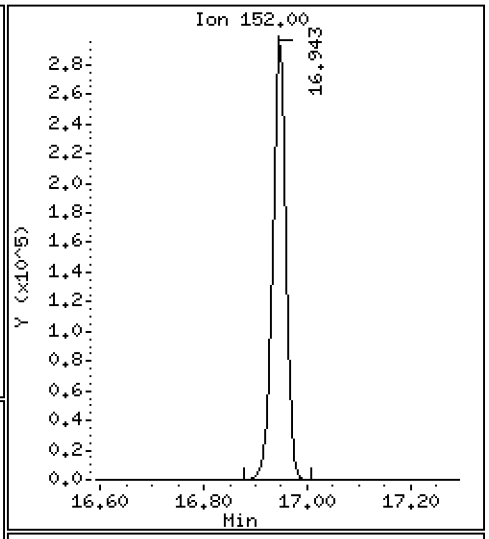
20 Acenaphthylene Concentration: 2.614 ug/mL

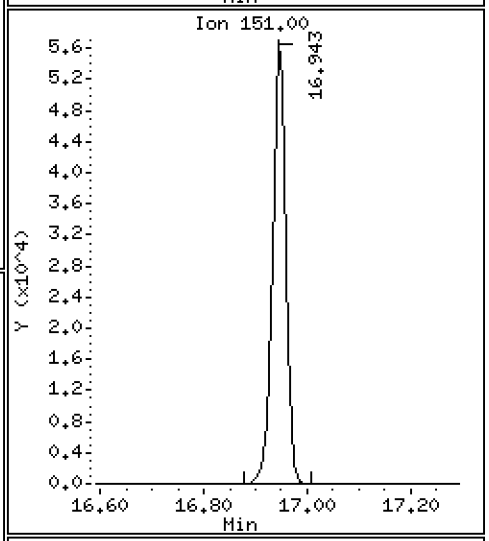


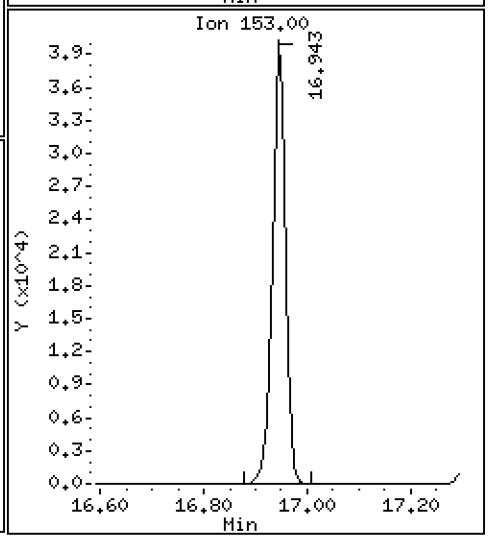












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

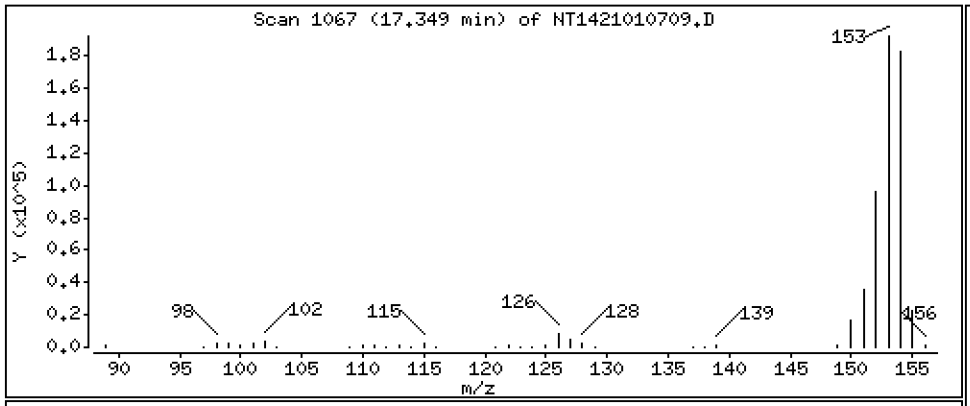
Operator: VTS

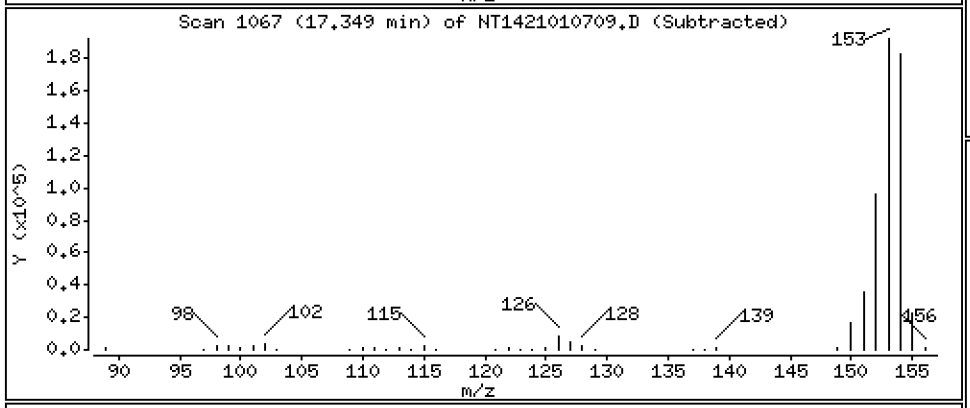
Column phase: Rxi-17Sil MS

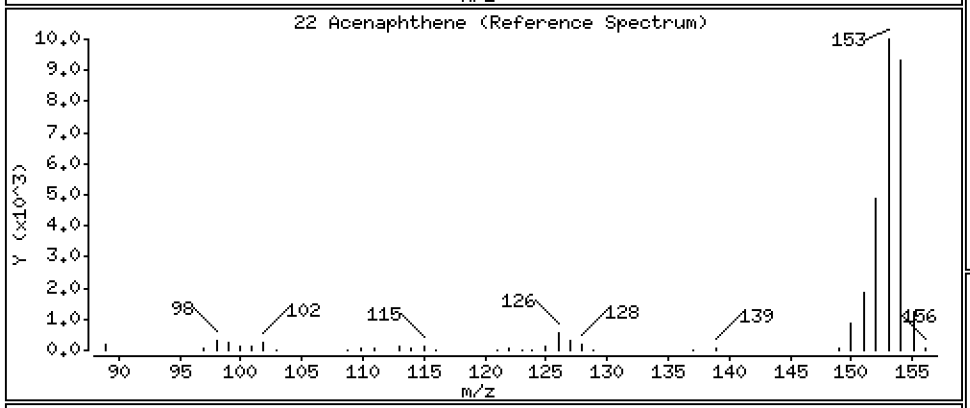
Column diameter: 0.25

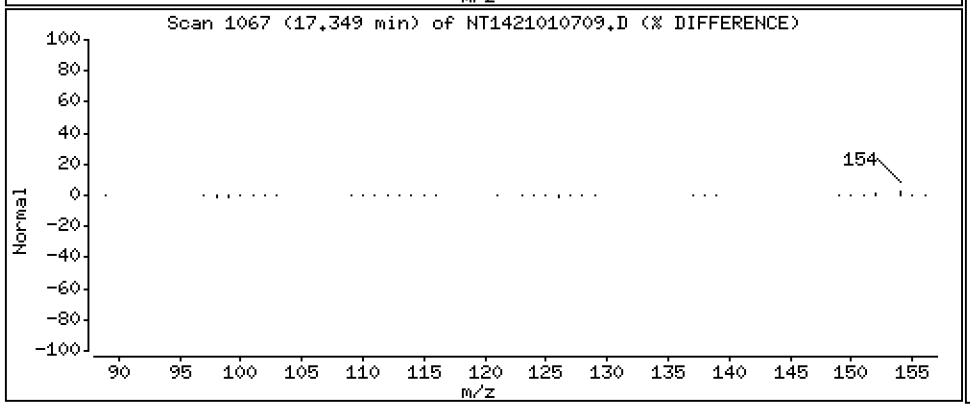
22 Acenaphthene

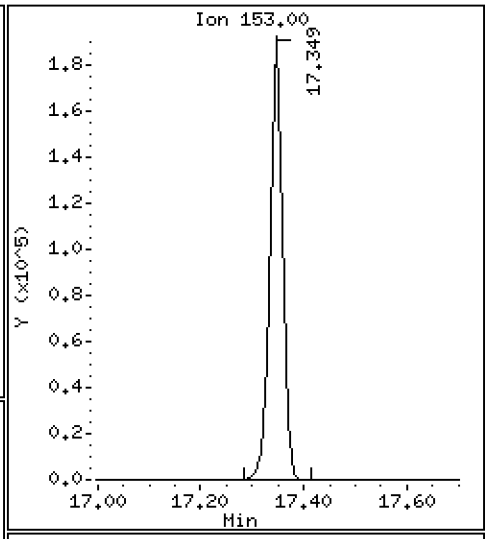
Concentration: 2.462 ug/mL

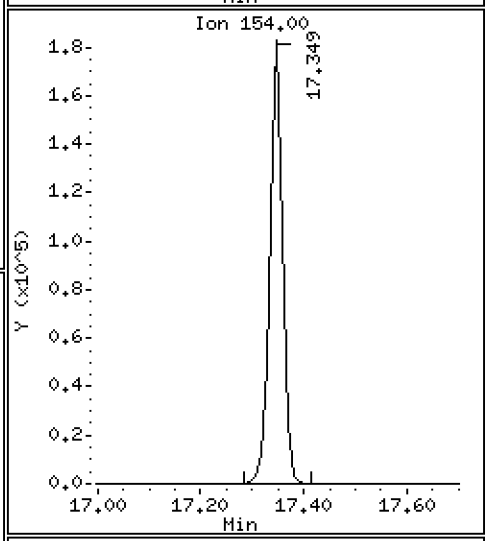


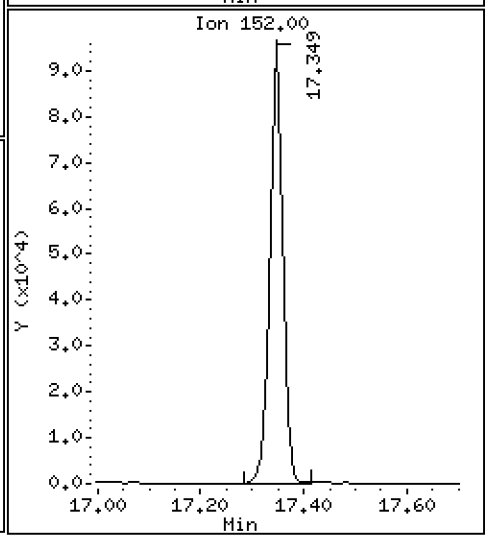












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

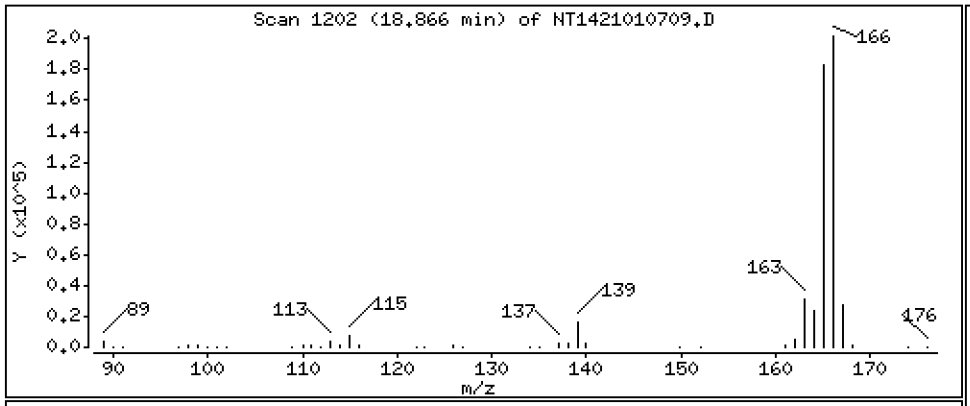
Operator: VTS

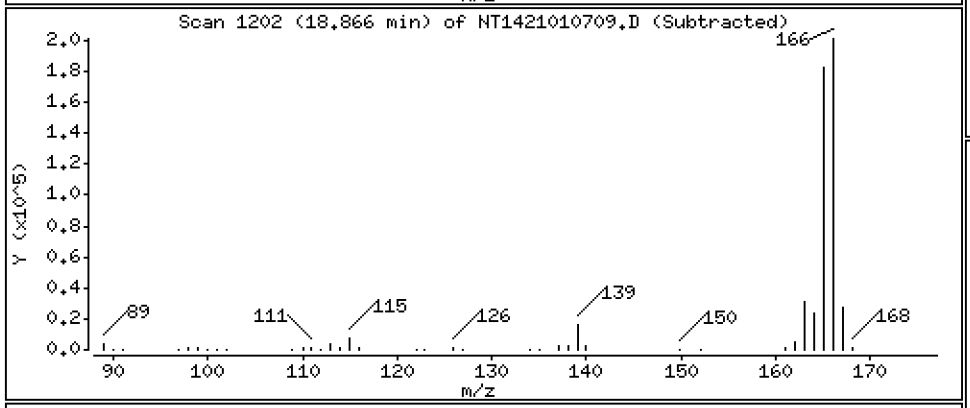
Column phase: Rxi-17Sil MS

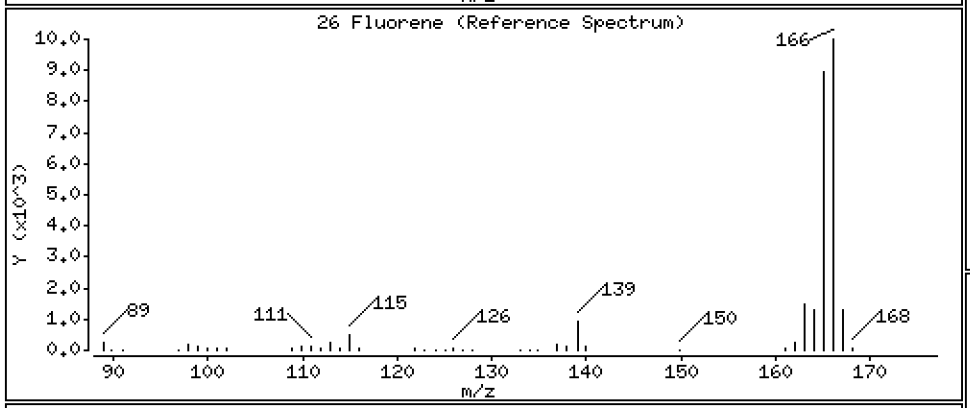
Column diameter: 0.25

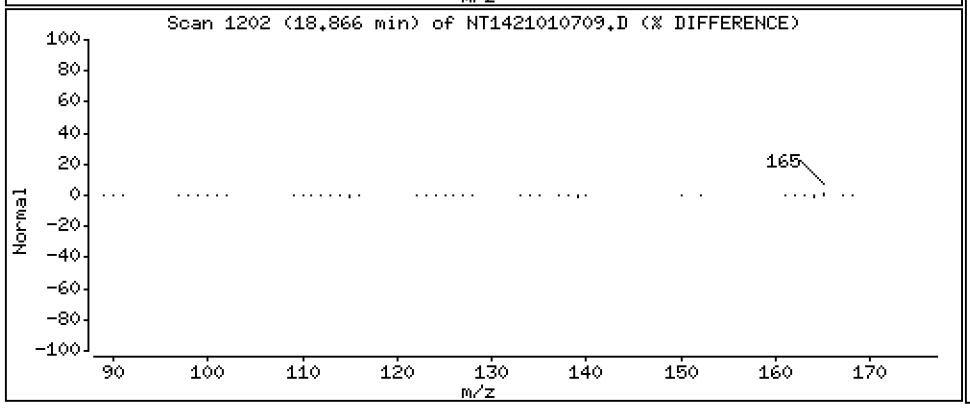
26 Fluorene

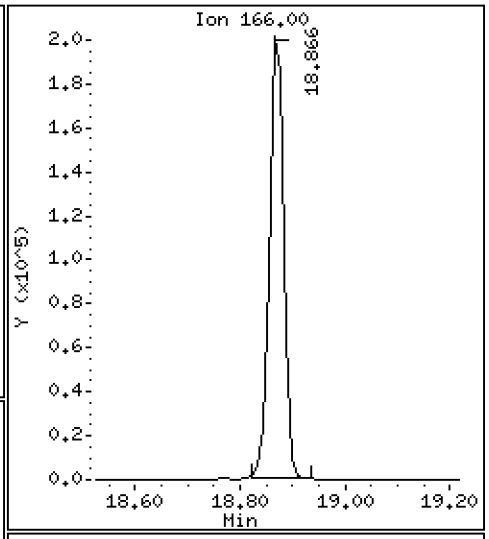
Concentration: 2.531 ug/mL

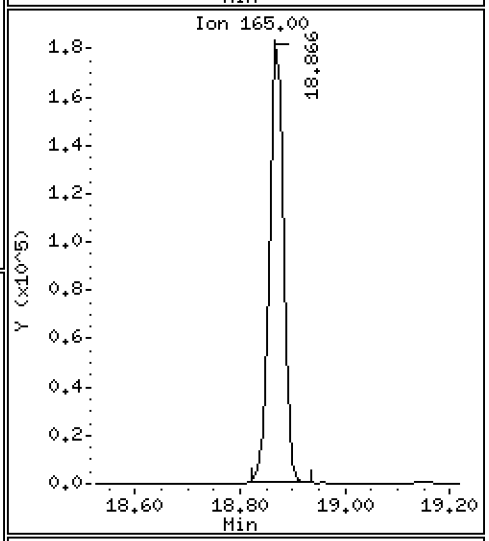


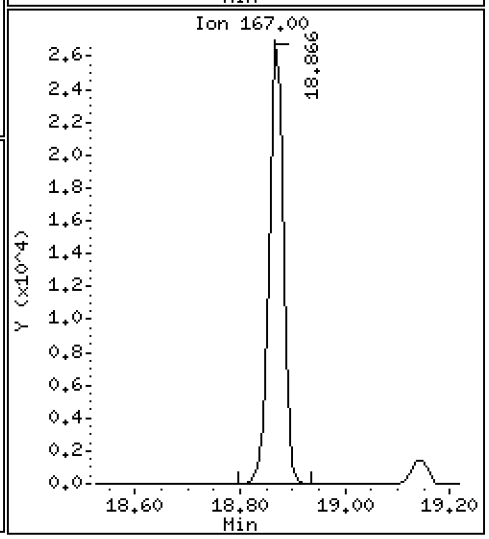












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

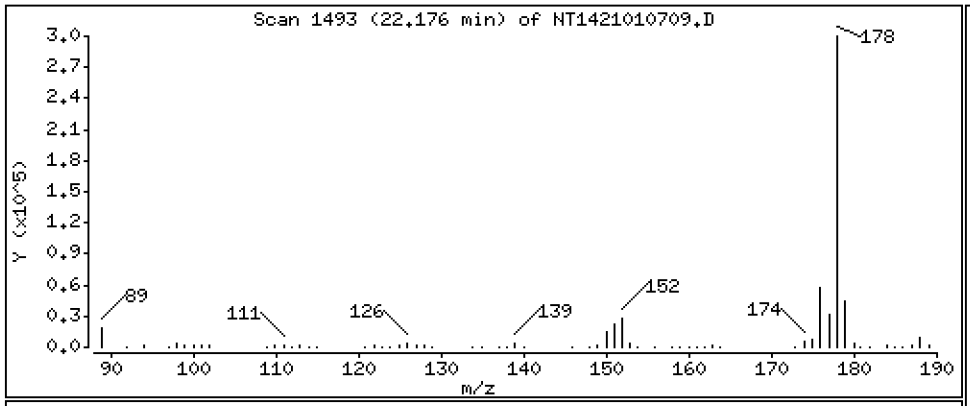
Operator: VTS

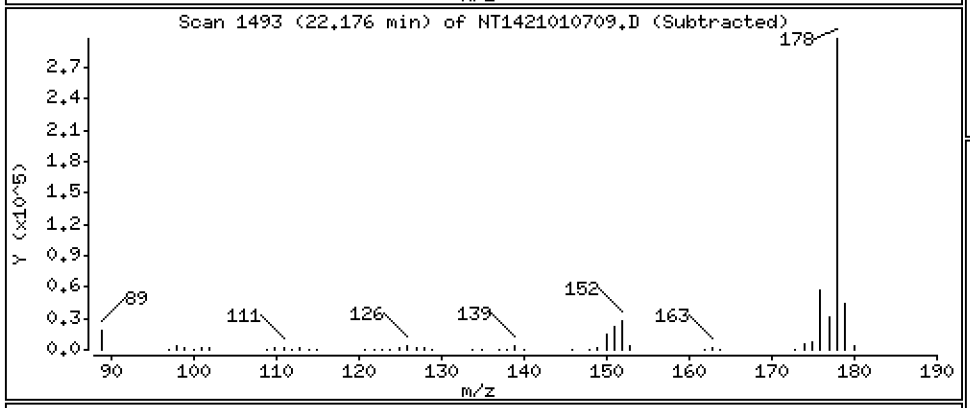
Column phase: Rxi-17Sil MS

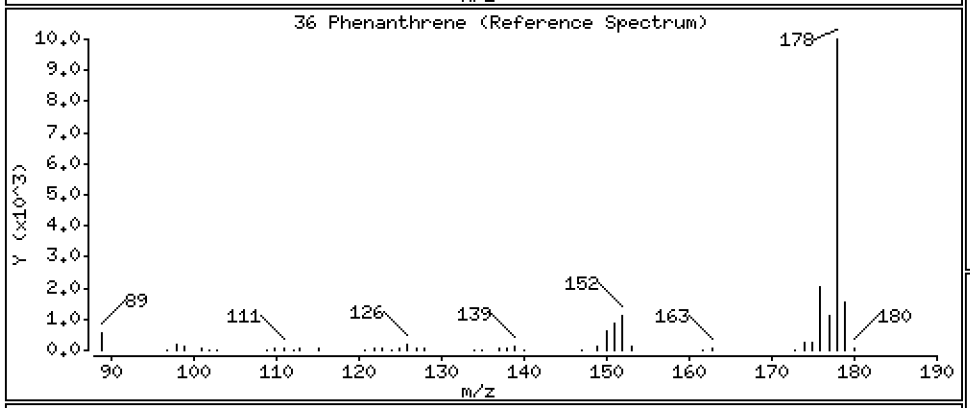
Column diameter: 0.25

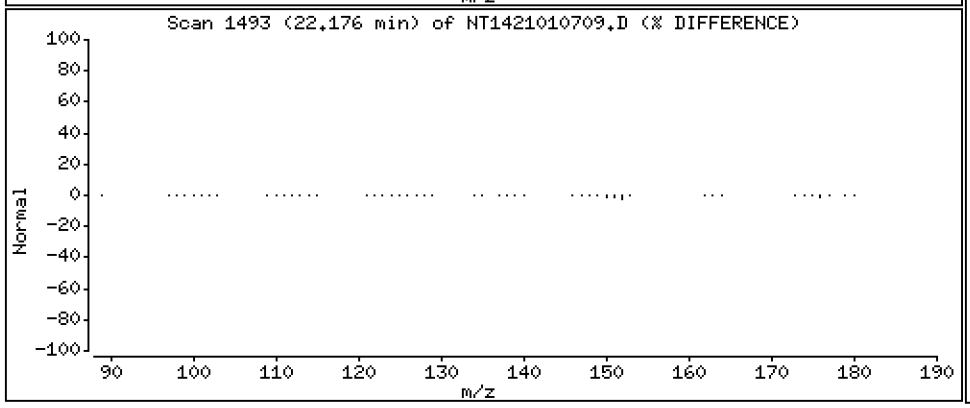
36 Phenanthrene

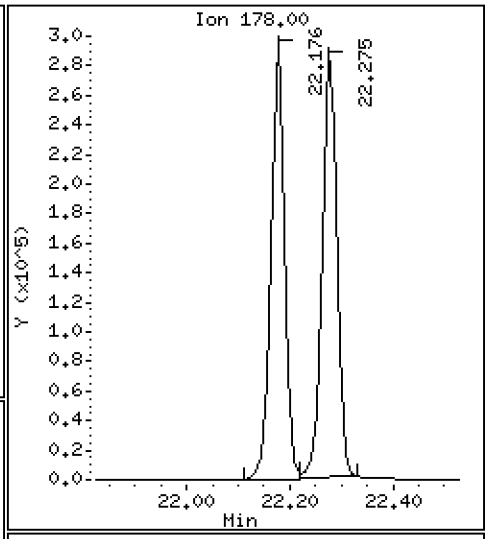
Concentration: 2.594 ug/mL

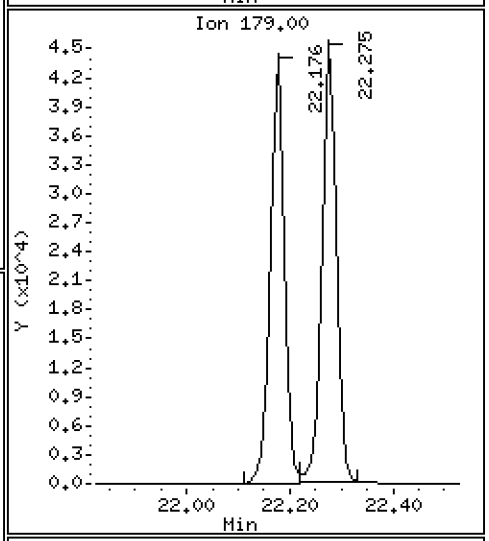


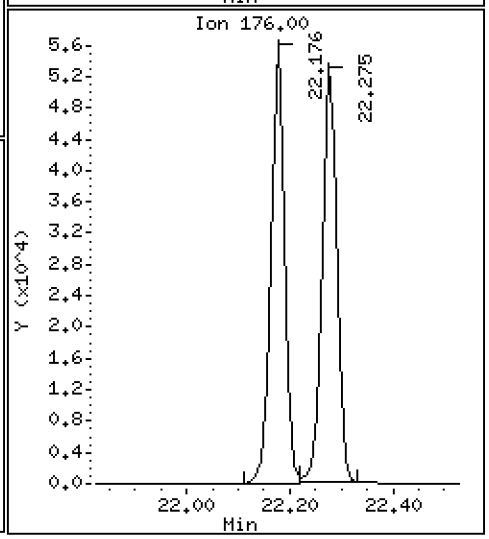












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

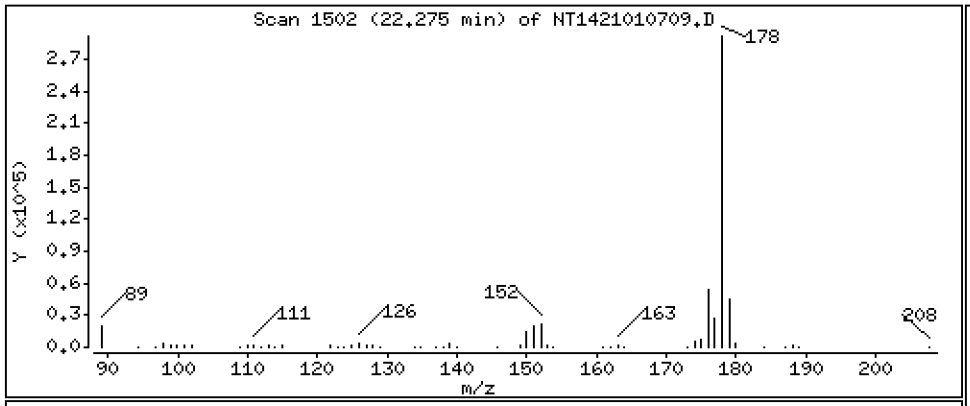
Operator: VTS

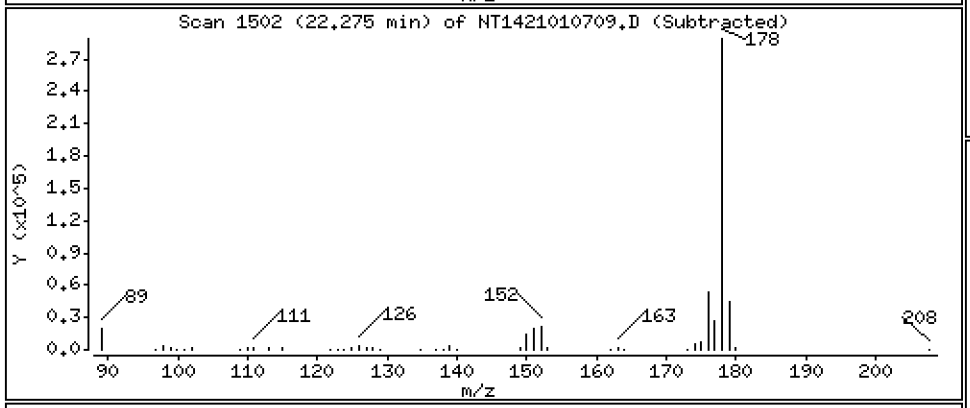
Column phase: Rxi-17Sil MS

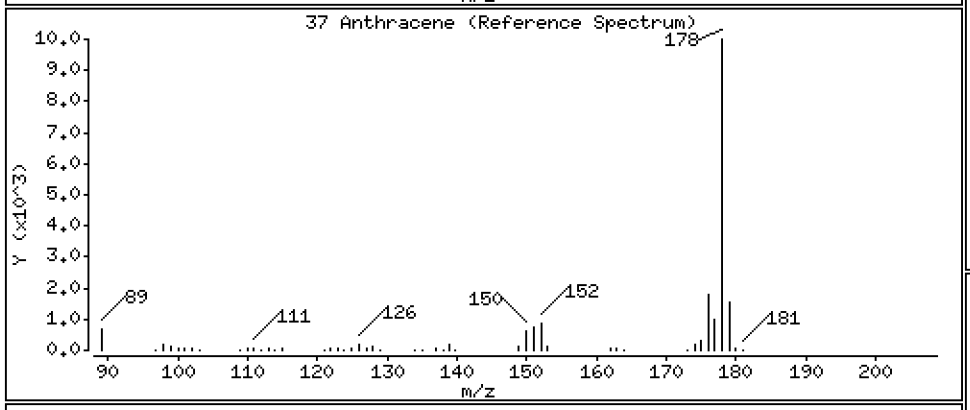
Column diameter: 0.25

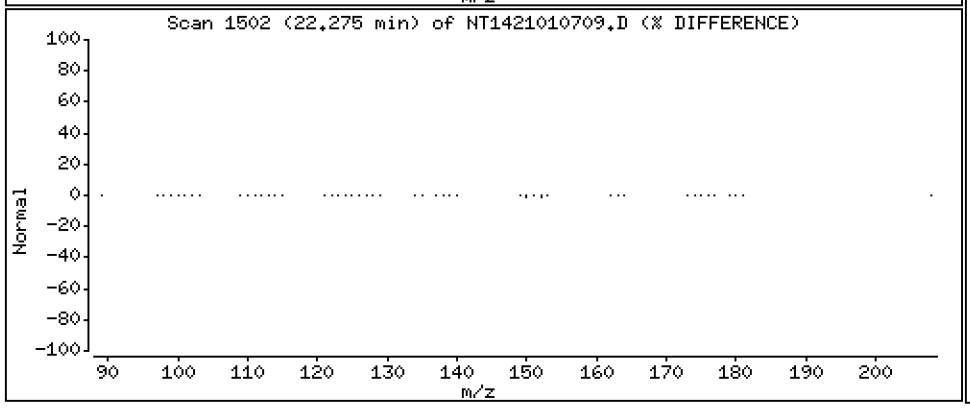
37 Anthracene

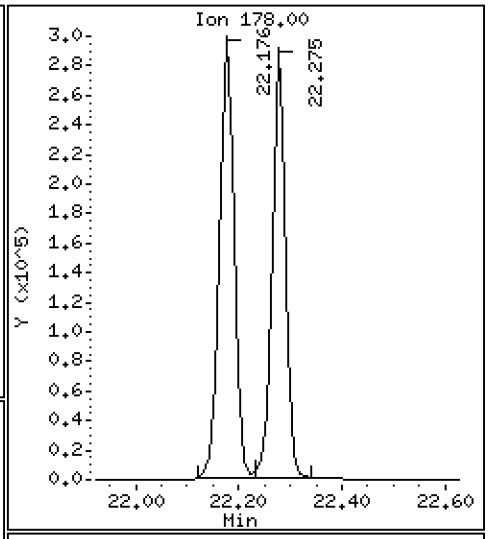
Concentration: 2.679 ug/mL

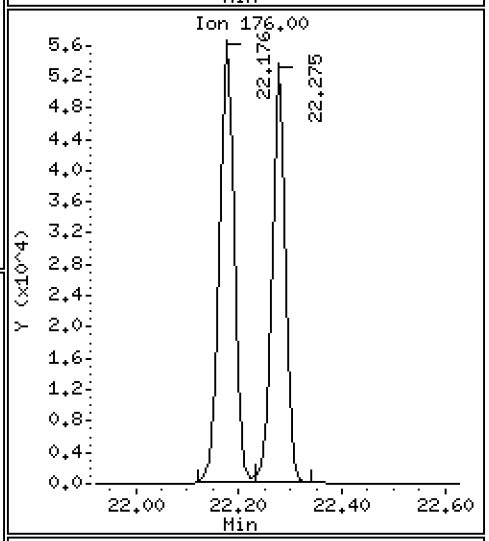


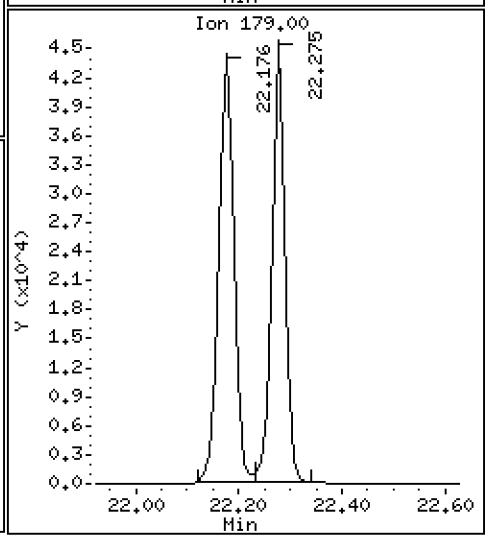












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

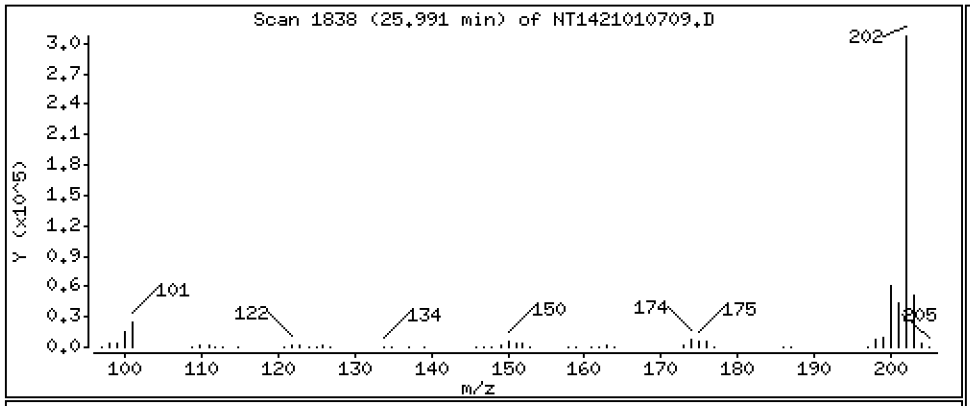
Operator: VTS

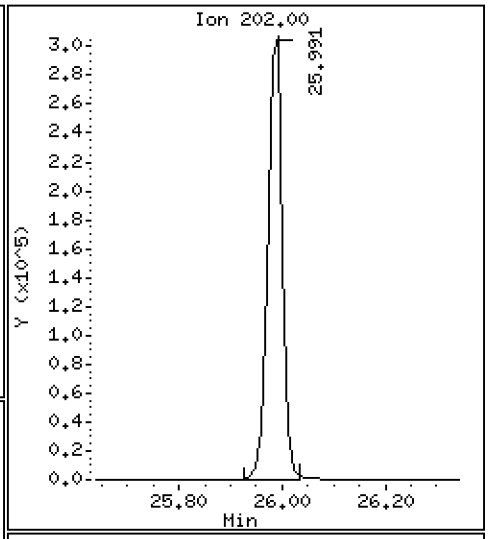
Column phase: Rxi-17Sil MS

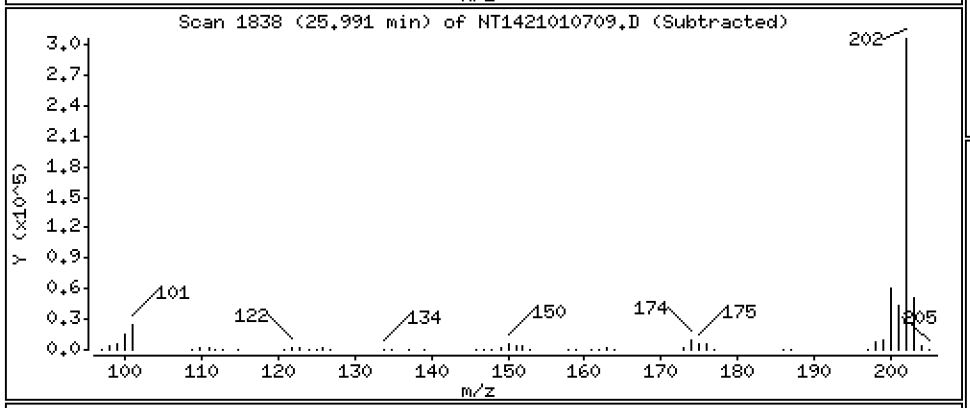
Column diameter: 0.25

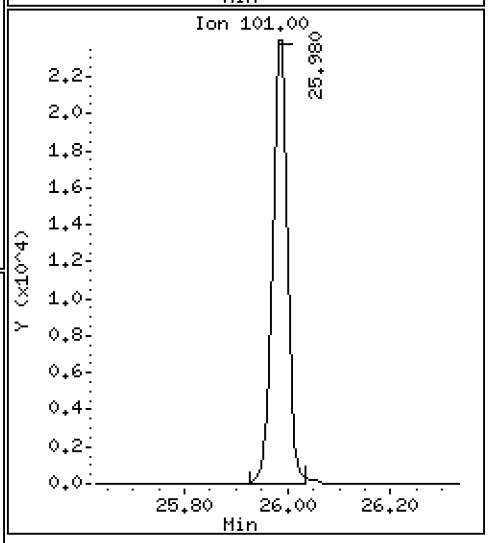
44 Fluoranthene

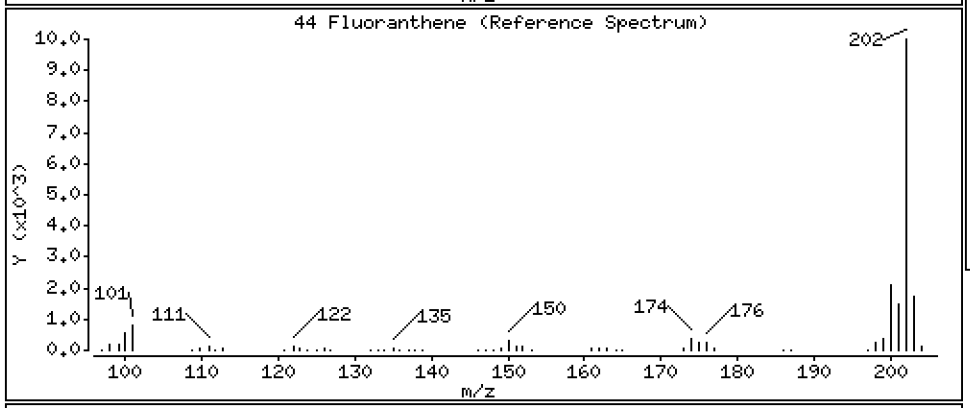
Concentration: 2.583 ug/mL

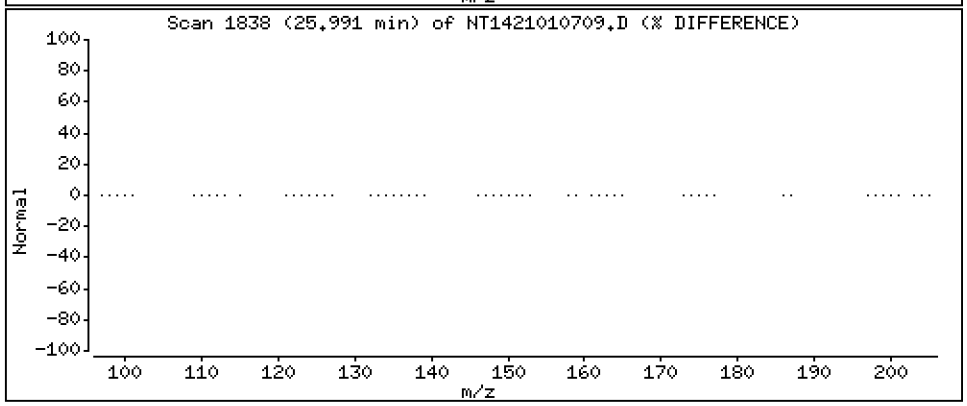












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

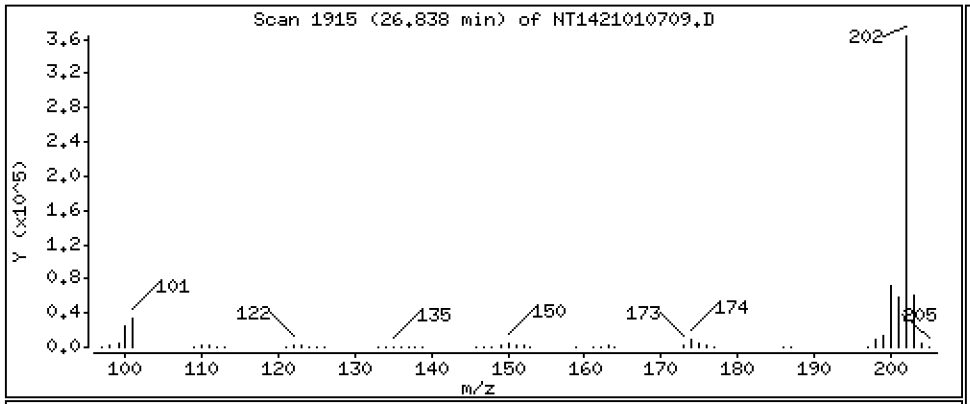
Operator: VTS

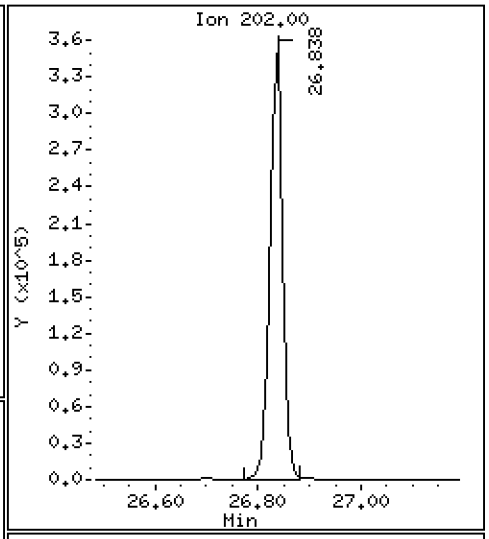
Column phase: Rxi-17Sil MS

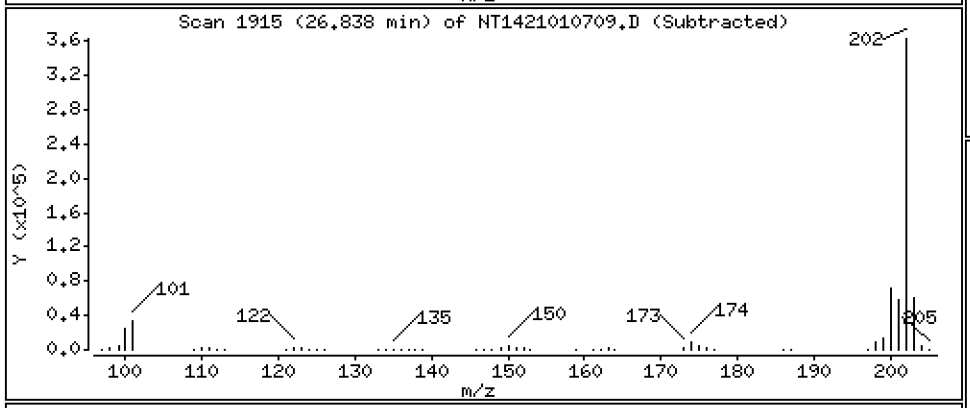
Column diameter: 0.25

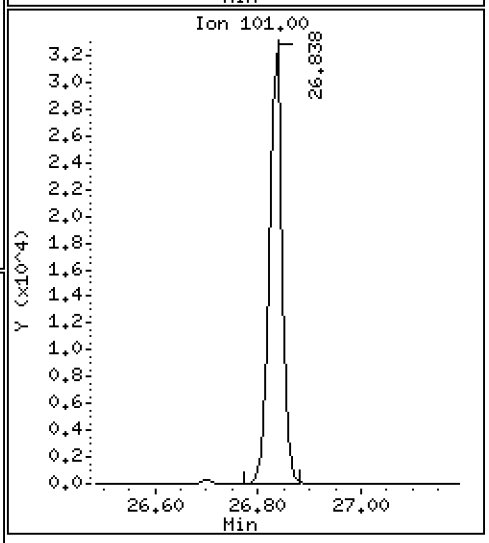
46 Pyrene

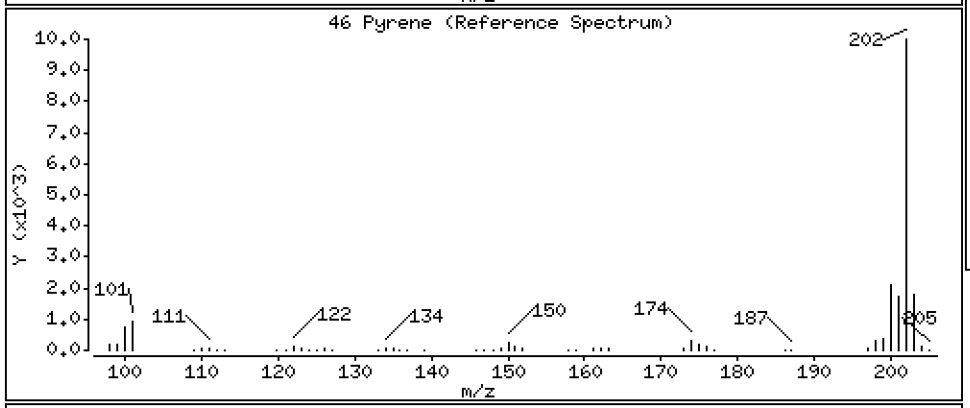
Concentration: 2.546 ug/mL

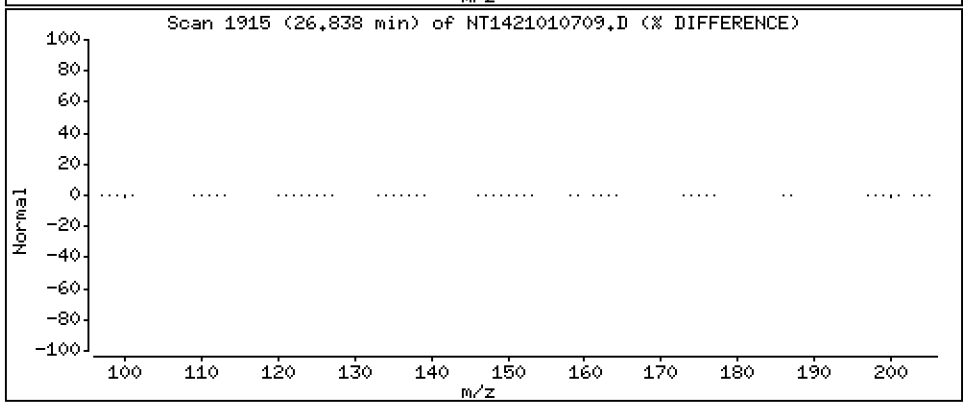












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

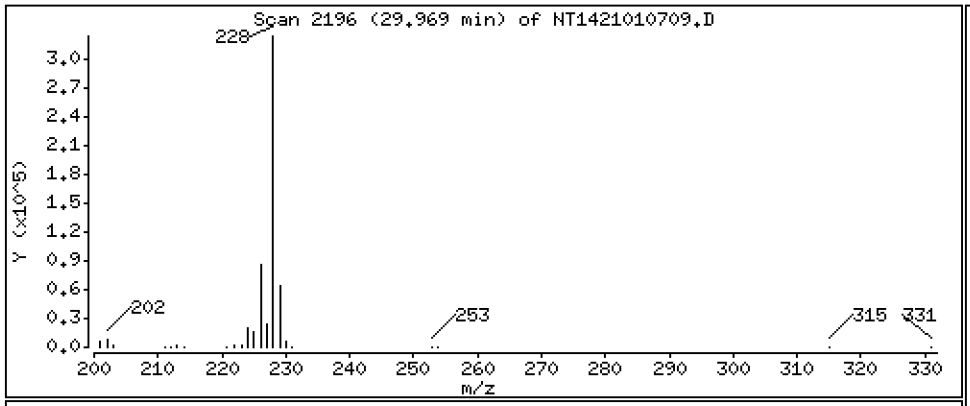
Operator: VTS

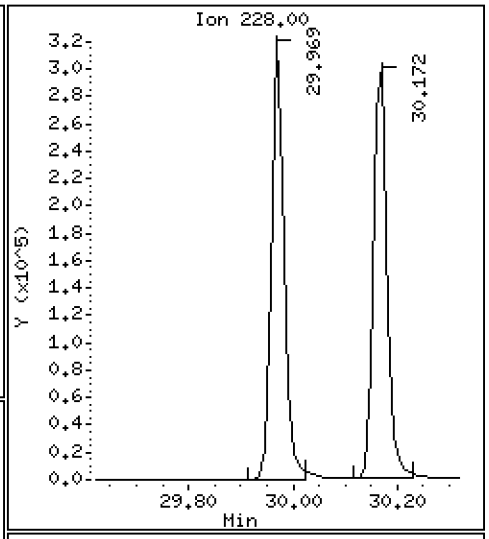
Column phase: Rxi-17Sil MS

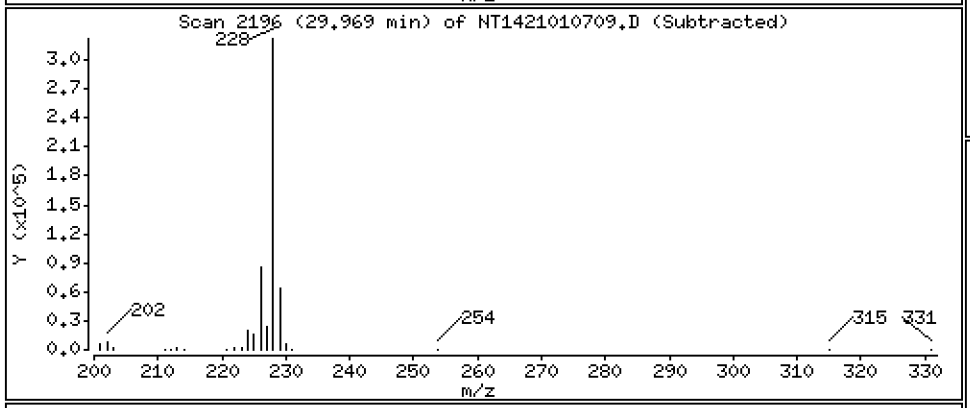
Column diameter: 0.25

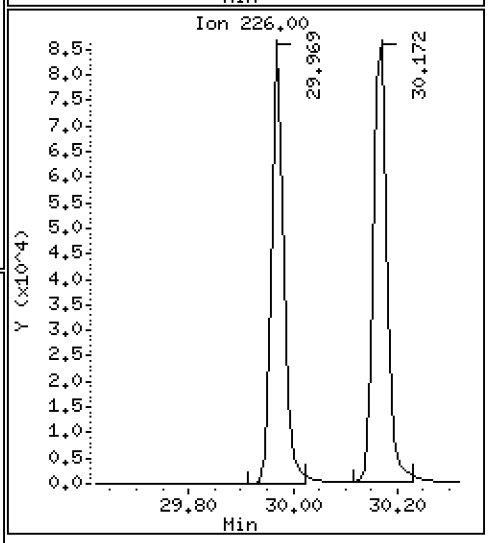
55 Benzo(a)anthracene

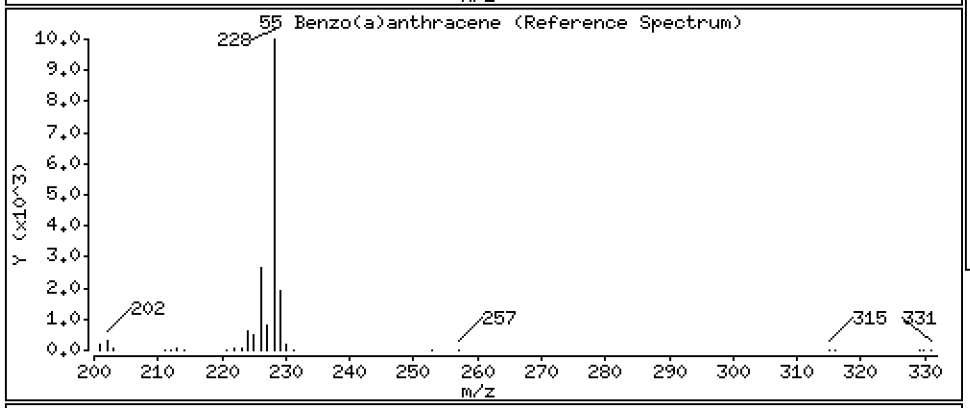
Concentration: 2.687 ug/mL

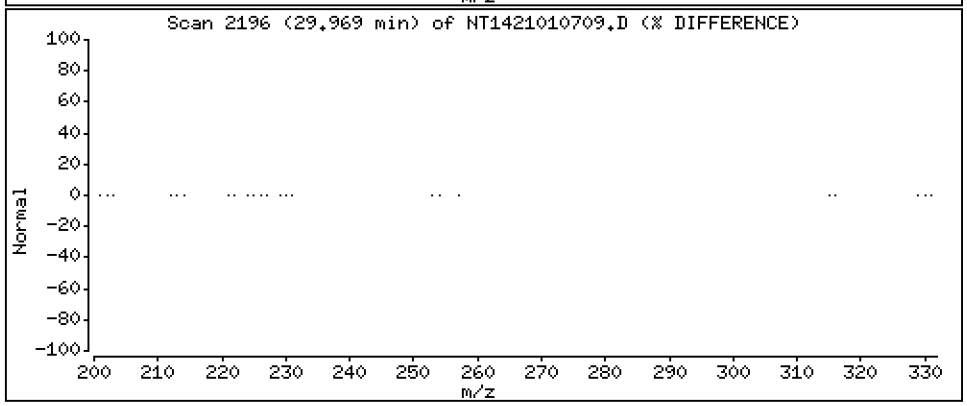












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

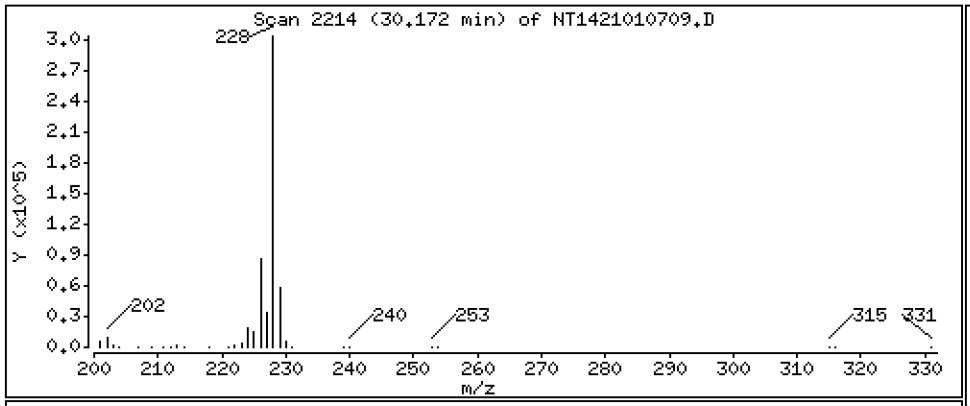
Operator: VTS

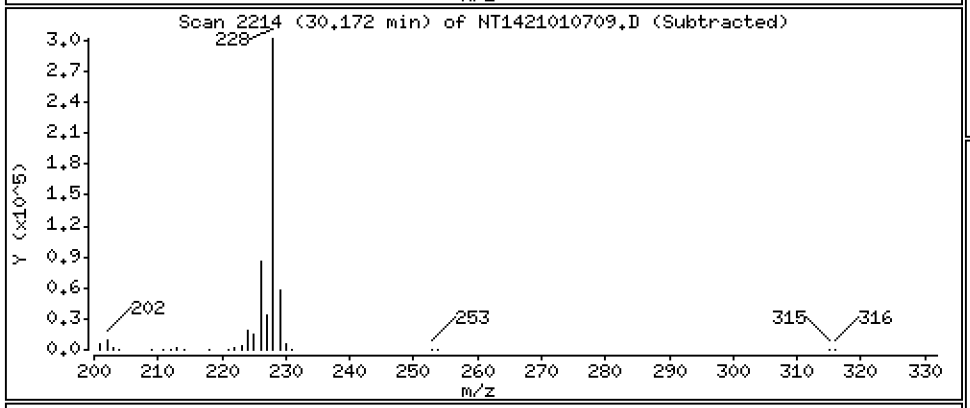
Column phase: Rxi-17Sil MS

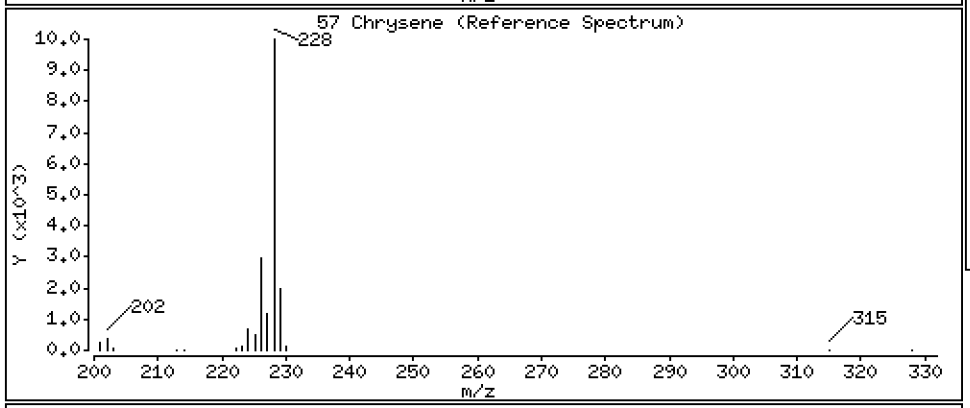
Column diameter: 0.25

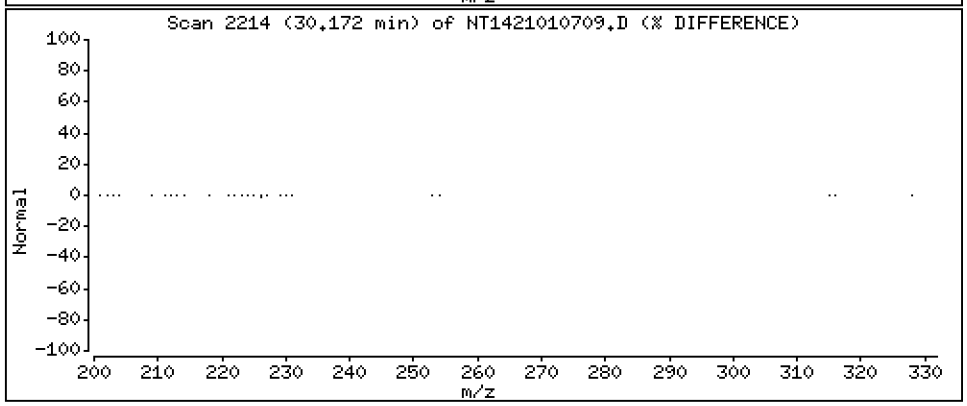
57 Chrysene

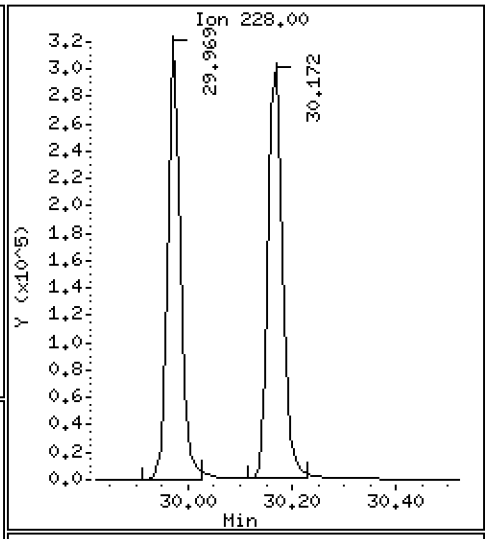
Concentration: 2.746 ug/mL

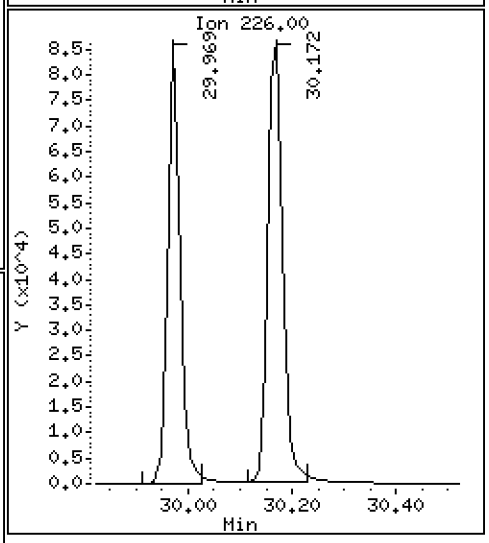












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

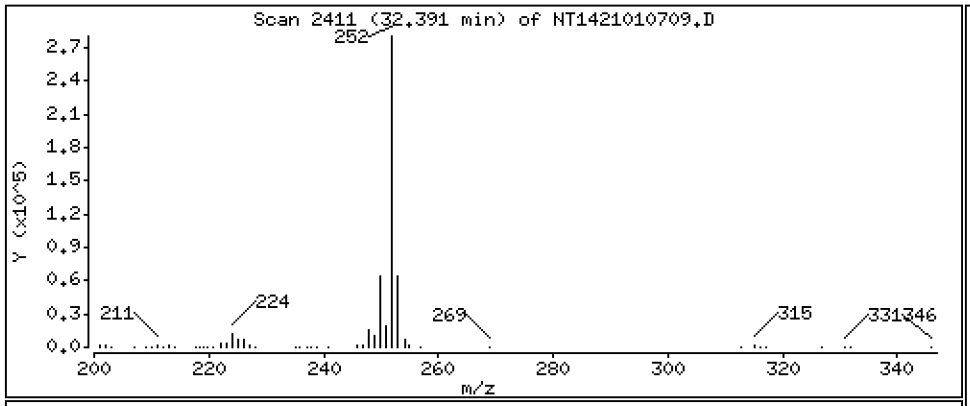
Operator: VTS

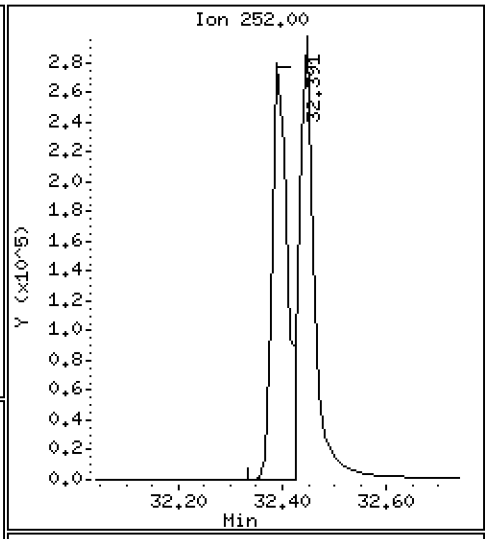
Column phase: Rxi-17Sil MS

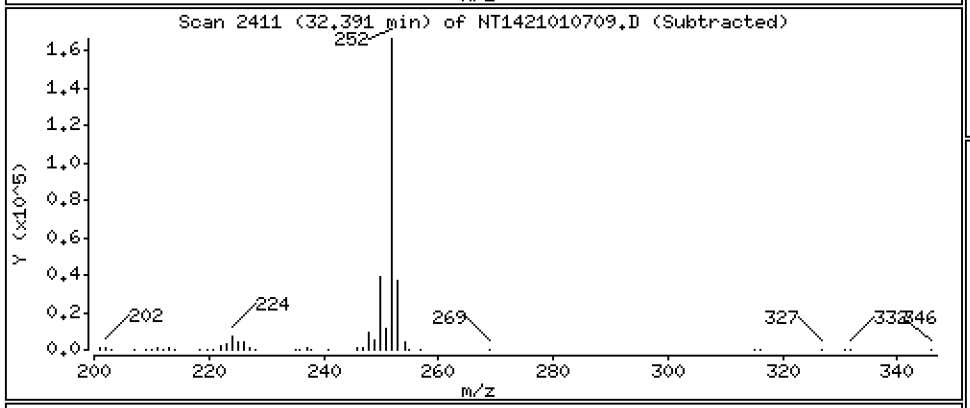
Column diameter: 0.25

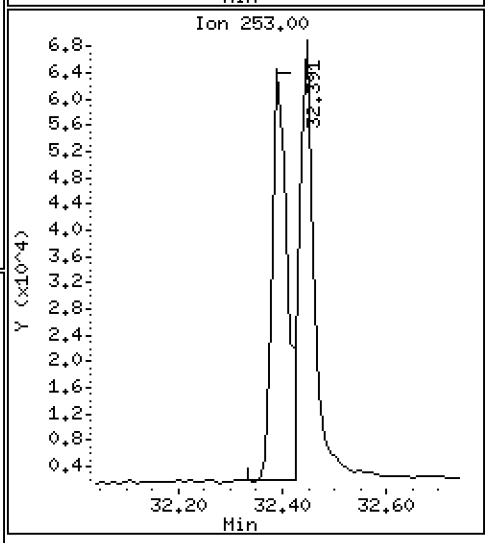
62 Benzo(b)fluoranthene

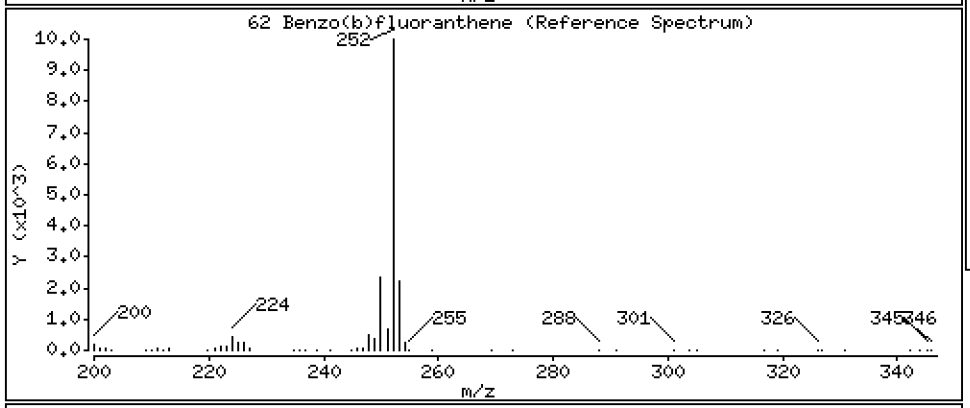
Concentration: 2.682 ug/mL

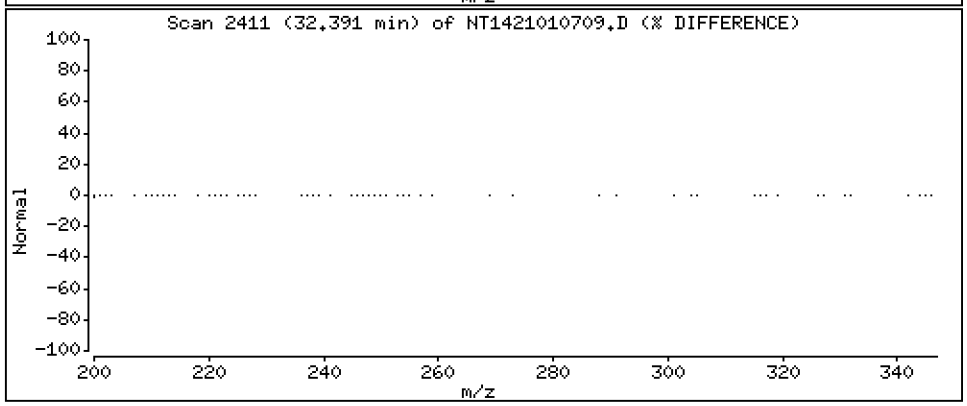












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

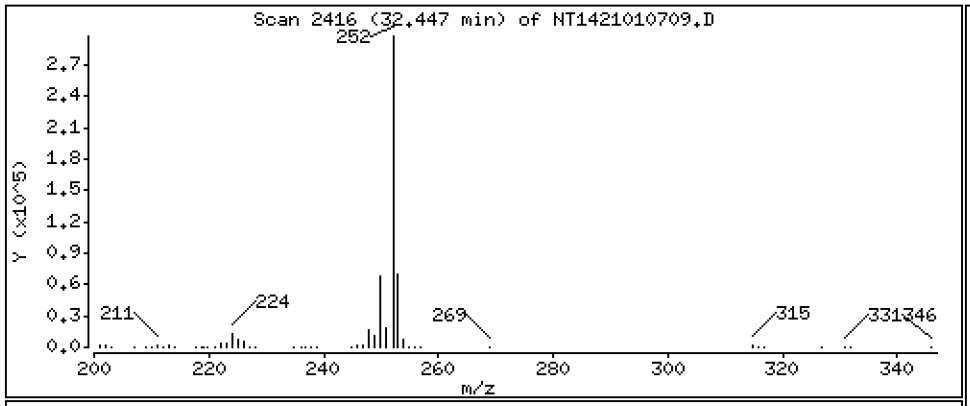
Operator: VTS

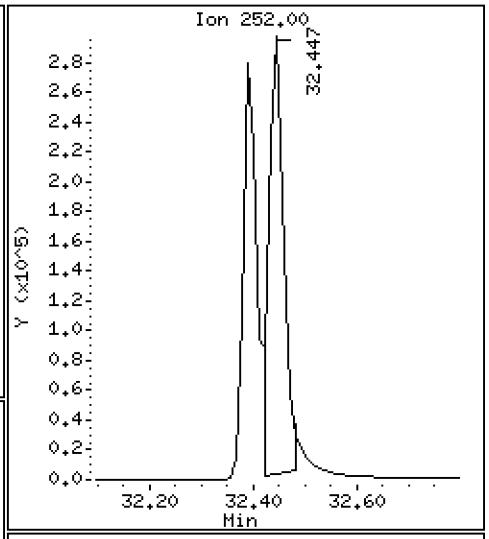
Column phase: Rxi-17Sil MS

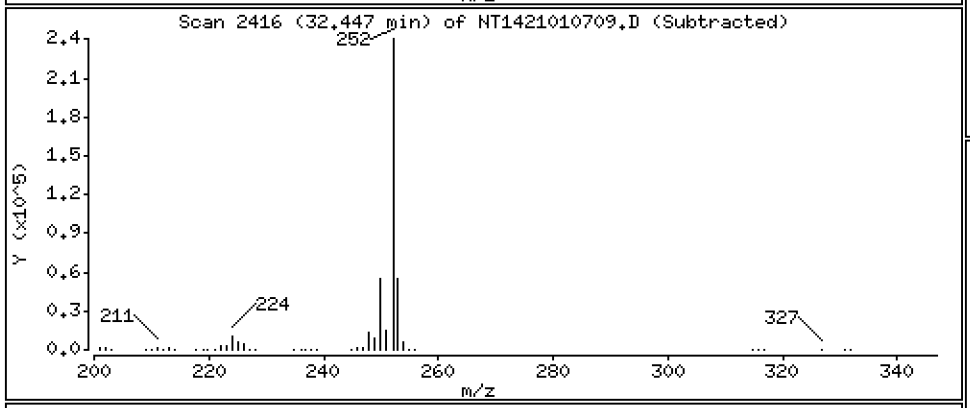
Column diameter: 0.25

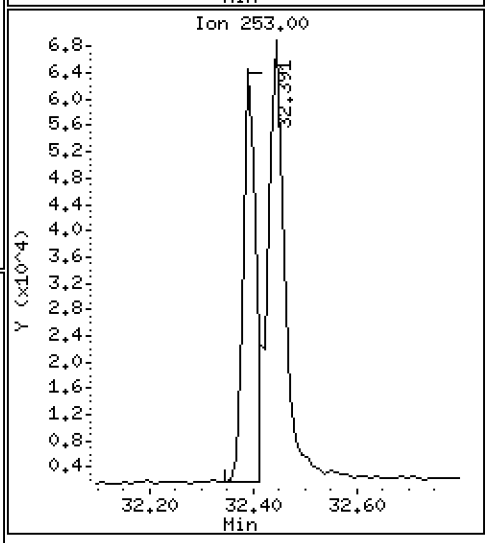
63 Benzo(k)fluoranthene

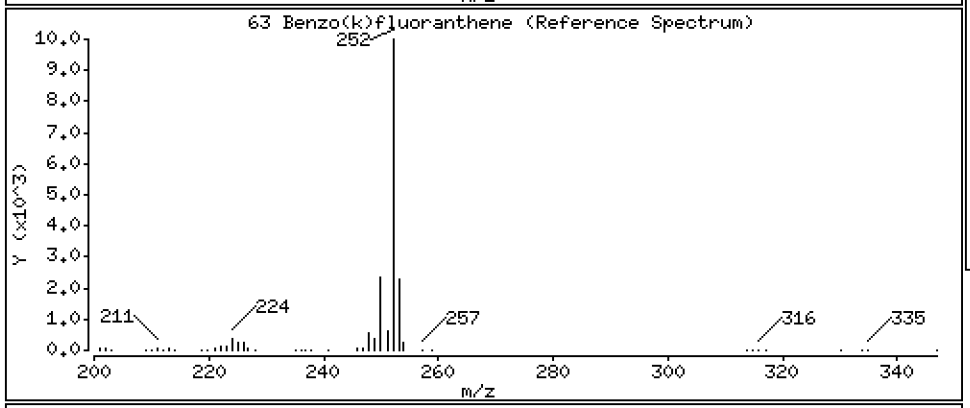
Concentration: 2.393 ug/mL

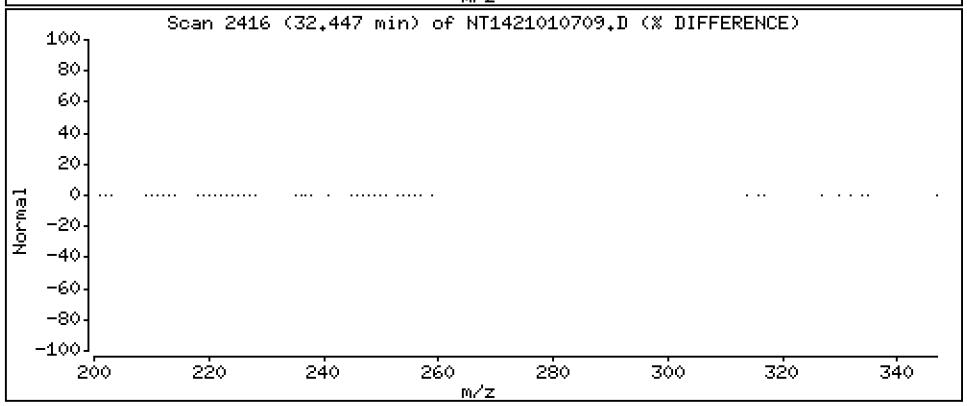












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

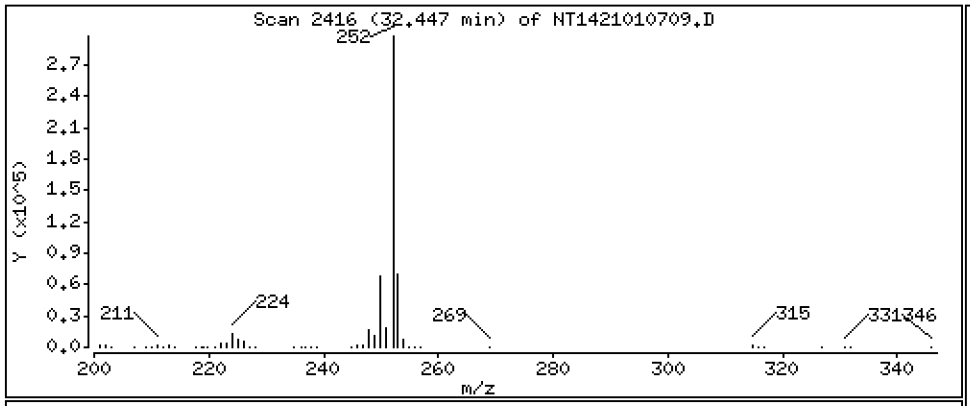
Operator: VTS

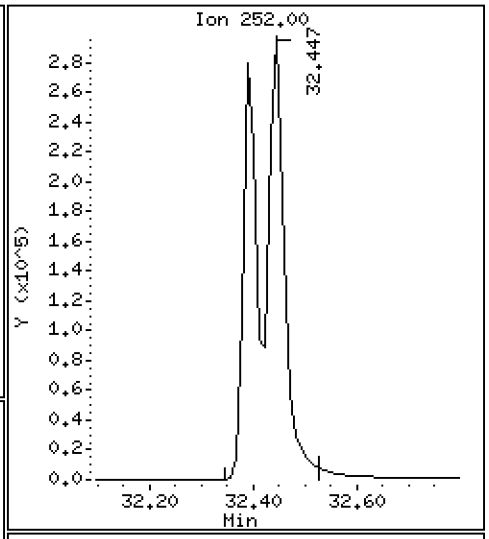
Column phase: Rxi-17Sil MS

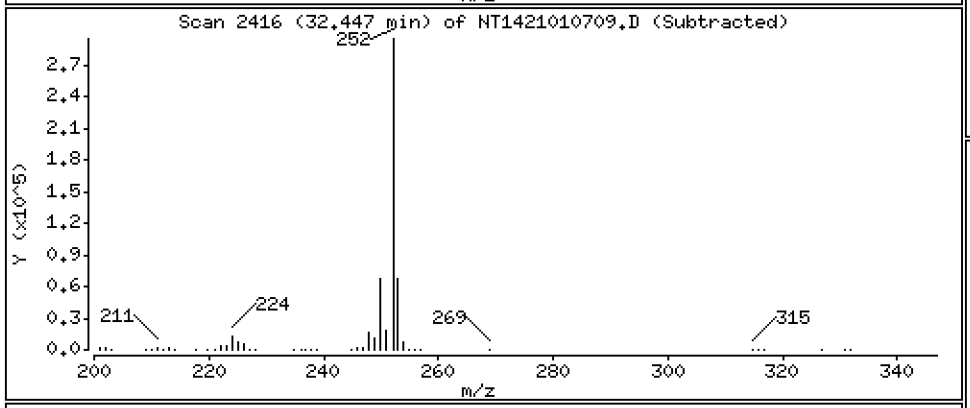
Column diameter: 0.25

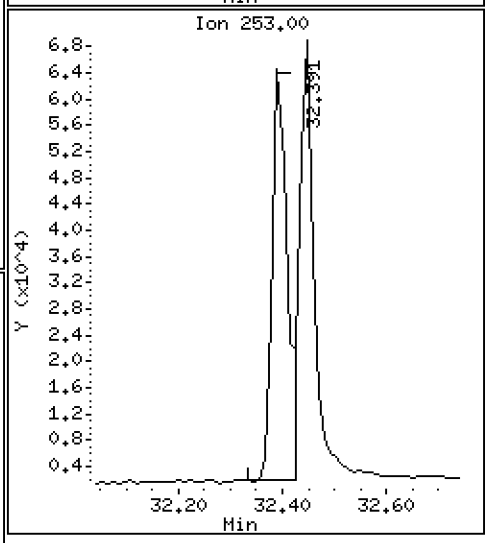
246 Total Benzofluoranthenes

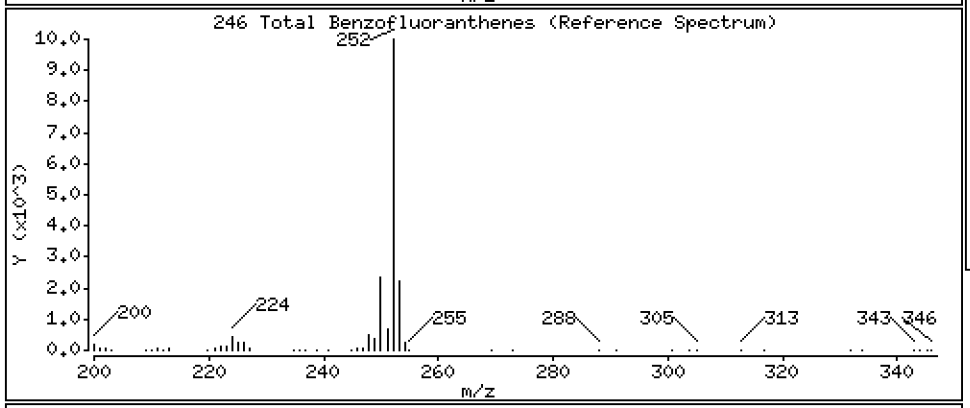
Concentration: 5.584 ug/mL

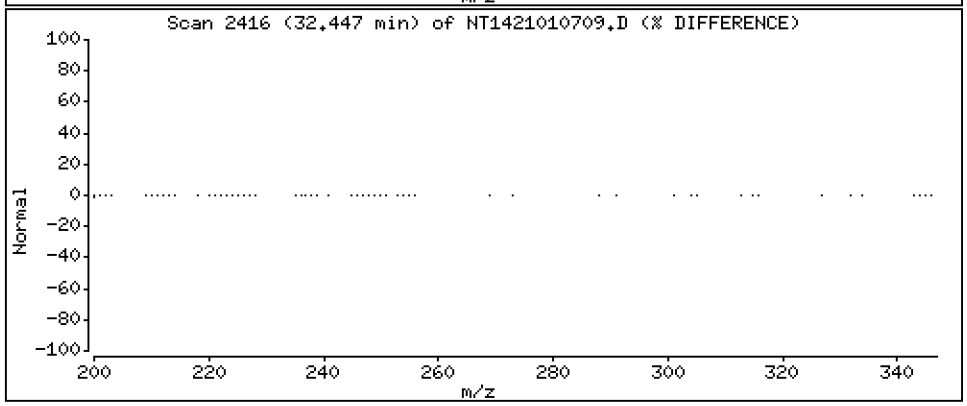












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

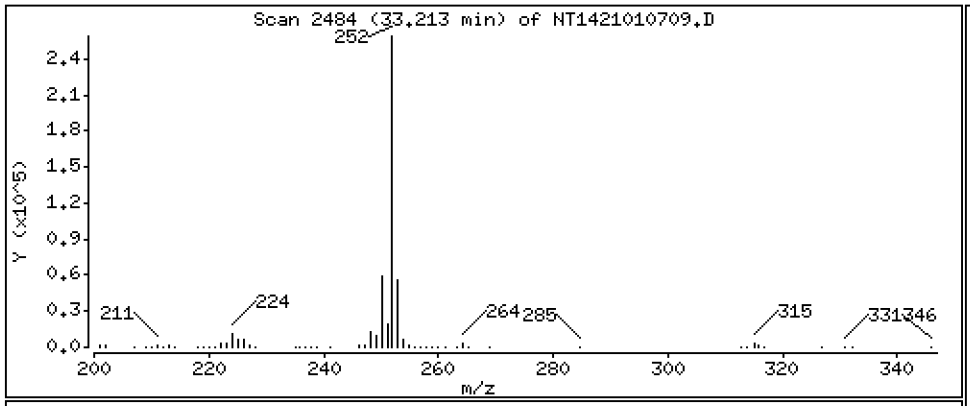
Operator: VTS

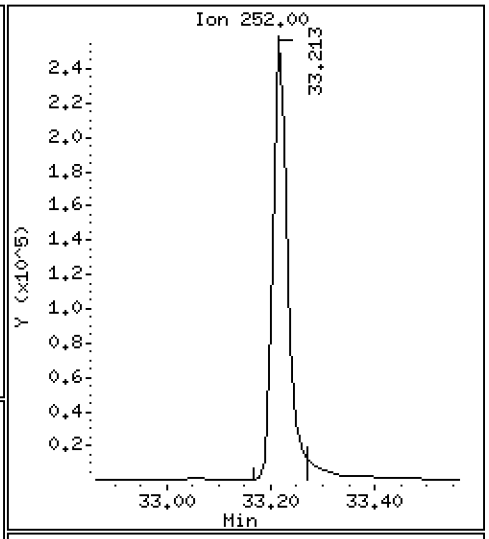
Column phase: Rxi-17Sil MS

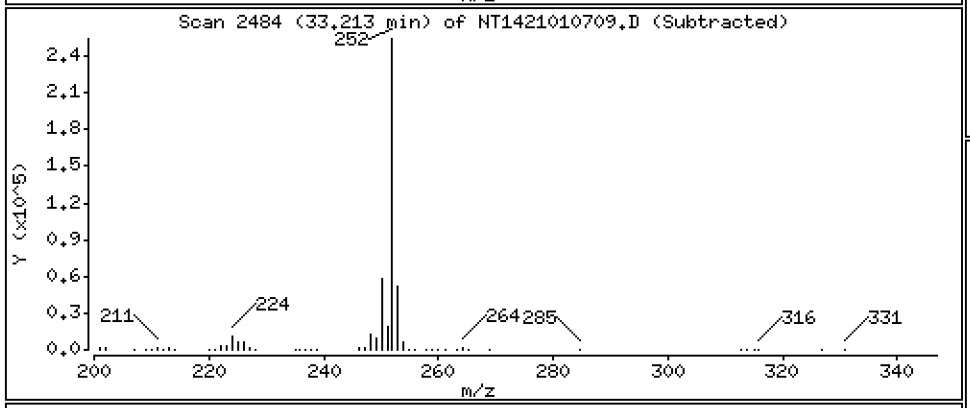
Column diameter: 0.25

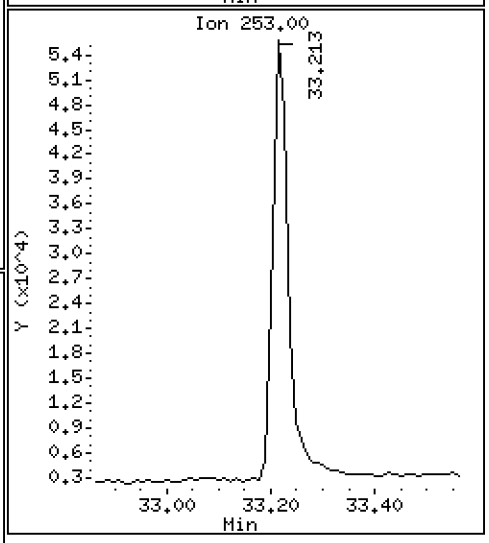
66 Benzo(a)pyrene

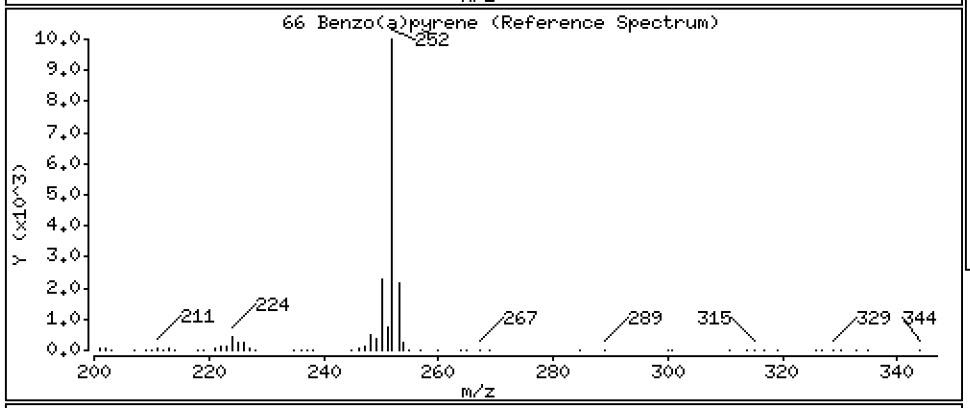
Concentration: 2.801 ug/mL

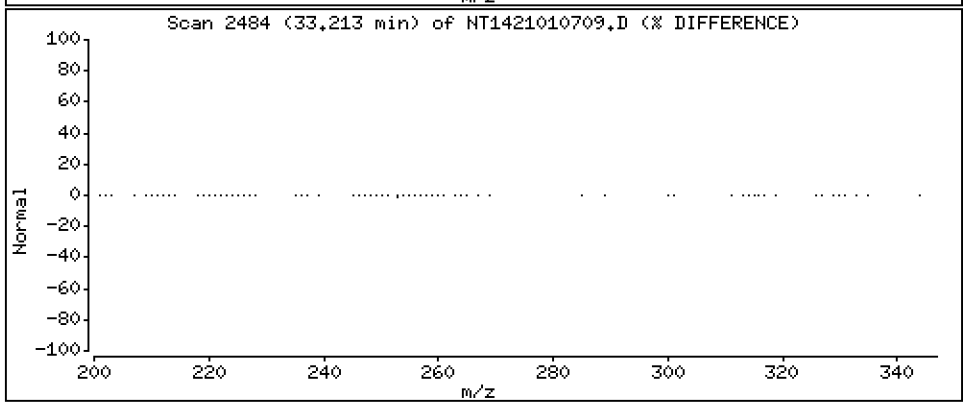












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

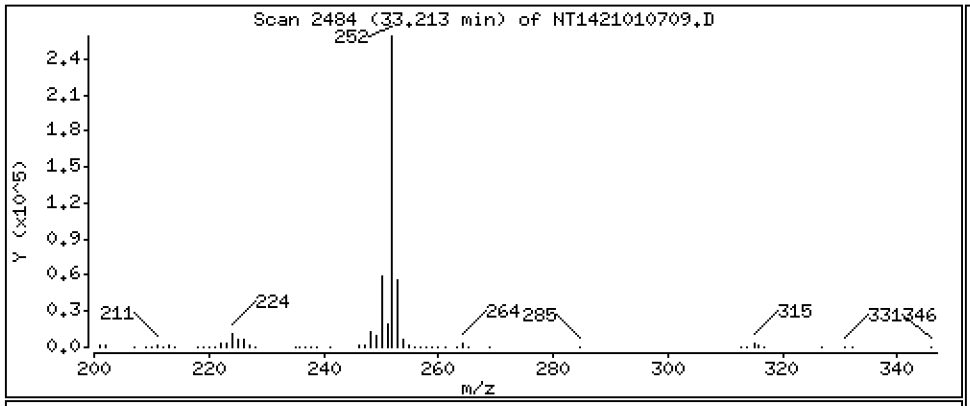
Operator: VTS

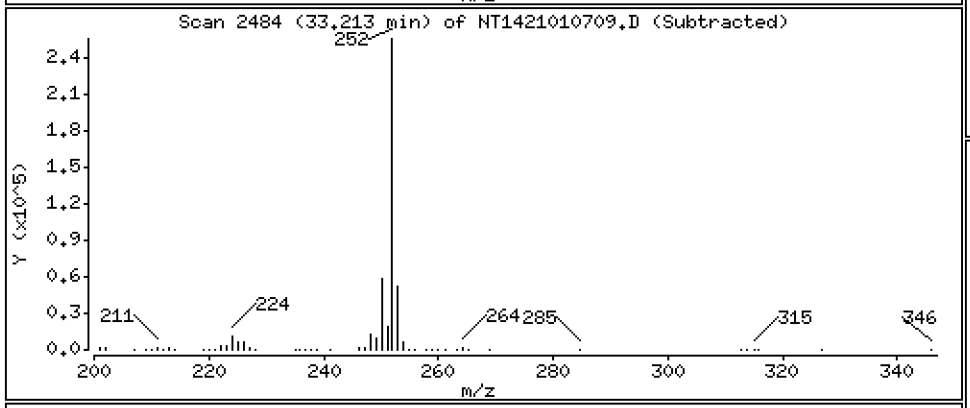
Column phase: Rxi-17Sil MS

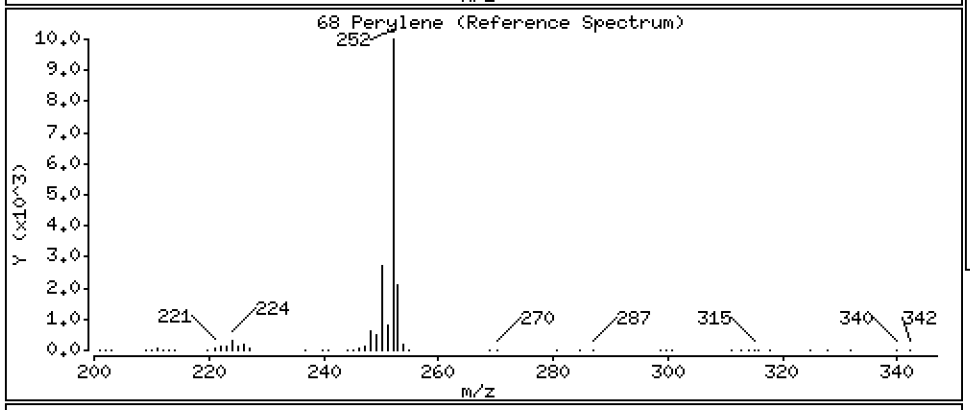
Column diameter: 0.25

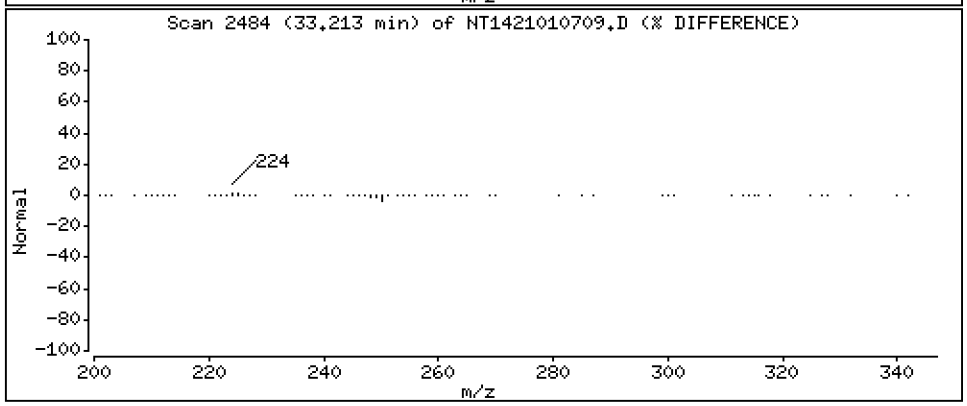
68 Perylene

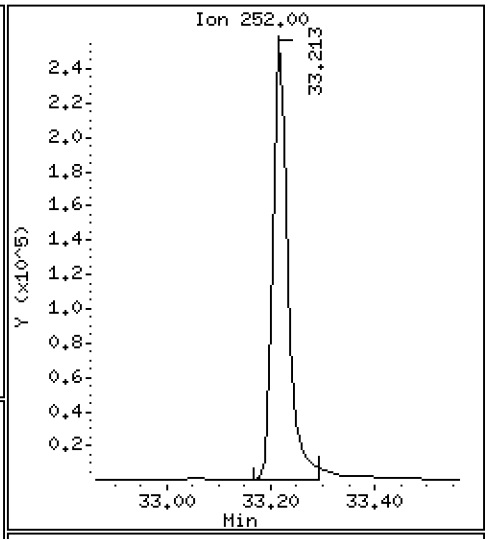
Concentration: 2.645 ug/mL

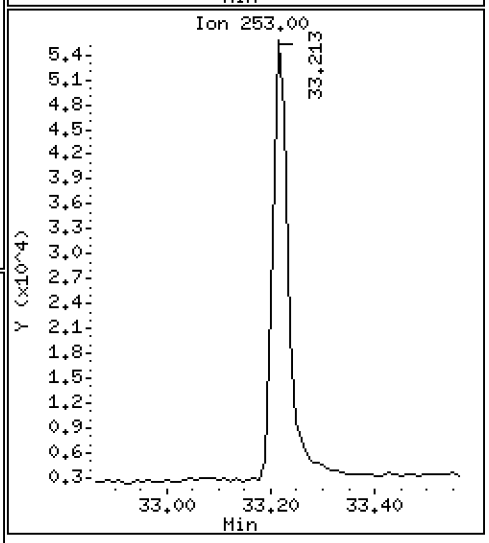












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

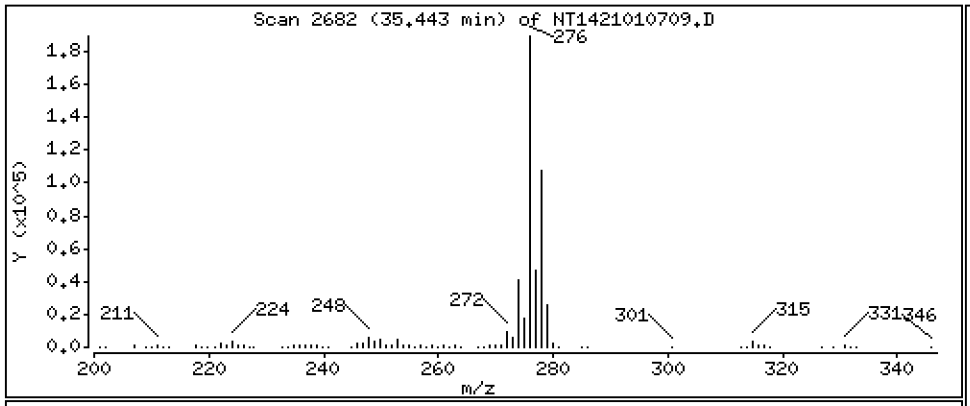
Operator: VTS

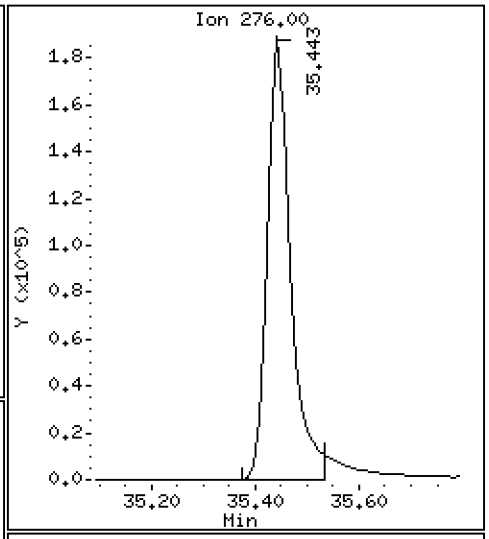
Column phase: Rxi-17Sil MS

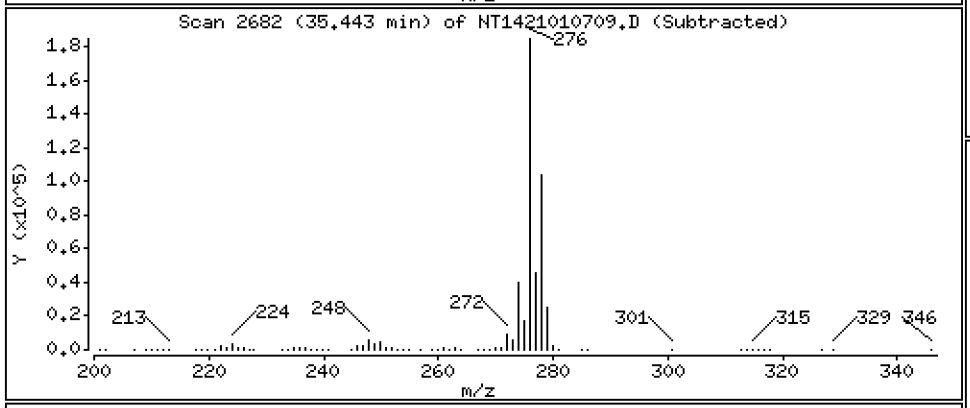
Column diameter: 0.25

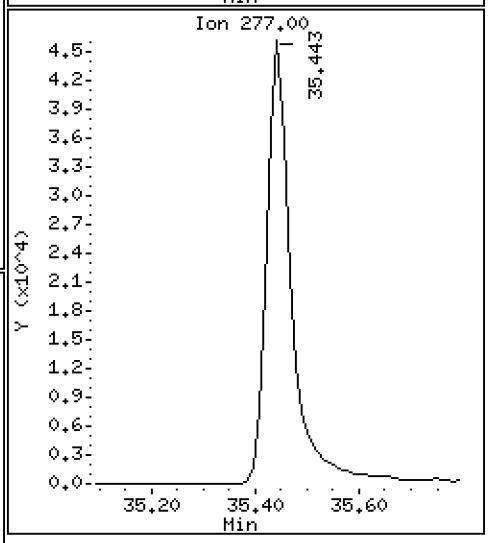
69 Indeno(1,2,3-cd)pyrene

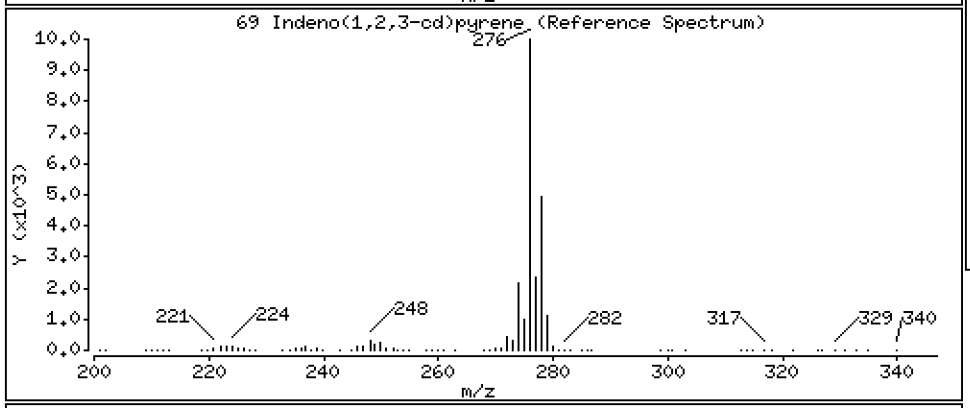
Concentration: 2.717 ug/mL

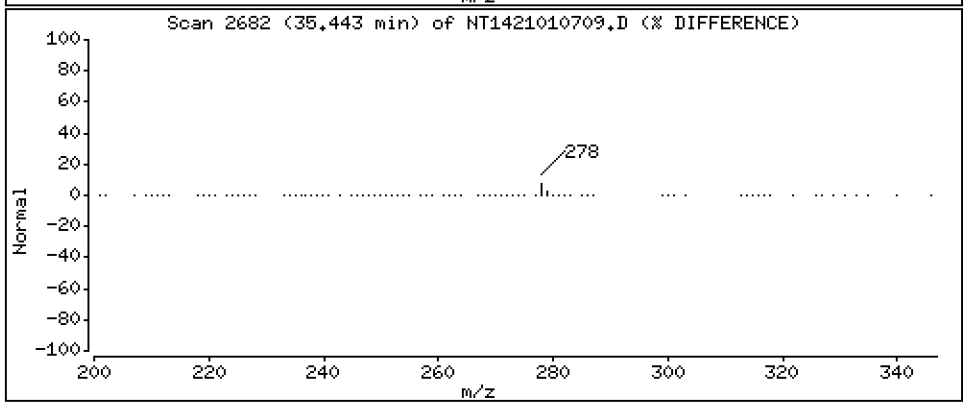












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

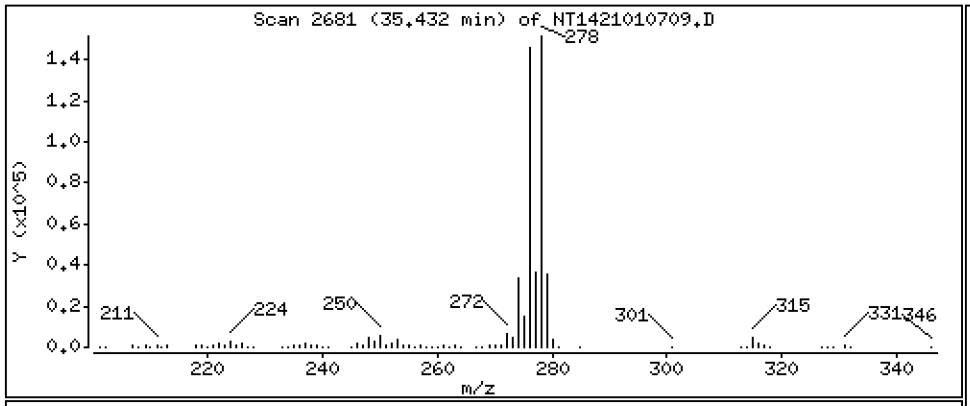
Operator: VTS

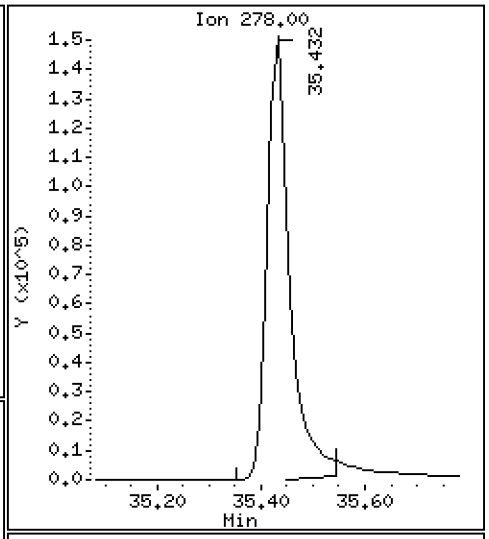
Column phase: Rxi-17Sil MS

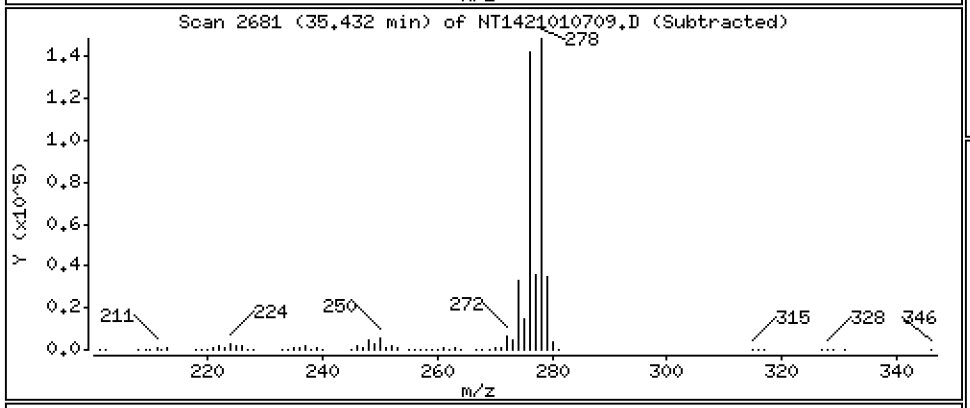
Column diameter: 0.25

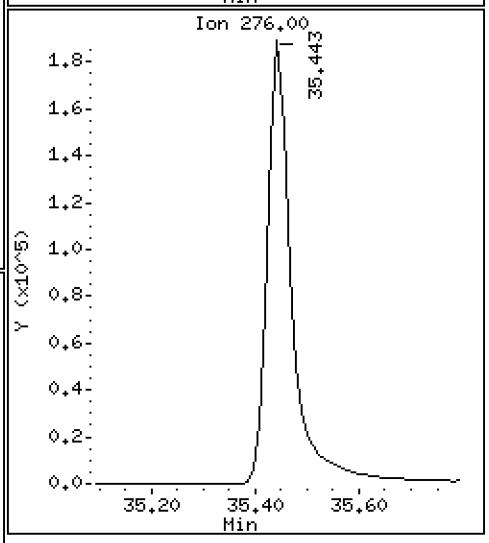
70 Dibenzo(a,h)anthracene

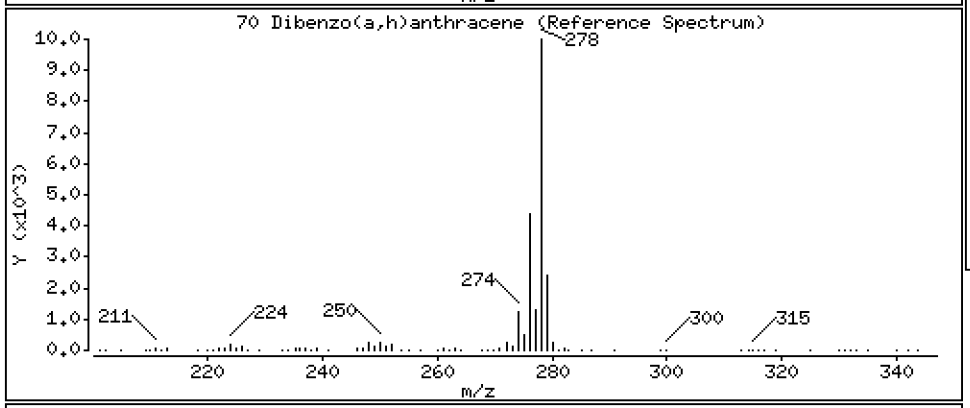
Concentration: 2.515 ug/mL

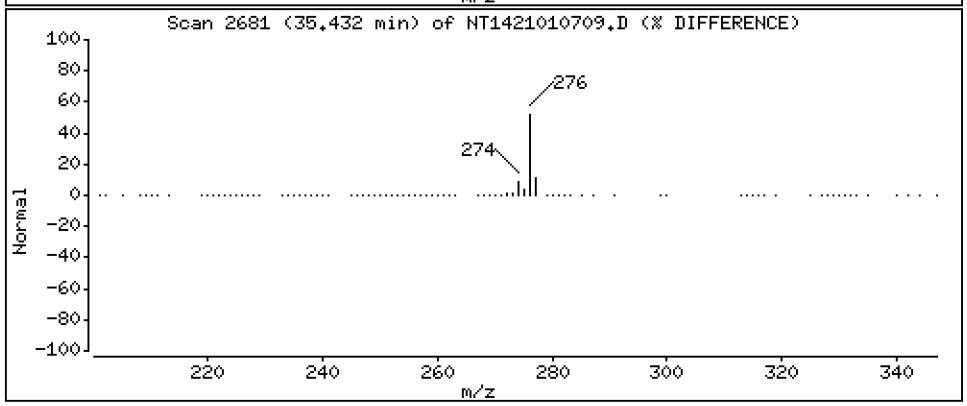












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

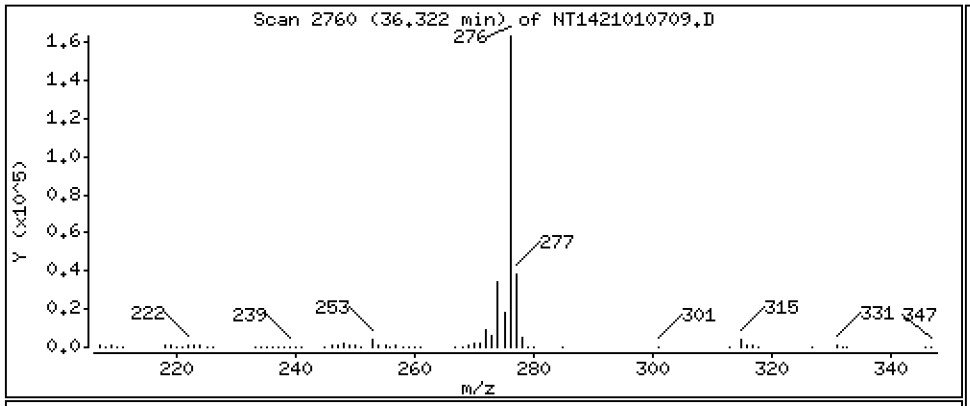
Operator: VTS

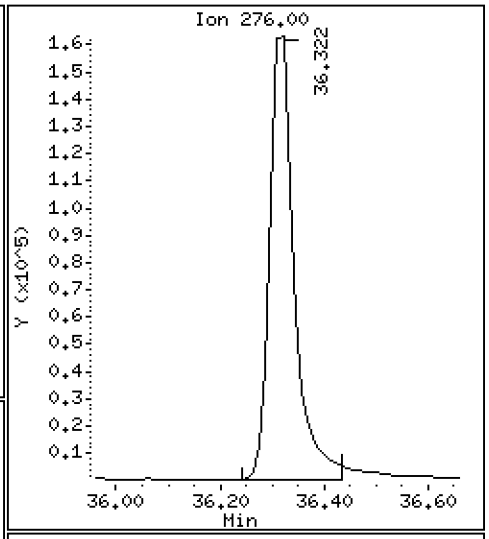
Column phase: Rxi-17Sil MS

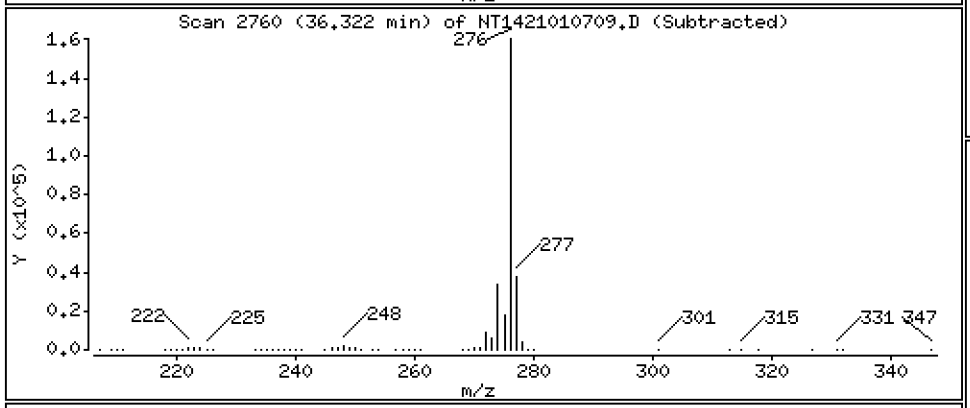
Column diameter: 0.25

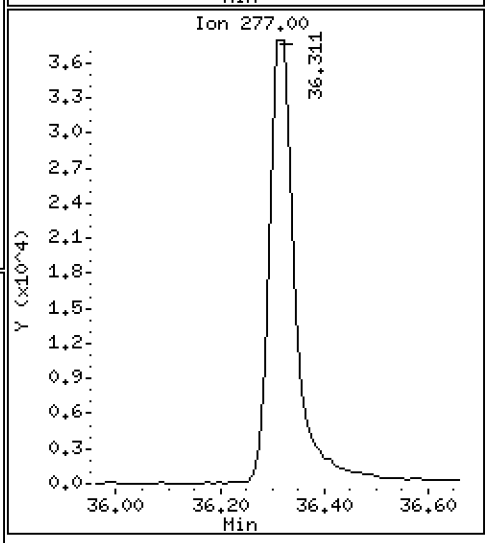
74 Benzo(g,h,i)perylene

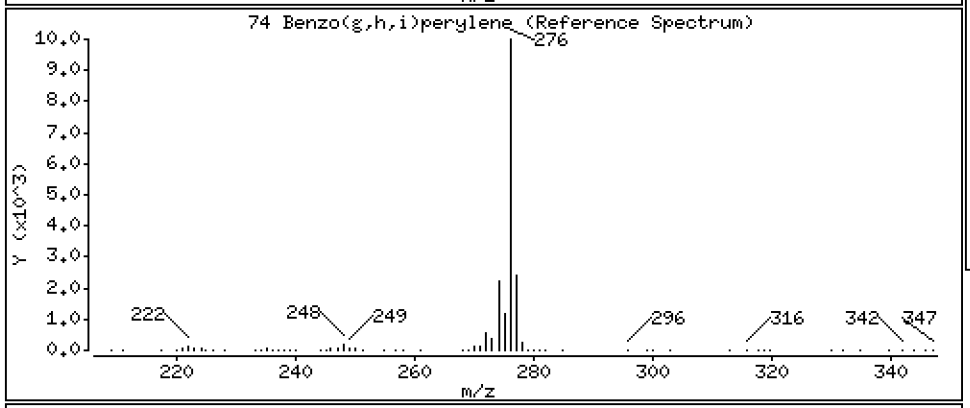
Concentration: 2.559 ug/mL

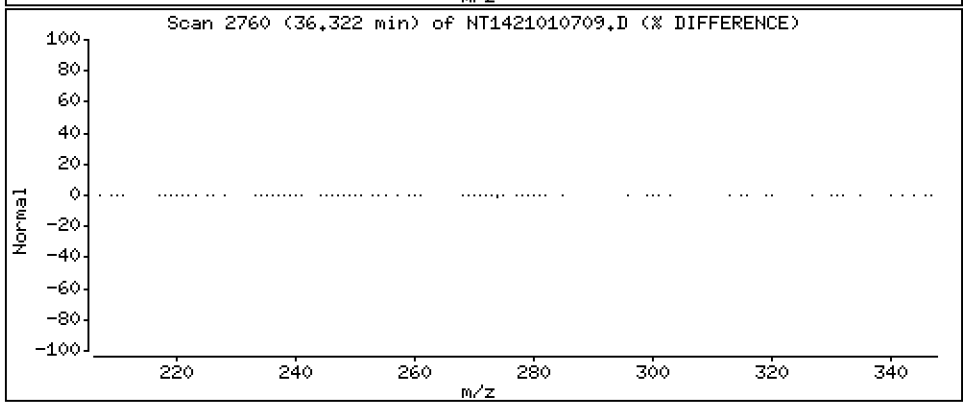












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D
Lab Smp Id: SJA0059-SCV1
Inj Date : 07-JAN-2021 17:32
Operator : VTS Inst ID: nt14.i
Smp Info : SJA0059-SCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Meth Date : 08-Jan-2021 16:59 yev Quant Type: ISTD
Cal Date : 07-JAN-2021 16:44 Cal File: NT1421010708.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	Compound Not Detected.					
	2 cis-Decalin	138	Compound Not Detected.					
$	6 Naphthalene-d8	136	11.755	11.766	(0.627)	6860	0.03204	0.03204(R)
	7 Naphthalene	128	11.832	11.832	(0.631)	548838	2.56023	2.560
	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	16.942	16.942	(0.903)	585844	2.61358	2.614
$	21 Acenaphthene-d10	164	17.239	17.228	(0.919)	991	0.00876	0.008762(R)
	22 Acenaphthene	153	17.349	17.349	(0.925)	354827	2.46209	2.462
	23 Dibenzofuran	168	Compound Not Detected.					
	24 1,6,7-Trimethylnaphthalene	170	Compound Not Detected.					
*	25 Fluorene-d10	176	18.763	18.763	(1.000)	462832	2.00000	
	26 Fluorene	166	18.865	18.865	(1.005)	395543	2.53071	2.531
	30 Dibenzothiophene	184	Compound Not Detected.					
$	35 Phenanthrene-d10	188	Compound Not Detected.					
	36 Phenanthrene	178	22.176	22.176	(0.999)	587041	2.59414	2.594
*	250 Anthracene-d10	188	22.209	22.209	(1.000)	454007	2.00000	
	37 Anthracene	178	22.275	22.275	(1.003)	560639	2.67907	2.679
	42 Carbazole	167	Compound Not Detected.					
	43 1-Methylphenanthrene	192	Compound Not Detected.					
	44 Fluoranthene	202	25.991	25.991	(1.170)	638724	2.58296	2.583
	46 Pyrene	202	26.838	26.838	(1.208)	660626	2.54579	2.546
	51 Naphthobenzothiophene	234	Compound Not Detected.					
	55 Benzo(a)anthracene	228	29.969	29.969	(0.907)	547714	2.68714	2.687
$	56 Chrysene-d12	240	30.093	30.093	(0.910)	19125	0.12163	0.1216(R)
	57 Chrysene	228	30.172	30.172	(0.913)	558840	2.74572	2.746
	62 Benzo(b)fluoranthene	252	32.390	32.390	(0.980)	547976	2.68179	2.682
	63 Benzo(k)fluoranthene	252	32.447	32.447	(0.982)	558973	2.39308	2.393(M)
	293 Benzo(j)fluoranthene	252	Compound Not Detected.					
	246 Total Benzofluoranthenes	252	32.447	32.447	(0.982)	1116031	5.58373	5.584(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	33.055	33.055	(1.000)	502859	2.00000	
64 Benzo(e)pyrene	252	Compound Not Detected.					
66 Benzo(a)pyrene	252	33.213	33.213	(1.005)	512056	2.80117	2.801(M)
$ 67 Perylene-d12	264	Compound Not Detected.					
68 Perylene	252	33.213	33.213	(1.005)	490665	2.64511	2.645(M)
69 Indeno(1,2,3-cd)pyrene	276	35.443	35.443	(1.072)	559089	2.71709	2.717(M)
70 Dibenzo(a,h)anthracene	278	35.431	35.432	(1.072)	441900	2.51483	2.515(M)
74 Benzo(g,h,i)perylene	276	36.321	36.310	(1.099)	514850	2.55879	2.559(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: NT1421010709.D
Lab Smp Id: SJA0059-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Misc Info:

Calibration Date: 07-JAN-2021
Calibration Time: 11:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	642877	321439	1285754	462832	-28.01
250 Anthracene-d10	641722	320861	1283444	454007	-29.25
251 Benzo(e)pyrene-d1	741138	370569	1482276	502859	-32.15

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.76	18.26	19.26	18.76	-0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	-0.00
251 Benzo(e)pyrene-d1	33.06	32.56	33.56	33.06	-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 - NT1421010709.D

Lab ID: SJA0059-SCV1
nt14.i, 20210107.b\ALKYLPNA.m, 07-JAN-2021 17:32

RT	CO-ELUTION COMPOUNDS
33.213	Perylene and Benzo(a)pyrene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

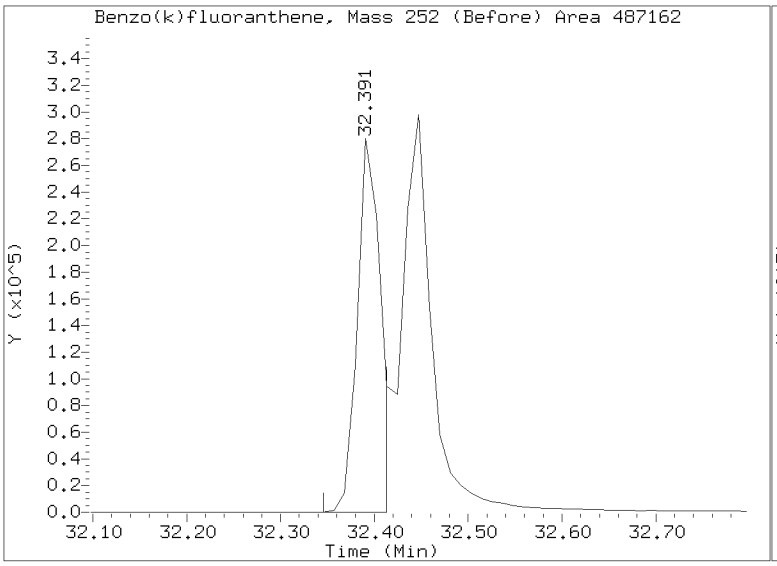
RRT check based on Ccal File: NT1421010708.D

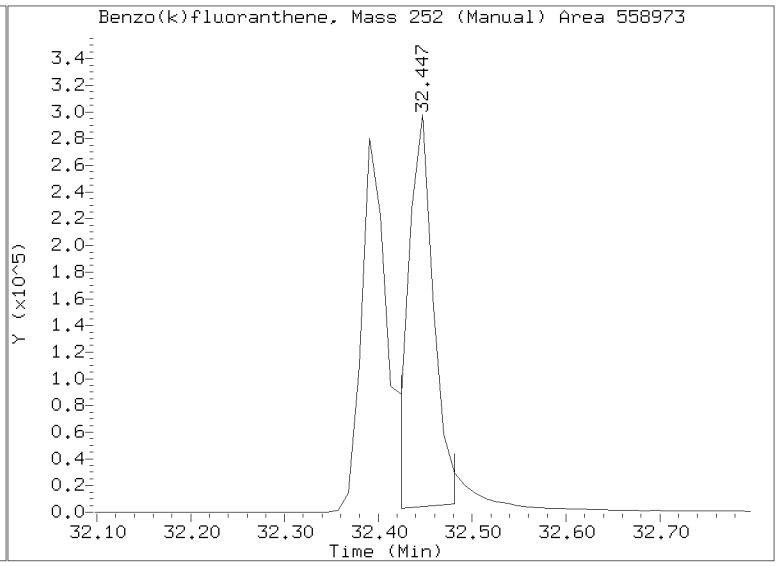
On Column LOD for nt14.i, 20210107.b\ALKYLPNA.m, TARGETS.sub = 0.0000

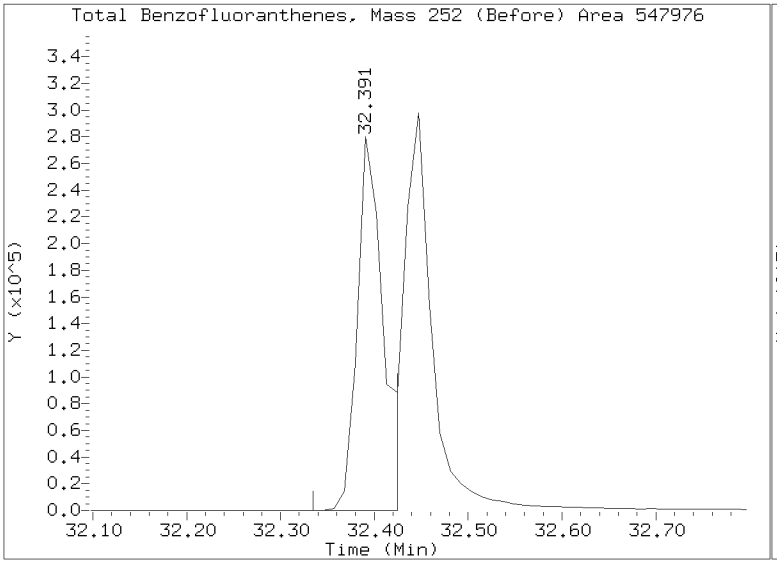
* Only compounds listed in the work order have been verified by the analyst *

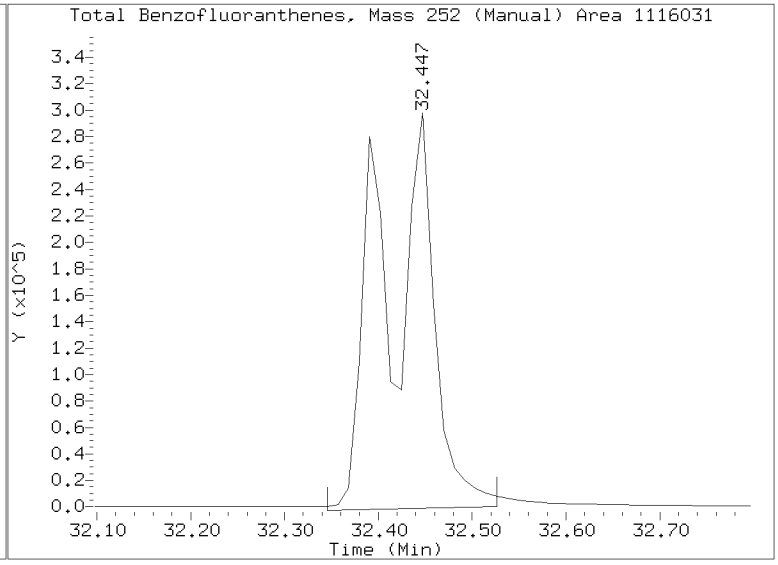
Quant Ion Manual Peak Adjustment Report

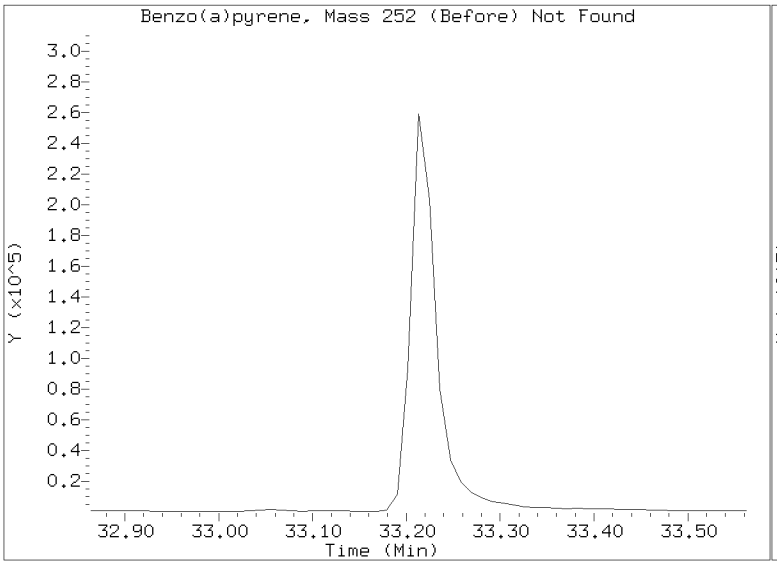
Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010709.D
Injection Date: 07-JAN-2021 17:32
Lab ID:SJA0059-SCV1 Client ID:
Report Date: 01/08/2021 16:59

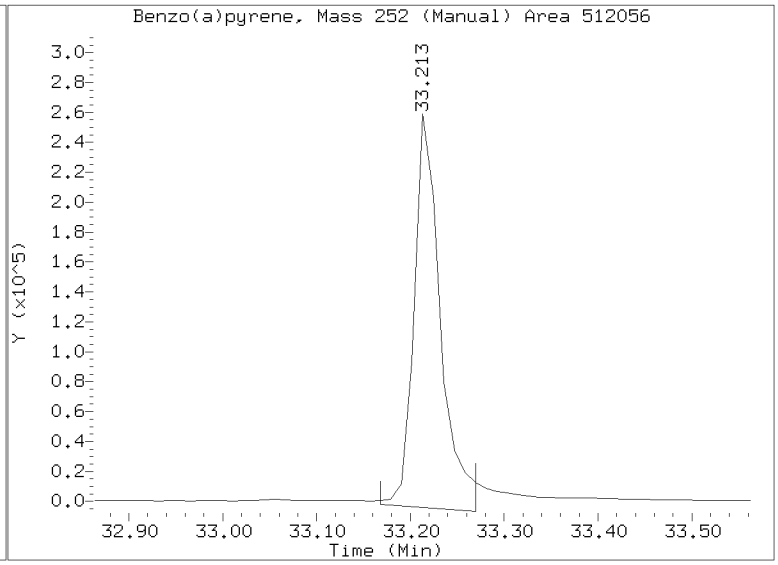






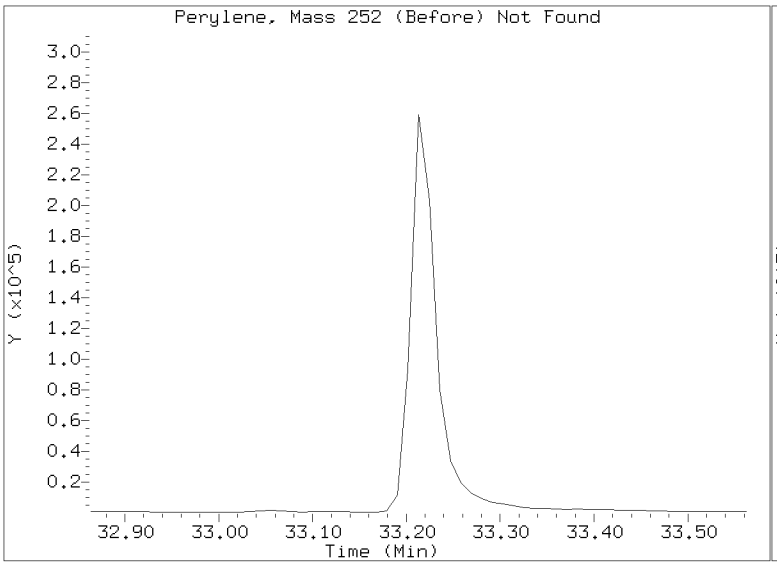


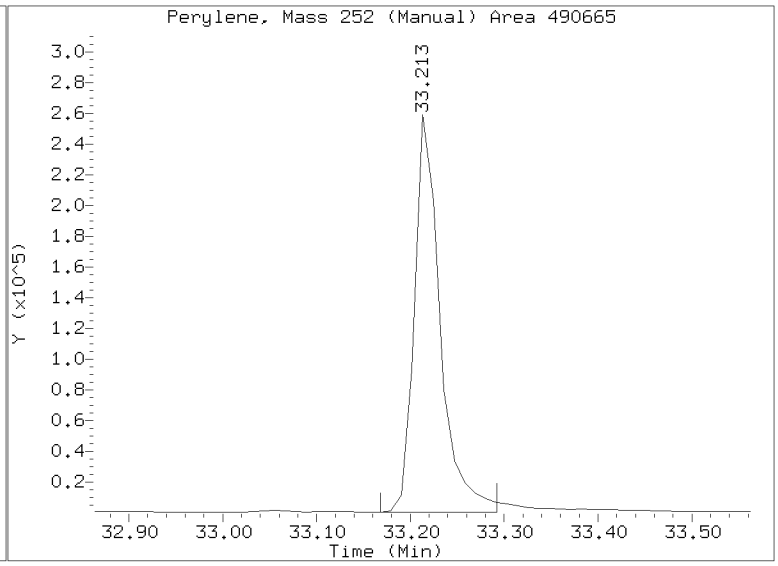


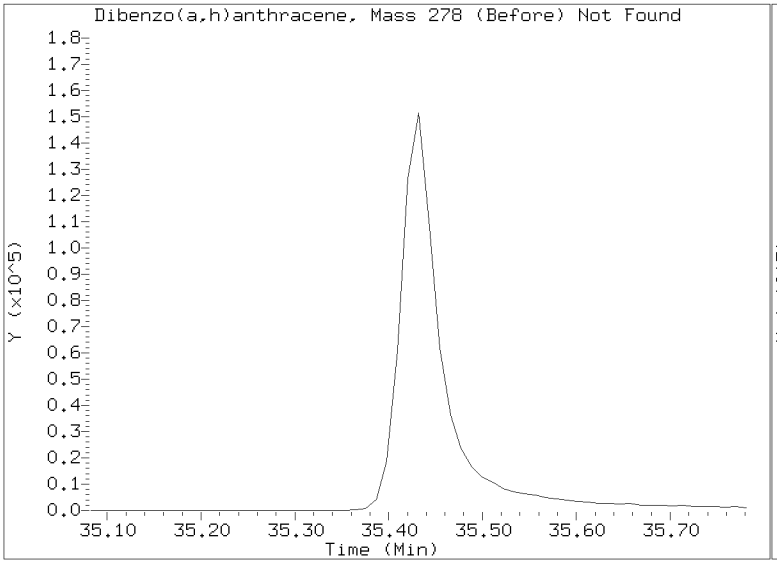


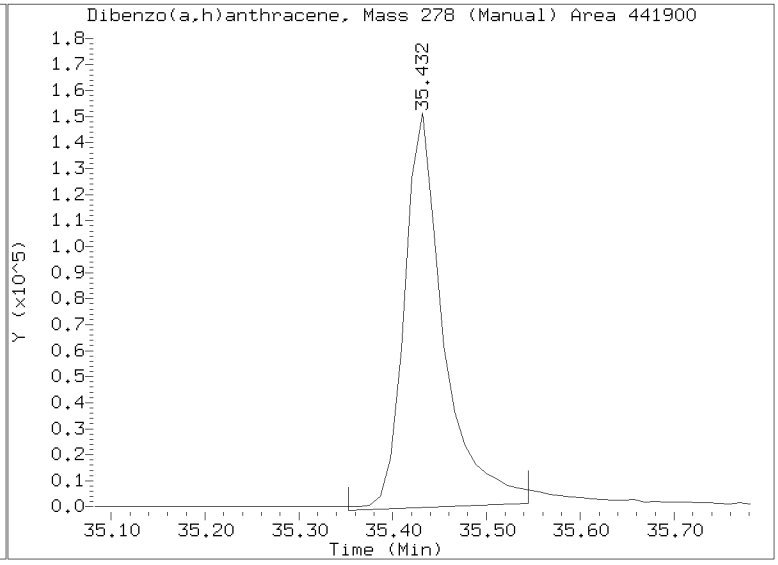
Quant Ion Manual Peak Adjustment Report

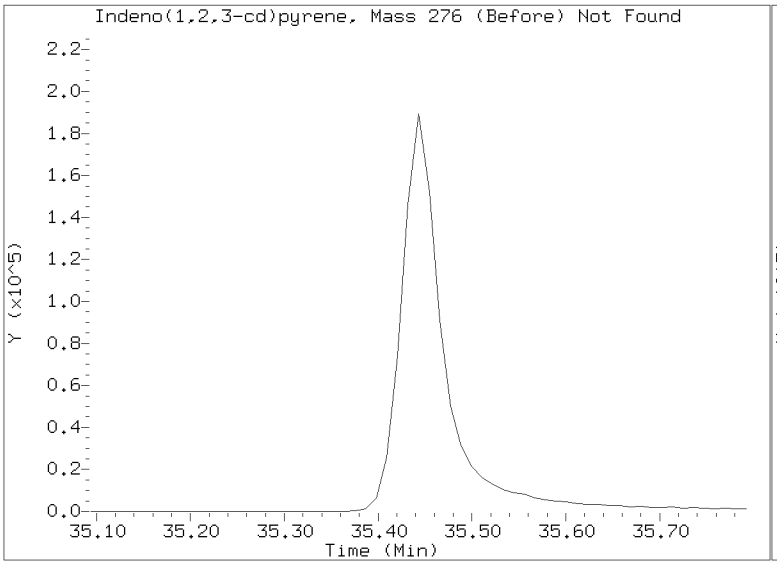
Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010709.D
Injection Date: 07-JAN-2021 17:32
Lab ID:SJA0059-SCV1 Client ID:
Report Date: 01/08/2021 16:59

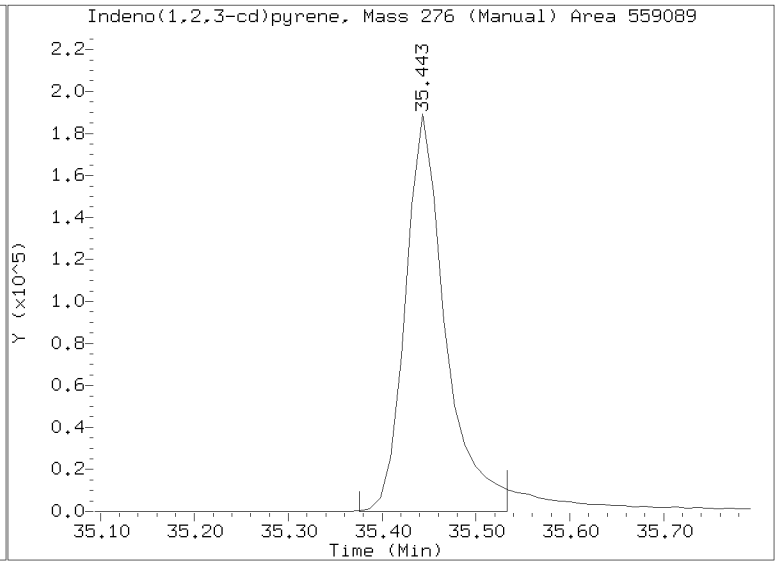






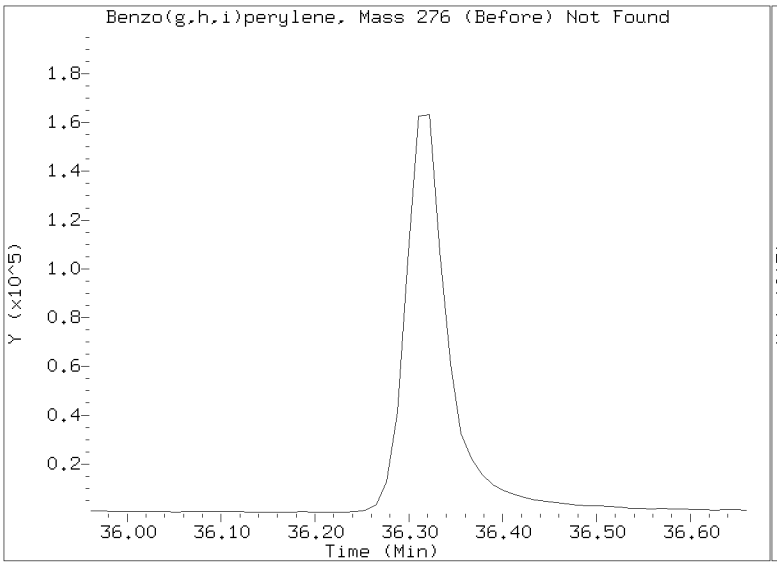


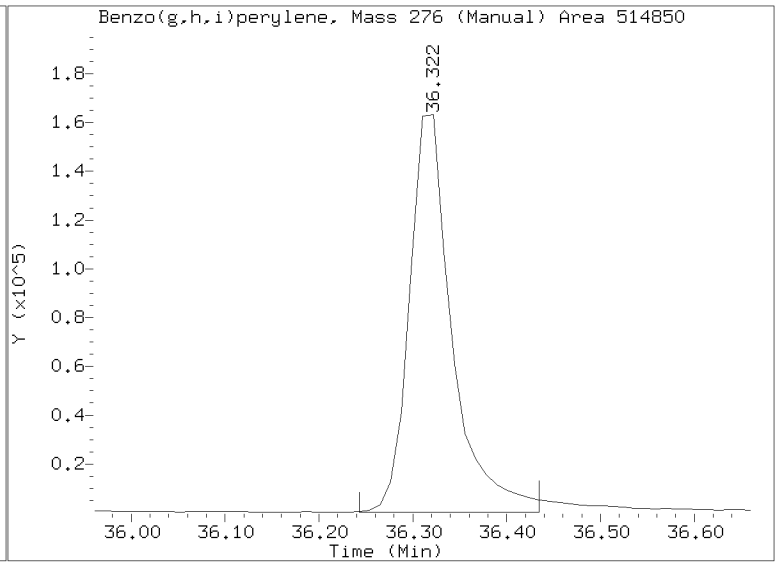




Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010709.D
Injection Date: 07-JAN-2021 17:32
Lab ID:SJA0059-SCV1 Client ID:
Report Date: 01/08/2021 16:59





Analytical Resources, Incorporated
Analytical Chemists and Consultants

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.
SDG: 21B0118
Client: Anchor QEA, LLC
Project: US Moorings
Calibration: EA00040
Laboratory ID: SJA0059-SCV1
Sequence: SJA0059
Standard ID: I009393

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Naphthalene	2.5000	2.6	2.4	20.00
1-Methylnaphthalene	2.5000	0.0		20.00
2-Methylnaphthalene	2.5000	0.0		20.00
Acenaphthylene	2.5000	2.6	4.5	20.00
Acenaphthene	2.5000	2.5	-1.5	20.00
Dibenzofuran	2.5000	0.0		20.00
Fluorene	2.5000	2.5	1.2	20.00
Phenanthrene	2.5000	2.6	3.8	20.00
Anthracene	2.5000	2.7	7.2	20.00
Carbazole	2.5000	0.0		20.00
Fluoranthene	2.5000	2.6	3.3	20.00
Pyrene	2.5000	2.5	1.8	20.00
Benzo(a)anthracene	2.5000	2.7	7.5	20.00
Chrysene	2.5000	2.7	9.8	20.00
Benzo(b)fluoranthene	2.5000	2.7	7.3	
Benzo(k)fluoranthene	2.5000	2.4	-4.3	
Benzo(a)pyrene	2.5000	2.8	12.0	20.00
Indeno(1,2,3-cd)pyrene	2.5000	2.7	8.7	20.00
Dibenzo(a,h)anthracene	2.5000	2.5	0.6	20.00
Benzo(g,h,i)perylene	2.5000	2.6	2.4	20.00

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Page 1

Date : 07-JAN-2021 17:32

Client ID:

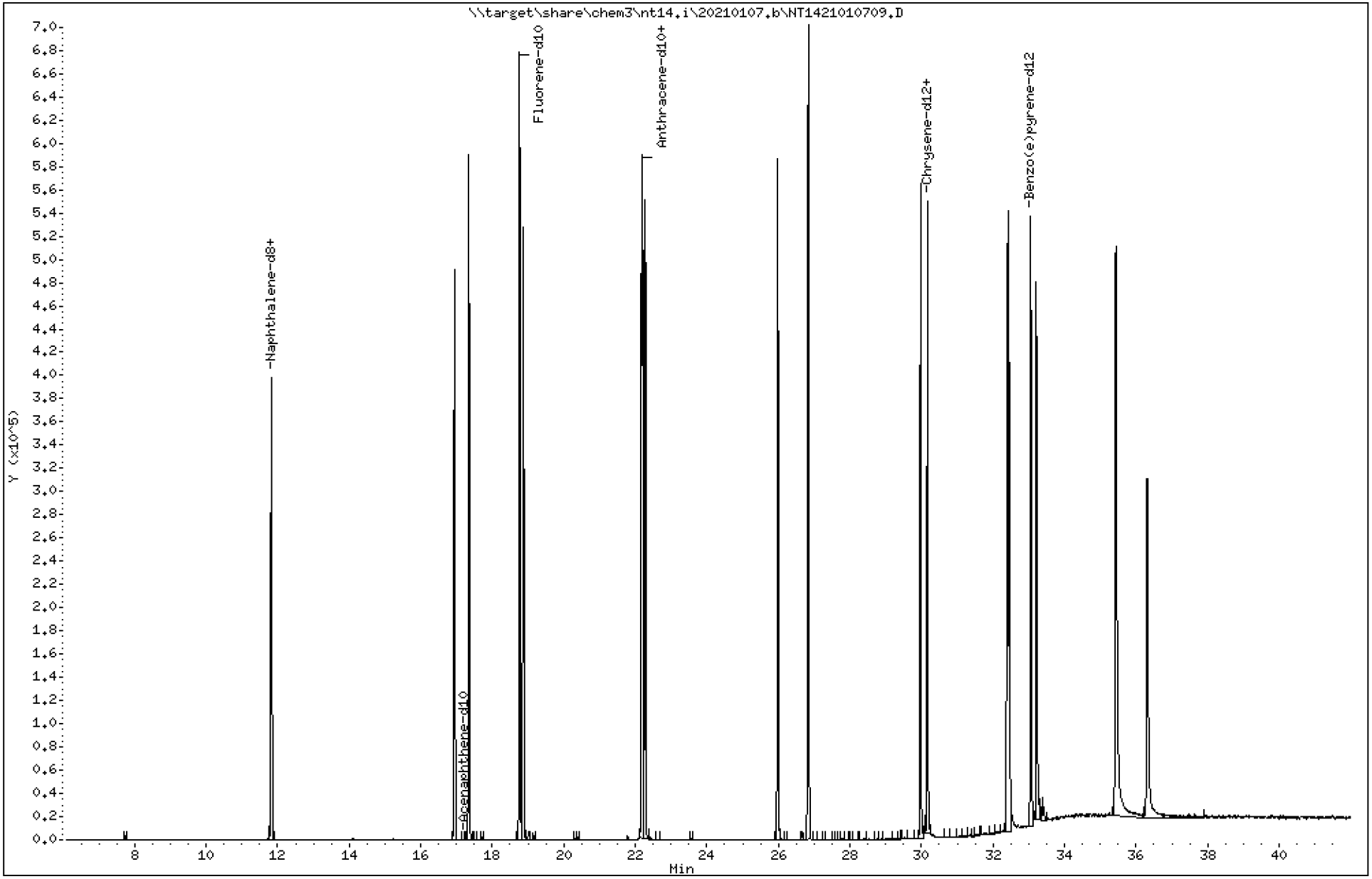
Instrument: nt14.i

Sample Info: SJA0059-SCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

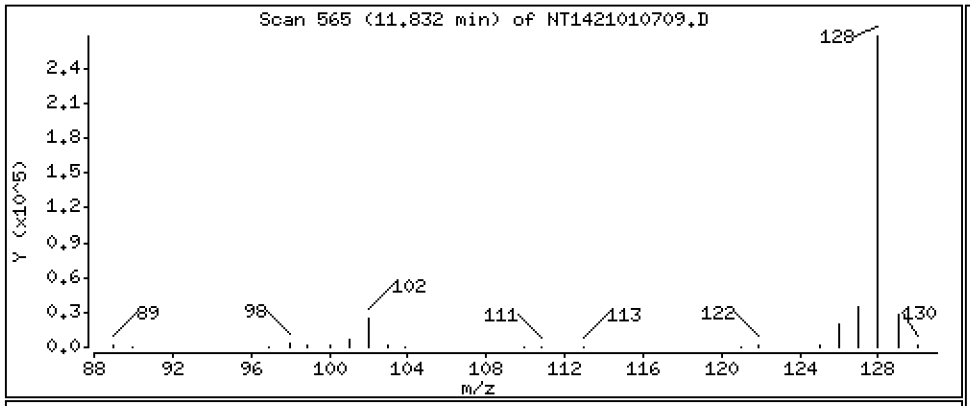
Operator: VTS

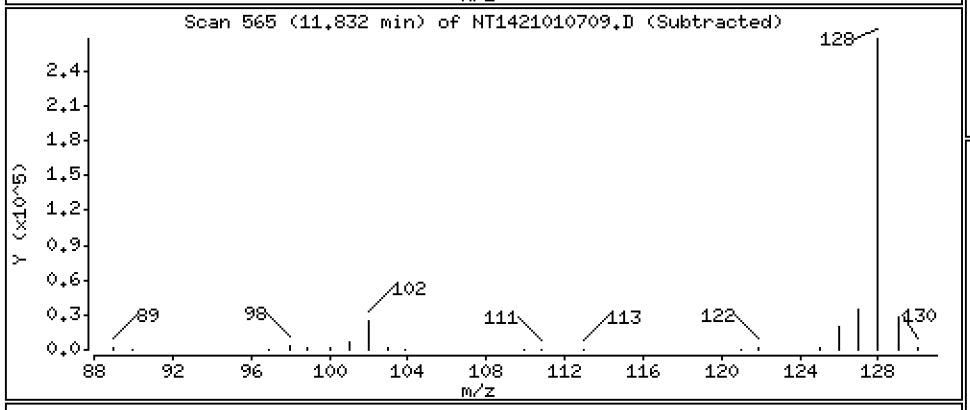
Column phase: Rxi-17Sil MS

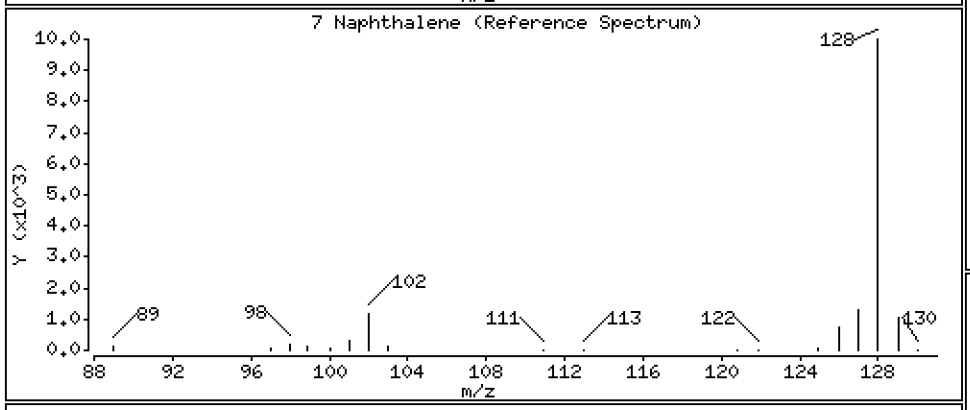
Column diameter: 0.25

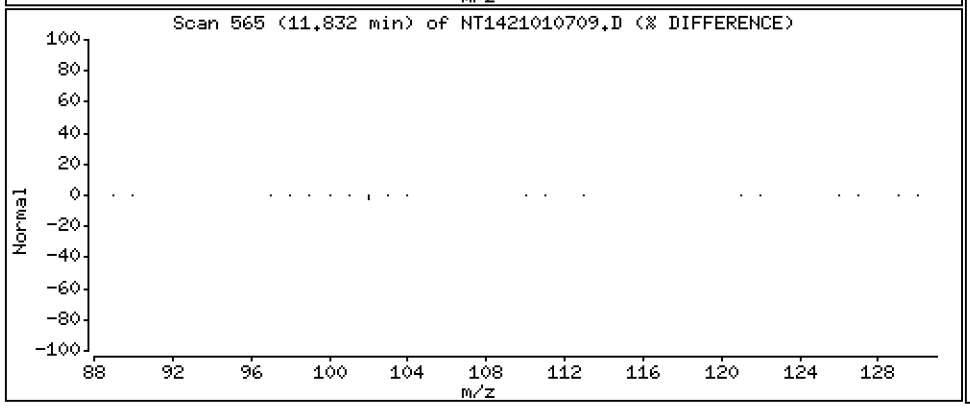
7 Naphthalene

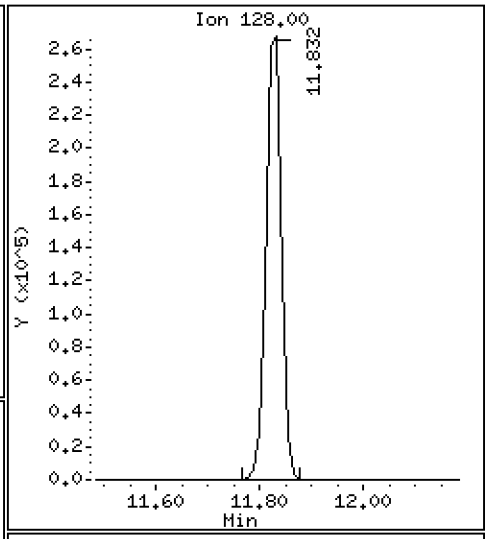
Concentration: 2.560 ug/mL

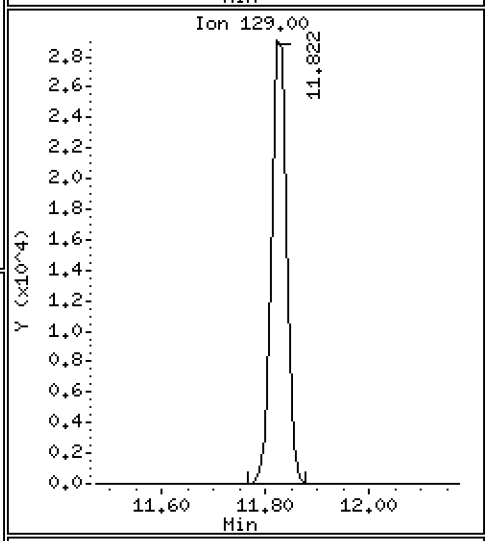


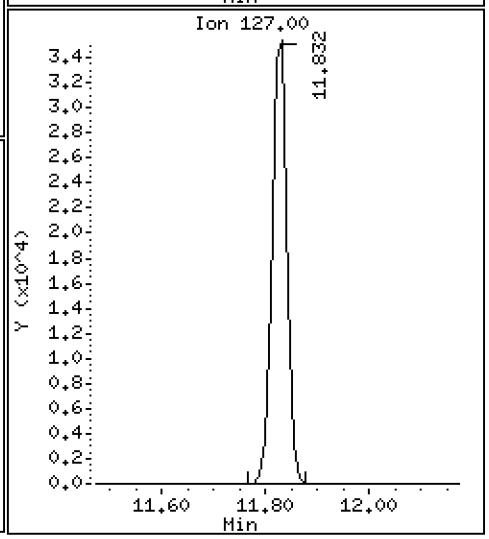












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

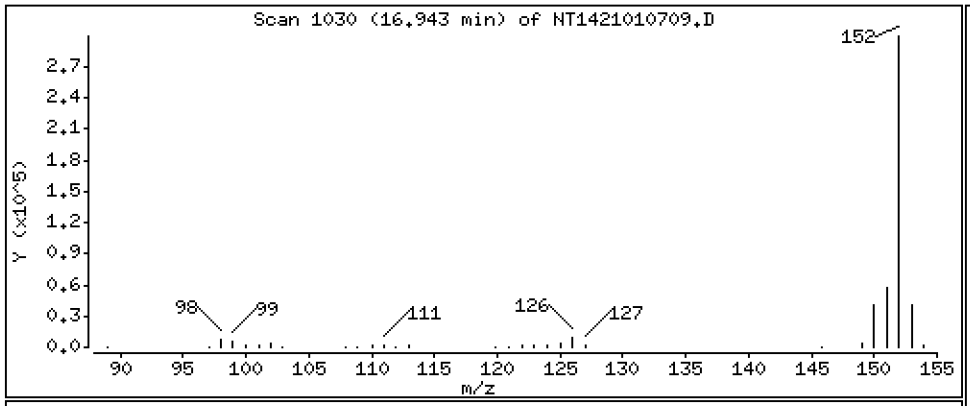
Operator: VTS

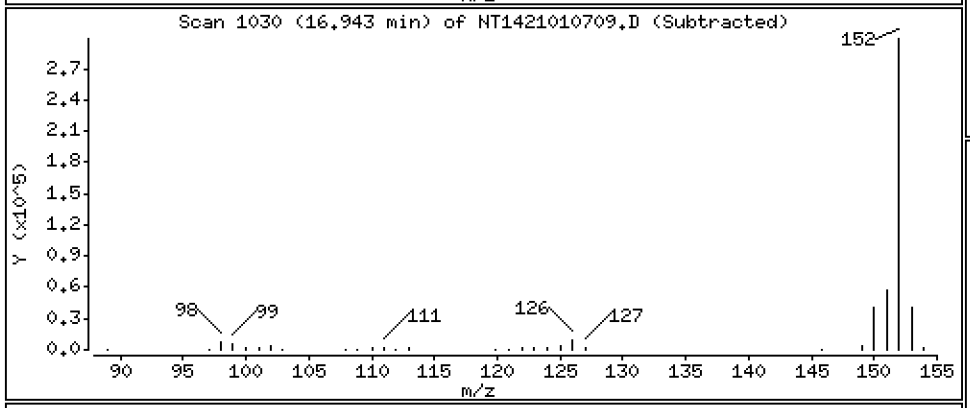
Column phase: Rxi-17Sil MS

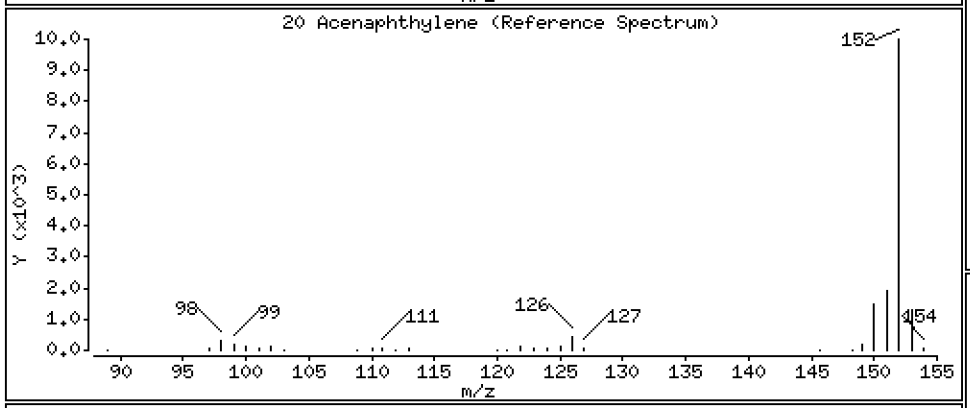
Column diameter: 0.25

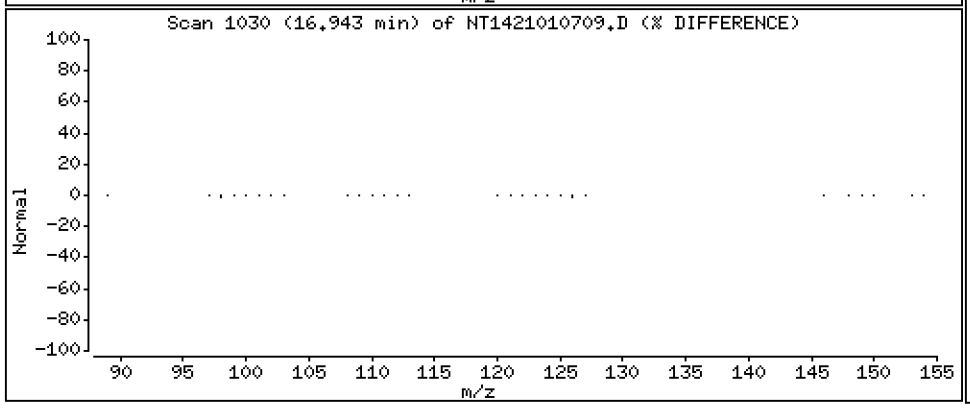
20 Acenaphthylene

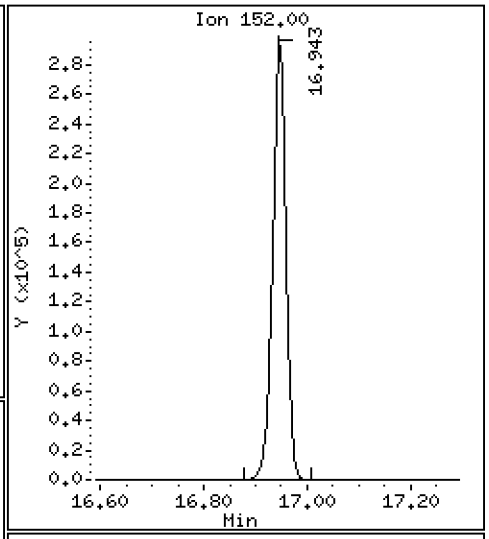
Concentration: 2.614 ug/mL

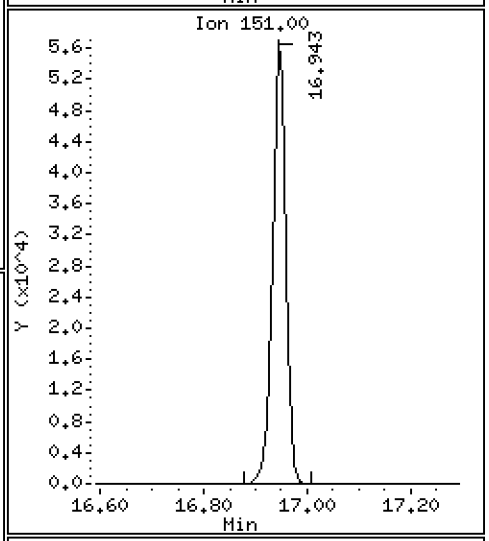


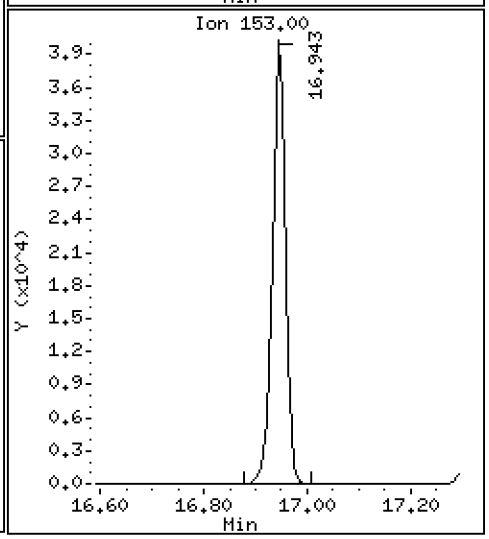












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

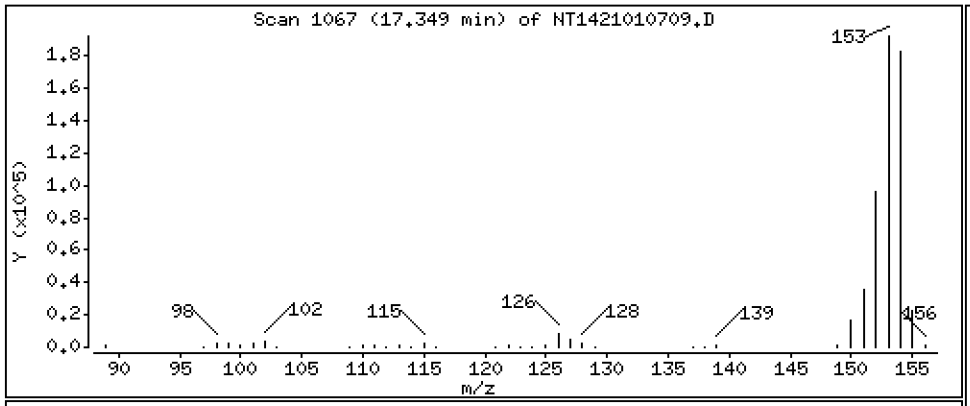
Operator: VTS

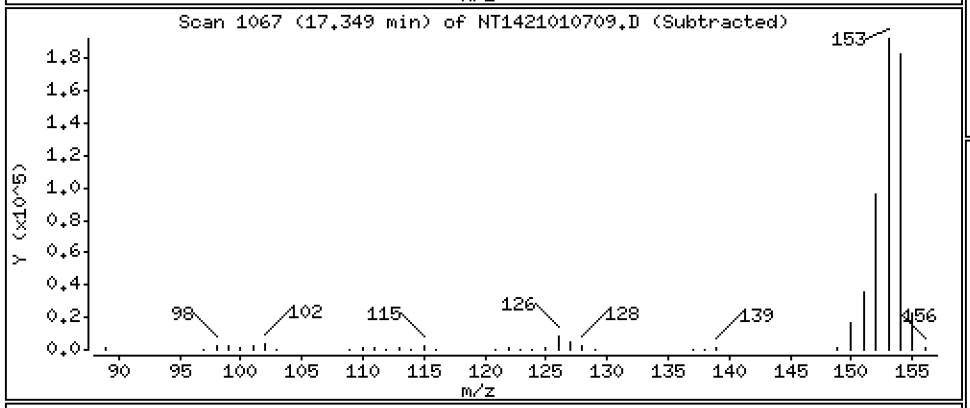
Column phase: Rxi-17Sil MS

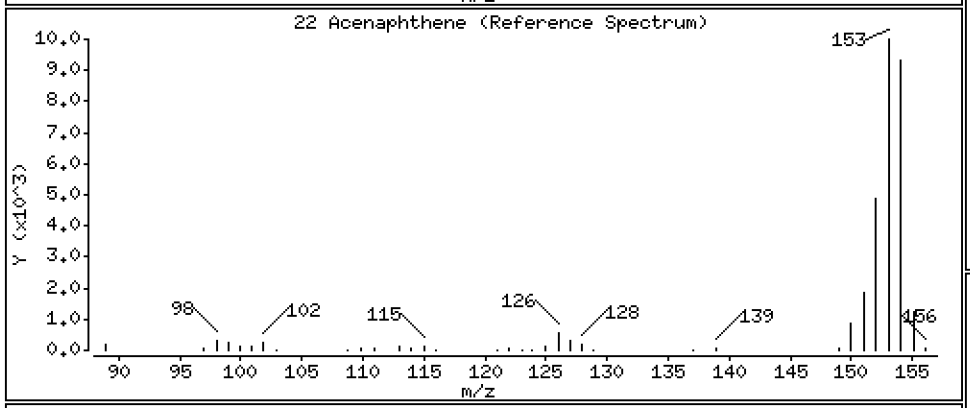
Column diameter: 0.25

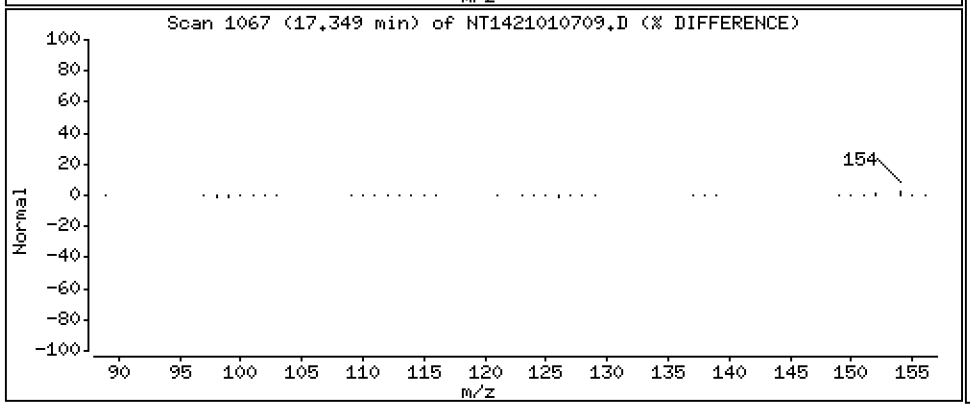
22 Acenaphthene

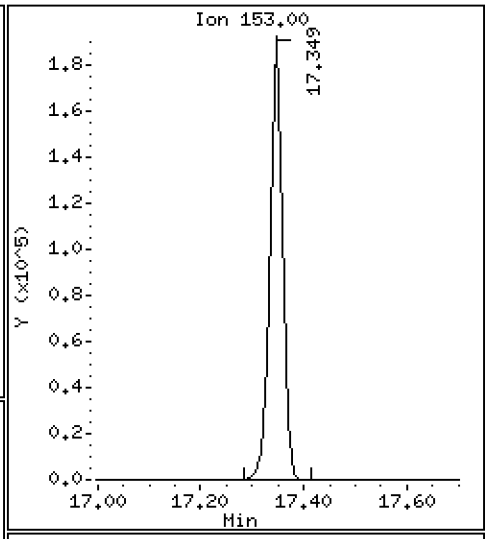
Concentration: 2.462 ug/mL

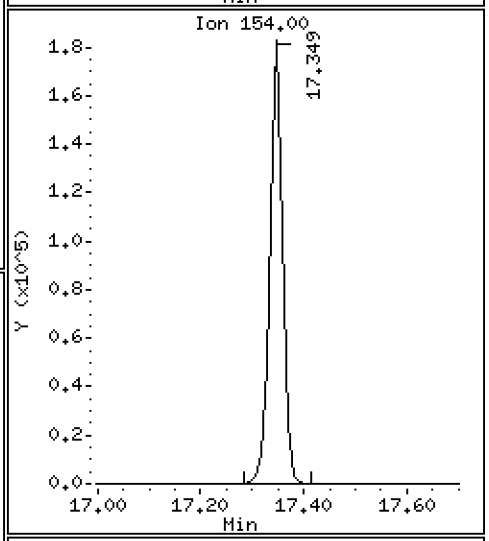


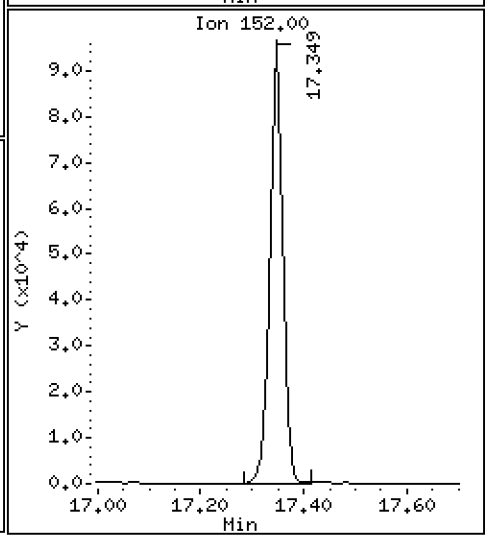












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

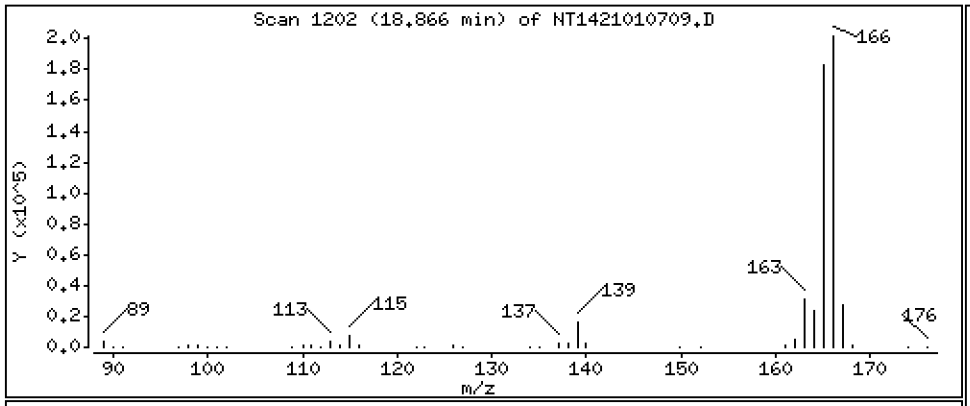
Operator: VTS

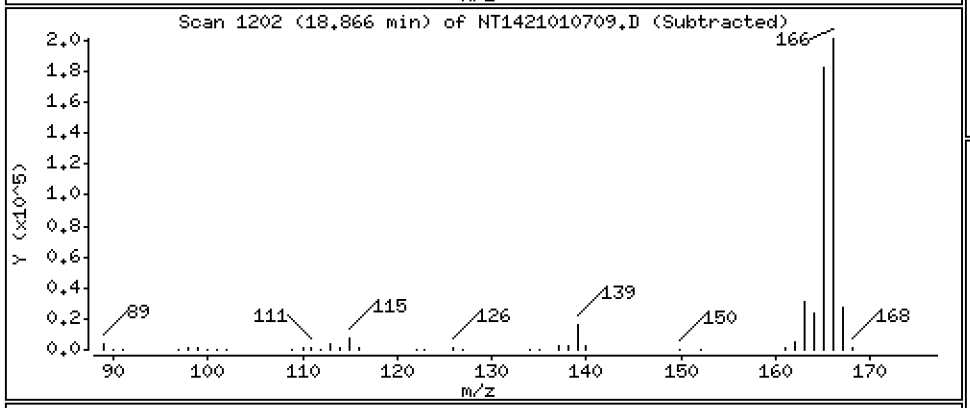
Column phase: Rxi-17Sil MS

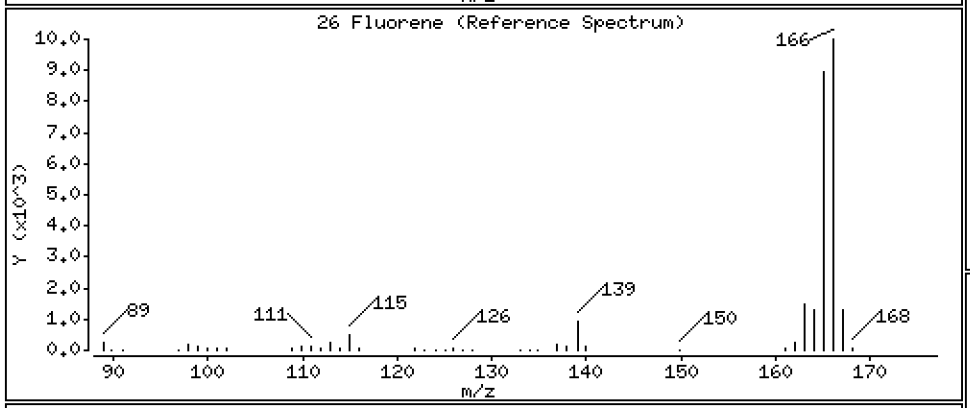
Column diameter: 0.25

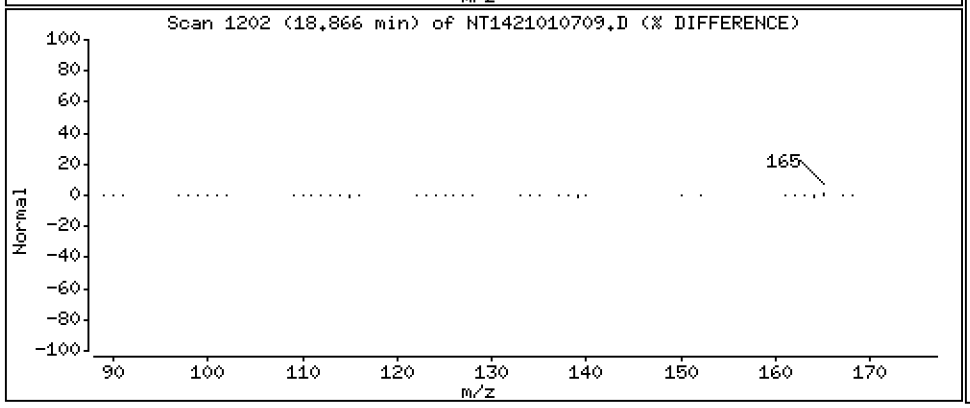
26 Fluorene

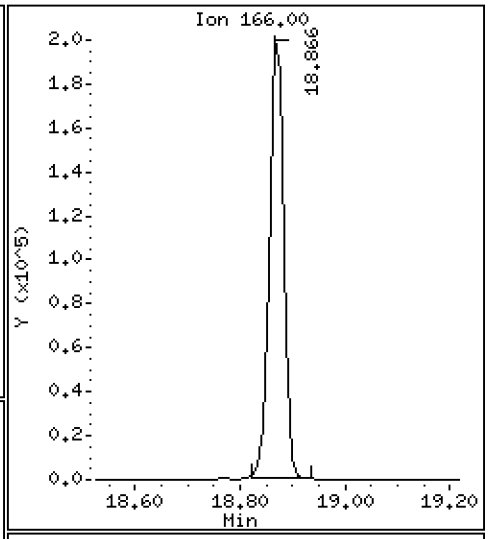
Concentration: 2.531 ug/mL

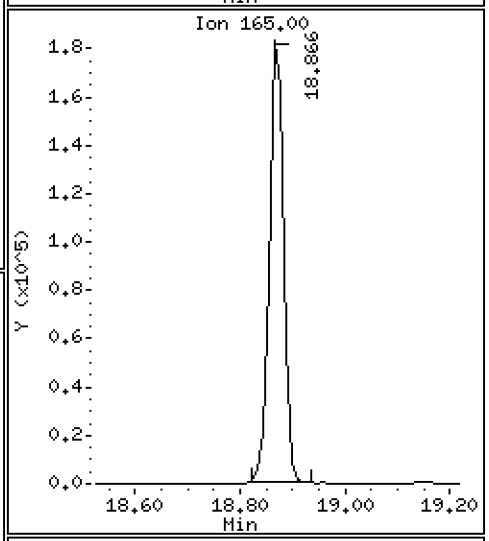


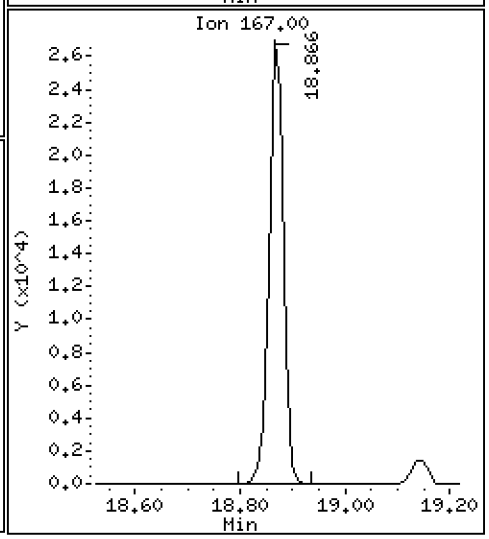












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

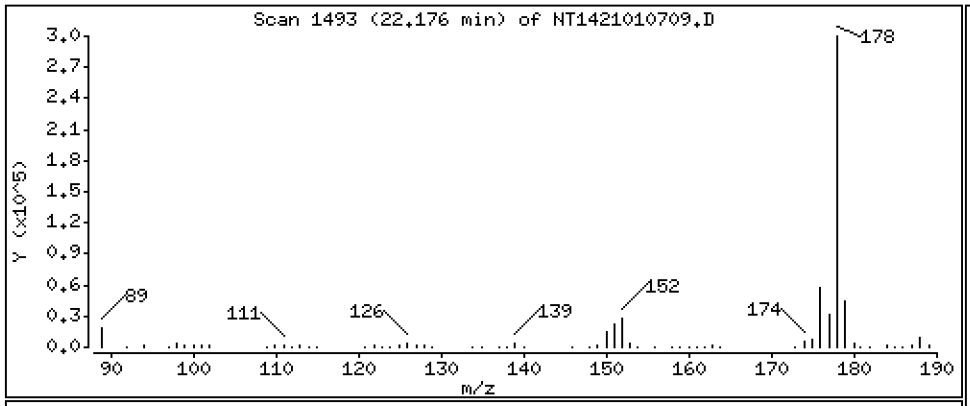
Operator: VTS

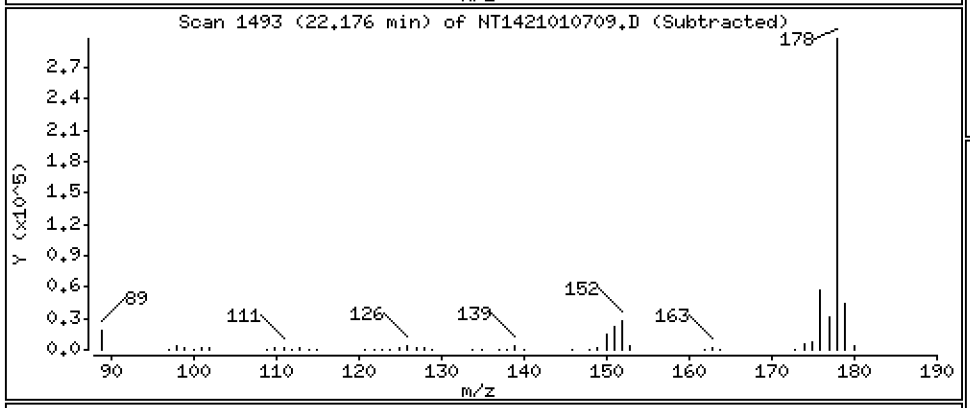
Column phase: Rxi-17Sil MS

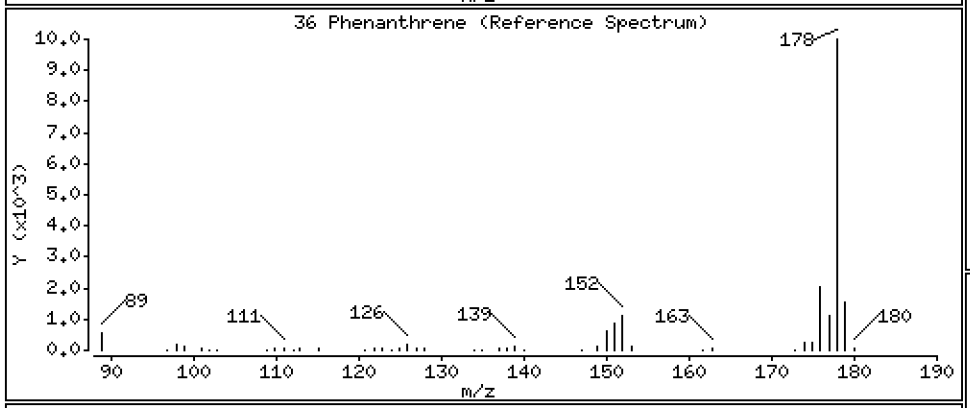
Column diameter: 0.25

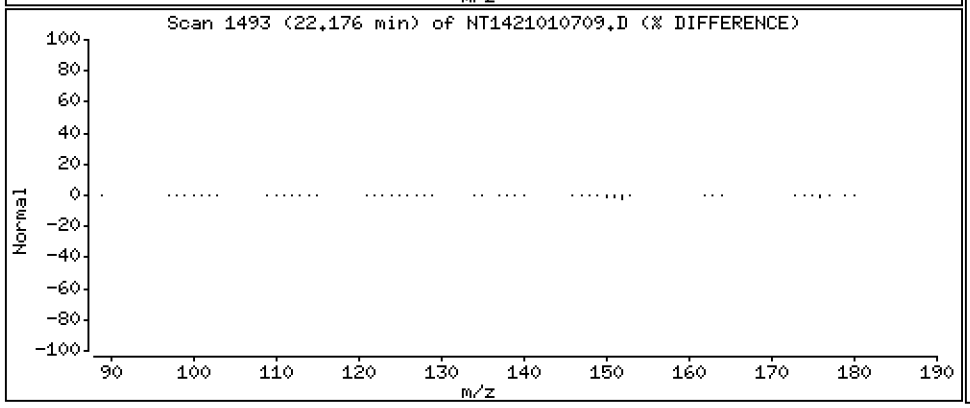
36 Phenanthrene

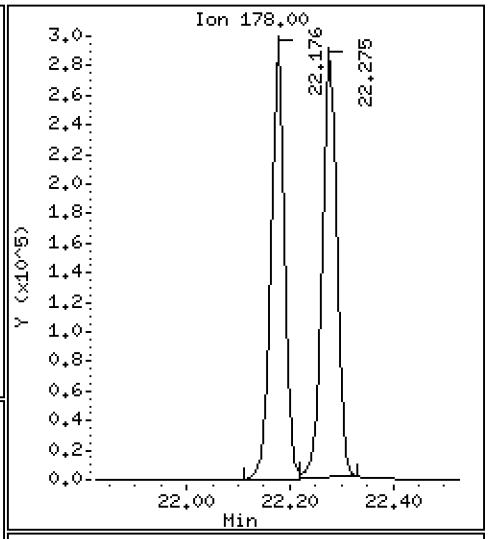
Concentration: 2.594 ug/mL

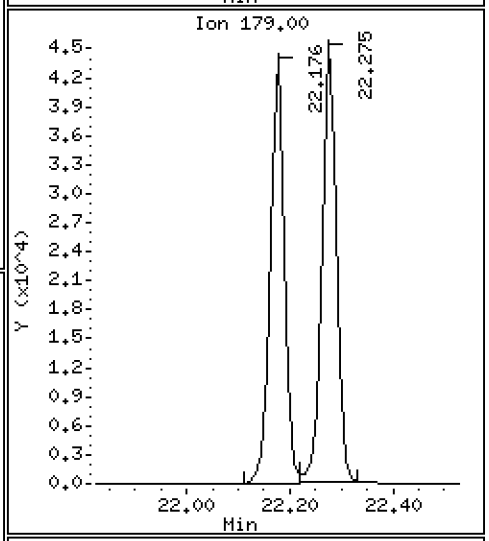


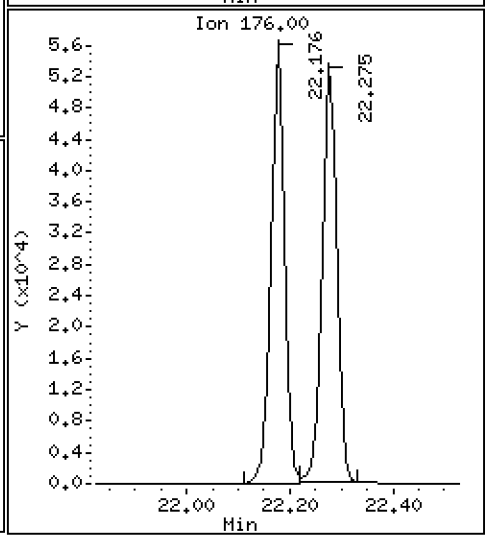












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

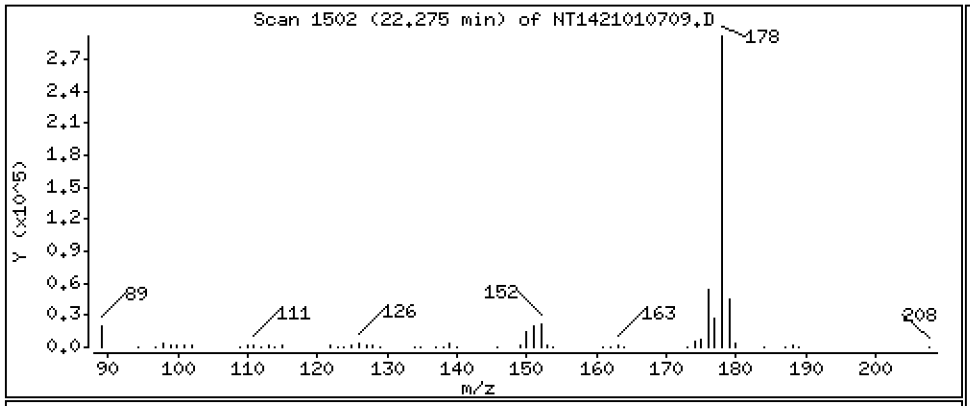
Operator: VTS

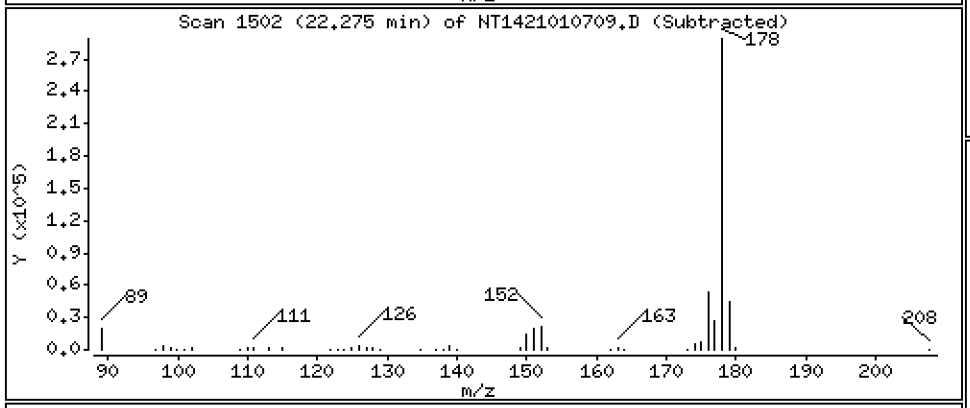
Column phase: Rxi-17Sil MS

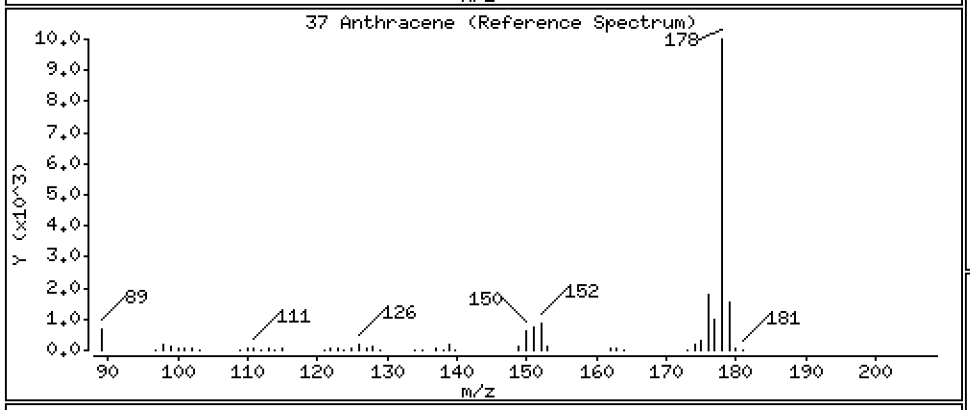
Column diameter: 0.25

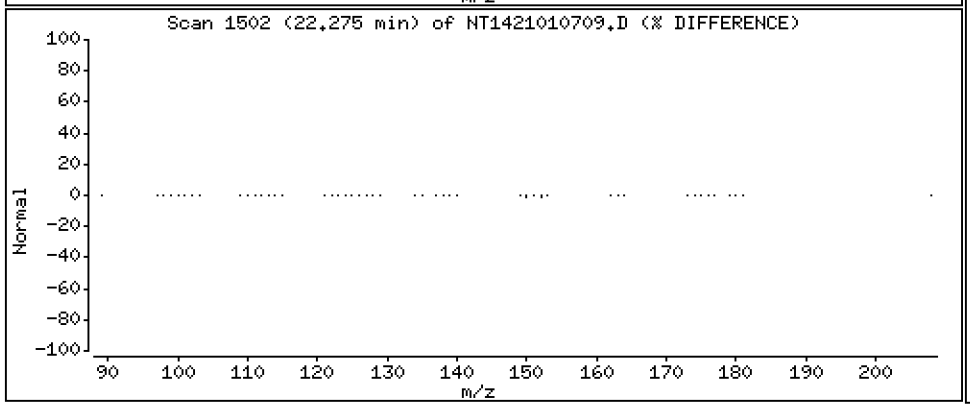
37 Anthracene

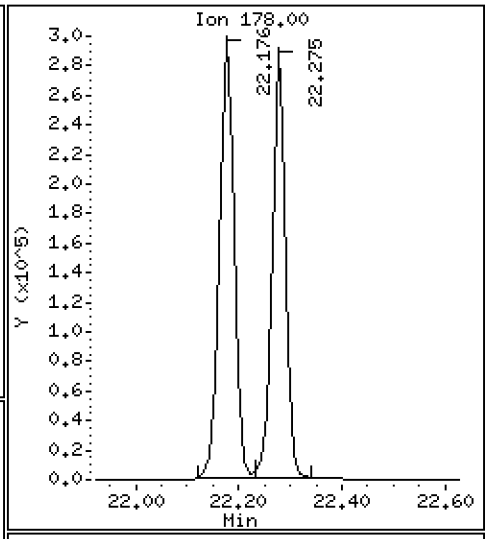
Concentration: 2.679 ug/mL

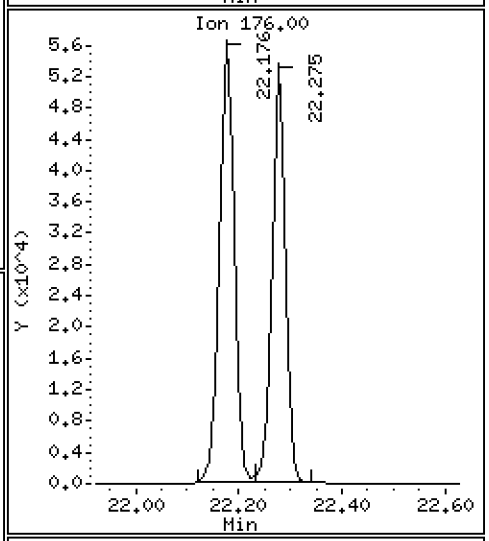


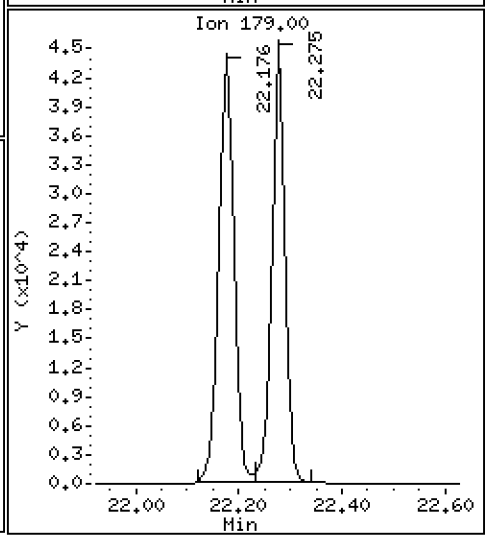












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

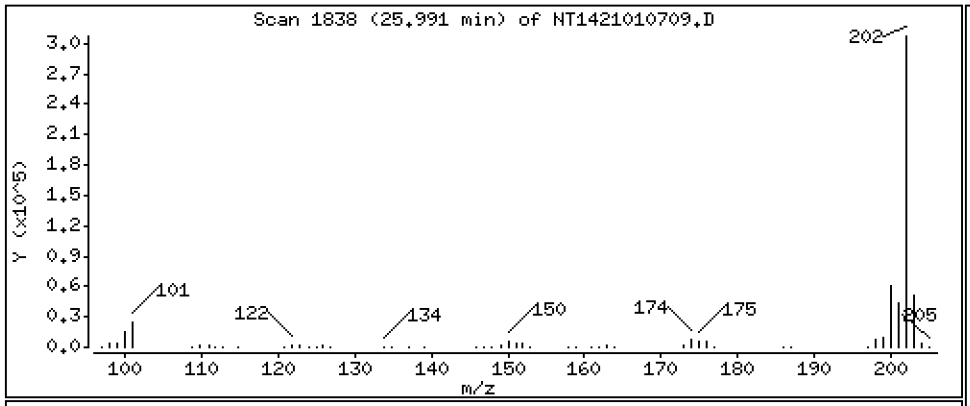
Operator: VTS

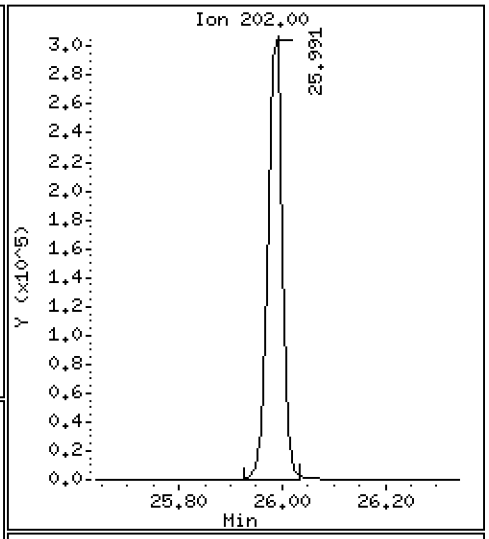
Column phase: Rxi-17Sil MS

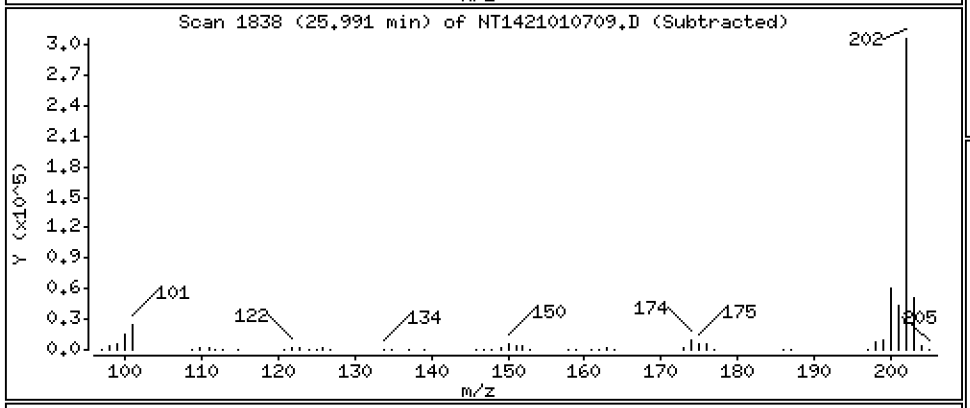
Column diameter: 0.25

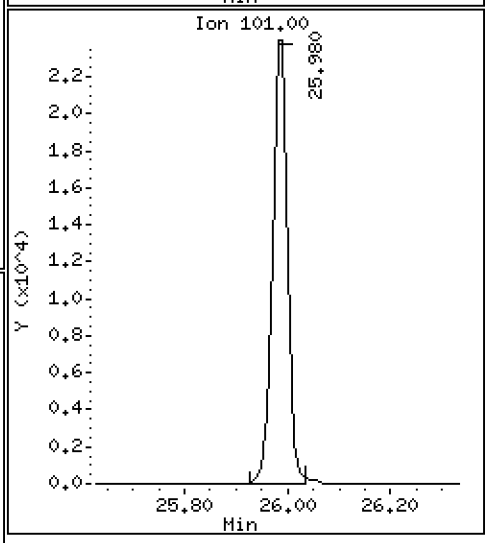
44 Fluoranthene

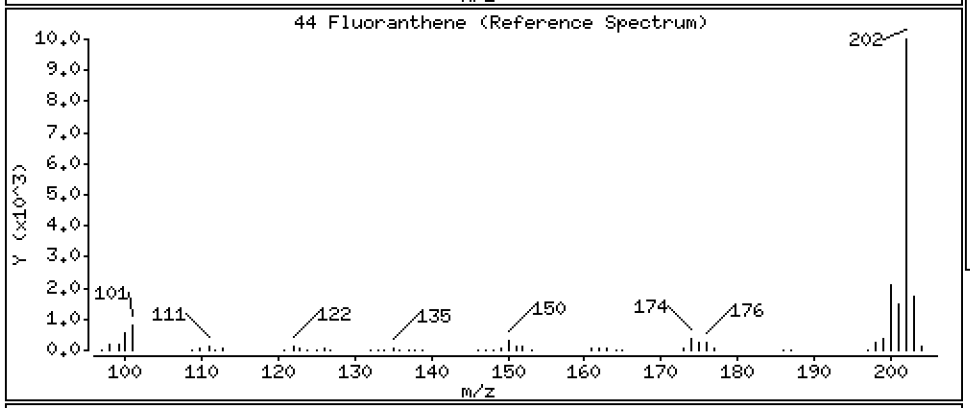
Concentration: 2.583 ug/mL

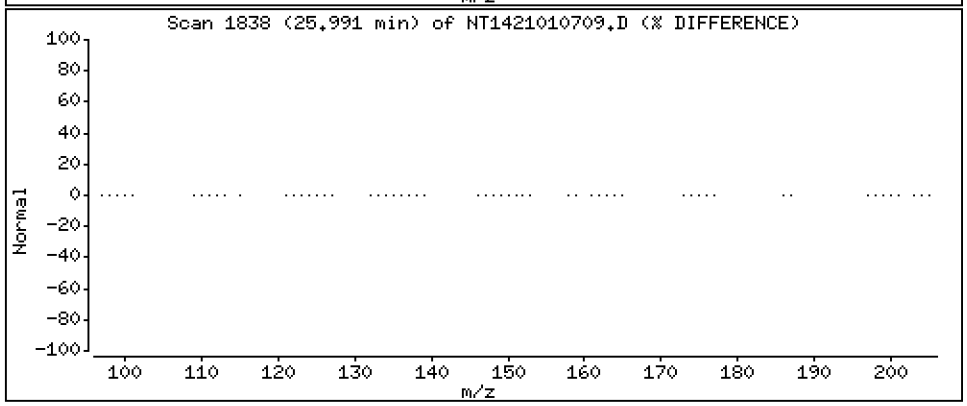












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

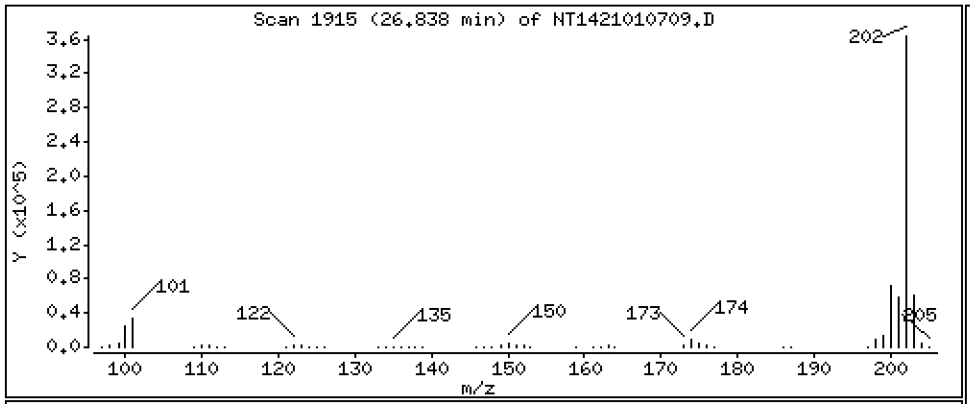
Operator: VTS

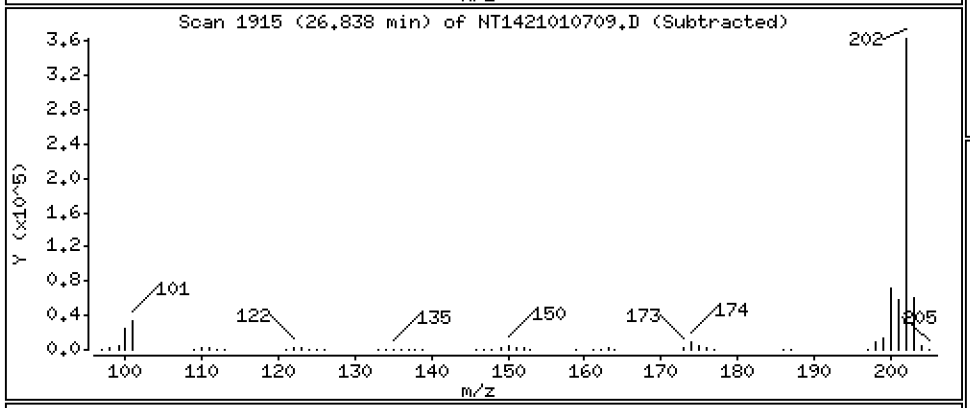
Column phase: Rxi-17Sil MS

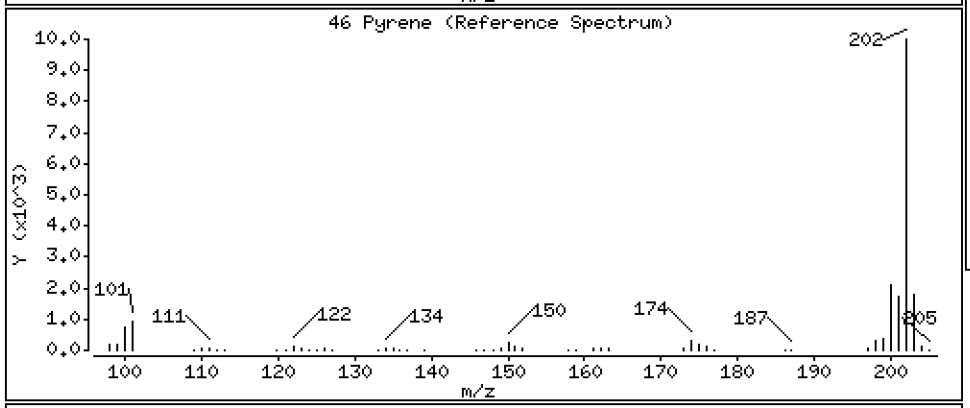
Column diameter: 0.25

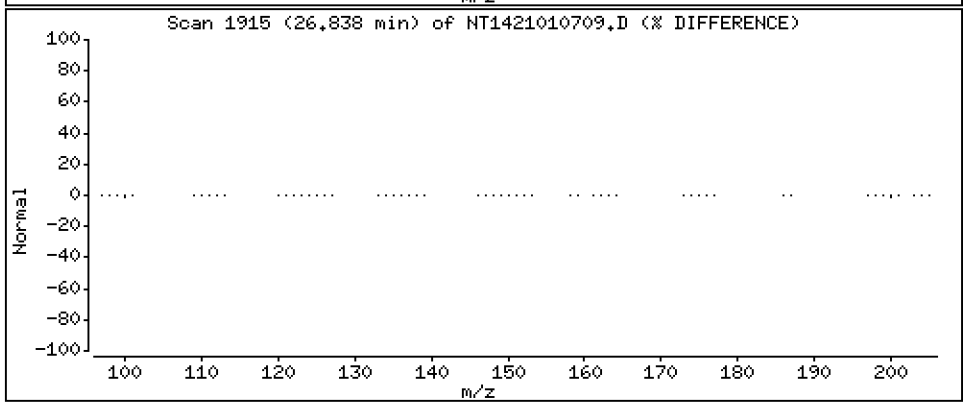
46 Pyrene

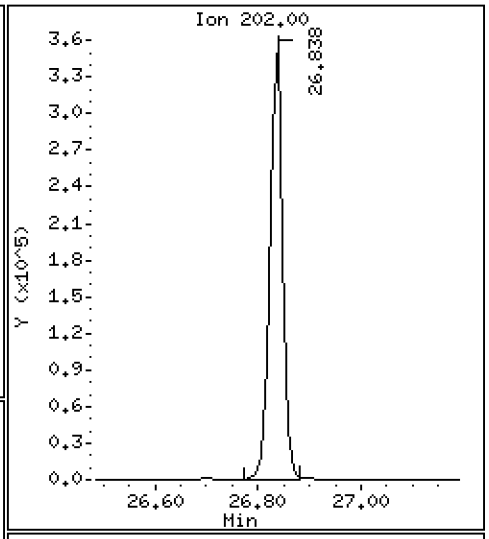
Concentration: 2.546 ug/mL

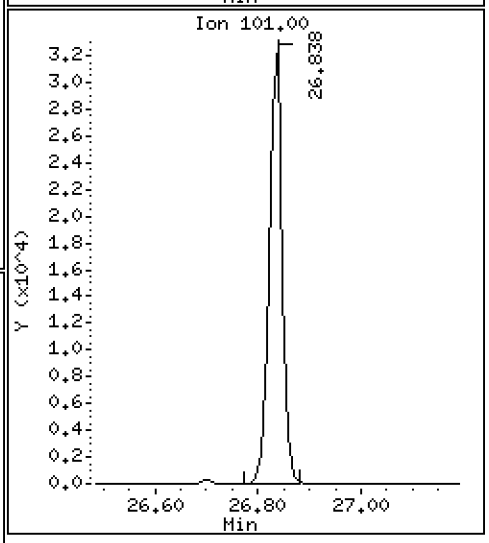












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

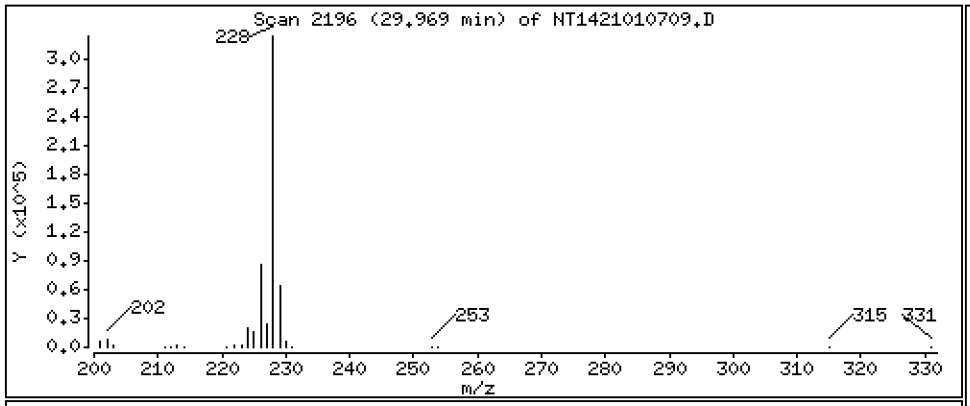
Operator: VTS

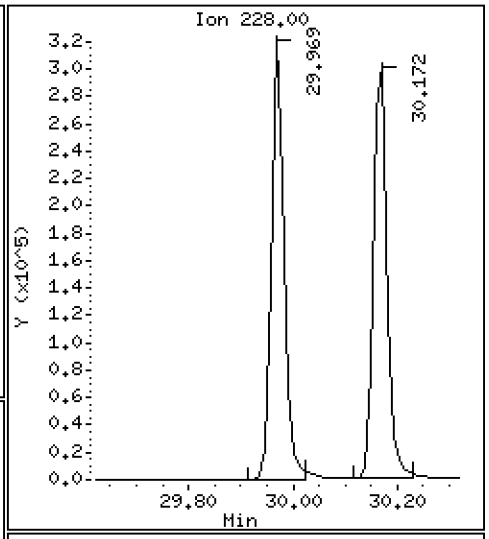
Column phase: Rxi-17Sil MS

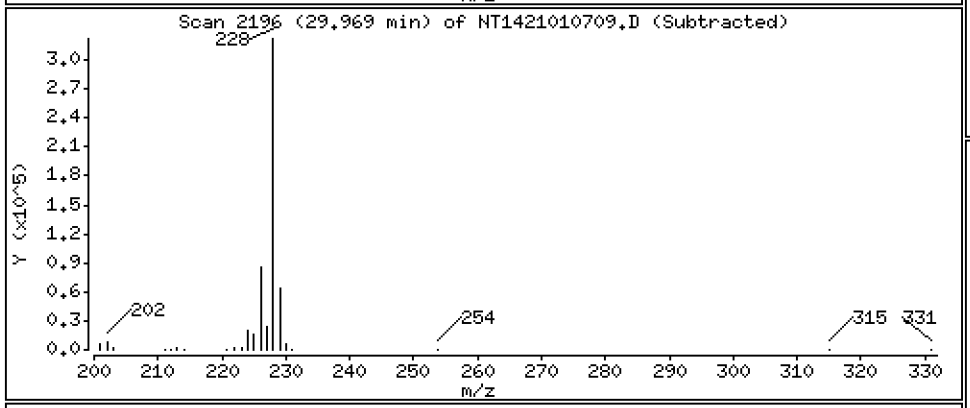
Column diameter: 0.25

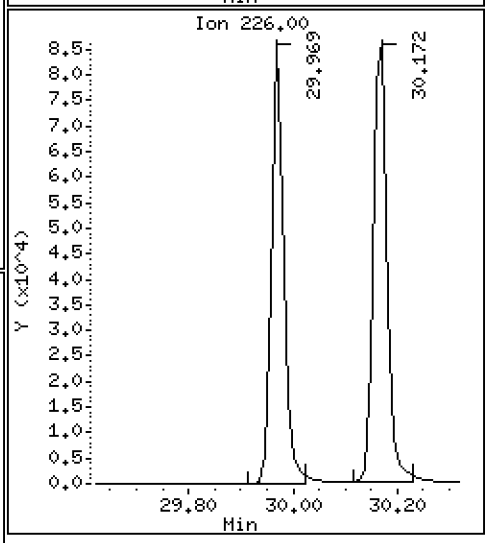
55 Benzo(a)anthracene

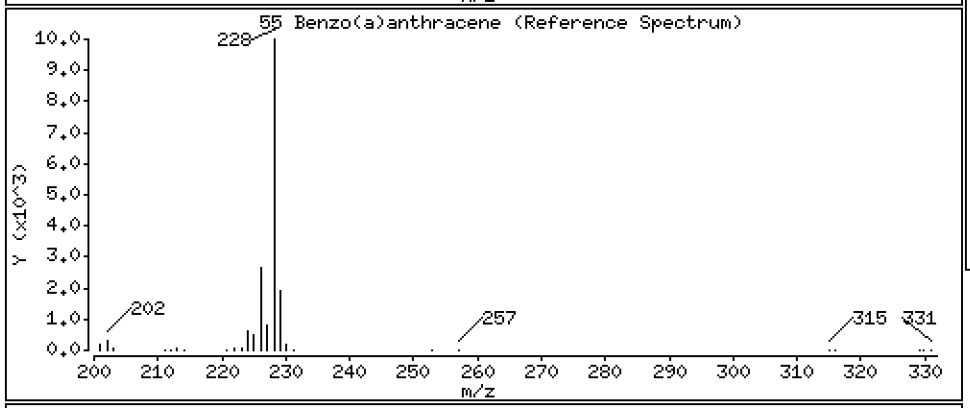
Concentration: 2.687 ug/mL

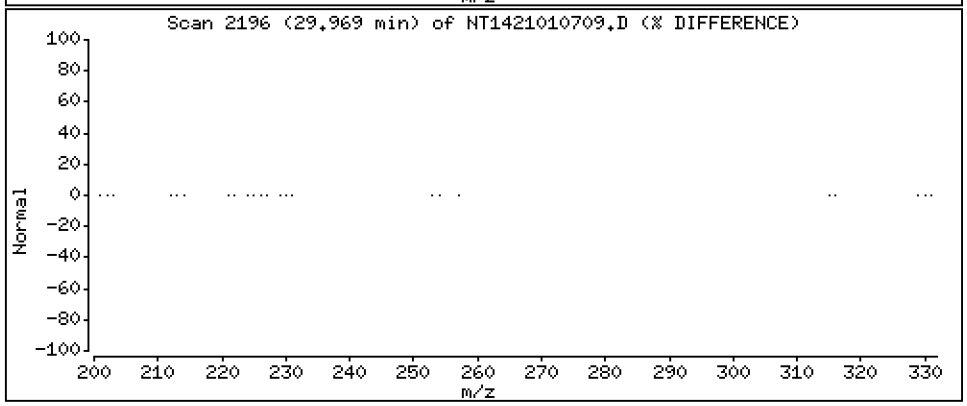












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

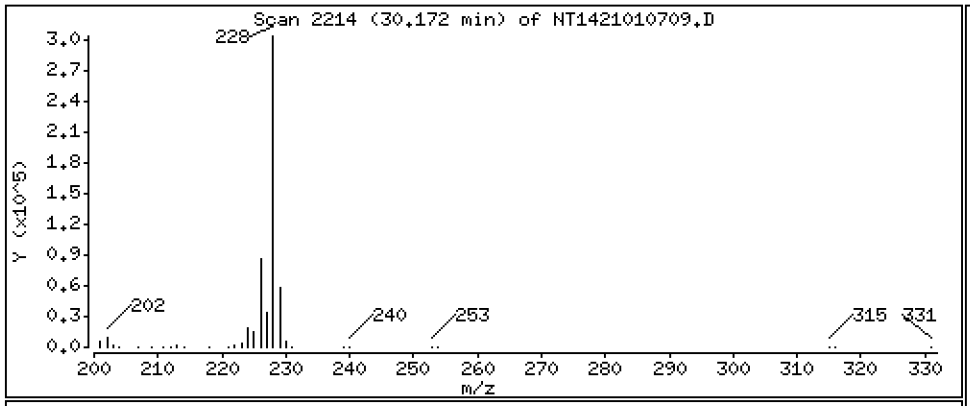
Operator: VTS

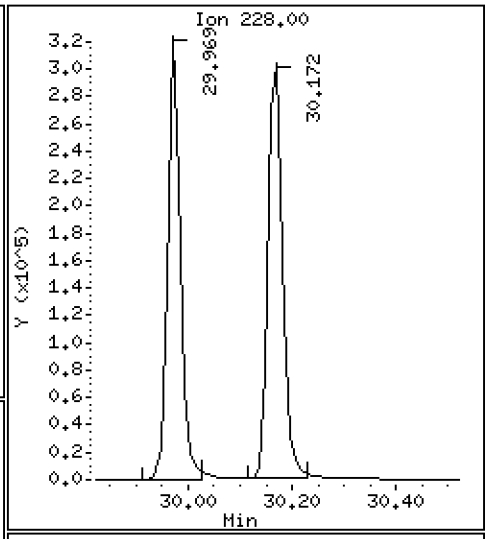
Column phase: Rxi-17Sil MS

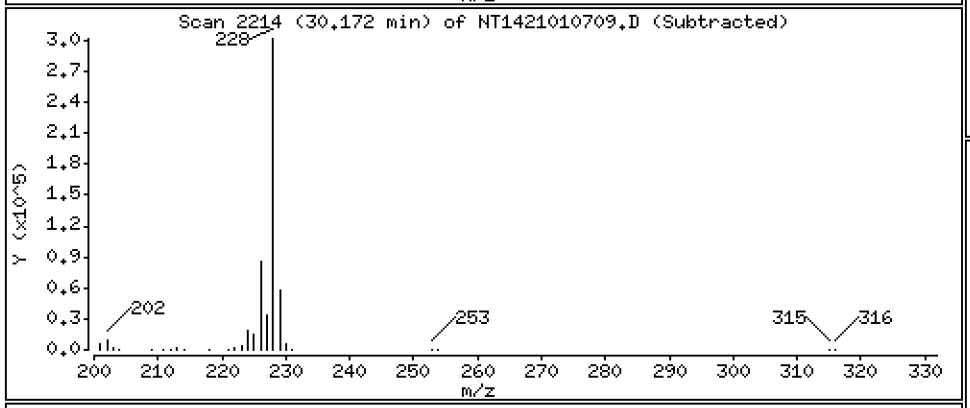
Column diameter: 0.25

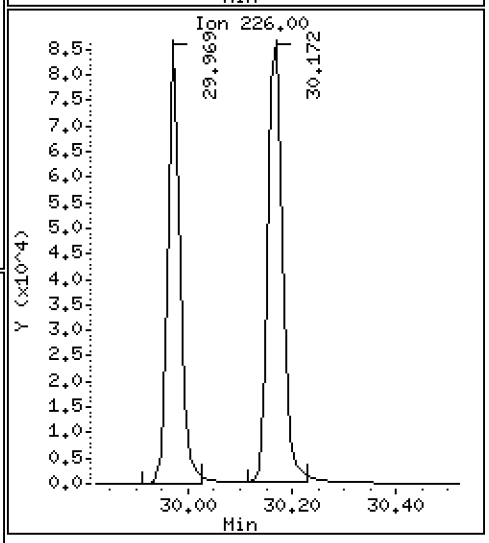
57 Chrysene

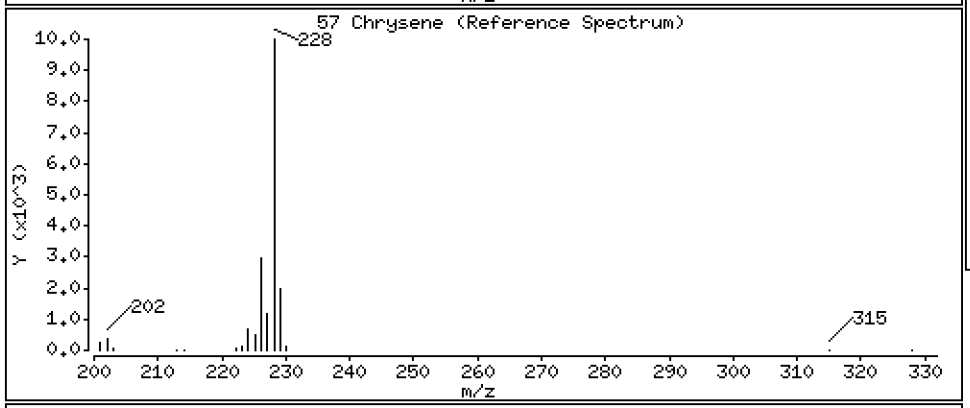
Concentration: 2.746 ug/mL

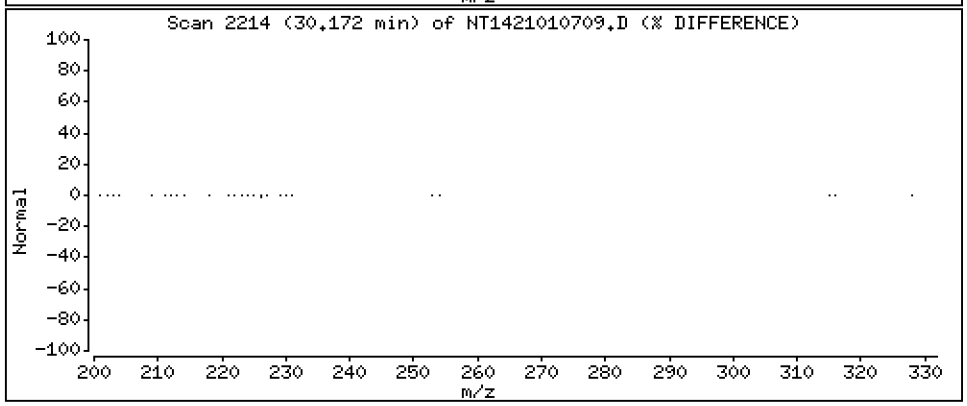












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

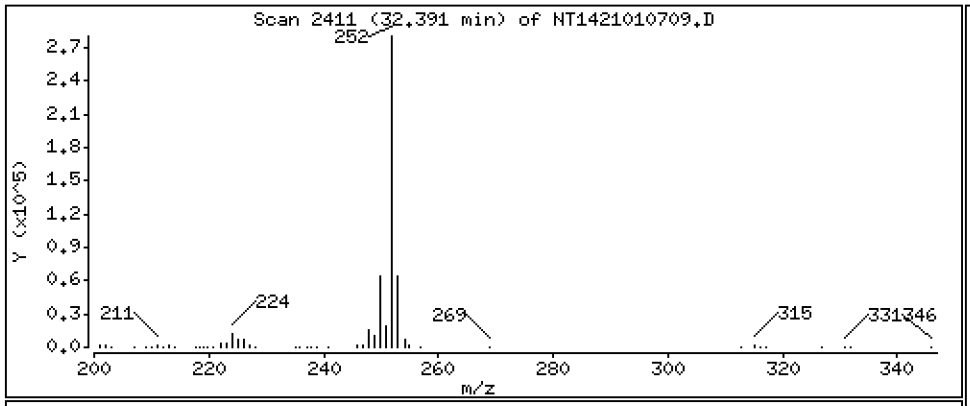
Operator: VTS

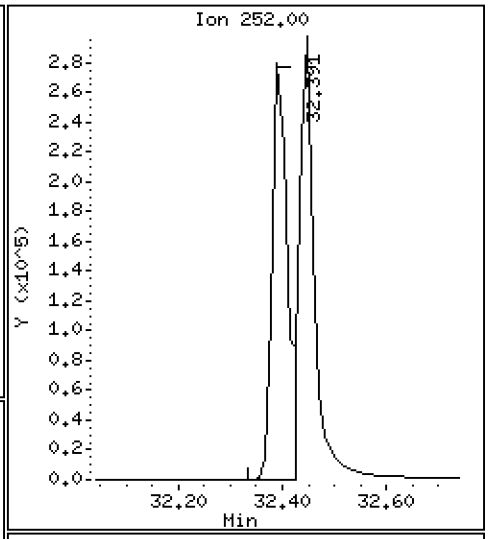
Column phase: Rxi-17Sil MS

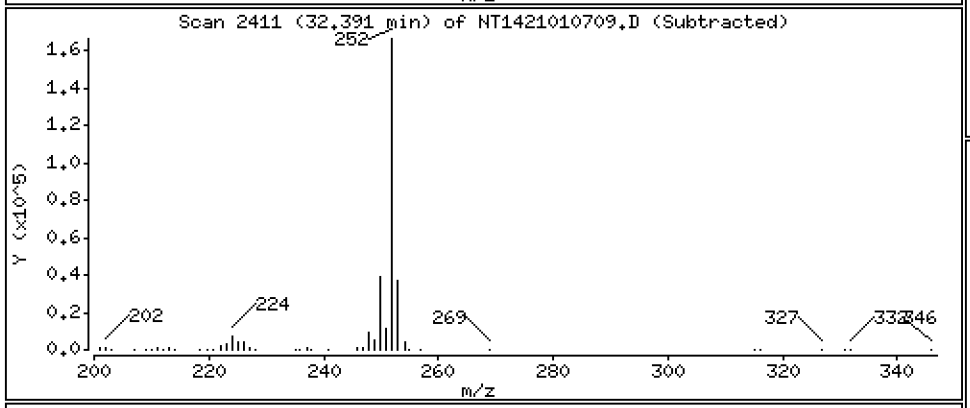
Column diameter: 0.25

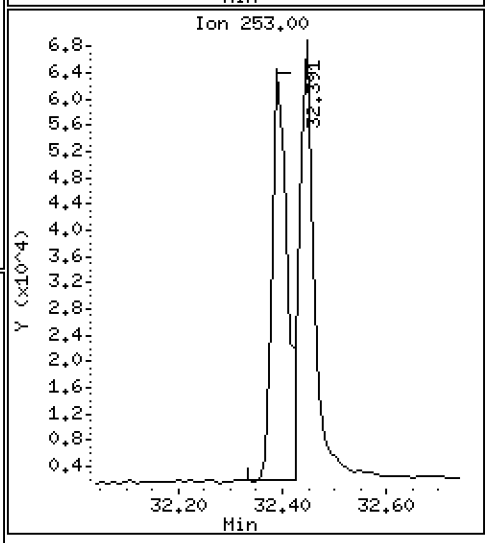
62 Benzo(b)fluoranthene

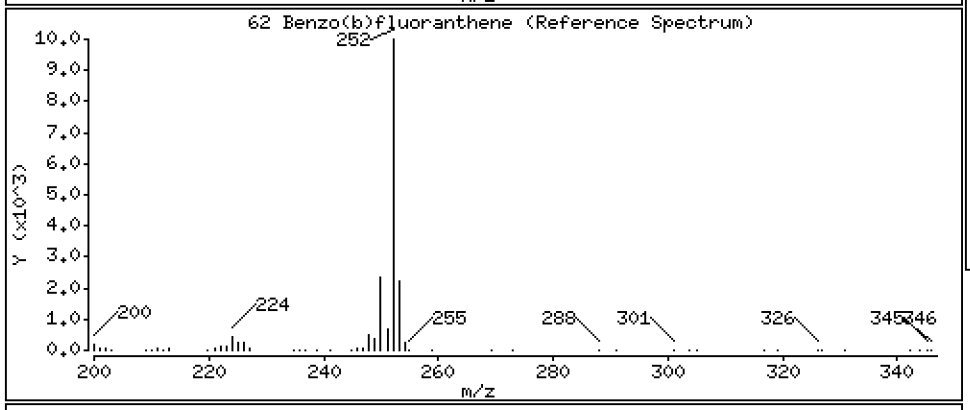
Concentration: 2.682 ug/mL

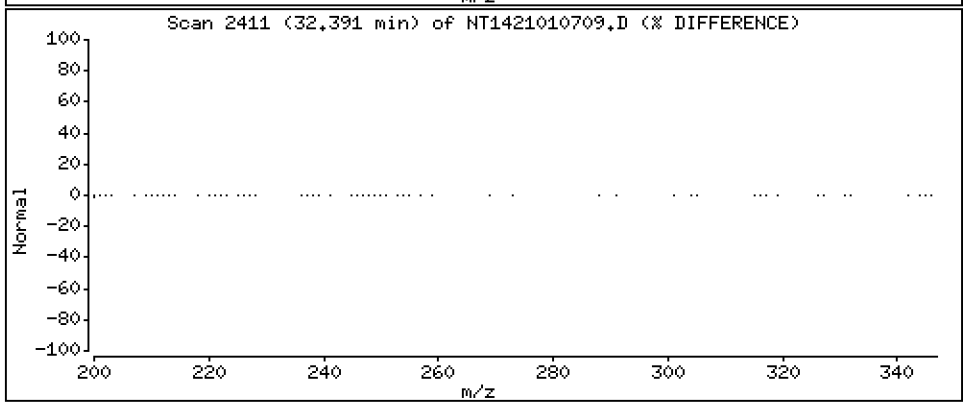












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

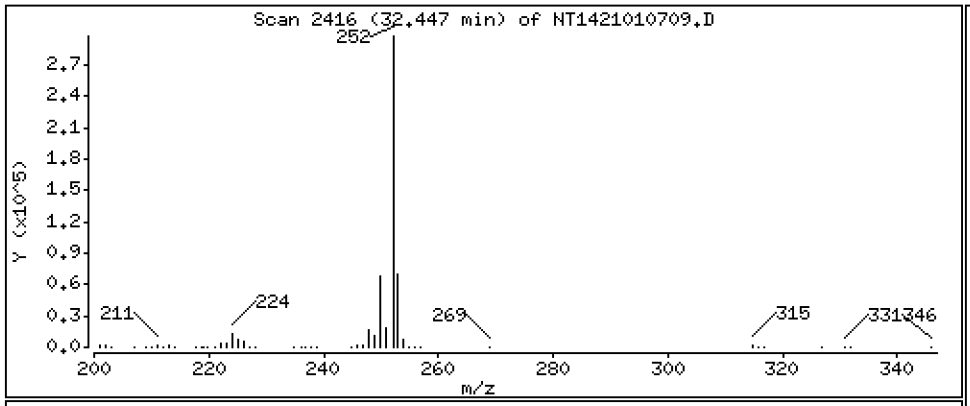
Operator: VTS

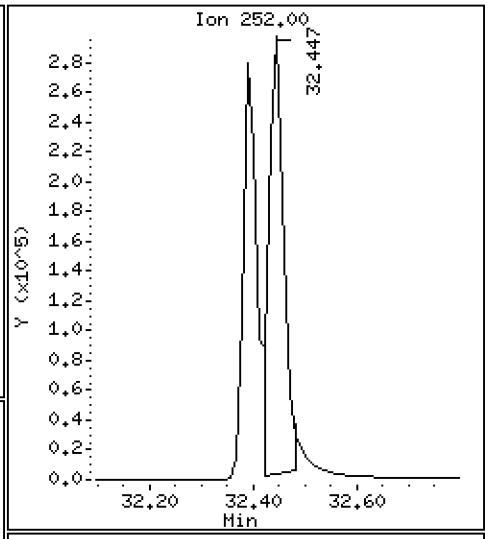
Column phase: Rxi-17Sil MS

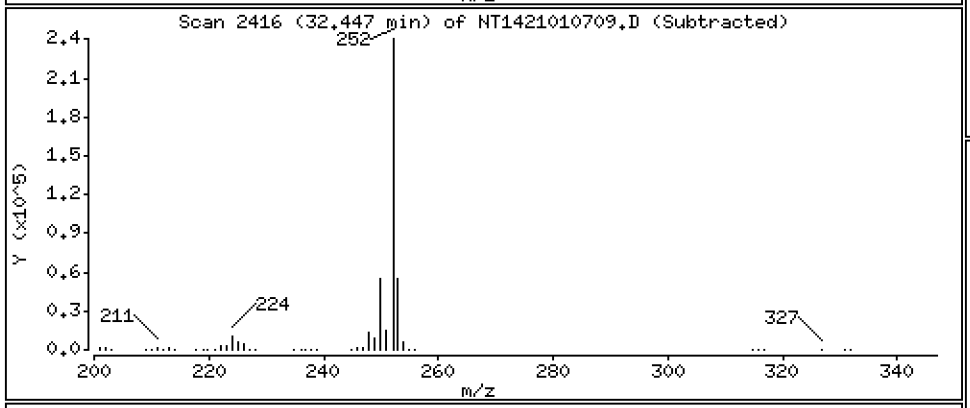
Column diameter: 0.25

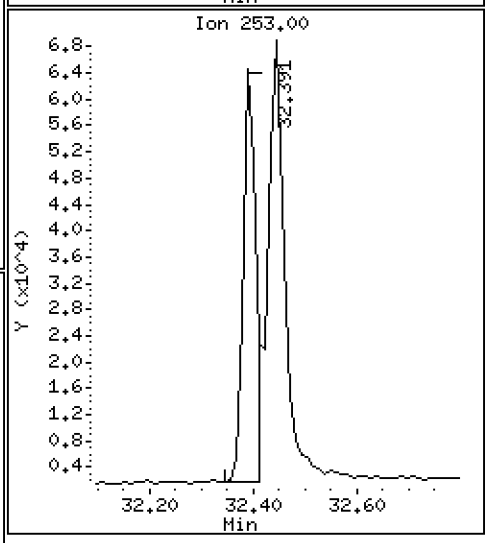
63 Benzo(k)fluoranthene

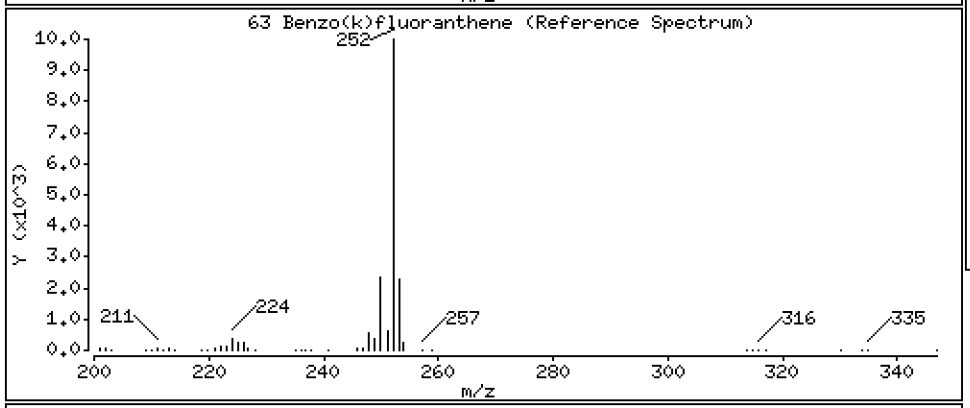
Concentration: 2.393 ug/mL

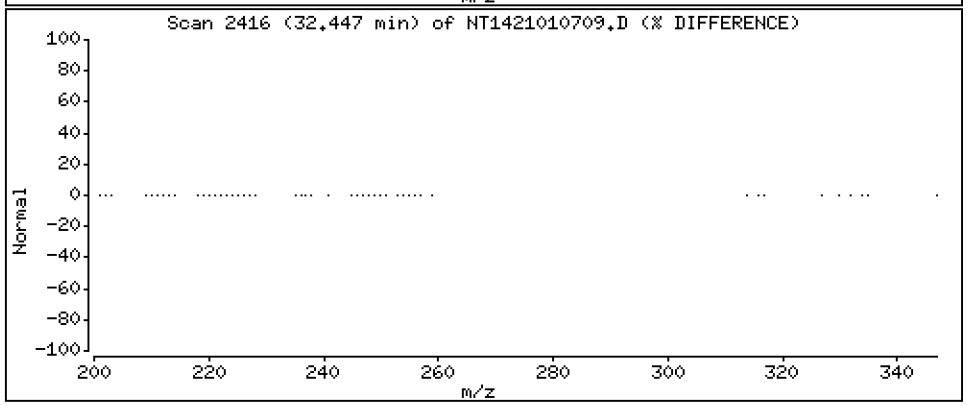












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

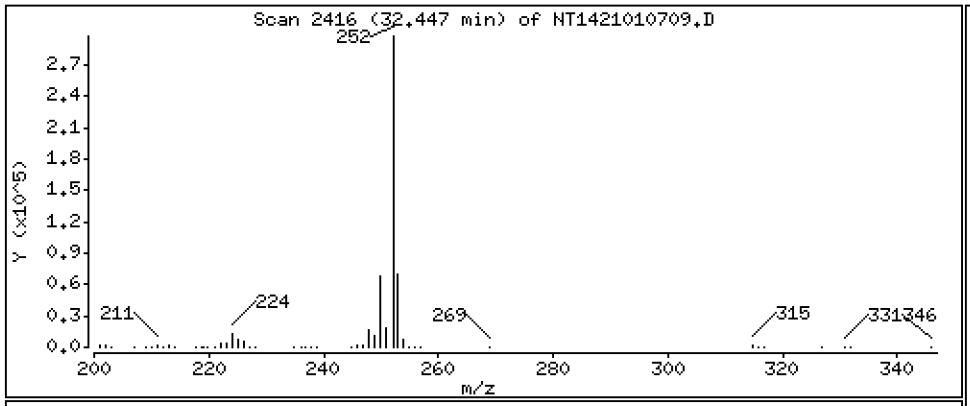
Operator: VTS

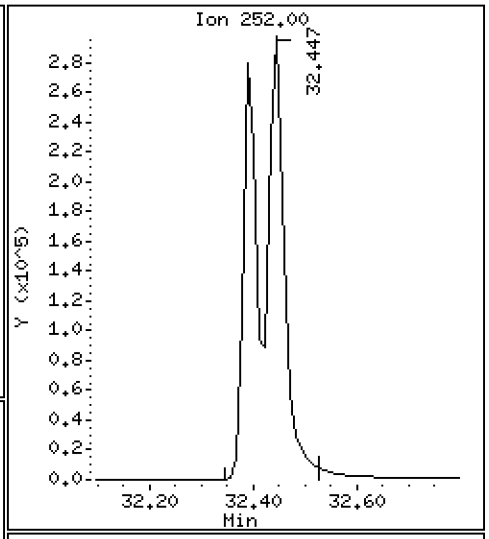
Column phase: Rxi-17Sil MS

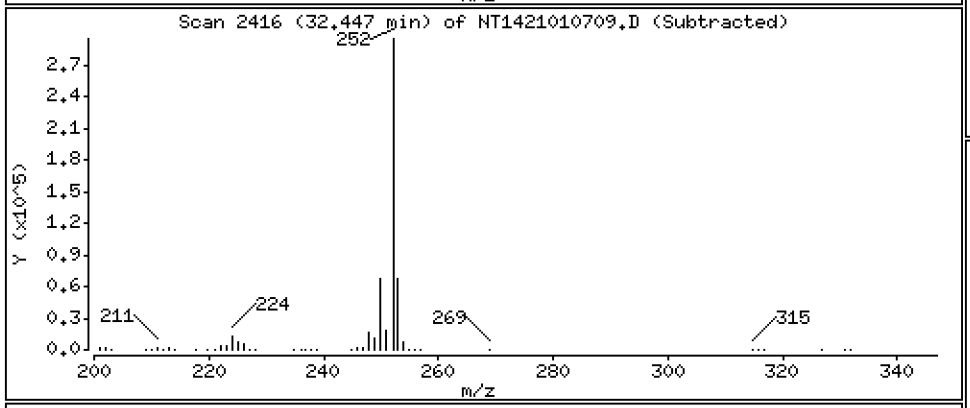
Column diameter: 0.25

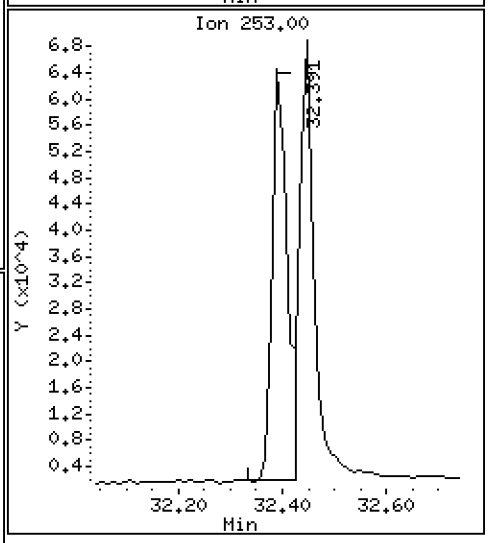
246 Total Benzofluoranthenes

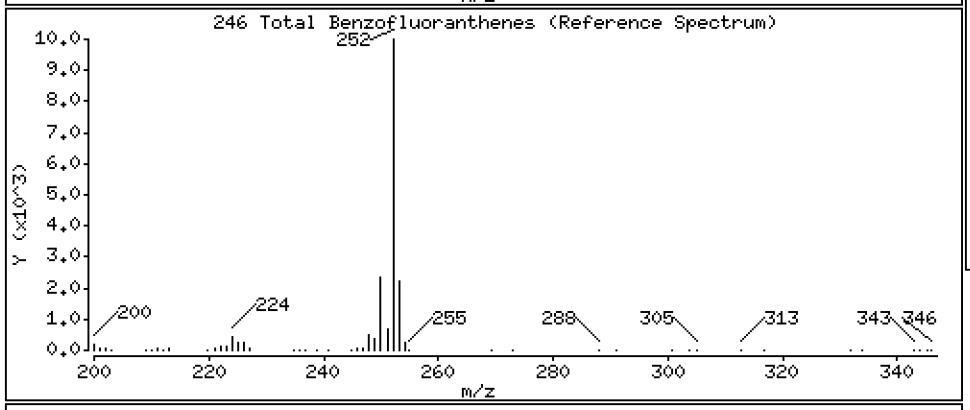
Concentration: 5.584 ug/mL

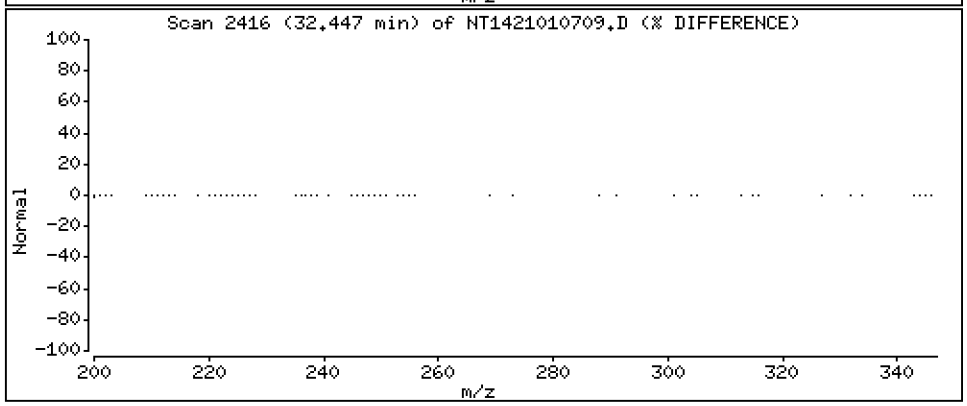












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

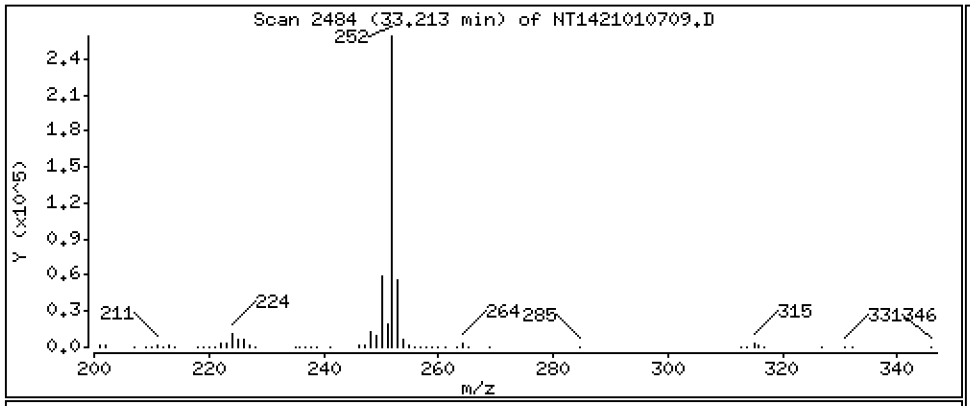
Operator: VTS

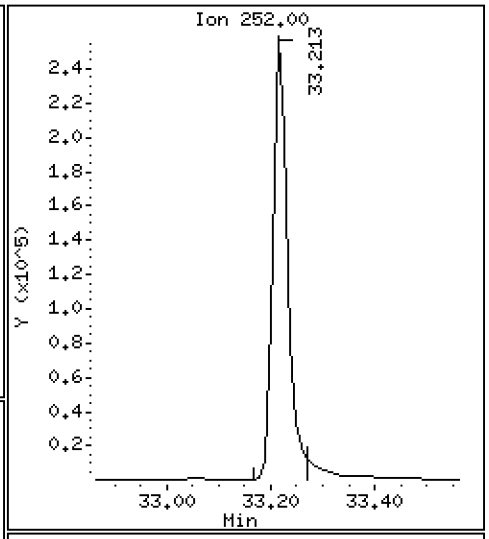
Column phase: Rxi-17Sil MS

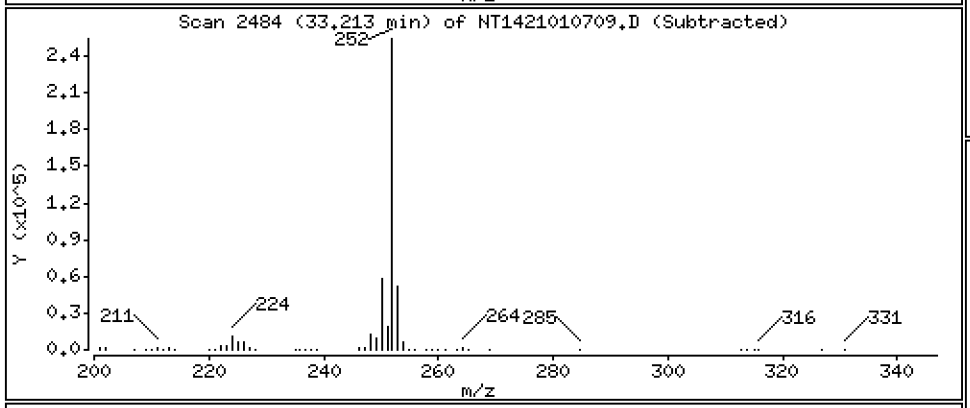
Column diameter: 0.25

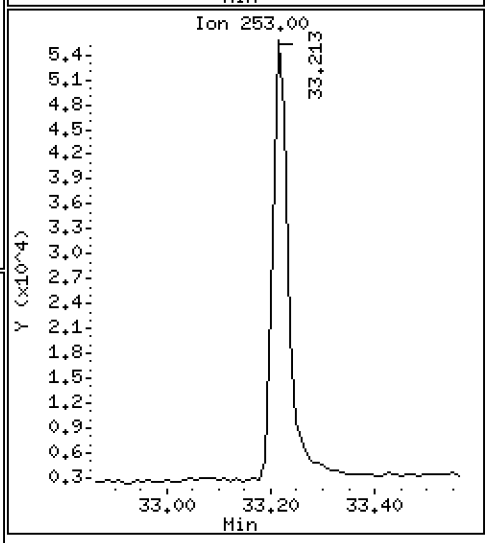
66 Benzo(a)pyrene

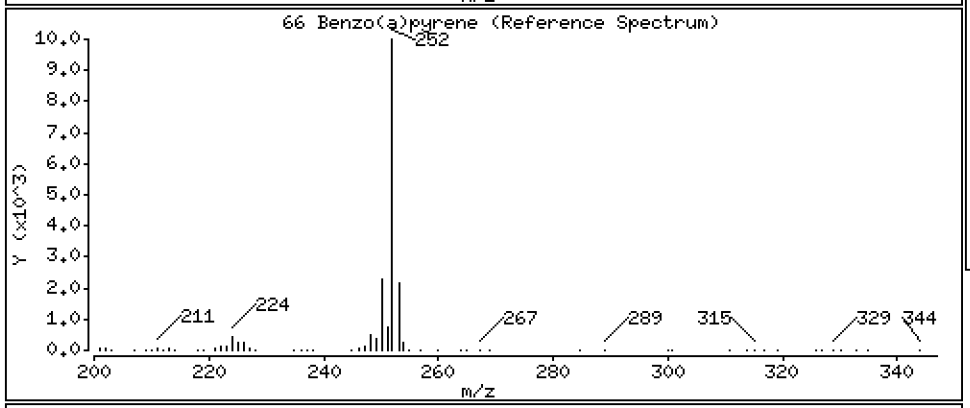
Concentration: 2.801 ug/mL

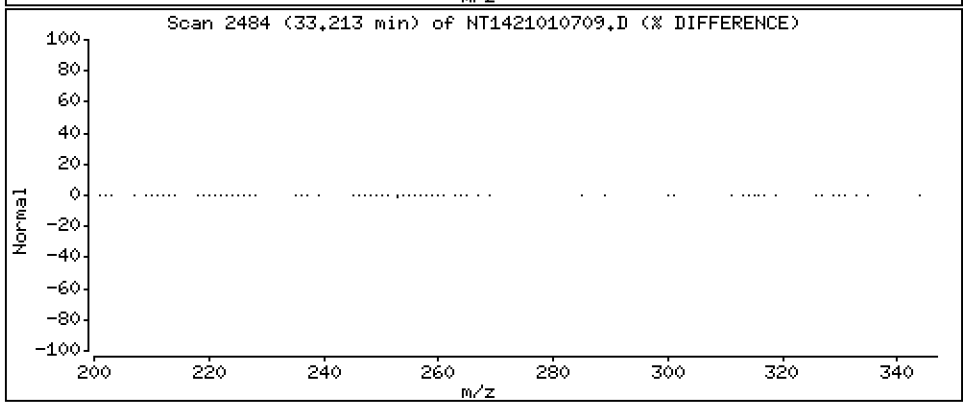












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

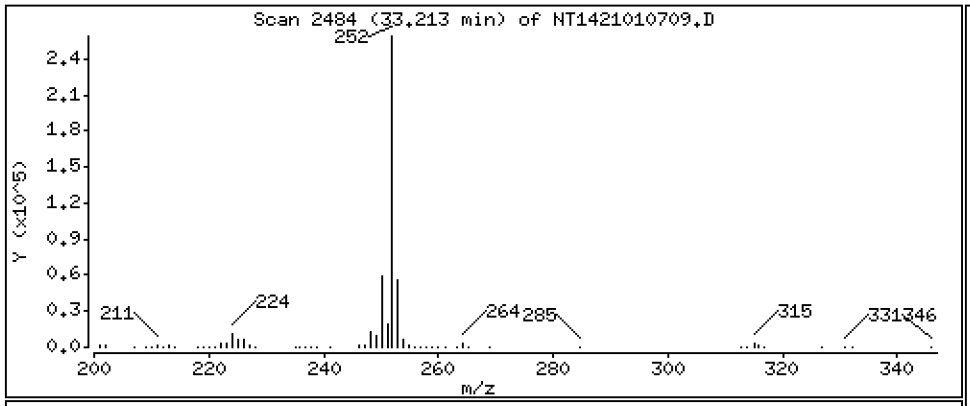
Operator: VTS

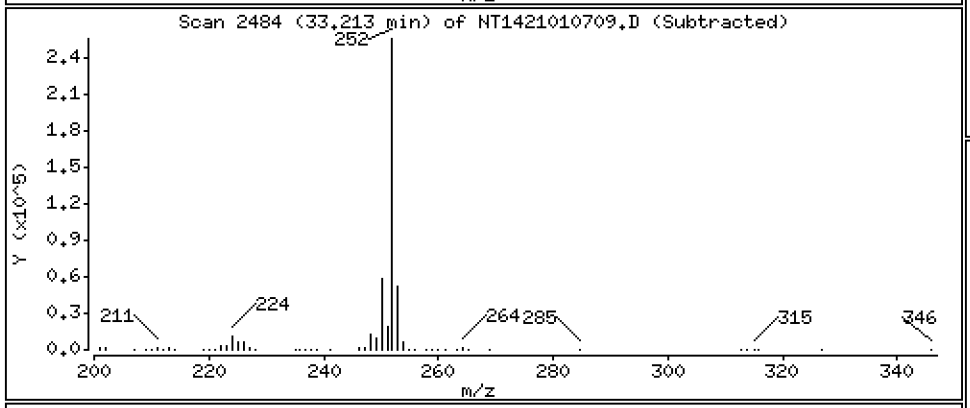
Column phase: Rxi-17Sil MS

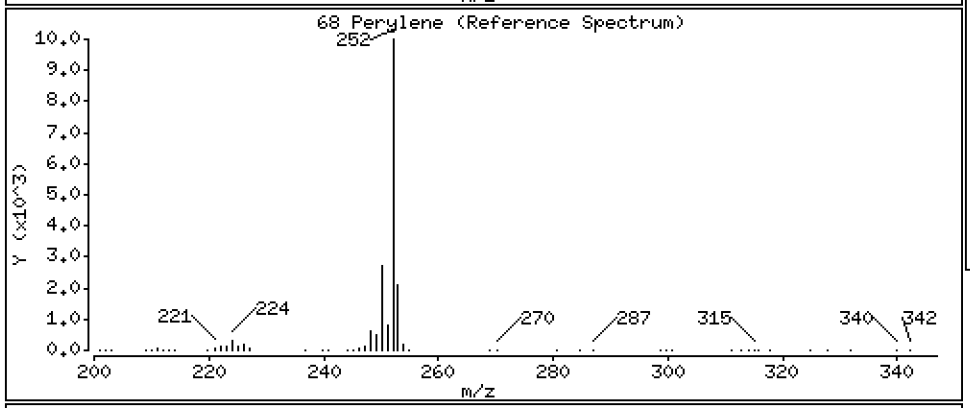
Column diameter: 0.25

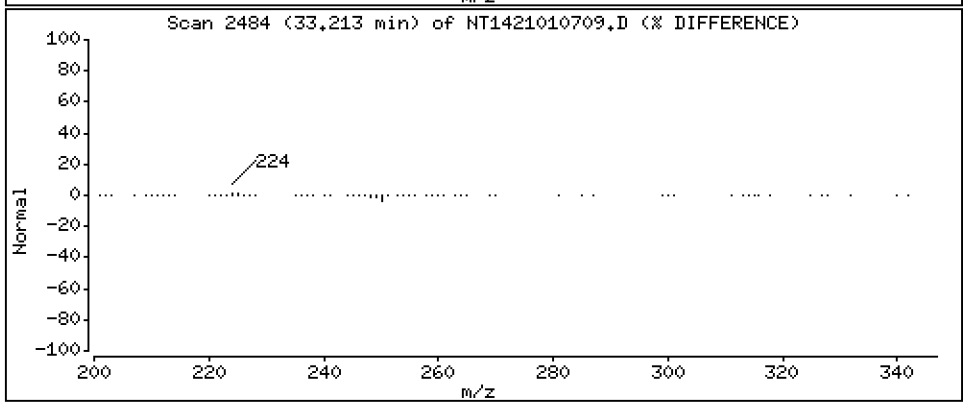
68 Perylene

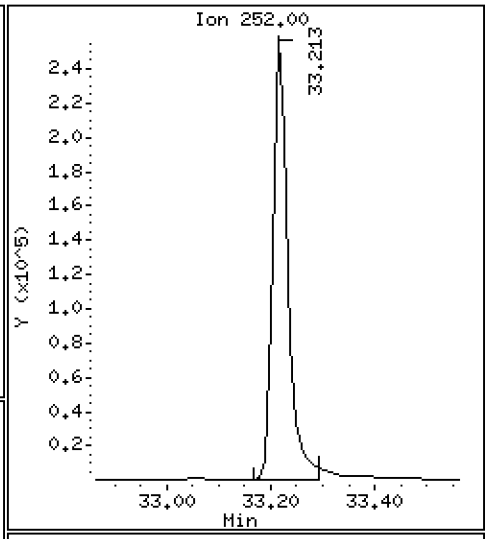
Concentration: 2.645 ug/mL

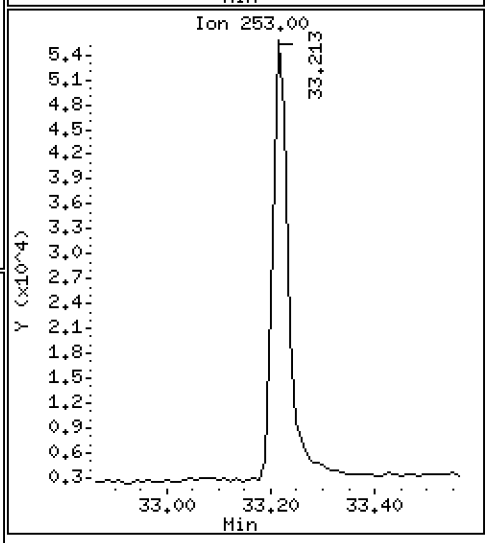












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

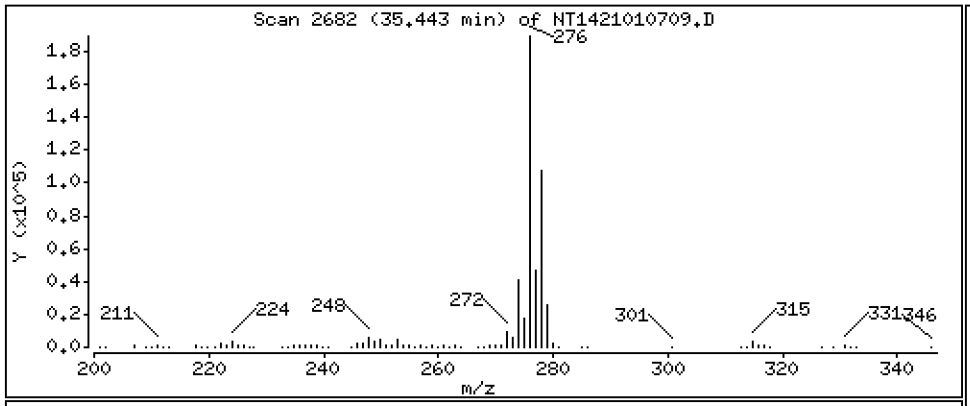
Operator: VTS

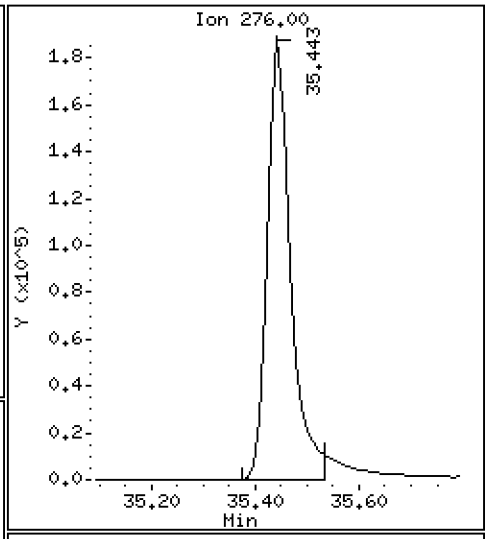
Column phase: Rxi-17Sil MS

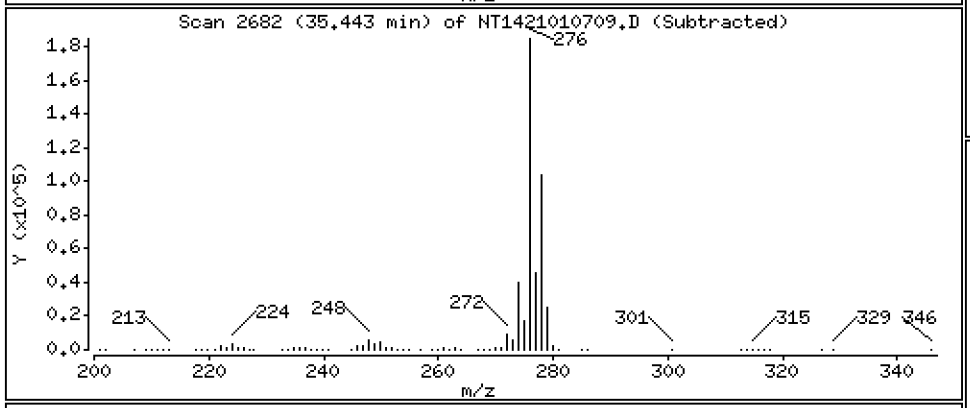
Column diameter: 0.25

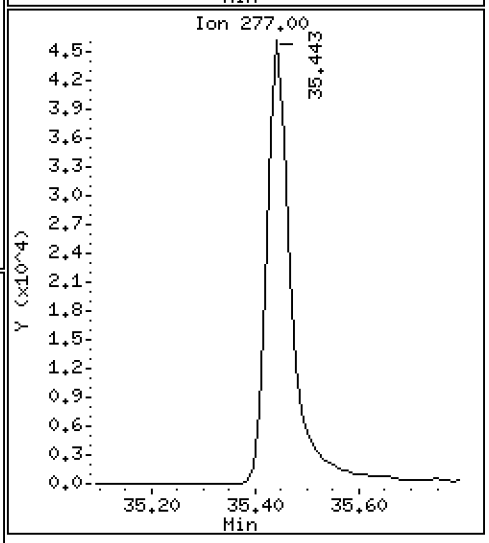
69 Indeno(1,2,3-cd)pyrene

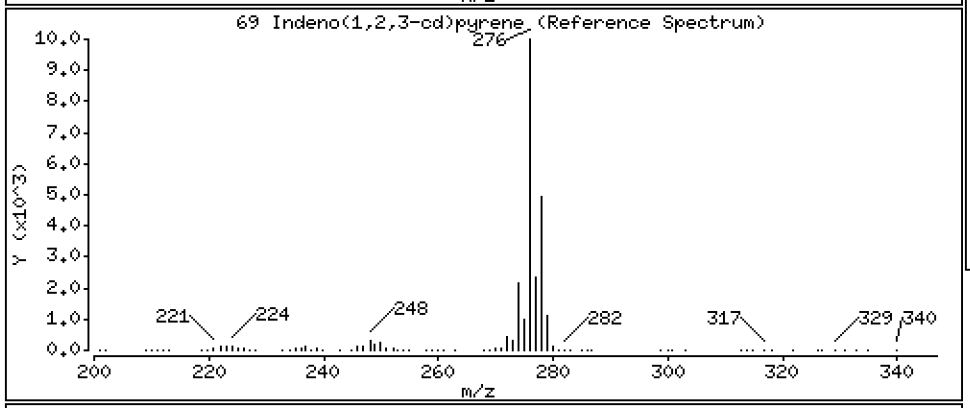
Concentration: 2.717 ug/mL

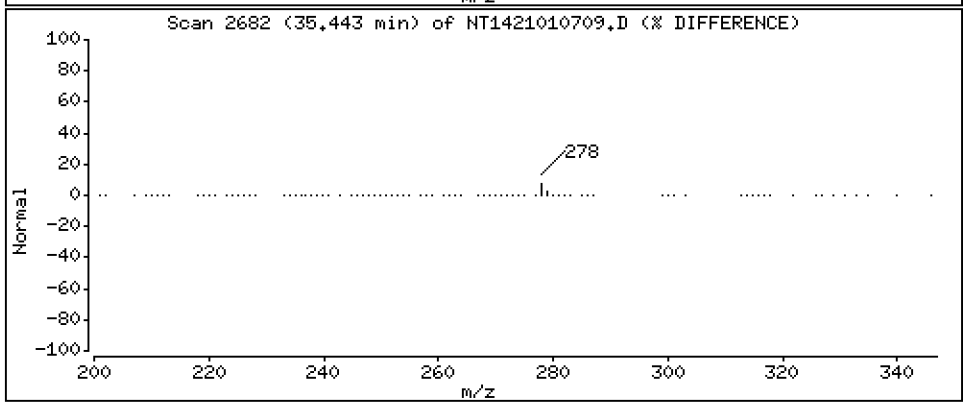












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

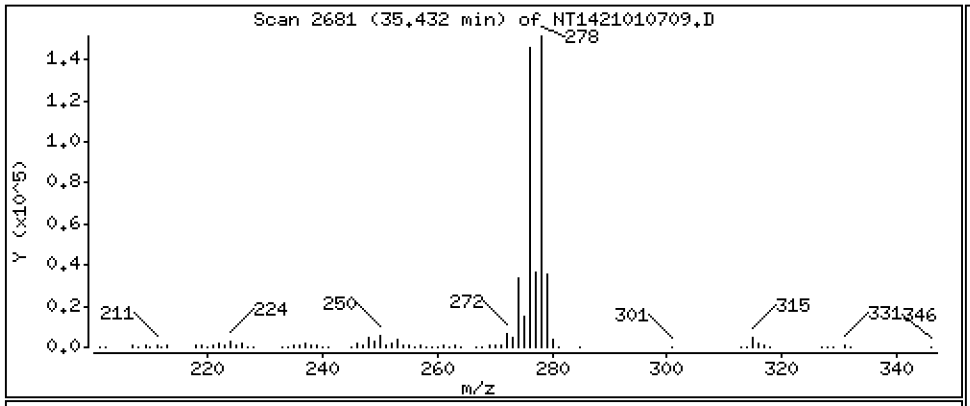
Operator: VTS

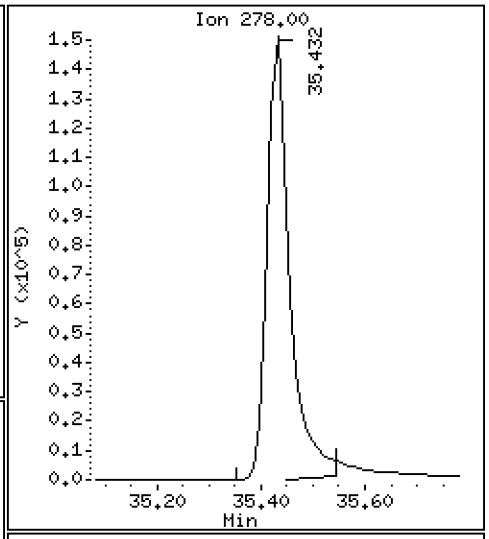
Column phase: Rxi-17Sil MS

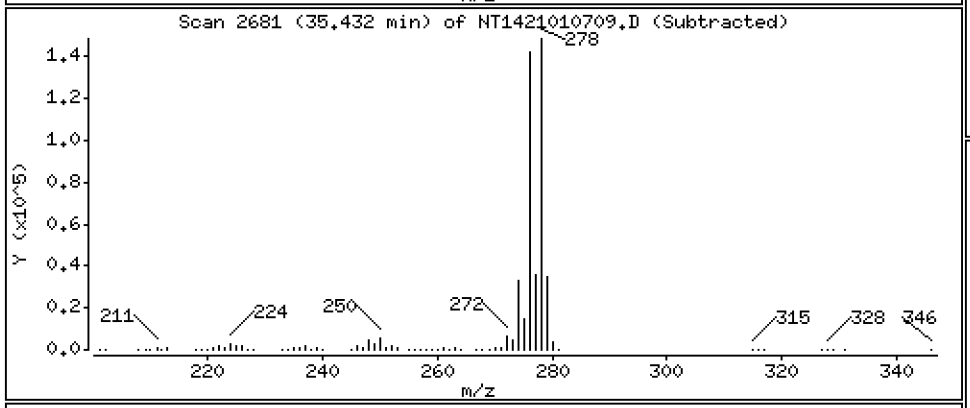
Column diameter: 0.25

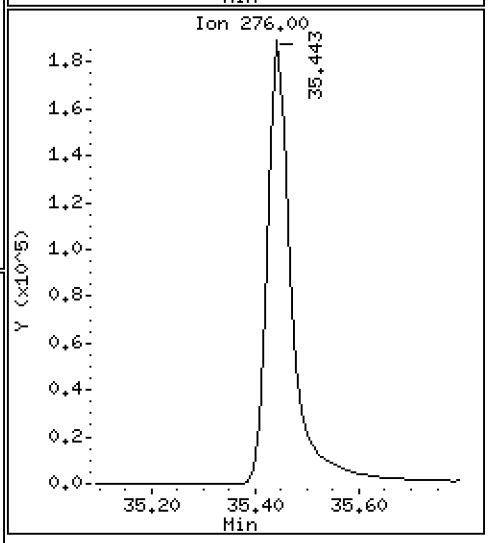
70 Dibenzo(a,h)anthracene

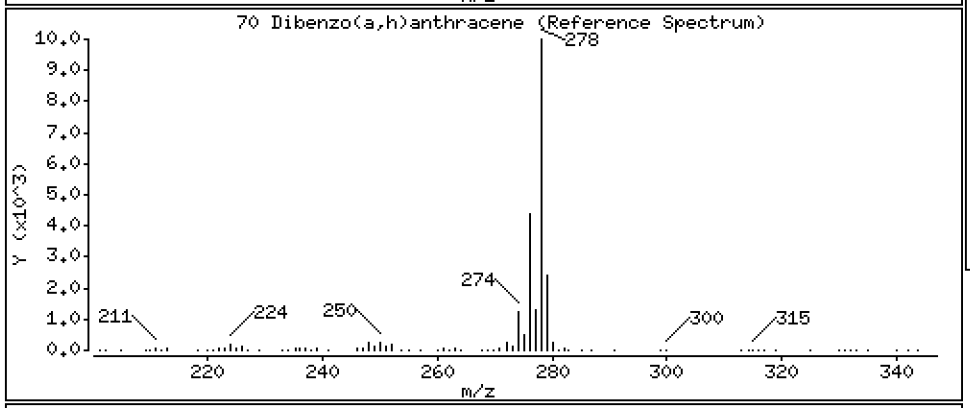
Concentration: 2.515 ug/mL

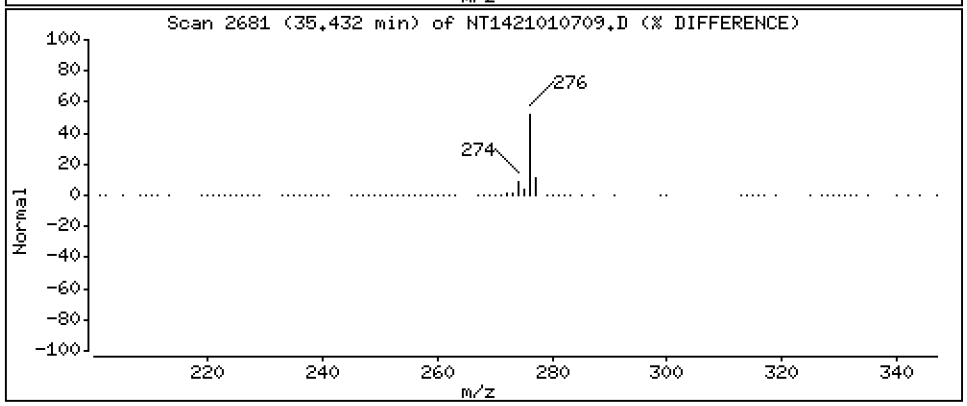












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

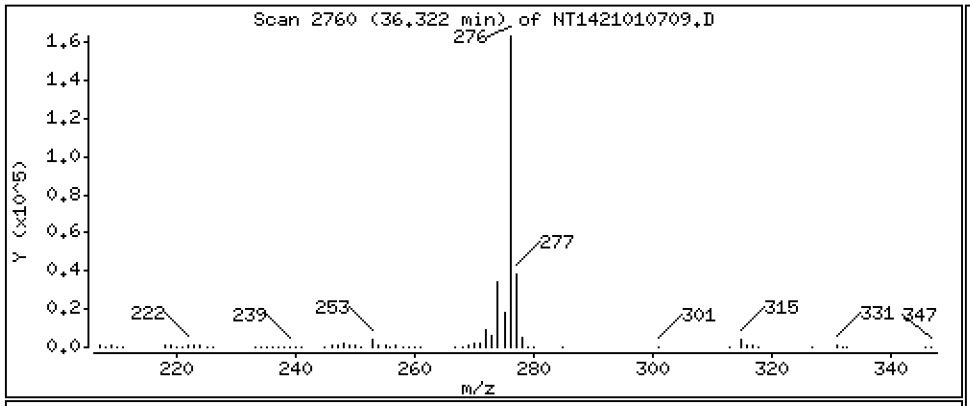
Operator: VTS

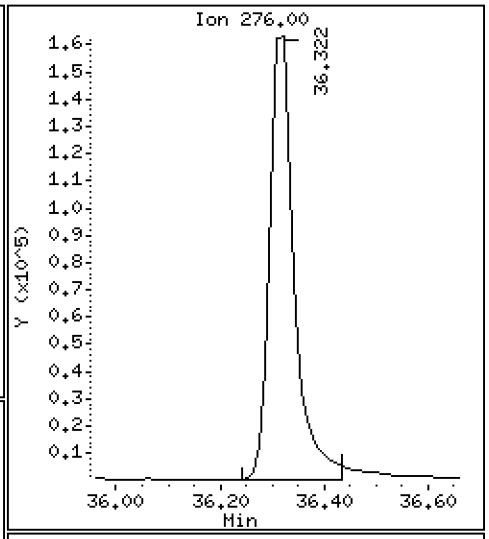
Column phase: Rxi-17Sil MS

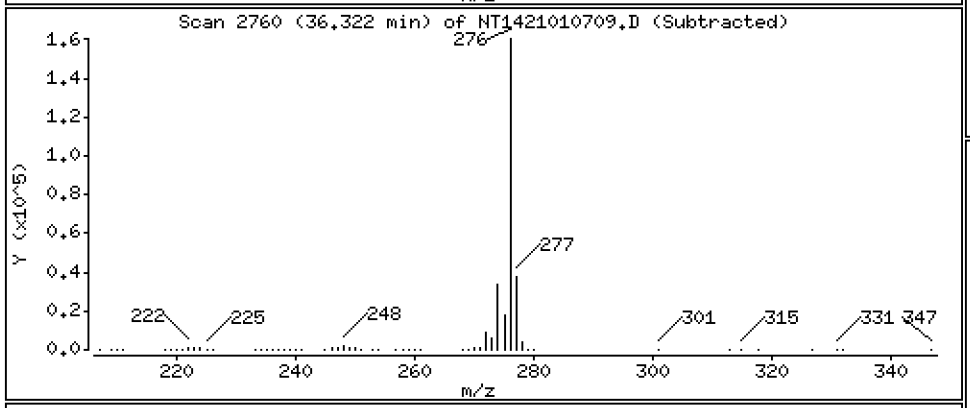
Column diameter: 0.25

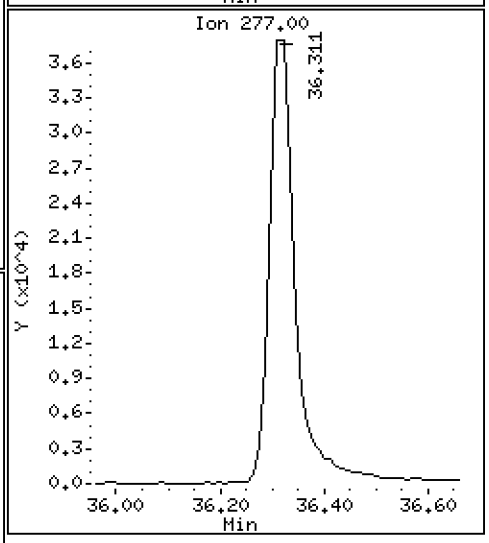
74 Benzo(g,h,i)perylene

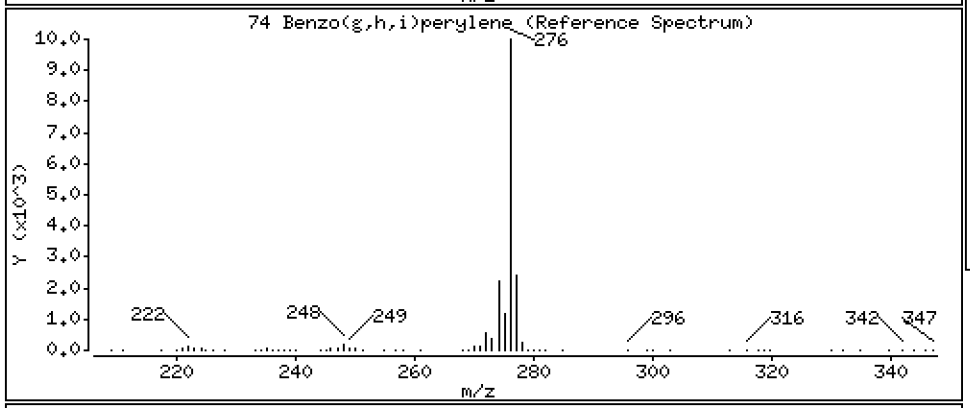
Concentration: 2.559 ug/mL

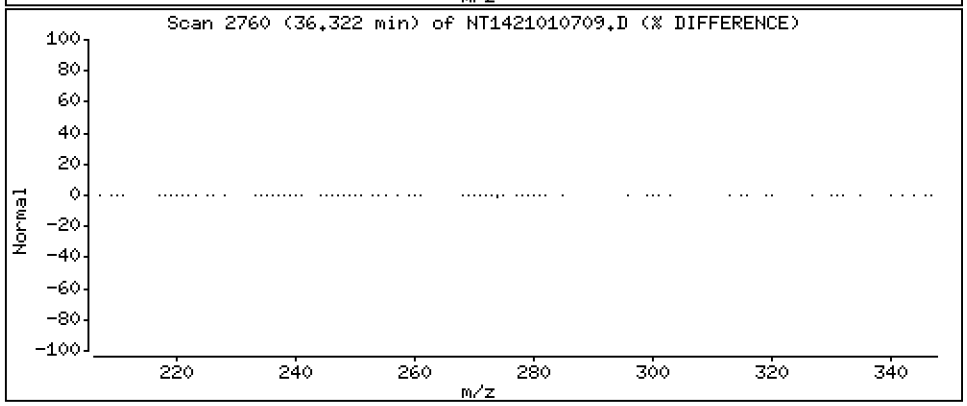












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D
Lab Smp Id: SJA0059-SCV1
Inj Date : 07-JAN-2021 17:32
Operator : VTS Inst ID: nt14.i
Smp Info : SJA0059-SCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Meth Date : 08-Jan-2021 16:59 yev Quant Type: ISTD
Cal Date : 07-JAN-2021 16:44 Cal File: NT1421010708.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	Compound Not Detected.					
	2 cis-Decalin	138	Compound Not Detected.					
$	6 Naphthalene-d8	136	11.755	11.766	(0.627)	6860	0.03204	0.03204(R)
	7 Naphthalene	128	11.832	11.832	(0.631)	548838	2.56023	2.560
	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	16.942	16.942	(0.903)	585844	2.61358	2.614
$	21 Acenaphthene-d10	164	17.239	17.228	(0.919)	991	0.00876	0.008762(R)
	22 Acenaphthene	153	17.349	17.349	(0.925)	354827	2.46209	2.462
	23 Dibenzofuran	168	Compound Not Detected.					
	24 1,6,7-Trimethylnaphthalene	170	Compound Not Detected.					
*	25 Fluorene-d10	176	18.763	18.763	(1.000)	462832	2.00000	
	26 Fluorene	166	18.865	18.865	(1.005)	395543	2.53071	2.531
	30 Dibenzothiophene	184	Compound Not Detected.					
$	35 Phenanthrene-d10	188	Compound Not Detected.					
	36 Phenanthrene	178	22.176	22.176	(0.999)	587041	2.59414	2.594
*	250 Anthracene-d10	188	22.209	22.209	(1.000)	454007	2.00000	
	37 Anthracene	178	22.275	22.275	(1.003)	560639	2.67907	2.679
	42 Carbazole	167	Compound Not Detected.					
	43 1-Methylphenanthrene	192	Compound Not Detected.					
	44 Fluoranthene	202	25.991	25.991	(1.170)	638724	2.58296	2.583
	46 Pyrene	202	26.838	26.838	(1.208)	660626	2.54579	2.546
	51 Naphthobenzothiophene	234	Compound Not Detected.					
	55 Benzo(a)anthracene	228	29.969	29.969	(0.907)	547714	2.68714	2.687
$	56 Chrysene-d12	240	30.093	30.093	(0.910)	19125	0.12163	0.1216(R)
	57 Chrysene	228	30.172	30.172	(0.913)	558840	2.74572	2.746
	62 Benzo(b)fluoranthene	252	32.390	32.390	(0.980)	547976	2.68179	2.682
	63 Benzo(k)fluoranthene	252	32.447	32.447	(0.982)	558973	2.39308	2.393(M)
	293 Benzo(j)fluoranthene	252	Compound Not Detected.					
	246 Total Benzofluoranthenes	252	32.447	32.447	(0.982)	1116031	5.58373	5.584(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	33.055	33.055	(1.000)	502859	2.00000	
64 Benzo(e)pyrene	252	Compound Not Detected.					
66 Benzo(a)pyrene	252	33.213	33.213	(1.005)	512056	2.80117	2.801(M)
$ 67 Perylene-d12	264	Compound Not Detected.					
68 Perylene	252	33.213	33.213	(1.005)	490665	2.64511	2.645(M)
69 Indeno(1,2,3-cd)pyrene	276	35.443	35.443	(1.072)	559089	2.71709	2.717(M)
70 Dibenzo(a,h)anthracene	278	35.431	35.432	(1.072)	441900	2.51483	2.515(M)
74 Benzo(g,h,i)perylene	276	36.321	36.310	(1.099)	514850	2.55879	2.559(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: NT1421010709.D
Lab Smp Id: SJA0059-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Misc Info:

Calibration Date: 07-JAN-2021
Calibration Time: 11:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	642877	321439	1285754	462832	-28.01
250 Anthracene-d10	641722	320861	1283444	454007	-29.25
251 Benzo(e)pyrene-d1	741138	370569	1482276	502859	-32.15

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.76	18.26	19.26	18.76	-0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	-0.00
251 Benzo(e)pyrene-d1	33.06	32.56	33.56	33.06	-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 - NT1421010709.D

Lab ID: SJA0059-SCV1
nt14.i, 20210107.b\ALKYLPNA.m, 07-JAN-2021 17:32

RT	CO-ELUTION COMPOUNDS
33.213	Perylene and Benzo(a)pyrene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

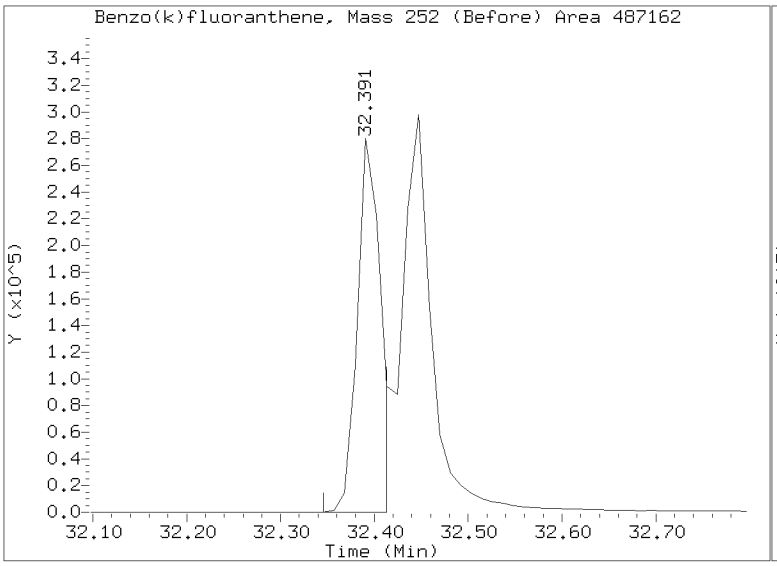
RRT check based on Ccal File: NT1421010708.D

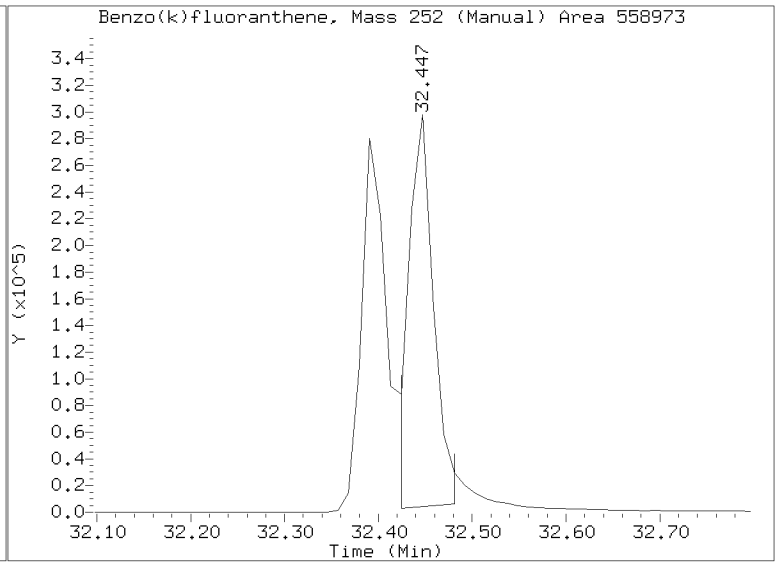
On Column LOD for nt14.i, 20210107.b\ALKYLPNA.m, TARGETS.sub = 0.0000

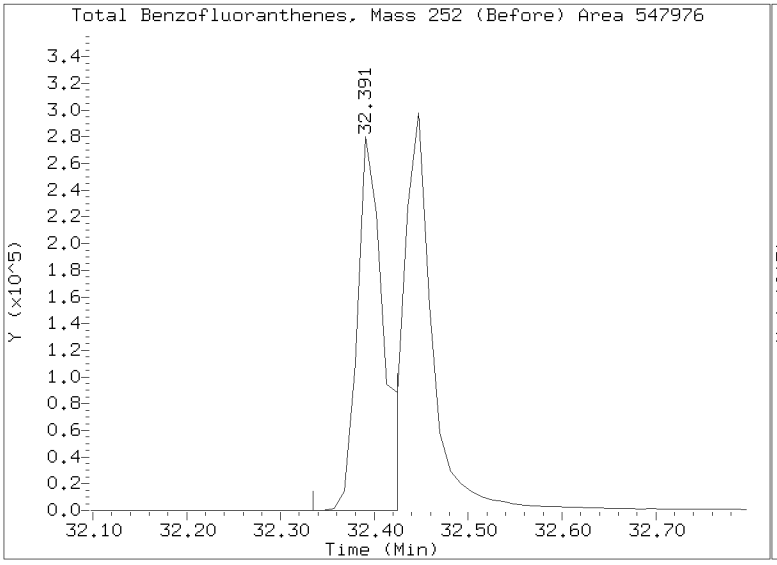
* Only compounds listed in the work order have been verified by the analyst *

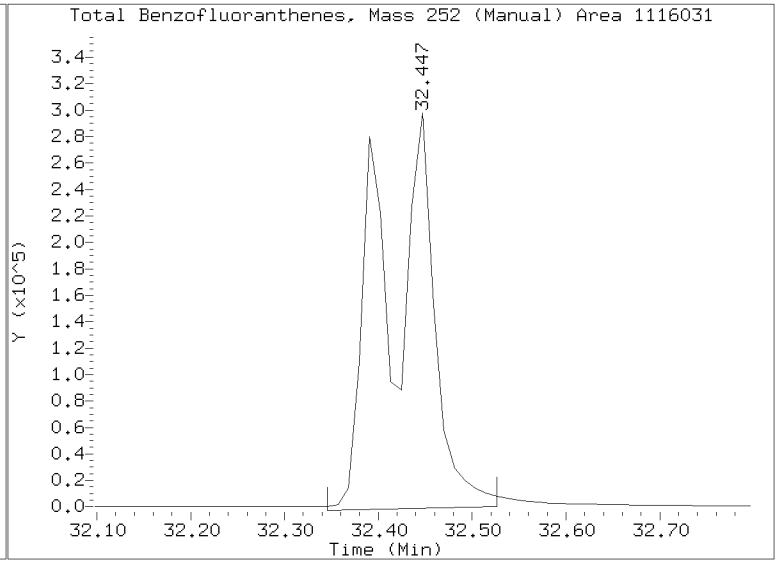
Quant Ion Manual Peak Adjustment Report

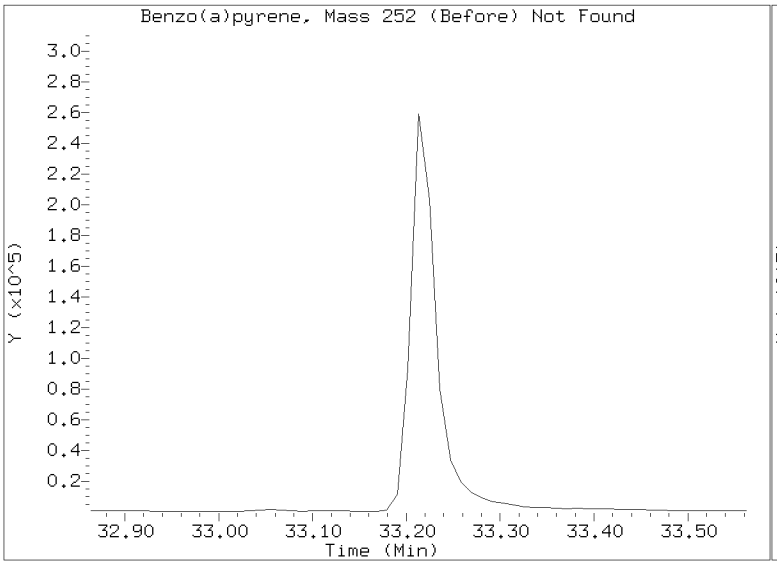
Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010709.D
Injection Date: 07-JAN-2021 17:32
Lab ID:SJA0059-SCV1 Client ID:
Report Date: 01/08/2021 16:59

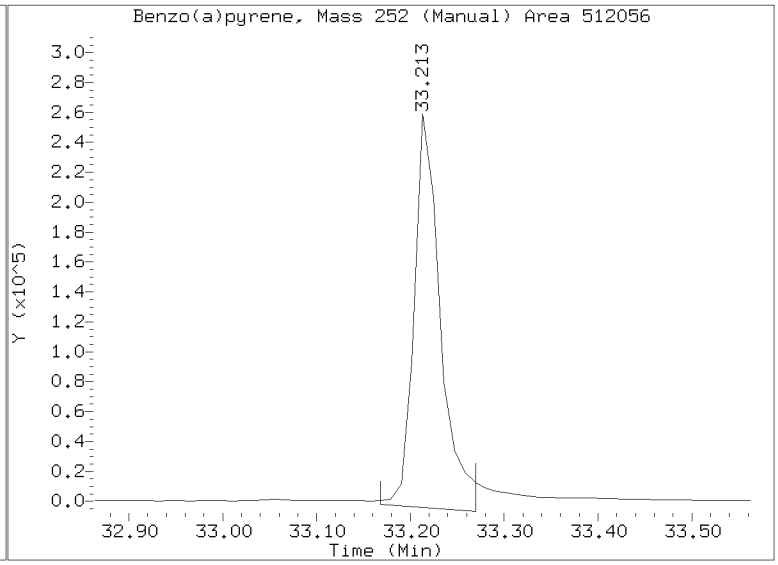






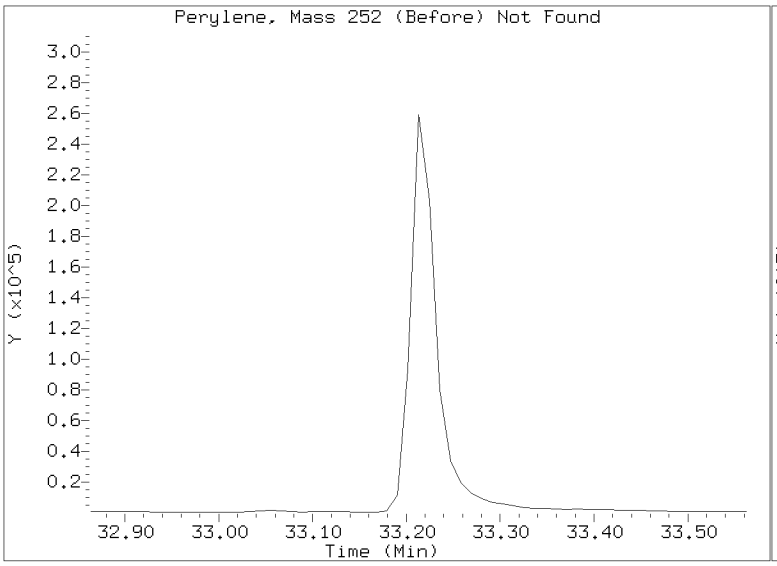


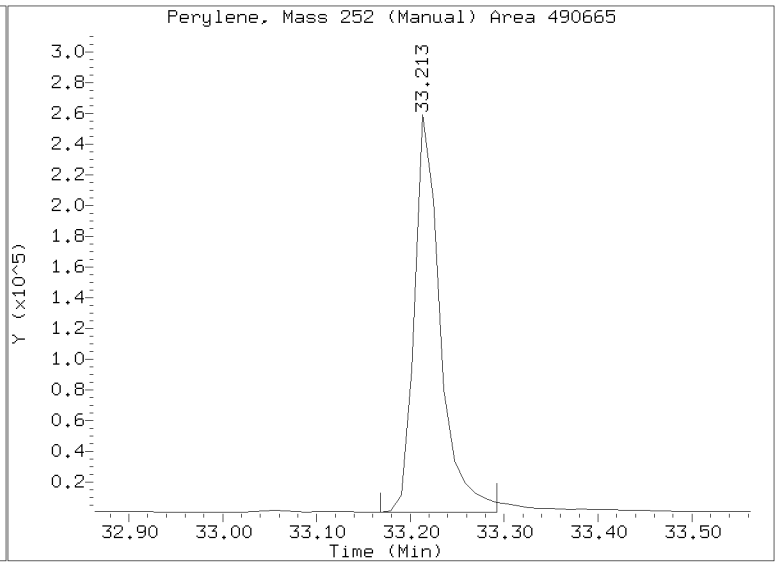


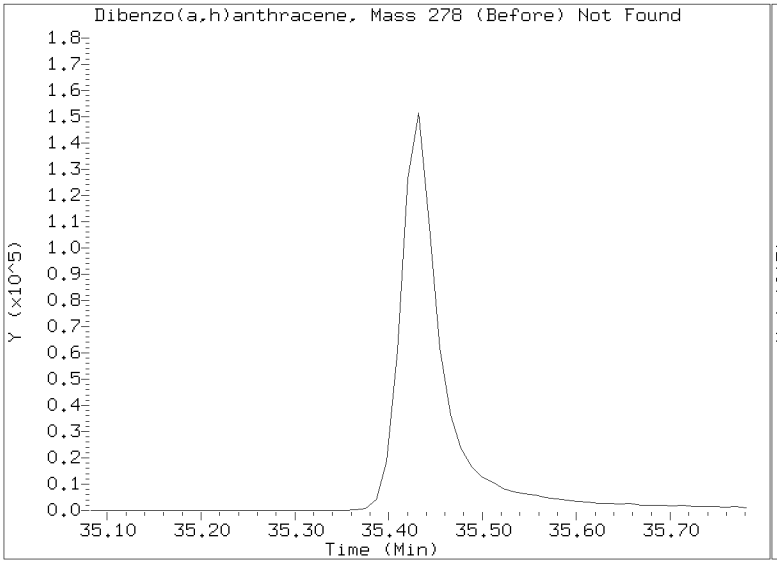


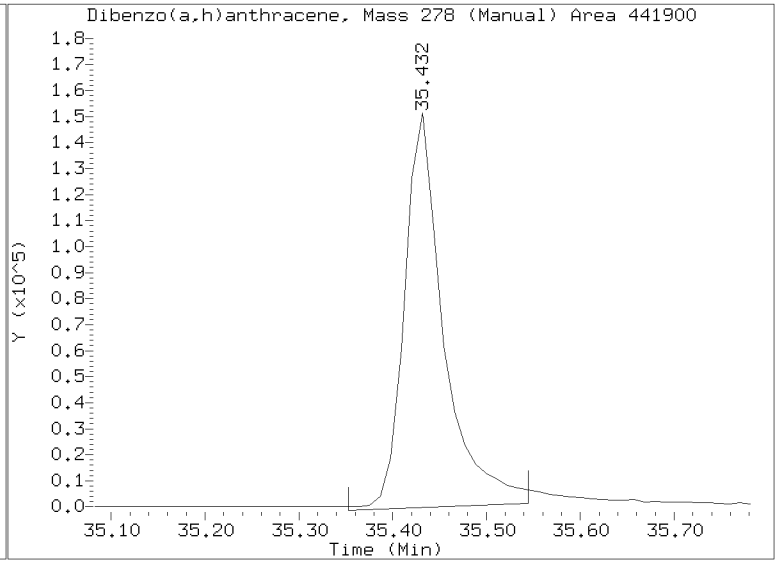
Quant Ion Manual Peak Adjustment Report

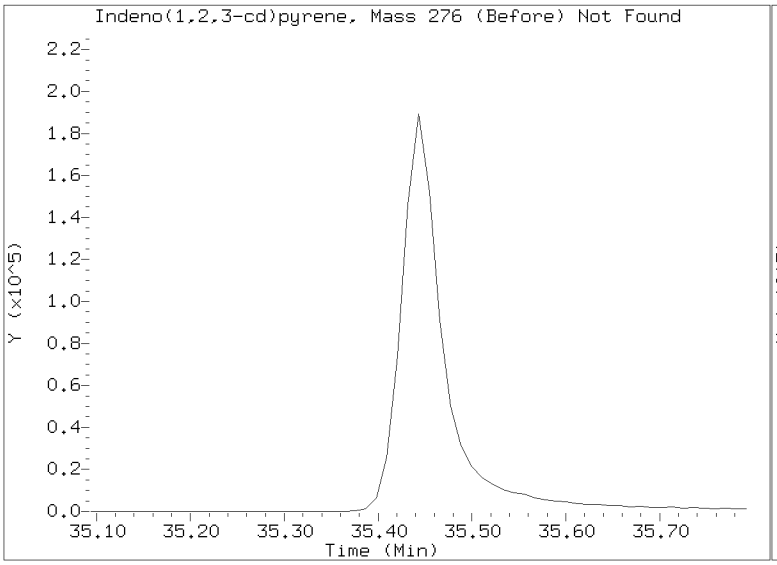
Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010709.D
Injection Date: 07-JAN-2021 17:32
Lab ID:SJA0059-SCV1 Client ID:
Report Date: 01/08/2021 16:59

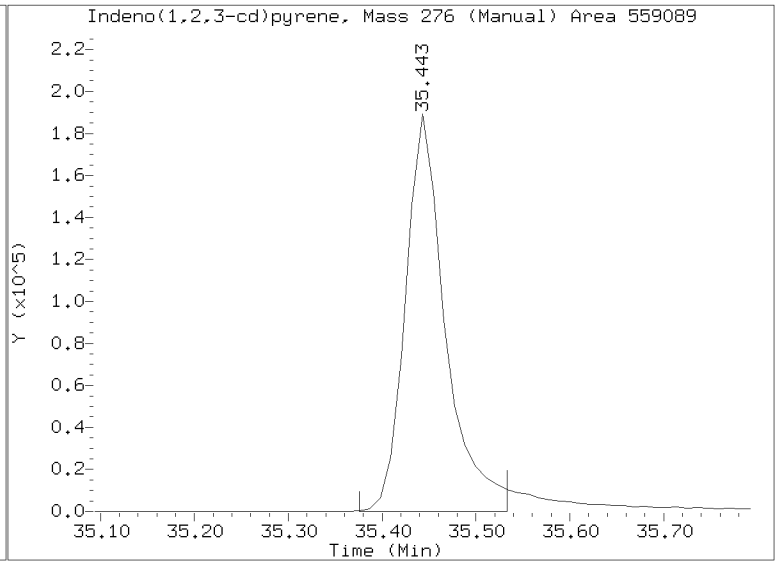






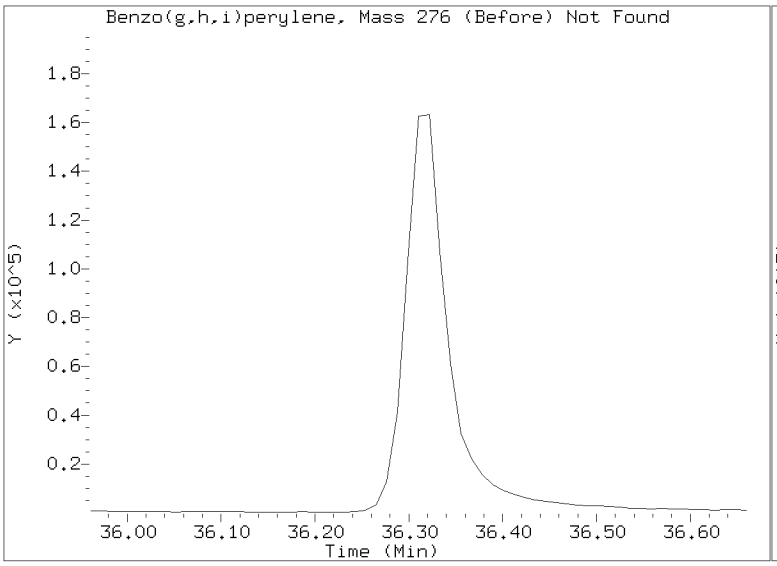


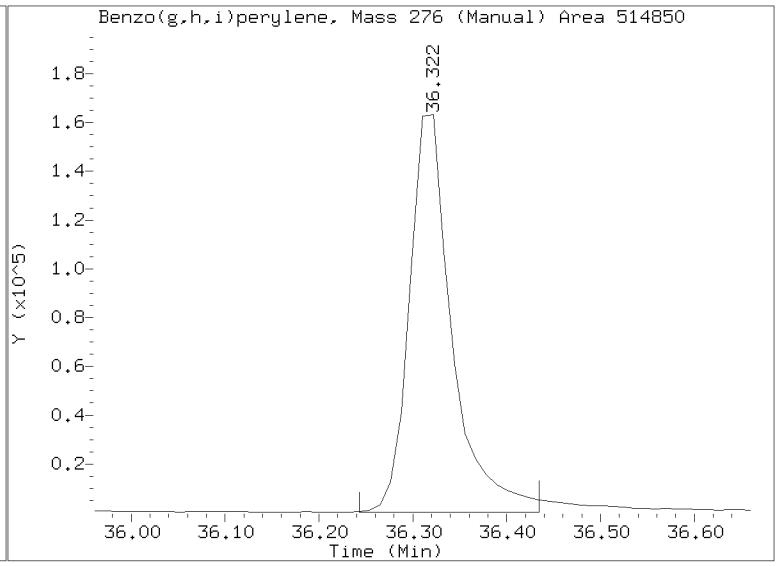




Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010709.D
Injection Date: 07-JAN-2021 17:32
Lab ID:SJA0059-SCV1 Client ID:
Report Date: 01/08/2021 16:59





Analytical Resources, Incorporated
Analytical Chemists and Consultants

INITIAL CALIBRATION CHECK

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Instrument ID:	NT14	Calibration:	EA00040
Lab File ID:	NT1421010702ICV1.D	Calibration Date:	01/14/2021
Sequence:	SJA0059	Injection Date:	01/07/21
Lab Sample ID:	SJA0059-ICV1	Injection Time:	11:56
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	2.5	0.1159685	0.1164565		0.4	+/-20
cis-Decalin	A	2.5000	2.4	0.0835211	0.0811253		-2.9	+/-20
Naphthalene	A	2.5000	2.5	0.9263444	0.9292988		0.3	+/-20
1-Methylnaphthalene	A	2.5000	2.5	0.5131404	0.5135863		0.08	+/-20
2-Methylnaphthalene	A	2.5000	2.5	0.5295653	0.5386075		1.7	+/-20
Biphenyl	A	2.5000	2.5	0.7787672	0.7682813		-1.4	+/-20
2,6-Dimethylnaphthalene	A	2.5000	2.5	0.5698371	0.5754420		1.0	+/-20
Acenaphthylene	A	2.5000	2.6	0.9686185	1.0139630		4.7	+/-20
Acenaphthene	A	2.5000	2.6	0.6227577	0.6408902		2.9	+/-20
Dibenzofuran	A	2.5000	2.6	0.8912135	0.9132235		2.5	+/-20
2,3,5-Trimethylnaphthalene	A	2.5000	2.6	0.5722696	0.5983291		4.6	+/-20
Fluorene	A	2.5000	2.6	0.6753950	0.7106703		5.2	+/-20
Benzo(b)thiophene	A	2.5000	2.5	0.7660937	0.7680972		0.3	+/-20
Phenanthrene	A	2.5000	2.6	0.9968805	1.0291300		3.2	+/-20
Anthracene	A	2.5000	2.7	0.9218650	0.9795544		6.2	+/-20
Carbazole	A	2.5000	2.8	0.7706226	0.8722369		13.2	+/-20
1-Methylphenanthrene	A	2.5000	2.7	0.7081347	0.7649206		8.0	+/-20
Fluoranthene	A	2.5000	2.7	1.0893370	1.1755610		7.9	+/-20
Dibenzothiophene	A	2.5000	2.7	0.9240760	0.9966473		7.8	+/-20
Pyrene	A	2.5000	2.7	1.1431450	1.2315190		7.7	+/-20
Benzo(a)anthracene	A	2.5000	2.8	0.8161632	0.9048420		10.9	+/-20
Chrysene	A	2.5000	2.7	0.8154589	0.8790903		7.8	+/-20
Benzo(b)fluoranthene	A	2.5000	2.7	0.8016147	0.8522990		6.3	+/-20
Benzo(j)fluoranthene	A	2.5000	2.5	0.8077480	0.8180490		1.3	+/-20
Benzo(k)fluoranthene	A	2.5000	2.6	0.8370331	0.8554401		2.2	+/-20
Benzo(e)pyrene	A	2.5000	2.6	0.7779167	0.8198732		5.4	+/-20
Benzo(a)pyrene	A	2.5000	2.6	0.7319961	0.7755997		6.0	+/-20
Indeno(1,2,3-cd)pyrene	A	2.5000	2.7	0.7990599	0.8574964		7.3	+/-20
Dibenzo(a,h)anthracene	A	2.5000	2.5	0.6854958	0.7649911		0.3	+/-20
Benzo(g,h,i)perylene	A	2.5000	2.7	0.8046159	0.8536300		6.1	+/-20
Perylene	A	2.5000	2.7	0.7425959	0.7994473		7.6	+/-20

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

INITIAL CALIBRATION CHECK

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Instrument ID:	NT14	Calibration:	EA00040
Lab File ID:	NT1421010702ICV1.D	Calibration Date:	01/14/2021
Sequence:	SJA0059	Injection Date:	01/07/21
Lab Sample ID:	SJA0059-ICV1	Injection Time:	11:56
Sequence Name:	Initial Cal Check		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Benzo(b)naphtho(2,1-d)thiophene	A	2.5000	2.7	0.8185783	0.8778705		7.2	+/-20
Naphthalene-d8	A	2.5000	2.49	0.9253244	0.9226536		-0.3	+/-20
Acenaphthene-d10	A	2.5000	2.57	0.4887195	0.5026455		2.8	+/-20
Phenanthrene-d10	A	2.5000	2.52	0.9156546	0.9217163		0.7	+/-20
Chrysene-d12	A	2.5000	2.68	0.6297905	0.6744882		7.1	+/-20
Perylene-d12	A	2.5000	2.74	0.6755628	0.7397478		9.5	+/-20

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010702ICV1.D

Date : 07-JAN-2021 11:56

Client ID:

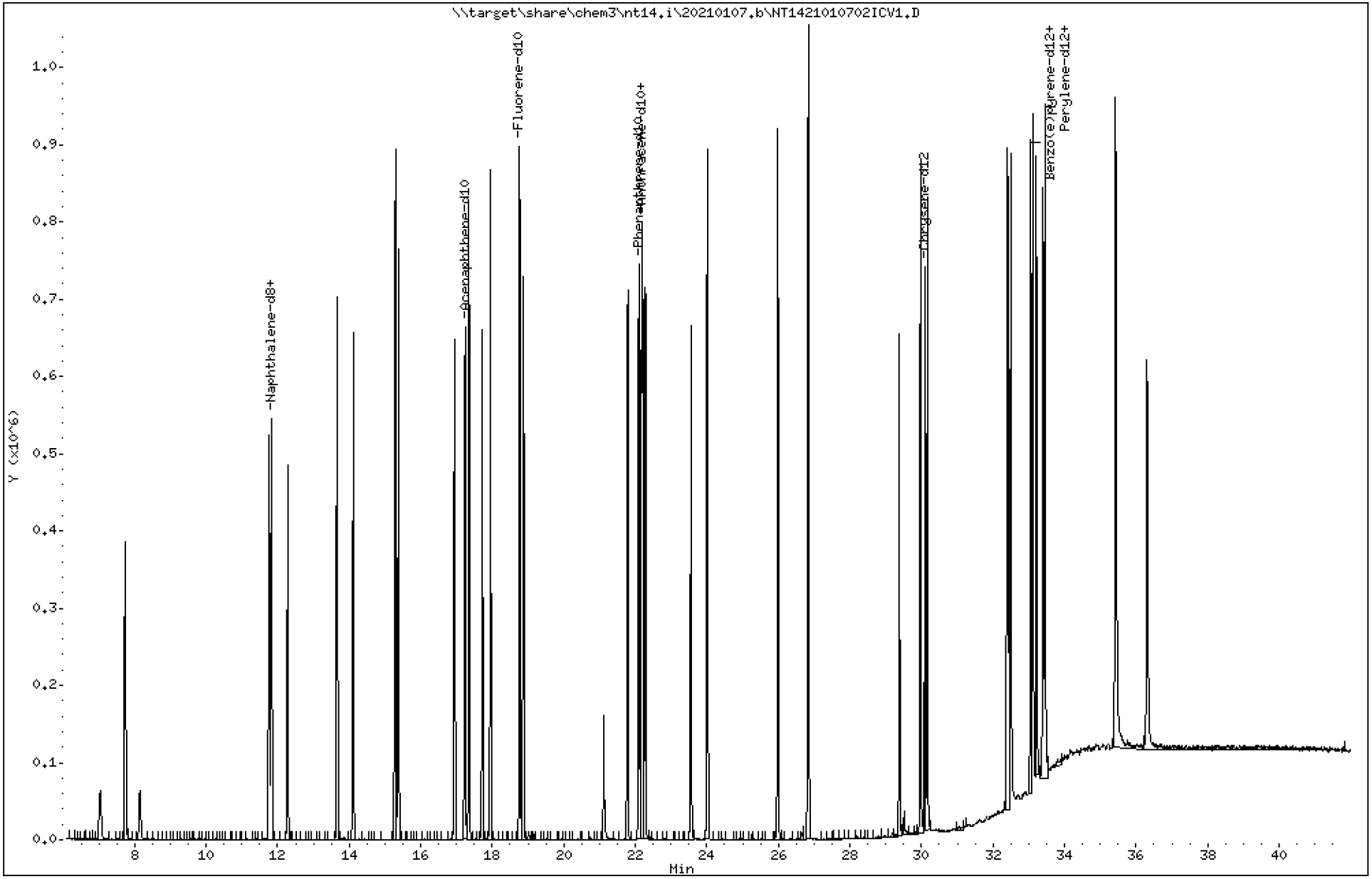
Instrument: nt14.i

Sample Info: SJA0059-ICV1

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\20210107.b\NT1421010702ICV1.d
Lab Smp Id: SJA0059-ICV1
Inj Date : 07-JAN-2021 11:56
Operator : VTS Inst ID: nt14.i
Smp Info : SJA0059-ICV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Meth Date : 14-Jan-2021 09:58 yev Quant Type: ISTD
Cal Date : 07-JAN-2021 16:44 Cal File: NT1421010708.D
Als bottle: 2 Continuing Calibration Sample
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)	AMOUNTS ON-COL (ug/mL)
	1 trans-Decalin	138	7.035	7.035	(0.375)	93584	2.50000	2.511
	2 cis-Decalin	138	8.145	8.145	(0.434)	65192	2.50000	2.428
$	6 Naphthalene-d8	136	11.766	11.766	(0.627)	741441	2.50000	2.493
	7 Naphthalene	128	11.832	11.832	(0.631)	746781	2.50000	2.508
	12 Benzo(b)thiophene	134	12.283	12.283	(0.655)	617240	2.50000	2.507
	16 2-Methylnaphthalene	141	13.668	13.668	(0.728)	432823	2.50000	2.543
	17 1-methylnaphthalene	141	14.118	14.118	(0.752)	412716	2.50000	2.502
	18 Biphenyl	154	15.305	15.305	(0.816)	617388	2.50000	2.466
	19 2,6-Dimethylnaphthalene	156	15.382	15.382	(0.820)	462423	2.50000	2.525
	20 Acenaphthylene	152	16.953	16.953	(0.904)	814817	2.50000	2.617
$	21 Acenaphthene-d10	164	17.239	17.239	(0.919)	403924	2.50000	2.571
	22 Acenaphthene	153	17.349	17.349	(0.925)	515017	2.50000	2.573
	23 Dibenzofuran	168	17.723	17.723	(0.945)	733863	2.50000	2.562
	24 1,6,7-Trimethylnaphthalene	170	17.953	17.953	(0.957)	480815	2.50000	2.614
*	25 Fluorene-d10	176	18.763	18.763	(1.000)	642877	2.00000	
	26 Fluorene	166	18.877	18.877	(1.006)	571092	2.50000	2.631
	30 Dibenzothiophene	184	21.791	21.791	(1.161)	800902	2.50000	2.696
$	35 Phenanthrene-d10	188	22.099	22.099	(0.995)	739357	2.50000	2.517
	36 Phenanthrene	178	22.176	22.176	(0.999)	825519	2.50000	2.581
*	250 Anthracene-d10	188	22.209	22.209	(1.000)	641722	2.00000	
	37 Anthracene	178	22.275	22.275	(1.003)	785752	2.50000	2.656
	42 Carbazole	167	23.561	23.561	(1.061)	699667	2.50000	2.830
	43 1-Methylphenanthrene	192	24.012	24.012	(1.081)	613583	2.50000	2.700
	44 Fluoranthene	202	25.991	25.991	(1.170)	942979	2.50000	2.698
	46 Pyrene	202	26.838	26.838	(1.208)	987866	2.50000	2.693
	51 Naphthobenzothiophene	234	29.381	29.381	(1.323)	704186	2.50000	2.681
	55 Benzo(a)anthracene	228	29.969	29.969	(0.907)	838266	2.50000	2.772
$	56 Chrysene-d12	240	30.093	30.093	(0.910)	624861	2.50000	2.677
	57 Chrysene	228	30.172	30.172	(0.913)	814409	2.50000	2.695
	62 Benzo(b)fluoranthene	252	32.391	32.391	(0.980)	789589	2.50000	2.658(M)
	63 Benzo(k)fluoranthene	252	32.447	32.447	(0.982)	792499	2.50000	2.555(M)
	293 Benzo(j)fluoranthene	252	32.503	32.503	(0.983)	757859	2.50000	2.532
	246 Total Benzofluoranthenes	252	32.391	32.391	(0.980)	2327679	7.50000	7.848(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	33.055	33.055	(1.000)	741138	2.00000	
64 Benzo(e)pyrene	252	33.111	33.111	(1.002)	759549	2.50000	2.635
66 Benzo(a)pyrene	252	33.213	33.213	(1.005)	718533	2.50000	2.649
$ 67 Perylene-d12	264	33.393	33.393	(1.010)	685319	2.50000	2.738
68 Perylene	252	33.449	33.449	(1.012)	740626	2.50000	2.691
69 Indeno(1,2,3-cd)pyrene	276	35.443	35.443	(1.072)	794404	2.50000	2.683(M)
70 Dibenzo(a,h)anthracene	278	35.420	35.420	(1.072)	708705	2.50000	2.508(M)
74 Benzo(g,h,i)perylene	276	36.310	36.310	(1.098)	790822	2.50000	2.652(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: NT1421010702ICV1.d
Lab Smp Id: SJA0059-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Misc Info:

Calibration Date: 07-JAN-2021
Calibration Time: 11:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	642877	321439	1285754	642877	0.00
250 Anthracene-d10	641722	320861	1283444	641722	0.00
251 Benzo(e)pyrene-d1	741138	370569	1482276	741138	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.76	18.26	19.26	18.76	0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	0.00
251 Benzo(e)pyrene-d1	33.06	32.56	33.56	33.06	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 - NT1421010702ICV1.d

Lab ID: SJA0059-ICV1
nt14.i, 20210107.b\ALKYLPNA.m, 07-JAN-2021 11:56

RT	CO-ELUTION COMPOUNDS
	NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

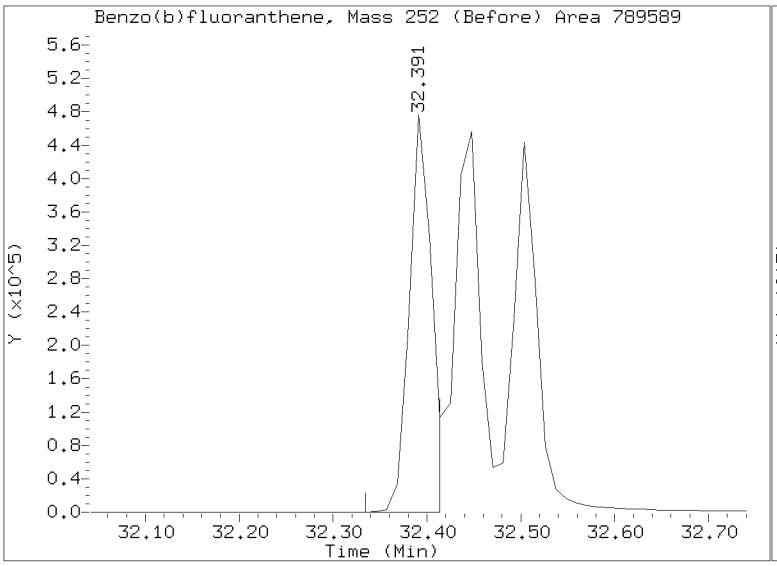
No RRT check. Ccal file.

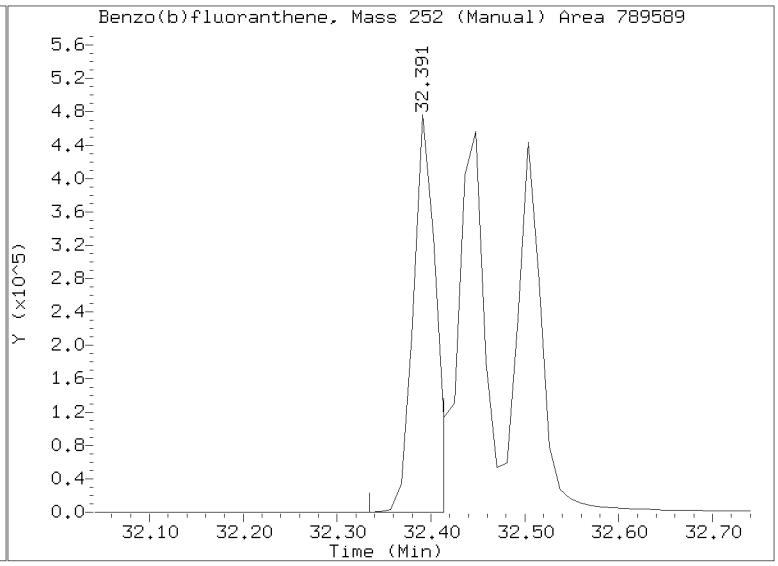
On Column LOD for nt14.i, 20210107.b\ALKYLPNA.m, TARGETS.sub = 0.0000

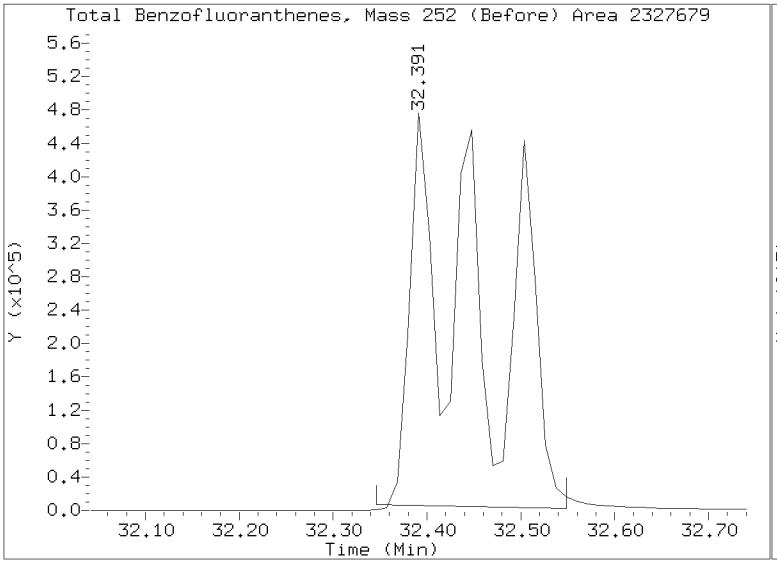
* Only compounds listed in the work order have been verified by the analyst *

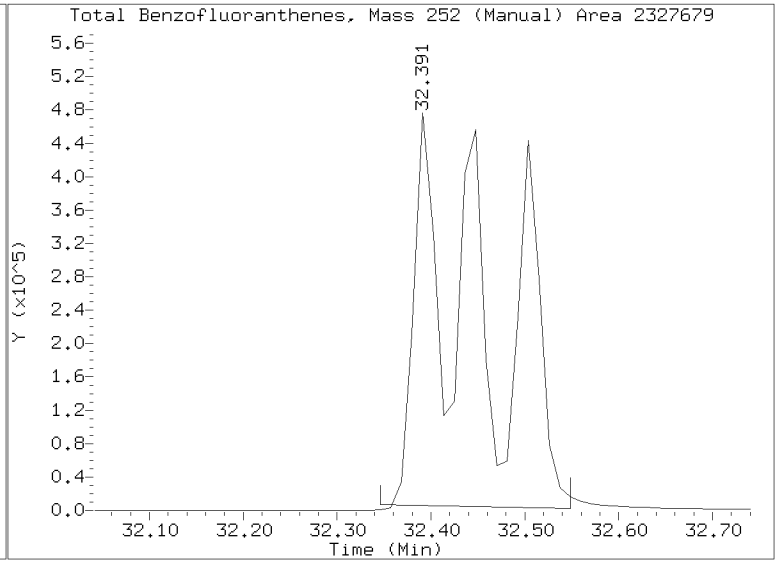
Quant Ion Manual Peak Adjustment Report

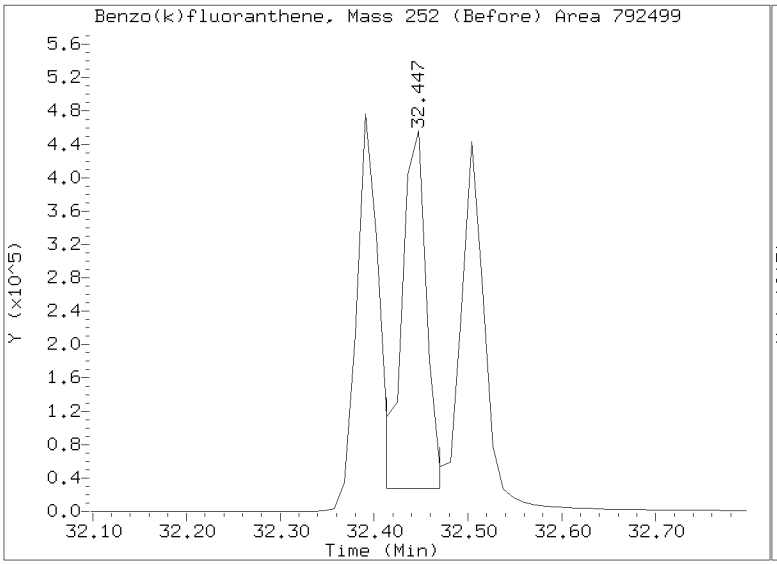
Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010702ICV1.D
Injection Date: 07-JAN-2021 11:56
Lab ID:SJA0059-ICV1 Client ID:
Report Date: 01/14/2021 09:58

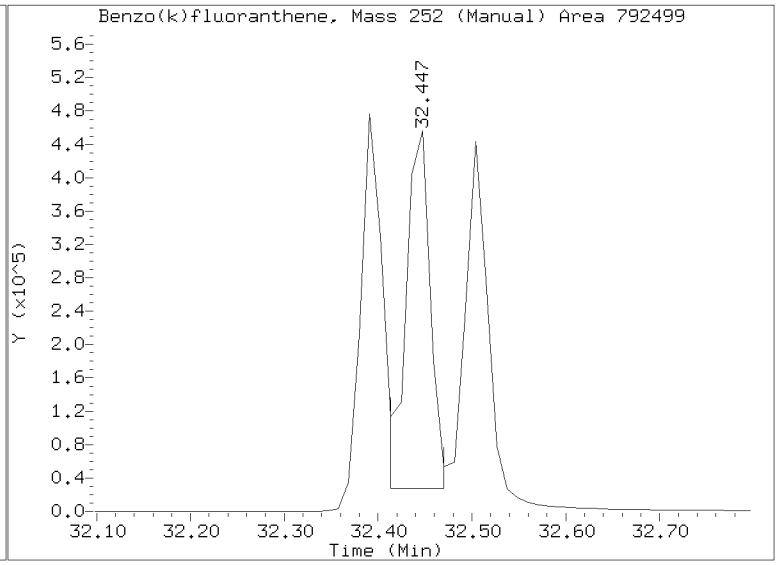






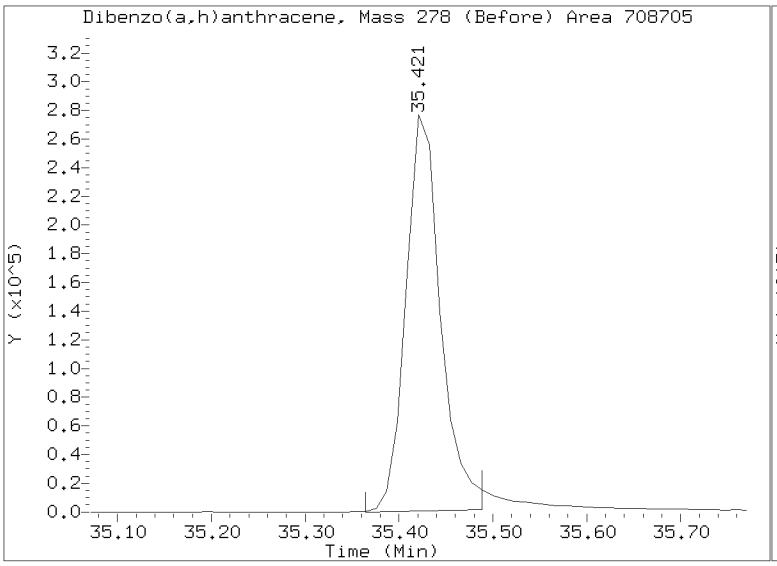


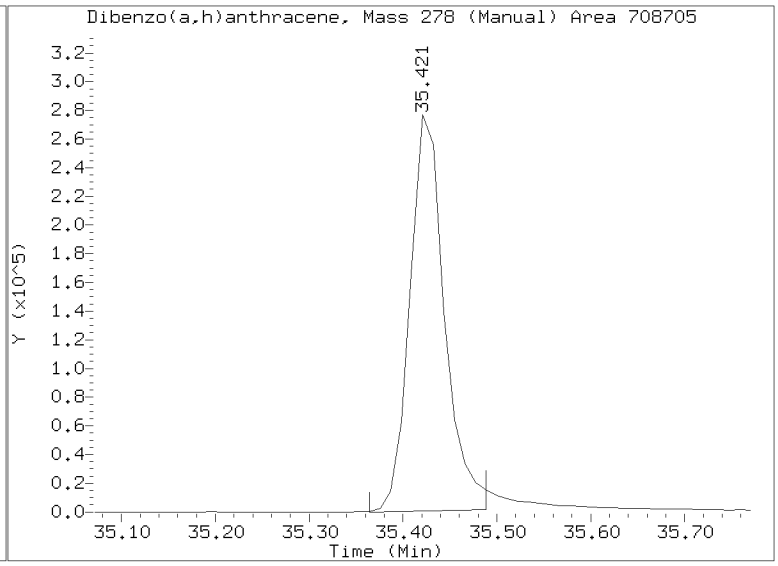


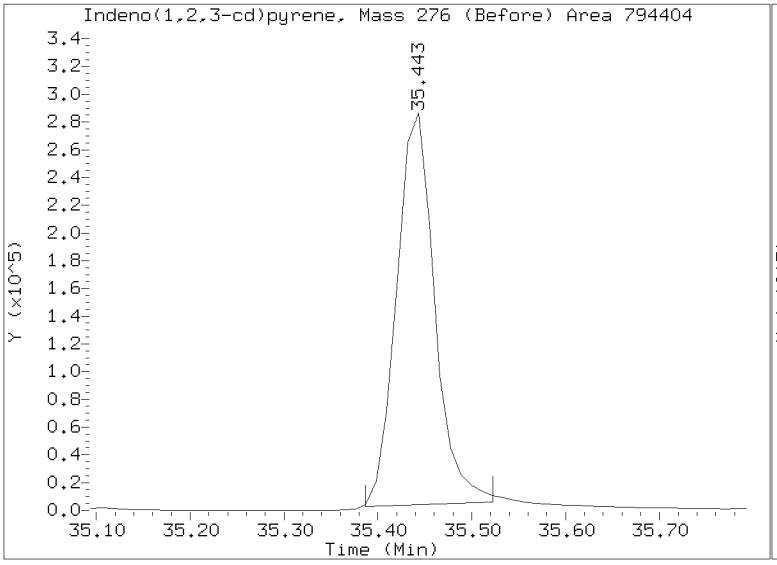


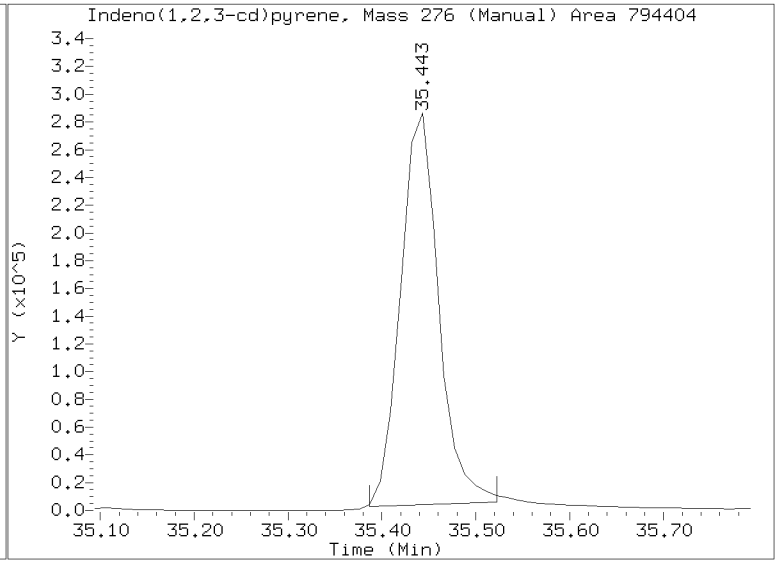
Quant Ion Manual Peak Adjustment Report

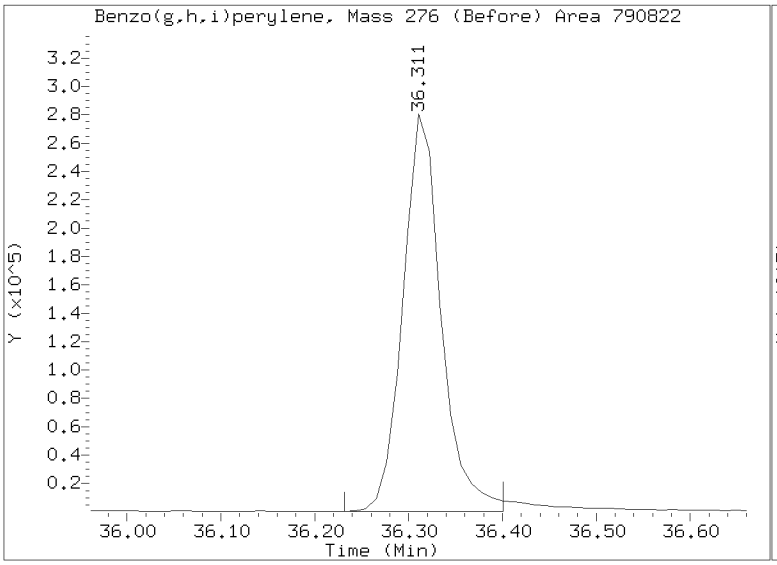
Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010702ICV1.D
Injection Date: 07-JAN-2021 11:56
Lab ID:SJA0059-ICV1 Client ID:
Report Date: 01/14/2021 09:58

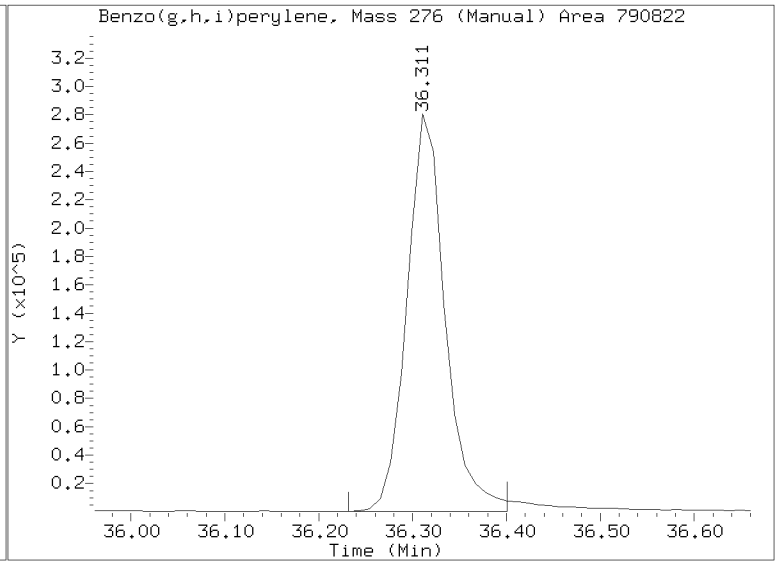












Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210107.b

Instrument: nt14.i Date: 07-JAN-2021 Method: 20210107.b\ALKYLPNA.m

INITIAL CAL: 07-JAN-2021

Compound	%RSD or R^2
NO Q-FLAGS	

ICV CAL: NT1421010702ICV1.d 07-JAN-2021 11:56

Compound	%D
NO Q-FLAGS	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

INITIAL CALIBRATION CHECK

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Instrument ID:	NT14	Calibration:	EA00040
Lab File ID:	NT1421031302.D	Calibration Date:	01/14/2021
Sequence:	SJC0183	Injection Date:	03/13/21
Lab Sample ID:	SJC0183-ICV1	Injection Time:	11:19
Sequence Name:	Initial Cal Check		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF		
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT	
trans-Decalin	A	2.5000	1.9	0.1159685	0.0879336		-24.2	+/-20	*
cis-Decalin	A	2.5000	2.0	0.0835211	0.0681280		-18.4	+/-20	
Naphthalene	A	2.5000	2.2	0.9263444	0.8121258		-12.3	+/-20	
1-Methylnaphthalene	A	2.5000	2.3	0.5131404	0.4697743		-8.4	+/-20	
2-Methylnaphthalene	A	2.5000	2.2	0.5295653	0.4690024		-11.4	+/-20	
Biphenyl	A	2.5000	2.4	0.7787672	0.7337582		-5.8	+/-20	
2,6-Dimethylnaphthalene	A	2.5000	2.3	0.5698371	0.5191498		-8.9	+/-20	
Acenaphthylene	A	2.5000	2.5	0.9686185	0.9692798		0.08	+/-20	
Acenaphthene	A	2.5000	2.5	0.6227577	0.6124976		-1.6	+/-20	
Dibenzofuran	A	2.5000	2.5	0.8912135	0.8849877		-0.7	+/-20	
2,3,5-Trimethylnaphthalene	A	2.5000	2.5	0.5722696	0.5719793		-0.04	+/-20	
Fluorene	A	2.5000	2.6	0.6753950	0.7044521		4.3	+/-20	
Benzo(b)thiophene	A	2.5000	2.2	0.7660937	0.6653773		-13.2	+/-20	
Phenanthrene	A	2.5000	2.6	0.9968805	1.0369600		4.0	+/-20	
Anthracene	A	2.5000	2.6	0.9218650	0.9577636		3.9	+/-20	
Carbazole	A	2.5000	2.7	0.7706226	0.8327841		8.1	+/-20	
1-Methylphenanthrene	A	2.5000	2.7	0.7081347	0.7561772		6.8	+/-20	
Fluoranthene	A	2.5000	2.7	1.0893370	1.1861050		8.9	+/-20	
Dibenzothiophene	A	2.5000	3.0	0.9240760	1.1183330		21.0	+/-20	*
Pyrene	A	2.5000	2.8	1.1431450	1.2633520		10.5	+/-20	
Benzo(a)anthracene	A	2.5000	2.7	0.8161632	0.8669829		6.2	+/-20	
Chrysene	A	2.5000	2.6	0.8154589	0.8362146		2.6	+/-20	
Benzo(b)fluoranthene	A	2.5000	2.2	0.8016147	0.7121624		-11.2	+/-20	
Benzo(j)fluoranthene	A	2.5000	3.3	0.8077480	1.0652630		31.9	+/-20	*
Benzo(k)fluoranthene	A	2.5000	2.8	0.8370331	0.9431405		12.7	+/-20	
Benzo(e)pyrene	A	2.5000	2.5	0.7779167	0.7832449		0.7	+/-20	
Benzo(a)pyrene	A	2.5000	2.6	0.7319961	0.7548187		3.1	+/-20	
Indeno(1,2,3-cd)pyrene	A	2.5000	2.4	0.7990599	0.7770094		-2.8	+/-20	
Dibenzo(a,h)anthracene	A	2.5000	2.1	0.6854958	0.6318748		-16.9	+/-20	
Benzo(g,h,i)perylene	A	2.5000	2.5	0.8046159	0.8031796		-0.2	+/-20	
Perylene	A	2.5000	2.4	0.7425959	0.7003874		-5.7	+/-20	

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

INITIAL CALIBRATION CHECK

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Instrument ID:	NT14	Calibration:	EA00040
Lab File ID:	NT1421031302.D	Calibration Date:	01/14/2021
Sequence:	SJC0183	Injection Date:	03/13/21
Lab Sample ID:	SJC0183-ICV1	Injection Time:	11:19
Sequence Name:	Initial Cal Check		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Benzo(b)naphtho(2,1-d)thiophene	A	2.5000	2.7	0.8185783	0.8913214		8.9	+/-20
Naphthalene-d8	A	2.5000	2.20	0.9253244	0.8152767		-11.9	+/-20
Acenaphthene-d10	A	2.5000	2.44	0.4887195	0.4775674		-2.3	+/-20
Phenanthrene-d10	A	2.5000	2.54	0.9156546	0.9291131		1.5	+/-20
Chrysene-d12	A	2.5000	2.72	0.6297905	0.6842993		8.6	+/-20
Perylene-d12	A	2.5000	2.57	0.6755628	0.6948065		2.8	+/-20

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031302.D

Page 1

Date : 13-MAR-2021 11:19

Client ID:

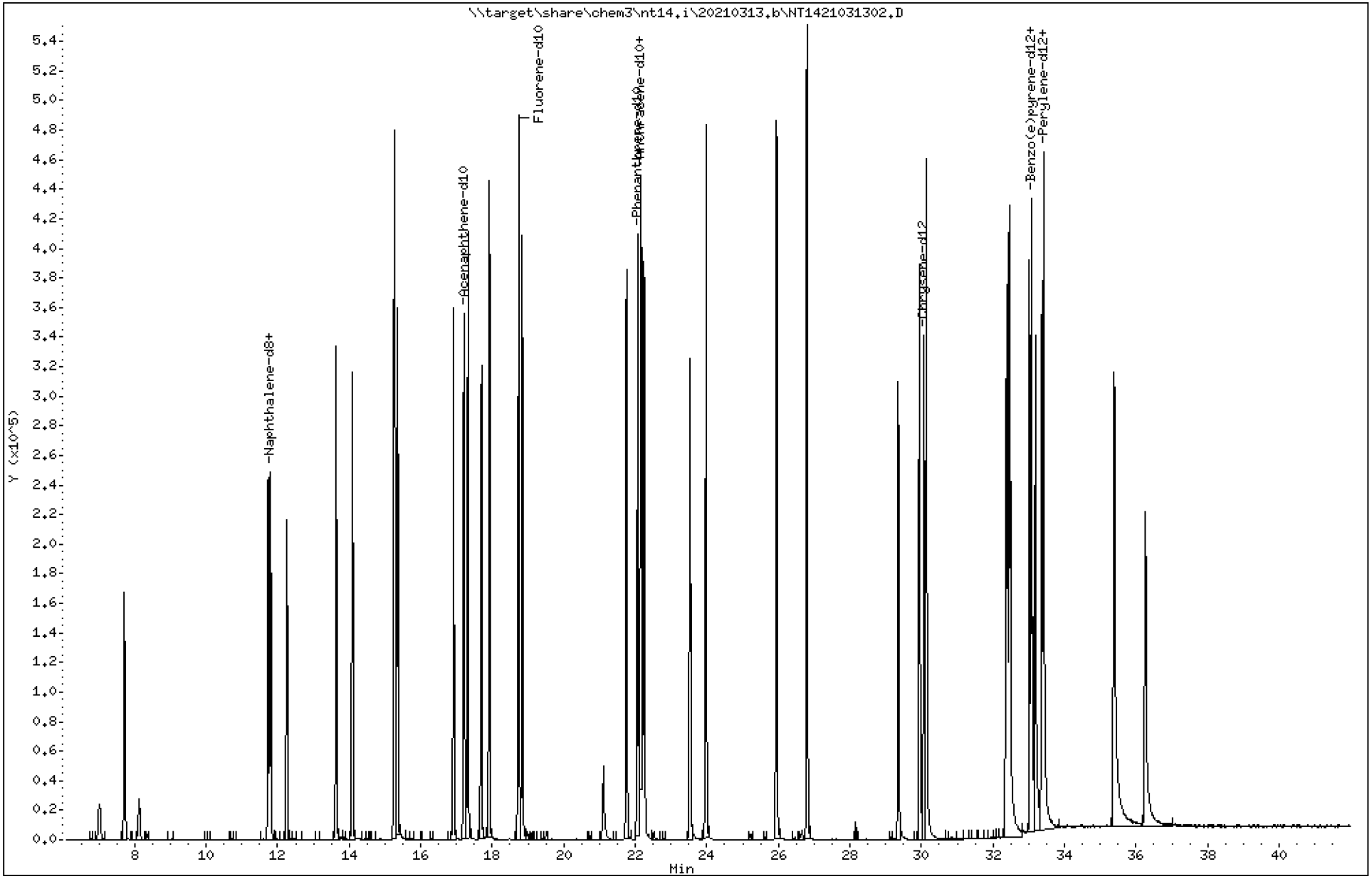
Instrument: nt14.i

Sample Info: SJC0183-ICV1

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\20210313.b\NT1421031302.D
Lab Smp Id: SJC0183-ICV1
Inj Date : 13-MAR-2021 11:19
Operator : VTS Inst ID: nt14.i
Smp Info : SJC0183-ICV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210313.b\ALKYLPNA.m
Meth Date : 13-Mar-2021 12:11 van Quant Type: ISTD
Cal Date : 07-JAN-2021 16:44 Cal File: NT1421010708.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: VANS-202011

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
1 trans-Decalin	138	7.015	7.015	(0.374)	40327	2.50000	1.896
2 cis-Decalin	138	8.124	8.124	(0.434)	31244	2.50000	2.039
$ 6 Naphthalene-d8	136	11.744	11.744	(0.627)	373892	2.50000	2.203
7 Naphthalene	128	11.810	11.810	(0.630)	372447	2.50000	2.192
12 Benzo(b)thiophene	134	12.261	12.261	(0.654)	305147	2.50000	2.171
16 2-Methylnaphthalene	141	13.634	13.634	(0.728)	215088	2.50000	2.214
17 1-methylnaphthalene	141	14.085	14.085	(0.752)	215442	2.50000	2.289
18 Biphenyl	154	15.283	15.283	(0.816)	336507	2.50000	2.356
19 2,6-Dimethylnaphthalene	156	15.360	15.360	(0.820)	238086	2.50000	2.278
20 Acenaphthylene	152	16.920	16.920	(0.903)	444519	2.50000	2.502
$ 21 Acenaphthene-d10	164	17.206	17.206	(0.918)	219016	2.50000	2.443
22 Acenaphthene	153	17.316	17.316	(0.924)	280896	2.50000	2.459
23 Dibenzofuran	168	17.701	17.701	(0.945)	405862	2.50000	2.483
24 1,6,7-Trimethylnaphthalene	170	17.920	17.920	(0.956)	262314	2.50000	2.499
* 25 Fluorene-d10	176	18.741	18.741	(1.000)	366886	2.00000	
26 Fluorene	166	18.843	18.843	(1.005)	323067	2.50000	2.608
30 Dibenzothiophene	184	21.757	21.757	(1.161)	512876	2.50000	3.026
$ 35 Phenanthrene-d10	188	22.066	22.066	(0.995)	428421	2.50000	2.537
36 Phenanthrene	178	22.143	22.143	(0.999)	478150	2.50000	2.601
* 250 Anthracene-d10	188	22.176	22.176	(1.000)	368886	2.00000	
37 Anthracene	178	22.242	22.242	(1.003)	441632	2.50000	2.597
42 Carbazole	167	23.528	23.528	(1.061)	384003	2.50000	2.702(M)
43 1-Methylphenanthrene	192	23.979	23.979	(1.081)	348679	2.50000	2.670
44 Fluoranthene	202	25.947	25.947	(1.170)	546922	2.50000	2.722
46 Pyrene	202	26.805	26.805	(1.209)	582541	2.50000	2.763
51 Naphthobenzothiophene	234	29.348	29.348	(1.323)	410995	2.50000	2.722
55 Benzo(a)anthracene	228	29.935	29.935	(0.907)	483447	2.50000	2.656
$ 56 Chrysene-d12	240	30.059	30.059	(0.910)	381579	2.50000	2.716
57 Chrysene	228	30.138	30.138	(0.913)	466290	2.50000	2.564(M)
62 Benzo(b)fluoranthene	252	32.368	32.368	(0.980)	397116	2.50000	2.221(M)
63 Benzo(k)fluoranthene	252	32.413	32.413	(0.982)	525914	2.50000	2.817(M)
293 Benzo(j)fluoranthene	252	32.469	32.469	(0.983)	594012	2.50000	3.297(M)
246 Total Benzofluoranthenes	252	32.413	32.413	(0.982)	1400113	7.50000	7.843(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	33.021	33.021	(1.000)	446096	2.00000	
64 Benzo(e)pyrene	252	33.089	33.089	(1.002)	436753	2.50000	2.517
66 Benzo(a)pyrene	252	33.179	33.179	(1.005)	420902	2.50000	2.578
$ 67 Perylene-d12	264	33.359	33.359	(1.010)	387438	2.50000	2.571(M)
68 Perylene	252	33.416	33.416	(1.012)	390550	2.50000	2.358(M)
69 Indeno(1,2,3-cd)pyrene	276	35.398	35.398	(1.072)	433276	2.50000	2.431(M)
70 Dibenzo(a,h)anthracene	278	35.375	35.375	(1.071)	352346	2.50000	2.078(M)
74 Benzo(g,h,i)perylene	276	36.265	36.265	(1.098)	447869	2.50000	2.496(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: NT1421031302.D
Lab Smp Id: SJC0183-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210313.b\ALKYLPNA.m
Misc Info:

Calibration Date: 19-FEB-2021
Calibration Time: 11:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	366886	183443	733772	366886	0.00
250 Anthracene-d10	368886	184443	737772	368886	0.00
251 Benzo(e)pyrene-d1	446096	223048	892192	446096	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.74	18.24	19.24	18.74	0.00
250 Anthracene-d10	22.18	21.68	22.68	22.18	0.00
251 Benzo(e)pyrene-d1	33.02	32.52	33.52	33.02	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 - NT1421031302.D

Lab ID: SJC0183-ICV1
nt14.i, 20210313.b\ALKYLPNA.m, 13-MAR-2021 11:19

RT	CO-ELUTION COMPOUNDS
	NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

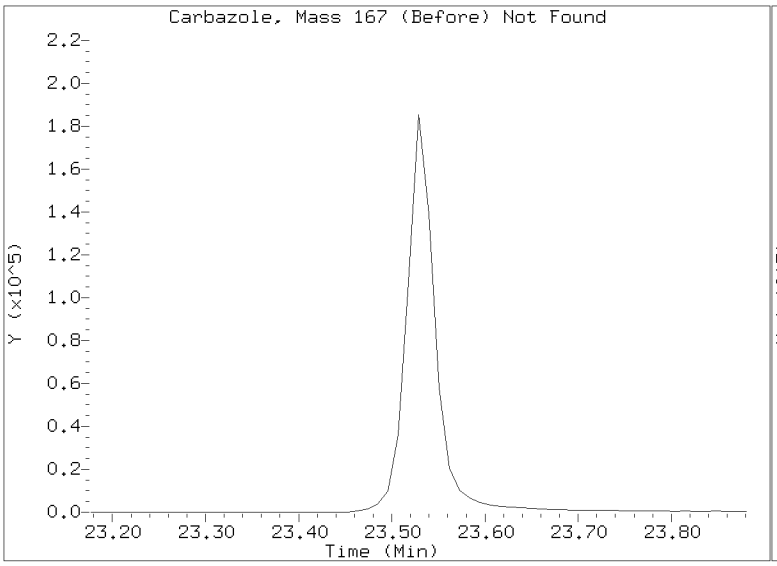
No RRT check. Ccal file.

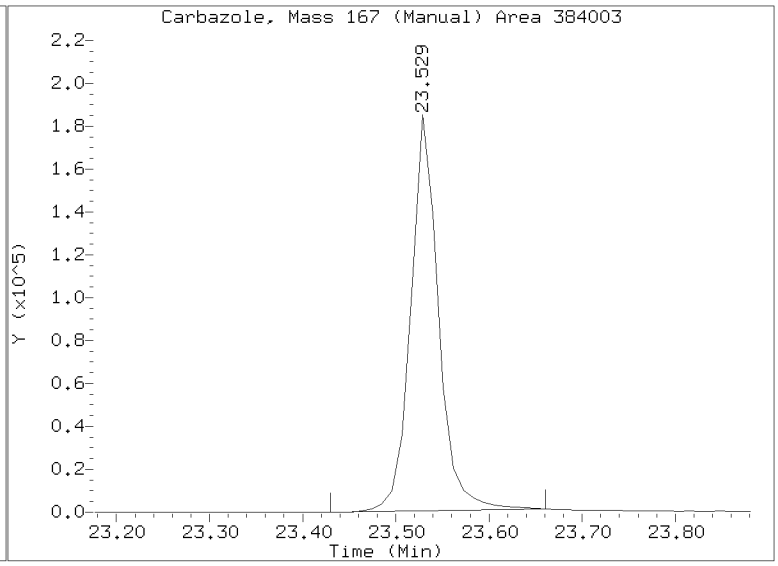
On Column LOD for nt14.i, 20210313.b\ALKYLPNA.m, TARGETS.sub = 0.0000

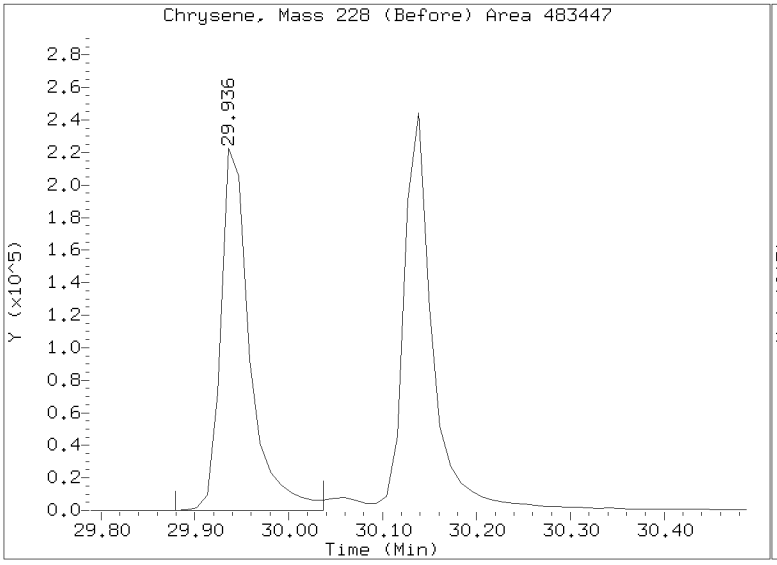
* Only compounds listed in the work order have been verified by the analyst *

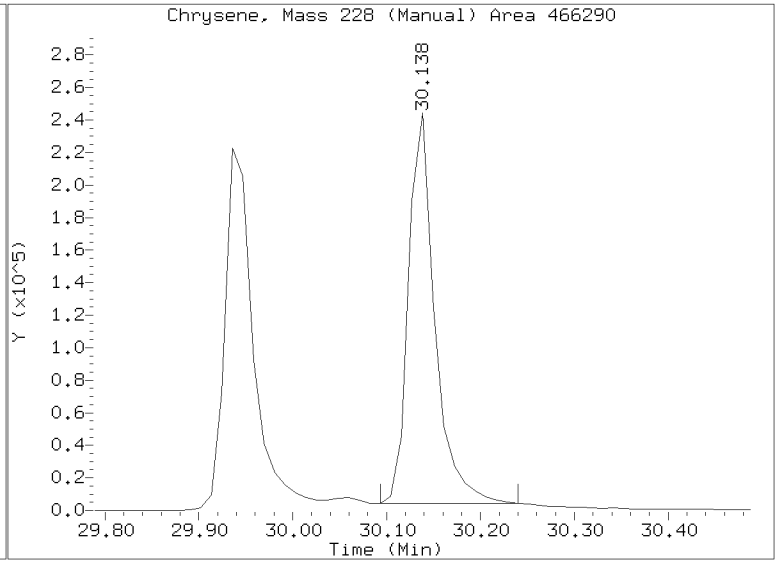
Quant Ion Manual Peak Adjustment Report

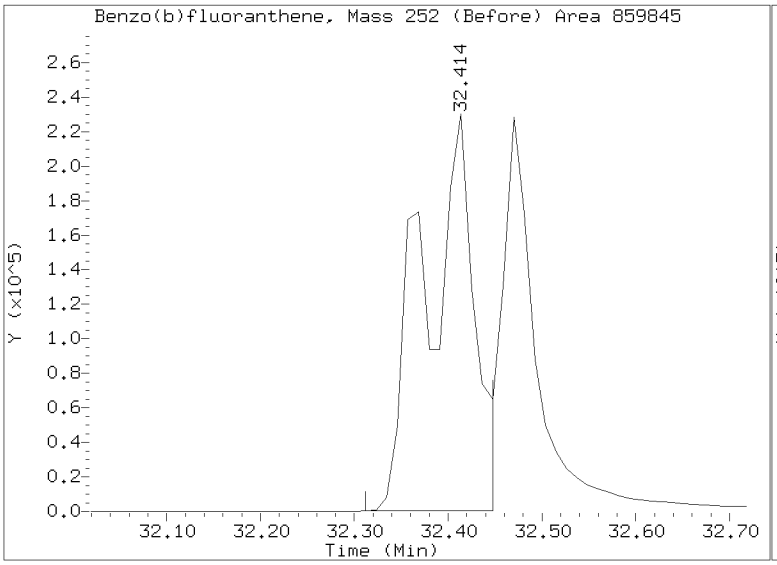
Datafile: //target/share/chem3/nt14.i/20210313.b/NT1421031302.D
Injection Date: 13-MAR-2021 11:19
Lab ID:SJC0183-ICV1 Client ID:
Report Date: 03/16/2021 15:32

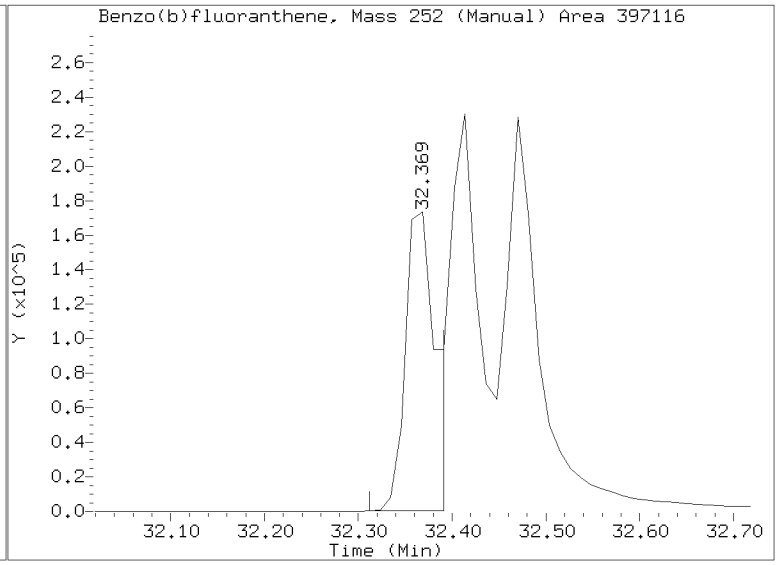












Quant Ion Manual Peak Adjustment Report

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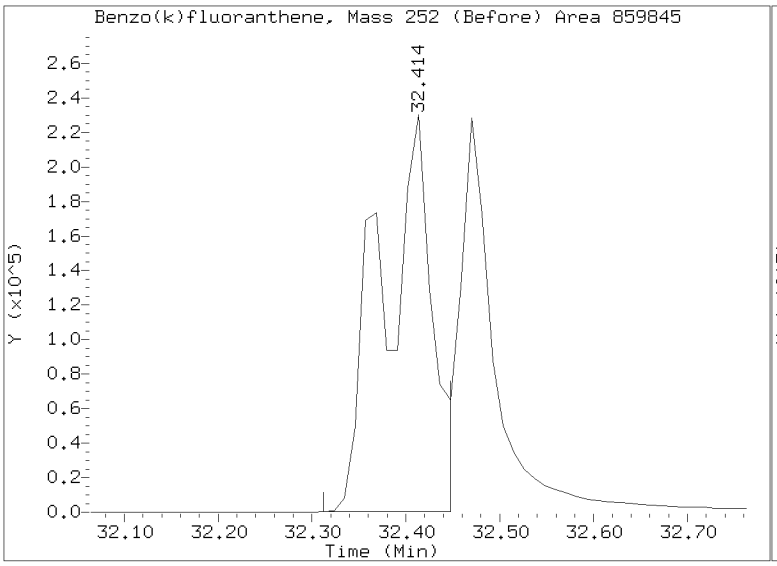
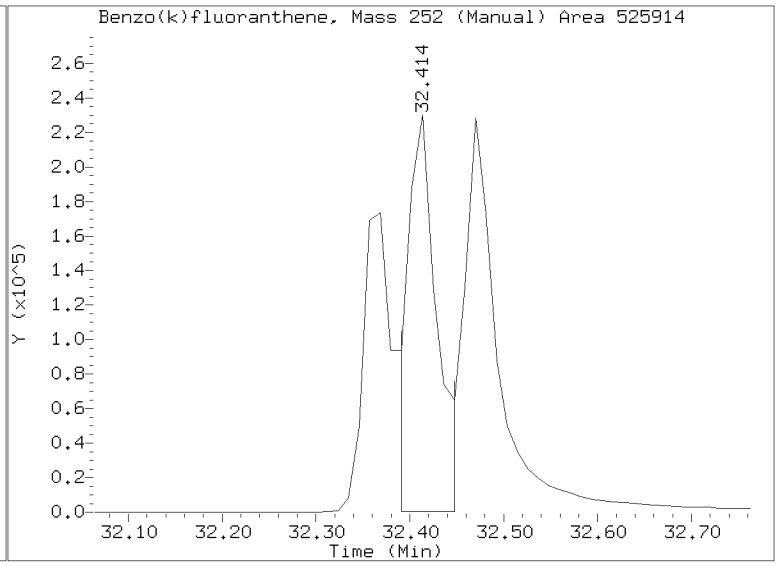
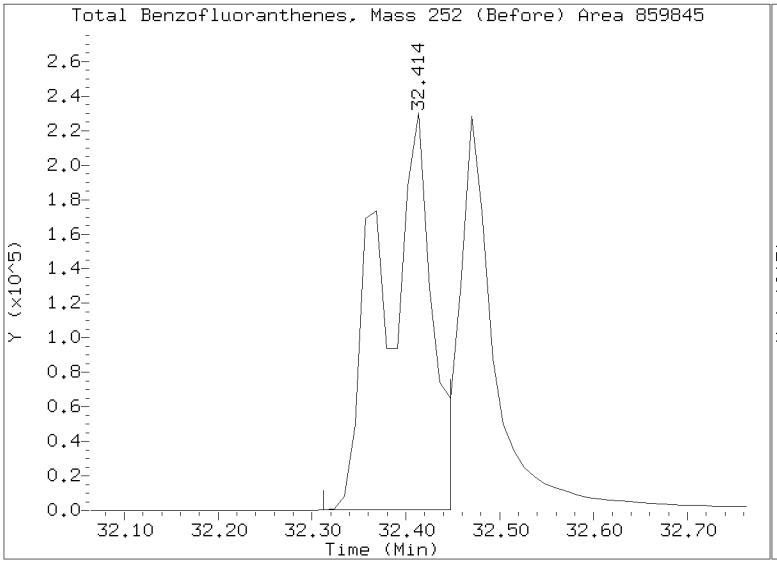
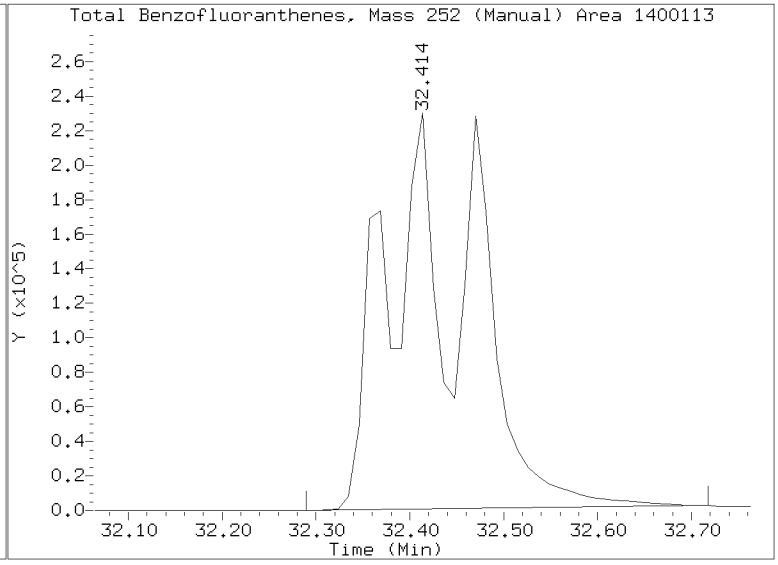
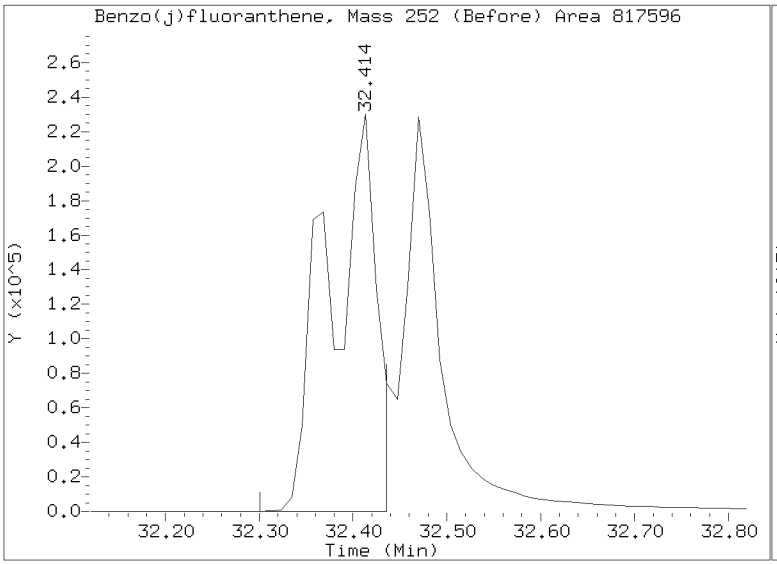
Lab ID:SJC0183-ICV1 Client ID:
Report Date: 03/16/2021 15:32

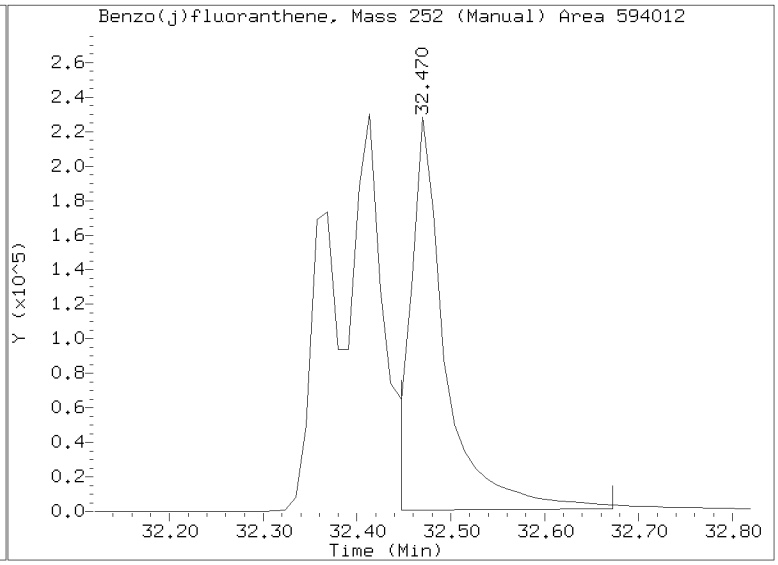






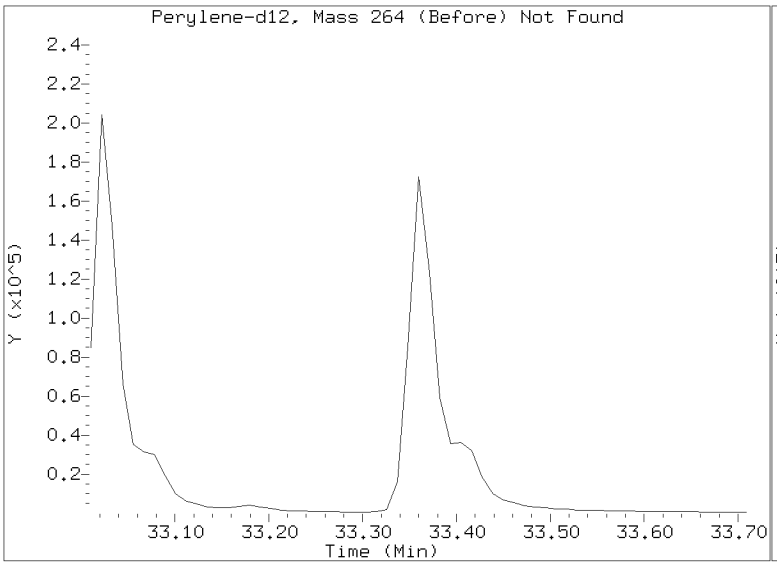


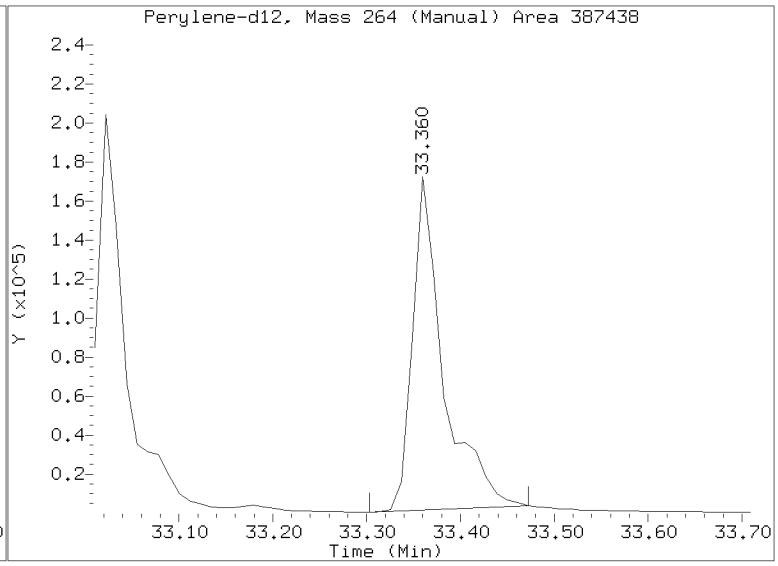


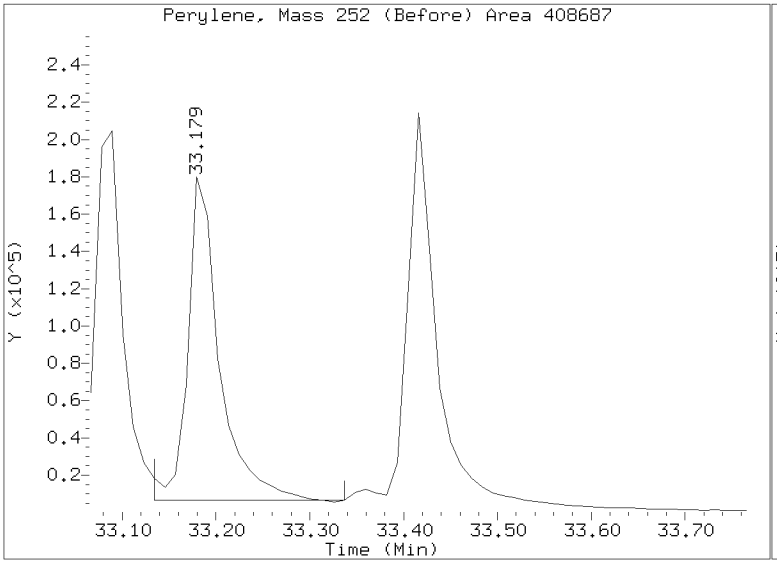


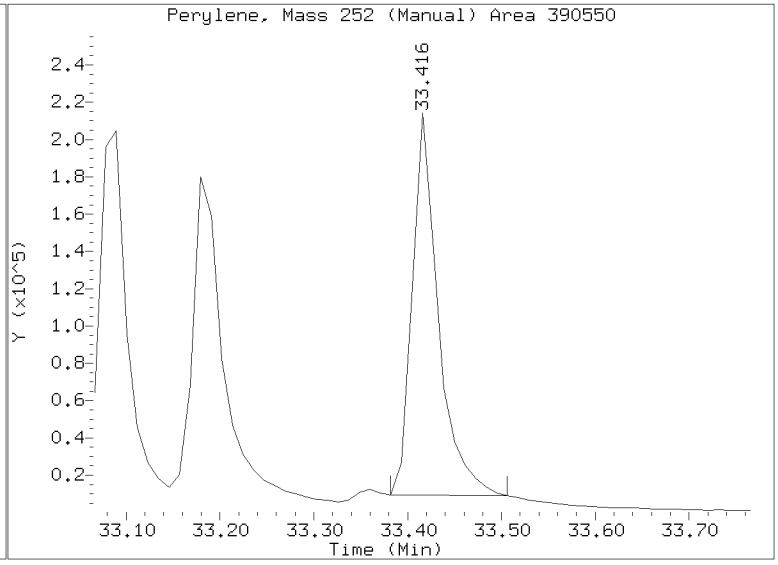
Quant Ion Manual Peak Adjustment Report

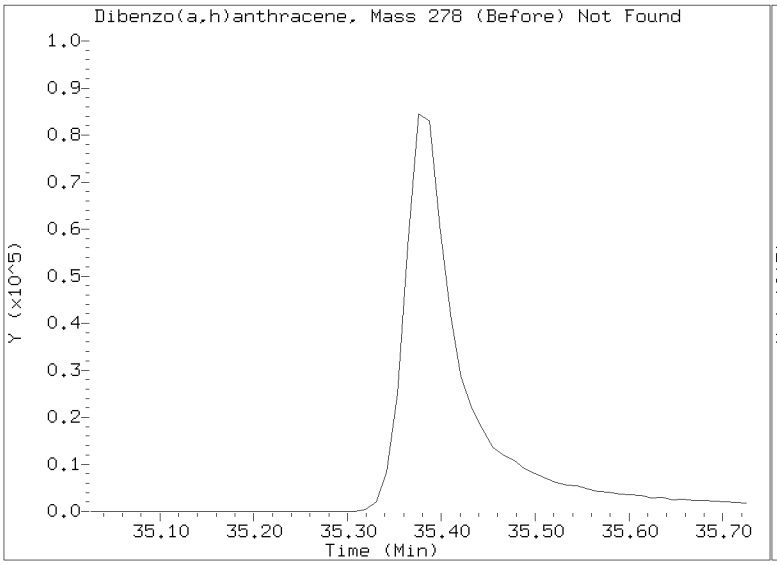
Datafile: //target/share/chem3/nt14.i/20210313.b/NT1421031302.D
Injection Date: 13-MAR-2021 11:19
Lab ID:SJC0183-ICV1 Client ID:
Report Date: 03/16/2021 15:32

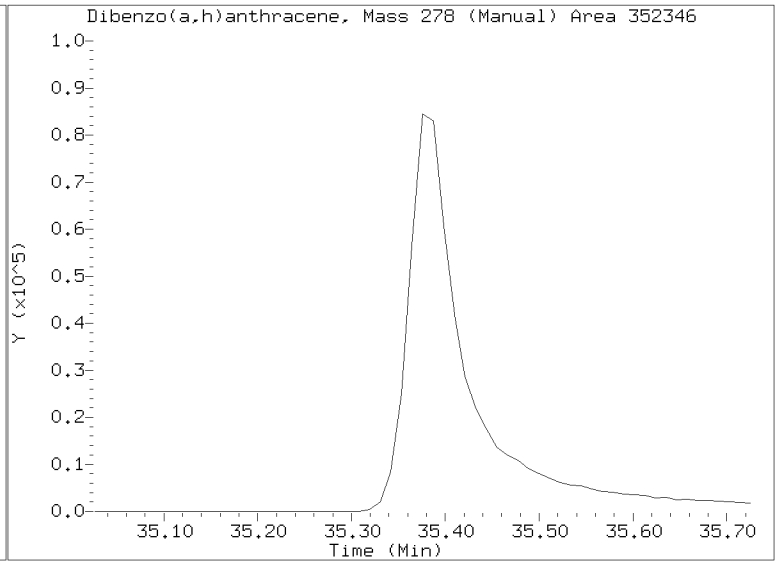






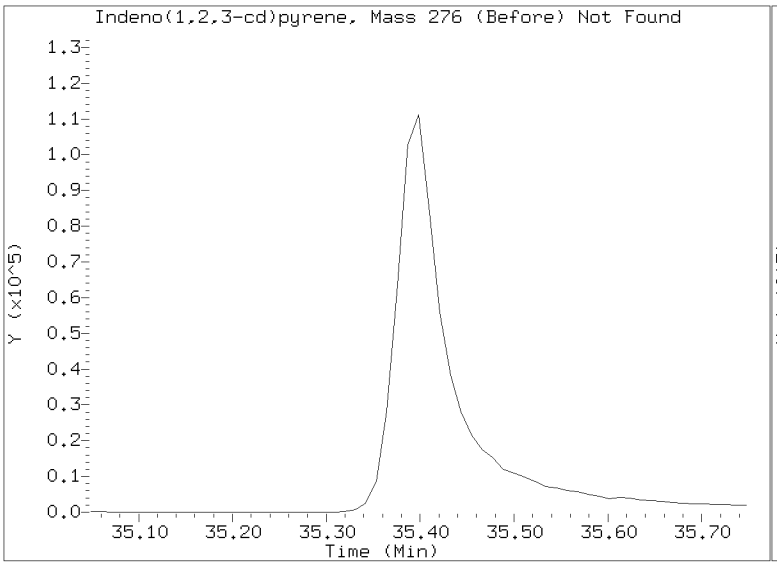


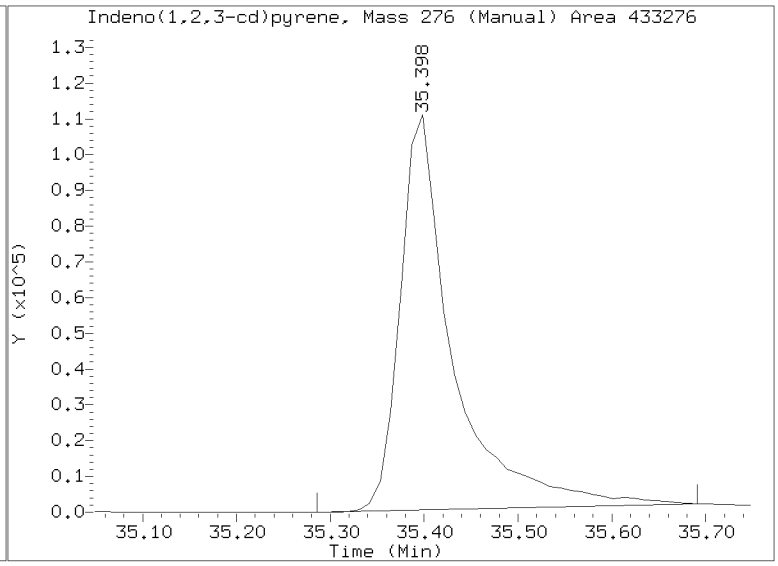


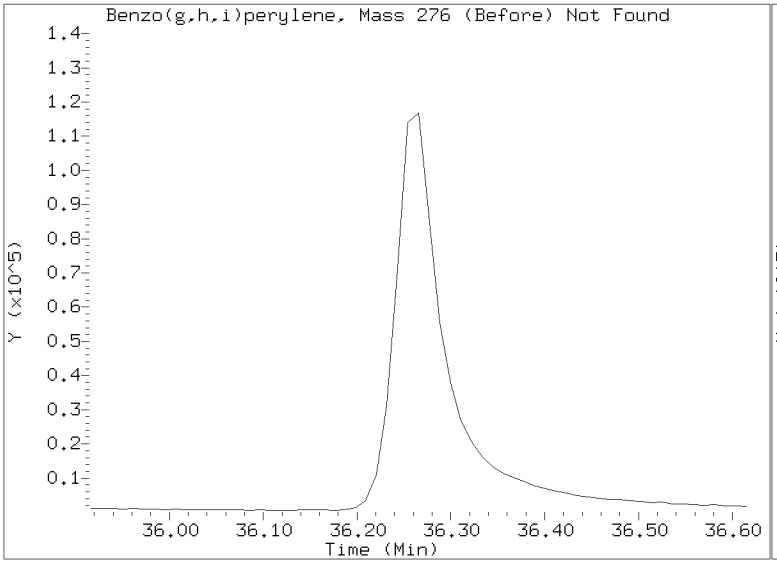


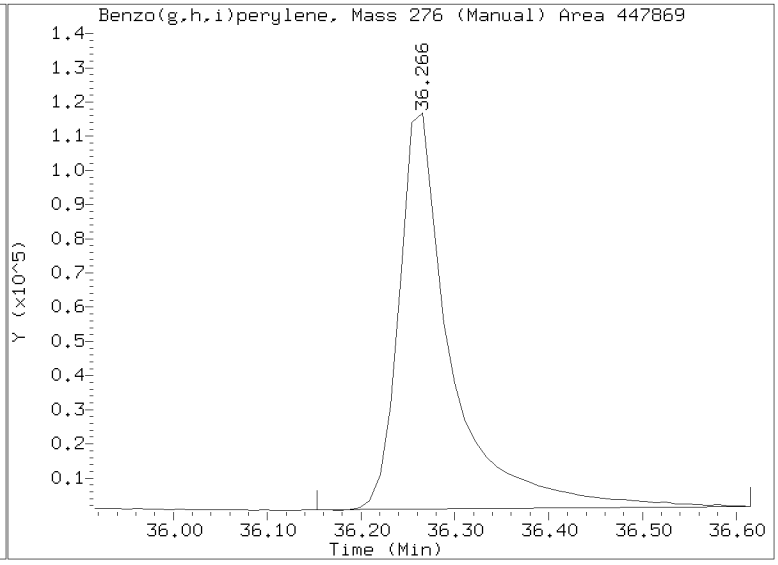
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210313.b/NT1421031302.D
Injection Date: 13-MAR-2021 11:19
Lab ID:SJC0183-ICV1 Client ID:
Report Date: 03/16/2021 15:32









Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210313.b

Instrument: nt14.i Date: 13-MAR-2021 Method: 20210313.b\ALKYLPNA.m

INITIAL CAL: 07-JAN-2021

Compound	%RSD or R^2
NO Q-FLAGS	

ICV CAL: NT1421031302.D 13-MAR-2021 11:19

Compound	%D
Dibenzothiophene	21.0
trans-Decalin	-24.2
Benzo(j)fluoranthene	31.9

Analytical Resources, Incorporated
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Instrument ID:	NT14	Calibration:	EA00040
Lab File ID:	NT1421010721.D	Calibration Date:	01/14/2021
Sequence:	SJA0059	Injection Date:	01/08/21
Lab Sample ID:	SJA0059-CCV1	Injection Time:	03:08
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	2.4	0.1159685	0.1126010		-2.9	+/-50
cis-Decalin	A	2.5000	2.5	0.0835211	0.0819402		-1.9	+/-50
Naphthalene	A	2.5000	2.5	0.9263444	0.9188811		-0.8	+/-50
1-Methylnaphthalene	A	2.5000	2.5	0.5131404	0.5108046		-0.5	+/-50
2-Methylnaphthalene	A	2.5000	2.5	0.5295653	0.5264230		-0.6	+/-50
Biphenyl	A	2.5000	2.5	0.7787672	0.7683278		-1.3	+/-50
2,6-Dimethylnaphthalene	A	2.5000	2.5	0.5698371	0.5792746		1.7	+/-50
Acenaphthylene	A	2.5000	2.6	0.9686185	1.0229990		5.6	+/-50
Acenaphthene	A	2.5000	2.6	0.6227577	0.6405089		2.9	+/-50
Dibenzofuran	A	2.5000	2.6	0.8912135	0.9142954		2.6	+/-50
2,3,5-Trimethylnaphthalene	A	2.5000	2.7	0.5722696	0.6066350		6.0	+/-50
Fluorene	A	2.5000	2.6	0.6753950	0.7116684		5.4	+/-50
Benzo(b)thiophene	A	2.5000	2.5	0.7660937	0.7632097		-0.4	+/-50
Phenanthrene	A	2.5000	2.5	0.9968805	1.0002710		0.3	+/-50
Anthracene	A	2.5000	2.7	0.9218650	0.9888799		7.3	+/-50
Carbazole	A	2.5000	2.9	0.7706226	0.8856641		14.9	+/-50
1-Methylphenanthrene	A	2.5000	2.7	0.7081347	0.7515269		6.1	+/-50
Fluoranthene	A	2.5000	2.7	1.0893370	1.1724180		7.6	+/-50
Dibenzothiophene	A	2.5000	2.9	0.9240760	1.0617000		14.9	+/-50
Pyrene	A	2.5000	2.7	1.1431450	1.2247100		7.1	+/-50
Benzo(a)anthracene	A	2.5000	2.6	0.8161632	0.8601373		5.4	+/-50
Chrysene	A	2.5000	2.5	0.8154589	0.8129884		-0.3	+/-50
Benzo(b)fluoranthene	A	2.5000	2.8	0.8016147	0.8863964		10.6	+/-50
Benzo(j)fluoranthene	A	2.5000	2.5	0.8077480	0.8183206		1.3	+/-50
Benzo(k)fluoranthene	A	2.5000	2.9	0.8370331	0.9734431		16.3	+/-50
Benzo(e)pyrene	A	2.5000	2.7	0.7779167	0.8330671		7.1	+/-50
Benzo(a)pyrene	A	2.5000	2.8	0.7319961	0.8219975		12.3	+/-50
Indeno(1,2,3-cd)pyrene	A	2.5000	3.2	0.7990599	1.0071950		26.0	+/-50
Dibenzo(a,h)anthracene	A	2.5000	2.8	0.6854958	0.8436716		10.4	+/-50
Benzo(g,h,i)perylene	A	2.5000	2.8	0.8046159	0.8956835		11.3	+/-50
Perylene	A	2.5000	2.8	0.7425959	0.8219975		10.7	+/-50
Benzo(b)naphtho(2,1-d)thiophene	A	2.5000	2.8	0.8185783	0.9236165		12.8	+/-50
Naphthalene-d8	A	2.5000	2.46	0.9253244	0.9098570		-1.7	+/-50
Acenaphthene-d10	A	2.5000	2.59	0.4887195	0.5058599		3.5	+/-50

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Instrument ID:	NT14	Calibration:	EA00040
Lab File ID:	NT1421010721.D	Calibration Date:	01/14/2021
Sequence:	SJA0059	Injection Date:	01/08/21
Lab Sample ID:	SJA0059-CCV1	Injection Time:	03:08
Sequence Name:	Calibration Check		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenanthrene-d10	A	2.5000	2.48	0.9156546	0.9084221		-0.8	+/-50
Chrysene-d12	A	2.5000	2.50	0.6297905	0.6308125		0.2	+/-50
Perylene-d12	A	2.5000	2.82	0.6755628	0.7620573		12.8	+/-50

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210107A.b\NT1421010721.D

Date : 08-JAN-2021 03:08

Client ID:

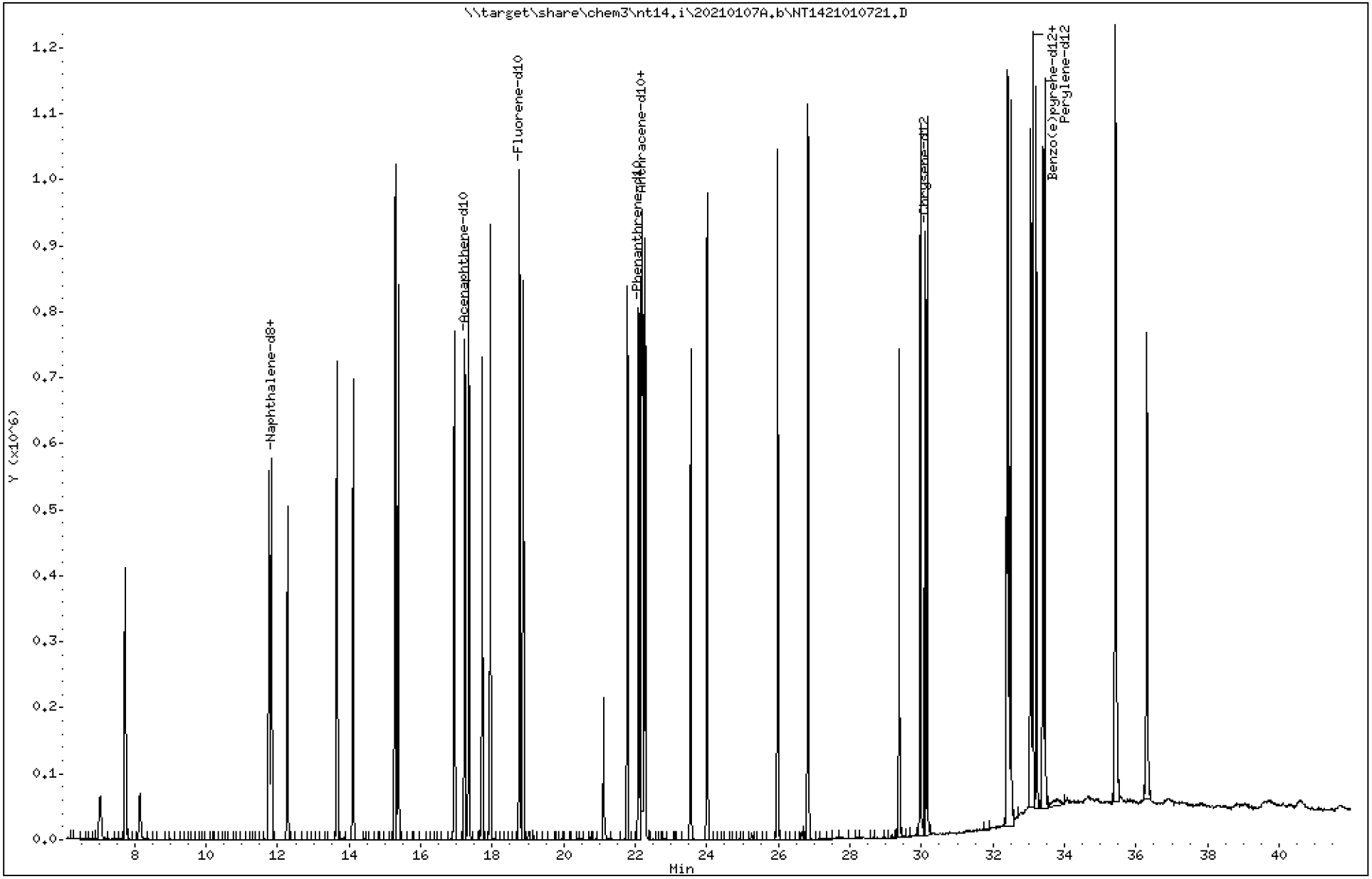
Instrument: nt14.i

Sample Info: SJA0059-ICV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

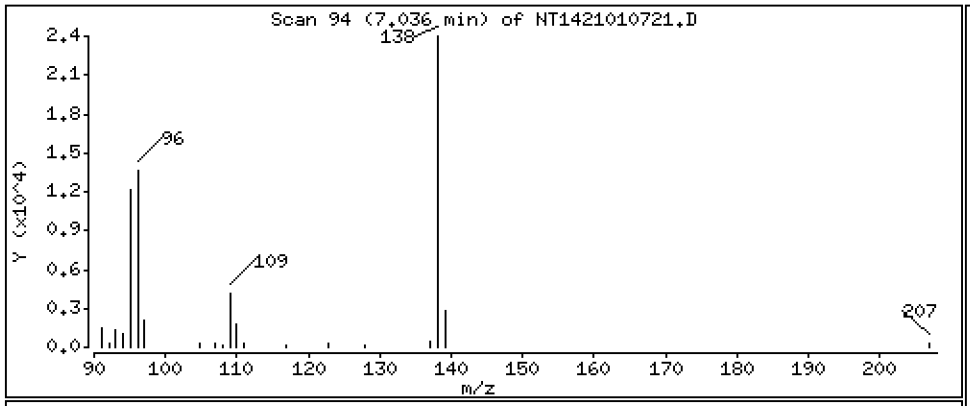
Operator: VTS

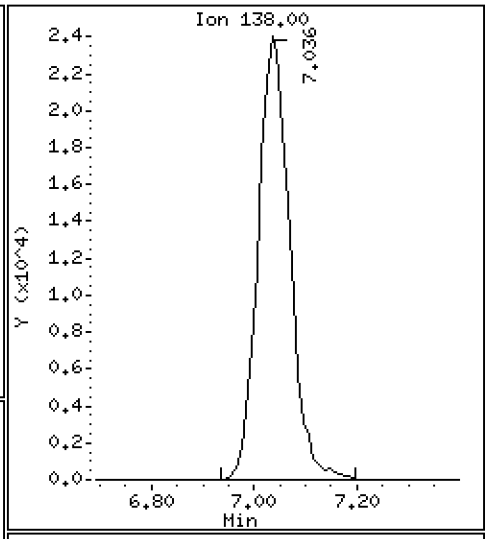
Column phase: Rxi-17Sil MS

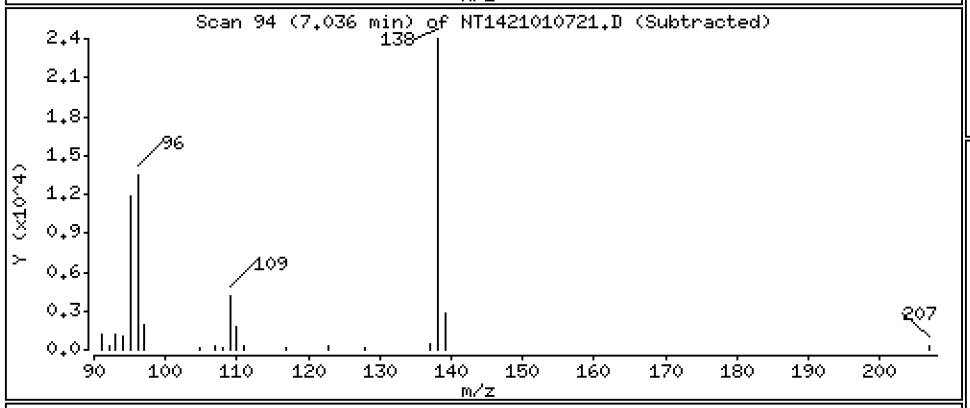
Column diameter: 0.25

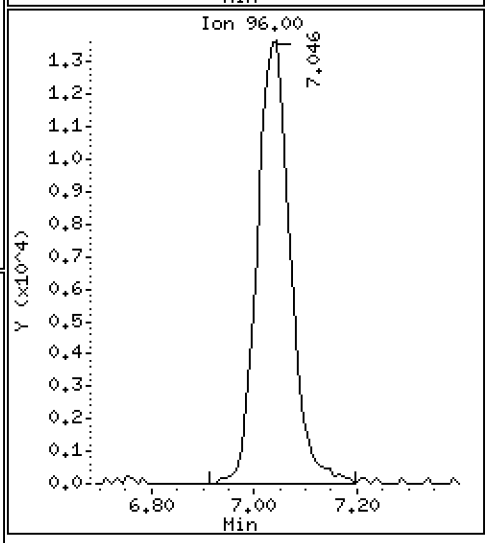
1 trans-Decalin

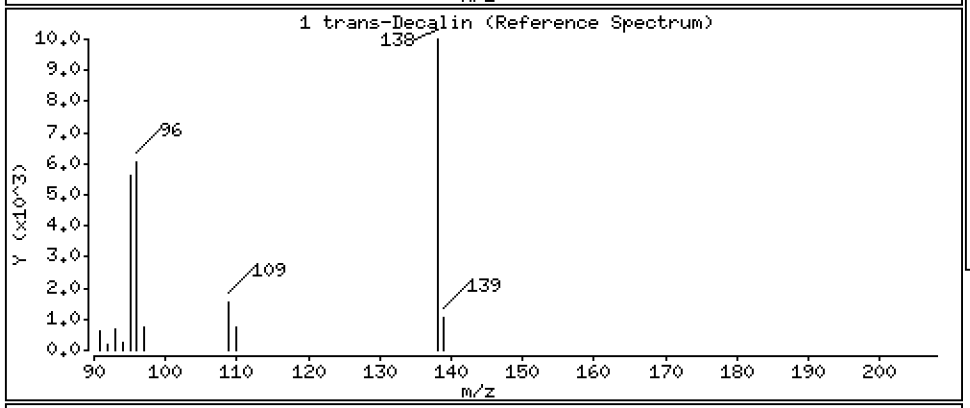
Concentration: 2.427 ug/mL

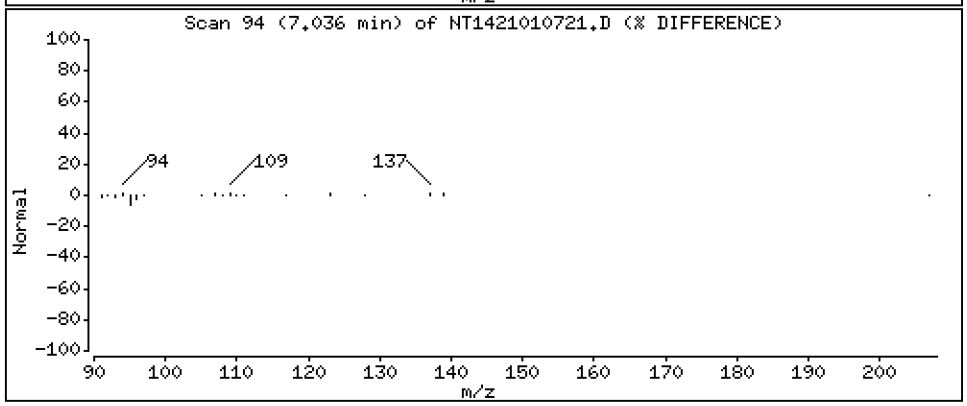












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

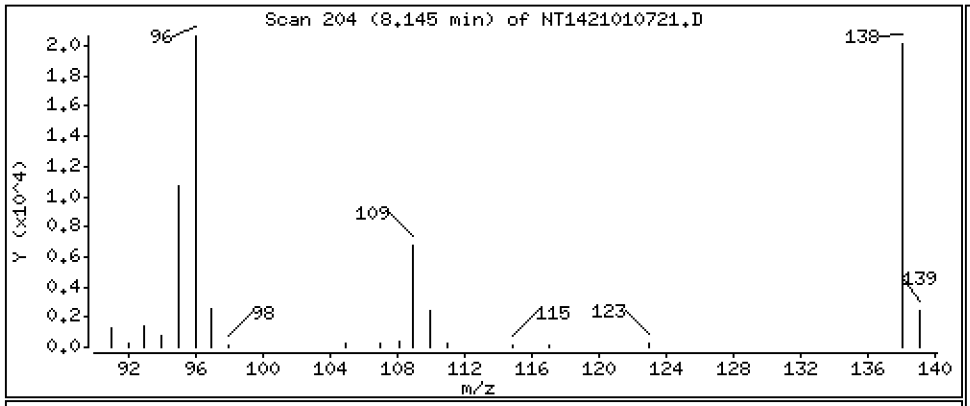
Operator: VTS

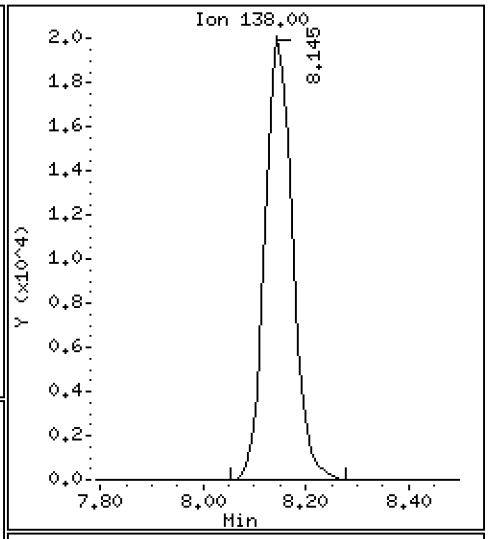
Column phase: Rxi-17Sil MS

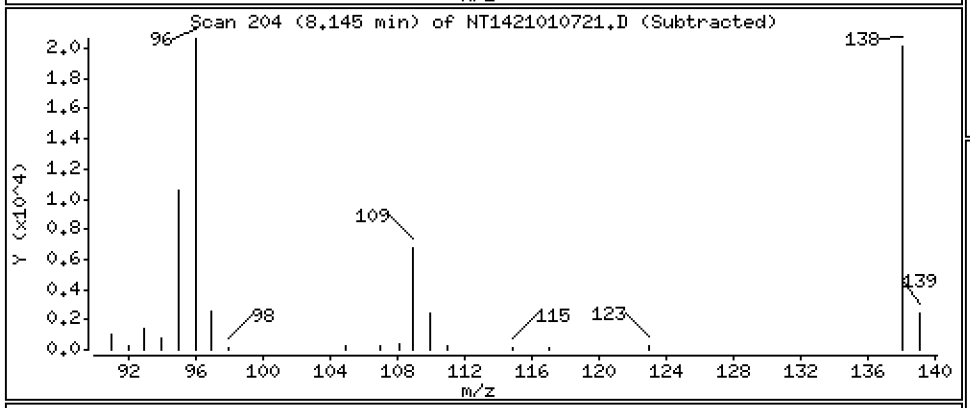
Column diameter: 0.25

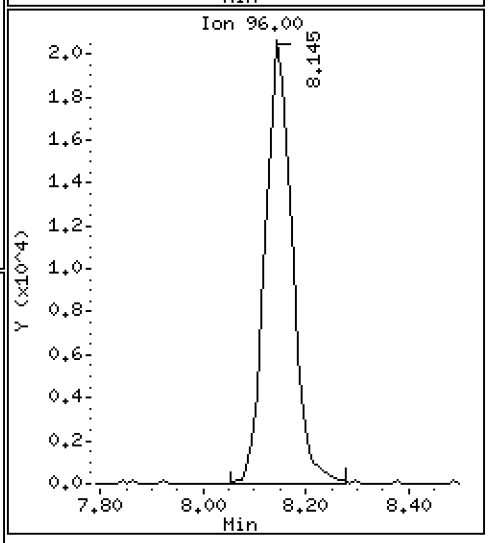
2 cis-Decalin

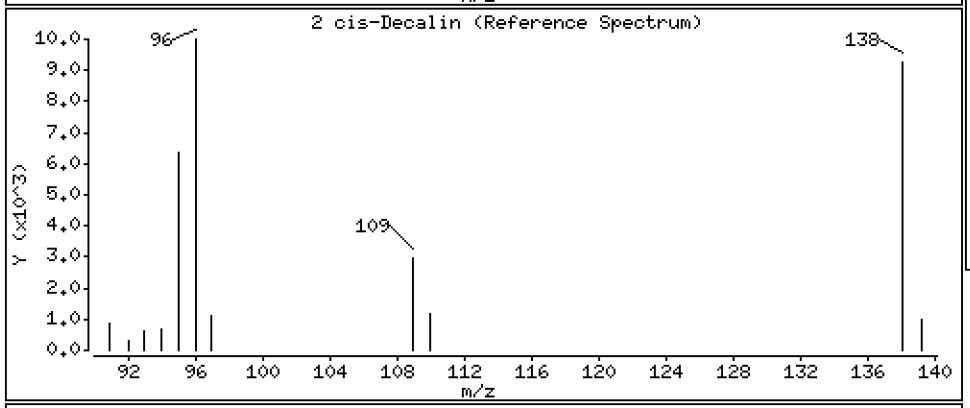
Concentration: 2.453 ug/mL

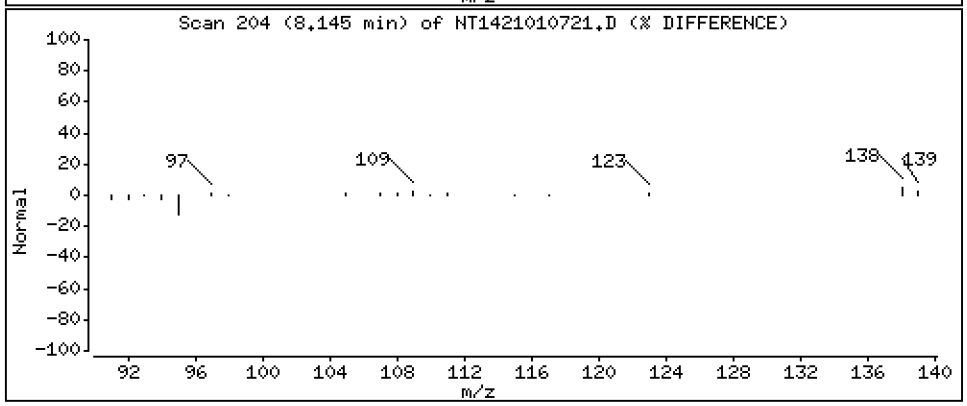












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

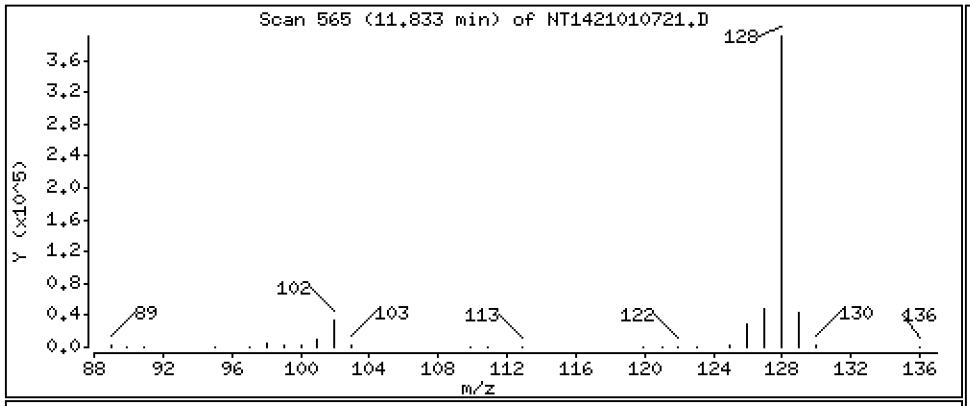
Operator: VTS

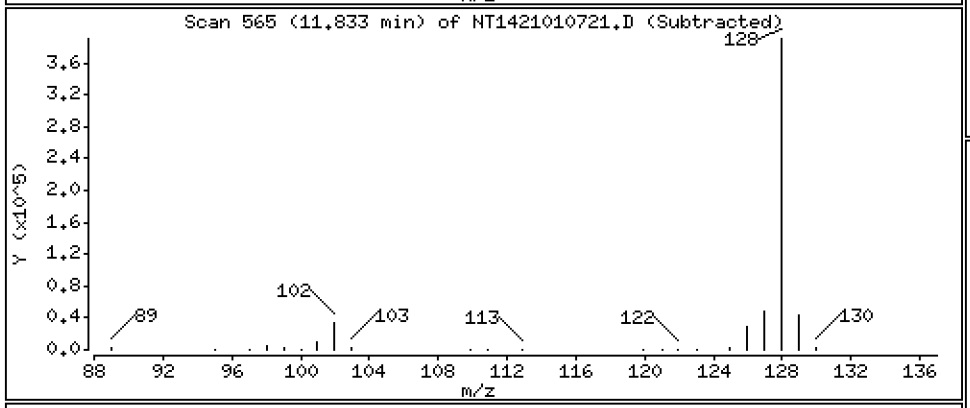
Column phase: Rxi-17Sil MS

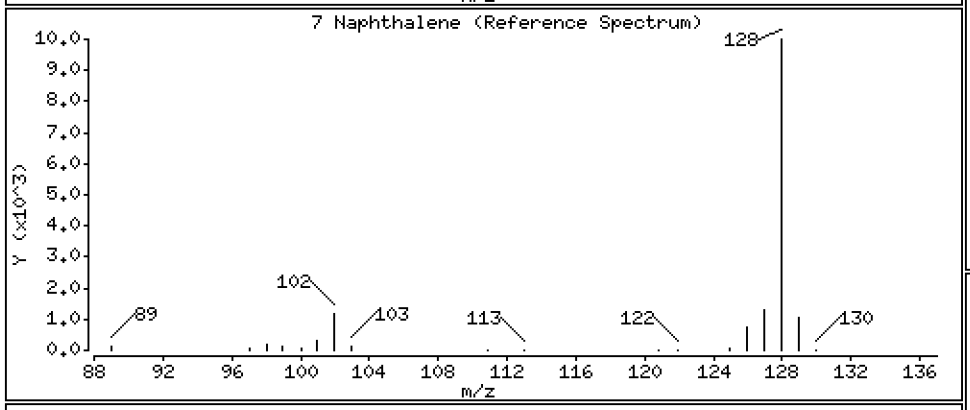
Column diameter: 0.25

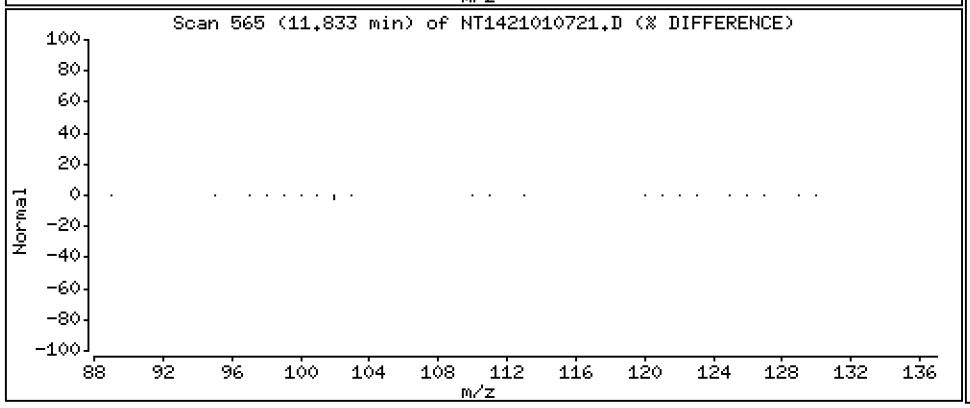
7 Naphthalene

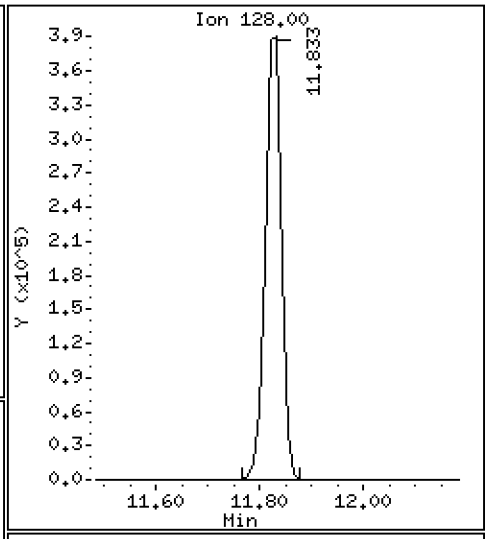
Concentration: 2.480 ug/mL

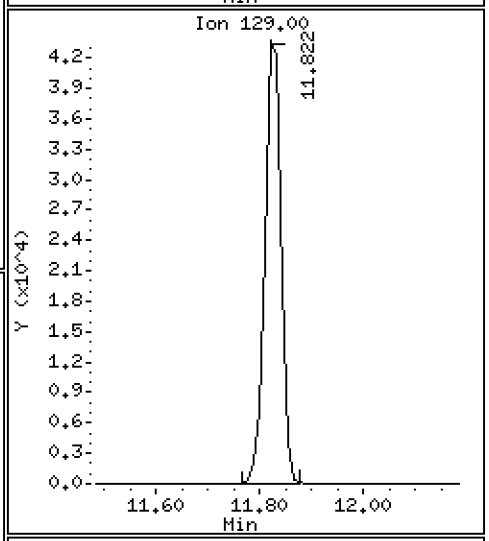


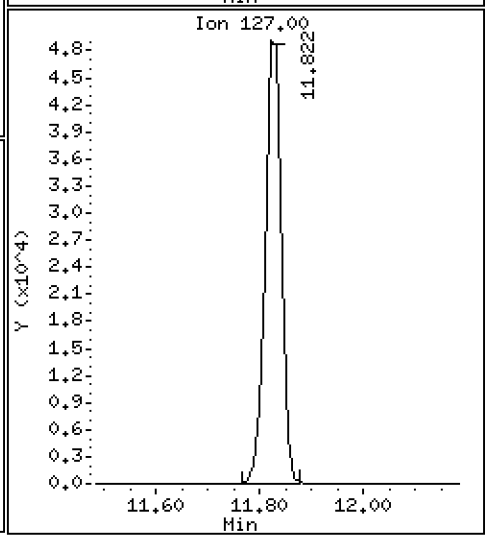












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

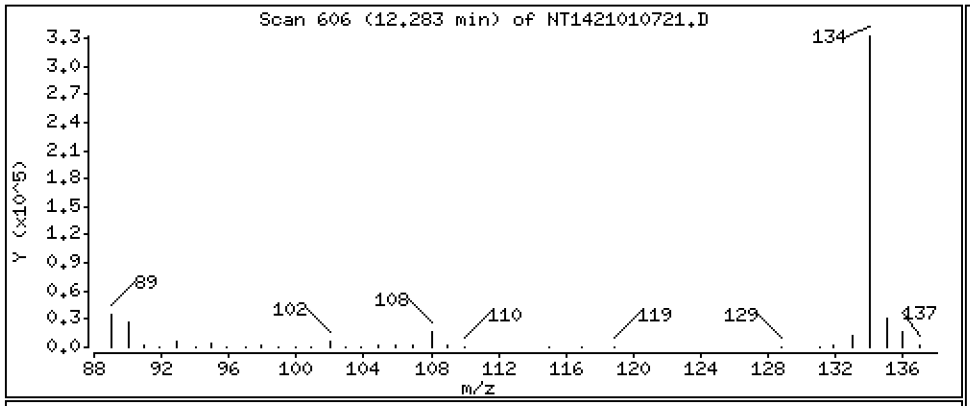
Operator: VTS

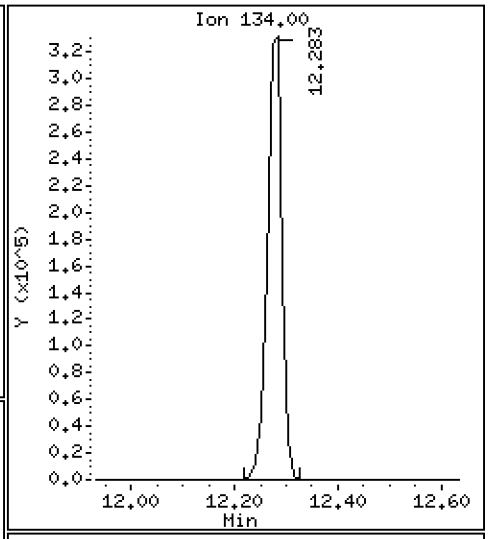
Column phase: Rxi-17Sil MS

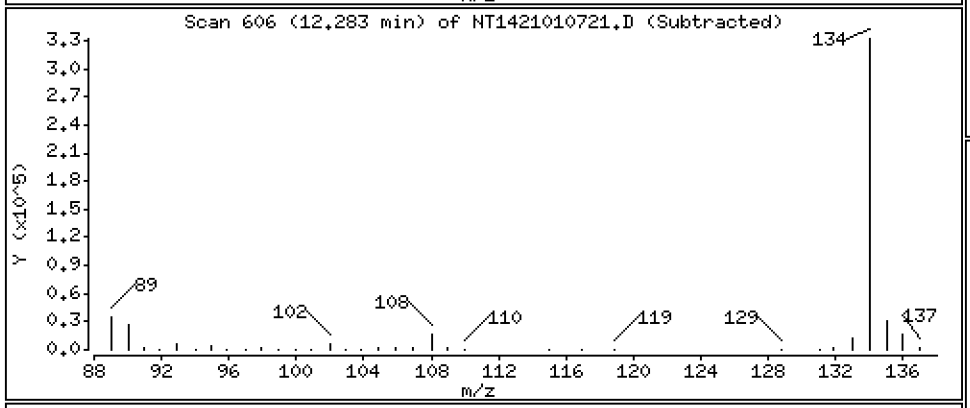
Column diameter: 0.25

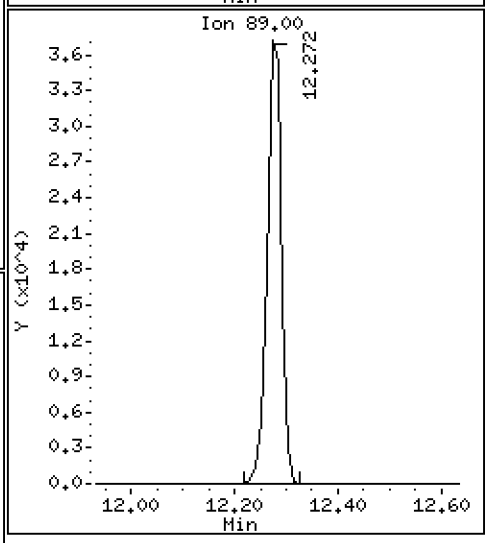
12 Benzo(b)thiophene

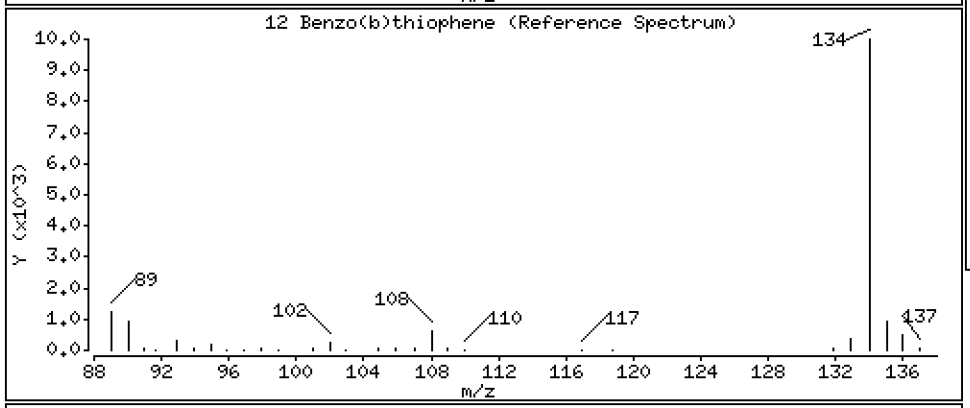
Concentration: 2.491 ug/mL

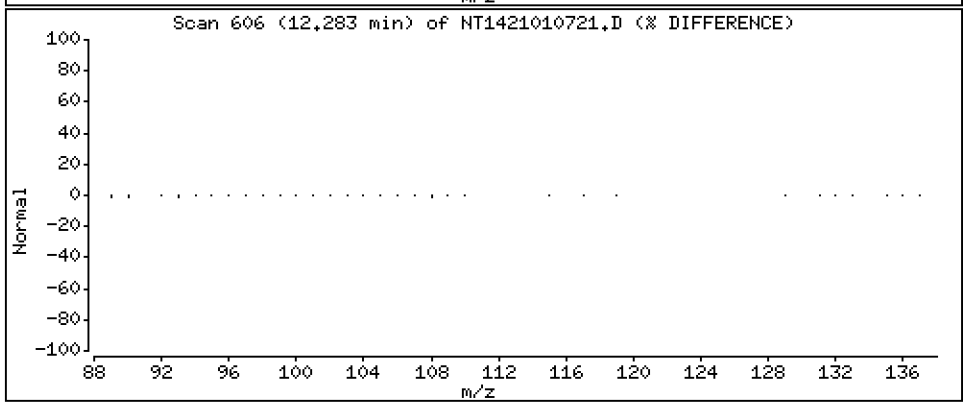












Data File: \\target\share\chem3\nt14.i\20210107A.b\NT1421010721.D

Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

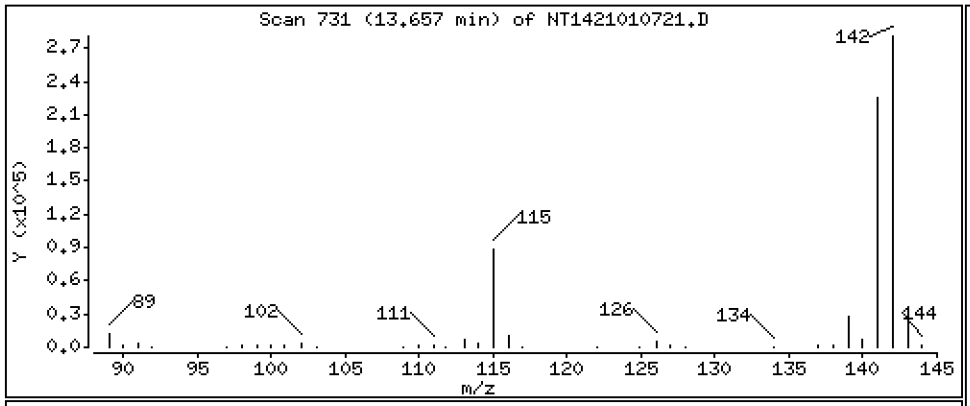
Operator: VTS

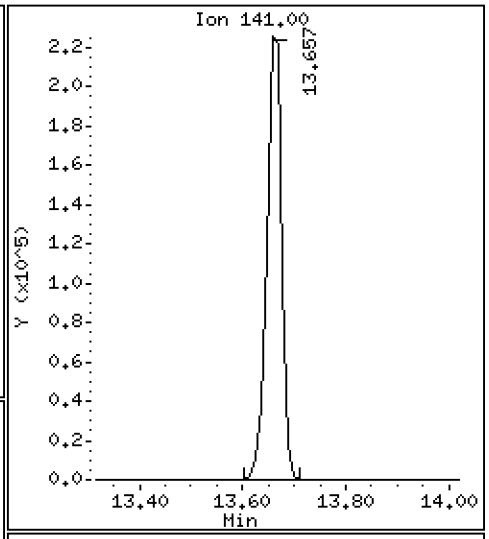
Column phase: Rxi-17Sil MS

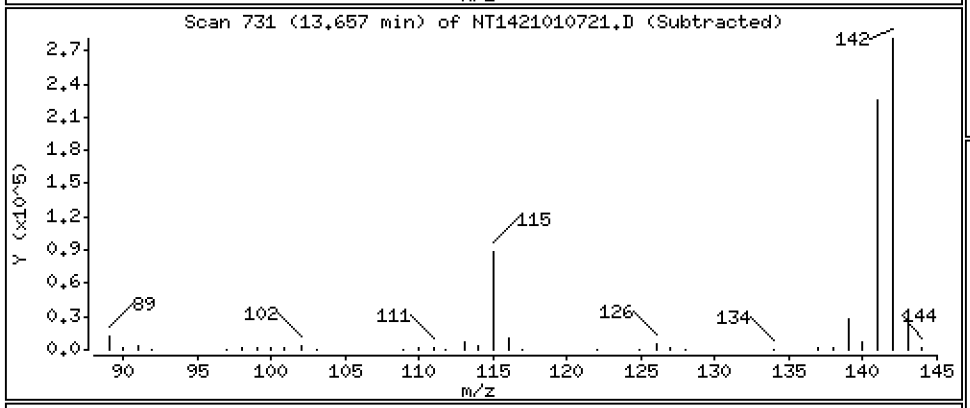
Column diameter: 0.25

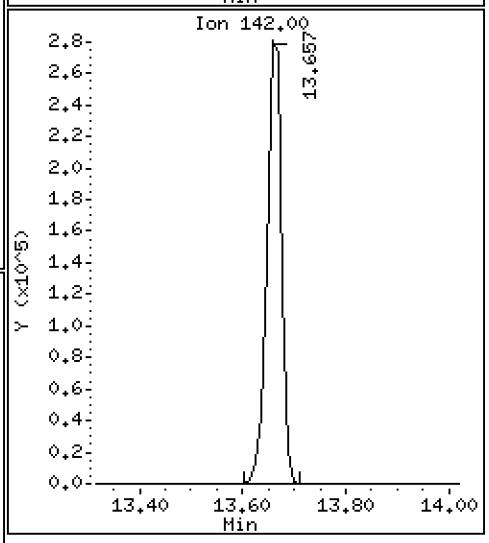
16 2-Methylnaphthalene

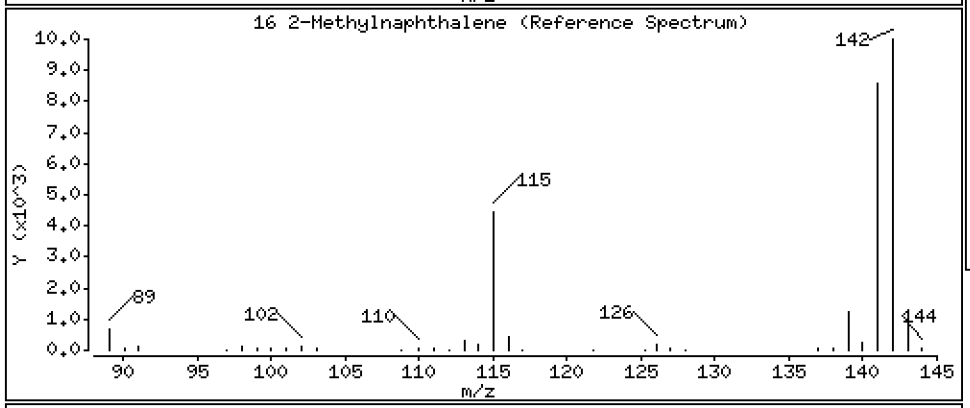
Concentration: 2.485 ug/mL

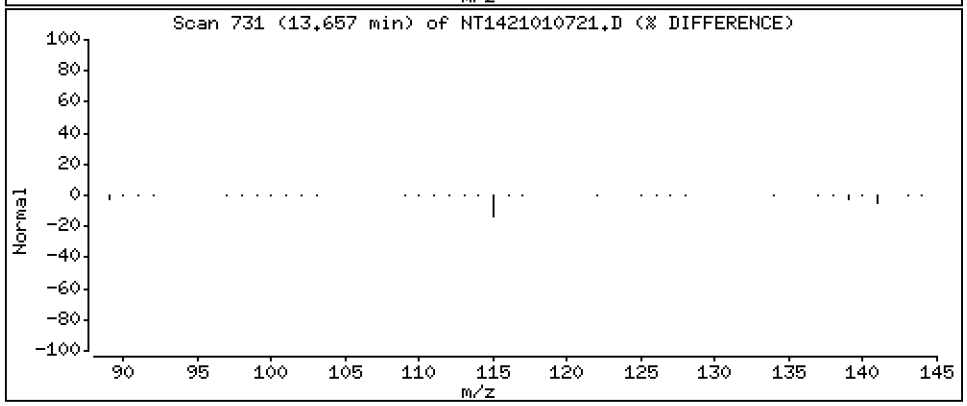












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

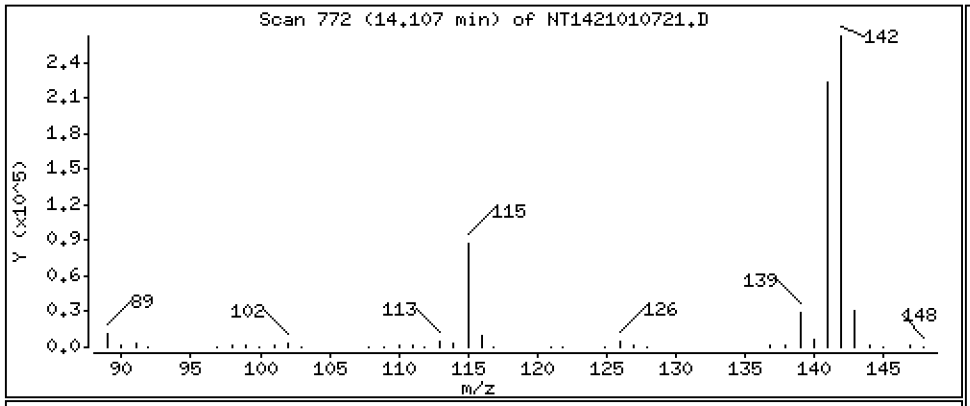
Operator: VTS

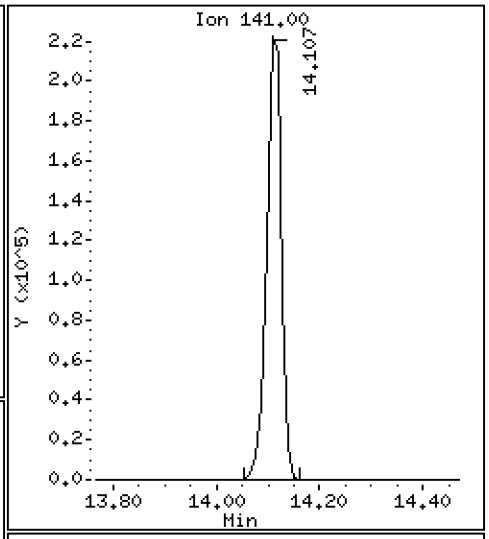
Column phase: Rxi-17Sil MS

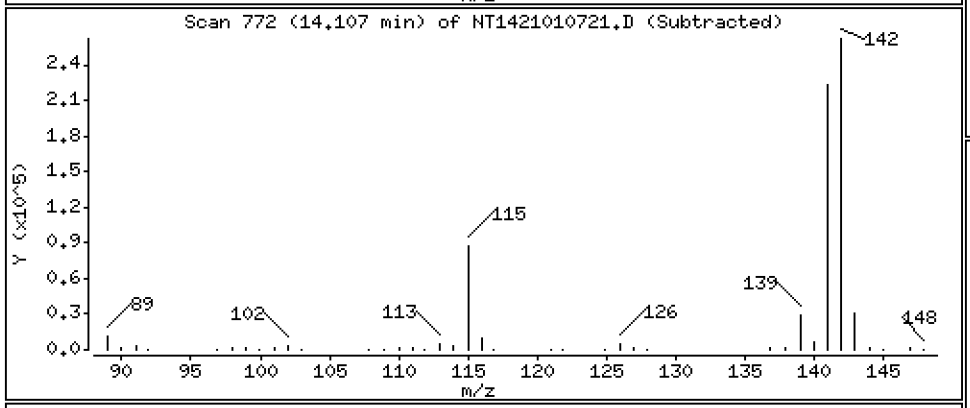
Column diameter: 0.25

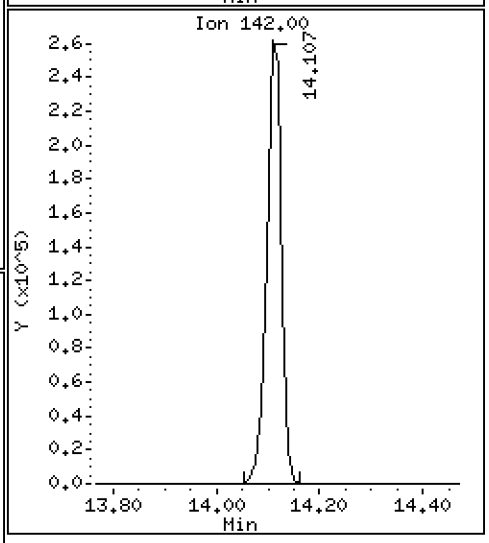
17 1-methylnaphthalene

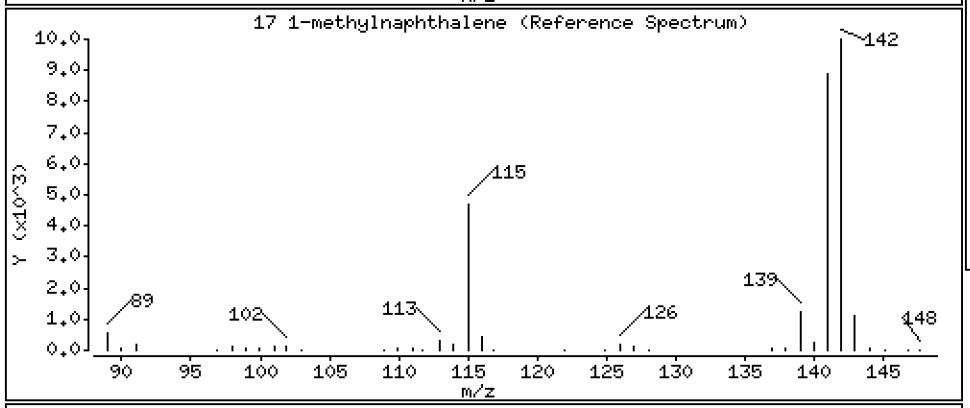
Concentration: 2.489 ug/mL

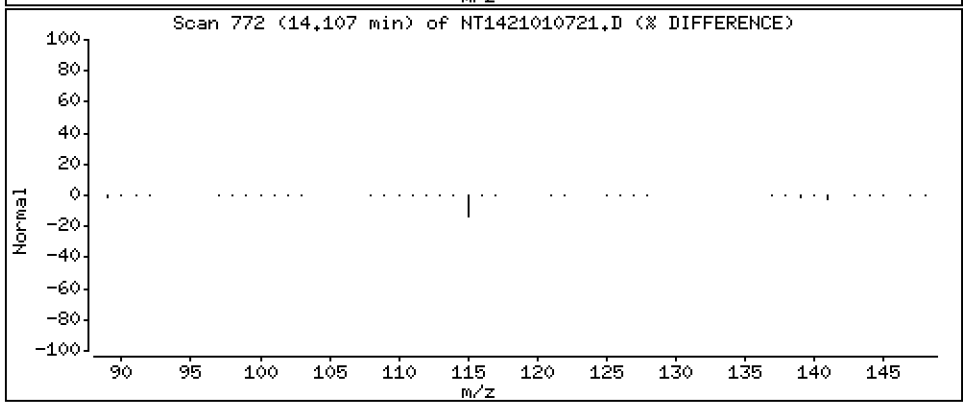












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

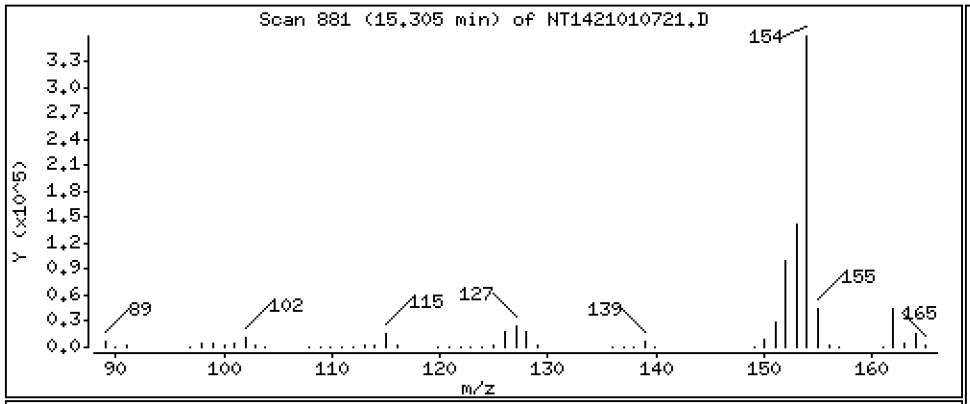
Operator: VTS

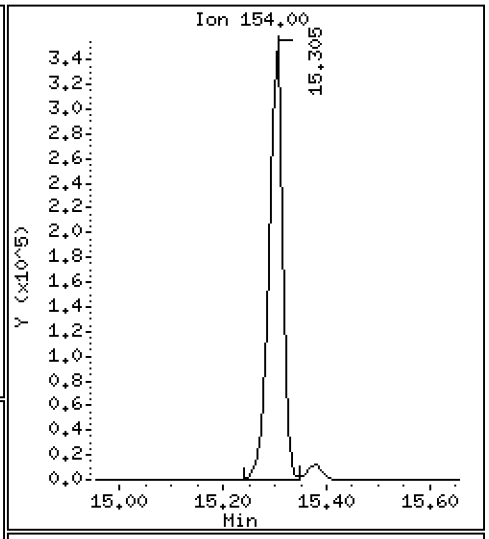
Column phase: Rxi-17Sil MS

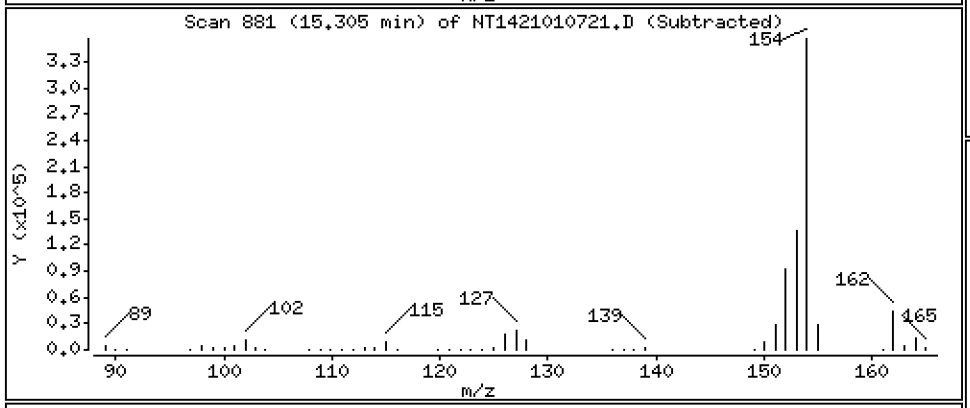
Column diameter: 0.25

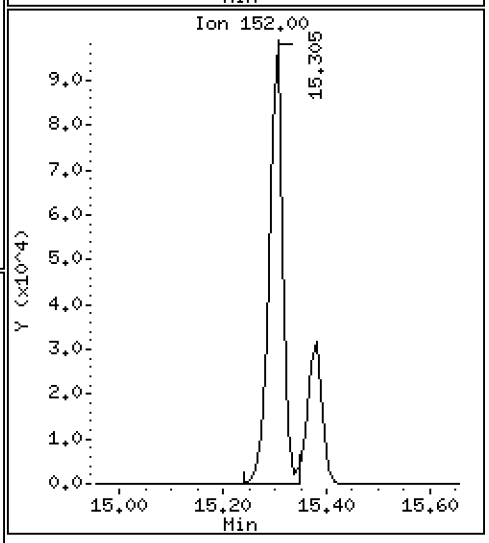
18 Biphenyl

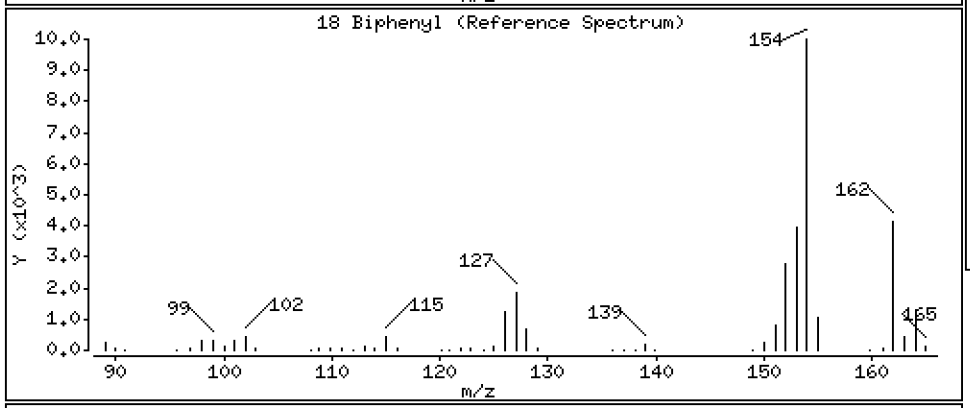
Concentration: 2.466 ug/mL

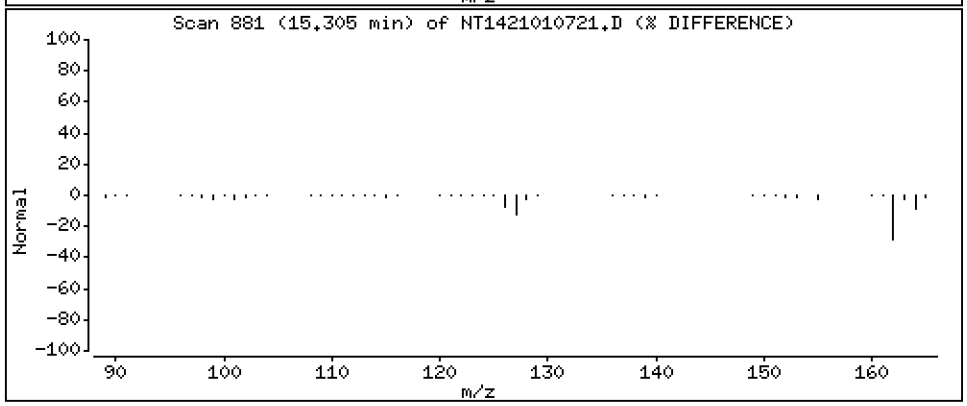












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

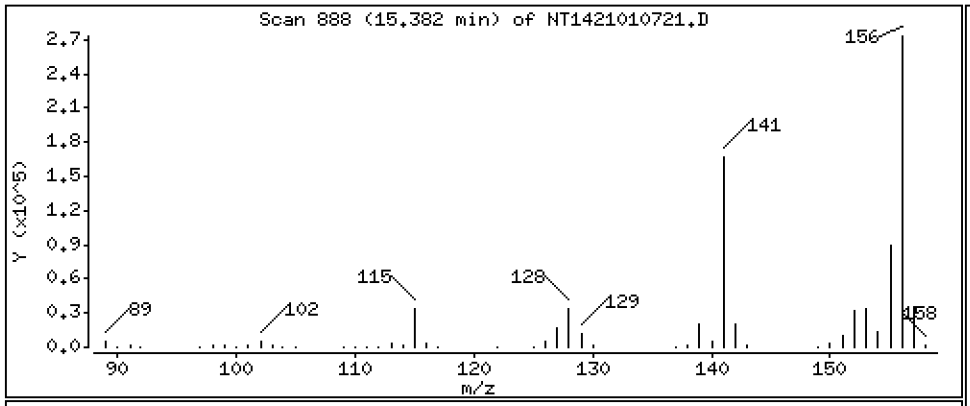
Operator: VTS

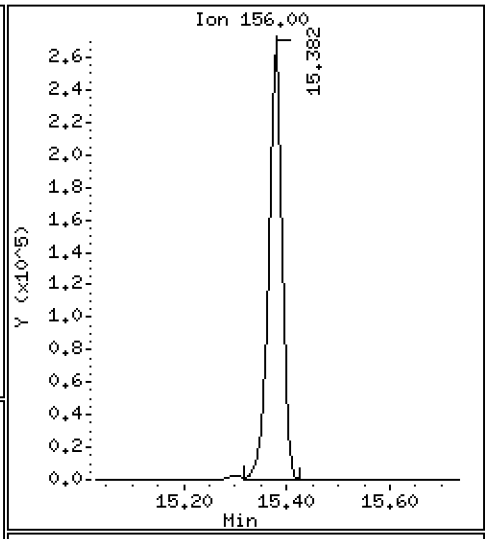
Column phase: Rxi-17Sil MS

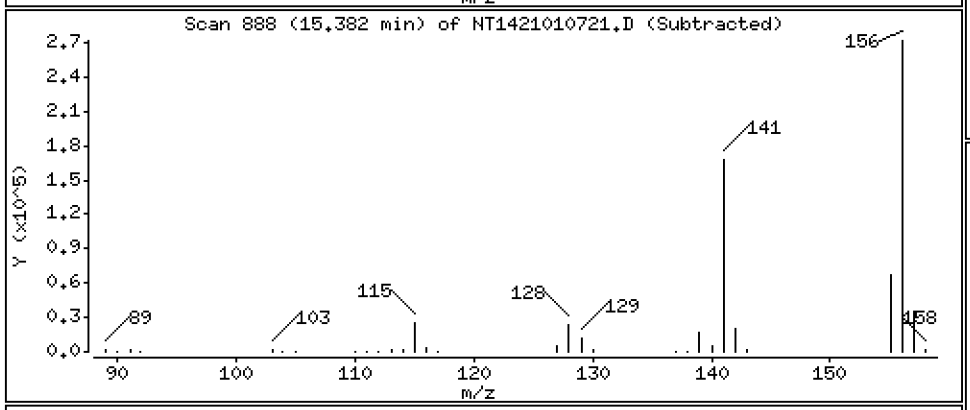
Column diameter: 0.25

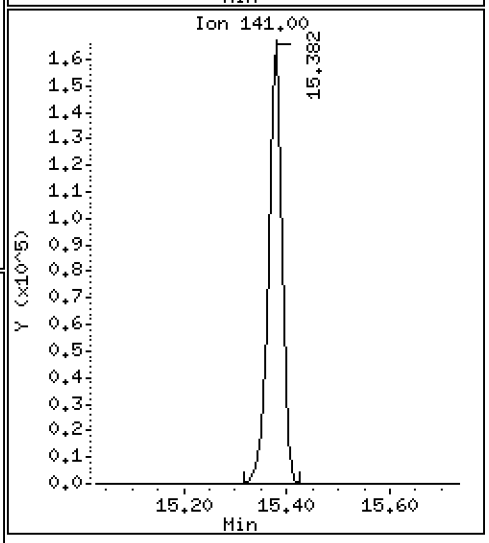
19 2,6-Dimethylnaphthalene

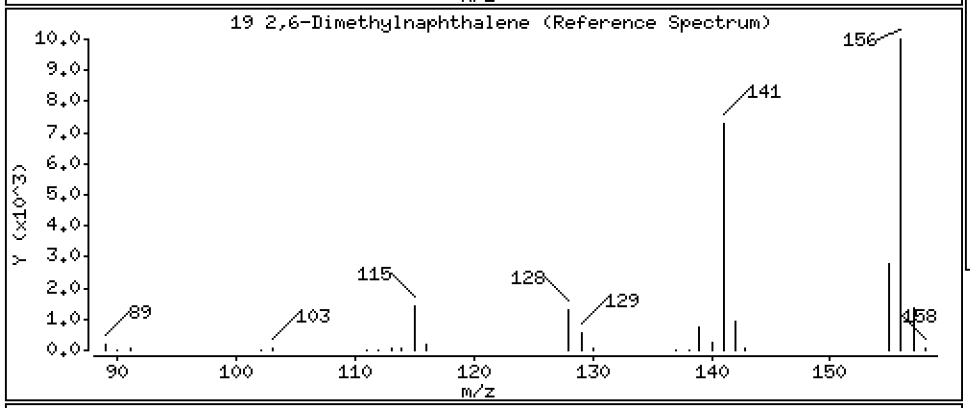
Concentration: 2.541 ug/mL

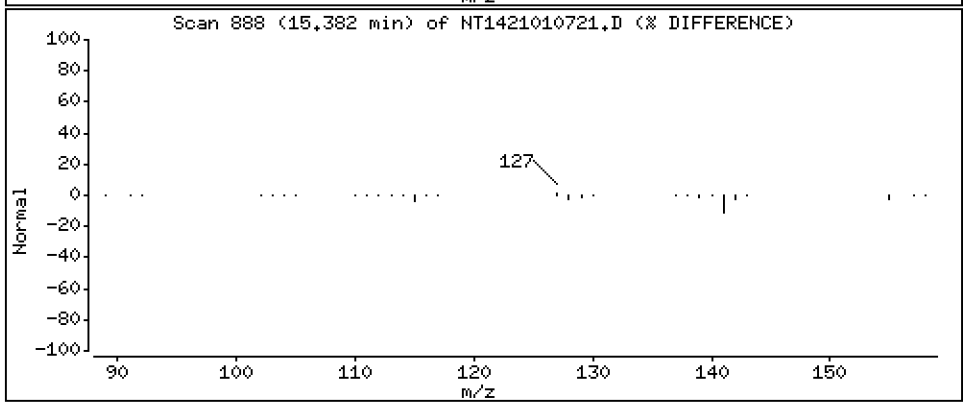












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

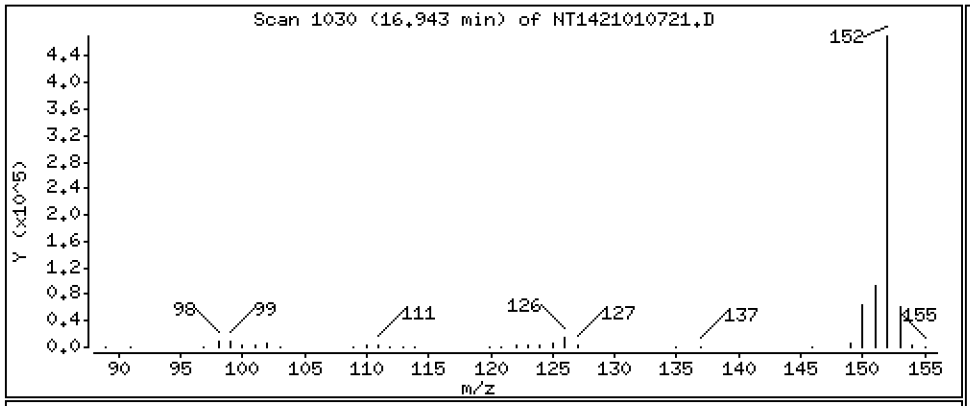
Operator: VTS

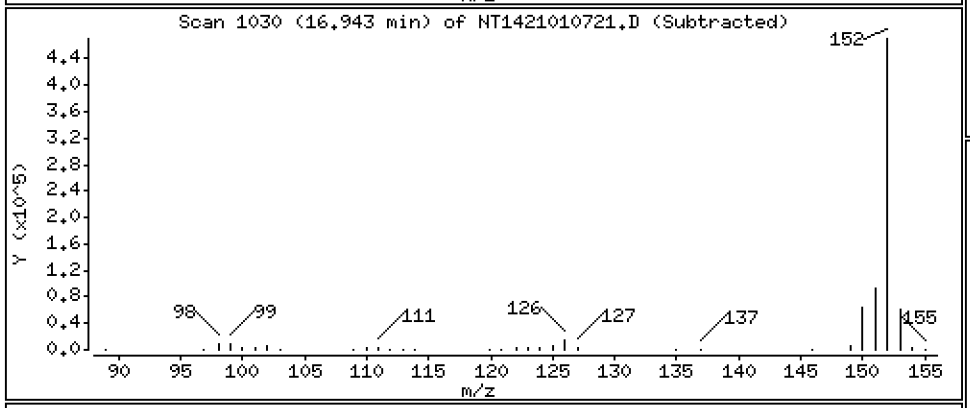
Column phase: Rxi-17Sil MS

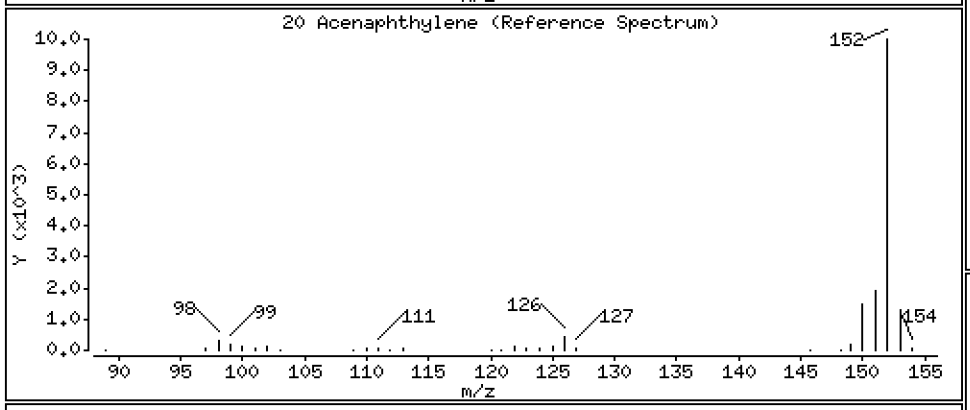
Column diameter: 0.25

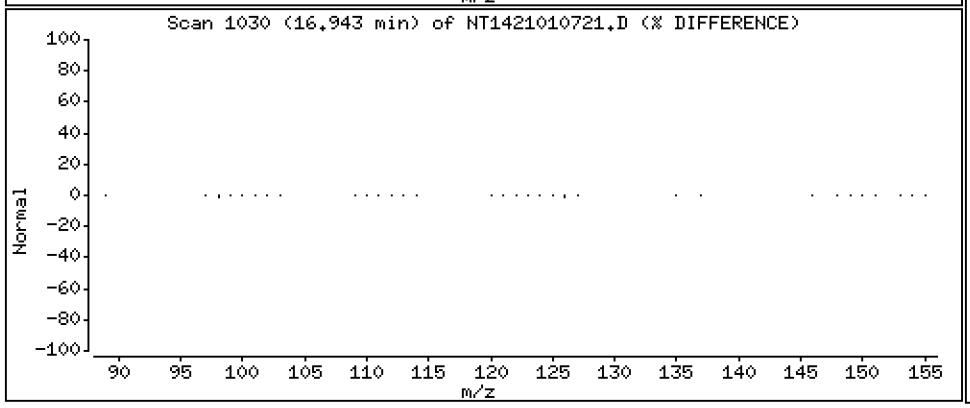
20 Acenaphthylene

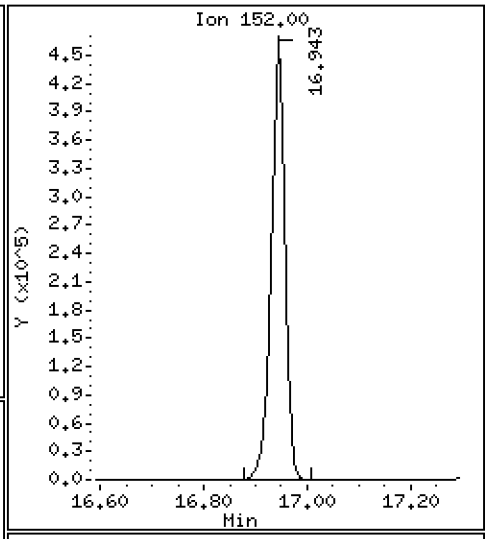
Concentration: 2.640 ug/mL

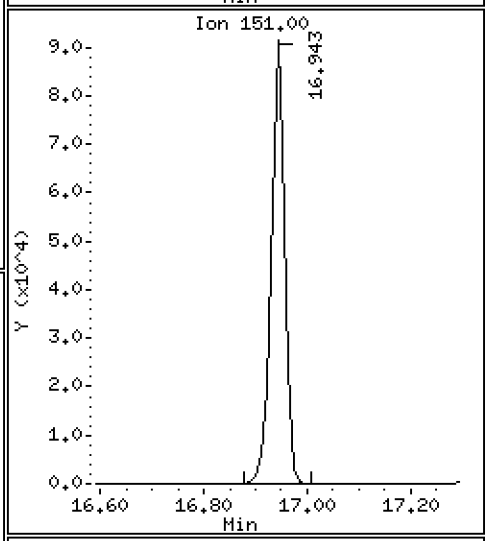


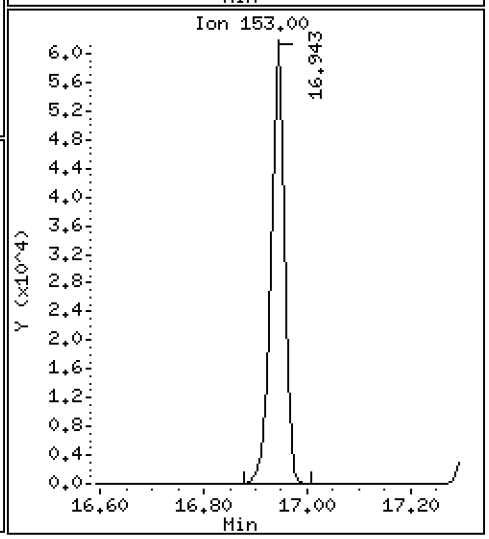












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

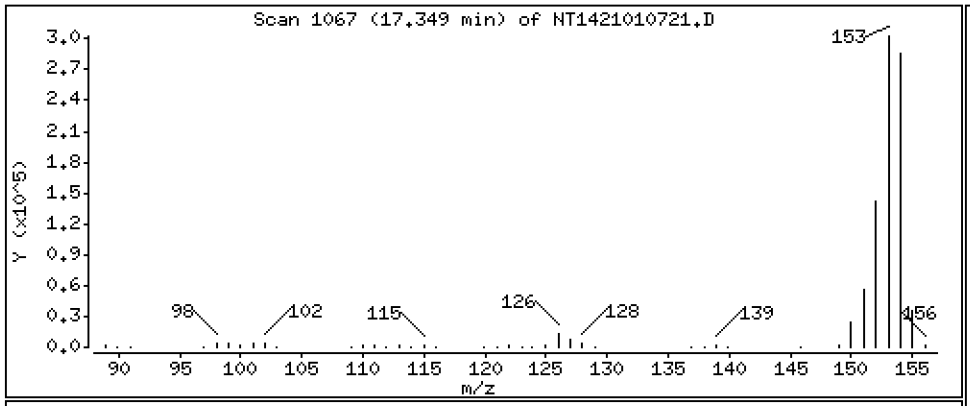
Operator: VTS

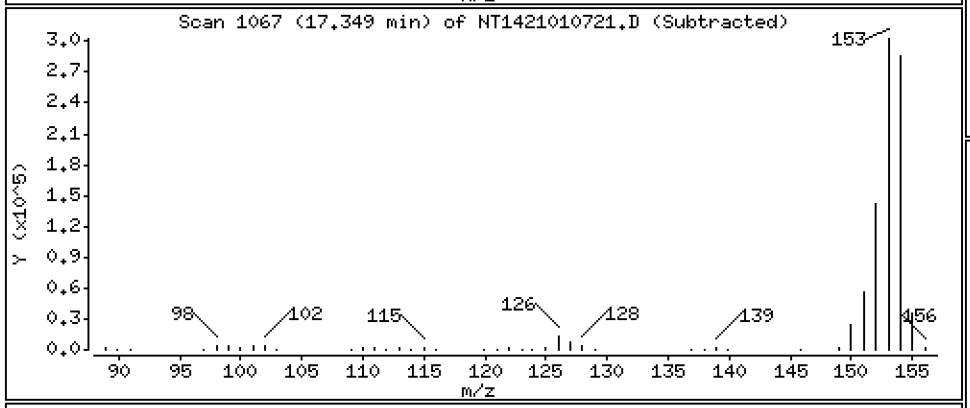
Column phase: Rxi-17Sil MS

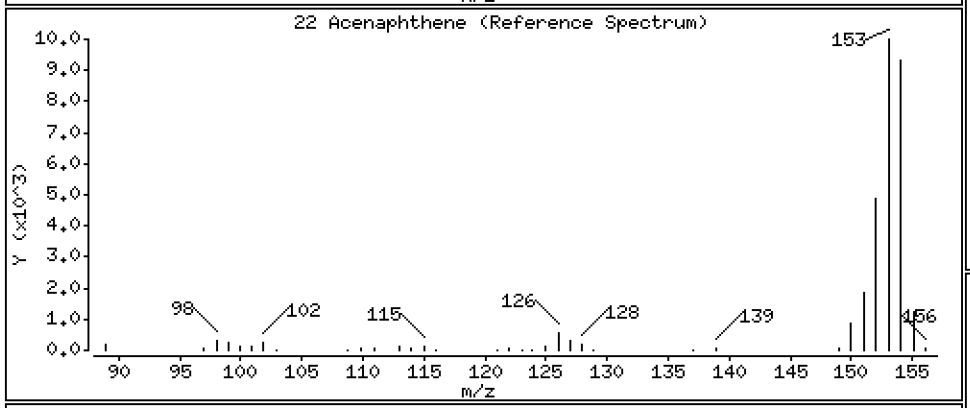
Column diameter: 0.25

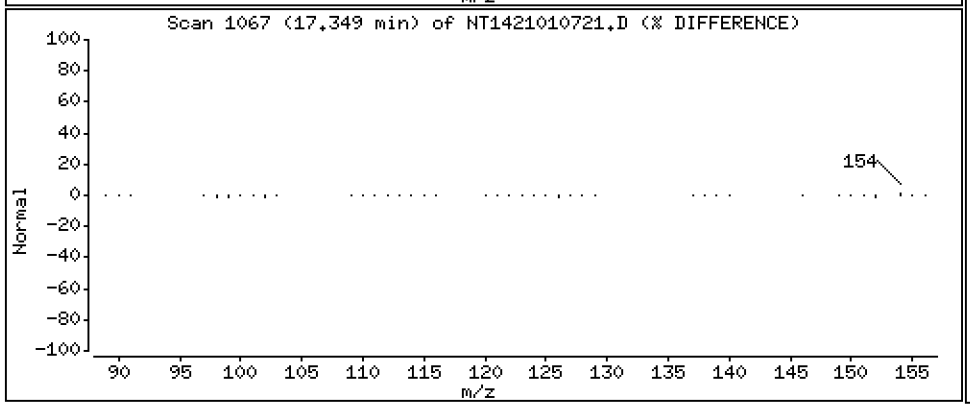
22 Acenaphthene

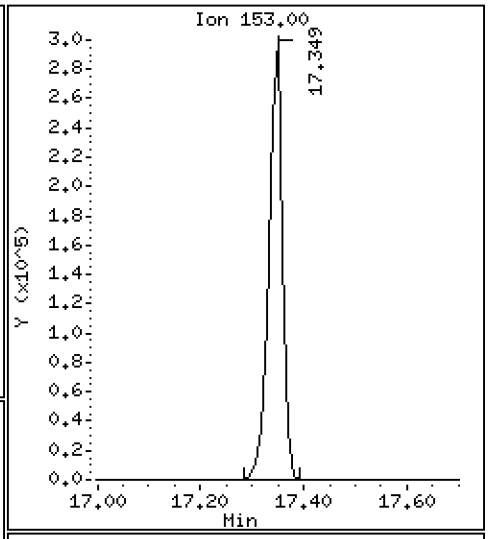
Concentration: 2.571 ug/mL

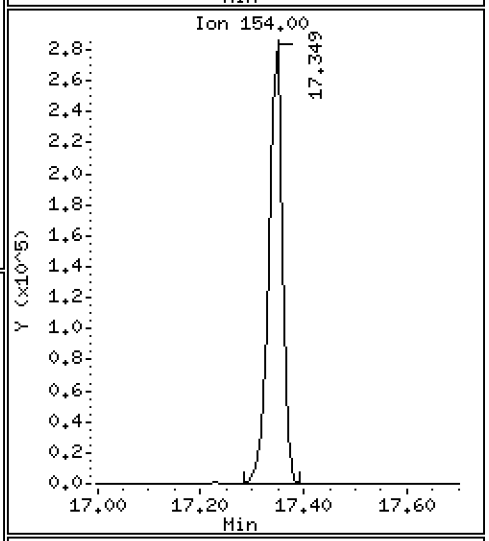


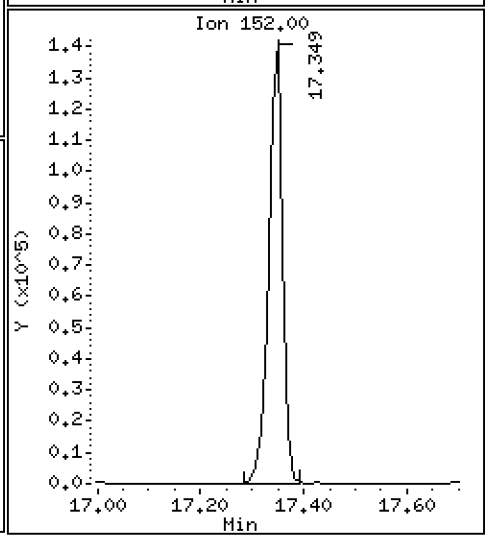












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

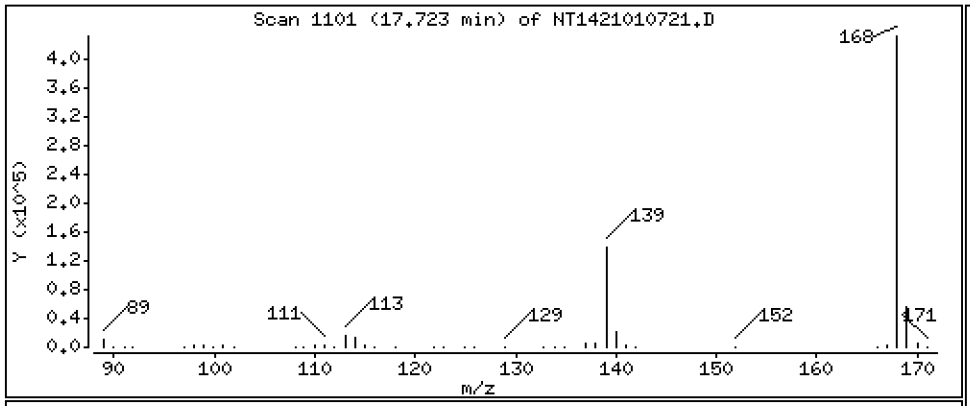
Operator: VTS

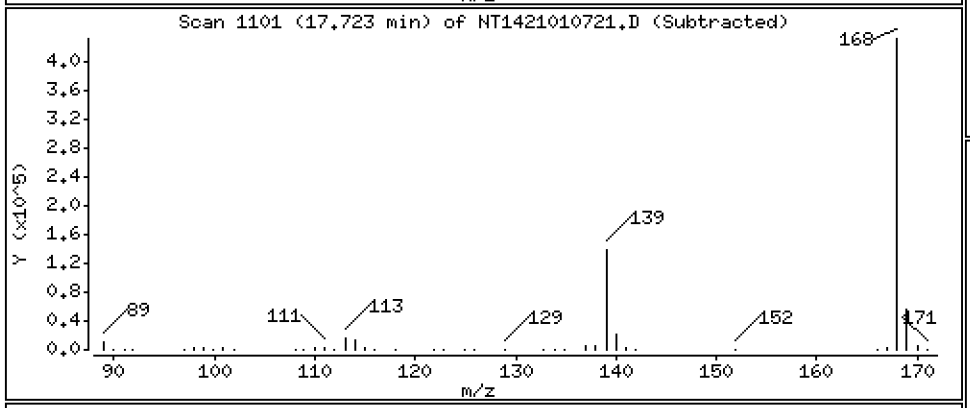
Column phase: Rxi-17Sil MS

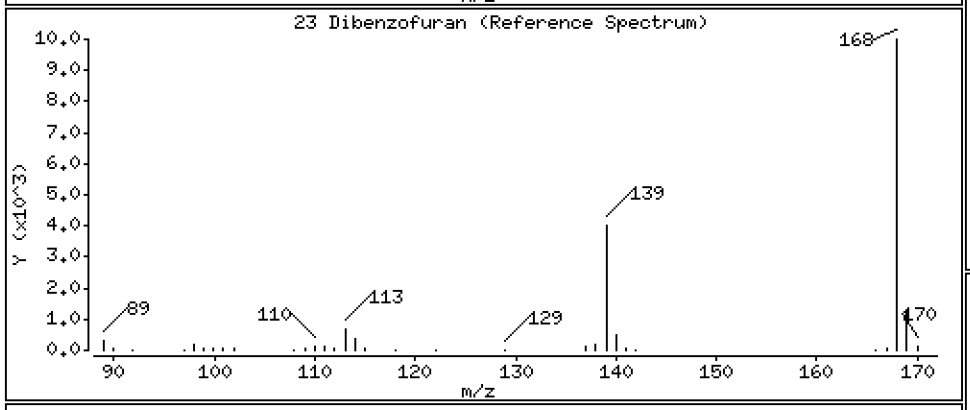
Column diameter: 0.25

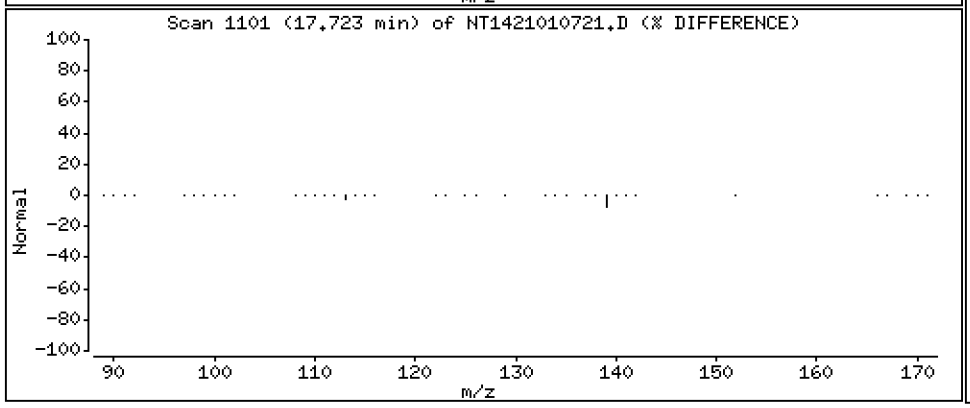
23 Dibenzofuran

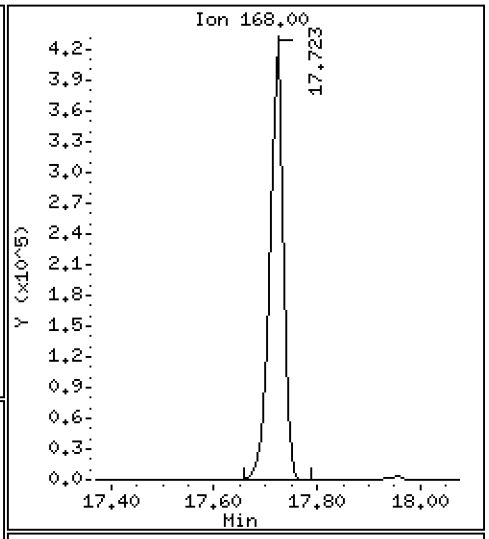
Concentration: 2.565 ug/mL

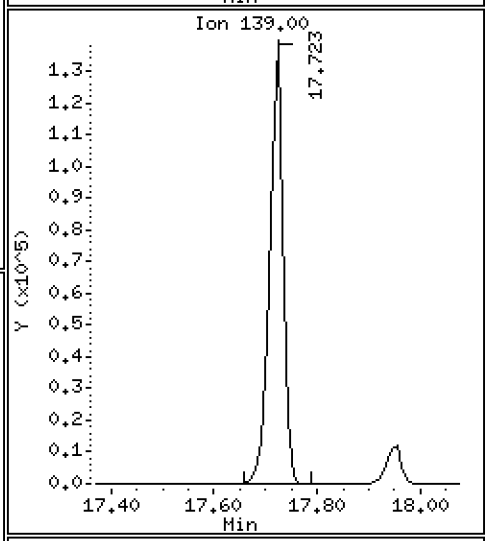


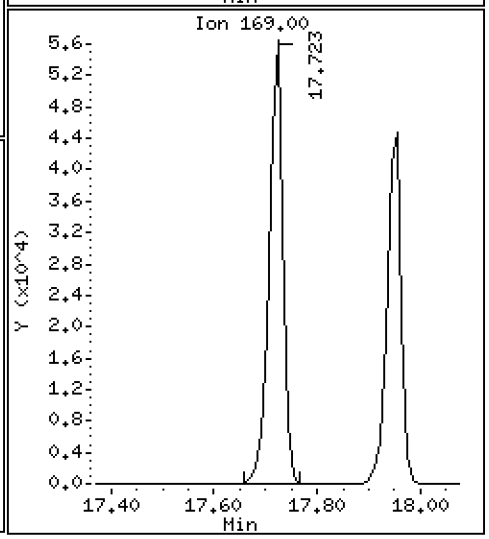












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

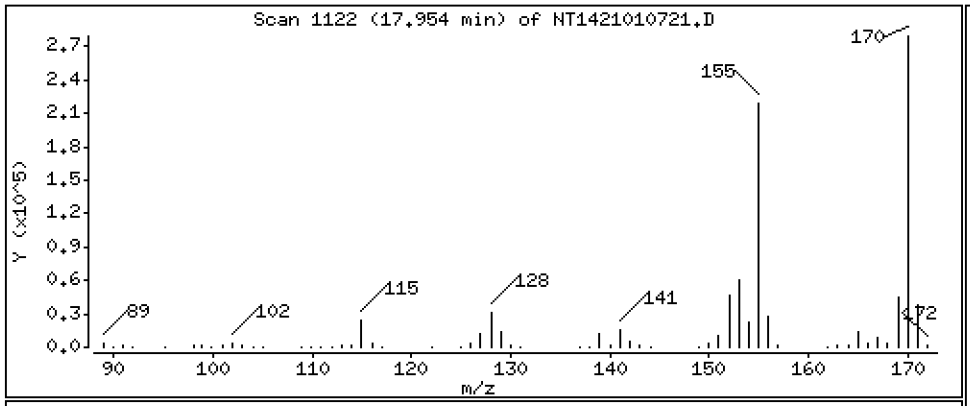
Operator: VTS

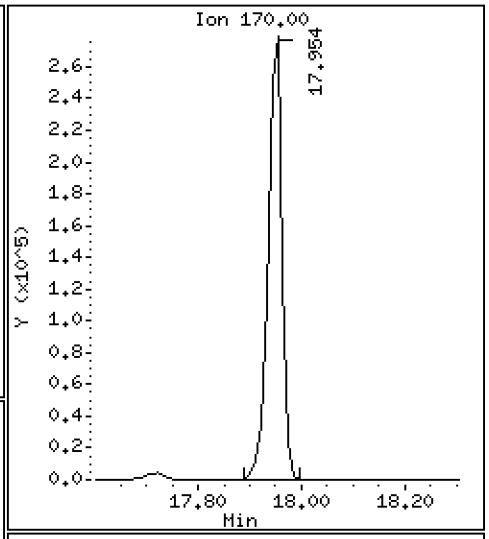
Column phase: Rxi-17Sil MS

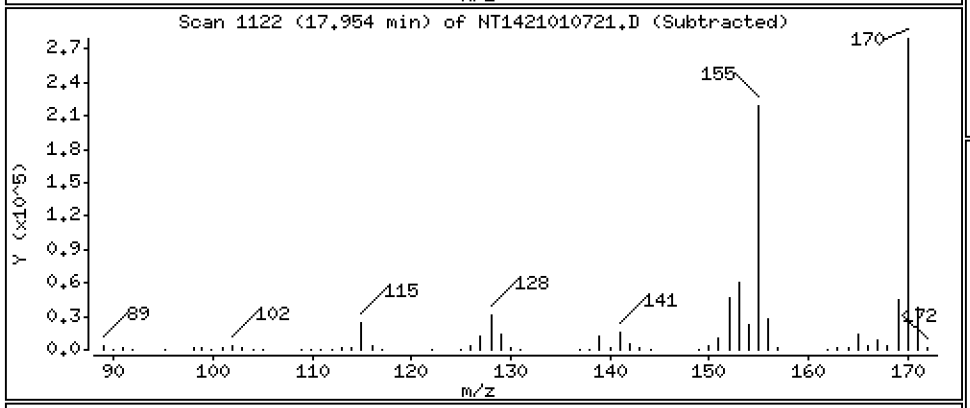
Column diameter: 0.25

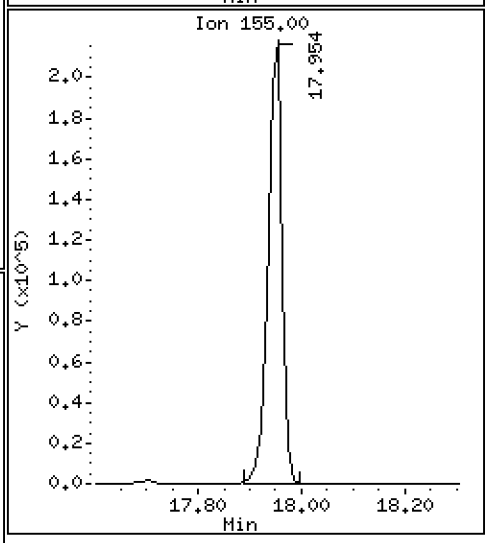
24 1,6,7-Trimethylnaphthalene

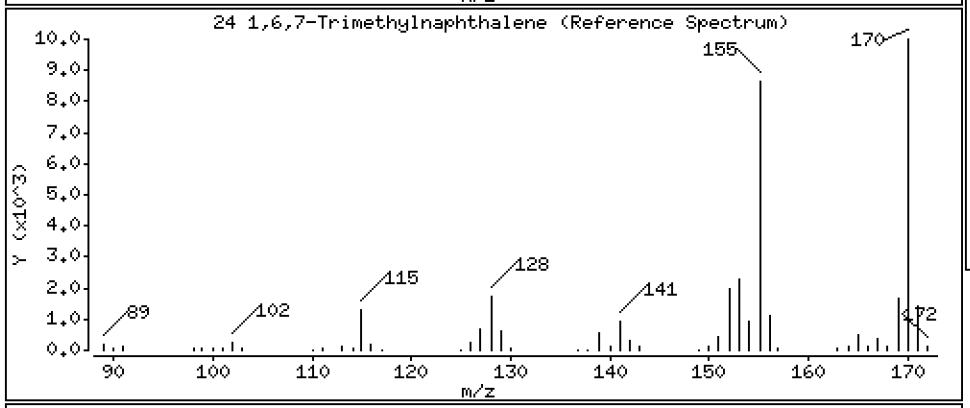
Concentration: 2.650 ug/mL

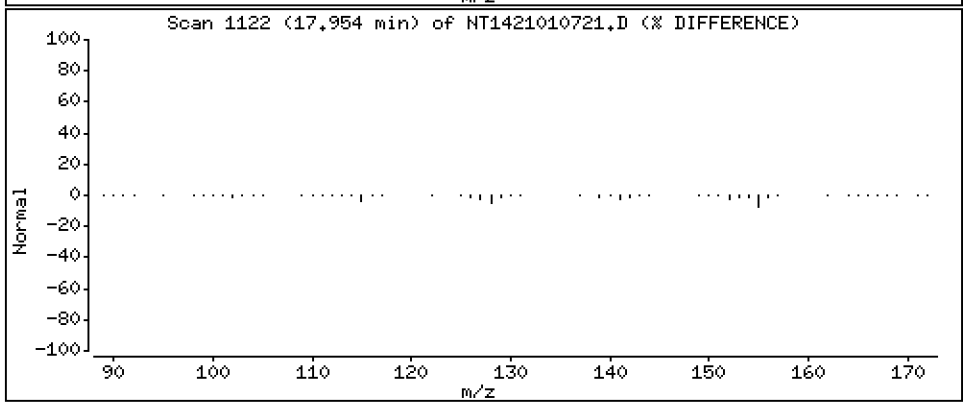












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

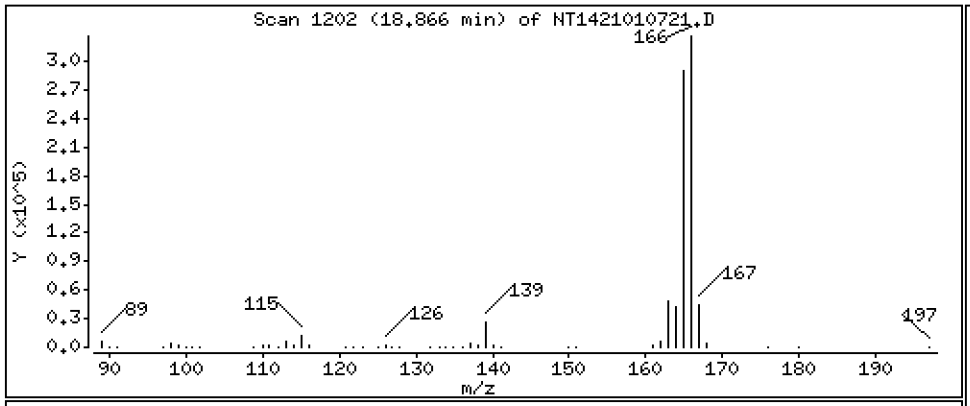
Operator: VTS

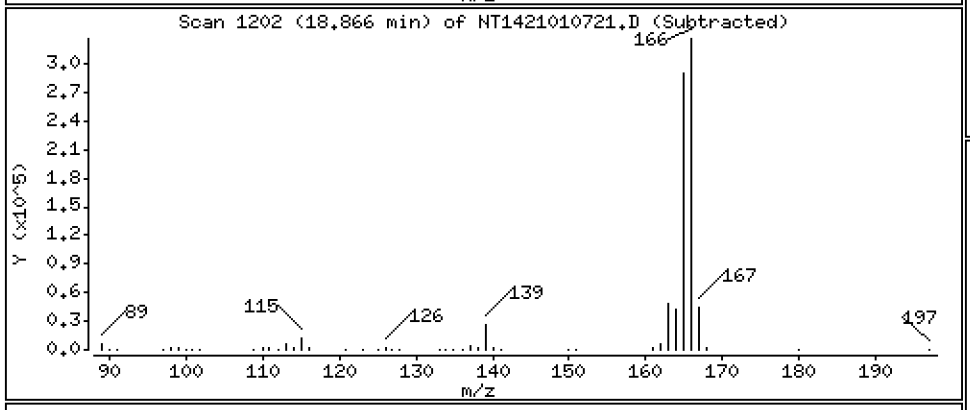
Column phase: Rxi-17Sil MS

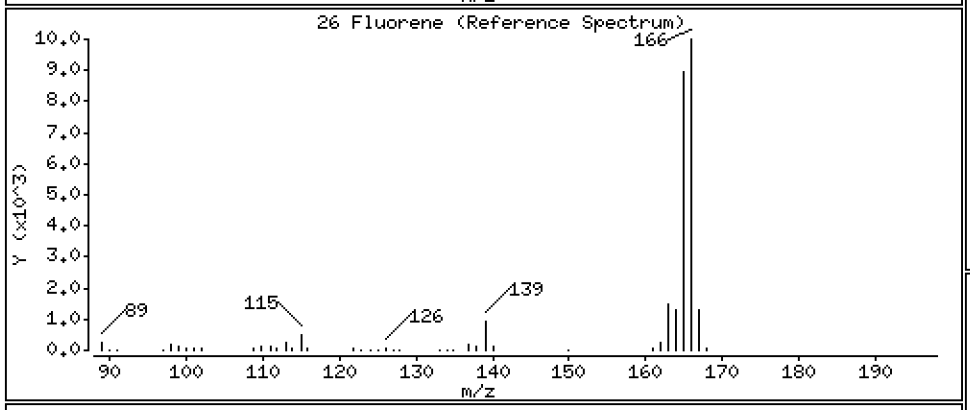
Column diameter: 0.25

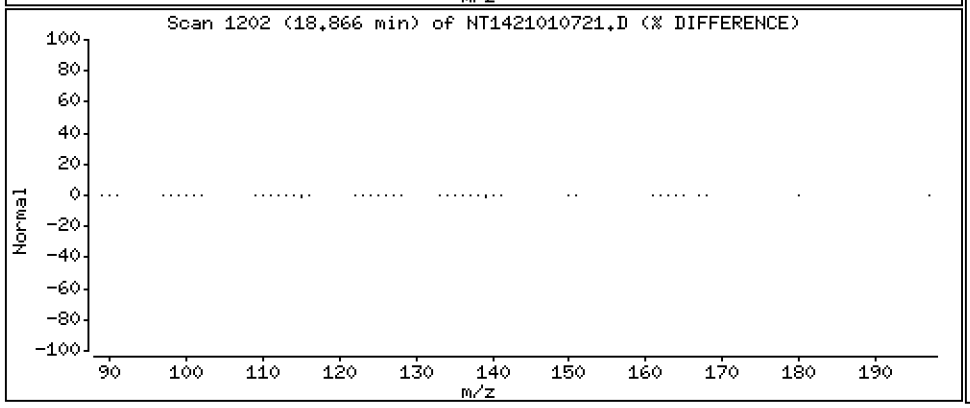
26 Fluorene

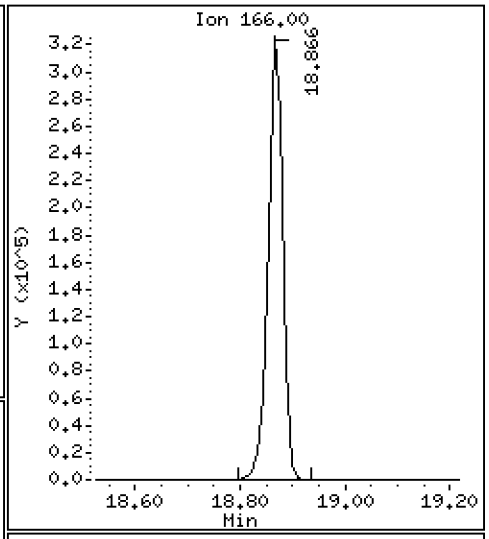
Concentration: 2.634 ug/mL

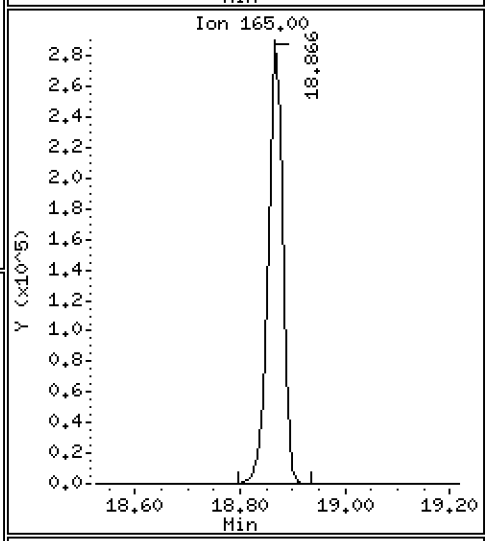


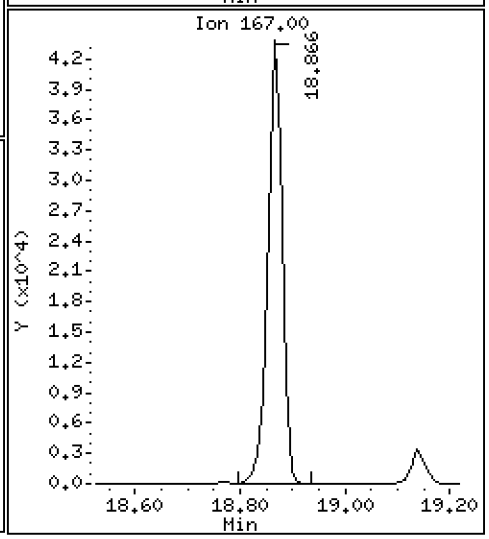












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

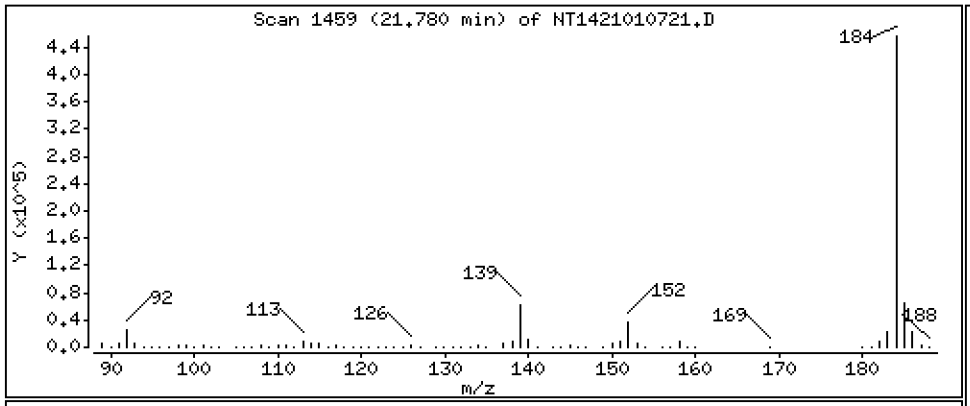
Operator: VTS

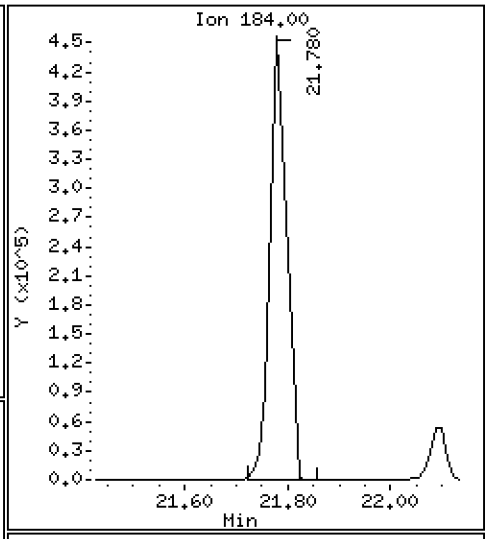
Column phase: Rxi-17Sil MS

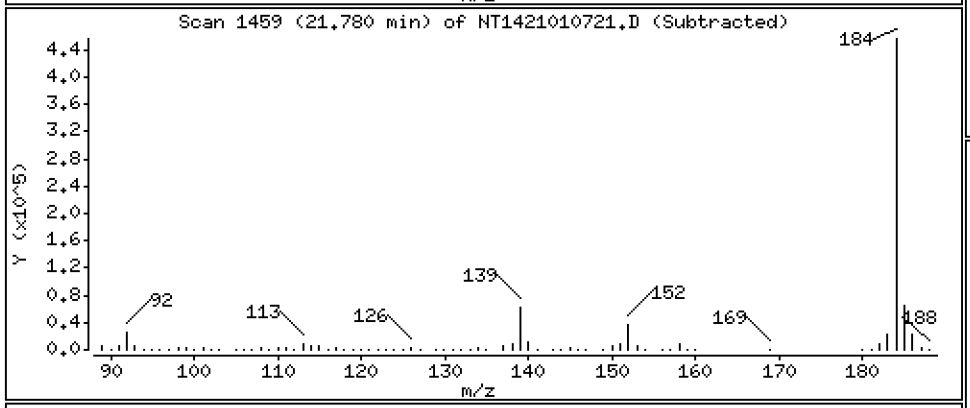
Column diameter: 0.25

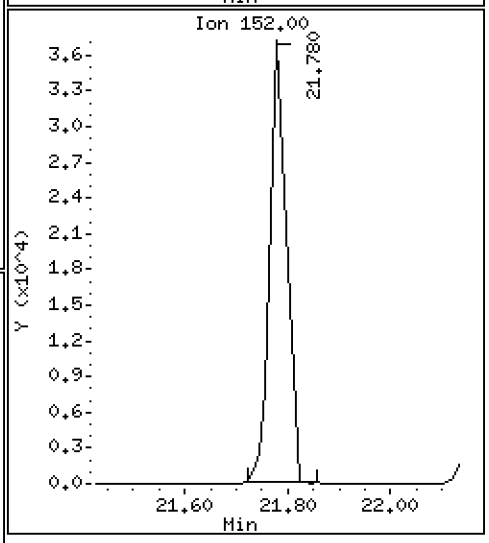
30 Dibenzothiophene

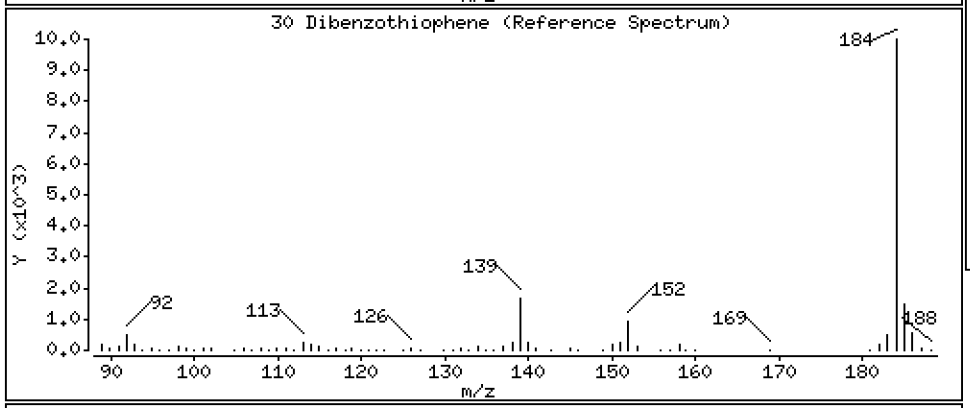
Concentration: 2.872 ug/mL

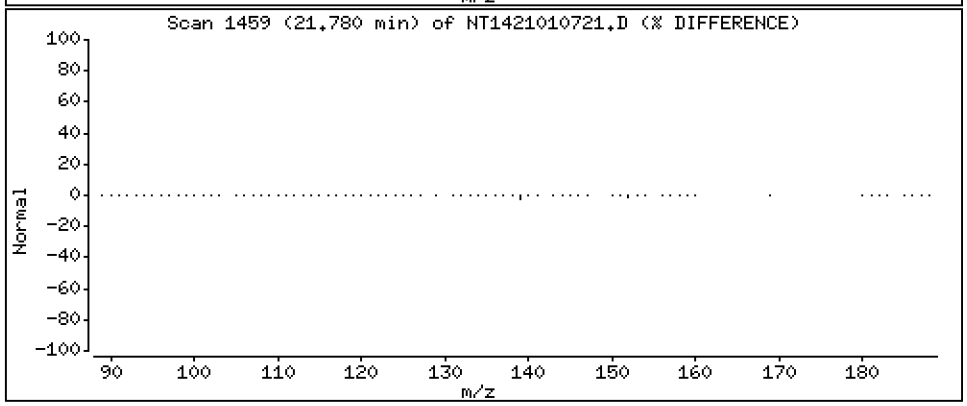












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

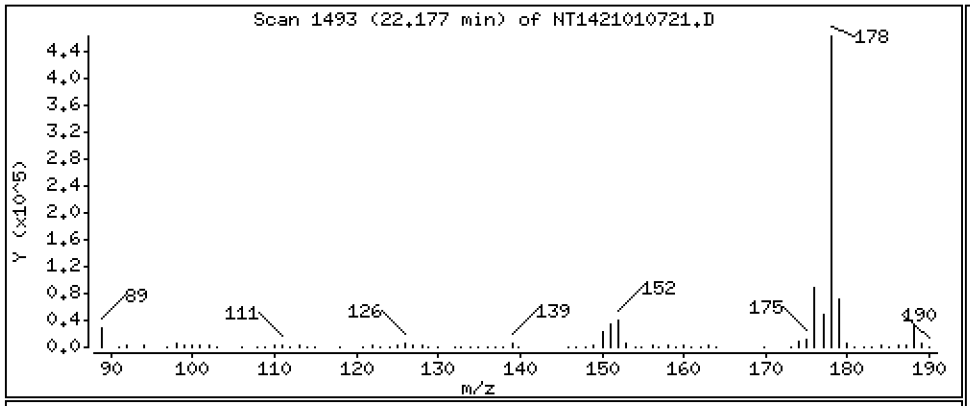
Operator: VTS

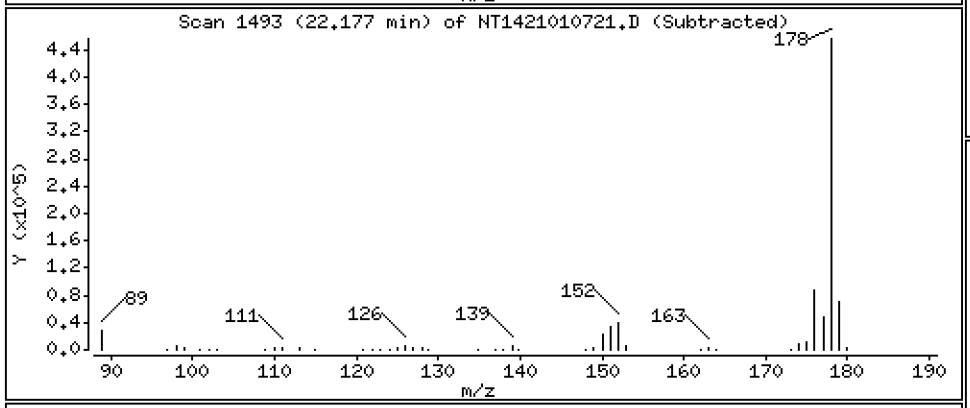
Column phase: Rxi-17Sil MS

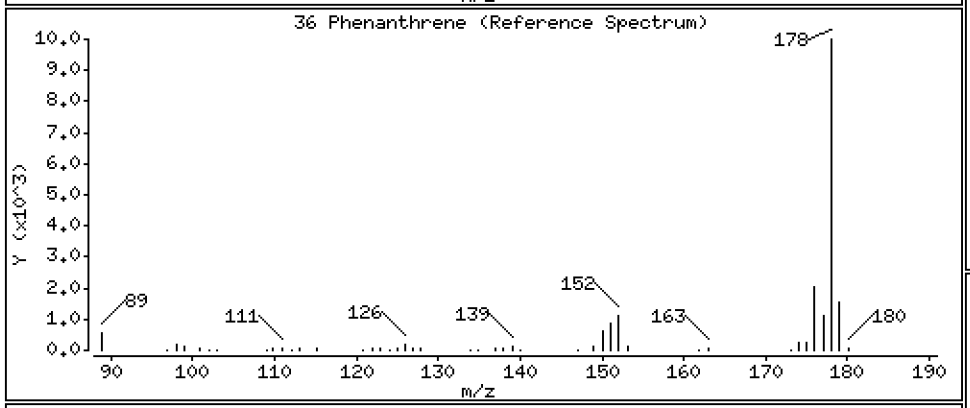
Column diameter: 0.25

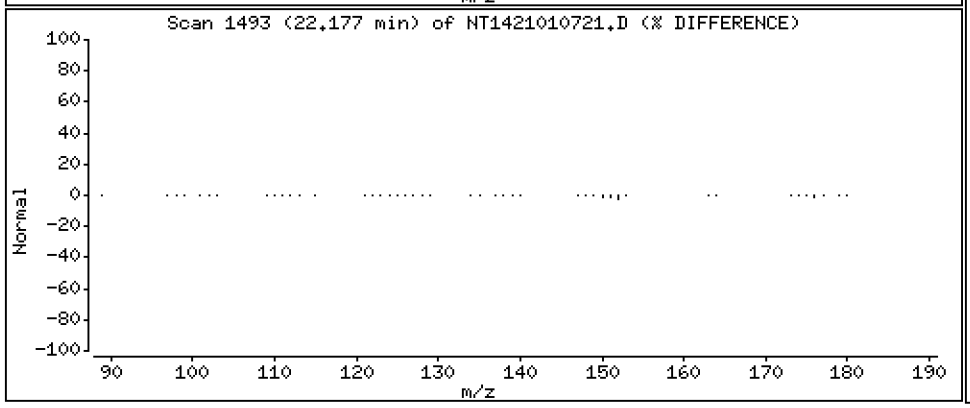
36 Phenanthrene

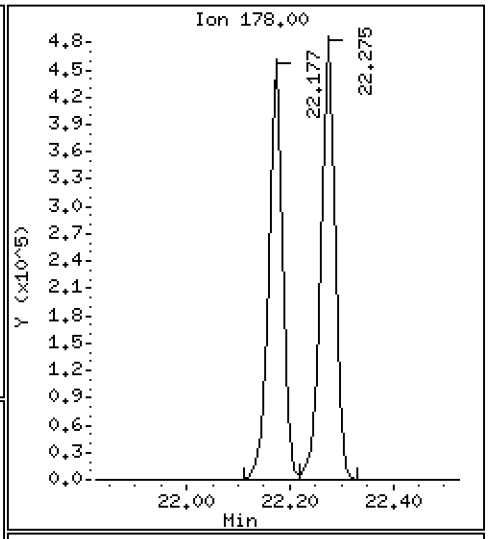
Concentration: 2.509 ug/mL

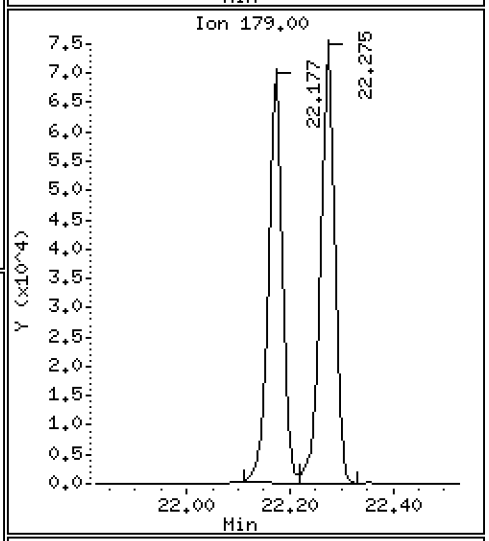


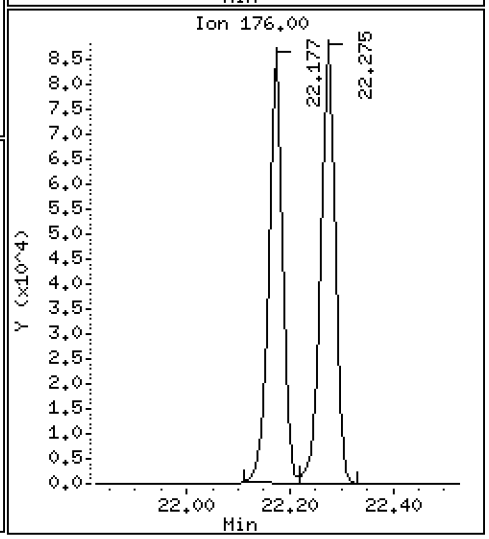












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

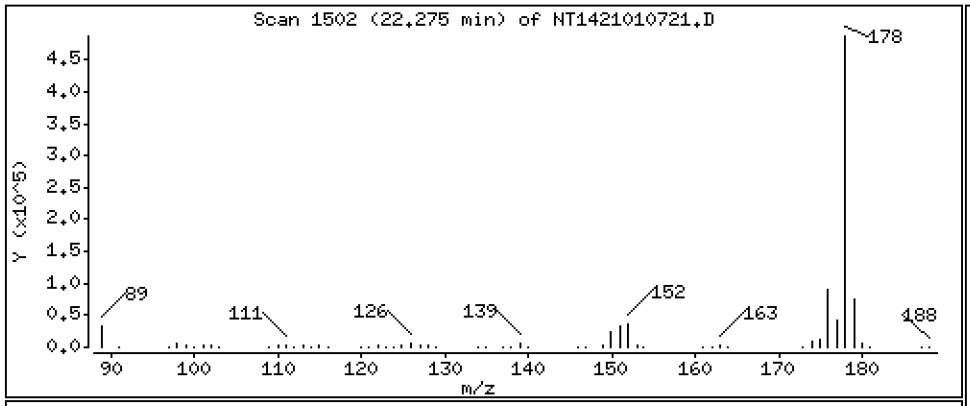
Operator: VTS

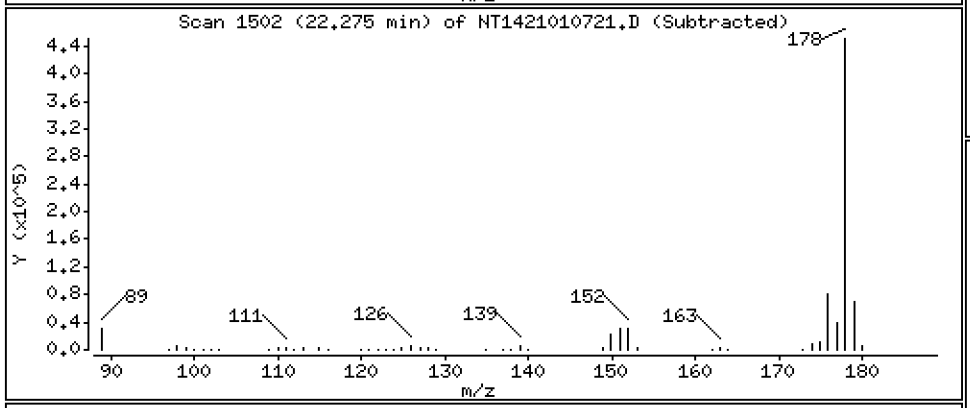
Column phase: Rxi-17Sil MS

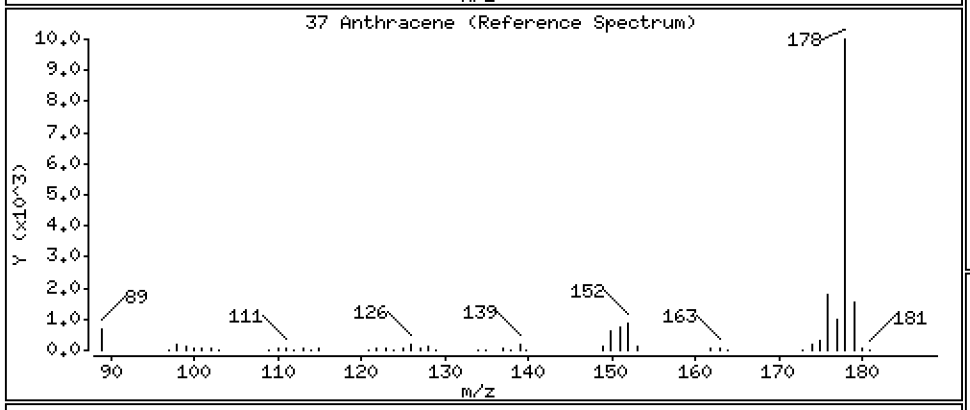
Column diameter: 0.25

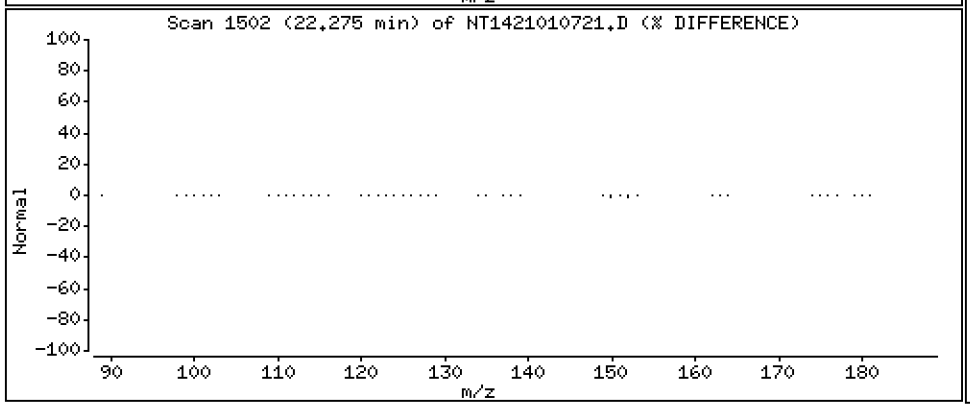
37 Anthracene

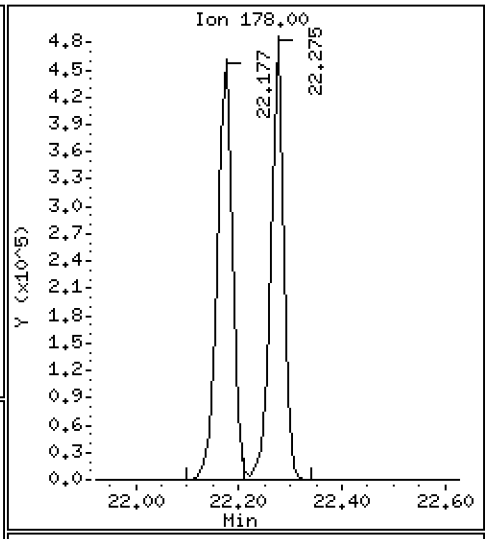
Concentration: 2.682 ug/mL

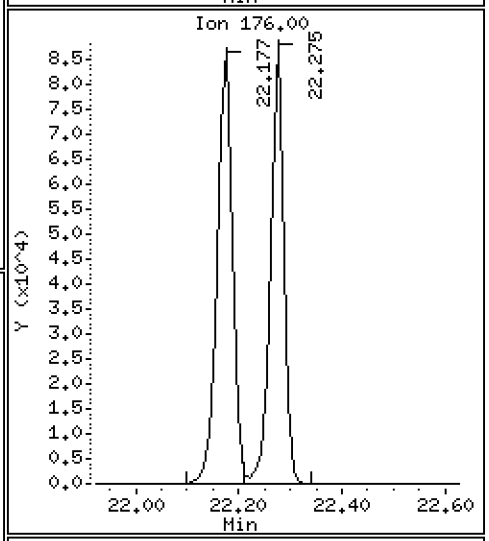


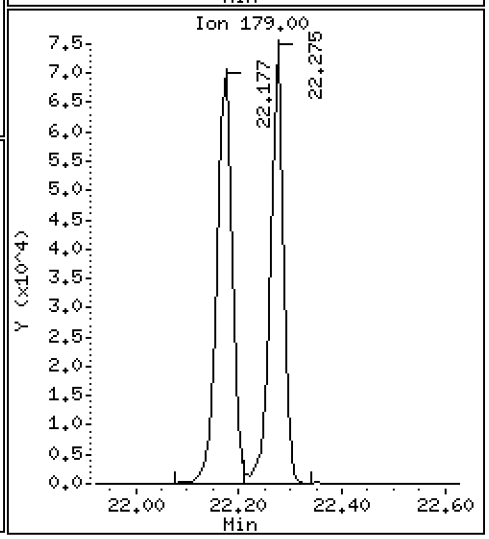












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

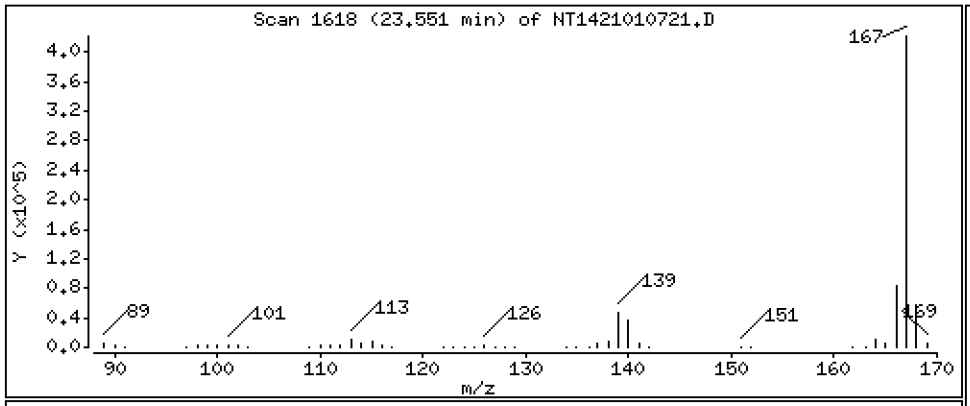
Operator: VTS

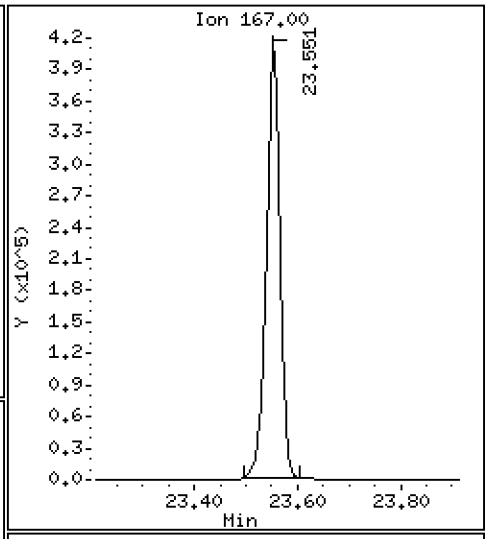
Column phase: Rxi-17Sil MS

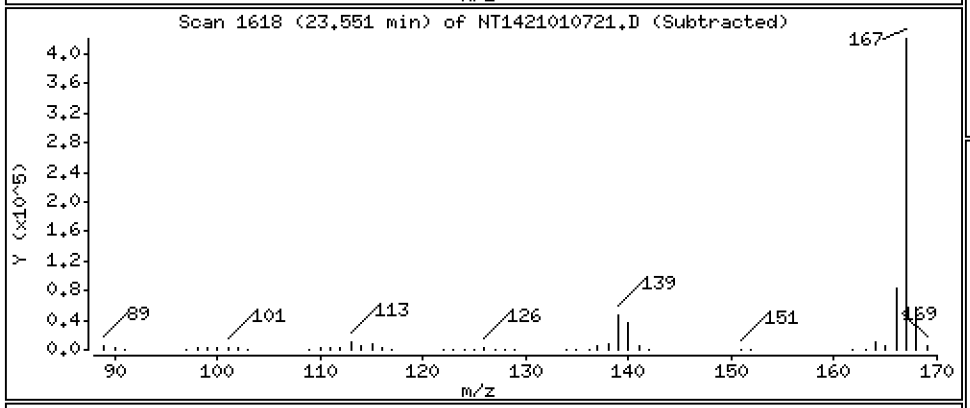
Column diameter: 0.25

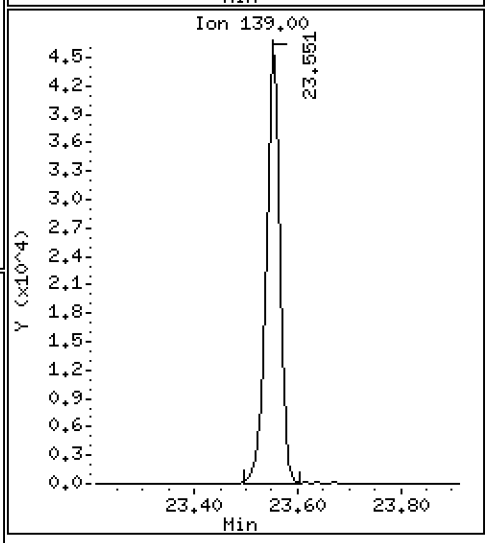
42 Carbazole

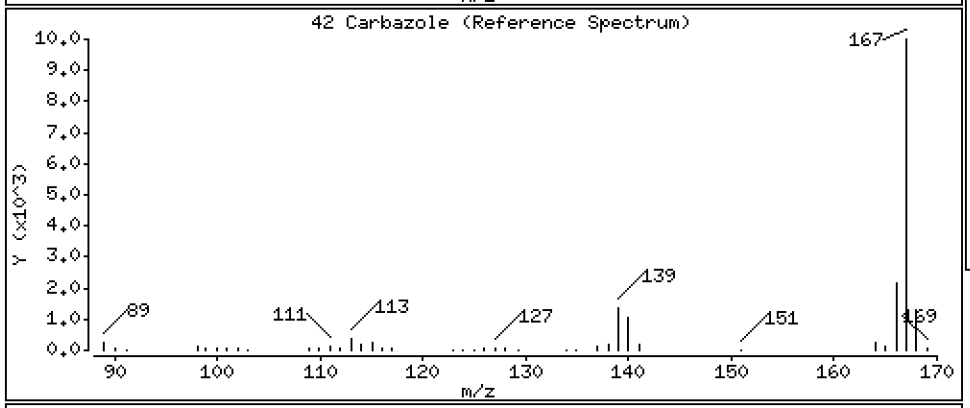
Concentration: 2.873 ug/mL

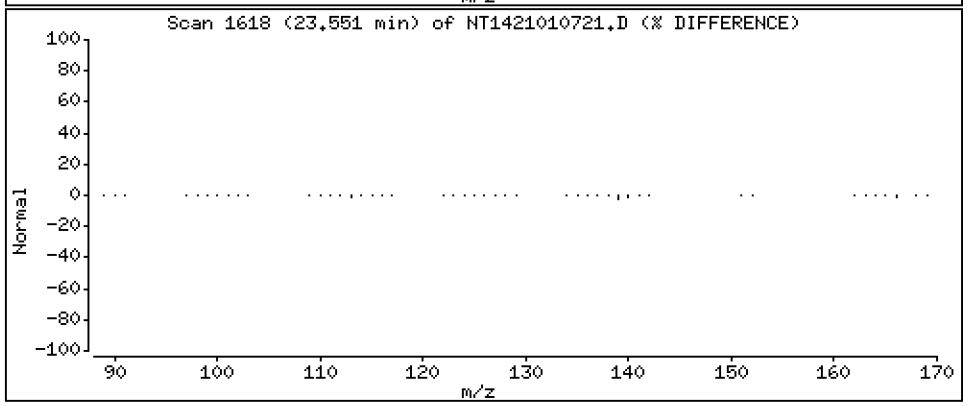












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

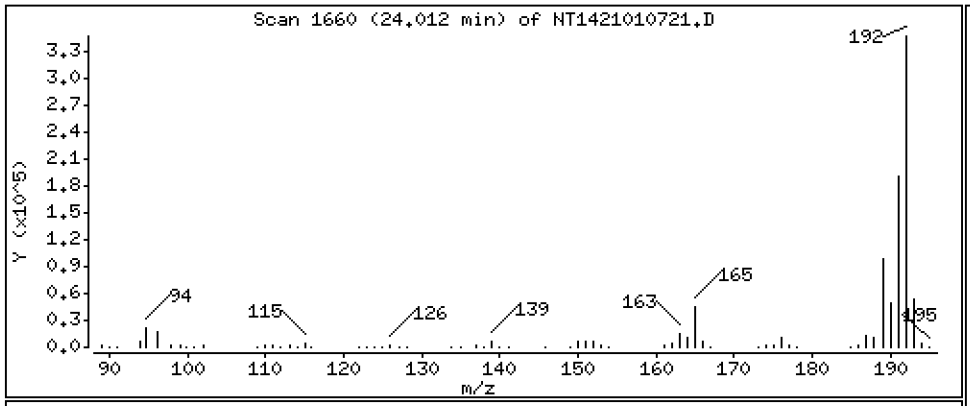
Operator: VTS

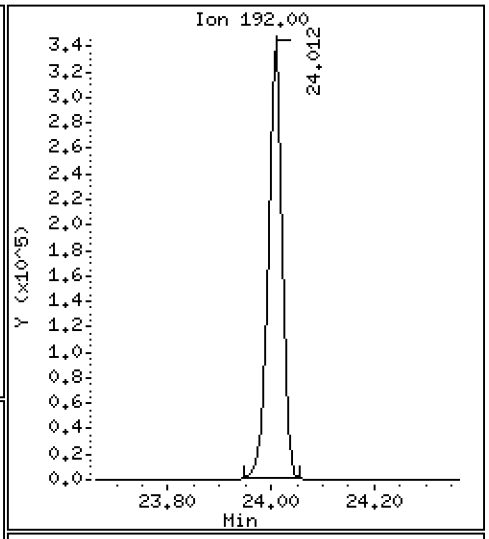
Column phase: Rxi-17Sil MS

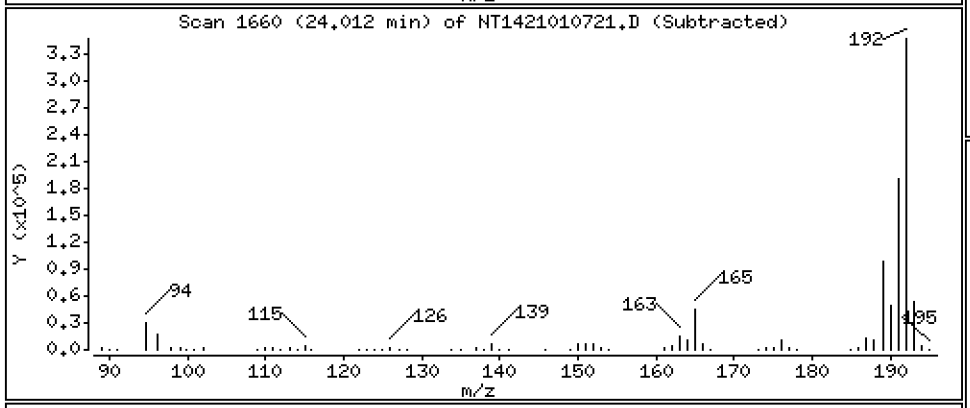
Column diameter: 0.25

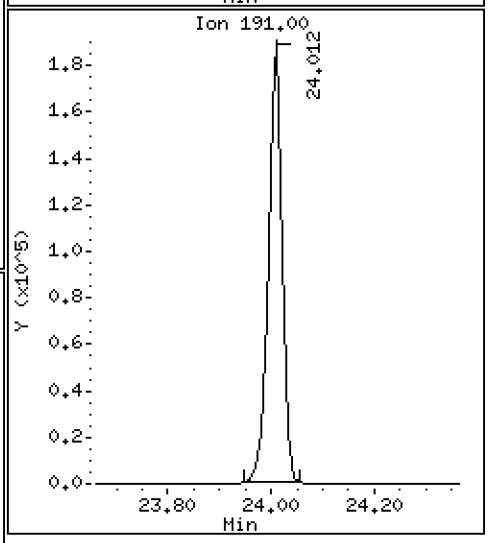
43 1-Methylphenanthrene

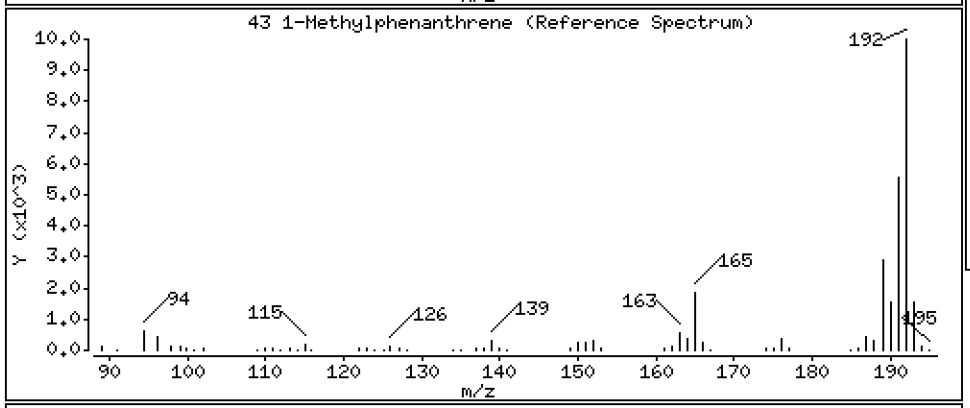
Concentration: 2.653 ug/mL

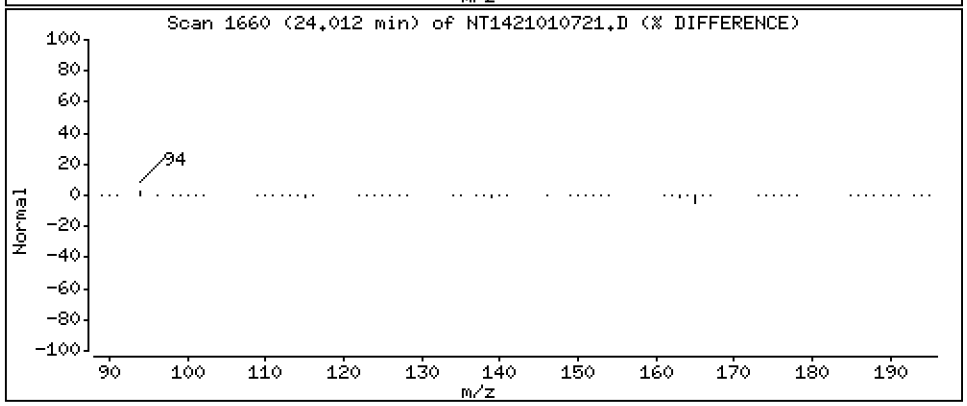












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

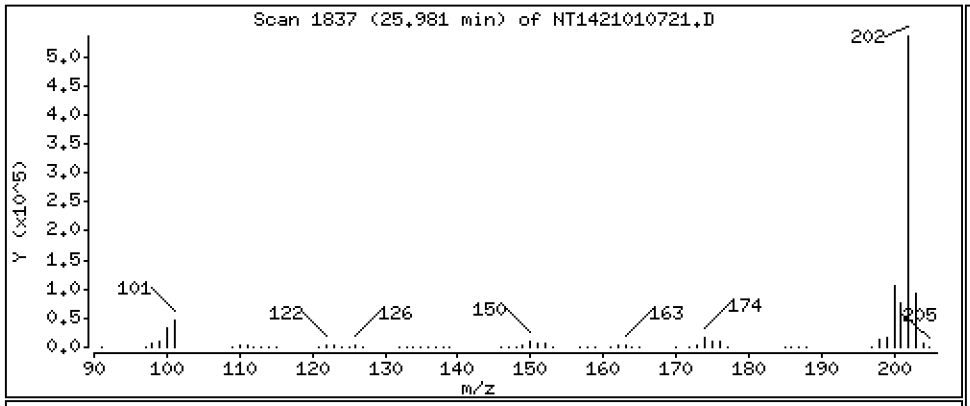
Operator: VTS

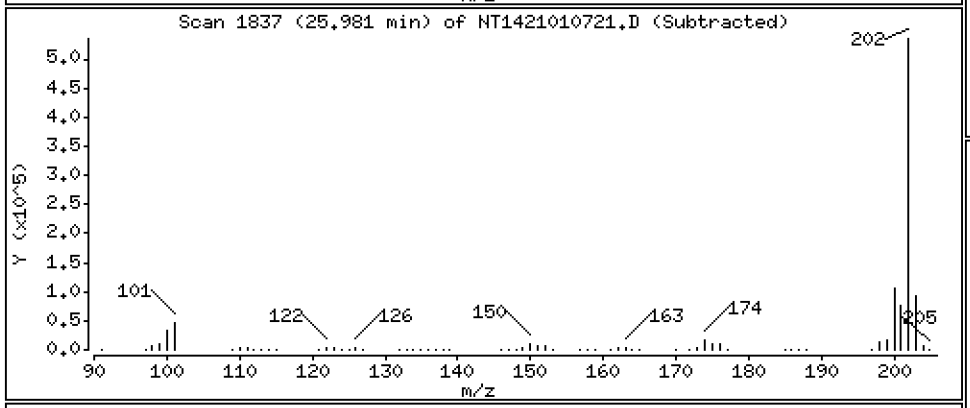
Column phase: Rxi-17Sil MS

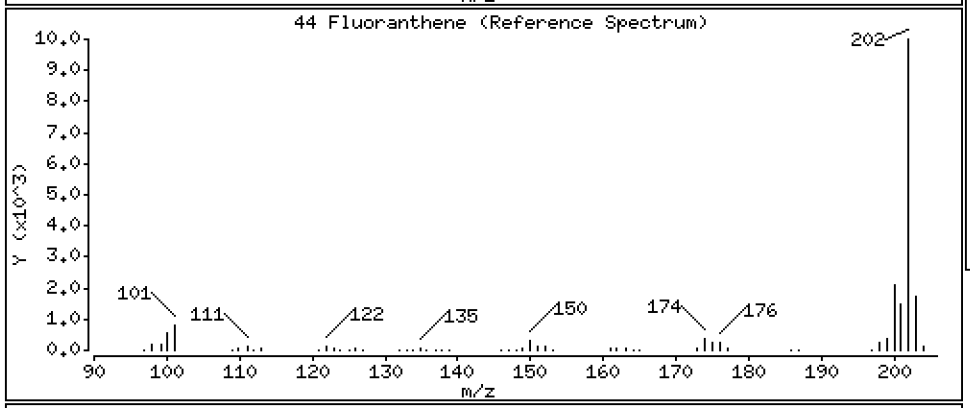
Column diameter: 0.25

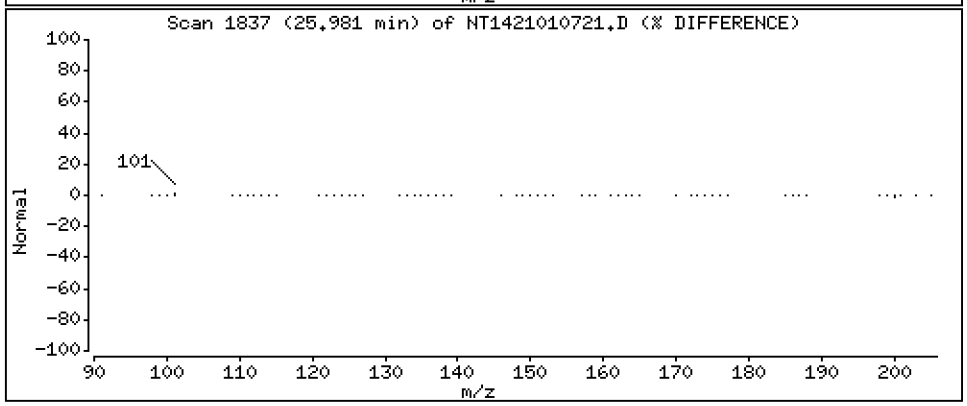
44 Fluoranthene

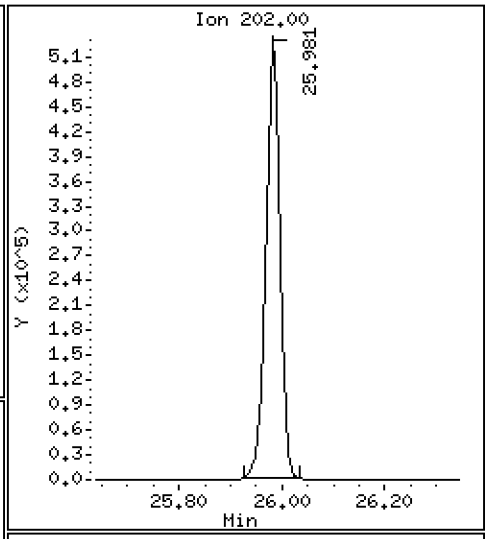
Concentration: 2.691 ug/mL

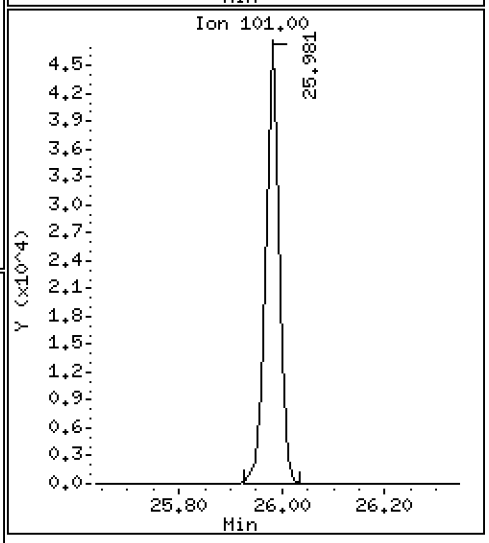












Data File: \\target\share\chem3\nt14.i\20210107A.b\NT1421010721.D

Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

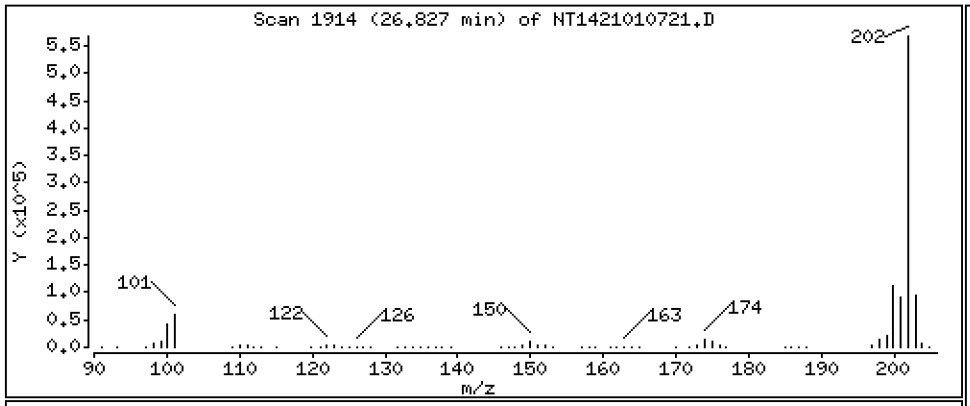
Operator: VTS

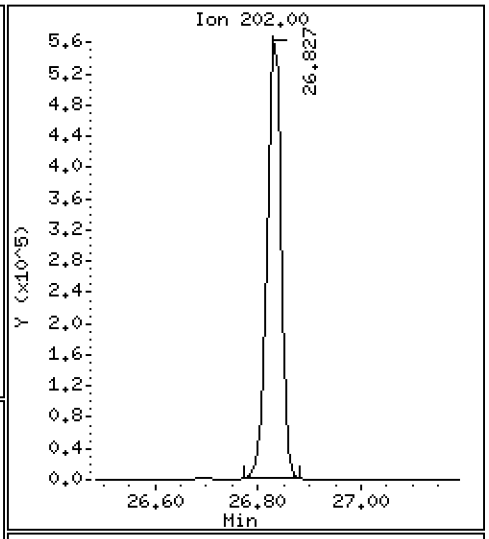
Column phase: Rxi-17Sil MS

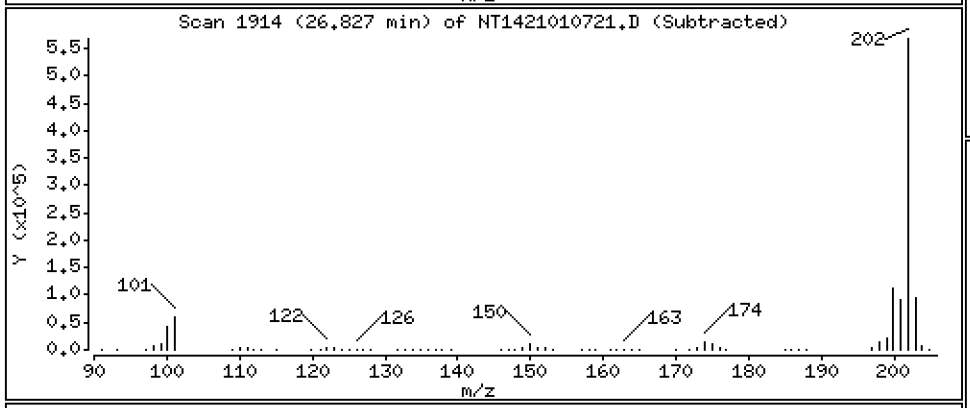
Column diameter: 0.25

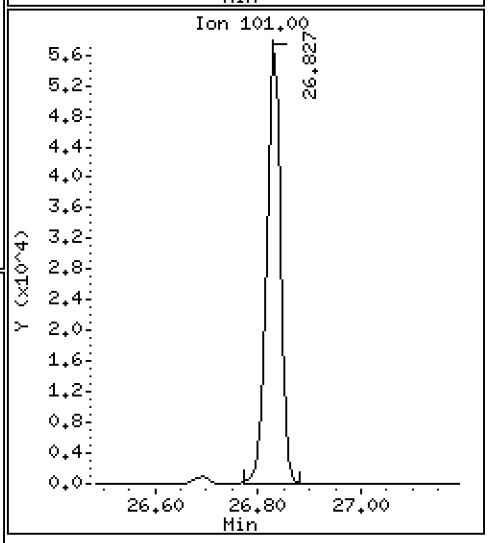
46 Pyrene

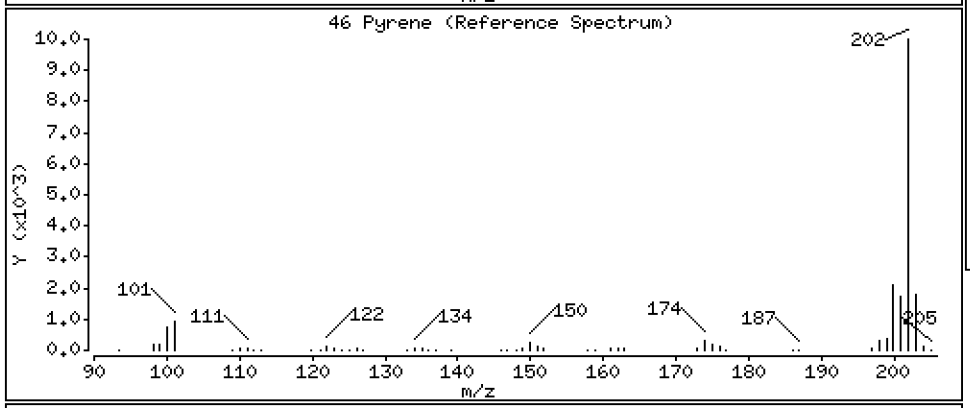
Concentration: 2.678 ug/mL

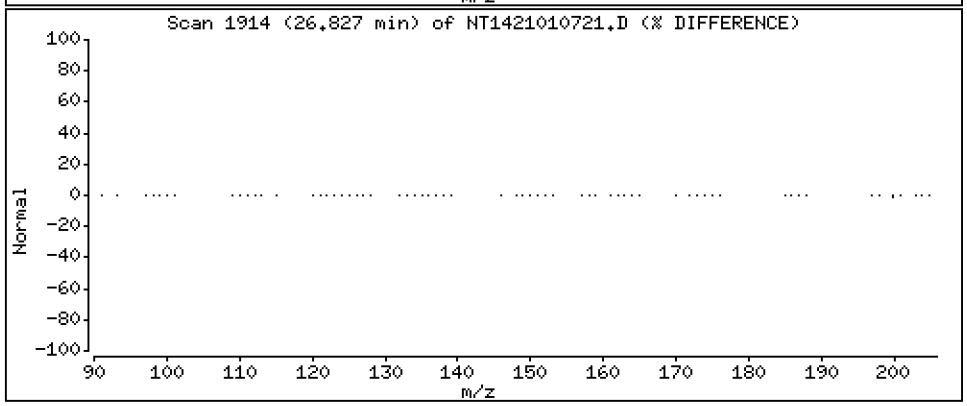












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

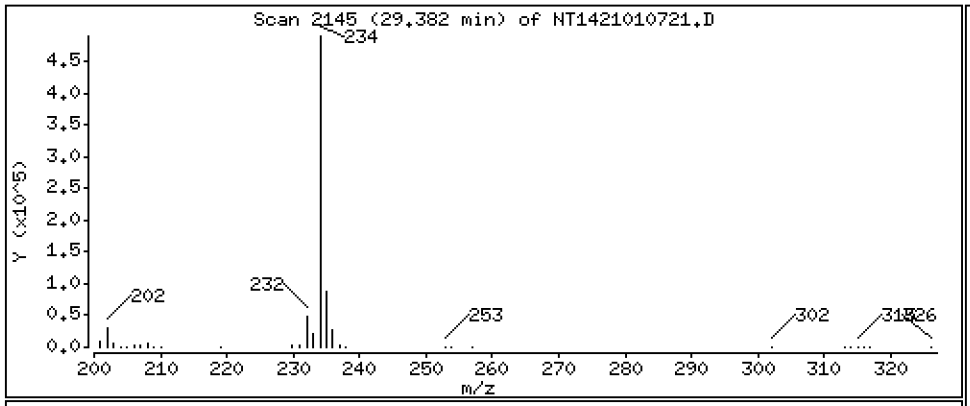
Operator: VTS

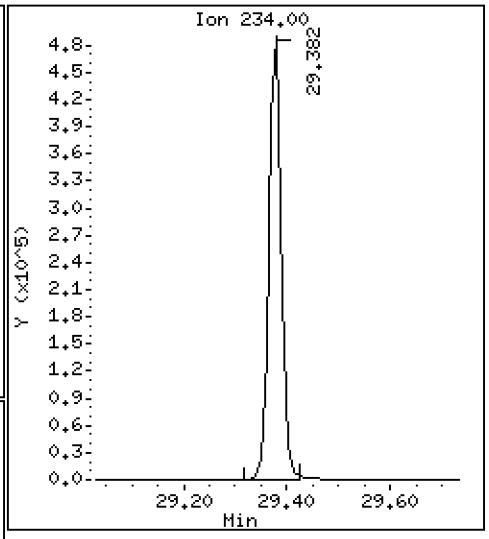
Column phase: Rxi-17Sil MS

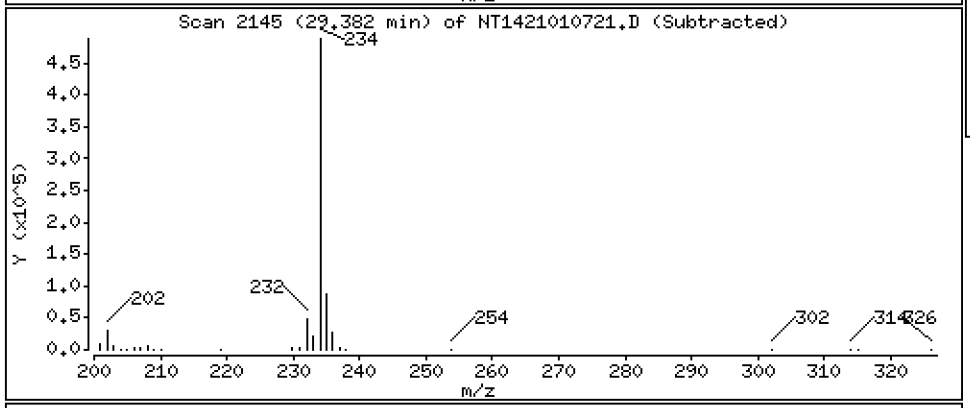
Column diameter: 0.25

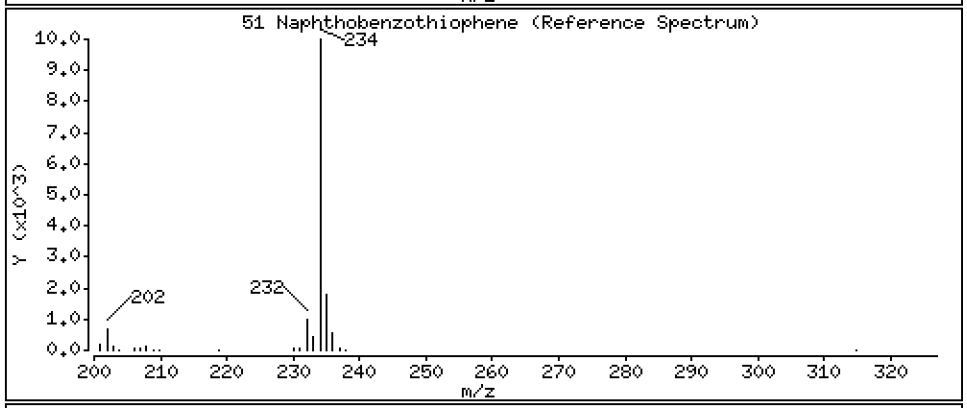
51 Naphthobenzothiophene

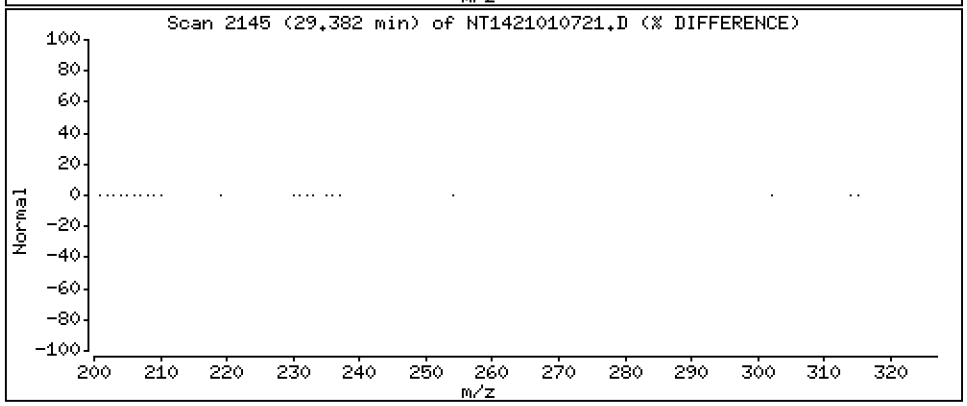
Concentration: 2.821 ug/mL











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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

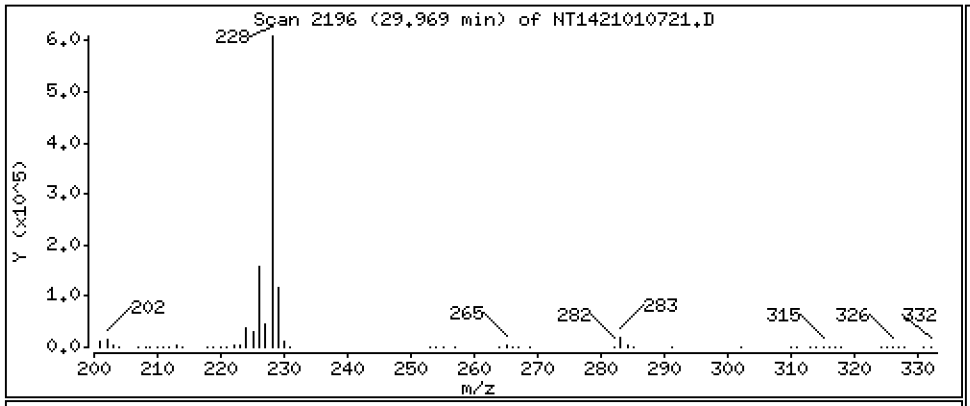
Operator: VTS

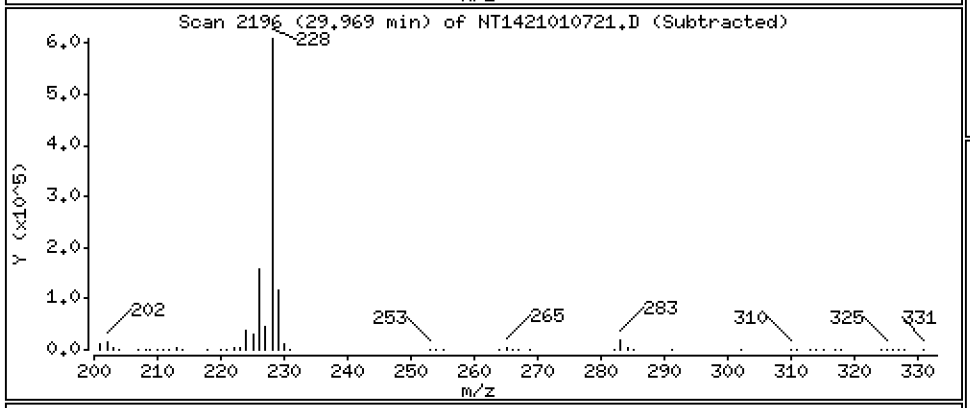
Column phase: Rxi-17Sil MS

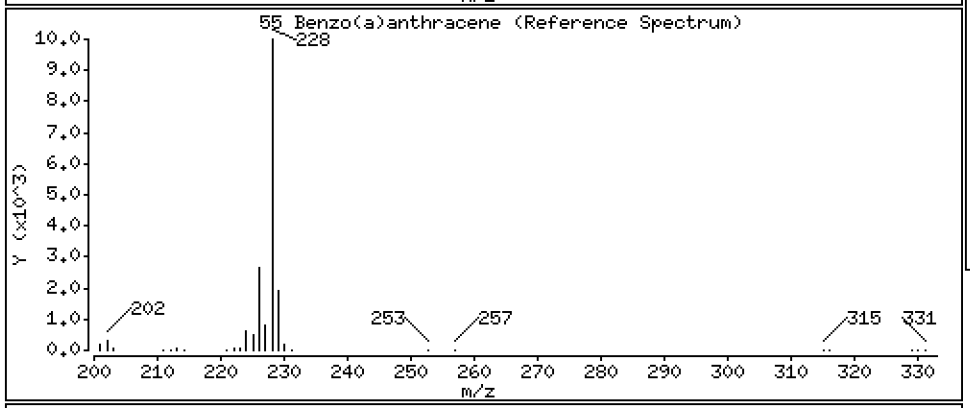
Column diameter: 0.25

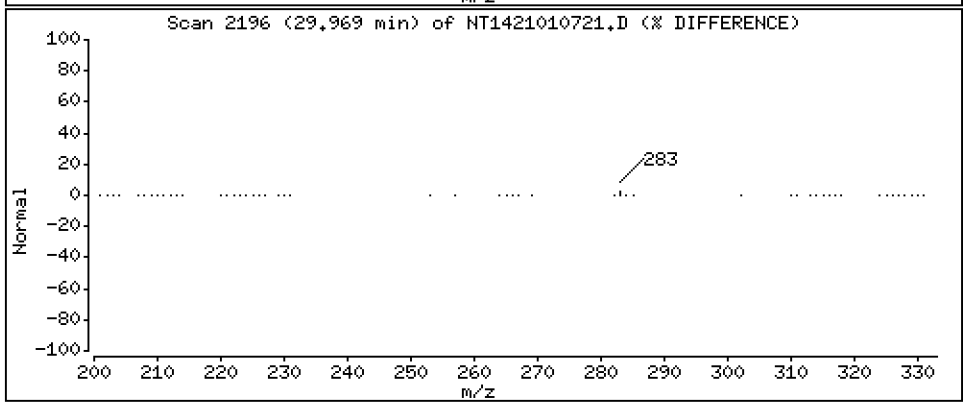
55 Benzo(a)anthracene

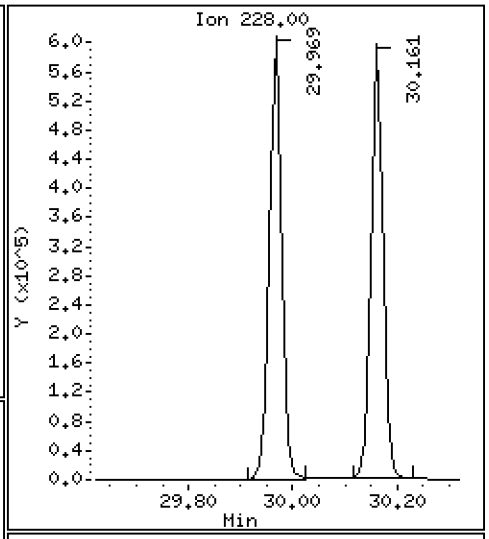
Concentration: 2.635 ug/mL

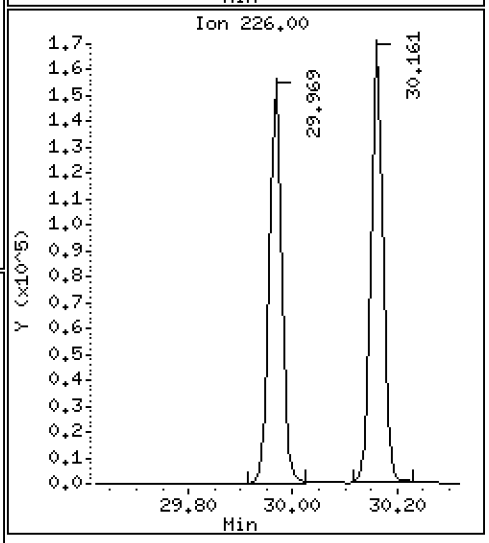












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

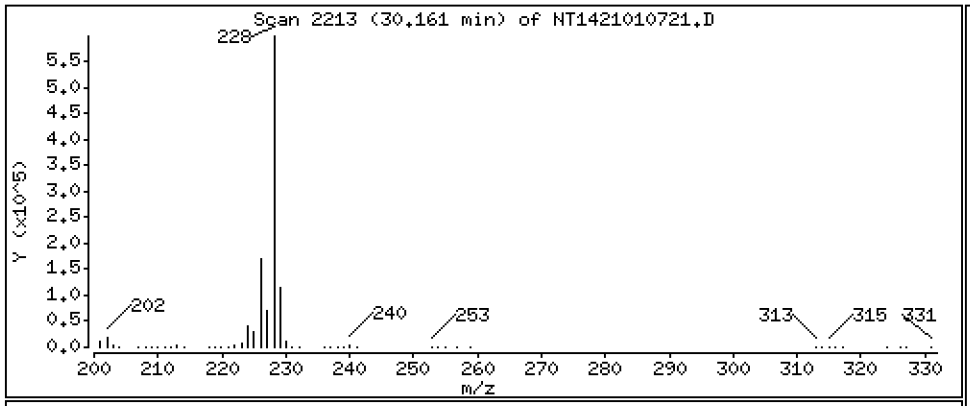
Operator: VTS

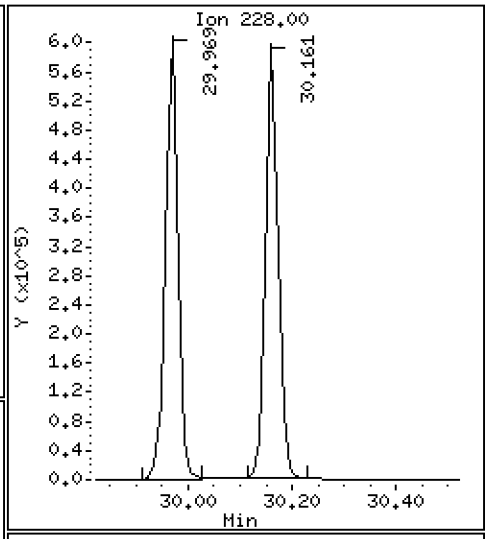
Column phase: Rxi-17Sil MS

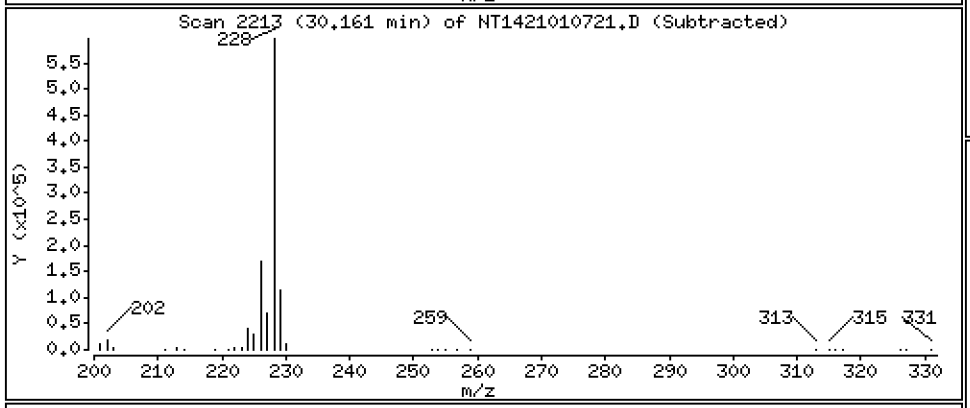
Column diameter: 0.25

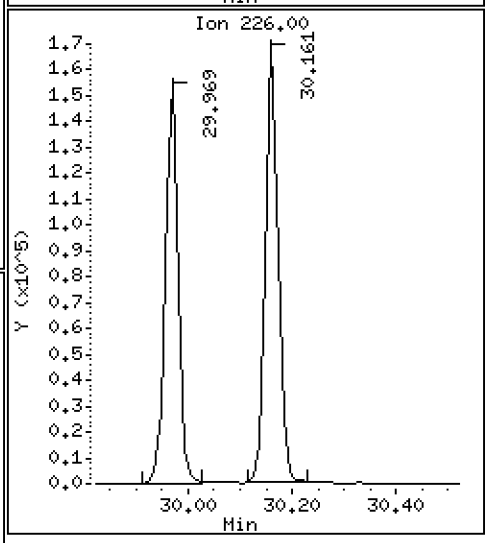
57 Chrysene

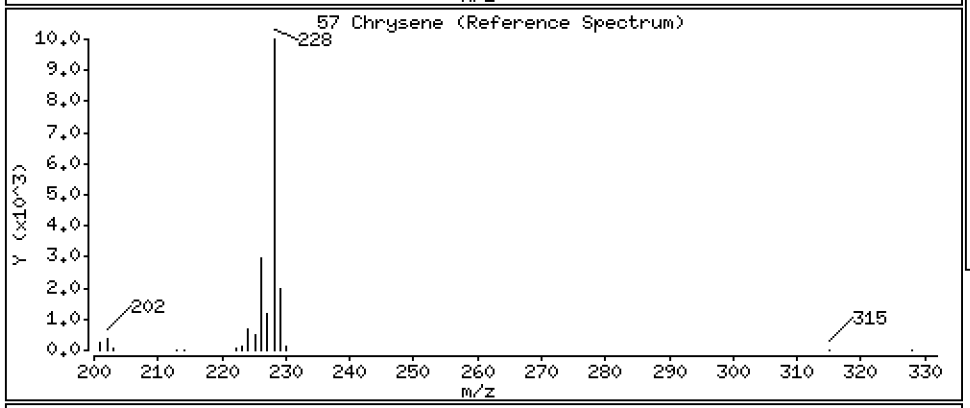
Concentration: 2.492 ug/mL

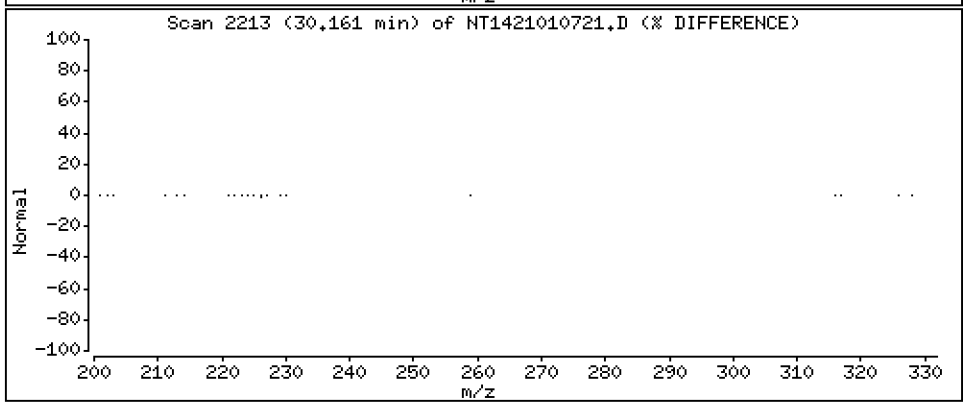












Data File: \\target\share\chem3\nt14.i\20210107A.b\NT1421010721.D

Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

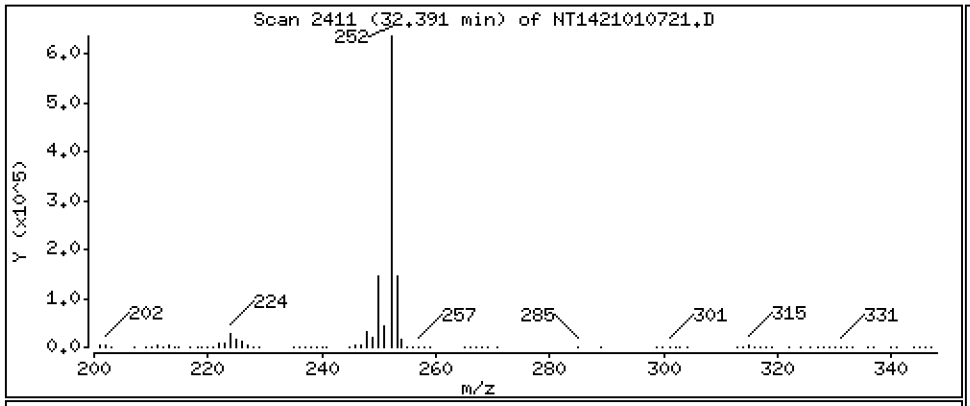
Operator: VTS

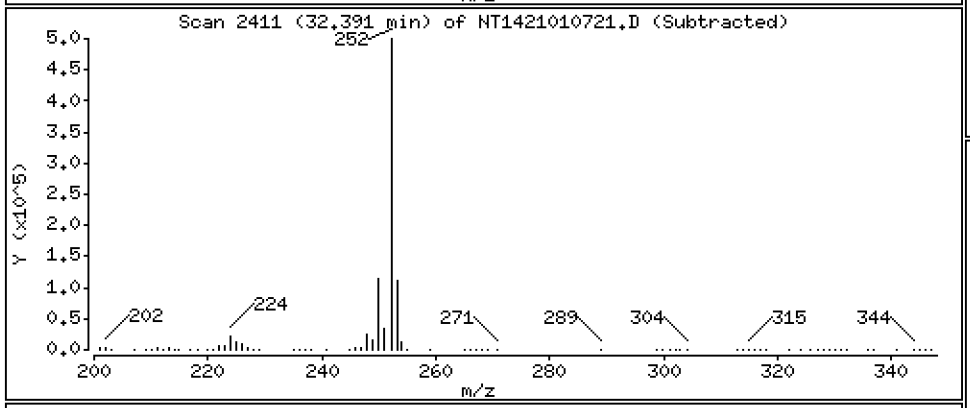
Column phase: Rxi-17Sil MS

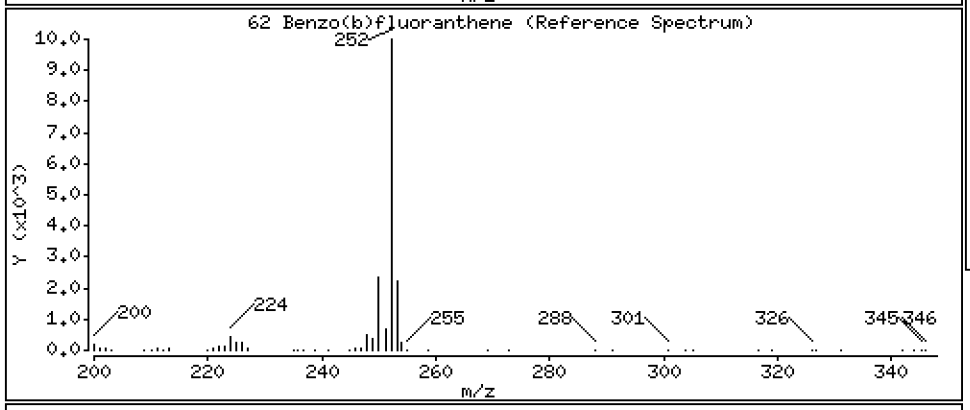
Column diameter: 0.25

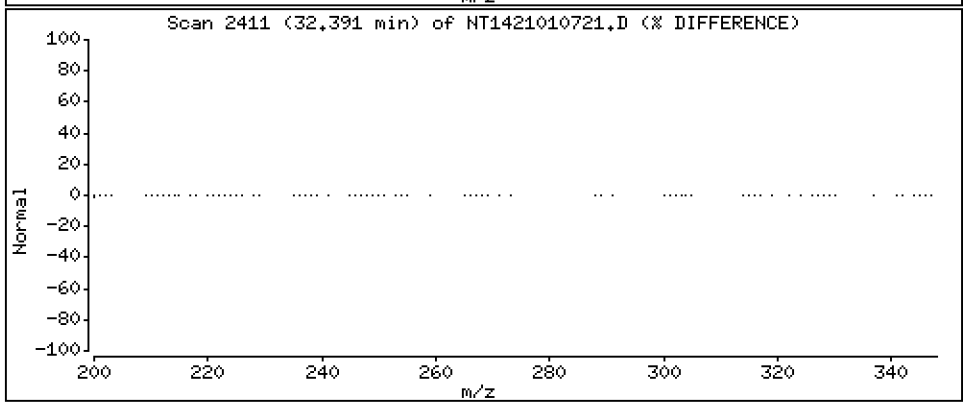
62 Benzo(b)fluoranthene

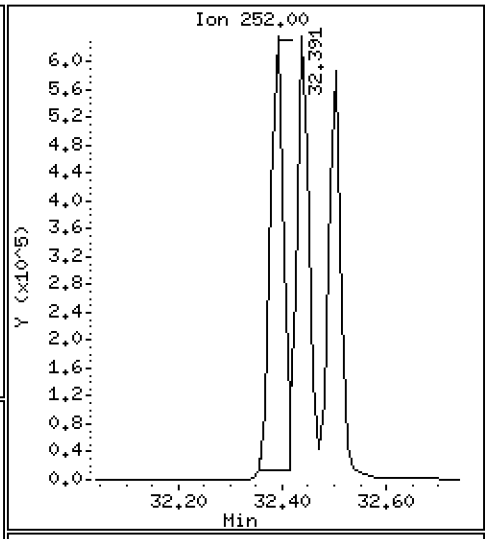
Concentration: 2.660 ug/mL

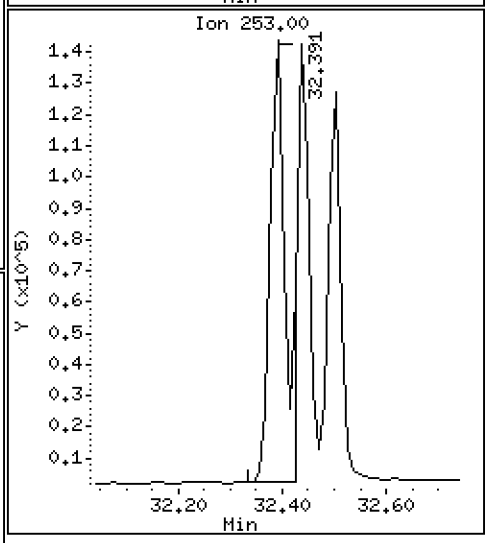












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

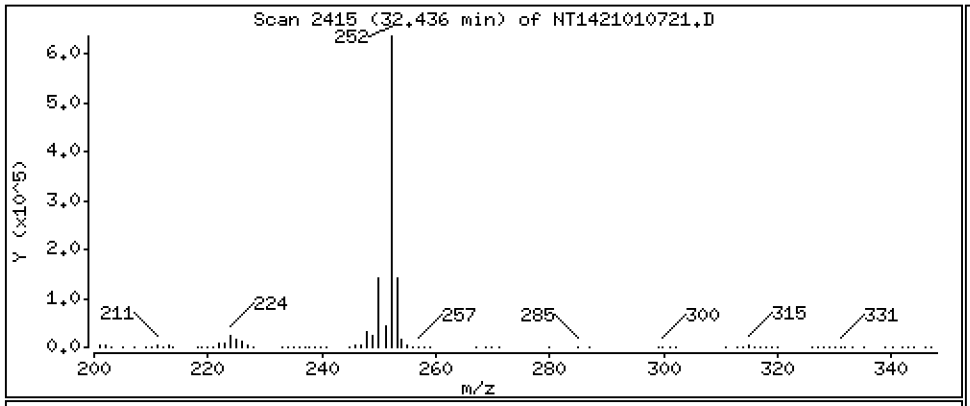
Operator: VTS

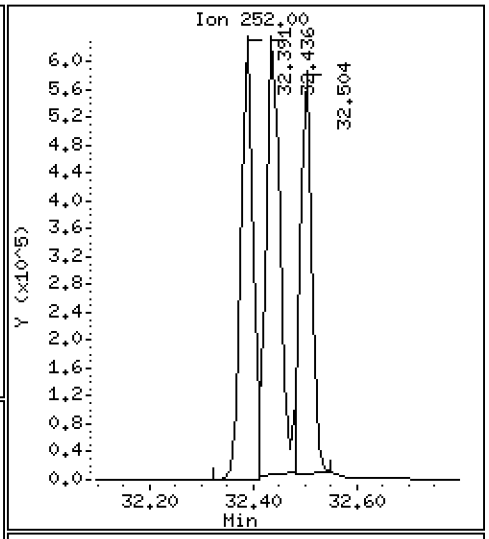
Column phase: Rxi-17Sil MS

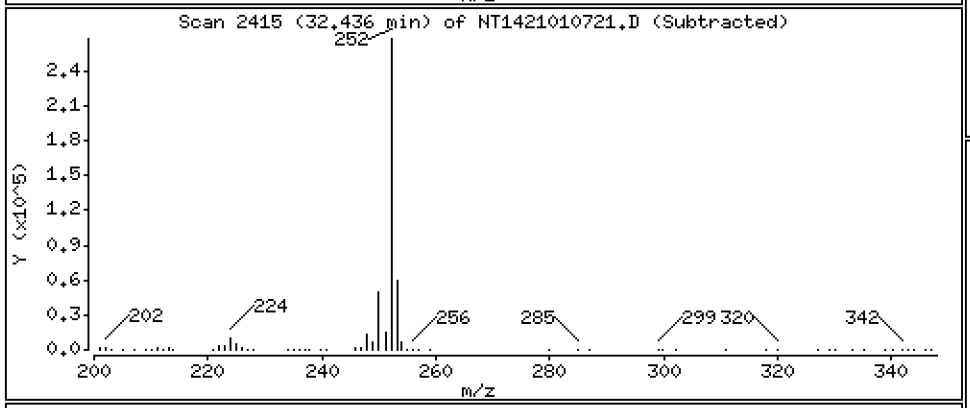
Column diameter: 0.25

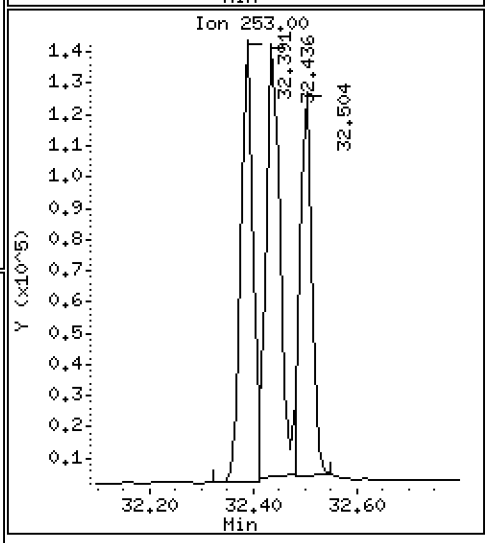
63 Benzo(k)fluoranthene

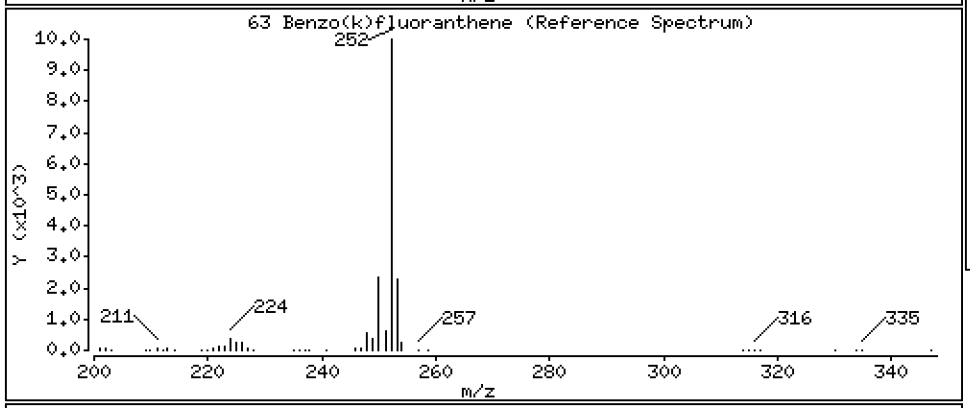
Concentration: 2.930 ug/mL

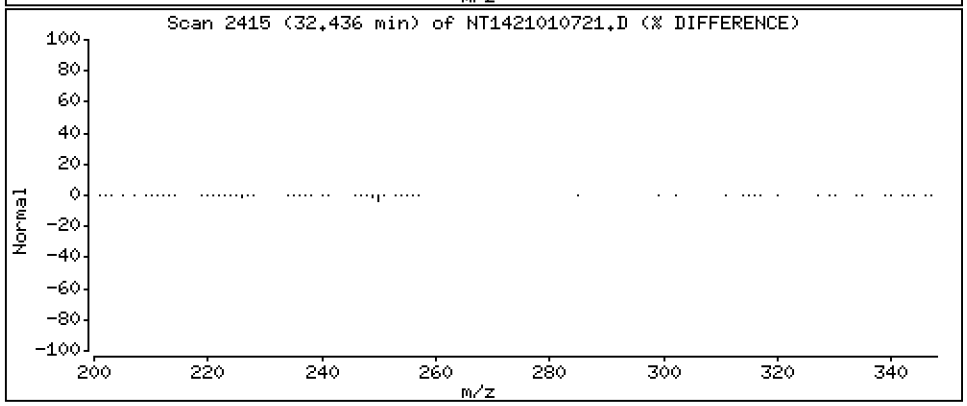












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

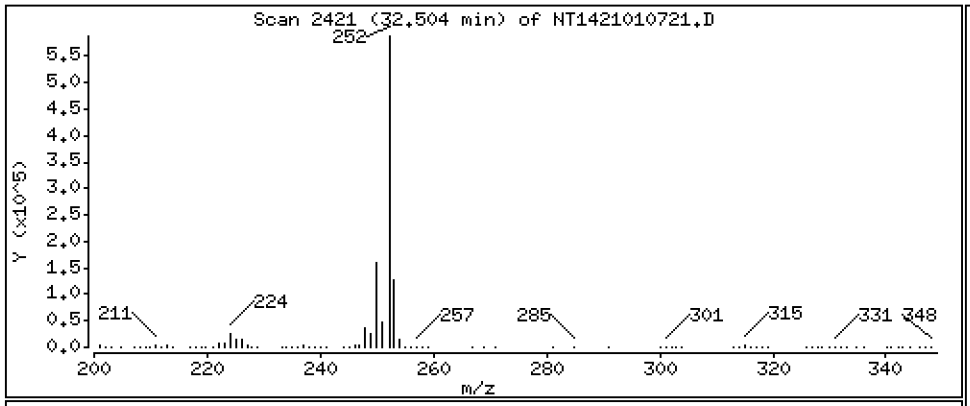
Operator: VTS

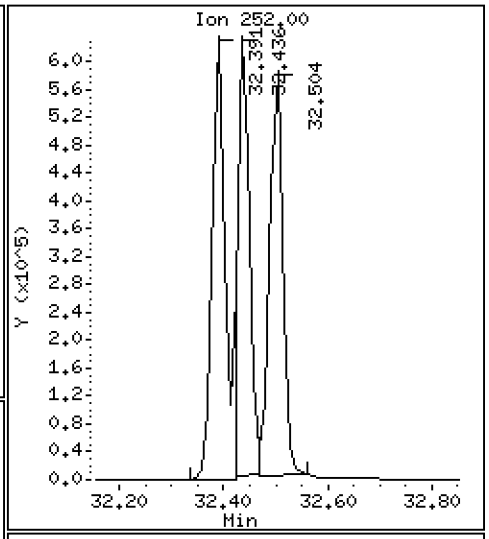
Column phase: Rxi-17Sil MS

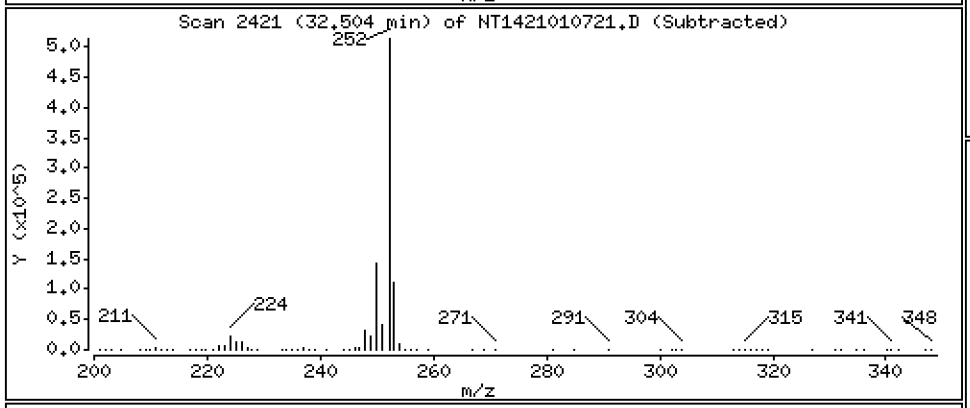
Column diameter: 0.25

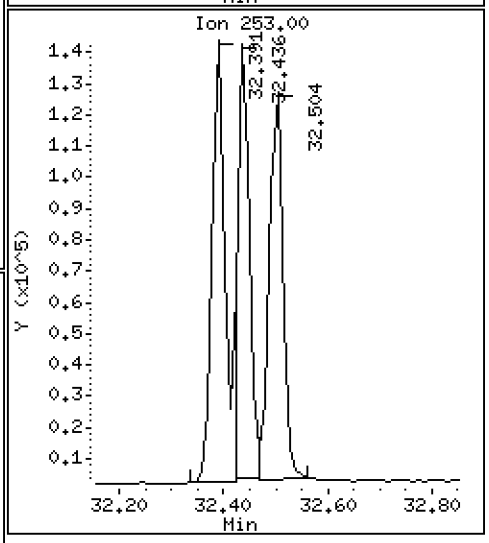
293 Benzo(j)fluoranthene

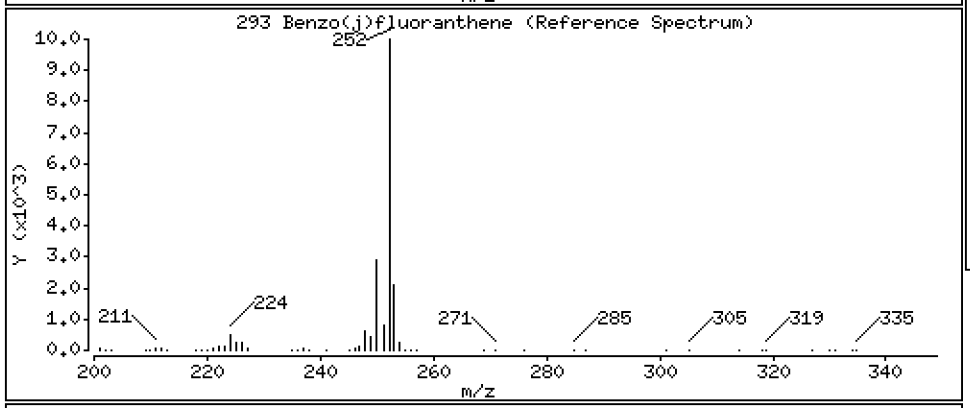
Concentration: 2.533 ug/mL

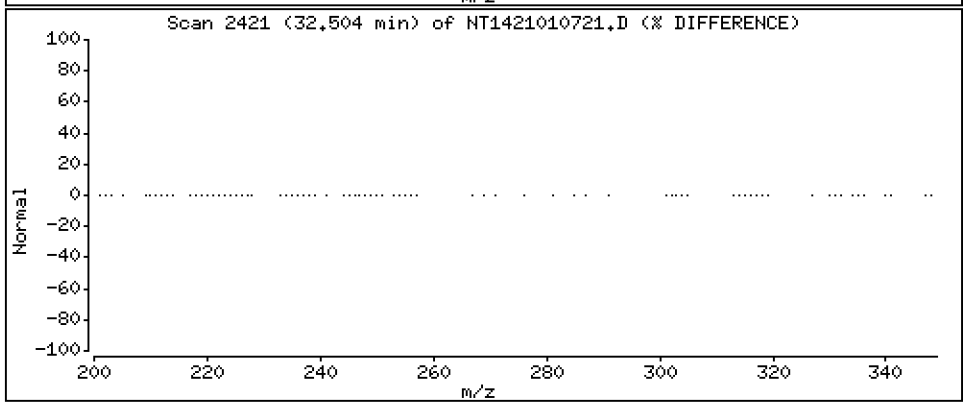












Data File: \\target\share\chem3\nt14.i\20210107A.b\NT1421010721.D

Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

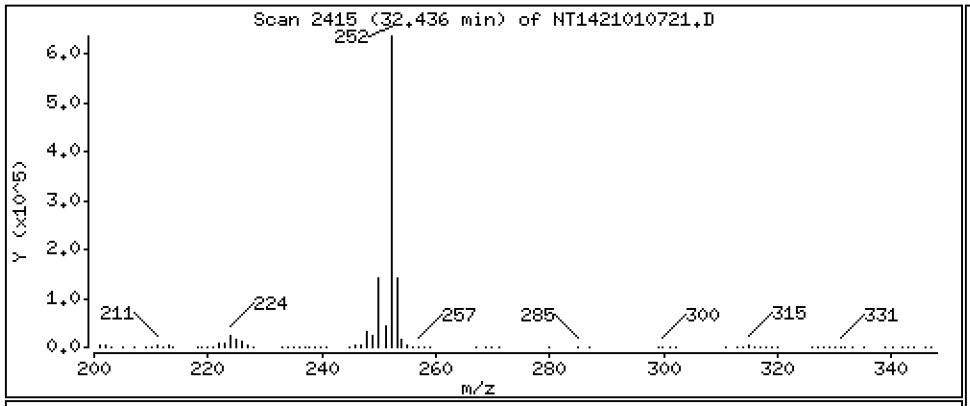
Operator: VTS

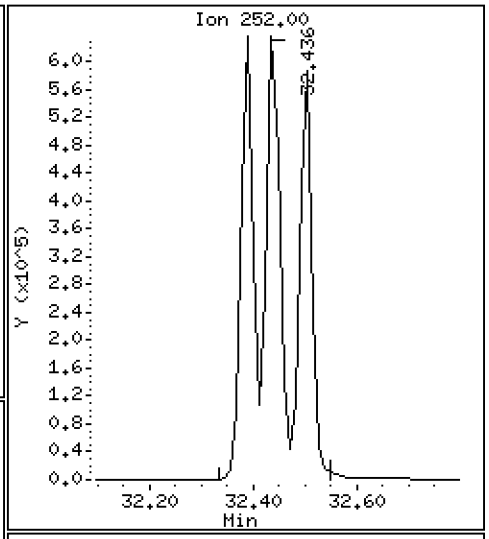
Column phase: Rxi-17Sil MS

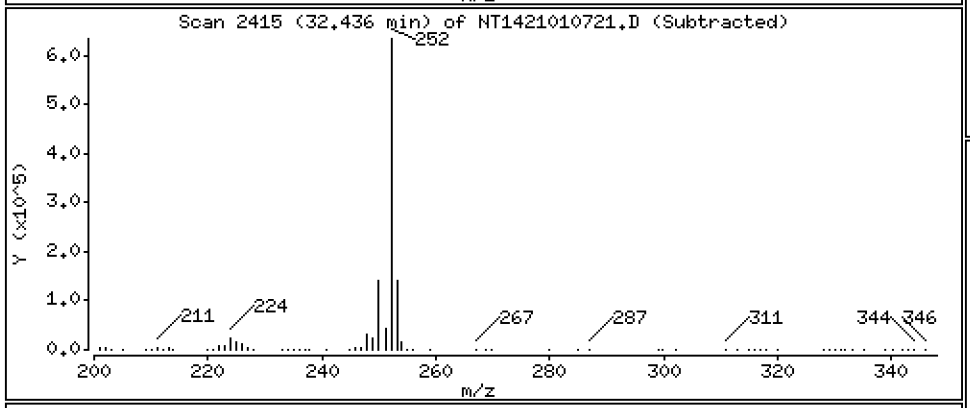
Column diameter: 0.25

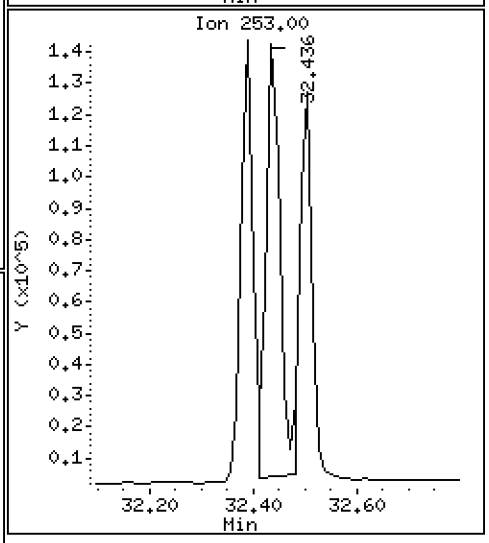
246 Total Benzofluoranthenes

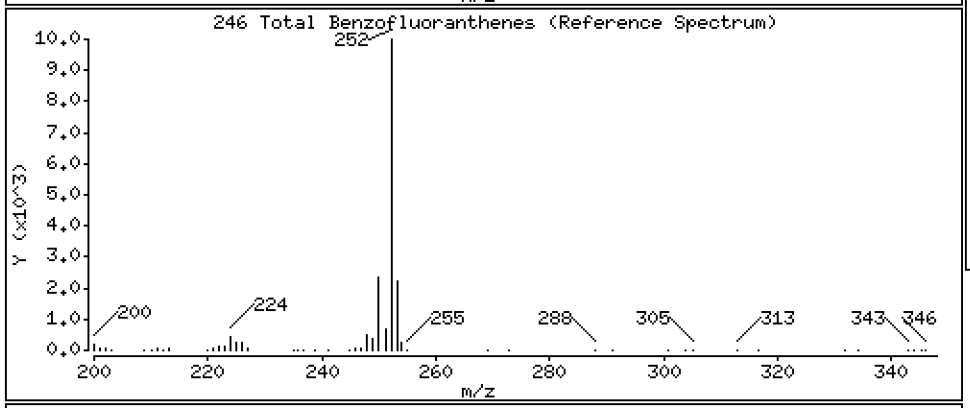
Concentration: 8.448 ug/mL

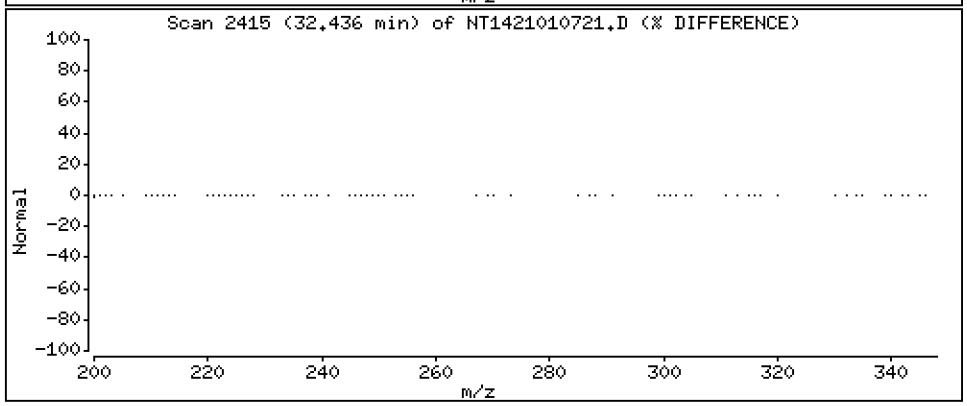












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

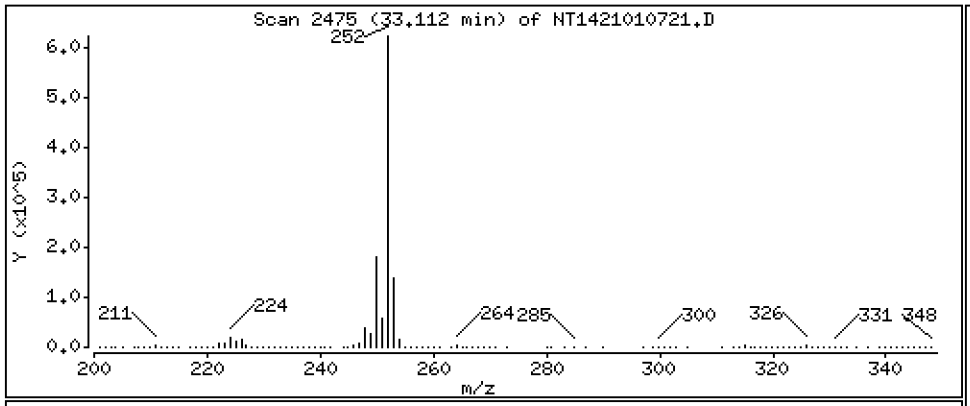
Operator: VTS

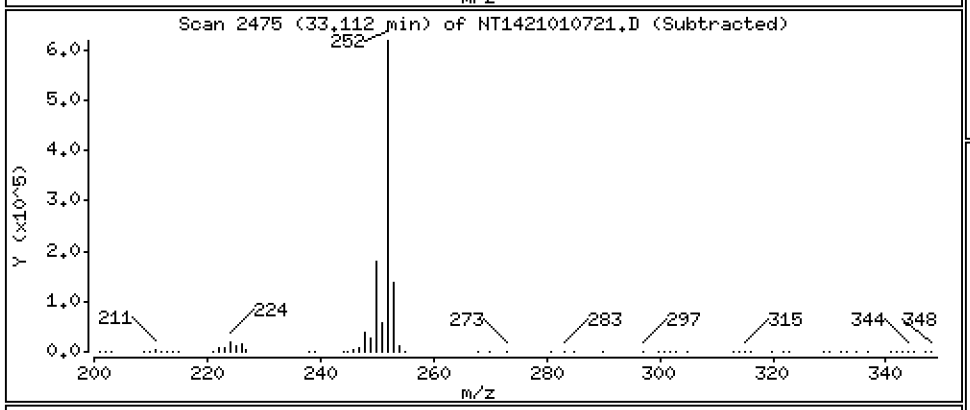
Column phase: Rxi-17Sil MS

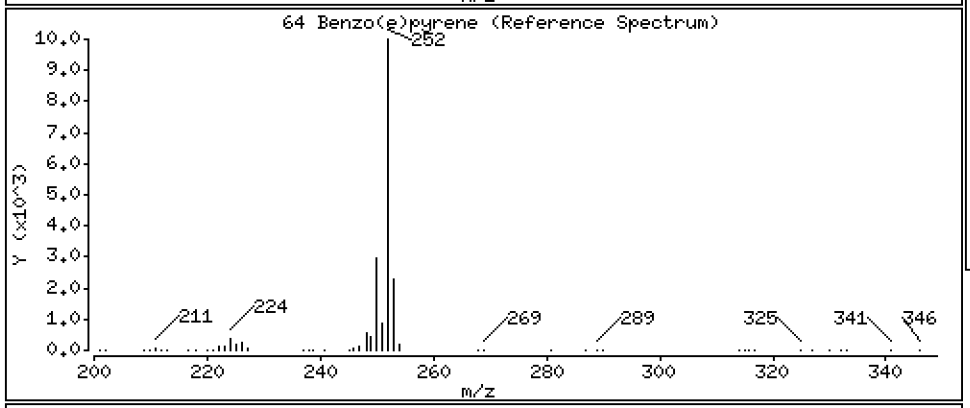
Column diameter: 0.25

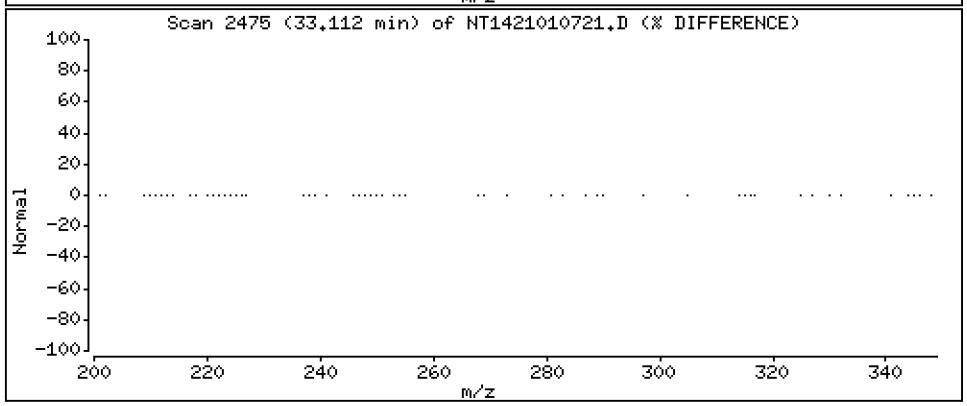
64 Benzo(e)pyrene

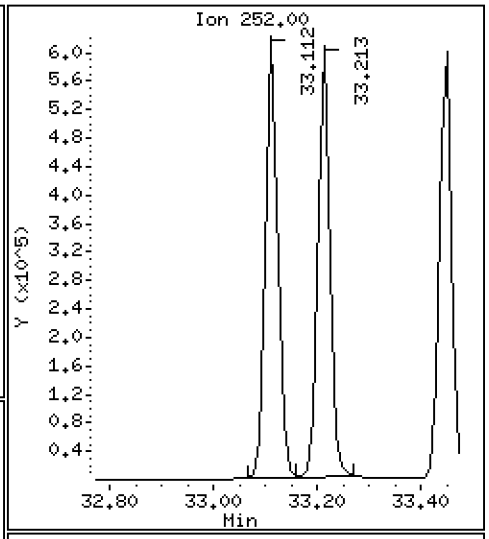
Concentration: 2.677 ug/mL

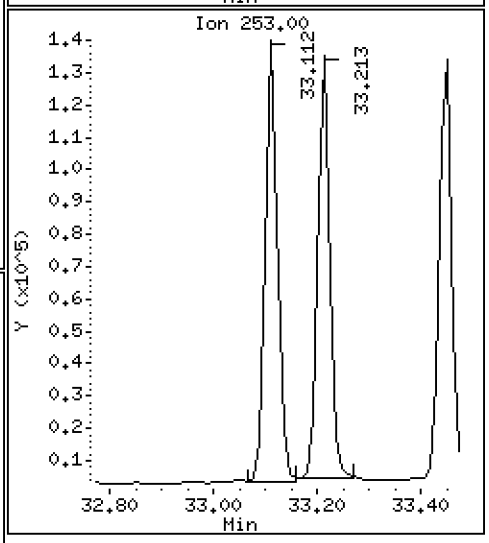












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

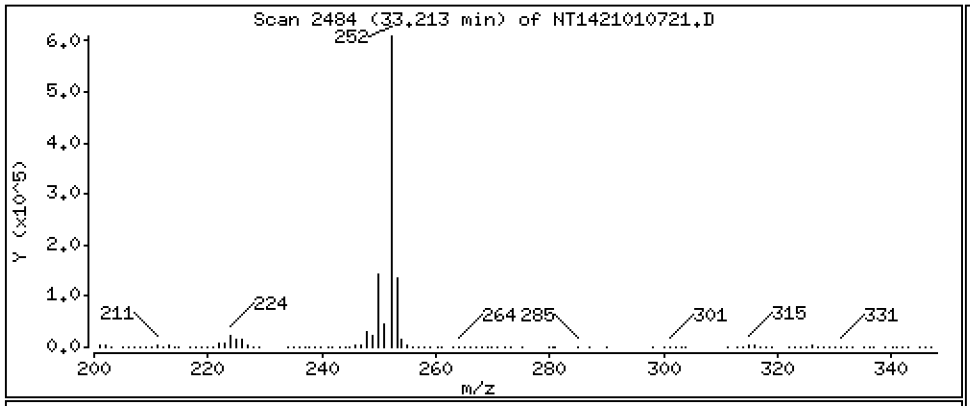
Operator: VTS

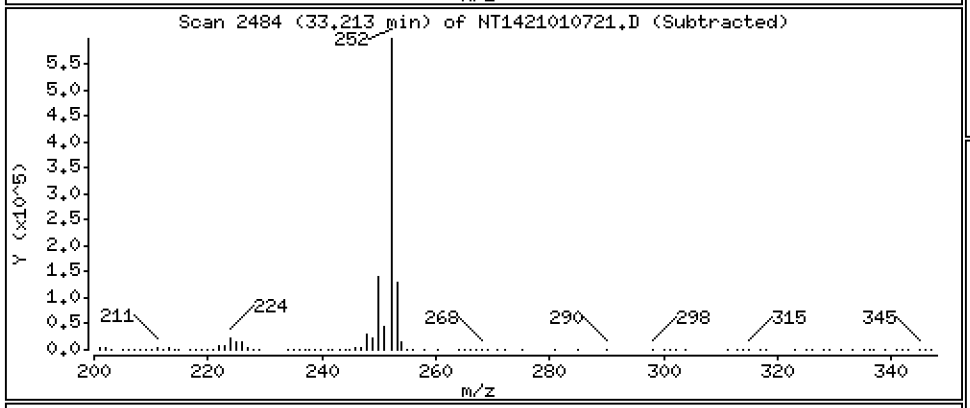
Column phase: Rxi-17Sil MS

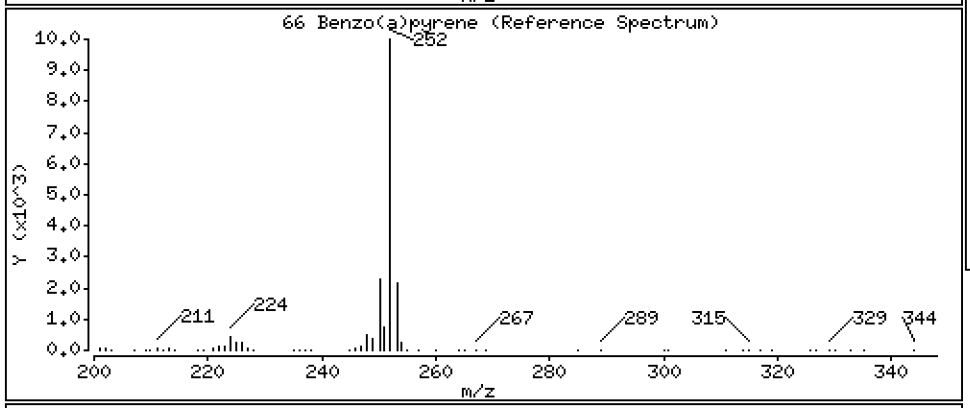
Column diameter: 0.25

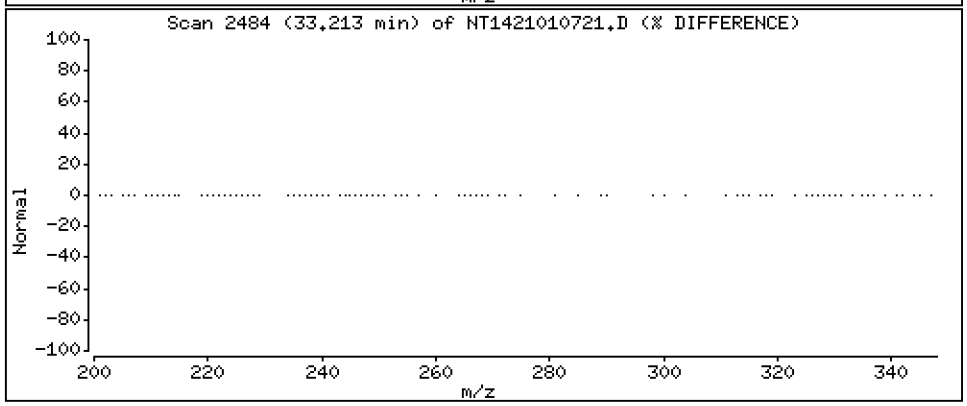
66 Benzo(a)pyrene

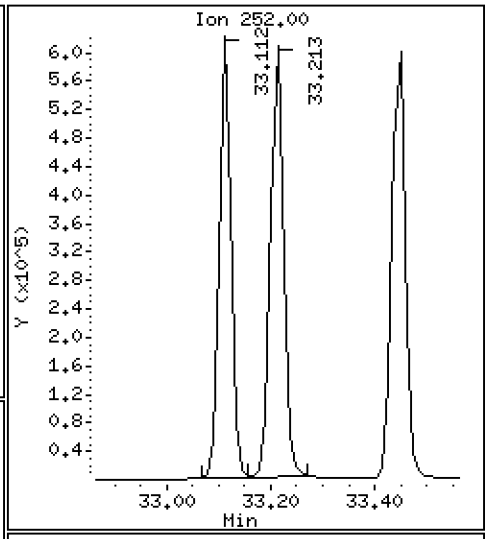
Concentration: 2.807 ug/mL

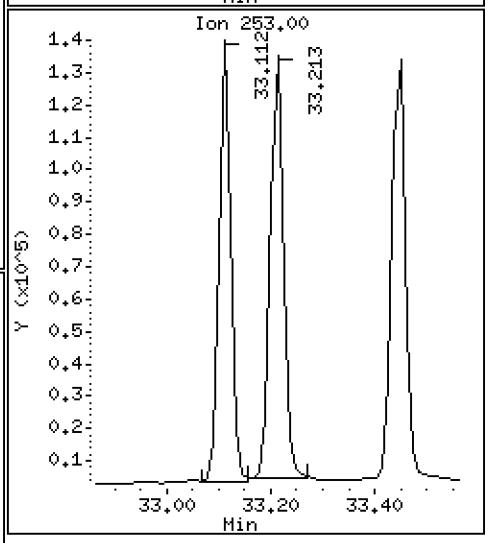












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

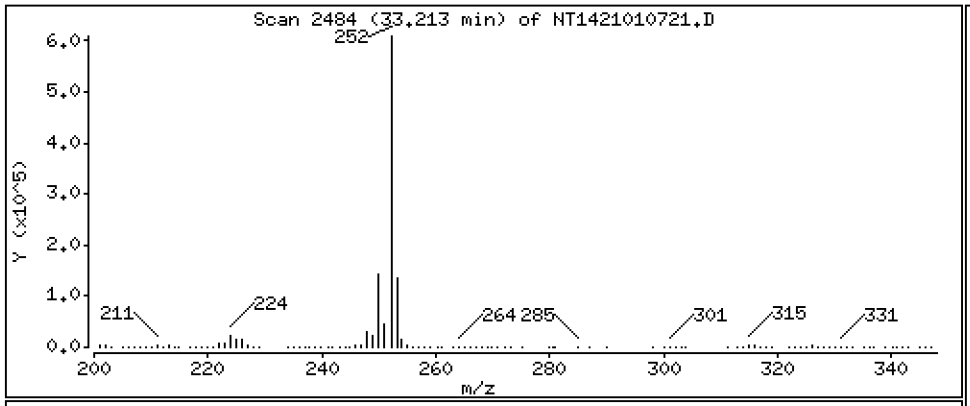
Operator: VTS

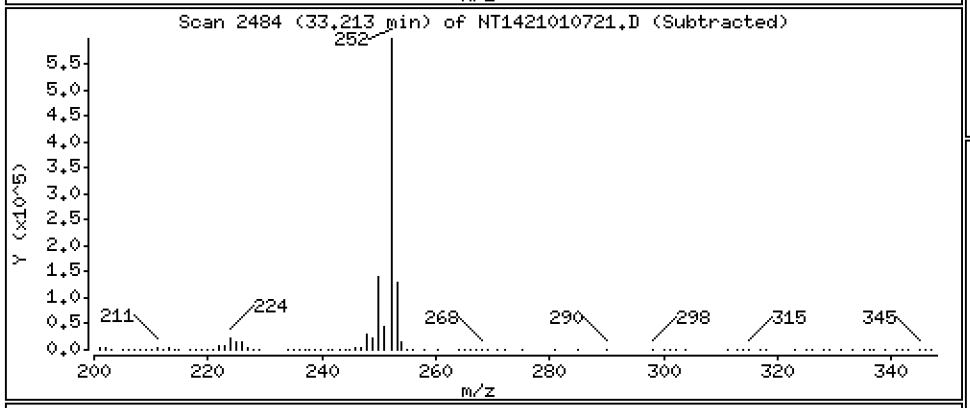
Column phase: Rxi-17Sil MS

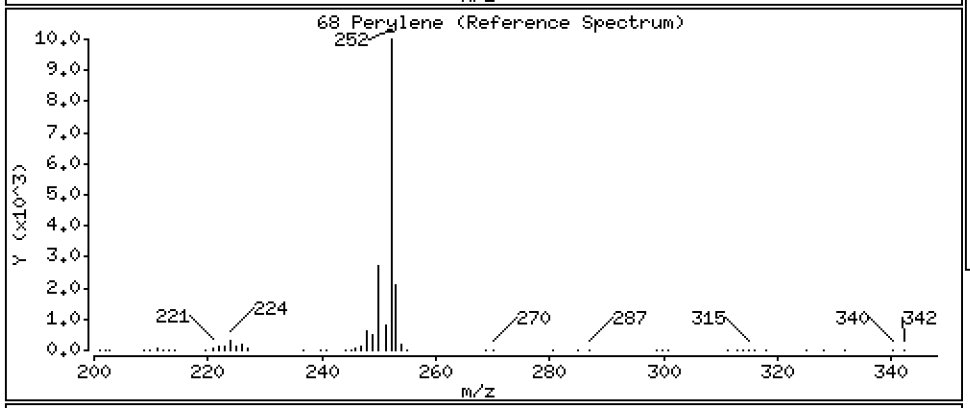
Column diameter: 0.25

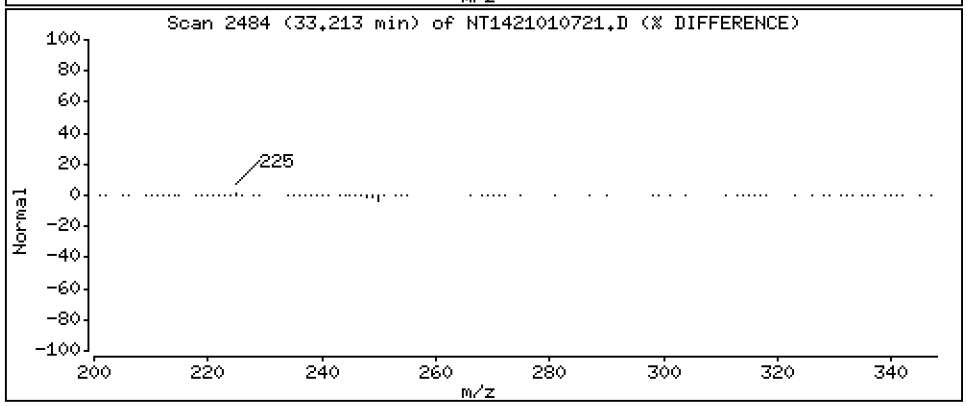
68 Perylene

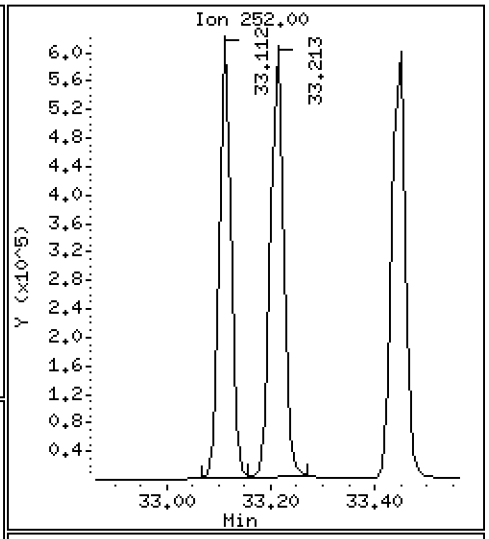
Concentration: 2.767 ug/mL

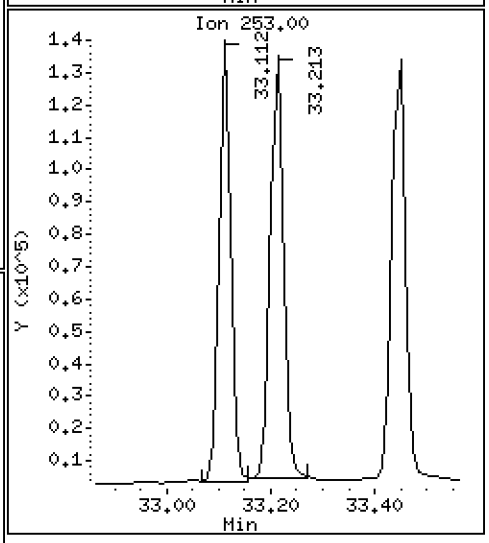












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

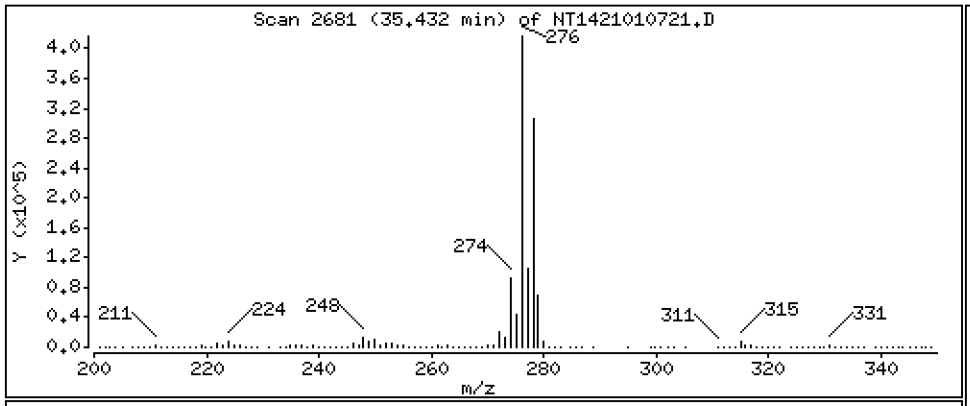
Operator: VTS

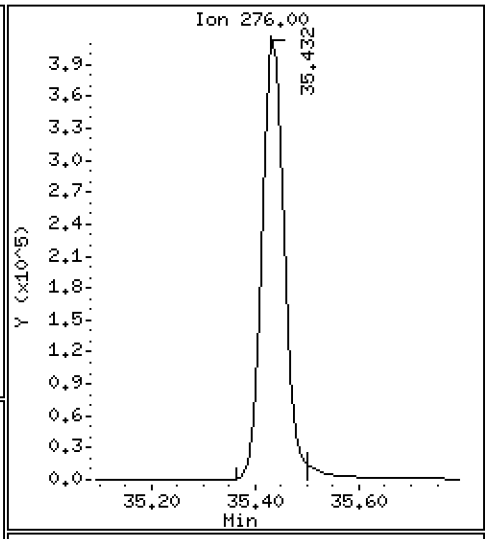
Column phase: Rxi-17Sil MS

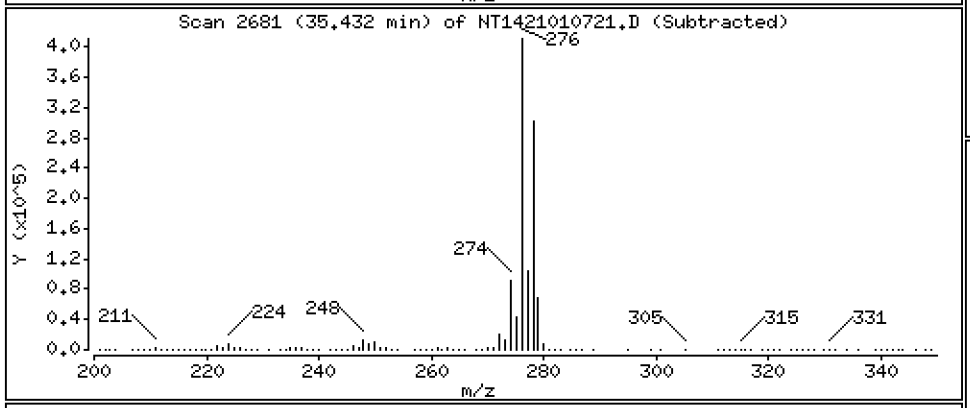
Column diameter: 0.25

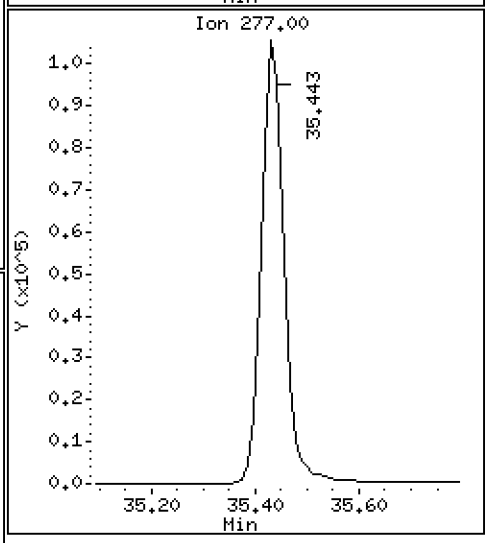
69 Indeno(1,2,3-cd)pyrene

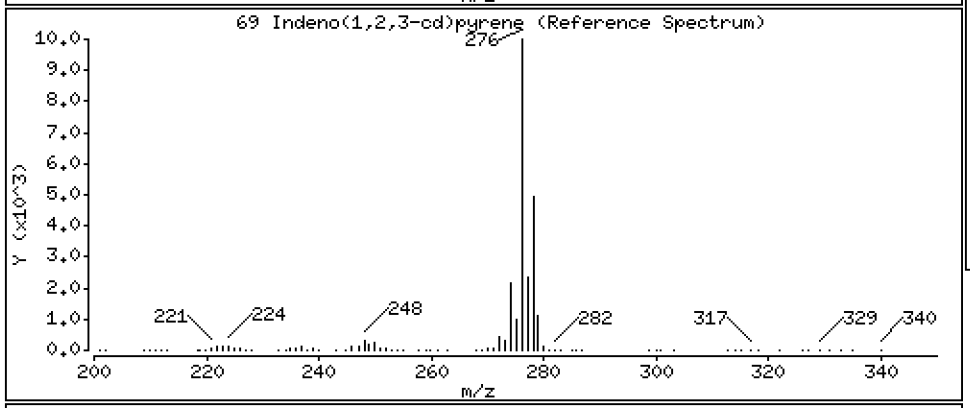
Concentration: 3.159 ug/mL

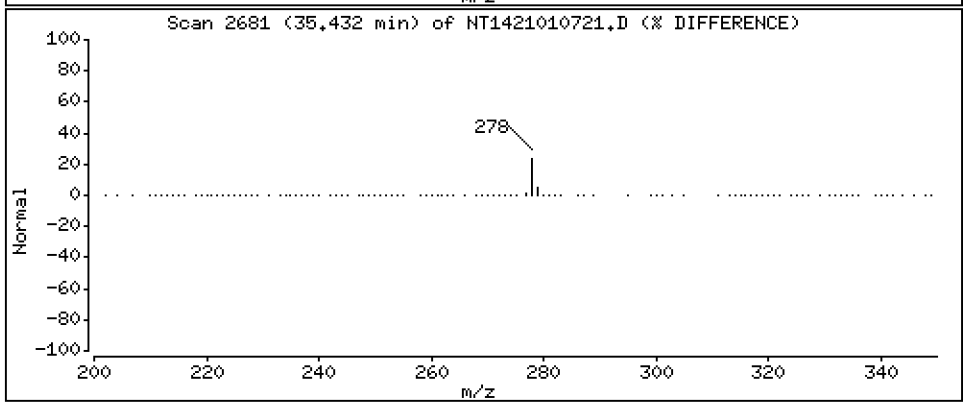












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

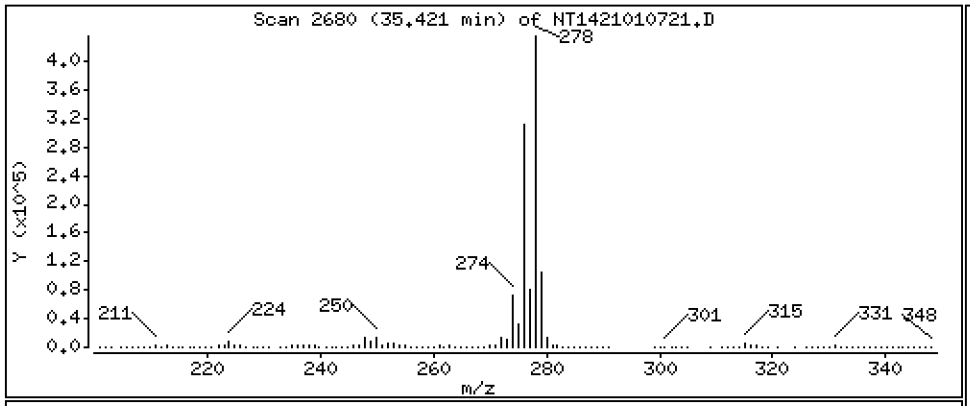
Operator: VTS

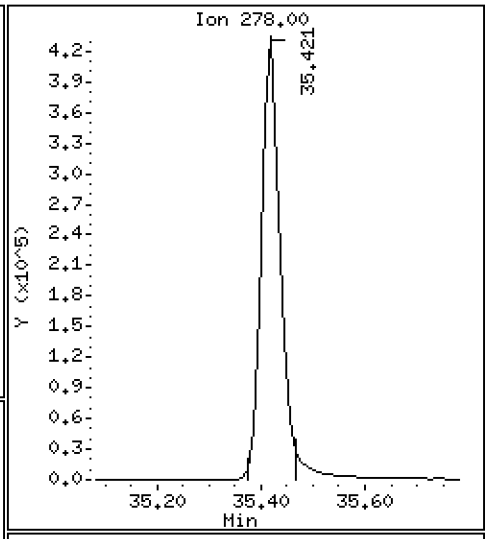
Column phase: Rxi-17Sil MS

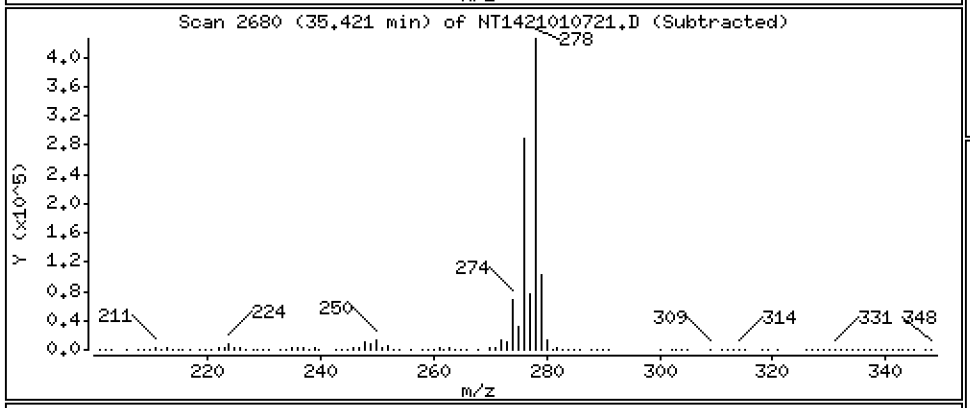
Column diameter: 0.25

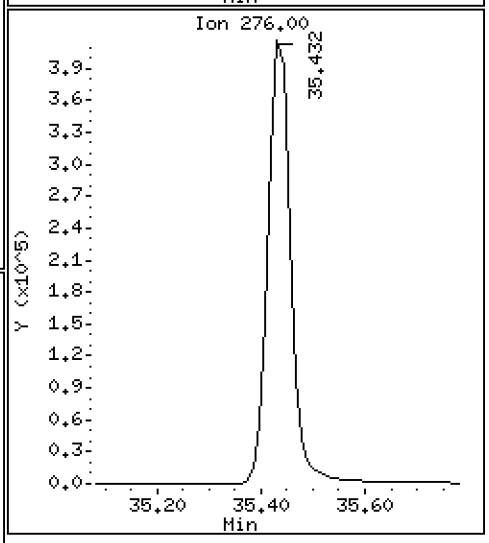
70 Dibenzo(a,h)anthracene

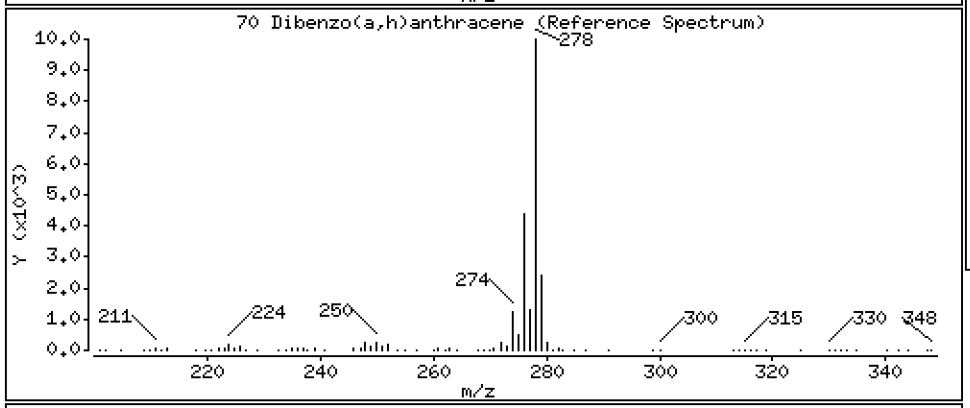
Concentration: 2.913 ug/mL

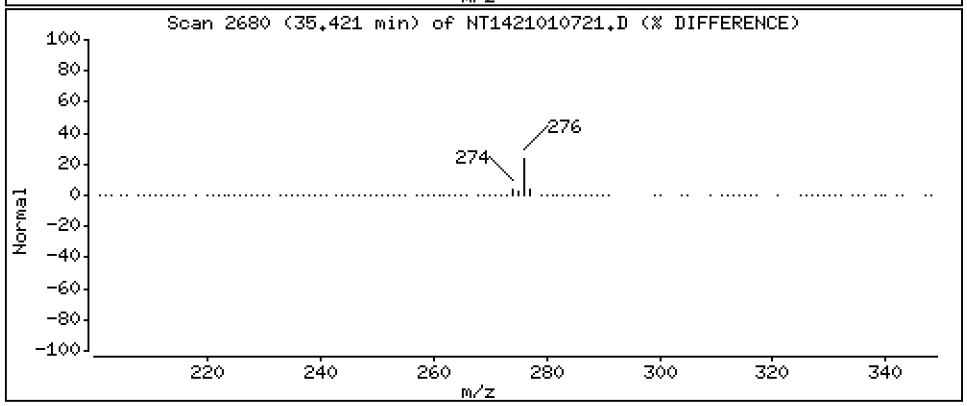












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Date : 08-JAN-2021 03:08

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-ICV1

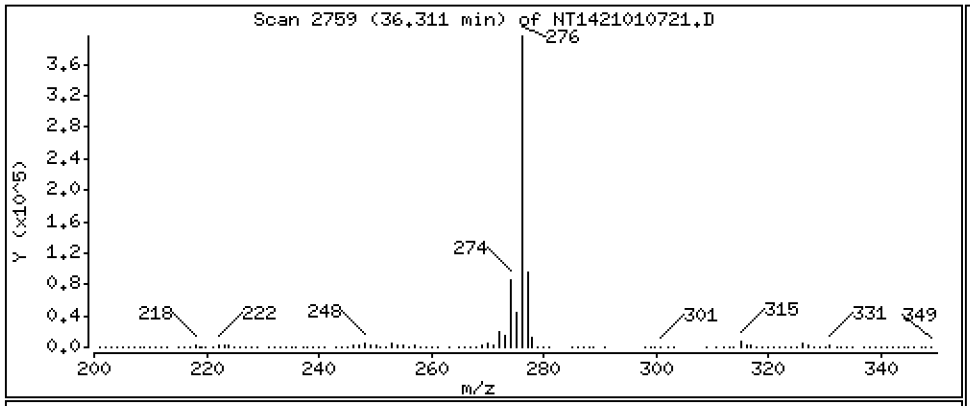
Operator: VTS

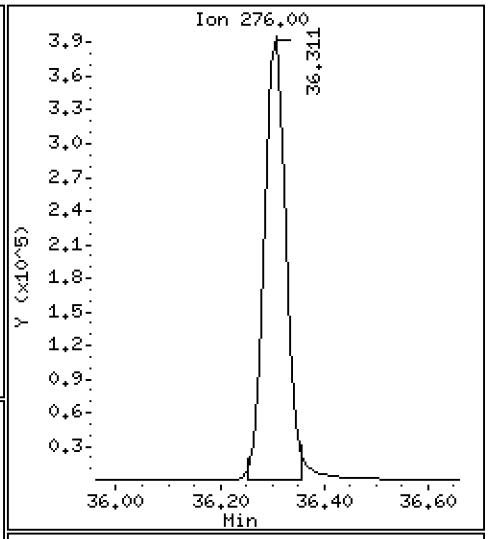
Column phase: Rxi-17Sil MS

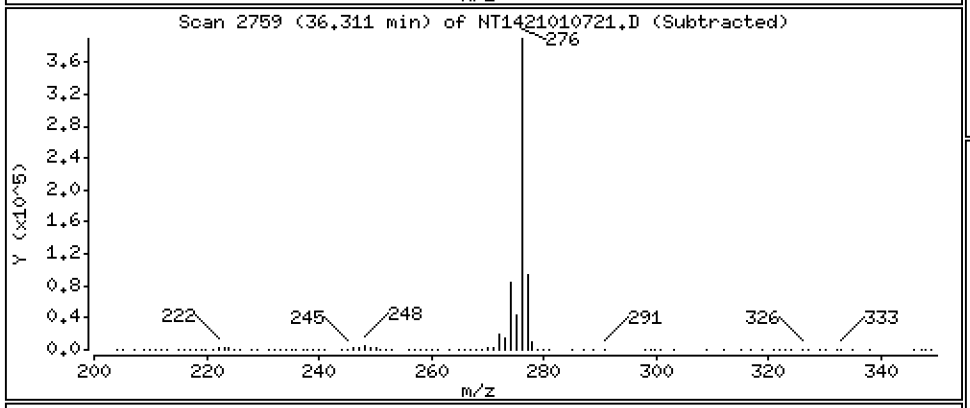
Column diameter: 0.25

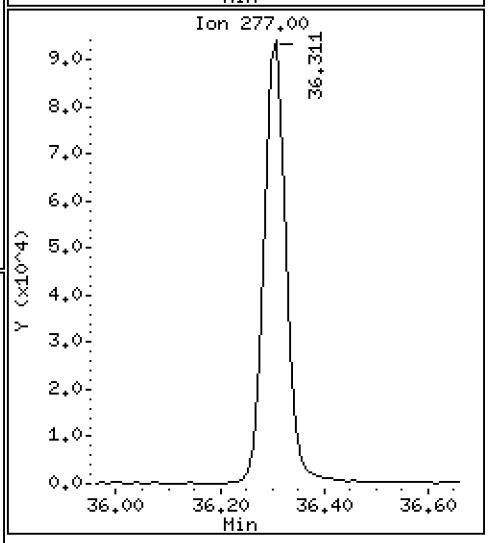
74 Benzo(g,h,i)perylene

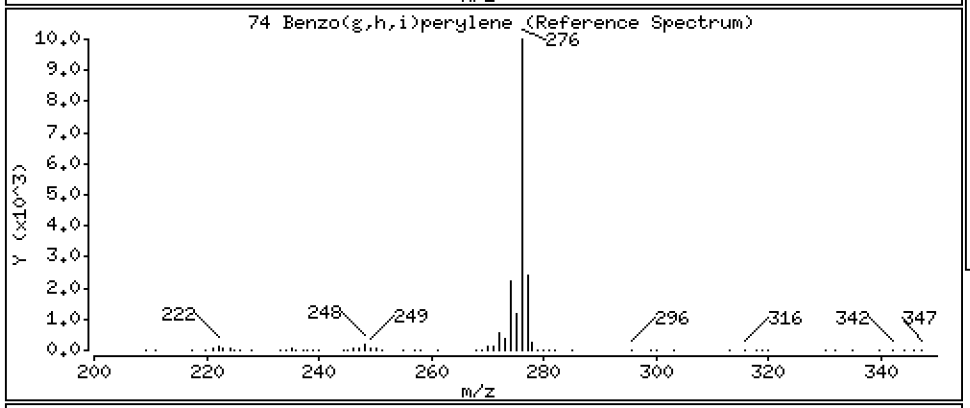
Concentration: 2.836 ug/mL

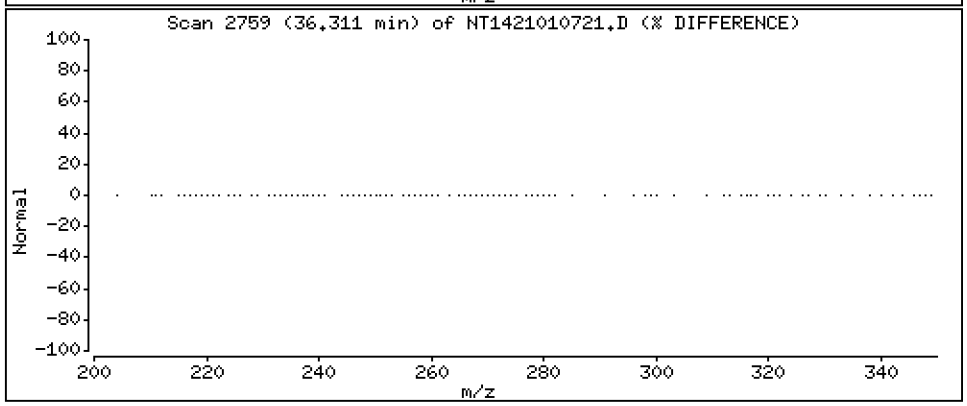












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

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Lab Smp Id: SJA0059-ICV1
Inj Date : 08-JAN-2021 03:08
Operator : VTS Inst ID: nt14.i
Smp Info : SJA0059-ICV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210107A.b\ALKYLPNA.m
Meth Date : 08-Jan-2021 17:15 yev Quant Type: ISTD
Cal Date : 07-JAN-2021 16:44 Cal File: NT1421010708.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	7.035	7.045	(0.375)	103204	2.42740	2.427
	2 cis-Decalin	138	8.145	8.145	(0.434)	75102	2.45268	2.453
$	6 Naphthalene-d8	136	11.766	11.766	(0.627)	833926	2.45821	2.458(R)
	7 Naphthalene	128	11.832	11.832	(0.631)	842197	2.47986	2.480
	12 Benzo(b)thiophene	134	12.283	12.283	(0.655)	699517	2.49059	2.491
	16 2-Methylnaphthalene	141	13.656	13.667	(0.728)	482491	2.48517	2.485
	17 1-methylnaphthalene	141	14.107	14.118	(0.752)	468176	2.48862	2.489
	18 Biphenyl	154	15.305	15.305	(0.816)	704208	2.46649	2.466
	19 2,6-Dimethylnaphthalene	156	15.382	15.382	(0.820)	530932	2.54140	2.541
	20 Acenaphthylene	152	16.942	16.942	(0.903)	937626	2.64036	2.640
$	21 Acenaphthene-d10	164	17.228	17.228	(0.918)	463644	2.58768	2.588(R)
	22 Acenaphthene	153	17.349	17.349	(0.925)	587056	2.57126	2.571
	23 Dibenzofuran	168	17.723	17.723	(0.945)	837994	2.56475	2.565
	24 1,6,7-Trimethylnaphthalene	170	17.953	17.953	(0.957)	556009	2.65013	2.650
*	25 Fluorene-d10	176	18.763	18.763	(1.000)	733237	2.00000	
	26 Fluorene	166	18.865	18.865	(1.005)	652277	2.63427	2.634
	30 Dibenzothiophene	184	21.779	21.779	(1.161)	973097	2.87233	2.872
$	35 Phenanthrene-d10	188	22.088	22.099	(0.995)	848188	2.48025	2.480(R)
	36 Phenanthrene	178	22.176	22.176	(0.999)	933947	2.50850	2.509
*	250 Anthracene-d10	188	22.209	22.209	(1.000)	746955	2.00000	
	37 Anthracene	178	22.275	22.275	(1.003)	923311	2.68174	2.682
	42 Carbazole	167	23.550	23.561	(1.060)	826939	2.87321	2.873
	43 1-Methylphenanthrene	192	24.012	24.012	(1.081)	701696	2.65319	2.653
	44 Fluoranthene	202	25.980	25.991	(1.170)	1094679	2.69067	2.691
	46 Pyrene	202	26.827	26.838	(1.208)	1143504	2.67838	2.678
	51 Naphthobenzothiophene	234	29.381	29.381	(1.323)	862375	2.82079	2.821
	55 Benzo(a)anthracene	228	29.969	29.969	(0.907)	1021097	2.63470	2.635
$	56 Chrysene-d12	240	30.093	30.093	(0.910)	748858	2.50406	2.504(R)
	57 Chrysene	228	30.160	30.172	(0.912)	965125	2.49243	2.492
	62 Benzo(b)fluoranthene	252	32.390	32.391	(0.980)	1012643	2.66031	2.660(M)
	63 Benzo(k)fluoranthene	252	32.435	32.447	(0.981)	1164457	2.92969	2.930
	293 Benzo(j)fluoranthene	252	32.503	32.503	(0.983)	971455	2.53272	2.533
	246 Total Benzofluoranthenes	252	32.435	32.447	(0.981)	3210759	8.44789	8.448(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	33.055	33.055	(1.000)	949706	2.00000	
64 Benzo(e)pyrene	252	33.111	33.122	(1.002)	988961	2.67724	2.677
66 Benzo(a)pyrene	252	33.213	33.213	(1.005)	975820	2.80738	2.807
$ 67 Perylene-d12	264	33.393	33.393	(1.010)	904663	2.82008	2.820(R)
68 Perylene	252	33.213	33.213	(1.005)	975820	2.76731	2.767
69 Indeno(1,2,3-cd)pyrene	276	35.431	35.443	(1.072)	1198761	3.15932	3.159(M)
70 Dibenzo(a,h)anthracene	278	35.420	35.432	(1.072)	1057707	2.91252	2.913(M)
74 Benzo(g,h,i)perylene	276	36.310	36.311	(1.098)	1083407	2.83559	2.836(M)

QC Flag Legend

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

Data File: \\target\share\chem3\nt14.i\20210107A.b\NT1421010721.D Page 1
Report Date: 09-Jan-2021 10:56

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421010721.D
Lab Smp Id: SJA0059-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210107A.b\ALKYLPNA.m
Misc Info:

Calibration Date: 07-JAN-2021
Calibration Time: 11:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	642877	321439	1285754	733237	14.06
250 Anthracene-d10	641722	320861	1283444	746955	16.40
251 Benzo(e)pyrene-d1	741138	370569	1482276	949706	28.14

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.76	18.26	19.26	18.76	-0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	-0.00
251 Benzo(e)pyrene-d1	33.06	32.56	33.56	33.06	-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 - NT1421010721.D

Lab ID: SJA0059-ICV1
nt14.i, 20210107A.b\ALKYLPNA.m, 08-JAN-2021 03:08

RT	CO-ELUTION COMPOUNDS
33.213	Perylene and Benzo(a)pyrene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

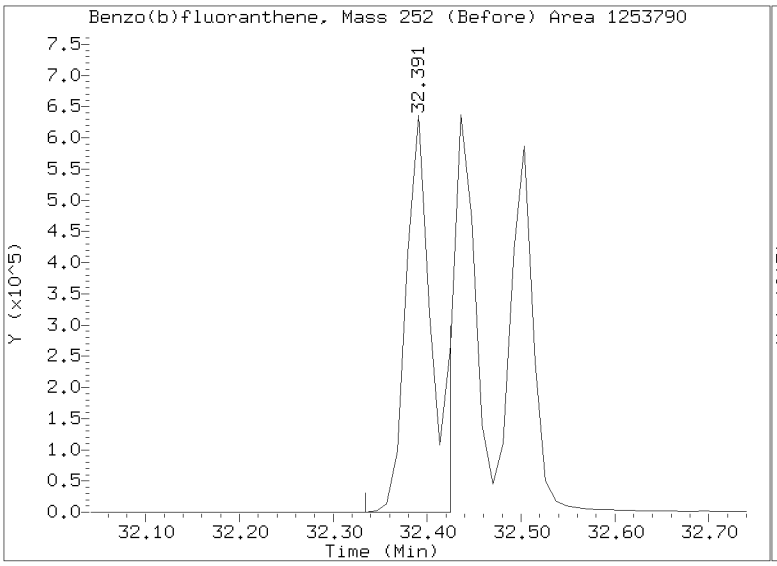
RRT check based on Ccal File: NT1421010708.D

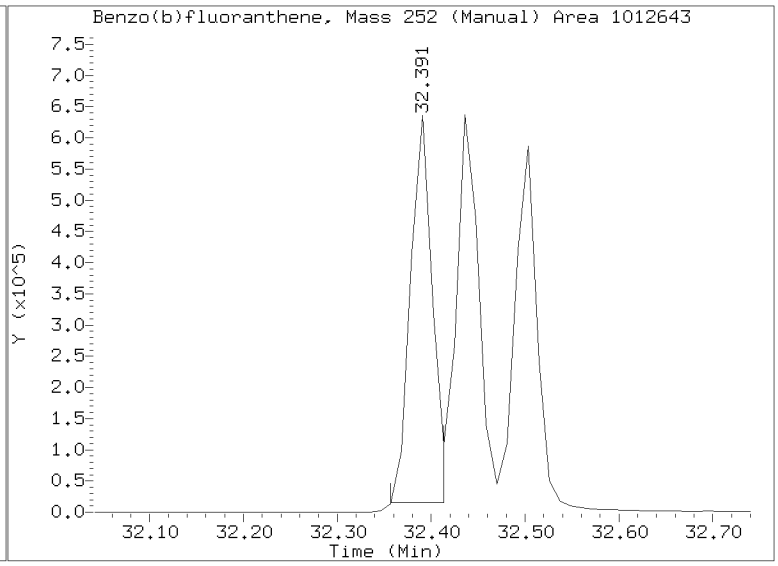
On Column LOD for nt14.i, 20210107A.b\ALKYLPNA.m, TARGETS.sub = 0.0000

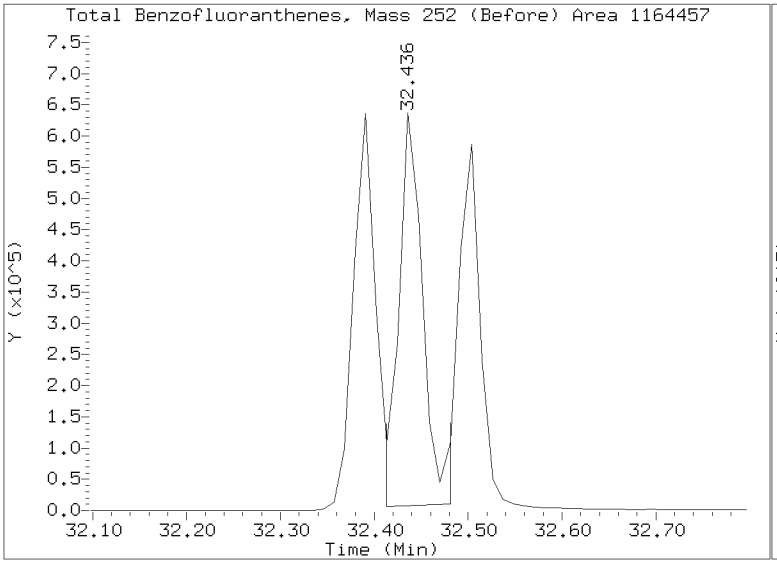
* Only compounds listed in the work order have been verified by the analyst *

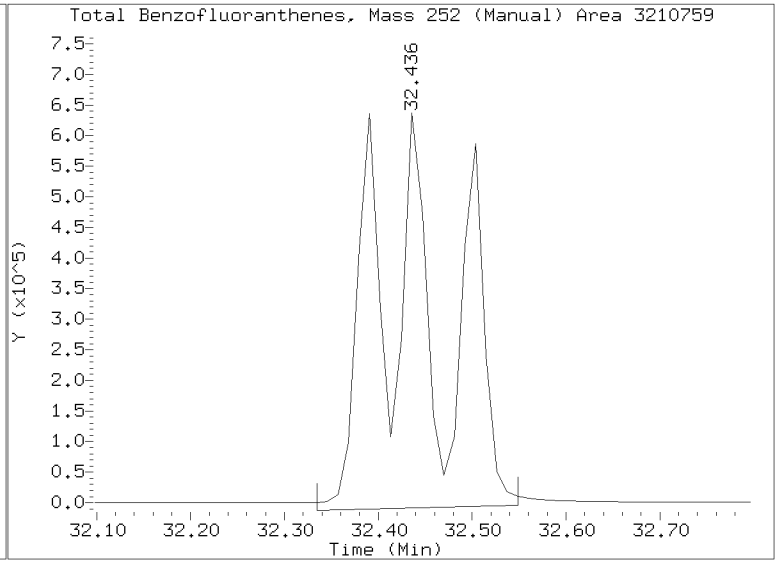
Quant Ion Manual Peak Adjustment Report

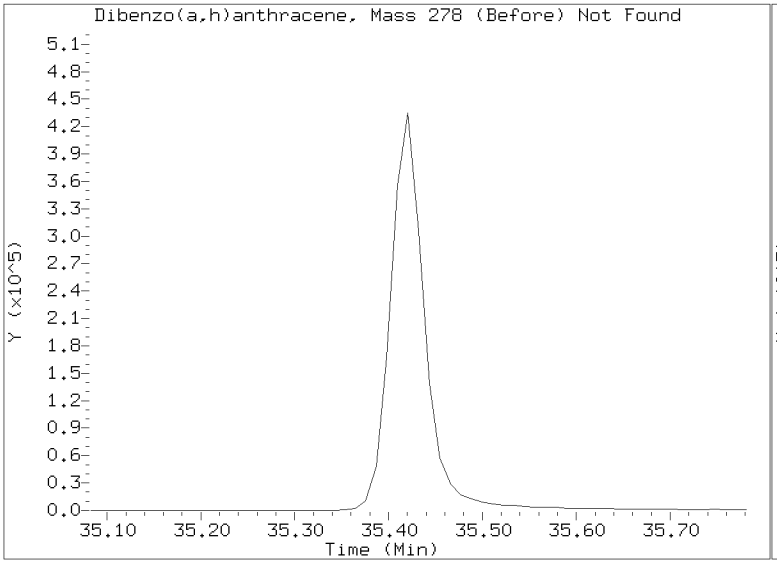
Datafile: //target/share/chem3/nt14.i/20210107A.b/NT1421010721.D
Injection Date: 08-JAN-2021 03:08
Lab ID:SJA0059-ICV1 Client ID:
Report Date: 01/09/2021 10:56

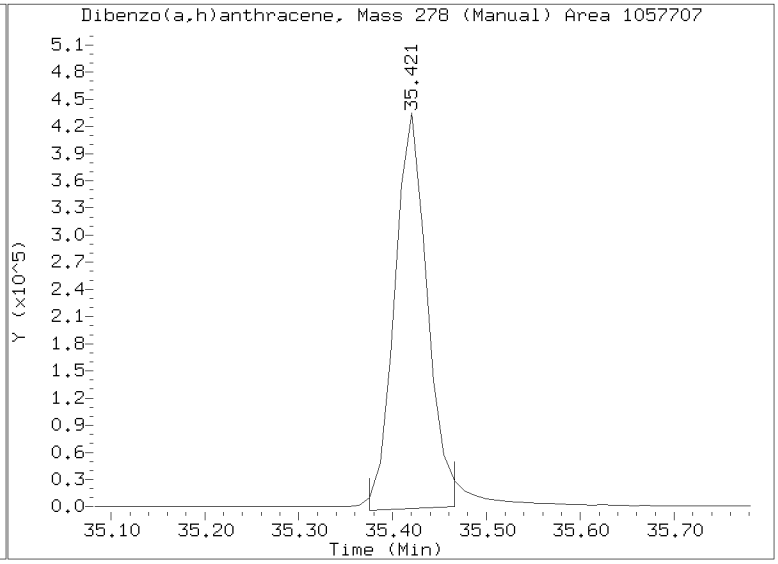












Quant Ion Manual Peak Adjustment Report

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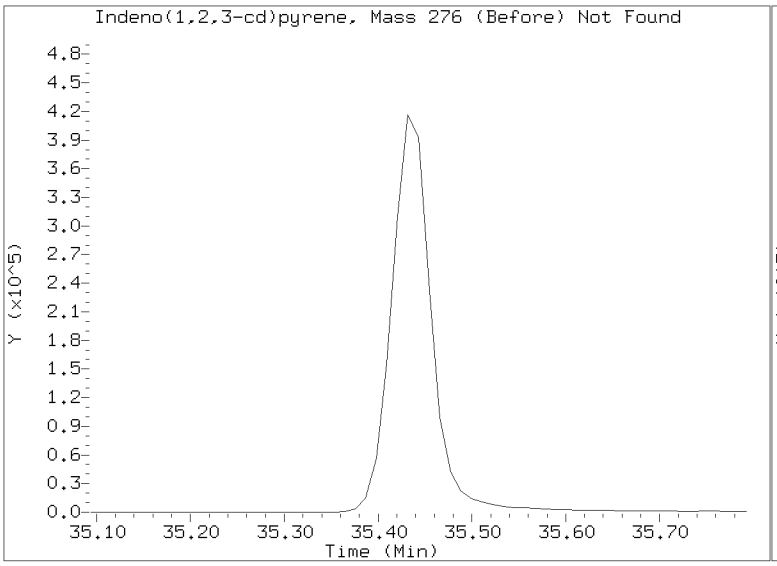
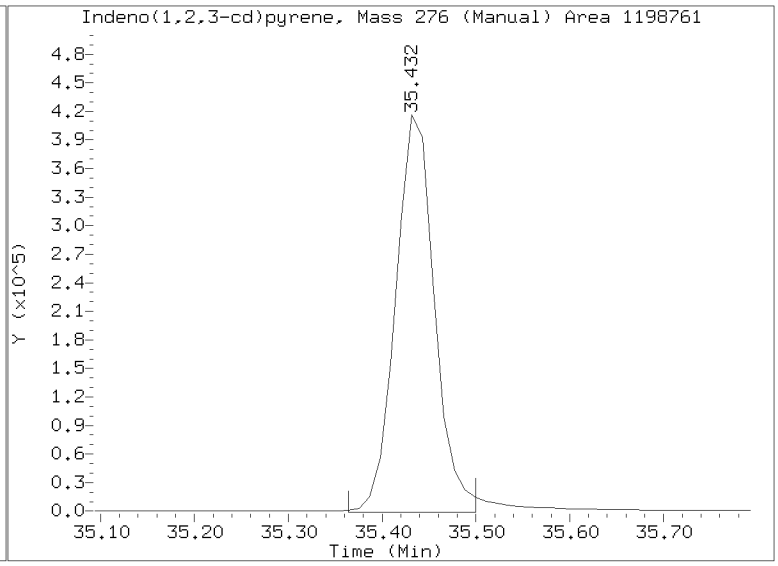
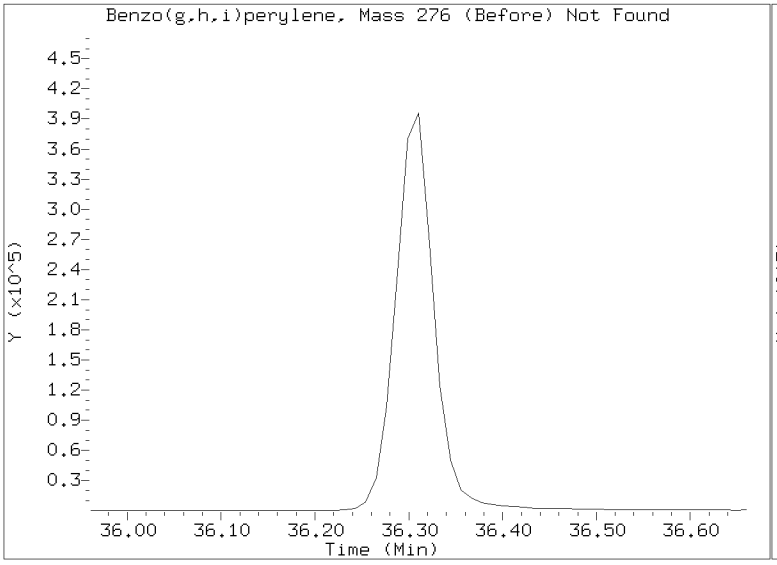
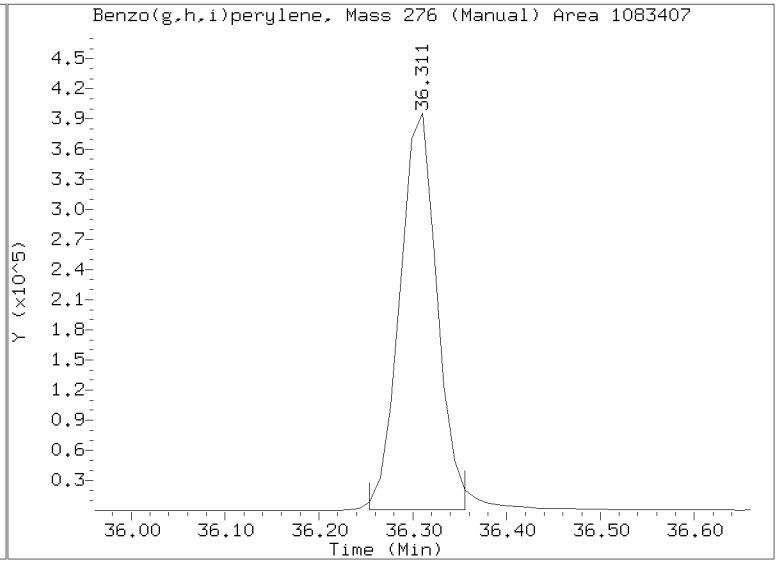
Injection Date: 08-JAN-2021 03:08
Lab ID:SJA0059-ICV1 Client ID:
Report Date: 01/09/2021 10:56









Analytical Resources, Incorporated
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Instrument ID:	NT14	Calibration:	EA00040
Lab File ID:	NT1421010709.D	Calibration Date:	01/14/2021
Sequence:	SJA0059	Injection Date:	01/07/21
Lab Sample ID:	SJA0059-SCV1	Injection Time:	17:32
Sequence Name:	Secondary Cal Check		

		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Naphthalene	A	2.5000	2.6	0.9263444	0.9486604		2.4	+/-20
1-Methylnaphthalene	A	2.5000	0.0	0.5131404				+/-20
2-Methylnaphthalene	A	2.5000	0.0	0.5295653				+/-20
Acenaphthylene	A	2.5000	2.6	0.9686185	1.0126250		4.5	+/-20
Acenaphthene	A	2.5000	2.5	0.6227577	0.6133146		-1.5	+/-20
Dibenzofuran	A	2.5000	0.0	0.8912135				+/-20
Fluorene	A	2.5000	2.5	0.6753950	0.6836917		1.2	+/-20
Phenanthrene	A	2.5000	2.6	0.9968805	1.0344180		3.8	+/-20
Anthracene	A	2.5000	2.7	0.9218650	0.9878949		7.2	+/-20
Carbazole	A	2.5000	0.0	0.7706226				+/-20
Fluoranthene	A	2.5000	2.6	1.0893370	1.1254870		3.3	+/-20
Pyrene	A	2.5000	2.5	1.1431450	1.1640810		1.8	+/-20
Benzo(a)anthracene	A	2.5000	2.7	0.8161632	0.8713600		7.5	+/-20
Chrysene	A	2.5000	2.7	0.8154589	0.8890604		9.8	+/-20
Benzo(b)fluoranthene	A	2.5000	2.7	0.8016147	0.8717768		7.3	
Benzo(k)fluoranthene	A	2.5000	2.4	0.8370331	0.8892719		-4.3	
Benzo(a)pyrene	A	2.5000	2.8	0.7319961	0.8146315		12.0	+/-20
Indeno(1,2,3-cd)pyrene	A	2.5000	2.7	0.7990599	0.8894565		8.7	+/-20
Dibenzo(a,h)anthracene	A	2.5000	2.5	0.6854958	0.7030201		0.6	+/-20
Benzo(g,h,i)perylene	A	2.5000	2.6	0.8046159	0.8190765		2.4	+/-20

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Page 1

Date : 07-JAN-2021 17:32

Client ID:

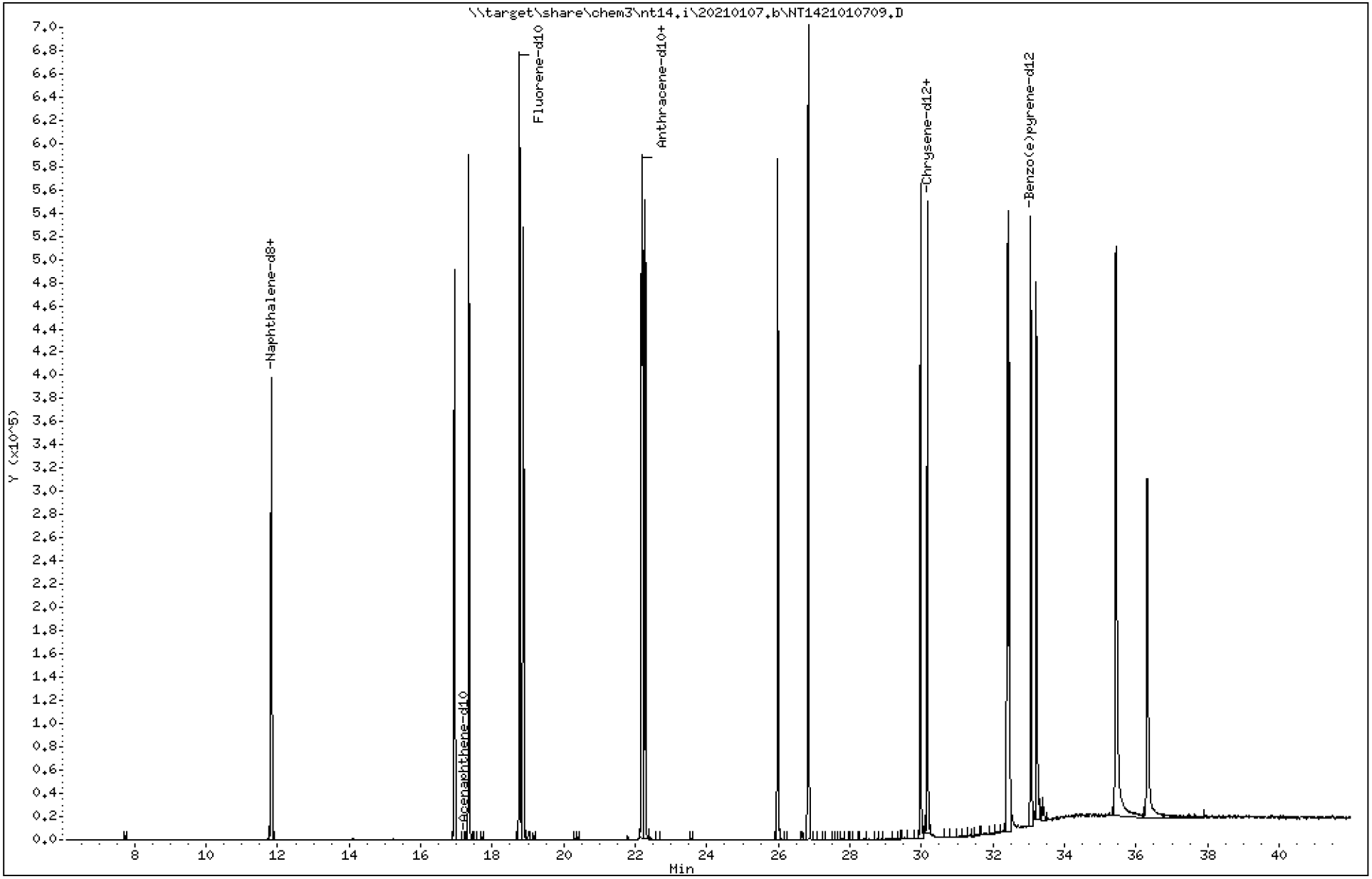
Instrument: nt14.i

Sample Info: SJA0059-SCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

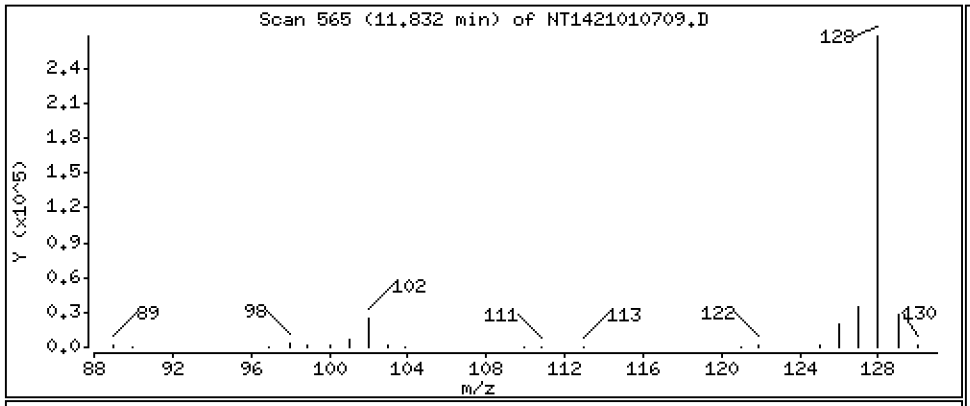
Operator: VTS

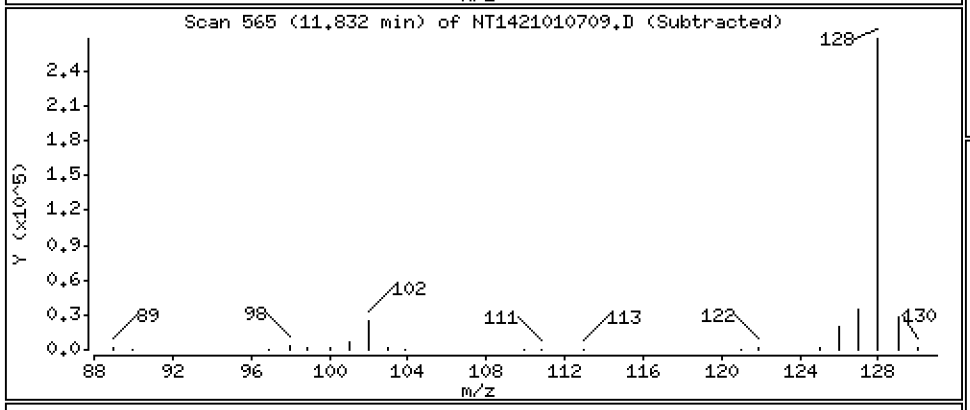
Column phase: Rxi-17Sil MS

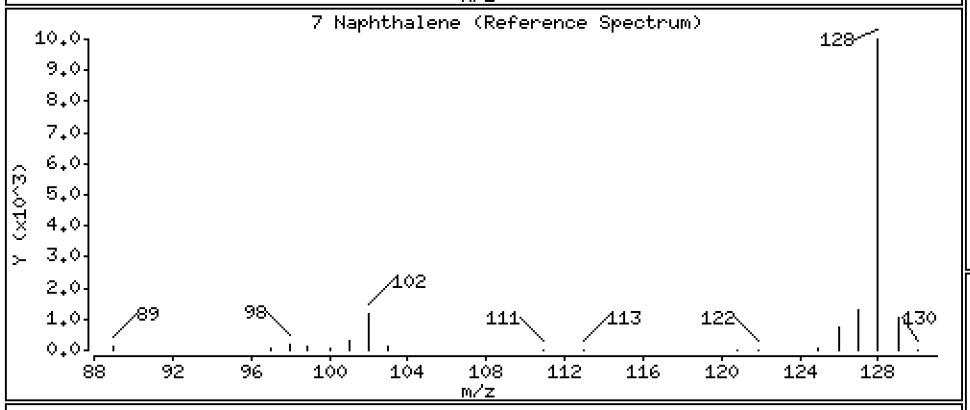
Column diameter: 0.25

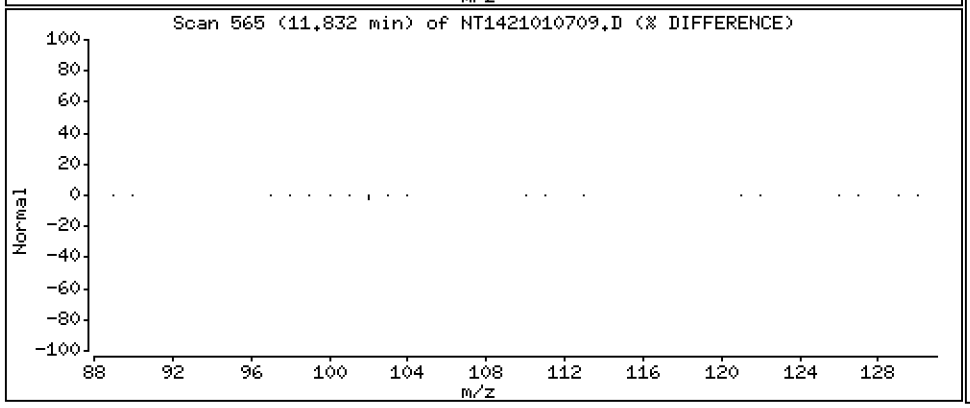
7 Naphthalene

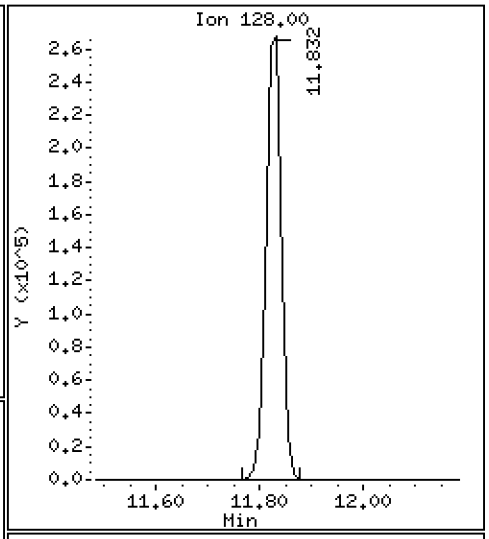
Concentration: 2.560 ug/mL

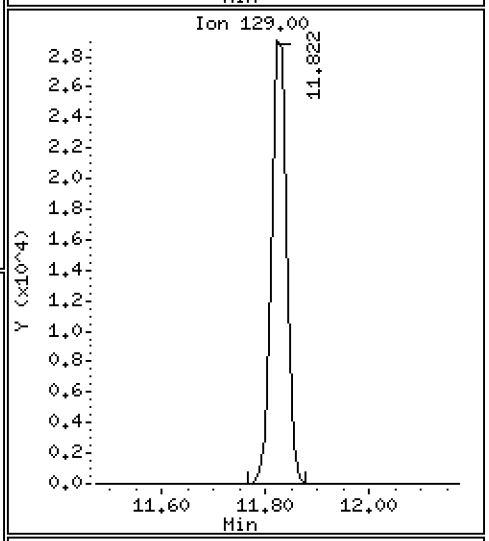


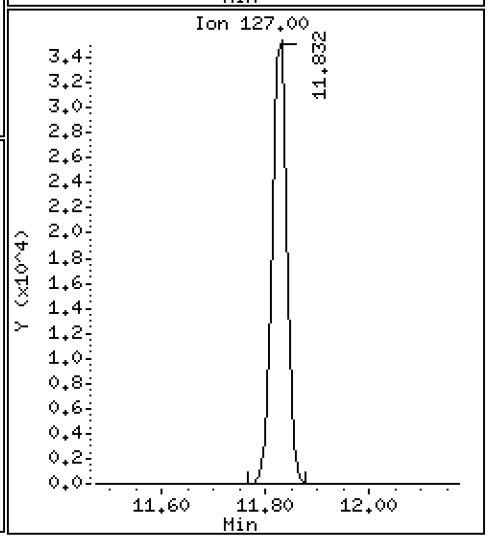












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

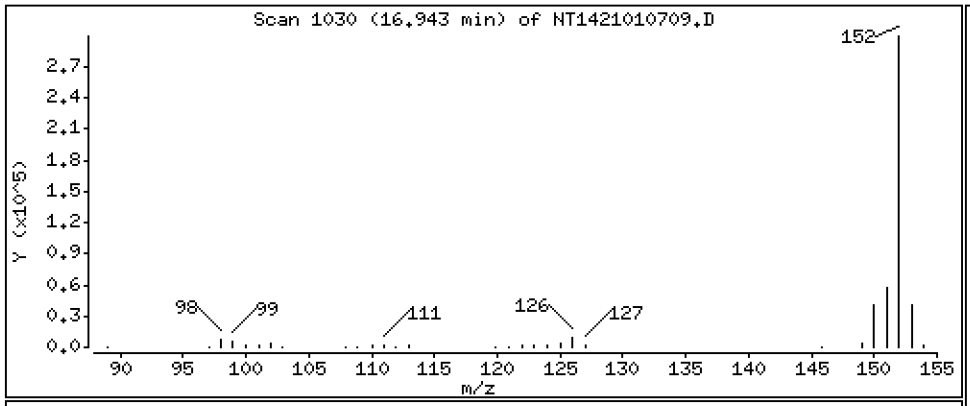
Operator: VTS

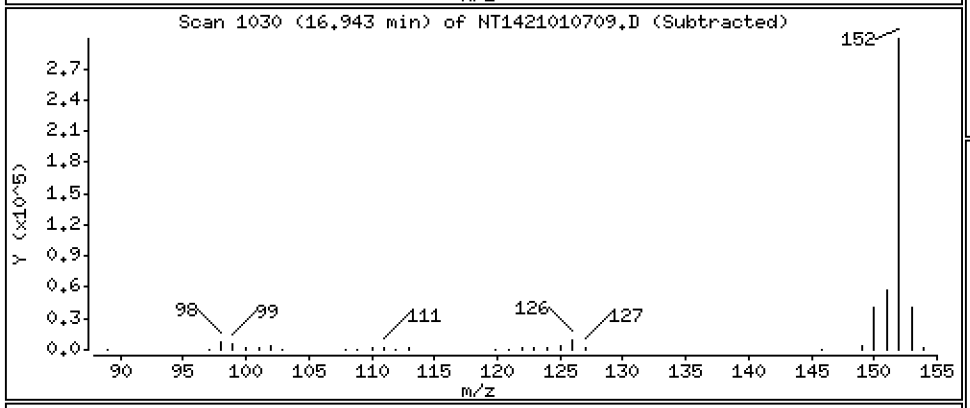
Column phase: Rxi-17Sil MS

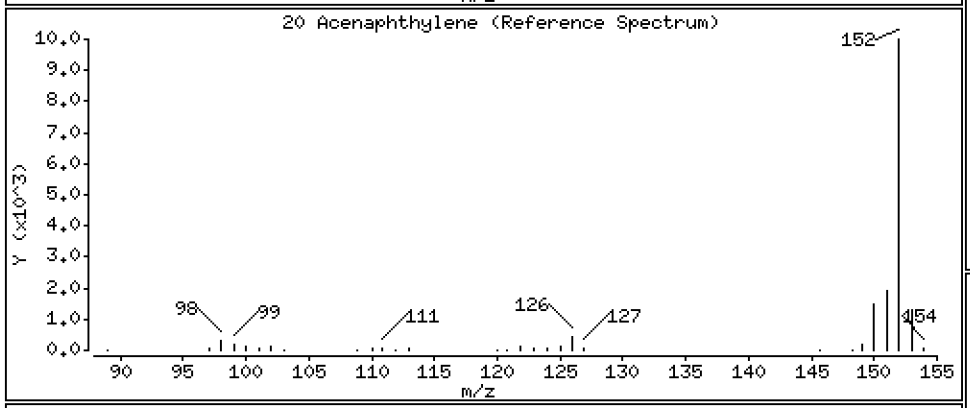
Column diameter: 0.25

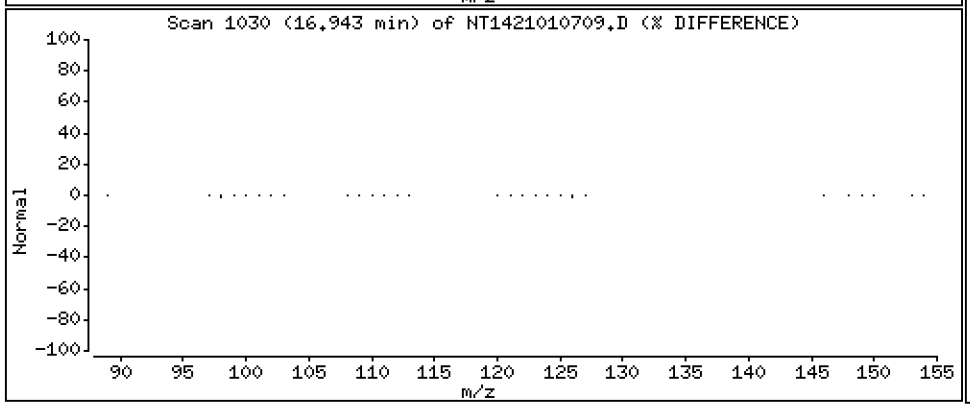
20 Acenaphthylene

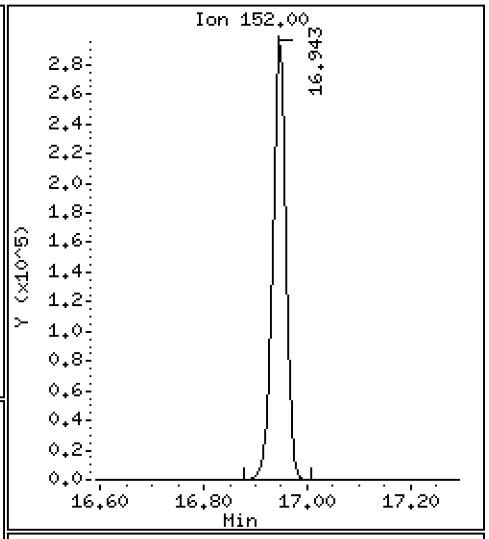
Concentration: 2.614 ug/mL

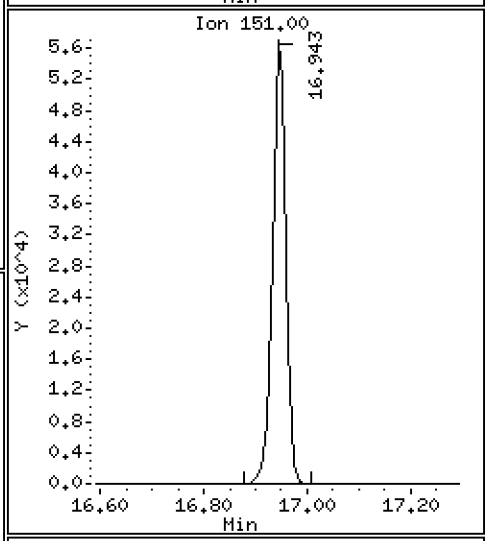


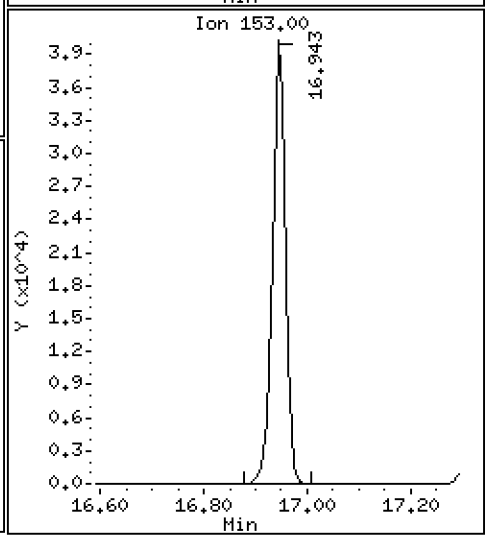












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

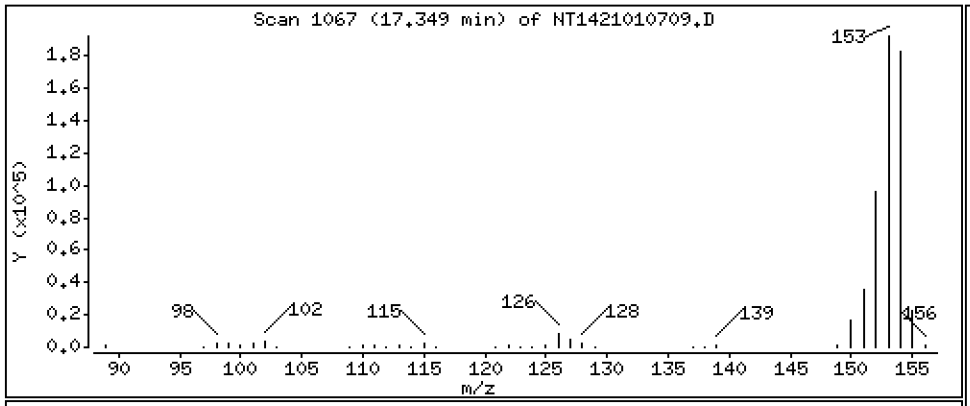
Operator: VTS

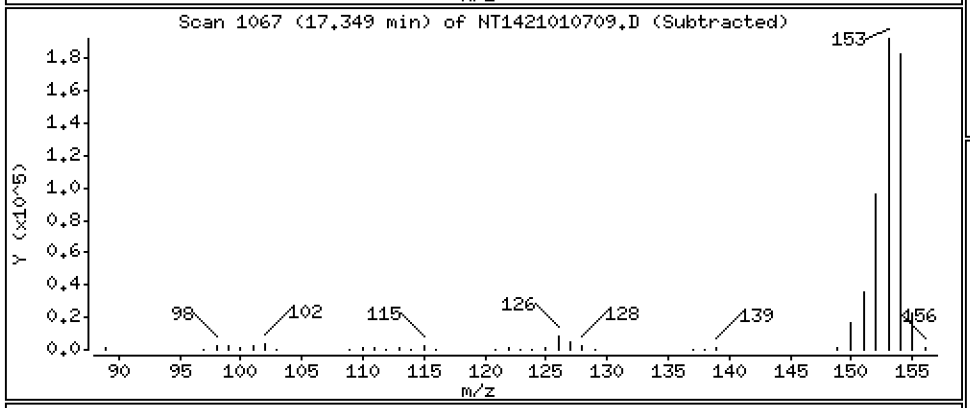
Column phase: Rxi-17Sil MS

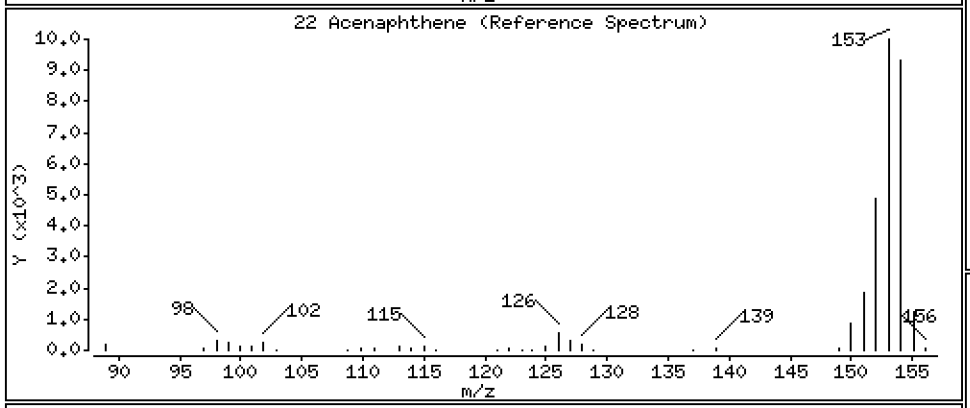
Column diameter: 0.25

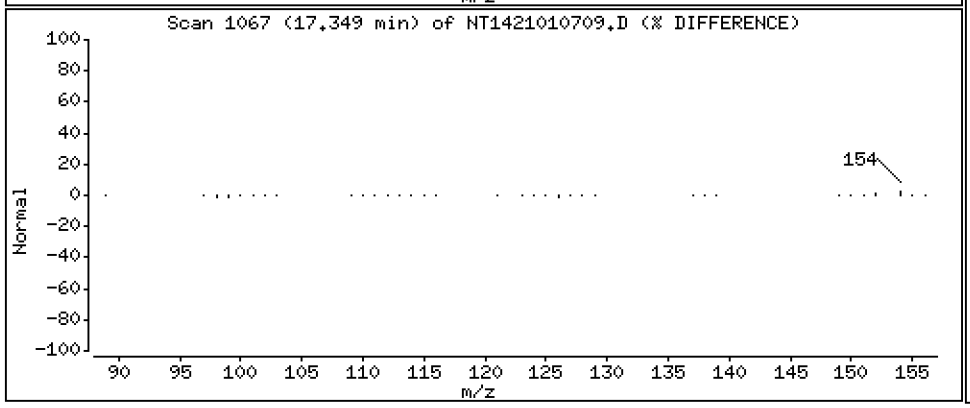
22 Acenaphthene

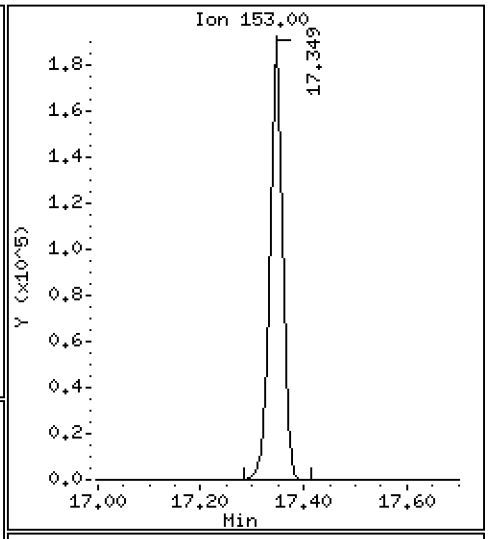
Concentration: 2.462 ug/mL

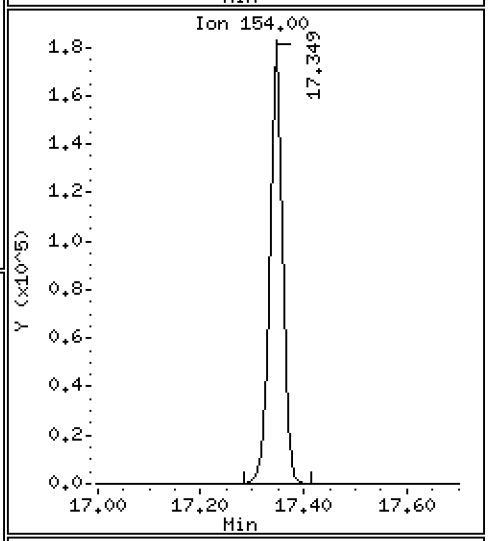


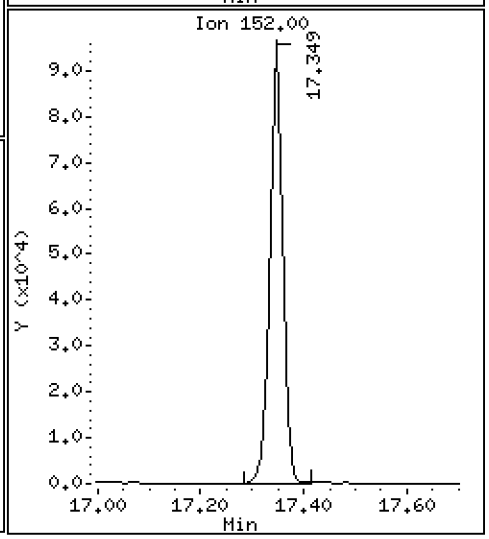












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

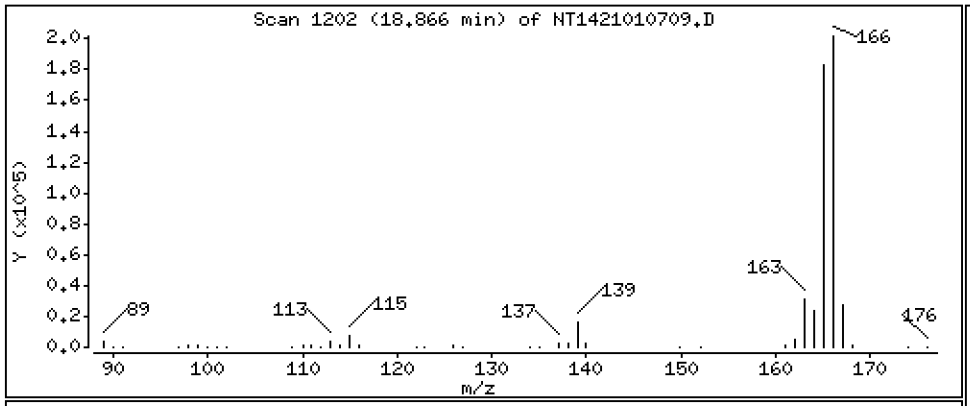
Operator: VTS

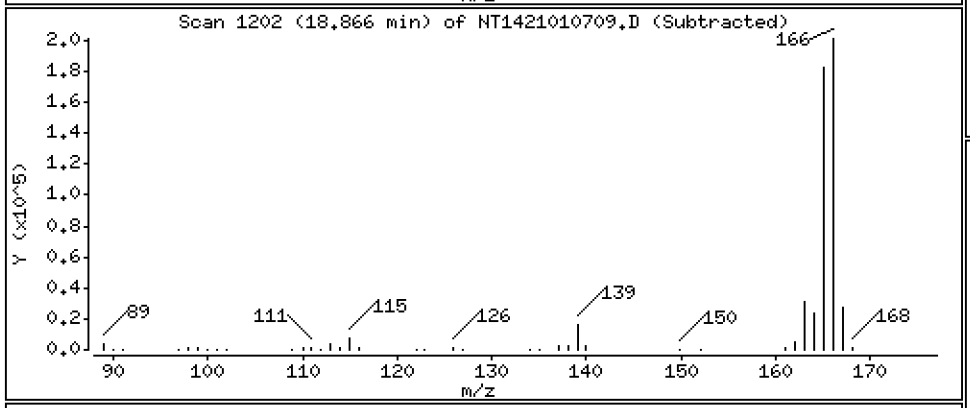
Column phase: Rxi-17Sil MS

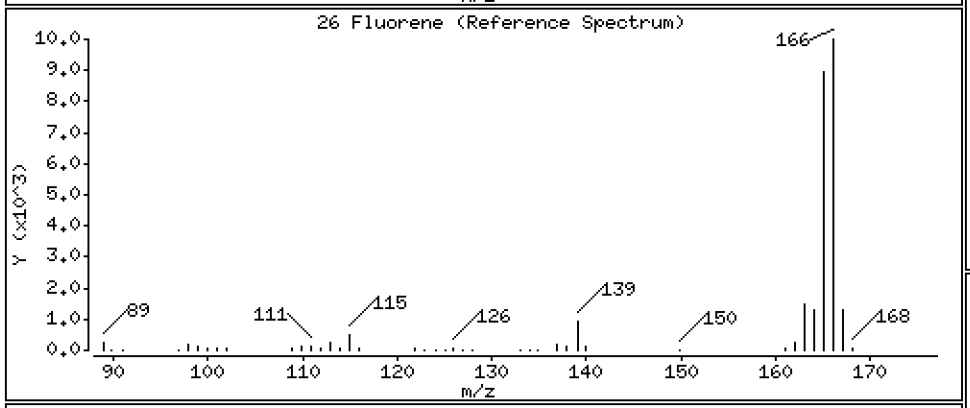
Column diameter: 0.25

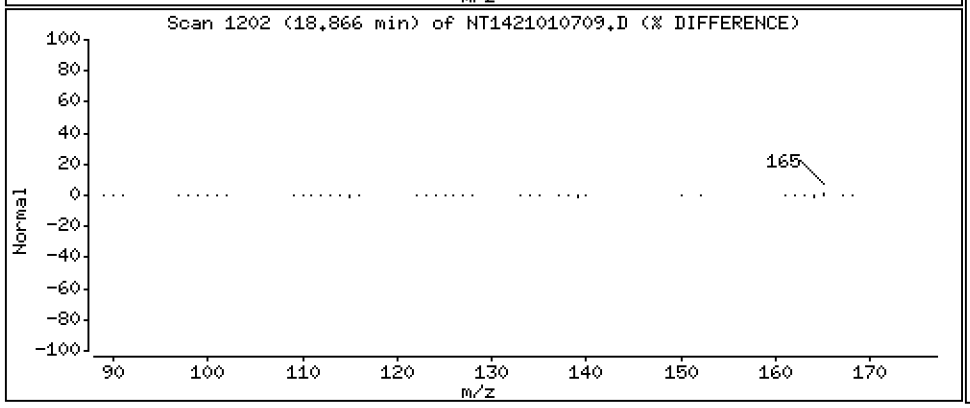
26 Fluorene

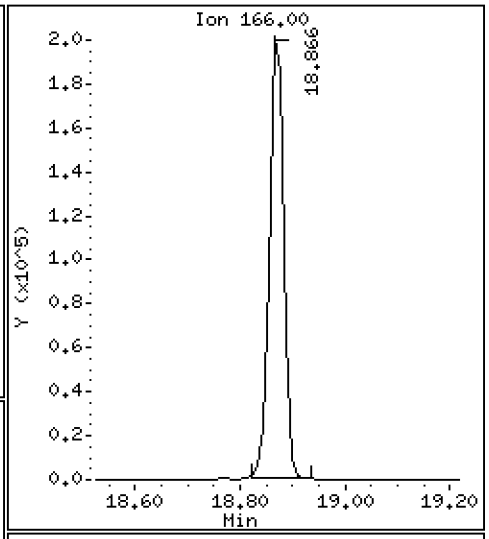
Concentration: 2.531 ug/mL

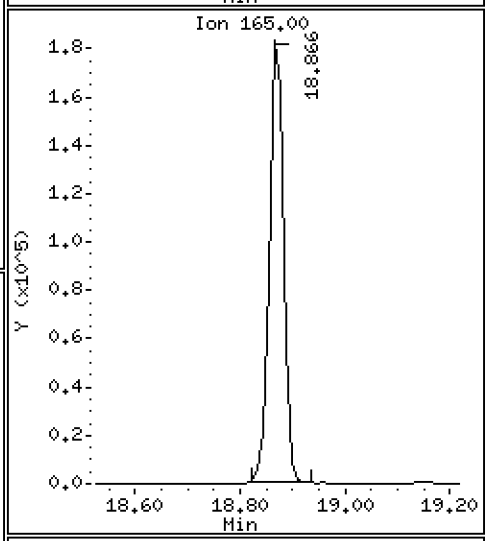


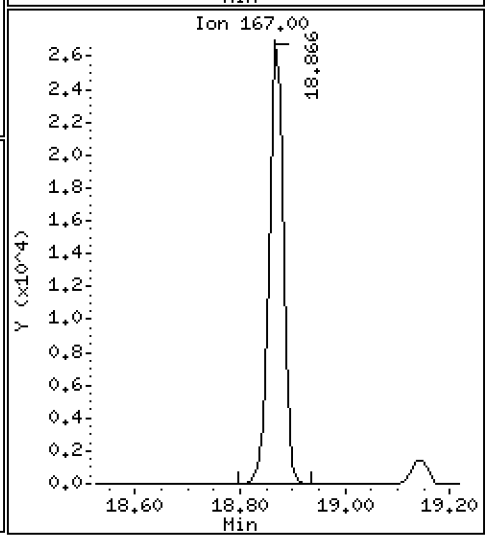












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

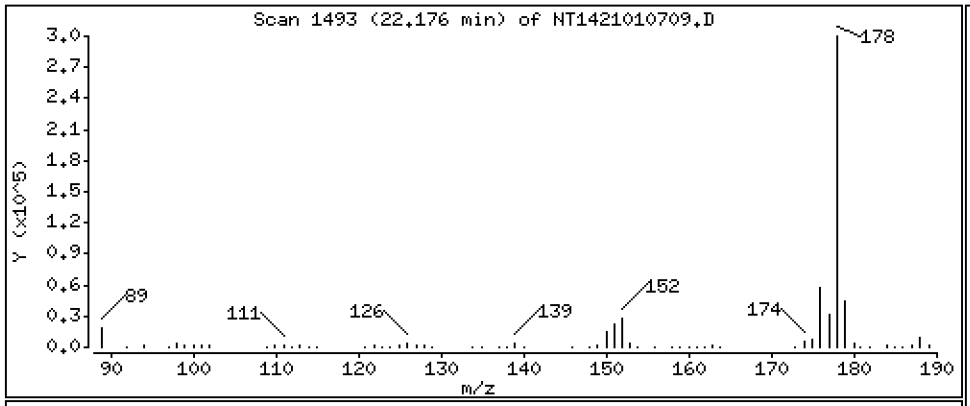
Operator: VTS

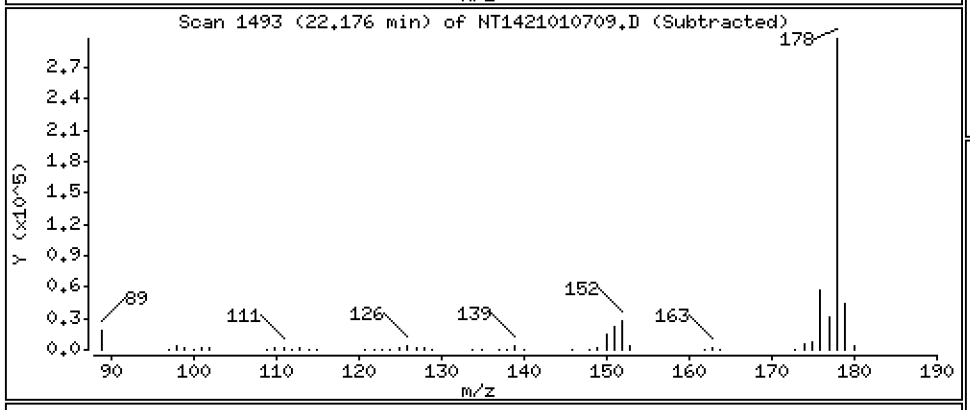
Column phase: Rxi-17Sil MS

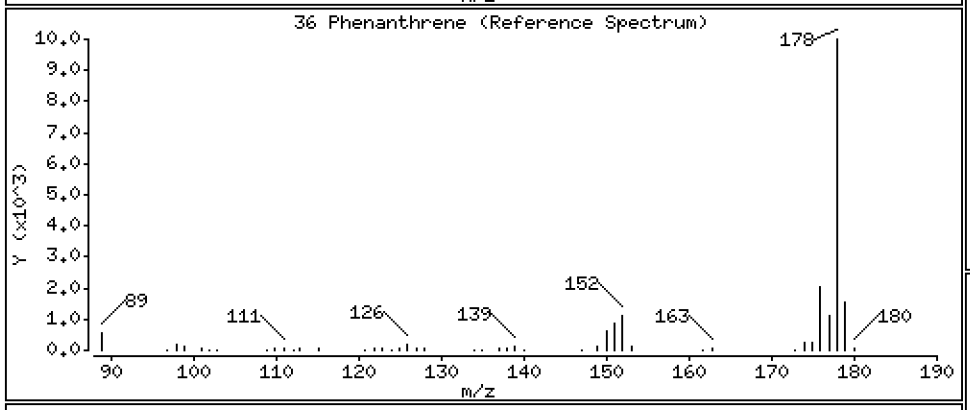
Column diameter: 0.25

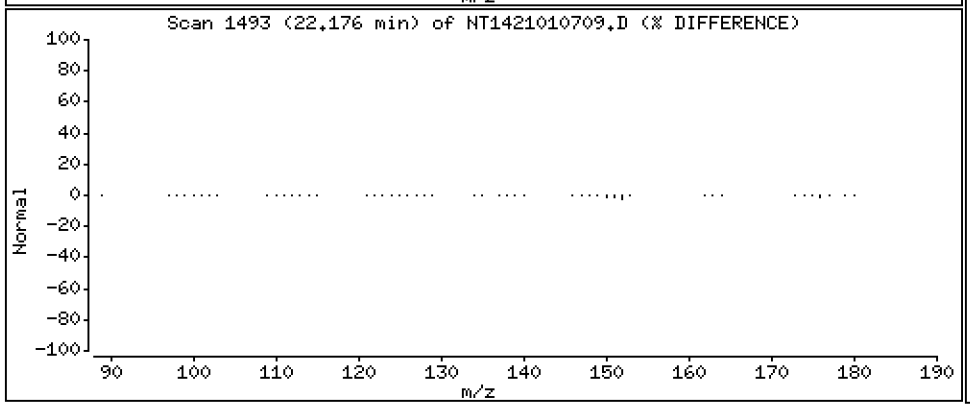
36 Phenanthrene

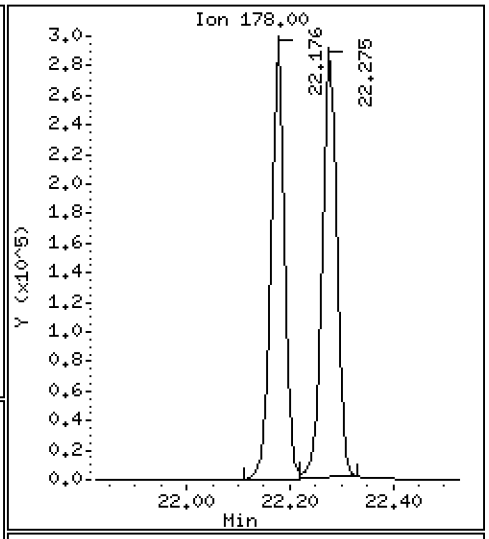
Concentration: 2.594 ug/mL

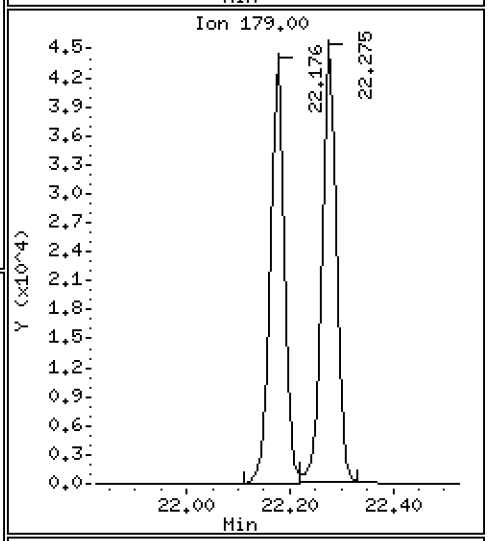


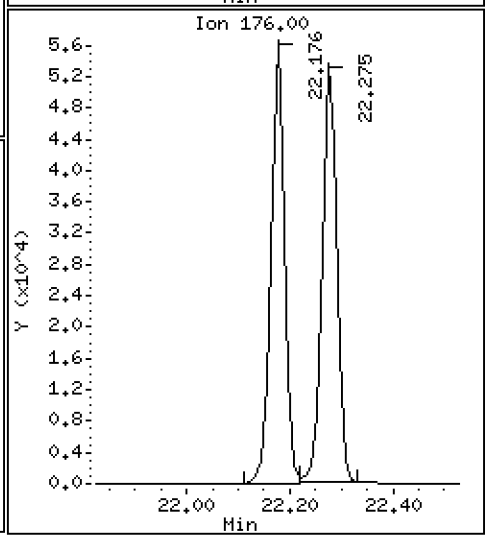












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

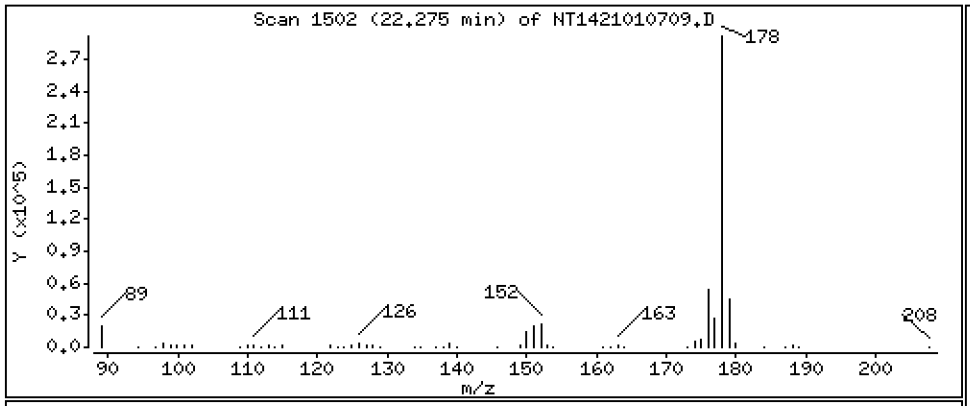
Operator: VTS

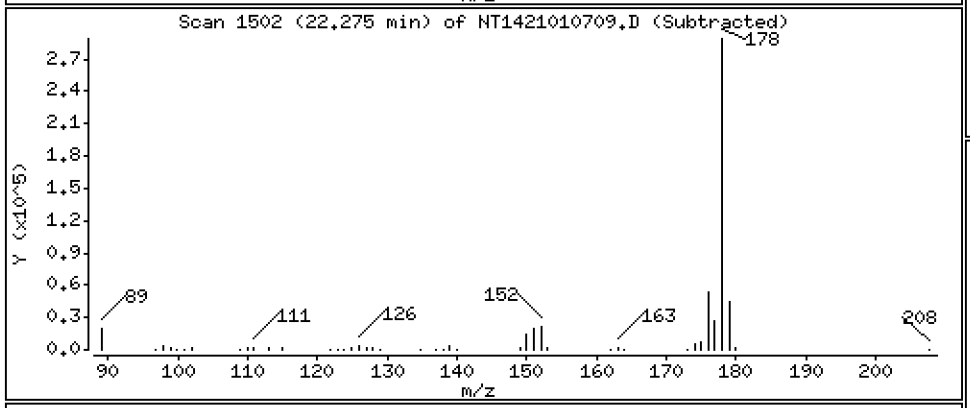
Column phase: Rxi-17Sil MS

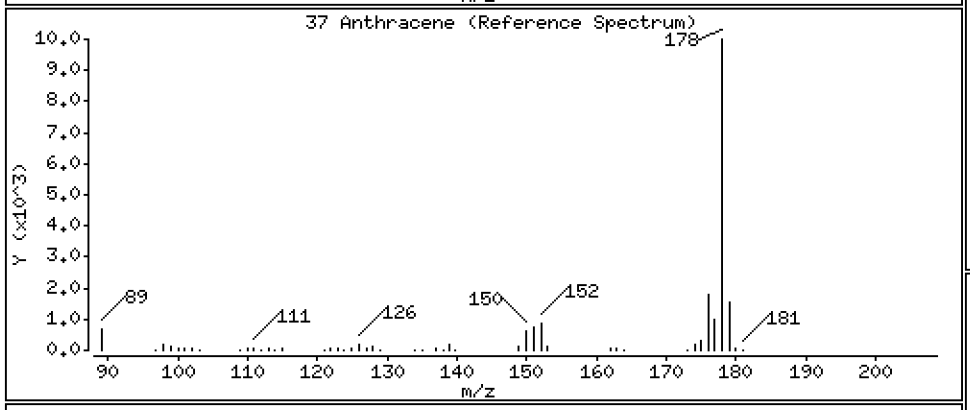
Column diameter: 0.25

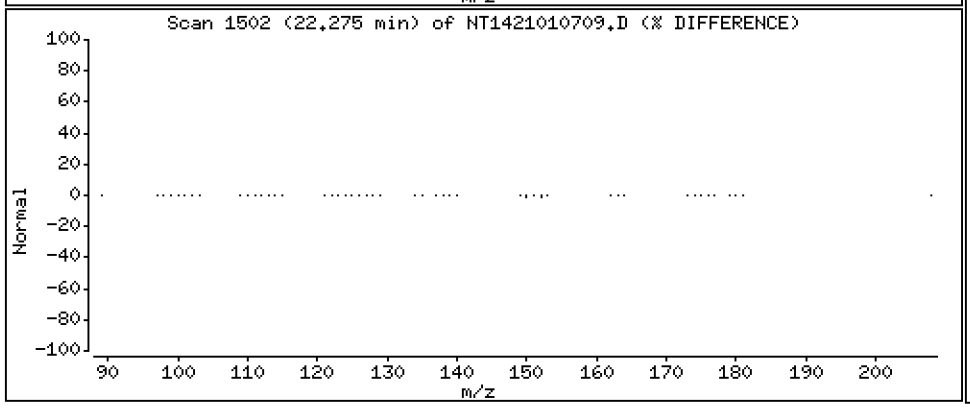
37 Anthracene

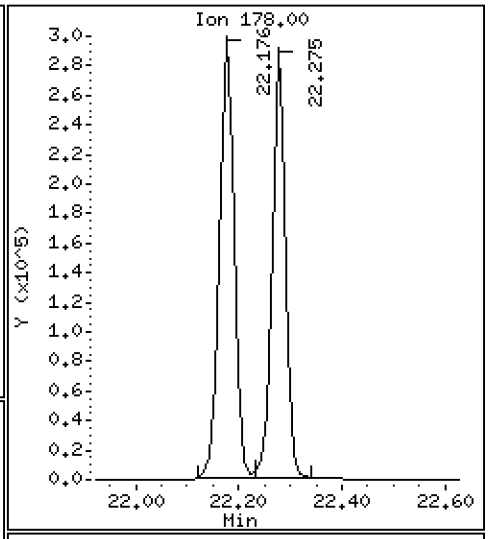
Concentration: 2.679 ug/mL

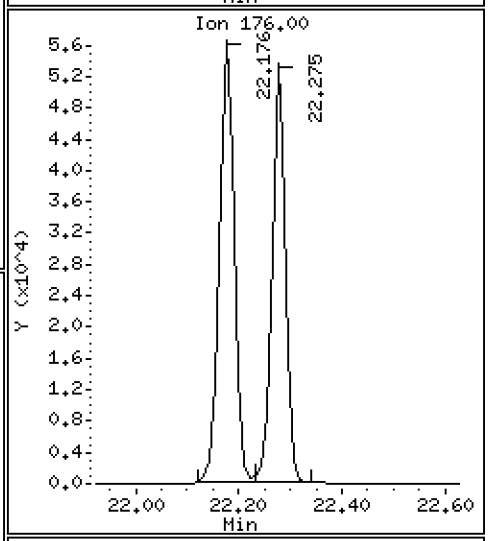


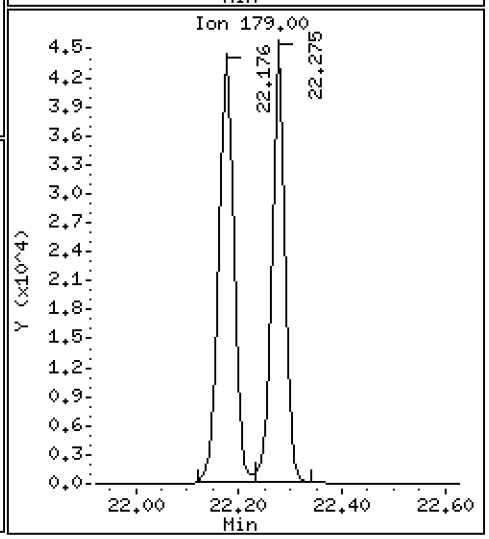












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

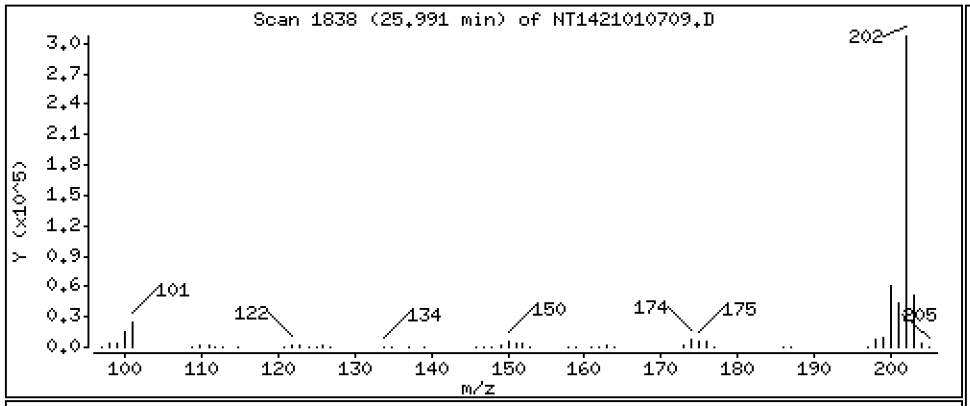
Operator: VTS

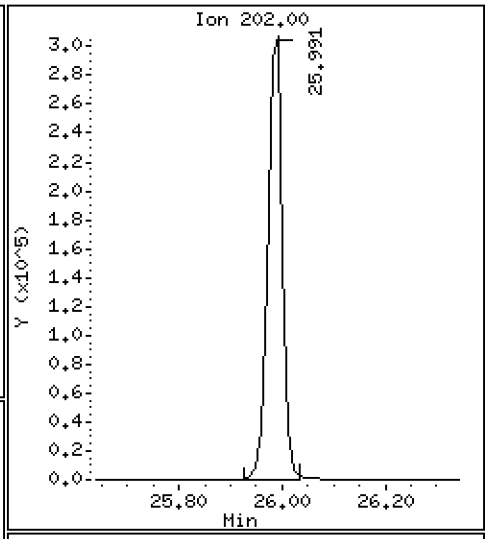
Column phase: Rxi-17Sil MS

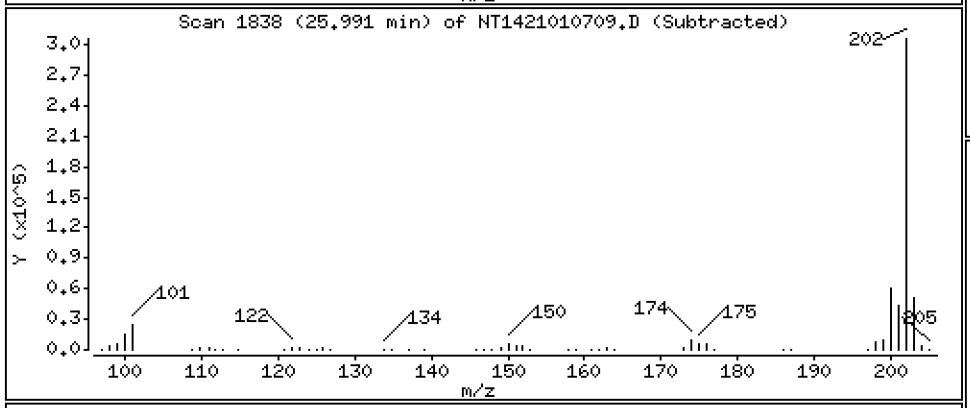
Column diameter: 0.25

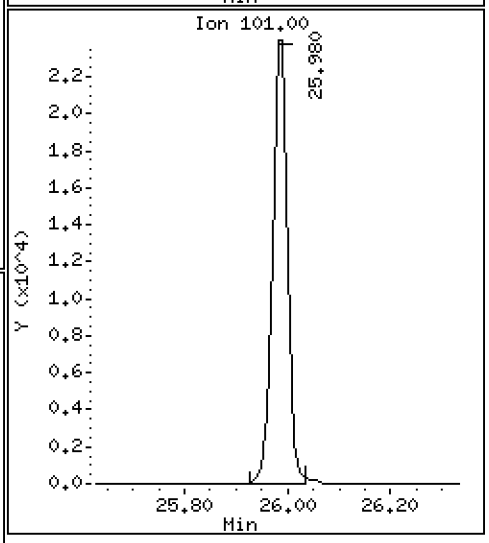
44 Fluoranthene

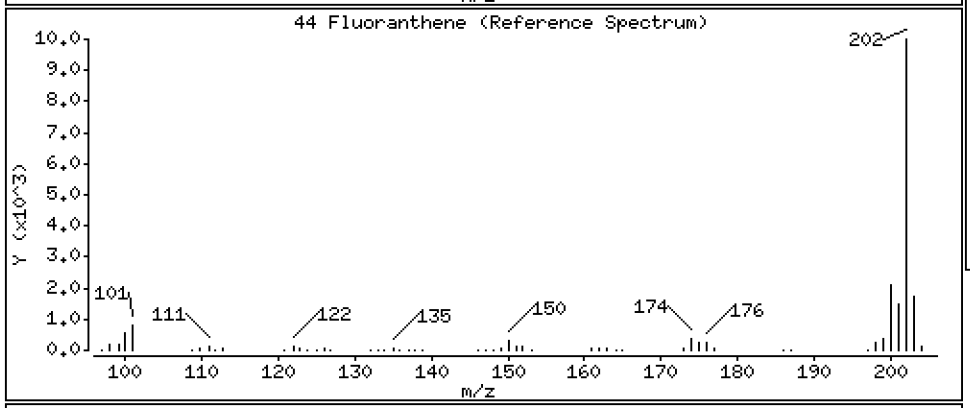
Concentration: 2.583 ug/mL

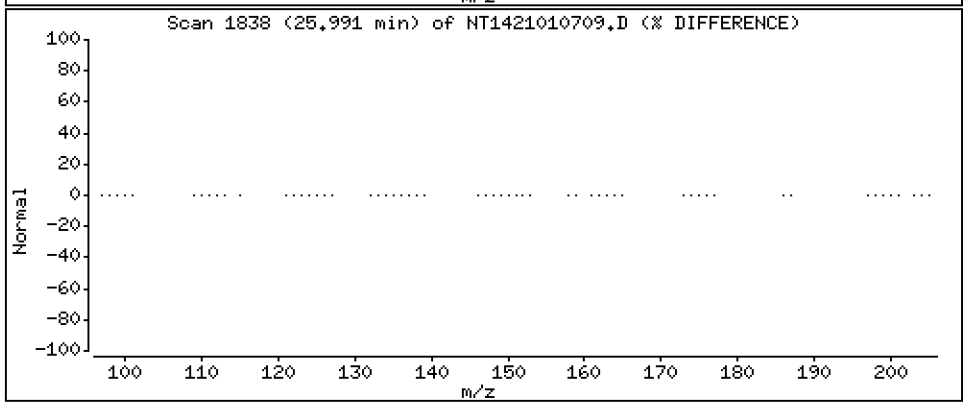












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

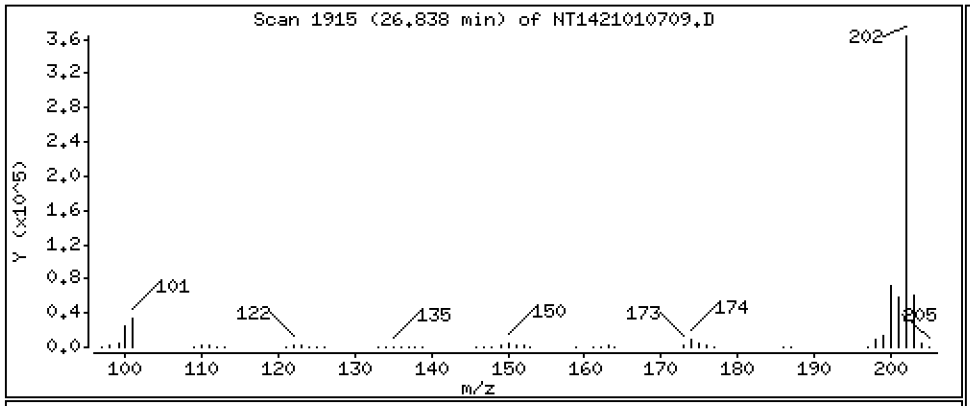
Operator: VTS

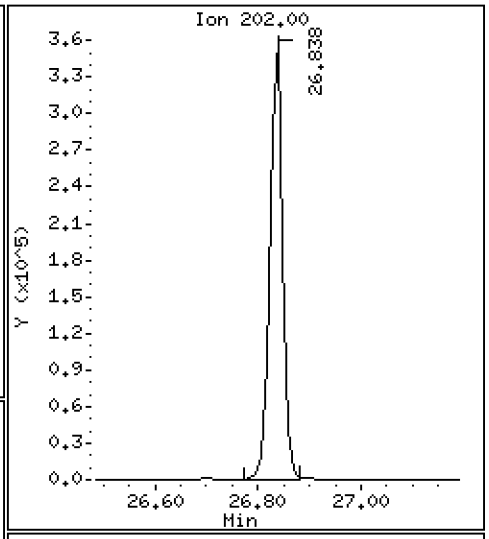
Column phase: Rxi-17Sil MS

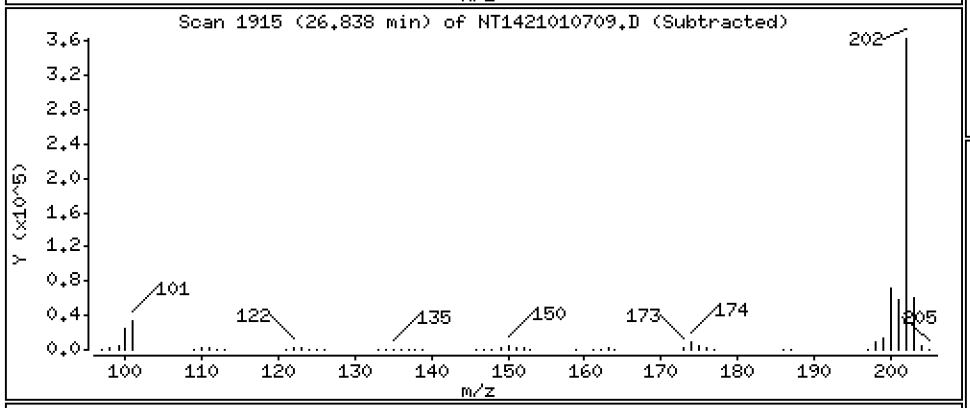
Column diameter: 0.25

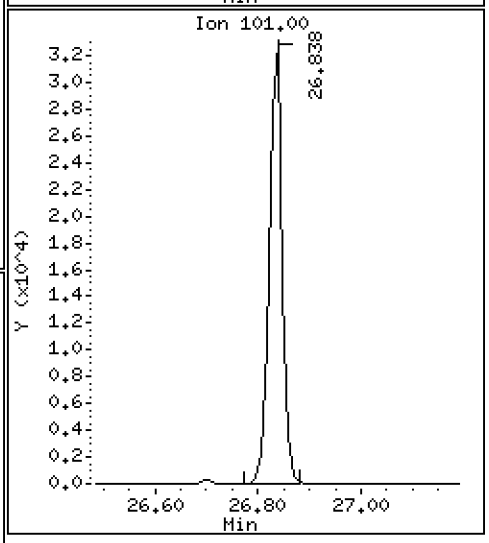
46 Pyrene

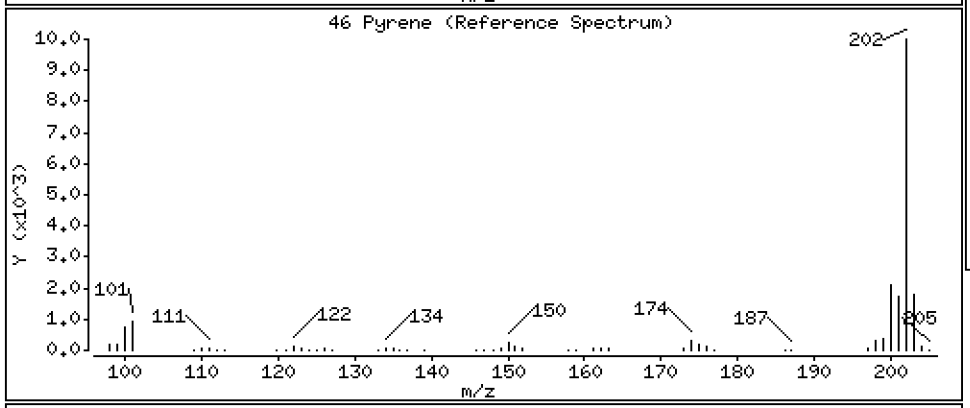
Concentration: 2.546 ug/mL

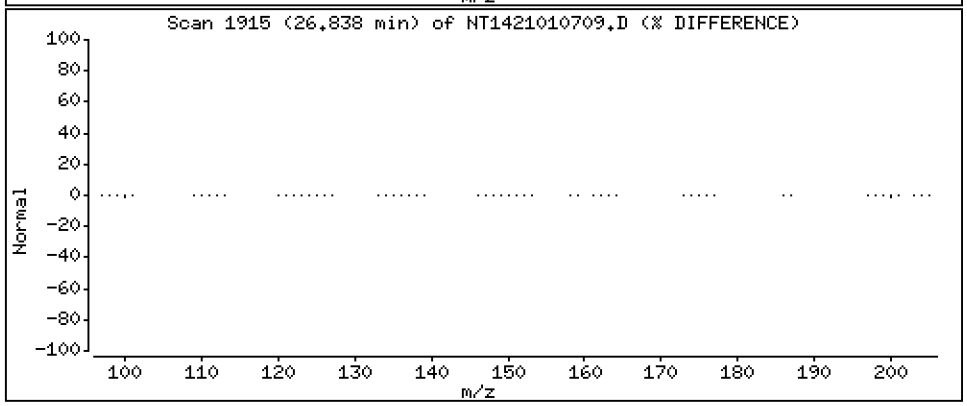












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

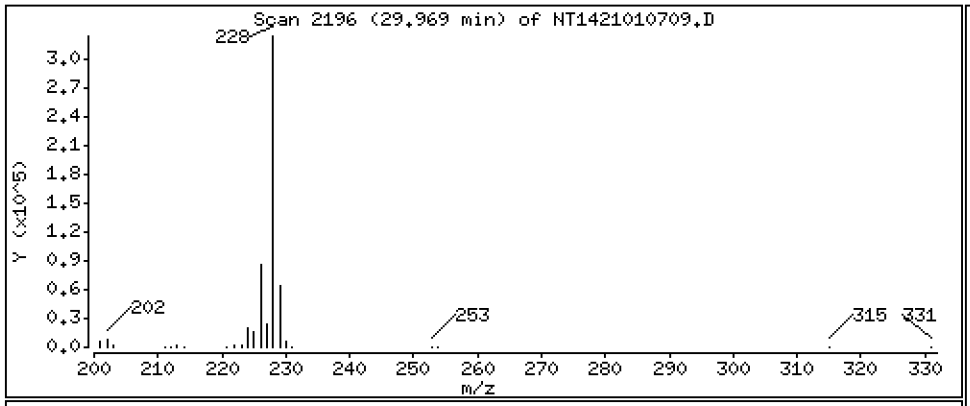
Operator: VTS

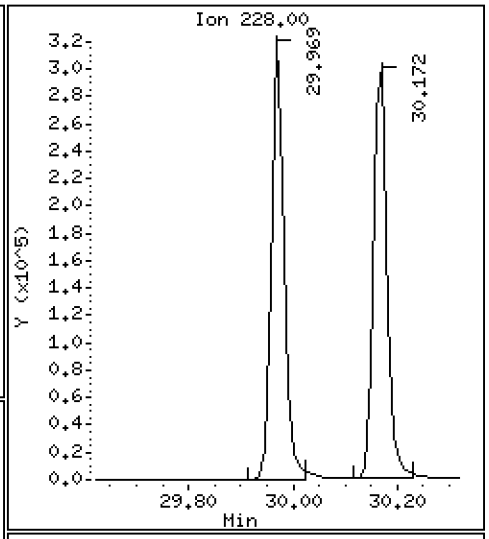
Column phase: Rxi-17Sil MS

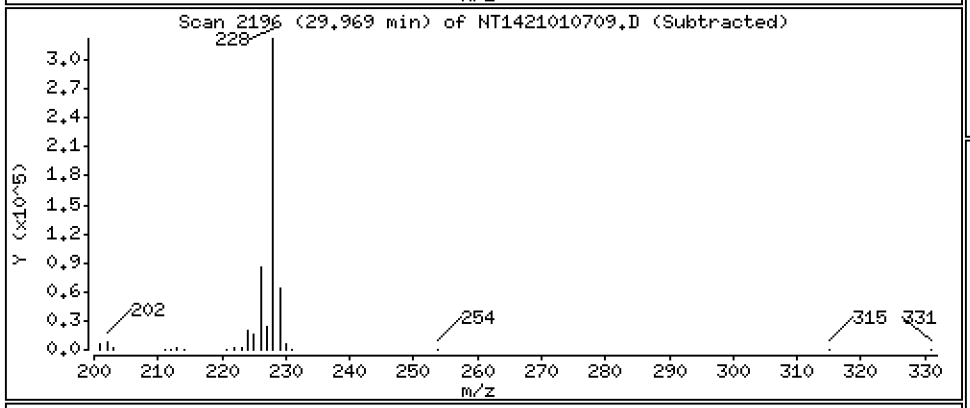
Column diameter: 0.25

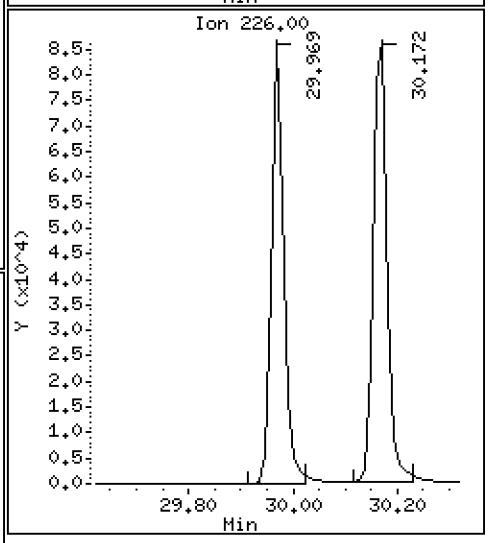
55 Benzo(a)anthracene

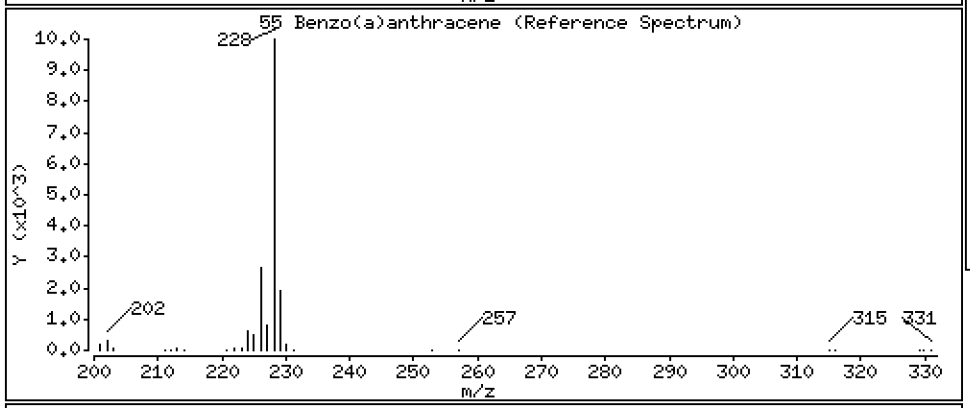
Concentration: 2.687 ug/mL

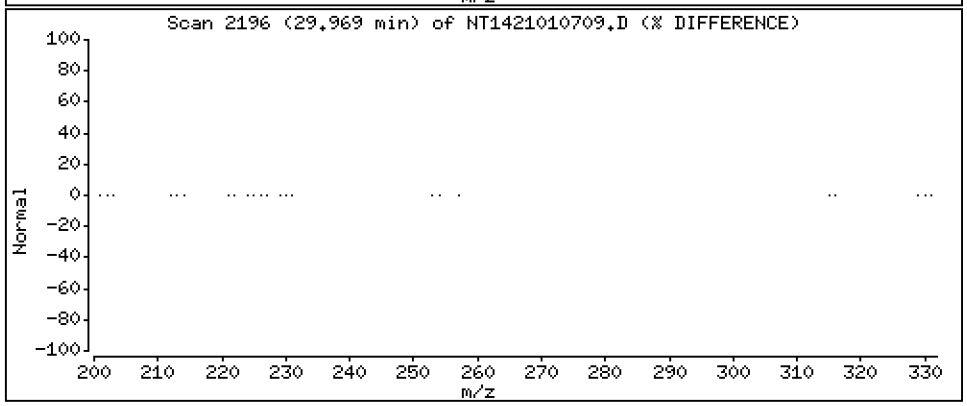












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

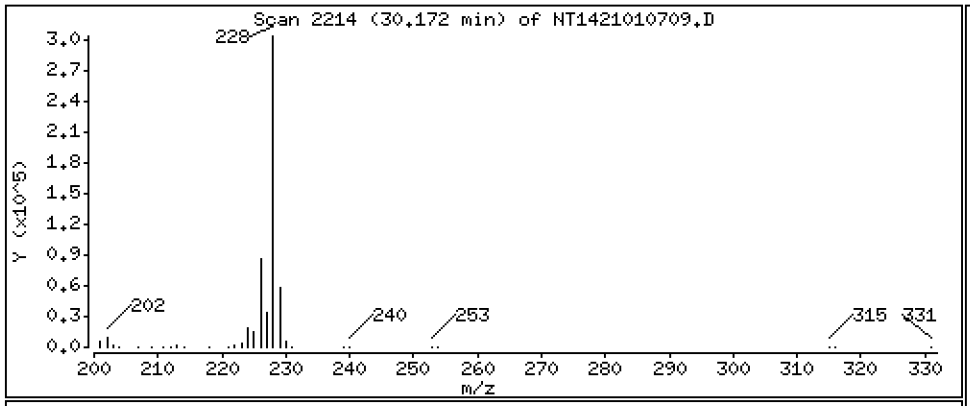
Operator: VTS

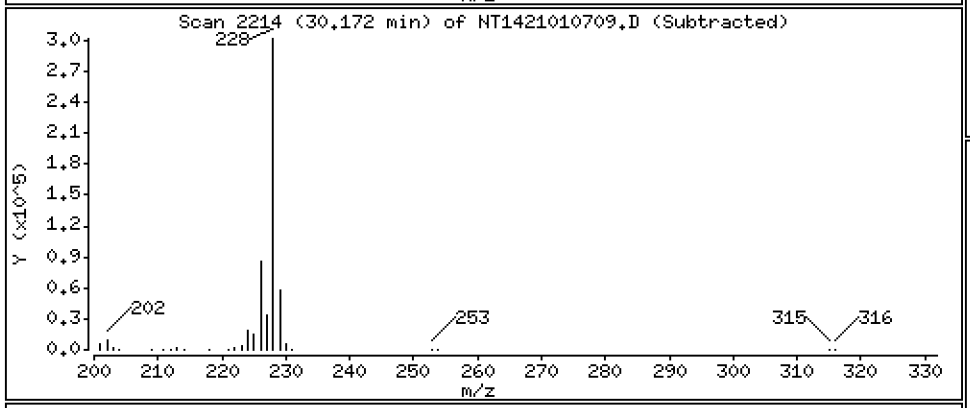
Column phase: Rxi-17Sil MS

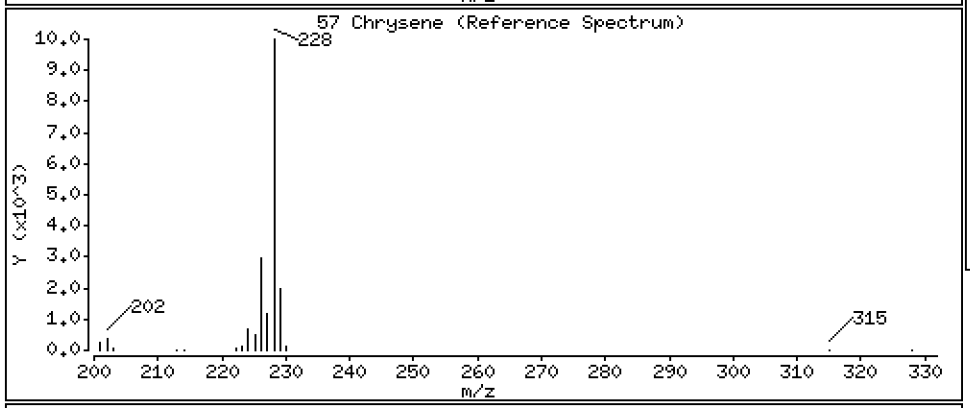
Column diameter: 0.25

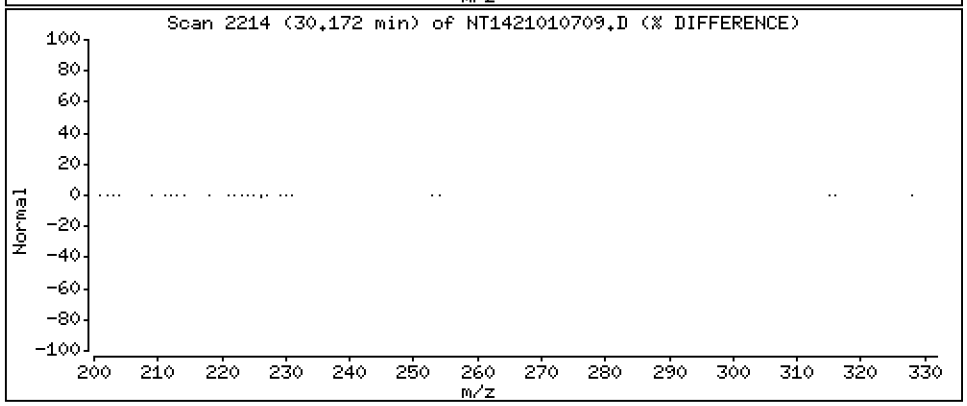
57 Chrysene

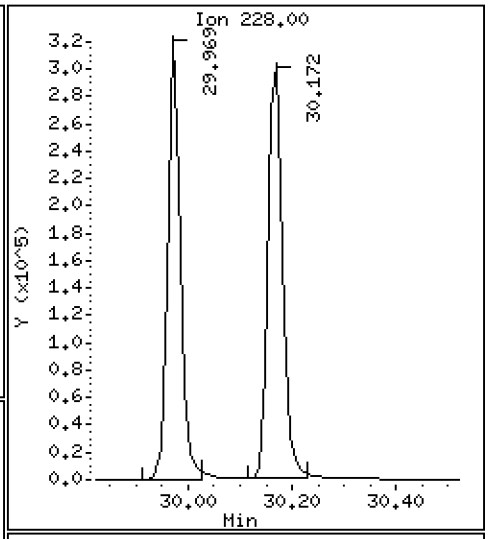
Concentration: 2.746 ug/mL

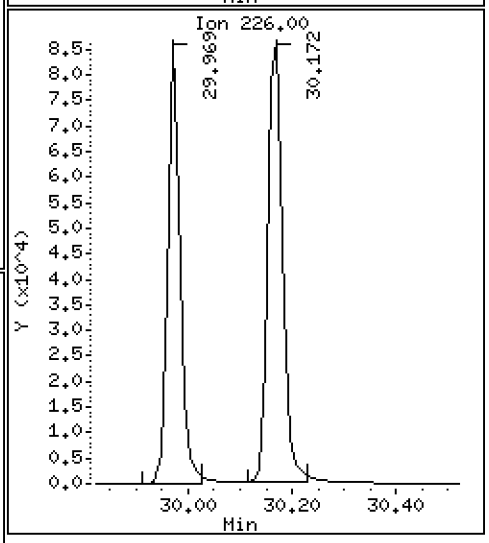












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

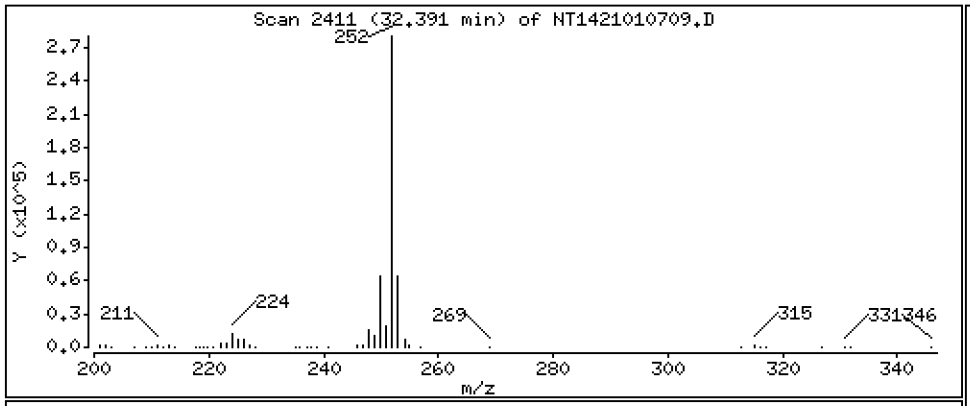
Operator: VTS

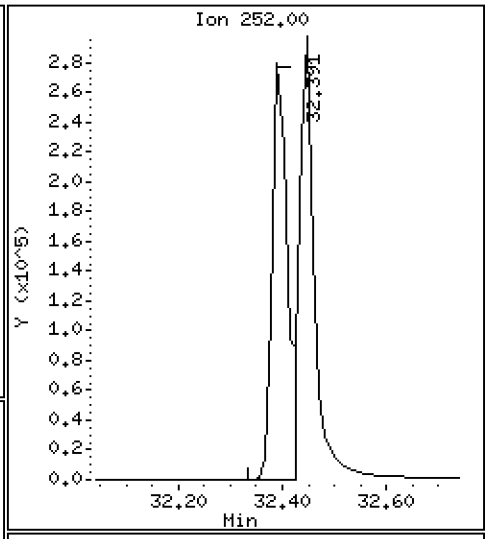
Column phase: Rxi-17Sil MS

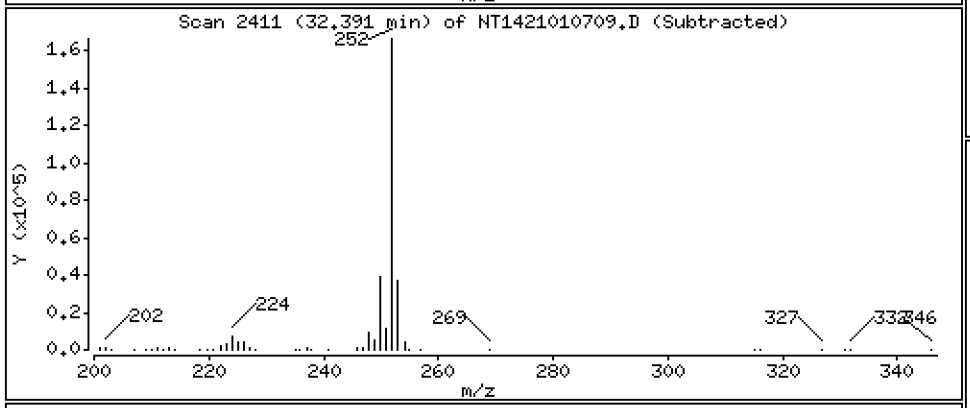
Column diameter: 0.25

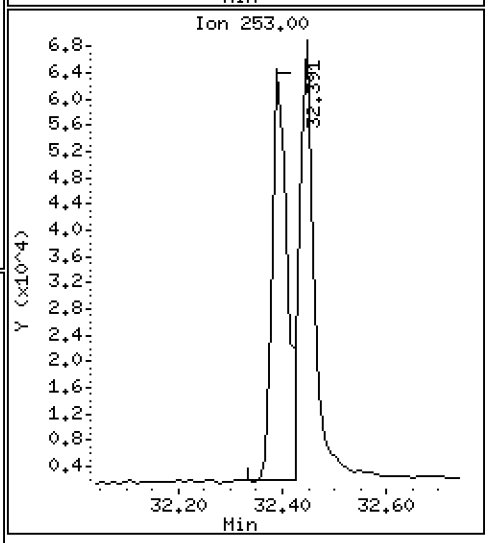
62 Benzo(b)fluoranthene

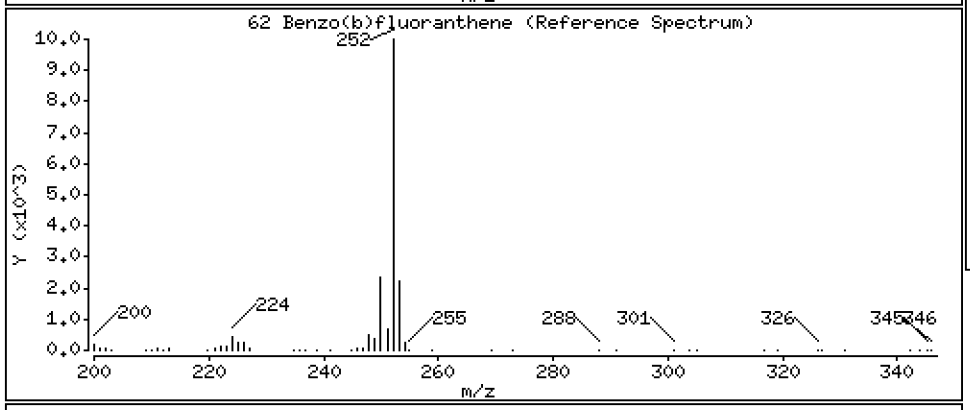
Concentration: 2.682 ug/mL

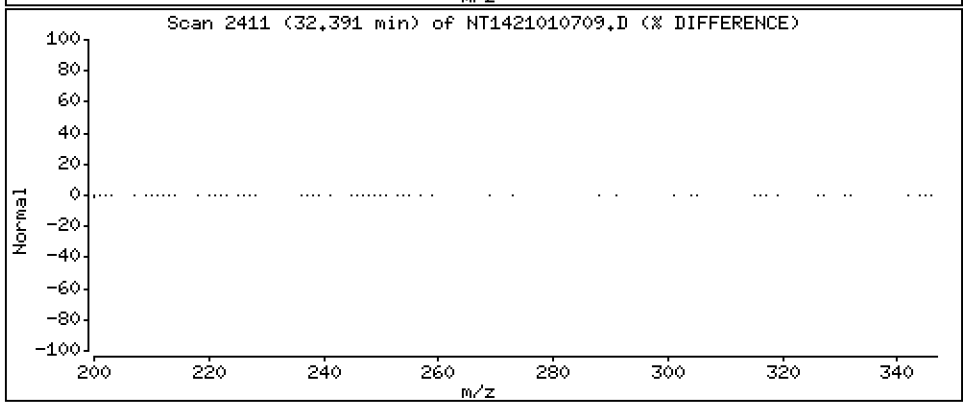












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

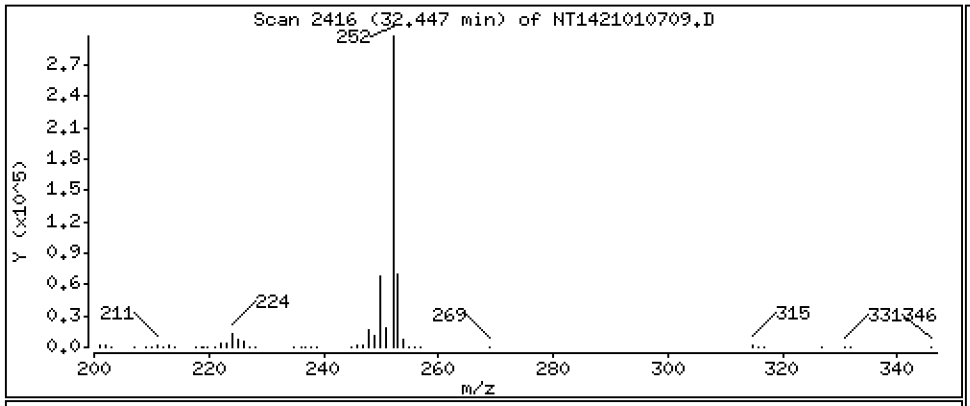
Operator: VTS

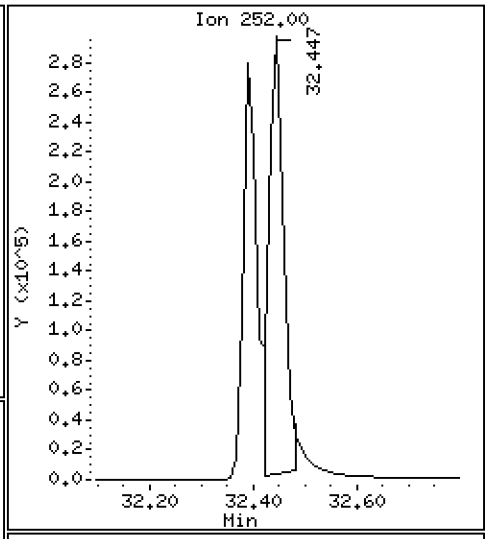
Column phase: Rxi-17Sil MS

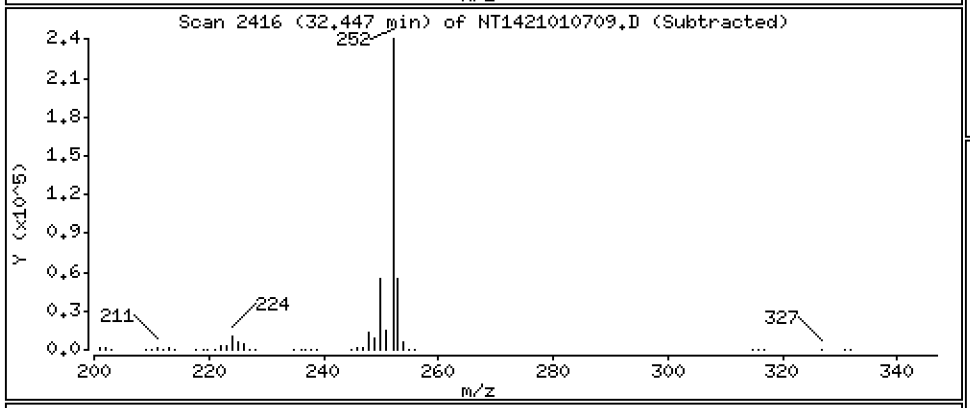
Column diameter: 0.25

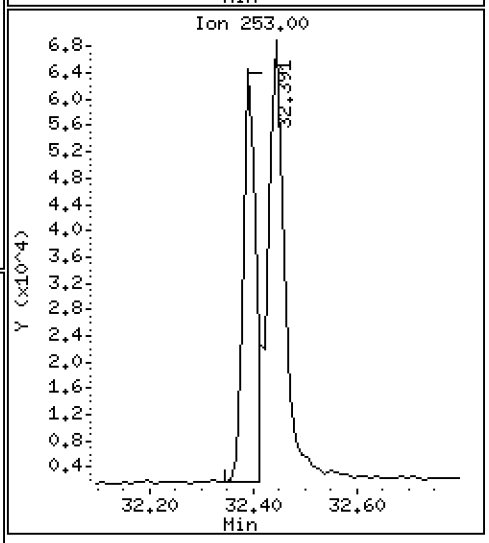
63 Benzo(k)fluoranthene

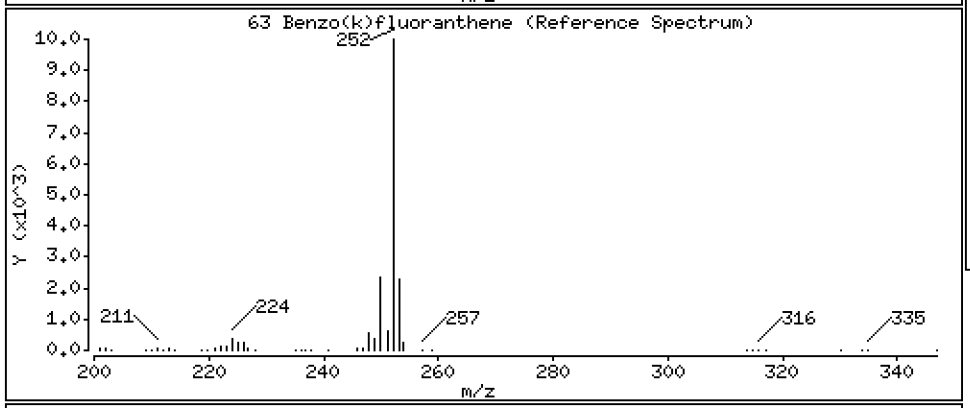
Concentration: 2.393 ug/mL

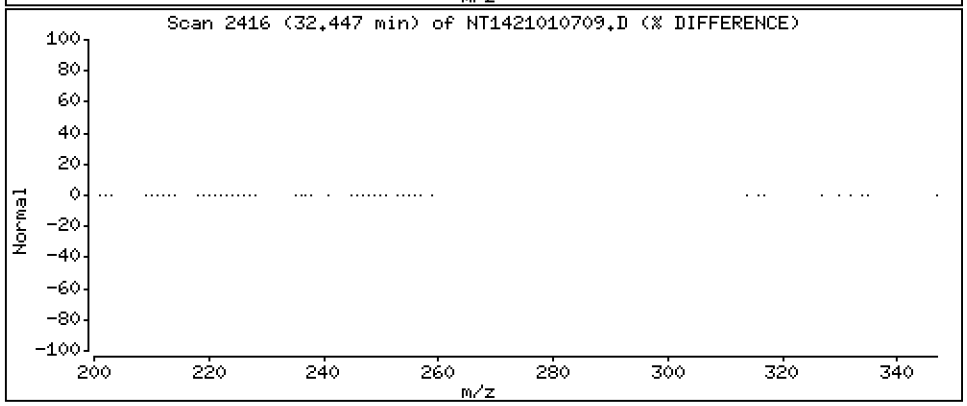












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Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

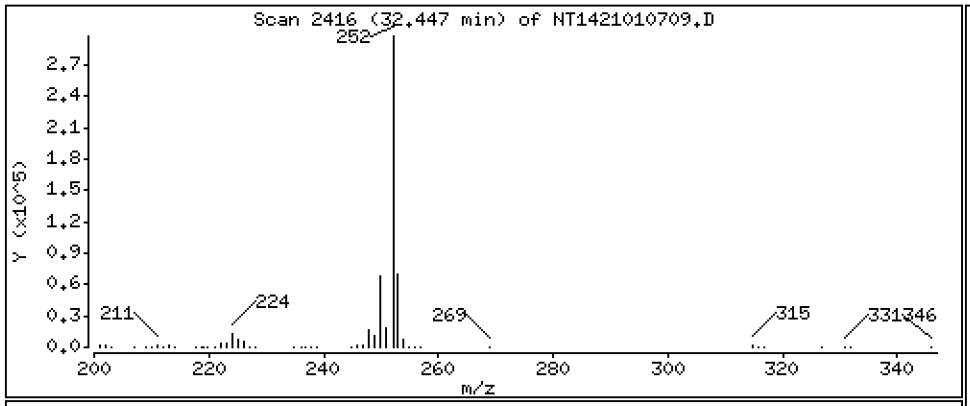
Operator: VTS

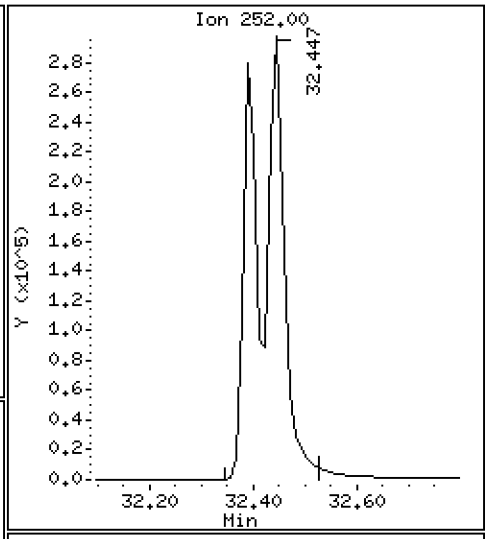
Column phase: Rxi-17Sil MS

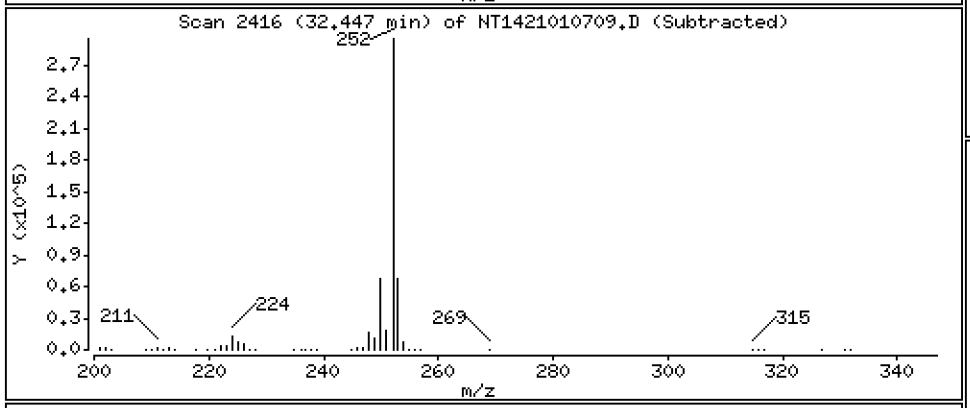
Column diameter: 0.25

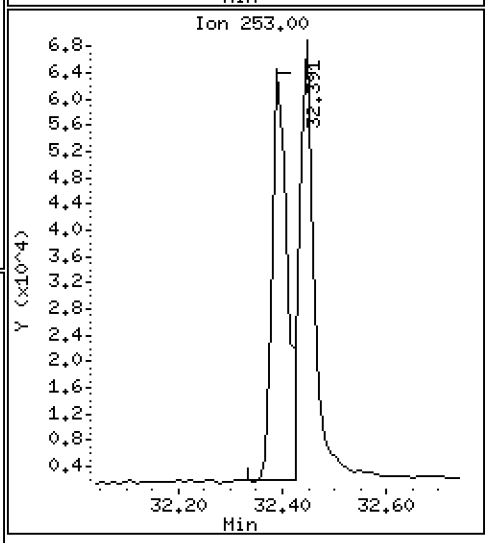
246 Total Benzofluoranthenes

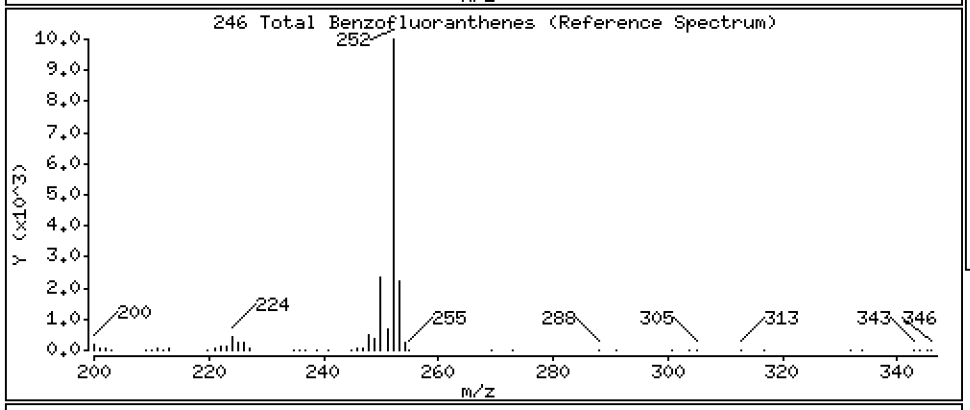
Concentration: 5.584 ug/mL

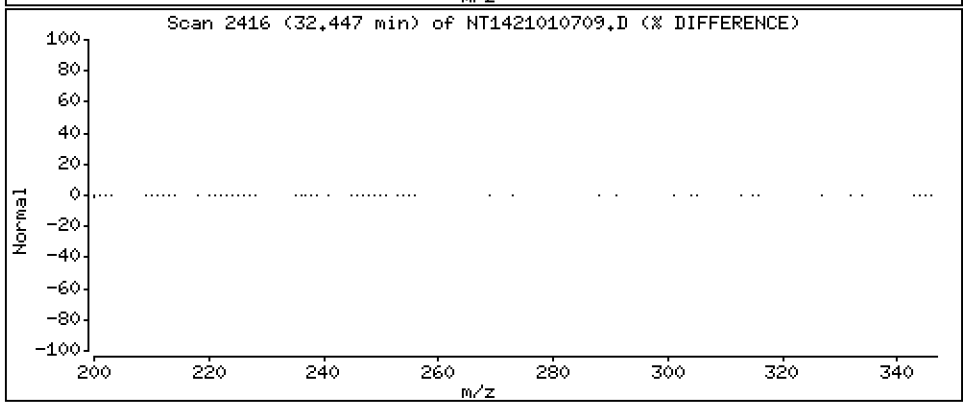












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

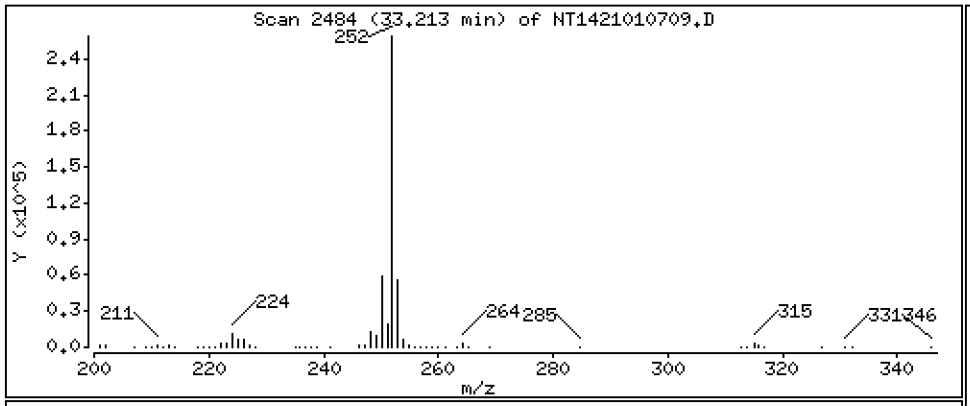
Operator: VTS

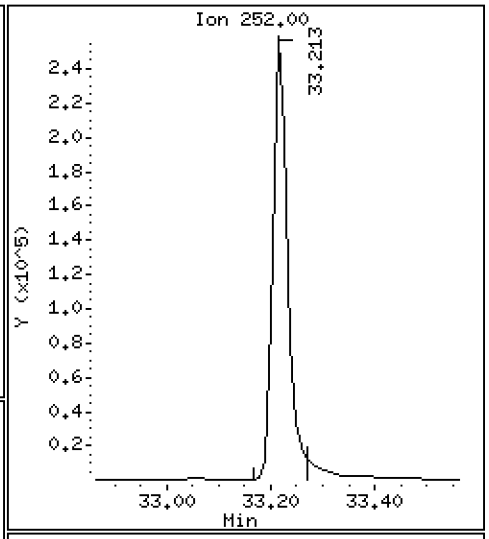
Column phase: Rxi-17Sil MS

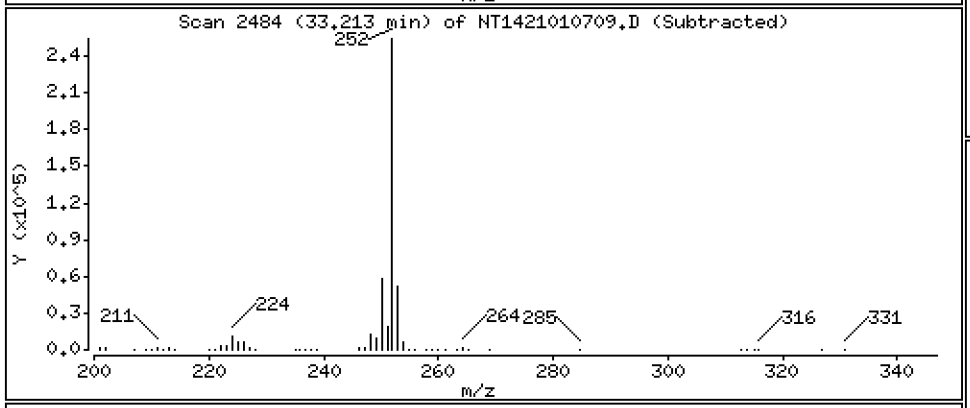
Column diameter: 0.25

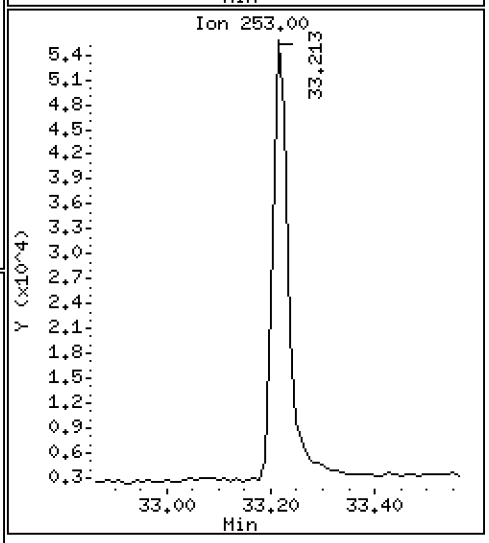
66 Benzo(a)pyrene

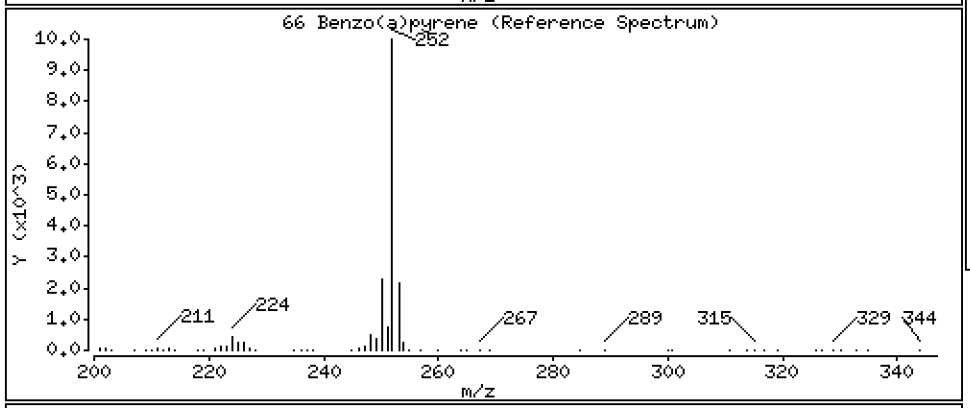
Concentration: 2.801 ug/mL

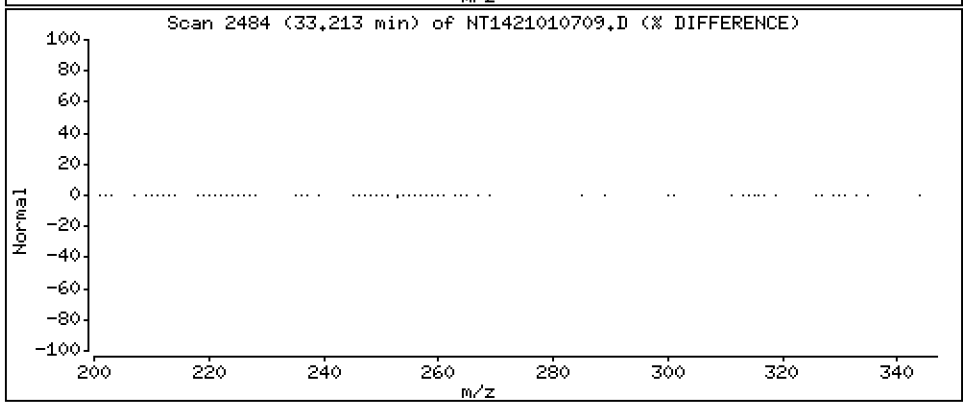












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

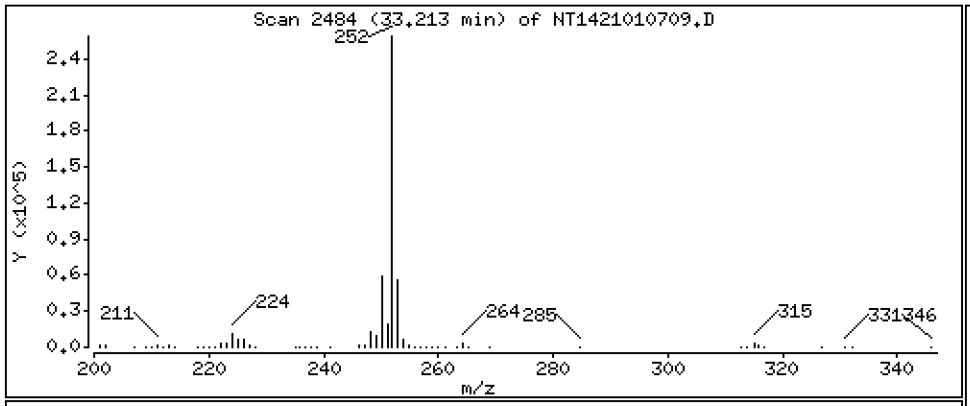
Operator: VTS

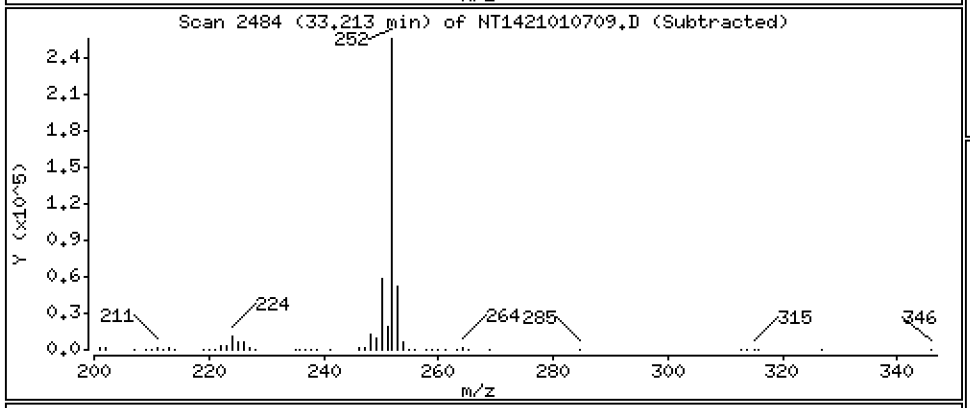
Column phase: Rxi-17Sil MS

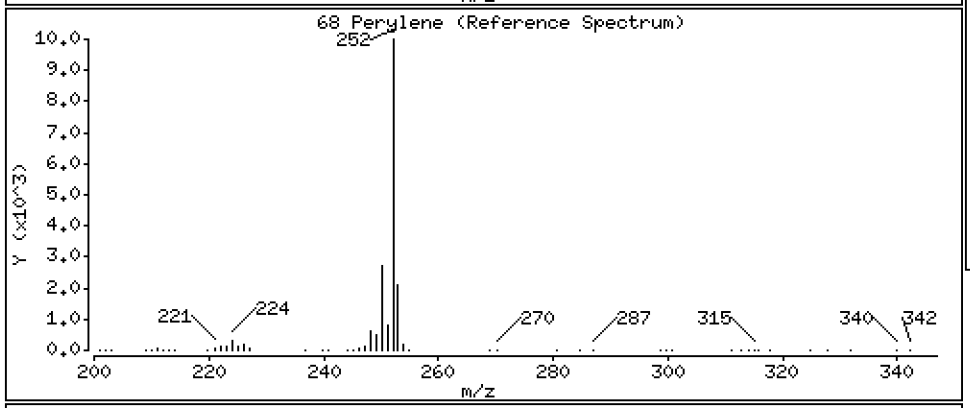
Column diameter: 0.25

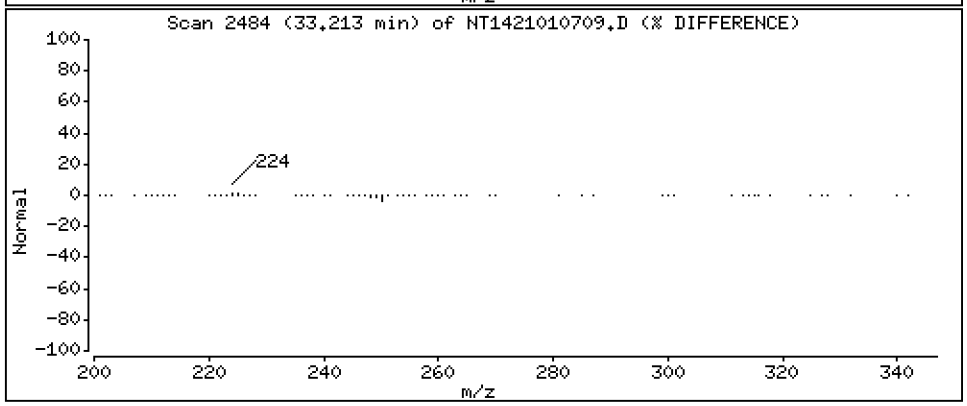
68 Perylene

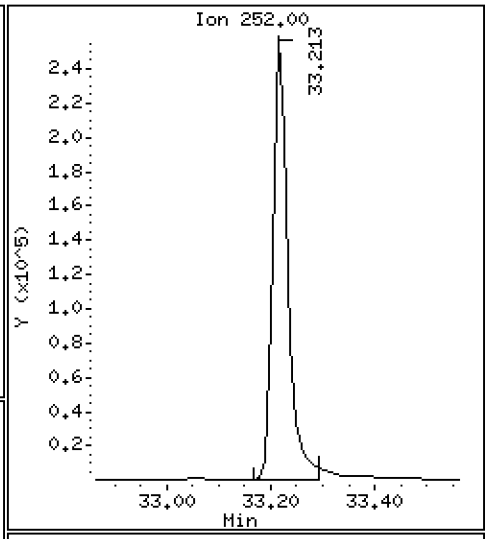
Concentration: 2.645 ug/mL

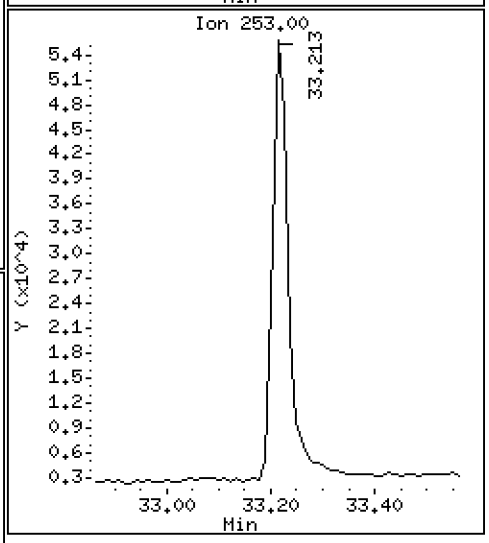












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

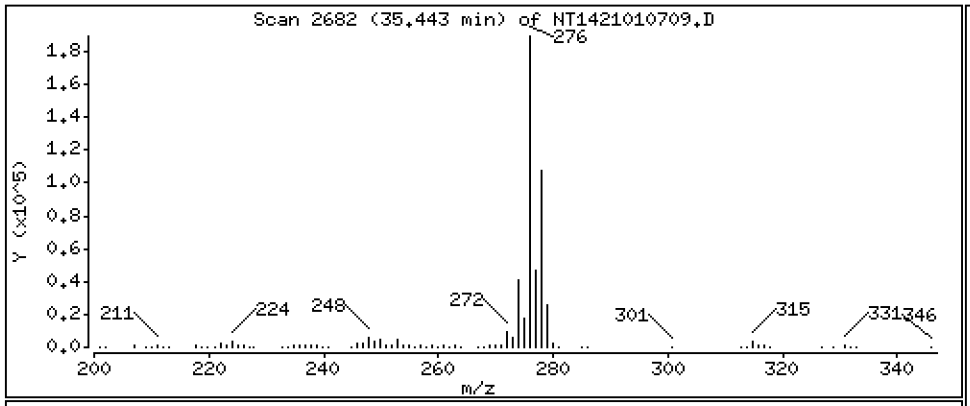
Operator: VTS

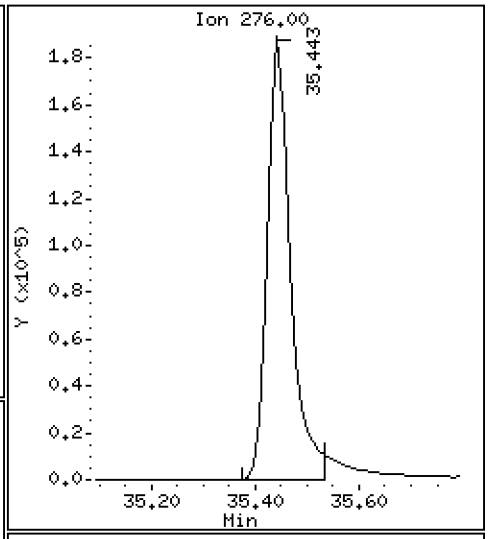
Column phase: Rxi-17Sil MS

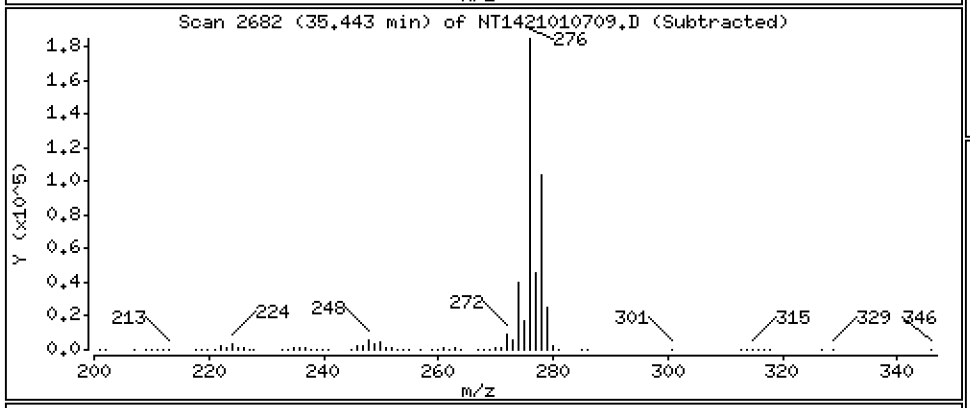
Column diameter: 0.25

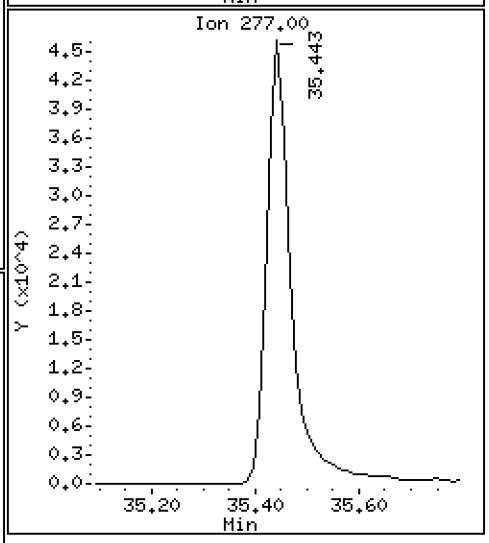
69 Indeno(1,2,3-cd)pyrene

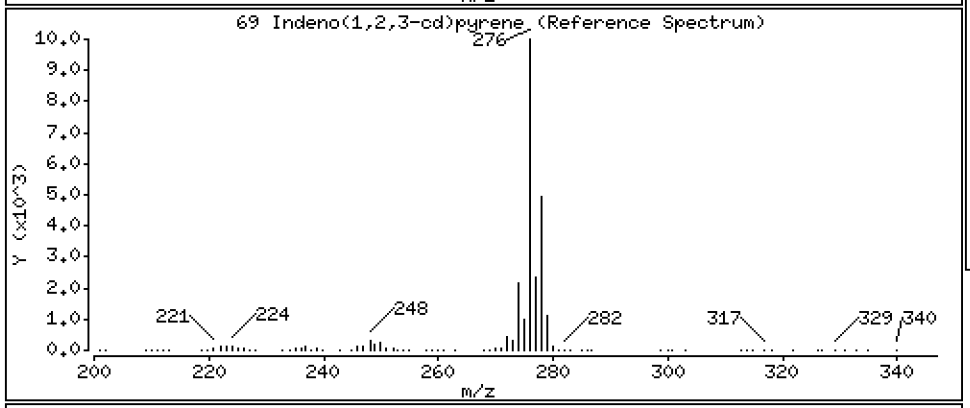
Concentration: 2.717 ug/mL

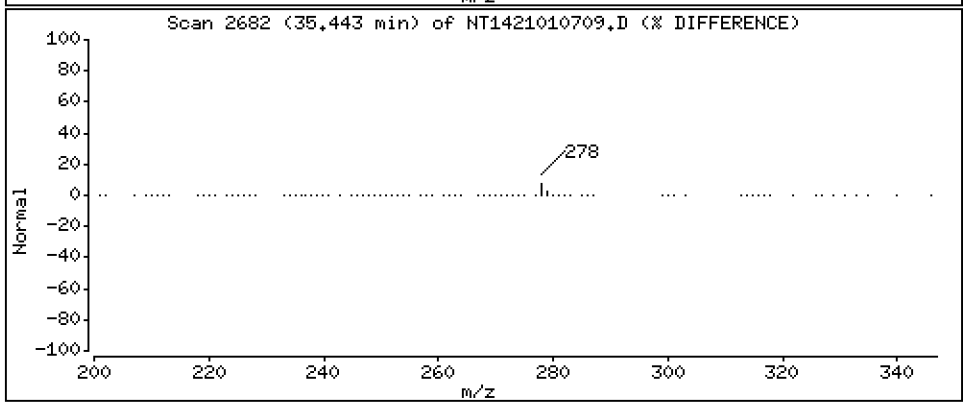












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

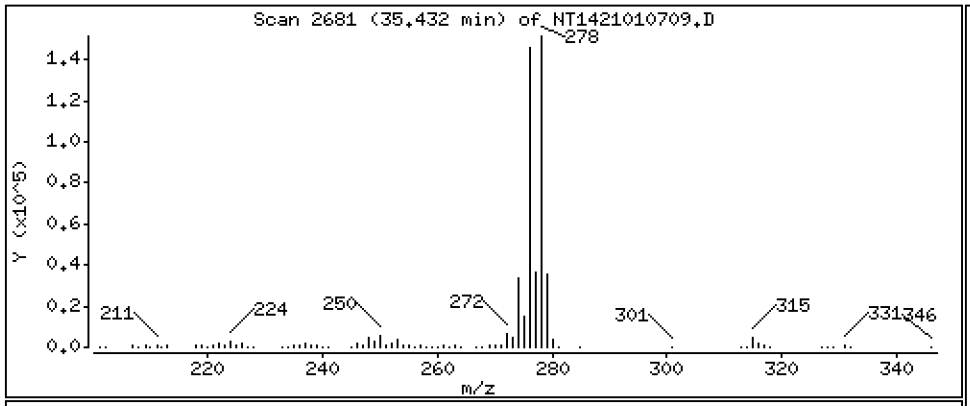
Operator: VTS

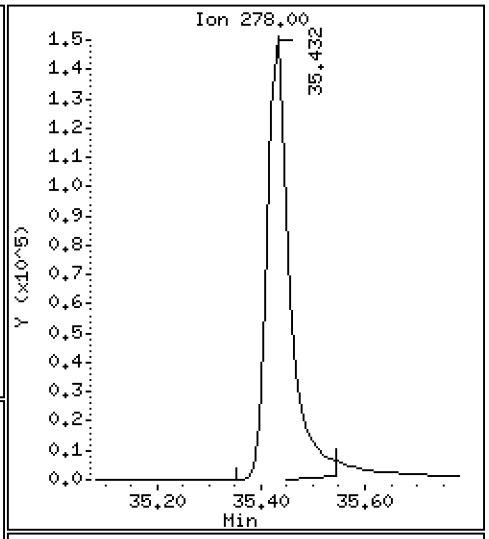
Column phase: Rxi-17Sil MS

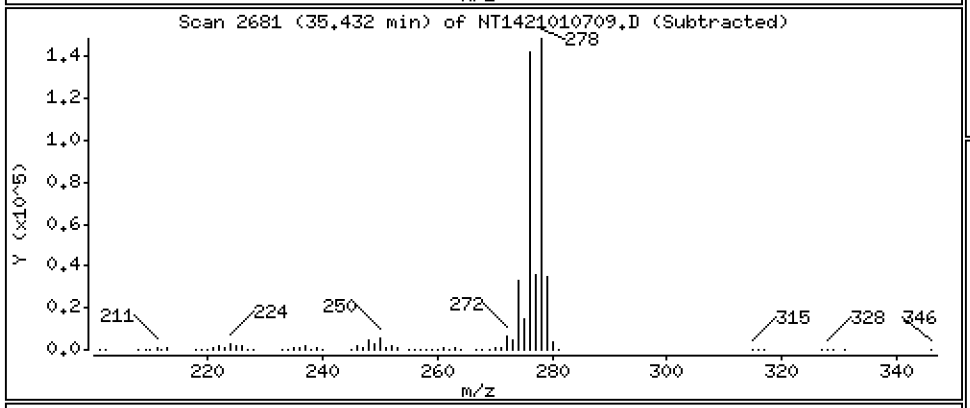
Column diameter: 0.25

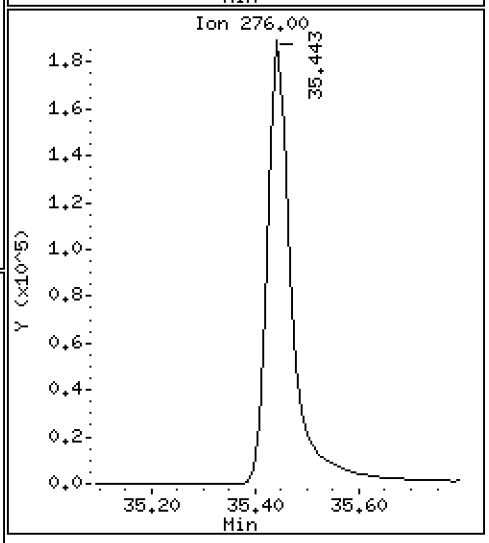
70 Dibenzo(a,h)anthracene

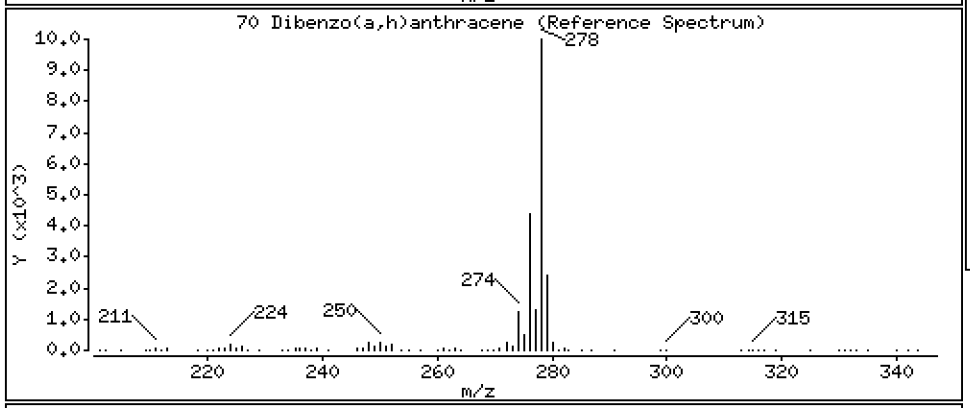
Concentration: 2.515 ug/mL

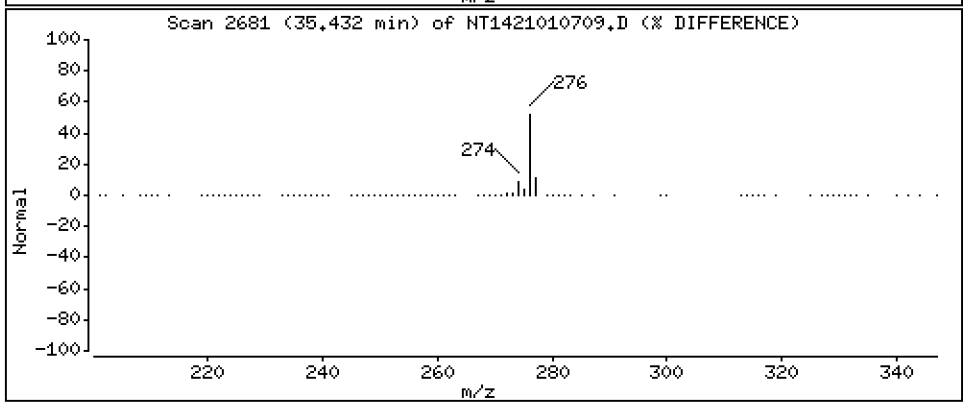












Data File: \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D

Date : 07-JAN-2021 17:32

Client ID:

Instrument: nt14.i

Sample Info: SJA0059-SCV1

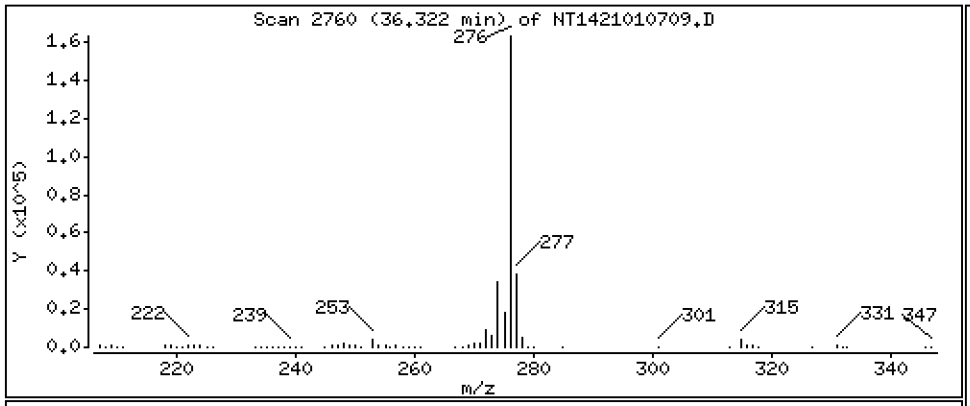
Operator: VTS

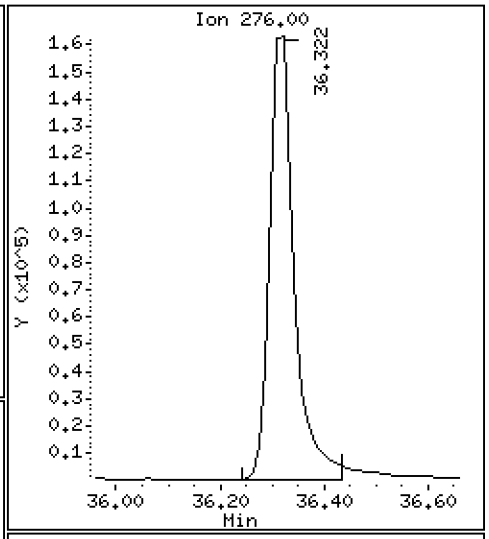
Column phase: Rxi-17Sil MS

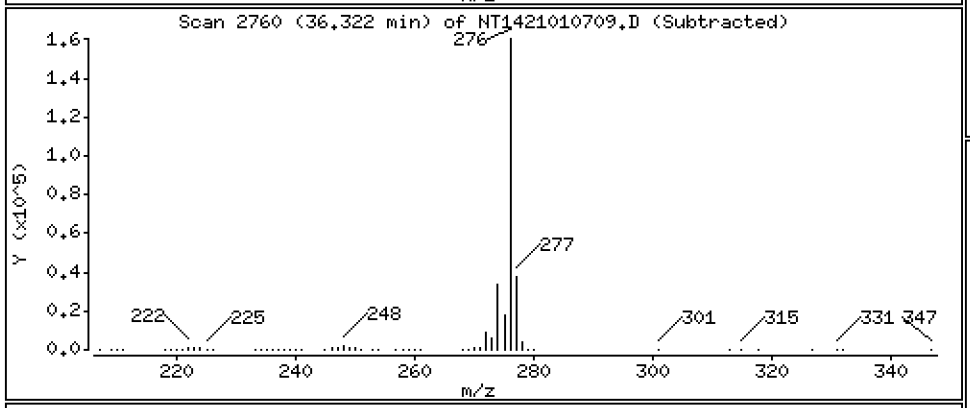
Column diameter: 0.25

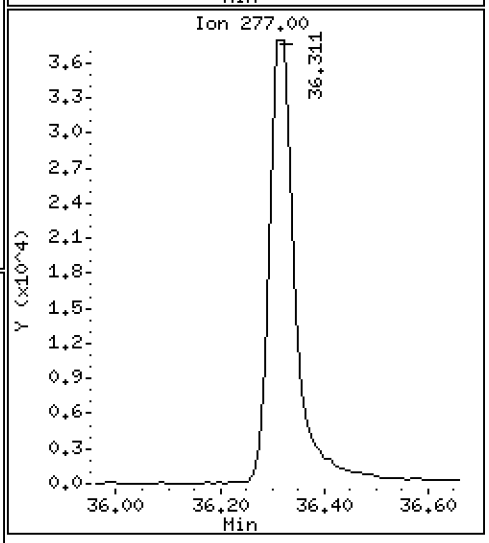
74 Benzo(g,h,i)perylene

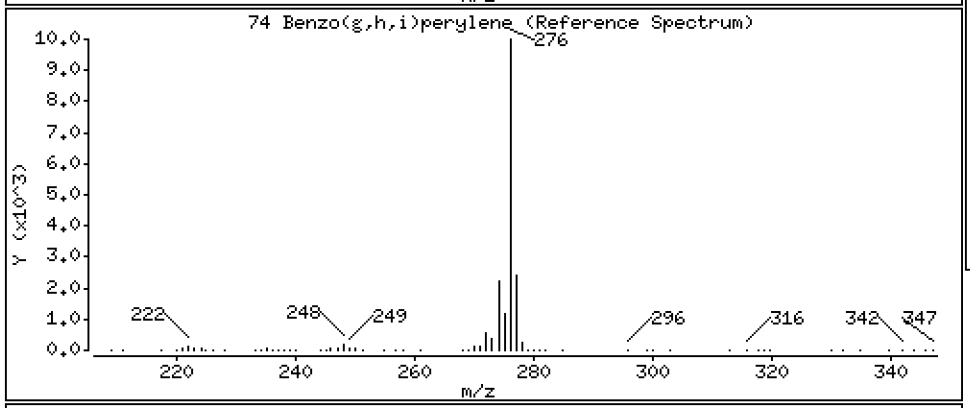
Concentration: 2.559 ug/mL

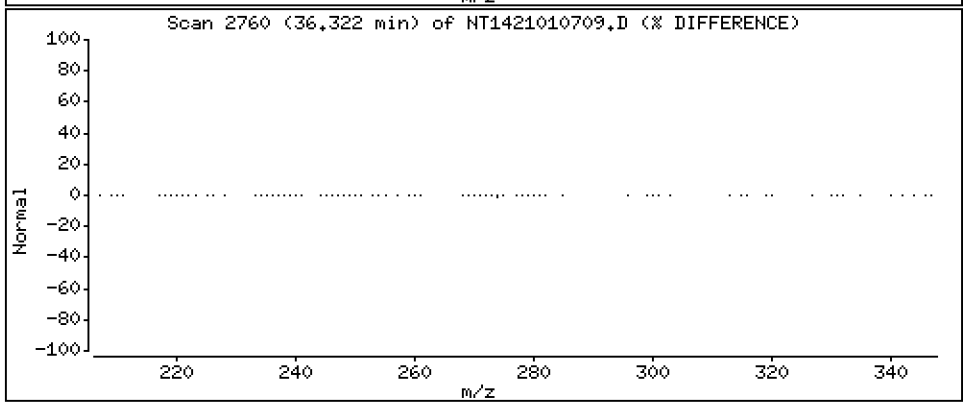












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210107.b\NT1421010709.D
Lab Smp Id: SJA0059-SCV1
Inj Date : 07-JAN-2021 17:32
Operator : VTS Inst ID: nt14.i
Smp Info : SJA0059-SCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Meth Date : 08-Jan-2021 16:59 yev Quant Type: ISTD
Cal Date : 07-JAN-2021 16:44 Cal File: NT1421010708.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	Compound Not Detected.					
	2 cis-Decalin	138	Compound Not Detected.					
$	6 Naphthalene-d8	136	11.755	11.766	(0.627)	6860	0.03204	0.03204(R)
	7 Naphthalene	128	11.832	11.832	(0.631)	548838	2.56023	2.560
	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	16.942	16.942	(0.903)	585844	2.61358	2.614
$	21 Acenaphthene-d10	164	17.239	17.228	(0.919)	991	0.00876	0.008762(R)
	22 Acenaphthene	153	17.349	17.349	(0.925)	354827	2.46209	2.462
	23 Dibenzofuran	168	Compound Not Detected.					
	24 1,6,7-Trimethylnaphthalene	170	Compound Not Detected.					
*	25 Fluorene-d10	176	18.763	18.763	(1.000)	462832	2.00000	
	26 Fluorene	166	18.865	18.865	(1.005)	395543	2.53071	2.531
	30 Dibenzothiophene	184	Compound Not Detected.					
$	35 Phenanthrene-d10	188	Compound Not Detected.					
	36 Phenanthrene	178	22.176	22.176	(0.999)	587041	2.59414	2.594
*	250 Anthracene-d10	188	22.209	22.209	(1.000)	454007	2.00000	
	37 Anthracene	178	22.275	22.275	(1.003)	560639	2.67907	2.679
	42 Carbazole	167	Compound Not Detected.					
	43 1-Methylphenanthrene	192	Compound Not Detected.					
	44 Fluoranthene	202	25.991	25.991	(1.170)	638724	2.58296	2.583
	46 Pyrene	202	26.838	26.838	(1.208)	660626	2.54579	2.546
	51 Naphthobenzothiophene	234	Compound Not Detected.					
	55 Benzo(a)anthracene	228	29.969	29.969	(0.907)	547714	2.68714	2.687
$	56 Chrysene-d12	240	30.093	30.093	(0.910)	19125	0.12163	0.1216(R)
	57 Chrysene	228	30.172	30.172	(0.913)	558840	2.74572	2.746
	62 Benzo(b)fluoranthene	252	32.390	32.390	(0.980)	547976	2.68179	2.682
	63 Benzo(k)fluoranthene	252	32.447	32.447	(0.982)	558973	2.39308	2.393(M)
	293 Benzo(j)fluoranthene	252	Compound Not Detected.					
	246 Total Benzofluoranthenes	252	32.447	32.447	(0.982)	1116031	5.58373	5.584(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	33.055	33.055	(1.000)	502859	2.00000	
64 Benzo(e)pyrene	252	Compound Not Detected.					
66 Benzo(a)pyrene	252	33.213	33.213	(1.005)	512056	2.80117	2.801(M)
$ 67 Perylene-d12	264	Compound Not Detected.					
68 Perylene	252	33.213	33.213	(1.005)	490665	2.64511	2.645(M)
69 Indeno(1,2,3-cd)pyrene	276	35.443	35.443	(1.072)	559089	2.71709	2.717(M)
70 Dibenzo(a,h)anthracene	278	35.431	35.432	(1.072)	441900	2.51483	2.515(M)
74 Benzo(g,h,i)perylene	276	36.321	36.310	(1.099)	514850	2.55879	2.559(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: NT1421010709.D
Lab Smp Id: SJA0059-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210107.b\ALKYLPNA.m
Misc Info:

Calibration Date: 07-JAN-2021
Calibration Time: 11:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	642877	321439	1285754	462832	-28.01
250 Anthracene-d10	641722	320861	1283444	454007	-29.25
251 Benzo(e)pyrene-d1	741138	370569	1482276	502859	-32.15

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.76	18.26	19.26	18.76	-0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	-0.00
251 Benzo(e)pyrene-d1	33.06	32.56	33.56	33.06	-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 - NT1421010709.D

Lab ID: SJA0059-SCV1
nt14.i, 20210107.b\ALKYLPNA.m, 07-JAN-2021 17:32

RT	CO-ELUTION COMPOUNDS
33.213	Perylene and Benzo(a)pyrene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

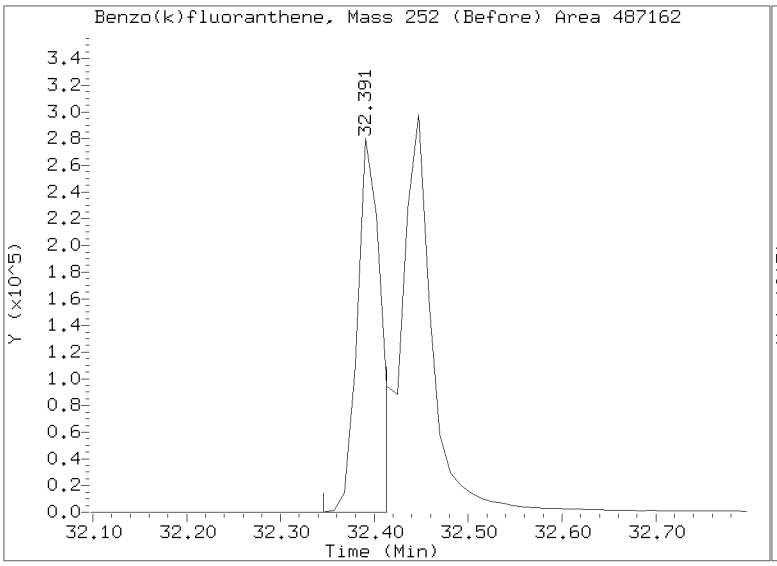
RRT check based on Ccal File: NT1421010708.D

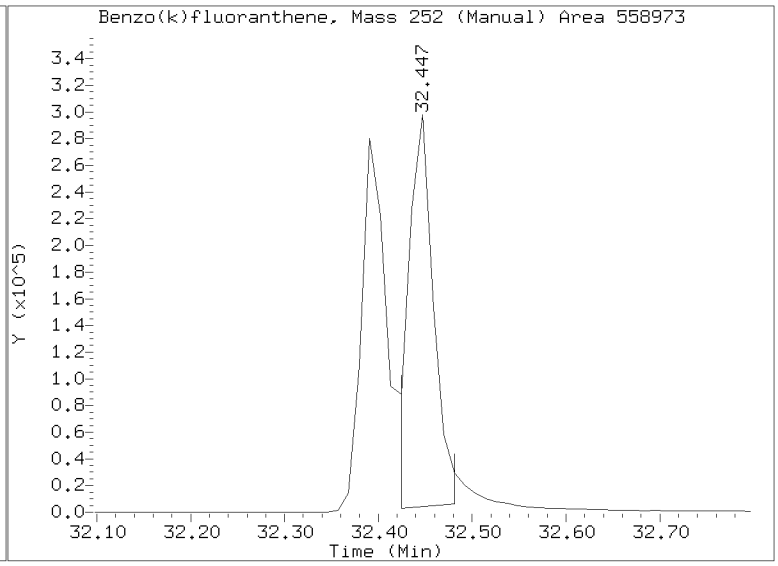
On Column LOD for nt14.i, 20210107.b\ALKYLPNA.m, TARGETS.sub = 0.0000

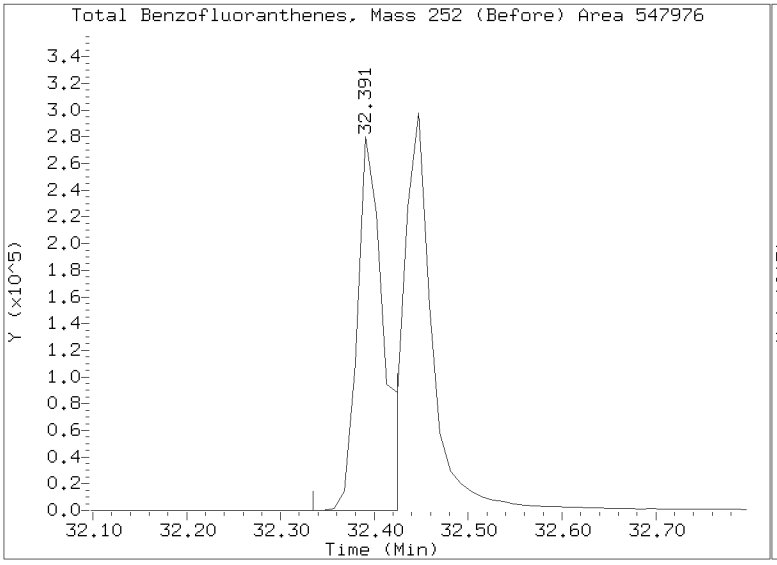
* Only compounds listed in the work order have been verified by the analyst *

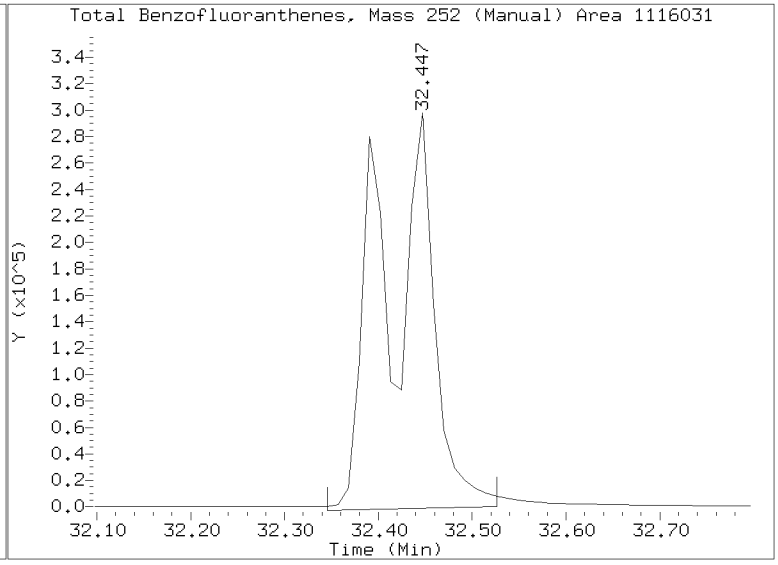
Quant Ion Manual Peak Adjustment Report

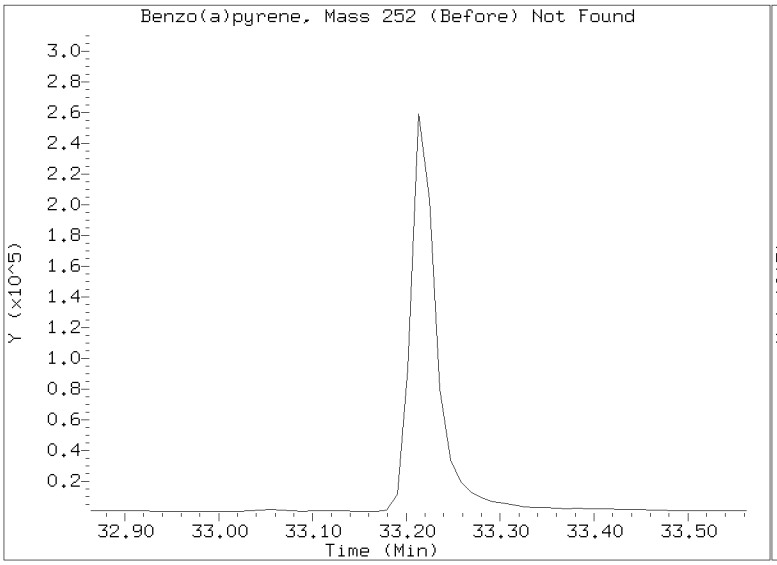
Datafile: //target/share/chem3/nt14.i/20210107.b/NT1421010709.D
Injection Date: 07-JAN-2021 17:32
Lab ID:SJA0059-SCV1 Client ID:
Report Date: 01/08/2021 16:59

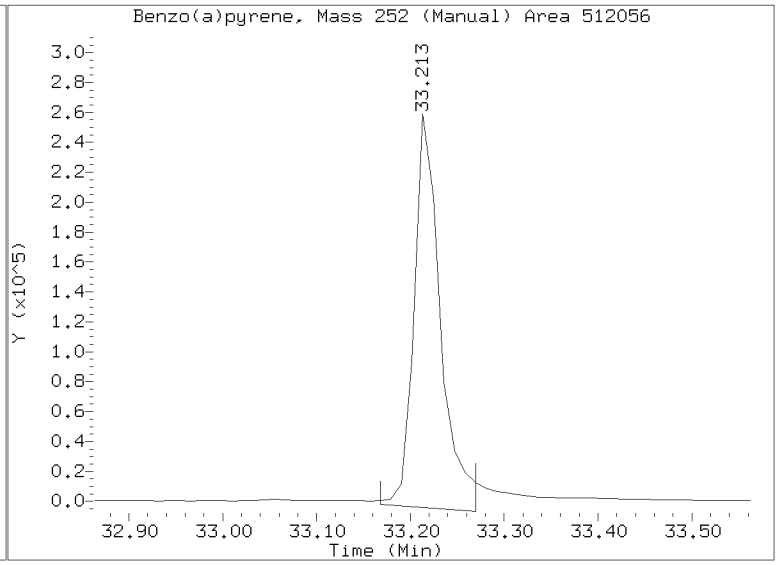












Quant Ion Manual Peak Adjustment Report

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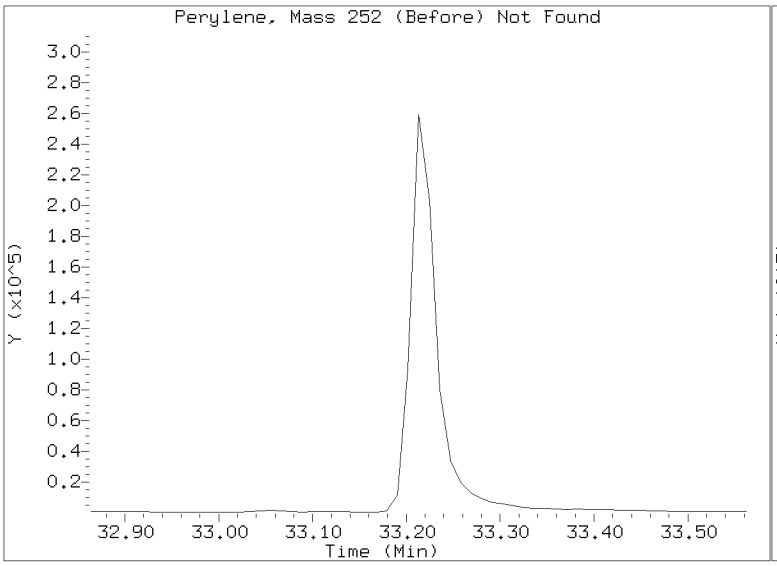
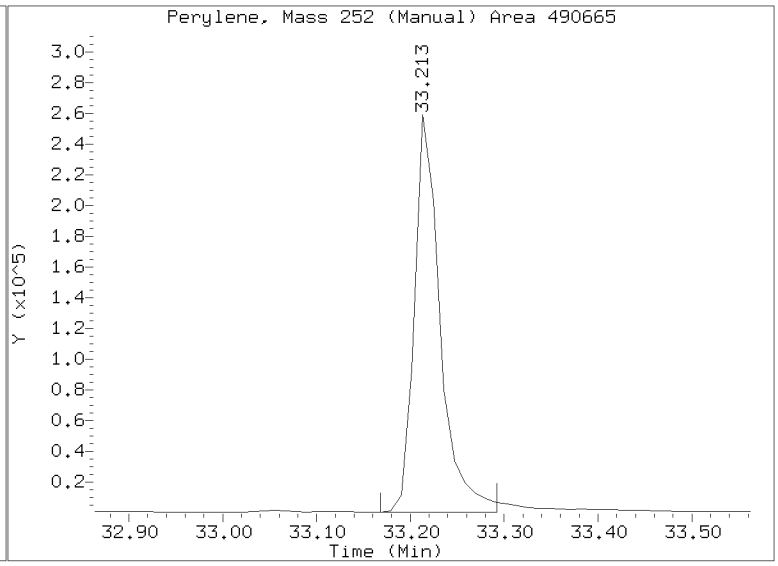
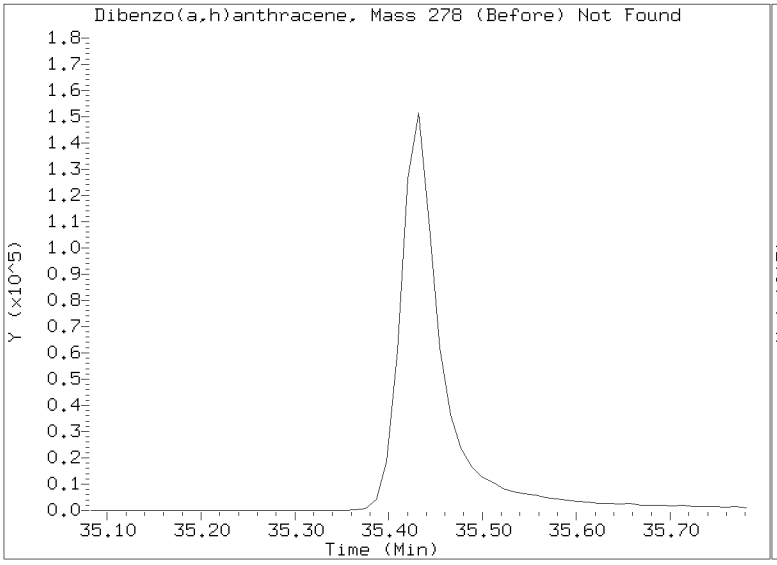
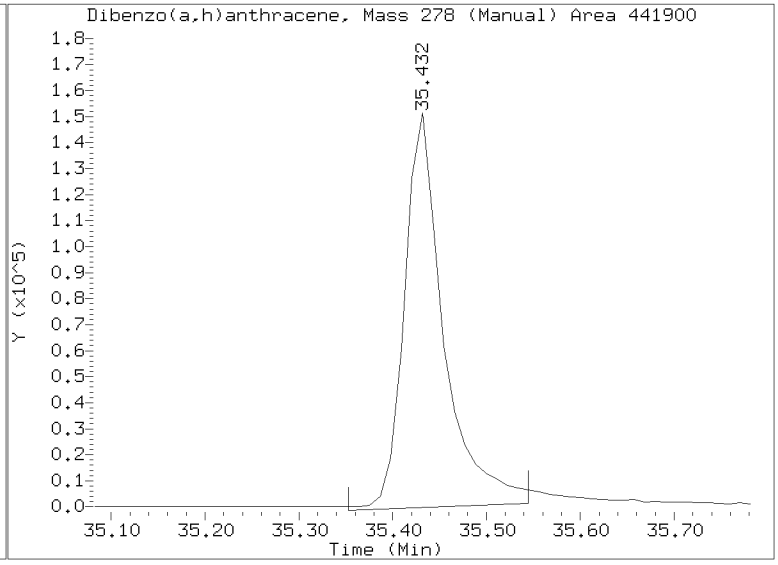
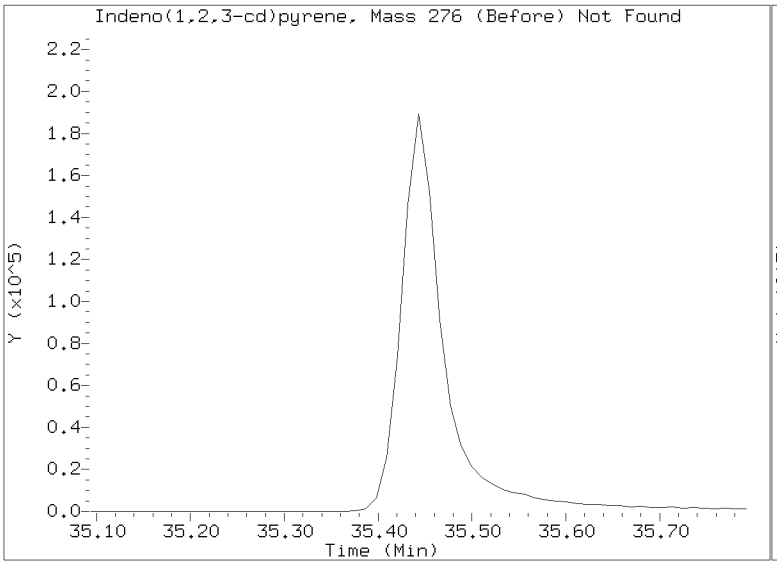
Injection Date: 07-JAN-2021 17:32
Lab ID:SJA0059-SCV1 Client ID:
Report Date: 01/08/2021 16:59

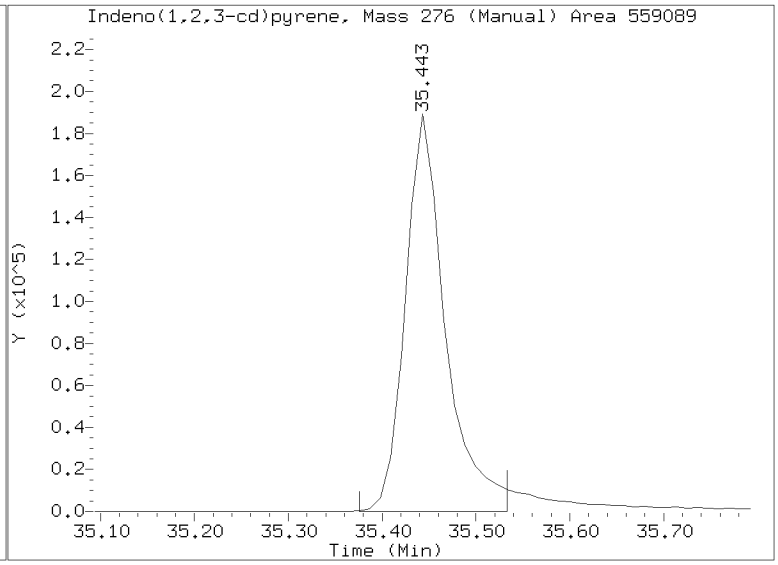












Quant Ion Manual Peak Adjustment Report

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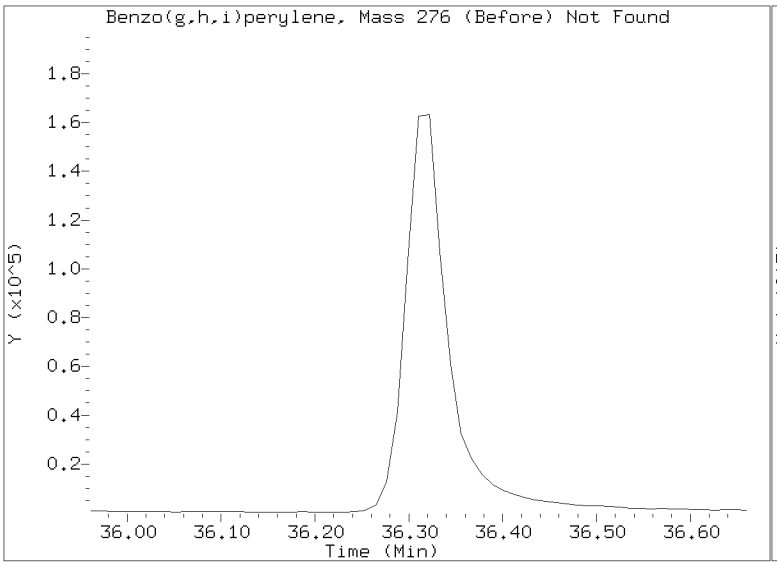
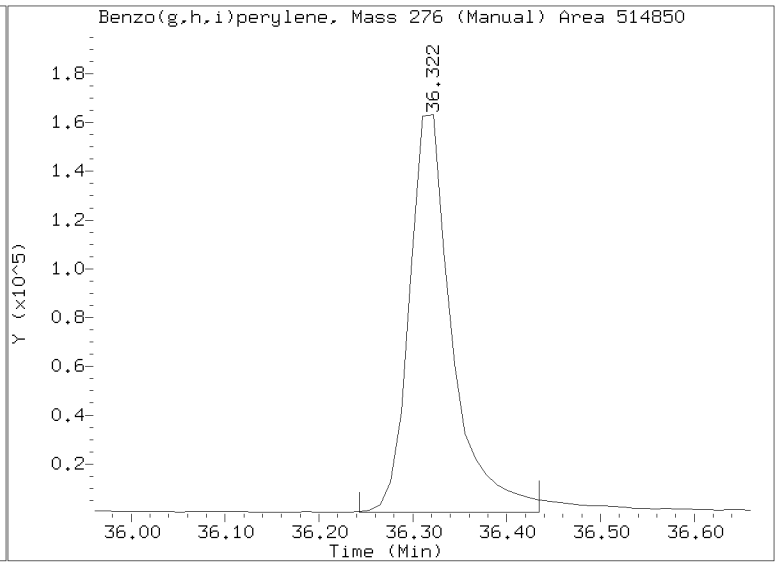
Injection Date: 07-JAN-2021 17:32
Lab ID:SJA0059-SCV1 Client ID:
Report Date: 01/08/2021 16:59





Analytical Resources, Incorporated
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Instrument ID:	NT14	Calibration:	EA00040
Lab File ID:	NT1421031310.D	Calibration Date:	01/14/2021
Sequence:	SJC0183	Injection Date:	03/13/21
Lab Sample ID:	SJC0183-CCV1	Injection Time:	18:00
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	1.9	0.1159685	0.0875584		-24.5	+/-50
cis-Decalin	A	2.5000	2.1	0.0835211	0.0689172		-17.5	+/-50
Naphthalene	A	2.5000	2.3	0.9263444	0.8411451		-9.2	+/-50
1-Methylnaphthalene	A	2.5000	2.4	0.5131404	0.4963078		-3.3	+/-50
2-Methylnaphthalene	A	2.5000	2.3	0.5295653	0.4889589		-7.7	+/-50
Biphenyl	A	2.5000	2.4	0.7787672	0.7492831		-3.8	+/-50
2,6-Dimethylnaphthalene	A	2.5000	2.4	0.5698371	0.5478826		-3.9	+/-50
Acenaphthylene	A	2.5000	2.6	0.9686185	0.9949380		2.7	+/-50
Acenaphthene	A	2.5000	2.6	0.6227577	0.6419319		3.1	+/-50
Dibenzofuran	A	2.5000	2.5	0.8912135	0.9090101		2.0	+/-50
2,3,5-Trimethylnaphthalene	A	2.5000	2.6	0.5722696	0.5966562		4.3	+/-50
Fluorene	A	2.5000	2.6	0.6753950	0.7050762		4.4	+/-50
Benzo(b)thiophene	A	2.5000	2.3	0.7660937	0.6926654		-9.6	+/-50
Phenanthrene	A	2.5000	2.6	0.9968805	1.0278930		3.1	+/-50
Anthracene	A	2.5000	2.7	0.9218650	0.9783542		6.1	+/-50
Carbazole	A	2.5000	2.7	0.7706226	0.8268620		7.3	+/-50
1-Methylphenanthrene	A	2.5000	2.7	0.7081347	0.7527959		6.3	+/-50
Fluoranthene	A	2.5000	2.8	1.0893370	1.1986840		10.0	+/-50
Dibenzothiophene	A	2.5000	3.2	0.9240760	1.1714060		26.8	+/-50
Pyrene	A	2.5000	2.8	1.1431450	1.2680330		10.9	+/-50
Benzo(a)anthracene	A	2.5000	2.7	0.8161632	0.8672176		6.3	+/-50
Chrysene	A	2.5000	2.5	0.8154589	0.8172083		0.2	+/-50
Benzo(b)fluoranthene	A	2.5000	2.5	0.8016147	0.8095987		1.0	+/-50
Benzo(j)fluoranthene	A	2.5000	2.8	0.8077480	0.8964739		11.0	+/-50
Benzo(k)fluoranthene	A	2.5000	2.8	0.8370331	0.9225731		10.2	+/-50
Benzo(e)pyrene	A	2.5000	2.7	0.7779167	0.8404460		8.0	+/-50
Benzo(a)pyrene	A	2.5000	2.8	0.7319961	0.8144583		11.3	+/-50
Indeno(1,2,3-cd)pyrene	A	2.5000	2.8	0.7990599	0.9056444		13.3	+/-50
Dibenzo(a,h)anthracene	A	2.5000	2.6	0.6854958	0.7954873		4.3	+/-50
Benzo(g,h,i)perylene	A	2.5000	2.6	0.8046159	0.8252639		2.6	+/-50
Perylene	A	2.5000	2.8	0.7425959	0.8259895		11.2	+/-50
Benzo(b)naphtho(2,1-d)thiophene	A	2.5000	2.9	0.8185783	0.9362879		14.4	+/-50
Naphthalene-d8	A	2.5000	2.22	0.9253244	0.8203924		-11.3	+/-50
Acenaphthene-d10	A	2.5000	2.54	0.4887195	0.4969950		1.7	+/-50

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Instrument ID:	NT14	Calibration:	EA00040
Lab File ID:	NT1421031310.D	Calibration Date:	01/14/2021
Sequence:	SJC0183	Injection Date:	03/13/21
Lab Sample ID:	SJC0183-CCV1	Injection Time:	18:00
Sequence Name:	Calibration Check		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenanthrene-d10	A	2.5000	2.47	0.9156546	0.9029628		-1.4	+/-50
Chrysene-d12	A	2.5000	2.55	0.6297905	0.6422192		2.0	+/-50
Perylene-d12	A	2.5000	2.66	0.6755628	0.7181454		6.3	+/-50

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031310.D

Page 1

Date : 13-MAR-2021 18:00

Client ID:

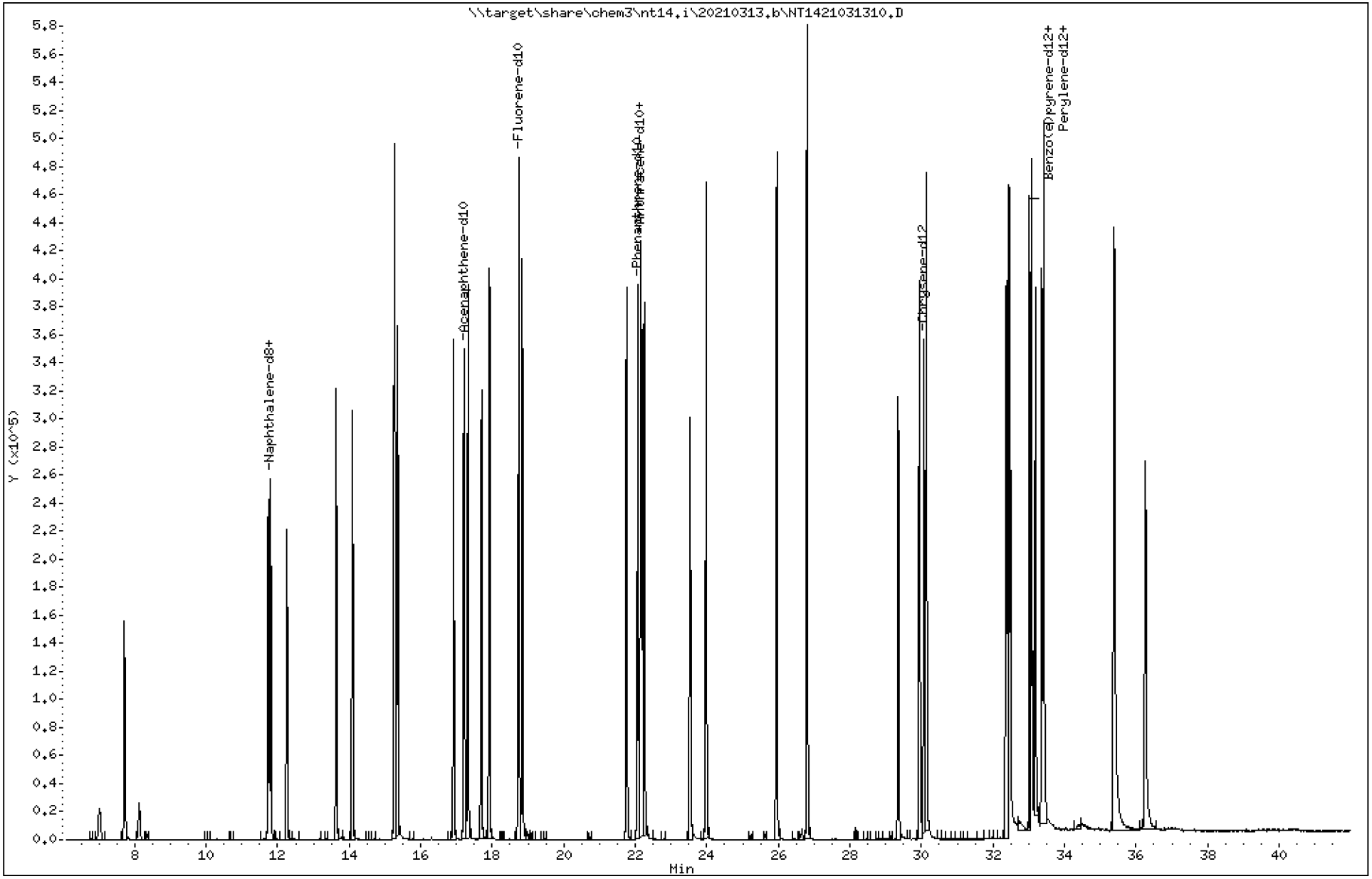
Instrument: nt14.i

Sample Info: SJC0183-CCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

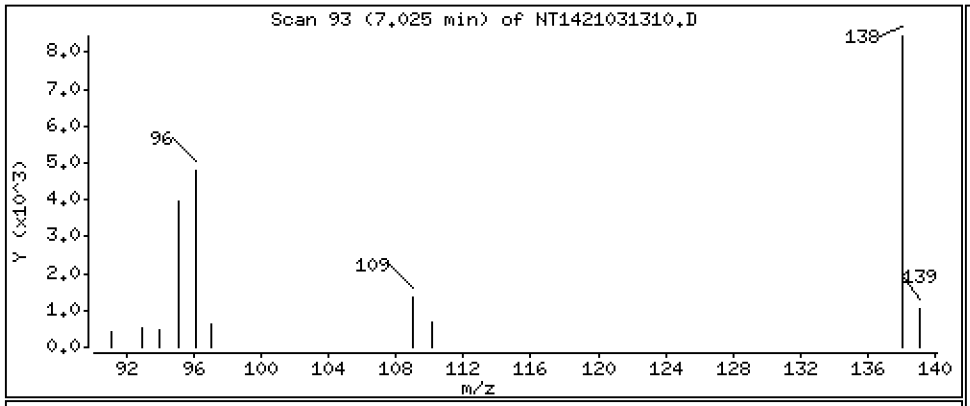
Operator: VTS

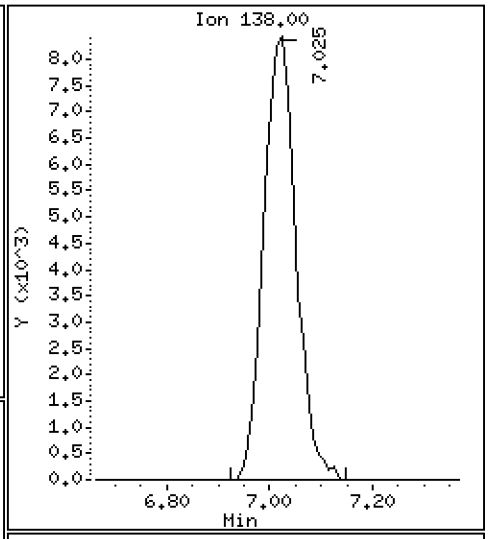
Column phase: Rxi-17Sil MS

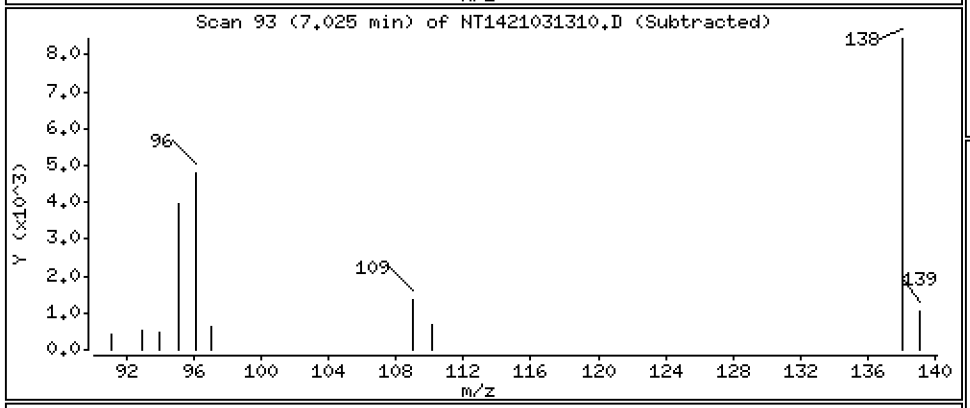
Column diameter: 0.25

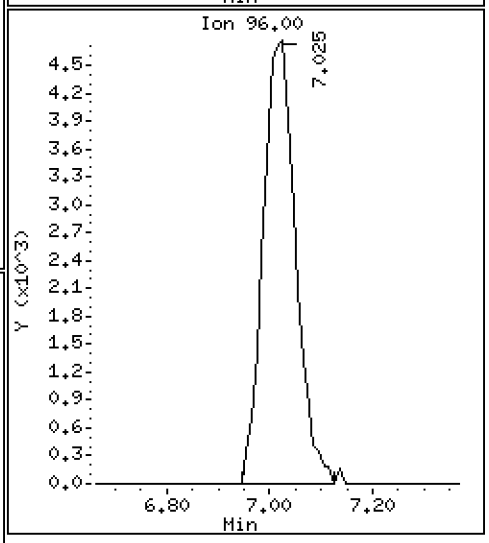
1 trans-Decalin

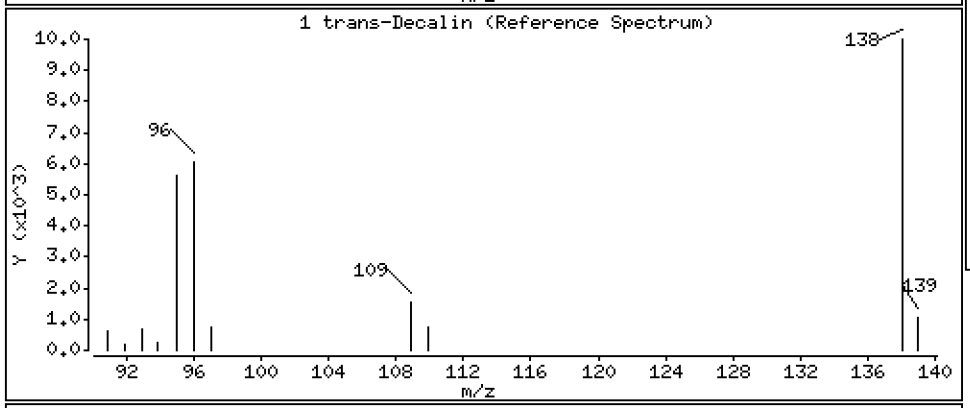
Concentration: 1.888 ug/mL

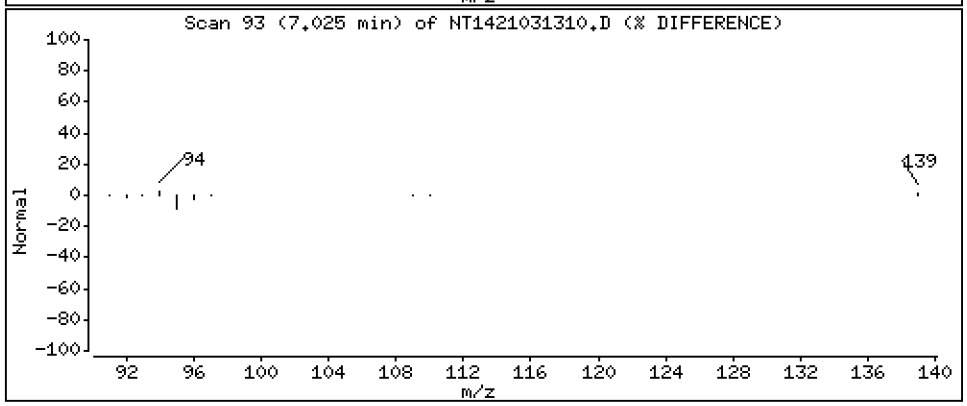












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Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

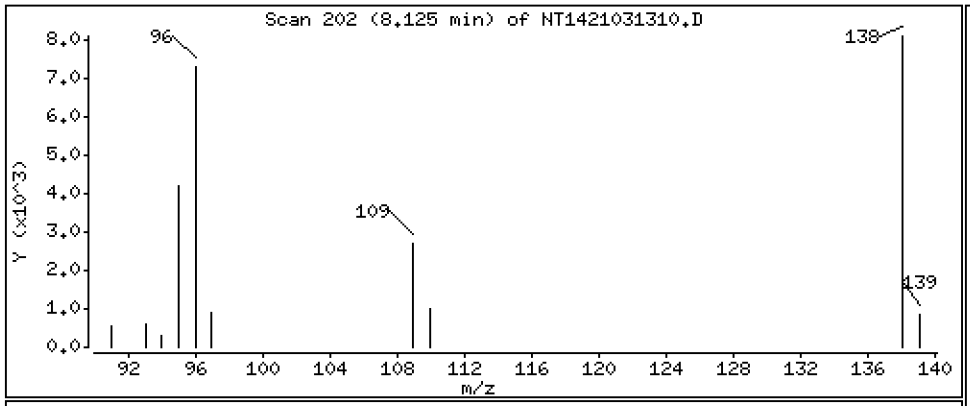
Operator: VTS

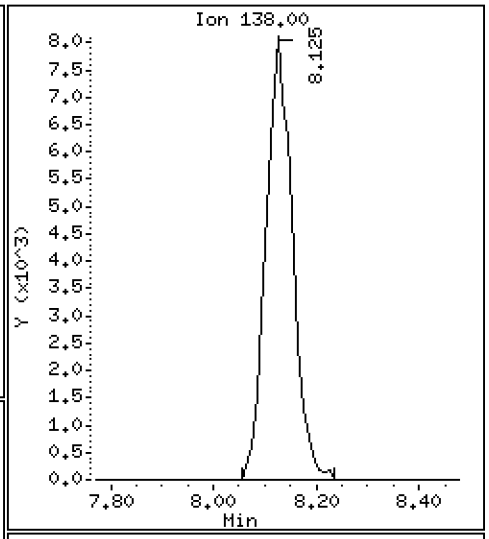
Column phase: Rxi-17Sil MS

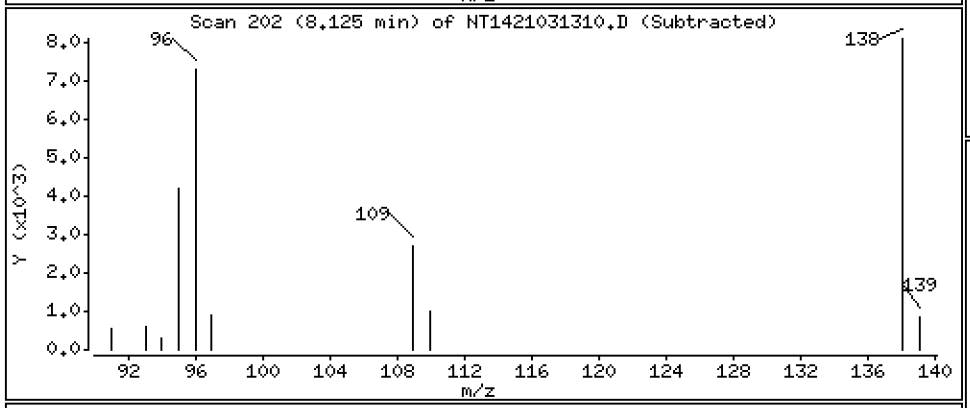
Column diameter: 0.25

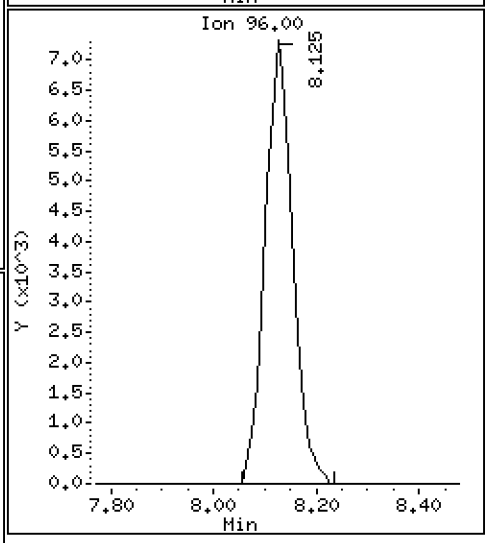
2 cis-Decalin

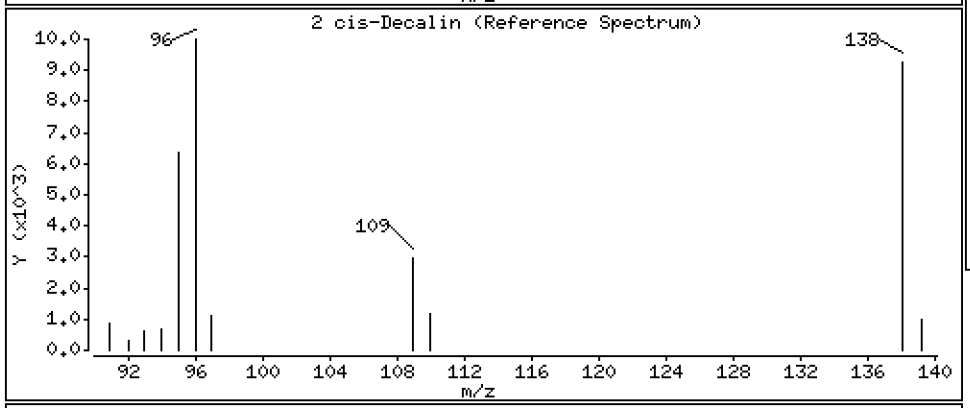
Concentration: 2.063 ug/mL

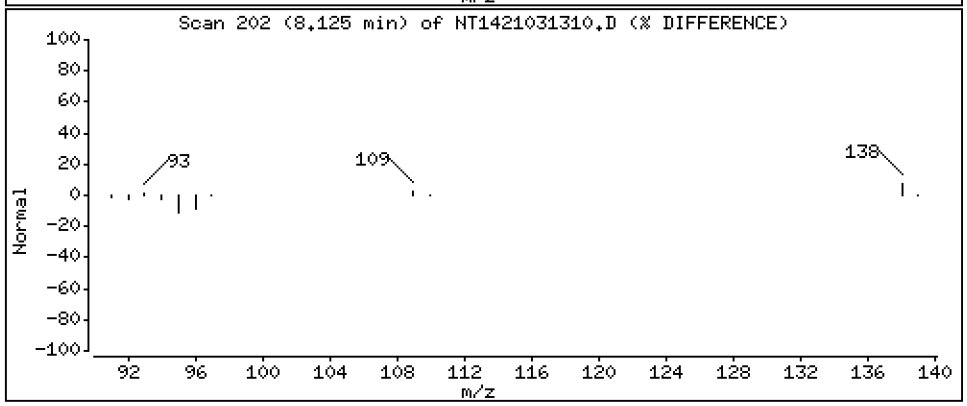












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Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

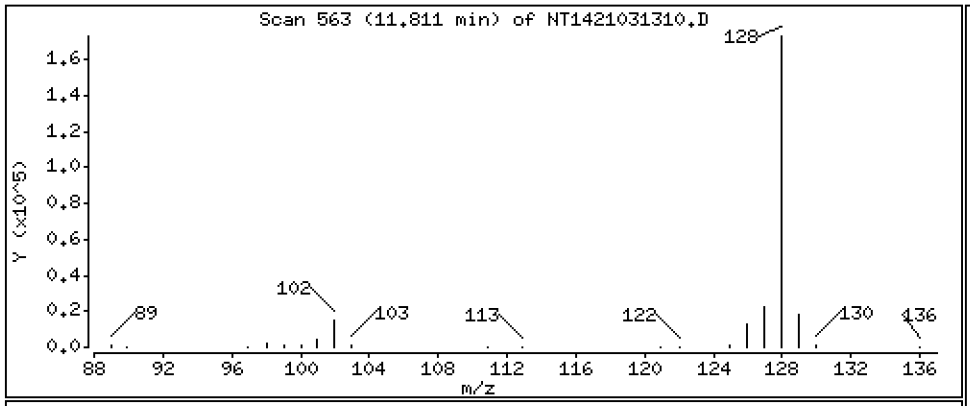
Operator: VTS

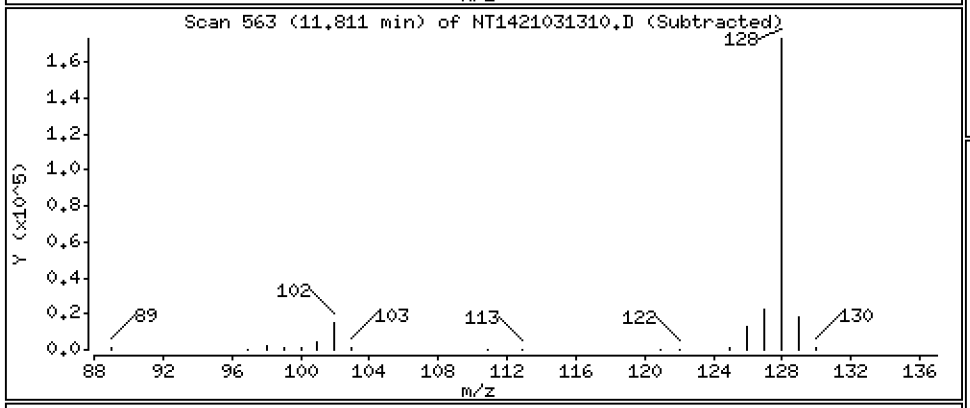
Column phase: Rxi-17Sil MS

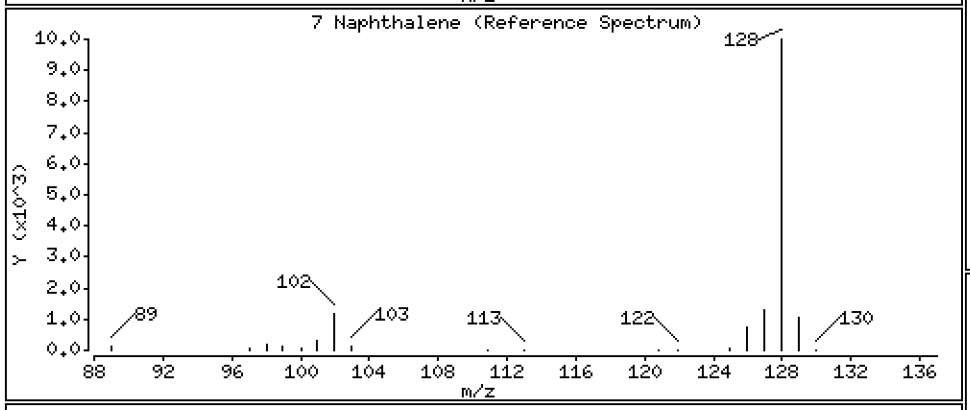
Column diameter: 0.25

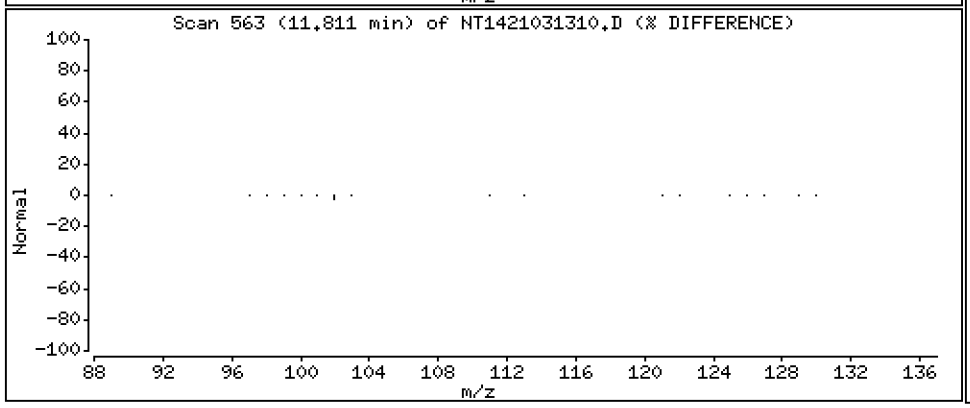
7 Naphthalene

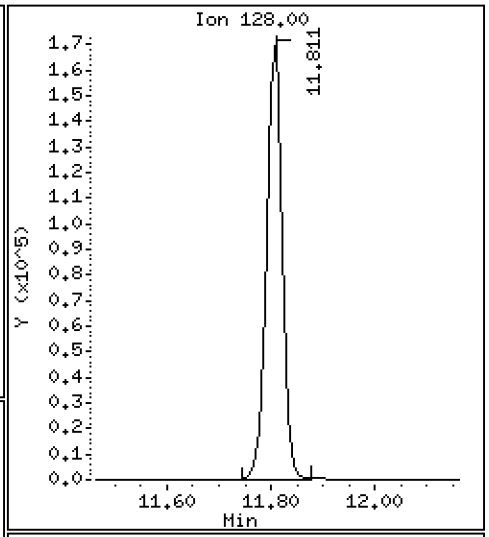
Concentration: 2.270 ug/mL

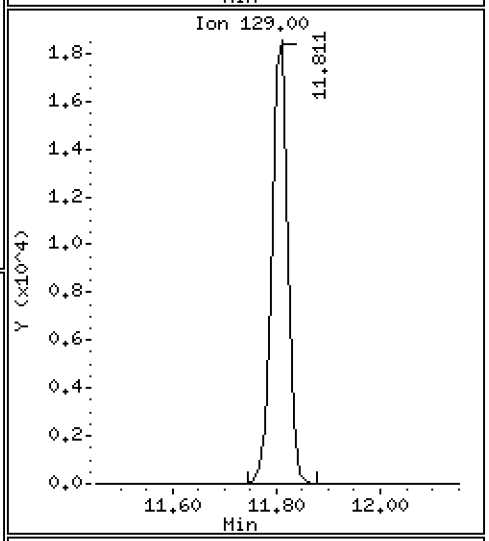


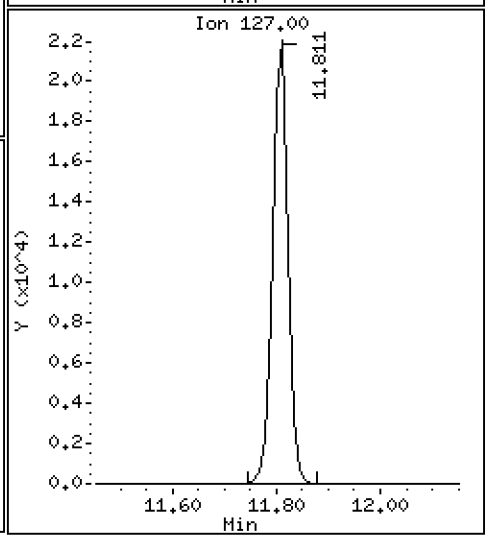












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Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

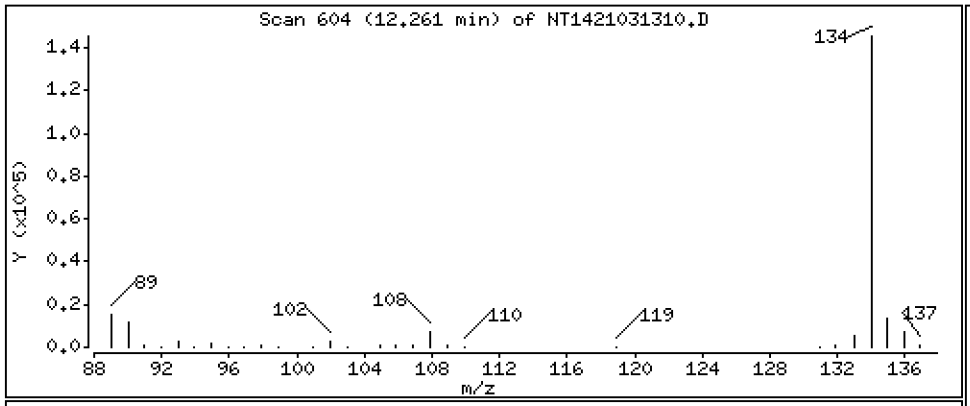
Operator: VTS

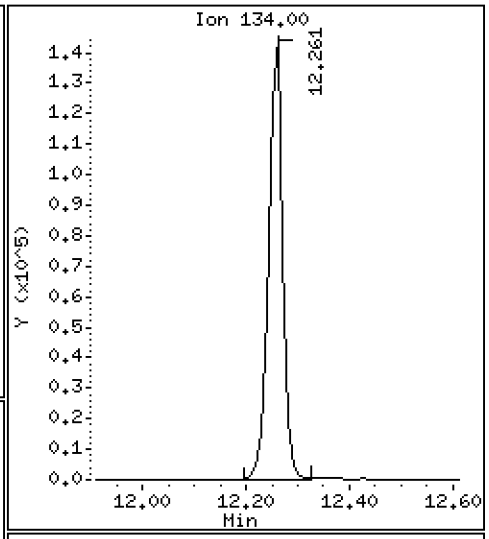
Column phase: Rxi-17Sil MS

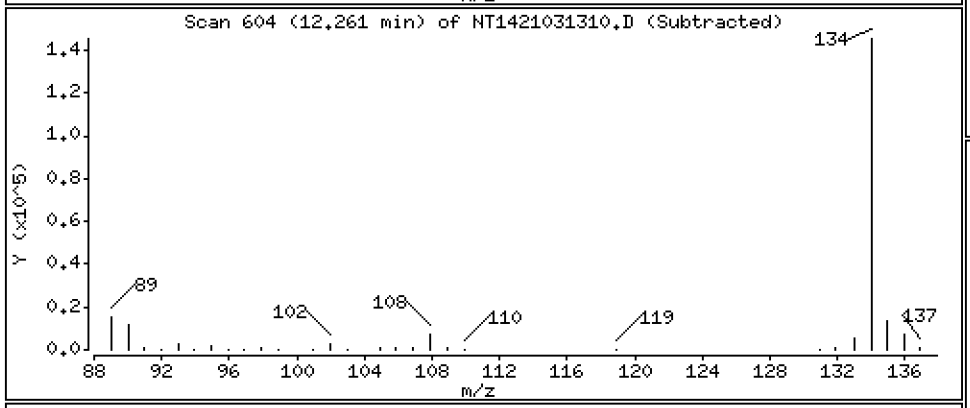
Column diameter: 0.25

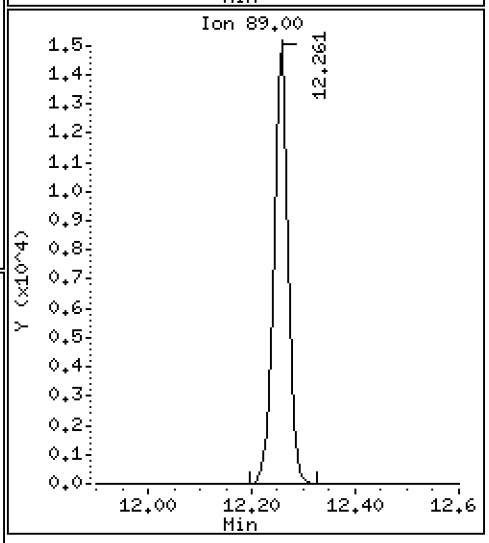
12 Benzo(b)thiophene

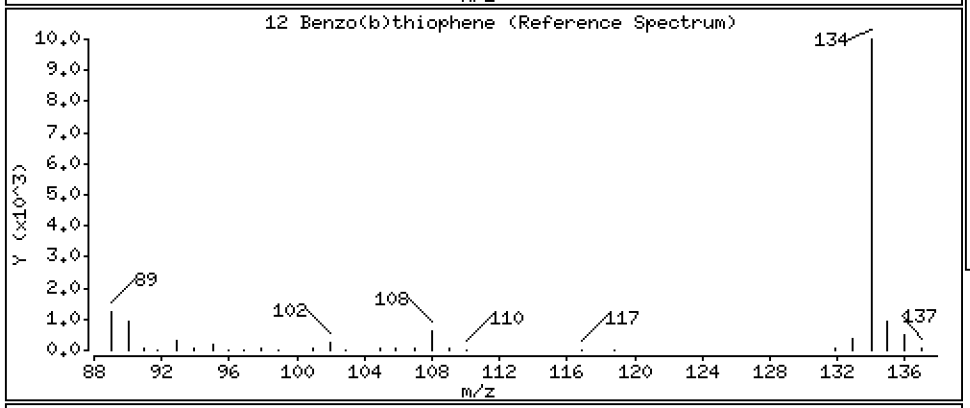
Concentration: 2.260 ug/mL

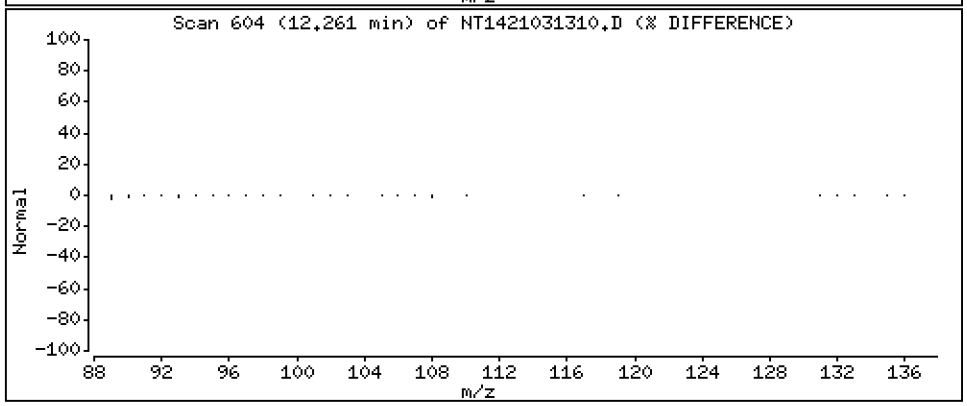












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Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

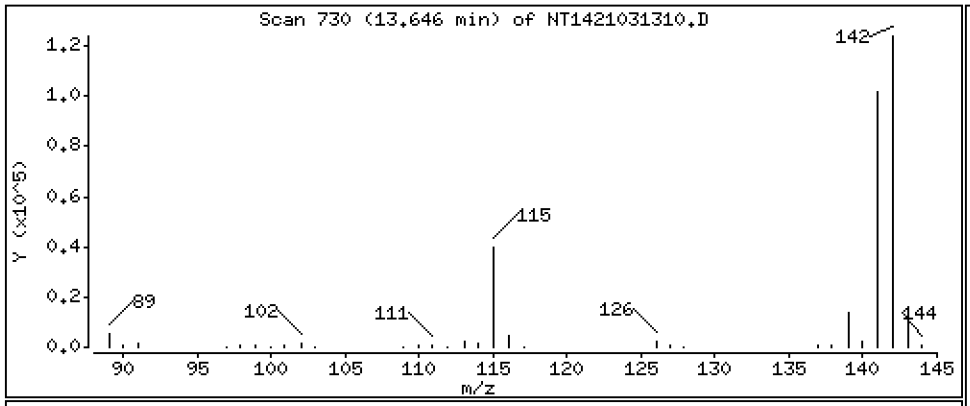
Operator: VTS

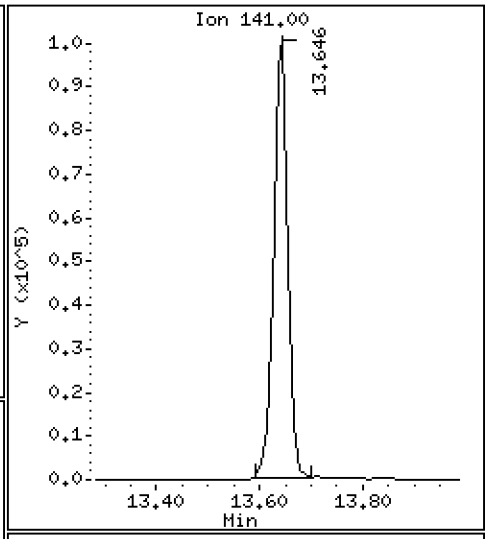
Column phase: Rxi-17Sil MS

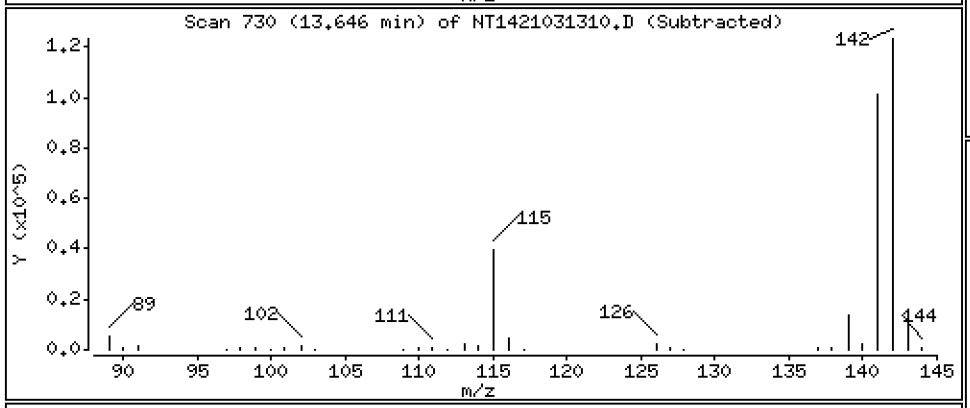
Column diameter: 0.25

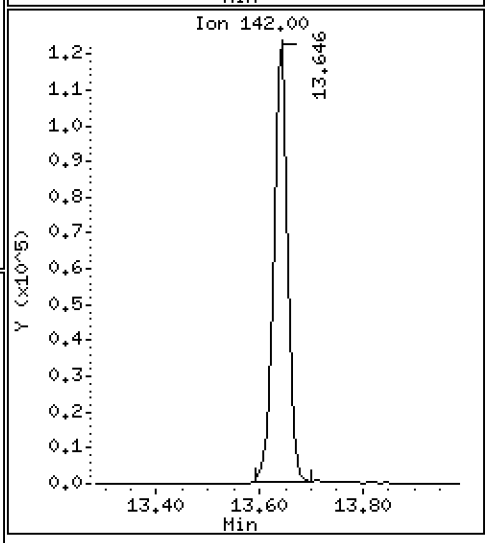
16 2-Methylnaphthalene

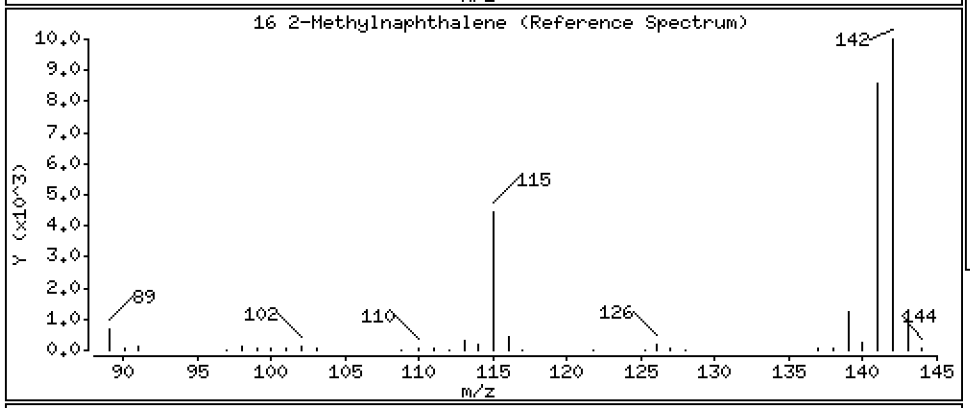
Concentration: 2.308 ug/mL

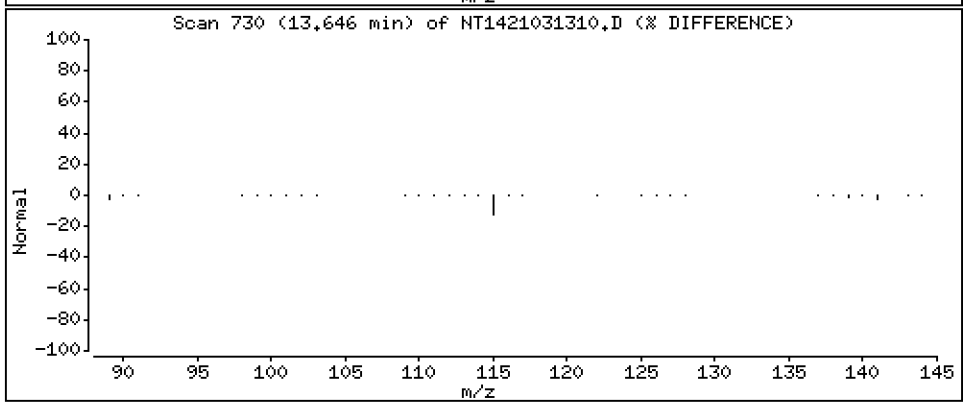












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031310.D

Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

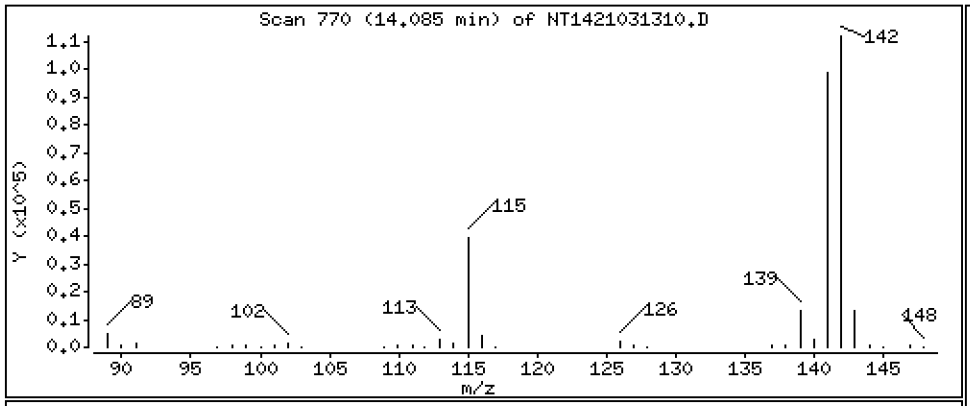
Operator: VTS

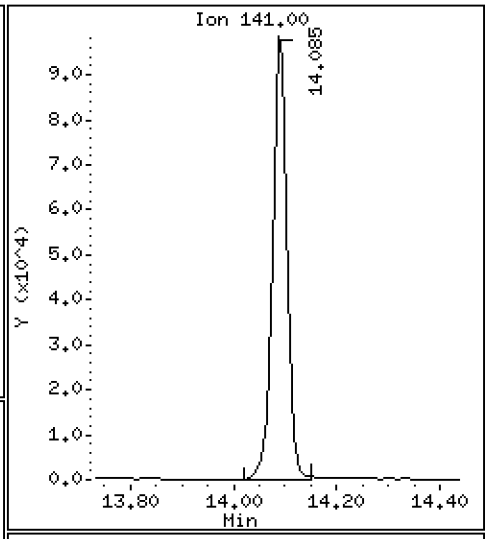
Column phase: Rxi-17Sil MS

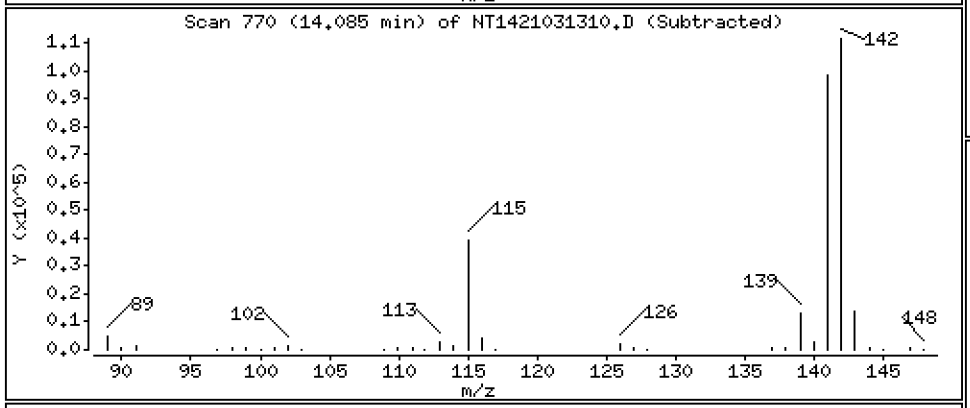
Column diameter: 0.25

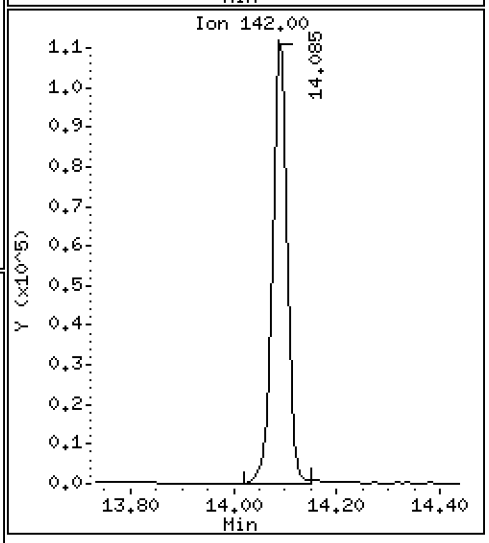
17 1-methylnaphthalene

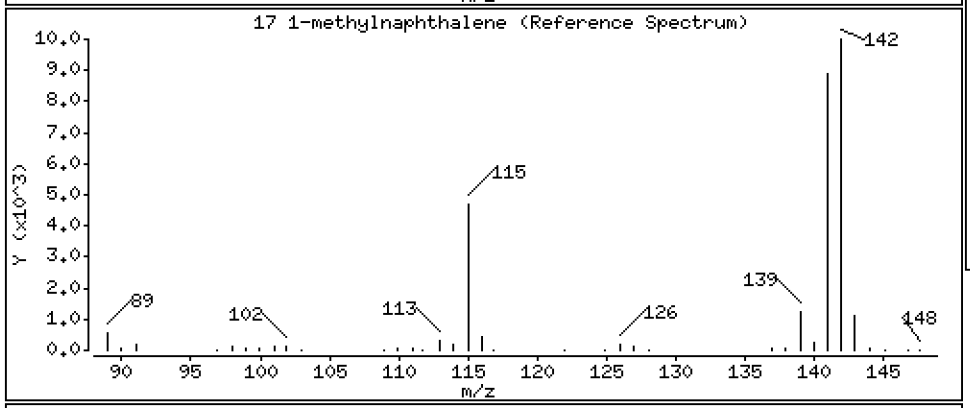
Concentration: 2.418 ug/mL

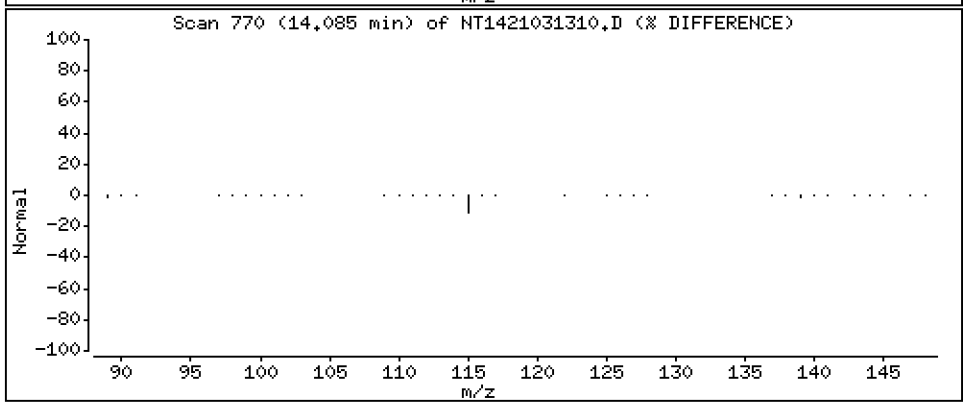












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031310.D

Date : 13-MAR-2021 18:00

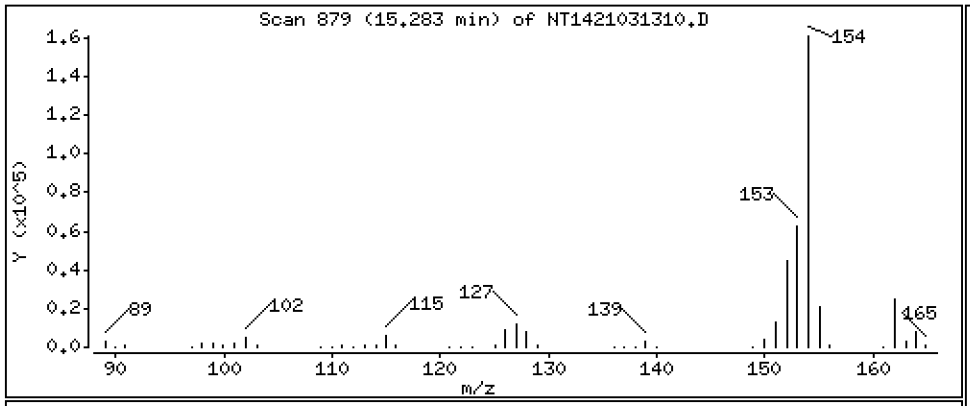
Client ID: Instrument: nt14.i

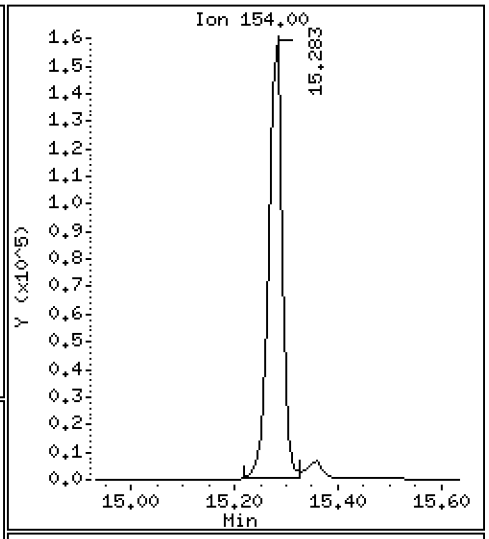
Sample Info: SJC0183-CCV1

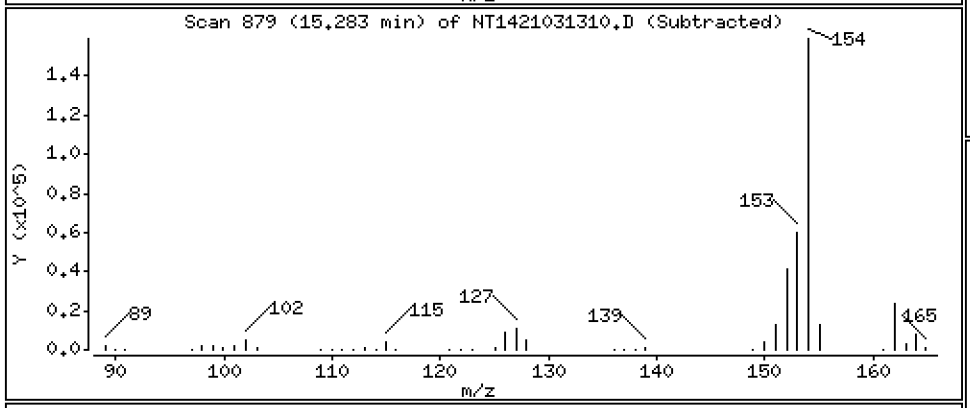
Operator: VTS

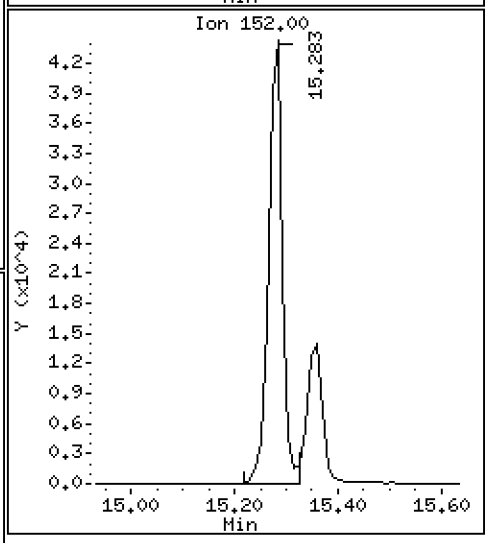
Column phase: Rxi-17Sil MS Column diameter: 0.25

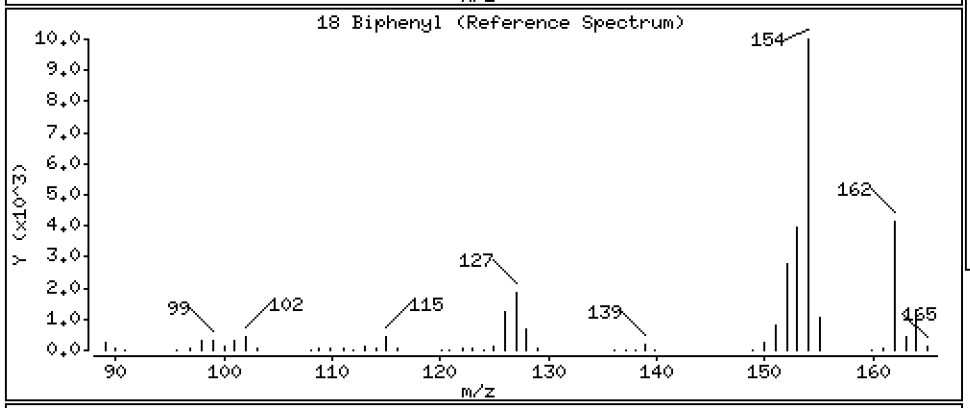
18 Biphenyl Concentration: 2.405 ug/mL

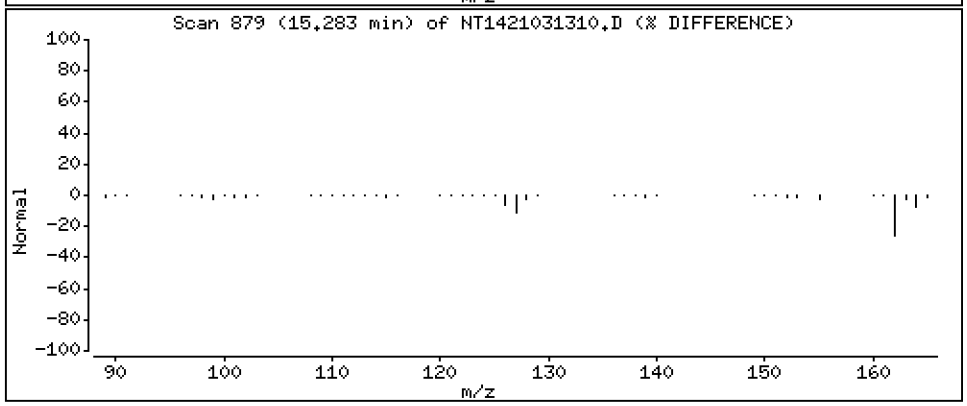












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Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

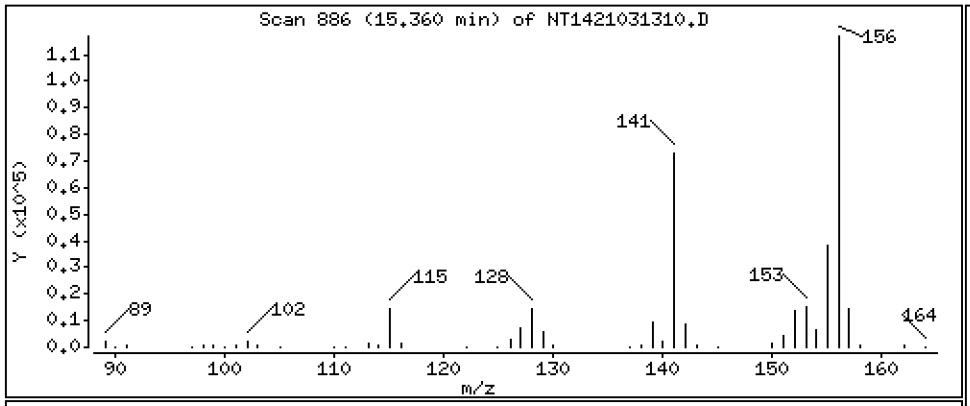
Operator: VTS

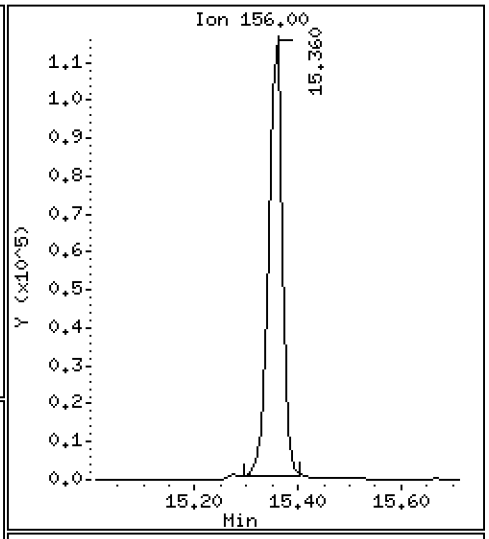
Column phase: Rxi-17Sil MS

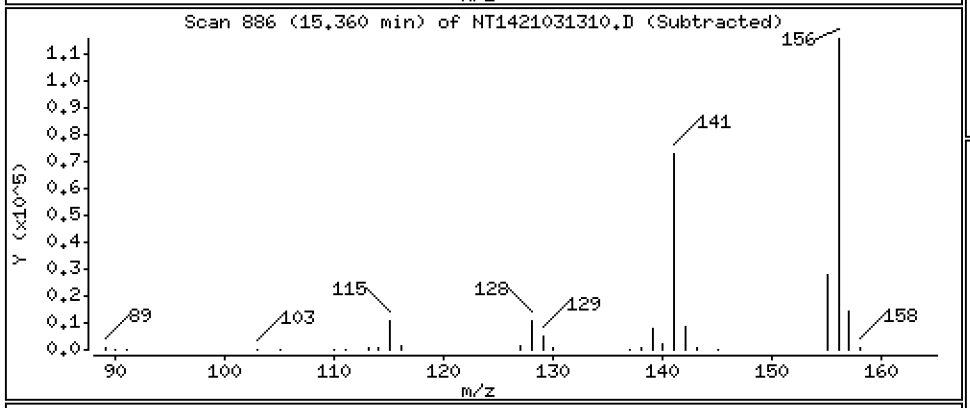
Column diameter: 0.25

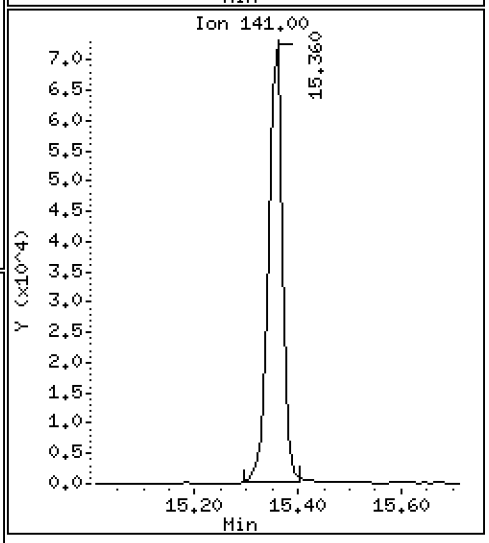
19 2,6-Dimethylnaphthalene

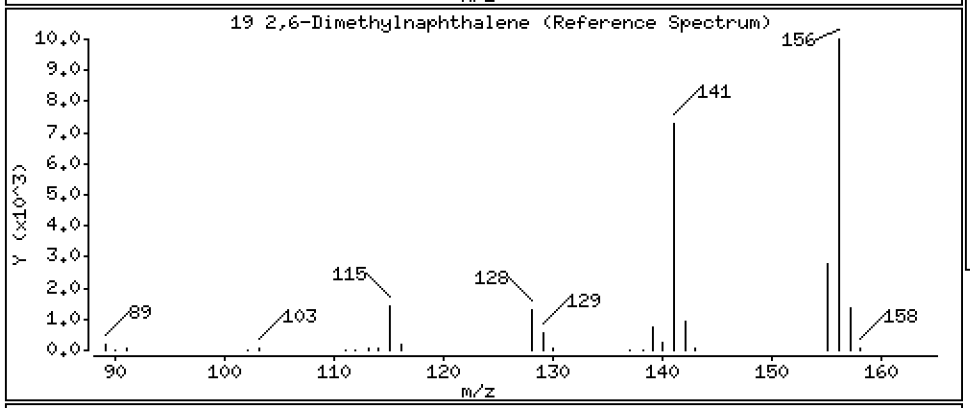
Concentration: 2.404 ug/mL

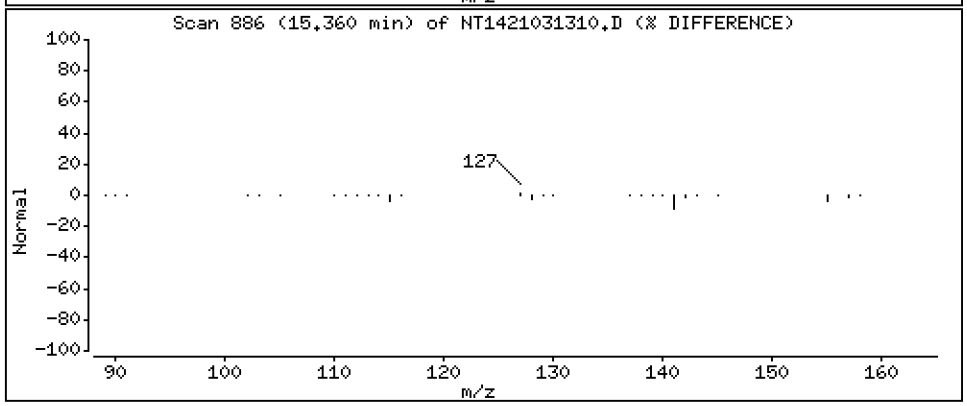












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031310.D

Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

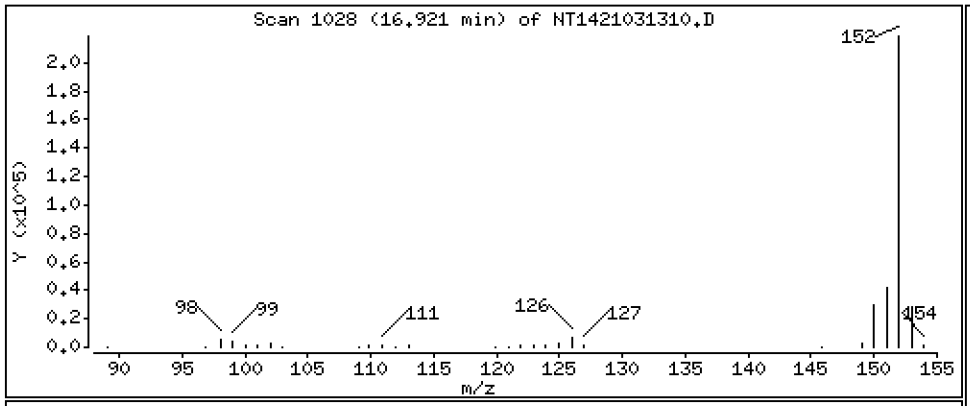
Operator: VTS

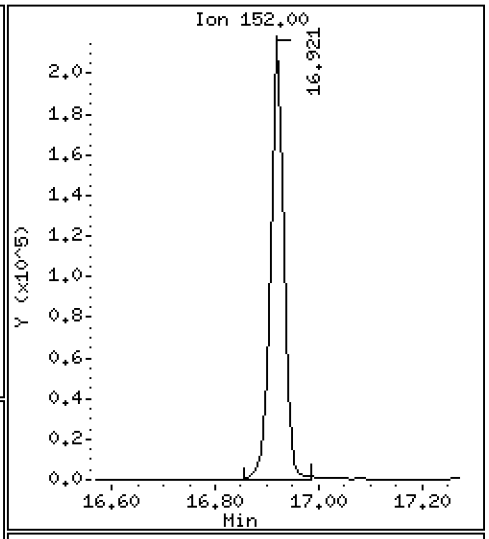
Column phase: Rxi-17Sil MS

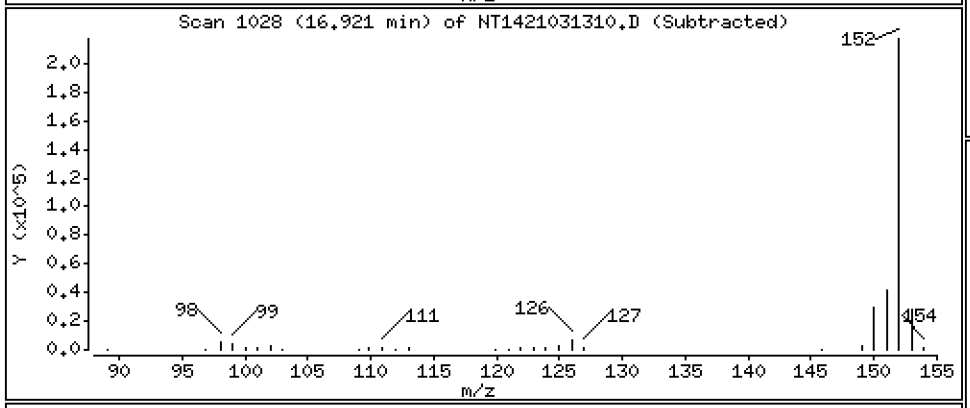
Column diameter: 0.25

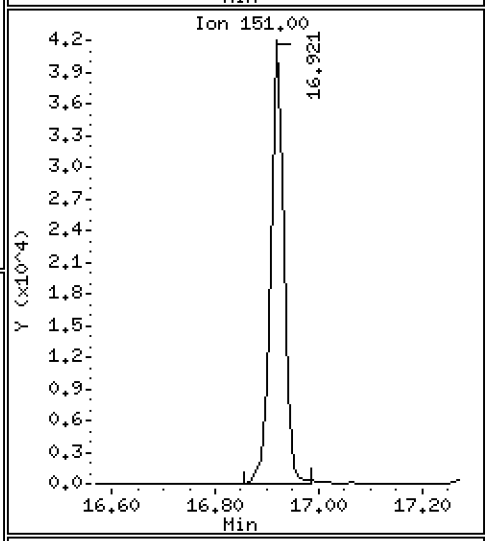
20 Acenaphthylene

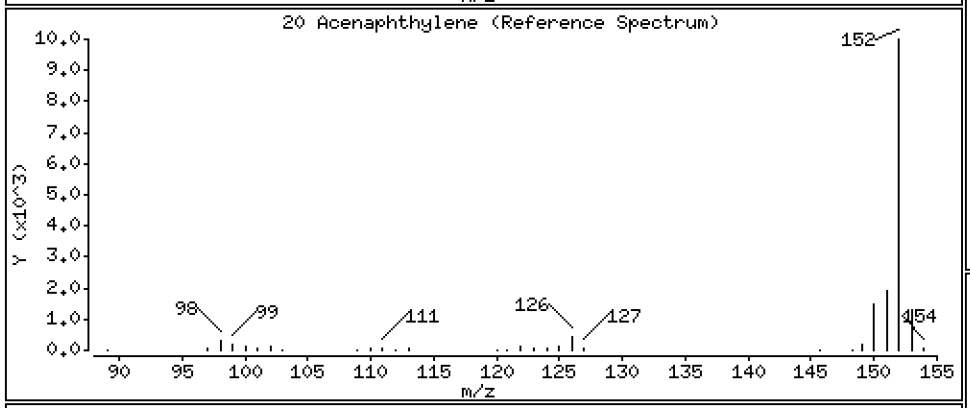
Concentration: 2.568 ug/mL

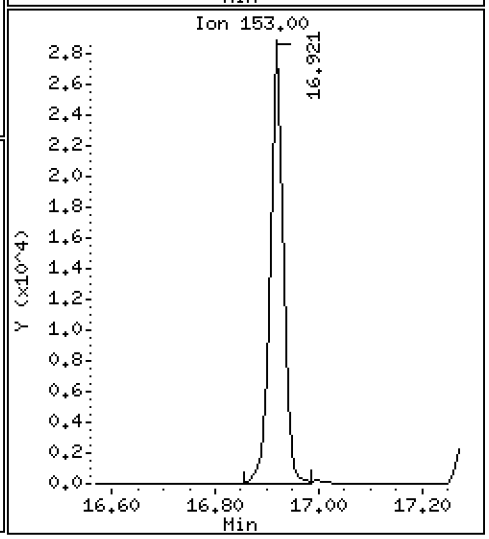


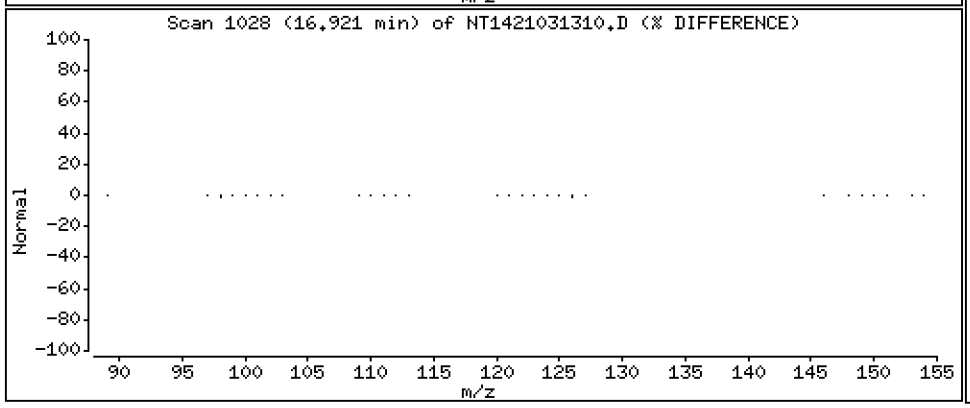












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Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

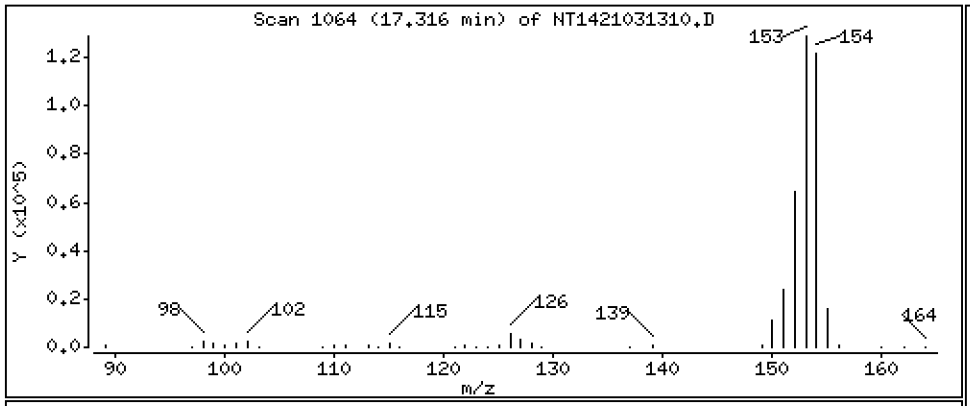
Operator: VTS

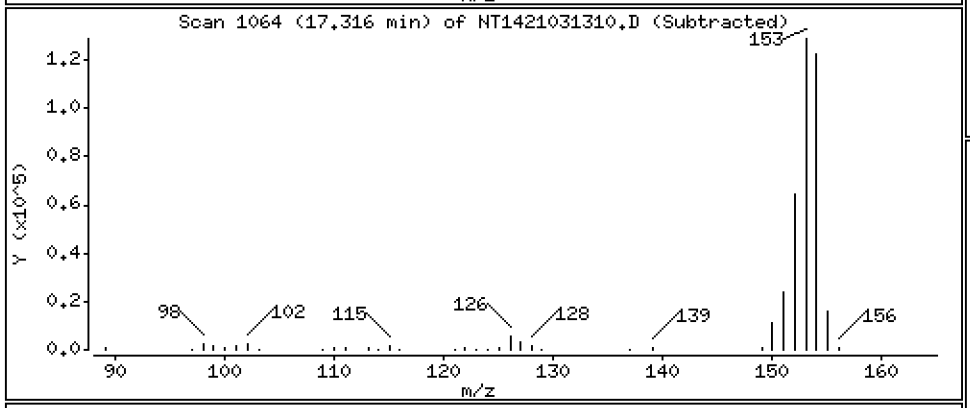
Column phase: Rxi-17Sil MS

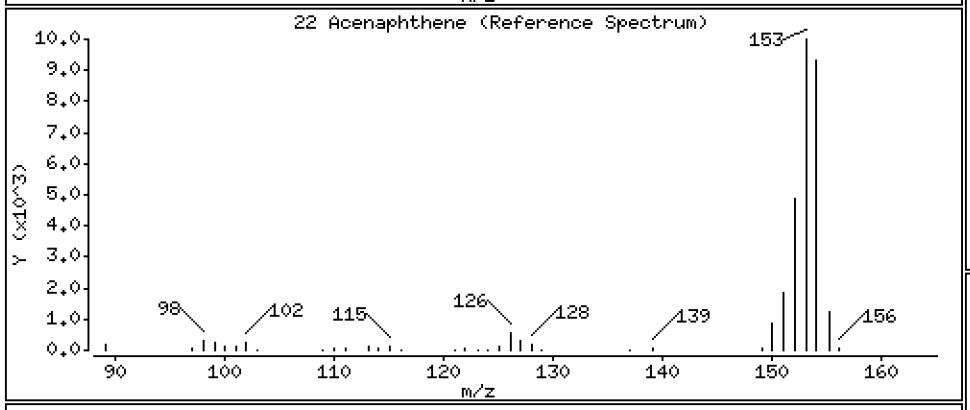
Column diameter: 0.25

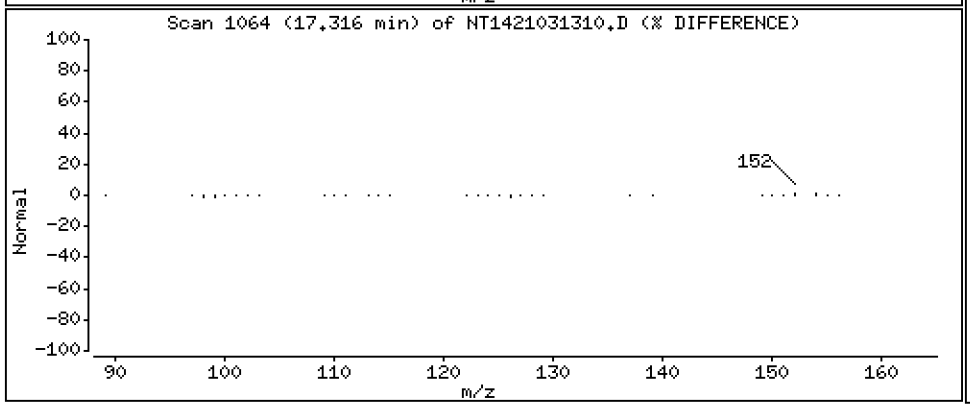
22 Acenaphthene

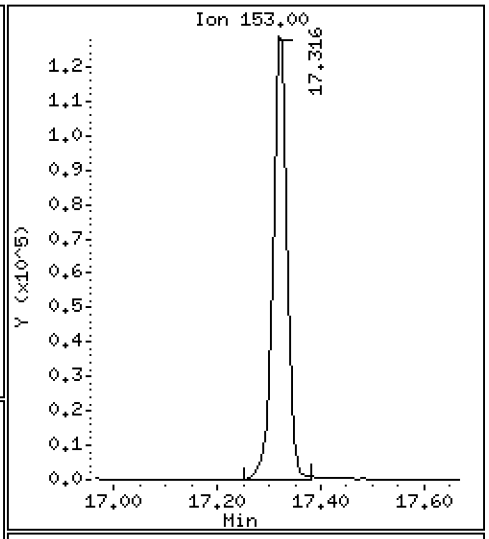
Concentration: 2.577 ug/mL

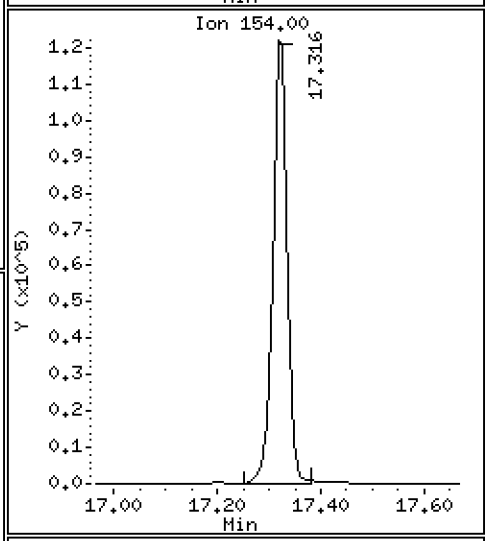


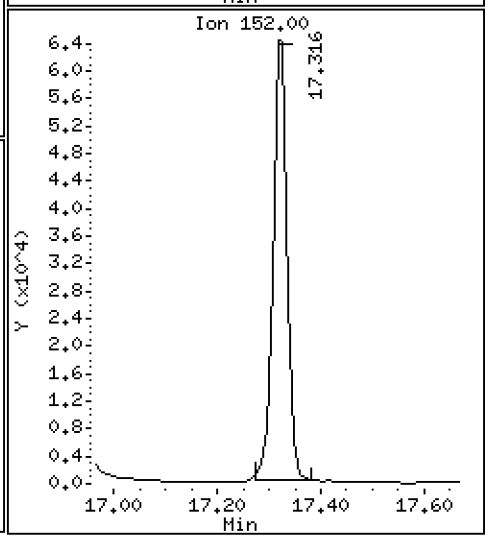












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Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

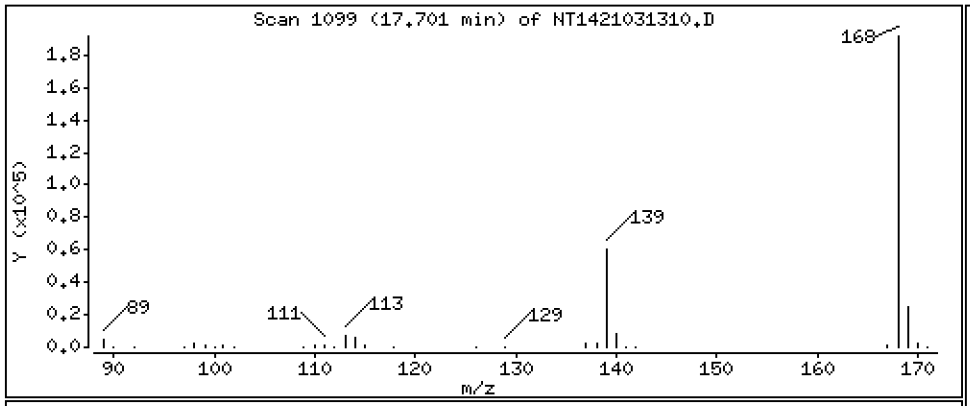
Operator: VTS

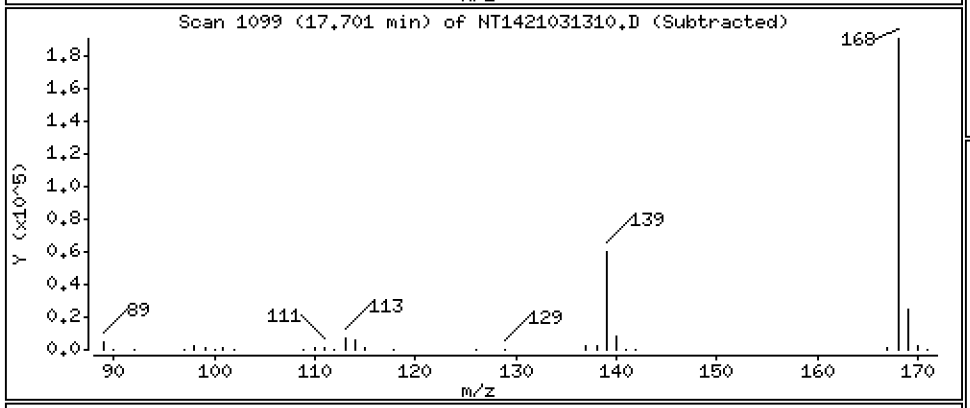
Column phase: Rxi-17Sil MS

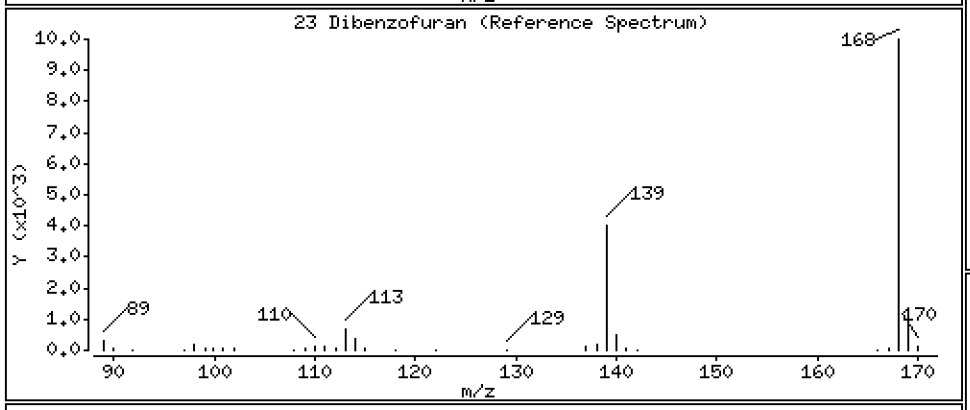
Column diameter: 0.25

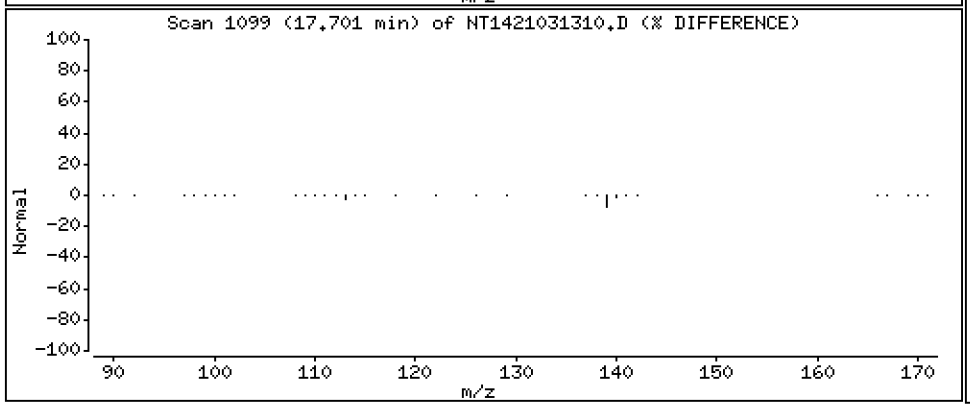
23 Dibenzofuran

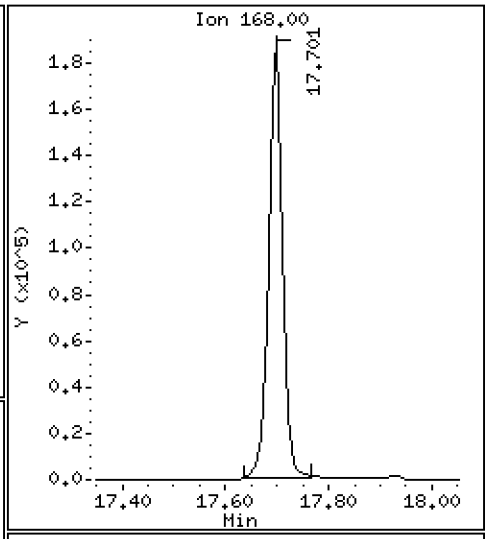
Concentration: 2.550 ug/mL

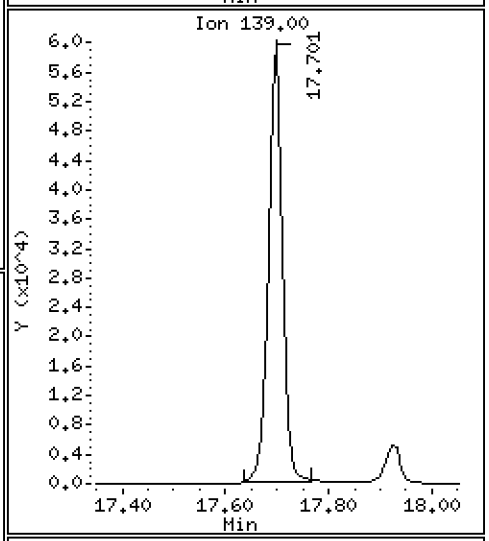


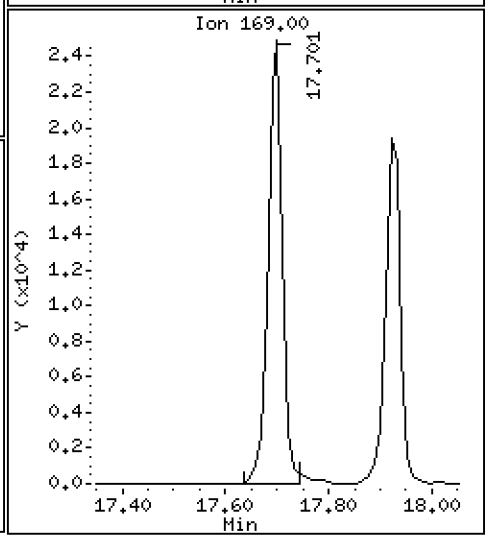












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Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

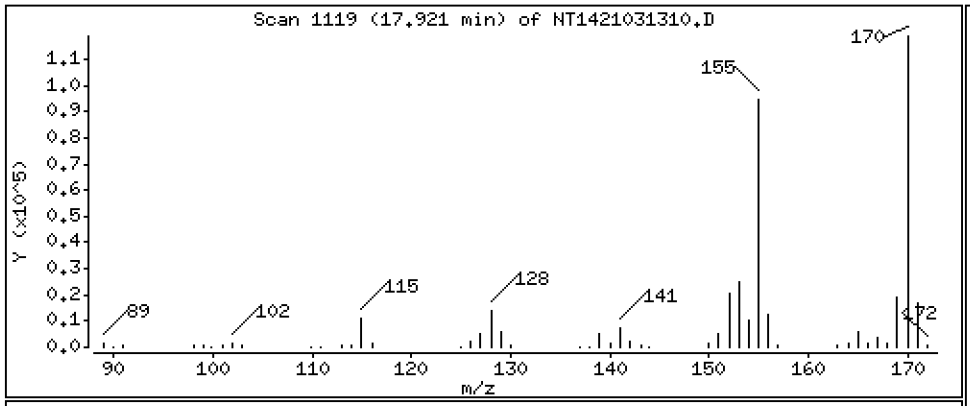
Operator: VTS

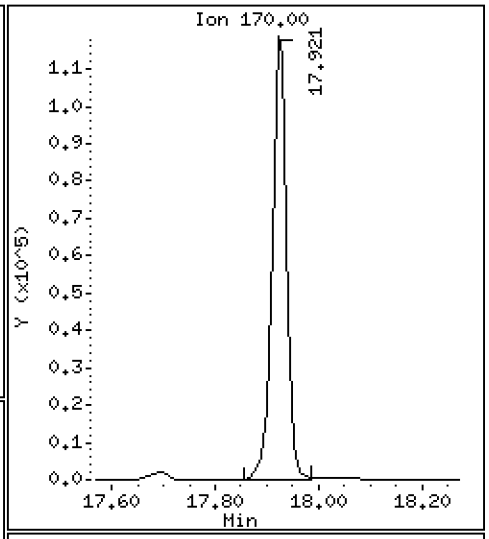
Column phase: Rxi-17Sil MS

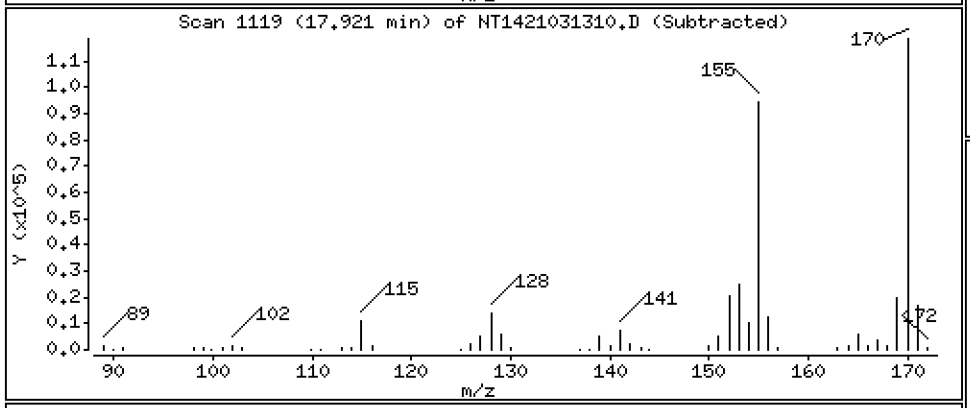
Column diameter: 0.25

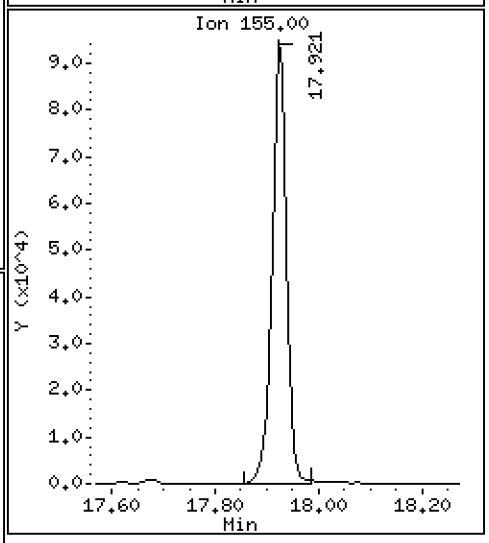
24 1,6,7-Trimethylnaphthalene

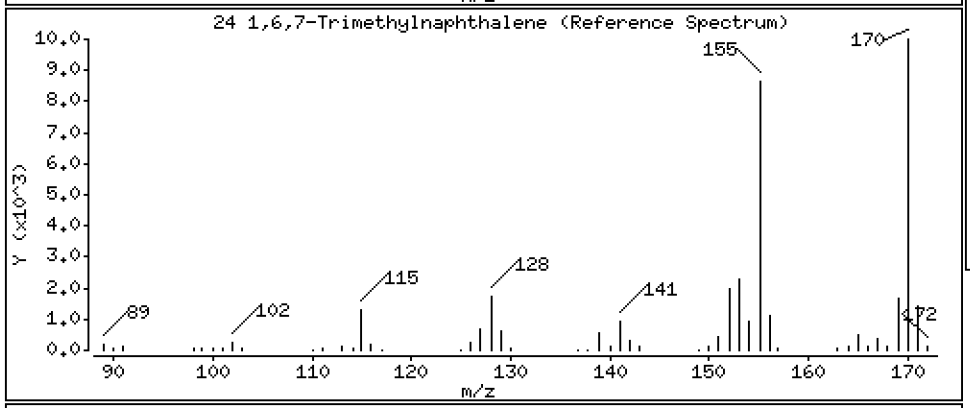
Concentration: 2.607 ug/mL

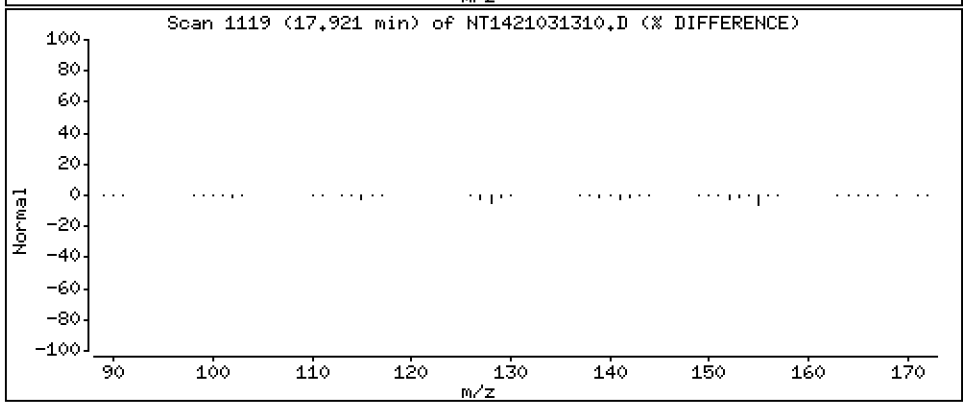












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Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

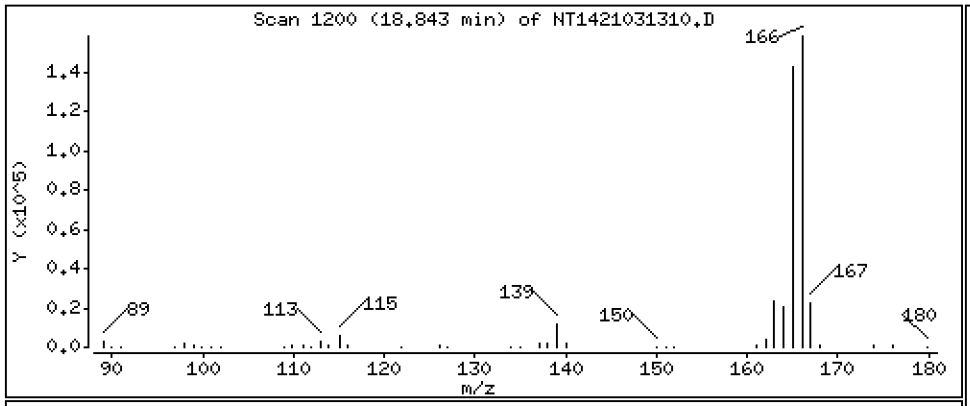
Operator: VTS

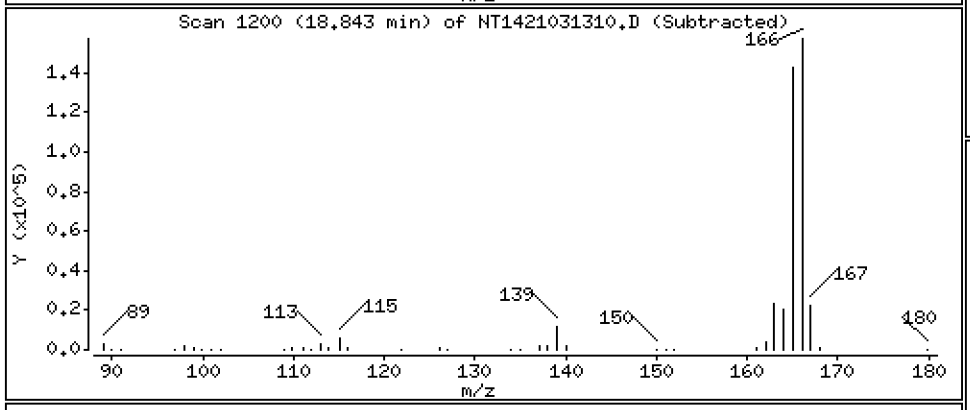
Column phase: Rxi-17Sil MS

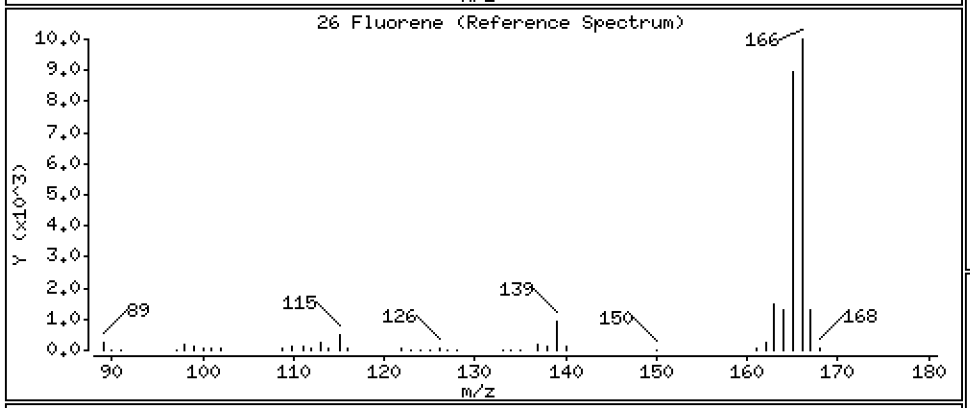
Column diameter: 0.25

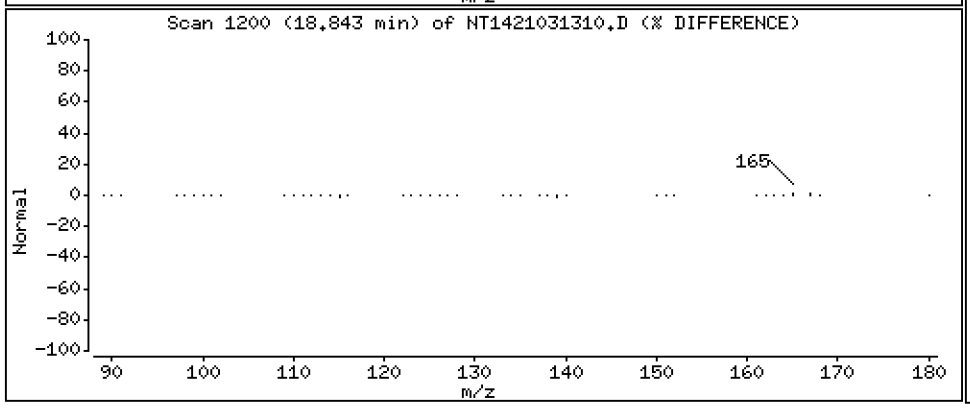
26 Fluorene

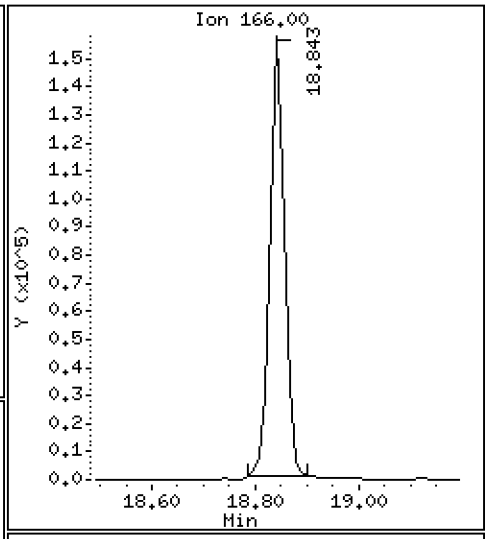
Concentration: 2.610 ug/mL

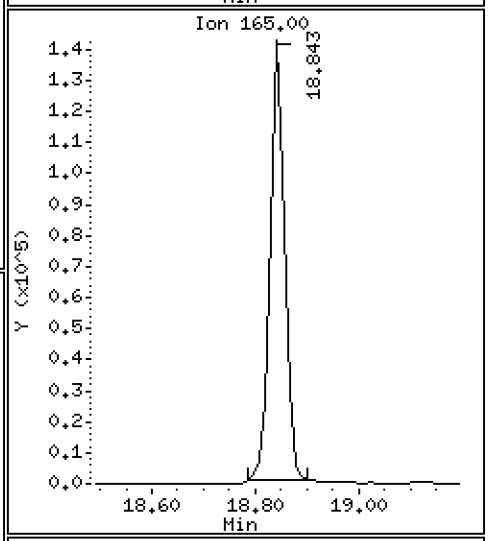


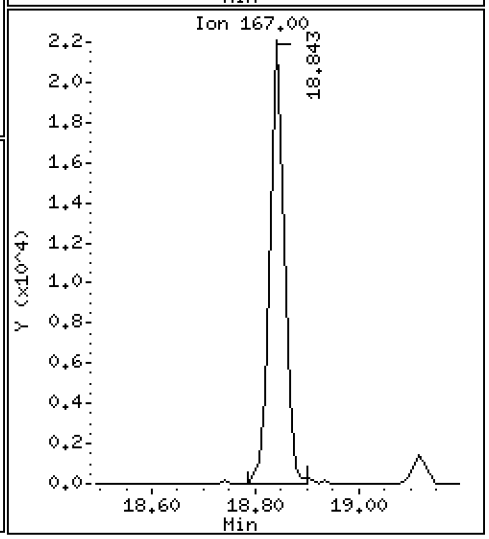












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Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

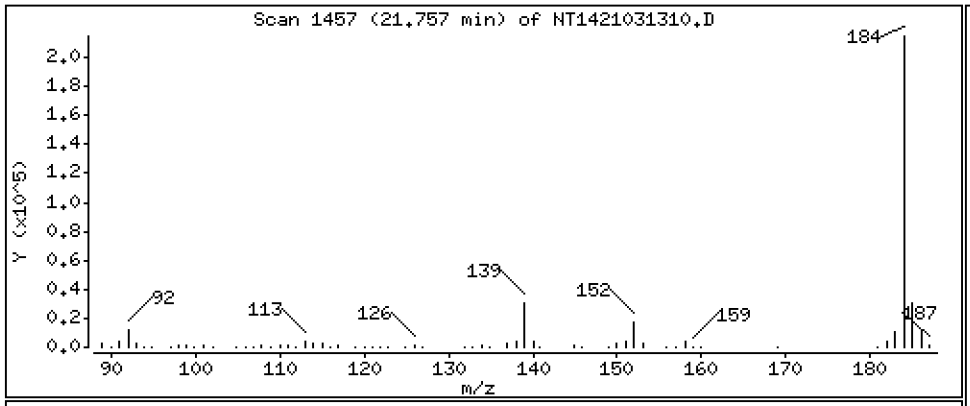
Operator: VTS

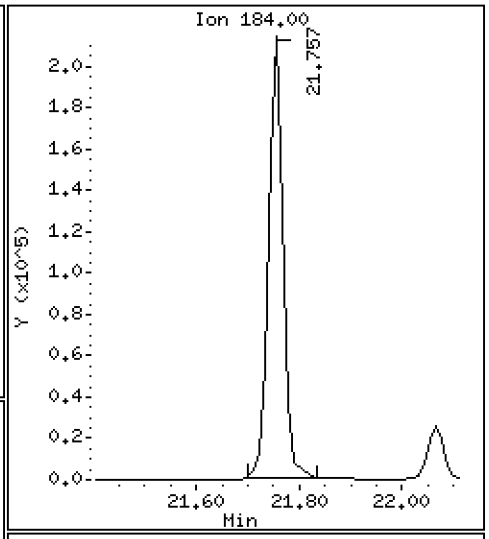
Column phase: Rxi-17Sil MS

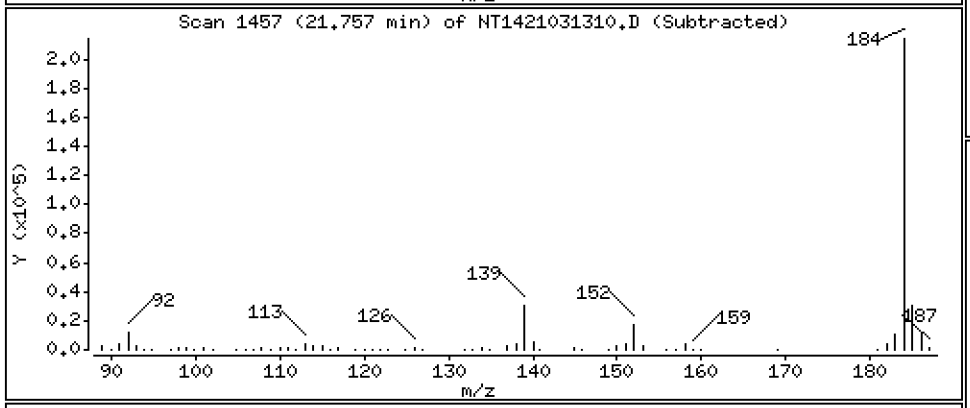
Column diameter: 0.25

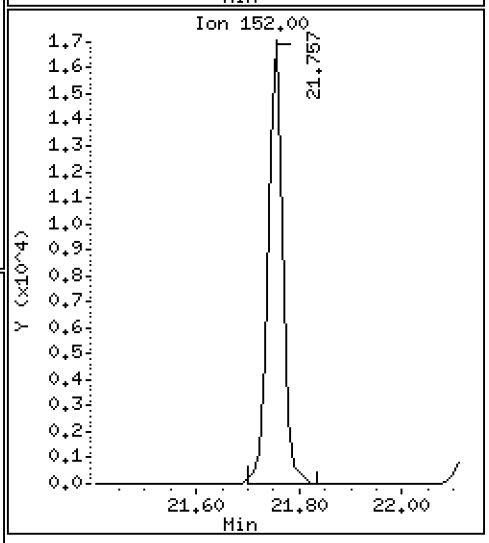
30 Dibenzothiophene

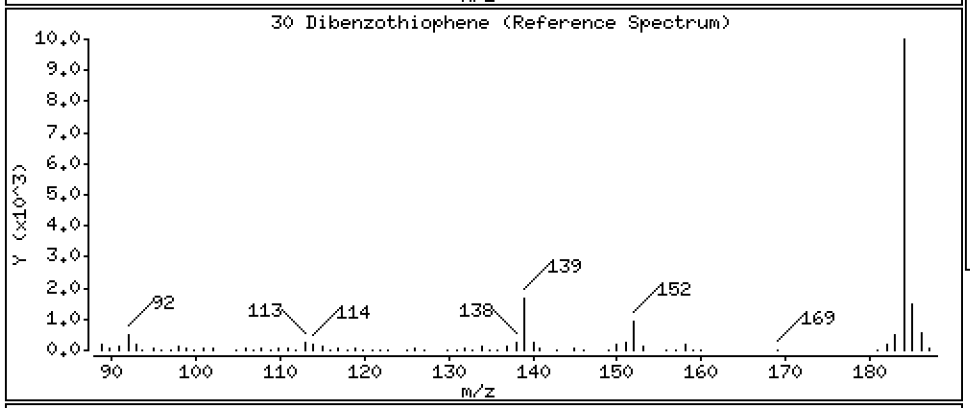
Concentration: 3.169 ug/mL

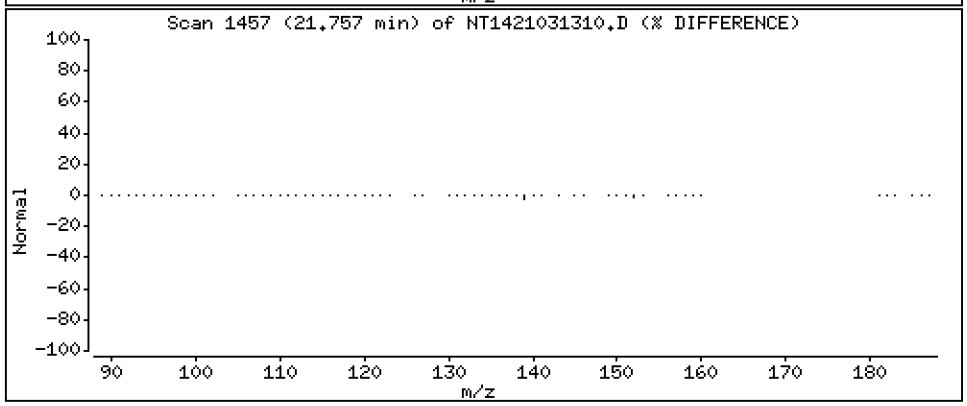












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Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

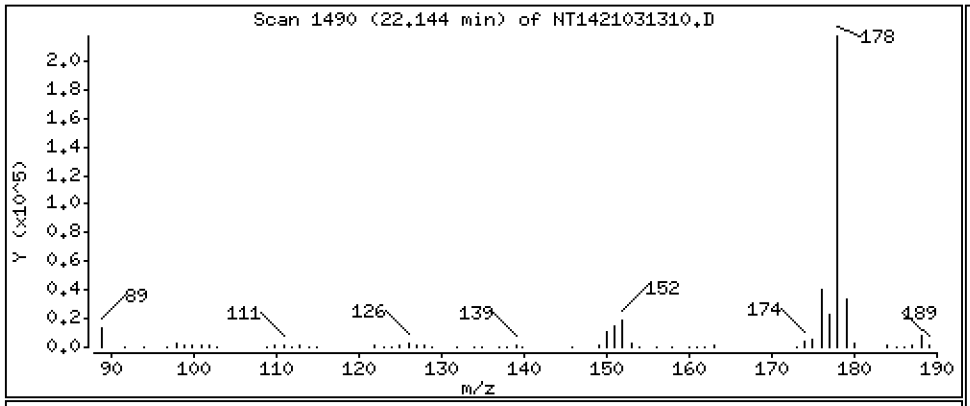
Operator: VTS

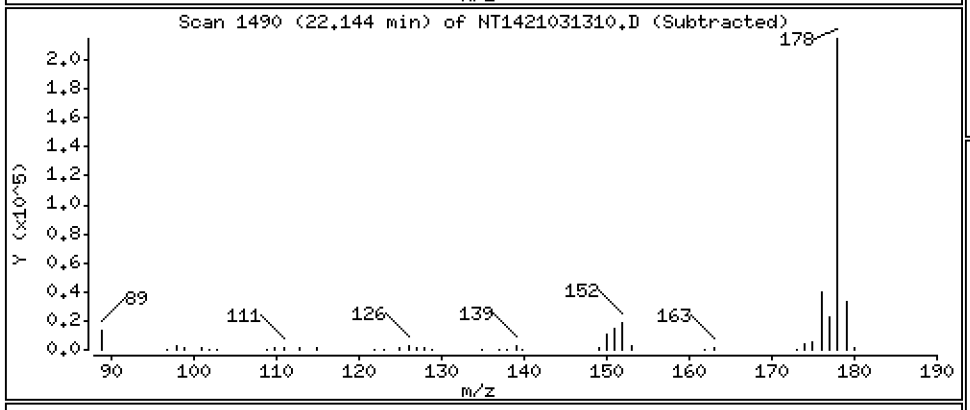
Column phase: Rxi-17Sil MS

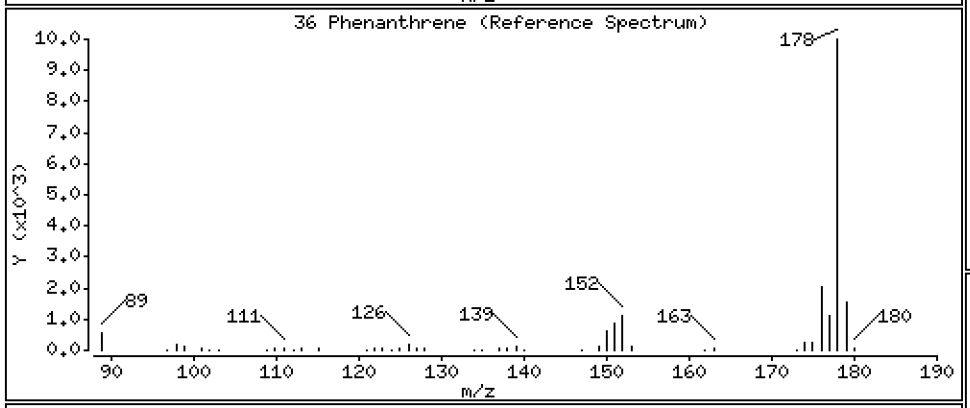
Column diameter: 0.25

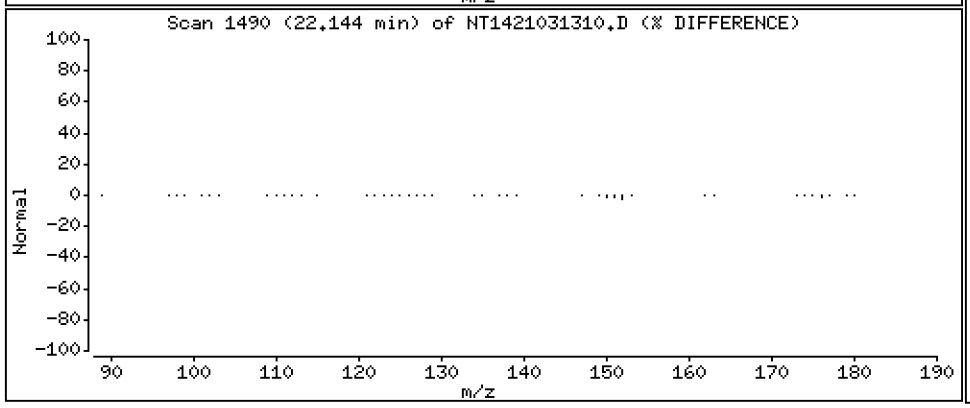
36 Phenanthrene

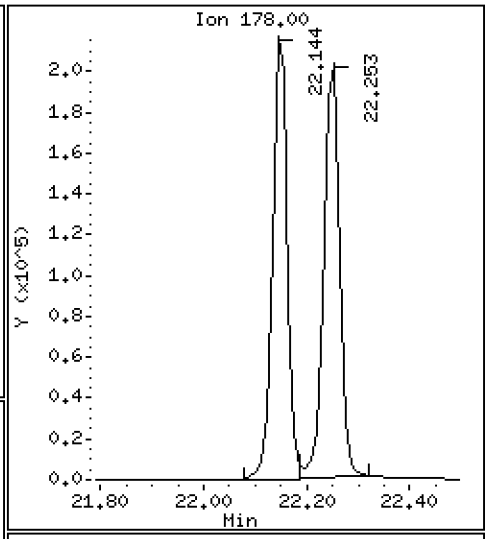
Concentration: 2.578 ug/mL

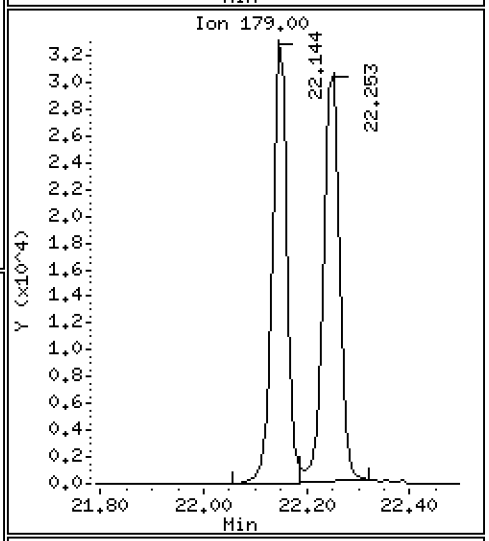


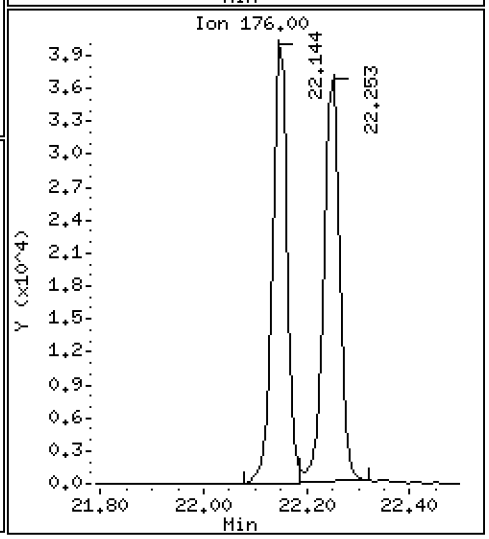












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031310.D

Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

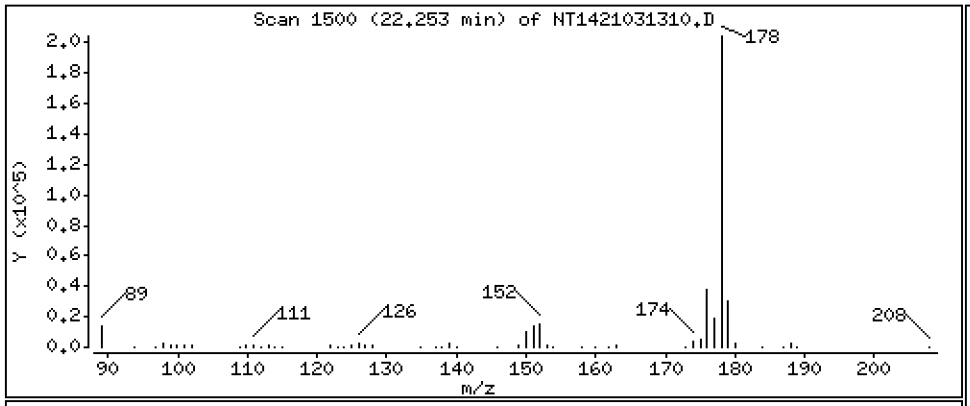
Operator: VTS

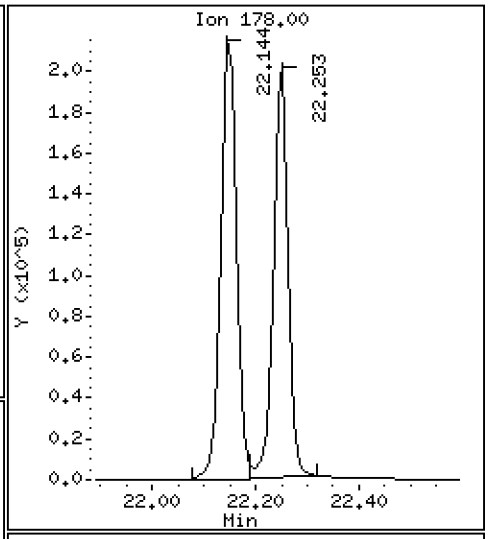
Column phase: Rxi-17Sil MS

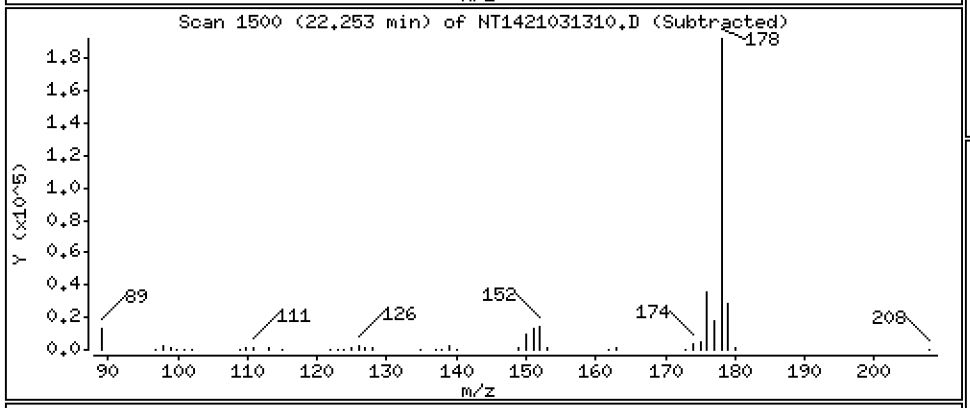
Column diameter: 0.25

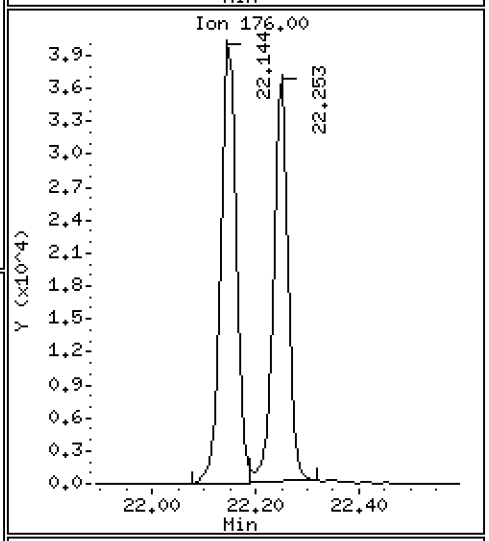
37 Anthracene

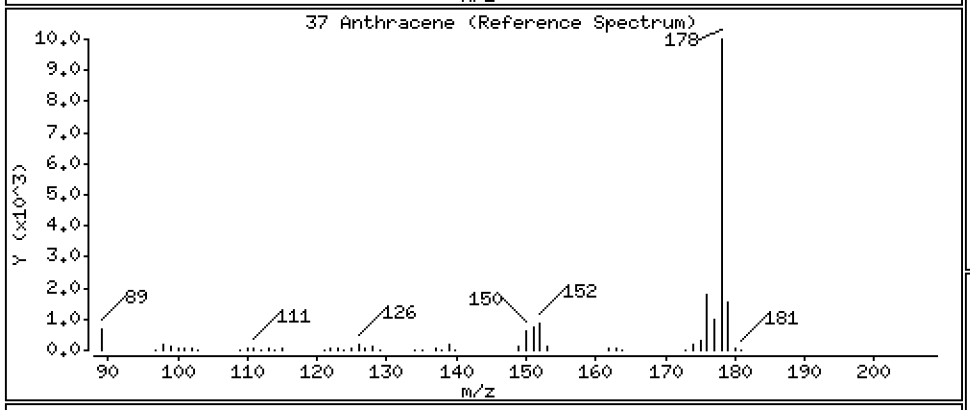
Concentration: 2.653 ug/mL

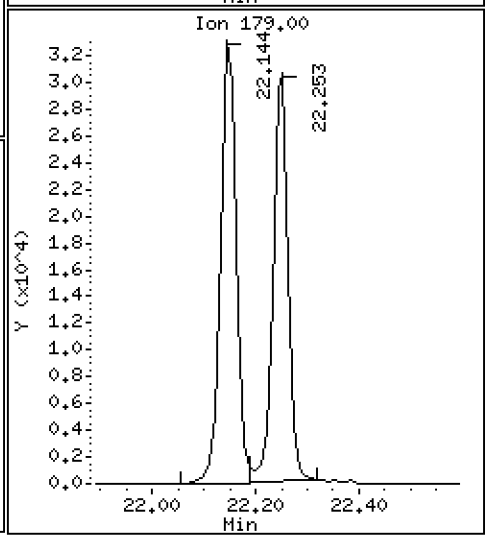


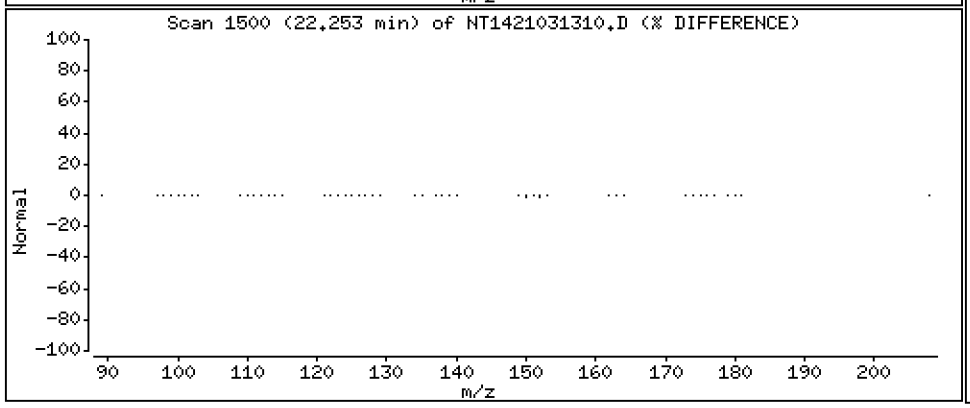












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Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

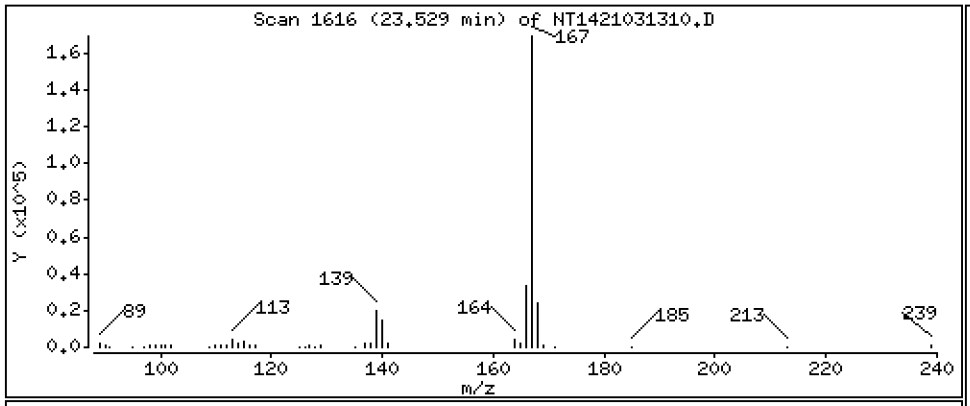
Operator: VTS

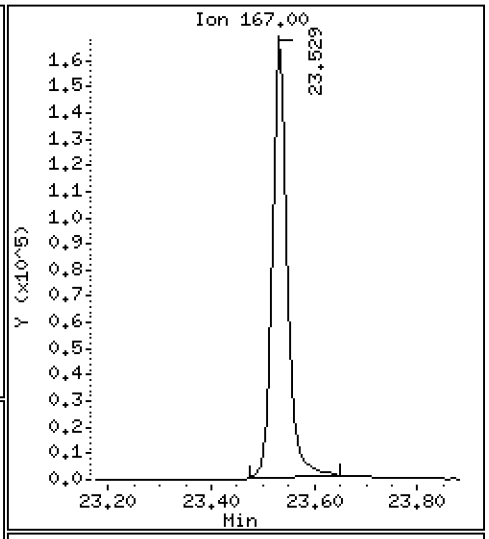
Column phase: Rxi-17Sil MS

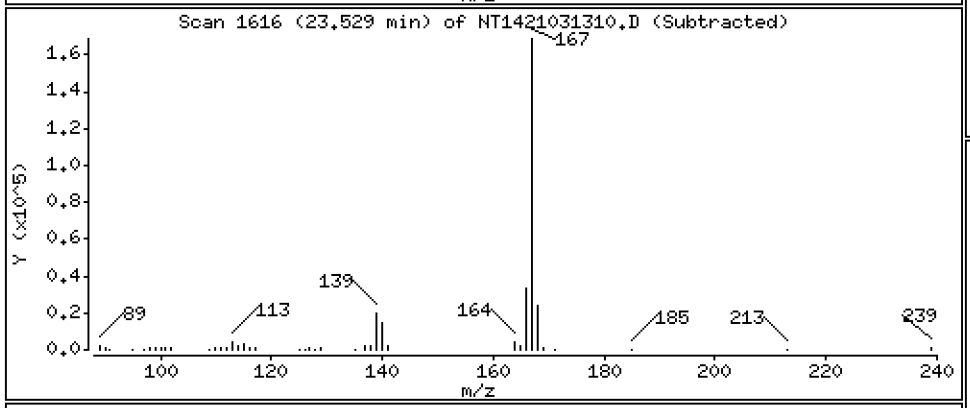
Column diameter: 0.25

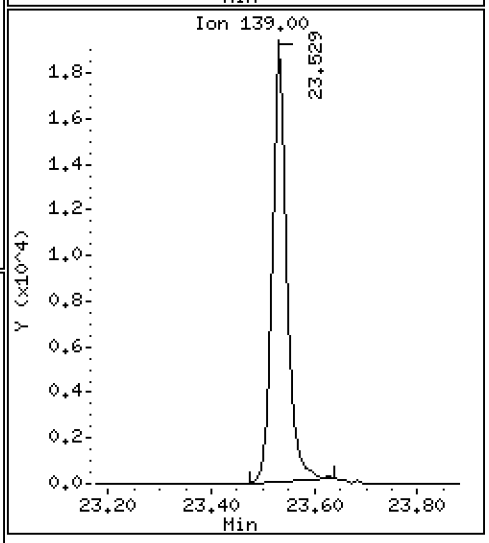
42 Carbazole

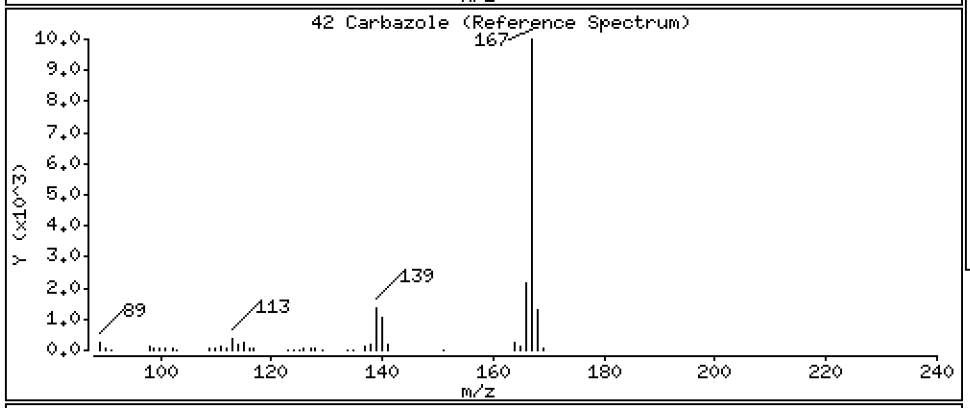
Concentration: 2.682 ug/mL

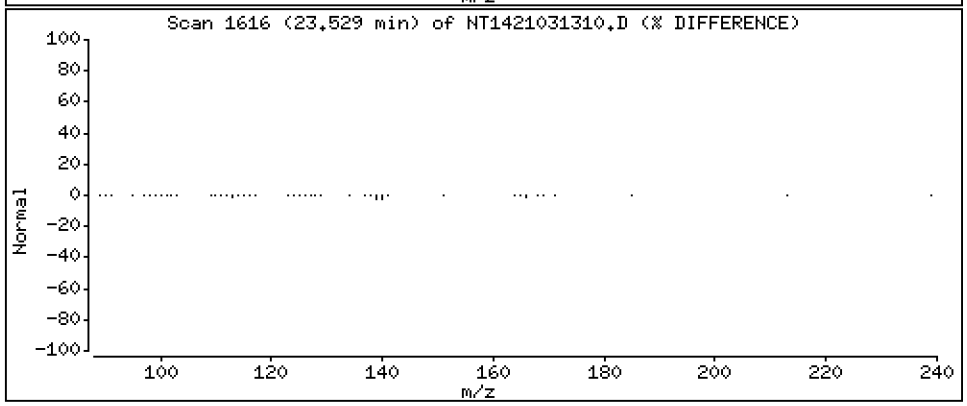












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Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

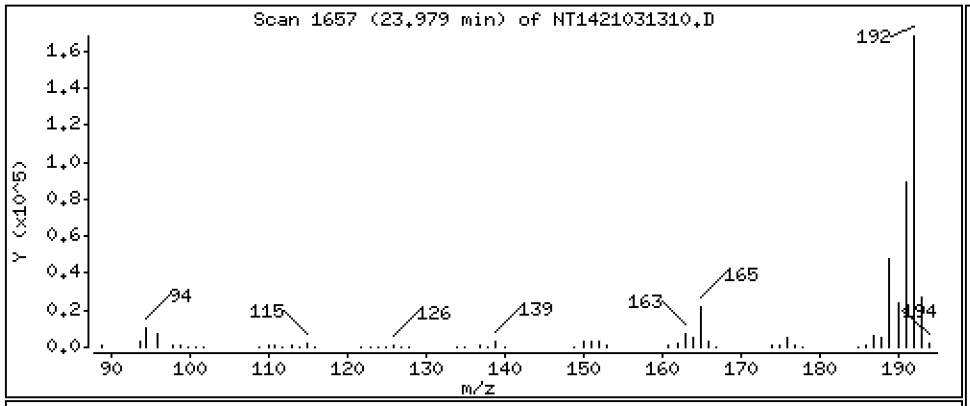
Operator: VTS

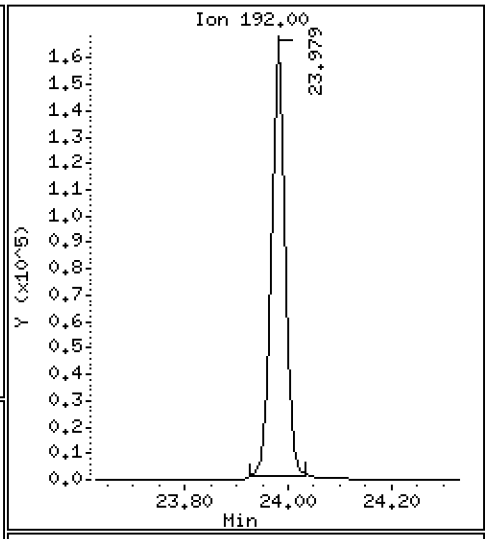
Column phase: Rxi-17Sil MS

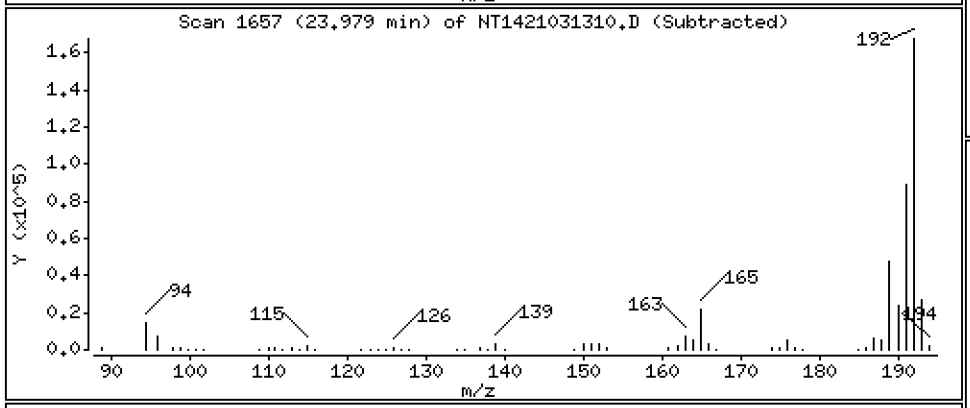
Column diameter: 0.25

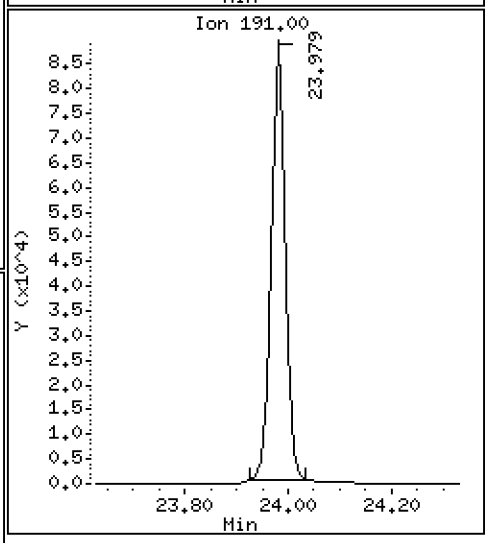
43 1-Methylphenanthrene

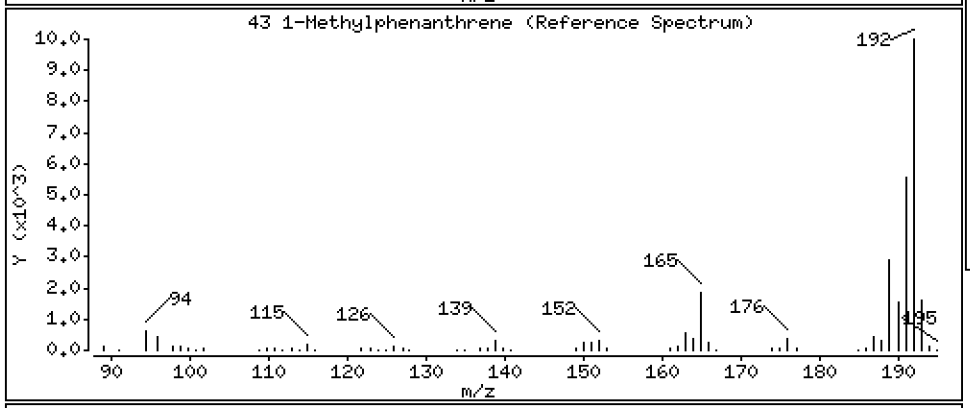
Concentration: 2.658 ug/mL

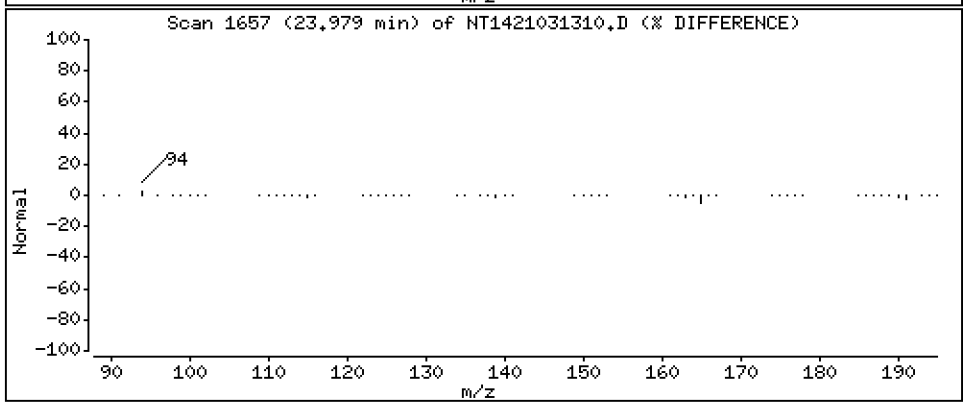












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Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

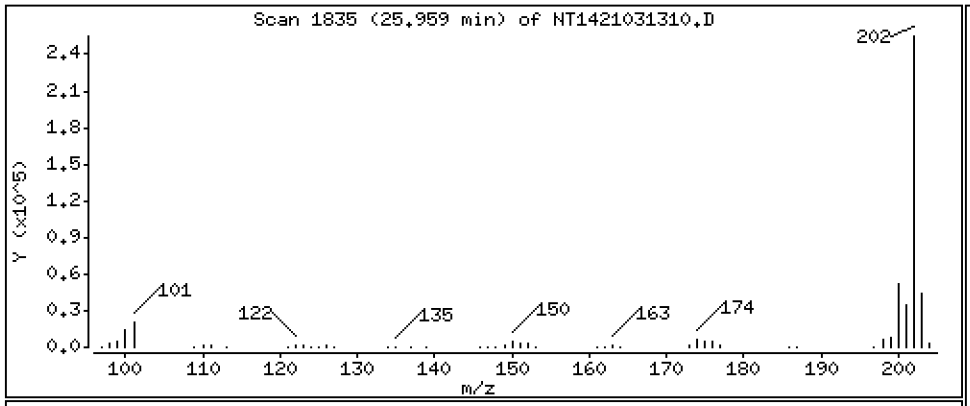
Operator: VTS

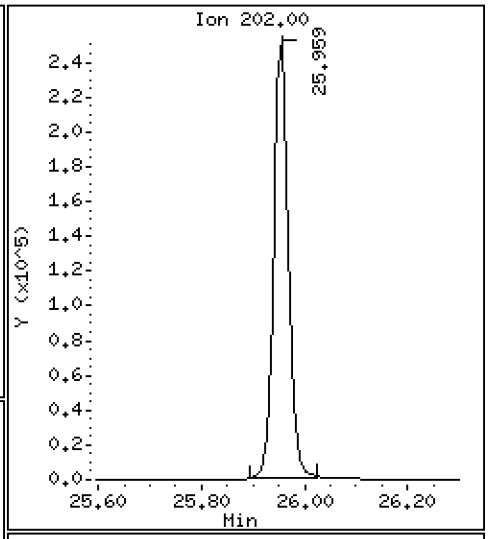
Column phase: Rxi-17Sil MS

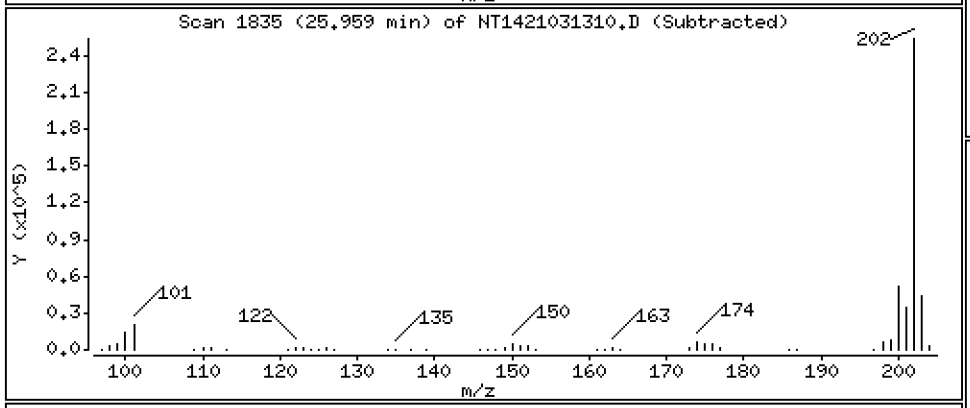
Column diameter: 0.25

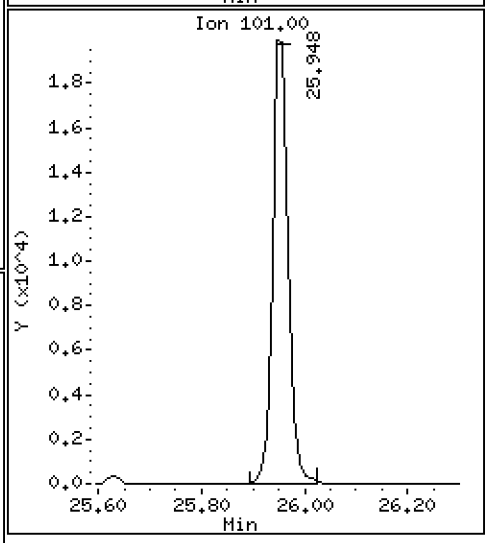
44 Fluoranthene

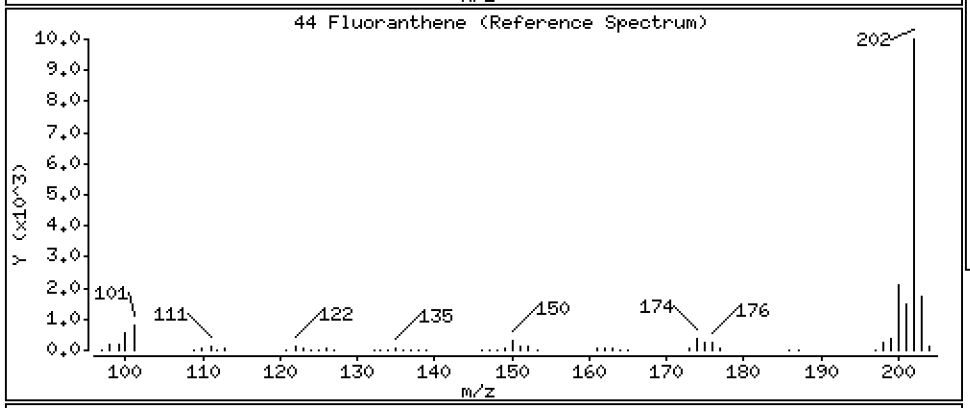
Concentration: 2.751 ug/mL

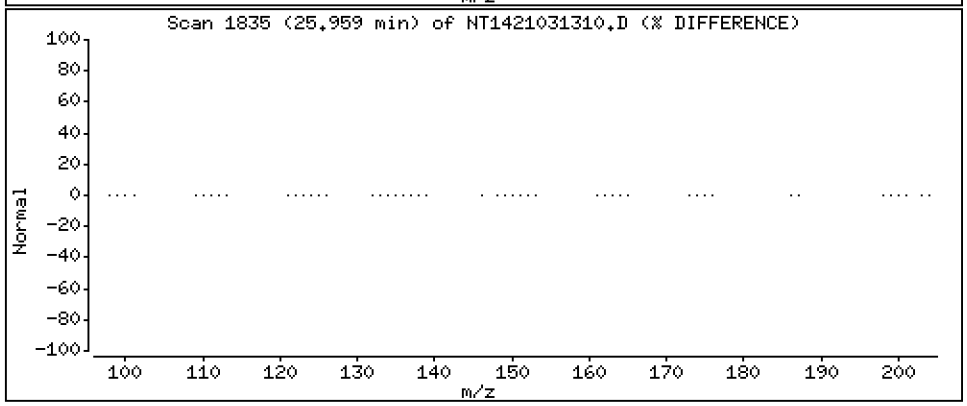












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031310.D

Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

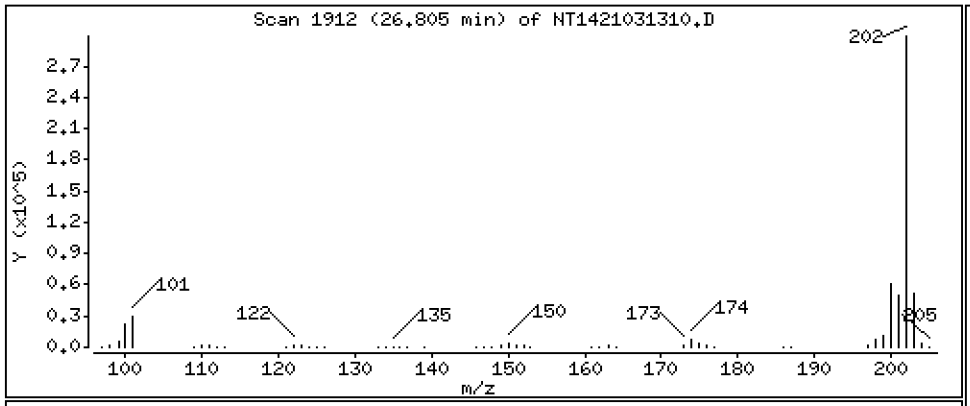
Operator: VTS

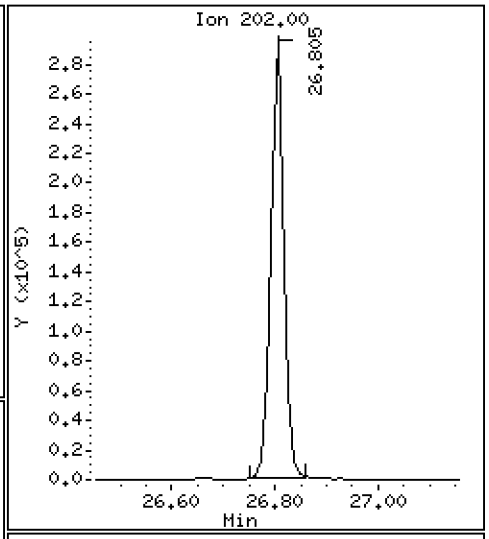
Column phase: Rxi-17Sil MS

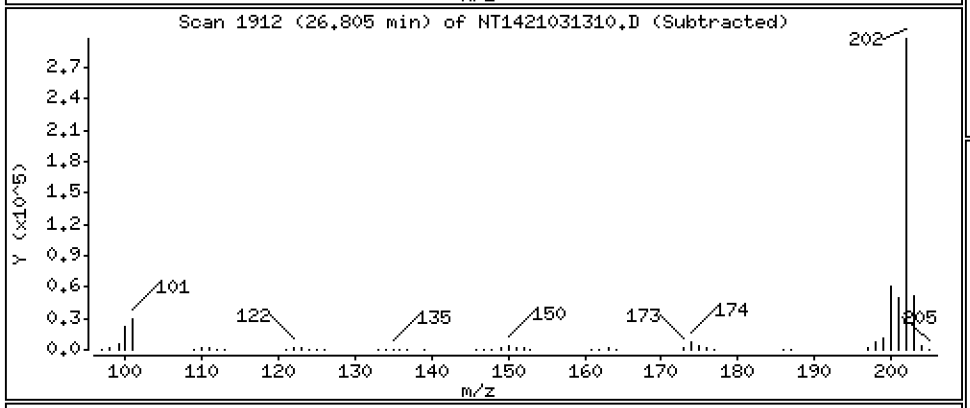
Column diameter: 0.25

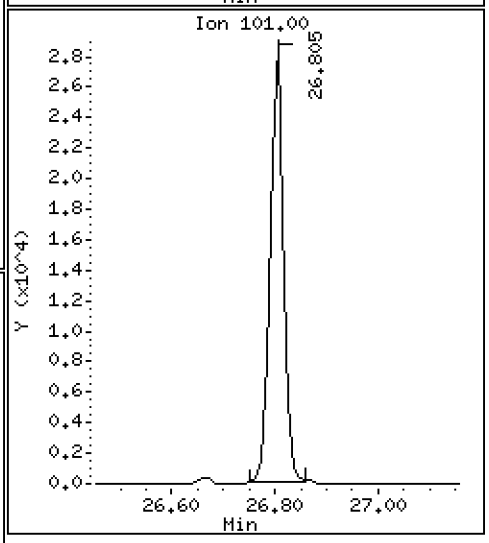
46 Pyrene

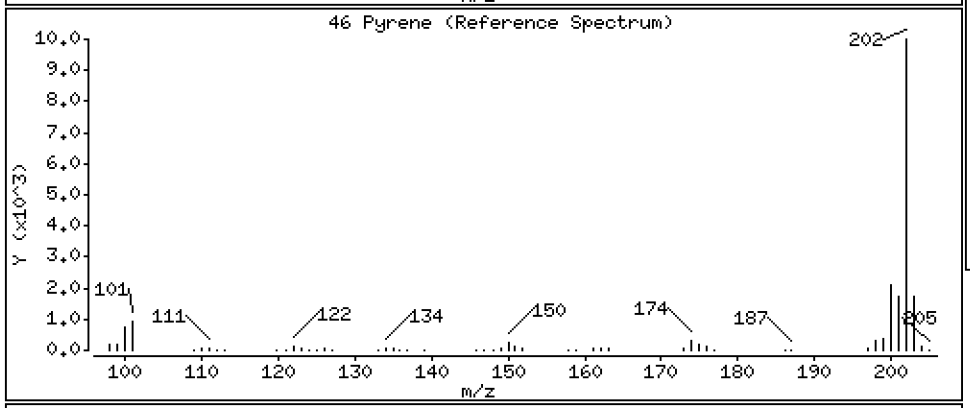
Concentration: 2.773 ug/mL

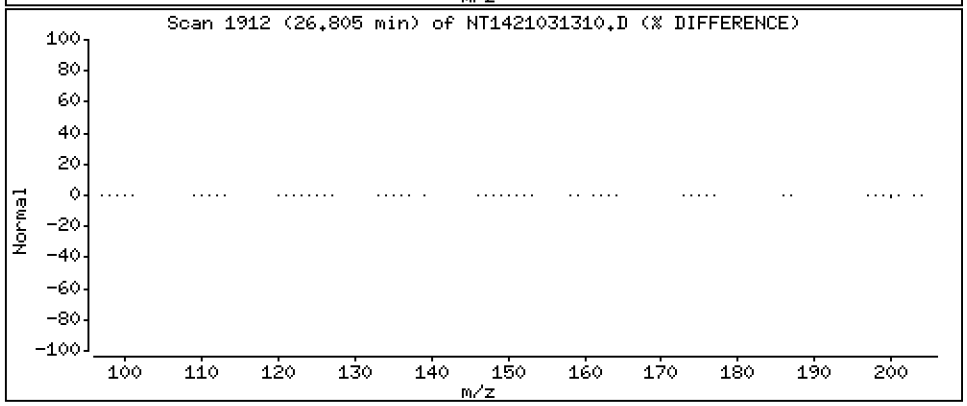












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Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

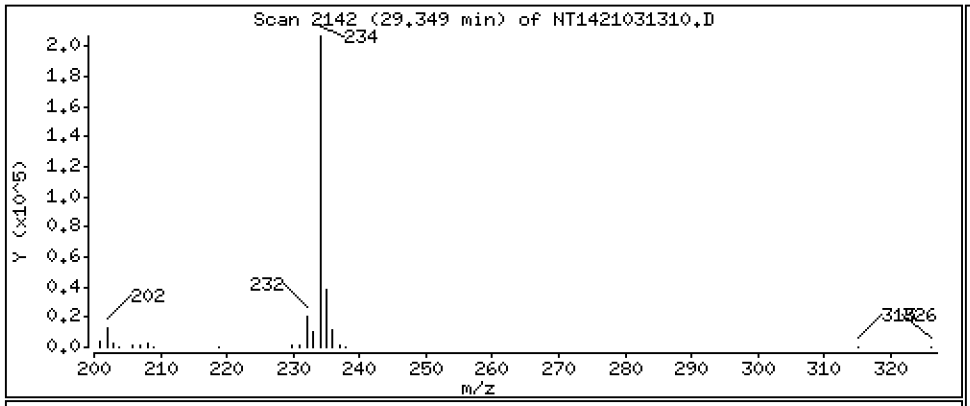
Operator: VTS

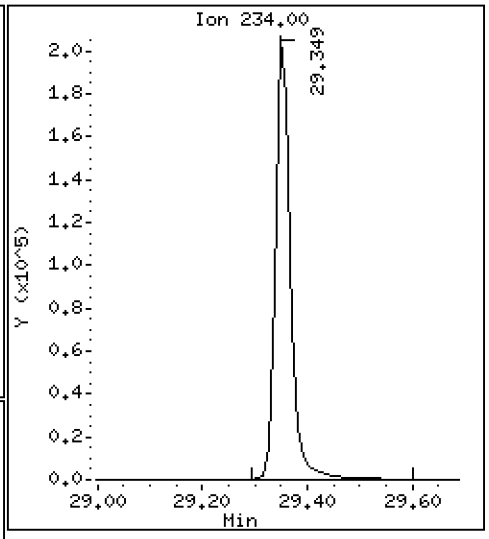
Column phase: Rxi-17Sil MS

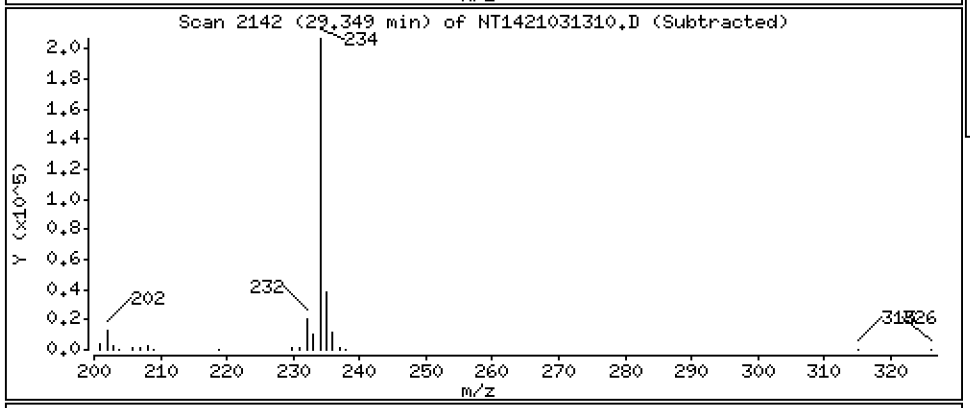
Column diameter: 0.25

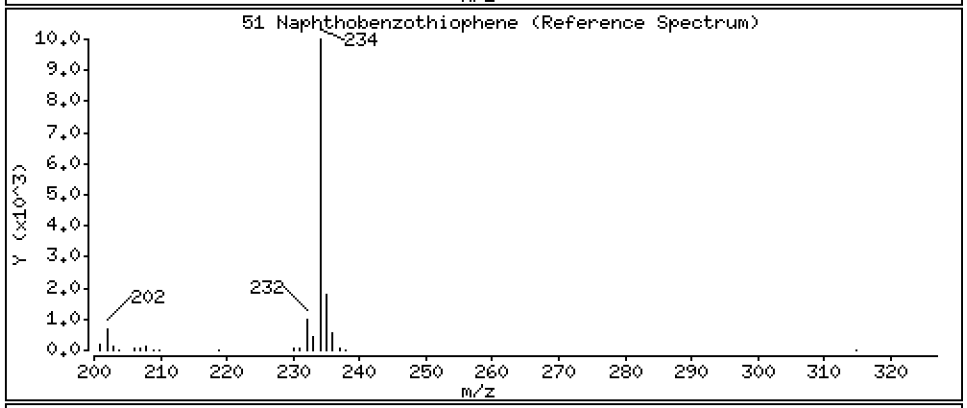
51 Naphthobenzothiophene

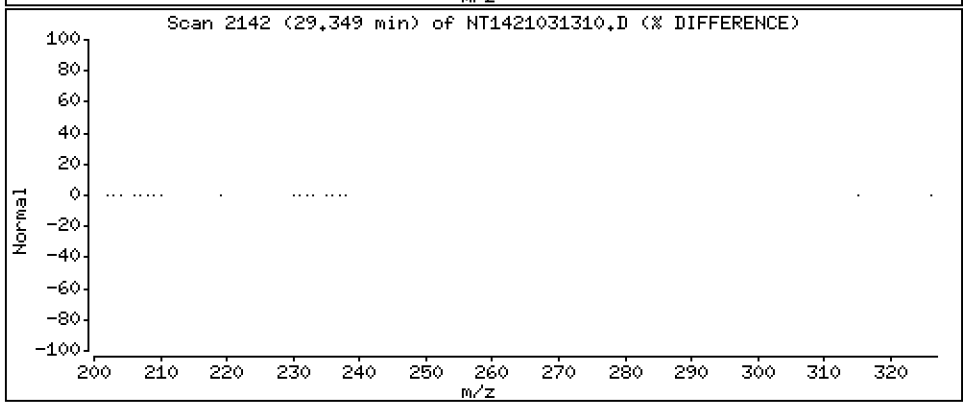
Concentration: 2.859 ug/mL











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Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

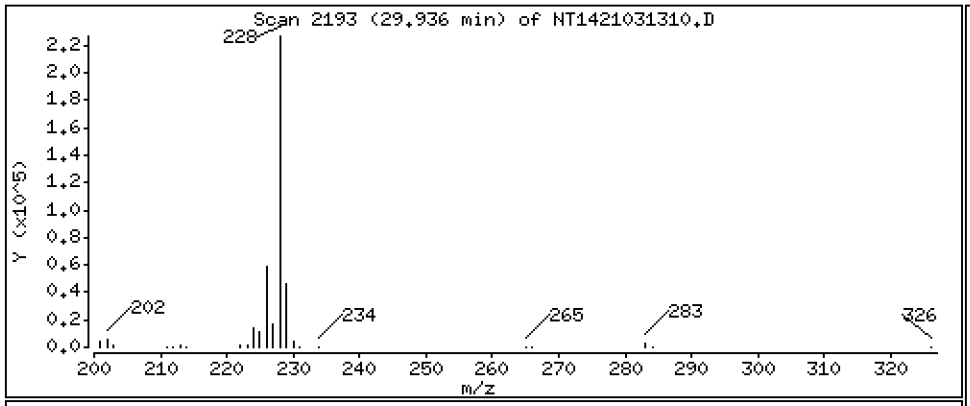
Operator: VTS

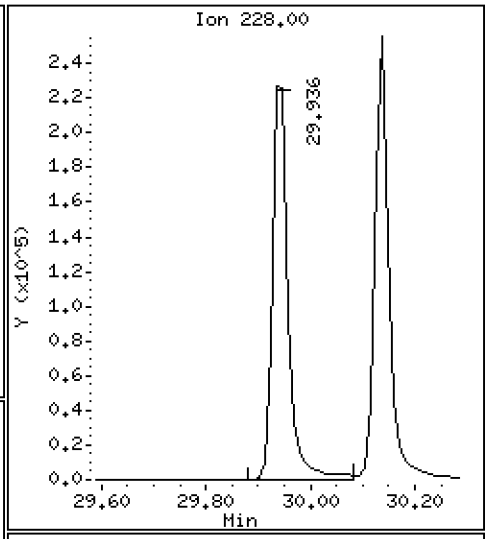
Column phase: Rxi-17Sil MS

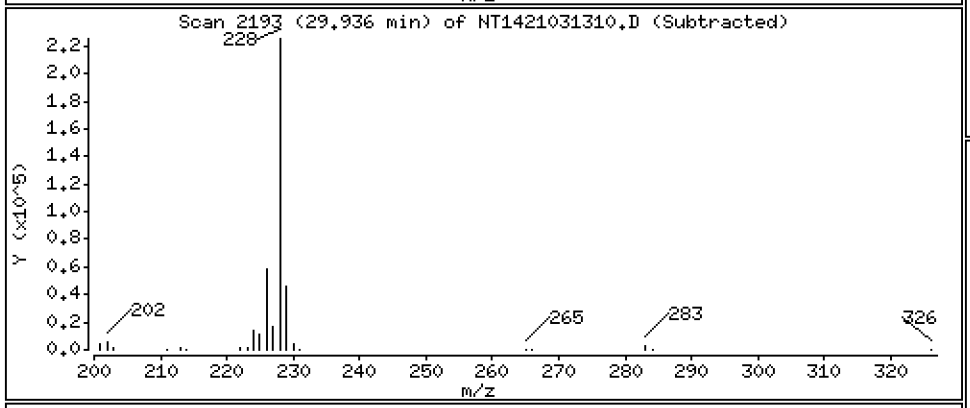
Column diameter: 0.25

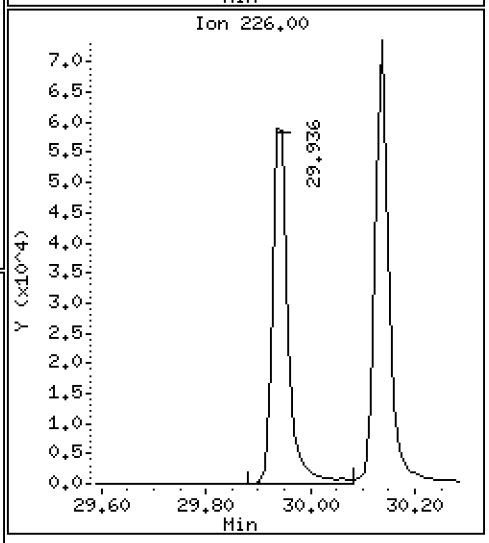
55 Benzo(a)anthracene

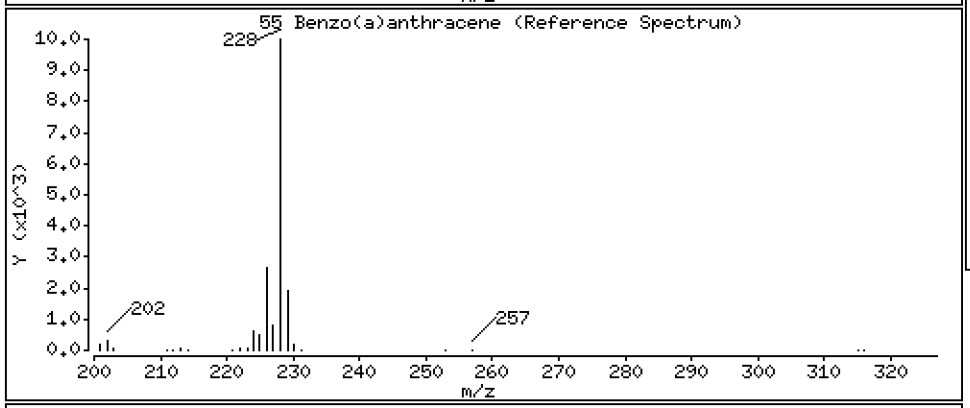
Concentration: 2.656 ug/mL

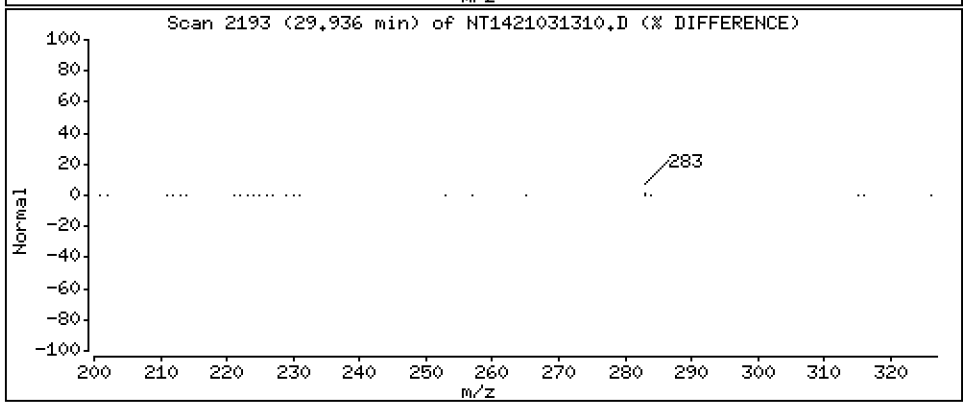












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Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

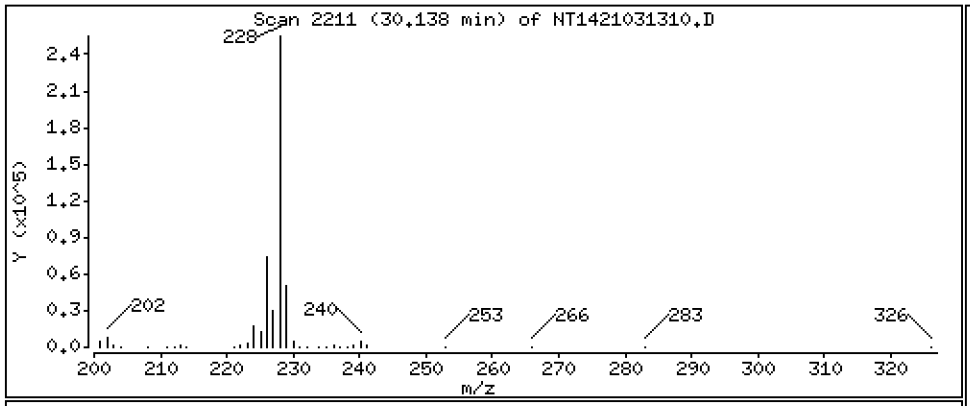
Operator: VTS

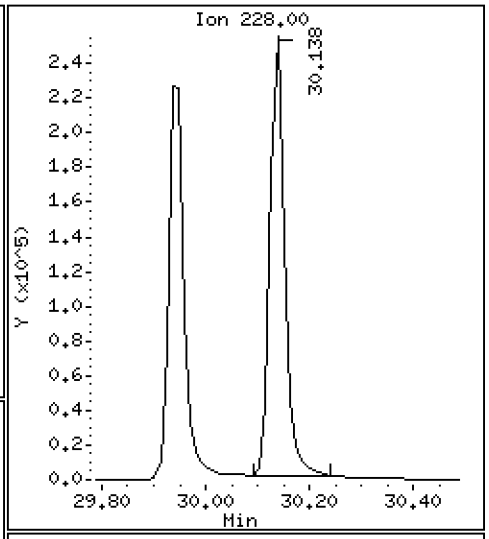
Column phase: Rxi-17Sil MS

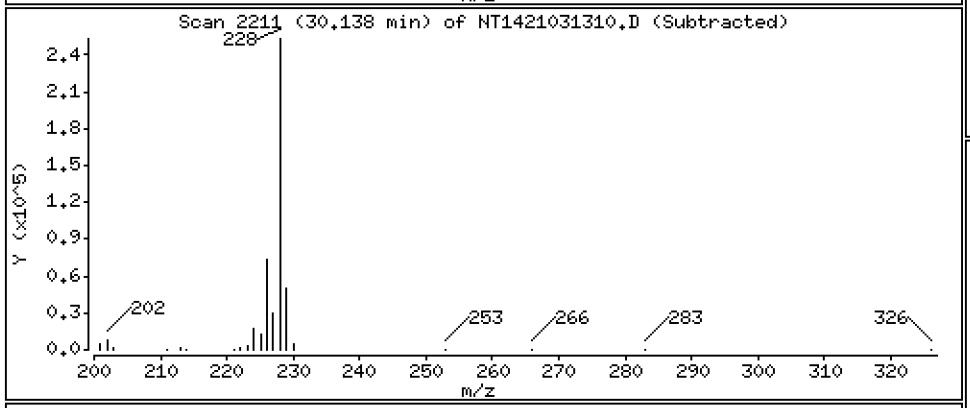
Column diameter: 0.25

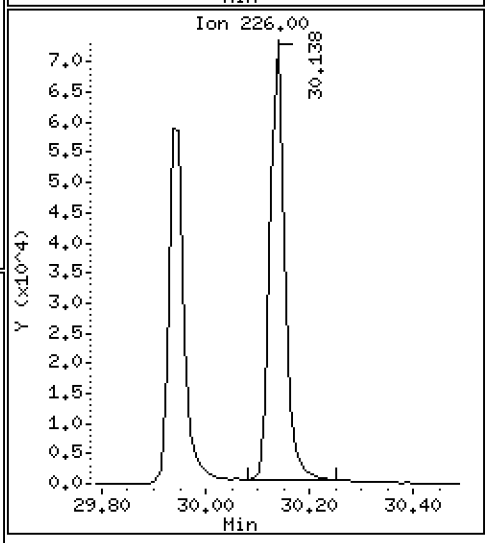
57 Chrysene

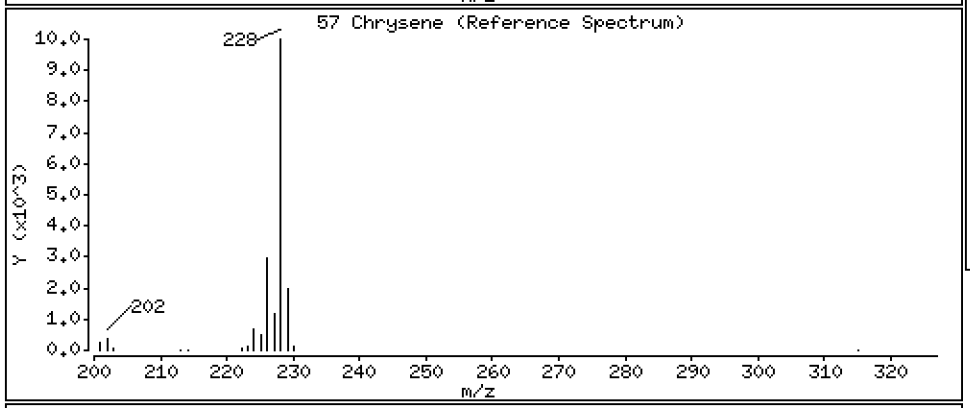
Concentration: 2.505 ug/mL

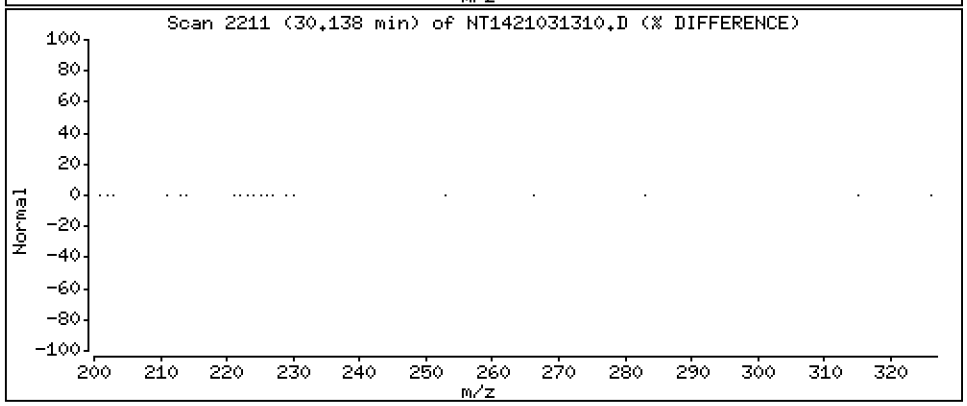












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Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

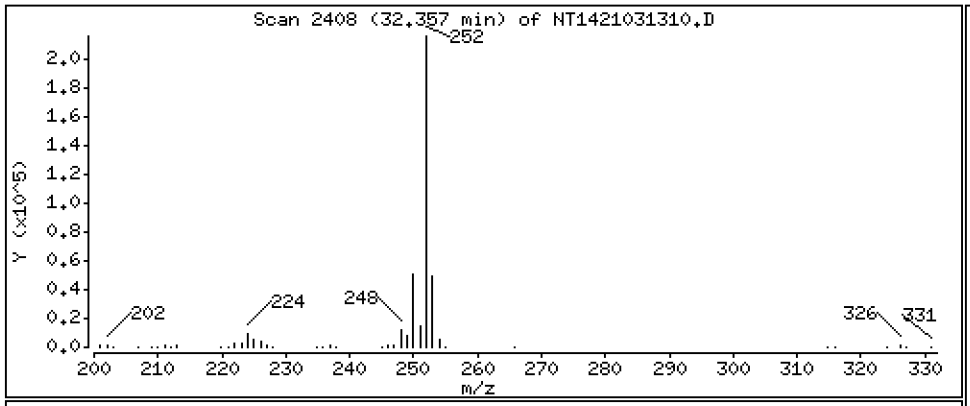
Operator: VTS

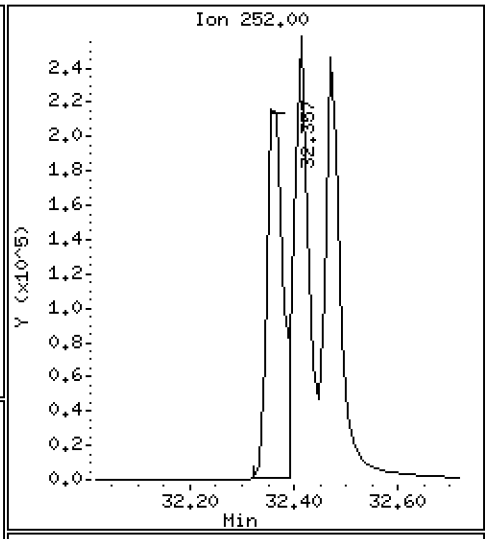
Column phase: Rxi-17Sil MS

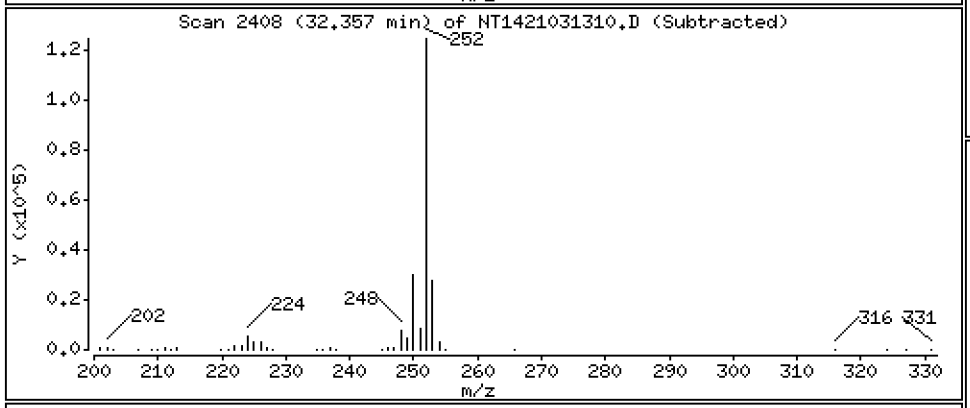
Column diameter: 0.25

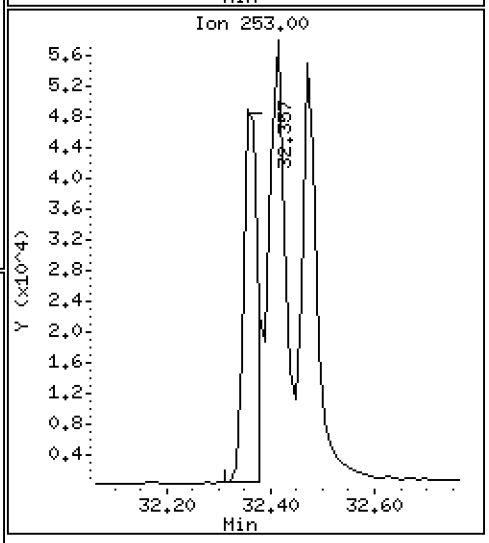
62 Benzo(b)fluoranthene

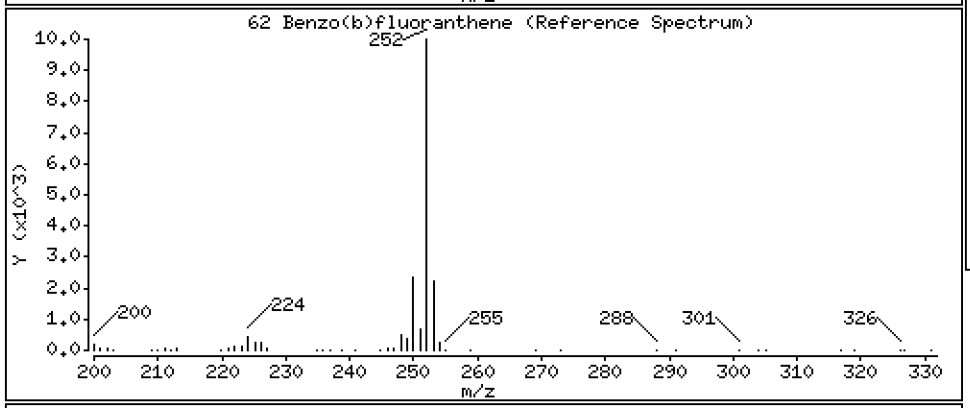
Concentration: 2.525 ug/mL

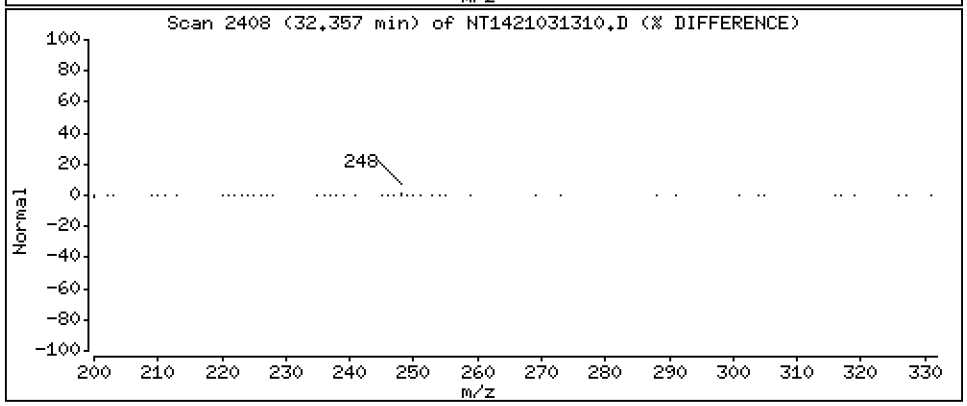












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Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

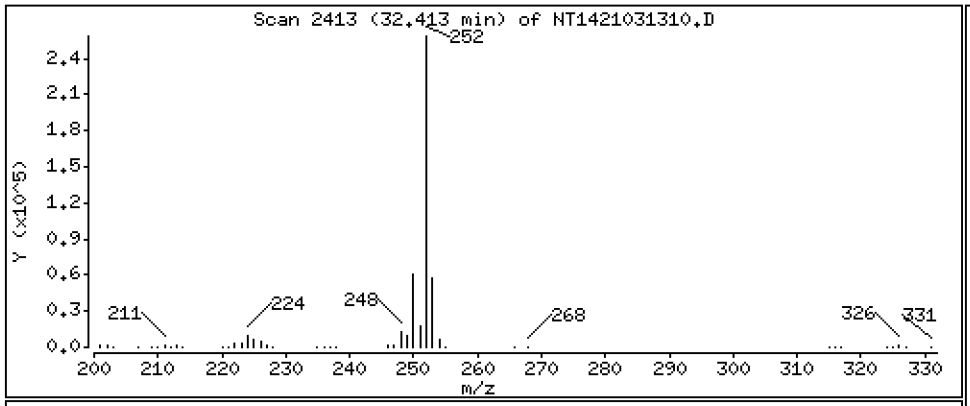
Operator: VTS

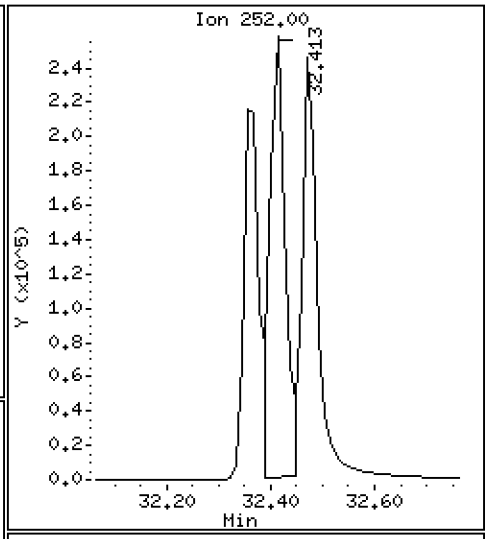
Column phase: Rxi-17Sil MS

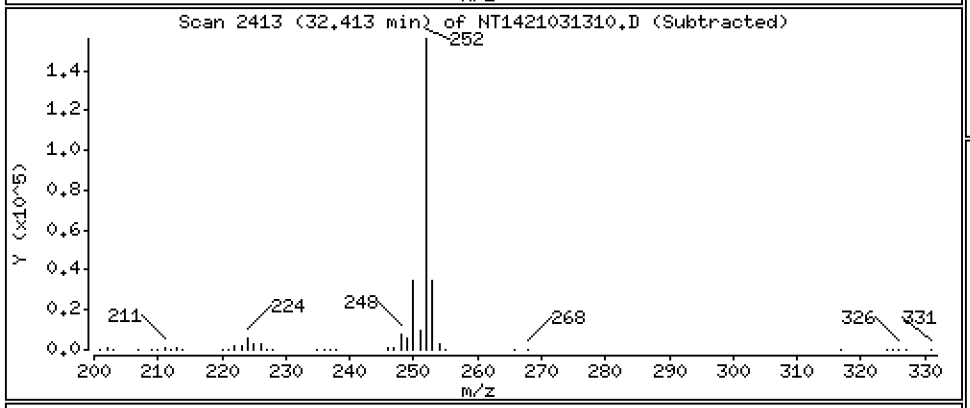
Column diameter: 0.25

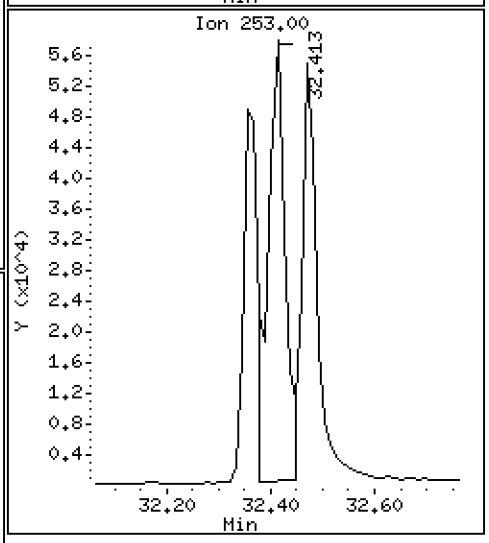
63 Benzo(k)fluoranthene

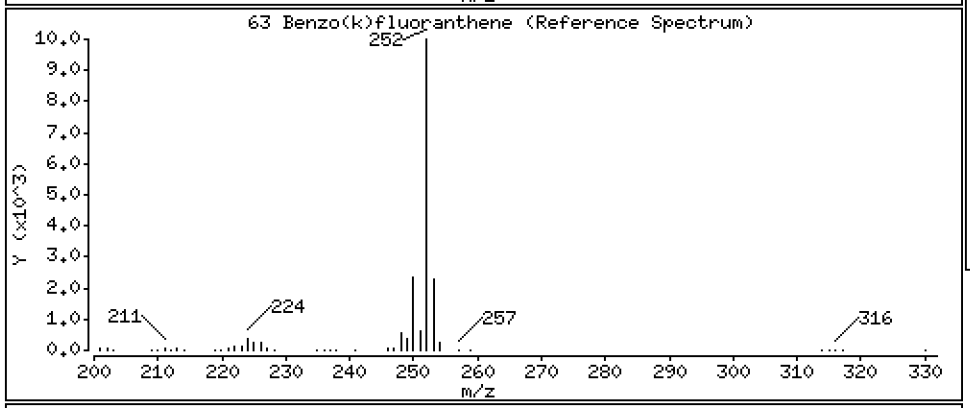
Concentration: 2.755 ug/mL

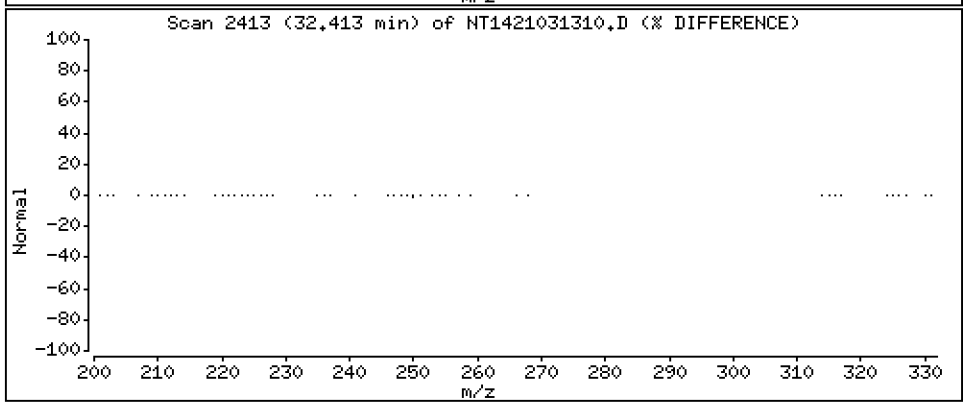












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Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

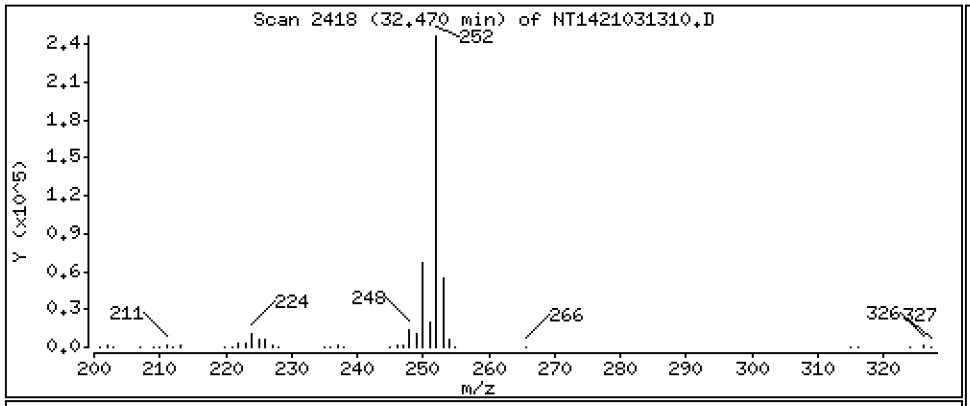
Operator: VTS

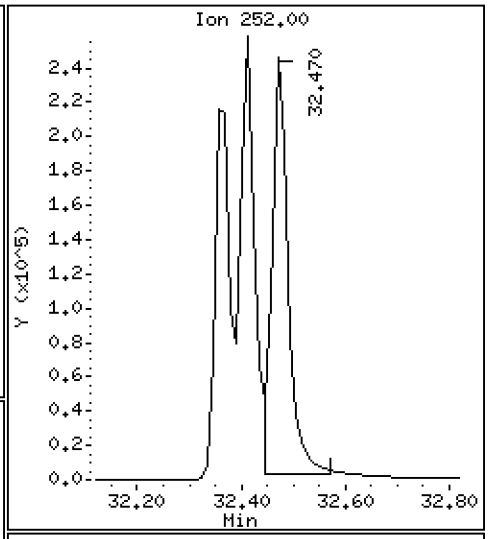
Column phase: Rxi-17Sil MS

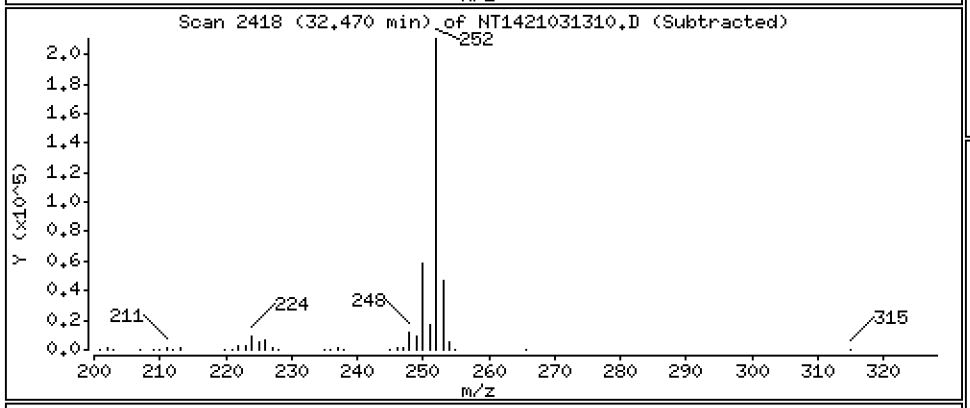
Column diameter: 0.25

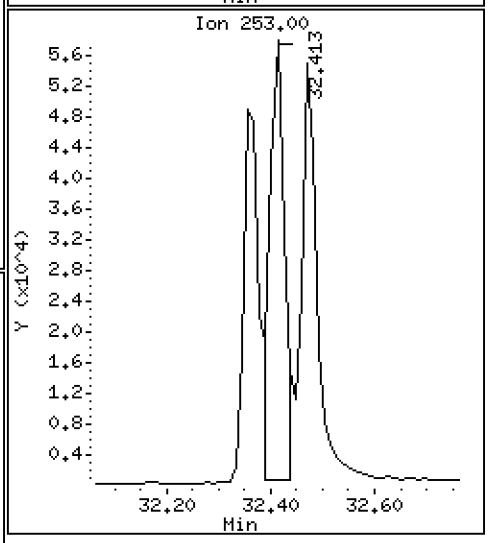
293 Benzo(j)fluoranthene

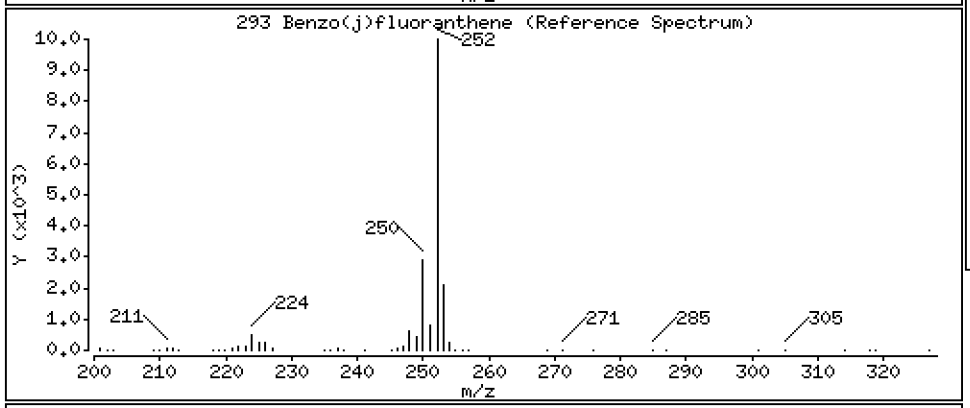
Concentration: 2.775 ug/mL

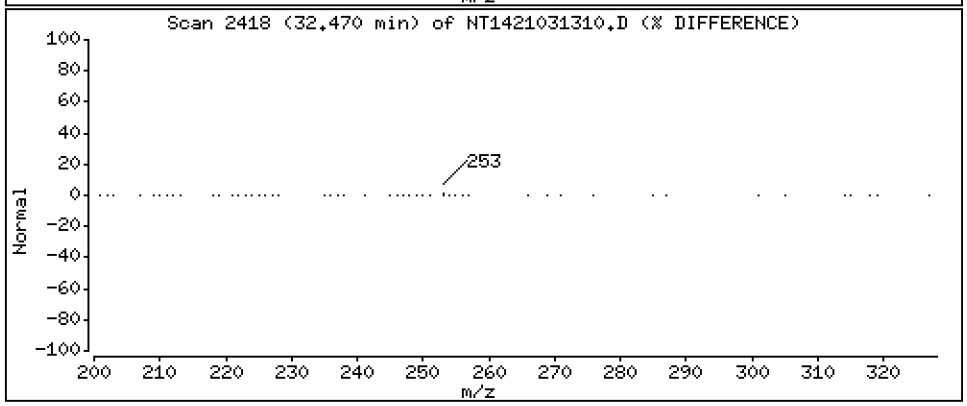












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Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

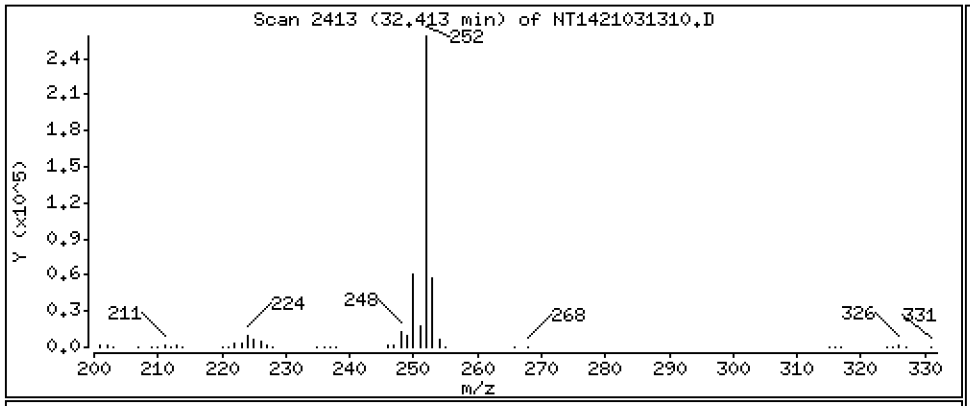
Operator: VTS

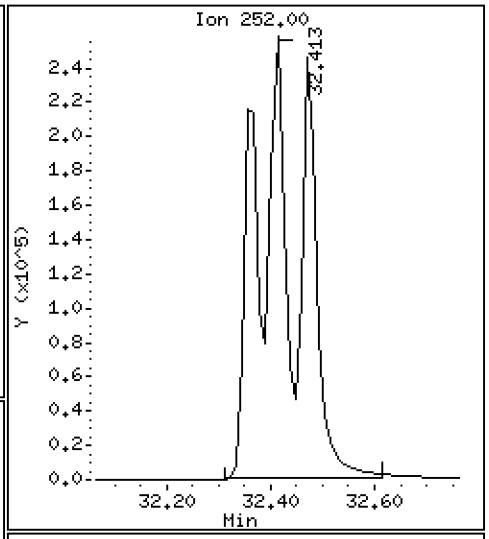
Column phase: Rxi-17Sil MS

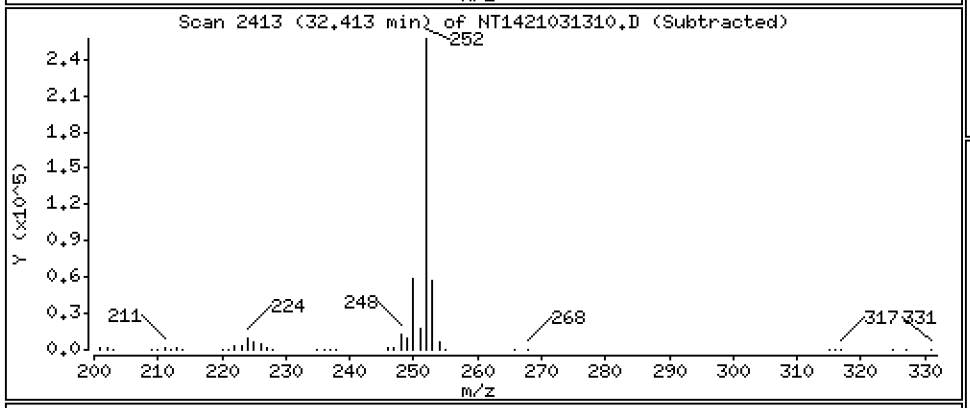
Column diameter: 0.25

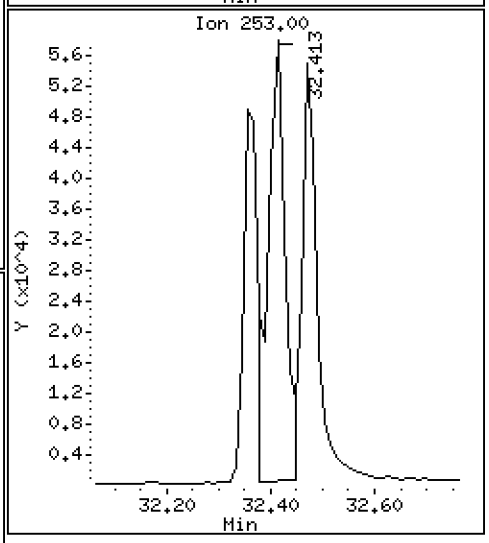
246 Total Benzofluoranthenes

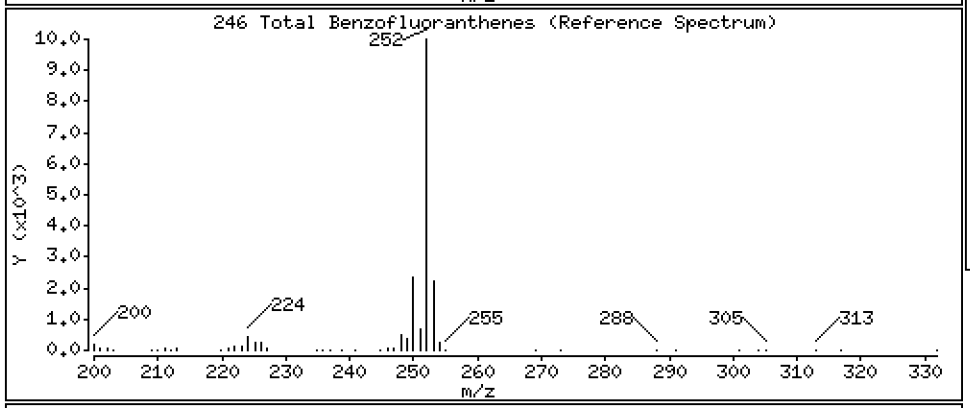
Concentration: 7.842 ug/mL

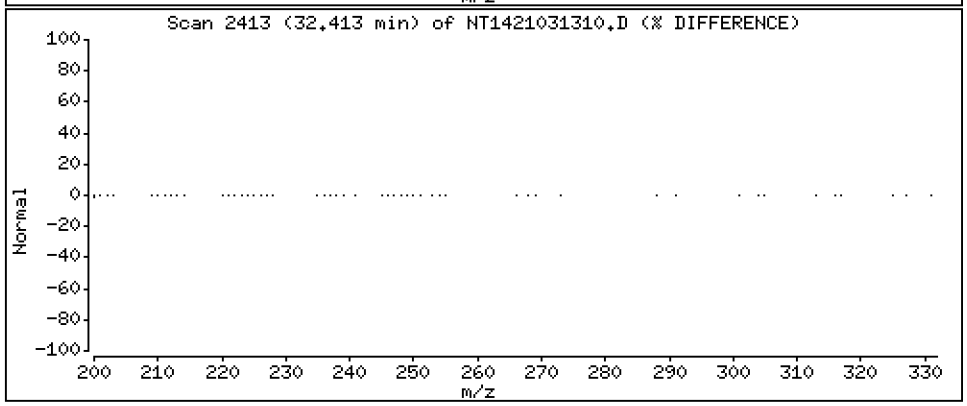












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Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

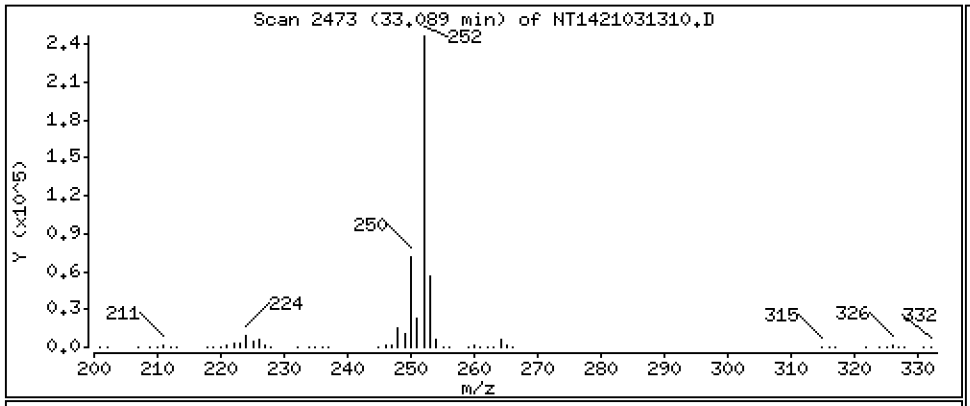
Operator: VTS

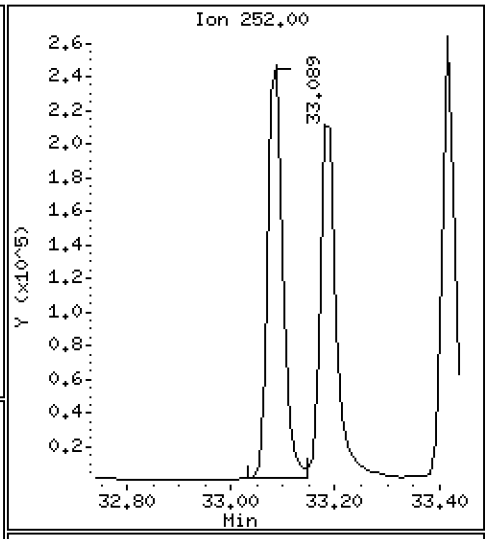
Column phase: Rxi-17Sil MS

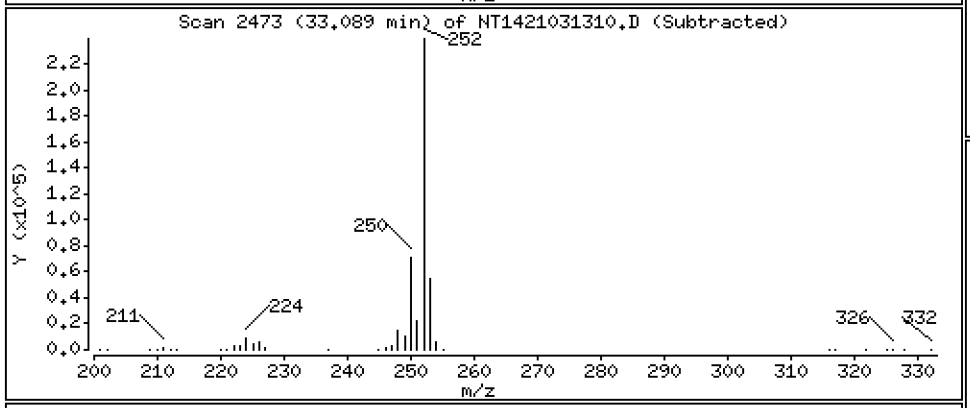
Column diameter: 0.25

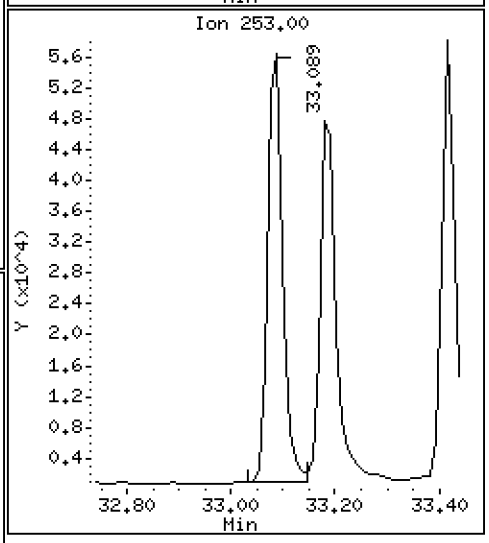
64 Benzo(e)pyrene

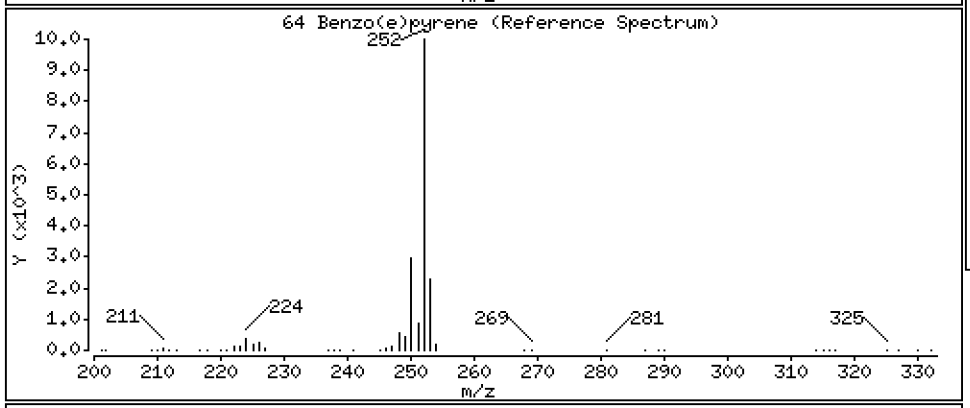
Concentration: 2.701 ug/mL

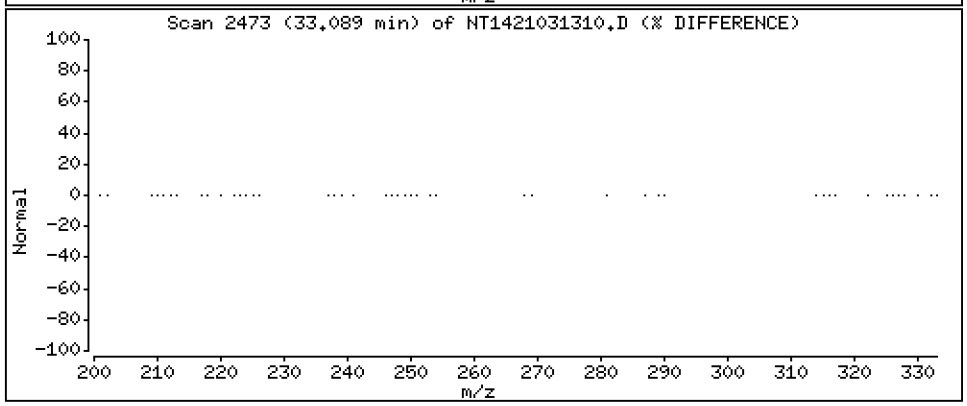












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031310.D

Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

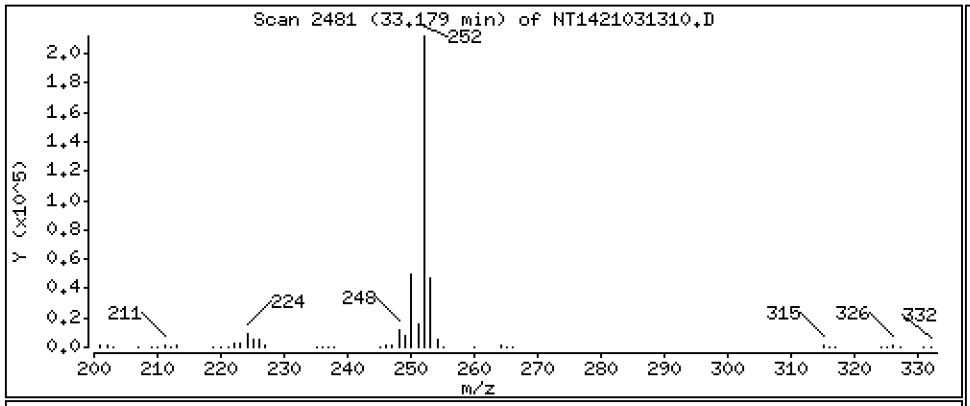
Operator: VTS

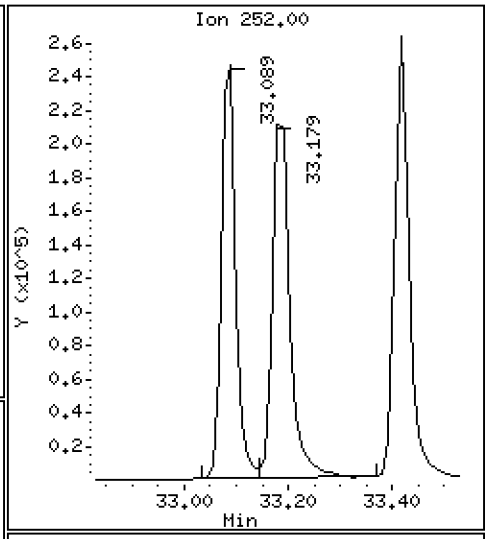
Column phase: Rxi-17Sil MS

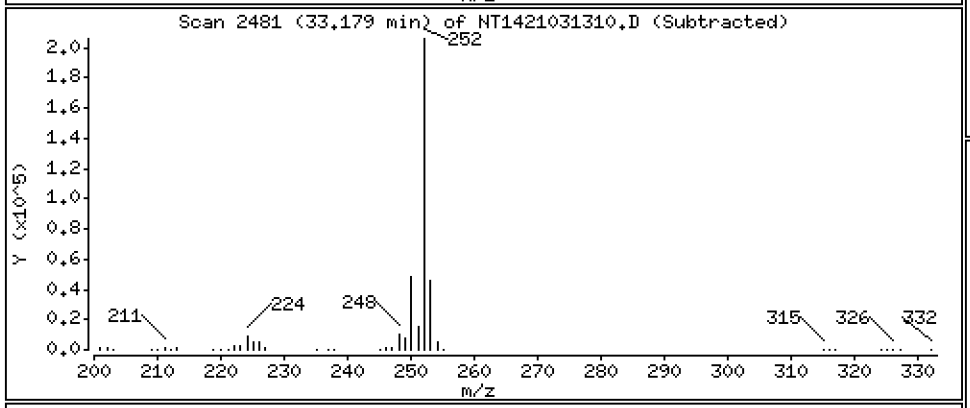
Column diameter: 0.25

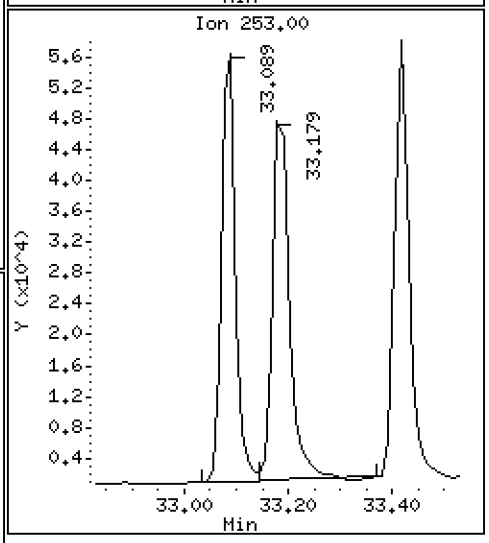
66 Benzo(a)pyrene

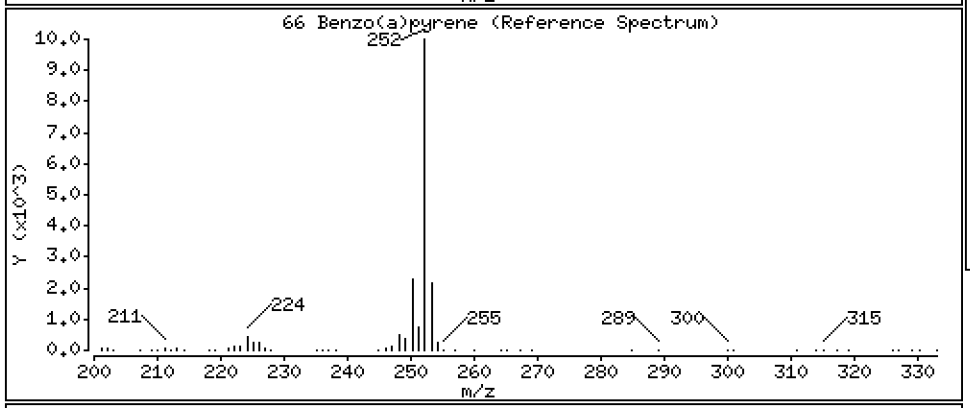
Concentration: 2.782 ug/mL

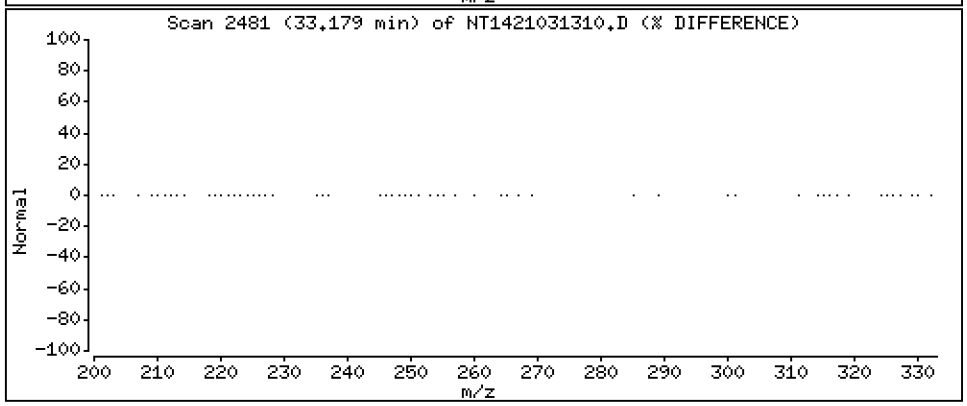












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031310.D

Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

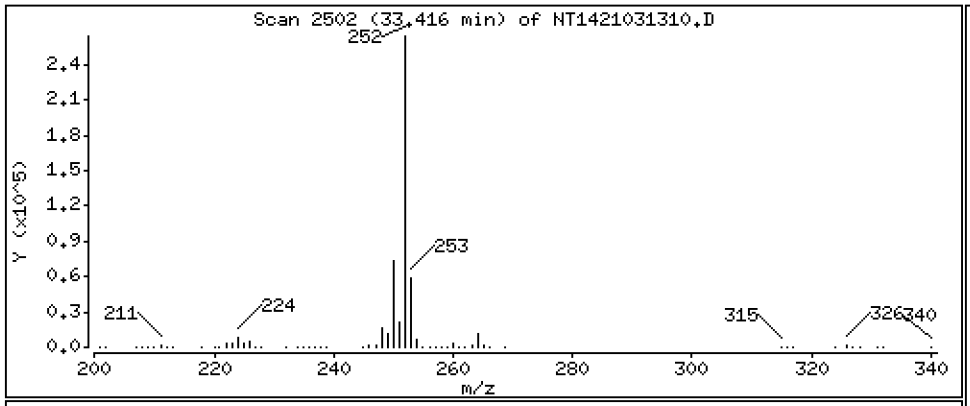
Operator: VTS

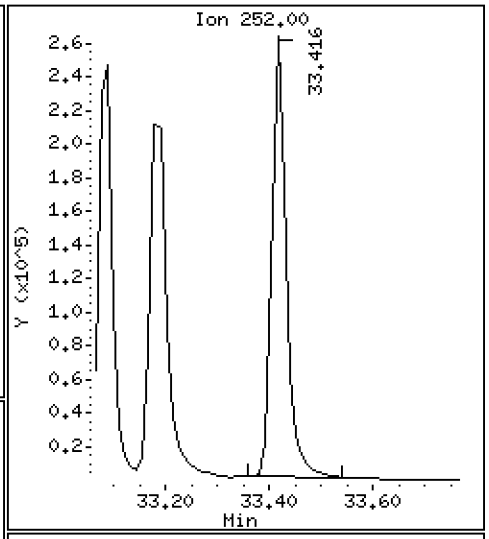
Column phase: Rxi-17Sil MS

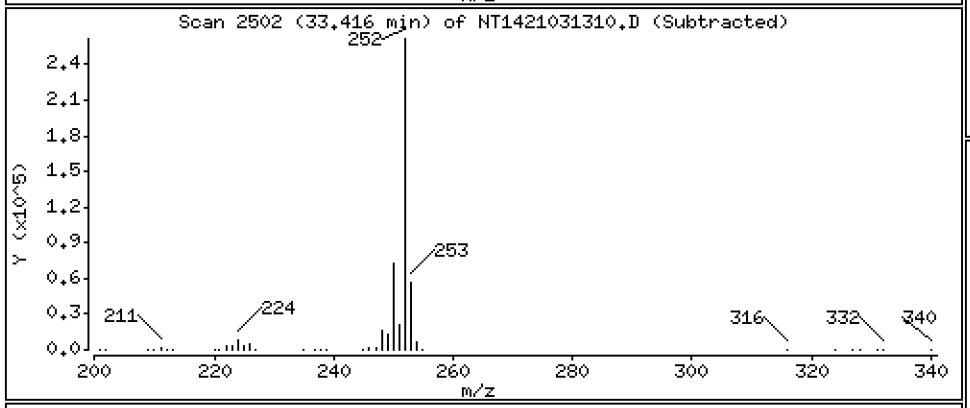
Column diameter: 0.25

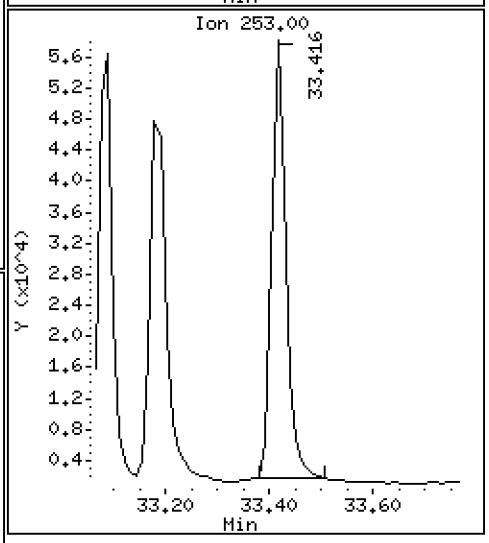
68 Perylene

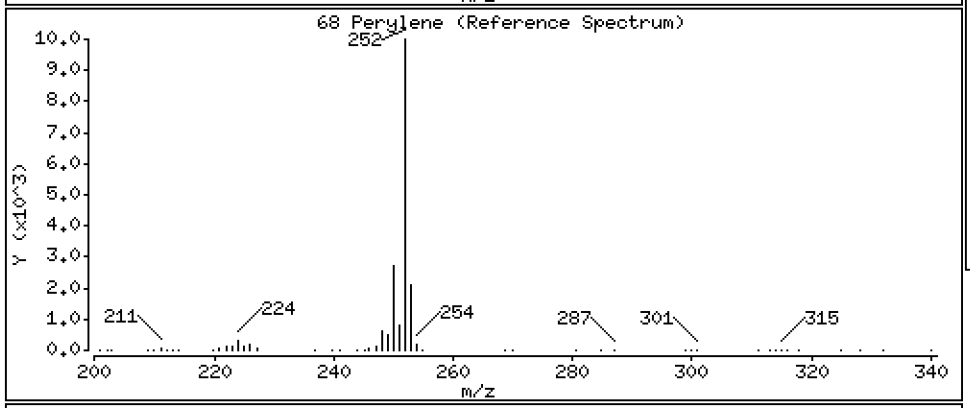
Concentration: 2.781 ug/mL

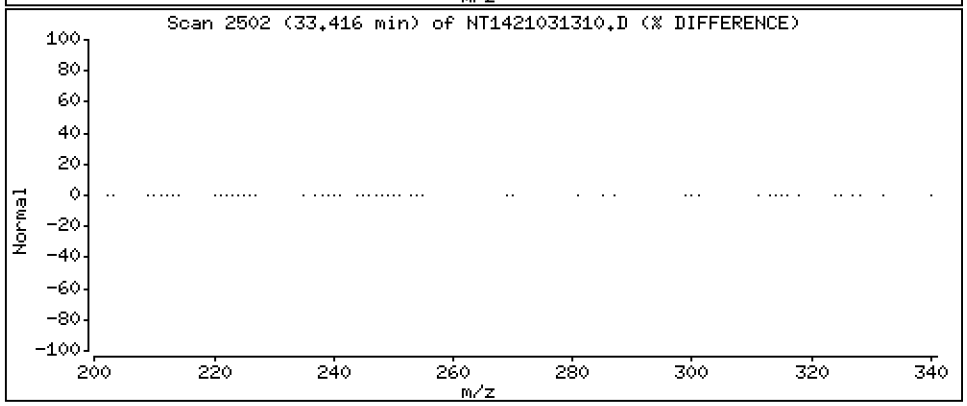












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031310.D

Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

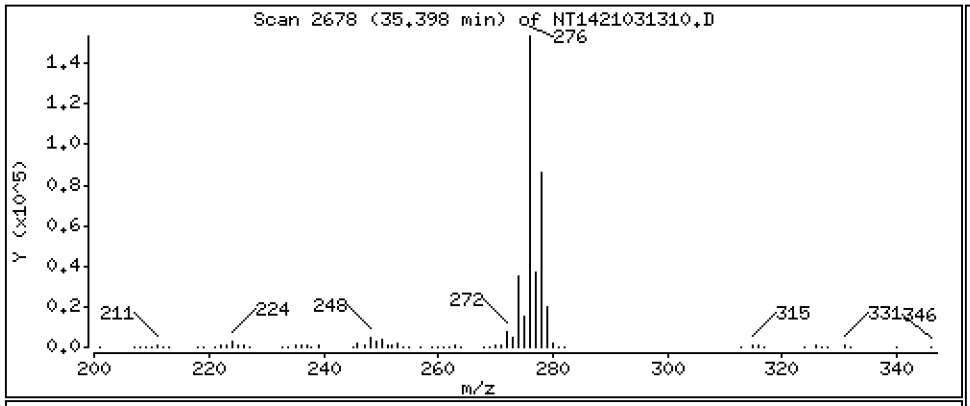
Operator: VTS

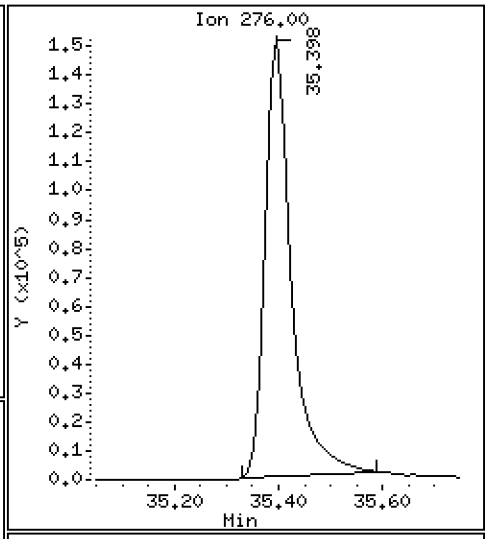
Column phase: Rxi-17Sil MS

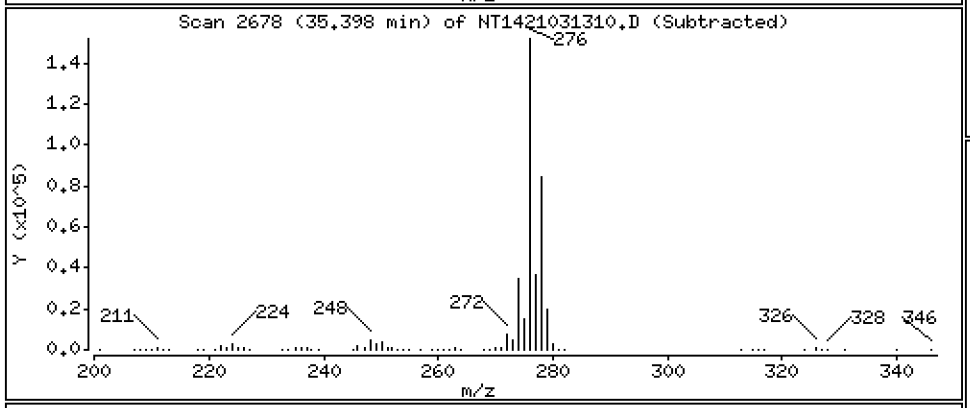
Column diameter: 0.25

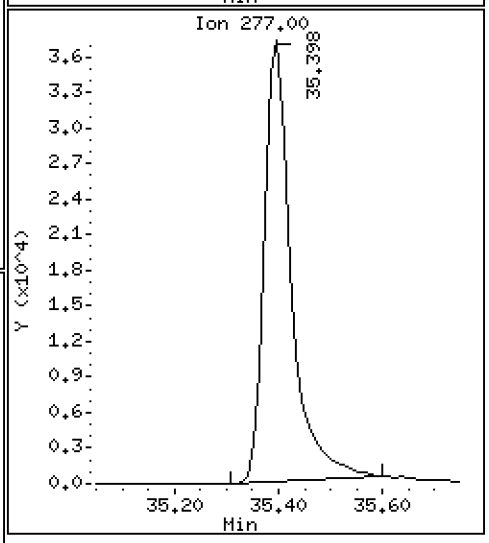
69 Indeno(1,2,3-cd)pyrene

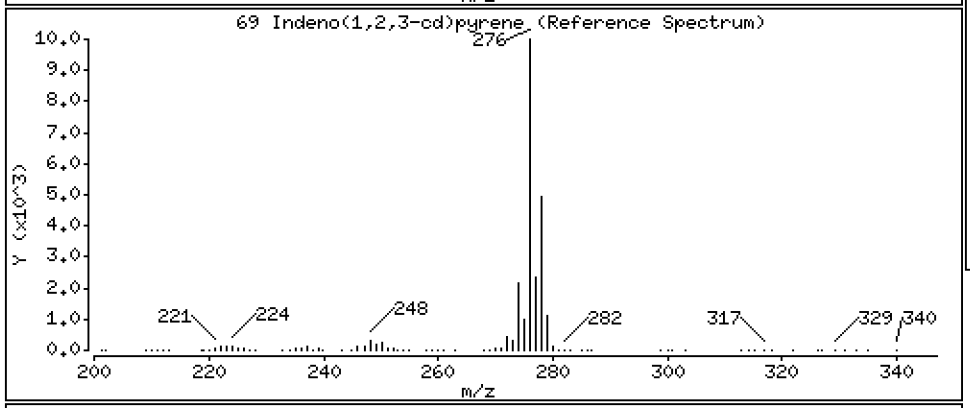
Concentration: 2.833 ug/mL

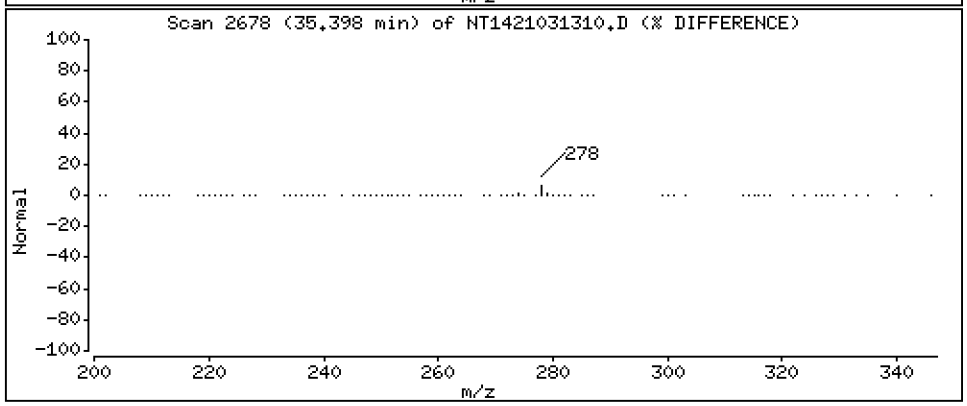












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Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

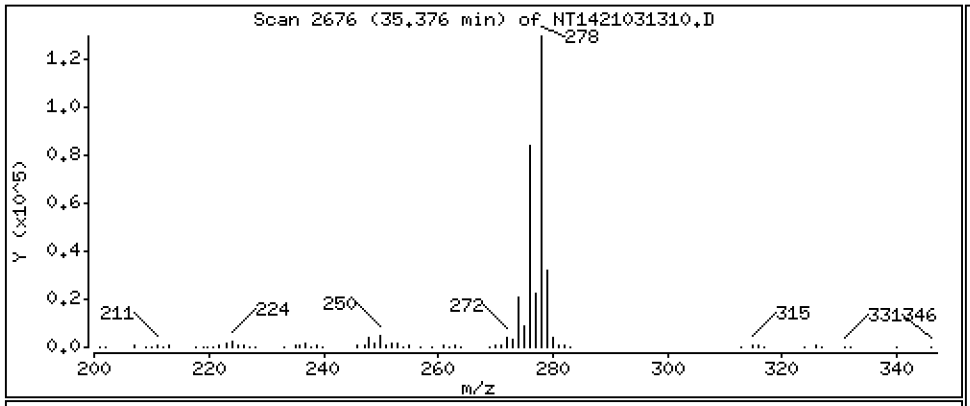
Operator: VTS

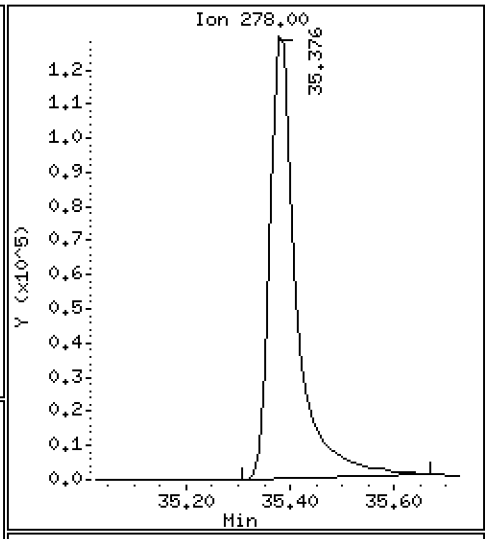
Column phase: Rxi-17Sil MS

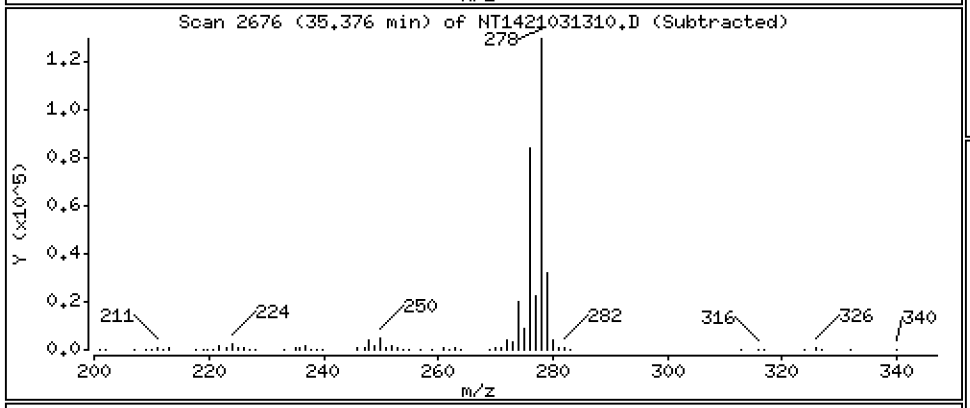
Column diameter: 0.25

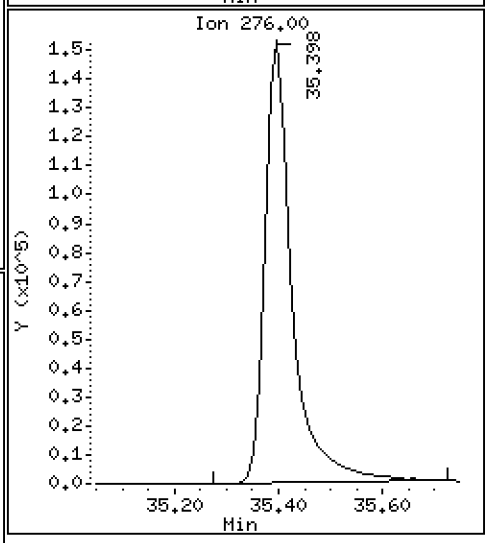
70 Dibenzo(a,h)anthracene

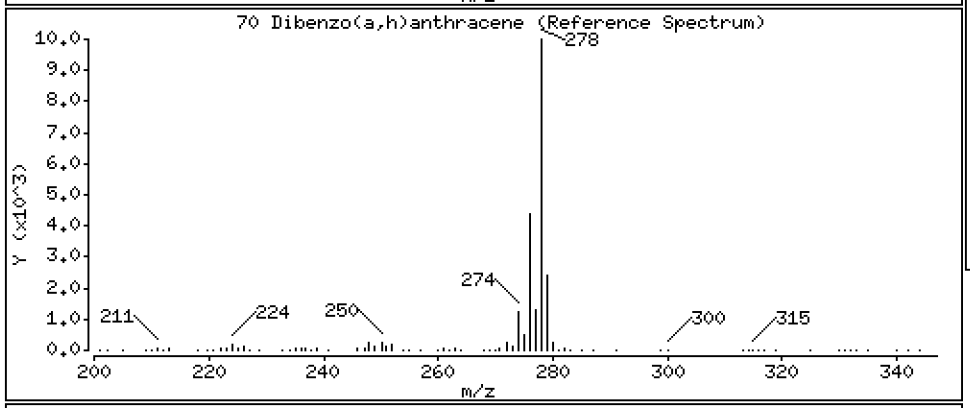
Concentration: 2.606 ug/mL

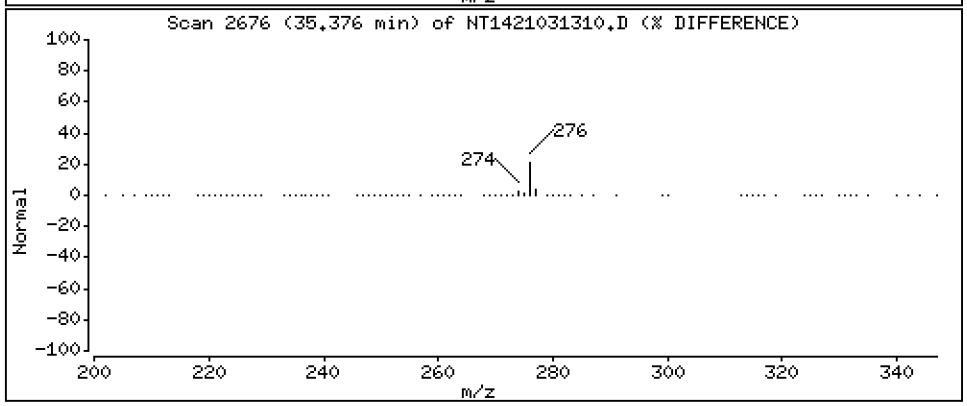












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031310.D

Date : 13-MAR-2021 18:00

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-CCV1

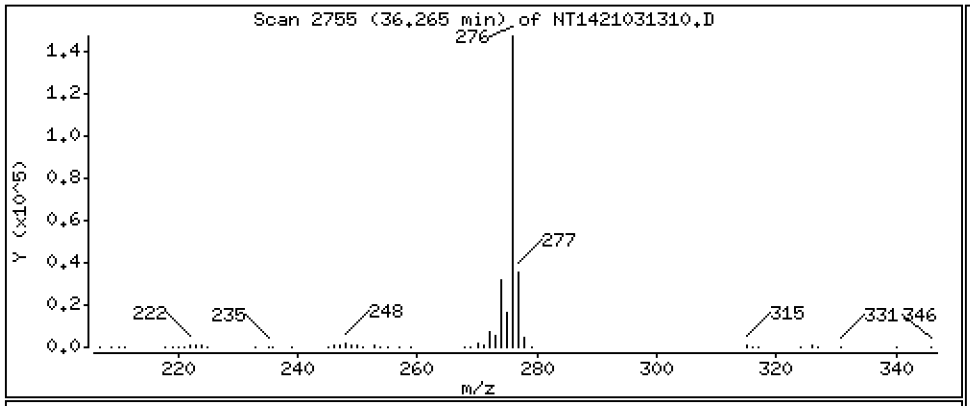
Operator: VTS

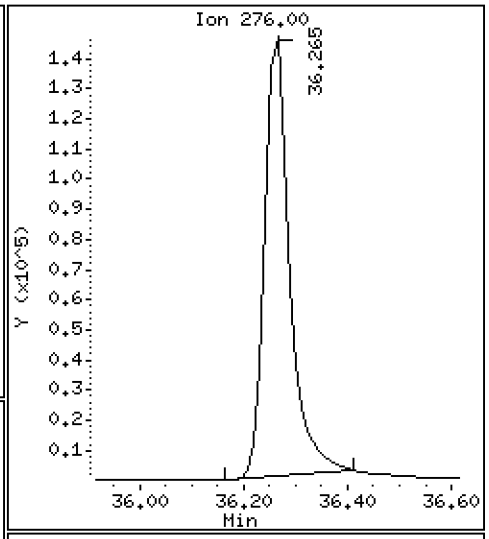
Column phase: Rxi-17Sil MS

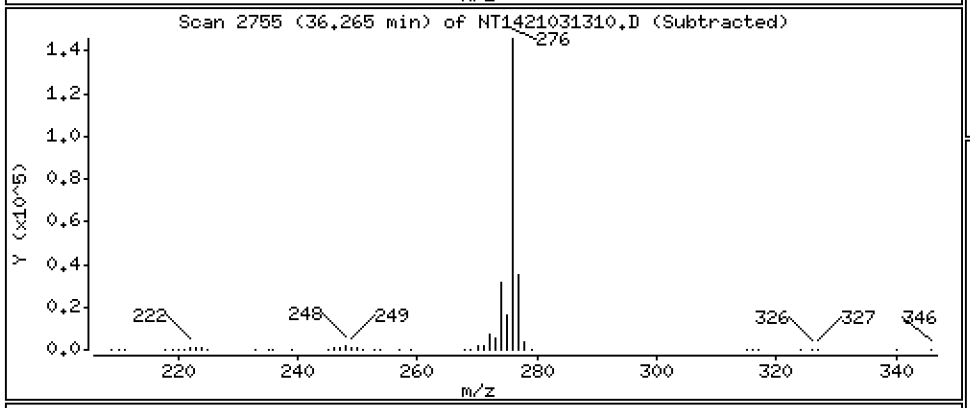
Column diameter: 0.25

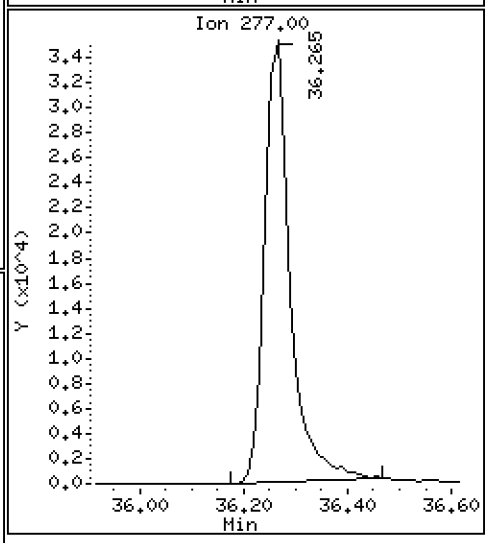
74 Benzo(g,h,i)perylene

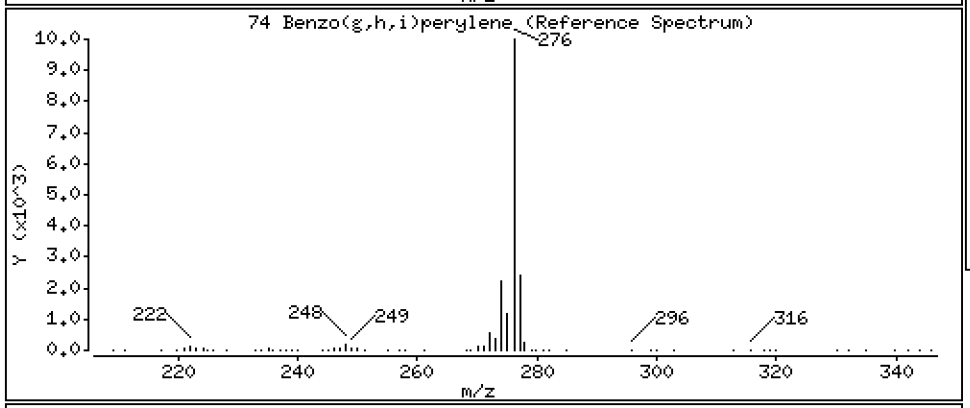
Concentration: 2.564 ug/mL

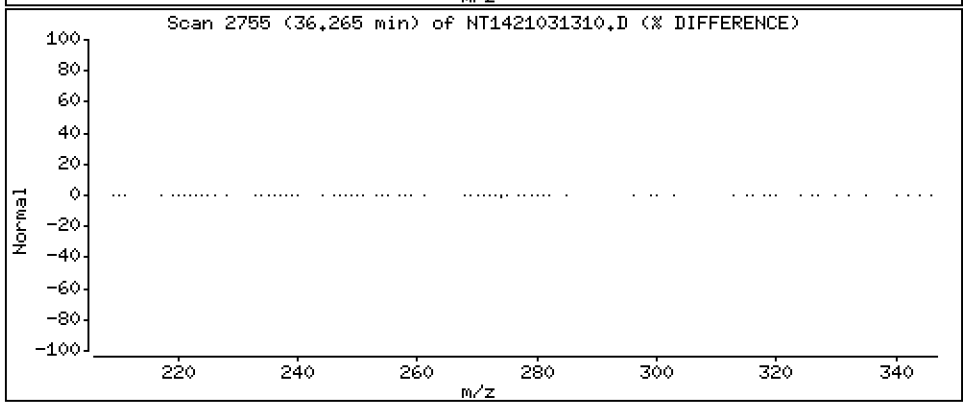












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210313.b\NT1421031310.D
Lab Smp Id: SJC0183-CCV1
Inj Date : 13-MAR-2021 18:00
Operator : VTS Inst ID: nt14.i
Smp Info : SJC0183-CCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210313.b\ALKYLPNA.m
Meth Date : 13-Mar-2021 12:11 van Quant Type: ISTD
Cal Date : 07-JAN-2021 16:44 Cal File: NT1421010708.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: PETERK-202012

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
1 trans-Decalin	138	7.025	7.015	(0.375)	36947	1.88755	1.888
2 cis-Decalin	138	8.124	8.124	(0.434)	29081	2.06287	2.063
$ 6 Naphthalene-d8	136	11.744	11.744	(0.627)	346181	2.21650	2.216(R)
7 Naphthalene	128	11.810	11.810	(0.630)	354938	2.27007	2.270
12 Benzo(b)thiophene	134	12.261	12.261	(0.654)	292284	2.26038	2.260
16 2-Methylnaphthalene	141	13.645	13.634	(0.728)	206326	2.30830	2.308
17 1-methylnaphthalene	141	14.085	14.085	(0.752)	209427	2.41799	2.418
18 Biphenyl	154	15.283	15.283	(0.815)	316175	2.40535	2.405
19 2,6-Dimethylnaphthalene	156	15.360	15.360	(0.820)	231190	2.40368	2.404
20 Acenaphthylene	152	16.920	16.920	(0.903)	419834	2.56793	2.568
$ 21 Acenaphthene-d10	164	17.206	17.206	(0.918)	209717	2.54233	2.542(R)
22 Acenaphthene	153	17.316	17.316	(0.924)	270876	2.57697	2.577
23 Dibenzofuran	168	17.701	17.701	(0.945)	383575	2.54992	2.550
24 1,6,7-Trimethylnaphthalene	170	17.920	17.920	(0.956)	251771	2.60653	2.607
* 25 Fluorene-d10	176	18.741	18.741	(1.000)	337576	2.00000	
26 Fluorene	166	18.843	18.843	(1.005)	297521	2.60987	2.610
30 Dibenzothiophene	184	21.757	21.757	(1.161)	494298	3.16913	3.169
$ 35 Phenanthrene-d10	188	22.066	22.066	(0.995)	397193	2.46535	2.465(R)
36 Phenanthrene	178	22.143	22.143	(0.998)	452147	2.57777	2.578
* 250 Anthracene-d10	188	22.187	22.176	(1.000)	351902	2.00000	
37 Anthracene	178	22.253	22.242	(1.003)	430356	2.65319	2.653
42 Carbazole	167	23.528	23.528	(1.060)	363718	2.68245	2.682(M)
43 1-Methylphenanthrene	192	23.979	23.979	(1.081)	331138	2.65767	2.658
44 Fluoranthene	202	25.958	25.947	(1.170)	527274	2.75095	2.751
46 Pyrene	202	26.805	26.805	(1.208)	557779	2.77312	2.773
51 Naphthobenzothiophene	234	29.348	29.348	(1.323)	411852	2.85949	2.859
55 Benzo(a)anthracene	228	29.935	29.935	(0.907)	490043	2.65639	2.656
$ 56 Chrysene-d12	240	30.070	30.059	(0.911)	362902	2.54934	2.549(R)
57 Chrysene	228	30.138	30.138	(0.913)	461784	2.50536	2.505(M)
62 Benzo(b)fluoranthene	252	32.357	32.368	(0.980)	457484	2.52490	2.525(M)
63 Benzo(k)fluoranthene	252	32.413	32.413	(0.982)	521323	2.75549	2.755(M)
293 Benzo(j)fluoranthene	252	32.469	32.469	(0.983)	506575	2.77461	2.775(M)
246 Total Benzofluoranthenes	252	32.413	32.413	(0.982)	1418640	7.84162	7.842(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	33.021	33.021	(1.000)	452060	2.00000	
64 Benzo(e)pyrene	252	33.089	33.089	(1.002)	474915	2.70095	2.701
66 Benzo(a)pyrene	252	33.179	33.179	(1.005)	460230	2.78163	2.782
$ 67 Perylene-d12	264	33.359	33.359	(1.010)	405806	2.65758	2.658(RM)
68 Perylene	252	33.415	33.416	(1.012)	466746	2.78075	2.781(M)
69 Indeno(1,2,3-cd)pyrene	276	35.398	35.398	(1.072)	511757	2.83347	2.833(M)
70 Dibenzo(a,h)anthracene	278	35.375	35.375	(1.071)	449510	2.60638	2.606(M)
74 Benzo(g,h,i)perylene	276	36.265	36.265	(1.098)	466336	2.56416	2.564(M)

QC Flag Legend

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

Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031310.D Page 1
Report Date: 23-Mar-2021 07:46

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421031310.D
Lab Smp Id: SJC0183-CCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210313.b\ALKYLPNA.m
Misc Info:

Calibration Date: 13-MAR-2021
Calibration Time: 11:19
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	366886	183443	733772	337576	-7.99
250 Anthracene-d10	368886	184443	737772	351902	-4.60
251 Benzo(e)pyrene-d1	446096	223048	892192	452060	1.34

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.74	18.24	19.24	18.74	-0.00
250 Anthracene-d10	22.18	21.68	22.68	22.19	0.05
251 Benzo(e)pyrene-d1	33.02	32.52	33.52	33.02	-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 - NT1421031310.D

Lab ID: SJC0183-CCV1
nt14.i, 20210313.b\ALKYLPNA.m, 13-MAR-2021 18:00

RT	CO-ELUTION COMPOUNDS
	NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

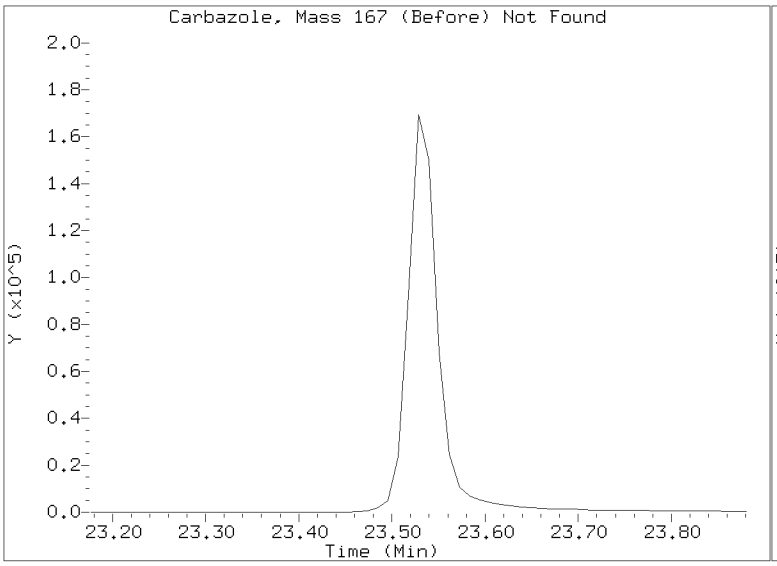
RRT check based on Ccal File: NT1421031302.D

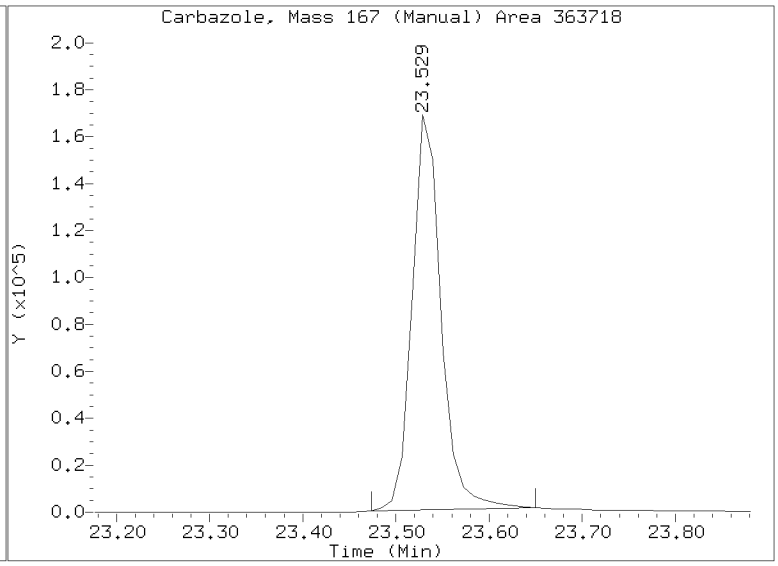
On Column LOD for nt14.i, 20210313.b\ALKYLPNA.m, TARGETS.sub = 0.0000

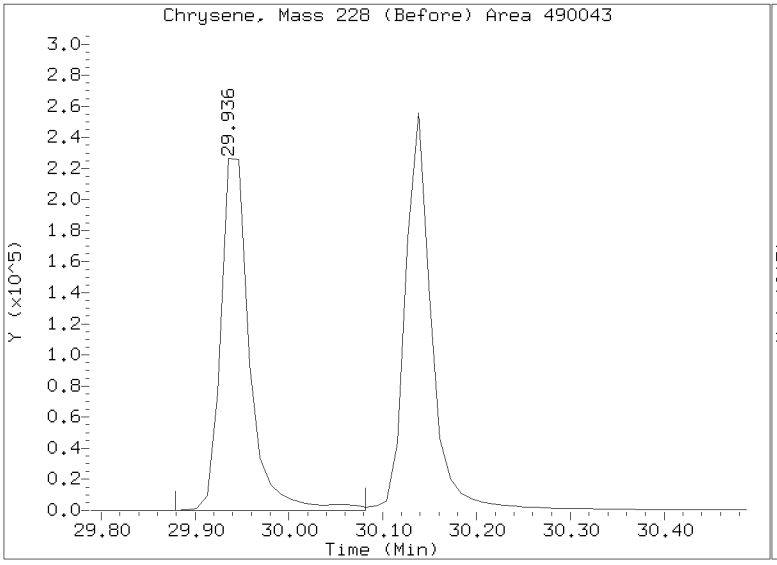
* Only compounds listed in the work order have been verified by the analyst *

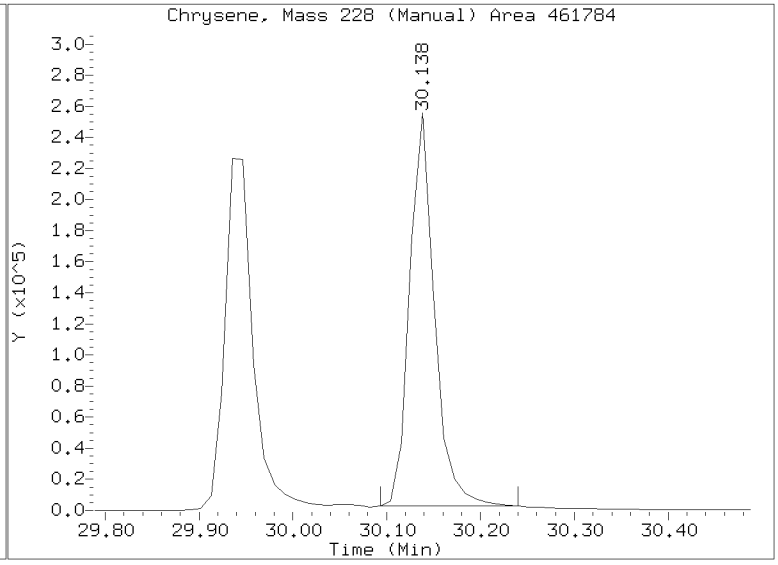
Quant Ion Manual Peak Adjustment Report

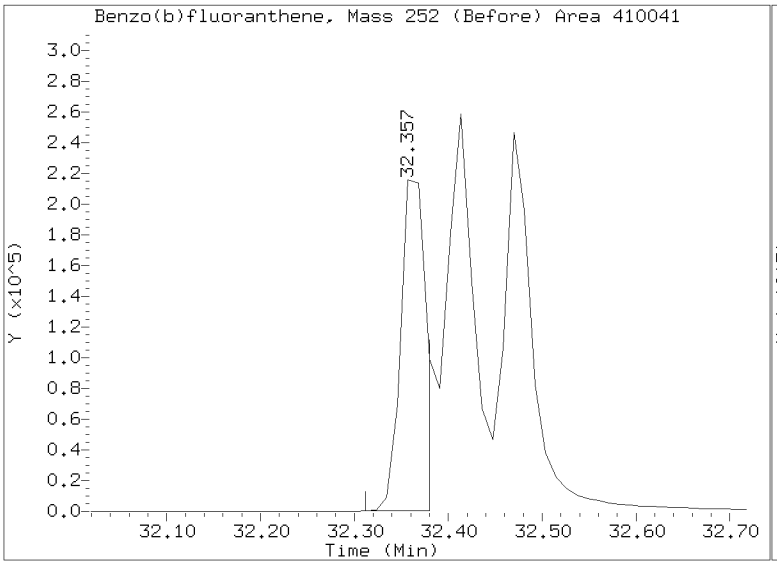
Datafile: //target/share/chem3/nt14.i/20210313.b/NT1421031310.D
Injection Date: 13-MAR-2021 18:00
Lab ID:SJC0183-CCV1 Client ID:
Report Date: 03/23/2021 07:46

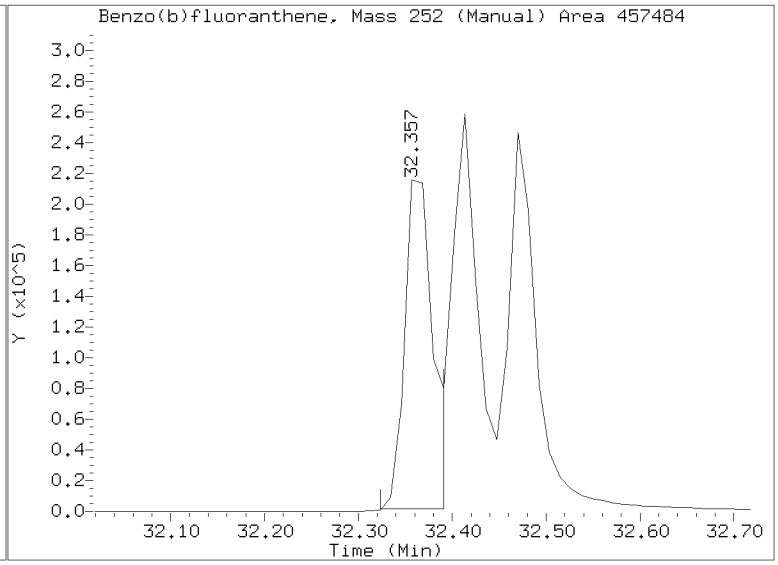












Quant Ion Manual Peak Adjustment Report

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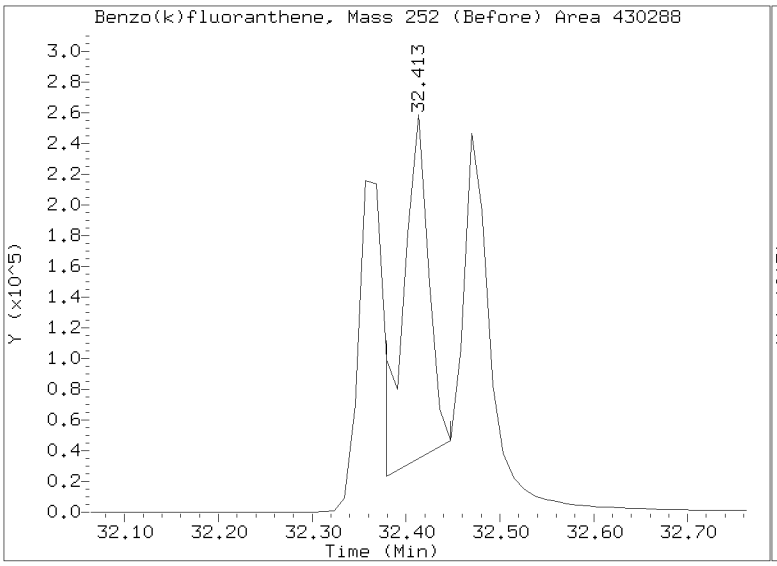
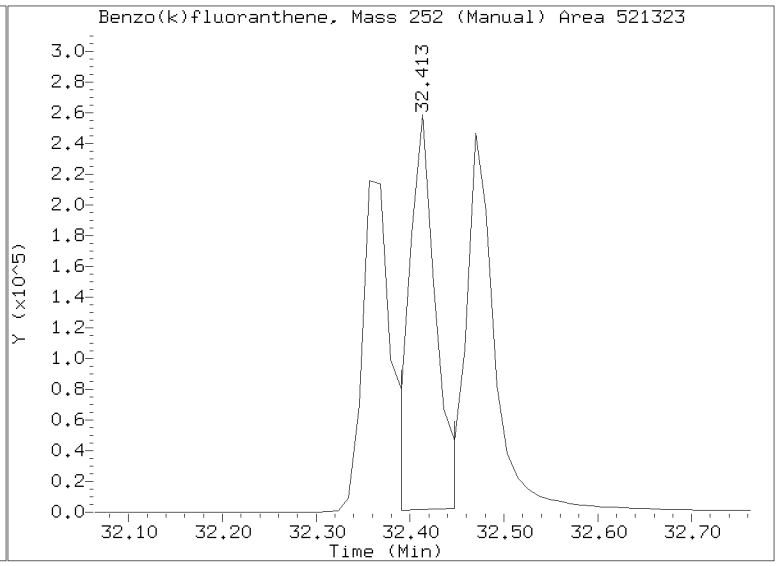
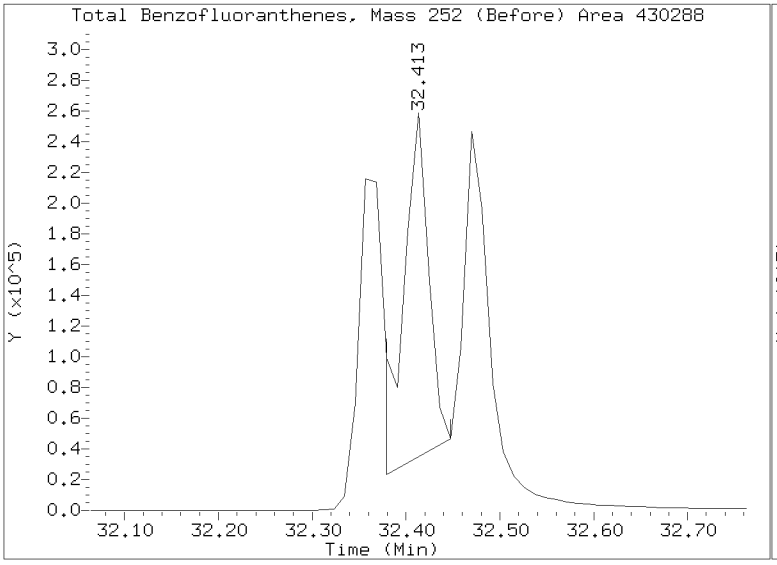
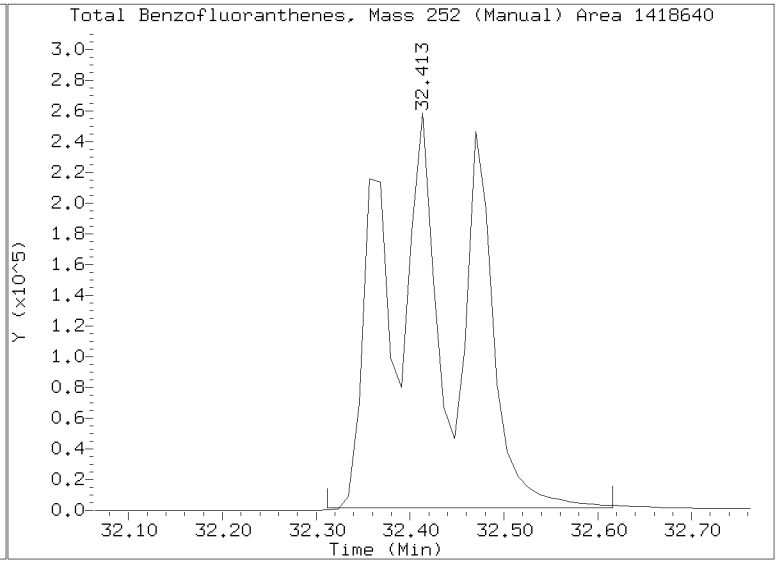
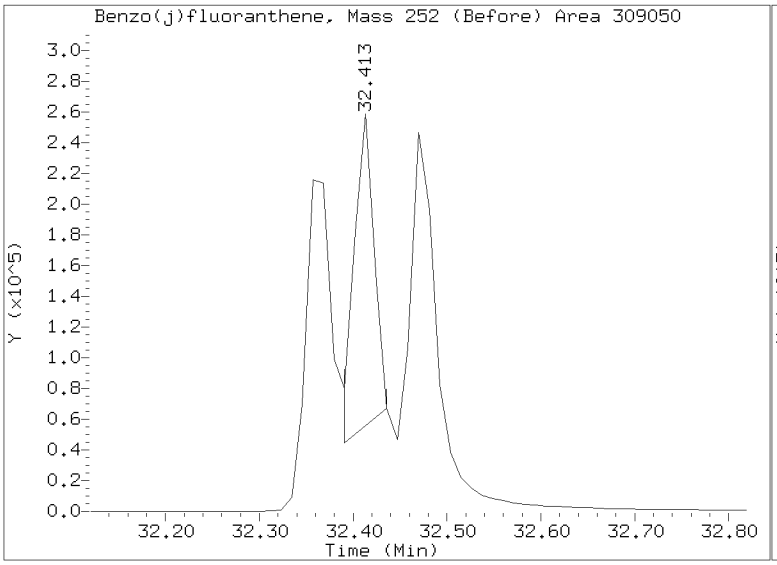
Lab ID:SJC0183-CCV1 Client ID:
Report Date: 03/23/2021 07:46

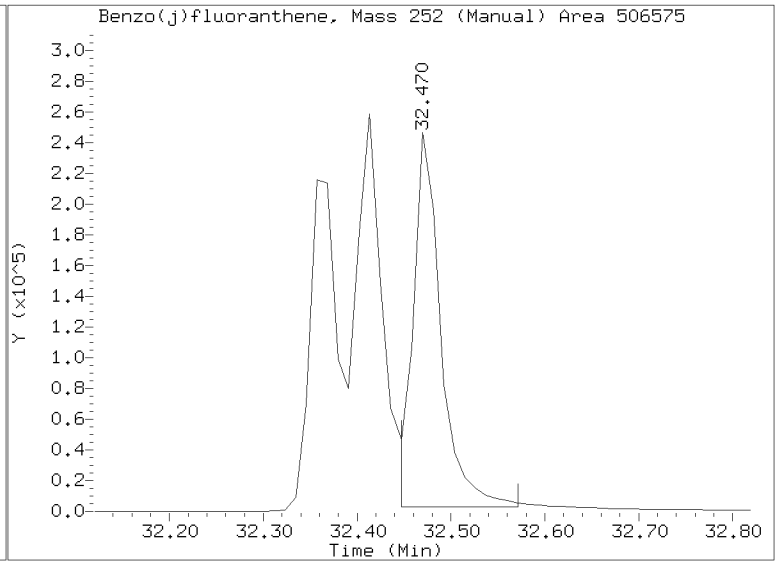












Quant Ion Manual Peak Adjustment Report

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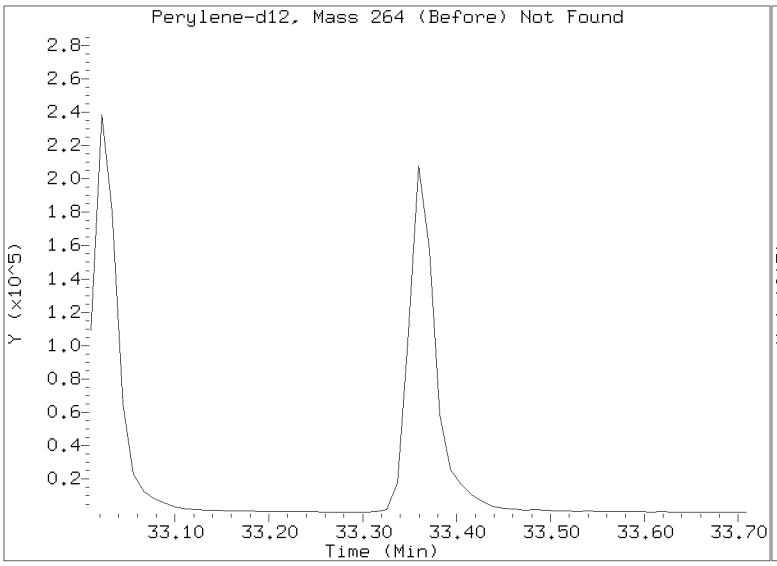
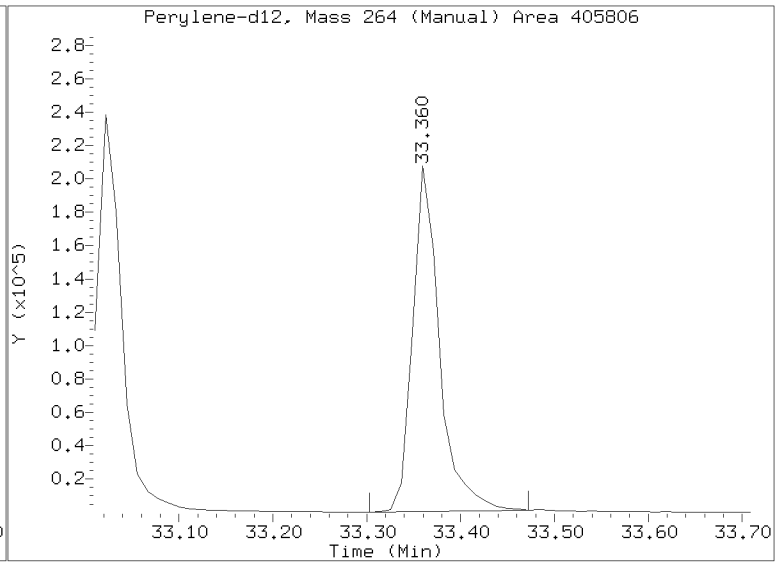
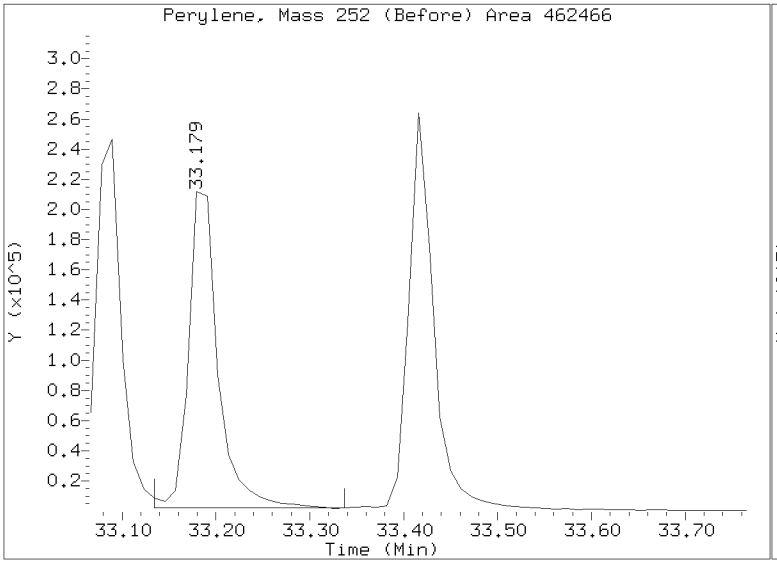
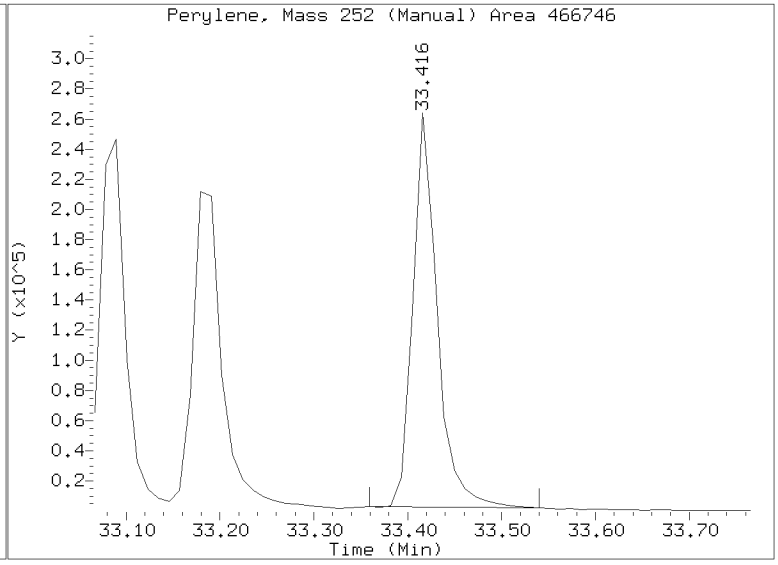
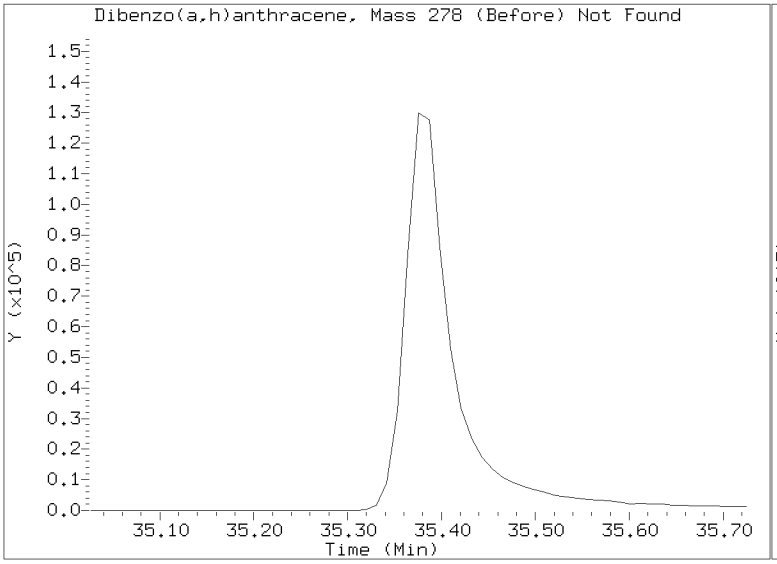
Report Date: 03/23/2021 07:46

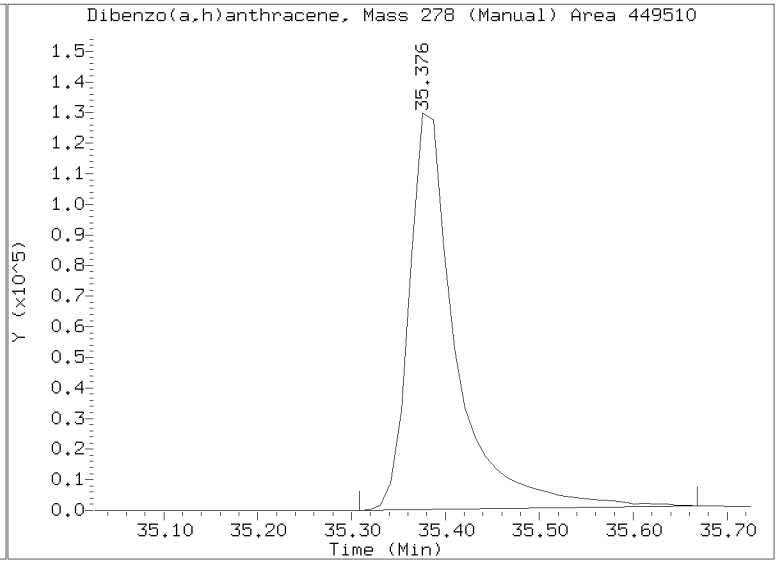












Quant Ion Manual Peak Adjustment Report

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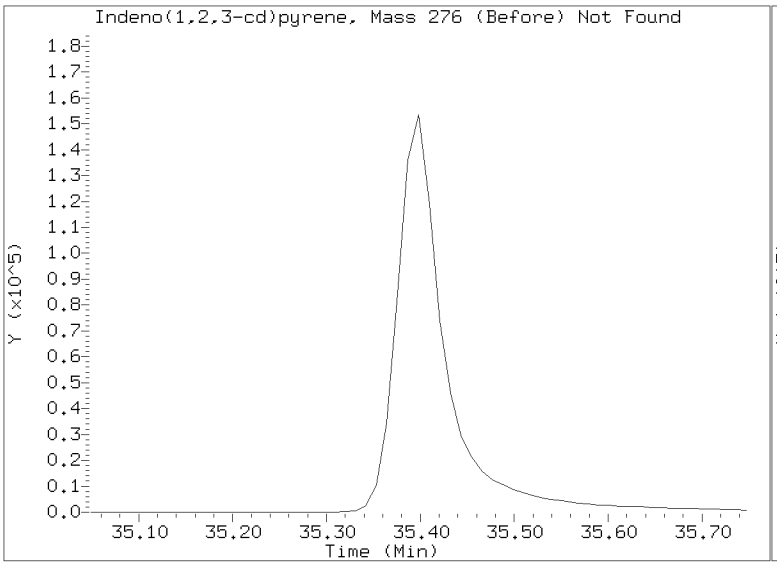
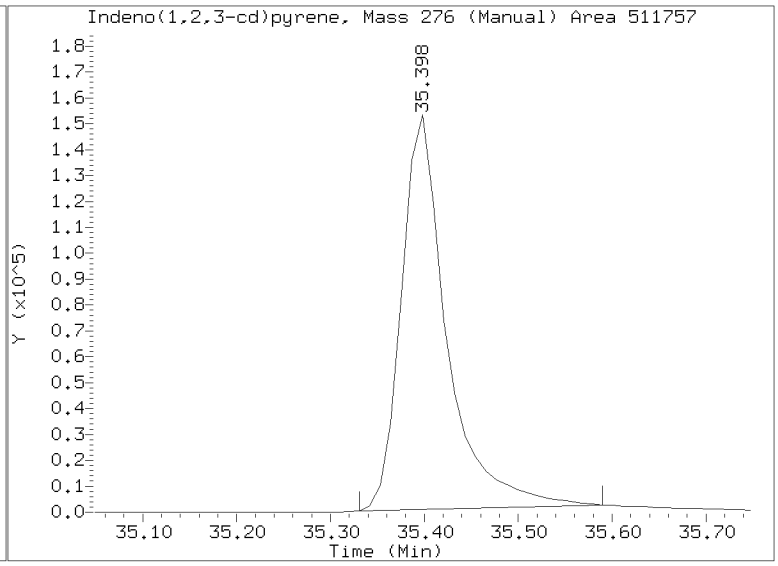
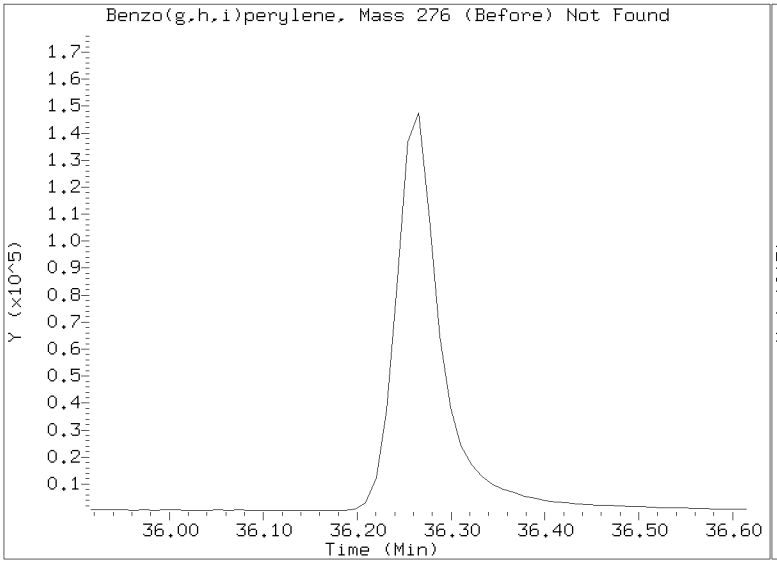
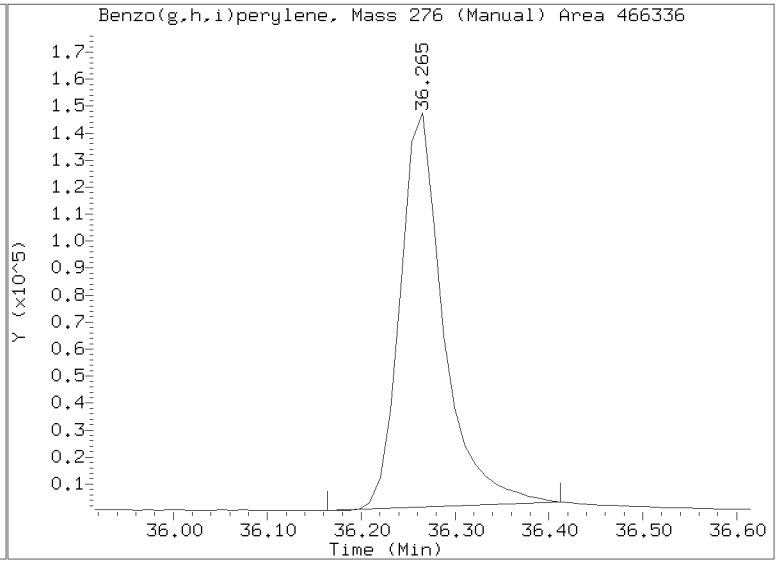
Lab ID:SJC0183-CCV1 Client ID:
Report Date: 03/23/2021 07:46









Analytical Resources, Incorporated
Analytical Chemists and Consultants

LOW-CONCENTRATION CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Instrument ID:	NT14	Calibration:	EA00040
Lab File ID:	NT1421031303.D	Calibration Date:	01/14/2021
Sequence:	SJC0183	Injection Date:	03/13/21
Lab Sample ID:	SJC0183-LCV1	Injection Time:	12:21
Sequence Name:	Low Cal Check		

		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
trans-Decalin	A	0.10000	0.07	0.1159685	0.0817908		-29.5	
cis-Decalin	A	0.10000	0.08	0.0835211	0.0704985		-15.6	
Naphthalene	A	0.10000	0.1	0.9263444	0.9229694		-0.4	
1-Methylnaphthalene	A	0.10000	0.1	0.5131404	0.5018498		-2.2	
2-Methylnaphthalene	A	0.10000	0.09	0.5295653	0.4670996		-11.8	
Biphenyl	A	0.10000	0.1	0.7787672	0.7908938		1.6	
2,6-Dimethylnaphthalene	A	0.10000	0.1	0.5698371	0.5580615		-2.1	
Acenaphthylene	A	0.10000	0.1	0.9686185	0.9207235		-4.9	
Acenaphthene	A	0.10000	0.1	0.6227577	0.6300573		1.2	
Dibenzofuran	A	0.10000	0.1	0.8912135	0.9024437		1.3	
2,3,5-Trimethylnaphthalene	A	0.10000	0.09	0.5722696	0.5378477		-6.0	
Fluorene	A	0.10000	0.1	0.6753950	0.7172759		6.2	
Benzo(b)thiophene	A	0.10000	0.09	0.7660937	0.7057341		-7.9	
Phenanthrene	A	0.10000	0.1	0.9968805	1.0167560		2.0	
Anthracene	A	0.10000	0.1	0.9218650	0.9248175		0.3	
Carbazole	A	0.10000	0.06	0.7706226	0.4982644		-35.3	
1-Methylphenanthrene	A	0.10000	0.08	0.7081347	0.5810608		-17.9	
Fluoranthene	A	0.10000	0.08	1.0893370	0.8588203		-21.2	
Dibenzothiophene	A	0.10000	0.1	0.9240760	1.0527370		13.9	
Pyrene	A	0.10000	0.08	1.1431450	0.8993329		-21.3	
Benzo(a)anthracene	A	0.10000	0.05	0.8161632	0.3705100		-54.6	
Chrysene	A	0.10000	0.05	0.8154589	0.3705100		-54.6	
Benzo(b)fluoranthene	A	0.10000	0.02	0.8016147	0.1866326		-76.7	
Benzo(j)fluoranthene	A	0.10000	0.09	0.8077480	0.7429434		-8.0	
Benzo(k)fluoranthene	A	0.10000	0.04	0.8370331	0.3176914		-62.1	
Benzo(e)pyrene	A	0.10000	0.07	0.7779167	0.5171647		-33.5	
Benzo(a)pyrene	A	0.10000	0.06	0.7319961	0.4476064		-38.9	
Indeno(1,2,3-cd)pyrene	A	0.10000	0.03	0.7990599	0.2085711		-73.9	
Dibenzo(a,h)anthracene	A	0.10000	0.02	0.6854958	0.1378170		-81.6	
Benzo(g,h,i)perylene	A	0.10000	0.04	0.8046159	0.3249175		-59.6	
Perylene	A	0.10000	0.07	0.7425959	0.4830094		-35.0	
Benzo(b)naphtho(2,1-d)thiophene	A	0.10000	0.06	0.8185783	0.4943788		-39.6	
Naphthalene-d8	A	0.10000	0.0978	0.9253244	0.9049393		-2.2	
Acenaphthene-d10	A	0.10000	0.105	0.4887195	0.5123310		4.8	

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LOW-CONCENTRATION CONTINUING CALIBRATION CHECK

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Instrument ID:	NT14	Calibration:	EA00040
Lab File ID:	NT1421031303.D	Calibration Date:	01/14/2021
Sequence:	SJC0183	Injection Date:	03/13/21
Lab Sample ID:	SJC0183-LCV1	Injection Time:	12:21
Sequence Name:	Low Cal Check		

COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
		STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenanthrene-d10	A	0.10000	0.0960	0.9156546	0.8791623		-4.0	
Chrysene-d12	A	0.10000	0.0683	0.6297905	0.4301908		-31.7	
Perylene-d12	A	0.10000	0.00	0.6755628				

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031303.D

Date : 13-MAR-2021 12:21

Client ID:

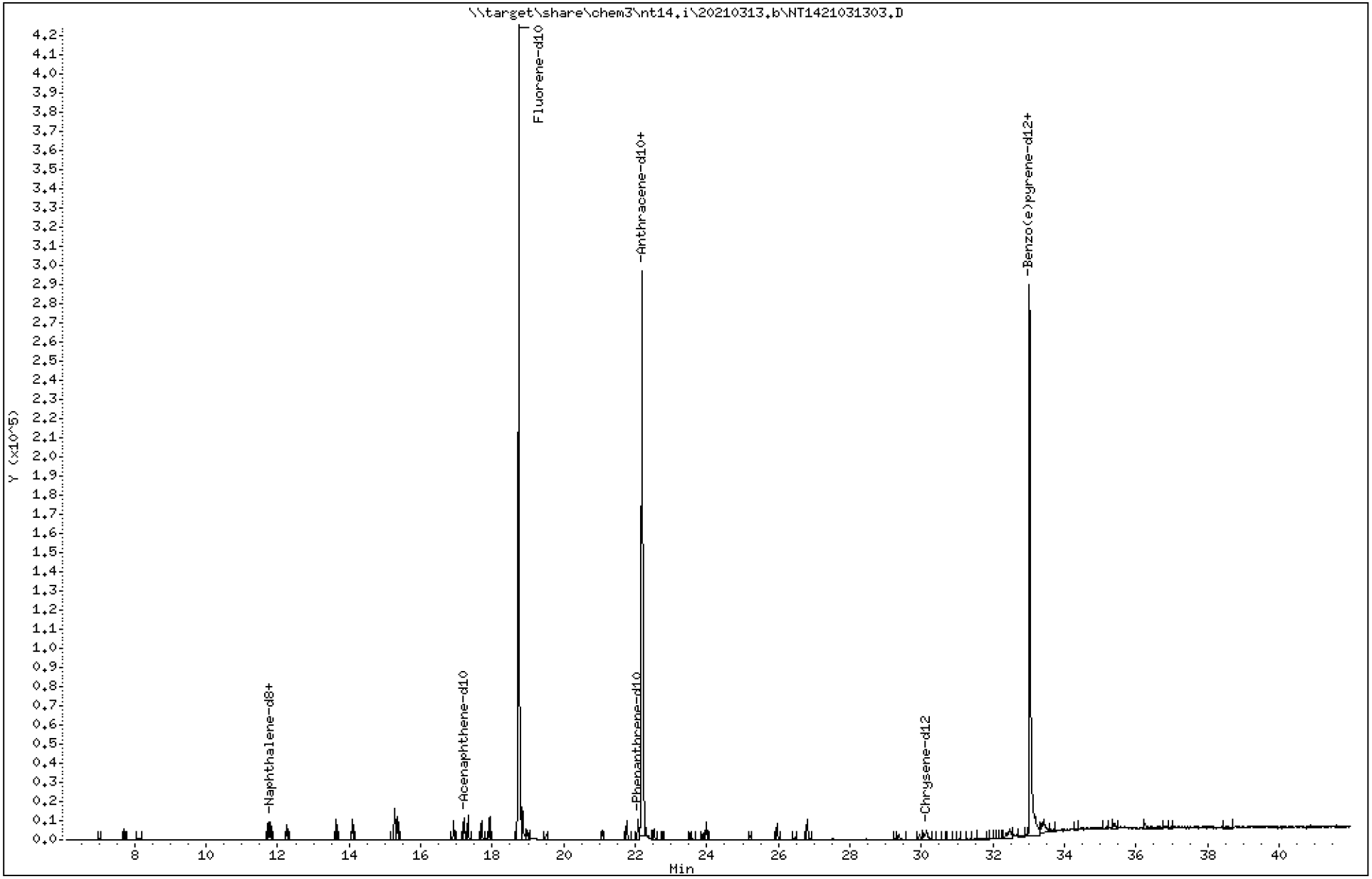
Instrument: nt14.i

Sample Info: SJC0183-LCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 13-MAR-2021 12:21

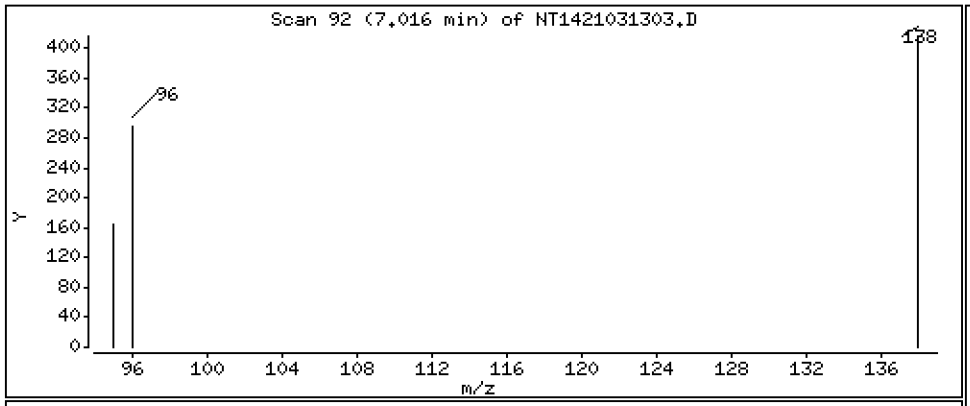
Client ID: Instrument: nt14.i

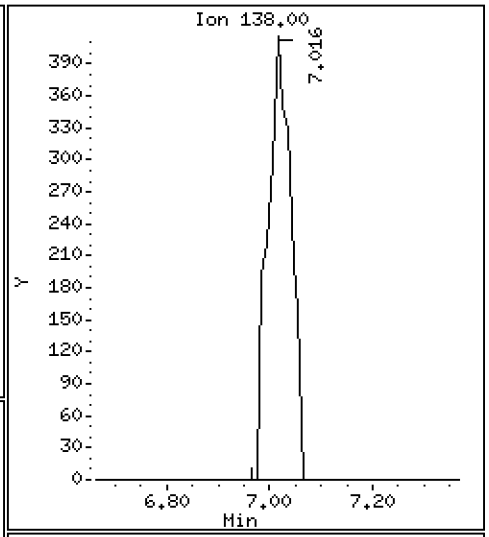
Sample Info: SJC0183-LCV1

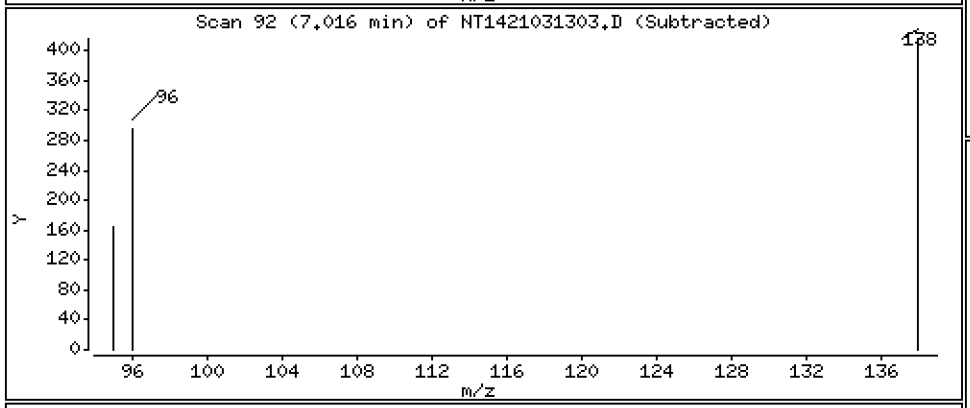
Operator: VTS

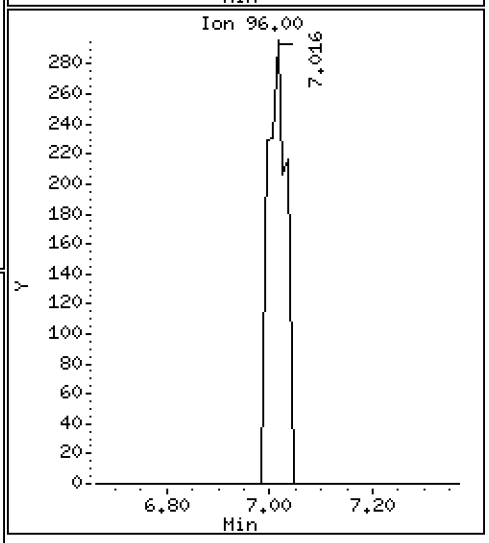
Column phase: Rxi-17Sil MS Column diameter: 0.25

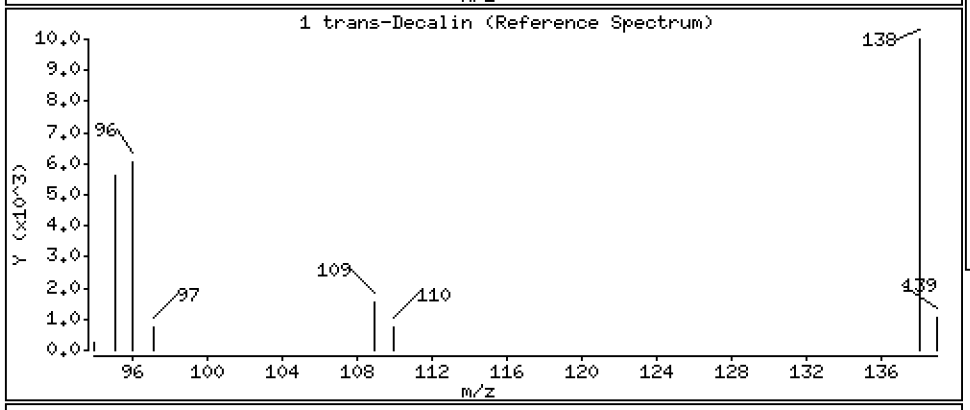
1 trans-Decalin Concentration: 0.07053 ug/mL

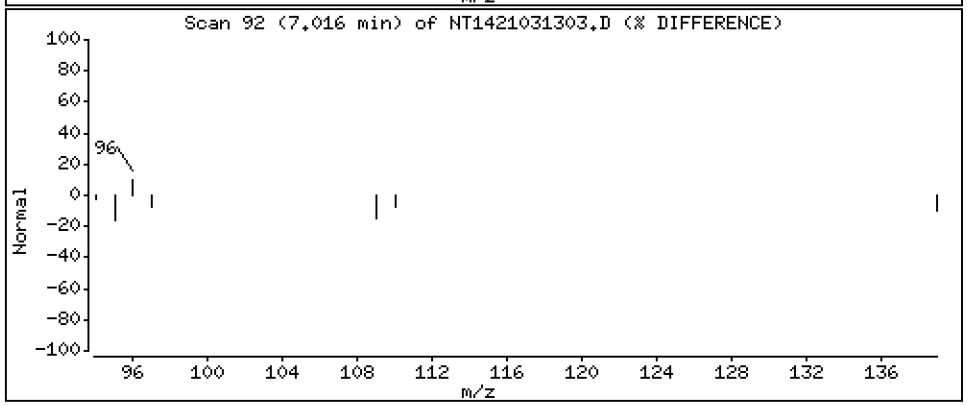












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Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

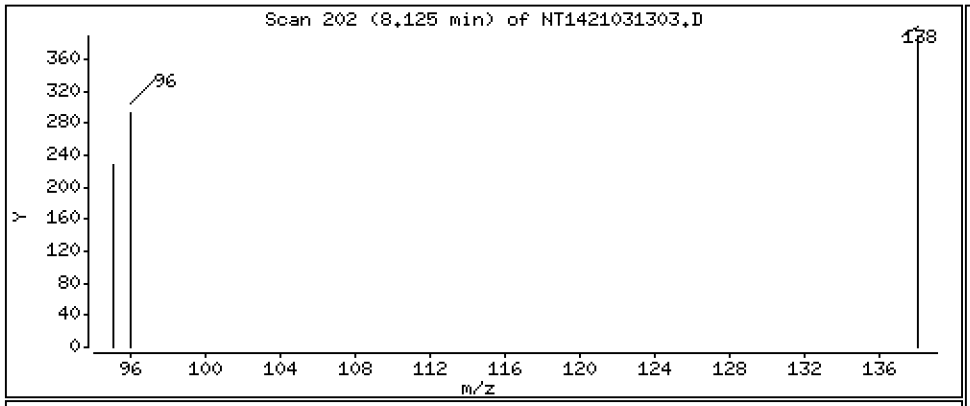
Operator: VTS

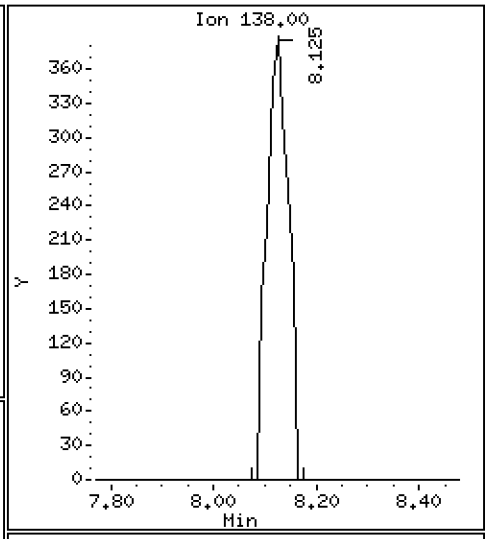
Column phase: Rxi-17Sil MS

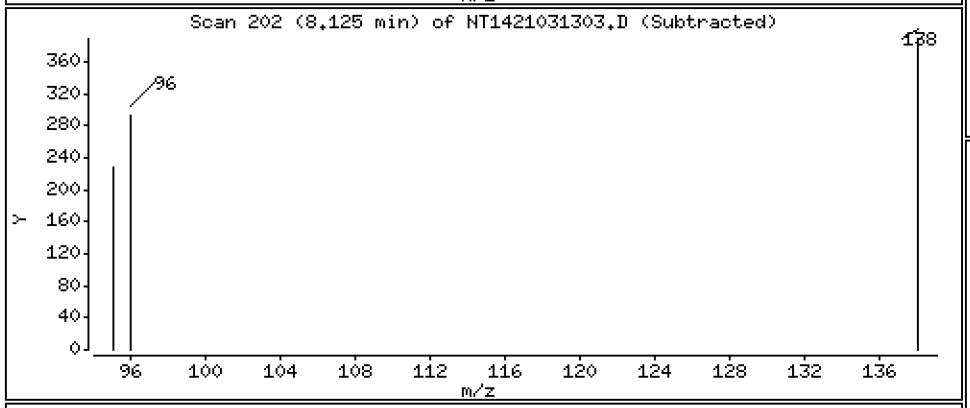
Column diameter: 0.25

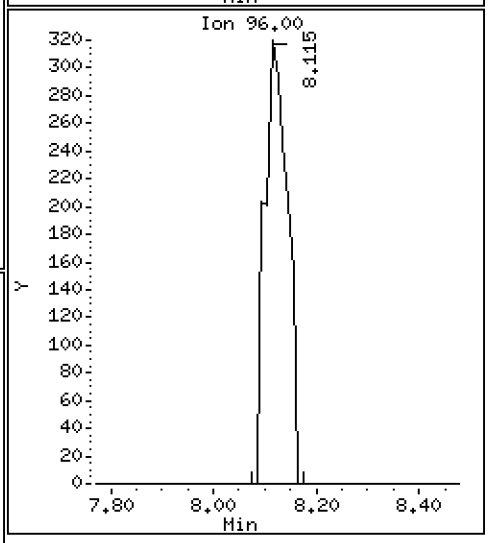
2 cis-Decalin

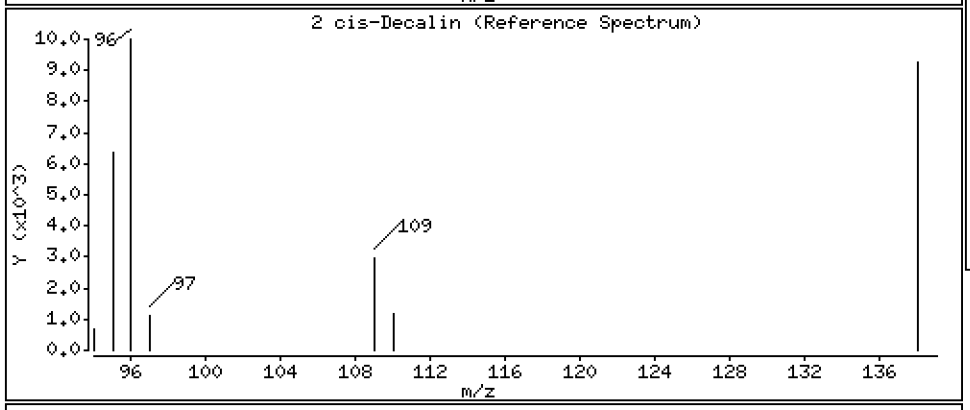
Concentration: 0.08441 ug/mL

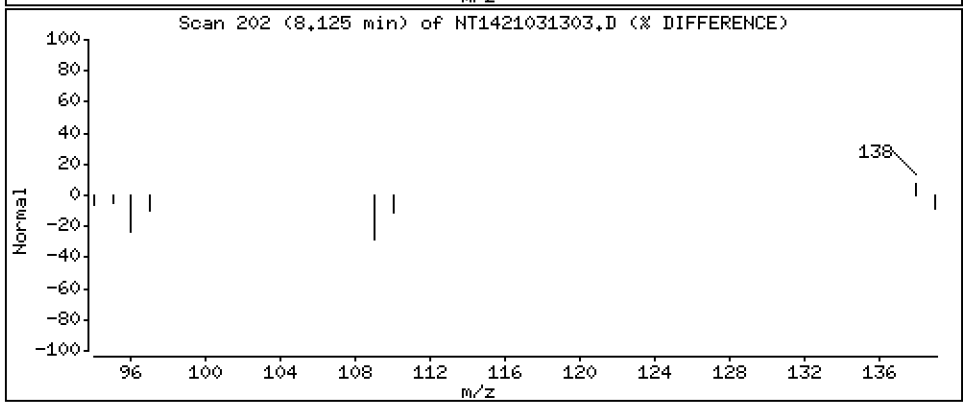












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Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

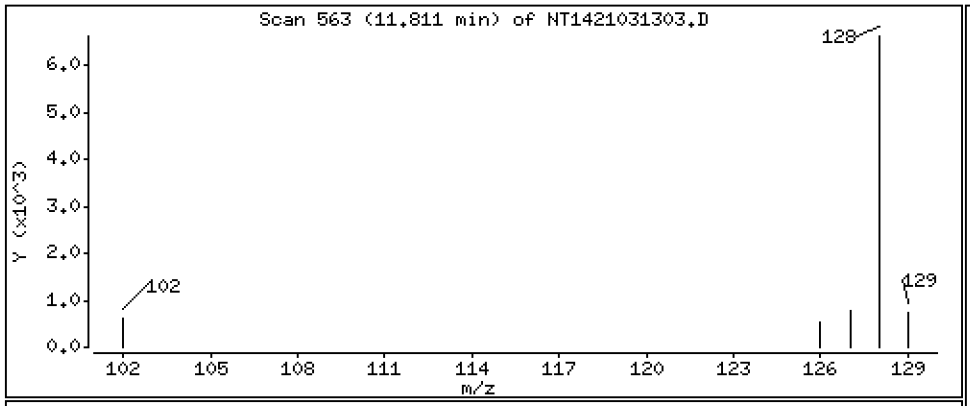
Operator: VTS

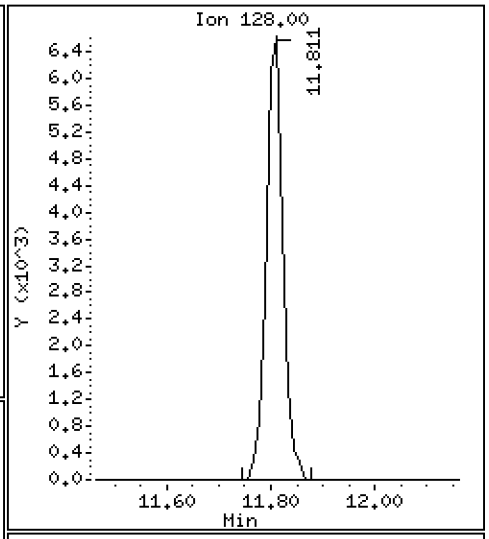
Column phase: Rxi-17Sil MS

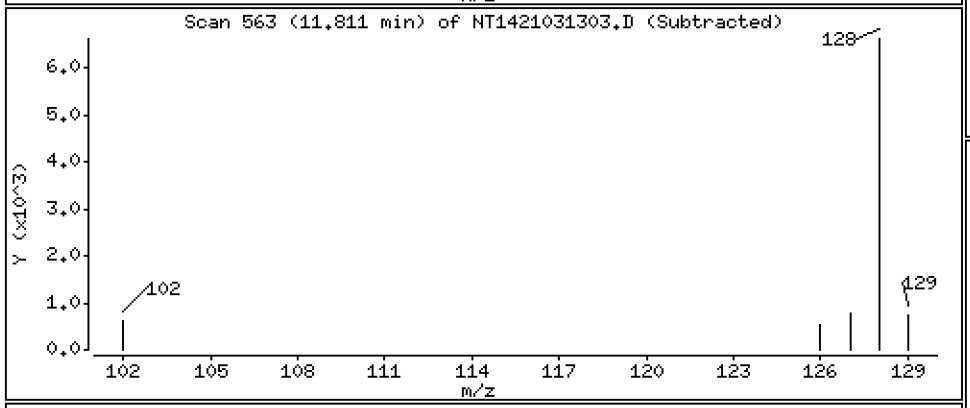
Column diameter: 0.25

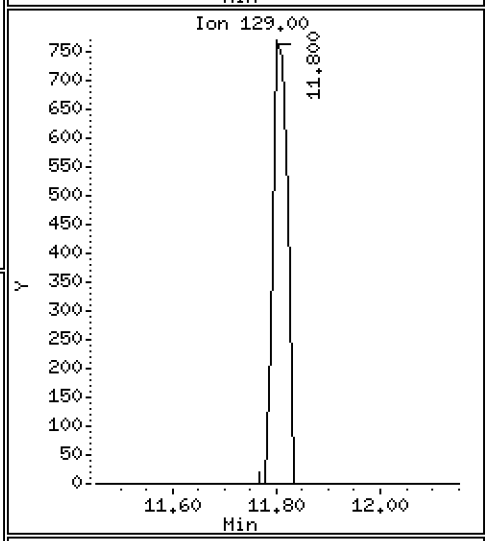
7 Naphthalene

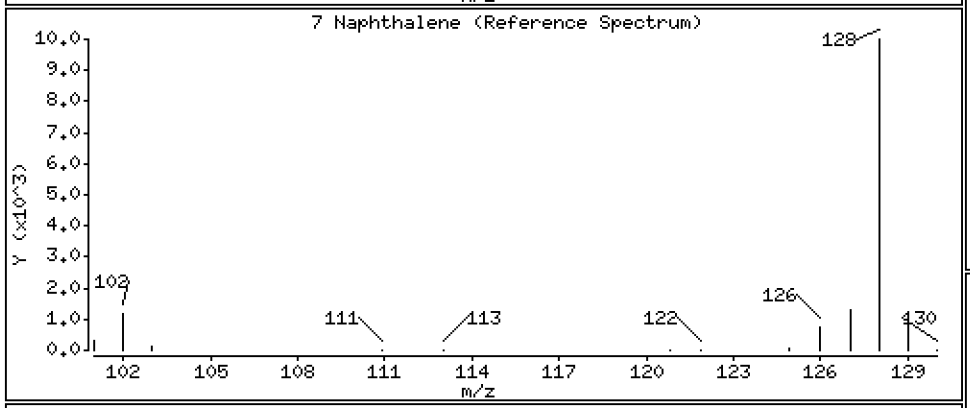
Concentration: 0.09964 ug/mL

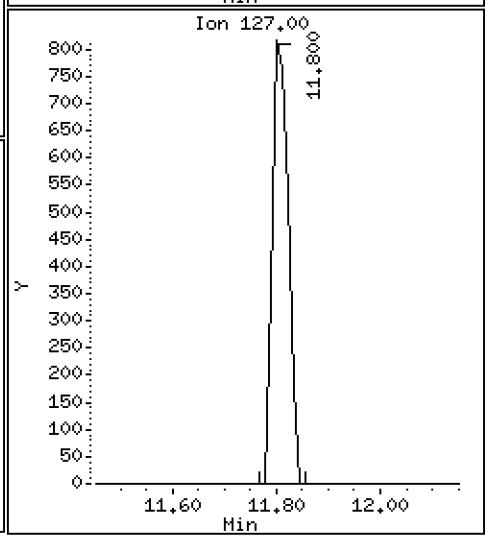


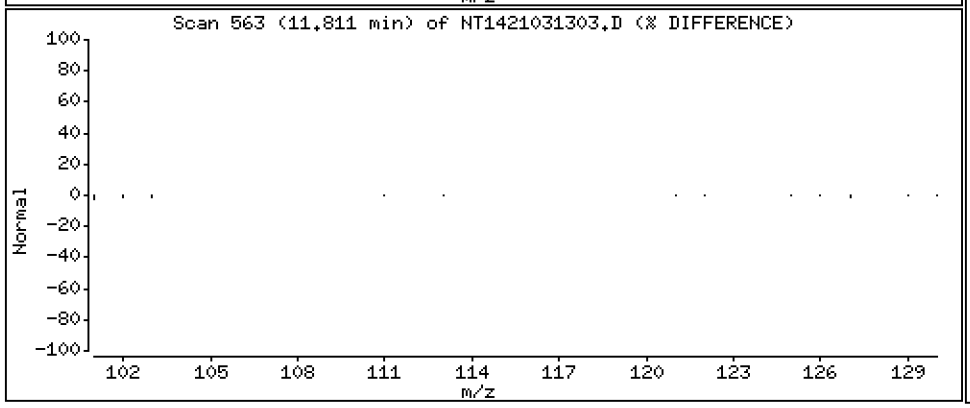












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Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

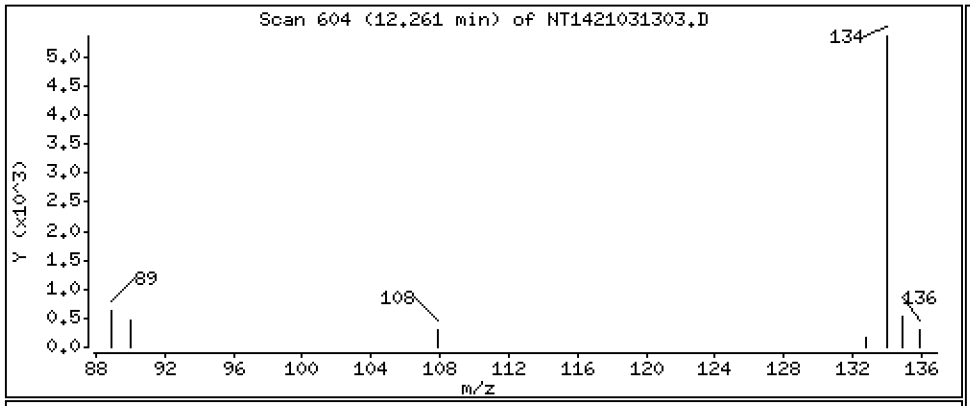
Operator: VTS

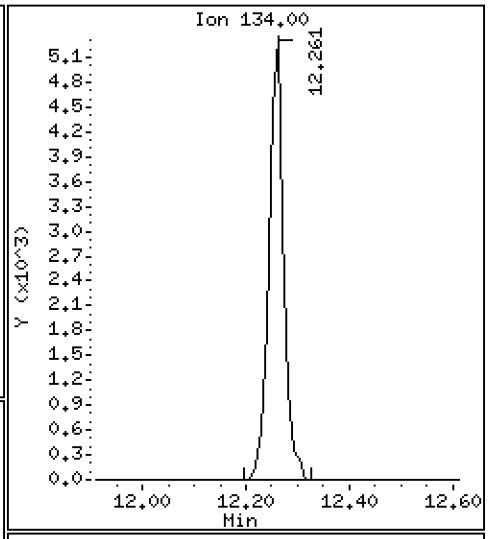
Column phase: Rxi-17Sil MS

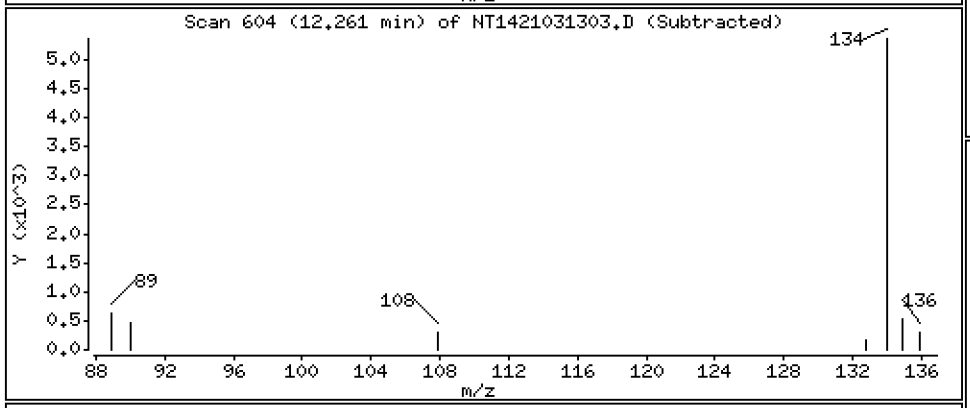
Column diameter: 0.25

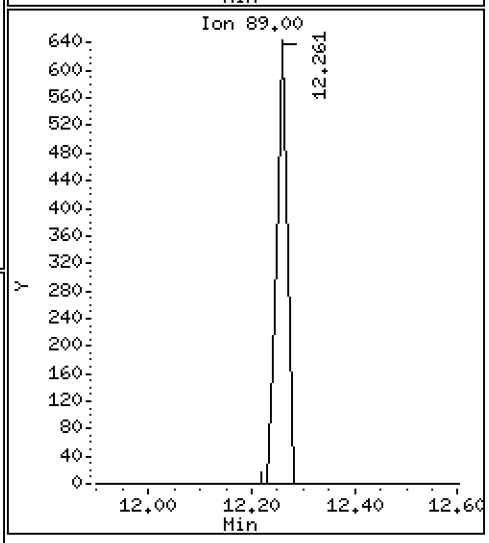
12 Benzo(b)thiophene

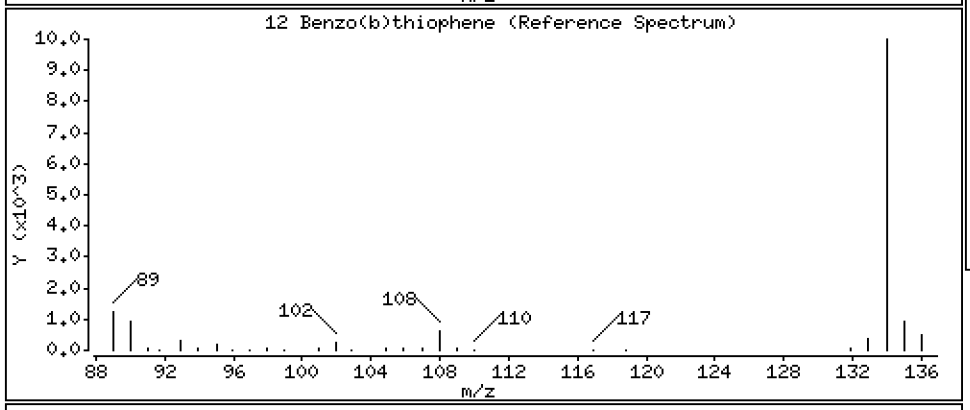
Concentration: 0.09212 ug/mL

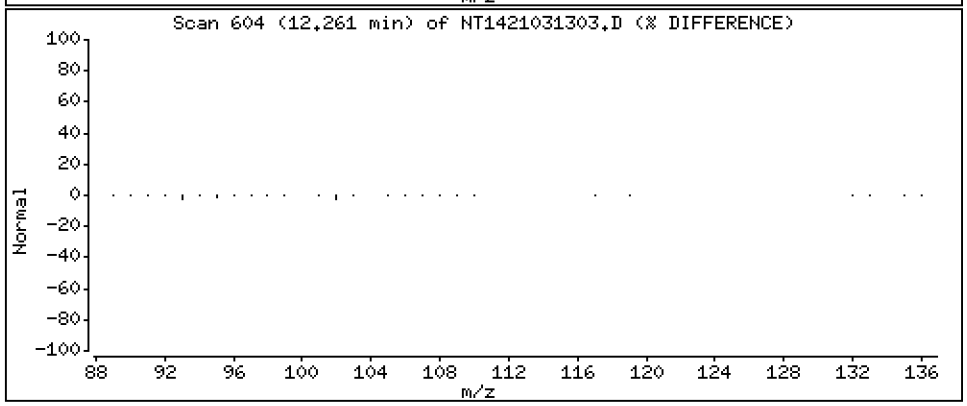












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031303.D

Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

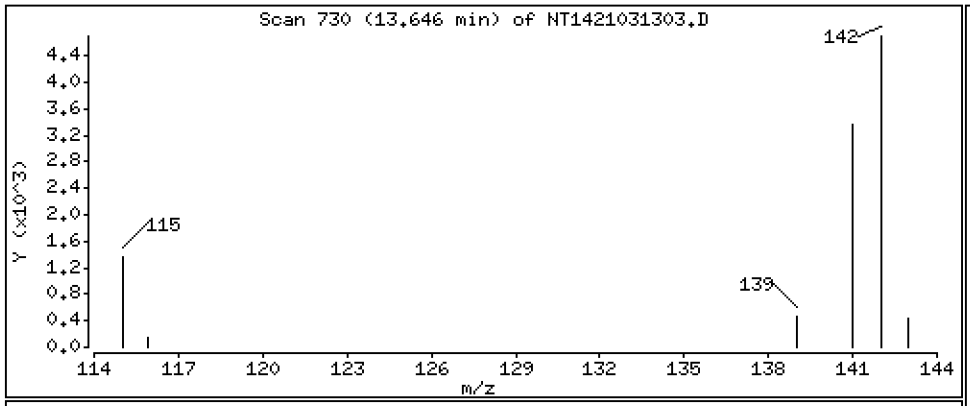
Operator: VTS

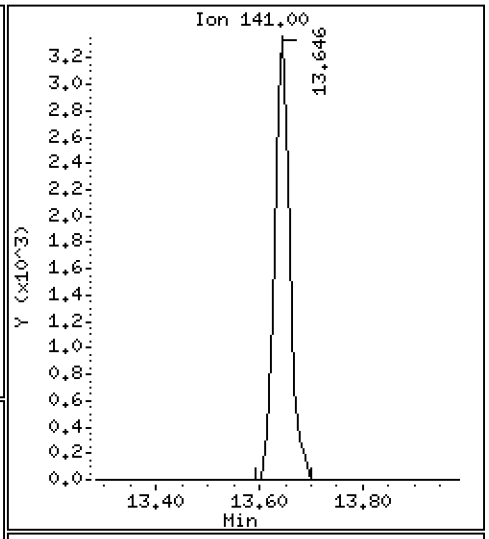
Column phase: Rxi-17Sil MS

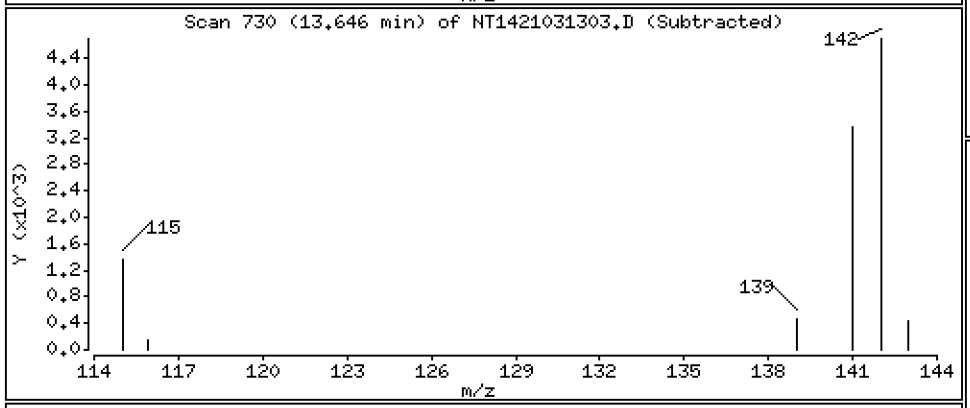
Column diameter: 0.25

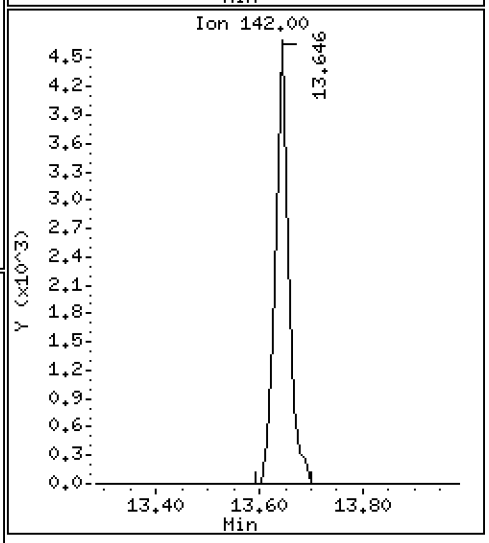
16 2-Methylnaphthalene

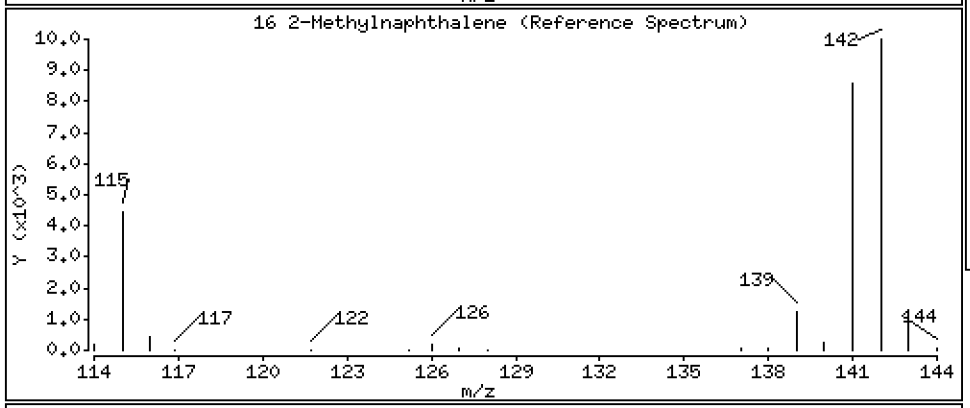
Concentration: 0.08820 ug/mL

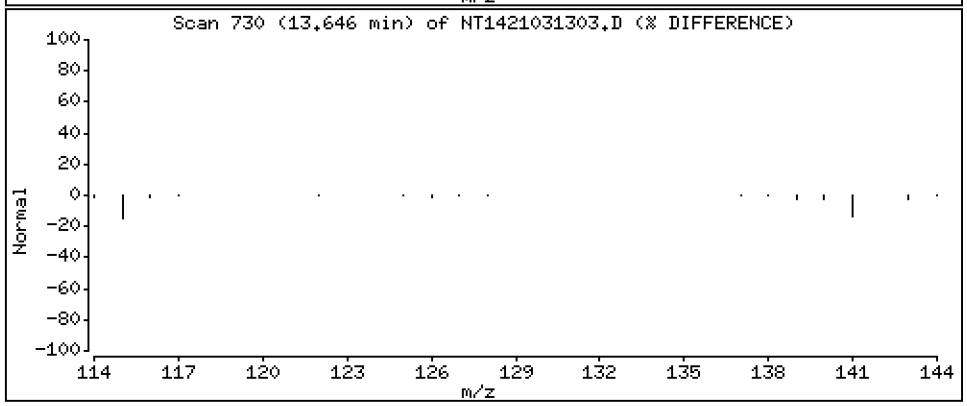












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Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

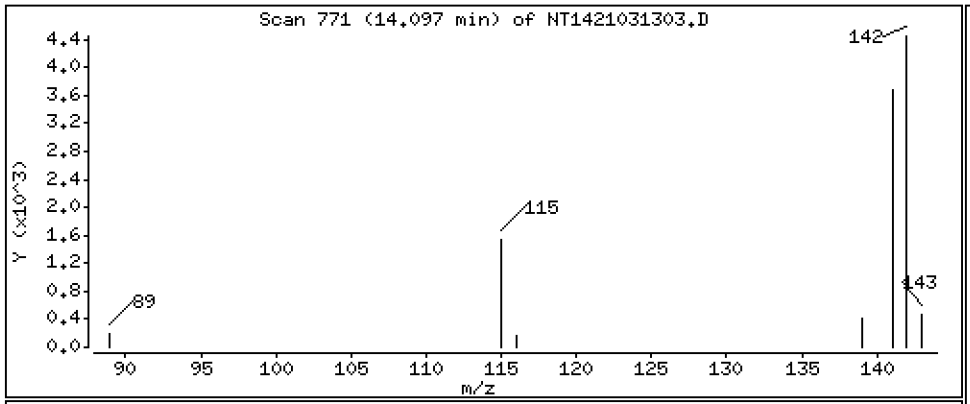
Operator: VTS

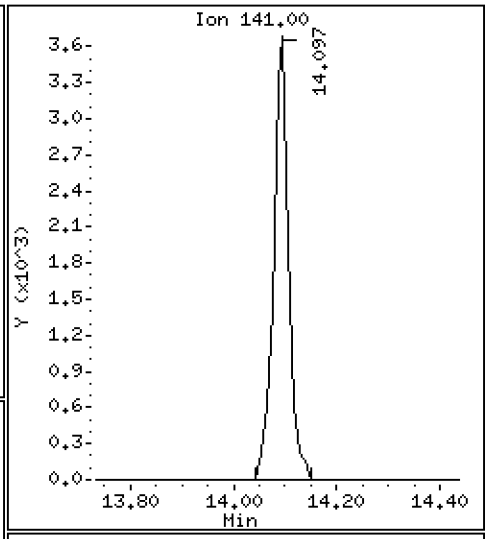
Column phase: Rxi-17Sil MS

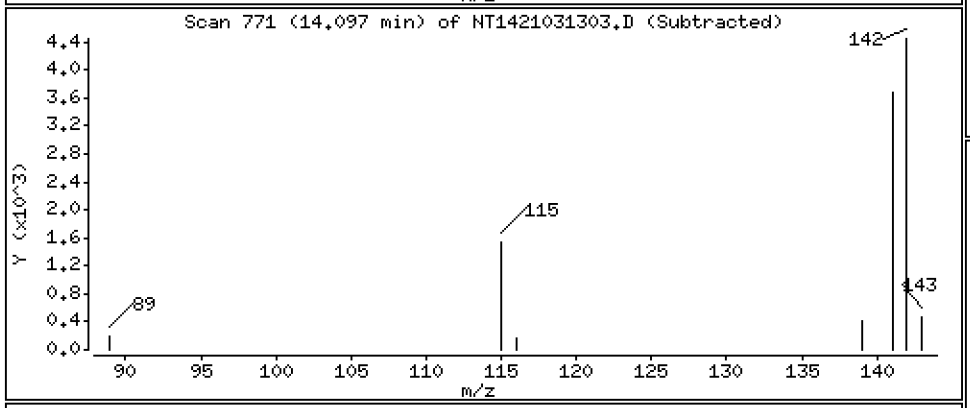
Column diameter: 0.25

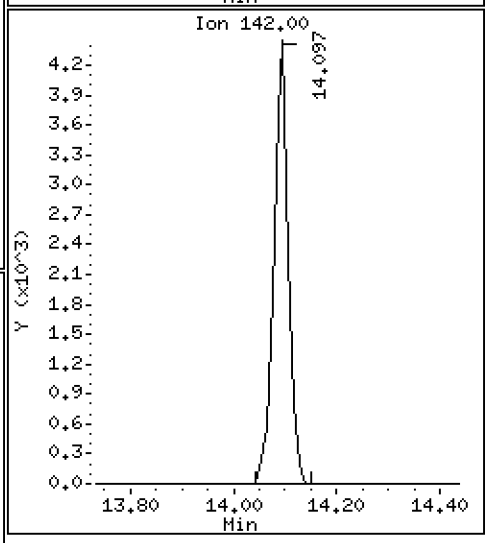
17 1-methylnaphthalene

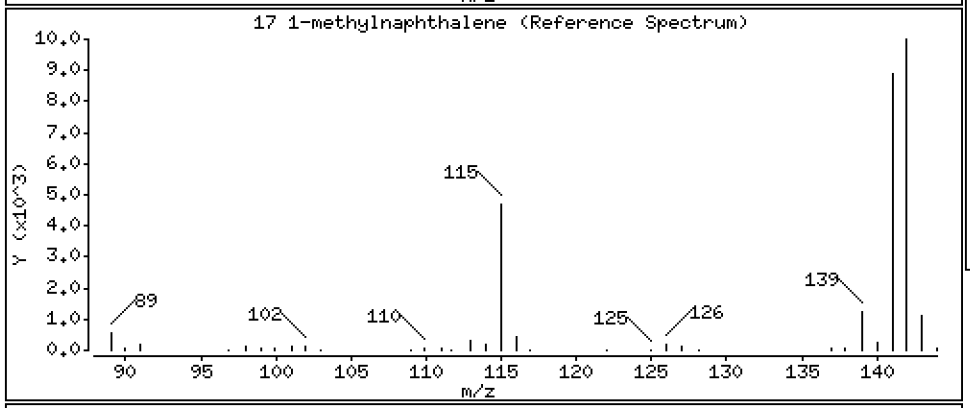
Concentration: 0.09780 ug/mL

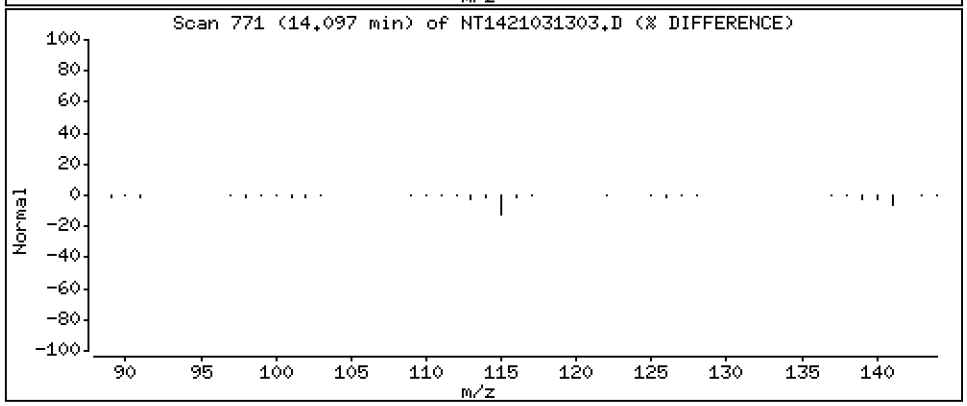












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031303.D

Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

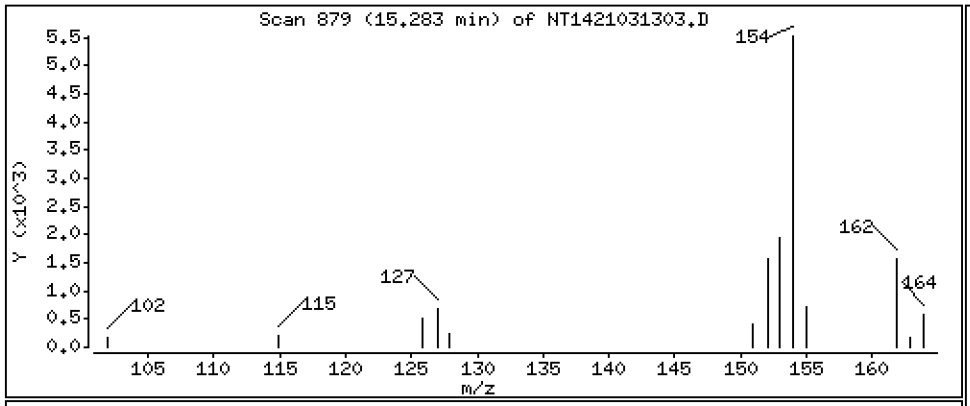
Operator: VTS

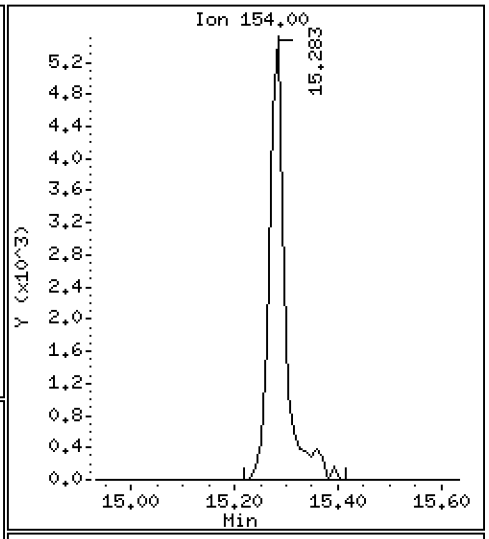
Column phase: Rxi-17Sil MS

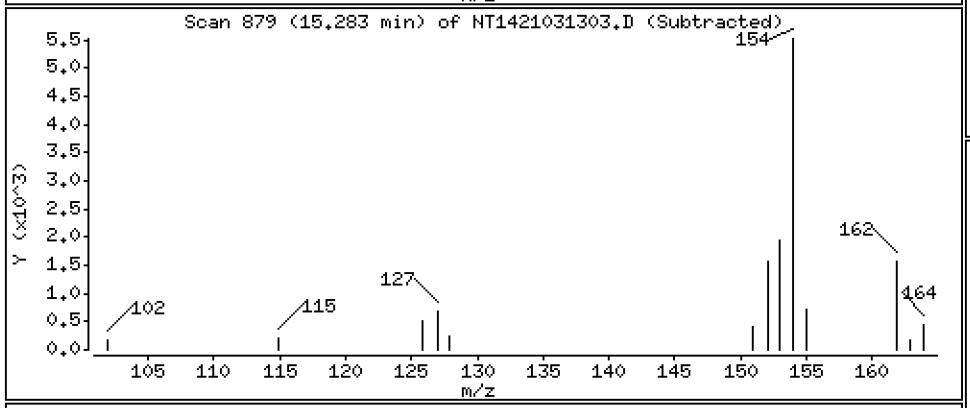
Column diameter: 0.25

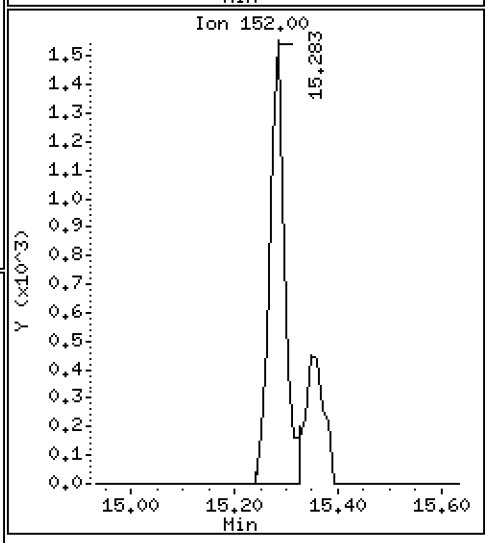
18 Biphenyl

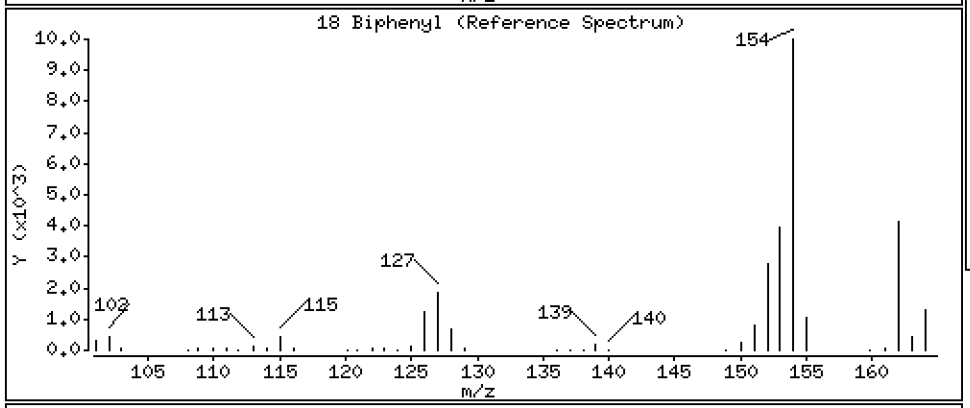
Concentration: 0.1016 ug/mL

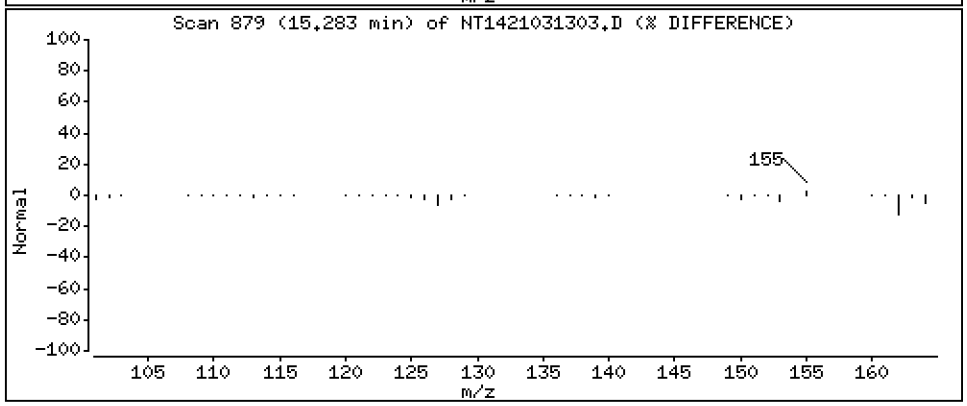












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Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

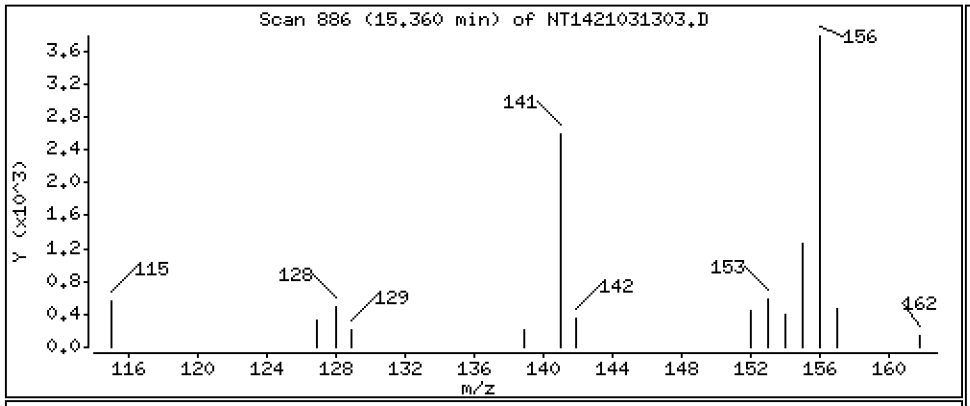
Operator: VTS

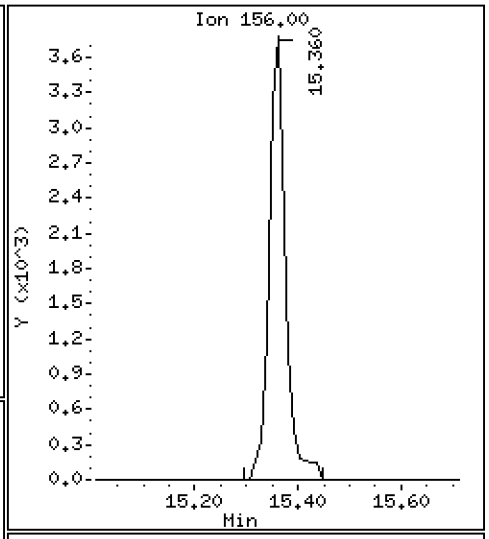
Column phase: Rxi-17Sil MS

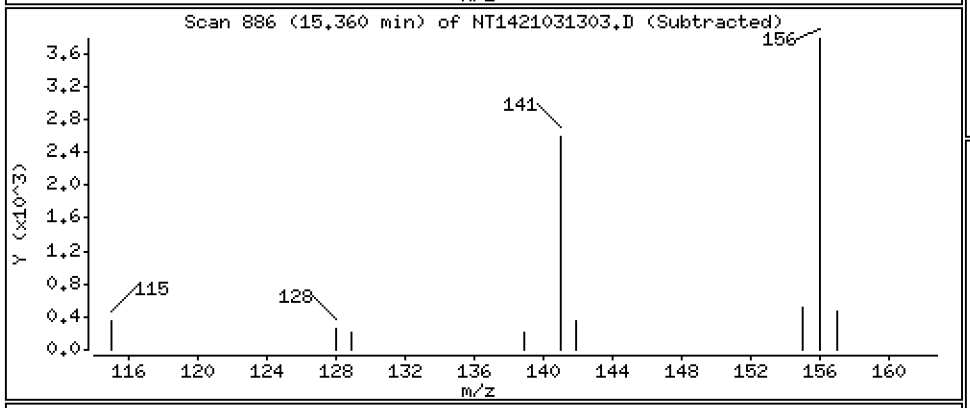
Column diameter: 0.25

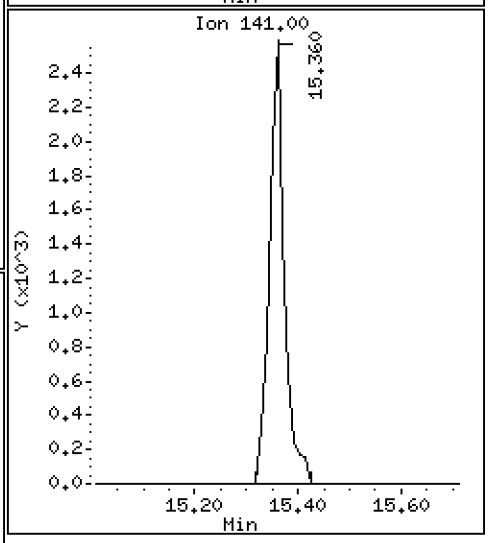
19 2,6-Dimethylnaphthalene

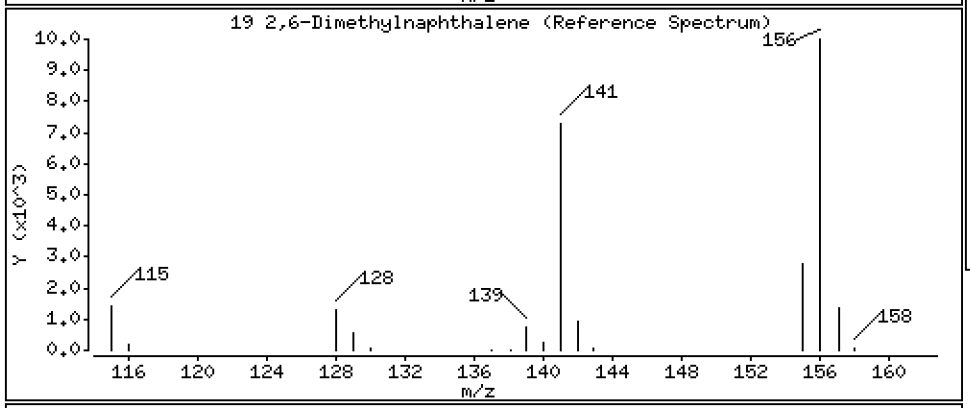
Concentration: 0.09793 ug/mL

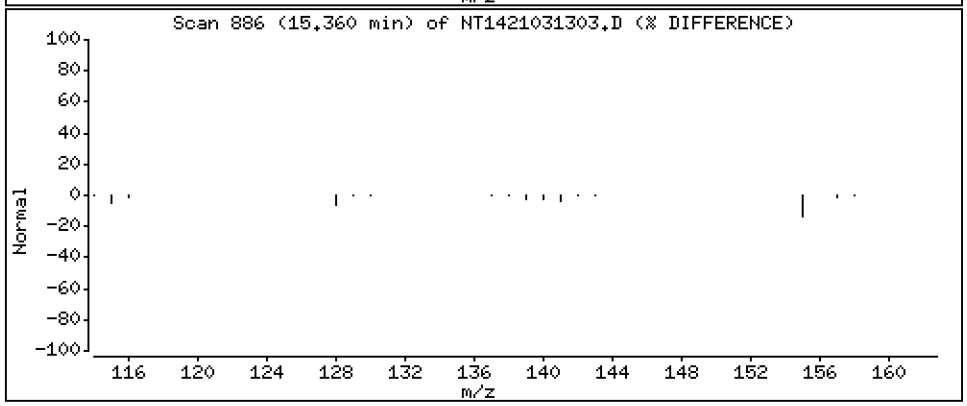












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Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

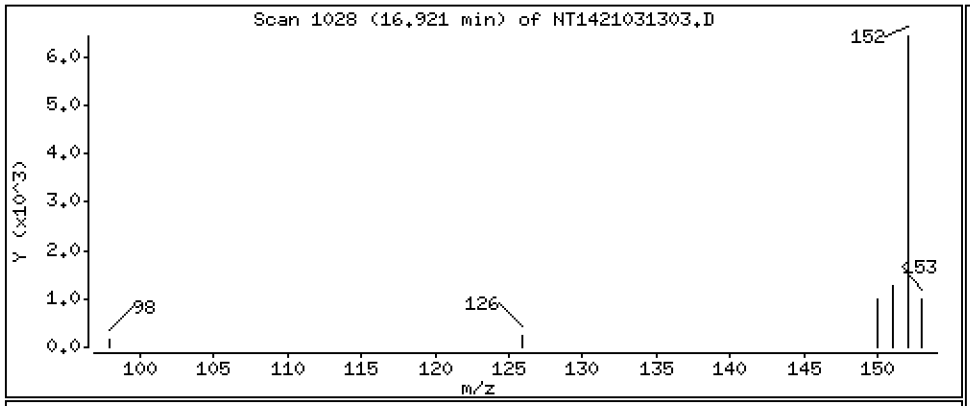
Operator: VTS

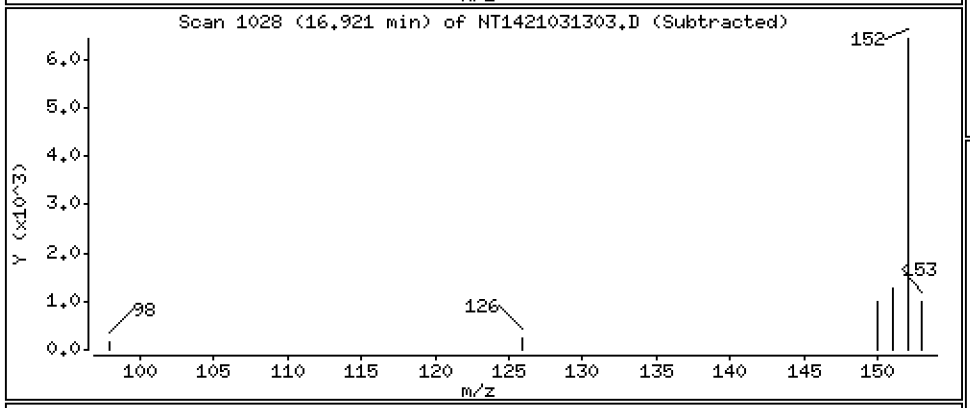
Column phase: Rxi-17Sil MS

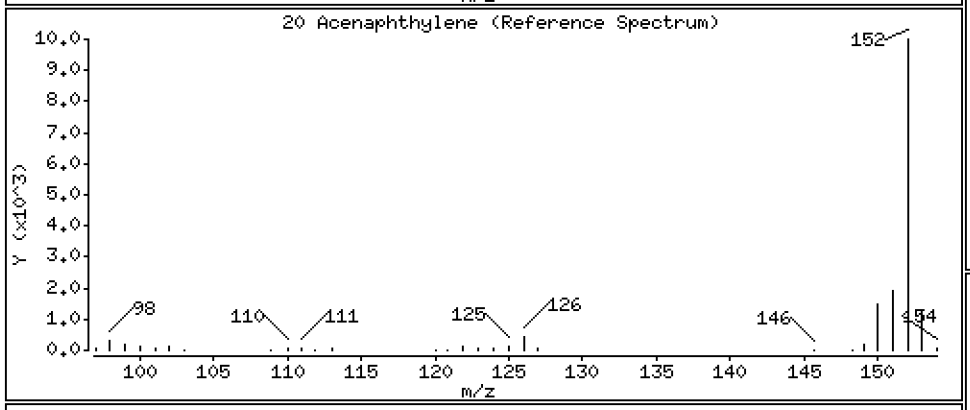
Column diameter: 0.25

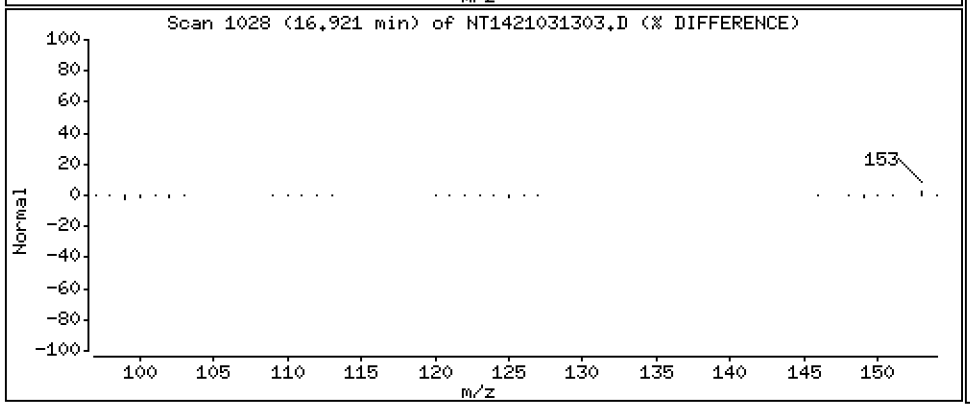
20 Acenaphthylene

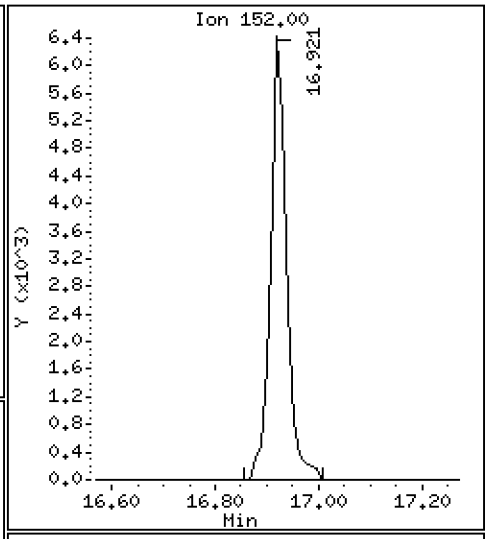
Concentration: 0.09506 ug/mL

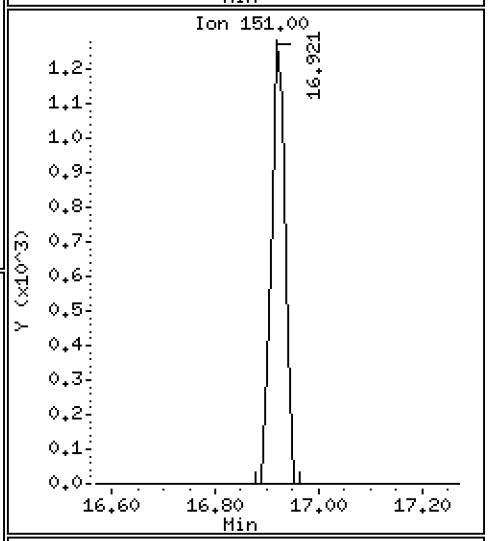


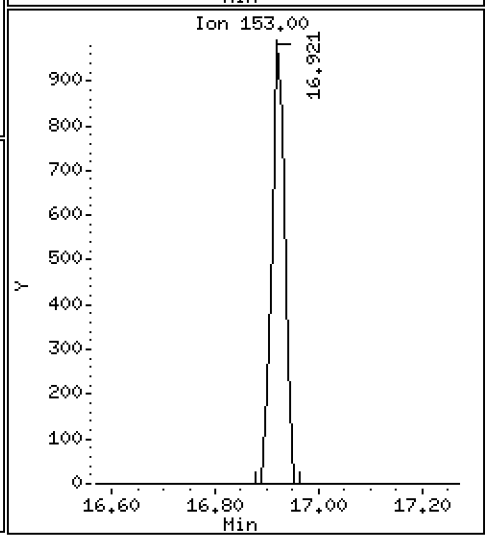












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Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

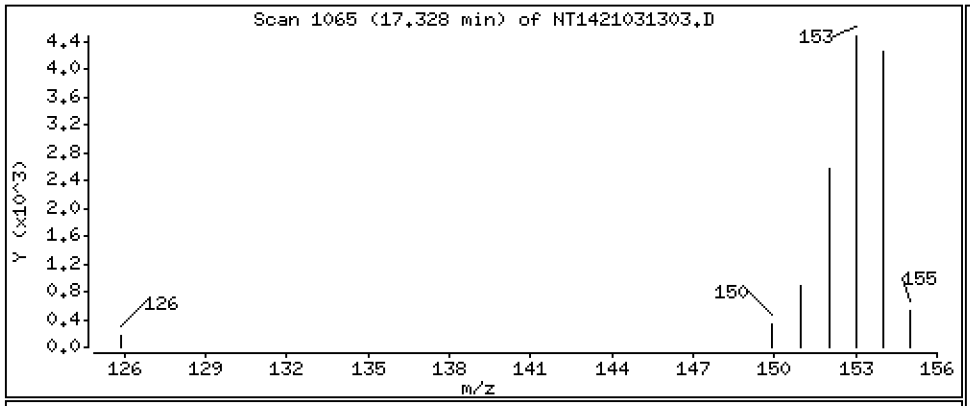
Operator: VTS

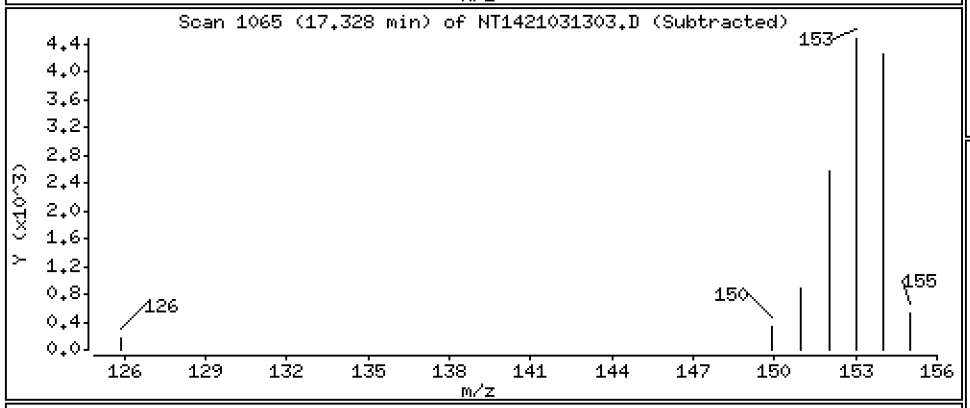
Column phase: Rxi-17Sil MS

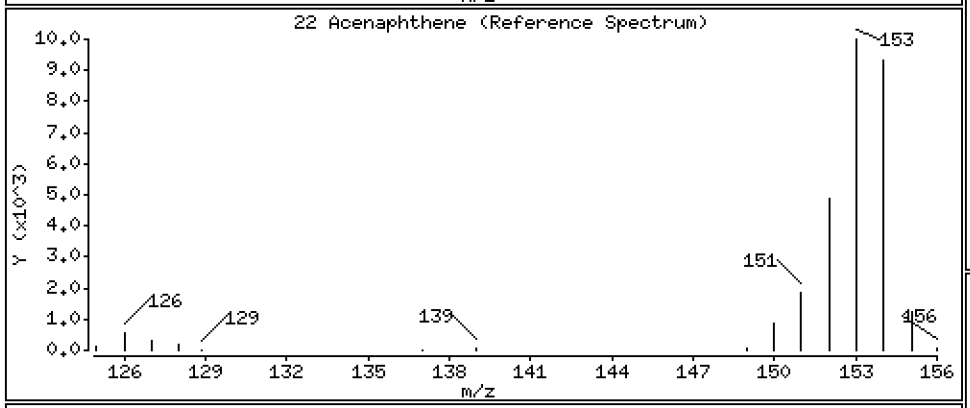
Column diameter: 0.25

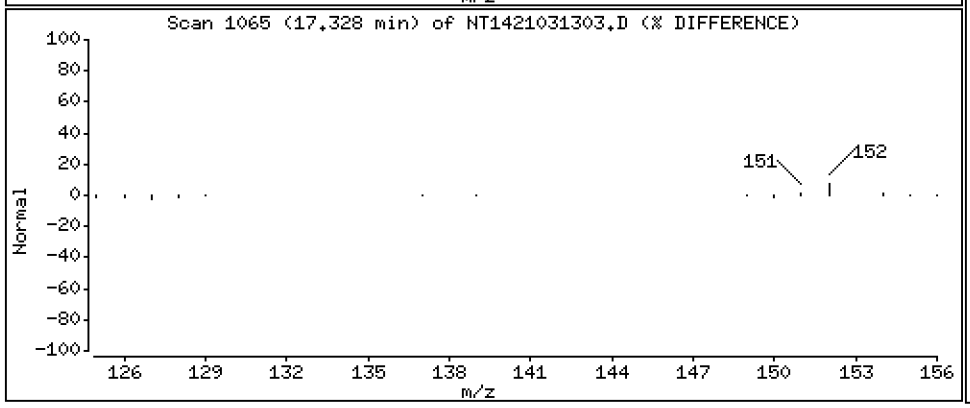
22 Acenaphthene

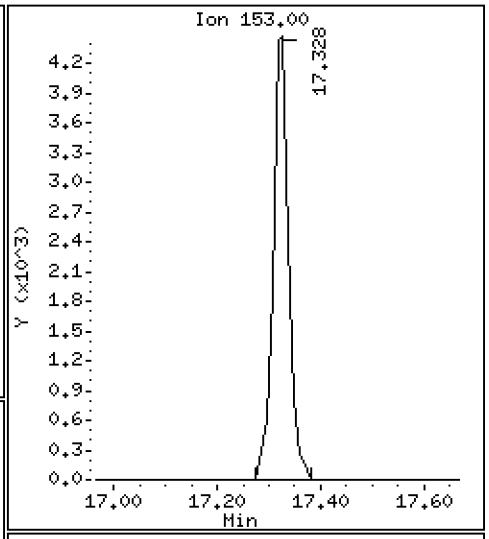
Concentration: 0.1012 ug/mL

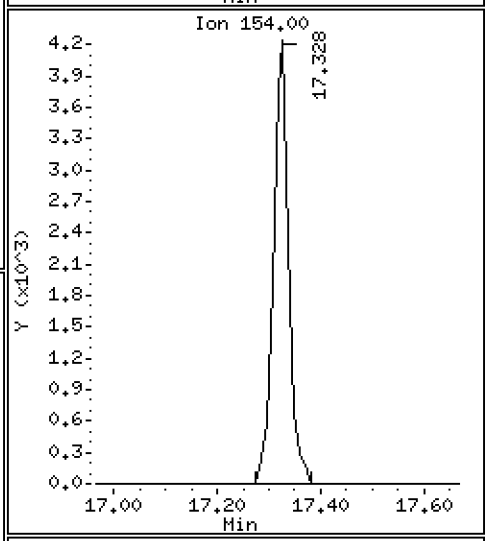


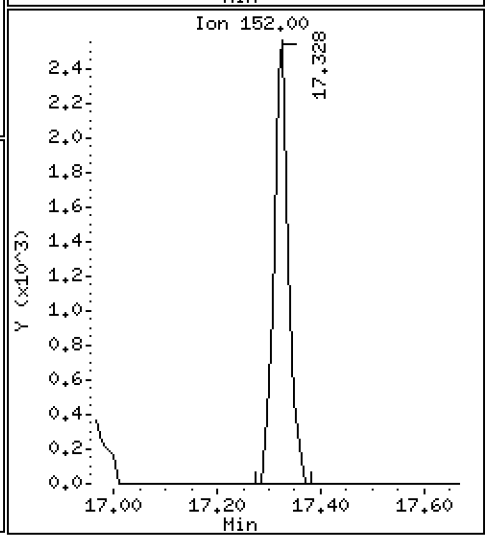












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031303.D

Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

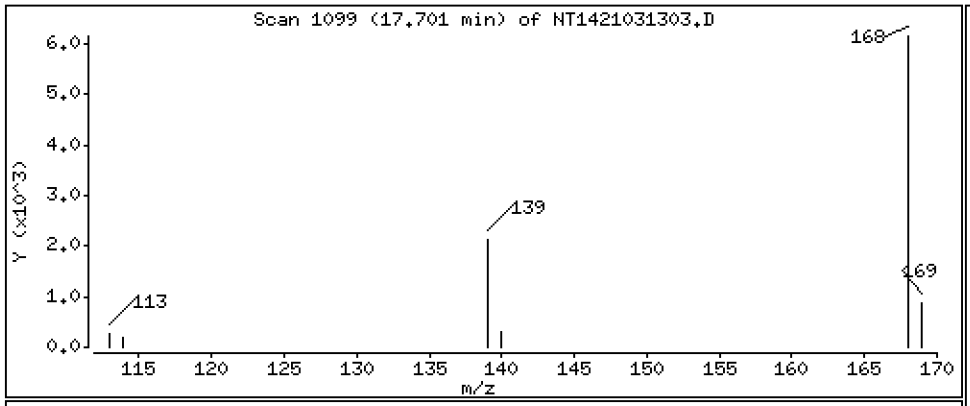
Operator: VTS

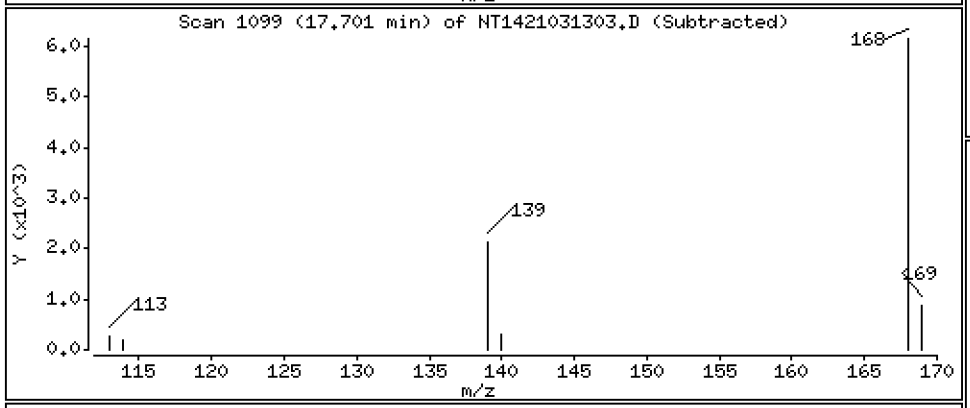
Column phase: Rxi-17Sil MS

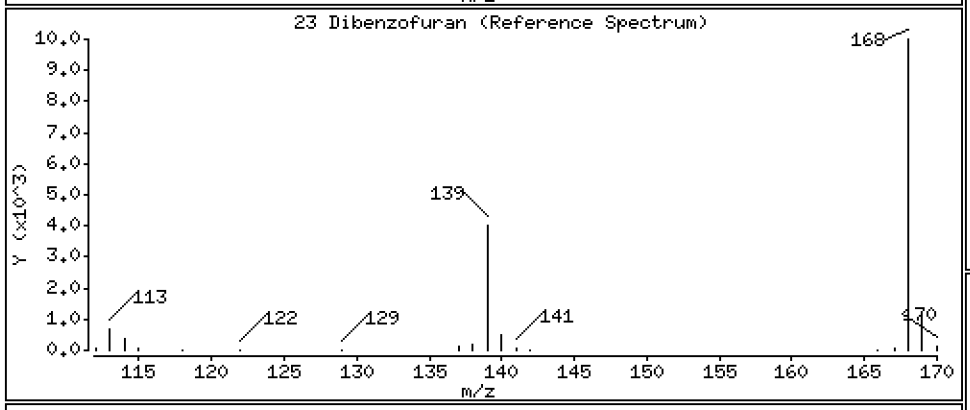
Column diameter: 0.25

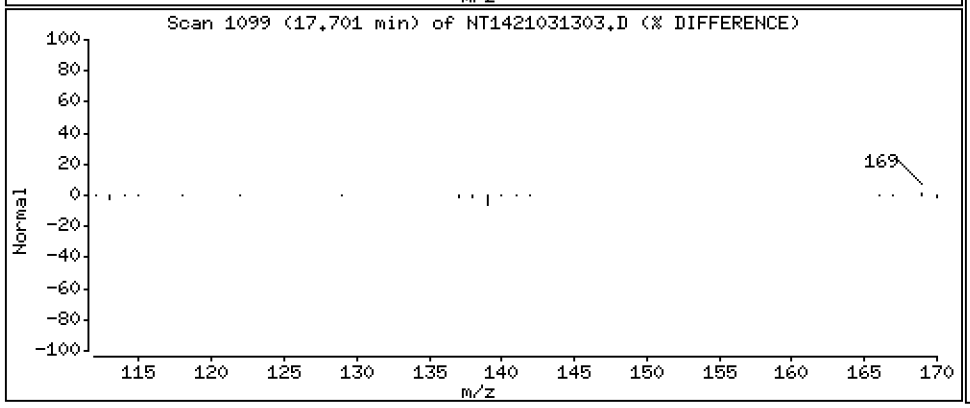
23 Dibenzofuran

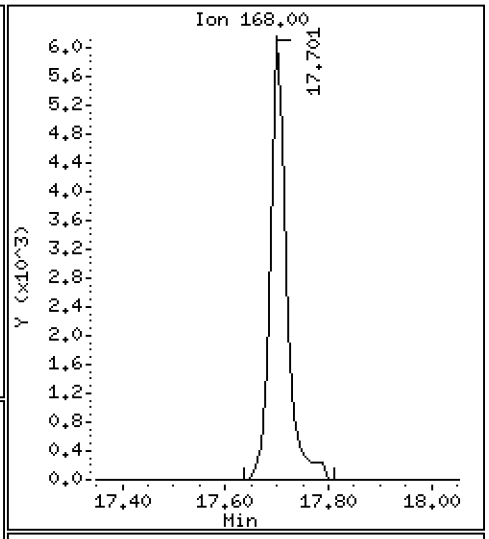
Concentration: 0.1013 ug/mL

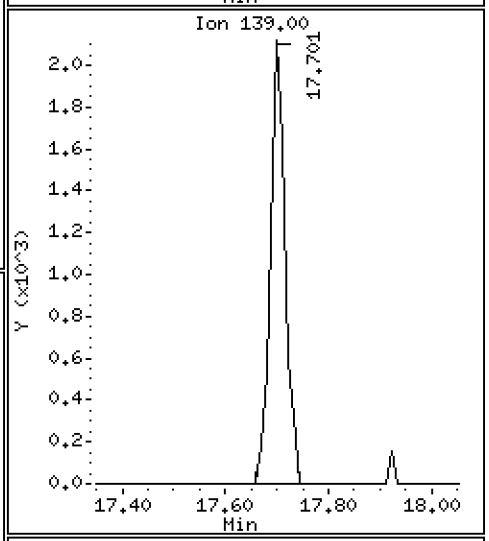


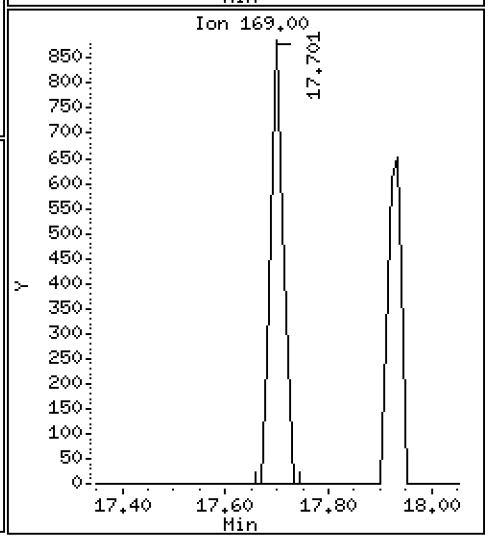












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031303.D

Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

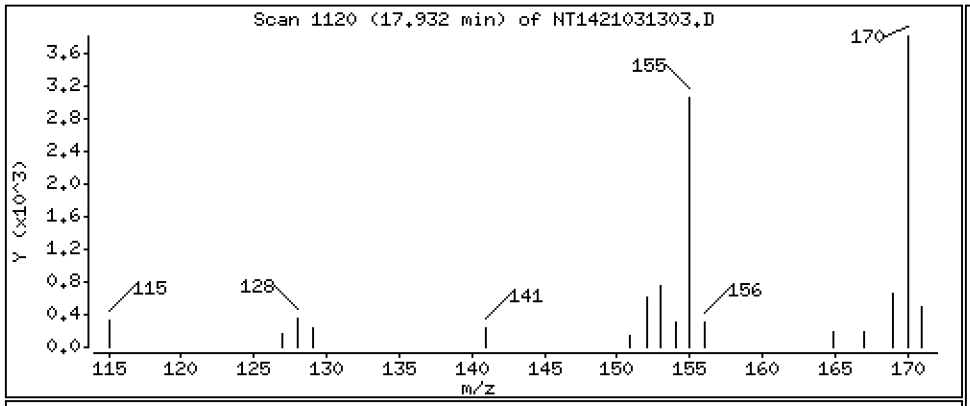
Operator: VTS

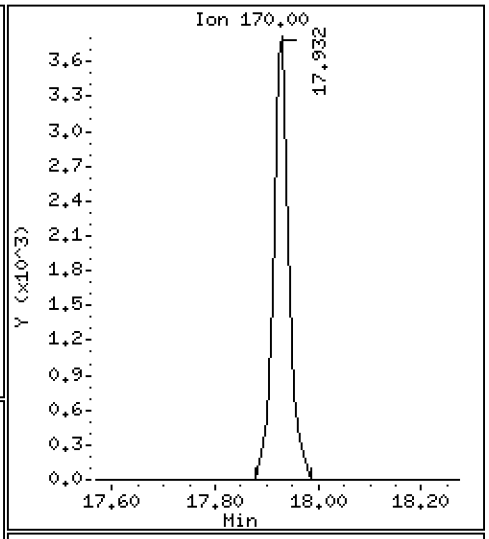
Column phase: Rxi-17Sil MS

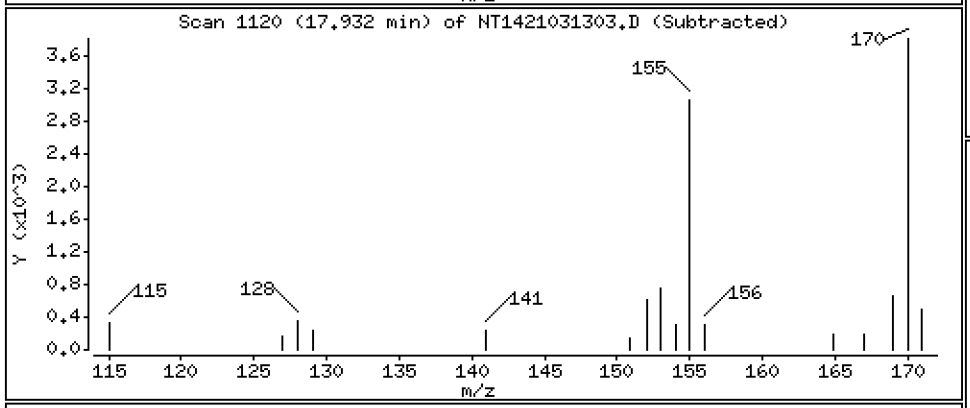
Column diameter: 0.25

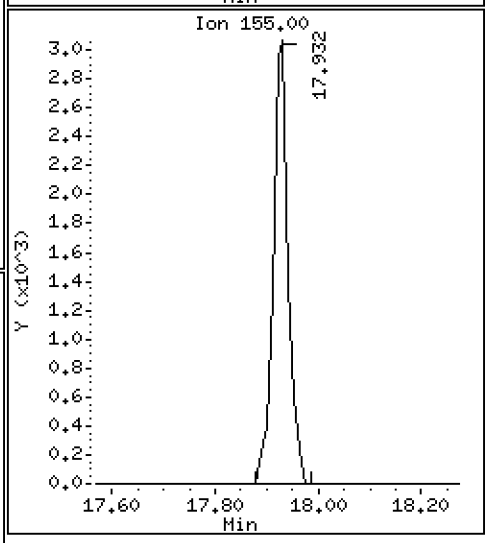
24 1,6,7-Trimethylnaphthalene

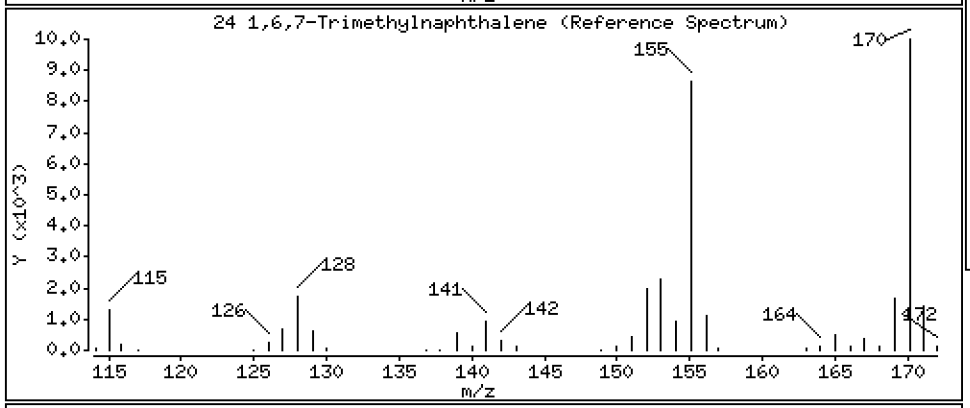
Concentration: 0.09399 ug/mL

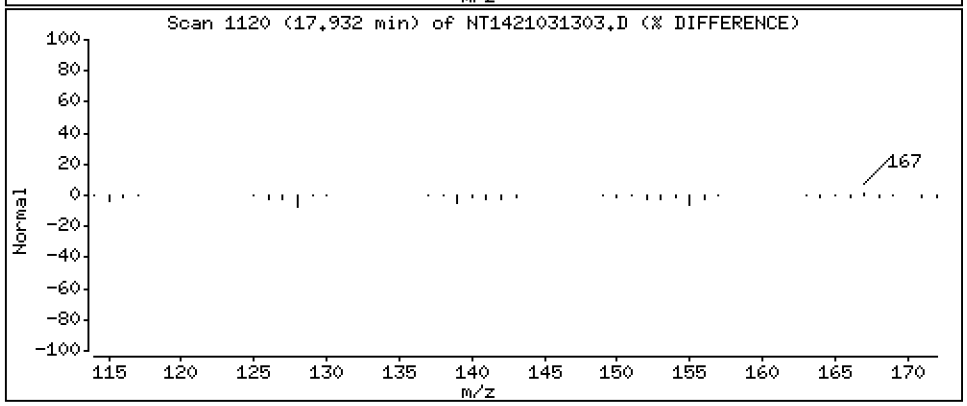












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031303.D

Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

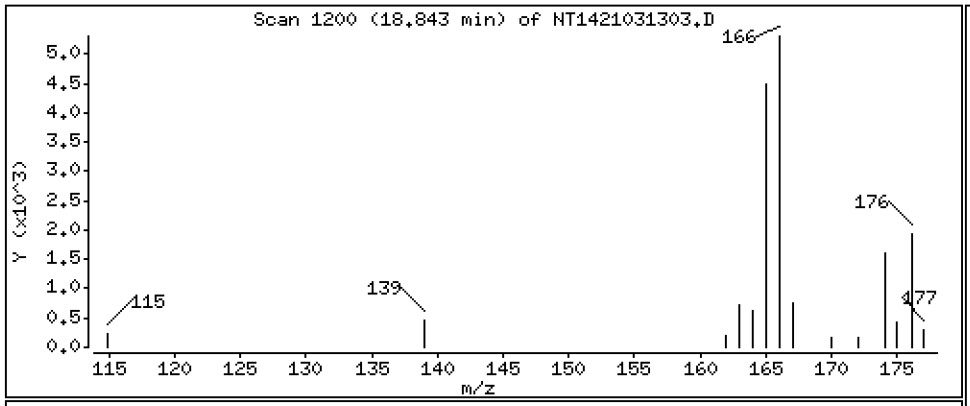
Operator: VTS

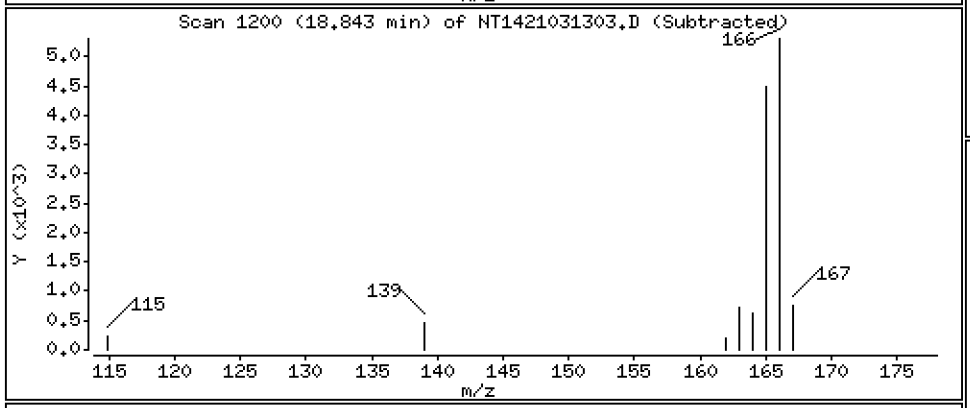
Column phase: Rxi-17Sil MS

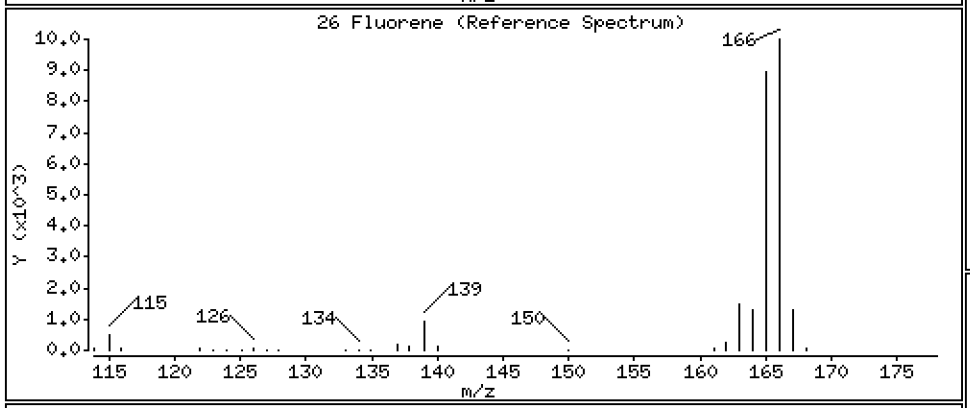
Column diameter: 0.25

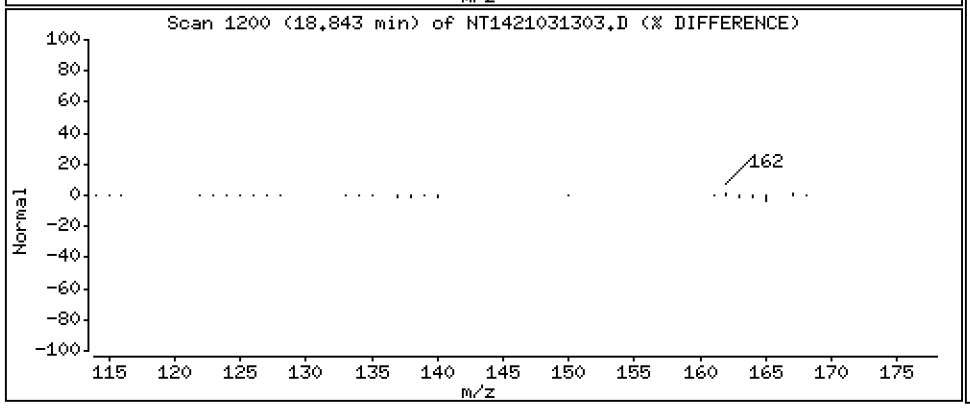
26 Fluorene

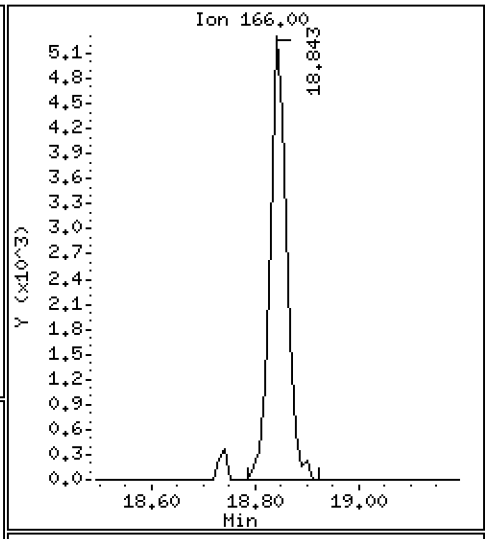
Concentration: 0.1062 ug/mL

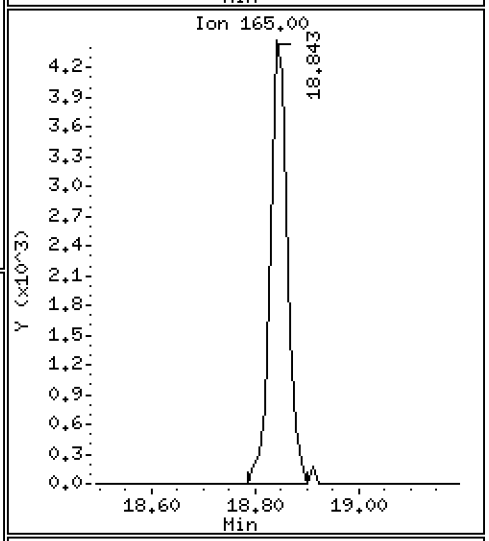


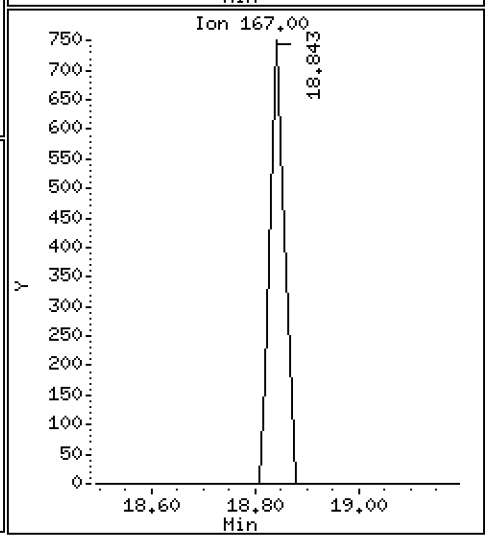












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Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

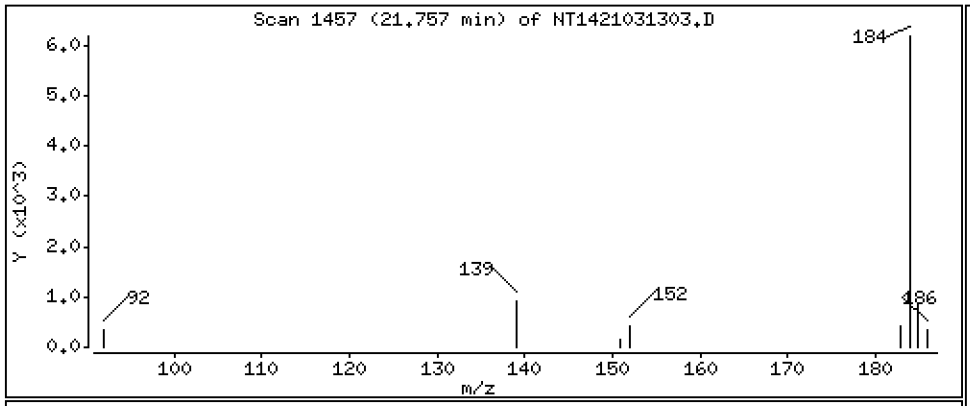
Operator: VTS

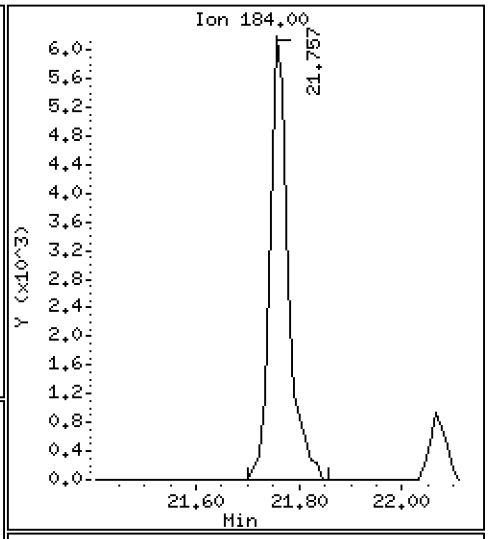
Column phase: Rxi-17Sil MS

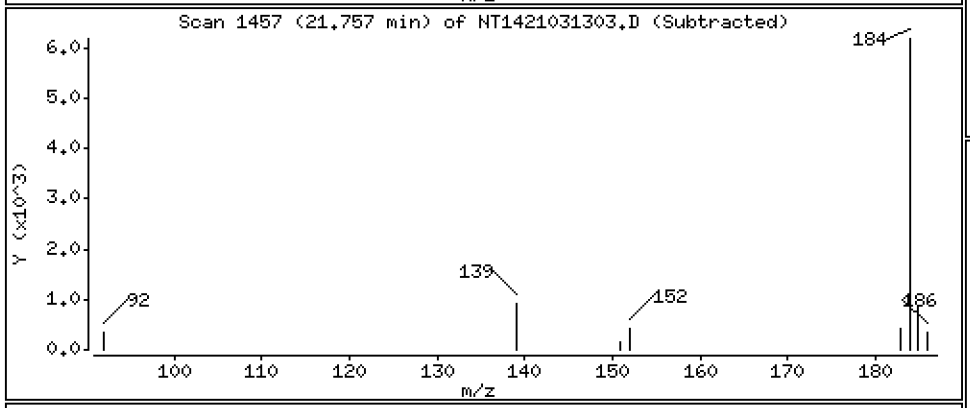
Column diameter: 0.25

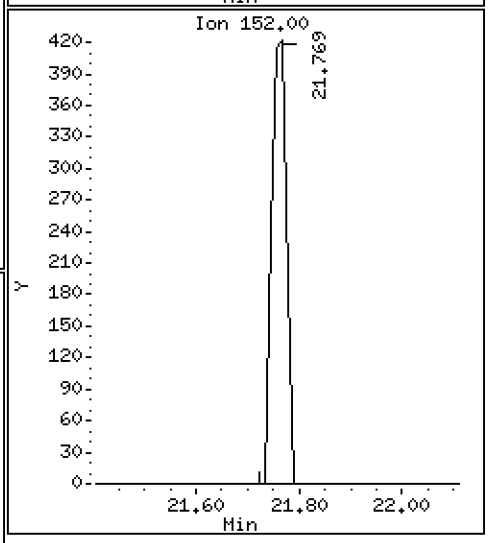
30 Dibenzothiophene

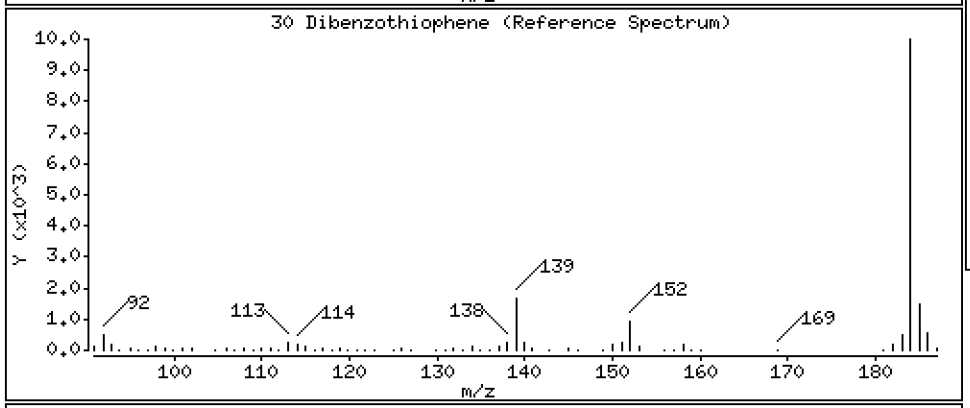
Concentration: 0.1139 ug/mL

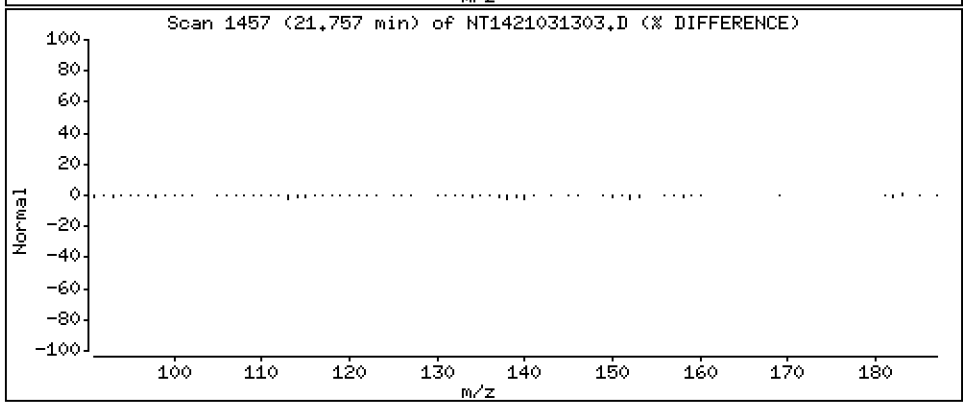












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031303.D

Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

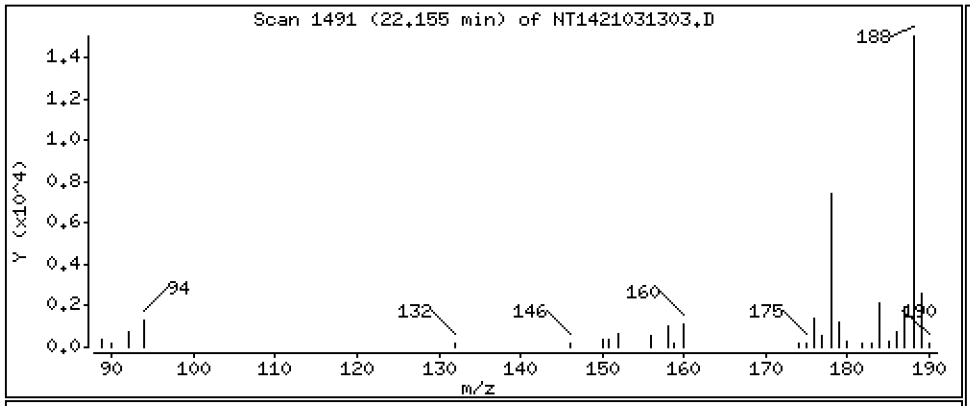
Operator: VTS

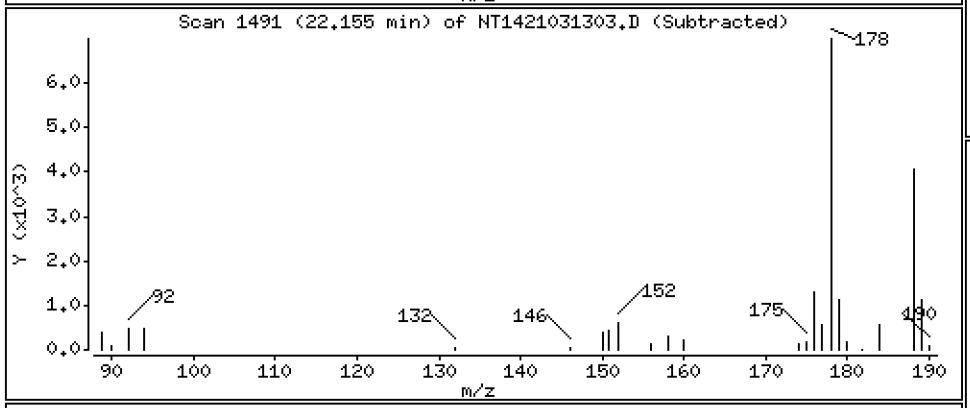
Column phase: Rxi-17Sil MS

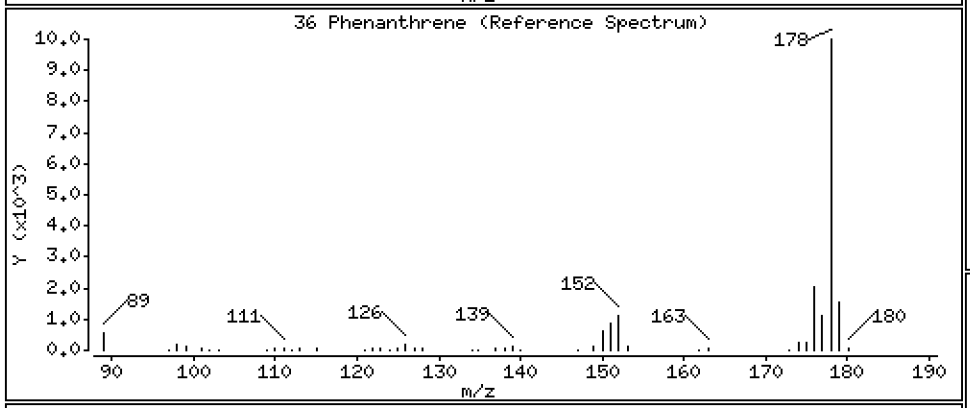
Column diameter: 0.25

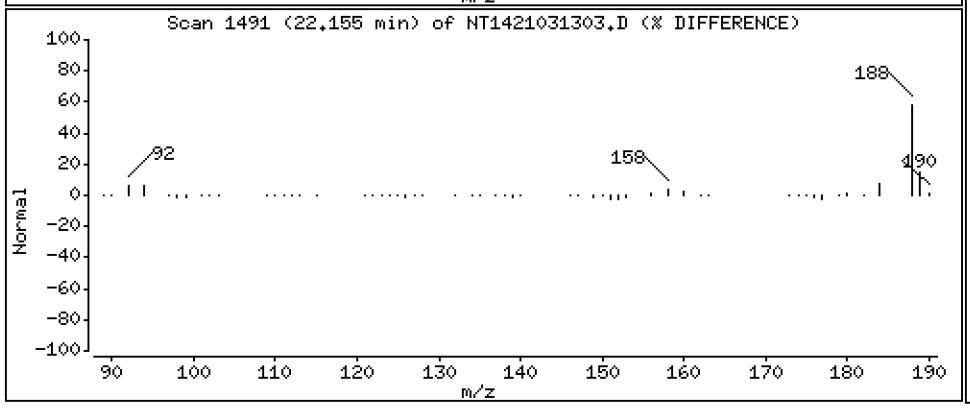
36 Phenanthrene

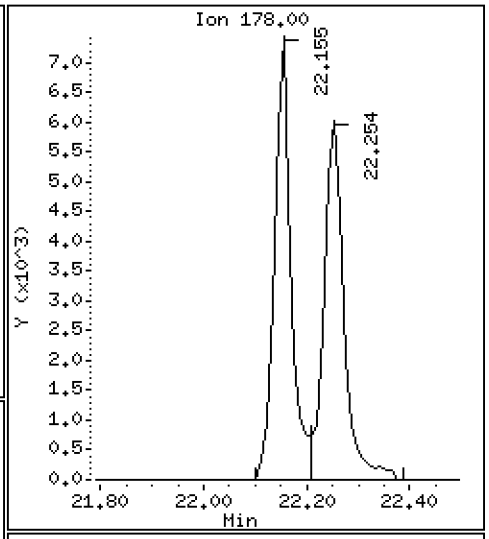
Concentration: 0.1020 ug/mL

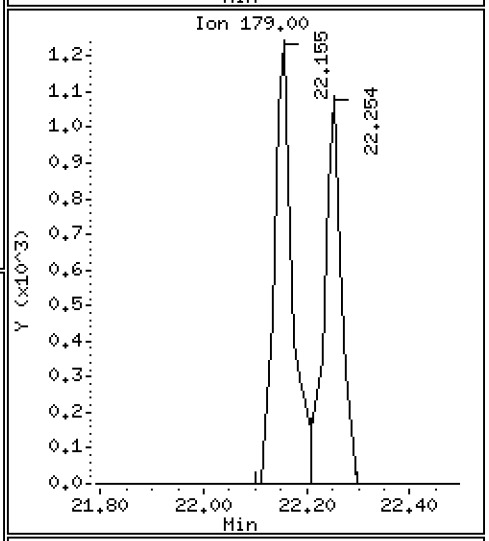


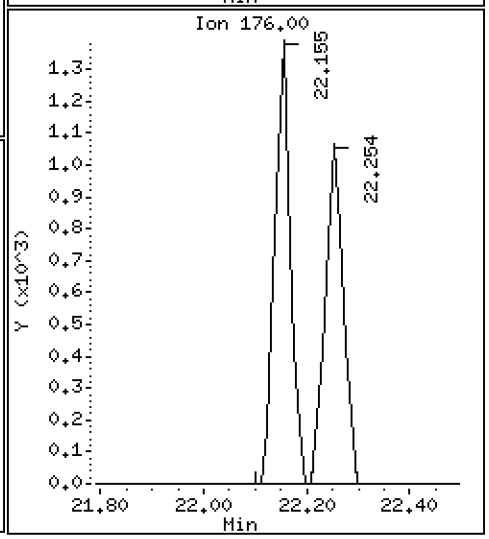












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031303.D

Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

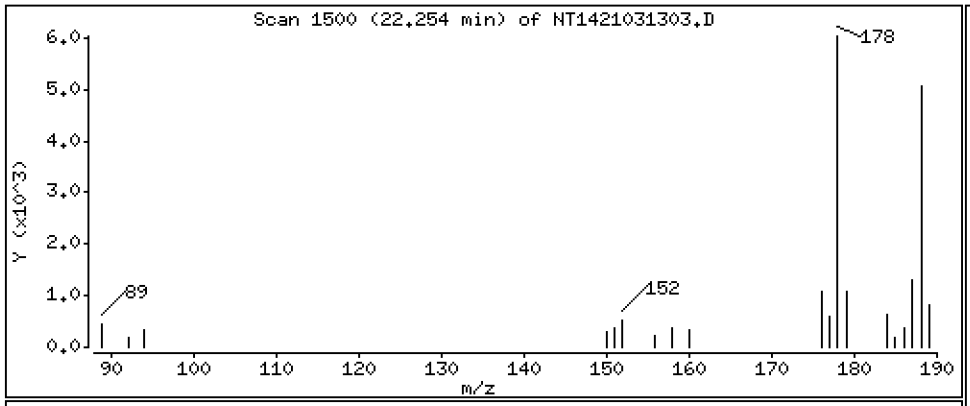
Operator: VTS

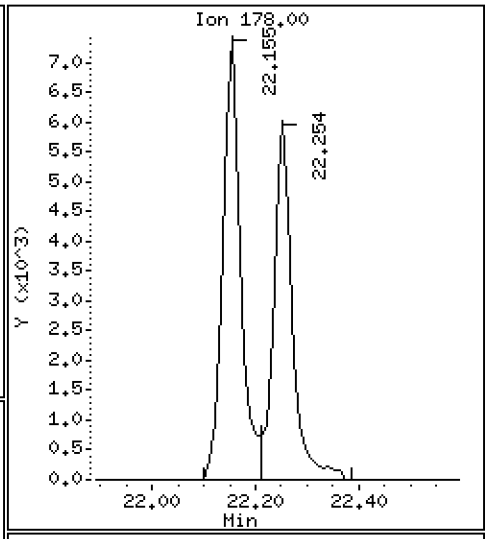
Column phase: Rxi-17Sil MS

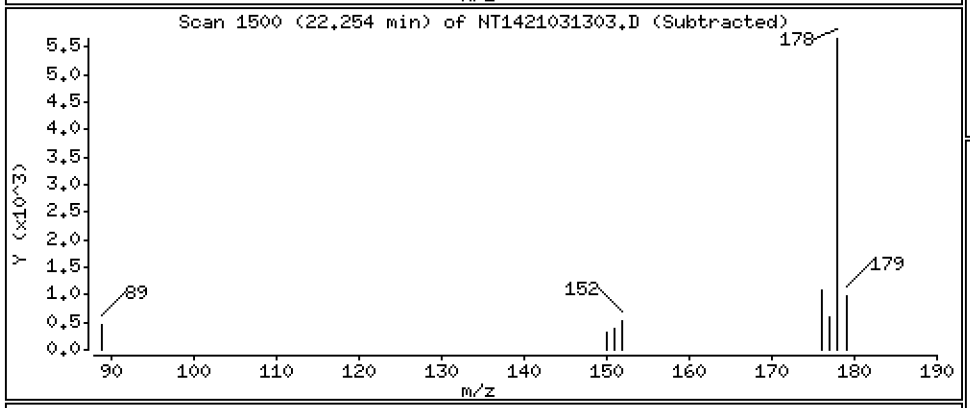
Column diameter: 0.25

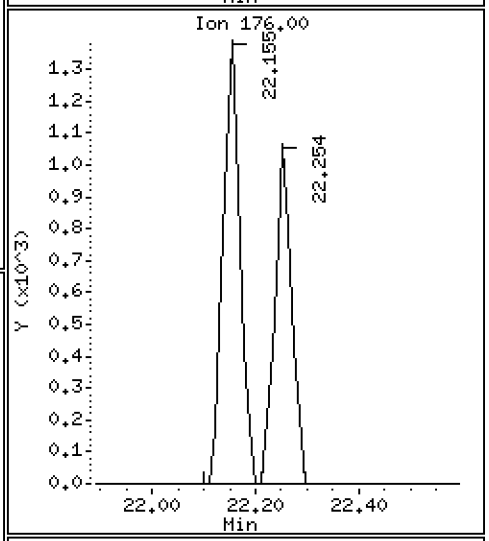
37 Anthracene

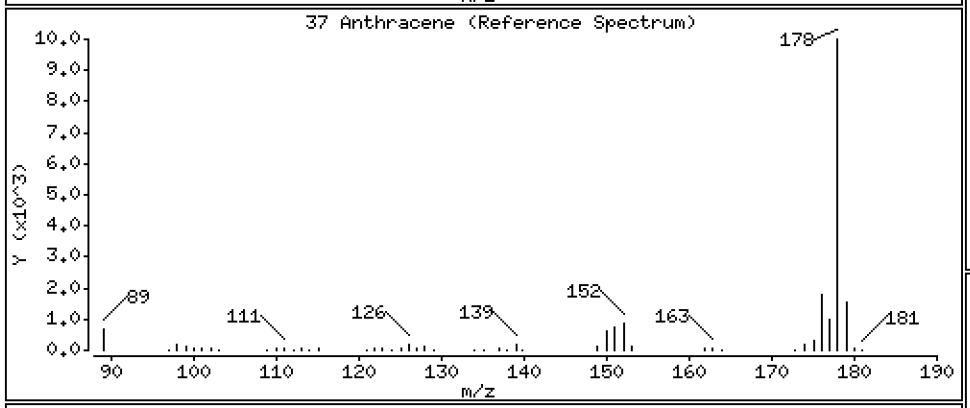
Concentration: 0.1003 ug/mL

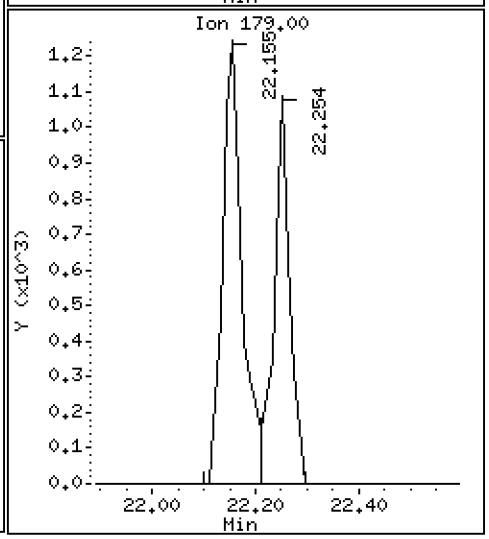


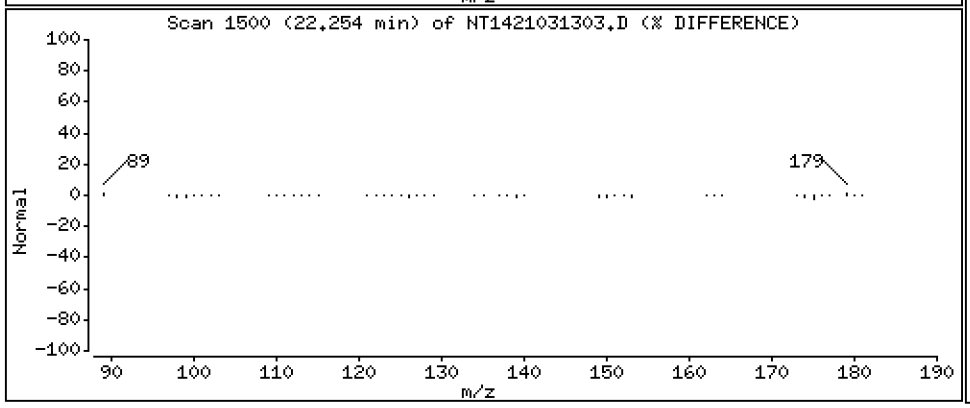












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031303.D

Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

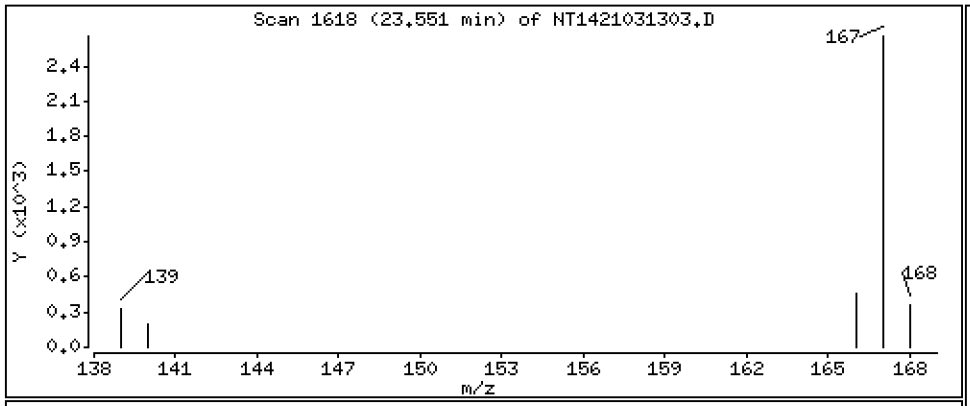
Operator: VTS

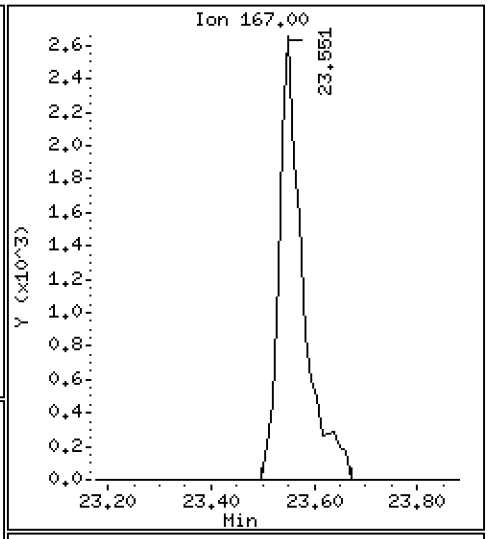
Column phase: Rxi-17Sil MS

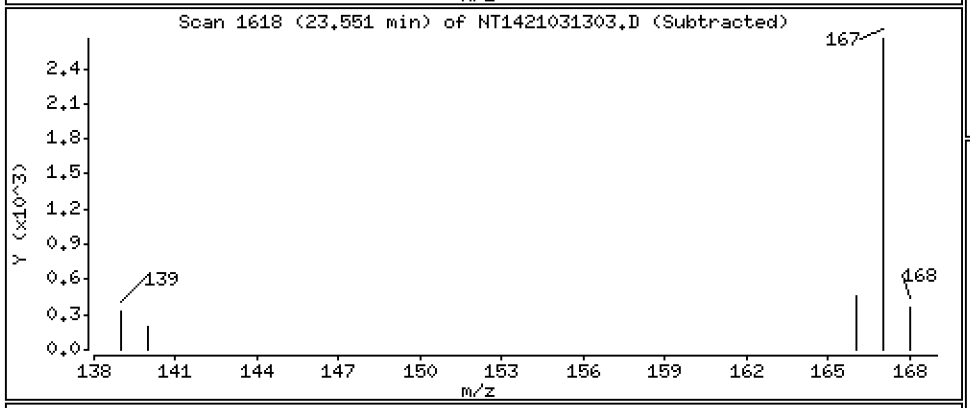
Column diameter: 0.25

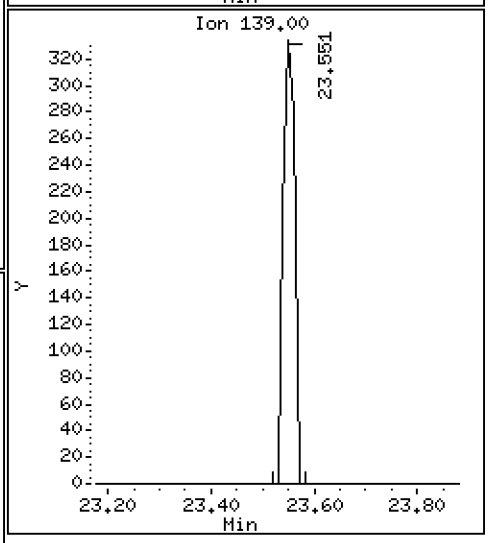
42 Carbazole

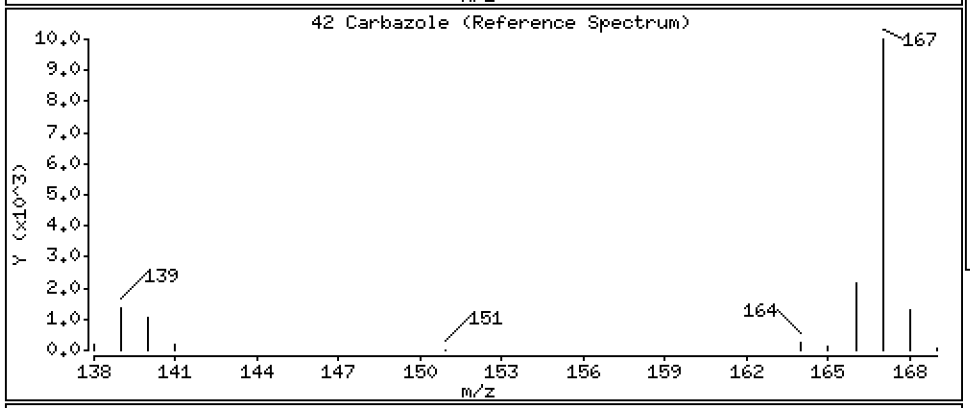
Concentration: 0.06466 ug/mL

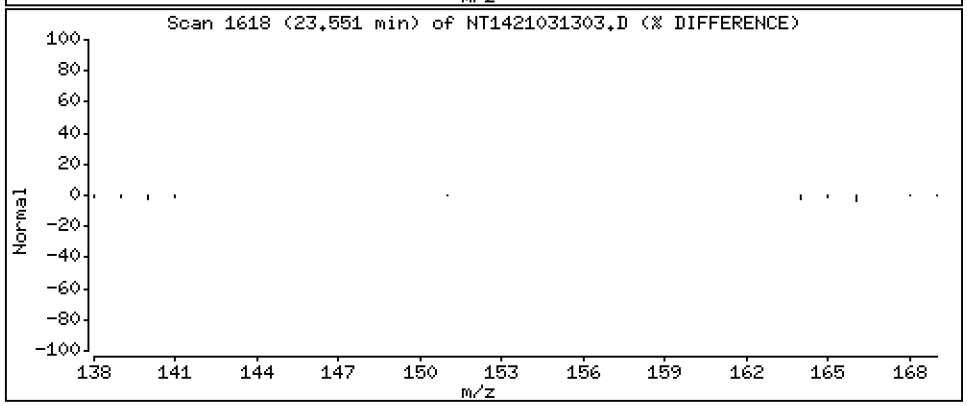












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031303.D

Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

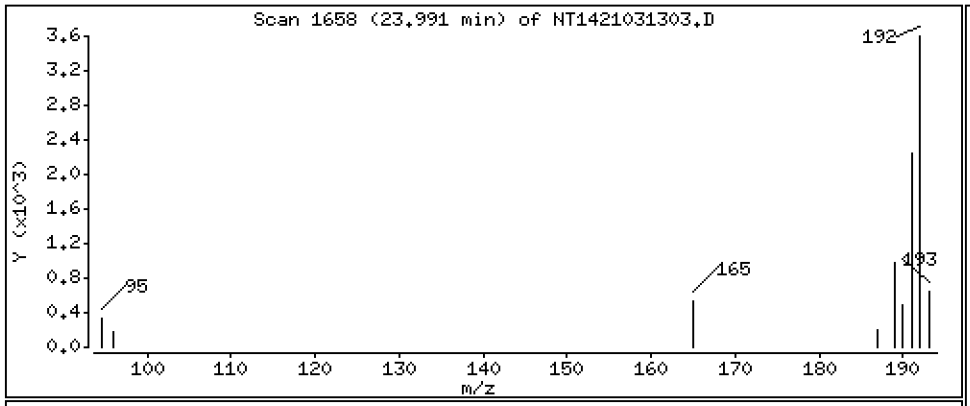
Operator: VTS

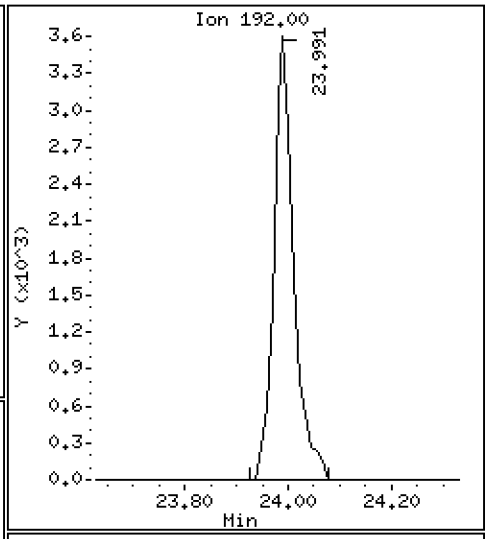
Column phase: Rxi-17Sil MS

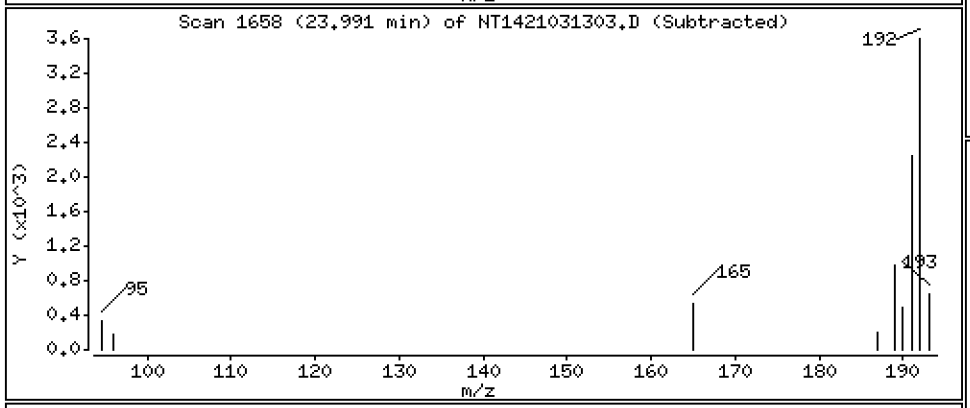
Column diameter: 0.25

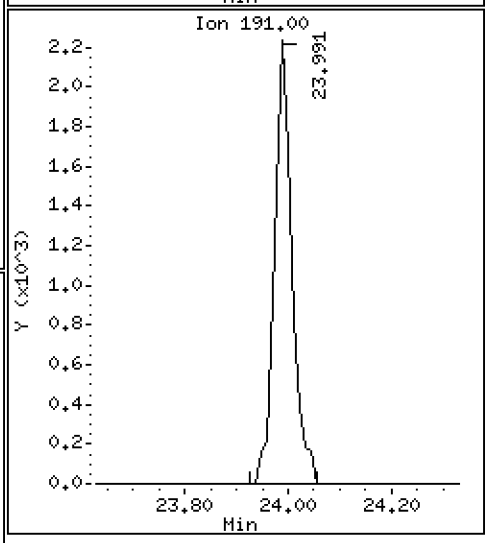
43 1-Methylphenanthrene

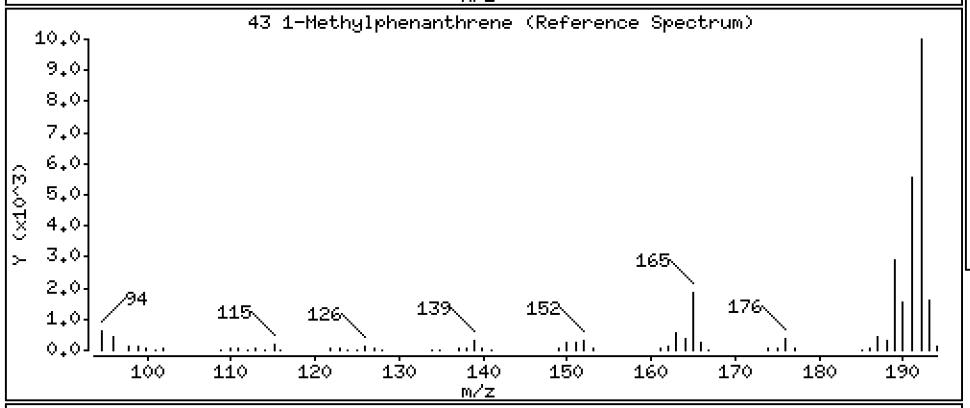
Concentration: 0.08206 ug/mL

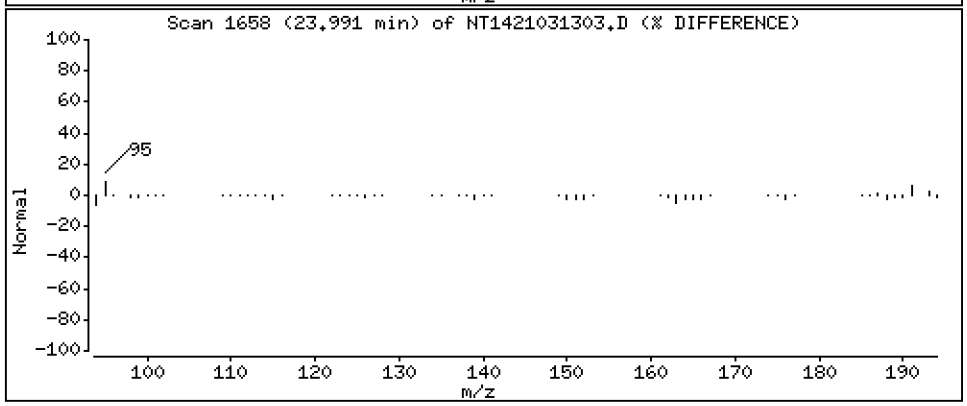












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031303.D

Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

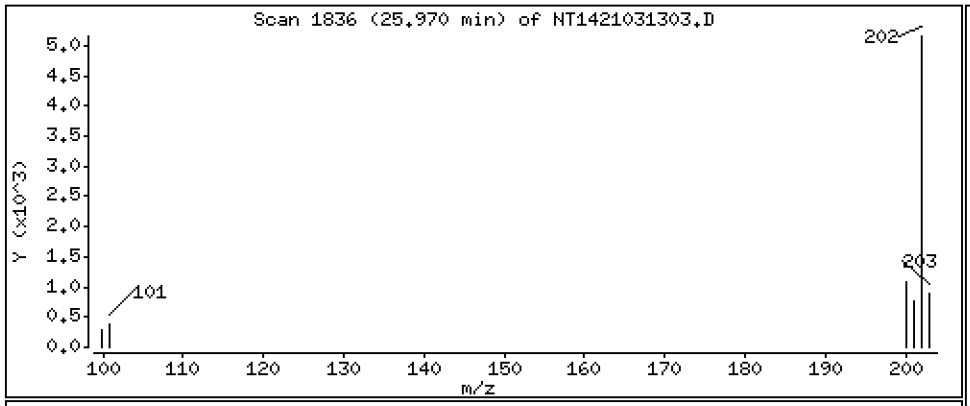
Operator: VTS

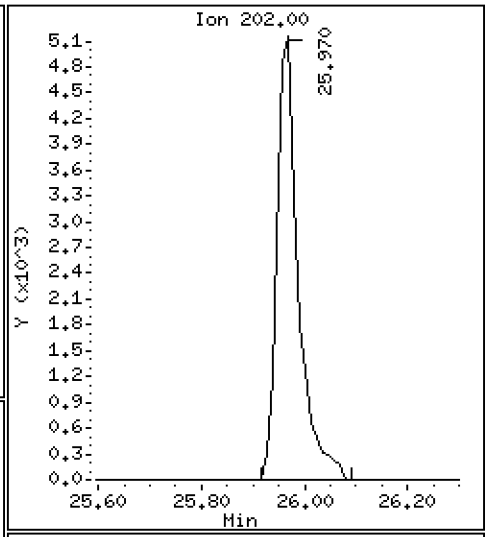
Column phase: Rxi-17Sil MS

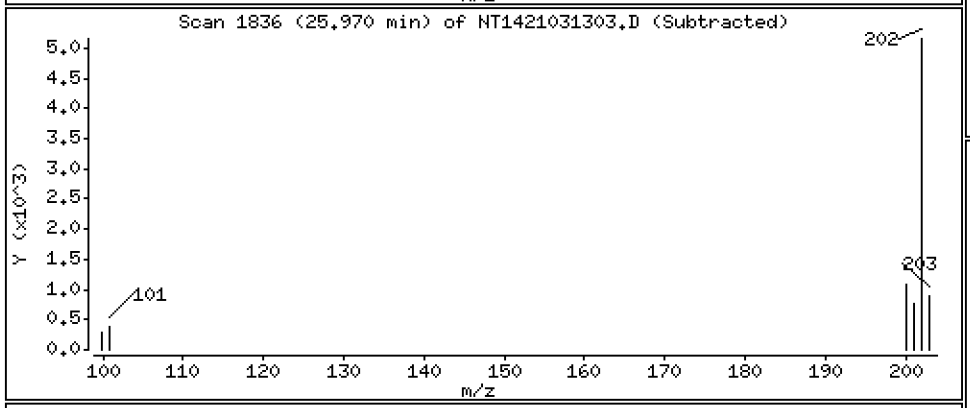
Column diameter: 0.25

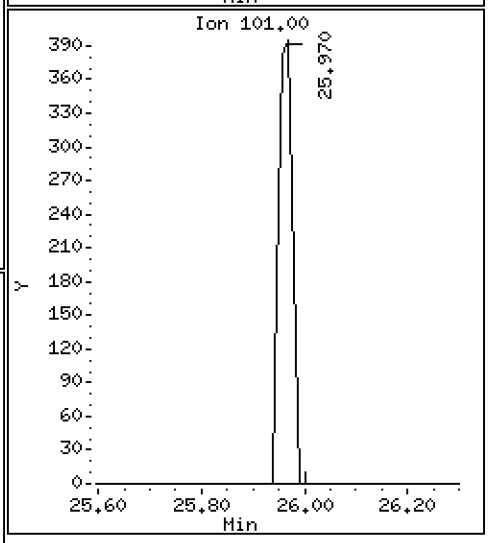
44 Fluoranthene

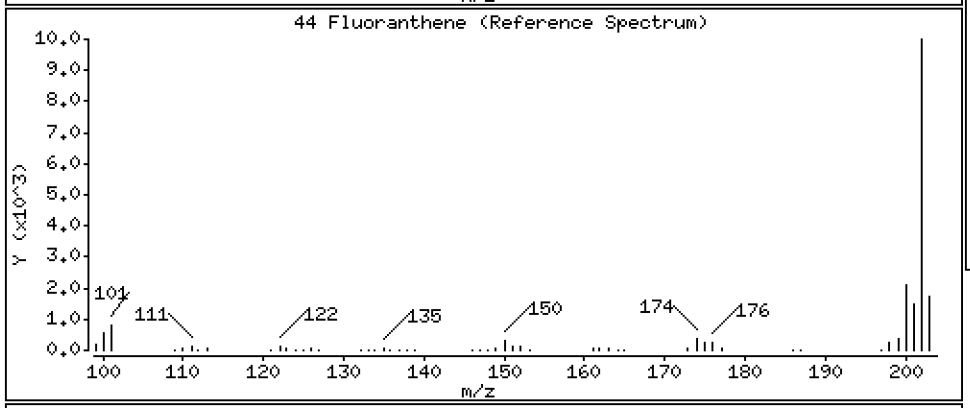
Concentration: 0.07884 ug/mL

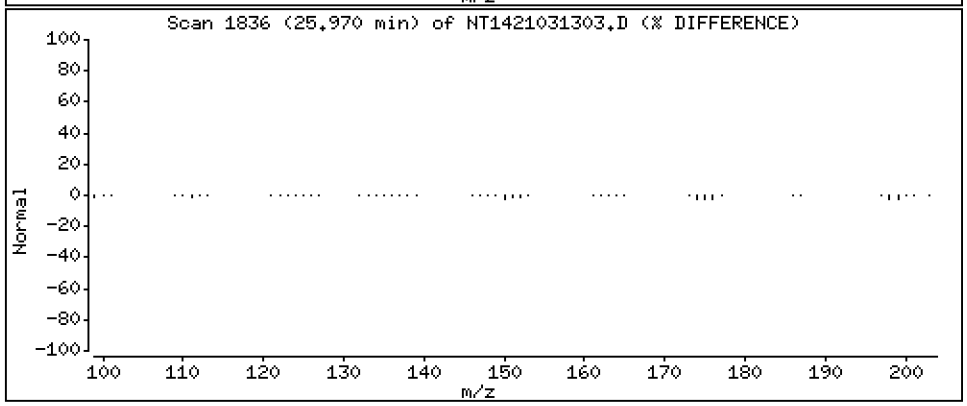












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031303.D

Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

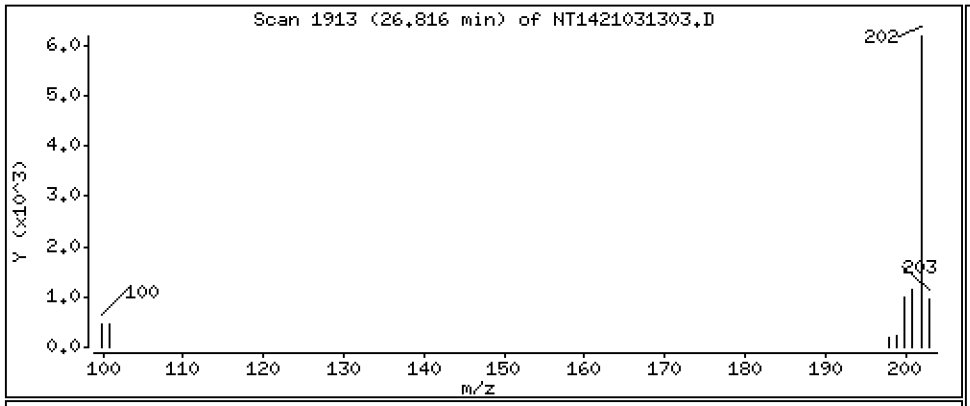
Operator: VTS

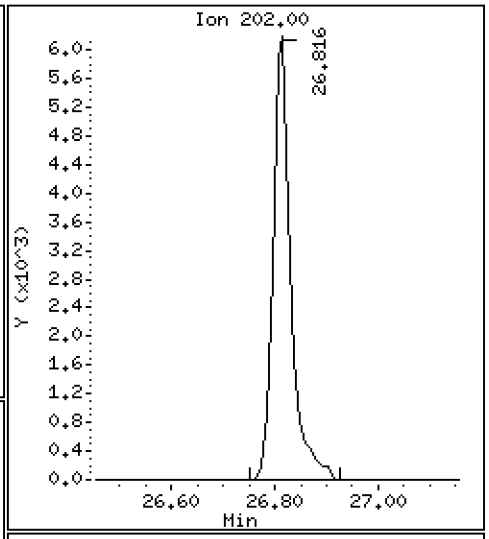
Column phase: Rxi-17Sil MS

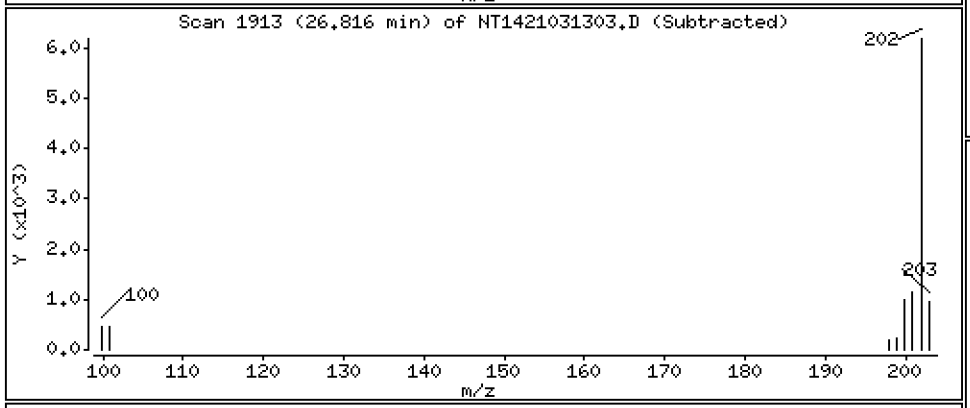
Column diameter: 0.25

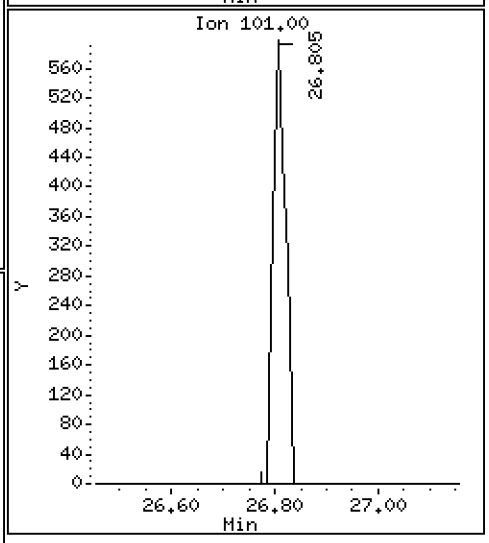
46 Pyrene

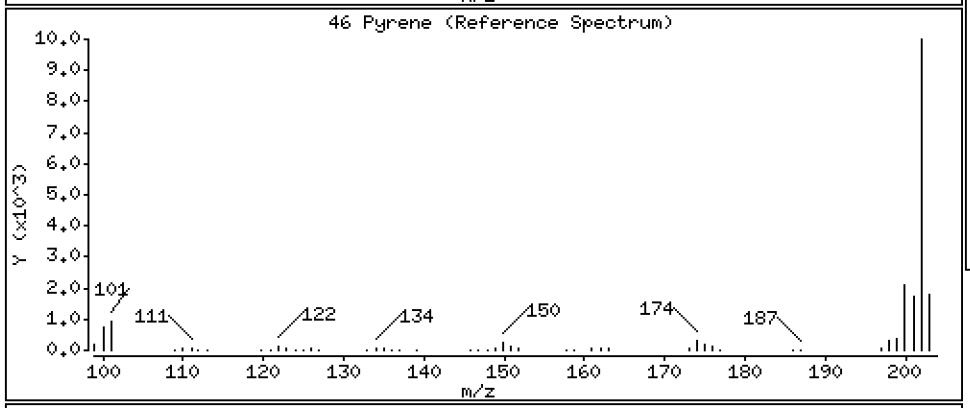
Concentration: 0.07867 ug/mL

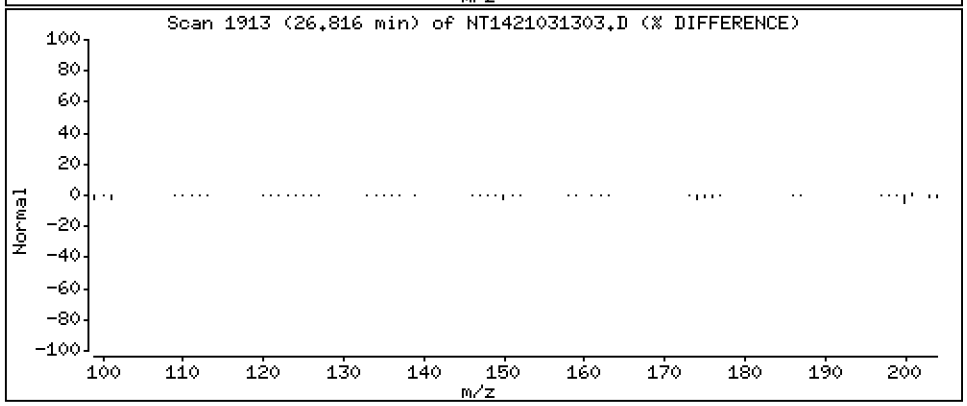












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Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

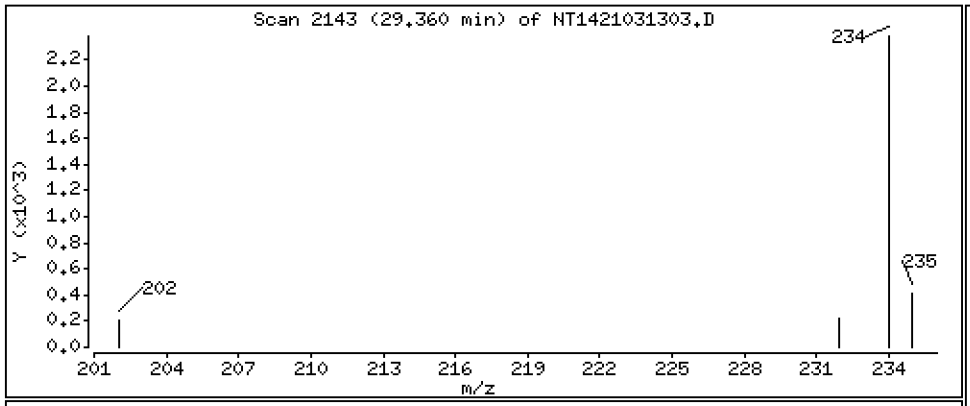
Operator: VTS

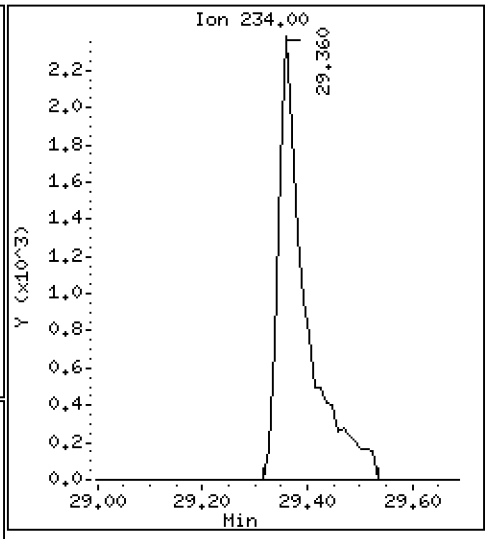
Column phase: Rxi-17Sil MS

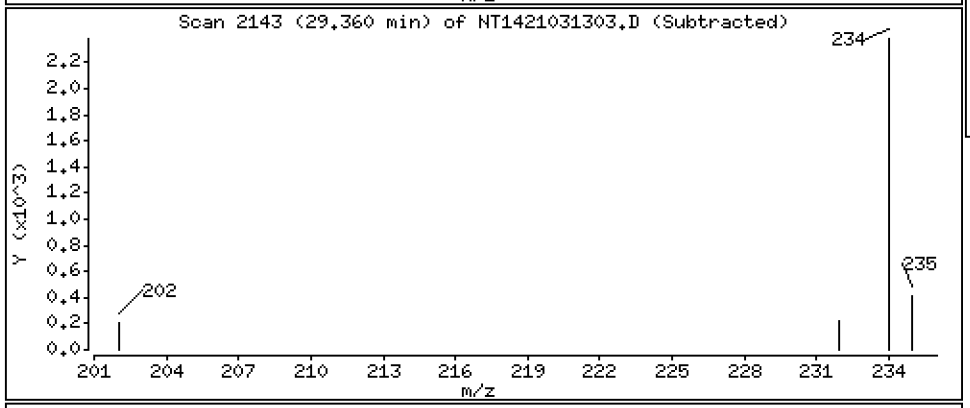
Column diameter: 0.25

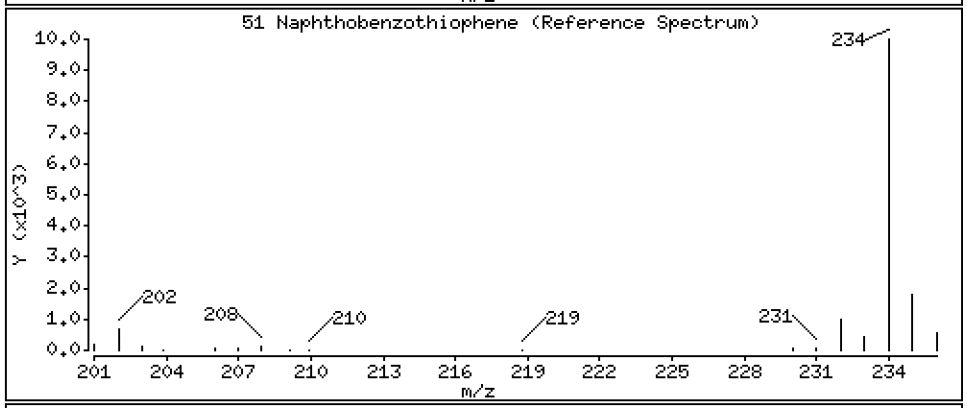
51 Naphthobenzothiophene

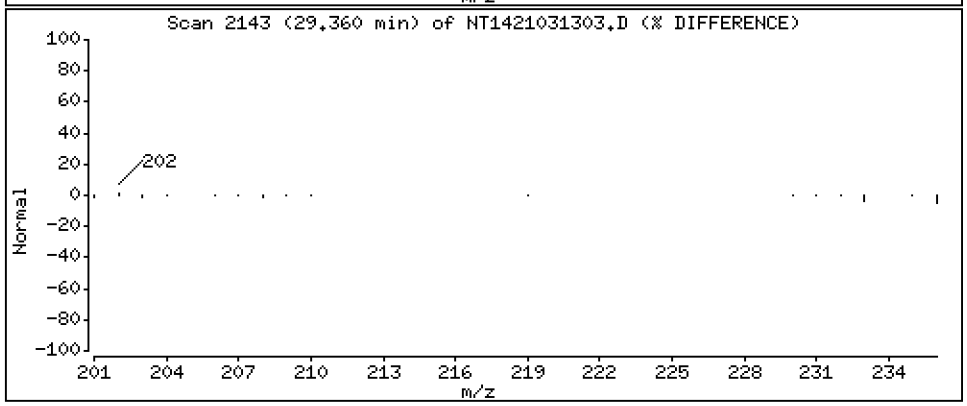
Concentration: 0.06039 ug/mL











Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031303.D

Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

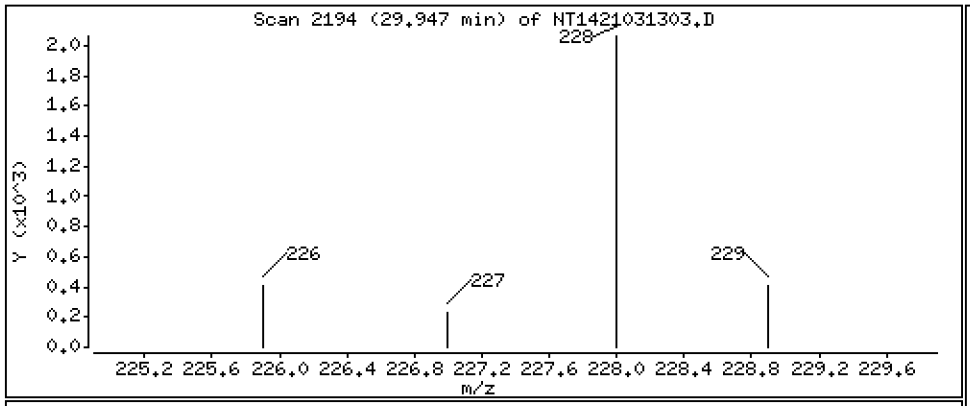
Operator: VTS

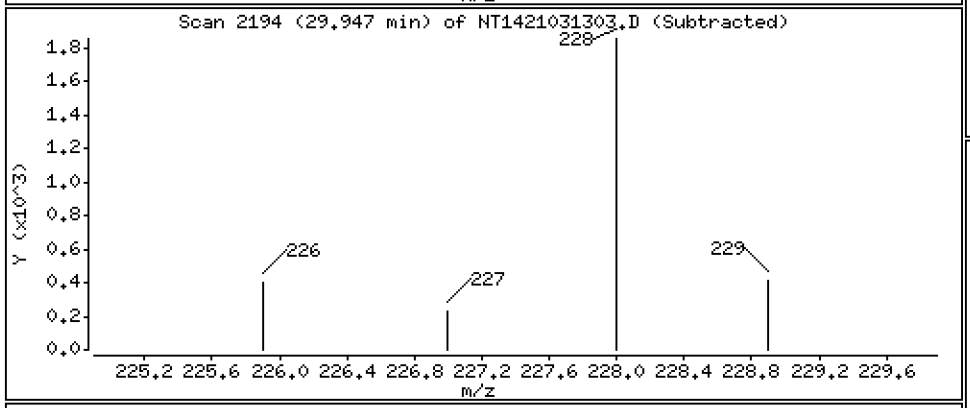
Column phase: Rxi-17Sil MS

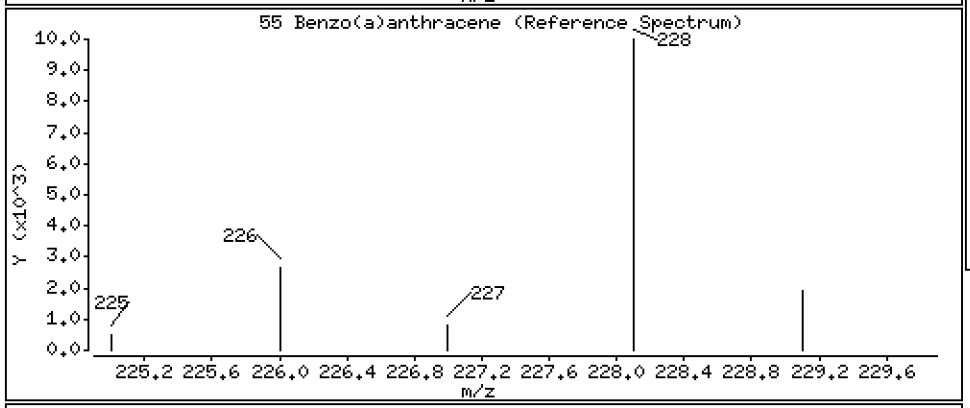
Column diameter: 0.25

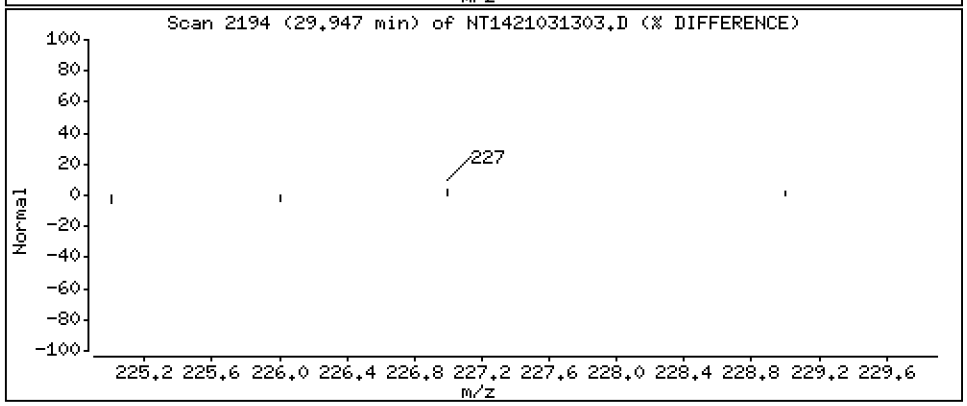
55 Benzo(a)anthracene

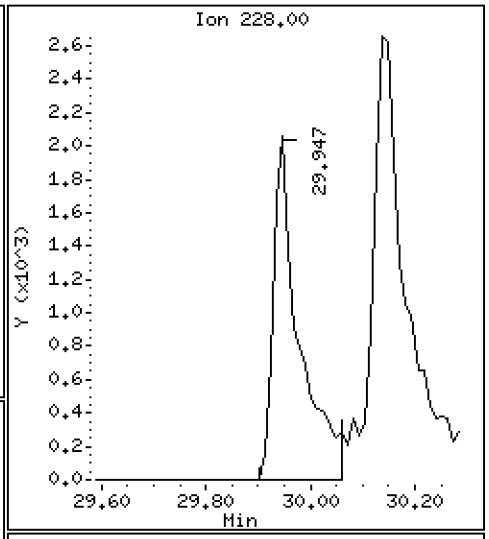
Concentration: 0.04540 ug/mL

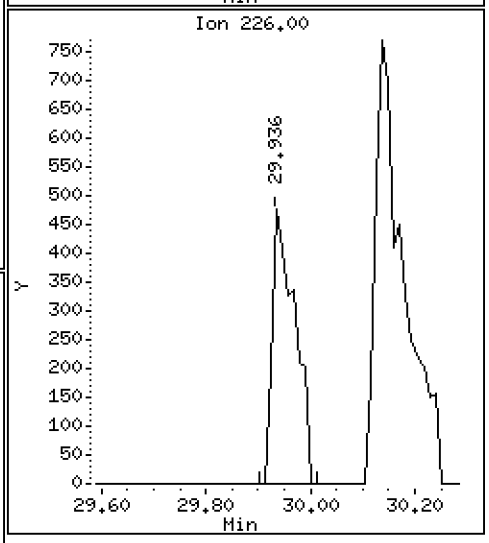












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031303.D

Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

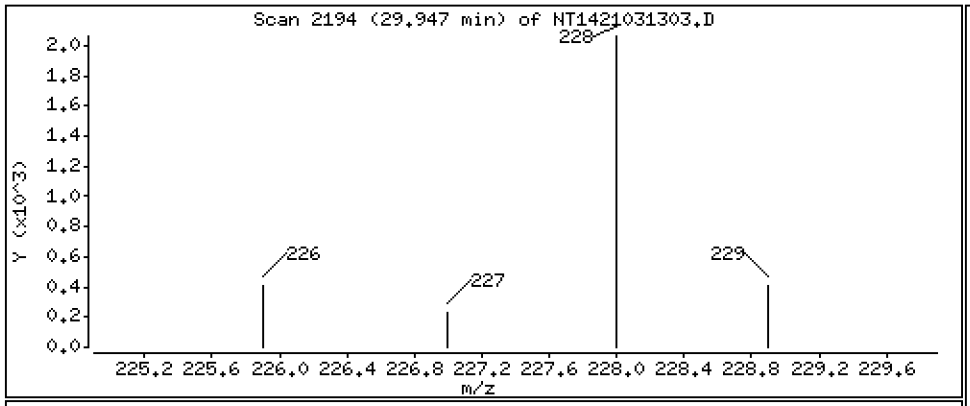
Operator: VTS

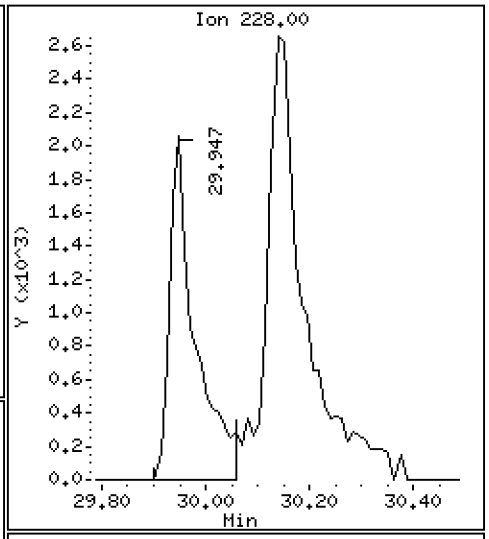
Column phase: Rxi-17Sil MS

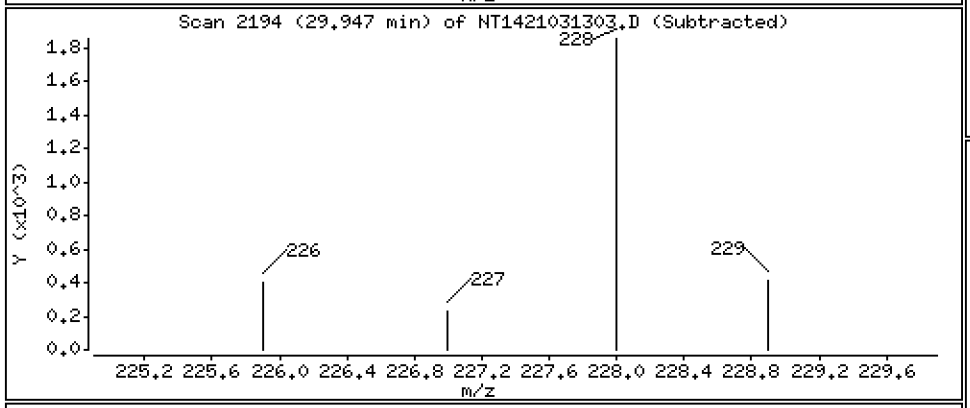
Column diameter: 0.25

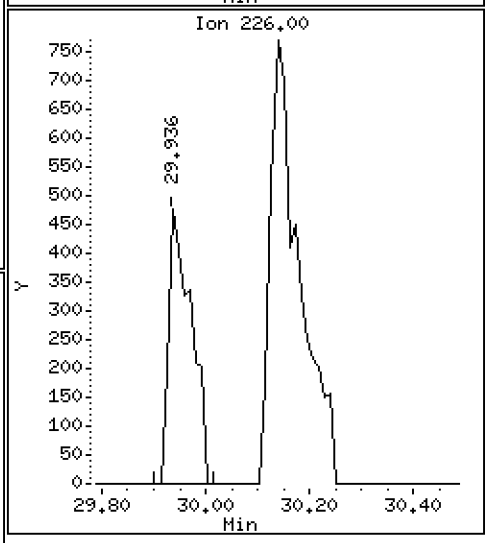
57 Chrysene

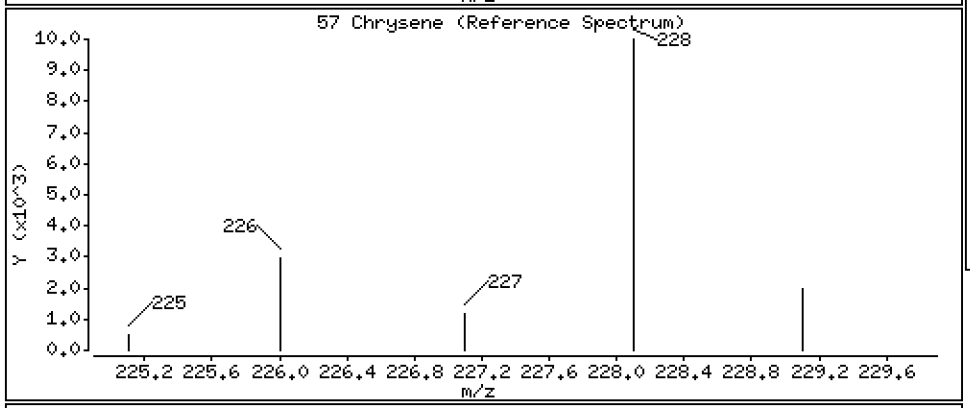
Concentration: 0.04544 ug/mL

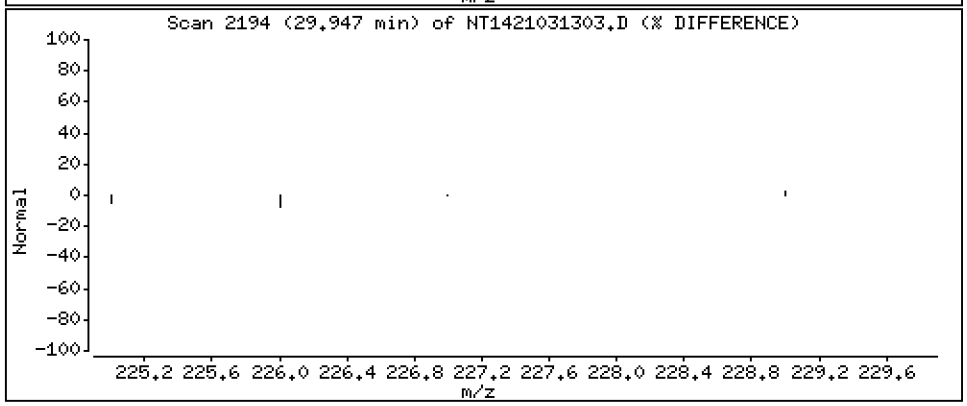












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031303.D

Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

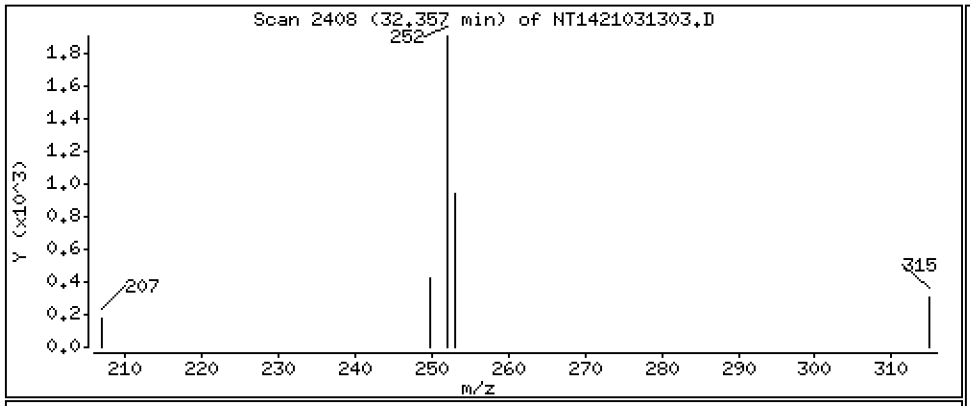
Operator: VTS

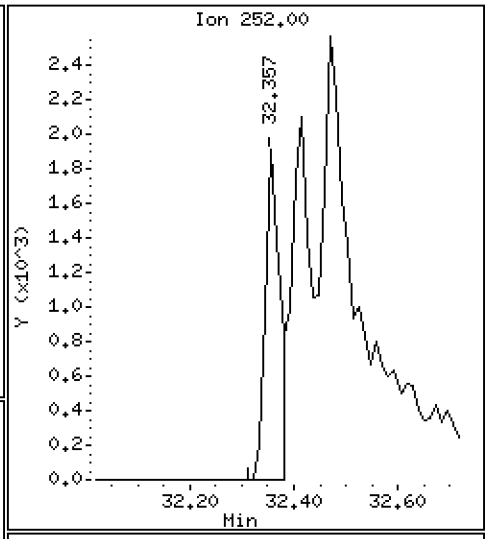
Column phase: Rxi-17Sil MS

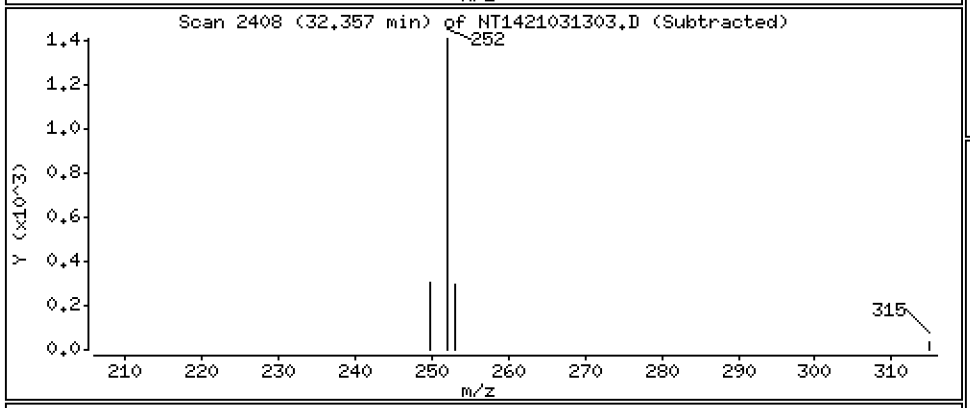
Column diameter: 0.25

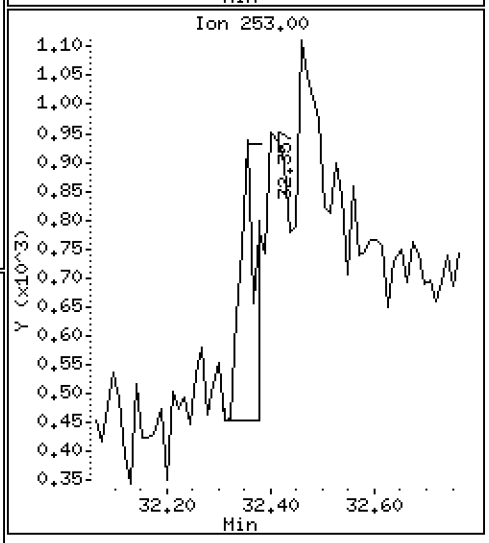
62 Benzo(b)fluoranthene

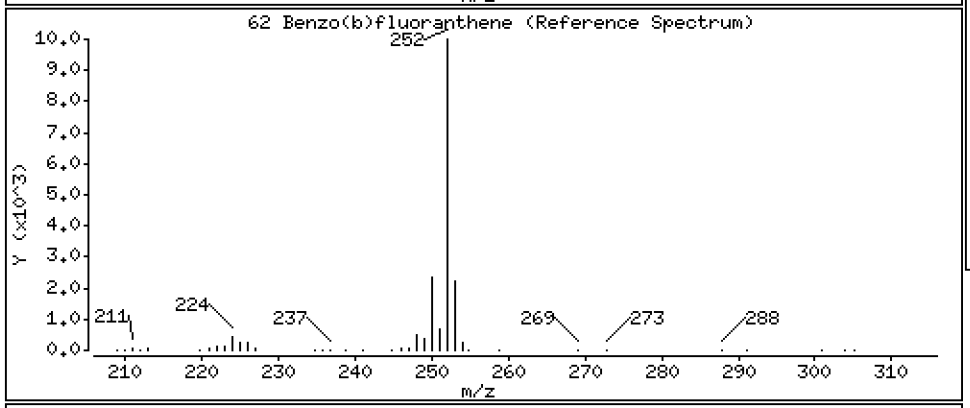
Concentration: 0.02328 ug/mL

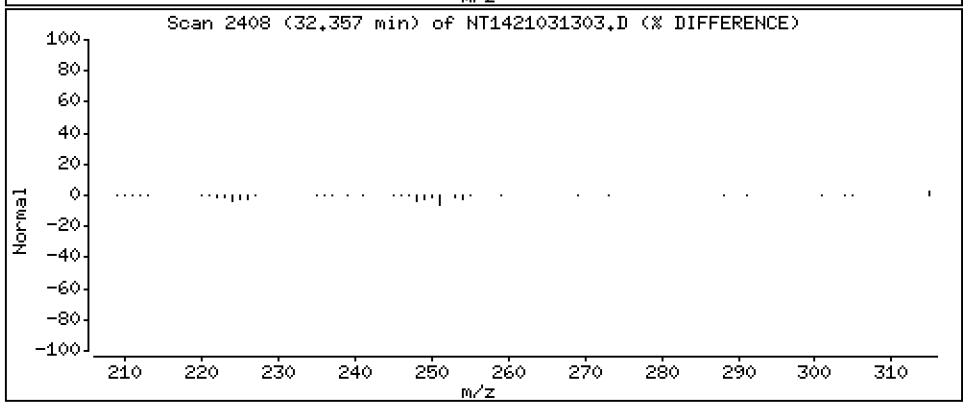












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Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

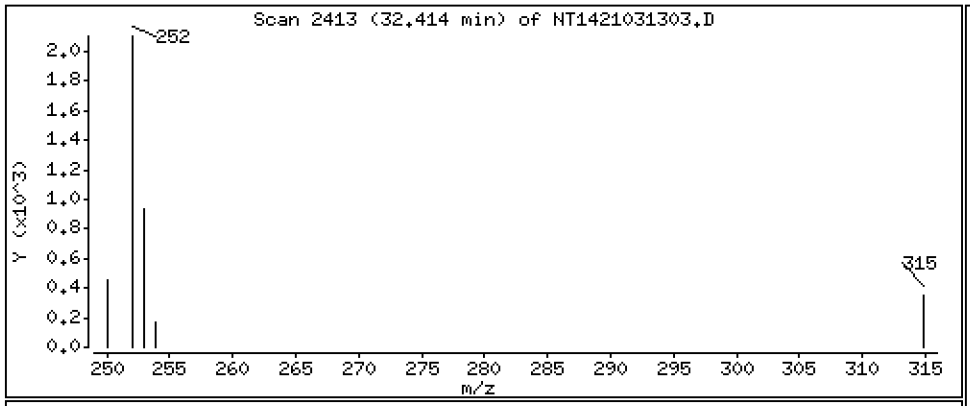
Operator: VTS

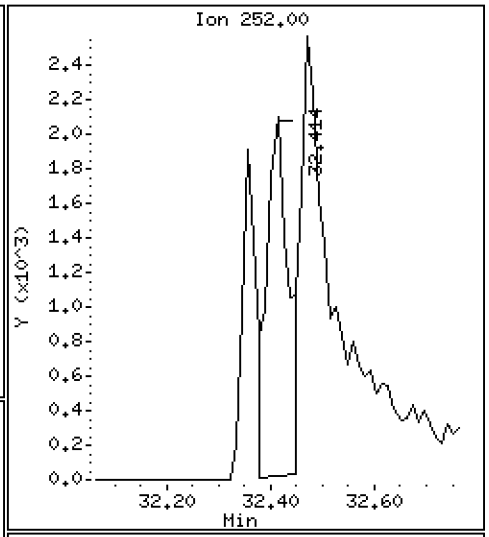
Column phase: Rxi-17Sil MS

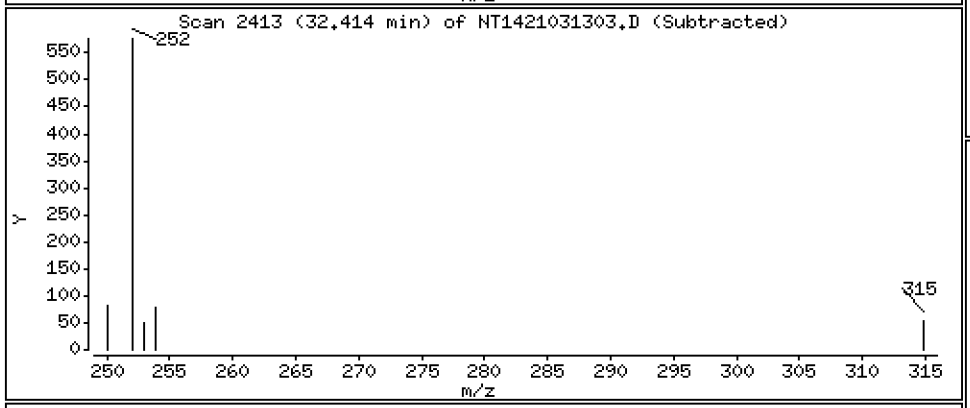
Column diameter: 0.25

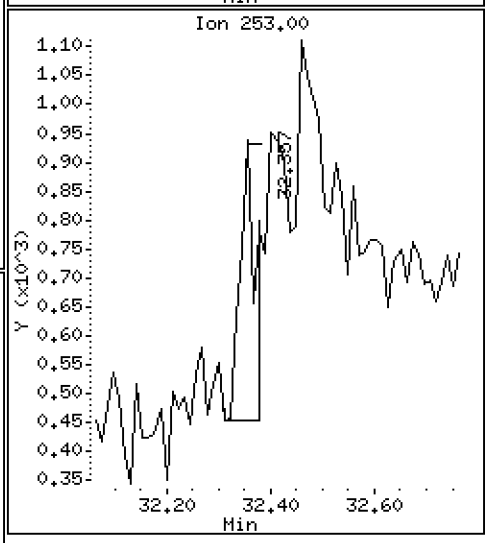
63 Benzo(k)fluoranthene

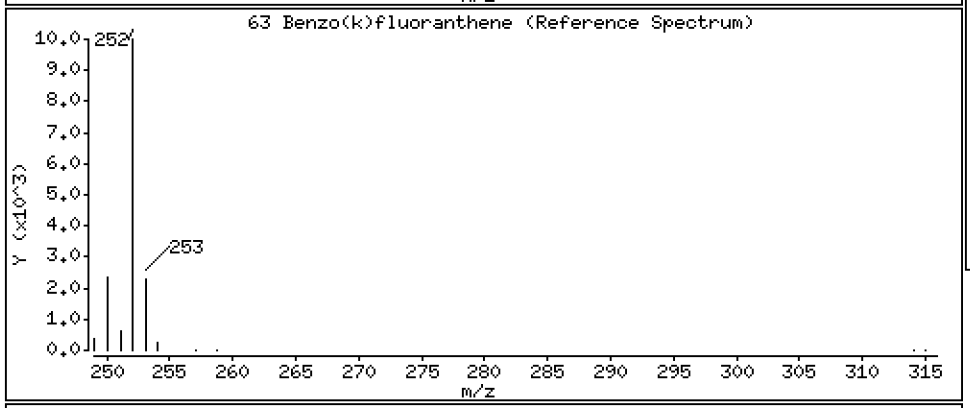
Concentration: 0.03795 ug/mL

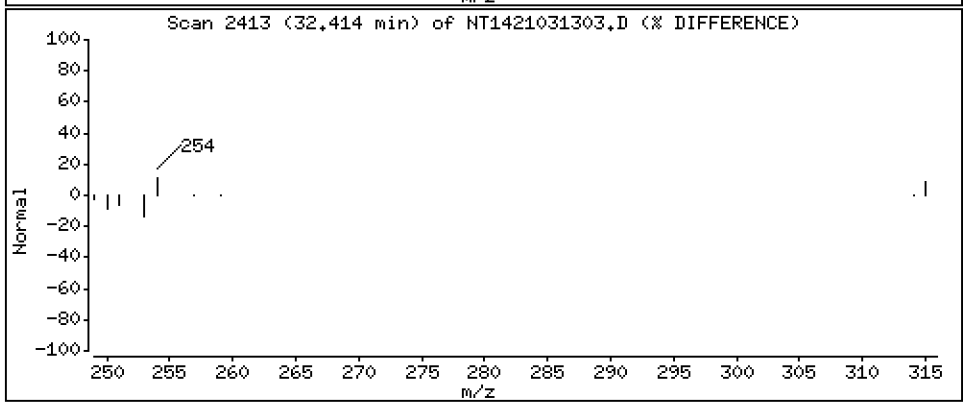












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031303.D

Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

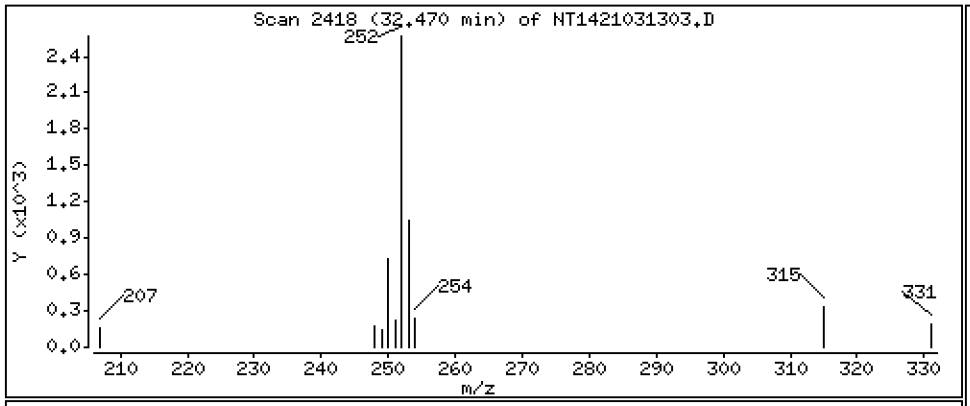
Operator: VTS

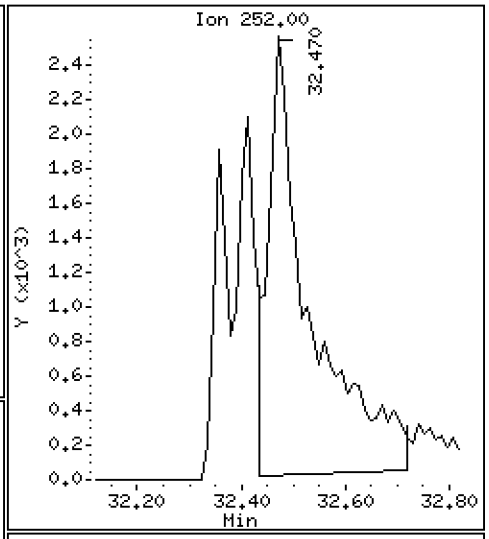
Column phase: Rxi-17Sil MS

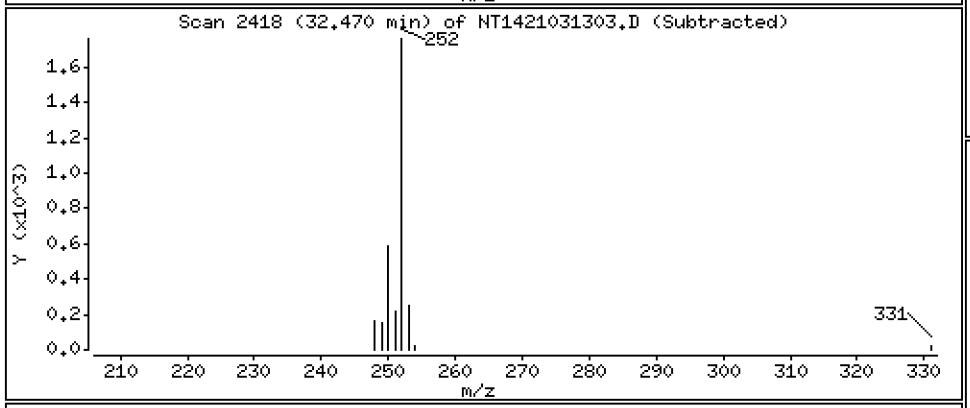
Column diameter: 0.25

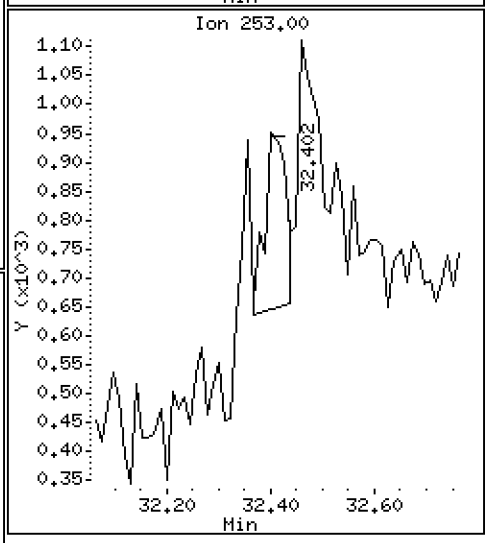
293 Benzo(j)fluoranthene

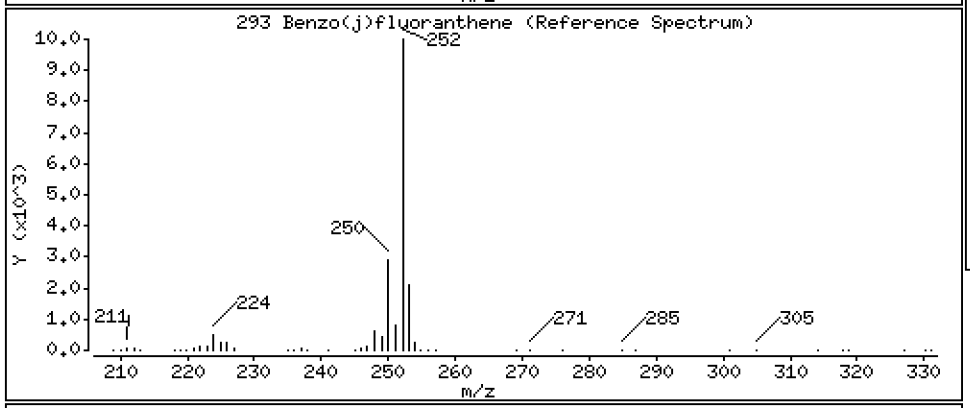
Concentration: 0.09198 ug/mL

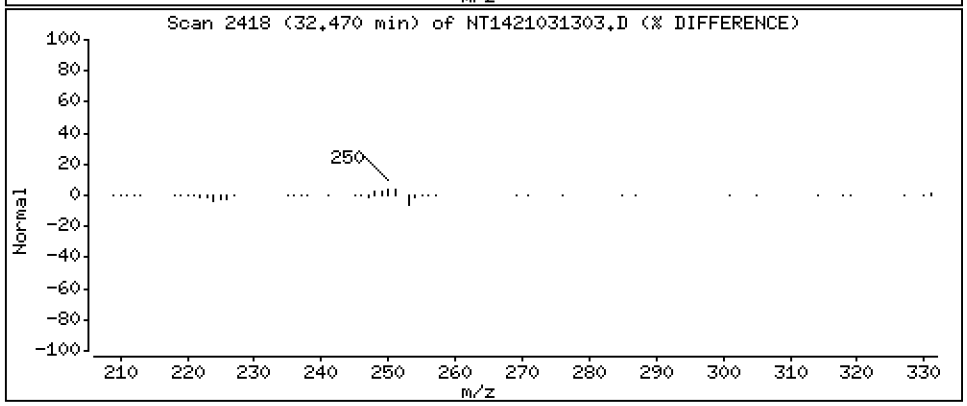












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031303.D

Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

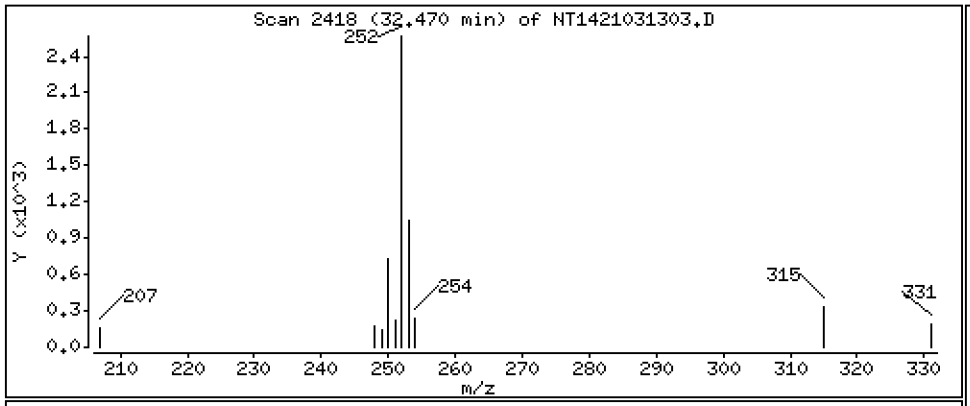
Operator: VTS

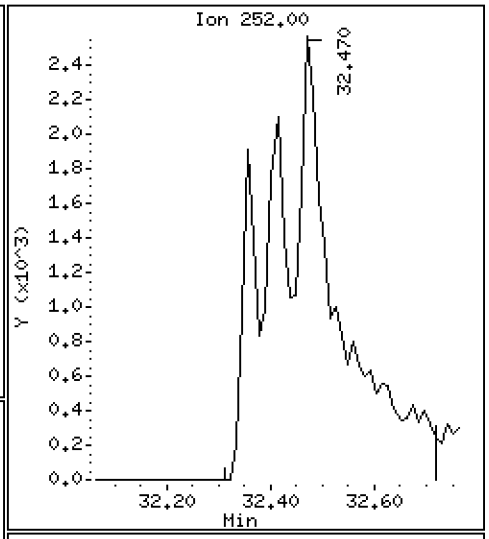
Column phase: Rxi-17Sil MS

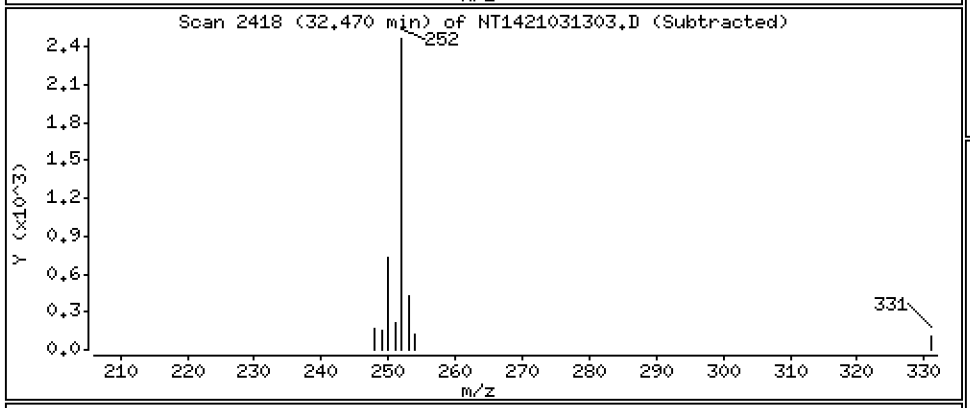
Column diameter: 0.25

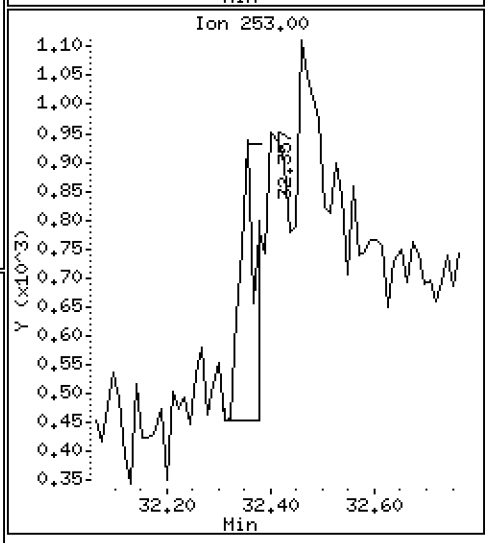
246 Total Benzofluoranthenes

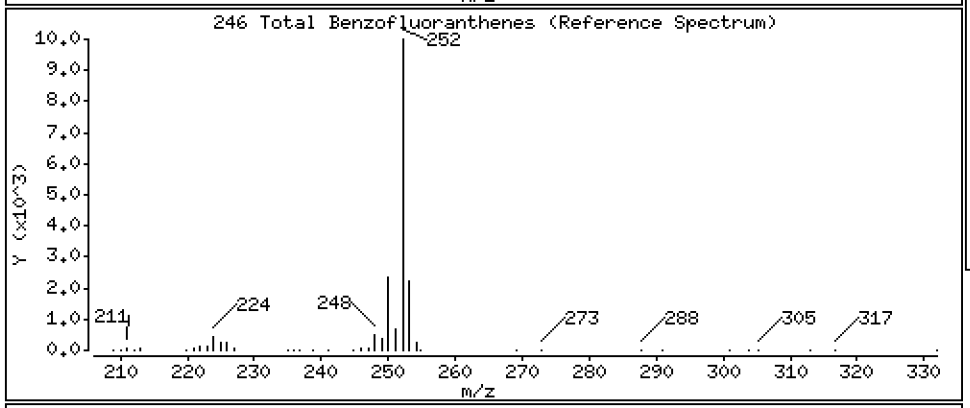
Concentration: 0.1493 ug/mL

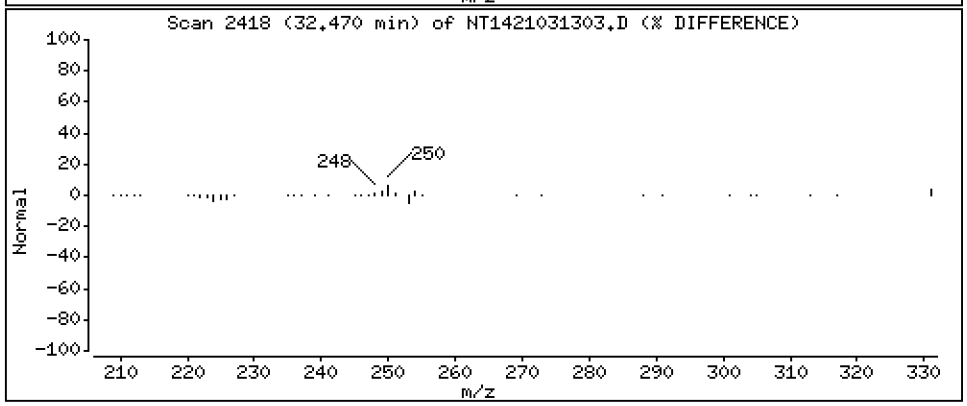












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Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

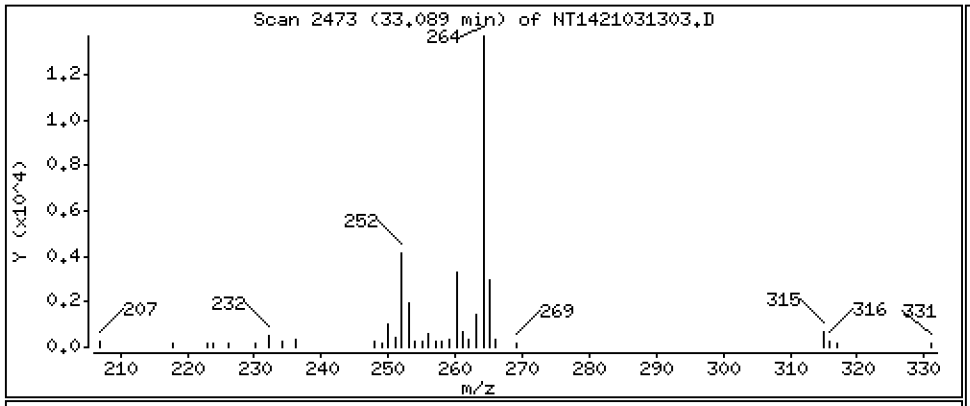
Operator: VTS

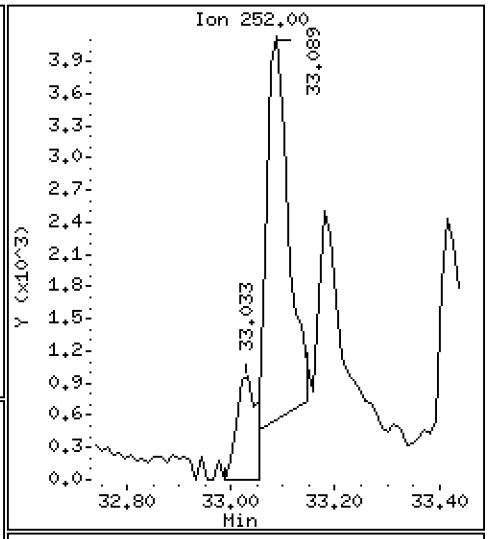
Column phase: Rxi-17Sil MS

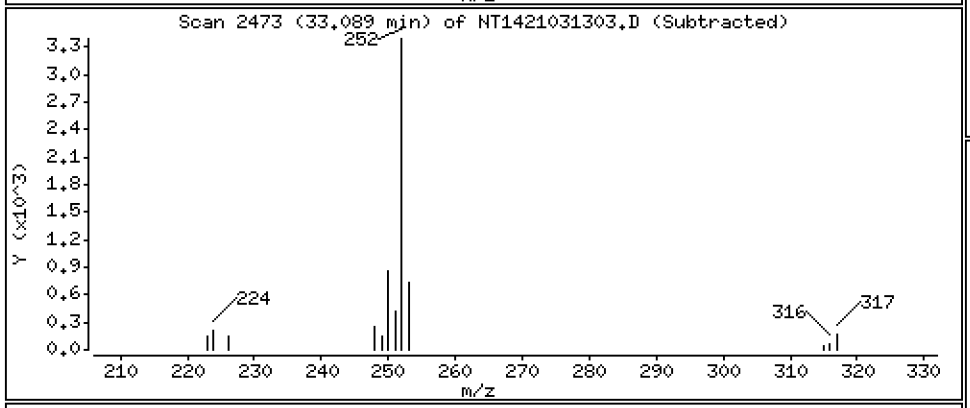
Column diameter: 0.25

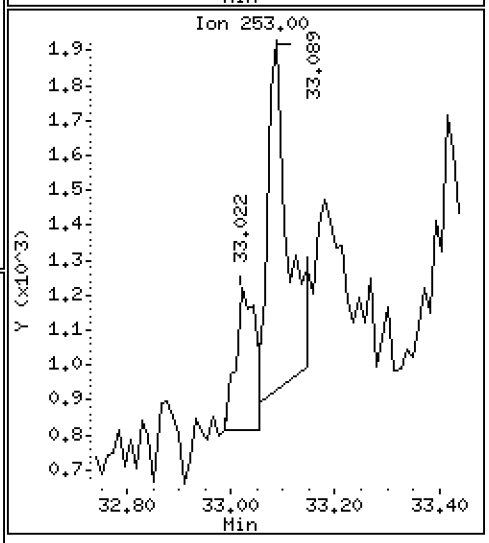
64 Benzo(e)pyrene

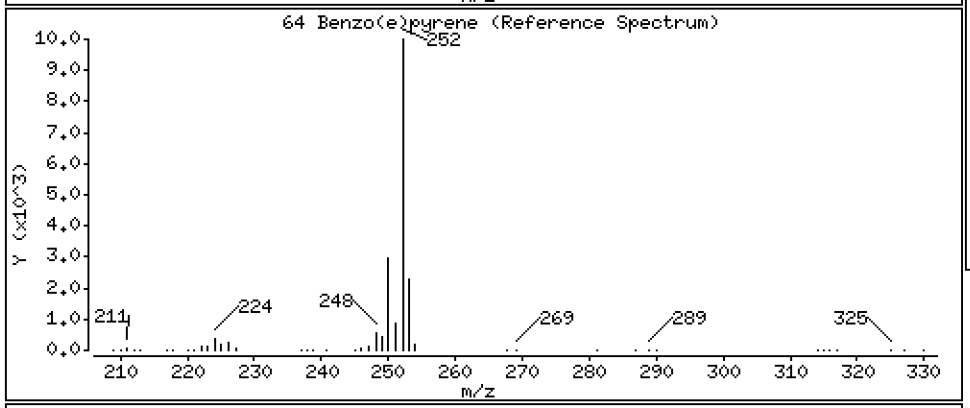
Concentration: 0.06648 ug/mL

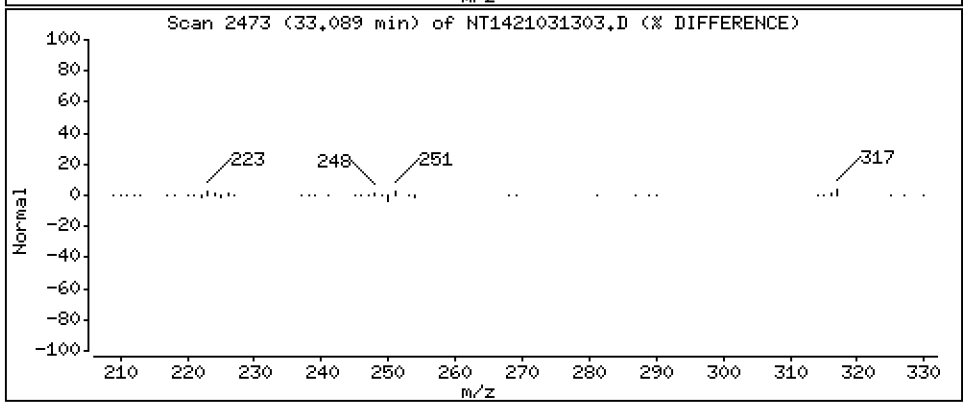












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Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

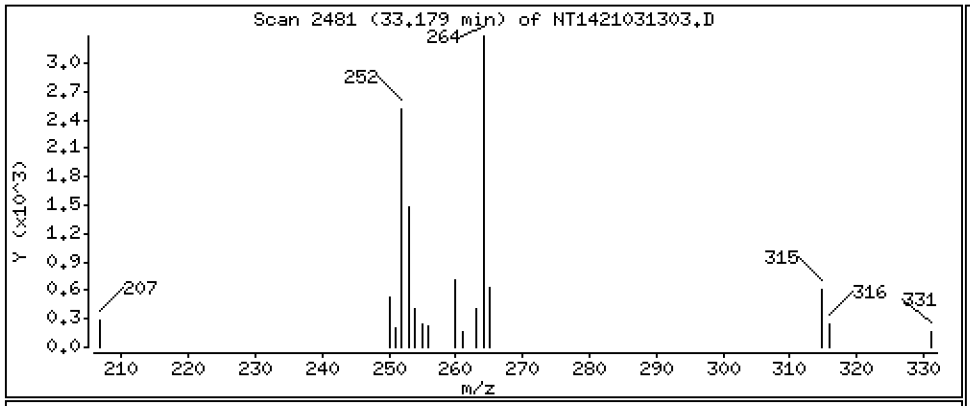
Operator: VTS

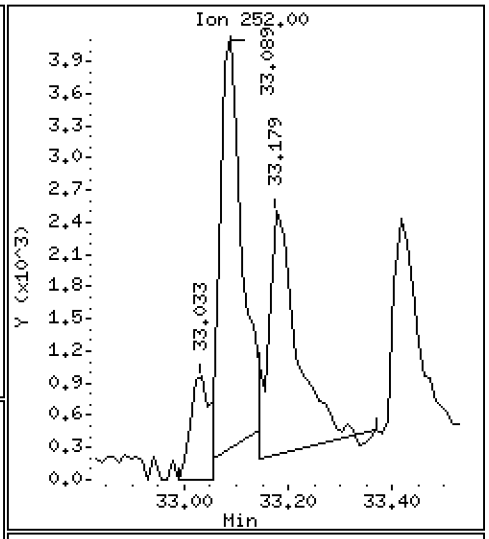
Column phase: Rxi-17Sil MS

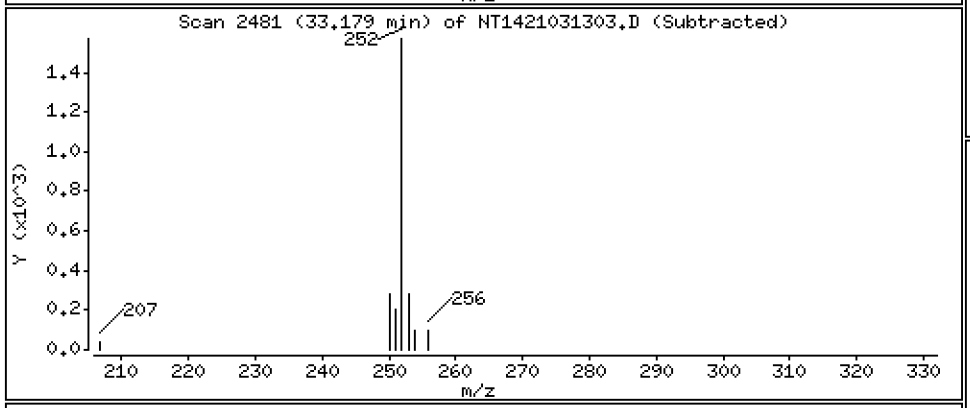
Column diameter: 0.25

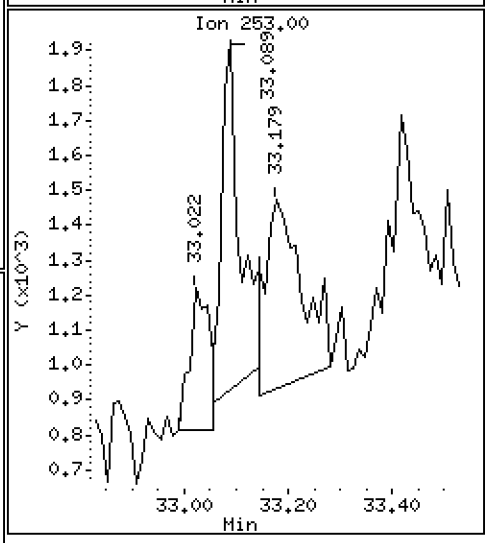
66 Benzo(a)pyrene

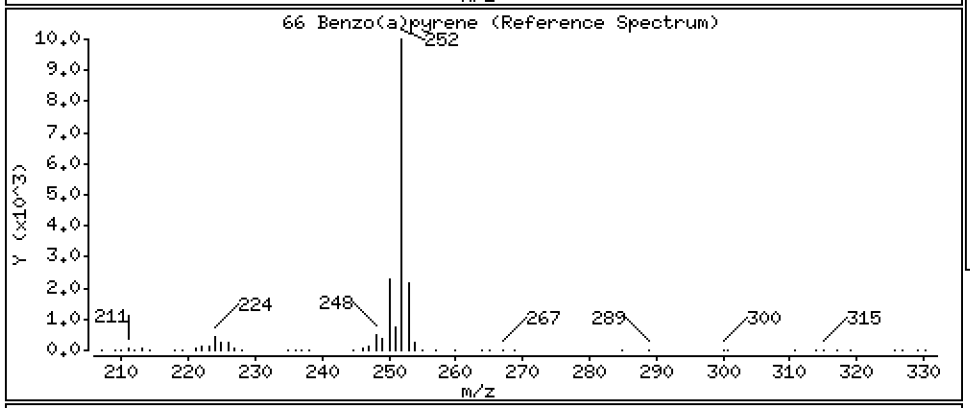
Concentration: 0.06115 ug/mL

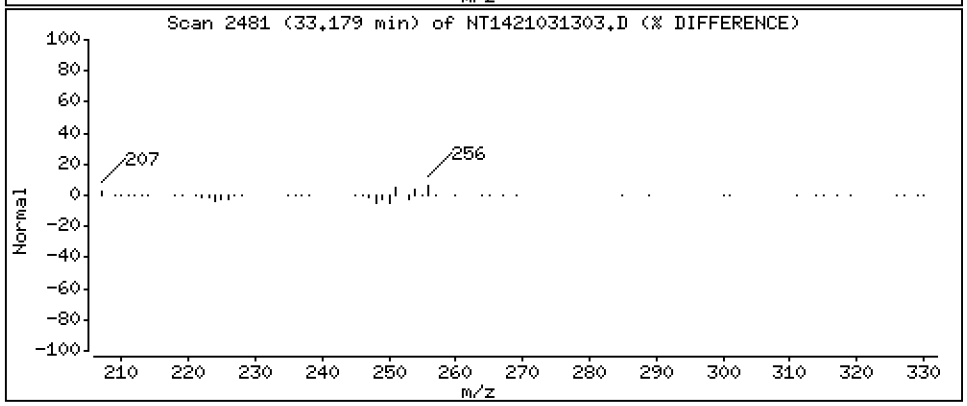












Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031303.D

Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

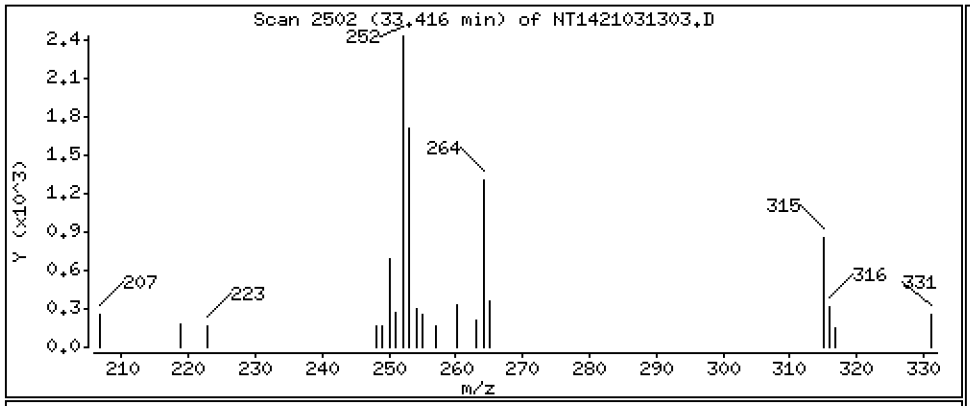
Operator: VTS

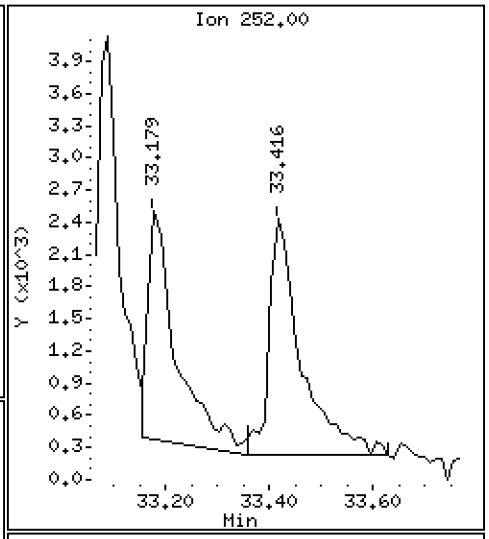
Column phase: Rxi-17Sil MS

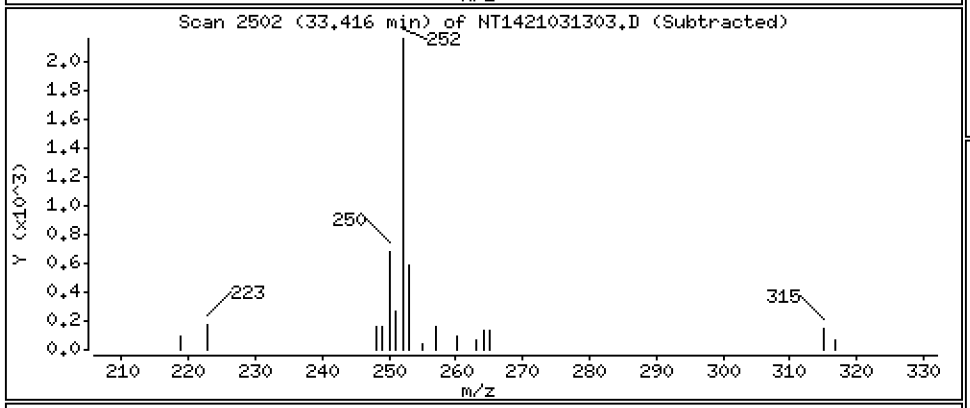
Column diameter: 0.25

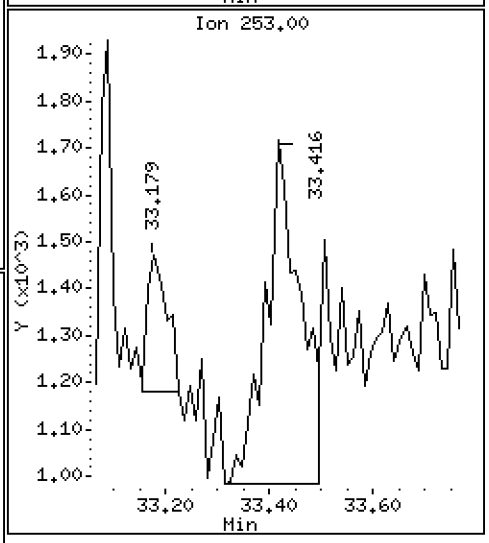
68 Perylene

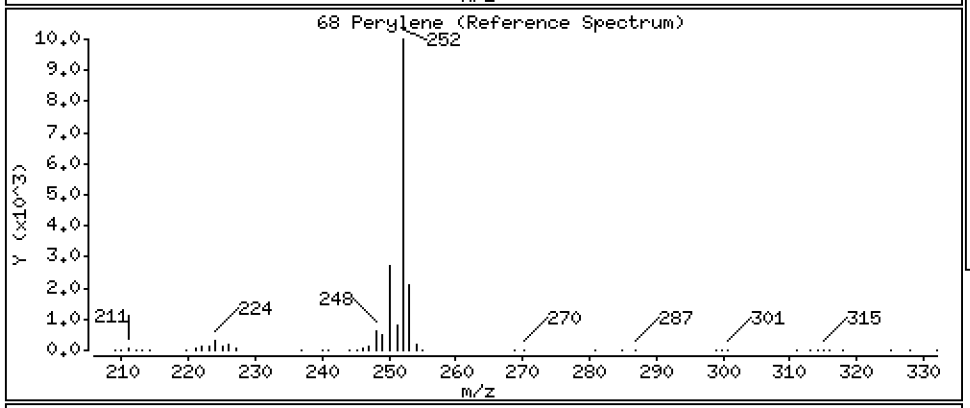
Concentration: 0.06504 ug/mL

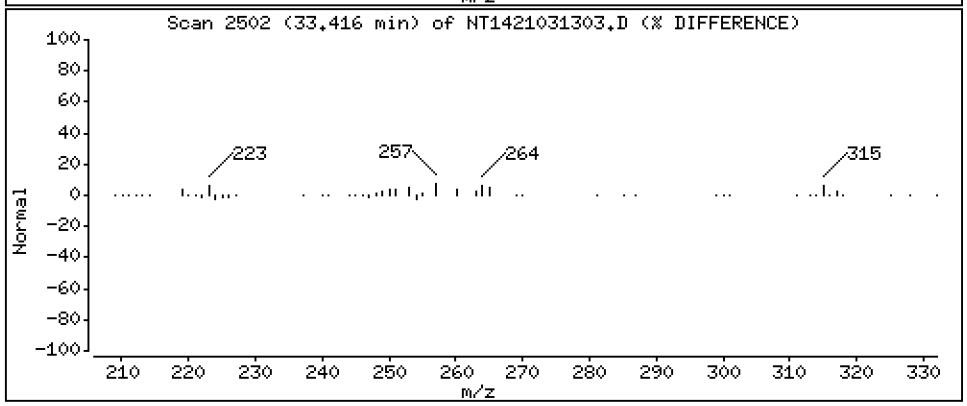












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Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

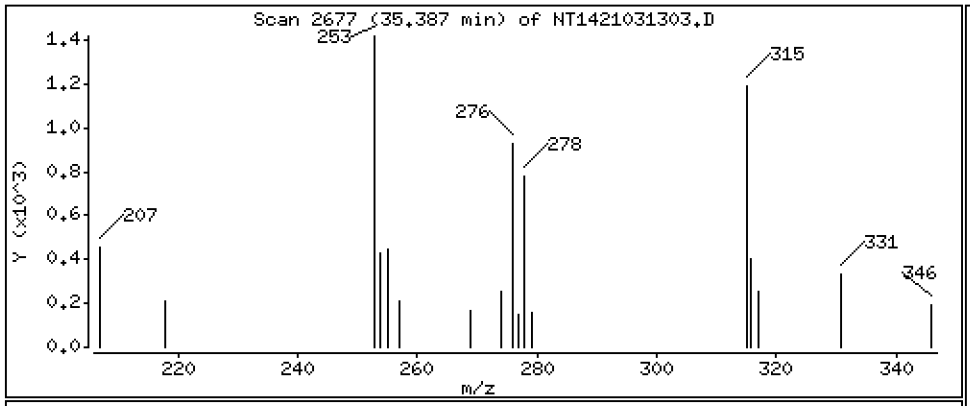
Operator: VTS

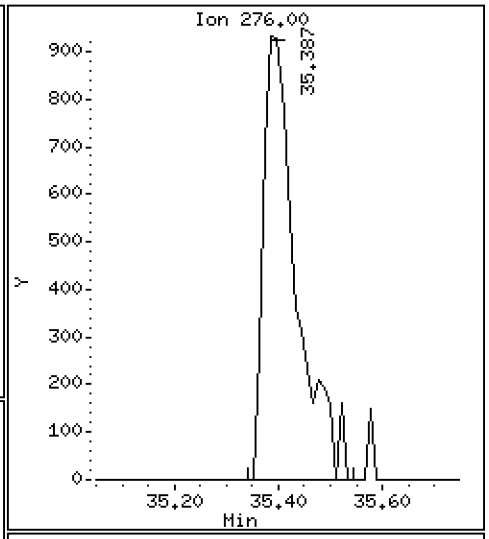
Column phase: Rxi-17Sil MS

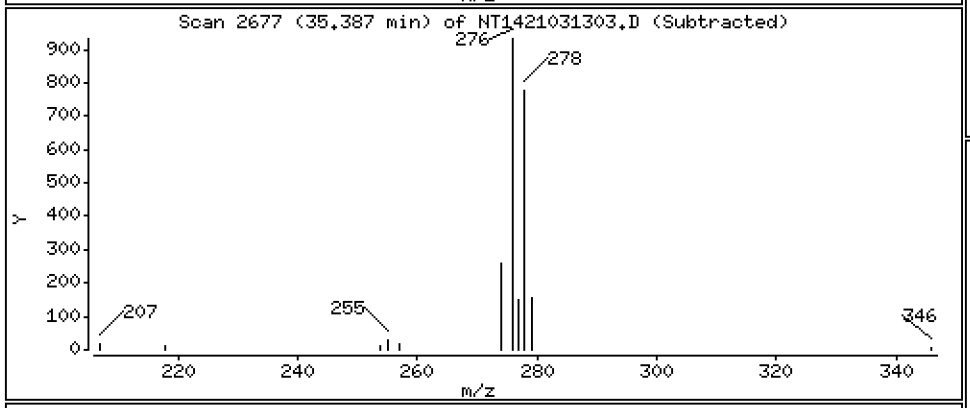
Column diameter: 0.25

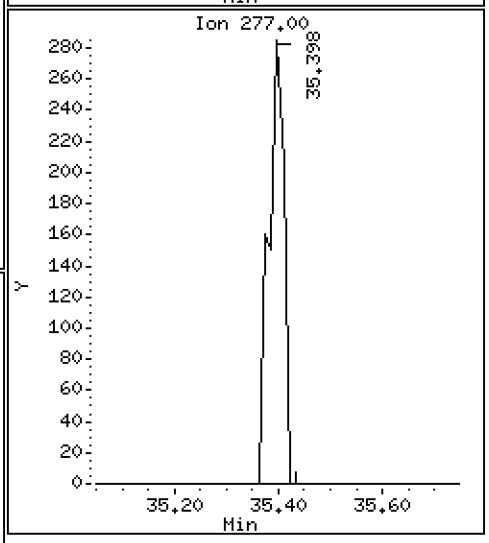
69 Indeno(1,2,3-cd)pyrene

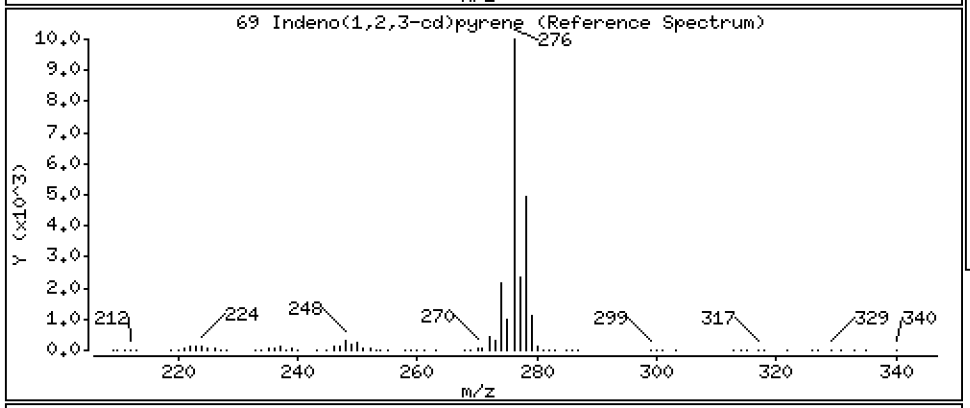
Concentration: 0.02610 ug/mL

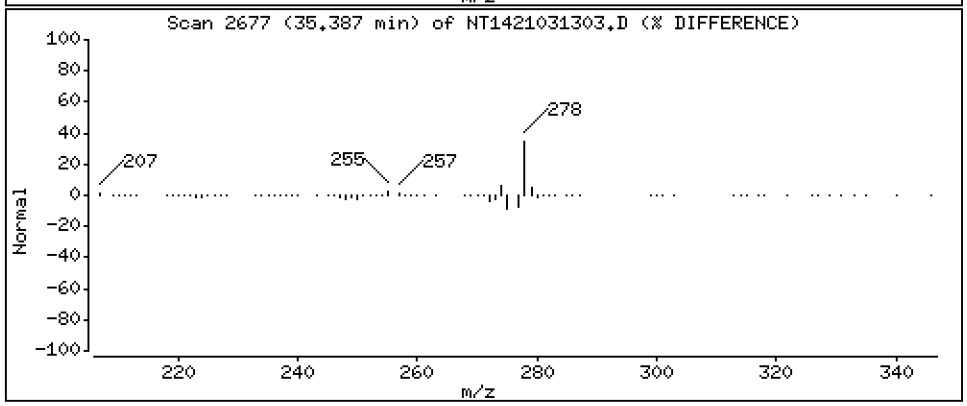












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Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

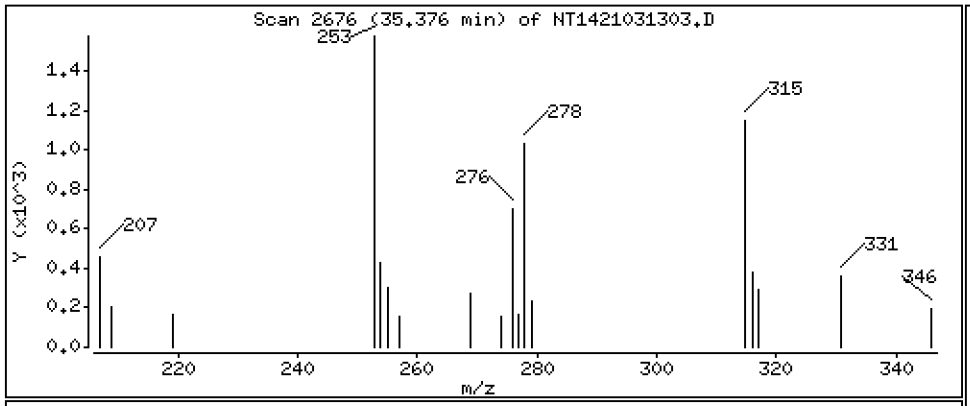
Operator: VTS

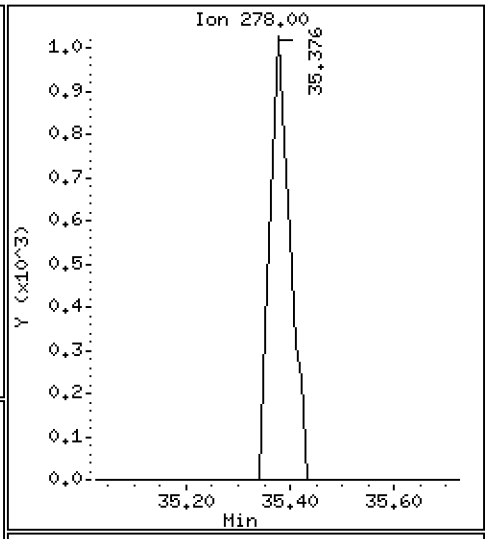
Column phase: Rxi-17Sil MS

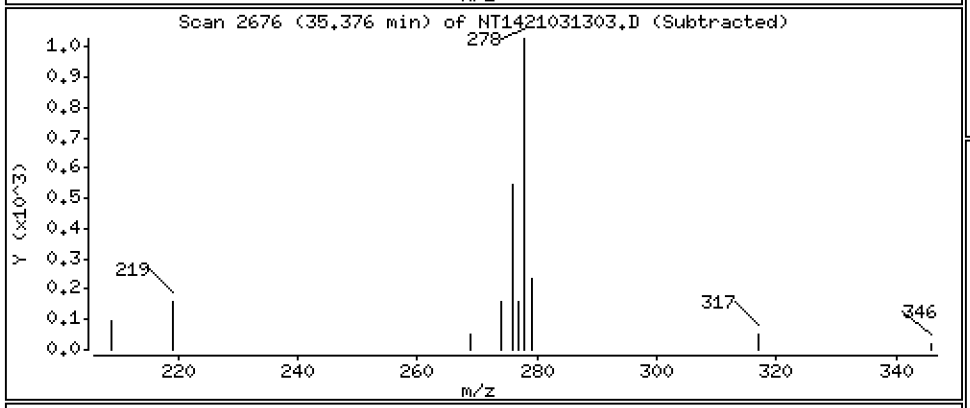
Column diameter: 0.25

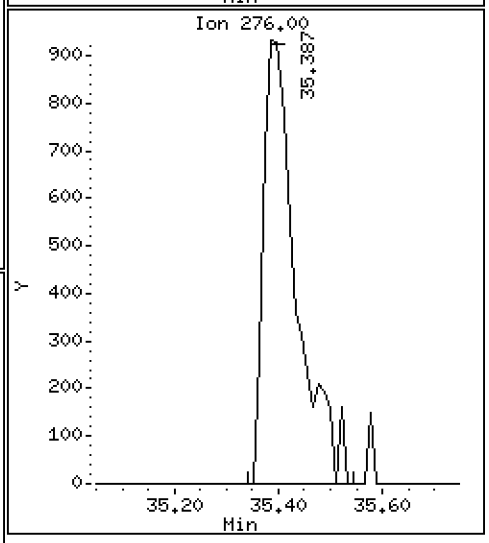
70 Dibenzo(a,h)anthracene

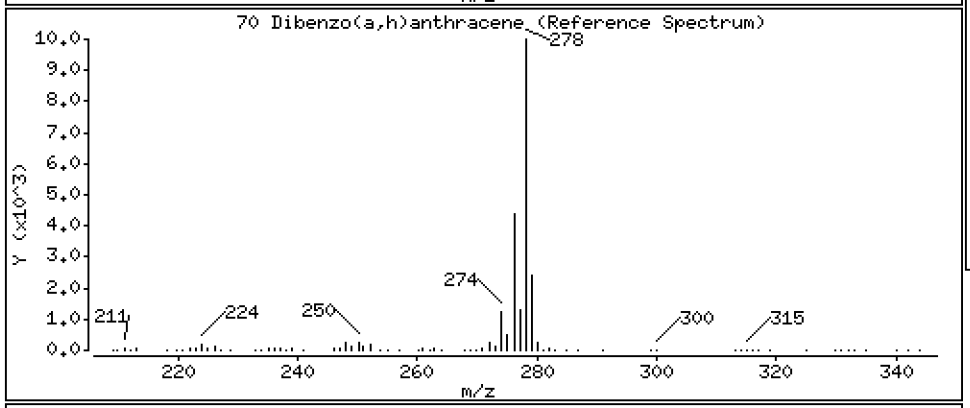
Concentration: 0.01841 ug/mL

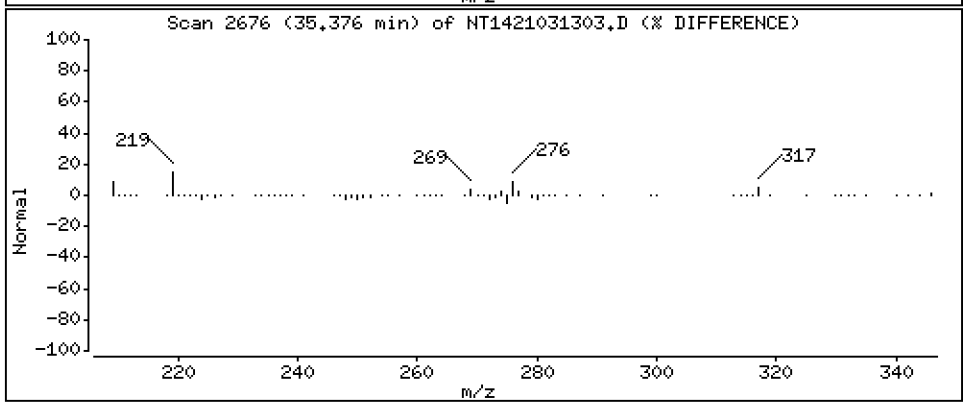












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Date : 13-MAR-2021 12:21

Client ID:

Instrument: nt14.i

Sample Info: SJC0183-LCV1

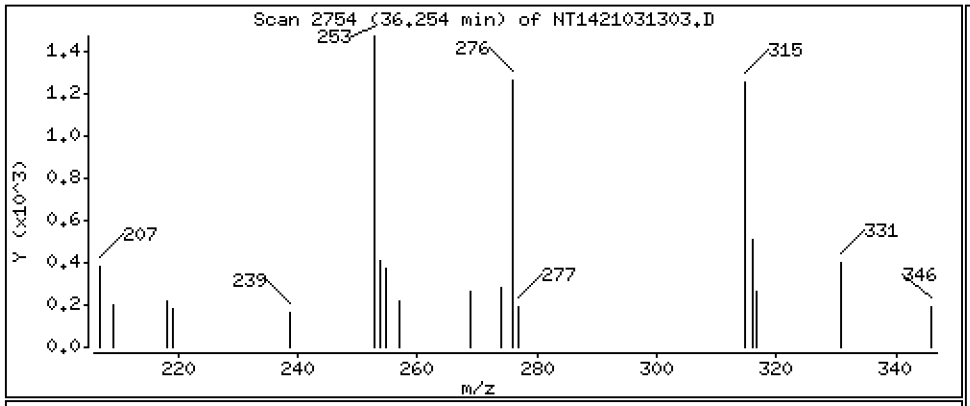
Operator: VTS

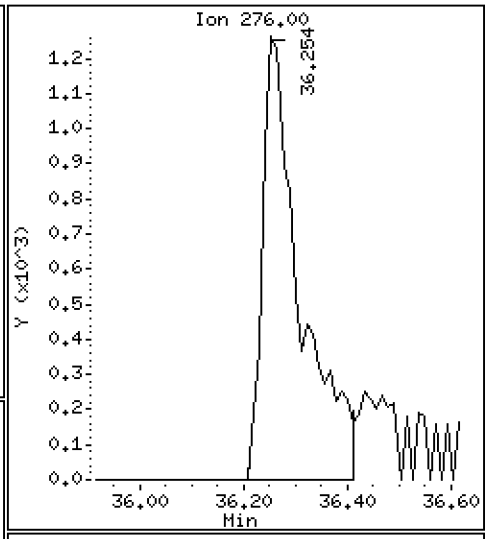
Column phase: Rxi-17Sil MS

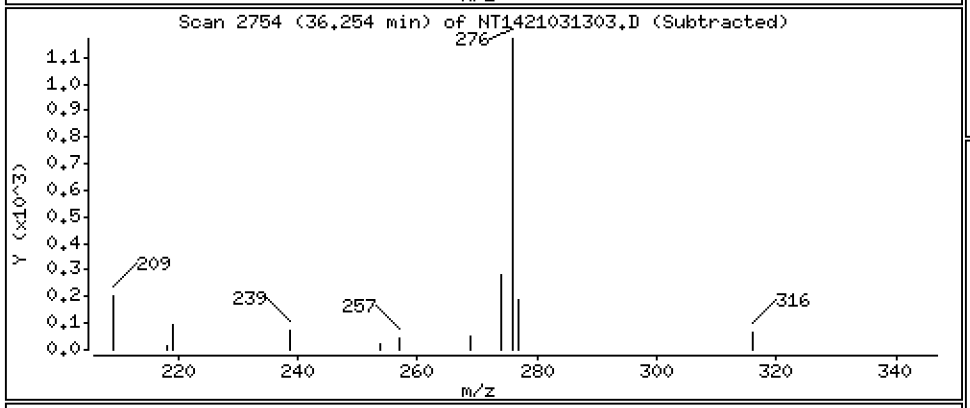
Column diameter: 0.25

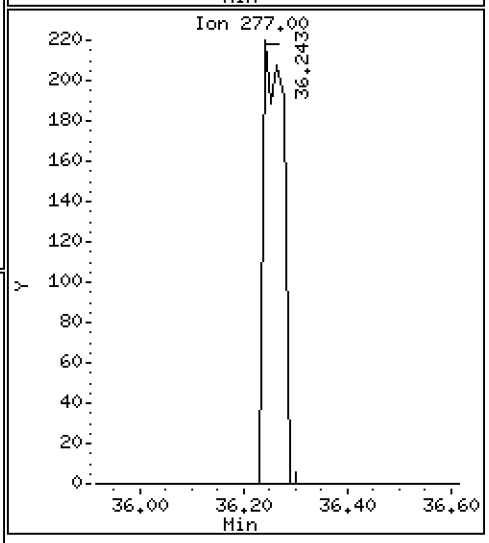
74 Benzo(g,h,i)perylene

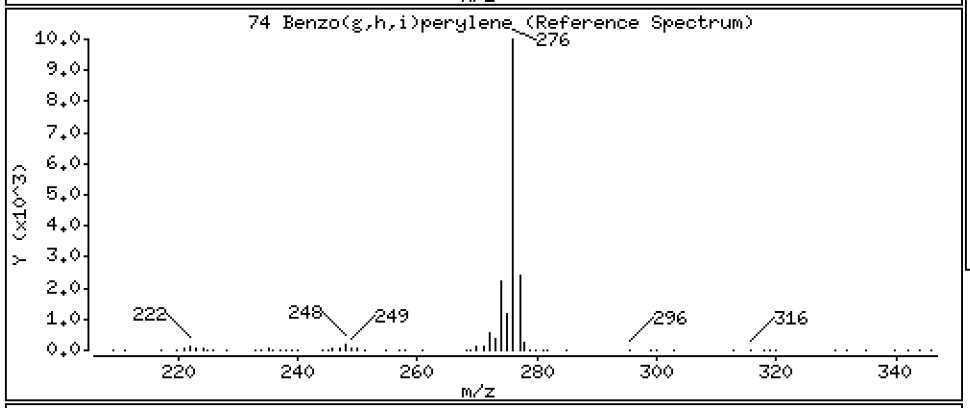
Concentration: 0.04038 ug/mL

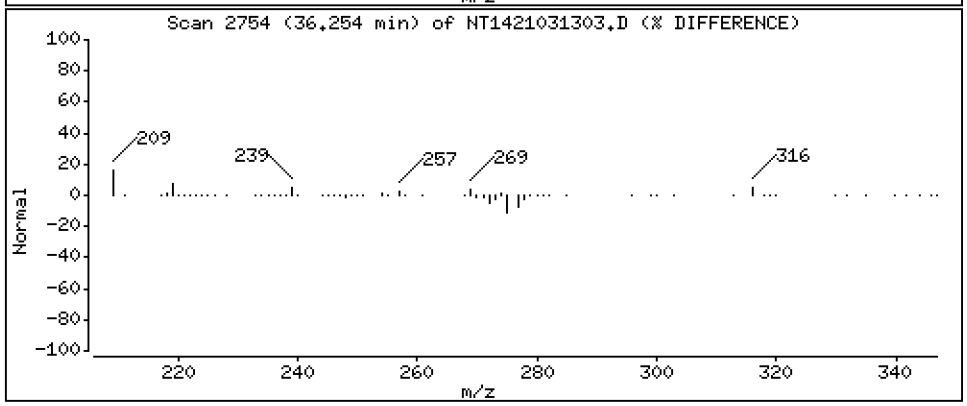












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210313.b\NT1421031303.D
Lab Smp Id: SJC0183-LCV1
Inj Date : 13-MAR-2021 12:21
Operator : VTS Inst ID: nt14.i
Smp Info : SJC0183-LCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210313.b\ALKYLPNA.m
Meth Date : 13-Mar-2021 12:11 van Quant Type: ISTD
Cal Date : 07-JAN-2021 16:44 Cal File: NT1421010708.D
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
1 trans-Decalin	138	7.015	7.015	(0.374)	1311	0.07053	0.07053
2 cis-Decalin	138	8.124	8.124	(0.434)	1130	0.08441	0.08441
$ 6 Naphthalene-d8	136	11.744	11.744	(0.627)	14505	0.09780	0.09780(R)
7 Naphthalene	128	11.810	11.810	(0.630)	14794	0.09964	0.09964
12 Benzo(b)thiophene	134	12.261	12.261	(0.654)	11312	0.09212	0.09212
16 2-Methylnaphthalene	141	13.645	13.634	(0.728)	7487	0.08820	0.08820
17 1-methylnaphthalene	141	14.096	14.085	(0.752)	8044	0.09780	0.09780
18 Biphenyl	154	15.283	15.283	(0.816)	12677	0.10156	0.1016
19 2,6-Dimethylnaphthalene	156	15.360	15.360	(0.820)	8945	0.09793	0.09793
20 Acenaphthylene	152	16.920	16.920	(0.903)	14758	0.09506	0.09506
$ 21 Acenaphthene-d10	164	17.206	17.206	(0.918)	8212	0.10483	0.1048(R)
22 Acenaphthene	153	17.327	17.316	(0.925)	10099	0.10117	0.1012
23 Dibenzofuran	168	17.701	17.701	(0.945)	14465	0.10126	0.1013
24 1,6,7-Trimethylnaphthalene	170	17.931	17.920	(0.957)	8621	0.09399	0.09399
* 25 Fluorene-d10	176	18.741	18.741	(1.000)	320574	2.00000	
26 Fluorene	166	18.843	18.843	(1.005)	11497	0.10620	0.1062
30 Dibenzothiophene	184	21.757	21.757	(1.161)	16874	0.11392	0.1139
$ 35 Phenanthrene-d10	188	22.066	22.066	(0.995)	15386	0.09601	0.09601(R)
36 Phenanthrene	178	22.154	22.143	(0.999)	17794	0.10199	0.1020
* 250 Anthracene-d10	188	22.187	22.176	(1.000)	350015	2.00000	
37 Anthracene	178	22.253	22.242	(1.003)	16185	0.10032	0.1003
42 Carbazole	167	23.550	23.528	(1.061)	8720	0.06466	0.06466
43 1-Methylphenanthrene	192	23.990	23.979	(1.081)	10169	0.08206	0.08206
44 Fluoranthene	202	25.969	25.947	(1.170)	15030	0.07884	0.07884
46 Pyrene	202	26.816	26.805	(1.209)	15739	0.07867	0.07867
51 Naphthobenzothiophene	234	29.359	29.348	(1.323)	8652	0.06039	0.06039
55 Benzo(a)anthracene	228	29.946	29.935	(0.907)	7127	0.04540	0.04540
$ 56 Chrysene-d12	240	30.070	30.059	(0.911)	8275	0.06831	0.06831(R)
57 Chrysene	228	29.946	30.138	(0.907)	7127	0.04544	0.04544
62 Benzo(b)fluoranthene	252	32.357	32.368	(0.980)	3590	0.02328	0.02328
63 Benzo(k)fluoranthene	252	32.413	32.413	(0.982)	6111	0.03795	0.03795(M)
293 Benzo(j)fluoranthene	252	32.469	32.469	(0.983)	14291	0.09198	0.09198(M)
246 Total Benzofluoranthenes	252	32.469	32.413	(0.983)	22983	0.14928	0.1493(M)
* 251 Benzo(e)pyrene-d12	264	33.021	33.021	(1.000)	384713	2.00000	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
64 Benzo(e)pyrene	252	33.089	33.089	(1.002)	9948	0.06648	0.06648
66 Benzo(a)pyrene	252	33.179	33.179	(1.005)	8610	0.06115	0.06115
$ 67 Perylene-d12	264	Compound Not Detected.					
68 Perylene	252	33.416	33.416	(1.012)	9291	0.06504	0.06504
69 Indeno(1,2,3-cd)pyrene	276	35.387	35.398	(1.072)	4012	0.02610	0.02610
70 Dibenzo(a,h)anthracene	278	35.375	35.375	(1.071)	2651	0.01841	0.01841
74 Benzo(g,h,i)perylene	276	36.254	36.265	(1.098)	6250	0.04038	0.04038

QC Flag Legend

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

Data File: \\target\share\chem3\nt14.i\20210313.b\NT1421031303.D Page 1
Report Date: 16-Mar-2021 15:32

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421031303.D
Lab Smp Id: SJC0183-LCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210313.b\ALKYLPNA.m
Misc Info:

Calibration Date: 13-MAR-2021
Calibration Time: 11:19
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	366886	183443	733772	320574	-12.62
250 Anthracene-d10	368886	184443	737772	350015	-5.12
251 Benzo(e)pyrene-d1	446096	223048	892192	384713	-13.76

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.74	18.24	19.24	18.74	0.00
250 Anthracene-d10	22.18	21.68	22.68	22.19	0.05
251 Benzo(e)pyrene-d1	33.02	32.52	33.52	33.02	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 - NT1421031303.D

Lab ID: SJC0183-LCV1
nt14.i, 20210313.b\ALKYLPNA.m, 13-MAR-2021 12:21

RT	CO-ELUTION COMPOUNDS
29.947	Chrysene and Benzo(a)anthracene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
0.907	0.913	-0.0058	Chrysene

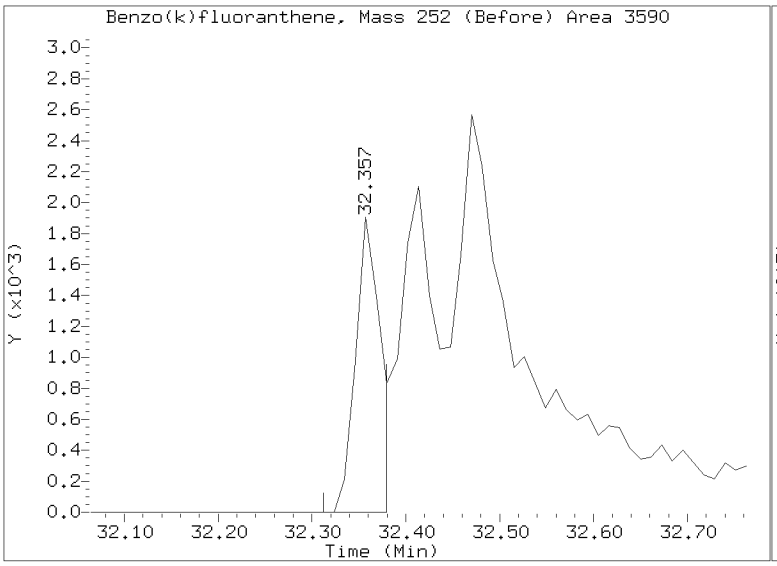
RRT check based on Ccal File: NT1421031302.D

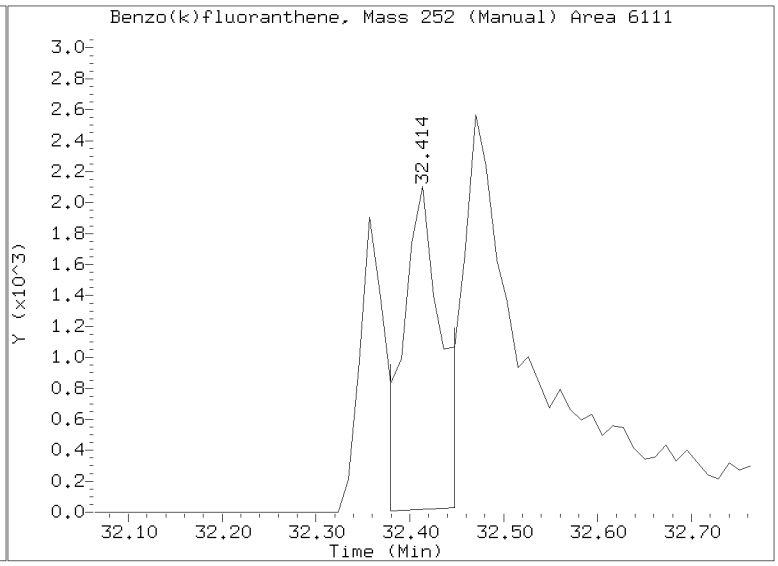
On Column LOD for nt14.i, 20210313.b\ALKYLPNA.m, TARGETS.sub = 0.0000

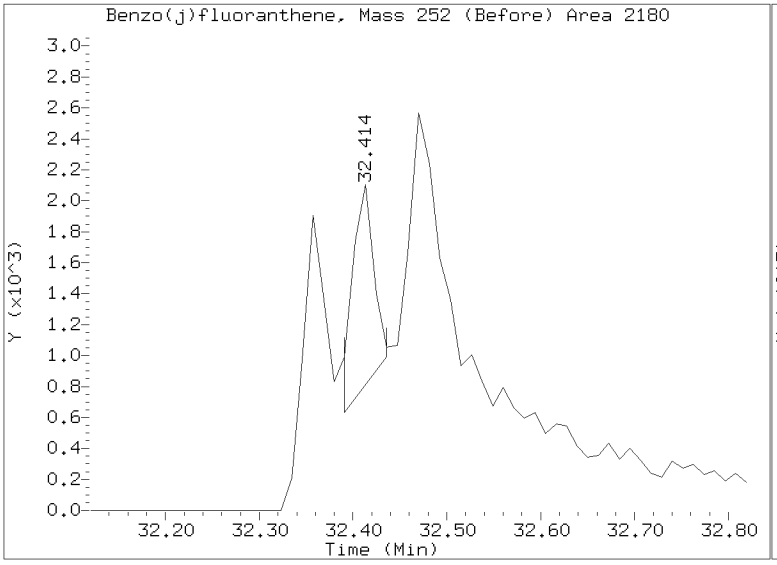
* Only compounds listed in the work order have been verified by the analyst *

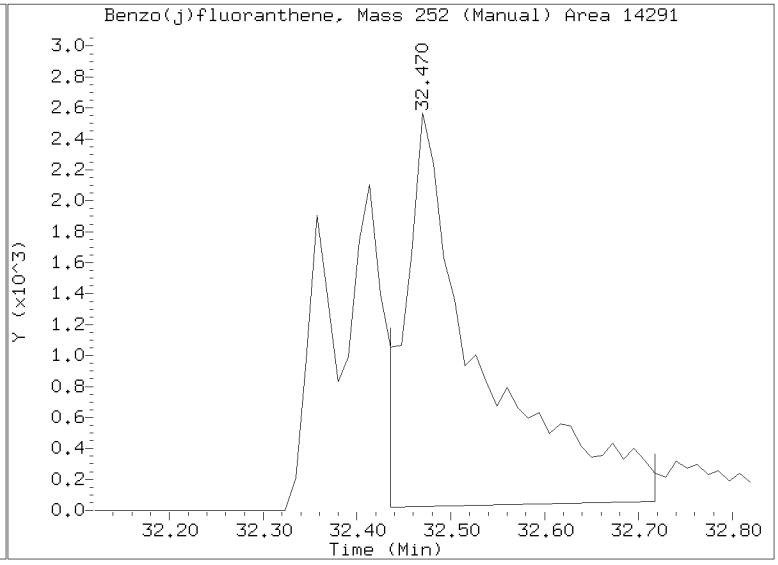
Quant Ion Manual Peak Adjustment Report

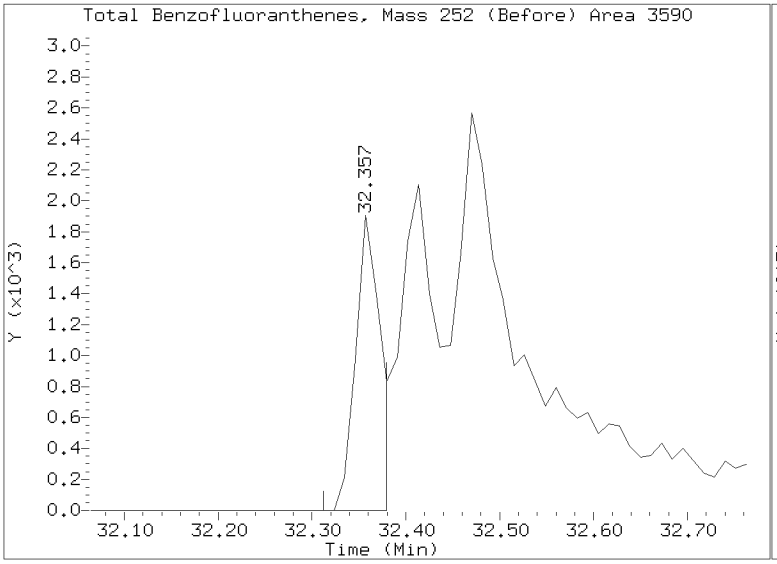
Datafile: //target/share/chem3/nt14.i/20210313.b/NT1421031303.D
Injection Date: 13-MAR-2021 12:21
Lab ID:SJC0183-LCV1 Client ID:
Report Date: 03/16/2021 15:32

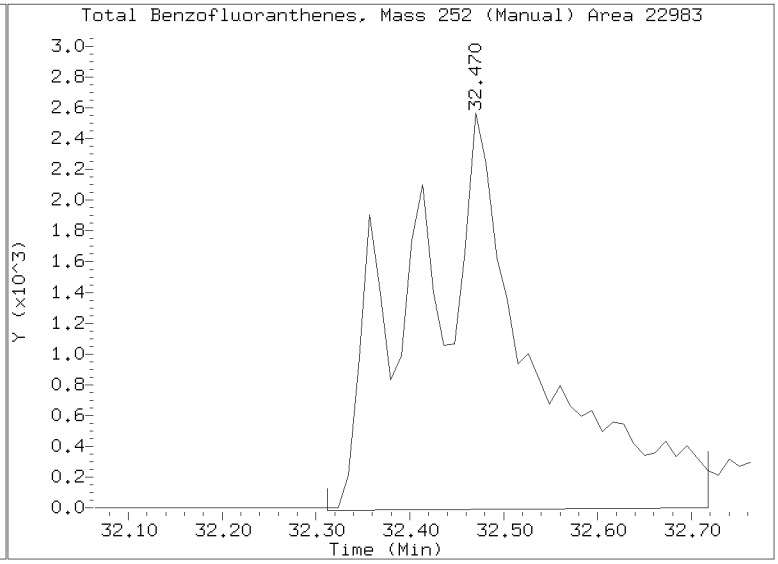












Analytical Resources, Incorporated
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Sequence:	SJA0059	Instrument:	NT14
		Calibration:	EA00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SJA0059-TUN1	NT1421010701.D	NA	01/07/21 11:42
PAH 2.5	SJA0059-CAL4	NT1421010702.D	NA	01/07/21 11:56
Initial Cal Check	SJA0059-ICV1	NT1421010702ICV1.D	NA	01/07/21 11:56
PAH 10	SJA0059-CAL6	NT1421010703.D	NA	01/07/21 12:44
PAH 0.1	SJA0059-CAL1	NT1421010704.D	NA	01/07/21 13:32
PAH 5.0	SJA0059-CAL5	NT1421010705.D	NA	01/07/21 14:20
PAH 0.25	SJA0059-CAL2	NT1421010706.D	NA	01/07/21 15:08
PAH 0.5	SJA0059-CAL3	NT1421010708.D	NA	01/07/21 16:44
Secondary Cal Check	SJA0059-SCV1	NT1421010709.D	NA	01/07/21 17:32
Initial Cal Blank	SJA0059-ICB1	NT1421010710.D	NA	01/07/21 18:20
ZZZZZ	20K0170-01RE1	NT1421010711.D	Solid	01/07/21 19:08
ZZZZZ	20K0170-02RE1	NT1421010712.D	Solid	01/07/21 19:56
ZZZZZ	20K0170-11RE1	NT1421010713.D	Solid	01/07/21 20:44
ZZZZZ	20K0170-23RE1	NT1421010714.D	Solid	01/07/21 21:32
ZZZZZ	20K0170-24RE1	NT1421010715.D	Solid	01/07/21 22:20
ZZZZZ	20K0318-02RE1	NT1421010716.D	Solid	01/07/21 23:08
ZZZZZ	20K0318-03RE1	NT1421010717.D	Solid	01/07/21 23:56
Calibration Check	SJA0059-CCV1	NT1421010721.D	NA	01/08/21 03:08

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Printed: 1/14/2021 10:10:30AM

ANALYSIS SEQUENCE

SJA0059

Instrument: NT14 Element Column ID: i005863
Calibration ID: EA00040 Tune File: 200104u
EM Voltage: 1906

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SJA0059-TUN1	MS Tune	QC		1	I007631		
SJA0059-CAL1	PAH 0.1	QC		2	I007926	I007919	
SJA0059-CAL2	PAH 0.25	QC		3	I007925	I007919	
SJA0059-CAL3	PAH 0.5	QC		4	I007924	I007919	
SJA0059-CAL4	PAH 2.5	QC		5	I007920	I007919	
SJA0059-CAL5	PAH 5.0	QC		6	I007922	I007919	
SJA0059-CAL6	PAH 10	QC		7	I007921	I007919	
SJA0059-SCV1	Secondary Cal Check	QC		8		I007919	
SJA0059-ICB1	Initial Cal Blank	QC		9		I007919	
SJA0059-ICV1	Initial Cal Check	QC		10	I007920	I007919	
20K0170-01RE1	JSMPDI-013SC-A-00-01-20110	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	11		I007919	Added 12/31/2020 by VTS
20K0170-02RE1	JSMPDI-013SC-A-01-02-20110	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	12		I007919	Added 12/31/2020 by VTS
20K0170-11RE1	JSMPDI-018SC-A-00-01-20110	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	13		I007919	Added 12/31/2020 by VTS
20K0170-23RE1	JSMPDI-022SC-A-00-01-20110	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	14		I007919	Added 12/31/2020 by VTS
20K0170-24RE1	JSMPDI-022SC-A-02-03-20110	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	15		I007919	Added 12/31/2020 by VTS
20K0318-02RE1	NCPDI-045SG-201117	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 03	16		I007919	Added 12/31/2020 by VTS
20K0318-03RE1	NCPDI-047SG-201117	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 02	17		I007919	Added 12/31/2020 by VTS
SJA0059-CCV1	Calibration Check	QC		18	I007920	I007919	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210107.b

	Time	Filename	LabID	ClientId	DF	
1	1142	NT1421010701.D	SJA0059-TUN1		1	|NO ISTDS FOUND||
2	1156	NT1421010702.D	SJA0059-CAL4		1	|18.76 642877||22.21 641722||33.06 741138|
3	1156	NT1421010702ICV1.d	SJA0059-ICV1		1	|18.76 642877||22.21 641722||33.06 741138|
4	1244	NT1421010703.D	SJA0059-CAL6		1	|18.76 622387||22.22 606119||33.06 752586|
5	1332	NT1421010704.D	SJA0059-CAL1		1	|18.76 622855||22.21 634917||33.06 741832|
6	1420	NT1421010705.D	SJA0059-CAL5		1	|18.76 626964||22.21 613613||33.06 751844|
7	1508	NT1421010706.D	SJA0059-CAL2		1	|18.76 621854||22.21 622610||33.06 703756|
8	1556	NT1421010707.D	SJA0059-CAL4		1	|18.76 639312||22.21 625499||33.06 719987|
9	1644	NT1421010708.D	SJA0059-CAL3		1	|18.76 610547||22.21 607025||33.06 703251|
10	1732	NT1421010709.D	SJA0059-SCV1		1	|18.76 462832||22.21 454007||33.06 502859|
11	1820	NT1421010710.D	SJA0059-ICB1		1	|18.76 501393||22.21 484652||33.06 571933|
12	1908	NT1421010711.D	20K0170-01RE1		5	|18.76 603143||22.21 601856||33.06 747797|
13	1956	NT1421010712.D	20K0170-02RE1		5	|18.76 637490||22.21 643334||33.06 795788|
14	2044	NT1421010713.D	20K0170-11RE1		50	|18.76 632530||22.21 643898||33.06 778385|
15	2132	NT1421010714.D	20K0170-23RE1		5	|18.76 658495||22.21 671713||33.06 807811|
16	2220	NT1421010715.D	20K0170-24RE1		10	|18.76 636627||22.21 640010||33.06 779358|
17	2308	NT1421010716.D	20K0318-02RE1		2	|18.76 638105||22.21 625787||33.06 805059|
18	2356	NT1421010717.D	20K0318-03RE1		2	|18.76 638434||22.21 638027||33.06 785512|
19	0044	NT1421010718.D	20K0318-04RE1		2	|18.76 656276||22.21 642501||33.06 862137|
20	0132	NT1421010719.D	20K0319-01RE1		2	|18.76 682408||22.21 680405||33.06 868743|

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210107.b

	Time	Filename	LabID	ClientId	DF						
21	0220	NT1421010720.D	20K0319-05RE1		5	|18.76	648654||	22.21	657367||	33.06	830740|
22	0308	NT1421010721.D	SJA0059-CCV1		1	|18.76	733237||	22.21	746955||	33.06	949706|

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210107.b

ARI Job No.: SJA0 Method: DFTPP8270E.m Instrument: nt14.i Date: 07-JAN-2021

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1142	NT1421010701.D	SJA0059-TUN1		1	NO MANUAL INTEGRATION
1156	NT1421010702.D	SJA0059-CAL4		1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benz
1156	NT1421010702ICV1.d	SJA0059-ICV1		1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total
1244	NT1421010703.D	SJA0059-CAL6		1	Benzo(b)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes,
1332	NT1421010704.D	SJA0059-CAL1		1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Total Benzofluoranthenes, Benzo(j)fluoranthene, Phenanth
1420	NT1421010705.D	SJA0059-CAL5		1	Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
1508	NT1421010706.D	SJA0059-CAL2		1	Benzo(b)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes, Benzo(Benzo(j)fluoranthene, Perylene-d12,
1556	NT1421010707.D	SJA0059-CAL4		1	Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes, Benzo(Perylene-d12,
1644	NT1421010708.D	SJA0059-CAL3		1	Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes, Perylene-d12,
1732	NT1421010709.D	SJA0059-SCV1		1	Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Perylene, Total Benzofluoranthenes,
1820	NT1421010710.D	SJA0059-ICB1		1	NO MANUAL INTEGRATION
1908	NT1421010711.D	20K0170-01RE1		5	Benzo(b)fluoranthene, Total Benzofluoranthenes,
1956	NT1421010712.D	20K0170-02RE1		5	Benzo(b)fluoranthene, Total Benzofluoranthenes,
2044	NT1421010713.D	20K0170-11RE1		50	Benzo(b)fluoranthene, Total Benzofluoranthenes,
2132	NT1421010714.D	20K0170-23RE1		5	Benzo(b)fluoranthene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
2220	NT1421010715.D	20K0170-24RE1		10	Benzo(b)fluoranthene, Total Benzofluoranthenes,
2308	NT1421010716.D	20K0318-02RE1		2	Benzo(b)fluoranthene, Total Benzofluoranthenes,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210107.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2356	NT1421010717.D	20K0318-03RE1		2	Benzo(b)fluoranthene, Biphenyl, Total Benzofluoranthenes,
0044	NT1421010718.D	20K0318-04RE1		2	Total Benzofluoranthenes,
0132	NT1421010719.D	20K0319-01RE1		2	Benzo(b)fluoranthene, Total Benzofluoranthenes,
0220	NT1421010720.D	20K0319-05RE1		5	Benzo(b)fluoranthene, Total Benzofluoranthenes,
0308	NT1421010721.D	SJA0059-CCV1		1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benz

Security Status Report

Date: 14-Jan-2021 10:26

NT1421010701.D	Data Locked	yev, 14-
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NT1421010702ICV1.d	Data Locked	yev, 14-
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NT1421010704.D	Data Locked	yev, 14-
NT1421010705.D	Data Locked	yev, 14-
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NT1421010707.D	Data Locked	yev, 14-
NT1421010708.D	Data Locked	yev, 14-
NT1421010709.D	Data Locked	yev, 14-
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NT1421010713.D	Data Locked	yev, 14-
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NT1421010716.D	Data Locked	yev, 14-
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NT1421010720.D	Data Locked	yev, 14-
NT1421010721.D	Data Locked	yev, 14-

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Sequence:	SJC0183	Instrument:	NT14
		Calibration:	EA00040

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SJC0183-TUN1	NT1421031301.D	NA	03/13/21 11:05
Initial Cal Check	SJC0183-ICV1	NT1421031302.D	NA	03/13/21 11:19
Low Cal Check	SJC0183-LCV1	NT1421031303.D	NA	03/13/21 12:21
Blank	BJC0107-BLK1	NT1421031304.D	Solid	03/13/21 13:10
LCS	BJC0107-BS1	NT1421031305.D	Solid	03/13/21 13:58
USMPDI-049SC-A-00-01-201104	21B0118-01	NT1421031306.D	Solid	03/13/21 14:47
USMPDI-049SC-A-00-01-201104	BJC0107-MS1	NT1421031307.D	Solid	03/13/21 15:35
USMPDI-049SC-A-00-01-201104	BJC0107-MSD1	NT1421031308.D	Solid	03/13/21 16:23
USMPDI-049SC-A-00-01-201104	21B0118-01RE1	NT1421031309.D	Solid	03/13/21 17:12
Calibration Check	SJC0183-CCV1	NT1421031310.D	NA	03/13/21 18:00

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Printed: 3/16/2021 3:53:27PM

ANALYSIS SEQUENCE

SJC0183

Instrument: NT14 Element Column ID: I006358
Calibration ID: EA00040 Tune File: 200104.U
EM Voltage: 1900

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SJC0183-TUN1	MS Tune	QC		1	I007631		
SJC0183-ICV1	Initial Cal Check	QC		2	I007920	I007919	
SJC0183-LCV1	Low Cal Check	QC		3	I007926	I007919	
SJC0183-CCV1	Calibration Check	QC		4	I007920	I007919	
BJC0107-BLK1	Blank	QC		5		I007919	
BJC0107-BS1	LCS	QC		6		I007919	
BJC0107-MS1	Matrix Spike	QC		7		I007919	
BJC0107-MSD1	Matrix Spike Dup	QC		8		I007919	
21B0118-01	JSMPDI-049SC-A-00-01-20110	8270E-SIM Alkyl PAH (Parents) Dual Scar	A 01	9		I007919	
21B0118-01RE1	JSMPDI-049SC-A-00-01-20110	8270E-SIM Alkyl PAH (Parents) Dual Scar	A 01	10		I007919	Added 3/16/2021 by PK

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210313.b

	Time	Filename	LabID	ClientId	DF	
1	1105	NT1421031301.D	SJC0183-TUN1		1	|NO ISTDS FOUND||
2	1119	NT1421031302.D	SJC0183-ICV1		1	|18.74 366886||22.18 368886||33.02 446096|
3	1221	NT1421031303.D	SJC0183-LCV1		1	|18.74 320574||22.19 350015||33.02 384713|
4	1310	NT1421031304.D	BJC0107-BLK1		1	|18.74 300659||22.18 317638||33.02 412654|
5	1358	NT1421031305.D	BJC0107-BS1		1	|18.74 303644||22.18 290875||33.02 405774|
6	1447	NT1421031306.D	21B0118-01		1	|18.74 326810||22.19 333649||33.03 532721|
7	1535	NT1421031307.D	BJC0107-MS1		1	|18.74 324975||22.19 327123||33.03 531710|
8	1623	NT1421031308.D	BJC0107-MSD1		1	|18.74 310100||22.20 307789||33.03 512838|
9	1712	NT1421031309.D	21B0118-01RE1		10	|18.74 294026||22.19 308863||33.02 429958|
10	1800	NT1421031310.D	SJC0183-CCV1		1	|18.74 337576||22.19 351902||33.02 452060|

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210313.b

Instrument: nt14.i Date: 13-MAR-2021

Time	Filename	LabID	DF	Manually Integrated Compounds
1119	NT1421031302.D	SJC0183-ICV1	1	Carbazole, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene, Perylene-d12,
1221	NT1421031303.D	SJC0183-LCV1	1	Benzo(k)fluoranthene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
1310	NT1421031304.D	BJC0107-BLK1	1	Perylene-d12,
1358	NT1421031305.D	BJC0107-BS1	1	Chrysene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene, Perylene-d12,
1447	NT1421031306.D	21B0118-01	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, 2,6-Dimethylnaphthalene, Total Benzofluoranthenes,
1535	NT1421031307.D	BJC0107-MS1	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
1623	NT1421031308.D	BJC0107-MSD1	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
1712	NT1421031309.D	21B0118-01RE1	10	Benzo(b)fluoranthene, Benzo(k)fluoranthene, 2,6-Dimethylnaphthalene, Total Benzofluoranthenes,
1800	NT1421031310.D	SJC0183-CCV1	1	Carbazole, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Benzo(g,h,i)perylene, Perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene, Perylene-d12,

Security Status Report

Date: 16-Mar-2021 15:54

NT1421031301.D	Data Locked	peter, 16-Mar-2021 15:54
NT1421031302.D	Data Locked	peter, 16-Mar-2021 15:54
NT1421031303.D	Data Locked	peter, 16-Mar-2021 15:54
NT1421031304.D	Data Locked	peter, 16-Mar-2021 15:54
NT1421031305.D	Data Locked	peter, 16-Mar-2021 15:54
NT1421031306.D	Data Locked	peter, 16-Mar-2021 15:54
NT1421031307.D	Data Locked	peter, 16-Mar-2021 15:54
NT1421031308.D	Data Locked	peter, 16-Mar-2021 15:54
NT1421031309.D	Data Locked	peter, 16-Mar-2021 15:54
NT1421031310.D	Data Locked	peter, 16-Mar-2021 15:54

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Sequence:	SJC0307	Instrument:	NT14
		Calibration:	EC00010

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Instrument Blank	SJC0307-IBL1	NT1421031304S.D	NA	03/13/21 13:10
USMPDI-049SC-A-00-01-201104	21B0118-01	NT1421031306S.D	Solid	03/13/21 14:47

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Printed: 3/19/2021 9:10:49AM

ANALYSIS SEQUENCE

SJC0307

Instrument: NT14 Element Column ID: i006358
Calibration ID: EC00010 Tune File: 200104u
EM Voltage: 1900

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SJC0307-ICV1	Initial Cal Check	QC		1	I007920	I007919	
SJC0307-IBL1	Instrument Blank	QC		2	I008041	I007919	
21B0118-01	JSMPDI-049SC-A-00-01-20110	8270E-SIM Alkyl PAH (Range) Dual Scan	A 02	3			

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210313.b\SIM.b

	Time	Filename	LabID	ClientId	DF						
1	1119	NT1421031302S.D	SJC0307-ICV1		1	|18.73	432046||22.06	492449||33.02	556243|		
2	1221	NT1421031303S.D	SJC0183-LCV1		1	|18.73	401998||22.07	17377||33.02	476447|		
3	1310	NT1421031304S.D	SJC0307-IBL1		1	|18.73	358827||22.06	373756||33.02	513816|		
4	1358	NT1421031305S.D	BJC0107-BS1		1	|18.73	360038||22.06	399516||33.02	503982|		
5	1447	NT1421031306S.D	21B0118-01		1	|18.73	386157||22.07	450213||33.03	647533|		
6	1535	NT1421031307S.D	BJC0107-MS1		1	|18.73	385536||22.07	405536||33.03	645688|		
7	1623	NT1421031308S.D	BJC0107-MSD1		1	|18.73	366422||22.07	417830||33.03	624479|		
8	1712	NT1421031309S.D	21B0118-01RE1		10	|18.73	352117||22.06	42108||33.02	519023|		

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210313.b\SIM.b

ARI Job No.: SJC0 Method: SIM.b\ALKYLRANGE.m Instrument: nt14.i Date: 13-MAR-2021

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1119	NT1421031302S.D	SJC0307-ICV1		1	NO MANUAL INTEGRATION
1221	NT1421031303S.D	SJC0183-LCV1		1	NO MANUAL INTEGRATION
1310	NT1421031304S.D	SJC0307-IBL1		1	NO MANUAL INTEGRATION
1358	NT1421031305S.D	BJC0107-BS1		1	NO MANUAL INTEGRATION
1447	NT1421031306S.D	21B0118-01		1	C1-Decalin, C2-Decalin, C3-Decalin, C4-Decalin, C1-Naphthalenes, C4-Naphthobenzothiophenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophenes, C2-Benzothiophenes, C3_Benzothiophenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C4
1535	NT1421031307S.D	BJC0107-MS1		1	NO MANUAL INTEGRATION
1623	NT1421031308S.D	BJC0107-MSD1		1	NO MANUAL INTEGRATION
1712	NT1421031309S.D	21B0118-01RE1		10	NO MANUAL INTEGRATION

Security Status Report

Date: 19-Mar-2021 09:23

NT1421031302S.D	Data Locked	yev, 19-
NT1421031303S.D	Data Locked	yev, 19-
NT1421031304S.D	Data Locked	yev, 19-
NT1421031305S.D	Data Locked	yev, 19-
NT1421031306S.D	Data Locked	yev, 19-
NT1421031307S.D	Data Locked	yev, 19-
NT1421031308S.D	Data Locked	yev, 19-
NT1421031309S.D	Data Locked	yev, 19-

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG/WO:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Sequence:	SJA0059	Instrument:	NT14
Calibration:	EA00040	Calibration Date:	01/07/2021

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SJA0059-ICV1 (Solid)			Lab File ID: NT1421010702ICV1.D				Analyzed: 01/07/21 11:56	
Naphthalene-d8	2.5000	99.7	80 - 120	11.766	11.766	0.0000	N/A	
Acenaphthene-d10	2.5000	103	80 - 120	17.239	17.23533	0.0037	N/A	
Phenanthrene-d10	2.5000	101	80 - 120	22.099	22.099	0.0000	N/A	
Chrysene-d12	2.5000	107	80 - 120	30.093	30.09483	-0.0018	N/A	
Perylene-d12	2.5000	110	80 - 120	33.393	33.39483	-0.0018	N/A	
SJA0059-ICB1 (Solid)			Lab File ID: NT1421010710.D				Analyzed: 01/07/21 18:20	
Naphthalene-d8			30 - 160	11.766	11.766	0.0000	N/A	
Acenaphthene-d10			30 - 160	17.228	17.23533	-0.0073	N/A	
Phenanthrene-d10			30 - 160	22.099	22.099	0.0000	N/A	
Chrysene-d12			30 - 160	30.093	30.09483	-0.0018	N/A	
Perylene-d12			30 - 160	33.393	33.39483	-0.0018	N/A	
SJA0059-CCV1 (Solid)			Lab File ID: NT1421010721.D				Analyzed: 01/08/21 03:08	
Naphthalene-d8	2.5000	98.3	50 - 150	11.766	11.766	0.0000	N/A	
Acenaphthene-d10	2.5000	104	50 - 150	17.228	17.23533	-0.0073	N/A	
Phenanthrene-d10	2.5000	99.2	50 - 150	22.088	22.099	-0.0110	N/A	
Chrysene-d12	2.5000	100	50 - 150	30.093	30.09483	-0.0018	N/A	
Perylene-d12	2.5000	113	50 - 150	33.393	33.39483	-0.0018	N/A	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG/WO:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Sequence:	SJC0183	Instrument:	NT14
Calibration:	EA00040	Calibration Date:	01/07/2021

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SJC0183-ICV1 (Solid)			Lab File ID: NT1421031302.D				Analyzed: 03/13/21 11:19	
Naphthalene-d8	2.5000	88.1	80 - 120	11.744	11.766	-0.0220	N/A	
Acenaphthene-d10	2.5000	97.7	80 - 120	17.206	17.23533	-0.0293	N/A	
Phenanthrene-d10	2.5000	101	80 - 120	22.066	22.099	-0.0330	N/A	
Chrysene-d12	2.5000	109	80 - 120	30.059	30.09483	-0.0358	N/A	
Perylene-d12	2.5000	103	80 - 120	33.359	33.39483	-0.0358	N/A	
SJC0183-LCV1 (Solid)			Lab File ID: NT1421031303.D				Analyzed: 03/13/21 12:21	
Naphthalene-d8	0.10000	97.8	0 - 200	11.744	11.766	-0.0220	N/A	
Acenaphthene-d10	0.10000	105	0 - 200	17.206	17.23533	-0.0293	N/A	
Phenanthrene-d10	0.10000	96.0	0 - 200	22.066	22.099	-0.0330	N/A	
Chrysene-d12	0.10000	68.3	0 - 200	30.07	30.09483	-0.0248	N/A	
Perylene-d12	0.10000		0 - 200		33.39483	-33.3948	N/A	
BJC0107-BLK1 (Solid)			Lab File ID: NT1421031304.D				Analyzed: 03/13/21 13:10	
Naphthalene-d8	150.00	48.3	30 - 160	11.733	11.766	-0.0330	N/A	
Acenaphthene-d10	150.00	64.5	30 - 160	17.206	17.23533	-0.0293	N/A	
Phenanthrene-d10	150.00	70.0	30 - 160	22.066	22.099	-0.0330	N/A	
Chrysene-d12	150.00	83.1	30 - 160	30.07	30.09483	-0.0248	N/A	
Perylene-d12	150.00	83.7	30 - 160	33.359	33.39483	-0.0358	N/A	
BJC0107-BS1 (Solid)			Lab File ID: NT1421031305.D				Analyzed: 03/13/21 13:58	
Naphthalene-d8	150.00	51.5	30 - 160	11.733	11.766	-0.0330	N/A	
Acenaphthene-d10	150.00	69.8	30 - 160	17.206	17.23533	-0.0293	N/A	
Phenanthrene-d10	150.00	83.6	30 - 160	22.066	22.099	-0.0330	N/A	
Chrysene-d12	150.00	92.2	30 - 160	30.059	30.09483	-0.0358	N/A	
Perylene-d12	150.00	86.3	30 - 160	33.359	33.39483	-0.0358	N/A	
21B0118-01 (Solid)			Lab File ID: NT1421031306.D				Analyzed: 03/13/21 14:47	
Naphthalene-d8	149.81	49.5	30 - 160	11.733	11.766	-0.0330	N/A	
Acenaphthene-d10	149.81	72.8	30 - 160	17.206	17.23533	-0.0293	N/A	
Phenanthrene-d10	149.81	82.8	30 - 160	22.077	22.099	-0.0220	N/A	
Chrysene-d12	149.81	72.6	30 - 160	30.07	30.09483	-0.0248	N/A	
Perylene-d12	149.81	88.0	30 - 160	33.37	33.39483	-0.0248	N/A	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG/WO:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Sequence:	SJC0183	Instrument:	NT14
Calibration:	EA00040	Calibration Date:	01/07/2021

Surrogate Compound	Spike Level ug/kg dry	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BJC0107-MS1 (Solid)			Lab File ID: NT1421031307.D				Analyzed: 03/13/21 15:35	
Naphthalene-d8	149.81	47.4	30 - 160	11.733	11.766	-0.0330	N/A	
Acenaphthene-d10	149.81	68.3	30 - 160	17.206	17.23533	-0.0293	N/A	
Phenanthrene-d10	149.81	76.0	30 - 160	22.077	22.099	-0.0220	N/A	
Chrysene-d12	149.81	66.0	30 - 160	30.07	30.09483	-0.0248	N/A	
Perylene-d12	149.81	78.1	30 - 160	33.37	33.39483	-0.0248	N/A	
BJC0107-MSD1 (Solid)			Lab File ID: NT1421031308.D				Analyzed: 03/13/21 16:23	
Naphthalene-d8	149.81	52.2	30 - 160	11.733	11.766	-0.0330	N/A	
Acenaphthene-d10	149.81	74.4	30 - 160	17.206	17.23533	-0.0293	N/A	
Phenanthrene-d10	149.81	82.8	30 - 160	22.077	22.099	-0.0220	N/A	
Chrysene-d12	149.81	73.4	30 - 160	30.07	30.09483	-0.0248	N/A	
Perylene-d12	149.81	87.3	30 - 160	33.37	33.39483	-0.0248	N/A	
21B0118-01RE1 (Solid)			Lab File ID: NT1421031309.D				Analyzed: 03/13/21 17:12	
Naphthalene-d8	149.81	55.3	30 - 160	11.744	11.766	-0.0220	N/A	
Acenaphthene-d10	149.81	85.3	30 - 160	17.206	17.23533	-0.0293	N/A	
Phenanthrene-d10	149.81	83.9	30 - 160	22.066	22.099	-0.0330	N/A	
Chrysene-d12	149.81	80.3	30 - 160	30.07	30.09483	-0.0248	N/A	
Perylene-d12	149.81	86.5	30 - 160	33.359	33.39483	-0.0358	N/A	
SJC0183-CCV1 (Solid)			Lab File ID: NT1421031310.D				Analyzed: 03/13/21 18:00	
Naphthalene-d8	2.5000	88.7	50 - 150	11.744	11.766	-0.0220	N/A	
Acenaphthene-d10	2.5000	102	50 - 150	17.206	17.23533	-0.0293	N/A	
Phenanthrene-d10	2.5000	98.6	50 - 150	22.066	22.099	-0.0330	N/A	
Chrysene-d12	2.5000	102	50 - 150	30.07	30.09483	-0.0248	N/A	
Perylene-d12	2.5000	106	50 - 150	33.359	33.39483	-0.0358	N/A	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Sequence:	SJA0059	Instrument:	NT14
		Calibration:	EA00040

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SJA0059-ICV1)		(Solid)	Lab File ID: NT1421010702ICV1.D				Analyzed: 01/07/21 11:56		
Fluorene-d10	642877	18.763	642877	18.763	100	50 - 200	0.000	+/-0.50	
Anthracene-d10	641722	22.209	641722	22.209	100	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	741138	33.055	741138	33.055	100	50 - 200	0.000	+/-0.50	
Secondary Cal Check (SJA0059-SCV1)		(Solid)	Lab File ID: NT1421010709.D				Analyzed: 01/07/21 17:32		
Fluorene-d10	462832	18.763	642877	18.763	72	50 - 200	0.000	+/-0.50	
Anthracene-d10	454007	22.209	641722	22.209	71	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	502859	33.055	741138	33.055	68	50 - 200	0.000	+/-0.50	
Initial Cal Blank (SJA0059-ICB1)		(Solid)	Lab File ID: NT1421010710.D				Analyzed: 01/07/21 18:20		
Fluorene-d10	501393	18.763	642877	18.763	78	50 - 200	0.000	+/-0.50	
Anthracene-d10	484652	22.209	641722	22.209	76	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	571933	33.055	741138	33.055	77	50 - 200	0.000	+/-0.50	

Analytical Resources, Incorporated
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INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Sequence:	SJC0183	Instrument:	NT14
		Calibration:	EA00040

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SJC0183-ICV1)		(Solid)		Lab File ID: NT1421031302.D				Analyzed: 03/13/21 11:19	
Fluorene-d10	366886	18.741	366886	18.741	100	50 - 200	0.000	+/-0.50	
Anthracene-d10	368886	22.176	368886	22.176	100	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	446096	33.021	446096	33.021	100	50 - 200	0.000	+/-0.50	
Low Cal Check (SJC0183-LCV1)		(Solid)		Lab File ID: NT1421031303.D				Analyzed: 03/13/21 12:21	
Fluorene-d10	320574	18.741	366886	18.741	87	50 - 200	0.000	+/-0.50	
Anthracene-d10	350015	22.187	368886	22.176	95	50 - 200	0.011	+/-0.50	
Benzo(e)pyrene-d12	384713	33.021	446096	33.021	86	50 - 200	0.000	+/-0.50	
Blank (BJC0107-BLK1)		(Solid)		Lab File ID: NT1421031304.D				Analyzed: 03/13/21 13:10	
Fluorene-d10	300659	18.74	366886	18.741	82	50 - 200	-0.001	+/-0.50	
Anthracene-d10	317638	22.176	368886	22.176	86	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	412654	33.021	446096	33.021	93	50 - 200	0.000	+/-0.50	
LCS (BJC0107-BS1)		(Solid)		Lab File ID: NT1421031305.D				Analyzed: 03/13/21 13:58	
Fluorene-d10	303644	18.741	366886	18.741	83	50 - 200	0.000	+/-0.50	
Anthracene-d10	290875	22.176	368886	22.176	79	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	405774	33.021	446096	33.021	91	50 - 200	0.000	+/-0.50	
USMPDI-049SC-A-00-01-201104 (21B0118-01)		(Solid)		Lab File ID: NT1421031306.D				Analyzed: 03/13/21 14:47	
Fluorene-d10	326810	18.741	366886	18.741	89	50 - 200	0.000	+/-0.50	
Anthracene-d10	333649	22.187	368886	22.176	90	50 - 200	0.011	+/-0.50	
Benzo(e)pyrene-d12	532721	33.033	446096	33.021	119	50 - 200	0.012	+/-0.50	
Matrix Spike (BJC0107-MS1)		(Solid)		Lab File ID: NT1421031307.D				Analyzed: 03/13/21 15:35	
Fluorene-d10	324975	18.741	366886	18.741	89	50 - 200	0.000	+/-0.50	
Anthracene-d10	327123	22.187	368886	22.176	89	50 - 200	0.011	+/-0.50	
Benzo(e)pyrene-d12	531710	33.032	446096	33.021	119	50 - 200	0.011	+/-0.50	
Matrix Spike Dup (BJC0107-MSD1)		(Solid)		Lab File ID: NT1421031308.D				Analyzed: 03/13/21 16:23	
Fluorene-d10	310100	18.741	366886	18.741	85	50 - 200	0.000	+/-0.50	
Anthracene-d10	307789	22.198	368886	22.176	83	50 - 200	0.022	+/-0.50	
Benzo(e)pyrene-d12	512838	33.033	446096	33.021	115	50 - 200	0.012	+/-0.50	
USMPDI-049SC-A-00-01-201104 (21B0118-01RE1		(Solid)		Lab File ID: NT1421031309.D				Analyzed: 03/13/21 17:12	
Fluorene-d10	294026	18.74	366886	18.741	80	50 - 200	-0.001	+/-0.50	
Anthracene-d10	308863	22.187	368886	22.176	84	50 - 200	0.011	+/-0.50	
Benzo(e)pyrene-d12	429958	33.021	446096	33.021	96	50 - 200	0.000	+/-0.50	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21B0118
Client:	Anchor QEA, LLC	Project:	US Moorings
Sequence:	SJC0307	Instrument:	NT14
		Calibration:	EC00010

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Instrument Blank (SJC0307-IBL1)		(Oil)	Lab File ID: NT1421031304S.D				Analyzed: 03/13/21 13:10		
Fluorene-d10	358827	18.731	432046	18.731	83	50 - 200		+/-0.50	
Anthracene-d10	373756	22.057	492449	22.057	76	50 - 200		+/-0.50	
Benzo(e)pyrene-d12	513816	33.023	556243	33.023	92	50 - 200		+/-0.50	
USMPDI-049SC-A-00-01-201104 (21B0118-01)		(Solid)	Lab File ID: NT1421031306S.D				Analyzed: 03/13/21 14:47		
Fluorene-d10	386157	18.731	432046	18.731	89	50 - 200		+/-0.50	
Anthracene-d10	450213	22.068	492449	22.057	91	50 - 200		+/-0.50	
Benzo(e)pyrene-d12	647533	33.034	556243	33.023	116	50 - 200		+/-0.50	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HOLDING TIME SUMMARY

Analysis: EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21B0118

Client: Anchor QEA, LLC Project: US Moorings

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
USMPDI-049SC-A-00-01-201104 21B0118-01	11/04/20 15:30	02/05/21 12:58	03/04/21 10:33	119	365	03/13/21 14:47	9	40	
USMPDI-049SC-A-00-01-201104 21B0118-01	11/04/20 15:30	02/05/21 12:58	03/04/21 10:33	119	365	03/13/21 14:47	9	40	
USMPDI-049SC-A-00-01-201104 21B0118-01RE1	11/04/20 15:30	02/05/21 12:58	03/04/21 10:33	119	365	03/13/21 17:12	9	40	
Matrix Spike BJC0107-MS1	11/04/20 15:30	02/05/21 12:58	03/04/21 10:33	119	365	03/13/21 15:35	9	40	
Matrix Spike Dup BJC0107-MSD1	11/04/20 15:30	02/05/21 12:58	03/04/21 10:33	119	365	03/13/21 16:23	9	40	

* Indicates hold time exceedance.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

METHOD DETECTION AND REPORTING LIMITS

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21B0118

Client: Anchor QEA, LLC Project: US Moorings

Matrix: Oil Instrument: NT14

Analyte	MDL	RL	Units
C1-Decalins		100	ug/kg
C2-Decalins		100	ug/kg
C3-Decalins		100	ug/kg
C4-Decalins		100	ug/kg
C1-Naphthalenes		100	ug/kg
C2-Naphthalenes		100	ug/kg
C3-Naphthalenes		100	ug/kg
C4-Naphthalenes		100	ug/kg
C1-Fluorenes		100	ug/kg
C2-Fluorenes		100	ug/kg
C3-Fluorenes		100	ug/kg
C1-Dibenzothiophenes		100	ug/kg
C2-Dibenzothiophenes		100	ug/kg
C3-Dibenzothiophenes		100	ug/kg
C4-Dibenzothiophenes		100	ug/kg
C1-Phenanthrenes/Anthracenes		100	ug/kg
C2-Phenanthrenes/Anthracenes		100	ug/kg
C3-Phenanthrenes/Anthracenes		100	ug/kg
C4-Phenanthrenes/Anthracenes		100	ug/kg
C1-Fluoranthenes/Pyrenes		100	ug/kg
C2-Fluoranthenes/Pyrenes		100	ug/kg
C3-Fluoranthenes/Pyrenes		100	ug/kg
C4-Fluoranthenes/Pyrenes		100	ug/kg
C1-Benzo(a)anthracenes/Chrysenes		100	ug/kg
C2-Benzo(a)anthracenes/Chrysenes		100	ug/kg
C3-Benzo(a)anthracenes/Chrysenes		100	ug/kg
C4-Benzo(a)anthracenes/Chrysenes		100	ug/kg
C1-Benzothiophenes		100	ug/kg
C2-Benzothiophenes		100	ug/kg
C3-Benzothiophenes		100	ug/kg
C1-Naphthobenzothiophenes		100	ug/kg
C2-Naphthobenzothiophenes		100	ug/kg
C3-Naphthobenzothiophenes		100	ug/kg
C4-Naphthobenzothiopenes		100	ug/kg
C1-Dibenzo(a)anthracenes		100	ug/kg
C2-Dibenzo(a)anthracenes		100	ug/kg

Analytical Resources, Incorporated
Analytical Chemists and Consultants

METHOD DETECTION AND REPORTING LIMITS

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.
SDG: 21B0118
Client: Anchor QEA, LLC
Project: US Moorings
Matrix: Oil
Instrument: NT14

Analyte	MDL	RL	Units
C3-Dibenzo(a)anthracenes		100	ug/kg

Analytical Resources, Incorporated
Analytical Chemists and Consultants

METHOD DETECTION AND REPORTING LIMITS

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21B0118

Client: Anchor QEA, LLC Project: US Moorings

Matrix: Solid Instrument: NT14

Analyte	MDL	RL	Units
trans-Decalin	0.03	5.0	ug/kg
cis-Decalin	0.5	5.0	ug/kg
Naphthalene	0.4	5.0	ug/kg
1-Methylnaphthalene	0.4	5.0	ug/kg
2-Methylnaphthalene	0.4	5.0	ug/kg
Biphenyl	0.3	5.0	ug/kg
2,6-Dimethylnaphthalene	0.4	5.0	ug/kg
Acenaphthylene	0.3	5.0	ug/kg
Acenaphthene	0.5	5.0	ug/kg
Dibenzofuran	0.4	5.0	ug/kg
2,3,5-Trimethylnaphthalene	0.4	5.0	ug/kg
Fluorene	0.5	5.0	ug/kg
Benzo(b)thiophene	0.4	5.0	ug/kg
Phenanthrene	0.9	5.0	ug/kg
Anthracene	0.05	5.0	ug/kg
Carbazole	0.7	5.0	ug/kg
1-Methylphenanthrene	0.5	5.0	ug/kg
Fluoranthene	1.4	5.0	ug/kg
Dibenzothiophene	0.7	5.0	ug/kg
Pyrene	1.0	5.0	ug/kg
Benzo(a)anthracene	1.4	5.0	ug/kg
Chrysene	0.7	5.0	ug/kg
Benzo(b)fluoranthene	0.8	5.0	ug/kg
Benzo(j)fluoranthene	0.7	5.0	ug/kg
Benzo(k)fluoranthene	0.8	5.0	ug/kg
Benzo(e)pyrene	0.6	5.0	ug/kg
Benzo(a)pyrene	1.0	5.0	ug/kg
Indeno(1,2,3-cd)pyrene	0.4	5.0	ug/kg
Dibenzo(a,h)anthracene	0.7	5.0	ug/kg
Benzo(g,h,i)perylene	0.5	5.0	ug/kg
Perylene	0.4	5.0	ug/kg
Benzo(b)naphtho(2,1-d)thiophene	5.0	5.0	ug/kg
C1-Decalins	0.5	5.0	ug/kg
C2-Decalins	0.5	5.0	ug/kg
C3-Decalins	0.5	5.0	ug/kg
C4-Decalins	0.5	5.0	ug/kg

Analytical Resources, Incorporated
Analytical Chemists and Consultants

METHOD DETECTION AND REPORTING LIMITS

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21B0118

Client: Anchor QEA, LLC Project: US Moorings

Matrix: Solid Instrument: NT14

Analyte	MDL	RL	Units
C1-Naphthalenes	0.4	5.0	ug/kg
C2-Naphthalenes	0.4	5.0	ug/kg
C3-Naphthalenes	0.4	5.0	ug/kg
C4-Naphthalenes	0.4	5.0	ug/kg
C1-Fluorenes	0.5	5.0	ug/kg
C2-Fluorenes	0.5	5.0	ug/kg
C3-Fluorenes	0.5	5.0	ug/kg
C1-Dibenzothiophenes	0.7	5.0	ug/kg
C2-Dibenzothiophenes	0.7	5.0	ug/kg
C3-Dibenzothiophenes	0.7	5.0	ug/kg
C4-Dibenzothiophenes	0.7	5.0	ug/kg
C1-Phenanthrenes/Anthracenes	0.9	5.0	ug/kg
C2-Phenanthrenes/Anthracenes	0.9	5.0	ug/kg
C3-Phenanthrenes/Anthracenes	0.9	5.0	ug/kg
C4-Phenanthrenes/Anthracenes	0.9	5.0	ug/kg
C1-Fluoranthenes/Pyrenes	1.0	5.0	ug/kg
C2-Fluoranthenes/Pyrenes	1.0	5.0	ug/kg
C3-Fluoranthenes/Pyrenes	1.0	5.0	ug/kg
C4-Fluoranthenes/Pyrenes	1.0	5.0	ug/kg
C1-Benzo(a)anthracenes/Chrysenes	0.7	5.0	ug/kg
C2-Benzo(a)anthracenes/Chrysenes	0.7	5.0	ug/kg
C3-Benzo(a)anthracenes/Chrysenes	0.7	5.0	ug/kg
C4-Benzo(a)anthracenes/Chrysenes	0.7	5.0	ug/kg
C1-Benzothiophenes	0.4	5.0	ug/kg
C2-Benzothiophenes	0.4	5.0	ug/kg
C3-Benzothiophenes	0.4	5.0	ug/kg
C1-Naphthobenzothiophenes	2.5	5.0	ug/kg
C2-Naphthobenzothiophenes	2.5	5.0	ug/kg
C3-Naphthobenzothiophenes	2.5	5.0	ug/kg
C4-Naphthobenzothiopenes	2.5	5.0	ug/kg
C1-Dibenzo(a)anthracenes	0.7	5.0	ug/kg
C2-Dibenzo(a)anthracenes	0.7	5.0	ug/kg
C3-Dibenzo(a)anthracenes	0.7	5.0	ug/kg

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

PJLA Testing ISO/IEC 17025 Accreditation Number: 63520
PJLA Reference Material Producer ISO GUIDE 34 Accreditation Number: 63520

COA Form
Revision 3 (3/2015)

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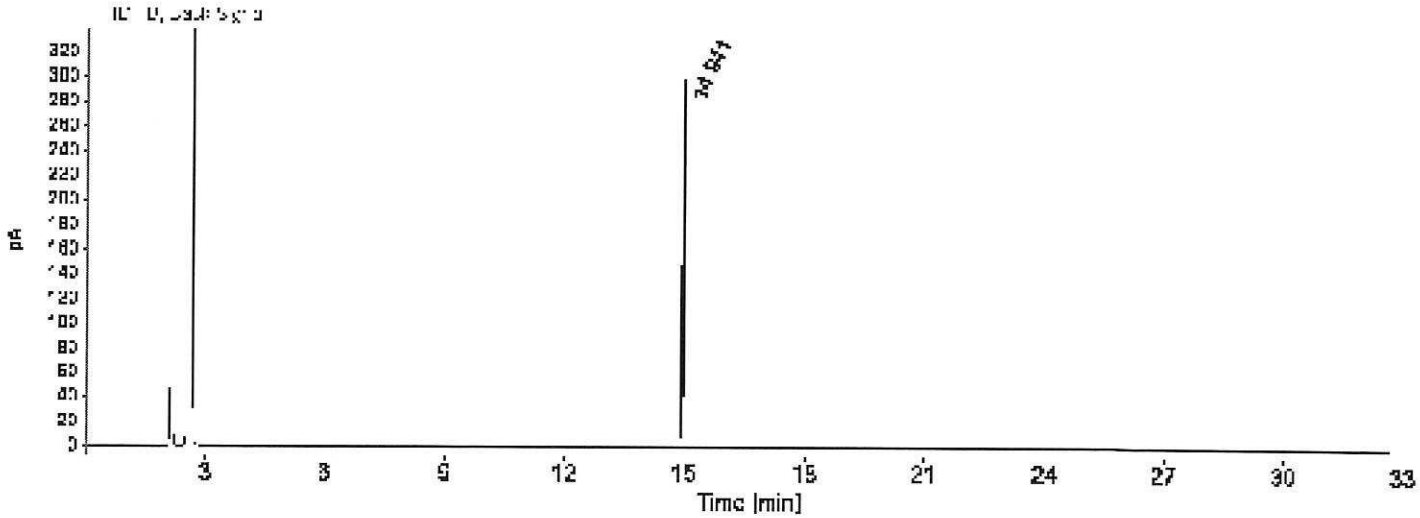
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Gas Chromatography / Flame Ionization Detector (GC/FID)

Data file: C:\Chem32\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-G008-17-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
Reference Material Producer ISO GUIDE 34 Accreditation Number:63520

Cambridge Isotope Laboratories, Inc.

Certificate of Analysis

Product Name:
(Isotopic Label & Enrichment Specification)
DI-N-OCTYL PHTHALATE
(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.

H3101
Recd. JR
03/28/19

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%

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.

110 Benner Circle
Bellefonte, PA 16823-8812
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.:** A0144261

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 : November 30, 2024 **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		2,009.4 µg/mL	+/- 11.6829 µg/mL	Gravimetric
	CAS # 3855-82-1	(Lot PR-18488)		+/- 90.5053 µg/mL	Unstressed
	Purity 99%			+/- 100.4268 µg/mL	Stressed
2	Naphthalene-d8		2,016.0 µg/mL	+/- 11.7212 µg/mL	Gravimetric
	CAS # 1146-65-2	(Lot M-1452)		+/- 90.8018 µg/mL	Unstressed
	Purity 99%			+/- 100.7559 µg/mL	Stressed
3	Acenaphthene-d10		2,015.9 µg/mL	+/- 11.7207 µg/mL	Gravimetric
	CAS # 15067-26-2	(Lot PR-25444)		+/- 90.7981 µg/mL	Unstressed
	Purity 99%			+/- 100.7517 µg/mL	Stressed
4	Phenanthrene-d10		2,017.2 µg/mL	+/- 11.7285 µg/mL	Gravimetric
	CAS # 1517-22-2	(Lot PR-23065)		+/- 90.8581 µg/mL	Unstressed
	Purity 98%			+/- 100.8183 µg/mL	Stressed
5	Chrysene-d12		2,014.5 µg/mL	+/- 11.7125 µg/mL	Gravimetric
	CAS # 1719-03-5	(Lot PR-29295)		+/- 90.7343 µg/mL	Unstressed
	Purity 99%			+/- 100.6809 µg/mL	Stressed
6	Perylene-d12		1,999.9 µg/mL	+/- 11.6277 µg/mL	Gravimetric
	CAS # 1520-96-3	(Lot PR-27342)		+/- 90.0774 µg/mL	Unstressed
	Purity 99%			+/- 99.9521 µg/mL	Stressed

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

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

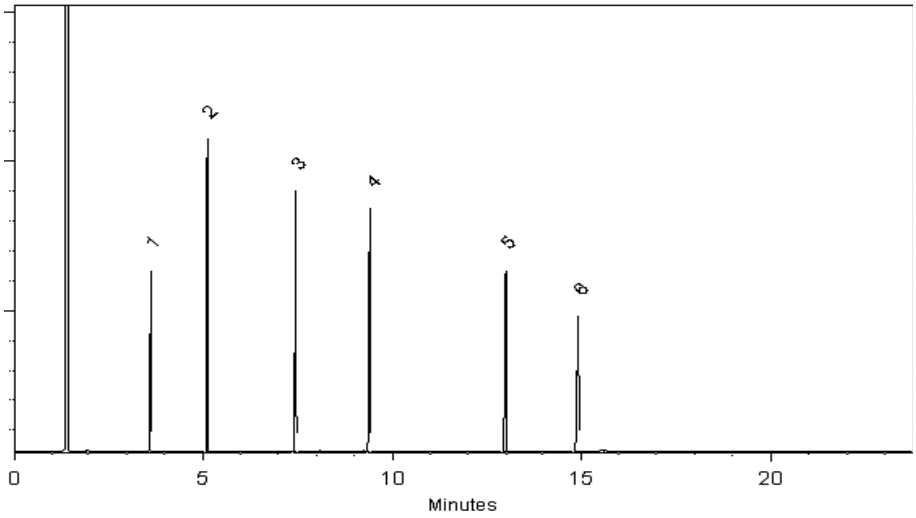
Carrier Gas:
hydrogen-constant pressure 10 psi.

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.

Maggie Wang
Maggie Wang - Operations Technician I

Date Mixed: 18-Dec-2018 **Balance:** B345965662

Jennifer L Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 20-Dec-2018

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.

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

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. : 31206 **Lot No.:** A0144261

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 : November 30, 2024 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

H 3186

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dichlorobenzene-d4		2,009.4 µg/mL	+/- 11.6829	µg/mL	Gravimetric
	CAS # 3855-82-1	(Lot PR-18488)		+/- 90.5053	µg/mL	Unstressed
	Purity 99%			+/- 100.4268	µg/mL	Stressed
2	Naphthalene-d8		2,016.0 µg/mL	+/- 11.7212	µg/mL	Gravimetric
	CAS # 1146-65-2	(Lot M-1452)		+/- 90.8018	µg/mL	Unstressed
	Purity 99%			+/- 100.7559	µg/mL	Stressed
3	Acenaphthene-d10		2,015.9 µg/mL	+/- 11.7207	µg/mL	Gravimetric
	CAS # 15067-26-2	(Lot PR-25444)		+/- 90.7981	µg/mL	Unstressed
	Purity 99%			+/- 100.7517	µg/mL	Stressed
4	Phenanthrene-d10		2,017.2 µg/mL	+/- 11.7285	µg/mL	Gravimetric
	CAS # 1517-22-2	(Lot PR-23065)		+/- 90.8581	µg/mL	Unstressed
	Purity 98%			+/- 100.8183	µg/mL	Stressed
5	Chrysene-d12		2,014.5 µg/mL	+/- 11.7125	µg/mL	Gravimetric
	CAS # 1719-03-5	(Lot PR-29295)		+/- 90.7343	µg/mL	Unstressed
	Purity 99%			+/- 100.6809	µg/mL	Stressed
6	Perylene-d12		1,999.9 µg/mL	+/- 11.6277	µg/mL	Gravimetric
	CAS # 1520-96-3	(Lot PR-27342)		+/- 90.0774	µg/mL	Unstressed
	Purity 99%			+/- 99.9521	µg/mL	Stressed

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

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

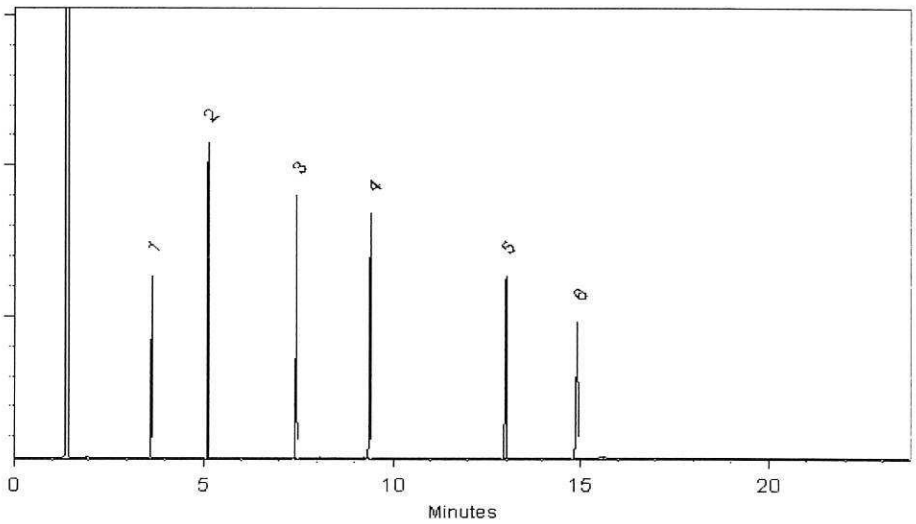
Carrier Gas:
hydrogen-constant pressure 10 psi.

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.

Maggie Wang
Maggie Wang - Operations Technician I

Date Mixed: 18-Dec-2018 **Balance:** B345965662

Jennifer L Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 20-Dec-2018

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

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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)

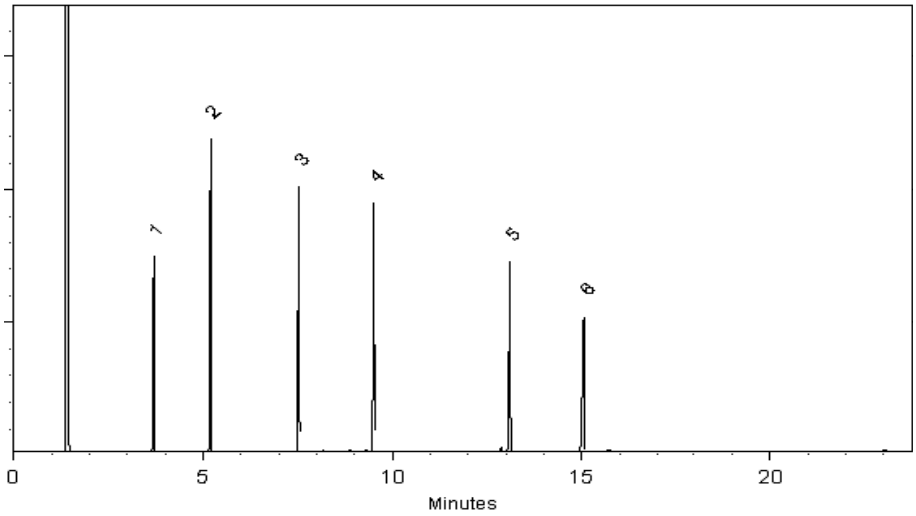
Carrier Gas:
hydrogen-constant pressure 10 psi.

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.

Certificate of Analysis

phenomenex ...breaking with tradition

Phenova Certified Reference Materials are sold by Phenomenex.
411 Madrid Ave., Torrance, CA 90501 USA ▪ Tel: 310-212-0555 ▪ Fax: 310-328-7768 ▪ info@phenomenex.com
Access your MSDS and digital C of A at **www.phenomenex.com/mysupport. Re-order at www.phenomenex.com/standards**

Certified Reference Material

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

Catalog No.: AL0-101443
Description: Aniline
Storage: 4 °C
Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Lot Number: CL13167
Certification Date: January 30, 2019
Expiration Date: January 31, 2027

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Aniline	62-53-3	1000	± 3.380%

H009588
Anline-1000ug/mL
Solvent / Lot: CL13167
Prep: 10/3/2019 by VS
Exp: 1/31/2027
Location: GC

IL11110613_us

ACCREDITED
Reference Material Producer
Certificate No. 2427.02

phenova Certified Reference Materials

Manufactured by Phenova, Inc.

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

ilac-MRA ACCREDITED
Chemical Testing Laboratory
Certificate No. 2427.03

SIGMA-ALDRICH®

sigma-aldrich.com

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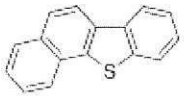
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

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.

CERTIFIED WEIGHT REPORT

Part Number: 70476
Lot Number: 011619
Description: Benzo(j)fluoranthene

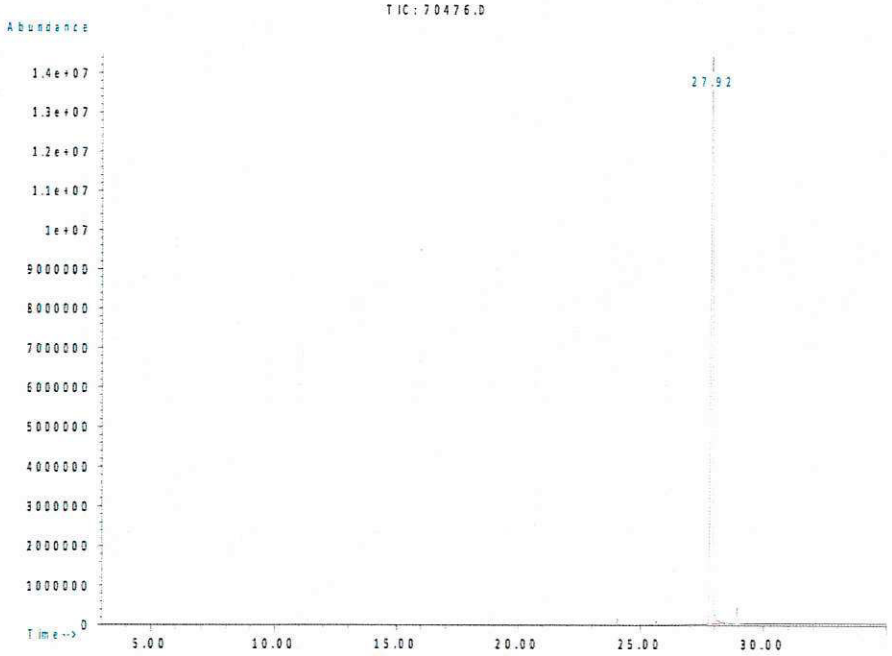
Solvent(s): Methylene chloride **Lot#** 102669

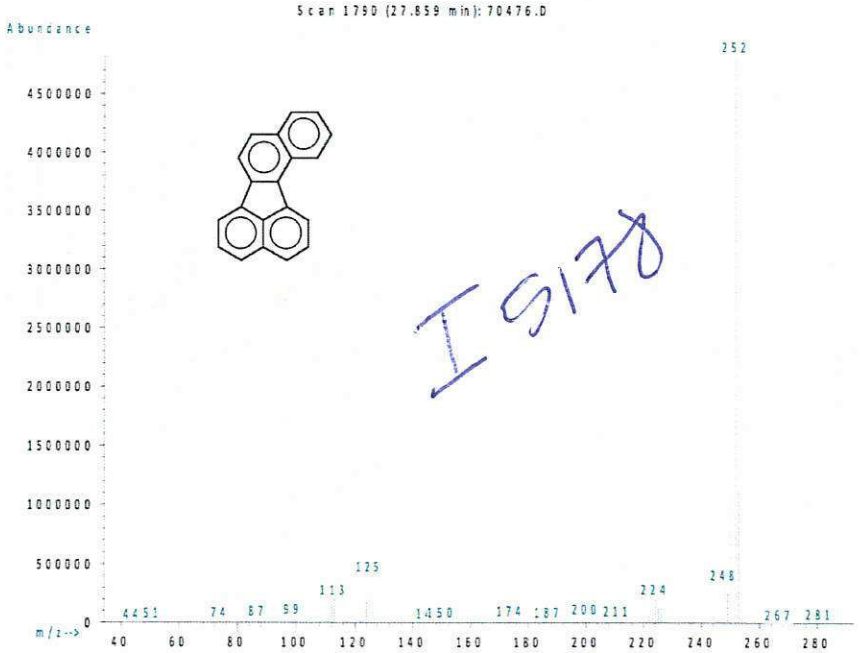
Expiration Date: 011624
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 2684186 5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 25.0 0.001 Flask Uncertainty

Formulated By: Mario Luis	011619	DATE
Reviewed By: Pedro L. Rentas	011619	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	0.02558	1004.2	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.





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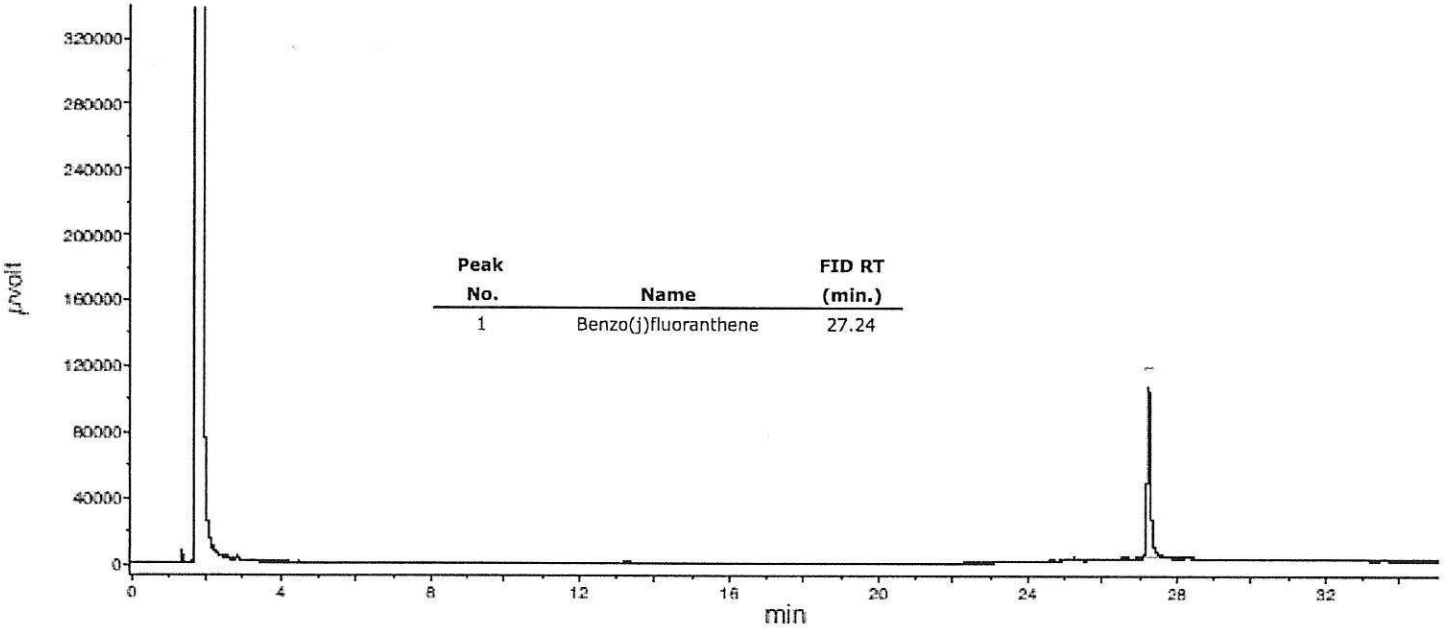
- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, 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).

Run 42, "P70476 L041918 [1000µg/mL in MeCl2]"

Run Length: 35.00 min, 20999 points at 10 points/second.
Created: Fri, Jan 18, 2019 at 7:06:56 PM.
Sampled: Sequence "011719-GC9M1", Method "GC9-M1".
Analyzed using default settings.

Comments

GC9-M1 Analysis by Melissa Stonier
Column ID Rtx-5 30 meter x 0.53mm x .5um Film Thickness
Flow rates; Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL, Hydrogen (detector) = 30 mL, Air (detector) =360 mL
Oven Temp 1 = 50°C (1 min), Rate = 10°C/min, Oven Temp 2 = 300°C (9 min), Total Run Time = 35 Minutes.
Injector Temp = 200°C, FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 4



Peak No.	Name	FID RT (min.)
1	Benzo(j)fluoranthene	27.24

Absolute Standards, Inc.
800-368-1131
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Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part Number: 93462
Lot Number: 022620
Description: PAH Standard
30 components
Expiration Date: 022625
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UTB

Solvent(s): Methylene chloride
Lot# 102669

5E-05 Balance Uncertainty
Volume(s) shown below were combined and diluted to (mL): 20.0 0.003 Flask Uncertainty

Formulated By: Eli Aliaga 022620 DATE
Reviewed By: Pedro L. Rentas 022620 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

I5187

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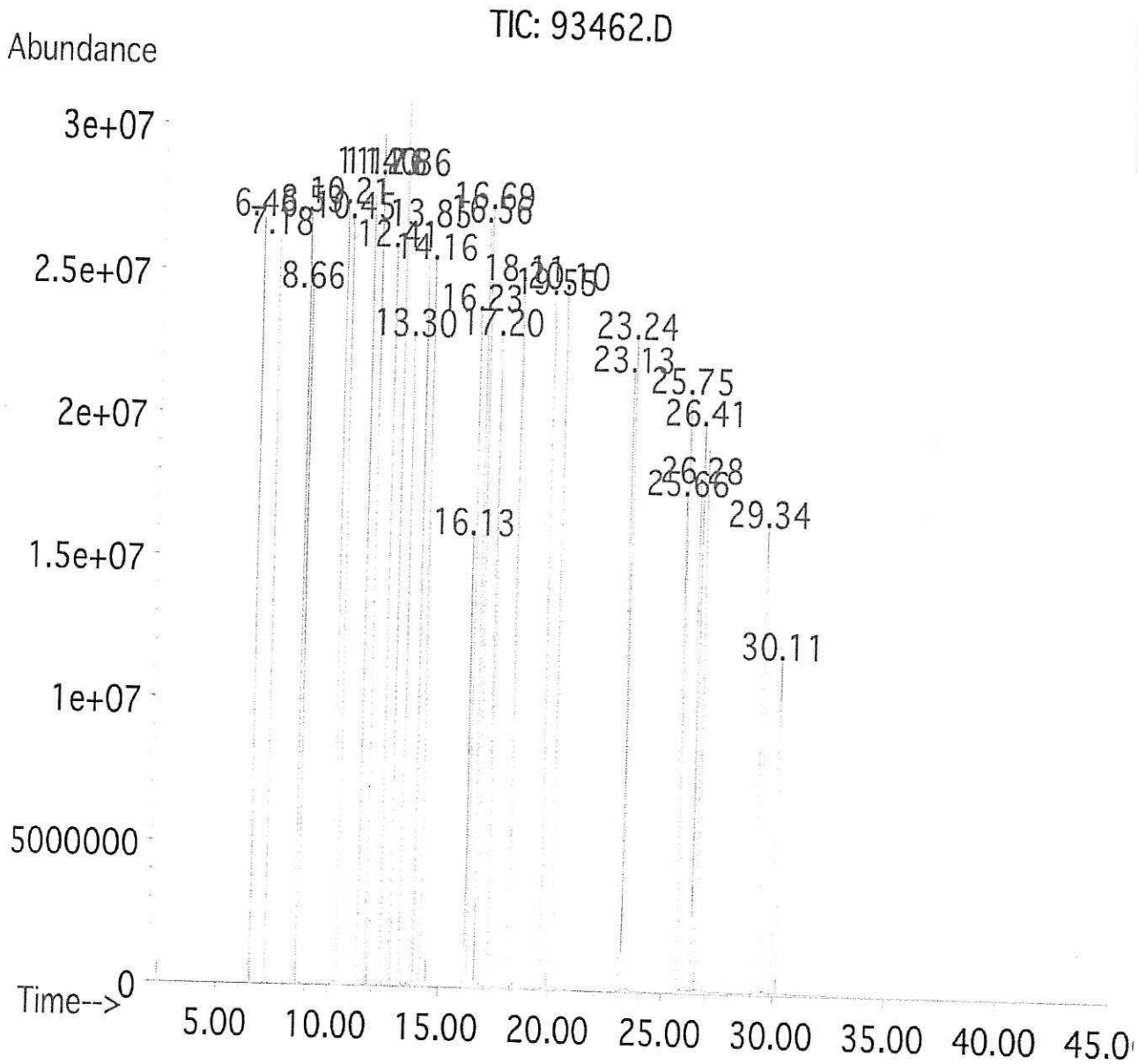
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).



Method GC8MSD-2Long: Column:SPB-5 (30m X 0.25mm ID X 0.25μm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (14min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Gina McLane.

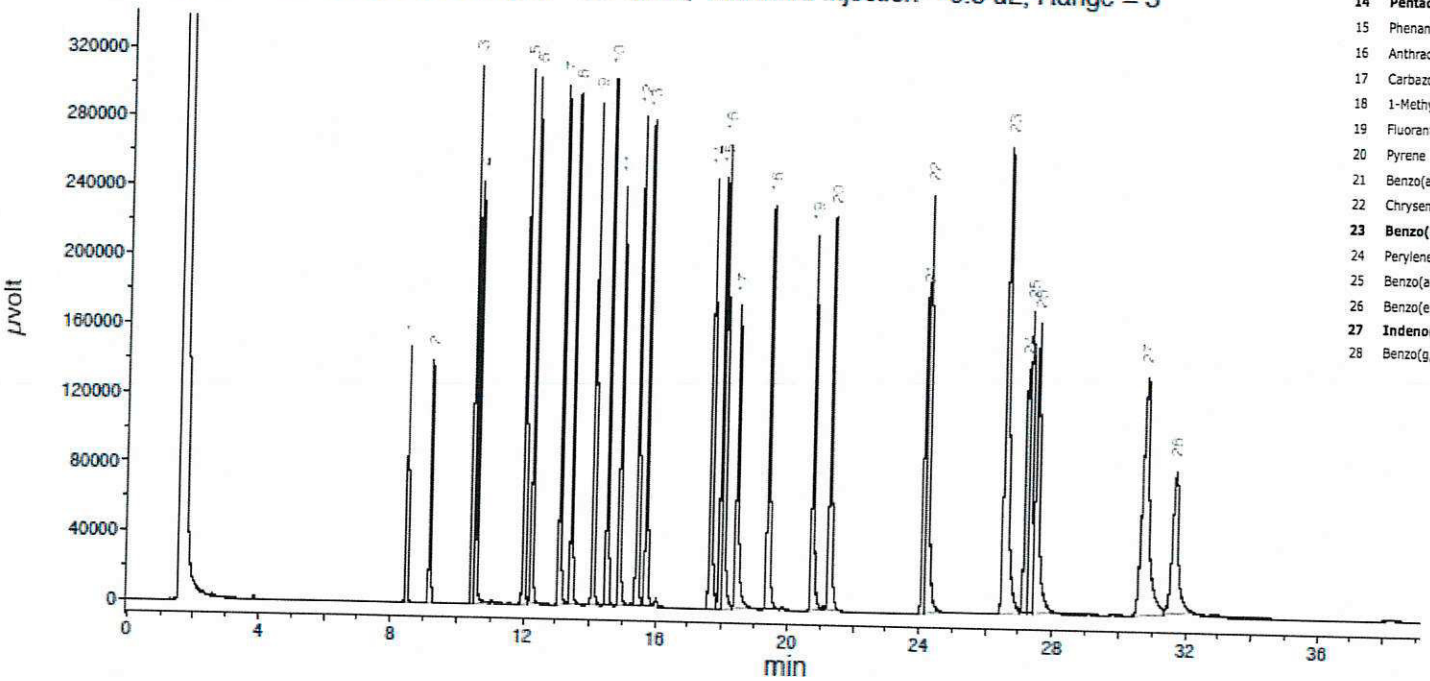
	Retention Time (min.)
Decahydronaphthalene (Decalin) (isomer)	6.46
Decahydronaphthalene (Decalin) (isomer)	7.18
Naphthalene	8.53
Thianaphthene	8.66
2-Methylnaphthalene	10.21
1-Methylnaphthalene	10.45
Biphenyl	11.4
2,6-Dimethylnaphthalene	11.76
Acenaphthylene	12.41
Acenaphthene	12.86
Dibenzofuran	13.3
2,3,5-Trimethylnaphthalene	13.85
Fluorene	14.16
Pentachlorophenol	16.13
Dibenzothiophene	16.23
Phenanthrene	16.56
Anthracene	16.69
Carbazole	17.2
1-Methylphenanthrene	18.11
Fluoranthene	19.55
Pyrene	20.1
Benzo(a)anthracene	23.13
Chrysene	23.24
Benzo(b)fluoranthene	25.66
Benzo(k)fluoranthene	25.75
Perylene	26.28
Benzo(a)pyrene	26.41
Benzo(e)pyrene	26.61
Indeno(1,2,3-cd)pyrene	29.34
Dibenzo(a,h)anthracene	29.34
Benzo(g,h,i)perylene	30.11

Run 47, "P93462 L022620 [1000µg/mL in MeCl2]"

Run Length: 40.00 min, 23999 points at 10 points/second.
Created: Wed, Mar 4, 2020 at 4:09:15 AM.
Sampled: Sequence "030220-GC9M2", Method "GC9-M2".
Analyzed using Method "GC9-M2".

Comments

GC9-M2 Analysis by Candice Warren
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates; Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) =360 mLOven Temp 1 = 50°C (1 min).
Rate = 10°C/min, Oven Temp 2 = 300°C (14 min), Total Run Time = 40 Minutes. Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 3



Peak No.	Name	FID RT (min.)
1	Decahydronaphthalene (Decalin) (isomer)	8.96
2	Decahydronaphthalene (Decalin) (isomer)	9.67
3	Naphthalene	10.96
4	Thianaphthene	11.09
5	2-Methylnaphthalene	12.53
6	1-Methylnaphthalene	12.78
7	Biphenyl	13.63
8	2,6-Dimethylnaphthalene	13.99
9	Acenaphthylene	14.63
10	Acenaphthene	15.07
11	Dibenzofuran	15.44
12	2,3,5-Trimethylnaphthalene	15.98
13	Fluorene	16.26
14	**Pentachlorophenol/Dibenzothiophene**	**18.22**
15	Phenanthrene	18.51
16	Anthracene	18.62
17	Carbazole	19.01
18	1-Methylphenanthrene	20.00
19	Fluoranthene	21.34
20	Pyrene	21.88
21	Benzo(a)anthracene	24.74
22	Chrysene	24.84
23	**Benzo(b)fluoranthene/Benzo(k)fluoranthene**	**27.36**
24	Perylene	28.04
25	Benzo(a)pyrene	28.18
26	Benzo(e)pyrene	28.42
27	**Indeno(1,2,3-cd)pyrene/Dibenzo(a,h)anthracene**	**32.26**
28	Benzo(g,h,i)perylene	33.30

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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101244
Description: Benzidines Standard
Storage: 4 °C
Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Lot Number: CL14922
Certification Date: February 11, 2020
Expiration Date: January 31, 2030

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzidine	92-87-5	2000	± 3.051%
3,3'-Dichlorobenzidine	91-94-1	2000	± 2.243%

I 5996

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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 2 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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Certified Reference Material

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Catalog No.: AL0-101246
Description: Benzoic Acid
Storage: 4 °C
Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Lot Number: CL13637
Certification Date: May 29, 2019
Expiration Date: May 31, 2029

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzoic acid	65-85-0	2000	± 1.568%

I 5997

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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 Guide 34[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 the calibration and calibration verification of chromatographic instrumentation performed in routine laboratory analysis.

4. Instruction: 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 certified analytes in the mixture.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Material Safety Data Sheet (MSDS) is available at www.phenomenex.com/mysupport.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 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 Guide 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 Guide 34. 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 Guide 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC Guide 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO Guide 34.

12. Period of Validity: The Certified Values and their uncertainties 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 31:2000(E) – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35:2006(E) – Reference Material – General and Statistical Principles for Certification.
[3] ISO Guide 34:2009(E) – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC Guide 17025:2005(E) – 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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Certified Reference Material

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

Catalog No.:	AL0-101291	**Lot Number:**	CL10999
Description:	GC/MS Tuning Mix	**Certification Date:**	May 9, 2014
Storage:	4 °C	**Expiration Date:**	December 31, 2023
Provided As:	1 mL in 2 mL Ampoule in Methylene chloride	**Revision Date:**	June 19, 2015

Andrea 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

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Manufactured by Phenova, Inc.

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

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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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Certified Reference Material

This product is certified in accordance with Phenova's ISO 17034 accreditation and supported by Phenova's ISO/IEC 17025 chemical testing accreditation

Catalog No.: AL0-101444
Lot Number: CL14983
Description: 8270 Calibration Standard
Certification Date: February 25, 2020
Storage: -18 °C
Expiration Date: May 31, 2021
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

I 6000

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Acenaphthene	83-32-9	1000	± 0.310%
Acenaphthylene	208-96-8	1000	± 1.929%
Anthracene	120-12-7	1000	± 5.397%
Azobenzene	103-33-3	1000	± 0.236%
Benzo(a)anthracene	56-55-3	1000	± 0.145%
Benzo(a)pyrene	50-32-8	1000	± 0.247%
Benzo(b)fluoranthene	205-99-2	1000	± 3.321%
Benzo(k)fluoranthene	207-08-9	1000	± 0.247%
Benzo(g,h,i)perylene	191-24-2	1000	± 0.145%
Benzyl alcohol	100-51-6	1000	± 4.051%
Benzyl butyl phthalate	85-68-7	1000	± 0.480%
bis(2-Chloroethoxy)methane	111-91-1	1000	± 2.657%
bis(2-Chloroethyl) ether	111-44-4	1000	± 0.486%
bis(2-Chloroisopropyl) ether	108-60-1	1000	± 0.148%
bis(2-Ethylhexyl) adipate	103-23-1	1000	± 0.479%
bis(2-Ethylhexyl) phthalate	117-81-7	1000	± 0.750%
4-Bromophenyl phenyl ether	101-55-3	1000	± 0.479%
Carbazole	86-74-8	1000	± 0.158%

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Certified Reference Material

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Catalog No.: AL0-101444
Lot Number: CL14983
Description: 8270 Calibration Standard
Certification Date: February 25, 2020
Storage: -18 °C
Expiration Date: May 31, 2021
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
4-Chloroaniline	106-47-8	1000	± 0.300%
4-Chloro-3-methylphenol	59-50-7	1000	± 0.433%
2-Chloronaphthalene	91-58-7	1000	± 2.726%
2-Chlorophenol	95-57-8	1000	± 0.383%
4-Chlorophenyl phenyl ether	7005-72-3	1000	± 2.292%
Chrysene	218-01-9	1000	± 0.170%
Dibenz(a,h)anthracene	53-70-3	1000	± 0.508%
Dibenzofuran	132-64-9	1000	± 0.310%
Di-n-butyl phthalate	84-74-2	1000	± 1.665%
1,2-Dichlorobenzene	95-50-1	1000	± 0.236%
1,3-Dichlorobenzene	541-73-1	1000	± 0.309%
1,4-Dichlorobenzene	106-46-7	1000	± 2.506%
2,4-Dichlorophenol	120-83-2	1000	± 0.433%
Diethyl phthalate	84-66-2	1000	± 2.520%
2,4-Dimethylphenol	105-67-9	1000	± 5.032%
Dimethyl phthalate	131-11-3	1000	± 0.519%
1,2-Dinitrobenzene	528-29-0	1000	± 2.955%
1,3-Dinitrobenzene	99-65-0	1000	± 0.309%
1,4-Dinitrobenzene	100-25-4	1000	± 0.252%
2,4-Dinitrophenol	51-28-5	1000	± 0.433%
2,4-Dinitrotoluene	121-14-2	1000	± 0.274%

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Certified Reference Material

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Catalog No.: AL0-101444
Description: 8270 Calibration Standard
Storage: -18 °C
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Lot Number: CL14983
Certification Date: February 25, 2020
Expiration Date: May 31, 2021

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2,6-Dinitrotoluene	606-20-2	1000	± 0.304%
Di-n-octyl phthalate	117-84-0	1000	± 0.486%
Fluoranthene	206-44-0	1000	± 0.236%
Fluorene	86-73-7	1000	± 4.506%
Hexachlorobenzene	118-74-1	1000	± 0.152%
Hexachlorobutadiene	87-68-3	1000	± 1.147%
Hexachlorocyclopentadiene	77-47-4	1000	± 0.153%
Hexachloroethane	67-72-1	1000	± 0.309%
Indeno(1,2,3-cd)pyrene	193-39-5	1000	± 3.135%
Isophorone	78-59-1	1000	± 6.179%
2-Methyl-4,6-dinitrophenol	534-52-1	1000	± 0.393%
1-Methylnaphthalene	90-12-0	1000	± 0.507%
2-Methylnaphthalene	91-57-6	1000	± 1.306%
2-Methylphenol	95-48-7	1000	± 0.432%
3-Methylphenol	108-39-4	500	± 3.156%
4-Methylphenol	106-44-5	500	± 3.156%
Naphthalene	91-20-3	1000	± 0.238%
2-Nitroaniline	88-74-4	1000	± 0.224%
3-Nitroaniline	99-09-2	1000	± 0.235%
4-Nitroaniline	100-01-6	1000	± 0.417%
Nitrobenzene	98-95-3	1000	± 2.055%

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Catalog No.:	AL0-101444	**Lot Number:**	CL14983
Description:	8270 Calibration Standard	**Certification Date:**	February 25, 2020
Storage:	-18 °C	**Expiration Date:**	May 31, 2021
Provided As:	1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)		

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2-Nitrophenol	88-75-5	1000	± 5.252%
4-Nitrophenol	100-02-7	1000	± 0.545%
N-Nitrosodimethylamine	62-75-9	1000	± 0.519%
N-Nitrosodiphenylamine	86-30-6	1000	± 1.231%
N-Nitrosodi-n-propylamine	621-64-7	1000	± 4.903%
Pentachlorophenol	87-86-5	1000	± 0.152%
Phenanthrene	85-01-8	1000	± 1.650%
Phenol	108-95-2	1000	± 0.432%
Pyrene	129-00-0	1000	± 4.350%
Pyridine	110-86-1	1000	± 0.519%
2,3,4,6-Tetrachlorophenol	58-90-2	1000	± 0.247%
2,3,5,6-Tetrachlorophenol	935-95-5	1000	± 1.537%
1,2,4-Trichlorobenzene	120-82-1	1000	± 0.236%
2,4,5-Trichlorophenol	95-95-4	1000	± 0.384%
2,4,6-Trichlorophenol	88-06-2	1000	± 0.384%

Notes: The proper chemical name for Bis(2-Chloroiospropyl) ether is 2,2'-oxybis(1-chloropropane). The analytical uncertainty contribution to the expanded uncertainty for 3 and 4-Methylphenol is measured as the total of the two analytes. N-Nitrosodiphenylamine presents as Diphenylamine at 854 µg/mL.

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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 2 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)

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part Number: 93462
Lot Number: 092220
Description: PAH Standard
30 components
Expiration Date: 092225
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 23060

Solvent(s): Methylene chloride **Lot#** 102669

5E-05 Balance Uncertainty
Volume(s) shown below were combined and diluted to (mL): 20.0 0.003 Flask Uncertainty

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

Case 1:18-cv-11926-PBS Document 78-8 Filed 10/30/20 Page 708 of 715

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Certified Reference Material CRM

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AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 70476
Lot Number: 092220
Description: Benzo(j)fluoranthene

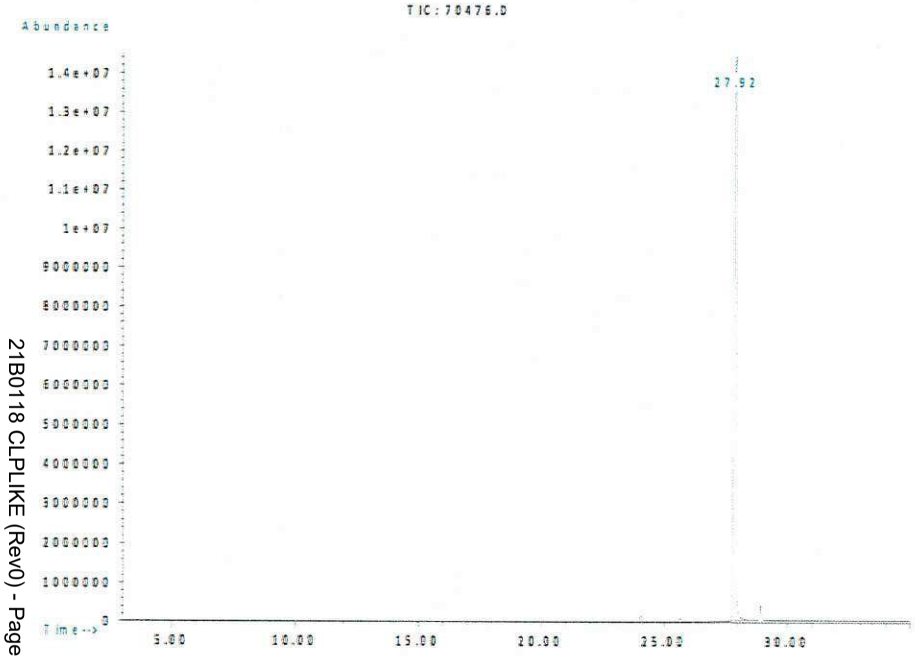
Solvent(s): **Lot#**
Methylene chloride 104929

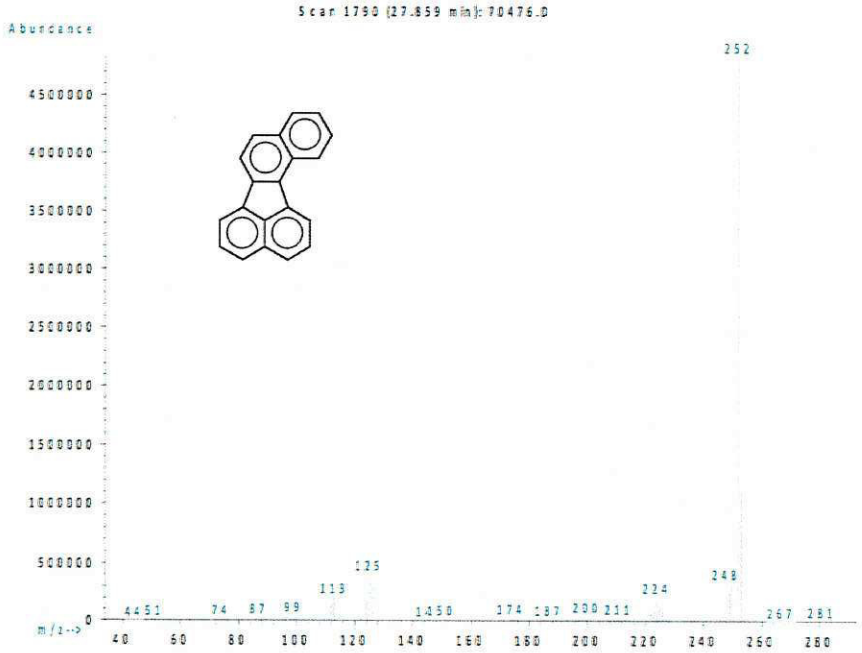
Expiration Date: 092225
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 23060 5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 25.0 0.001 Flask Uncertainty

		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:

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 G-97

USMPDI-049SC-A-00-01-201104

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	US Moorings				
Matrix:	Sediment	Laboratory ID:	21B0118-01 A	SDG:	21B0118
Sampled:	11/04/20 15:30	Prepared:	02/08/21 22:02	File ID:	
% Solids:	44.16	Preparation:	No Prep Wet Chem	Analyzed:	02/08/21 22:18
Batch:	BJB0278	Sequence:		Initial/Final:	5 g Wet / 5 g
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	44.16	1	0.04	0.04	

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PREPARATION BATCH SUMMARY

SM 2540 G-97

Laboratory:	Analytical Resources, Inc.			SDG:	21B0118
Client:	Anchor QEA, LLC			Project:	US Moorings
Batch:	BJB0278	Batch Matrix:	Solid	Preparation:	No Prep Wet Chem

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
USMPDI-049SC-A-00-01-201104	21B0118-01		02/08/21 22:02	Keep Solids
Blank	BJB0278-BLK1		02/08/21 22:03	

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET for Solid samples

Method: PSEP 1986, SM2540, EPA 160.1

(dry at 104 (12-24 hr) then combust at 550 (30 min))

Batch:	BJB0278
Date:	2/8/2021 22:18
Analyst:	KLE

Instrumentation			
Drying Ovens:	12	**Analytical Balance:**	BAL2
Muffle Furnace:	N / A		

Batch drying time		
record times as mm/dd/yy hh:mm		
date/time in oven:	2/8/2021 22:18	
date/time out:	2/18/2021 11:58	
elapsed hrs =	229.7	> 24 hr

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000
if ash wt > dry wt, "Chk for Err"
if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000

Balance Calibration Check

Record weights to 4 places

Cal Weight ID:	CV-02	CV-02	CV-02	CV-02	CV-02		CV-02	CV-02	CV-02							
Date & Time:	2/8/21 22:04	2/8/21 21:08	2/18/21 0:16													
Cal Wt (g):	10.0000	10.0000	10.0000	9.9999												
		Cal OK!	Cal OK!	Cal OK!												

Sample ID	Dish #	Tare Wt. (g)	Dish & Sample (g)	Dry Wt 104C (grams) 1	2	3	dry Wt (g)	TS (%)	Notes	ASH WT 550C (grams) 1	2	3	Ash Wt (g)	TVS (mg/kg)	(%)	Notes
BJB0278-BLK1	1	0.7982	0.0000	0.7981			-0.0001	0.01%								
21B0104-01	2	0.7851	7.3964	5.9477			5.1626	78.09%								
21B0104-02	3	0.8125	7.8219	5.7615			4.9490	70.61%								
BJB0278-DUP1	4	0.7994	7.7023	5.8654			5.0660	73.39%	RPD=3.9							
21B0104-03	5	0.7946	7.1790	5.9026			5.1080	80.01%								
21B0118-01	6	0.8044	7.1395	3.6022			2.7978	44.16%								

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Form I

METHOD BLANK DATA SHEET

SM 2540 G-97

TotalAnalytes

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	21B0118
Client:	Anchor QEA, LLC			Project:	US Moorings
Batch:	BJB0278	Laboratory ID:	BJB0278-BLK1	Prepared:	02/08/21 22:03
Matrix:	Solid	Preparation:	No Prep Wet Chem	Analyzed:	02/08/21 22:18
Sequence:		Calibration:		Instrument:	BAL2

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	ND	1	0.04	0.04	U

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HOLDING TIME SUMMARY

Analysis: SM 2540 G-97

Laboratory: Analytical Resources, Inc. SDG: 21B0118

Client: Anchor QEA, LLC Project: US Moorings

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
USMPDI-049SC-A-00-01-201104 21B0118-01	11/04/20 15:30	02/05/21 12:58	02/08/21 22:02	96	365	02/08/21 22:18	96	365	

* Indicates hold time exceedance.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

METHOD DETECTION AND REPORTING LIMITS

SM 2540 G-97

Laboratory: Analytical Resources, Inc.
SDG: 21B0118
Client: Anchor QEA, LLC
Project: US Moorings
Matrix: Solid
Instrument:

Analyte	MDL	RL	Units
Total Solids	0.04	0.04	%