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

07 July 2021

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

RE: Gasco Siltronic - US Moorings

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

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

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

| Associated Work Order(s) | Associated SDG ID(s) |
|---|---|
| 21D0180 | N/A |

Shelly Fishel

Digitally signed by Shelly Fishel
Date: 2021.07.07 17:17:25 -07'00'

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

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

Analytical Resources, Inc.

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

Shelly Fishel, Project Manager

Accredited in accordance with nelac
Cert# 100006-012

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

# ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

21D0180

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

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

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

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

**Comment:**

| Relinquished By: | Received By: | Relinquished By: | Received By: | Relinquished By: | Received By: |
|---|---|---|---|---|---|
| Signature | Signature | Signature | Signature | Signature | Signature |
| Print Name D Peterson | Print Name Jacob Veltz | Print Name | Print Name | Print Name | Print Name |
| Company AQ | Company ARI | Company | Company | Company | Company |
| Date/Time 4.15.21 1400 | Date/Time 04/16/2021 1030 | Date/Time | Date/Time | Date/Time | Date/Time |

Date Printed: 4/14/2021

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

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Cooler Receipt Form

ARI Client: Anchor QEA

Project Name: Cosco Shipping US Moorings

COC No(s): _____ (NA)

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

Assigned ARI Job No: 21D0180

Tracking No: 7734 5848 2883 NA

**Preliminary Examination Phase:**

| | | |
|---|---|---|
| Were intact, properly signed and dated custody seals attached to the outside of the cooler? | (YES) | NO |
| Were custody papers included with the cooler? | (YES) | NO |
| Were custody papers properly filled out (ink, signed, etc.) | (YES) | NO |

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1030 2.5 ____ ____ ____ ____ ____

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

Temp Gun ID#: D00506

Cooler Accepted by: JS Date: 04/16/2021 Time: 1030

***Complete custody forms and attach all shipping documents***

## Log-In Phase:

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

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

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

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

| Sample ID on Bottle | Sample ID on COC | Sample ID on Bottle | Sample ID on COC |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

***Additional Notes, Discrepancies, & Resolutions:***

By: Date:

| | | | |
|---|---|---|---|
| Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings | |
| 1201 3rd Ave, Suite 2600 | Project Number: | [none] | **Reported:** |
| Seattle, WA 98101 | Project Manager: | Delaney Peterson | 07/07/2021 16:52 |

## ANALYTICAL REPORT FOR SAMPLES

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

# Analytical Report

| | | |
|---|---|---|
| Anchor QEA, LLC | Project: Gasco Siltronic - US Moorings | |
| 1201 3rd Ave, Suite 2600 | Project Number: [none] | **Reported:** |
| Seattle WA, 98101 | Project Manager: Delaney Peterson | 07-Jul-2021 16:52 |

## Case Narrative

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

**Revised Report - July 7, 2021**

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

**Sample receipt**

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

**Alkyl PAH - EPA Method SW8270E-SIM**

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

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

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

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

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

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

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

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits.

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

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

**Wet Chemistry**

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

Initial and continuing calibrations were within method requirements.

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

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

# Analytical Report

| | | |
|---|---|---|
| Anchor QEA, LLC | Project: Gasco Siltronic - US Moorings | |
| 1201 3rd Ave, Suite 2600 | Project Number: [none] | **Reported:** |
| Seattle WA, 98101 | Project Manager: Delaney Peterson | 07-Jul-2021 16:52 |

## Case Narrative

# Analytical Report

| | | |
|---|---|---|
| Anchor QEA, LLC | Project: Gasco Siltronic - US Moorings | |
| 1201 3rd Ave, Suite 2600 | Project Number: [none] | **Reported:** |
| Seattle WA, 98101 | Project Manager: Delaney Peterson | 07-Jul-2021 16:52 |

## Case Narrative

# QUALIFIERS AND NOTES

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

USMPDI-010SG-210414

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

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

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

USMPDI-010SG-210414

# Form I

## ORGANIC ANALYSIS DATA SHEET

## EPA 8270E-SIM

**Alkyl PAH Parents**

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

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

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

Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043063.D



Date : 02-MAY-2021 09:13

Client ID:

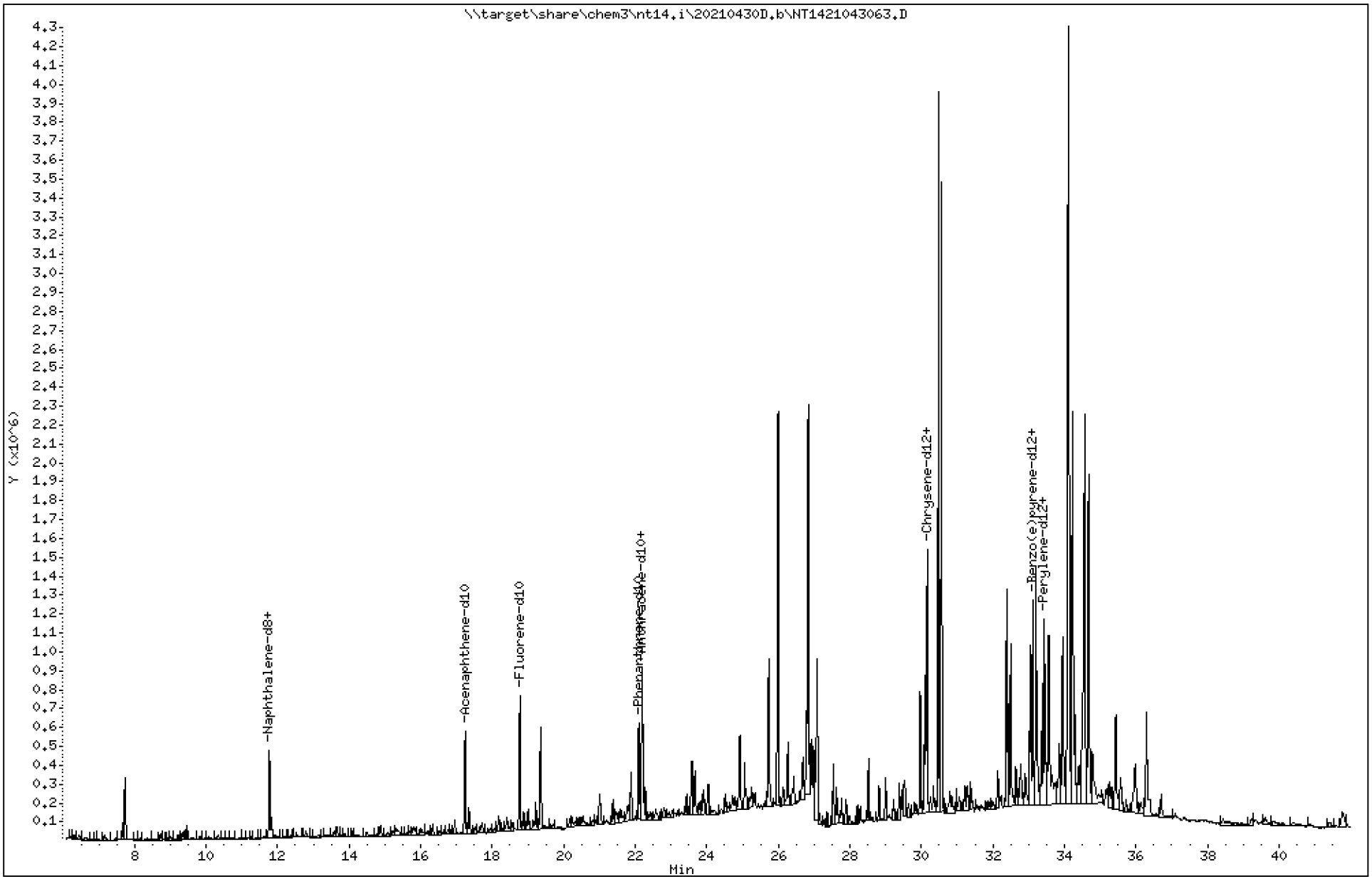
Instrument: nt14.i

Sample Info: 21D0180-01

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25




Revised Report 21D0180 07/07/2021 Page 11 of 1709

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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

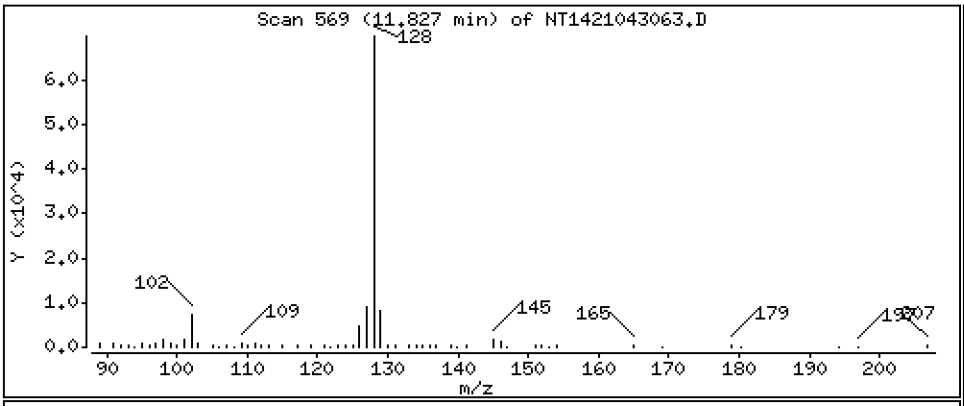
Operator: VTS

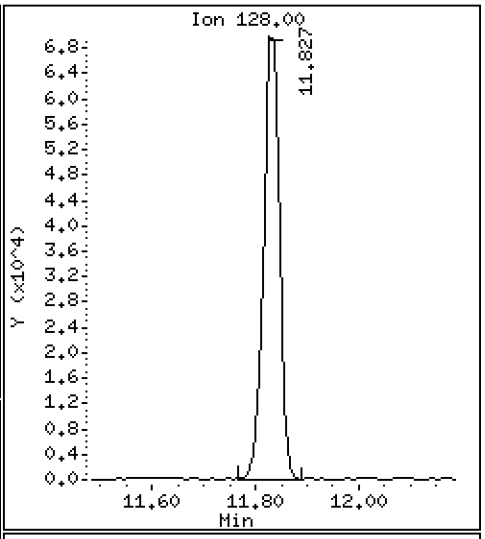
Column phase: Rxi-17Sil MS

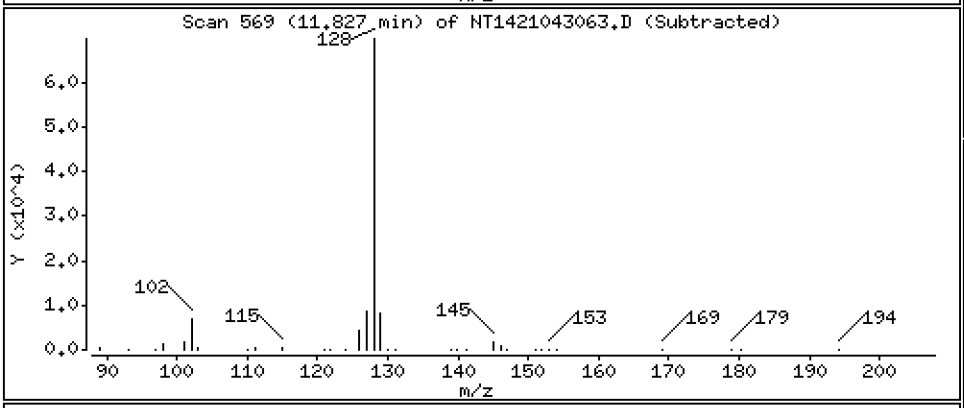
Column diameter: 0.25

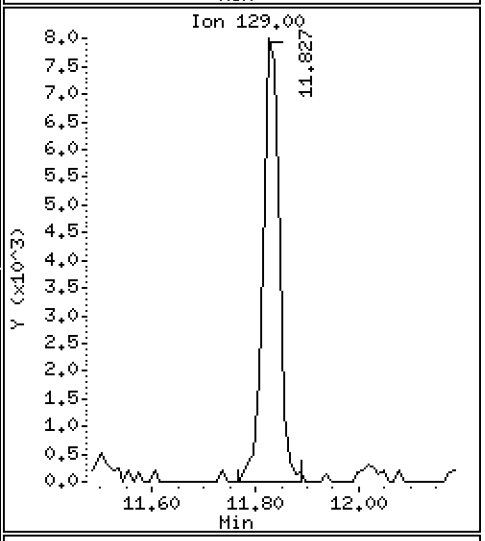
7 Naphthalene

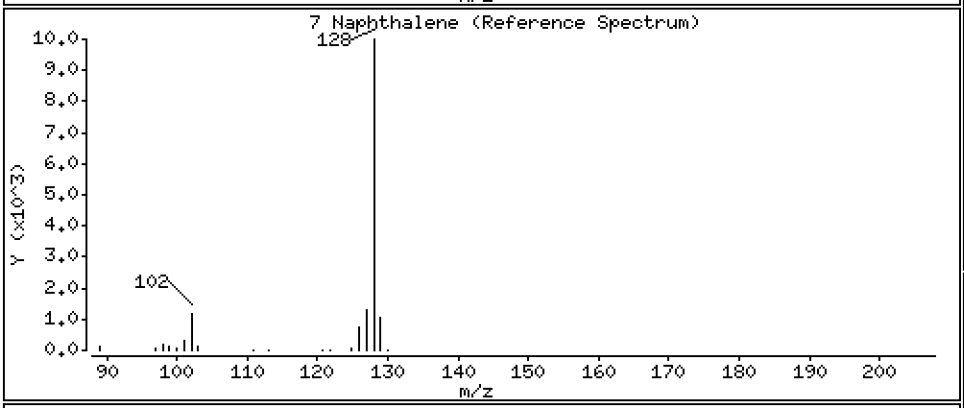
Concentration: 0.5001 ug/mL

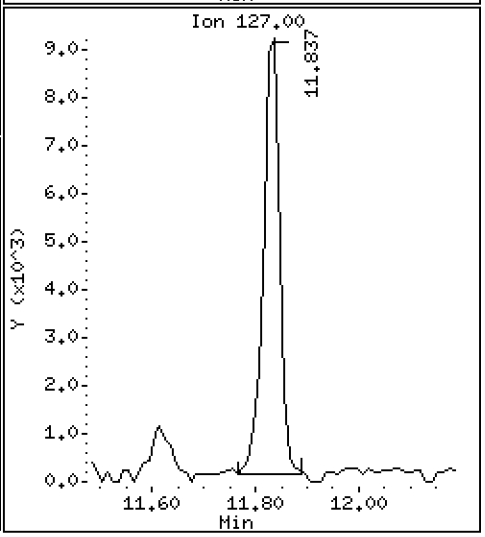


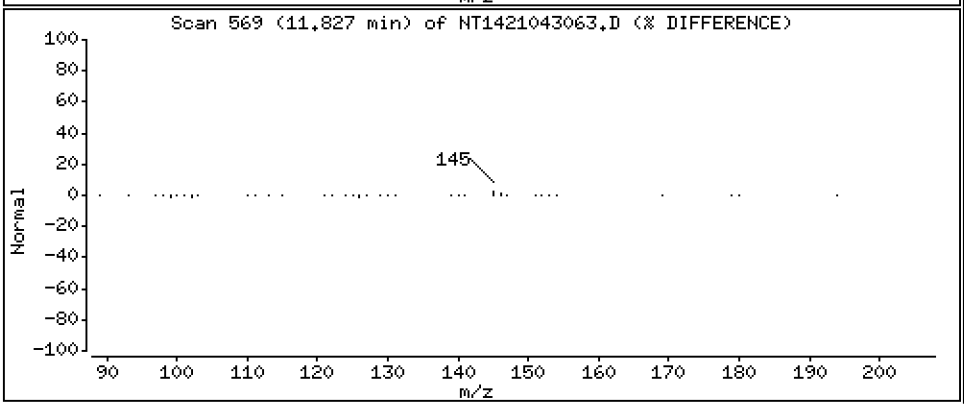



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

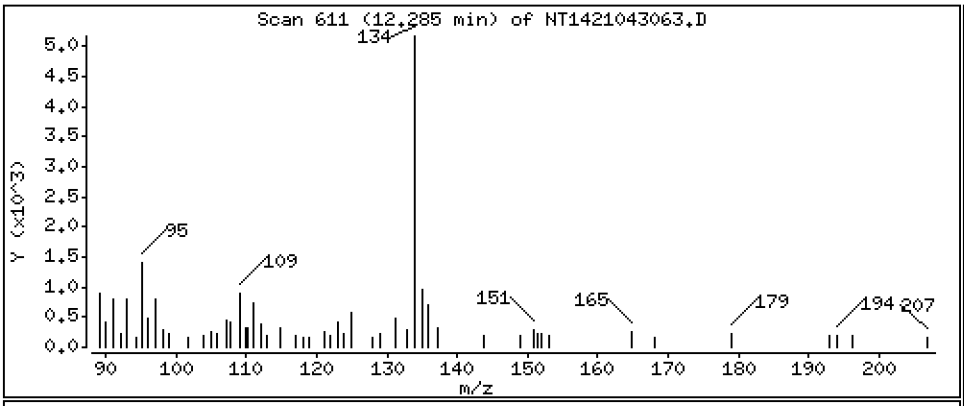
Operator: VTS

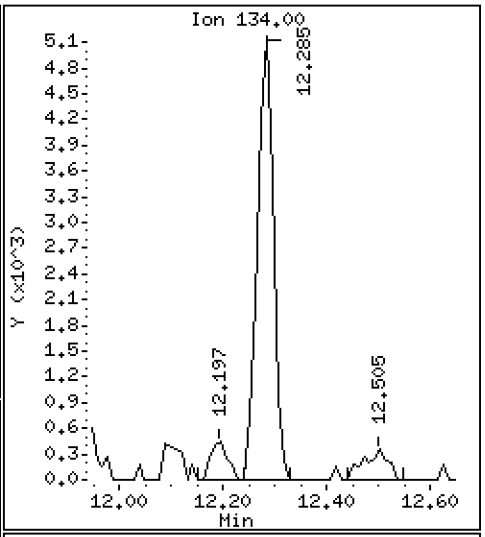
Column phase: Rxi-17Sil MS

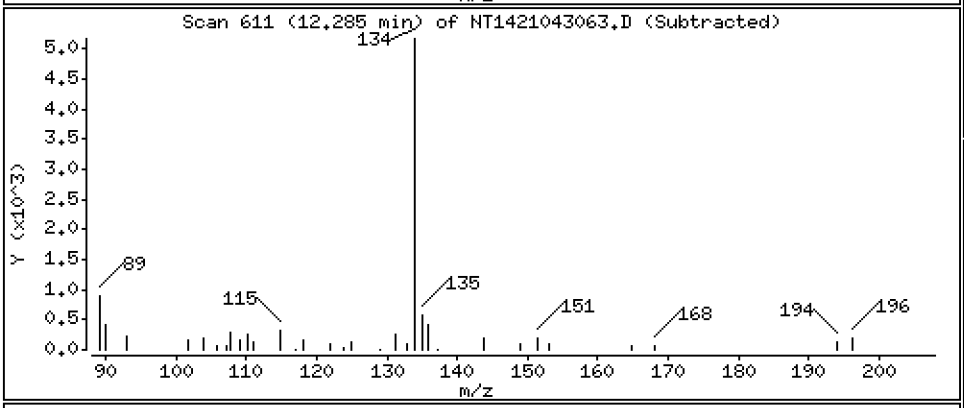
Column diameter: 0.25

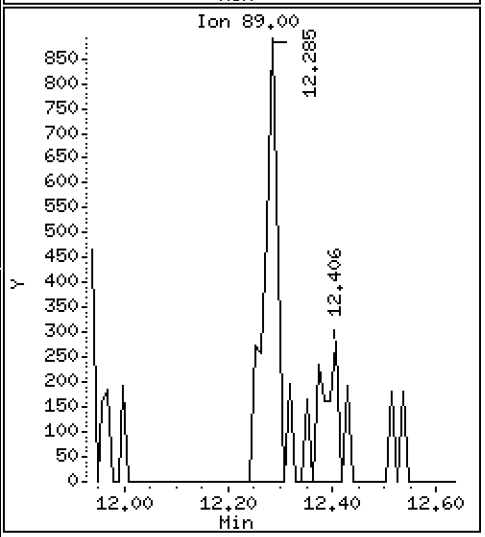
12 Benzo(b)thiophene

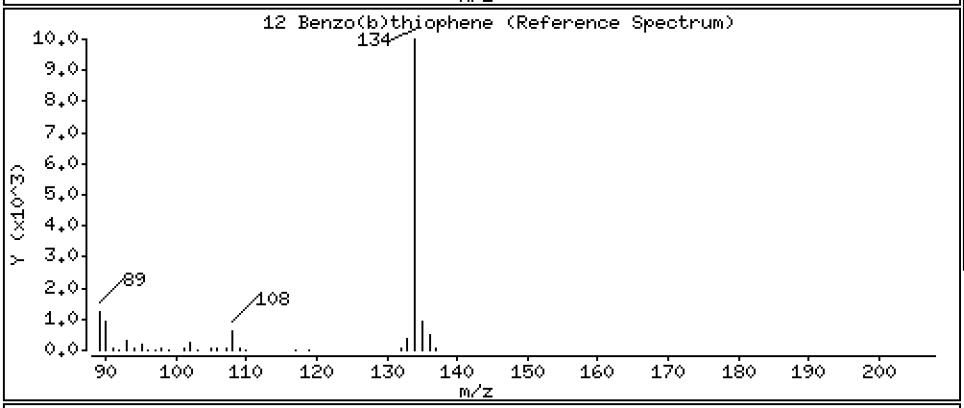
Concentration: 0.04534 ug/mL

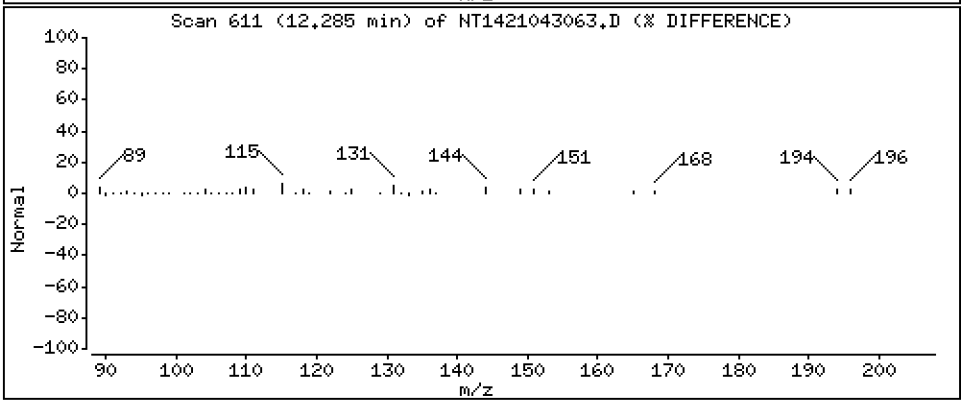


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043063.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

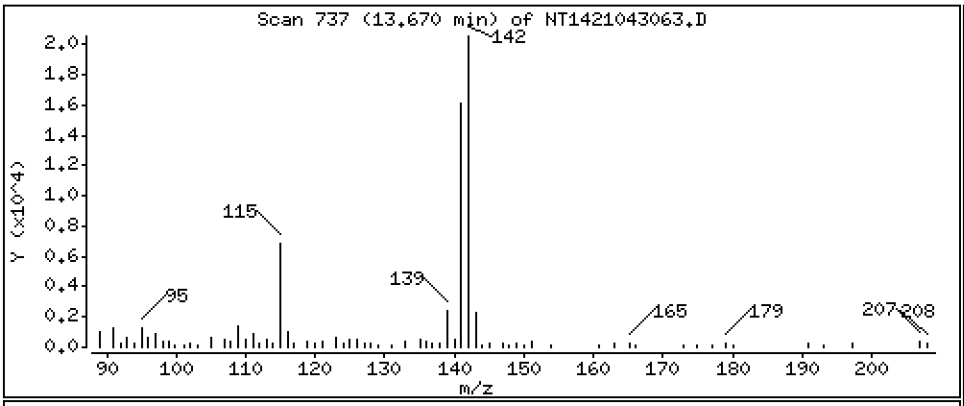
Operator: VTS

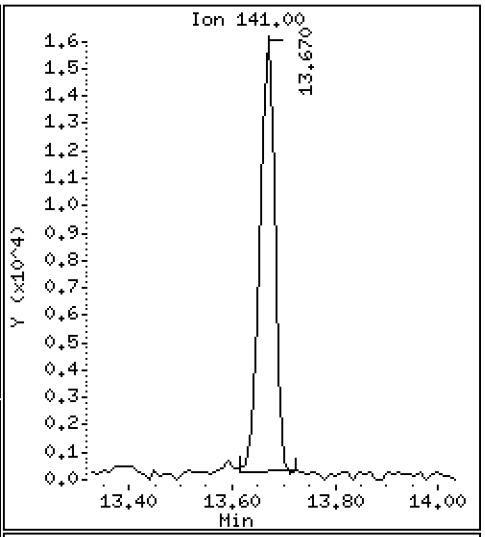
Column phase: Rxi-17Sil MS

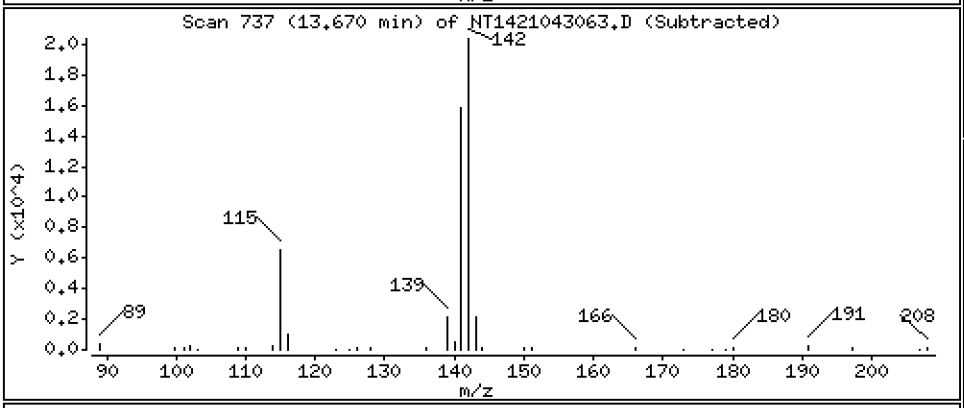
Column diameter: 0.25

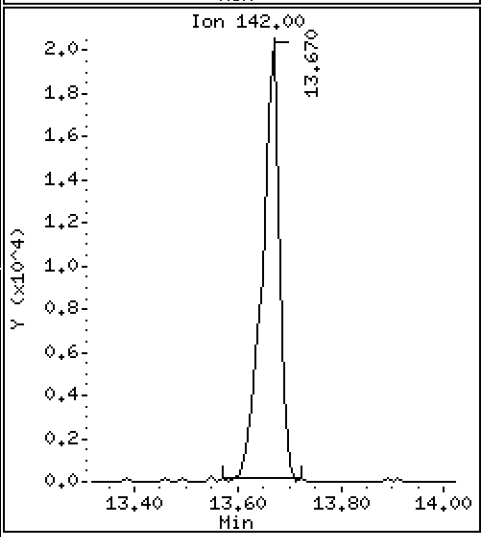
16 2-Methylnaphthalene

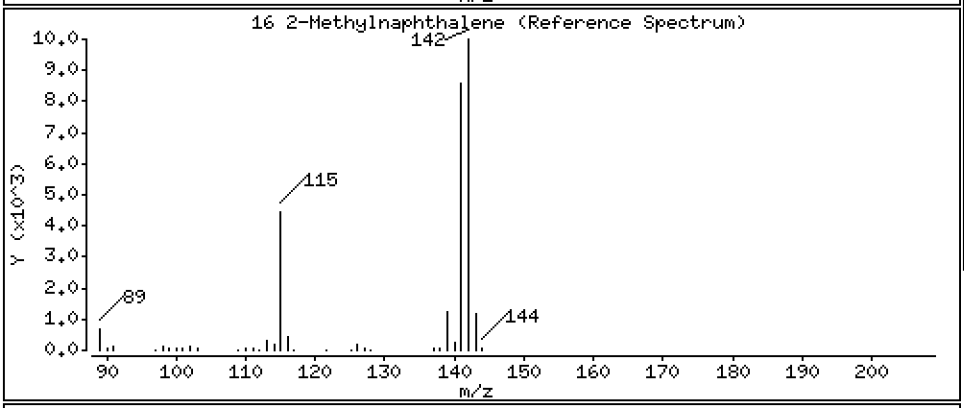
Concentration: 0.2028 ug/mL

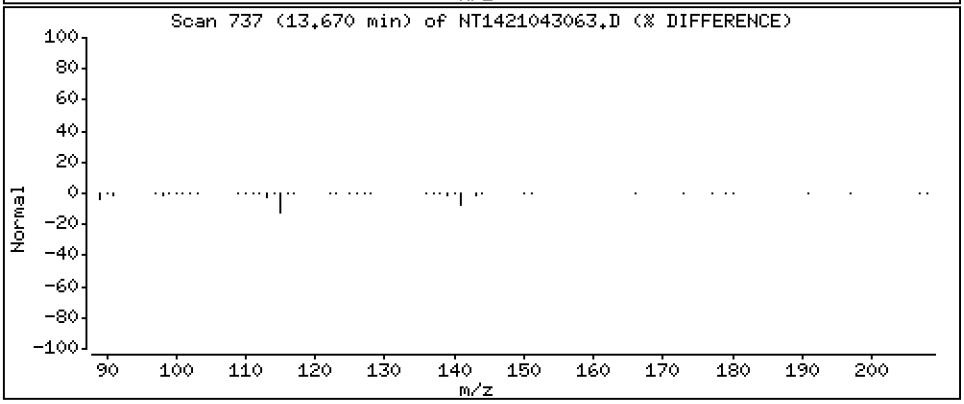


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043063.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

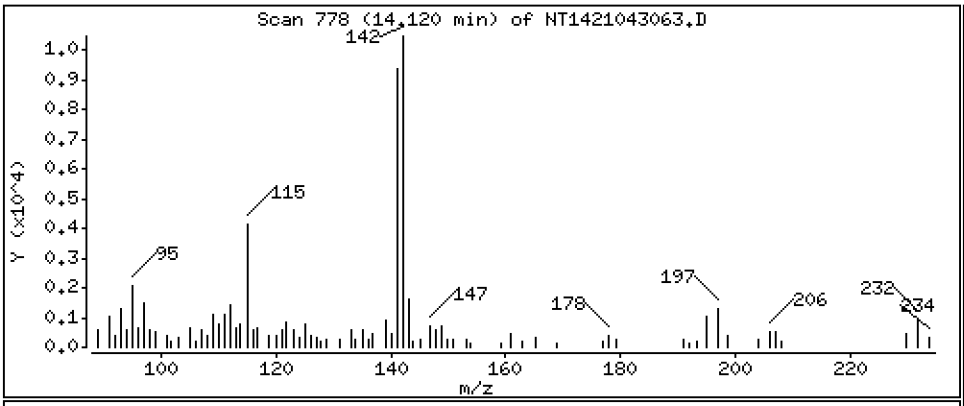
Operator: VTS

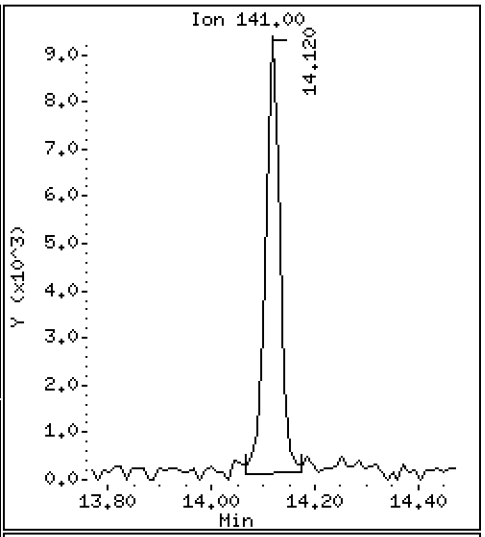
Column phase: Rxi-17Sil MS

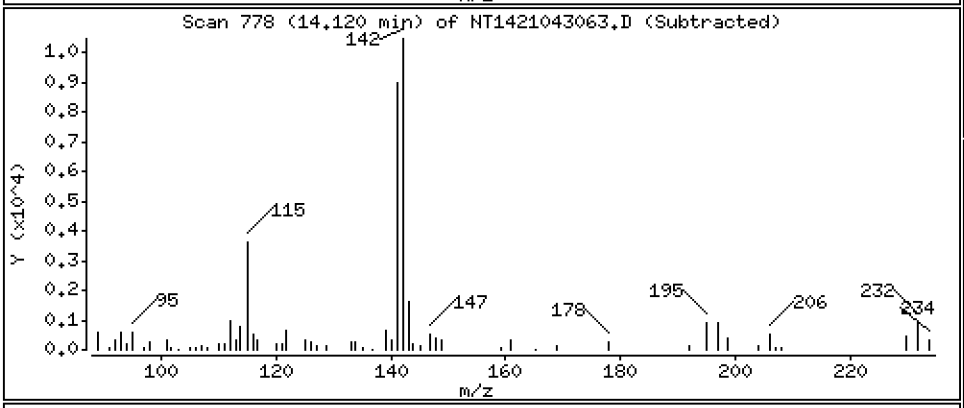
Column diameter: 0.25

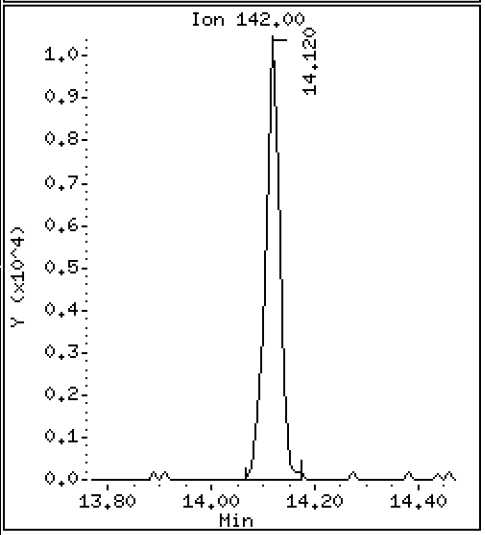
17 1-methylnaphthalene

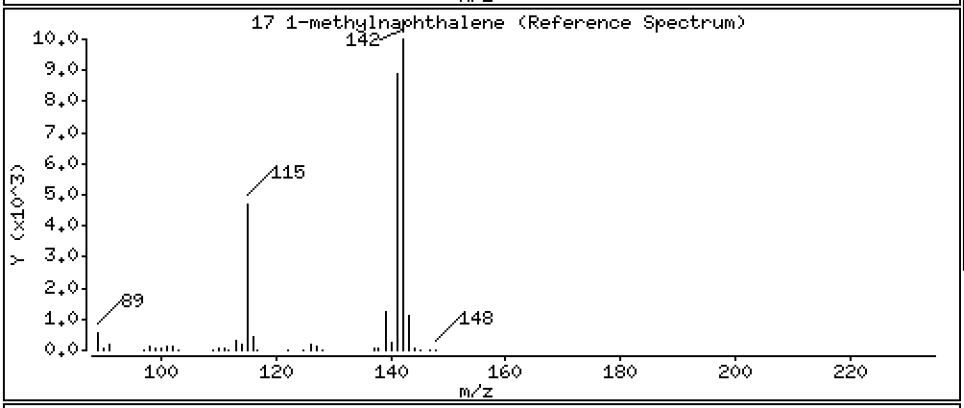
Concentration: 0.1266 ug/mL

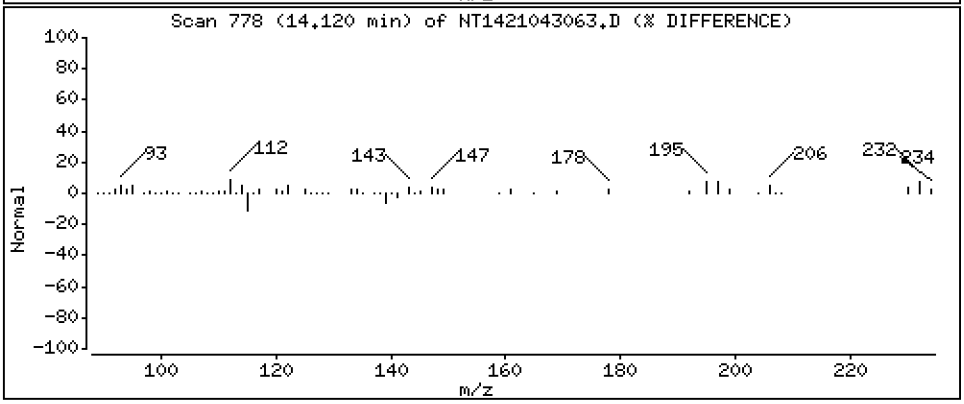


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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

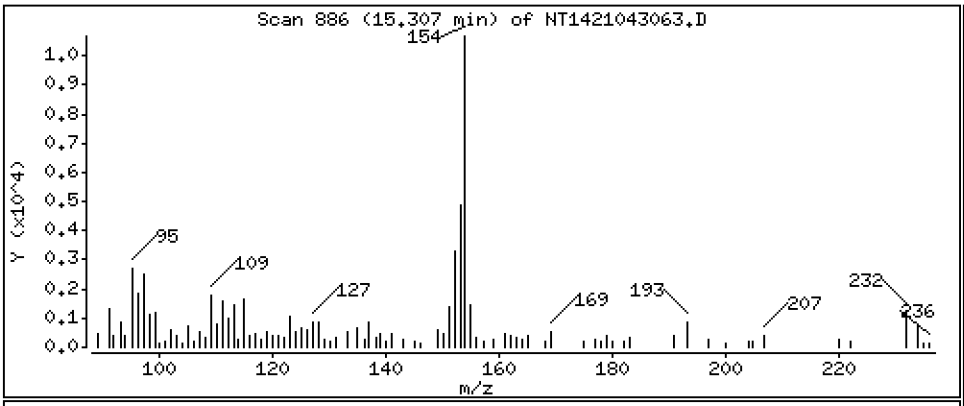
Operator: VTS

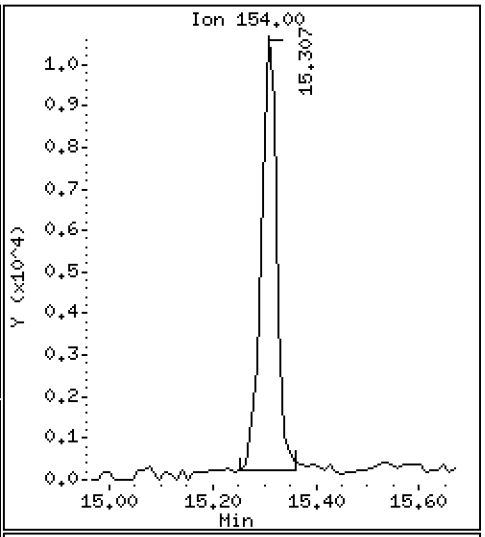
Column phase: Rxi-17Sil MS

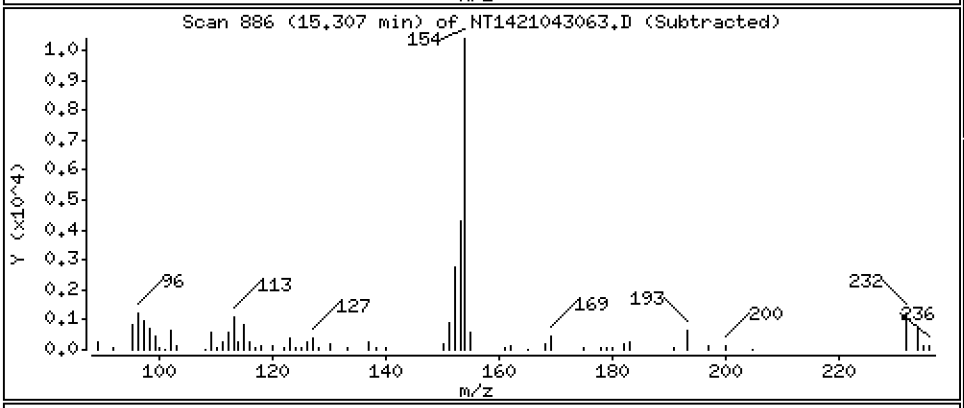
Column diameter: 0.25

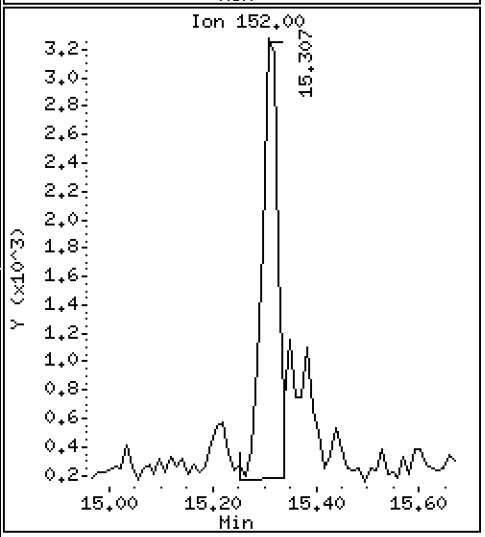
18 Biphenyl

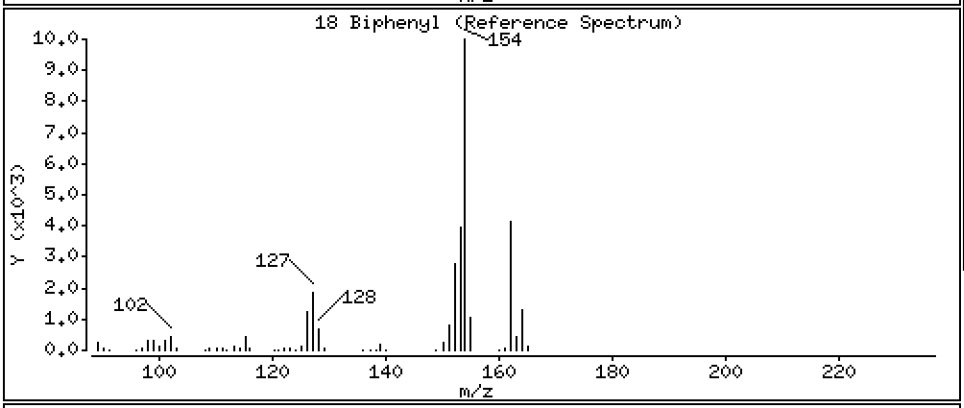
Concentration: 0.09763 ug/mL

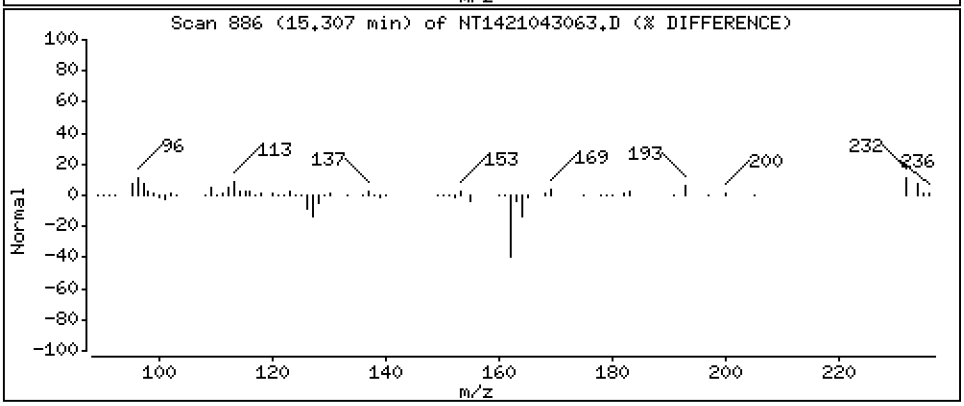


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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

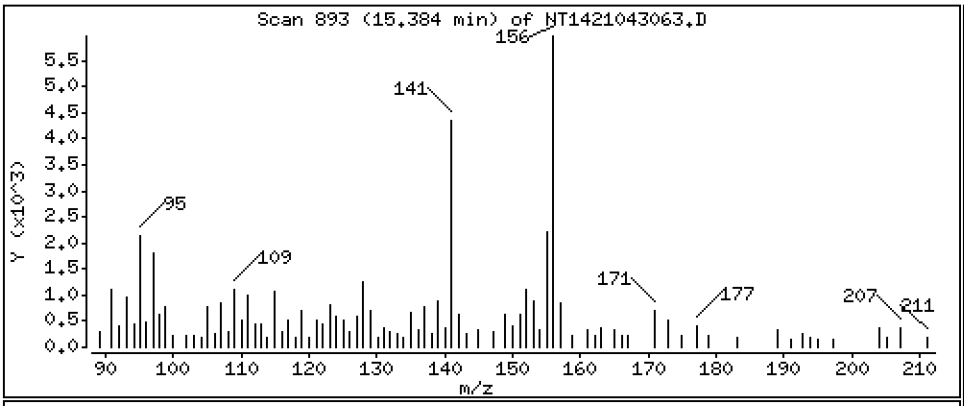
Operator: VTS

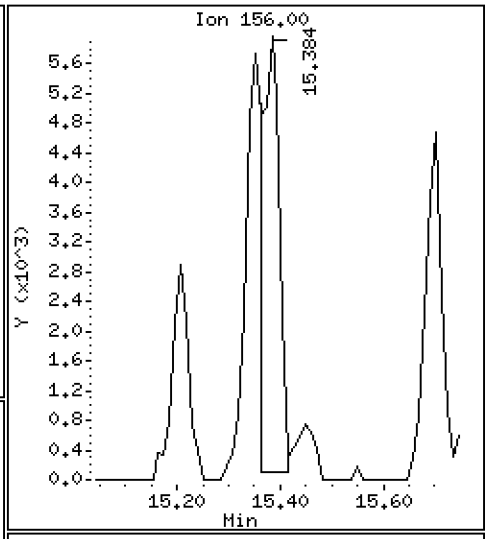
Column phase: Rxi-17Sil MS

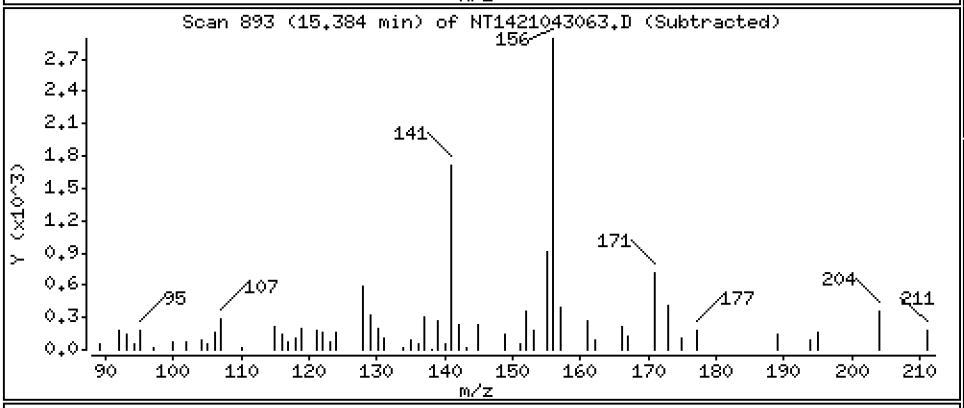
Column diameter: 0.25

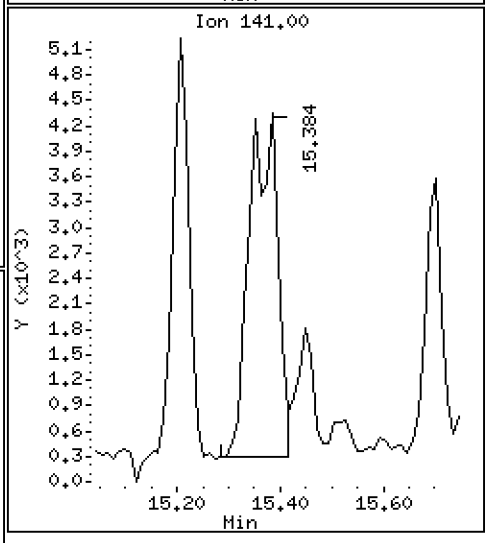
19 2,6-Dimethylnaphthalene

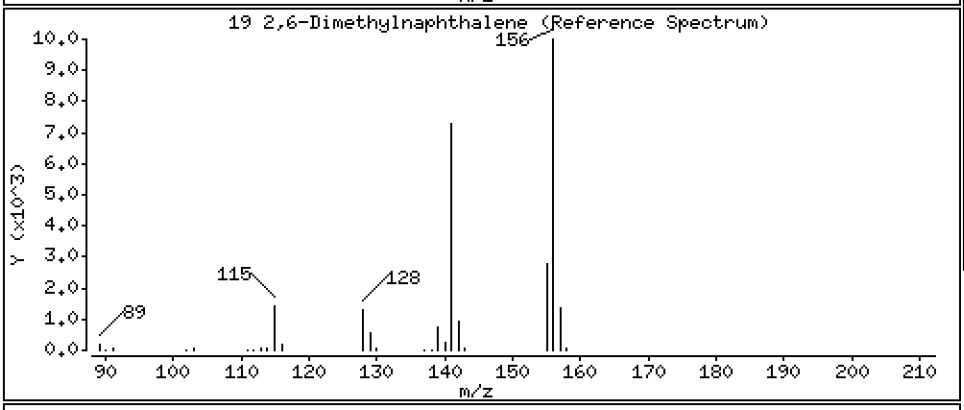
Concentration: 0.09328 ug/mL

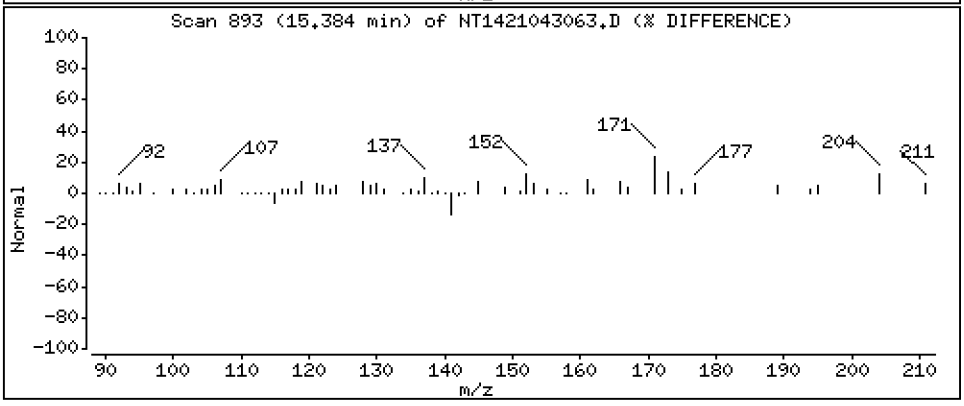


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043063.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

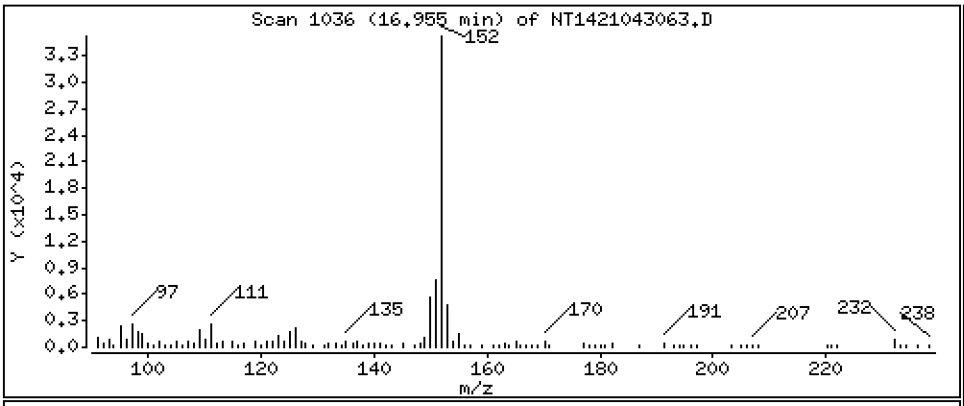
Operator: VTS

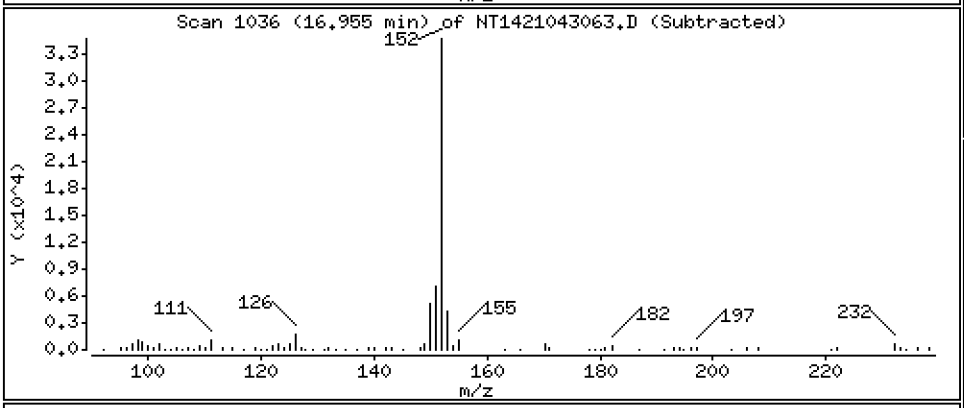
Column phase: Rxi-17Sil MS

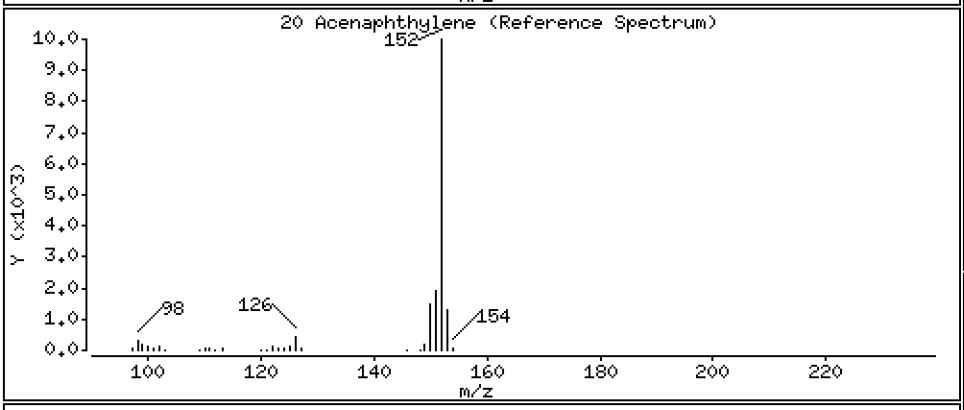
Column diameter: 0.25

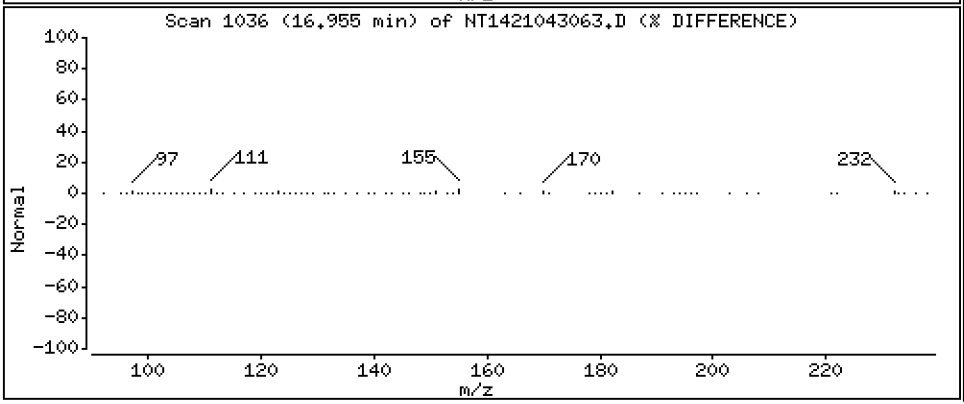
20 Acenaphthylene

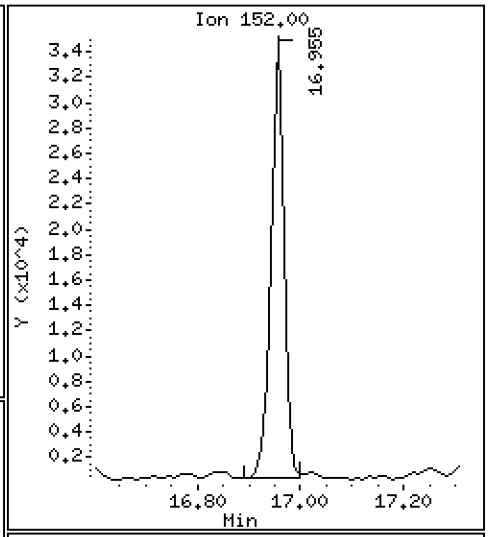
Concentration: 0.2612 ug/mL

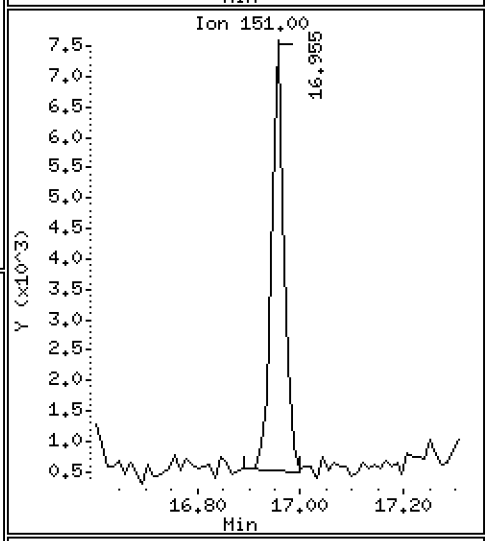


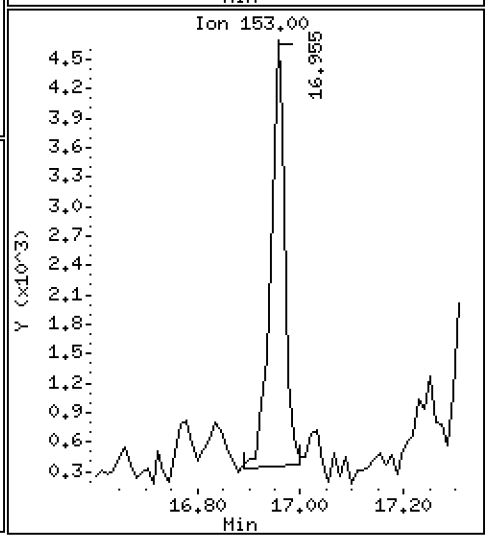



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

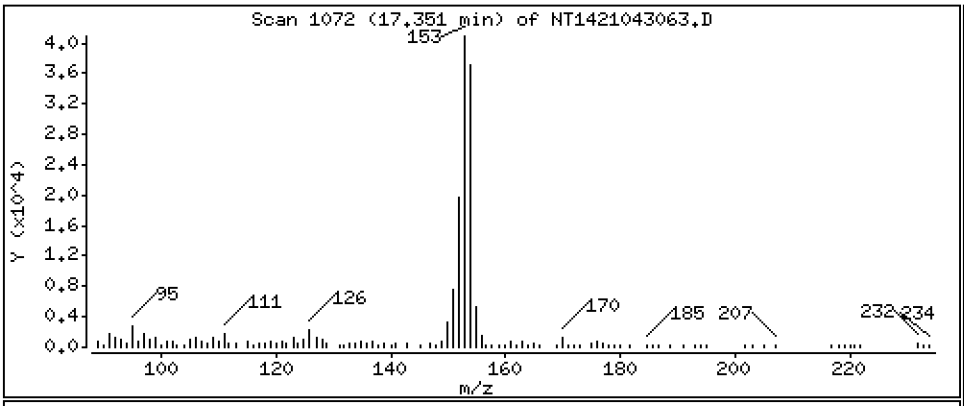
Operator: VTS

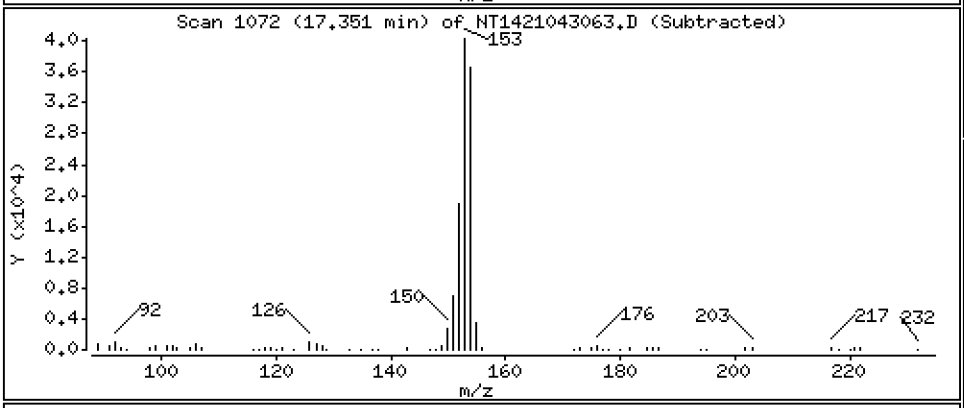
Column phase: Rxi-17Sil MS

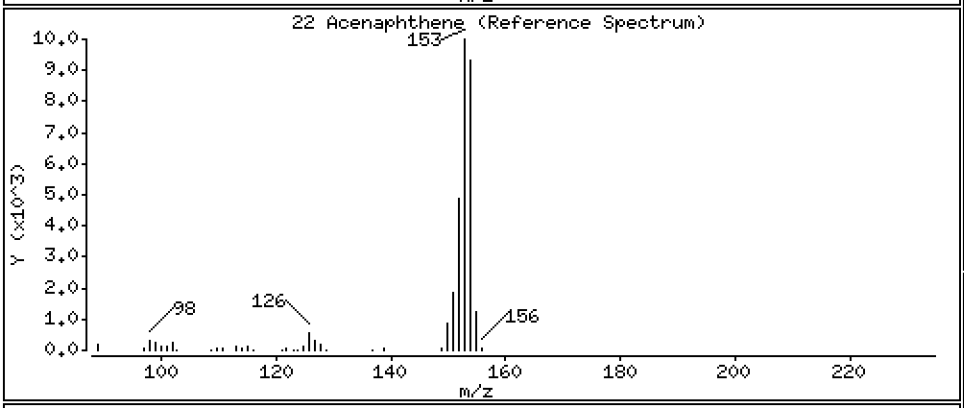
Column diameter: 0.25

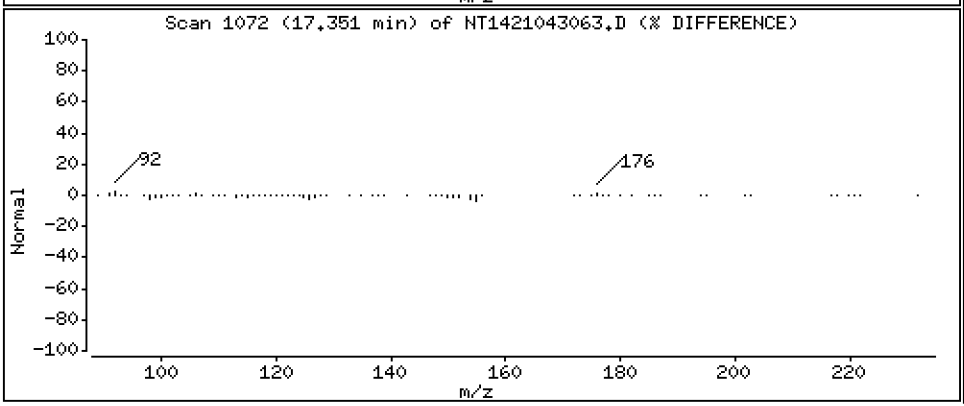
22 Acenaphthene

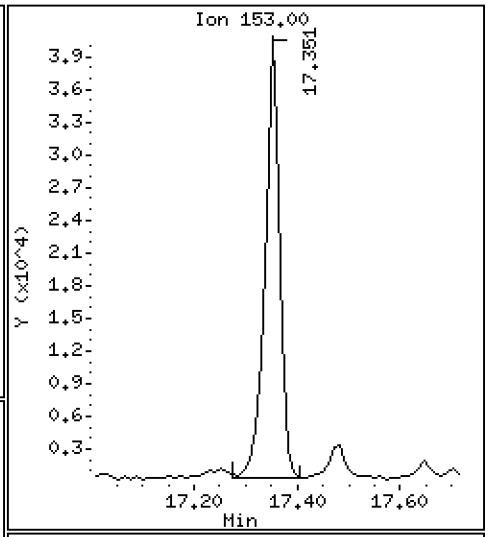
Concentration: 0.5261 ug/mL

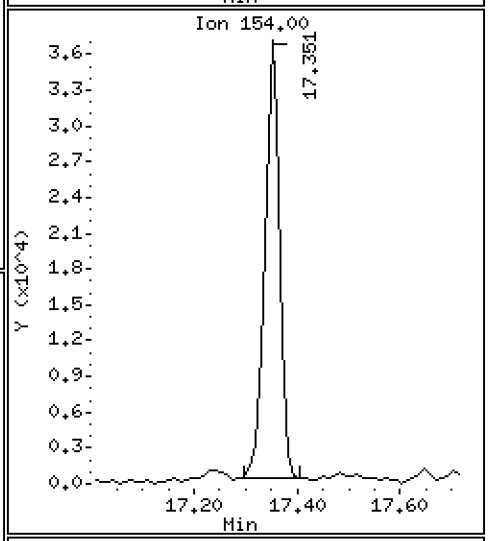


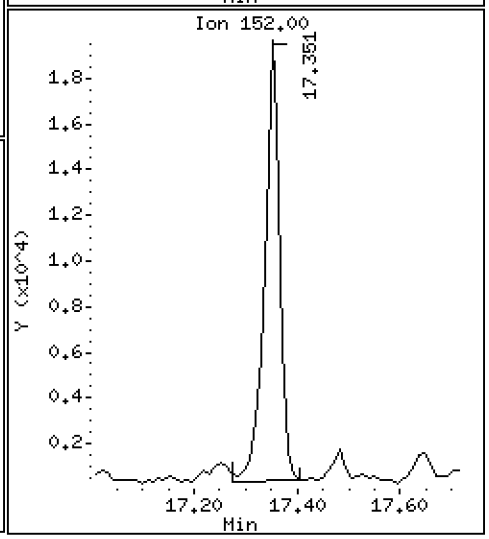



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

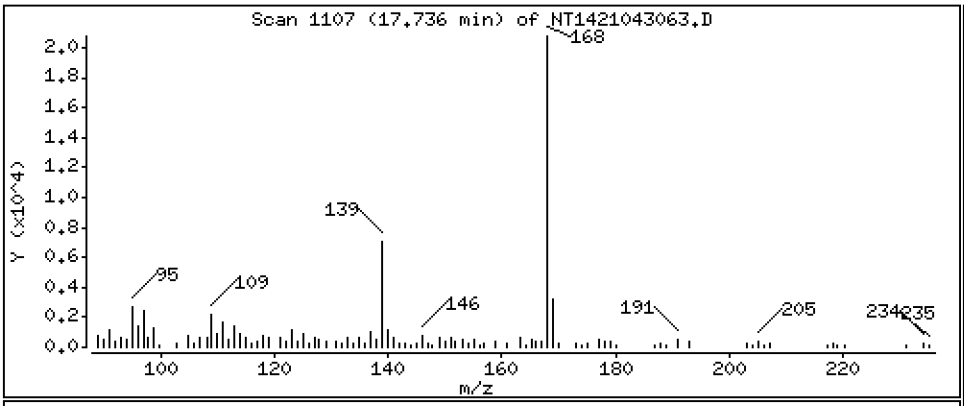
Operator: VTS

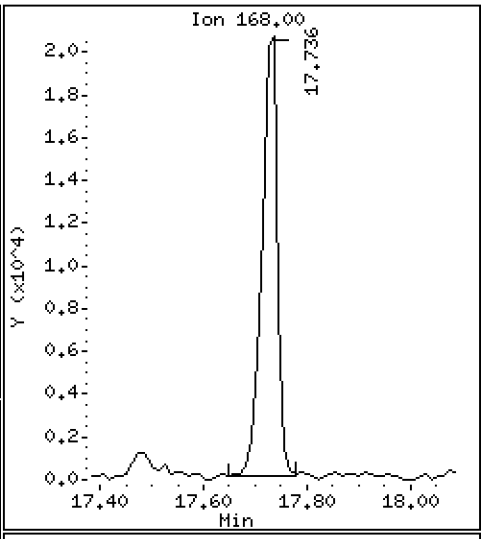
Column phase: Rxi-17Sil MS

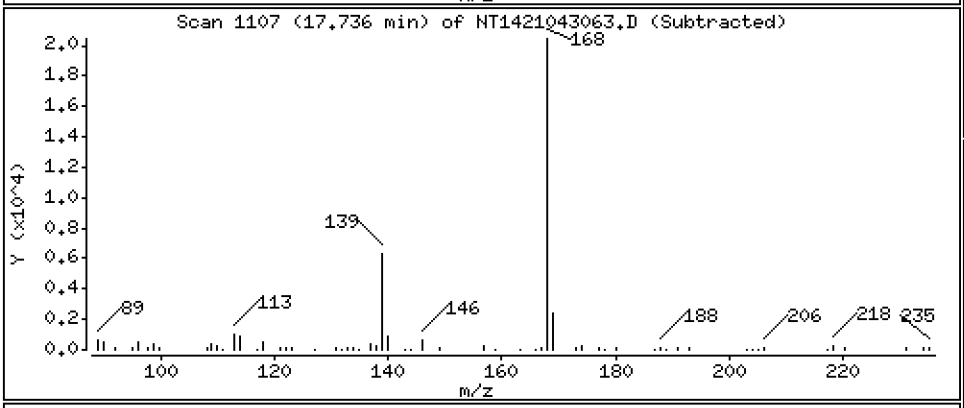
Column diameter: 0.25

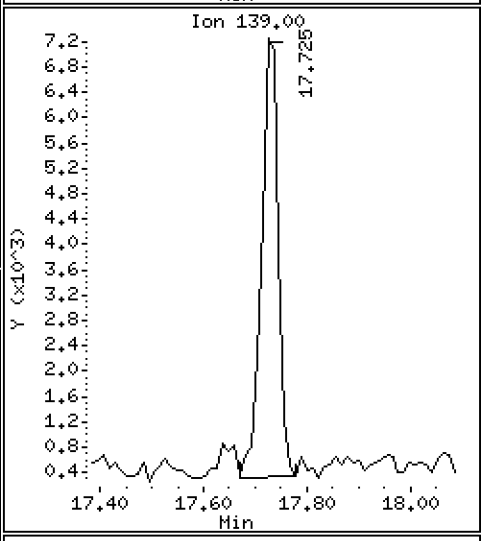
23 Dibenzofuran

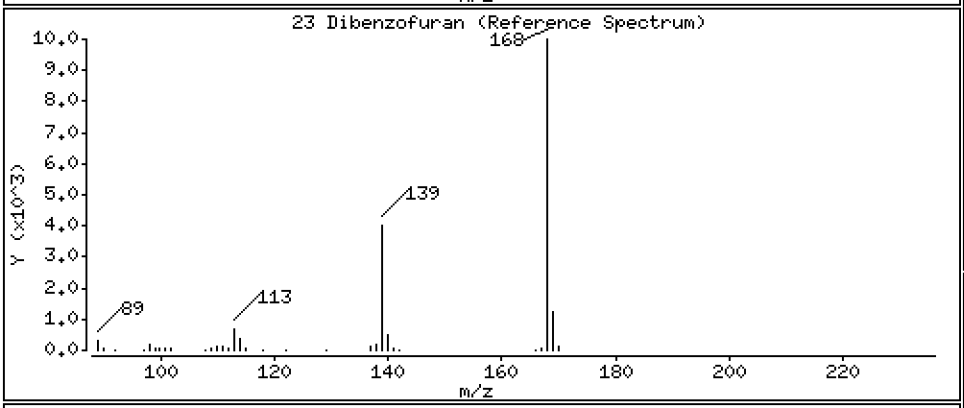
Concentration: 0.1849 ug/mL

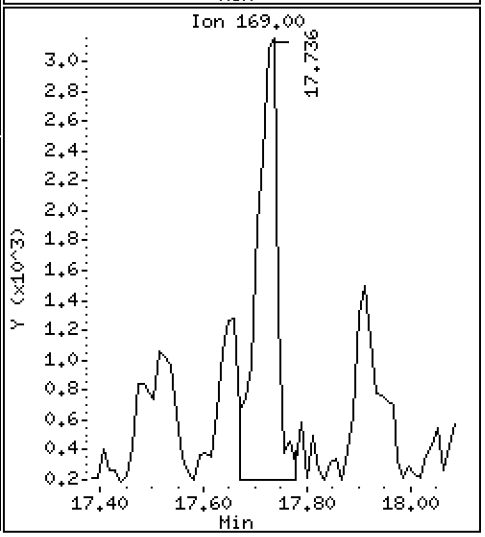


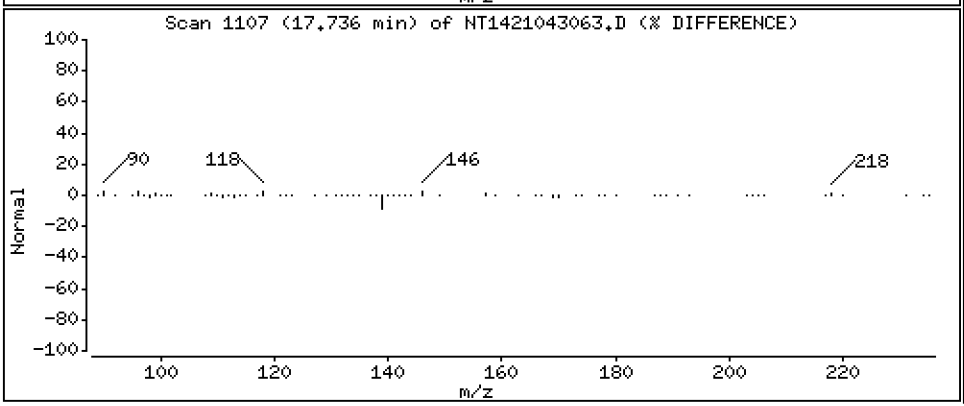



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

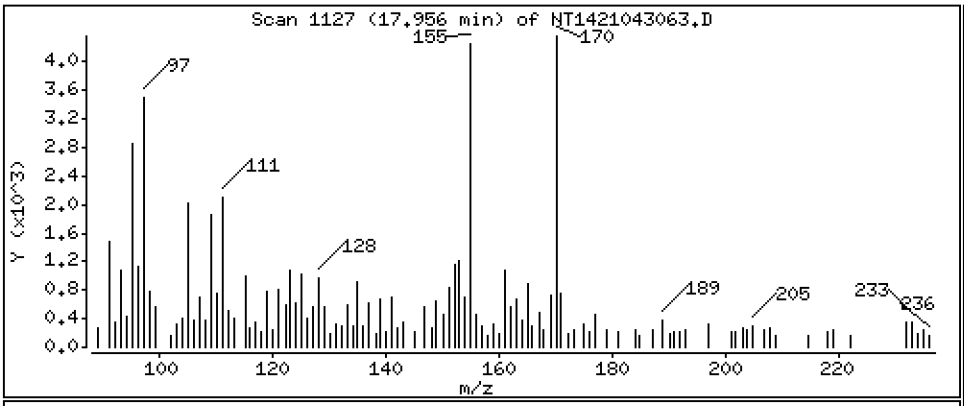
Operator: VTS

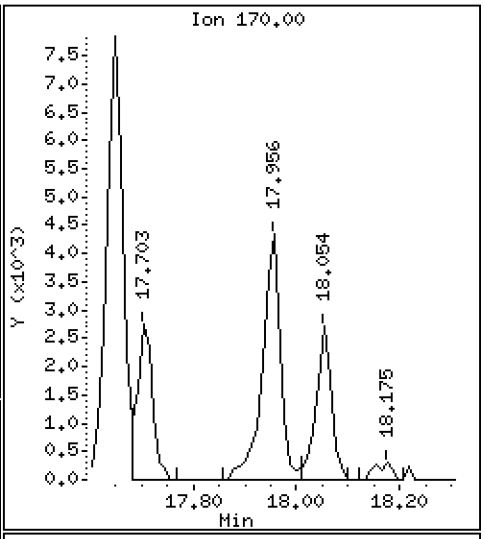
Column phase: Rxi-17Sil MS

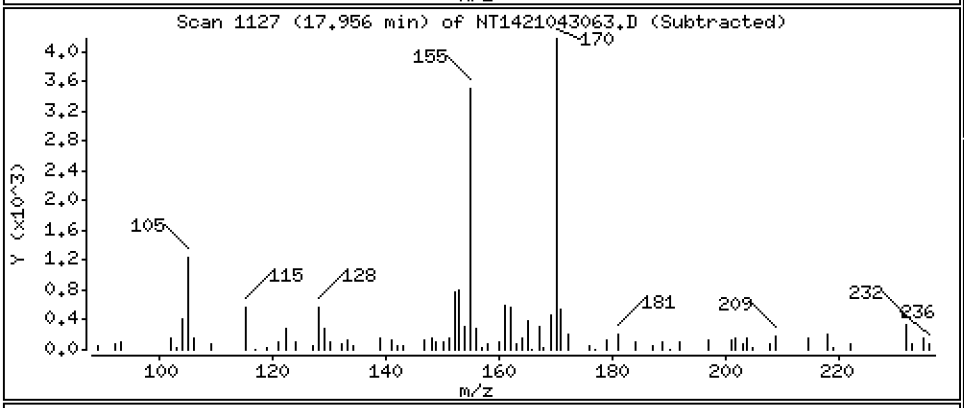
Column diameter: 0.25

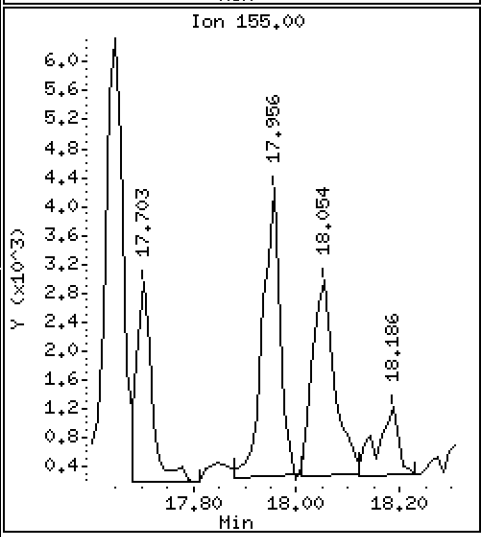
24 1,6,7-Trimethylnaphthalene

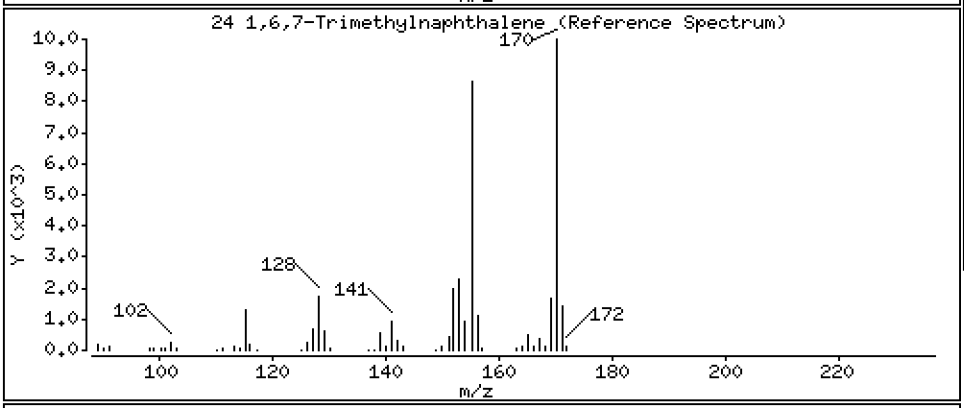
Concentration: 0.07955 ug/mL

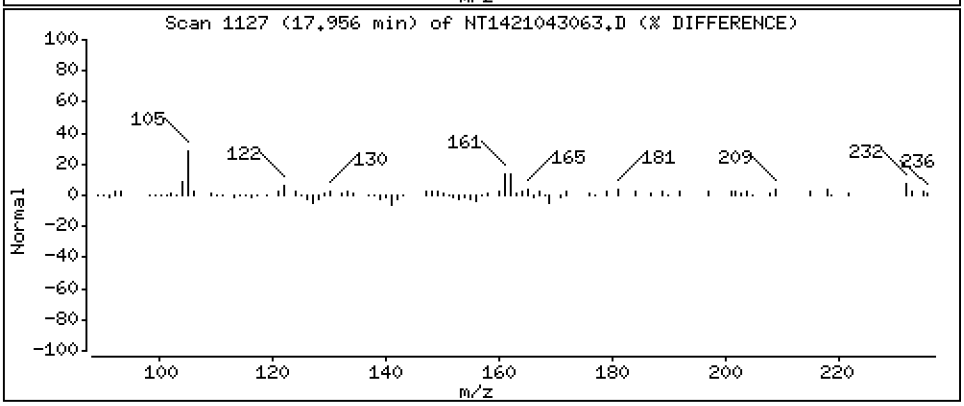


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043063.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

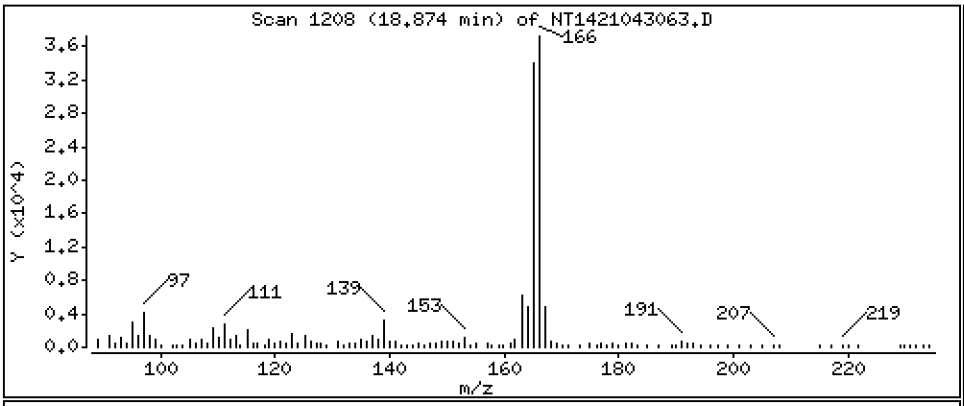
Operator: VTS

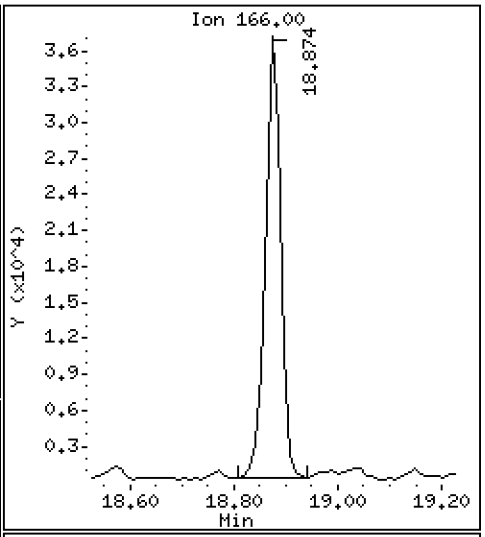
Column phase: Rxi-17Sil MS

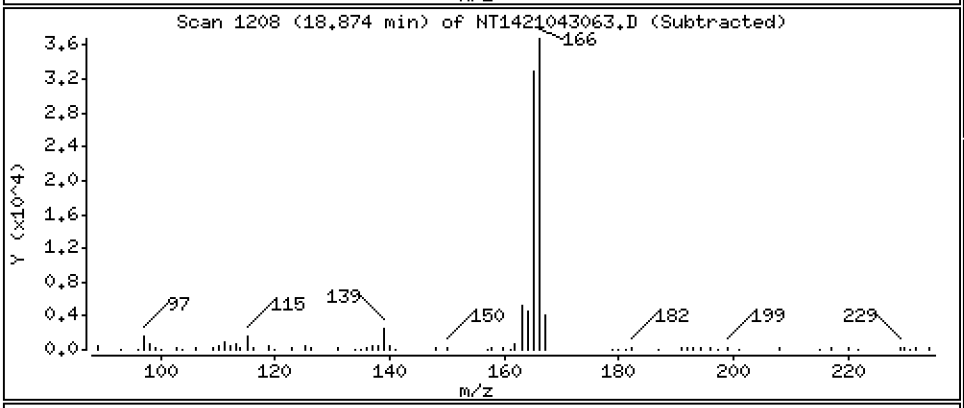
Column diameter: 0.25

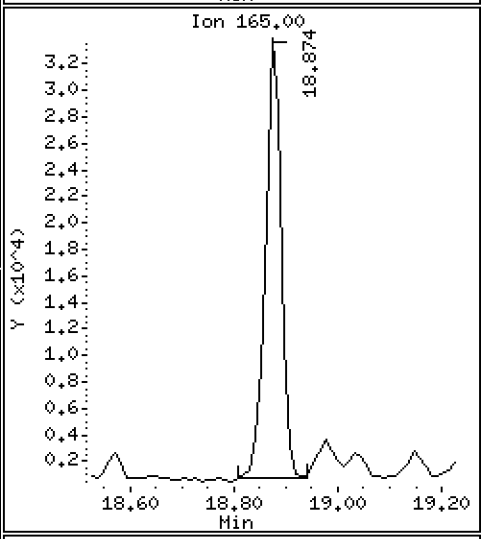
26 Fluorene

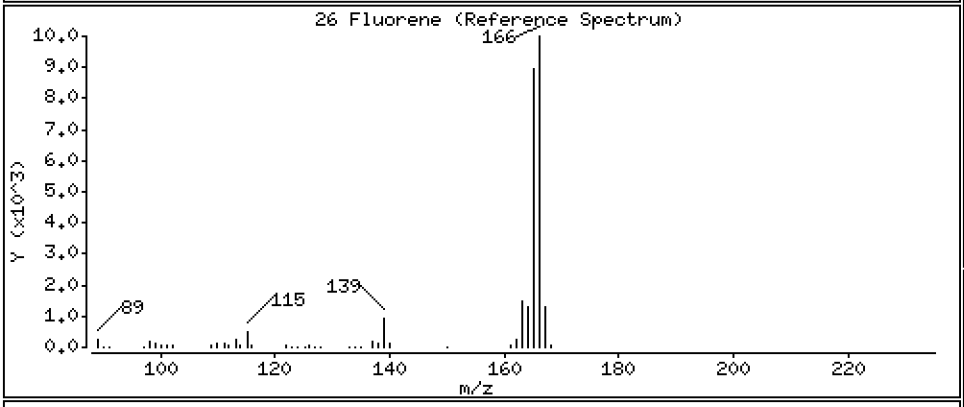
Concentration: 0.4298 ug/mL

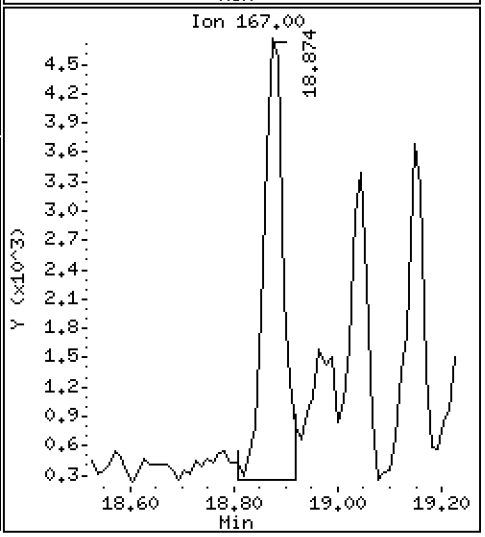


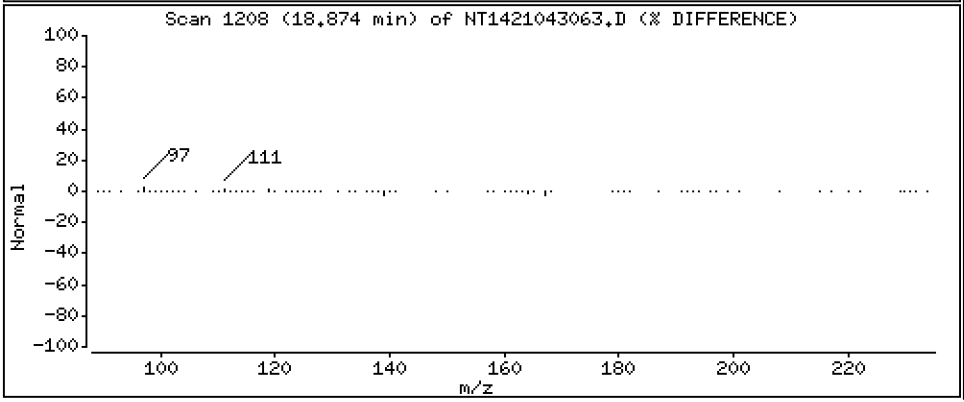



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

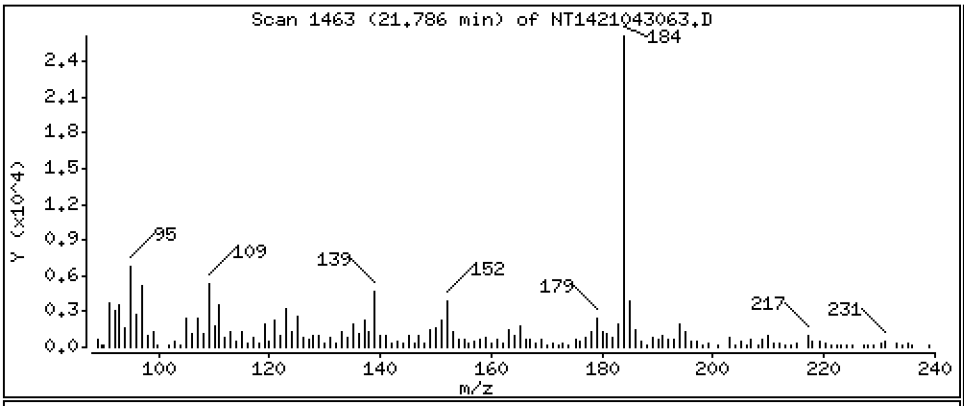
Operator: VTS

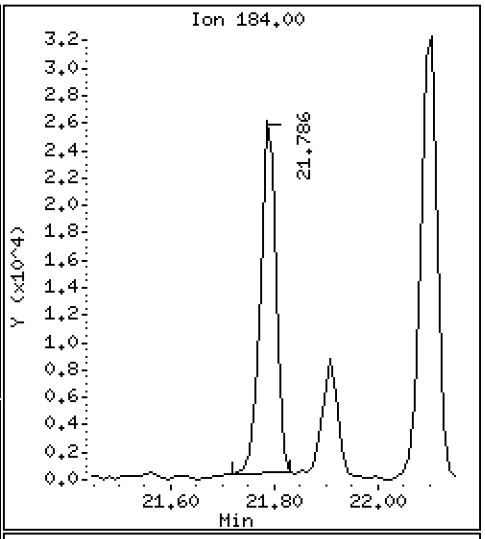
Column phase: Rxi-17Sil MS

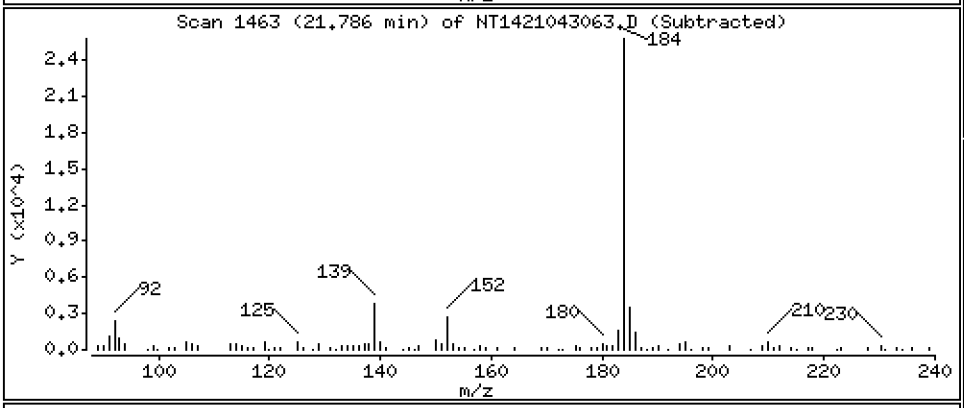
Column diameter: 0.25

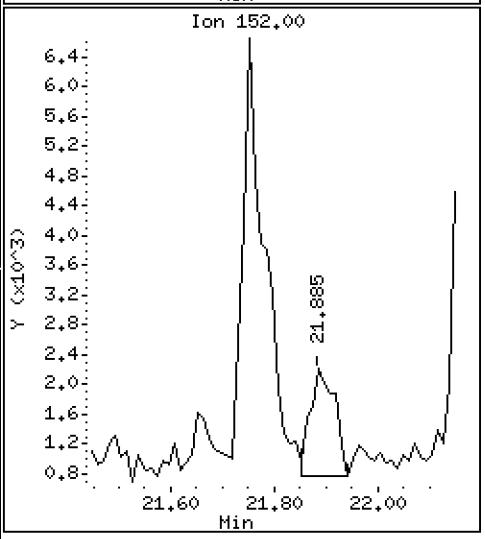
30 Dibenzothiophene

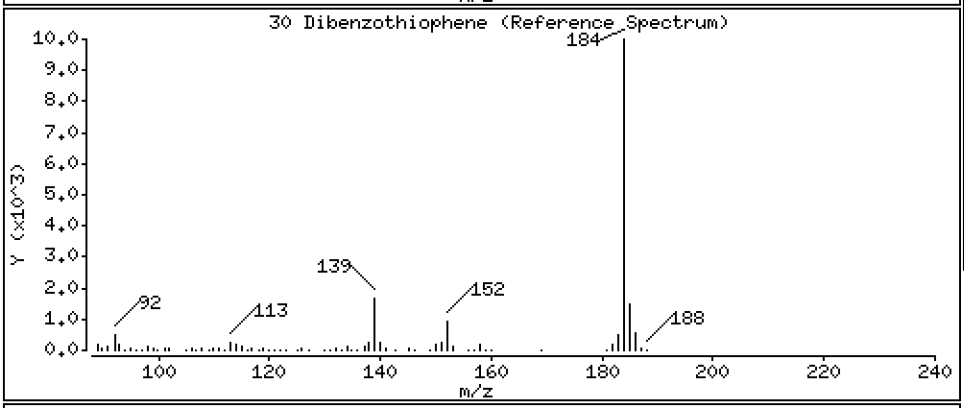
Concentration: 0.2344 ug/mL

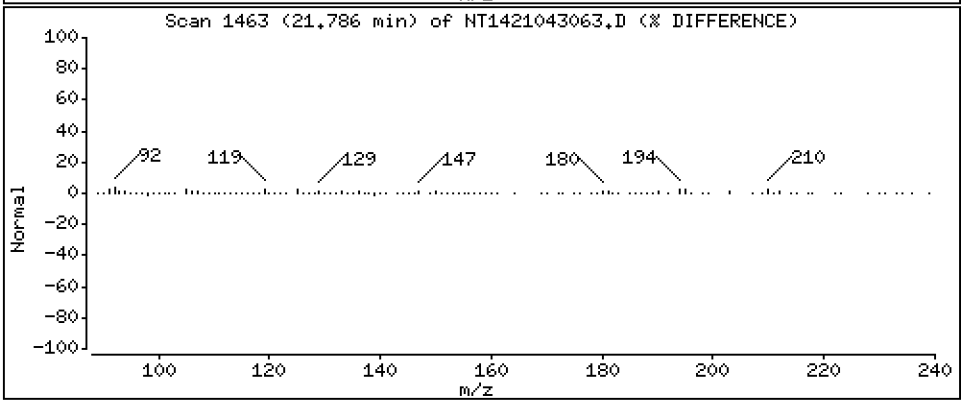


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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

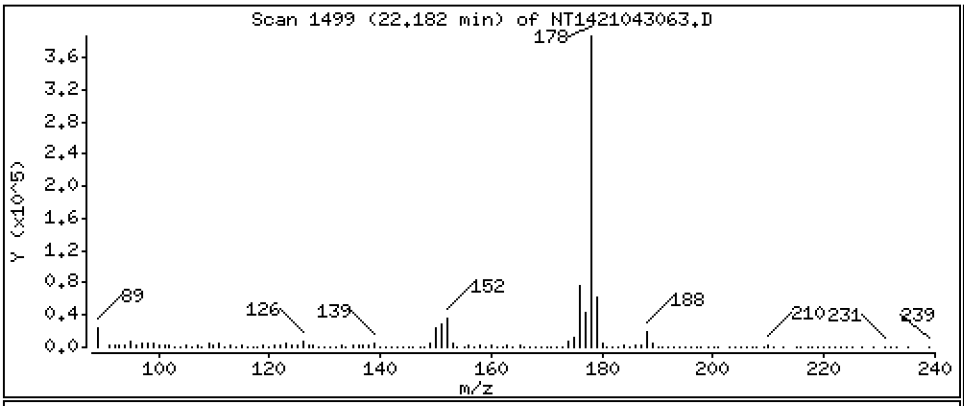
Operator: VTS

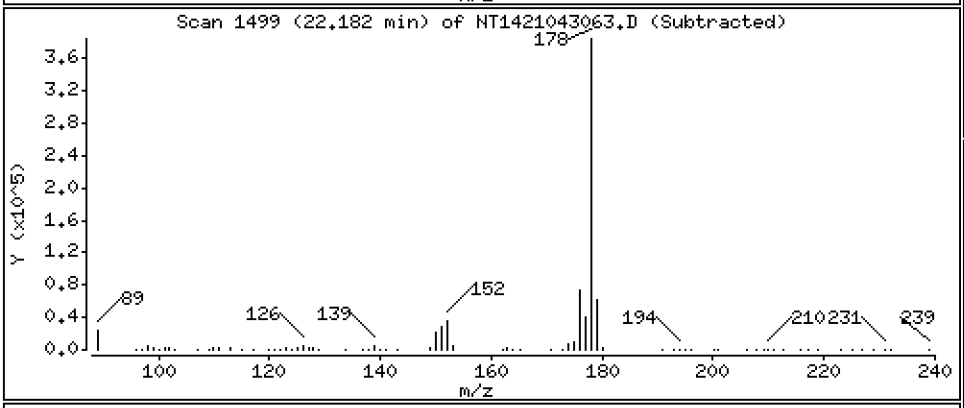
Column phase: Rxi-17Sil MS

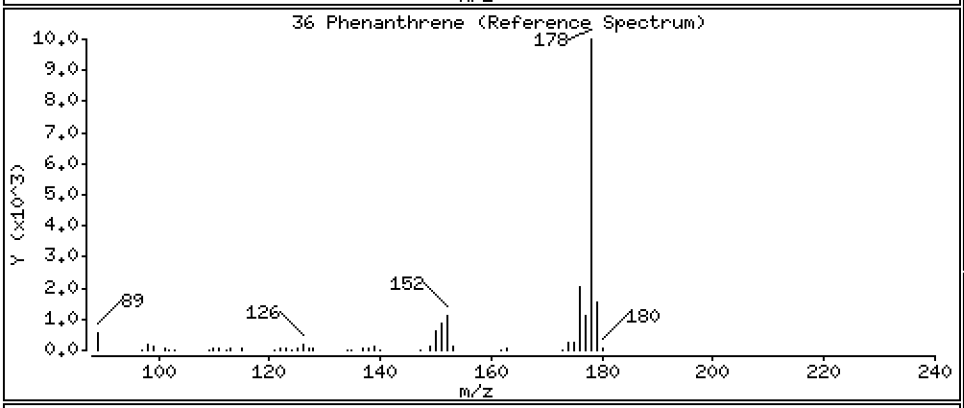
Column diameter: 0.25

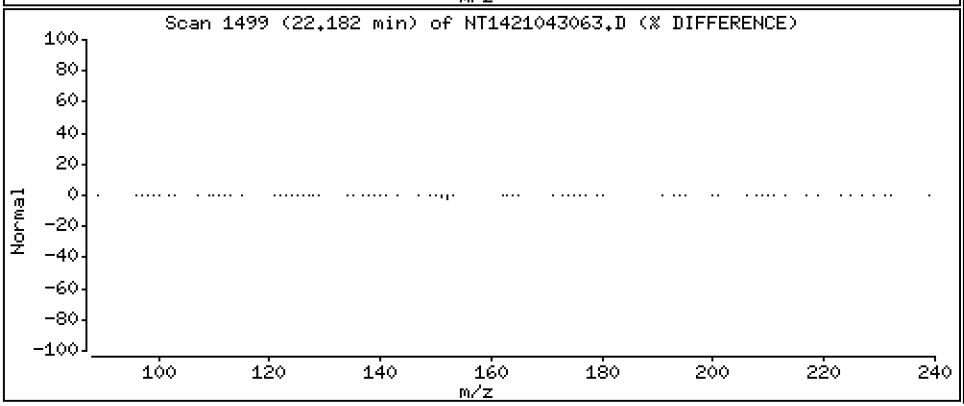
36 Phenanthrene

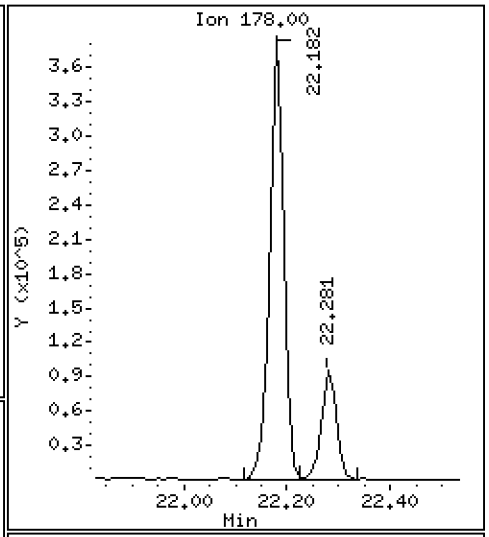
Concentration: 2.737 ug/mL

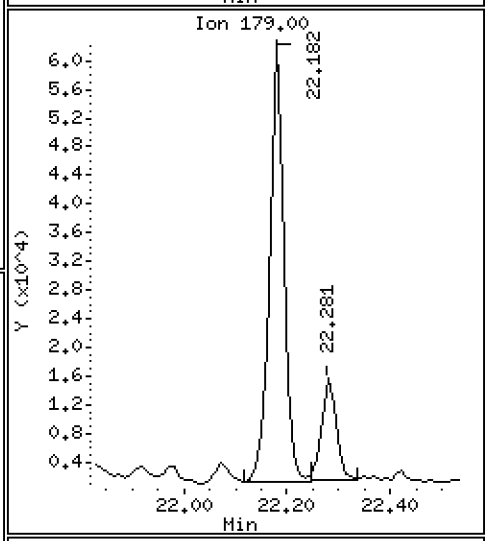


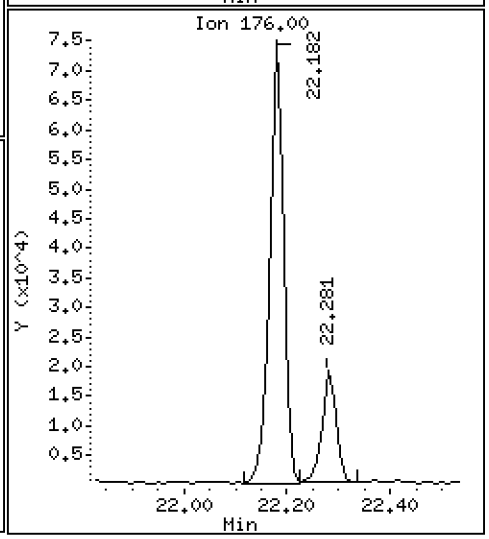



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

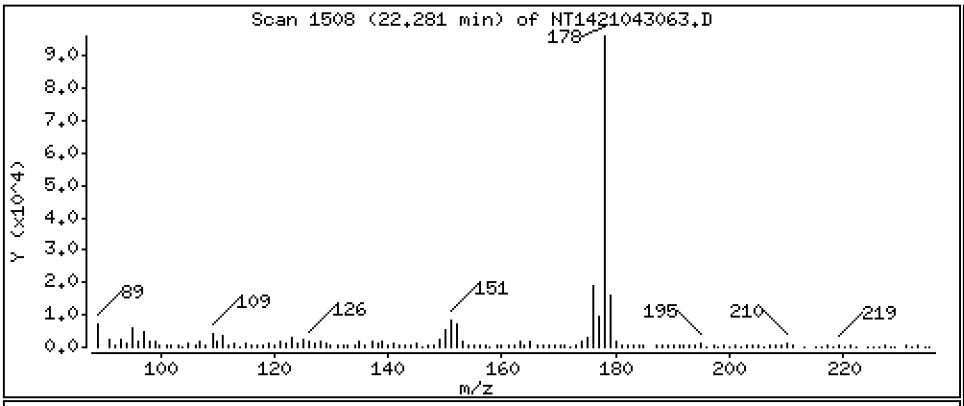
Operator: VTS

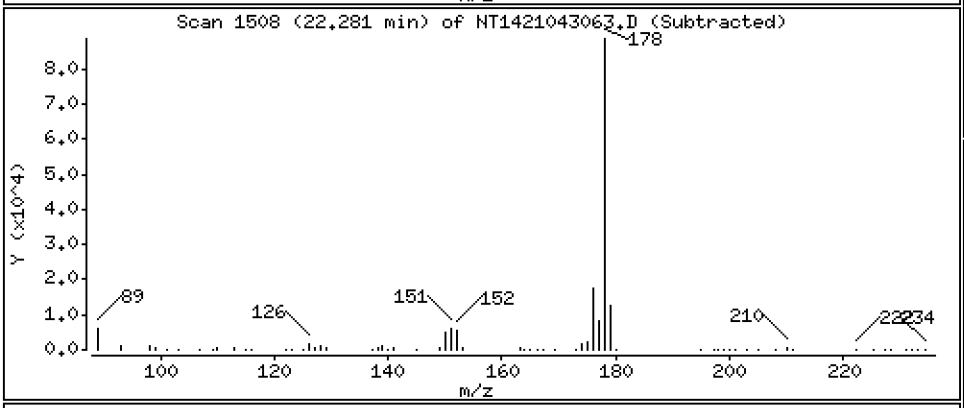
Column phase: Rxi-17Sil MS

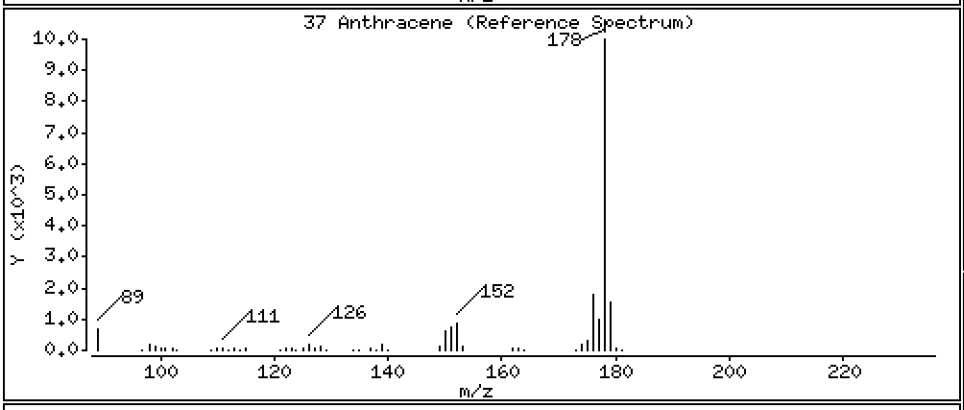
Column diameter: 0.25

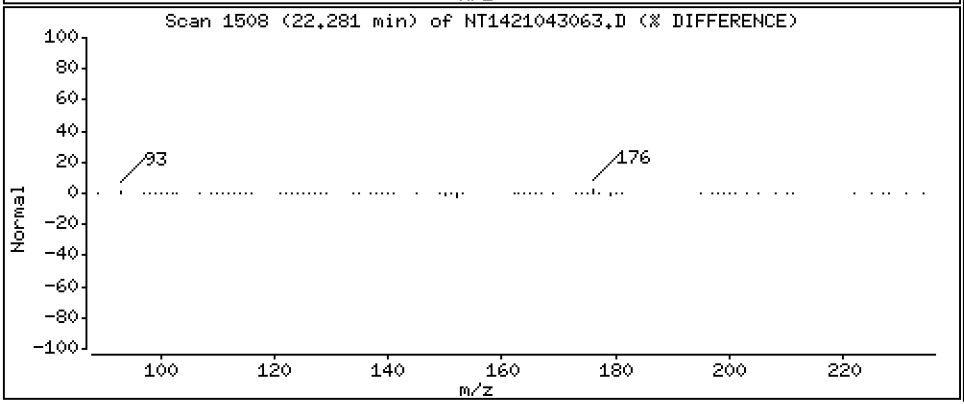
37 Anthracene

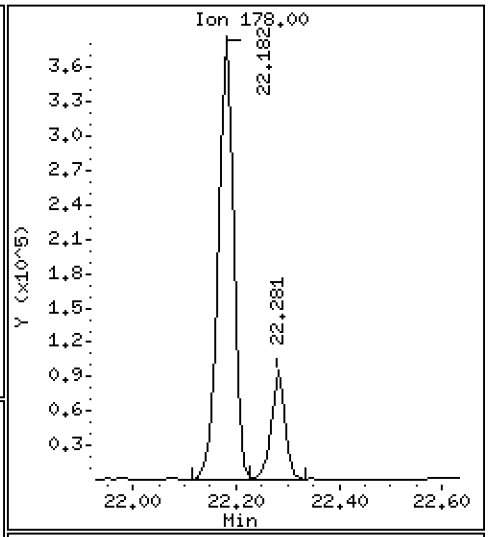
Concentration: 0.7150 ug/mL

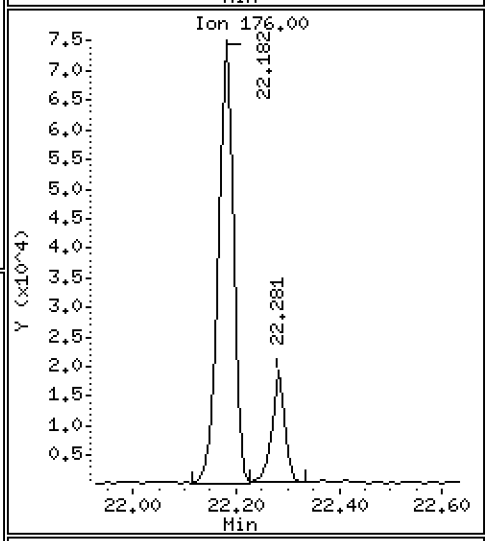


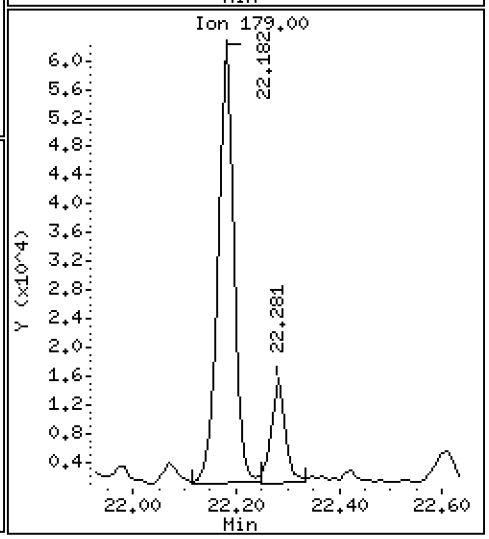



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

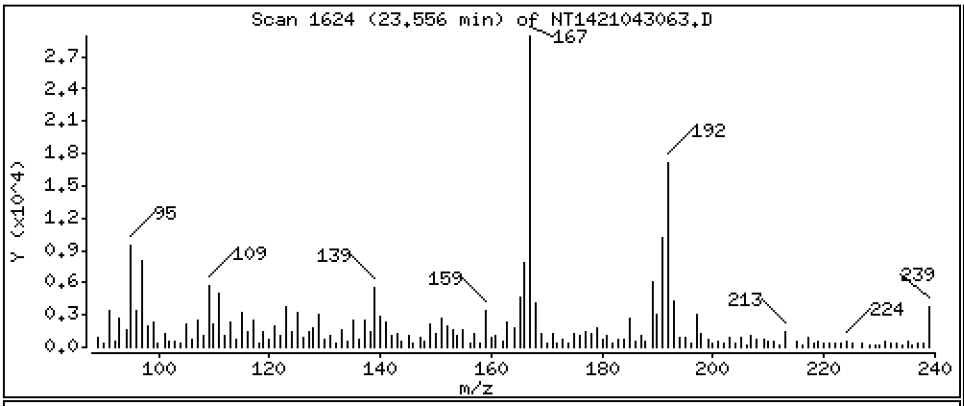
Operator: VTS

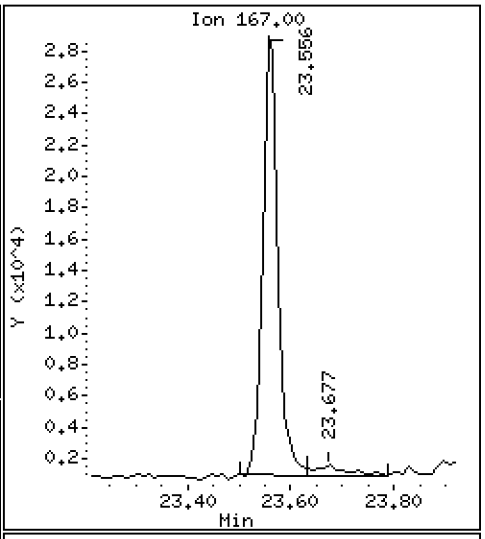
Column phase: Rxi-17Sil MS

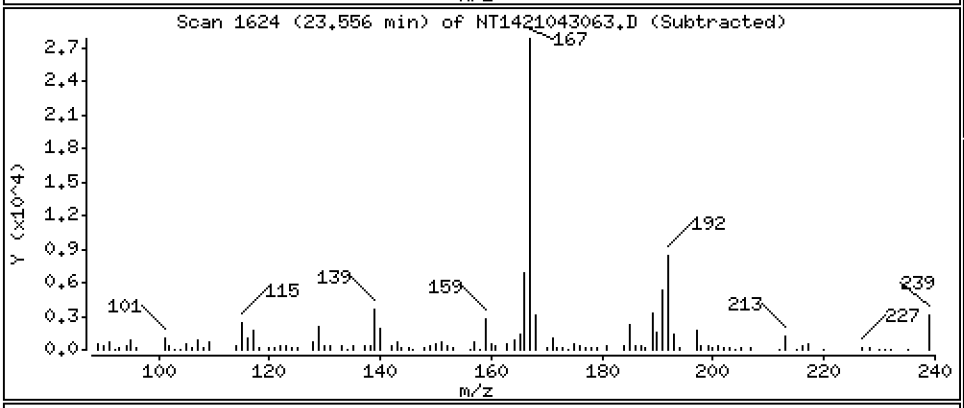
Column diameter: 0.25

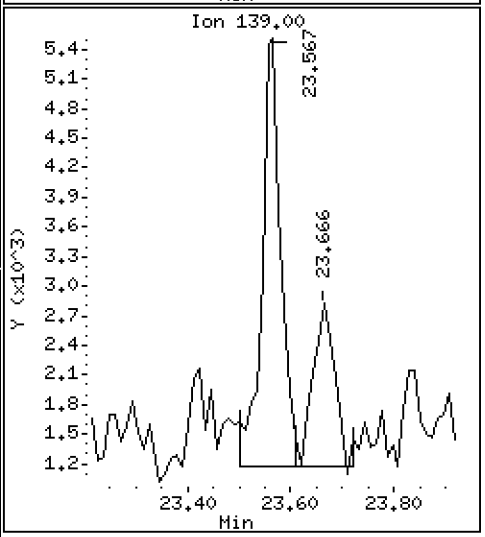
42 Carbazole

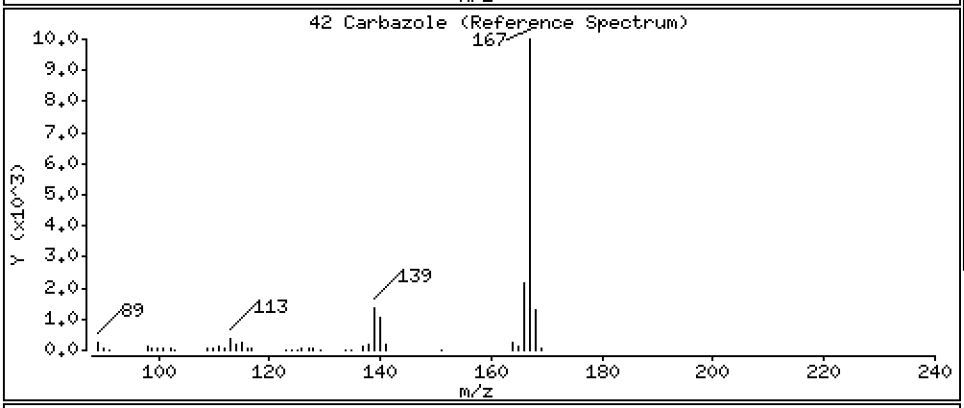
Concentration: 0.2870 ug/mL

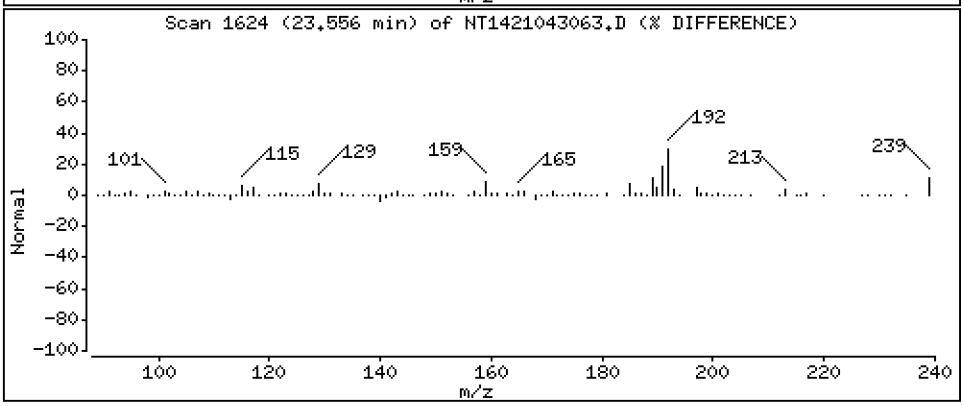


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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

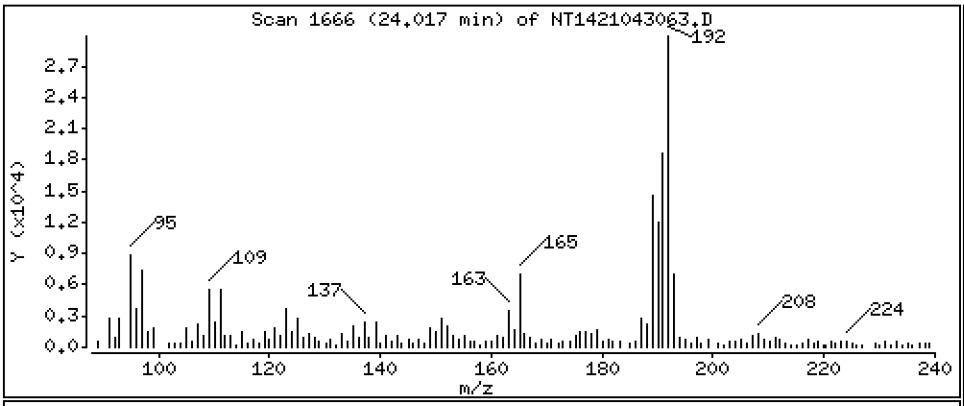
Operator: VTS

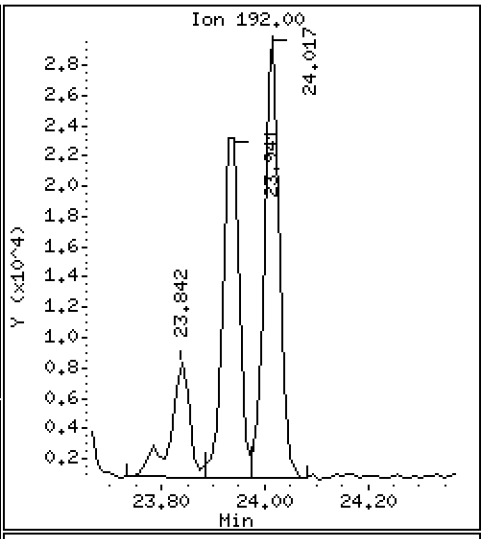
Column phase: Rxi-17Sil MS

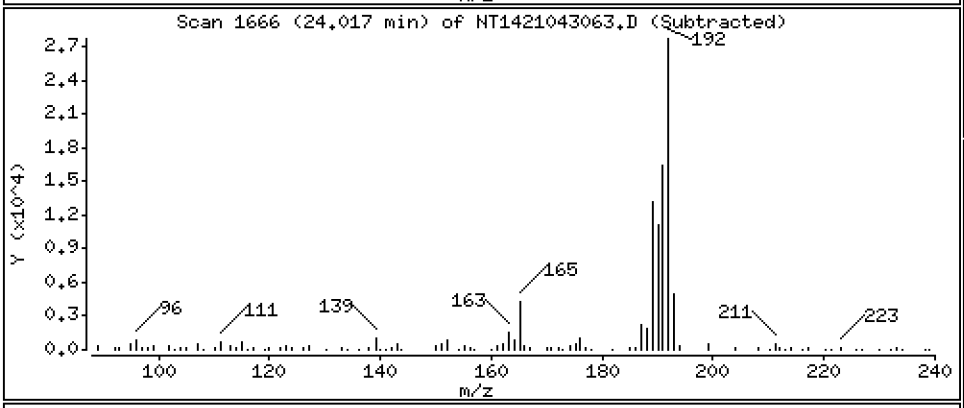
Column diameter: 0.25

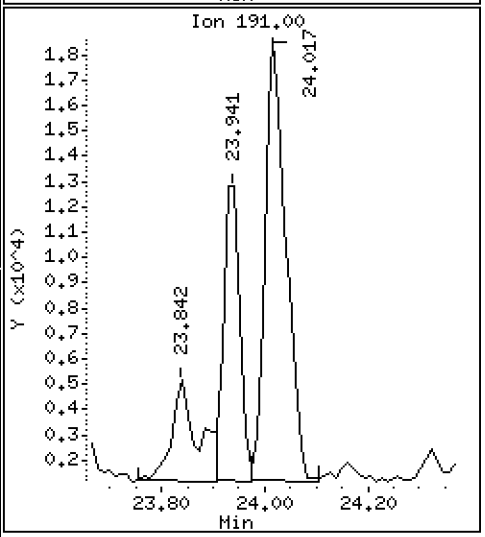
43 1-Methylphenanthrene

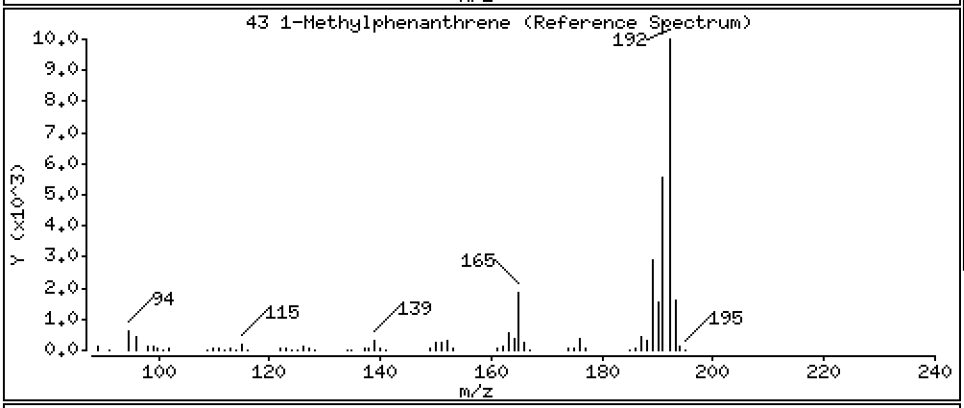
Concentration: 0.3719 ug/mL

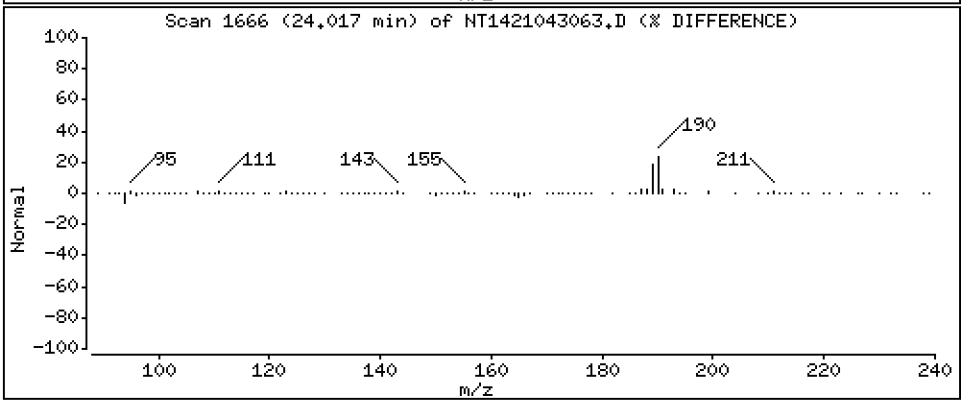


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043063.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

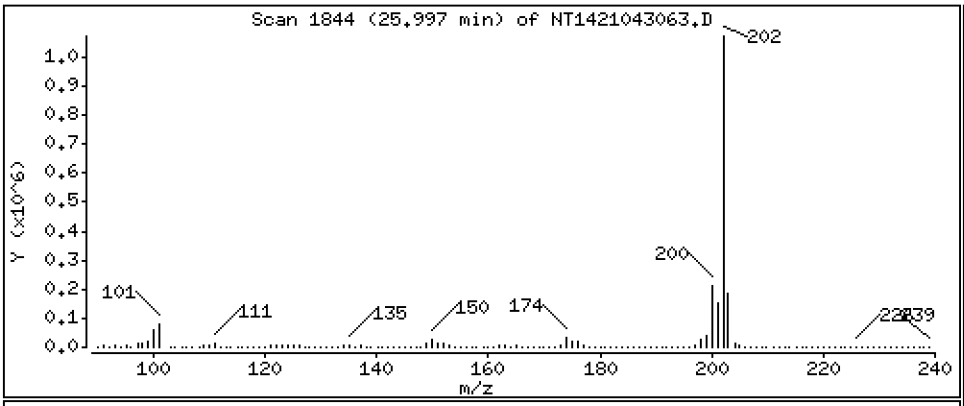
Operator: VTS

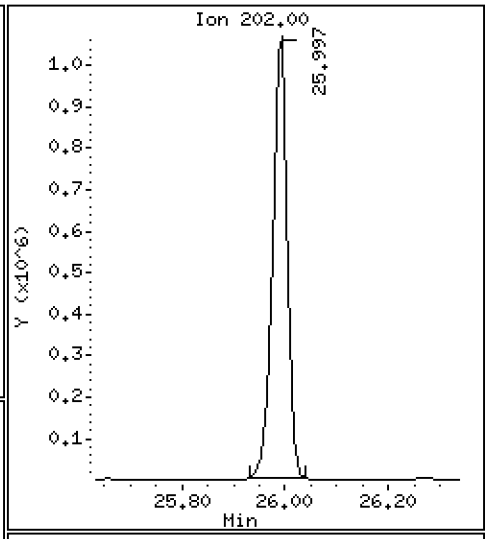
Column phase: Rxi-17Sil MS

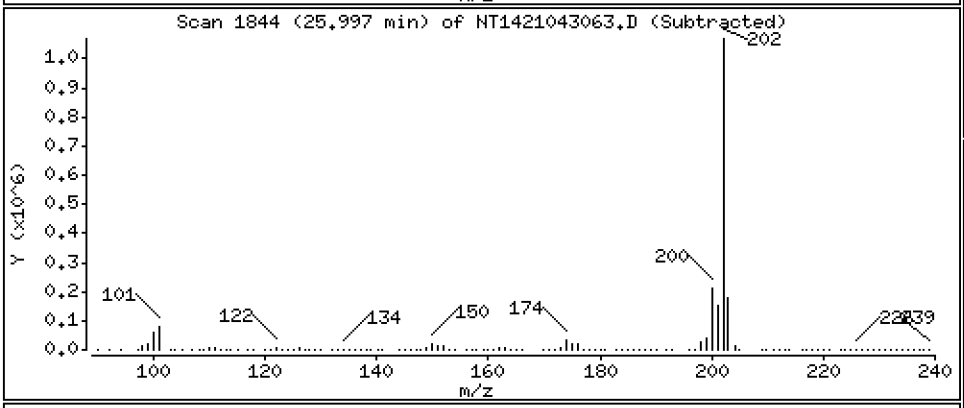
Column diameter: 0.25

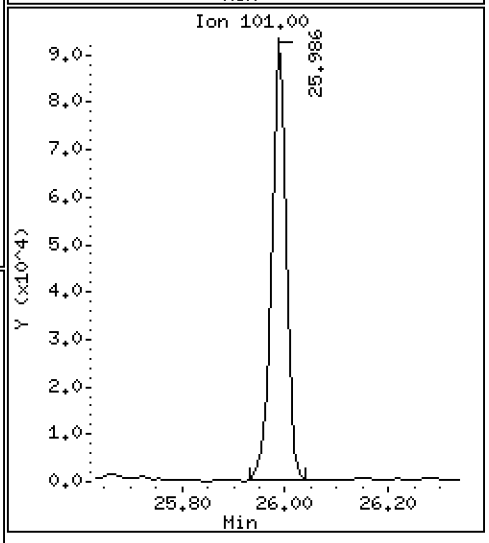
44 Fluoranthene

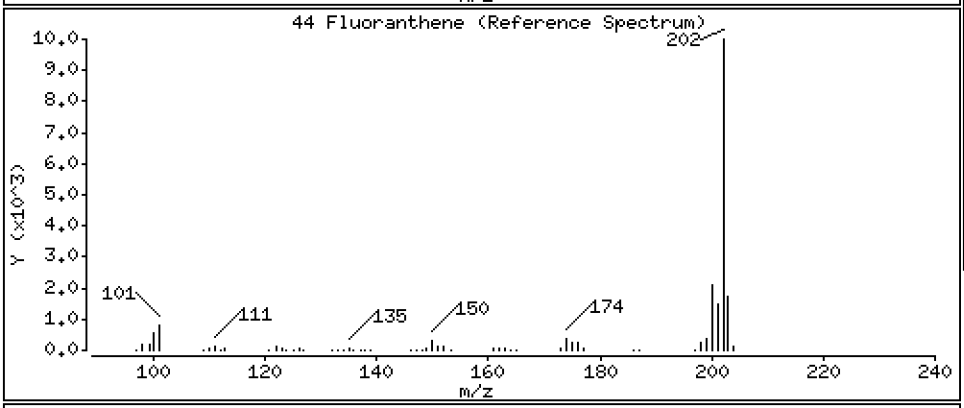
Concentration: 9.003 ug/mL

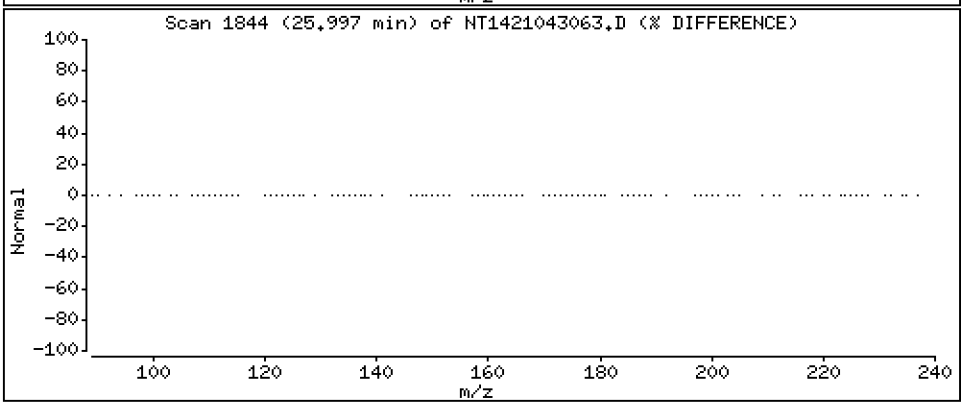


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043063.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

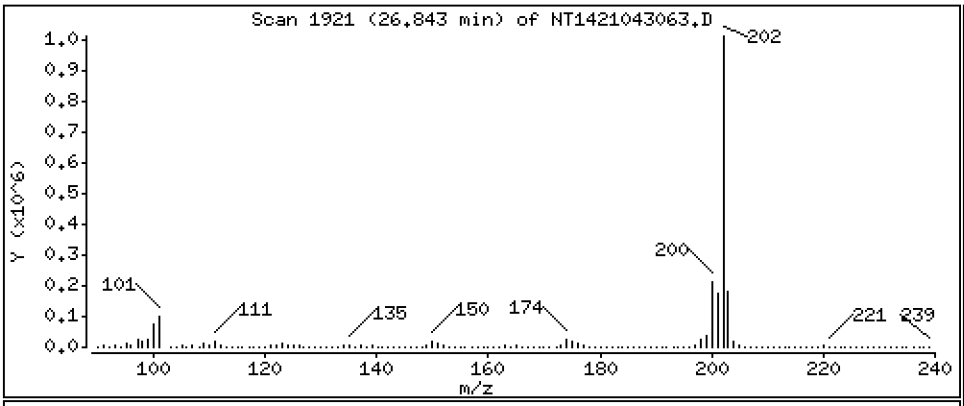
Operator: VTS

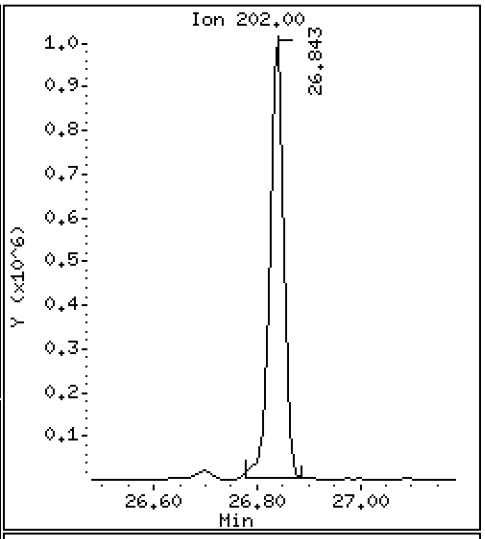
Column phase: Rxi-17Sil MS

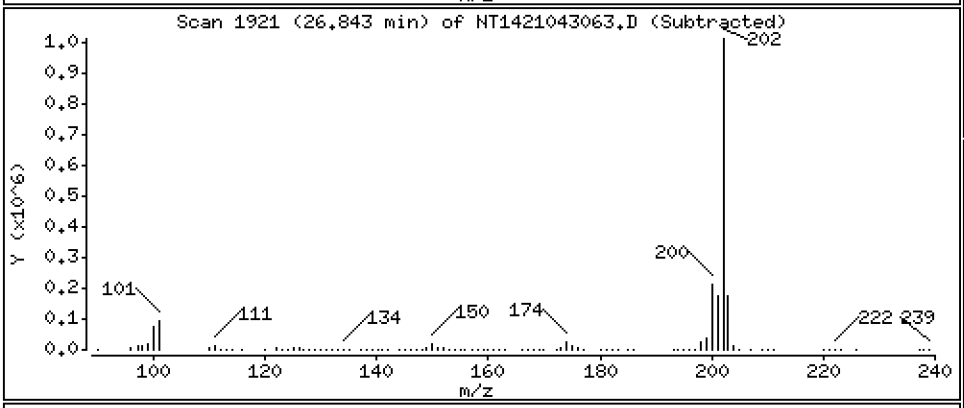
Column diameter: 0.25

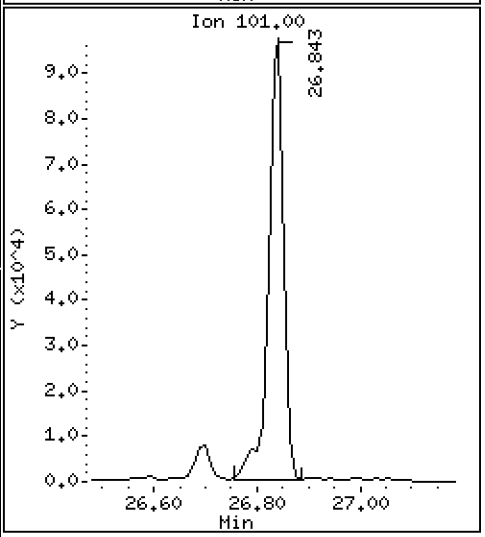
46 Pyrene

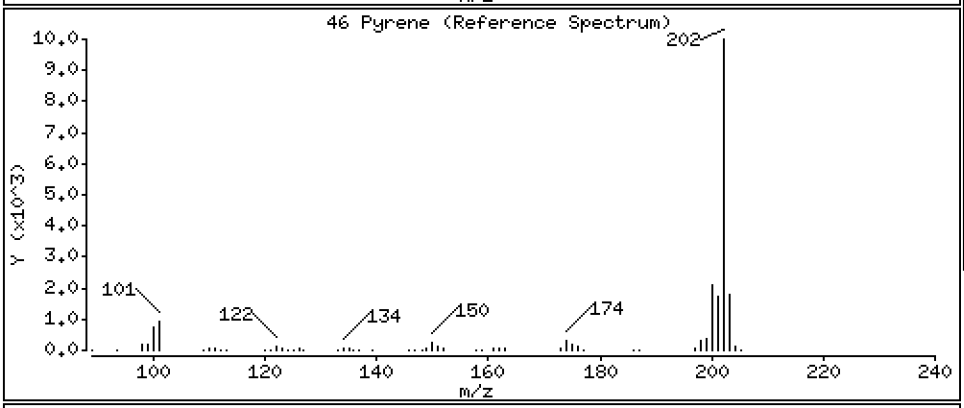
Concentration: 7.845 ug/mL

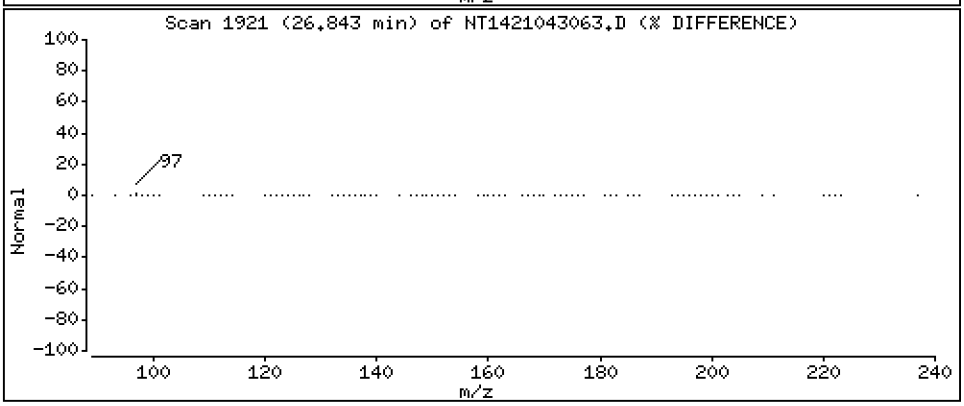


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043063.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

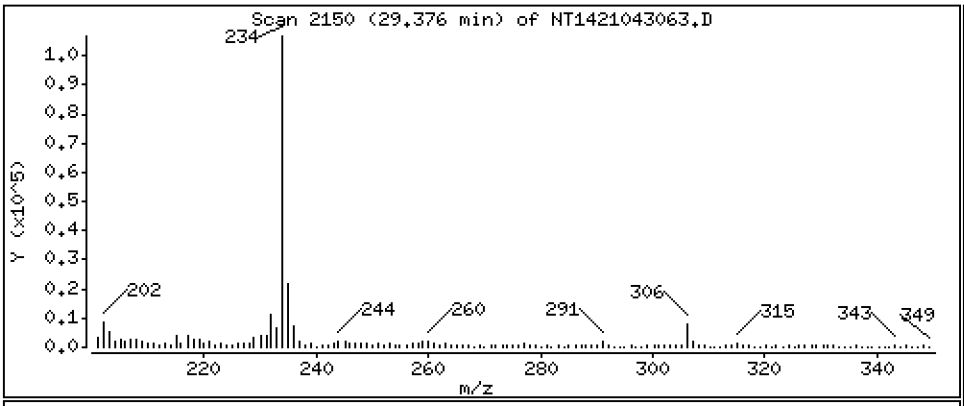
Operator: VTS

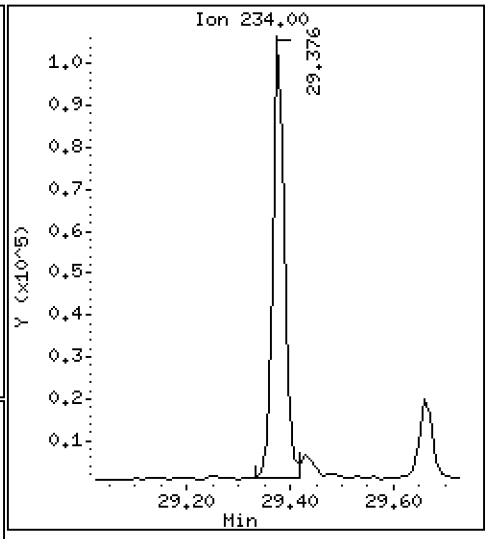
Column phase: Rxi-17Sil MS

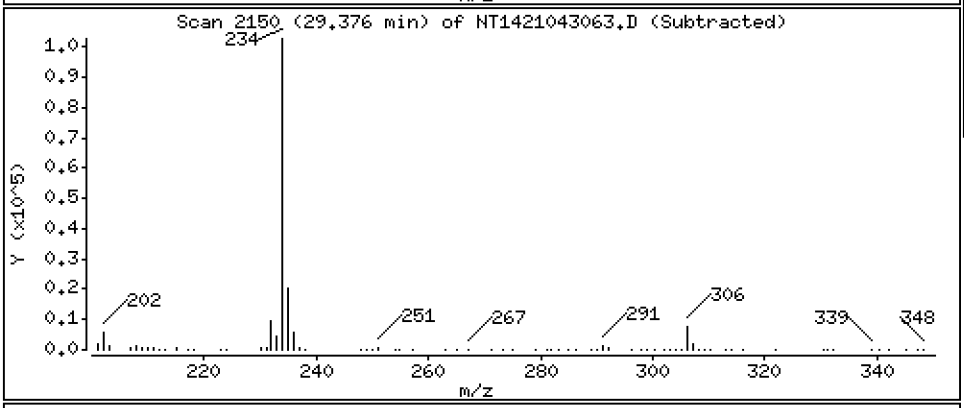
Column diameter: 0.25

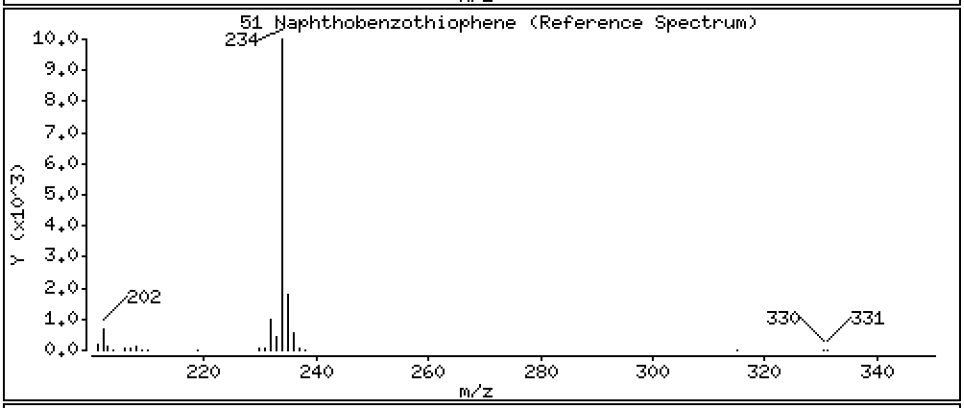
51 Naphthobenzothiophene

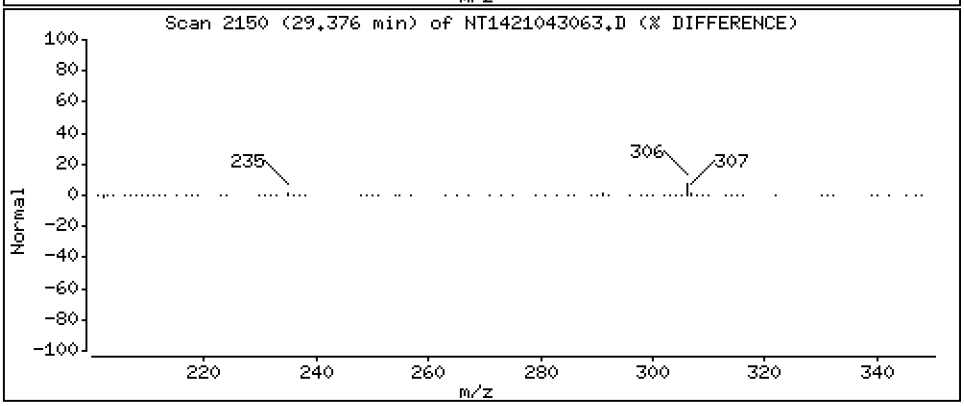
Concentration: 0.6982 ug/mL



Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043063.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

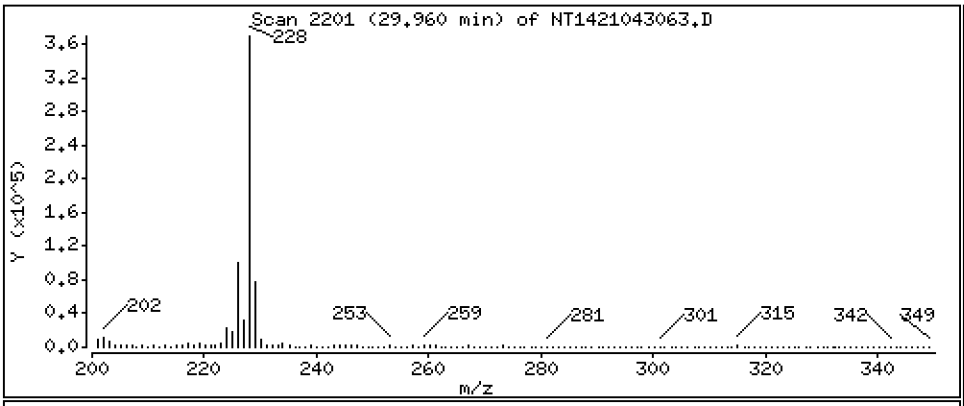
Operator: VTS

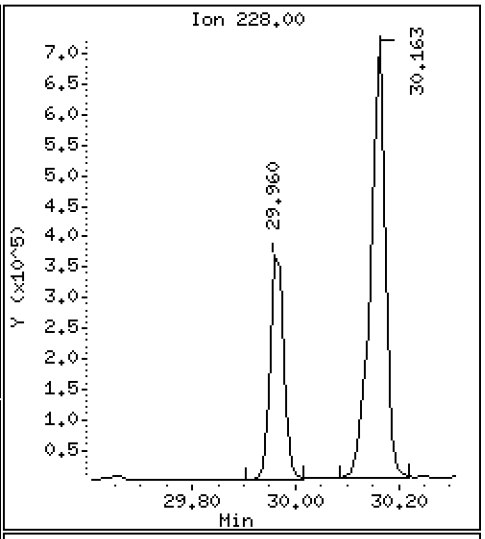
Column phase: Rxi-17Sil MS

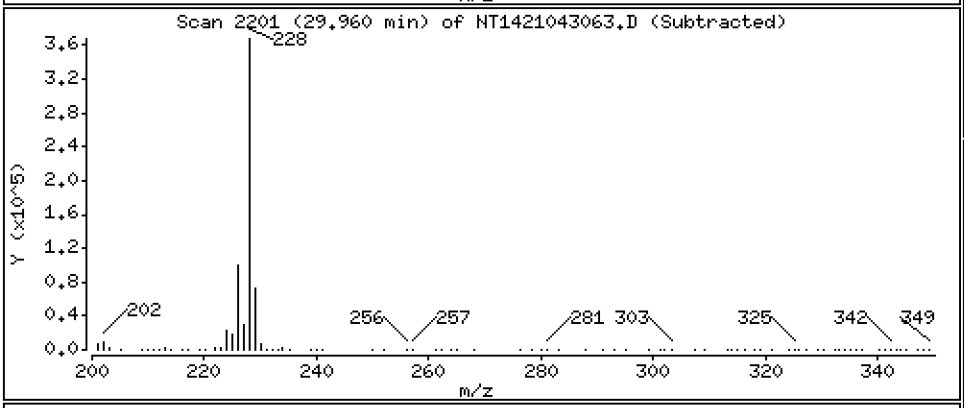
Column diameter: 0.25

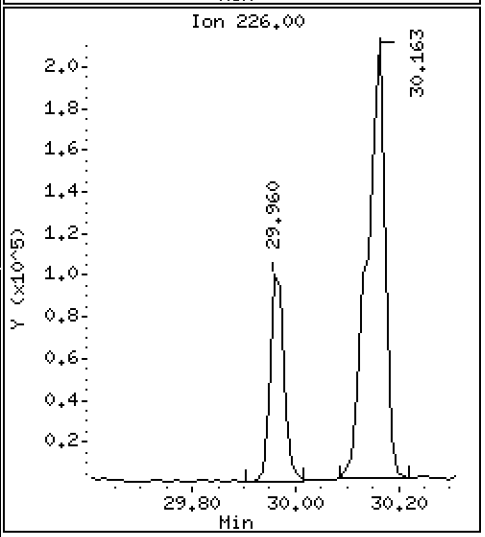
55 Benzo(a)anthracene

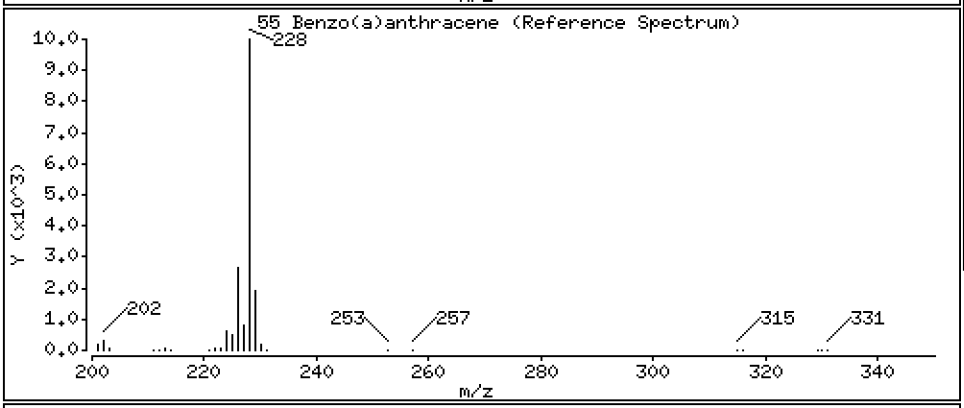
Concentration: 2.457 ug/mL

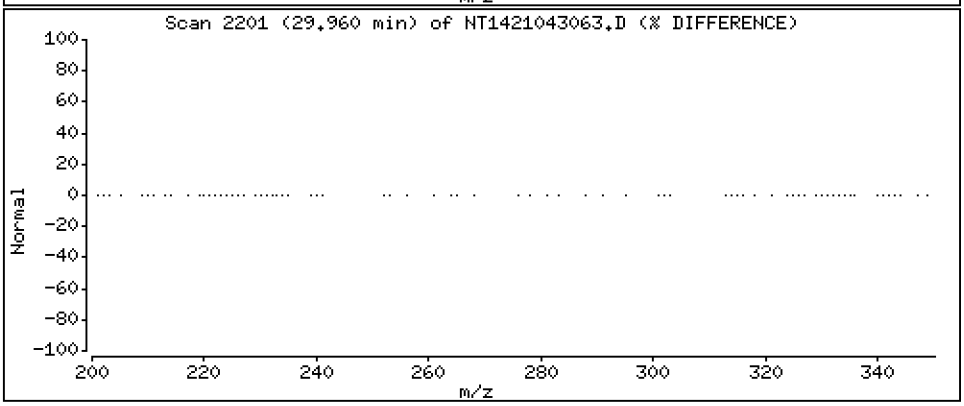


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043063.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

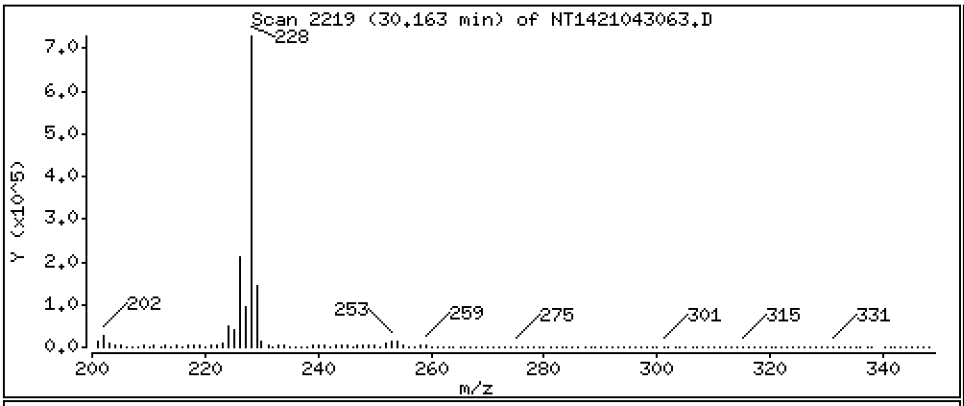
Operator: VTS

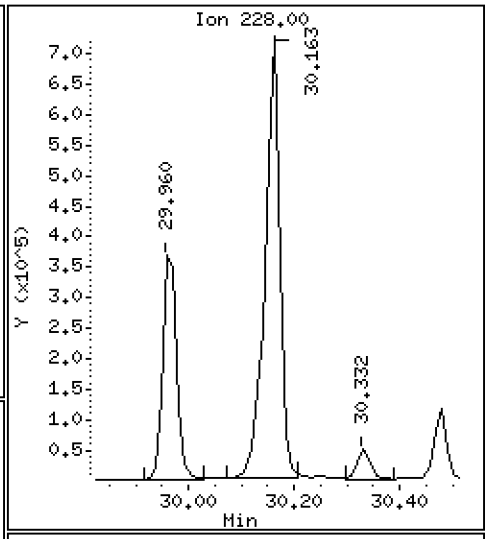
Column phase: Rxi-17Sil MS

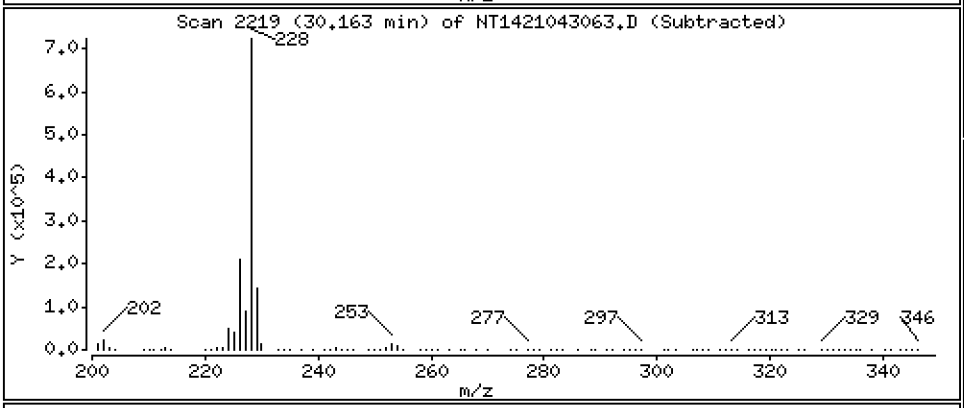
Column diameter: 0.25

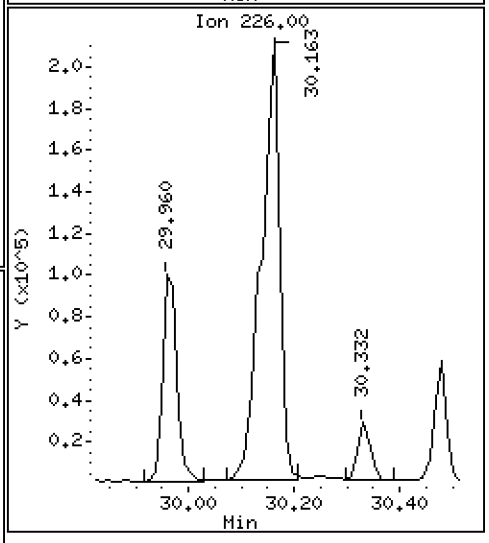
57 Chrysene

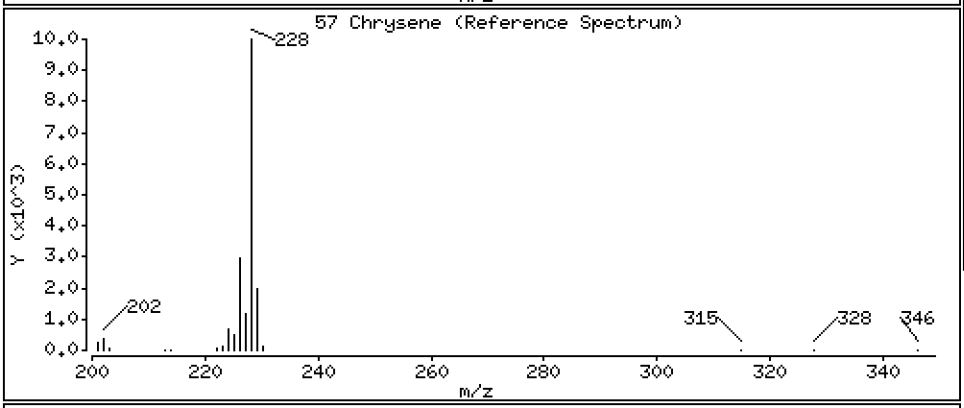
Concentration: 5.035 ug/mL

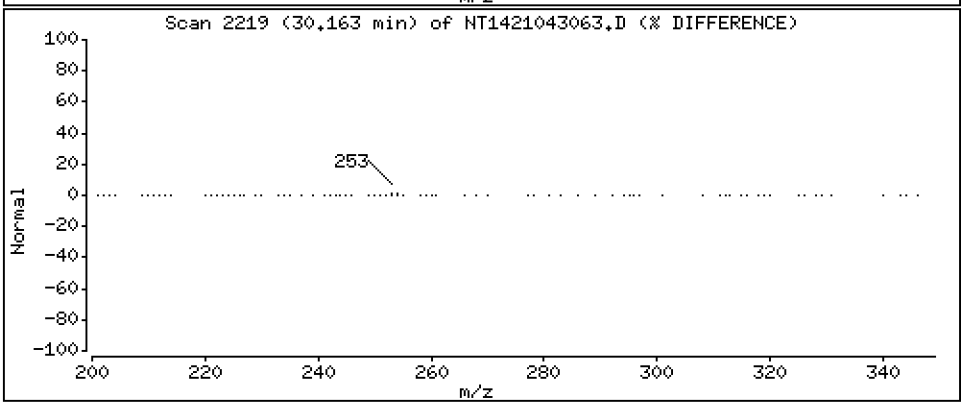


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043063.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

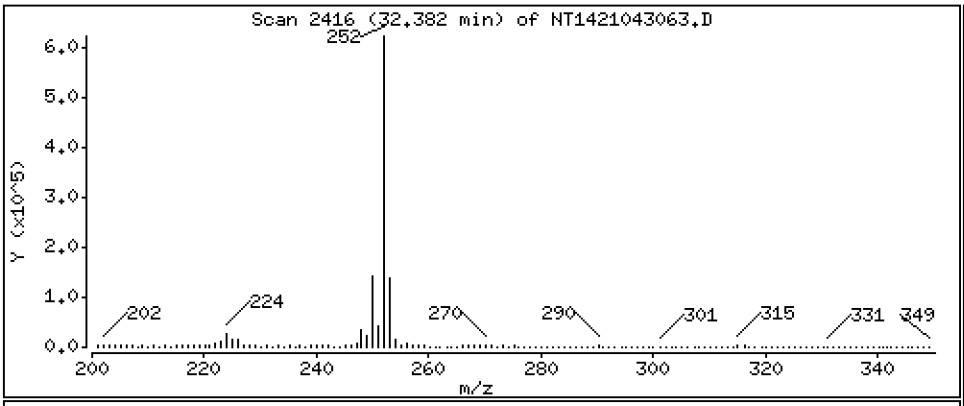
Operator: VTS

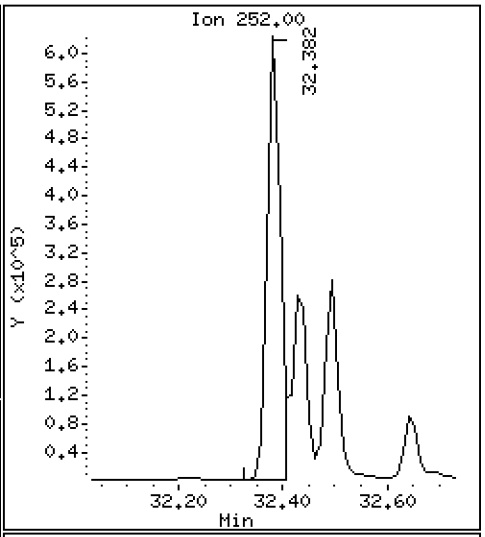
Column phase: Rxi-17Sil MS

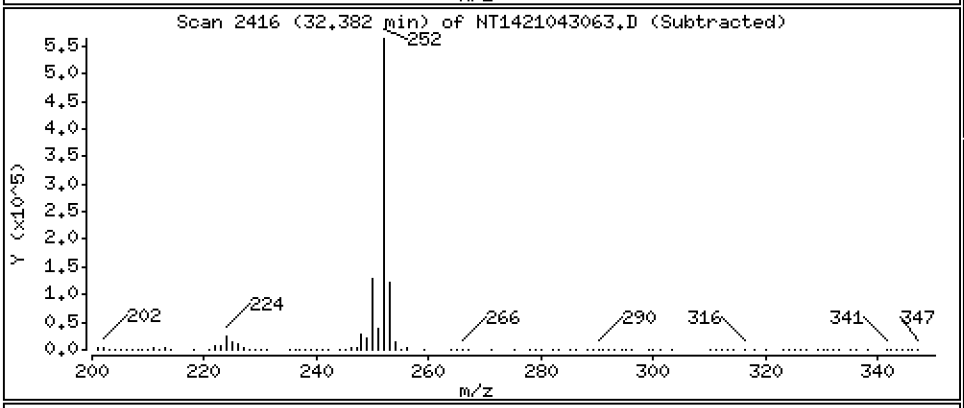
Column diameter: 0.25

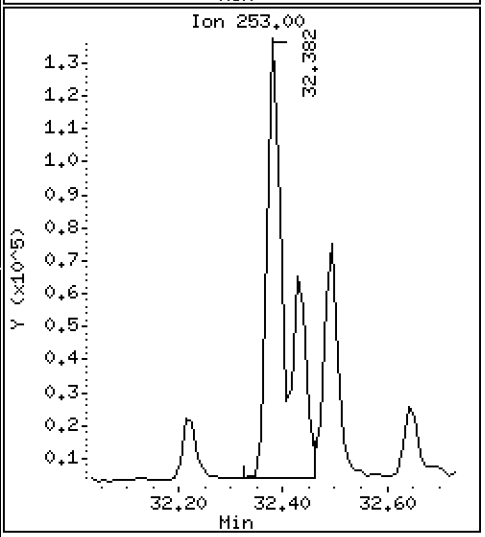
62 Benzo(b)fluoranthene

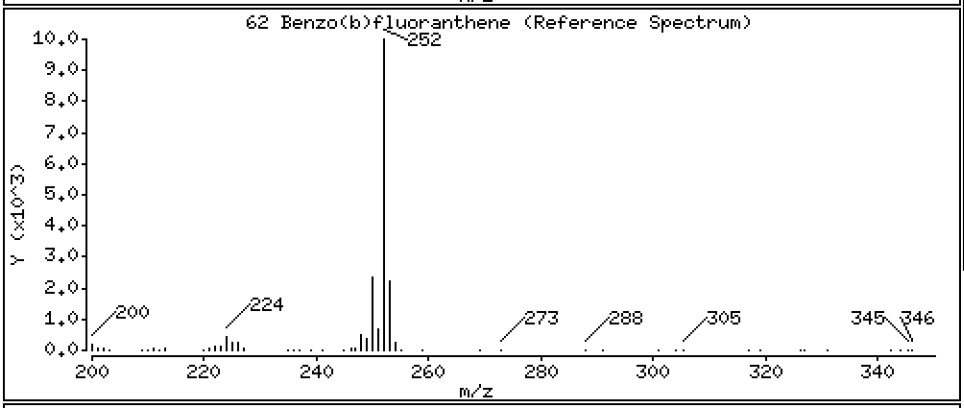
Concentration: 3.795 ug/mL

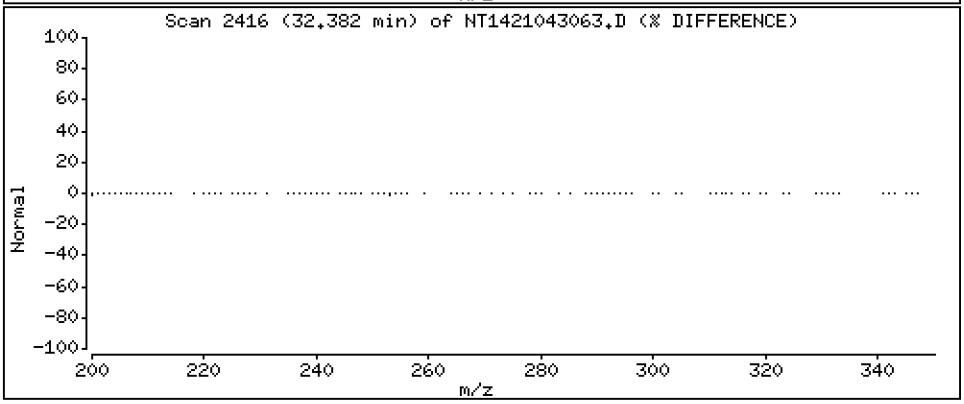


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043063.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

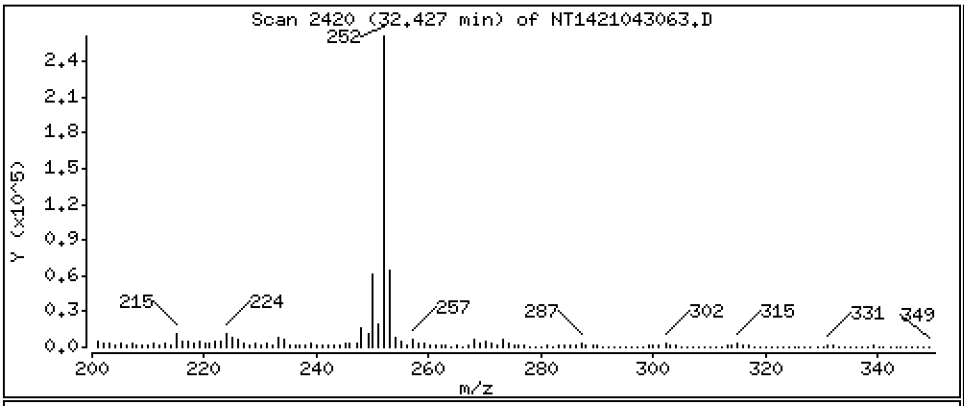
Operator: VTS

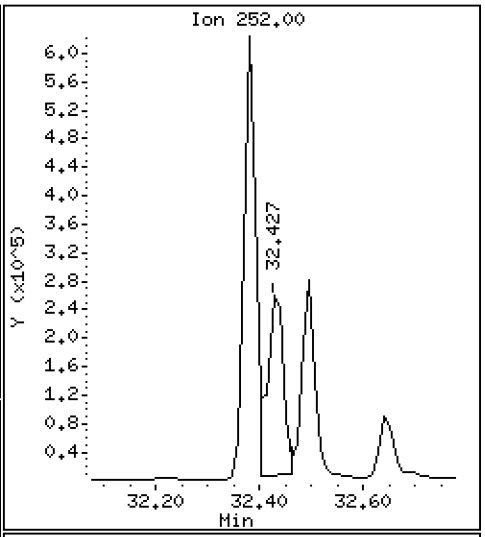
Column phase: Rxi-17Sil MS

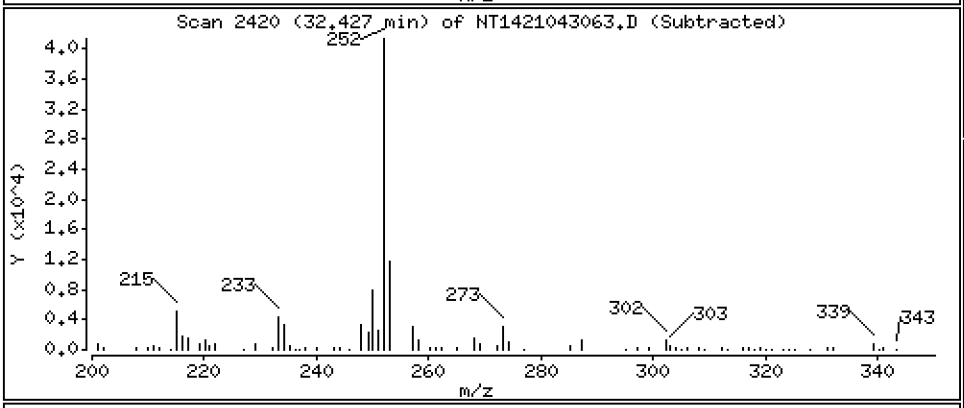
Column diameter: 0.25

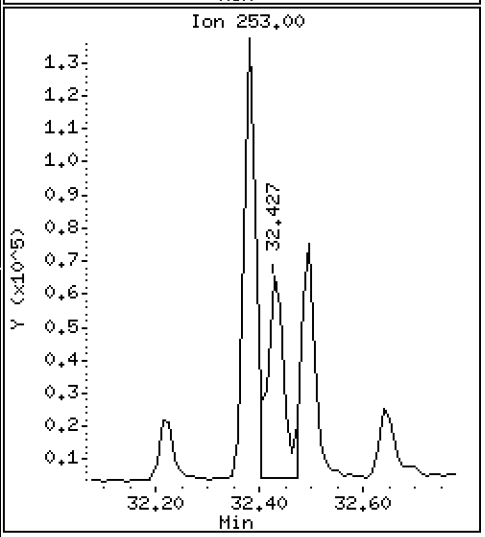
63 Benzo(k)fluoranthene

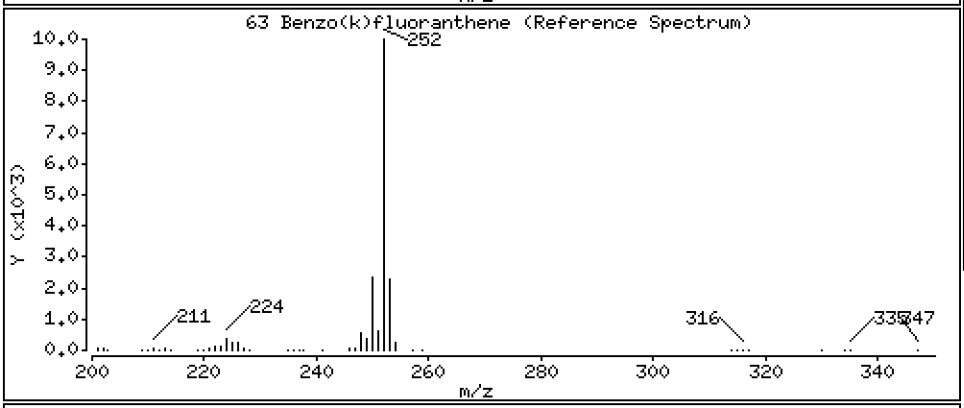
Concentration: 1.733 ug/mL

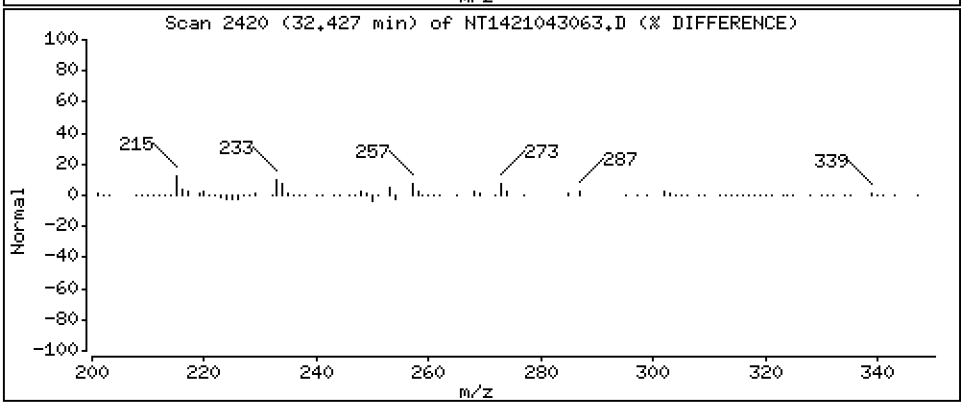


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043063.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

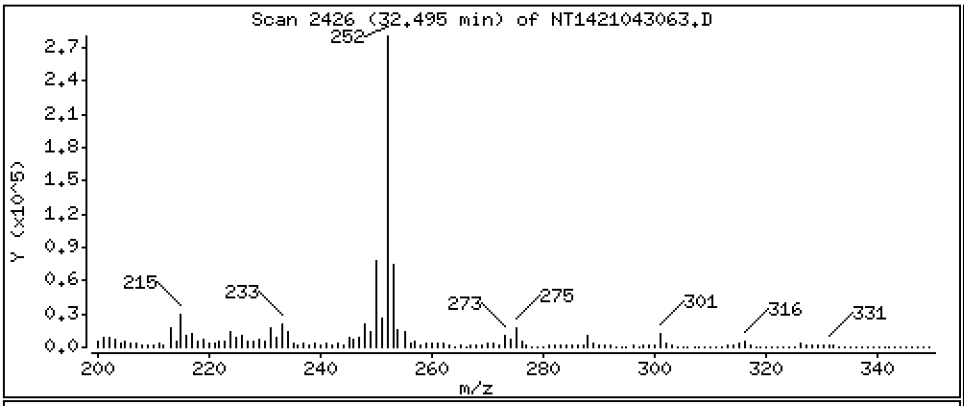
Operator: VTS

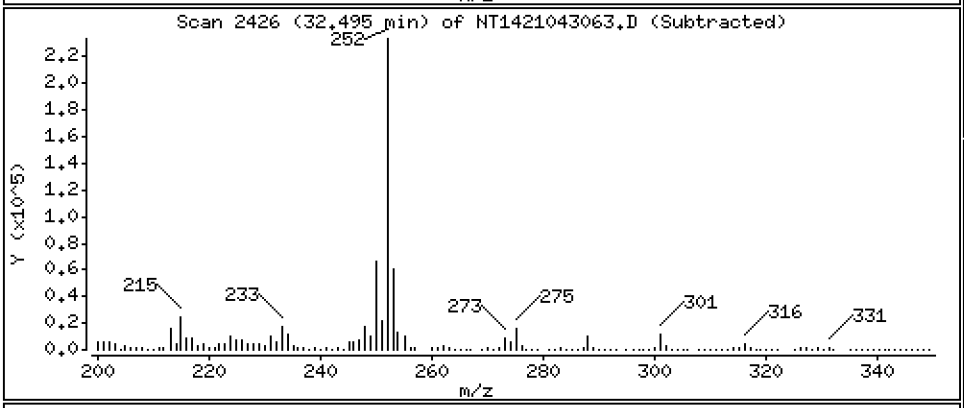
Column phase: Rxi-17Sil MS

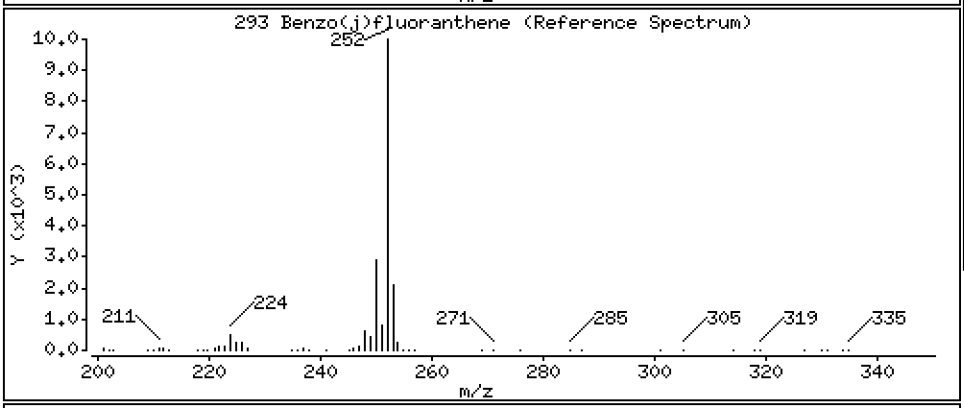
Column diameter: 0.25

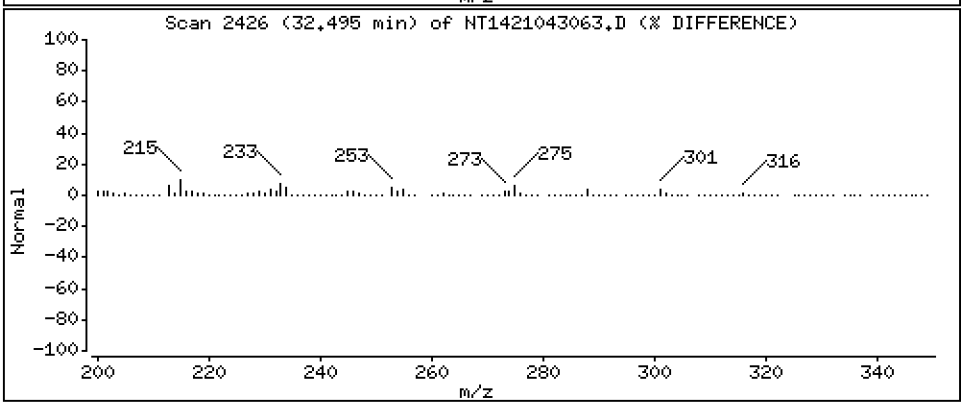
293 Benzo(j)fluoranthene

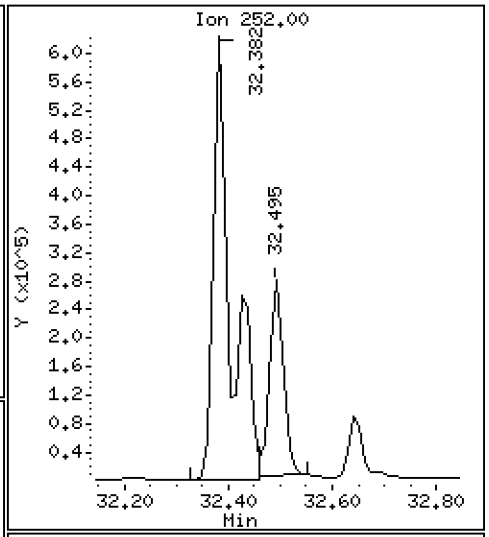
Concentration: 1.646 ug/mL

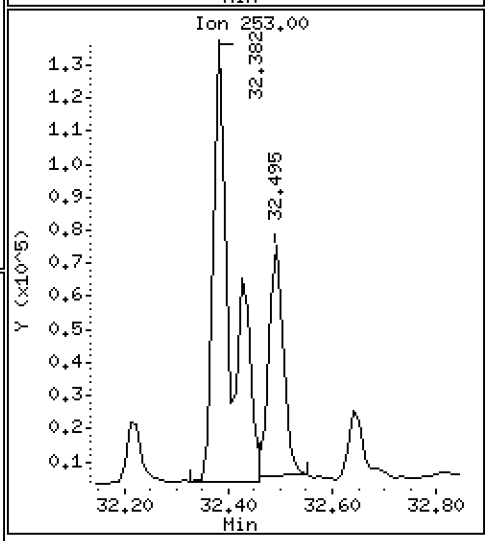


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043063.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

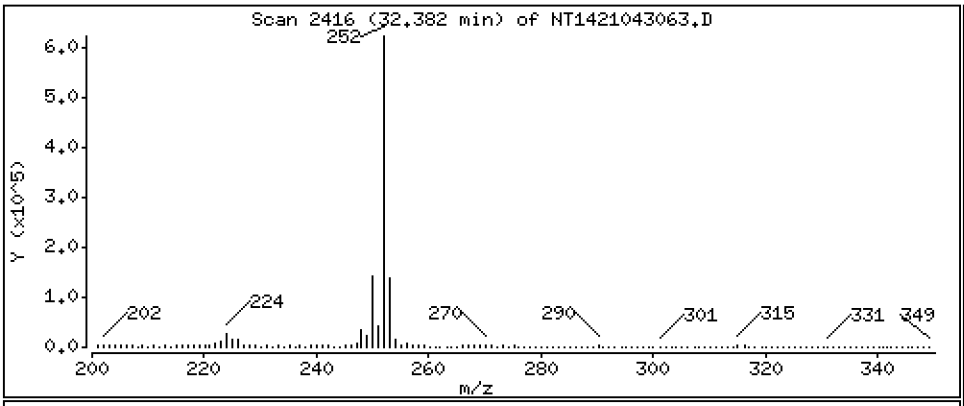
Operator: VTS

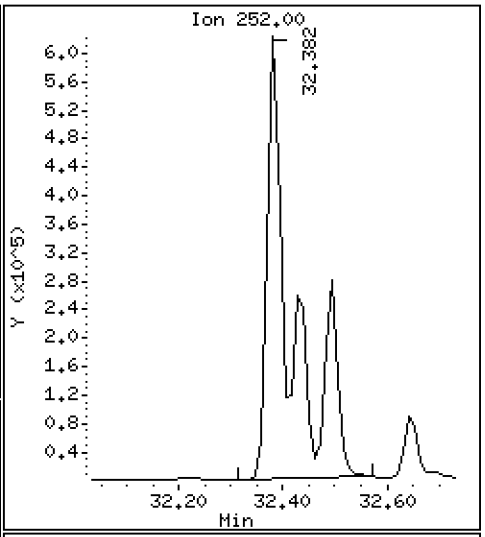
Column phase: Rxi-17Sil MS

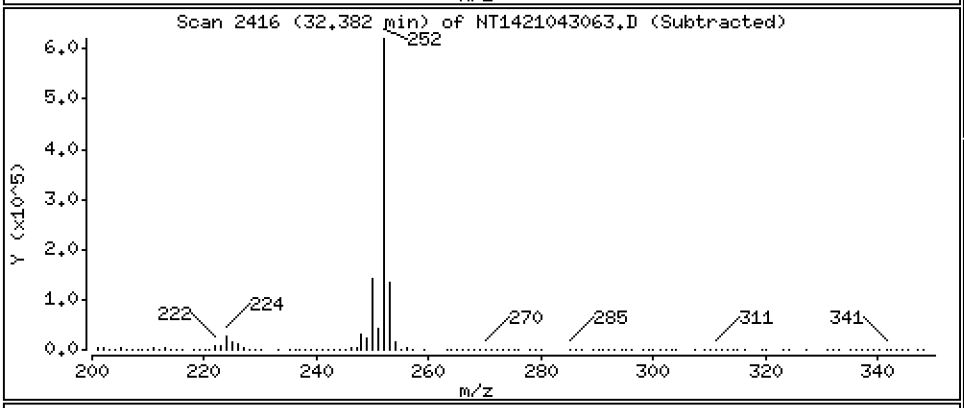
Column diameter: 0.25

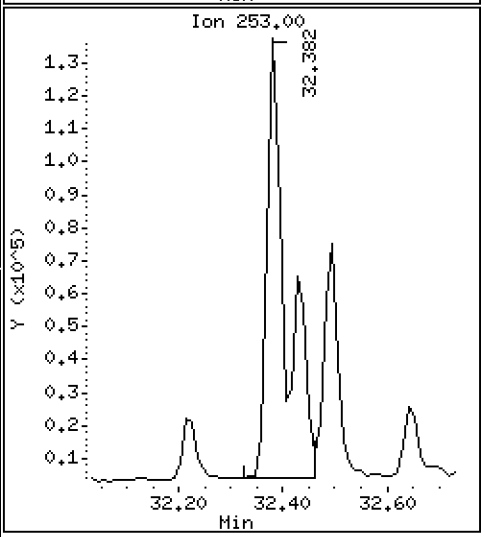
246 Total Benzofluoranthenes

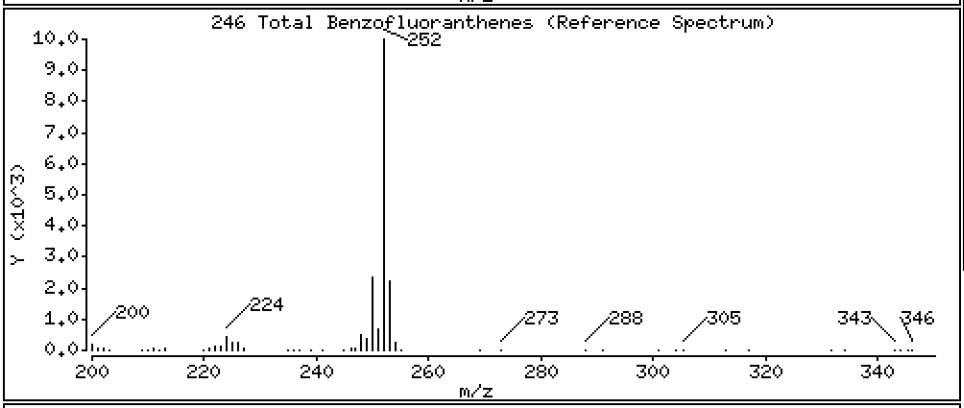
Concentration: 6.907 ug/mL

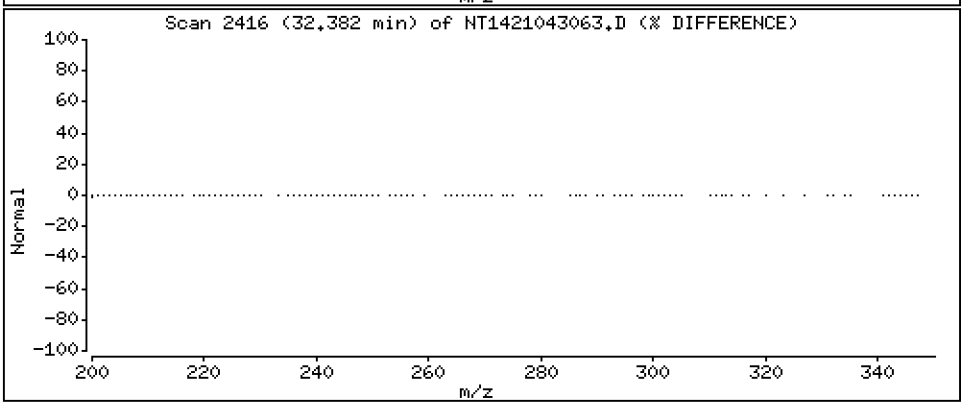


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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

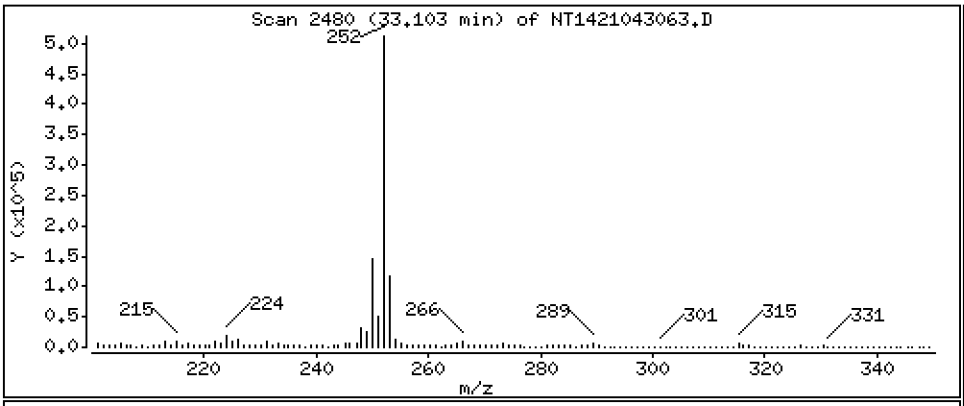
Operator: VTS

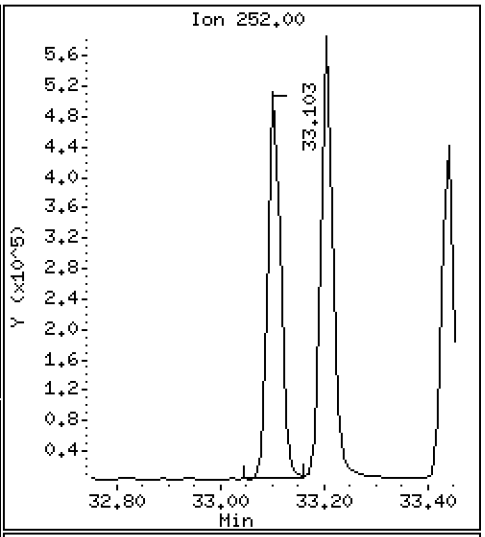
Column phase: Rxi-17Sil MS

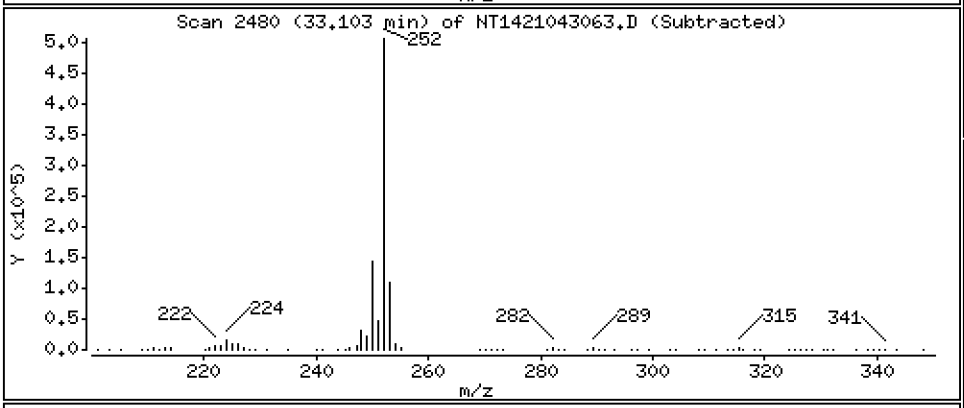
Column diameter: 0.25

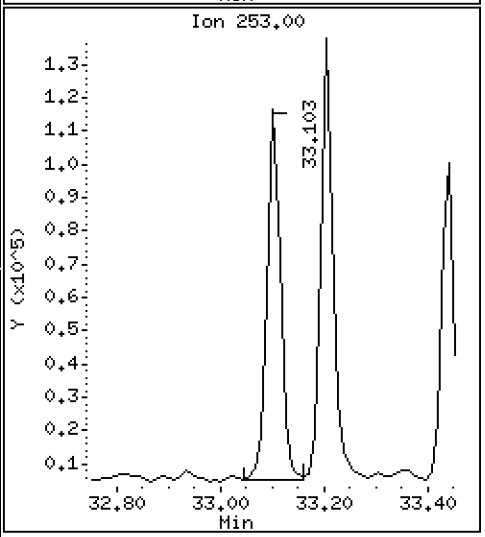
64 Benzo(e)pyrene

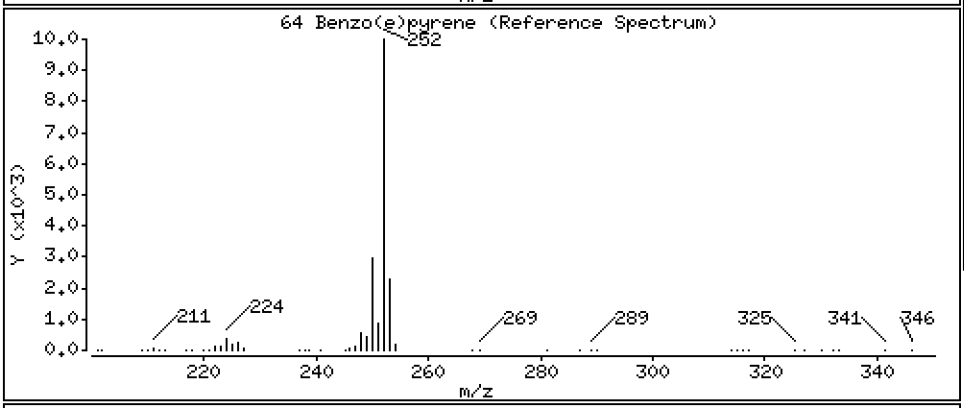
Concentration: 3.057 ug/mL

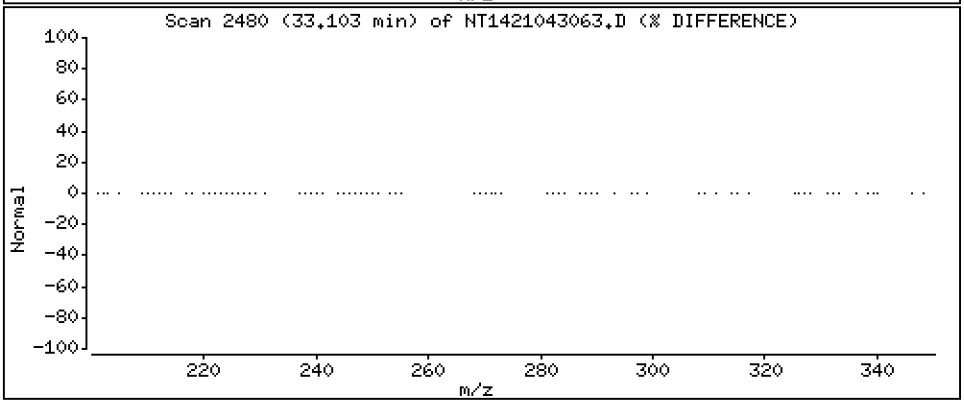


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043063.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

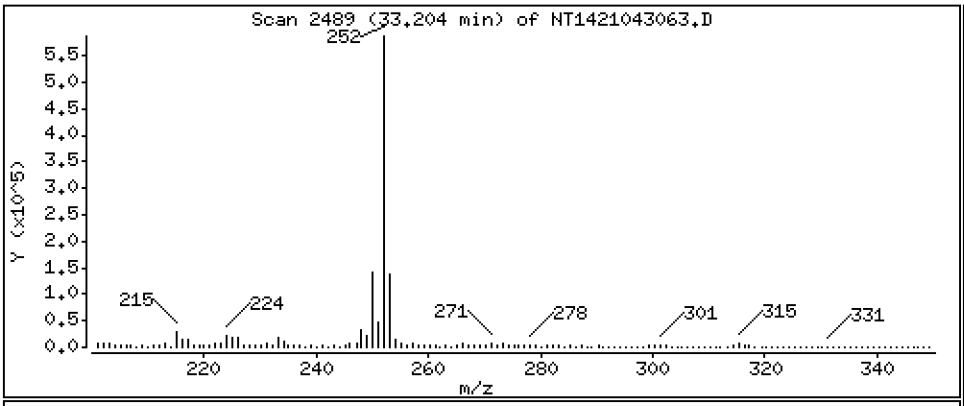
Operator: VTS

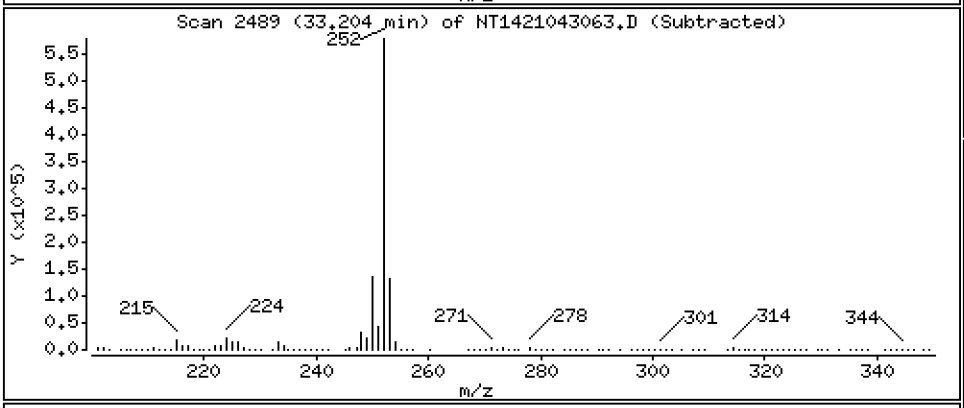
Column phase: Rxi-17Sil MS

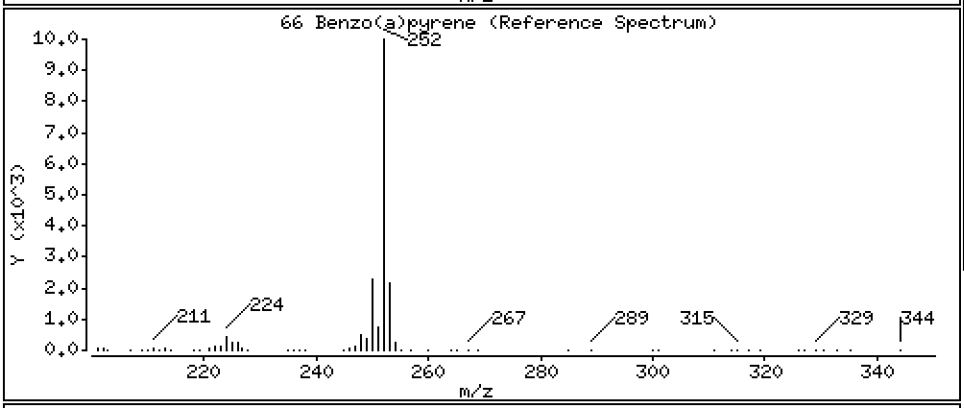
Column diameter: 0.25

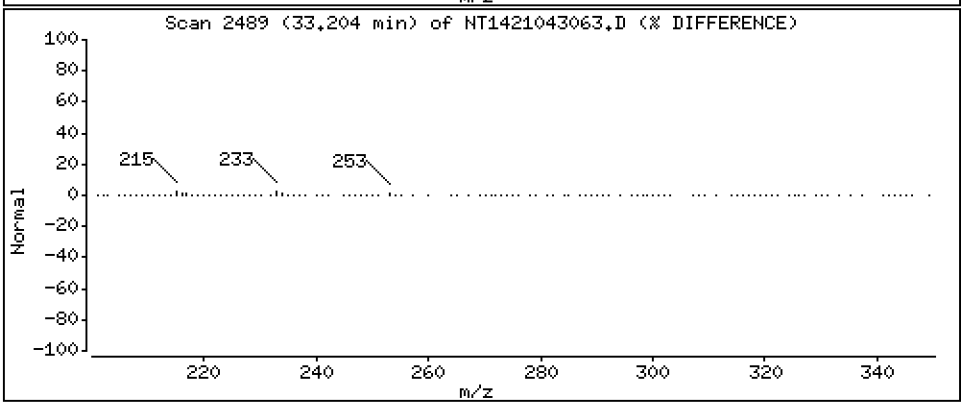
66 Benzo(a)pyrene

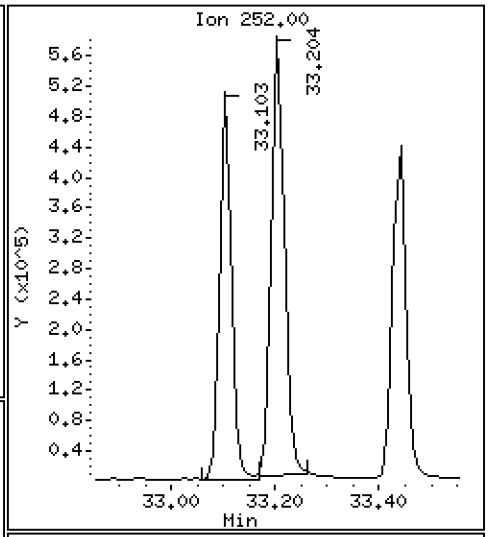
Concentration: 3.433 ug/mL

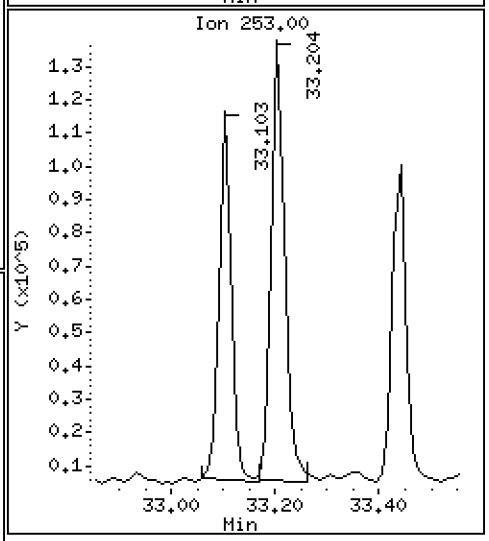


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043063.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

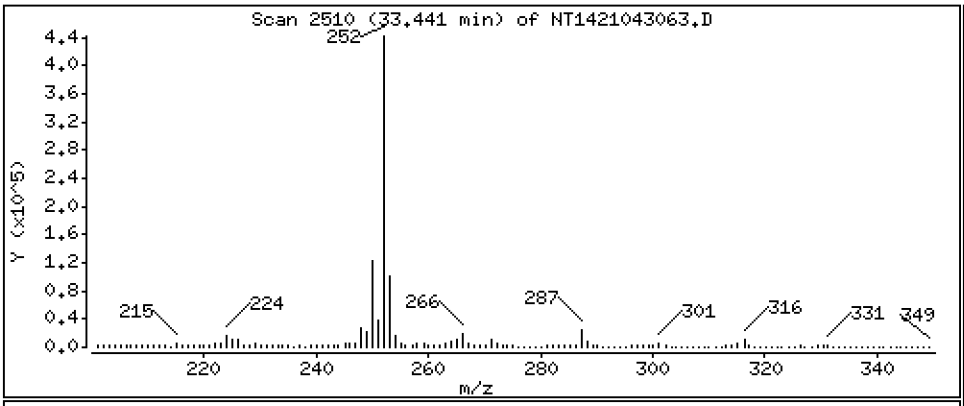
Operator: VTS

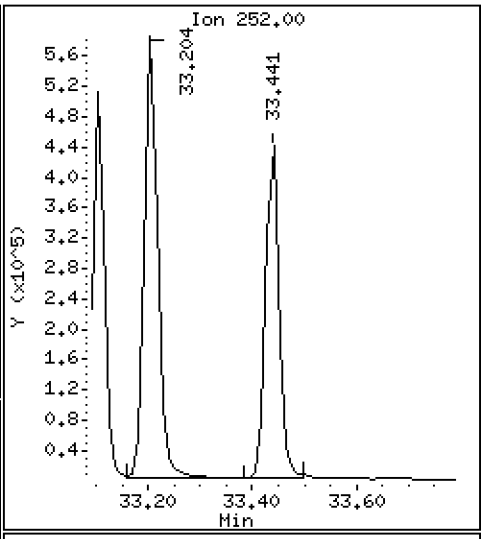
Column phase: Rxi-17Sil MS

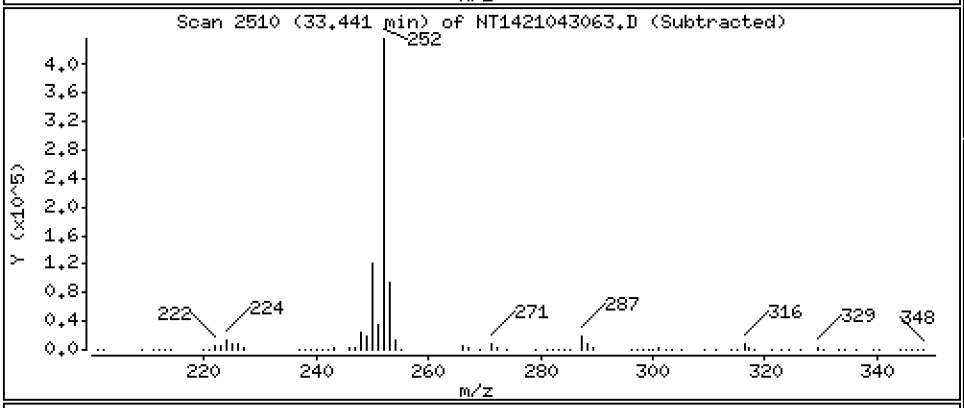
Column diameter: 0.25

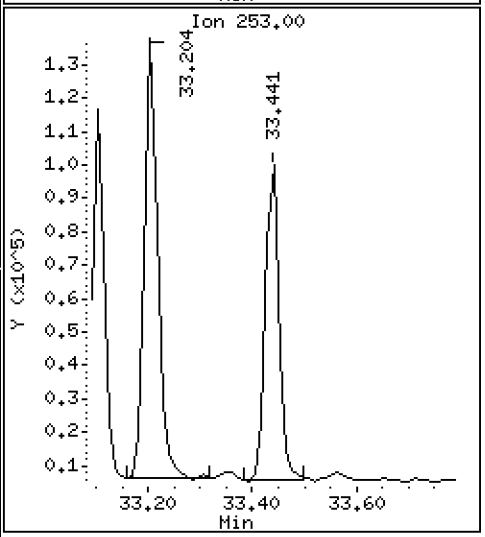
68 Perylene

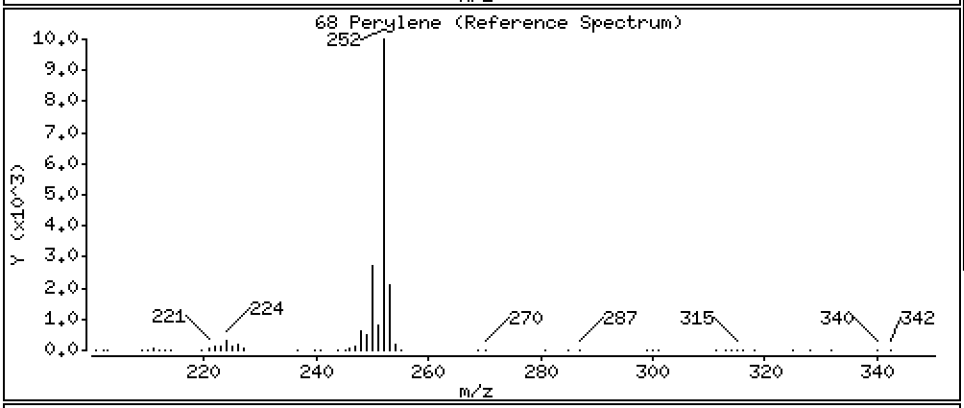
Concentration: 2.906 ug/mL

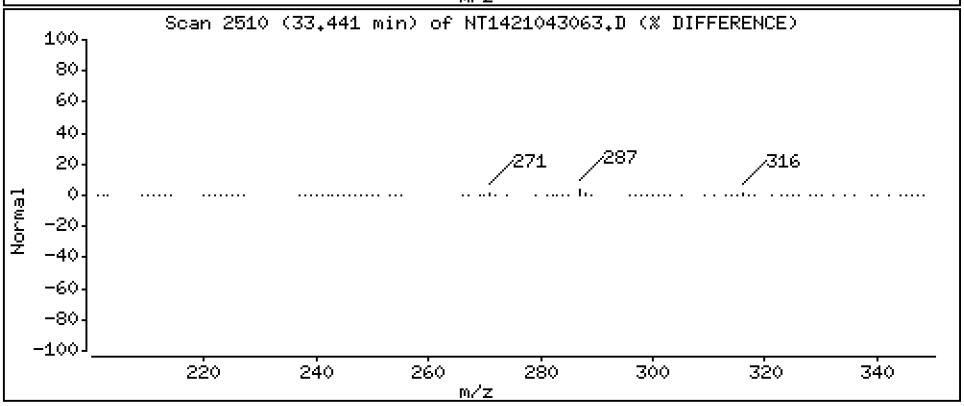


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043063.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

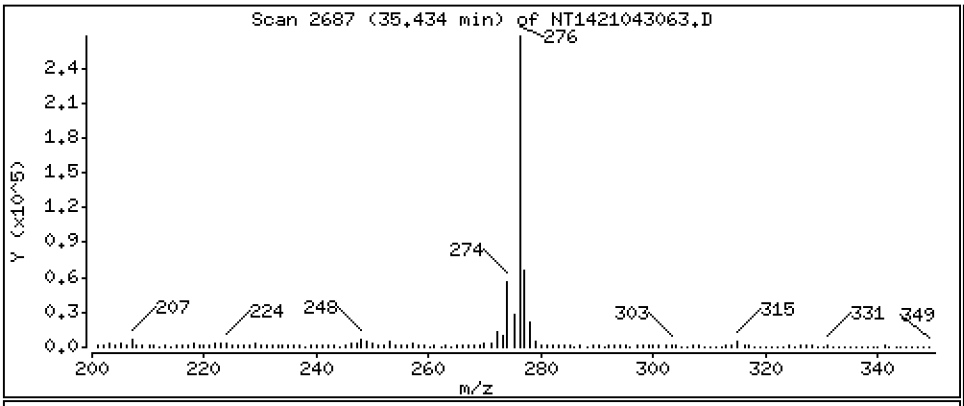
Operator: VTS

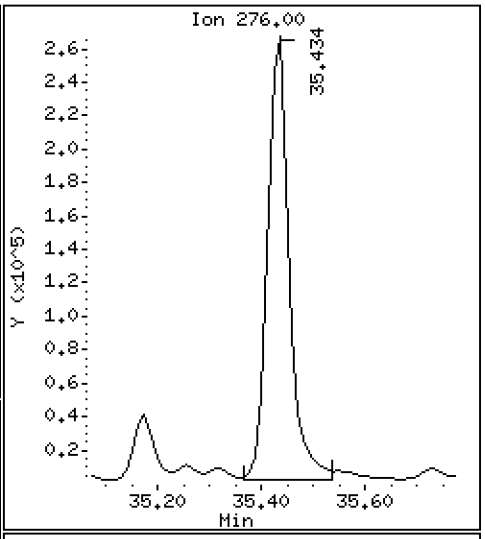
Column phase: Rxi-17Sil MS

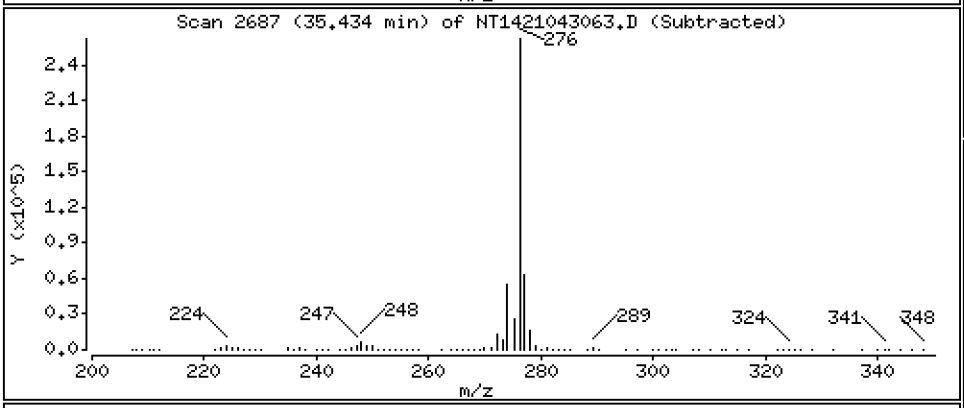
Column diameter: 0.25

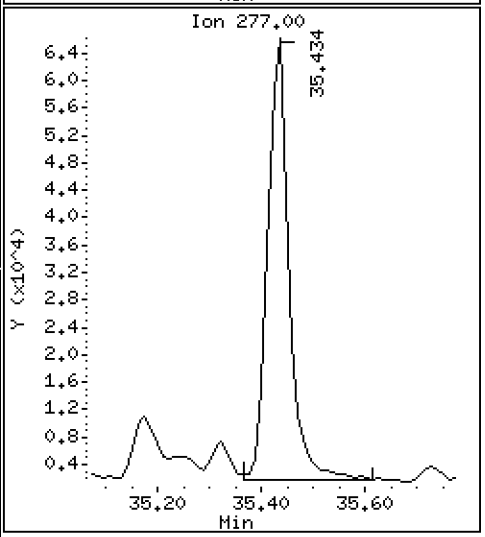
69 Indeno(1,2,3-cd)pyrene

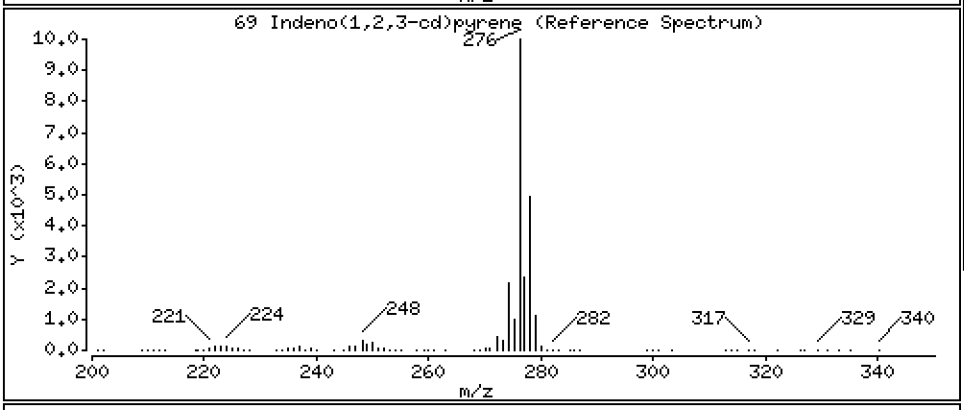
Concentration: 2.619 ug/mL

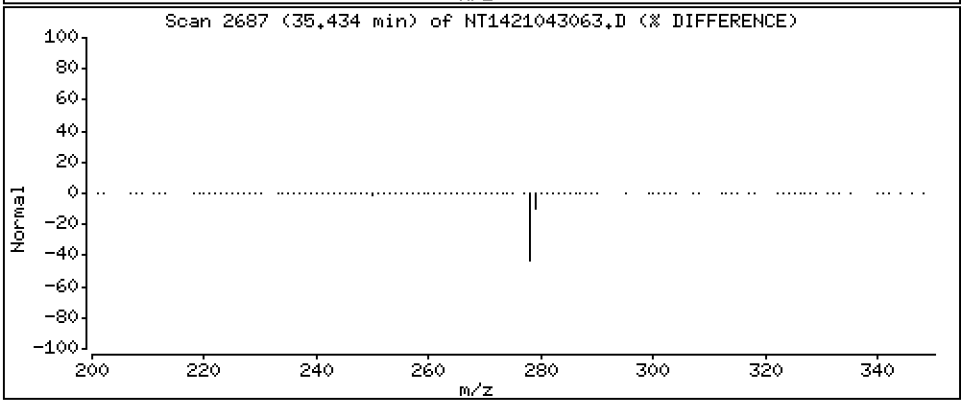


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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

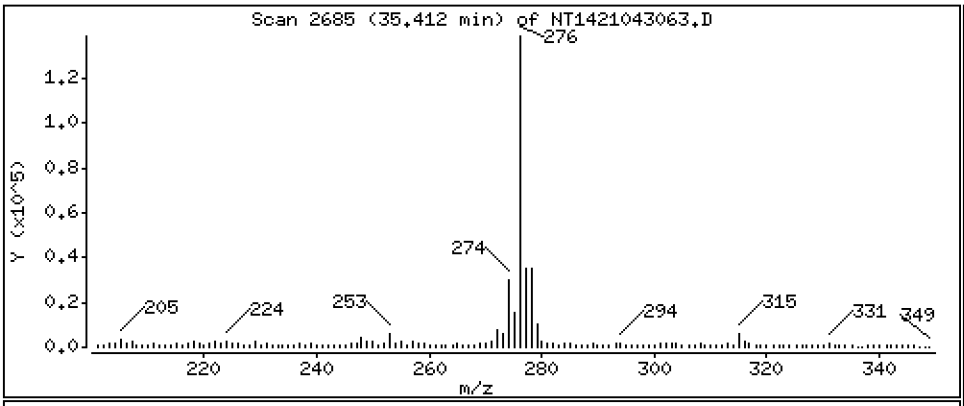
Operator: VTS

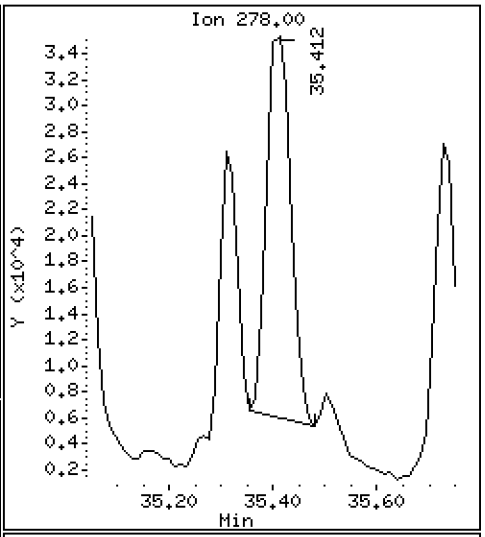
Column phase: Rxi-17Sil MS

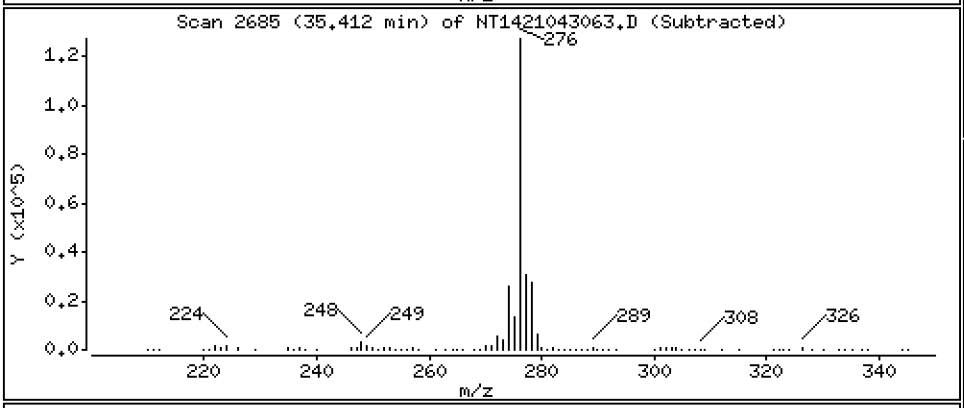
Column diameter: 0.25

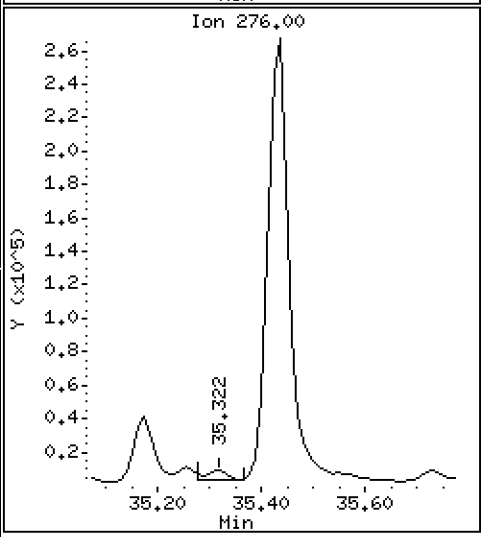
70 Dibenzo(a,h)anthracene

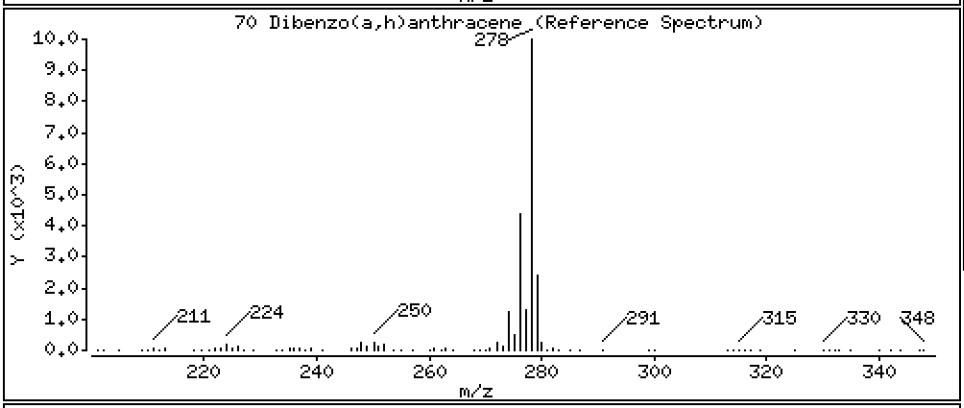
Concentration: 0.3919 ug/mL

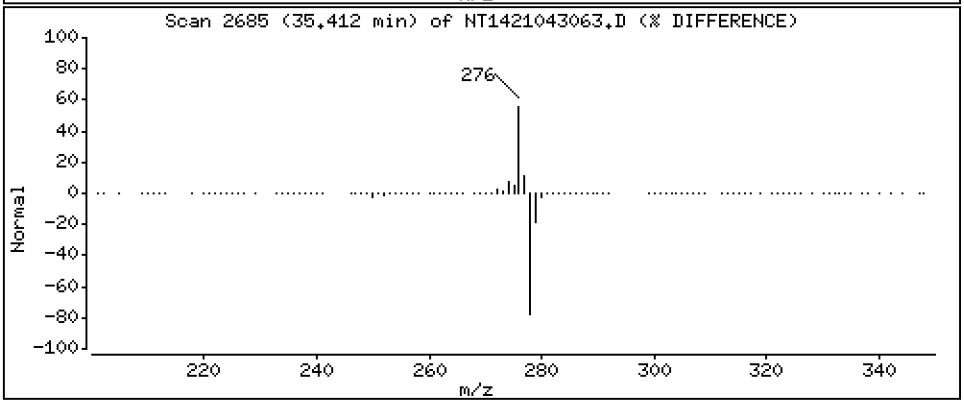


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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

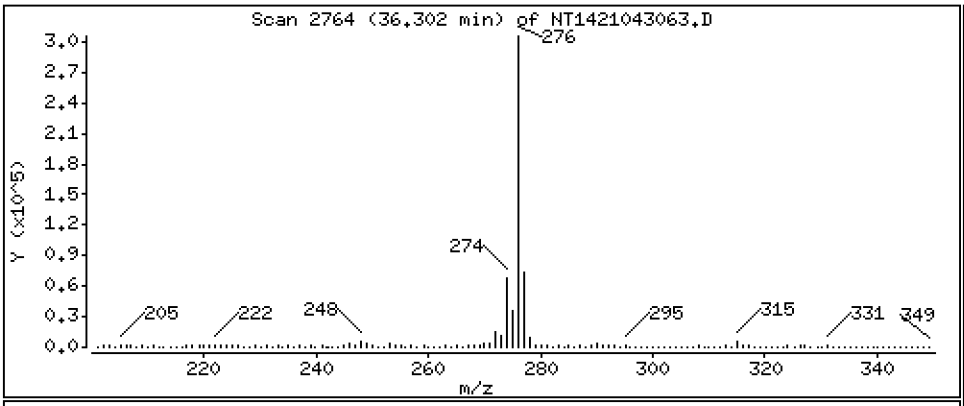
Operator: VTS

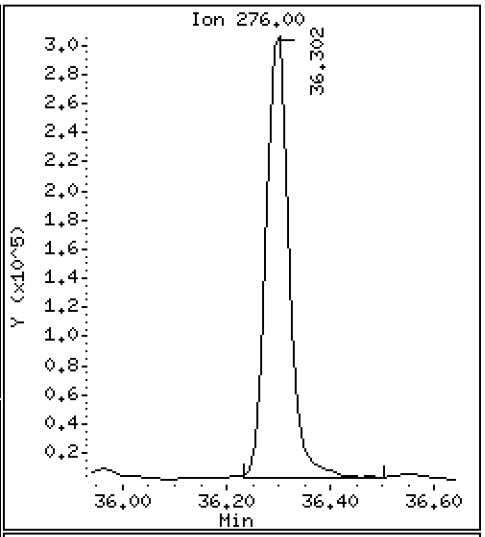
Column phase: Rxi-17Sil MS

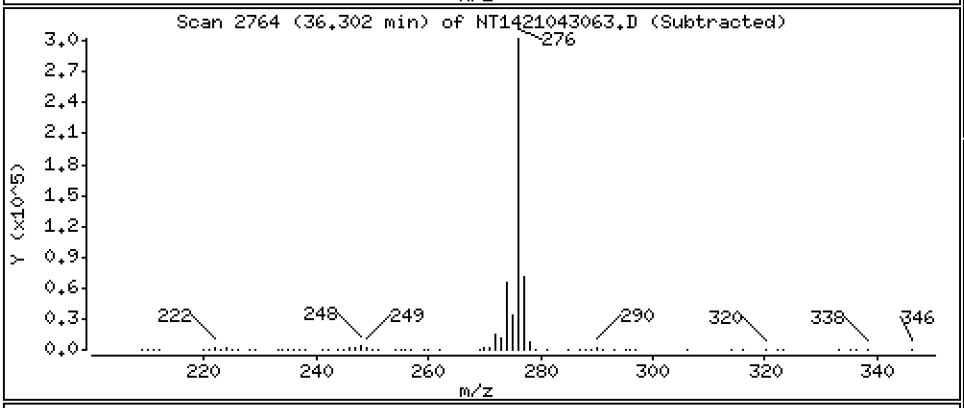
Column diameter: 0.25

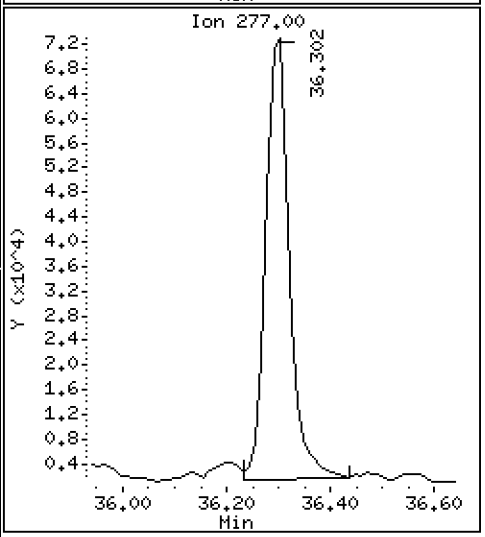
74 Benzo(g,h,i)perylene

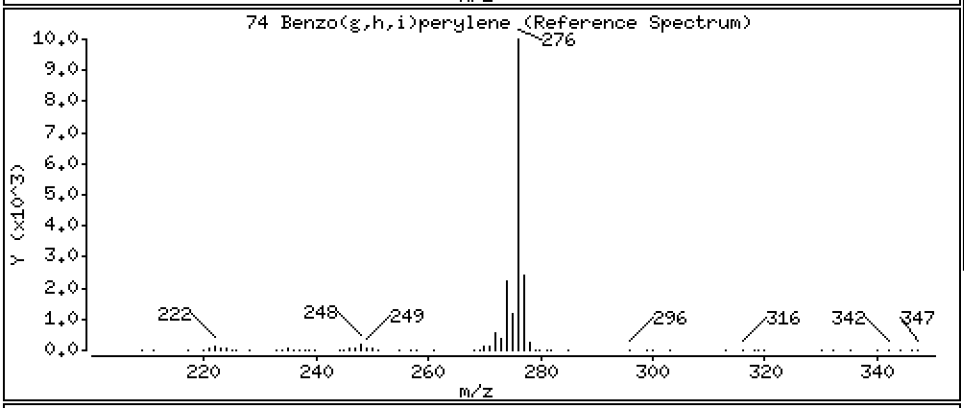
Concentration: 3.811 ug/mL

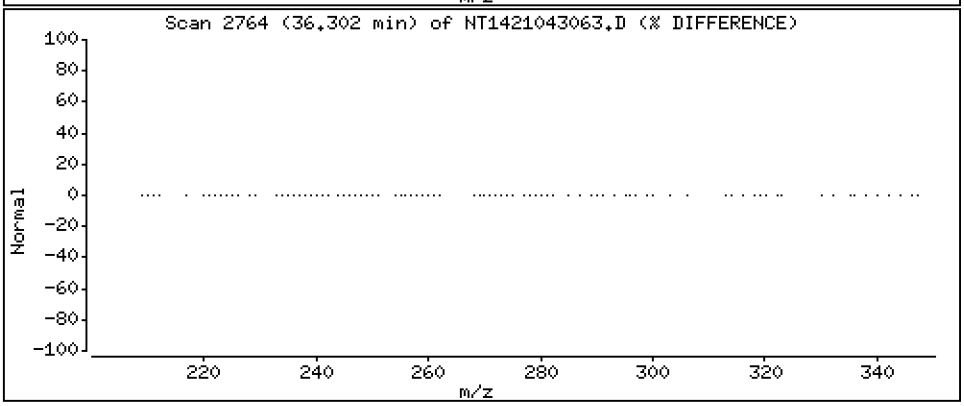


ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430D.b\NT1421043063.D
Lab Smp Id: 21D0180-01
Inj Date : 02-MAY-2021 09:13
Operator : VTS Inst ID: nt14.i
Smp Info : 21D0180-01
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
Meth Date : 04-May-2021 08:25 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 44
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 | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| 1 | trans-Decalin | 138 | Compound Not Detected. | | | | | |
| 2 | cis-Decalin | 138 | Compound Not Detected. | | | | | |
| $ 6 | Naphthalene-d8 | 136 | 11.766 | 11.776 | (0.627) | 619031 | 2.04393 | 2.044(R) |
| 7 | Naphthalene | 128 | 11.826 | 11.836 | (0.630) | 154069 | 0.50013 | 0.5001 |
| 12 | Benzo(b)thiophene | 134 | 12.284 | 12.295 | (0.654) | 11113 | 0.04534 | 0.04534 |
| 16 | 2-Methylnaphthalene | 141 | 13.669 | 13.680 | (0.728) | 33341 | 0.20281 | 0.2028 |
| 17 | 1-methylnaphthalene | 141 | 14.120 | 14.120 | (0.752) | 19720 | 0.12660 | 0.1266 |
| 18 | Biphenyl | 154 | 15.307 | 15.318 | (0.815) | 22969 | 0.09763 | 0.09763 |
| 19 | 2,6-Dimethylnaphthalene | 156 | 15.383 | 15.394 | (0.820) | 15102 | 0.09328 | 0.09328(M) |
| 20 | Acenaphthylene | 152 | 16.955 | 16.955 | (0.903) | 66541 | 0.26118 | 0.2612 |
| $ 21 | Acenaphthene-d10 | 164 | 17.241 | 17.241 | (0.918) | 335141 | 2.26626 | 2.266(R) |
| 22 | Acenaphthene | 153 | 17.351 | 17.362 | (0.924) | 86143 | 0.52610 | 0.5261 |
| 23 | Dibenzofuran | 168 | 17.735 | 17.735 | (0.945) | 45885 | 0.18494 | 0.1849 |
| 24 | 1,6,7-Trimethylnaphthalene | 170 | 17.955 | 17.955 | (0.956) | 11303 | 0.07955 | 0.07955 |
| * 25 | Fluorene-d10 | 176 | 18.772 | 18.772 | (1.000) | 524796 | 2.00000 | |
| 26 | Fluorene | 166 | 18.874 | 18.874 | (1.005) | 77499 | 0.42980 | 0.4298 |
| 30 | Dibenzothiophene | 184 | 21.785 | 21.796 | (1.161) | 53345 | 0.23436 | 0.2344(M) |
| $ 35 | Phenanthrene-d10 | 188 | 22.104 | 22.104 | (0.995) | 522837 | 2.03652 | 2.037(R) |
| 36 | Phenanthrene | 178 | 22.181 | 22.181 | (0.999) | 784387 | 2.73669 | 2.737 |
| * 250 | Anthracene-d10 | 188 | 22.214 | 22.214 | (1.000) | 475082 | 2.00000 | |
| 37 | Anthracene | 178 | 22.280 | 22.280 | (1.003) | 188912 | 0.71501 | 0.7150 |
| 42 | Carbazole | 167 | 23.555 | 23.566 | (1.060) | 62497 | 0.28705 | 0.2870 |
| 43 | 1-Methylphenanthrene | 192 | 24.017 | 24.017 | (1.081) | 64723 | 0.37192 | 0.3719 |
| 44 | Fluoranthene | 202 | 25.996 | 25.985 | (1.170) | 2291717 | 9.00306 | 9.003 |
| 46 | Pyrene | 202 | 26.843 | 26.832 | (1.208) | 2069336 | 7.84496 | 7.845 |
| 51 | Naphthobenzothiophene | 234 | 29.375 | 29.375 | (1.322) | 179477 | 0.69821 | 0.6982(M) |
| 55 | Benzo(a)anthracene | 228 | 29.960 | 29.960 | (0.907) | 695043 | 2.45719 | 2.457 |
| $ 56 | Chrysene-d12 | 240 | 30.095 | 30.084 | (0.911) | 450778 | 2.01129 | 2.011(R) |
| 57 | Chrysene | 228 | 30.163 | 30.163 | (0.913) | 1450421 | 5.03499 | 5.035 |
| 62 | Benzo(b)fluoranthene | 252 | 32.381 | 32.382 | (0.980) | 1019410 | 3.79540 | 3.795(M) |
| 63 | Benzo(k)fluoranthene | 252 | 32.427 | 32.427 | (0.981) | 547996 | 1.73254 | 1.733(M) |
| 293 | Benzo(j)fluoranthene | 252 | 32.494 | 32.494 | (0.983) | 483022 | 1.64622 | 1.646 |
| 246 | Total Benzofluoranthenes | 252 | 32.381 | 32.382 | (0.980) | 1985813 | 6.90701 | 6.907(M) |

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

## QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043063.D
Lab Smp Id: 21D0180-01
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
Misc Info:

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

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1421043063.D

Lab ID: 21D0180-01
nt14.i,  20210430D.b\ALKYLPNA.m,    02-MAY-2021 09:13

| RT | CO-ELUTION COMPOUNDS |
|---|---|
| NO CO-ELUTIONS | |

Quant Method: ICAL

RRT CHECK

| RRT | CCV RRT | DELTA | COMPOUND |
|---|---|---|---|
| NONE | | | |

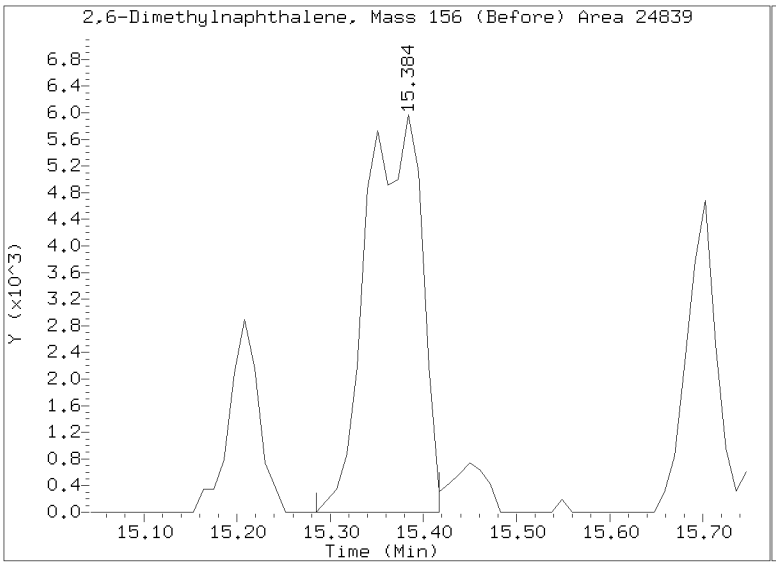
RRT check based on Ccal File: NT1421043051ICV.D

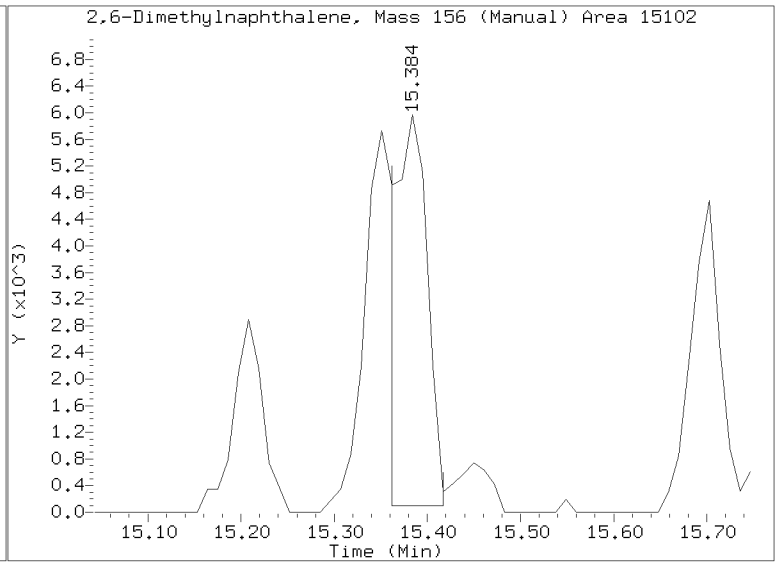
On Column LOD for nt14.i, 20210430D.b\ALKYLPNA.m, TARGETS.sub = 0.0000

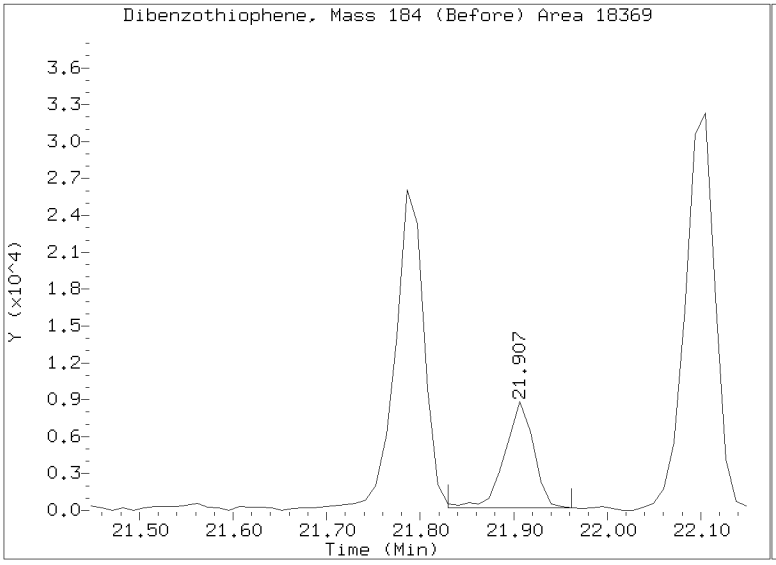
* Only compounds listed in the work order have been verified by the analyst *

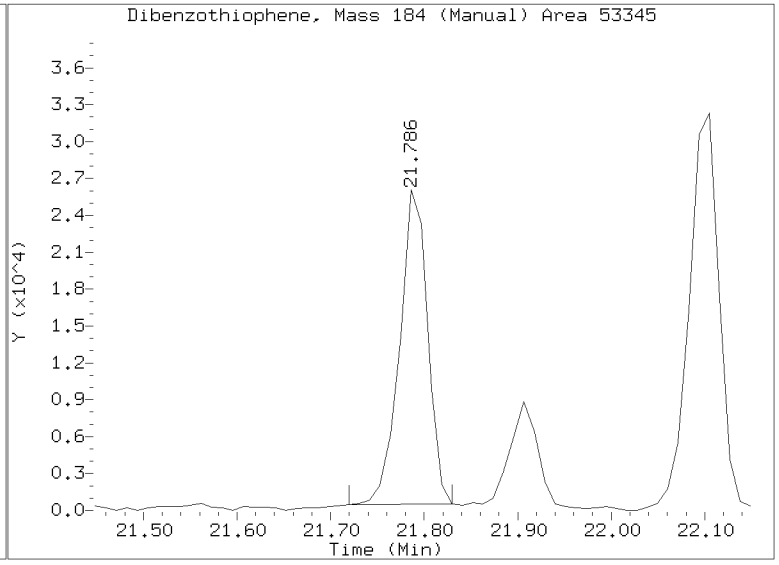
# Quant Ion Manual Peak Adjustment Report

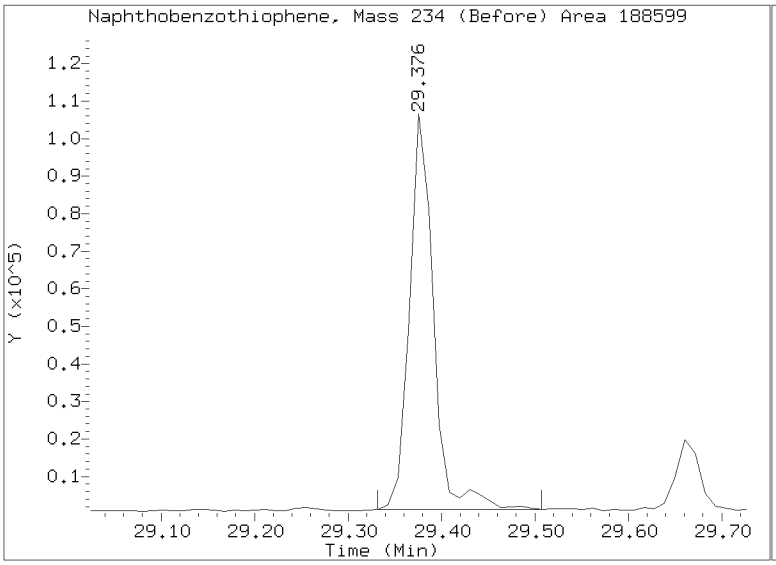
Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043063.D
Injection Date: 02-MAY-2021 09:13
Lab ID:21D0180-01 Client ID:
Report Date: 05/04/2021 13:21

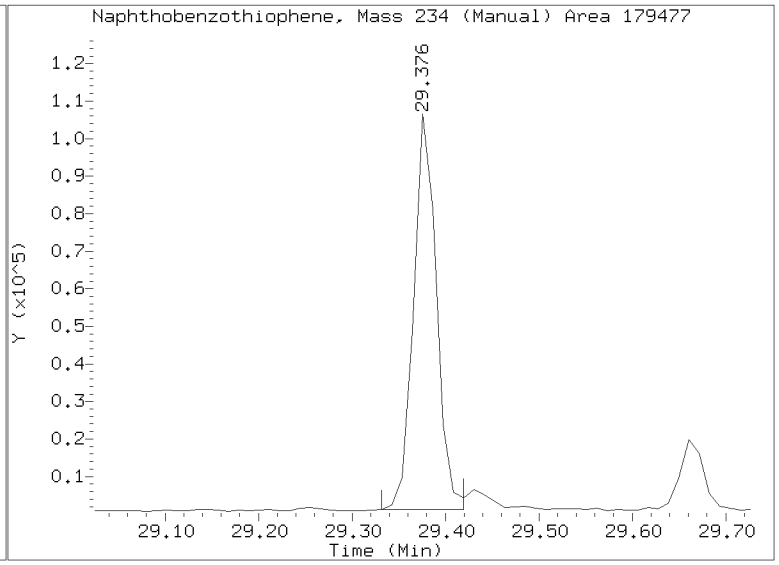


# Quant Ion Manual Peak Adjustment Report

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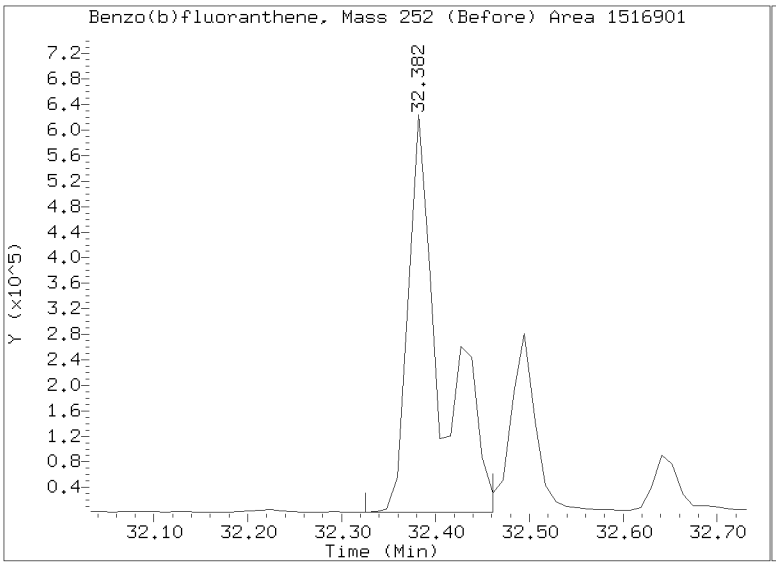
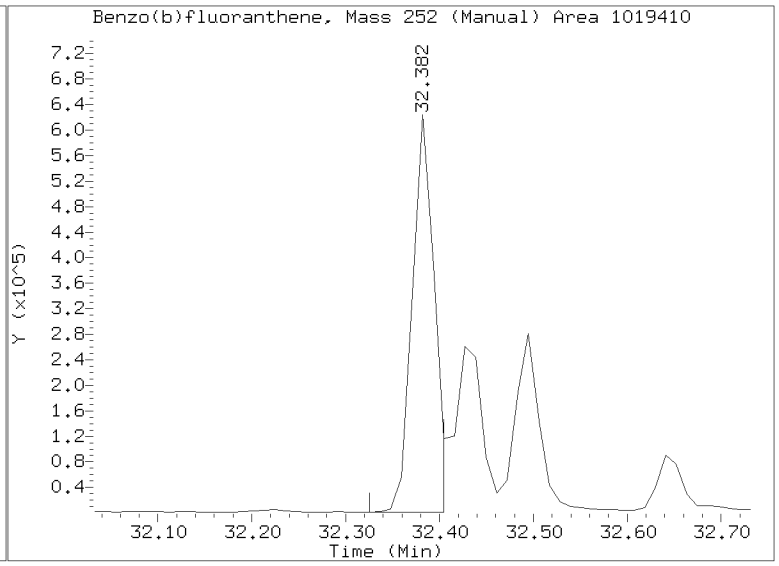
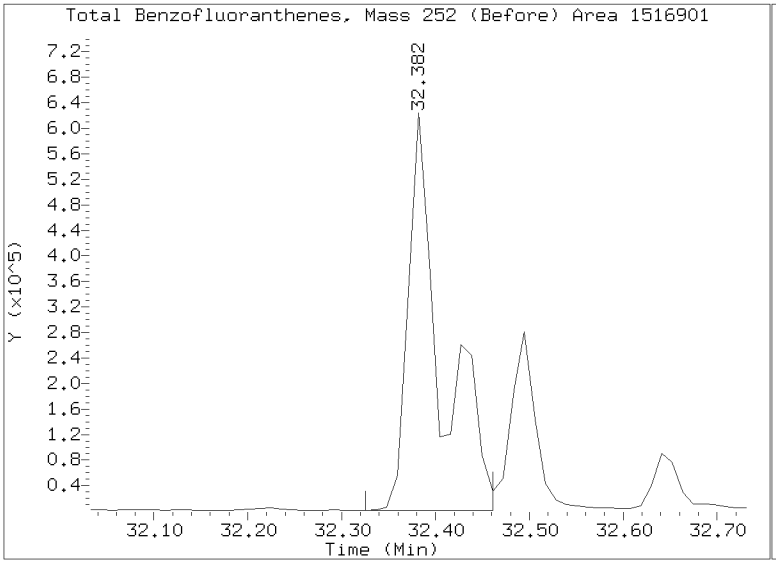
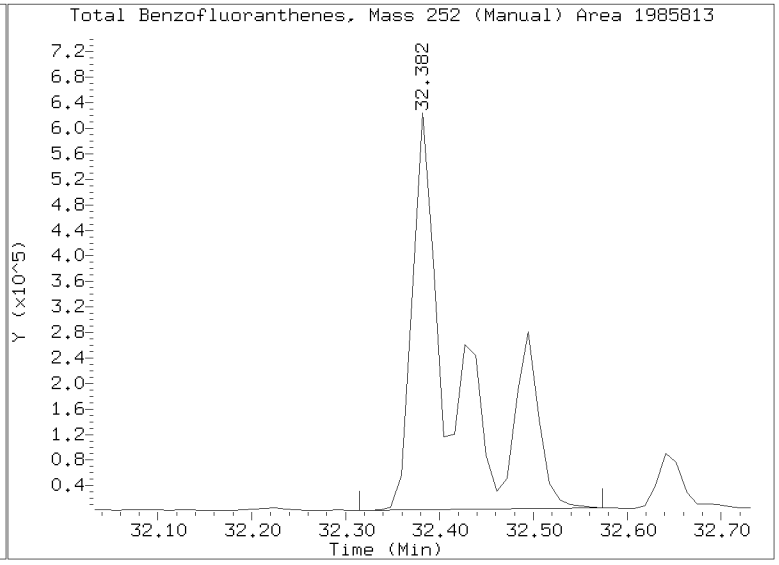
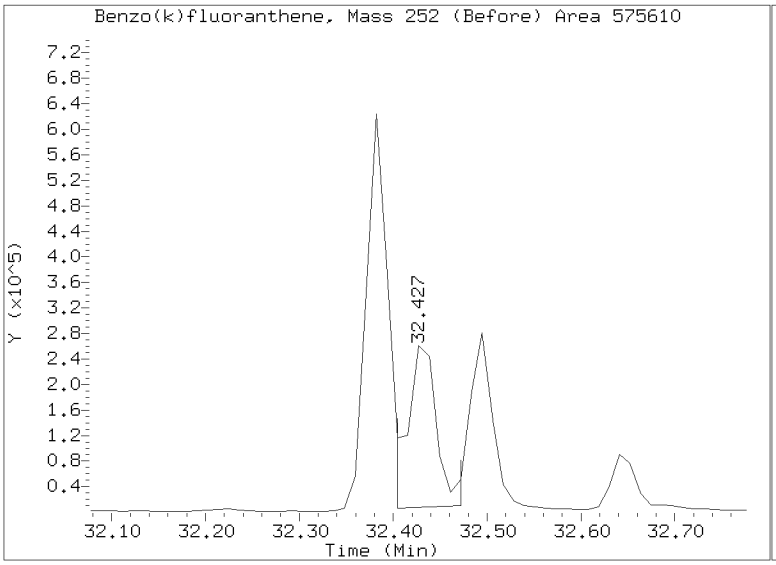
Injection Date: 02-MAY-2021 09:13
Lab ID:21D0180-01 Client ID:
Report Date: 05/04/2021 13:21

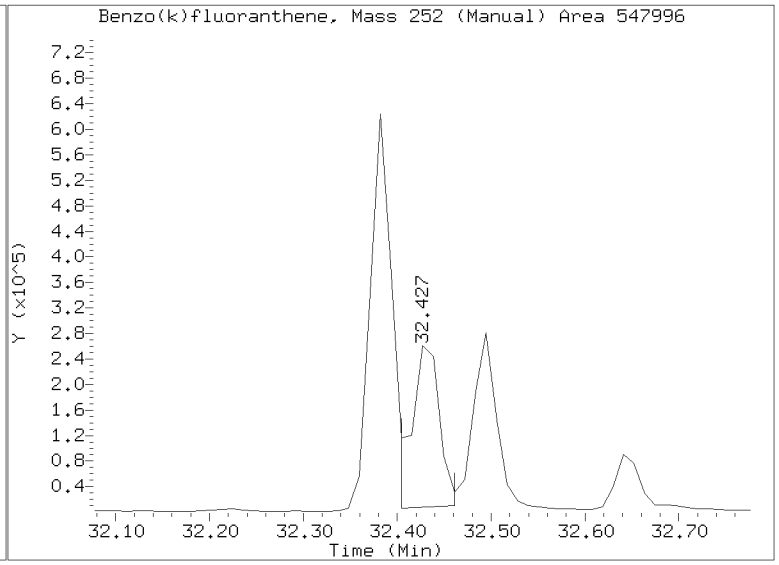


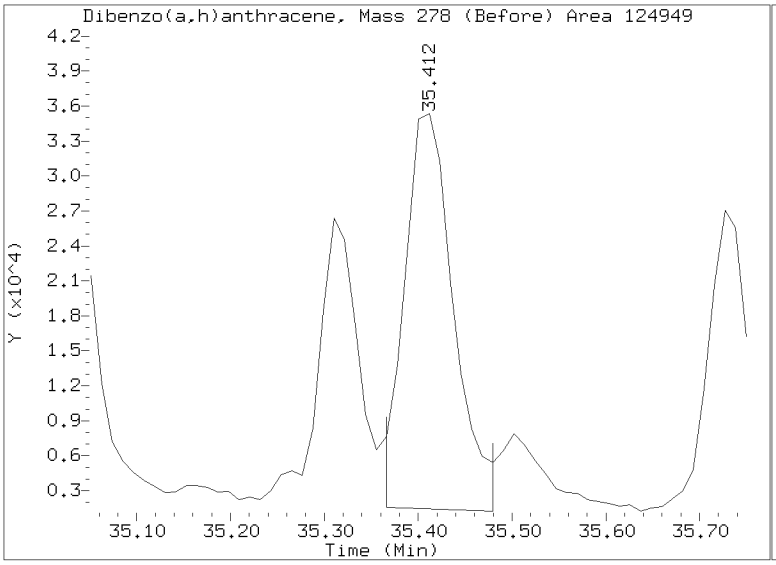



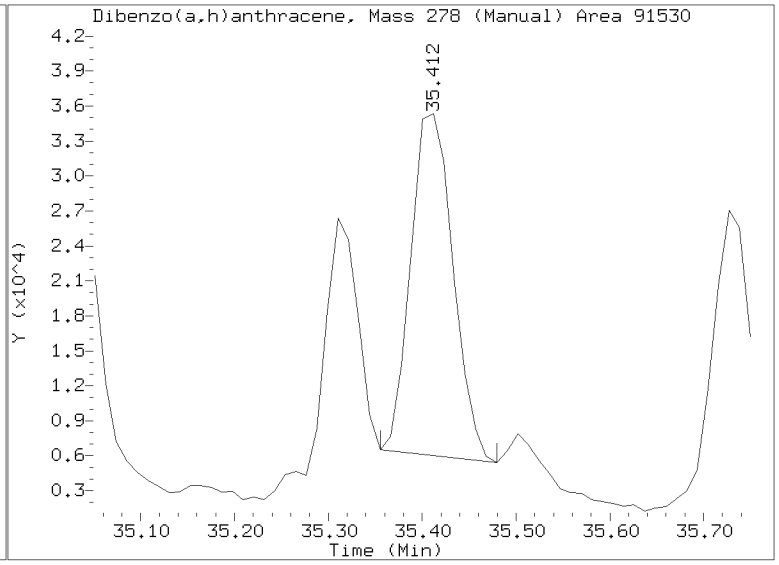



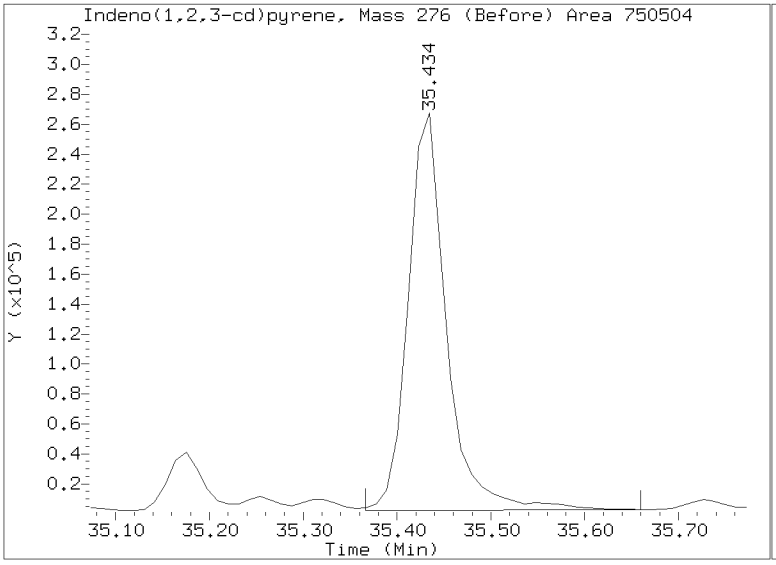



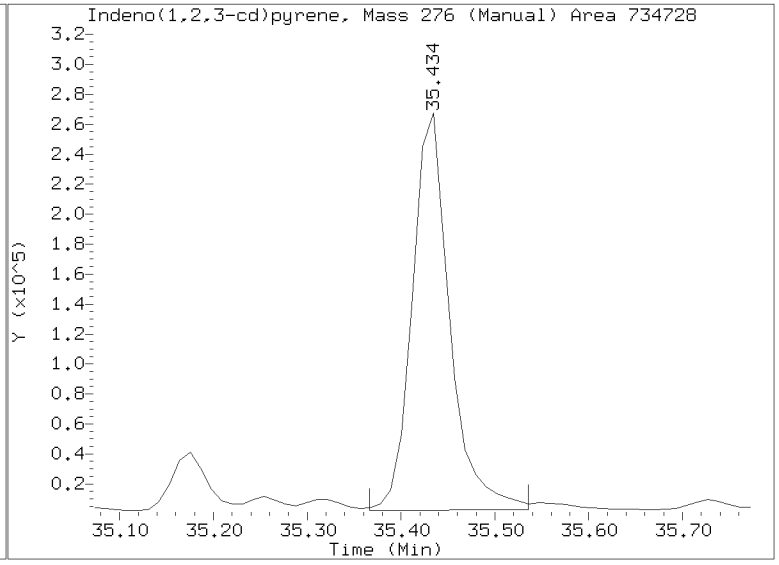
# Quant Ion Manual Peak Adjustment Report

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



USMPDI-010SG-210414

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

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

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

USMPDI-010SG-210414

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

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

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

Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430635.D



Date : 02-MAY-2021 09:13

Client ID:

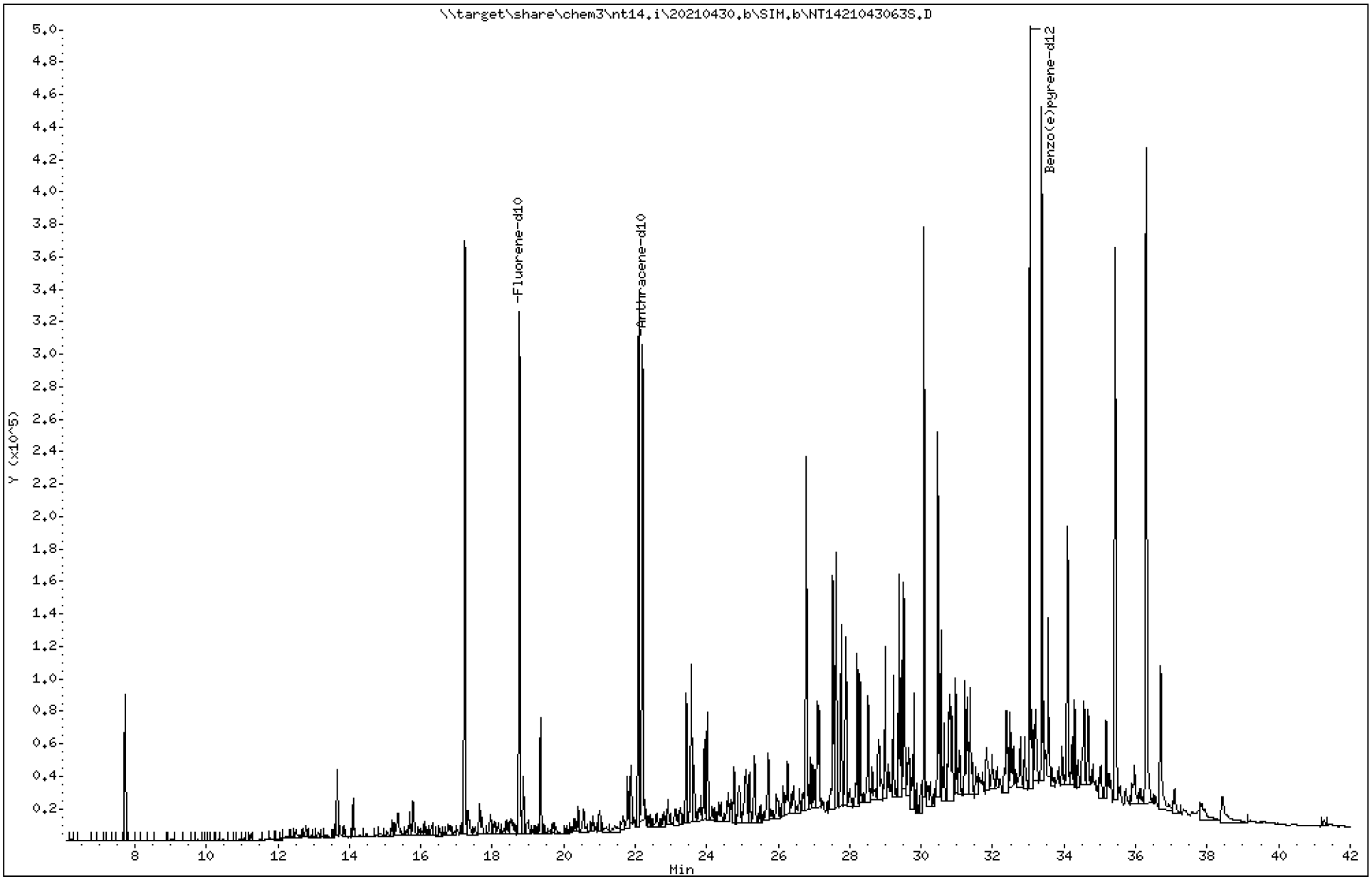
Instrument: nt14.i

Sample Info: 21D0180-01

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25




Revised Report 21D0180 07/07/2021 Page 52 of 1709

Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430 63S.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

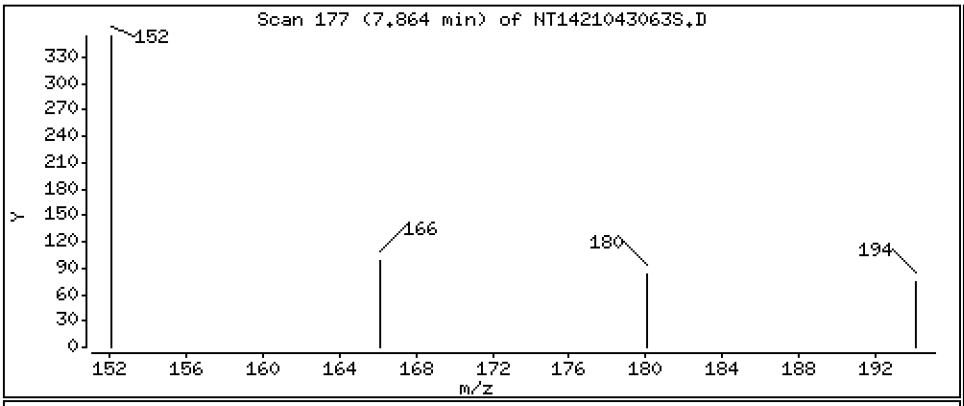
Operator: VTS

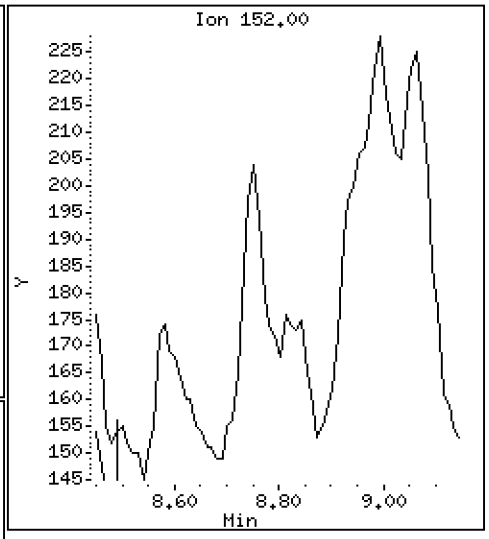
Column phase: Rxi-17Sil MS

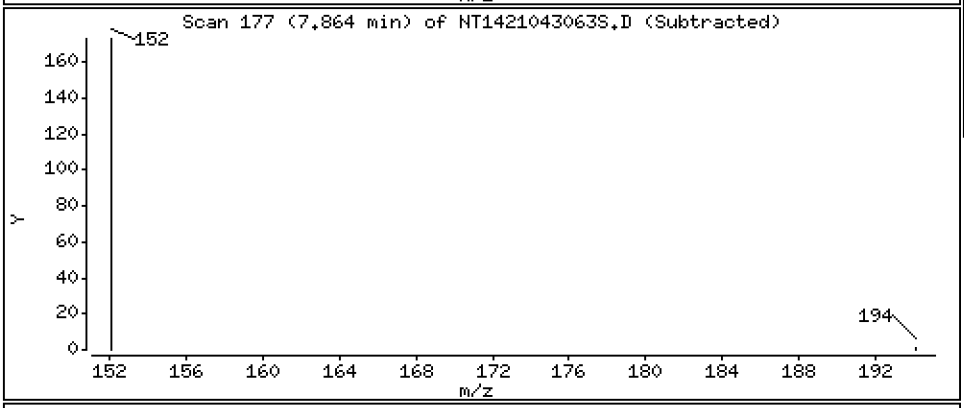
Column diameter: 0.25

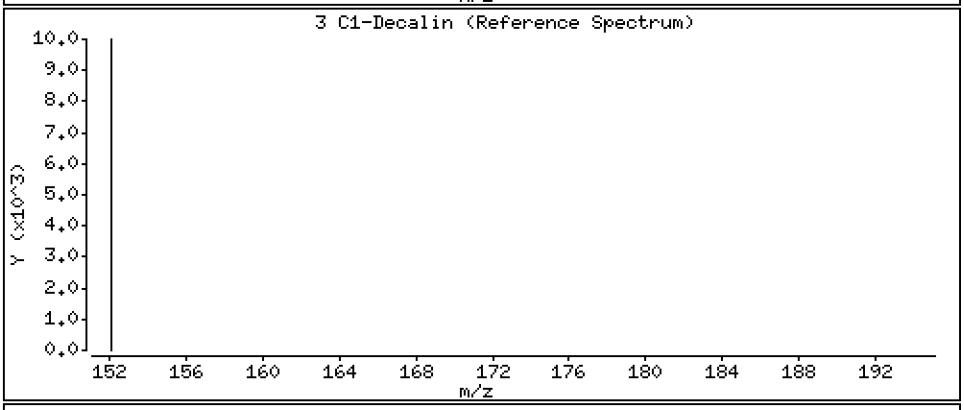
3 C1-Decalin

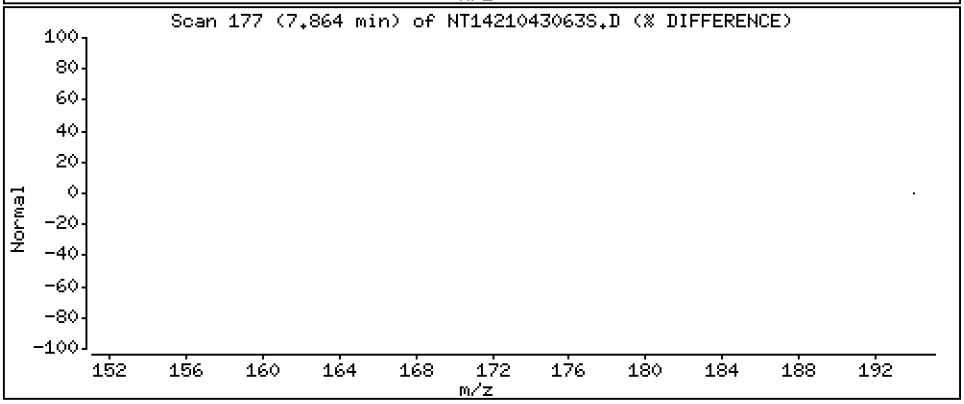
Concentration: 0.06493 ug/mL



Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430 63S.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

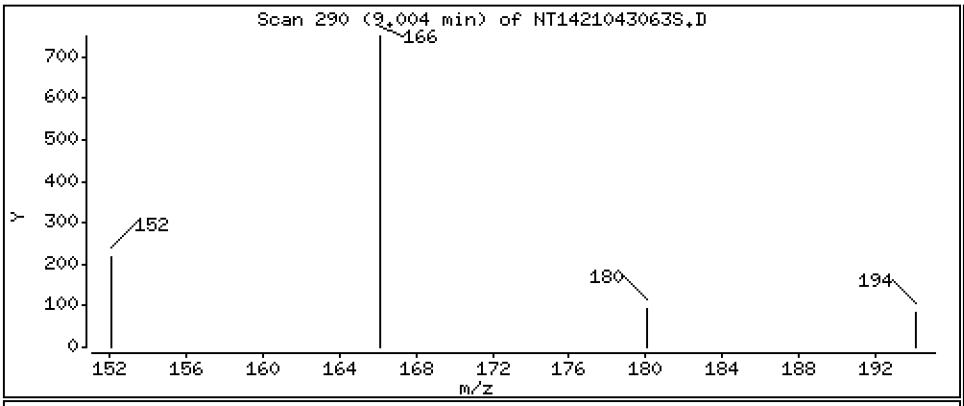
Operator: VTS

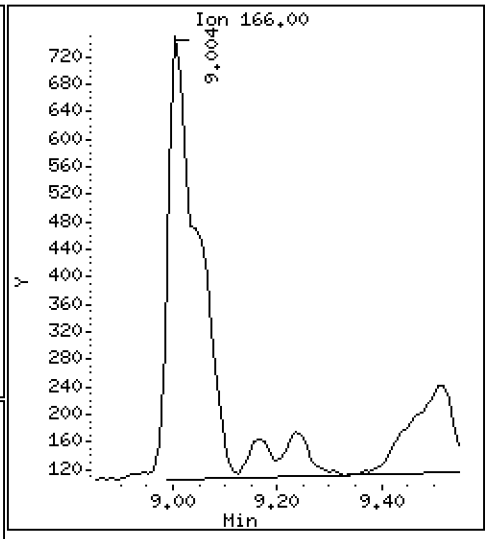
Column phase: Rxi-17Sil MS

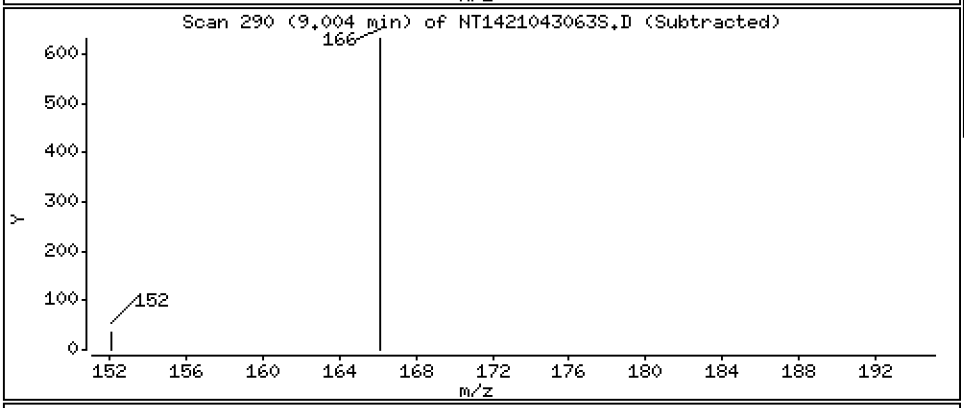
Column diameter: 0.25

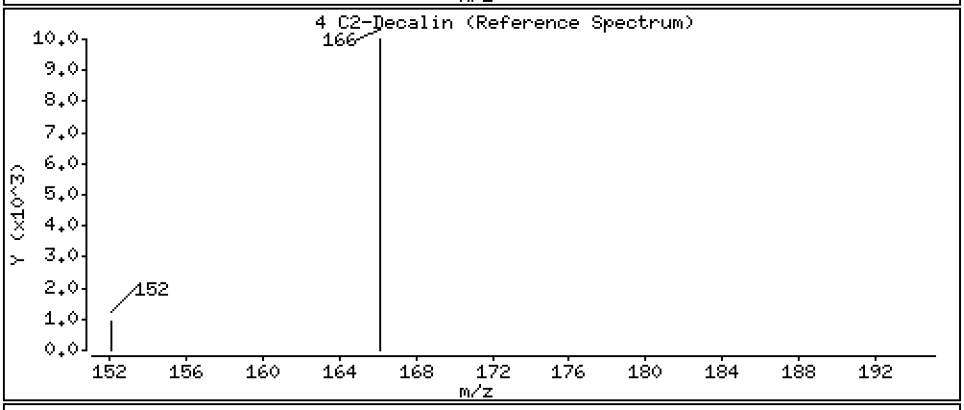
4 C2-Decalin

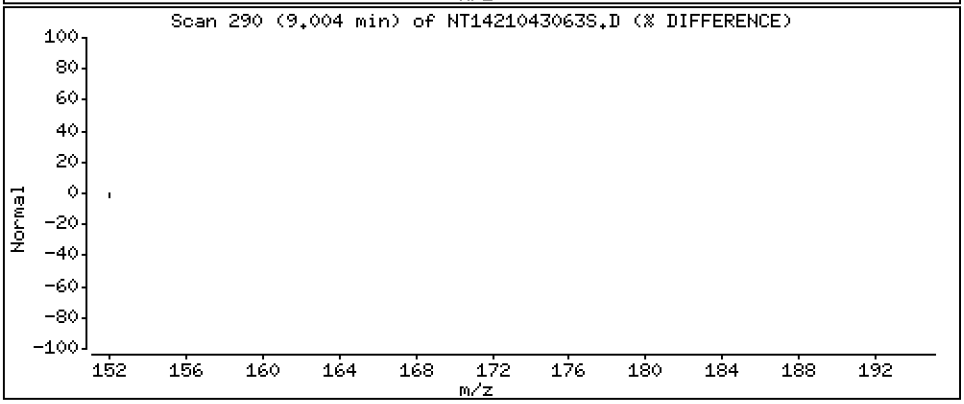
Concentration: 0.3025 ug/mL



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

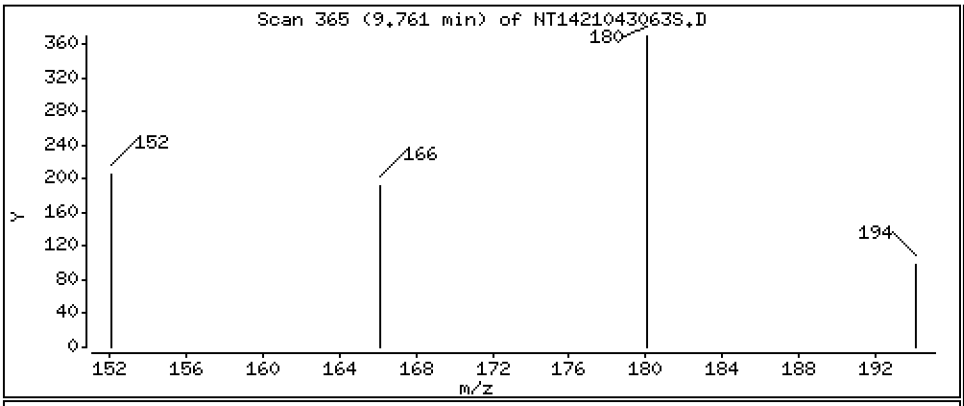
Operator: VTS

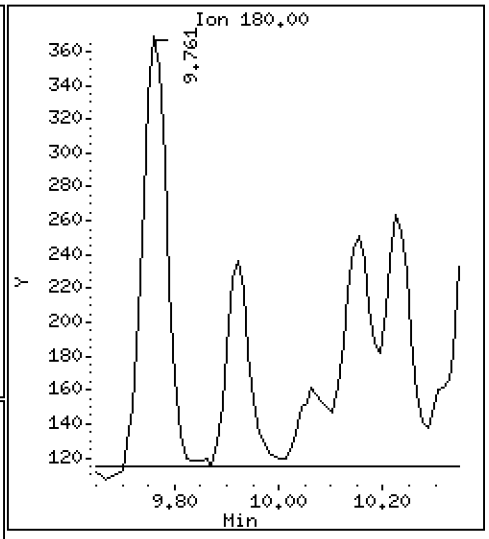
Column phase: Rxi-17Sil MS

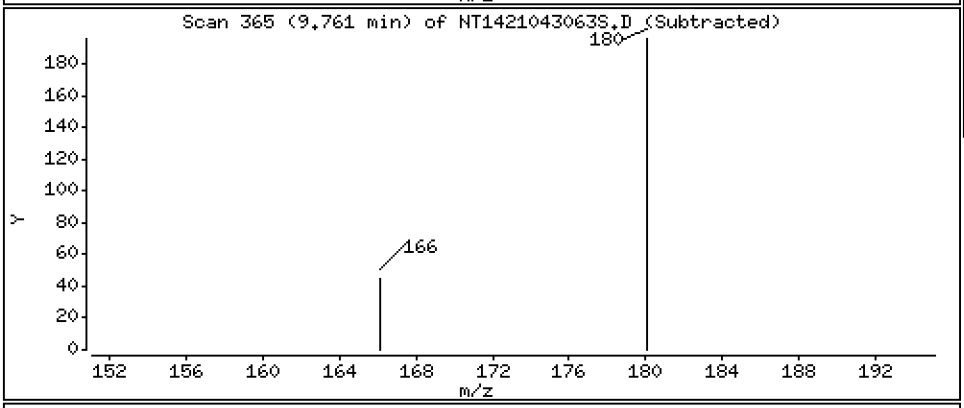
Column diameter: 0.25

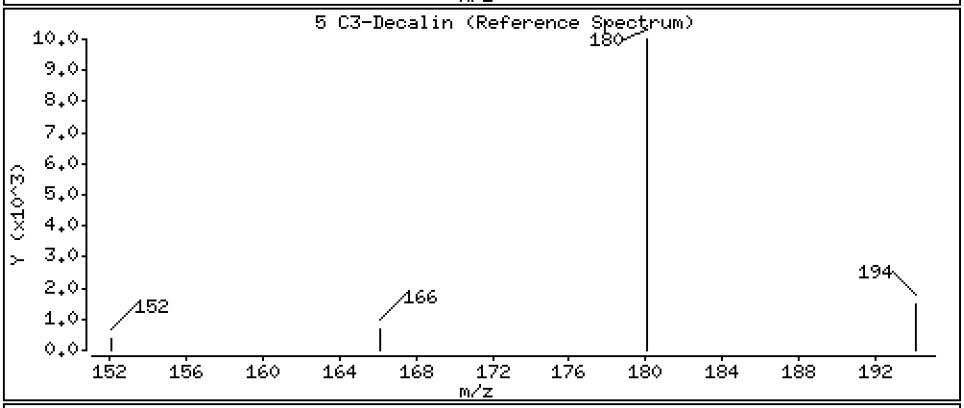
5 C3-Decalin

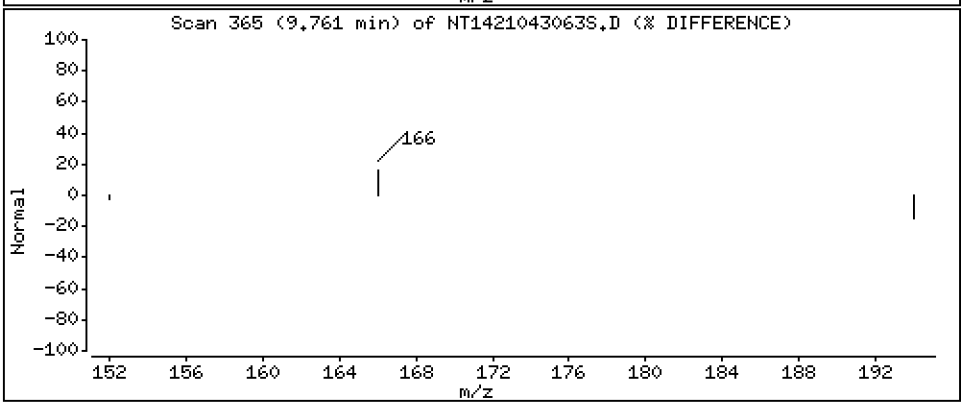
Concentration: 0.2152 ug/mL



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

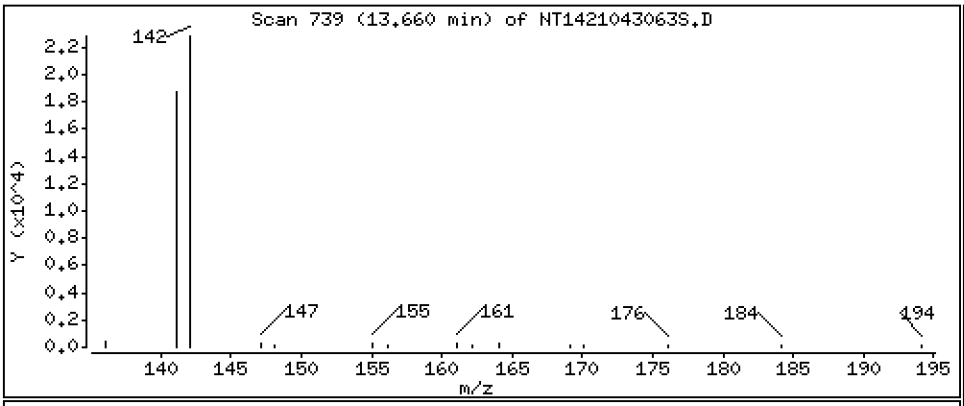
Operator: VTS

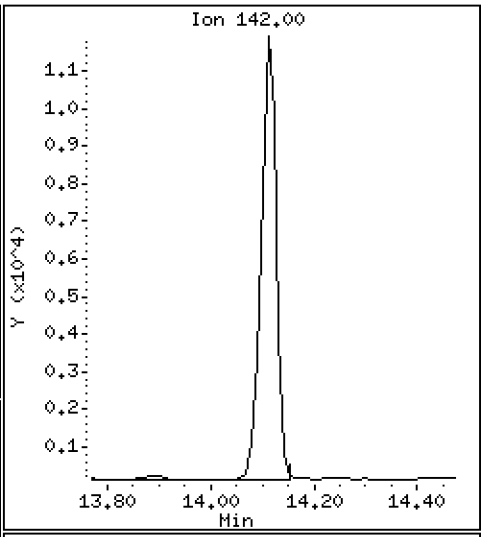
Column phase: Rxi-17Sil MS

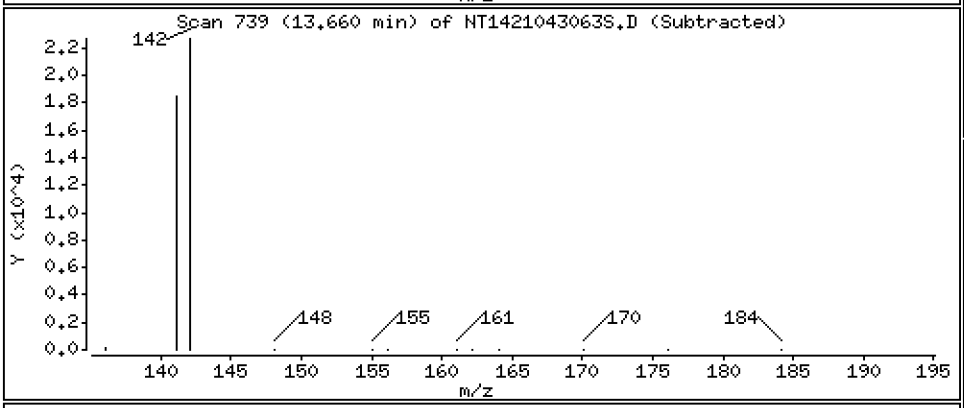
Column diameter: 0.25

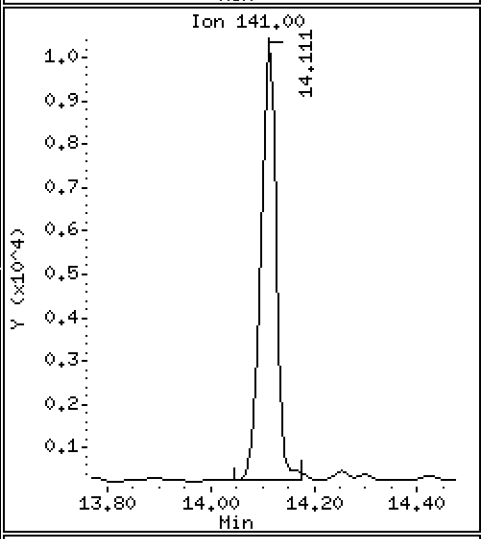
8 C1-Naphthalenes

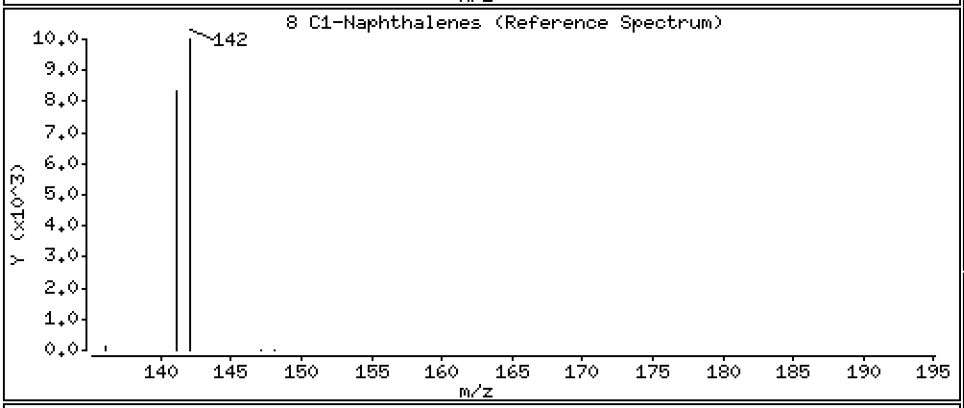
Concentration: 0.2300 ug/mL

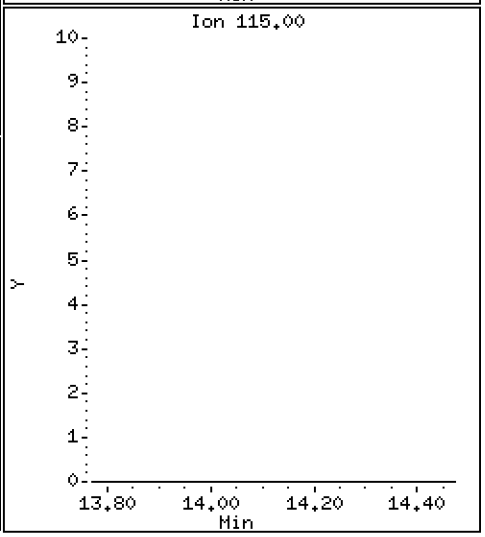


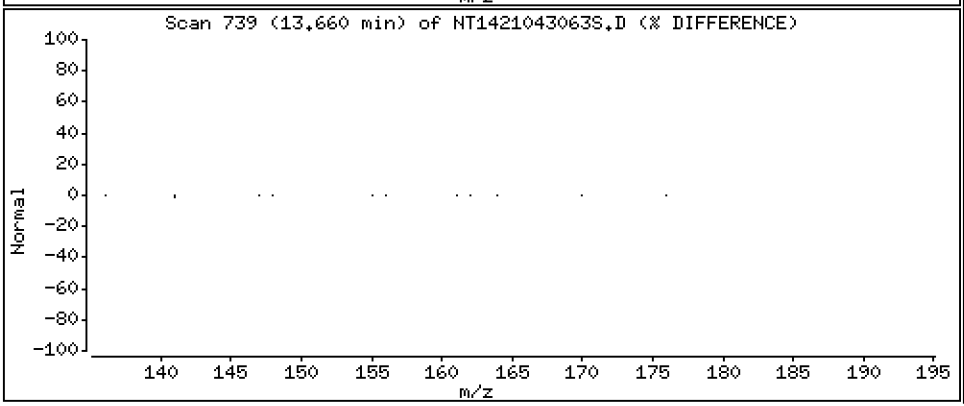



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

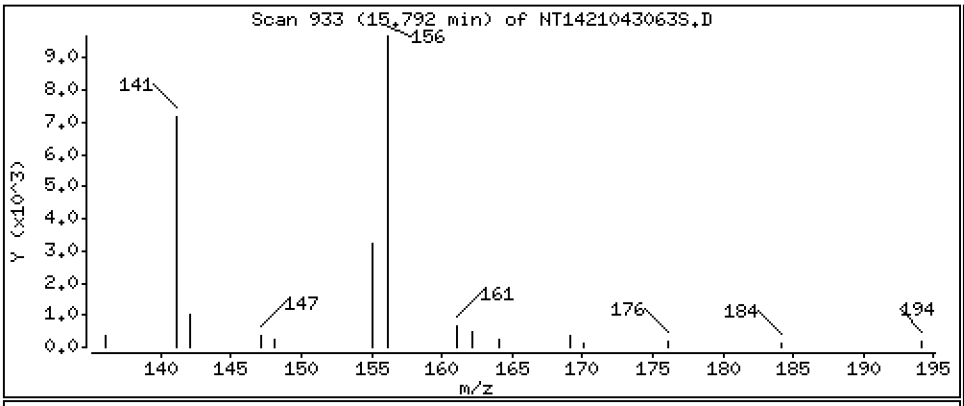
Operator: VTS

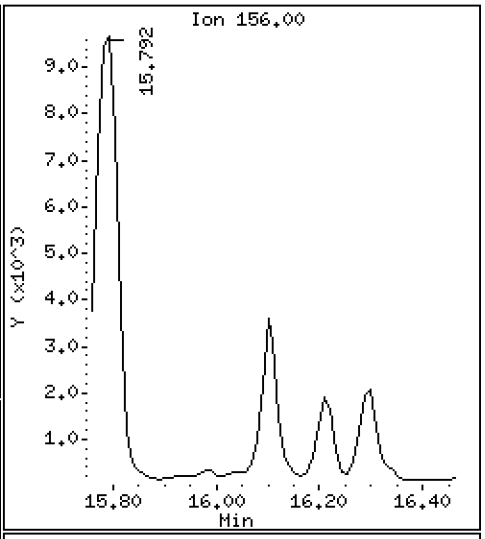
Column phase: Rxi-17Sil MS

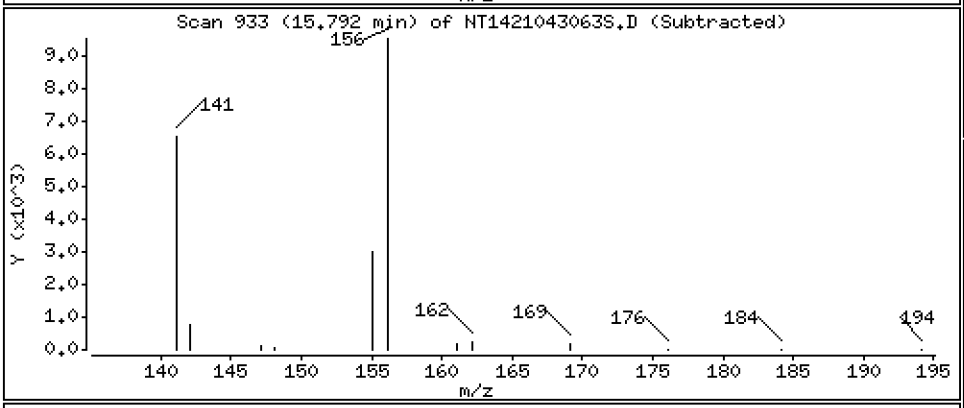
Column diameter: 0.25

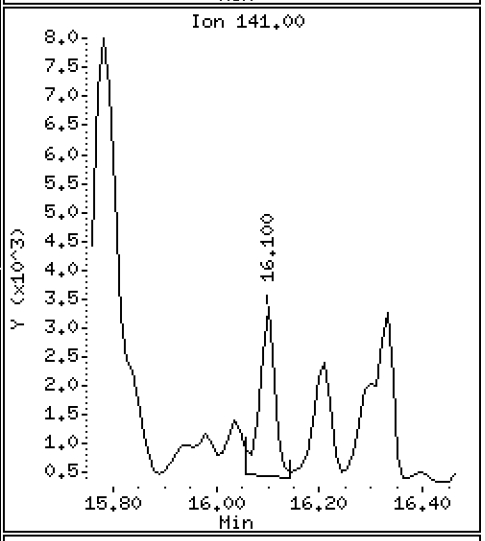
9 C2-Naphthalenes

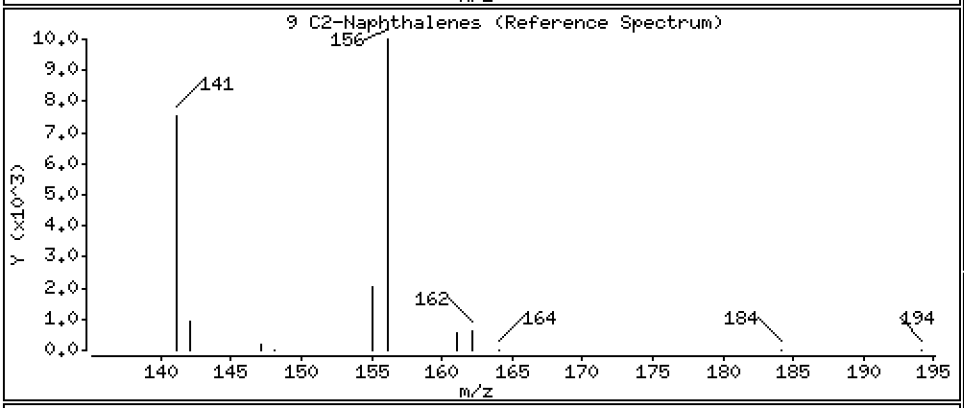
Concentration: 0.2849 ug/mL

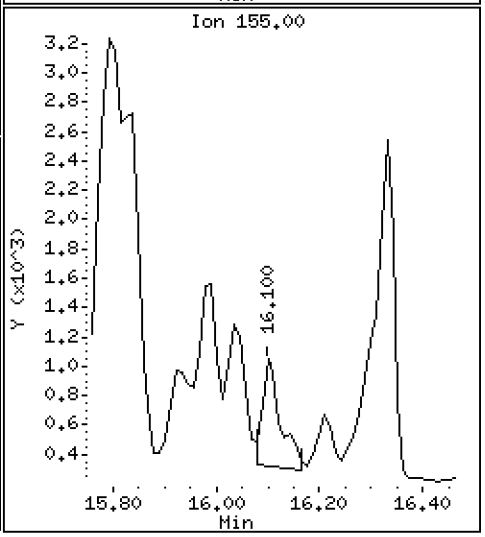


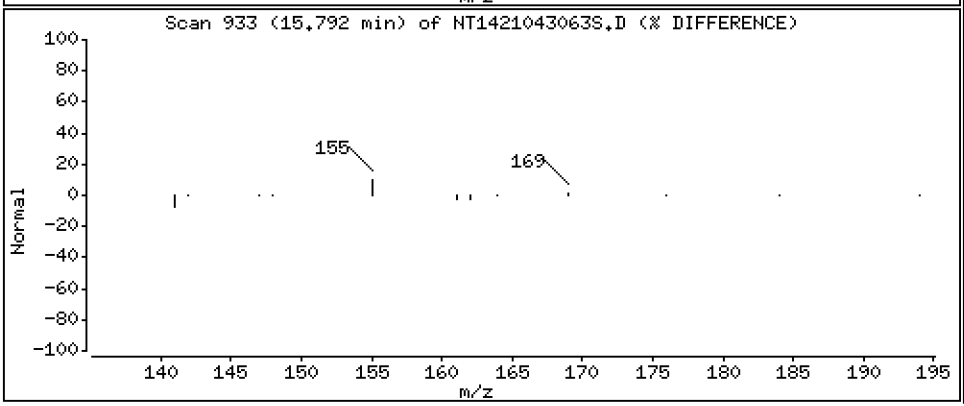



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

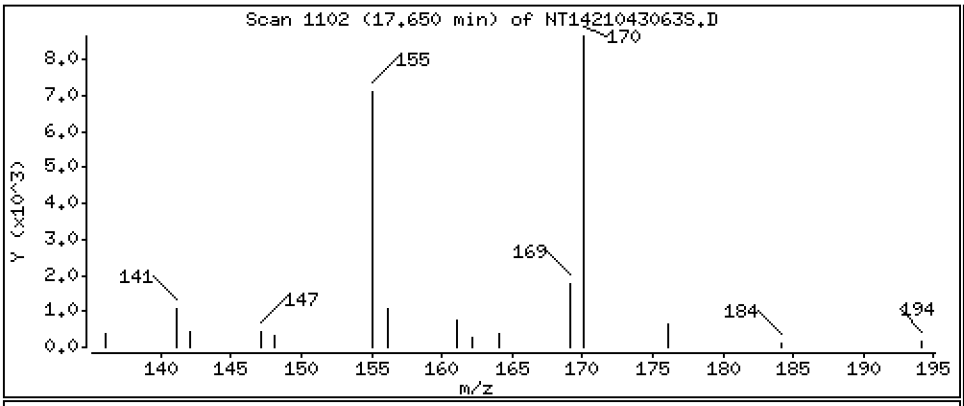
Operator: VTS

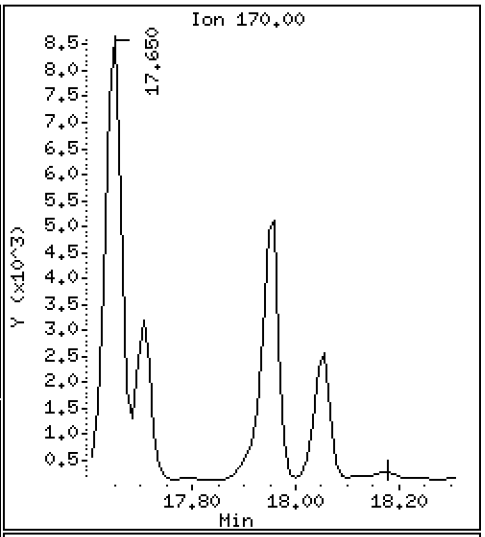
Column phase: Rxi-17Sil MS

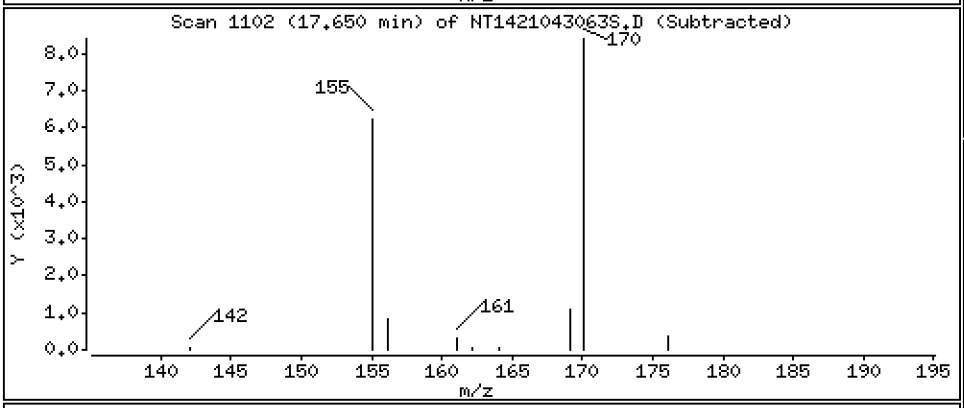
Column diameter: 0.25

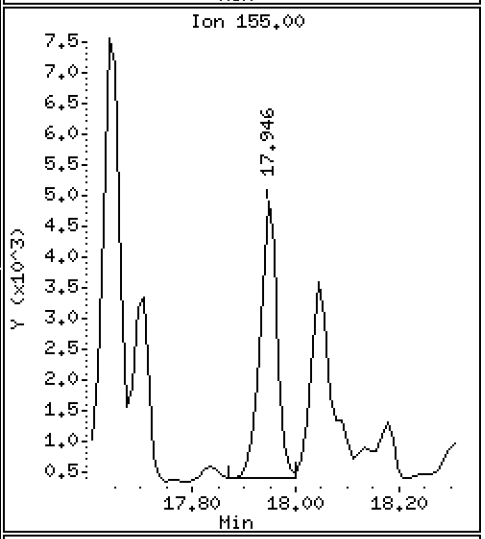
10 C3-Naphthalenes

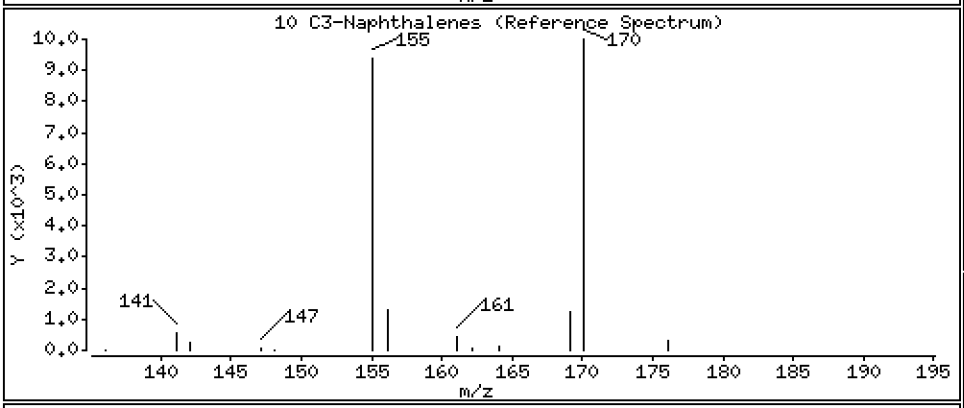
Concentration: 0.2602 ug/mL

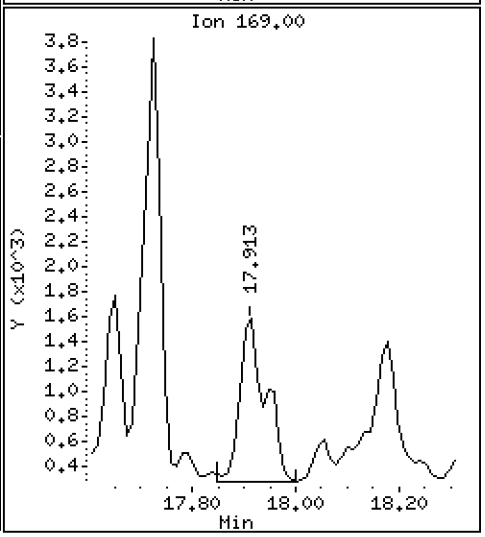


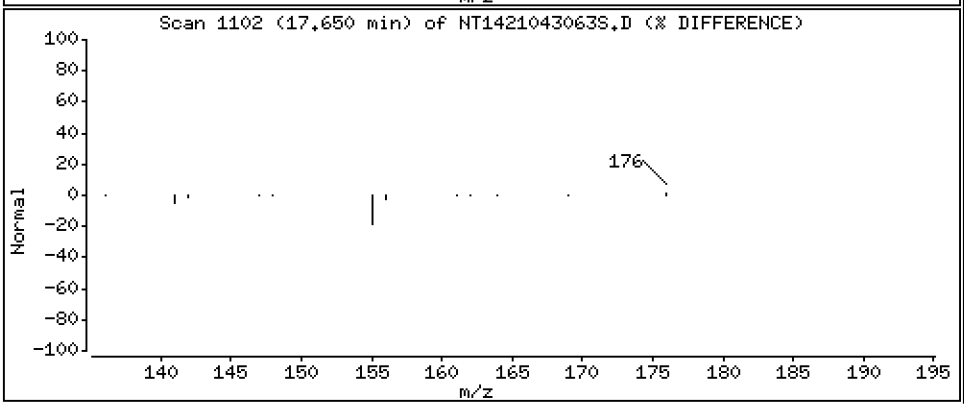



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

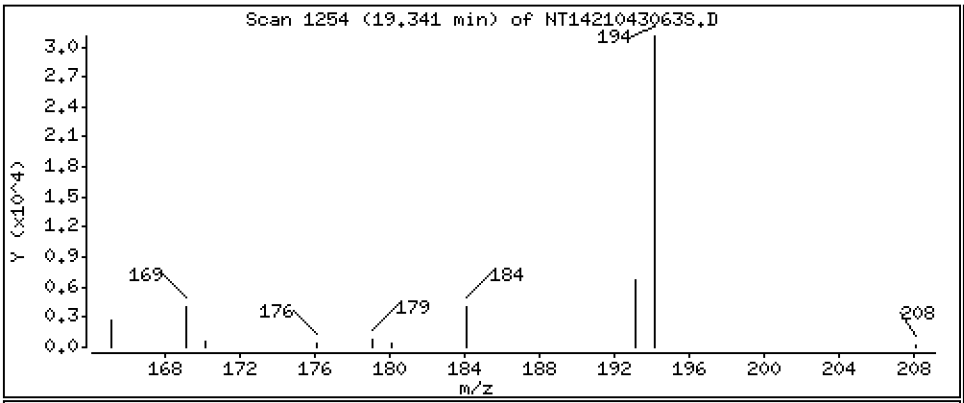
Operator: VTS

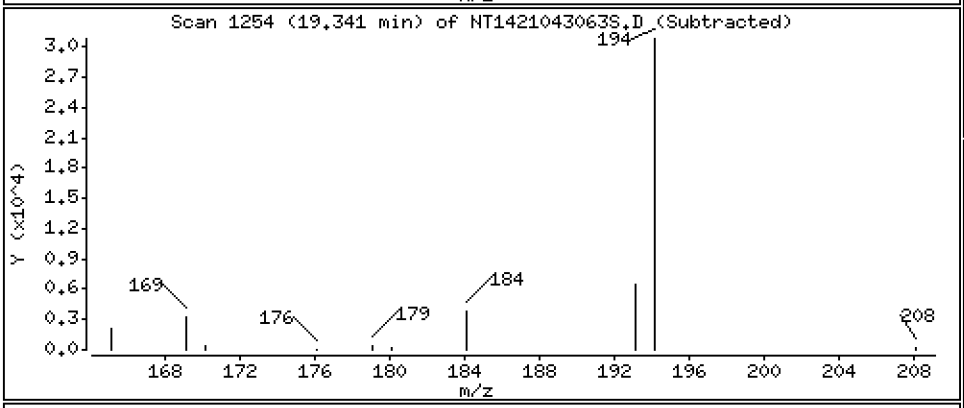
Column phase: Rxi-17Sil MS

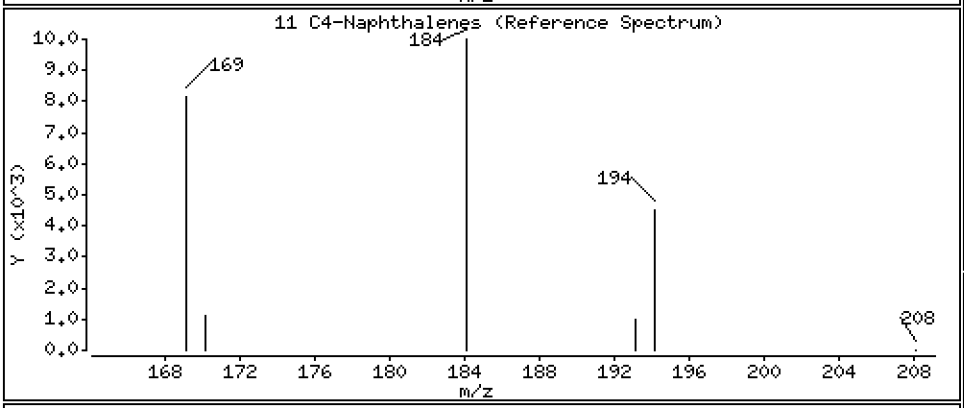
Column diameter: 0.25

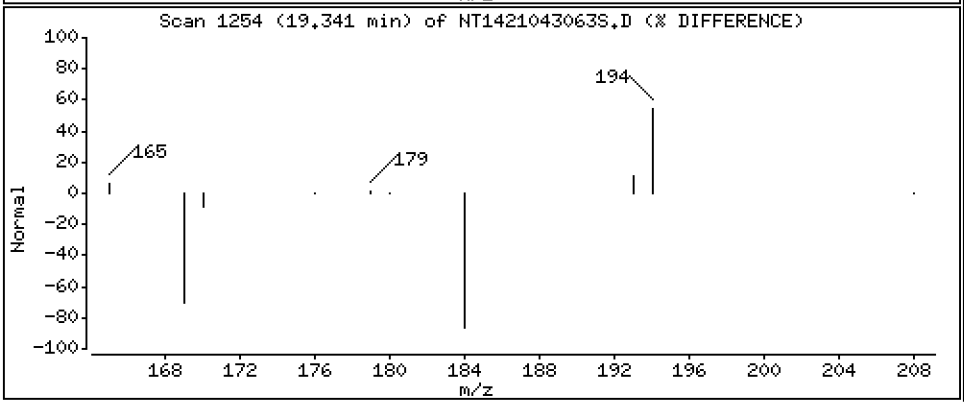
11 C4-Naphthalenes

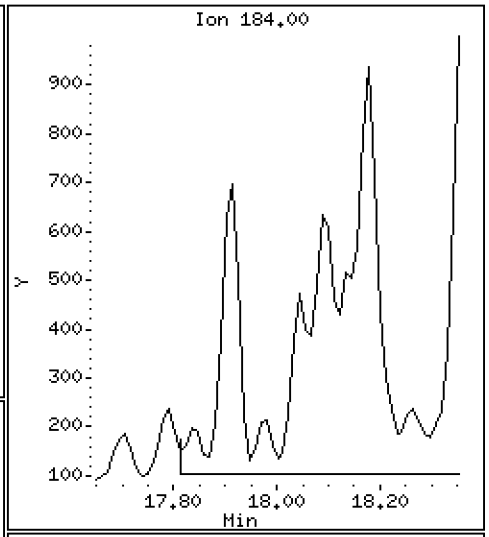
Concentration: 0.1703 ug/mL

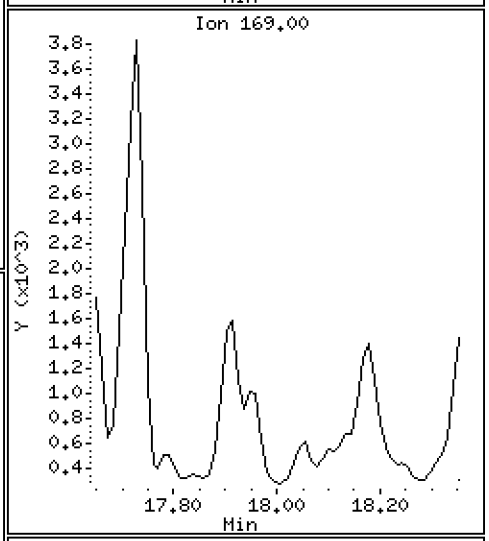


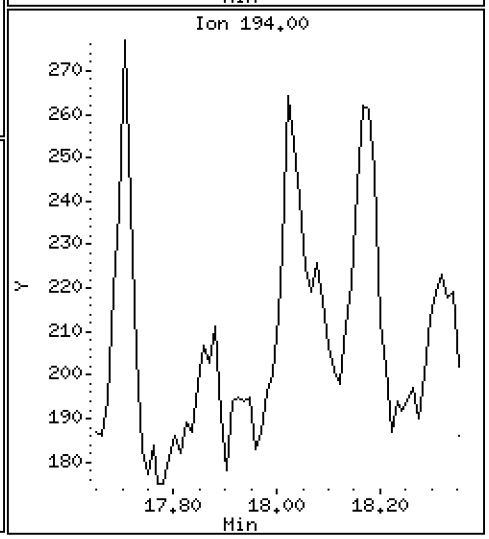



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

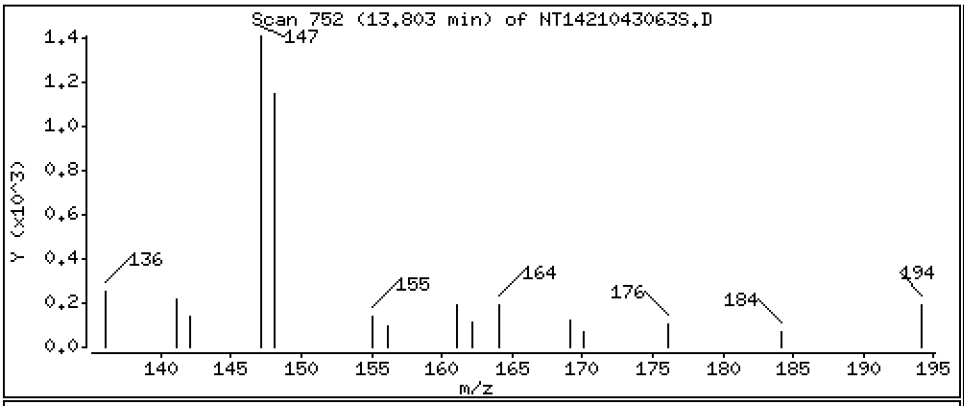
Operator: VTS

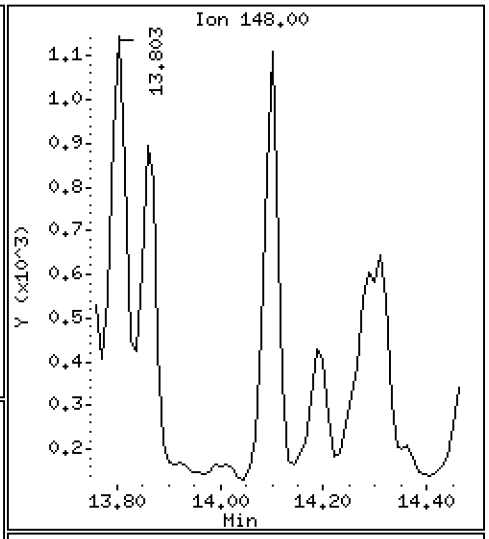
Column phase: Rxi-17Sil MS

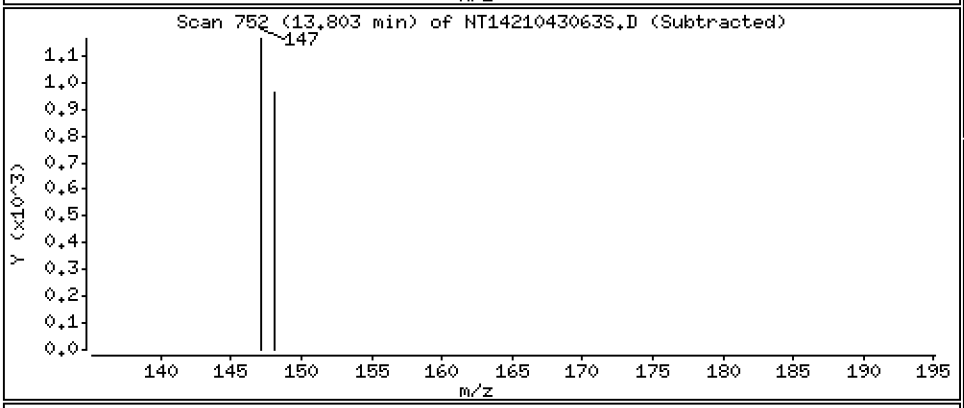
Column diameter: 0.25

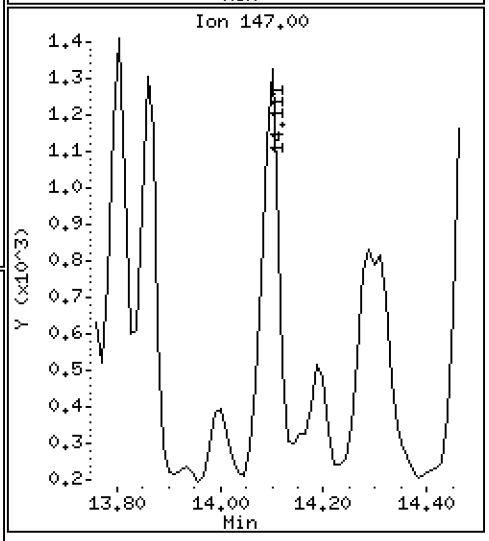
13 C1-Benzothiophenes

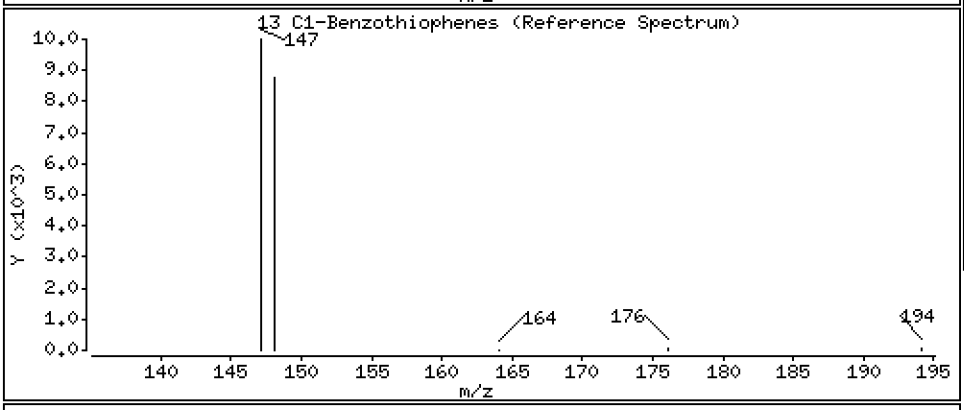
Concentration: 0.04906 ug/mL

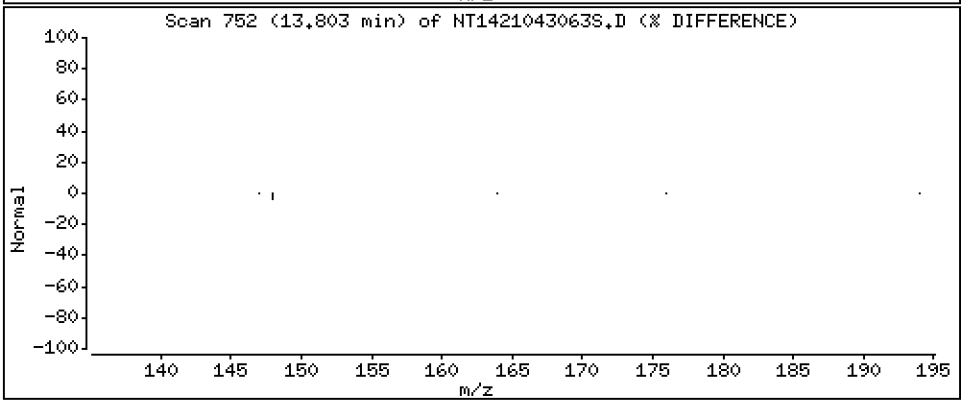


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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

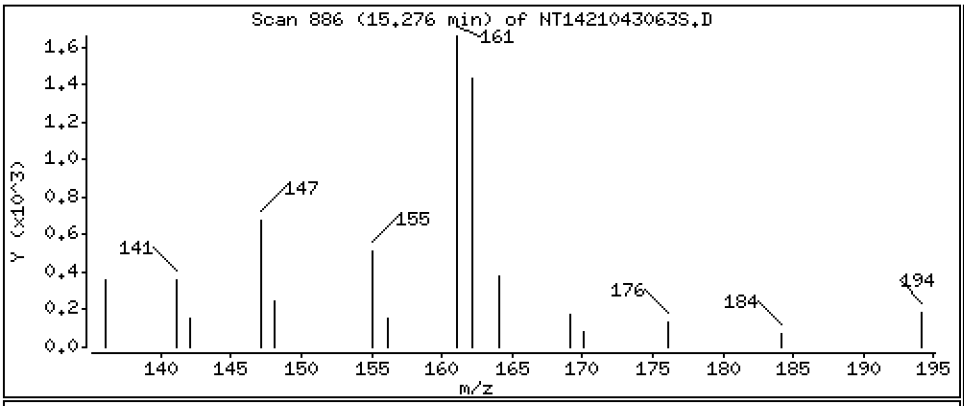
Operator: VTS

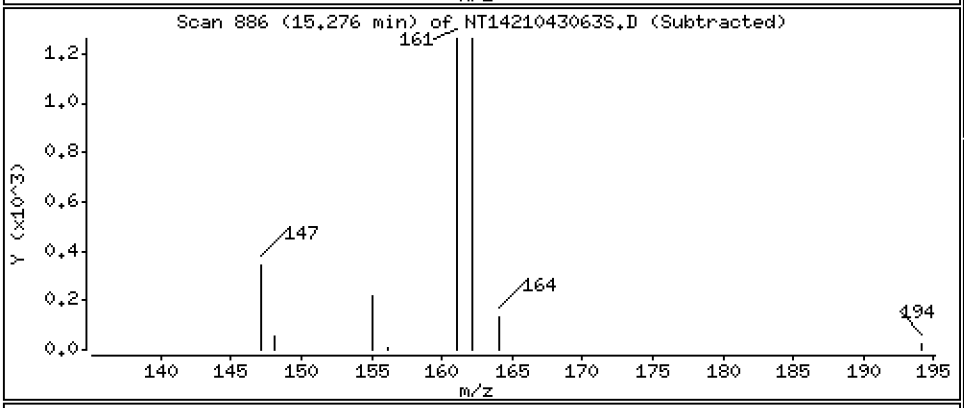
Column phase: Rxi-17Sil MS

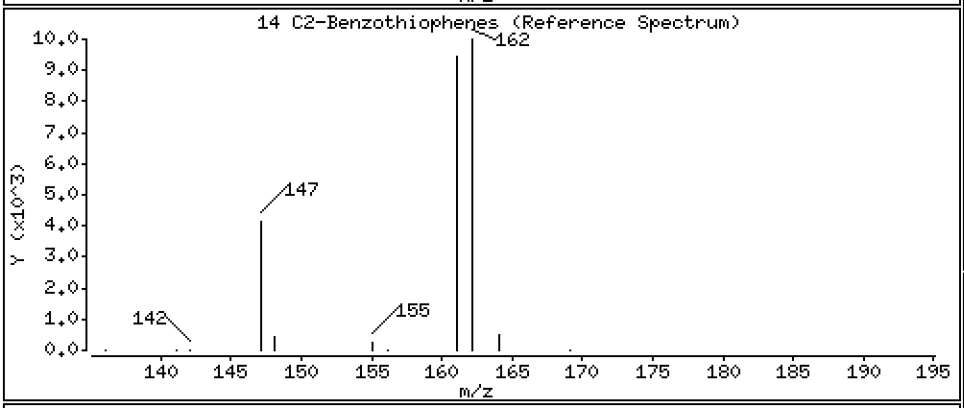
Column diameter: 0.25

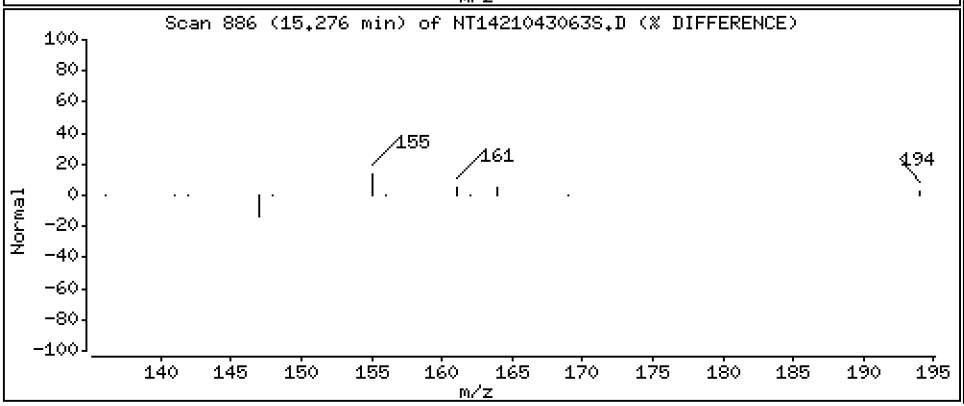
14 C2-Benzothiophenes

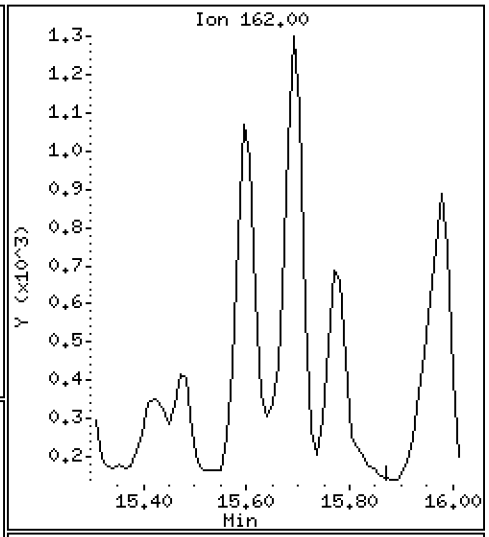
Concentration: 0.05990 ug/mL

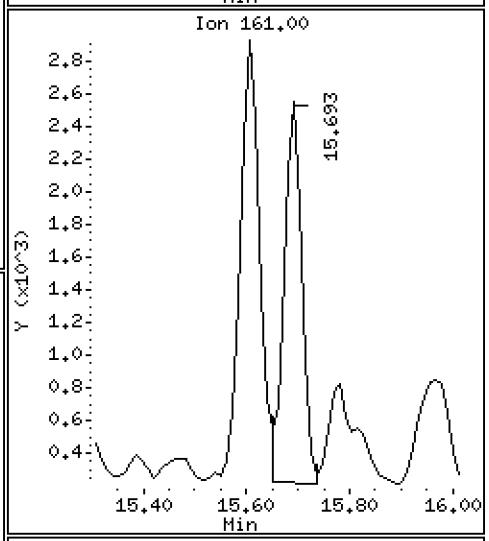


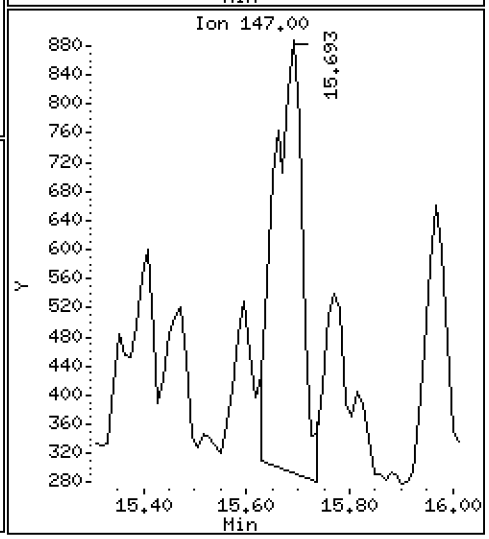



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

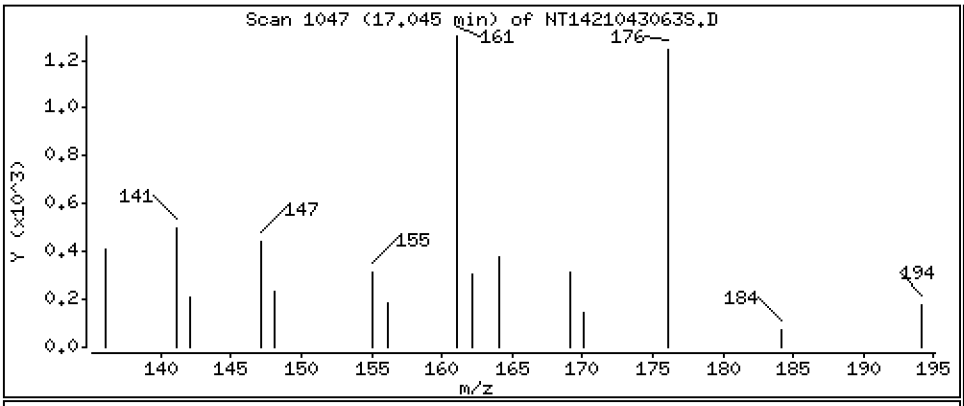
Operator: VTS

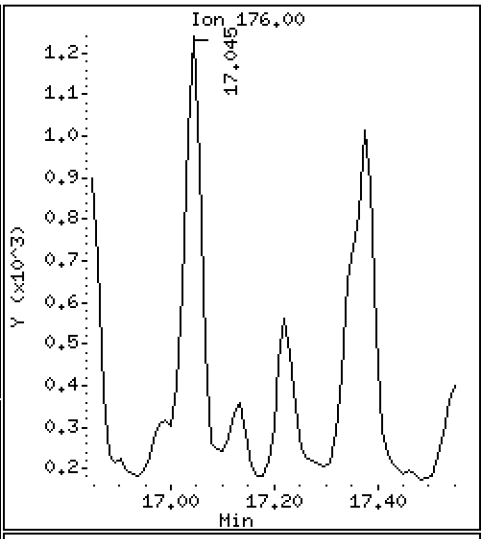
Column phase: Rxi-17Sil MS

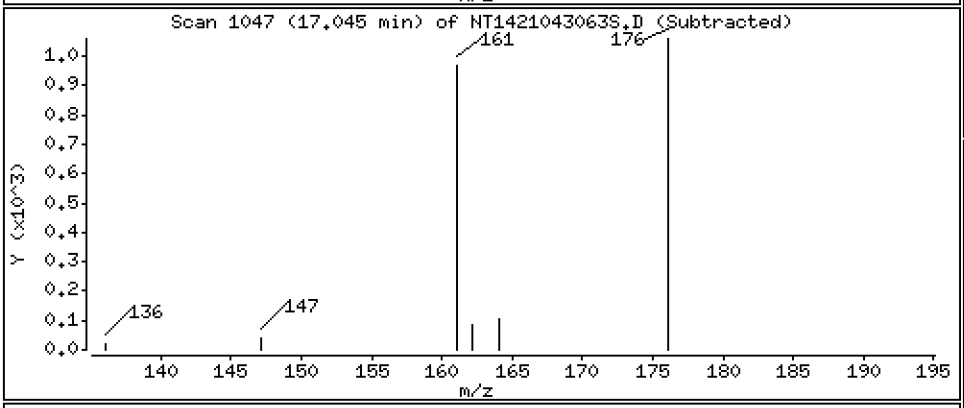
Column diameter: 0.25

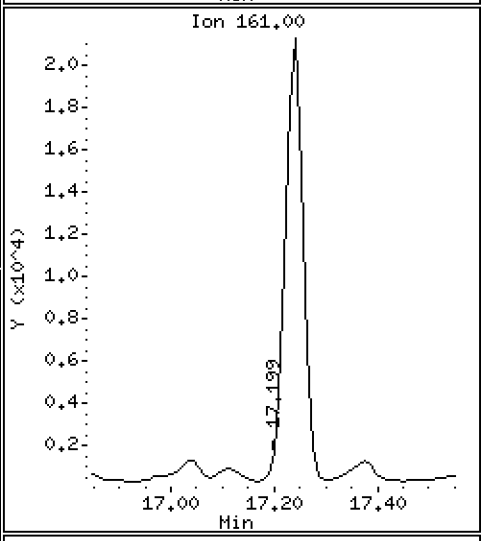
15 C3_Benzothiophenes

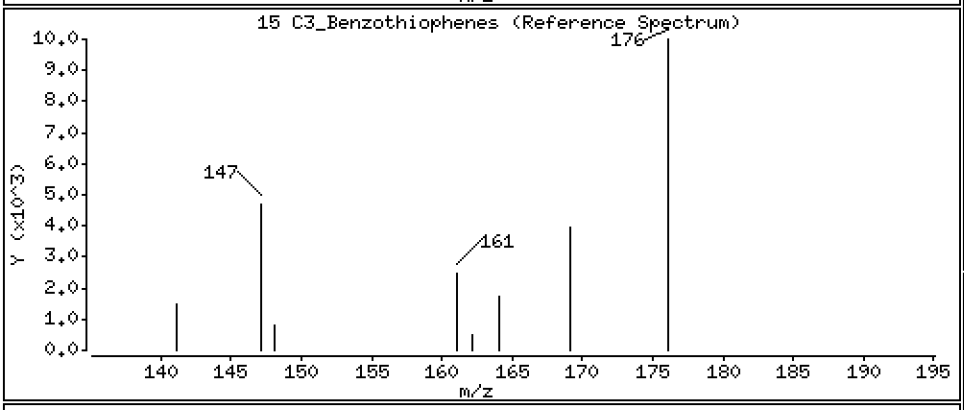
Concentration: 0.04830 ug/mL

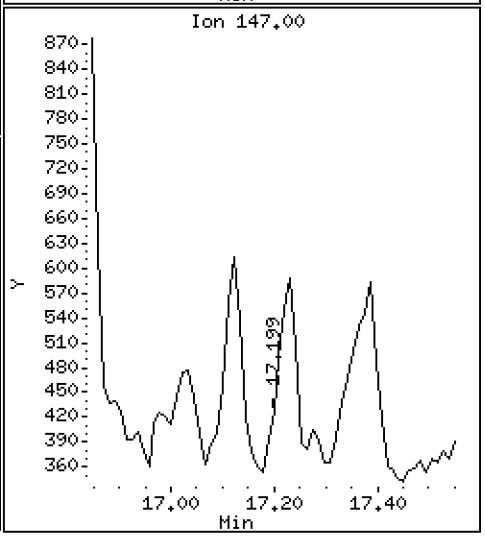


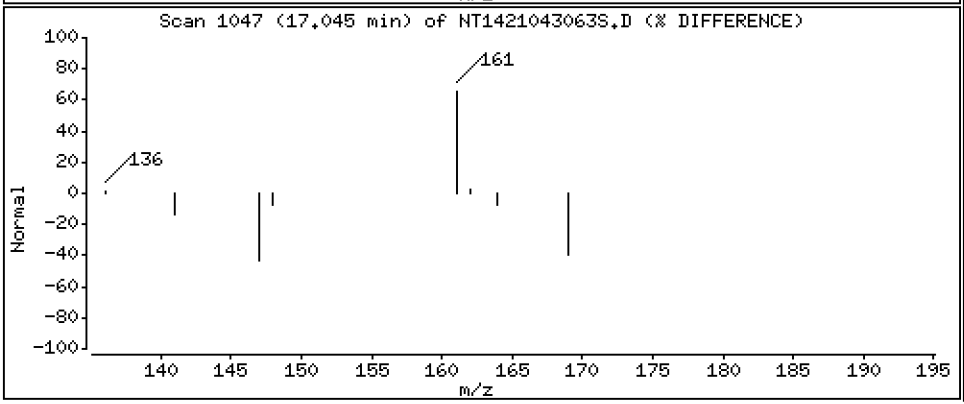



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

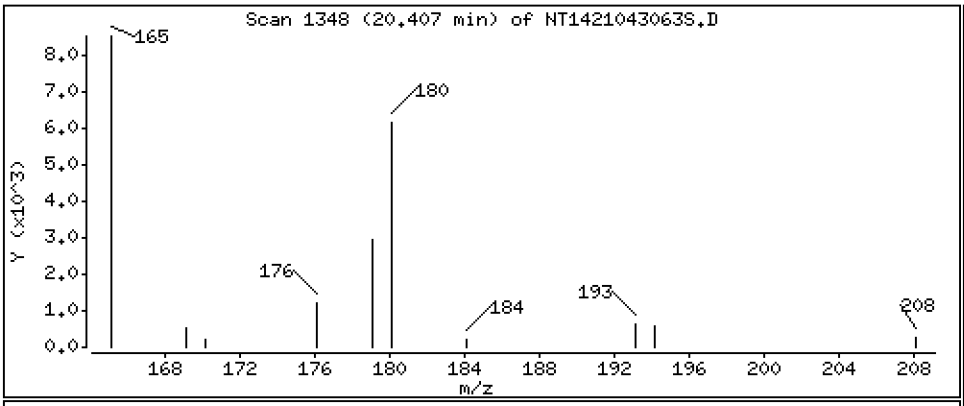
Operator: VTS

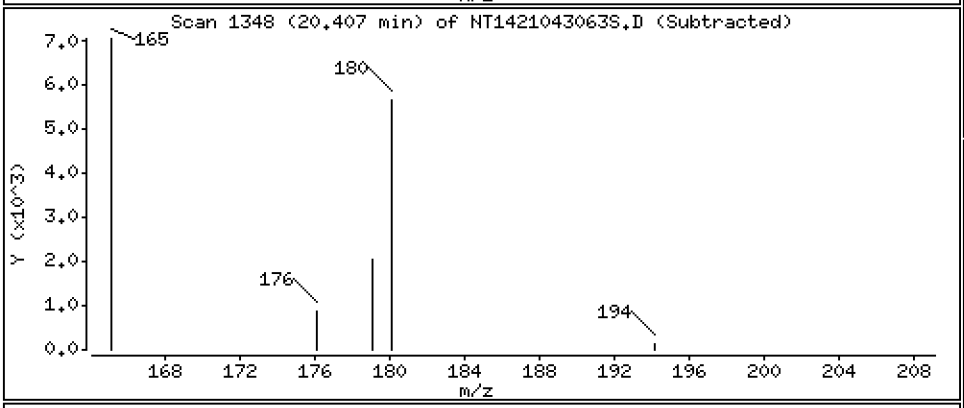
Column phase: Rxi-17Sil MS

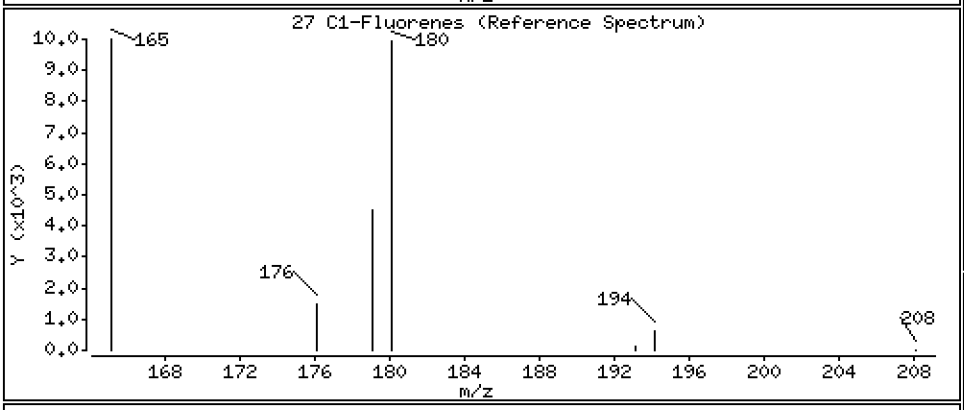
Column diameter: 0.25

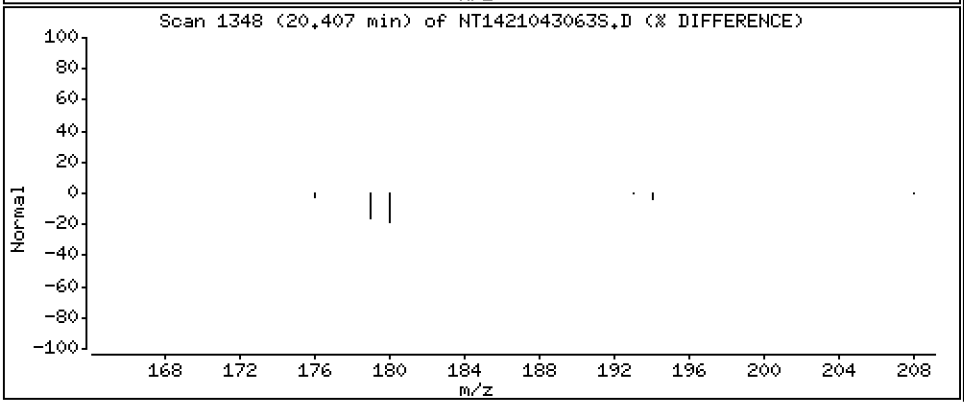
27 C1-Fluorenes

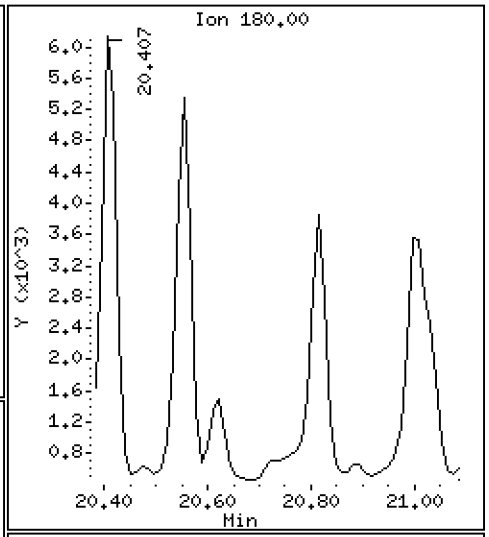
Concentration: 0.2722 ug/mL

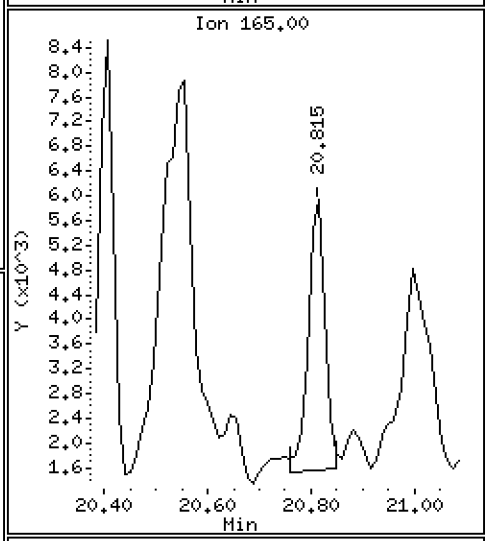


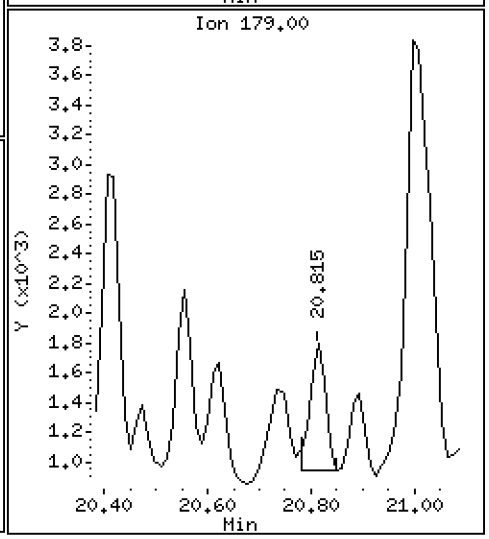



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

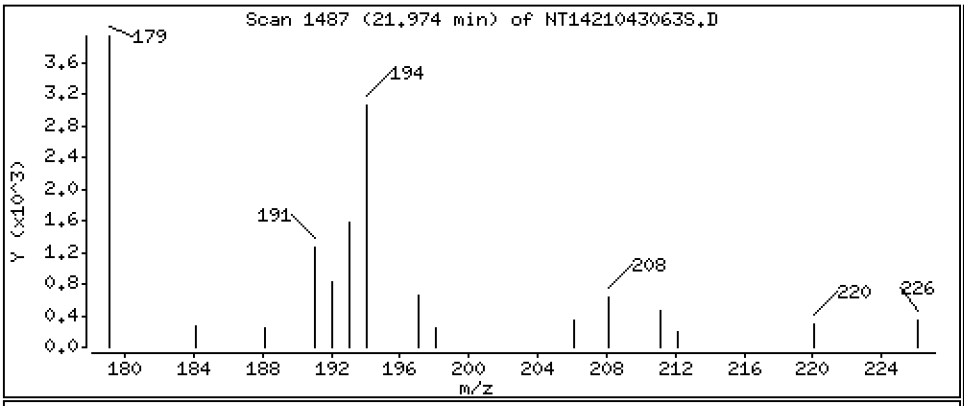
Operator: VTS

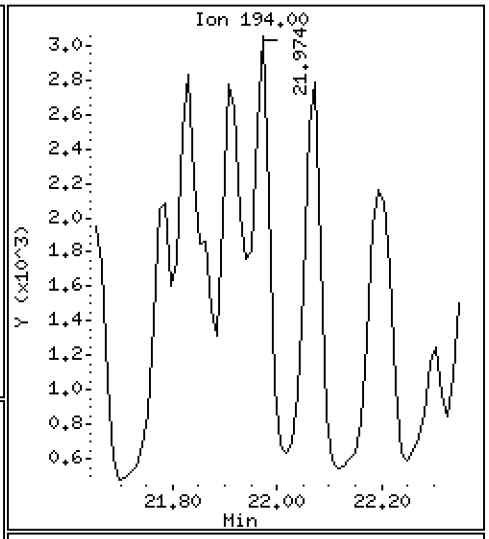
Column phase: Rxi-17Sil MS

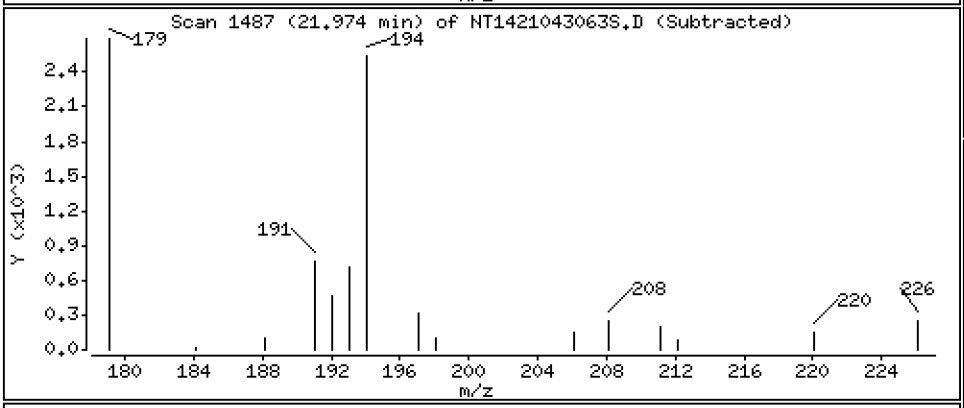
Column diameter: 0.25

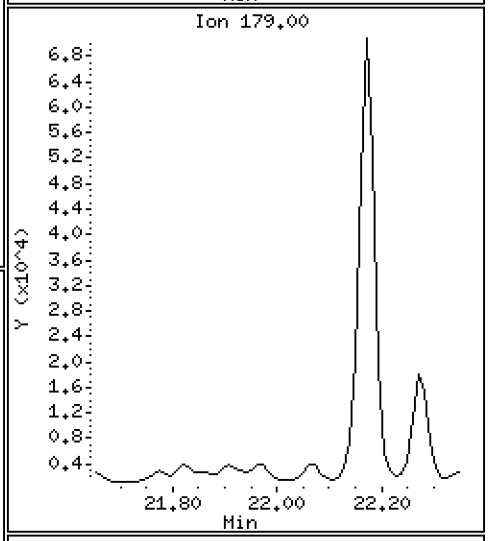
28 C2-Fluorenes

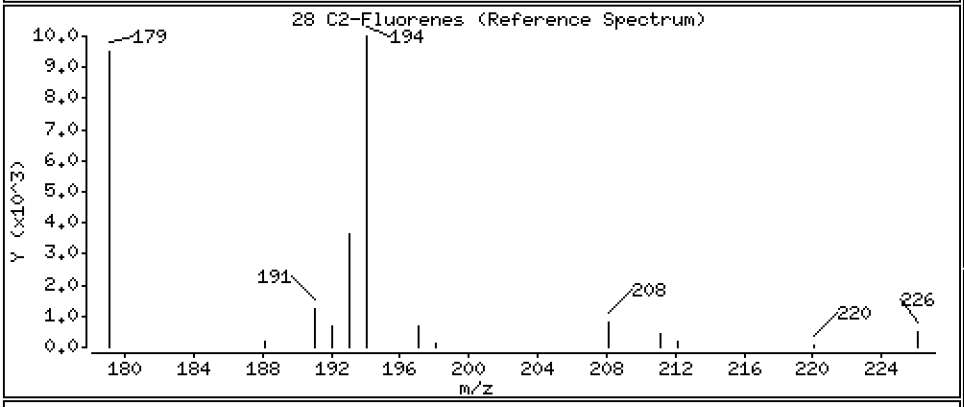
Concentration: 0.2862 ug/mL

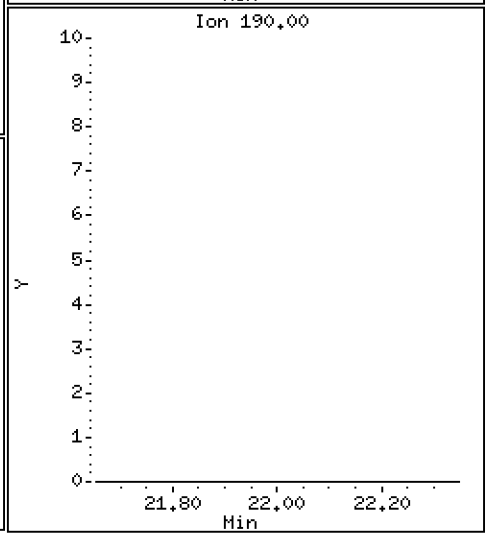


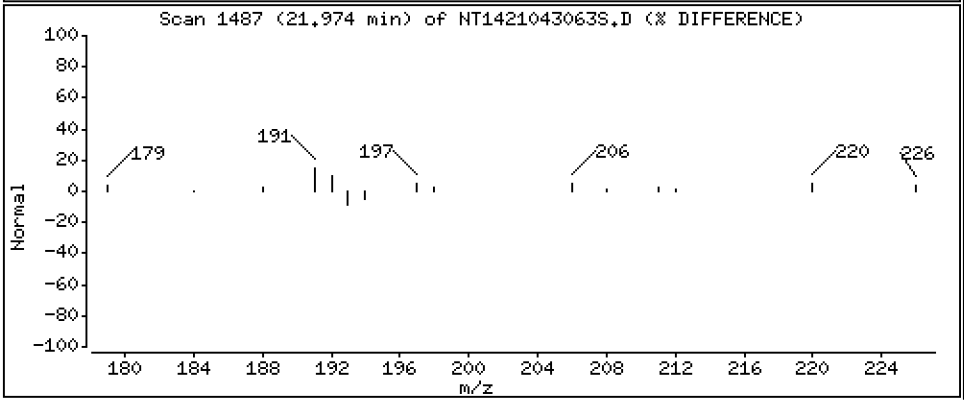



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

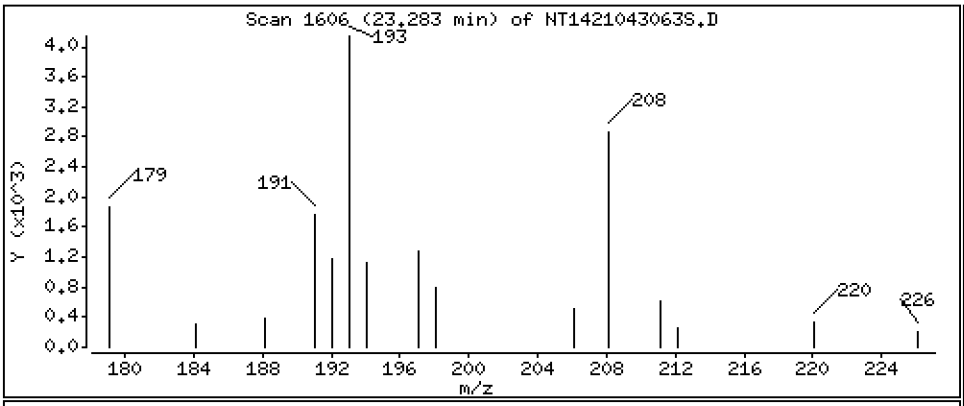
Operator: VTS

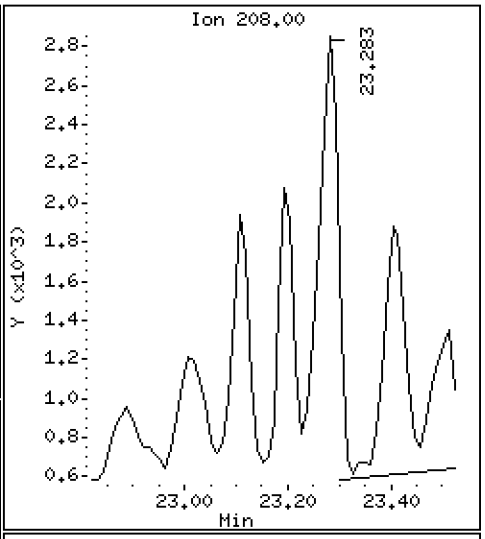
Column phase: Rxi-17Sil MS

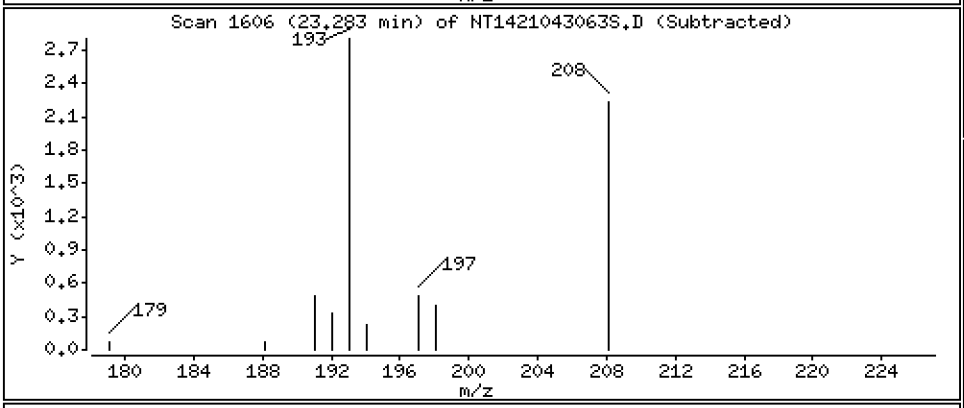
Column diameter: 0.25

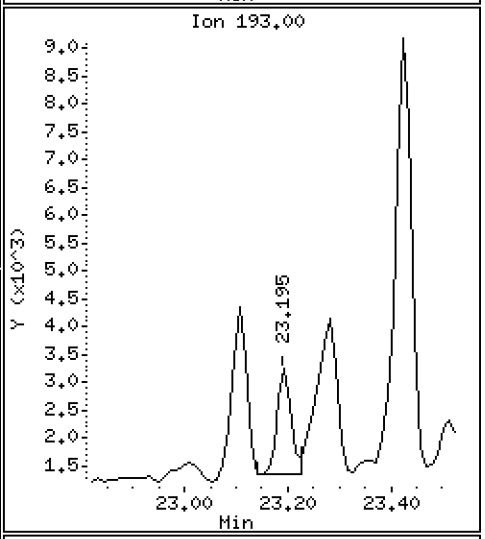
29 C3-Fluorenes

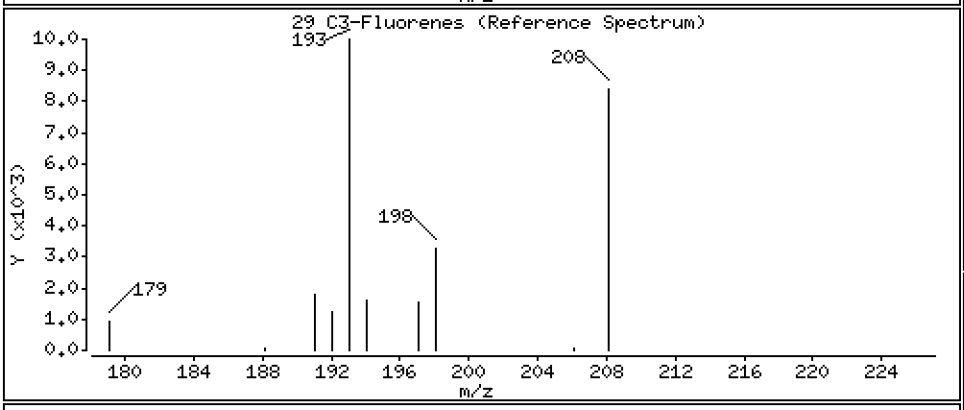
Concentration: 0.2900 ug/mL

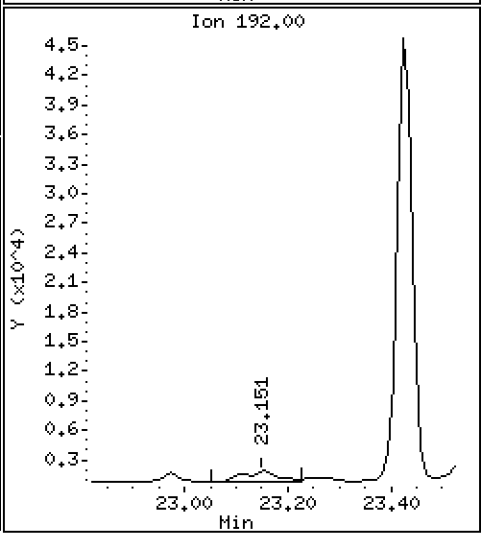


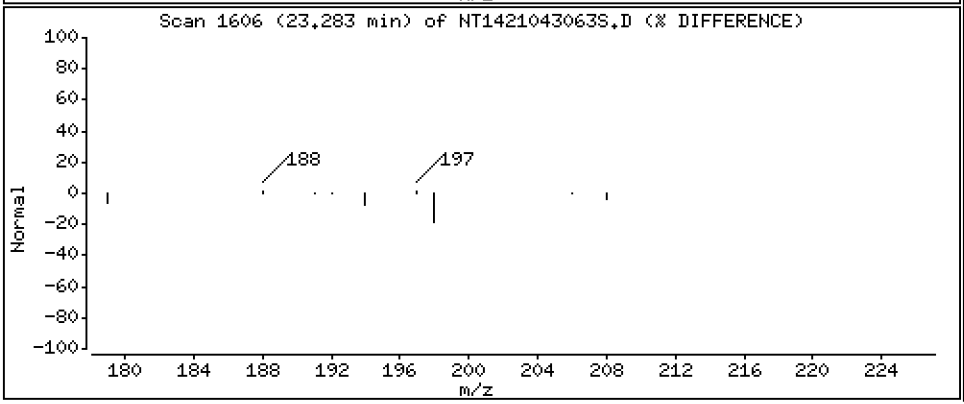



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

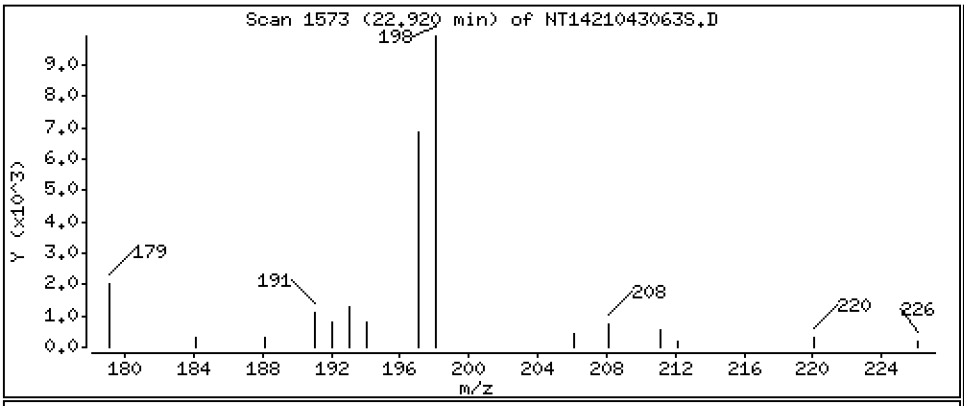
Operator: VTS

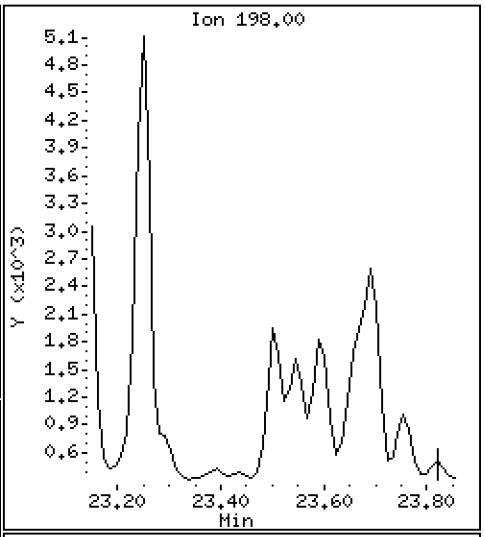
Column phase: Rxi-17Sil MS

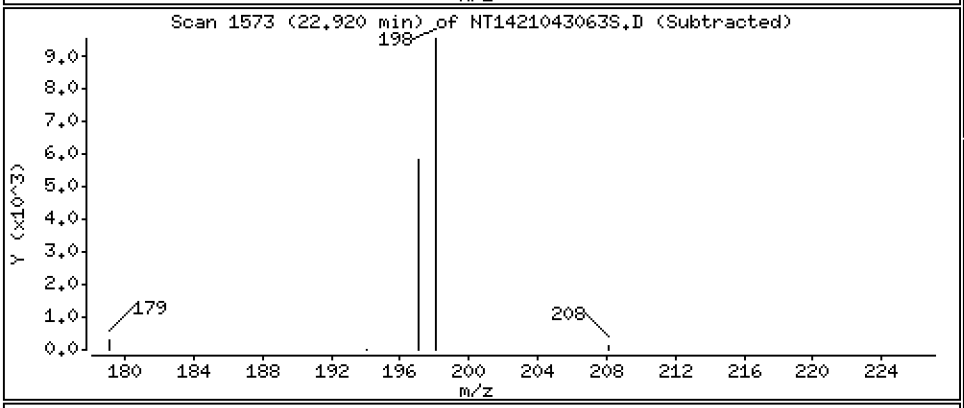
Column diameter: 0.25

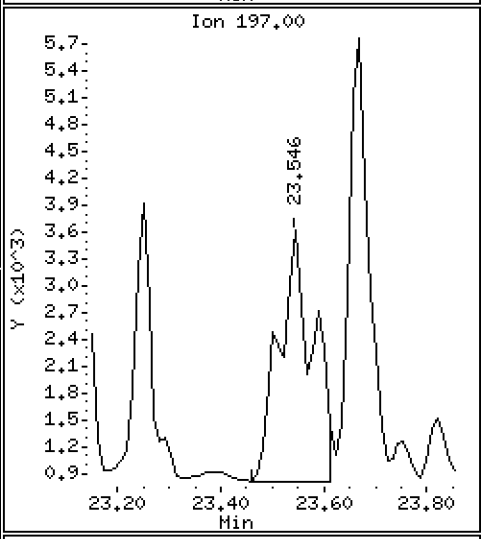
31 C1-Dibenzothiophenes

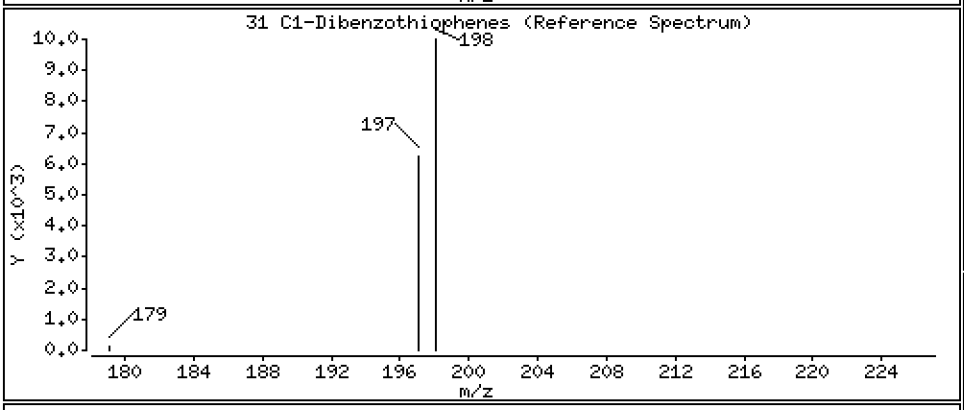
Concentration: 0.2550 ug/mL

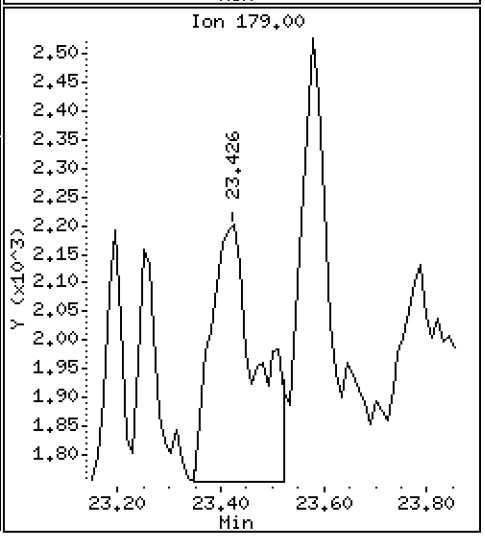


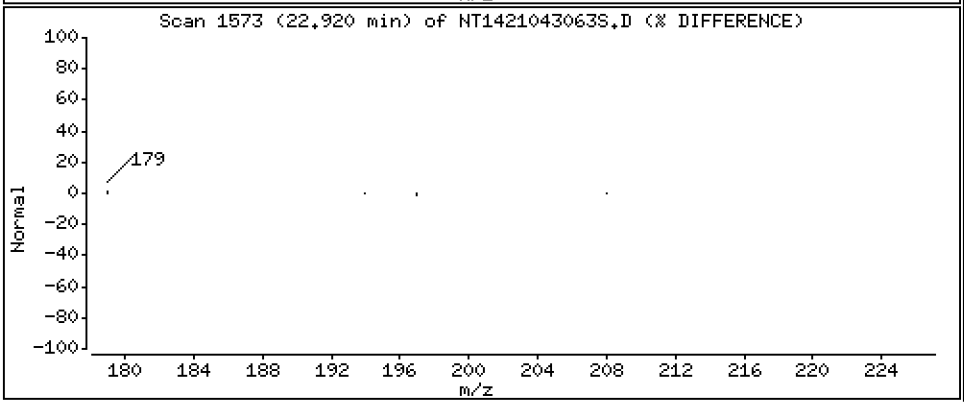



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

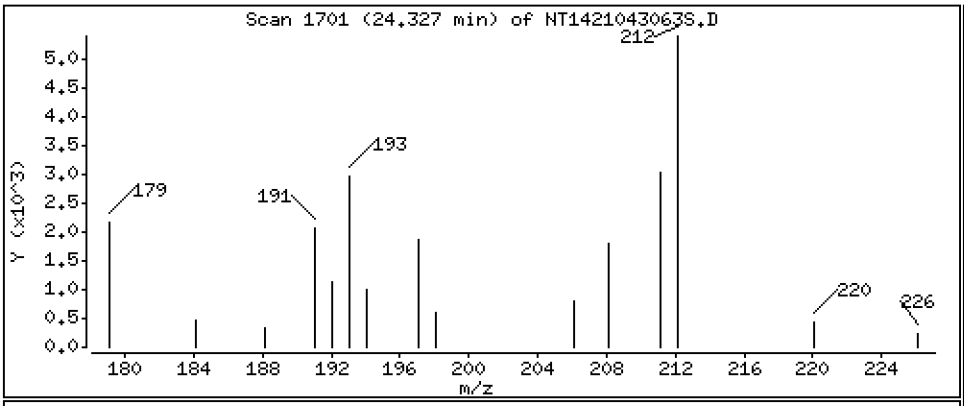
Operator: VTS

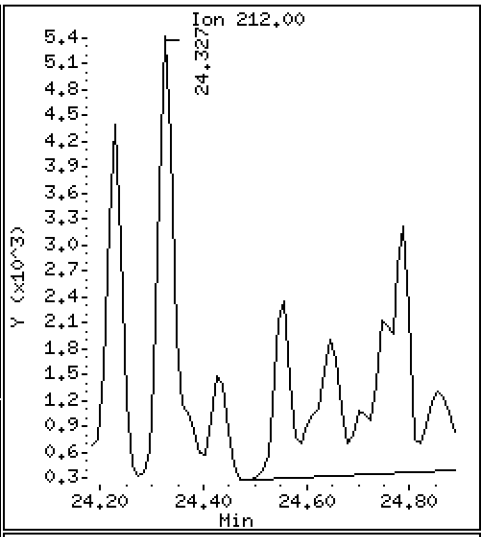
Column phase: Rxi-17Sil MS

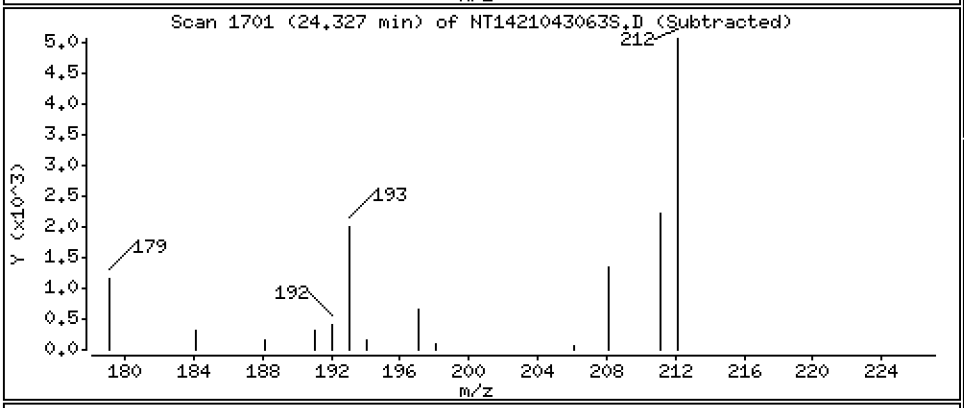
Column diameter: 0.25

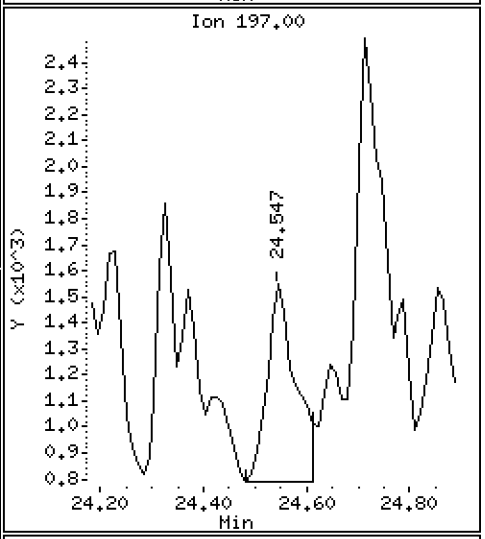
32 C2-Dibenzothiophenes

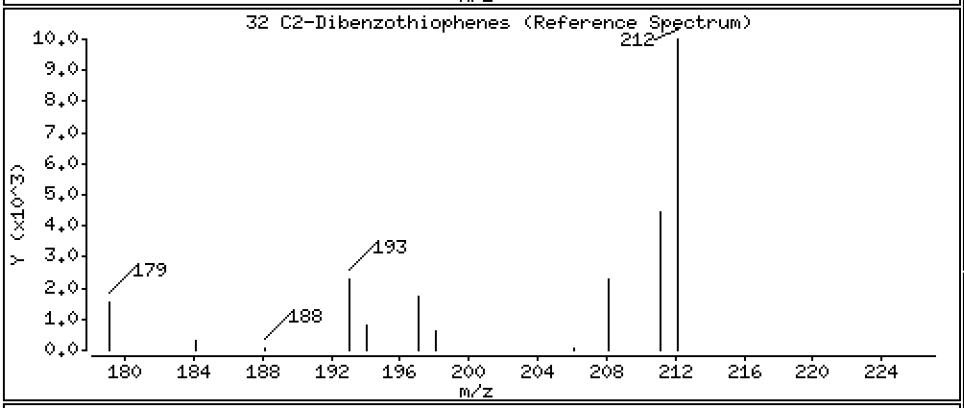
Concentration: 0.3189 ug/mL

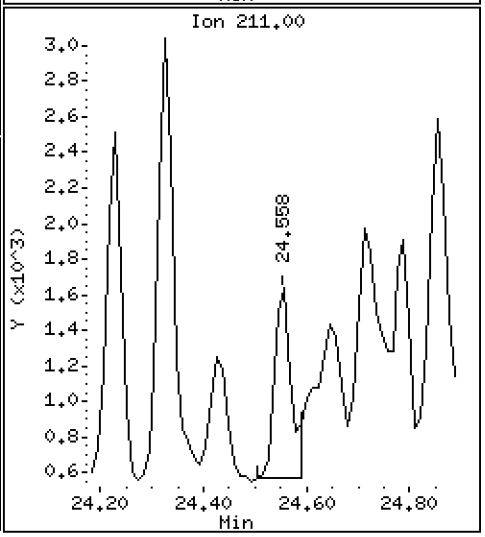


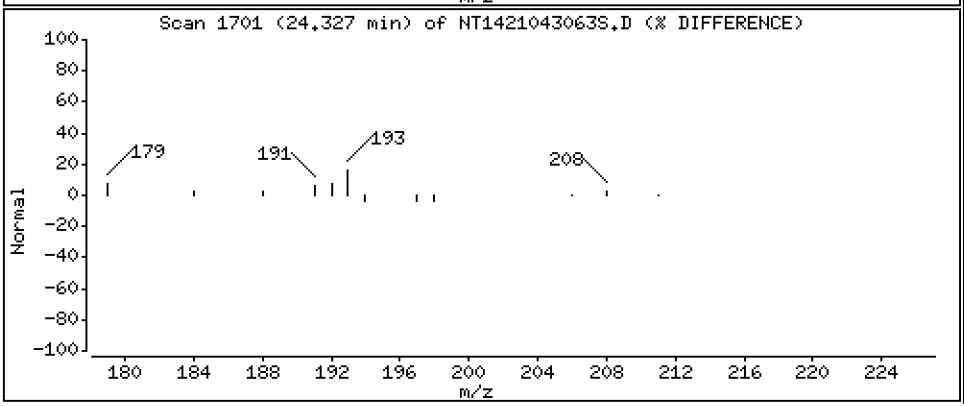



Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430 63S.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

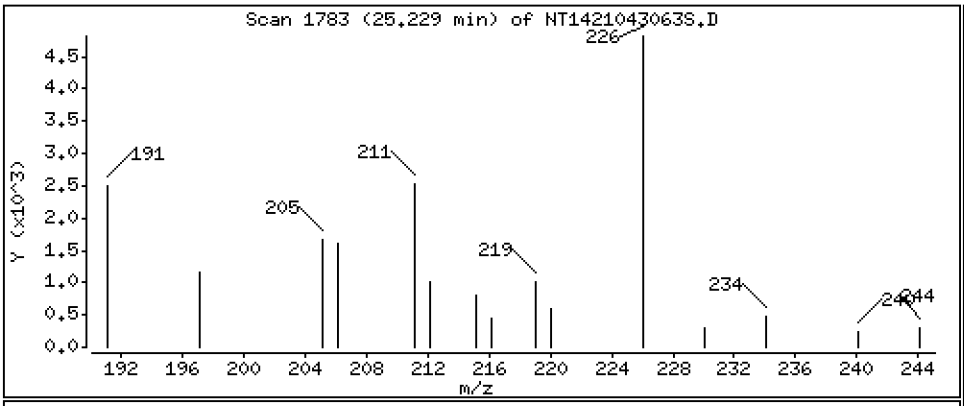
Operator: VTS

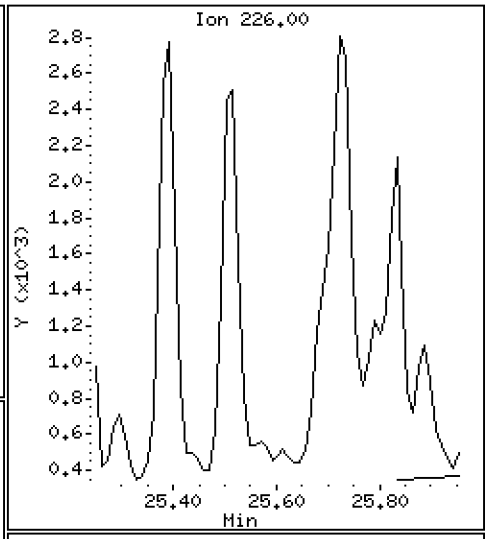
Column phase: Rxi-17Sil MS

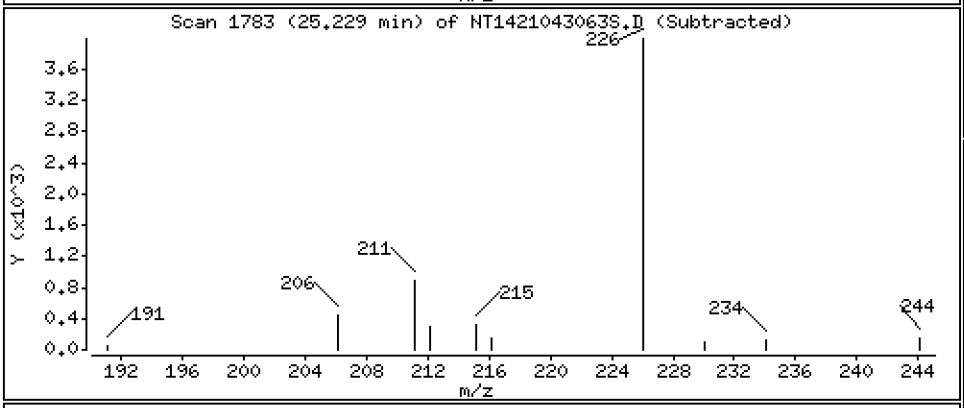
Column diameter: 0.25

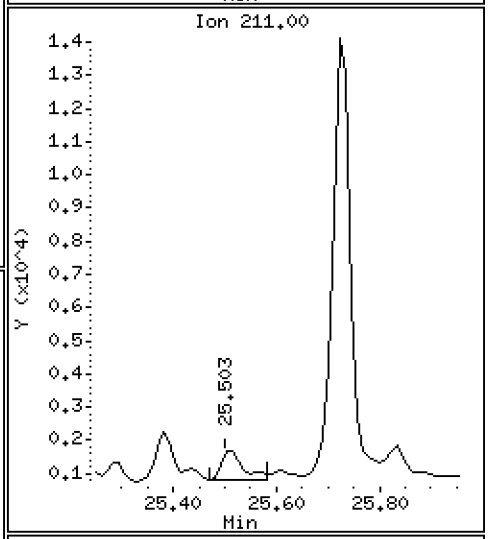
33 C3-Dibenzothiophenes

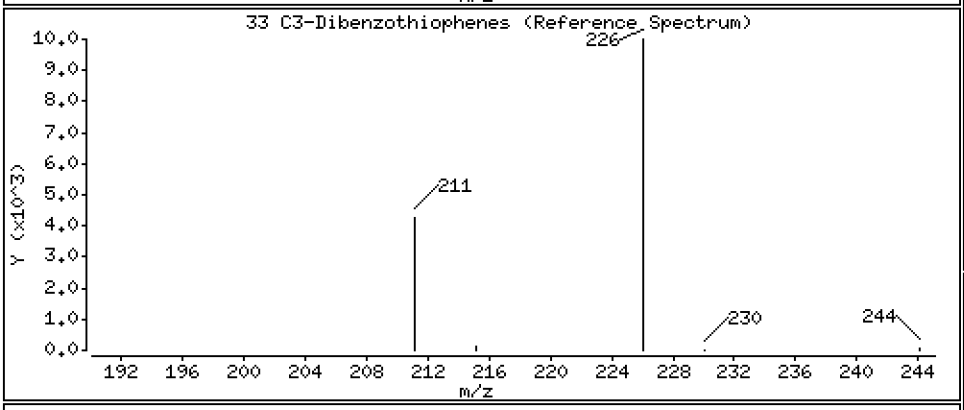
Concentration: 0.2648 ug/mL

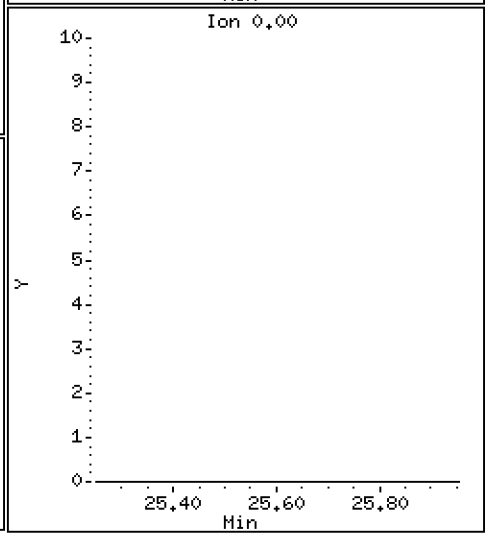


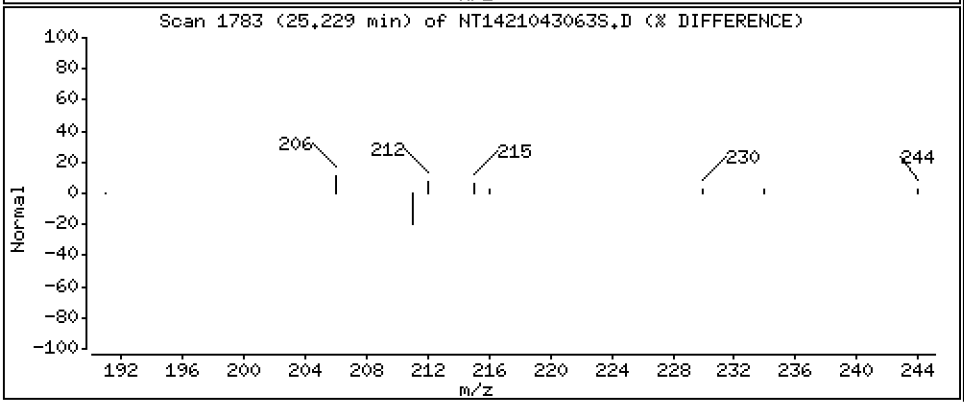



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

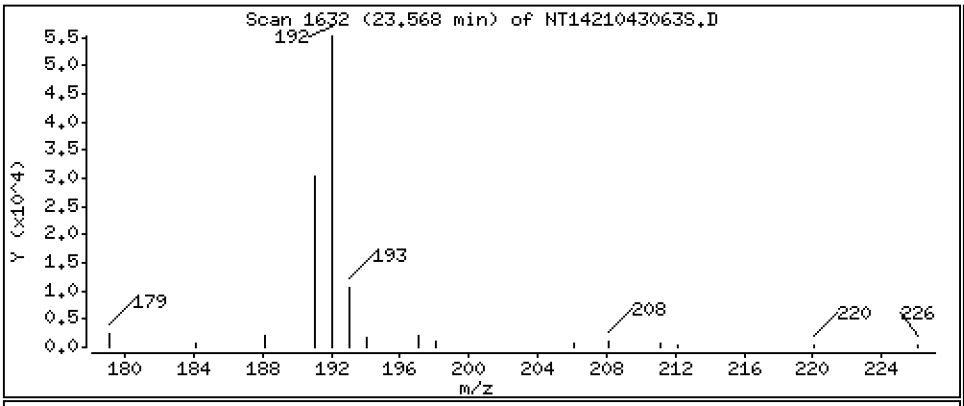
Operator: VTS

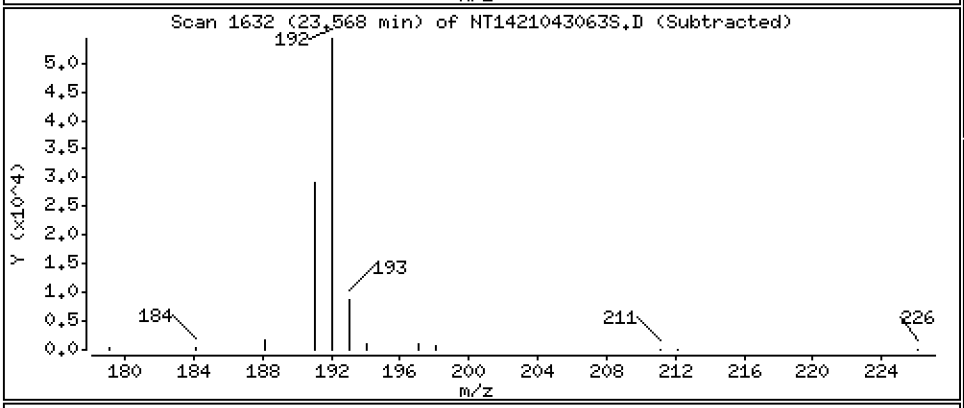
Column phase: Rxi-17Sil MS

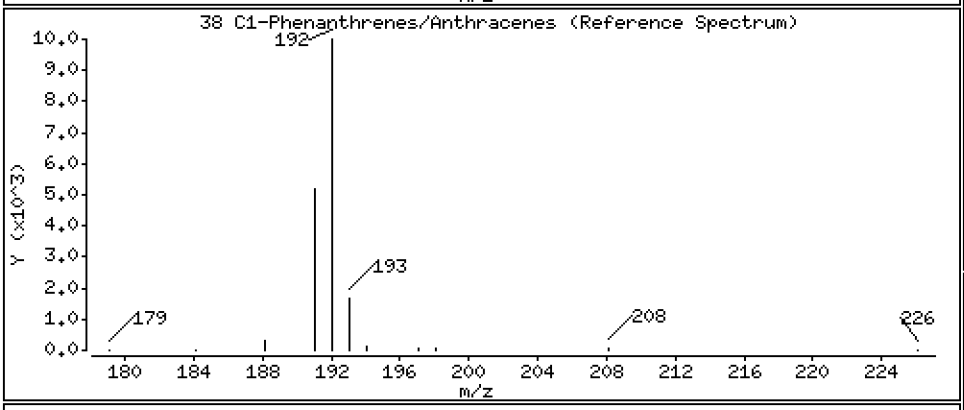
Column diameter: 0.25

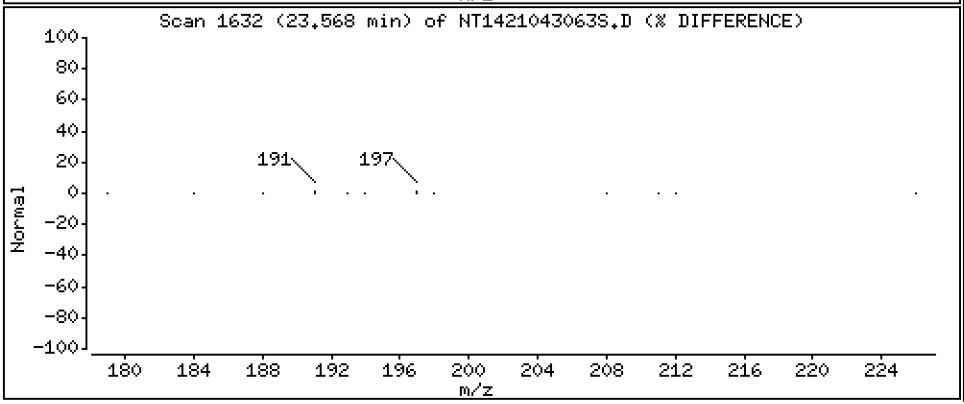
38 C1-Phenanthrenes/Anthracenes

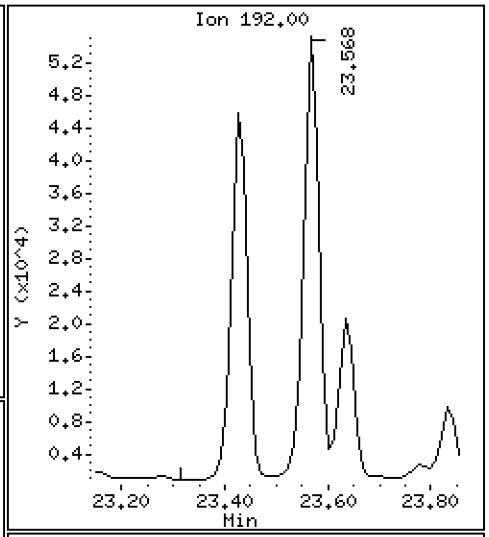
Concentration: 1.344 ug/mL

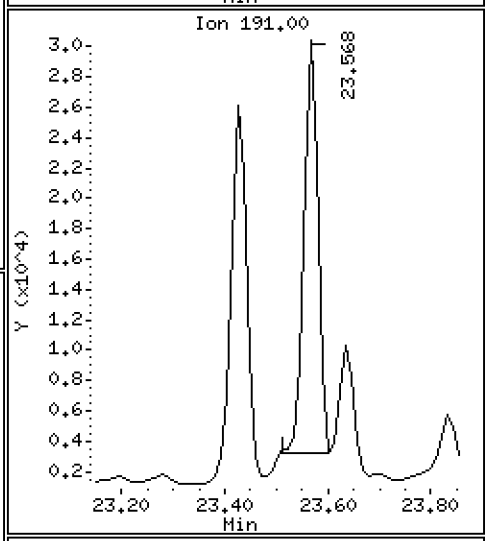


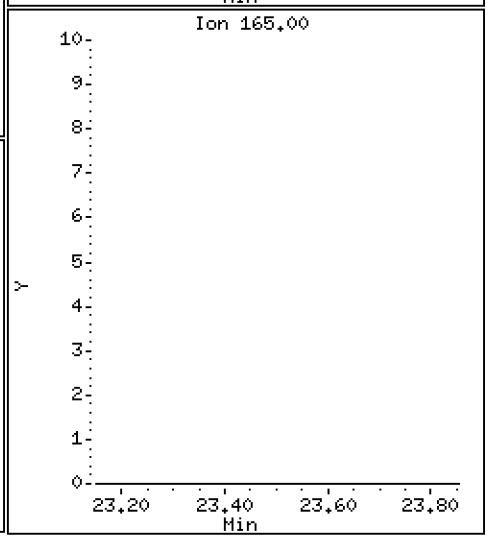



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

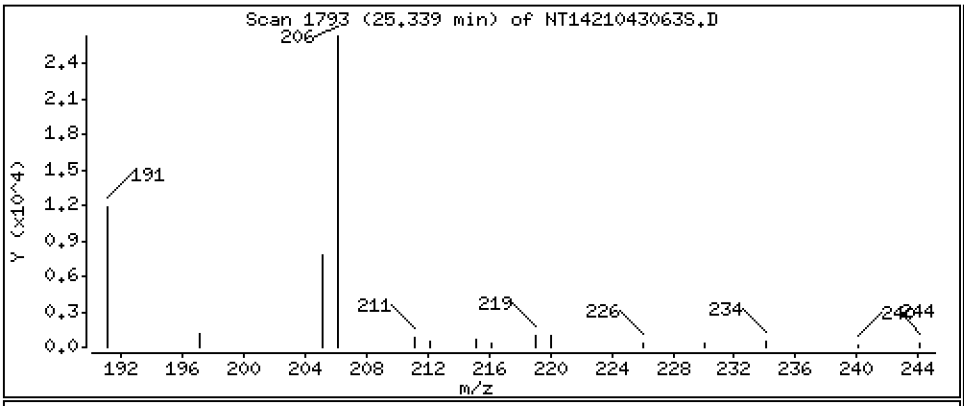
Operator: VTS

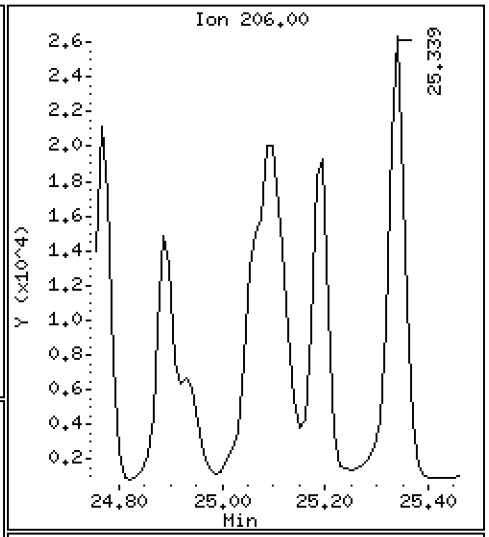
Column phase: Rxi-17Sil MS

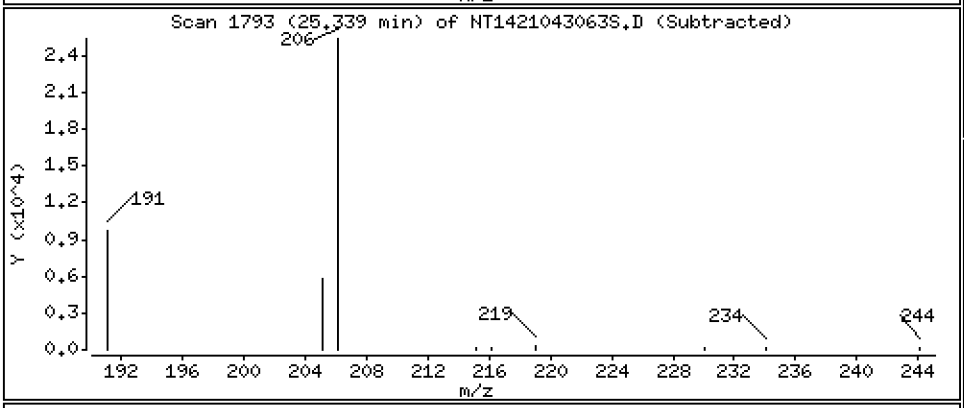
Column diameter: 0.25

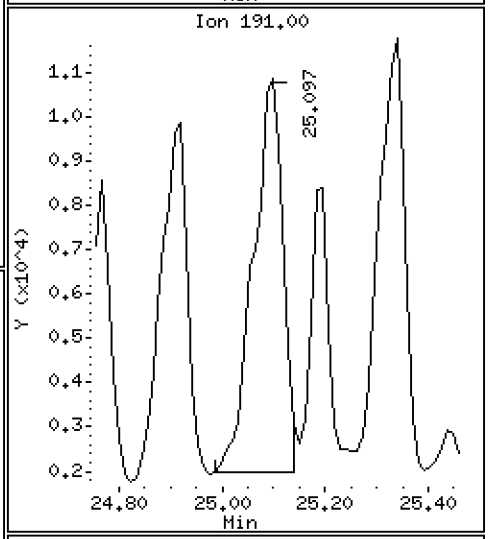
39 C2-Phenanthrenes/Anthracenes

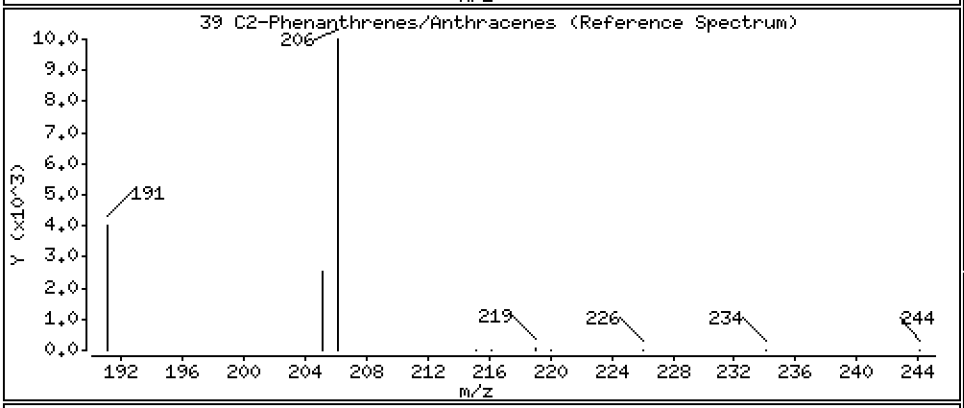
Concentration: 1.236 ug/mL

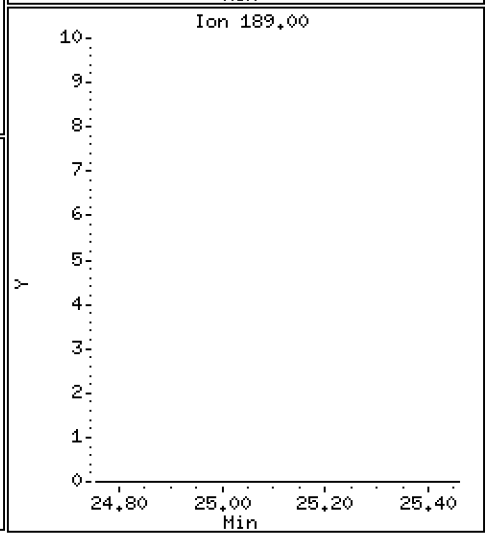


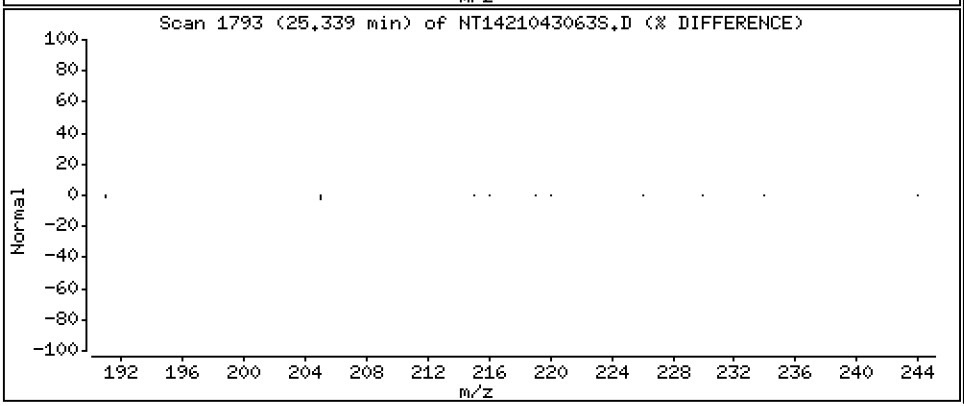



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

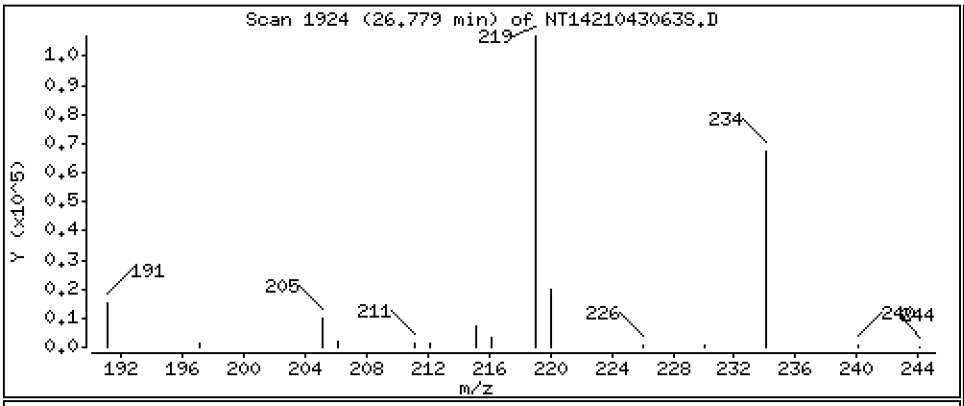
Operator: VTS

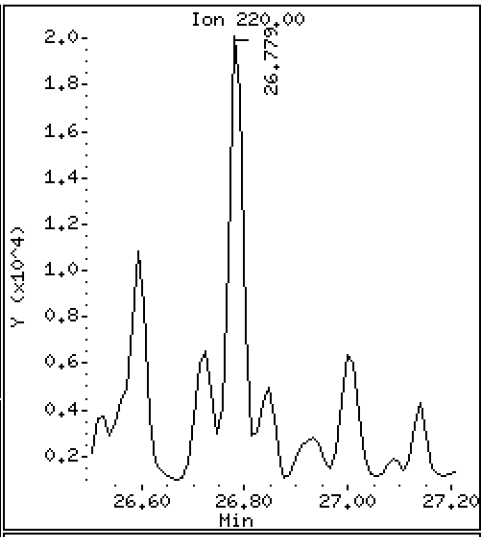
Column phase: Rxi-17Sil MS

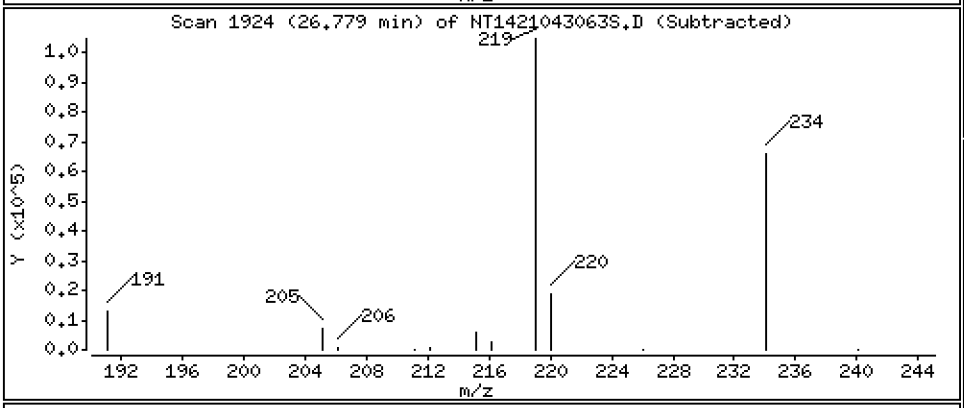
Column diameter: 0.25

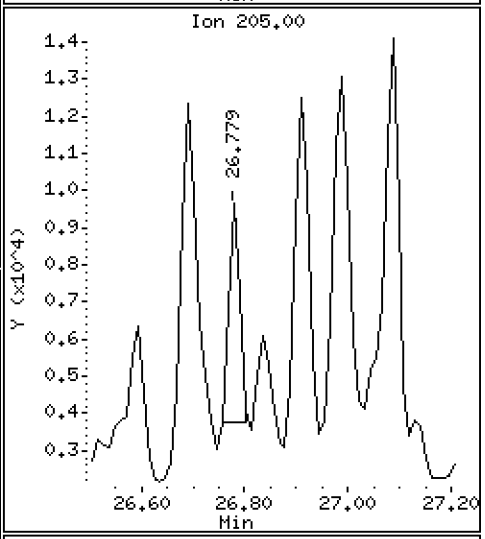
40 C3-Phenanthrenes/Anthracenes

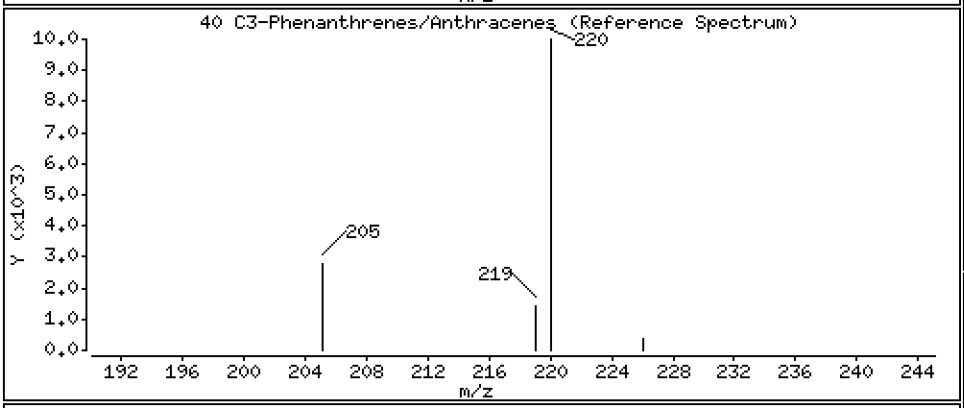
Concentration: 0.8970 ug/mL

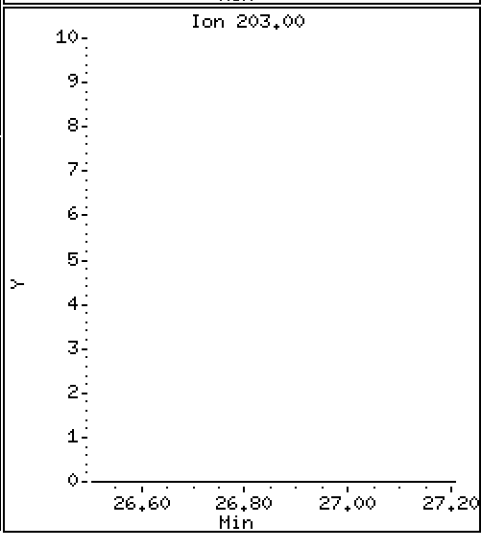


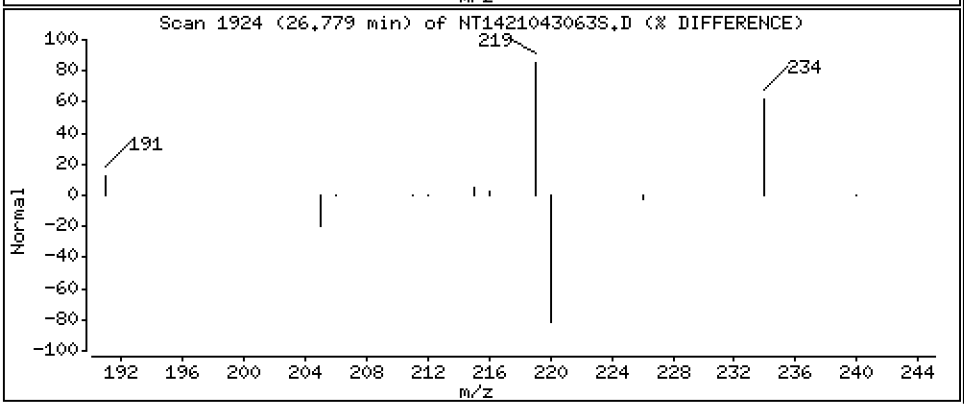



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

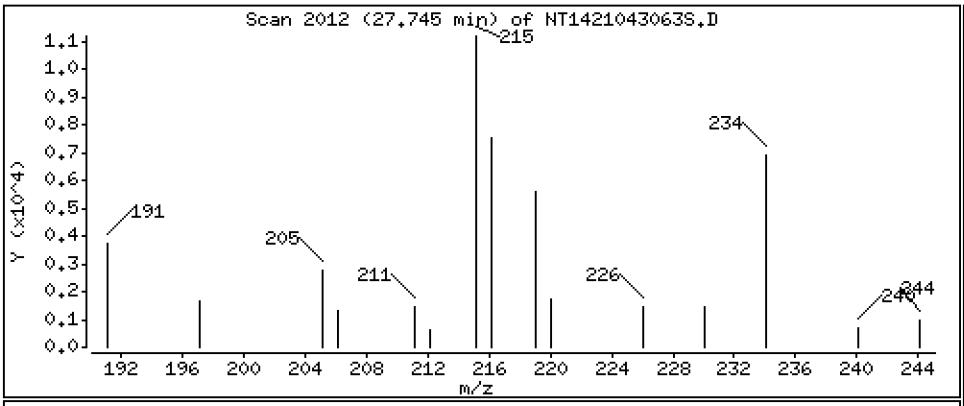
Operator: VTS

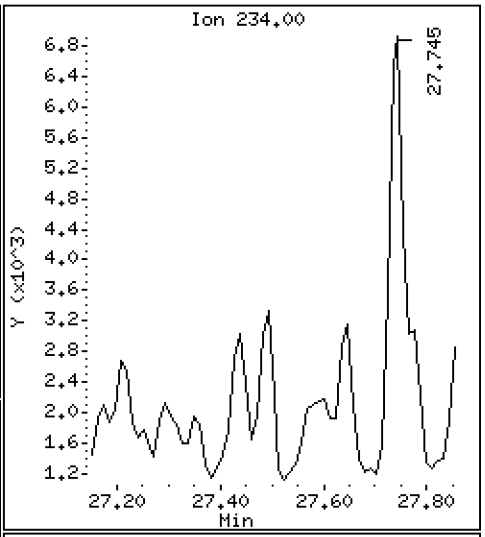
Column phase: Rxi-17Sil MS

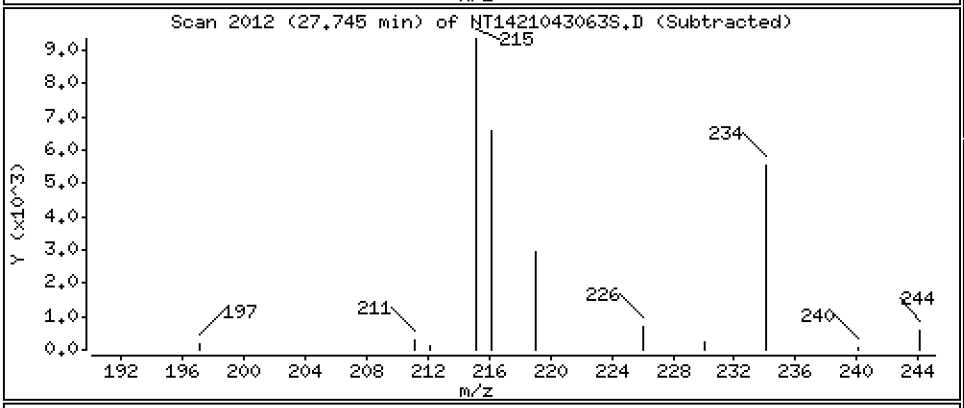
Column diameter: 0.25

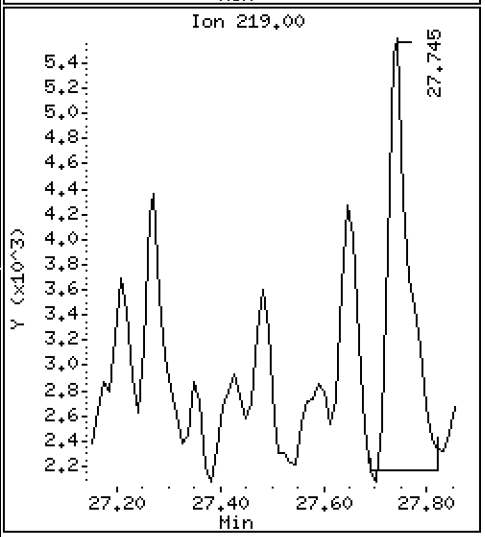
41 C4-Phenanthrenes/Anthracenes

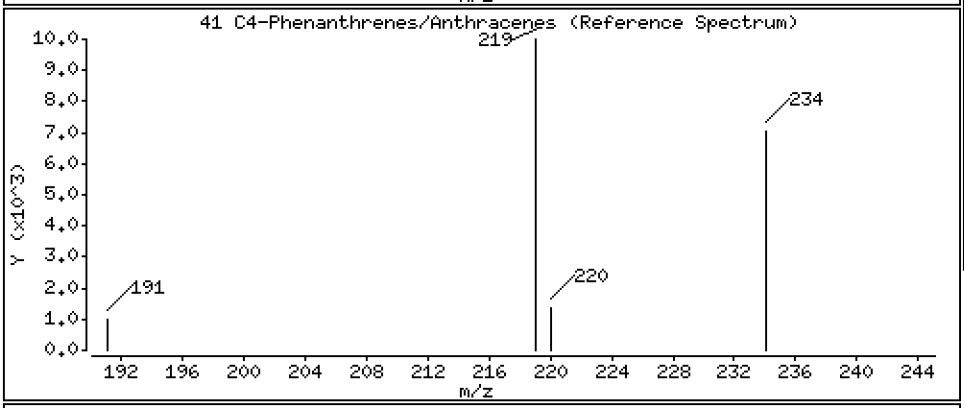
Concentration: 0.2322 ug/mL

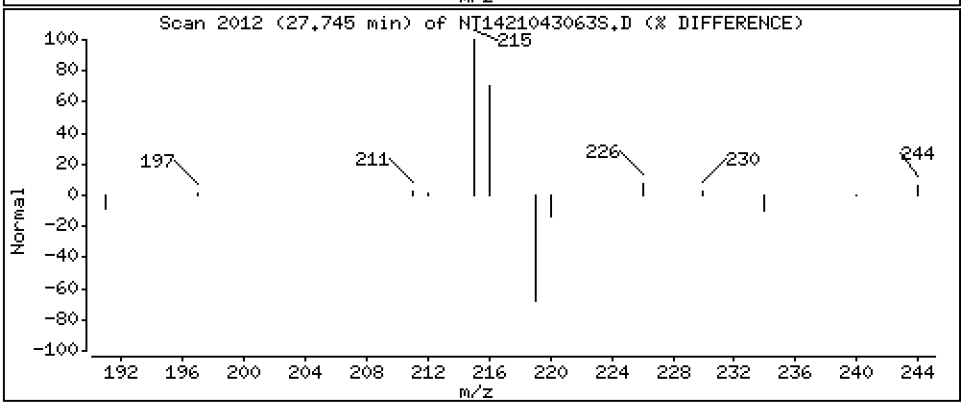


Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

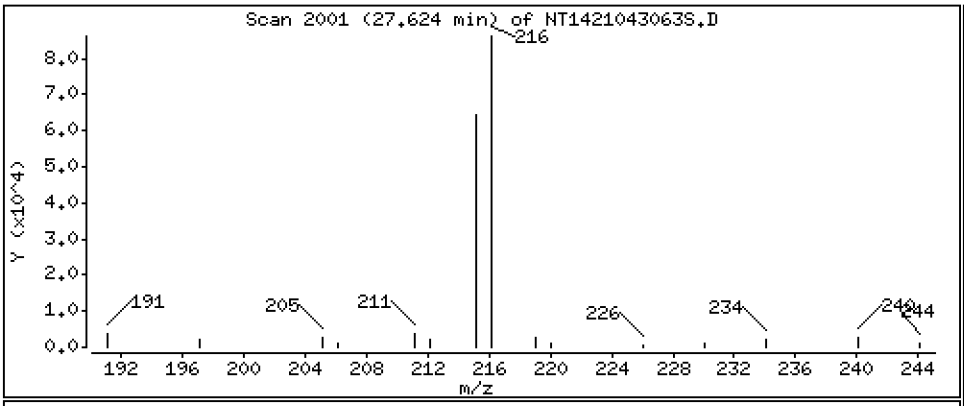
Operator: VTS

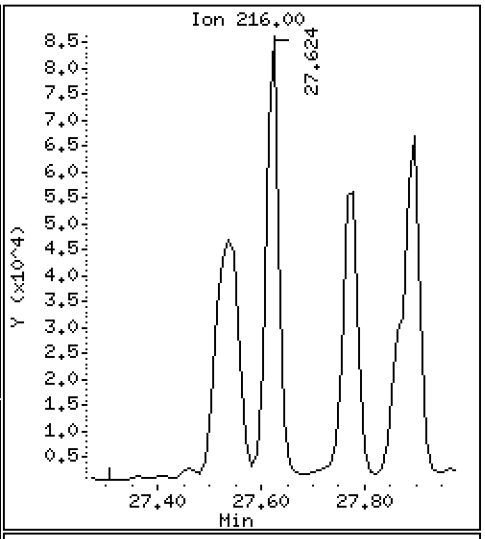
Column phase: Rxi-17Sil MS

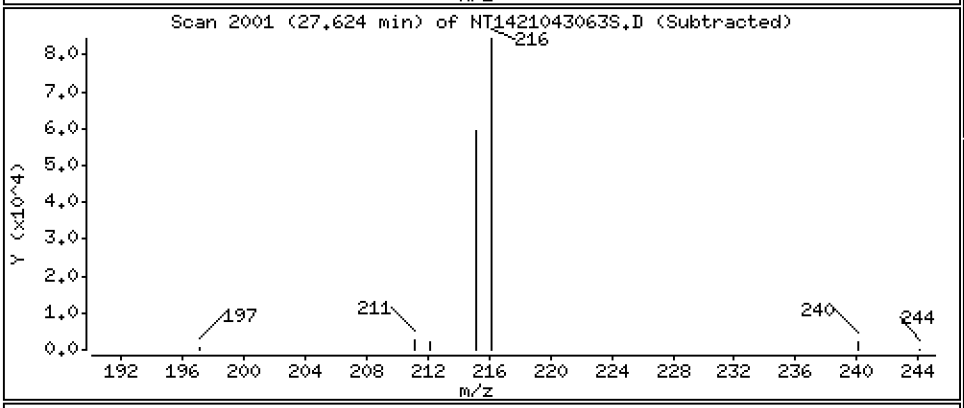
Column diameter: 0.25

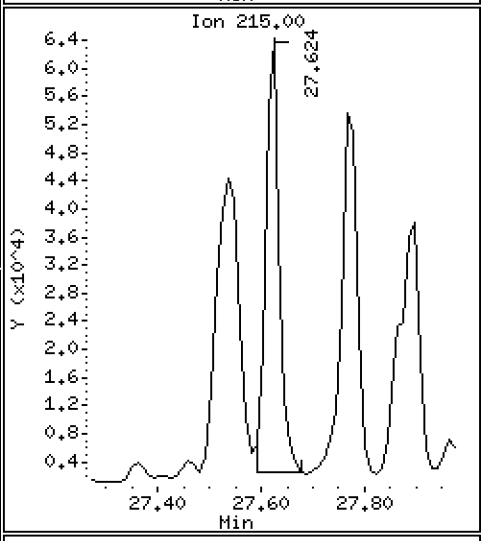
48 C1-Fluoranthenes/Pyrenes

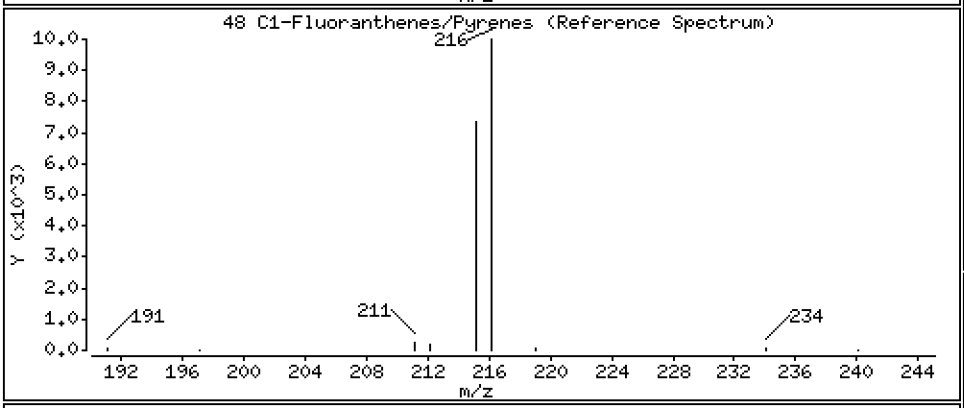
Concentration: 2.809 ug/mL

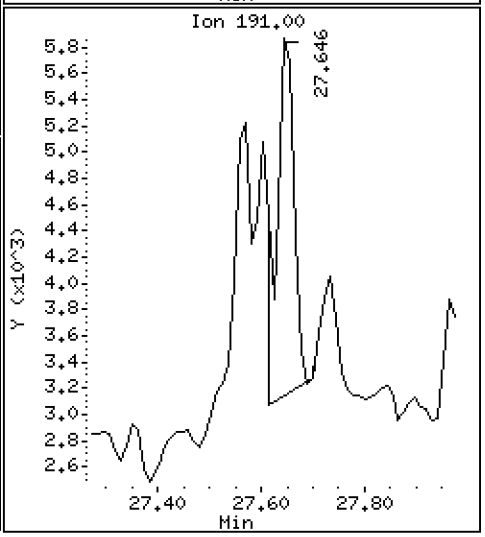


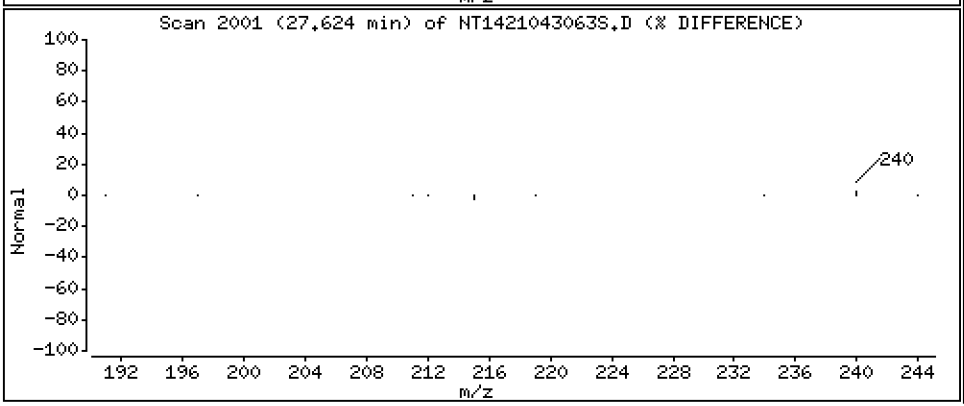



Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430 63S.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

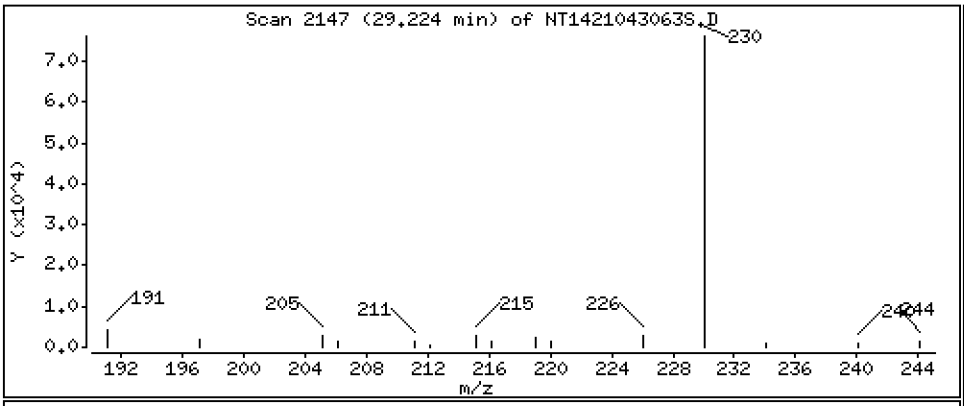
Operator: VTS

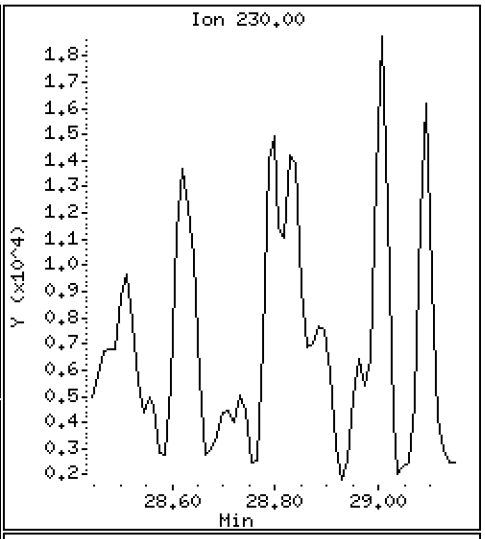
Column phase: Rxi-17Sil MS

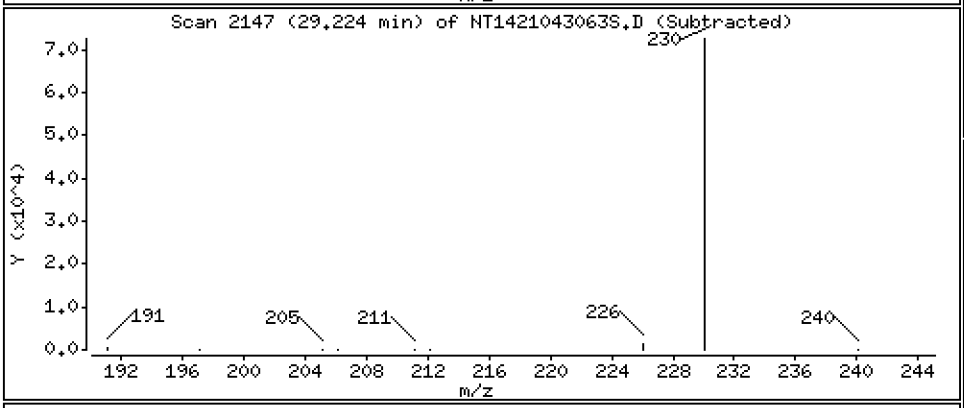
Column diameter: 0.25

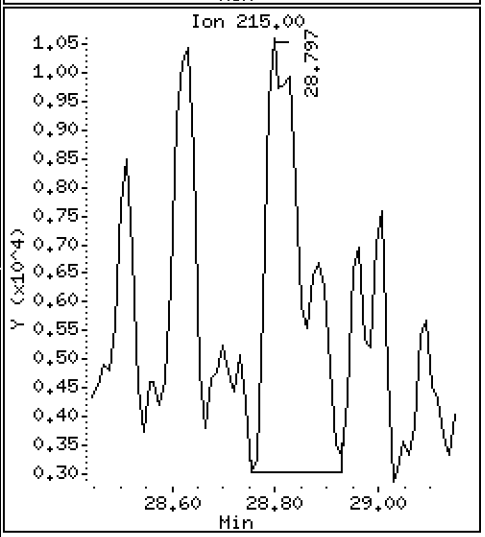
49 C2-Fluoranthenes/Pyrenes

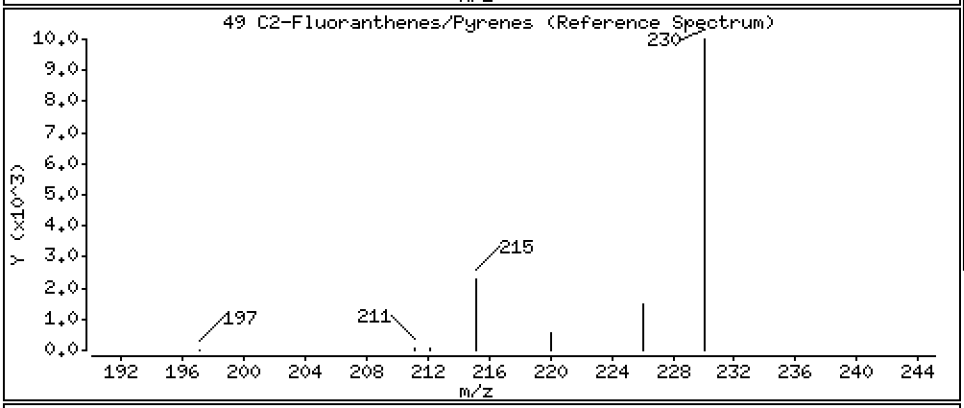
Concentration: 1.901 ug/mL

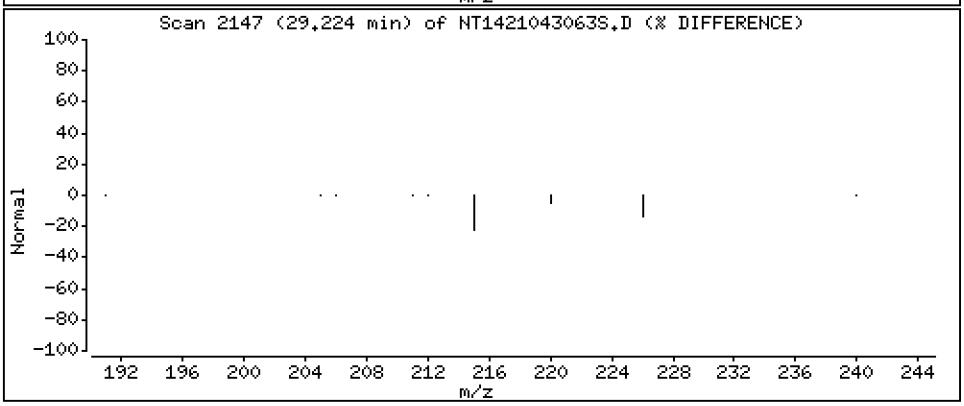


Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT1421043063S.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

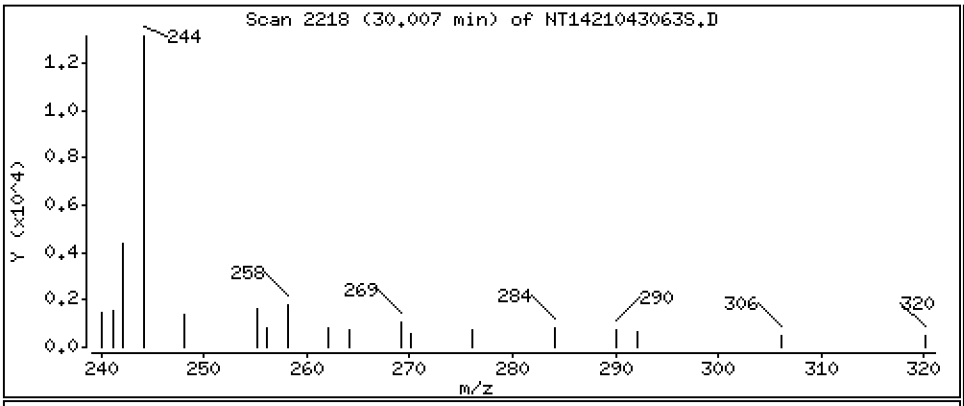
Operator: VTS

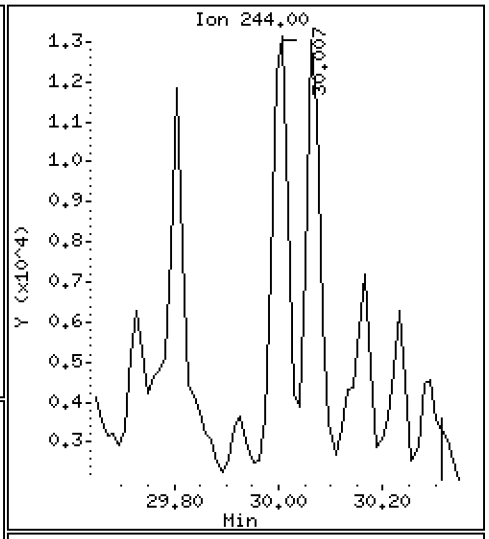
Column phase: Rxi-17Sil MS

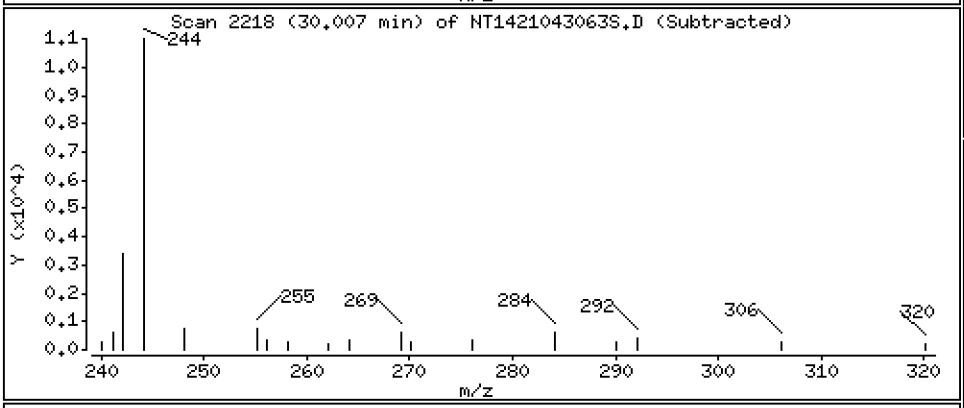
Column diameter: 0.25

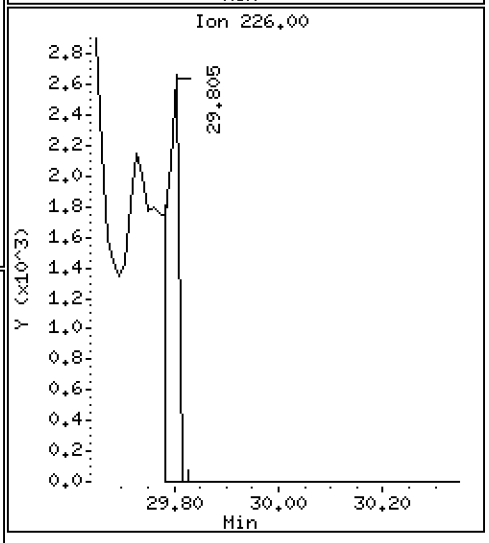
50 C3-Fluoranthenes/Pyrenes

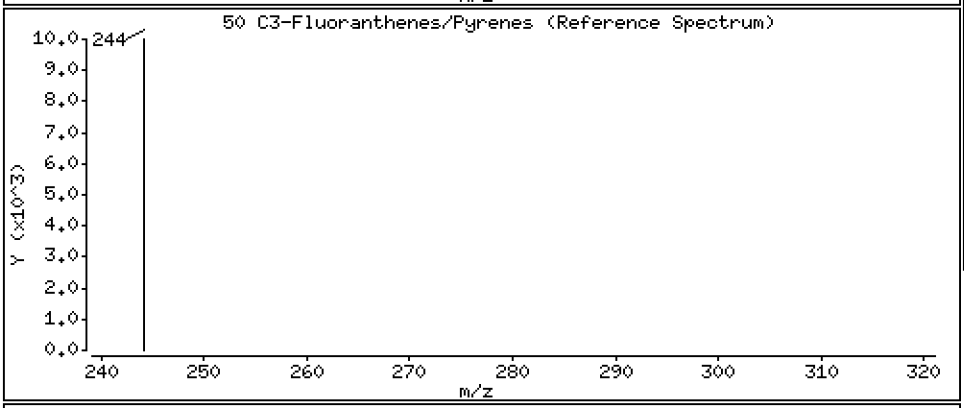
Concentration: 0.7432 ug/mL

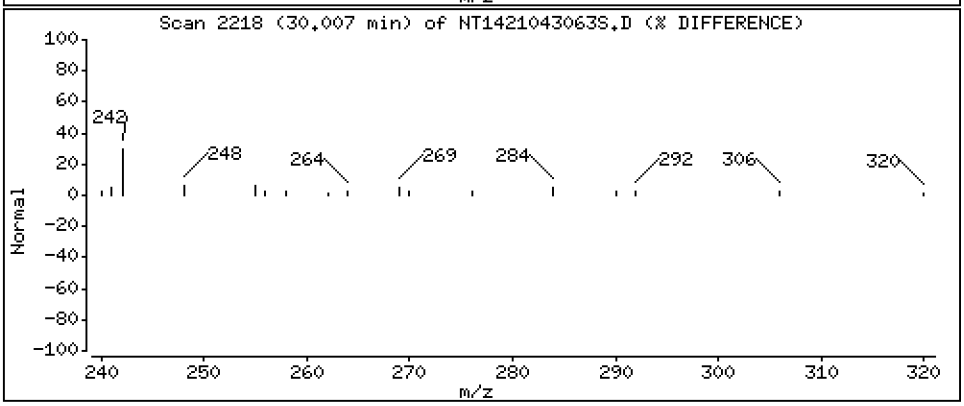


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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

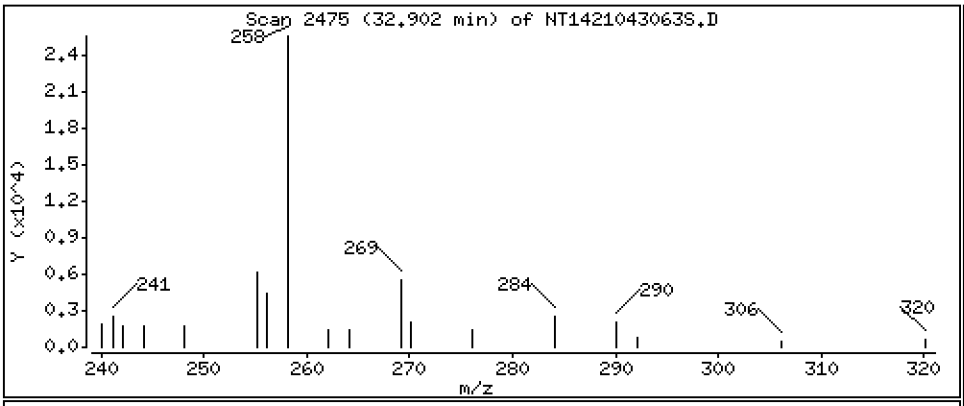
Operator: VTS

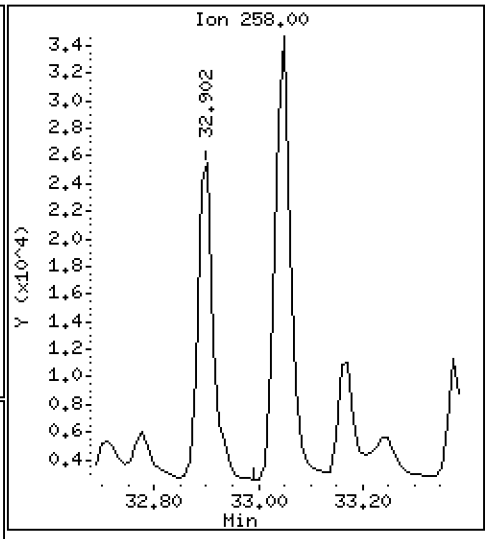
Column phase: Rxi-17Sil MS

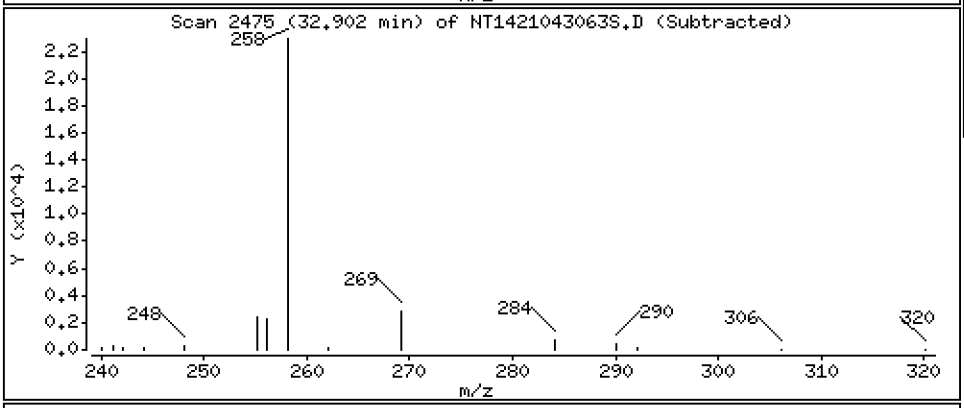
Column diameter: 0.25

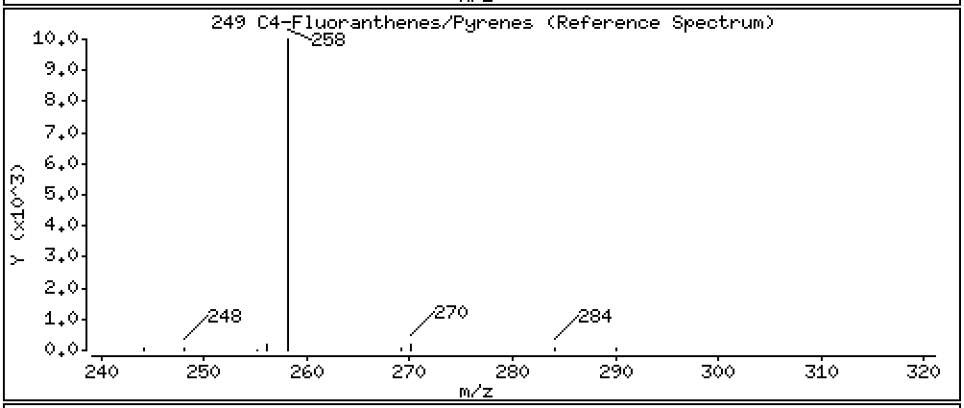
249 C4-Fluoranthenes/Pyrenes

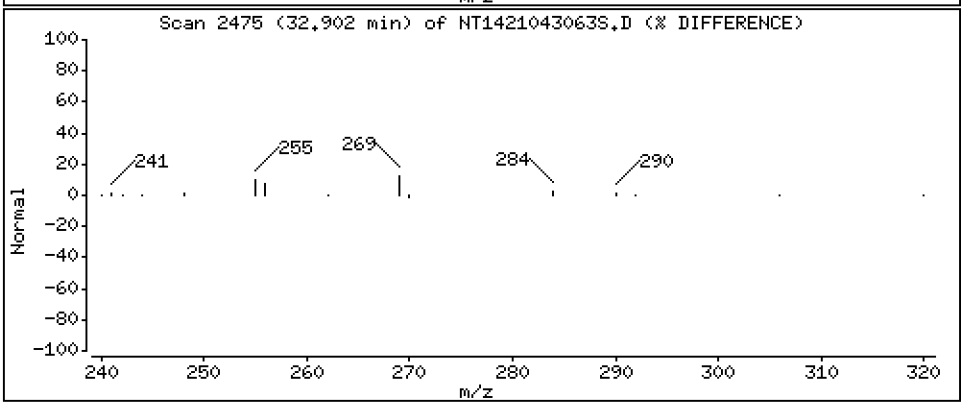
Concentration: 0.4466 ug/mL



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

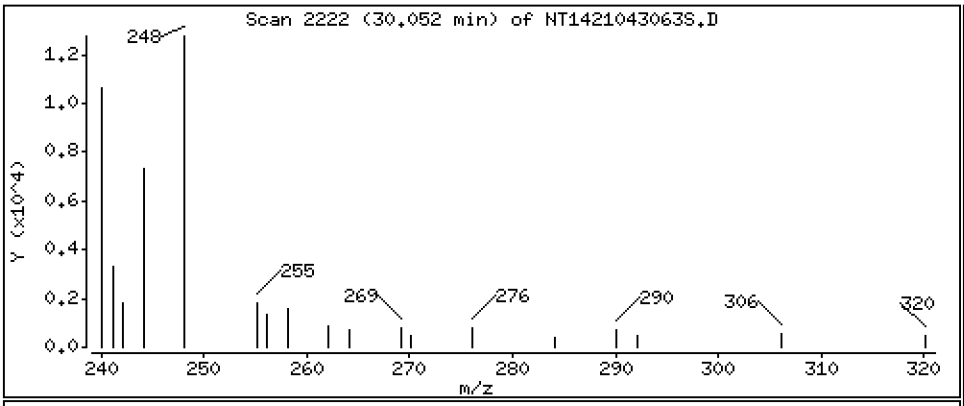
Operator: VTS

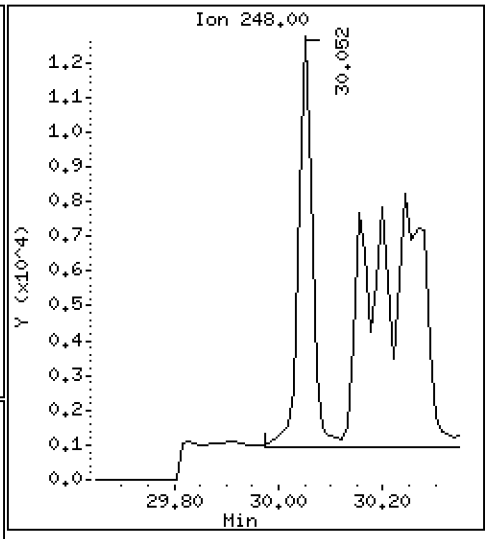
Column phase: Rxi-17Sil MS

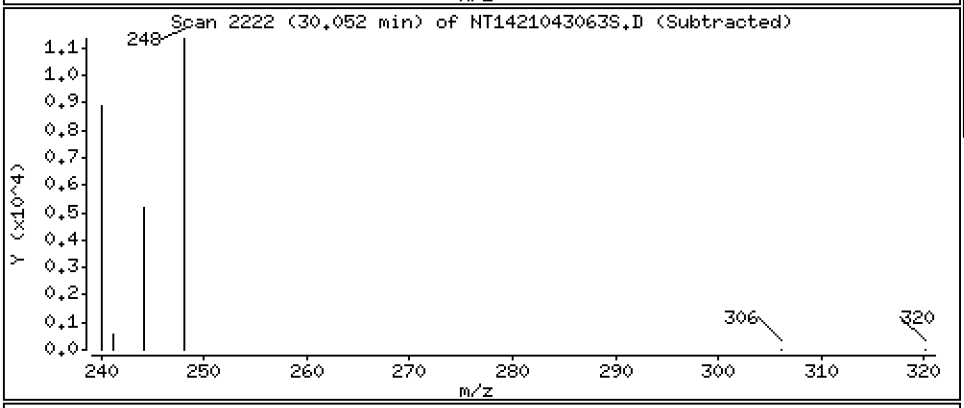
Column diameter: 0.25

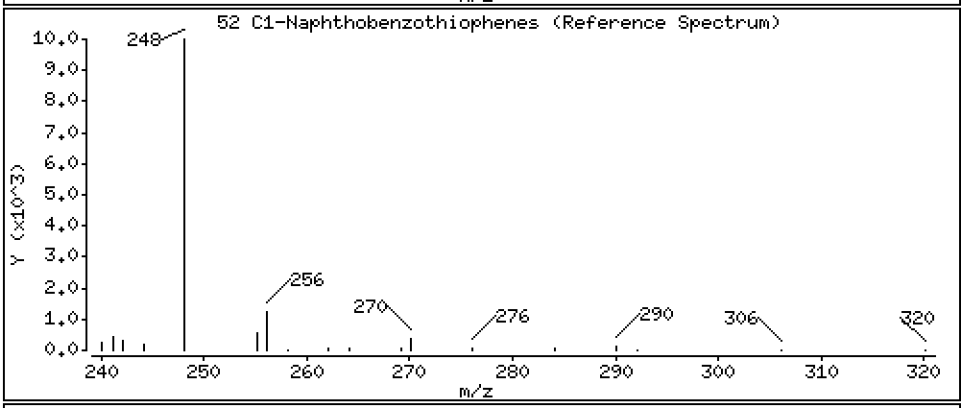
52 C1-Naphthobenzothiophenes

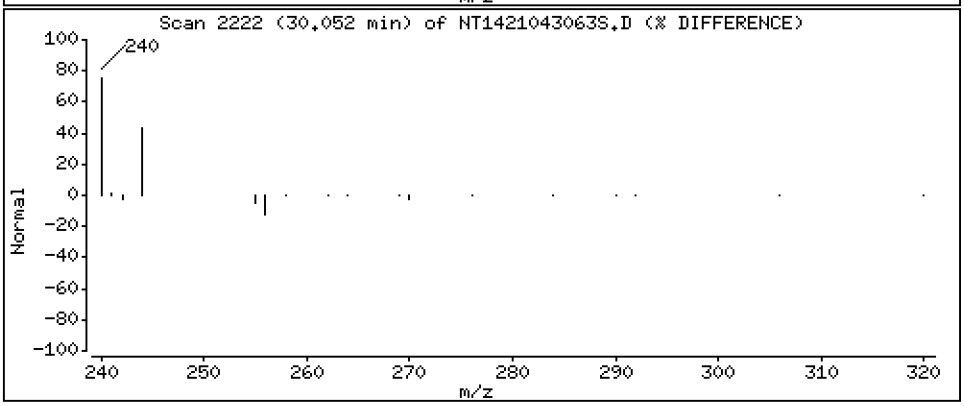
Concentration: 0.5299 ug/mL



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

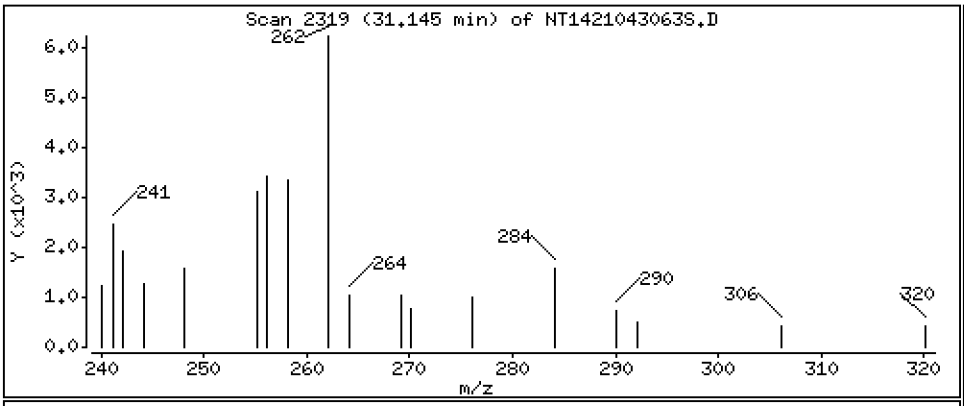
Operator: VTS

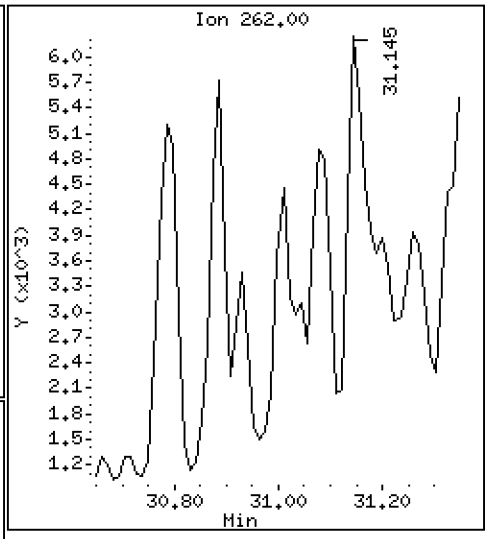
Column phase: Rxi-17Sil MS

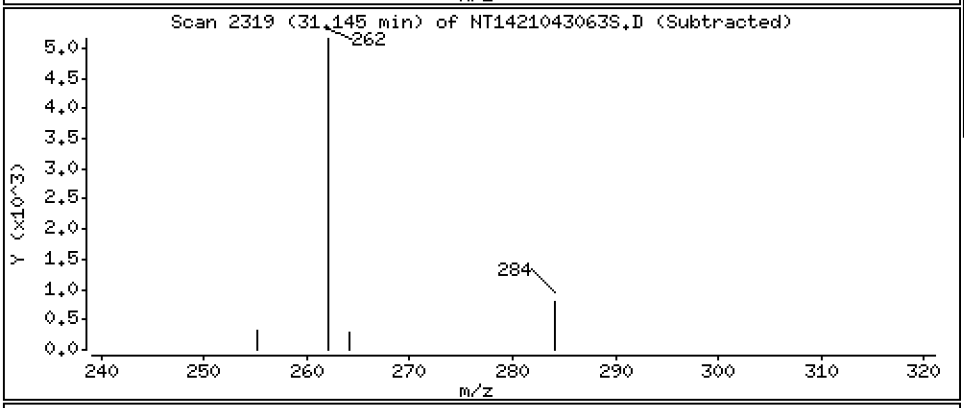
Column diameter: 0.25

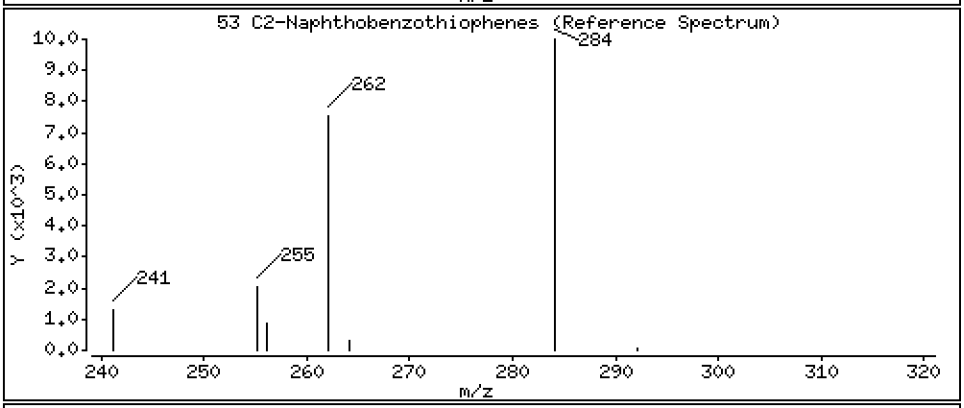
53 C2-Naphthobenzothiophenes

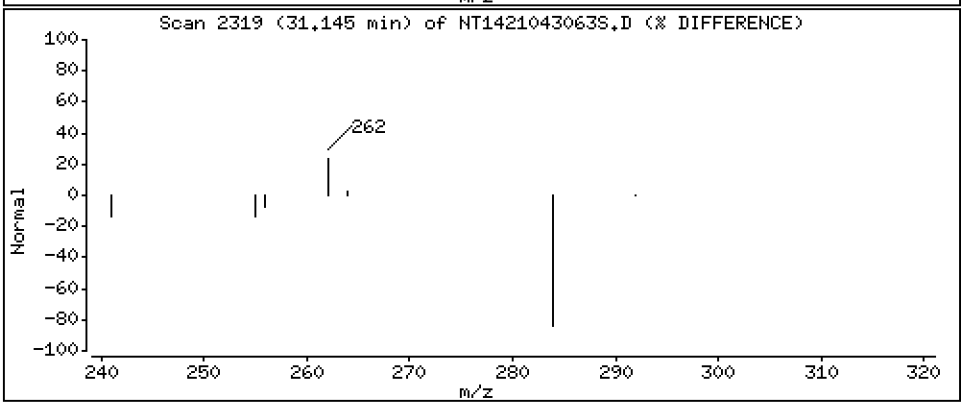
Concentration: 0.4589 ug/mL



Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT1421043063S.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

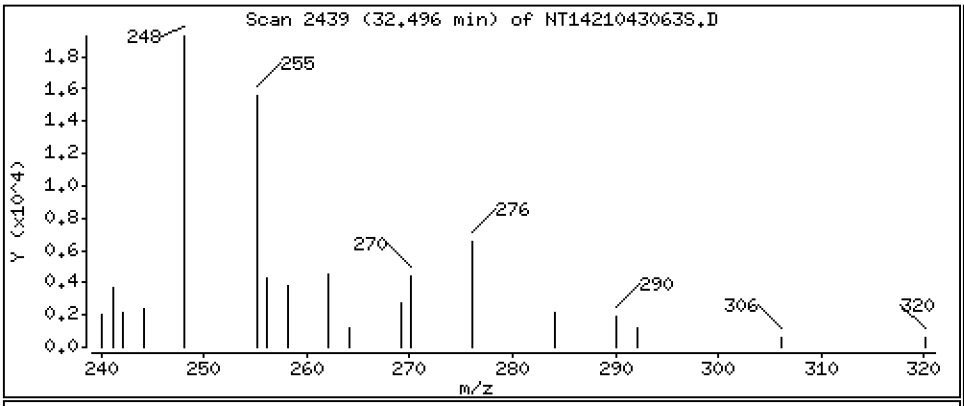
Operator: VTS

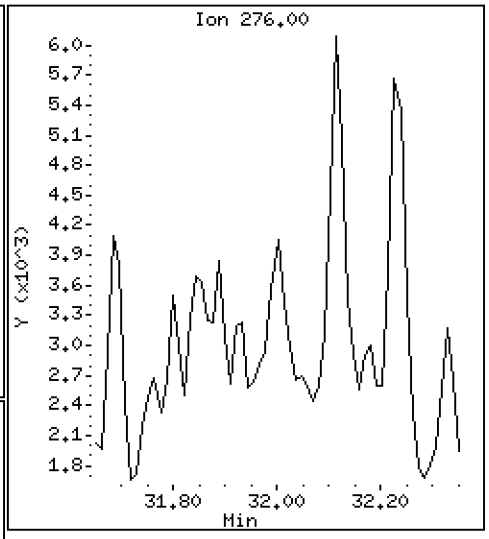
Column phase: Rxi-17Sil MS

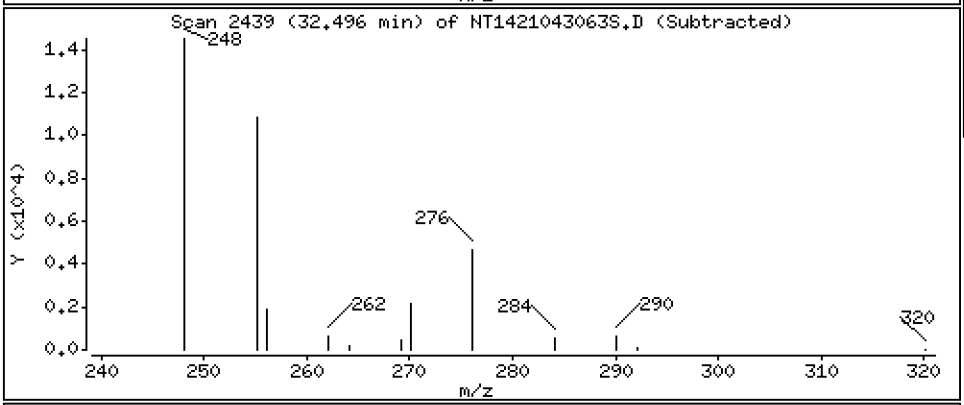
Column diameter: 0.25

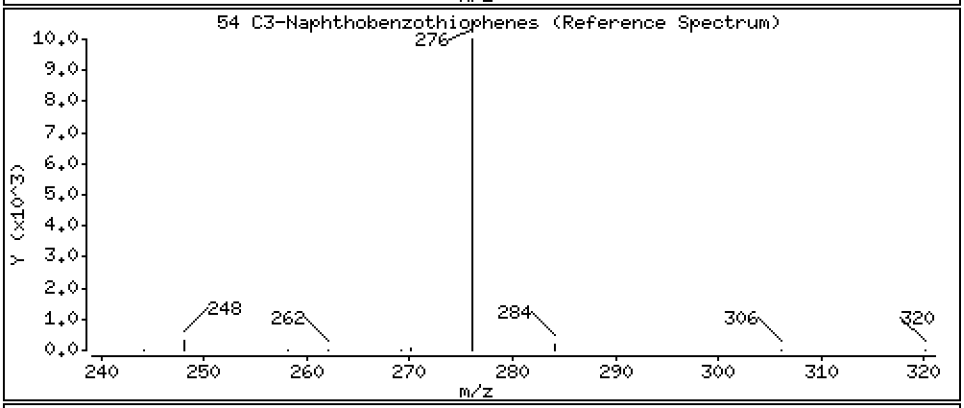
54 C3-Naphthobenzothiophenes

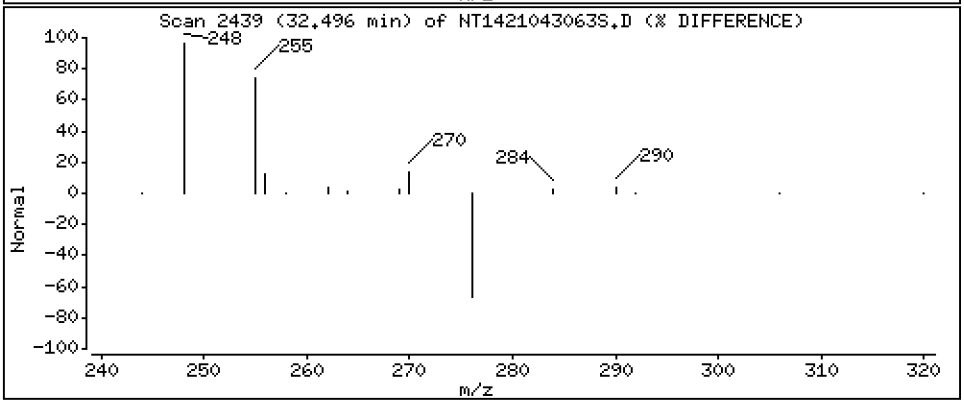
Concentration: 0.3957 ug/mL



Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

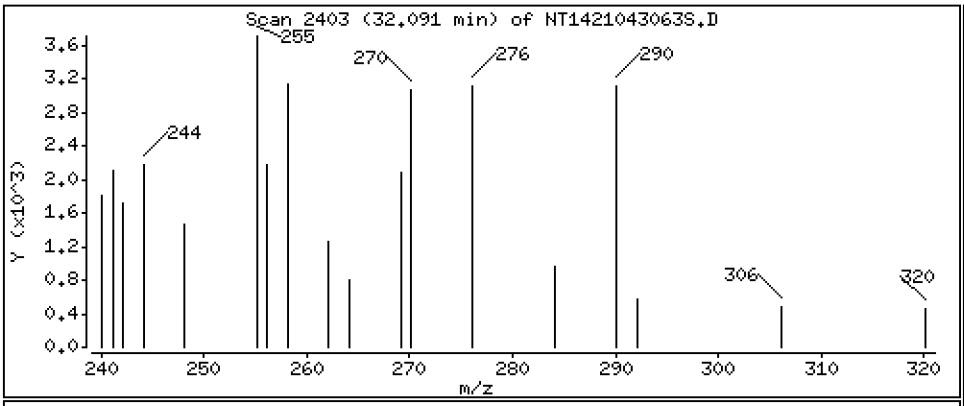
Operator: VTS

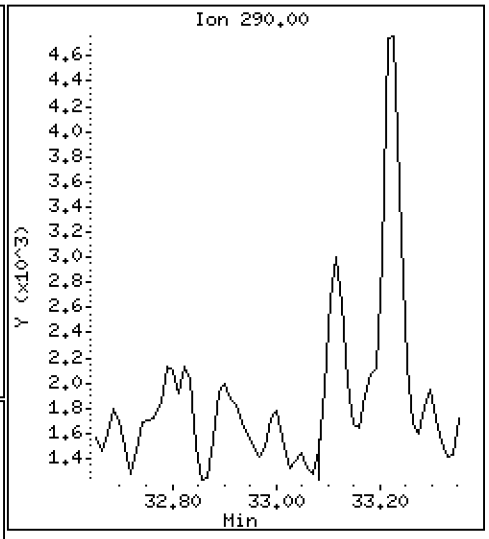
Column phase: Rxi-17Sil MS

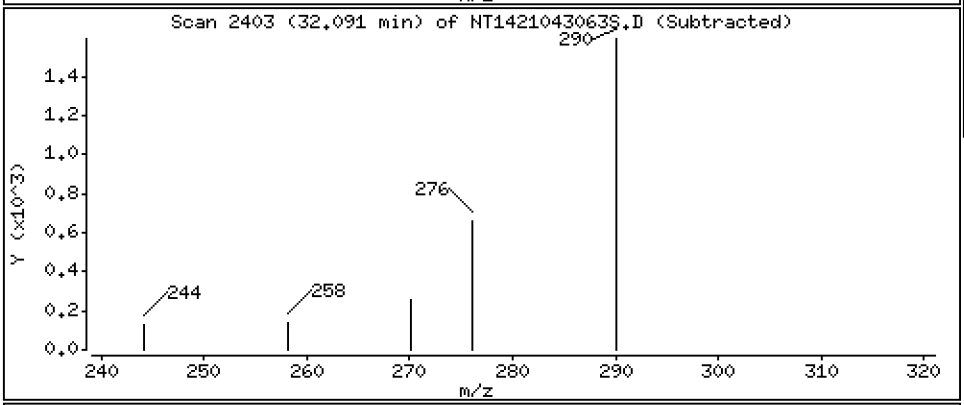
Column diameter: 0.25

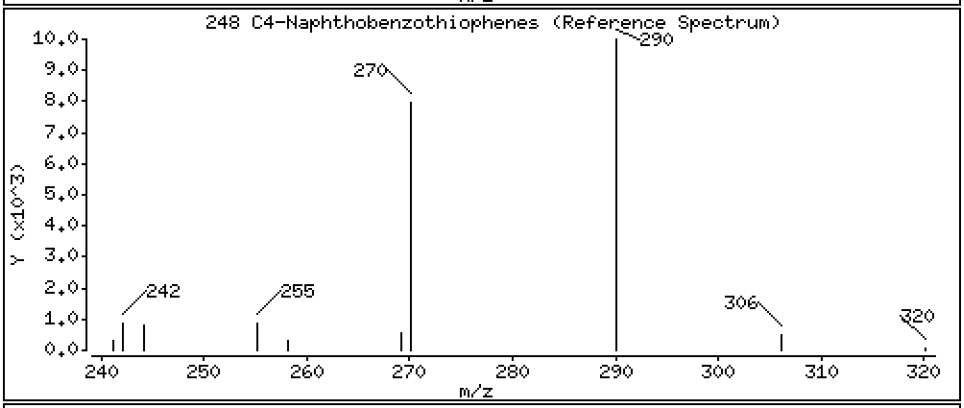
248 C4-Naphthobenzothiophenes

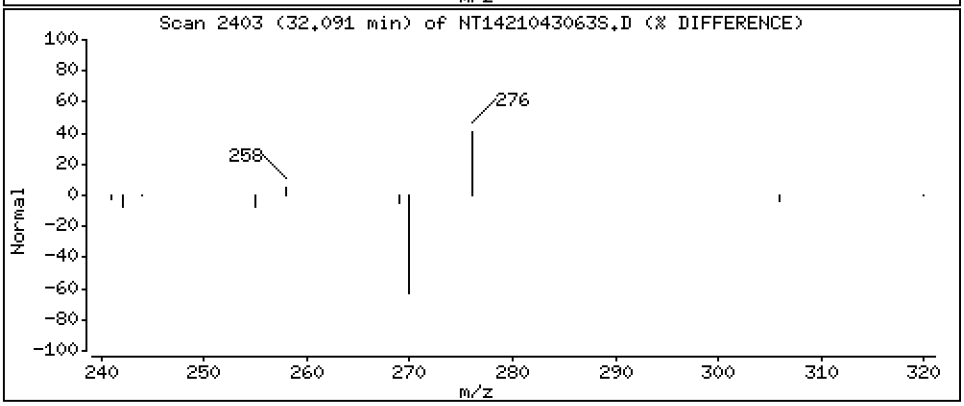
Concentration: 0.1265 ug/mL



Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430 63S.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

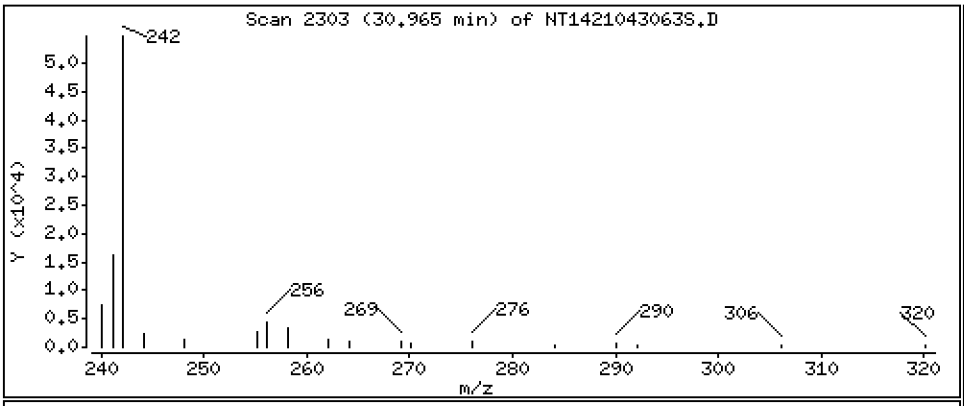
Operator: VTS

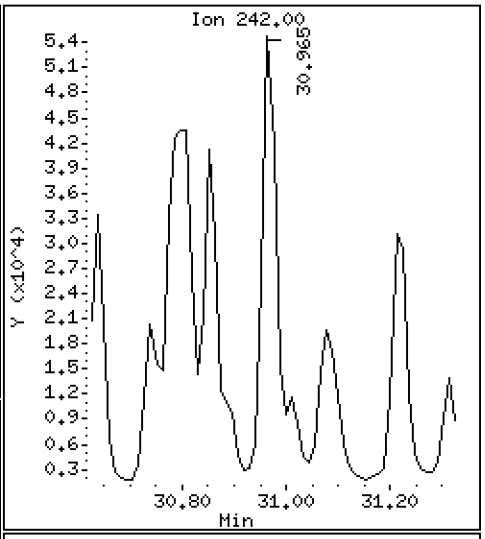
Column phase: Rxi-17Sil MS

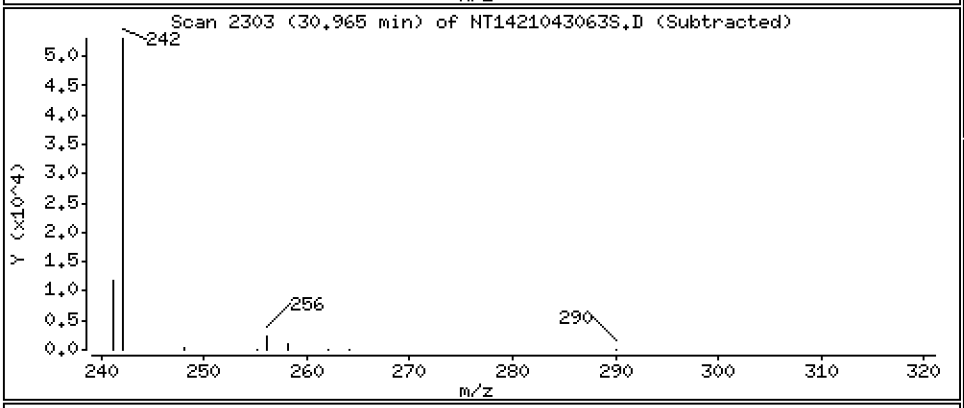
Column diameter: 0.25

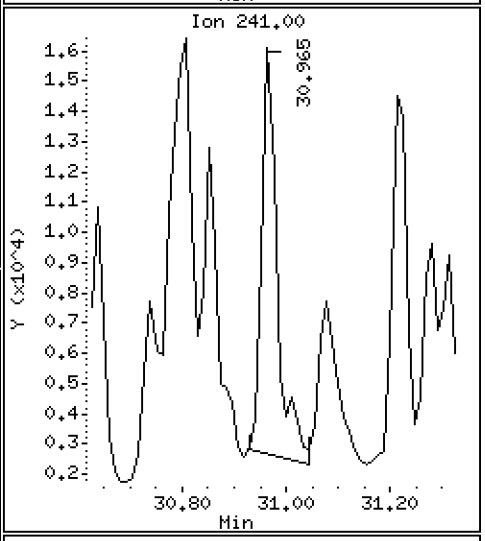
58 C1-Benzo(a)anthracenes/Chrysene

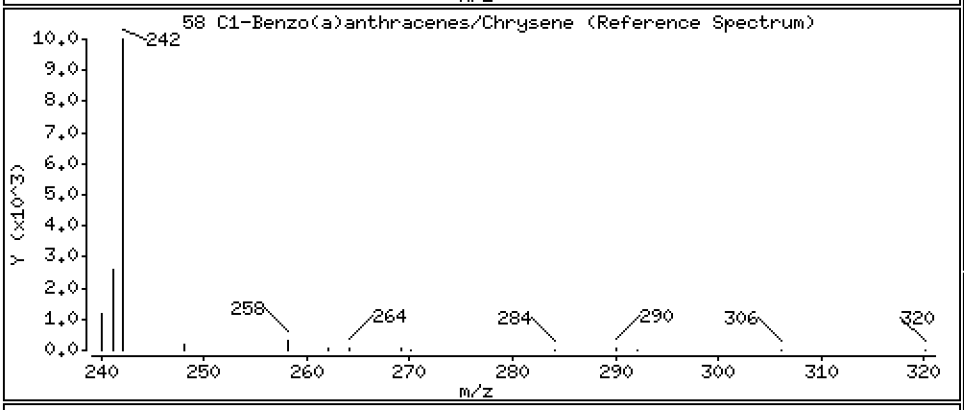
Concentration: 2.244 ug/mL

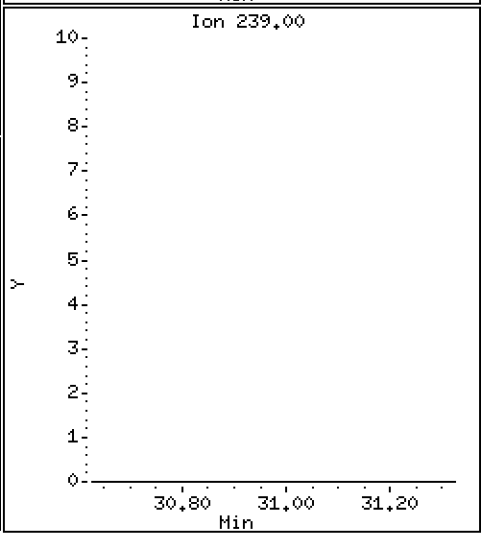


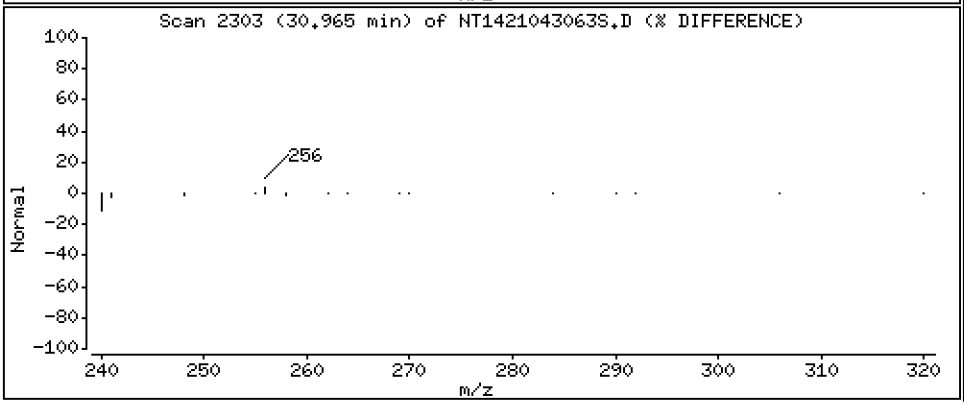



Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT1421043063S.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

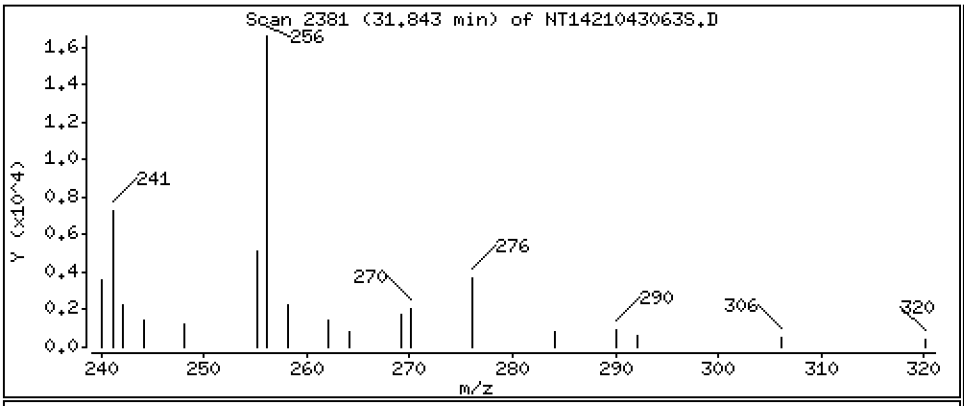
Operator: VTS

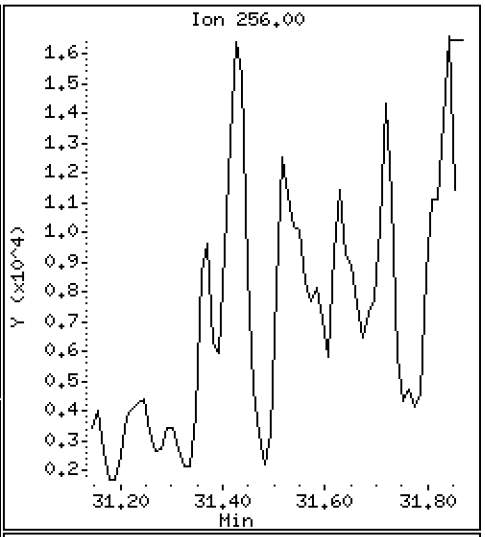
Column phase: Rxi-17Sil MS

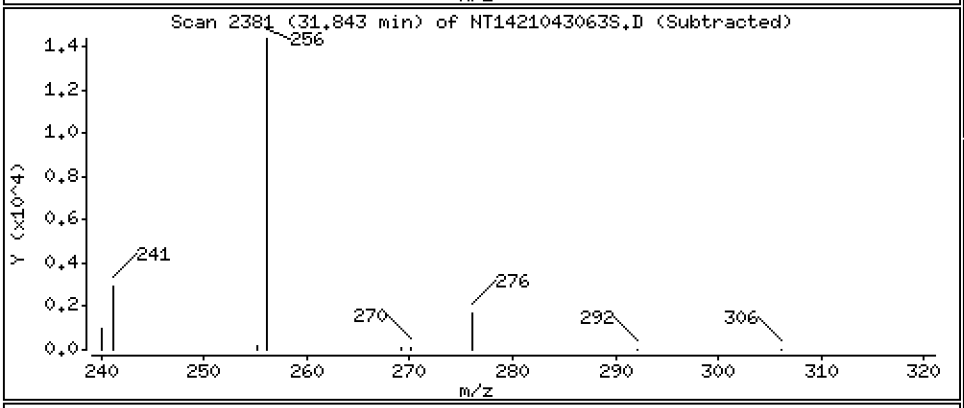
Column diameter: 0.25

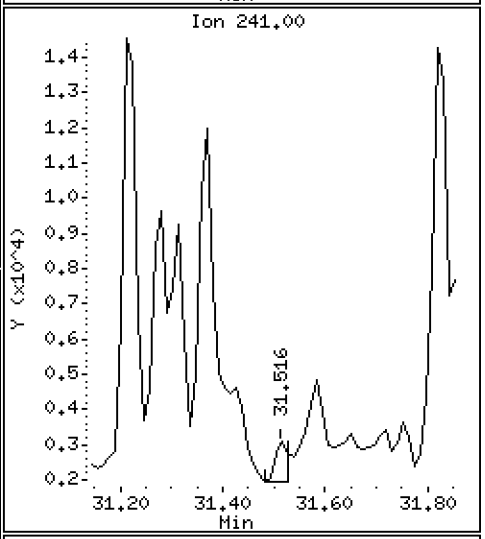
59 C2-Benzo(a)anthracenes/Chrysene

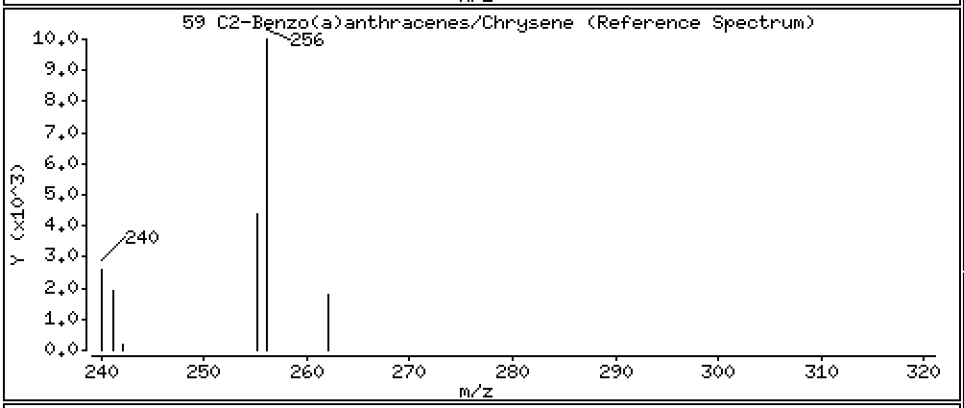
Concentration: 0.8366 ug/mL

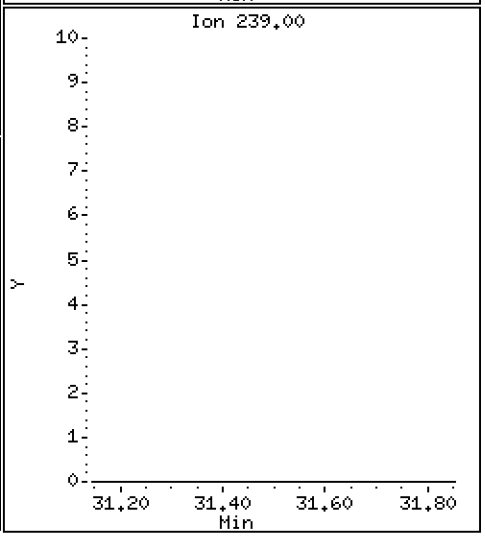


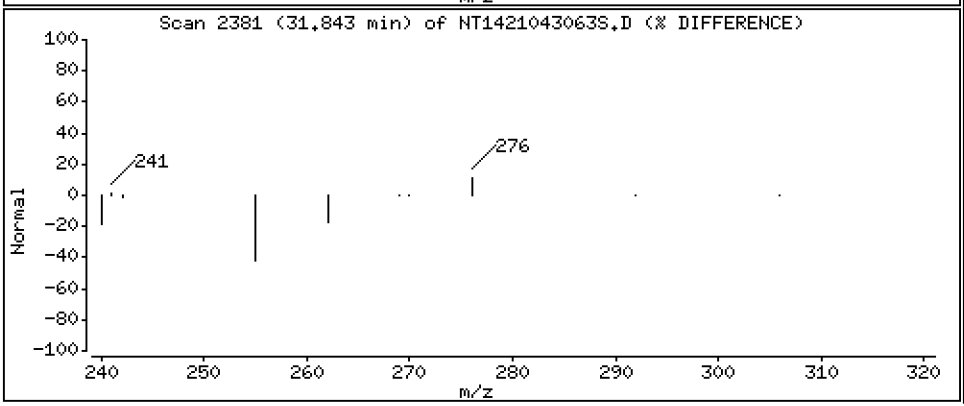



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

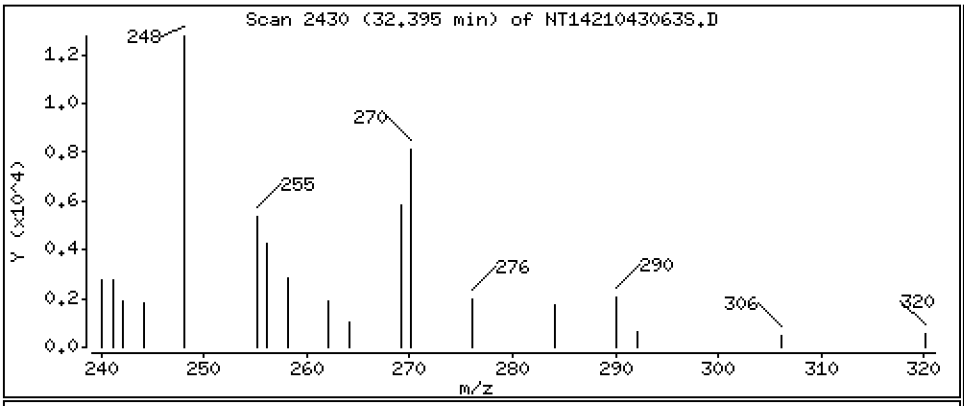
Operator: VTS

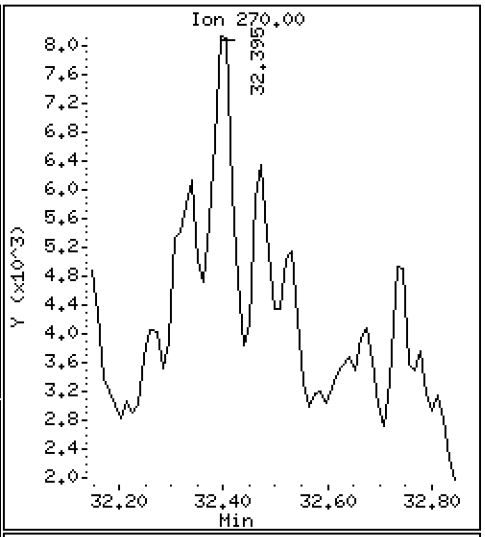
Column phase: Rxi-17Sil MS

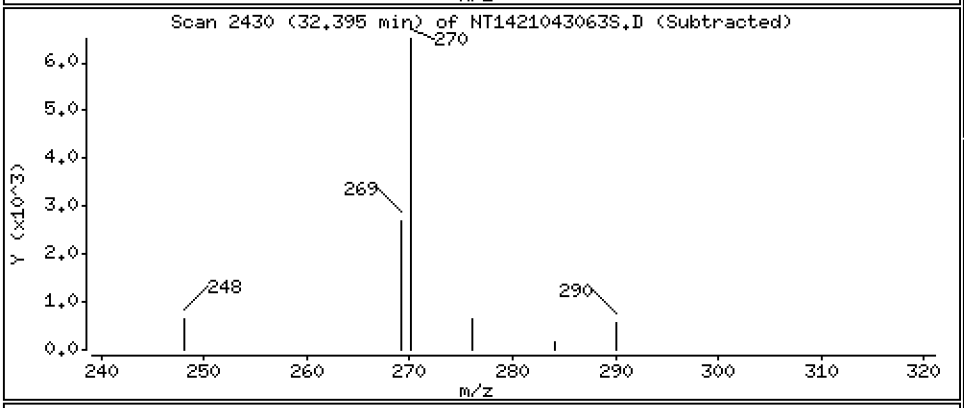
Column diameter: 0.25

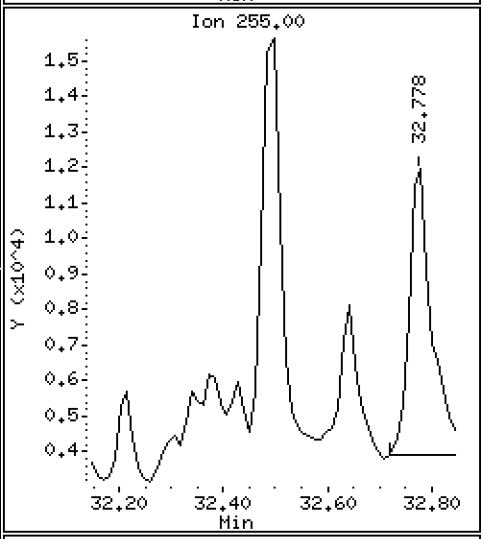
60 C3-Benzo(a)anthracenes/Chrysene

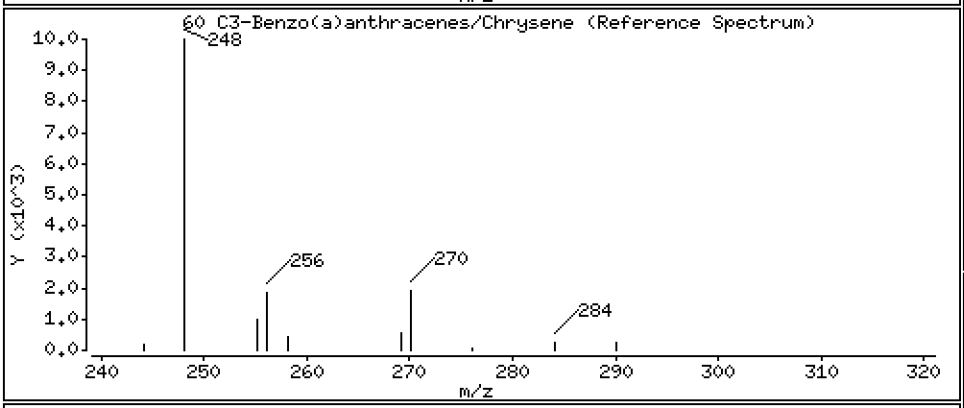
Concentration: 0.6228 ug/mL

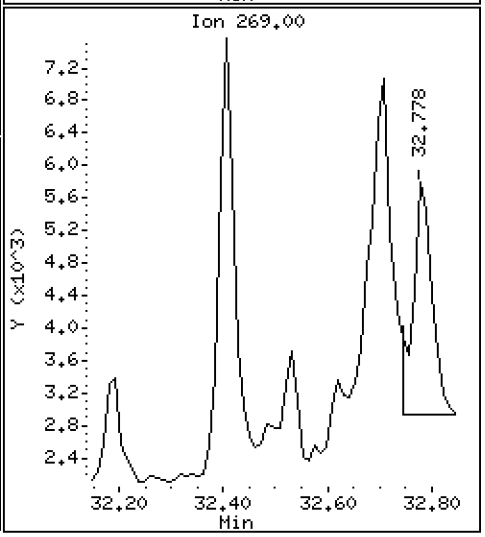


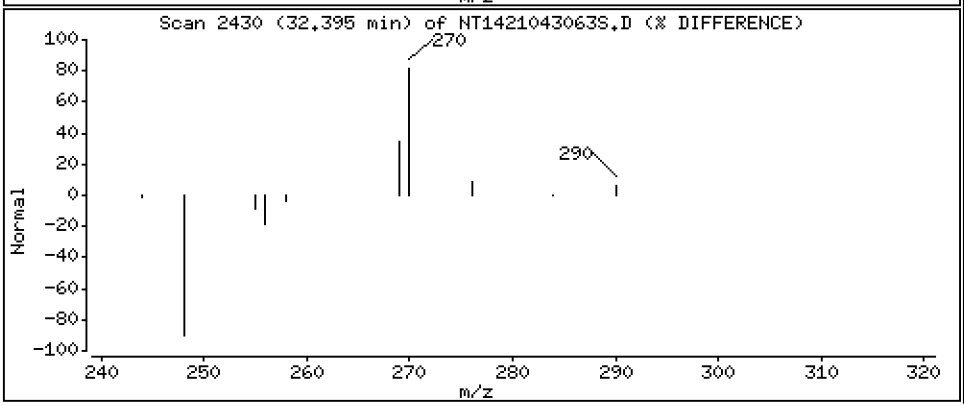



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

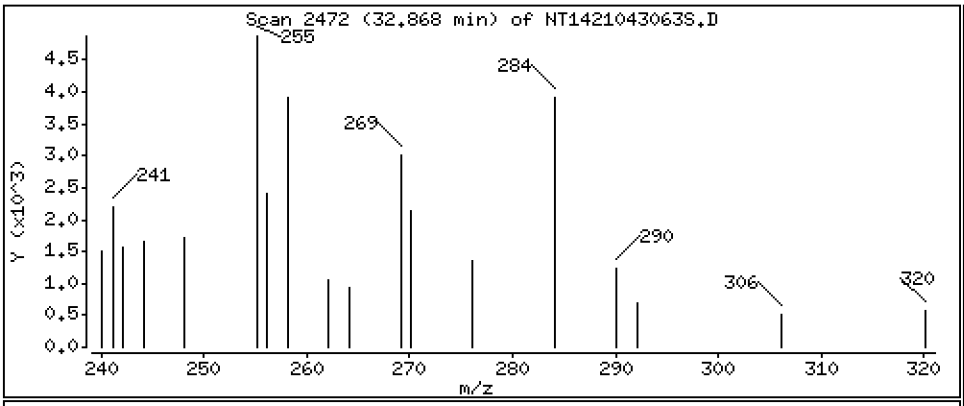
Operator: VTS

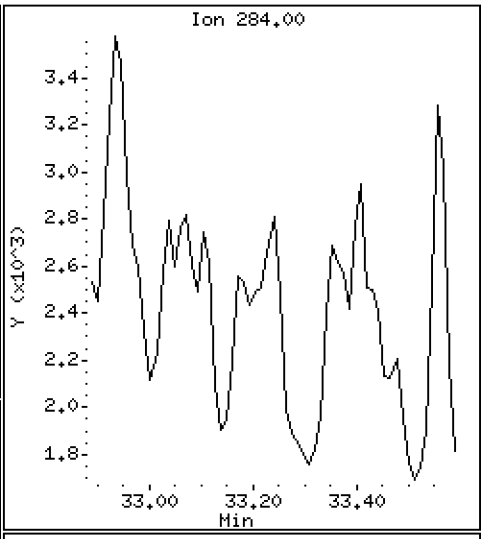
Column phase: Rxi-17Sil MS

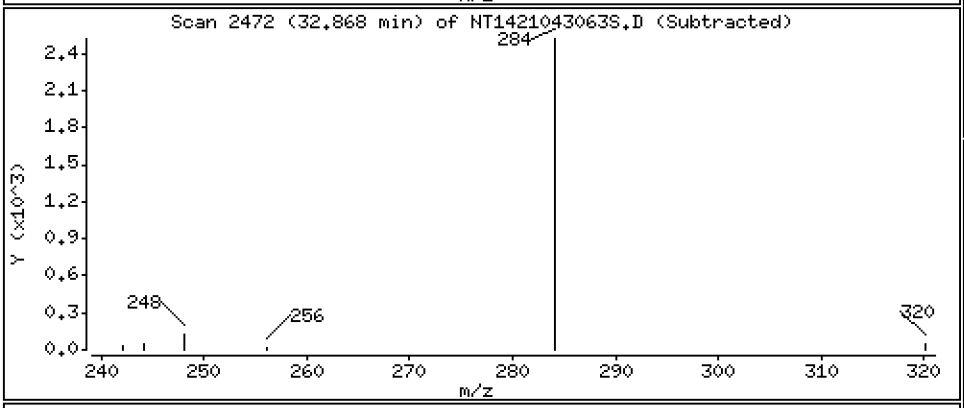
Column diameter: 0.25

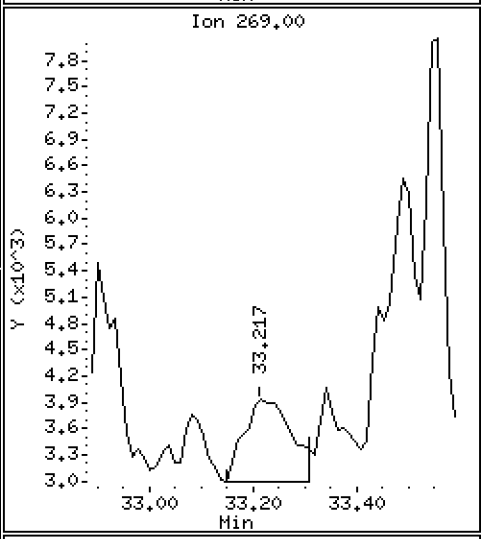
61 C4-Benzo(a)anthracenes/Chrysene

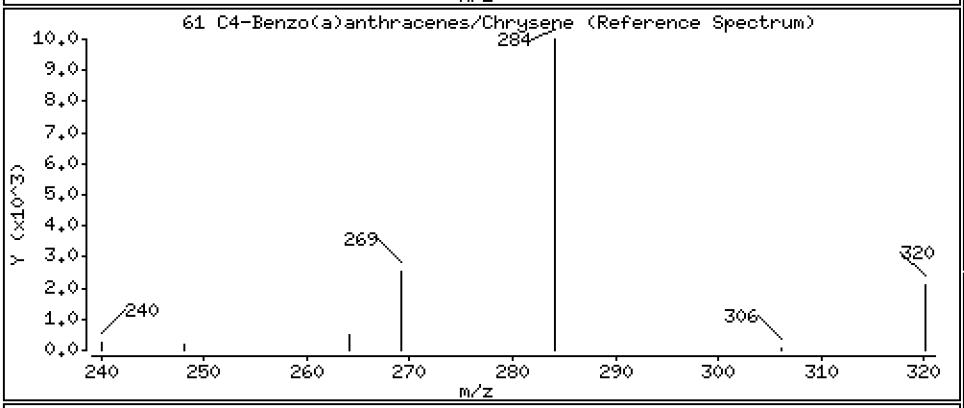
Concentration: 0.2893 ug/mL

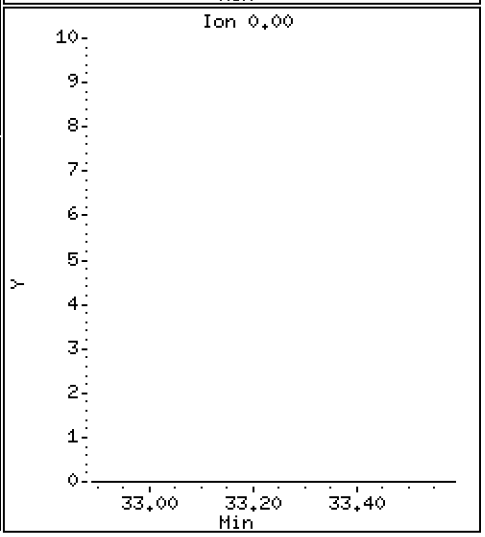


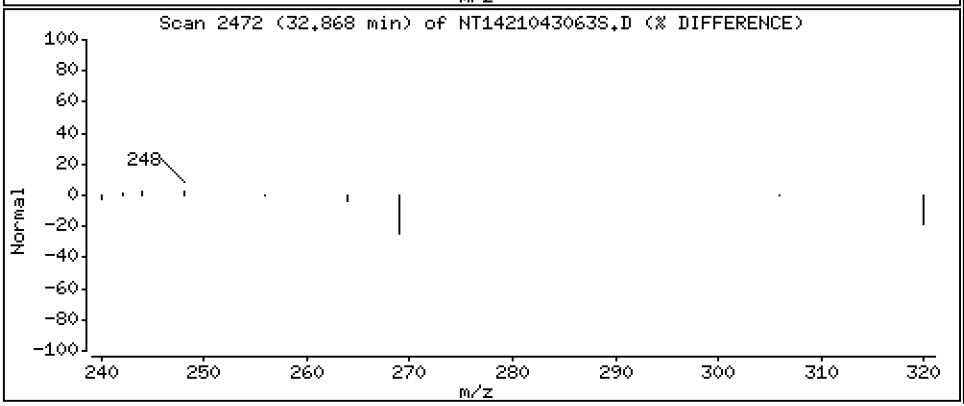



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

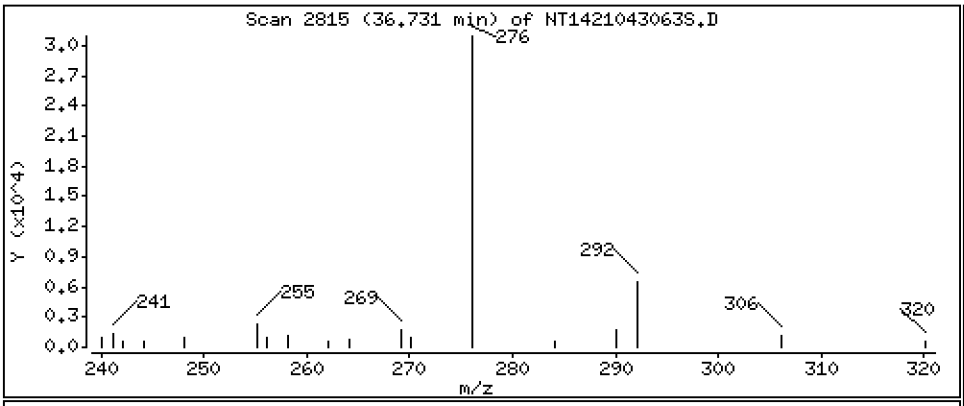
Operator: VTS

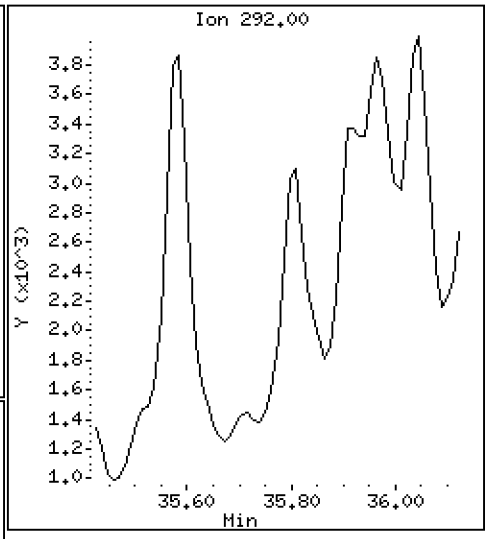
Column phase: Rxi-17Sil MS

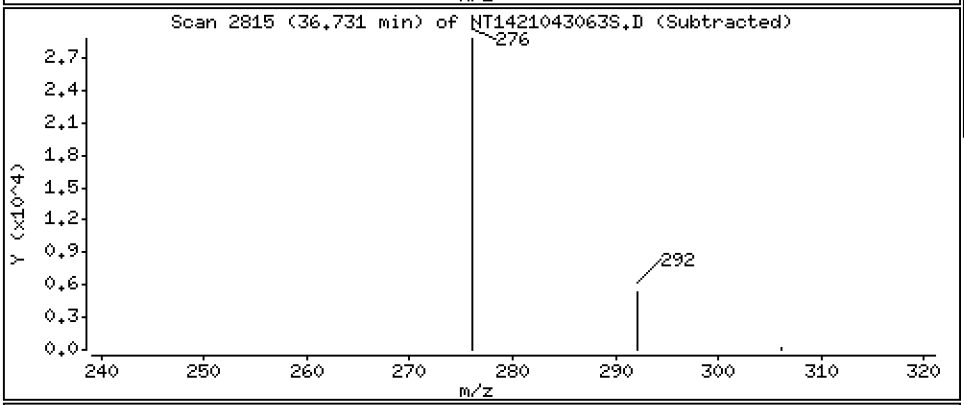
Column diameter: 0.25

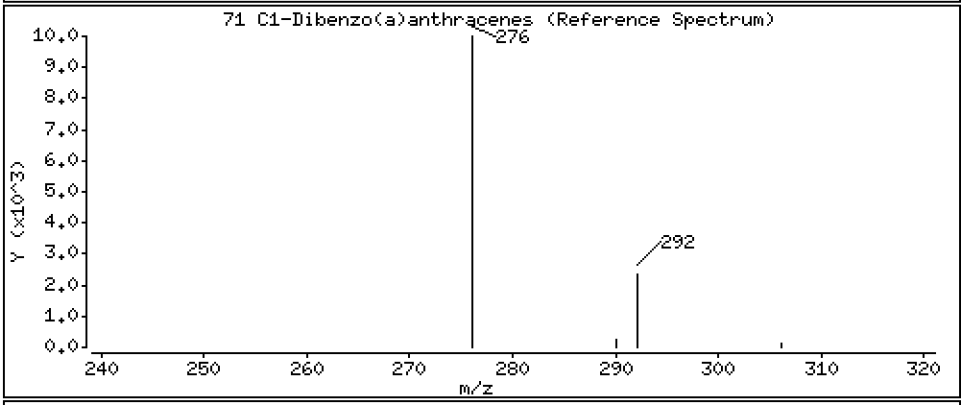
71 C1-Dibenzo(a)anthracenes

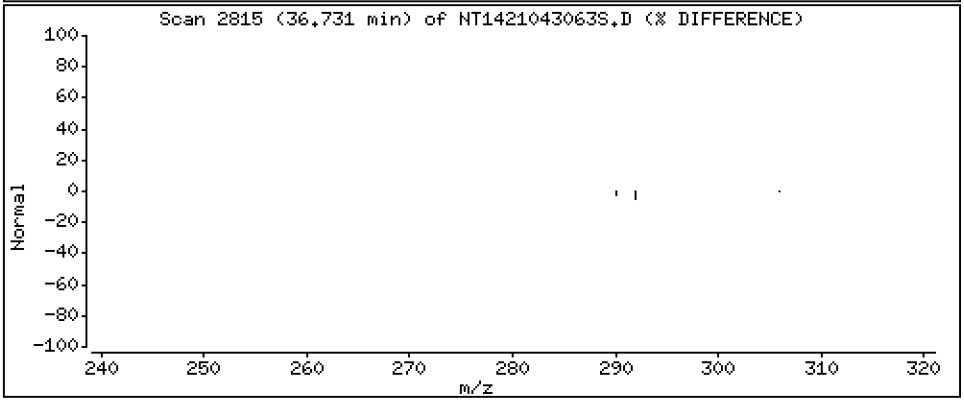
Concentration: 0.5687 ug/mL



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Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

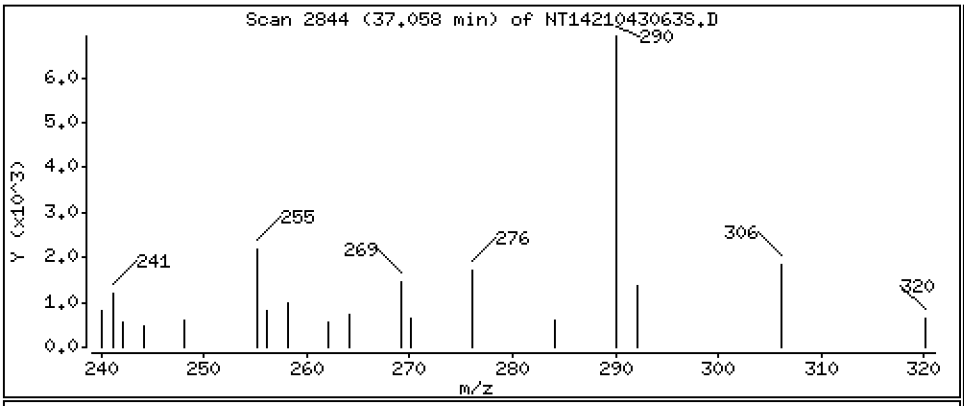
Operator: VTS

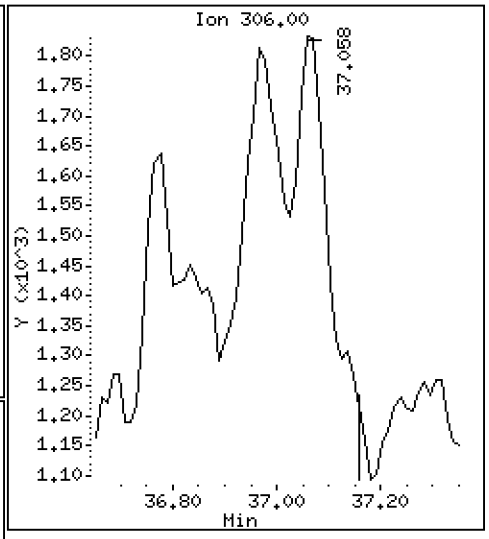
Column phase: Rxi-17Sil MS

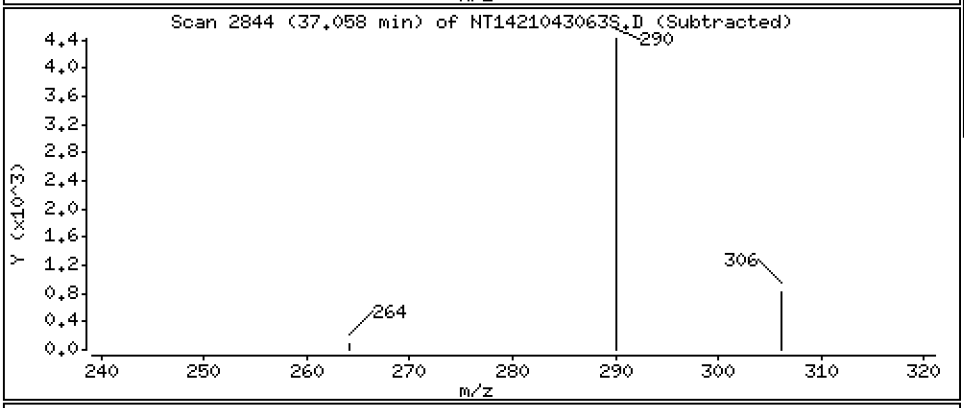
Column diameter: 0.25

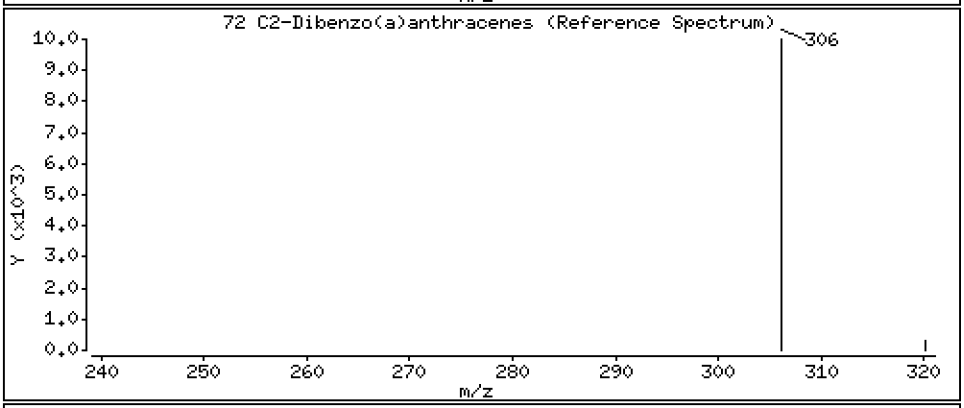
72 C2-Dibenzo(a)anthracenes

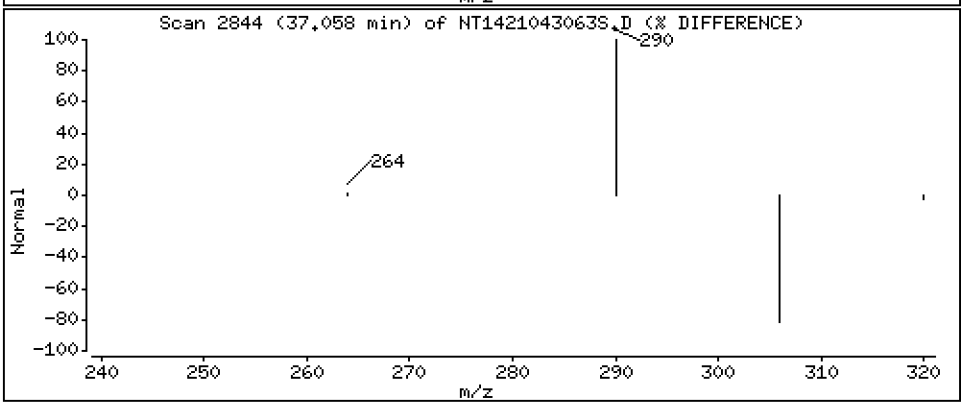
Concentration: 0.05269 ug/mL



Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT1421043063S.D

Date : 02-MAY-2021 09:13

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-01

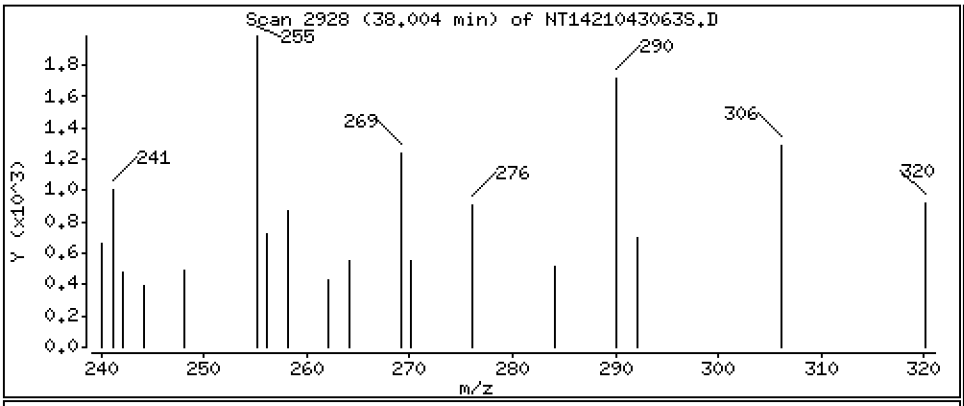
Operator: VTS

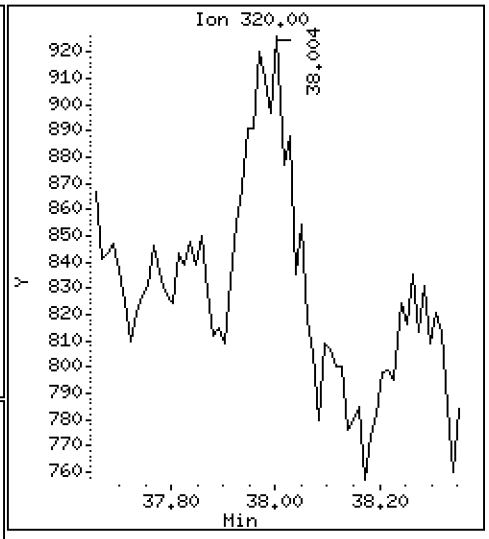
Column phase: Rxi-17Sil MS

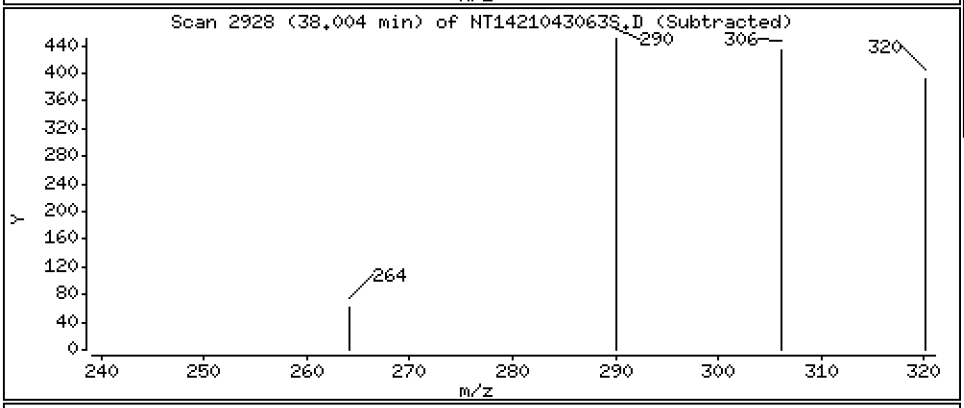
Column diameter: 0.25

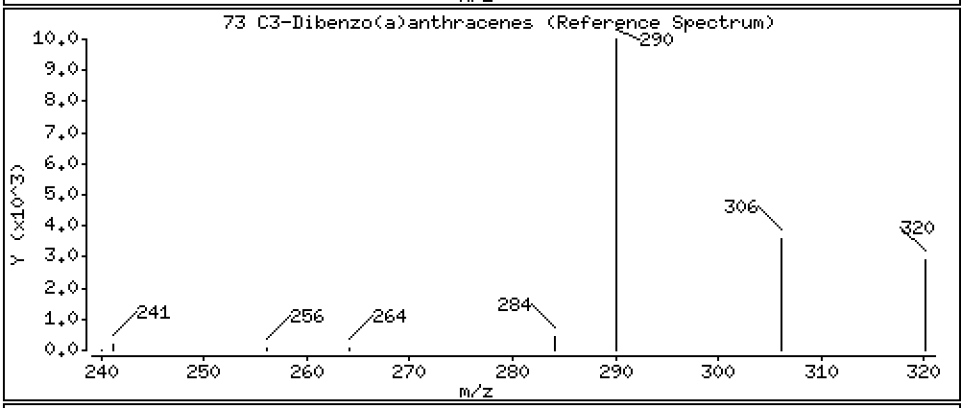
73 C3-Dibenzo(a)anthracenes

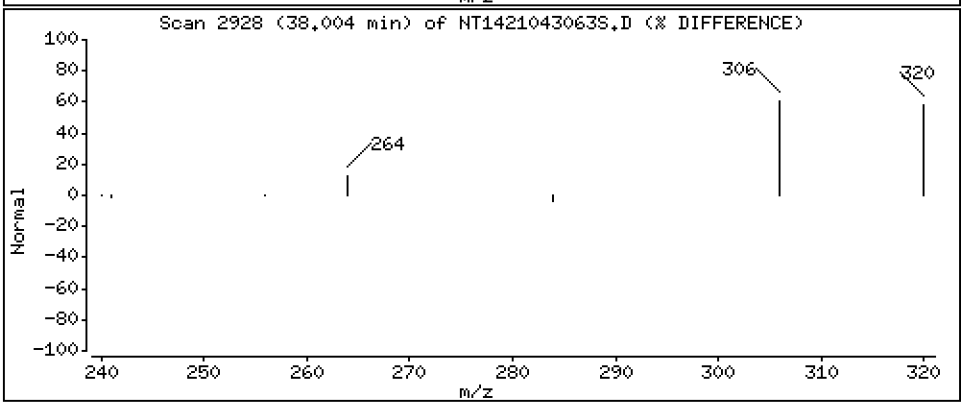
Concentration: 0.08777 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT1421043063S.D
Lab Smp Id: 21D0180-01
Inj Date : 02-MAY-2021 09:13
Operator : VTS Inst ID: nt14.i
Smp Info : 21D0180-01
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\SIM.b\ALKYLRANGES.m
Meth Date : 07-May-2021 11:15 yev Quant Type: ISTD
Cal Date : 01-MAY-2021 01:56 Cal File: NT1421043024S.D
Als bottle: 44
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 | 7.864 | 8.800 | (0.419) | 2050 | 0.06493 | 0.06493(M) |
| 4 | C2-Decalin | 166 | 9.004 | 9.200 | (0.480) | 9550 | 0.30246 | 0.3025(M) |
| 5 | C3-Decalin | 180 | 9.760 | 10.000 | (0.520) | 6795 | 0.21520 | 0.2152(M) |
| 247 | C4-Decalin | 194 | Compound Not Detected. | | | | | |
| 8 | C1-Naphthalenes | 142 | 13.660 | 14.121 | (0.728) | 82906 | 0.23002 | 0.2300(M) |
| 9 | C2-Naphthalenes | 156 | 15.792 | 16.111 | (0.842) | 102675 | 0.28487 | 0.2849(M) |
| 10 | C3-Naphthalenes | 170 | 17.649 | 17.957 | (0.941) | 93790 | 0.26022 | 0.2602(M) |
| 11 | C4-Naphthalenes | 184 | 19.340 | 18.000 | (1.031) | 61381 | 0.17030 | 0.1703(M) |
| 13 | C1-Benzothiophenes | 148 | 13.803 | 14.110 | (0.736) | 14068 | 0.04906 | 0.04906(M) |
| 14 | C2-Benzothiophenes | 162 | 15.275 | 15.660 | (0.814) | 17177 | 0.05990 | 0.05990(M) |
| 15 | C3_Benzothiophenes | 176 | 17.045 | 17.199 | (0.908) | 13849 | 0.04830 | 0.04830(M) |
| 27 | C1-Fluorenes | 180 | 20.406 | 20.735 | (1.088) | 57429 | 0.27222 | 0.2722(M) |
| * 25 | Fluorene-d10 | 176 | 18.762 | 18.774 | (1.000) | 614005 | 2.00000 | |
| 28 | C2-Fluorenes | 194 | 21.974 | 22.000 | (1.171) | 60370 | 0.28616 | 0.2862(M) |
| 29 | C3-Fluorenes | 208 | 23.282 | 23.172 | (1.241) | 61182 | 0.29001 | 0.2900(M) |
| 31 | C1-Dibenzothiophenes | 198 | 22.919 | 23.500 | (1.222) | 67904 | 0.25498 | 0.2550(M) |
| 32 | C2-Dibenzothiophenes | 212 | 24.326 | 24.535 | (1.297) | 84929 | 0.31891 | 0.3189(M) |
| 33 | C3-Dibenzothiophenes | 226 | 25.228 | 25.600 | (1.345) | 70517 | 0.26479 | 0.2648(M) |
| 34 | C4-Dibenzothiophenes | 240 | Compound Not Detected. | | | | | |
| 38 | C1-Phenanthrenes/Anthracenes | 192 | 23.568 | 23.500 | (1.061) | 417758 | 1.34370 | 1.344(M) |
| * 250 | Anthracene-d10 | 188 | 22.205 | 22.216 | (1.000) | 559042 | 2.00000 | |
| 39 | C2-Phenanthrenes/Anthracenes | 206 | 25.338 | 25.107 | (1.141) | 384402 | 1.23641 | 1.236(M) |
| 40 | C3-Phenanthrenes/Anthracenes | 220 | 26.779 | 26.856 | (1.206) | 278865 | 0.89696 | 0.8970(M) |
| 41 | C4-Phenanthrenes/Anthracenes | 234 | 27.744 | 27.500 | (1.249) | 72204 | 0.23224 | 0.2322(M) |
| 48 | C1-Fluoranthenes/Pyrenes | 216 | 27.623 | 27.624 | (1.244) | 841455 | 2.80921 | 2.809(M) |
| 49 | C2-Fluoranthenes/Pyrenes | 230 | 29.223 | 28.800 | (1.316) | 569320 | 1.90068 | 1.901(M) |
| 50 | C3-Fluoranthenes/Pyrenes | 244 | 30.007 | 29.995 | (1.351) | 222611 | 0.74319 | 0.7432(M) |
| 249 | C4-Fluoranthenes/Pyrenes | 258 | 32.901 | 33.037 | (1.482) | 133779 | 0.44662 | 0.4466(M) |
| 52 | C1-Naphthobenzothiophenes | 248 | 30.052 | 30.000 | (1.353) | 160285 | 0.52990 | 0.5299(M) |
| 53 | C2-Naphthobenzothiophenes | 262 | 31.144 | 31.000 | (1.403) | 138820 | 0.45894 | 0.4589(M) |
| 54 | C3-Naphthobenzothiophenes | 276 | 32.496 | 32.000 | (1.463) | 119687 | 0.39569 | 0.3957(M) |
| 248 | C4-Naphthobenzothiophenes | 290 | 32.090 | 33.000 | (1.445) | 38254 | 0.12647 | 0.1265(M) |
| 58 | C1-Benzo(a)anthracenes/Chrysen | 242 | 30.964 | 30.975 | (0.937) | 785382 | 2.24366 | 2.244(M) |

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

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 01-MAY-2021
Lab File ID: NT1421043063S.D Calibration Time: 01:56
Lab Smp Id: 21D0180-01
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\ALKYLRANGES.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

# Quant Ion Manual Peak Adjustment Report

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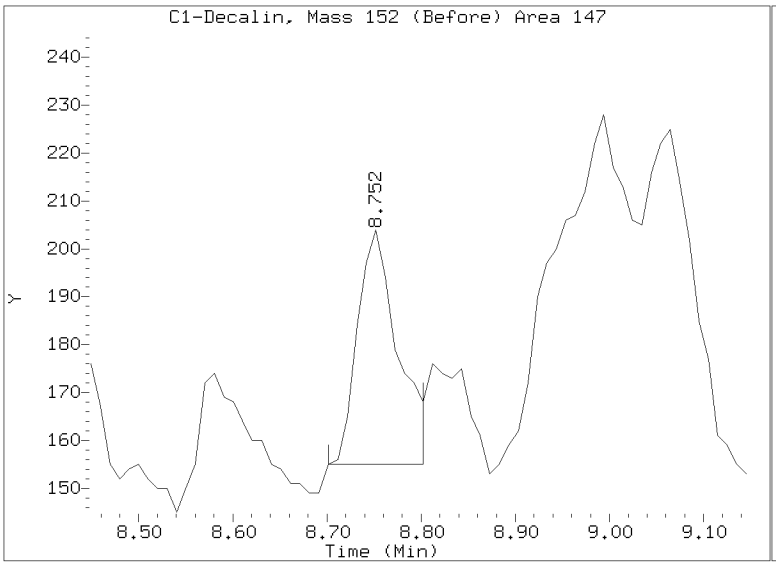
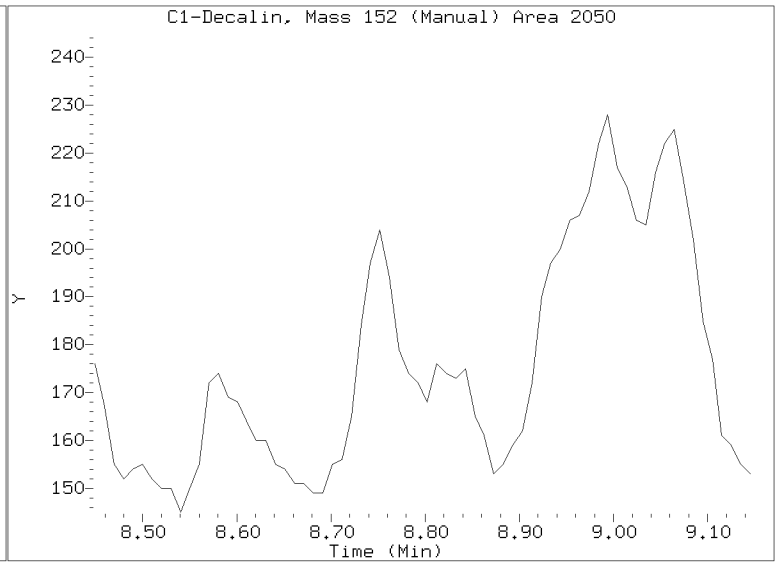
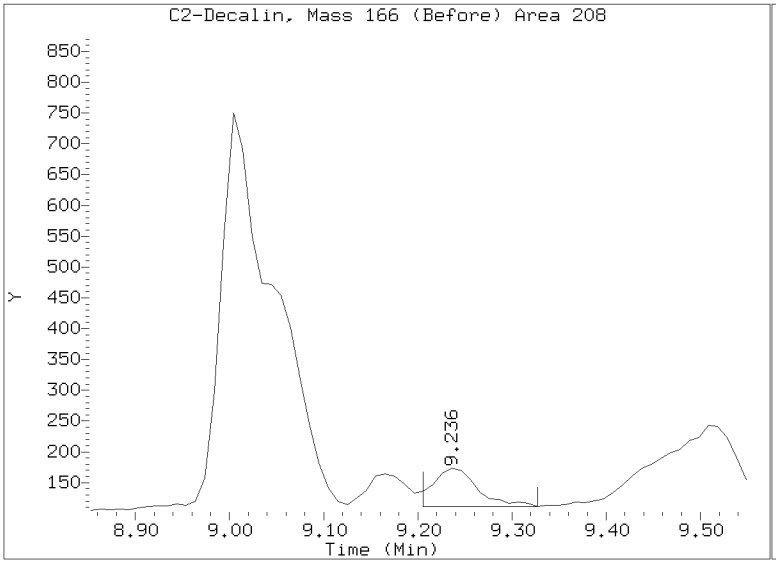
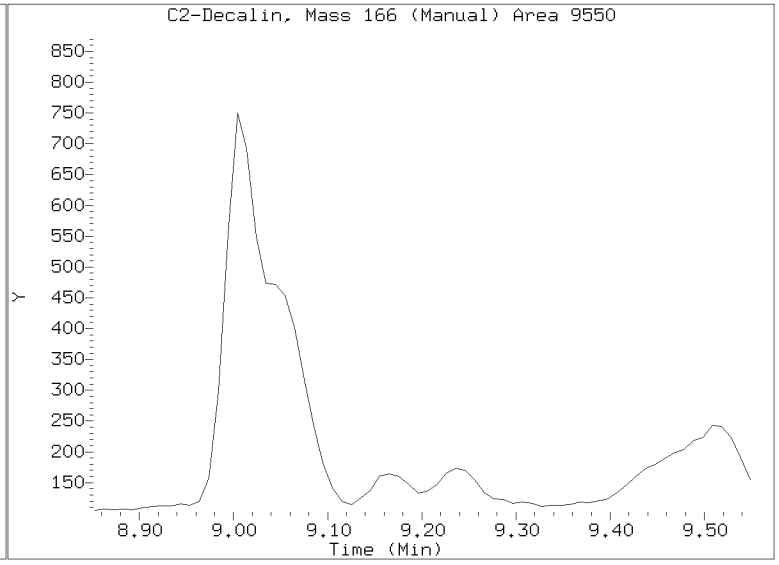
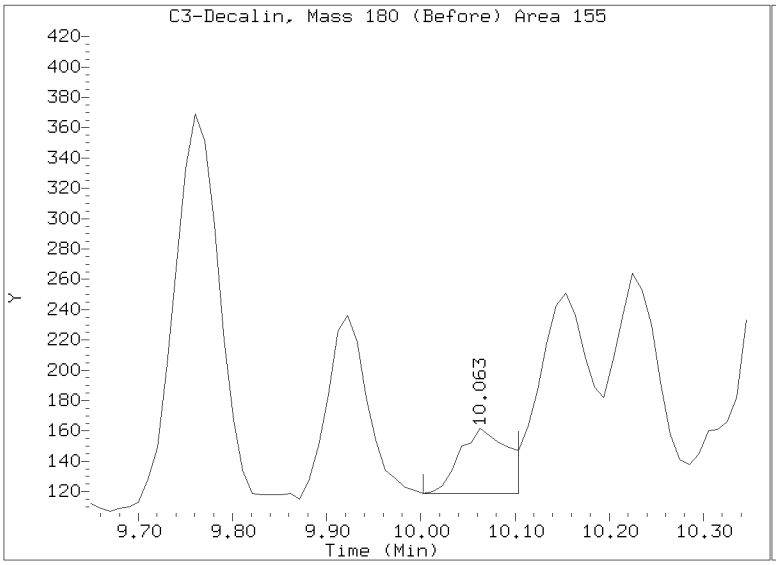
Injection Date: 02-MAY-2021 09:13
Lab ID:21D0180-01 Client ID:
Report Date: 05/07/2021 15:37

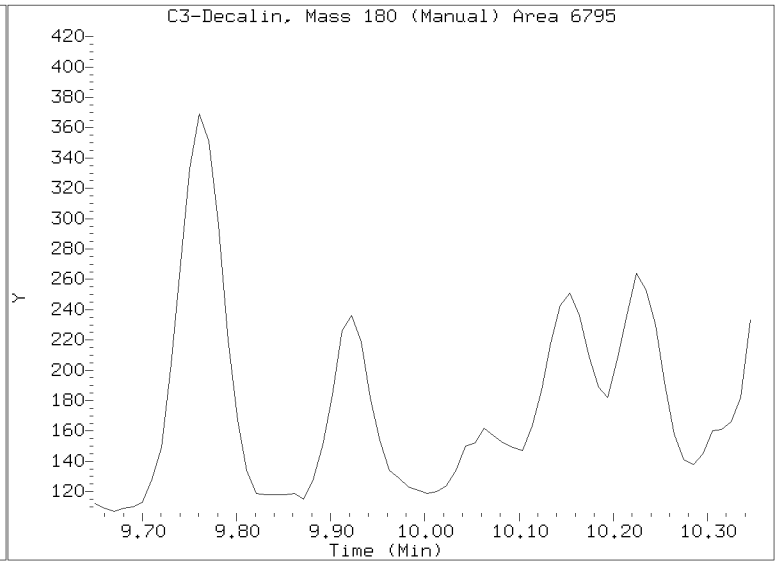


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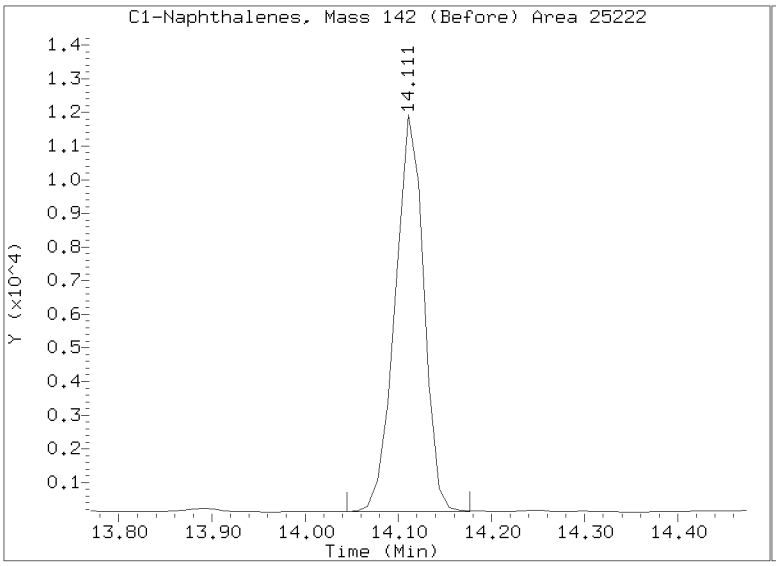


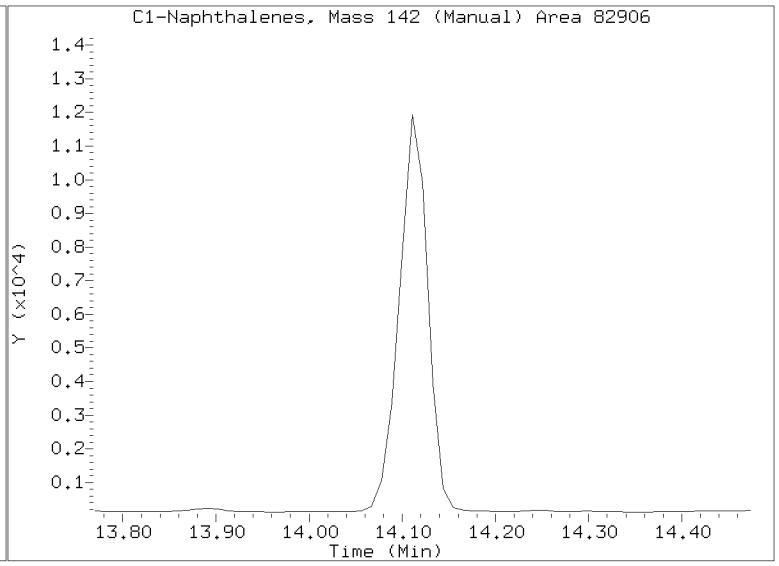


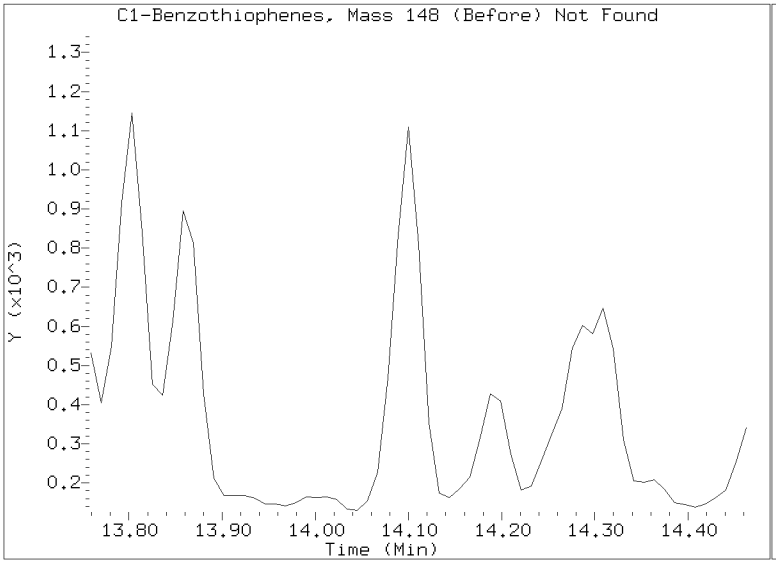


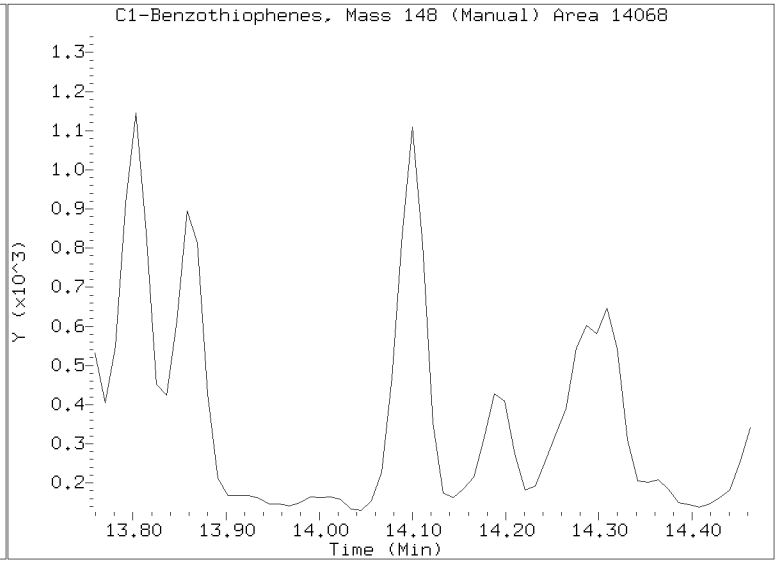


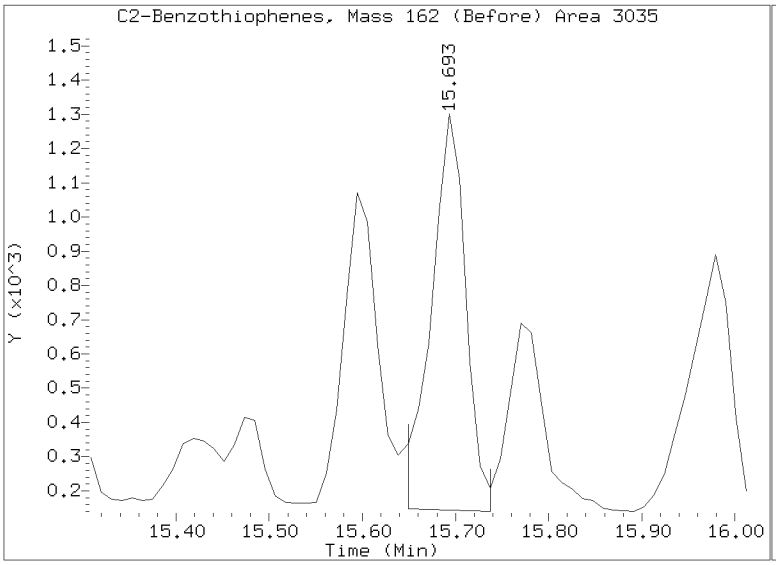


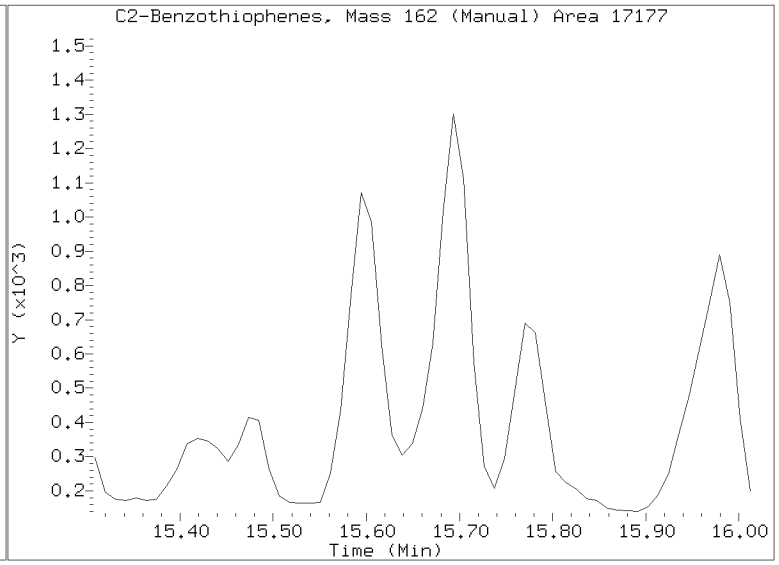

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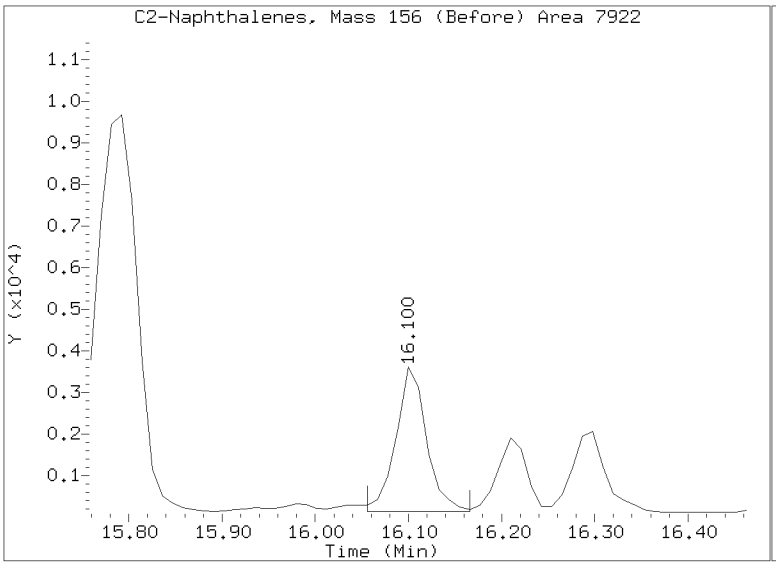


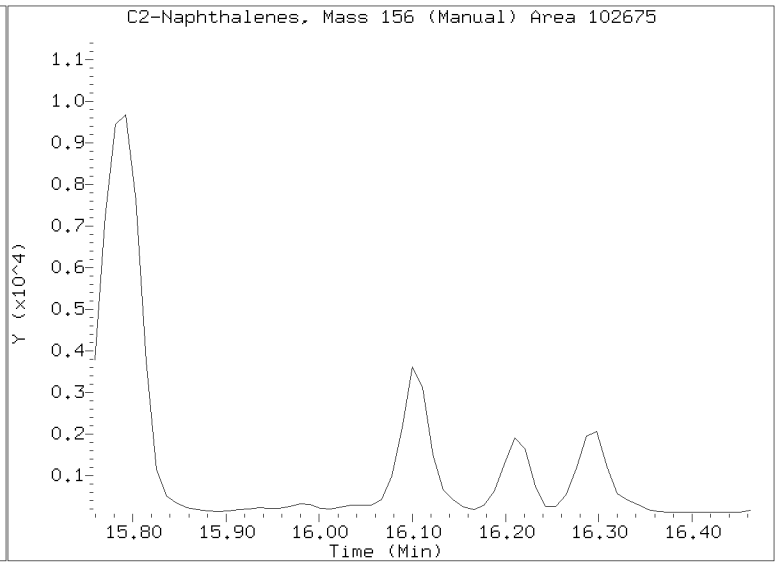


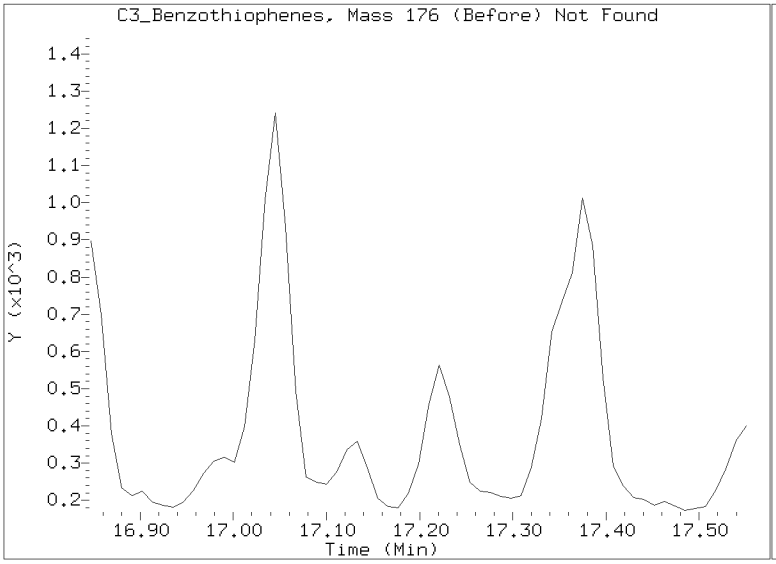


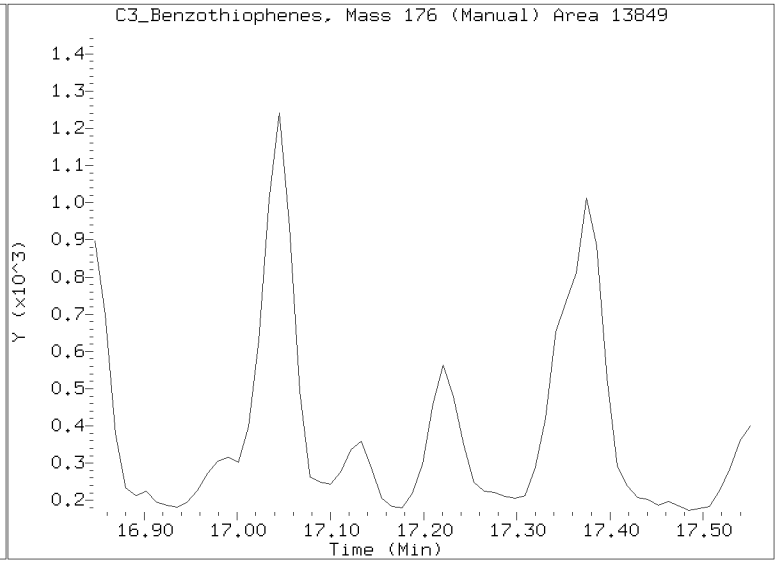


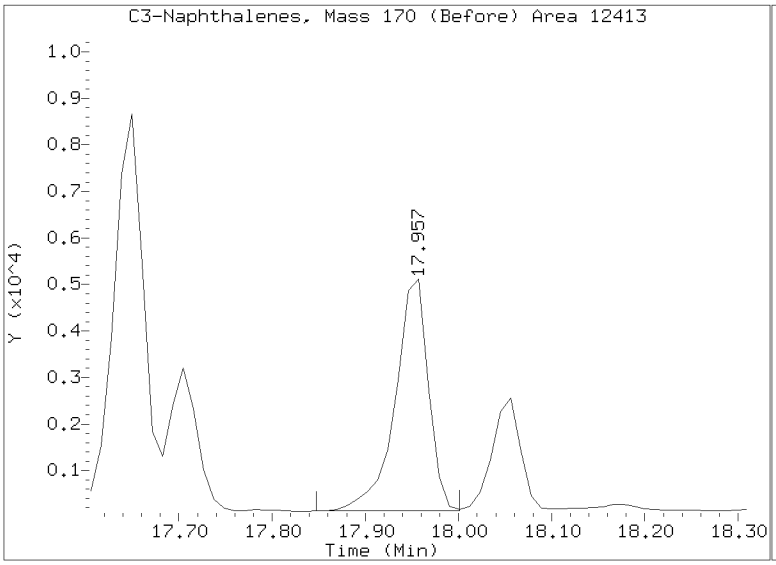


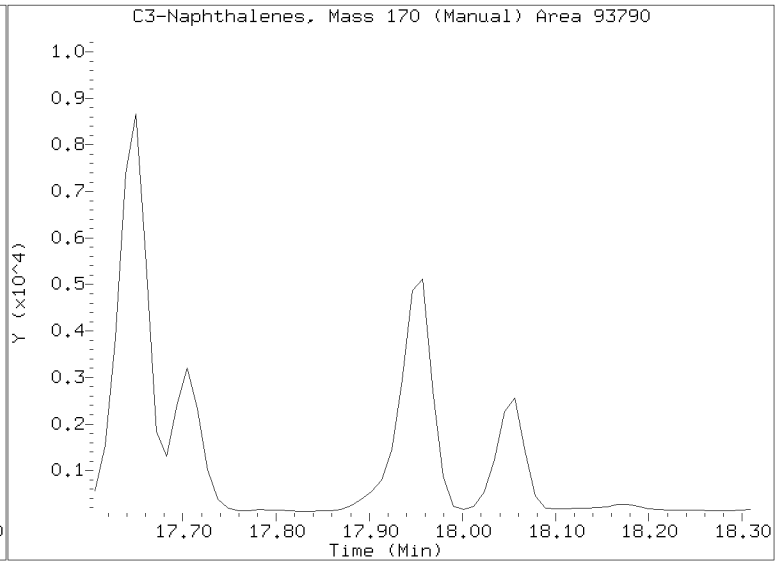

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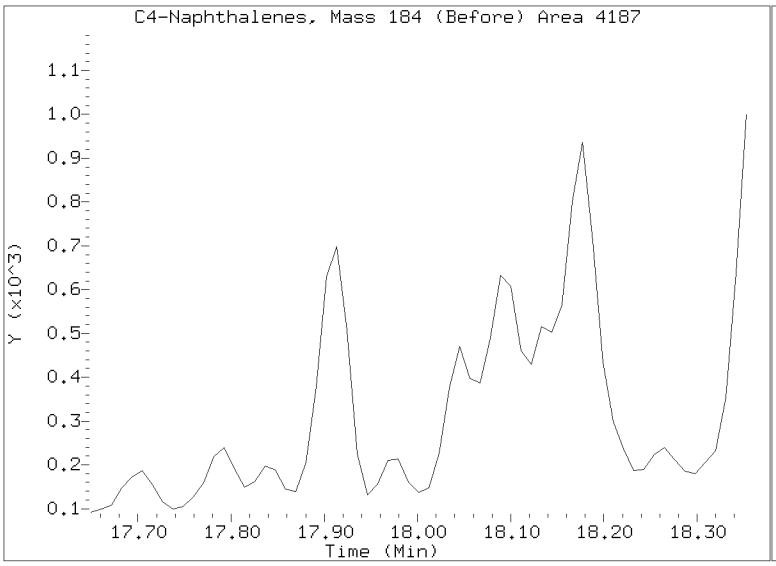


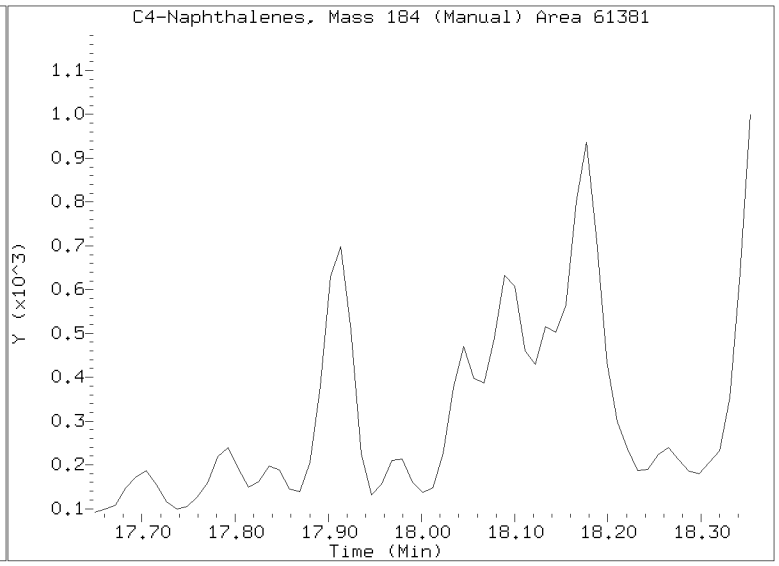


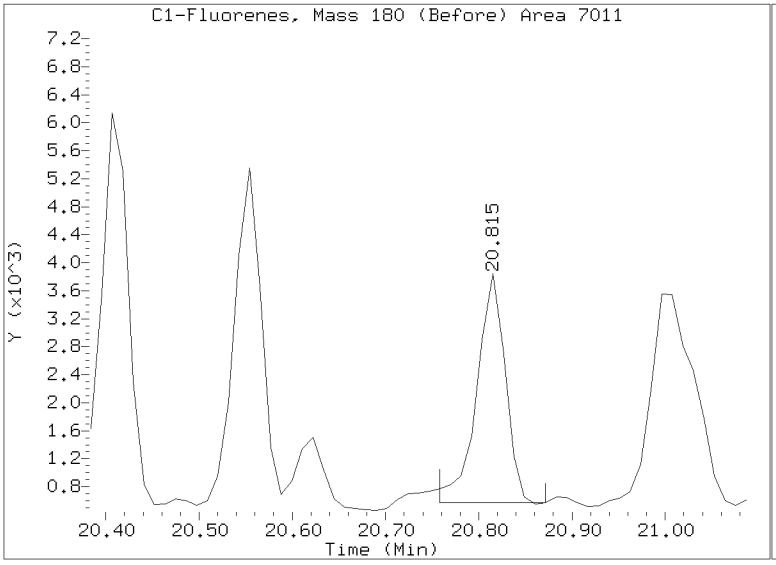


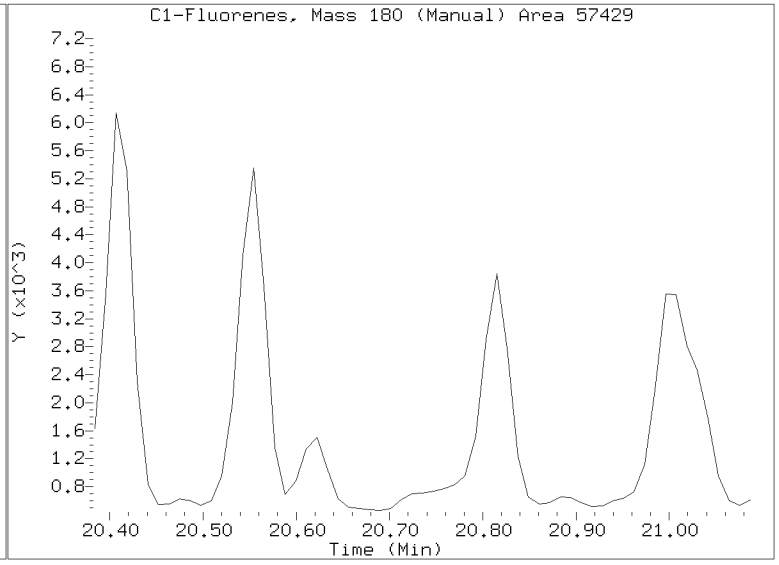


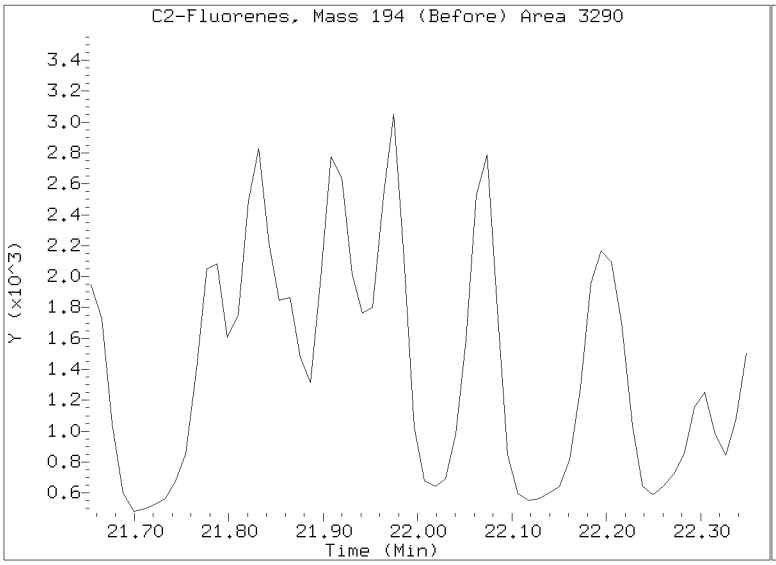


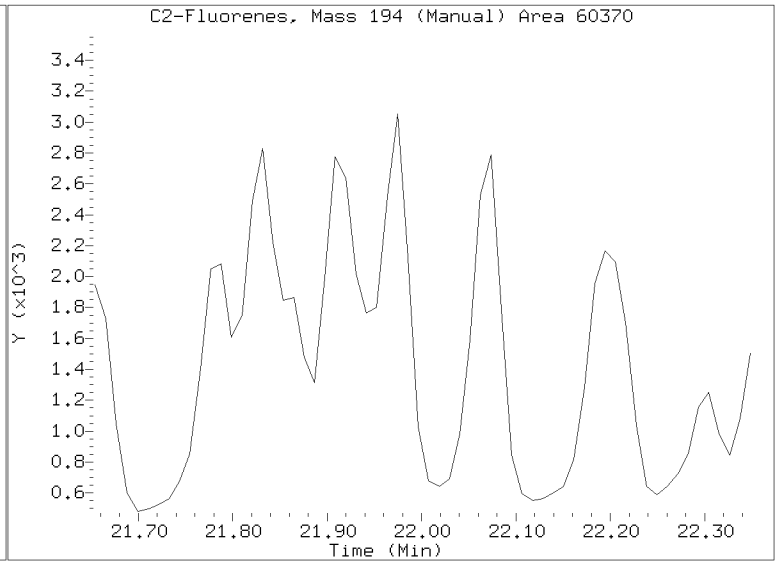

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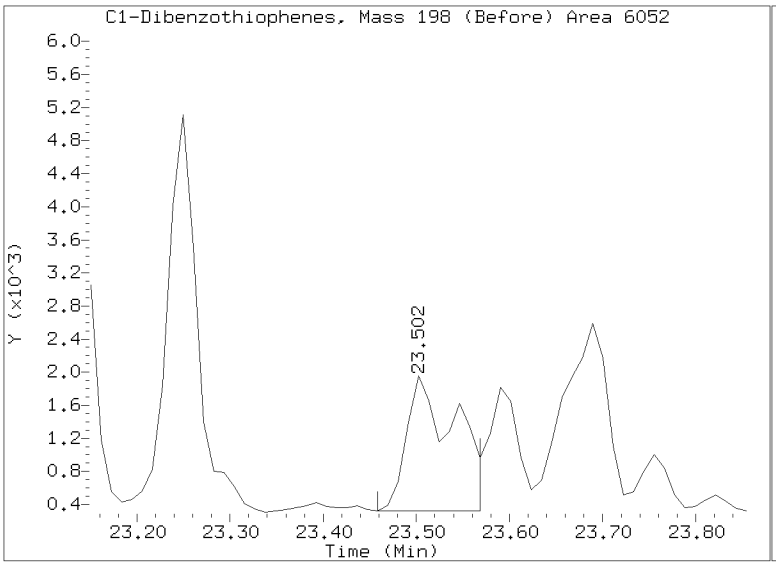


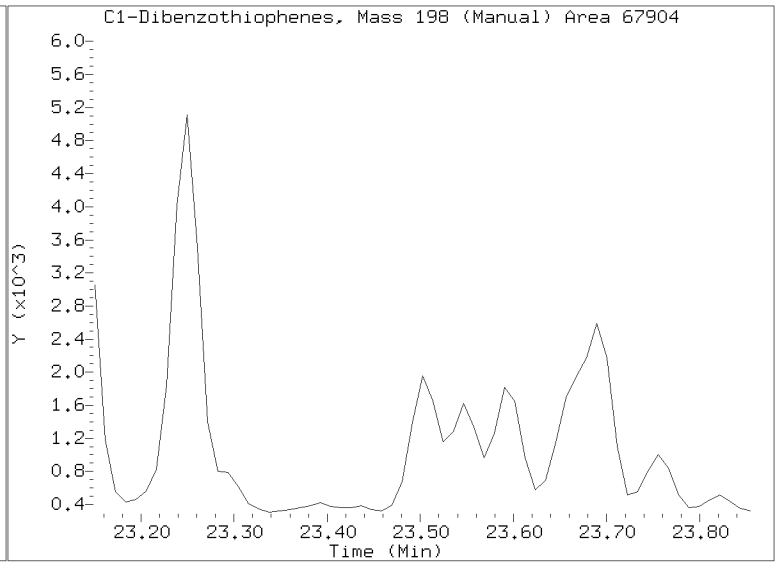


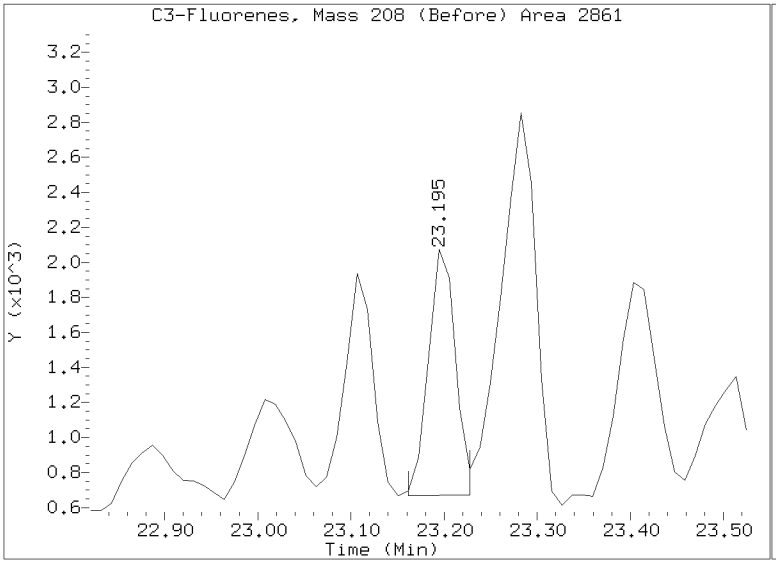


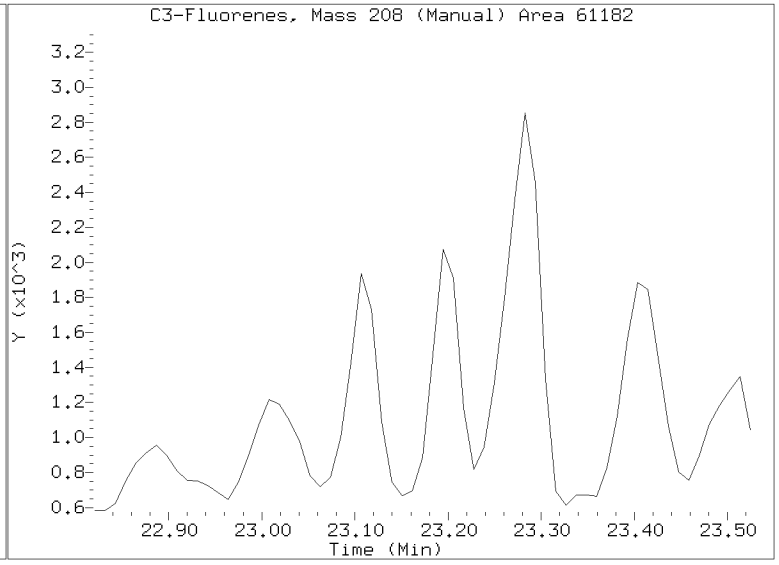


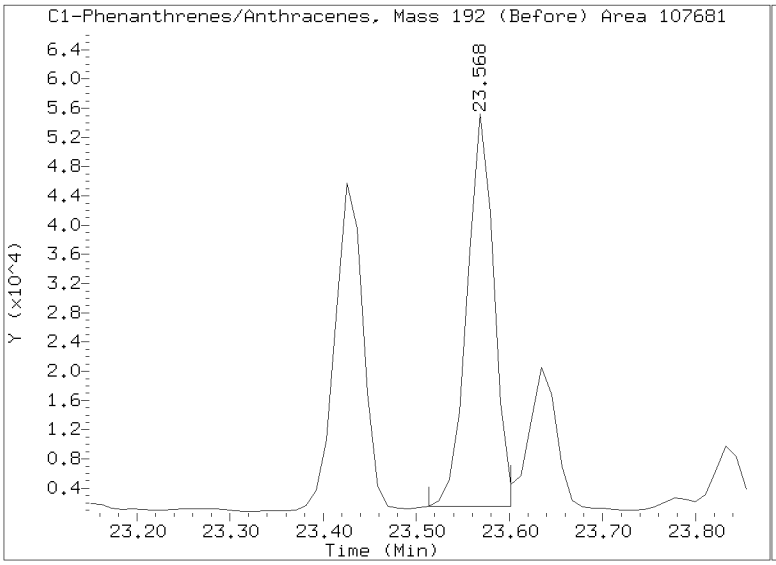


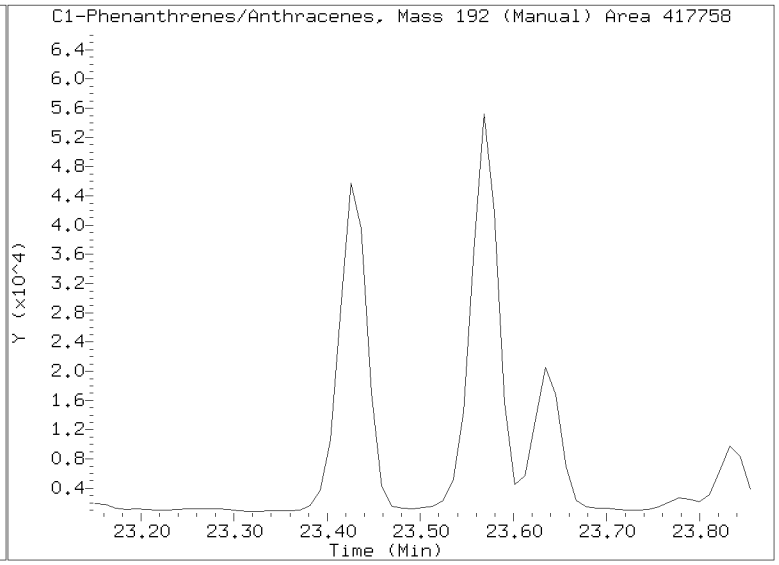

# Quant Ion Manual Peak Adjustment Report

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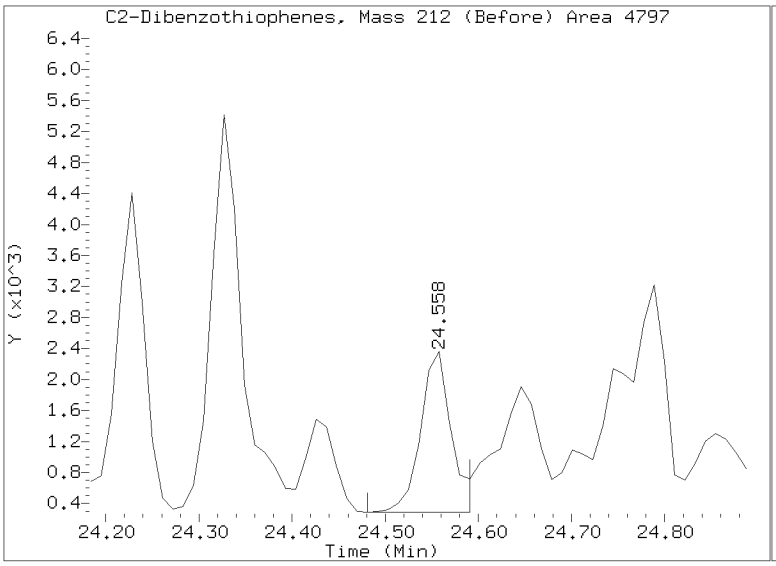


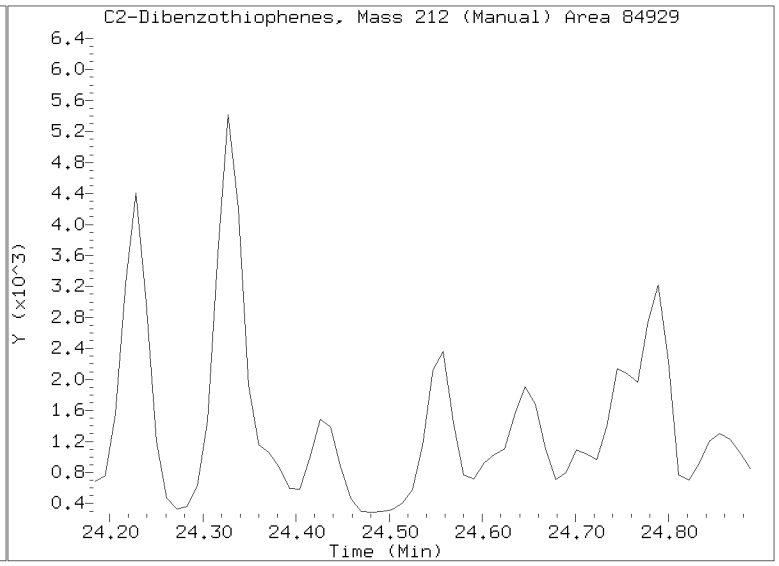


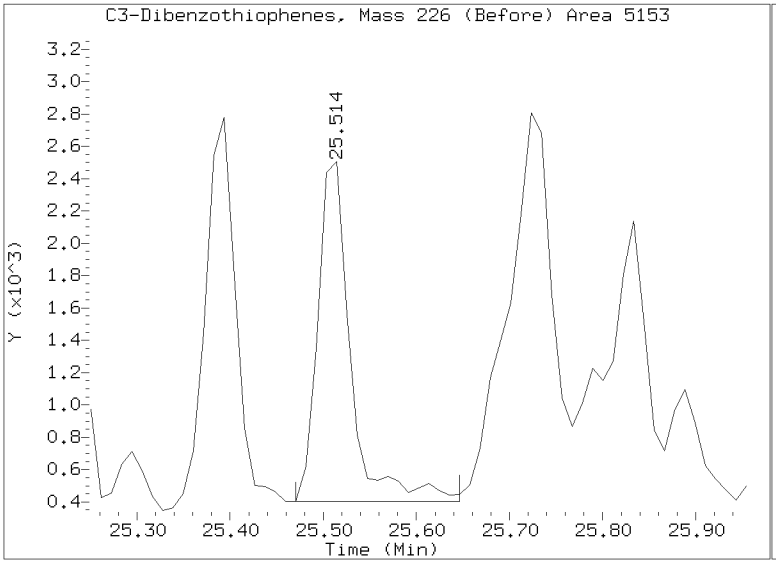


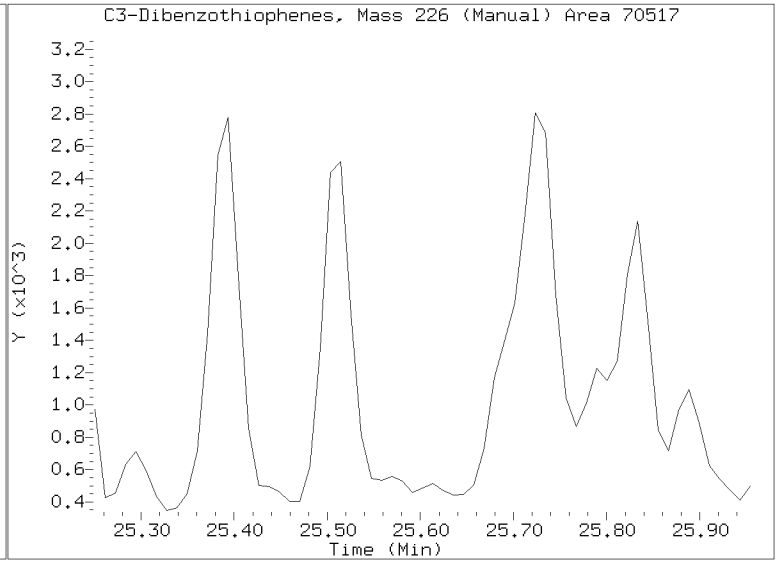


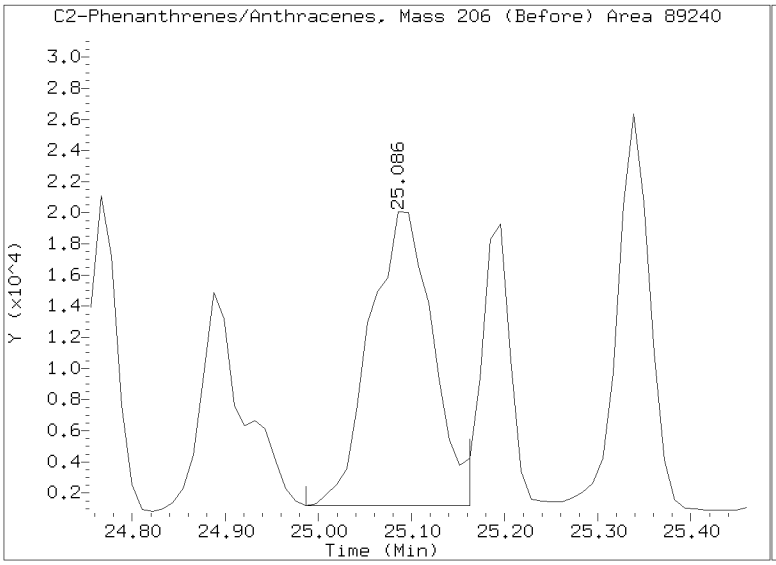


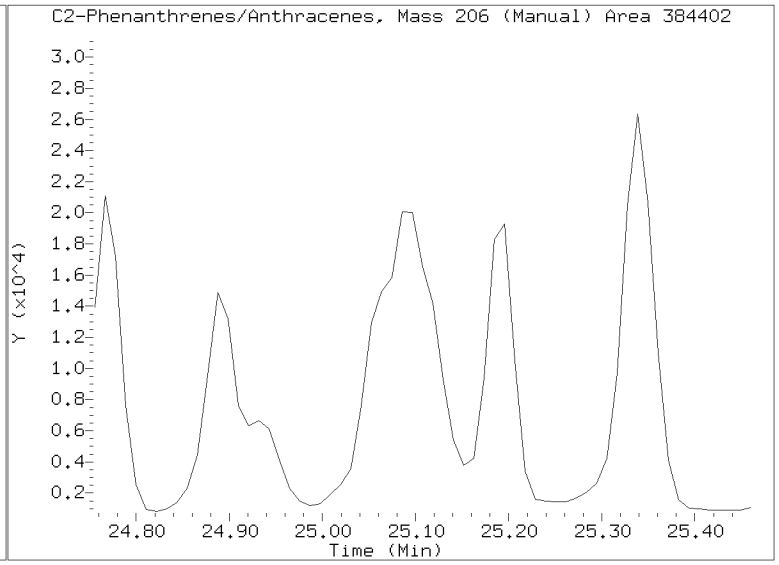

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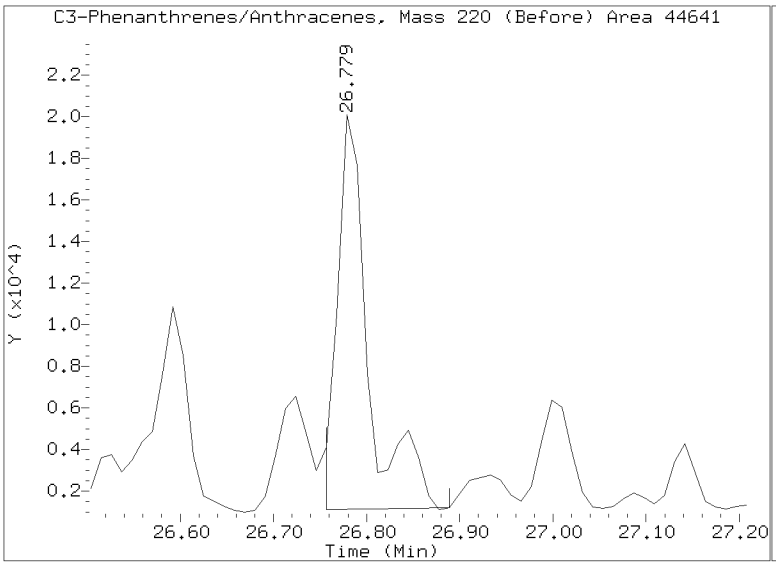


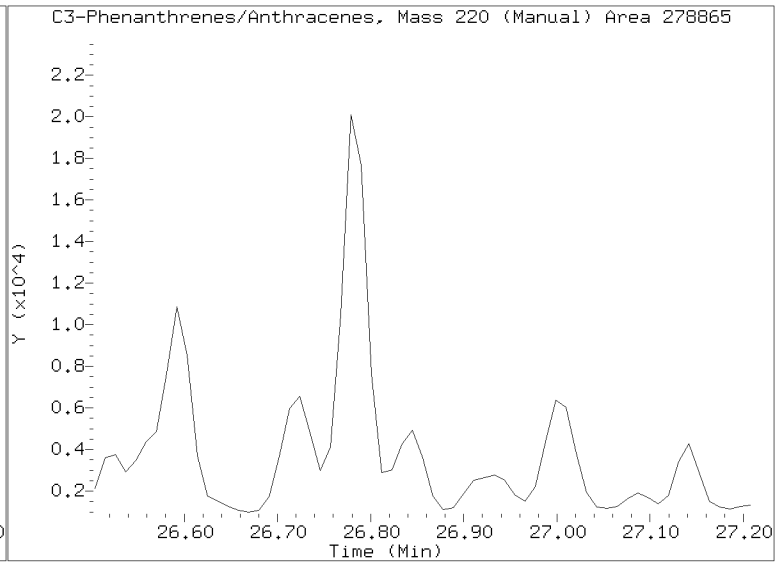


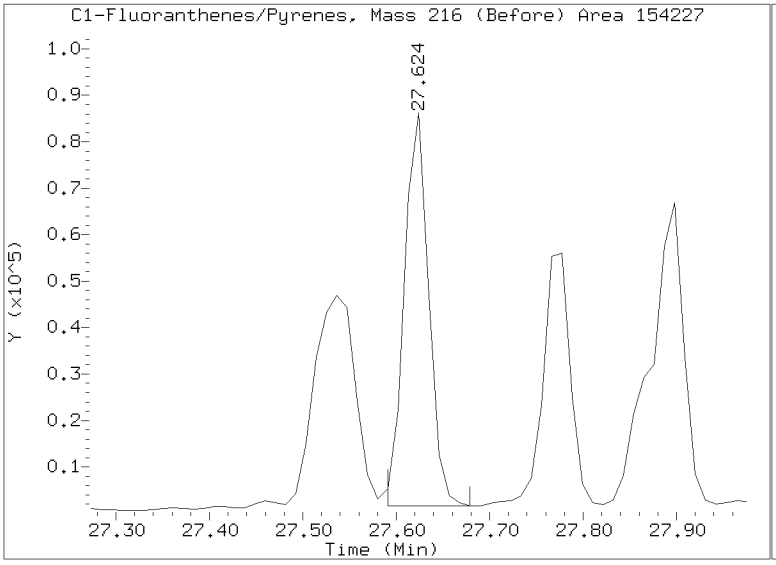


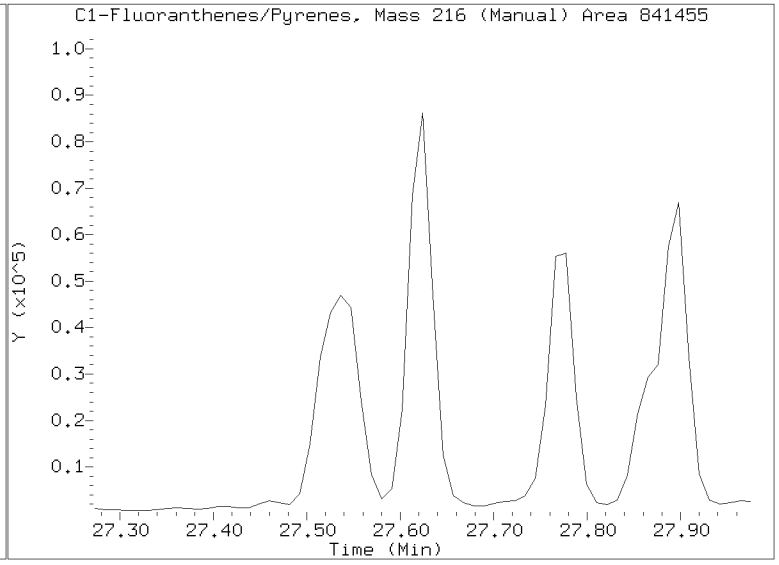


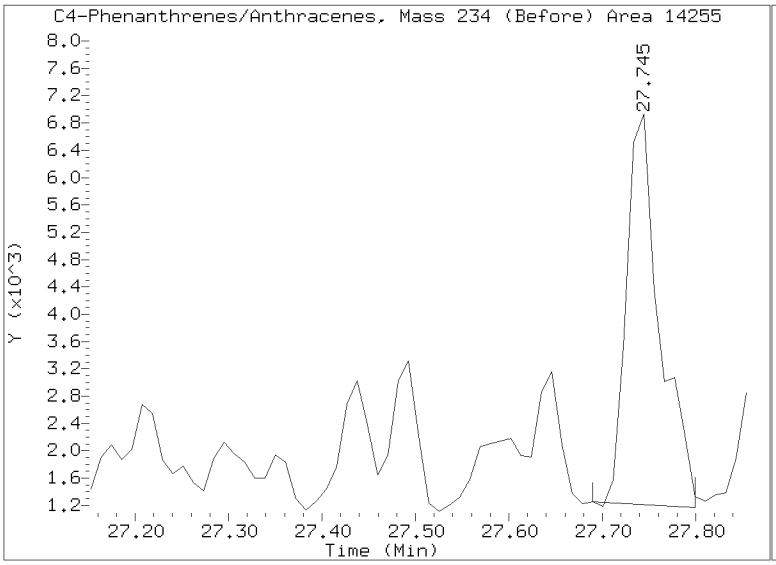


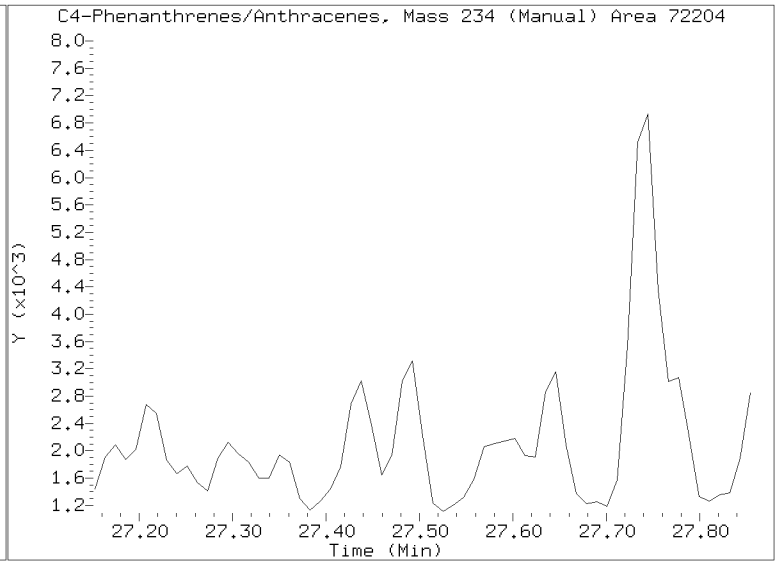

# Quant Ion Manual Peak Adjustment Report

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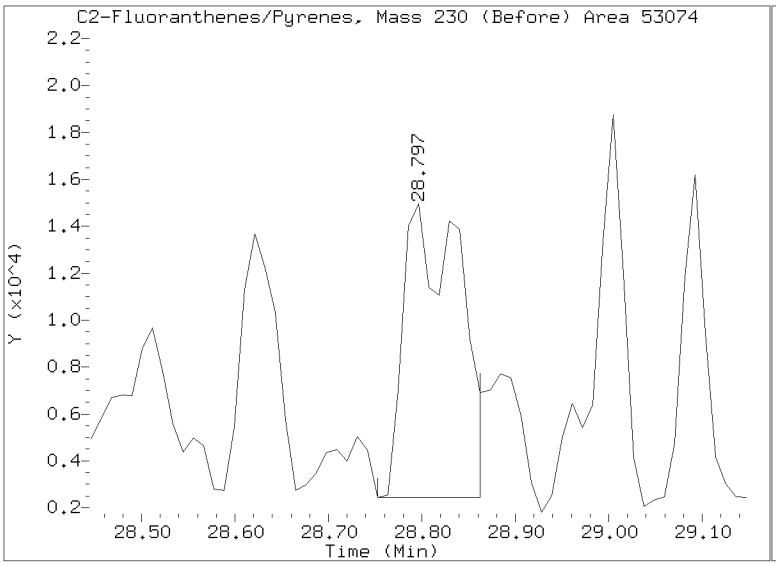
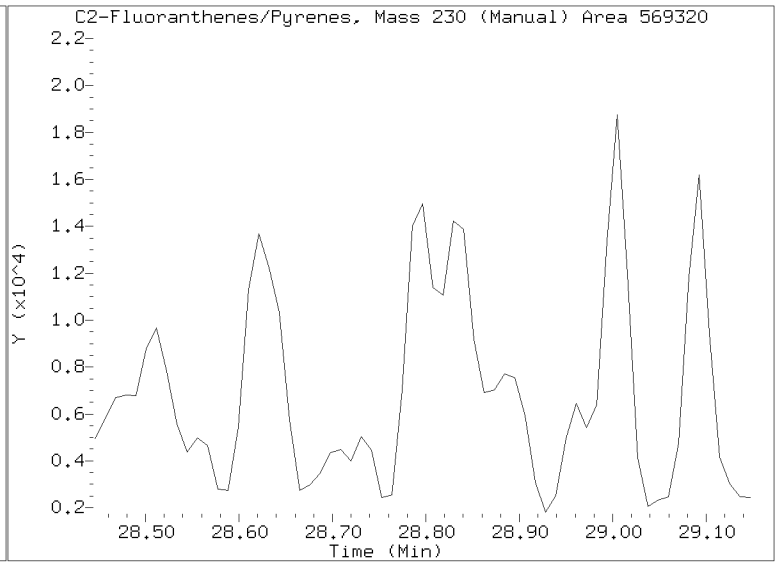
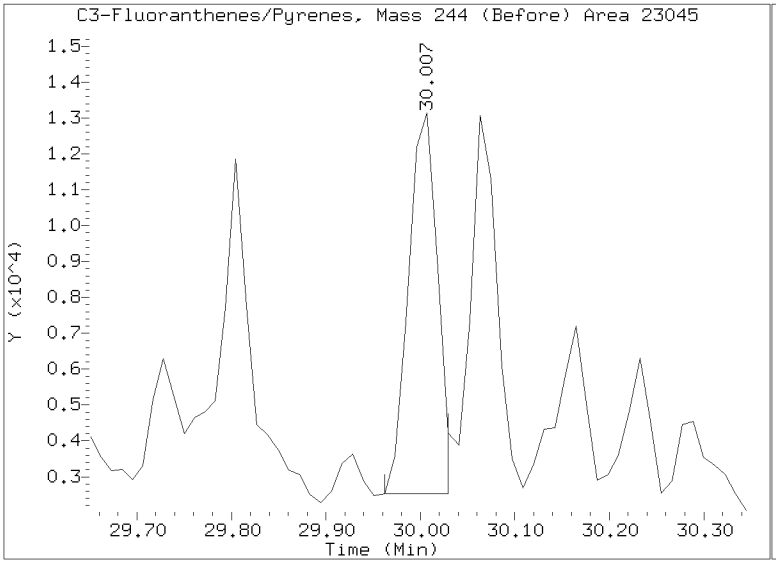
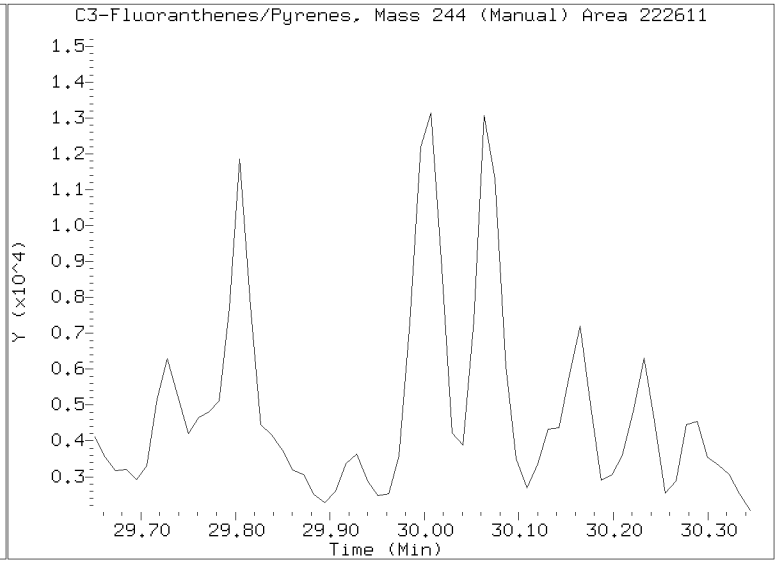
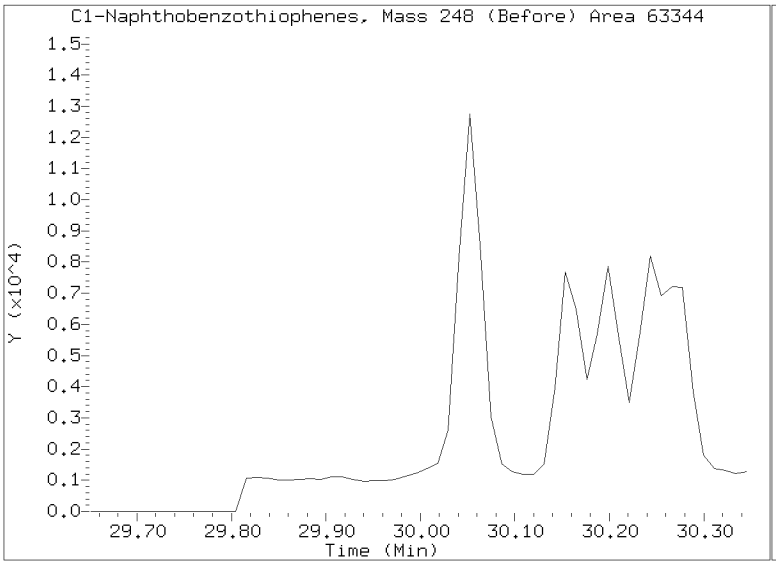
Lab ID:21D0180-01 Client ID:
Report Date: 05/07/2021 15:37

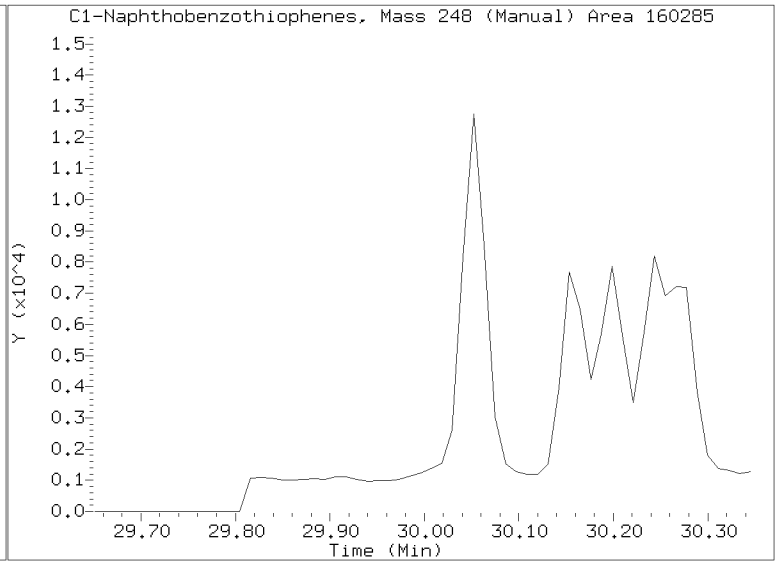


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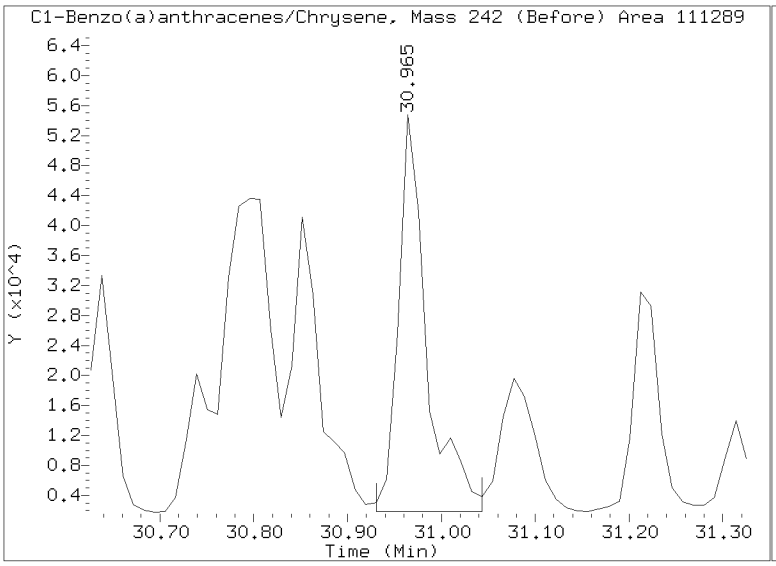


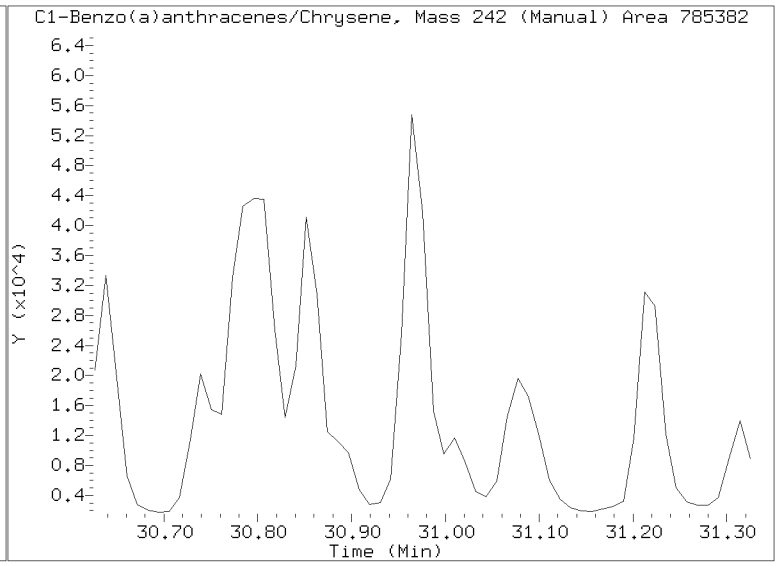


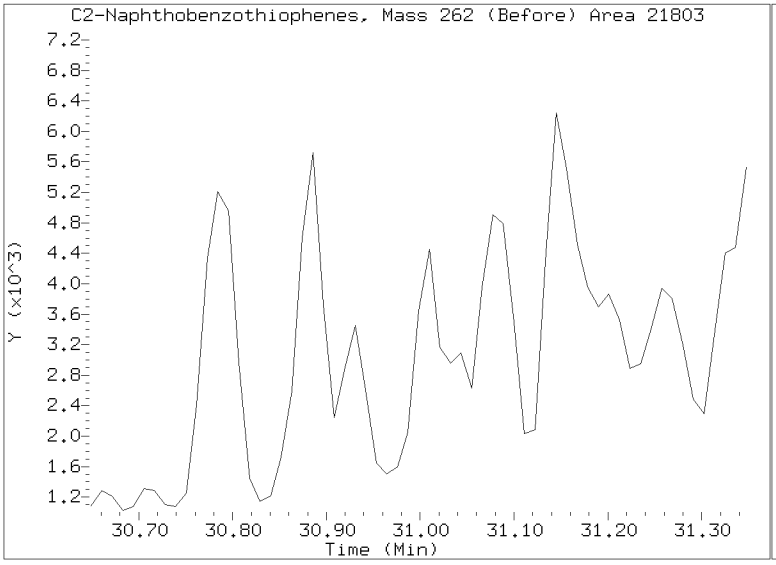


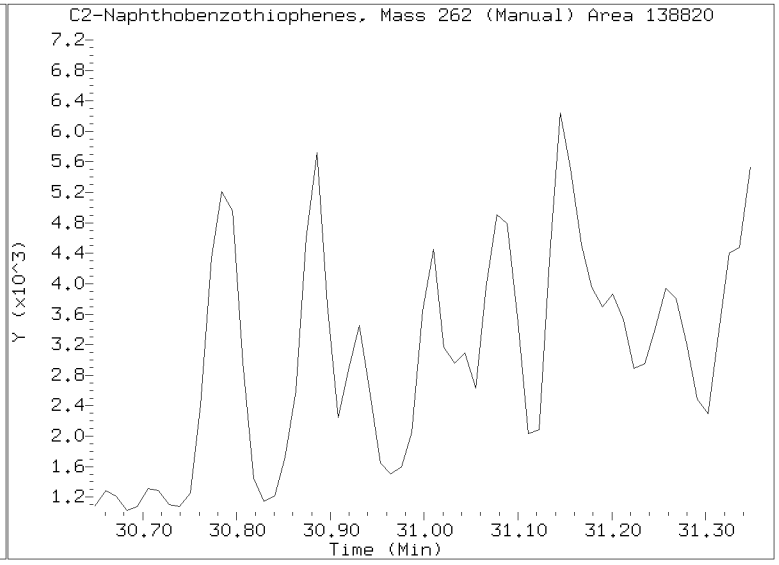


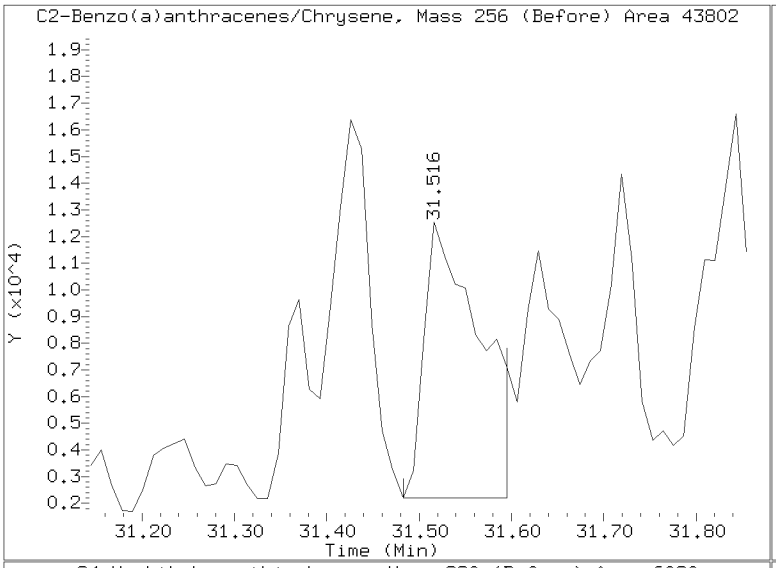


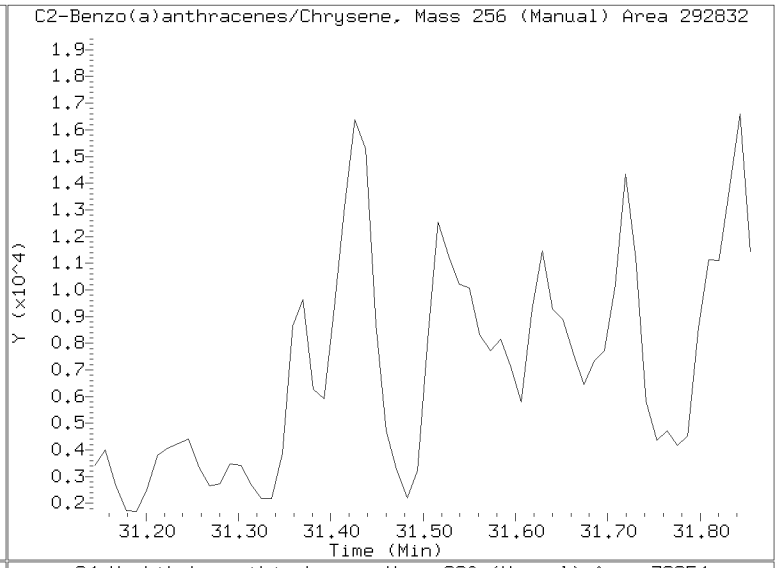


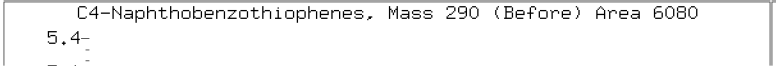


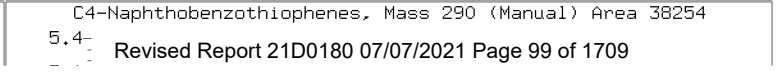

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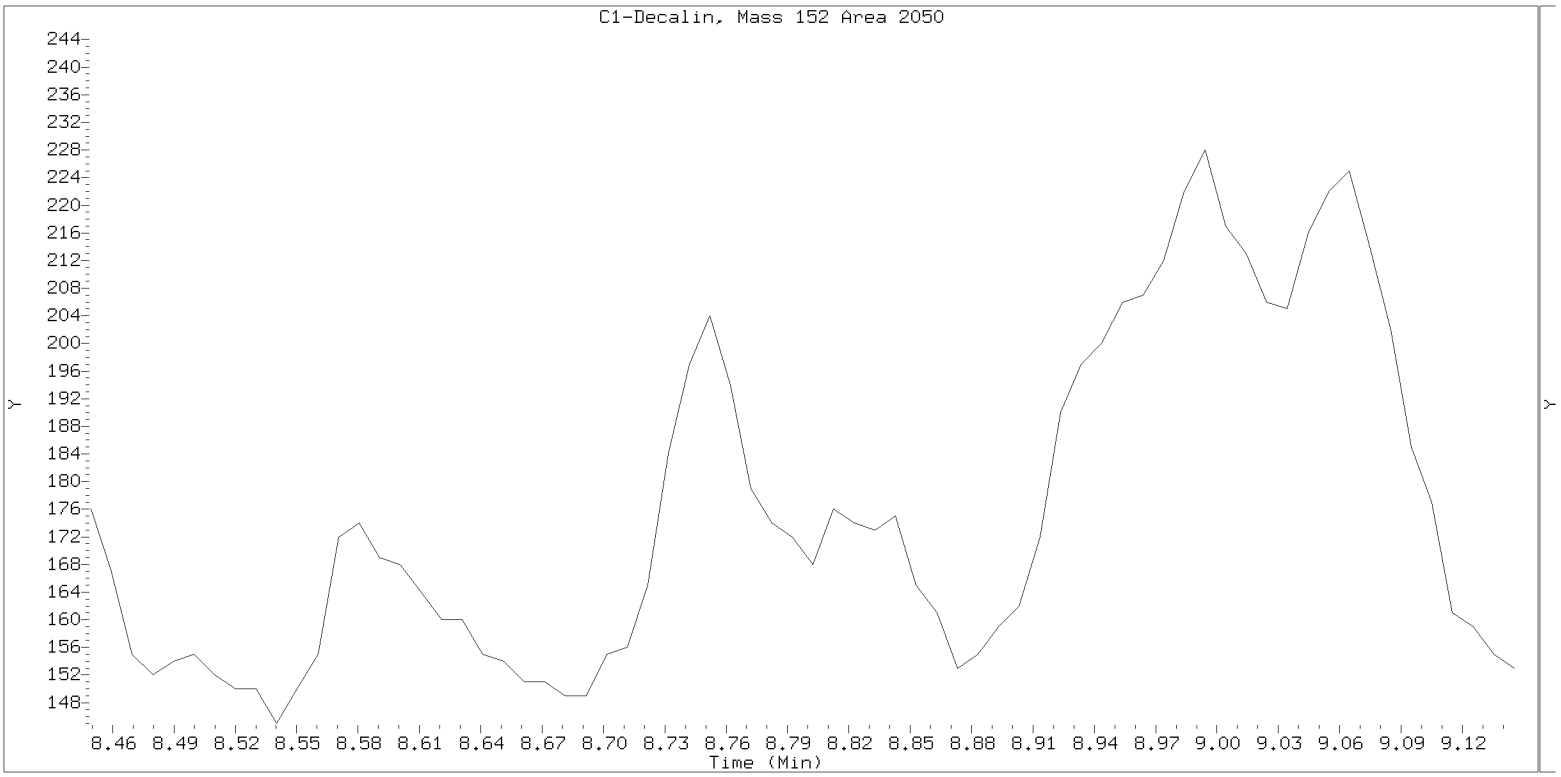

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043063S.D

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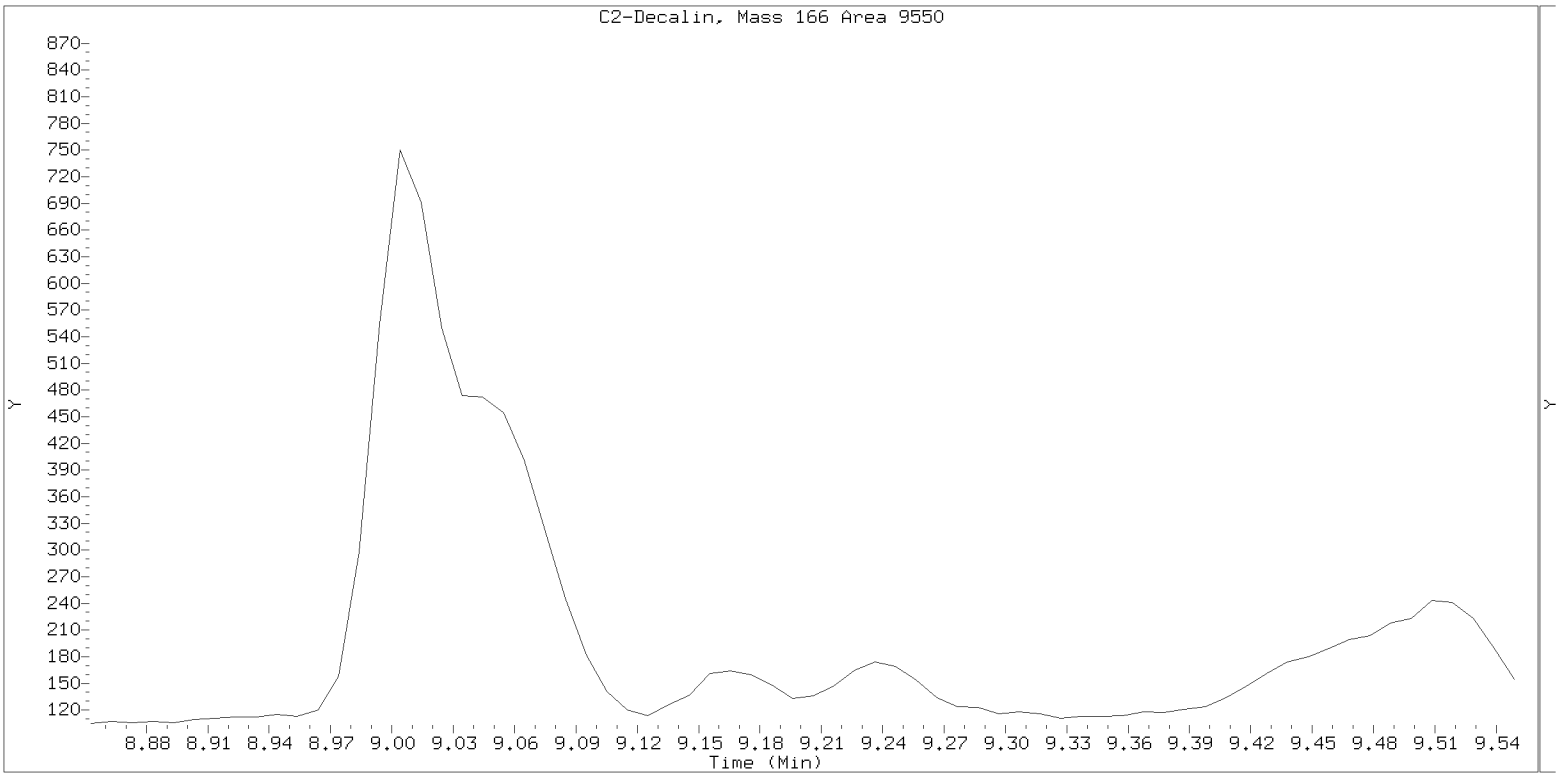

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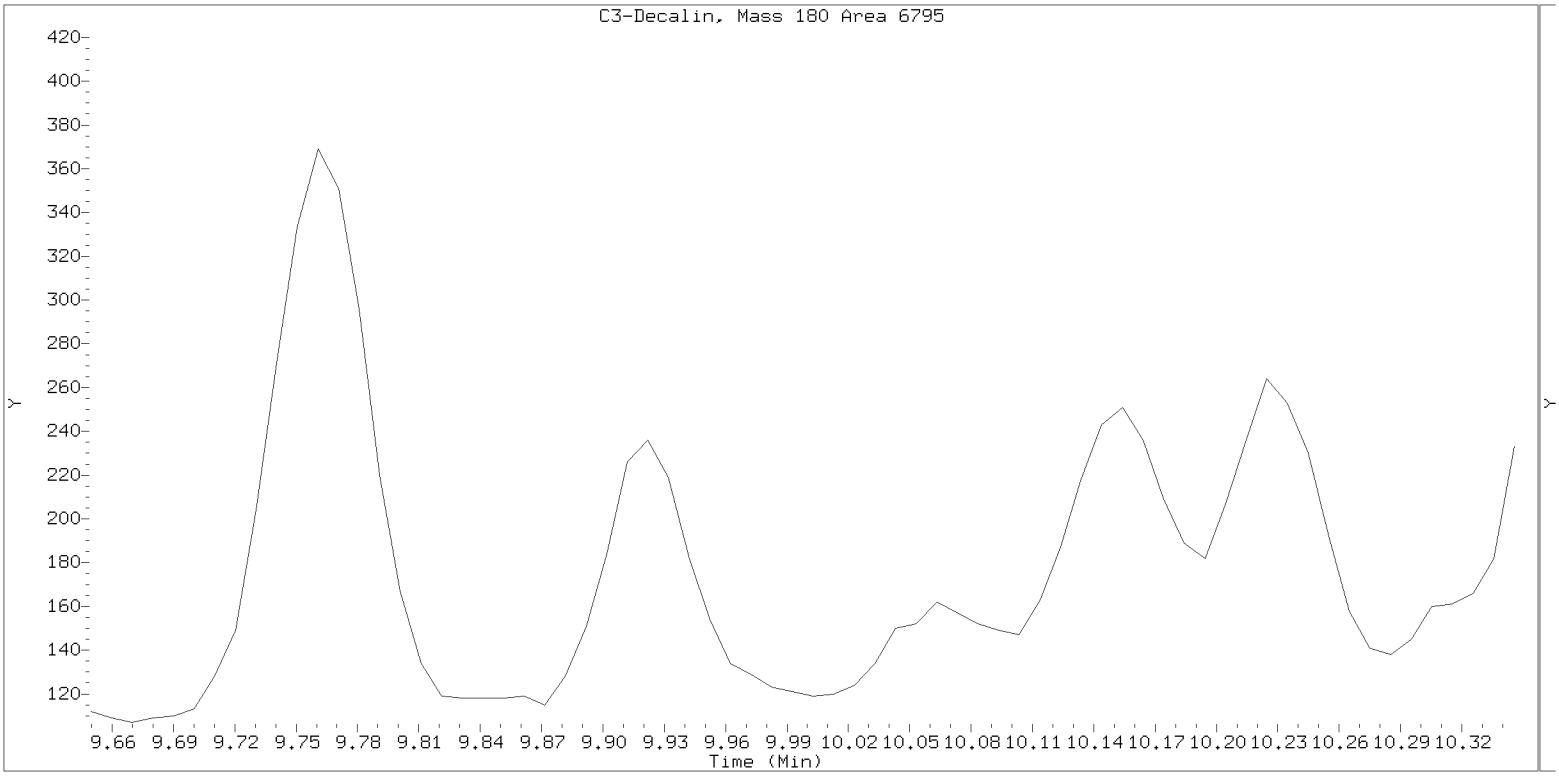

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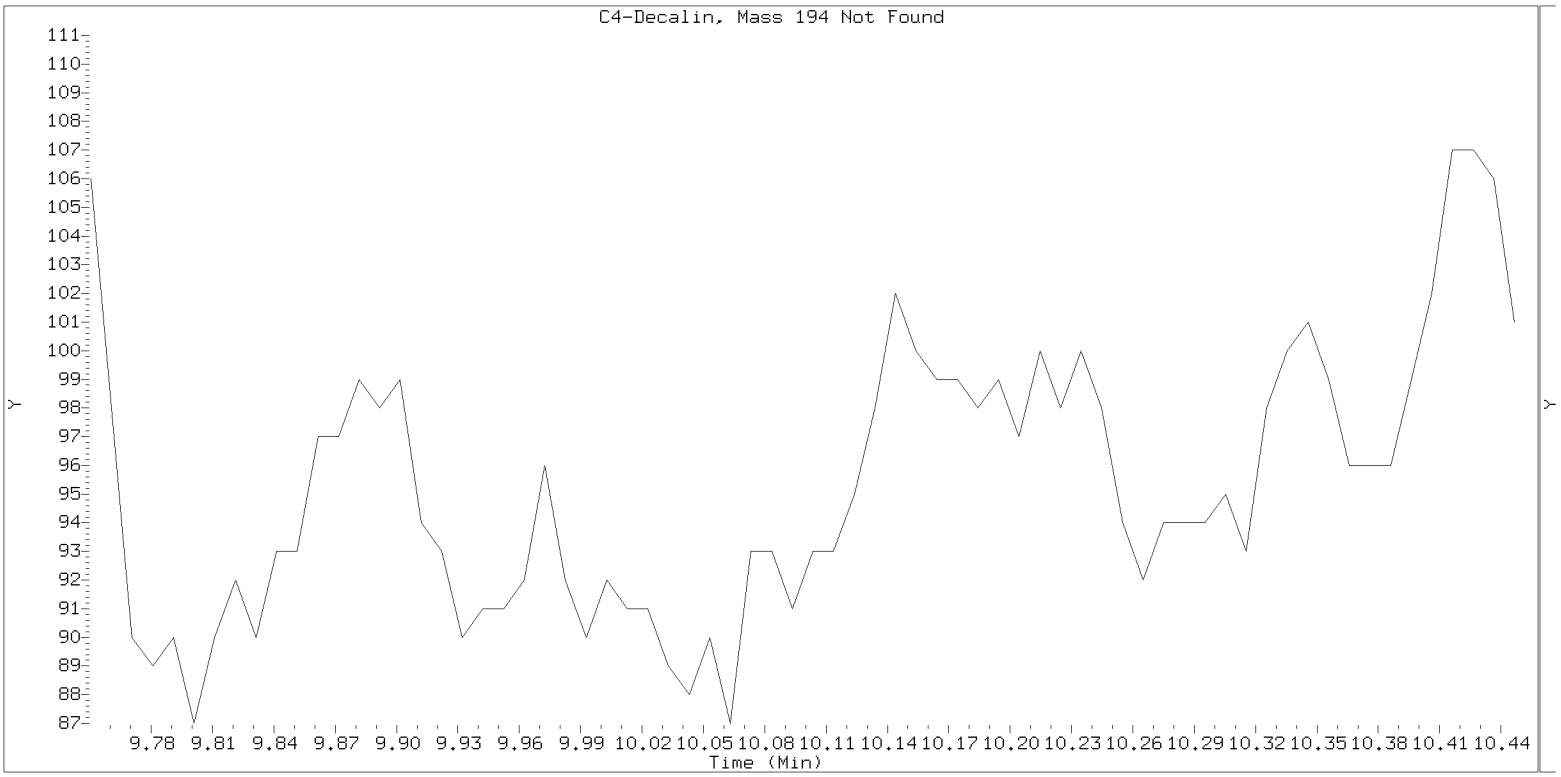

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043063S.D

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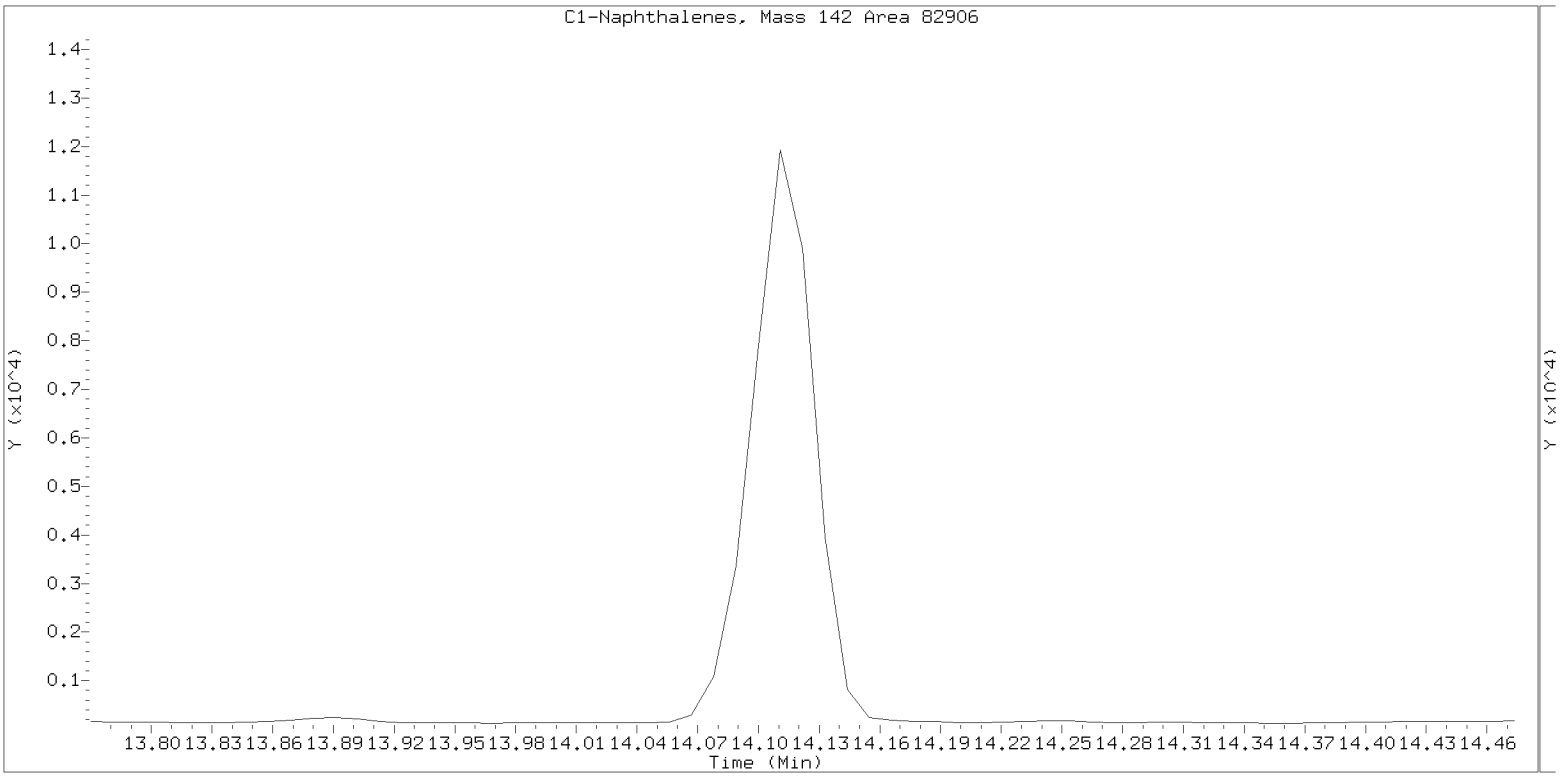


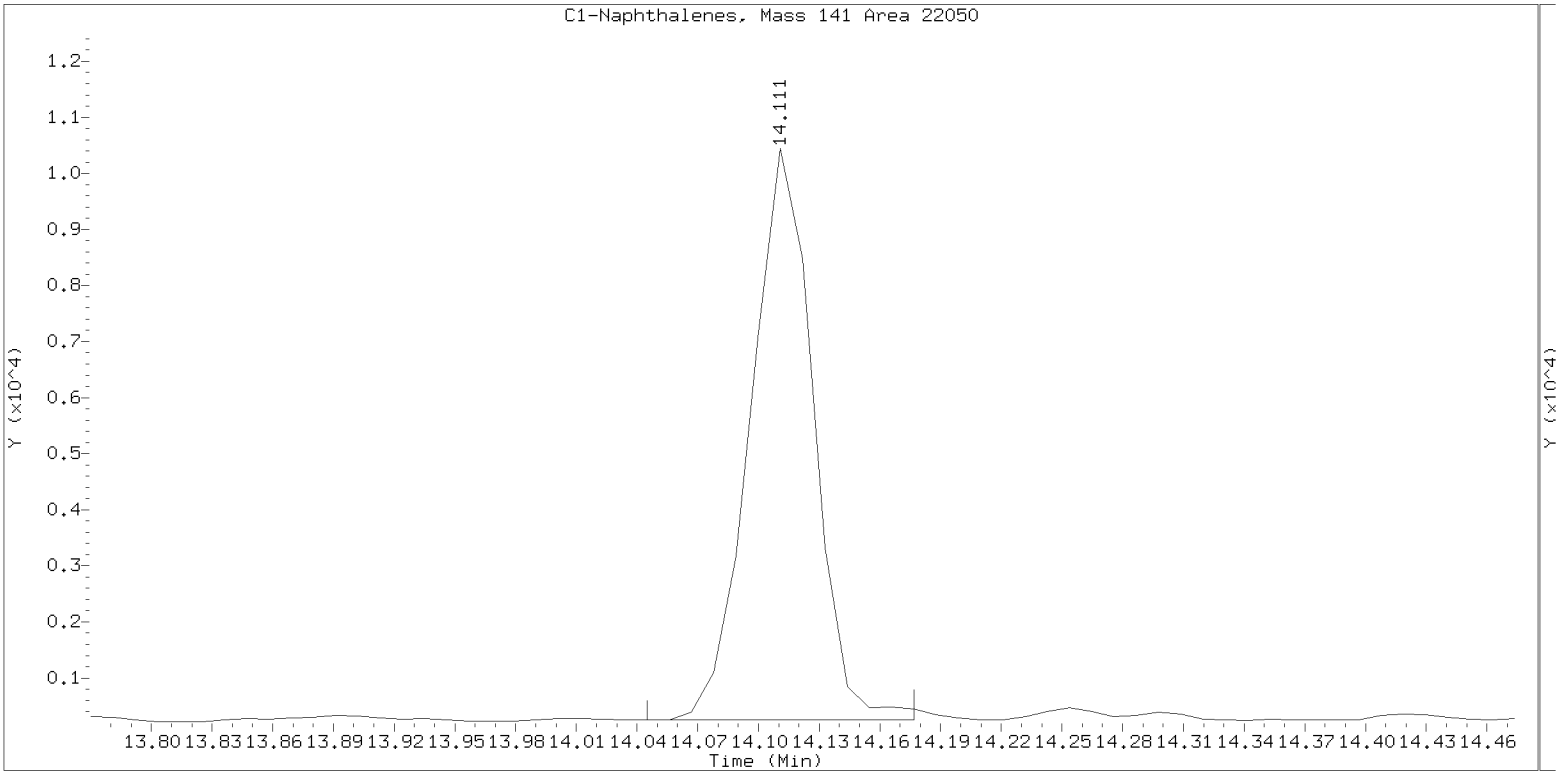


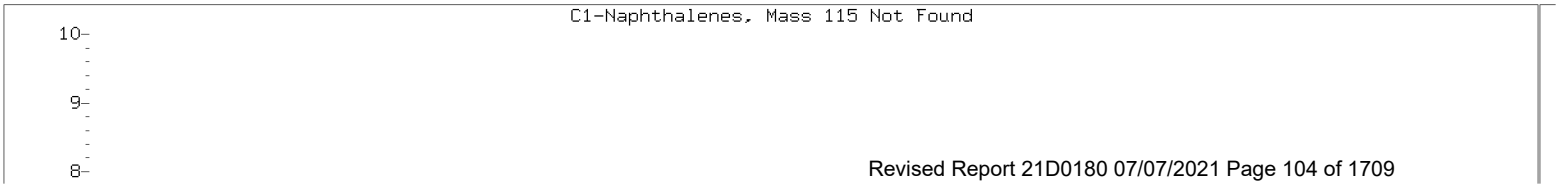

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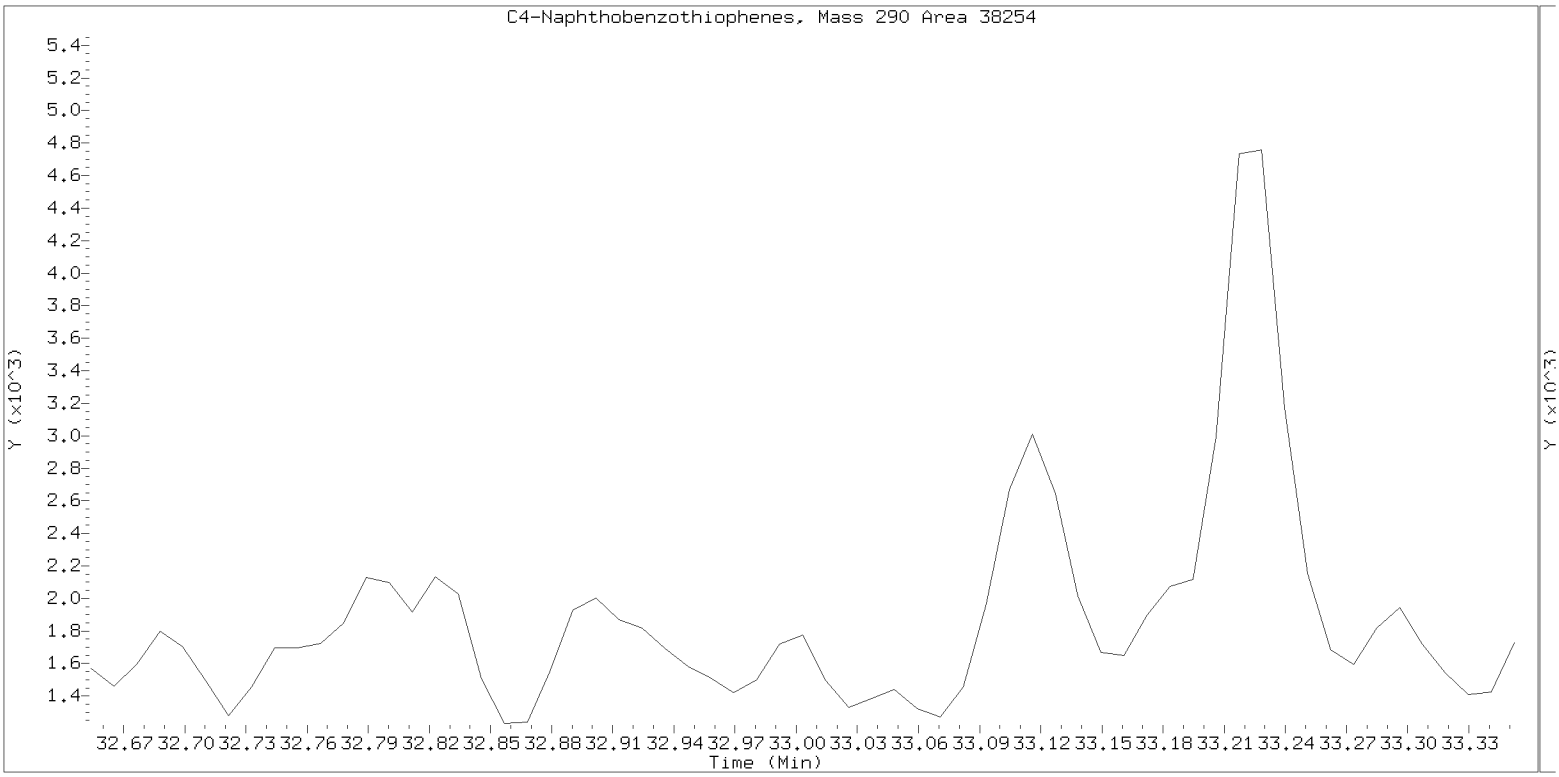

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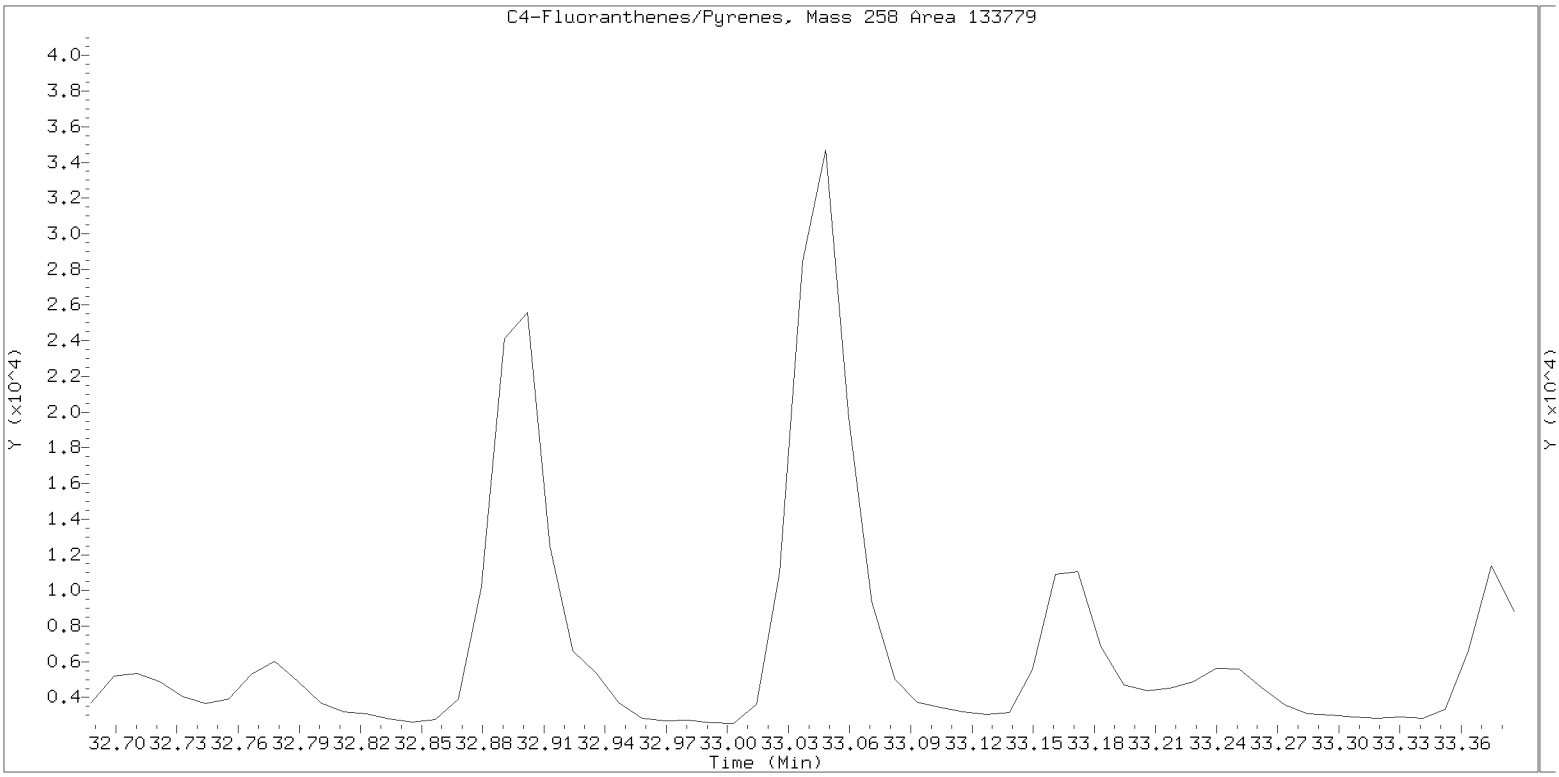

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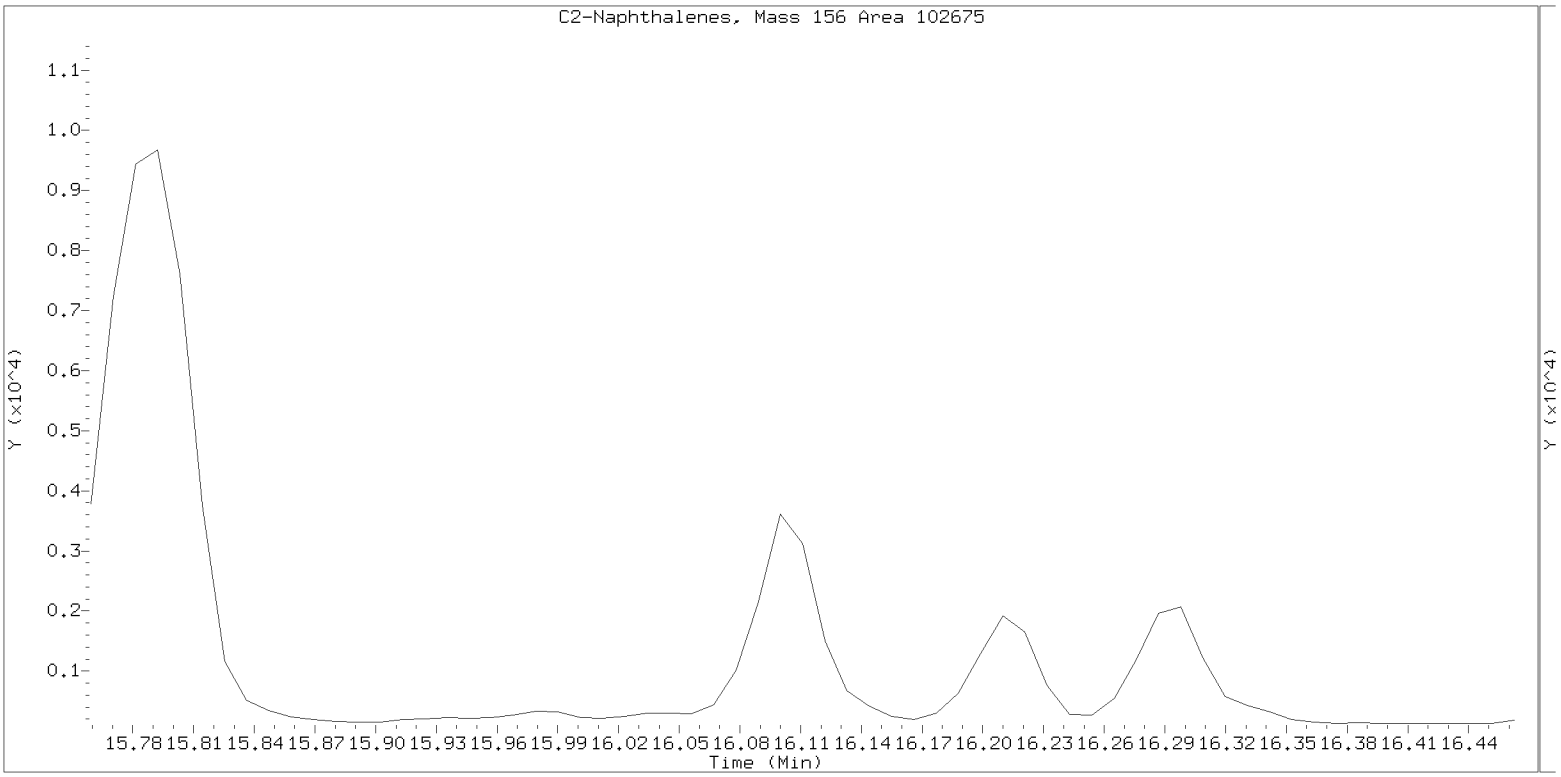


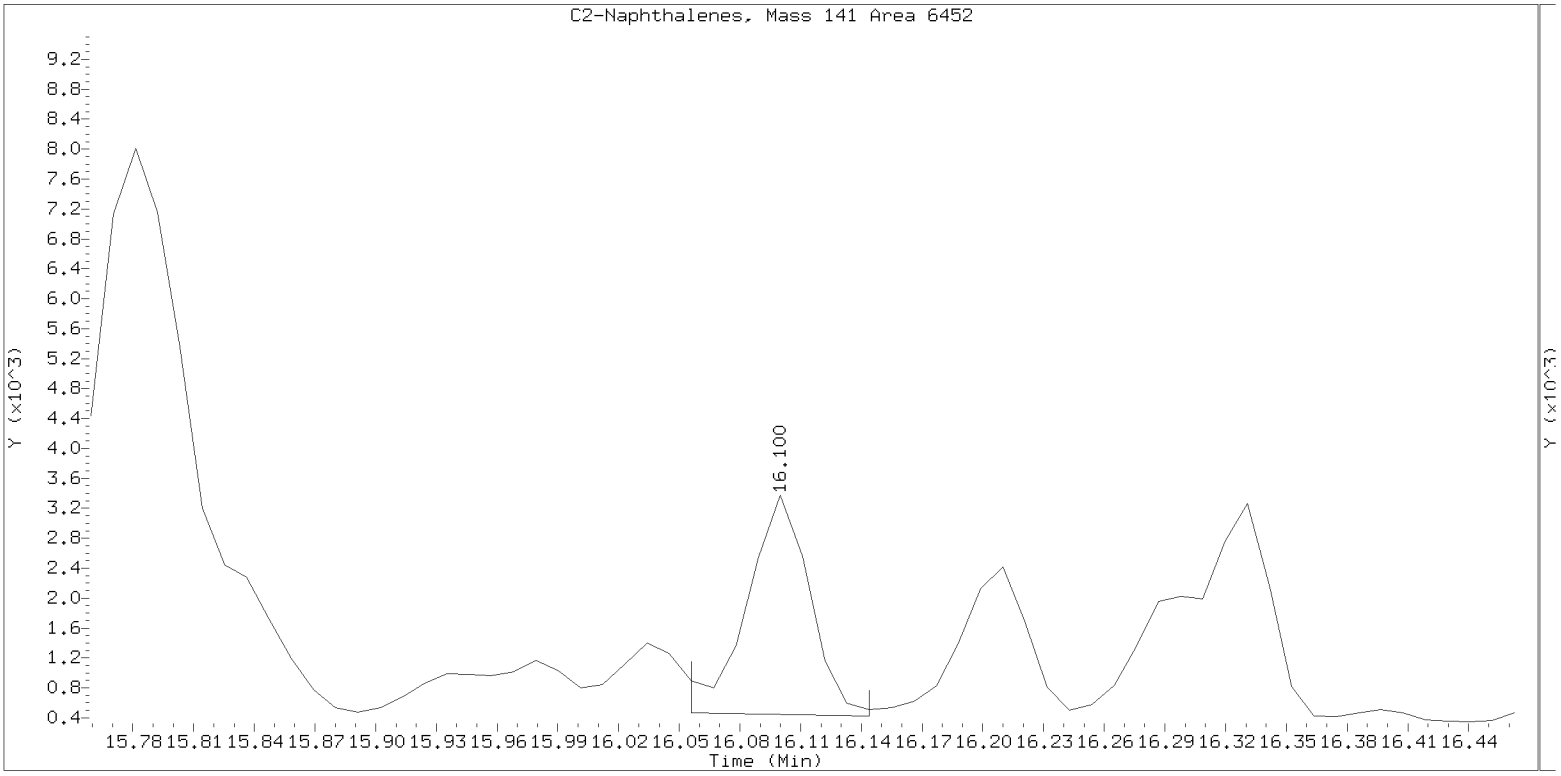


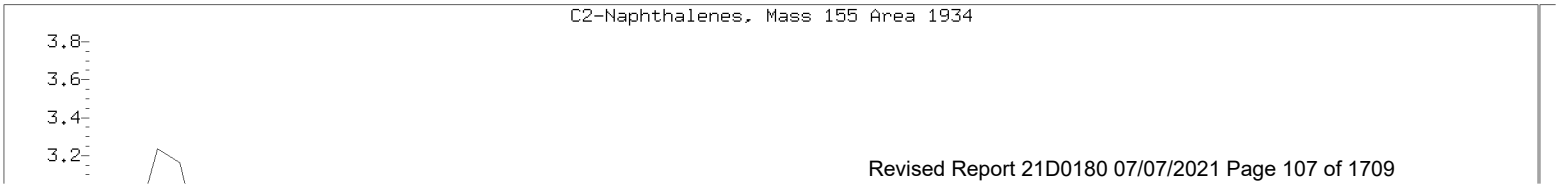

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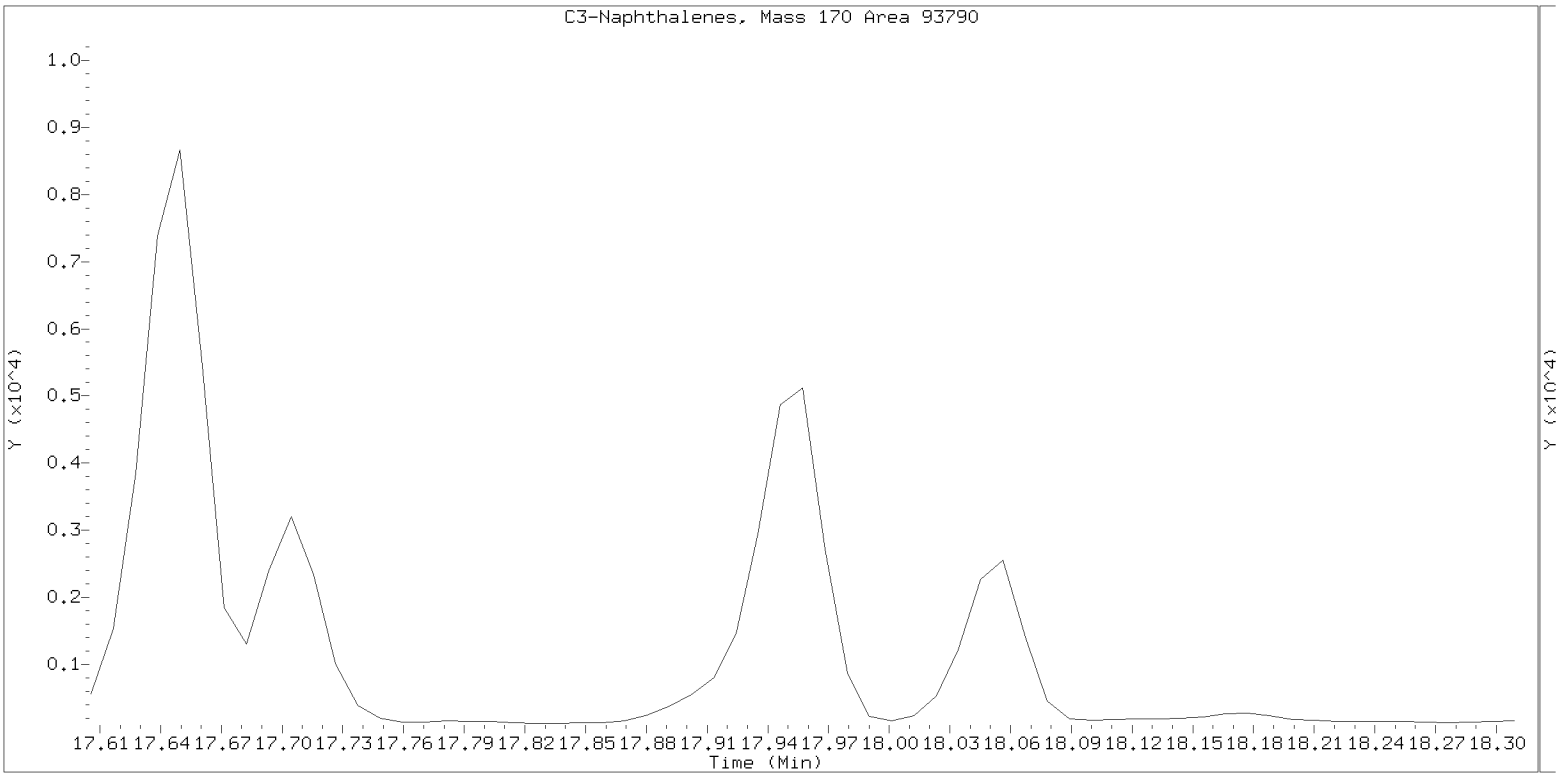


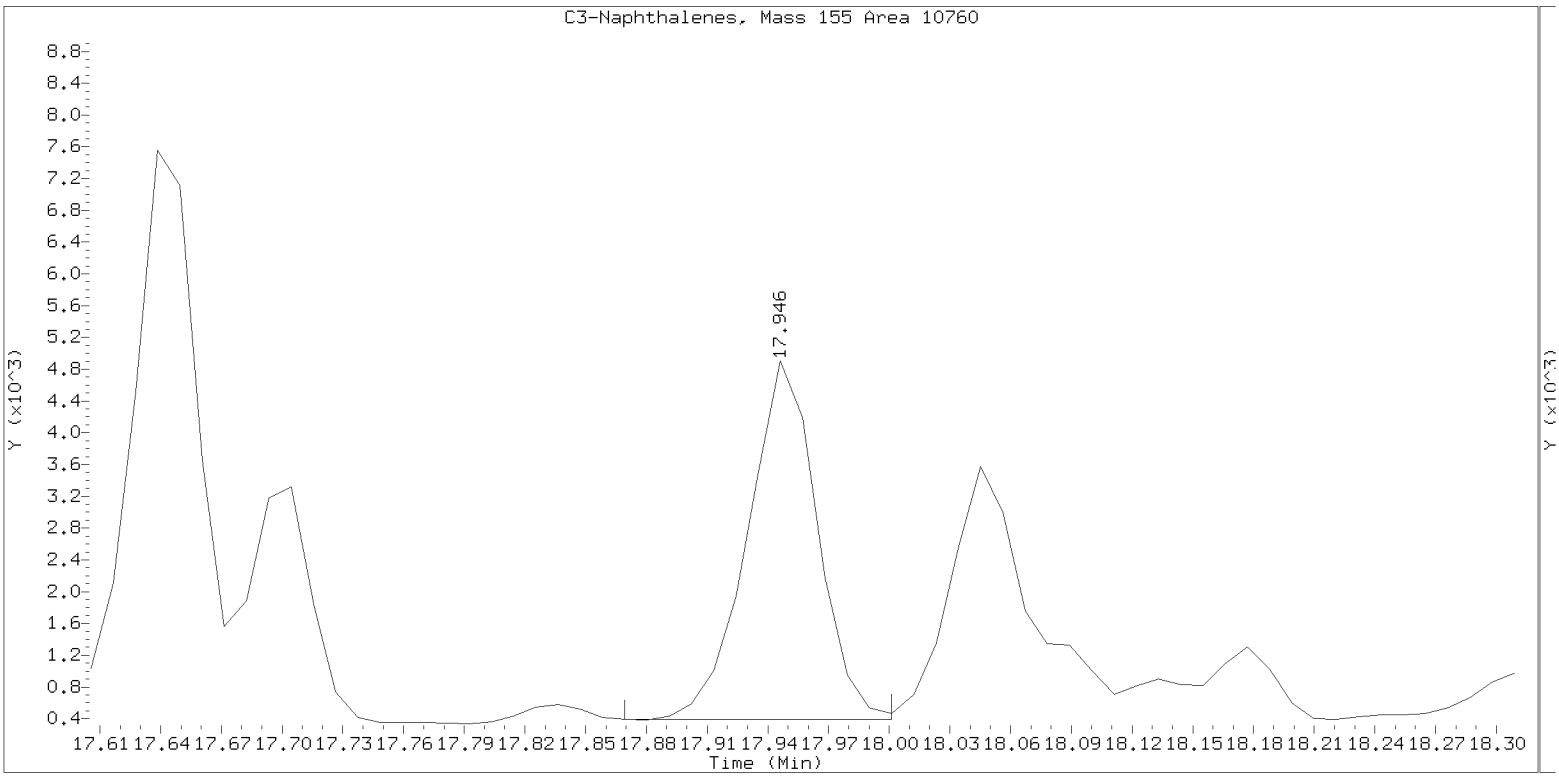


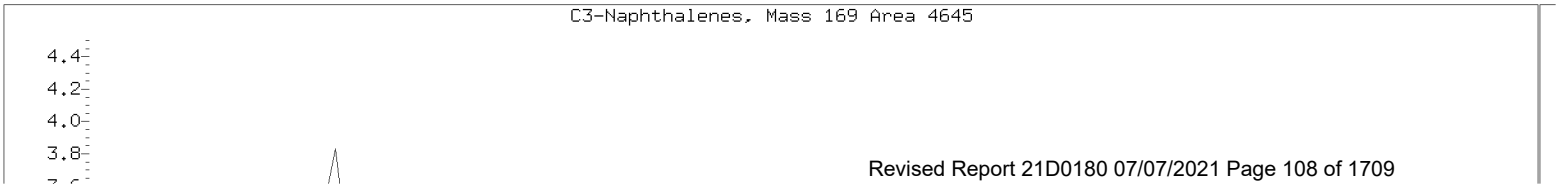

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043063S.D

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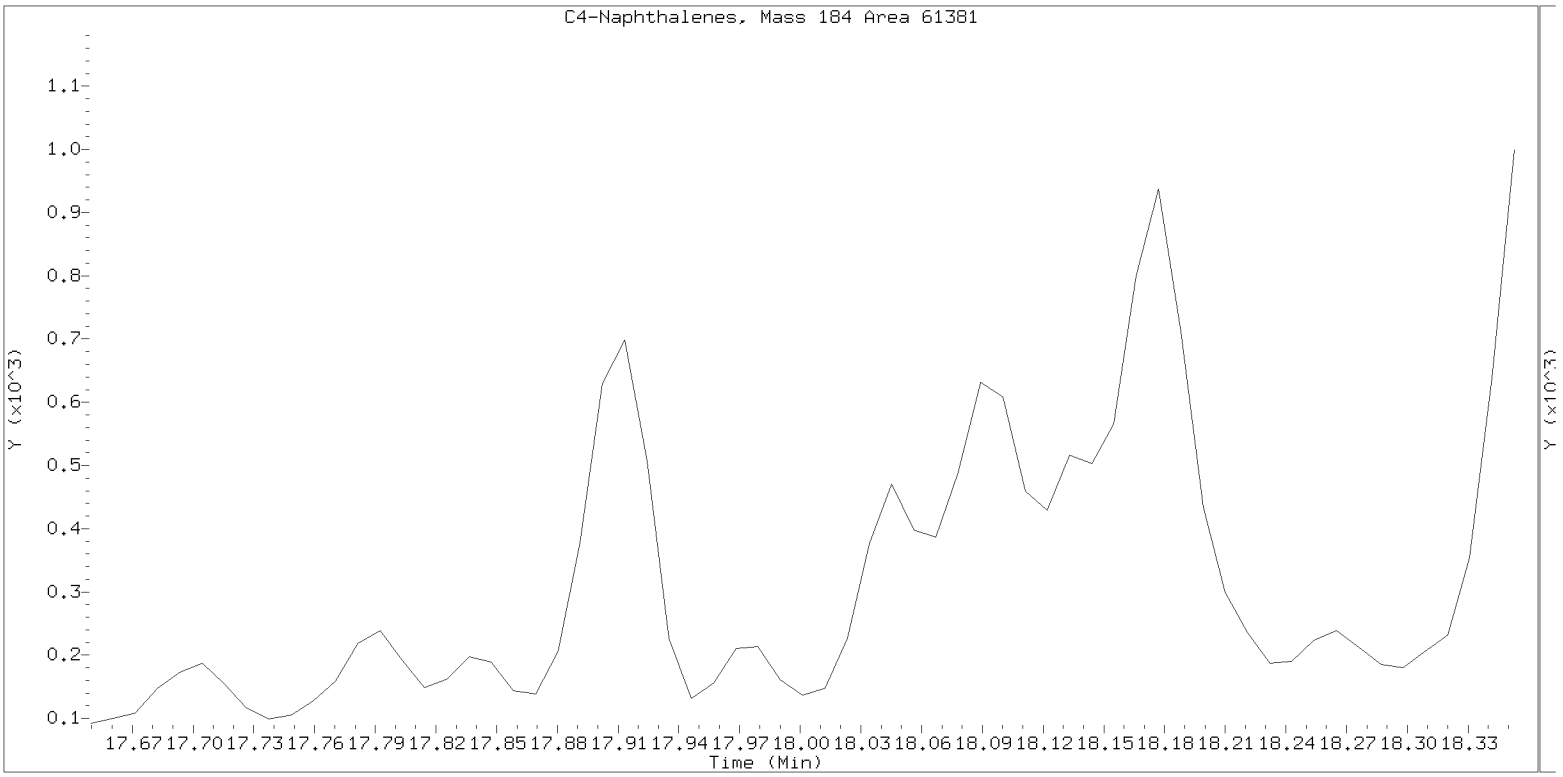


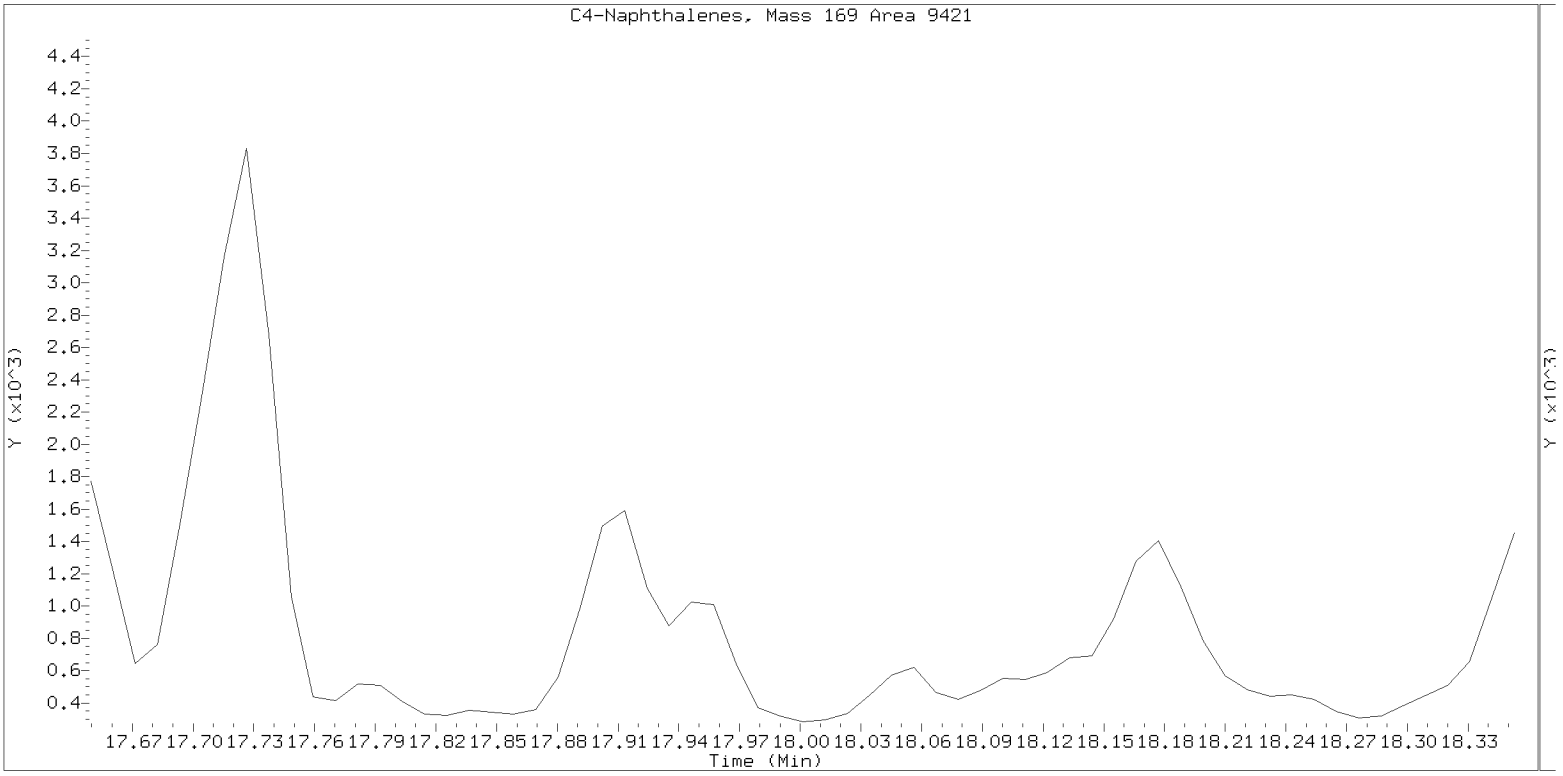


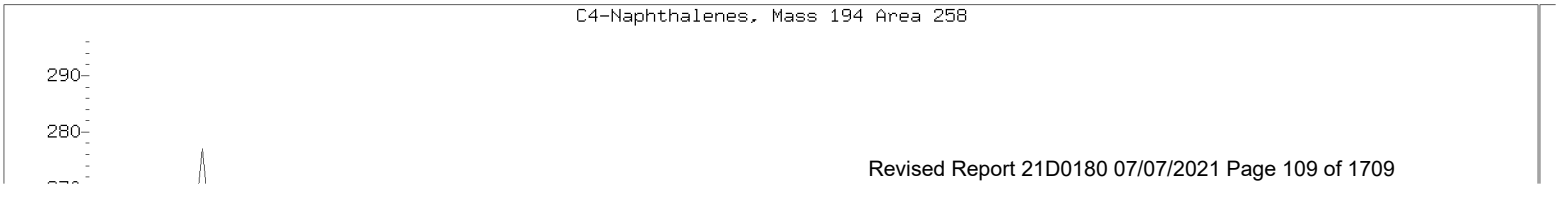

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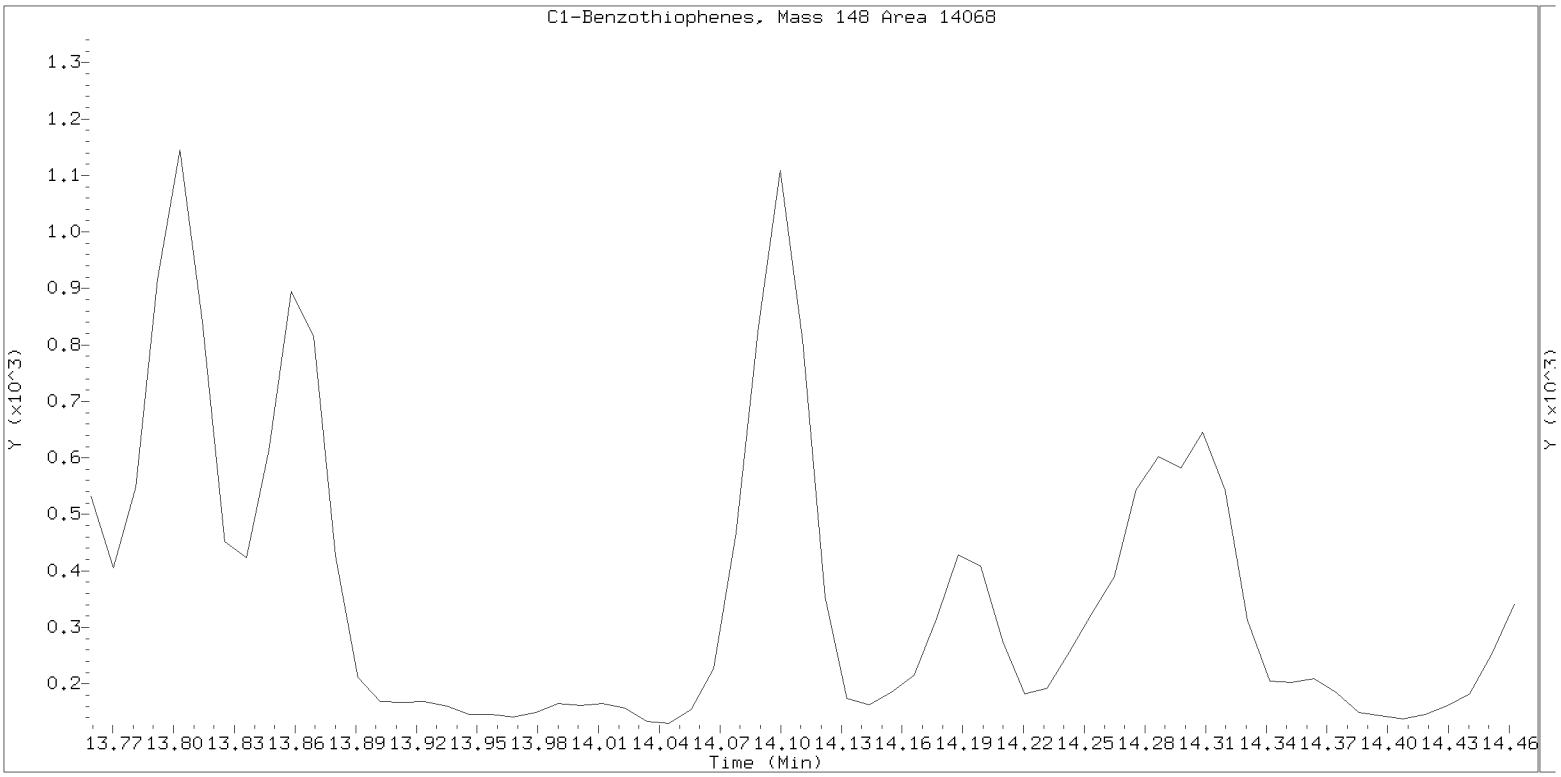


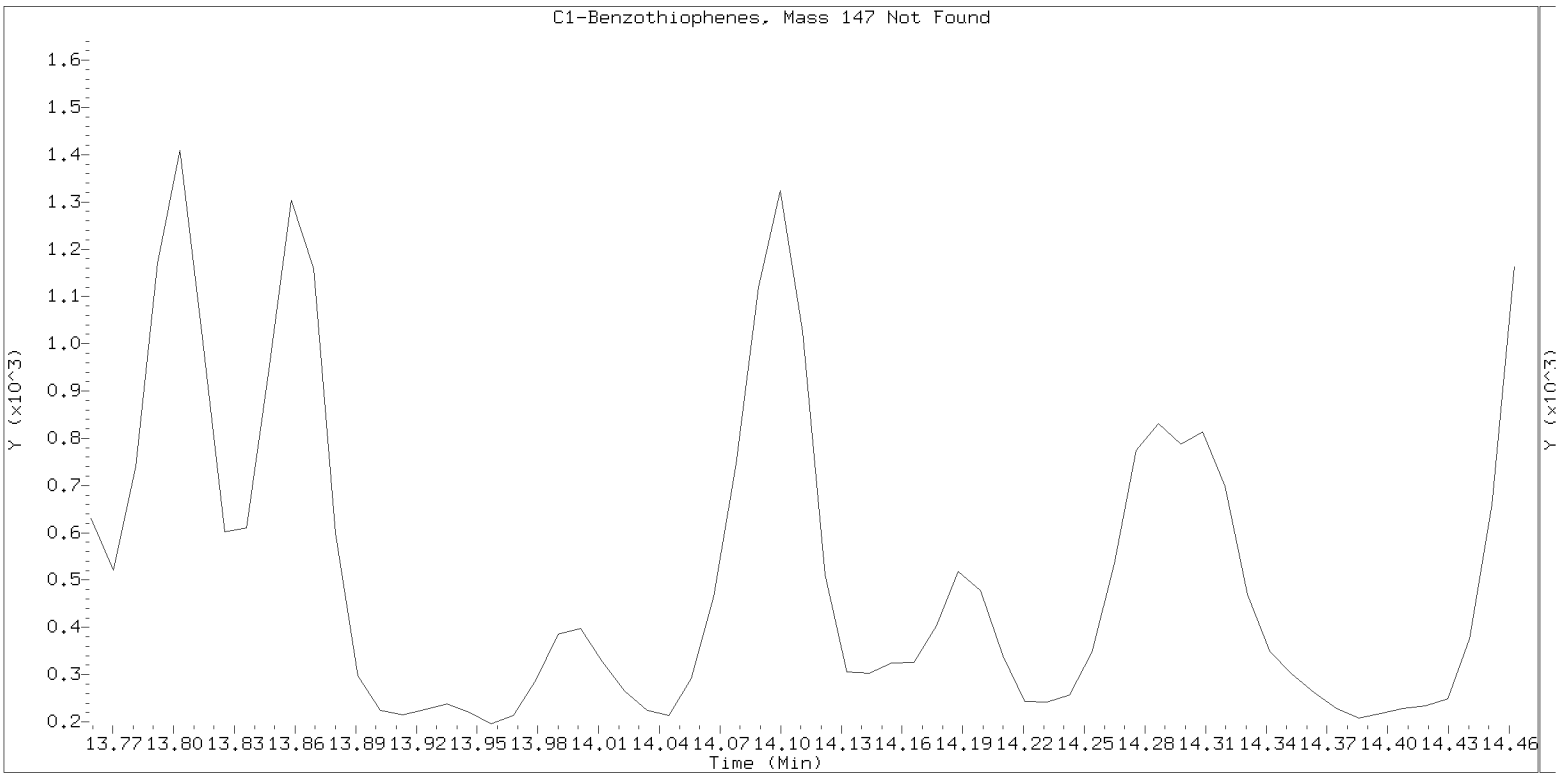

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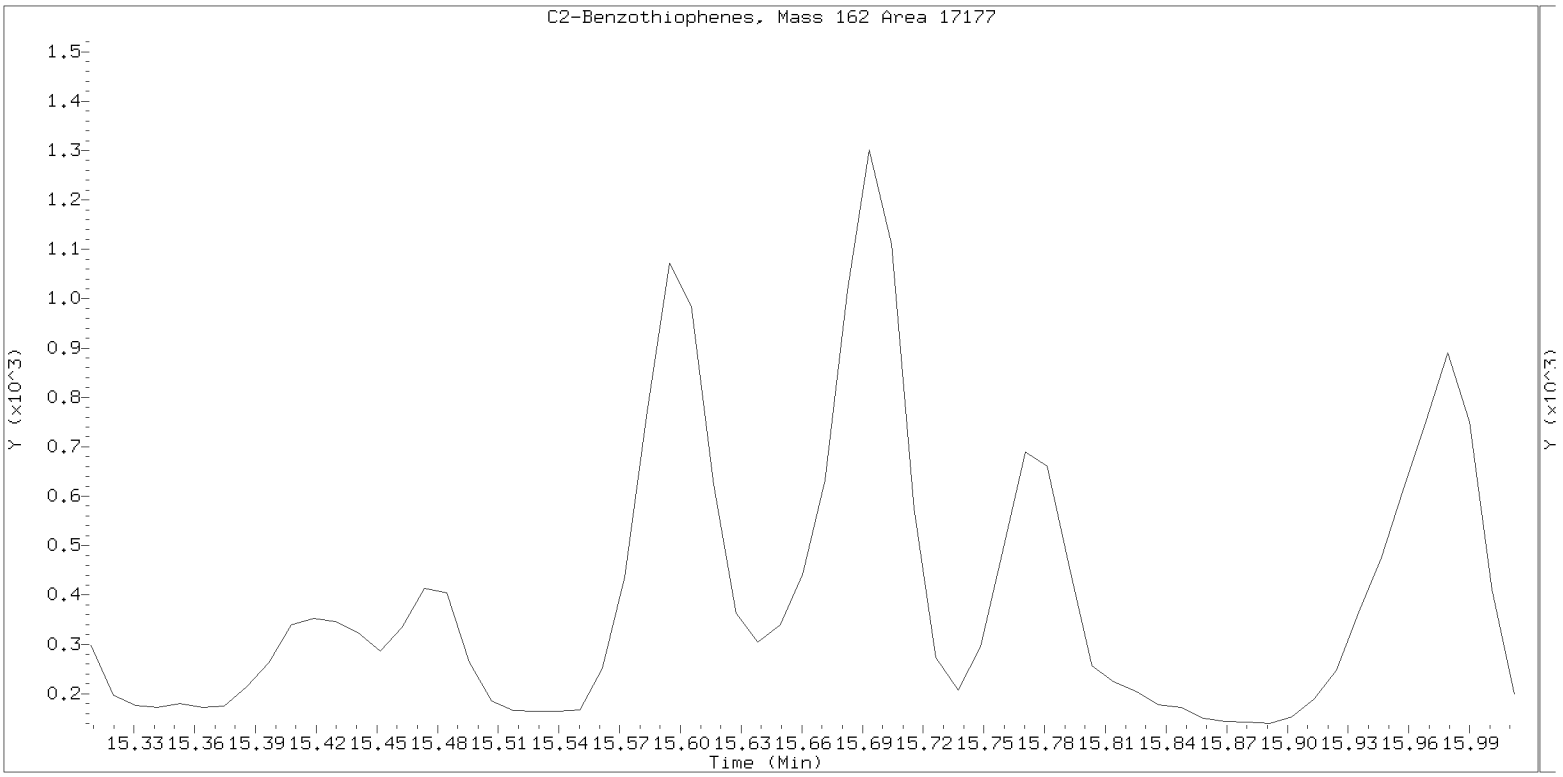


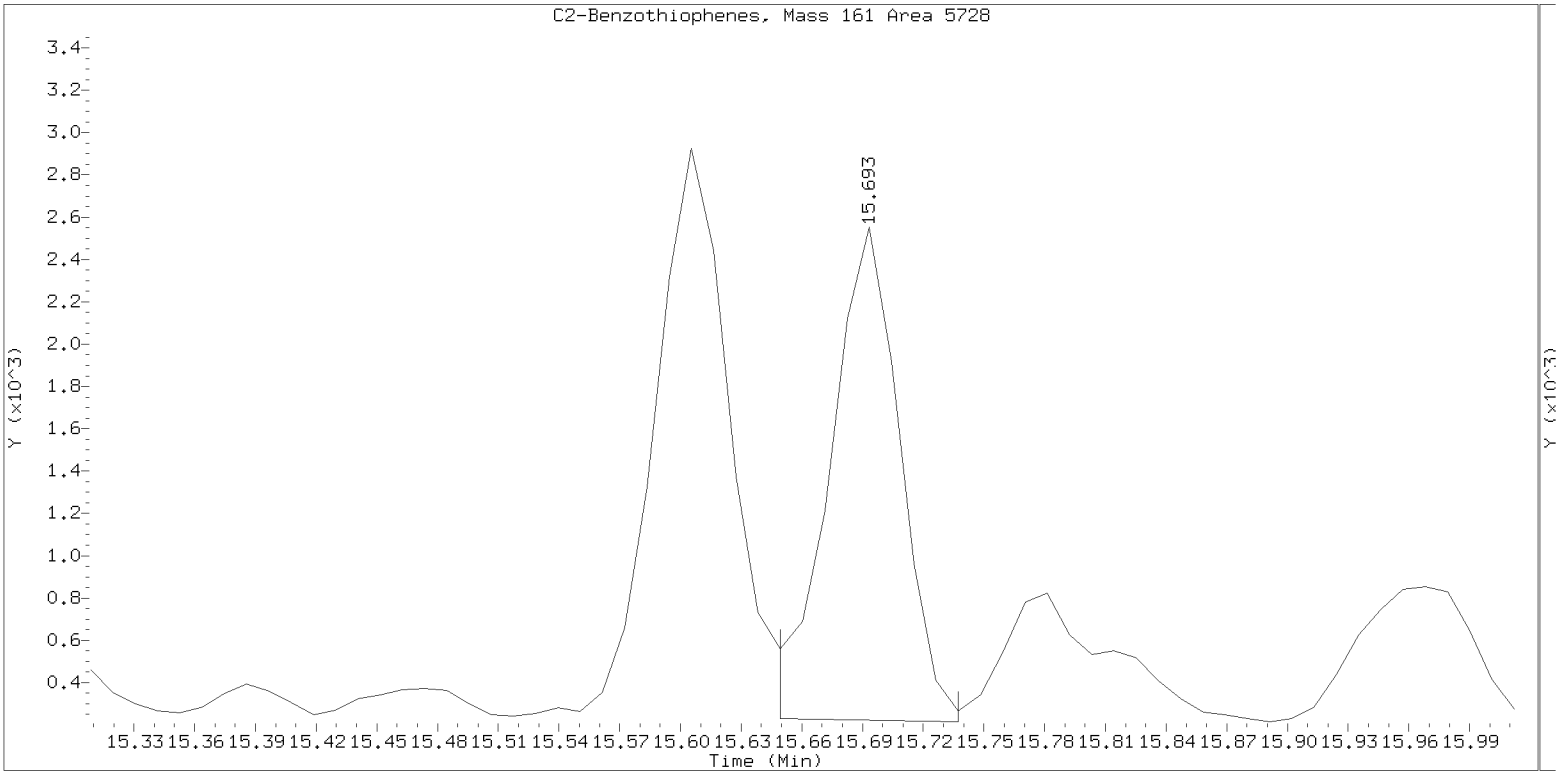


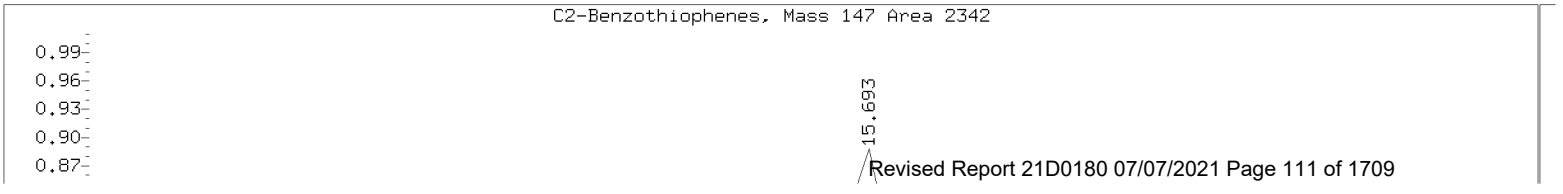

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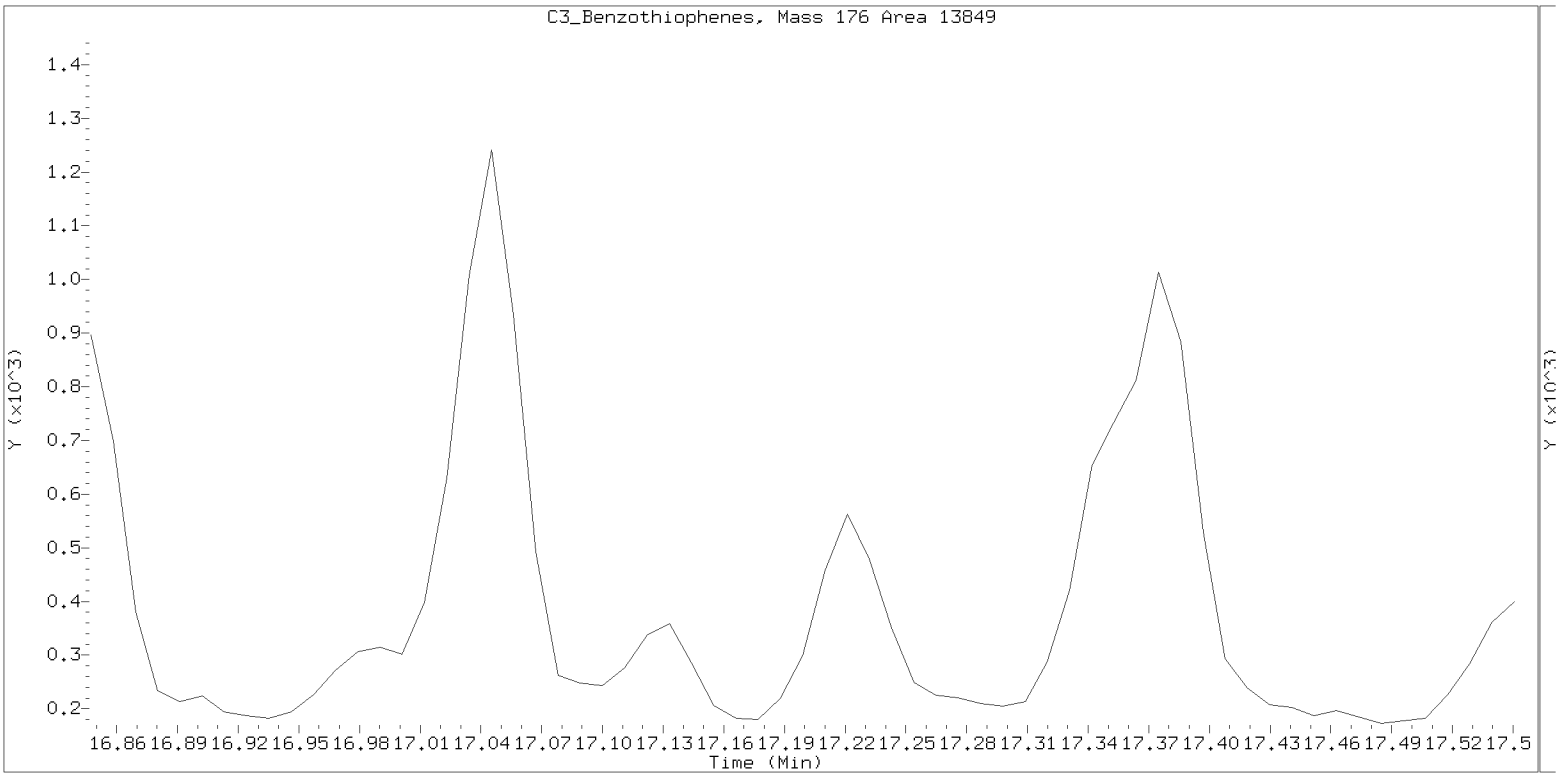


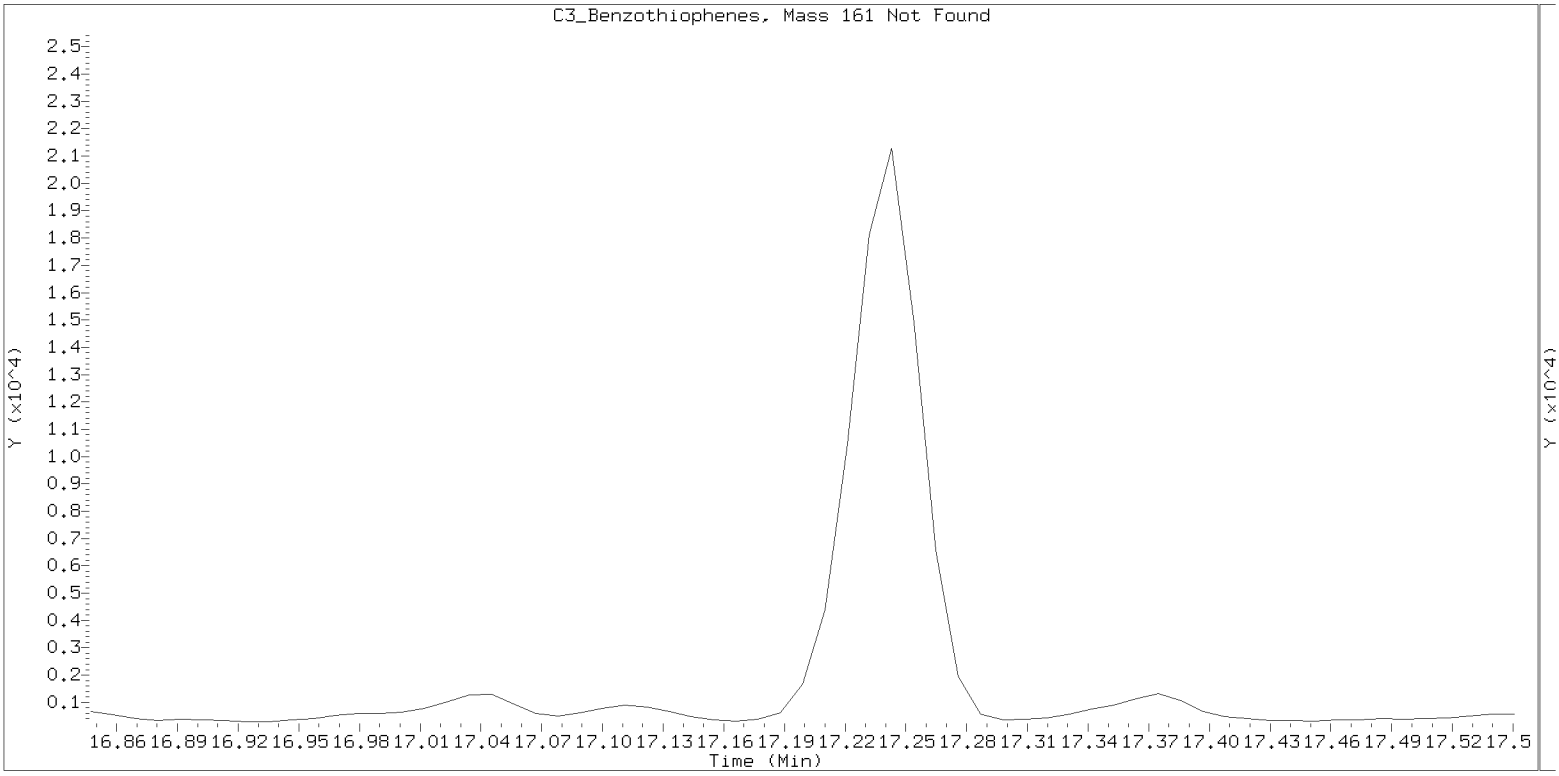


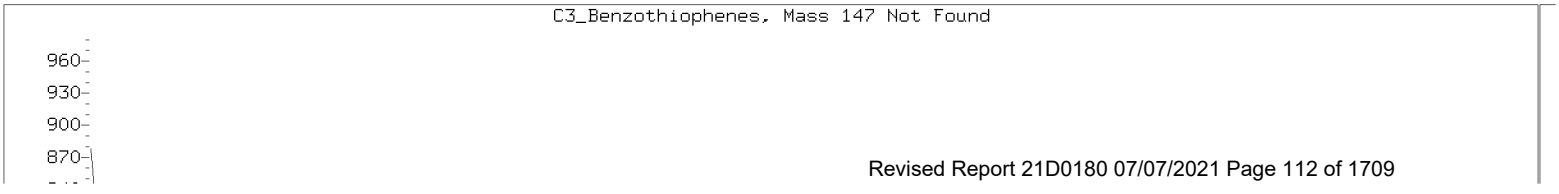

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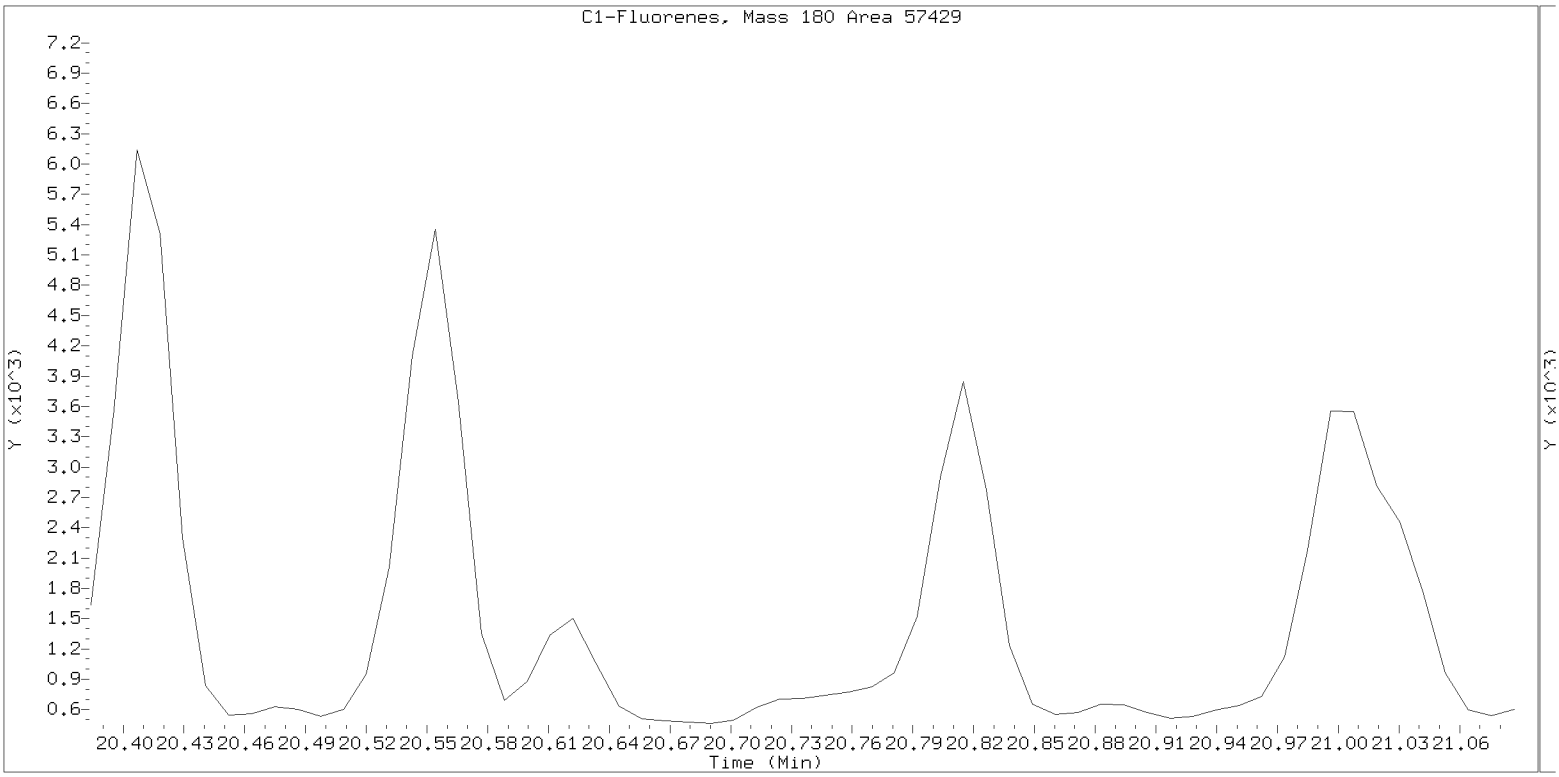


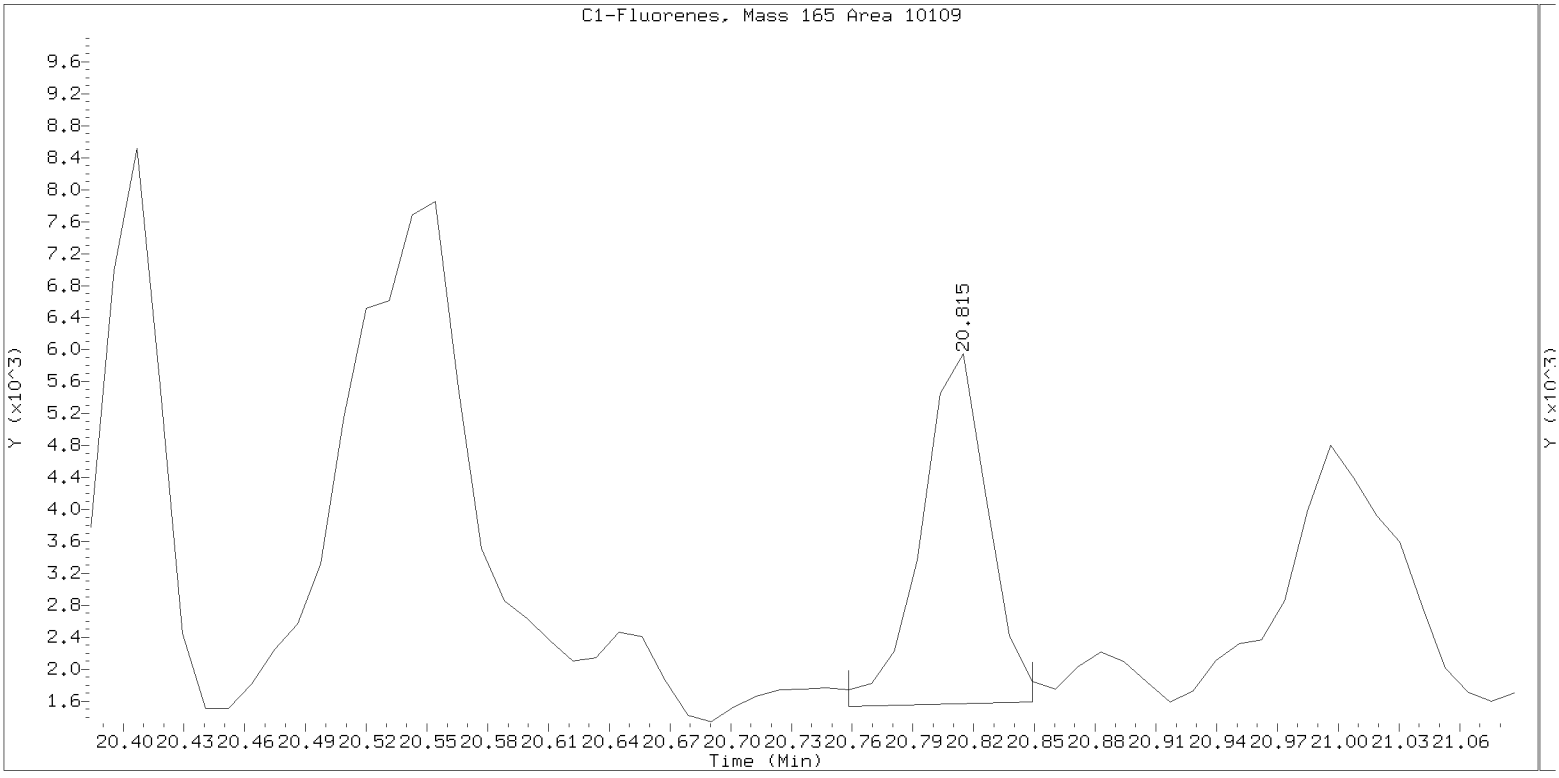


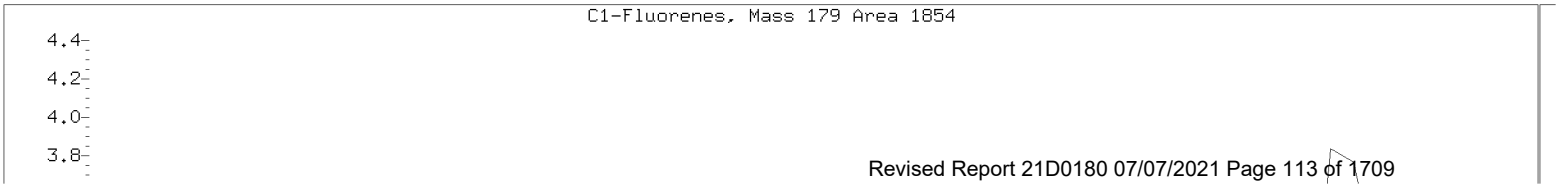

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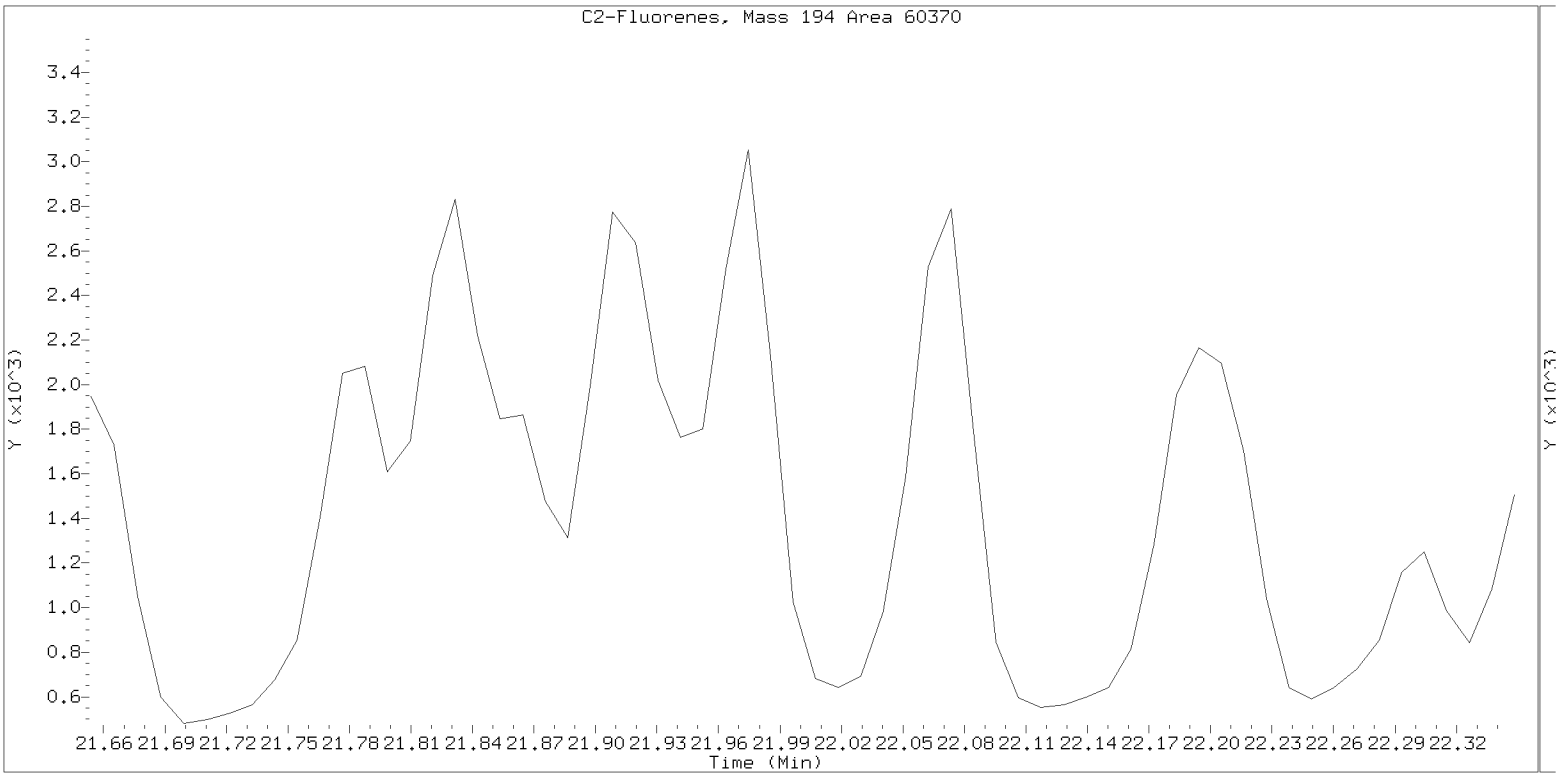


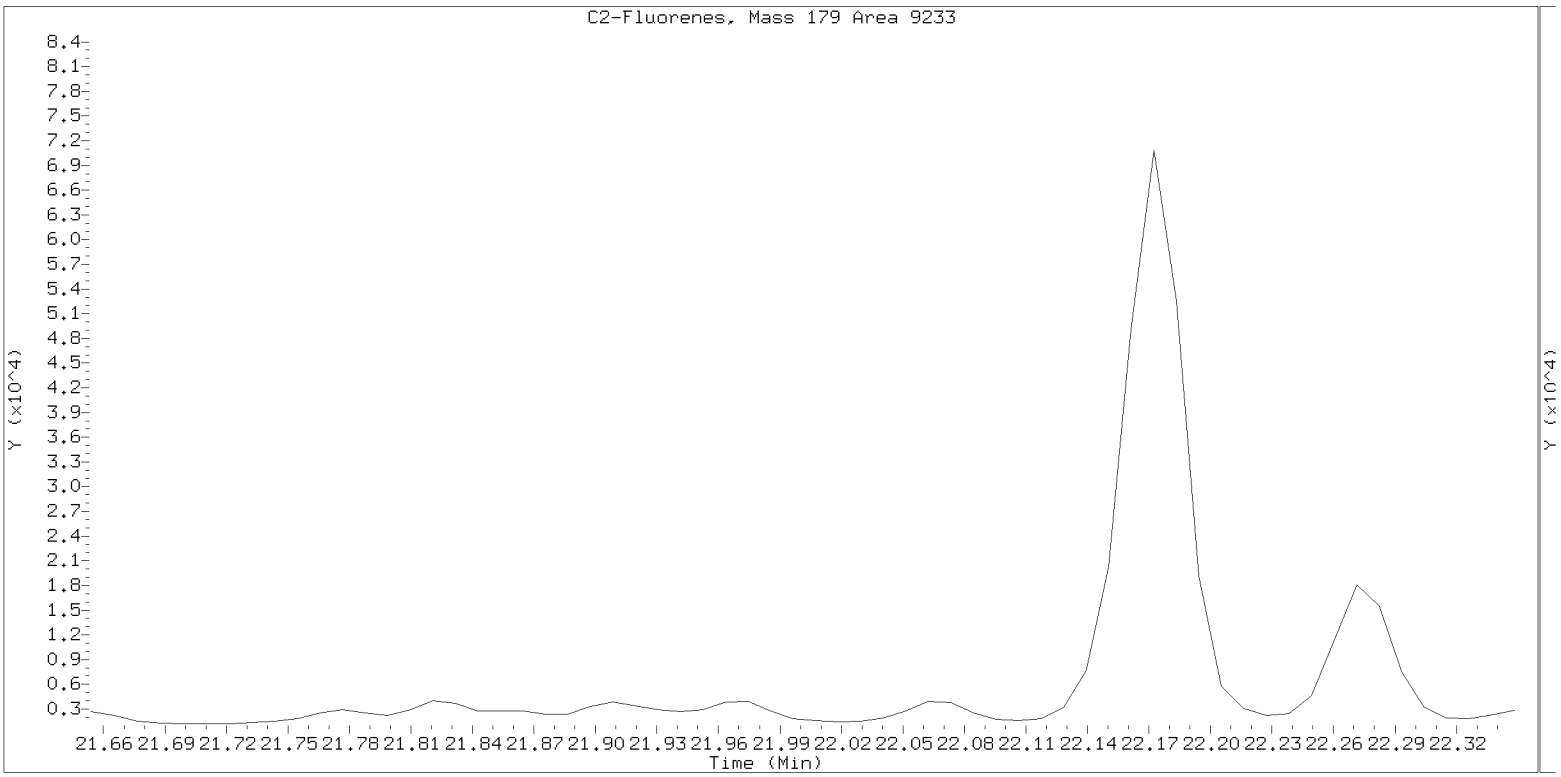


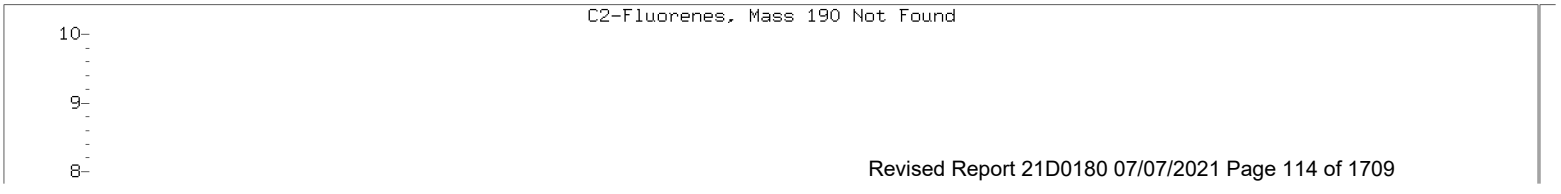

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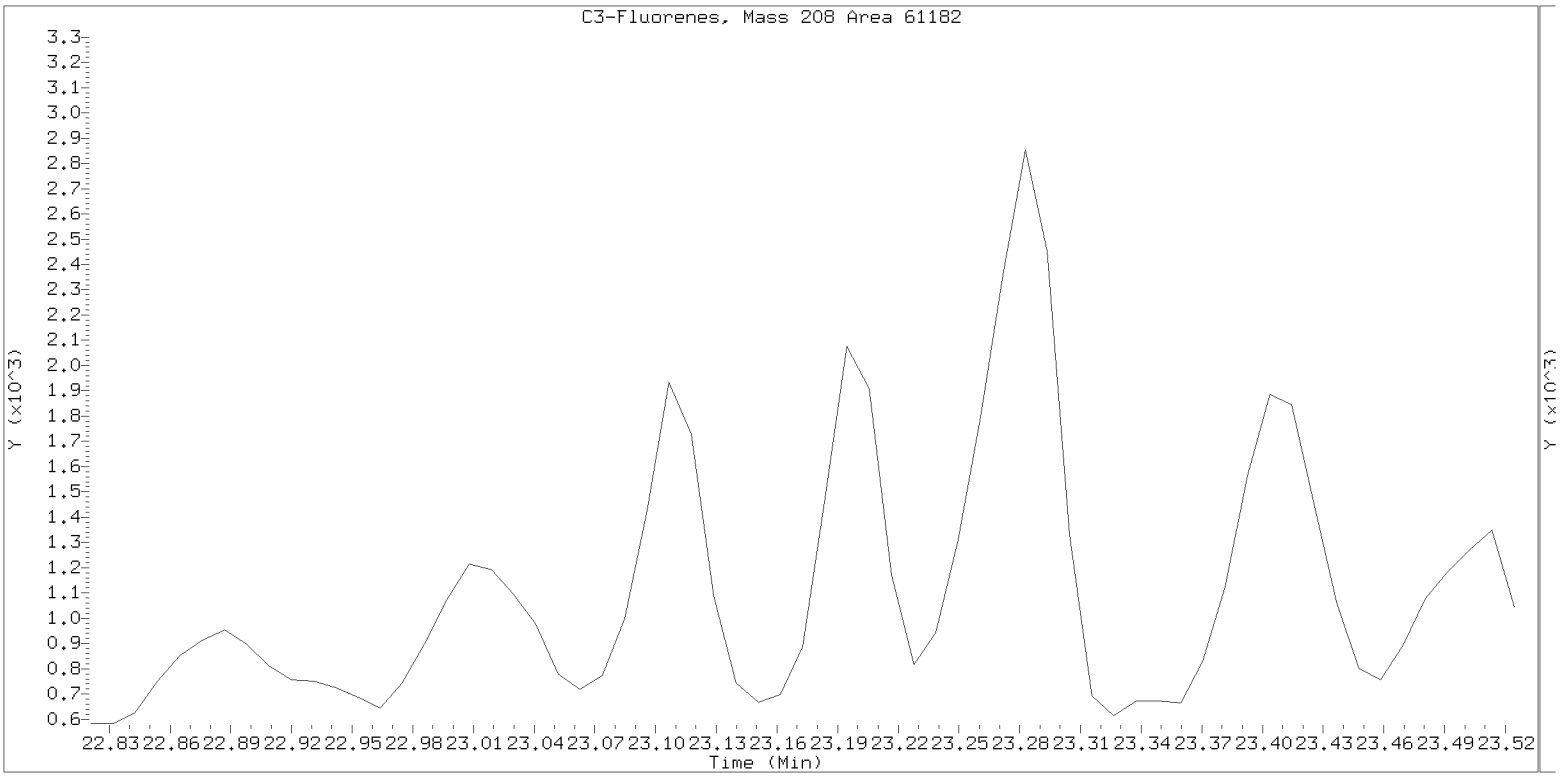


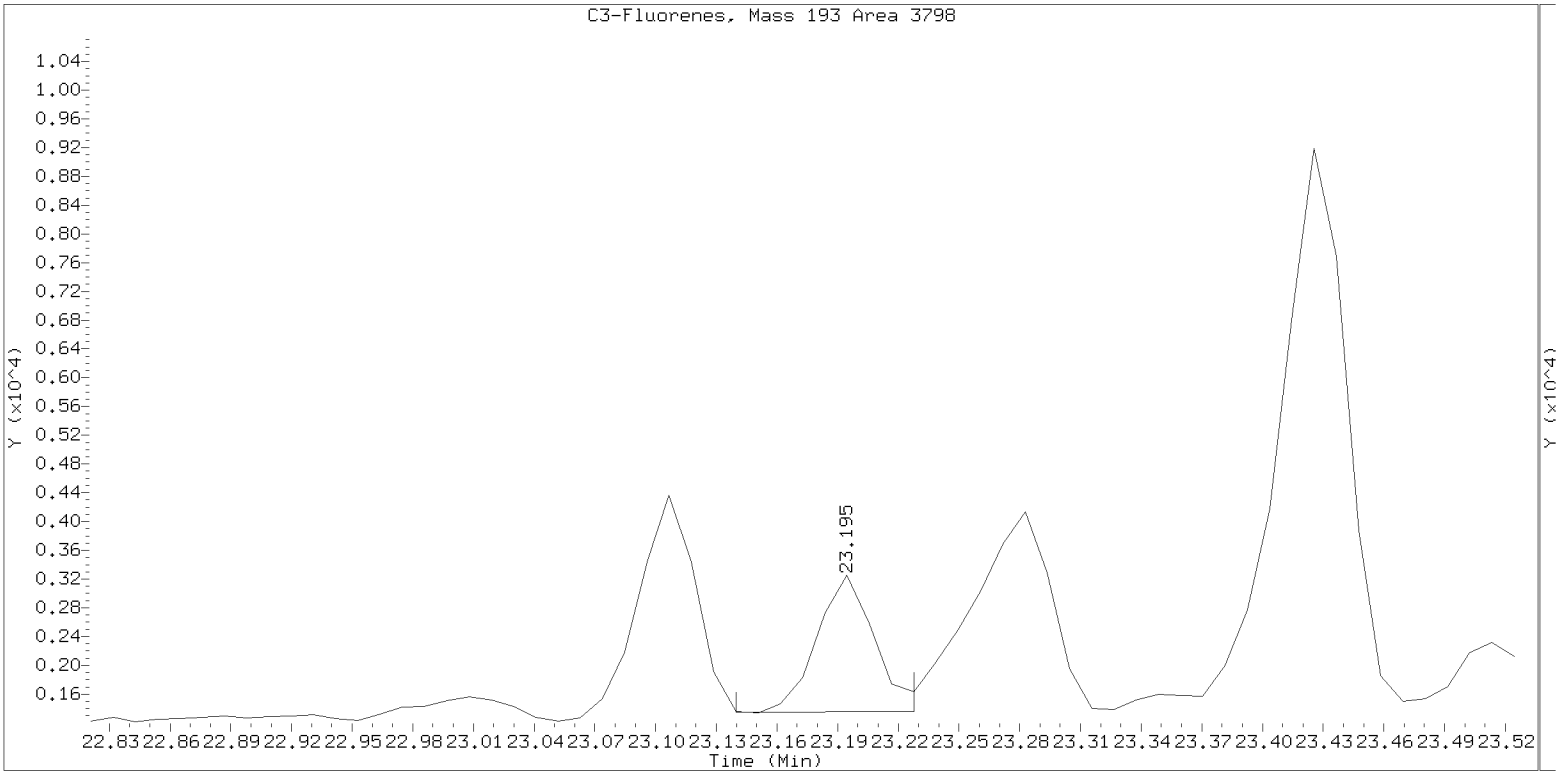


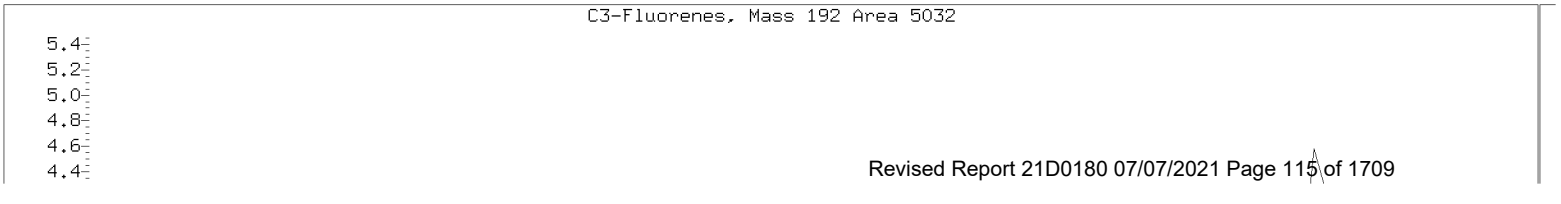

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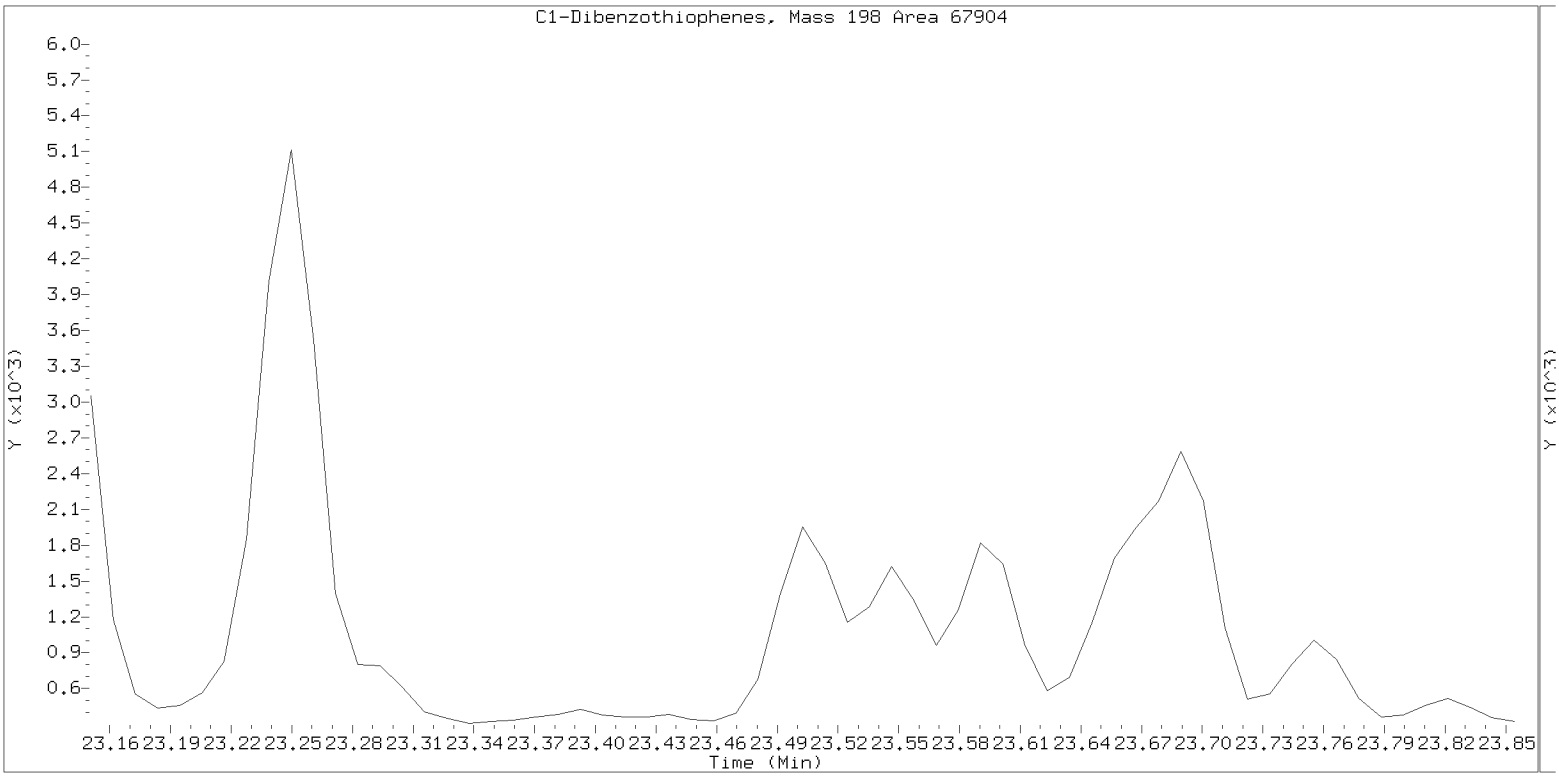


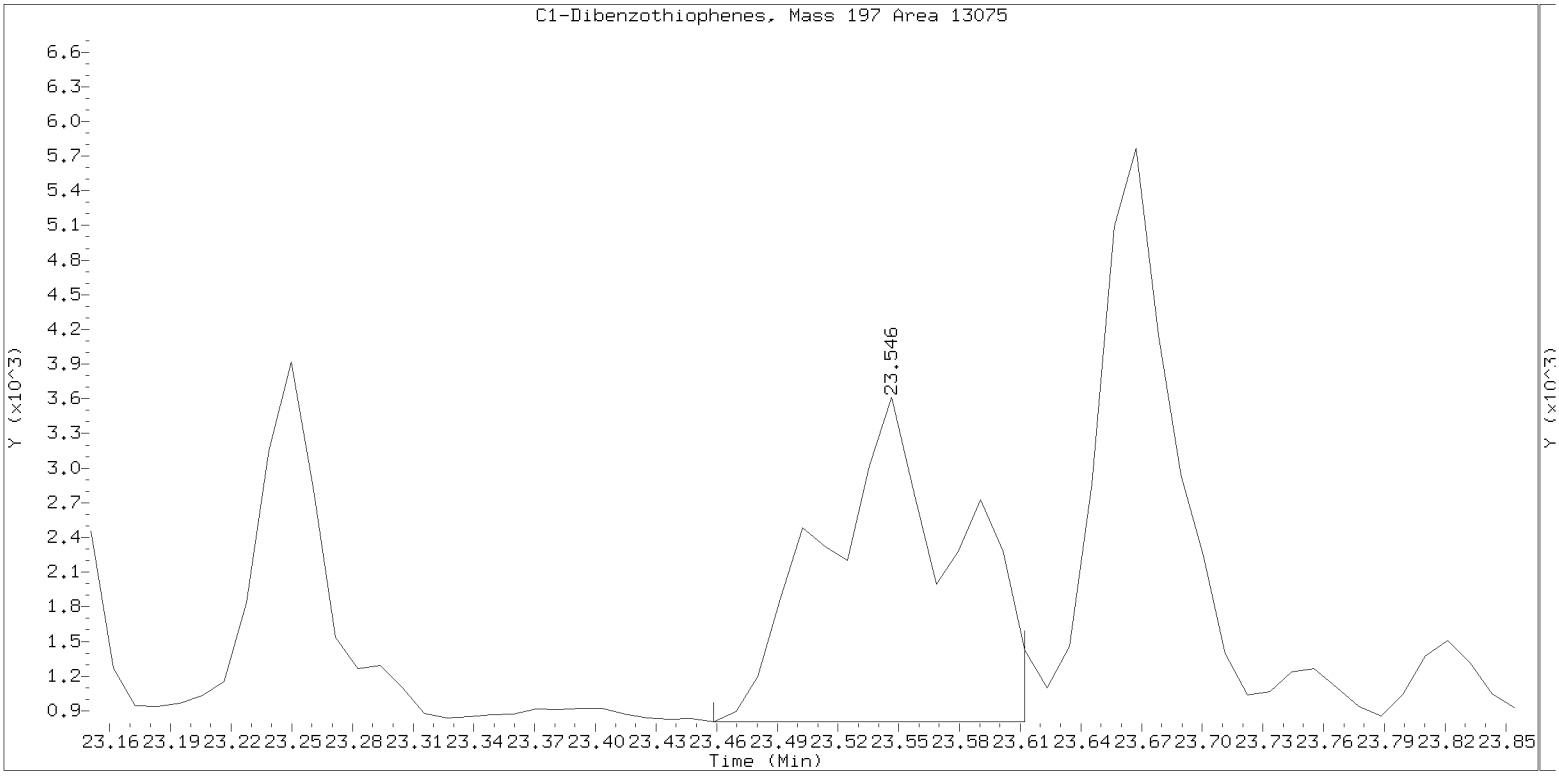


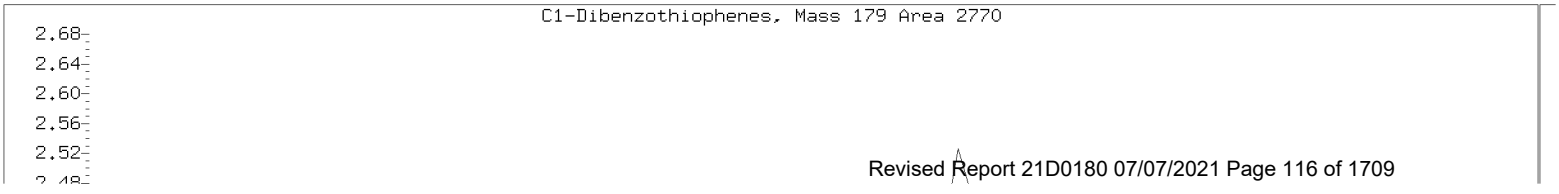

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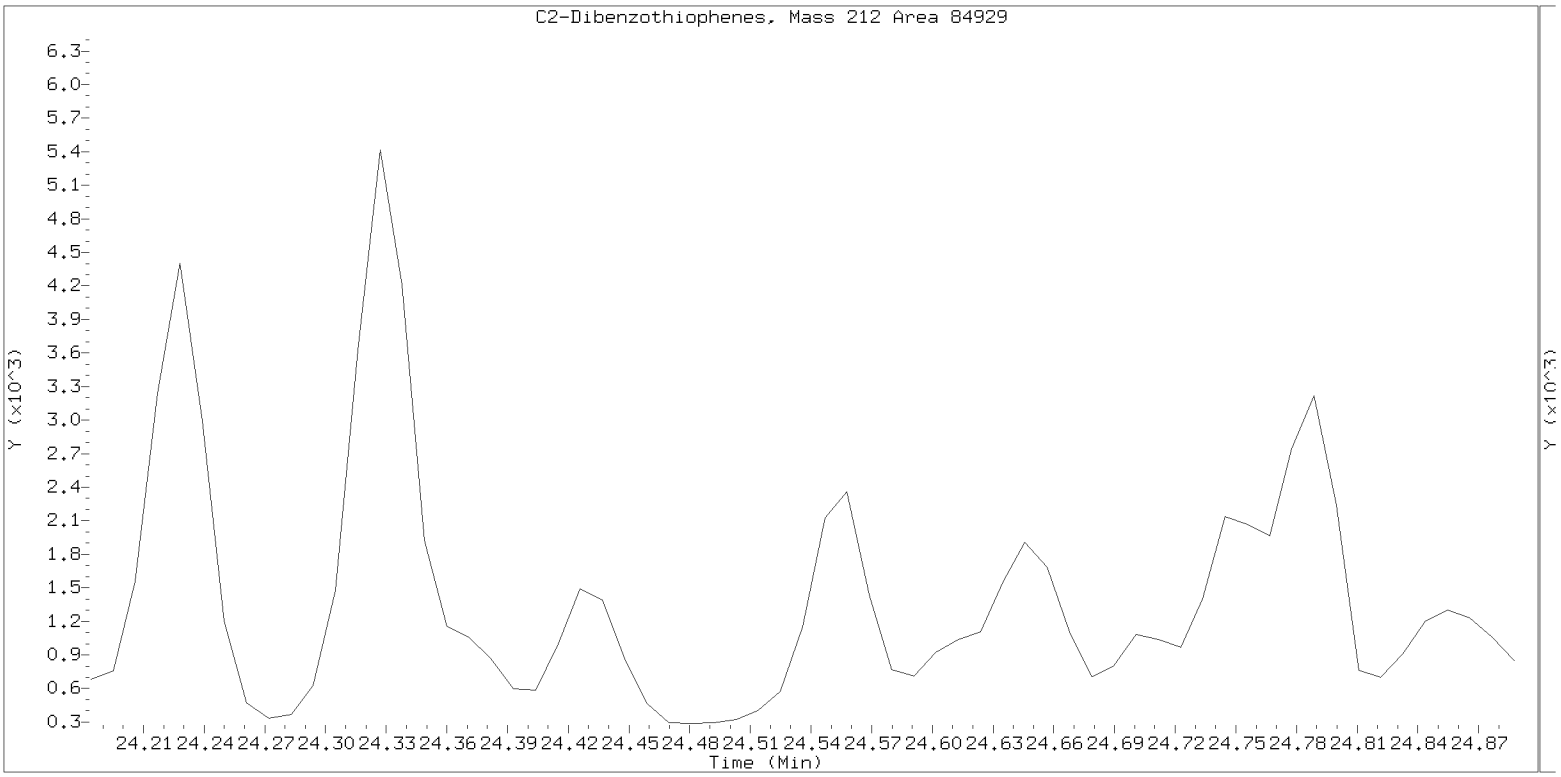


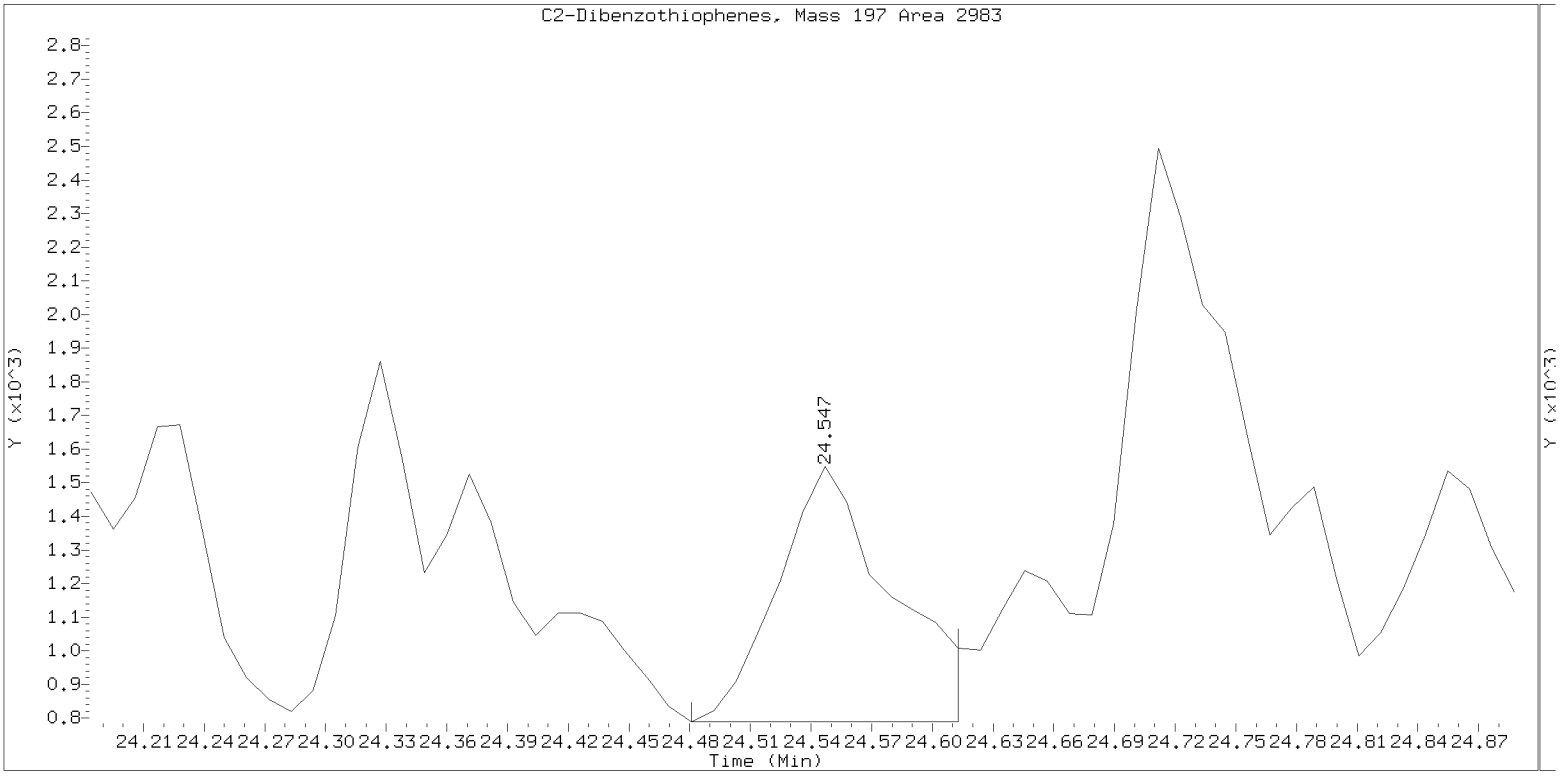


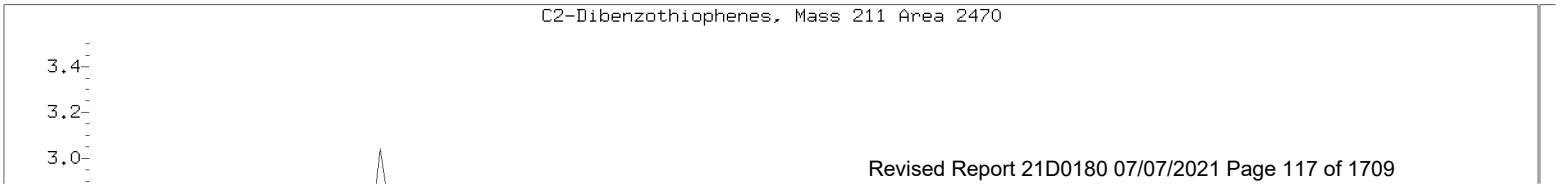

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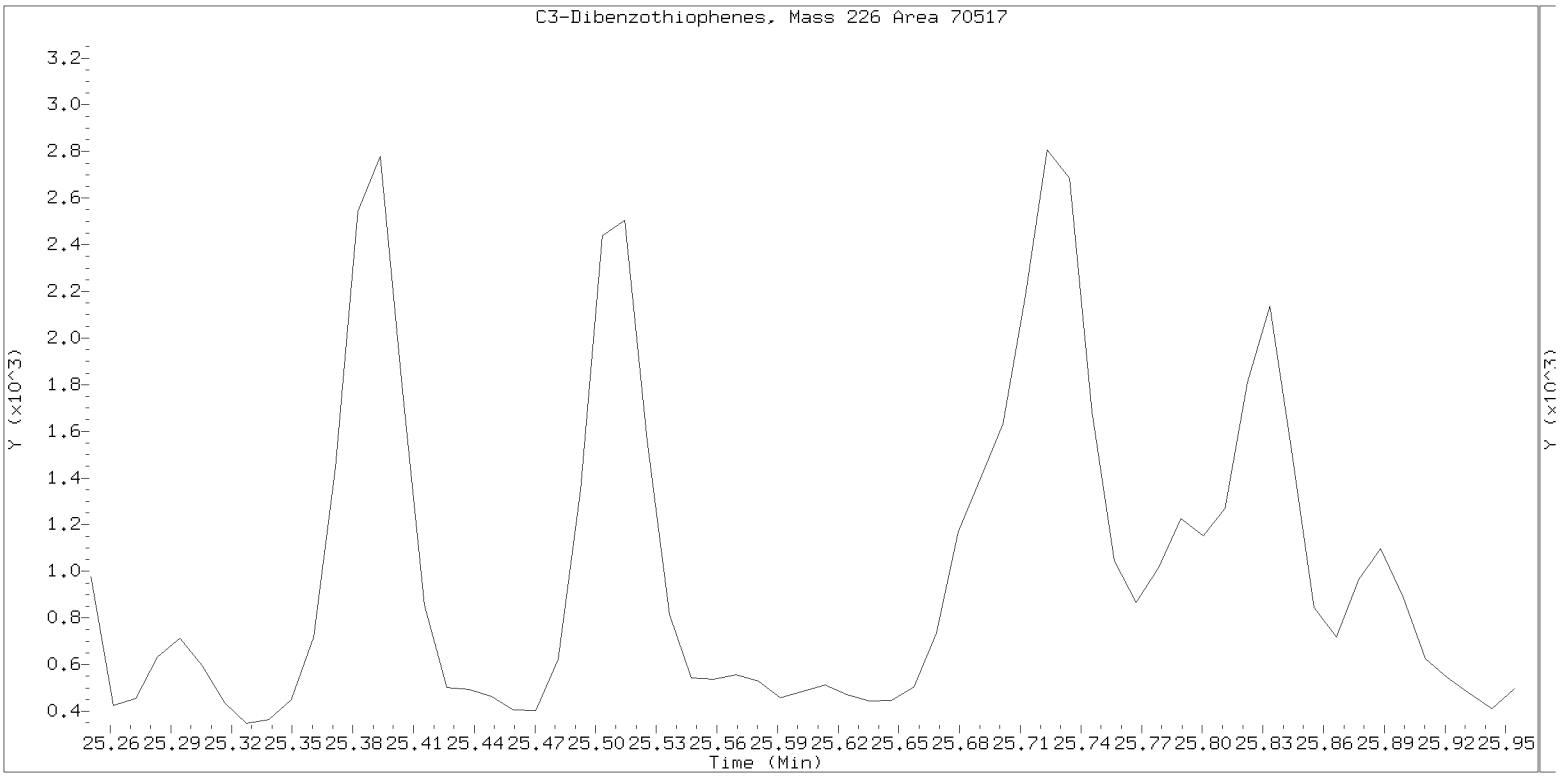


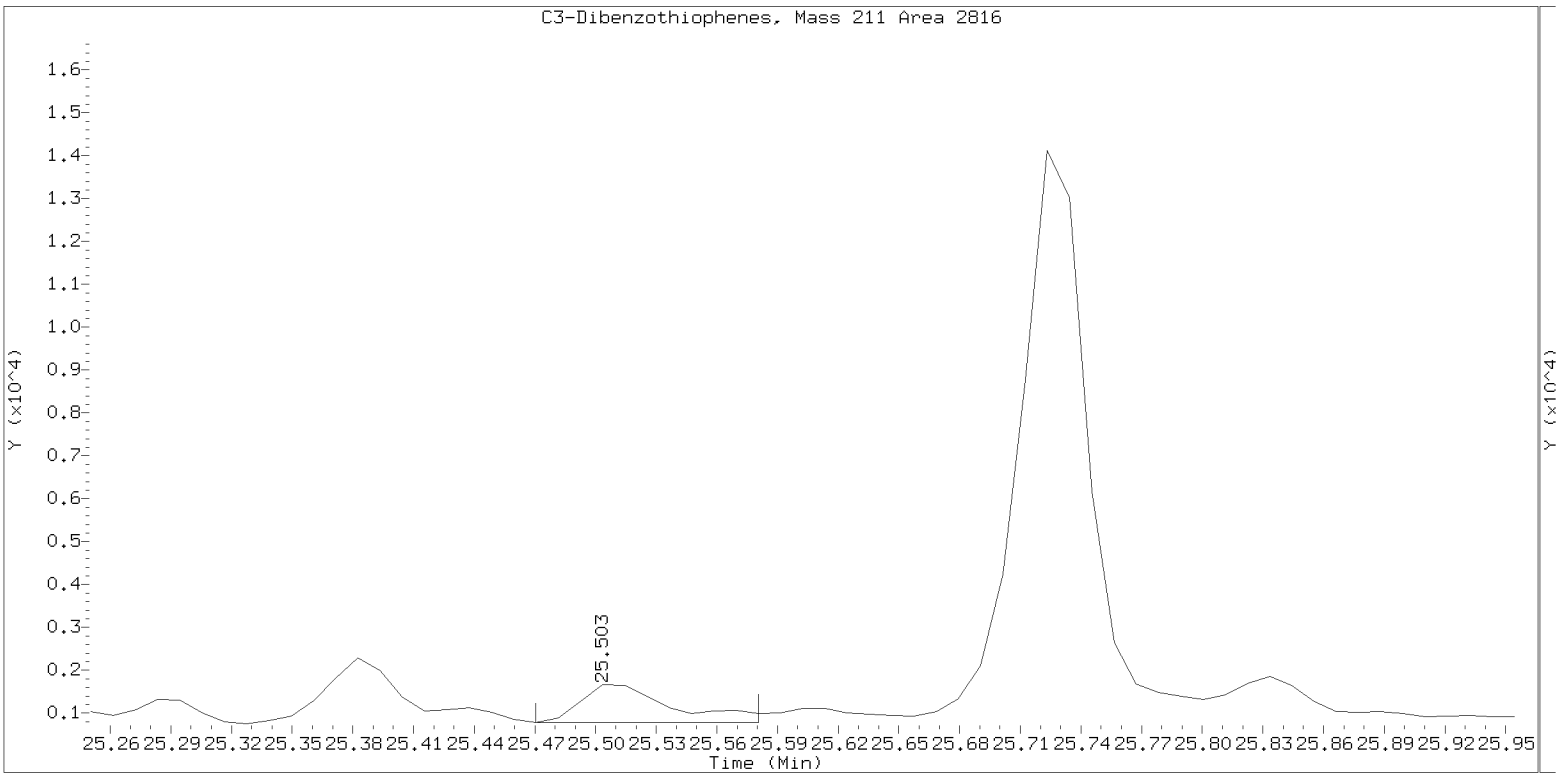


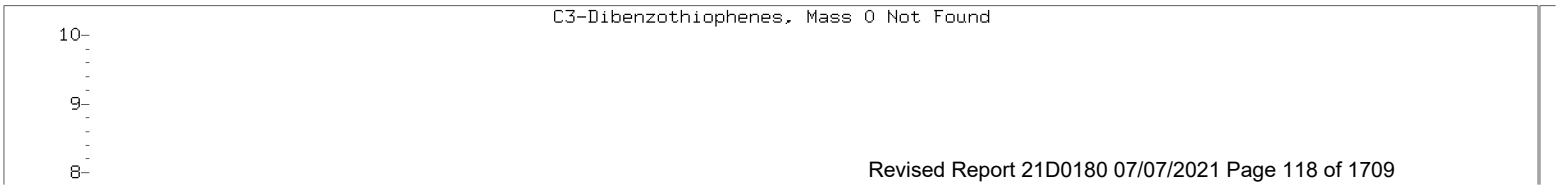

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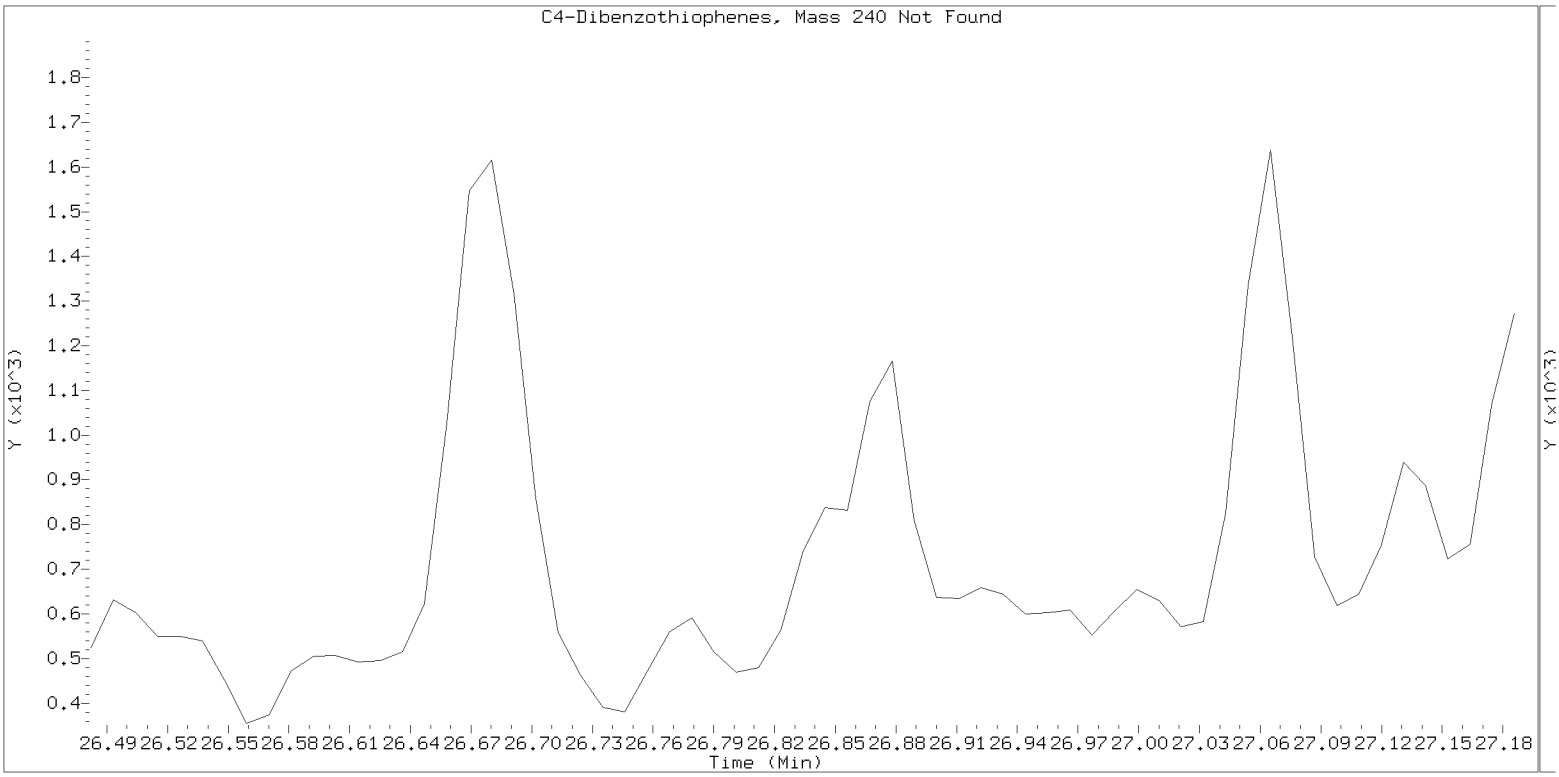


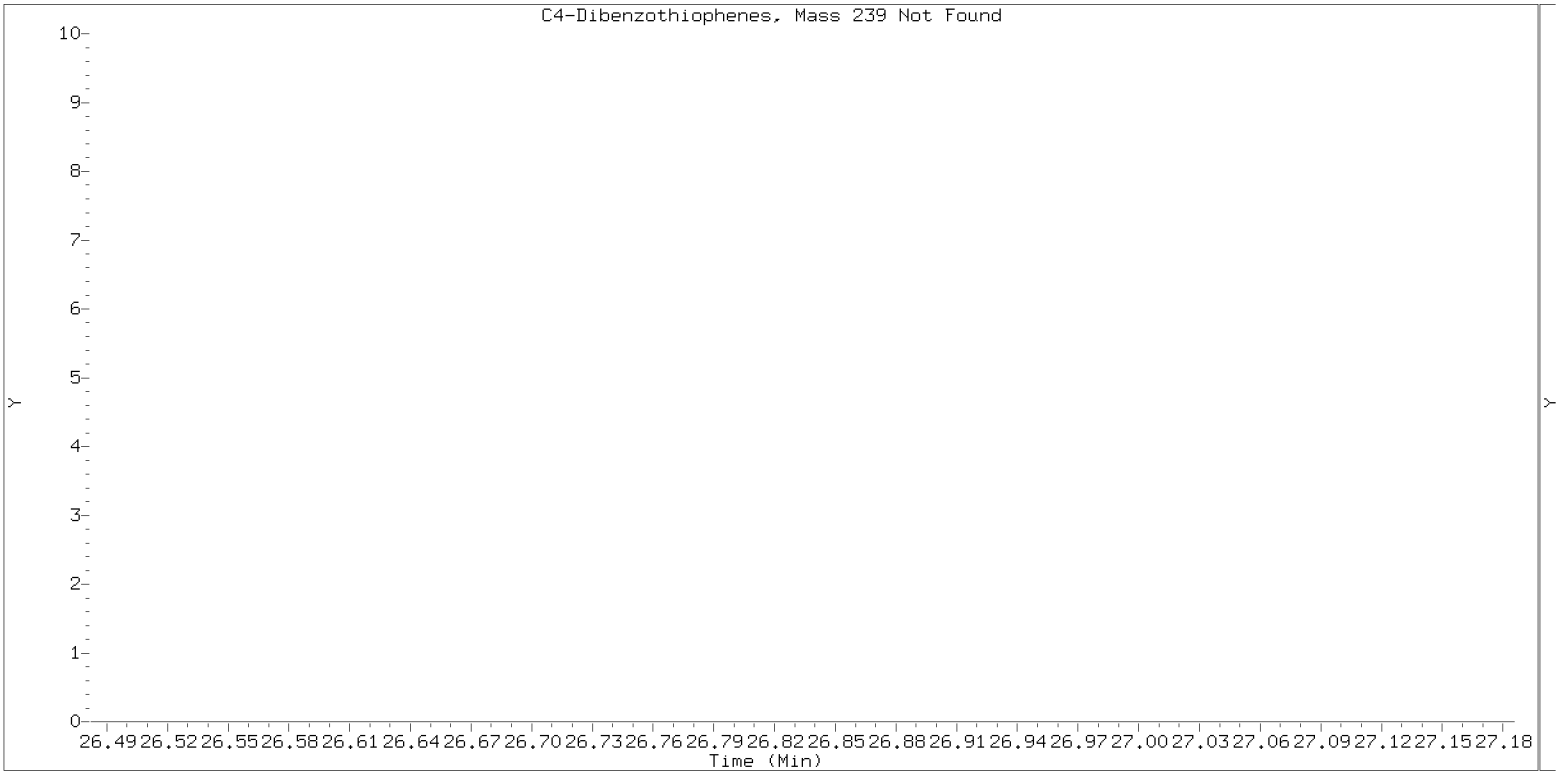


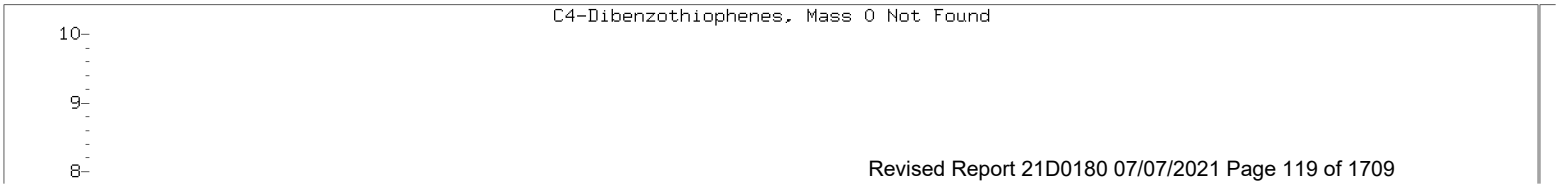

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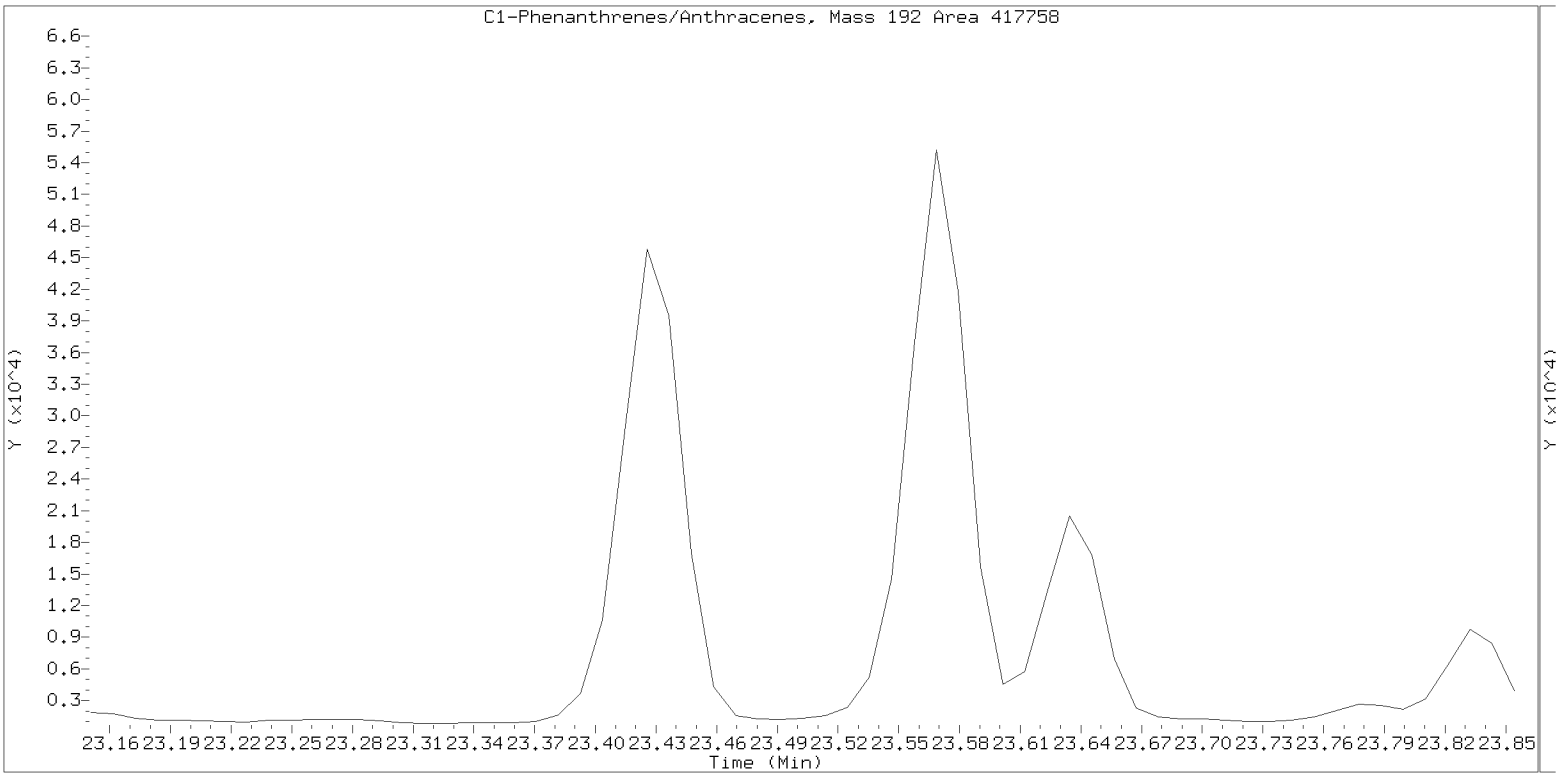


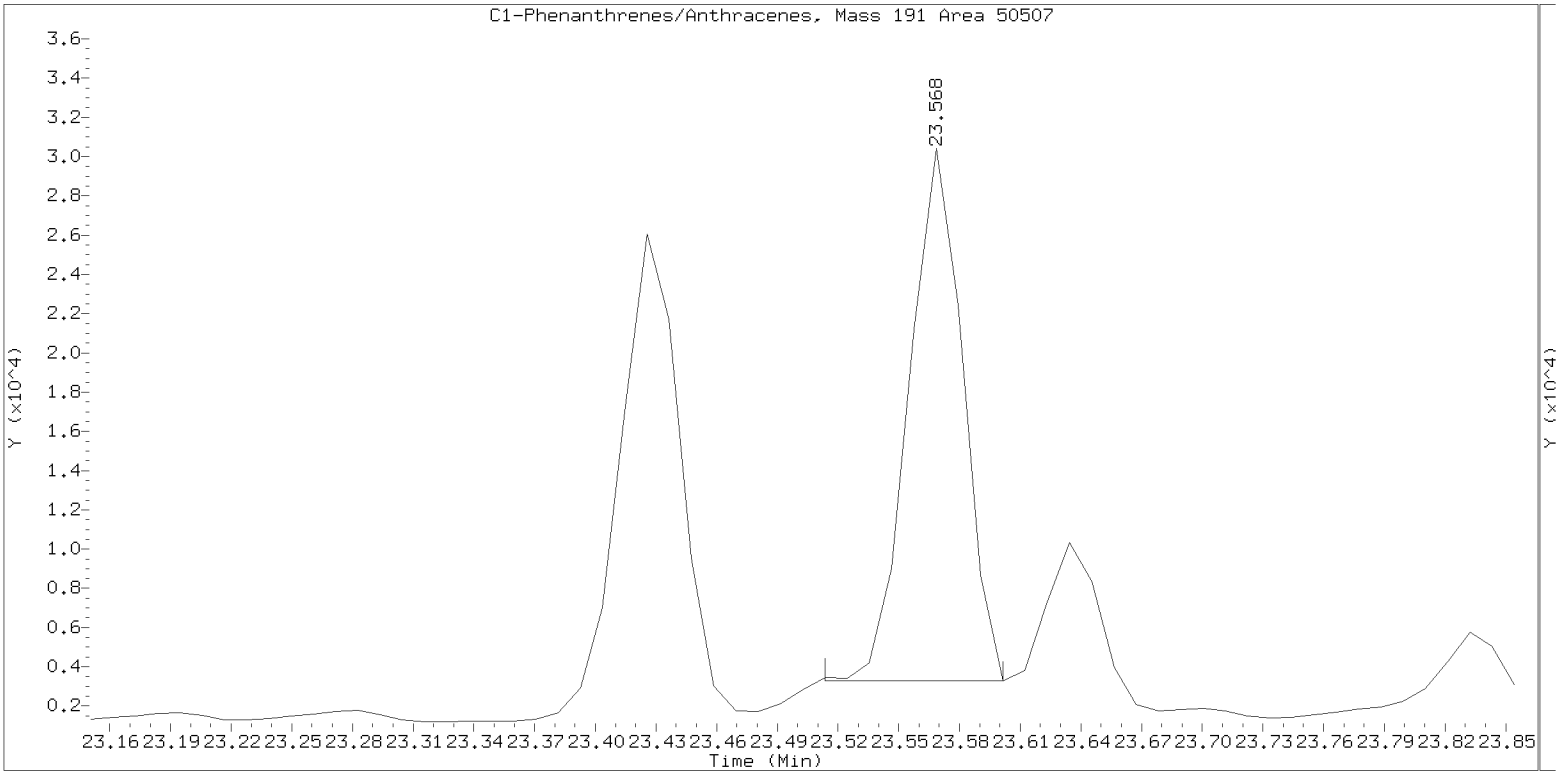


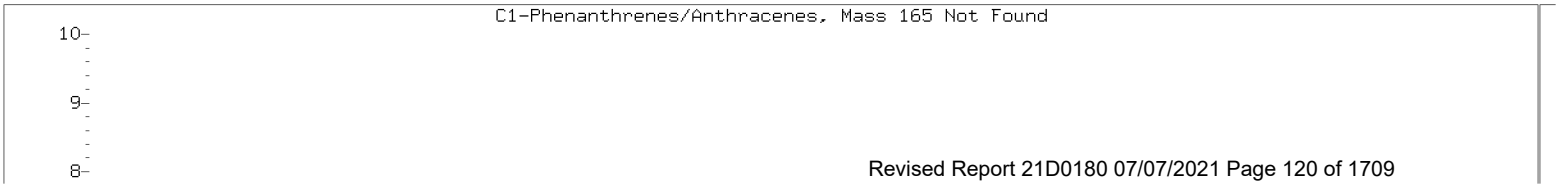

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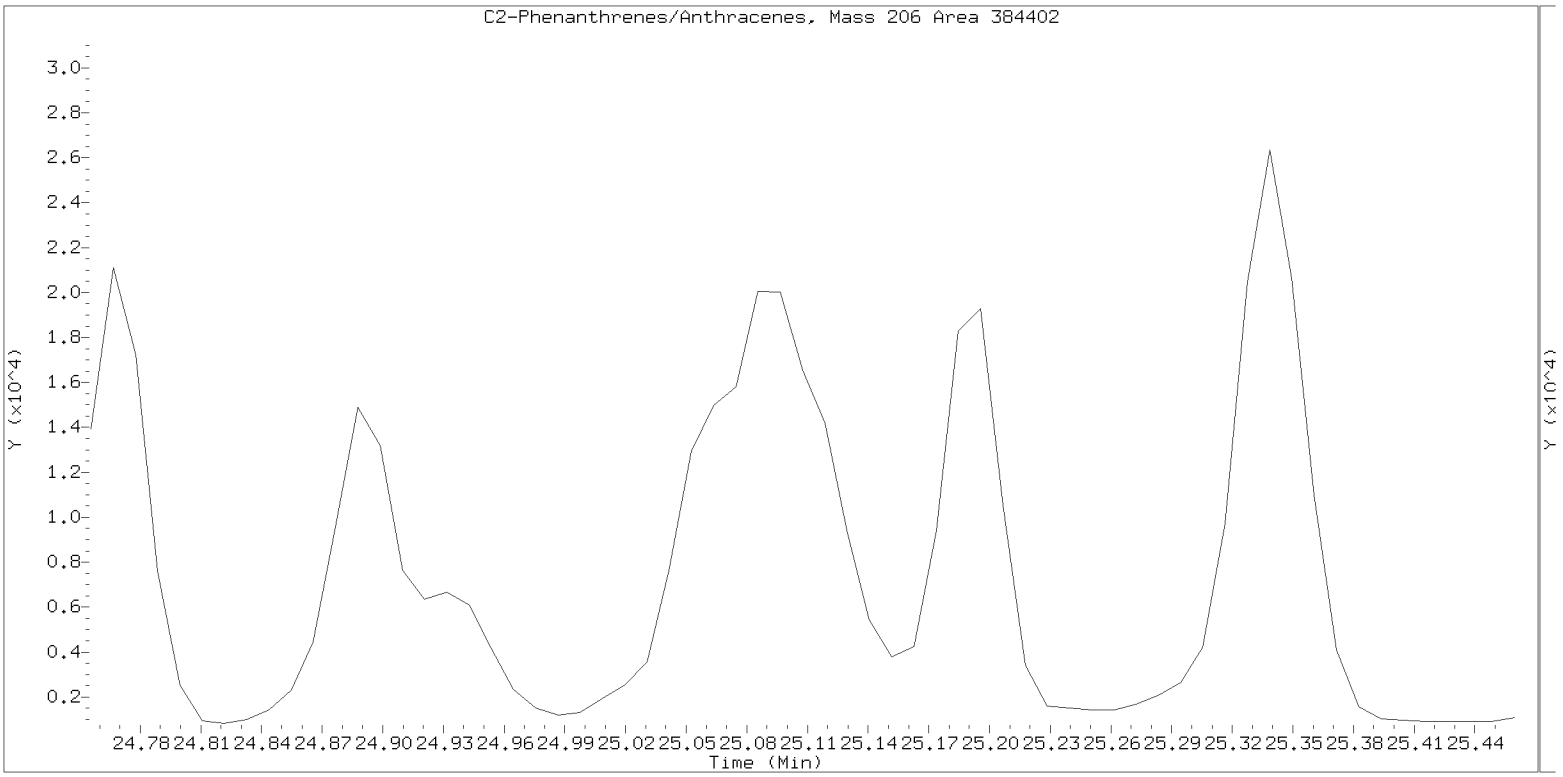


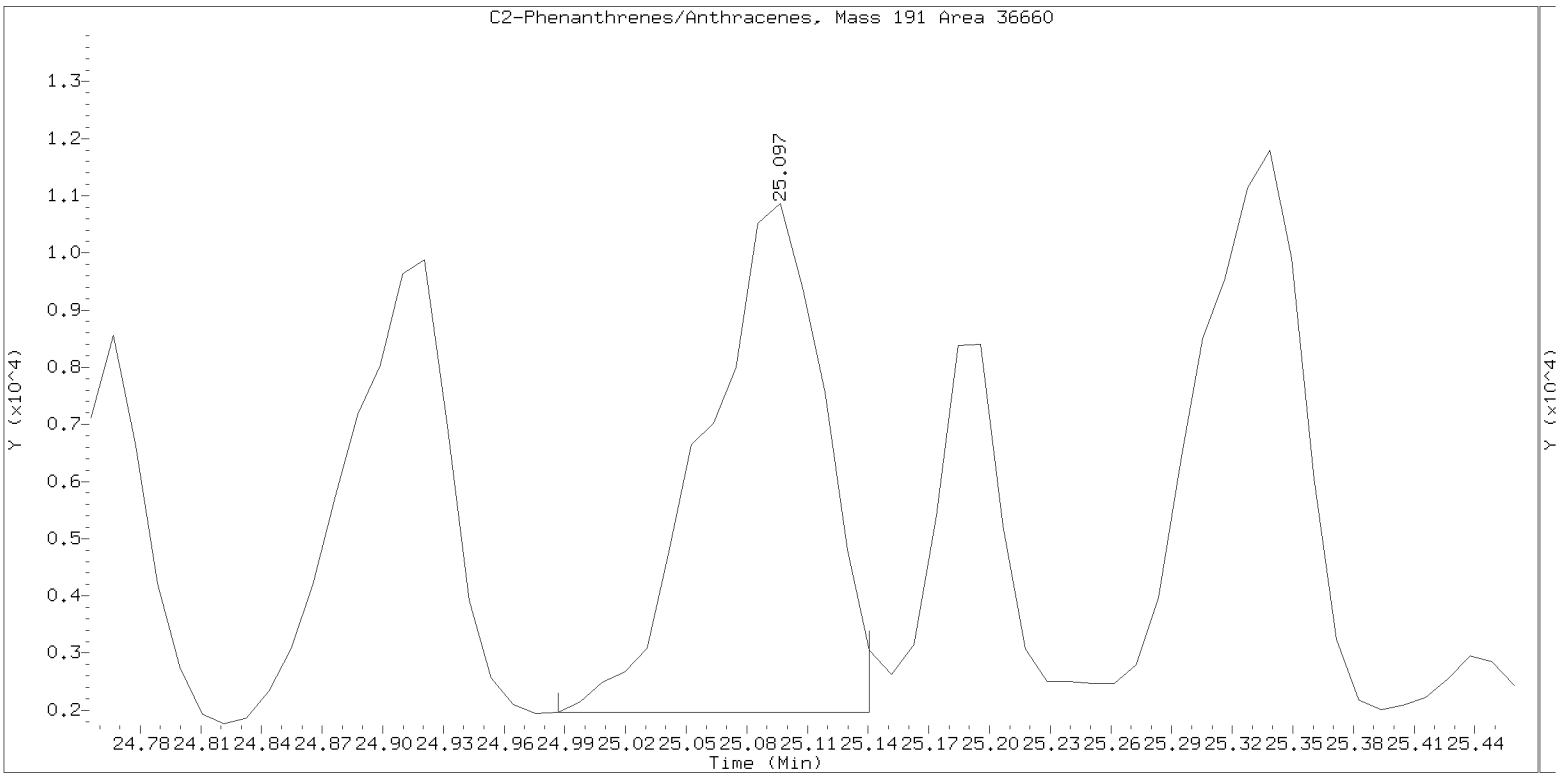


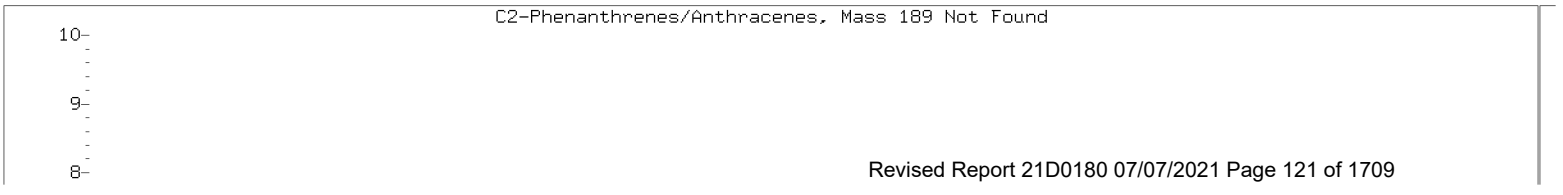

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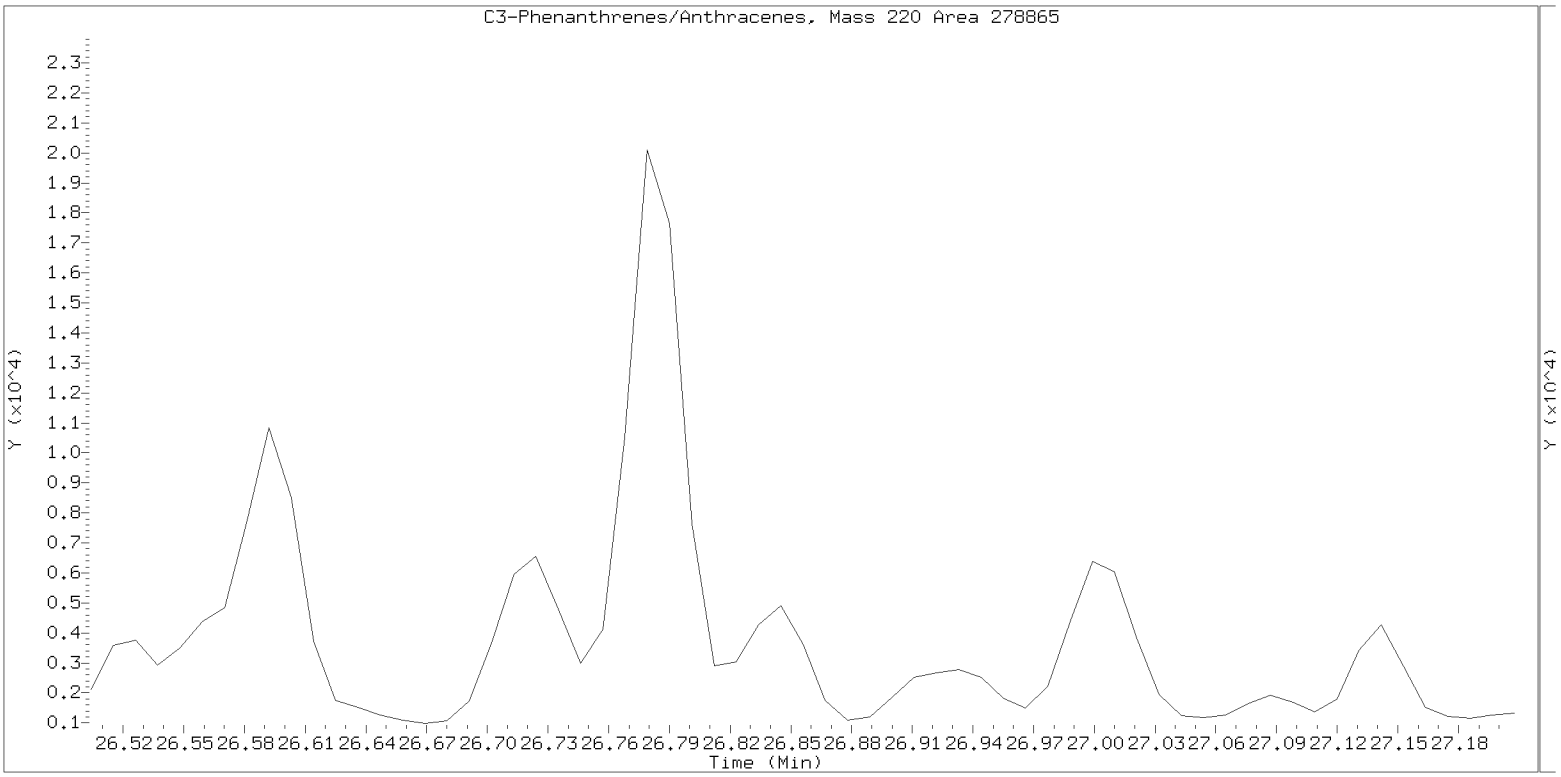


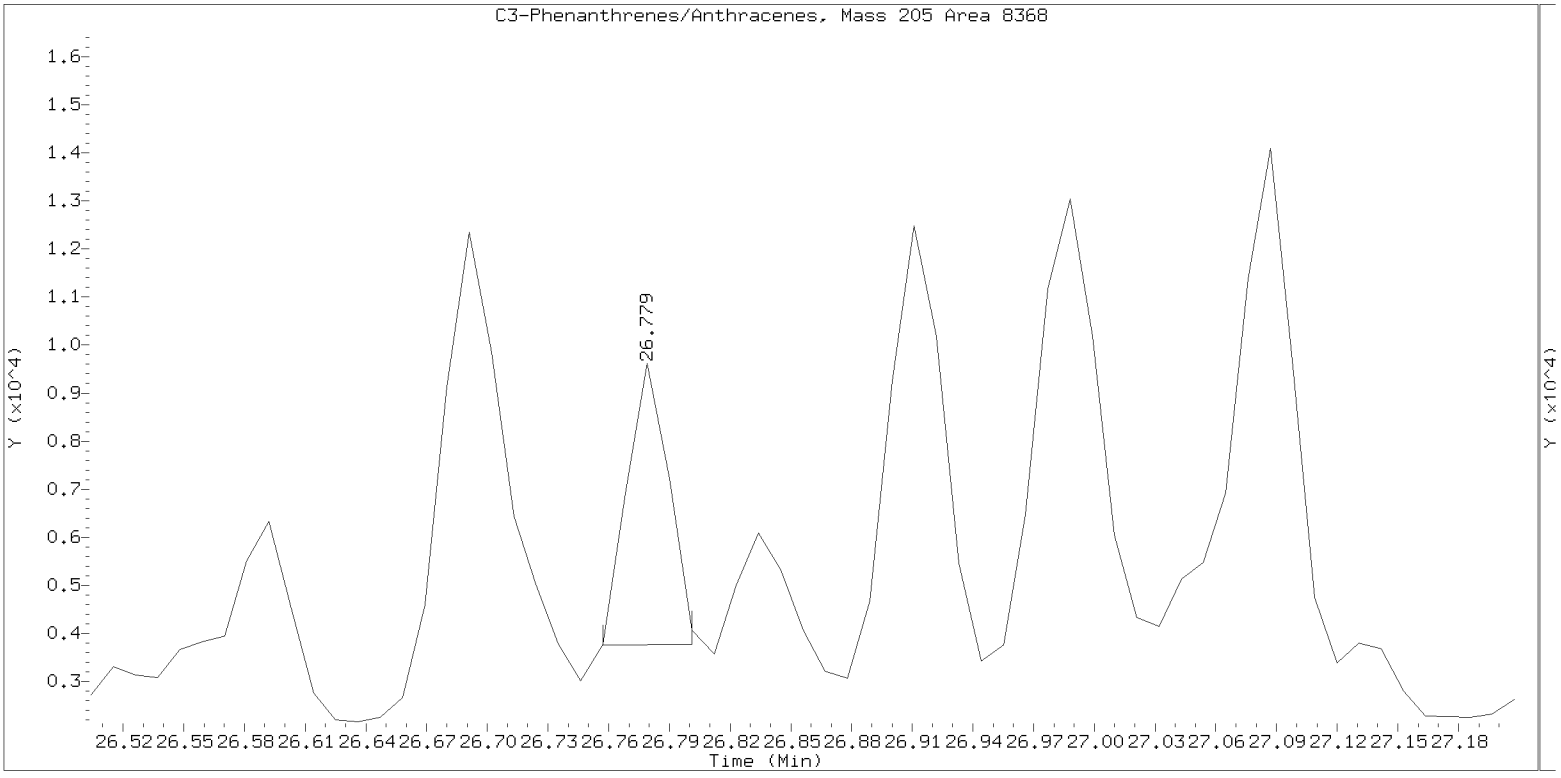


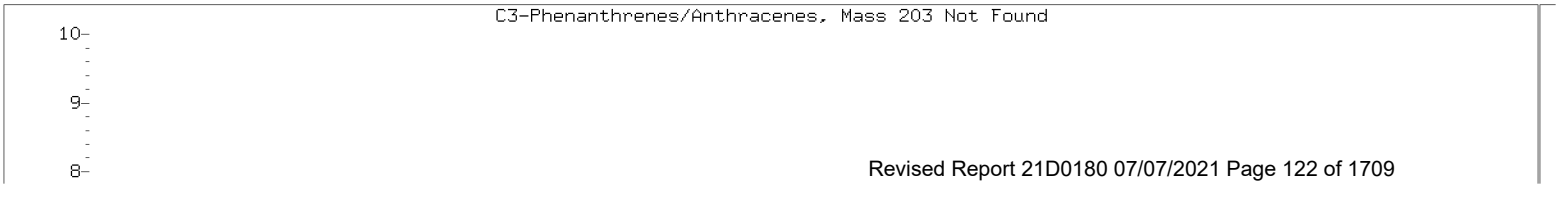

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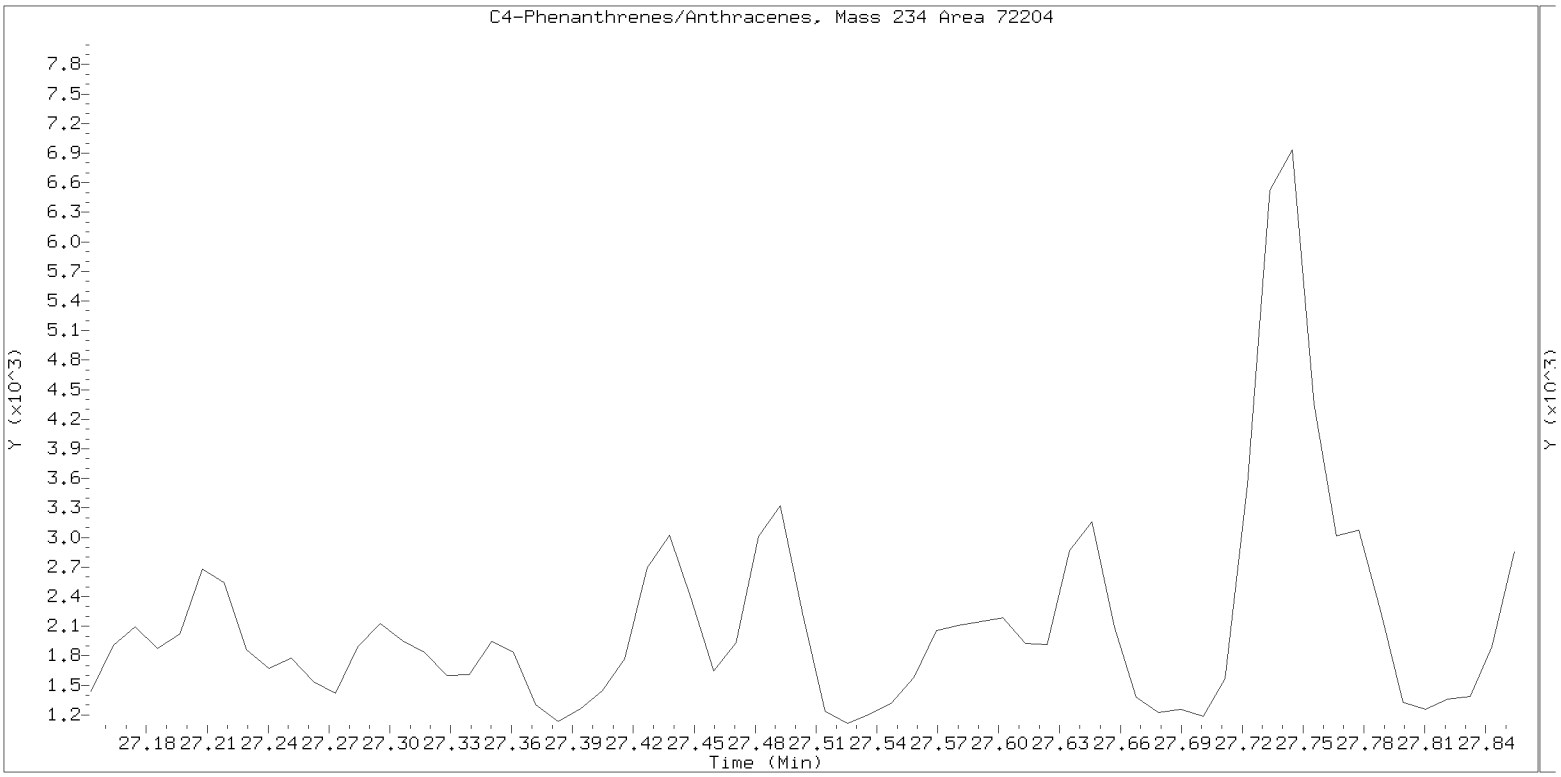


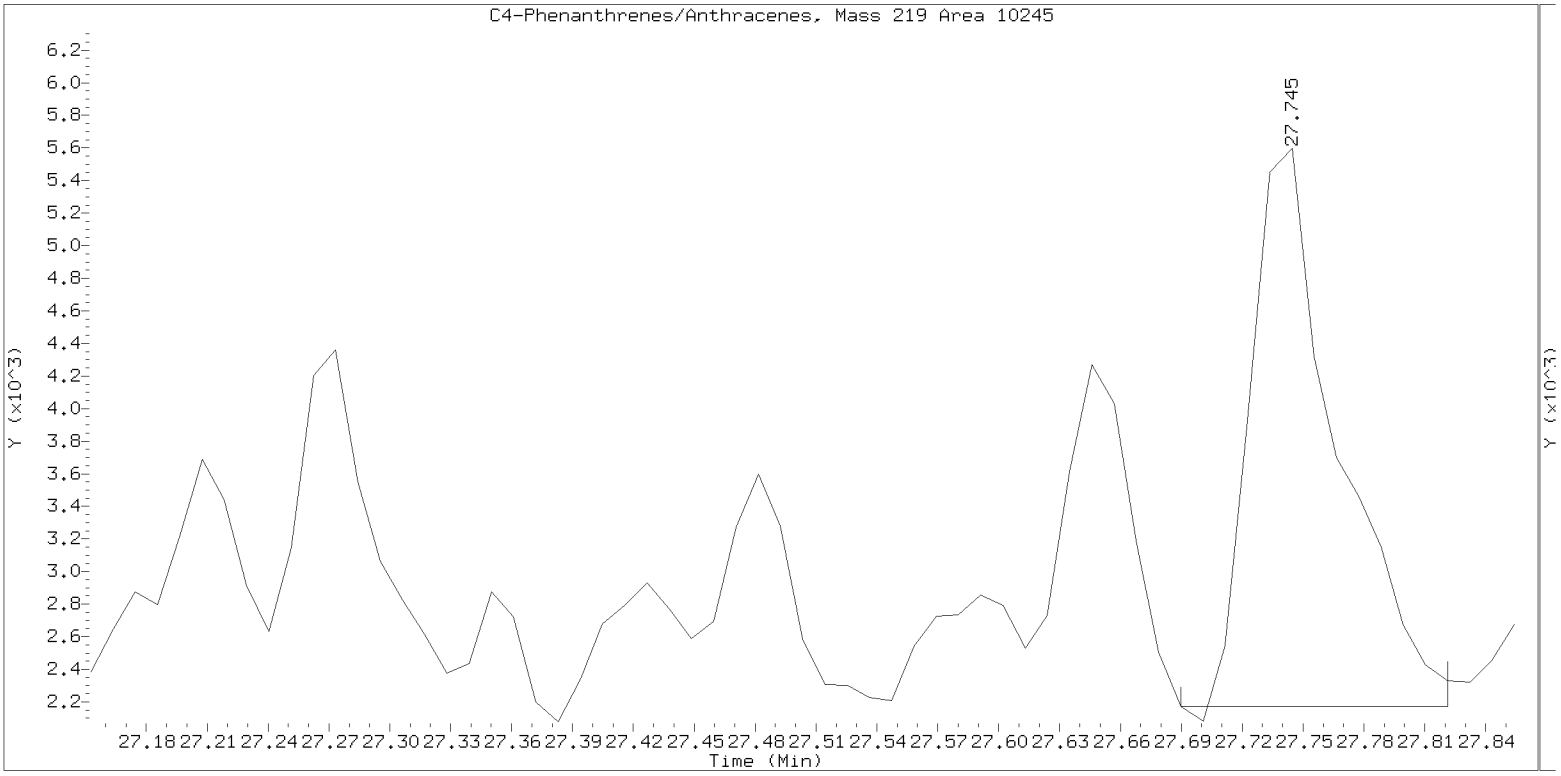

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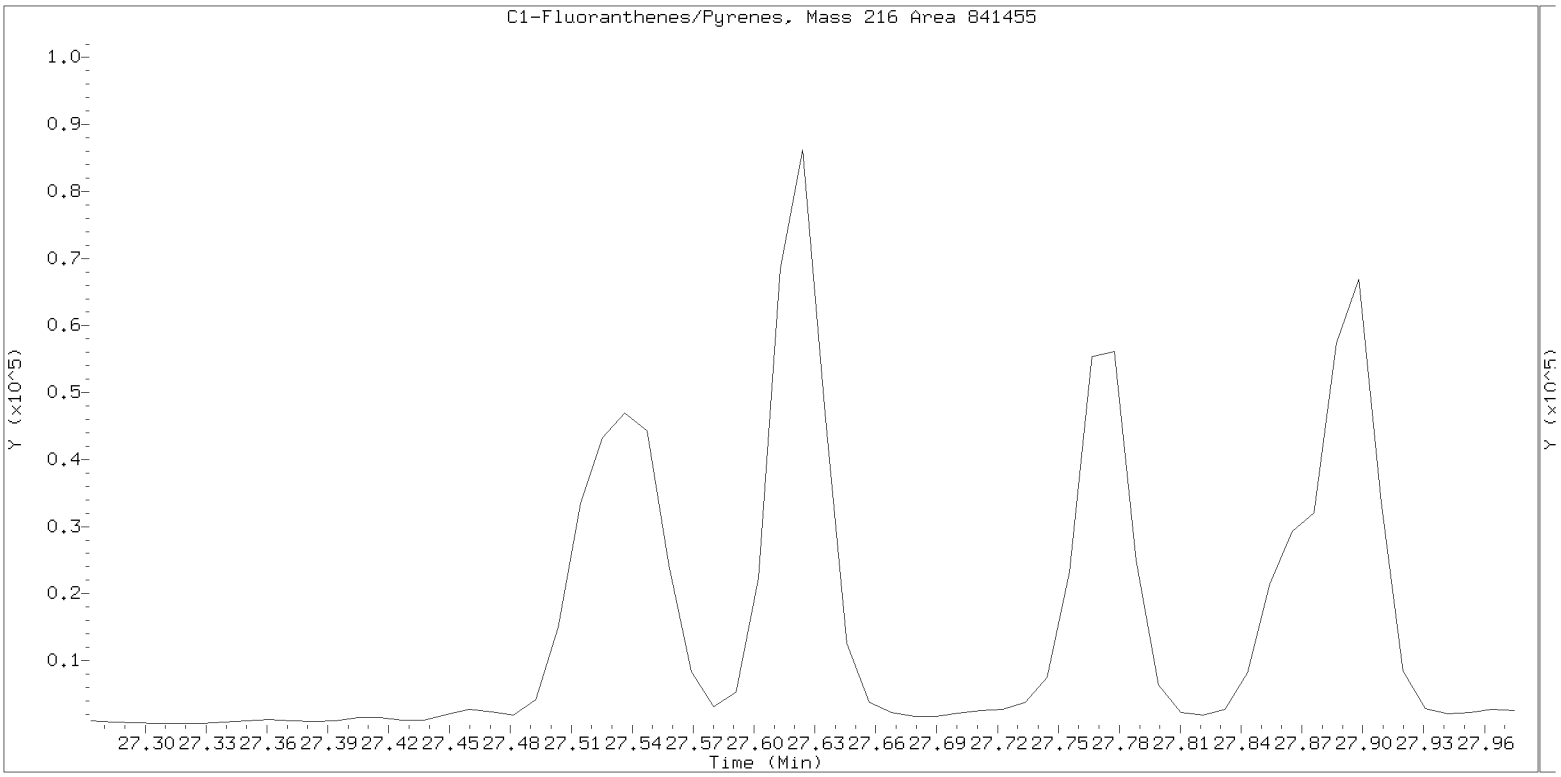


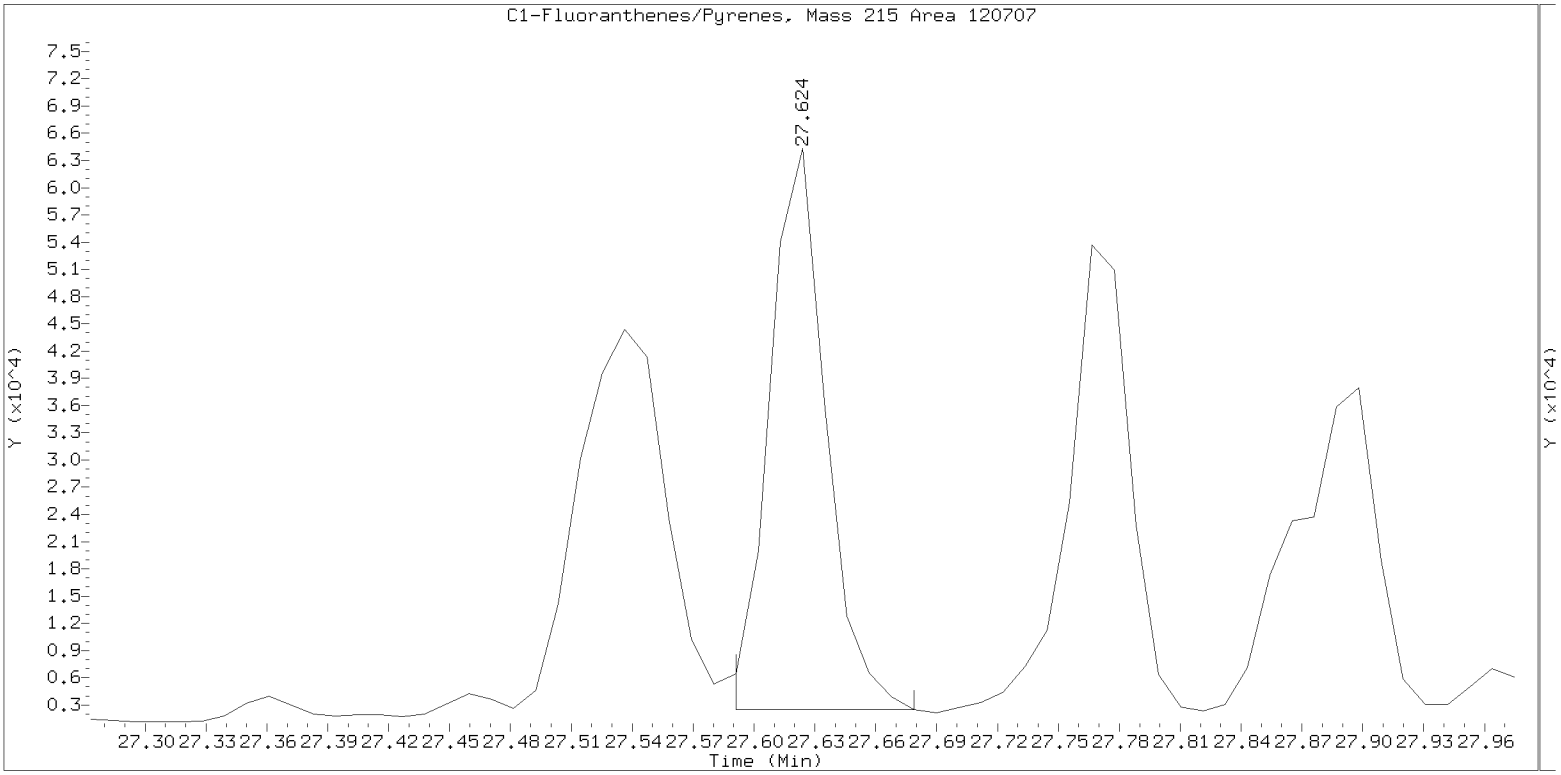


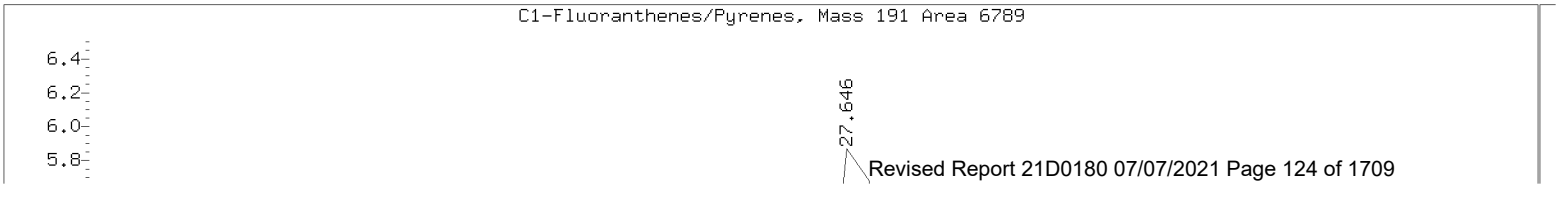

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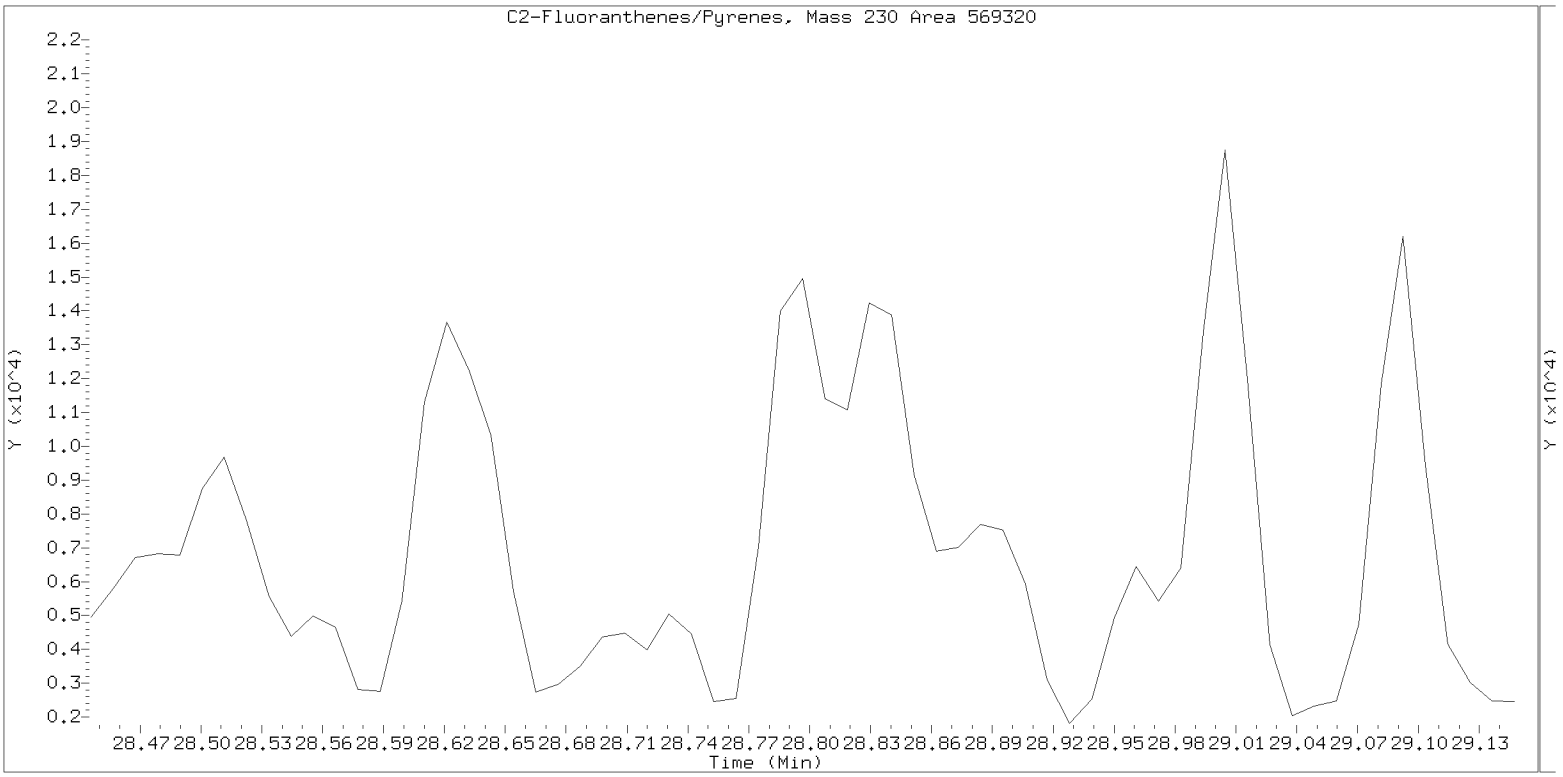


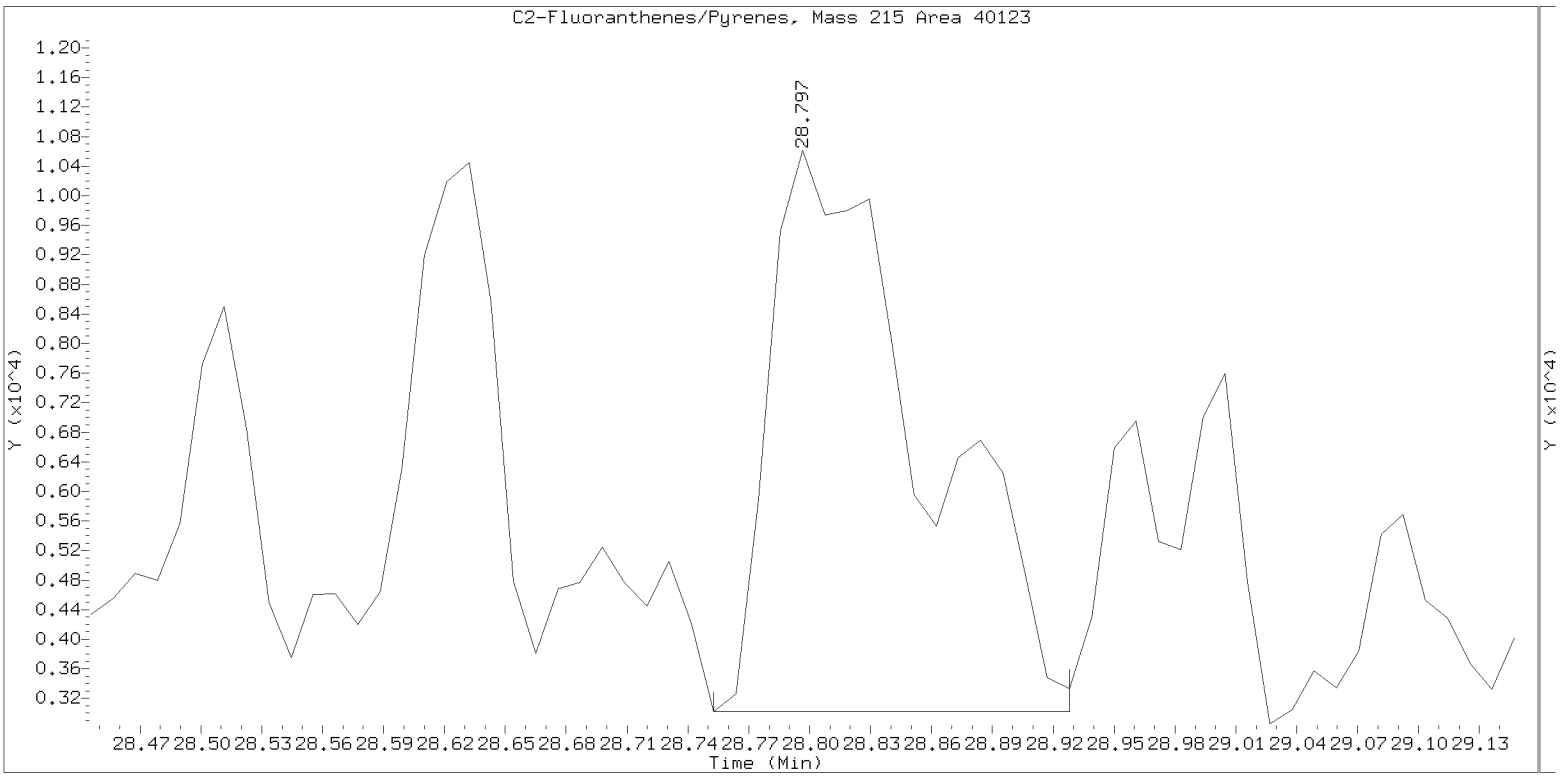

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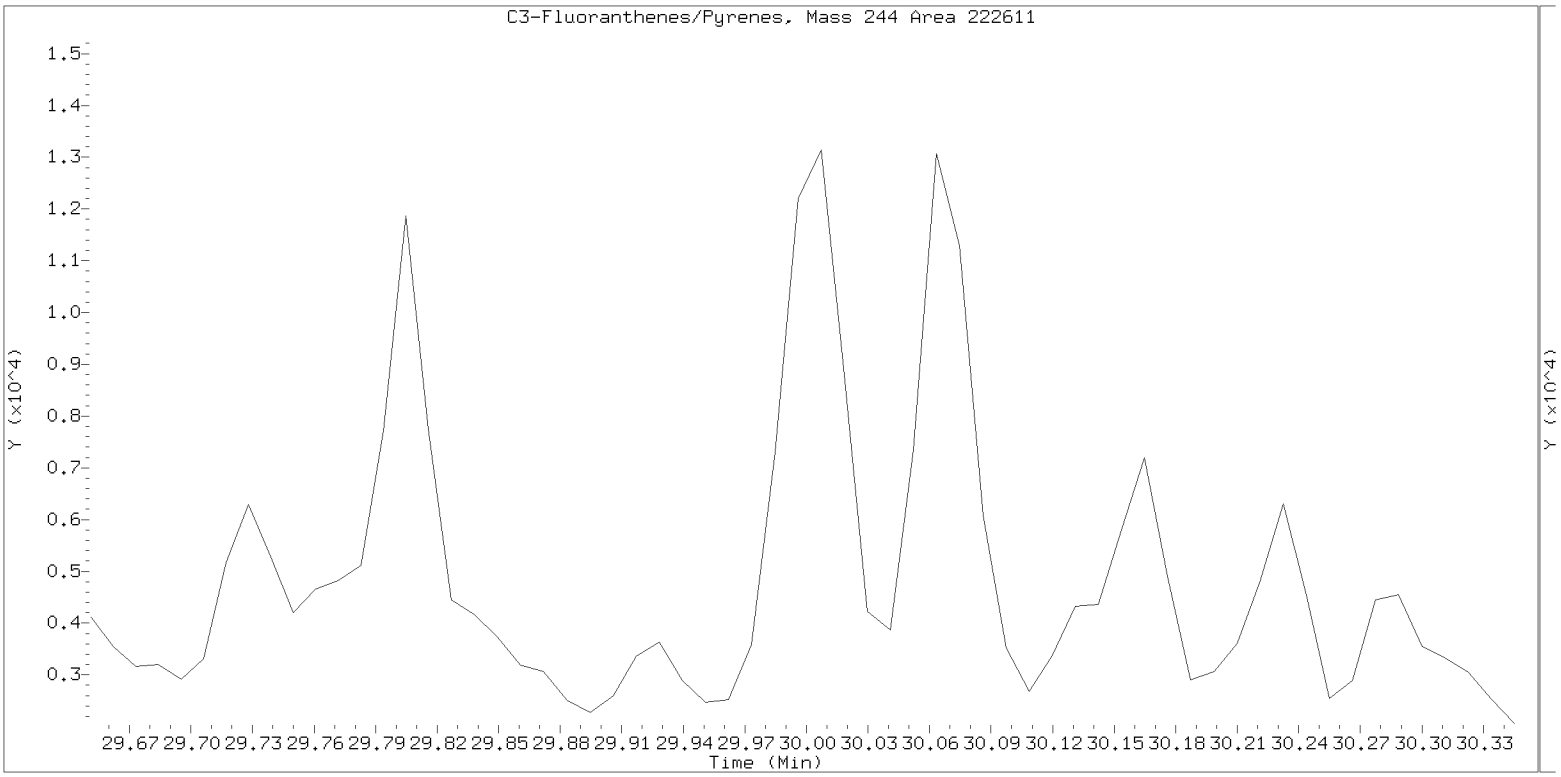


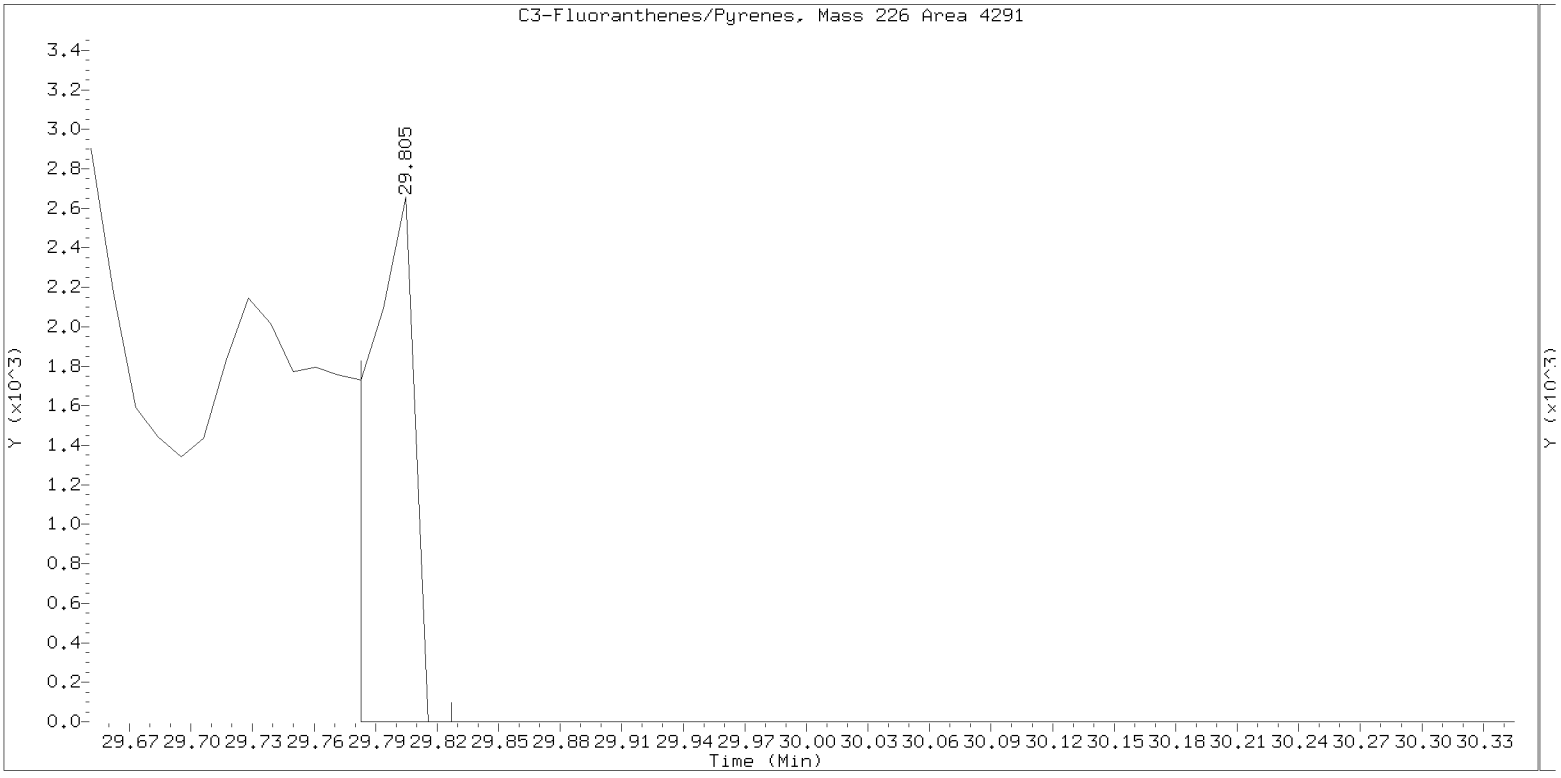

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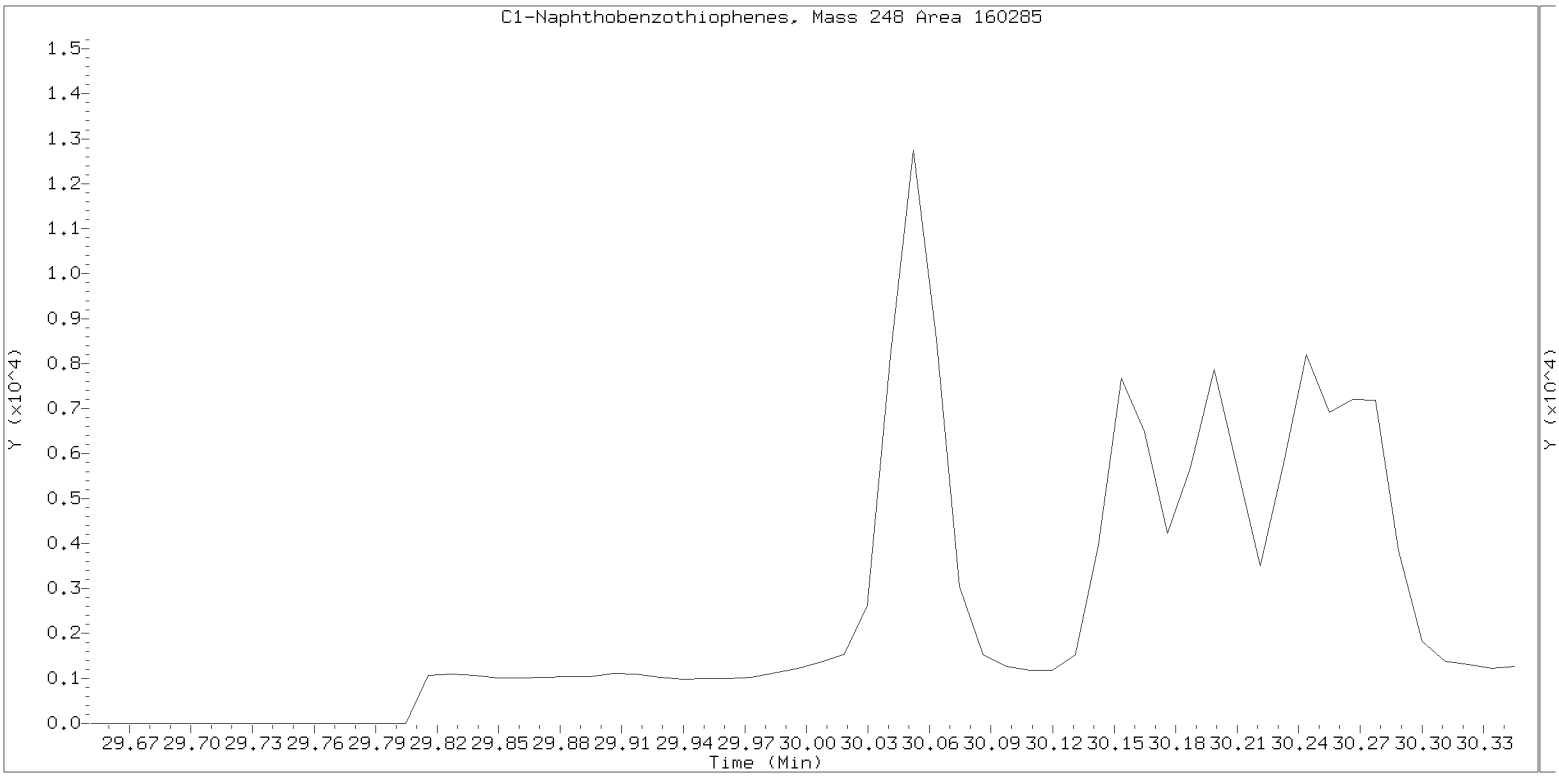

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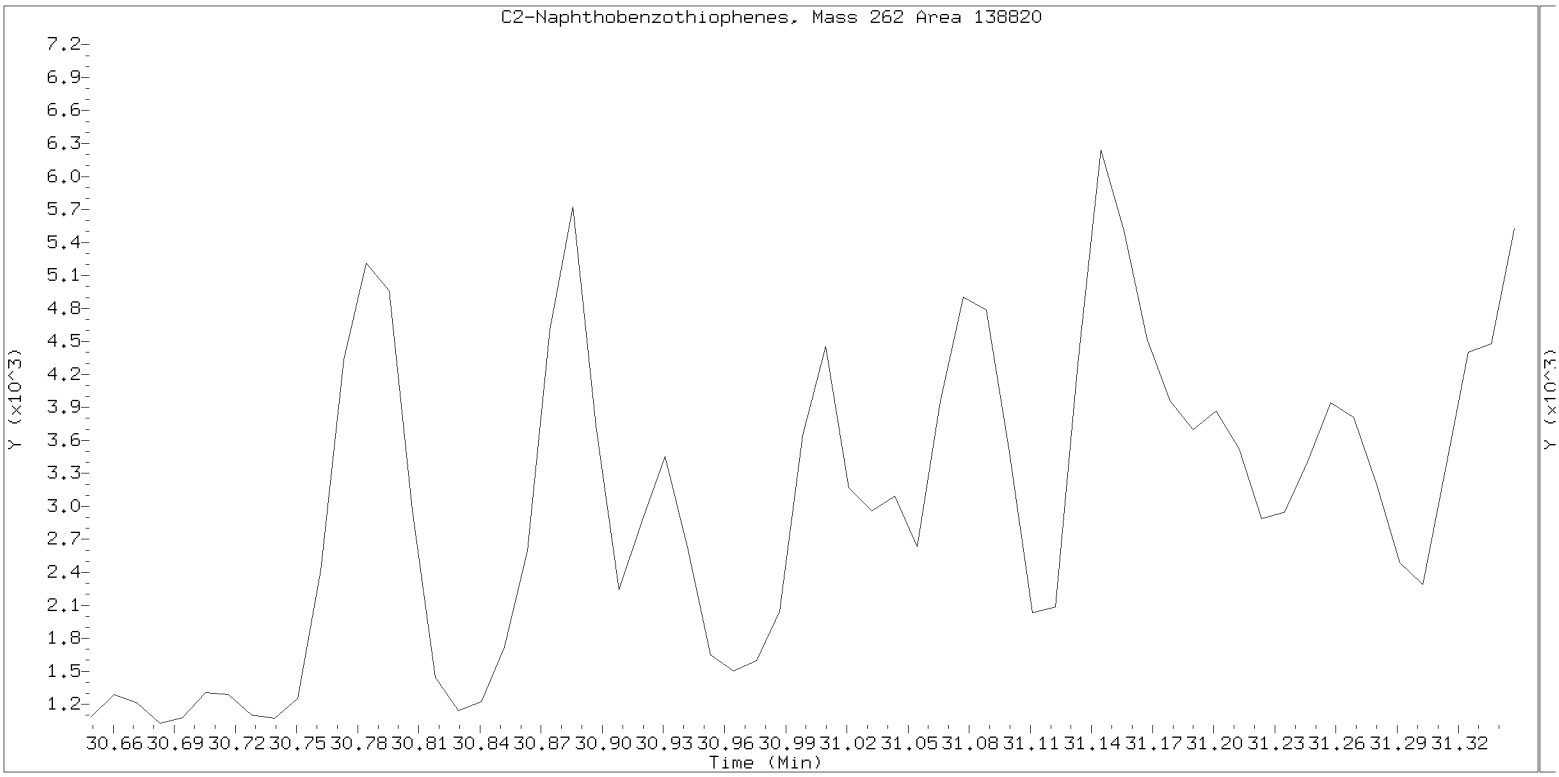

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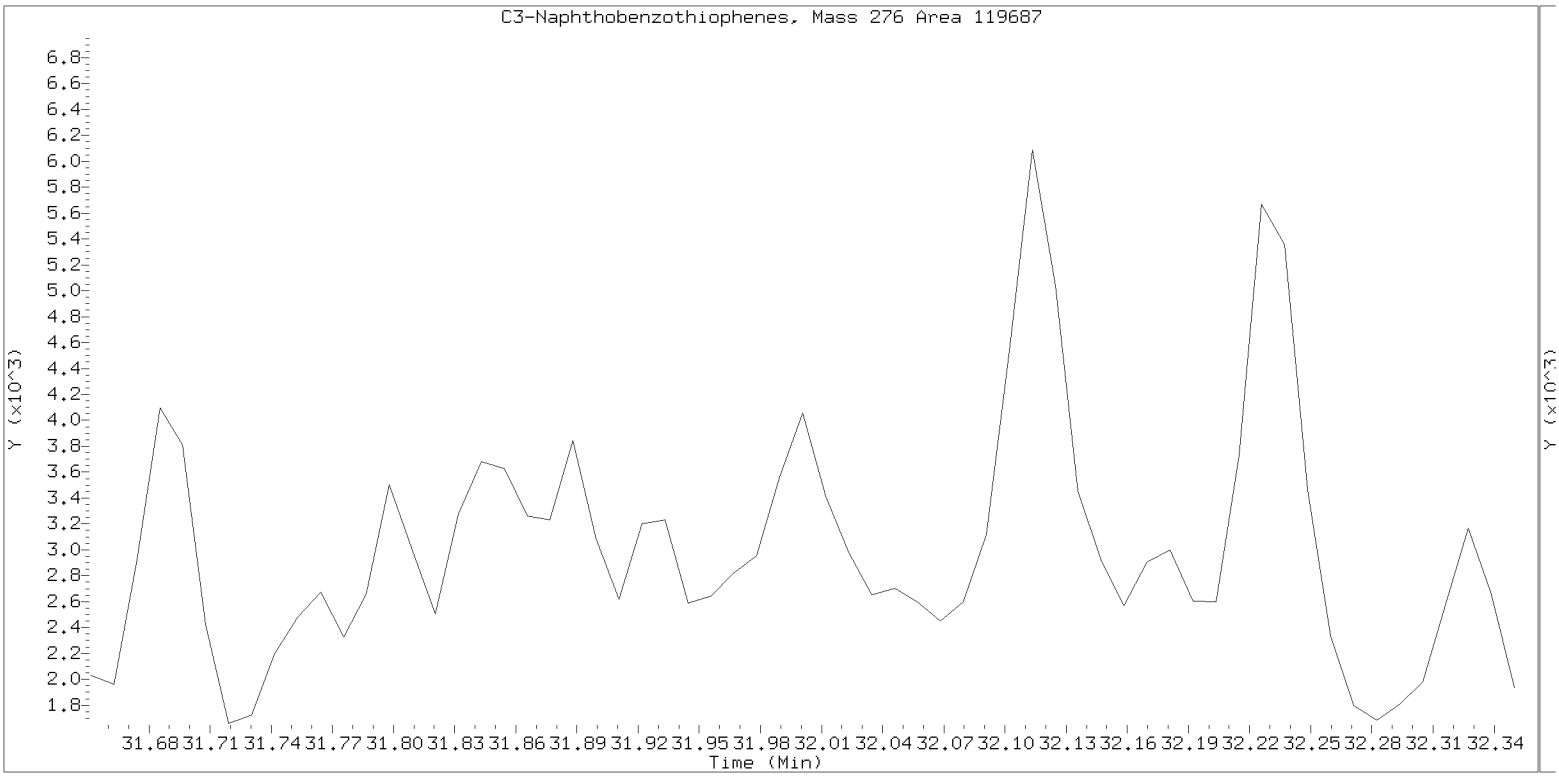

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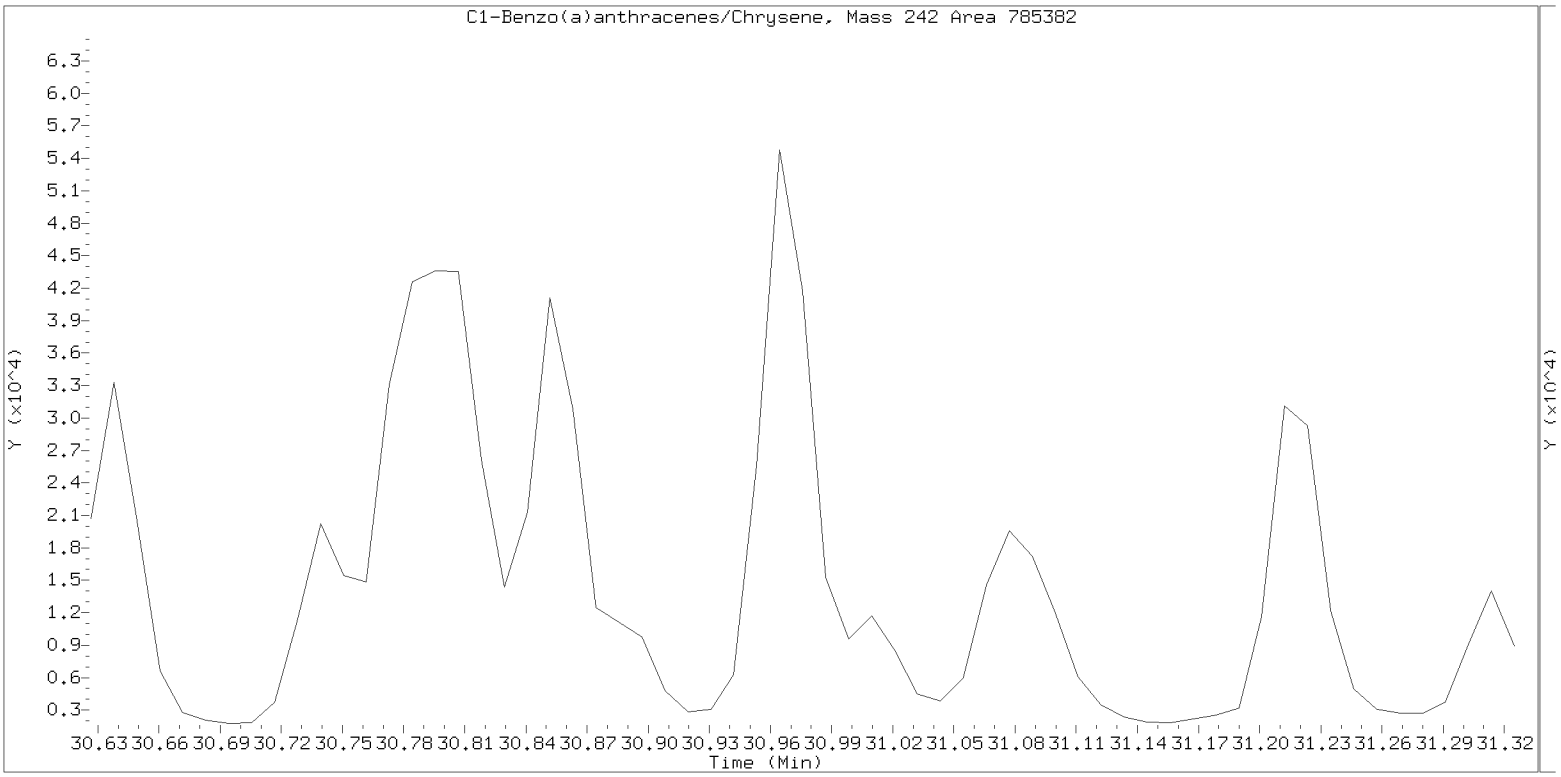


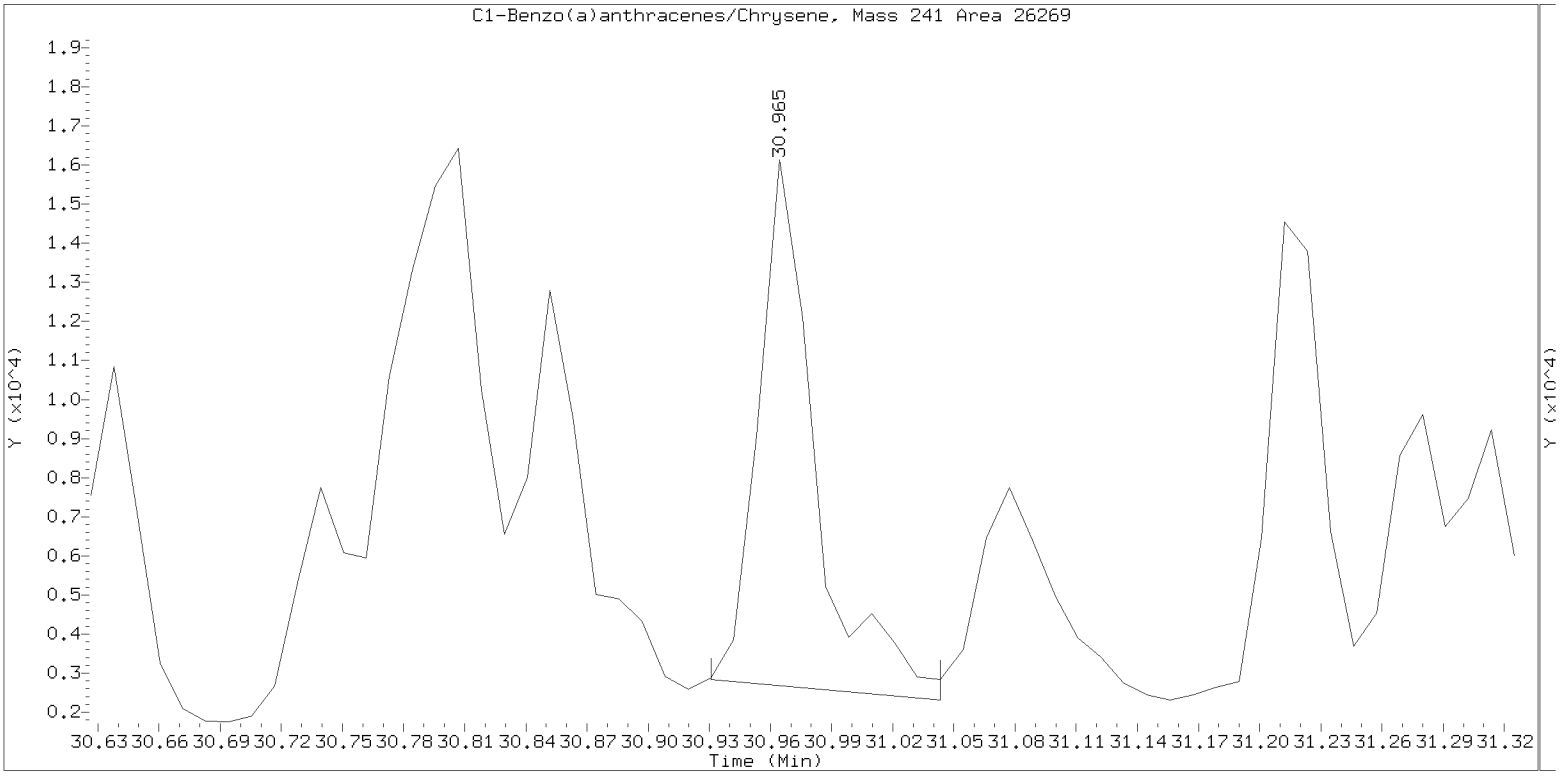


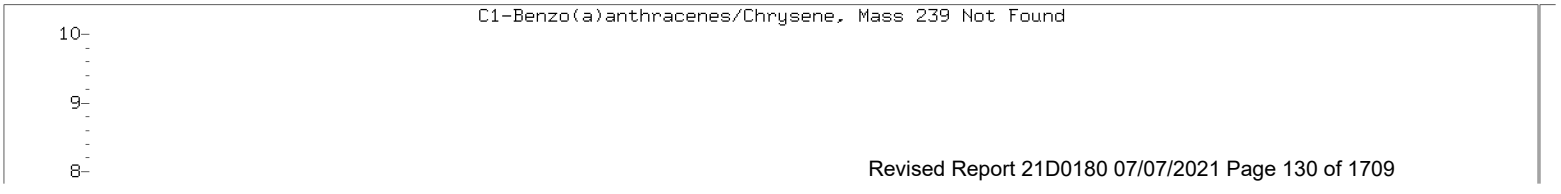

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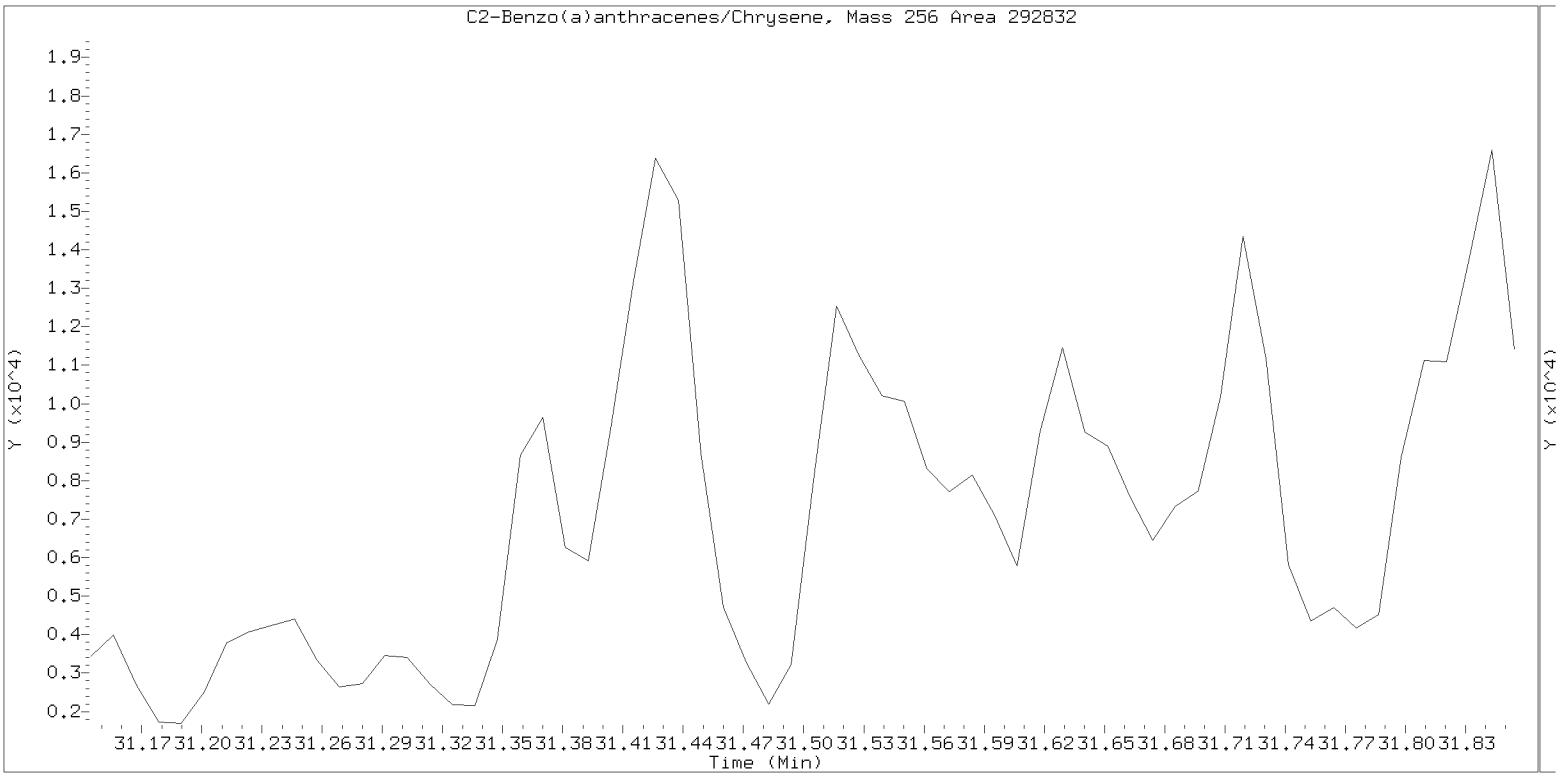
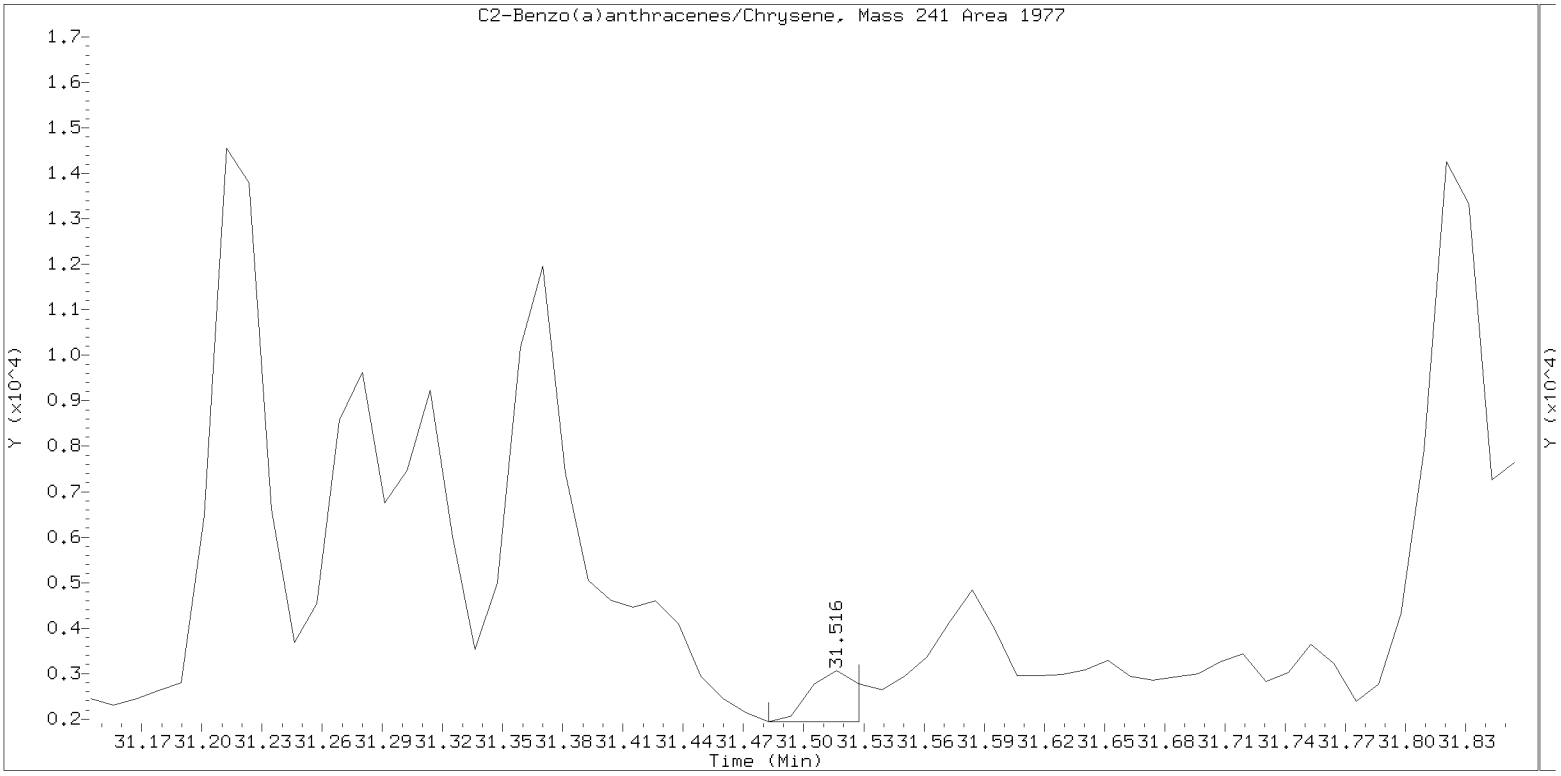
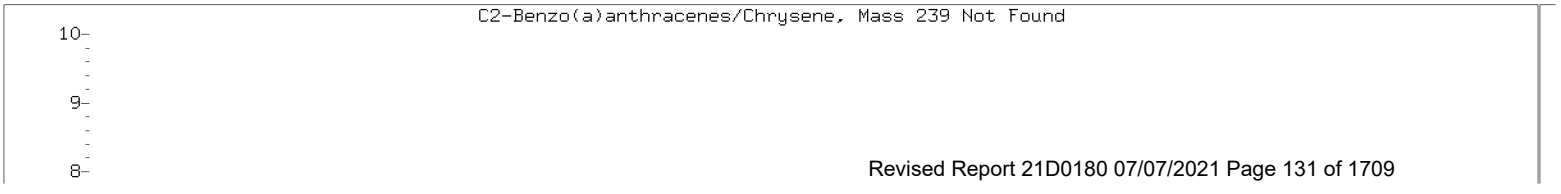
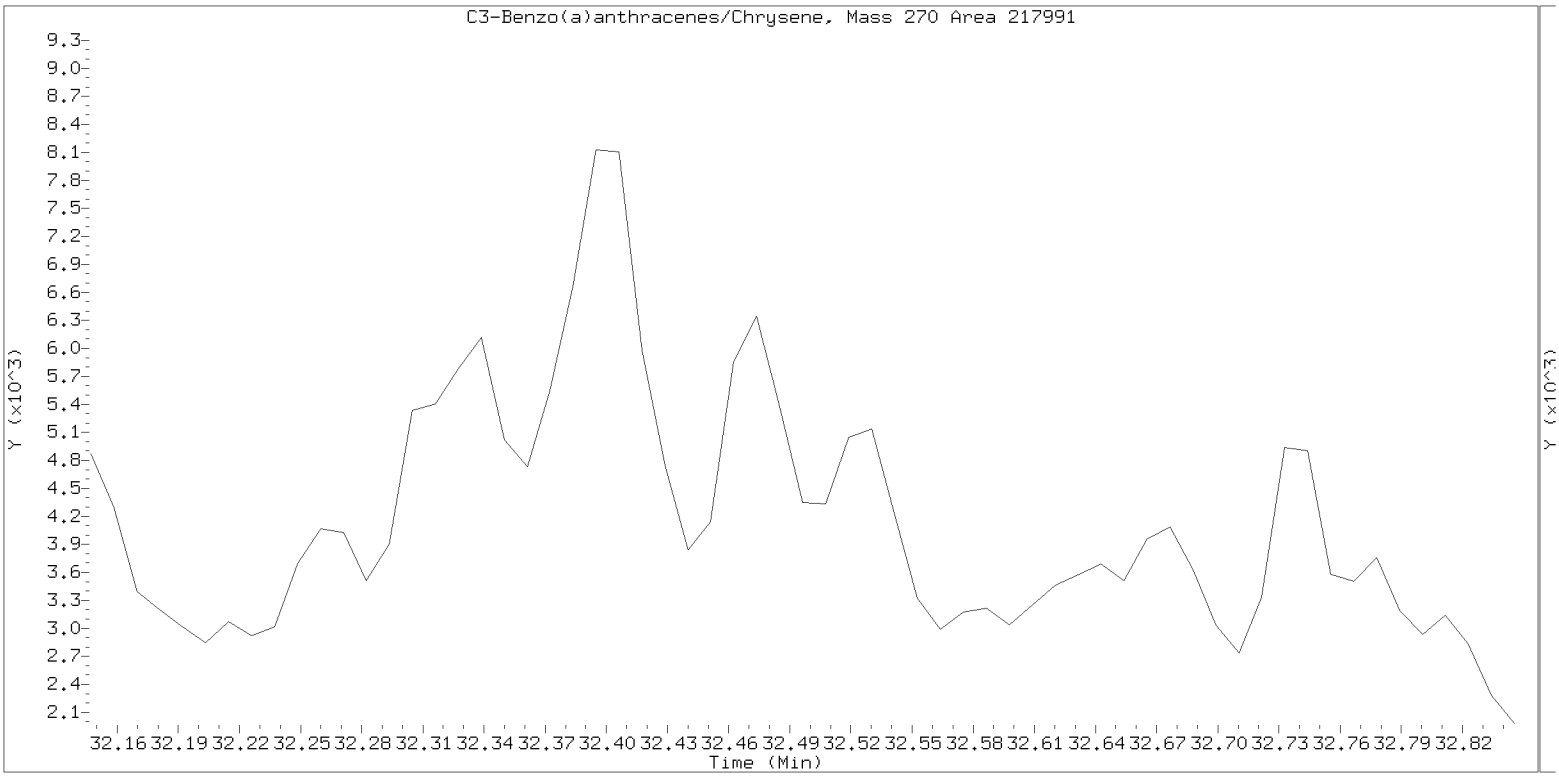


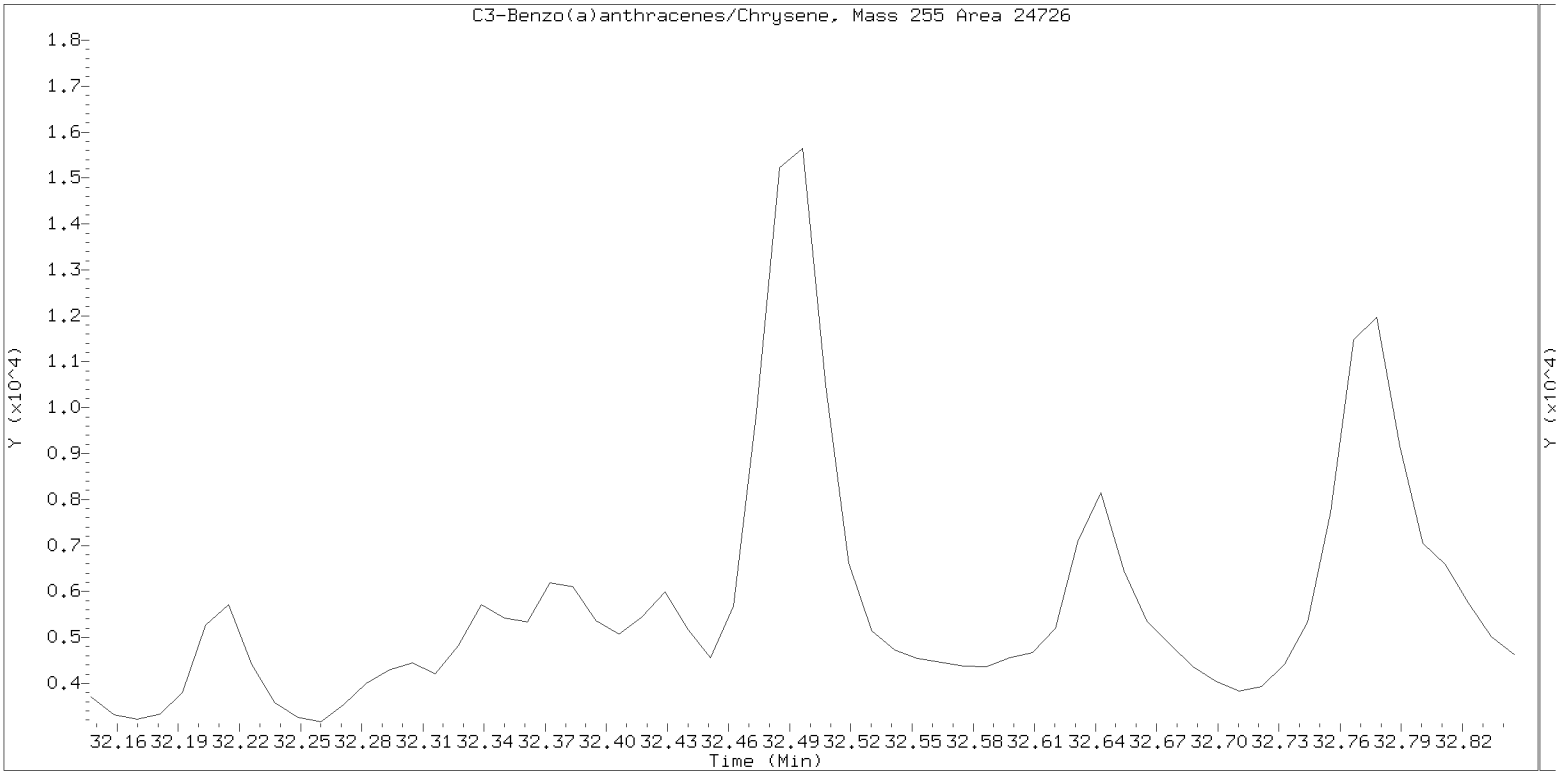



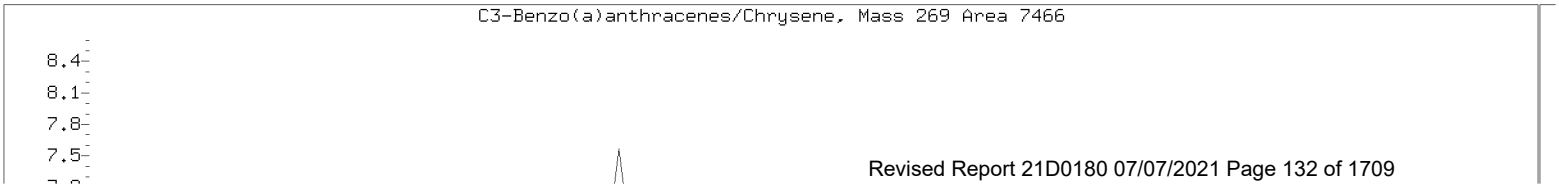



SIM ALKYL PNA RANGE ION WINDOWS - NT1421043063S.D

Lab ID: 21D0180-01
nt14.i,  SIM.b\ALKYLRANGES.m,  02-MAY-2021 09:13



SIM ALKYL PNA RANGE ION WINDOWS - NT1421043063S.D

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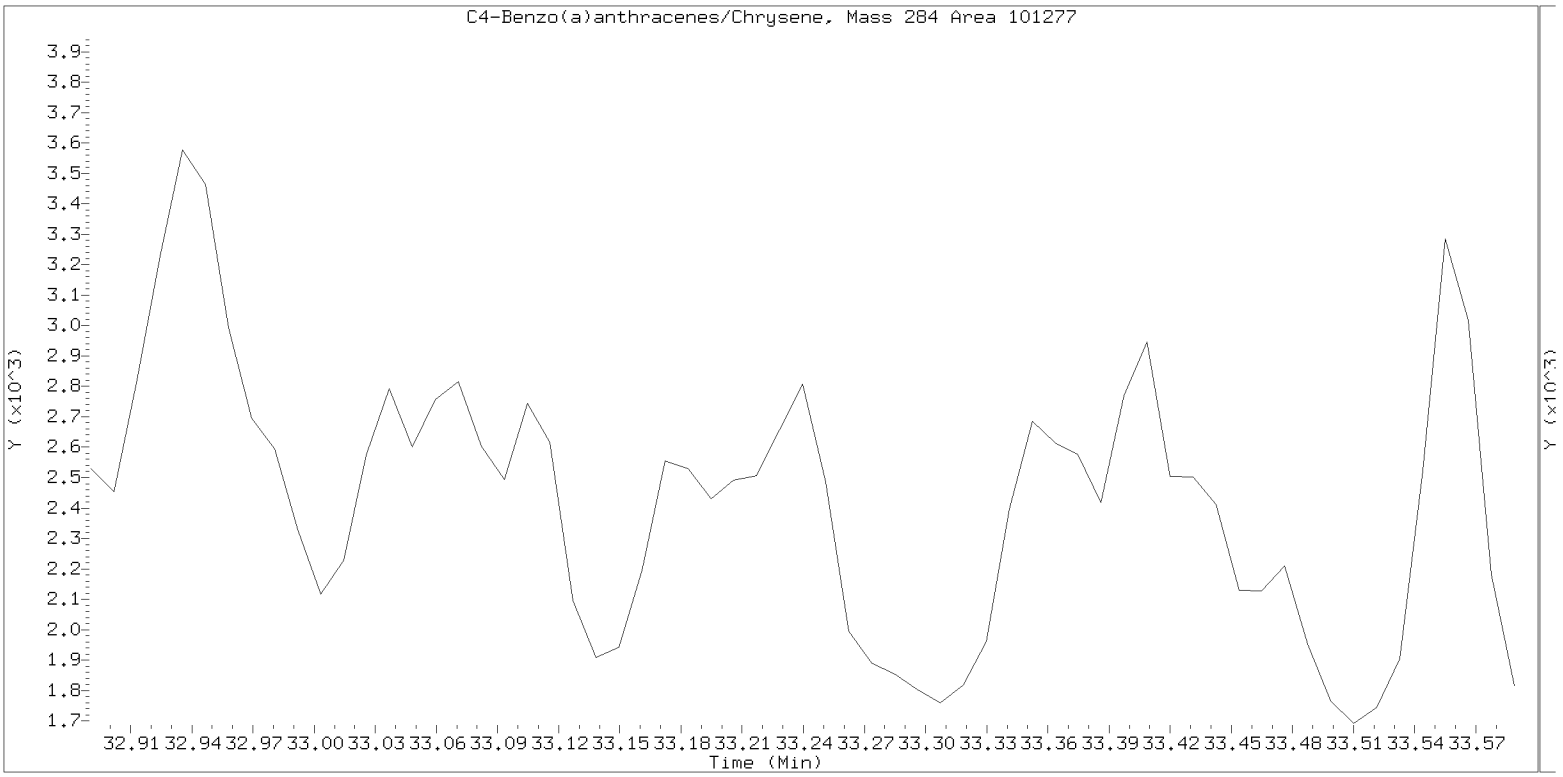


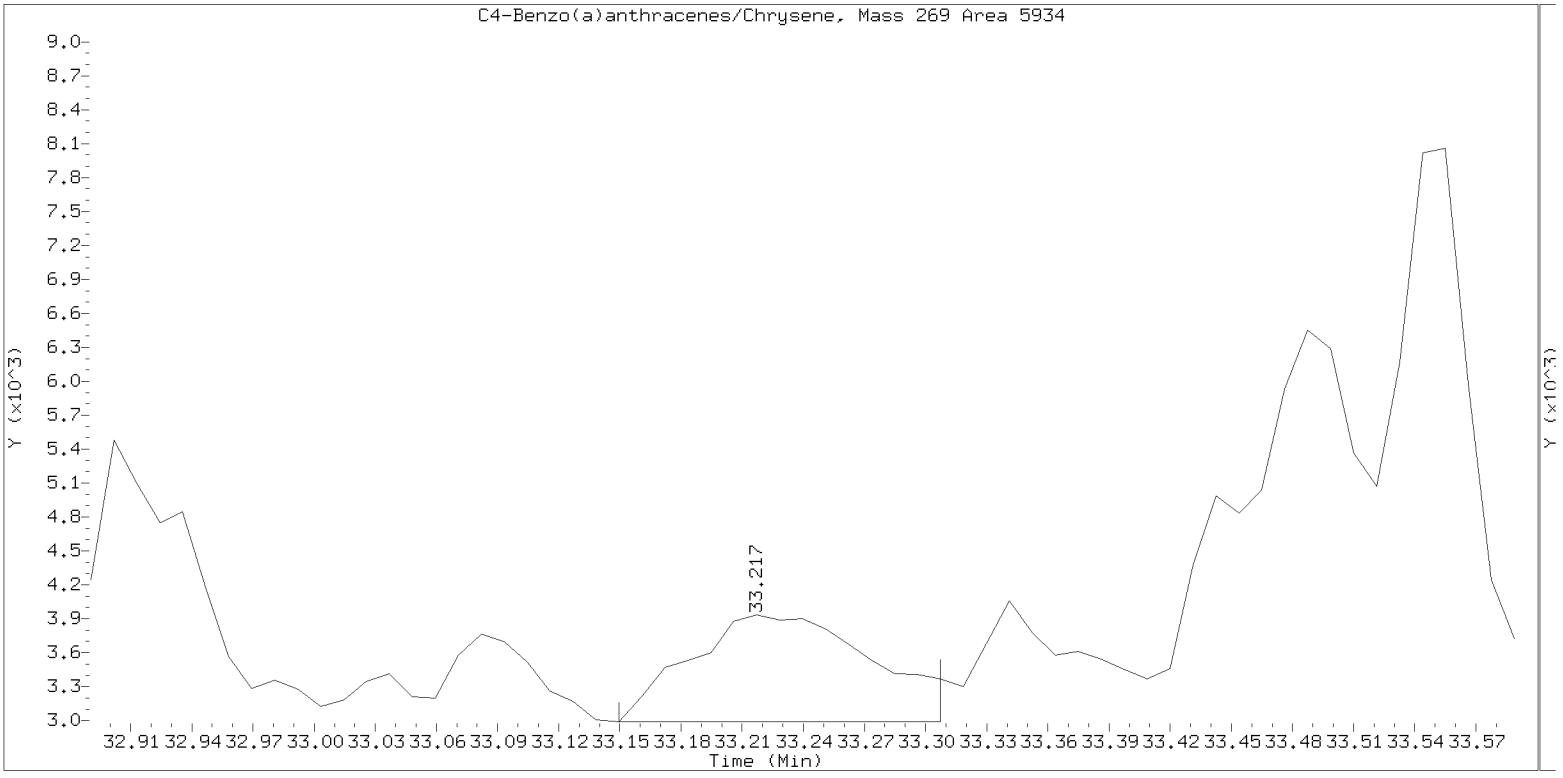


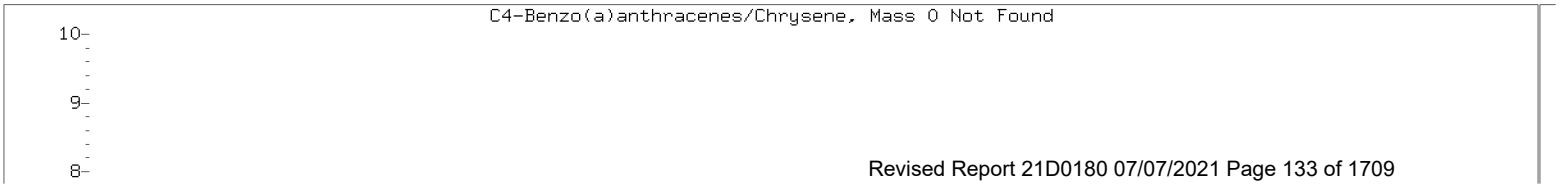

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043063S.D

Lab ID: 21D0180-01
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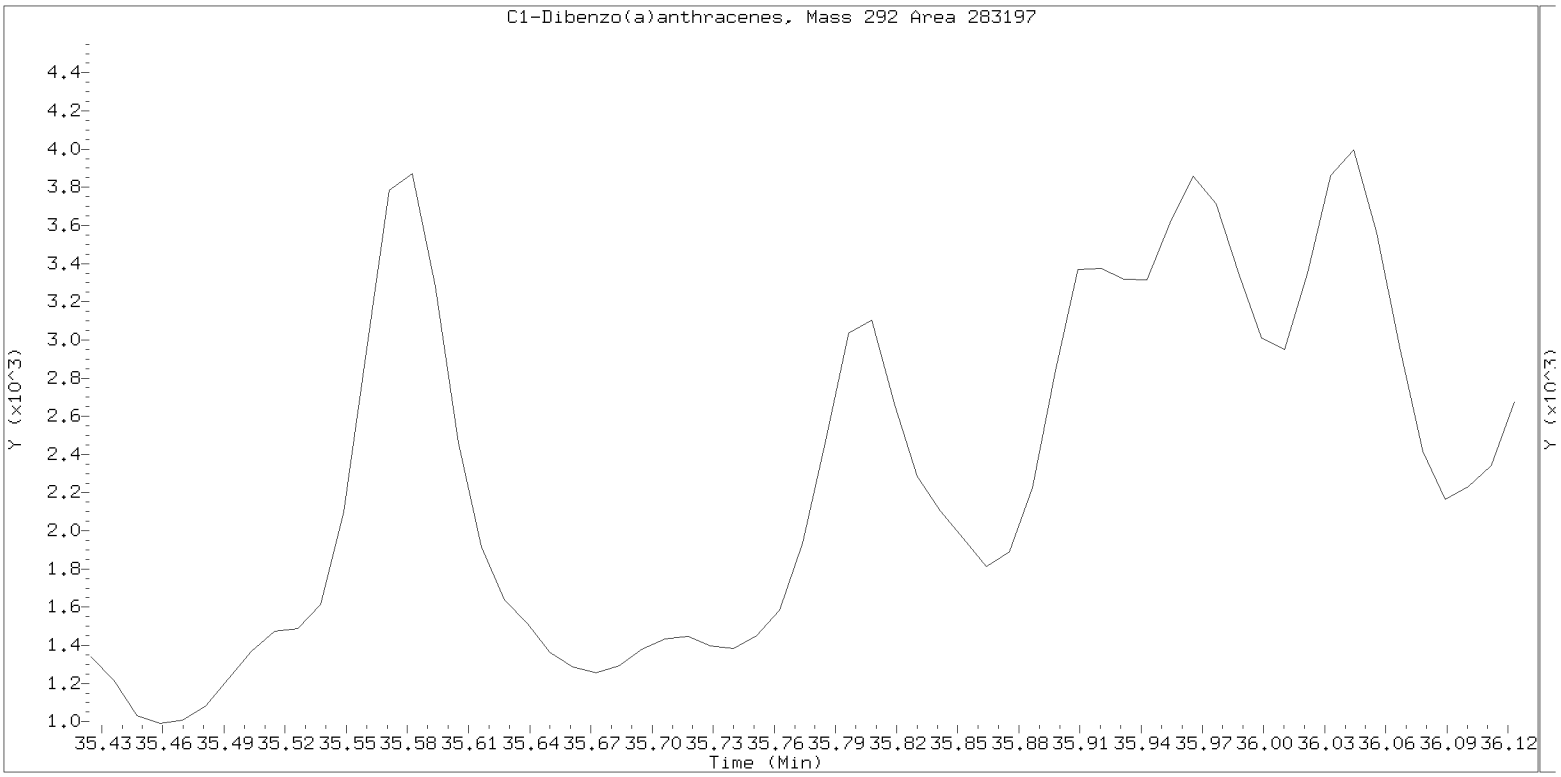
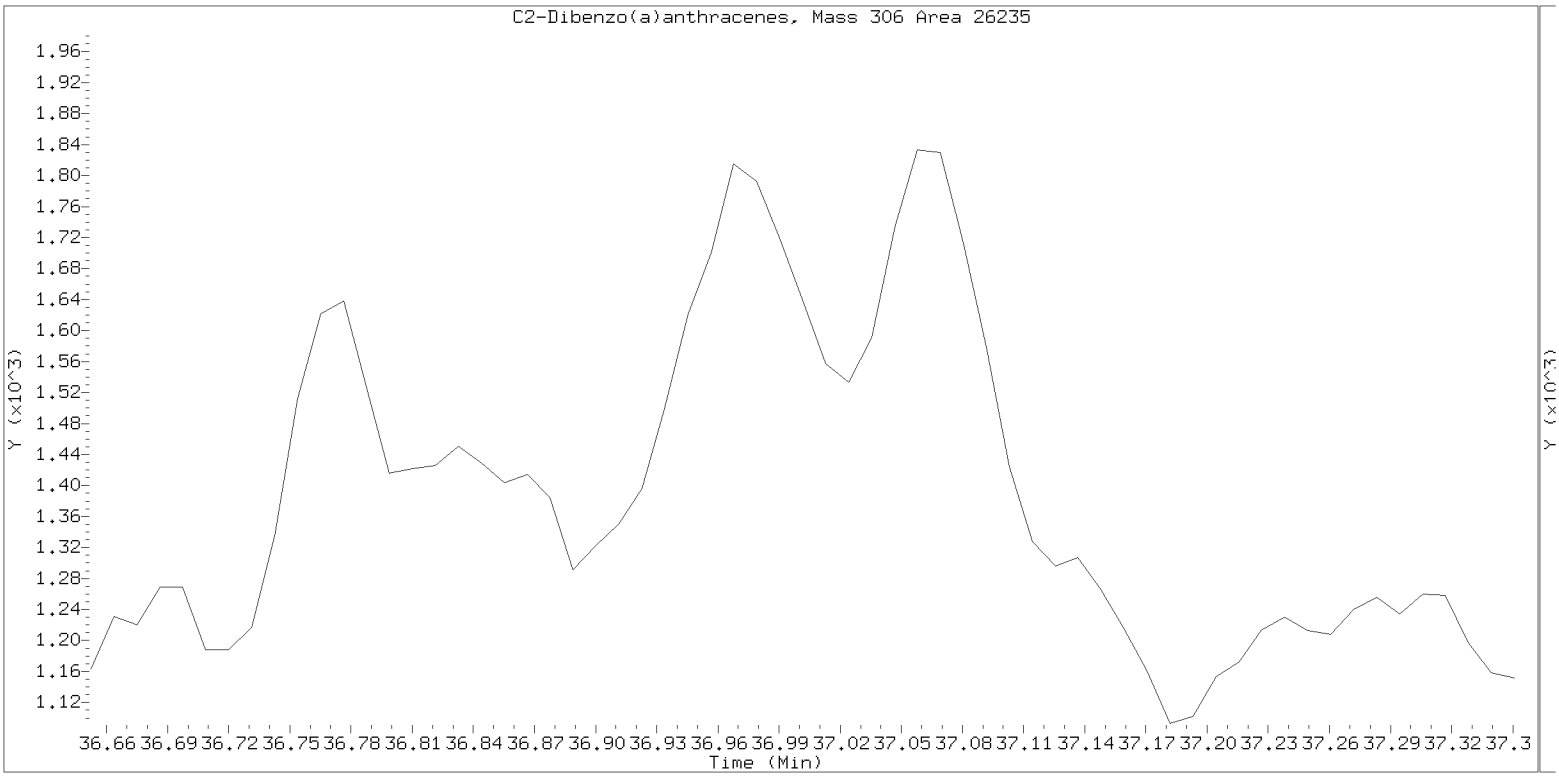


SIM ALKYL PNA RANGE ION WINDOWS - NT1421043063S.D

Lab ID: 21D0180-01
nt14.i,  SIM.b\ALKYLRANGES.m,  02-MAY-2021 09:13



SIM ALKYL PNA RANGE ION WINDOWS - NT1421043063S.D

Lab ID: 21D0180-01
nt14.i,  SIM.b\ALKYLRANGES.m,  02-MAY-2021 09:13

USMPDI-015SG-210414

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

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

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

USMPDI-015SG-210414

# Form I

## ORGANIC ANALYSIS DATA SHEET

## EPA 8270E-SIM

**Alkyl PAH Parents**

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

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

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

Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043064.D



Date : 02-MAY-2021 10:01

Client ID:

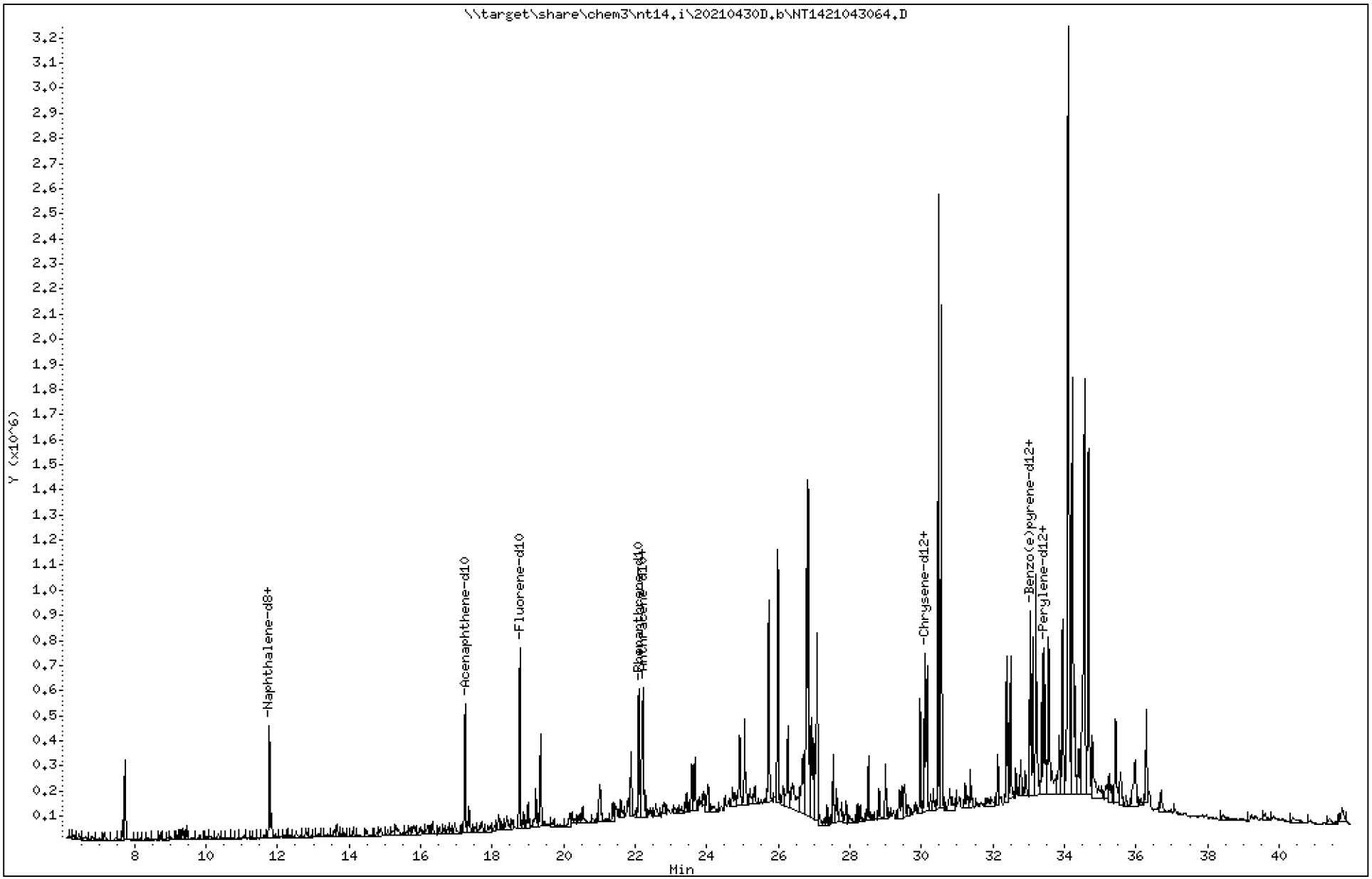
Instrument: nt14.i

Sample Info: 21D0180-02

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

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Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043064.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

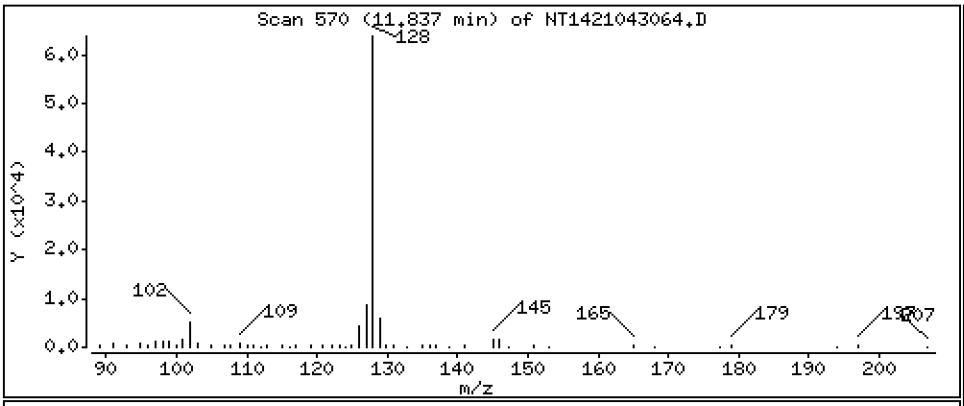
Operator: VTS

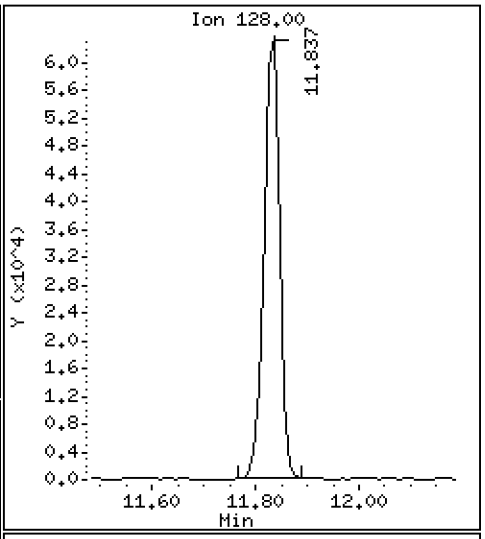
Column phase: Rxi-17Sil MS

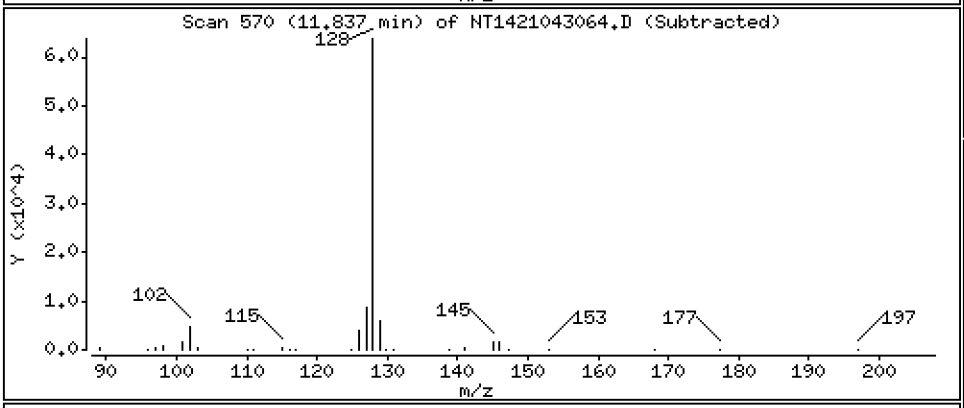
Column diameter: 0.25

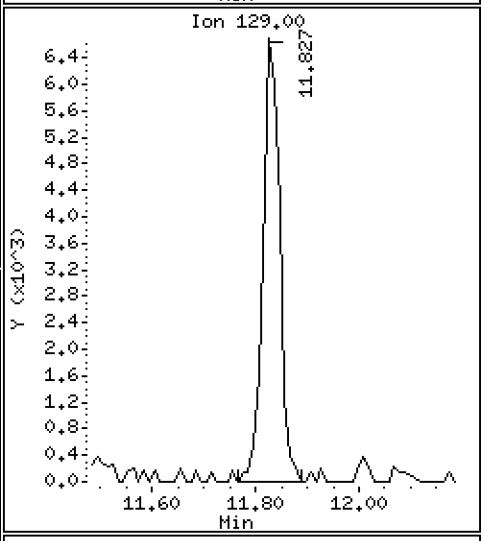
7 Naphthalene

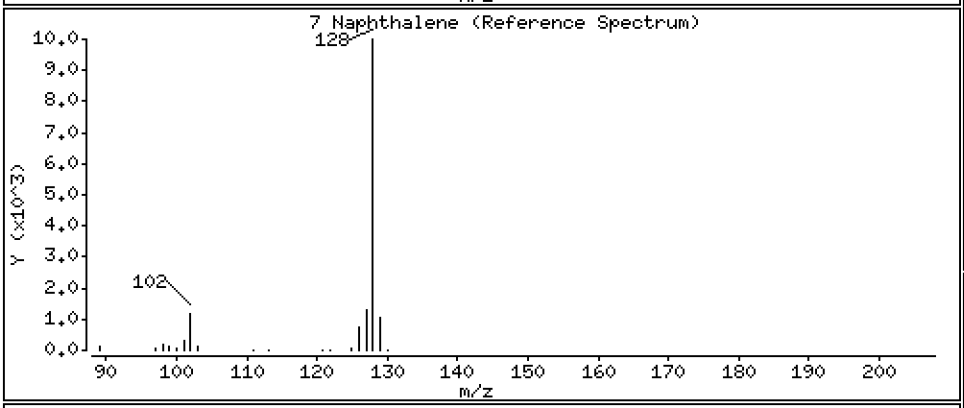
Concentration: 0.4331 ug/mL

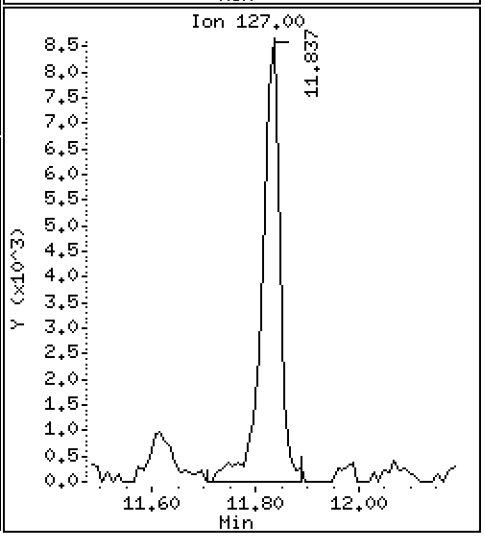


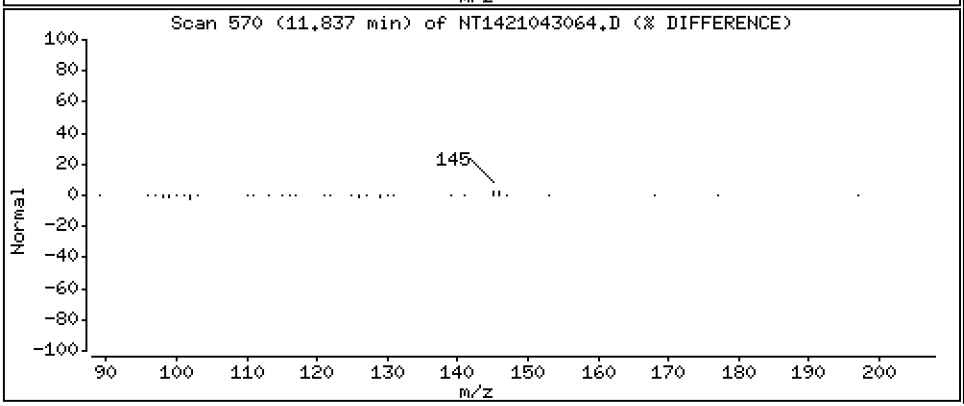



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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

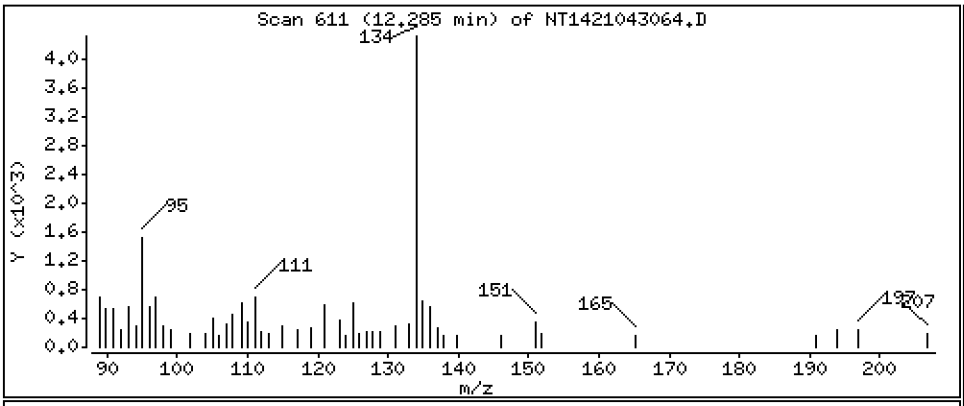
Operator: VTS

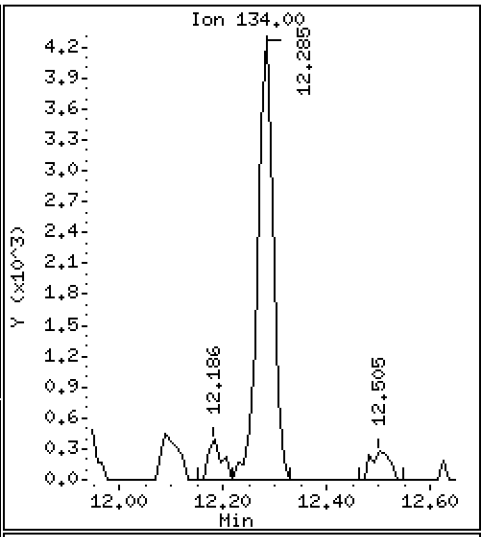
Column phase: Rxi-17Sil MS

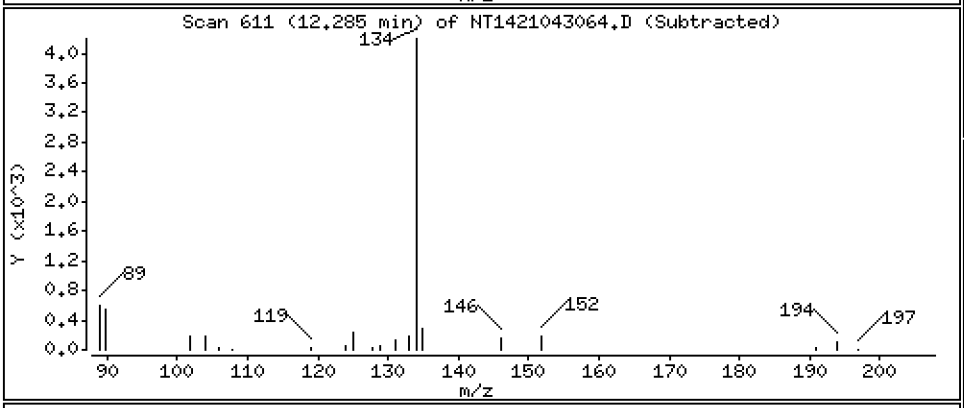
Column diameter: 0.25

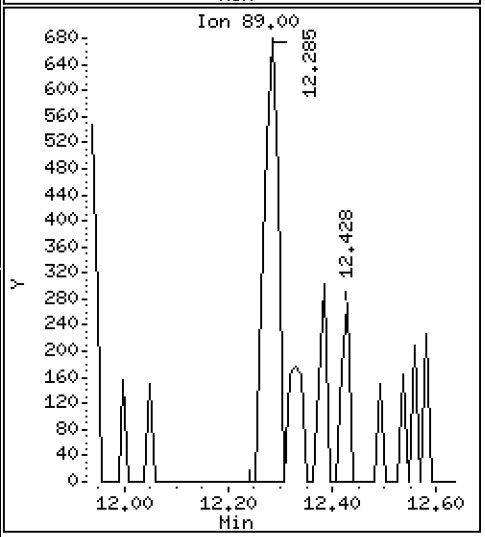
12 Benzo(b)thiophene

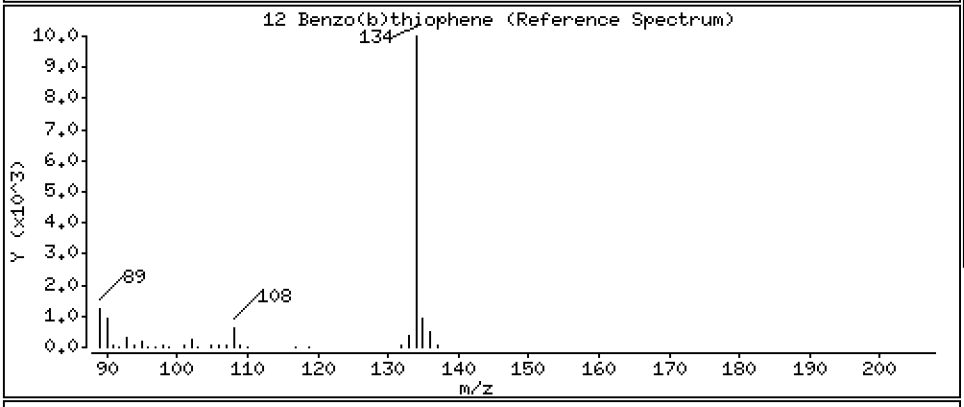
Concentration: 0.03573 ug/mL

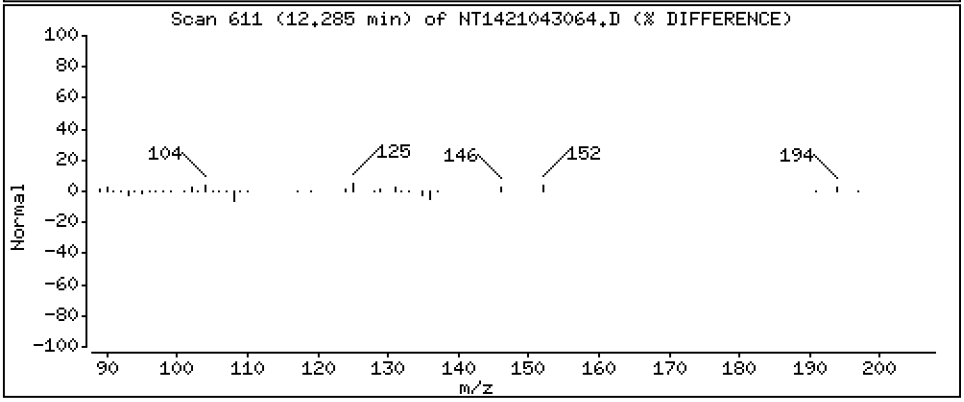


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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

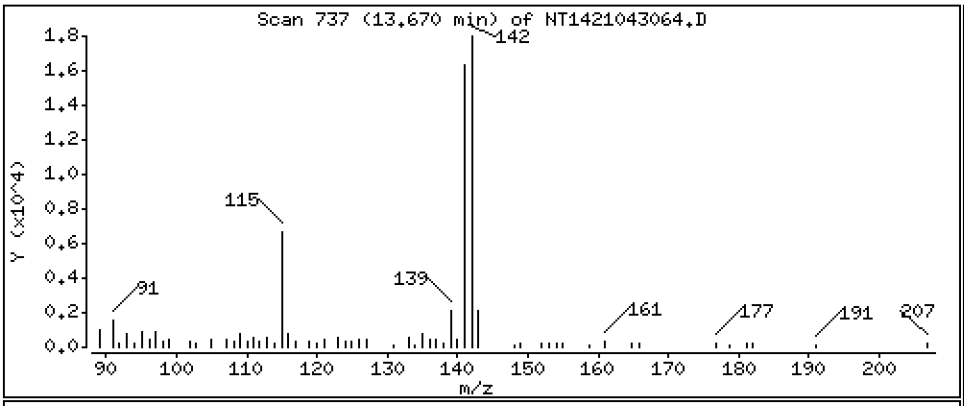
Operator: VTS

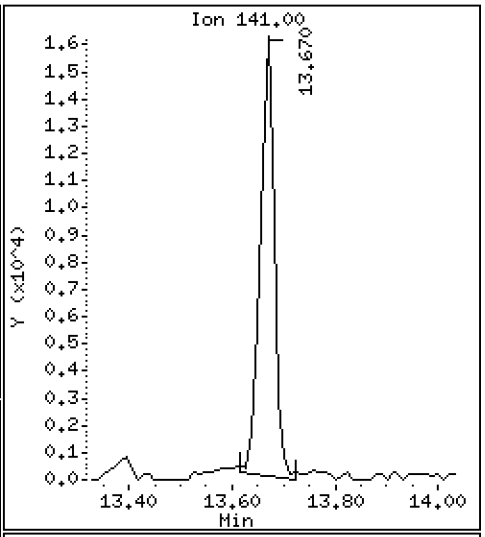
Column phase: Rxi-17Sil MS

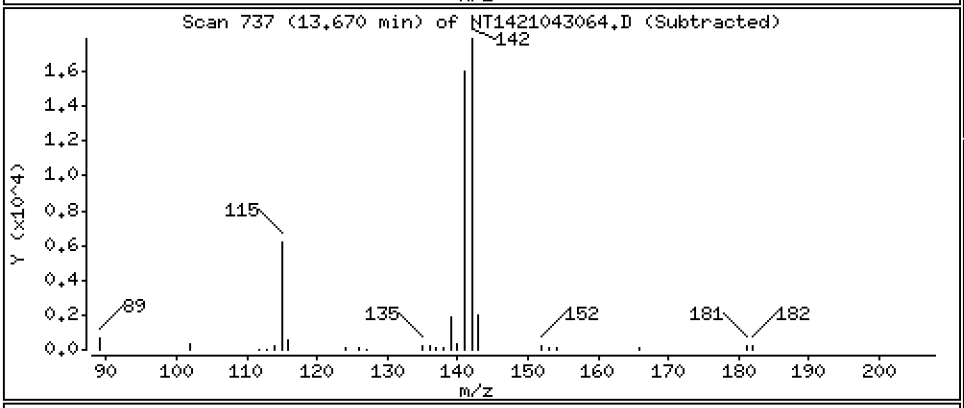
Column diameter: 0.25

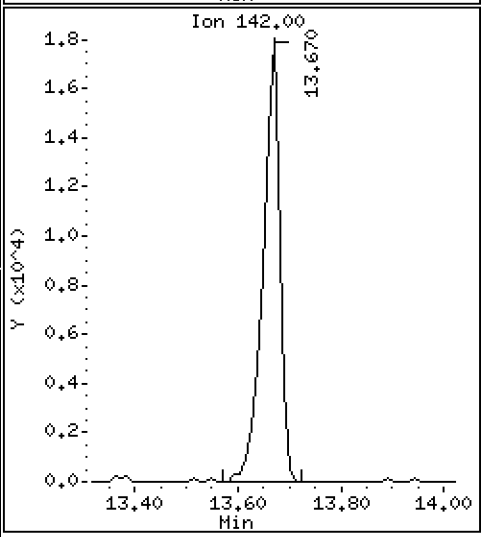
16 2-Methylnaphthalene

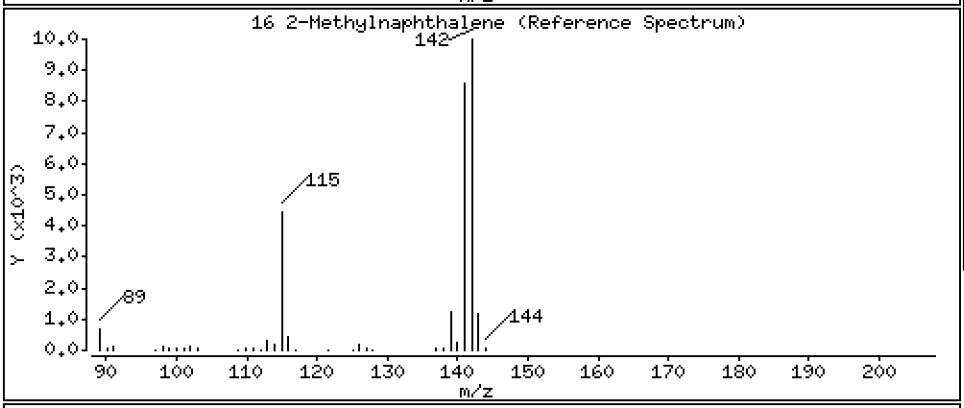
Concentration: 0.1914 ug/mL

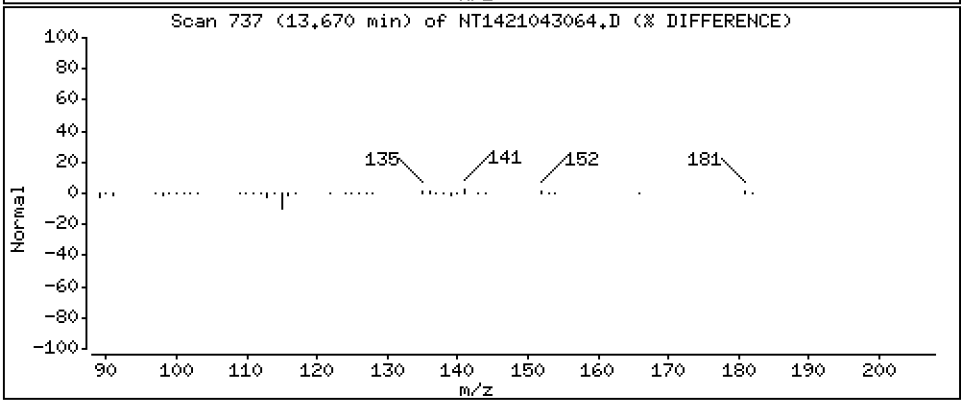


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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

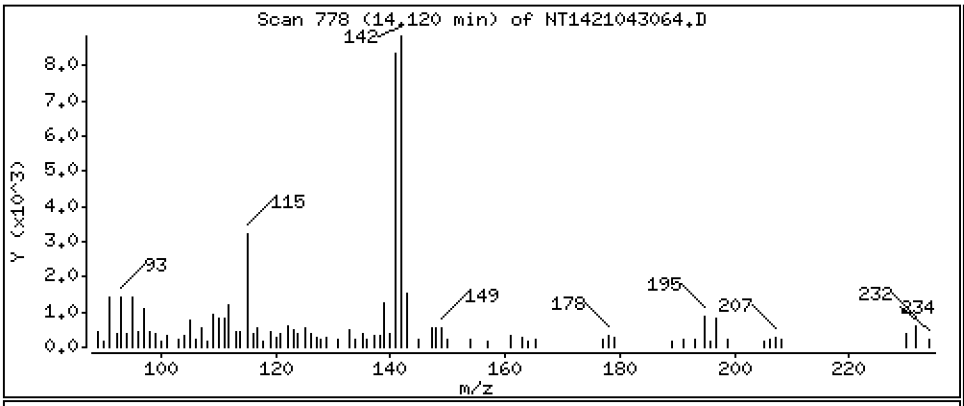
Operator: VTS

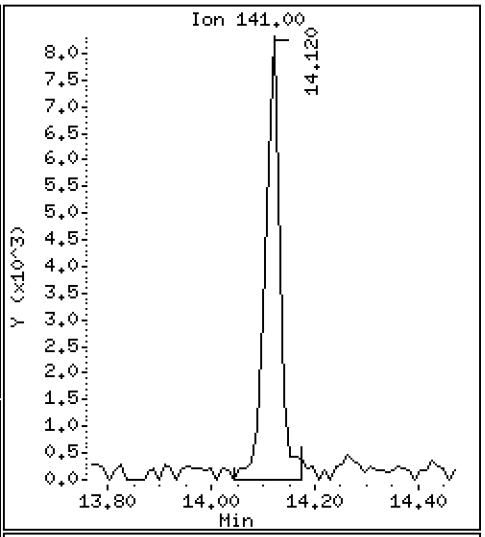
Column phase: Rxi-17Sil MS

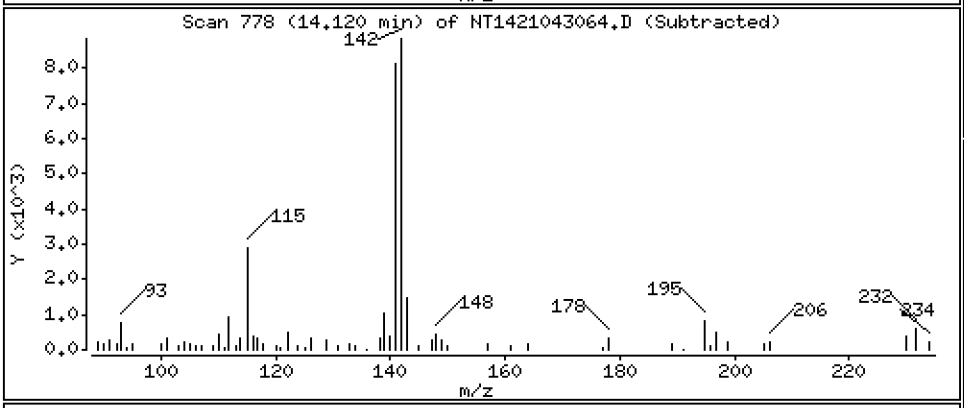
Column diameter: 0.25

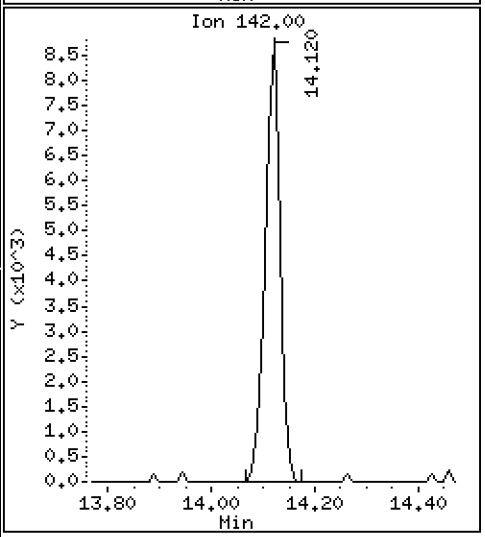
17 1-methylnaphthalene

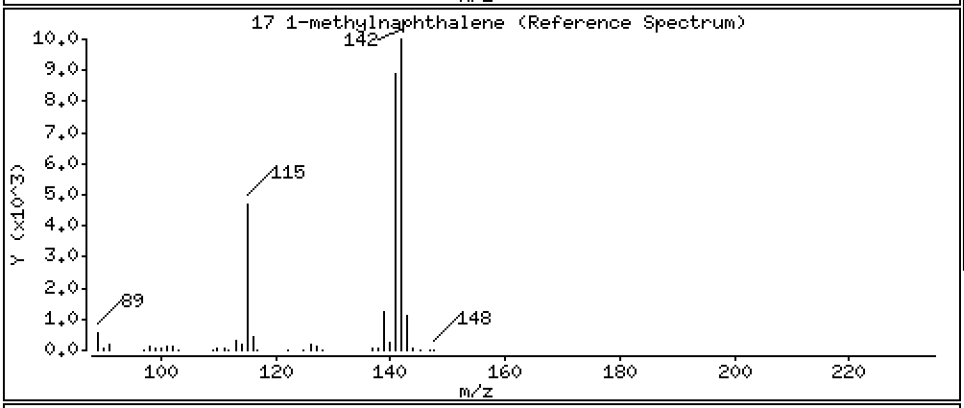
Concentration: 0.1140 ug/mL

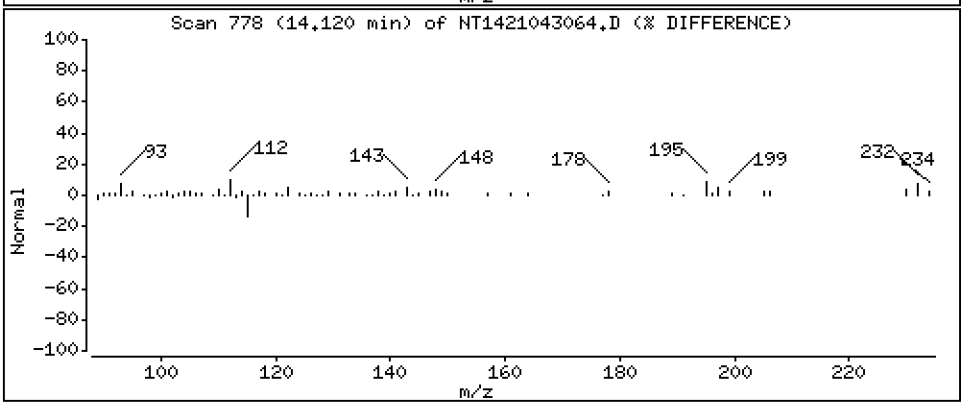


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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

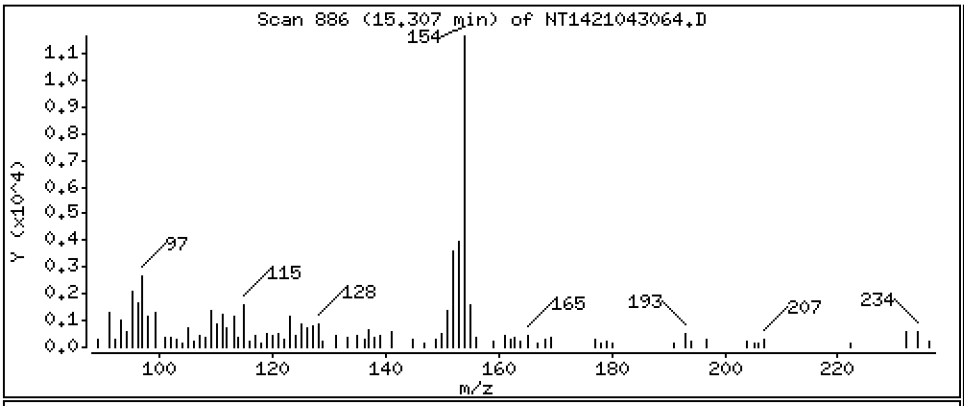
Operator: VTS

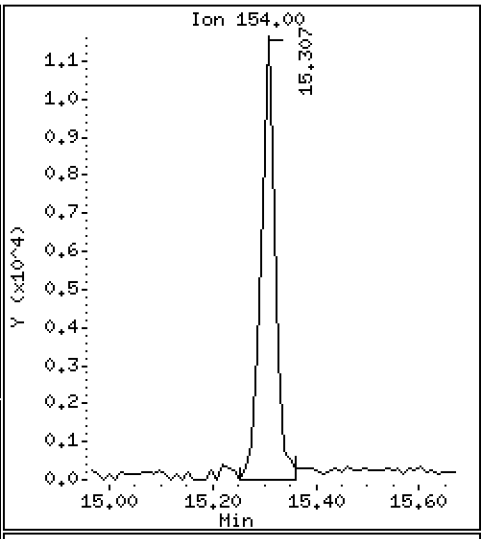
Column phase: Rxi-17Sil MS

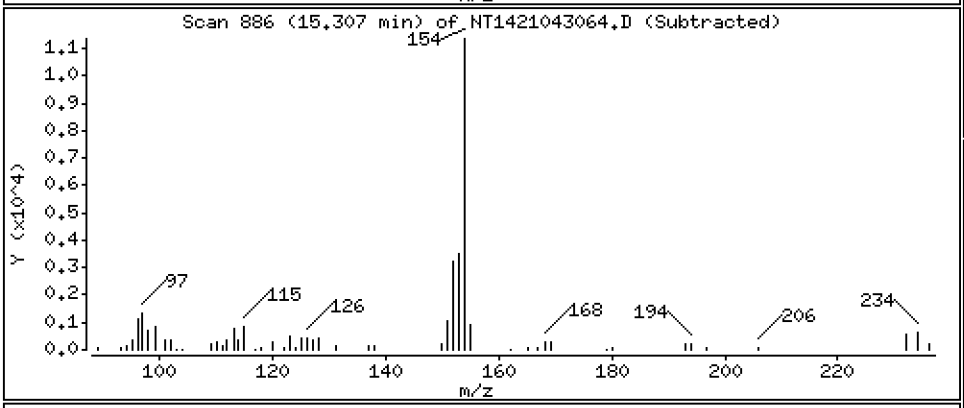
Column diameter: 0.25

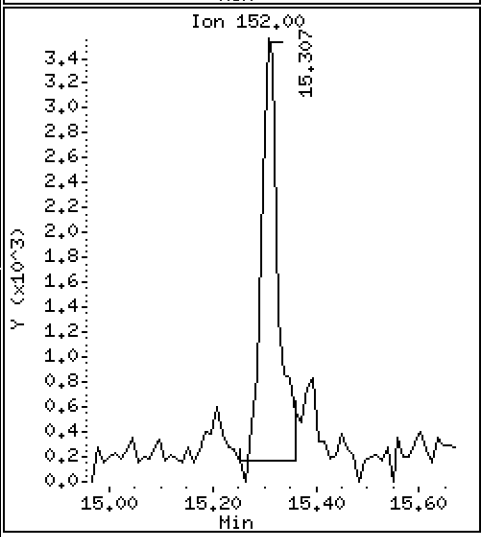
18 Biphenyl

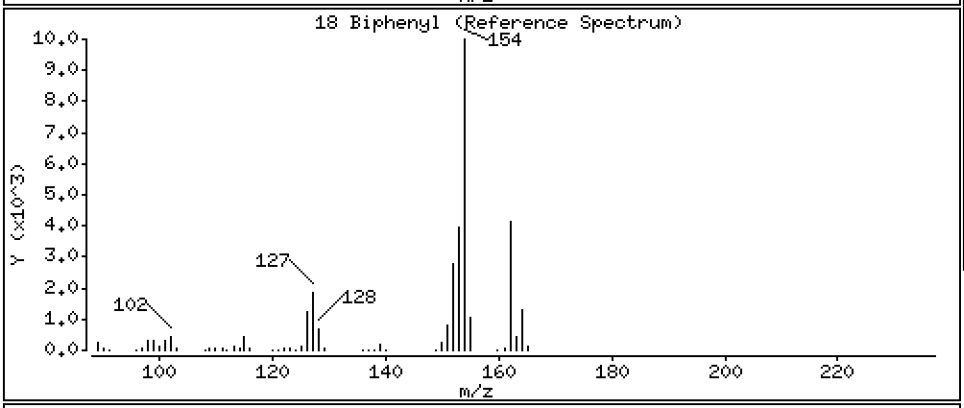
Concentration: 0.1017 ug/mL

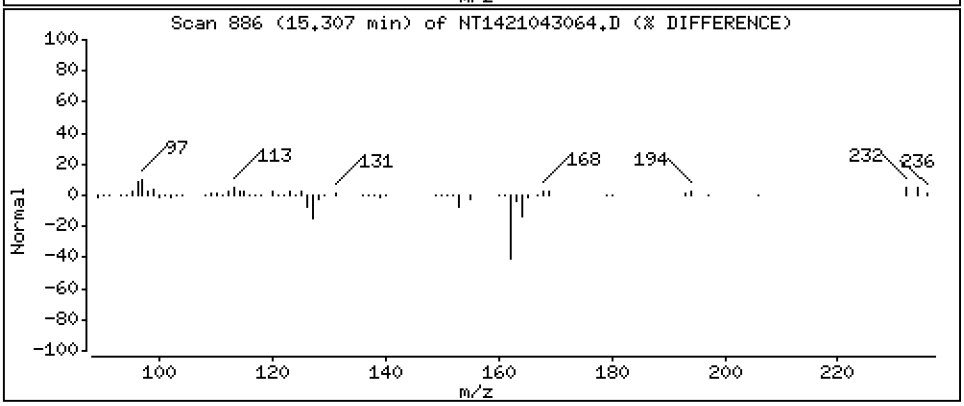


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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

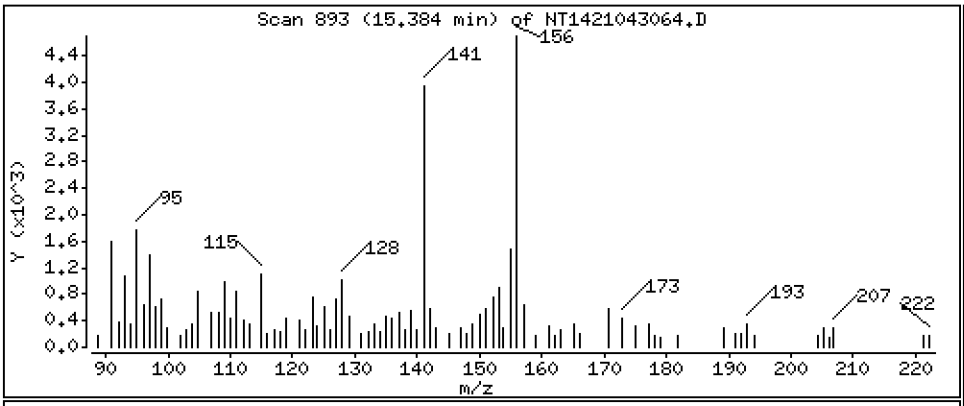
Operator: VTS

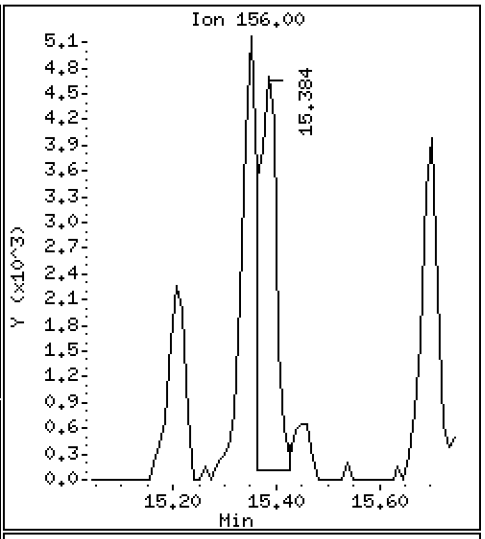
Column phase: Rxi-17Sil MS

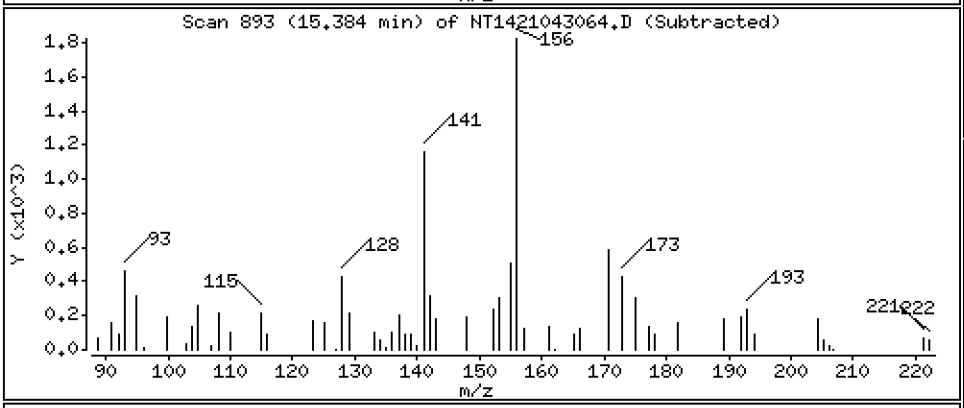
Column diameter: 0.25

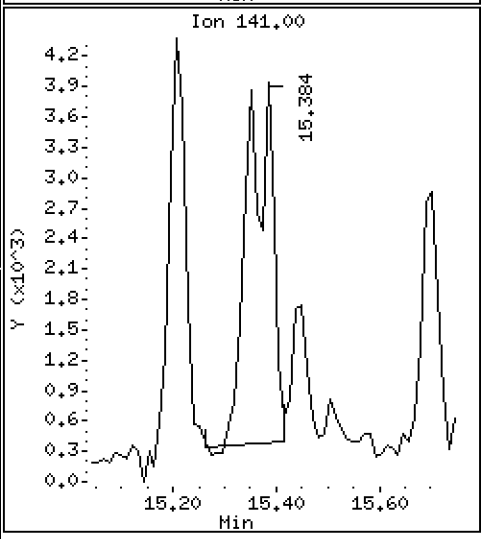
19 2,6-Dimethylnaphthalene

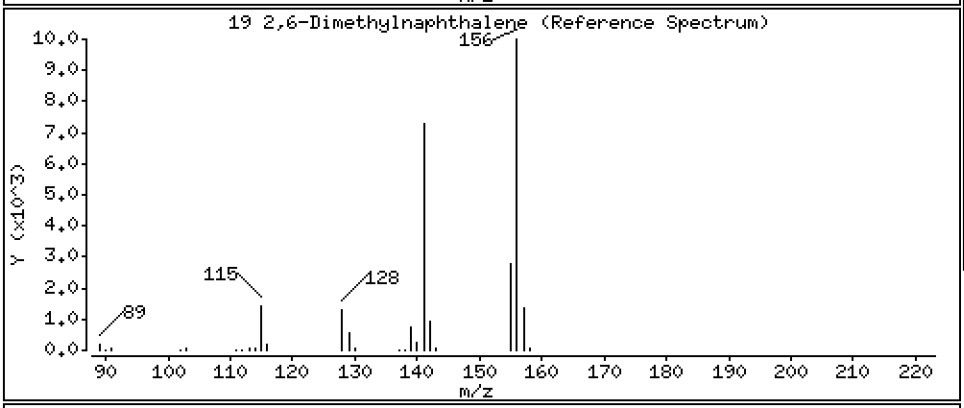
Concentration: 0.07162 ug/mL

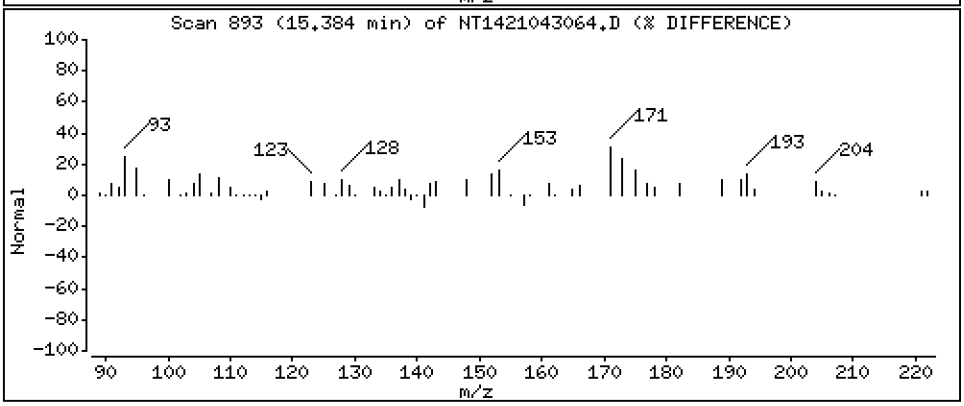


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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

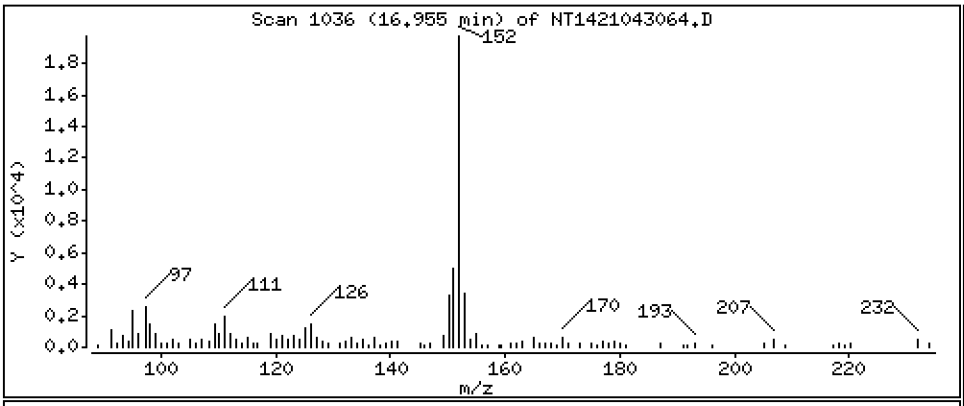
Operator: VTS

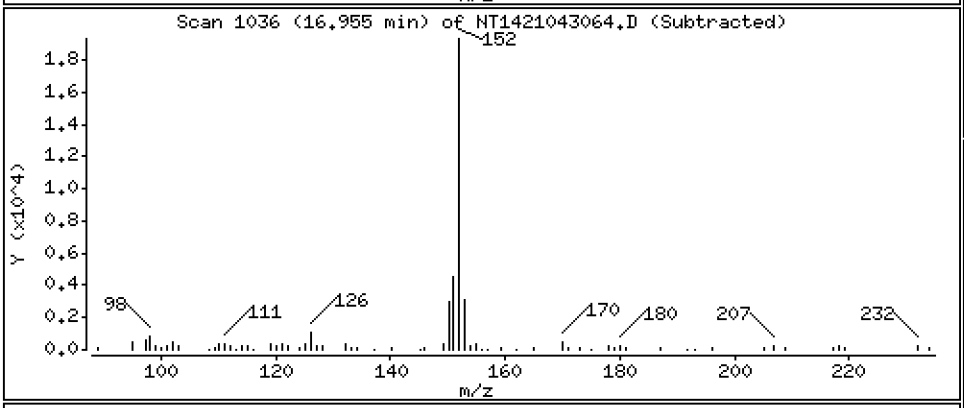
Column phase: Rxi-17Sil MS

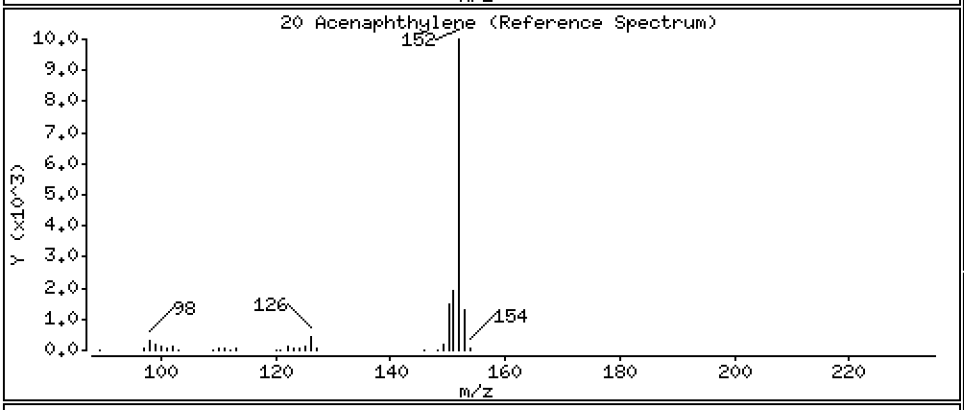
Column diameter: 0.25

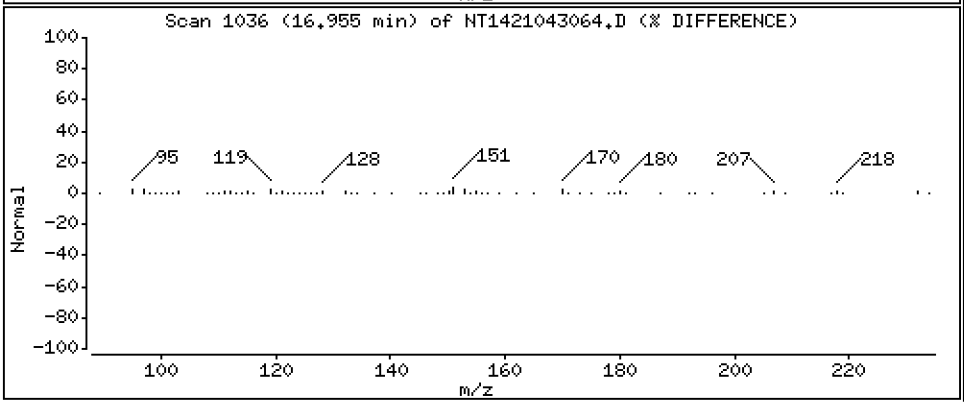
20 Acenaphthylene

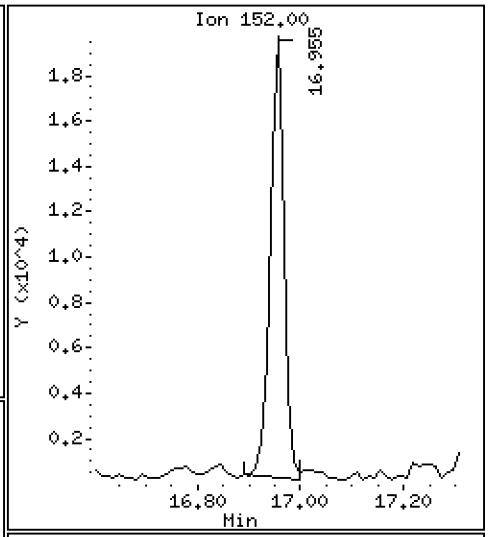
Concentration: 0.1510 ug/mL

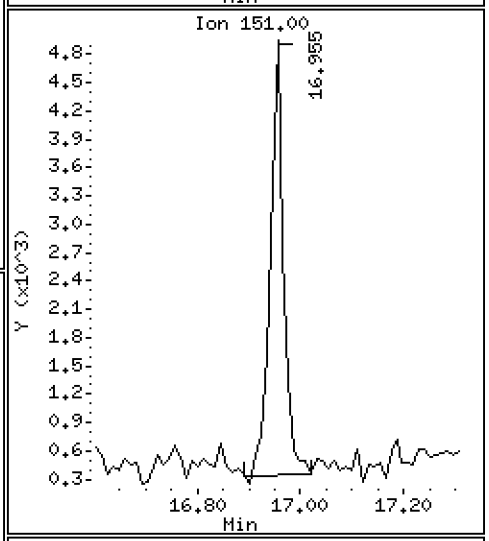


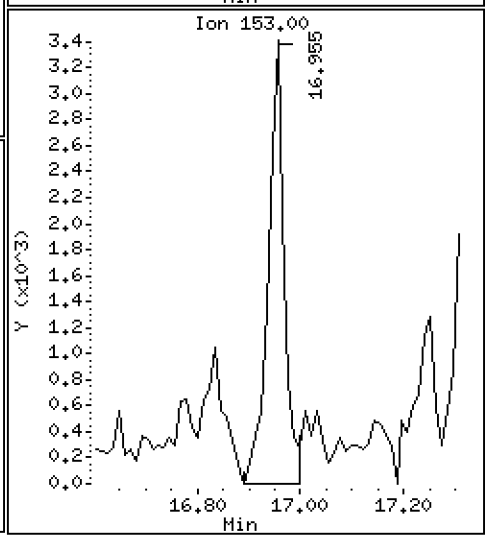



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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

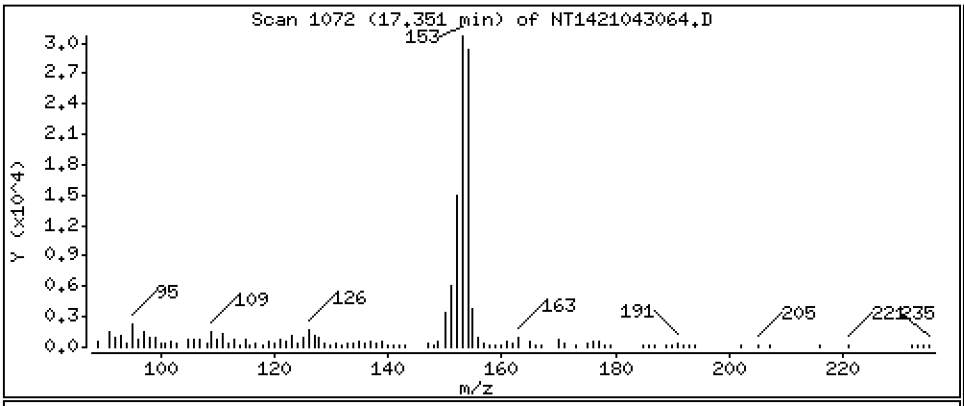
Operator: VTS

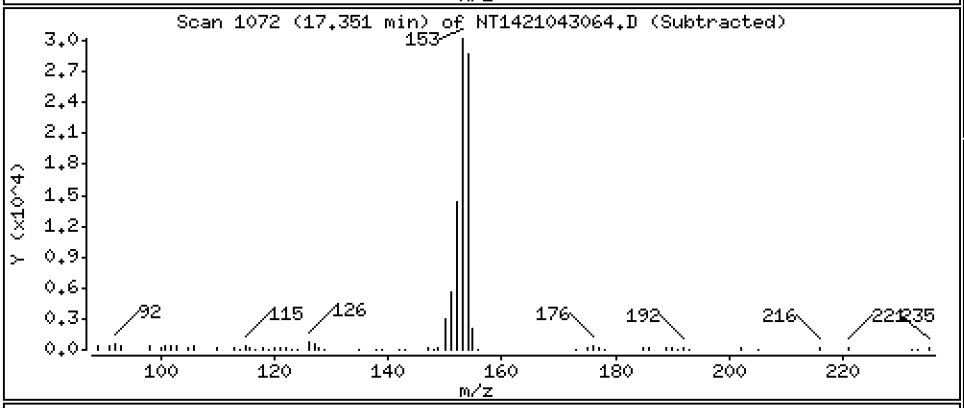
Column phase: Rxi-17Sil MS

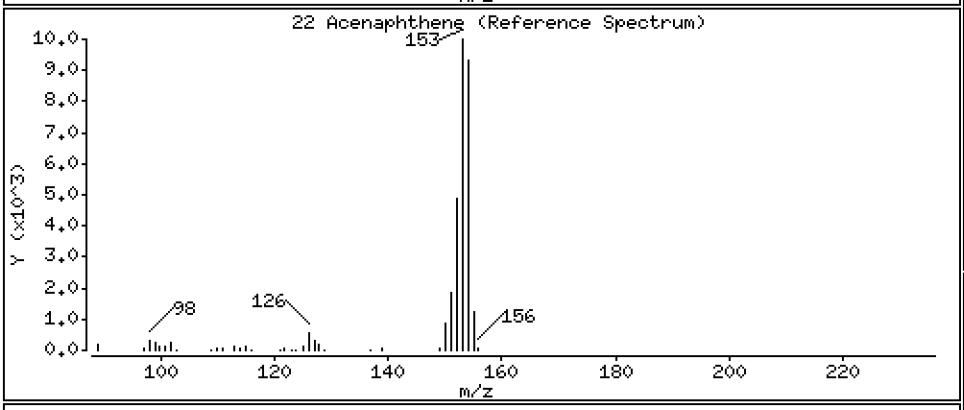
Column diameter: 0.25

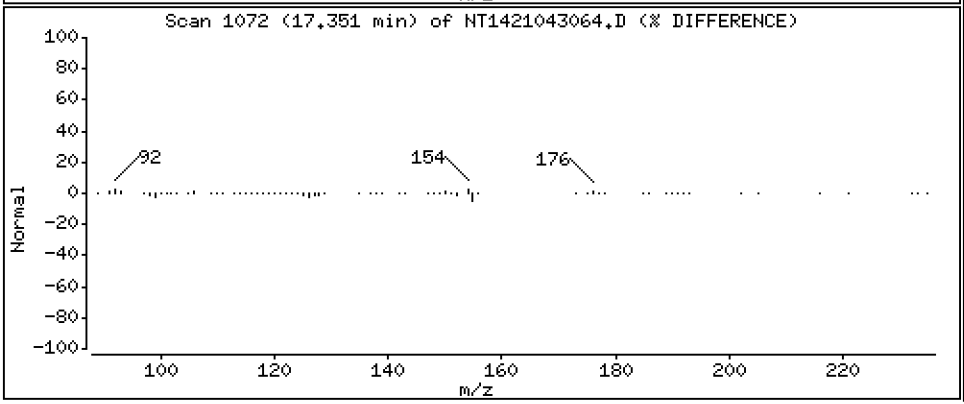
22 Acenaphthene

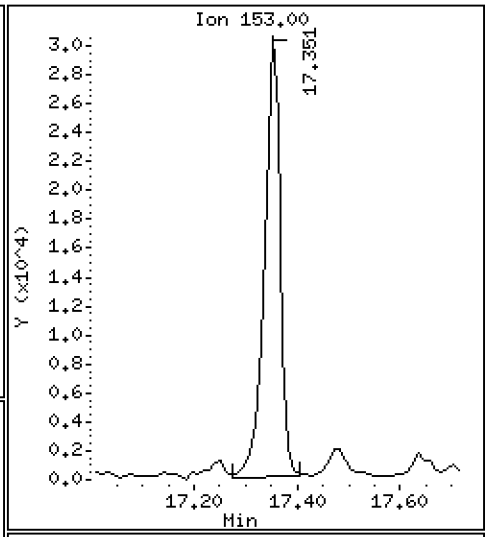
Concentration: 0.4059 ug/mL

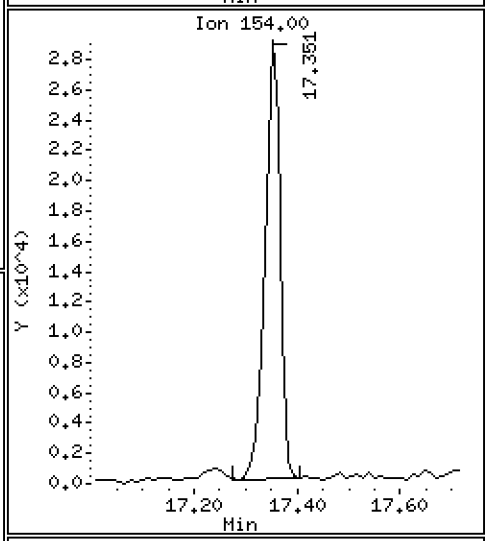


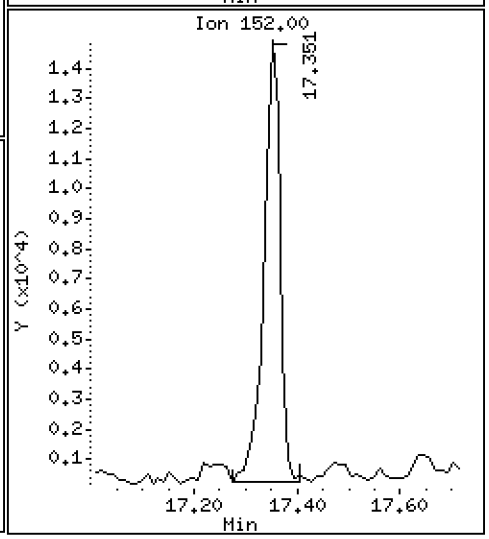



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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

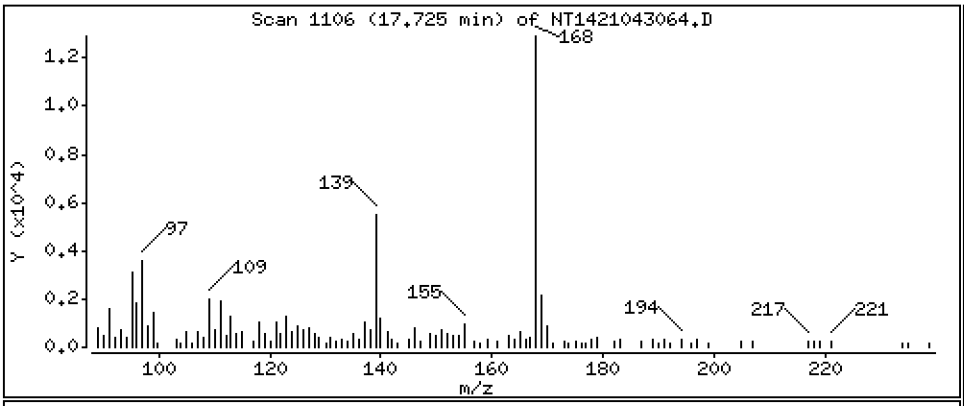
Operator: VTS

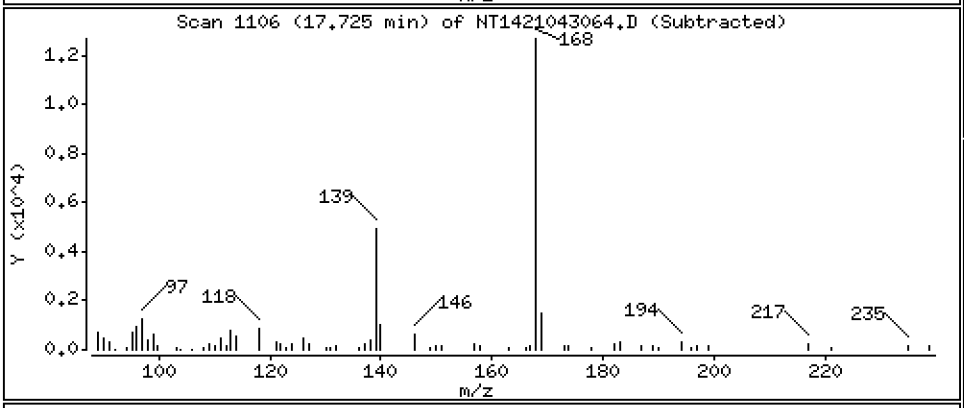
Column phase: Rxi-17Sil MS

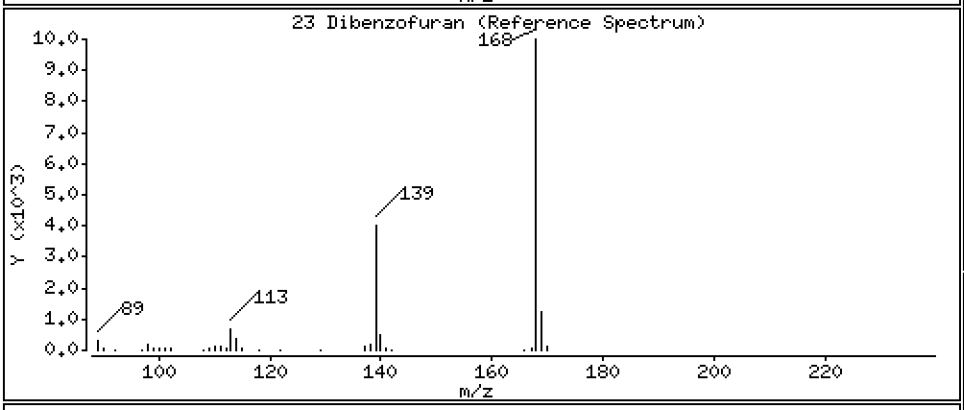
Column diameter: 0.25

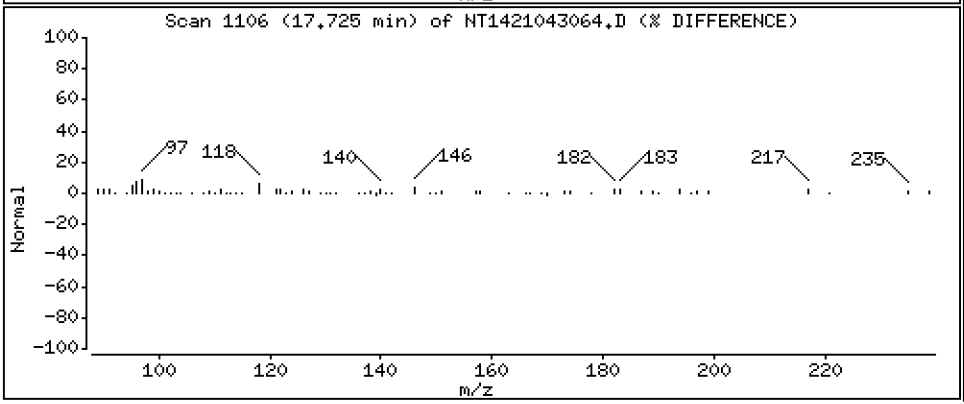
23 Dibenzofuran

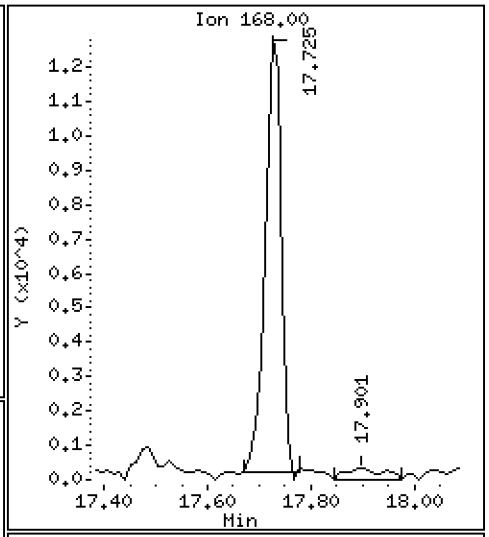
Concentration: 0.1146 ug/mL

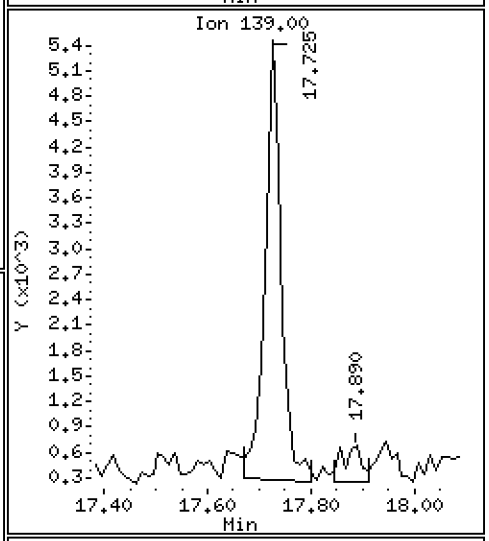


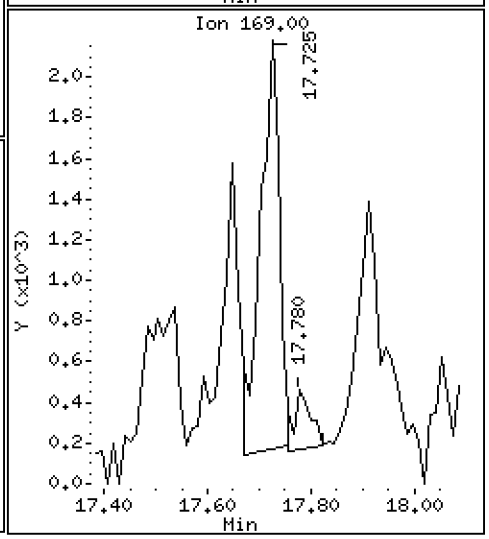



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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

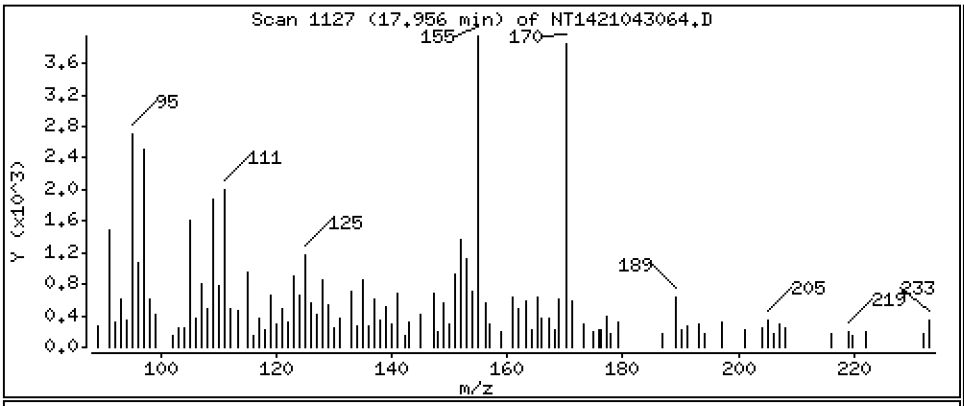
Operator: VTS

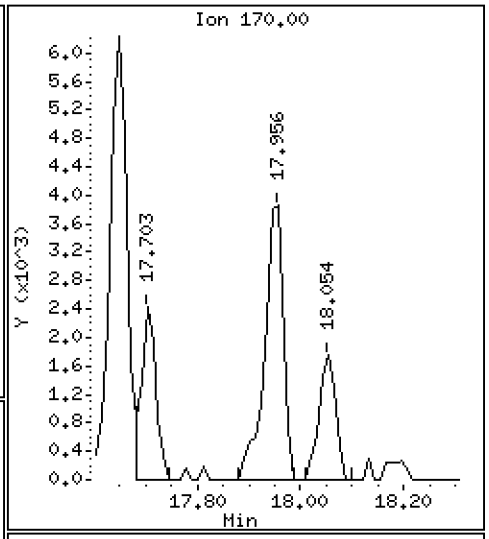
Column phase: Rxi-17Sil MS

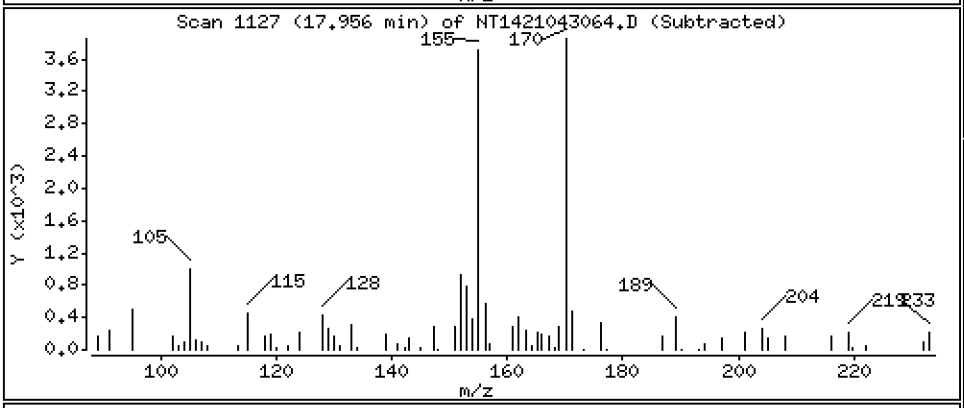
Column diameter: 0.25

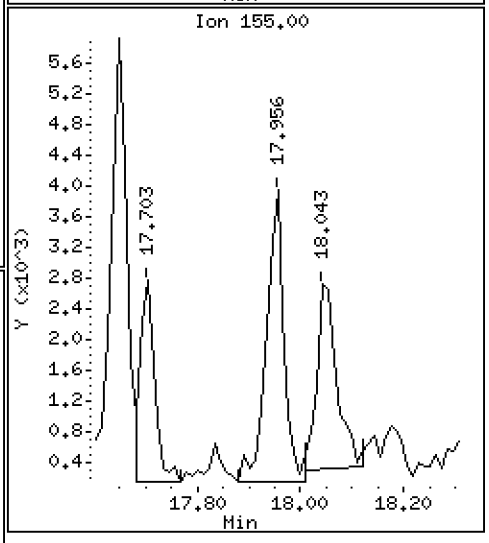
24 1,6,7-Trimethylnaphthalene

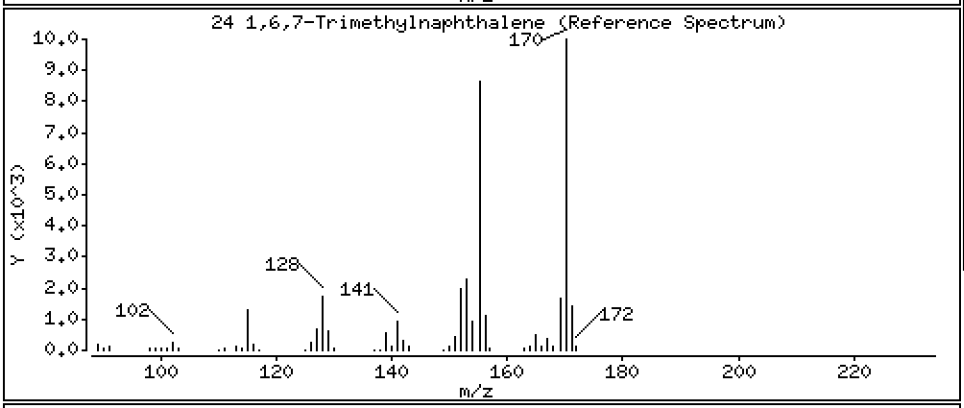
Concentration: 0.07160 ug/mL

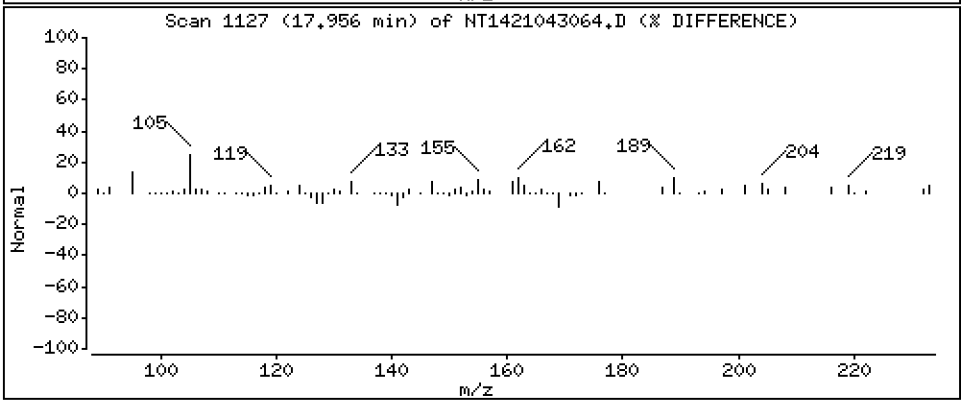


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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

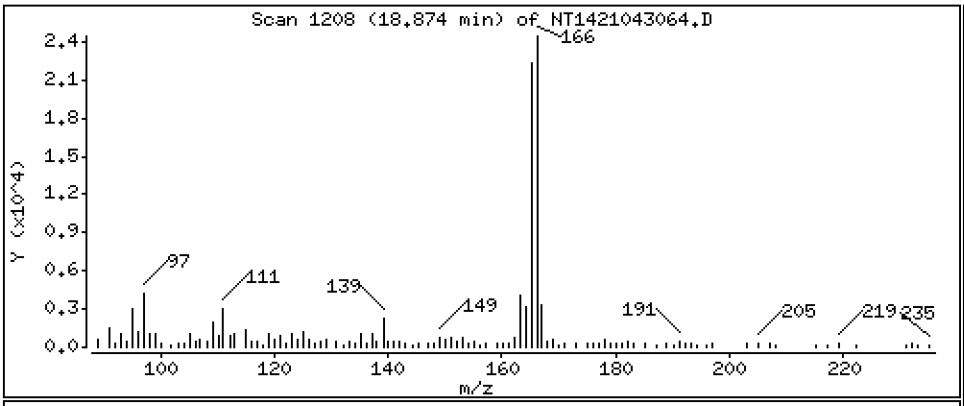
Operator: VTS

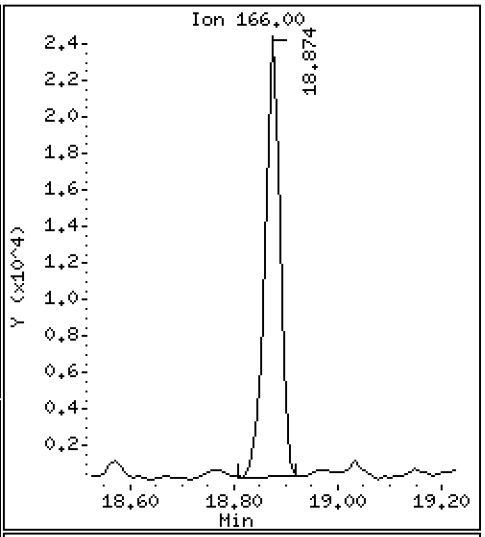
Column phase: Rxi-17Sil MS

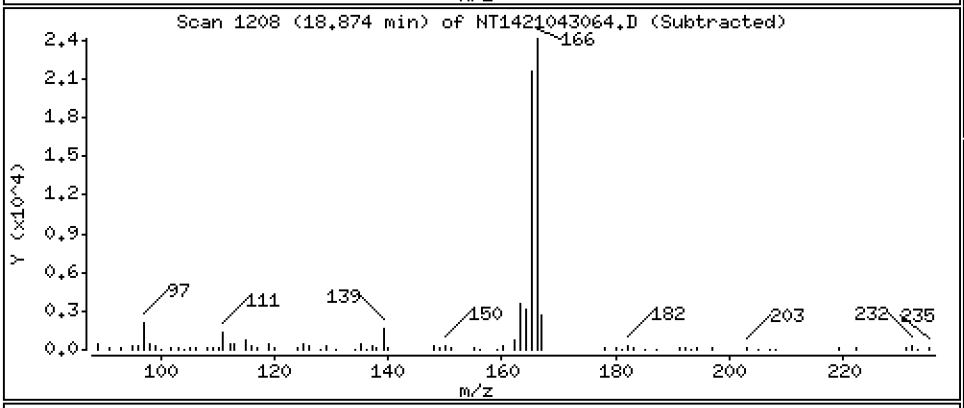
Column diameter: 0.25

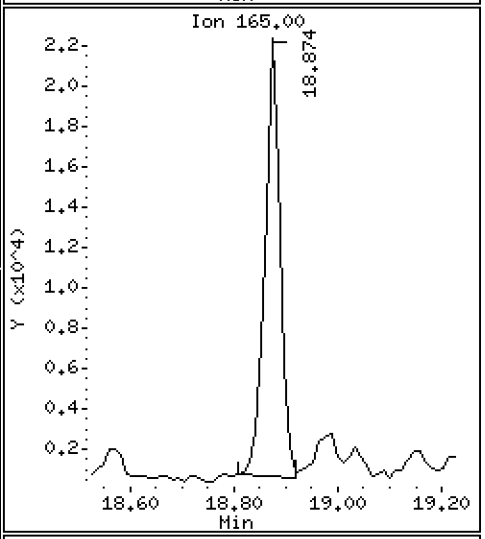
26 Fluorene

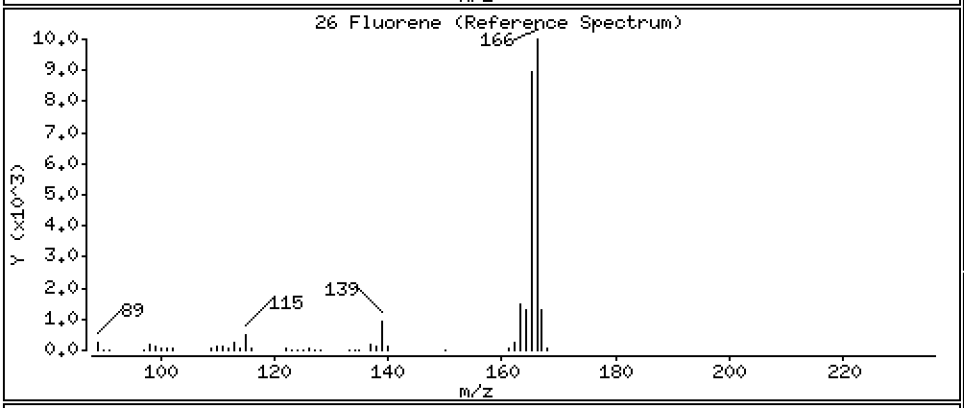
Concentration: 0.2716 ug/mL

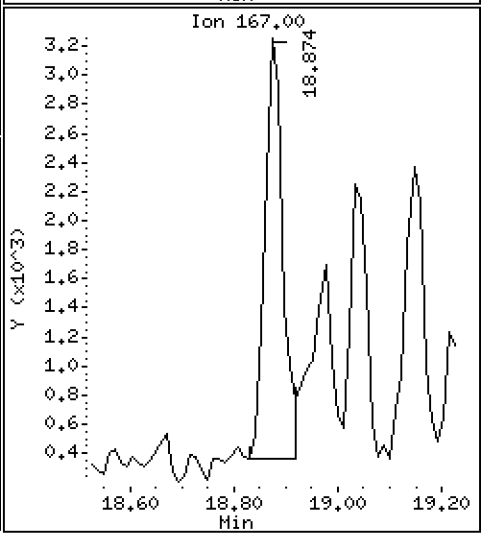


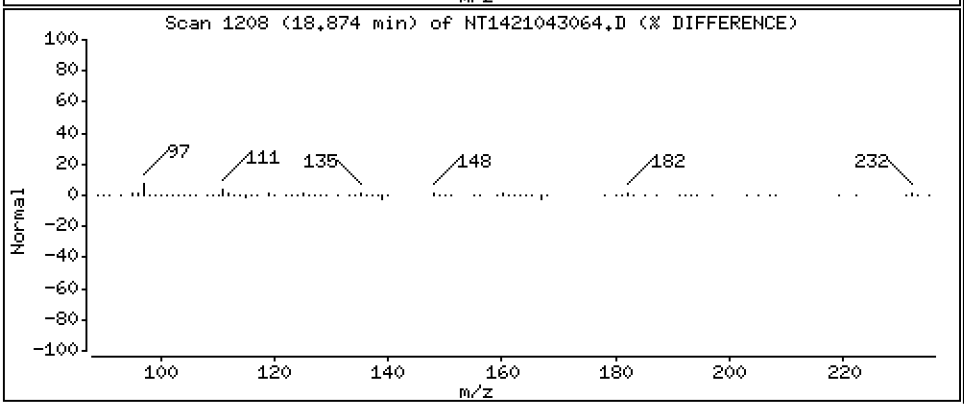



Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043064.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

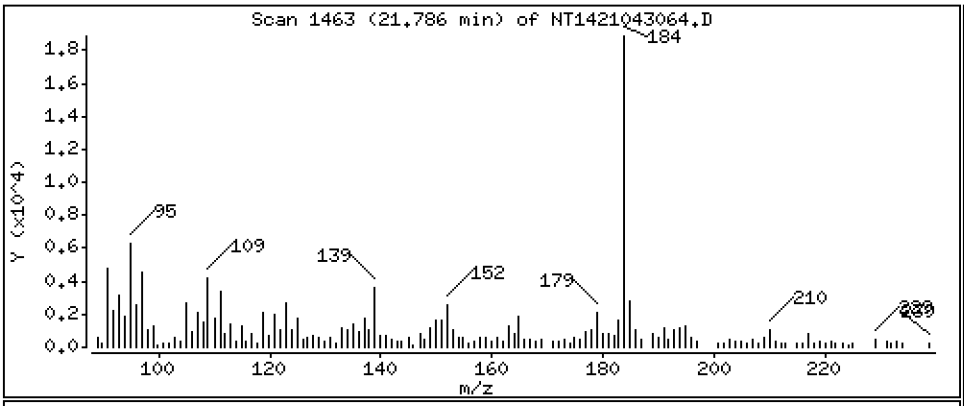
Operator: VTS

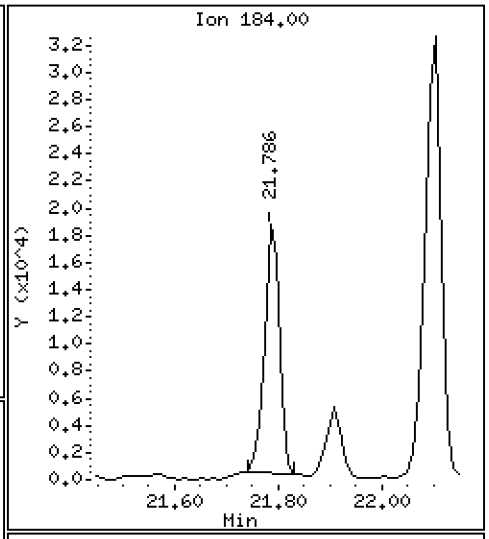
Column phase: Rxi-17Sil MS

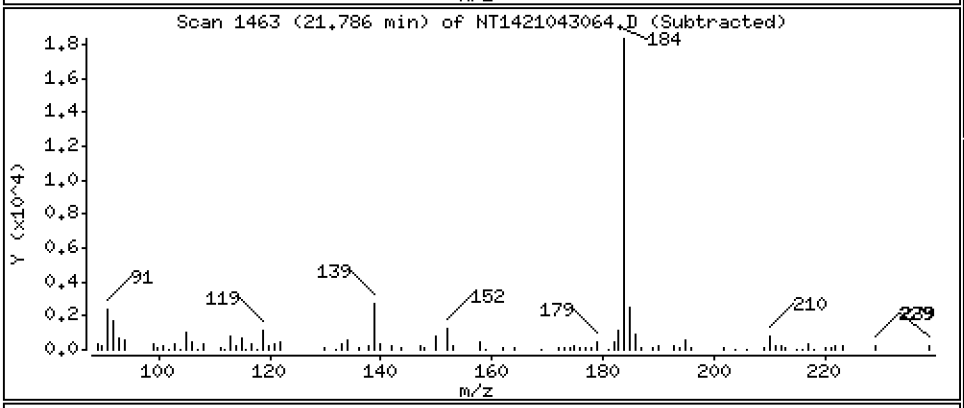
Column diameter: 0.25

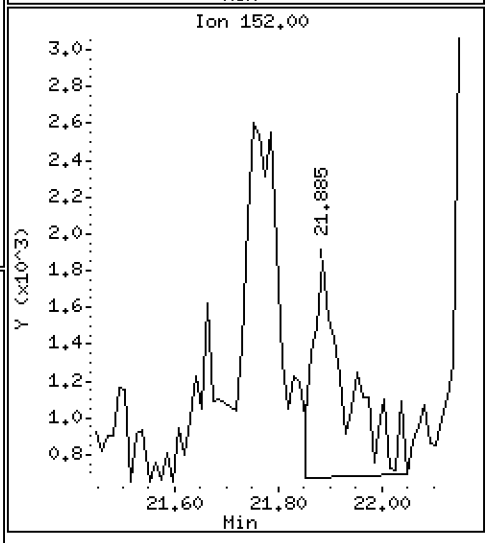
30 Dibenzothiophene

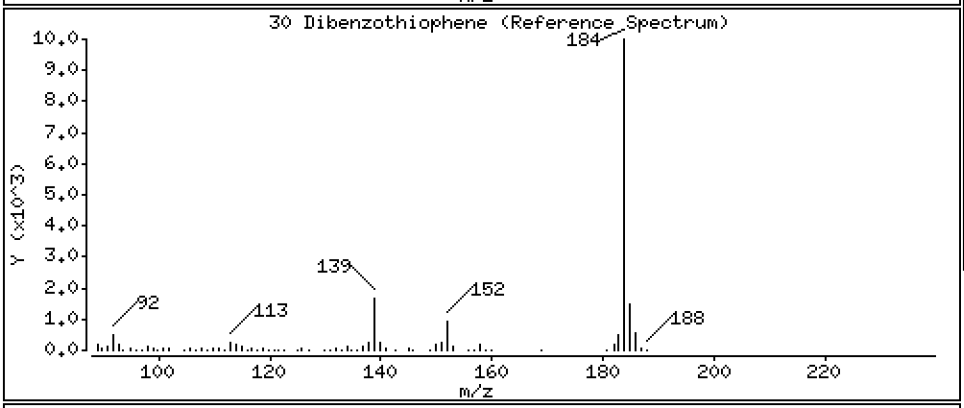
Concentration: 0.1566 ug/mL

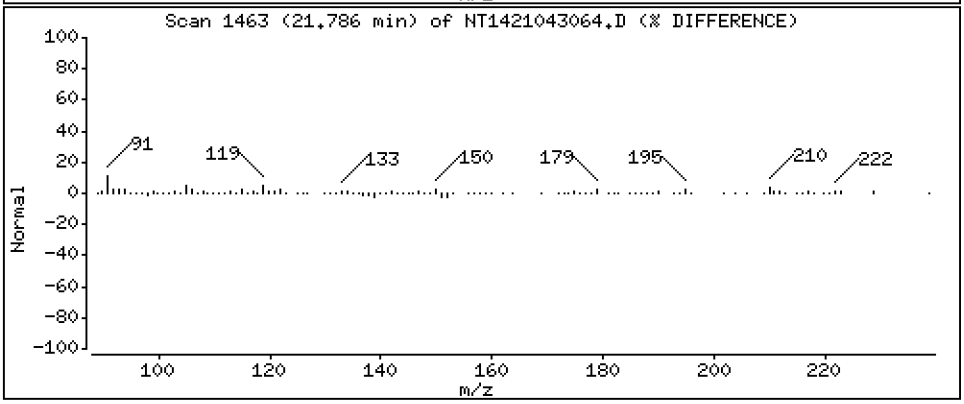


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043064.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

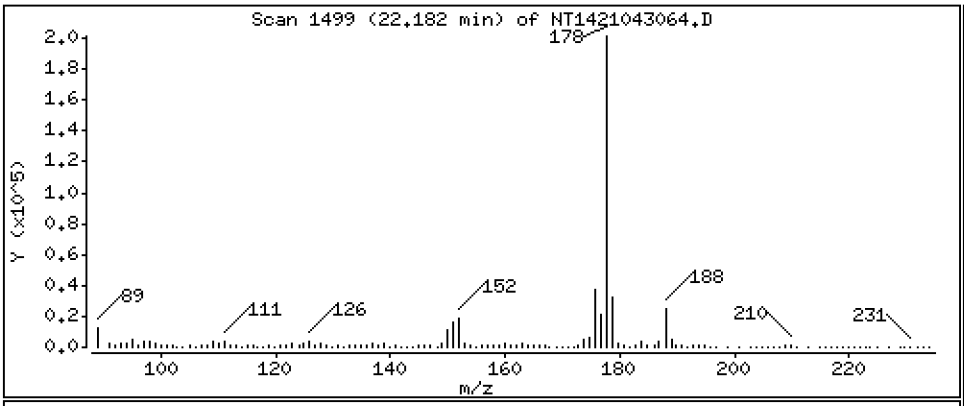
Operator: VTS

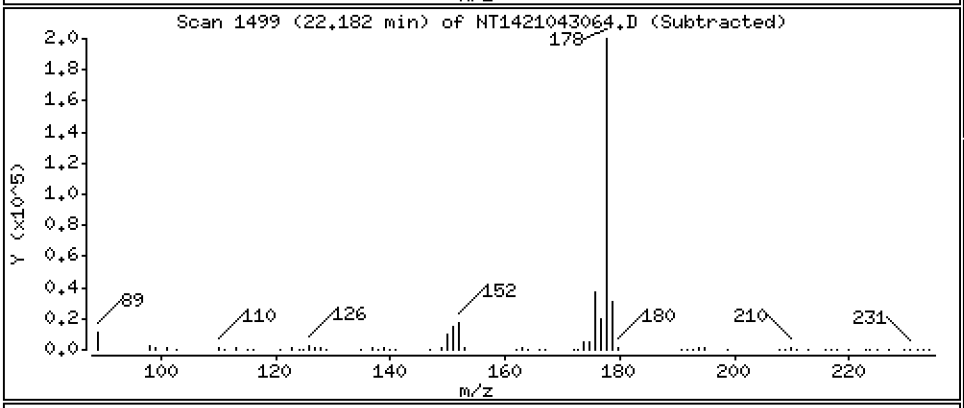
Column phase: Rxi-17Sil MS

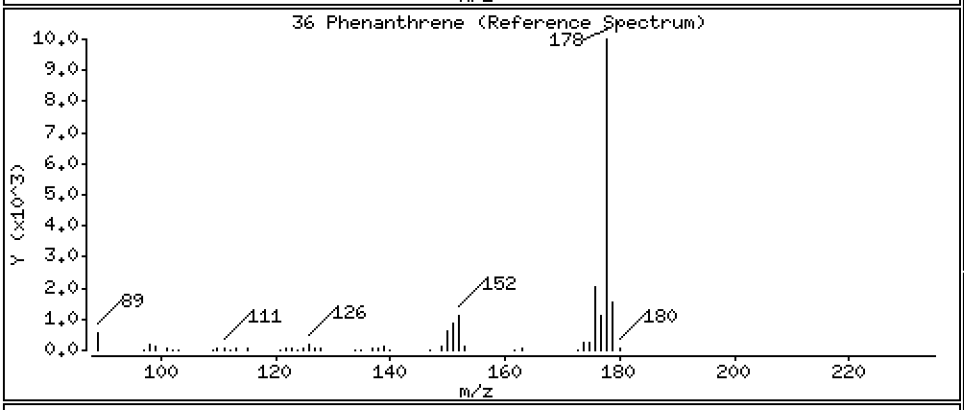
Column diameter: 0.25

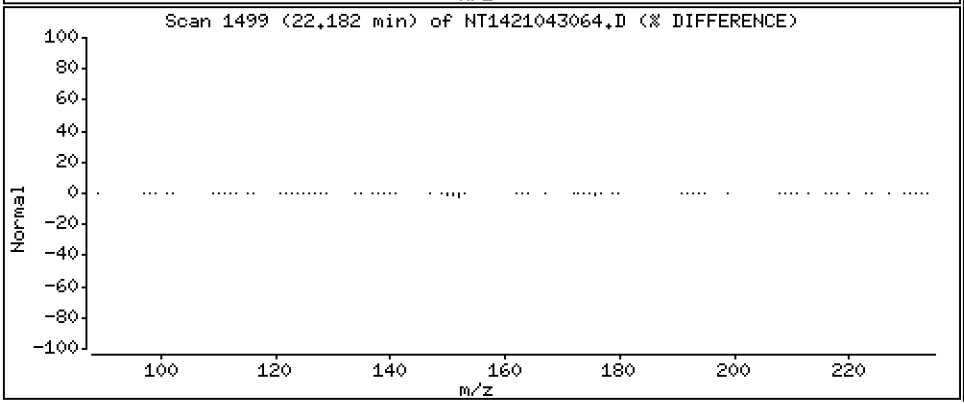
36 Phenanthrene

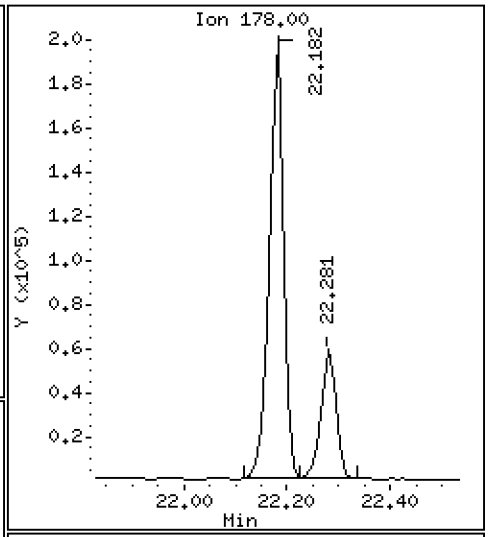
Concentration: 1.368 ug/mL

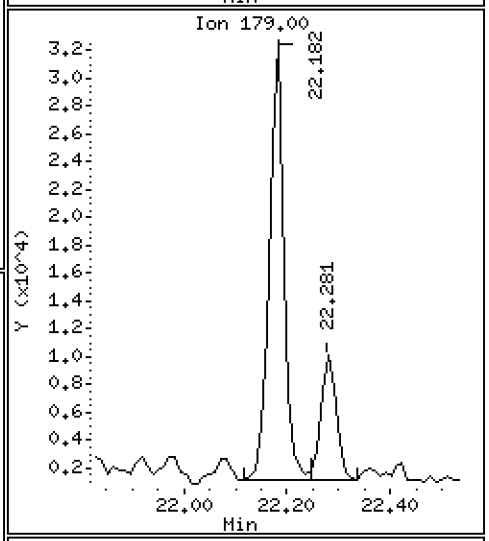


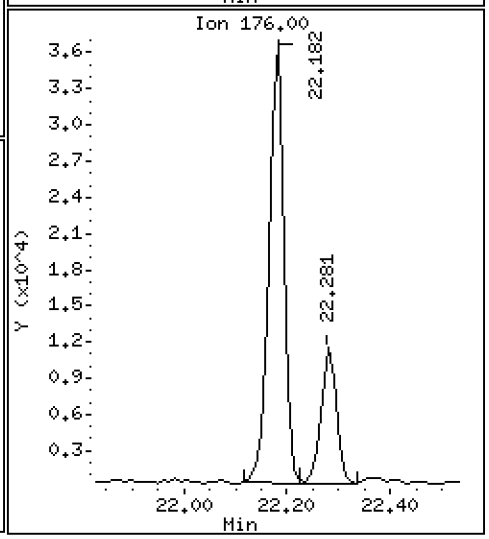



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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

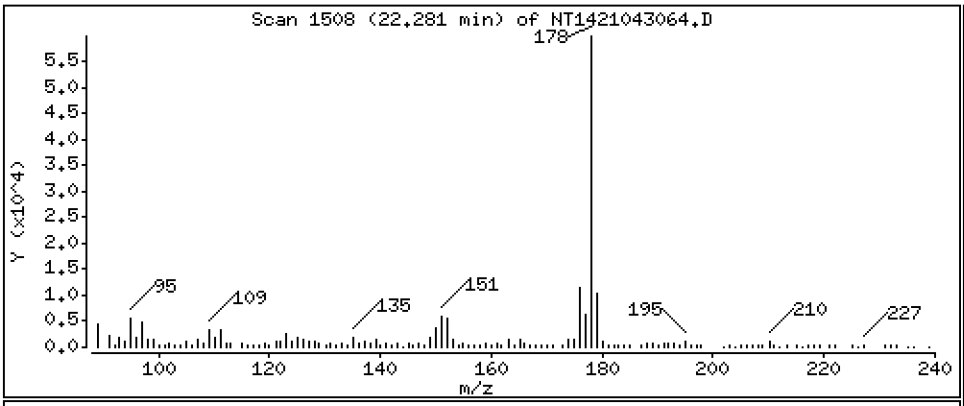
Operator: VTS

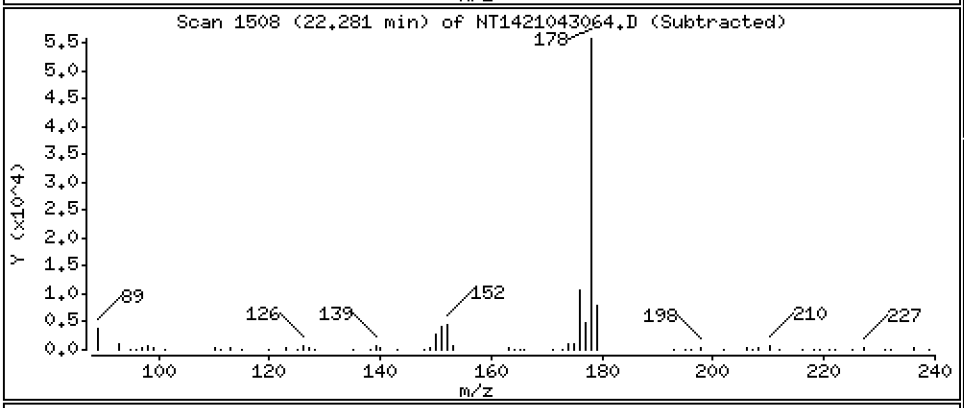
Column phase: Rxi-17Sil MS

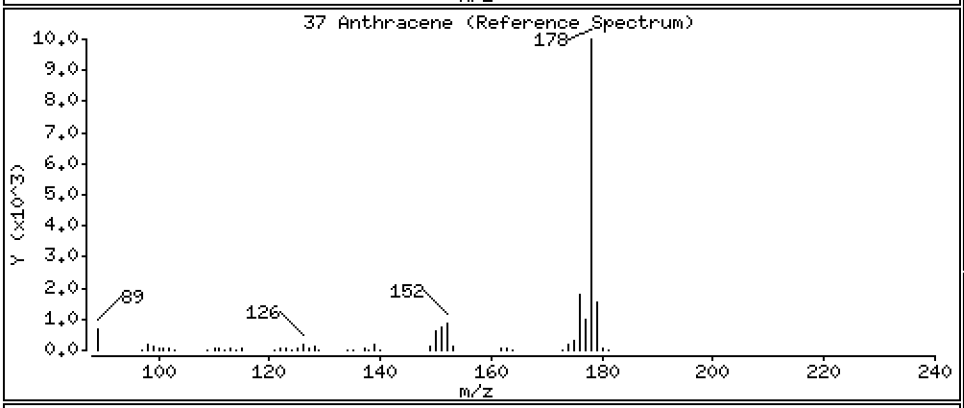
Column diameter: 0.25

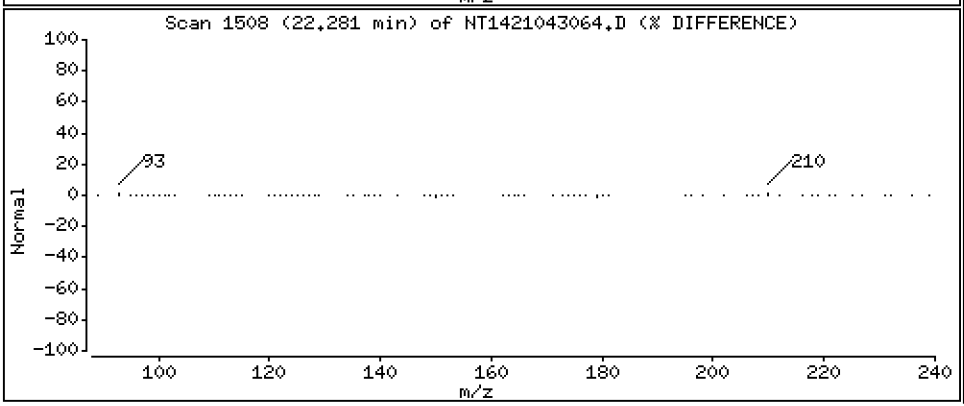
37 Anthracene

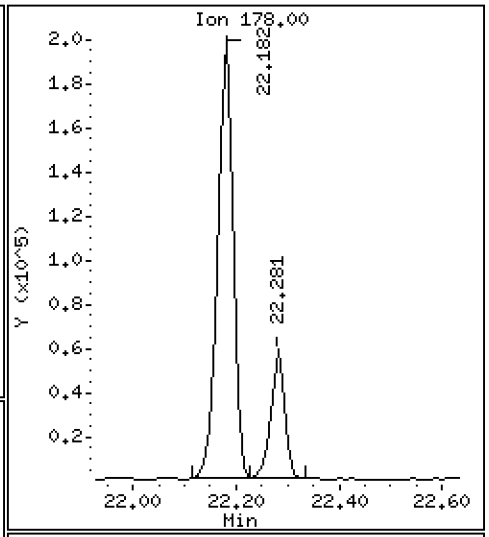
Concentration: 0.4193 ug/mL

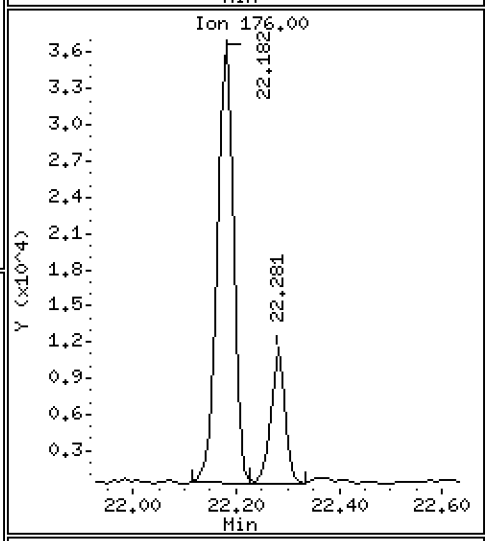


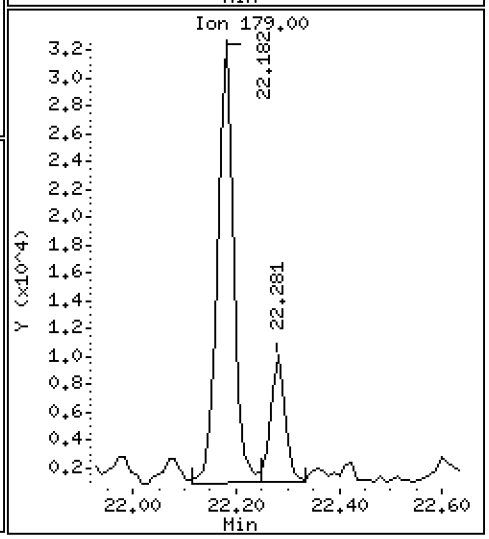



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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

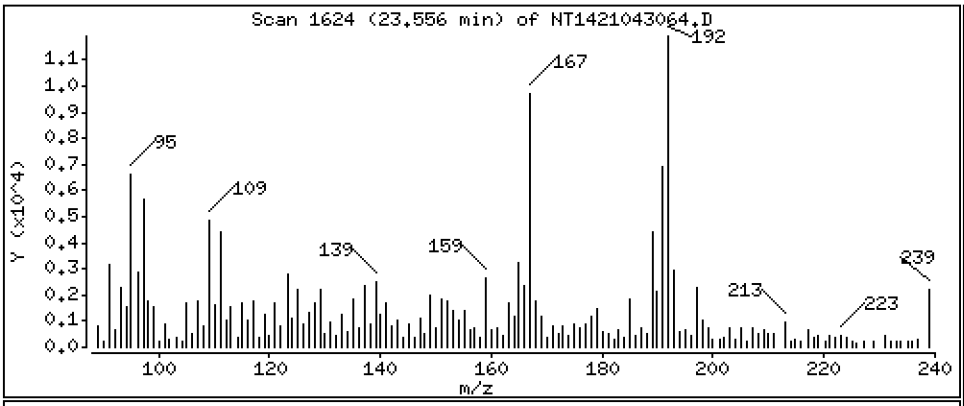
Operator: VTS

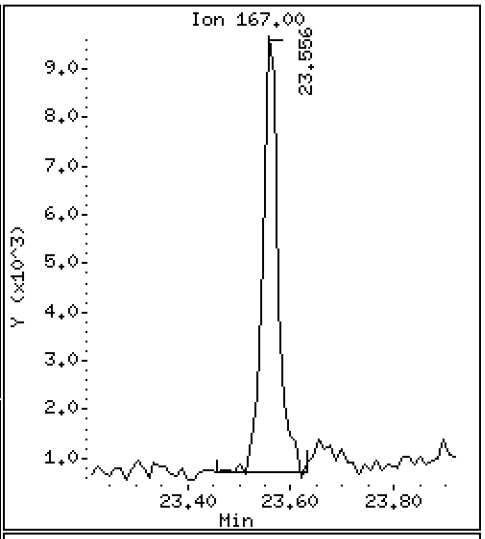
Column phase: Rxi-17Sil MS

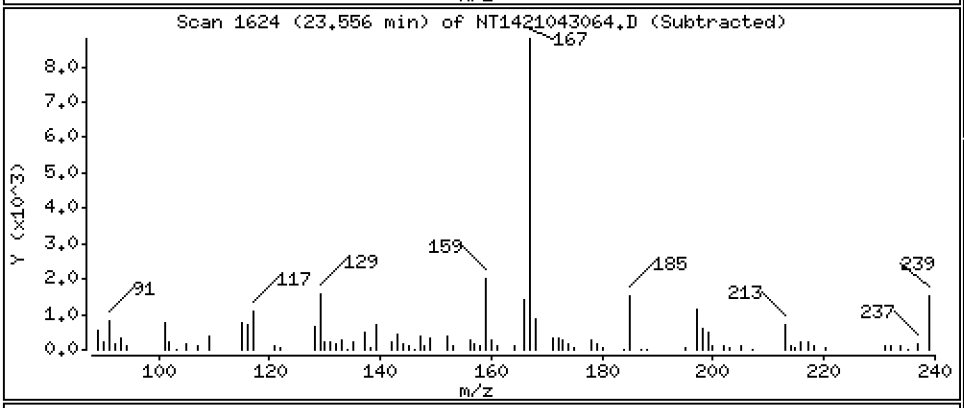
Column diameter: 0.25

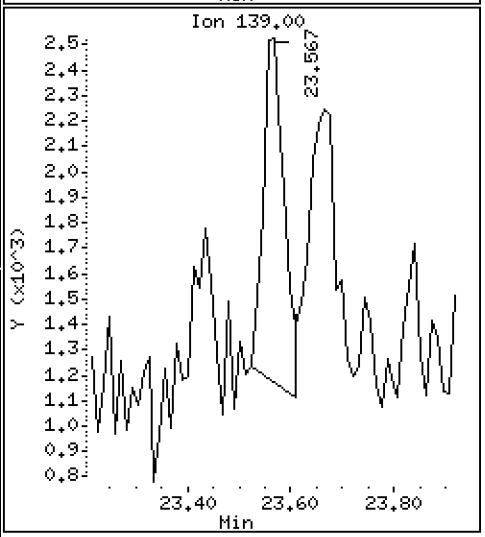
42 Carbazole

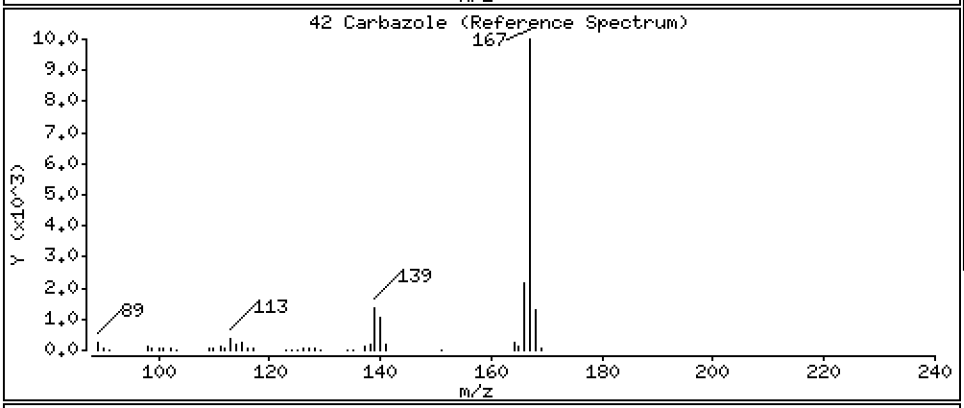
Concentration: 0.08863 ug/mL

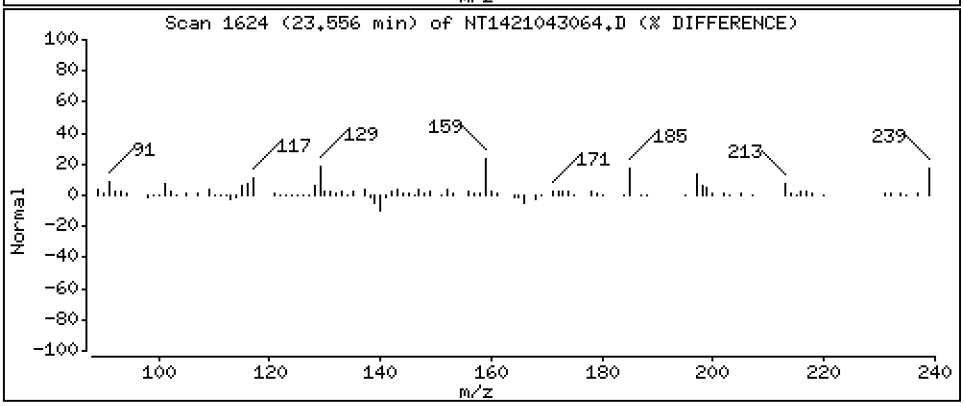


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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

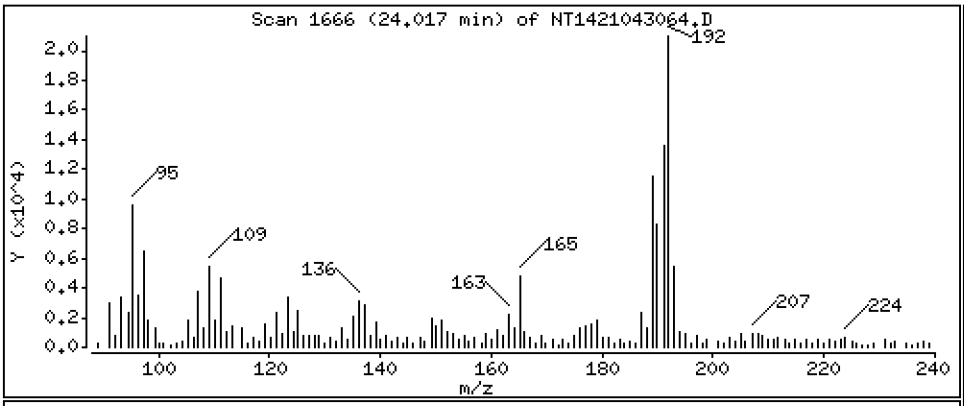
Operator: VTS

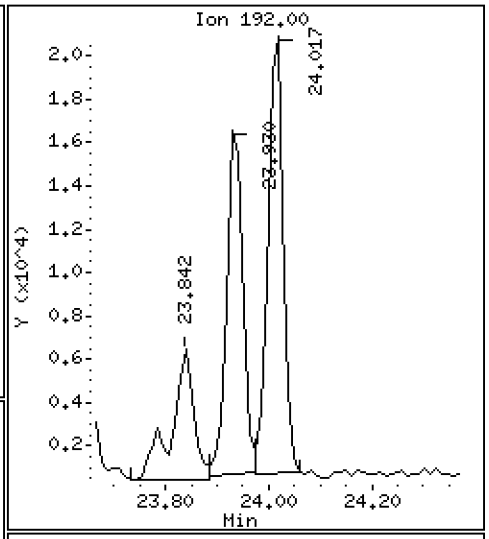
Column phase: Rxi-17Sil MS

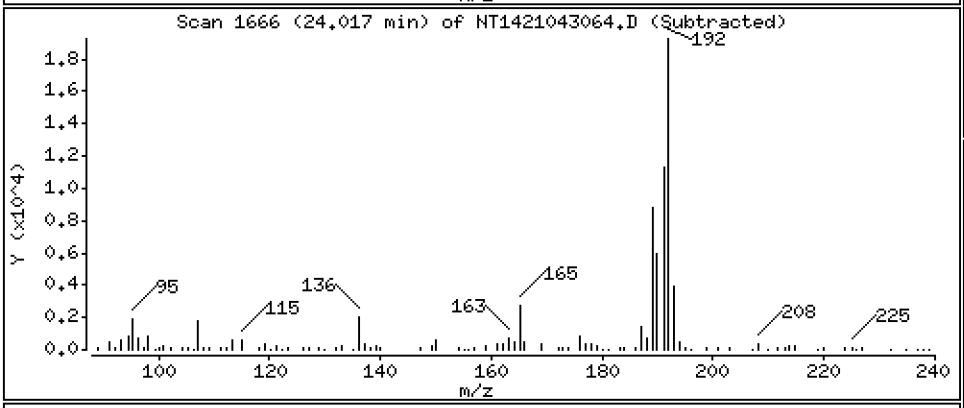
Column diameter: 0.25

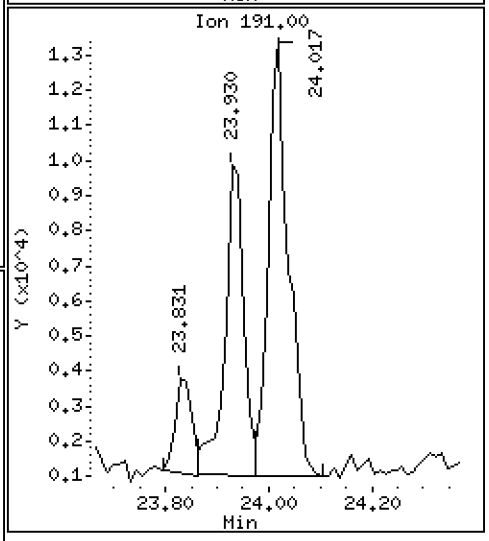
43 1-Methylphenanthrene

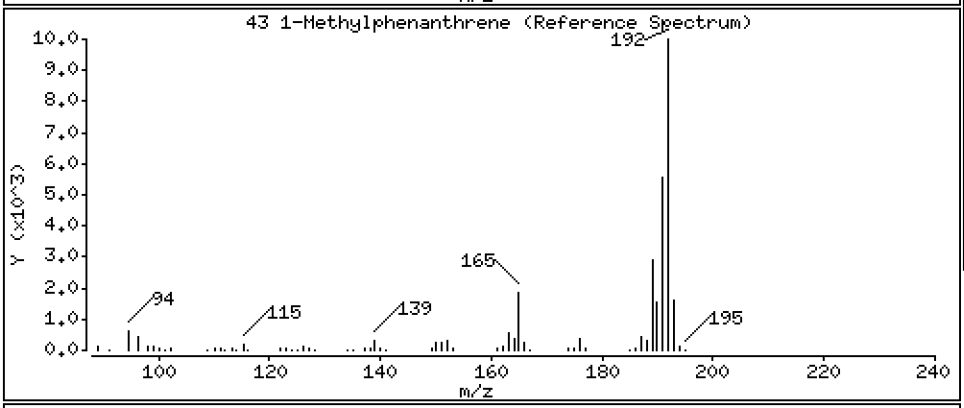
Concentration: 0.2477 ug/mL

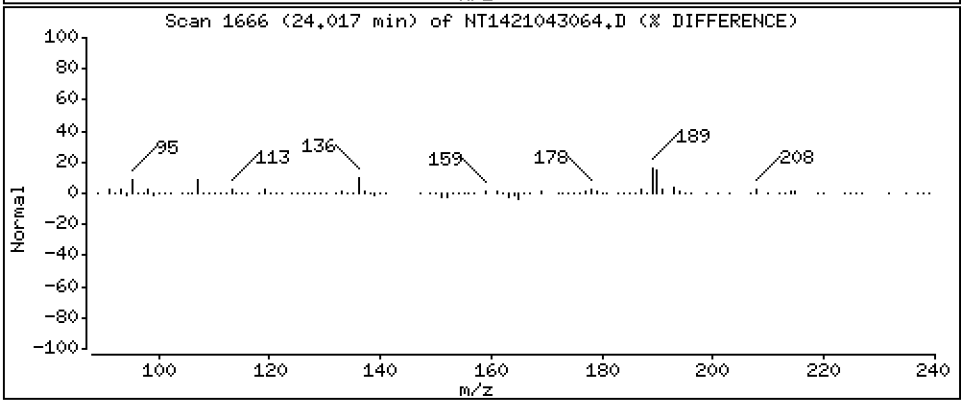


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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

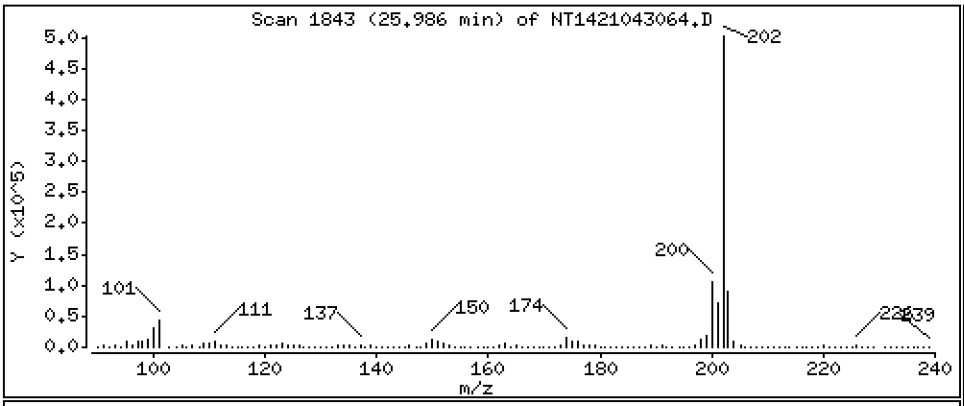
Operator: VTS

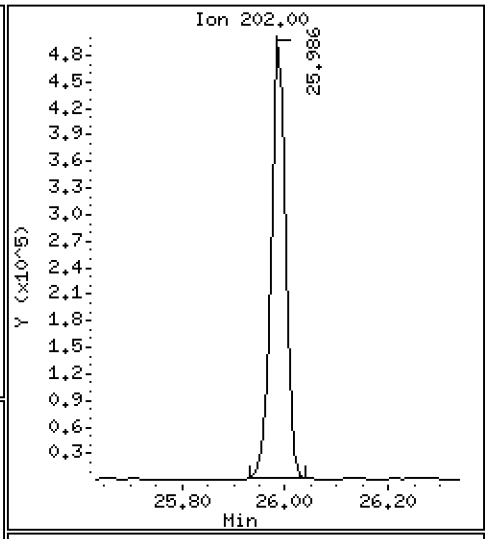
Column phase: Rxi-17Sil MS

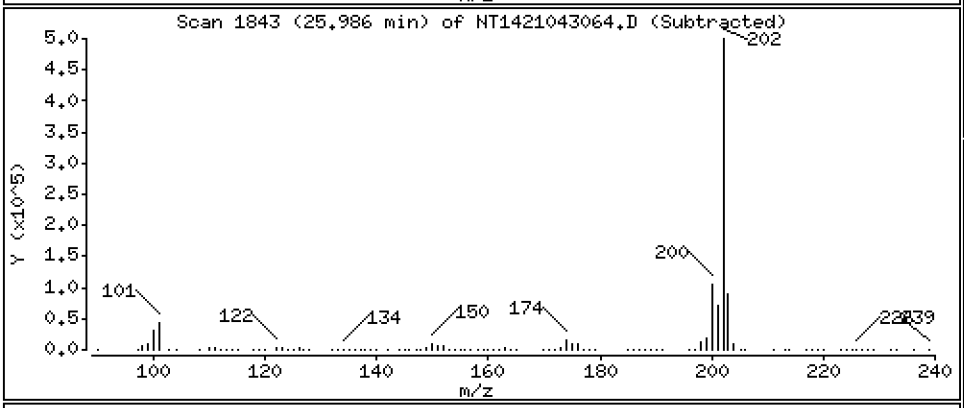
Column diameter: 0.25

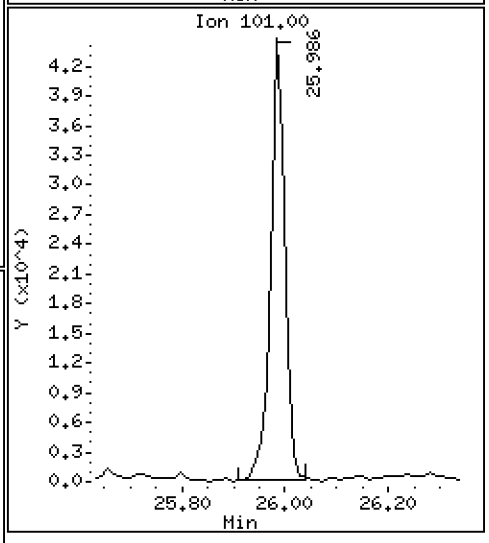
44 Fluoranthene

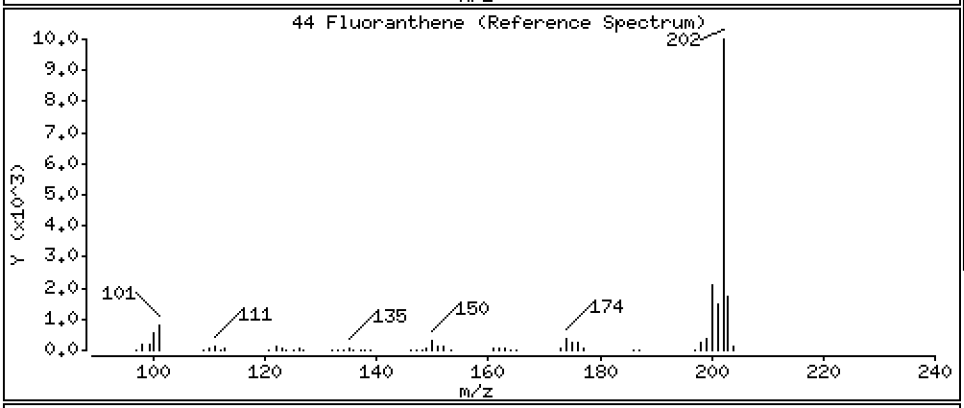
Concentration: 3.939 ug/mL

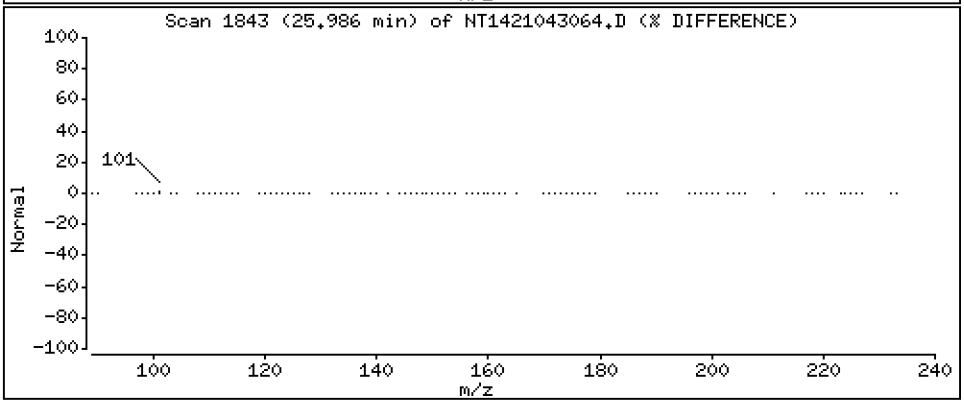


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043064.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

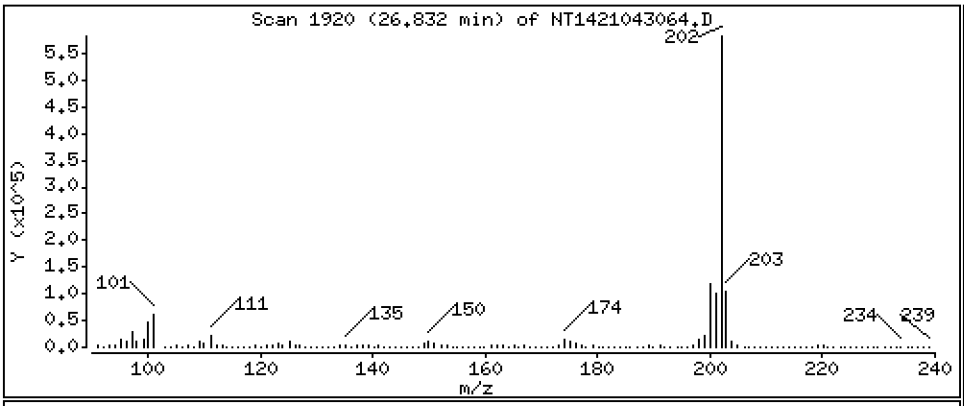
Operator: VTS

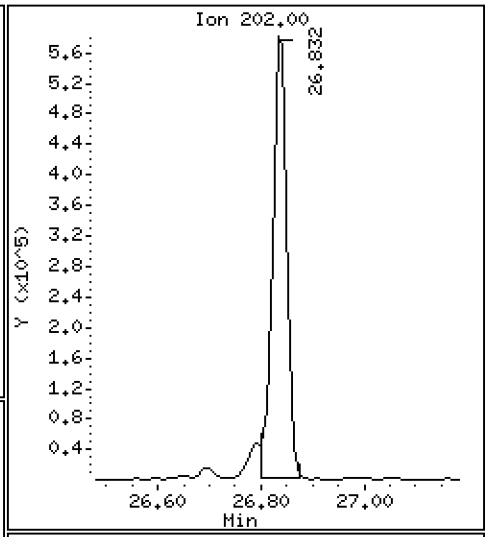
Column phase: Rxi-17Sil MS

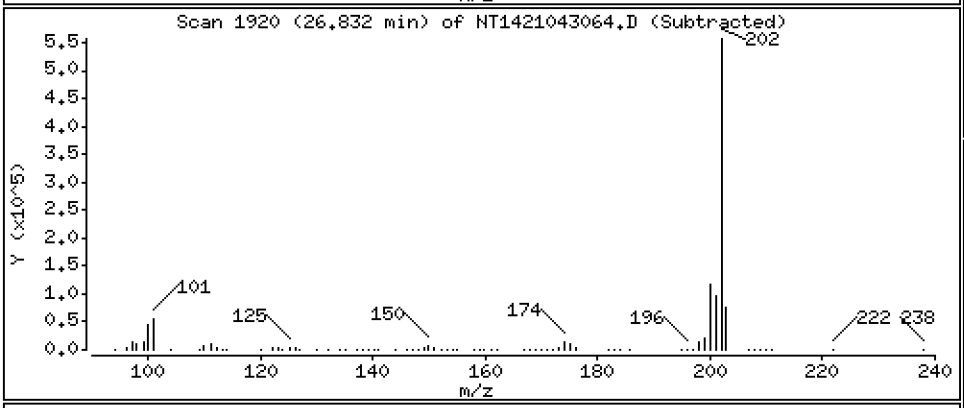
Column diameter: 0.25

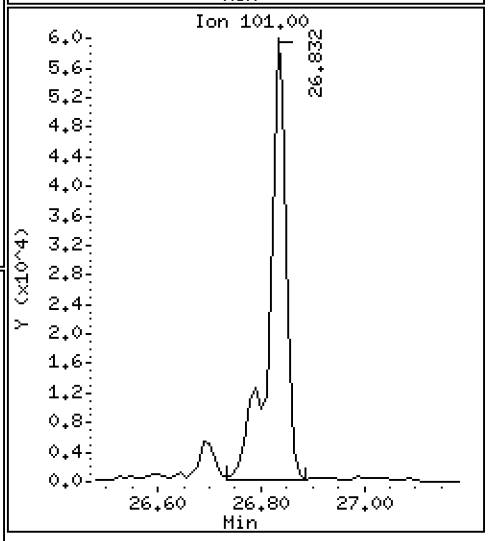
46 Pyrene

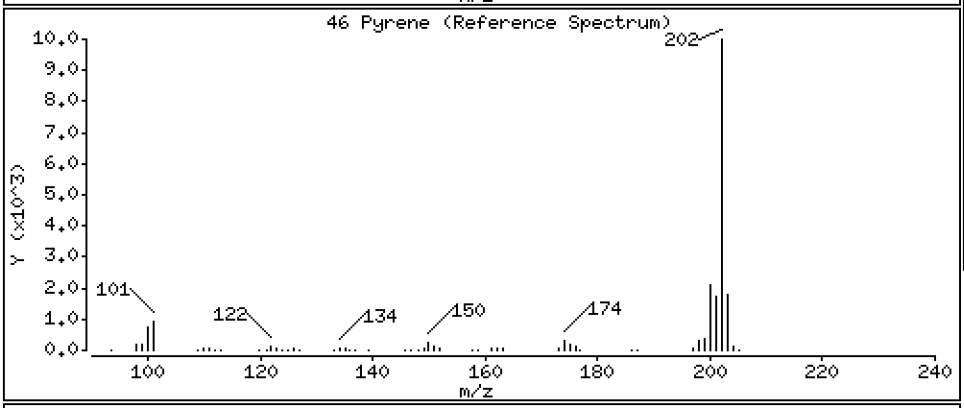
Concentration: 4.436 ug/mL

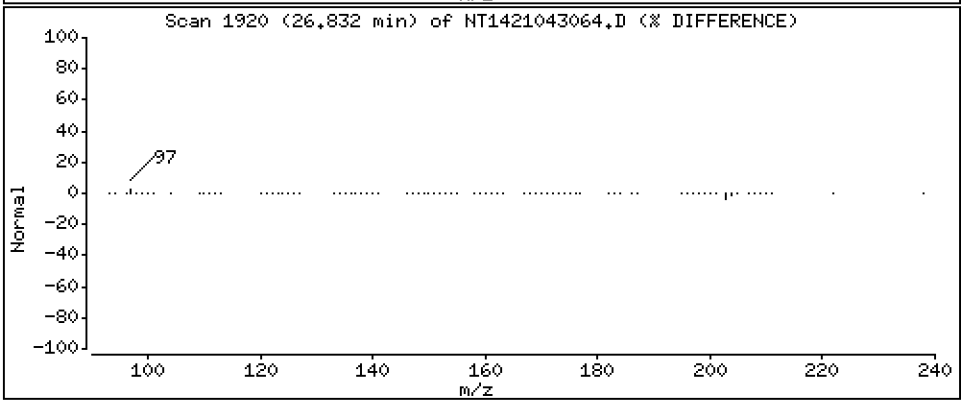


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043064.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

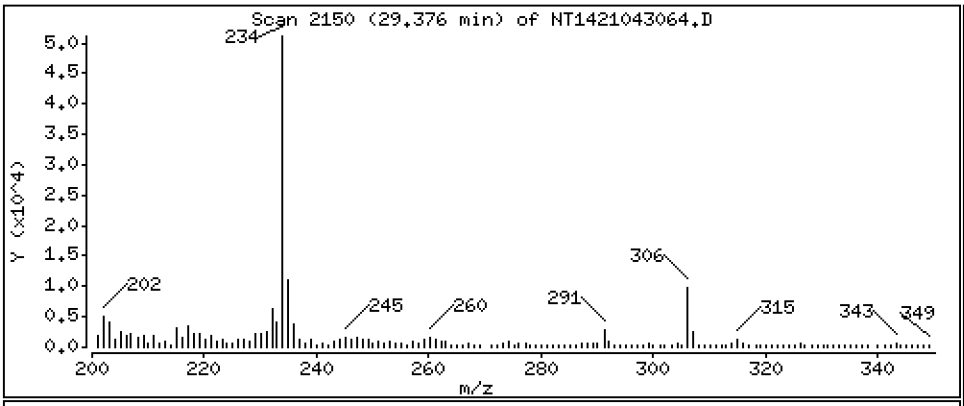
Operator: VTS

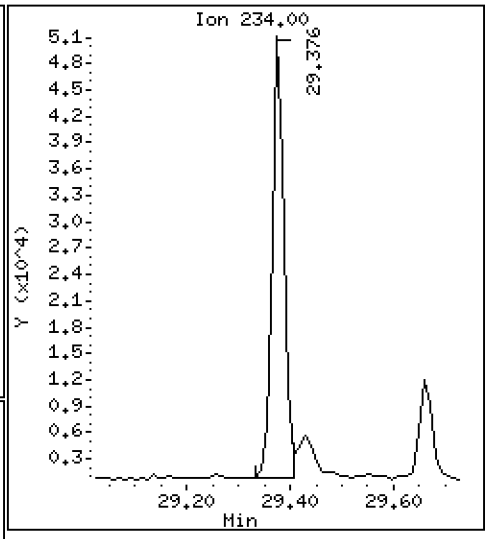
Column phase: Rxi-17Sil MS

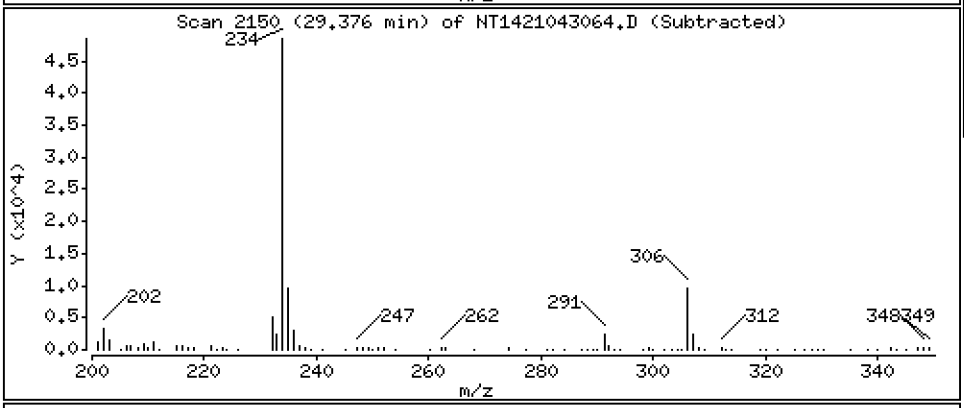
Column diameter: 0.25

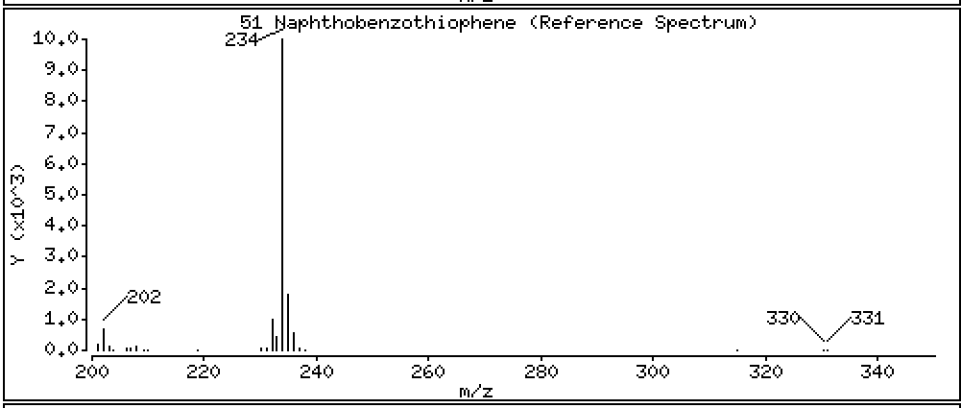
51 Naphthobenzothiophene

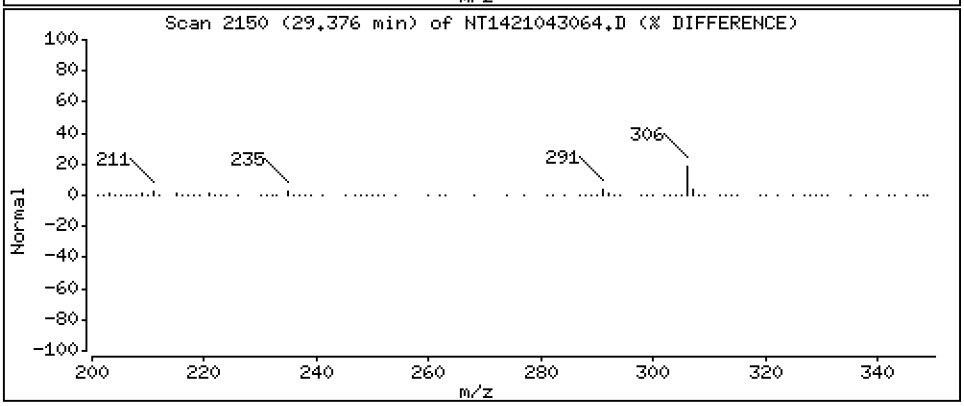
Concentration: 0.3251 ug/mL



Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043064.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

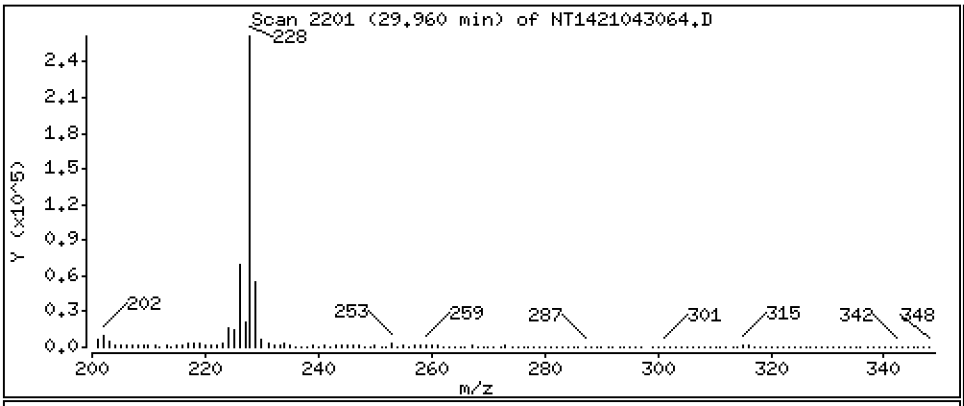
Operator: VTS

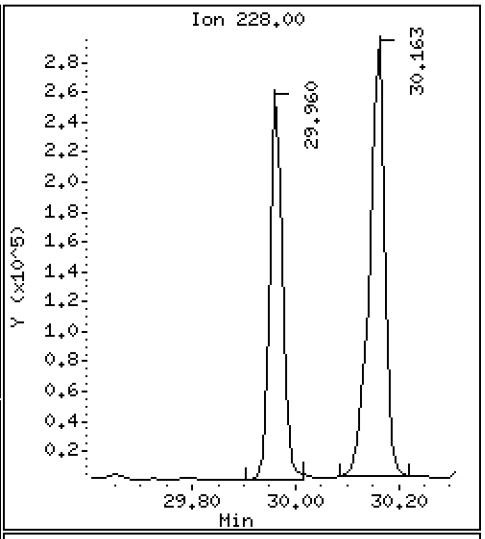
Column phase: Rxi-17Sil MS

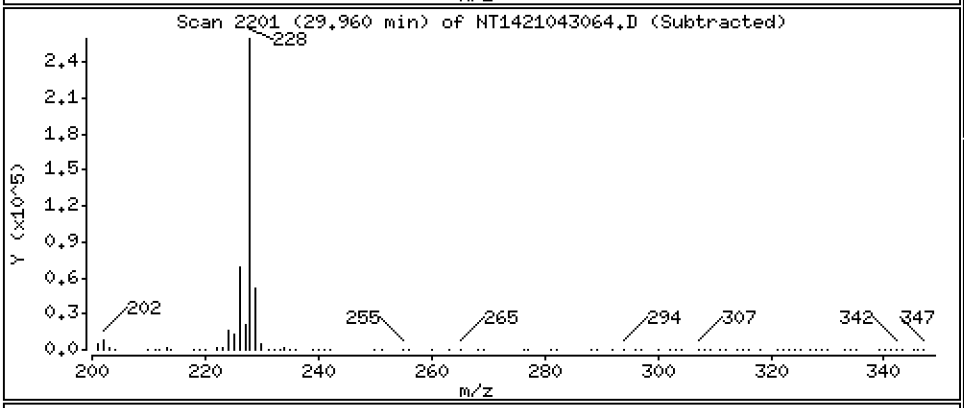
Column diameter: 0.25

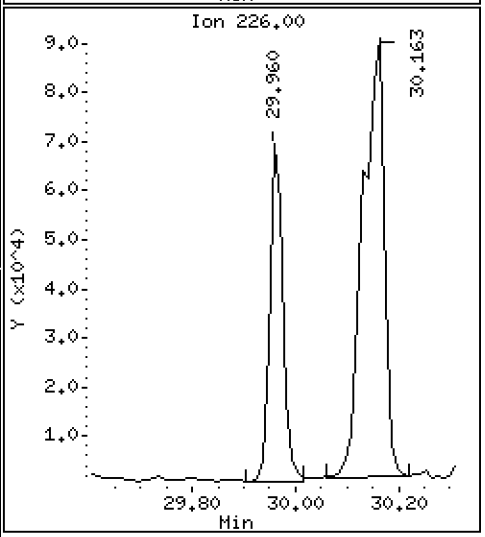
55 Benzo(a)anthracene

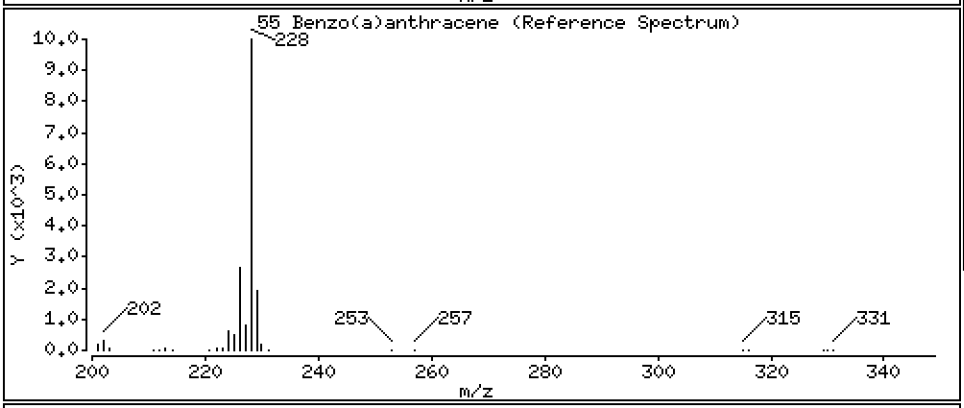
Concentration: 1.632 ug/mL

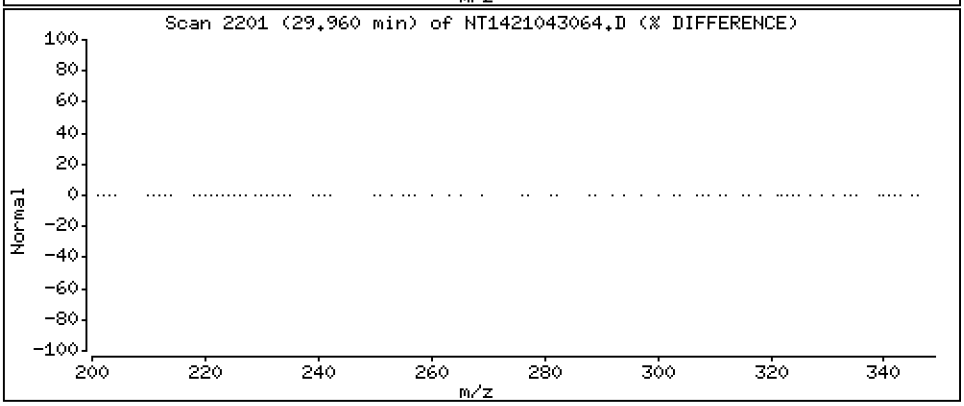


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043064.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

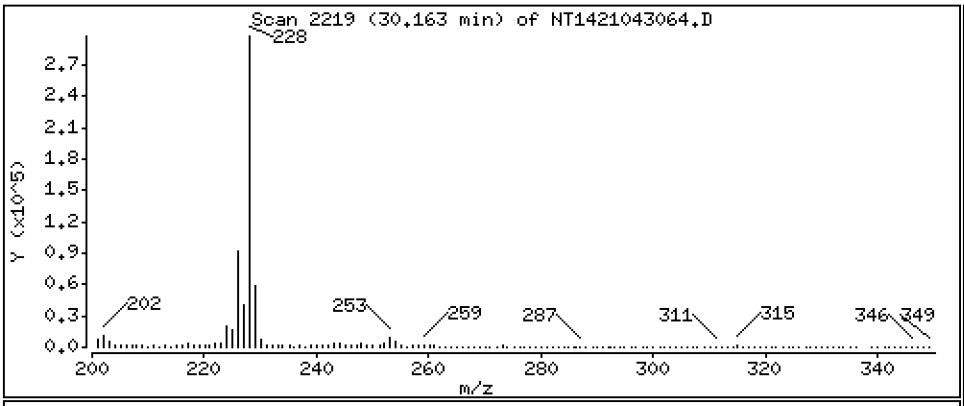
Operator: VTS

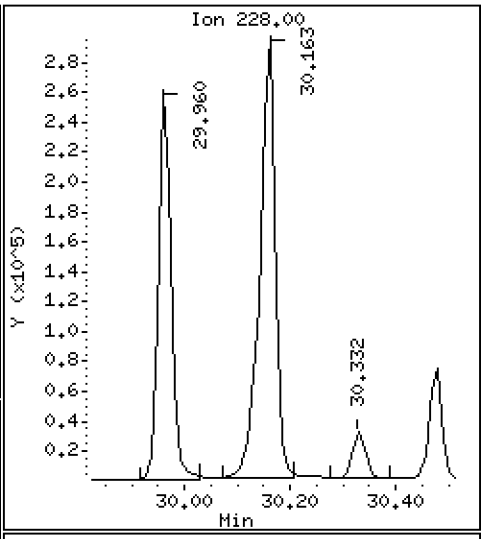
Column phase: Rxi-17Sil MS

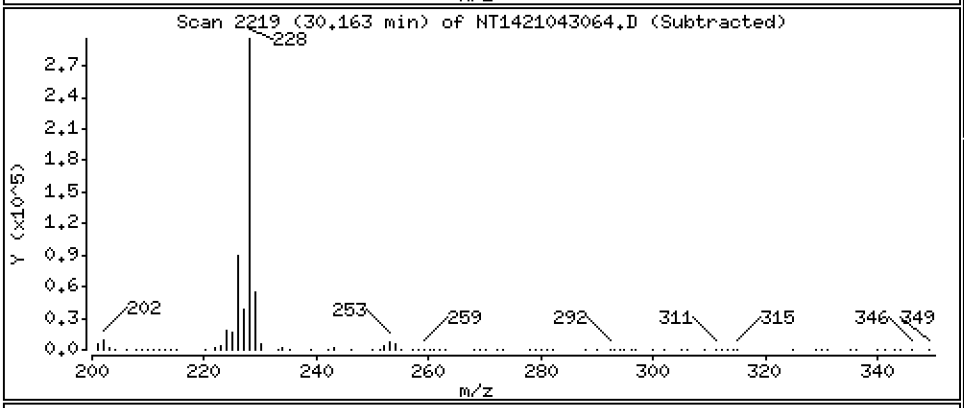
Column diameter: 0.25

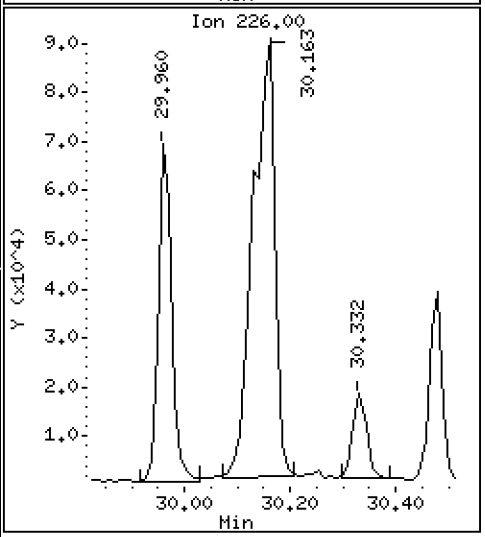
57 Chrysene

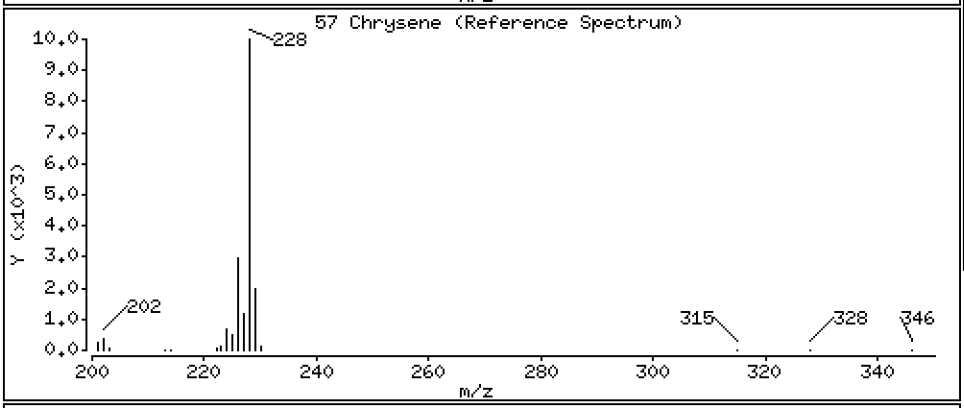
Concentration: 2.159 ug/mL

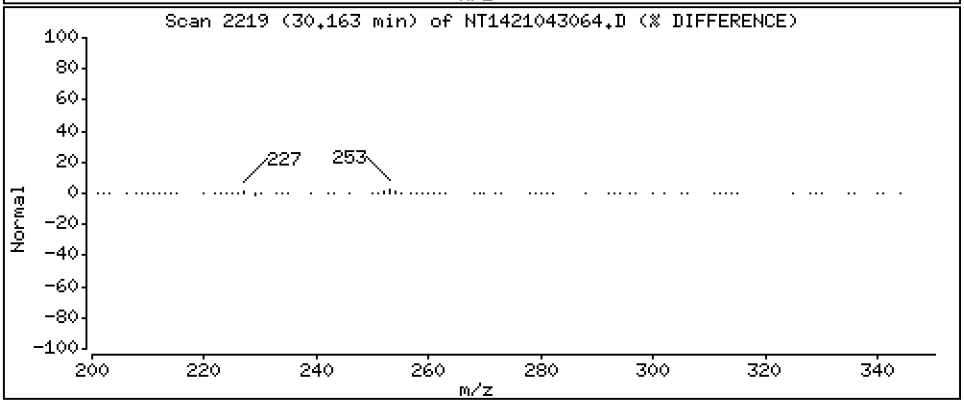


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043064.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

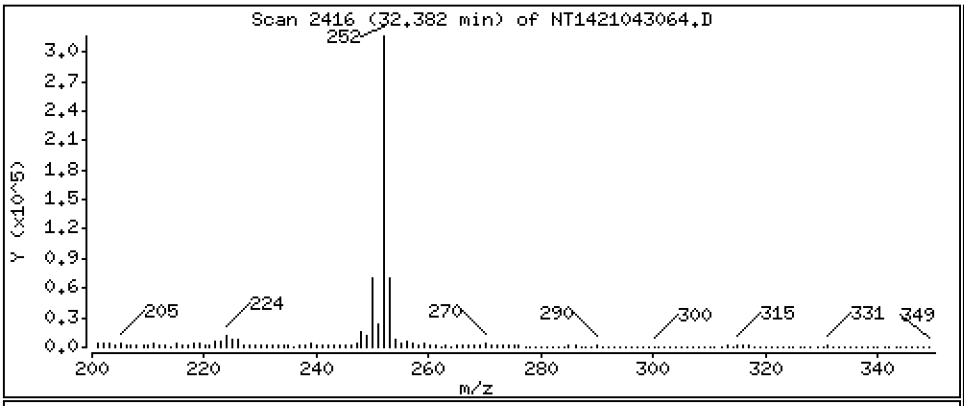
Operator: VTS

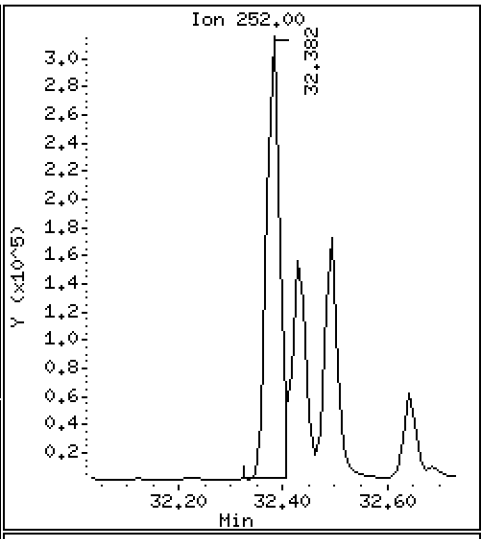
Column phase: Rxi-17Sil MS

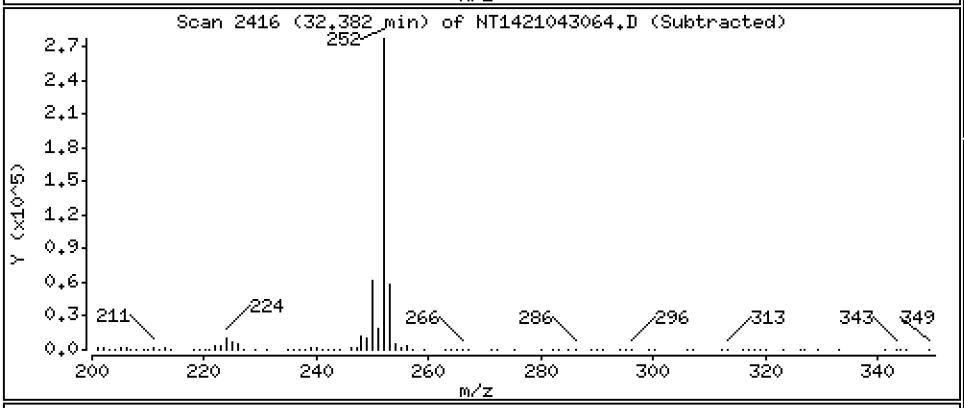
Column diameter: 0.25

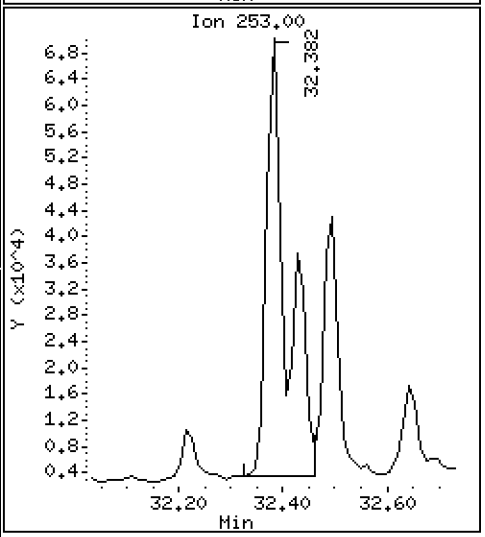
62 Benzo(b)fluoranthene

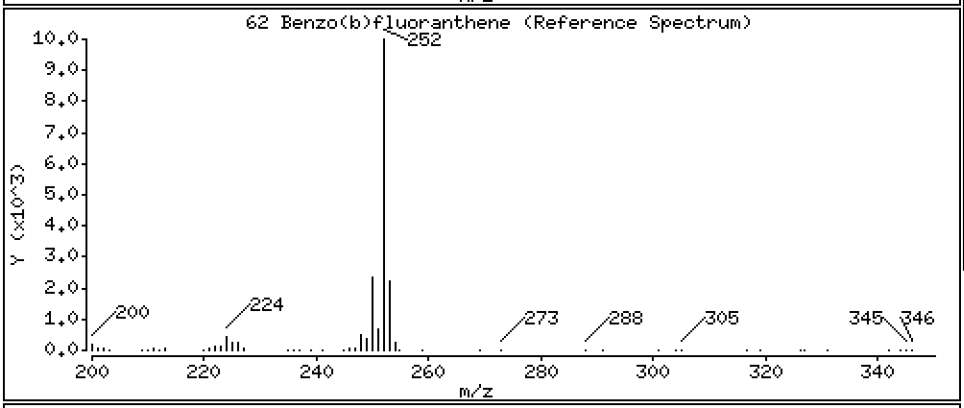
Concentration: 2.023 ug/mL

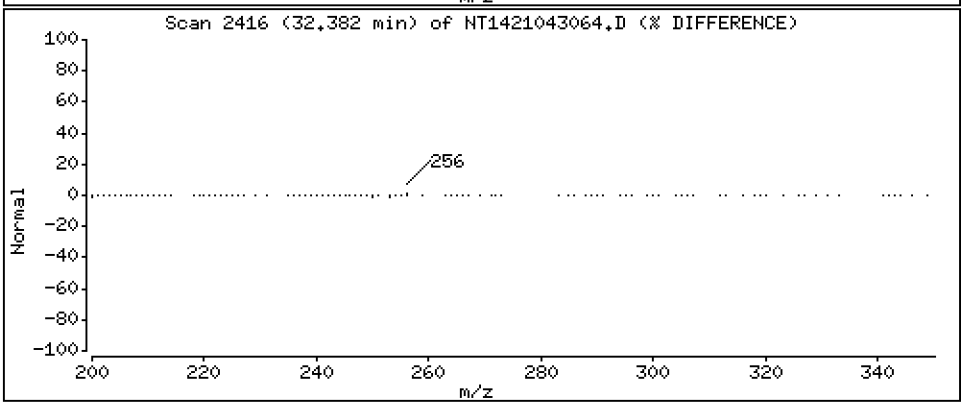


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043064.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

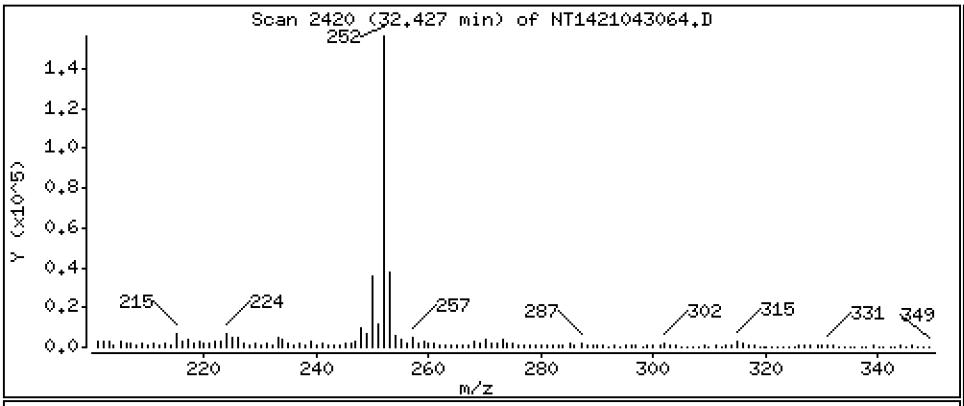
Operator: VTS

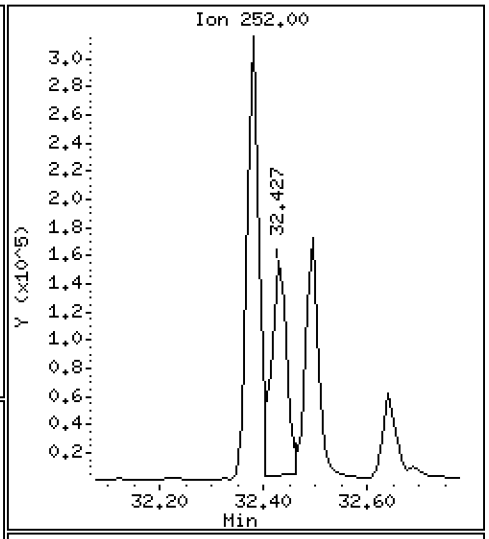
Column phase: Rxi-17Sil MS

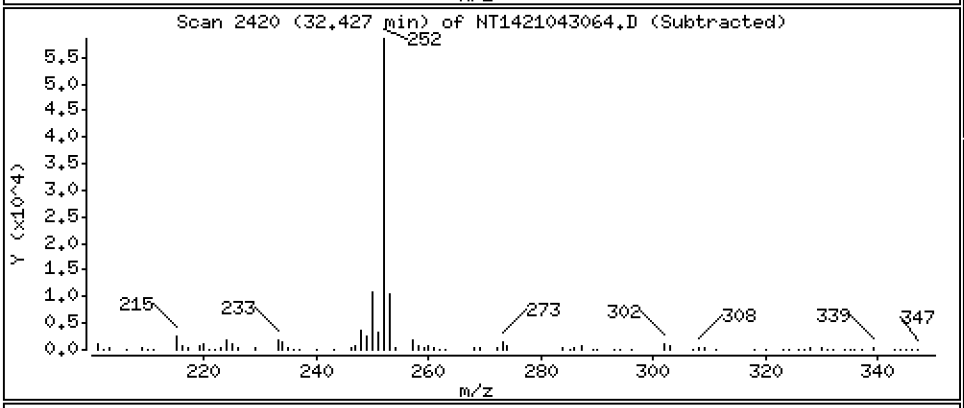
Column diameter: 0.25

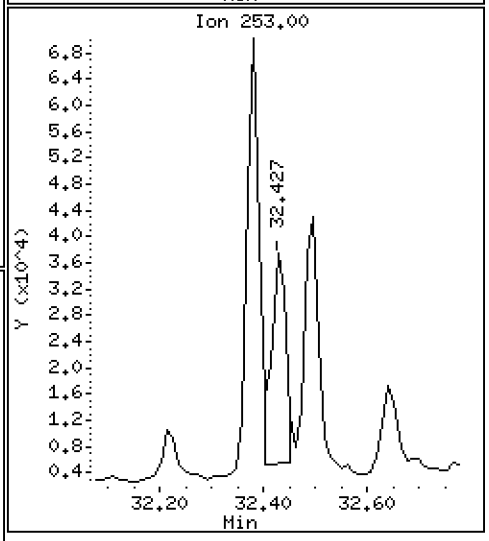
63 Benzo(k)fluoranthene

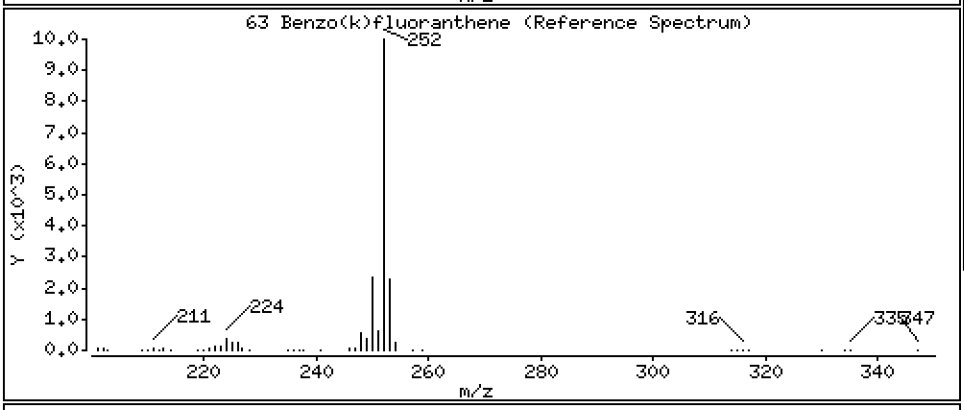
Concentration: 0.9930 ug/mL

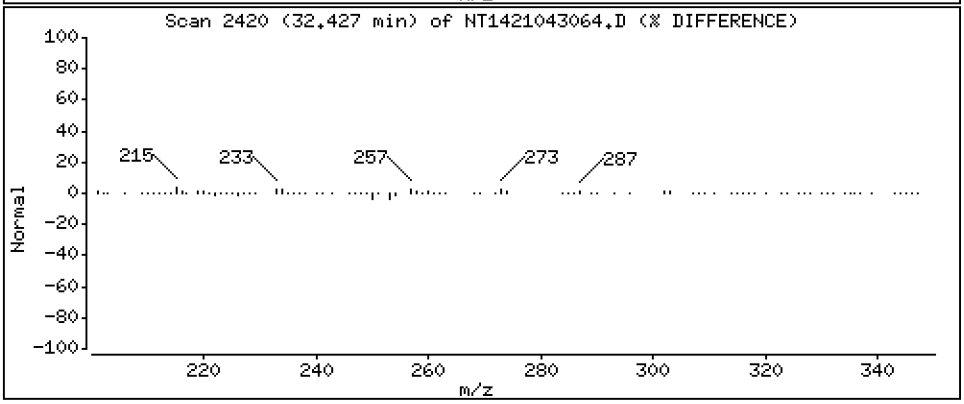


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043064.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

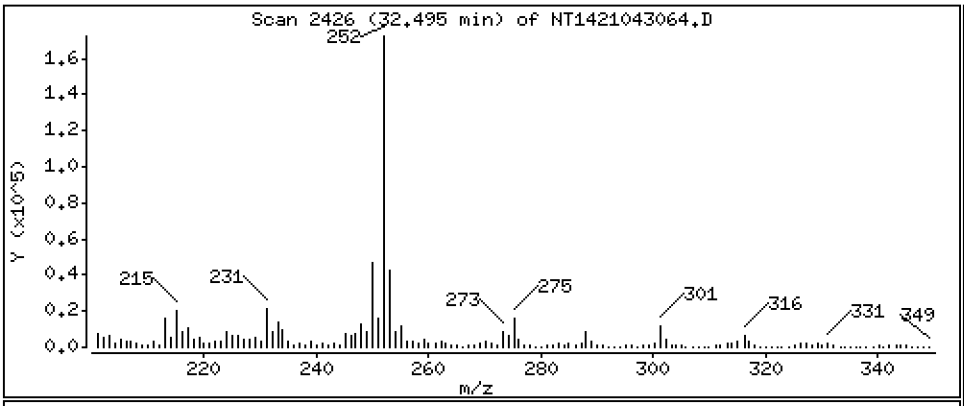
Operator: VTS

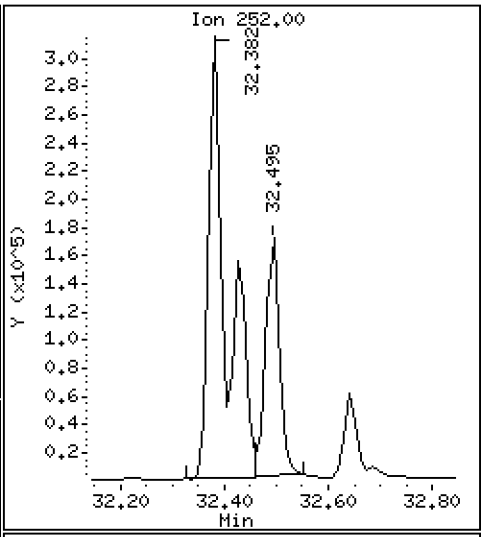
Column phase: Rxi-17Sil MS

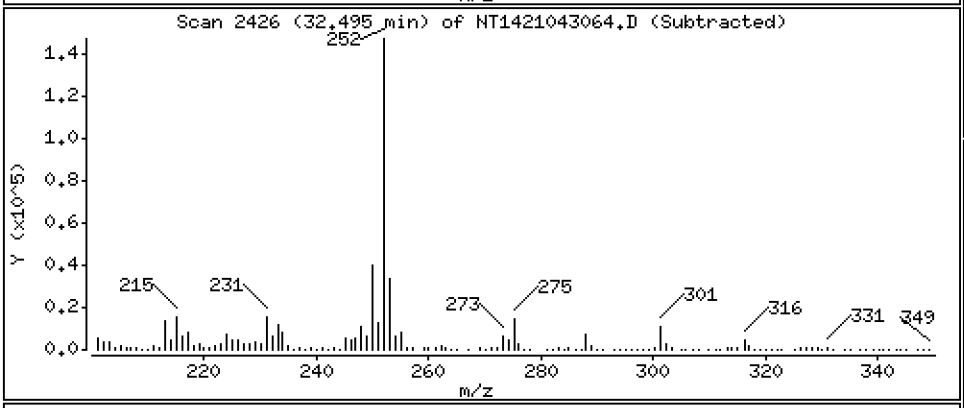
Column diameter: 0.25

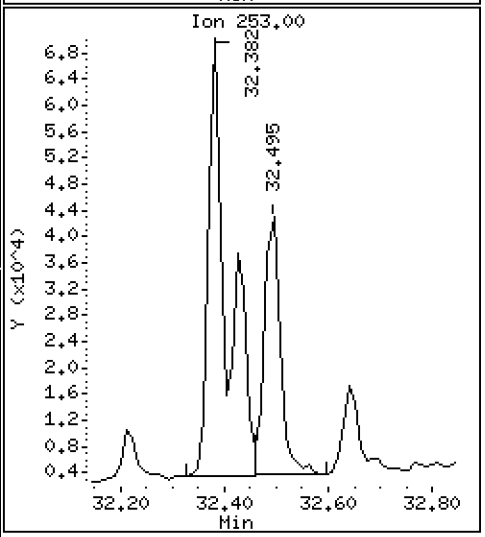
293 Benzo(j)fluoranthene

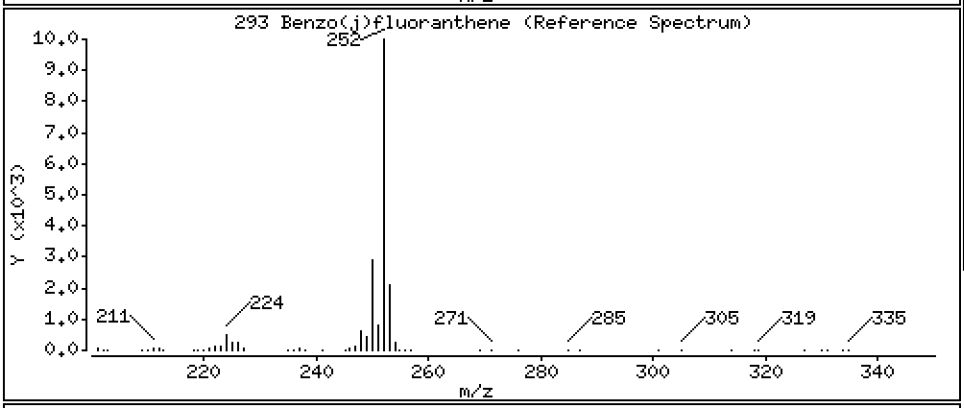
Concentration: 1.015 ug/mL

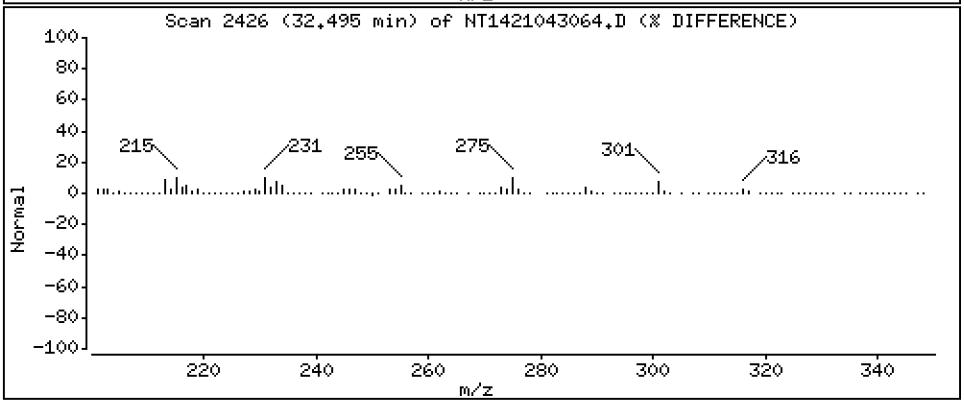


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043064.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

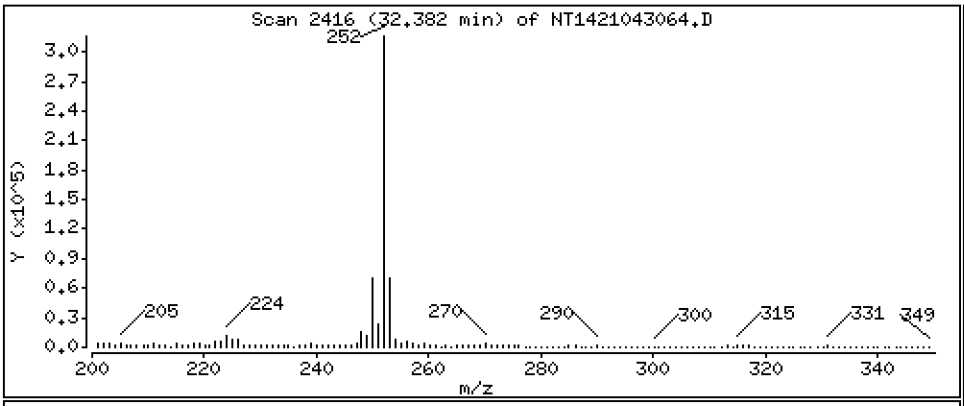
Operator: VTS

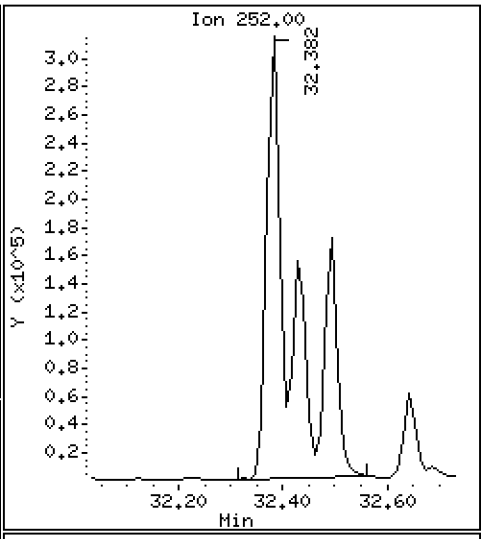
Column phase: Rxi-17Sil MS

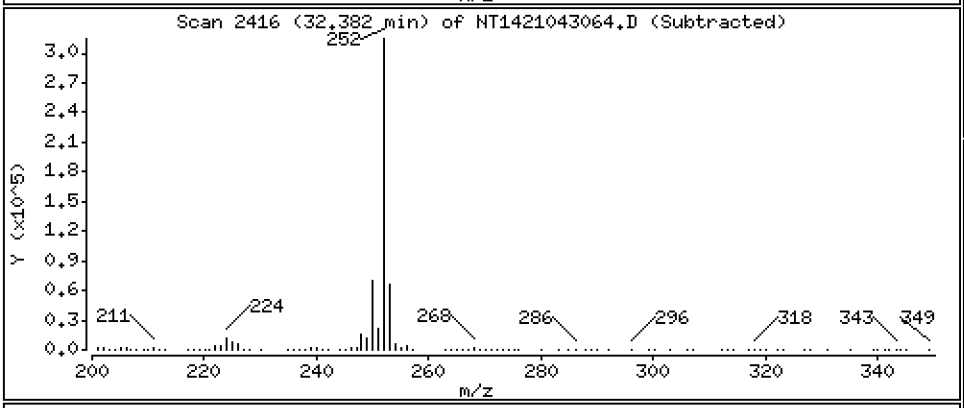
Column diameter: 0.25

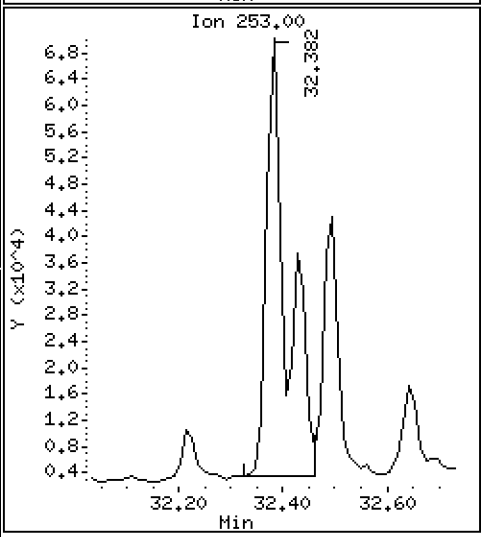
246 Total Benzofluoranthenes

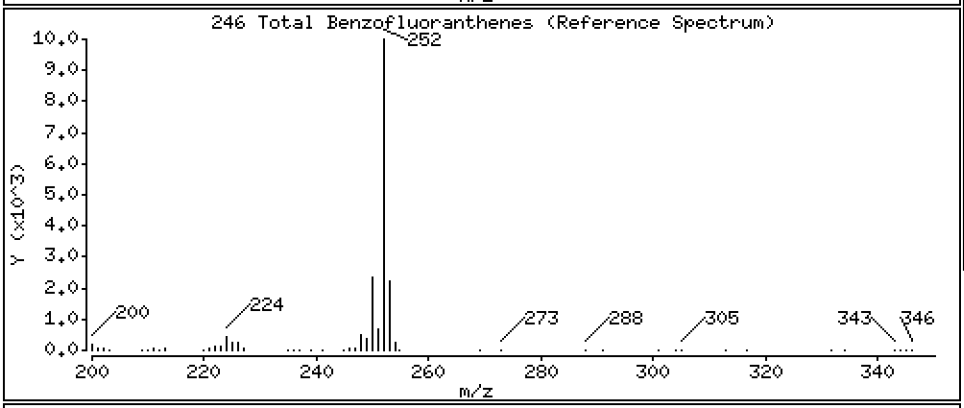
Concentration: 3.879 ug/mL

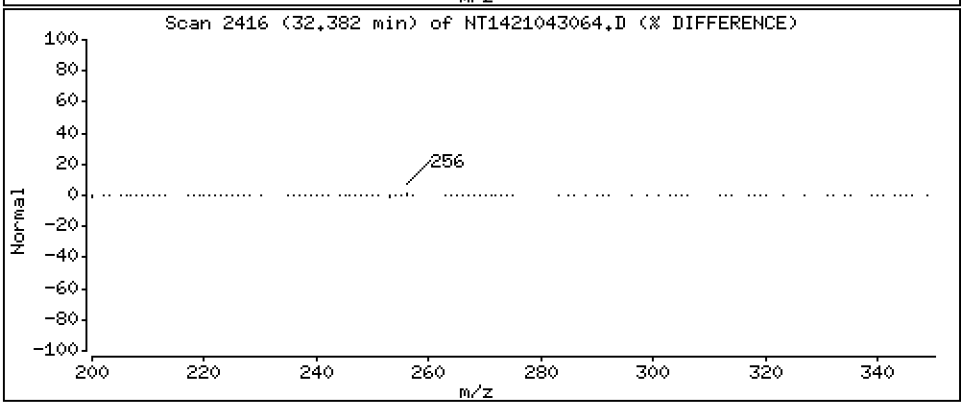


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043064.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

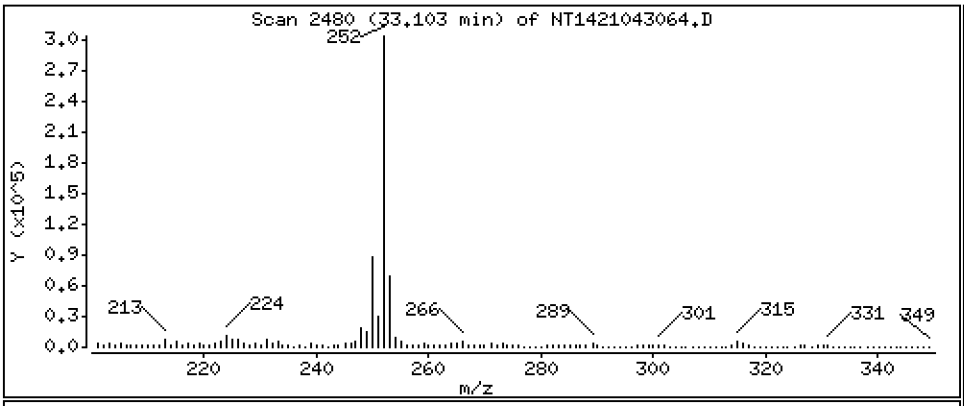
Operator: VTS

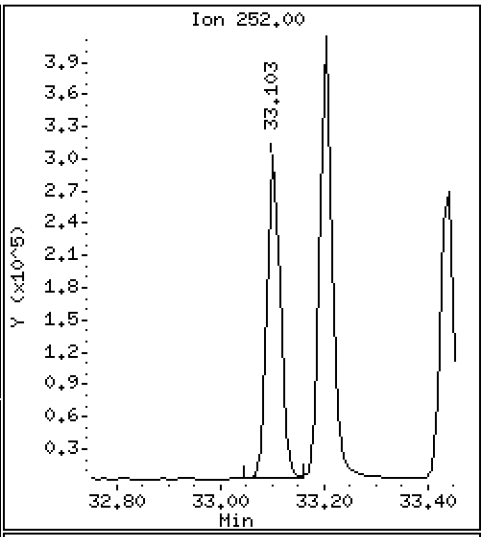
Column phase: Rxi-17Sil MS

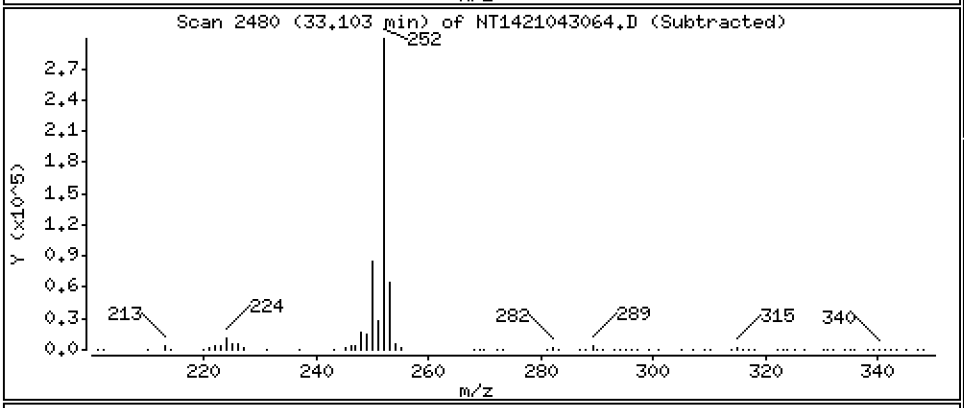
Column diameter: 0.25

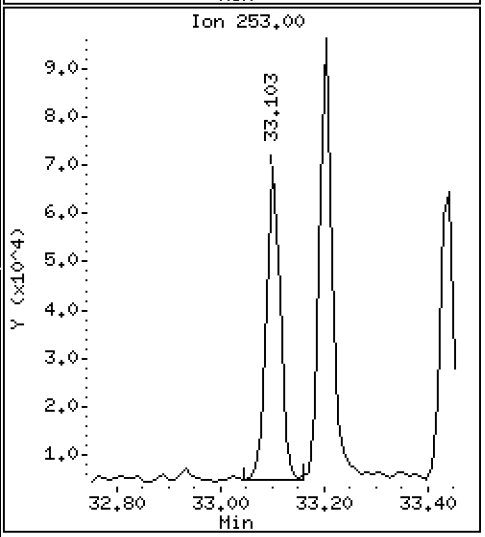
64 Benzo(e)pyrene

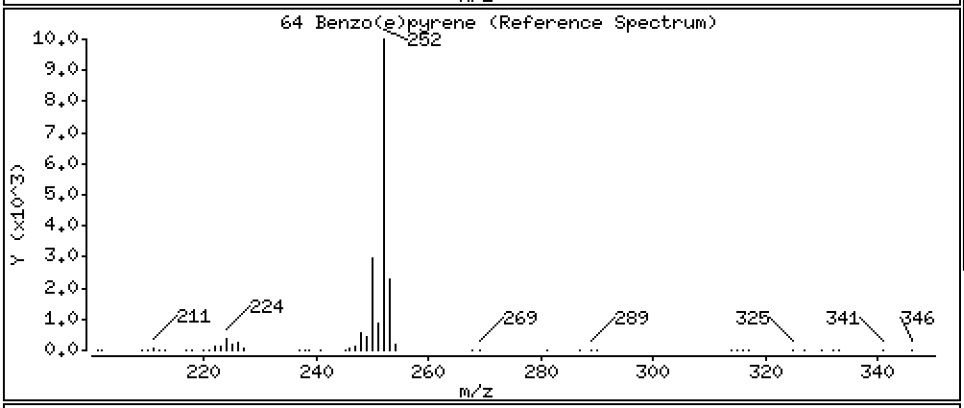
Concentration: 1.907 ug/mL

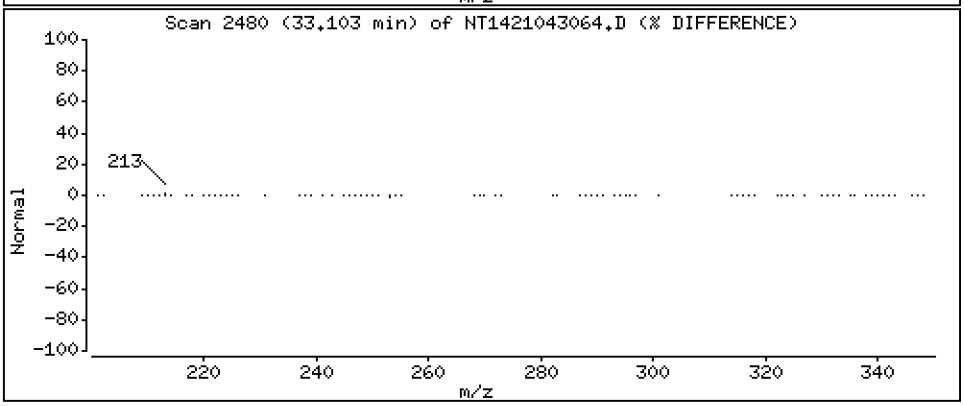


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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

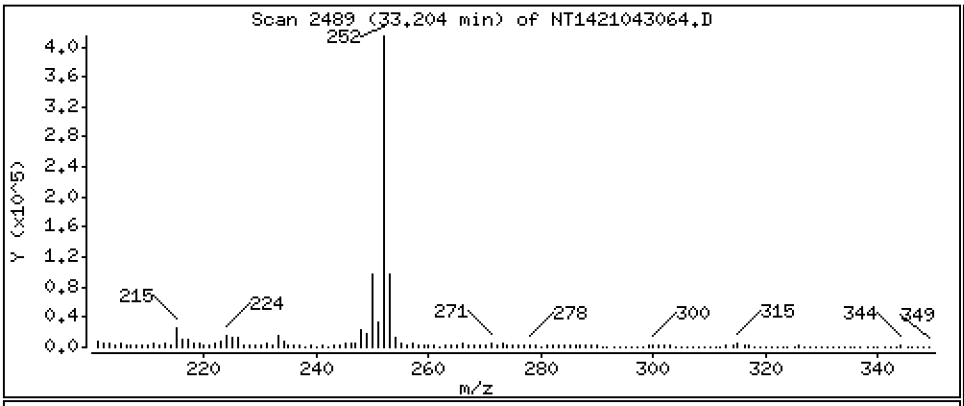
Operator: VTS

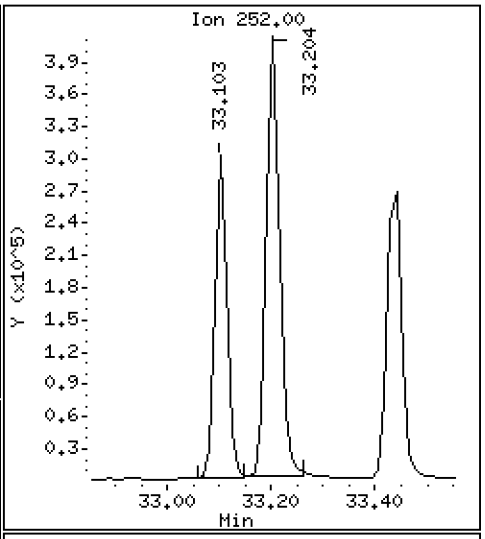
Column phase: Rxi-17Sil MS

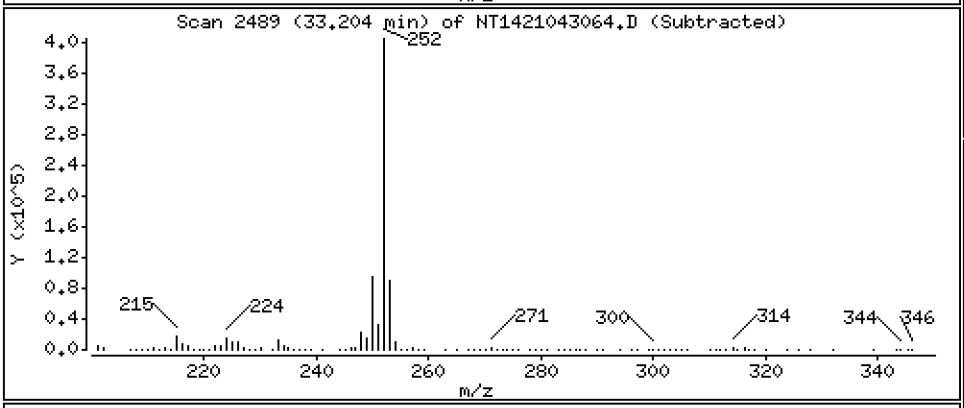
Column diameter: 0.25

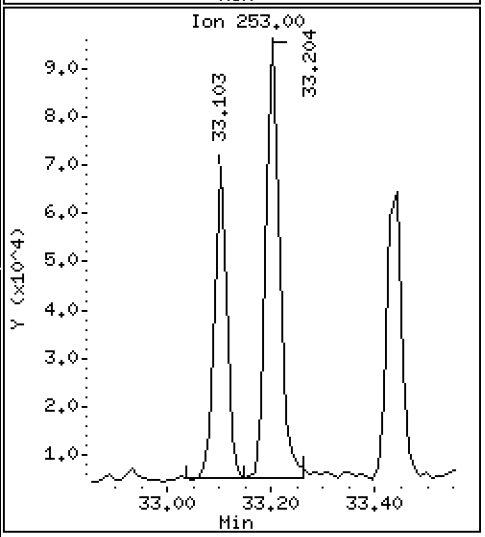
66 Benzo(a)pyrene

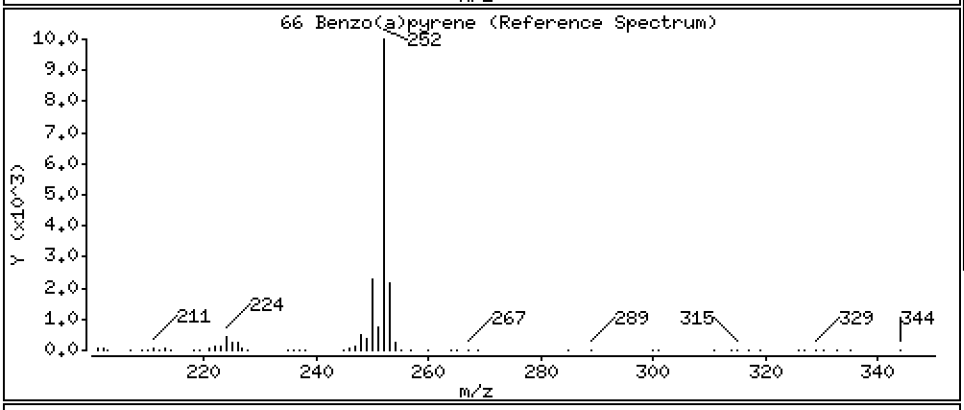
Concentration: 2.555 ug/mL

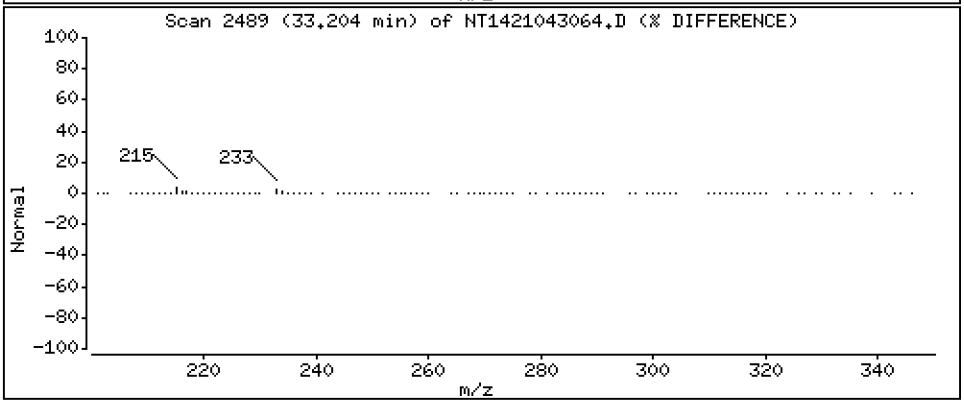


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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

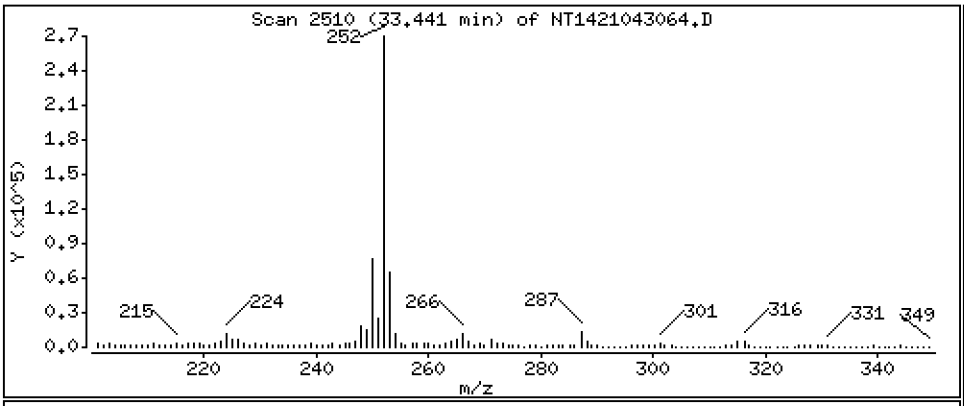
Operator: VTS

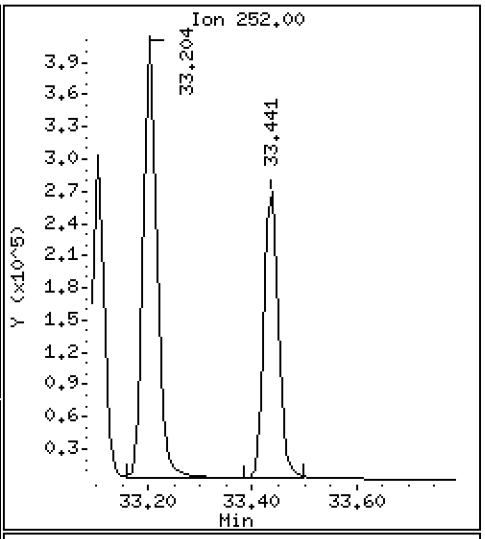
Column phase: Rxi-17Sil MS

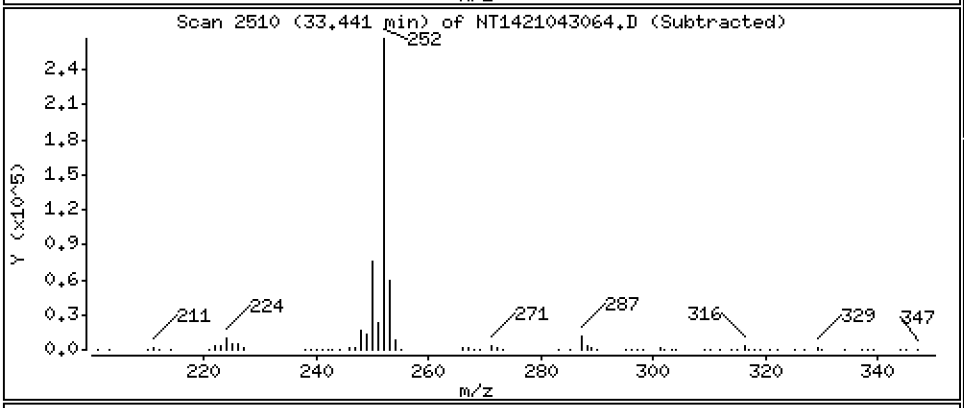
Column diameter: 0.25

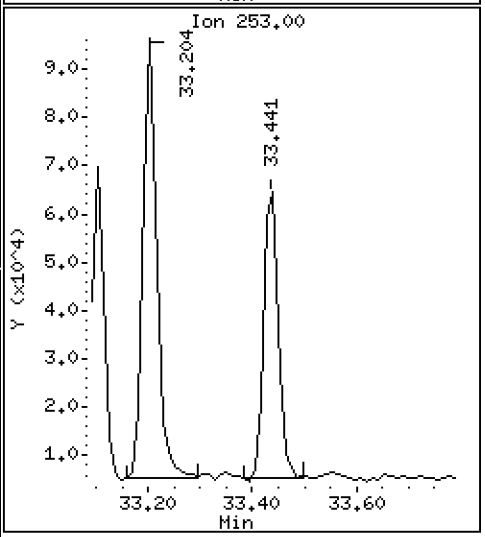
68 Perylene

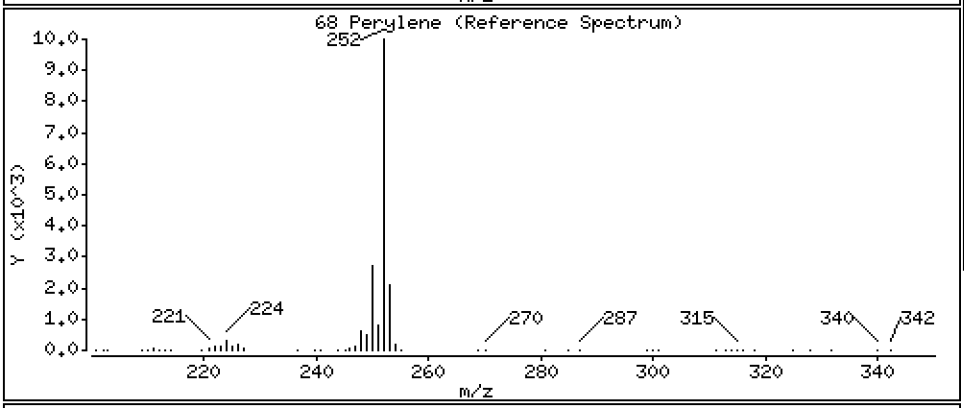
Concentration: 1.978 ug/mL

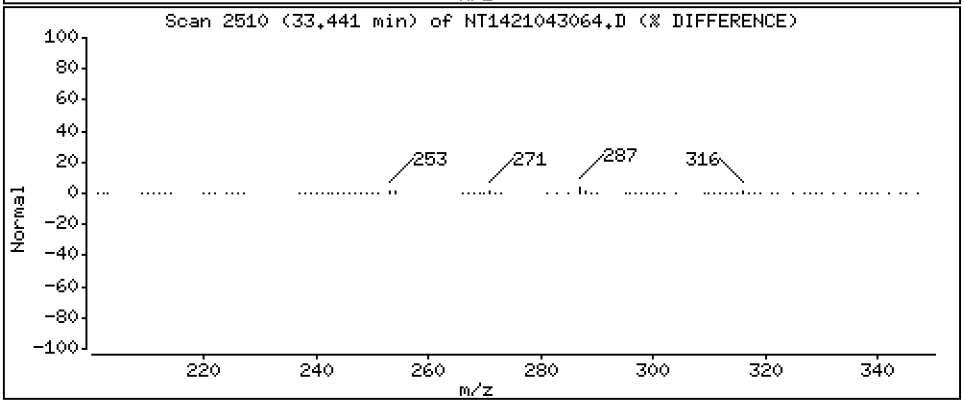


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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

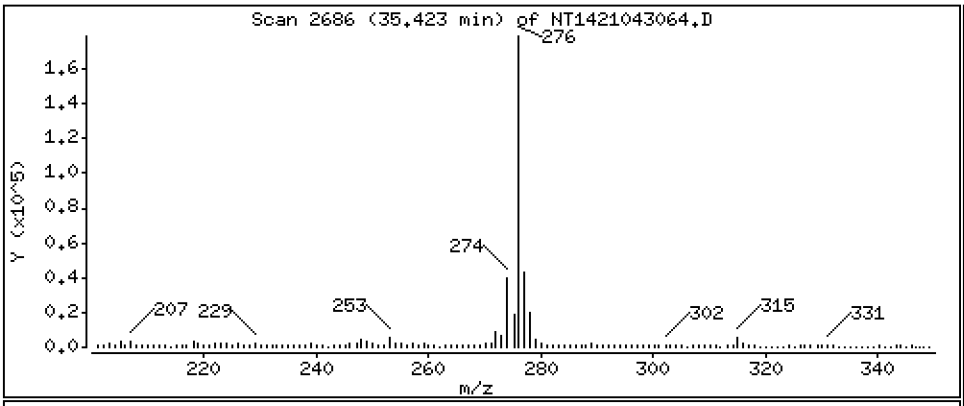
Operator: VTS

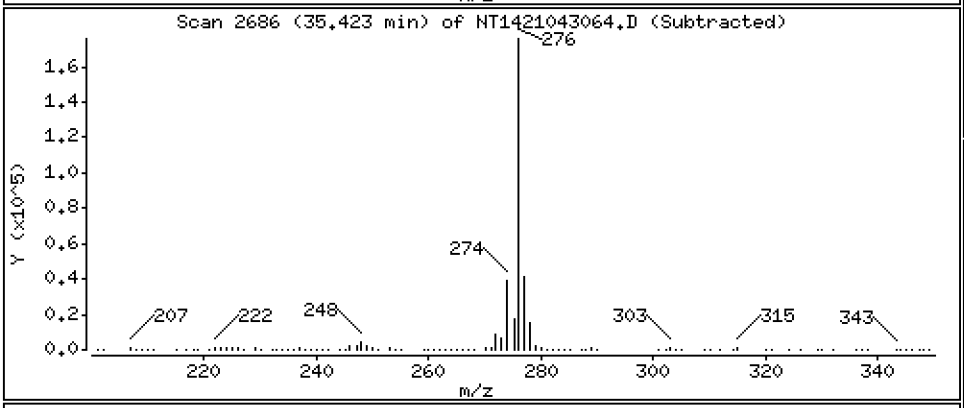
Column phase: Rxi-17Sil MS

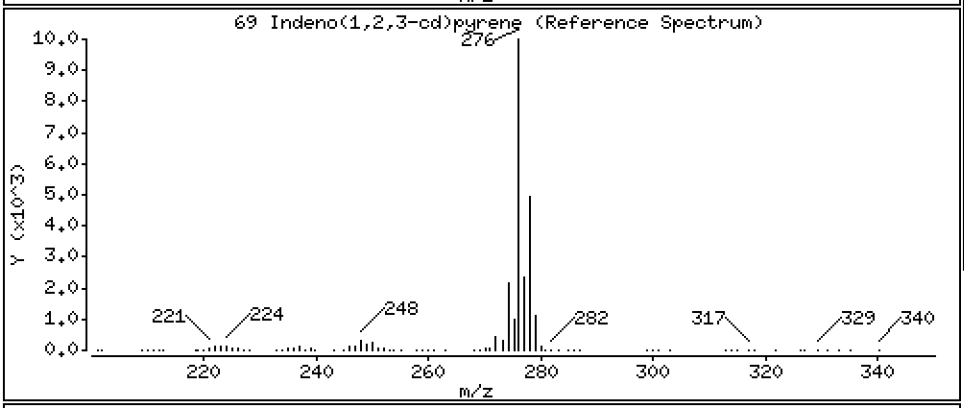
Column diameter: 0.25

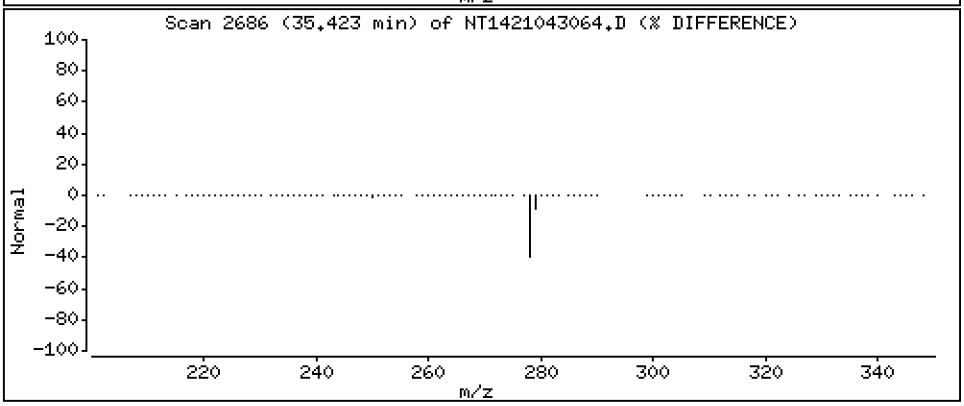
69 Indeno(1,2,3-cd)pyrene

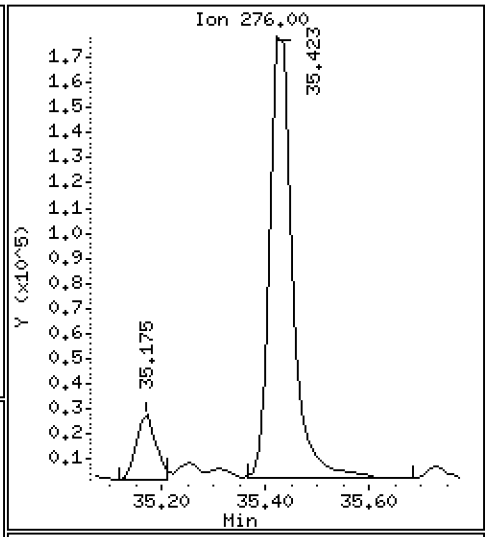
Concentration: 1.888 ug/mL

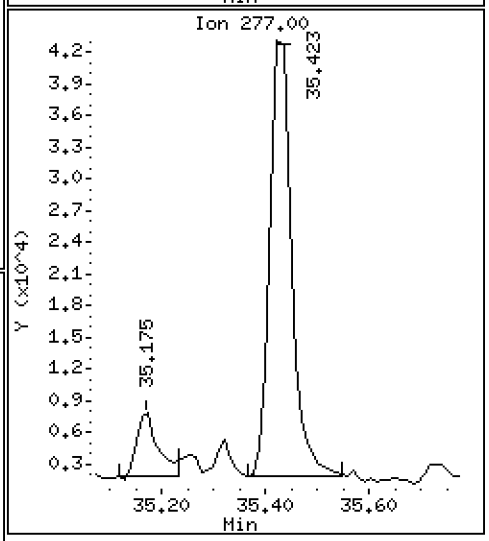


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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

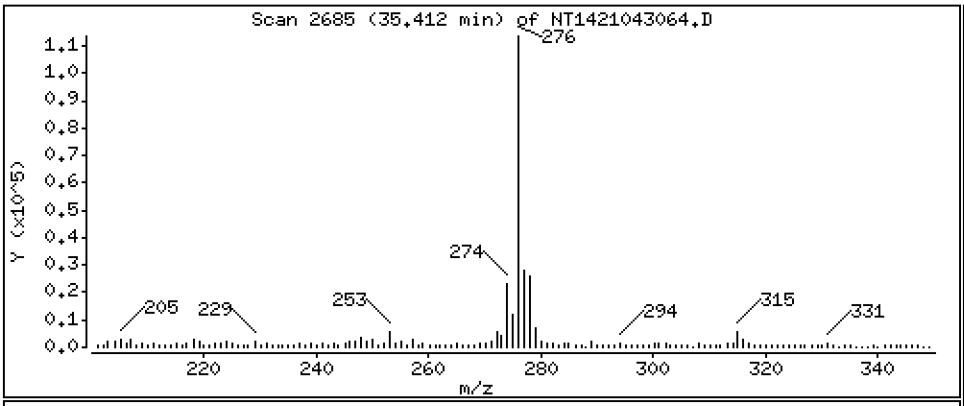
Operator: VTS

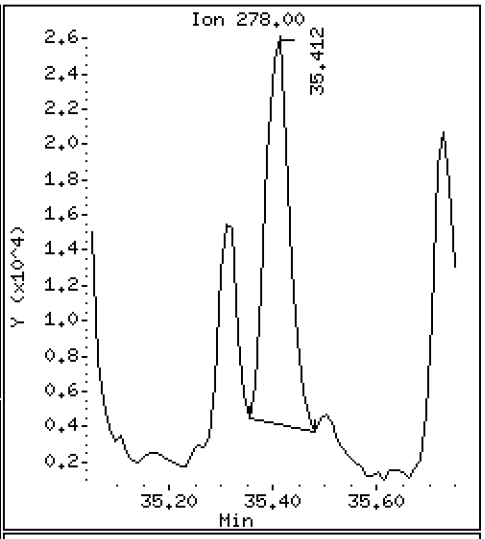
Column phase: Rxi-17Sil MS

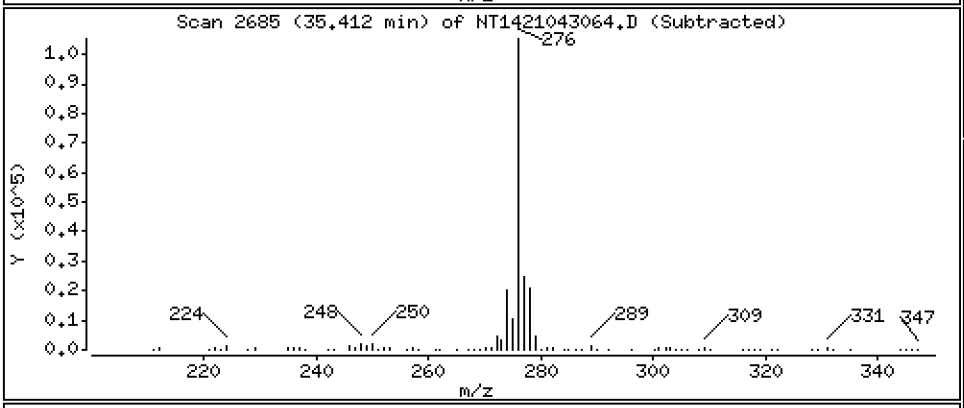
Column diameter: 0.25

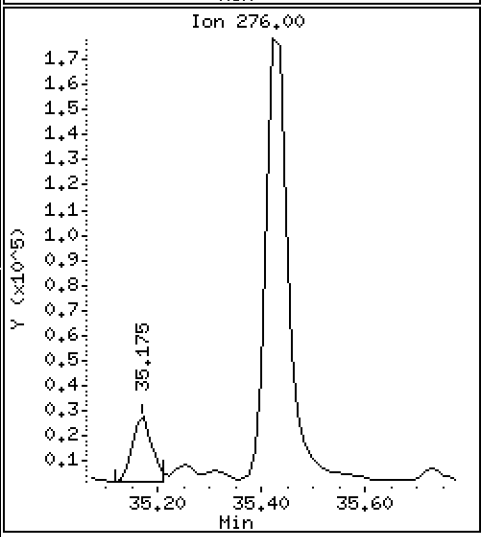
70 Dibenzo(a,h)anthracene

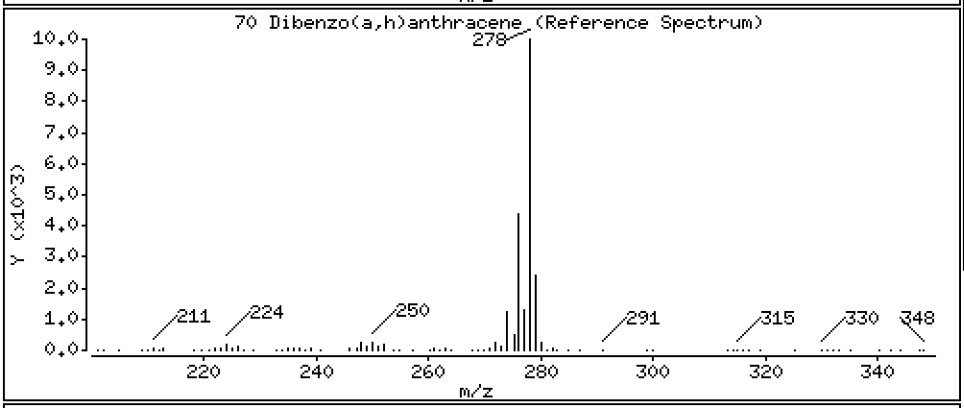
Concentration: 0.2933 ug/mL

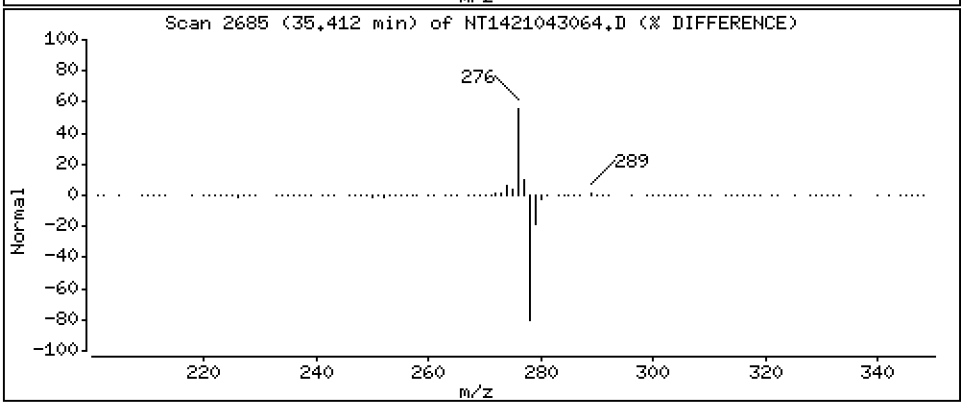


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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

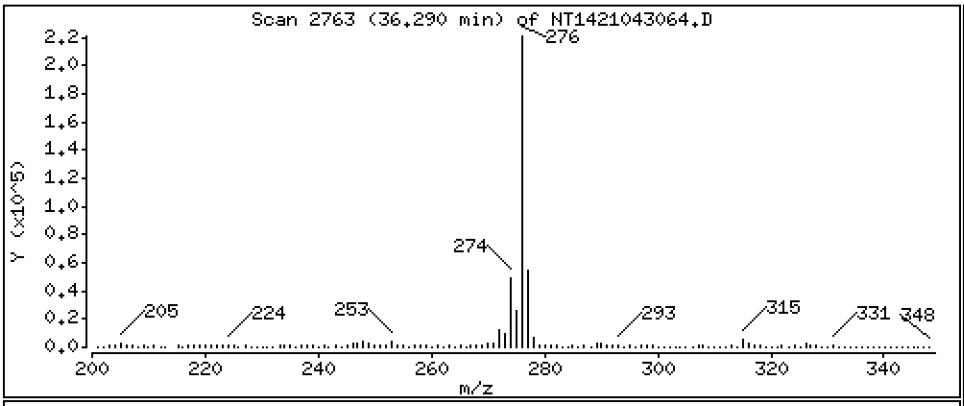
Operator: VTS

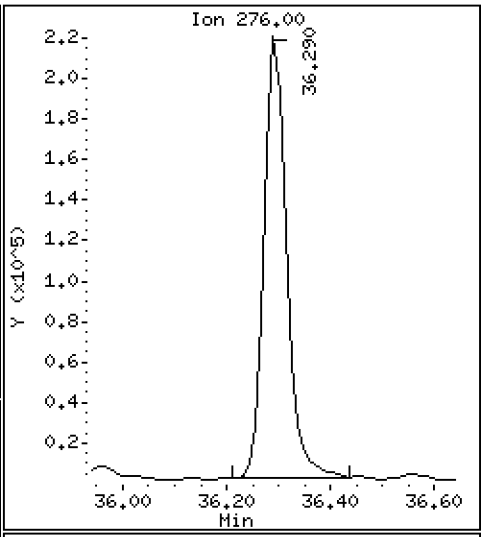
Column phase: Rxi-17Sil MS

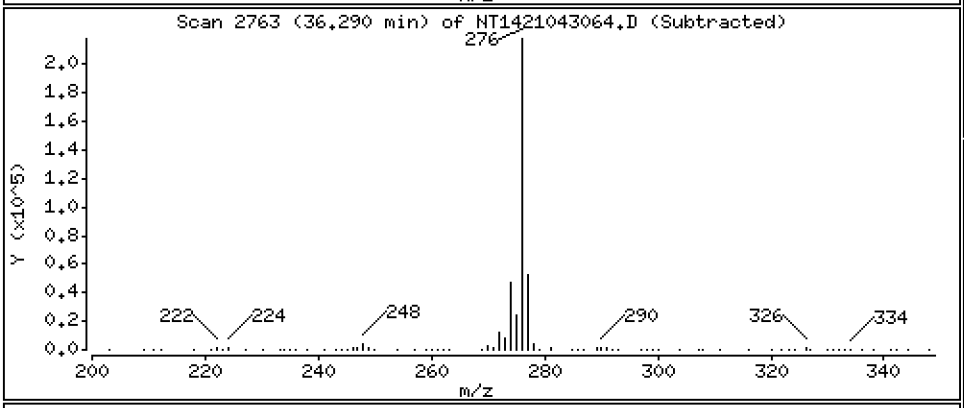
Column diameter: 0.25

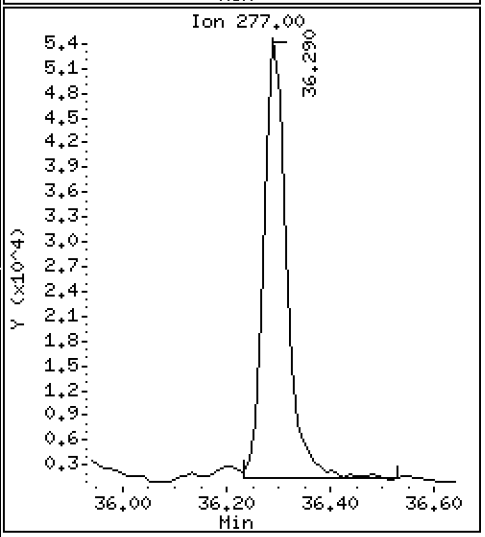
74 Benzo(g,h,i)perylene

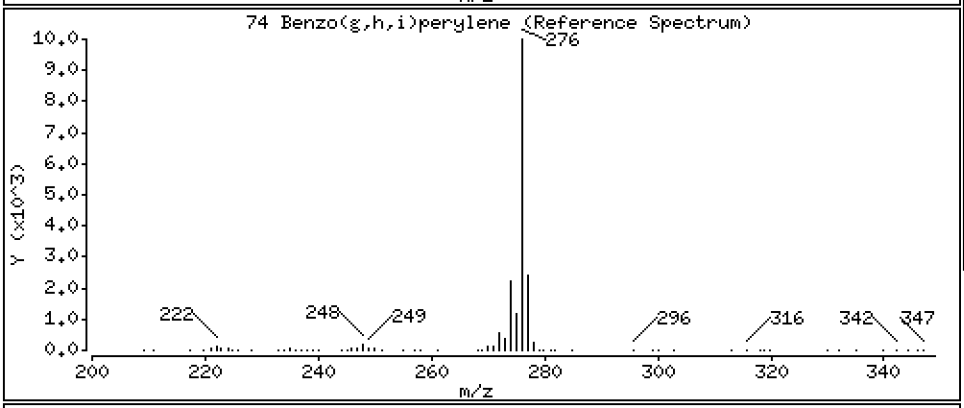
Concentration: 2.675 ug/mL

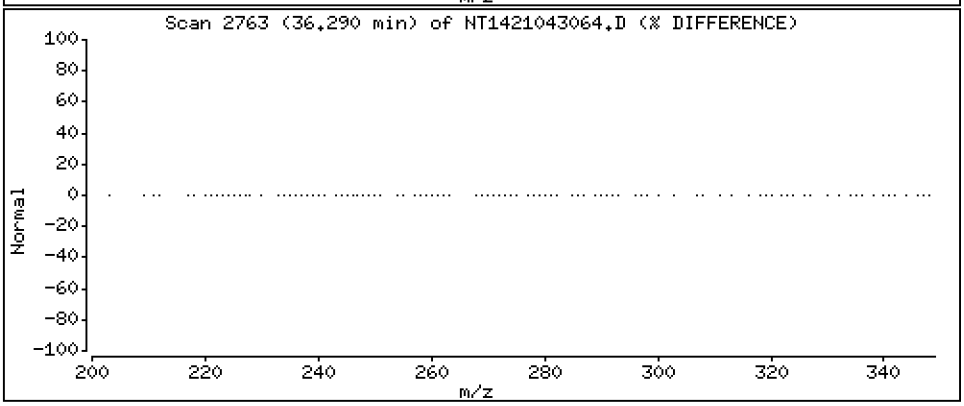


ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430D.b\NT1421043064.D
Lab Smp Id: 21D0180-02
Inj Date : 02-MAY-2021 10:01
Operator : VTS Inst ID: nt14.i
Smp Info : 21D0180-02
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
Meth Date : 04-May-2021 08:25 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 45
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 | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 1 trans-Decalin | 138 | Compound Not Detected. | | | | | |
| | 2 cis-Decalin | 138 | Compound Not Detected. | | | | | |
| $ | 6 Naphthalene-d8 | 136 | 11.766 | 11.776 | (0.627) | 587843 | 1.90839 | 1.908(R) |
| | 7 Naphthalene | 128 | 11.836 | 11.836 | (0.631) | 135689 | 0.43307 | 0.4331 |
| | 12 Benzo(b)thiophene | 134 | 12.284 | 12.295 | (0.654) | 8907 | 0.03573 | 0.03573 |
| | 16 2-Methylnaphthalene | 141 | 13.669 | 13.680 | (0.728) | 32010 | 0.19145 | 0.1914 |
| | 17 1-methylnaphthalene | 141 | 14.120 | 14.120 | (0.752) | 18054 | 0.11396 | 0.1140 |
| | 18 Biphenyl | 154 | 15.307 | 15.318 | (0.815) | 24329 | 0.10167 | 0.1017 |
| | 19 2,6-Dimethylnaphthalene | 156 | 15.383 | 15.394 | (0.820) | 11792 | 0.07162 | 0.07162(M) |
| | 20 Acenaphthylene | 152 | 16.955 | 16.955 | (0.903) | 39116 | 0.15096 | 0.1510 |
| $ | 21 Acenaphthene-d10 | 164 | 17.241 | 17.241 | (0.918) | 322483 | 2.14407 | 2.144(R) |
| | 22 Acenaphthene | 153 | 17.351 | 17.362 | (0.924) | 67598 | 0.40591 | 0.4059 |
| | 23 Dibenzofuran | 168 | 17.724 | 17.735 | (0.944) | 28920 | 0.11461 | 0.1146 |
| | 24 1,6,7-Trimethylnaphthalene | 170 | 17.955 | 17.955 | (0.956) | 10346 | 0.07160 | 0.07160 |
| * | 25 Fluorene-d10 | 176 | 18.772 | 18.772 | (1.000) | 533752 | 2.00000 | |
| | 26 Fluorene | 166 | 18.874 | 18.874 | (1.005) | 49817 | 0.27165 | 0.2716 |
| | 30 Dibenzothiophene | 184 | 21.785 | 21.796 | (1.161) | 36260 | 0.15663 | 0.1566(M) |
| $ | 35 Phenanthrene-d10 | 188 | 22.104 | 22.104 | (0.995) | 521318 | 1.95001 | 1.950(R) |
| | 36 Phenanthrene | 178 | 22.181 | 22.181 | (0.999) | 408211 | 1.36771 | 1.368 |
| * | 250 Anthracene-d10 | 188 | 22.214 | 22.214 | (1.000) | 494716 | 2.00000 | |
| | 37 Anthracene | 178 | 22.280 | 22.280 | (1.003) | 115362 | 0.41930 | 0.4193 |
| | 42 Carbazole | 167 | 23.555 | 23.566 | (1.060) | 20058 | 0.08863 | 0.08863 |
| | 43 1-Methylphenanthrene | 192 | 24.017 | 24.017 | (1.081) | 44889 | 0.24771 | 0.2477 |
| | 44 Fluoranthene | 202 | 25.985 | 25.985 | (1.170) | 1044215 | 3.93942 | 3.939 |
| | 46 Pyrene | 202 | 26.832 | 26.832 | (1.208) | 1218405 | 4.43572 | 4.436(M) |
| | 51 Naphthobenzothiophene | 234 | 29.375 | 29.375 | (1.322) | 87017 | 0.32508 | 0.3251(M) |
| | 55 Benzo(a)anthracene | 228 | 29.960 | 29.960 | (0.907) | 449194 | 1.63181 | 1.632 |
| $ | 56 Chrysene-d12 | 240 | 30.084 | 30.084 | (0.910) | 446643 | 2.02167 | 2.022(R) |
| | 57 Chrysene | 228 | 30.163 | 30.163 | (0.913) | 613076 | 2.15902 | 2.159 |
| | 62 Benzo(b)fluoranthene | 252 | 32.381 | 32.382 | (0.980) | 519559 | 2.02329 | 2.023(M) |
| | 63 Benzo(k)fluoranthene | 252 | 32.427 | 32.427 | (0.981) | 306261 | 0.99302 | 0.9930(M) |
| | 293 Benzo(j)fluoranthene | 252 | 32.494 | 32.494 | (0.983) | 293530 | 1.01487 | 1.015 |
| | 246 Total Benzofluoranthenes | 252 | 32.381 | 32.382 | (0.980) | 1086309 | 3.87928 | 3.879(M) |

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

## QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

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

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

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1421043064.D

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

| RT | CO-ELUTION COMPOUNDS |
|---|---|
| NO CO-ELUTIONS | |

Quant Method: ICAL

RRT CHECK

| RRT | CCV RRT | DELTA | COMPOUND |
|---|---|---|---|
| NONE | | | |

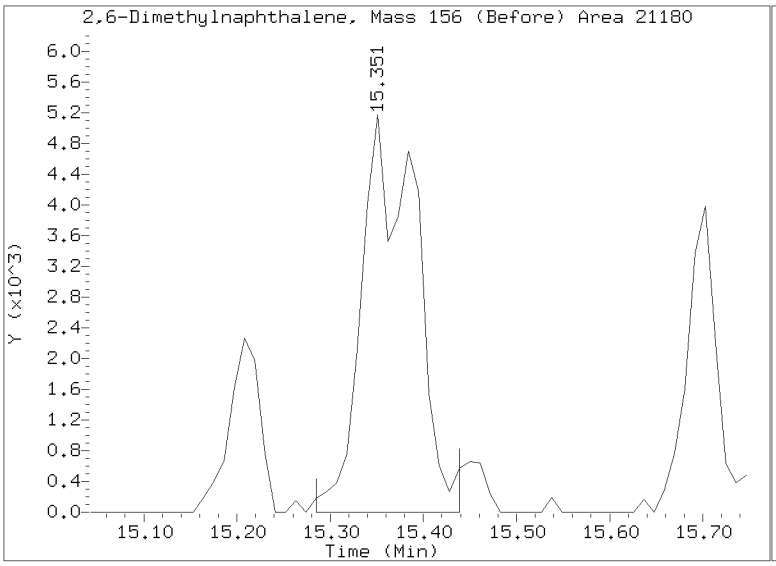
RRT check based on Ccal File: NT1421043051ICV.D

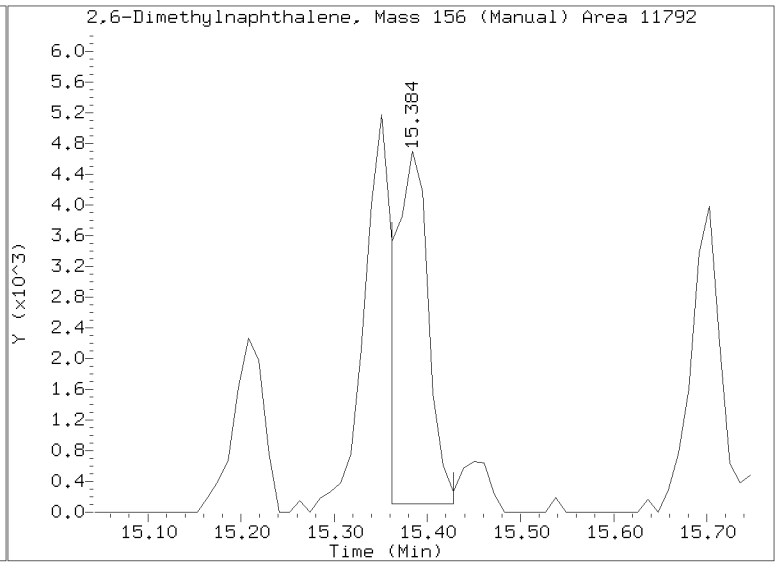
On Column LOD for nt14.i, 20210430D.b\ALKYLPNA.m, TARGETS.sub = 0.0000

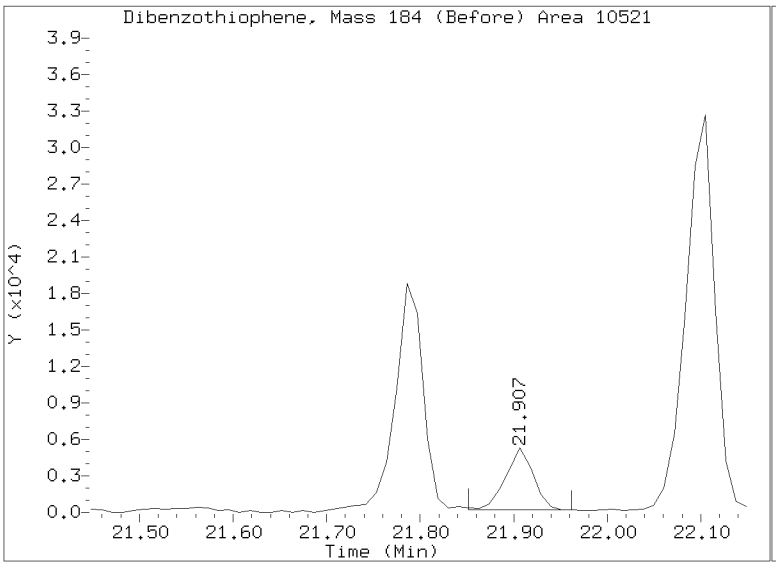
* Only compounds listed in the work order have been verified by the analyst *

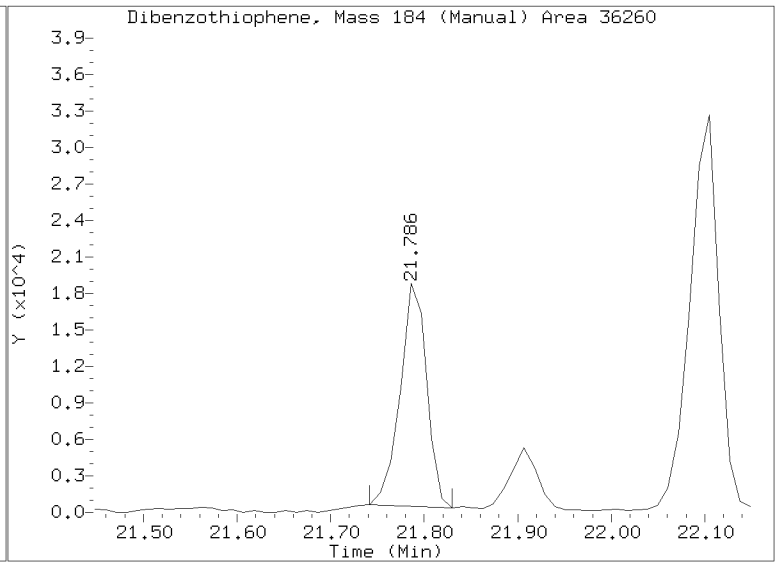
# Quant Ion Manual Peak Adjustment Report

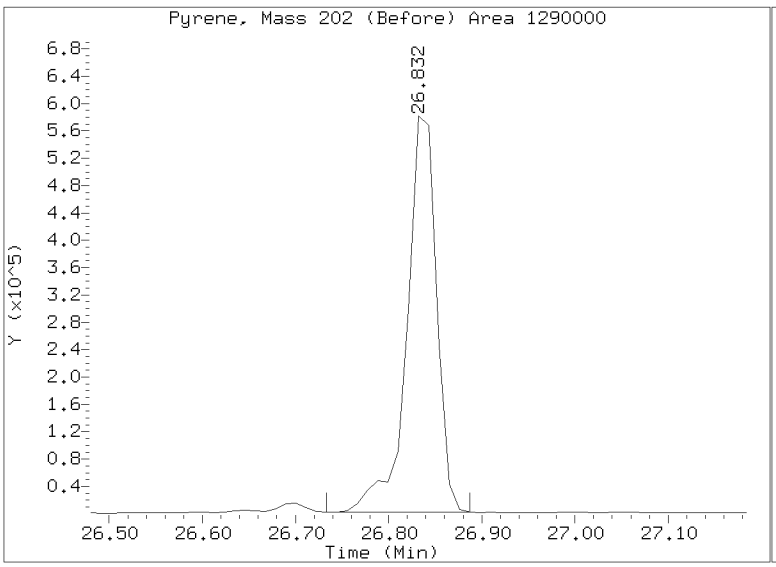
Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043064.D
Injection Date: 02-MAY-2021 10:01
Lab ID:21D0180-02 Client ID:
Report Date: 05/04/2021 13:21

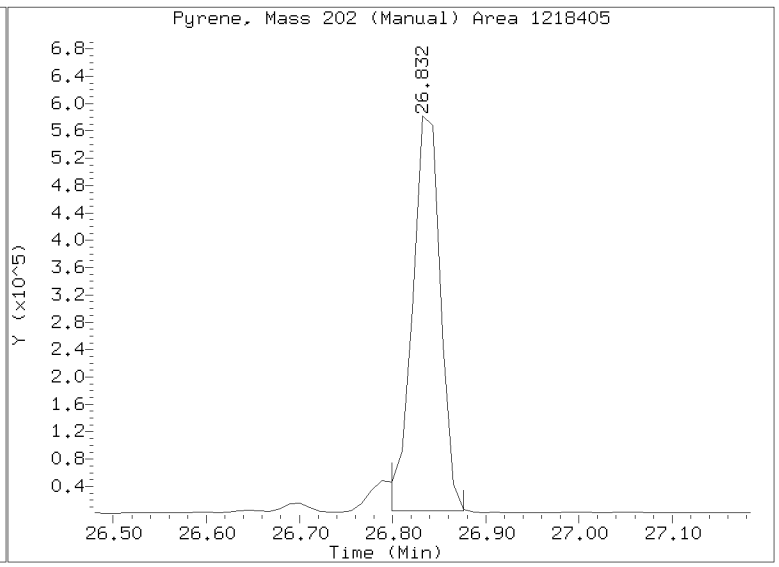


# Quant Ion Manual Peak Adjustment Report

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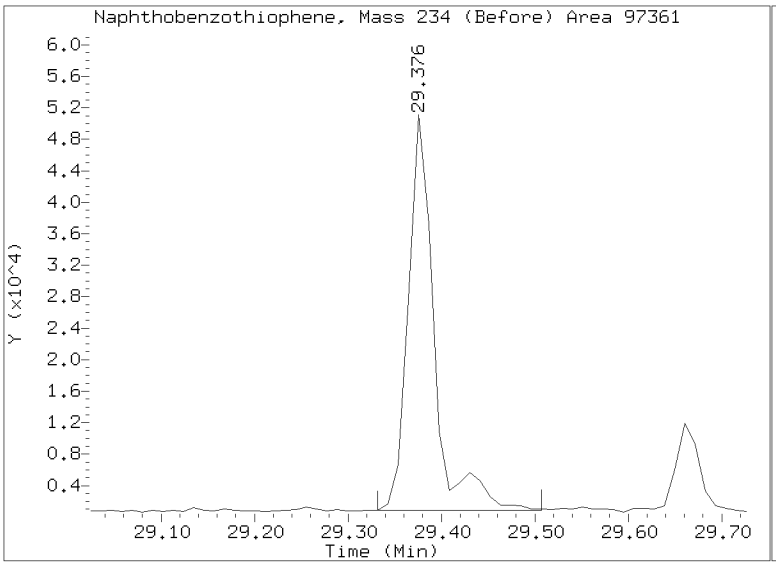
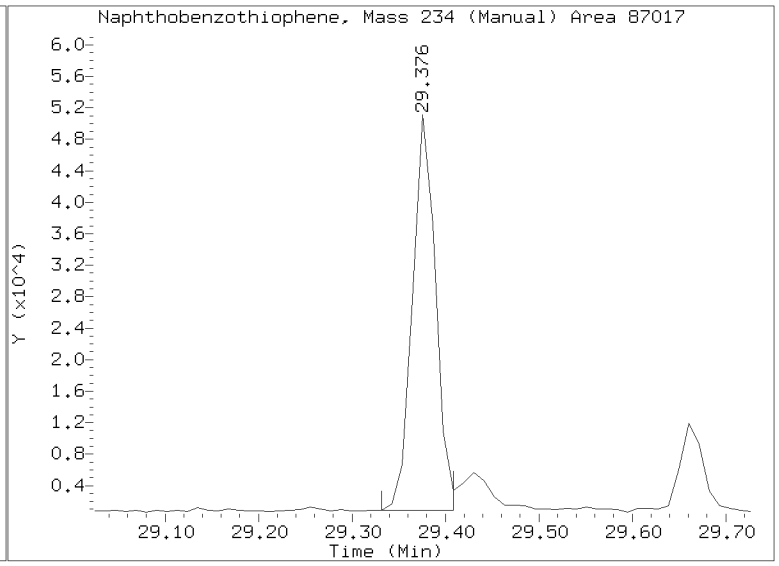
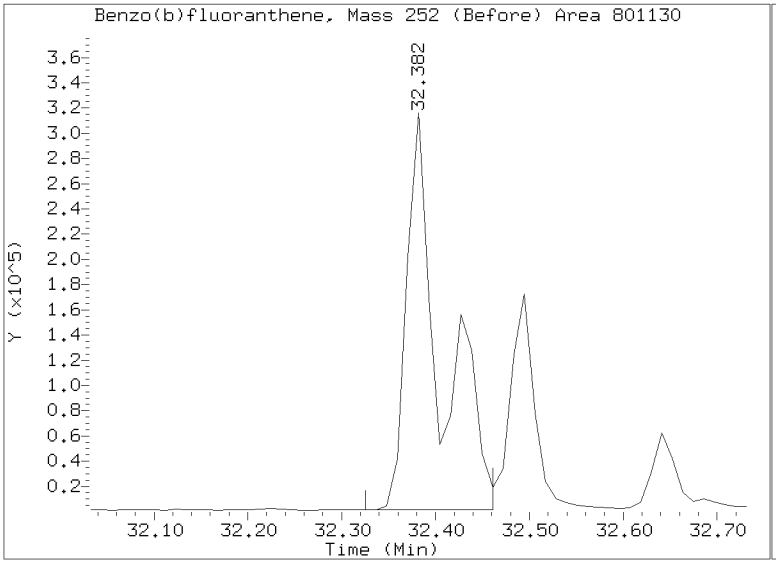
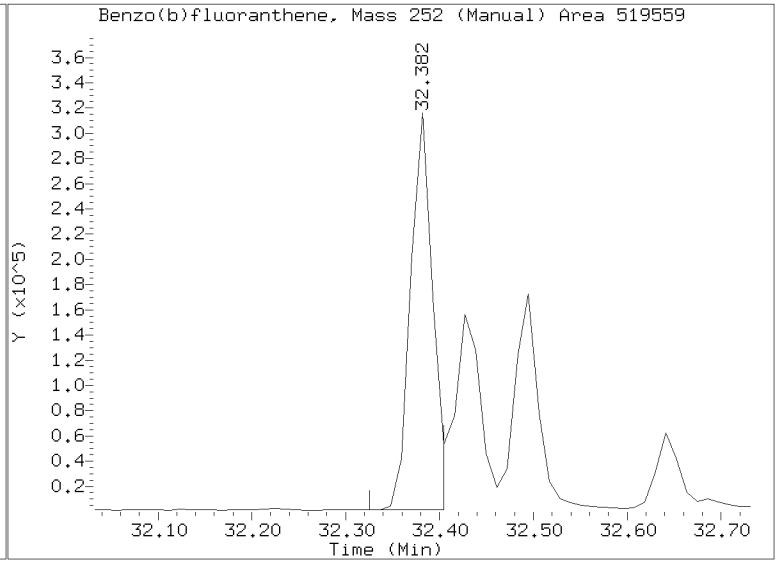
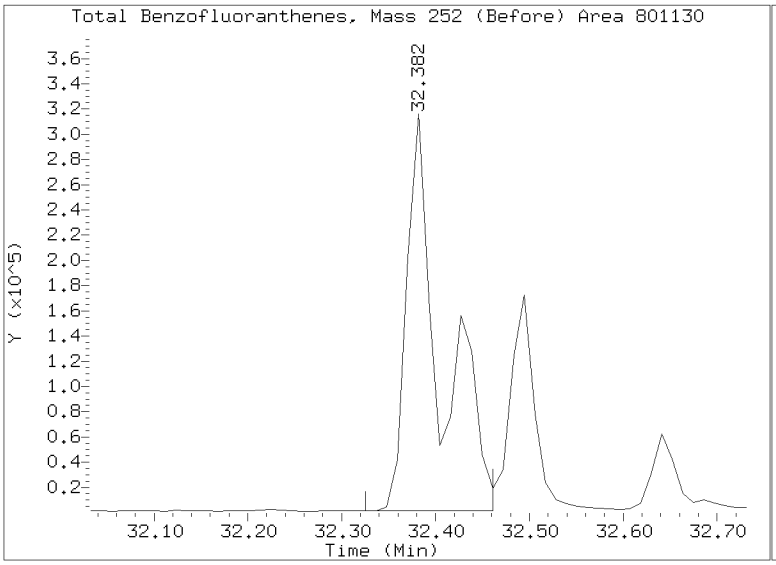
Injection Date: 02-MAY-2021 10:01
Lab ID:21D0180-02 Client ID:
Report Date: 05/04/2021 13:21

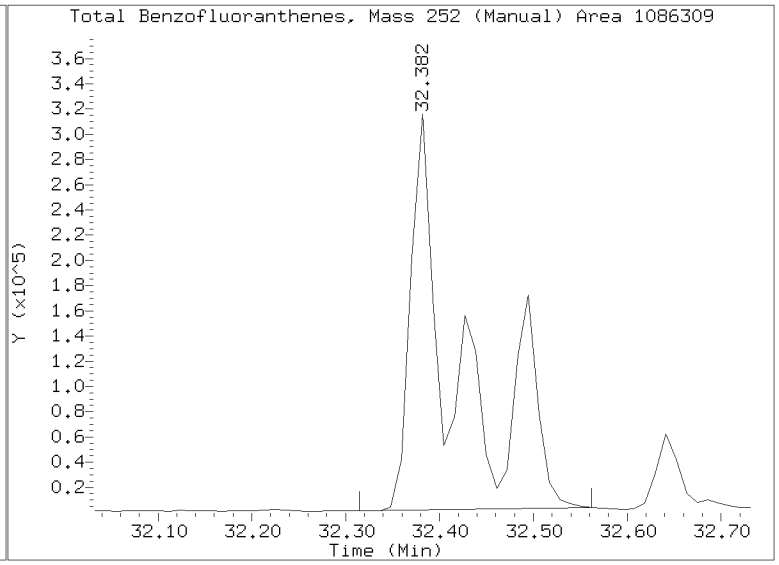


# Quant Ion Manual Peak Adjustment Report

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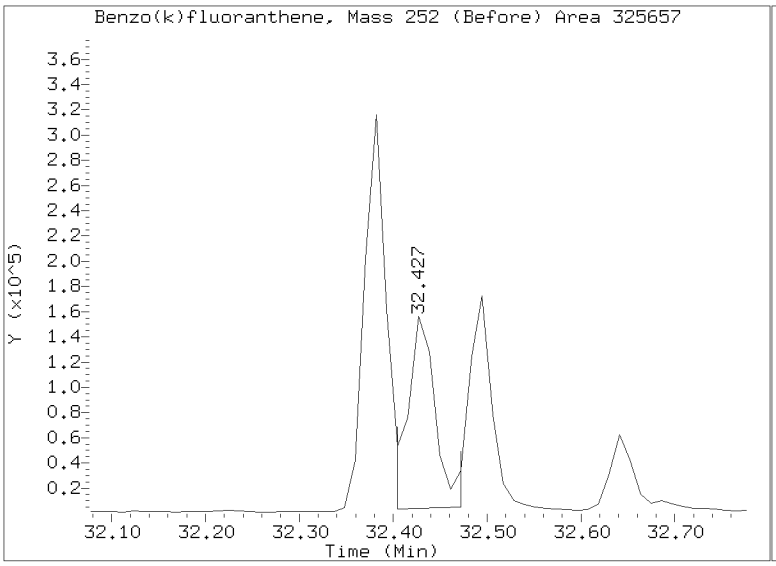
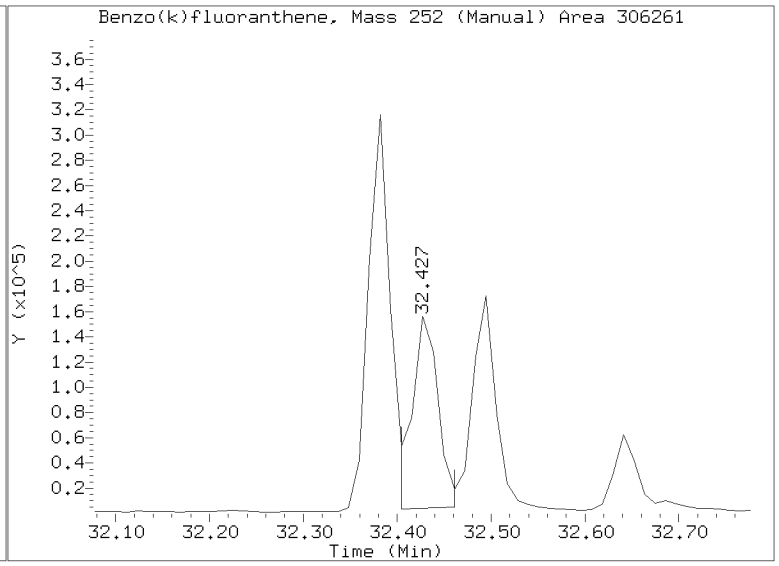
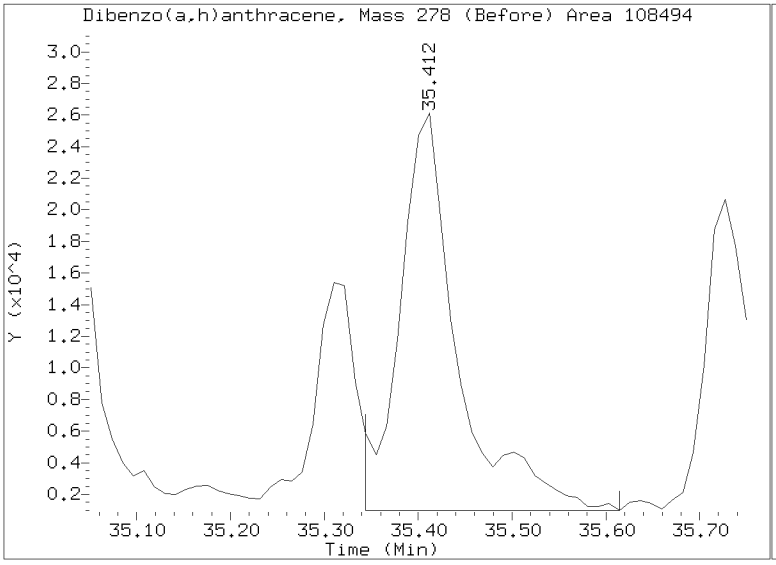
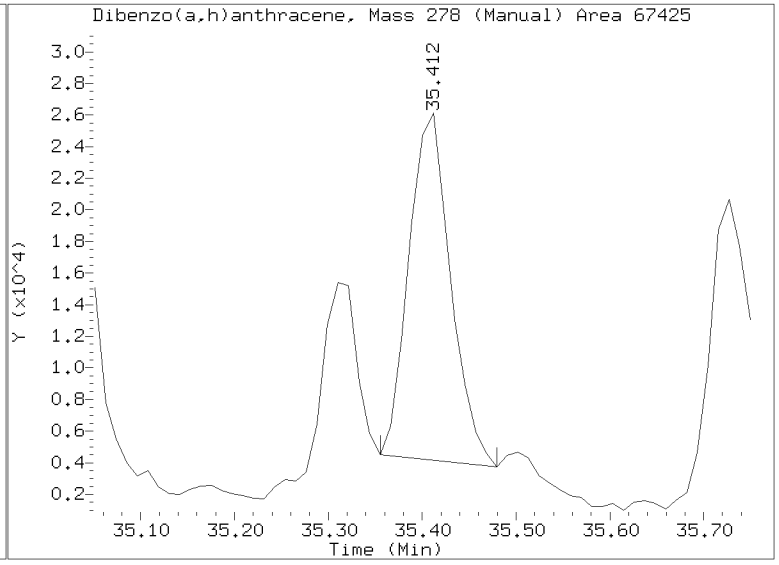
Injection Date: 02-MAY-2021 10:01
Lab ID:21D0180-02 Client ID:
Report Date: 05/04/2021 13:21



USMPDI-015SG-210414

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

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

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

USMPDI-015SG-210414

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

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

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

Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430645.D

Page 1

Date : 02-MAY-2021 10:01

Client ID:

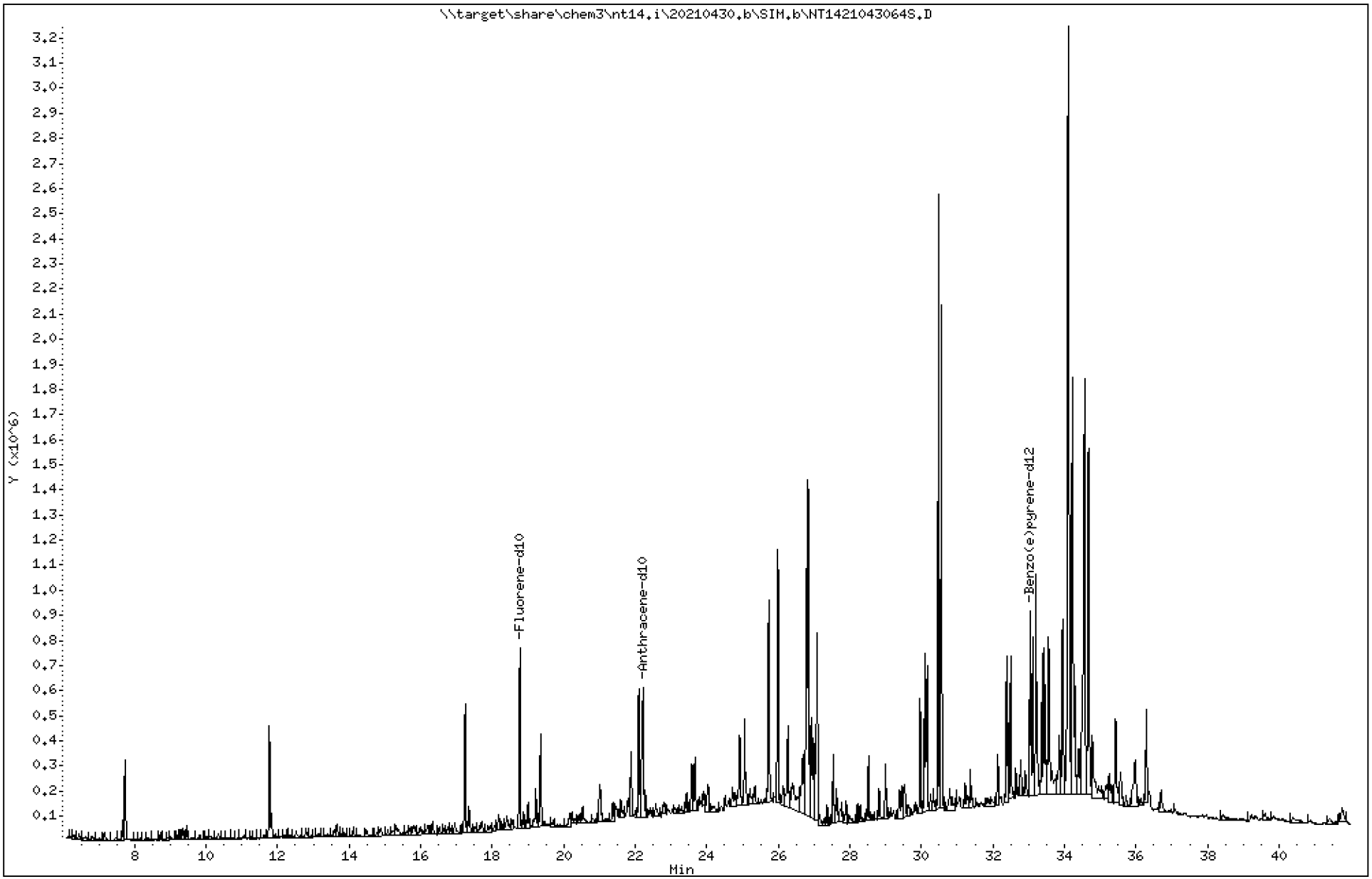
Instrument: nt14.i

Sample Info: 21D0180-02

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

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Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430064S.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

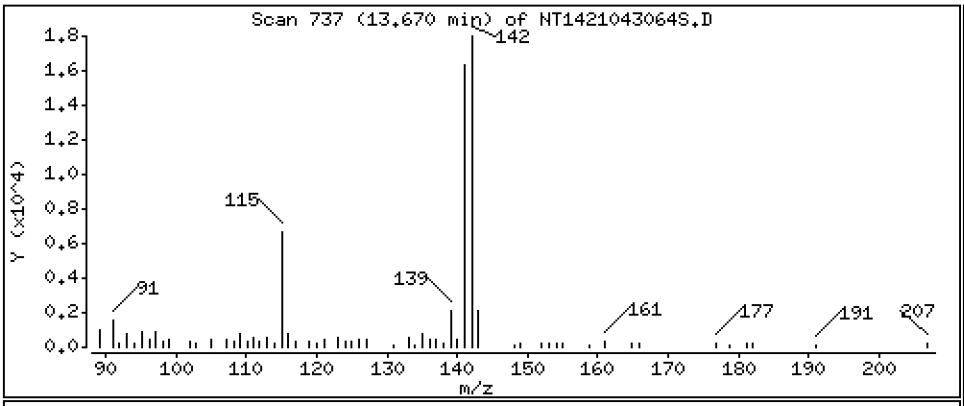
Operator: VTS

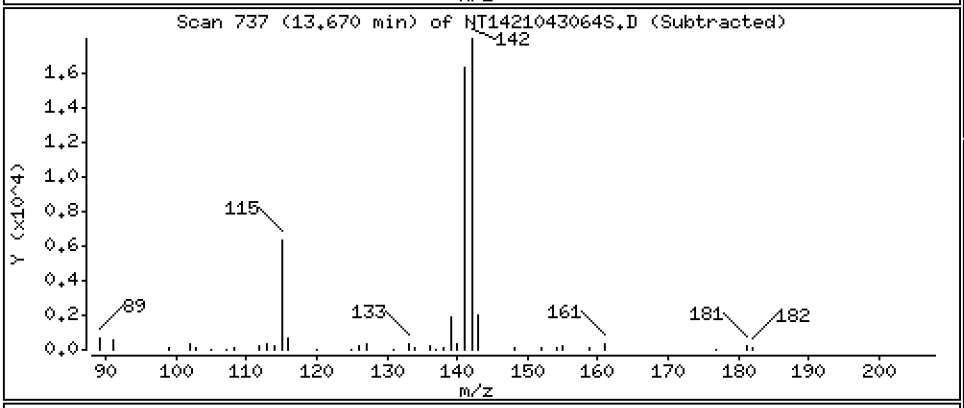
Column phase: Rxi-17Sil MS

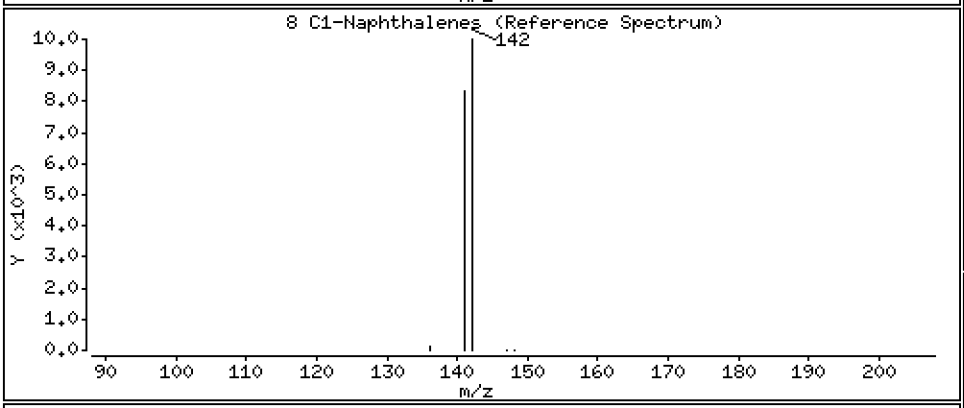
Column diameter: 0.25

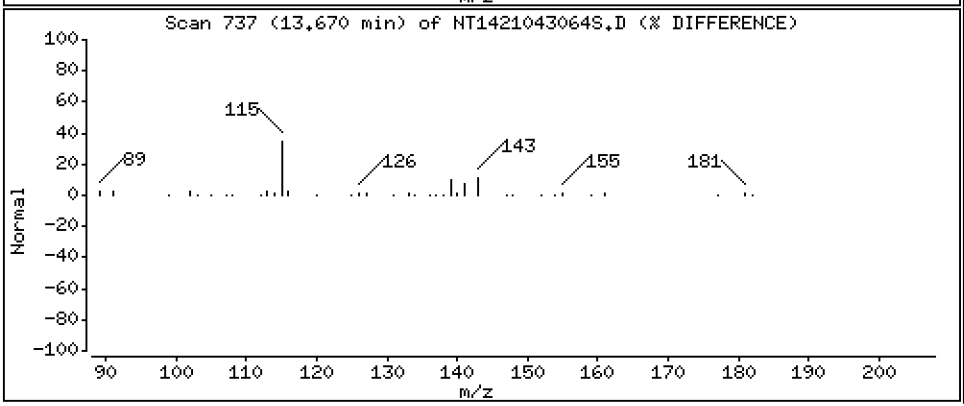
8 C1-Naphthalenes

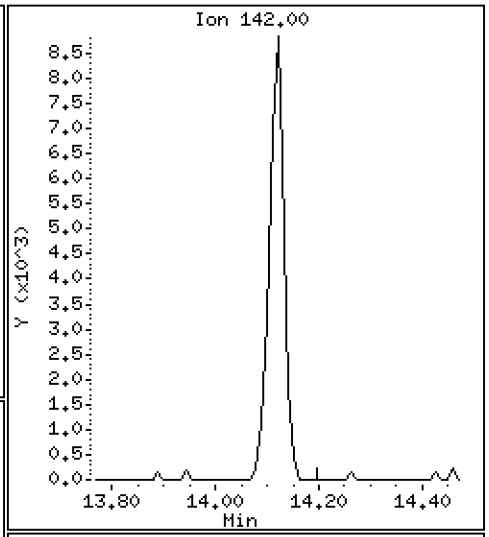
Concentration: 0.2124 ug/mL

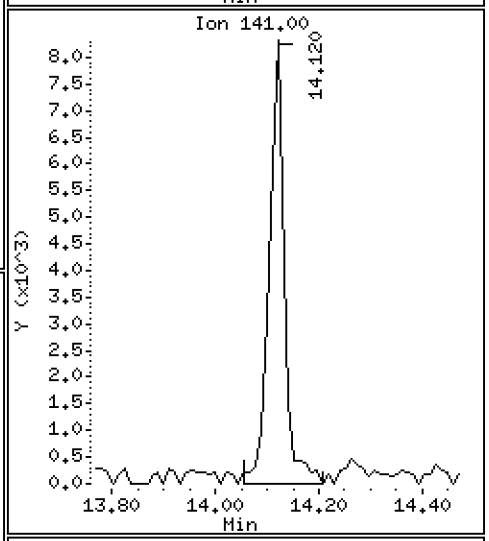


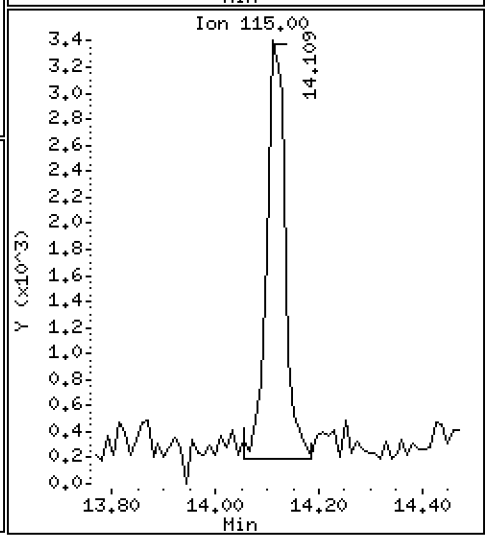



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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

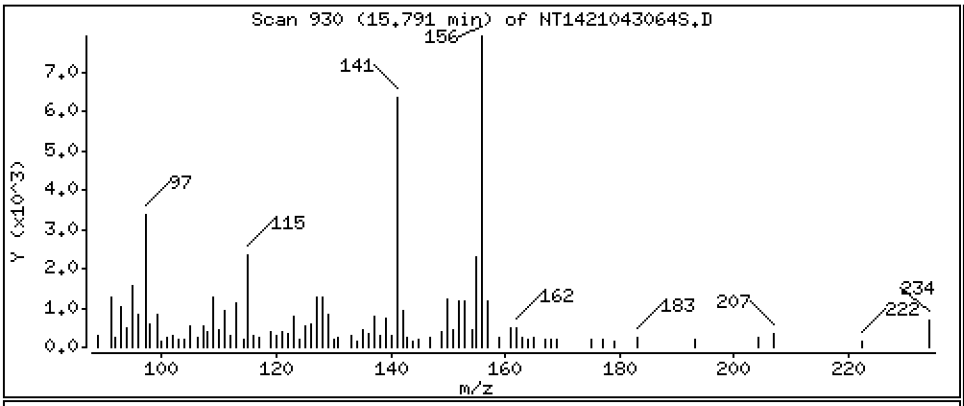
Operator: VTS

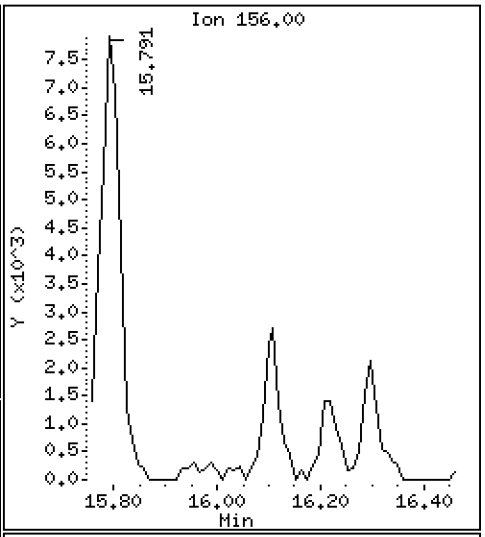
Column phase: Rxi-17Sil MS

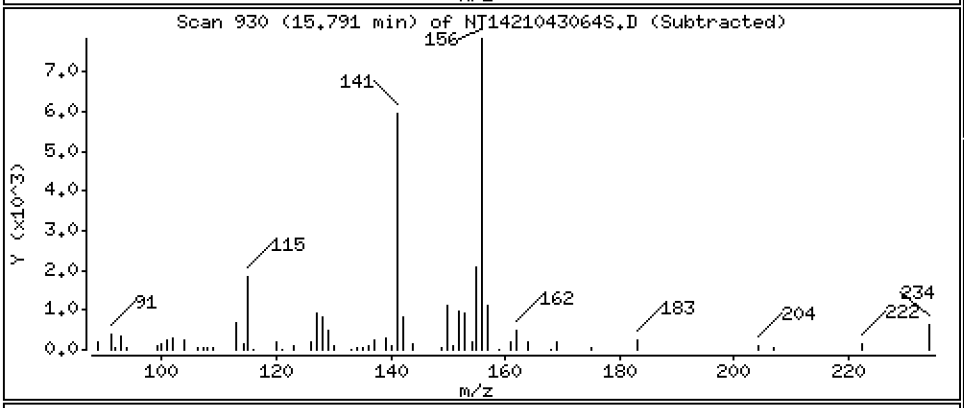
Column diameter: 0.25

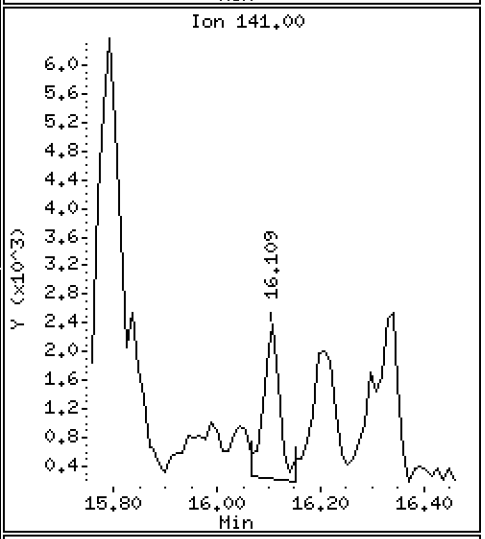
9 C2-Naphthalenes

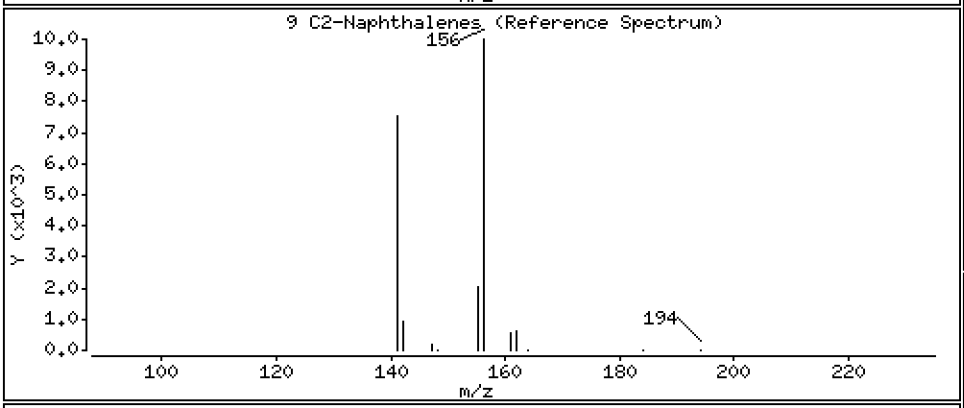
Concentration: 0.2727 ug/mL

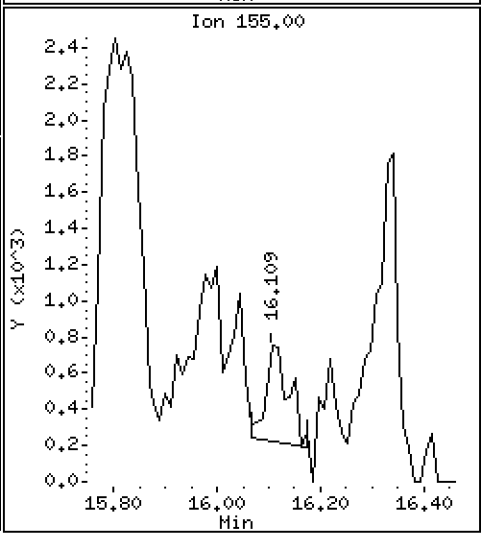


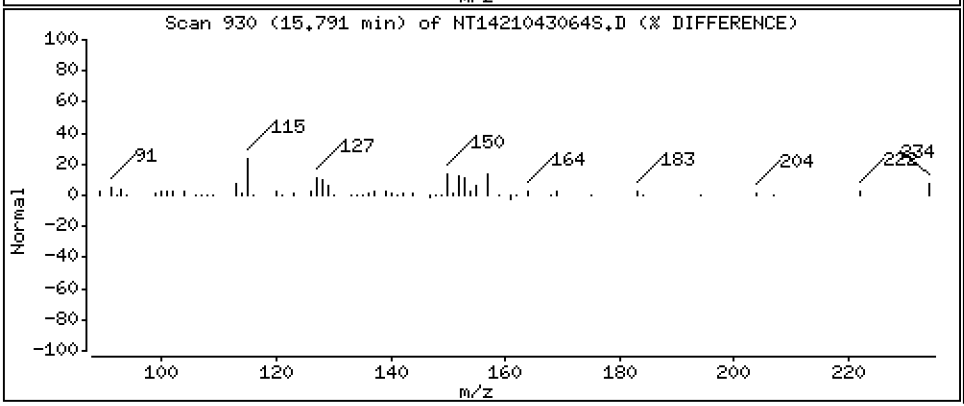



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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

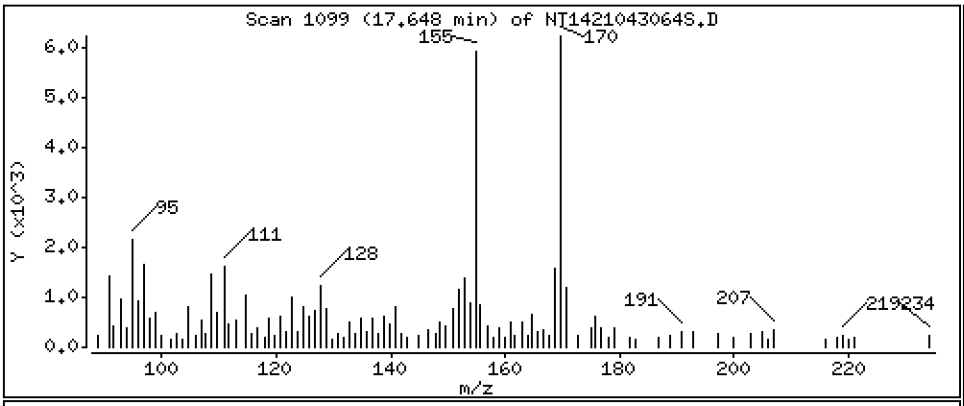
Operator: VTS

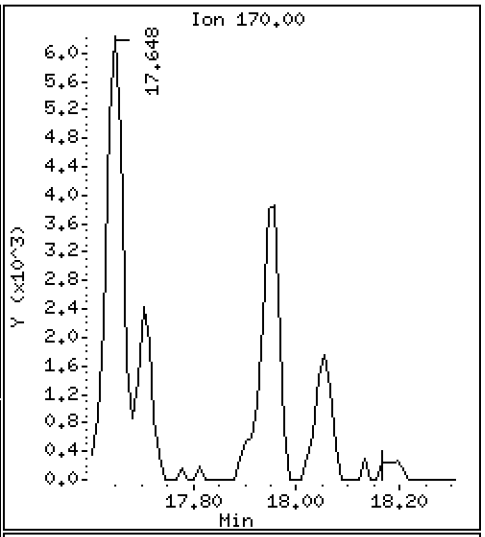
Column phase: Rxi-17Sil MS

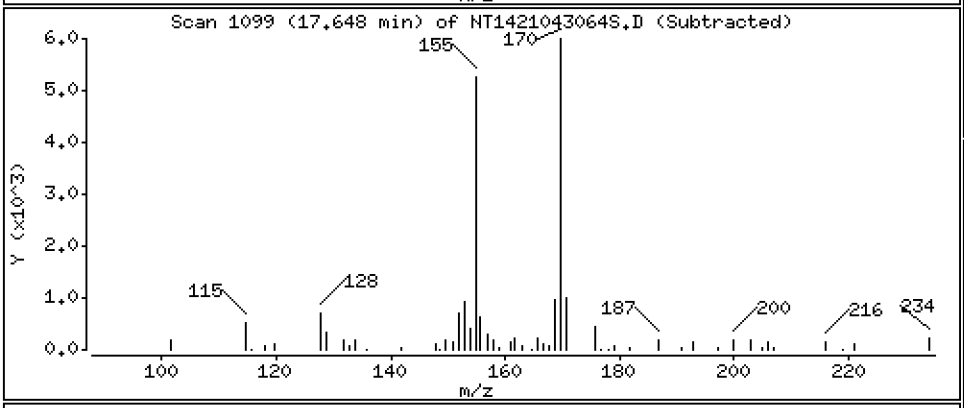
Column diameter: 0.25

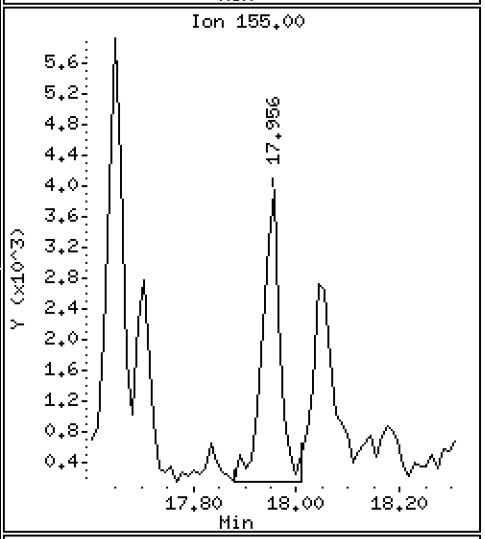
10 C3-Naphthalenes

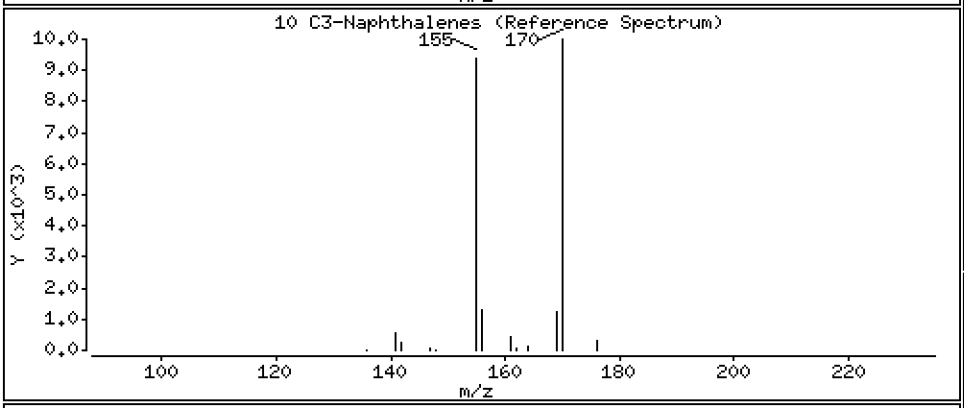
Concentration: 0.2376 ug/mL

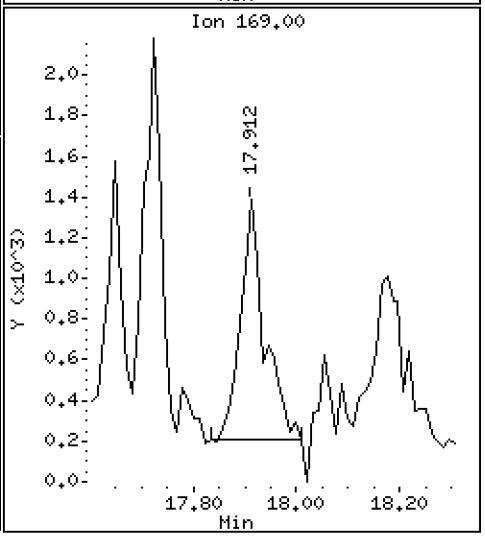


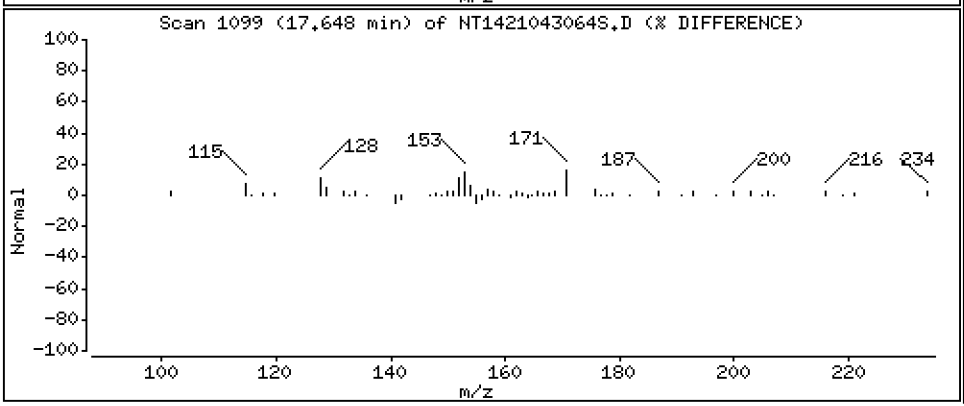



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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

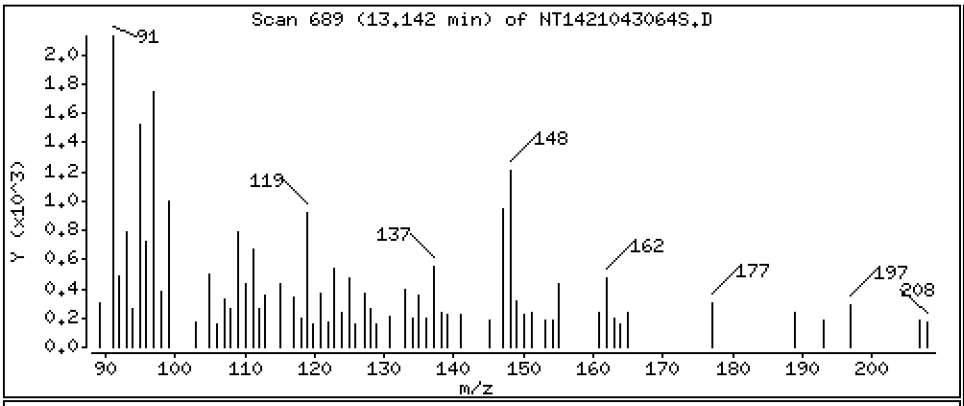
Operator: VTS

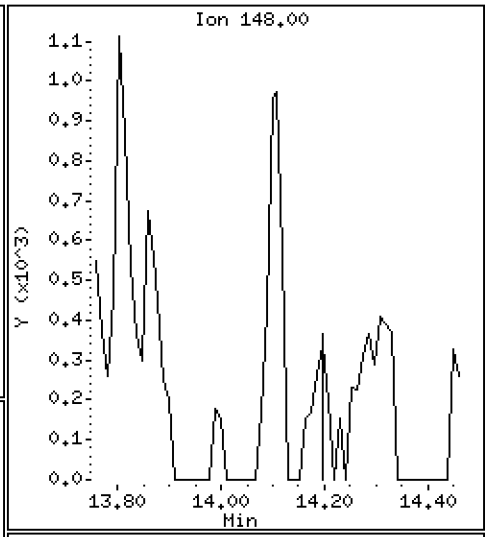
Column phase: Rxi-17Sil MS

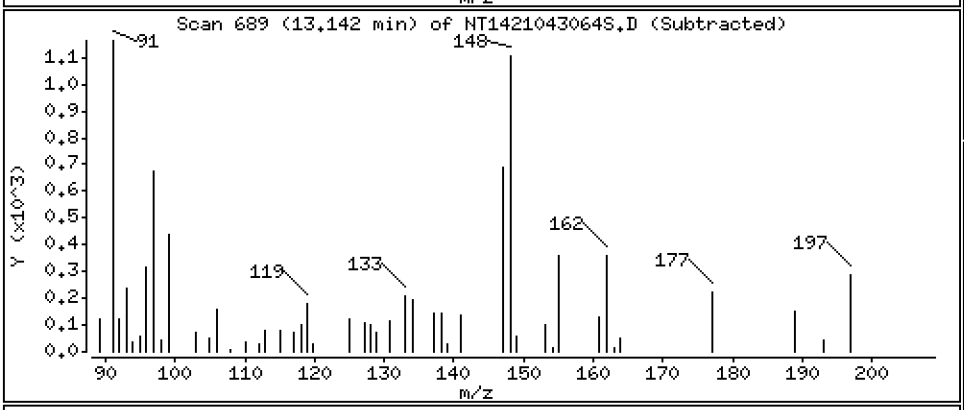
Column diameter: 0.25

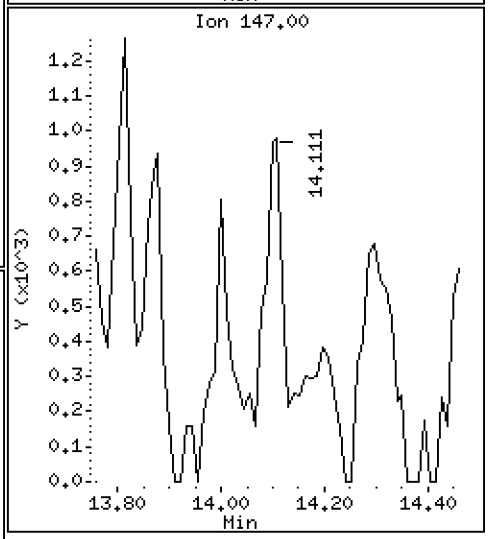
13 C1-Benzothiophenes

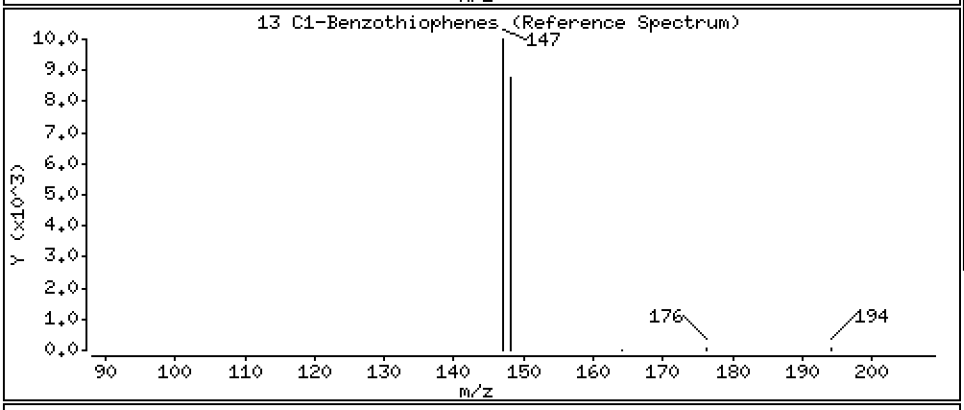
Concentration: 0.05948 ug/mL

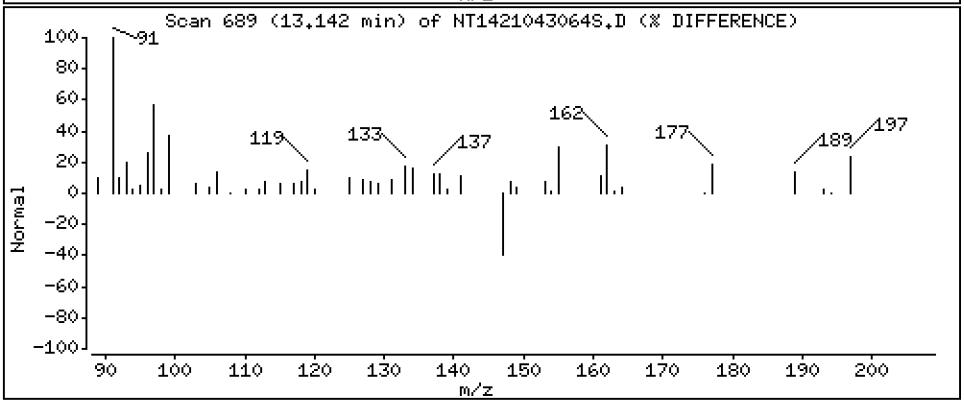


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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

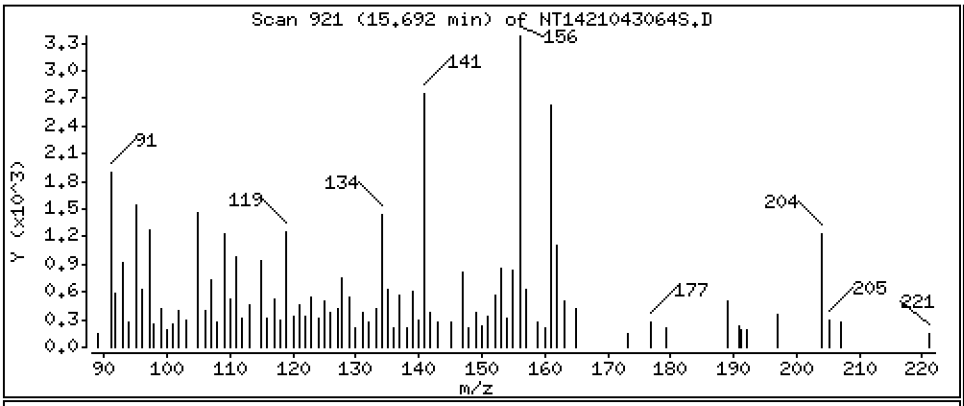
Operator: VTS

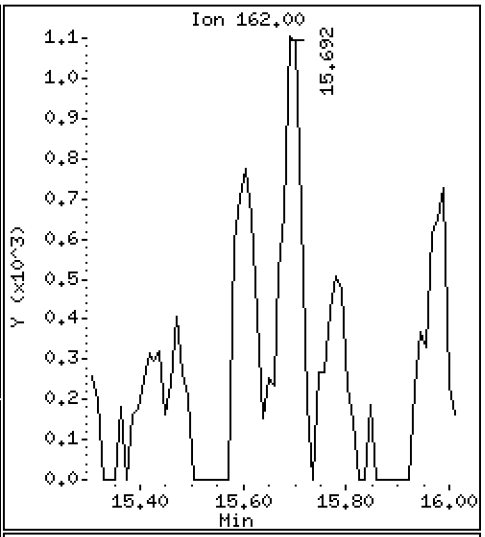
Column phase: Rxi-17Sil MS

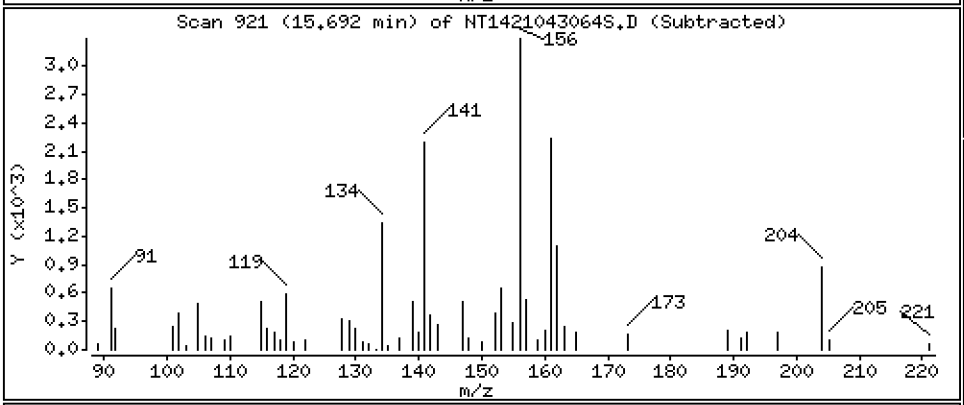
Column diameter: 0.25

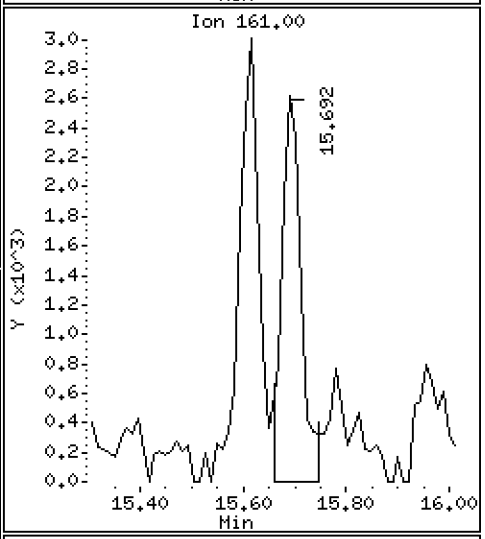
14 C2-Benzothiophenes

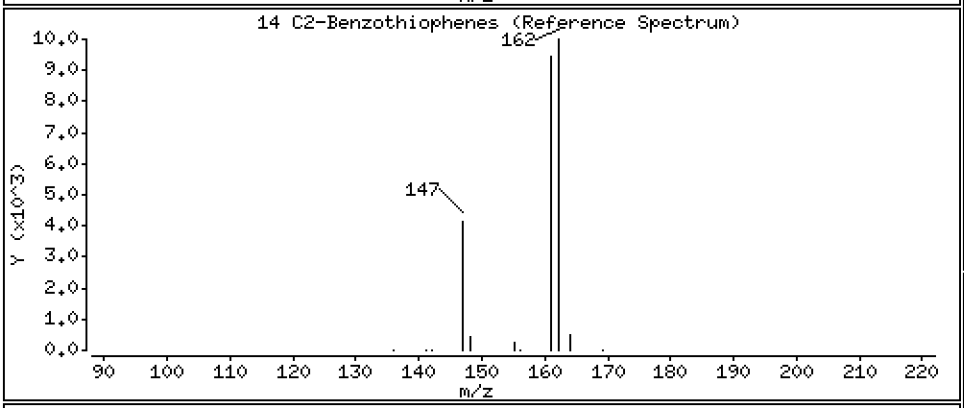
Concentration: 0.08740 ug/mL

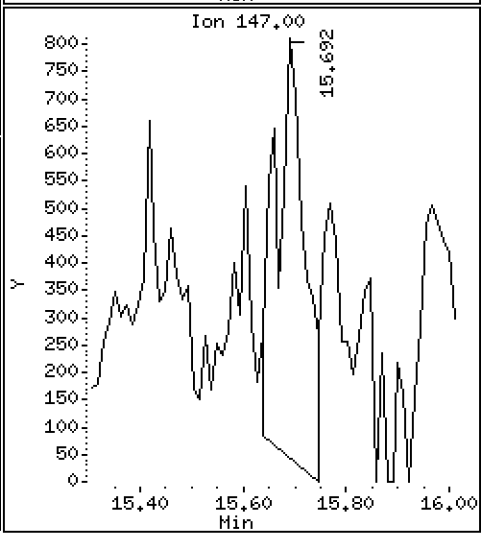


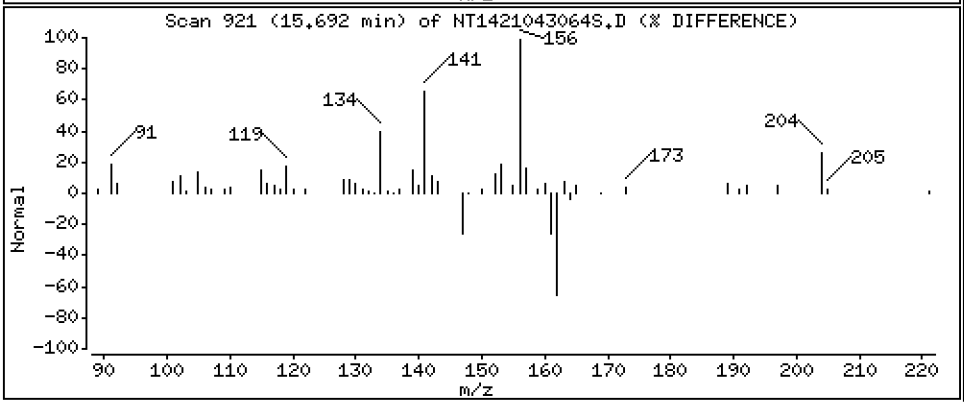



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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

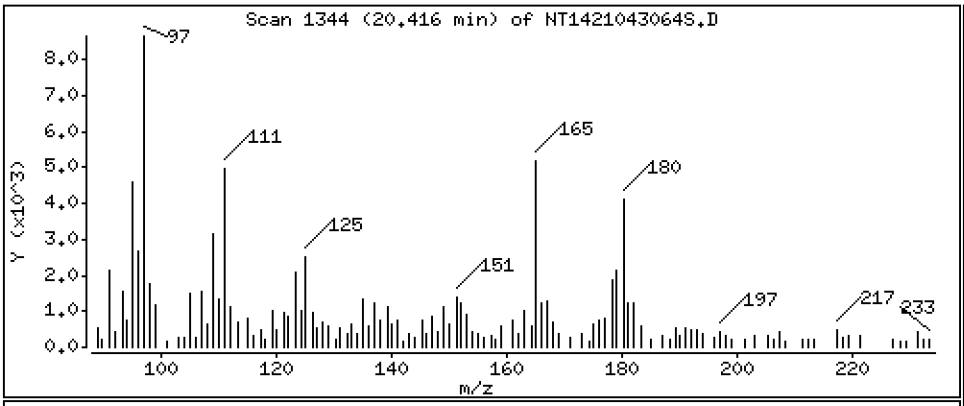
Operator: VTS

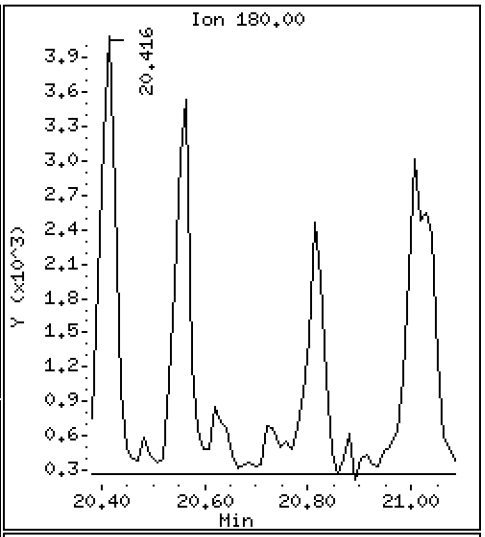
Column phase: Rxi-17Sil MS

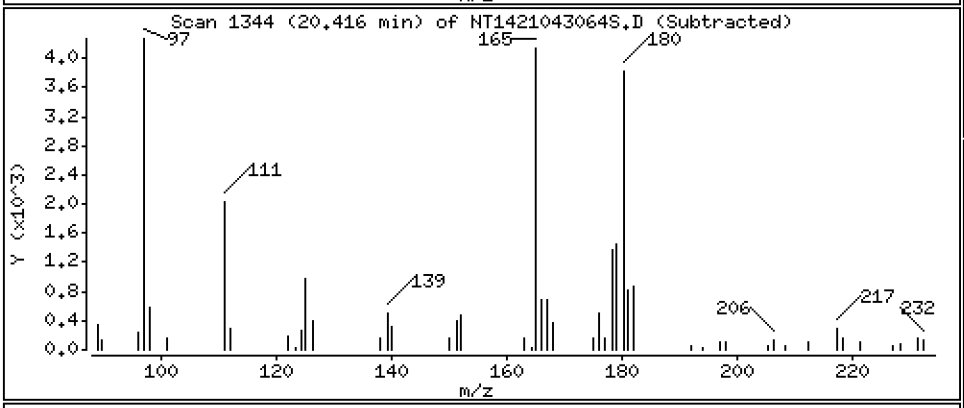
Column diameter: 0.25

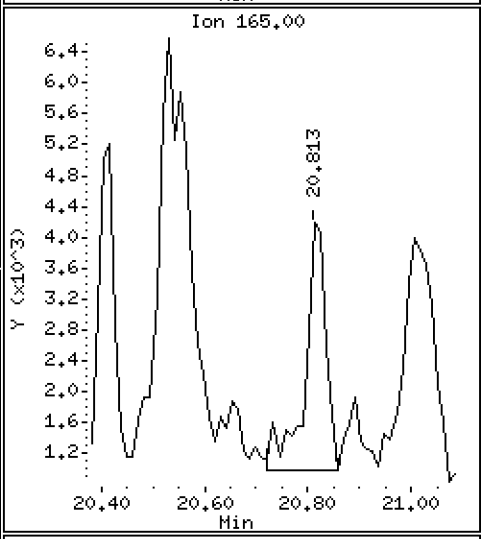
27 C1-Fluorenes

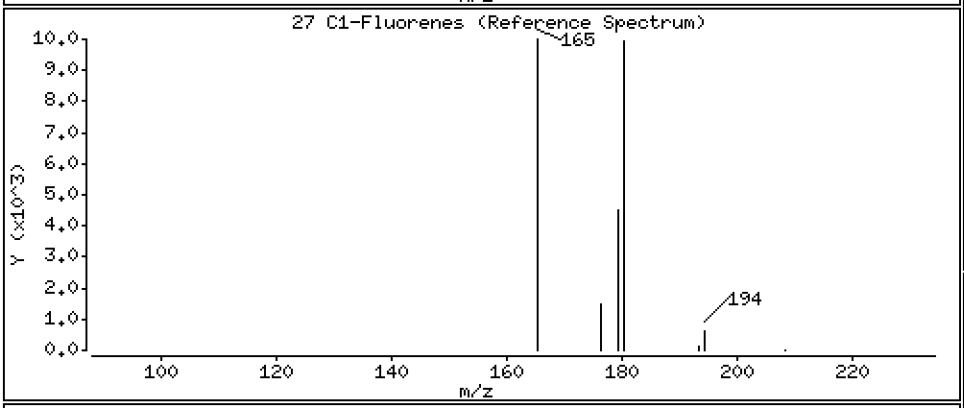
Concentration: 0.2404 ug/mL

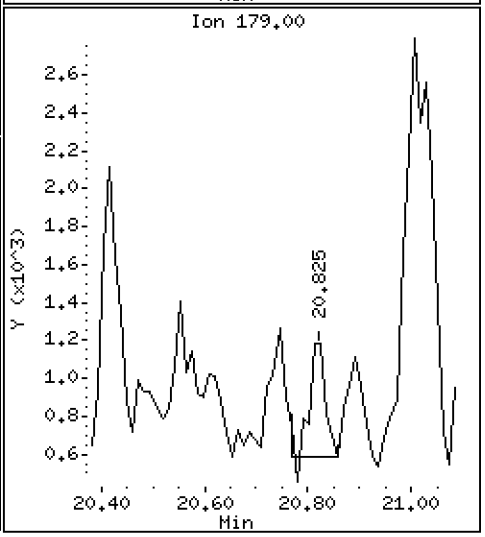


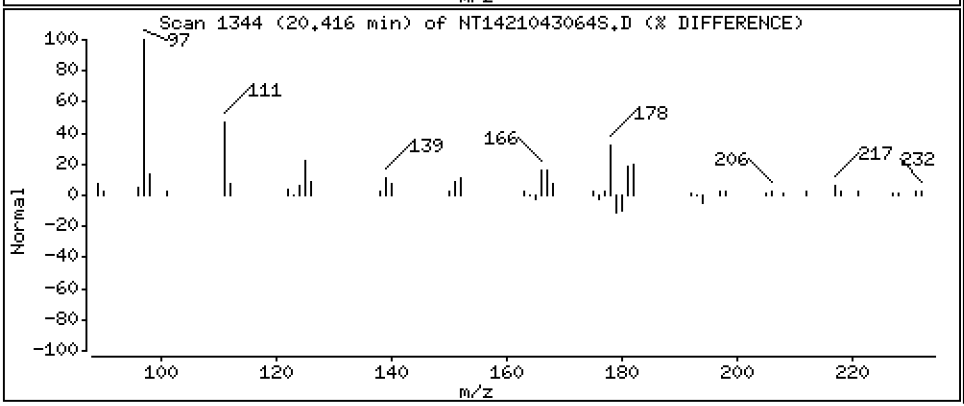



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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

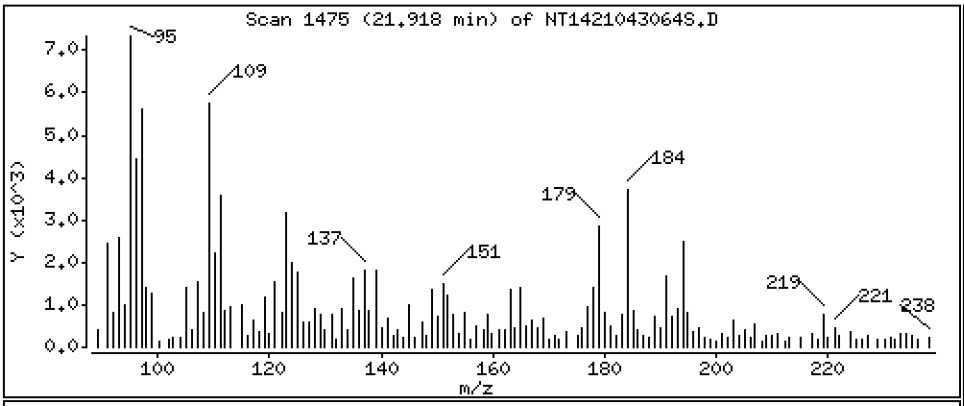
Operator: VTS

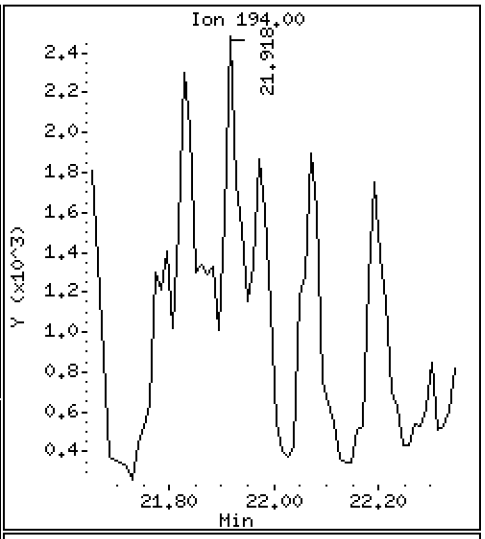
Column phase: Rxi-17Sil MS

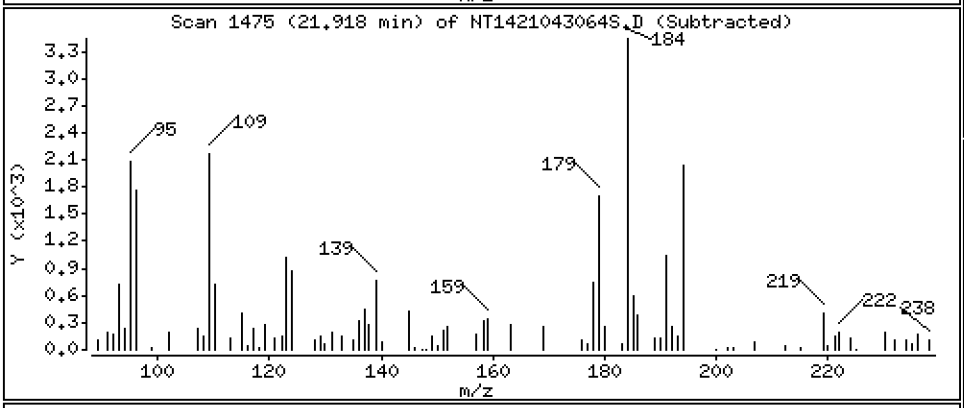
Column diameter: 0.25

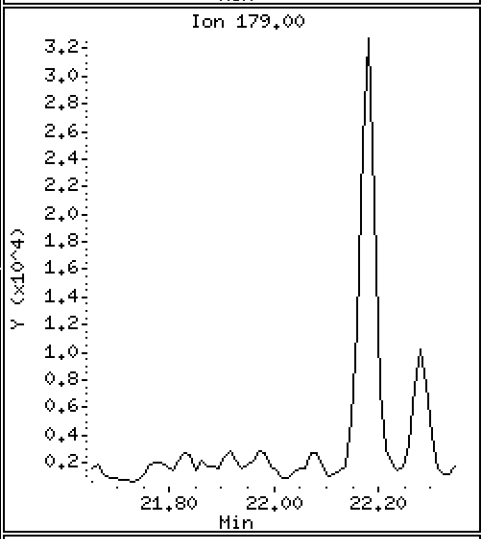
28 C2-Fluorenes

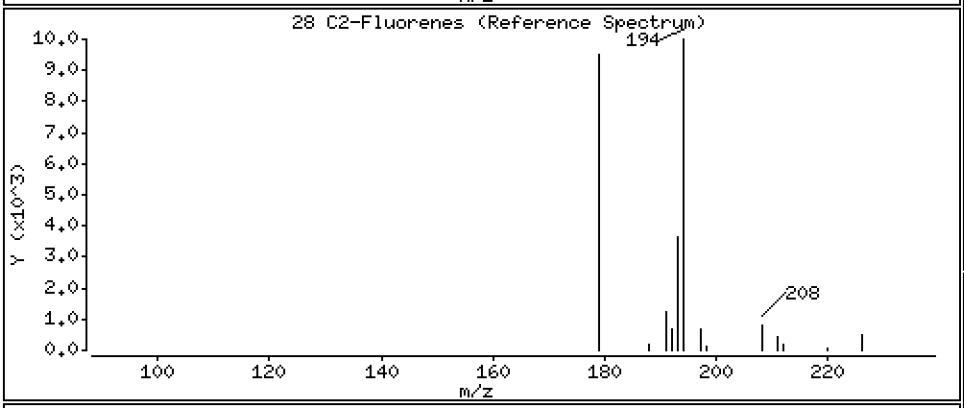
Concentration: 0.2665 ug/mL

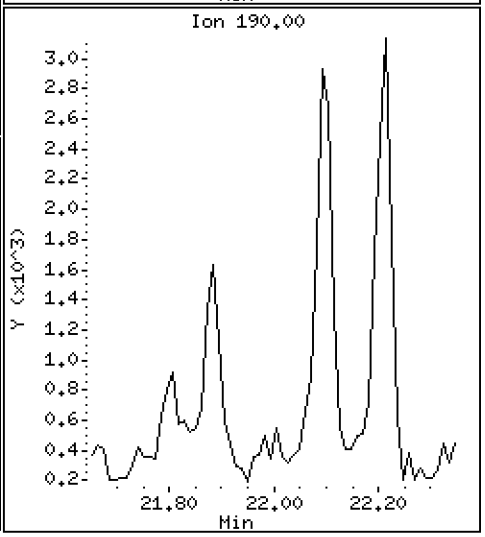


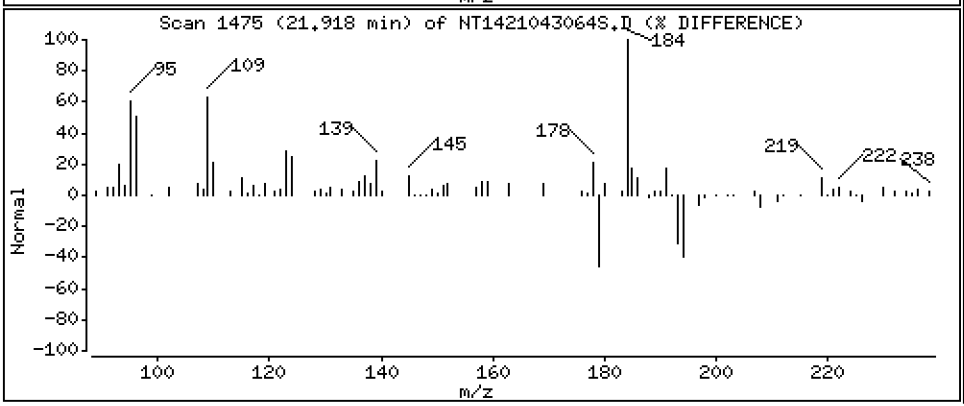



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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

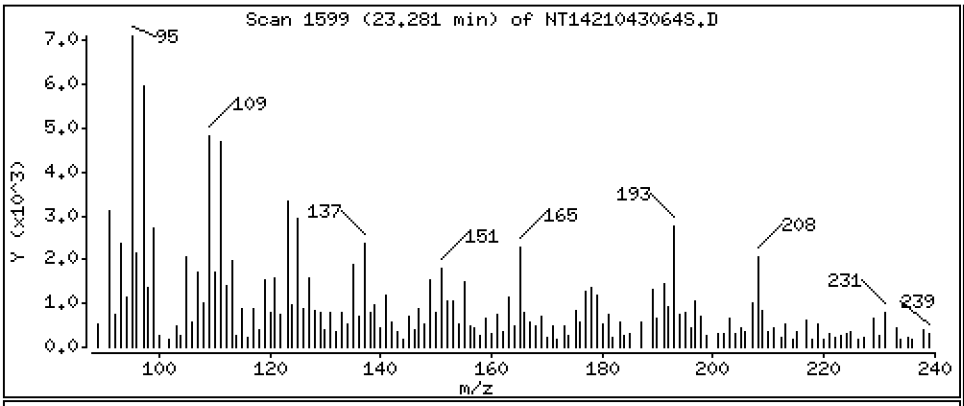
Operator: VTS

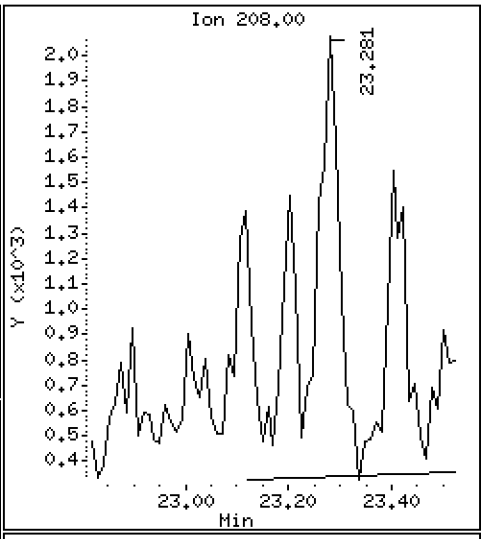
Column phase: Rxi-17Sil MS

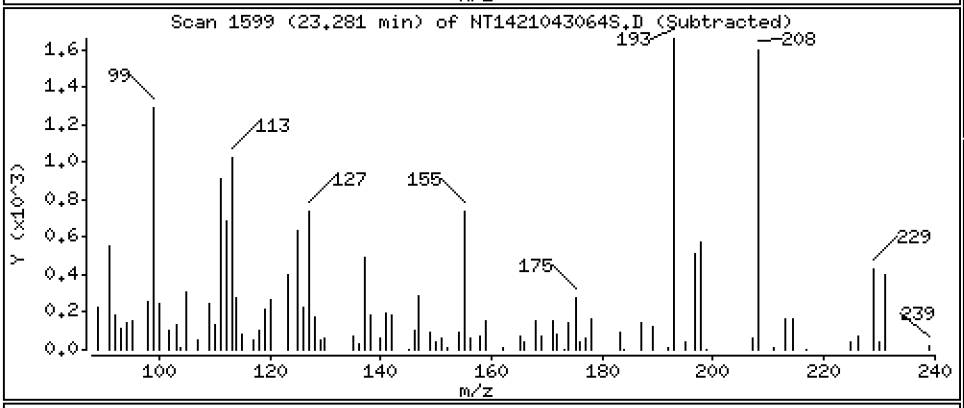
Column diameter: 0.25

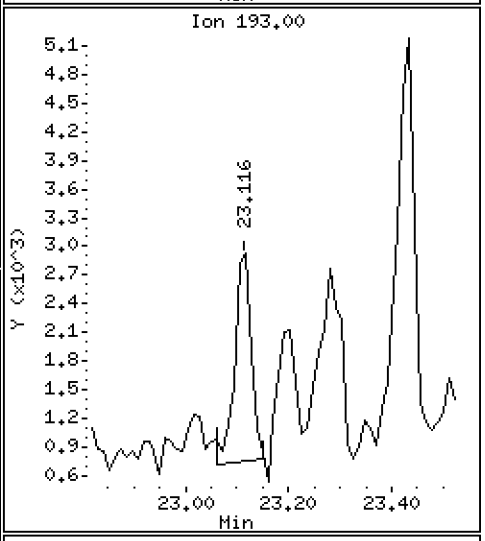
29 C3-Fluorenes

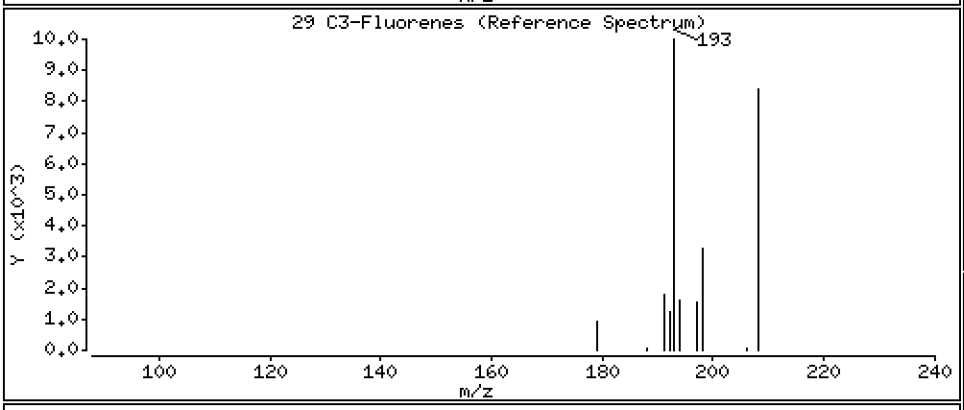
Concentration: 0.2456 ug/mL

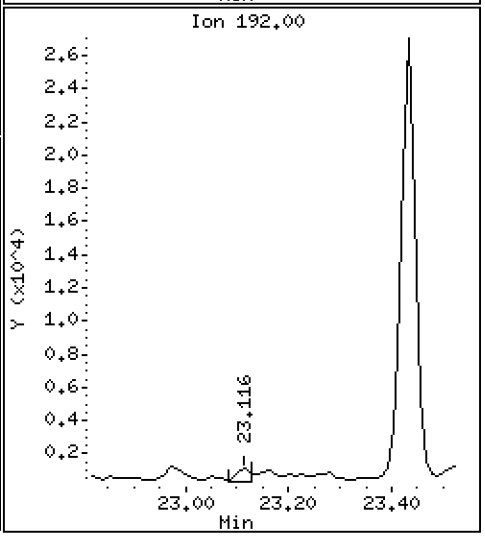


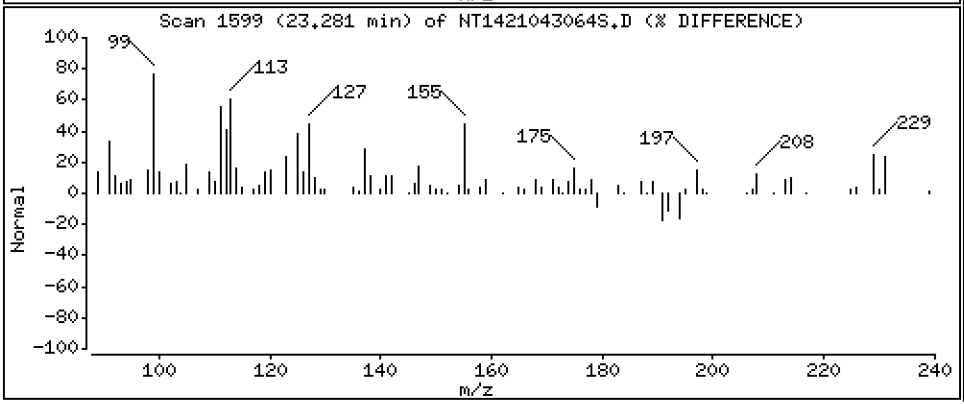



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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

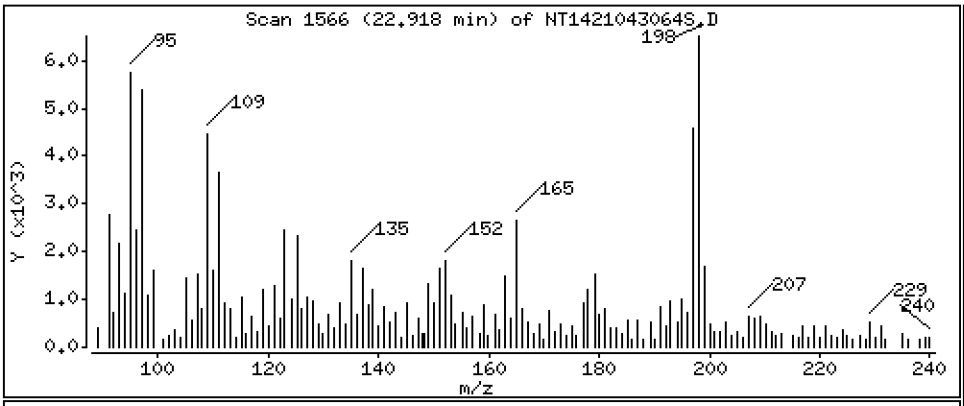
Operator: VTS

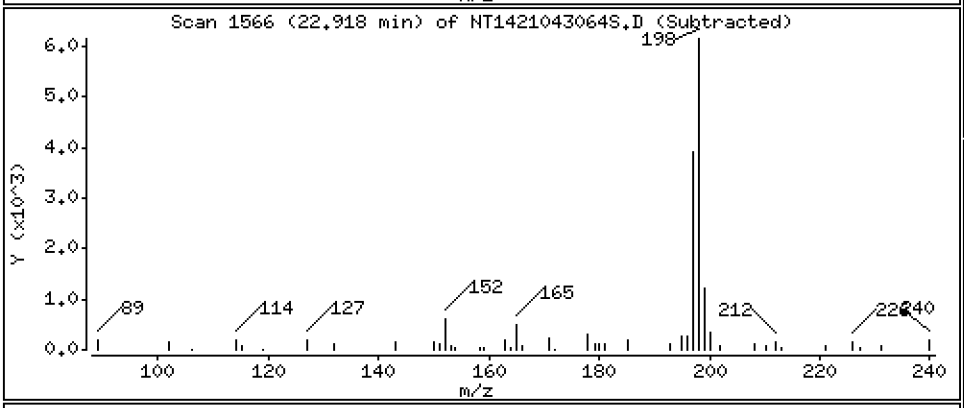
Column phase: Rxi-17Sil MS

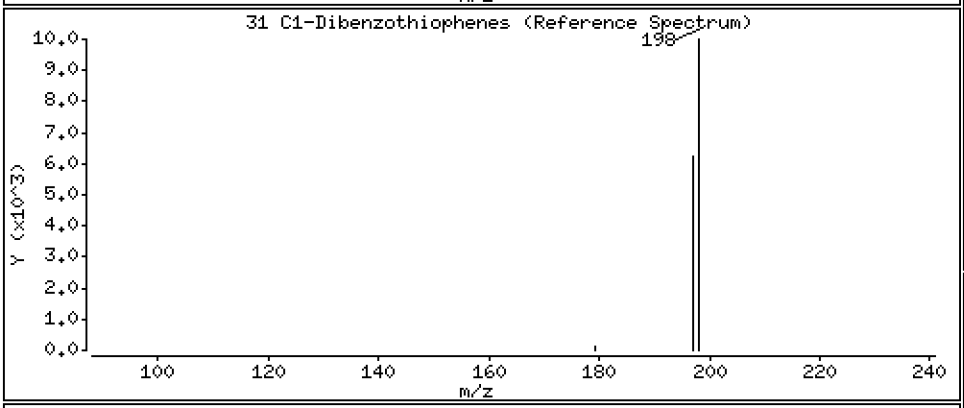
Column diameter: 0.25

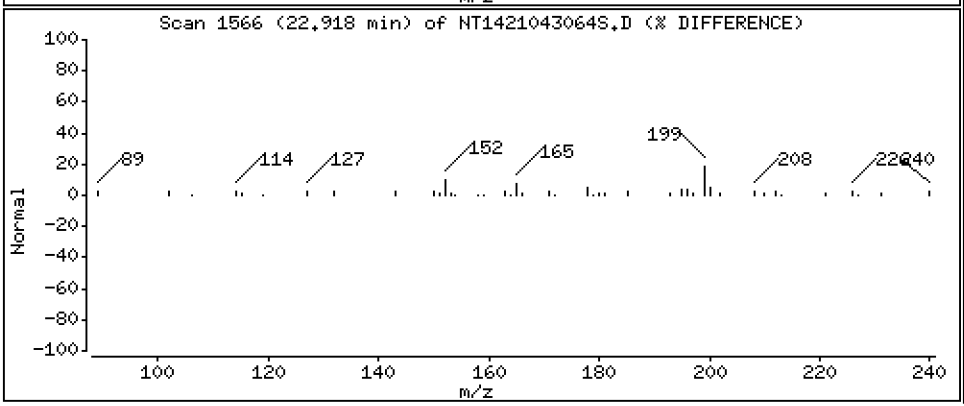
31 C1-Dibenzothiophenes

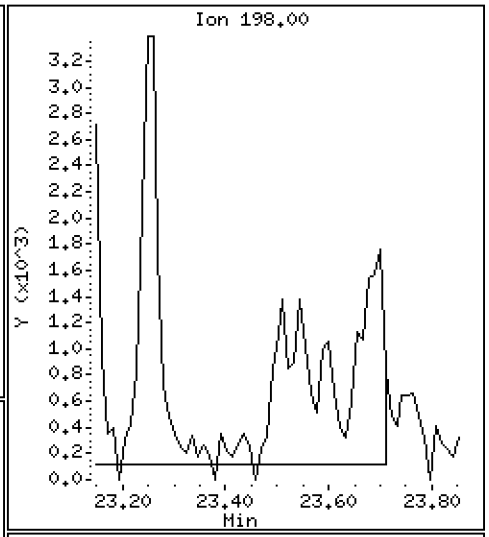
Concentration: 0.1899 ug/mL

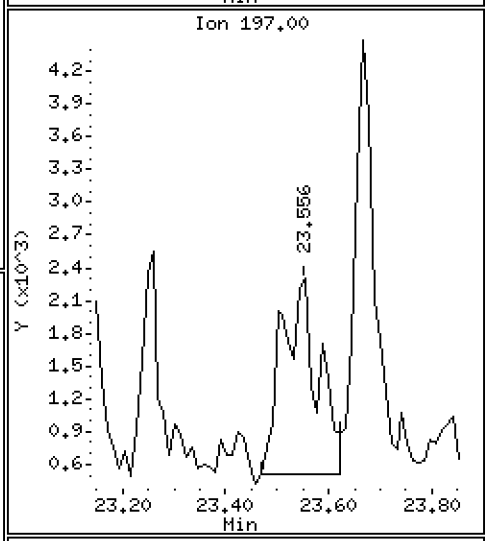


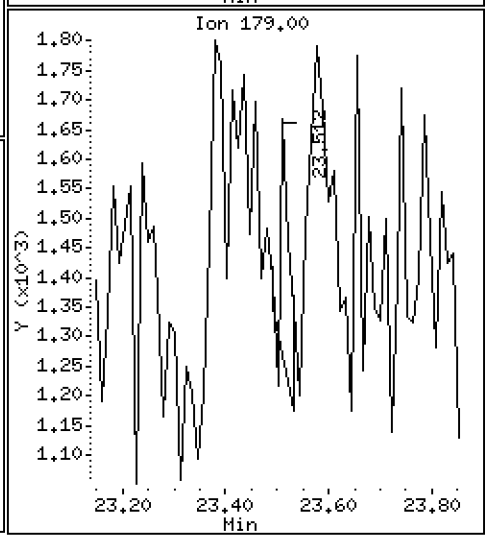



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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

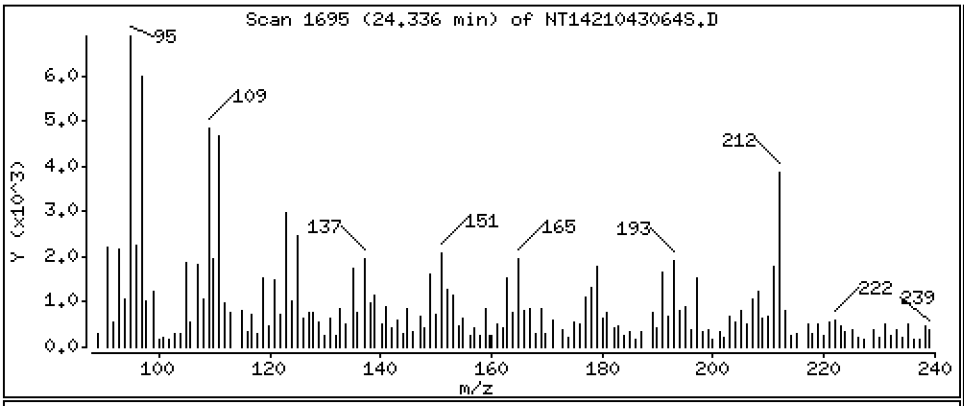
Operator: VTS

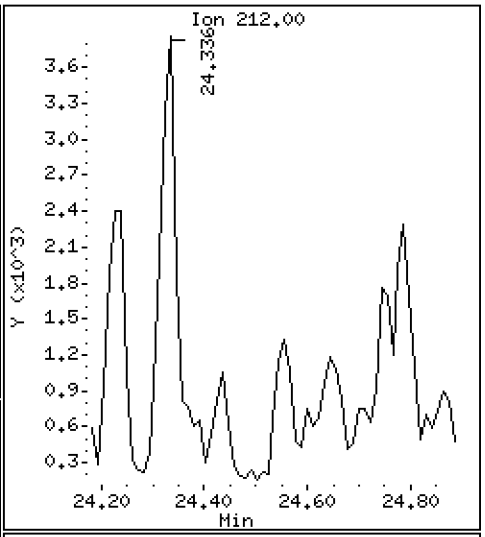
Column phase: Rxi-17Sil MS

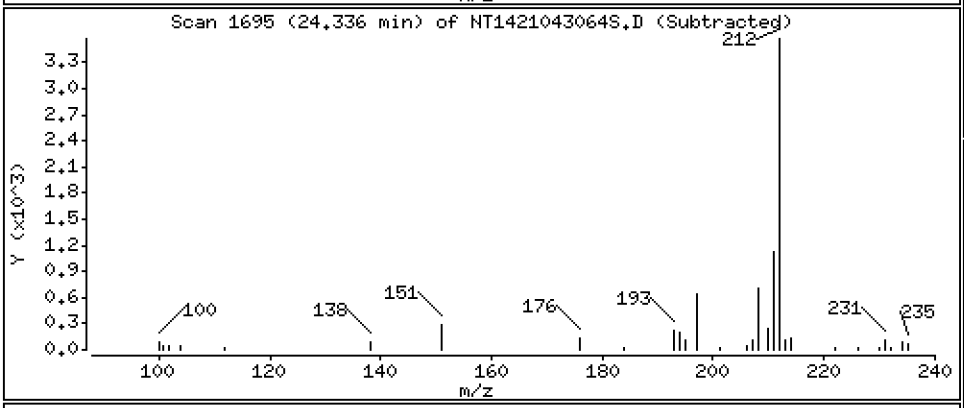
Column diameter: 0.25

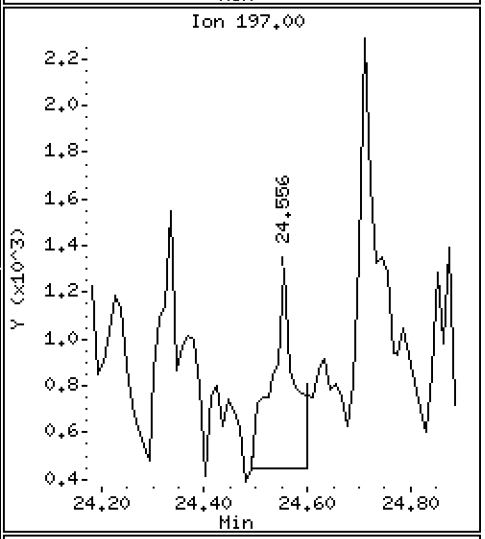
32 C2-Dibenzothiophenes

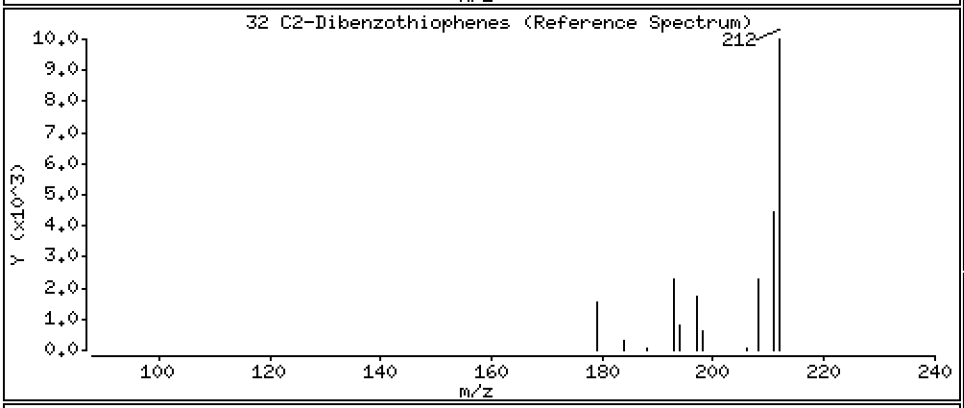
Concentration: 0.2683 ug/mL

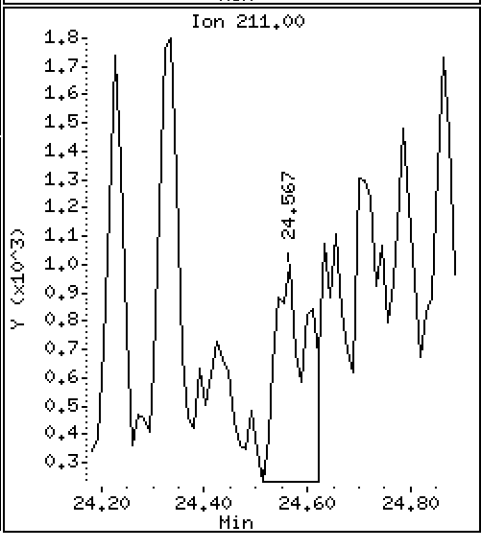


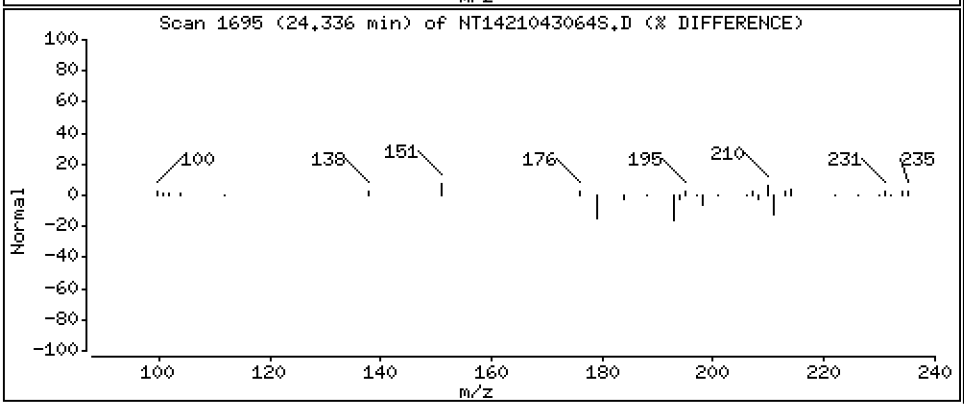



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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

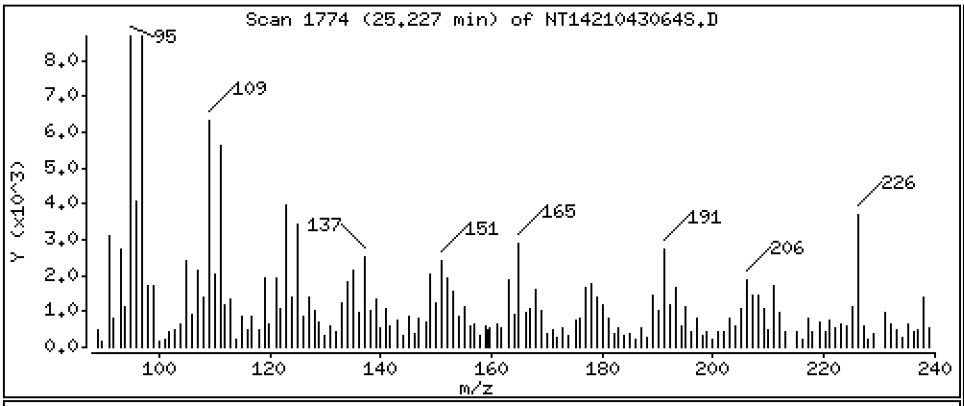
Operator: VTS

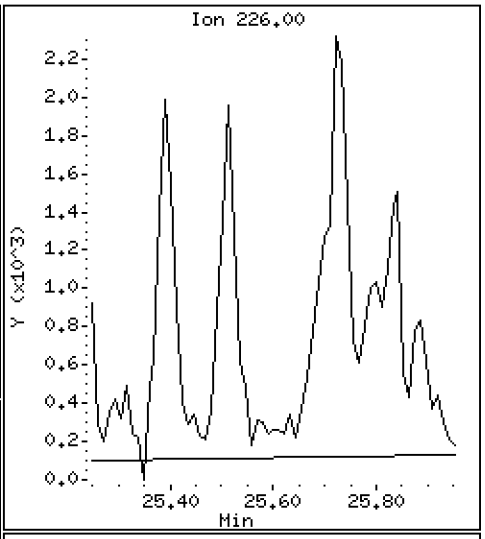
Column phase: Rxi-17Sil MS

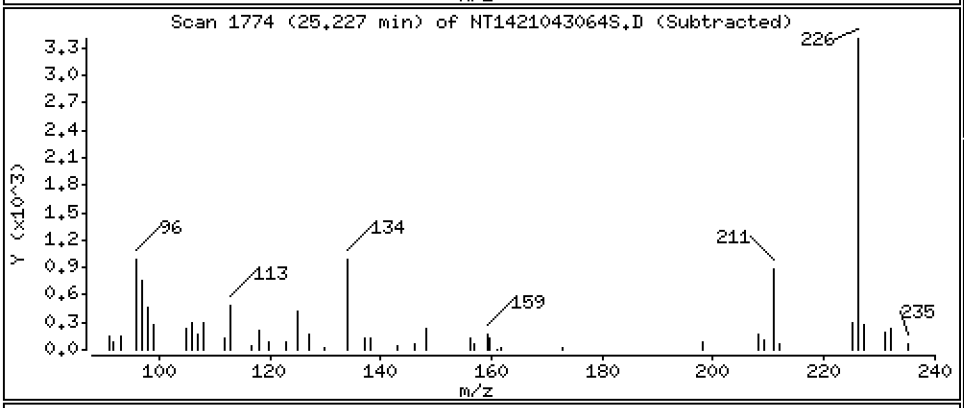
Column diameter: 0.25

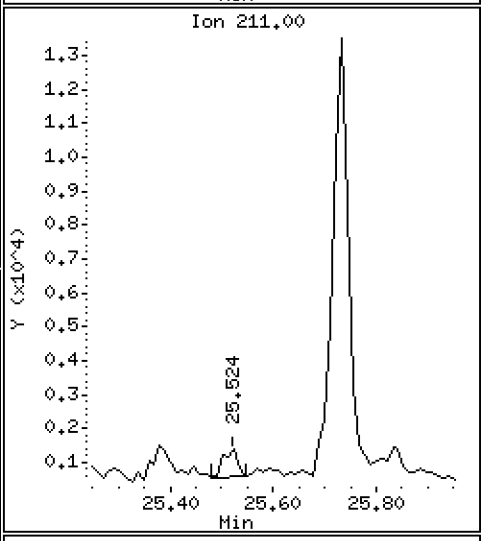
33 C3-Dibenzothiophenes

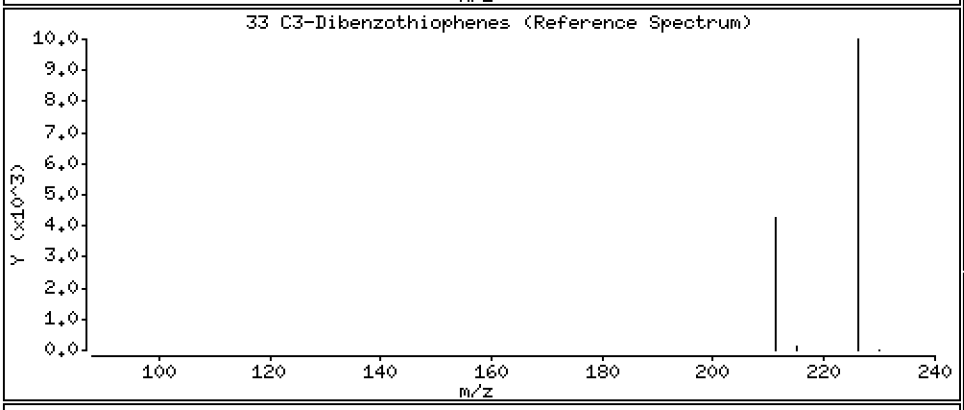
Concentration: 0.2587 ug/mL

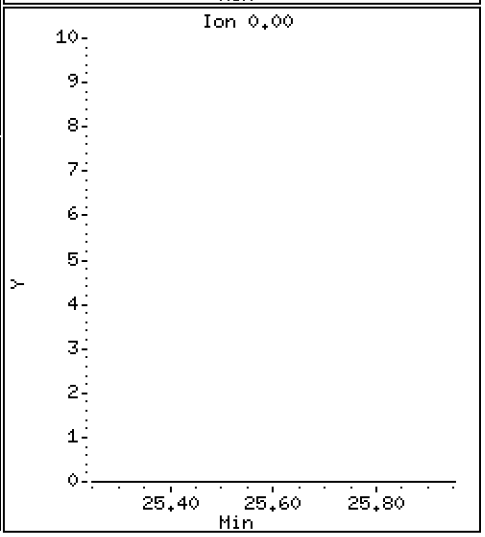


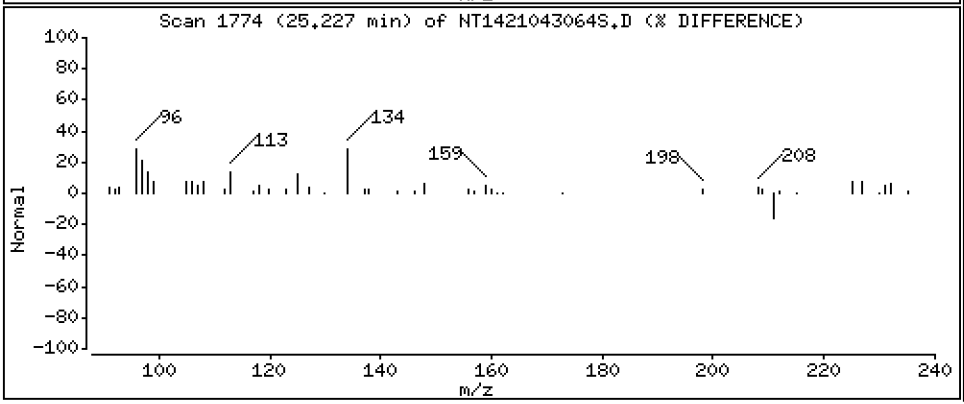



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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

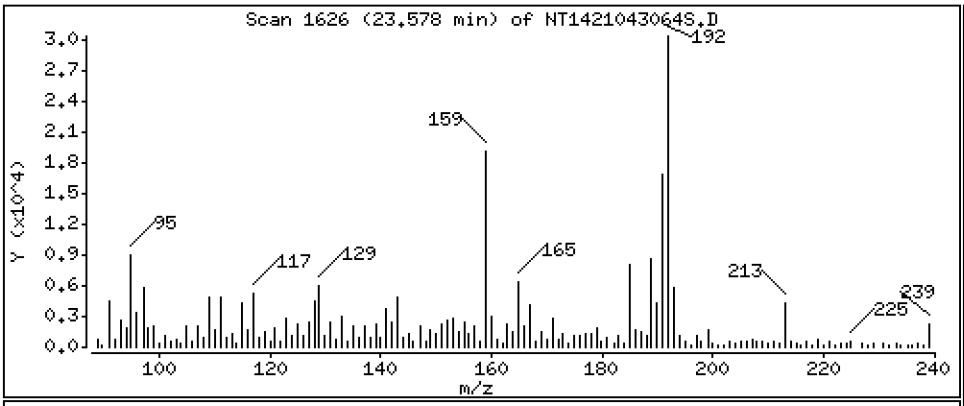
Operator: VTS

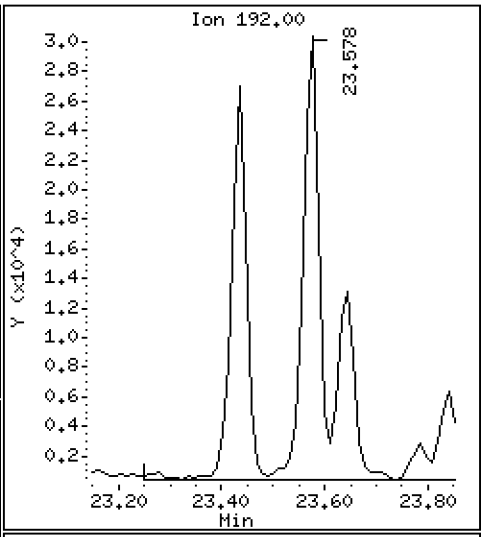
Column phase: Rxi-17Sil MS

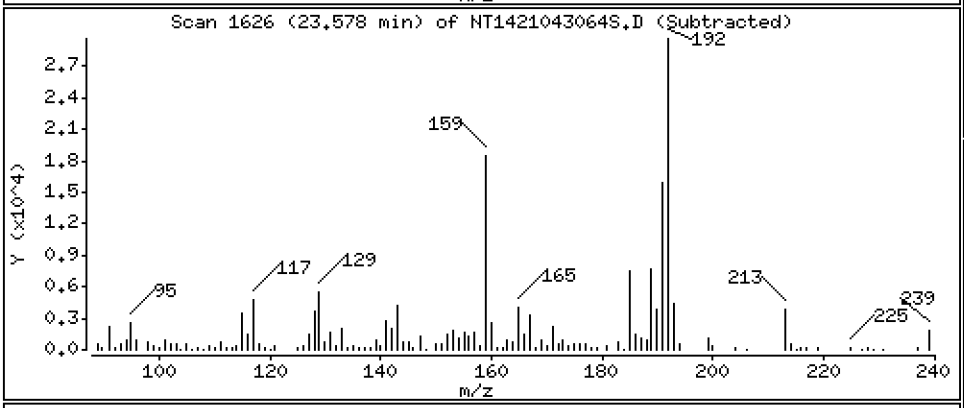
Column diameter: 0.25

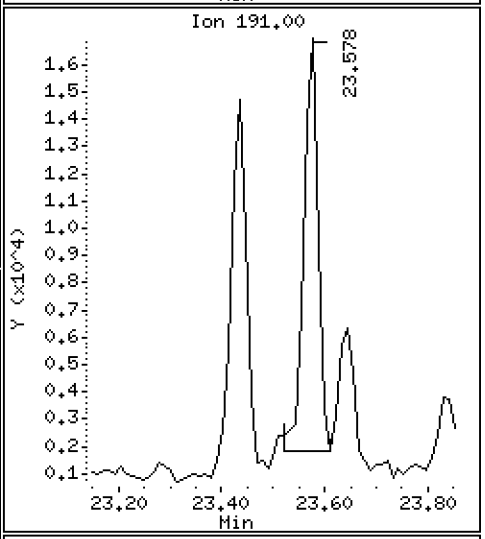
38 C1-Phenanthrenes/Anthracenes

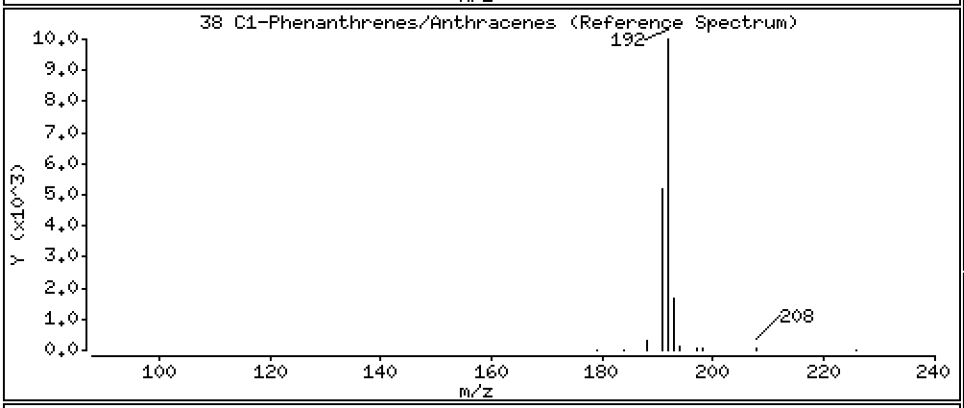
Concentration: 0.8941 ug/mL

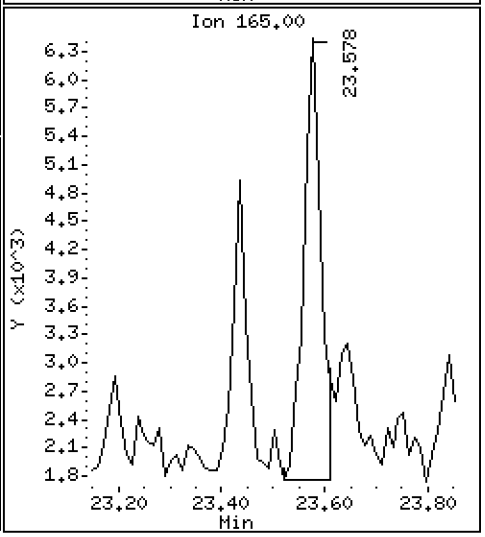


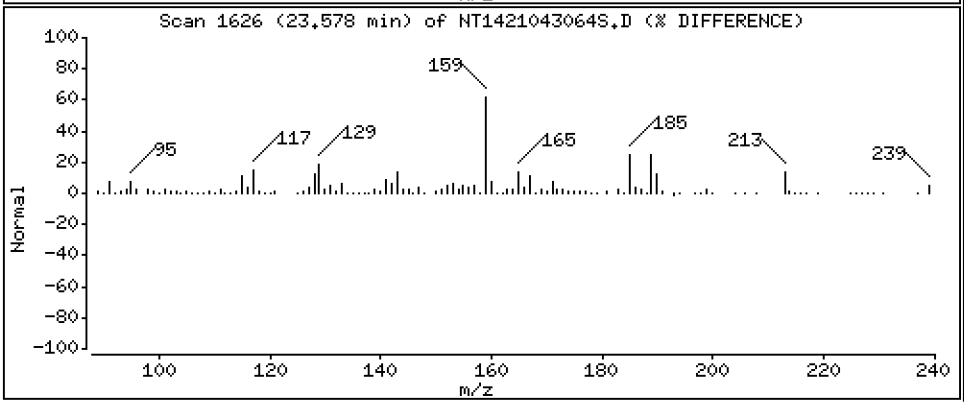



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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

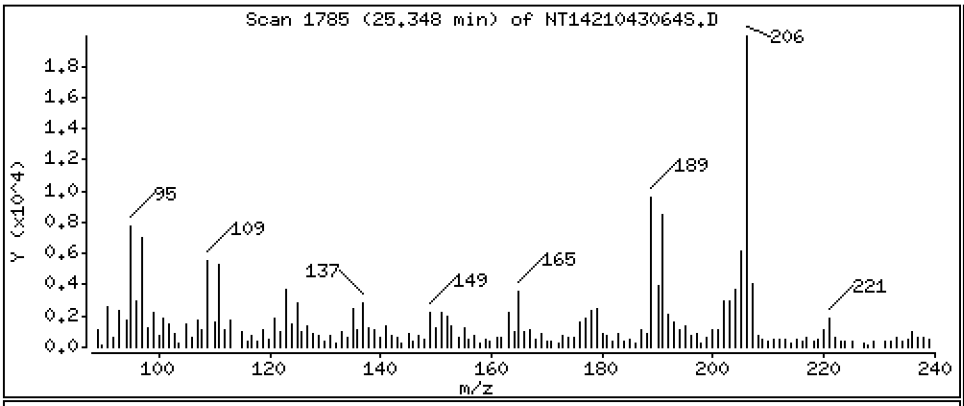
Operator: VTS

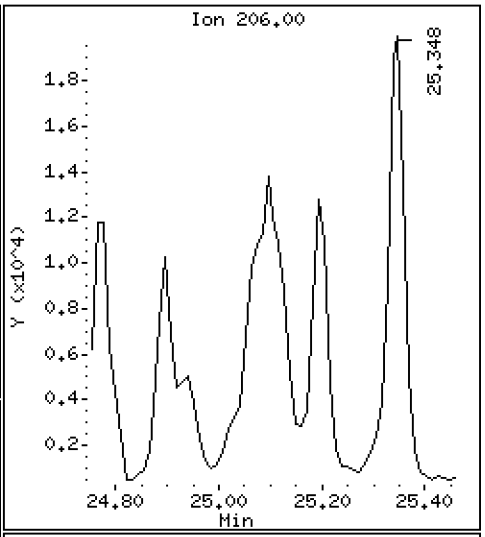
Column phase: Rxi-17Sil MS

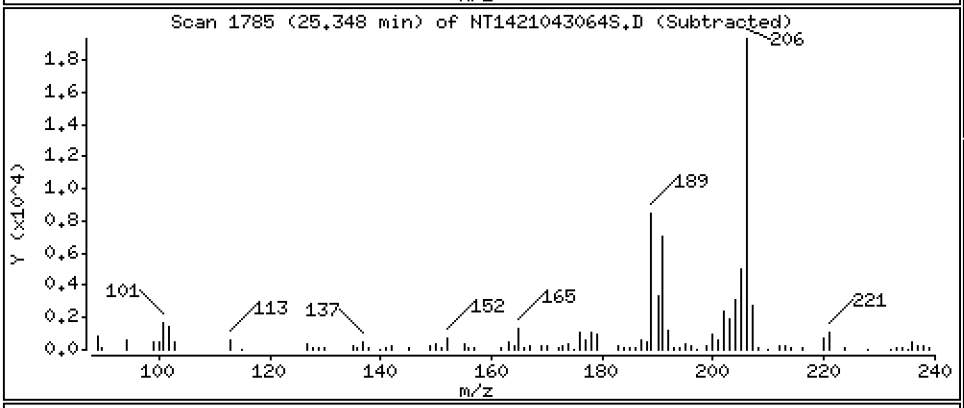
Column diameter: 0.25

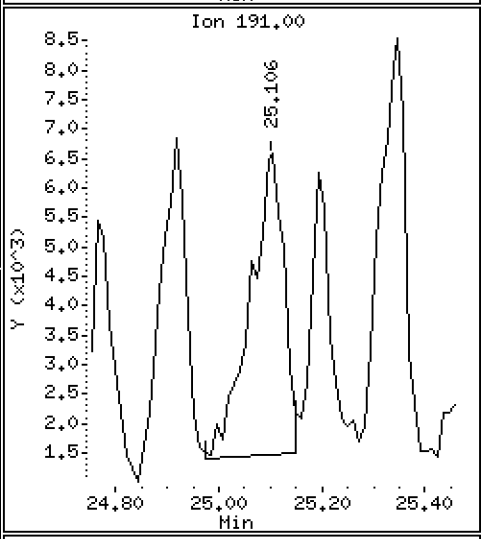
39 C2-Phenanthrenes/Anthracenes

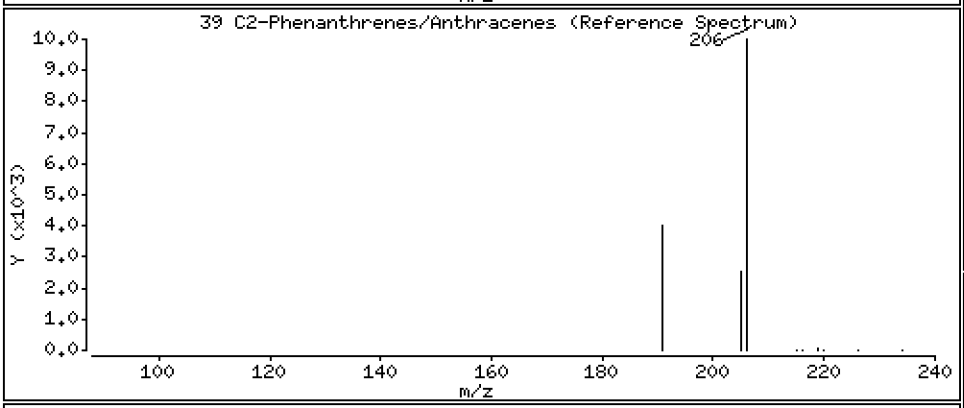
Concentration: 0.9571 ug/mL

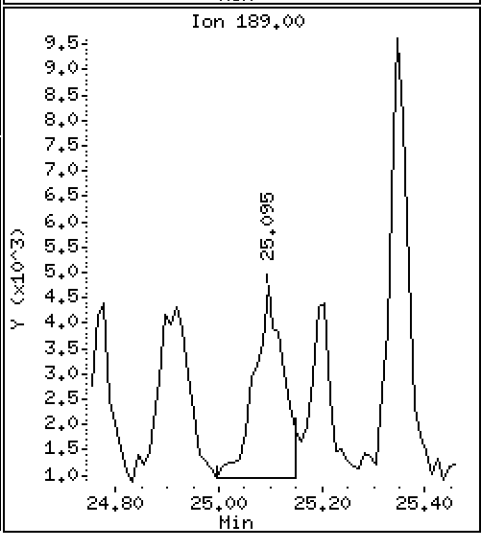


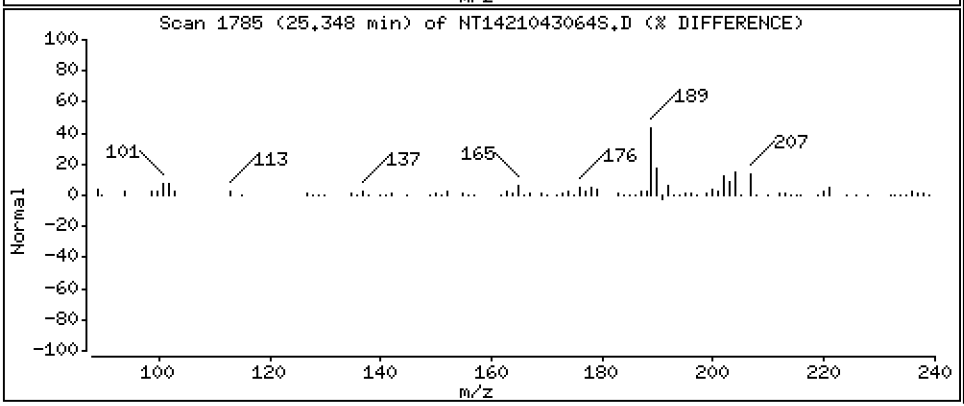



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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

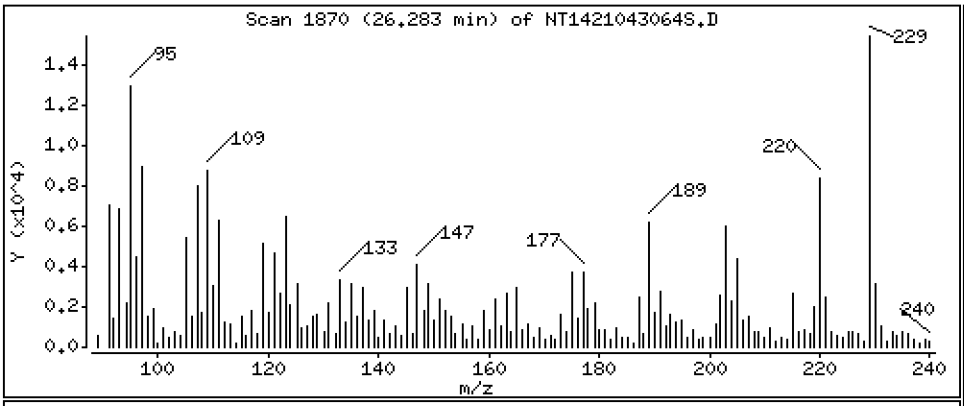
Operator: VTS

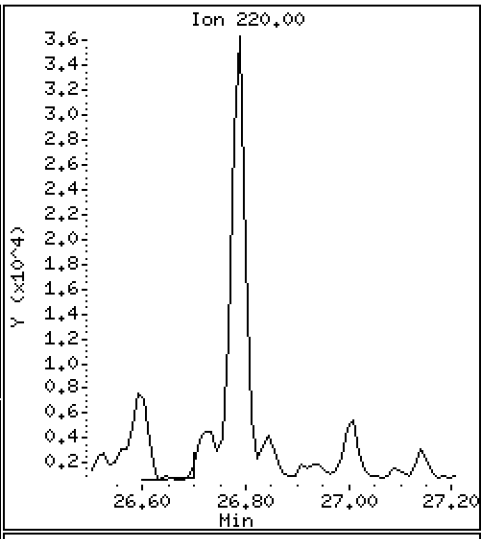
Column phase: Rxi-17Sil MS

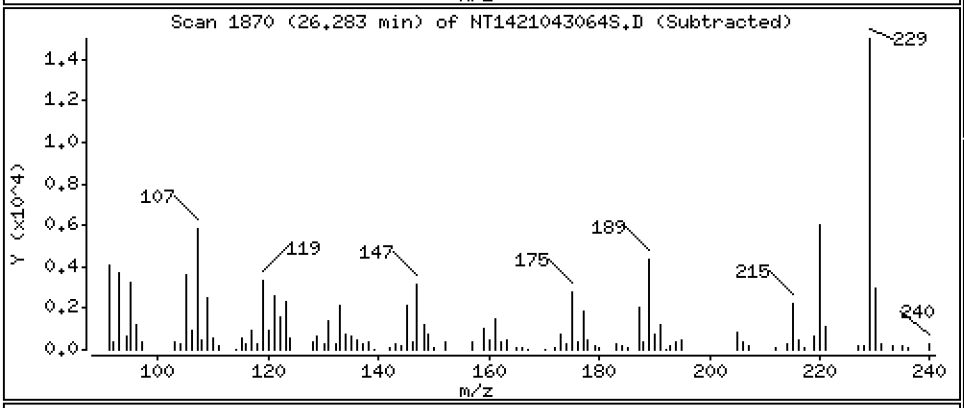
Column diameter: 0.25

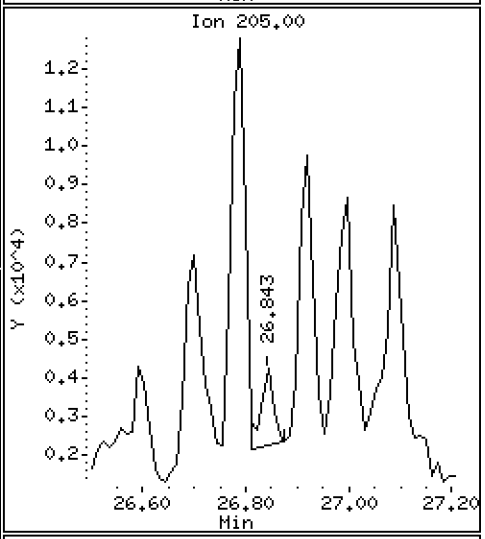
40 C3-Phenanthrenes/Anthracenes

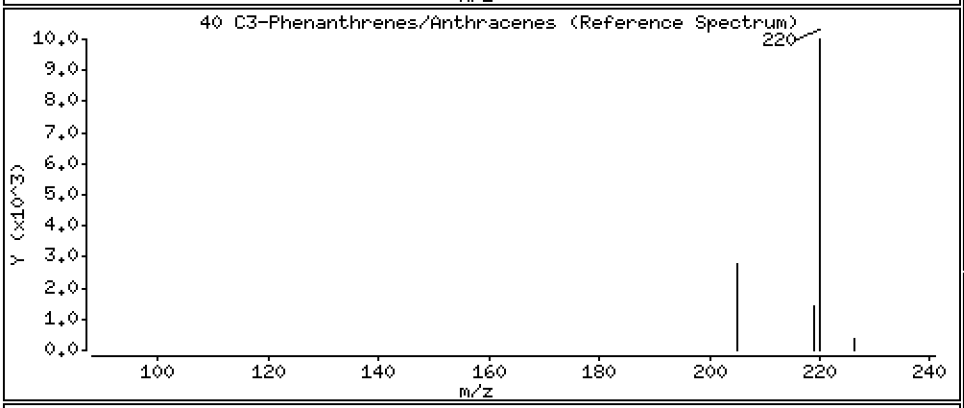
Concentration: 0.3753 ug/mL

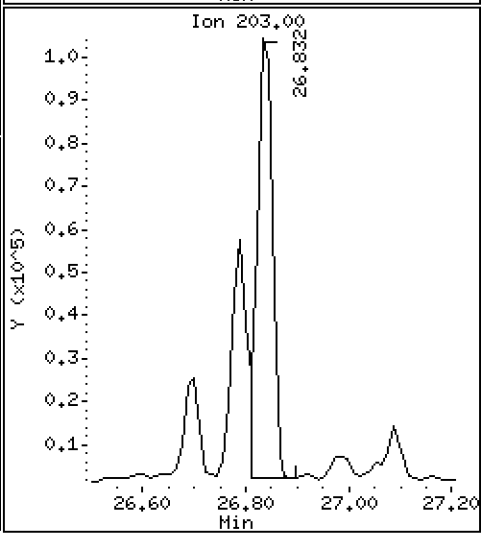


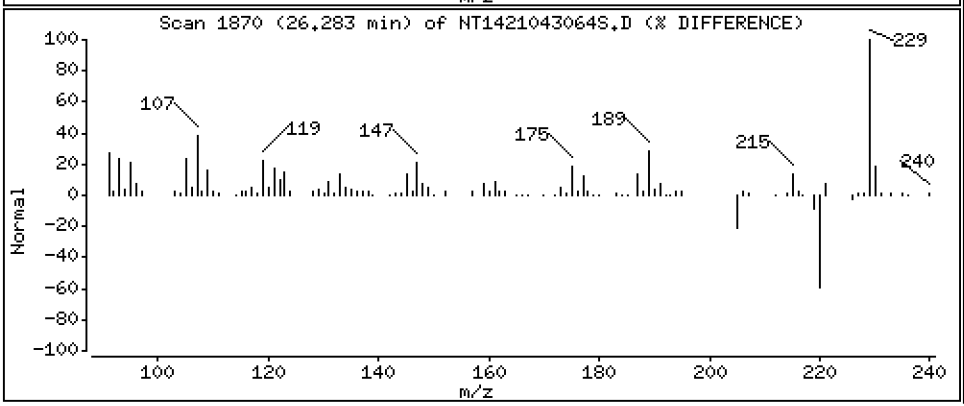



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Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

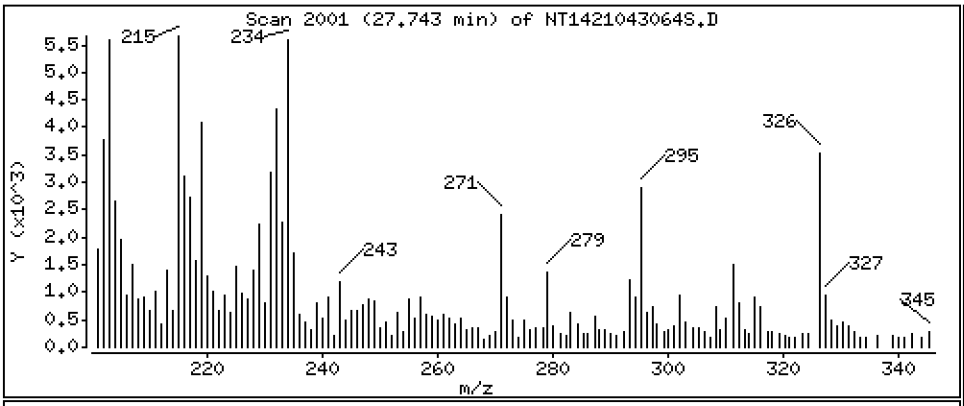
Operator: VTS

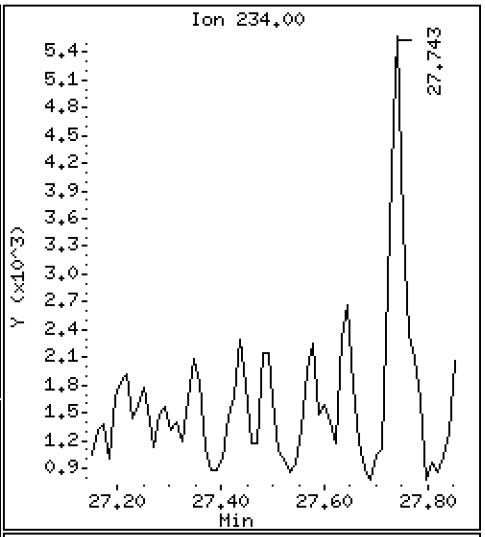
Column phase: Rxi-17Sil MS

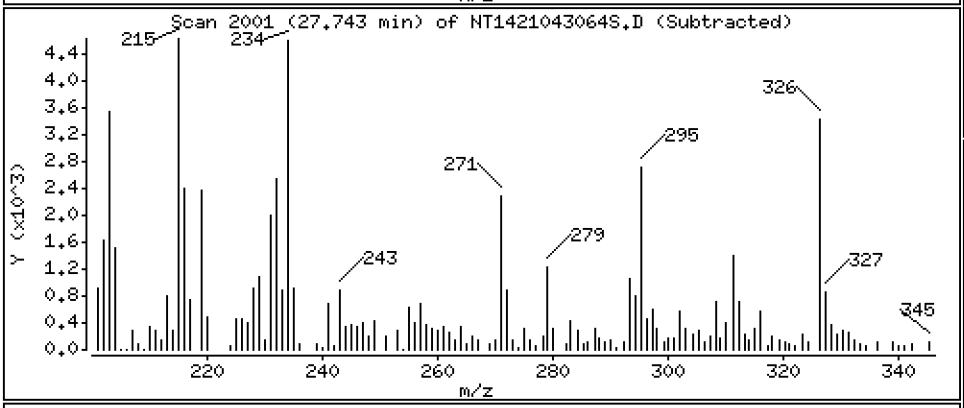
Column diameter: 0.25

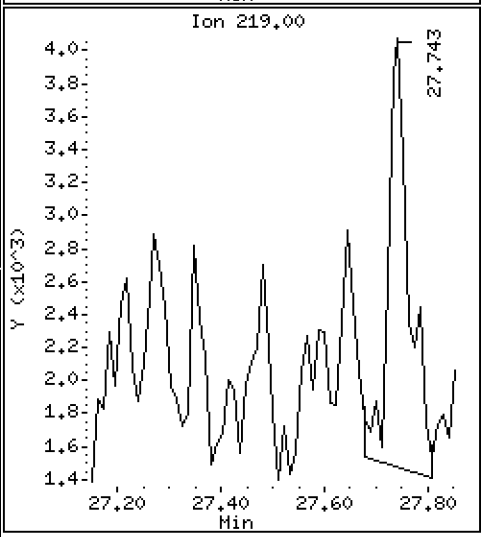
41 C4-Phenanthrenes/Anthracenes

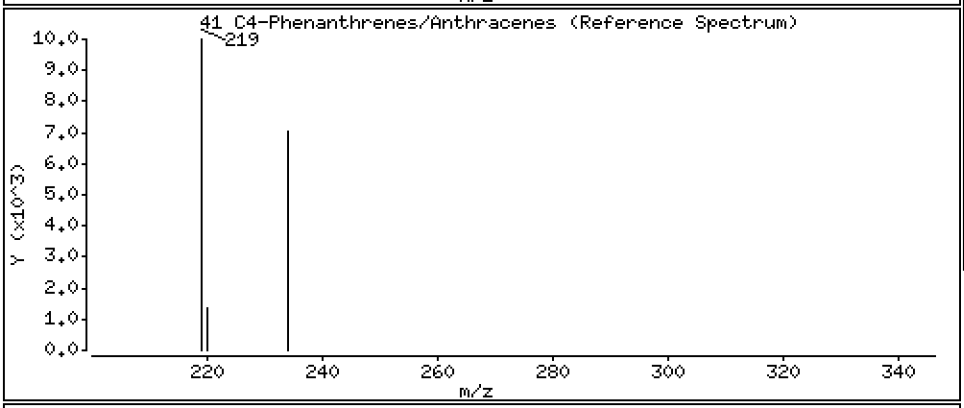
Concentration: 0.2461 ug/mL

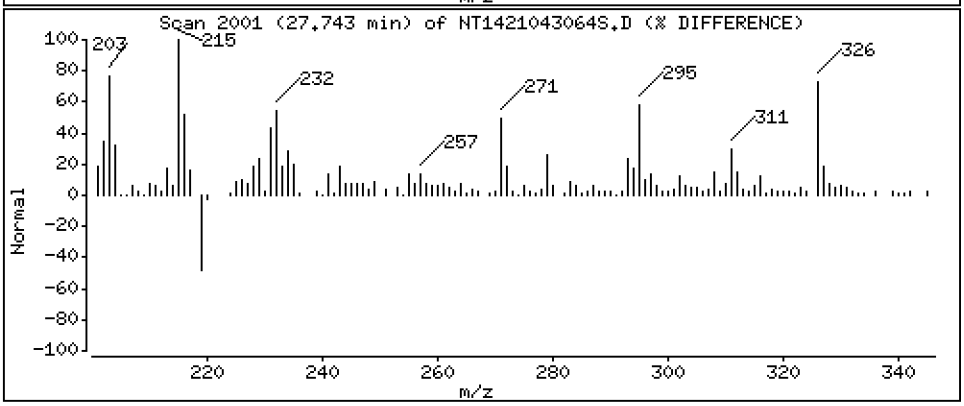


Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT1421043064S.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

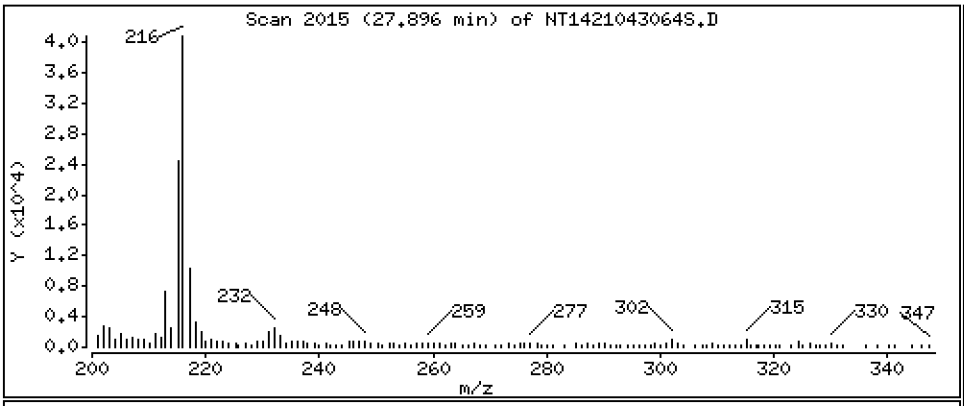
Operator: VTS

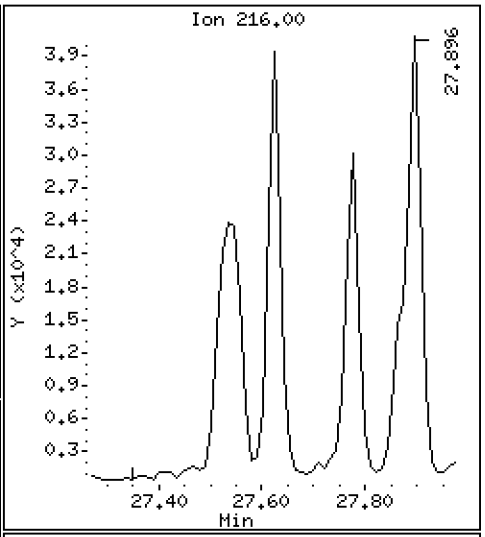
Column phase: Rxi-17Sil MS

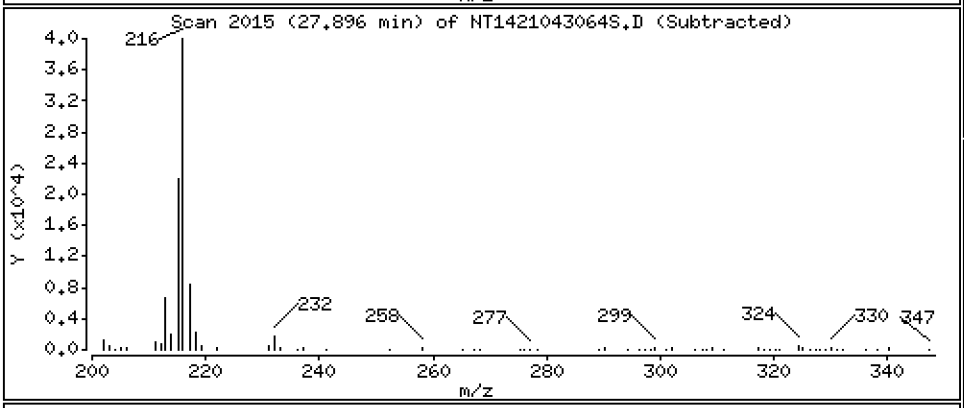
Column diameter: 0.25

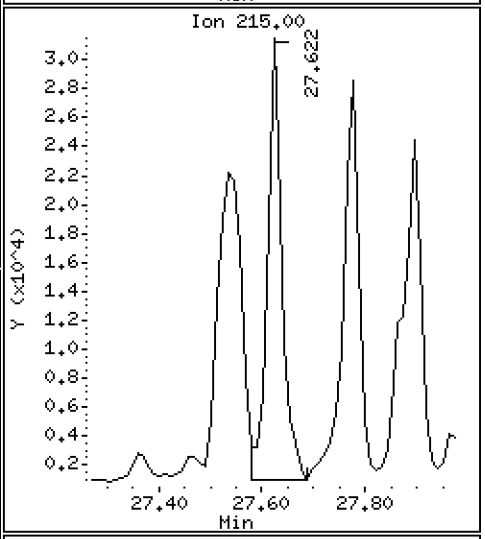
48 C1-Fluoranthenes/Pyrenes

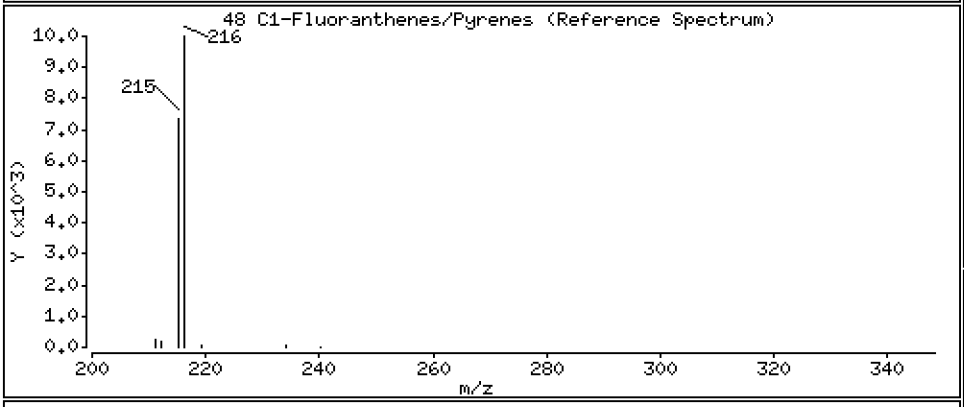
Concentration: 1.812 ug/mL

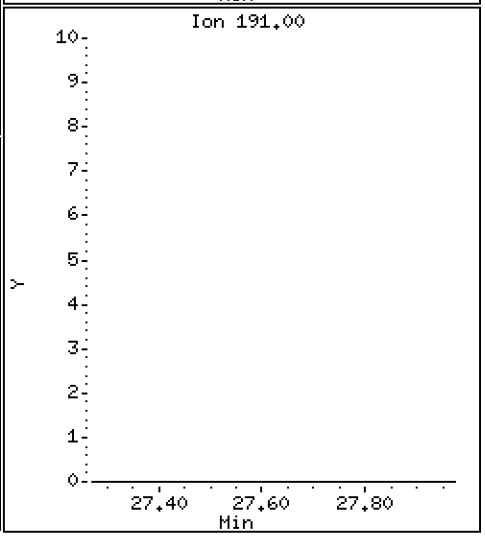


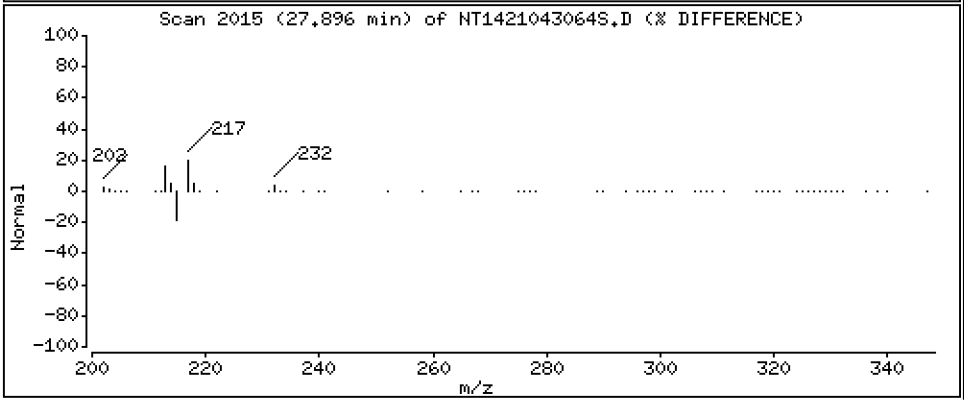



Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430 64S.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

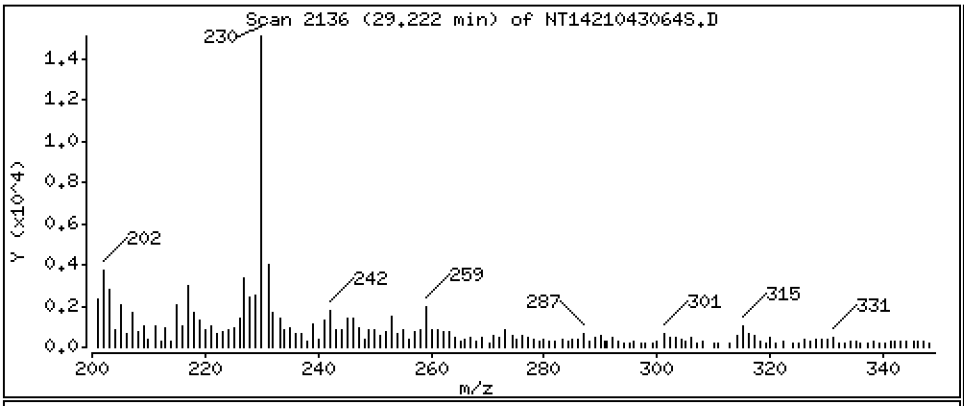
Operator: VTS

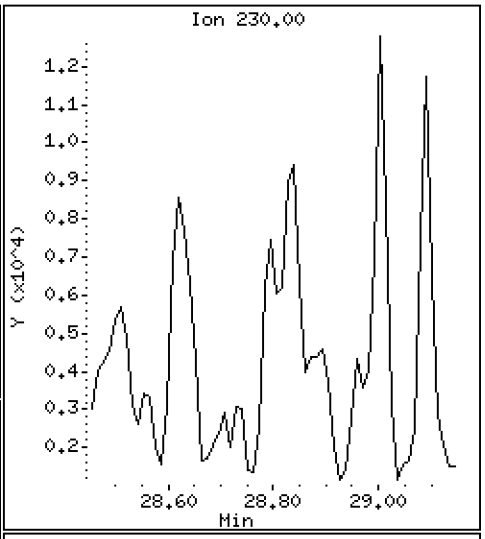
Column phase: Rxi-17Sil MS

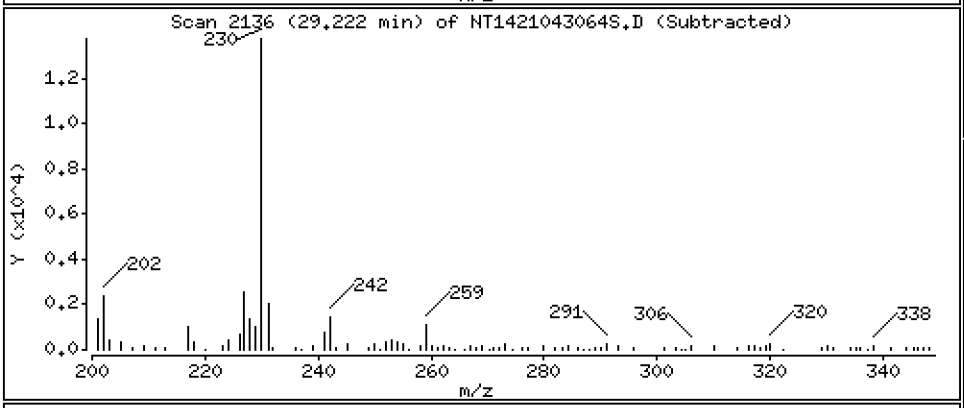
Column diameter: 0.25

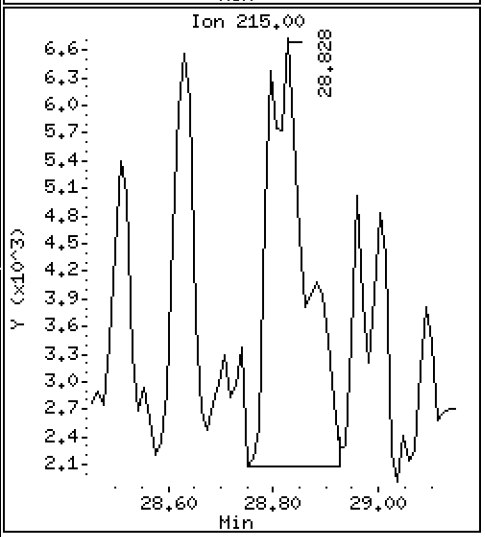
49 C2-Fluoranthenes/Pyrenes

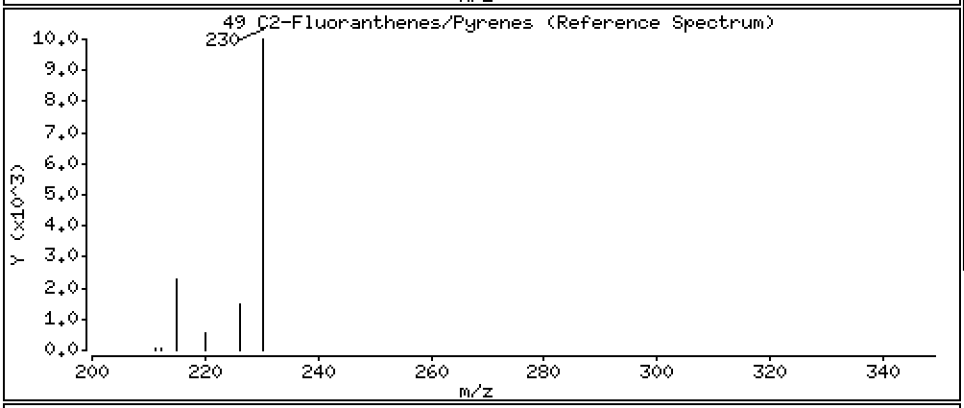
Concentration: 0.7843 ug/mL

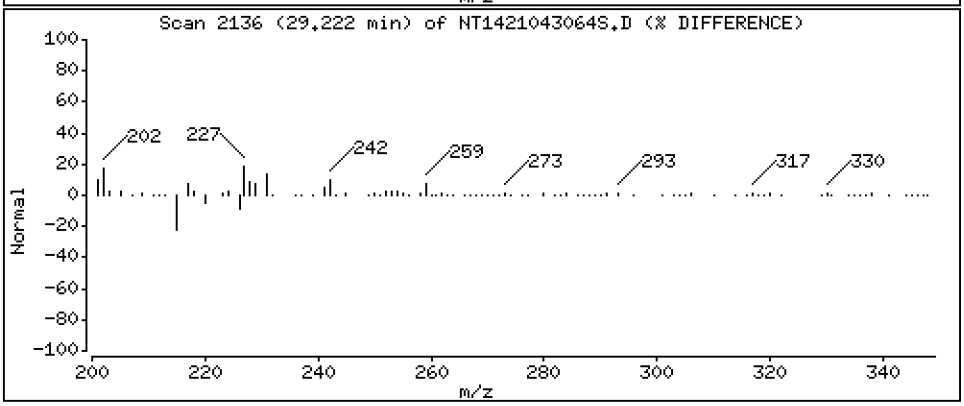


Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430645.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

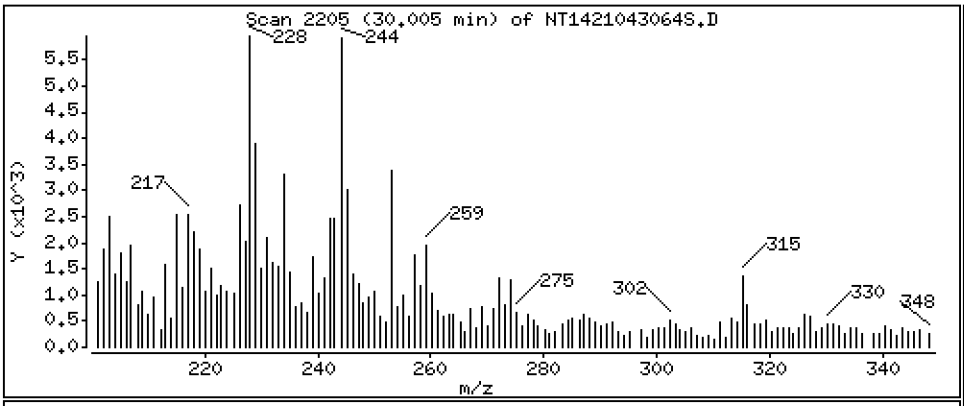
Operator: VTS

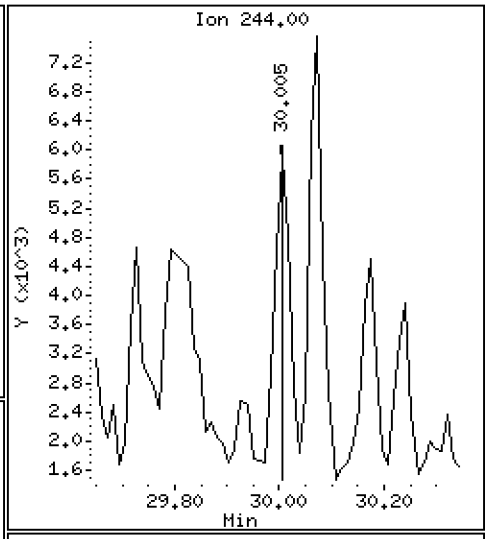
Column phase: Rxi-17Sil MS

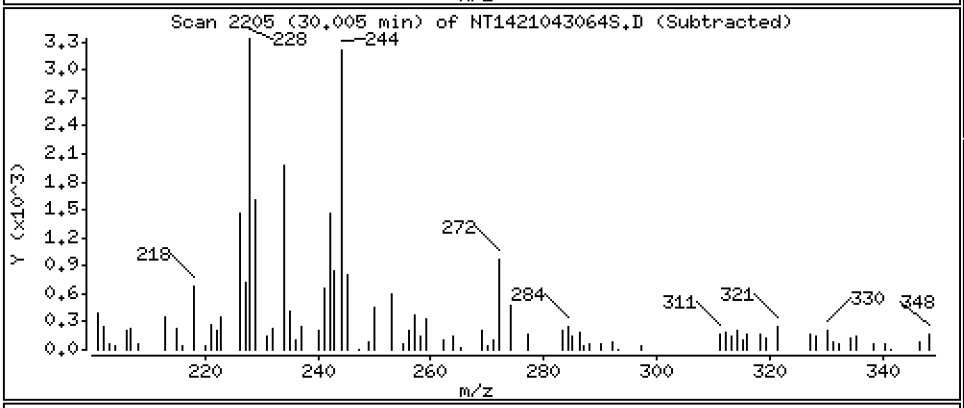
Column diameter: 0.25

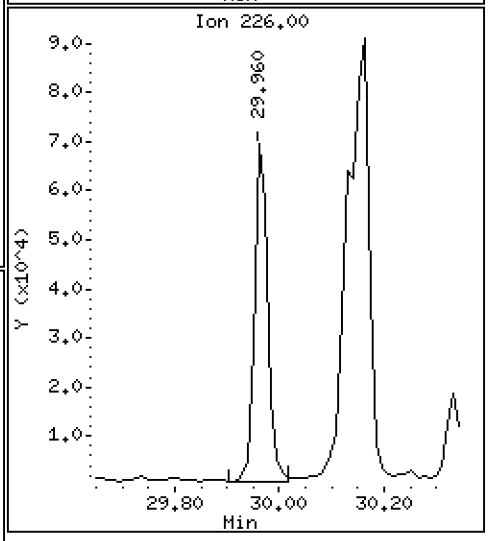
50 C3-Fluoranthenes/Pyrenes

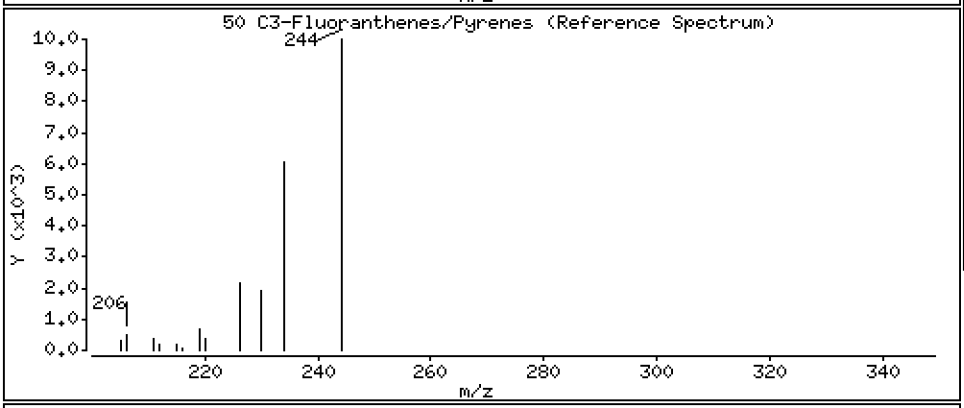
Concentration: 0.3015 ug/mL

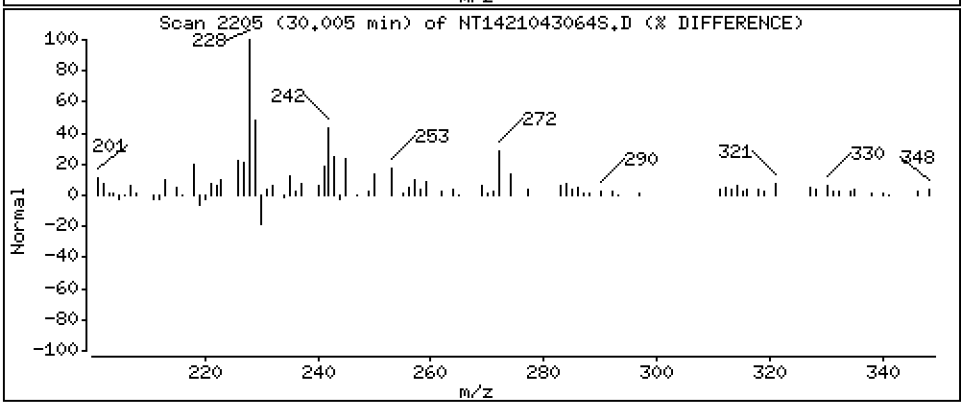


Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430 64S.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

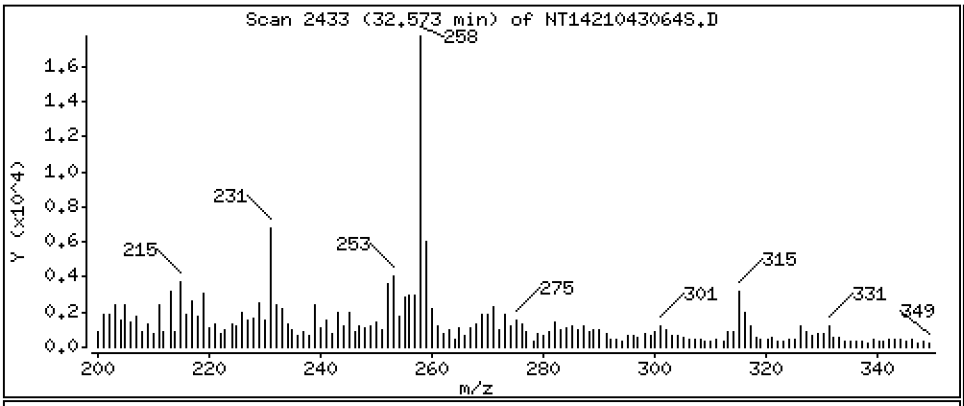
Operator: VTS

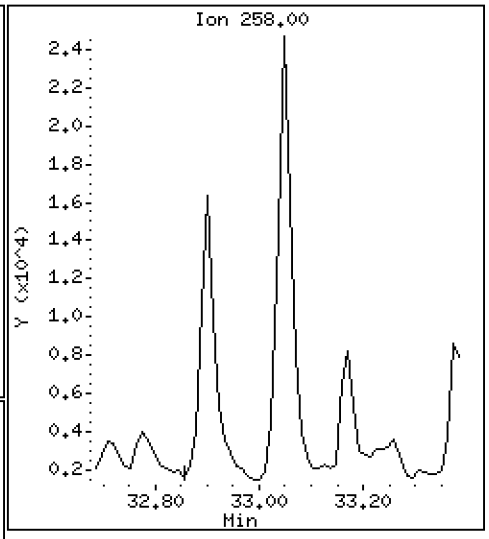
Column phase: Rxi-17Sil MS

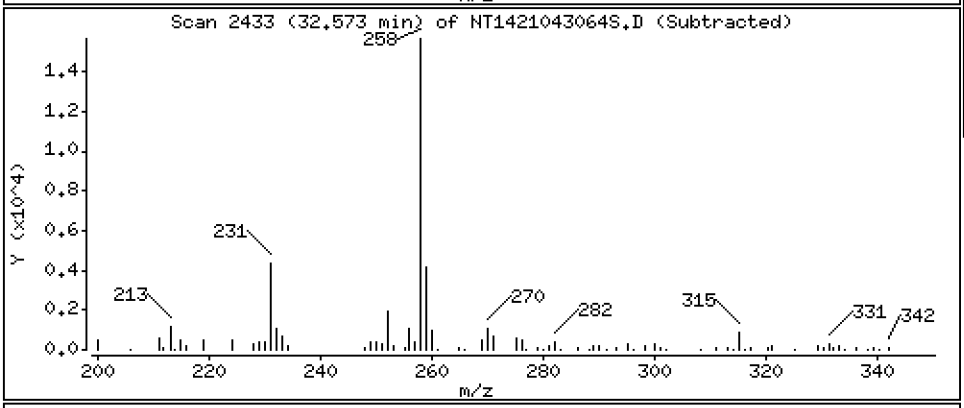
Column diameter: 0.25

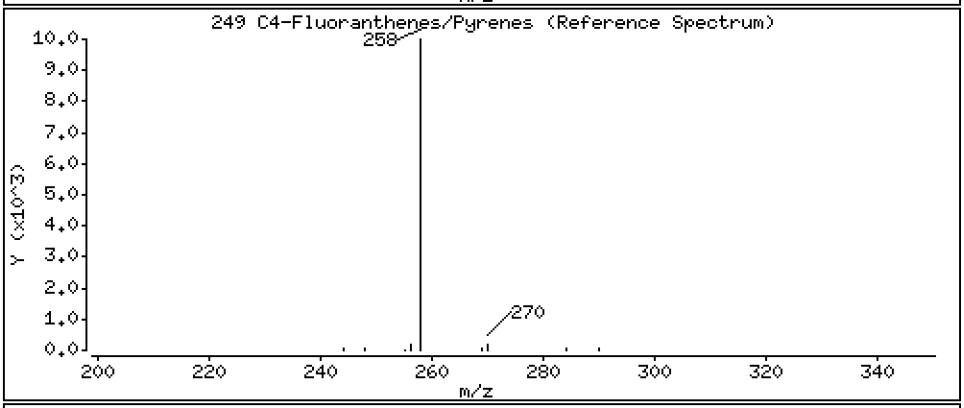
249 C4-Fluoranthenes/Pyrenes

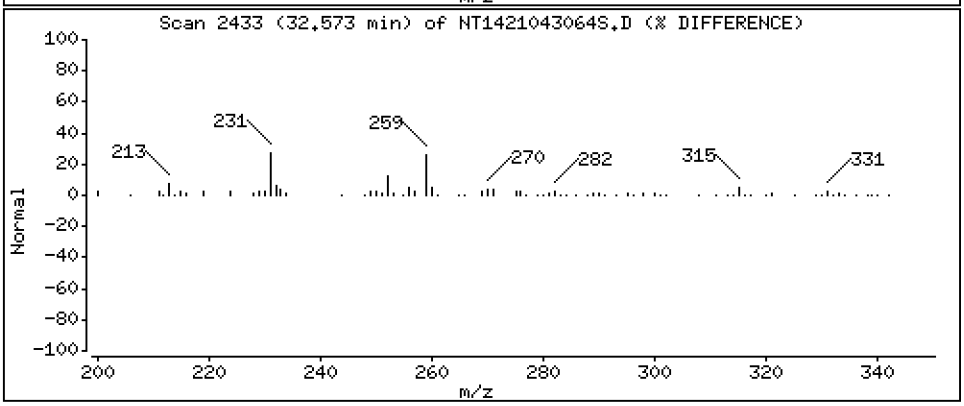
Concentration: 0.4083 ug/mL



Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430 64S.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

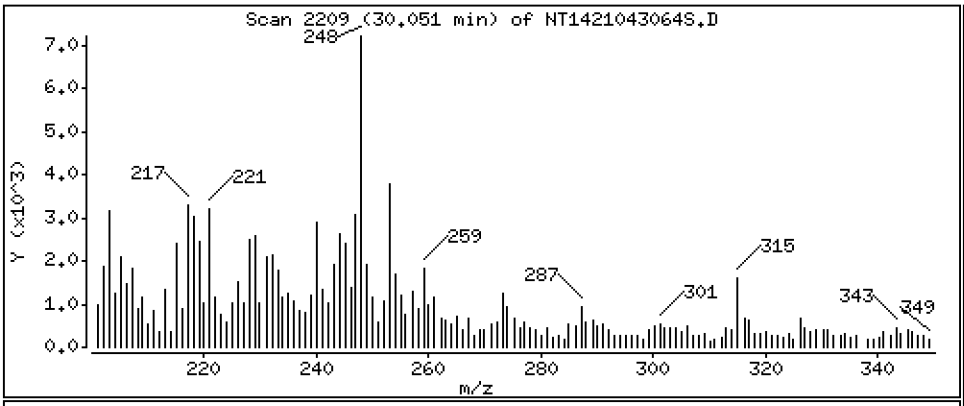
Operator: VTS

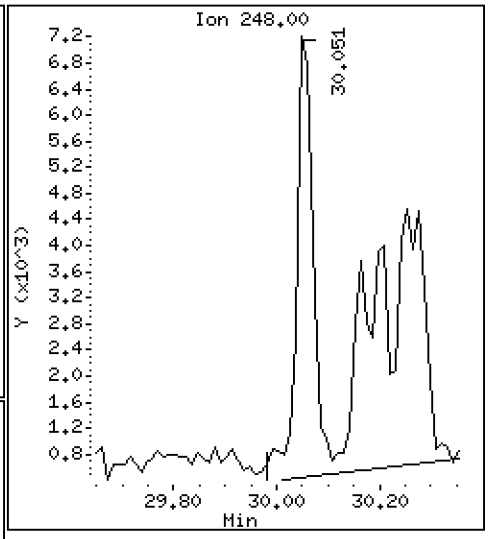
Column phase: Rxi-17Sil MS

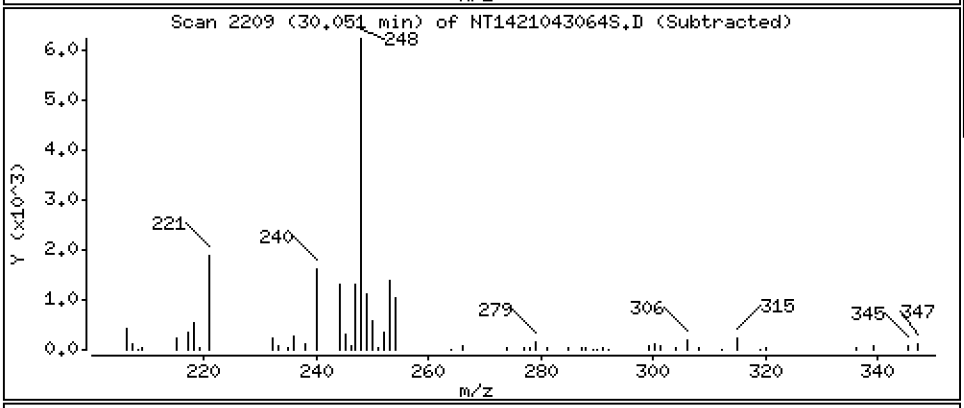
Column diameter: 0.25

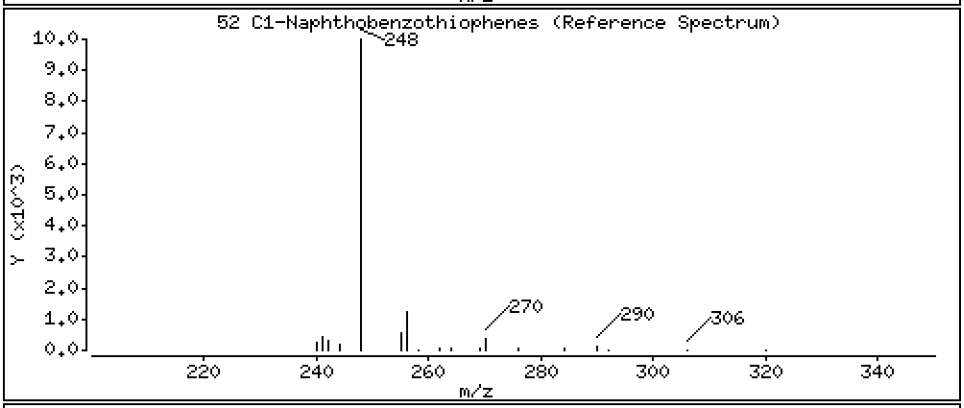
52 C1-Naphthobenzothiophenes

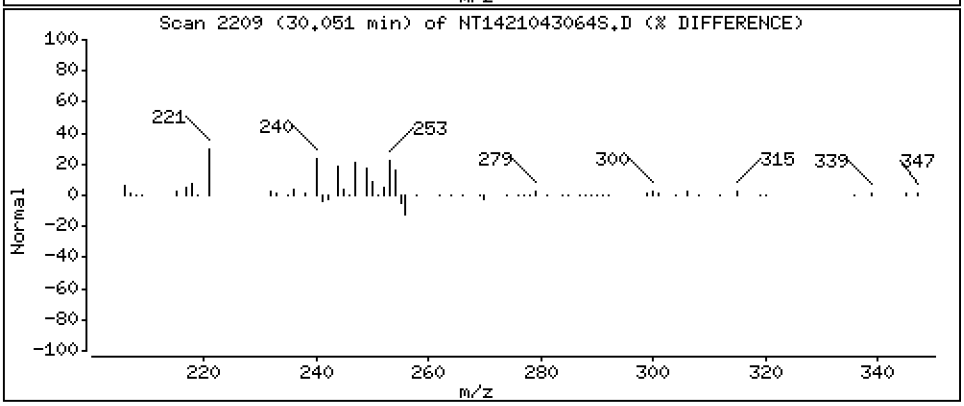
Concentration: 0.3507 ug/mL



Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430 64S.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

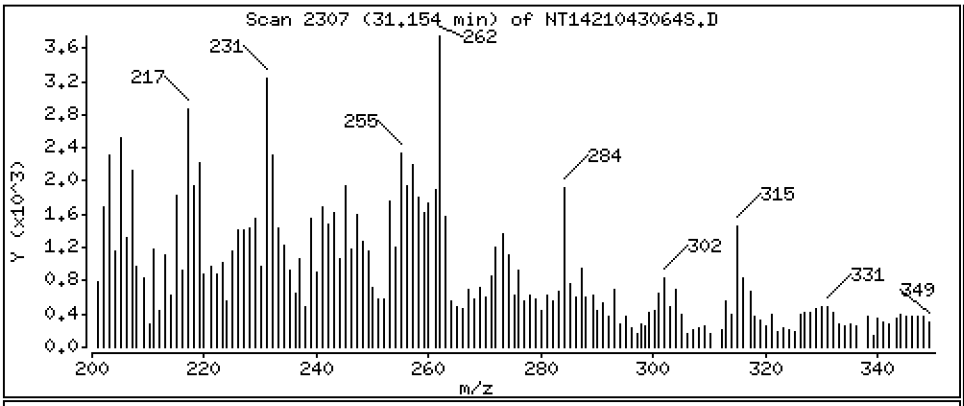
Operator: VTS

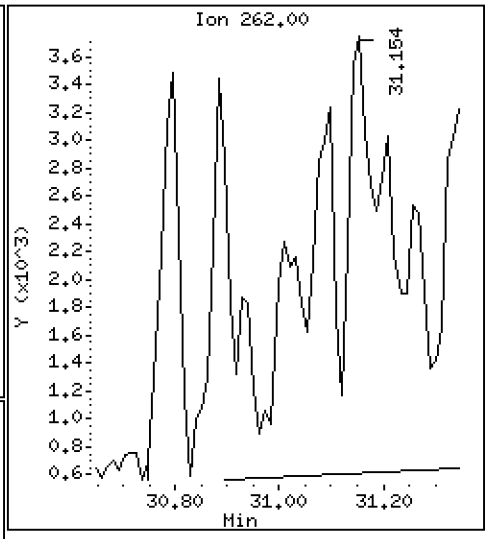
Column phase: Rxi-17Sil MS

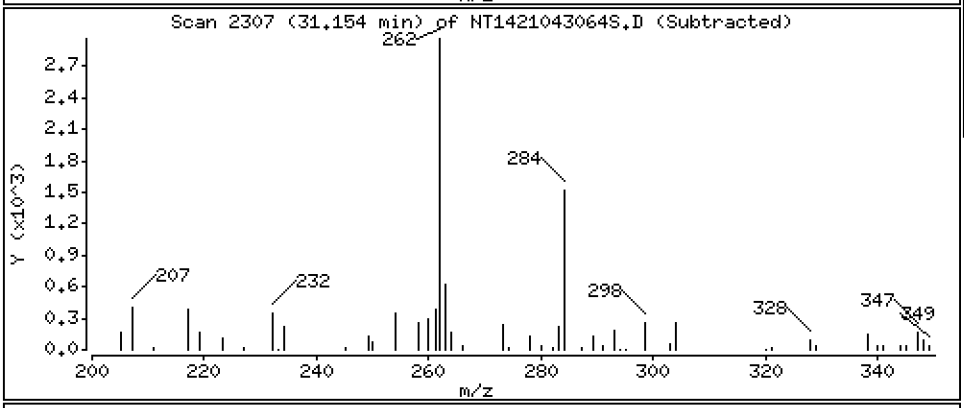
Column diameter: 0.25

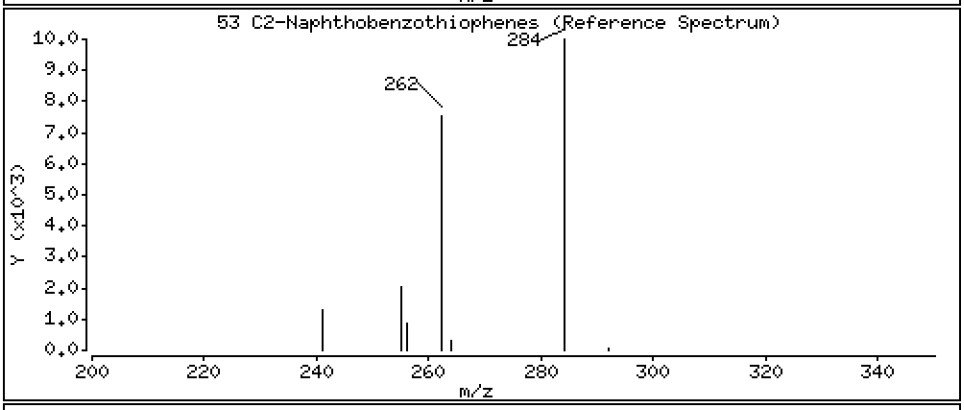
53 C2-Naphthobenzothiophenes

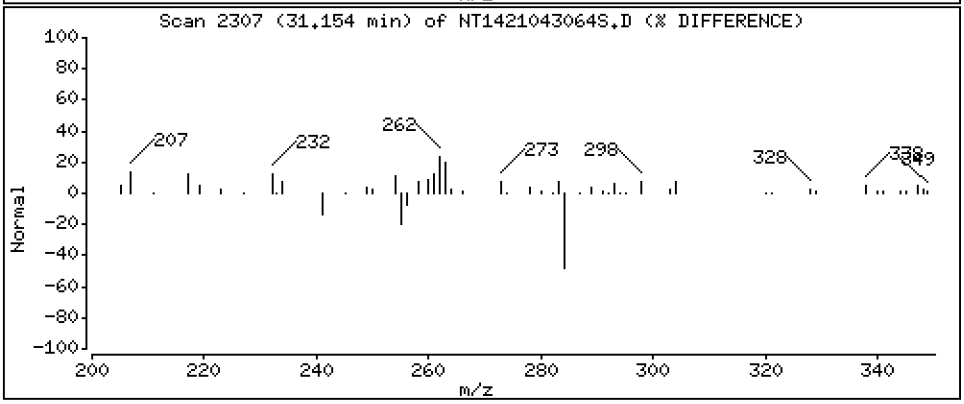
Concentration: 0.3096 ug/mL



Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430645.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

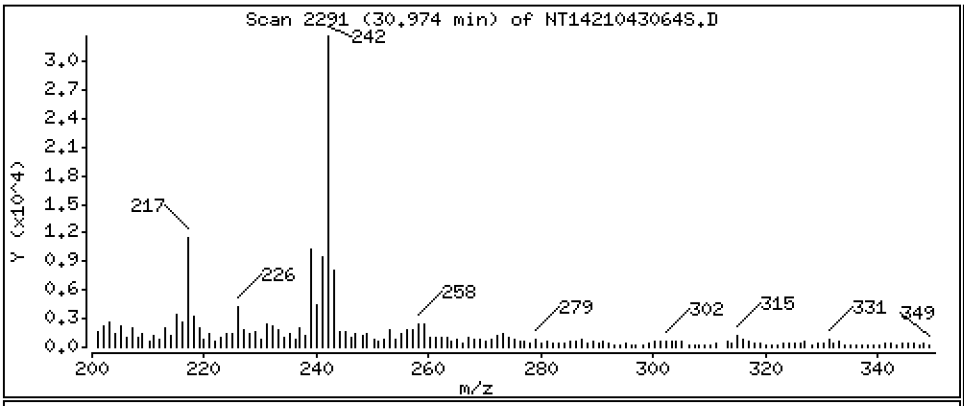
Operator: VTS

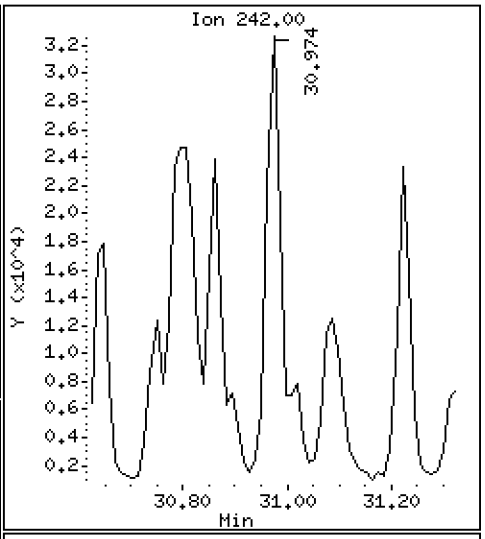
Column phase: Rxi-17Sil MS

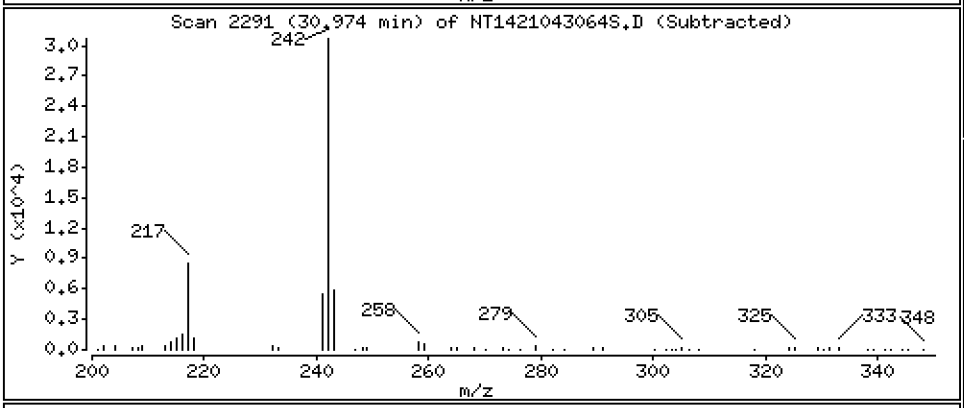
Column diameter: 0.25

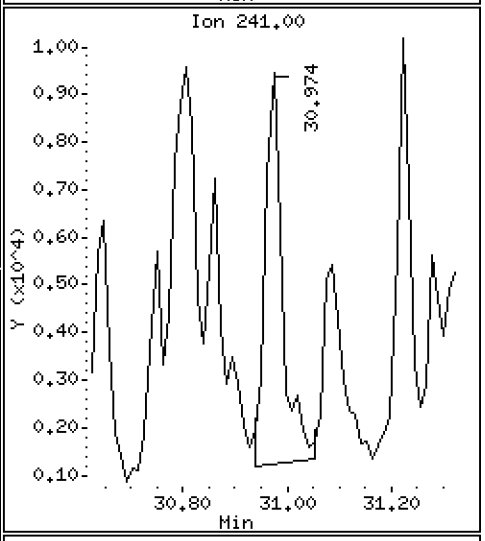
58 C1-Benzo(a)anthracenes/Chrysene

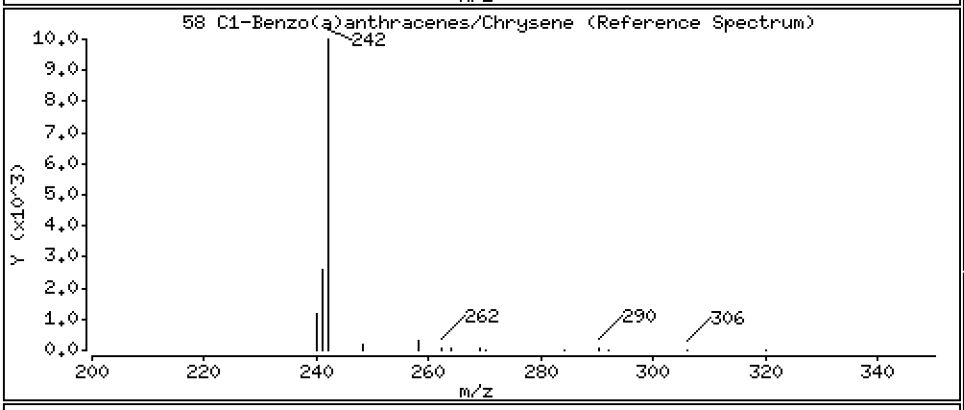
Concentration: 1.518 ug/mL

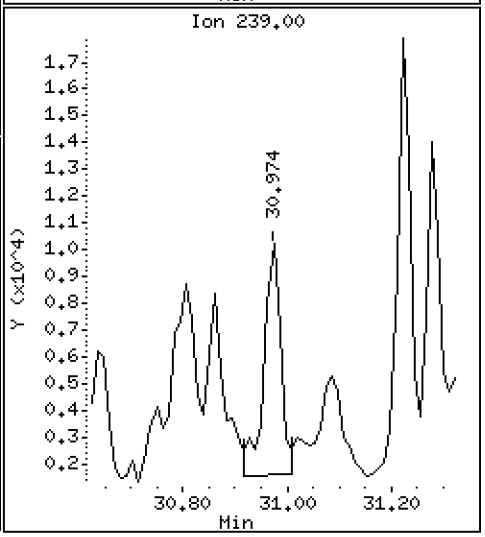


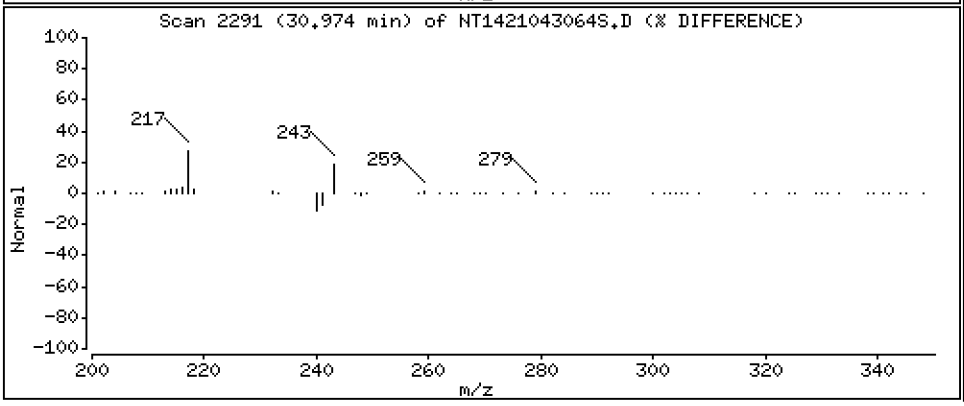



Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430 64S.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

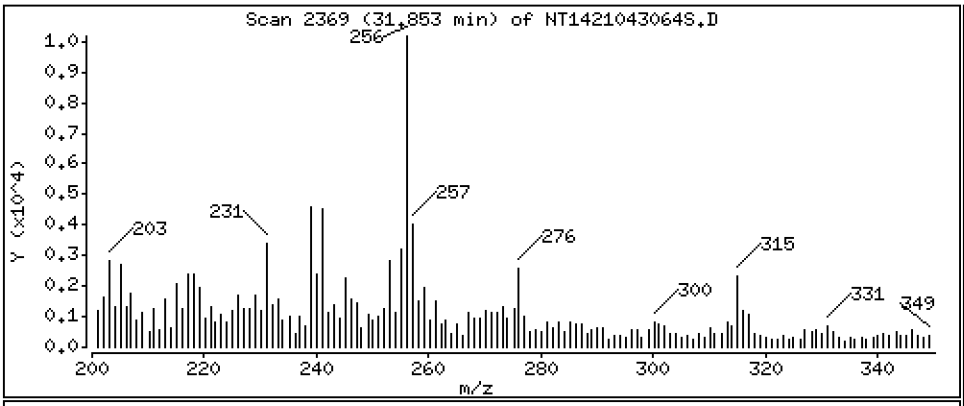
Operator: VTS

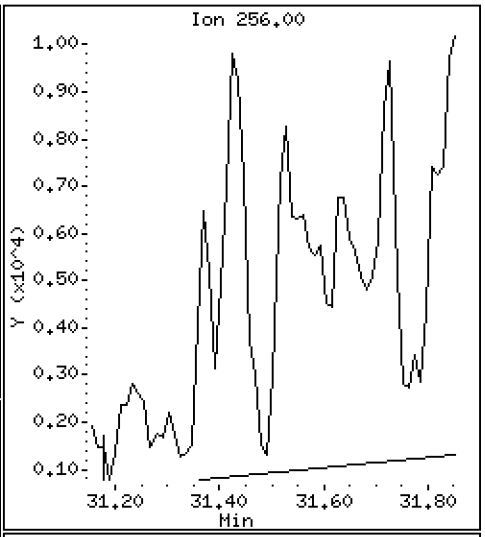
Column phase: Rxi-17Sil MS

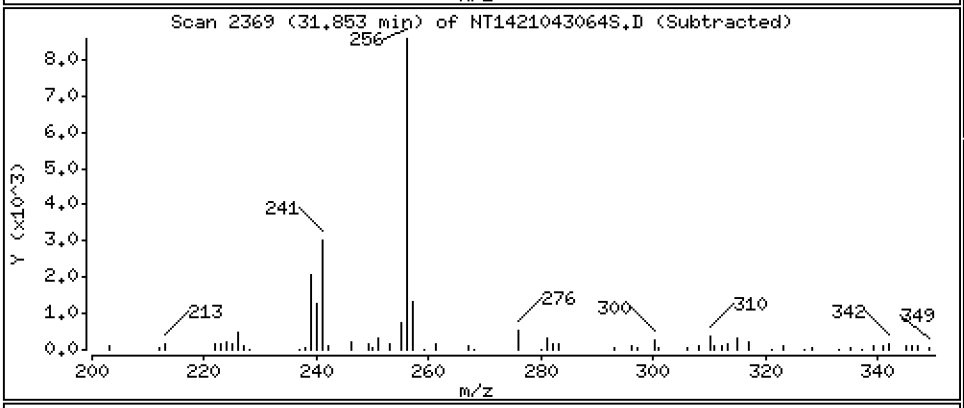
Column diameter: 0.25

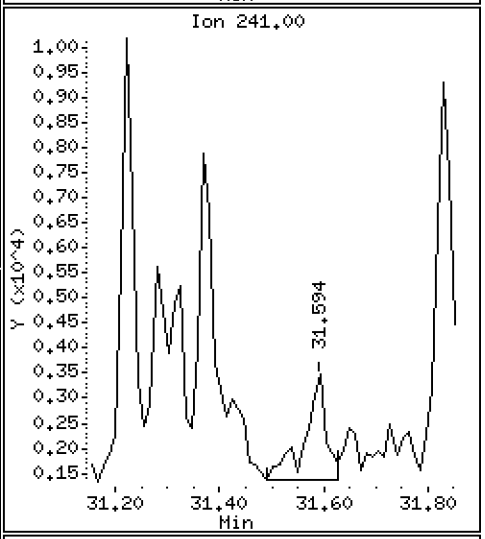
59 C2-Benzo(a)anthracenes/Chrysene

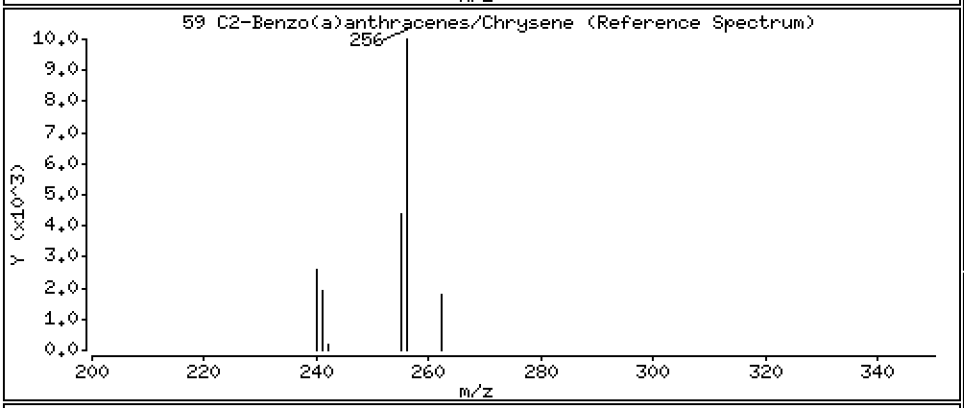
Concentration: 0.6696 ug/mL

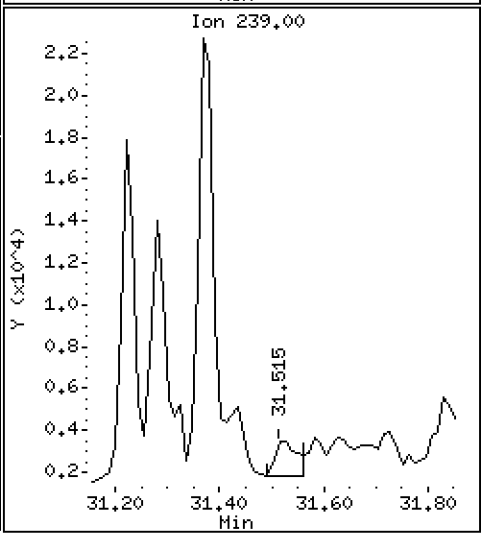


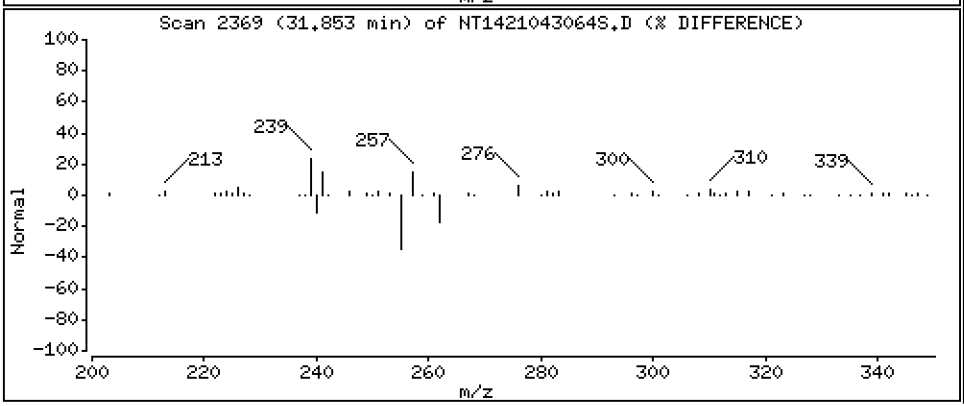



Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430 64S.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

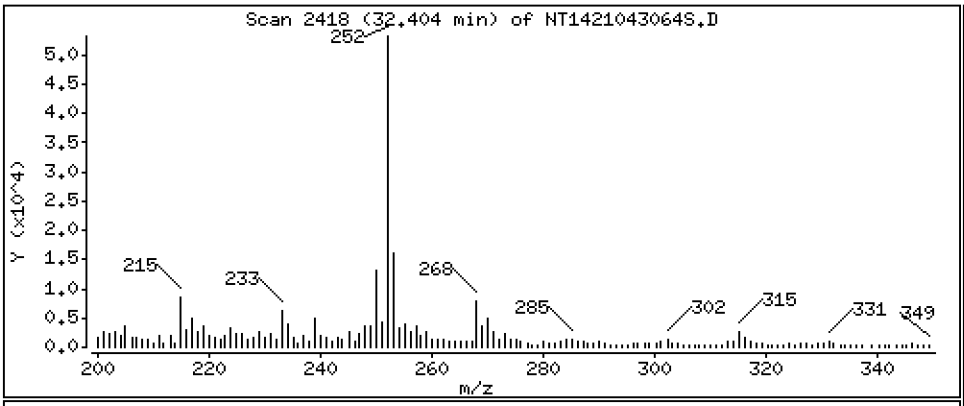
Operator: VTS

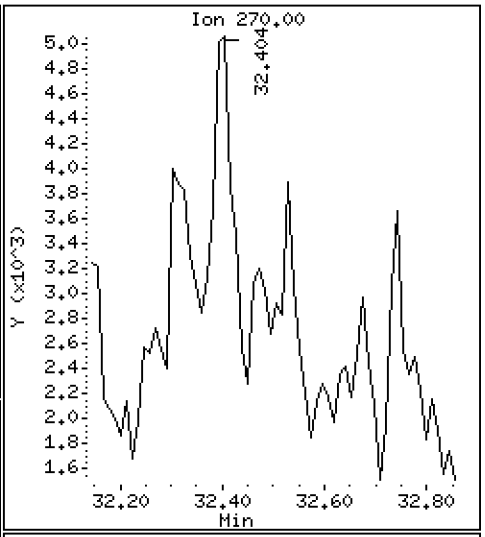
Column phase: Rxi-17Sil MS

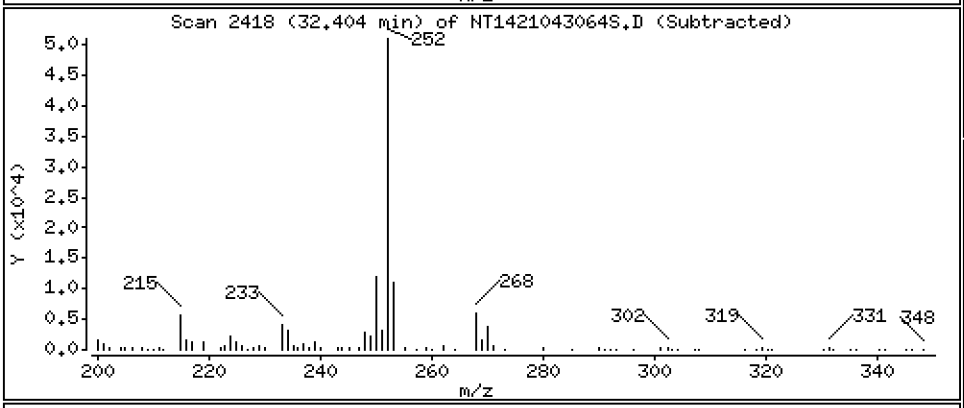
Column diameter: 0.25

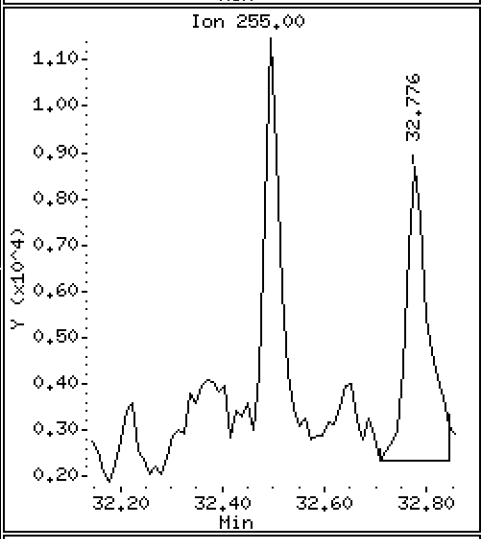
60 C3-Benzo(a)anthracenes/Chrysene

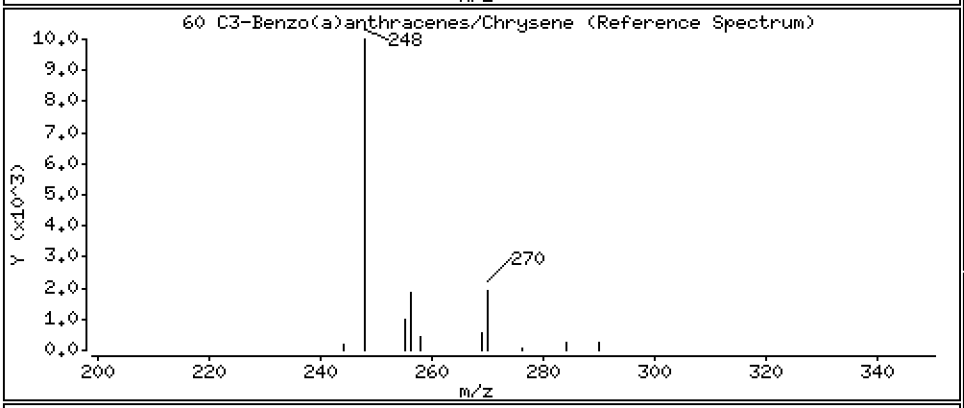
Concentration: 0.3069 ug/mL

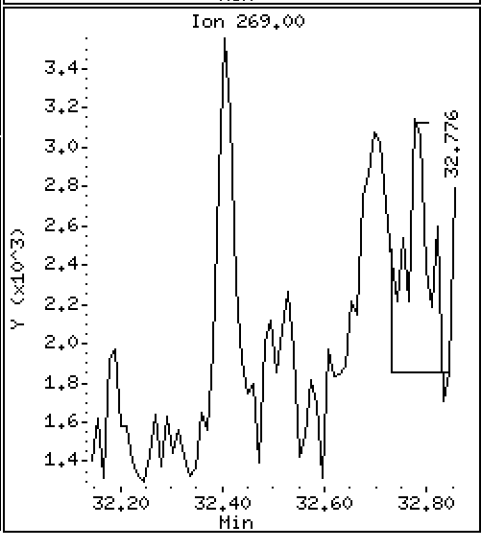


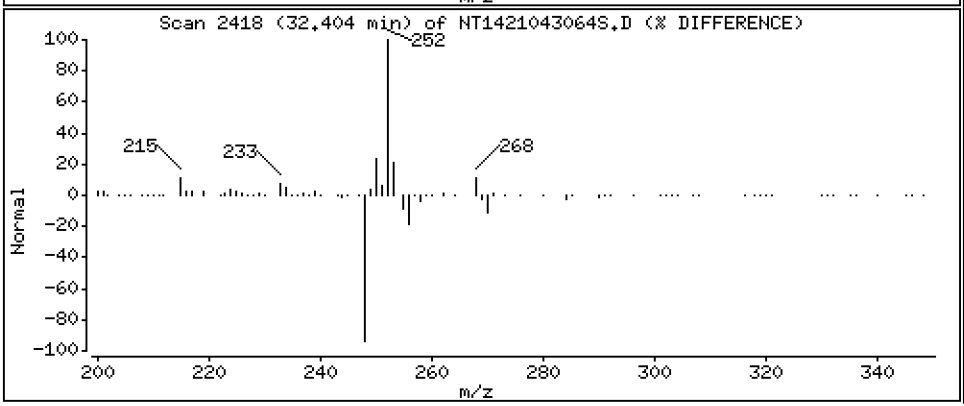



Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430 64S.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

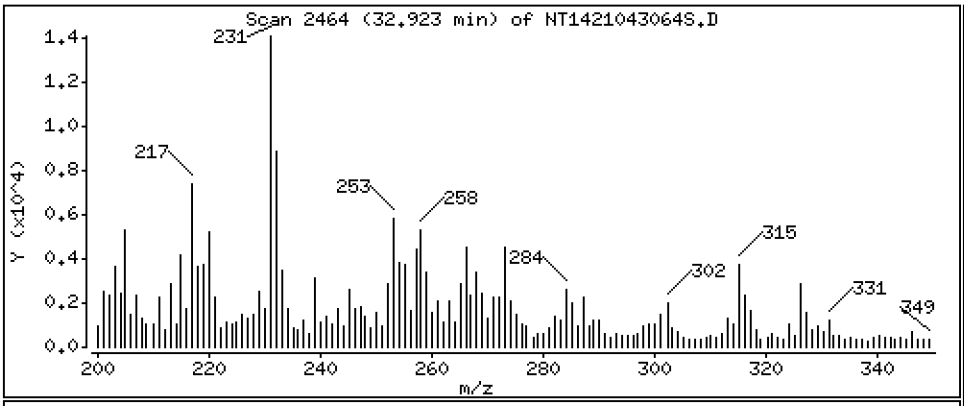
Operator: VTS

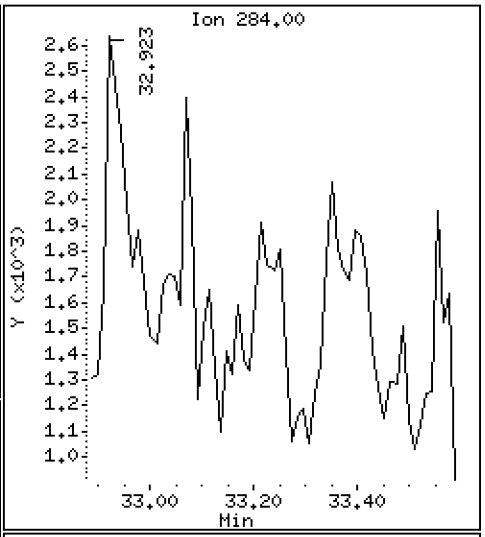
Column phase: Rxi-17Sil MS

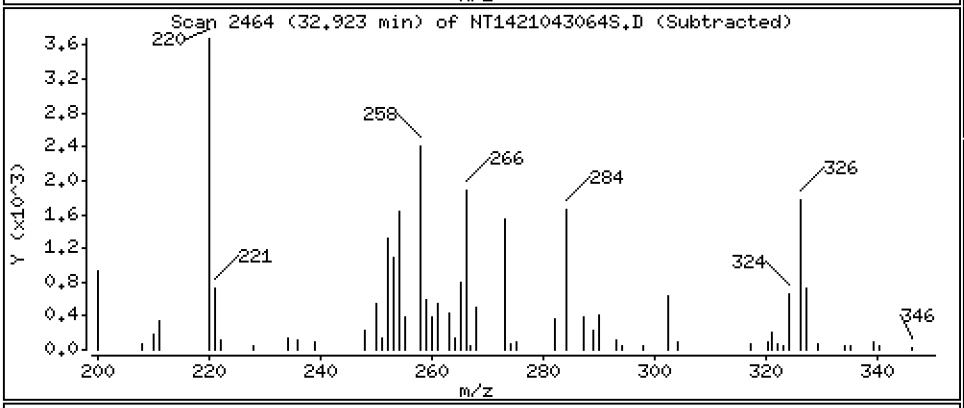
Column diameter: 0.25

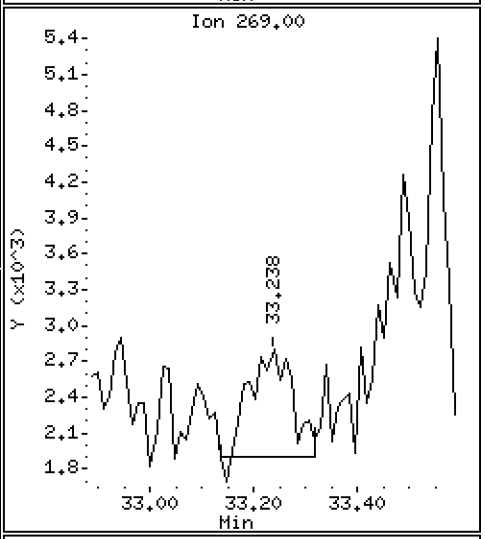
61 C4-Benzo(a)anthracenes/Chrysene

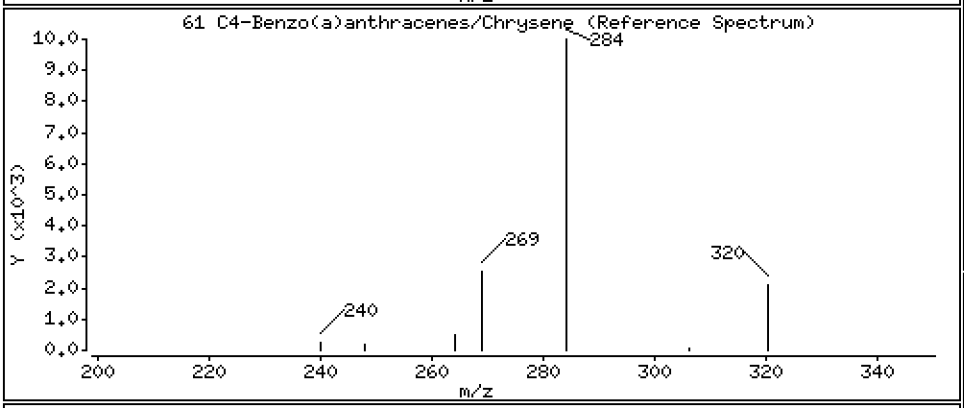
Concentration: 0.2432 ug/mL

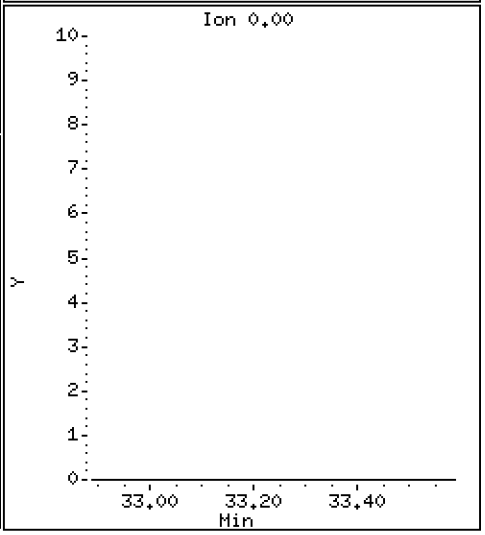


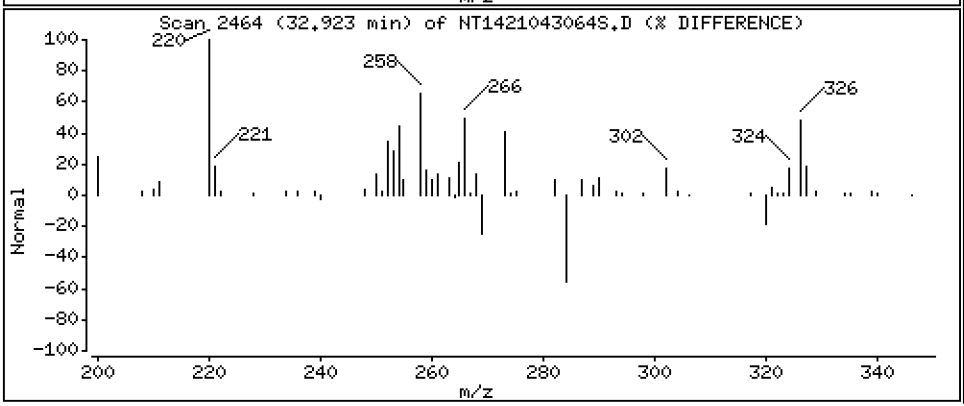



Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430 64S.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

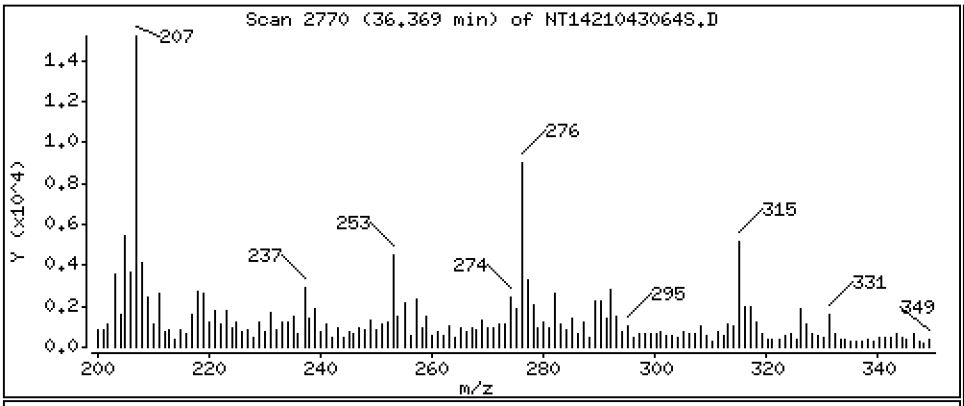
Operator: VTS

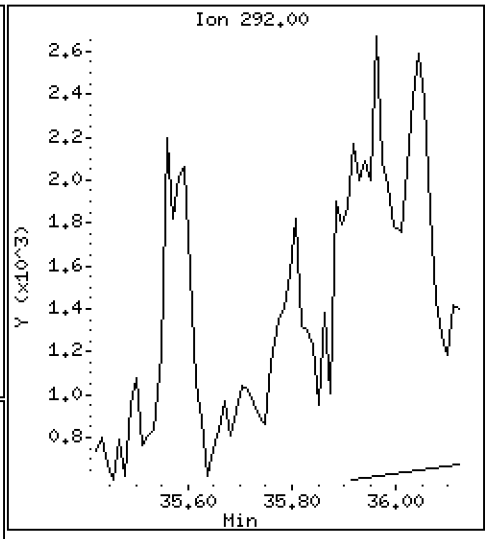
Column phase: Rxi-17Sil MS

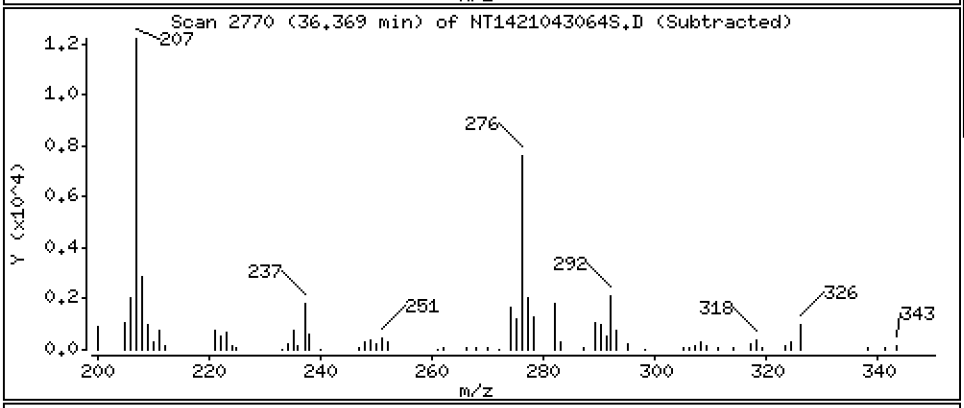
Column diameter: 0.25

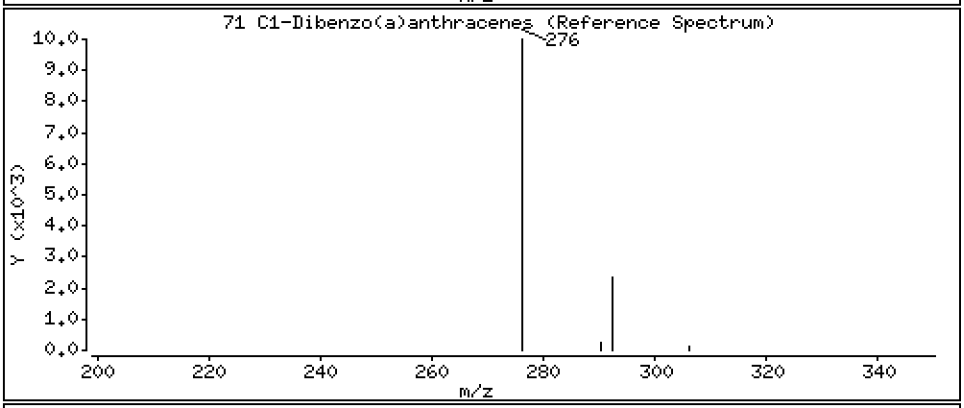
71 C1-Dibenzo(a)anthracenes

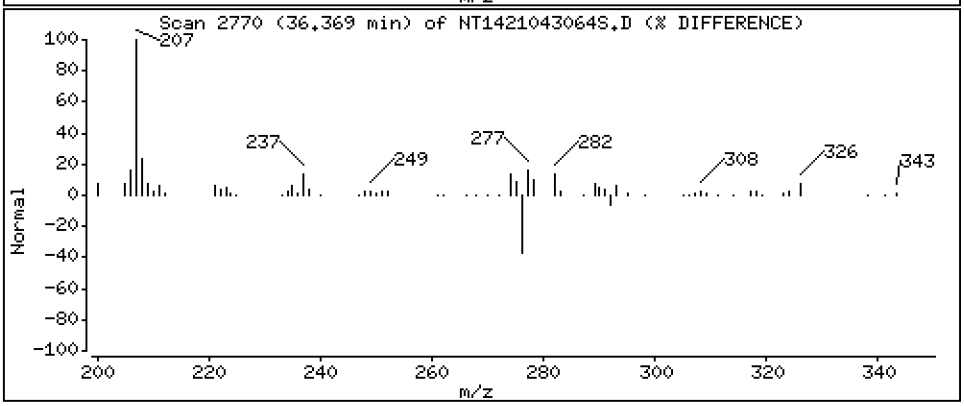
Concentration: 0.2497 ug/mL



Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430 64S.D

Date : 02-MAY-2021 10:01

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-02

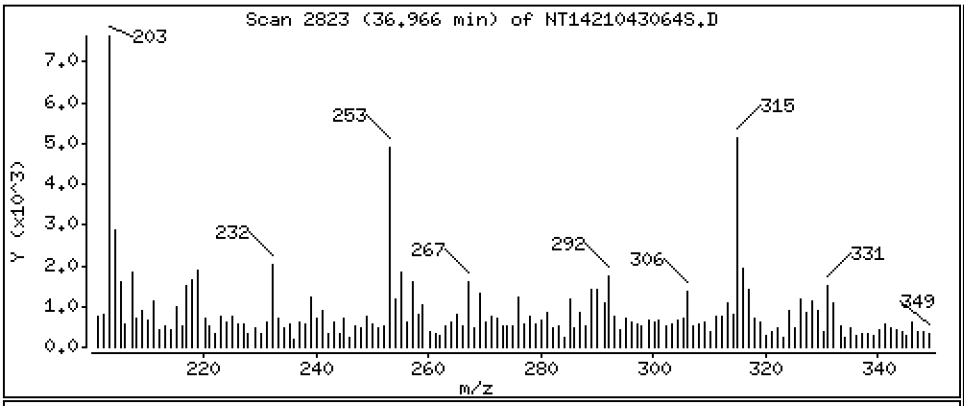
Operator: VTS

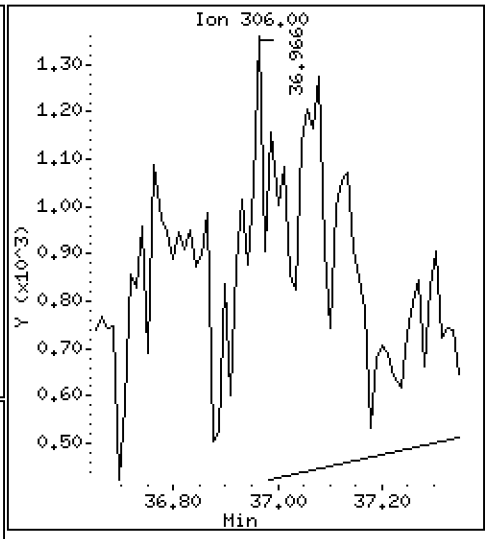
Column phase: Rxi-17Sil MS

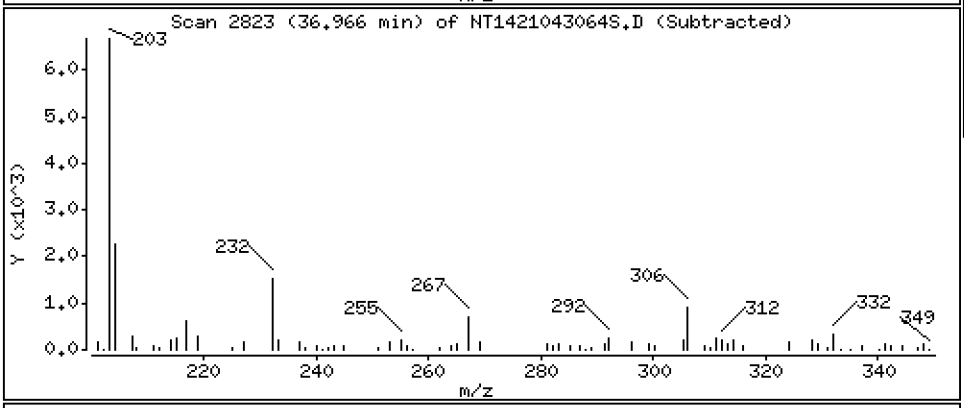
Column diameter: 0.25

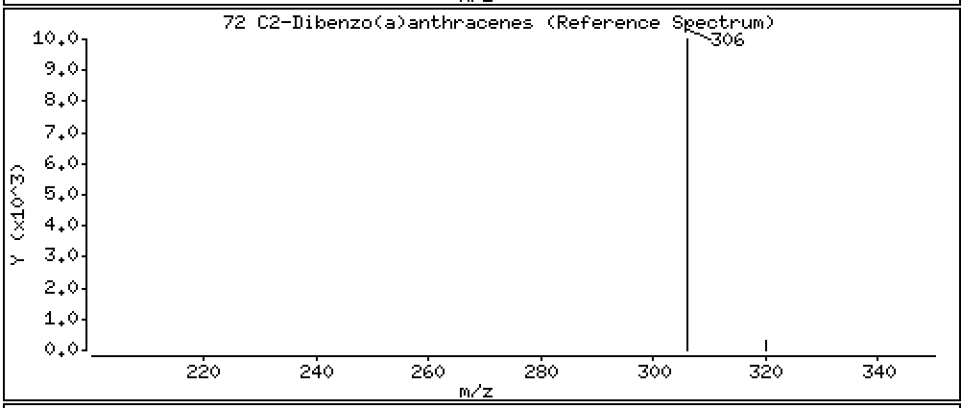
72 C2-Dibenzo(a)anthracenes

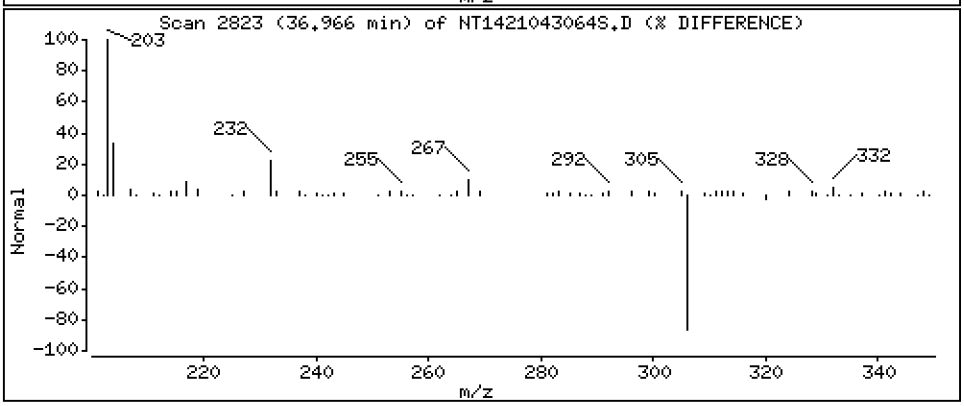
Concentration: 0.1079 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT1421043064S.D
Lab Smp Id: 21D0180-02
Inj Date : 02-MAY-2021 10:01
Operator : VTS Inst ID: nt14.i
Smp Info : 21D0180-02
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\SIM.b\ALKYLRANGES.m
Meth Date : 07-May-2021 11:15 yev Quant Type: ISTD
Cal Date : 01-MAY-2021 01:56 Cal File: NT1421043024S.D
Als bottle: 45
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ALKYLRANGES.sub
Target Version: 4.14
Processing Host: ORGDATA102

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| 3 | C1-Decalin | 152 | Compound Not Detected. | | | | | |
| 4 | C2-Decalin | 166 | Compound Not Detected. | | | | | |
| 5 | C3-Decalin | 180 | Compound Not Detected. | | | | | |
| 247 | C4-Decalin | 194 | Compound Not Detected. | | | | | |
| 8 | C1-Naphthalenes | 142 | 13.669 | 14.121 | (0.728) | 66553 | 0.21242 | 0.2124(M) |
| 9 | C2-Naphthalenes | 156 | 15.790 | 16.111 | (0.841) | 85440 | 0.27270 | 0.2727(M) |
| 10 | C3-Naphthalenes | 170 | 17.647 | 17.957 | (0.940) | 74428 | 0.23755 | 0.2376(M) |
| 11 | C4-Naphthalenes | 184 | Compound Not Detected. | | | | | |
| 13 | C1-Benzothiophenes | 148 | 13.142 | 14.110 | (0.700) | 14826 | 0.05948 | 0.05948(M) |
| 14 | C2-Benzothiophenes | 162 | 15.691 | 15.660 | (0.836) | 21787 | 0.08740 | 0.08740(M) |
| 15 | C3_Benzothiophenes | 176 | Compound Not Detected. | | | | | |
| 27 | C1-Fluorenes | 180 | 20.416 | 20.735 | (1.088) | 44089 | 0.24041 | 0.2404(M) |
| * 25 | Fluorene-d10 | 176 | 18.772 | 18.774 | (1.000) | 533752 | 2.00000 | |
| 28 | C2-Fluorenes | 194 | 21.917 | 22.000 | (1.168) | 48882 | 0.26655 | 0.2665(M) |
| 29 | C3-Fluorenes | 208 | 23.280 | 23.172 | (1.240) | 45040 | 0.24560 | 0.2456(M) |
| 31 | C1-Dibenzothiophenes | 198 | 22.918 | 23.500 | (1.221) | 43972 | 0.18994 | 0.1899(M) |
| 32 | C2-Dibenzothiophenes | 212 | 24.336 | 24.535 | (1.296) | 62111 | 0.26830 | 0.2683(M) |
| 33 | C3-Dibenzothiophenes | 226 | 25.226 | 25.600 | (1.344) | 59889 | 0.25870 | 0.2587(M) |
| 34 | C4-Dibenzothiophenes | 240 | Compound Not Detected. | | | | | |
| 38 | C1-Phenanthrenes/Anthracenes | 192 | 23.577 | 23.500 | (1.061) | 245983 | 0.89407 | 0.8941(M) |
| * 250 | Anthracene-d10 | 188 | 22.214 | 22.216 | (1.000) | 494716 | 2.00000 | |
| 39 | C2-Phenanthrenes/Anthracenes | 206 | 25.347 | 25.107 | (1.141) | 263315 | 0.95707 | 0.9571(M) |
| 40 | C3-Phenanthrenes/Anthracenes | 220 | 26.282 | 26.856 | (1.183) | 103260 | 0.37532 | 0.3753(M) |
| 41 | C4-Phenanthrenes/Anthracenes | 234 | 27.742 | 27.500 | (1.249) | 67703 | 0.24608 | 0.2461(M) |
| 48 | C1-Fluoranthenes/Pyrenes | 216 | 27.896 | 27.624 | (1.256) | 480244 | 1.81177 | 1.812(M) |
| 49 | C2-Fluoranthenes/Pyrenes | 230 | 29.222 | 28.800 | (1.315) | 207894 | 0.78430 | 0.7843(M) |
| 50 | C3-Fluoranthenes/Pyrenes | 244 | 30.005 | 29.995 | (1.351) | 79916 | 0.30149 | 0.3015(M) |
| 249 | C4-Fluoranthenes/Pyrenes | 258 | 32.573 | 33.037 | (1.466) | 108237 | 0.40834 | 0.4083(M) |
| 52 | C1-Naphthobenzothiophenes | 248 | 30.050 | 30.000 | (1.353) | 93864 | 0.35066 | 0.3507(M) |
| 53 | C2-Naphthobenzothiophenes | 262 | 31.154 | 31.000 | (1.402) | 82884 | 0.30964 | 0.3096(M) |
| 54 | C3-Naphthobenzothiophenes | 276 | Compound Not Detected. | | | | | |
| 248 | C4-Naphthobenzothiophenes | 290 | Compound Not Detected. | | | | | |
| 58 | C1-Benzo(a)anthracenes/Chrysen | 242 | 30.974 | 30.975 | (0.937) | 434500 | 1.51813 | 1.518(M) |

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

## QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 01-MAY-2021
Lab File ID: NT1421043064S.D Calibration Time: 01:56
Lab Smp Id: 21D0180-02
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\ALKYLRANGES.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.

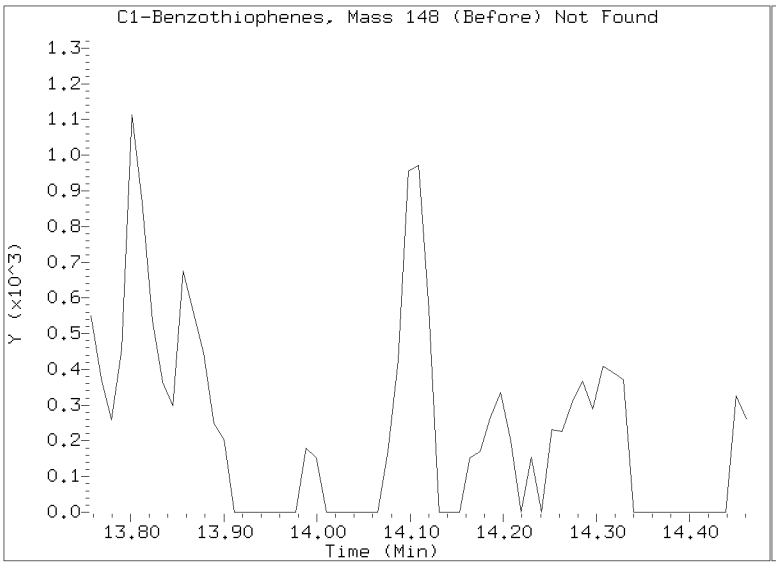
| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 25 Fluorene-d10 | 615800 | 307900 | 1231600 | 533752 | -13.32 |
| 250 Anthracene-d10 | 563384 | 281692 | 1126768 | 494716 | -12.19 |
| 251 Benzo(e)pyrene-d1 | 606671 | 303336 | 1213342 | 612826 | 1.01 |

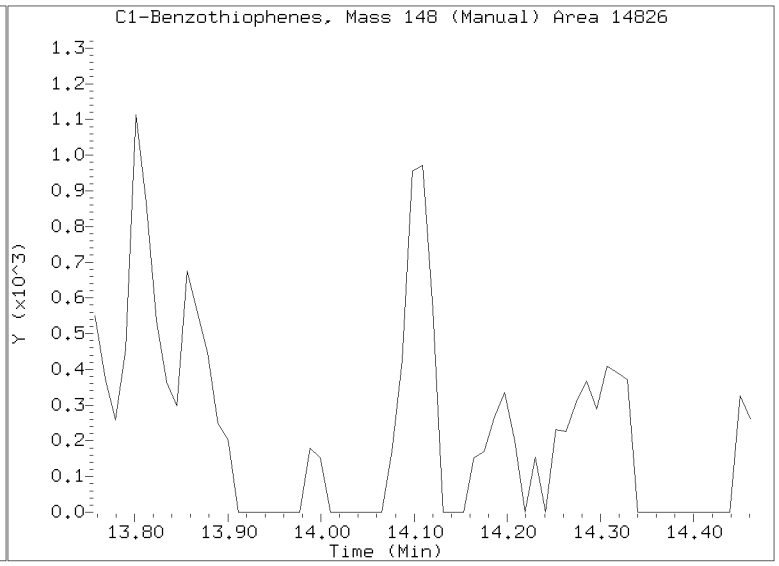
| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 25 Fluorene-d10 | 18.77 | 18.27 | 19.27 | 18.77 | -0.01 |
| 250 Anthracene-d10 | 22.22 | 21.72 | 22.72 | 22.21 | -0.01 |
| 251 Benzo(e)pyrene-d1 | 33.04 | 32.54 | 33.54 | 33.05 | 0.03 |

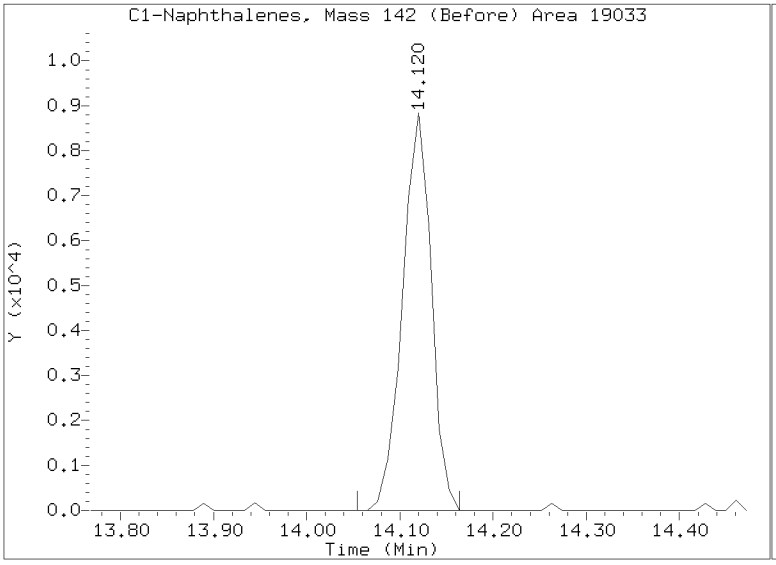
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

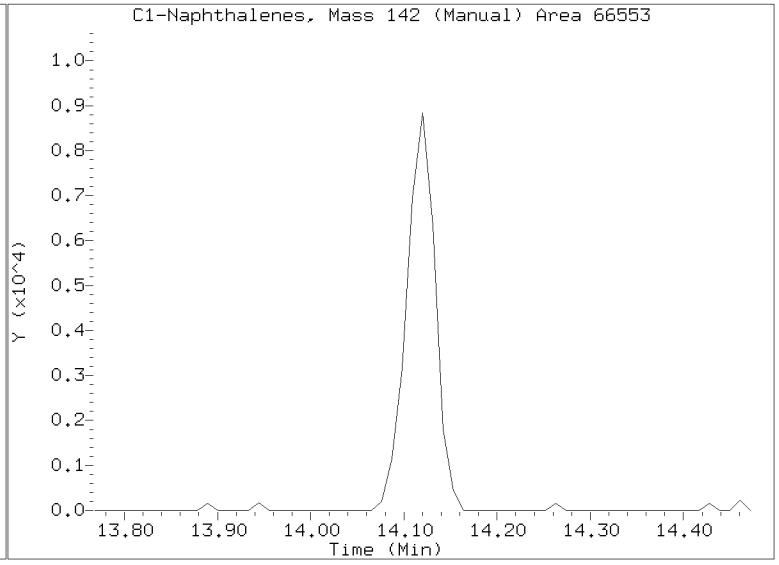
# Quant Ion Manual Peak Adjustment Report

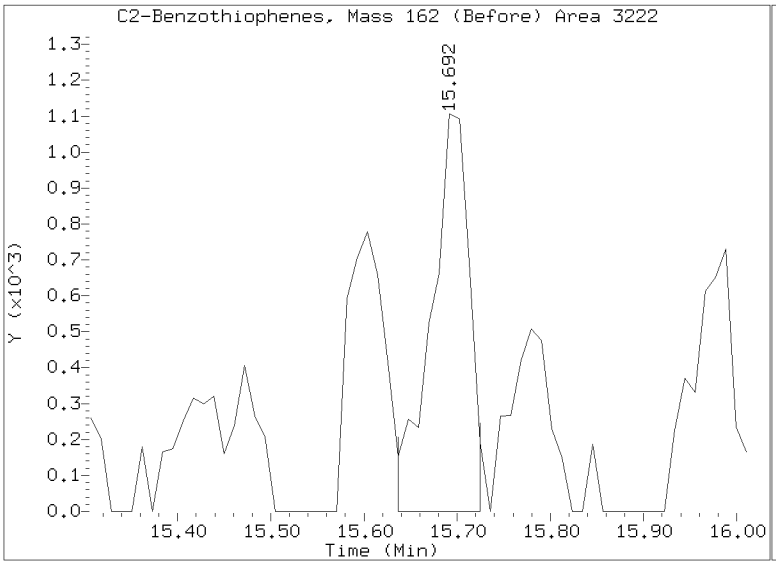
Datafile: //target/share/chem3/nt14.i/20210430.b/SIM.b/NT1421043064S.D
Injection Date: 02-MAY-2021 10:01
Lab ID:21D0180-02 Client ID:
Report Date: 05/07/2021 15:32

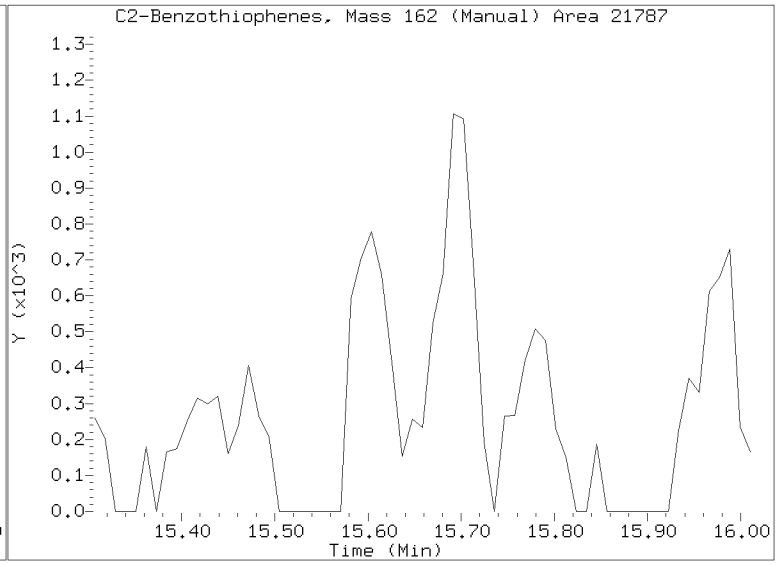


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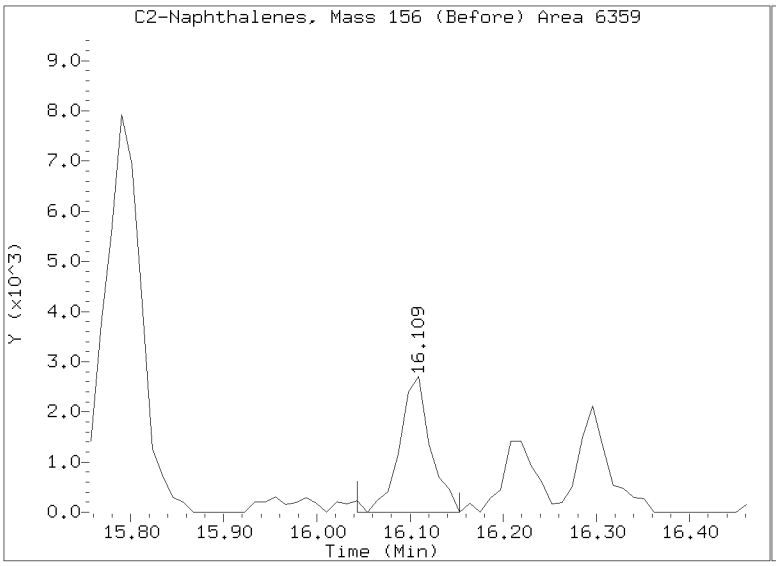


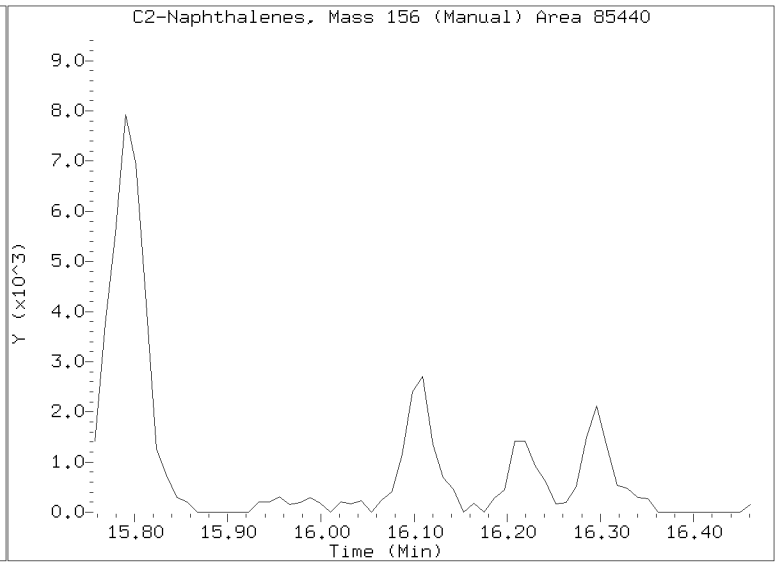


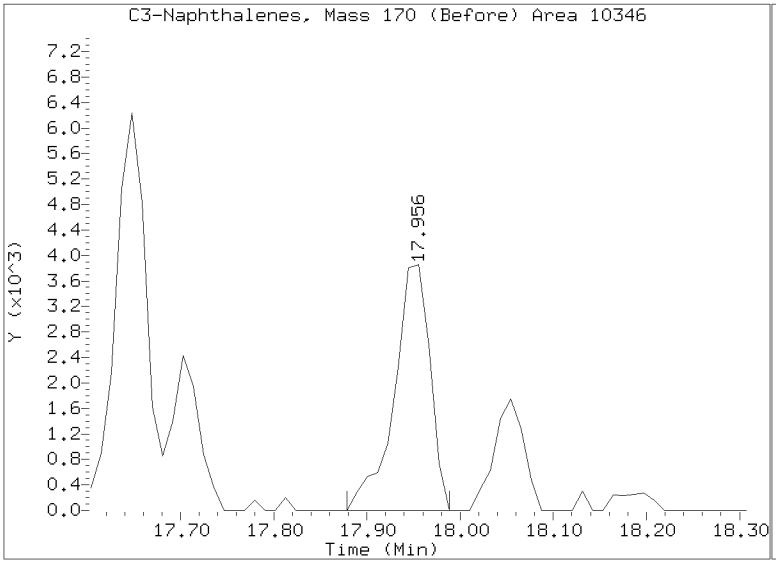


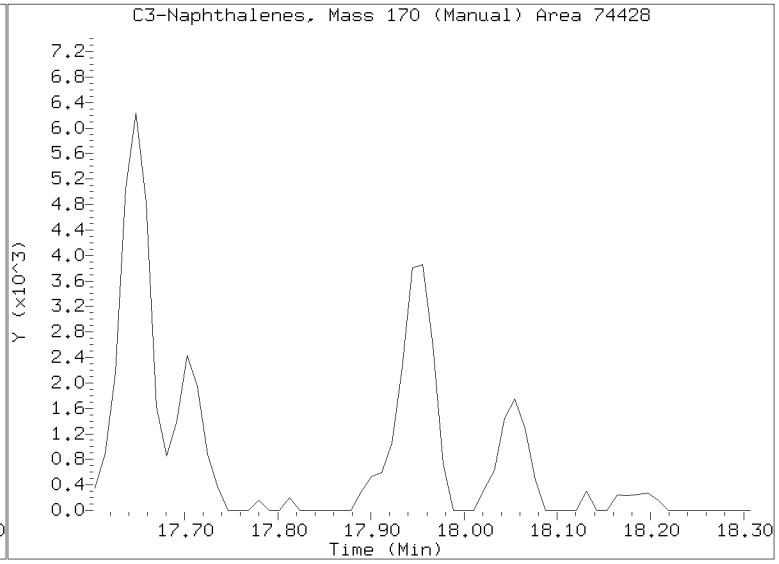


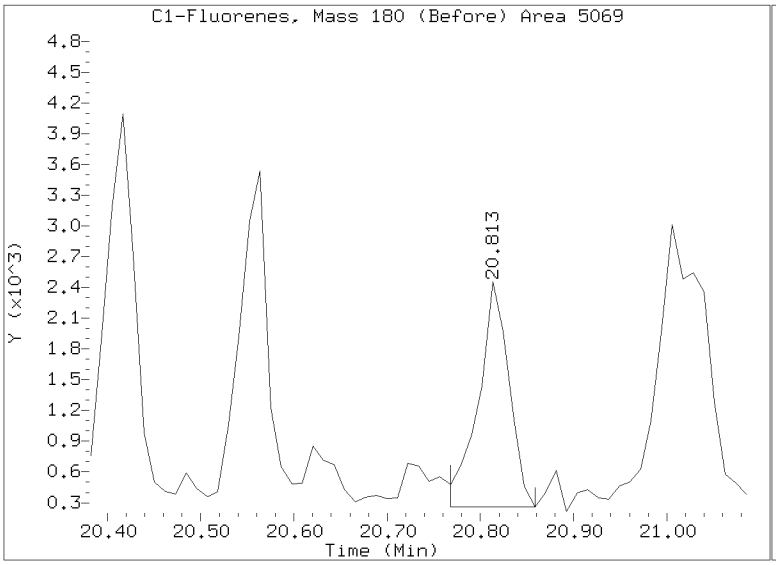


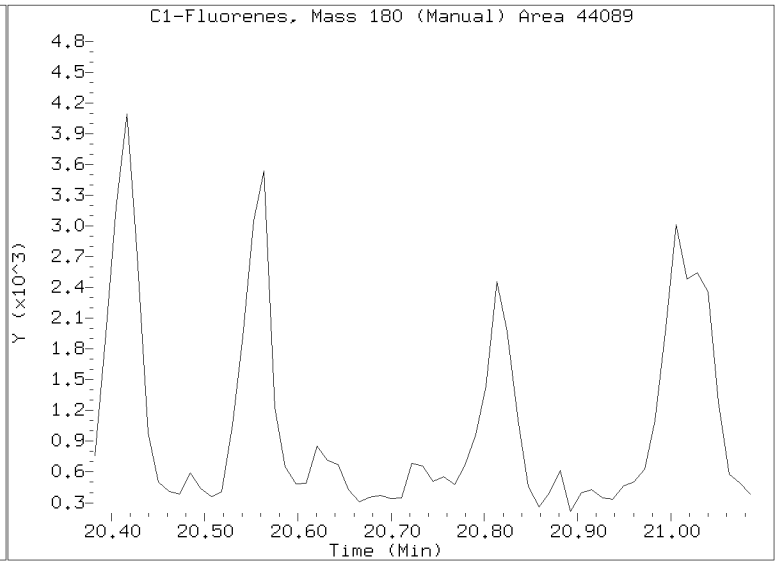

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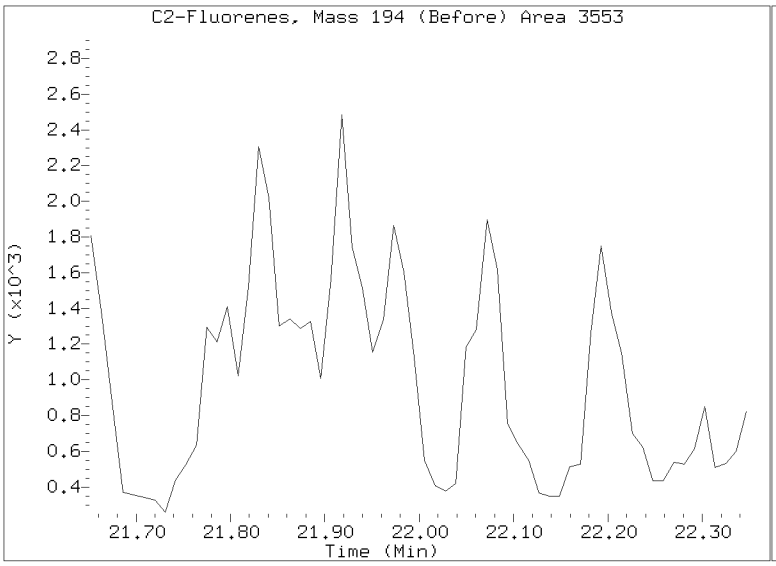


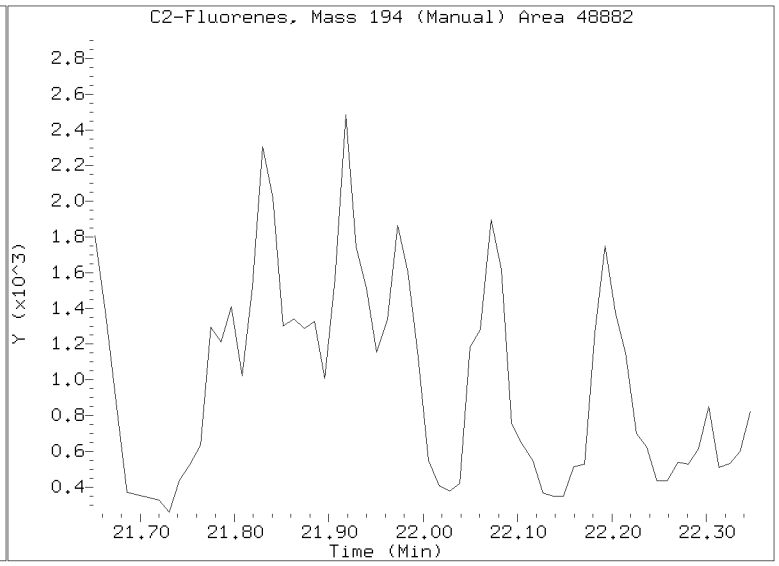


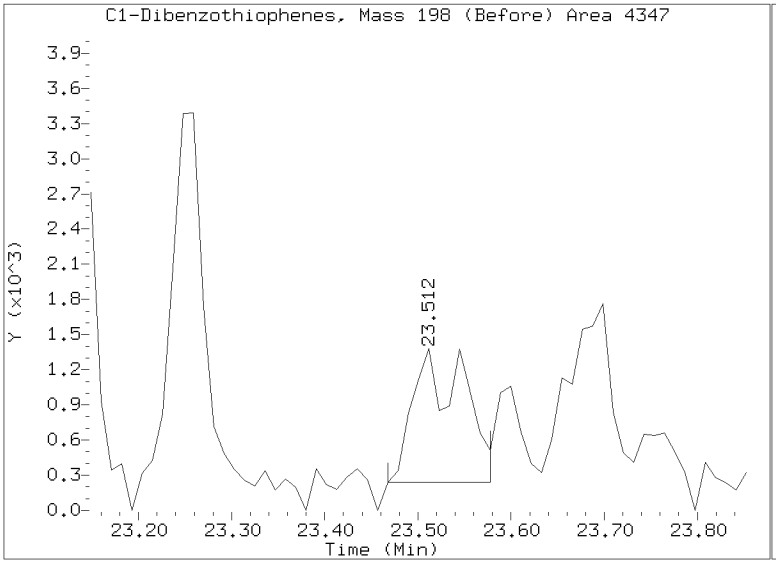


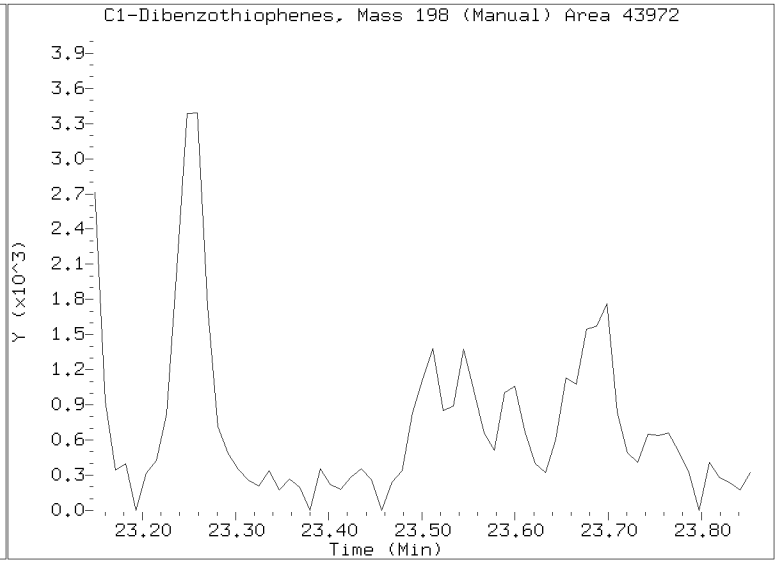


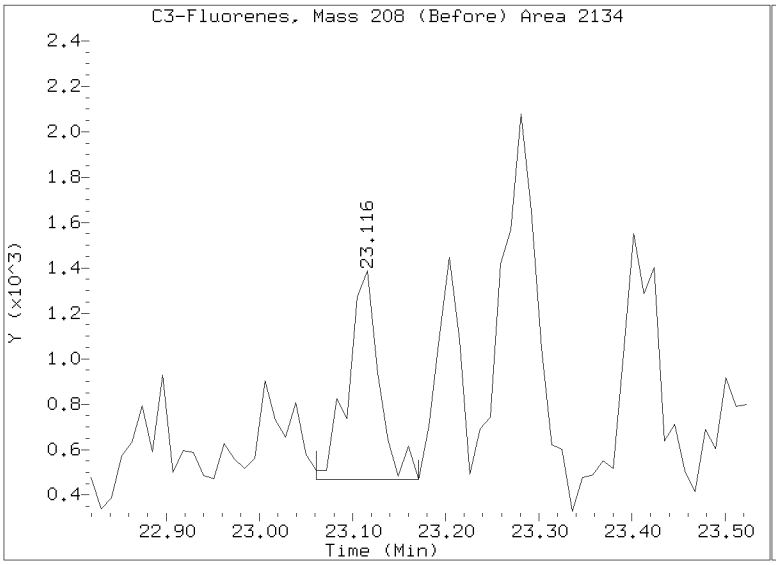


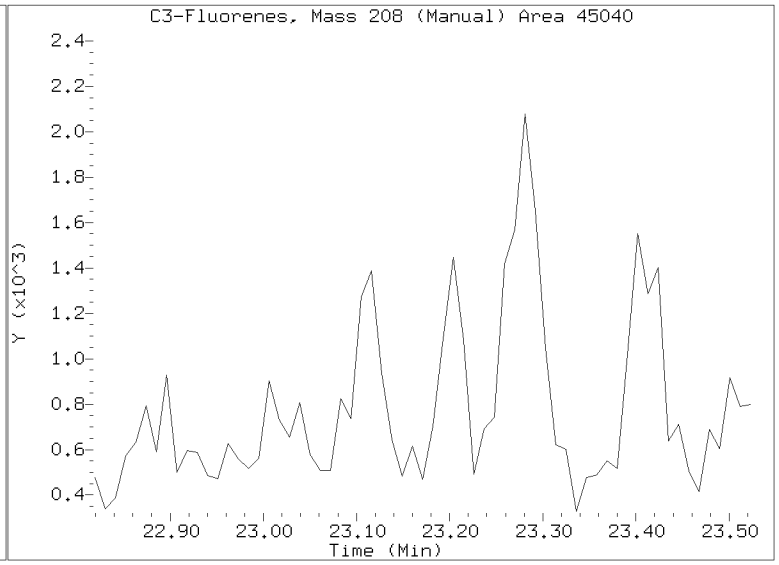

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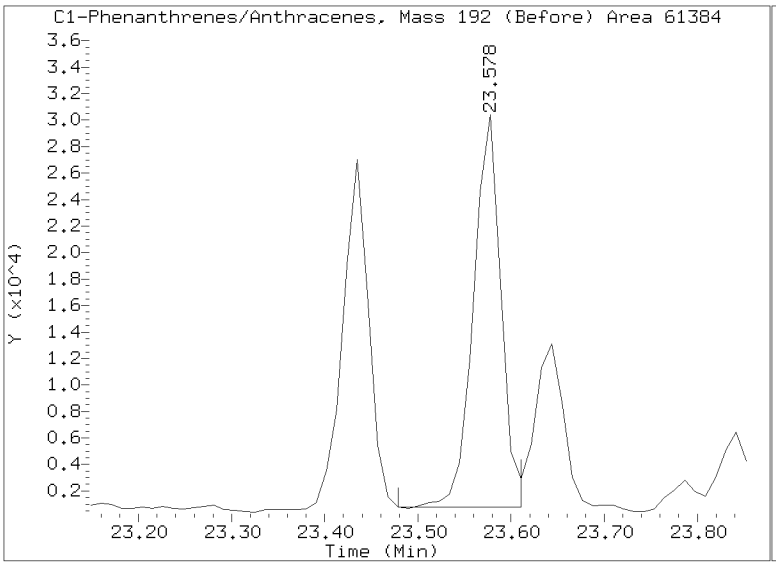


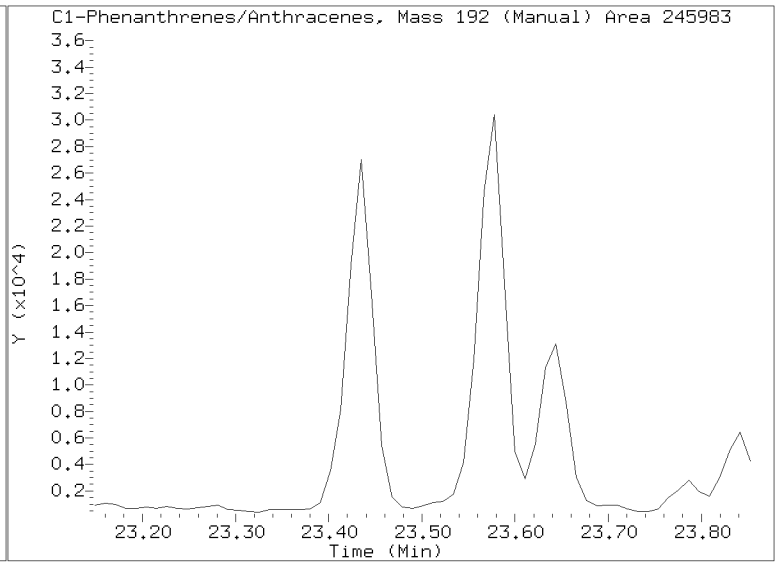


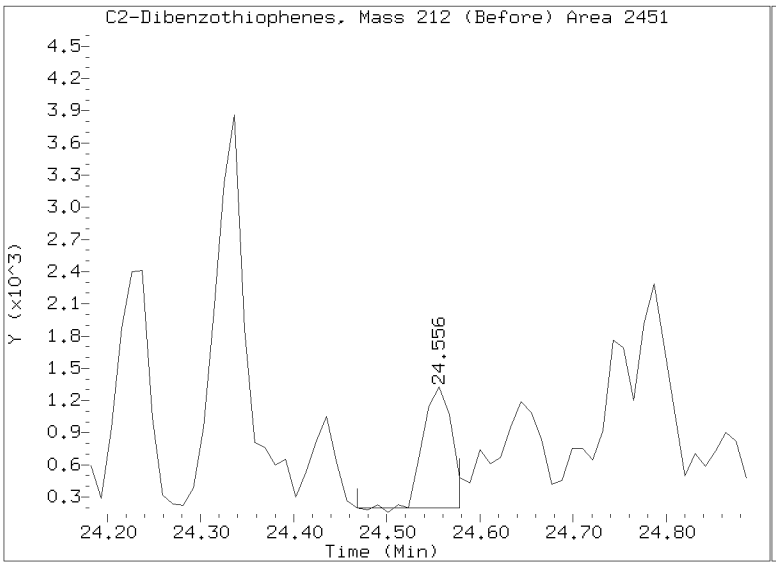


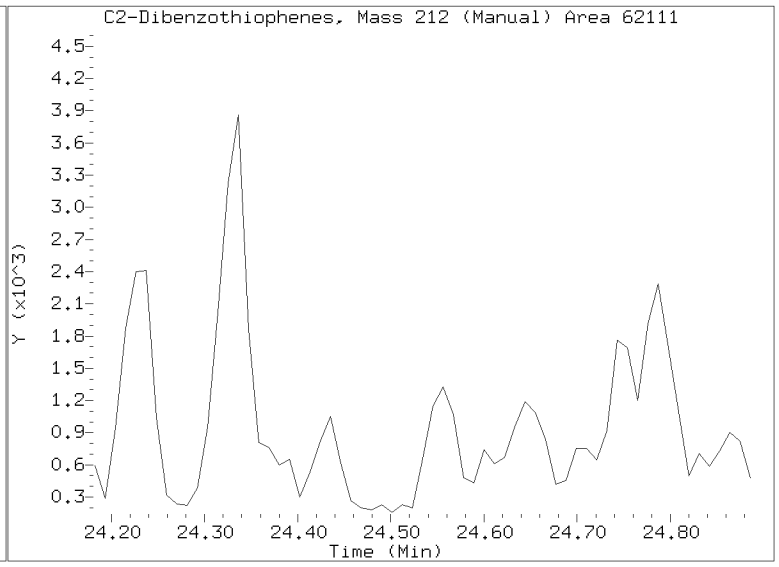


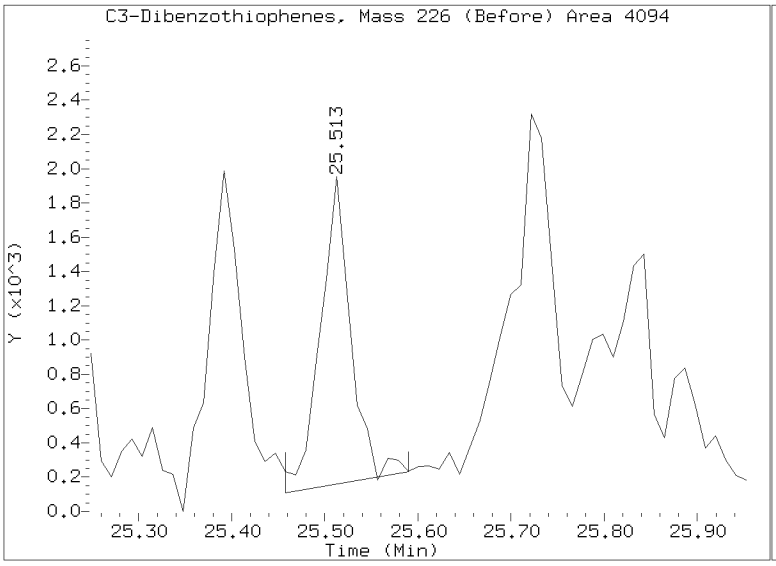


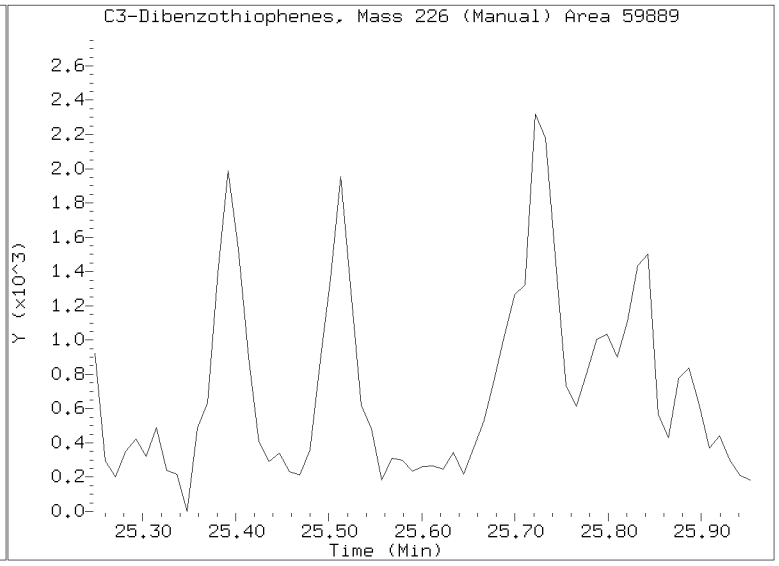

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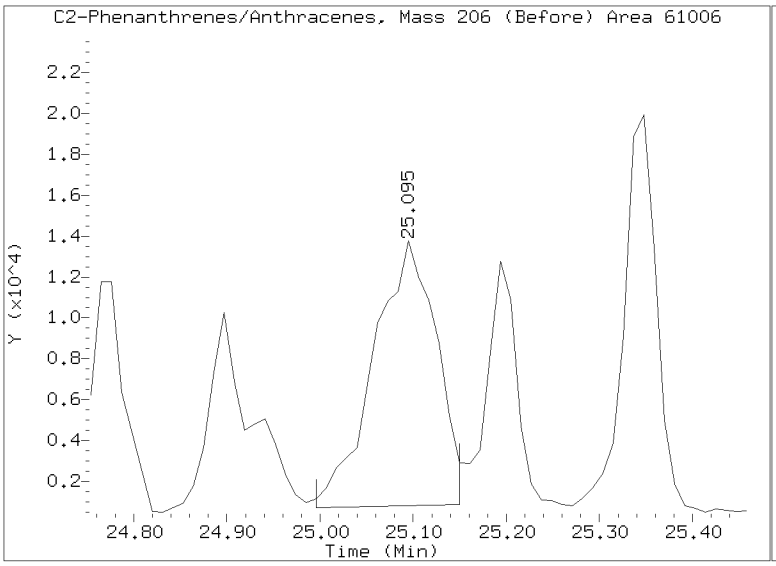


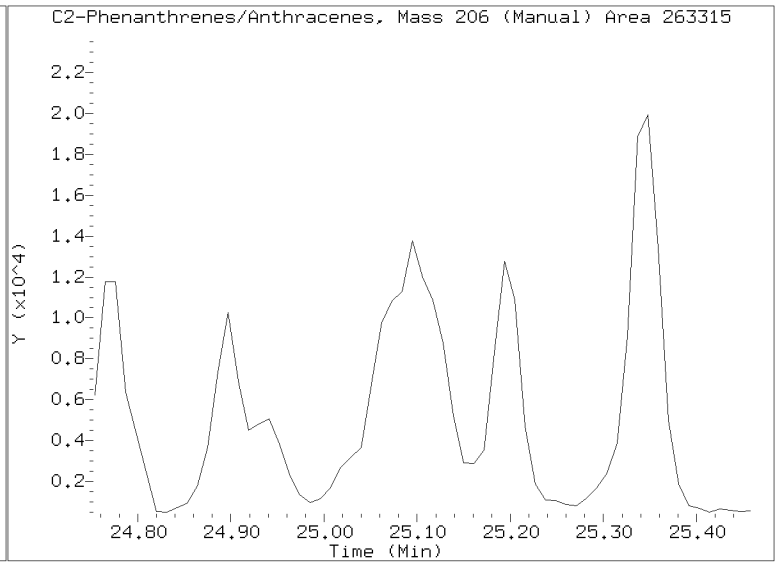


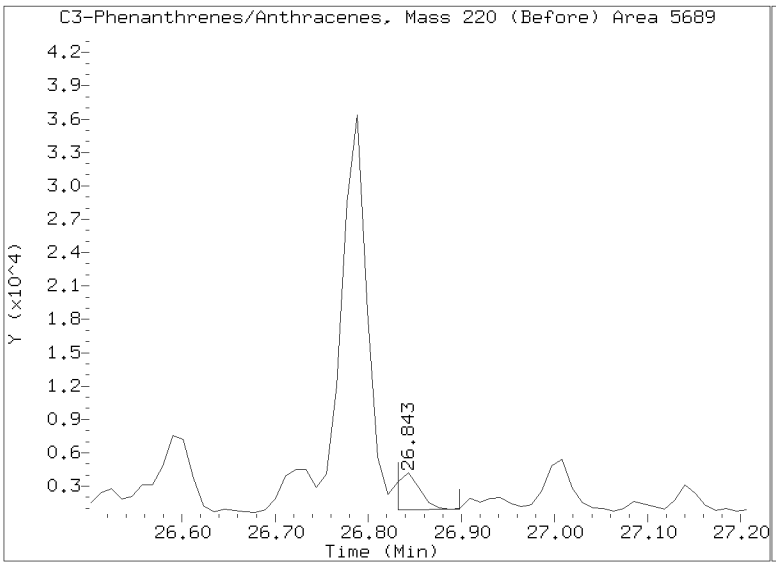


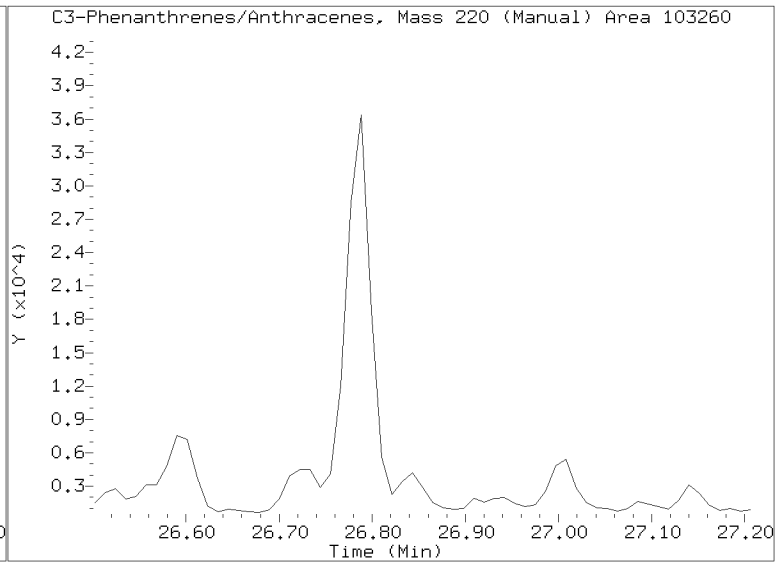


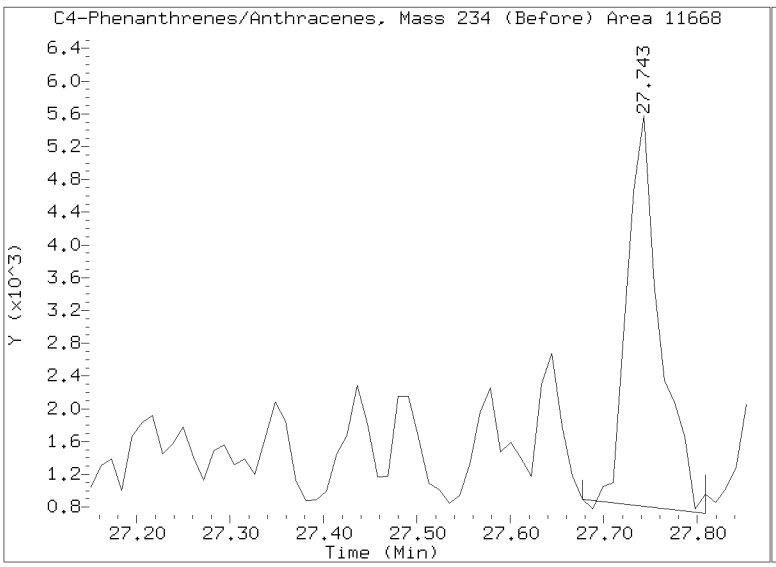


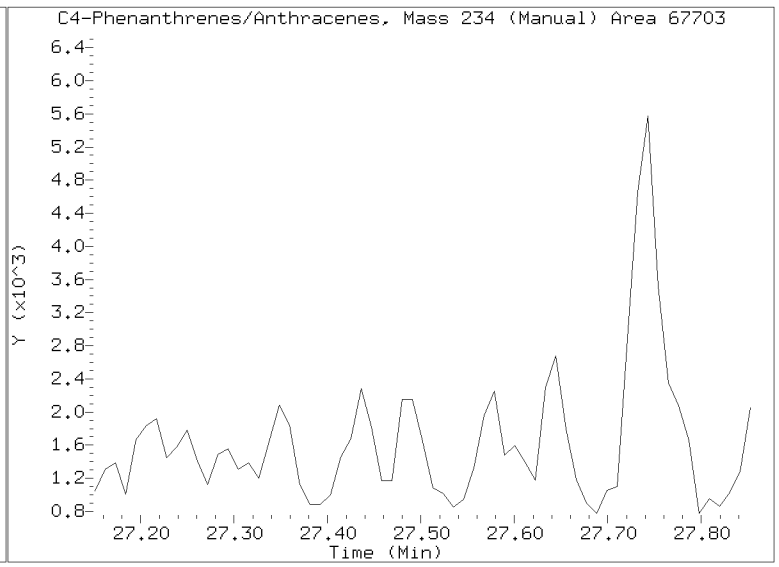

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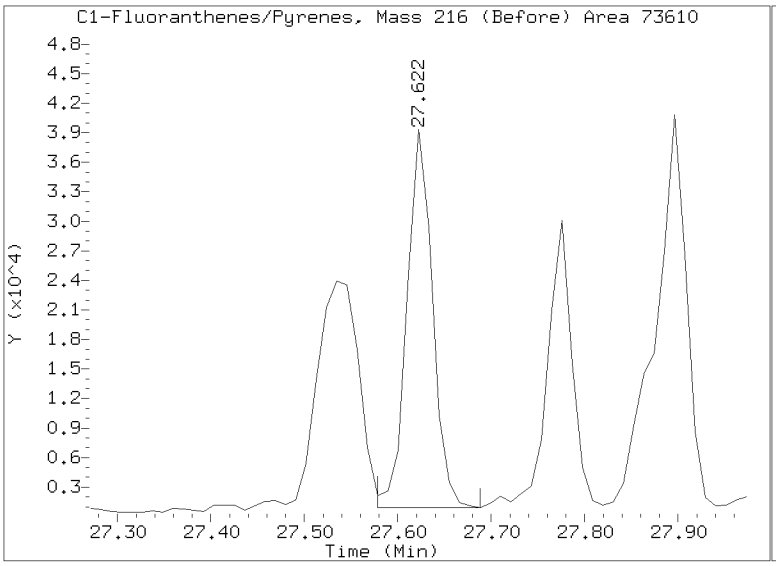


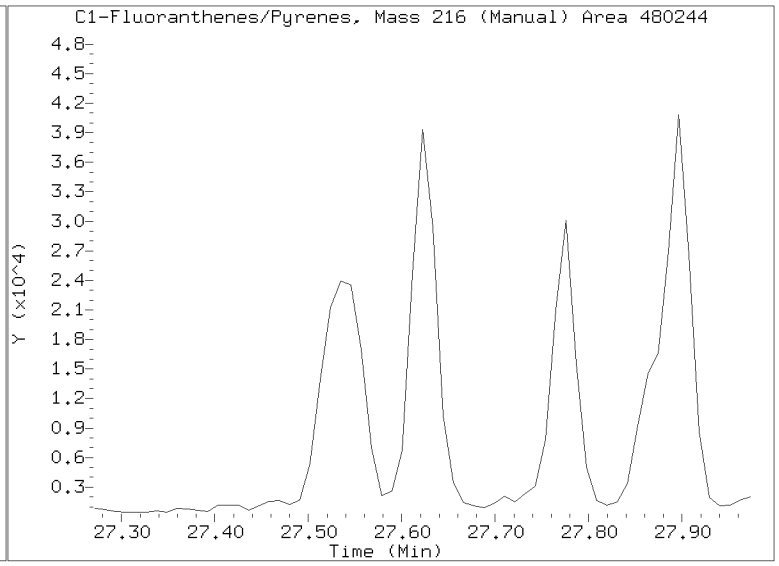


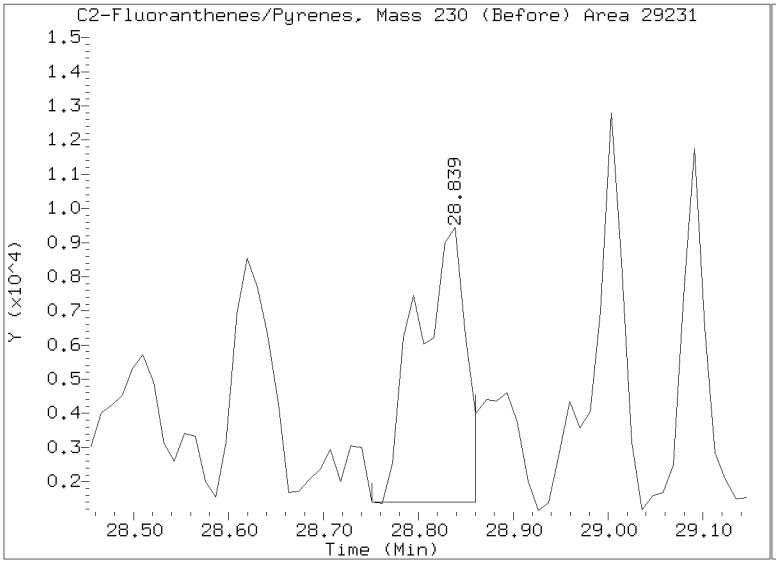


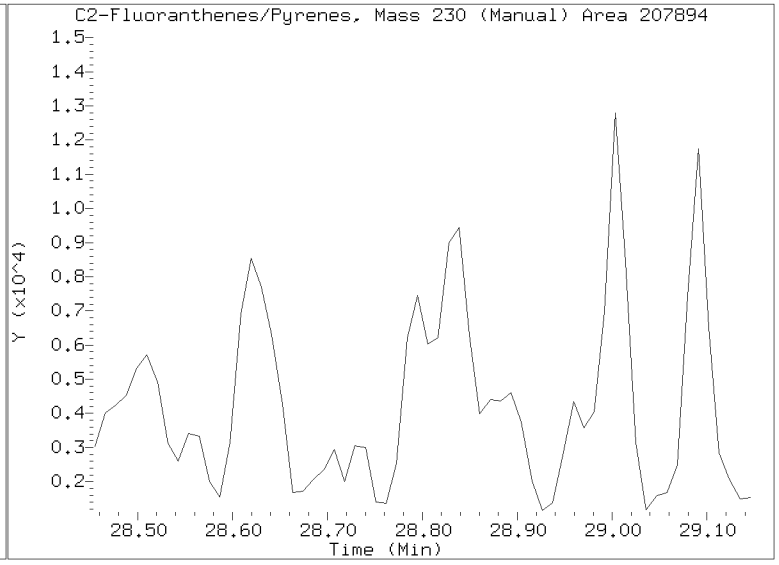


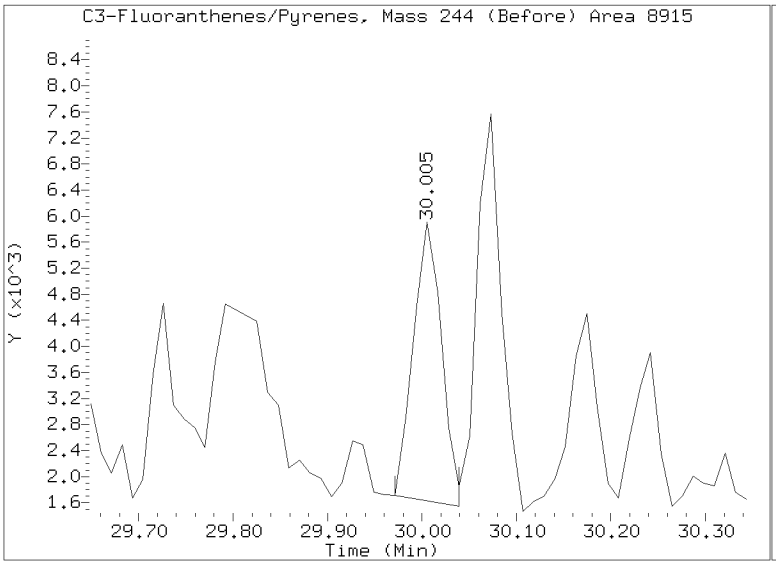


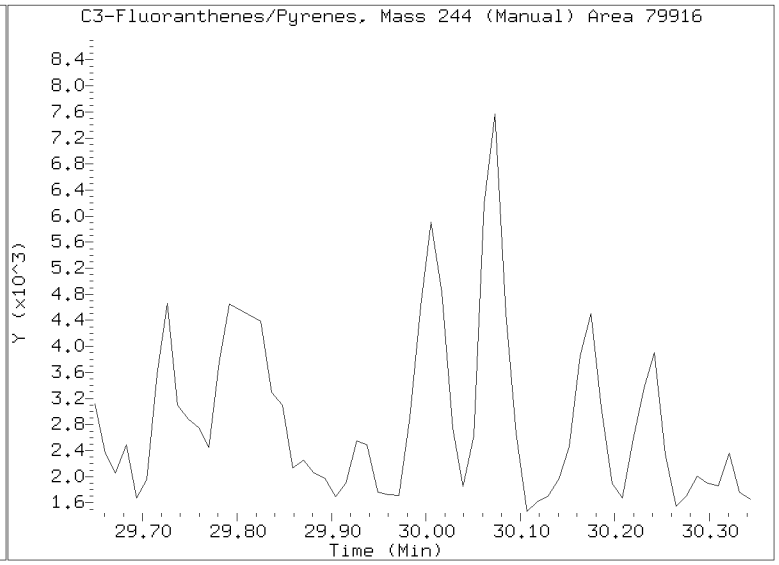

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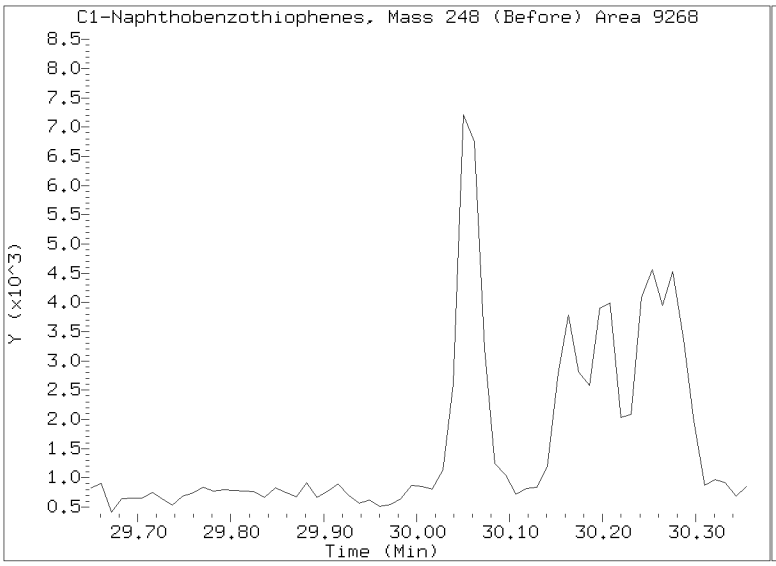


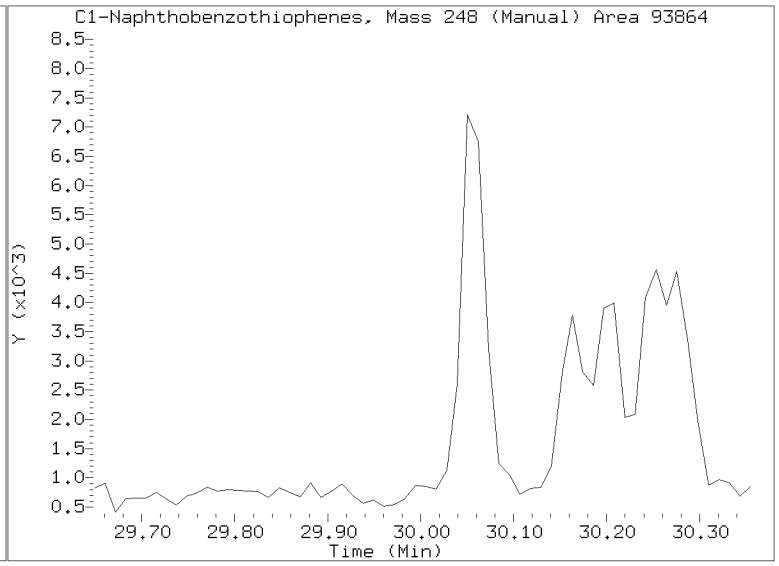


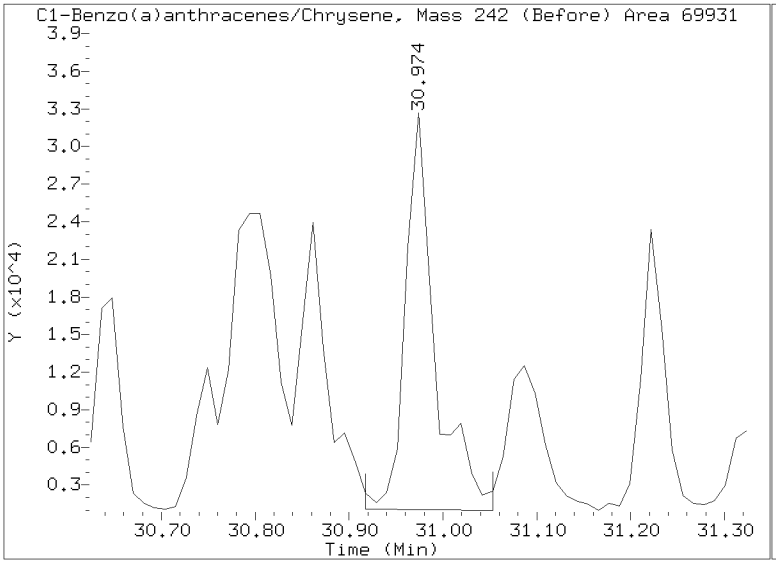


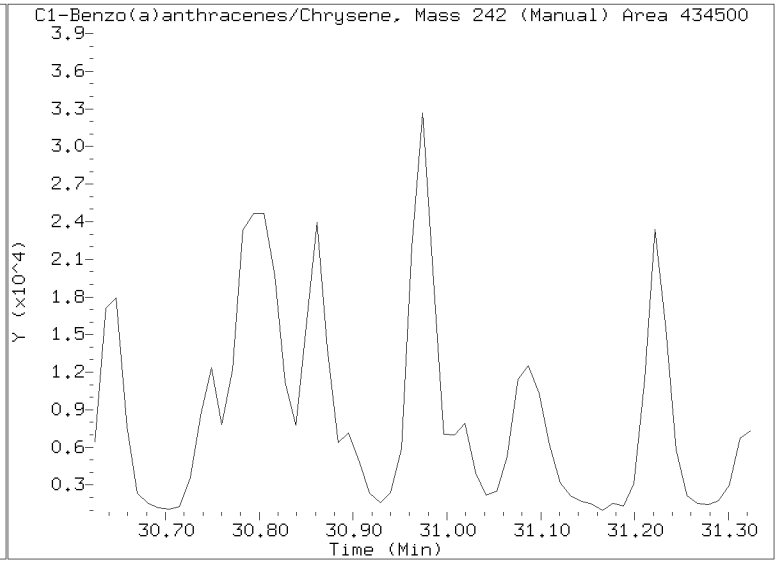


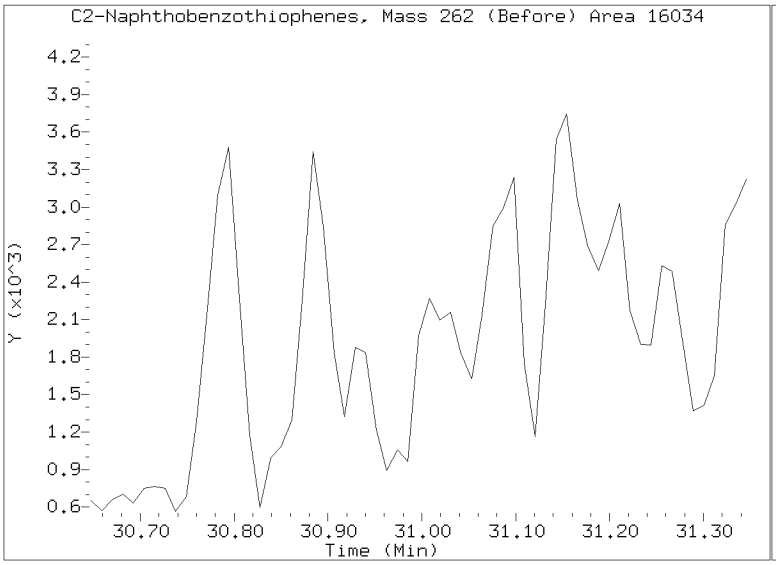


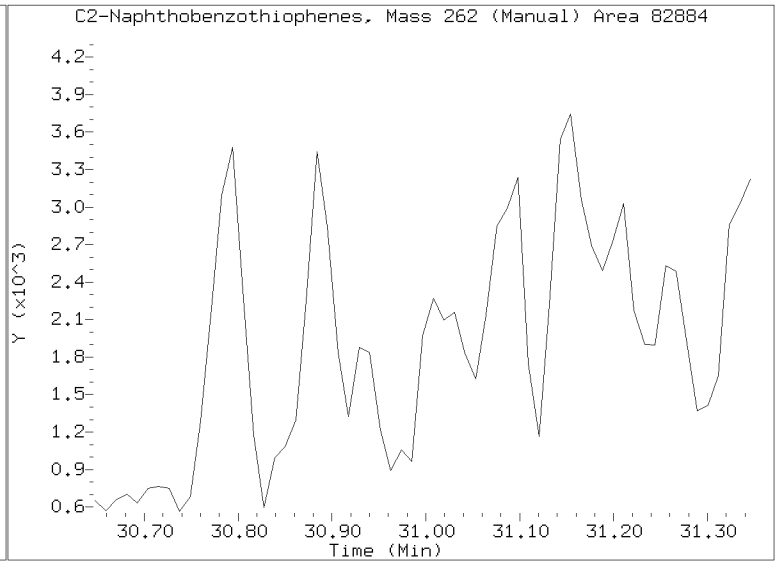

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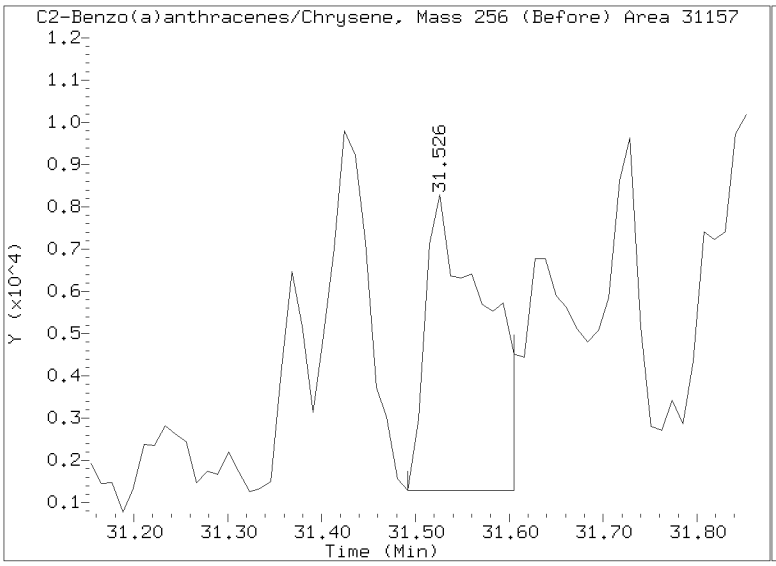


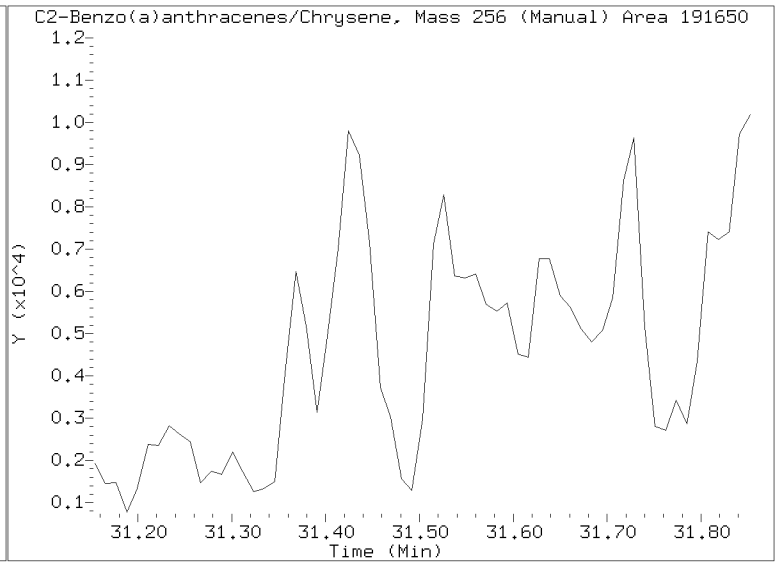


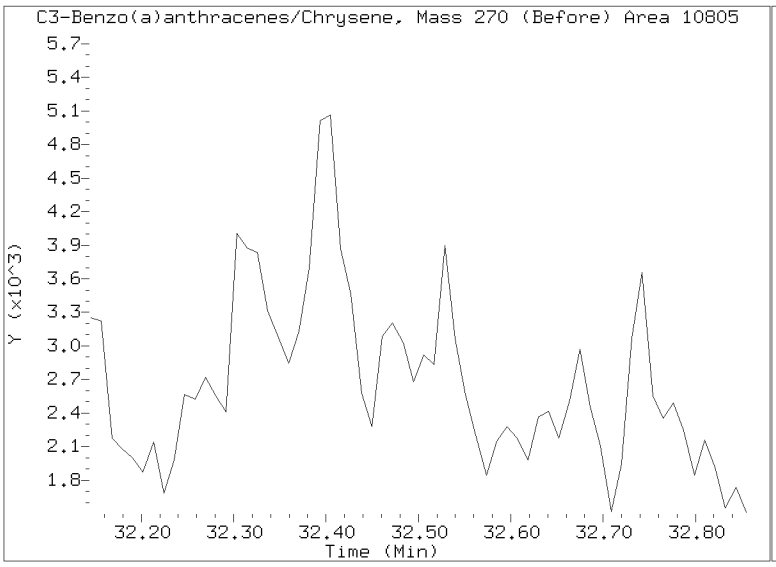


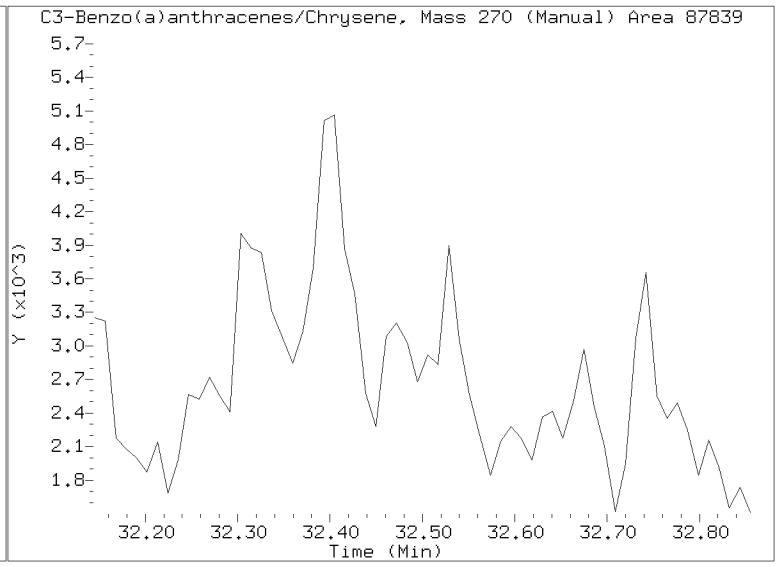


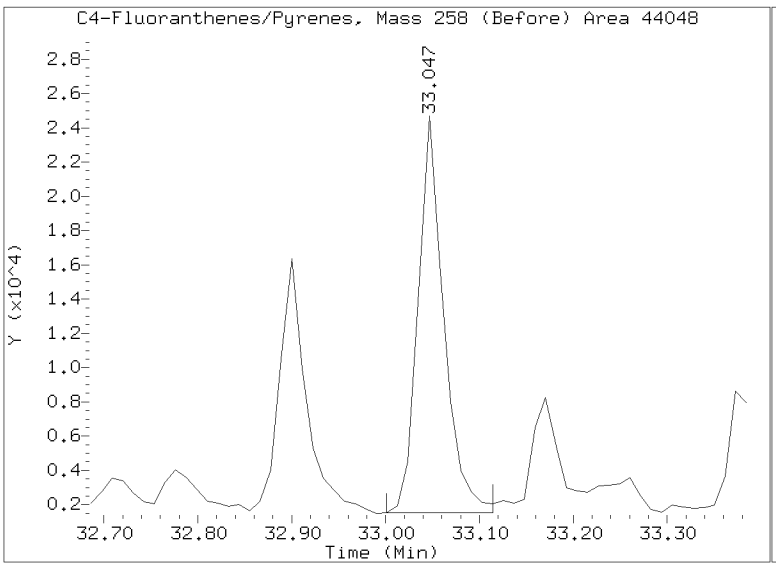


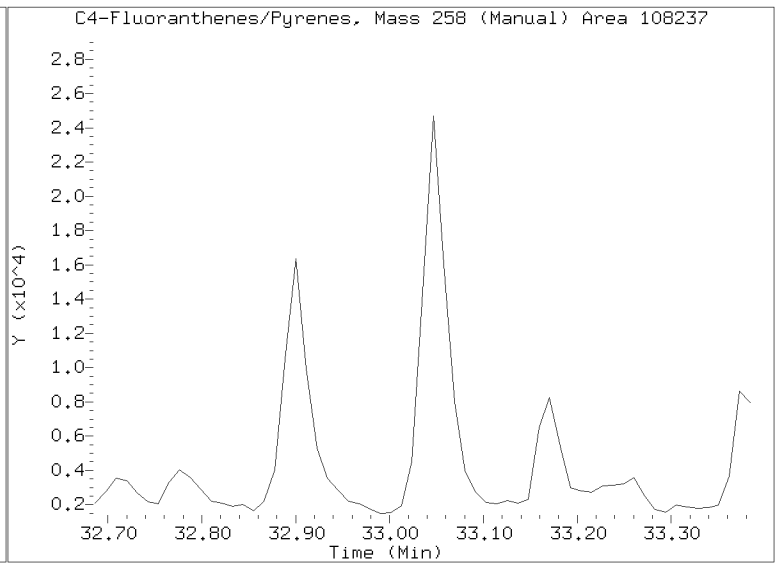

# Quant Ion Manual Peak Adjustment Report

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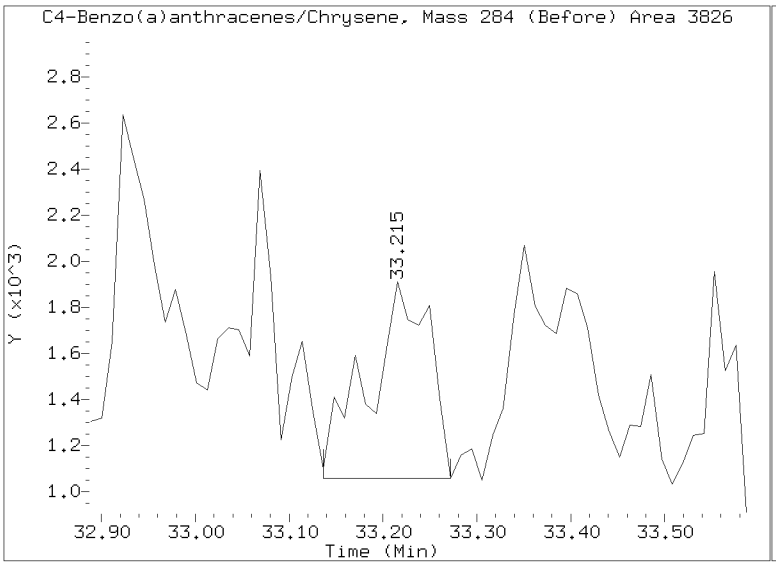


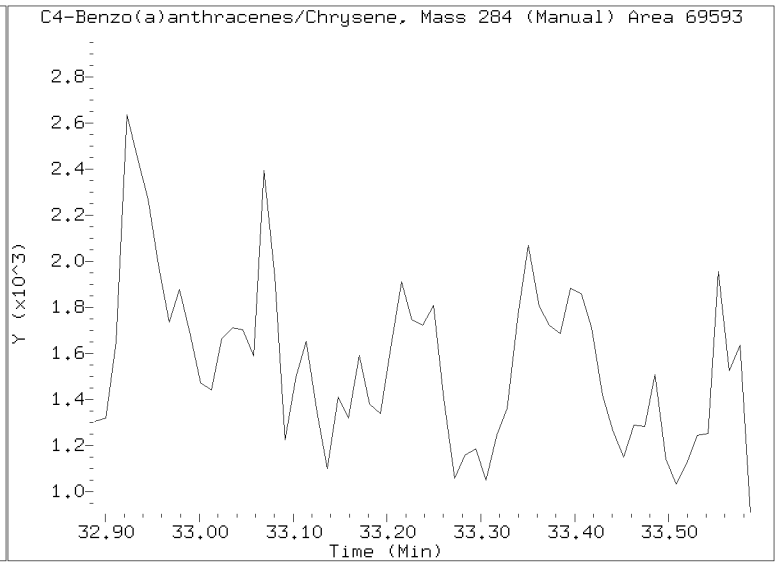


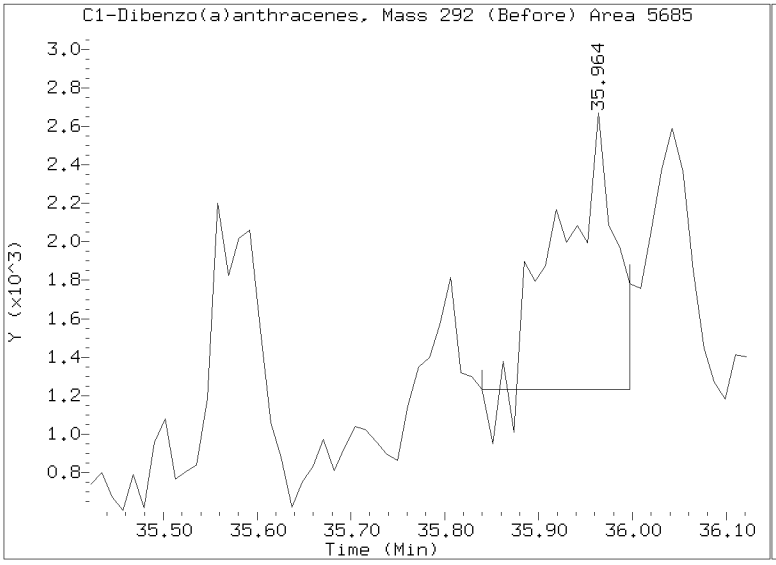


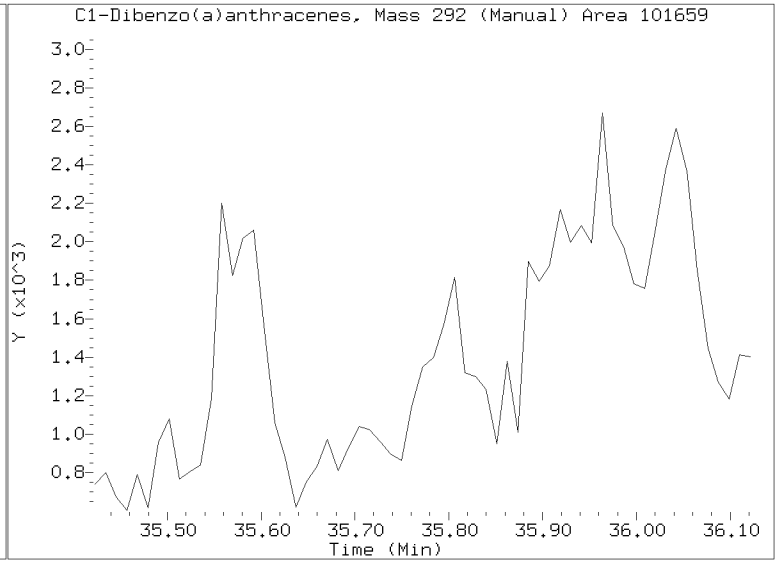


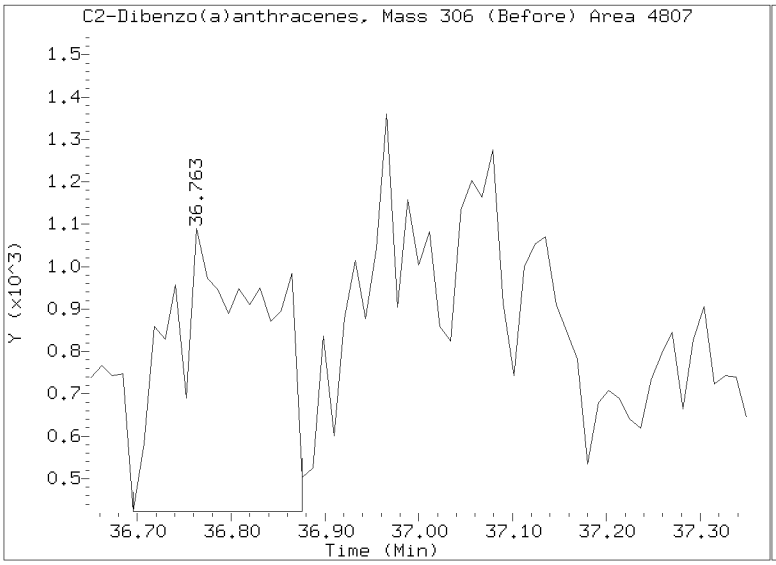


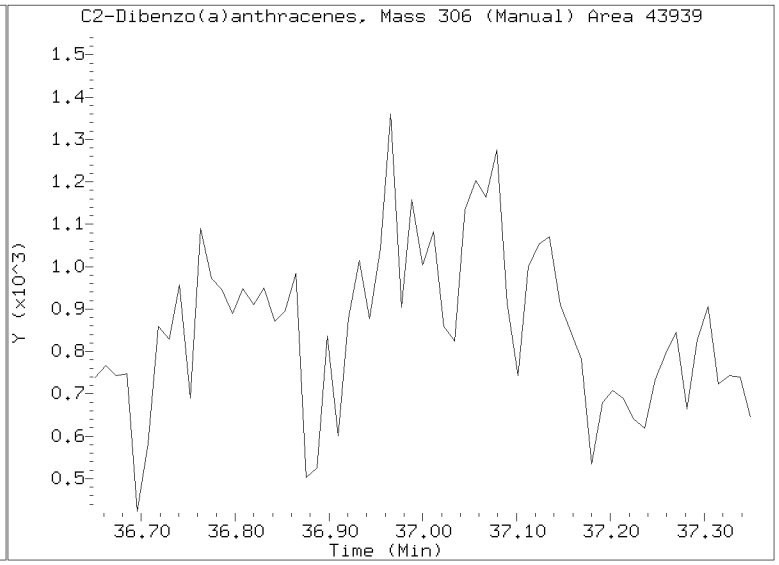

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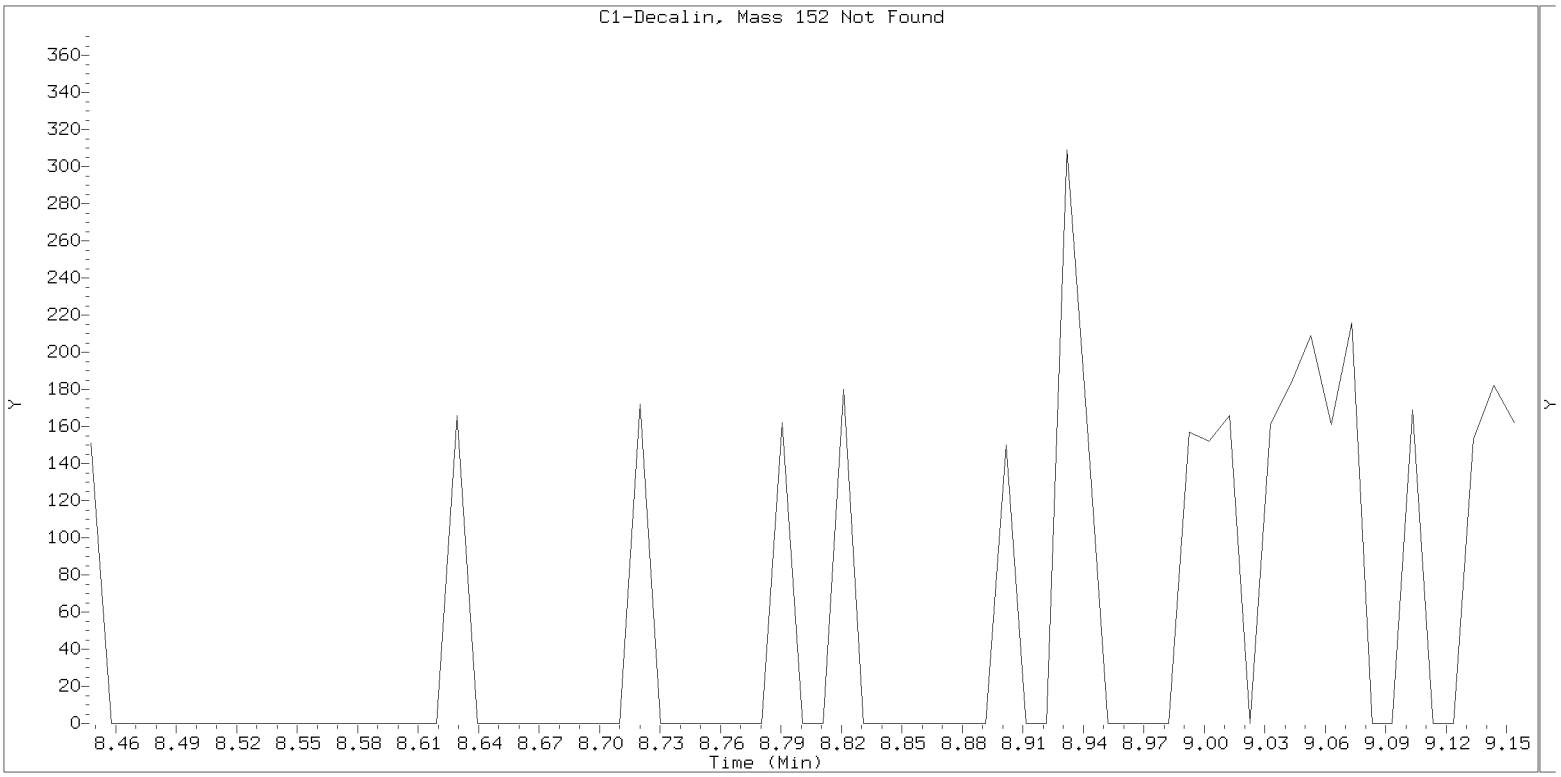

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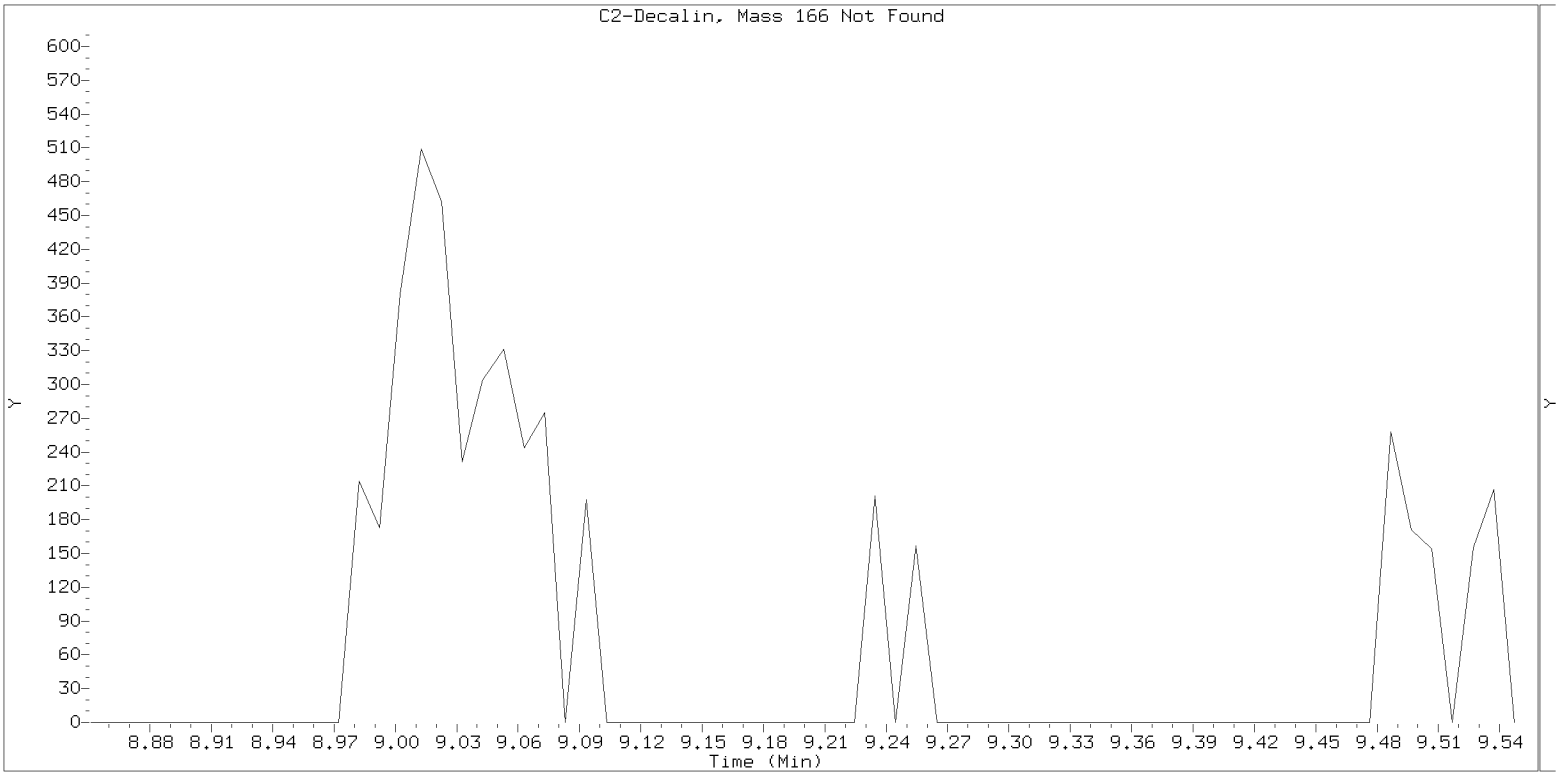

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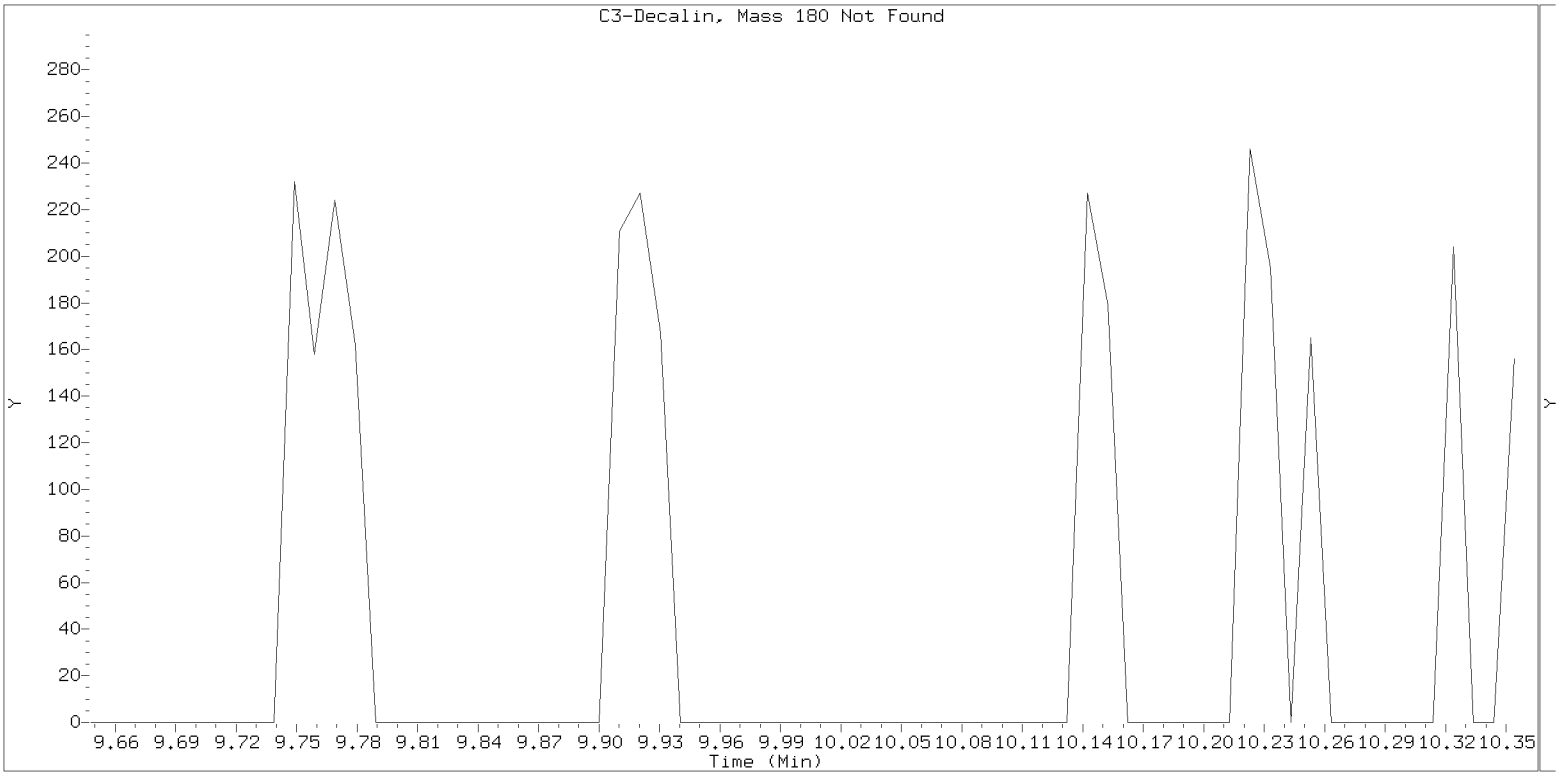

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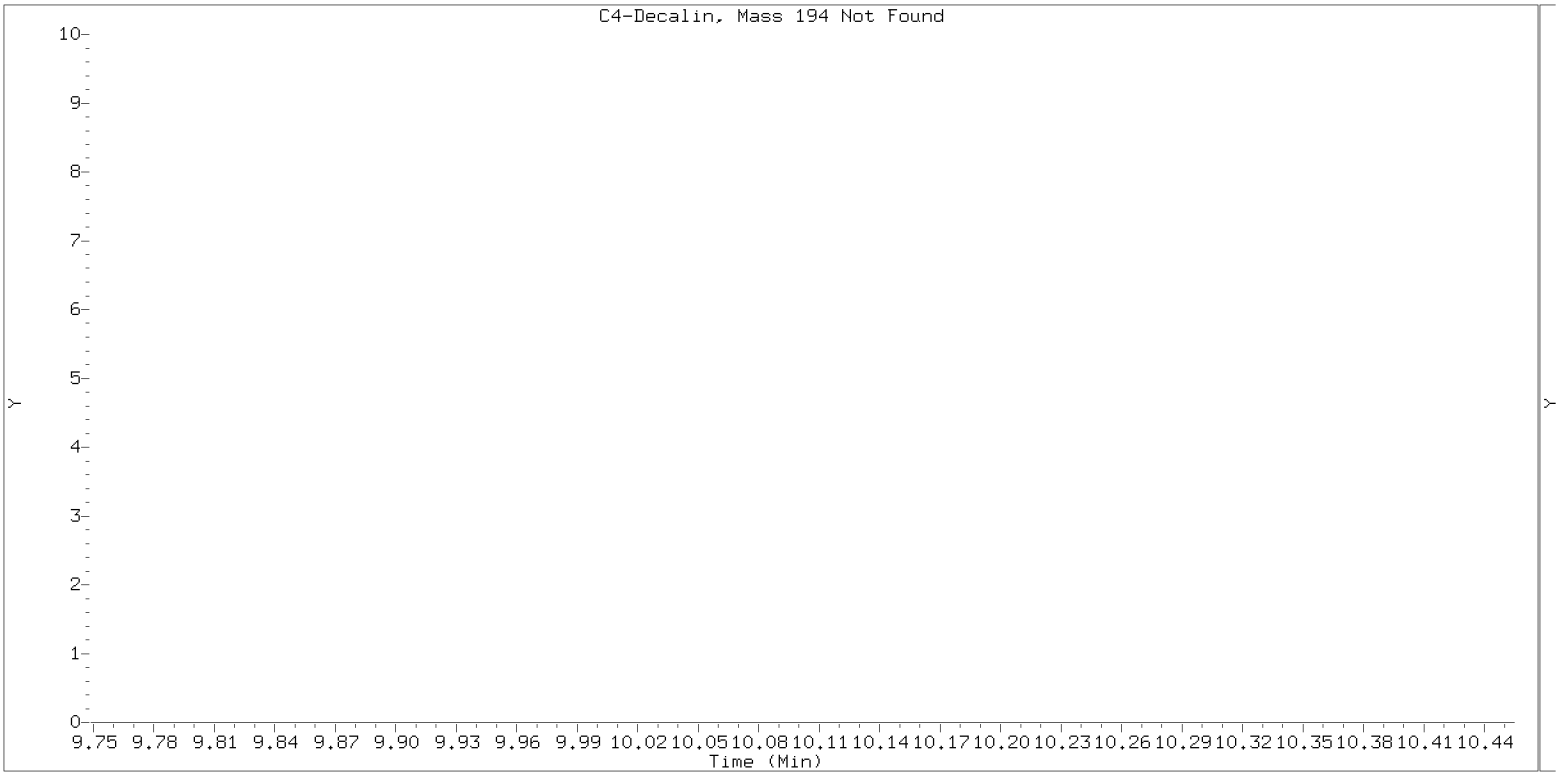

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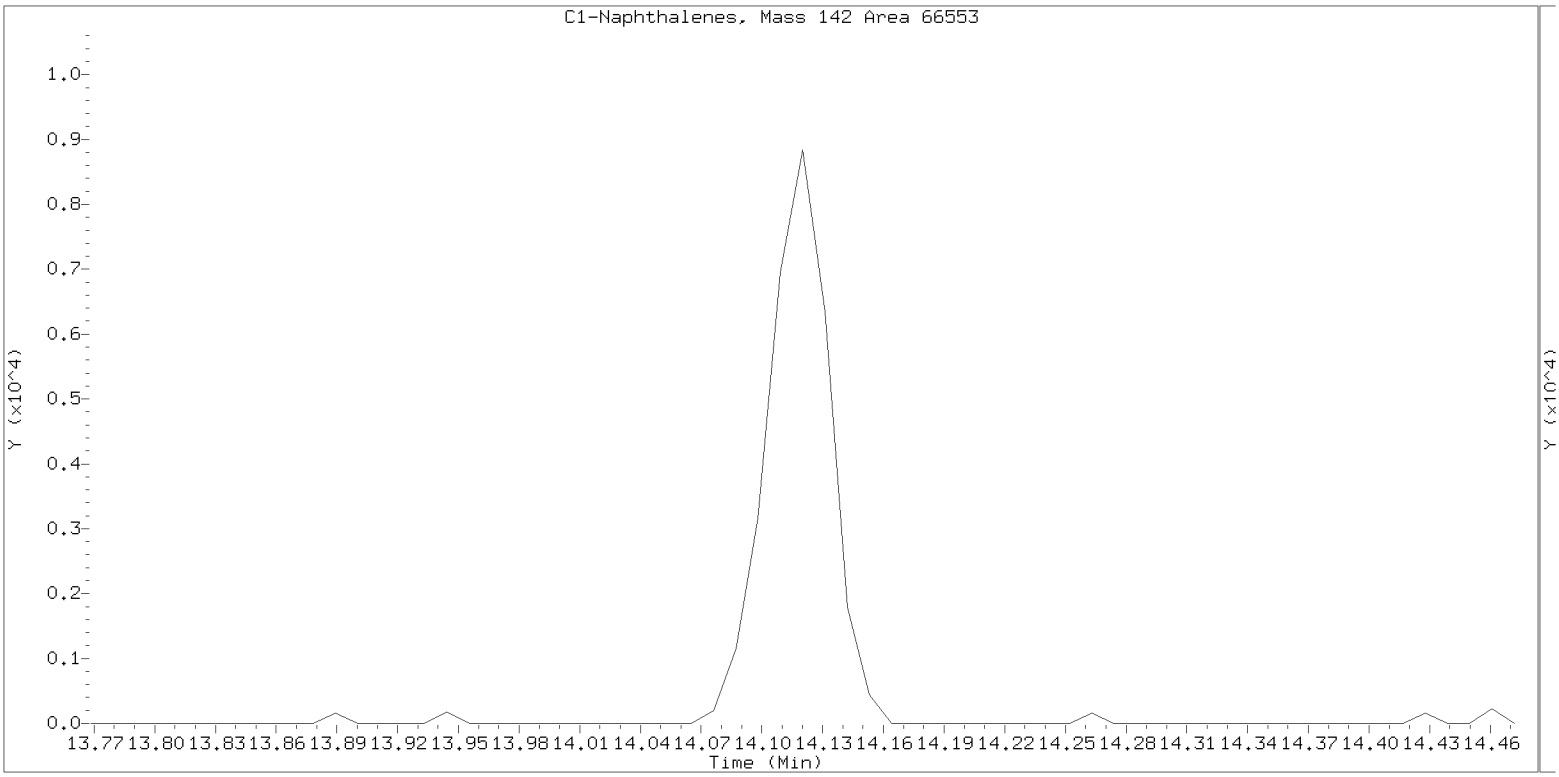


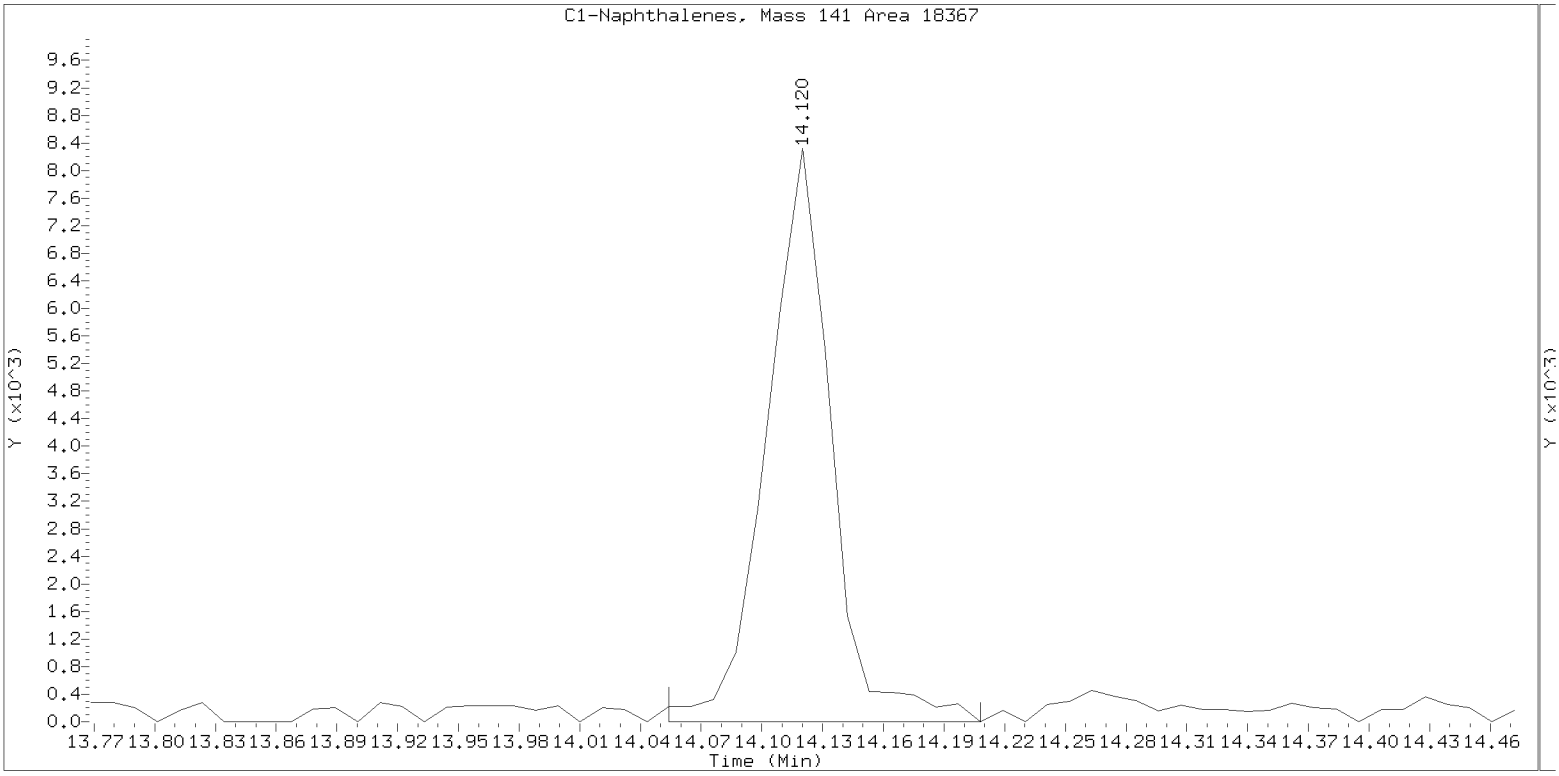


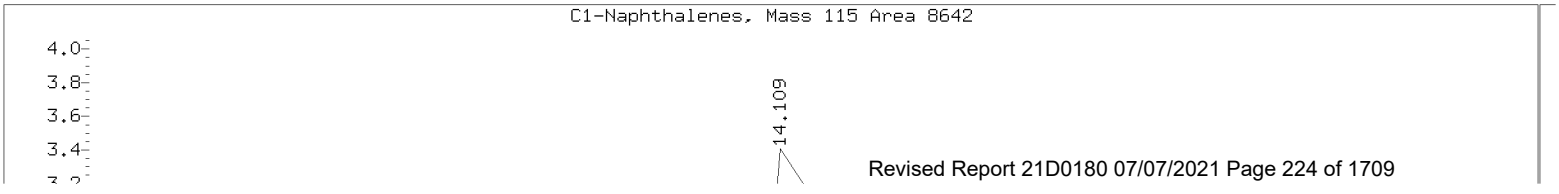

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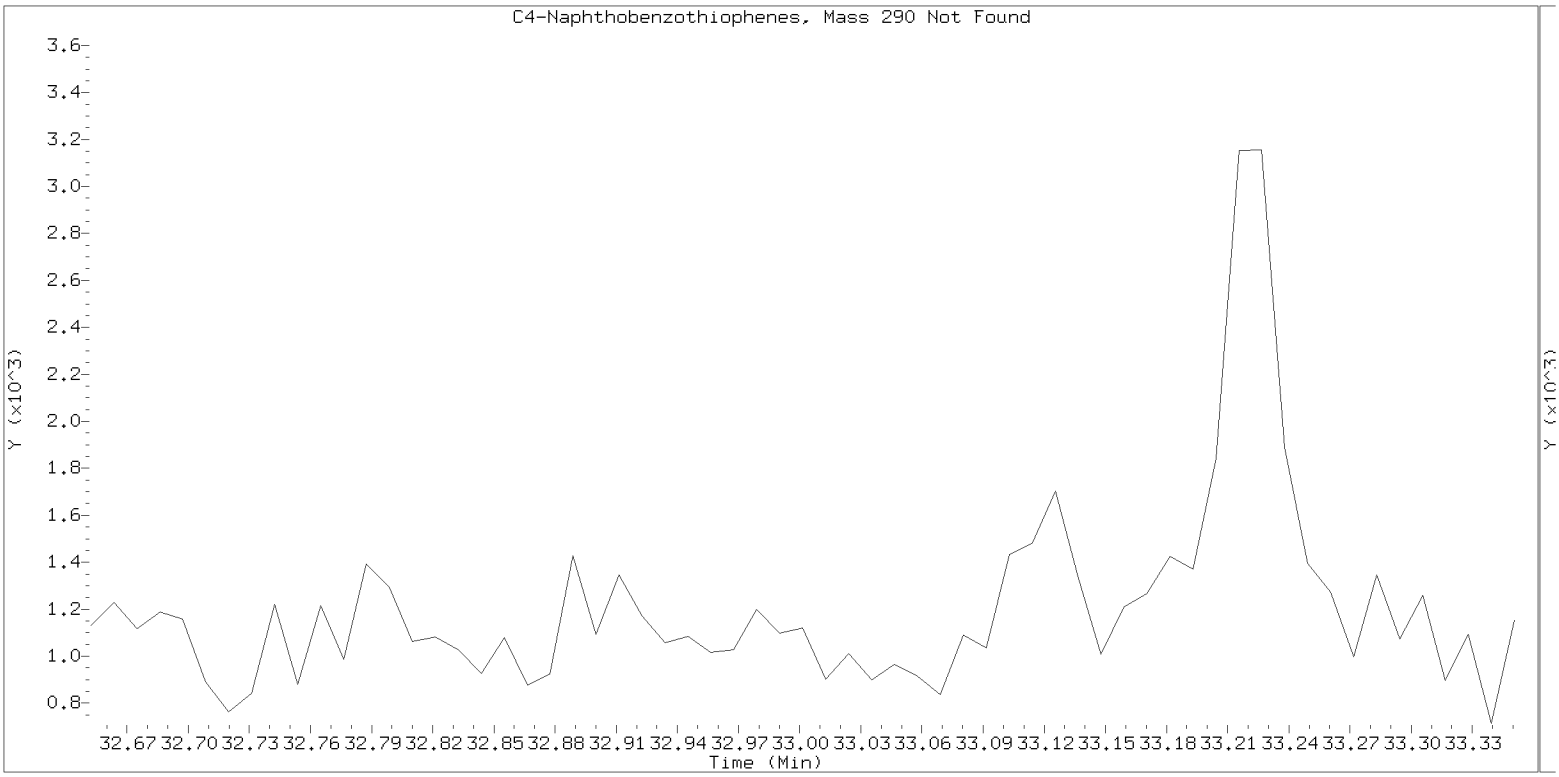

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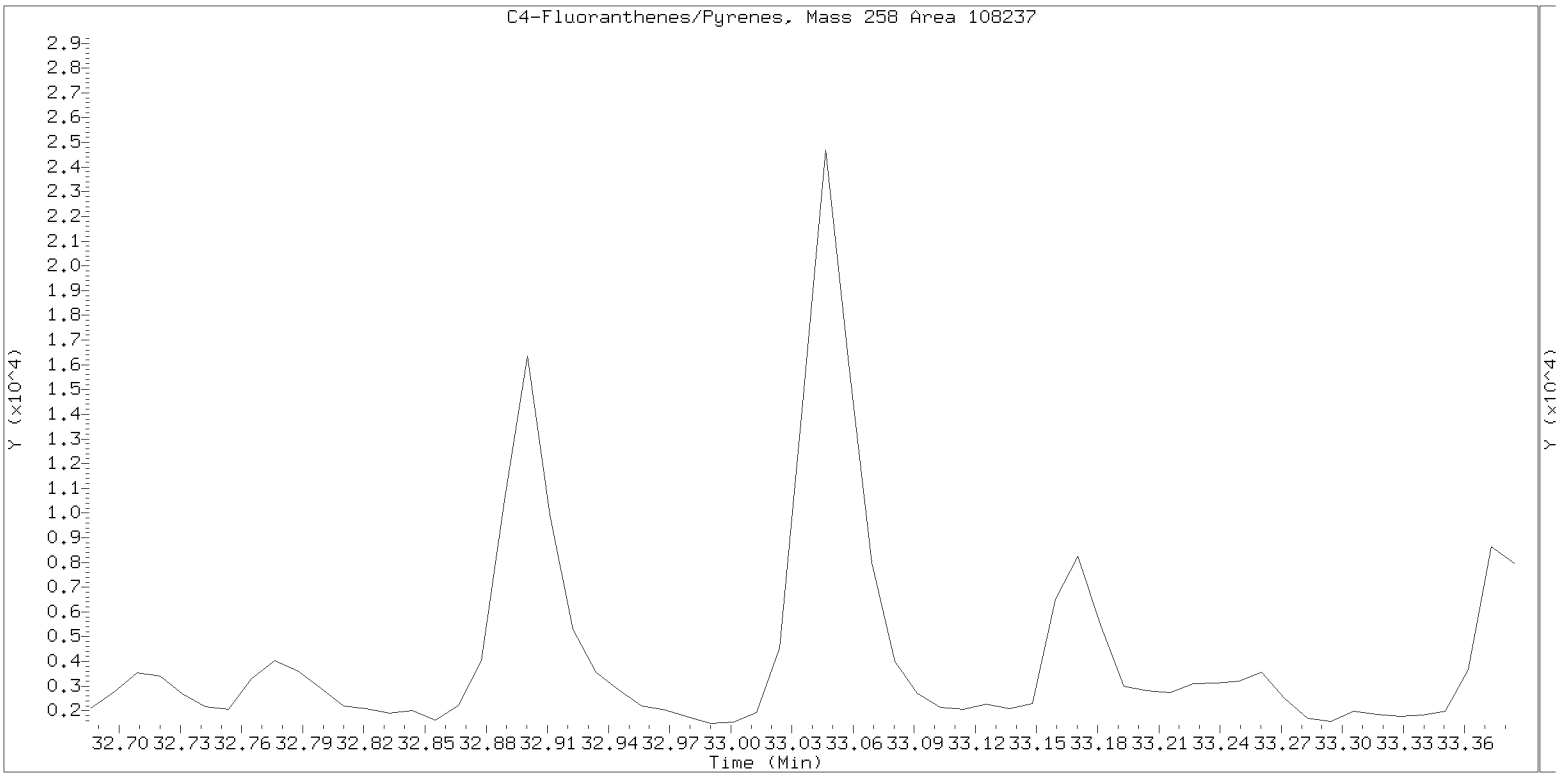

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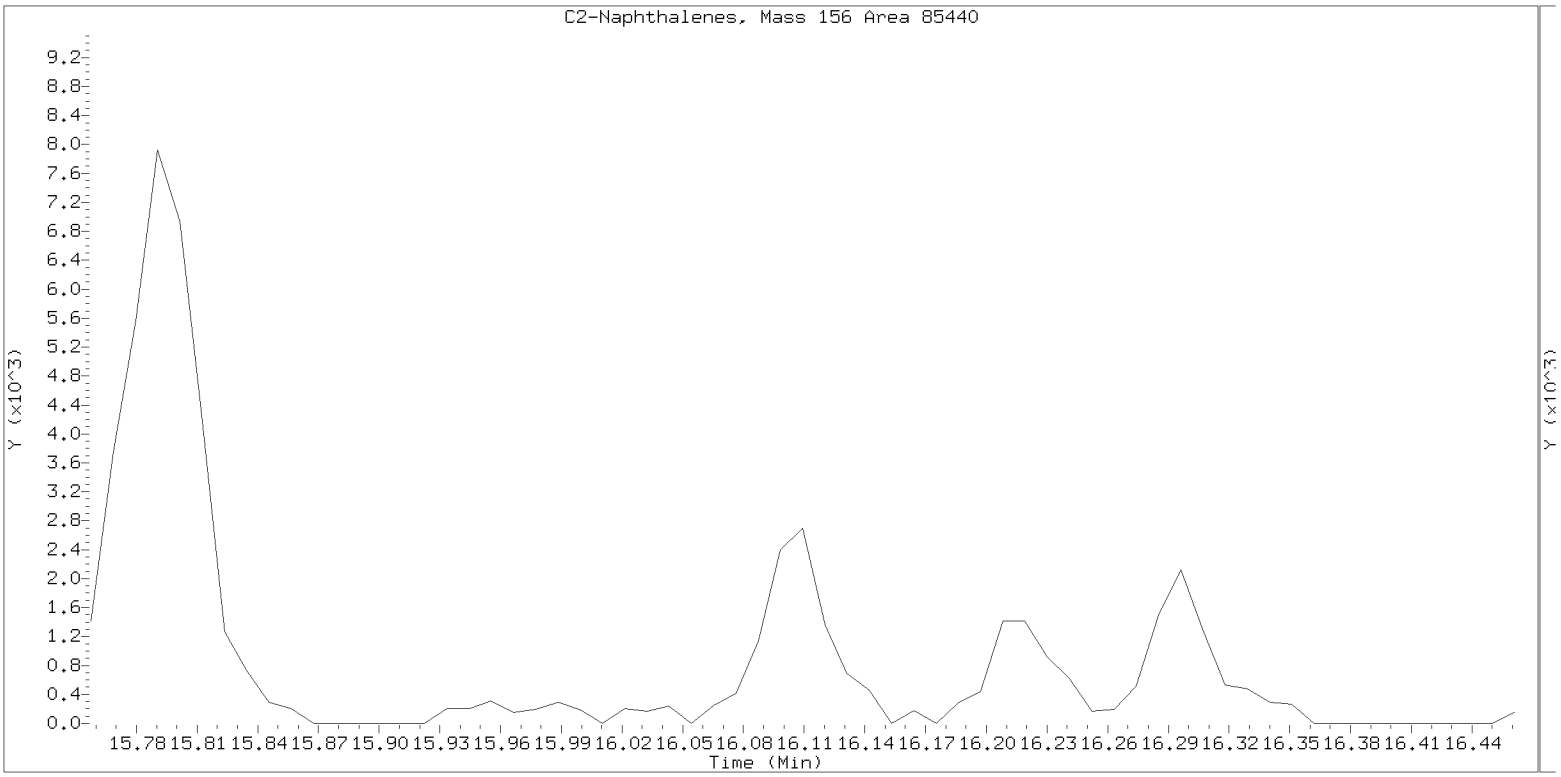


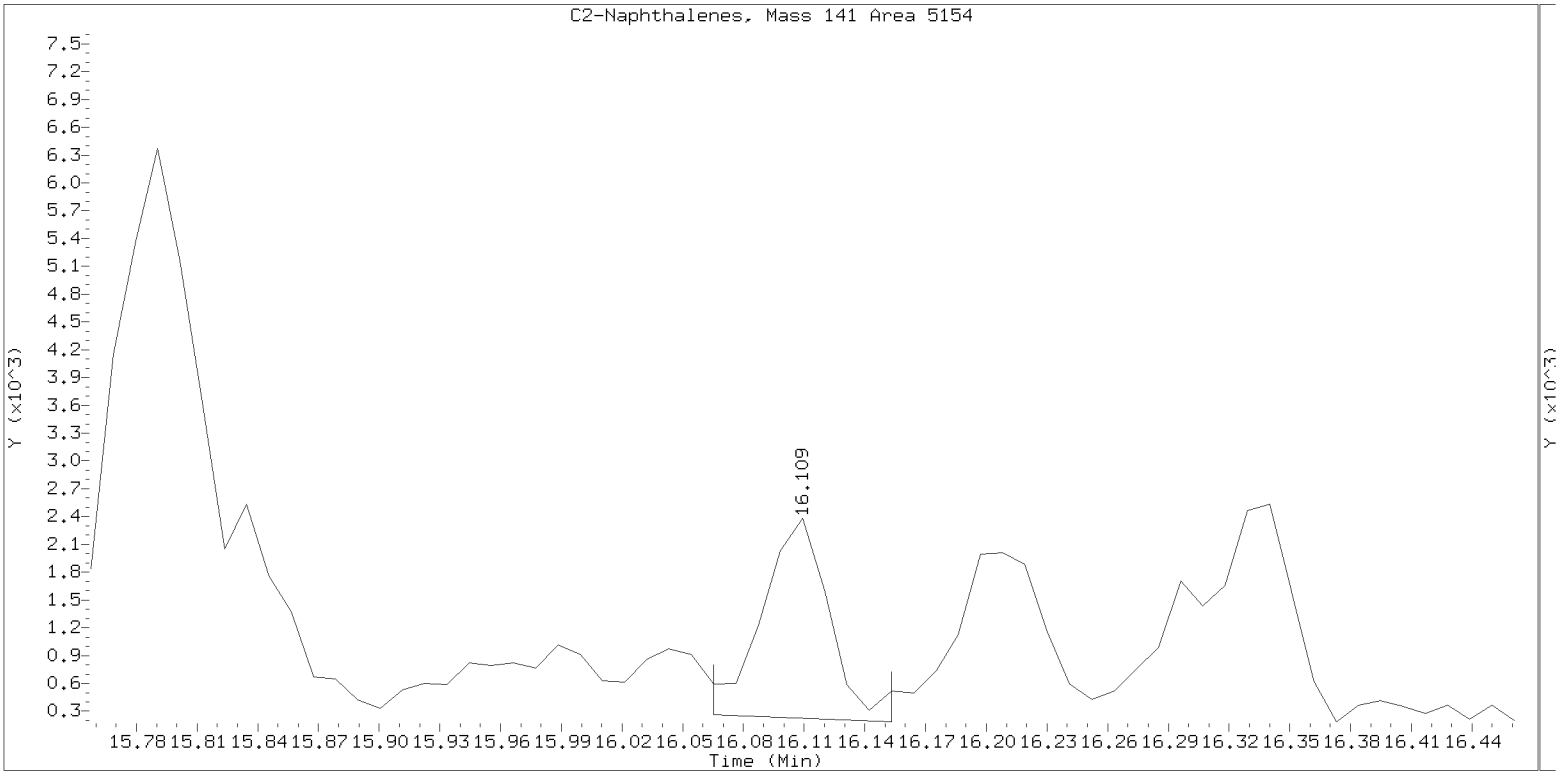


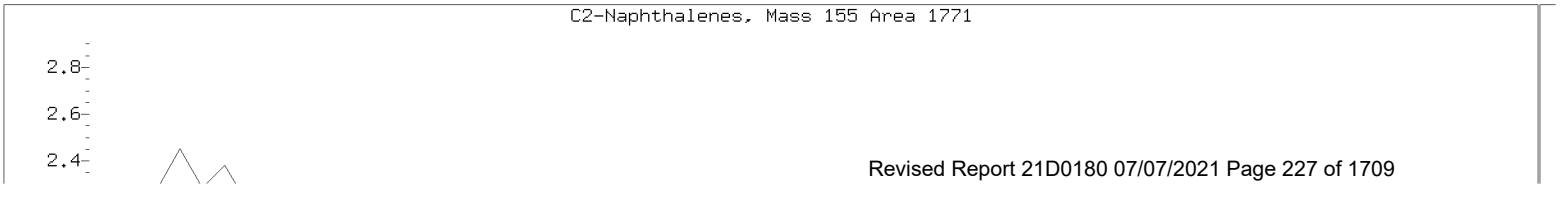

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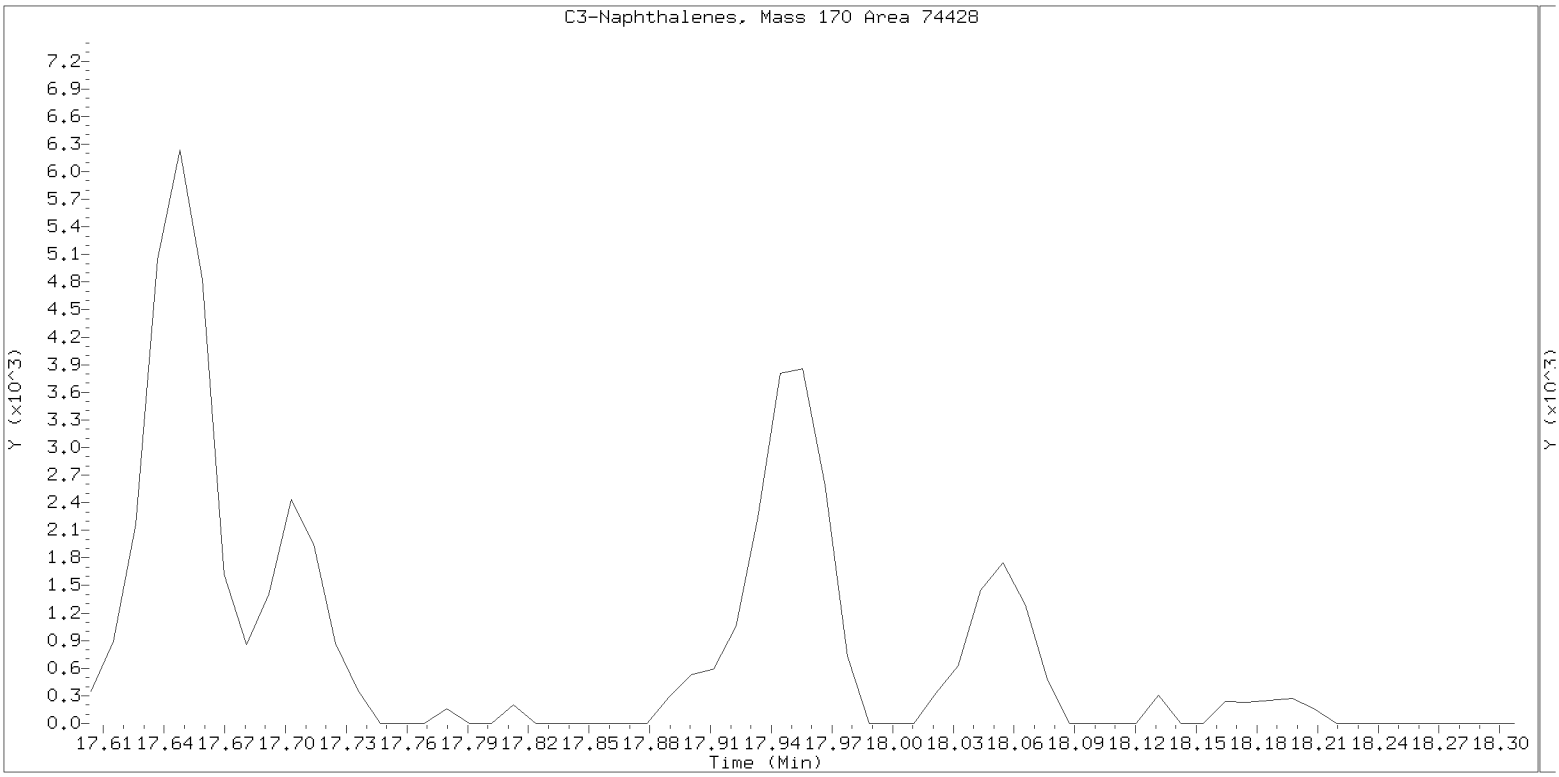


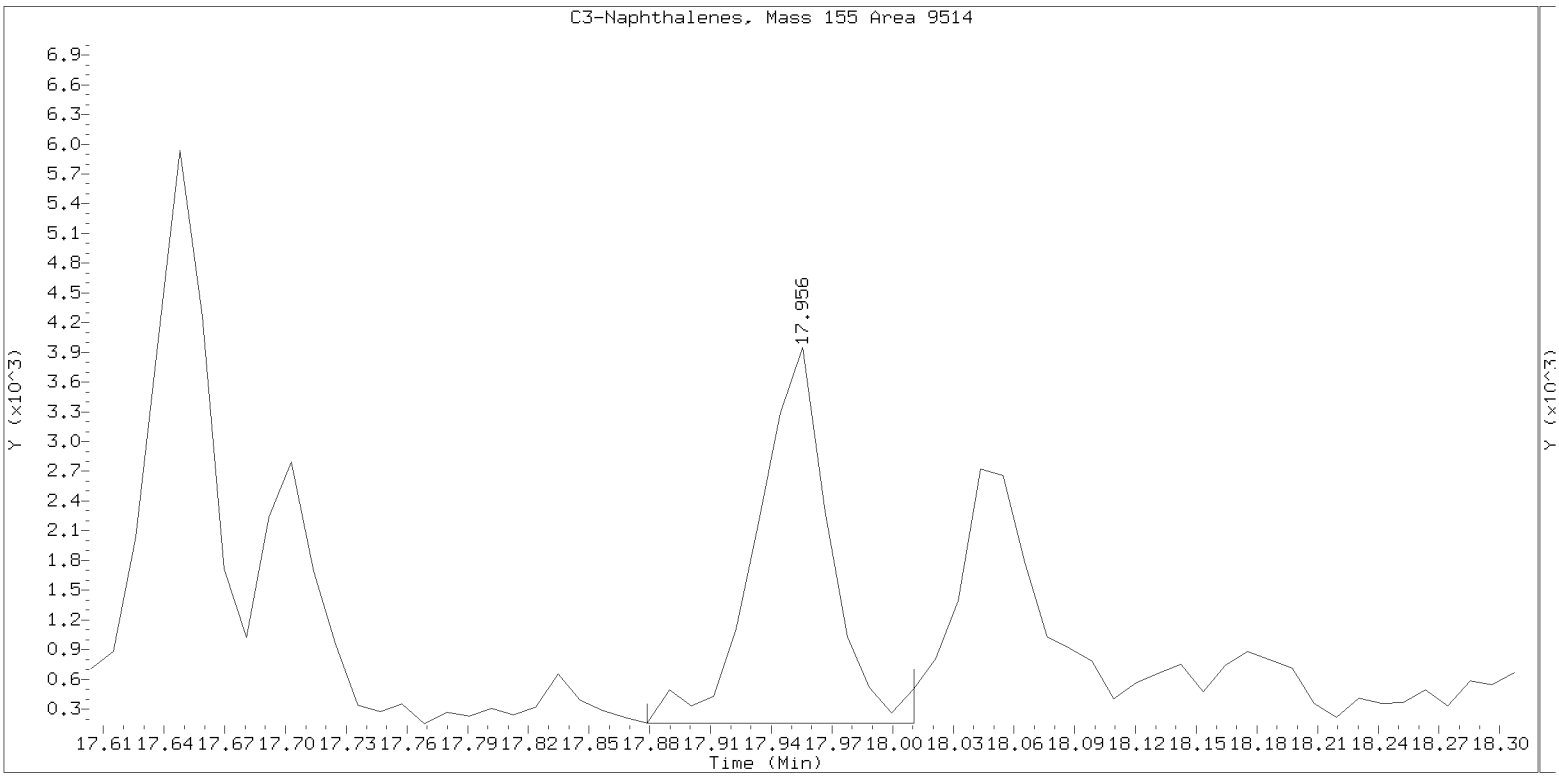


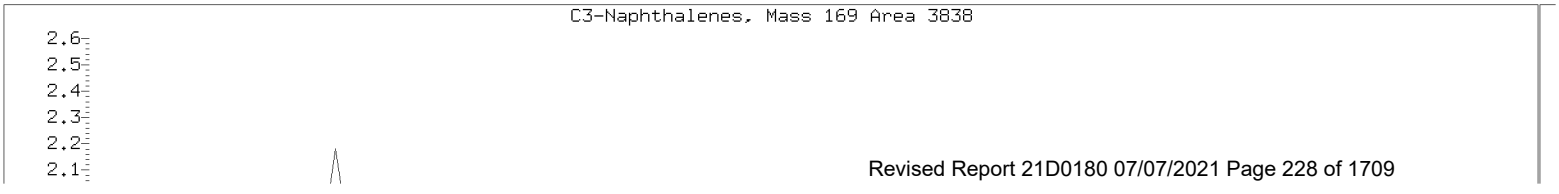

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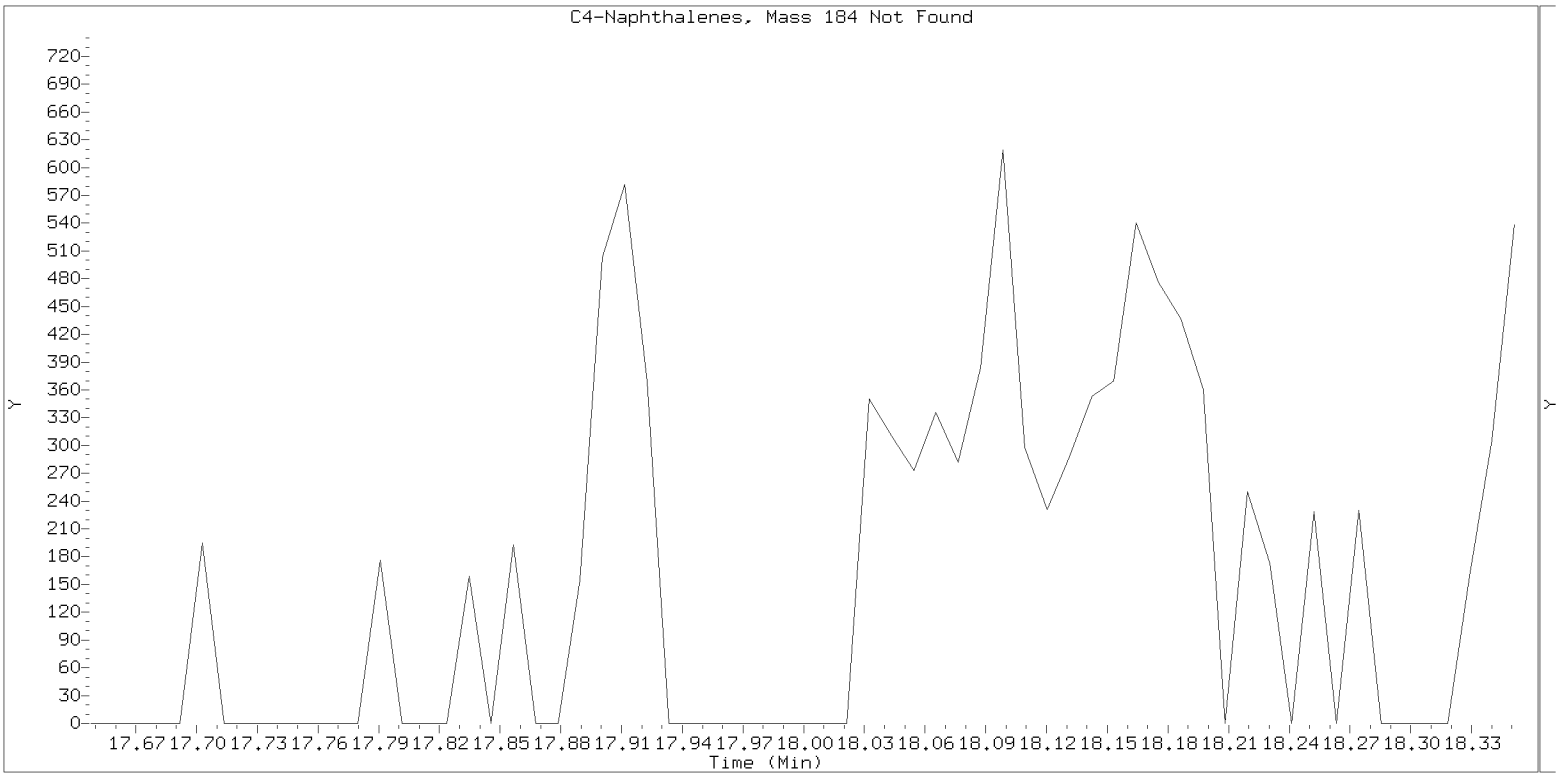


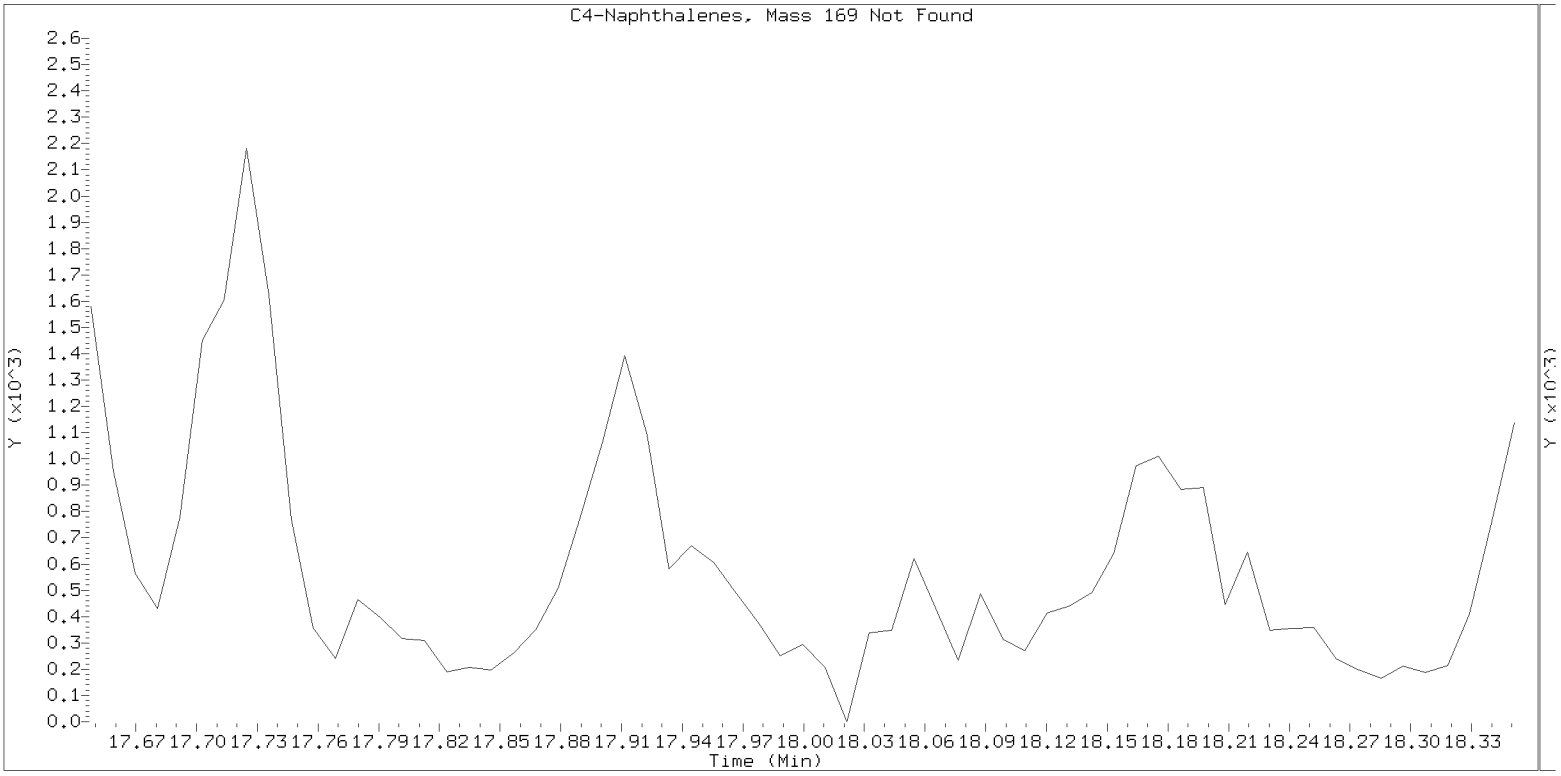


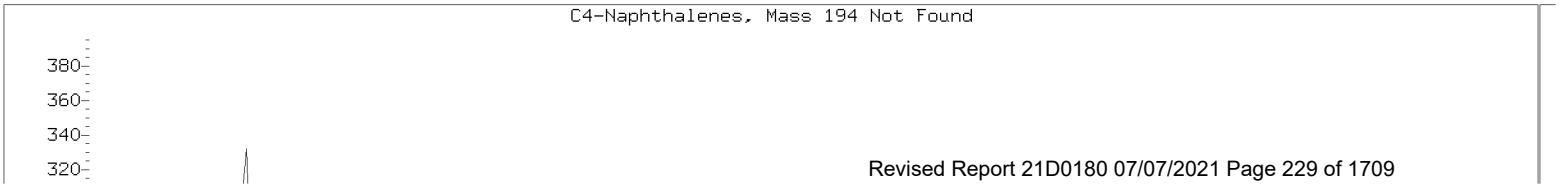

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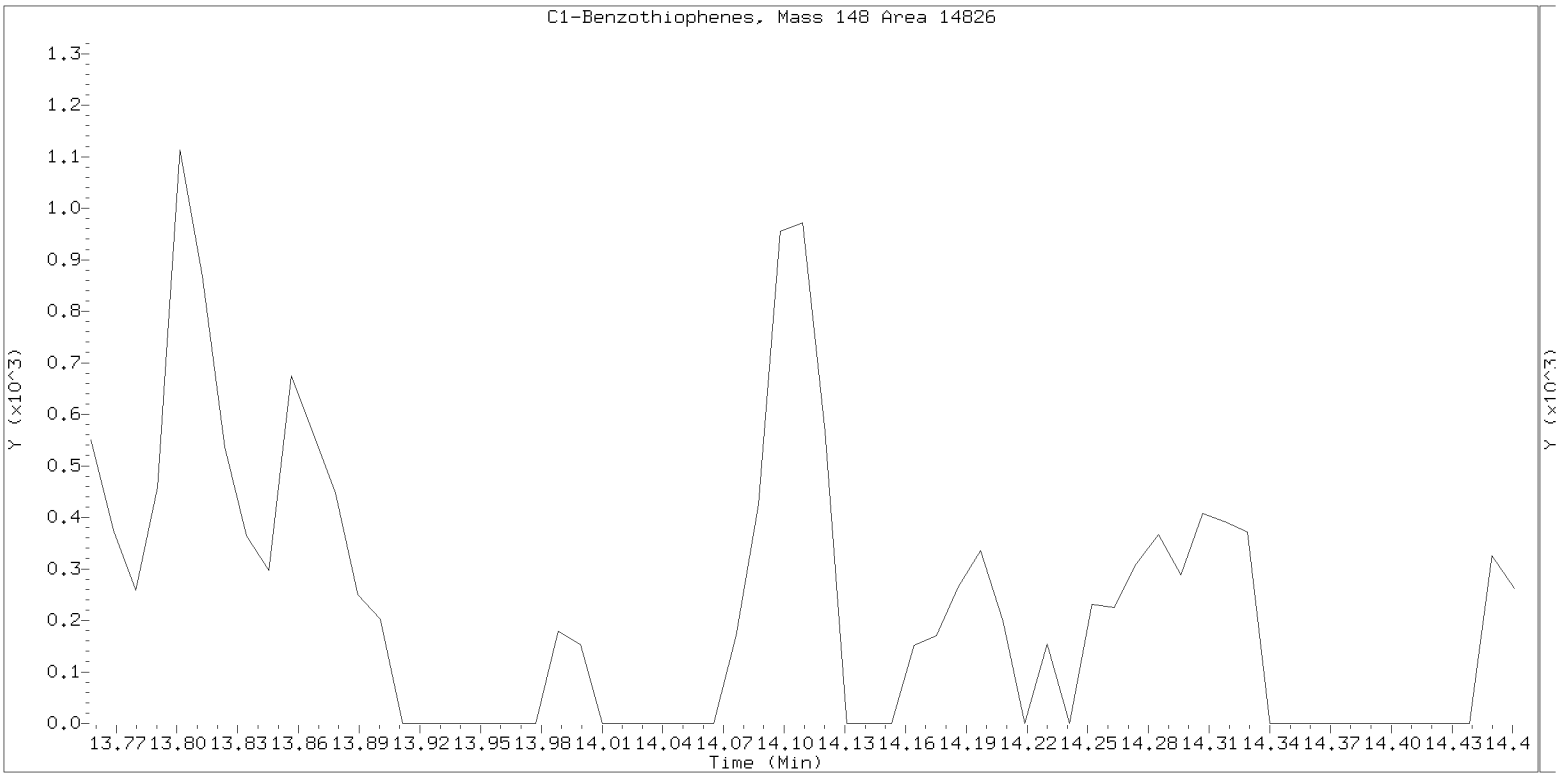


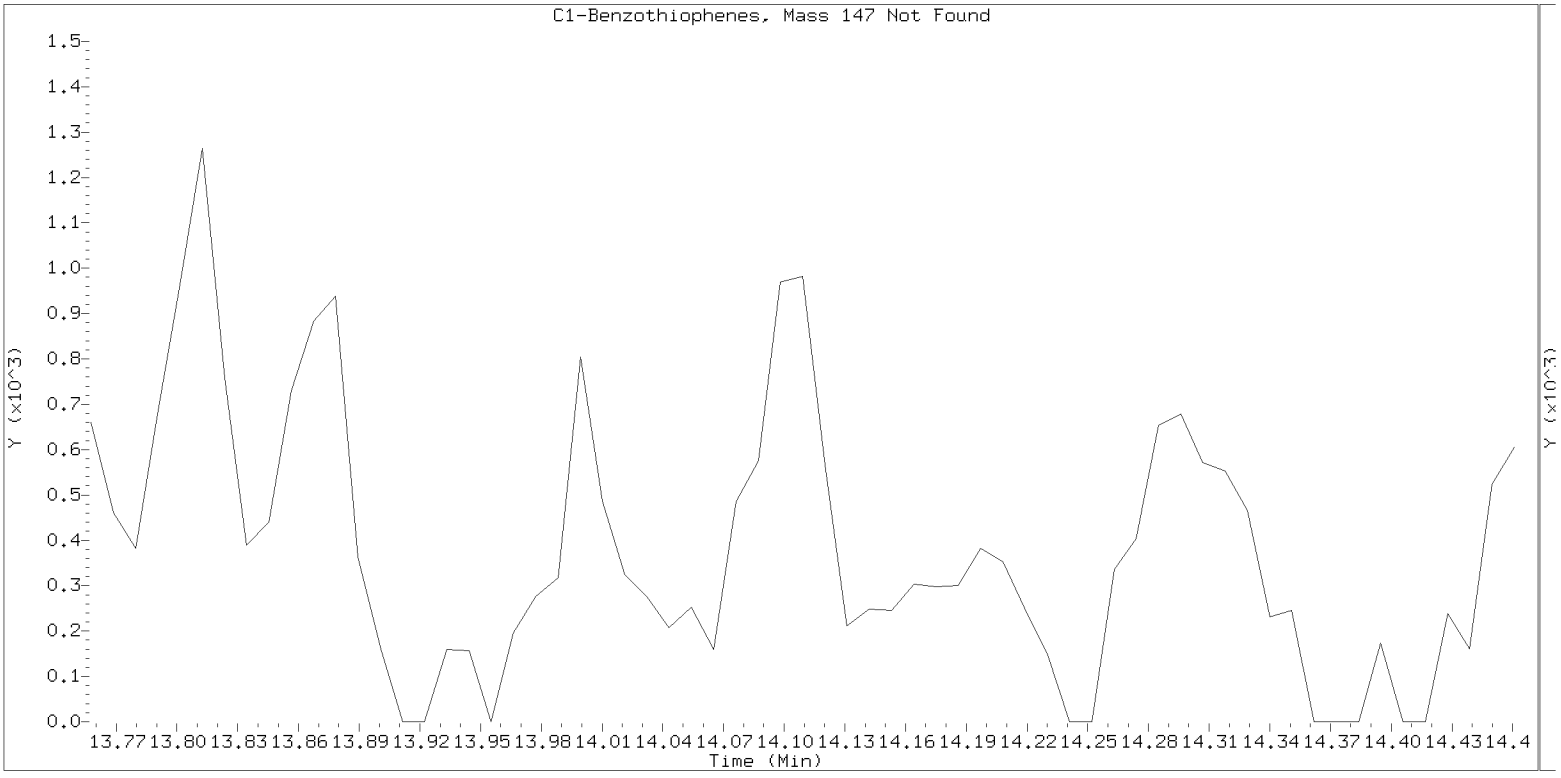

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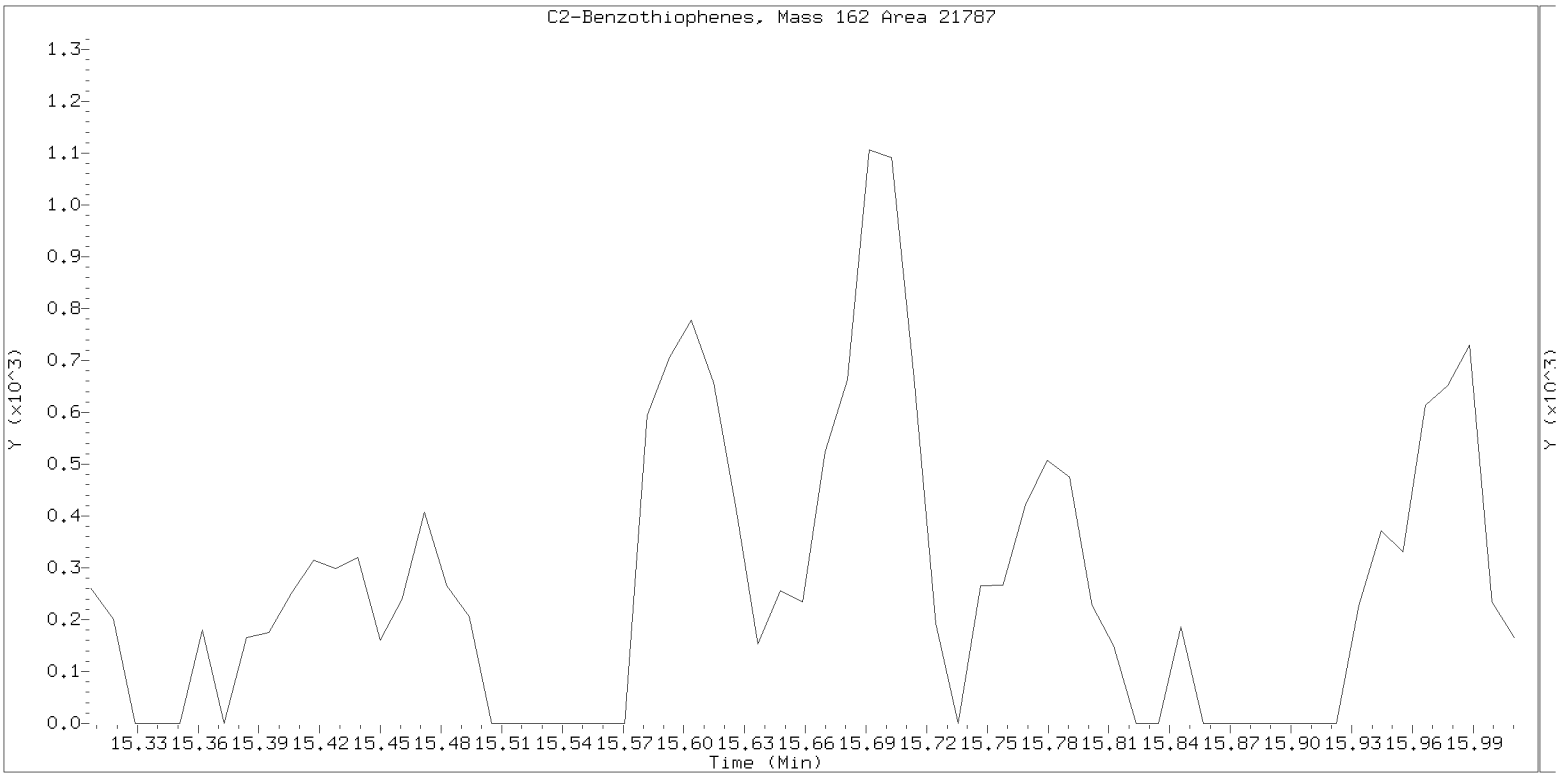


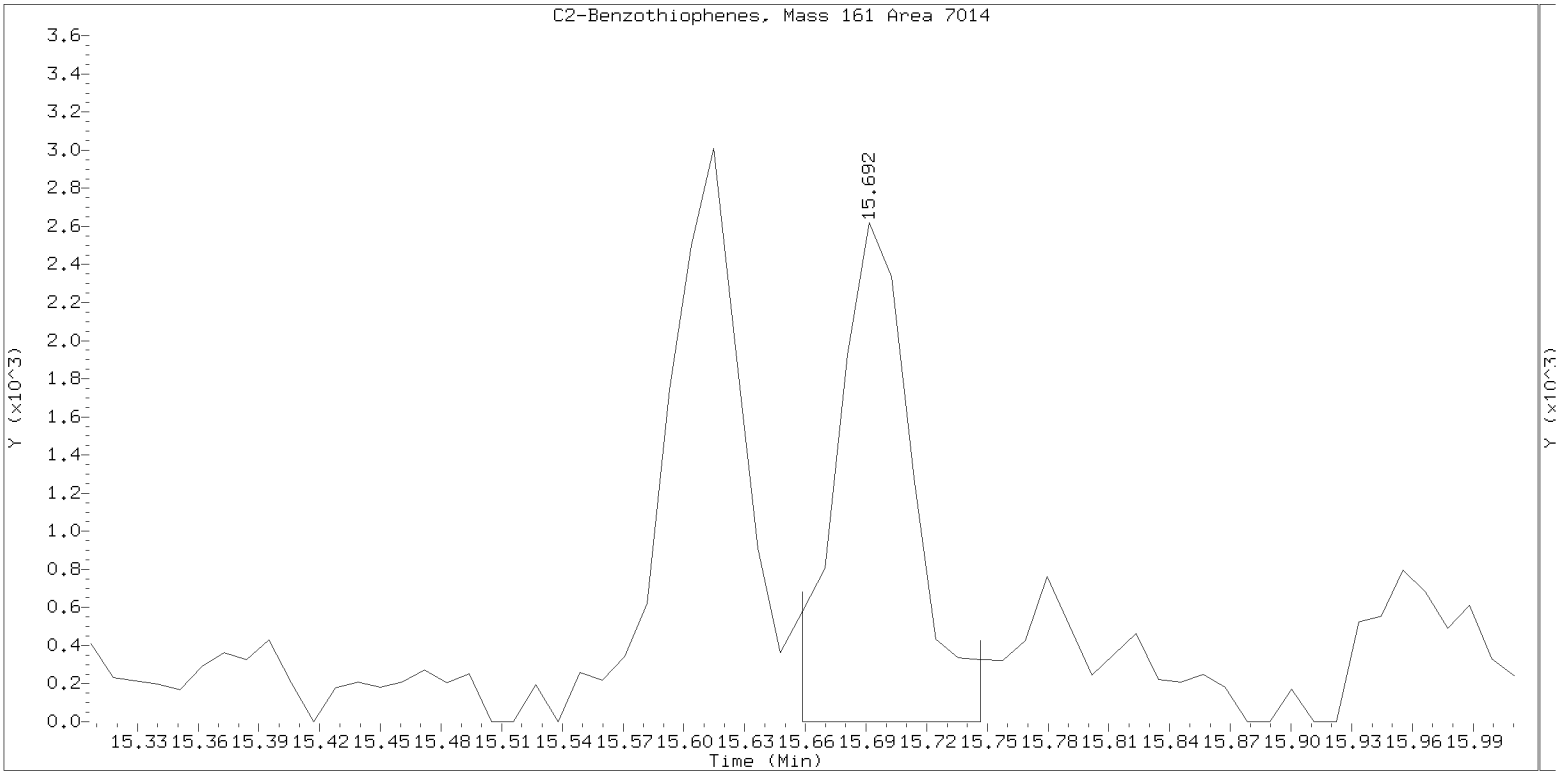


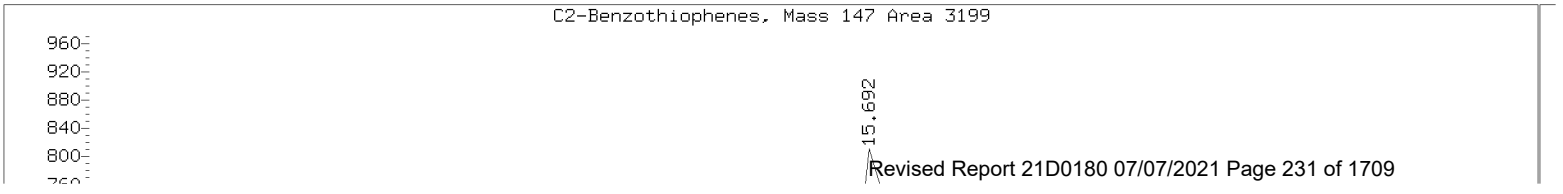

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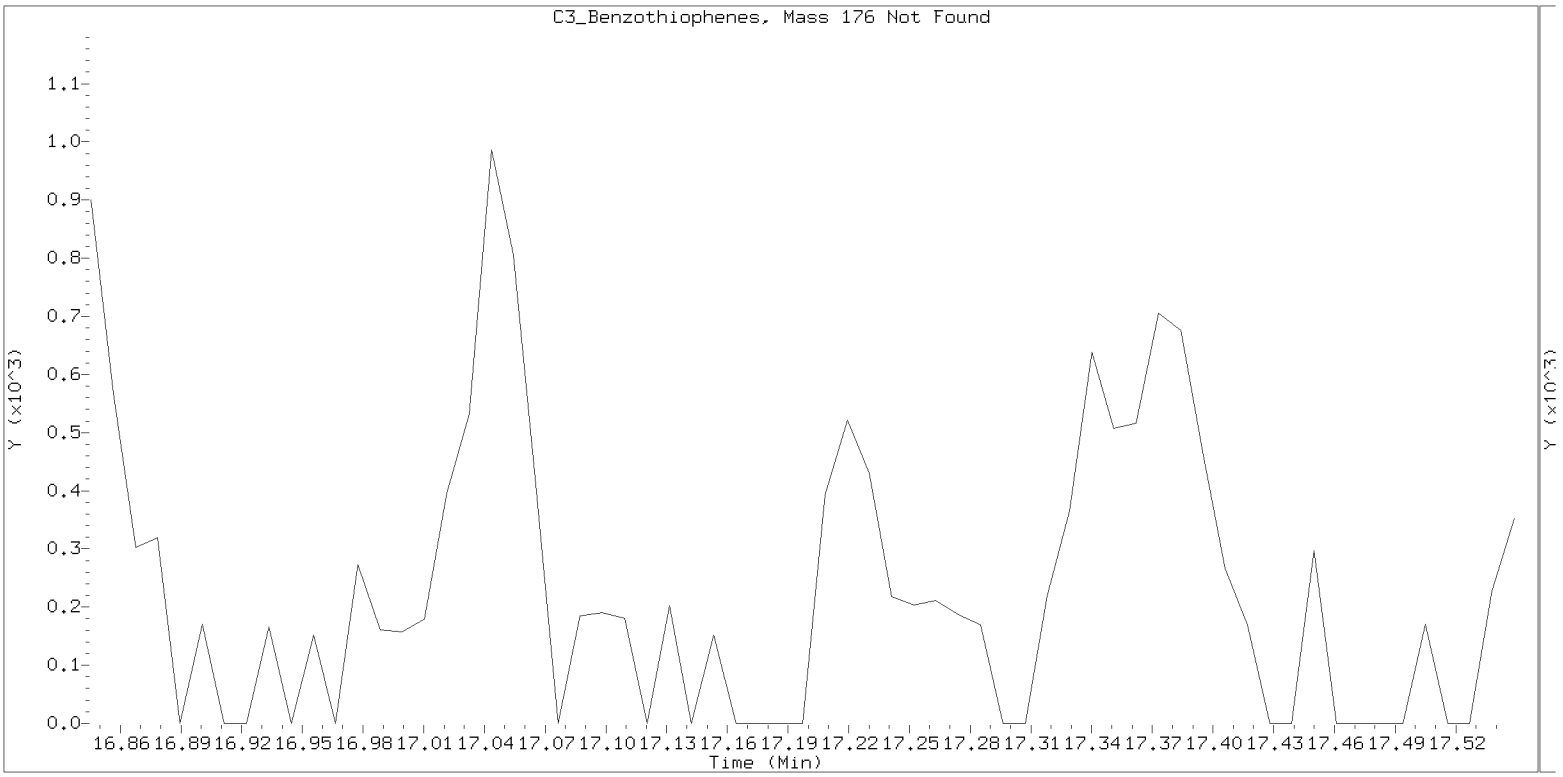


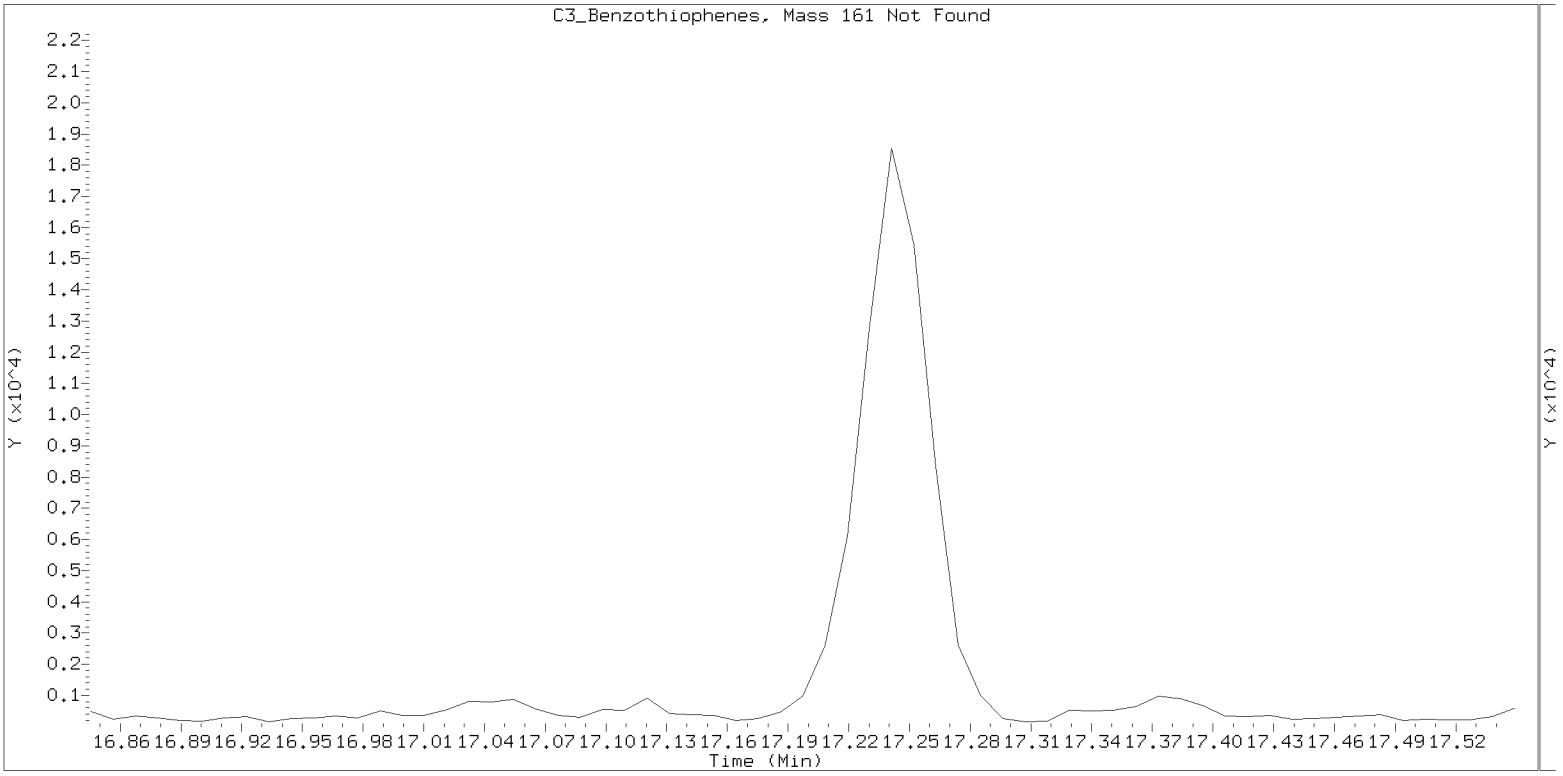


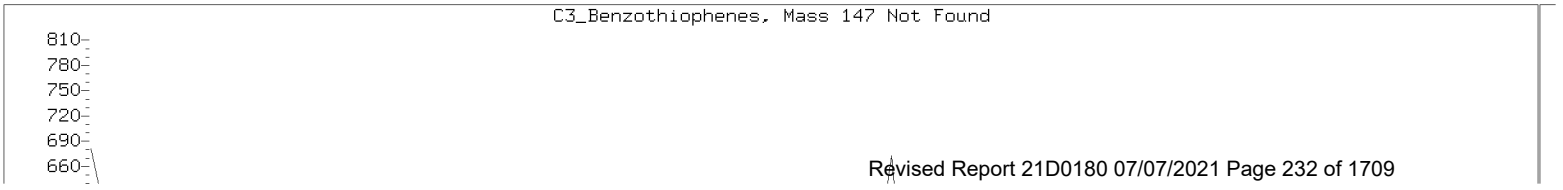

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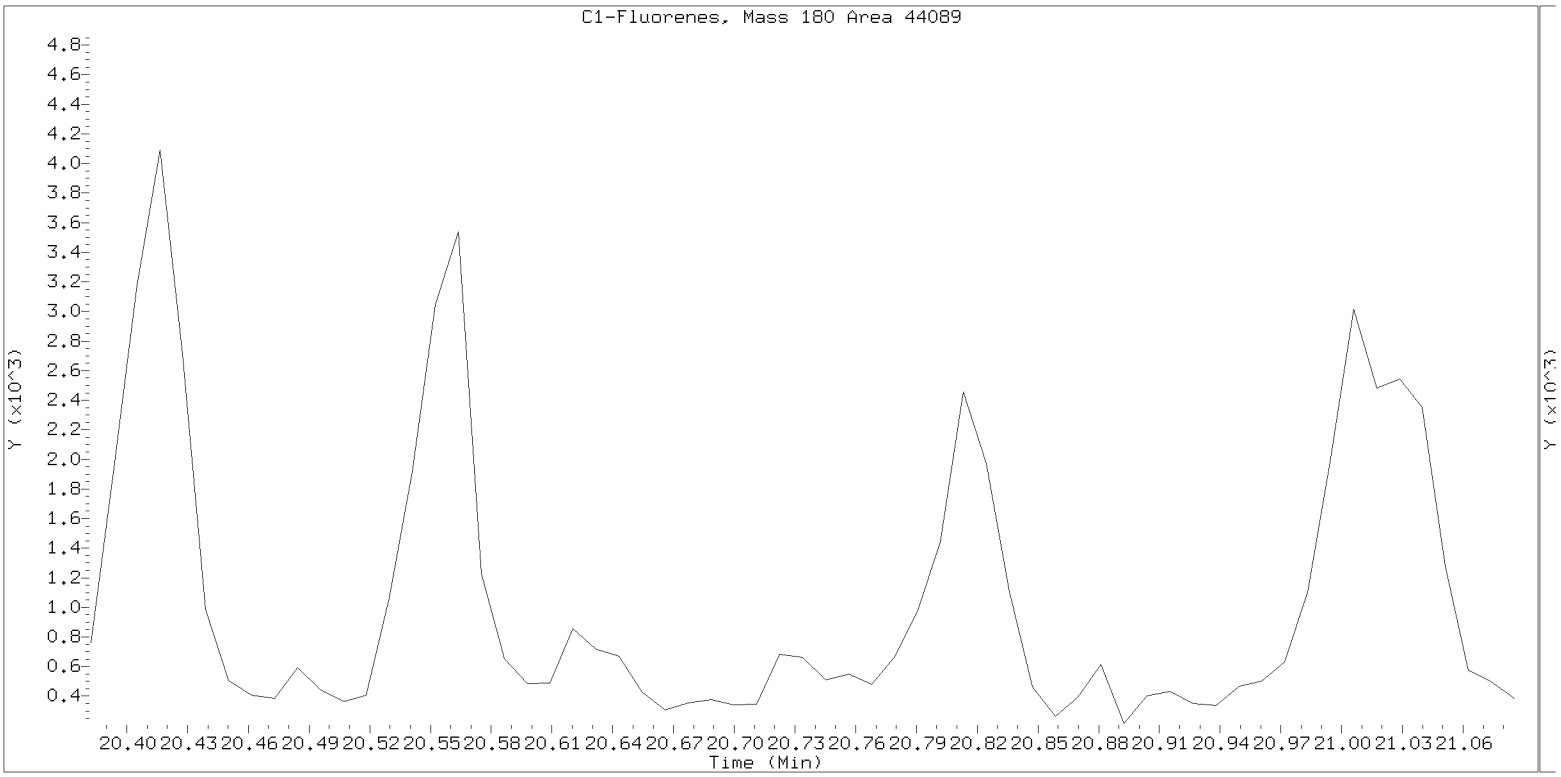


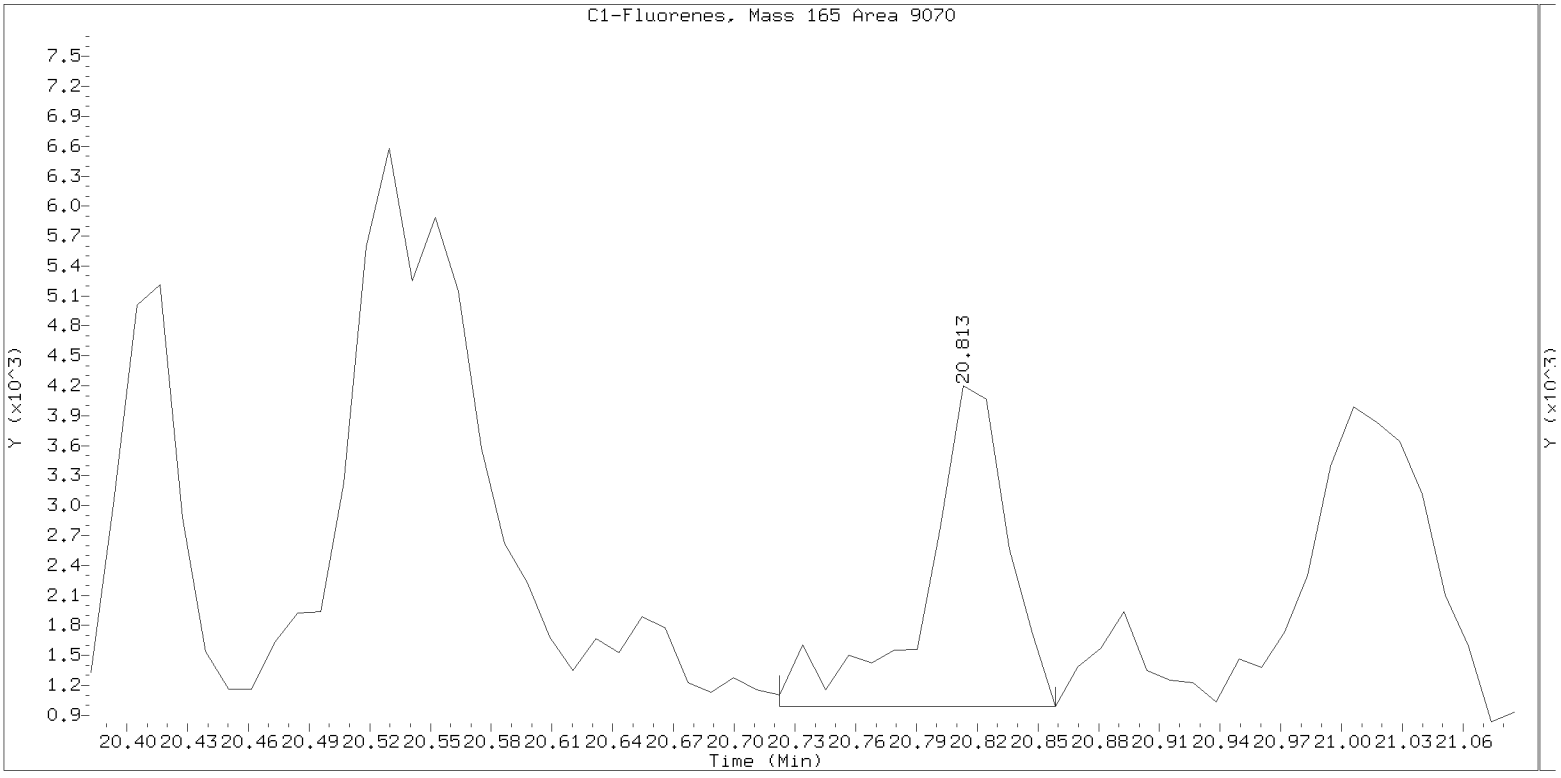


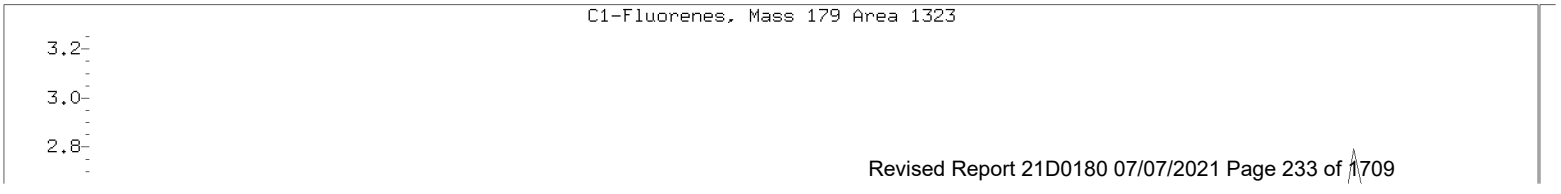

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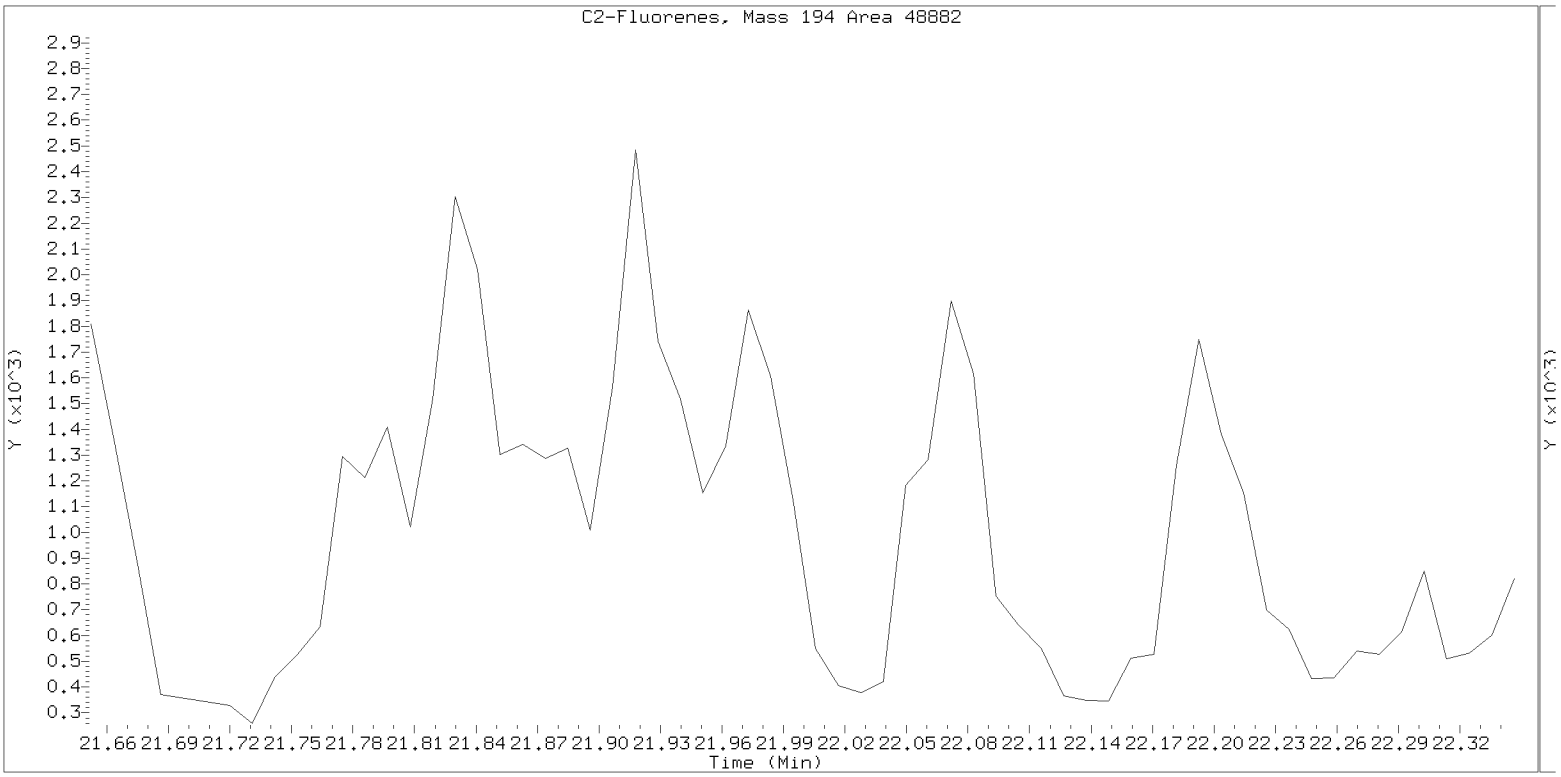


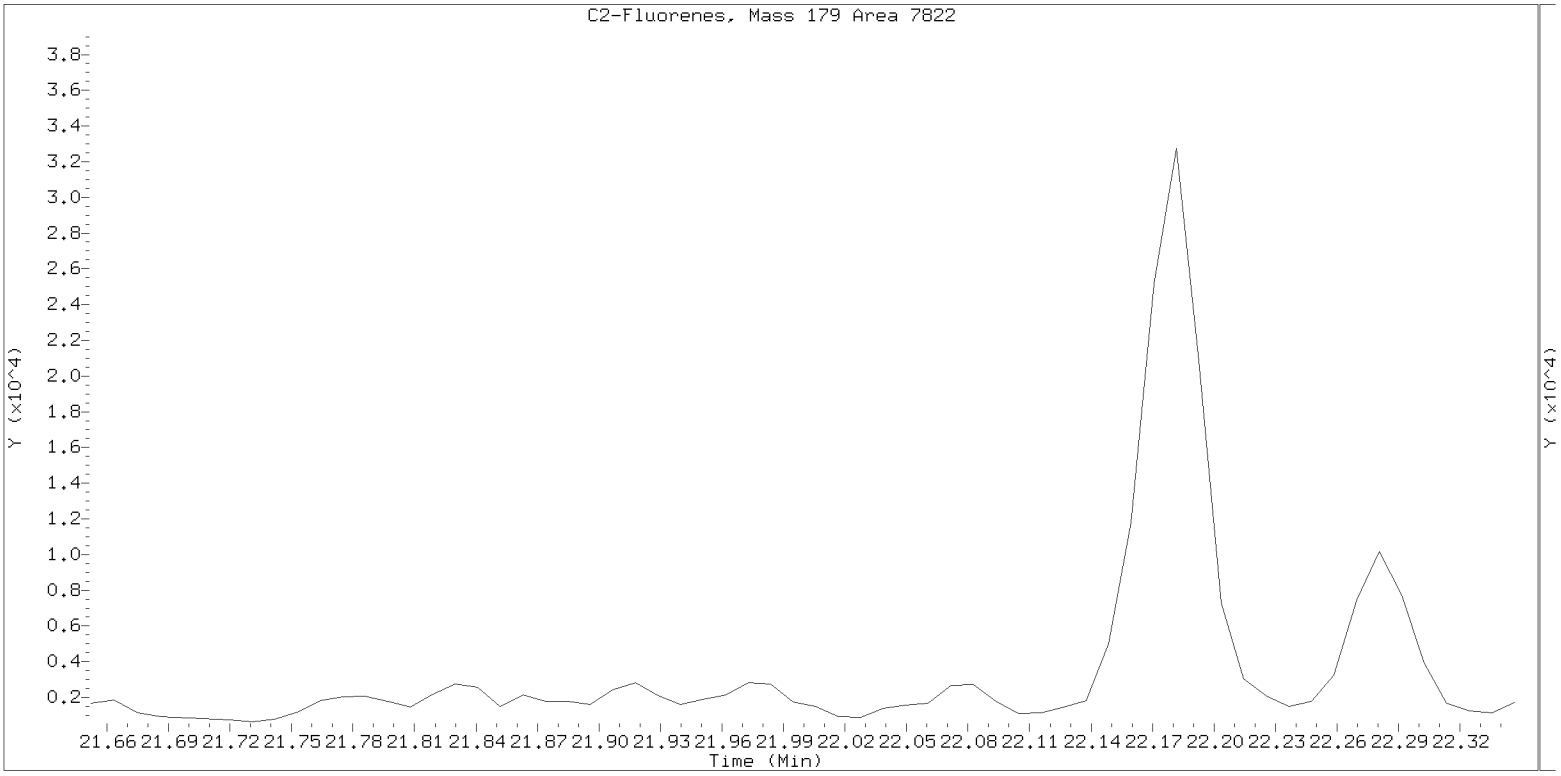


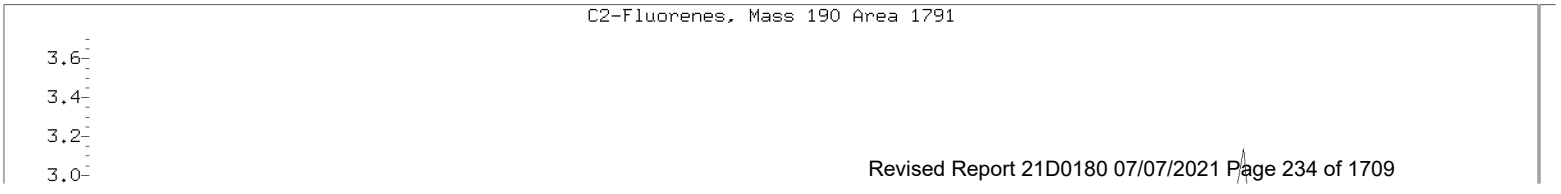

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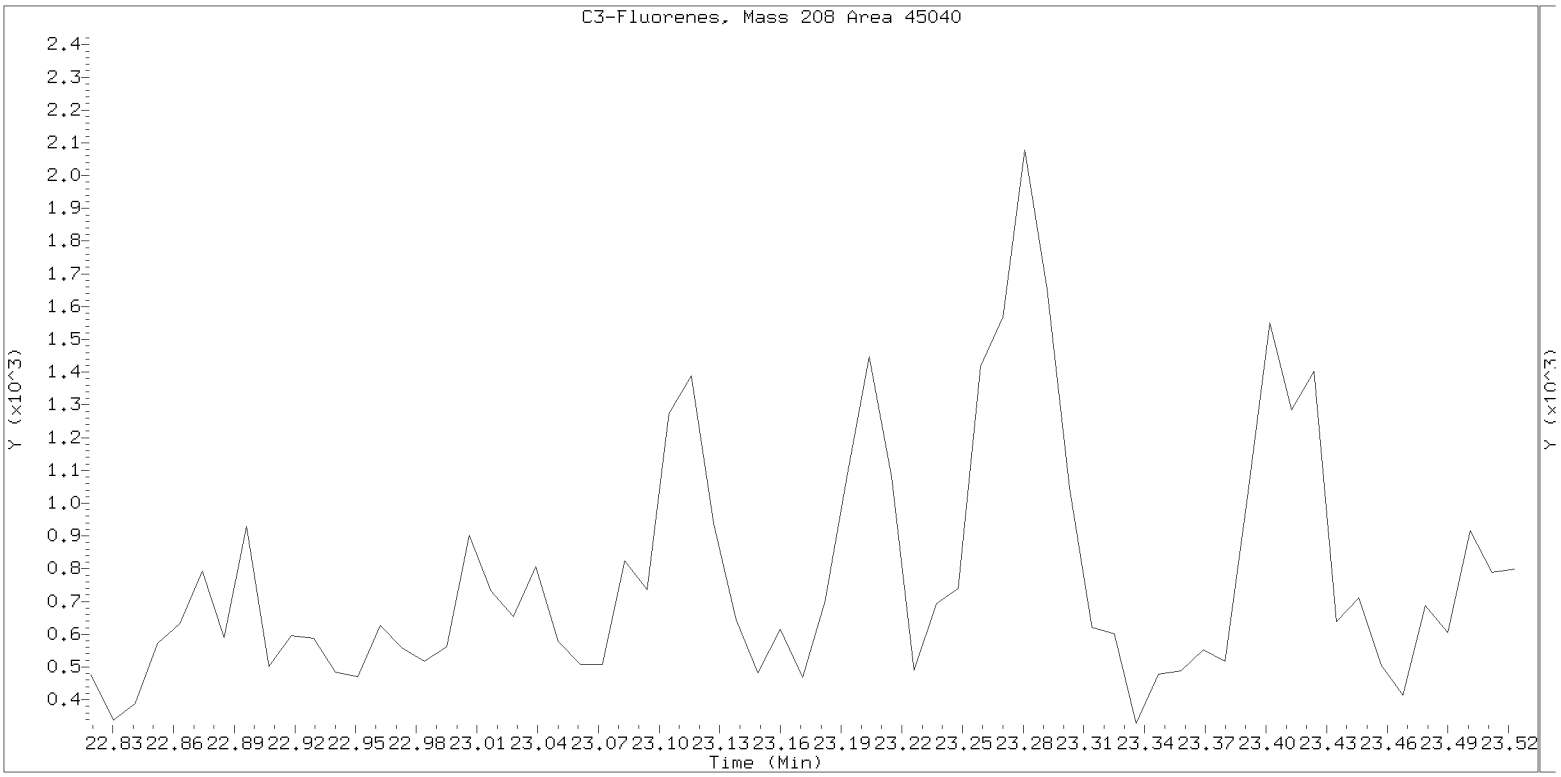


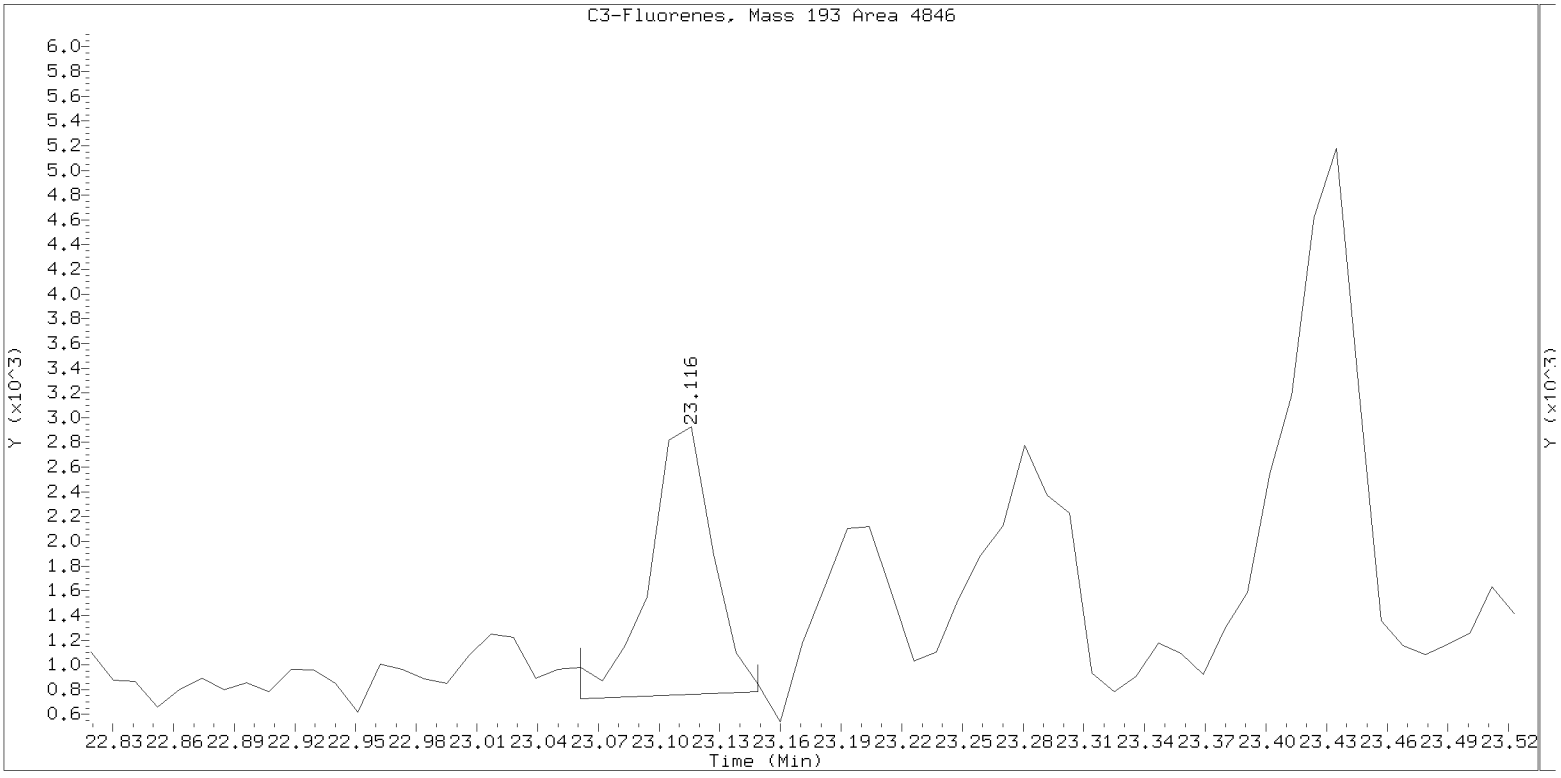


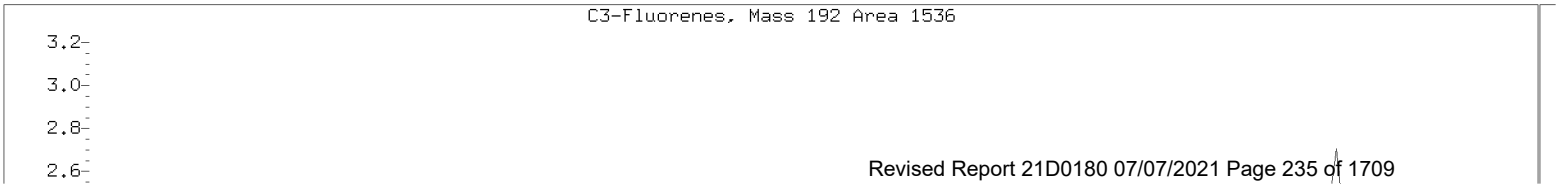

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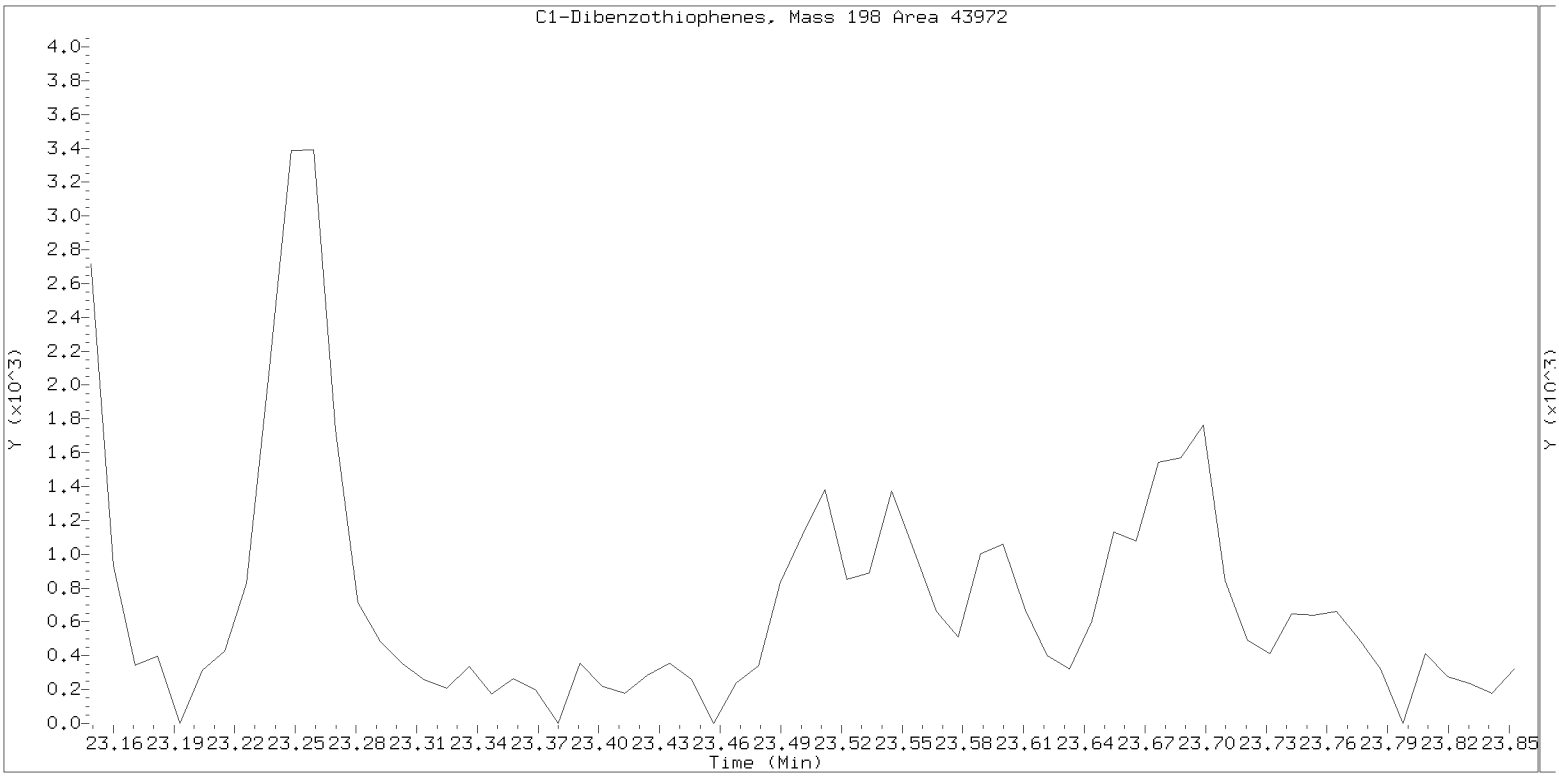


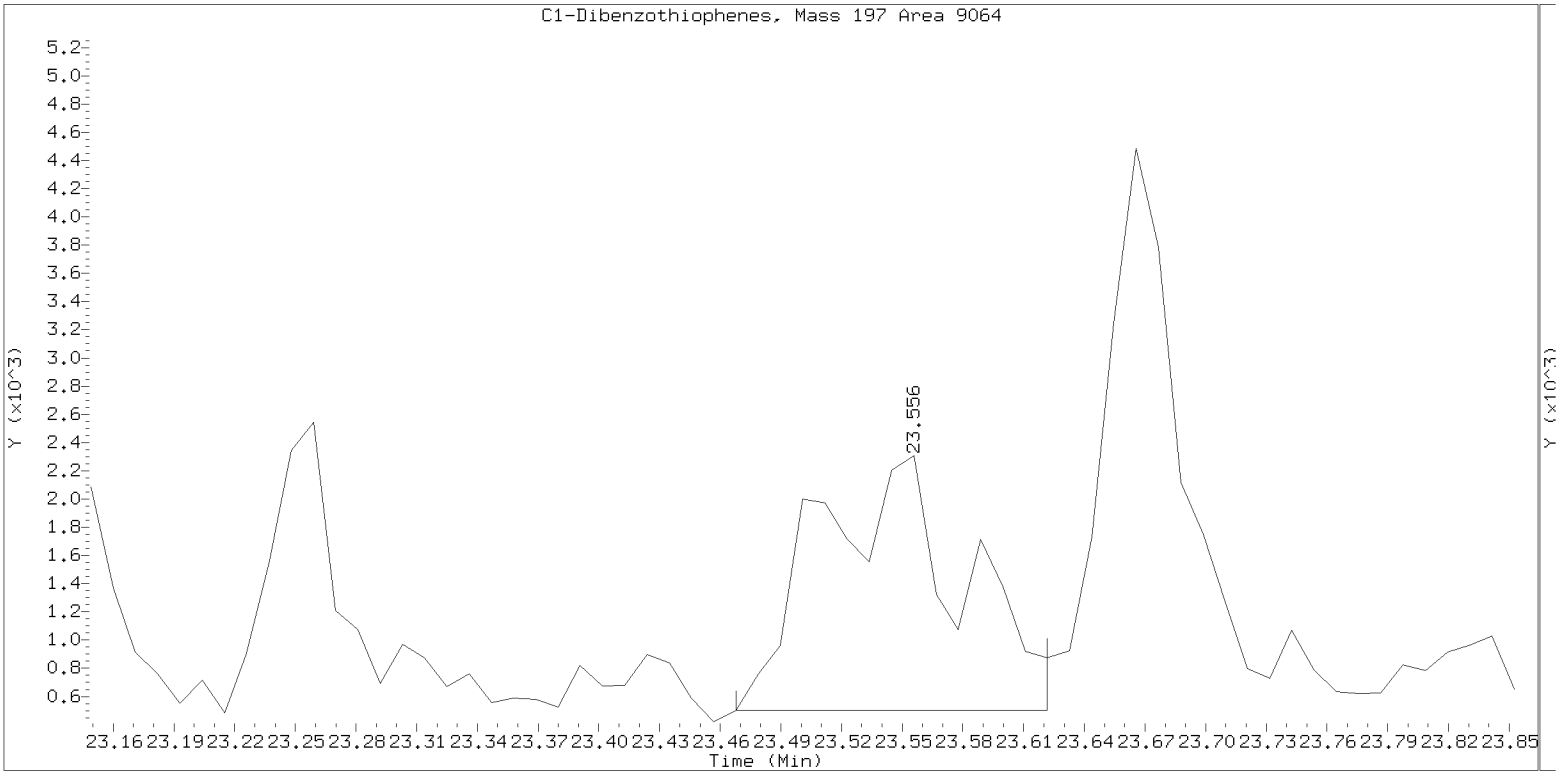


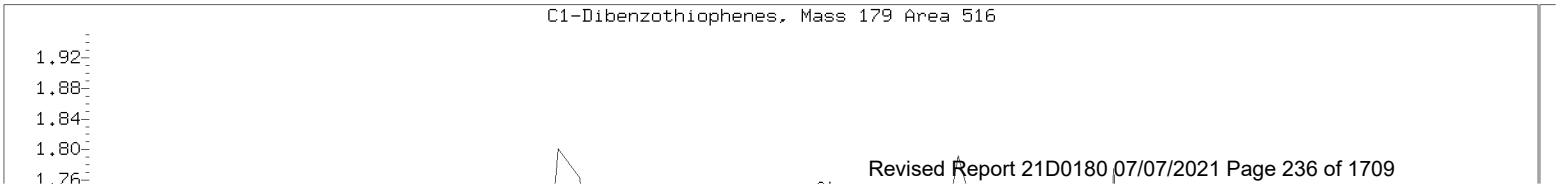

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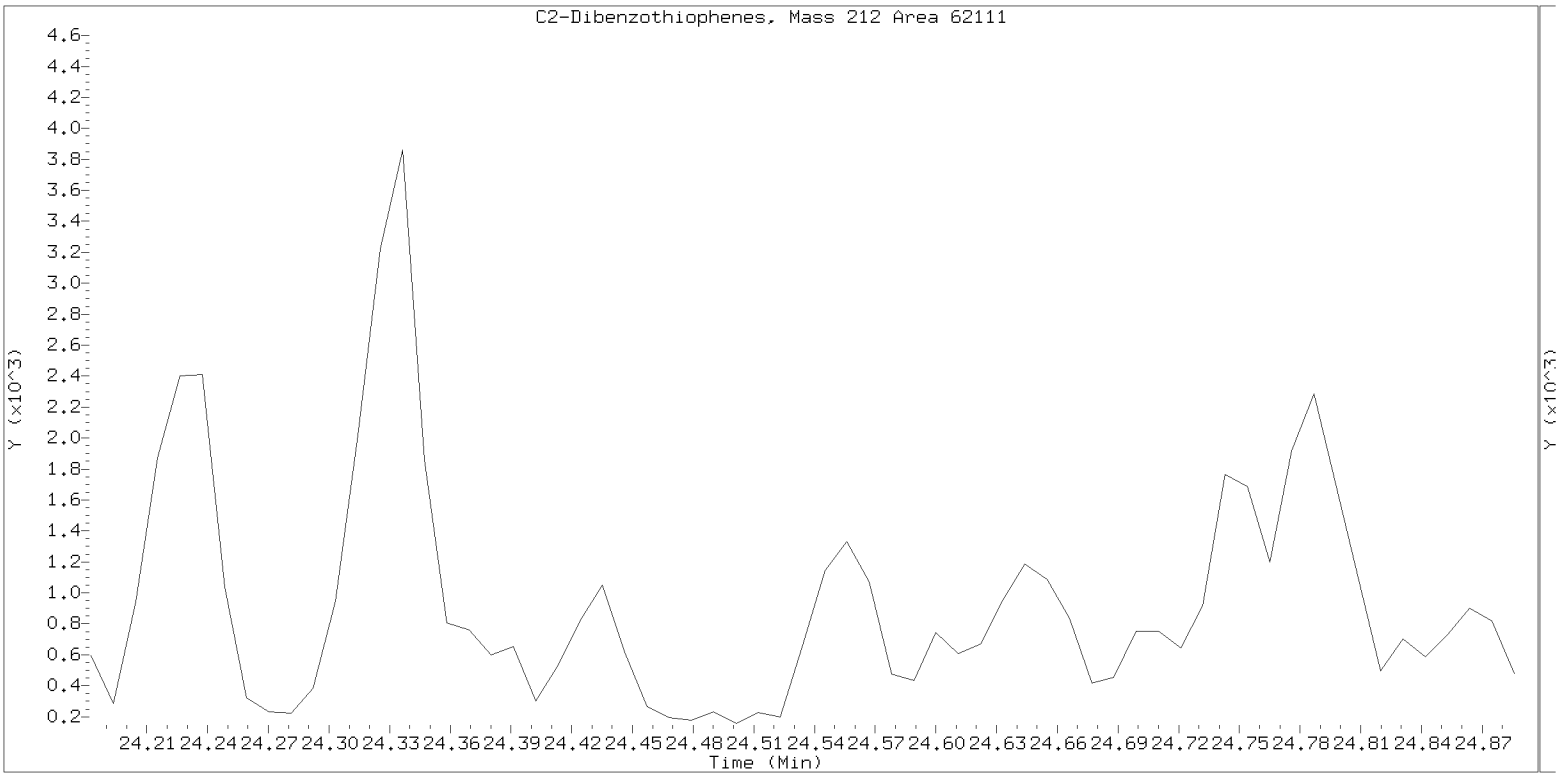


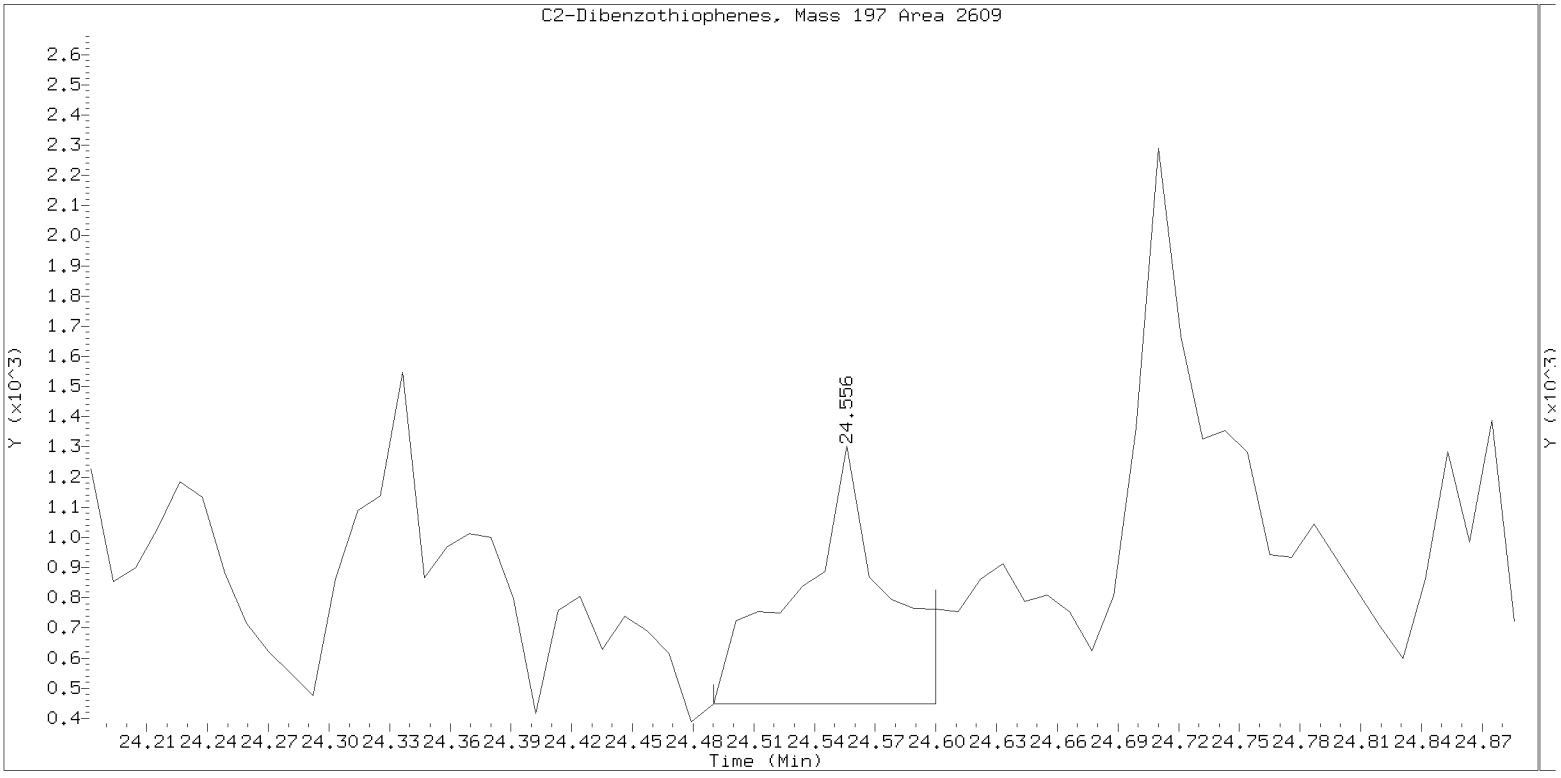


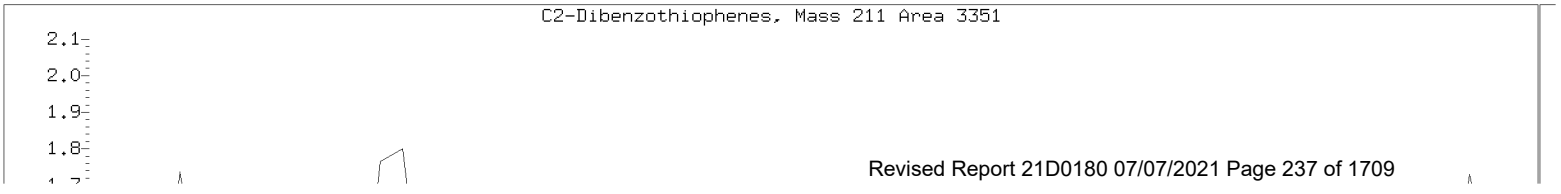

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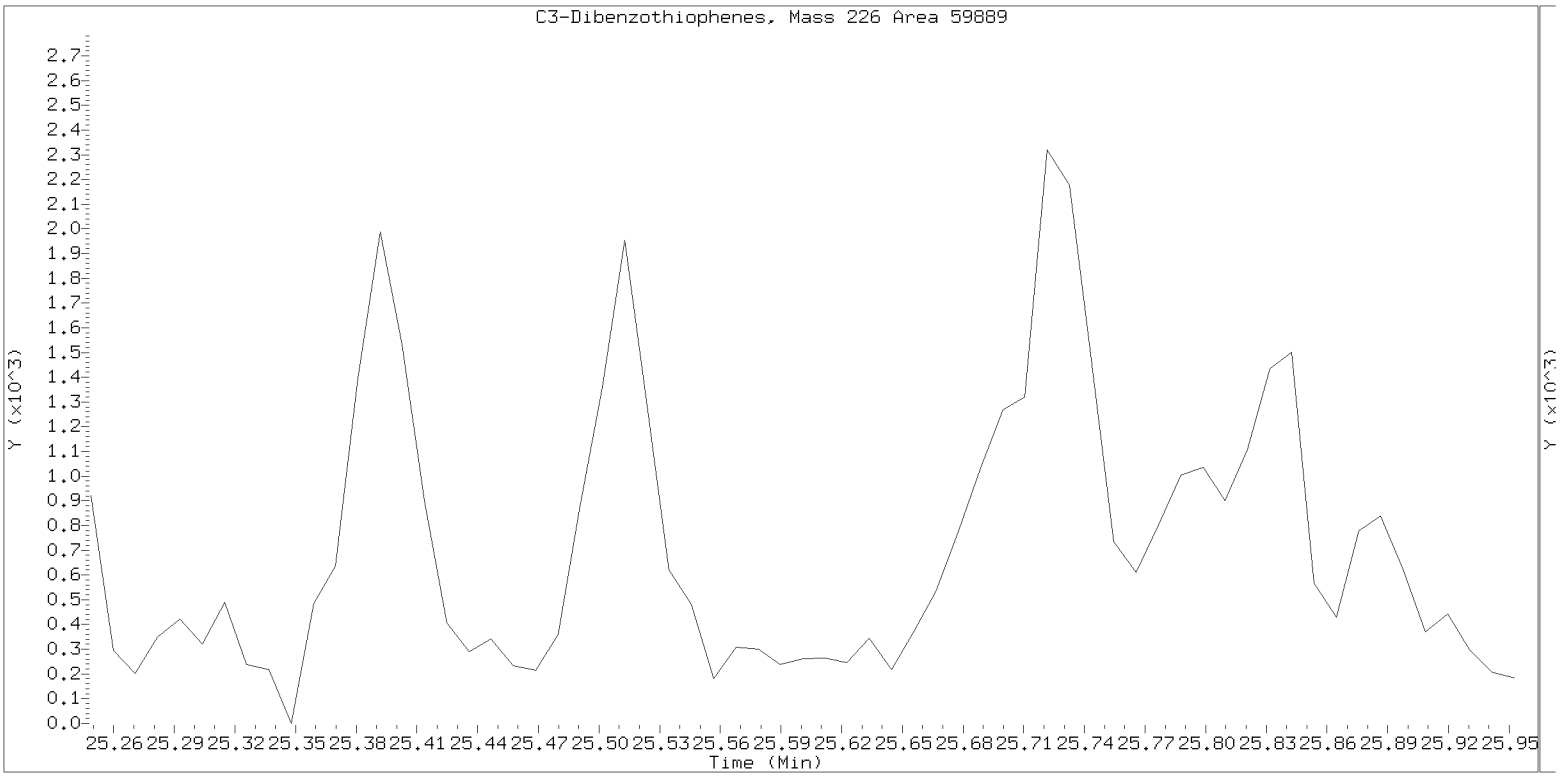


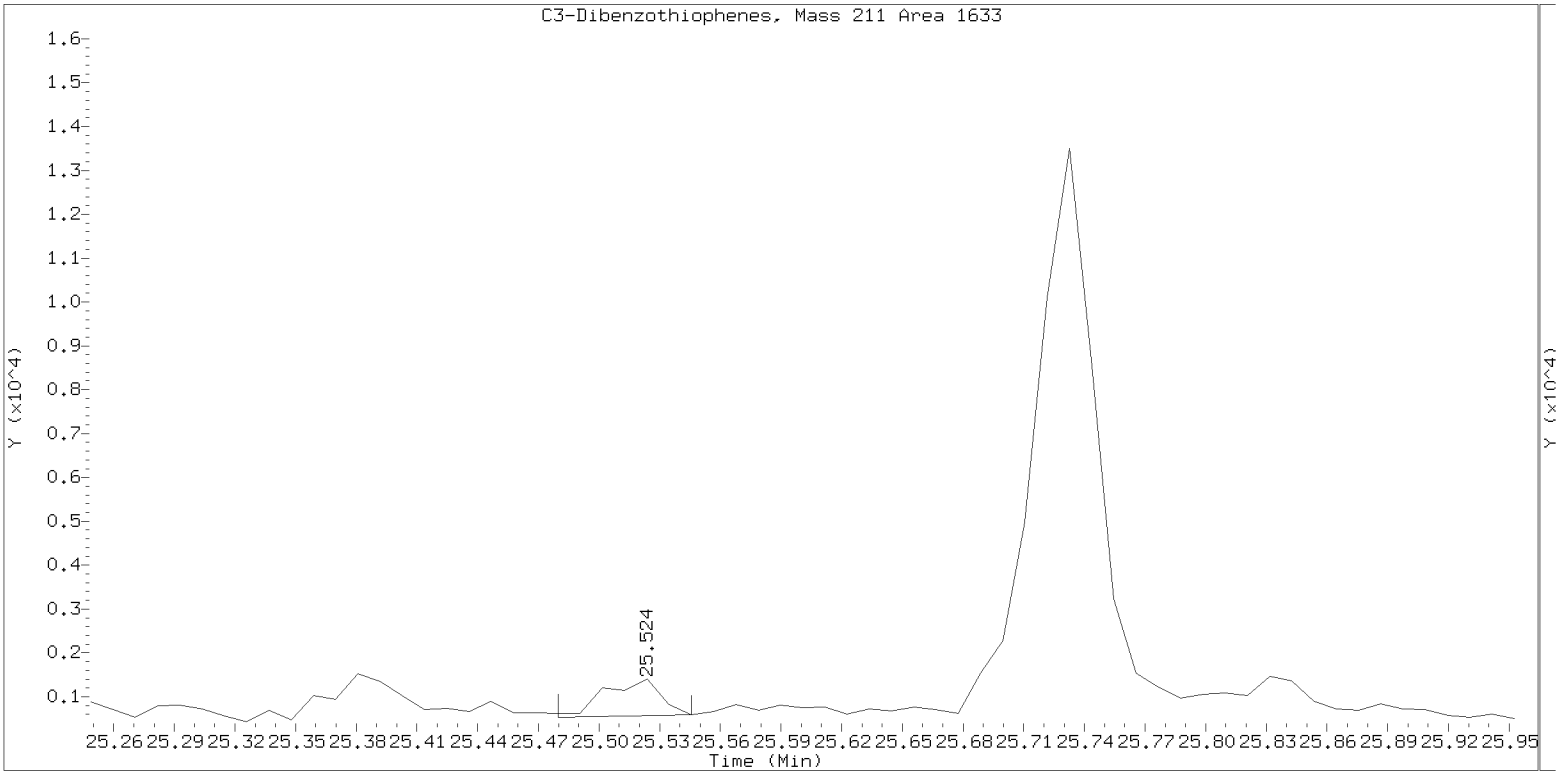


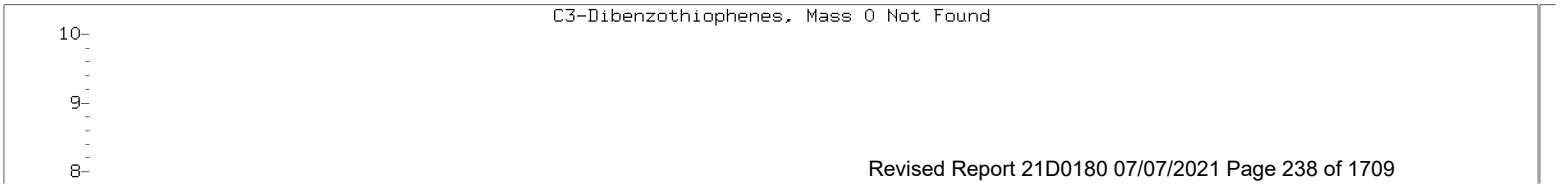

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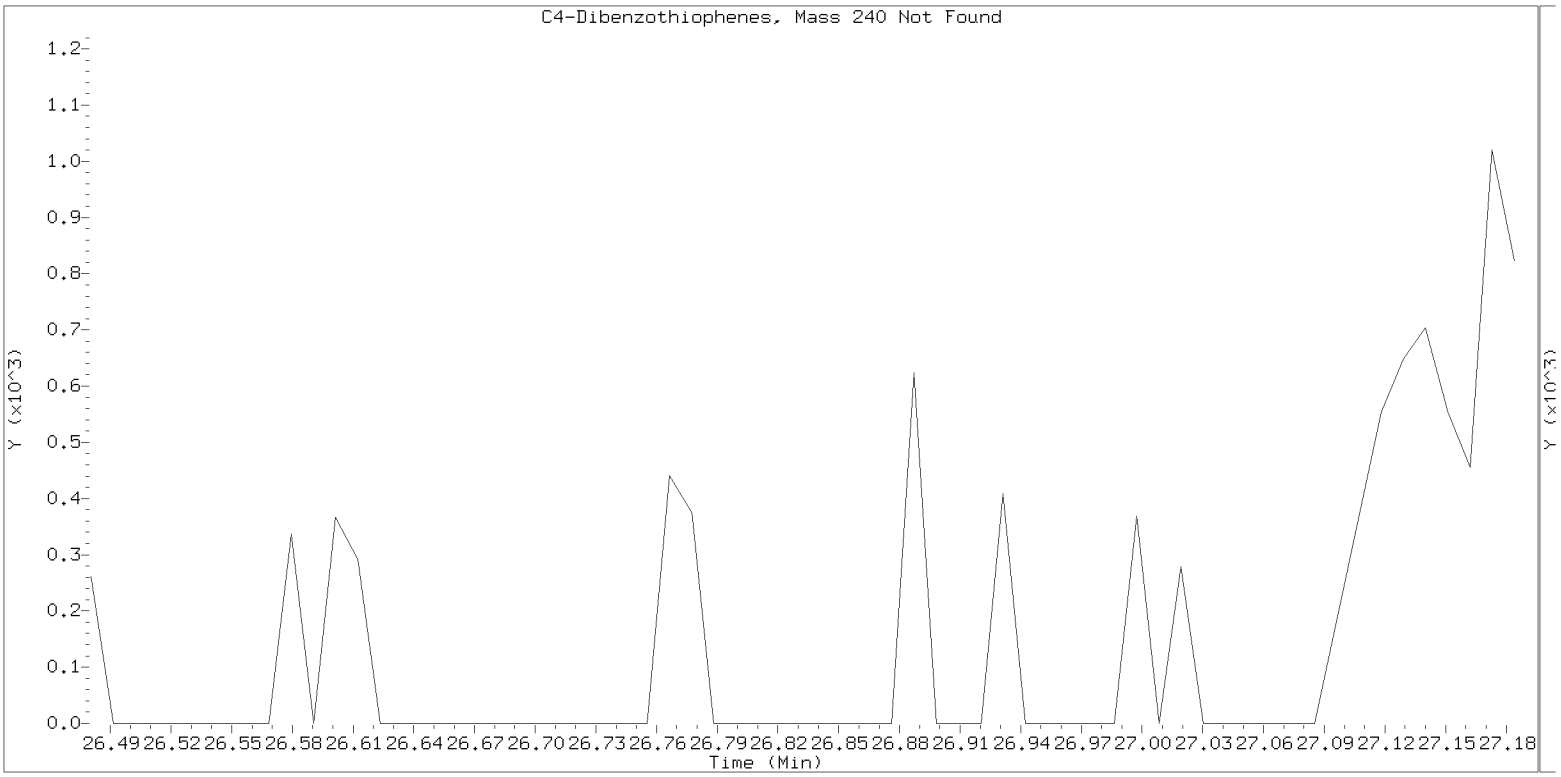


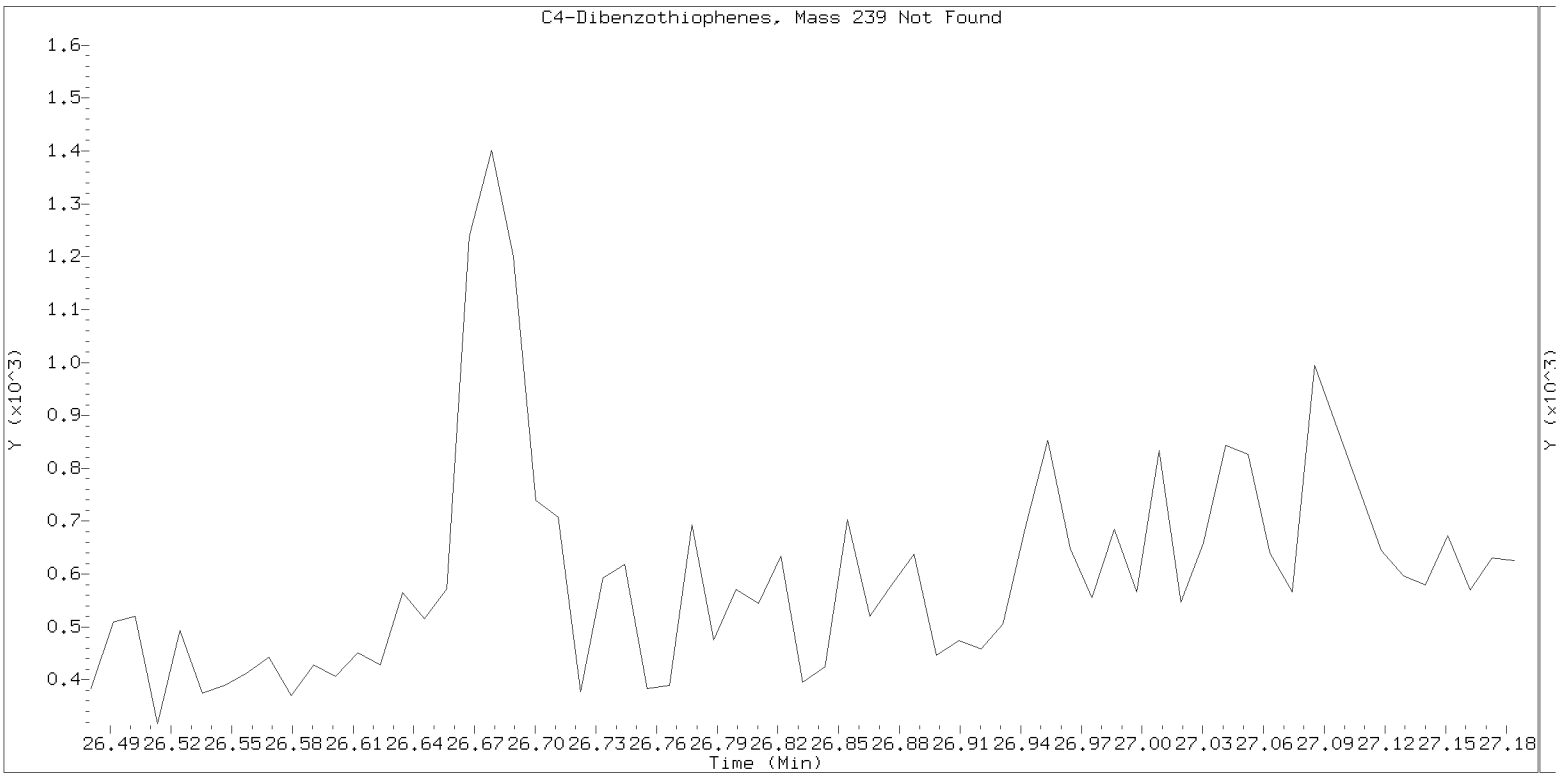


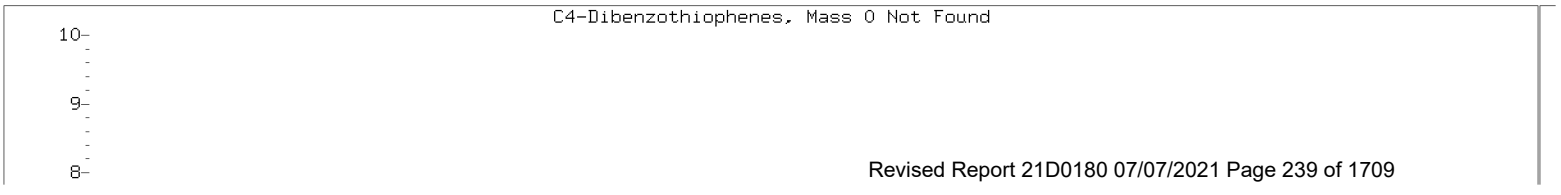

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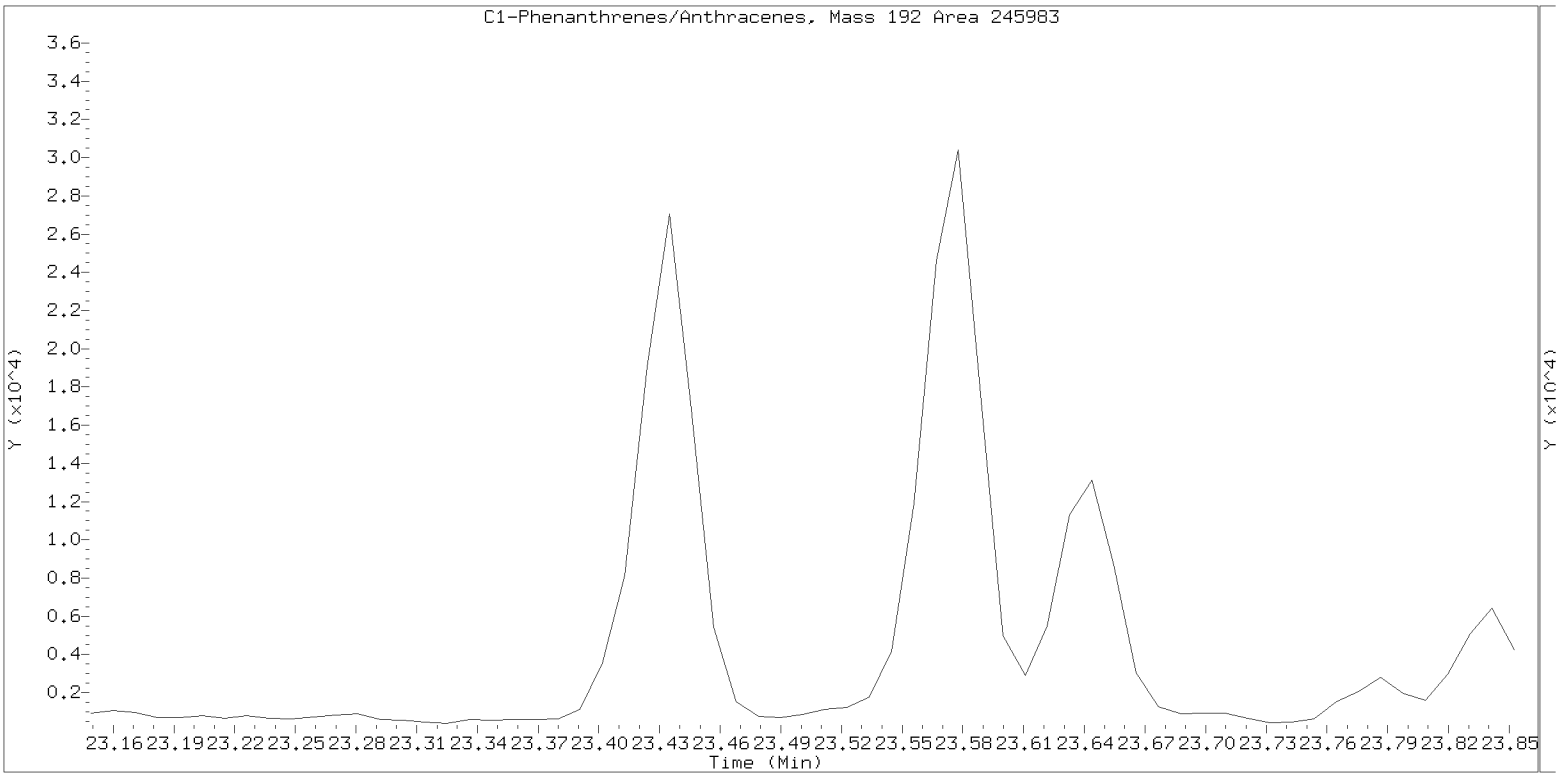


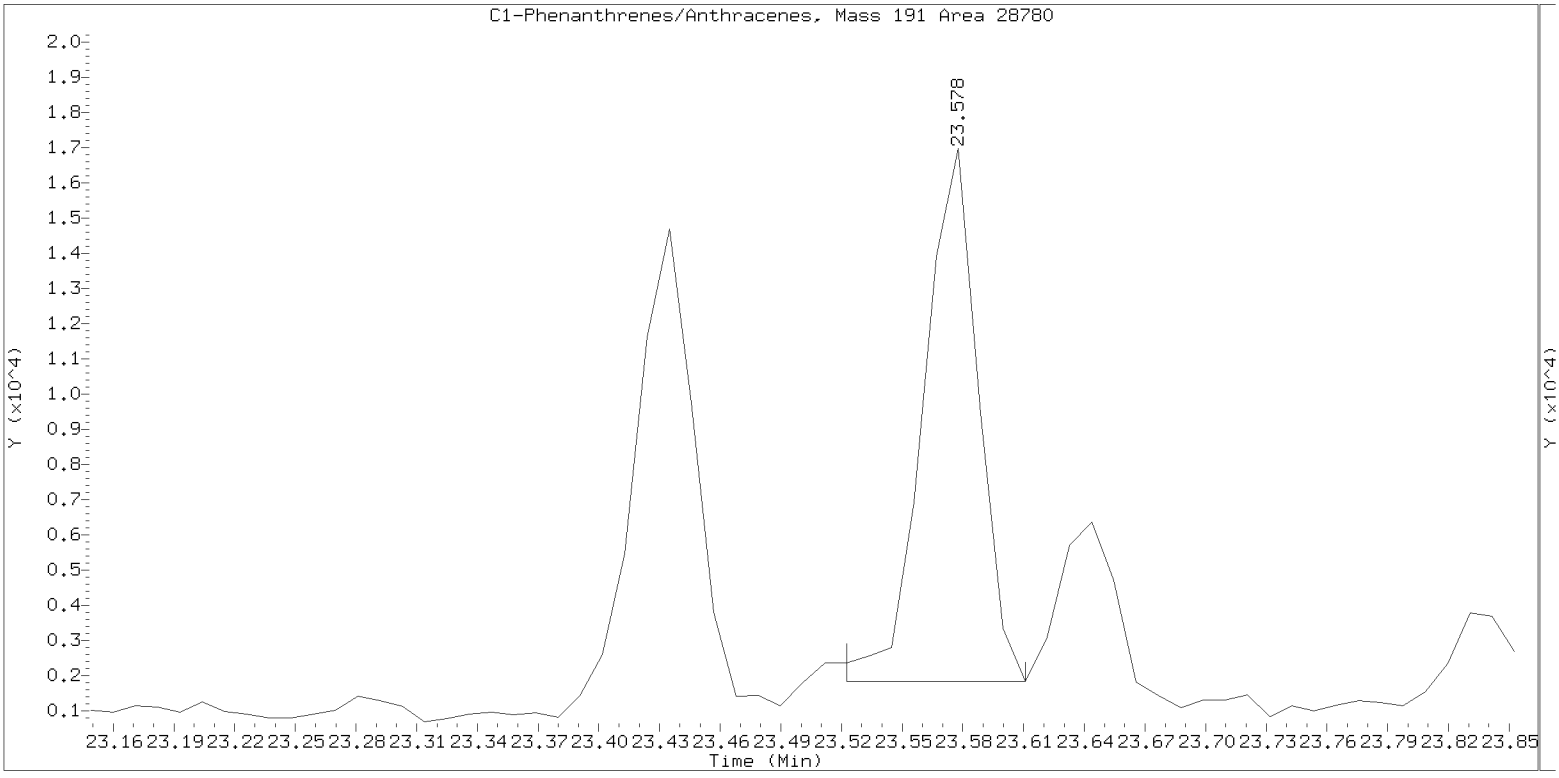


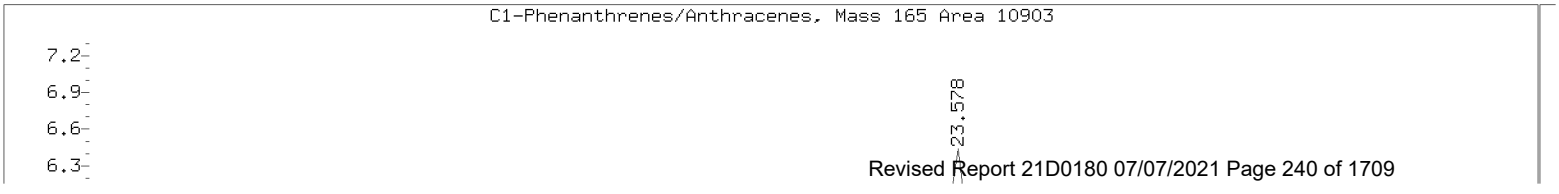

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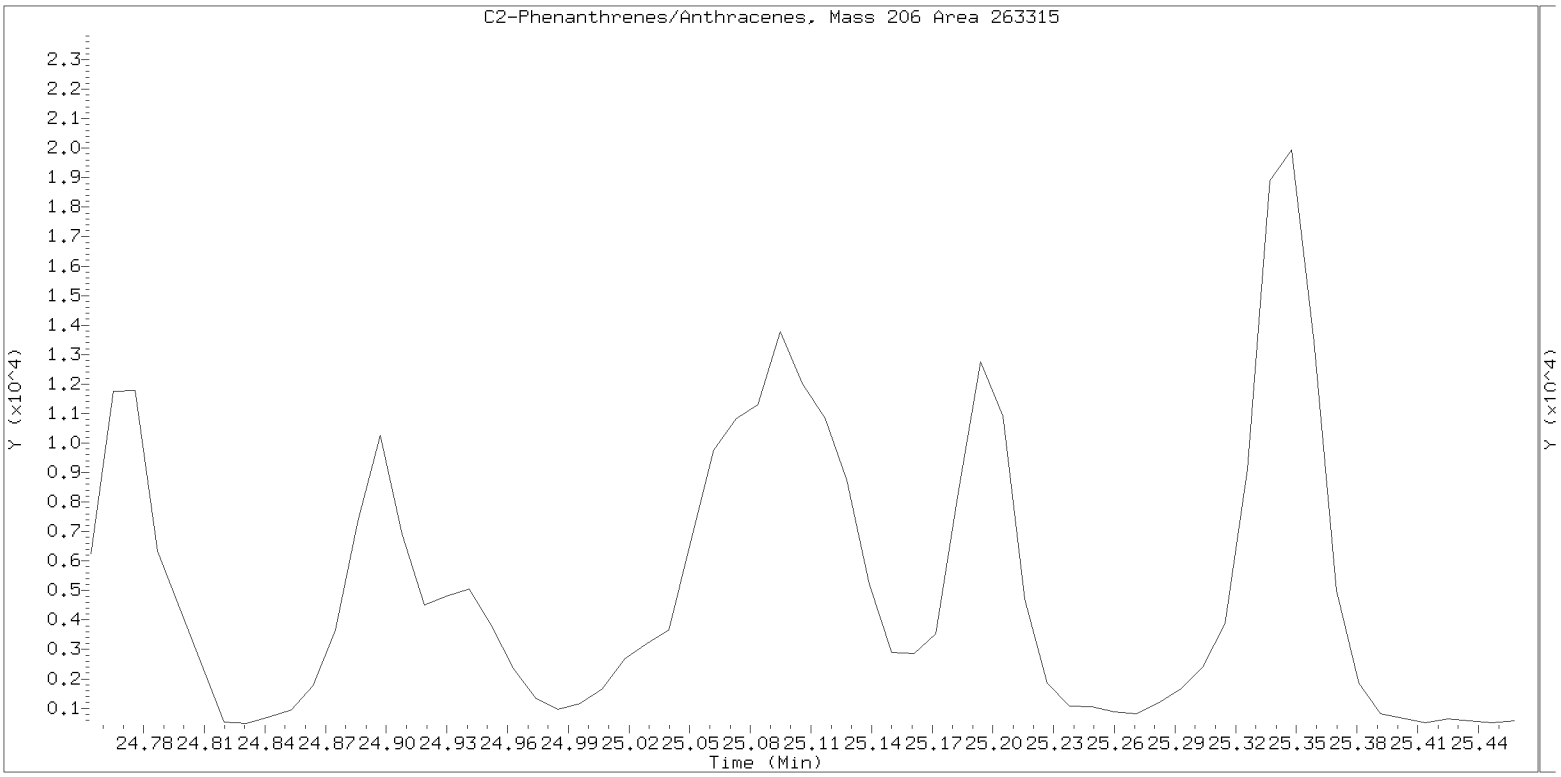


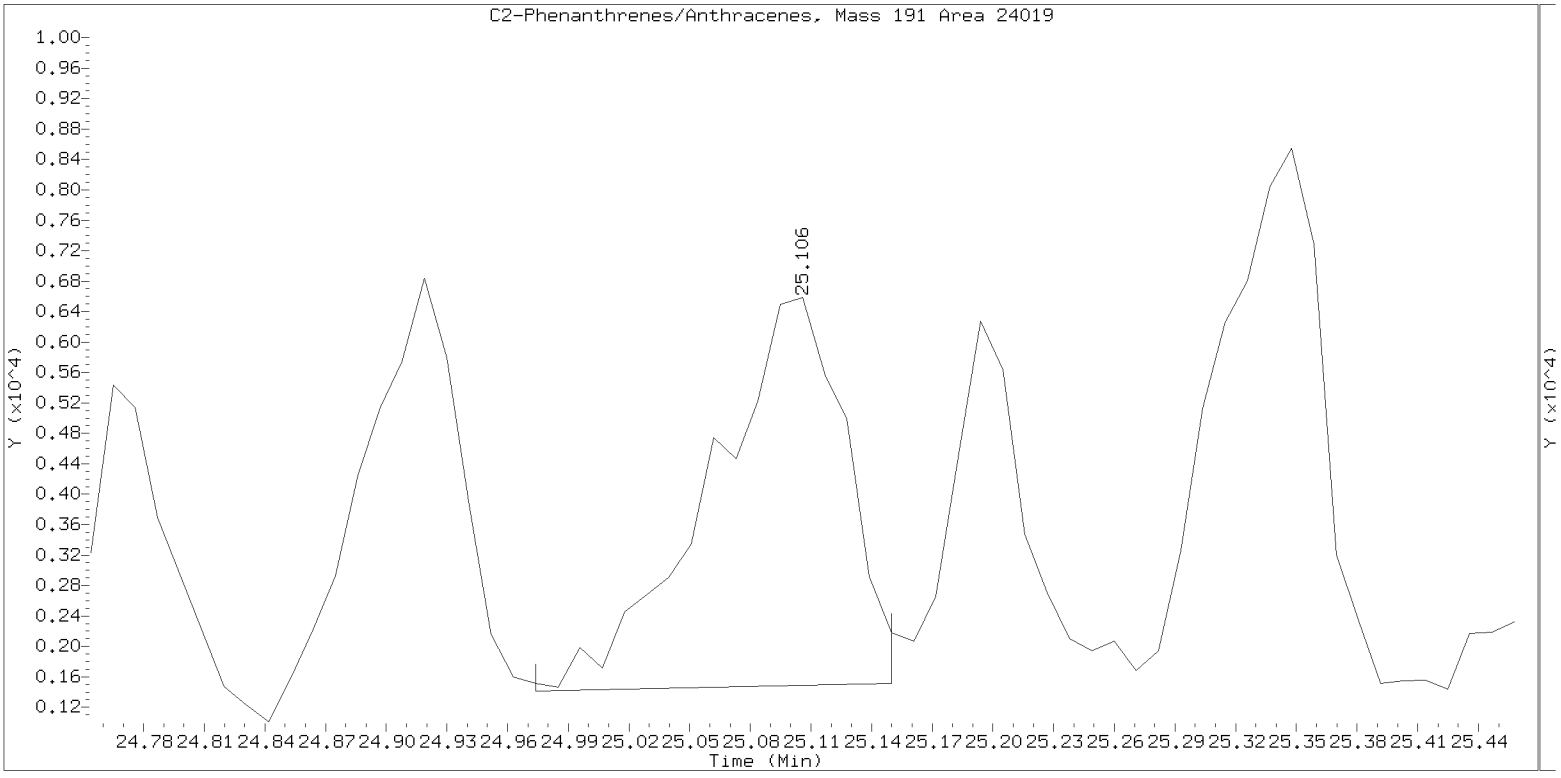


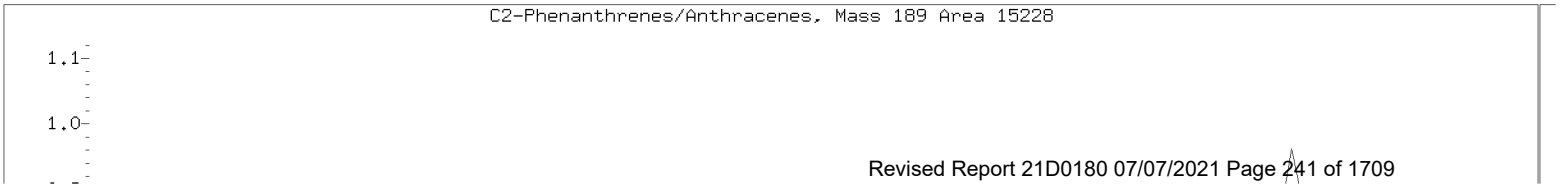

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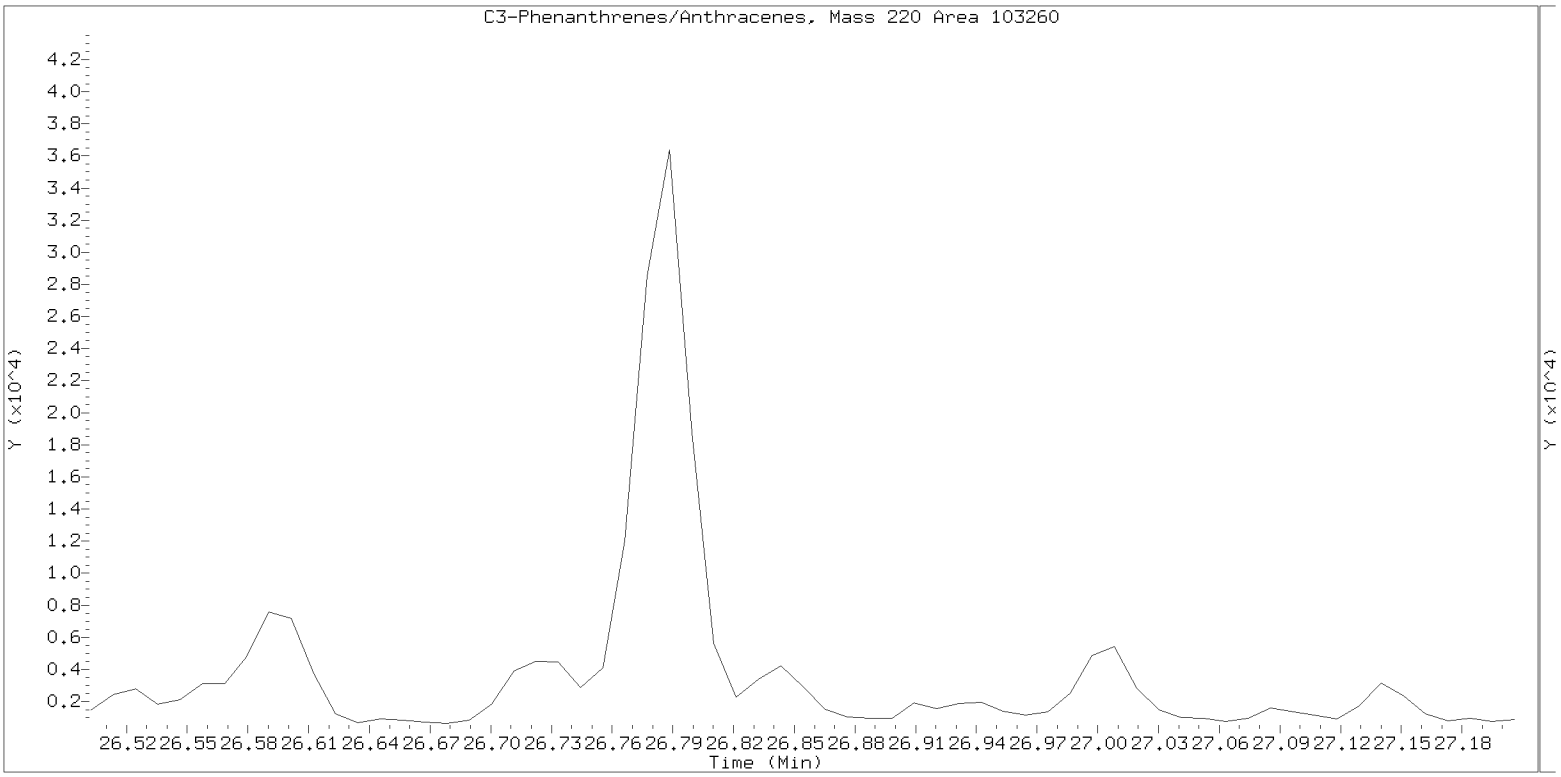


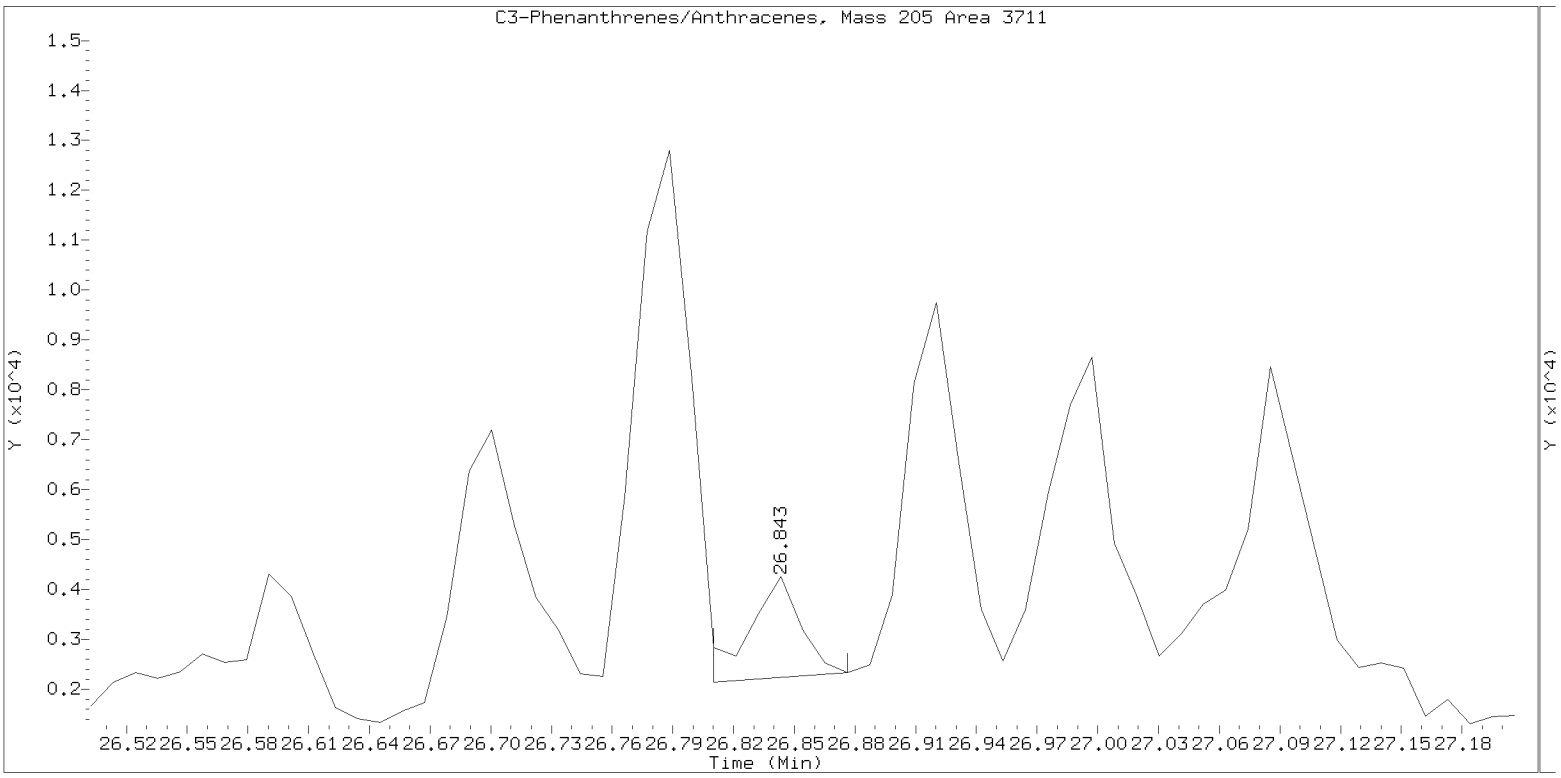


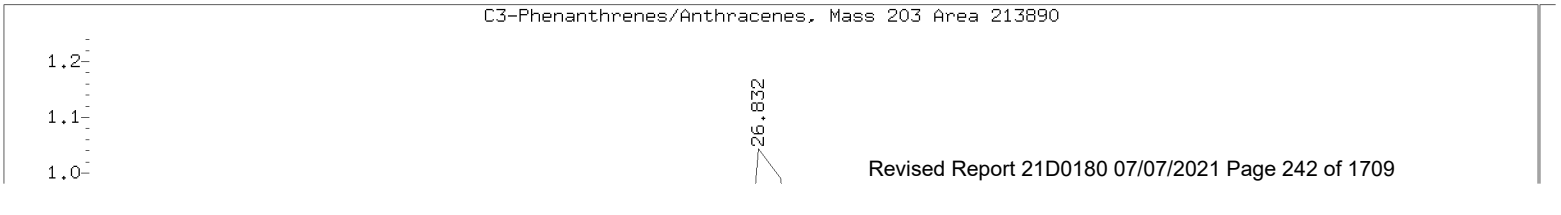

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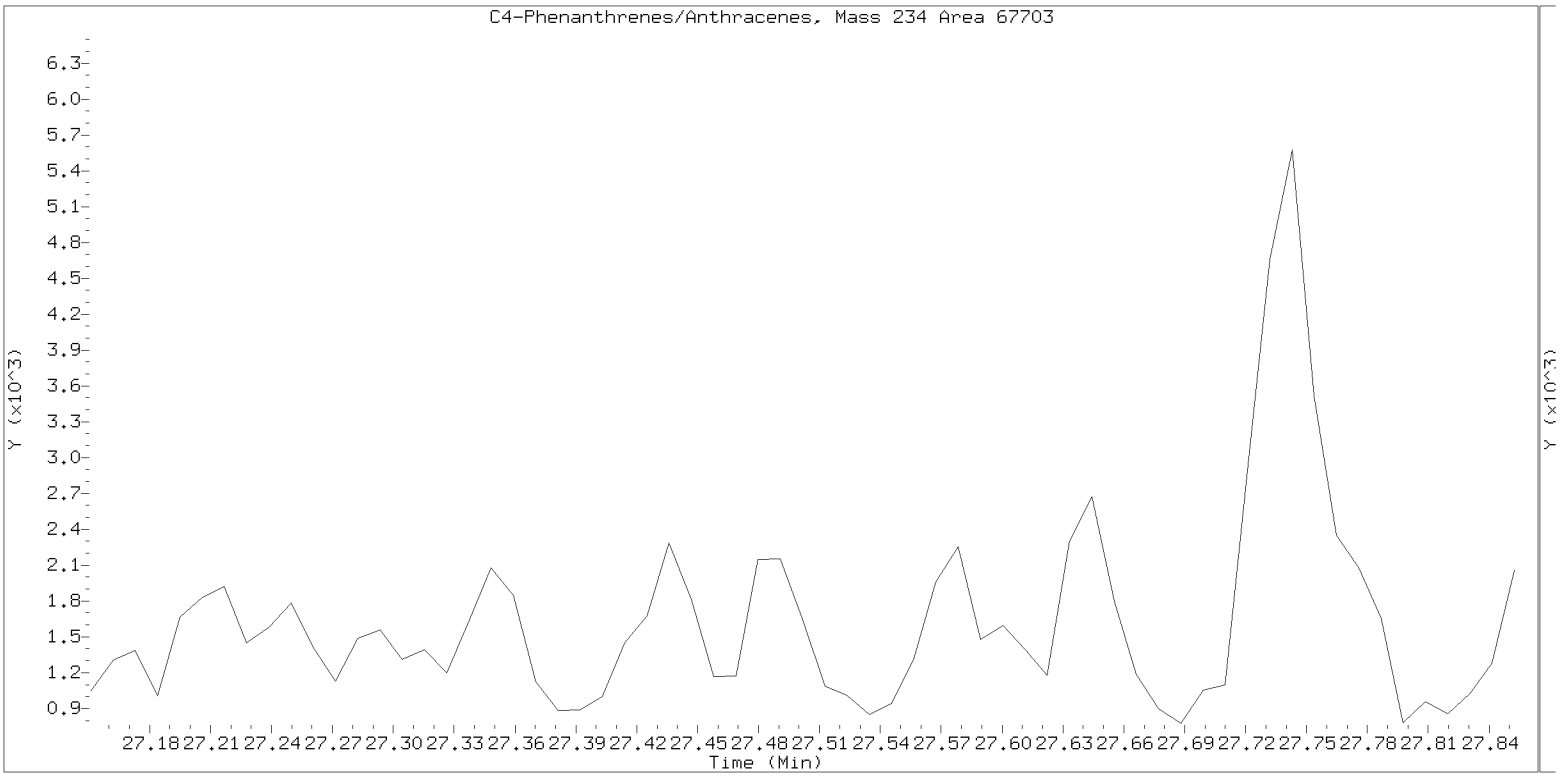


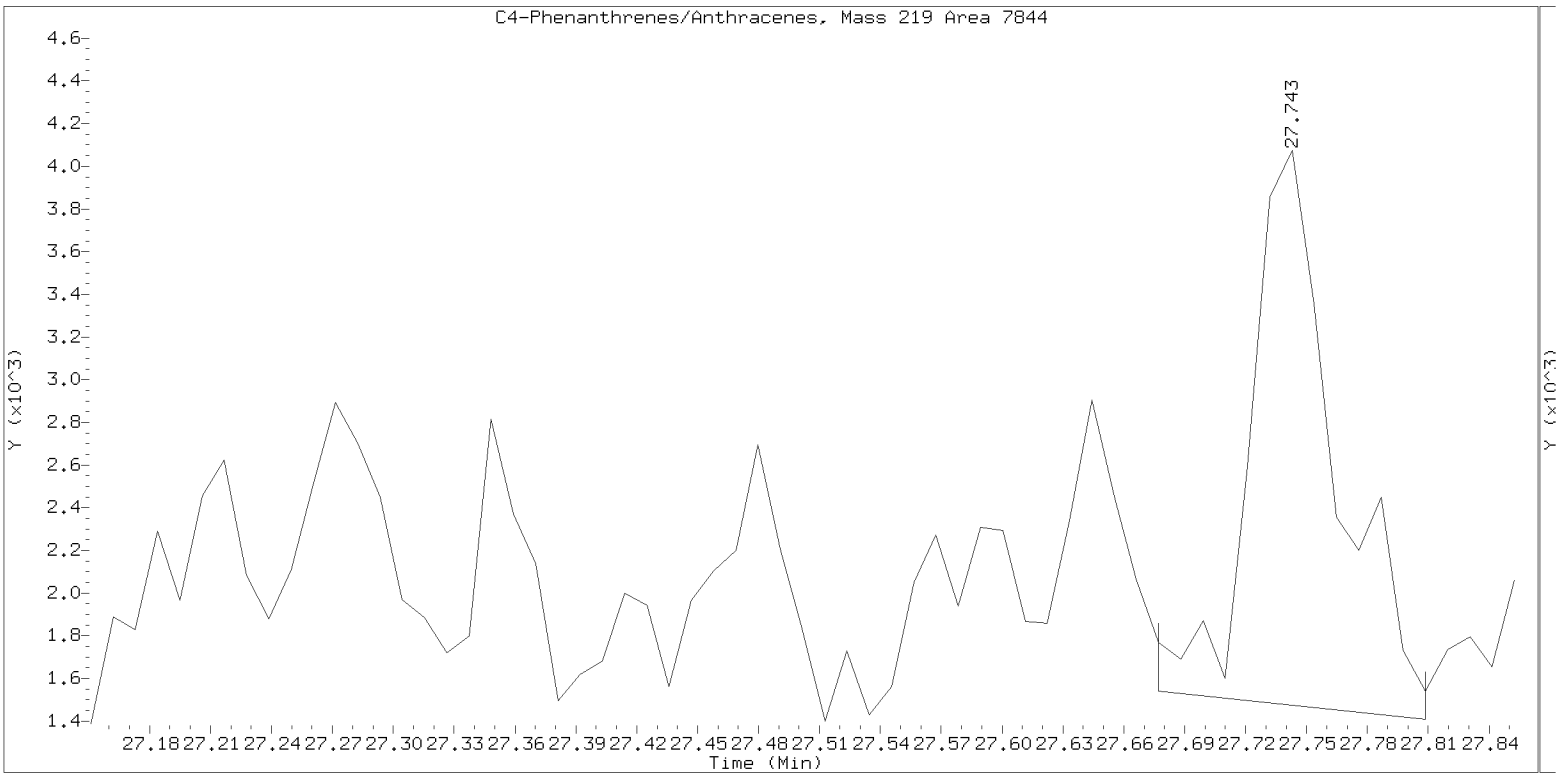

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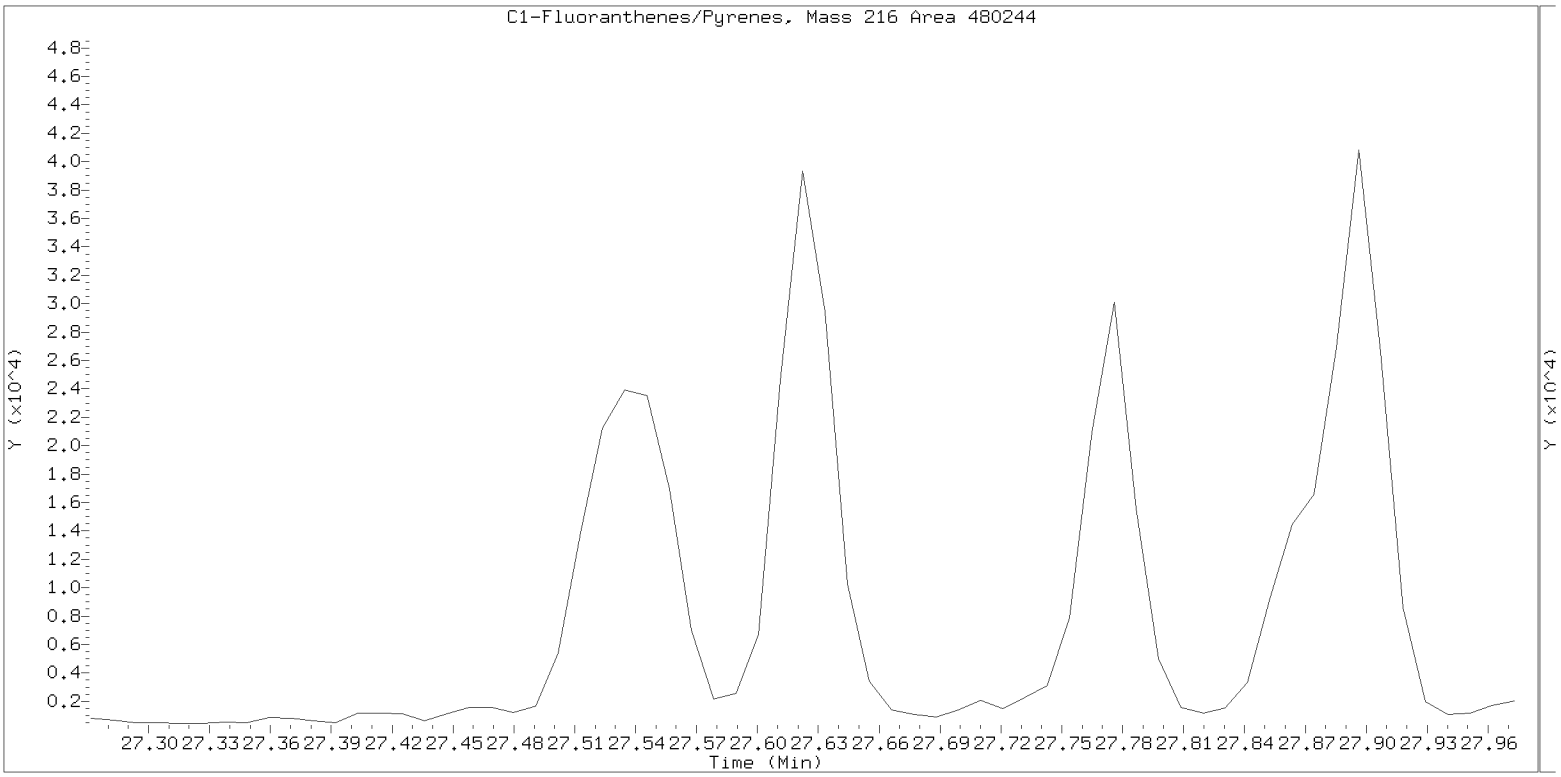


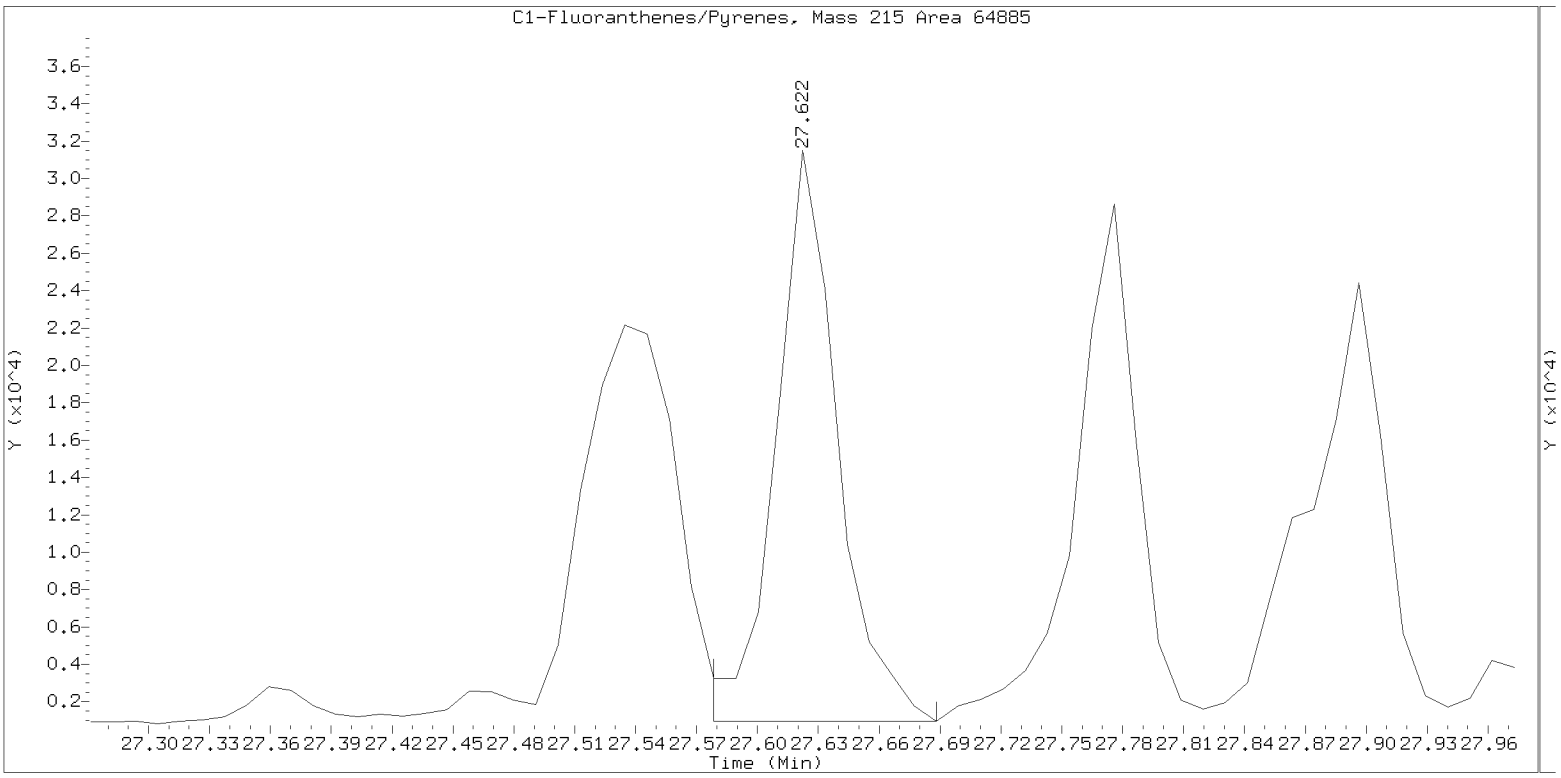


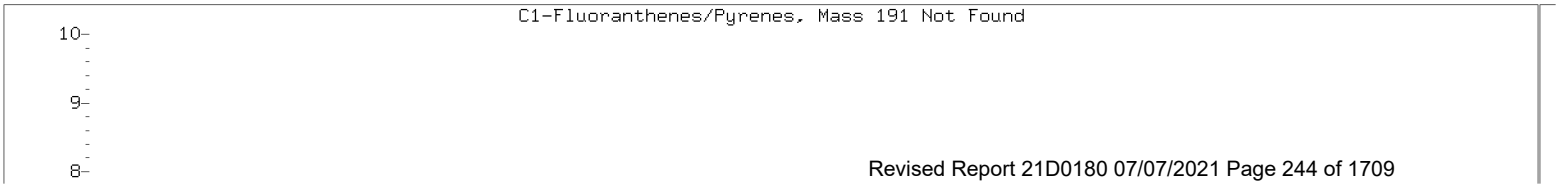

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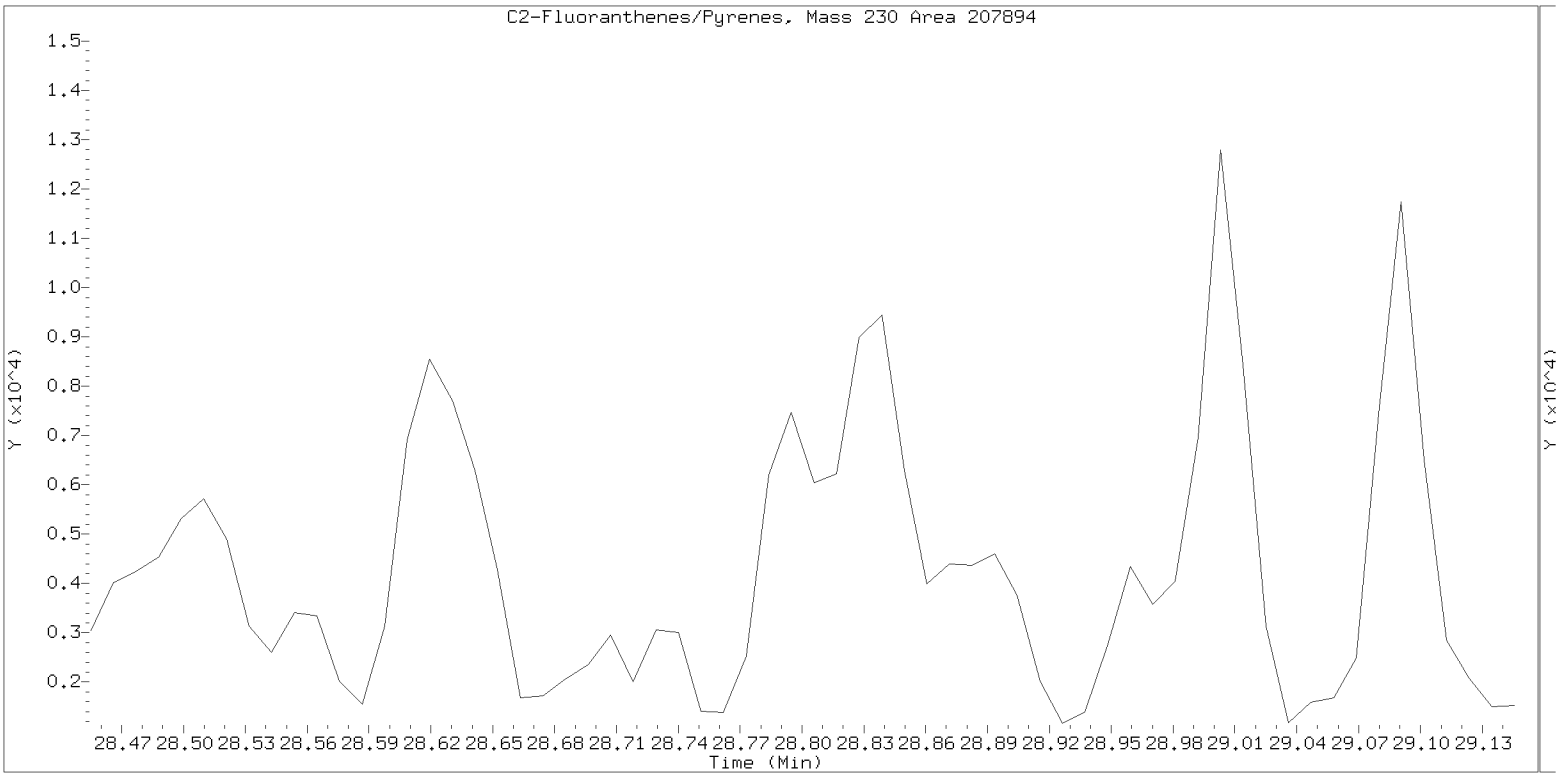


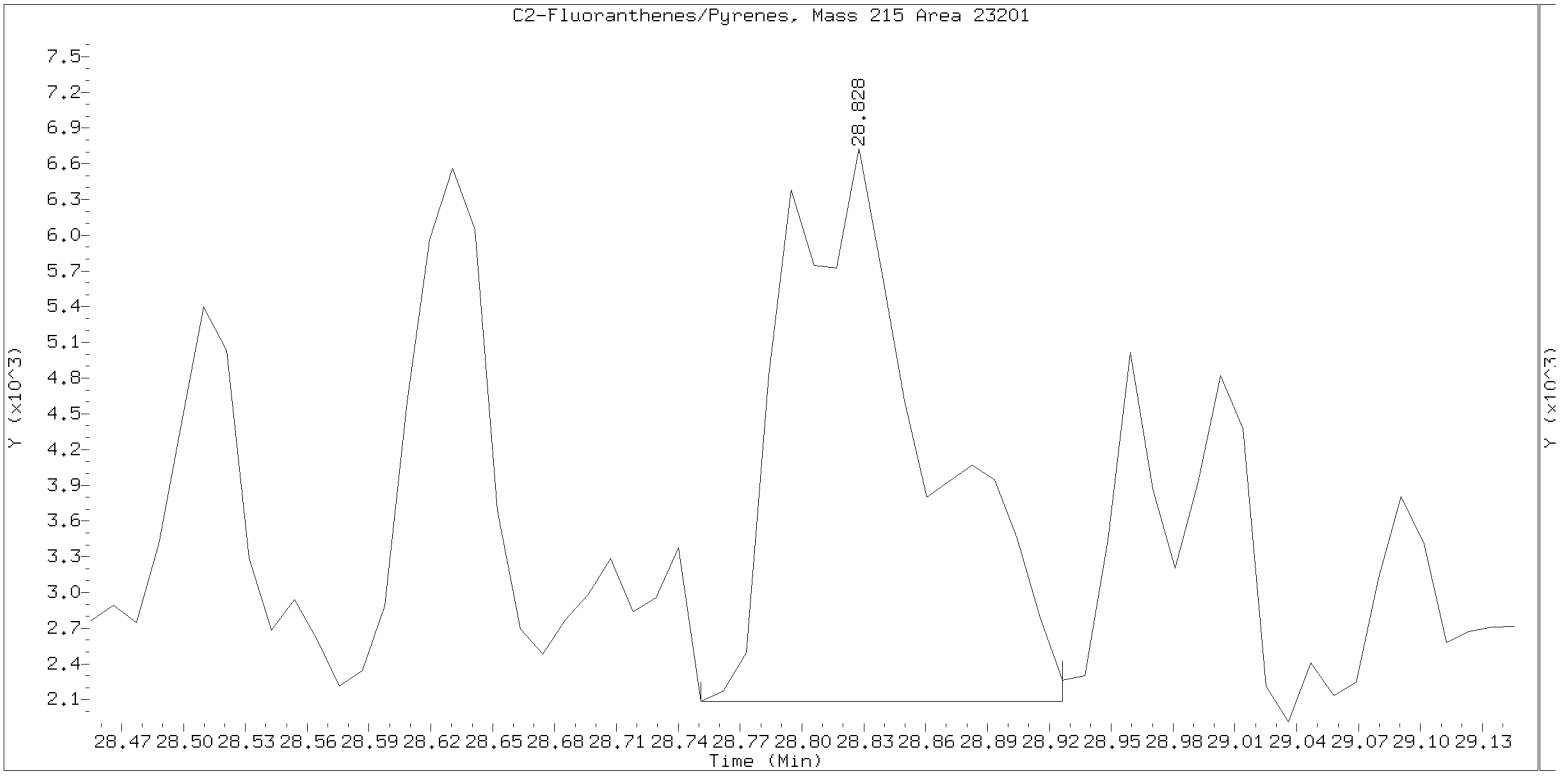

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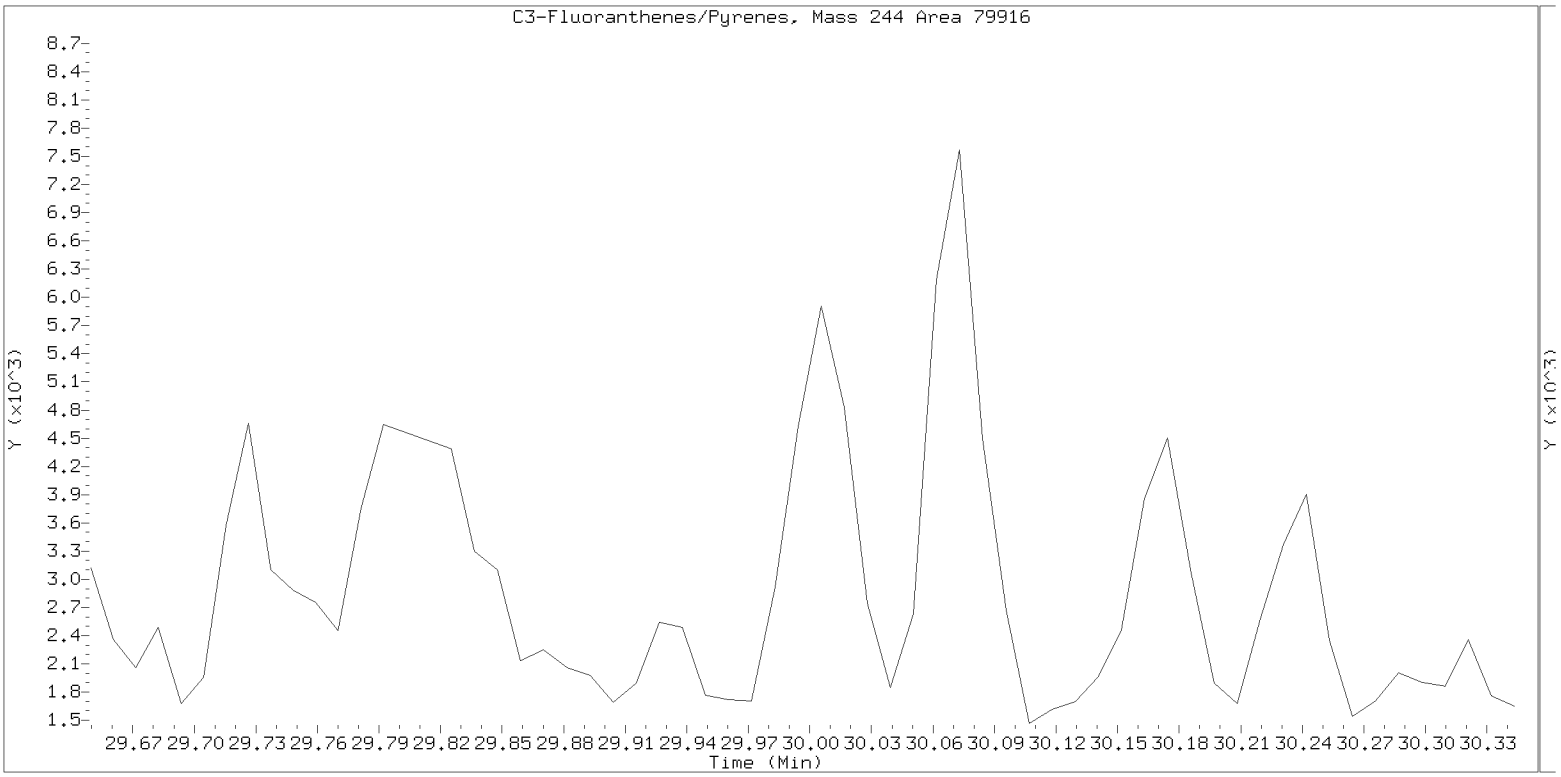


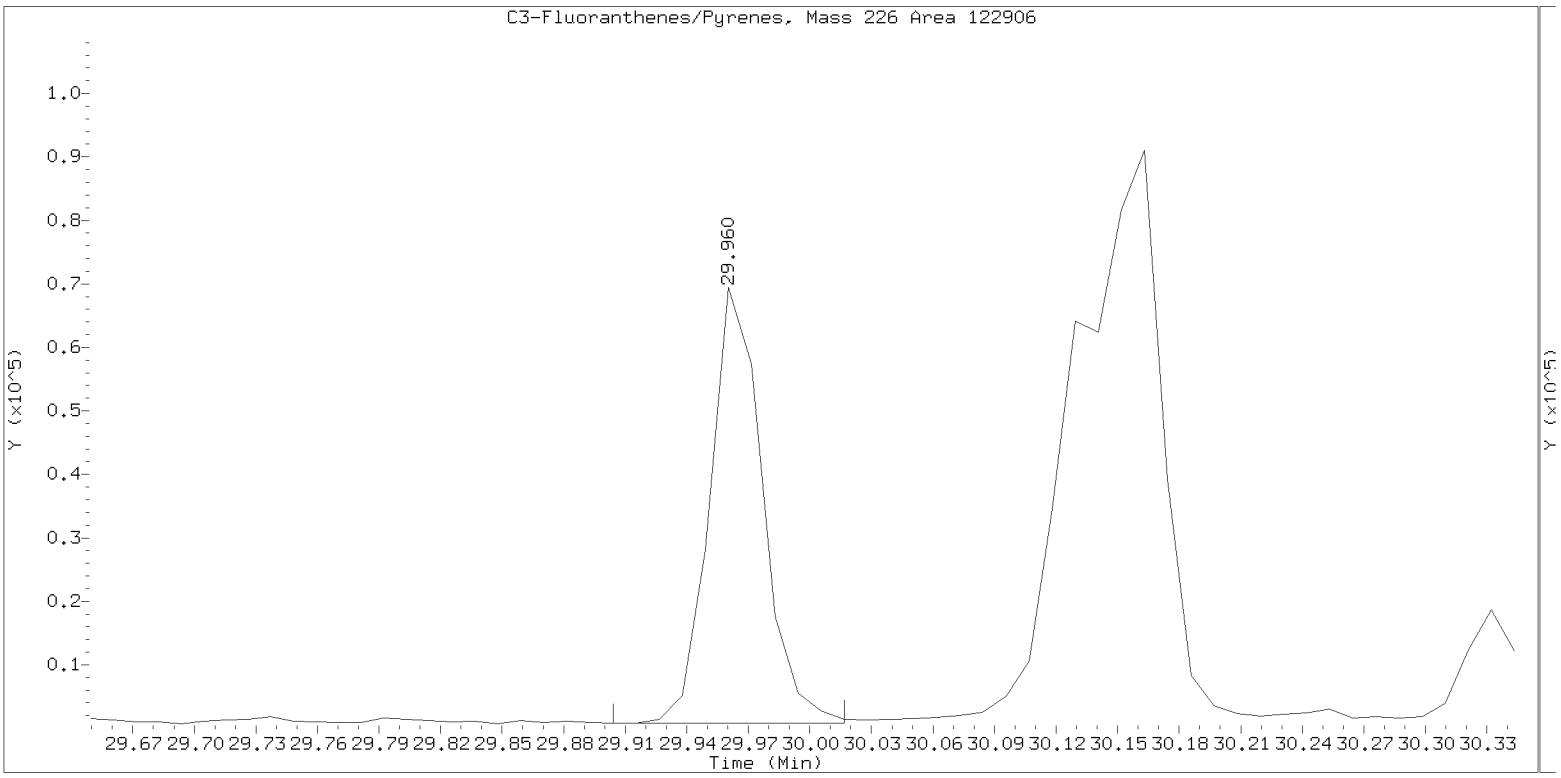

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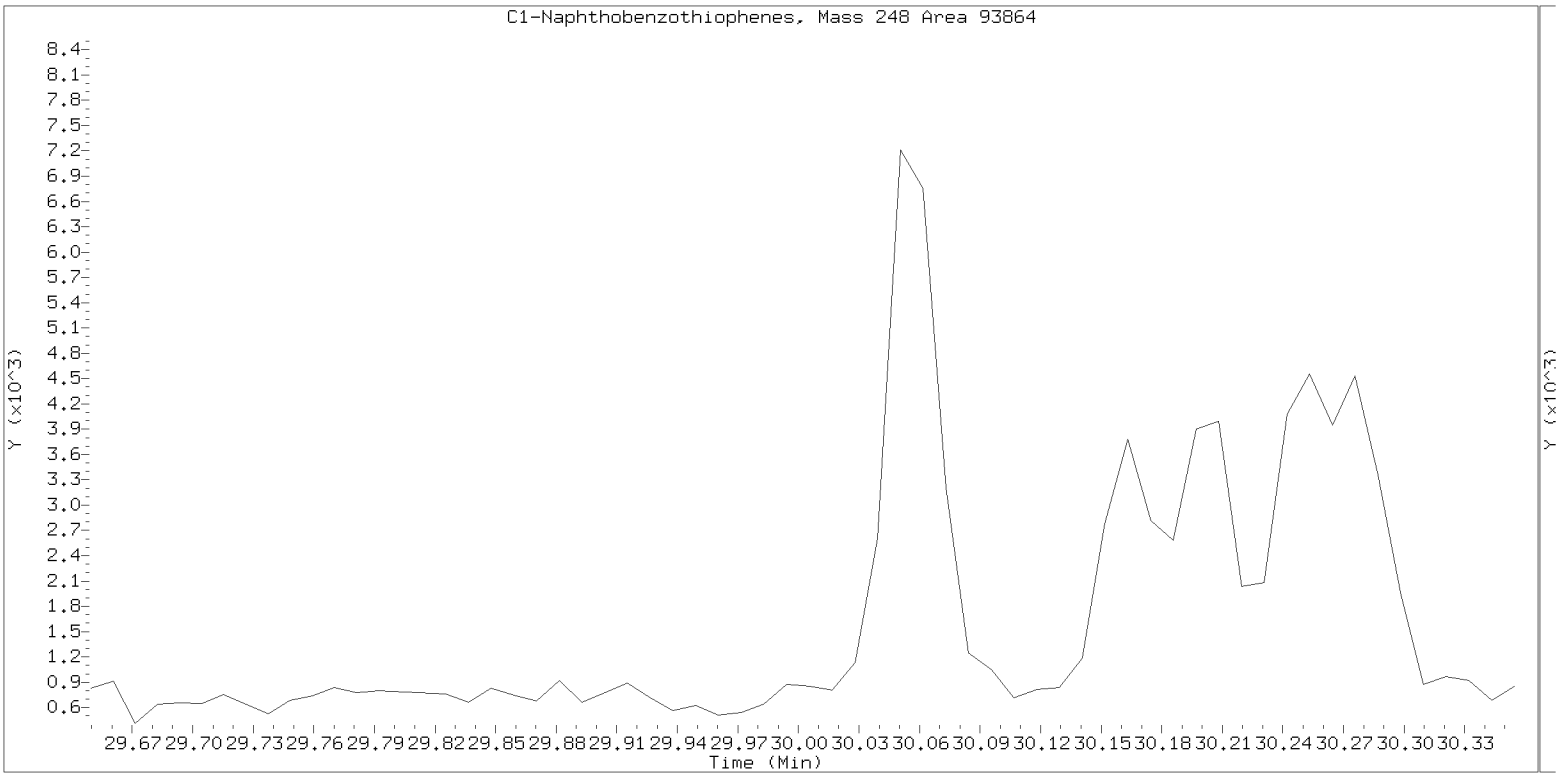

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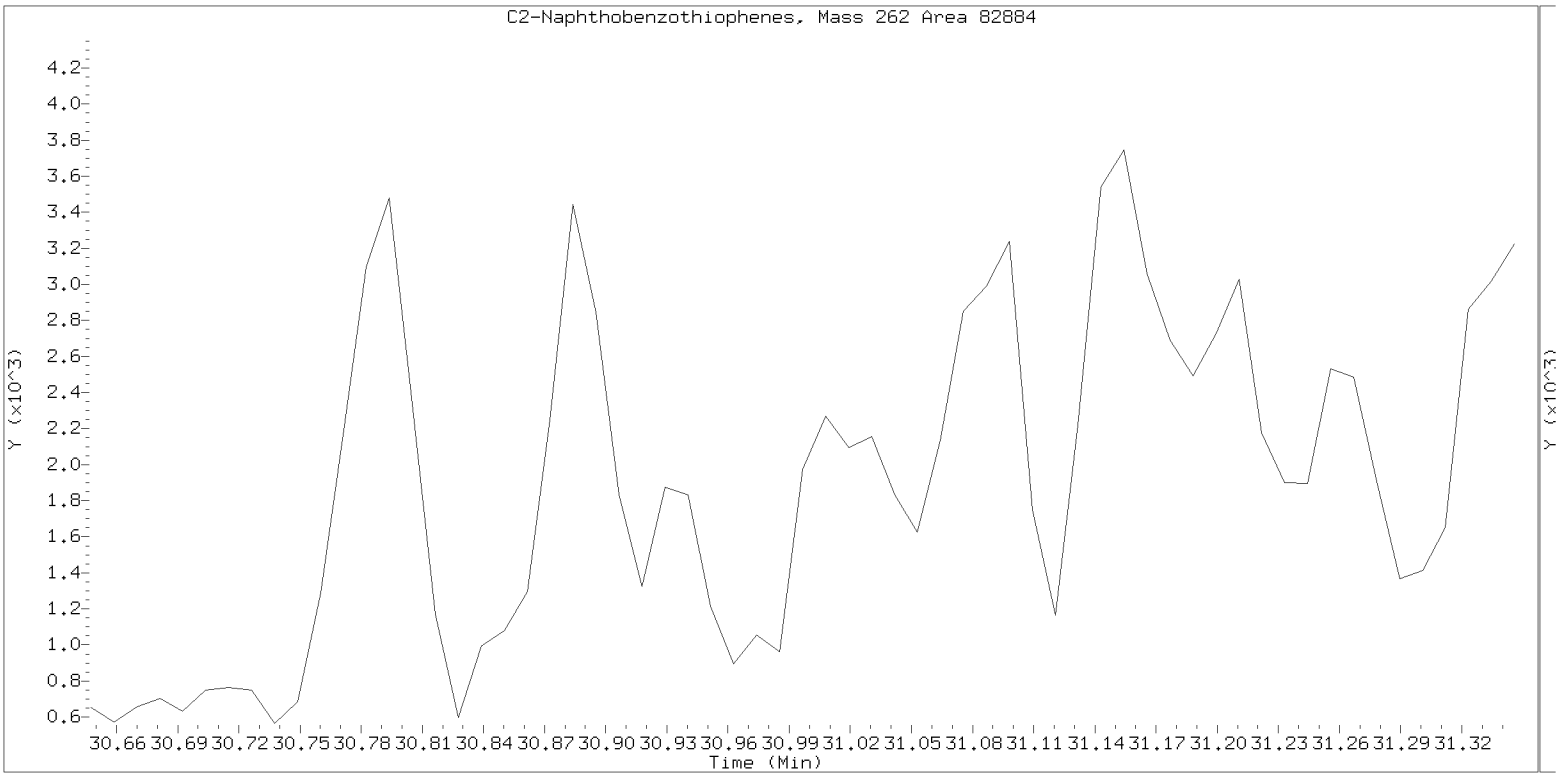

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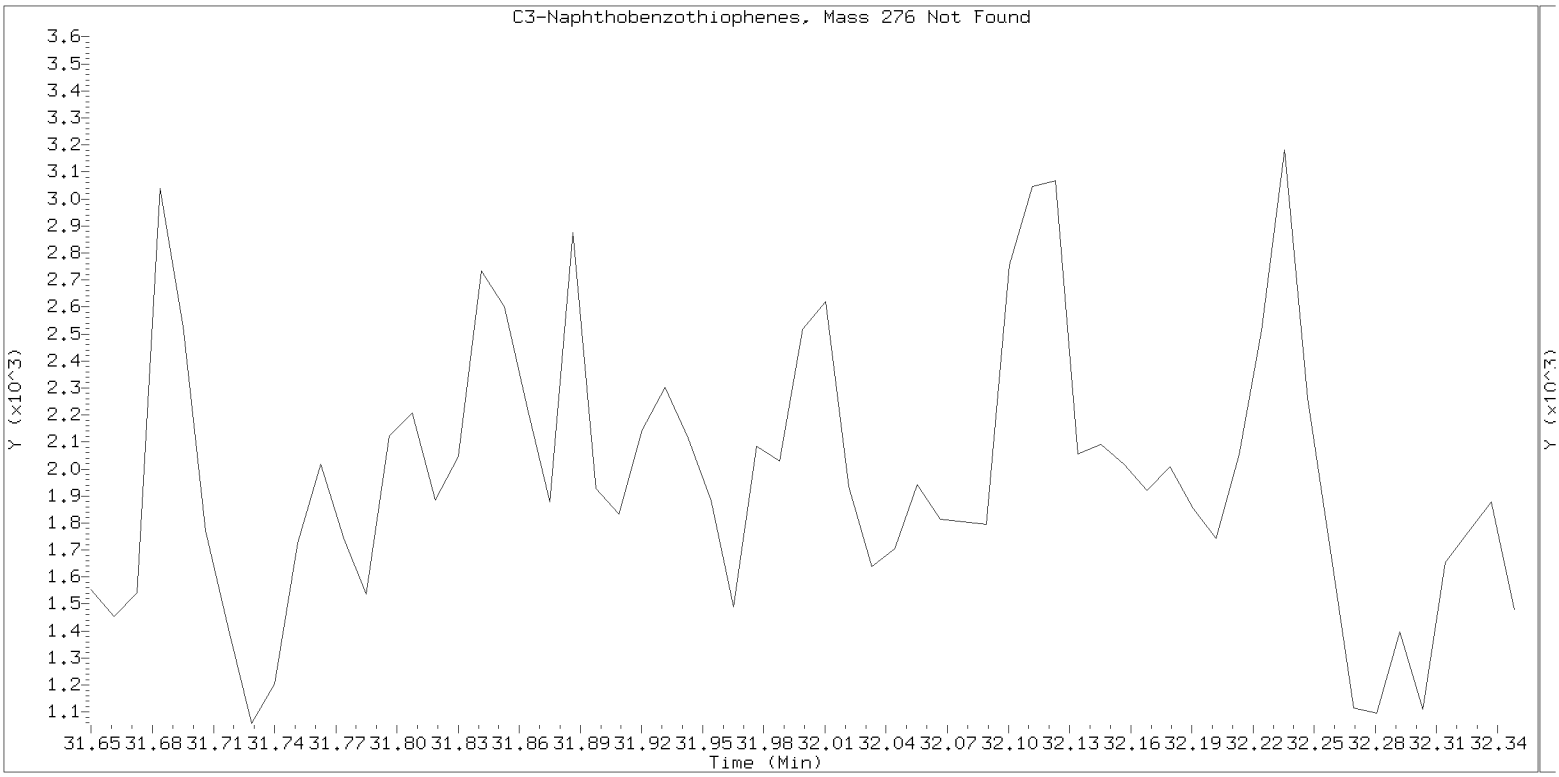

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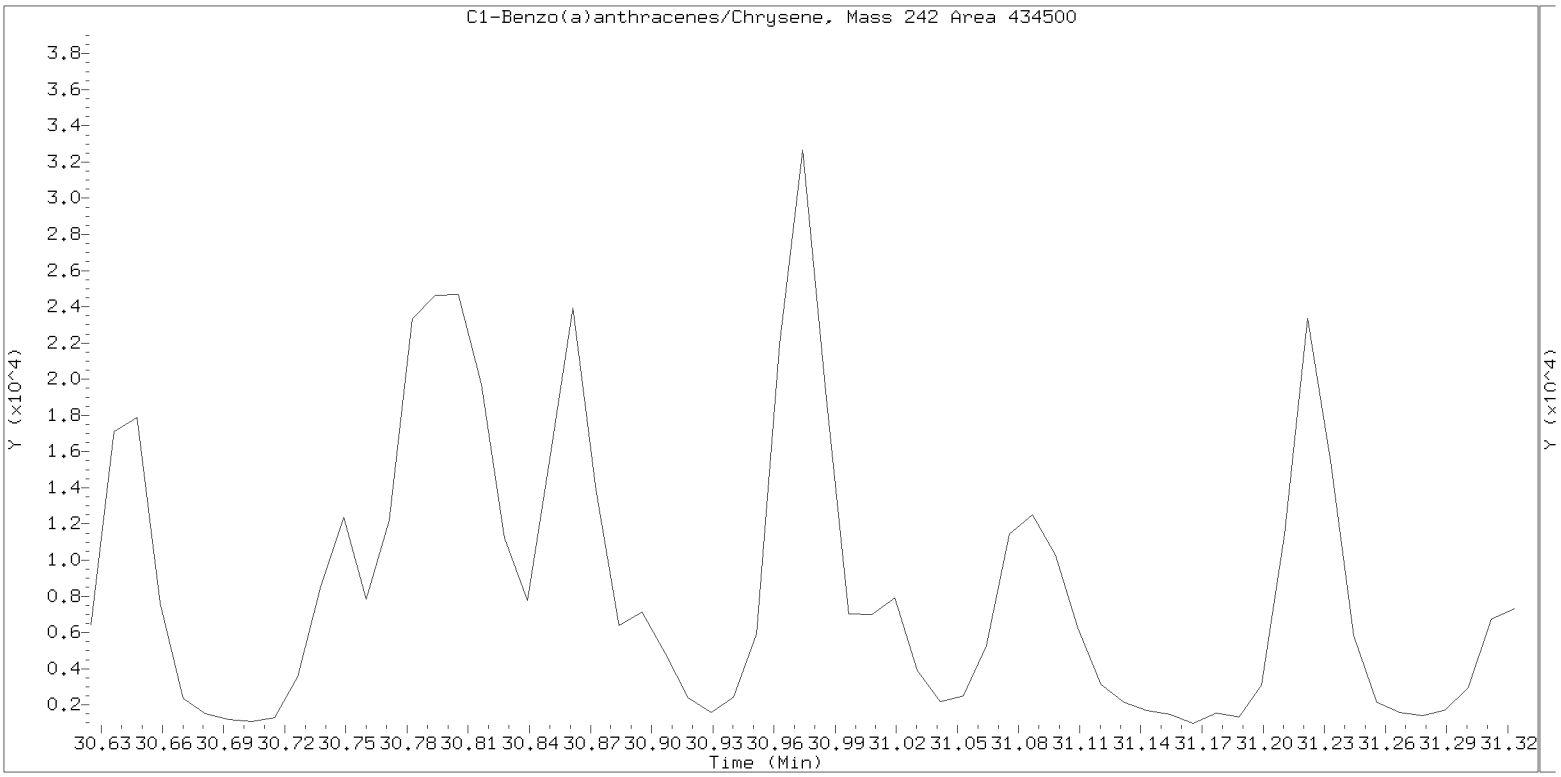


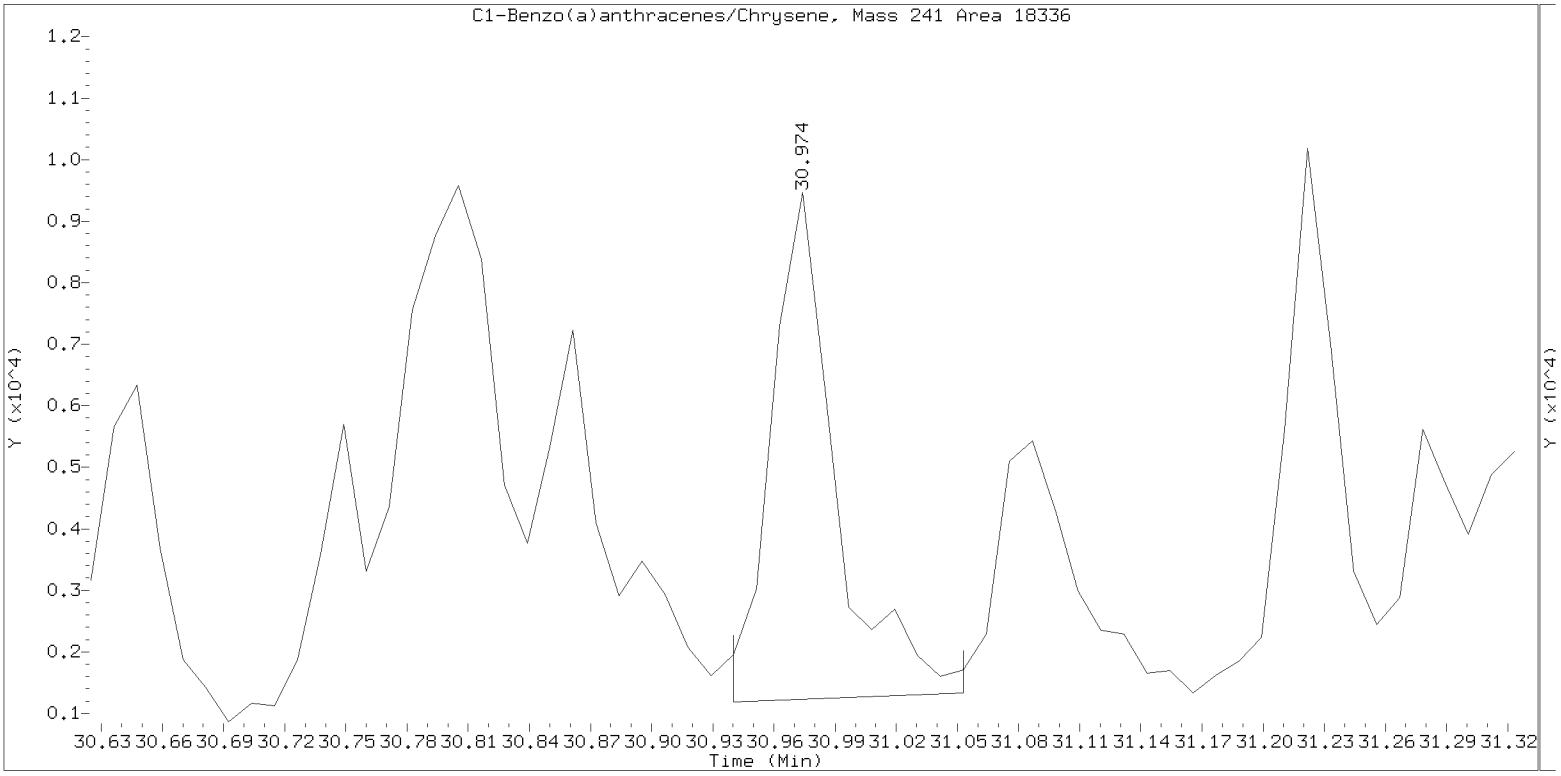


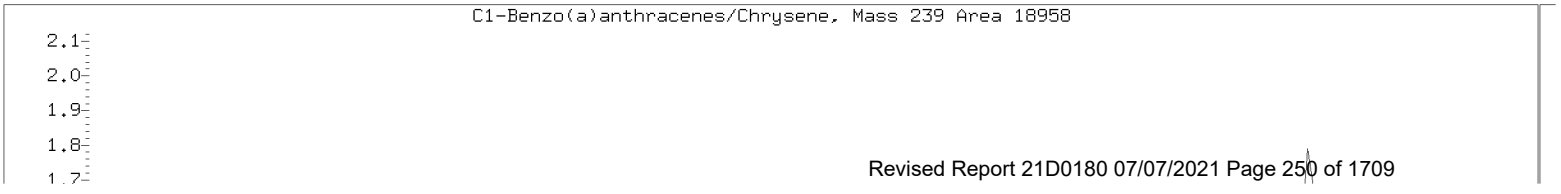

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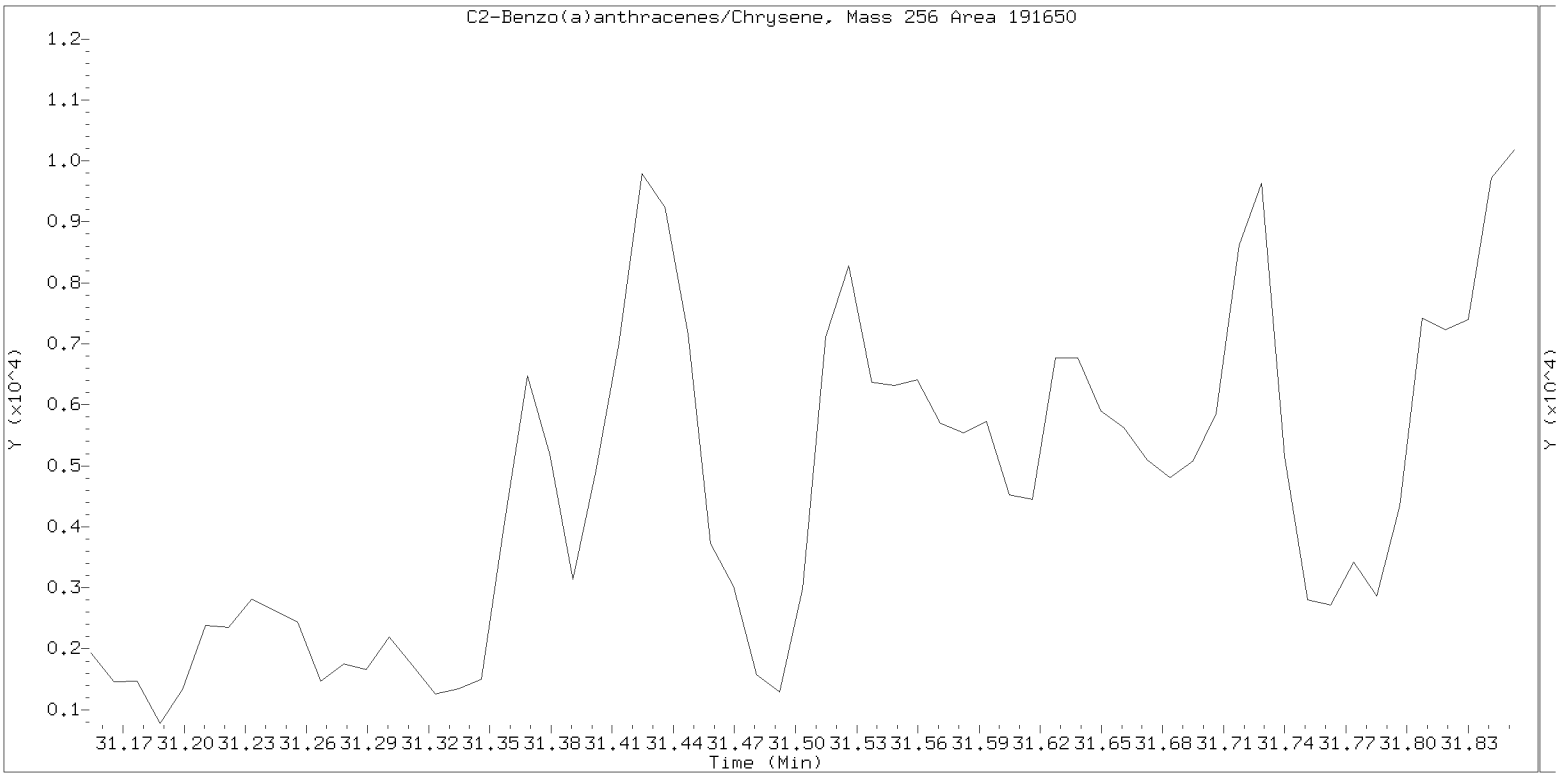


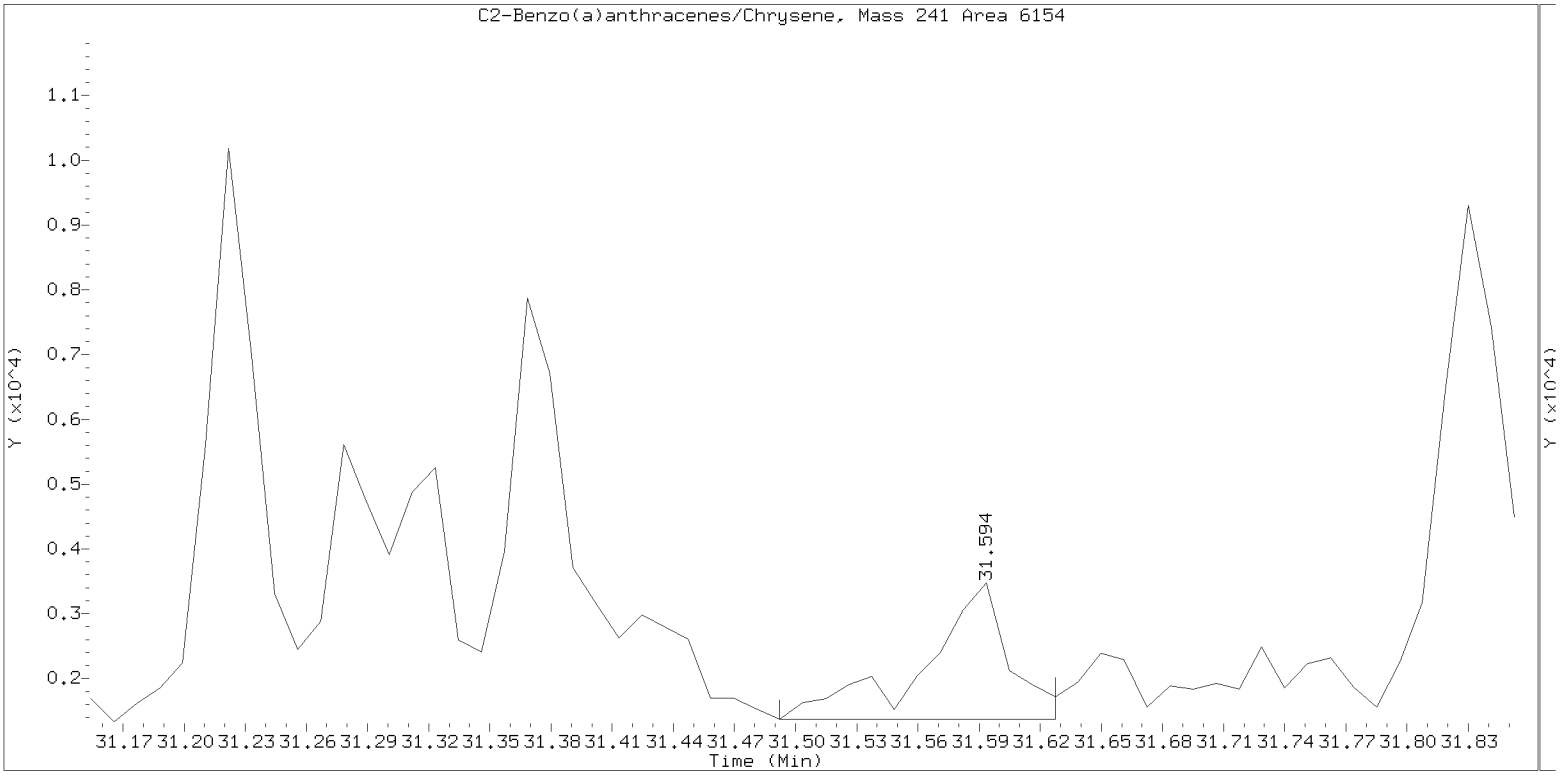


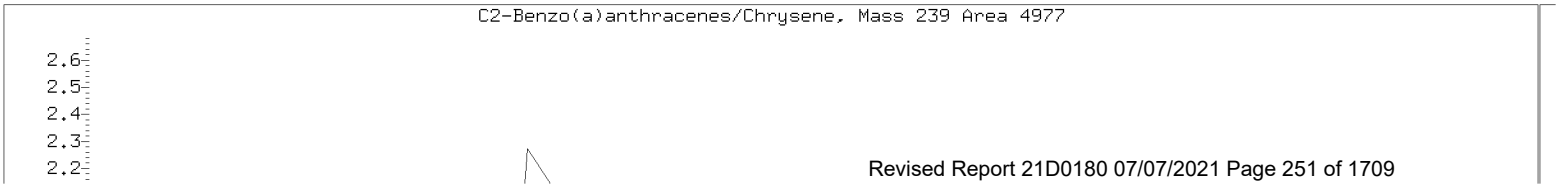

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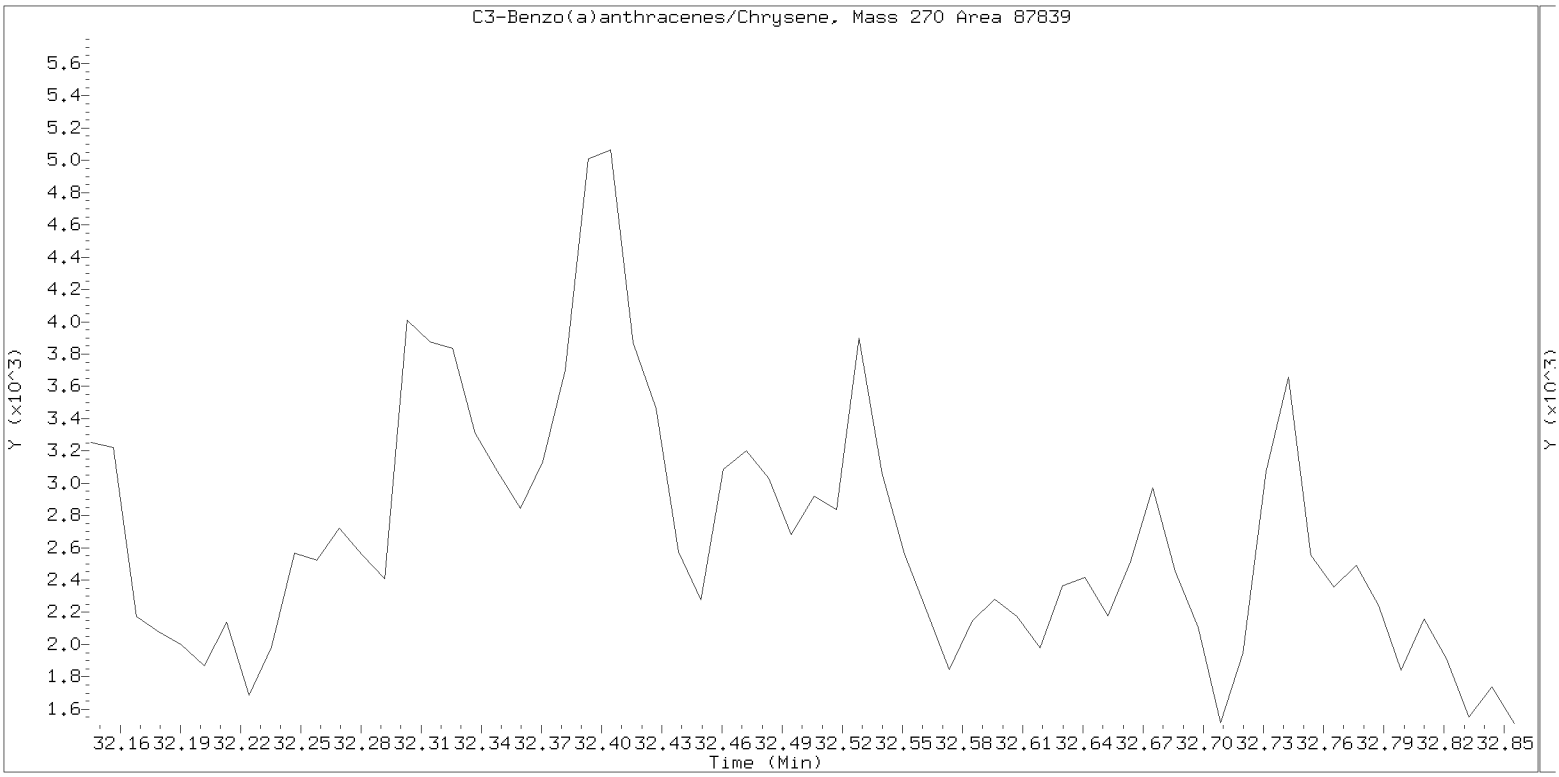


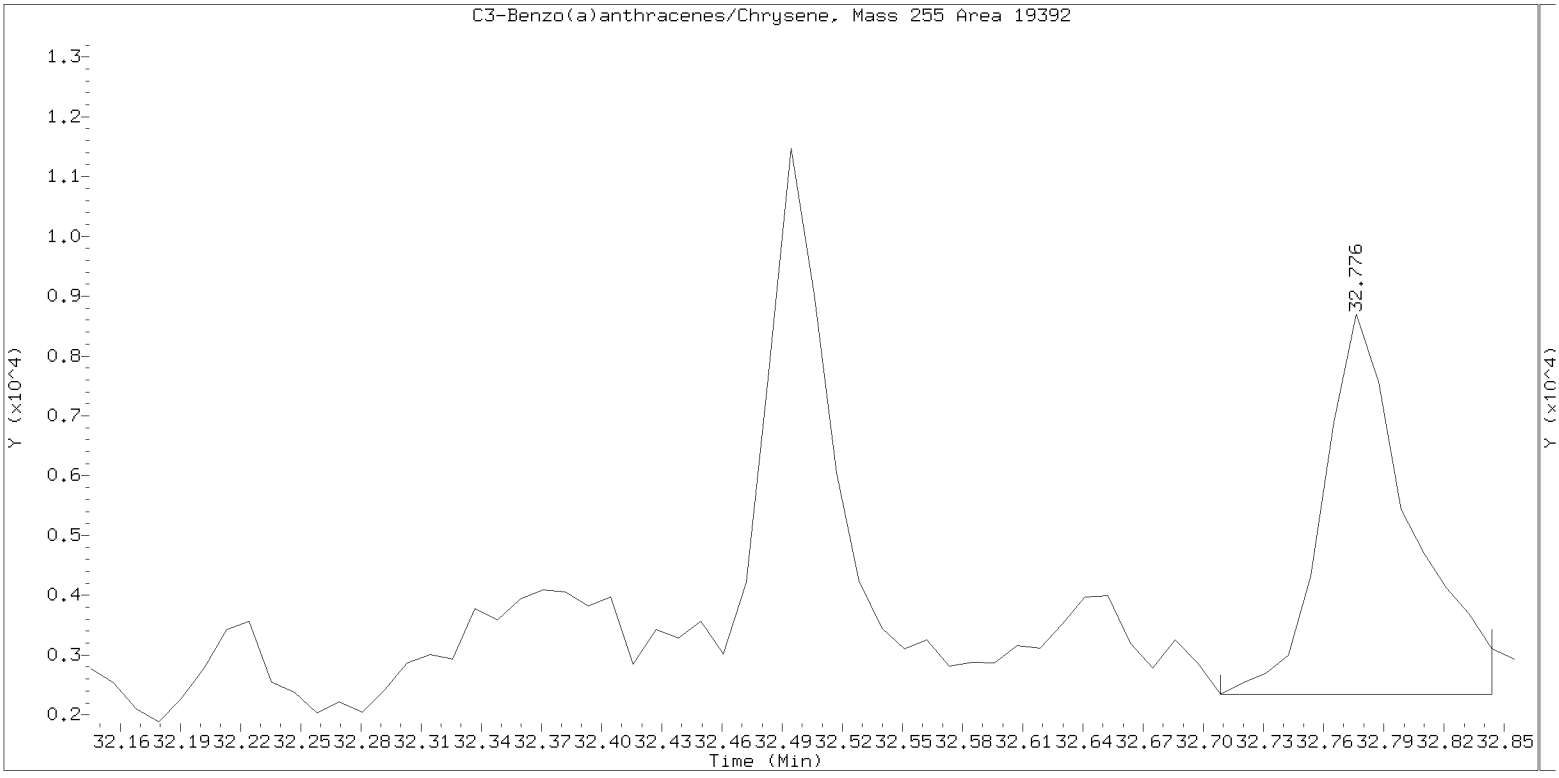


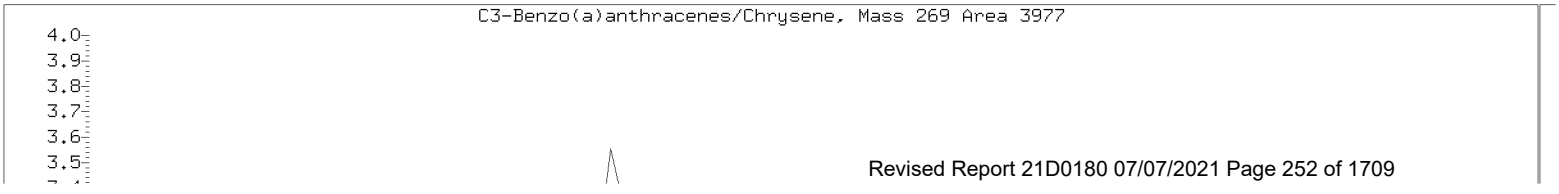

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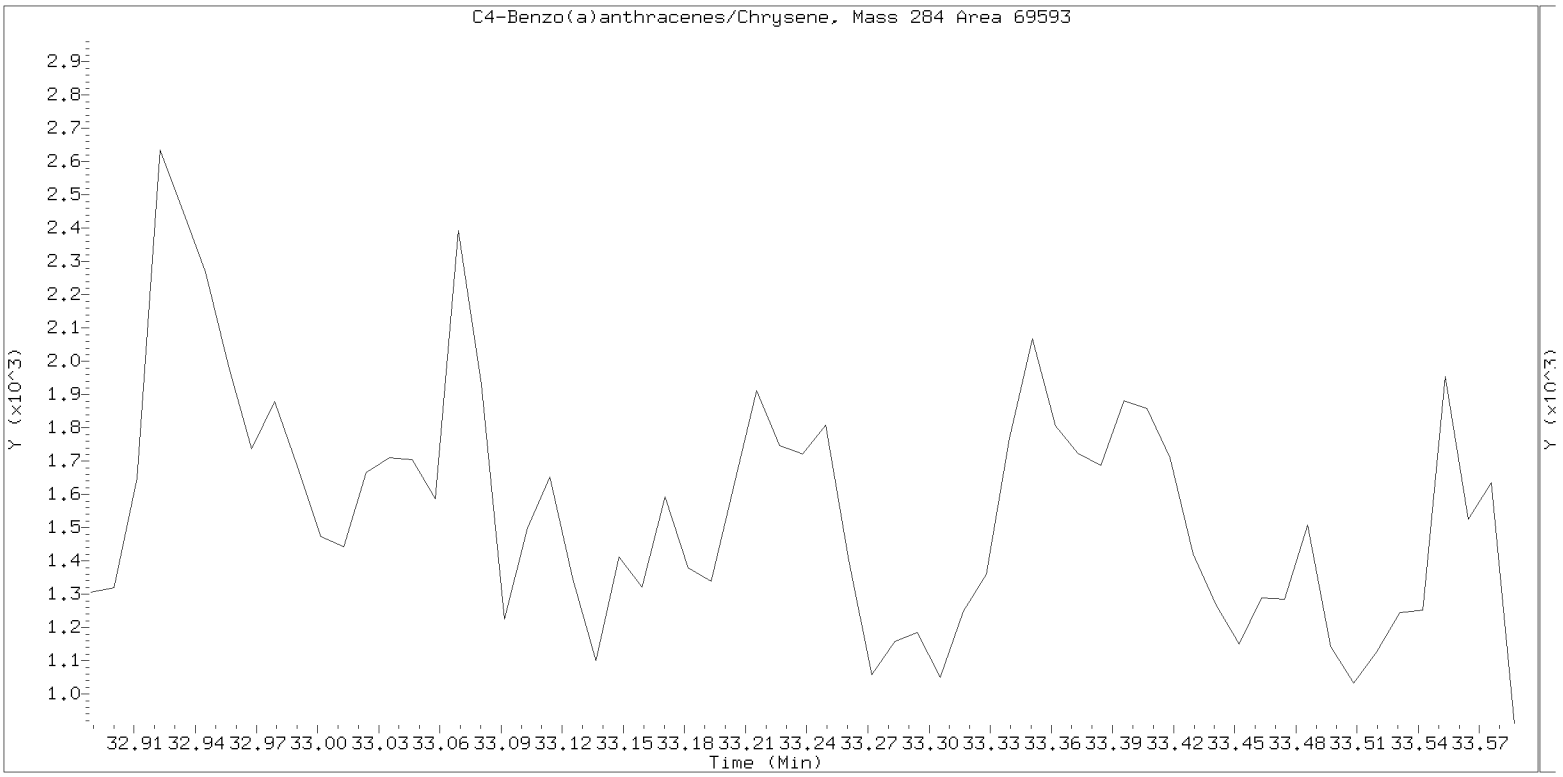


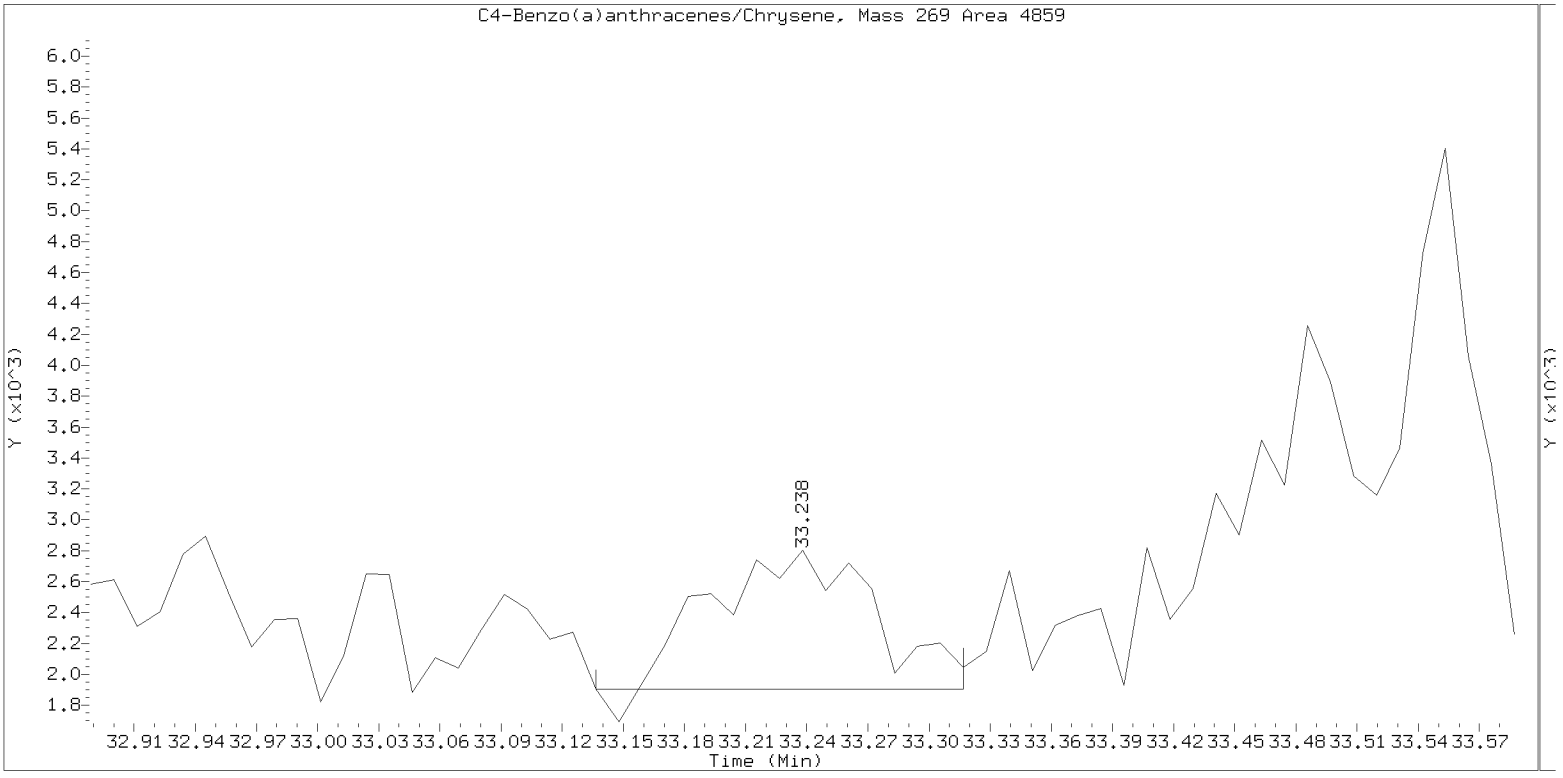


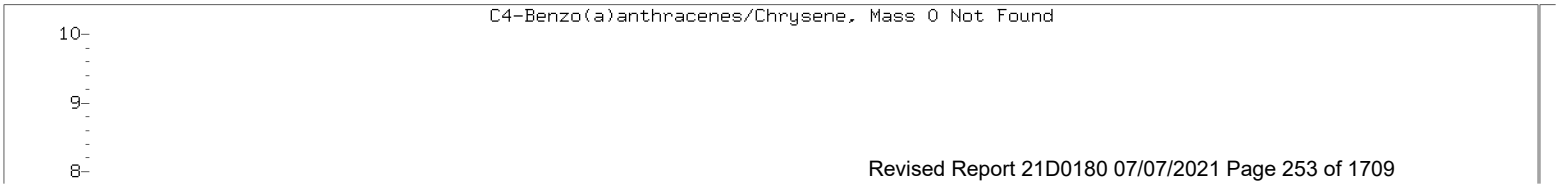

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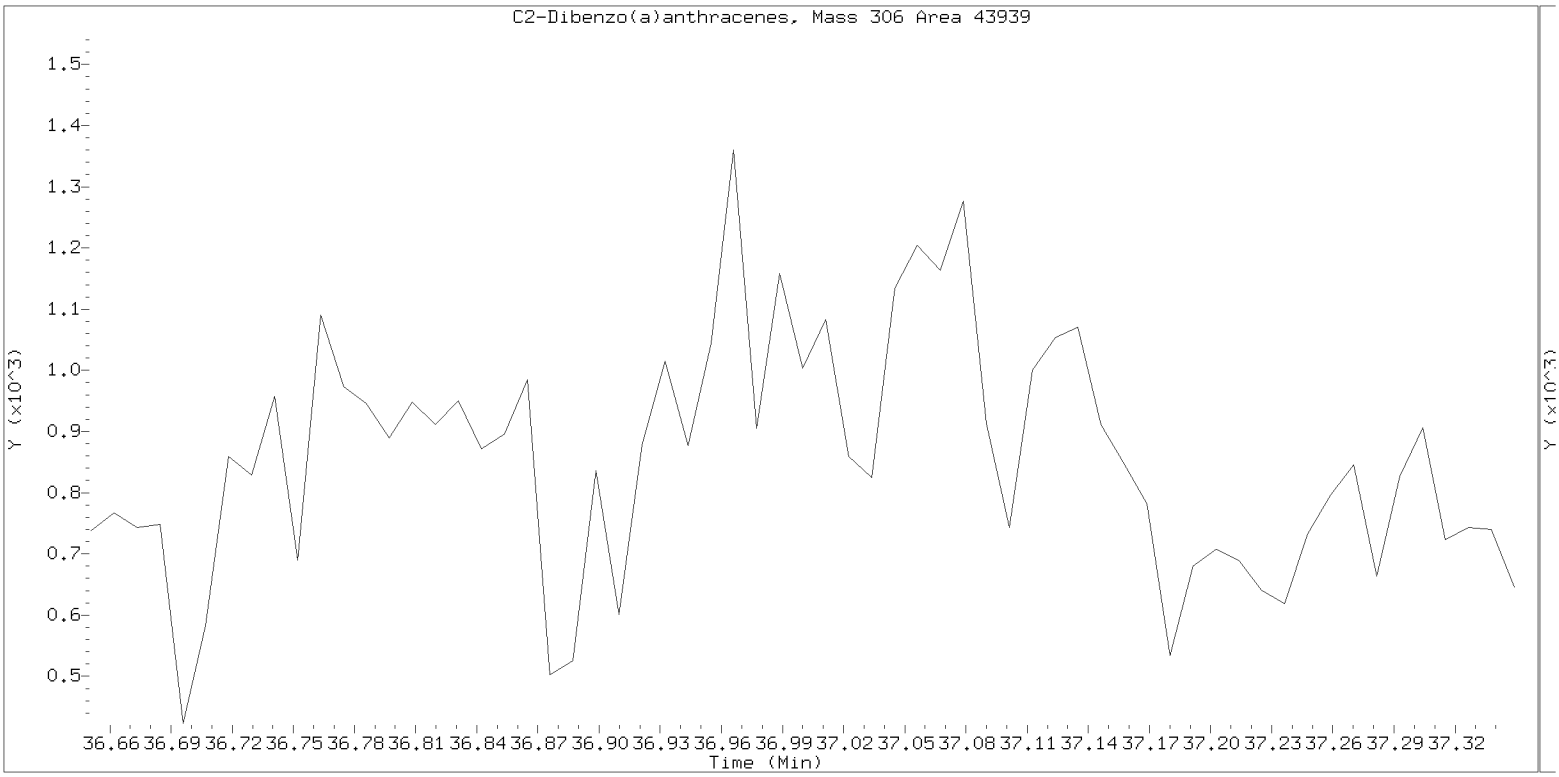

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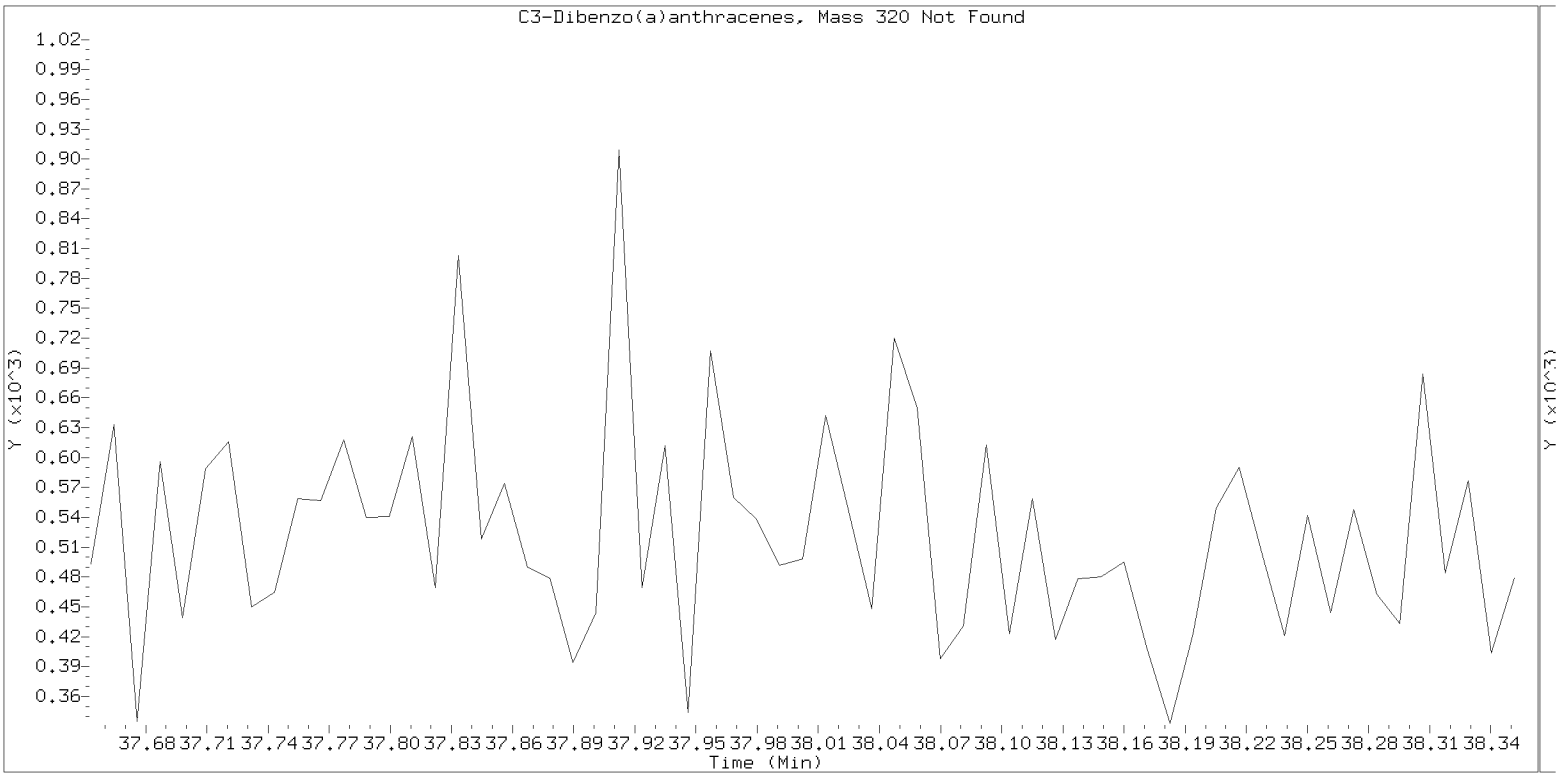


USMPDI-019SG-210414

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

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

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

USMPDI-019SG-210414

# Form I

## ORGANIC ANALYSIS DATA SHEET

## EPA 8270E-SIM

**Alkyl PAH Parents**

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

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

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

Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043065.D

Page 1

Date : 02-MAY-2021 10:49

Client ID:

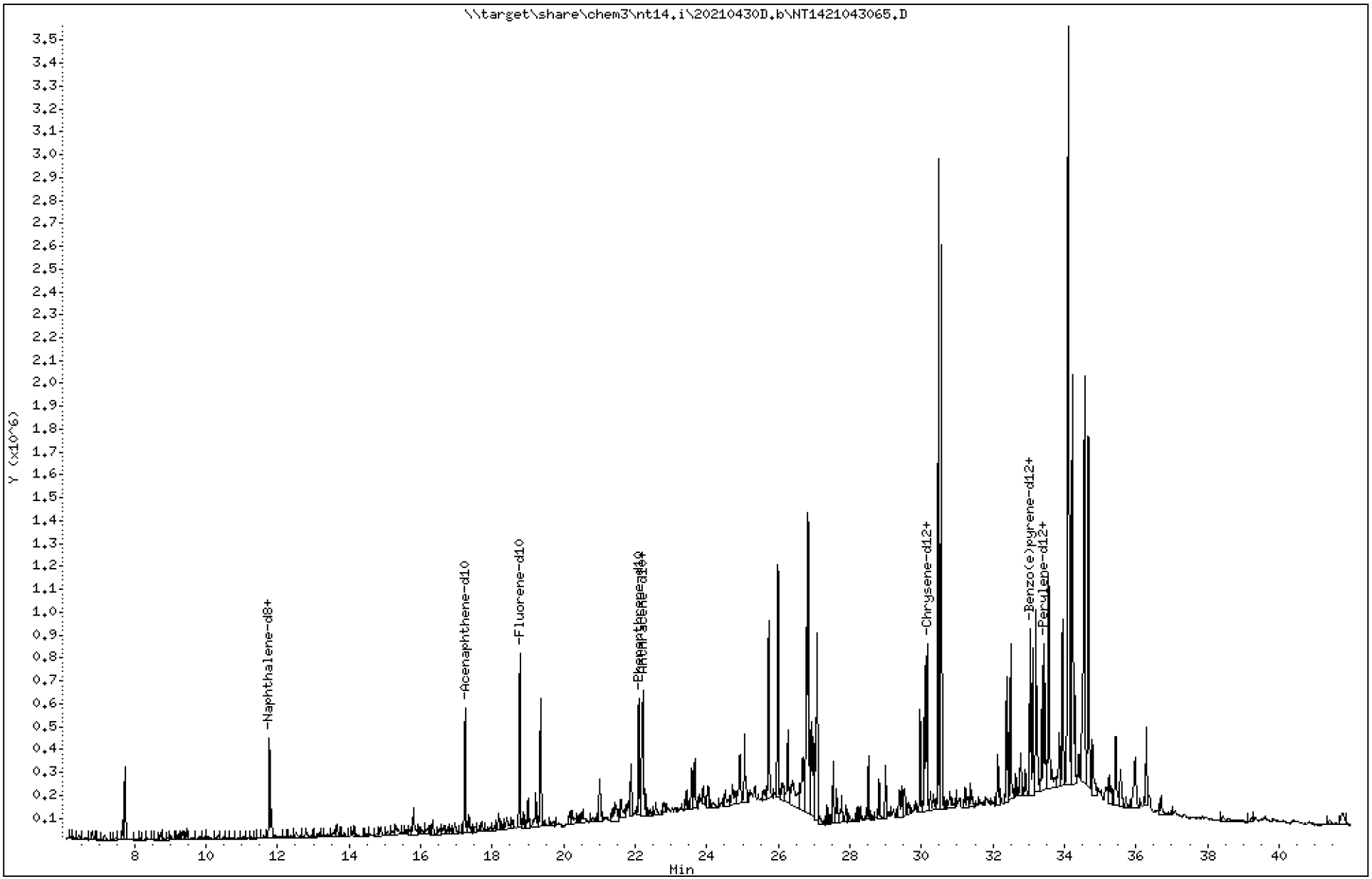
Instrument: nt14.i

Sample Info: 21D0180-03

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

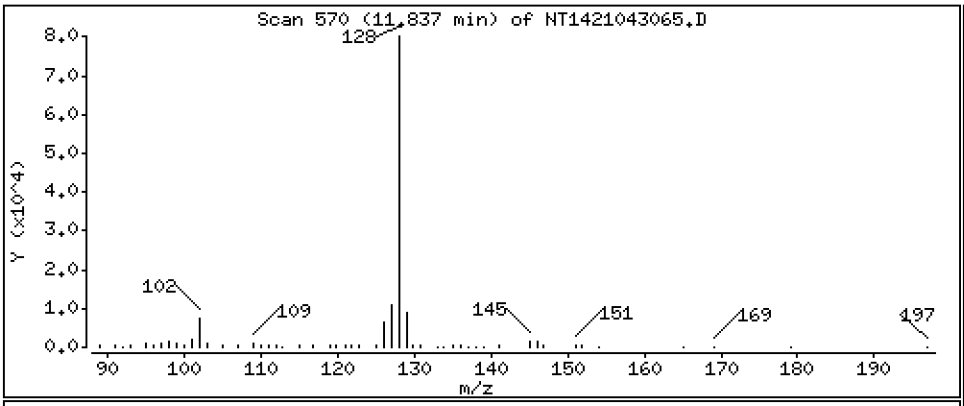
Operator: VTS

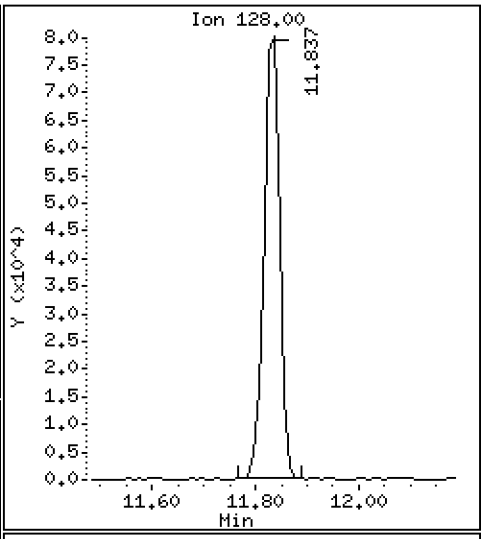
Column phase: Rxi-17Sil MS

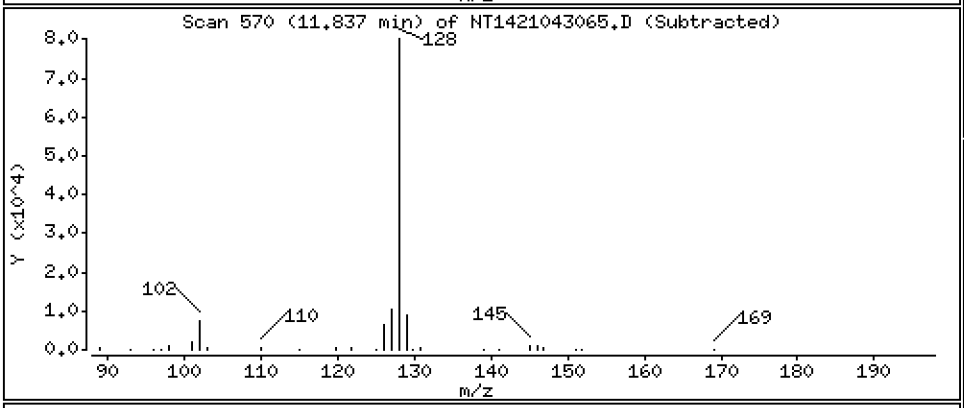
Column diameter: 0.25

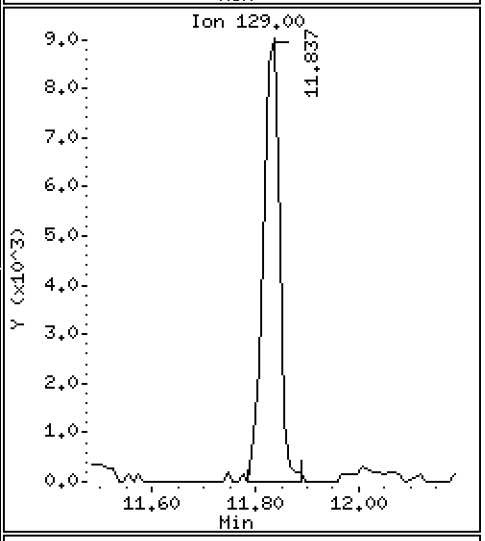
7 Naphthalene

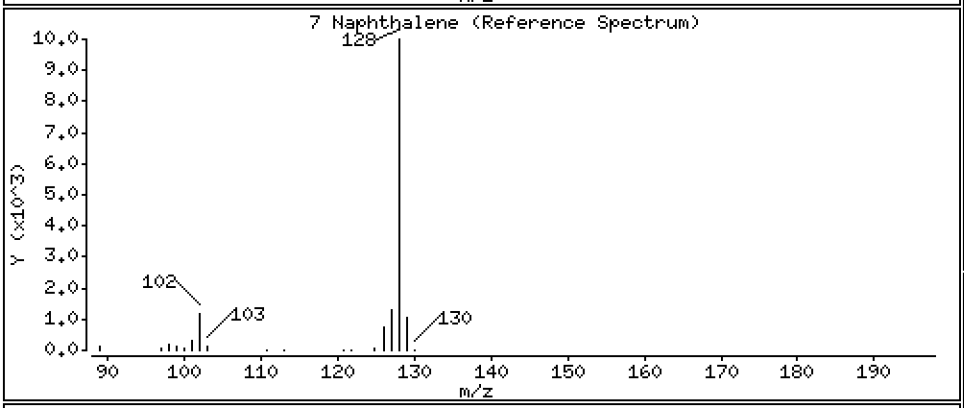
Concentration: 0.5236 ug/mL

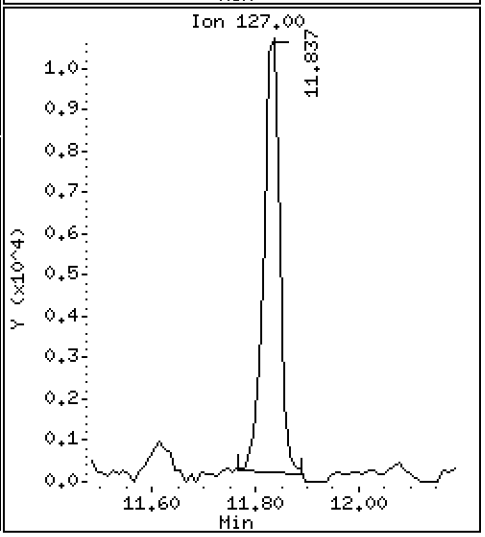


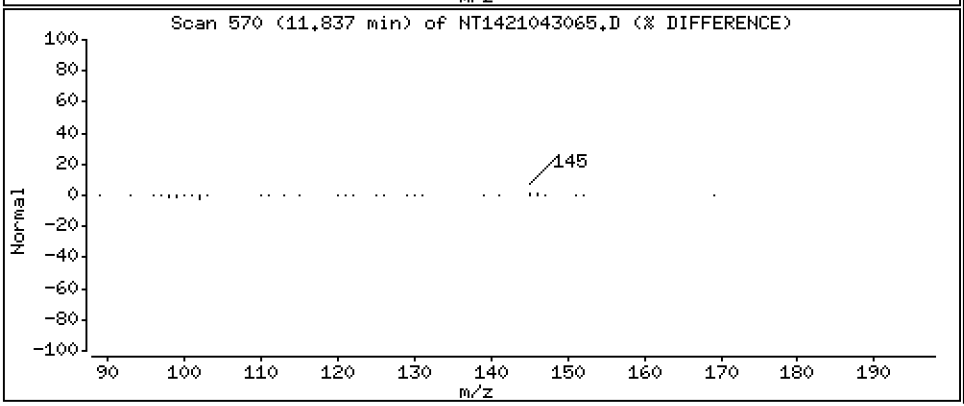



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

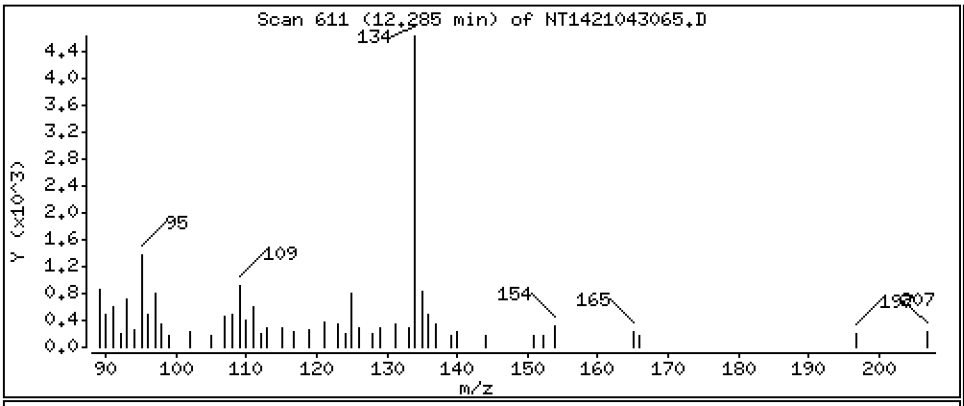
Operator: VTS

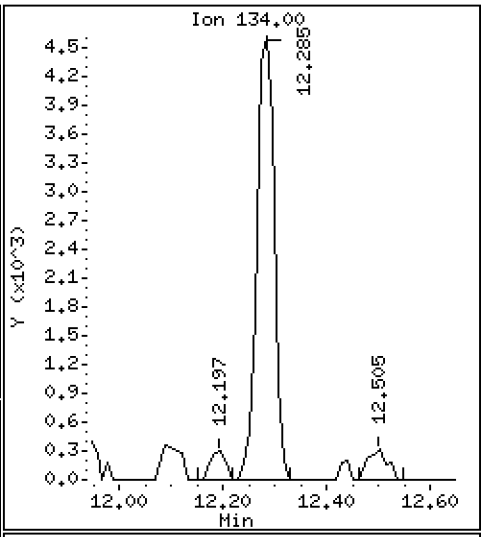
Column phase: Rxi-17Sil MS

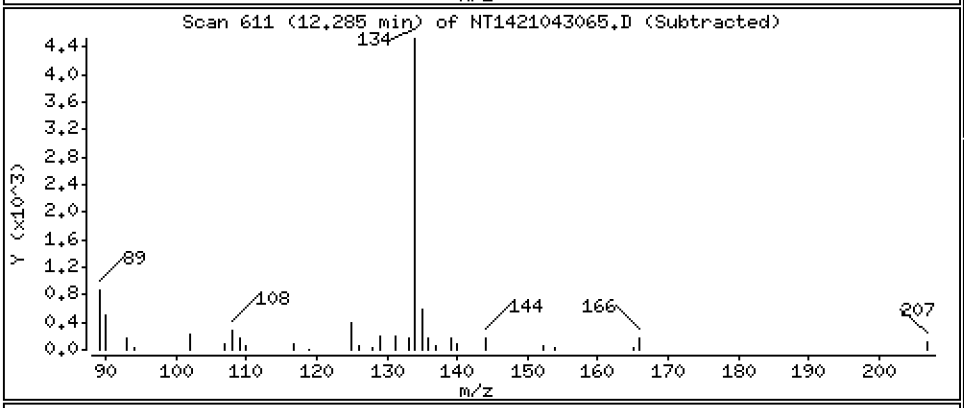
Column diameter: 0.25

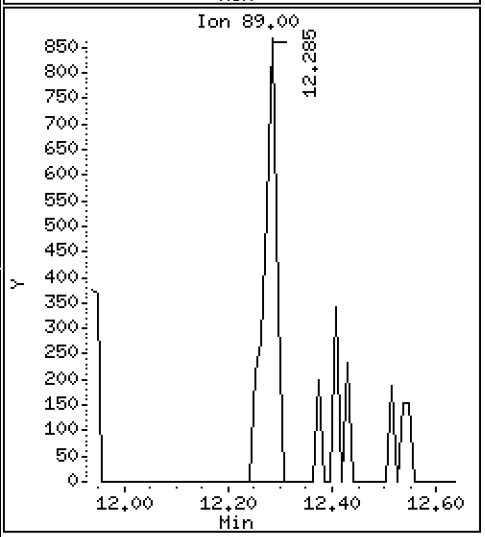
12 Benzo(b)thiophene

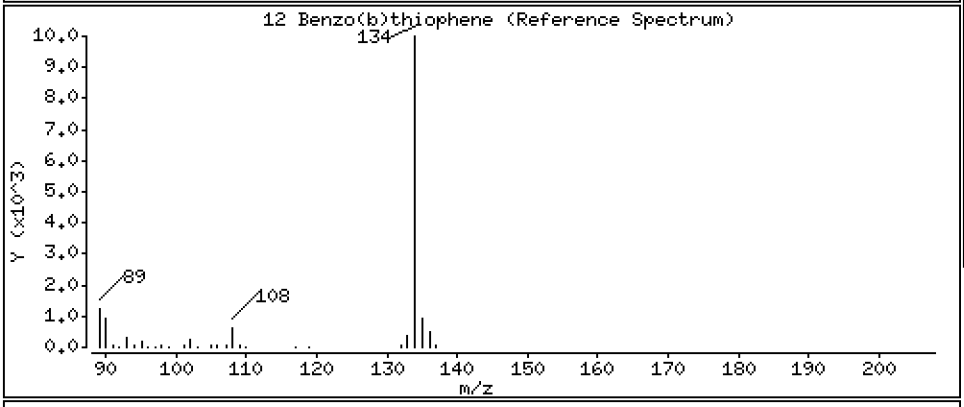
Concentration: 0.04074 ug/mL

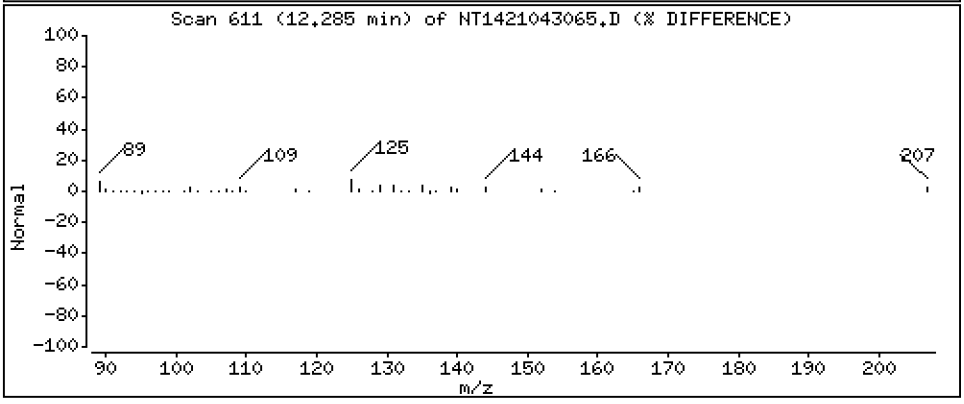


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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

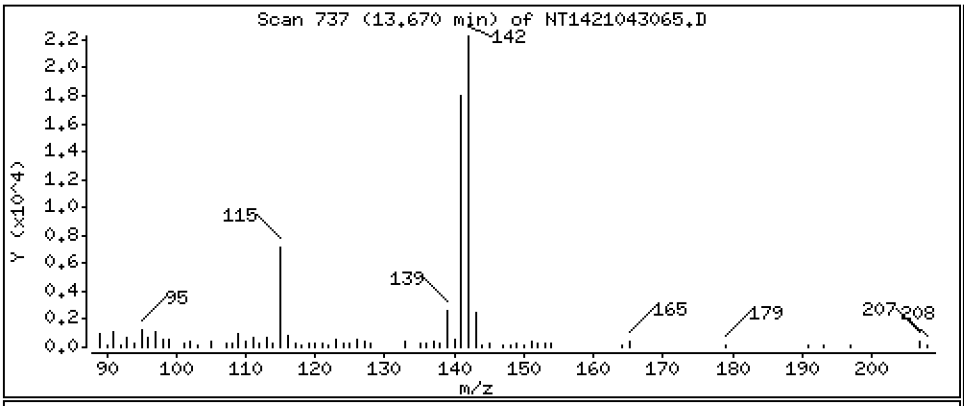
Operator: VTS

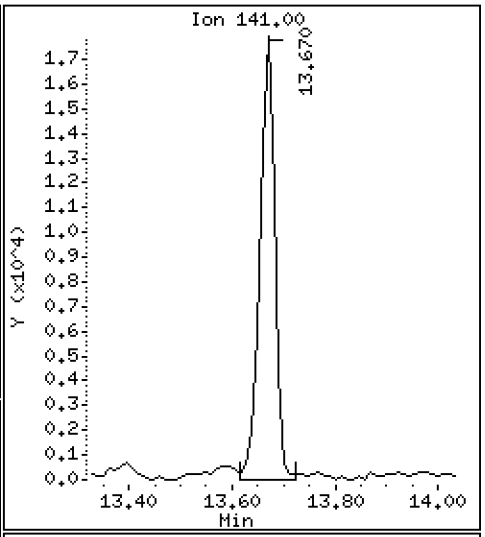
Column phase: Rxi-17Sil MS

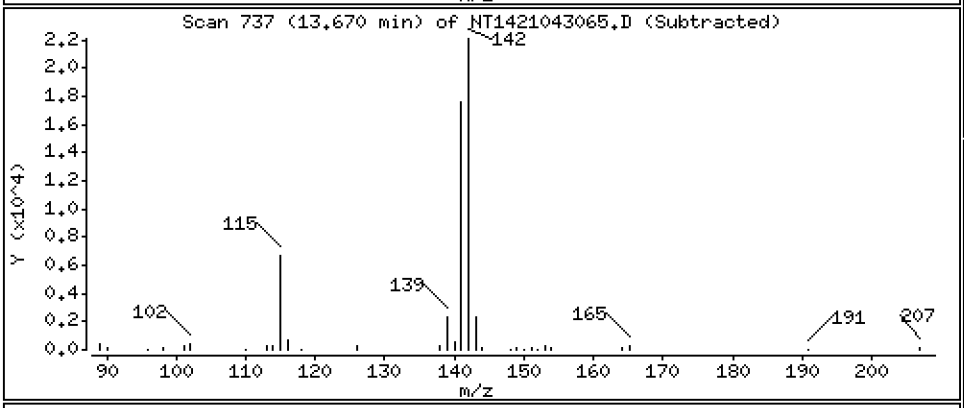
Column diameter: 0.25

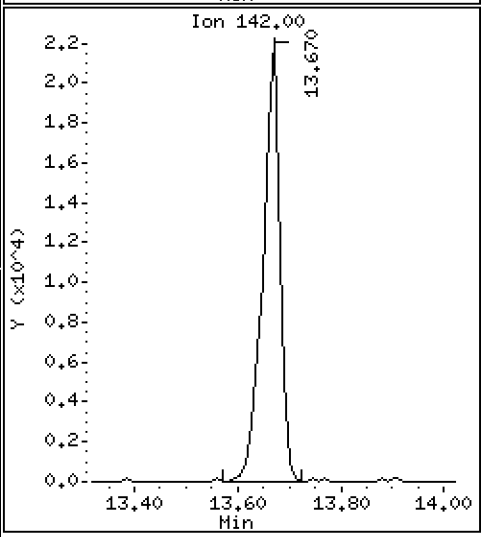
16 2-Methylnaphthalene

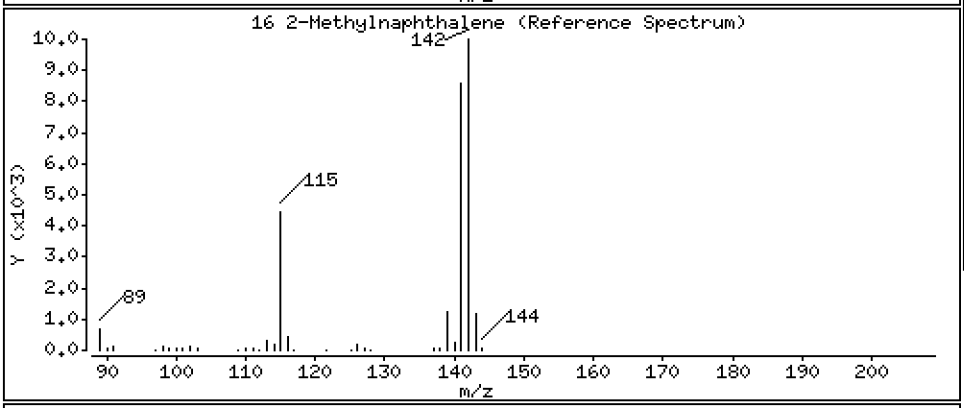
Concentration: 0.2147 ug/mL

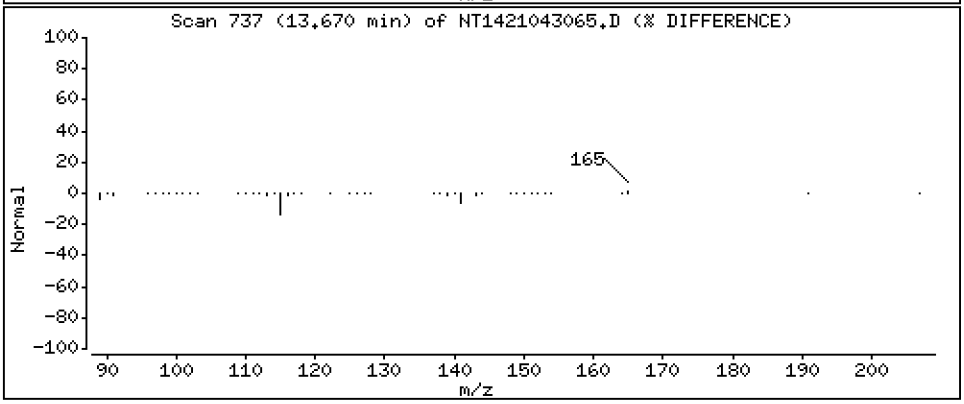


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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

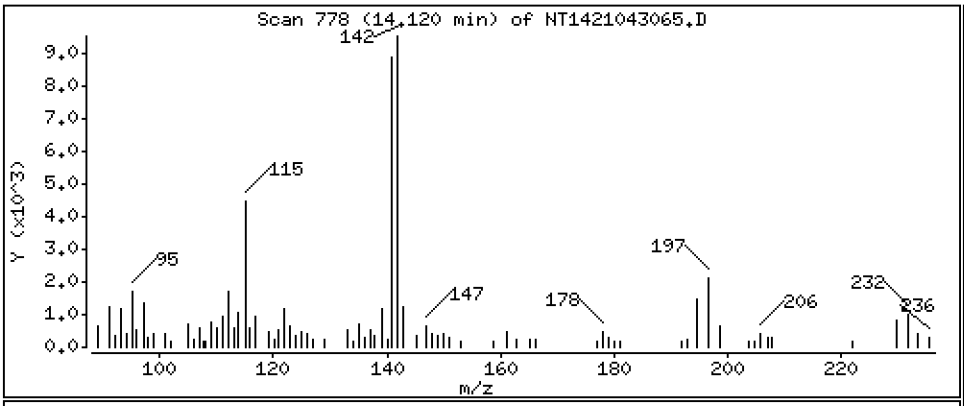
Operator: VTS

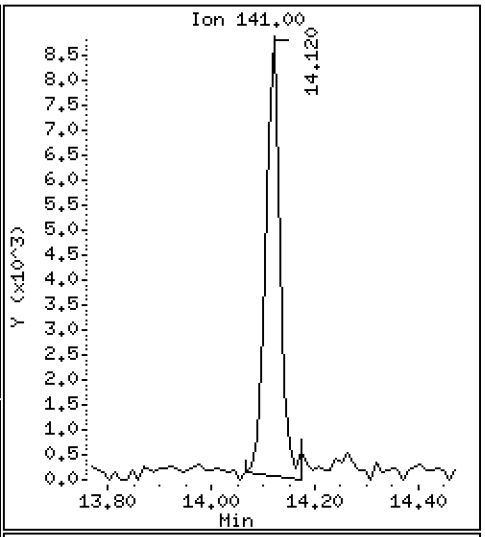
Column phase: Rxi-17Sil MS

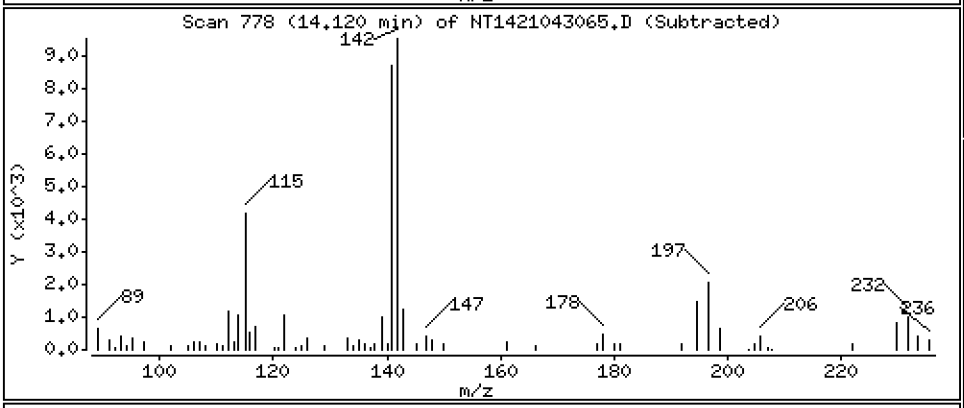
Column diameter: 0.25

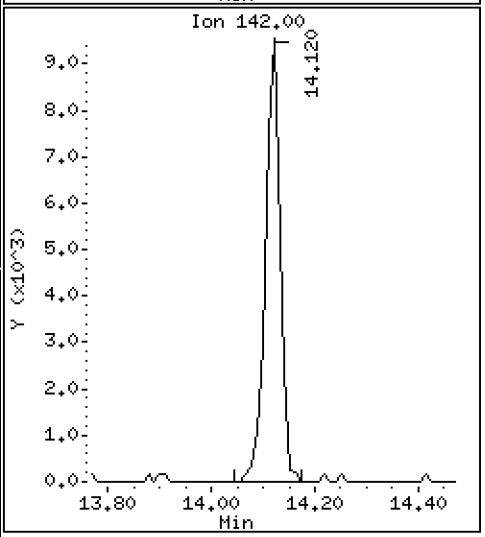
17 1-methylnaphthalene

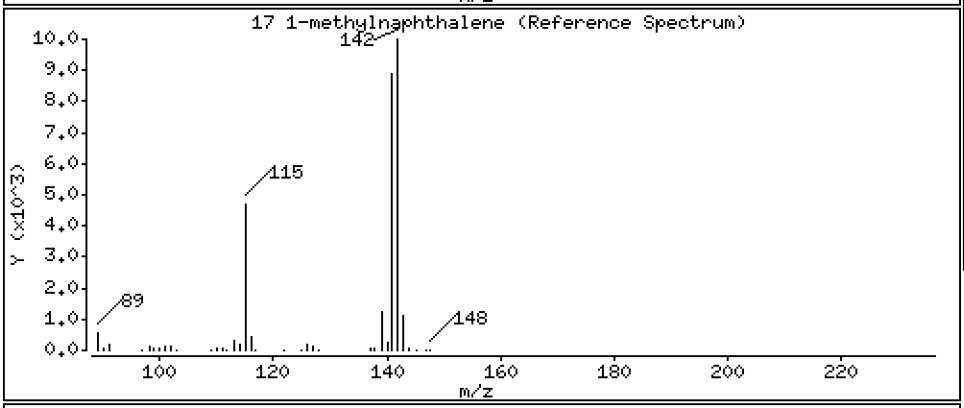
Concentration: 0.1122 ug/mL

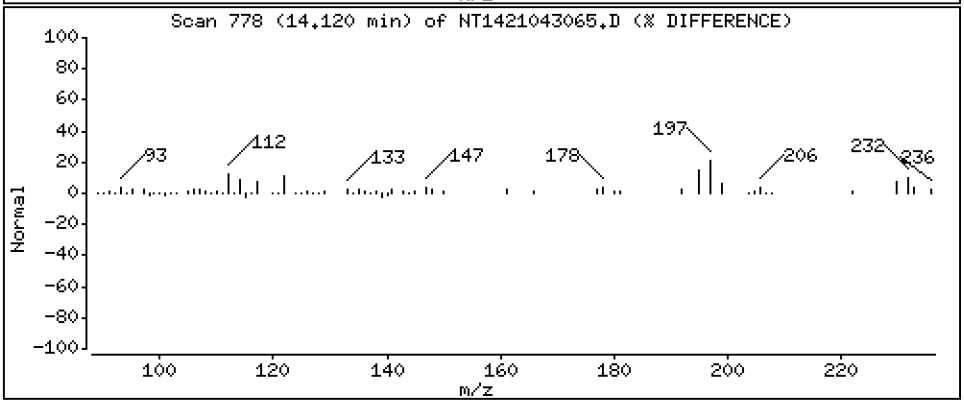


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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

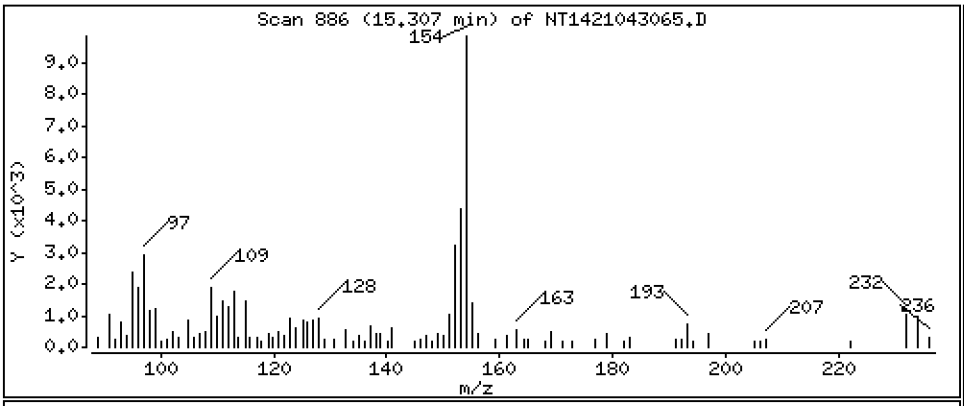
Operator: VTS

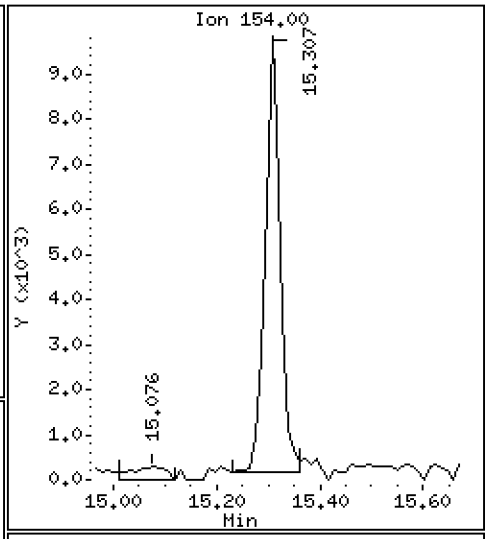
Column phase: Rxi-17Sil MS

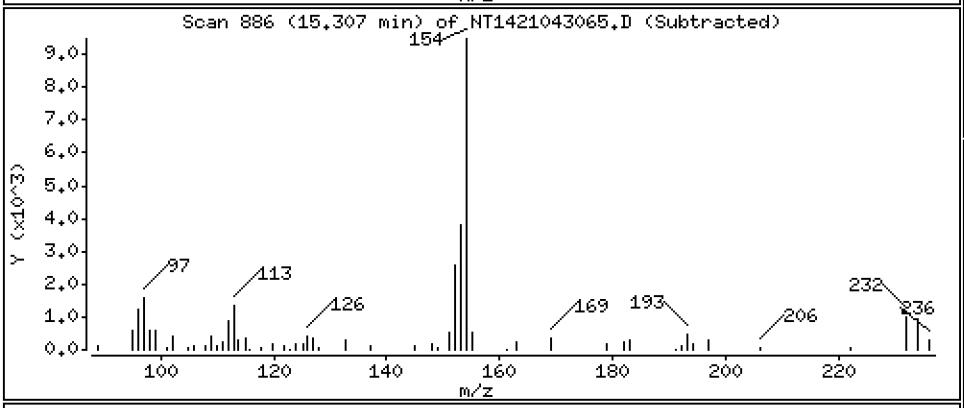
Column diameter: 0.25

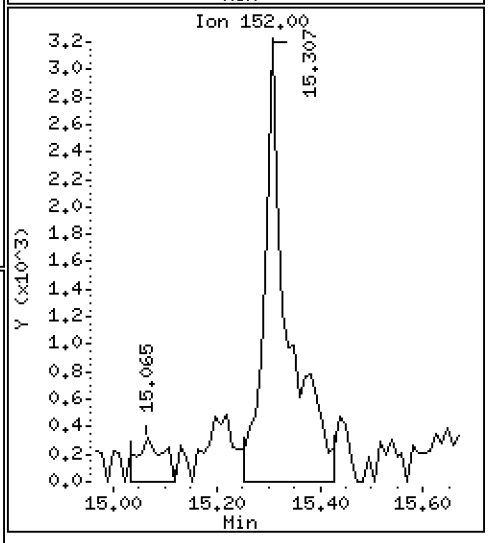
18 Biphenyl

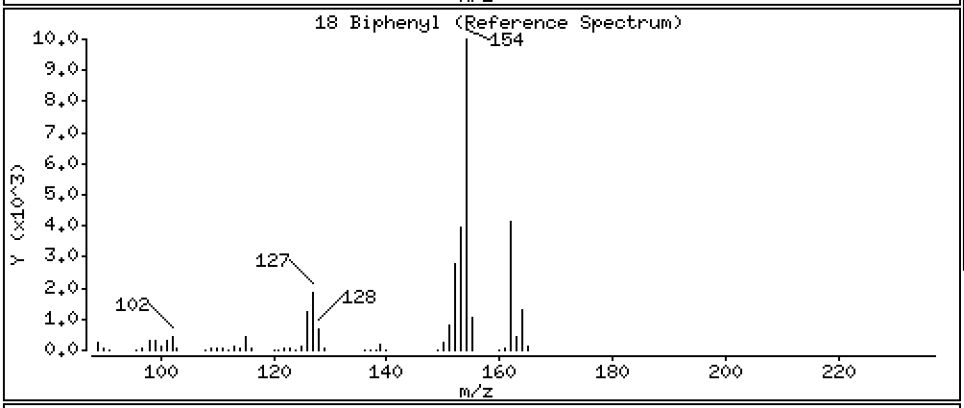
Concentration: 0.08406 ug/mL

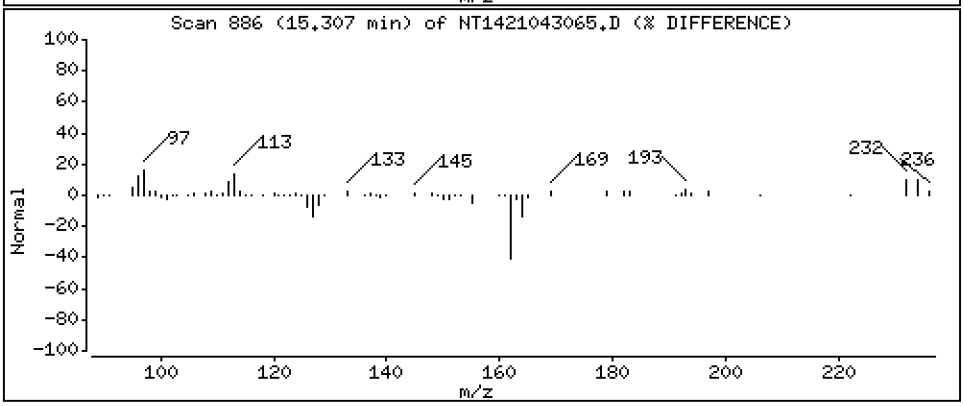


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043065.D

Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

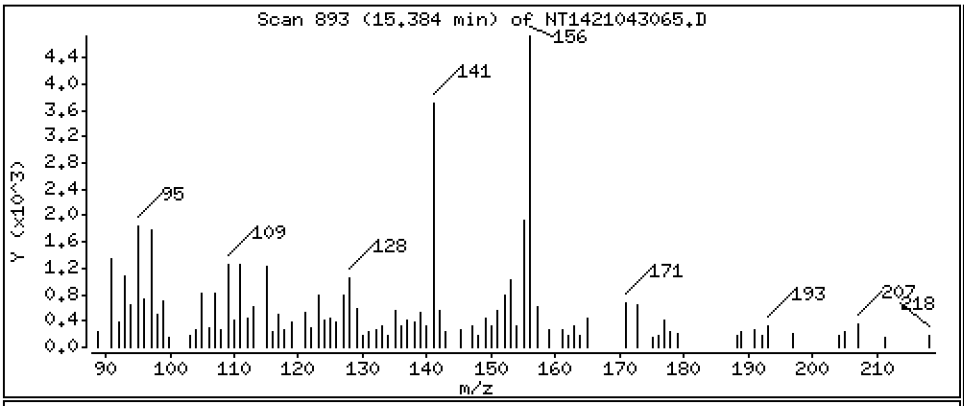
Operator: VTS

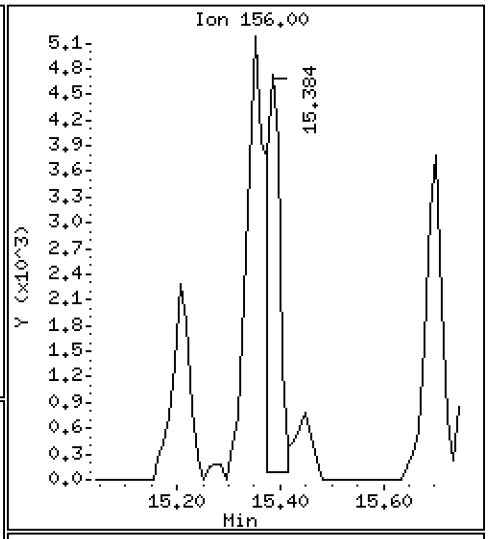
Column phase: Rxi-17Sil MS

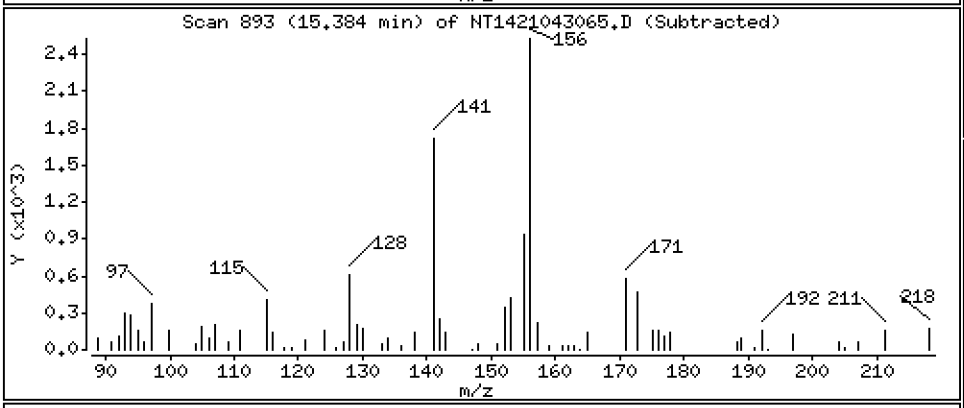
Column diameter: 0.25

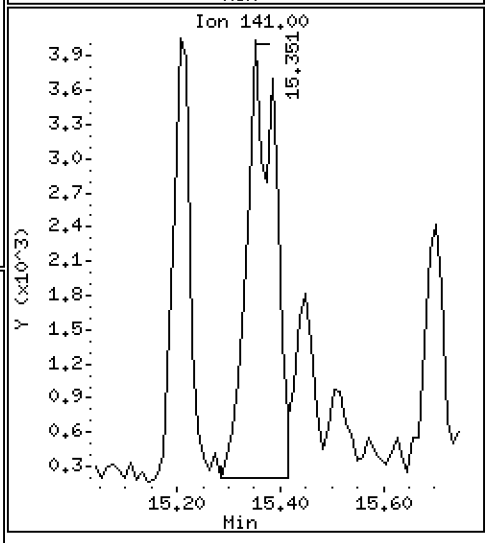
19 2,6-Dimethylnaphthalene

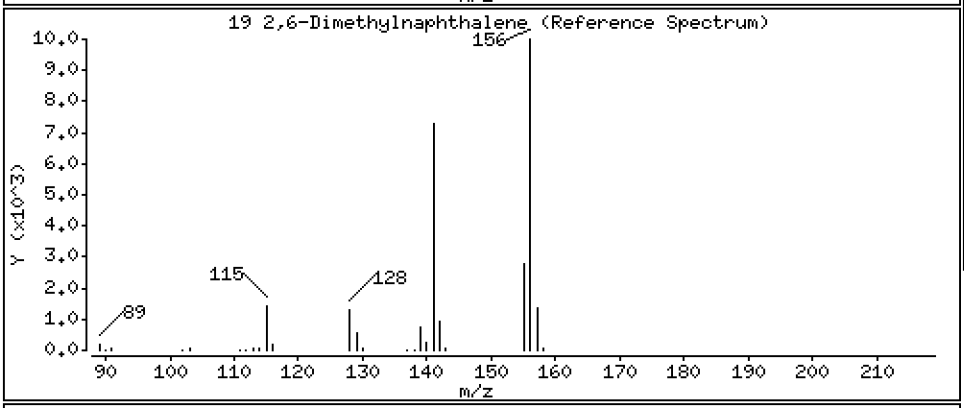
Concentration: 0.05180 ug/mL

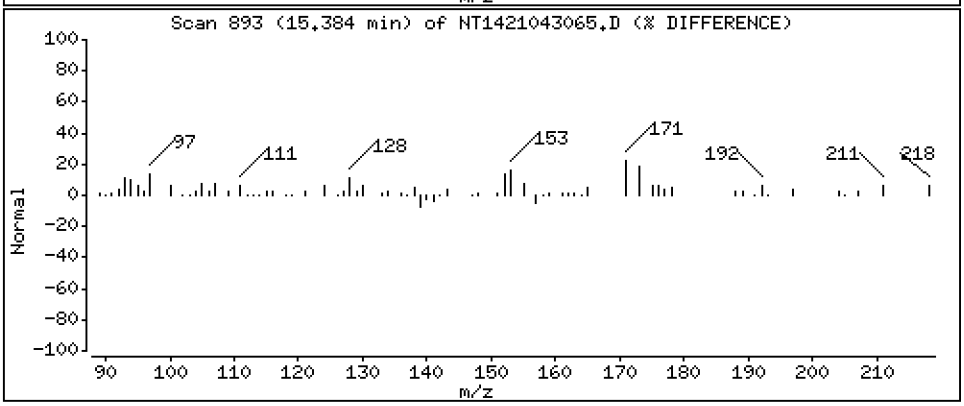


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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

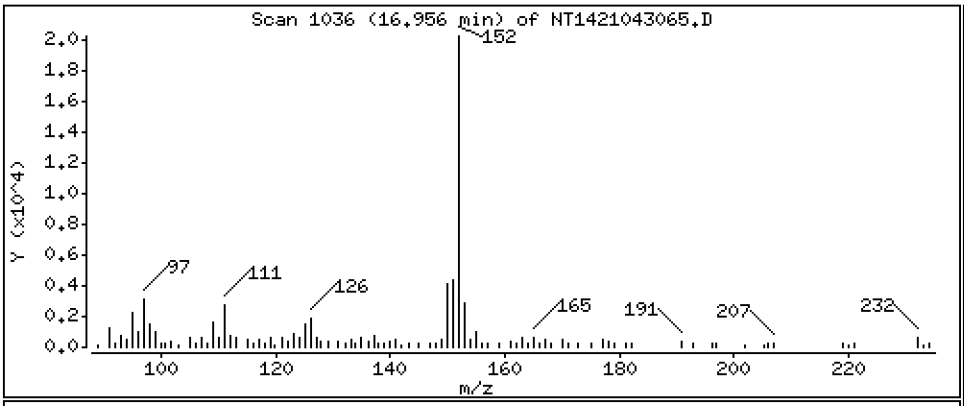
Operator: VTS

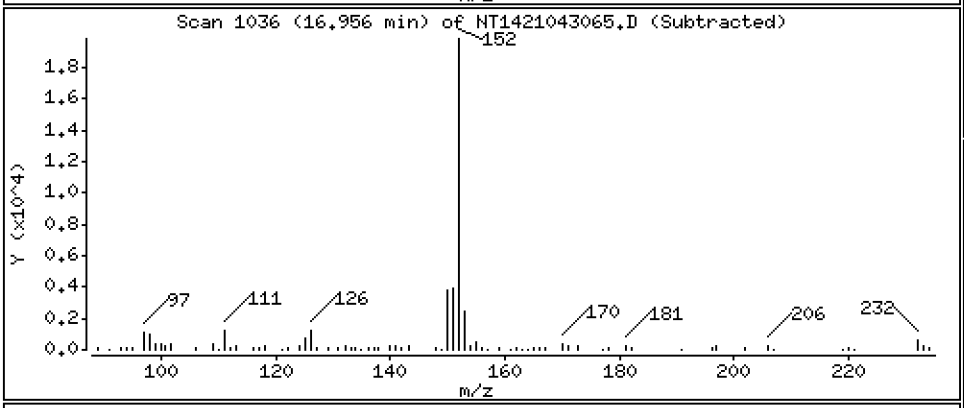
Column phase: Rxi-17Sil MS

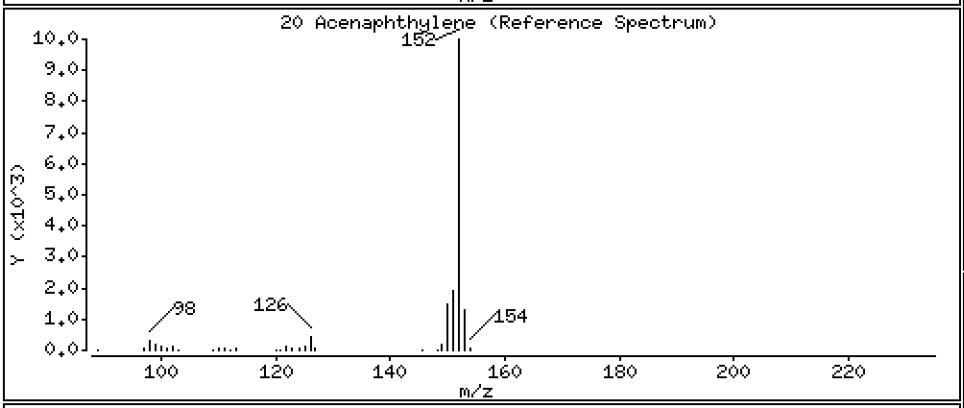
Column diameter: 0.25

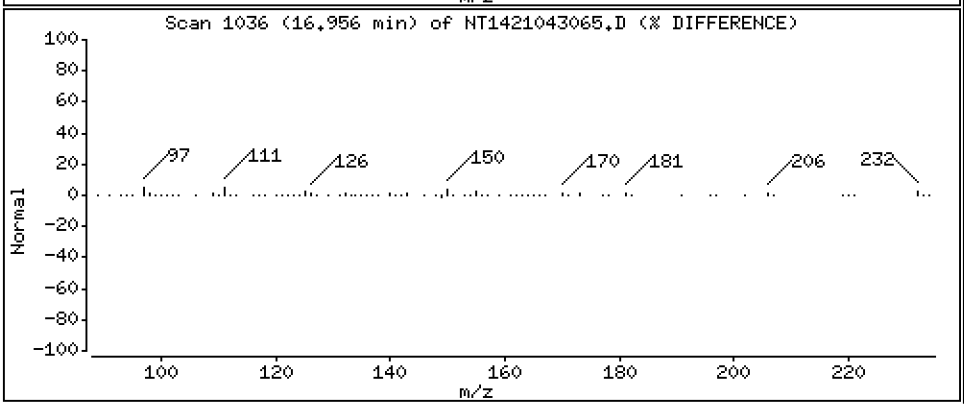
20 Acenaphthylene

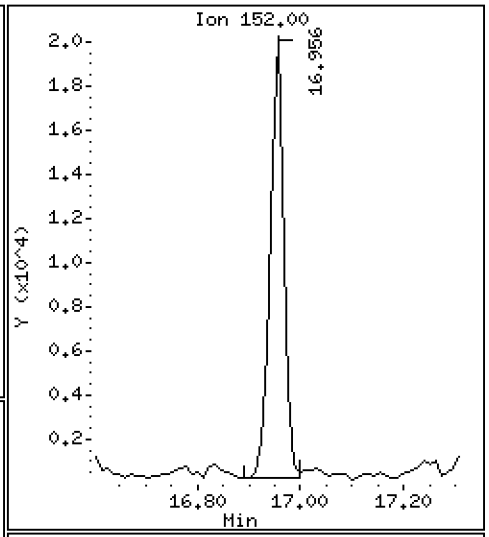
Concentration: 0.1455 ug/mL

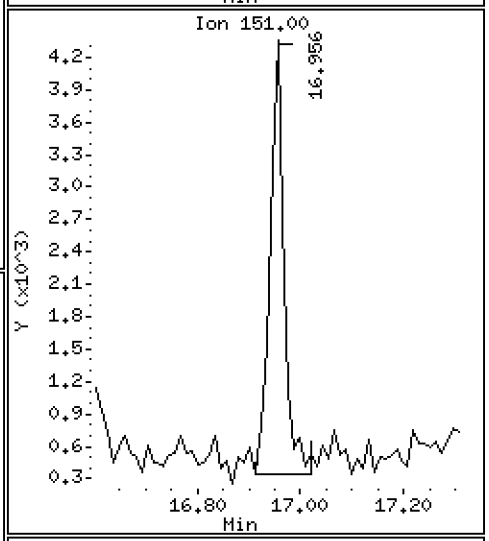


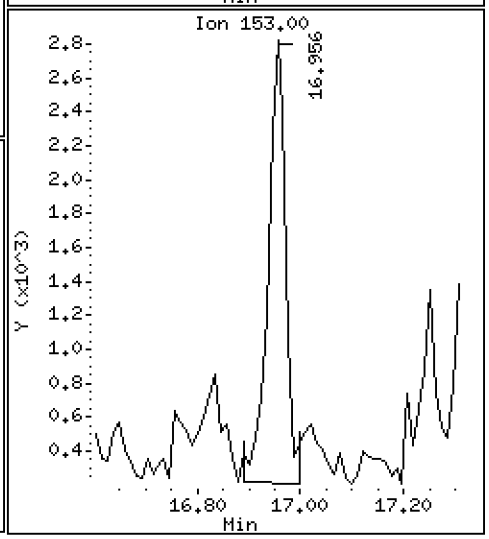



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

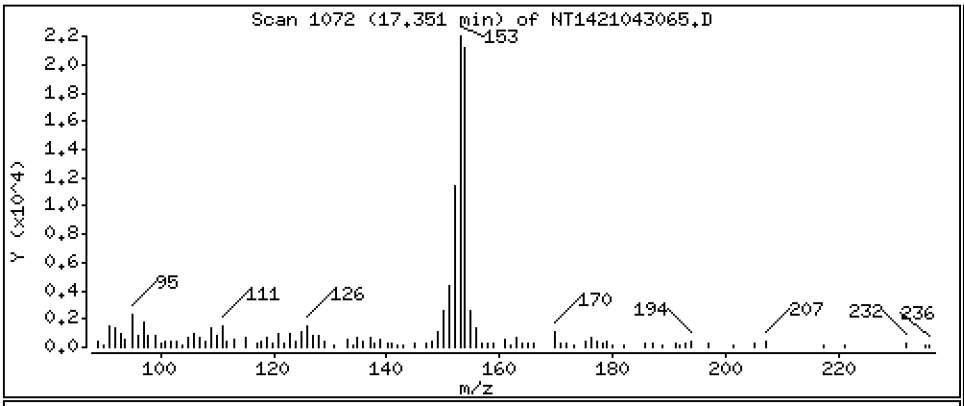
Operator: VTS

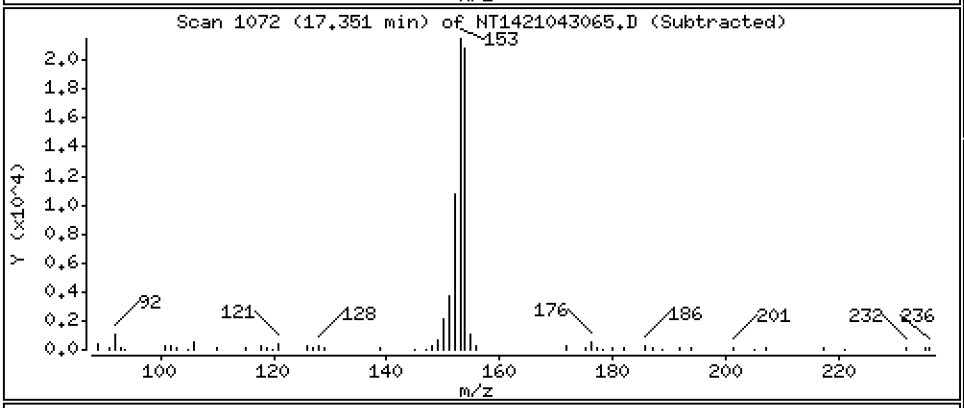
Column phase: Rxi-17Sil MS

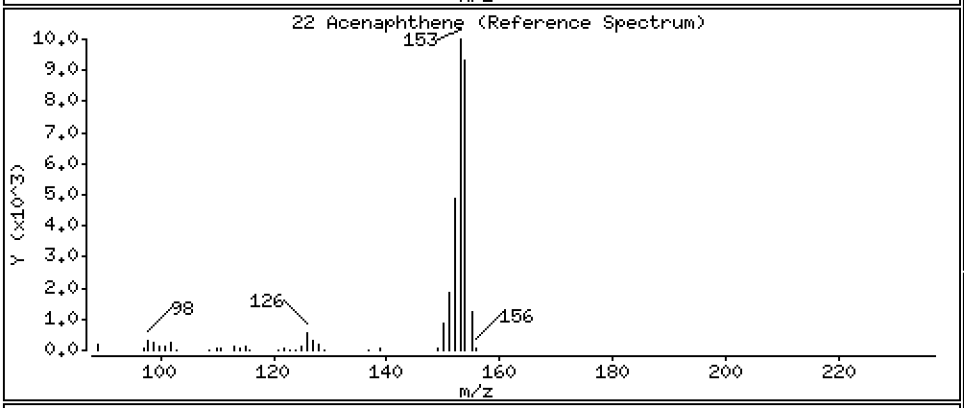
Column diameter: 0.25

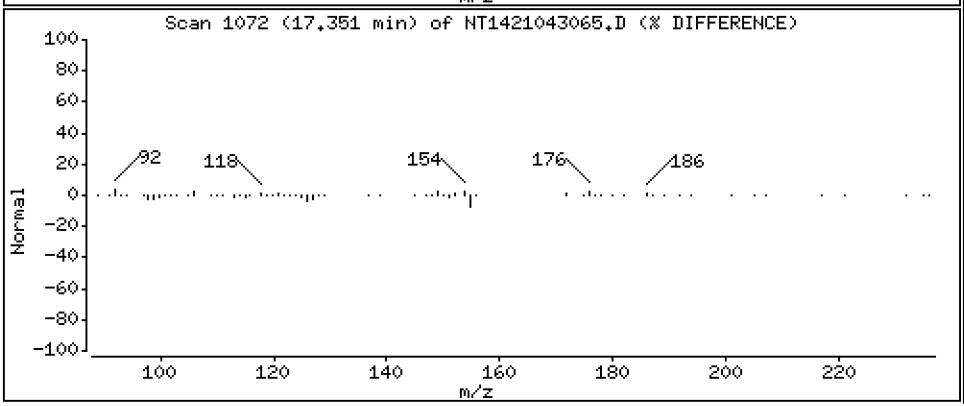
22 Acenaphthene

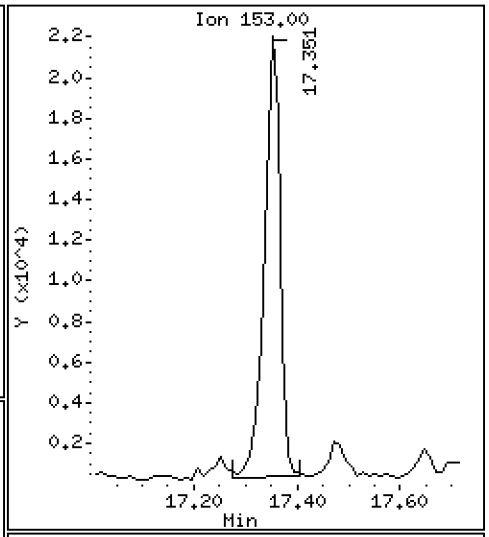
Concentration: 0.2745 ug/mL

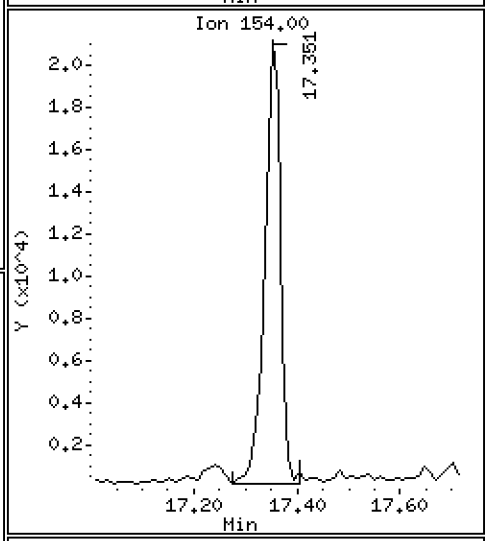


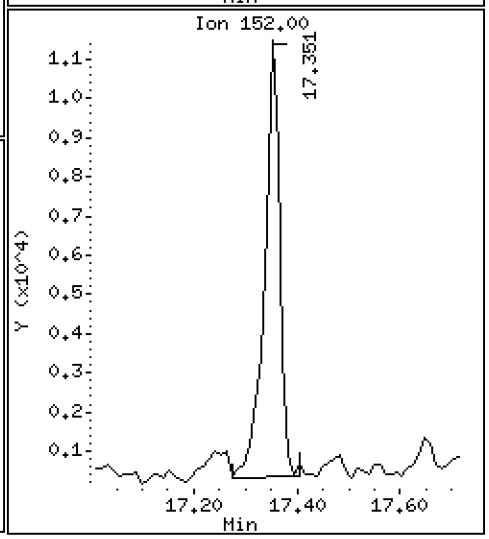



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

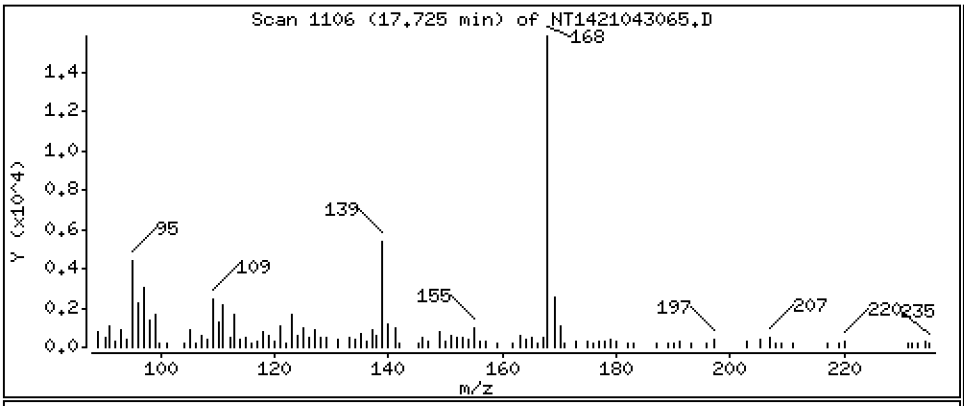
Operator: VTS

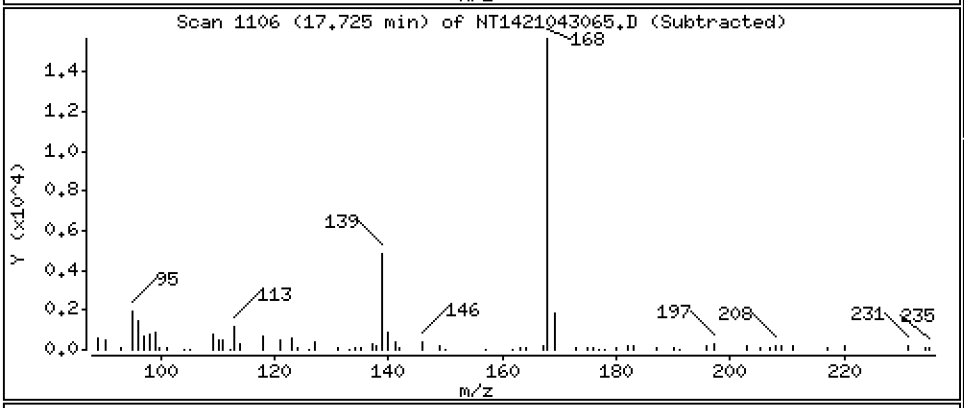
Column phase: Rxi-17Sil MS

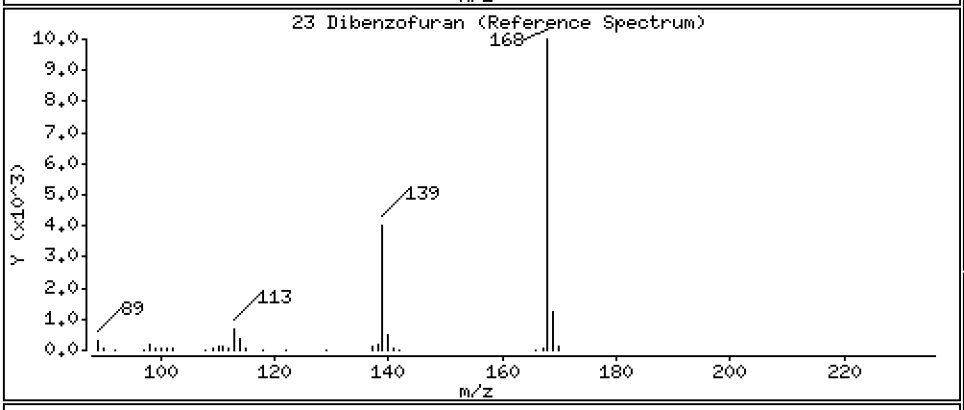
Column diameter: 0.25

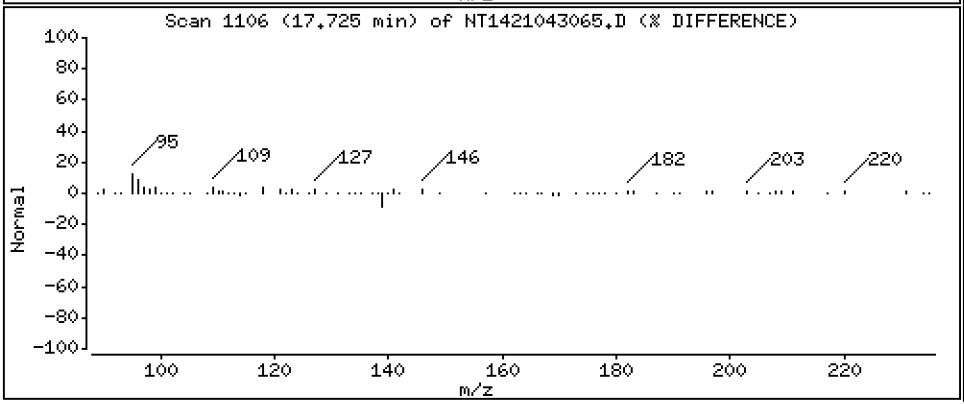
23 Dibenzofuran

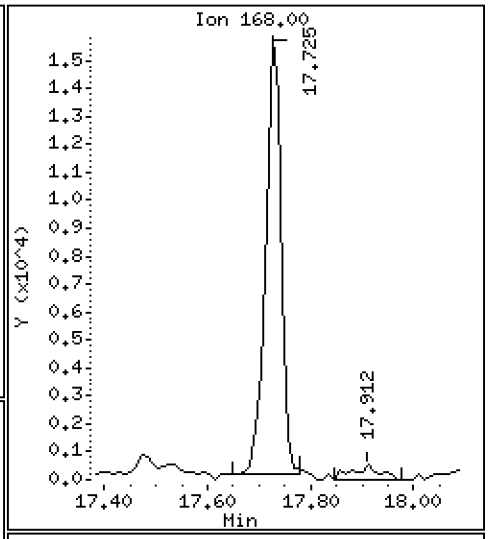
Concentration: 0.1287 ug/mL

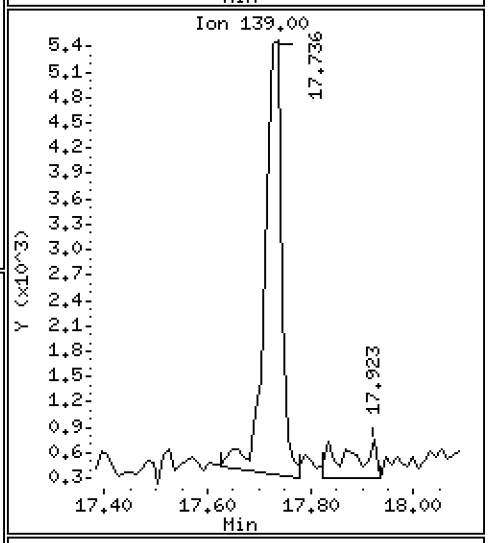


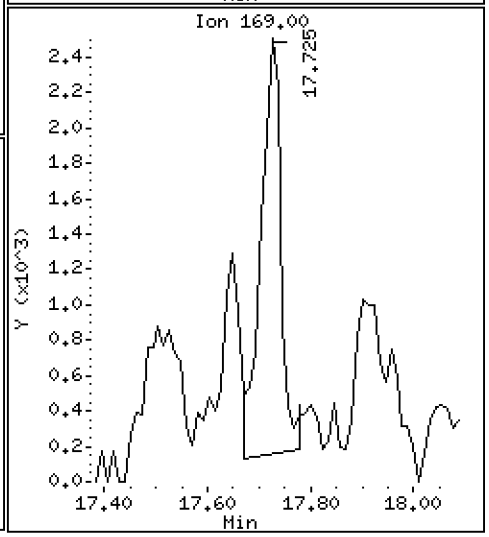



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

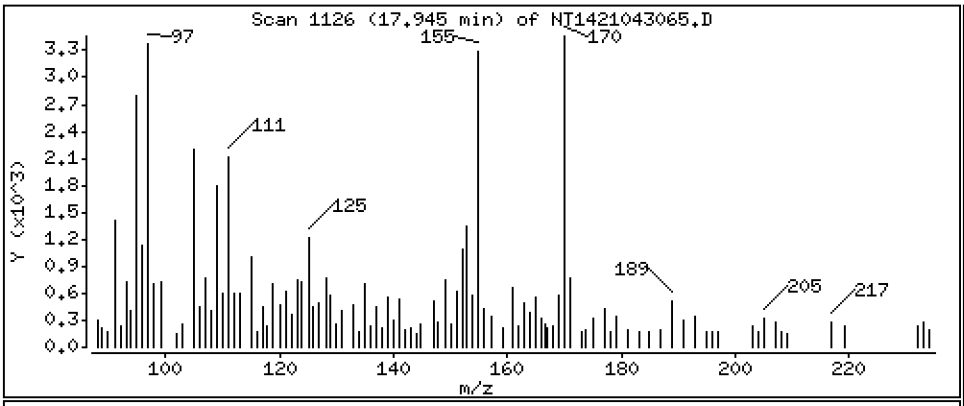
Operator: VTS

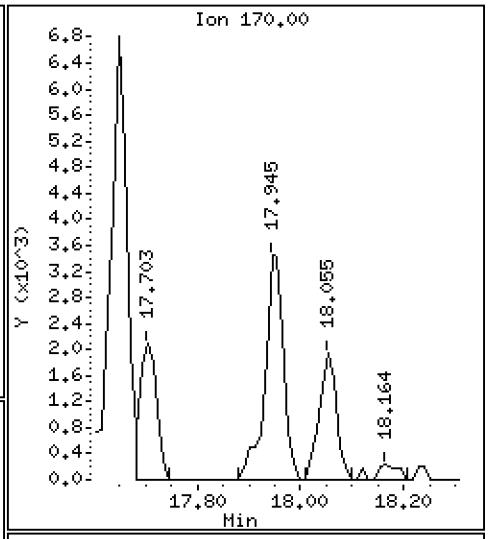
Column phase: Rxi-17Sil MS

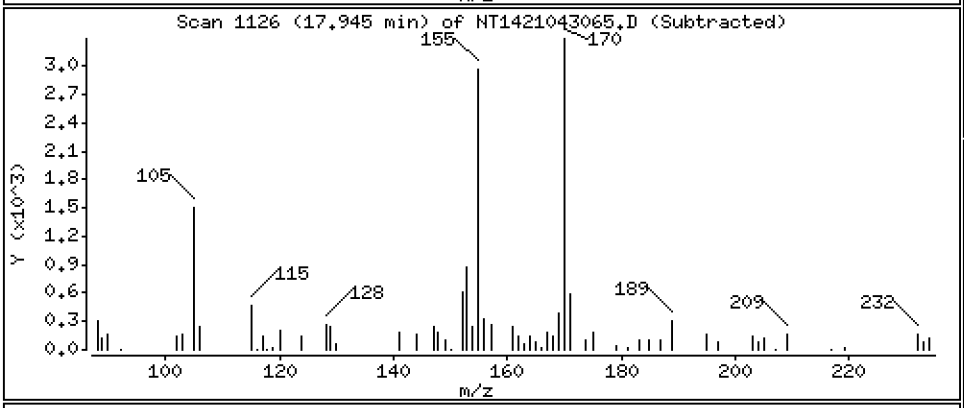
Column diameter: 0.25

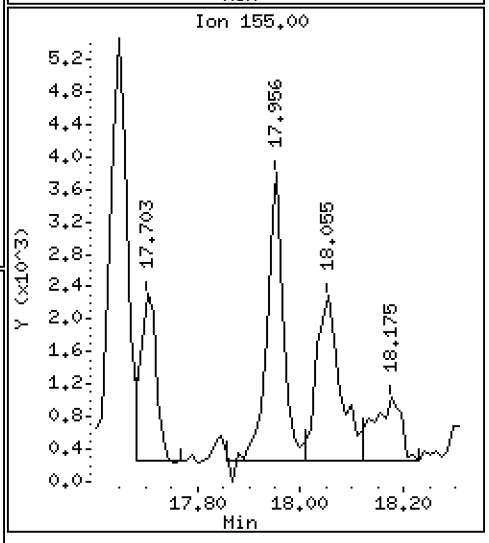
24 1,6,7-Trimethylnaphthalene

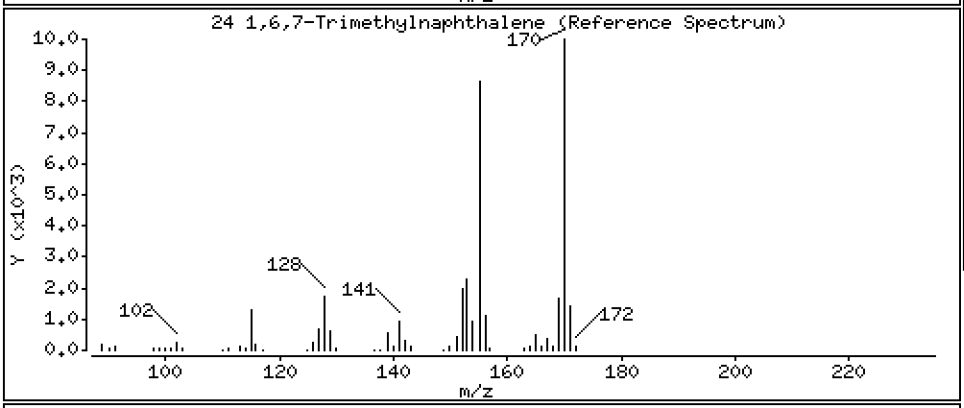
Concentration: 0.06025 ug/mL

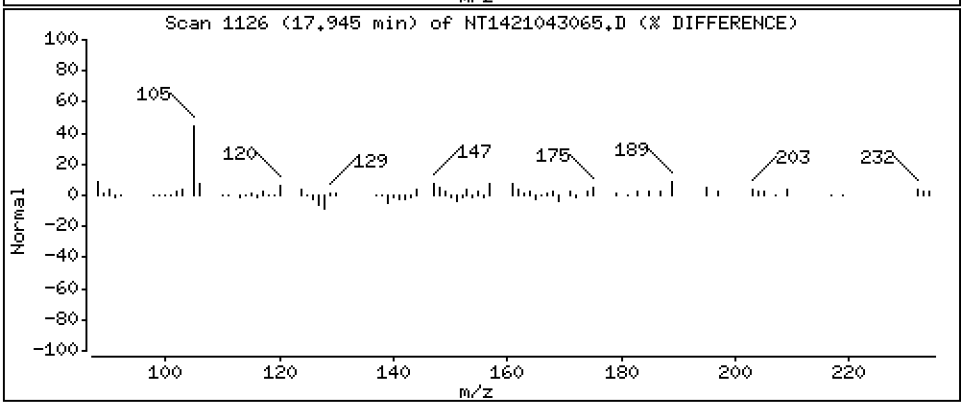


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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

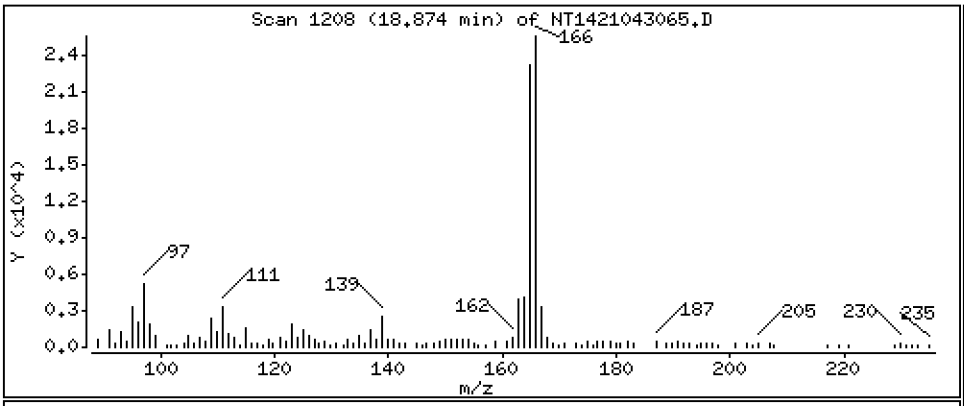
Operator: VTS

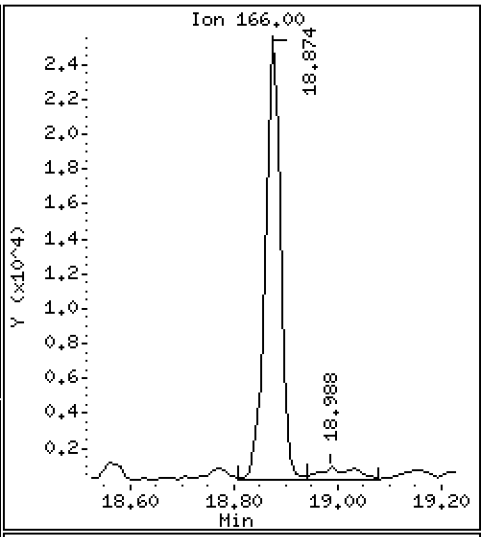
Column phase: Rxi-17Sil MS

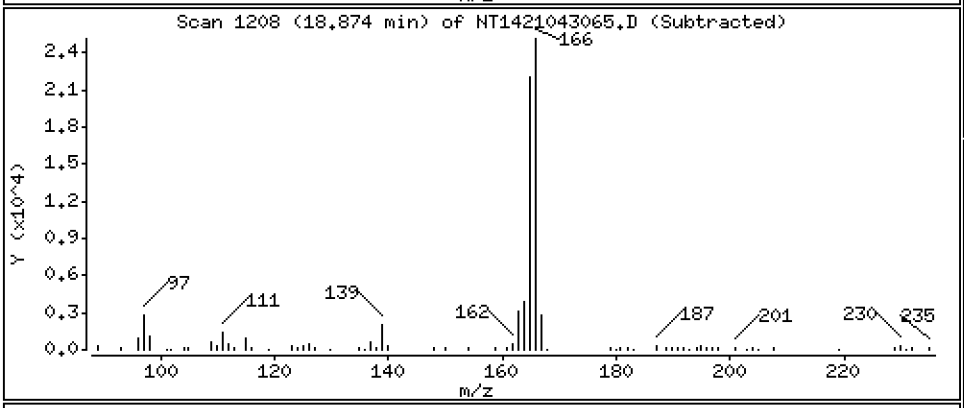
Column diameter: 0.25

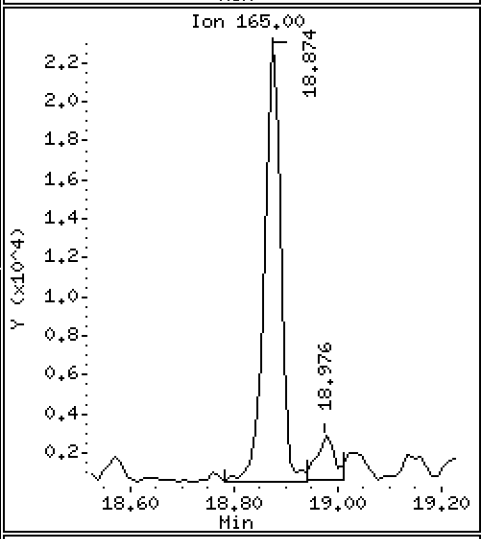
26 Fluorene

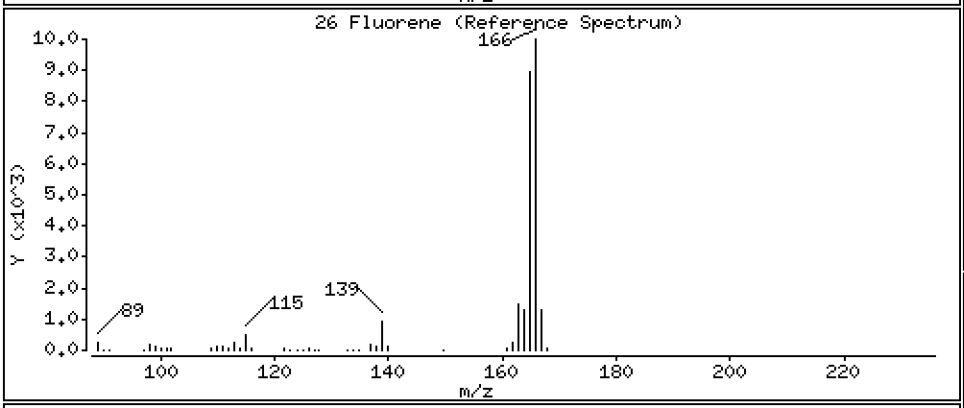
Concentration: 0.2744 ug/mL

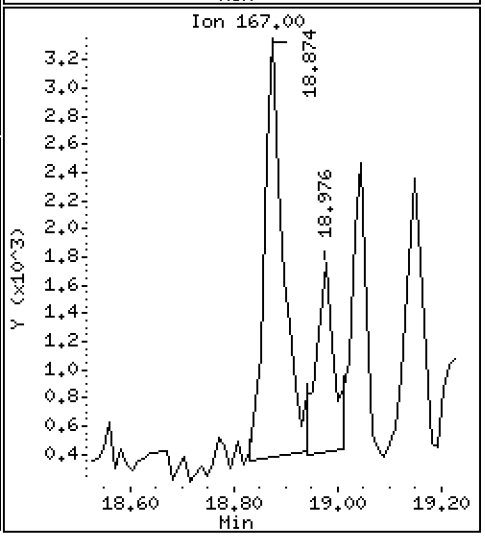


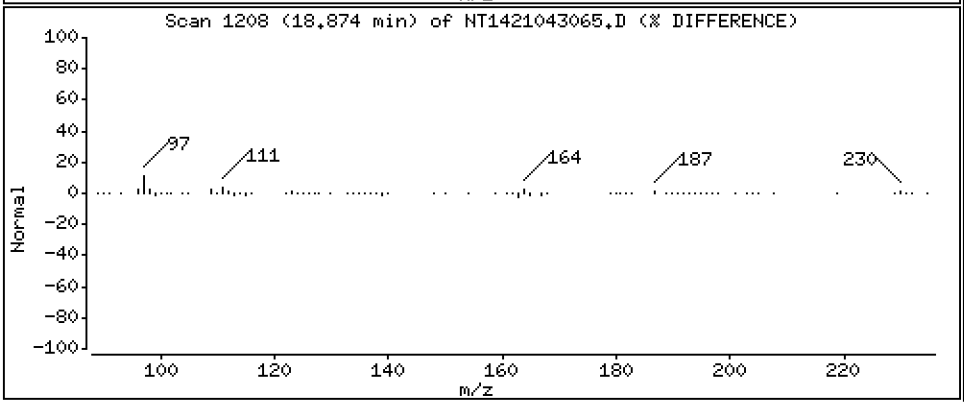



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

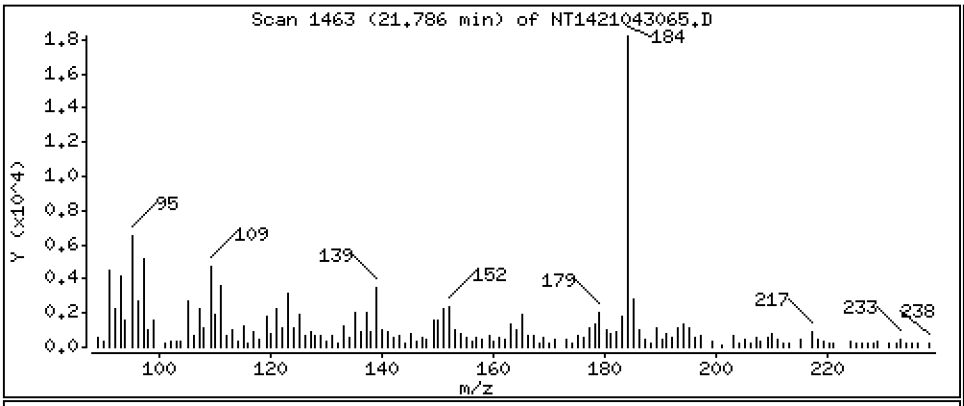
Operator: VTS

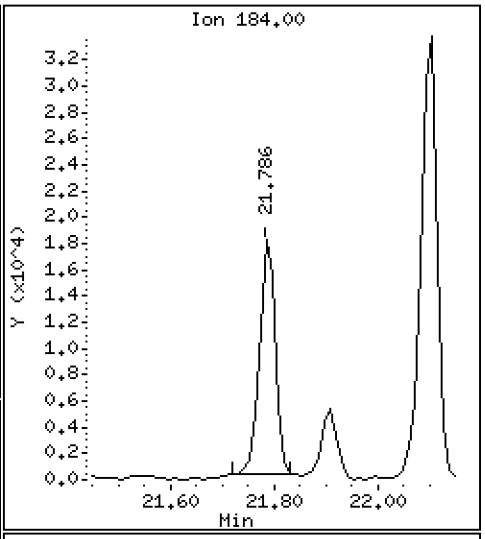
Column phase: Rxi-17Sil MS

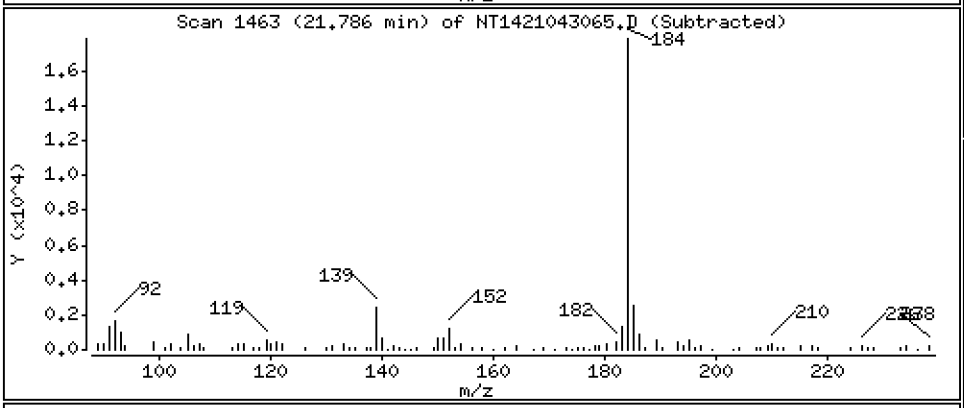
Column diameter: 0.25

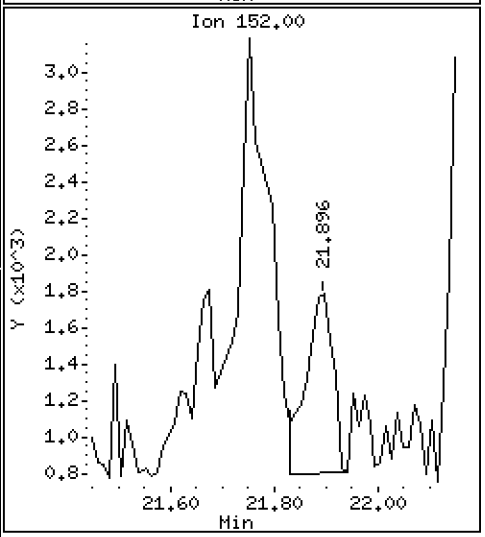
30 Dibenzothiophene

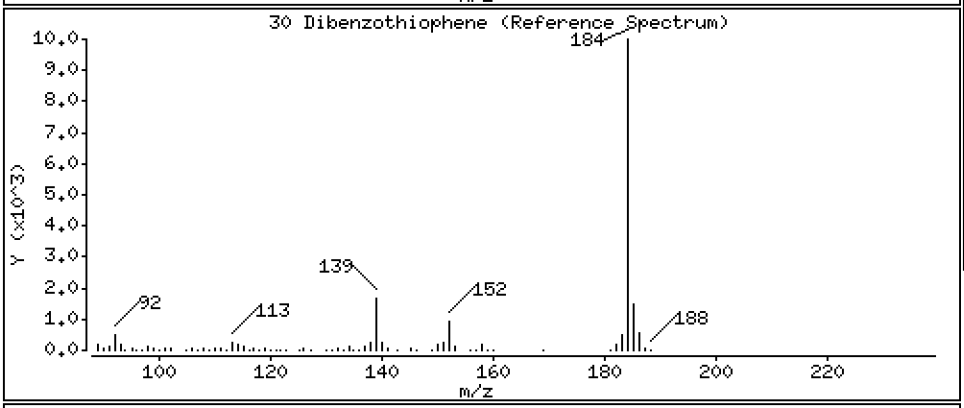
Concentration: 0.1521 ug/mL

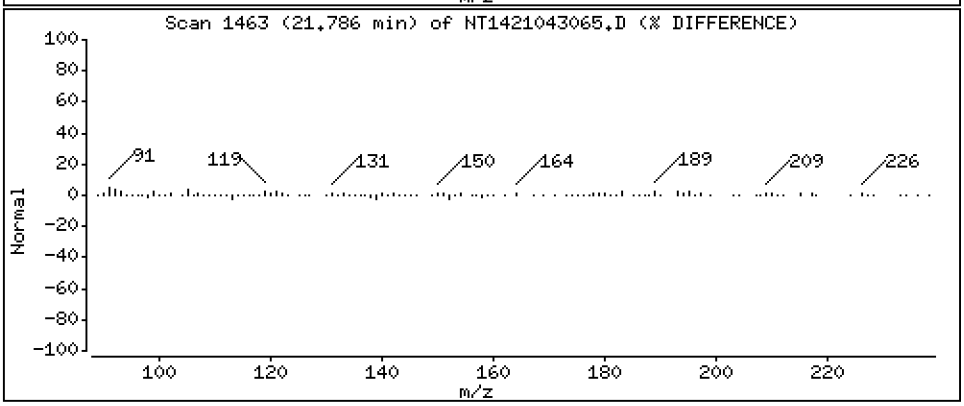


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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

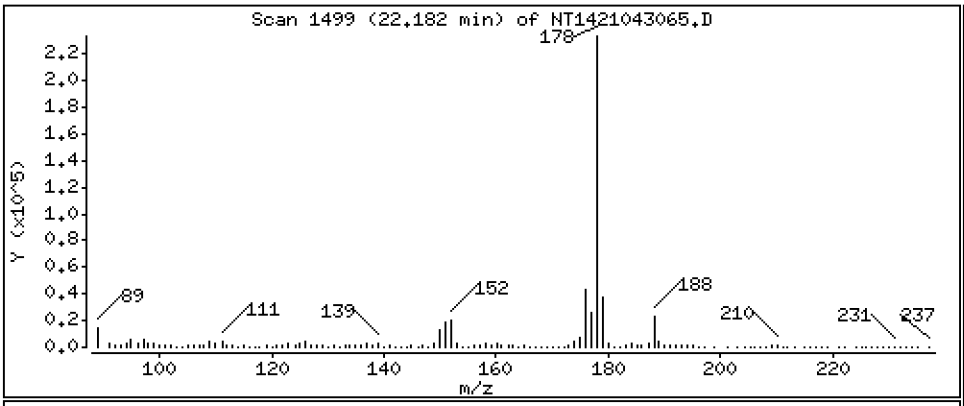
Operator: VTS

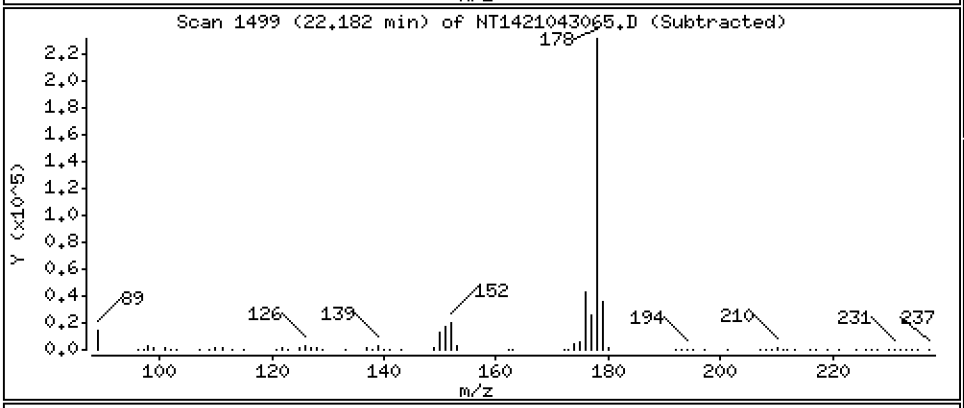
Column phase: Rxi-17Sil MS

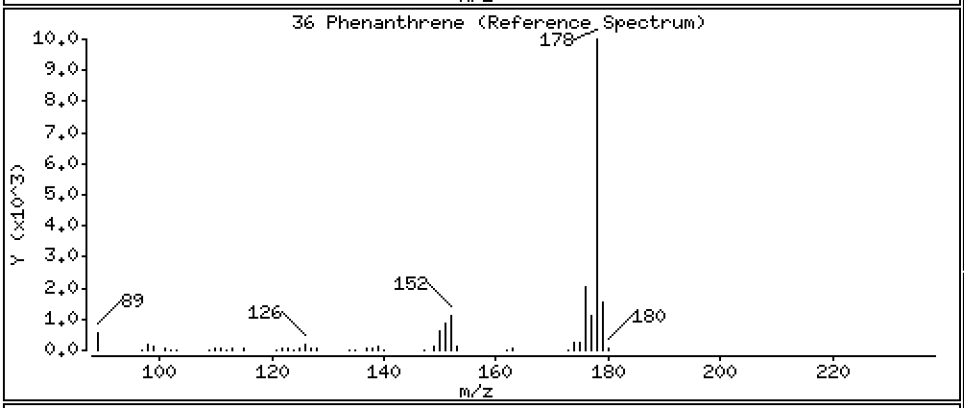
Column diameter: 0.25

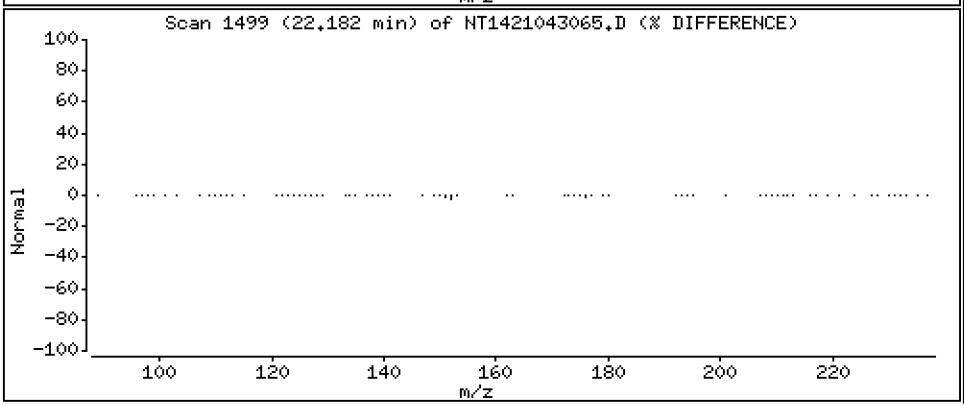
36 Phenanthrene

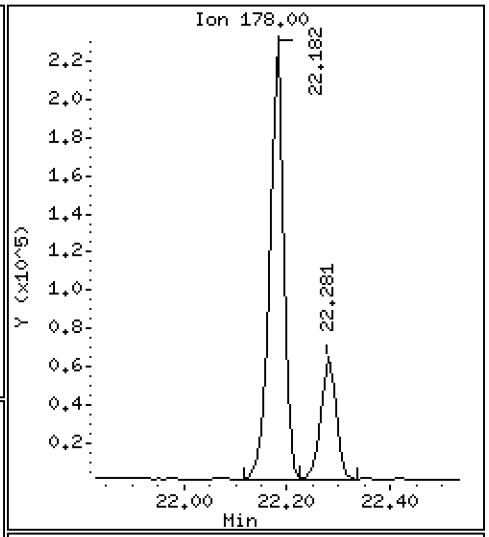
Concentration: 1.503 ug/mL

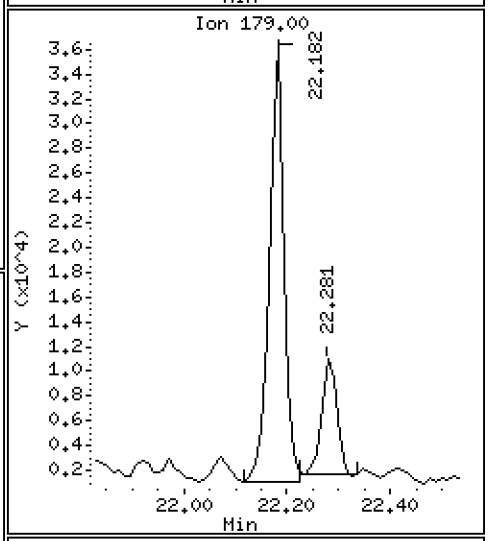


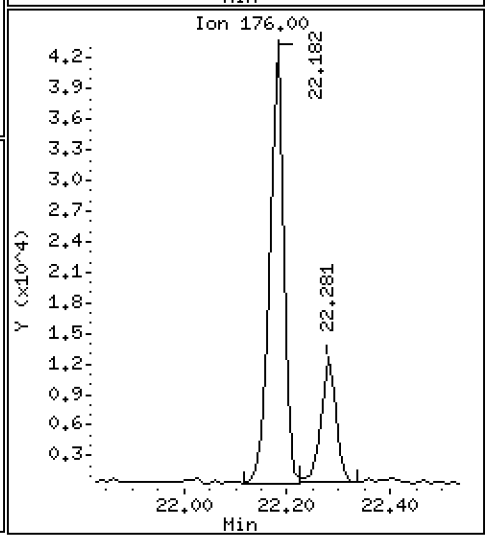



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

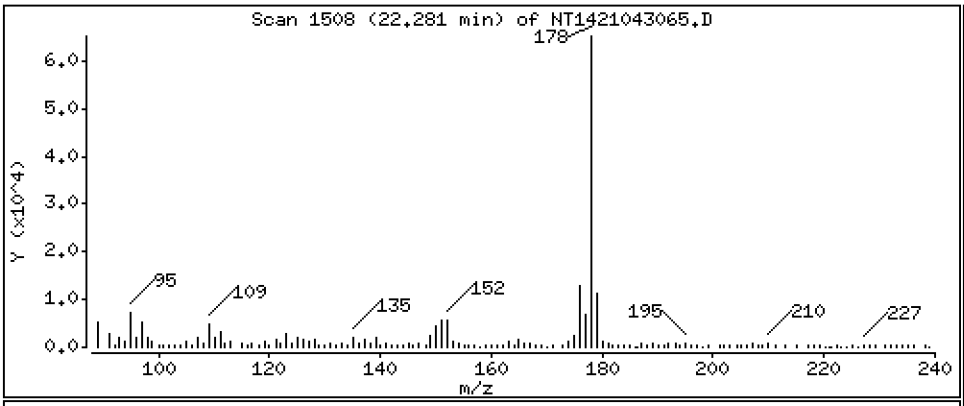
Operator: VTS

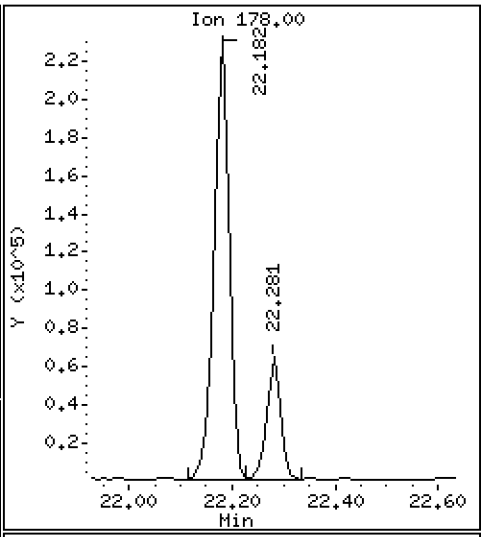
Column phase: Rxi-17Sil MS

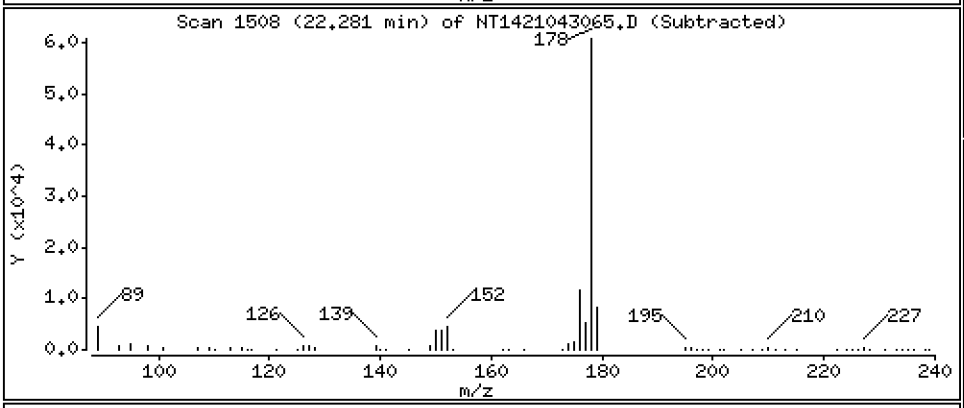
Column diameter: 0.25

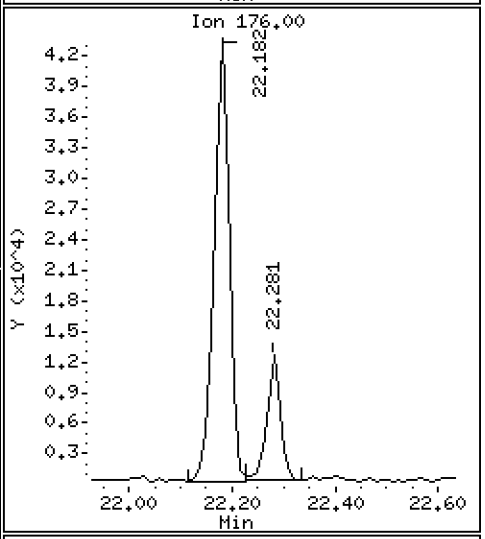
37 Anthracene

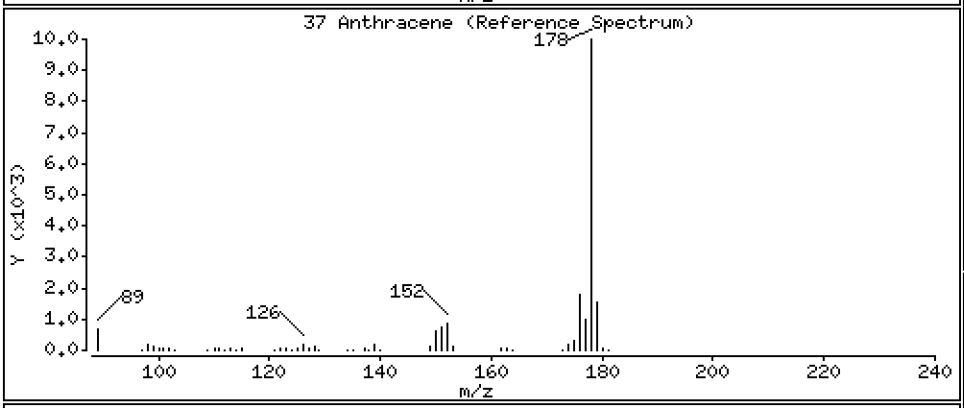
Concentration: 0.4586 ug/mL

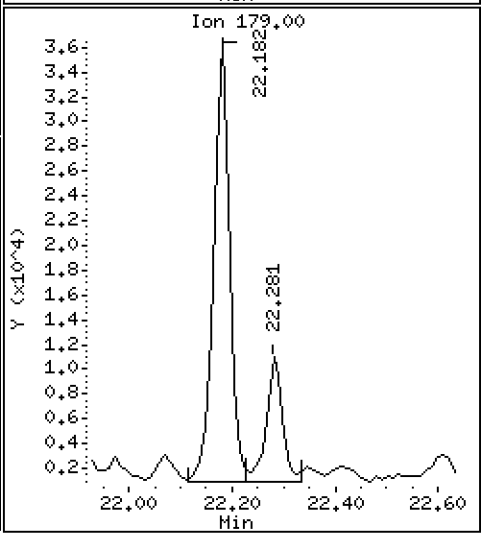


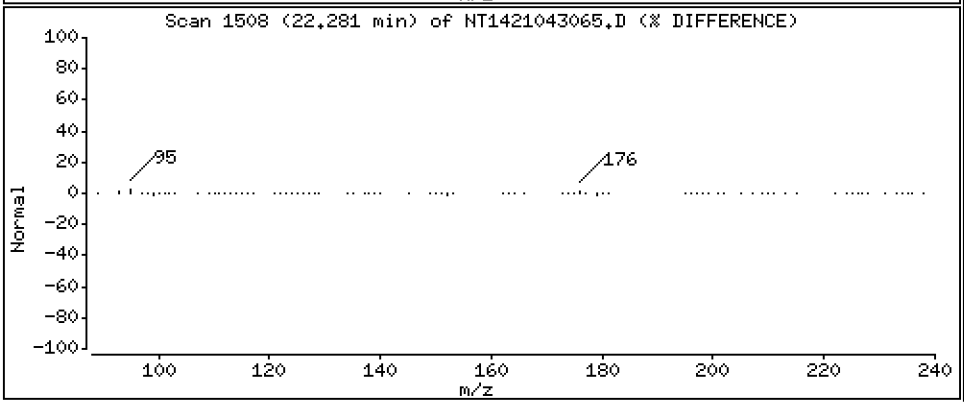



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

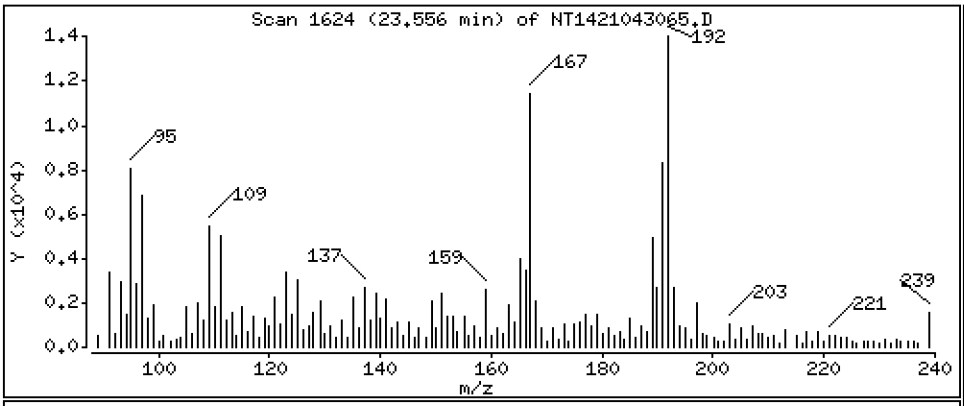
Operator: VTS

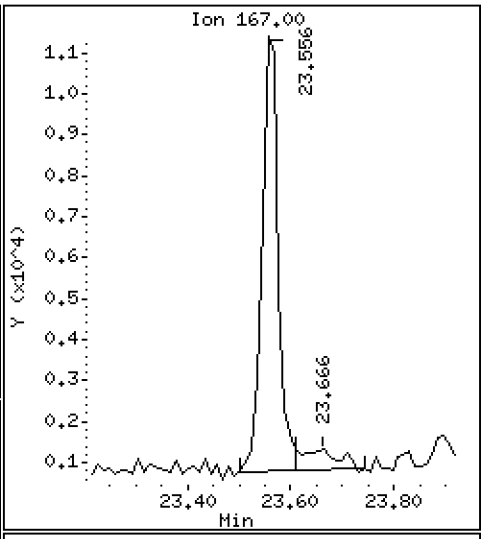
Column phase: Rxi-17Sil MS

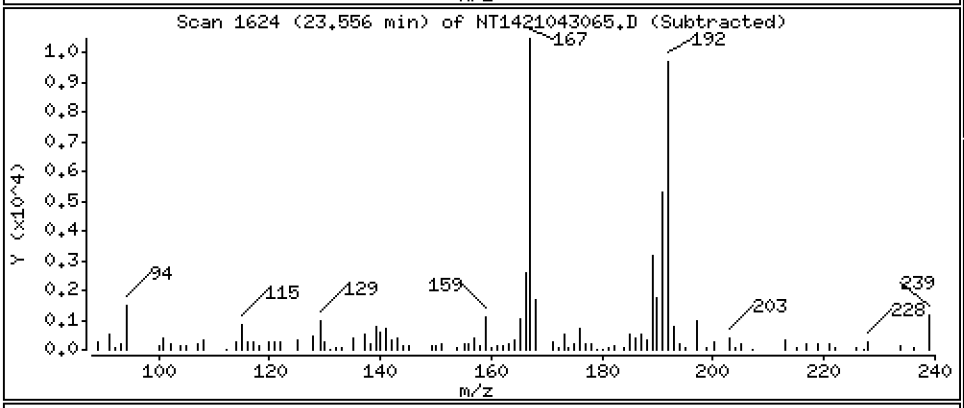
Column diameter: 0.25

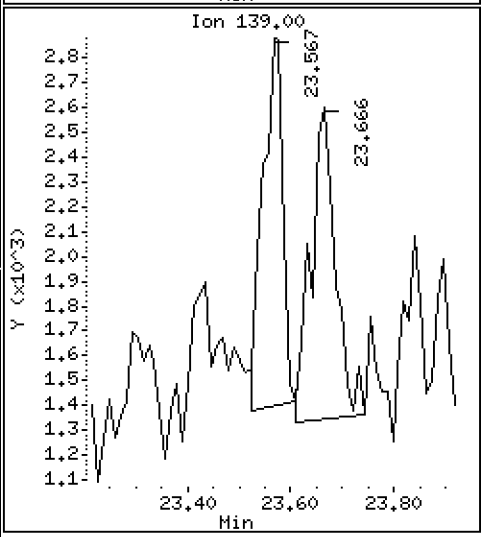
42 Carbazole

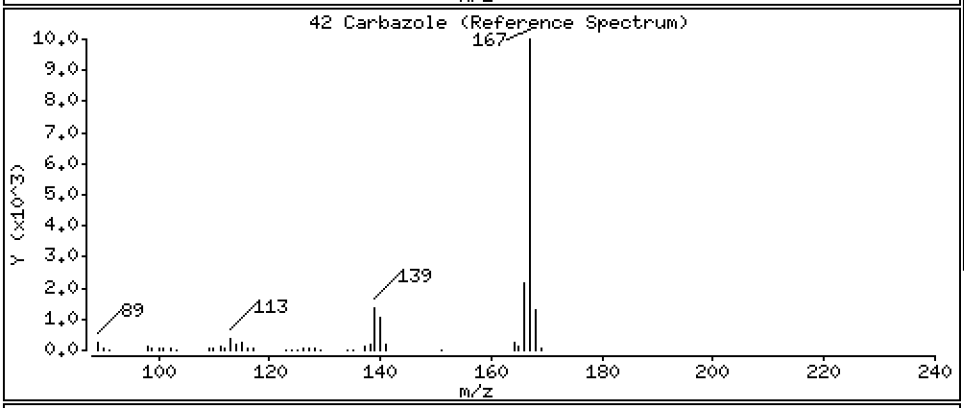
Concentration: 0.1047 ug/mL

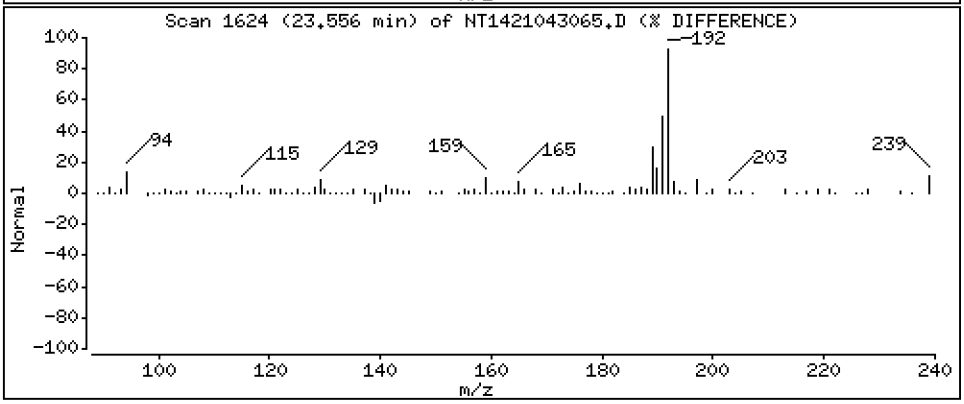


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043065.D

Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

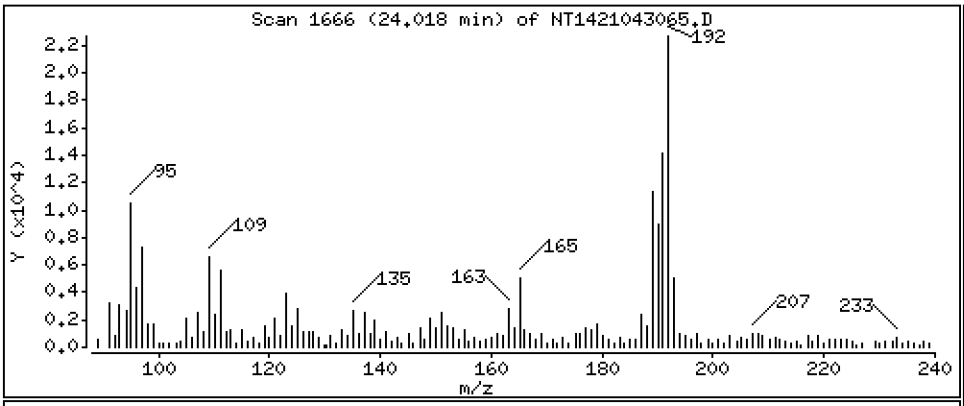
Operator: VTS

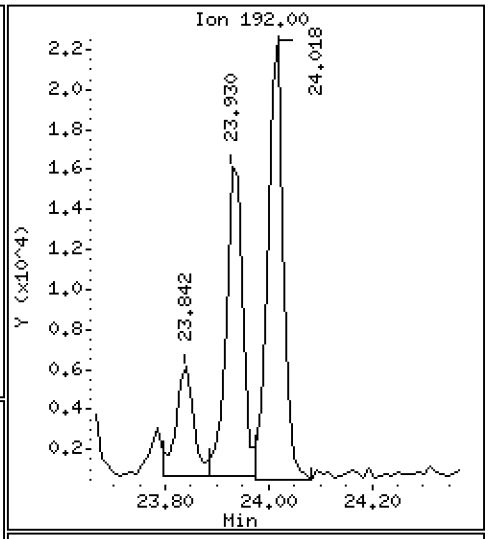
Column phase: Rxi-17Sil MS

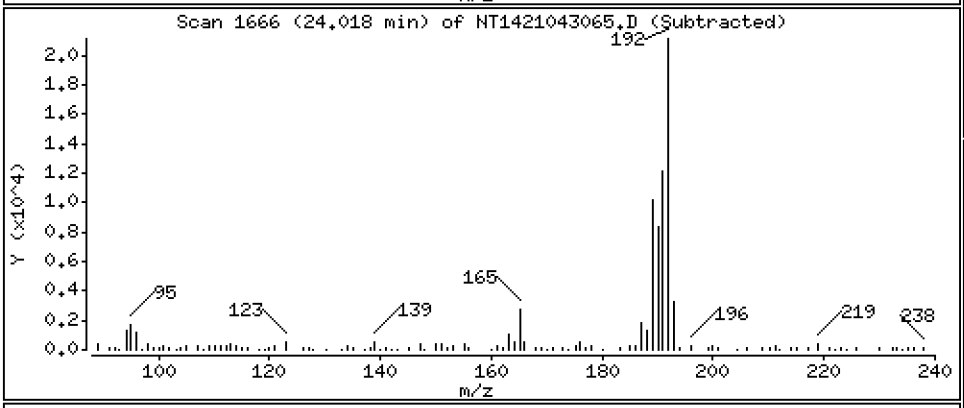
Column diameter: 0.25

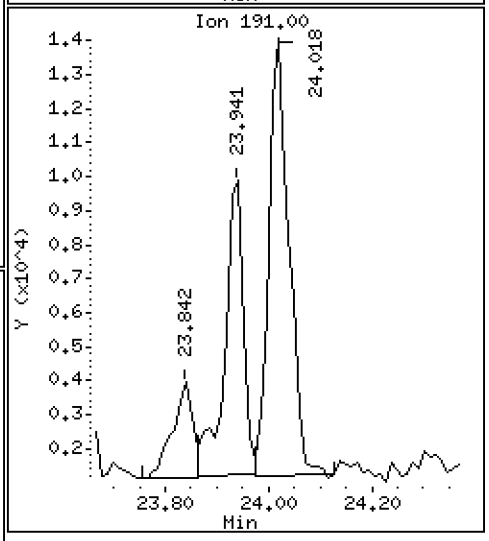
43 1-Methylphenanthrene

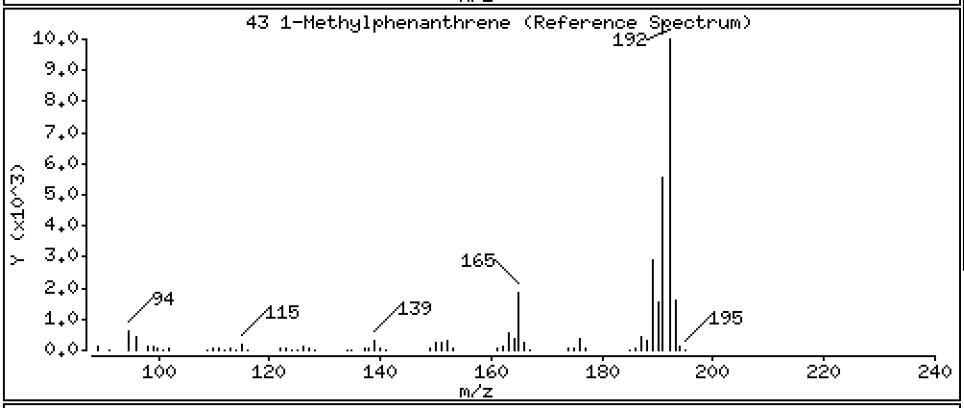
Concentration: 0.2658 ug/mL

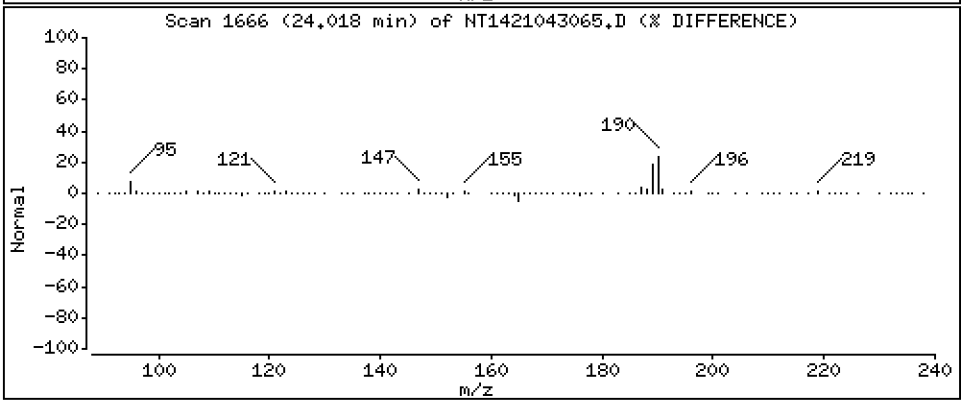


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043065.D

Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

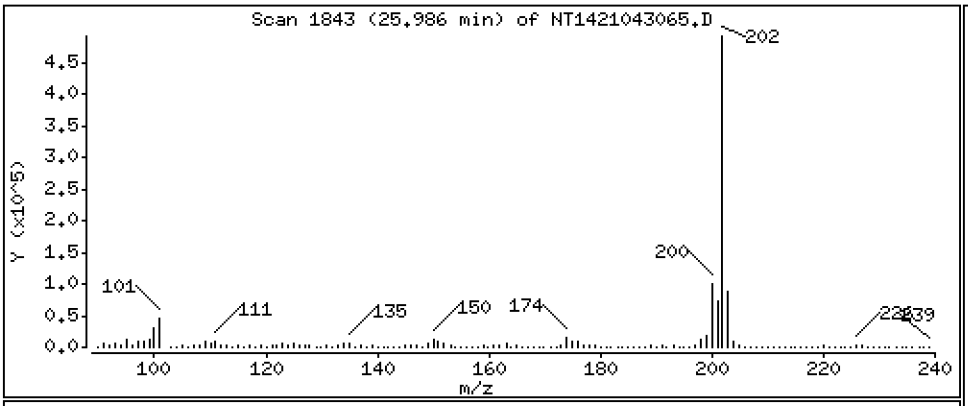
Operator: VTS

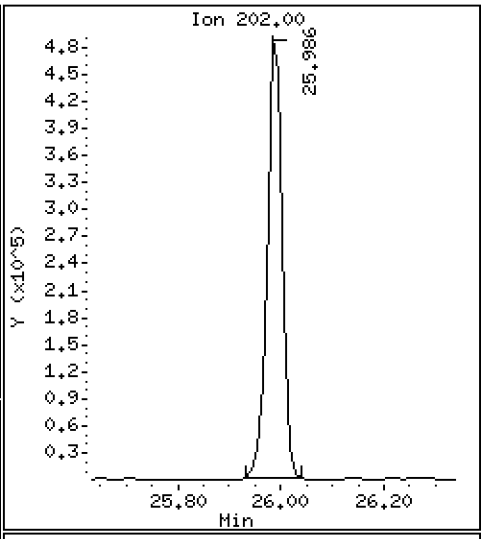
Column phase: Rxi-17Sil MS

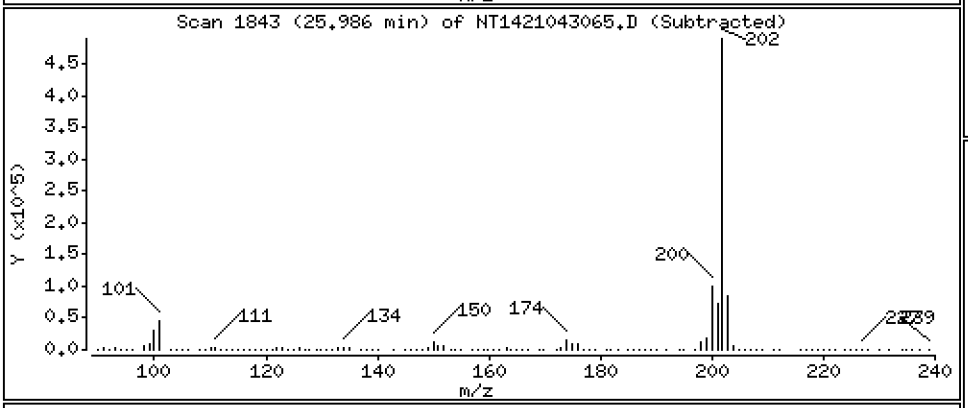
Column diameter: 0.25

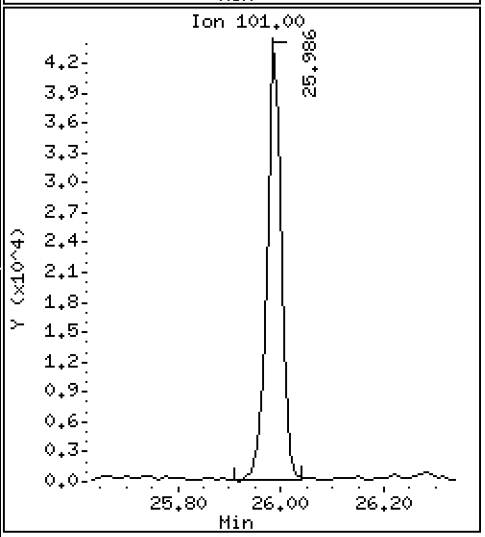
44 Fluoranthene

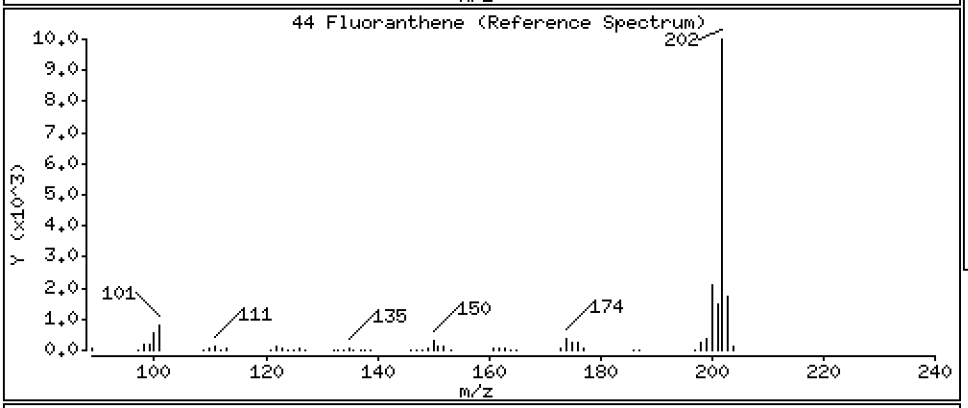
Concentration: 3.838 ug/mL

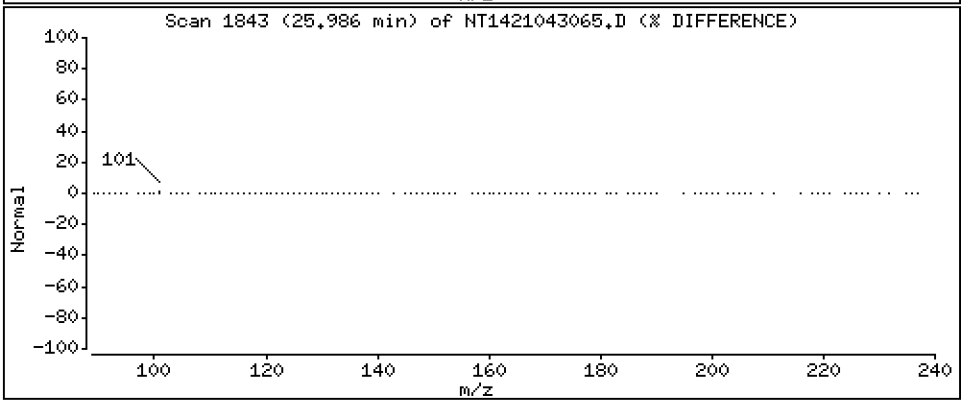


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043065.D

Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

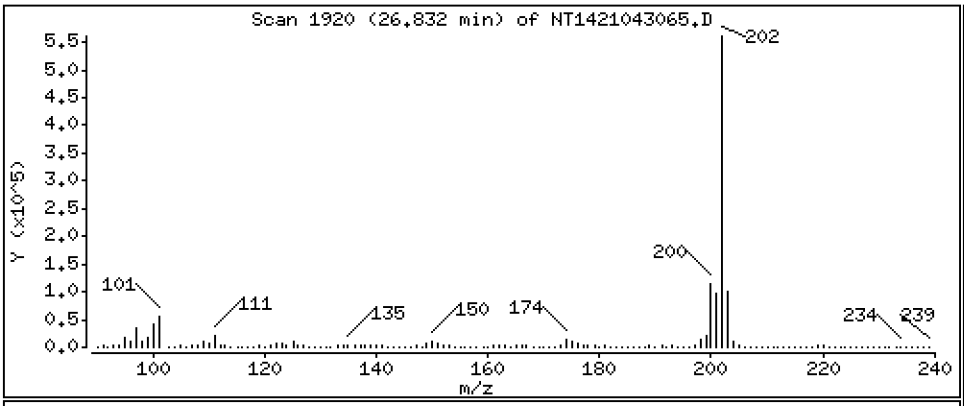
Operator: VTS

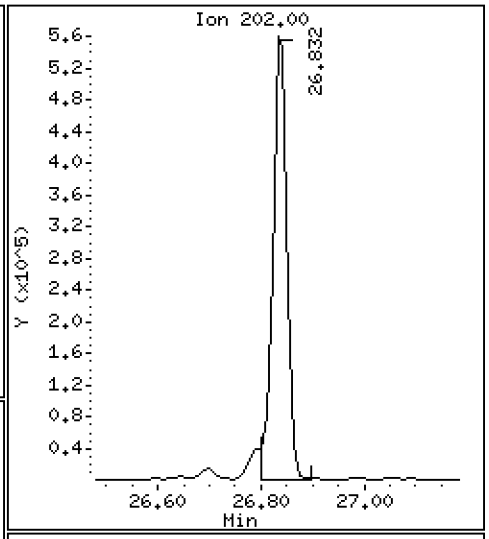
Column phase: Rxi-17Sil MS

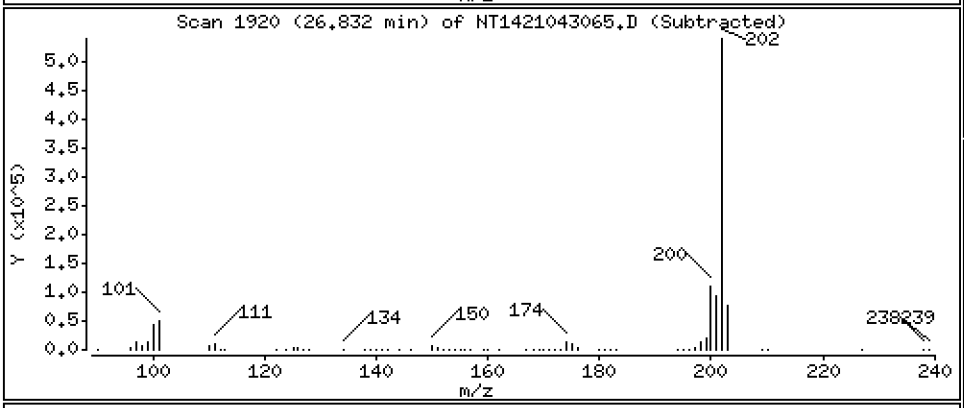
Column diameter: 0.25

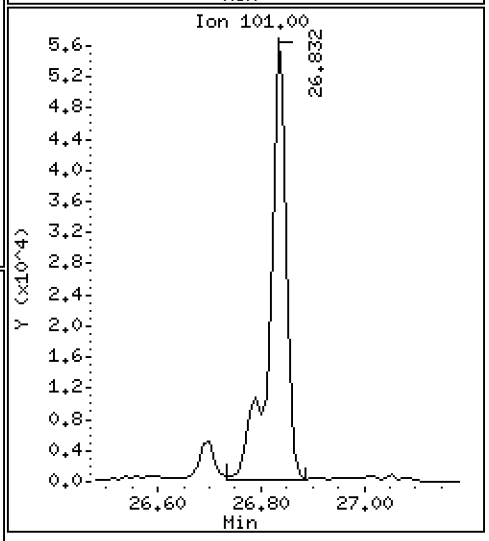
46 Pyrene

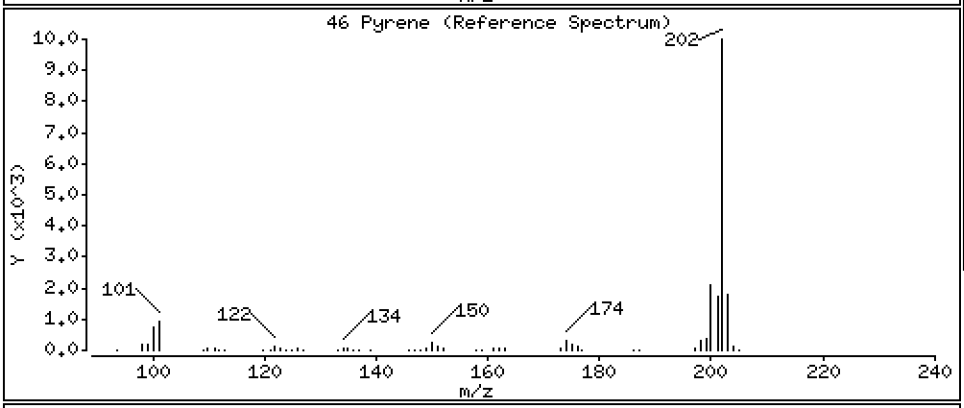
Concentration: 4.106 ug/mL

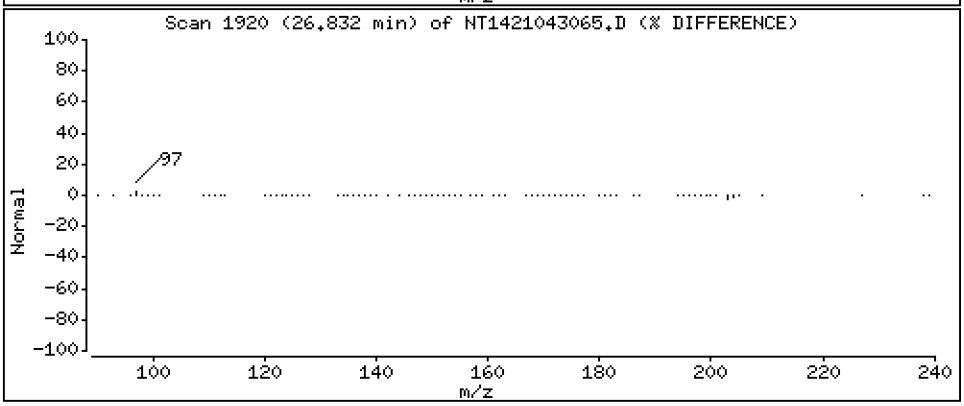


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043065.D

Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

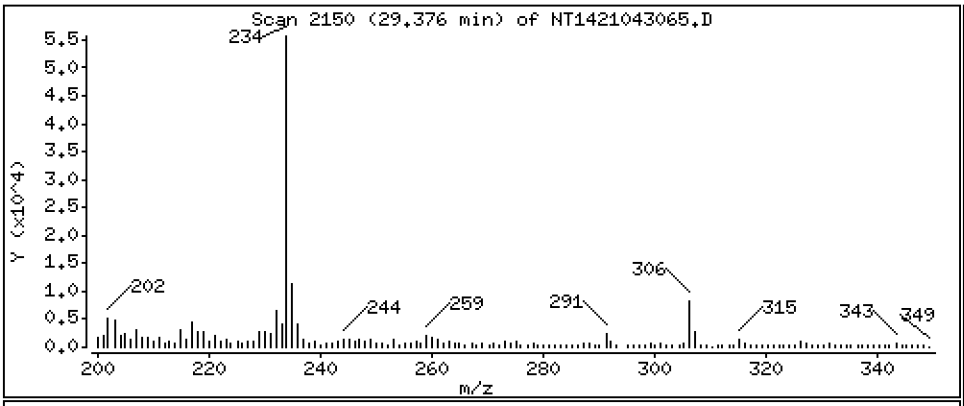
Operator: VTS

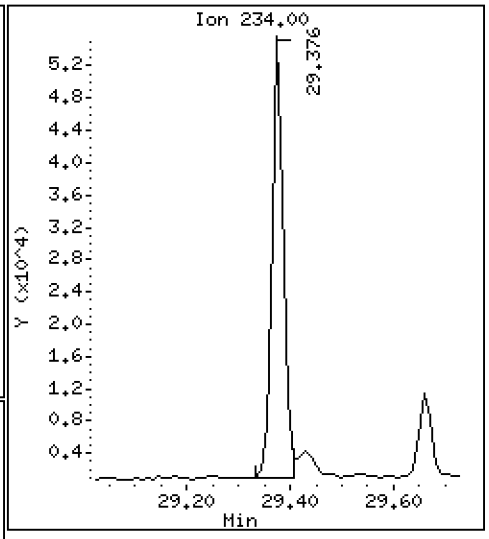
Column phase: Rxi-17Sil MS

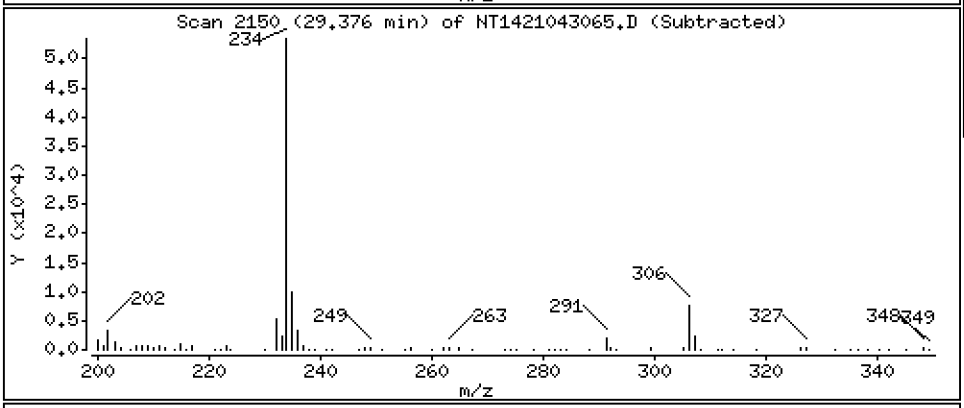
Column diameter: 0.25

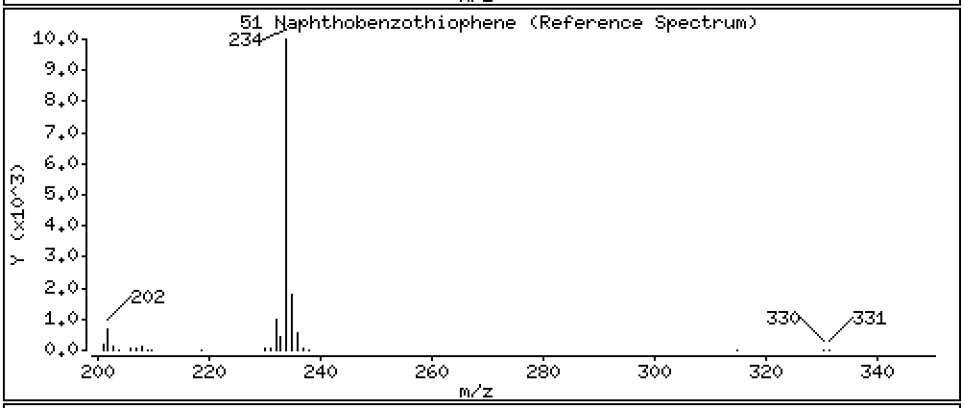
51 Naphthobenzothiophene

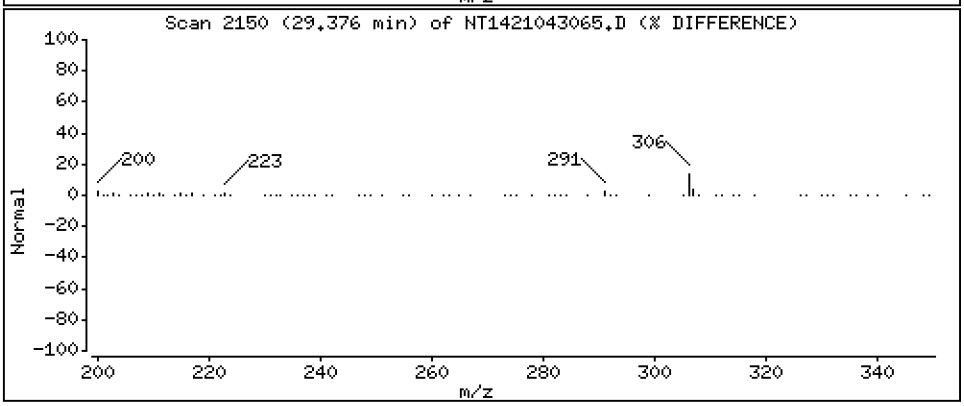
Concentration: 0.3301 ug/mL



Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043065.D

Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

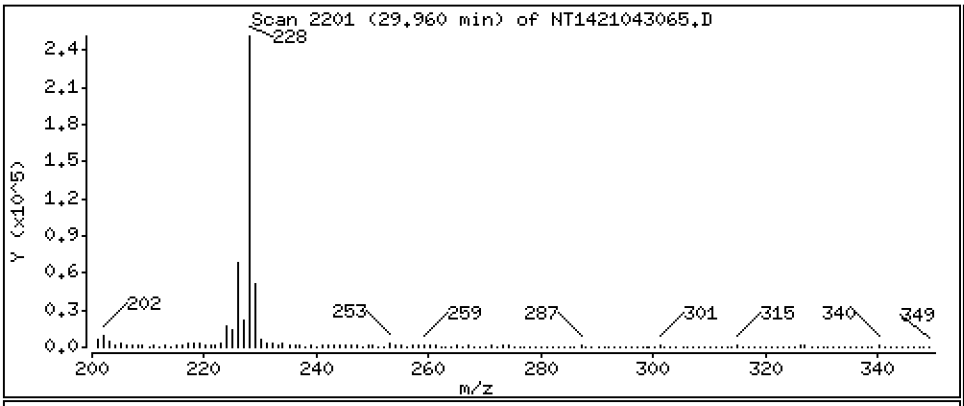
Operator: VTS

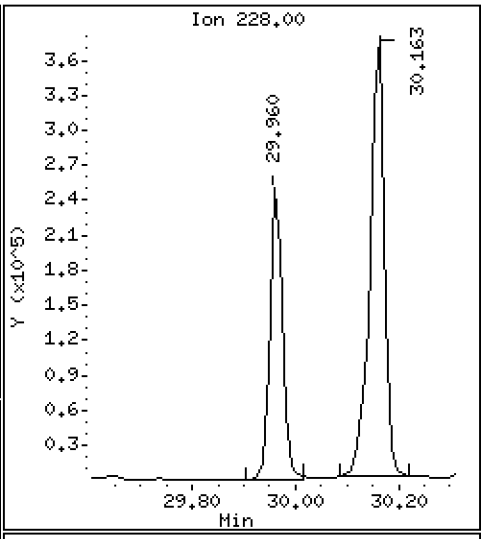
Column phase: Rxi-17Sil MS

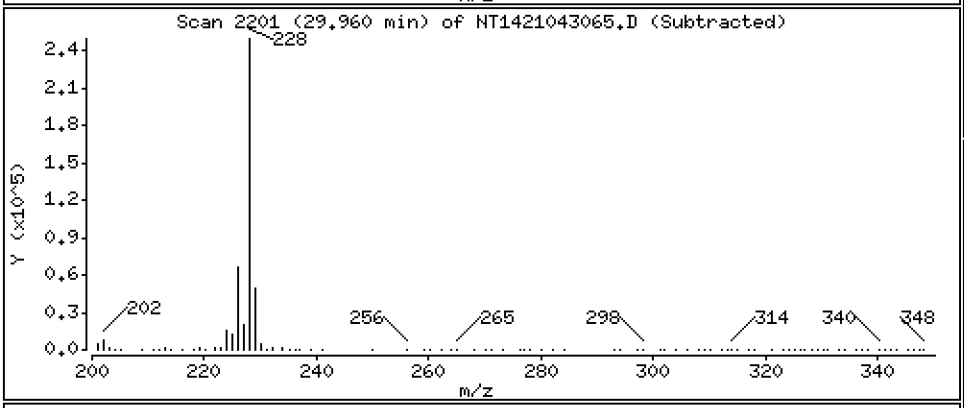
Column diameter: 0.25

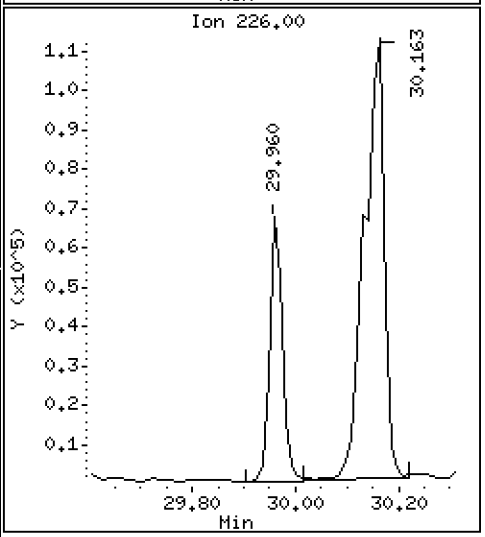
55 Benzo(a)anthracene

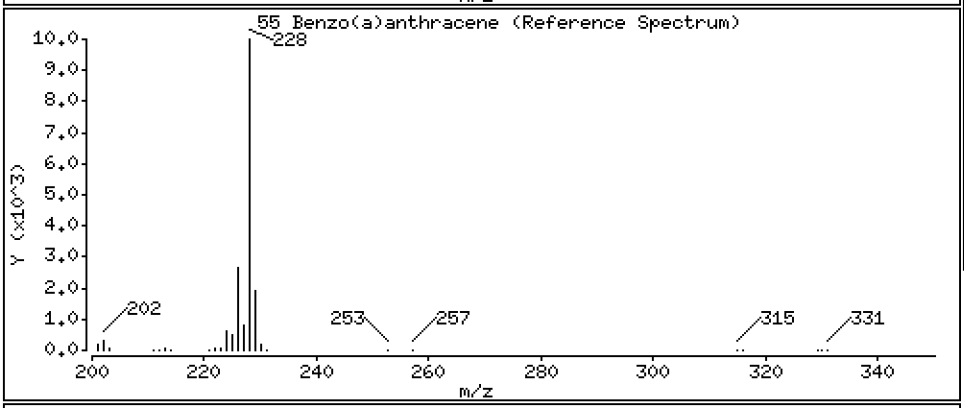
Concentration: 1.533 ug/mL

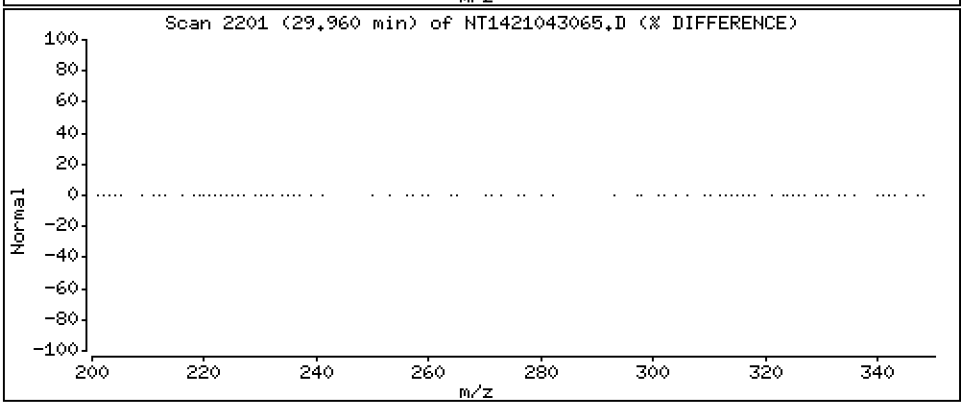


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043065.D

Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

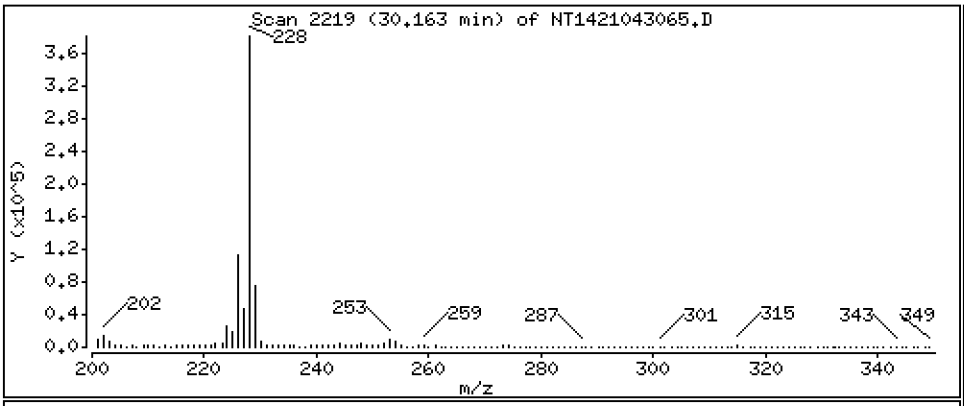
Operator: VTS

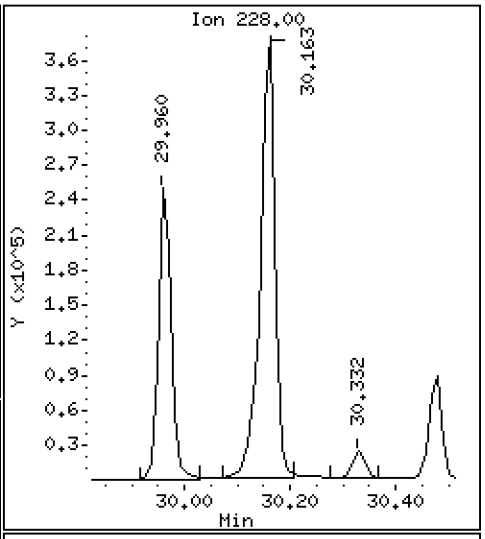
Column phase: Rxi-17Sil MS

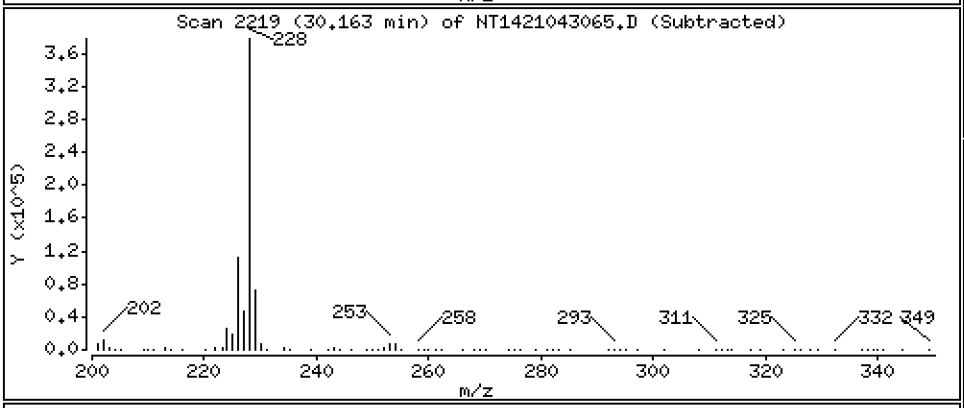
Column diameter: 0.25

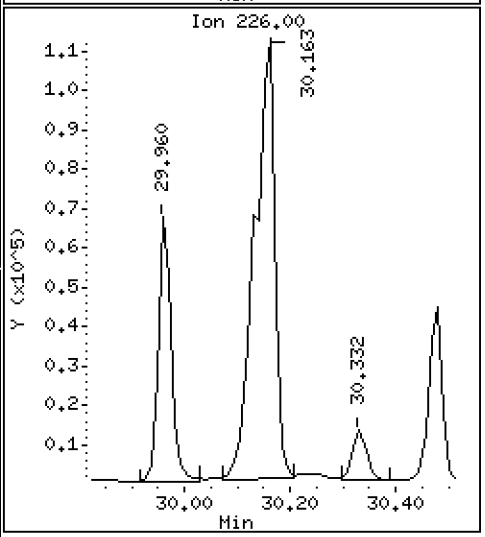
57 Chrysene

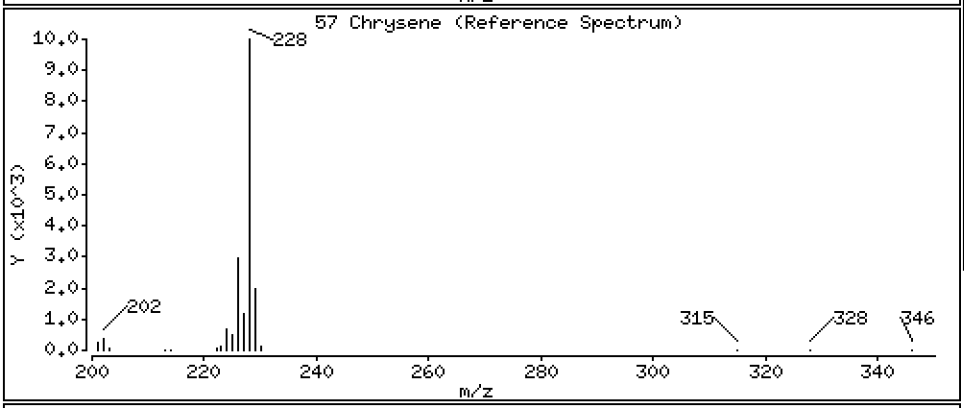
Concentration: 2.595 ug/mL

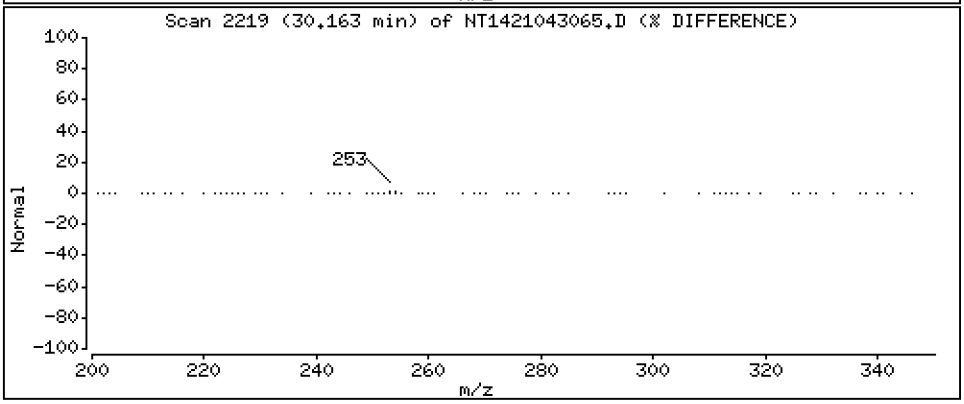


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043065.D

Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

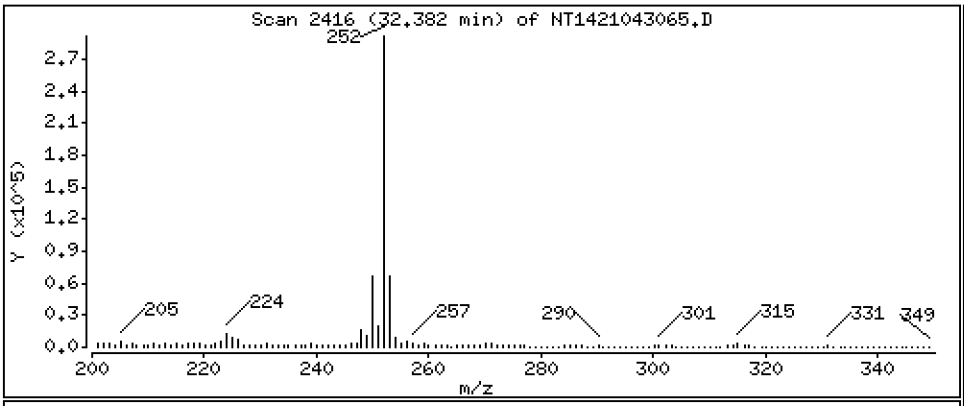
Operator: VTS

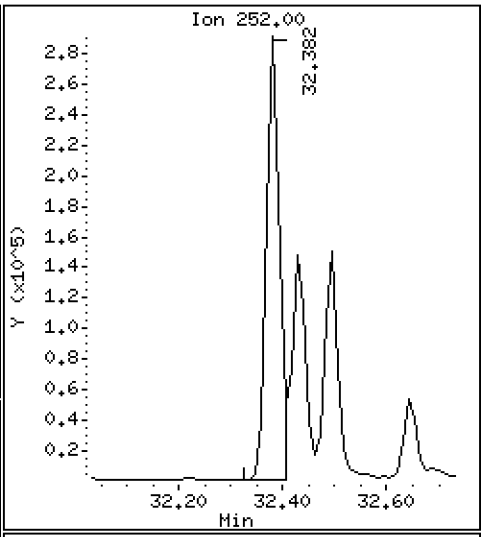
Column phase: Rxi-17Sil MS

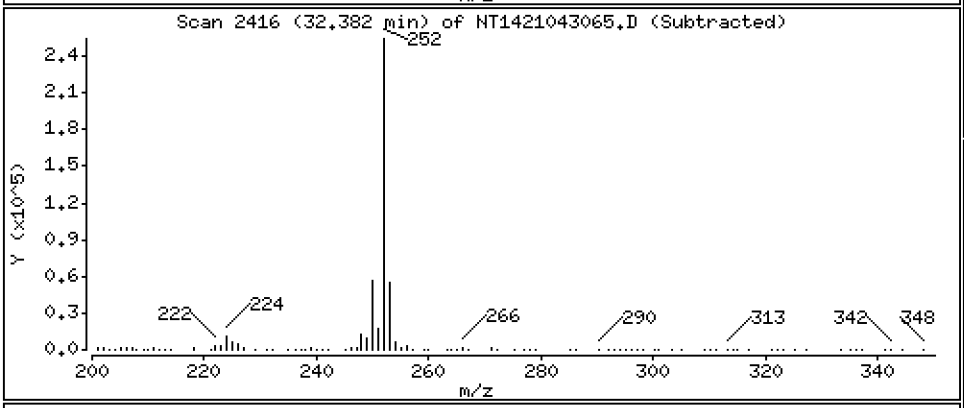
Column diameter: 0.25

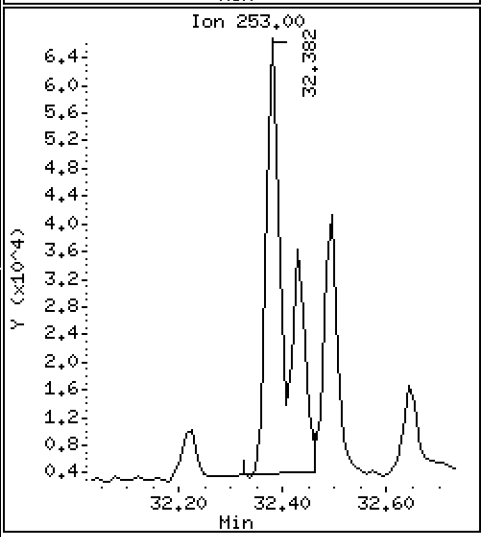
62 Benzo(b)fluoranthene

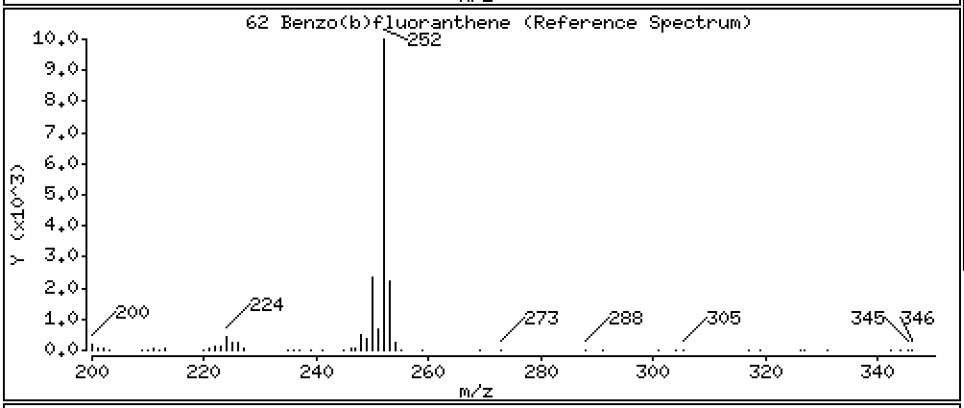
Concentration: 1.824 ug/mL

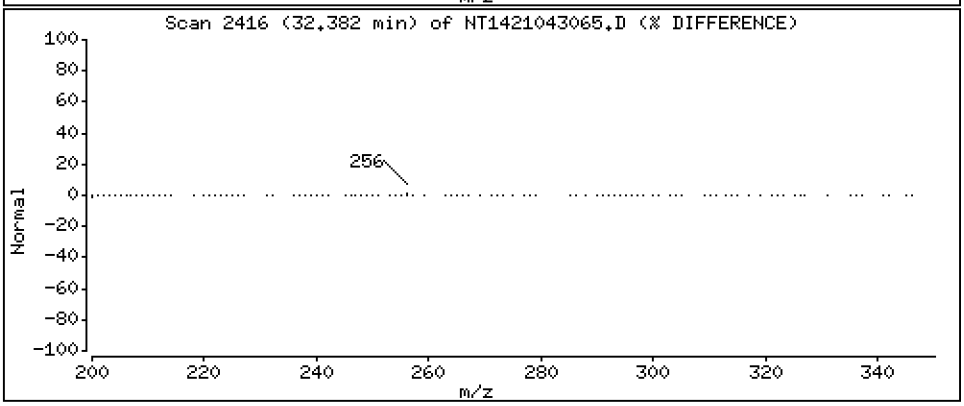


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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

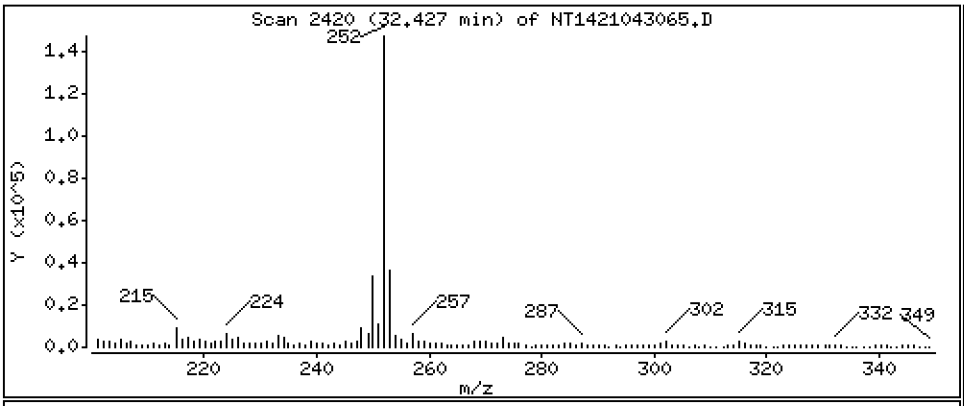
Operator: VTS

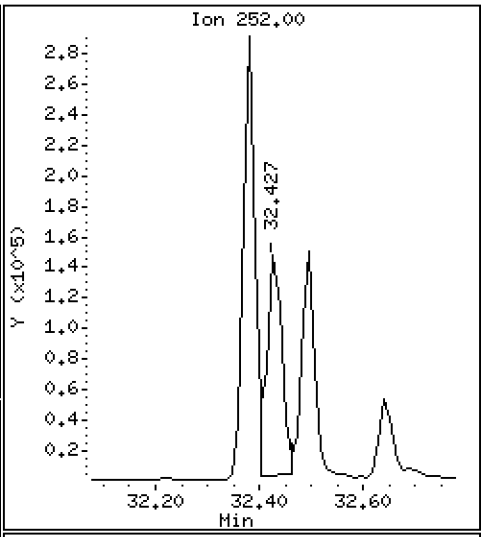
Column phase: Rxi-17Sil MS

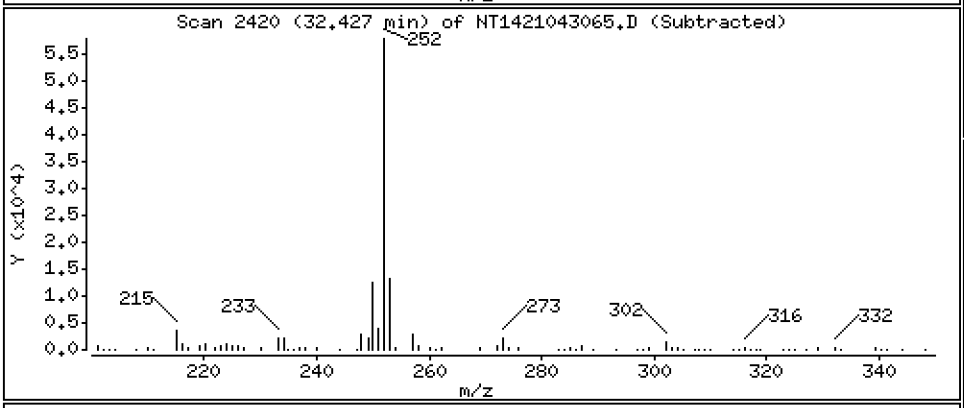
Column diameter: 0.25

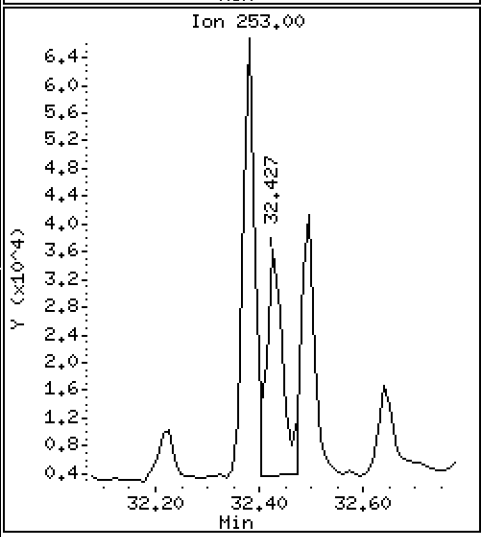
63 Benzo(k)fluoranthene

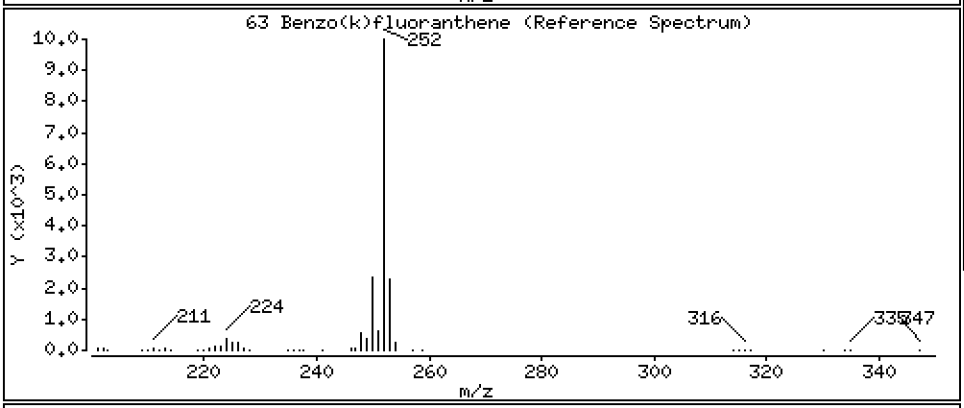
Concentration: 0.9057 ug/mL

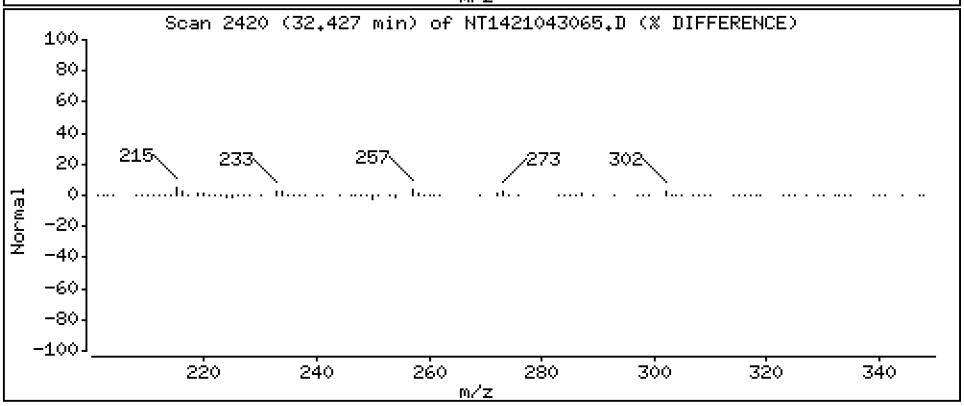


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043065.D

Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

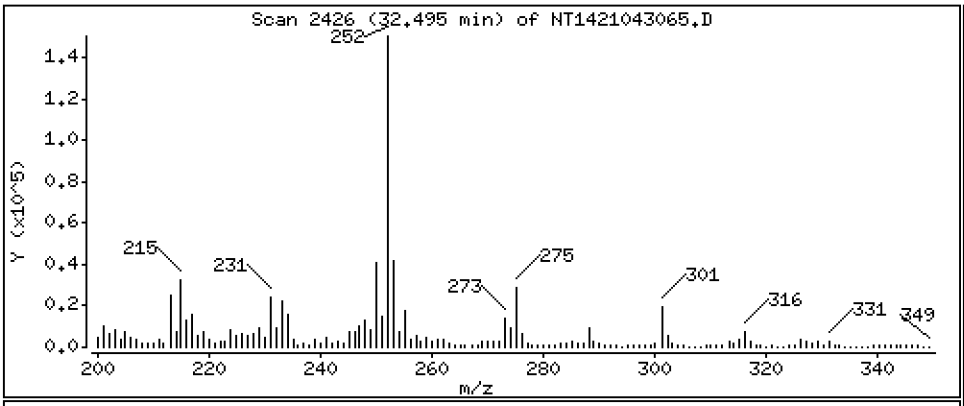
Operator: VTS

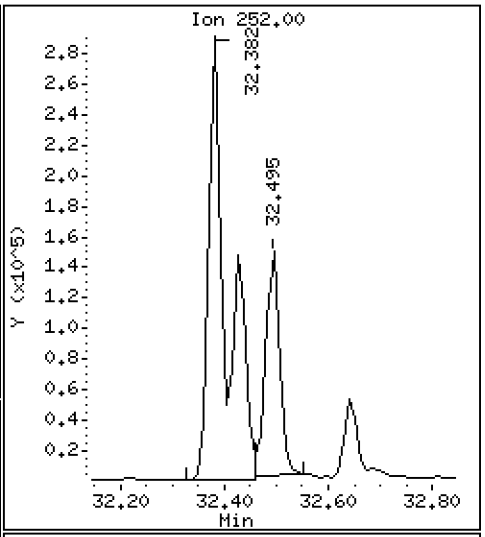
Column phase: Rxi-17Sil MS

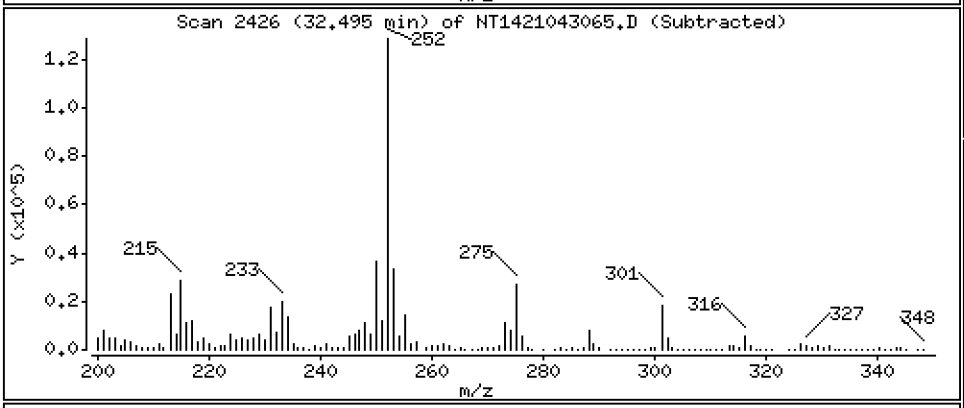
Column diameter: 0.25

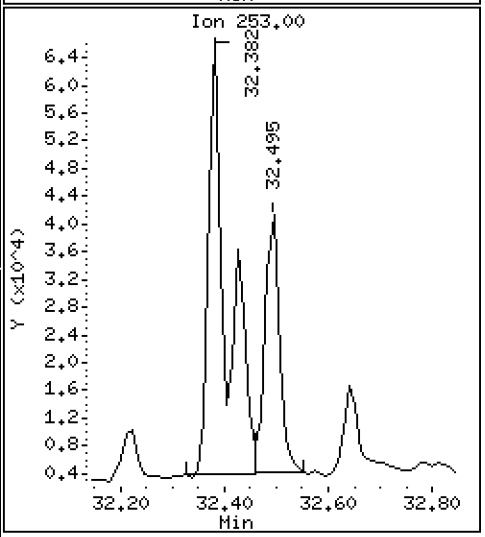
293 Benzo(j)fluoranthene

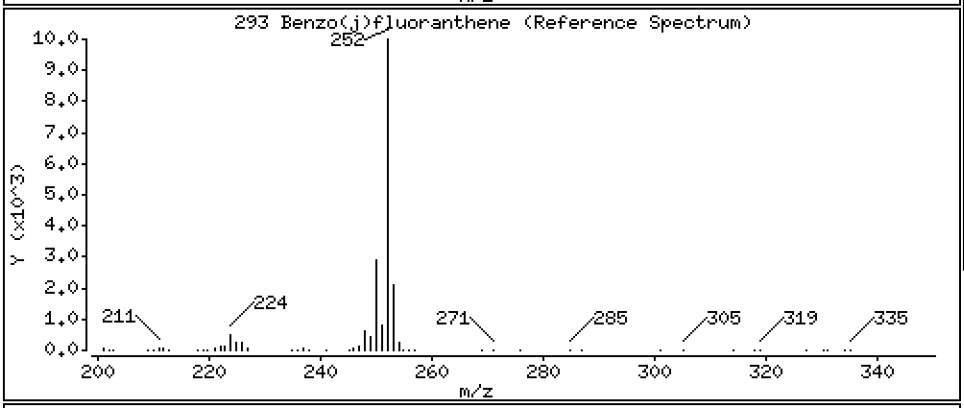
Concentration: 0.8845 ug/mL

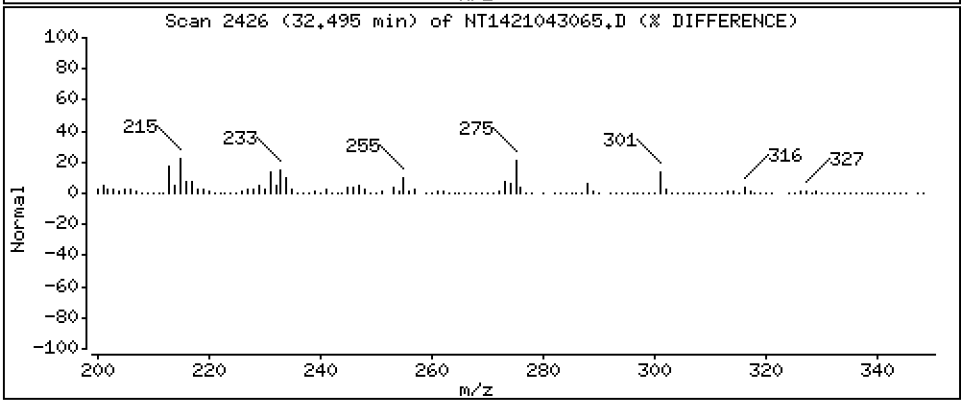


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043065.D

Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

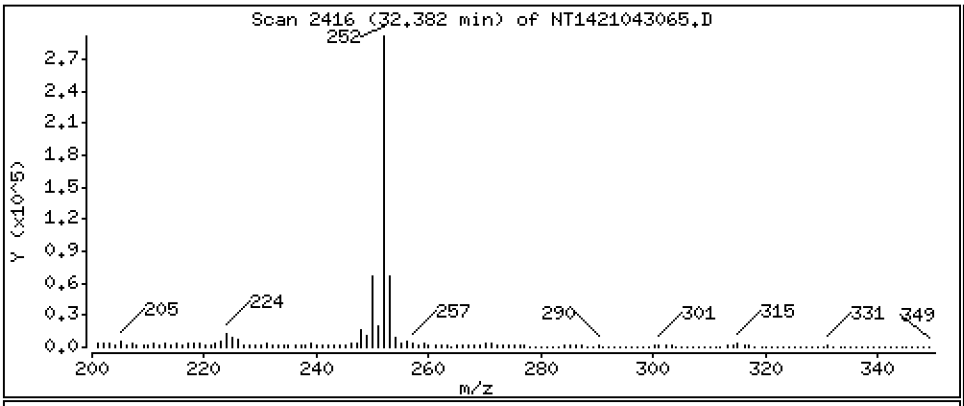
Operator: VTS

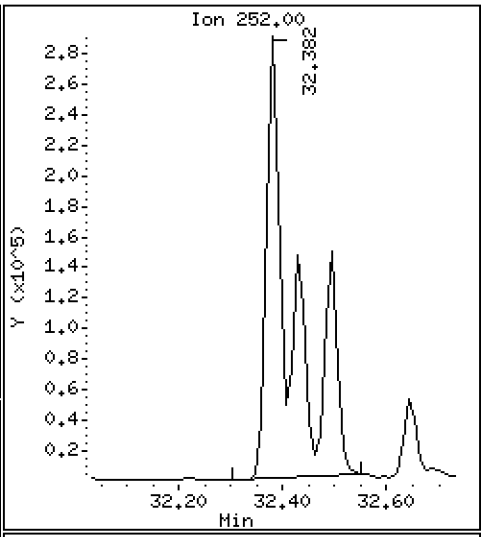
Column phase: Rxi-17Sil MS

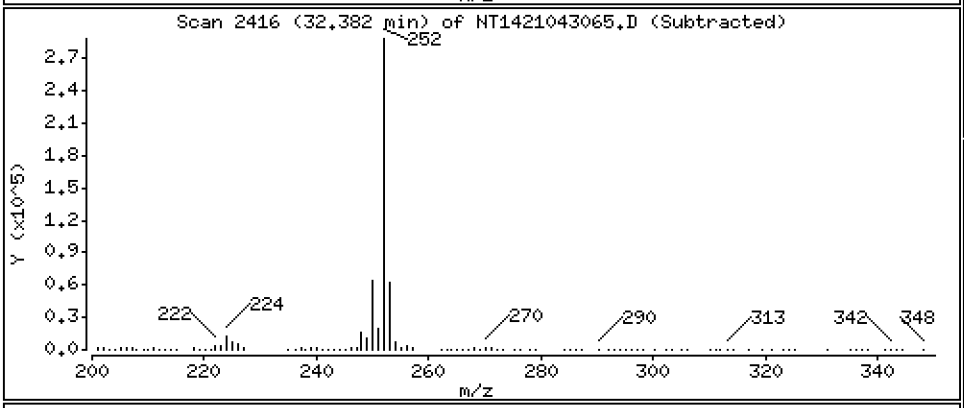
Column diameter: 0.25

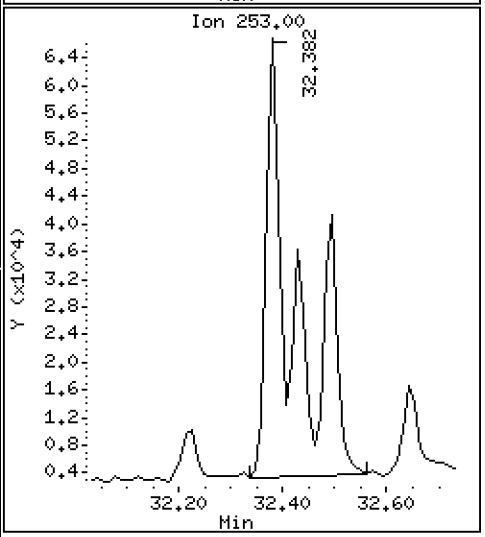
246 Total Benzofluoranthenes

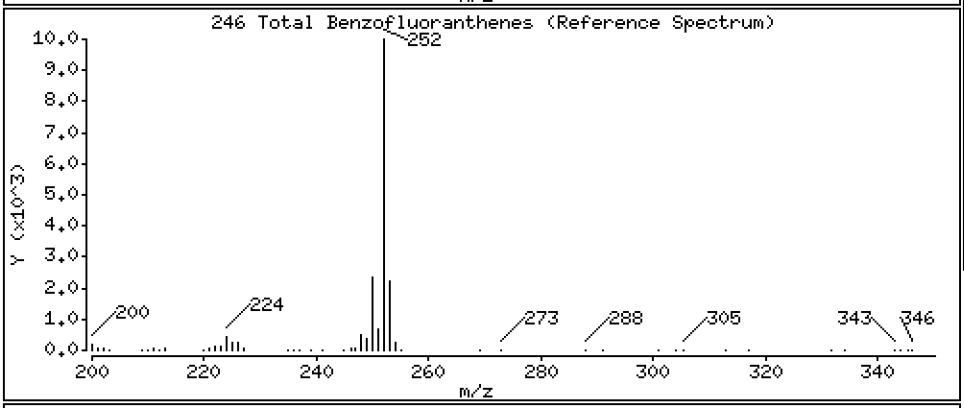
Concentration: 3.432 ug/mL

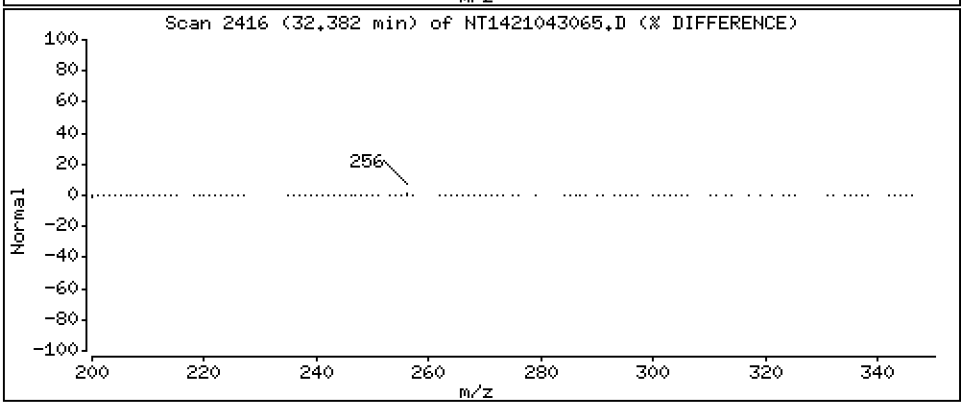


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043065.D

Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

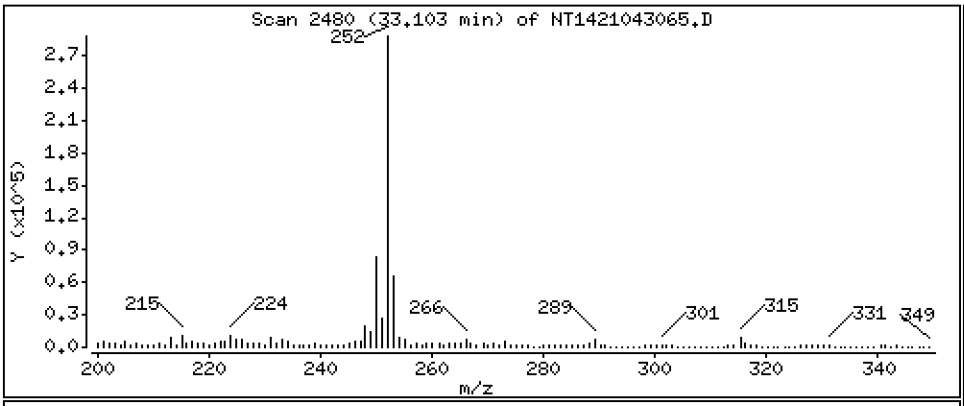
Operator: VTS

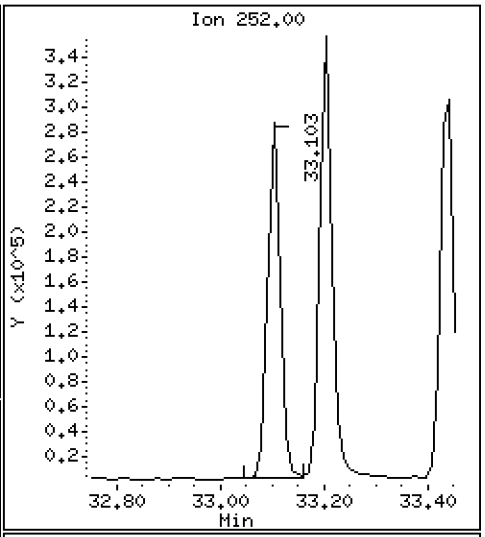
Column phase: Rxi-17Sil MS

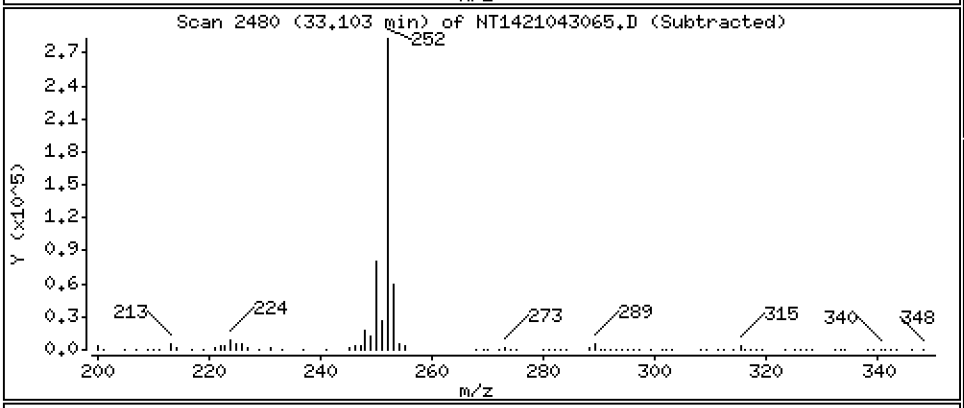
Column diameter: 0.25

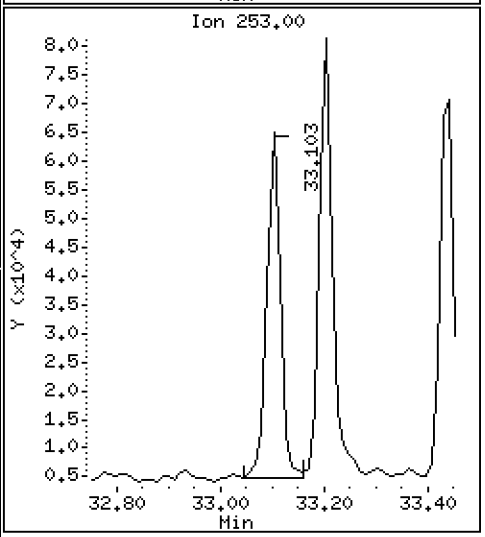
64 Benzo(e)pyrene

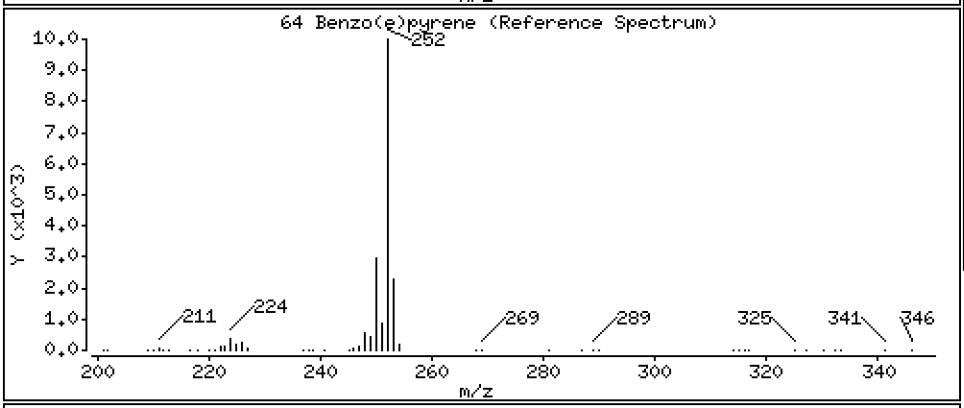
Concentration: 1.696 ug/mL

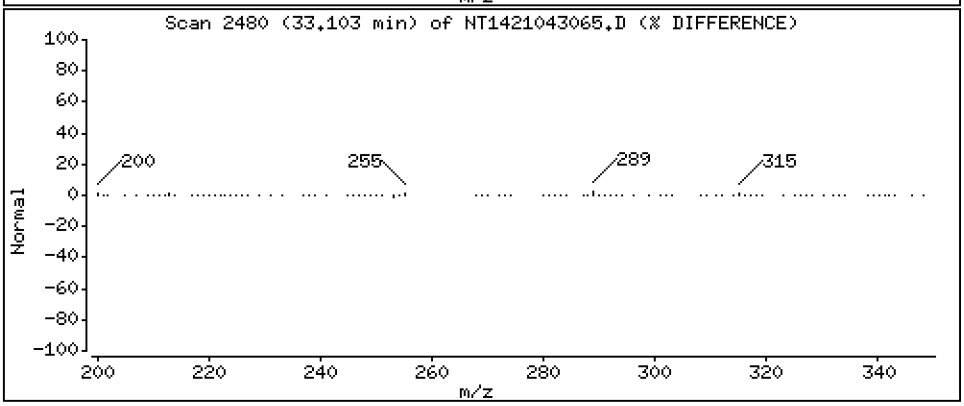


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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

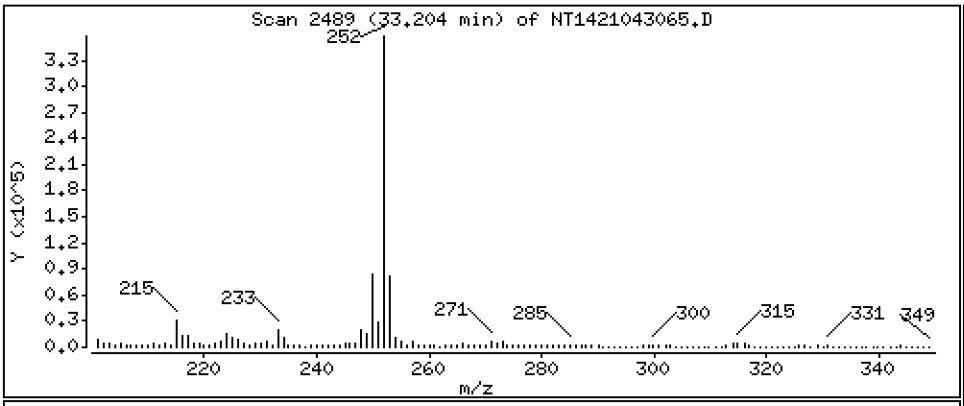
Operator: VTS

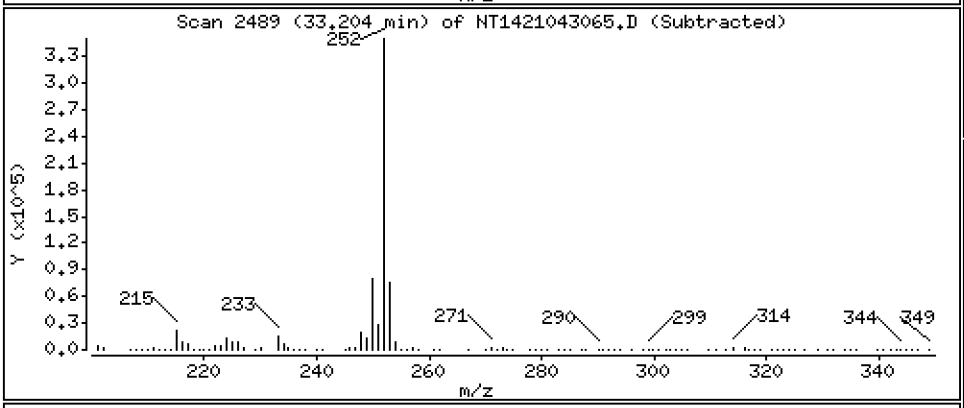
Column phase: Rxi-17Sil MS

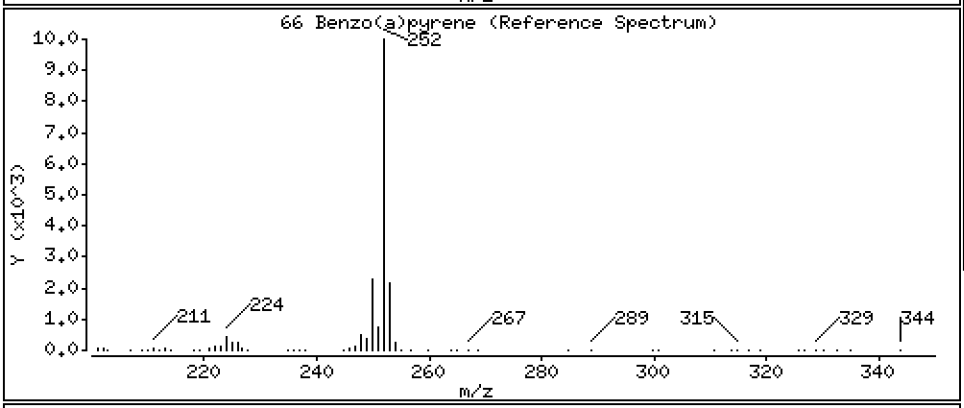
Column diameter: 0.25

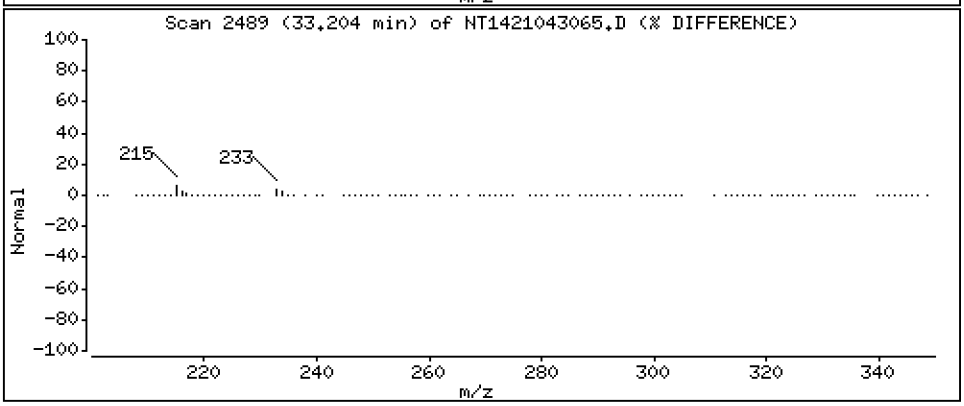
66 Benzo(a)pyrene

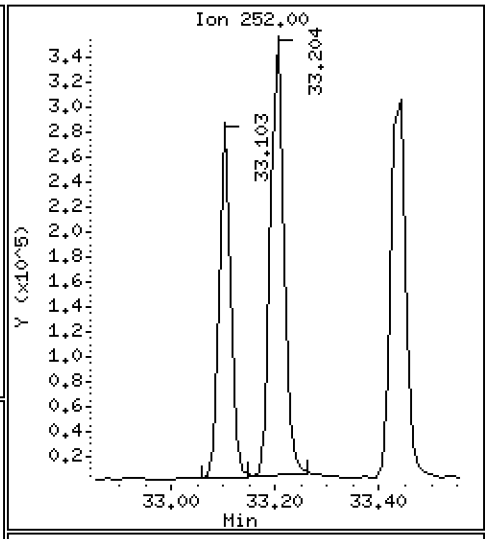
Concentration: 2.162 ug/mL

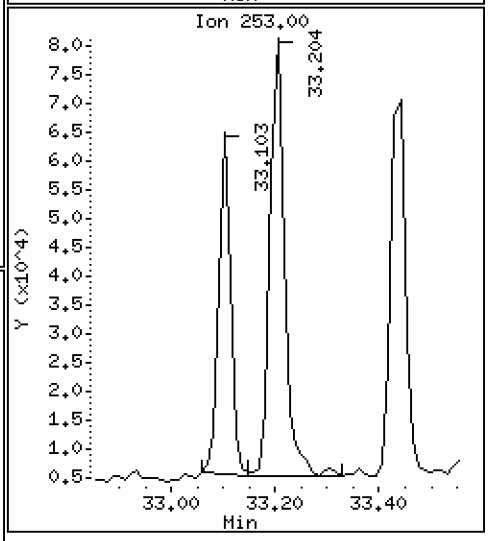


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043065.D

Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

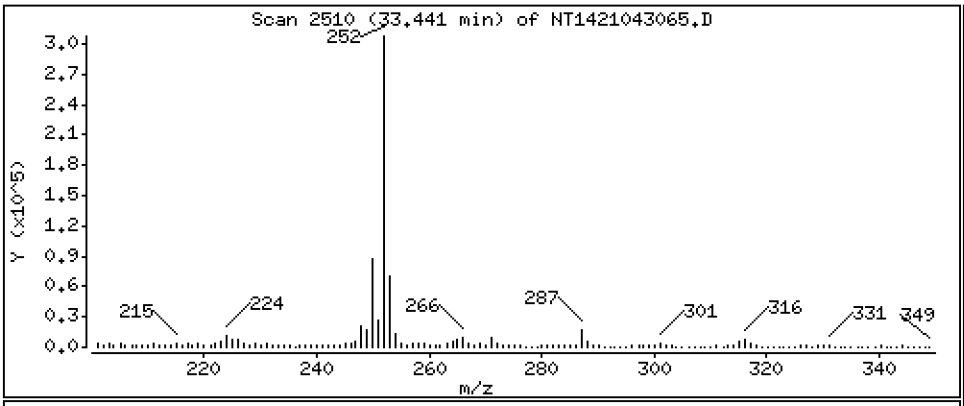
Operator: VTS

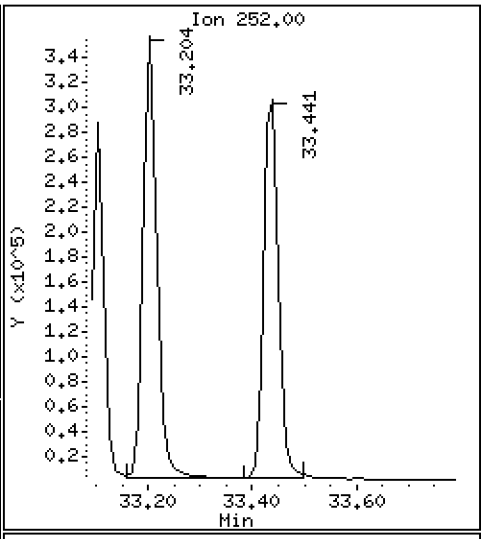
Column phase: Rxi-17Sil MS

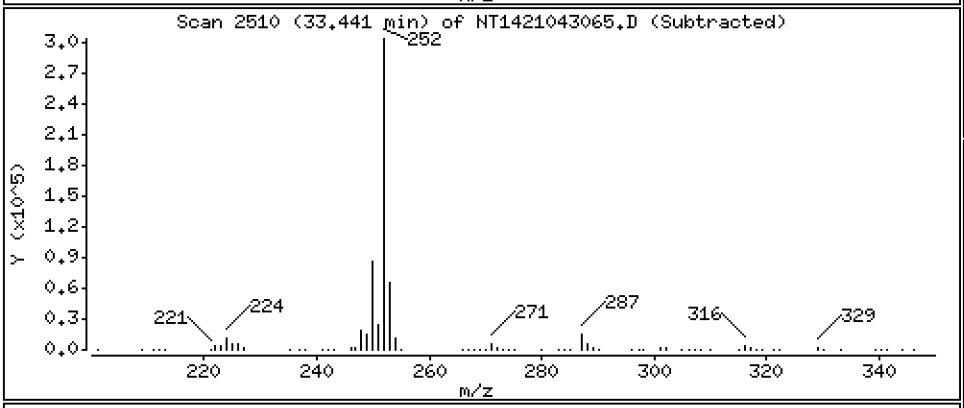
Column diameter: 0.25

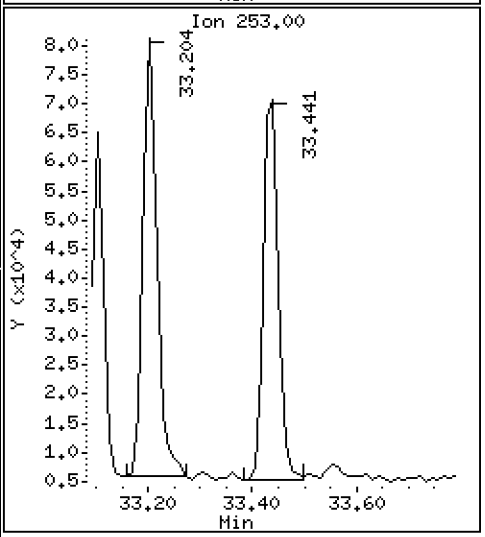
68 Perylene

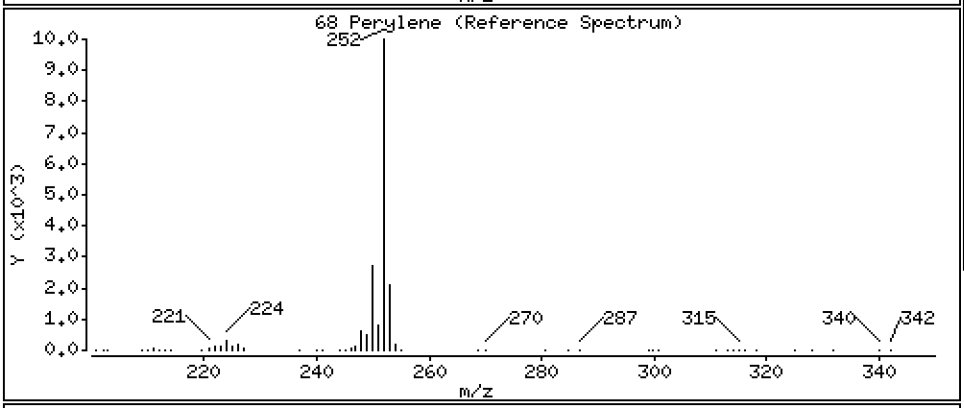
Concentration: 2.252 ug/mL

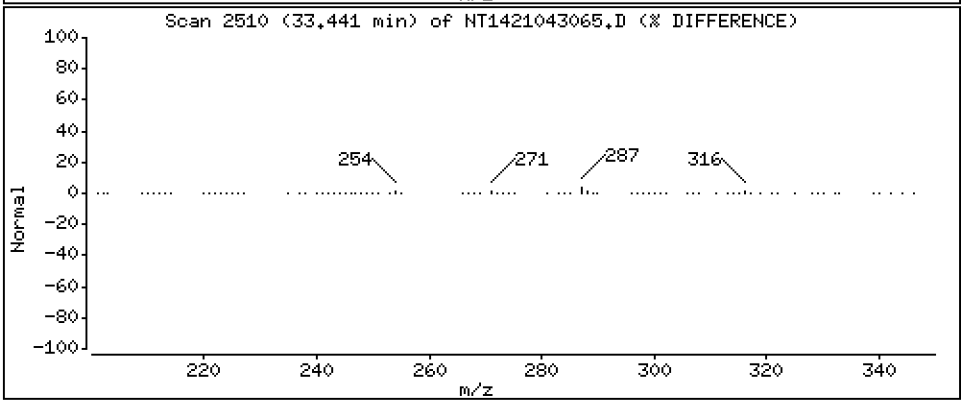


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043065.D

Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

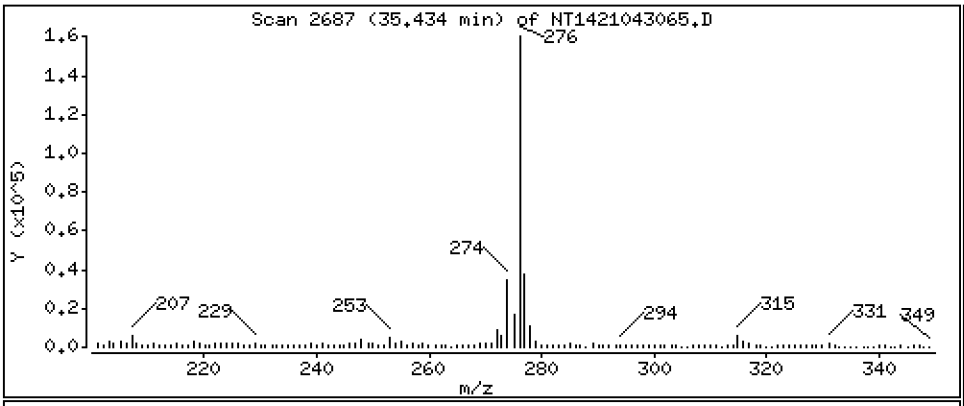
Operator: VTS

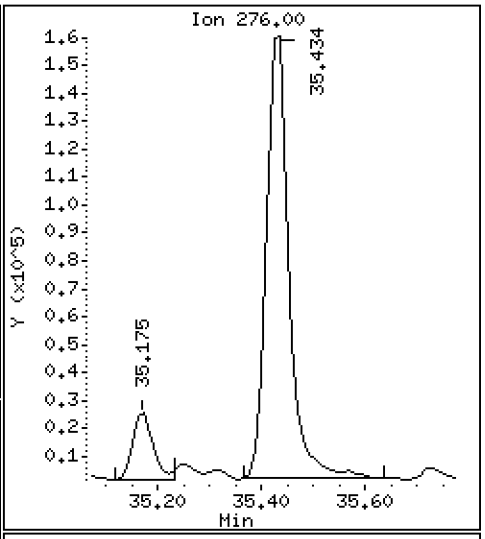
Column phase: Rxi-17Sil MS

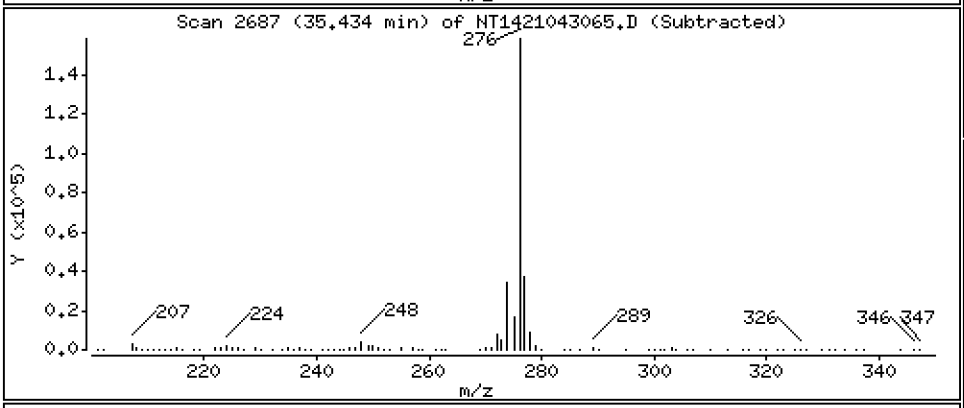
Column diameter: 0.25

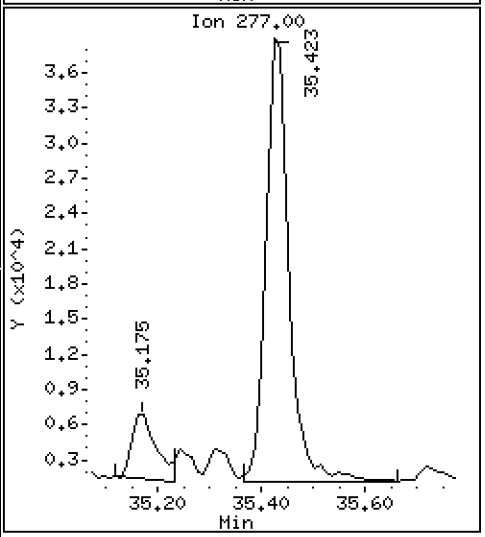
69 Indeno(1,2,3-cd)pyrene

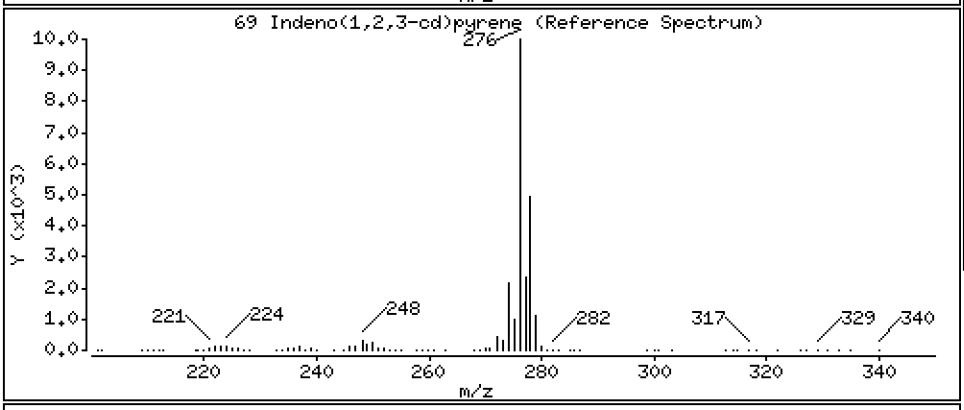
Concentration: 1.666 ug/mL

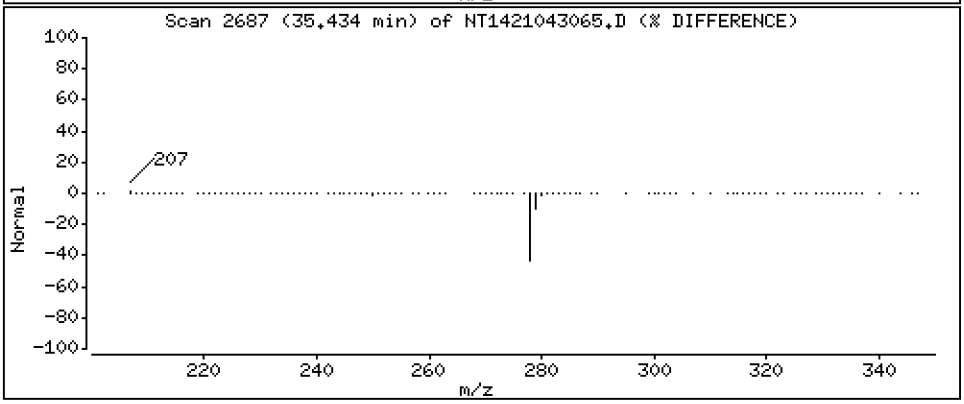


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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

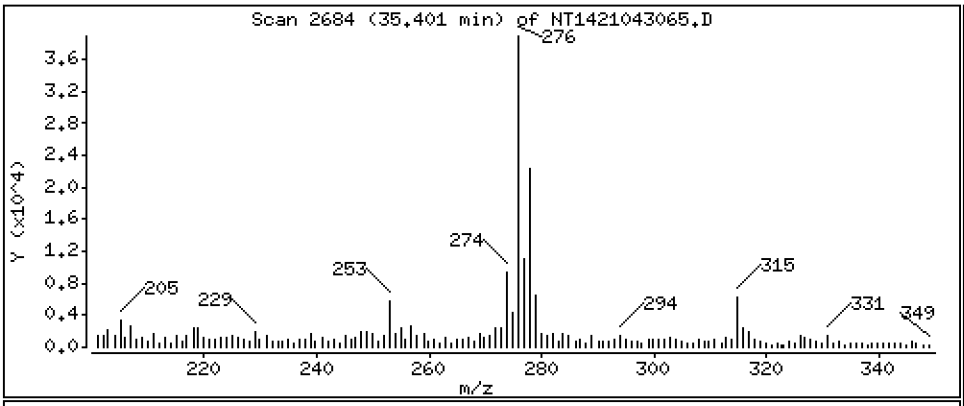
Operator: VTS

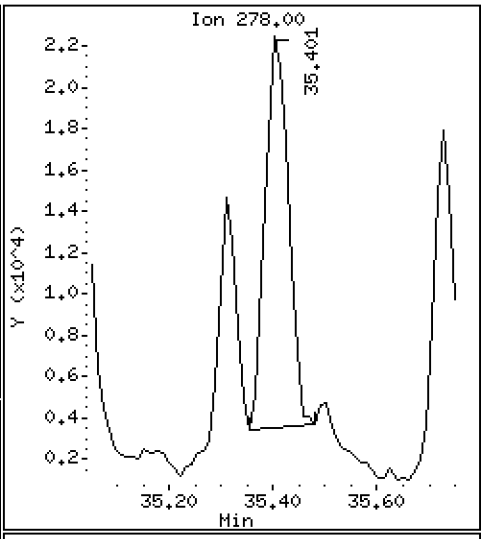
Column phase: Rxi-17Sil MS

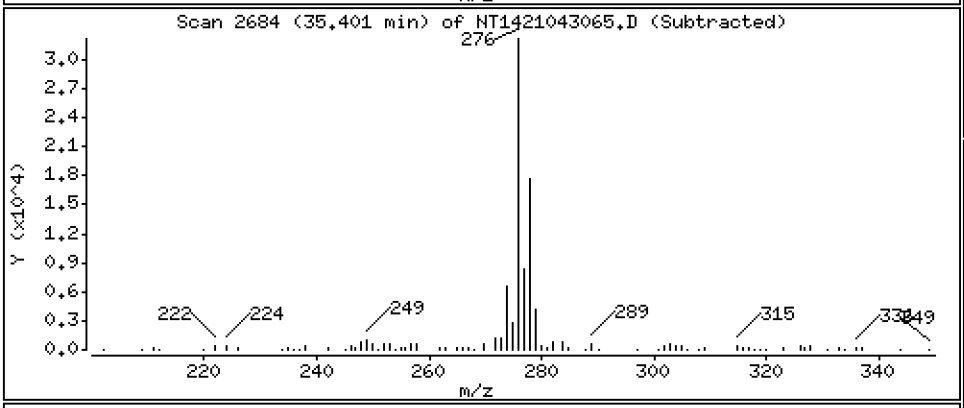
Column diameter: 0.25

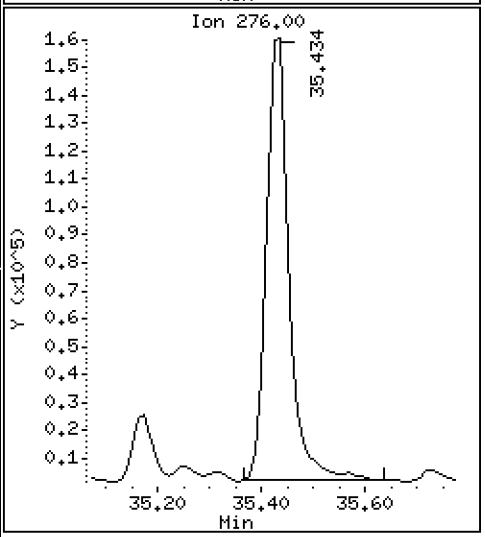
70 Dibenzo(a,h)anthracene

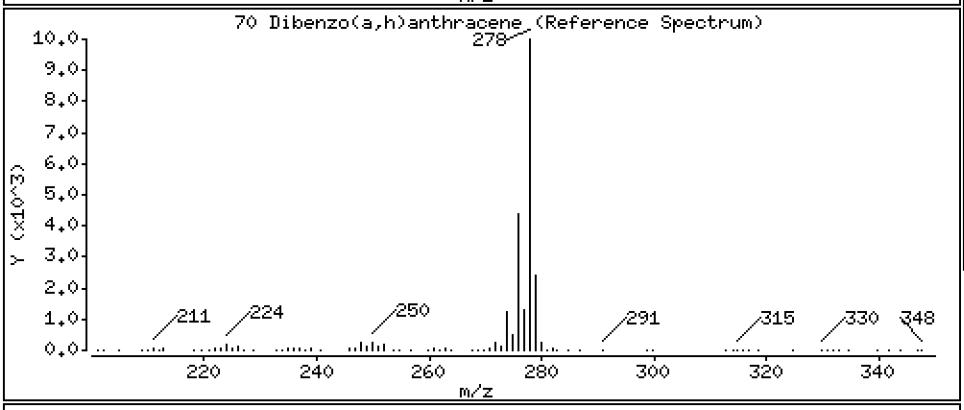
Concentration: 0.2430 ug/mL

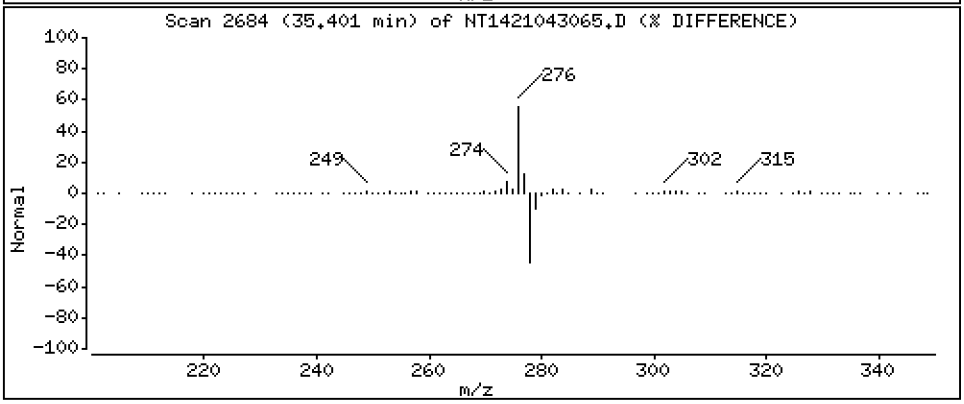


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043065.D

Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

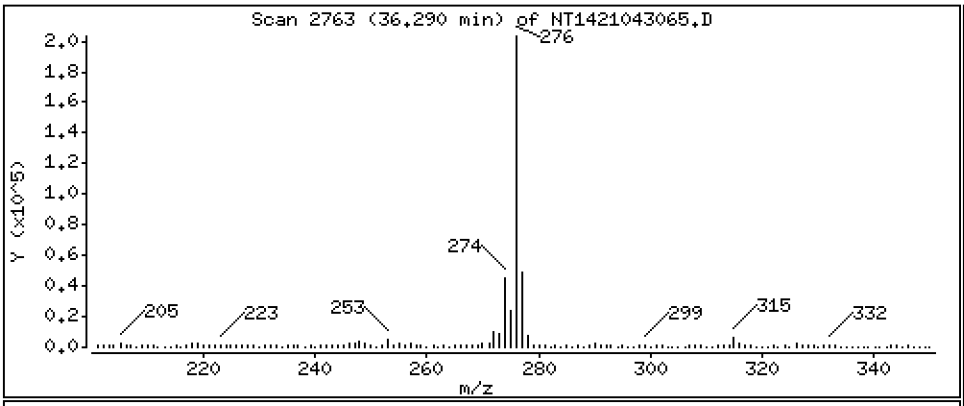
Operator: VTS

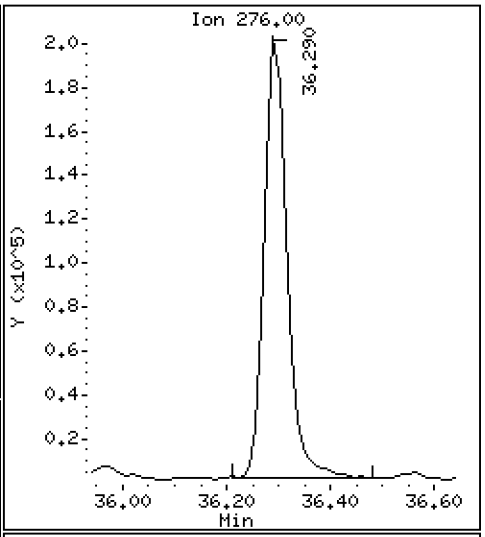
Column phase: Rxi-17Sil MS

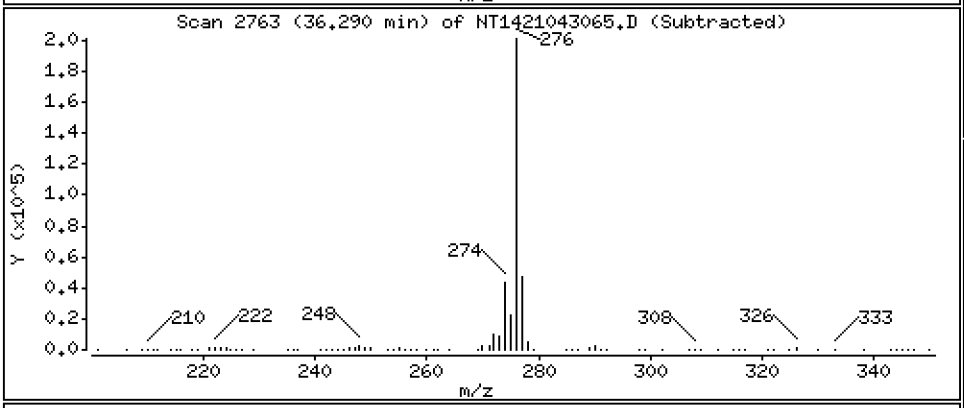
Column diameter: 0.25

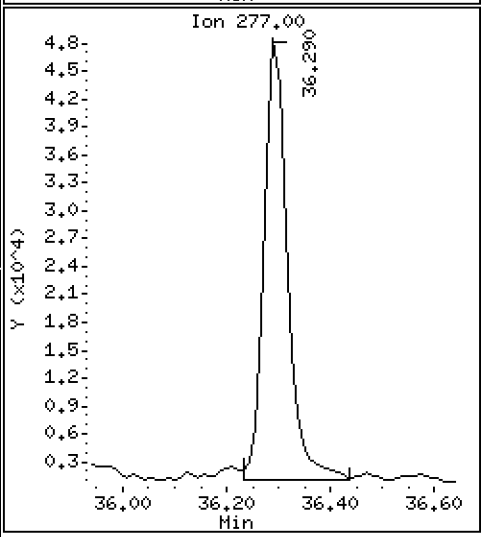
74 Benzo(g,h,i)perylene

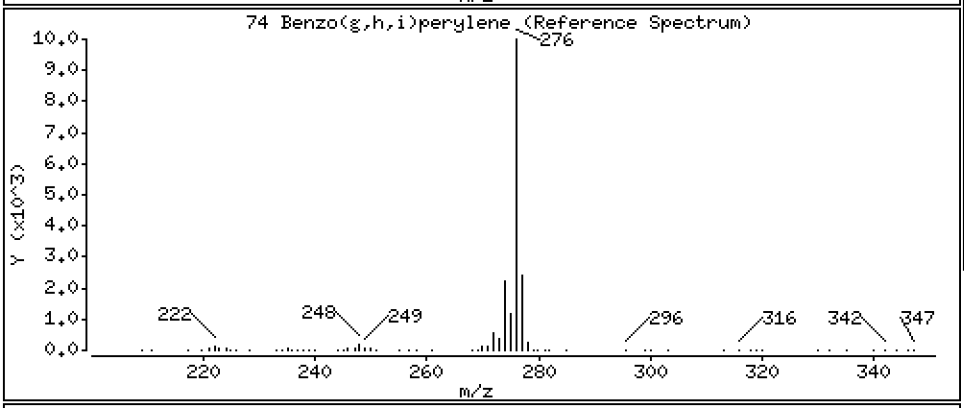
Concentration: 2.459 ug/mL

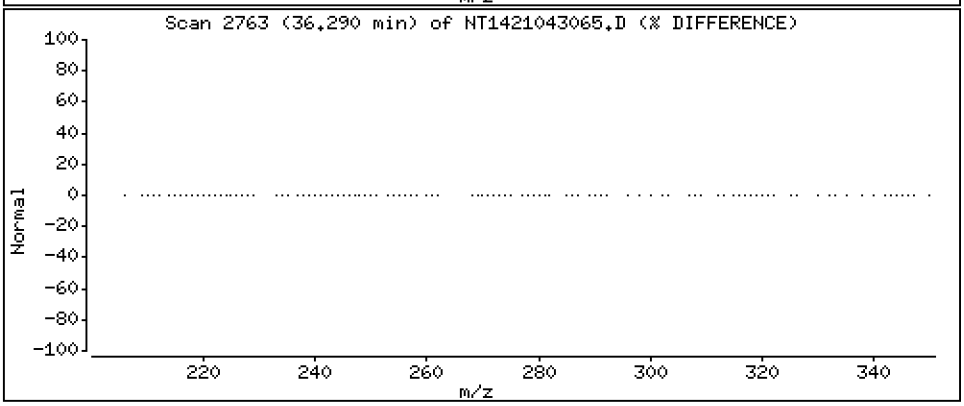


ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430D.b\NT1421043065.D
Lab Smp Id: 21D0180-03
Inj Date : 02-MAY-2021 10:49
Operator : VTS Inst ID: nt14.i
Smp Info : 21D0180-03
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
Meth Date : 04-May-2021 08:25 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 46
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 | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| 1 | trans-Decalin | 138 | Compound Not Detected. | | | | | |
| 2 | cis-Decalin | 138 | Compound Not Detected. | | | | | |
| $ 6 | Naphthalene-d8 | 136 | 11.766 | 11.776 | (0.627) | 581692 | 1.79298 | 1.793(R) |
| 7 | Naphthalene | 128 | 11.836 | 11.836 | (0.631) | 172776 | 0.52357 | 0.5236 |
| 12 | Benzo(b)thiophene | 134 | 12.284 | 12.295 | (0.654) | 10697 | 0.04074 | 0.04074 |
| 16 | 2-Methylnaphthalene | 141 | 13.669 | 13.680 | (0.728) | 37817 | 0.21475 | 0.2147 |
| 17 | 1-methylnaphthalene | 141 | 14.120 | 14.120 | (0.752) | 18716 | 0.11217 | 0.1122 |
| 18 | Biphenyl | 154 | 15.307 | 15.318 | (0.815) | 21186 | 0.08406 | 0.08406 |
| 19 | 2,6-Dimethylnaphthalene | 156 | 15.384 | 15.394 | (0.820) | 8984 | 0.05180 | 0.05180(M) |
| 20 | Acenaphthylene | 152 | 16.955 | 16.955 | (0.903) | 39698 | 0.14546 | 0.1455 |
| $ 21 | Acenaphthene-d10 | 164 | 17.241 | 17.241 | (0.918) | 329912 | 2.08261 | 2.083(R) |
| 22 | Acenaphthene | 153 | 17.351 | 17.362 | (0.924) | 48142 | 0.27447 | 0.2745 |
| 23 | Dibenzofuran | 168 | 17.724 | 17.735 | (0.944) | 34206 | 0.12870 | 0.1287 |
| 24 | 1,6,7-Trimethylnaphthalene | 170 | 17.944 | 17.955 | (0.956) | 9170 | 0.06025 | 0.06025 |
| * 25 | Fluorene-d10 | 176 | 18.772 | 18.772 | (1.000) | 562163 | 2.00000 | |
| 26 | Fluorene | 166 | 18.874 | 18.874 | (1.005) | 52996 | 0.27438 | 0.2744 |
| 30 | Dibenzothiophene | 184 | 21.785 | 21.796 | (1.161) | 37085 | 0.15210 | 0.1521(M) |
| $ 35 | Phenanthrene-d10 | 188 | 22.104 | 22.104 | (0.995) | 525990 | 1.90212 | 1.902(R) |
| 36 | Phenanthrene | 178 | 22.181 | 22.181 | (0.999) | 464073 | 1.50321 | 1.503 |
| * 250 | Anthracene-d10 | 188 | 22.214 | 22.214 | (1.000) | 511717 | 2.00000 | |
| 37 | Anthracene | 178 | 22.280 | 22.280 | (1.003) | 130513 | 0.45861 | 0.4586 |
| 42 | Carbazole | 167 | 23.555 | 23.566 | (1.060) | 24511 | 0.10470 | 0.1047 |
| 43 | 1-Methylphenanthrene | 192 | 24.017 | 24.017 | (1.081) | 49828 | 0.26583 | 0.2658 |
| 44 | Fluoranthene | 202 | 25.985 | 25.985 | (1.170) | 1052225 | 3.83775 | 3.838 |
| 46 | Pyrene | 202 | 26.832 | 26.832 | (1.208) | 1166701 | 4.10637 | 4.106(M) |
| 51 | Naphthobenzothiophene | 234 | 29.375 | 29.375 | (1.322) | 91395 | 0.33010 | 0.3301(M) |
| 55 | Benzo(a)anthracene | 228 | 29.960 | 29.960 | (0.907) | 428442 | 1.53294 | 1.533 |
| $ 56 | Chrysene-d12 | 240 | 30.084 | 30.084 | (0.910) | 443530 | 1.97432 | 1.974(R) |
| 57 | Chrysene | 228 | 30.163 | 30.163 | (0.913) | 749198 | 2.59468 | 2.595 |
| 62 | Benzo(b)fluoranthene | 252 | 32.382 | 32.382 | (0.980) | 474803 | 1.82430 | 1.824(M) |
| 63 | Benzo(k)fluoranthene | 252 | 32.427 | 32.427 | (0.981) | 283690 | 0.90574 | 0.9057(M) |
| 293 | Benzo(j)fluoranthene | 252 | 32.494 | 32.494 | (0.983) | 260139 | 0.88452 | 0.8845 |
| 246 | Total Benzofluoranthenes | 252 | 32.382 | 32.382 | (0.980) | 975426 | 3.43156 | 3.432(M) |

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

## QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043065.D
Lab Smp Id: 21D0180-03
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
Misc Info:

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

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1421043065.D

Lab ID: 21D0180-03
nt14.i,  20210430D.b\ALKYLPNA.m,    02-MAY-2021 10:49

| RT | CO-ELUTION COMPOUNDS |
|---|---|
| NO CO-ELUTIONS | |

Quant Method: ICAL

RRT CHECK

| RRT | CCV RRT | DELTA | COMPOUND |
|---|---|---|---|
| NONE | | | |

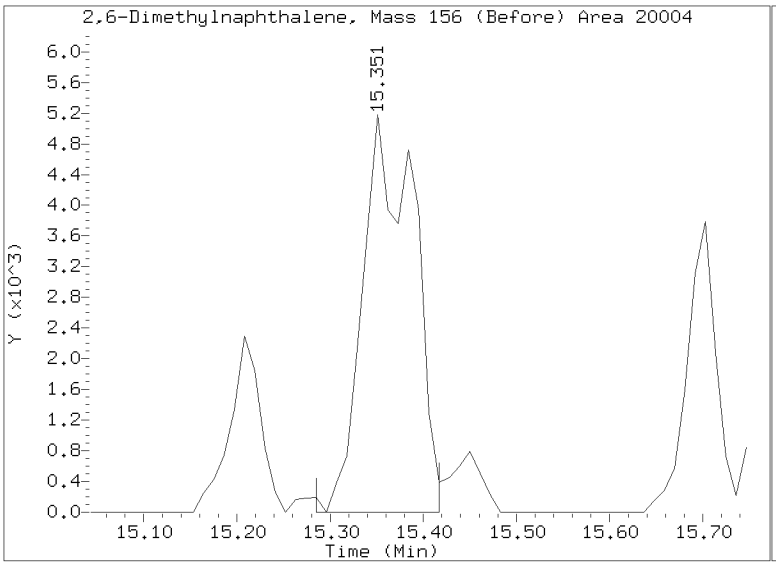
RRT check based on Ccal File: NT1421043051ICV.D

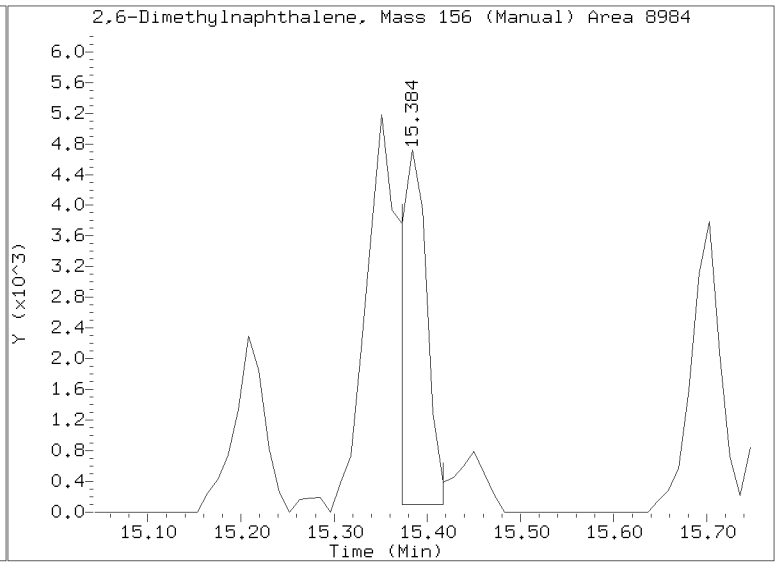
On Column LOD for nt14.i, 20210430D.b\ALKYLPNA.m, TARGETS.sub = 0.0000

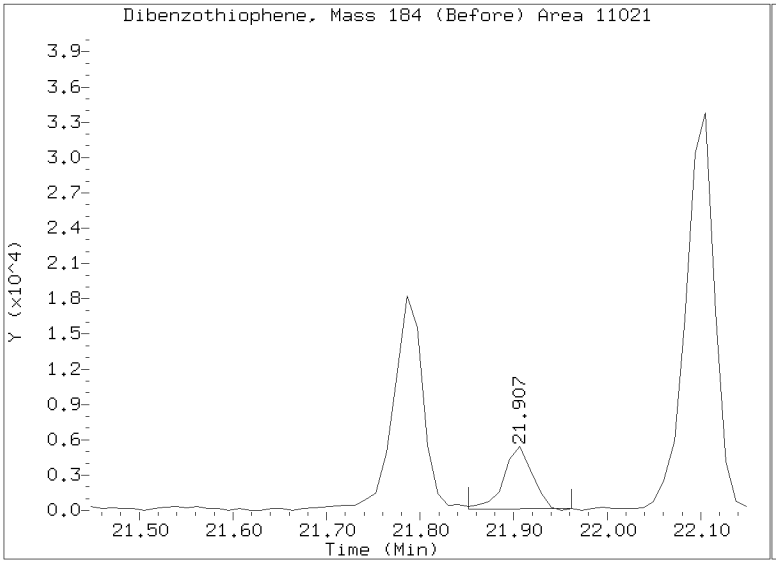
* Only compounds listed in the work order have been verified by the analyst *

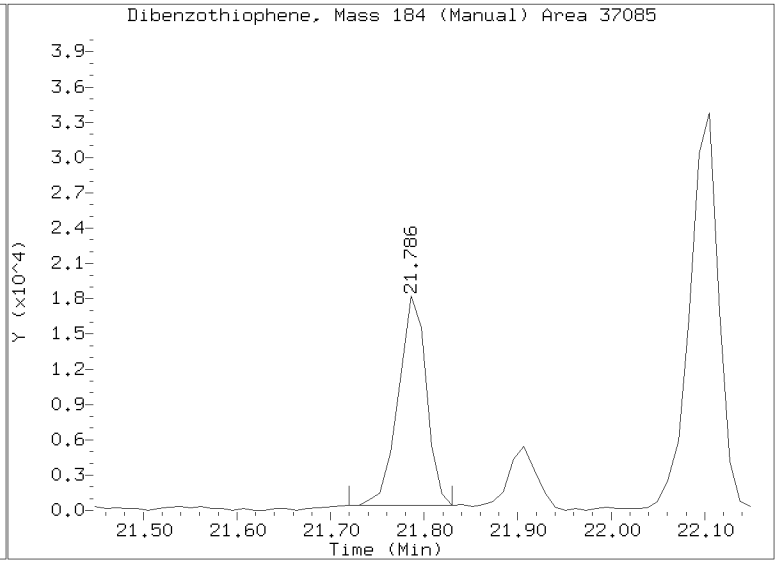
# Quant Ion Manual Peak Adjustment Report

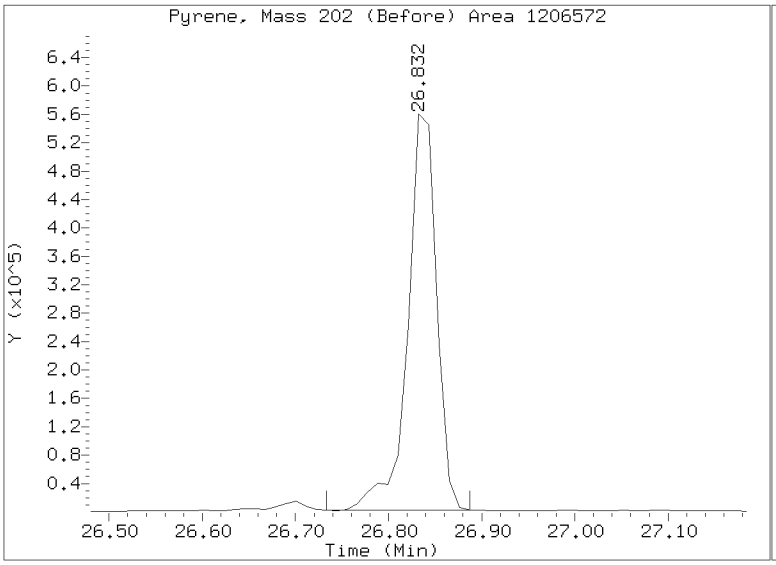
Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043065.D
Injection Date: 02-MAY-2021 10:49
Lab ID:21D0180-03 Client ID:
Report Date: 05/04/2021 13:21

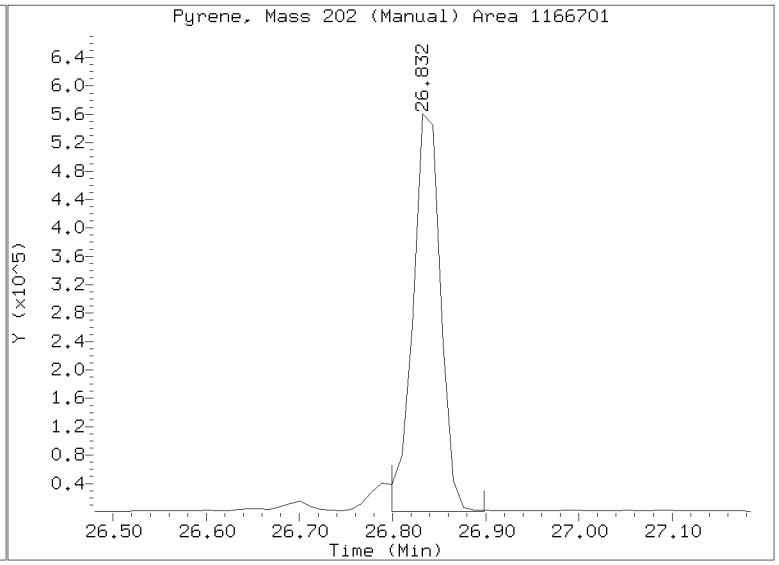


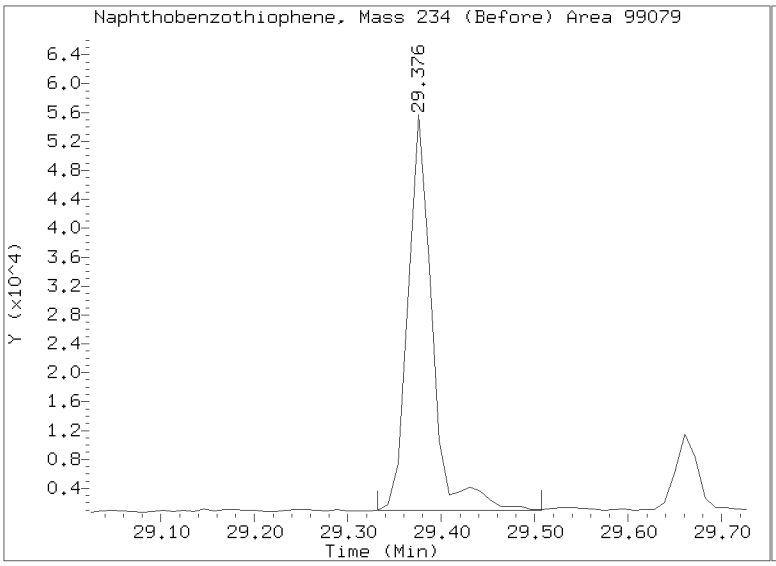



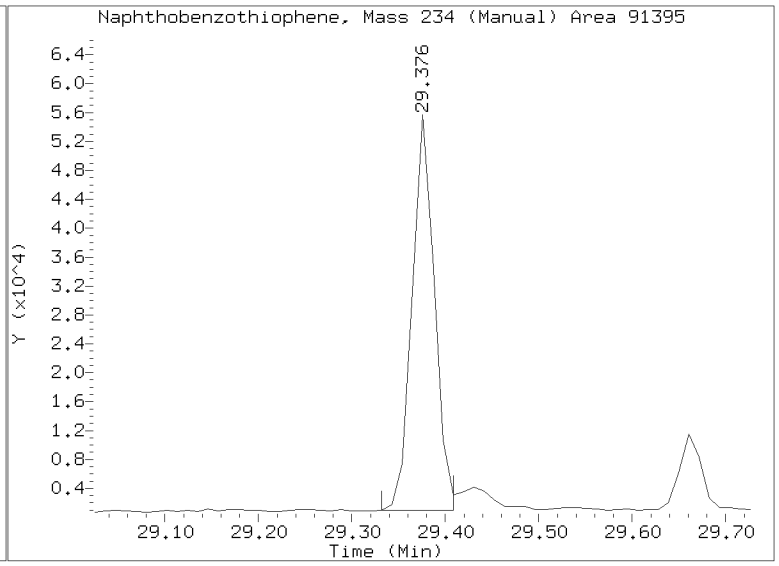



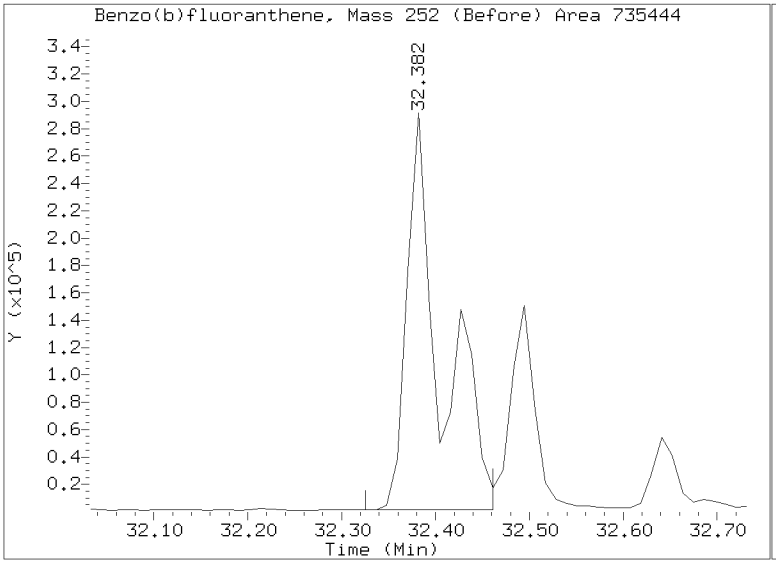



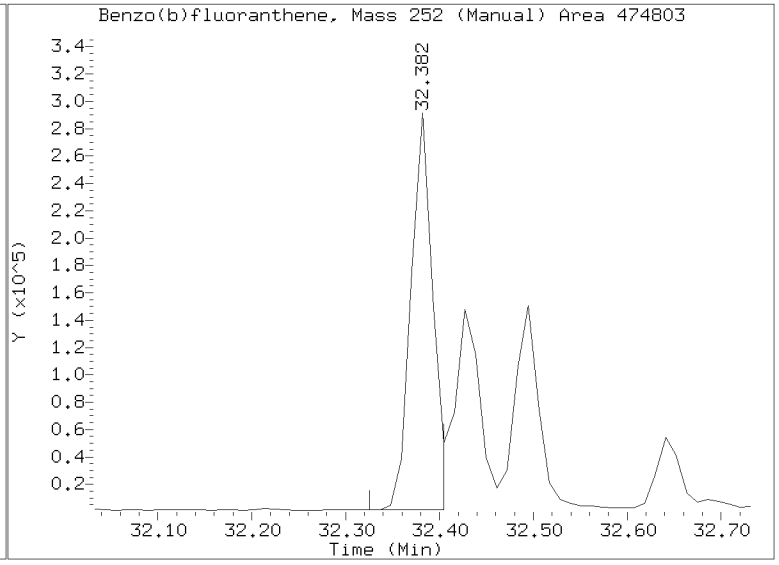
# Quant Ion Manual Peak Adjustment Report

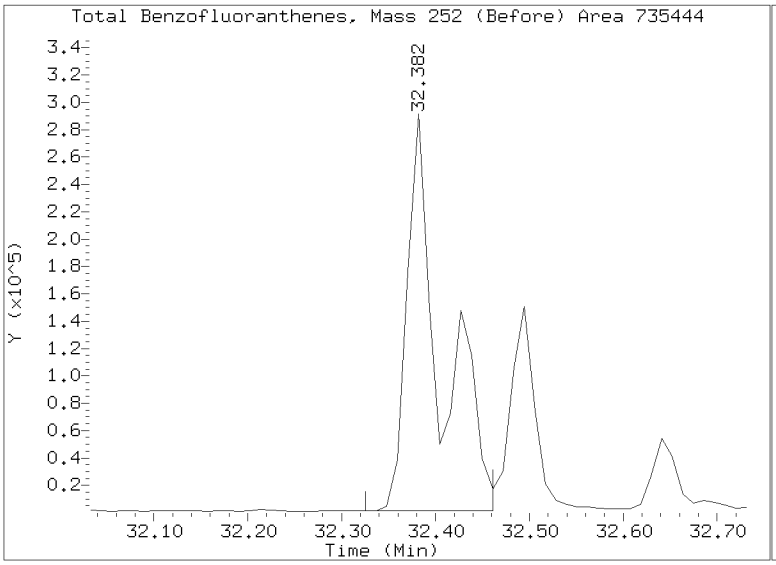
Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043065.D
Injection Date: 02-MAY-2021 10:49
Lab ID:21D0180-03 Client ID:
Report Date: 05/04/2021 13:21

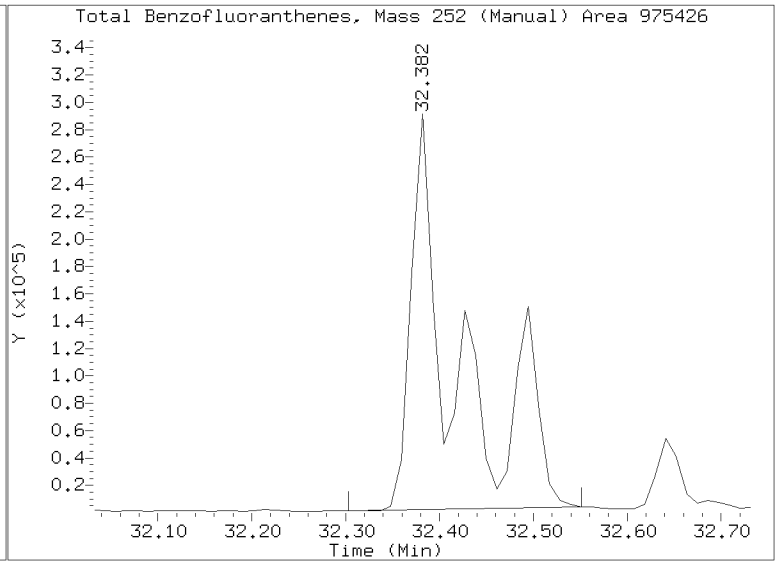


# Quant Ion Manual Peak Adjustment Report

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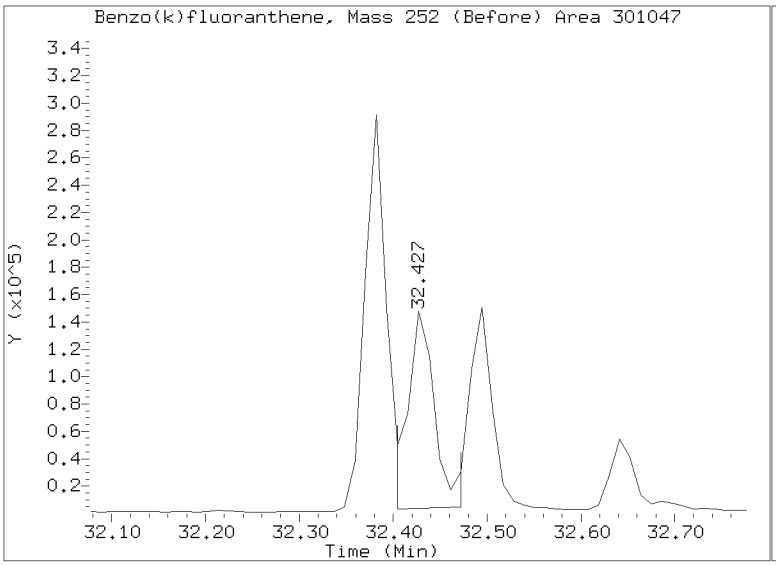
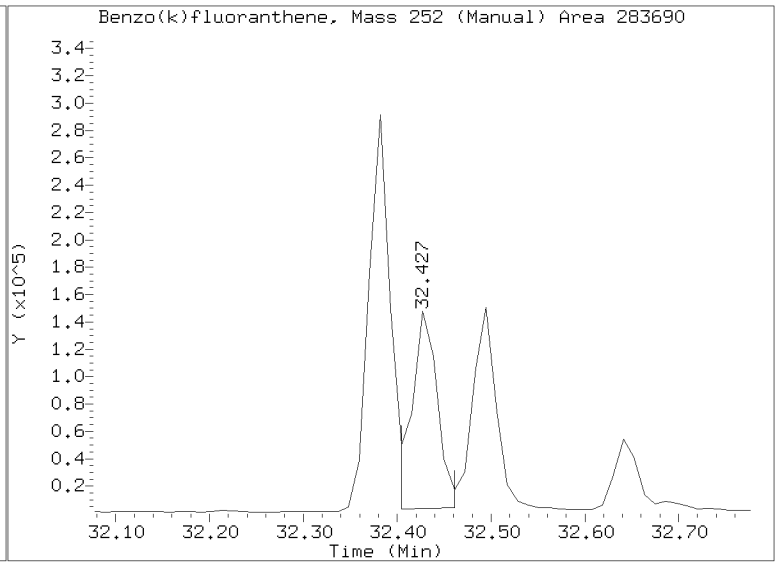
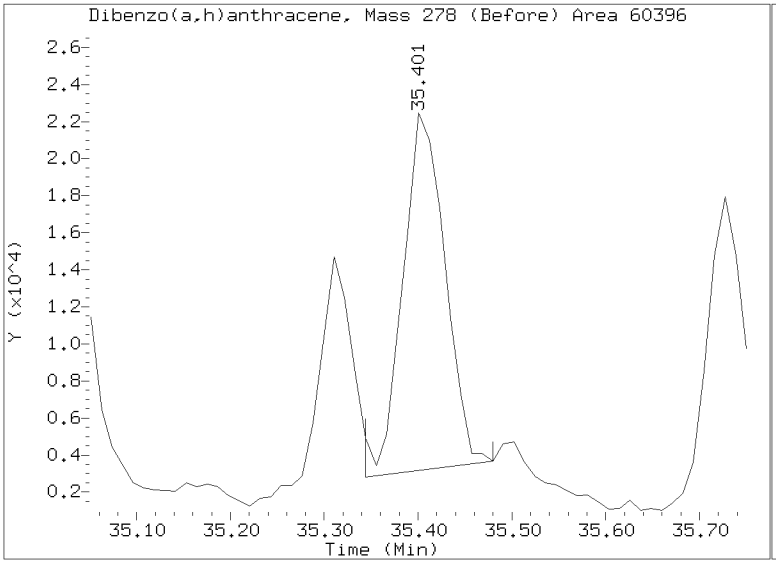
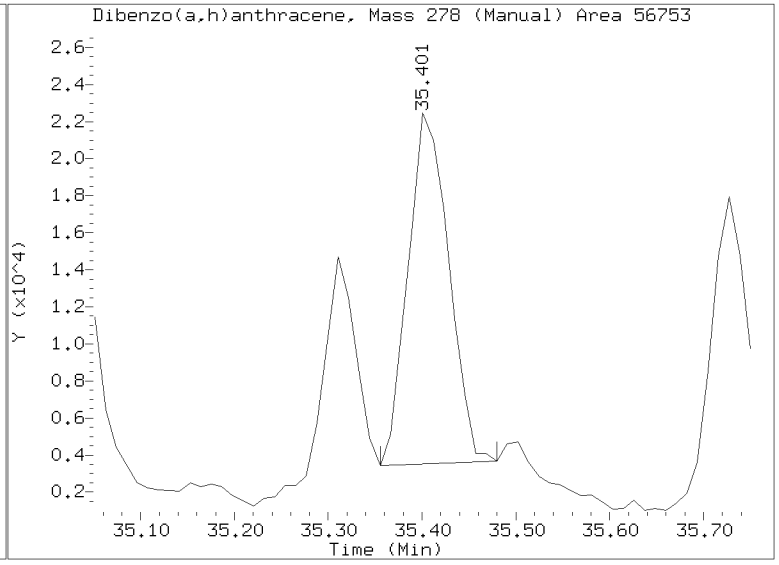
Lab ID:21D0180-03 Client ID:
Report Date: 05/04/2021 13:21



USMPDI-019SG-210414

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

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

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

USMPDI-019SG-210414

# Form I

## ORGANIC ANALYSIS DATA SHEET

## EPA 8270E-SIM

### Alkyl PAH Ranges

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

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

Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430655.D

Page 1

Date : 02-MAY-2021 10:49

Client ID:

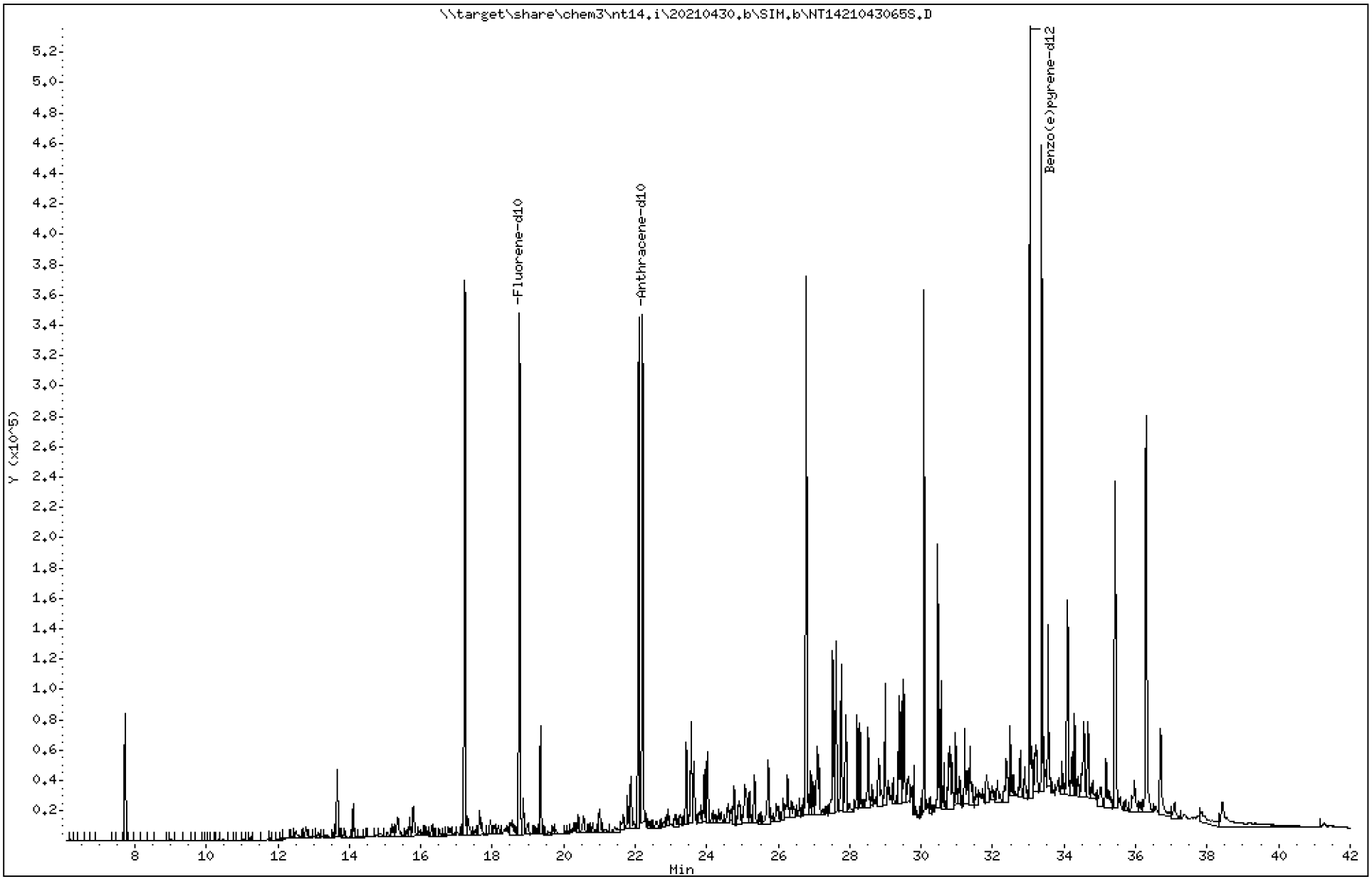
Instrument: nt14.i

Sample Info: 21D0180-03

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

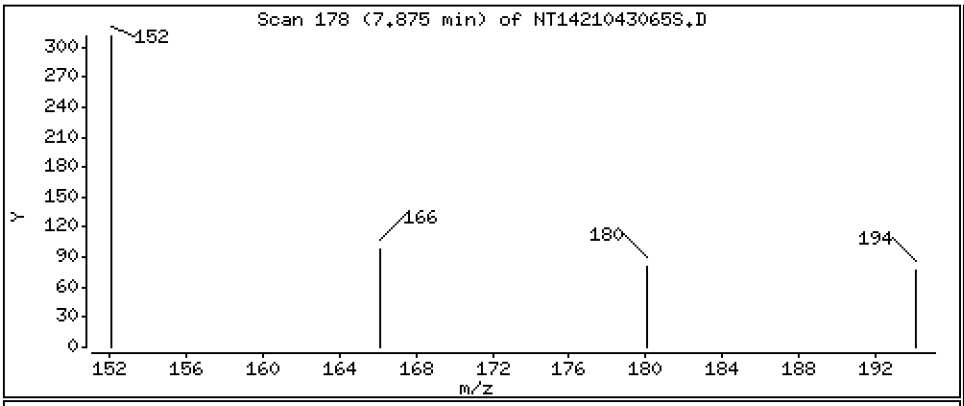
Operator: VTS

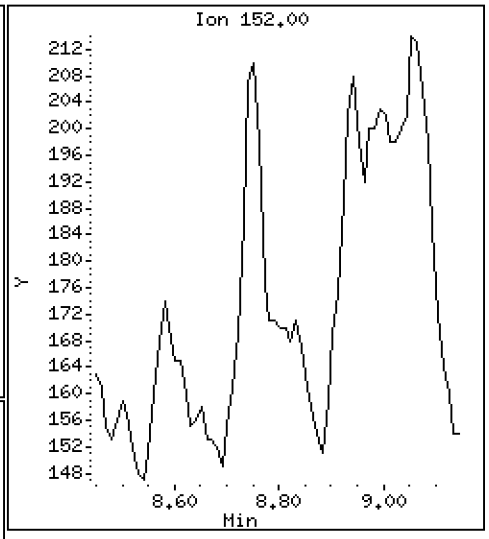
Column phase: Rxi-17Sil MS

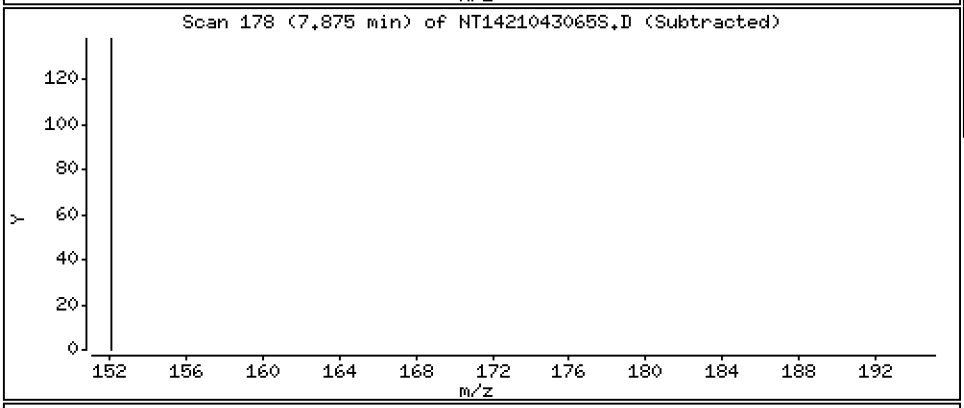
Column diameter: 0.25

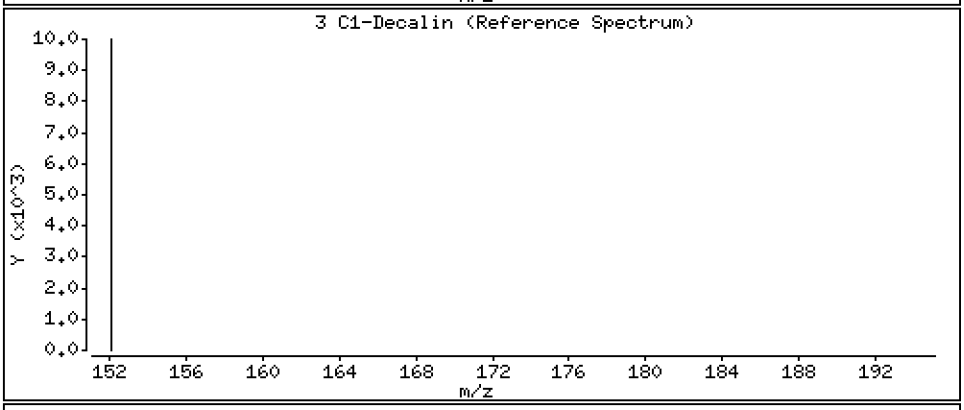
3 C1-Decalin

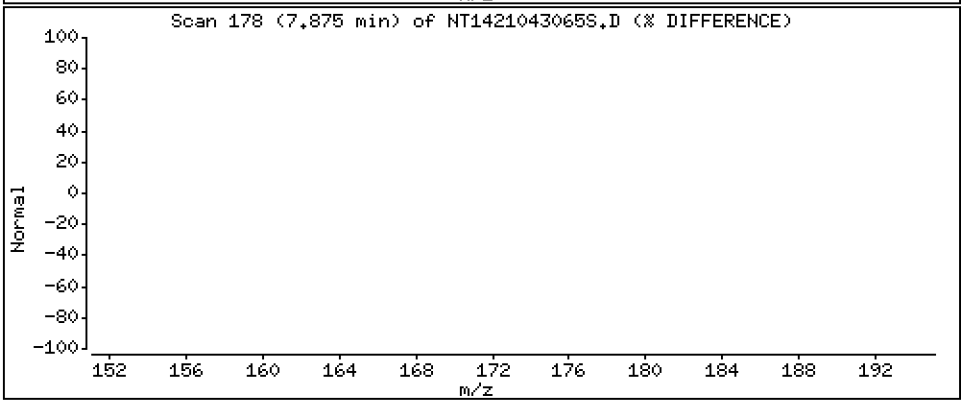
Concentration: 0.04859 ug/mL



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

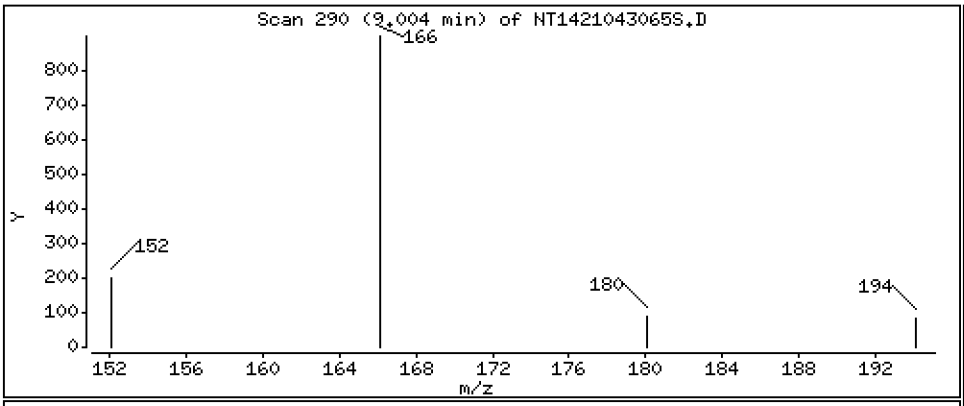
Operator: VTS

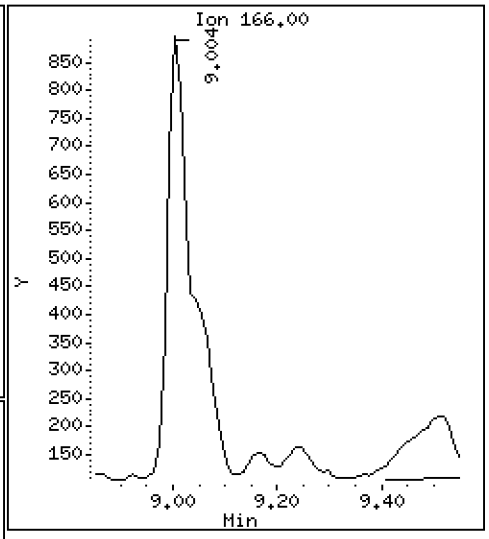
Column phase: Rxi-17Sil MS

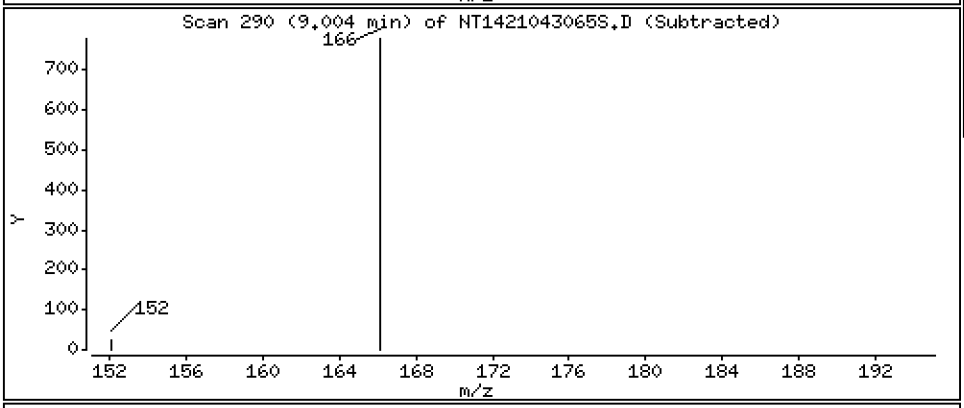
Column diameter: 0.25

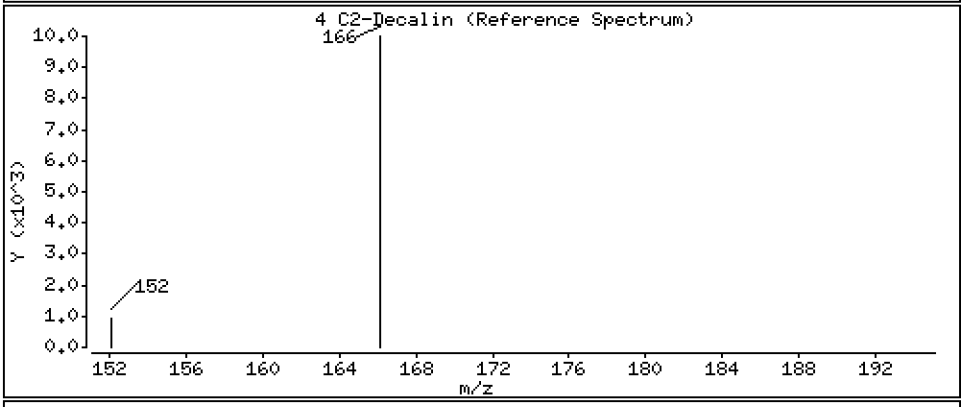
4 C2-Decalin

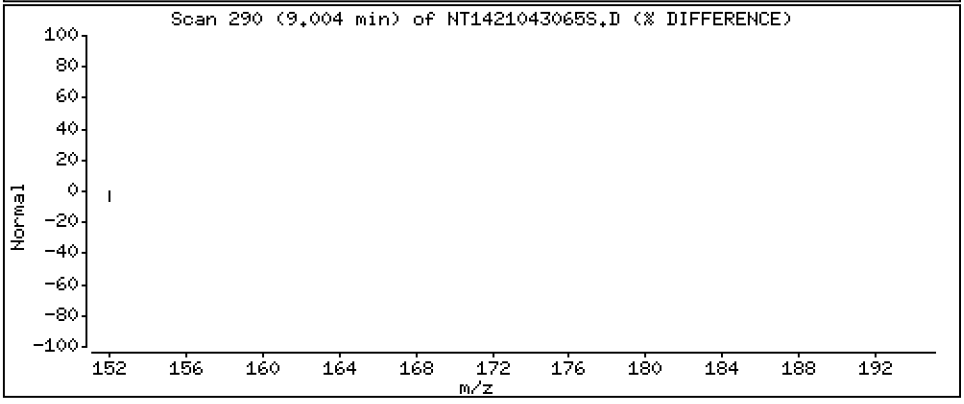
Concentration: 0.3037 ug/mL



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

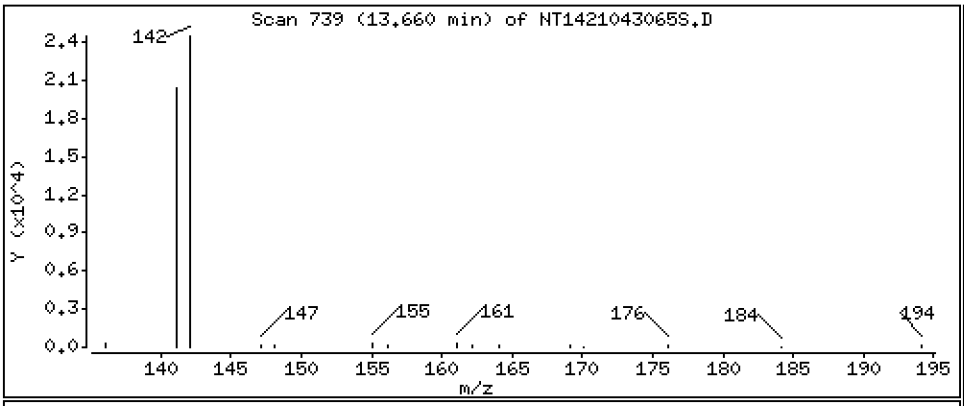
Operator: VTS

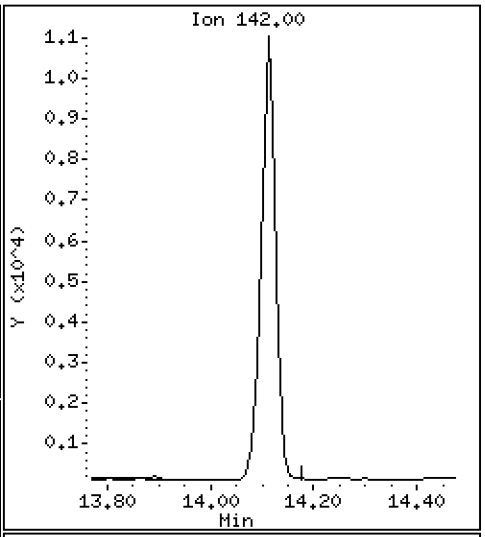
Column phase: Rxi-17Sil MS

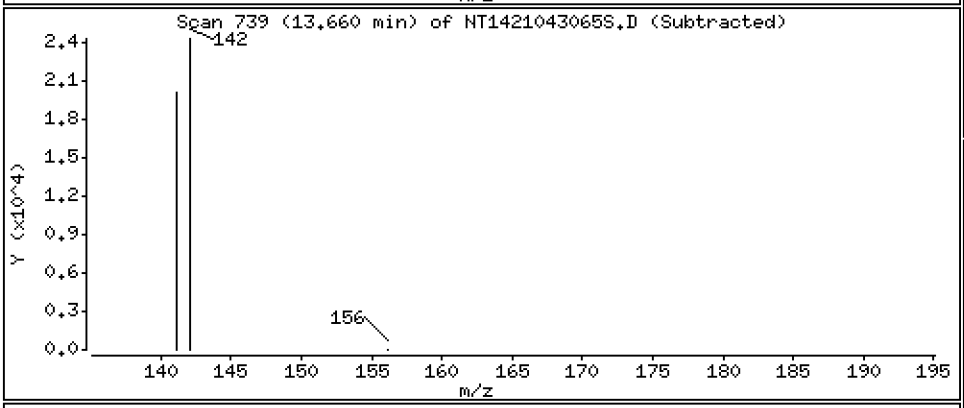
Column diameter: 0.25

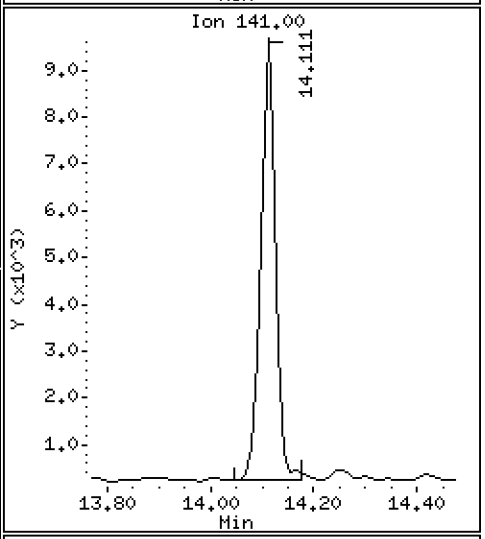
8 C1-Naphthalenes

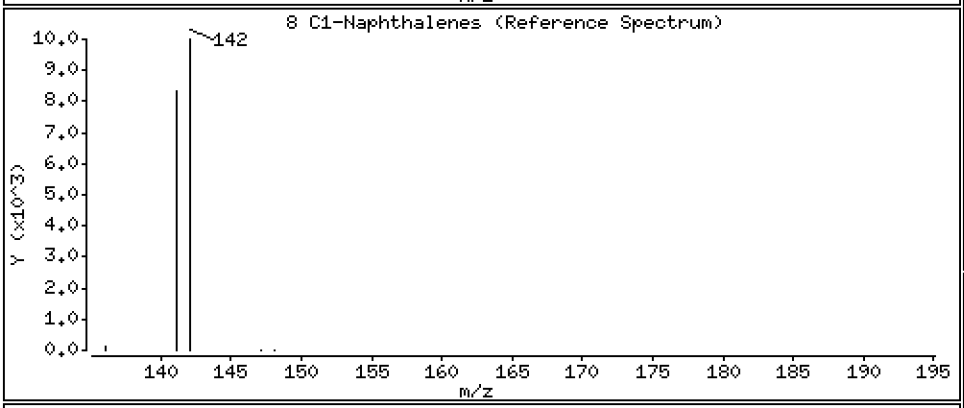
Concentration: 0.2181 ug/mL

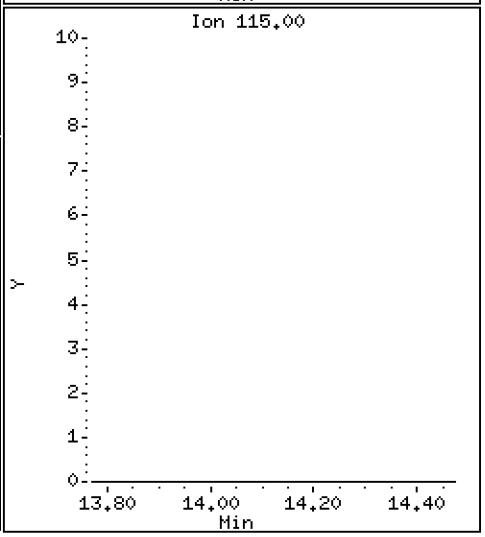


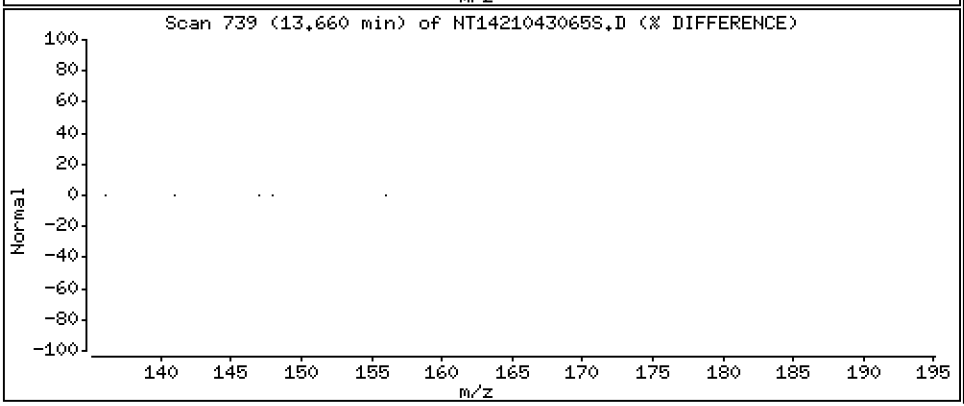



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

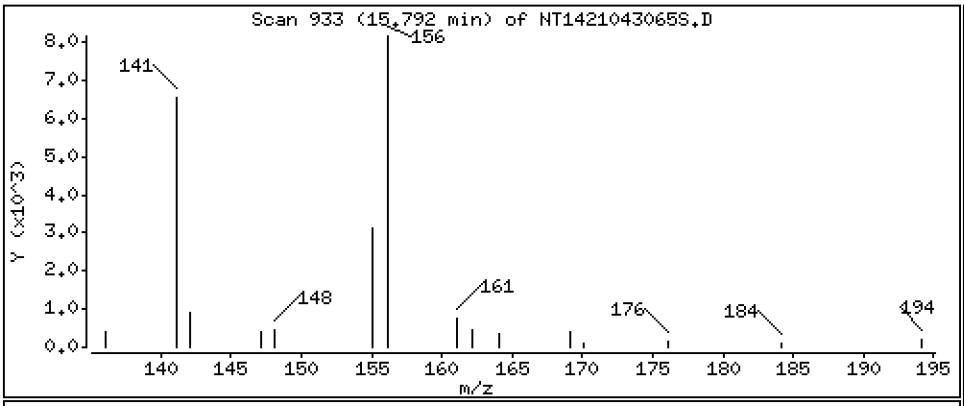
Operator: VTS

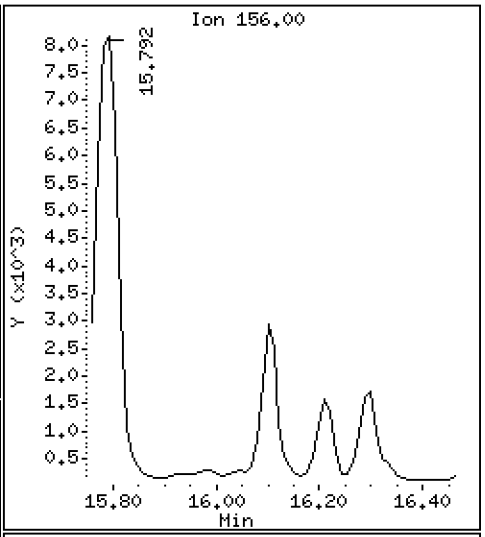
Column phase: Rxi-17Sil MS

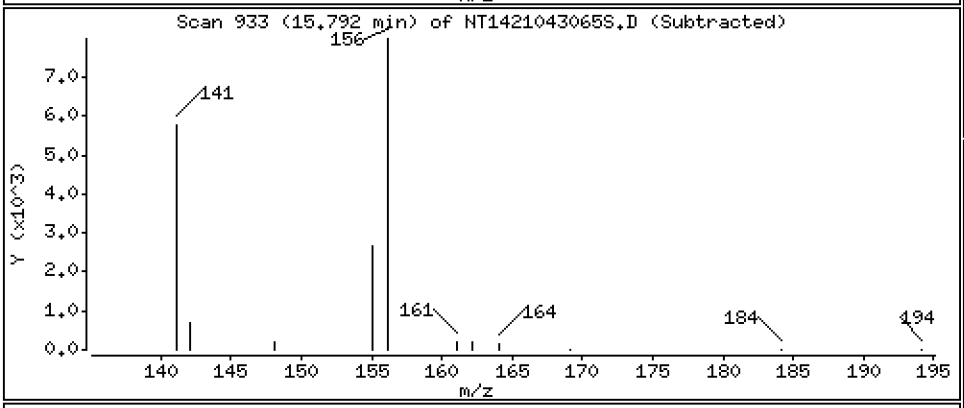
Column diameter: 0.25

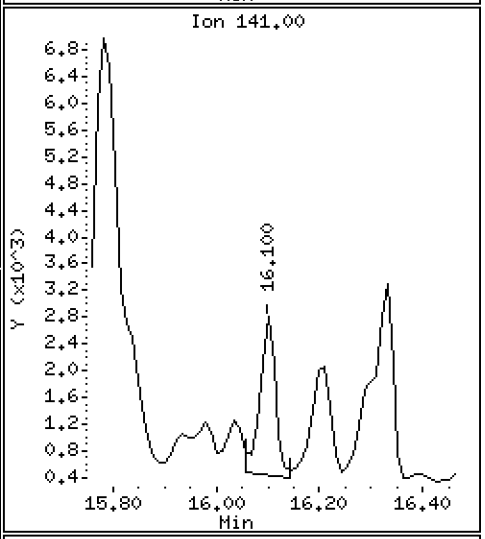
9 C2-Naphthalenes

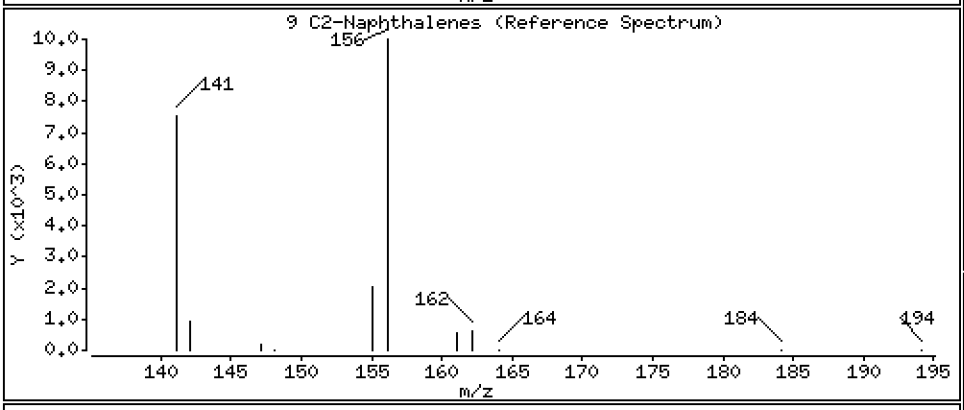
Concentration: 0.2359 ug/mL

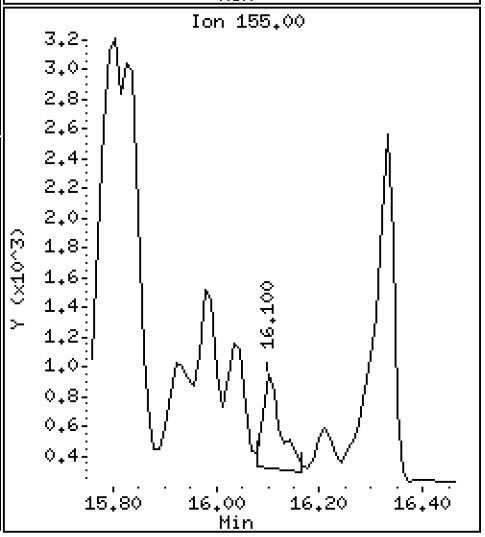


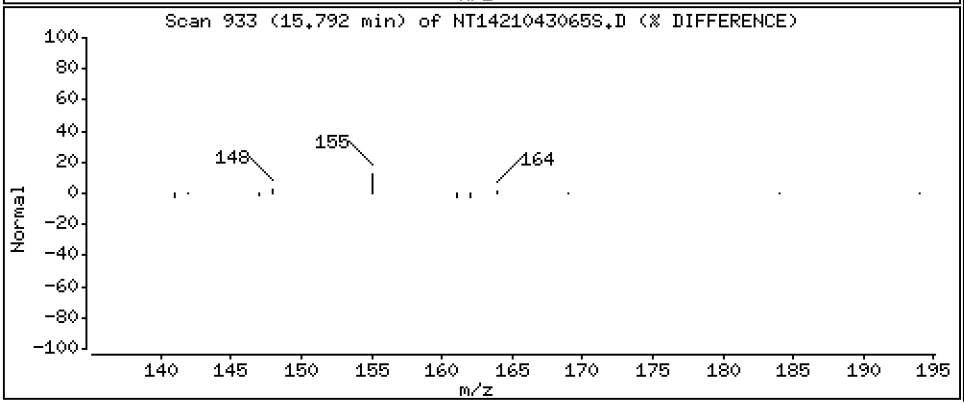



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

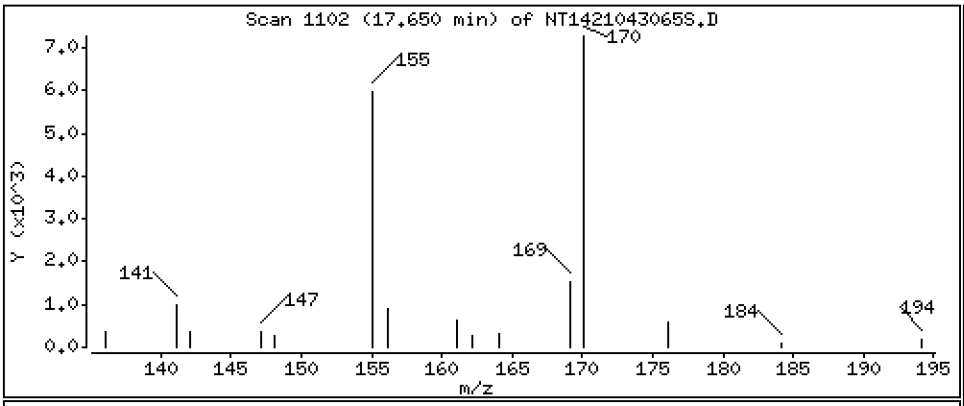
Operator: VTS

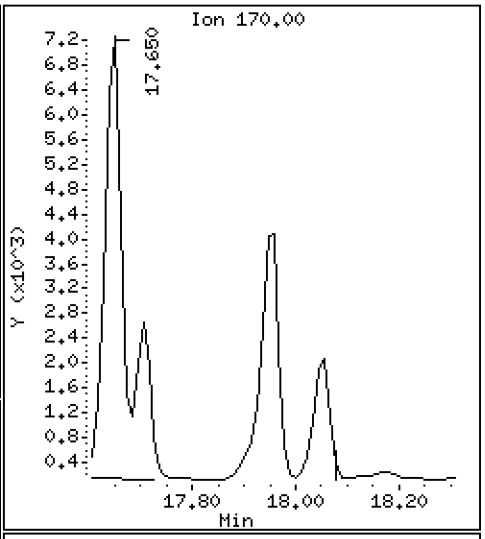
Column phase: Rxi-17Sil MS

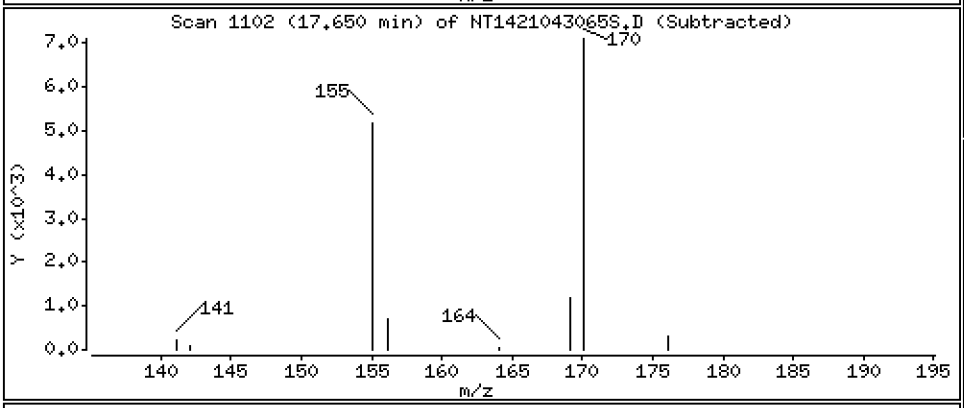
Column diameter: 0.25

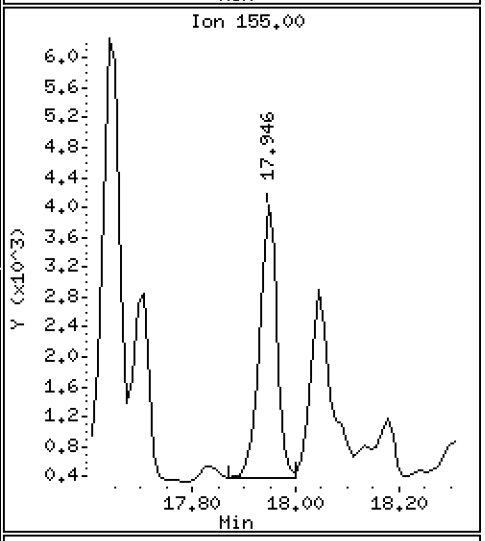
10 C3-Naphthalenes

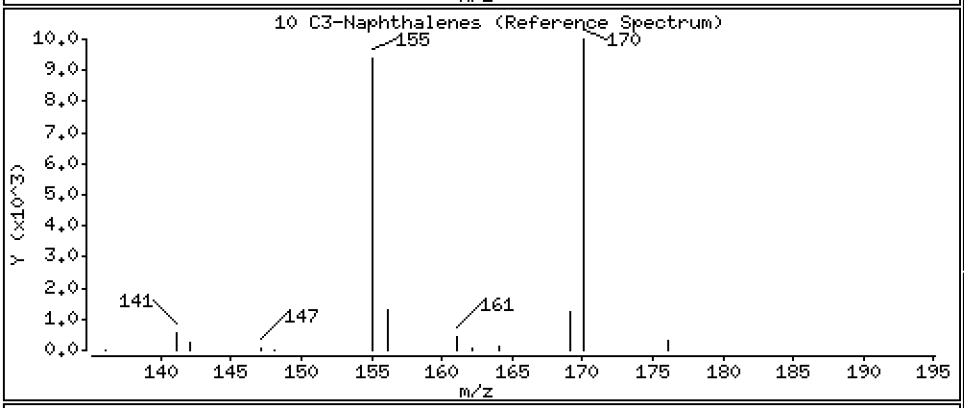
Concentration: 0.2005 ug/mL

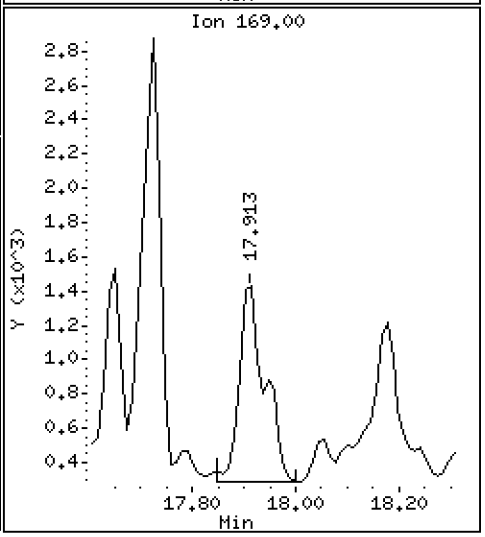


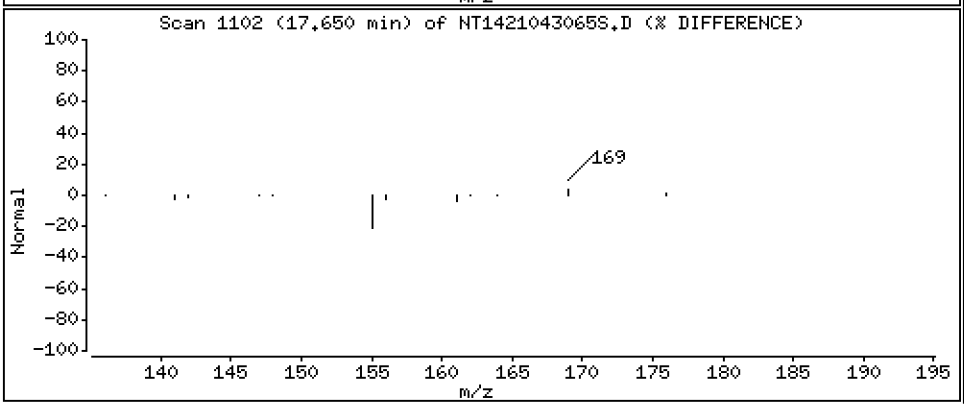



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

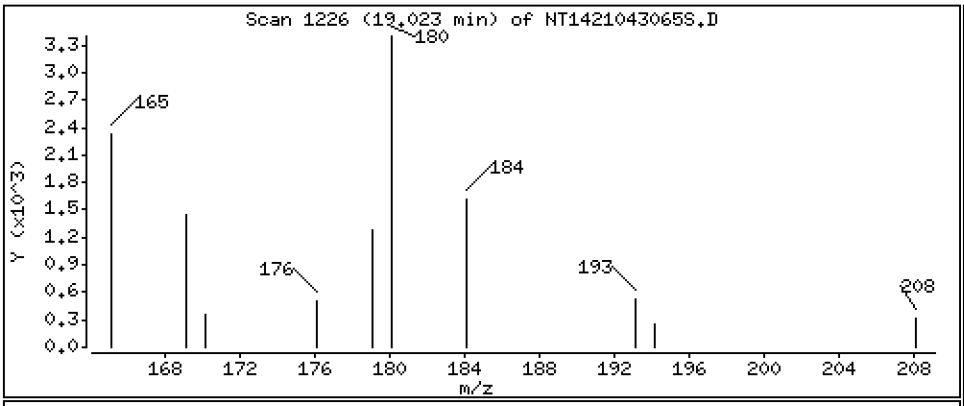
Operator: VTS

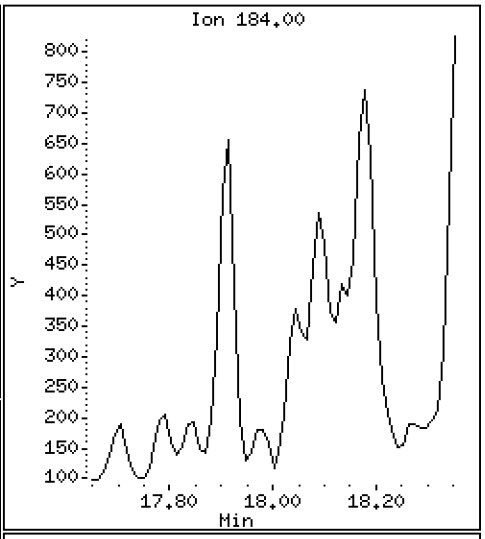
Column phase: Rxi-17Sil MS

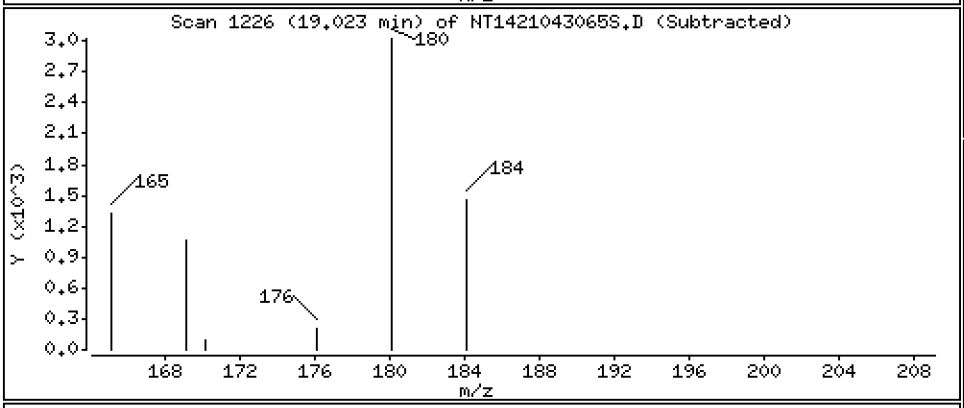
Column diameter: 0.25

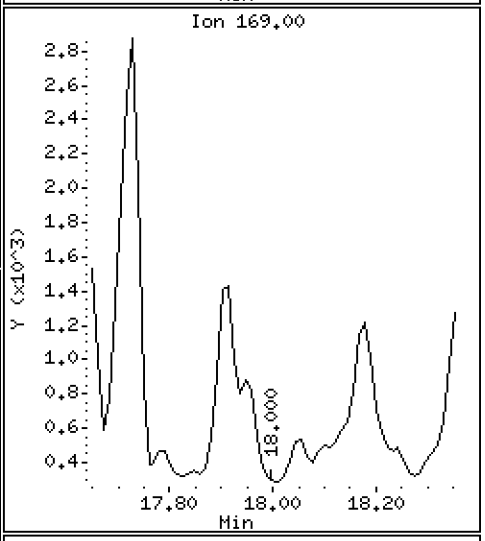
11 C4-Naphthalenes

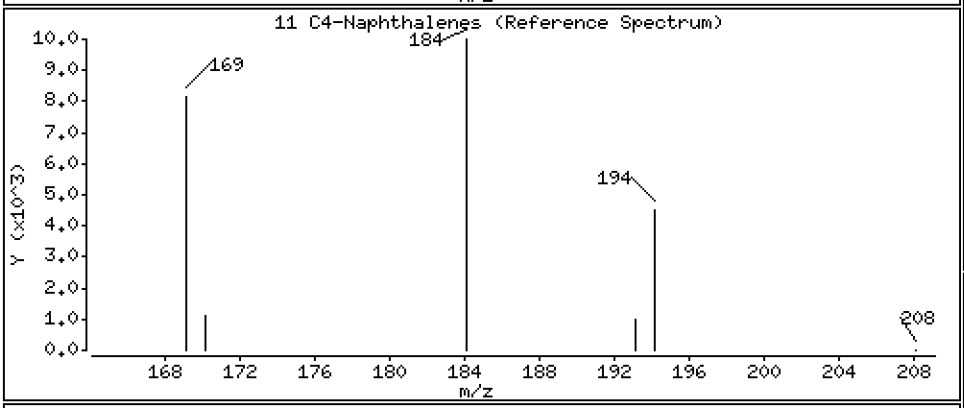
Concentration: 0.08710 ug/mL

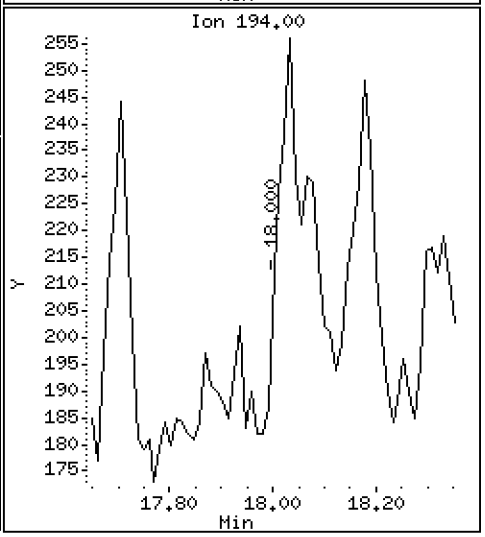


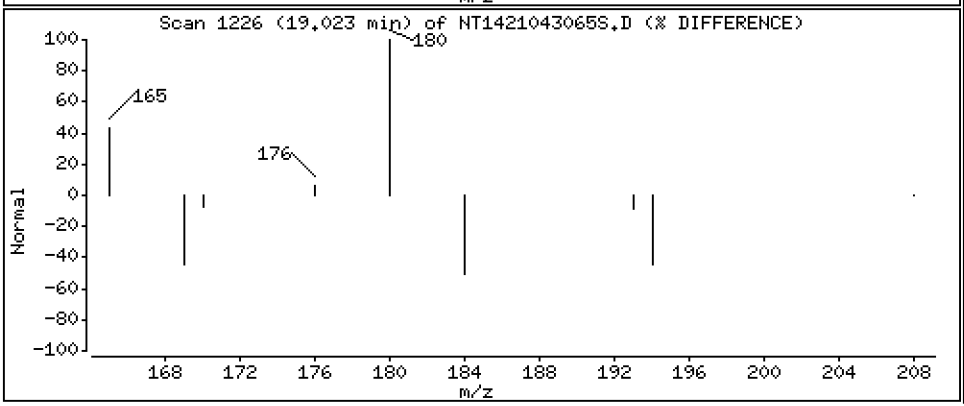



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

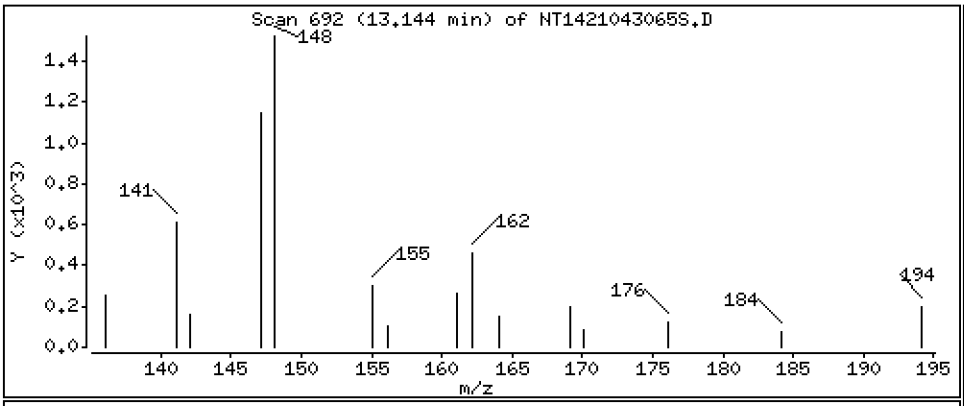
Operator: VTS

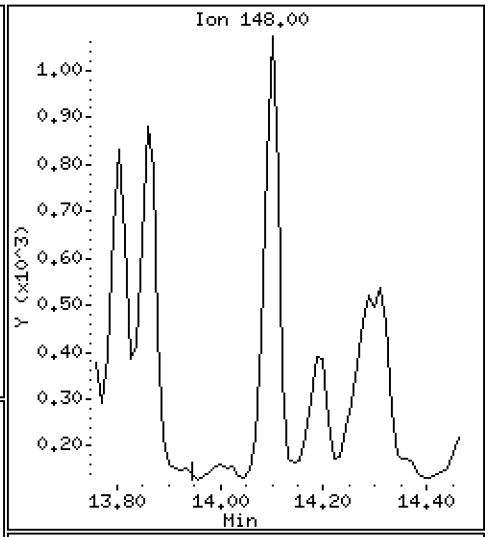
Column phase: Rxi-17Sil MS

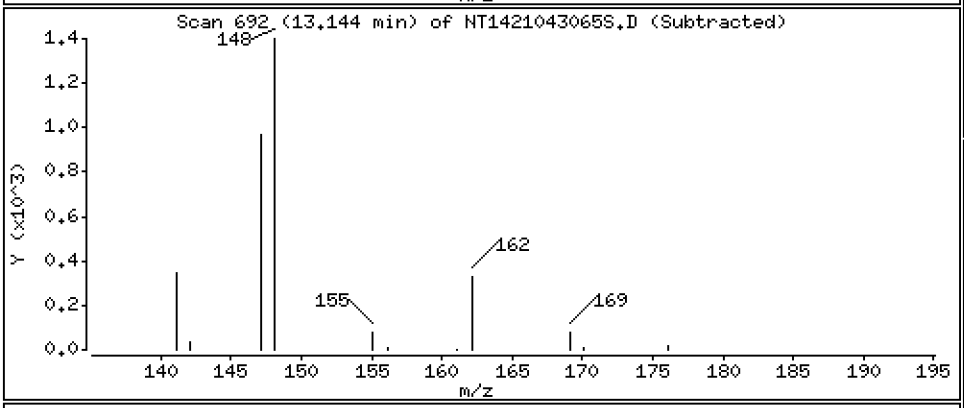
Column diameter: 0.25

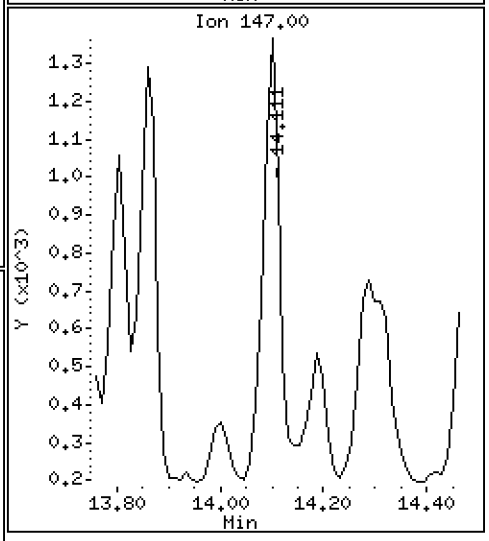
13 C1-Benzothiophenes

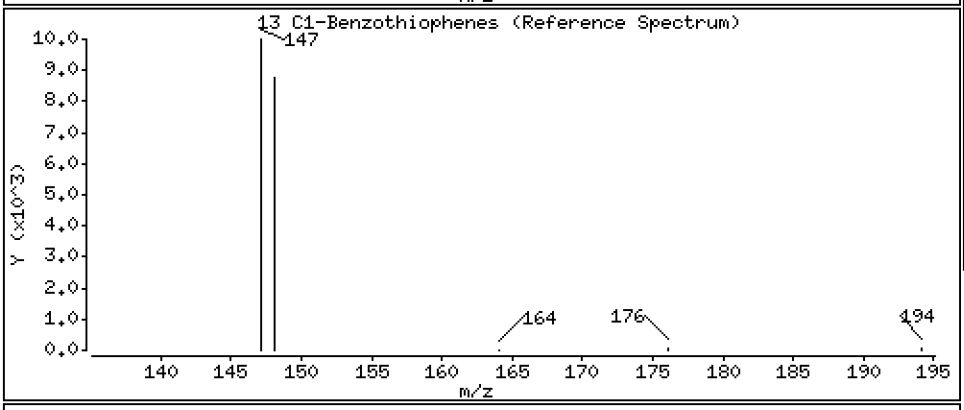
Concentration: 0.03639 ug/mL

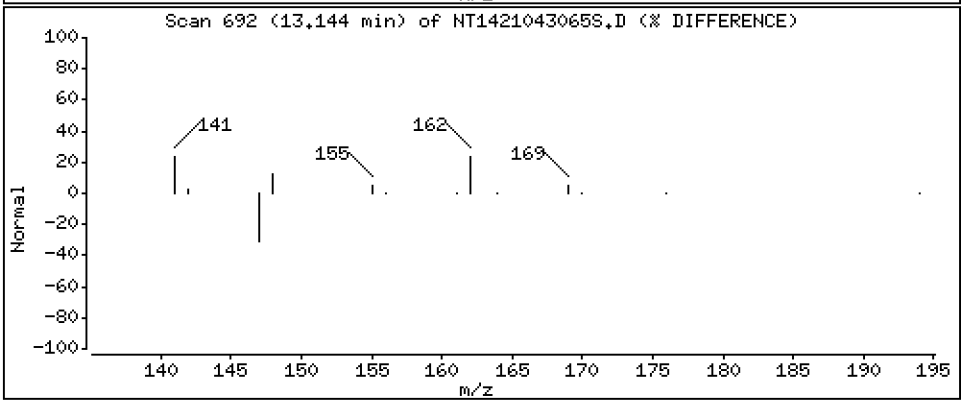


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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

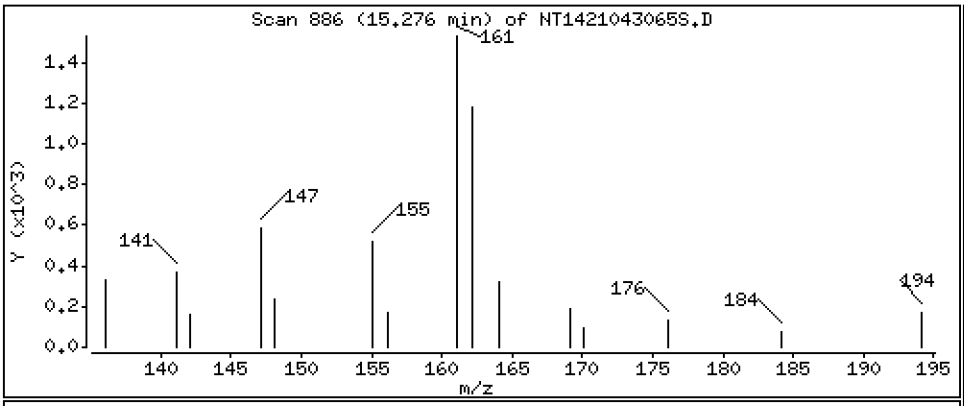
Operator: VTS

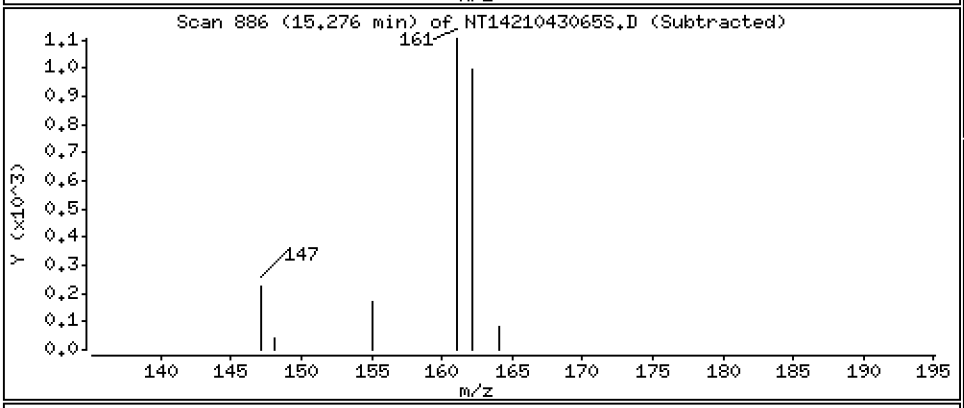
Column phase: Rxi-17Sil MS

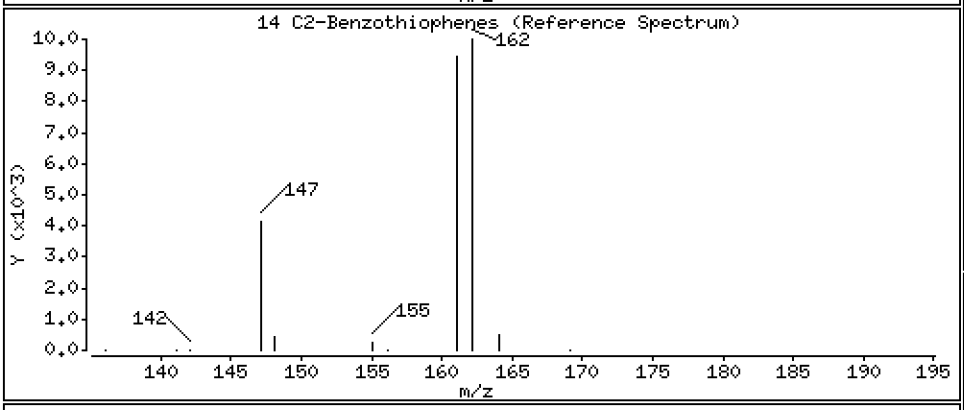
Column diameter: 0.25

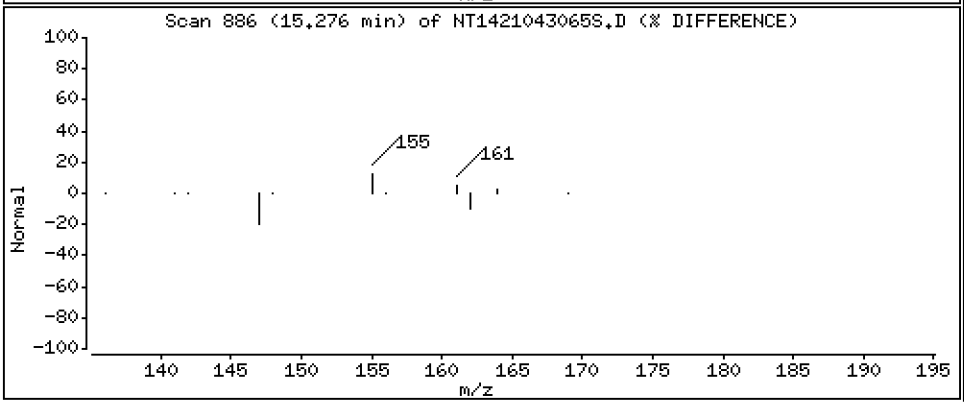
14 C2-Benzothiophenes

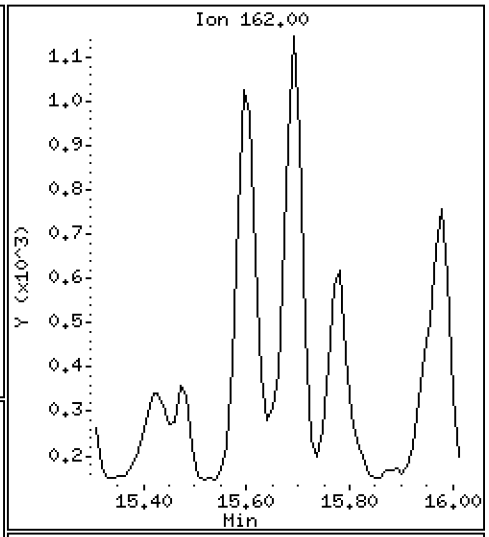
Concentration: 0.05917 ug/mL

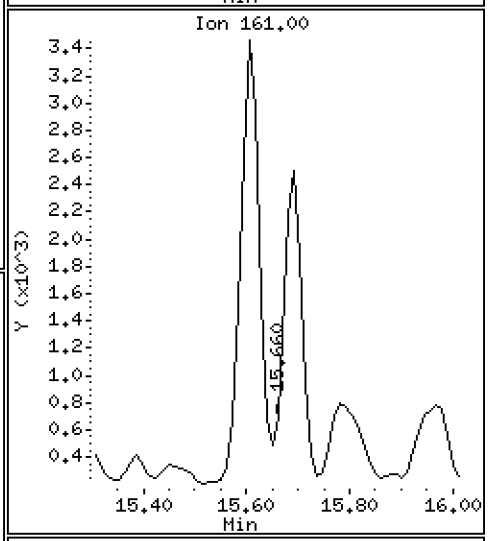


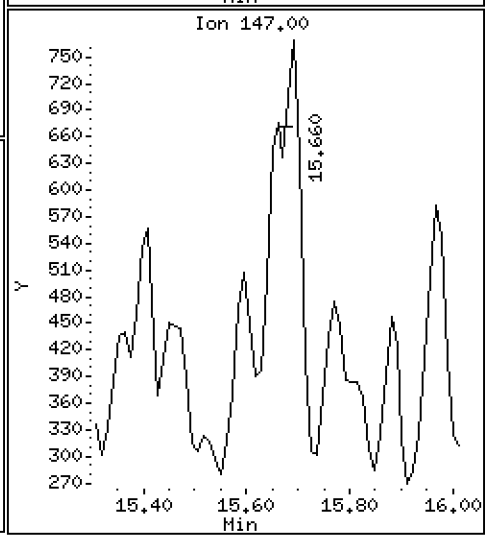



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

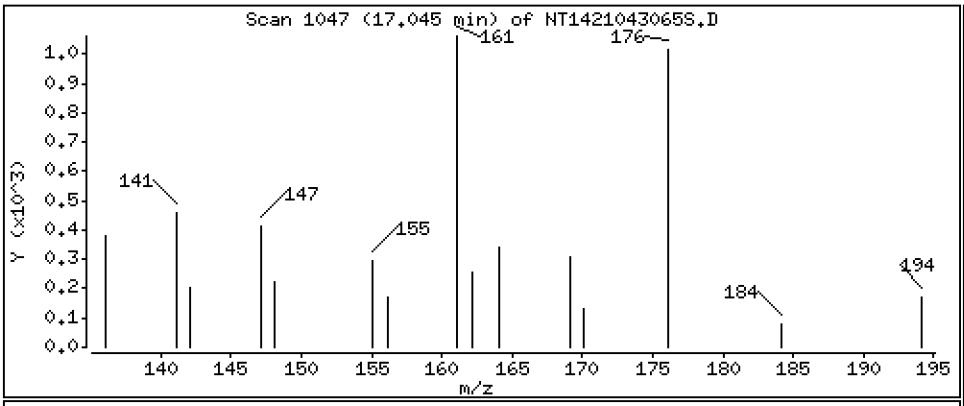
Operator: VTS

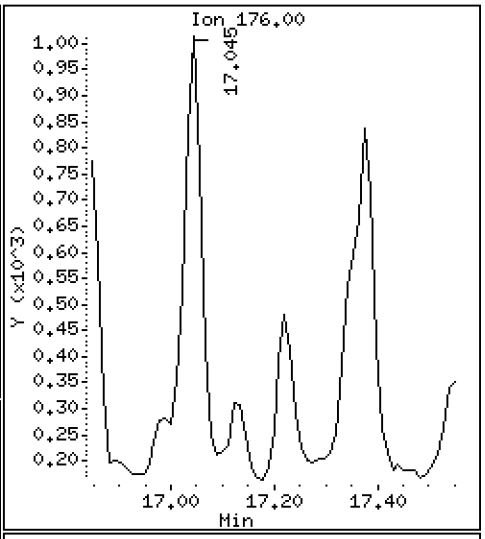
Column phase: Rxi-17Sil MS

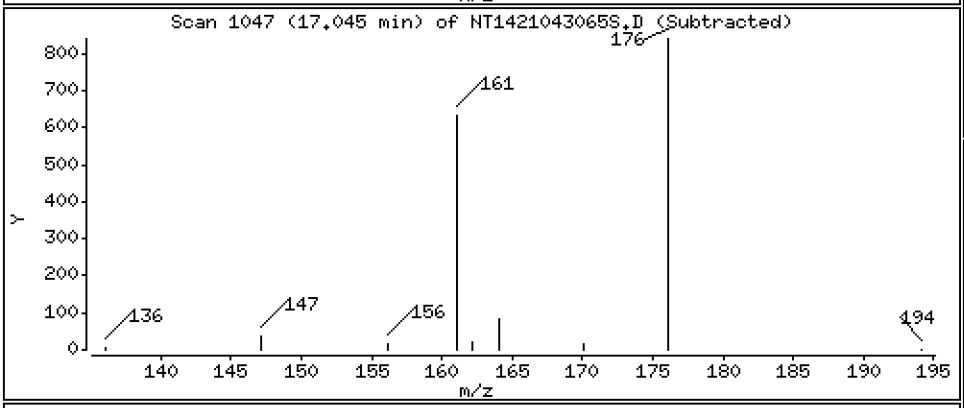
Column diameter: 0.25

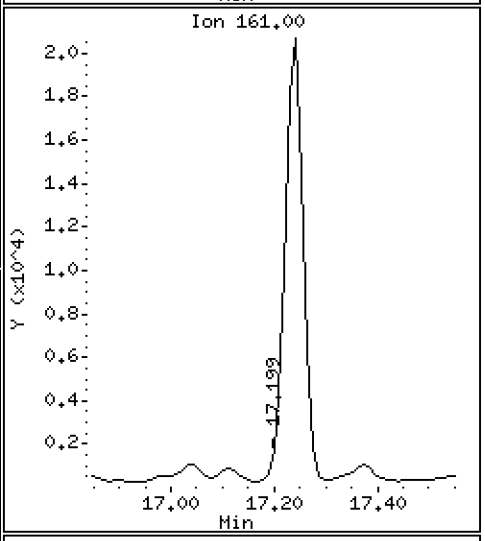
15 C3_Benzothiophenes

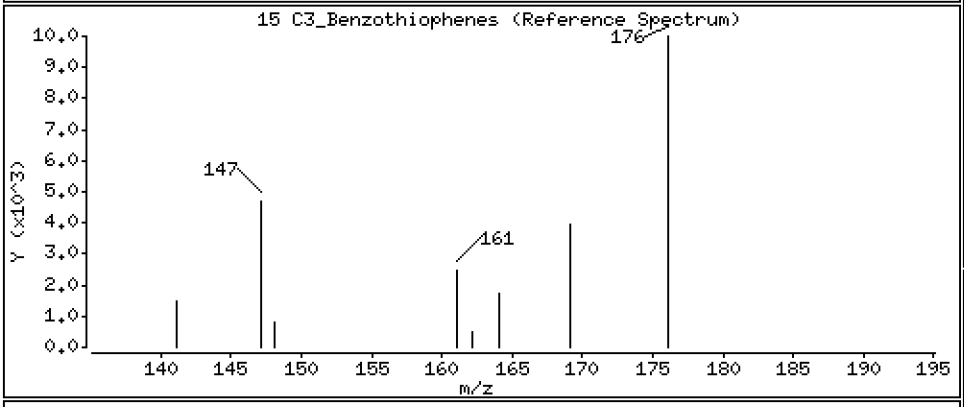
Concentration: 0.04052 ug/mL

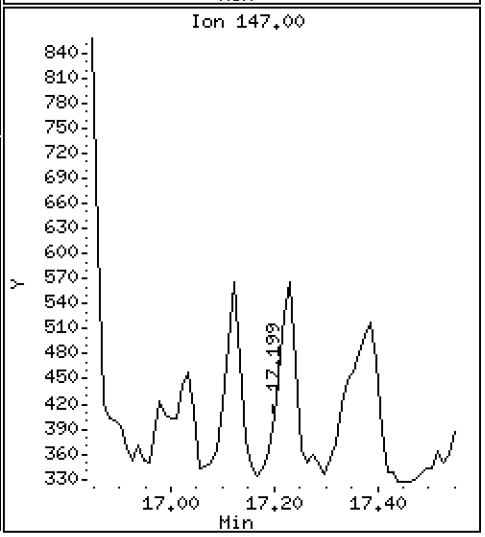


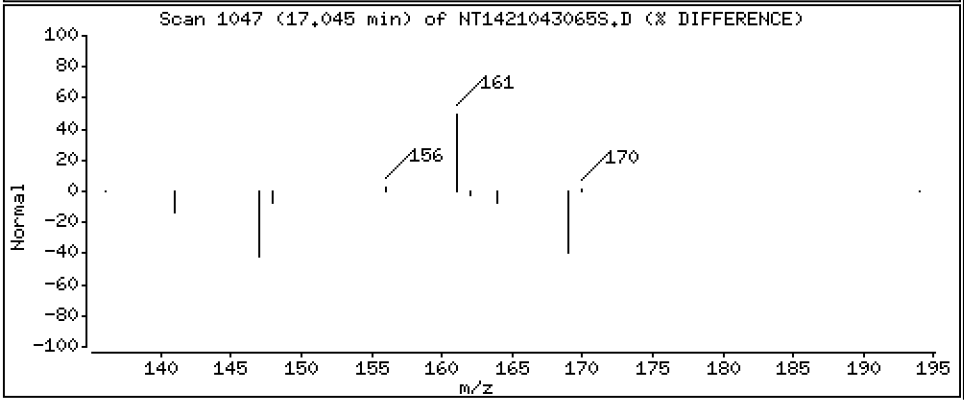



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

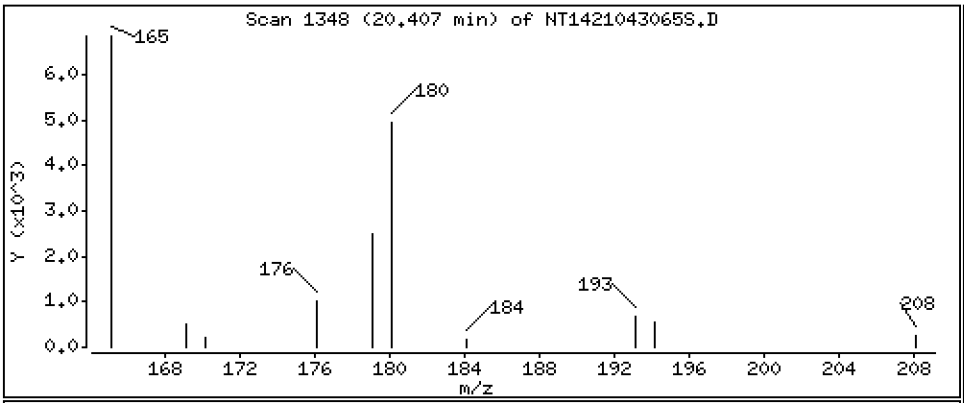
Operator: VTS

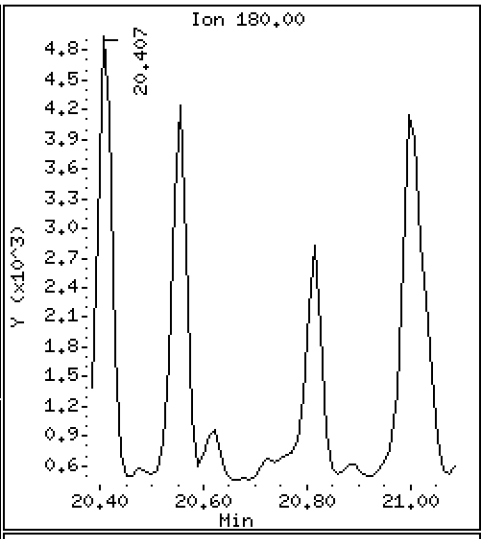
Column phase: Rxi-17Sil MS

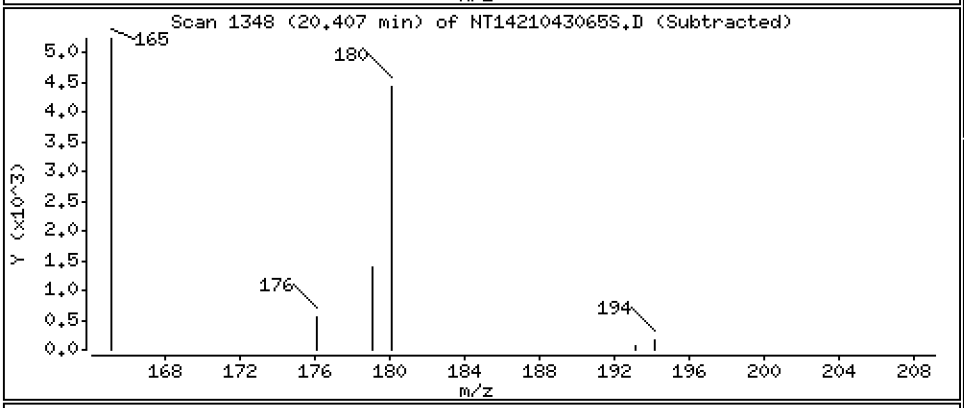
Column diameter: 0.25

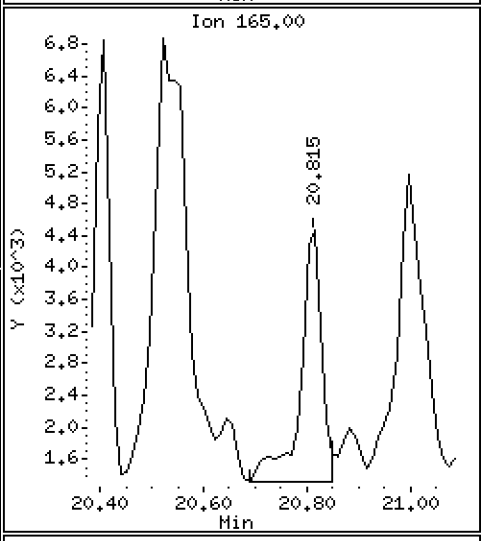
27 C1-Fluorenes

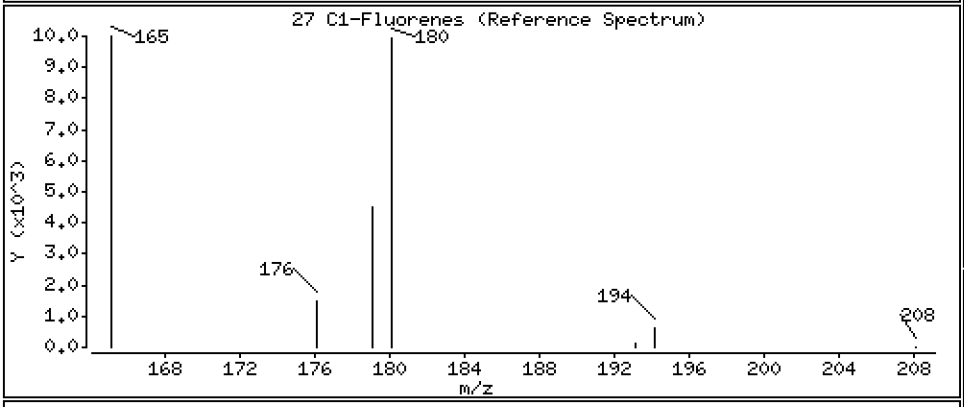
Concentration: 0.2145 ug/mL

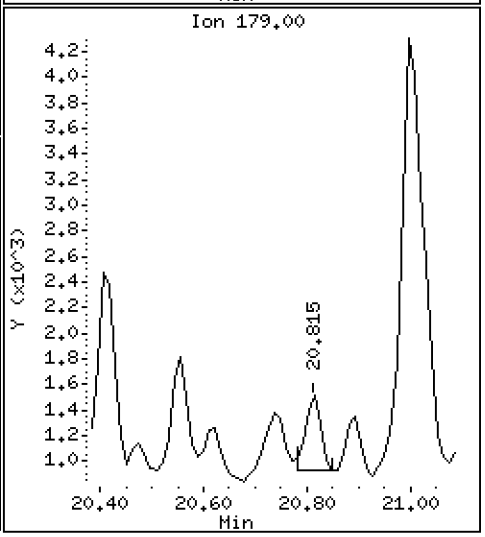


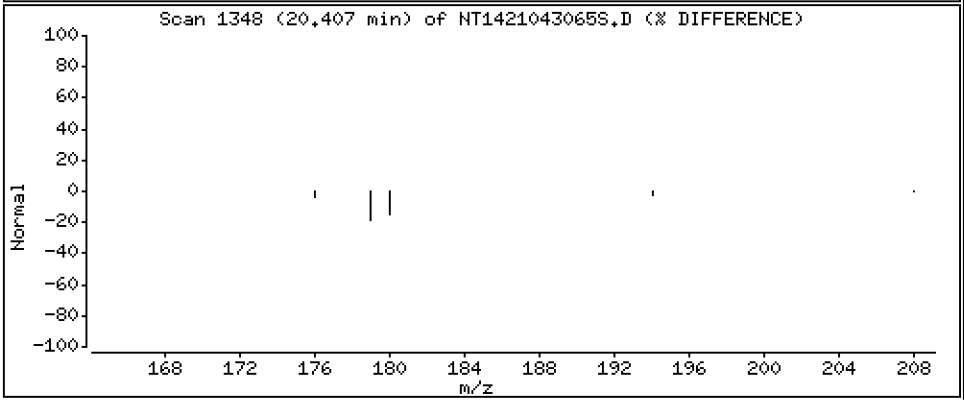



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

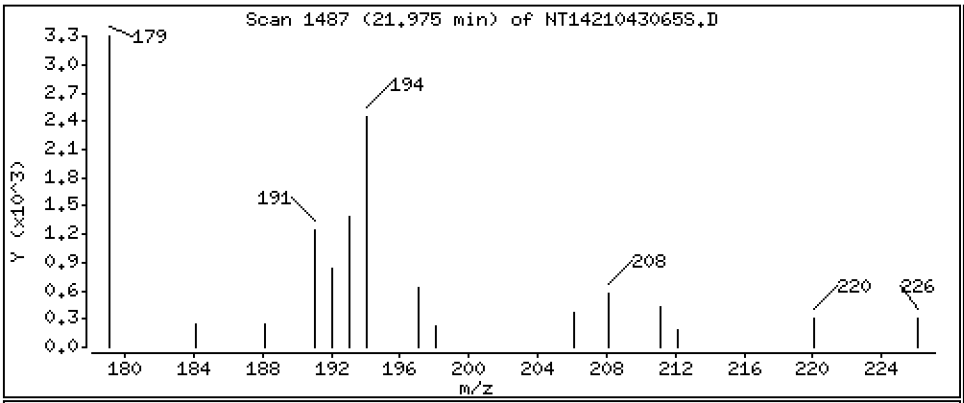
Operator: VTS

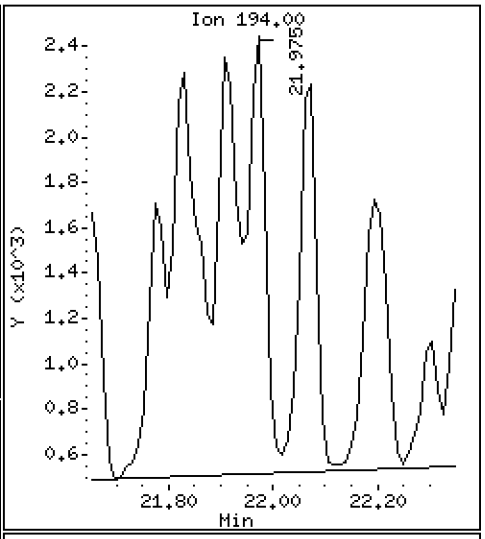
Column phase: Rxi-17Sil MS

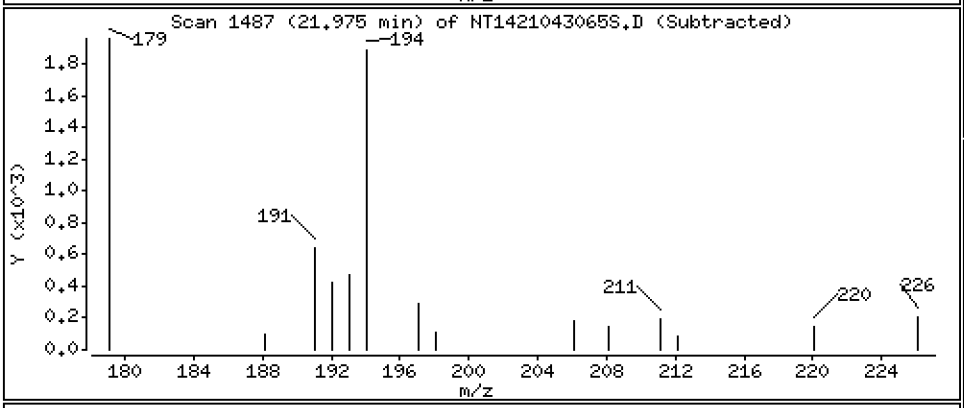
Column diameter: 0.25

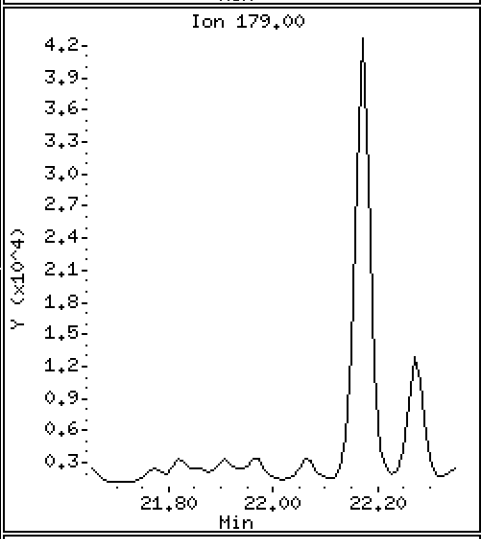
28 C2-Fluorenes

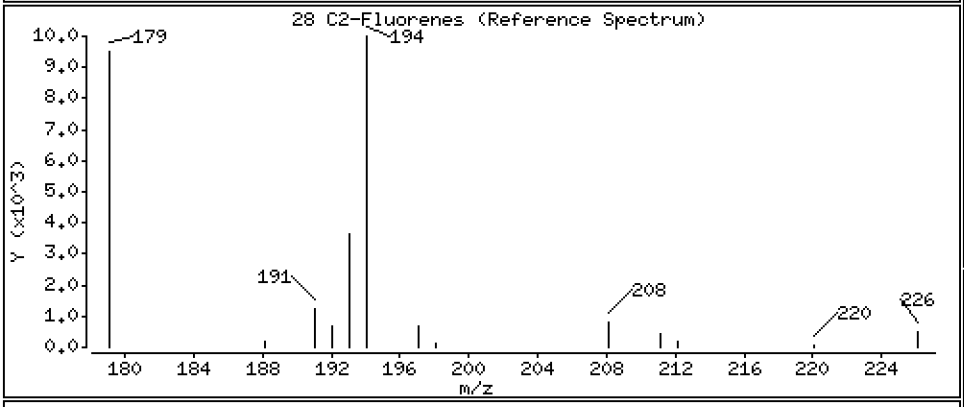
Concentration: 0.1908 ug/mL

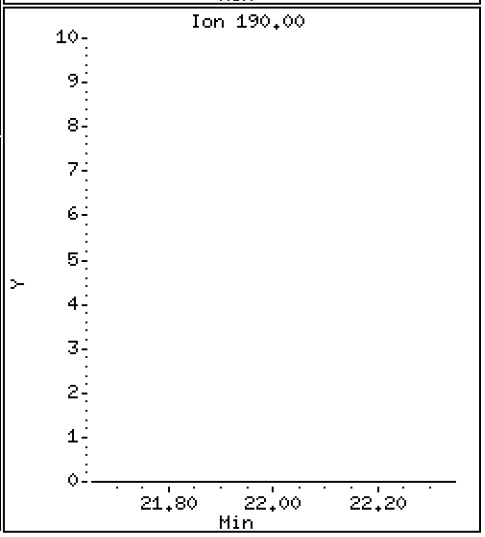


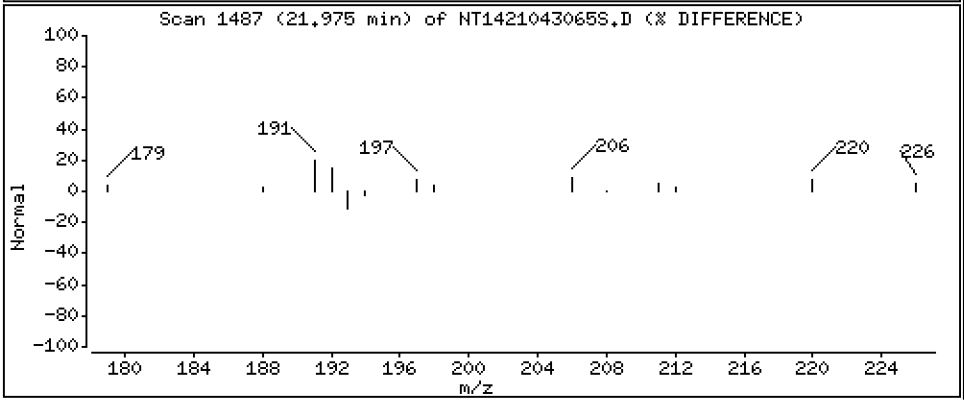



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

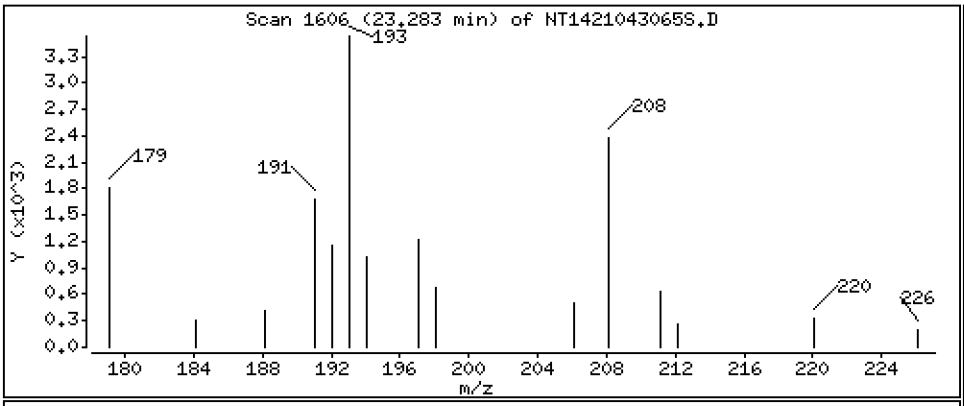
Operator: VTS

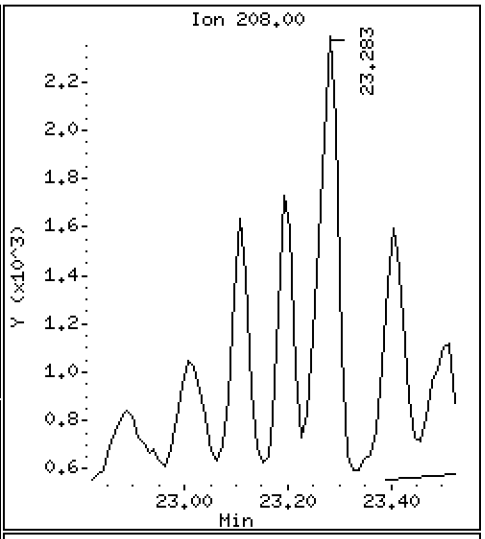
Column phase: Rxi-17Sil MS

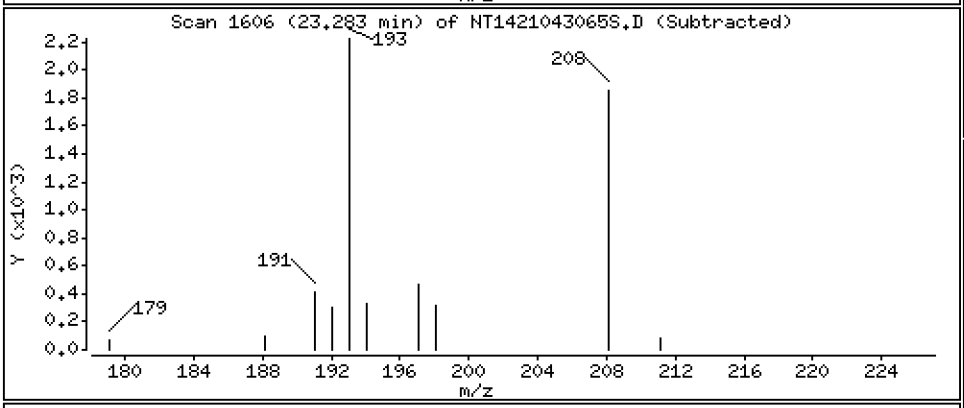
Column diameter: 0.25

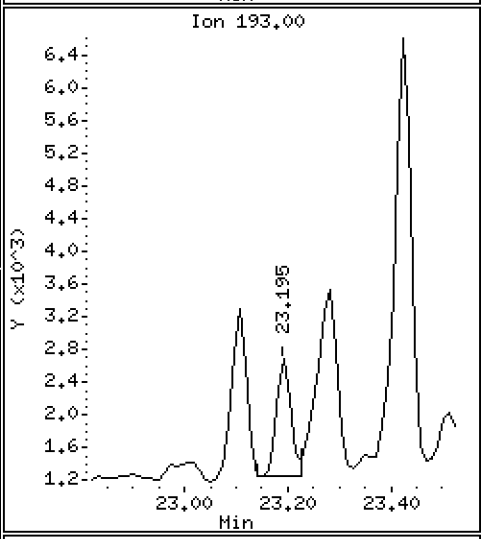
29 C3-Fluorenes

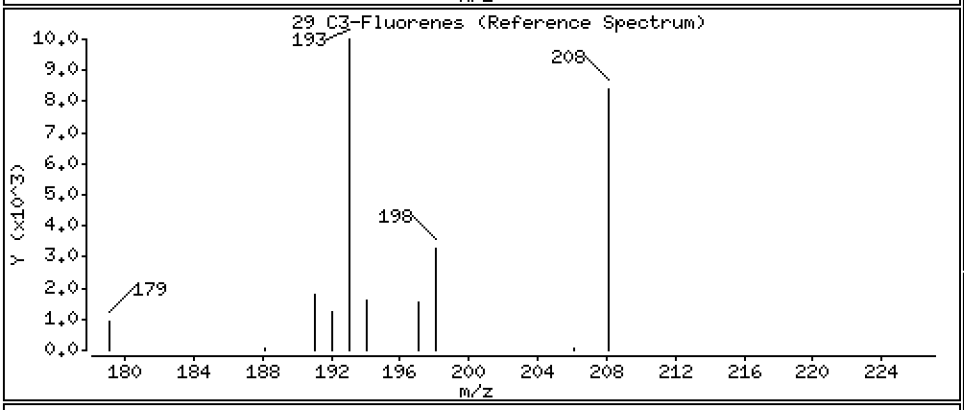
Concentration: 0.2164 ug/mL

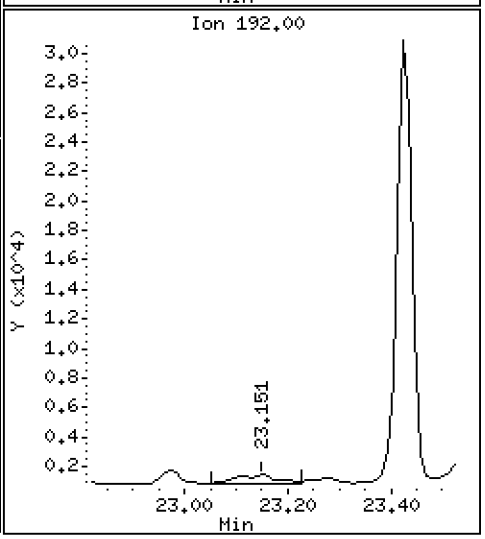


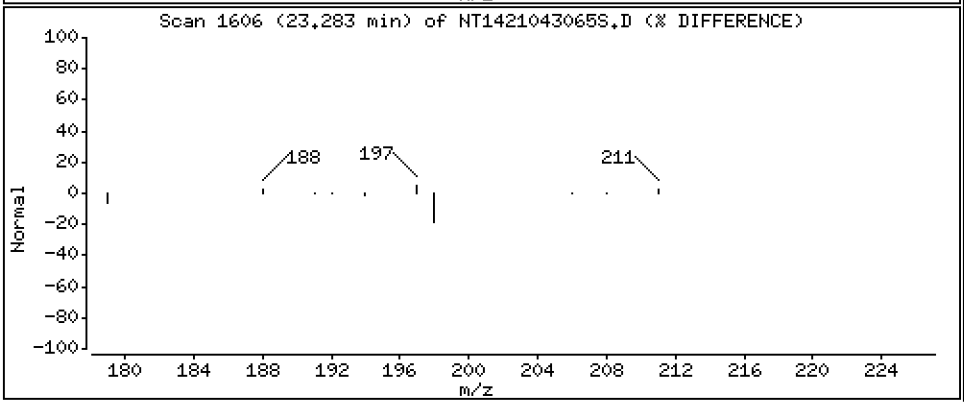



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

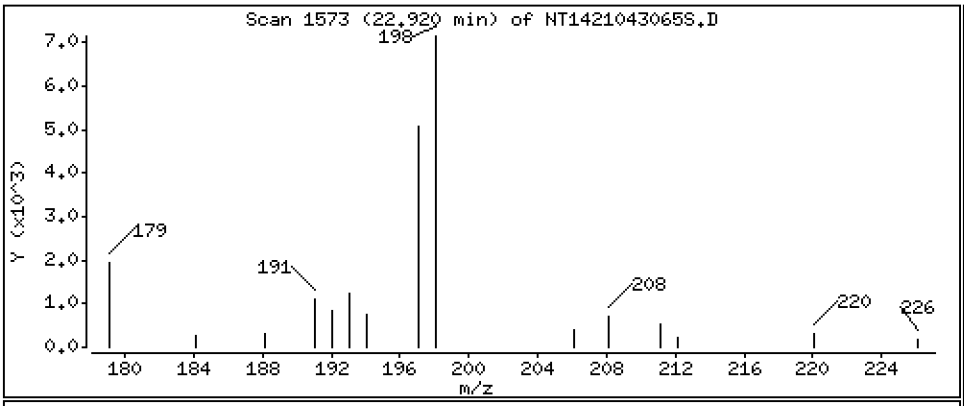
Operator: VTS

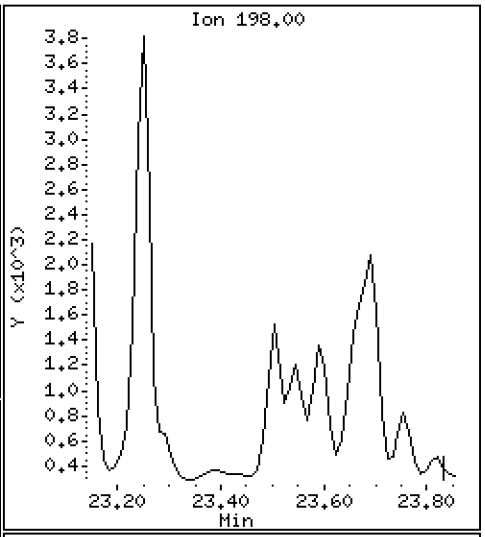
Column phase: Rxi-17Sil MS

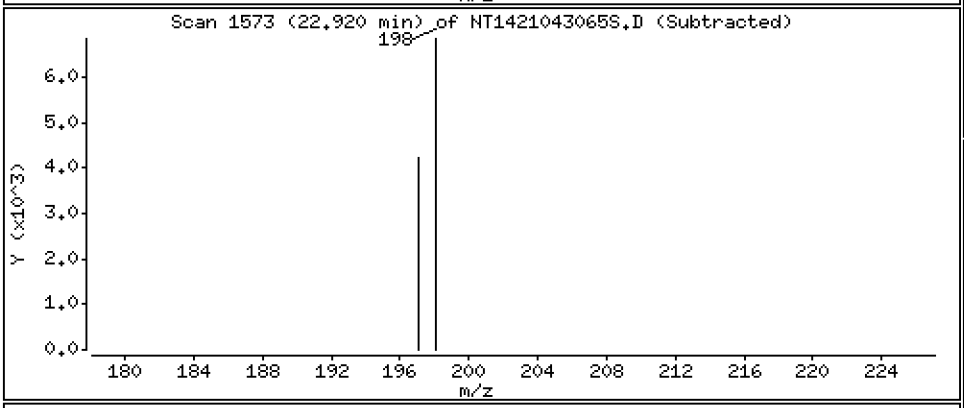
Column diameter: 0.25

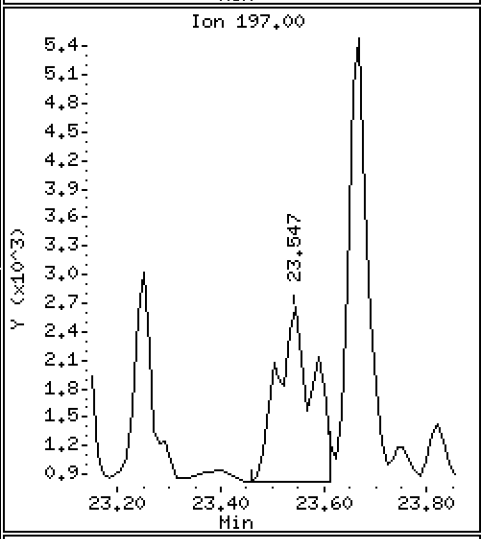
31 C1-Dibenzothiophenes

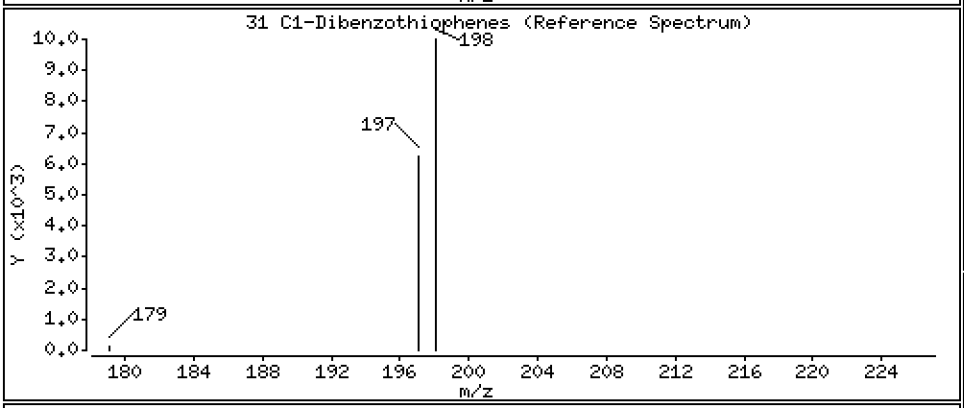
Concentration: 0.1854 ug/mL

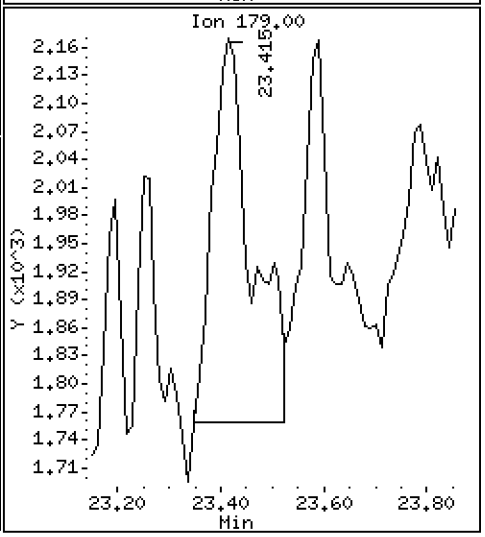


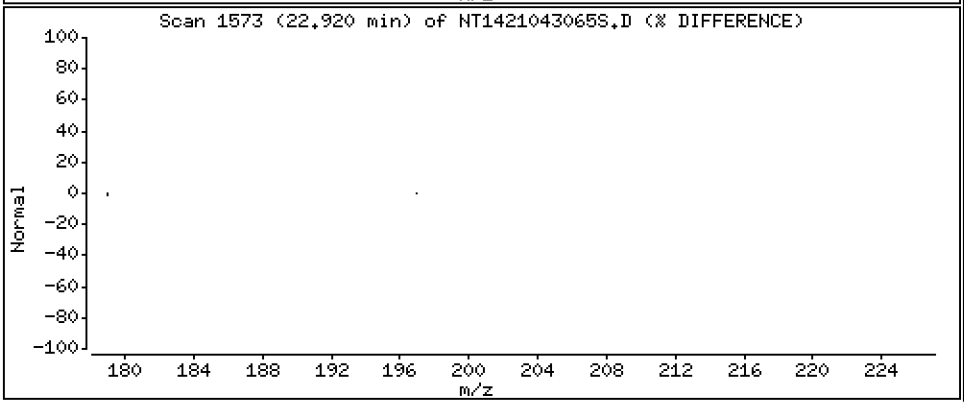



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

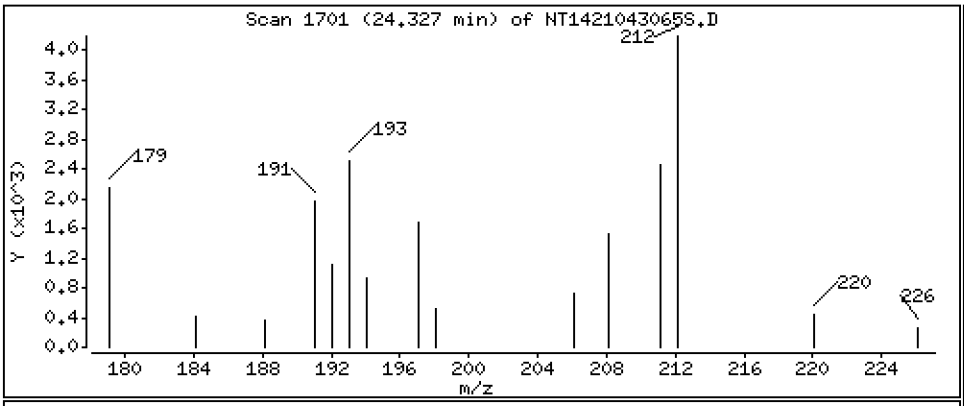
Operator: VTS

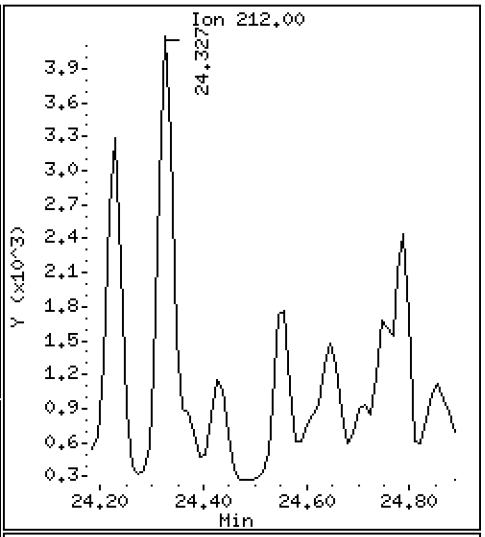
Column phase: Rxi-17Sil MS

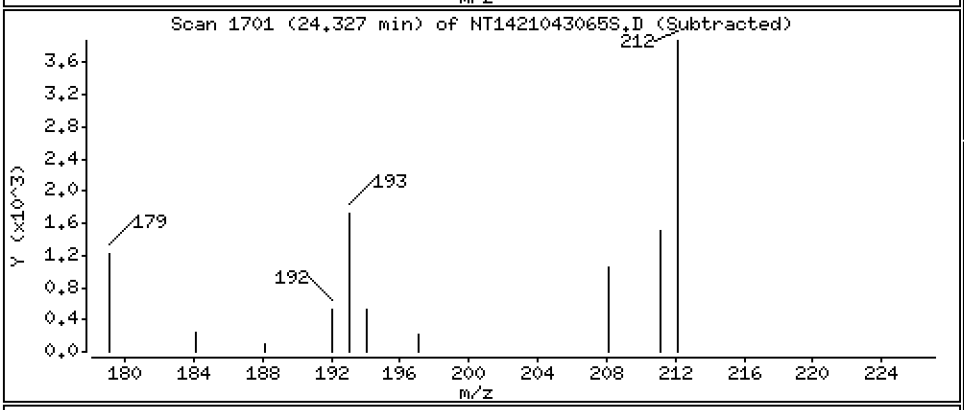
Column diameter: 0.25

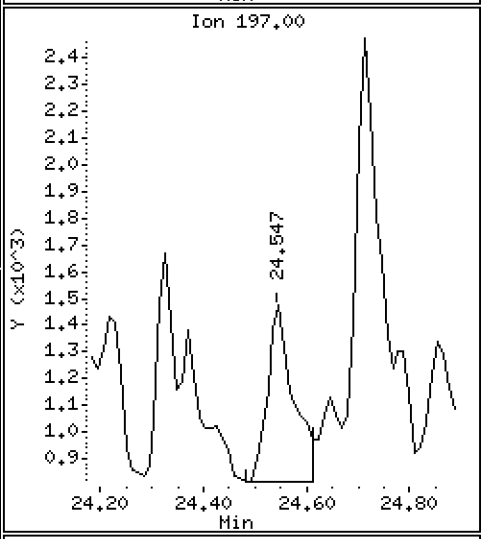
32 C2-Dibenzothiophenes

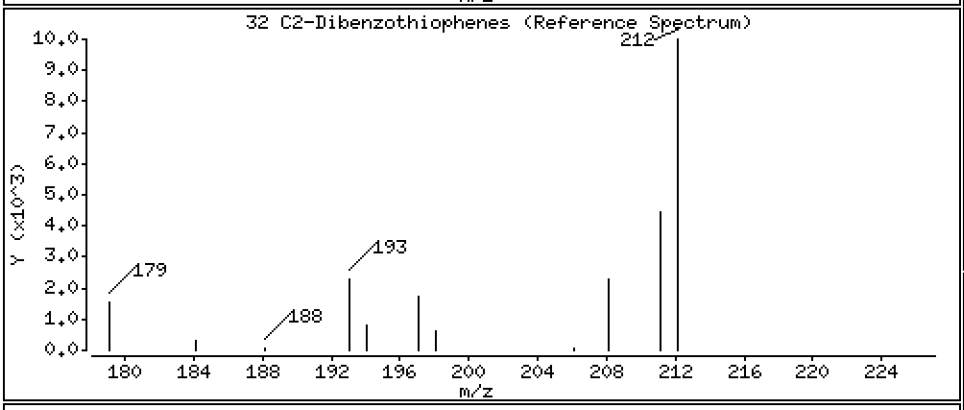
Concentration: 0.2438 ug/mL

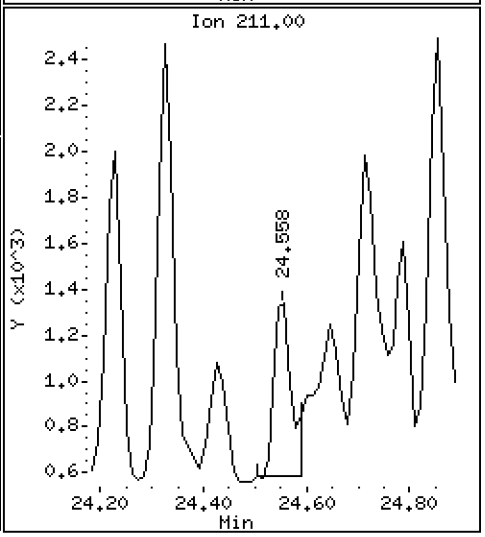


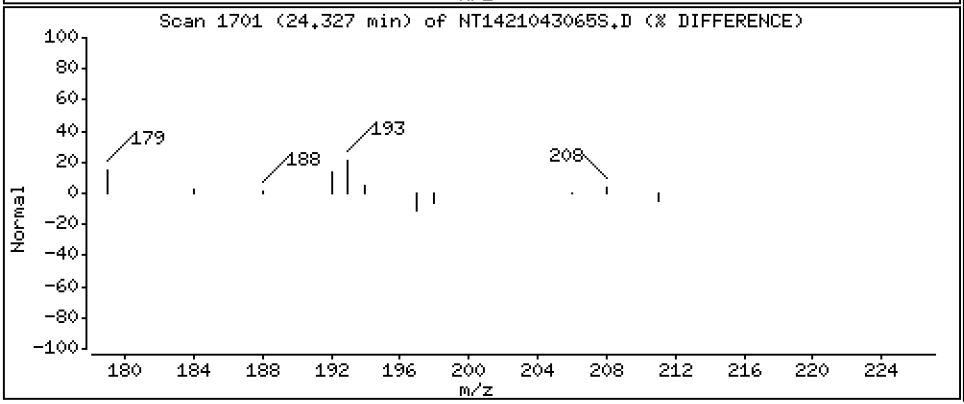



Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

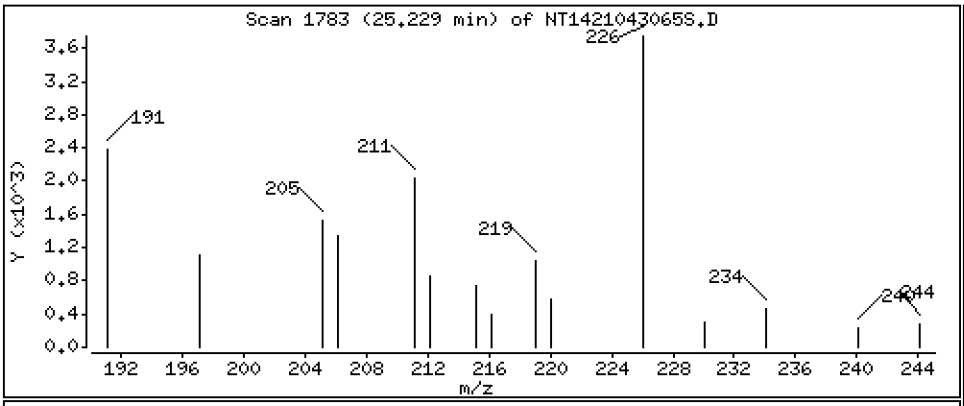
Operator: VTS

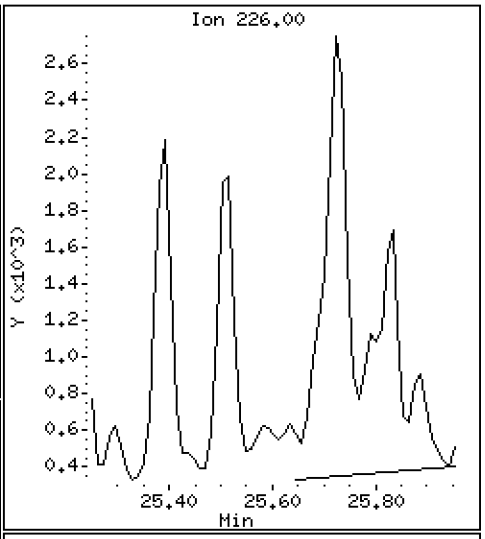
Column phase: Rxi-17Sil MS

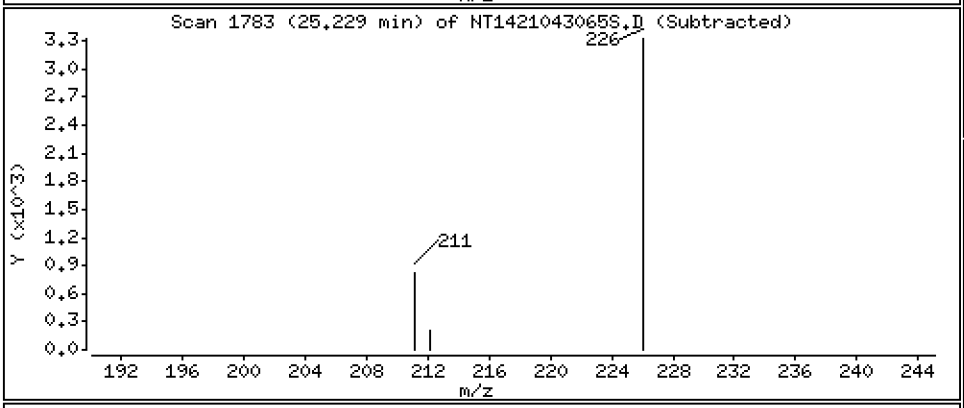
Column diameter: 0.25

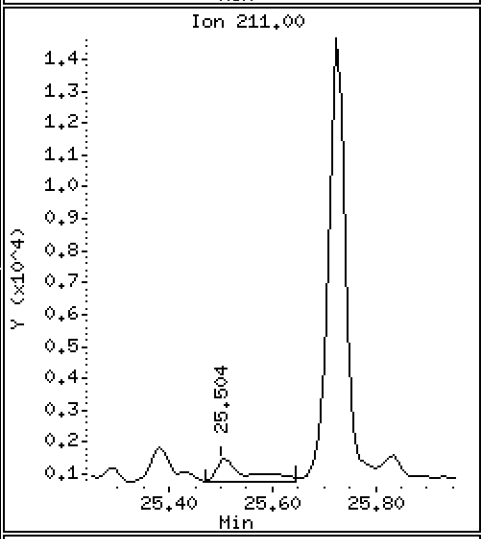
33 C3-Dibenzothiophenes

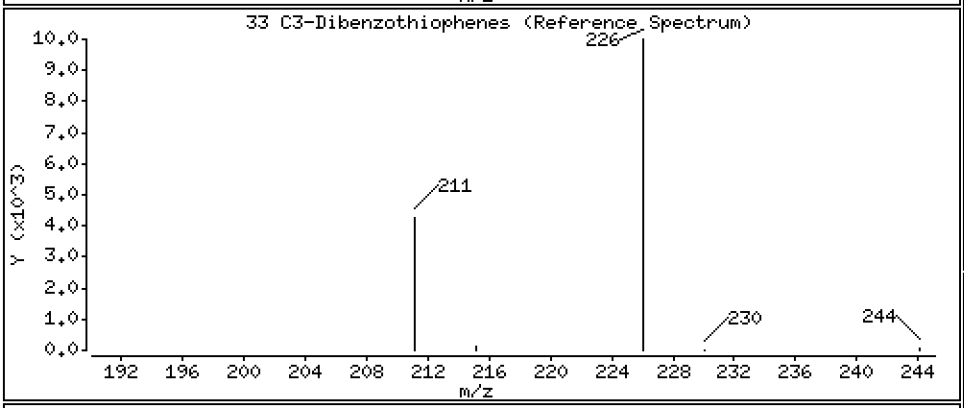
Concentration: 0.2607 ug/mL

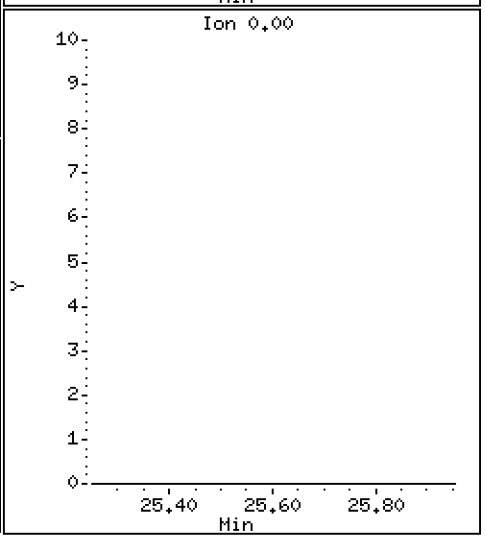


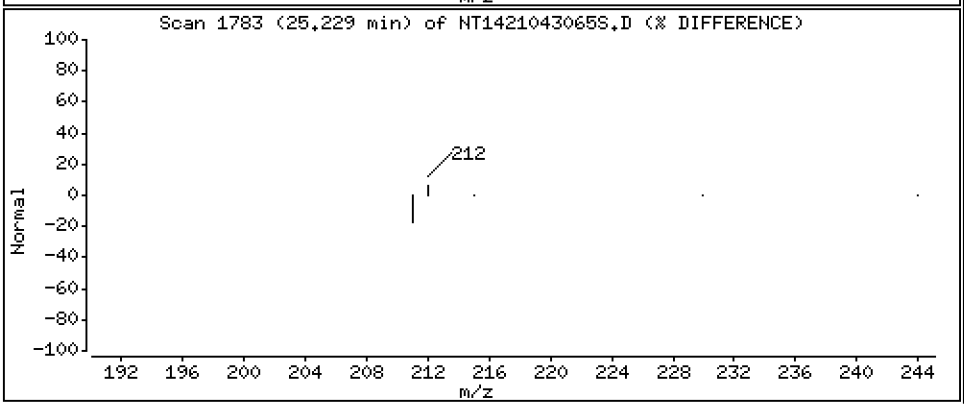



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

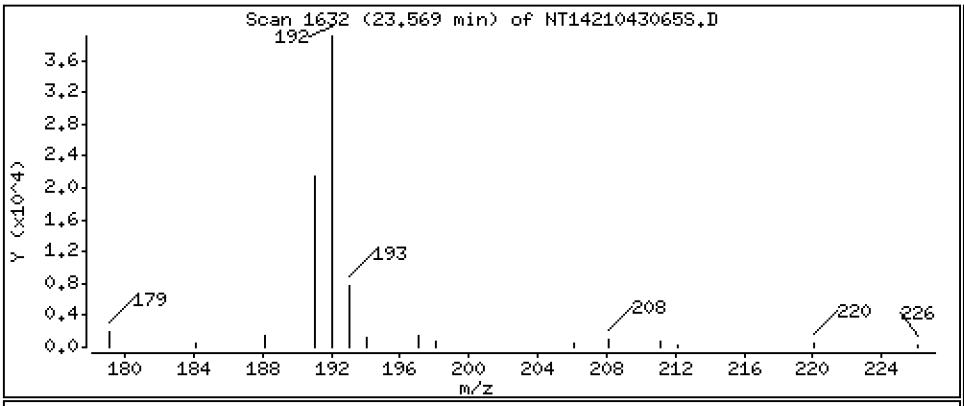
Operator: VTS

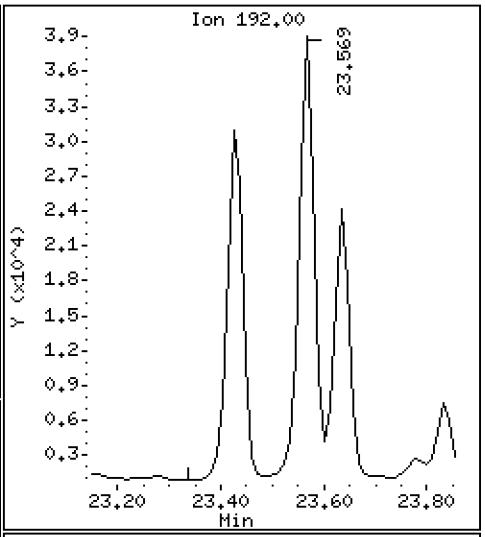
Column phase: Rxi-17Sil MS

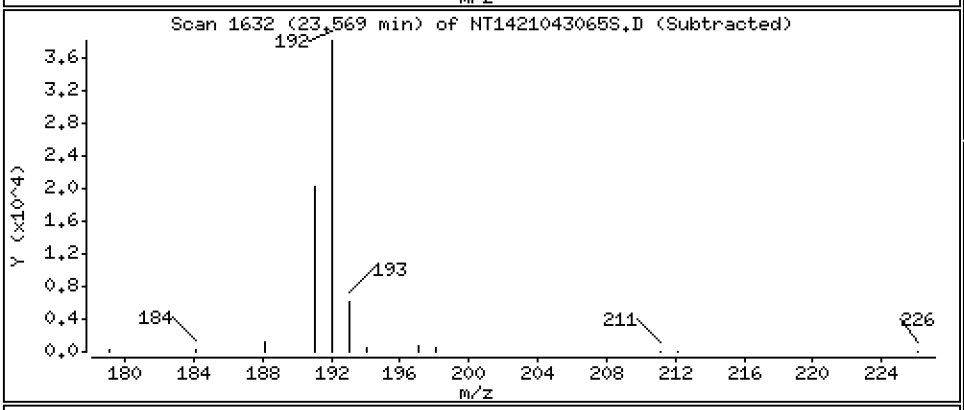
Column diameter: 0.25

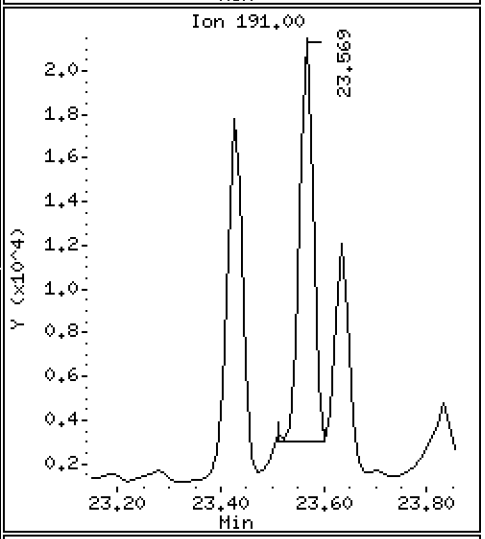
38 C1-Phenanthrenes/Anthracenes

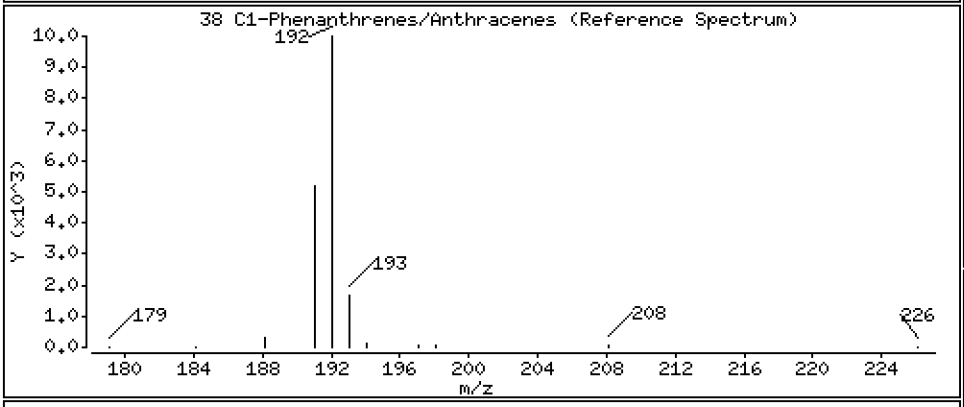
Concentration: 0.9579 ug/mL

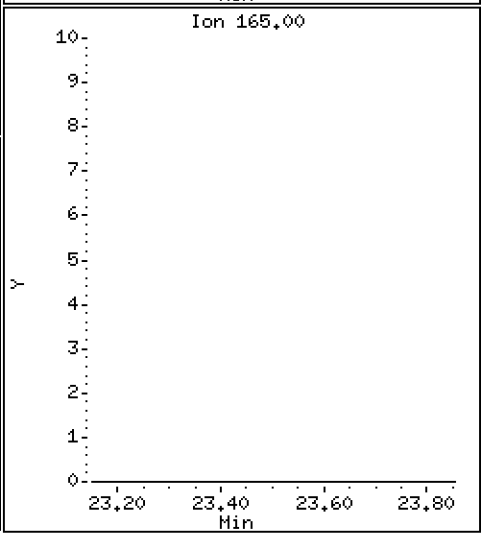


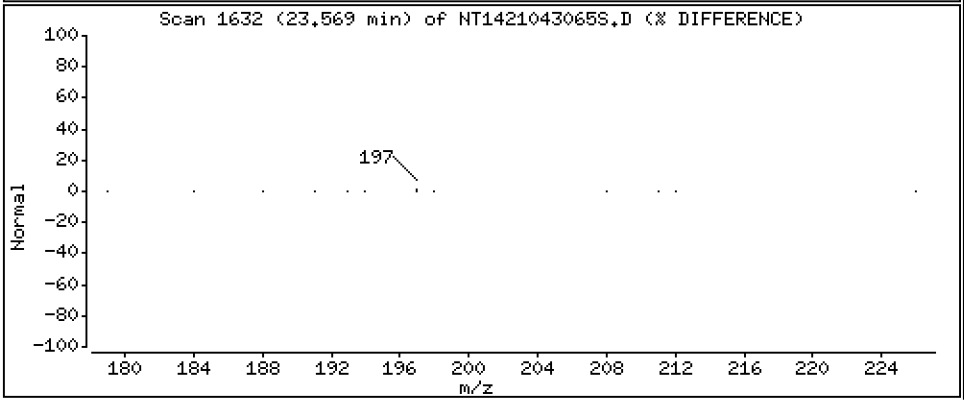



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

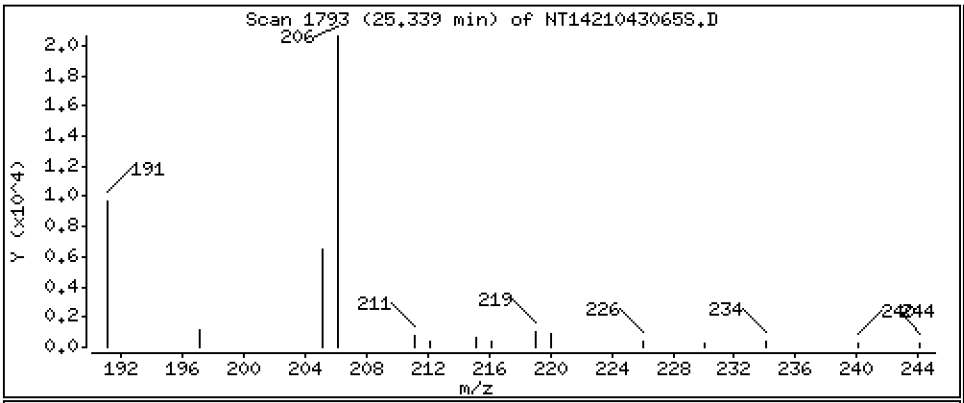
Operator: VTS

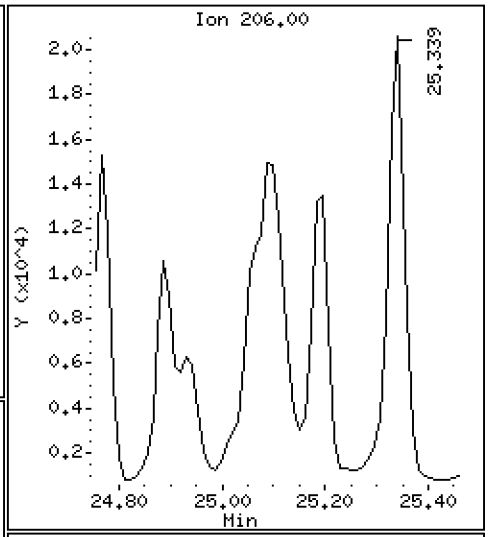
Column phase: Rxi-17Sil MS

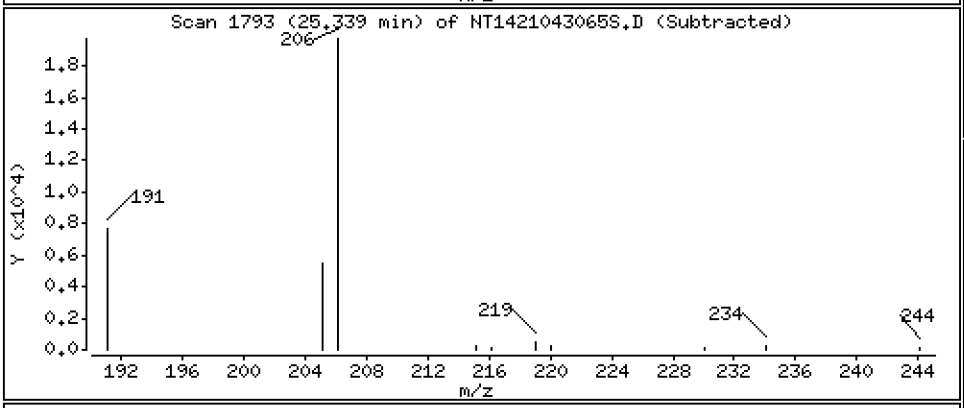
Column diameter: 0.25

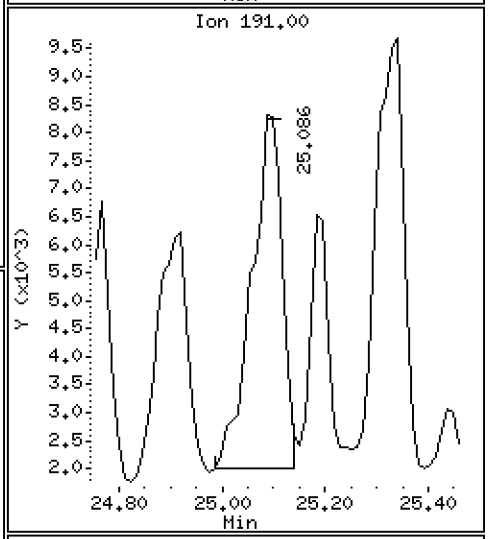
39 C2-Phenanthrenes/Anthracenes

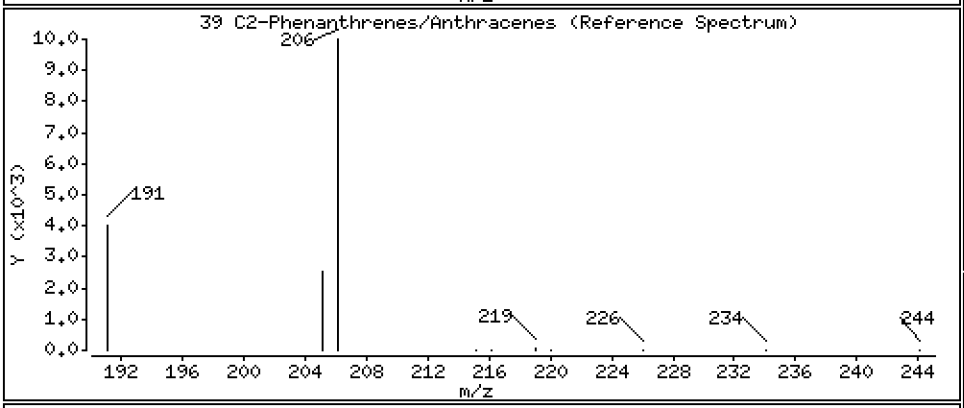
Concentration: 0.7379 ug/mL

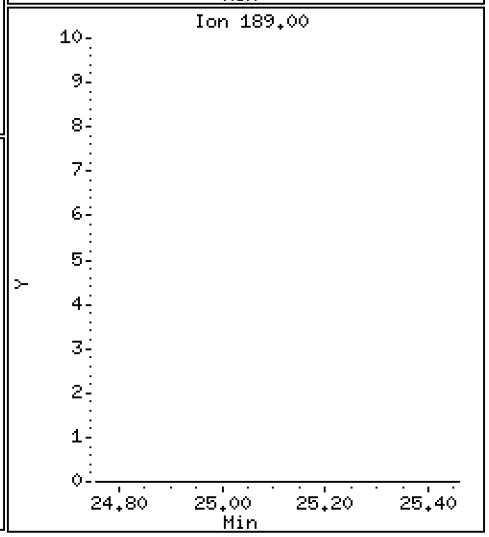


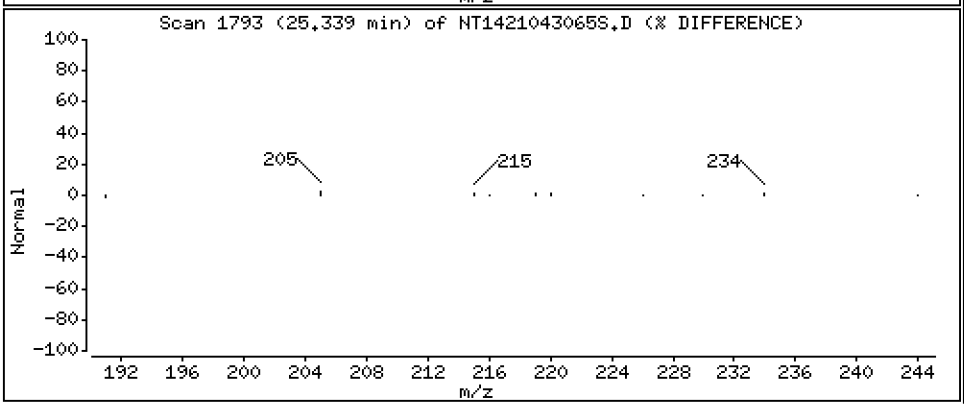



Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430650S.D

Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

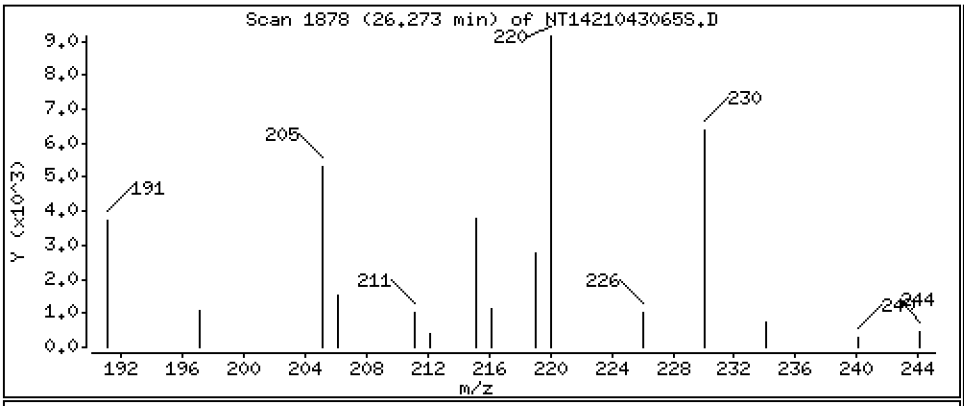
Operator: VTS

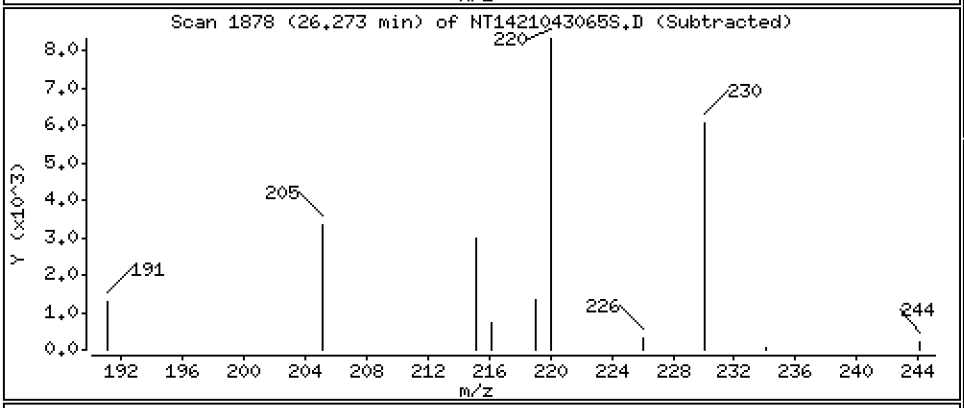
Column phase: Rxi-17Sil MS

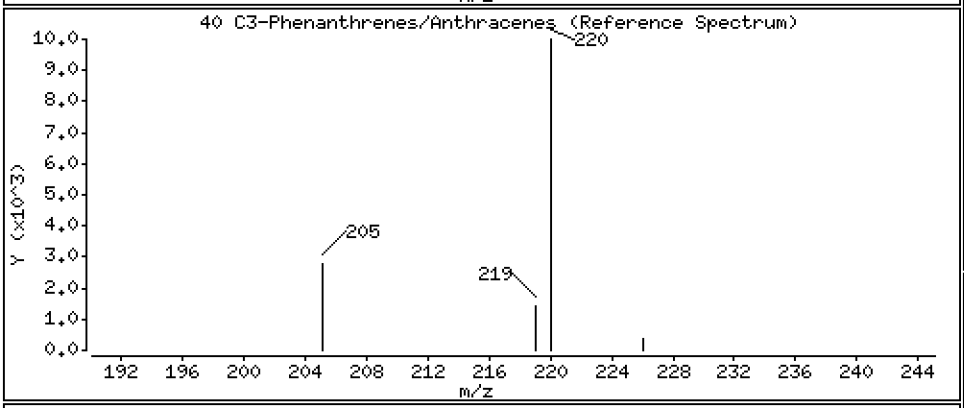
Column diameter: 0.25

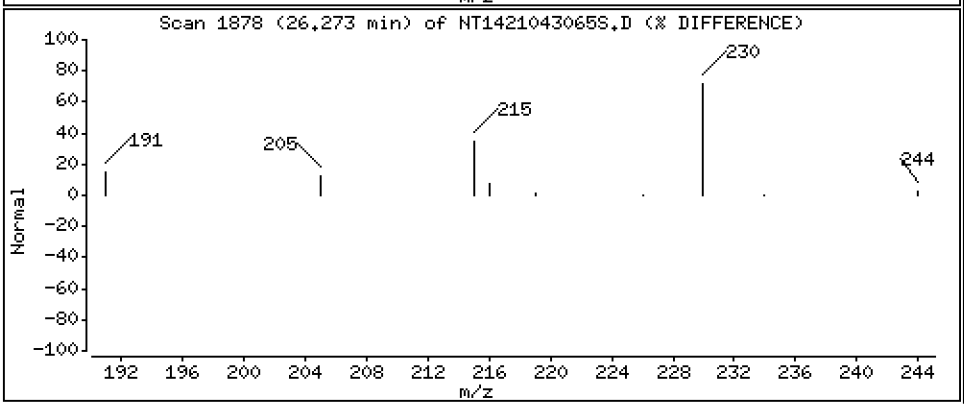
40 C3-Phenanthrenes/Anthracenes

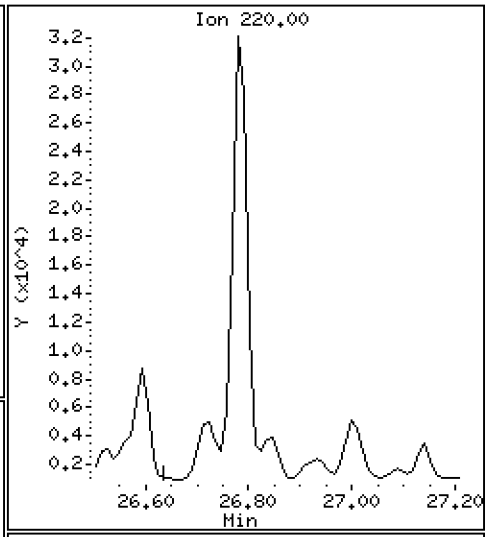
Concentration: 0.3825 ug/mL

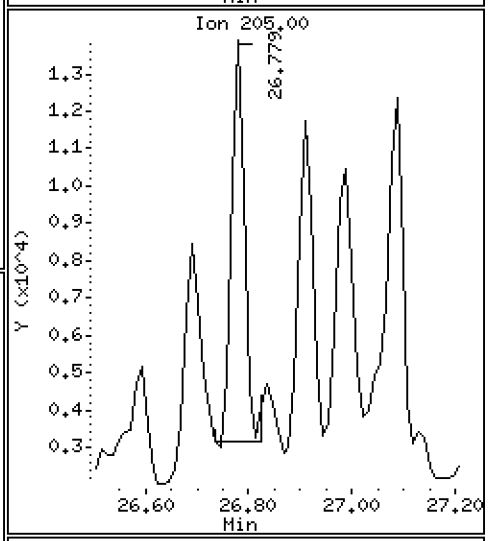


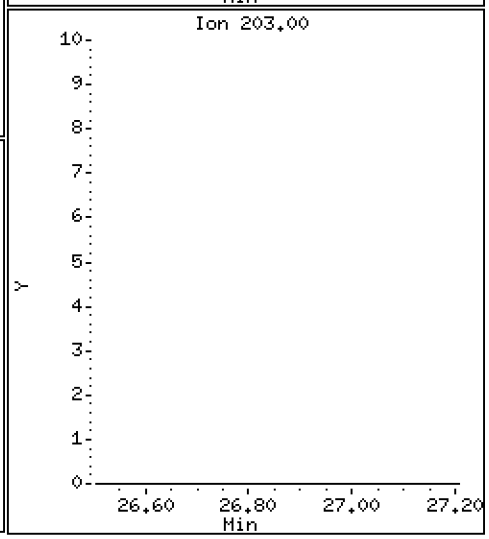



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

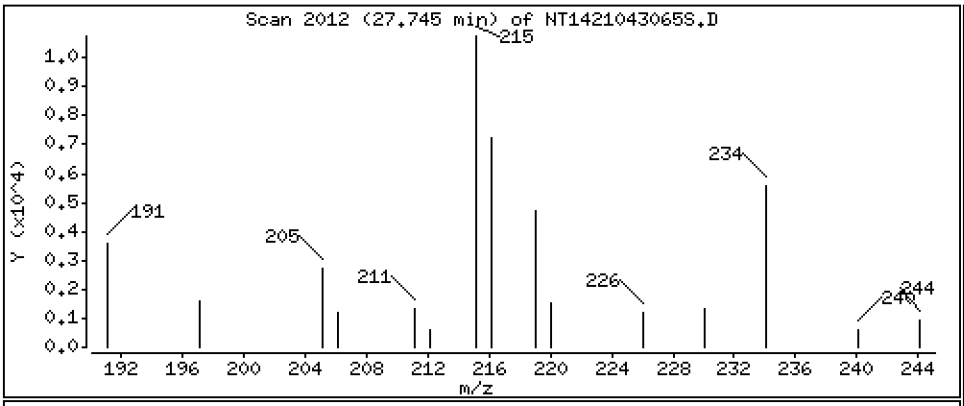
Operator: VTS

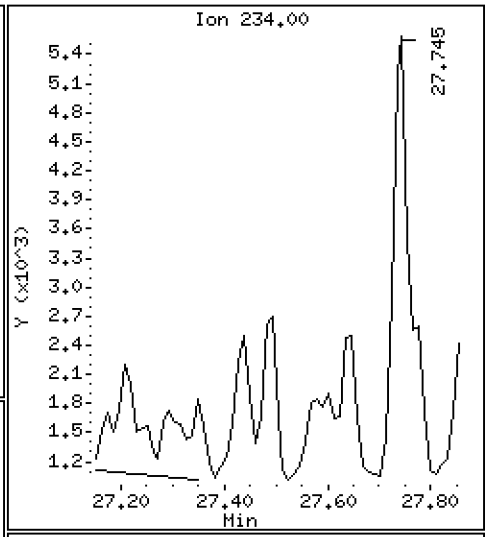
Column phase: Rxi-17Sil MS

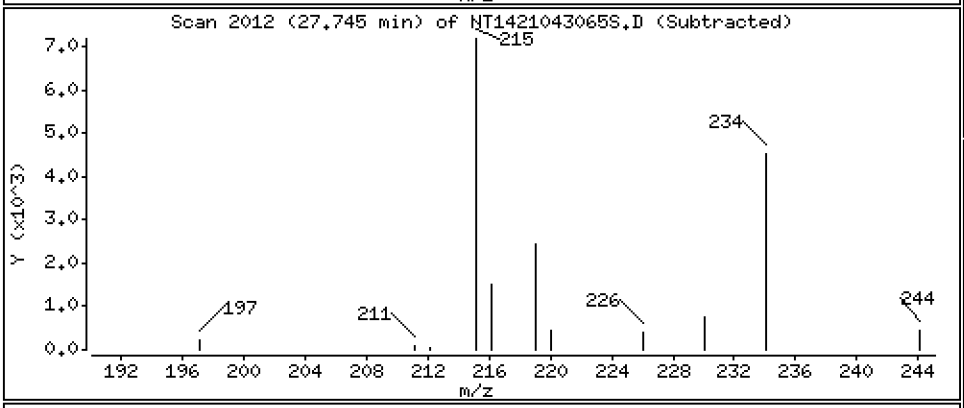
Column diameter: 0.25

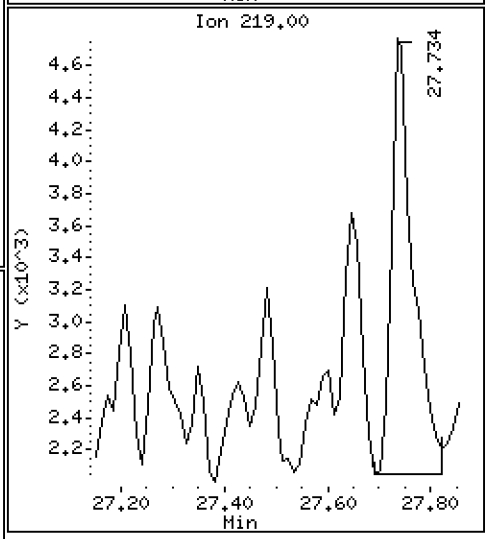
41 C4-Phenanthrenes/Anthracenes

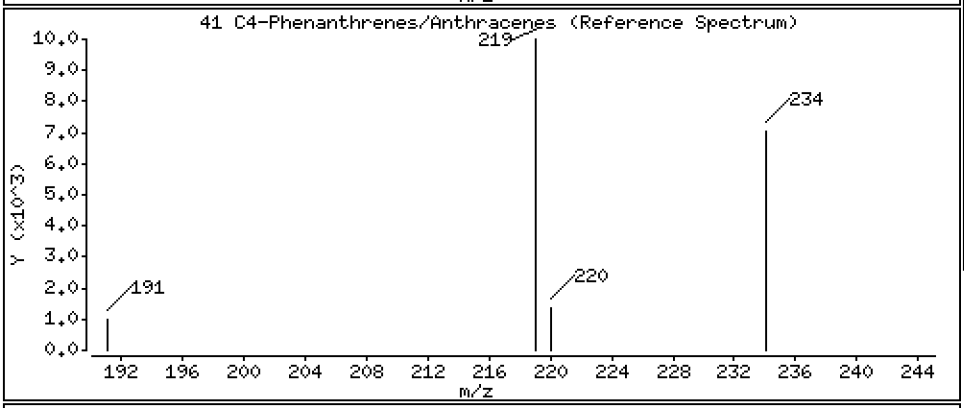
Concentration: 0.1606 ug/mL

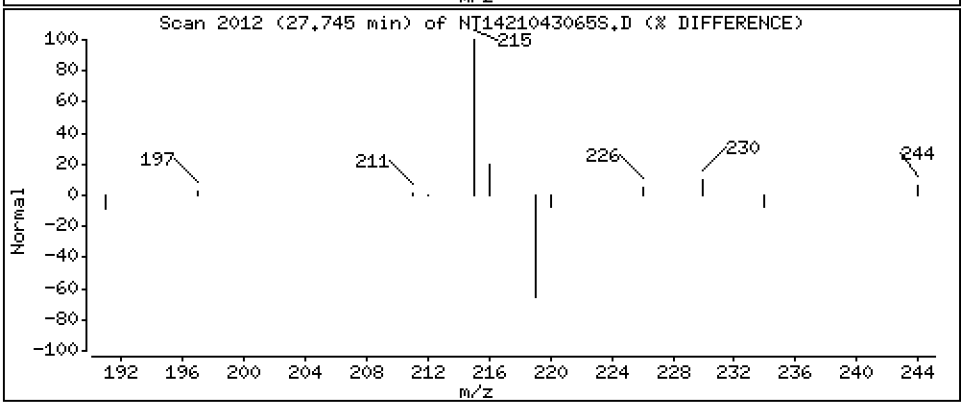


Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430655.D

Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

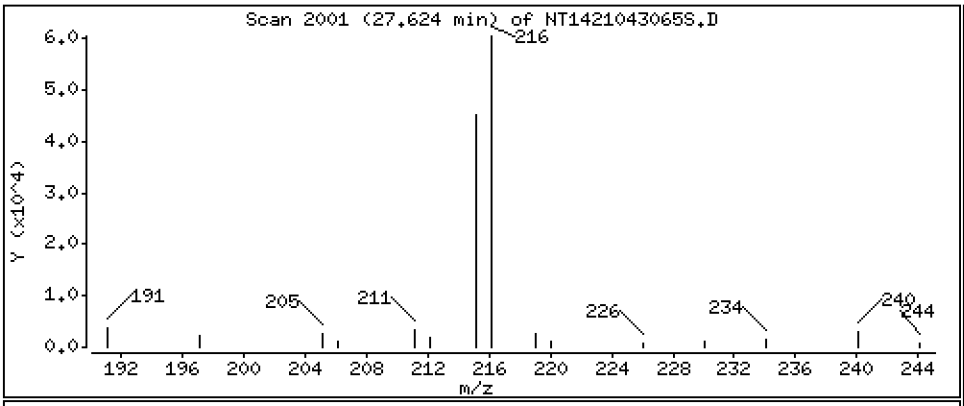
Operator: VTS

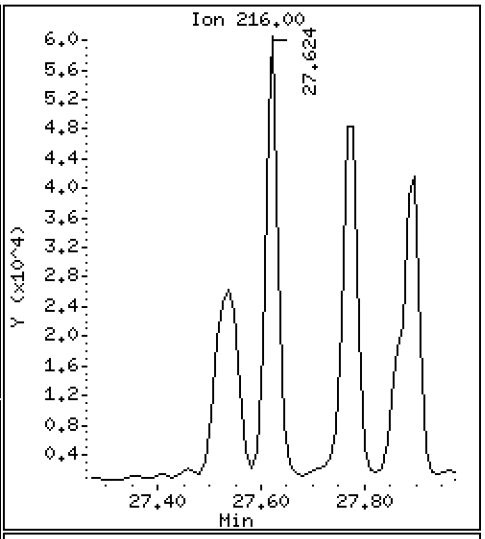
Column phase: Rxi-17Sil MS

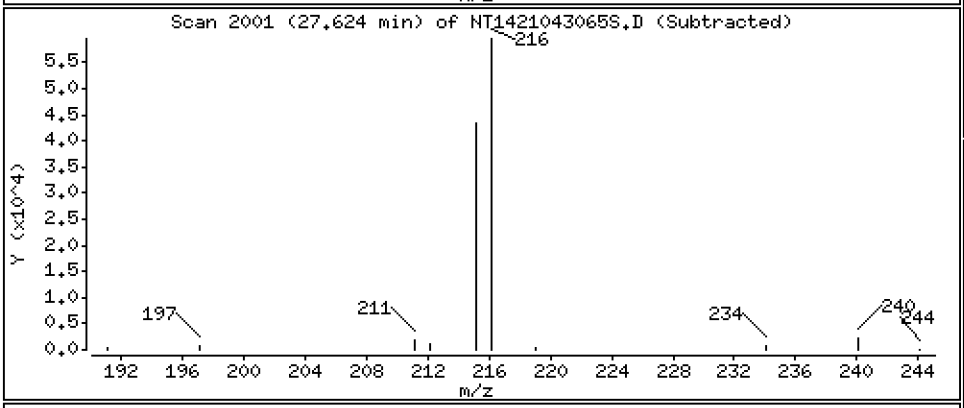
Column diameter: 0.25

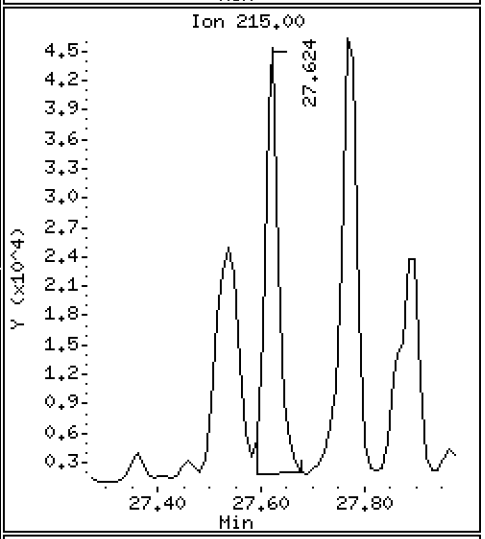
48 C1-Fluoranthenes/Pyrenes

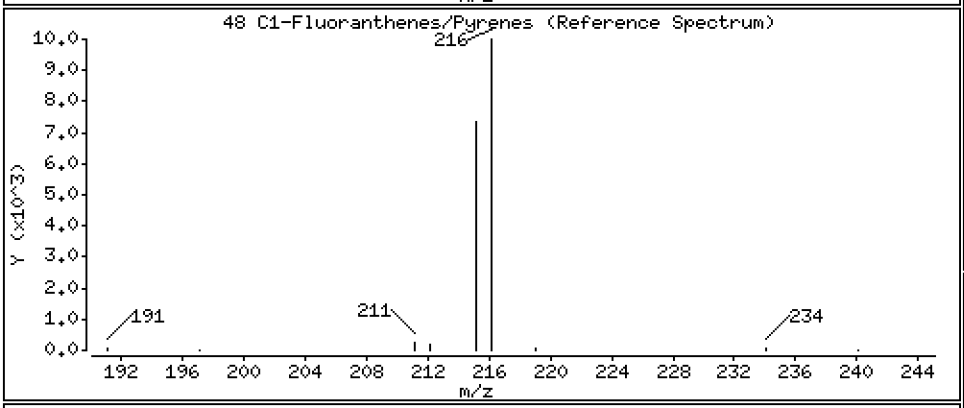
Concentration: 1.981 ug/mL

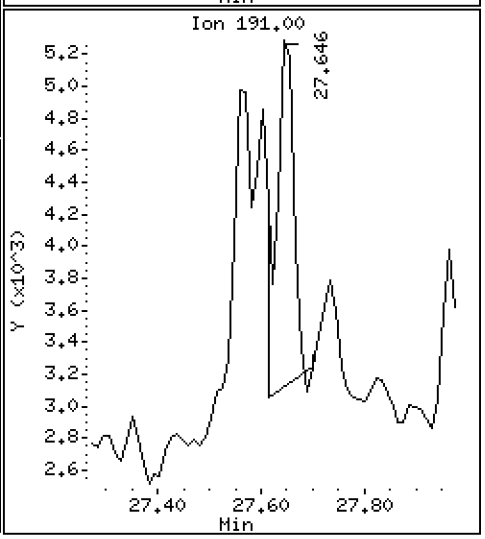


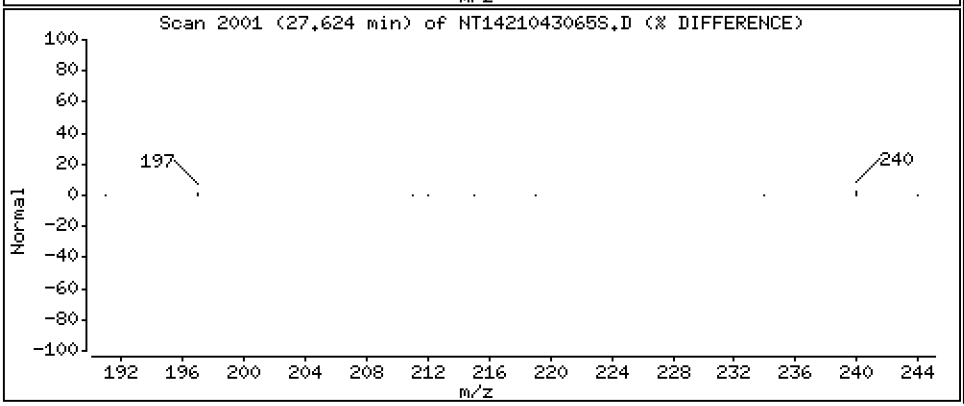



Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430655.D

Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

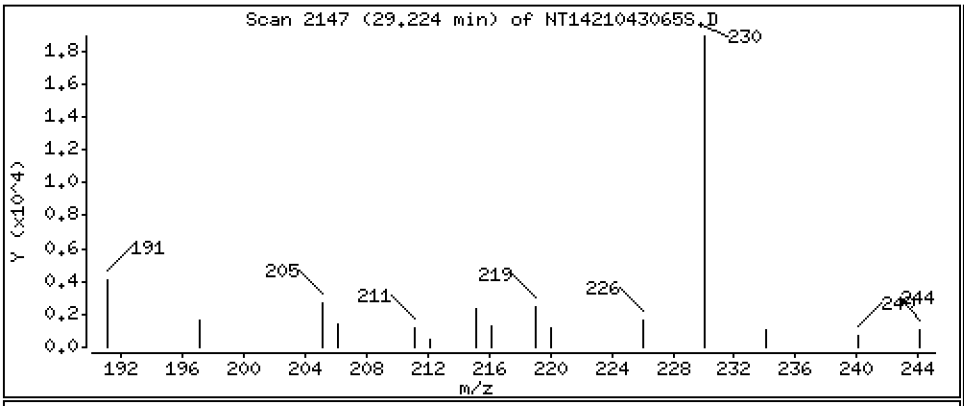
Operator: VTS

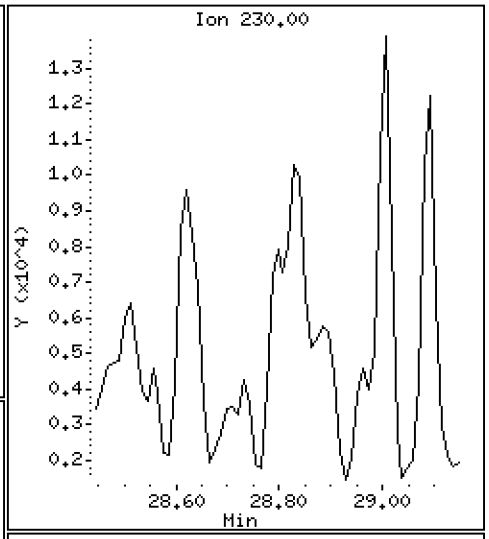
Column phase: Rxi-17Sil MS

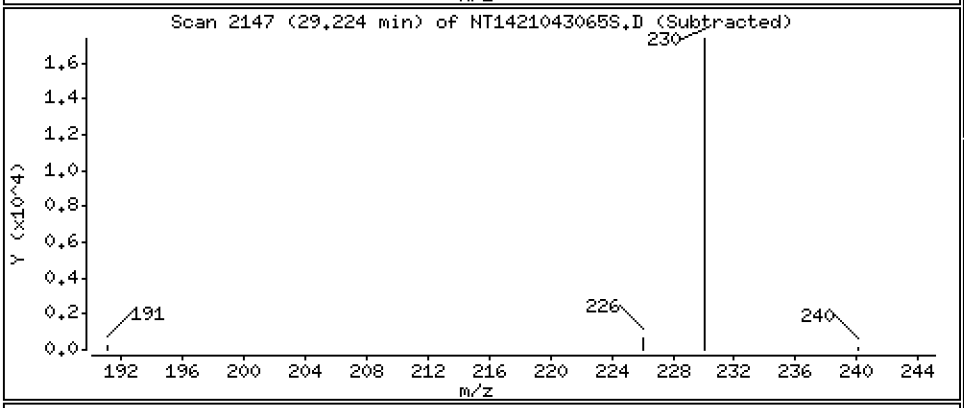
Column diameter: 0.25

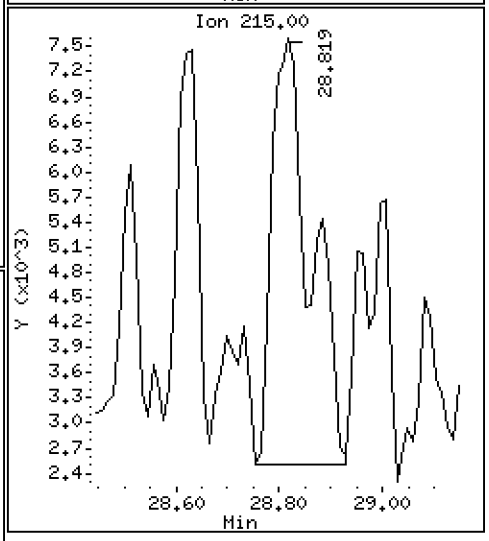
49 C2-Fluoranthenes/Pyrenes

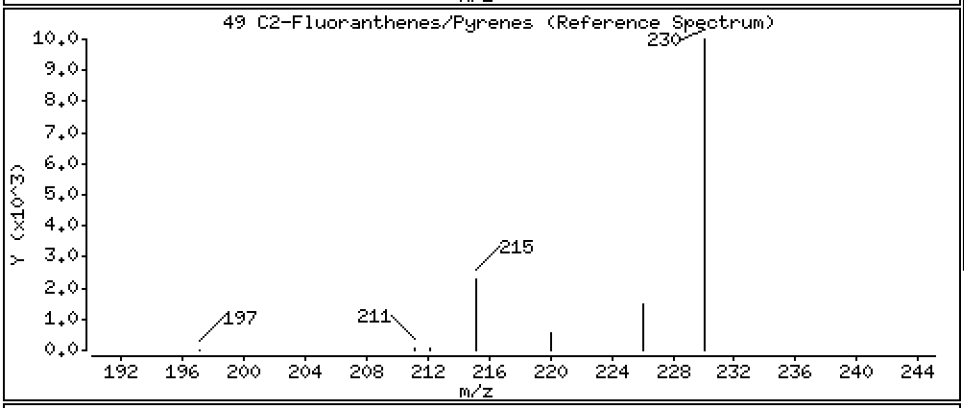
Concentration: 0.8942 ug/mL

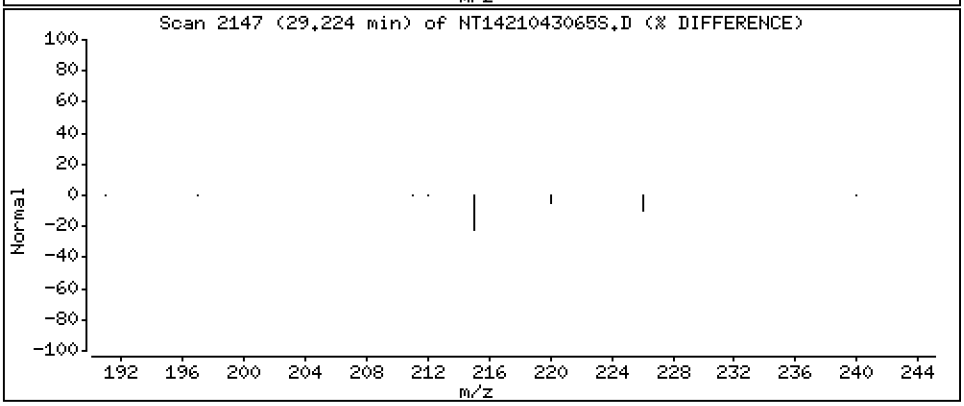


Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430655.D

Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

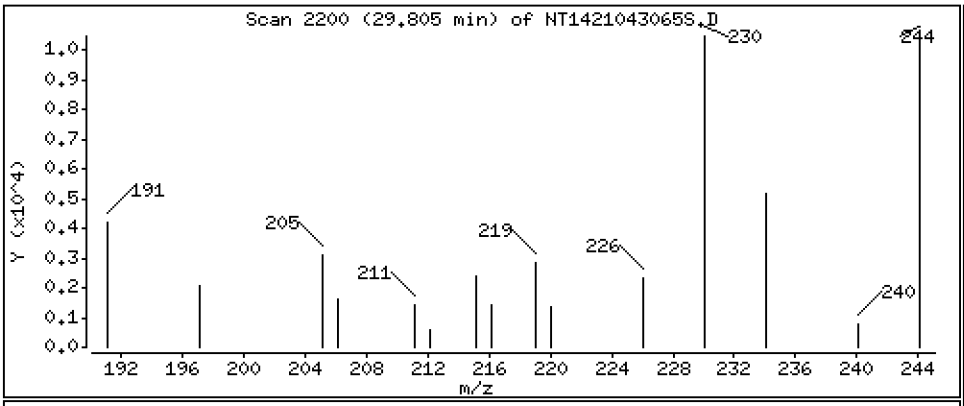
Operator: VTS

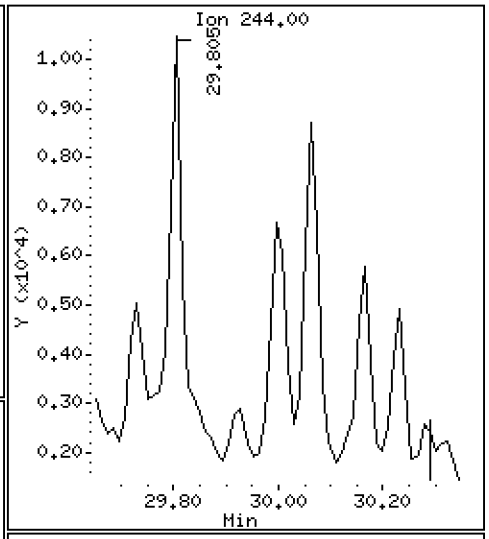
Column phase: Rxi-17Sil MS

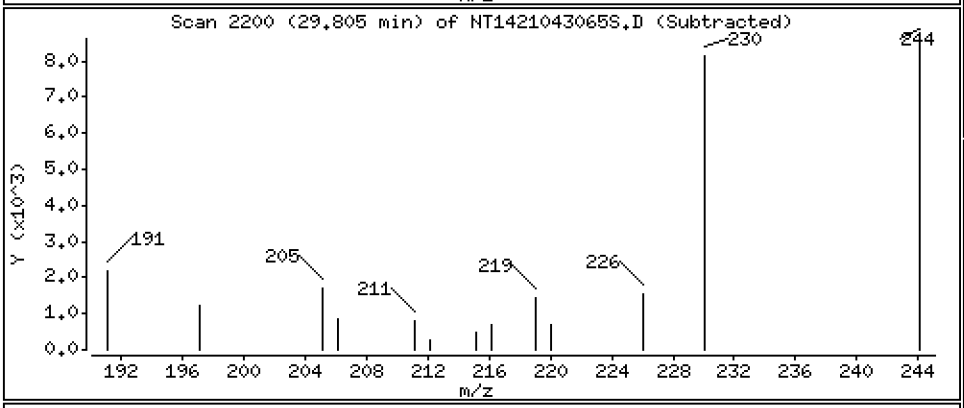
Column diameter: 0.25

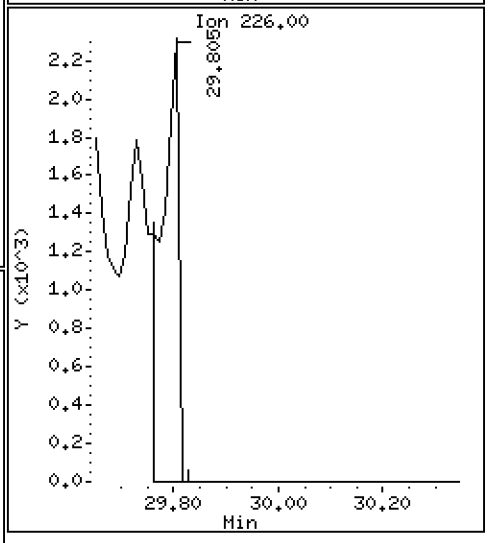
50 C3-Fluoranthenes/Pyrenes

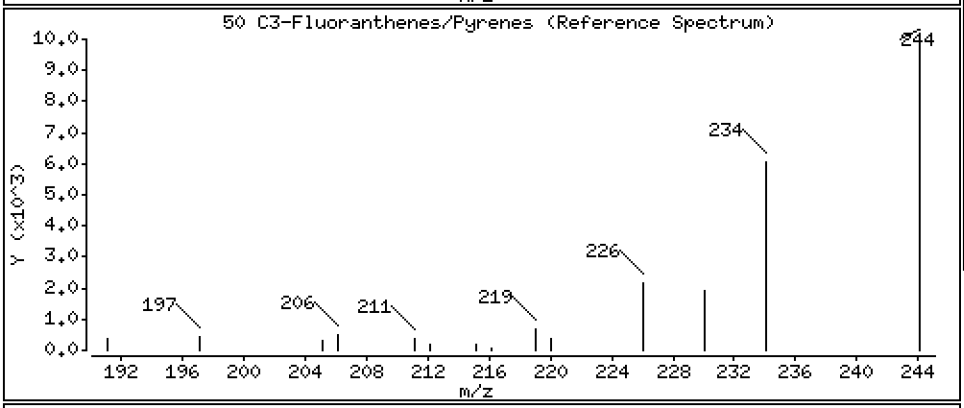
Concentration: 0.3660 ug/mL

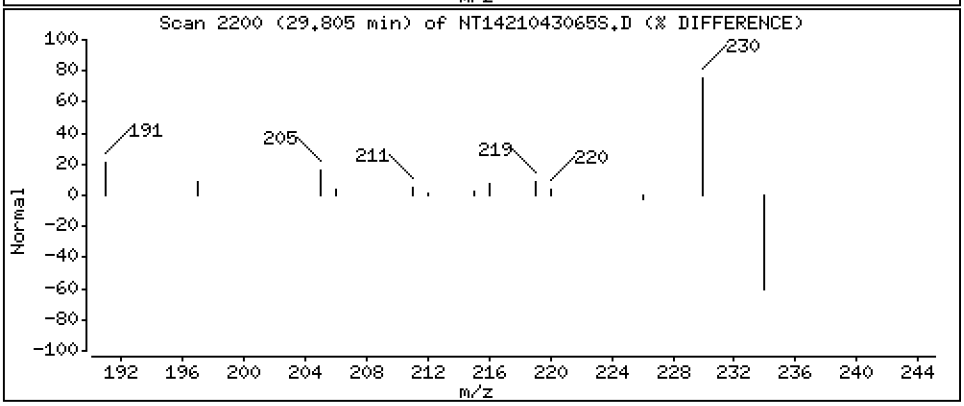


Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430655.D

Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

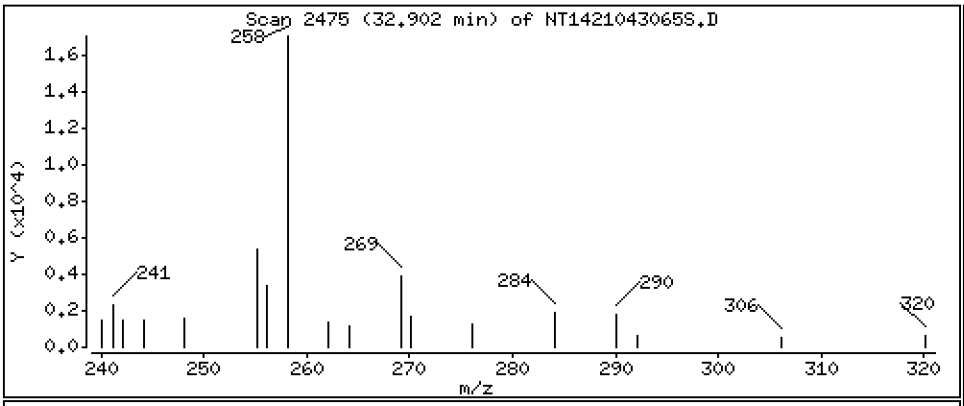
Operator: VTS

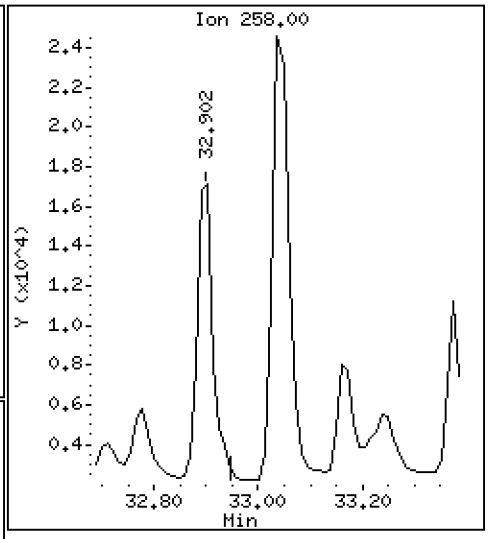
Column phase: Rxi-17Sil MS

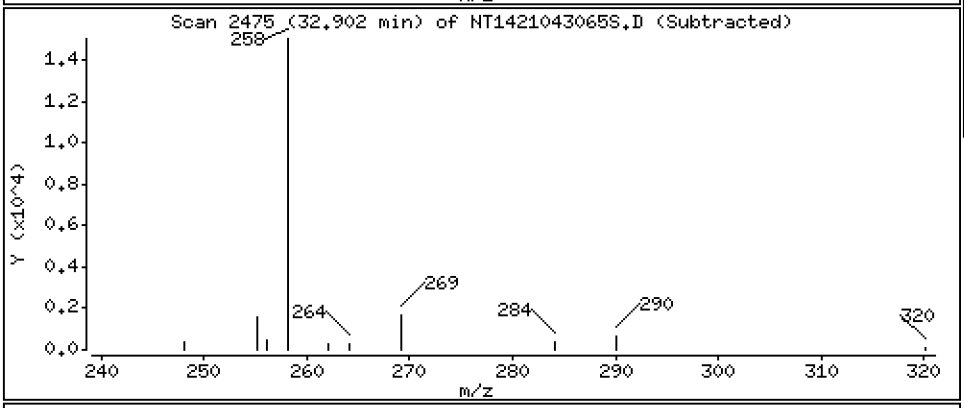
Column diameter: 0.25

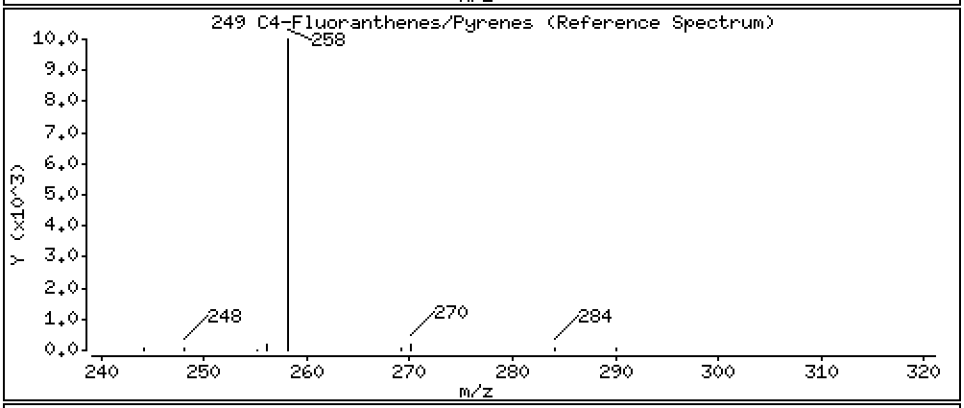
249 C4-Fluoranthenes/Pyrenes

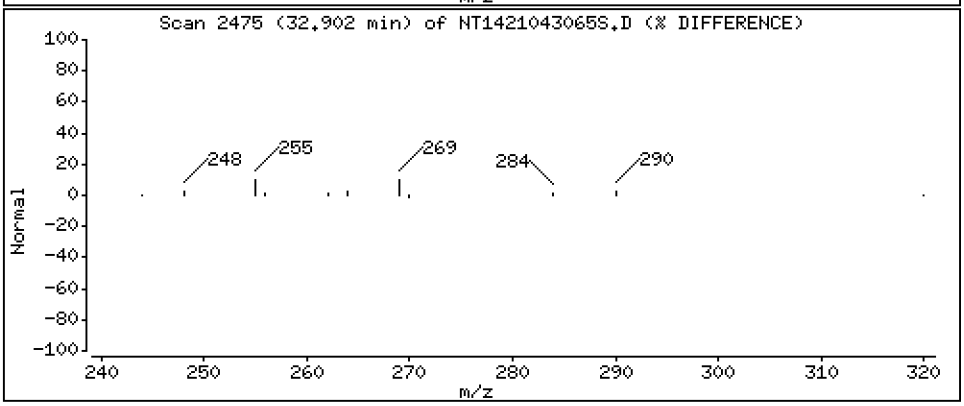
Concentration: 0.3812 ug/mL



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

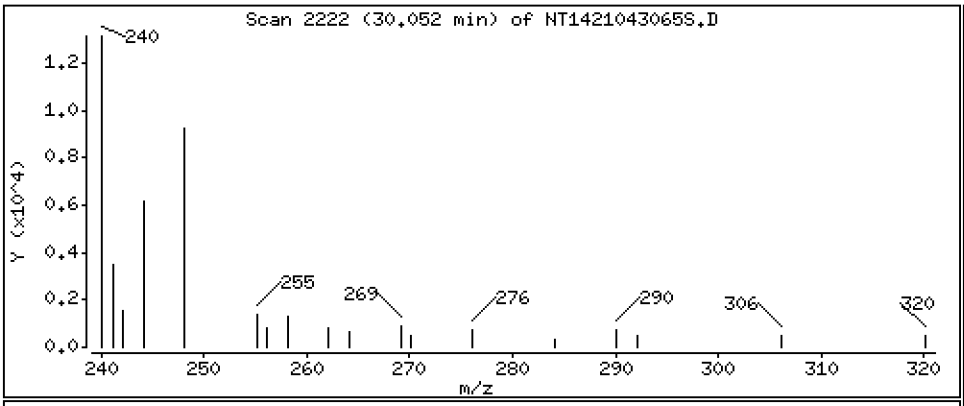
Operator: VTS

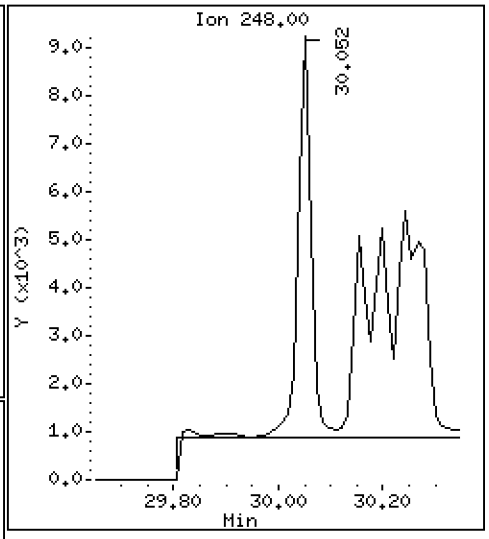
Column phase: Rxi-17Sil MS

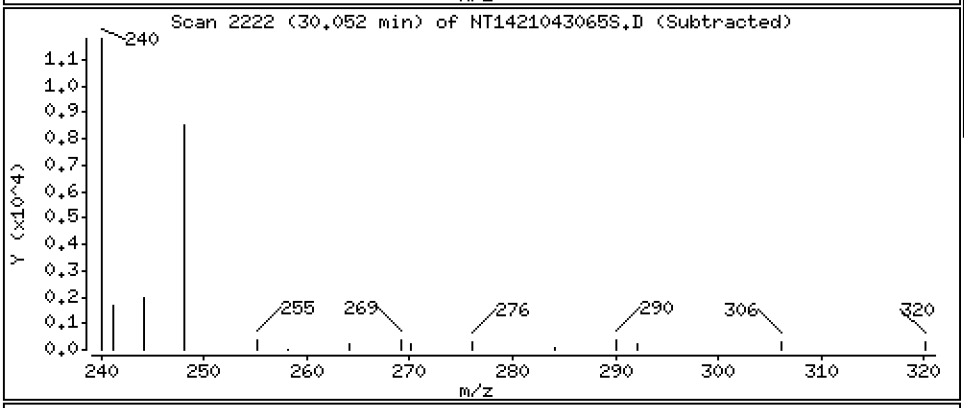
Column diameter: 0.25

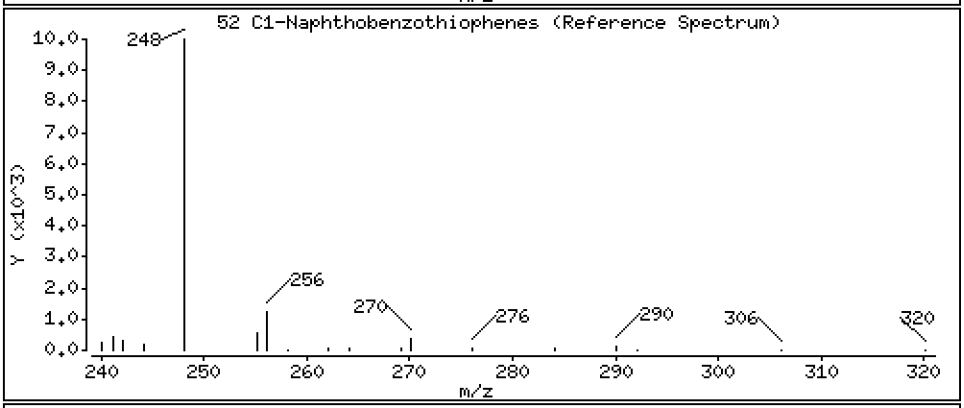
52 C1-Naphthobenzothiophenes

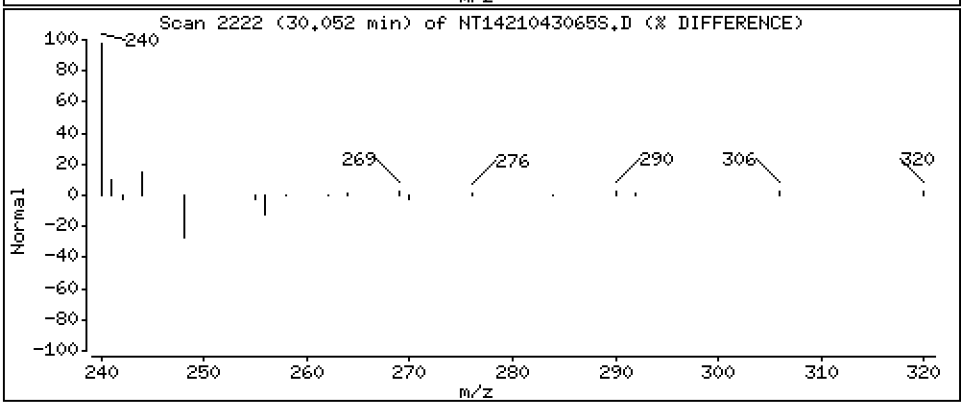
Concentration: 0.3245 ug/mL



Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430655.D

Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

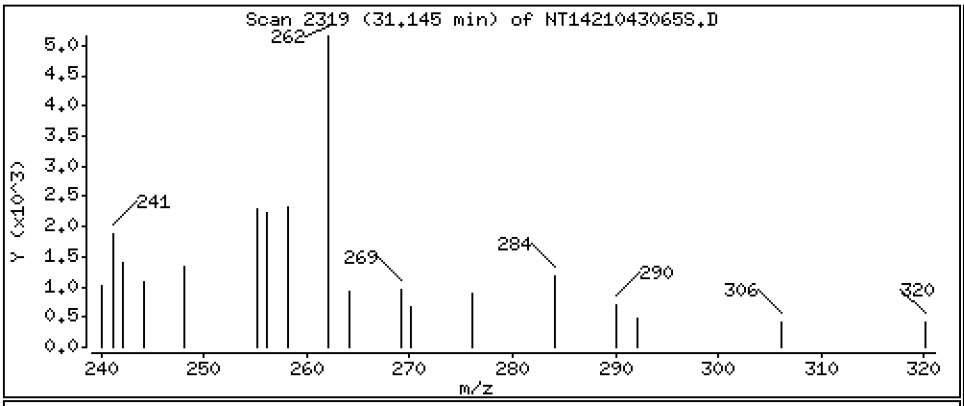
Operator: VTS

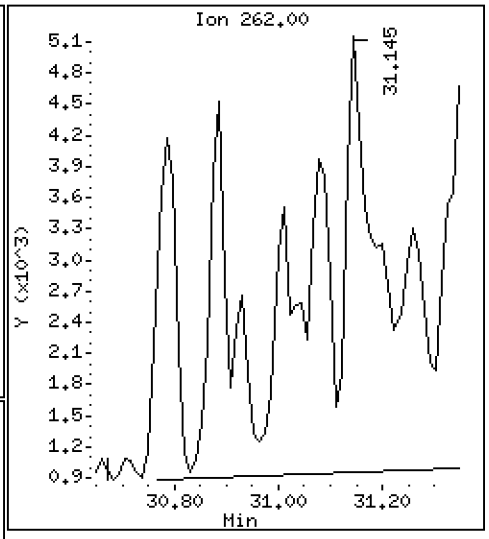
Column phase: Rxi-17Sil MS

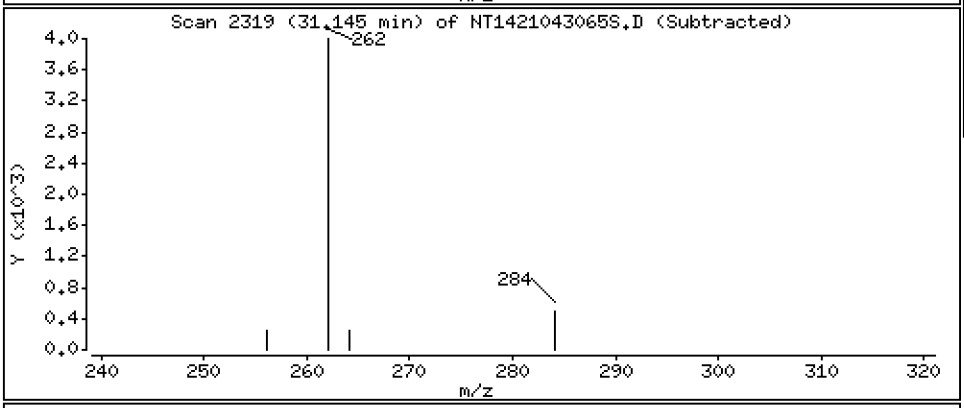
Column diameter: 0.25

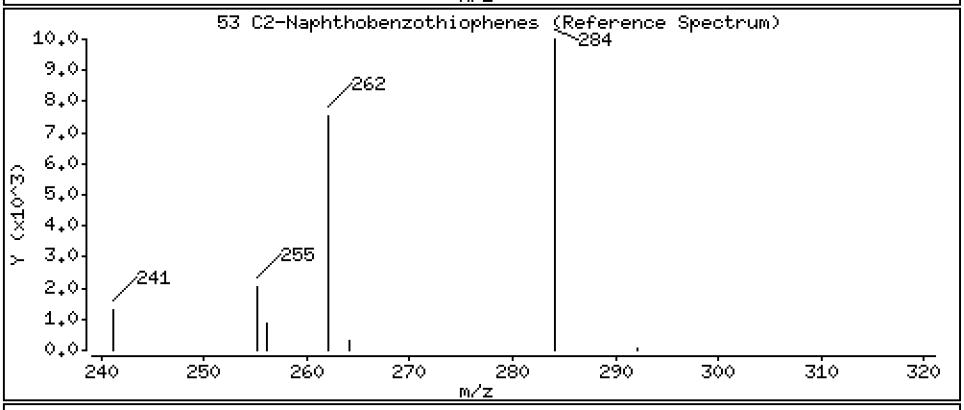
53 C2-Naphthobenzothiophenes

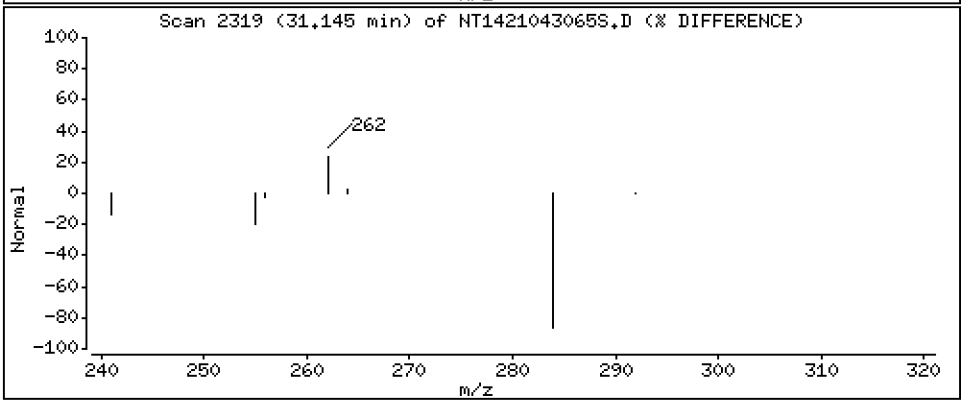
Concentration: 0.2924 ug/mL



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

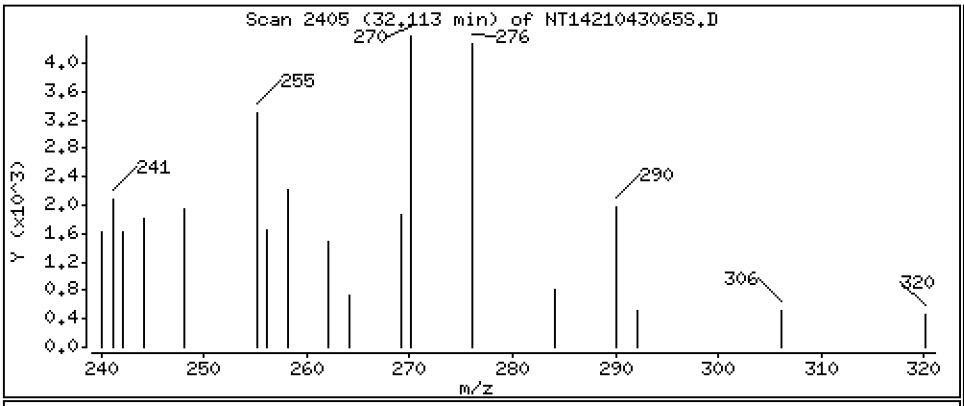
Operator: VTS

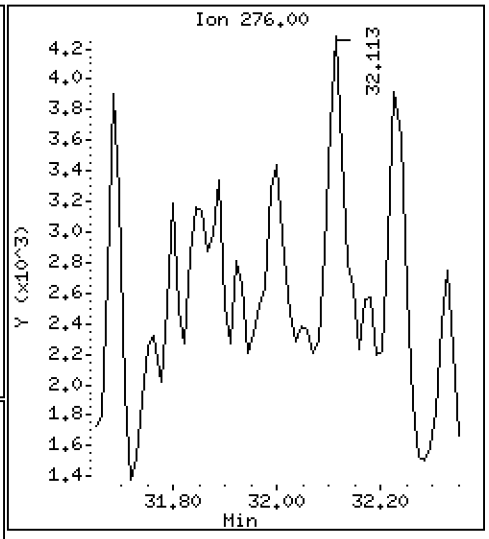
Column phase: Rxi-17Sil MS

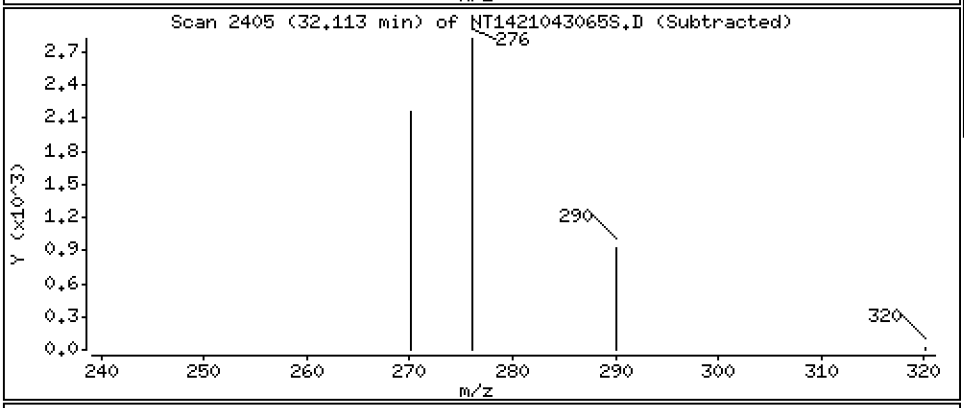
Column diameter: 0.25

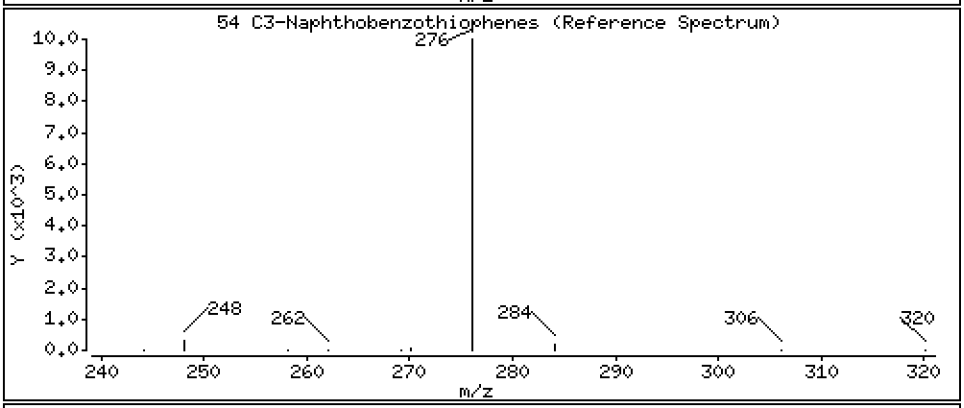
54 C3-Naphthobenzothiophenes

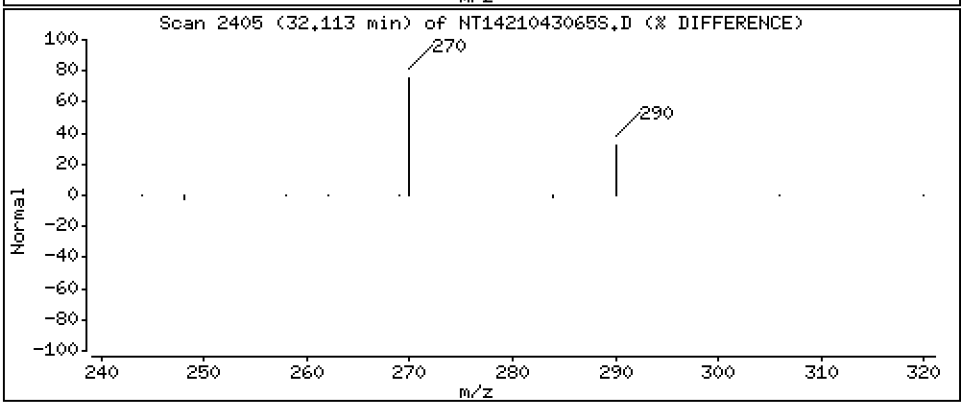
Concentration: 0.2139 ug/mL



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

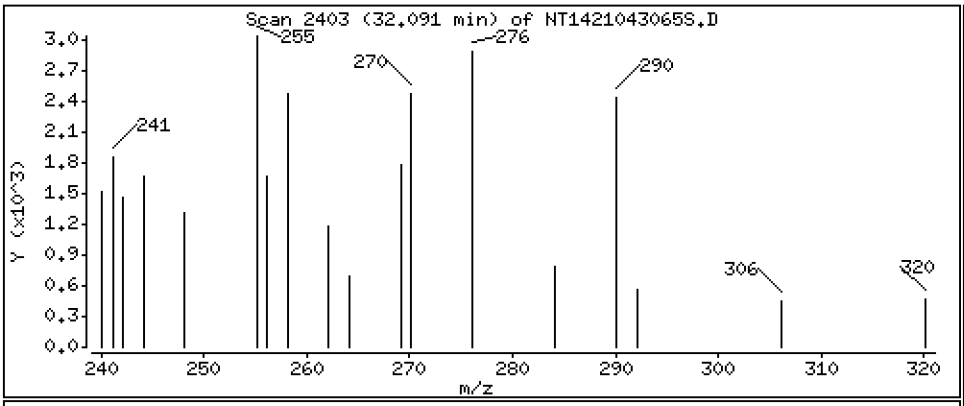
Operator: VTS

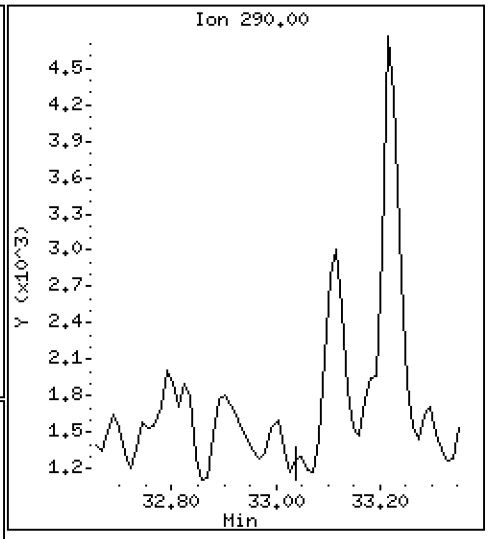
Column phase: Rxi-17Sil MS

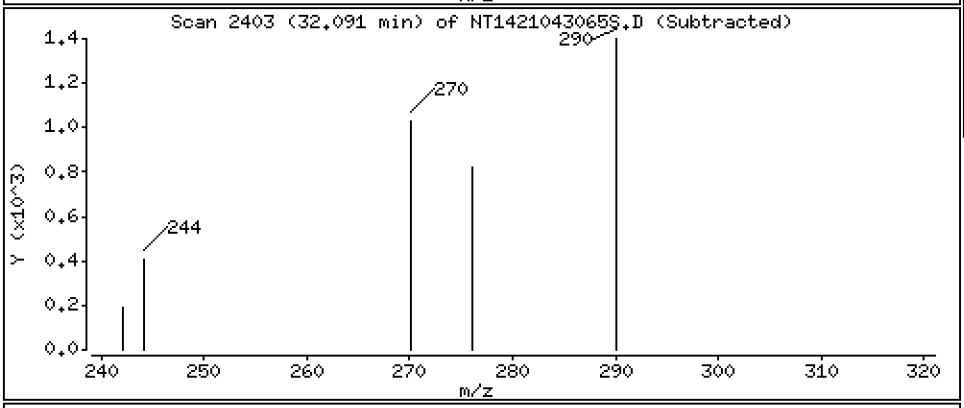
Column diameter: 0.25

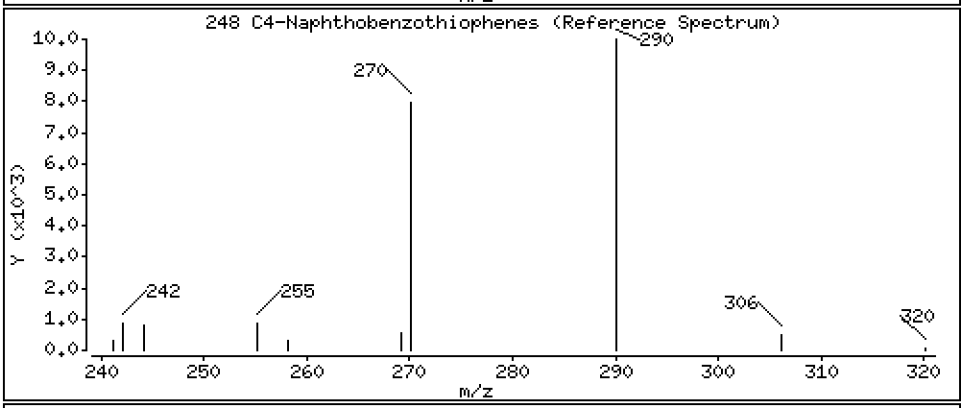
248 C4-Naphthobenzothiophenes

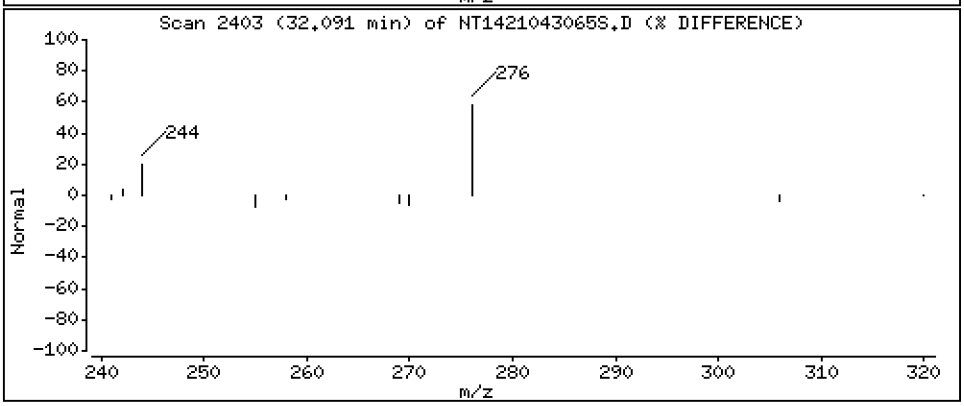
Concentration: 0.1284 ug/mL



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

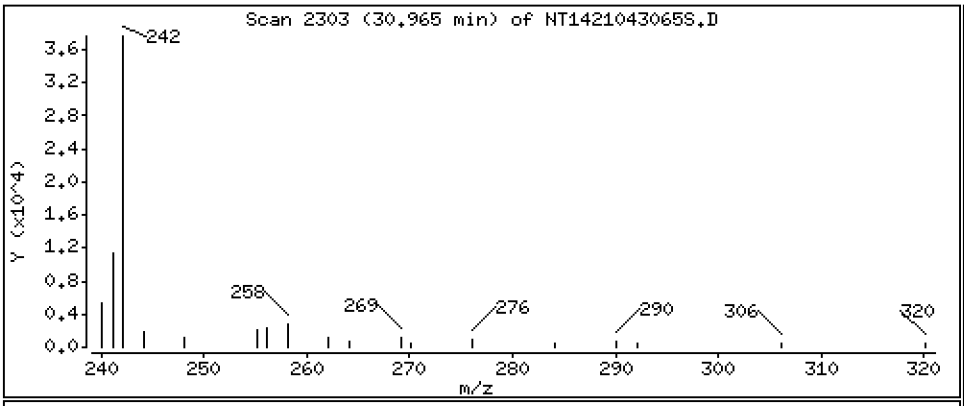
Operator: VTS

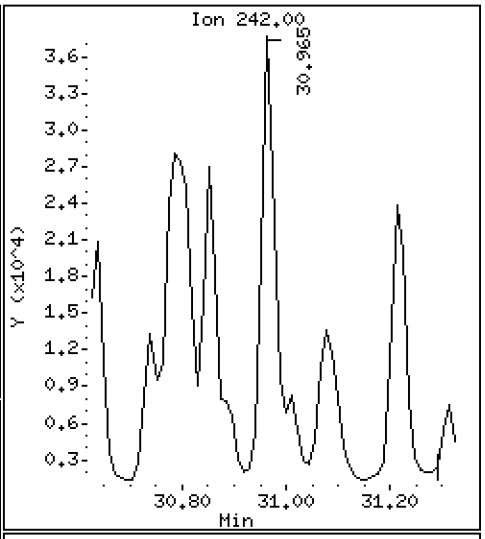
Column phase: Rxi-17Sil MS

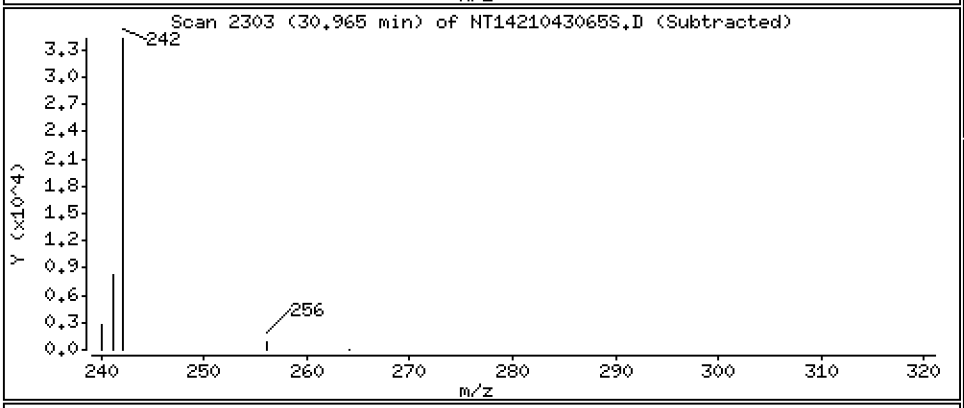
Column diameter: 0.25

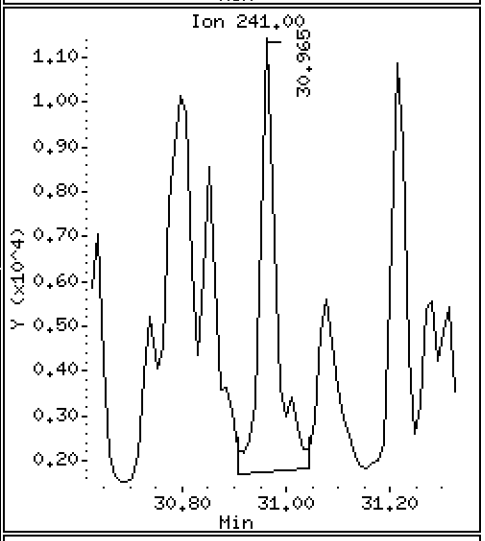
58 C1-Benzo(a)anthracenes/Chrysene

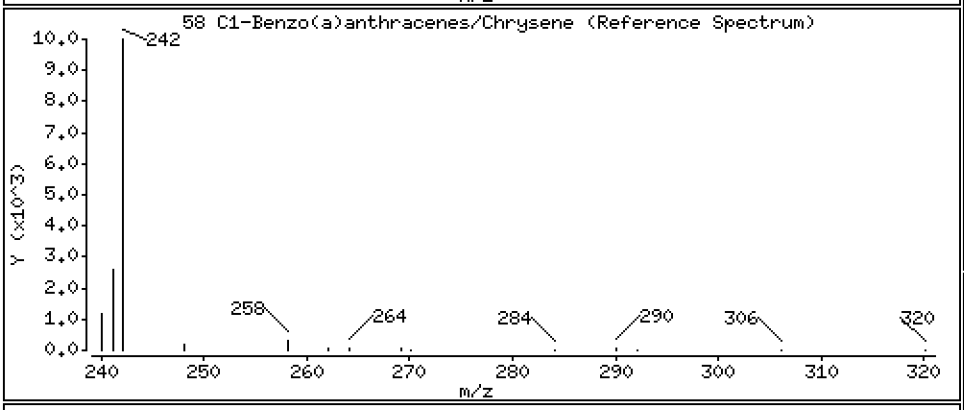
Concentration: 1.342 ug/mL

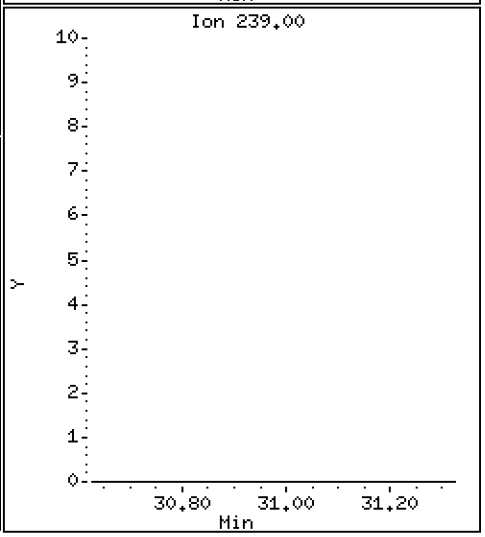


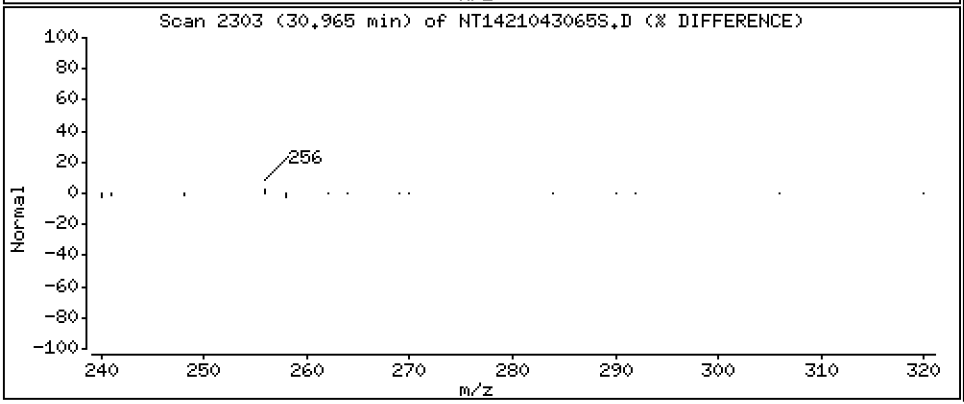



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

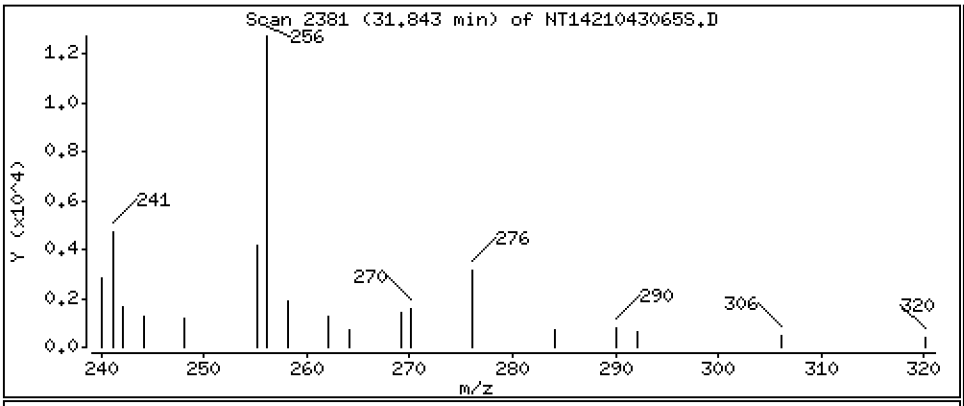
Operator: VTS

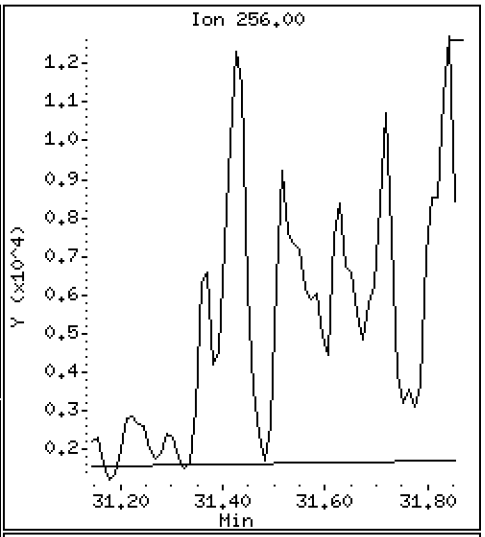
Column phase: Rxi-17Sil MS

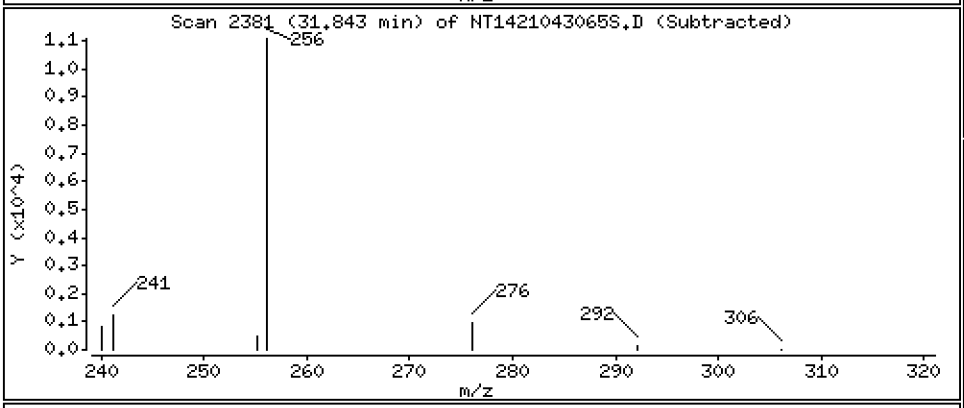
Column diameter: 0.25

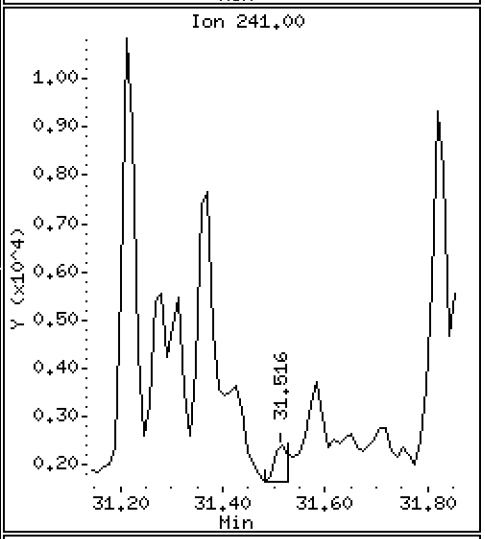
59 C2-Benzo(a)anthracenes/Chrysene

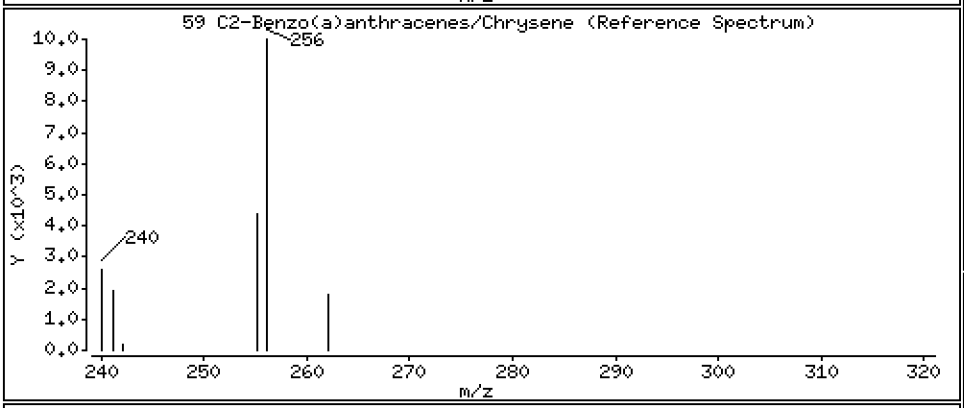
Concentration: 0.5332 ug/mL

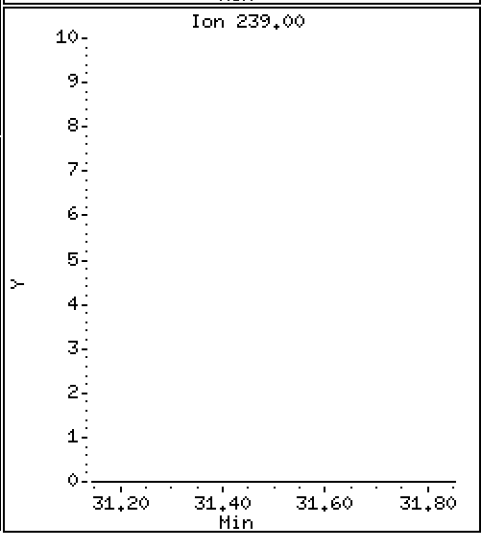


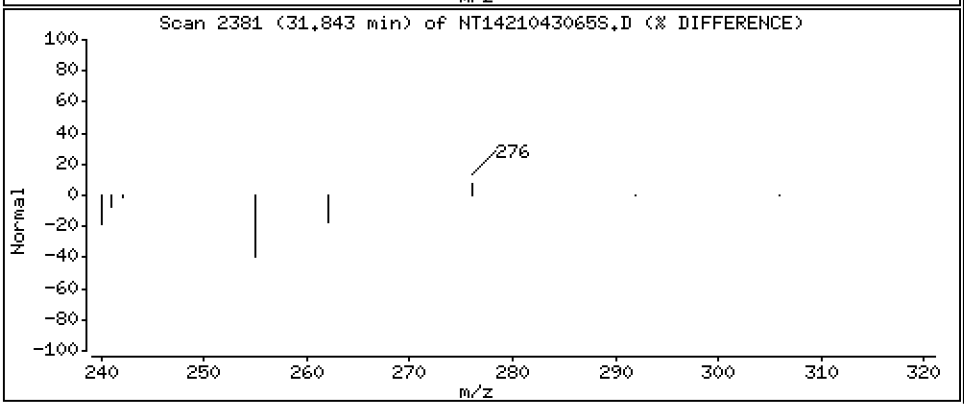



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

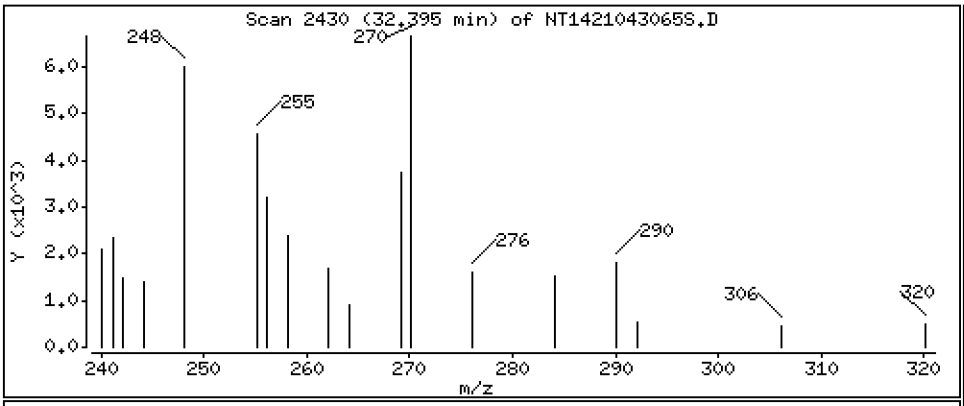
Operator: VTS

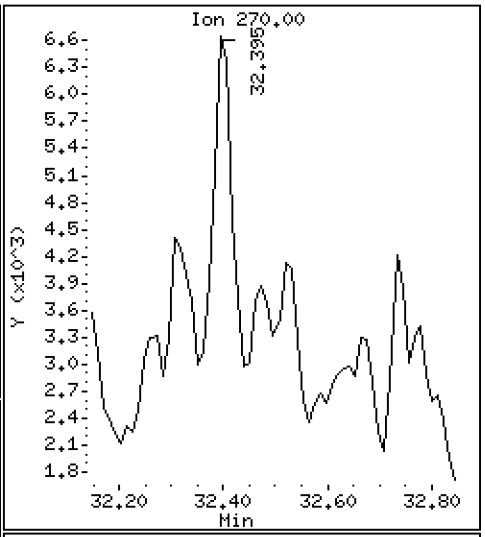
Column phase: Rxi-17Sil MS

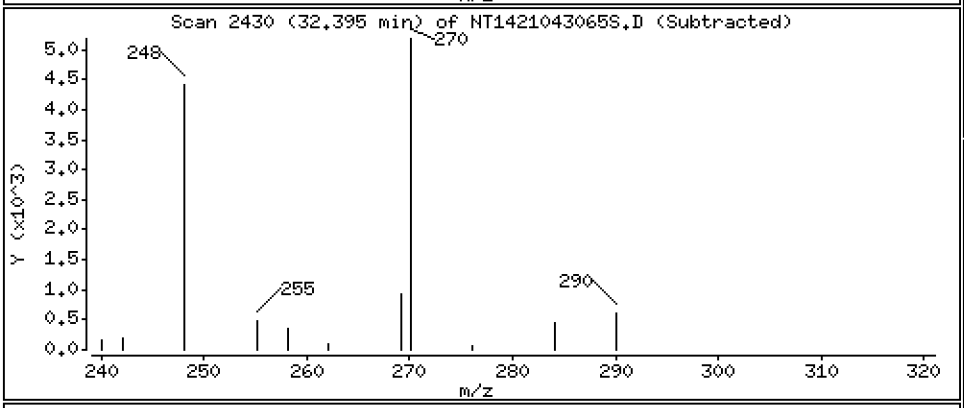
Column diameter: 0.25

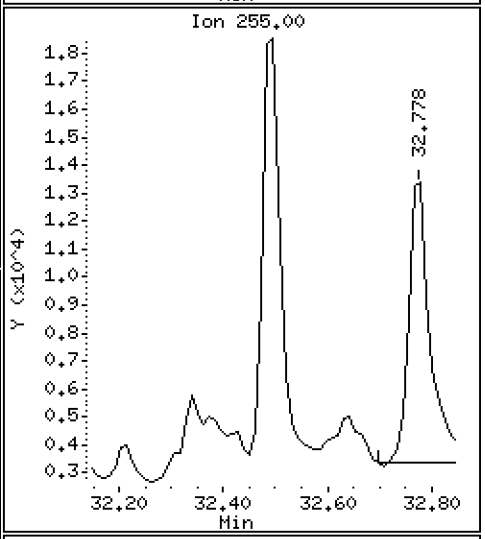
60 C3-Benzo(a)anthracenes/Chrysene

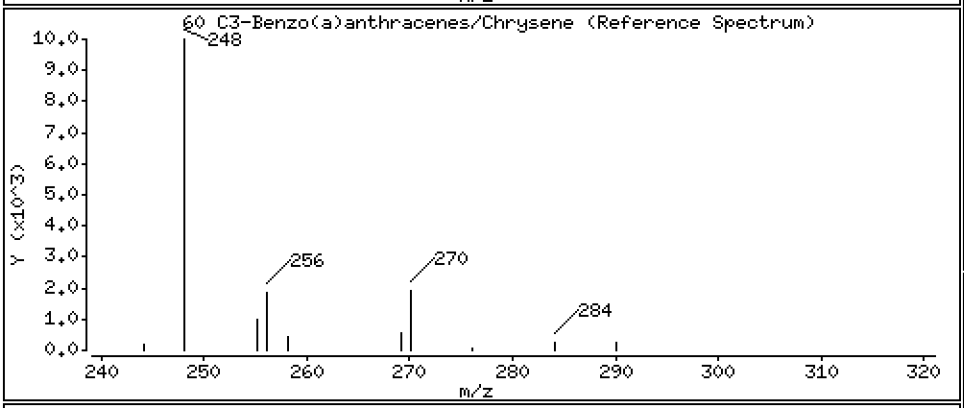
Concentration: 0.4297 ug/mL

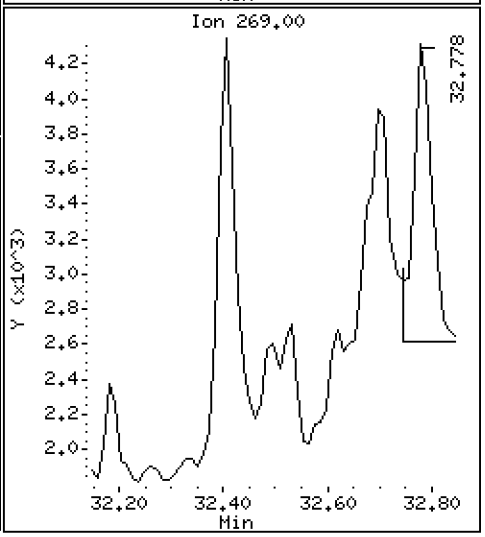


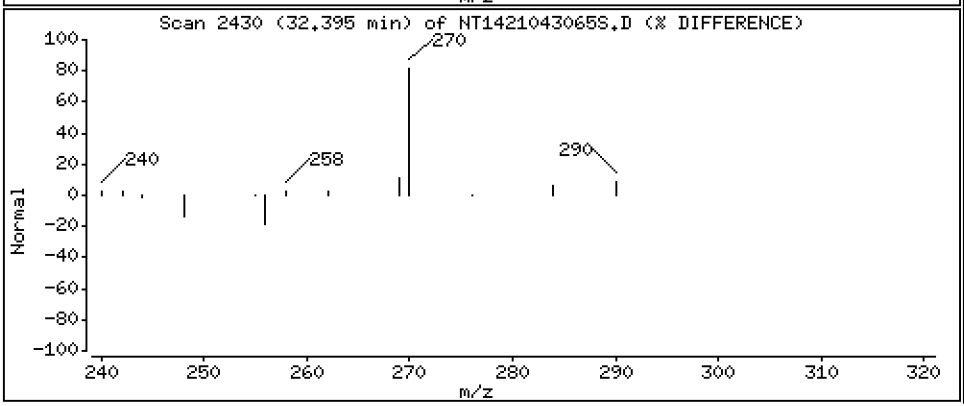



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

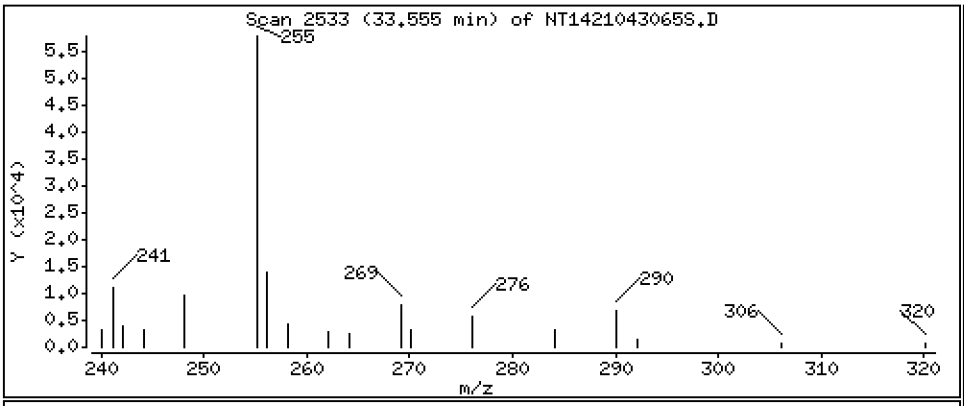
Operator: VTS

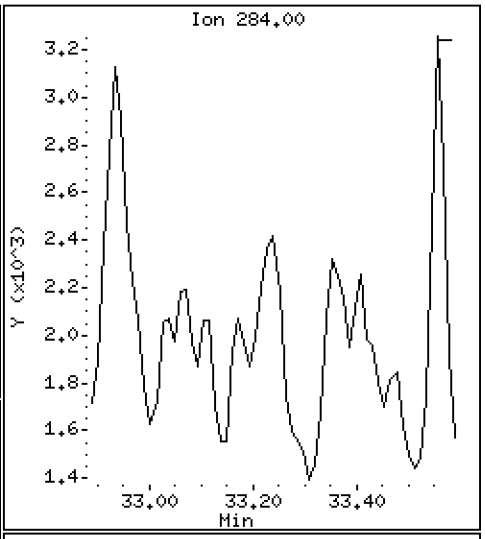
Column phase: Rxi-17Sil MS

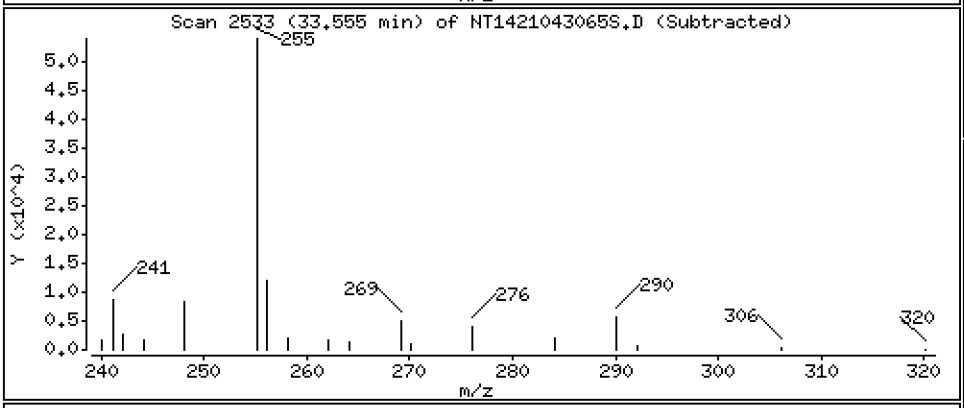
Column diameter: 0.25

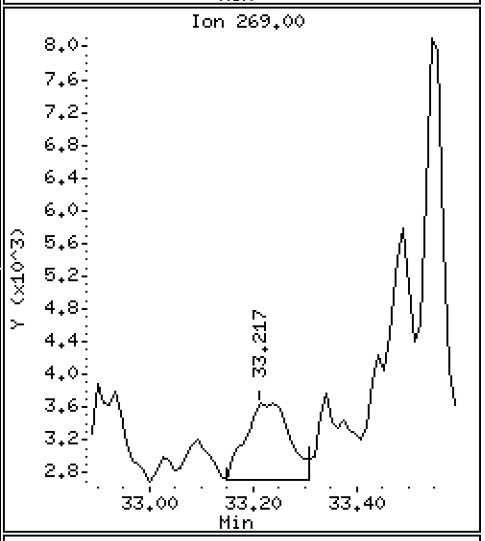
61 C4-Benzo(a)anthracenes/Chrysene

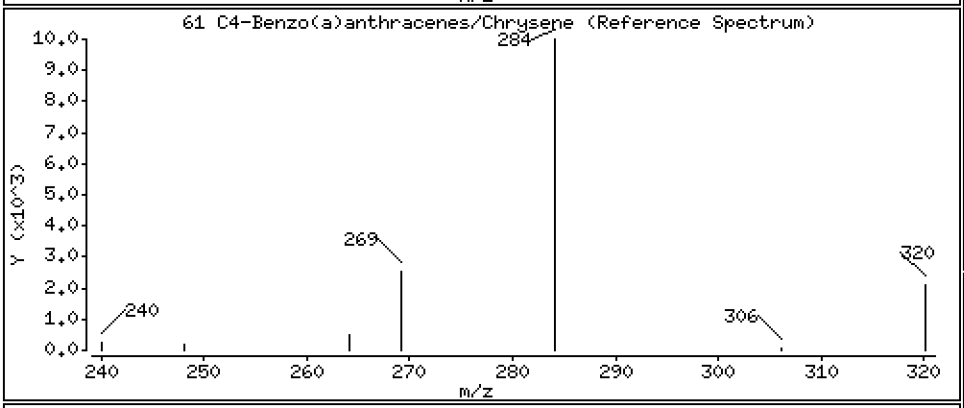
Concentration: 0.1764 ug/mL

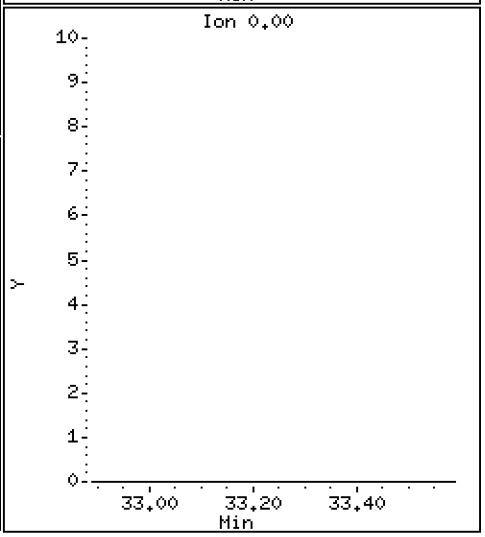


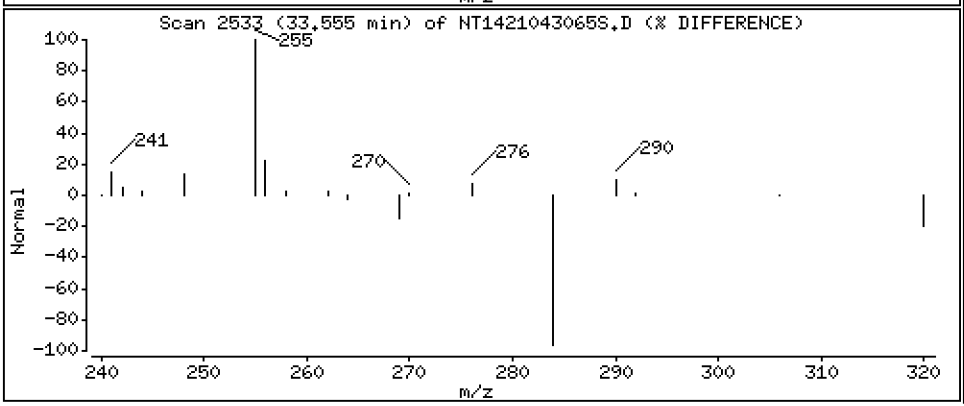



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

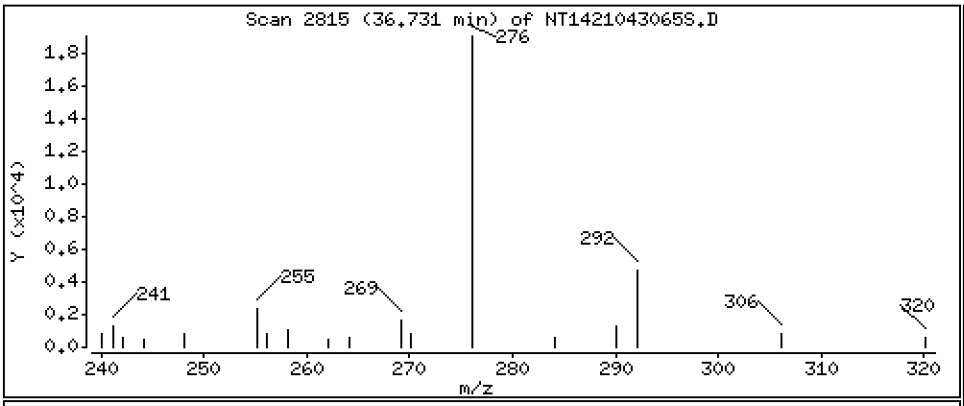
Operator: VTS

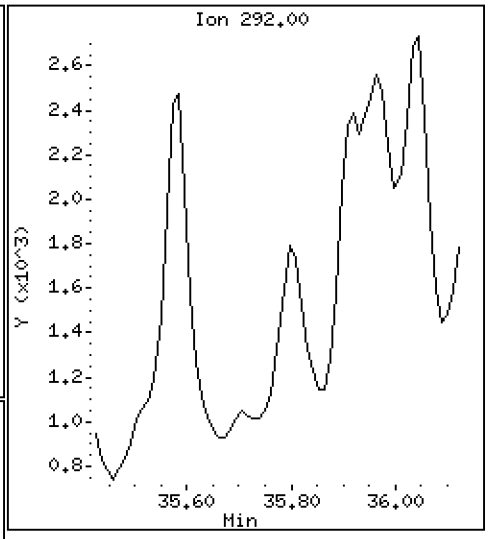
Column phase: Rxi-17Sil MS

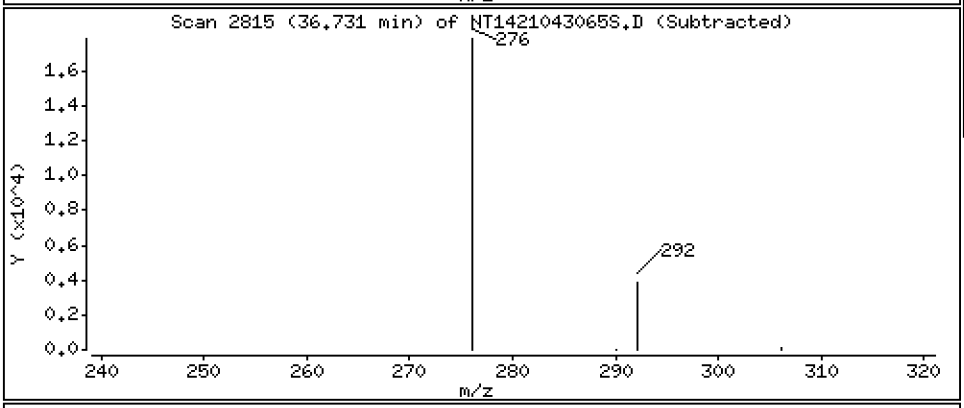
Column diameter: 0.25

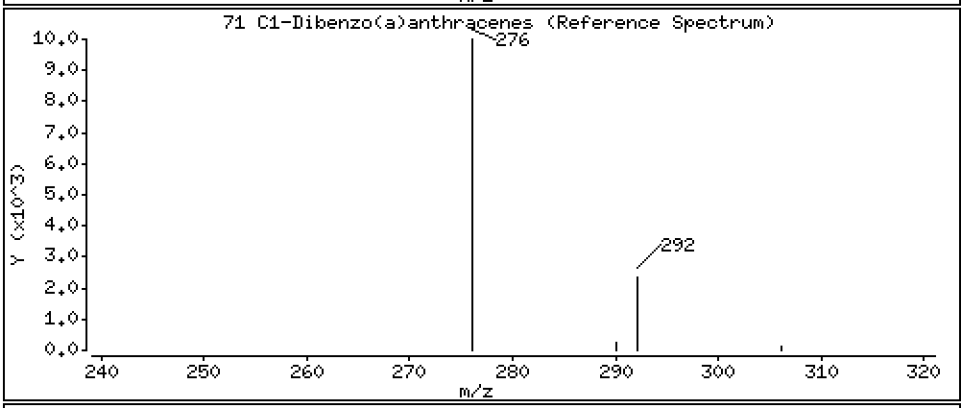
71 C1-Dibenzo(a)anthracenes

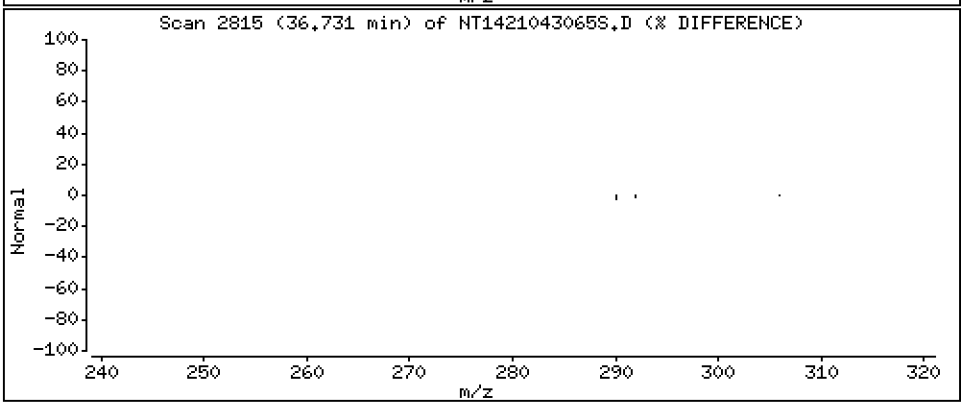
Concentration: 0.3227 ug/mL



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Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

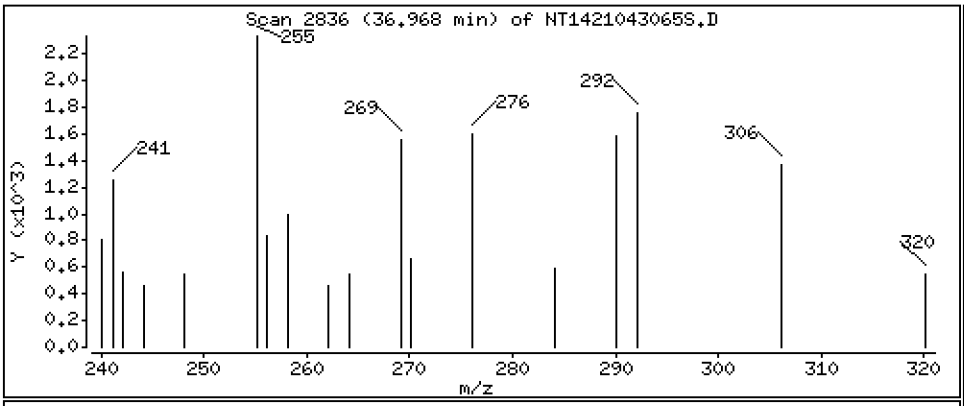
Operator: VTS

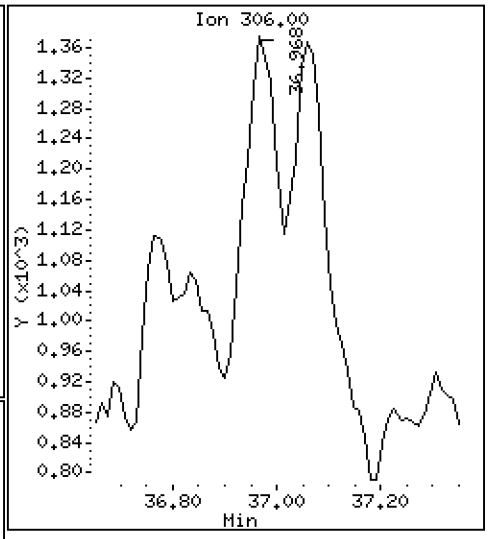
Column phase: Rxi-17Sil MS

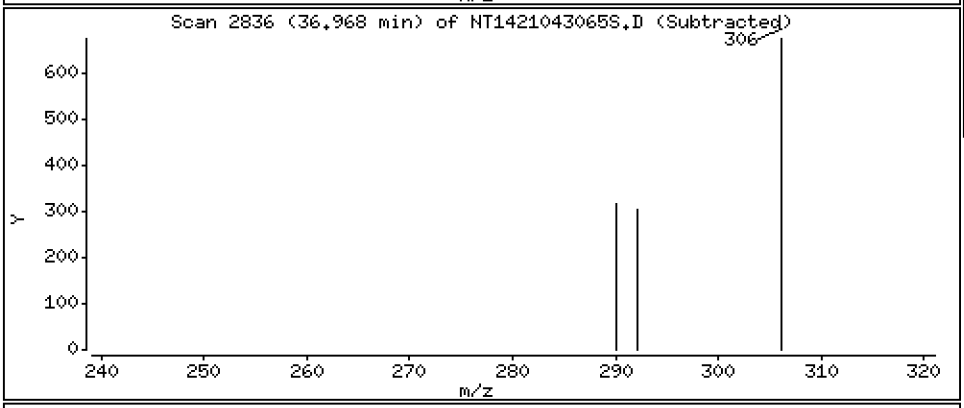
Column diameter: 0.25

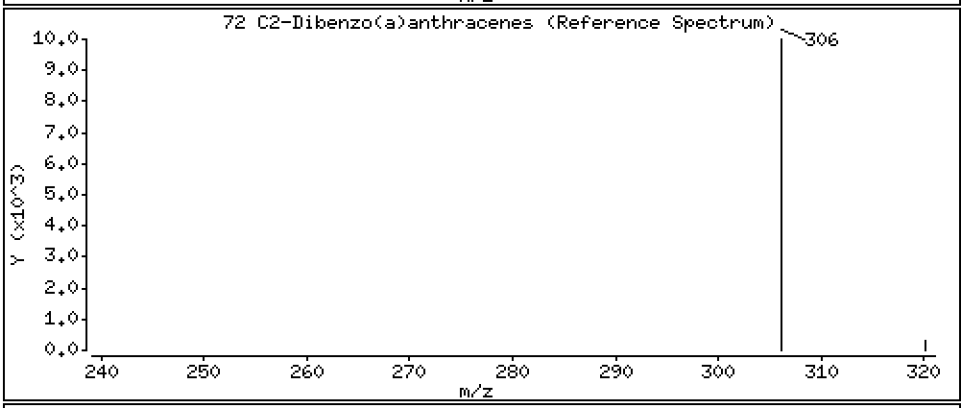
72 C2-Dibenzo(a)anthracenes

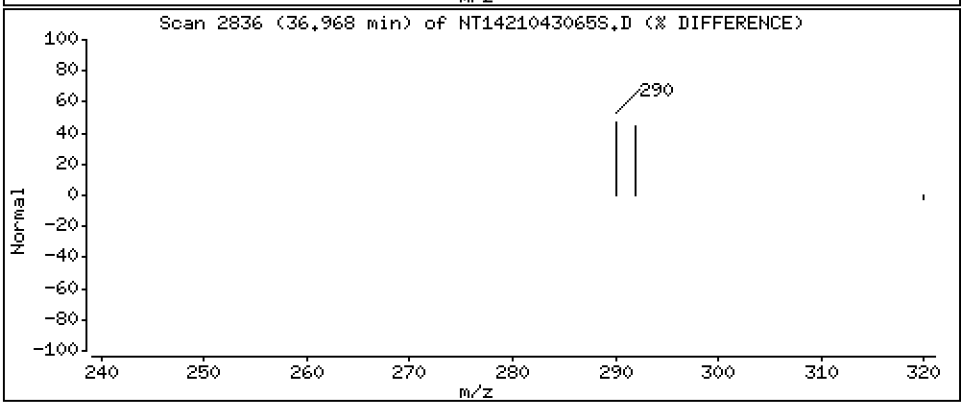
Concentration: 0.06676 ug/mL



Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430655.D

Date : 02-MAY-2021 10:49

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-03

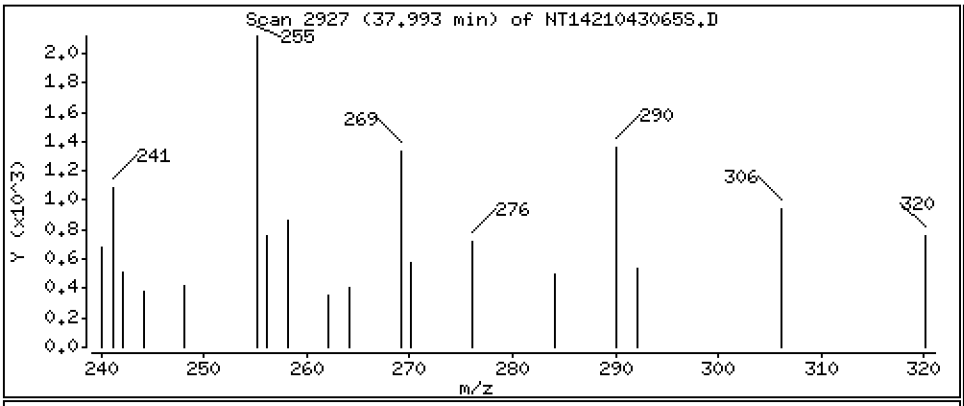
Operator: VTS

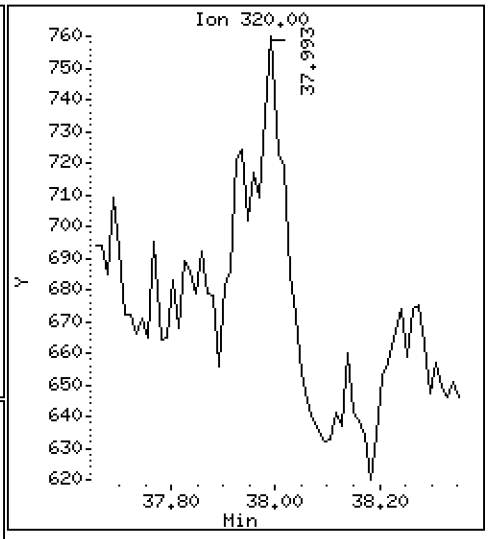
Column phase: Rxi-17Sil MS

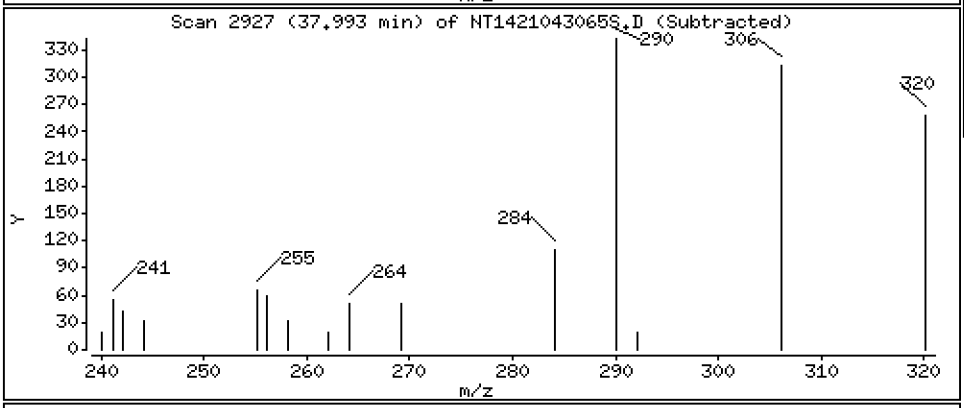
Column diameter: 0.25

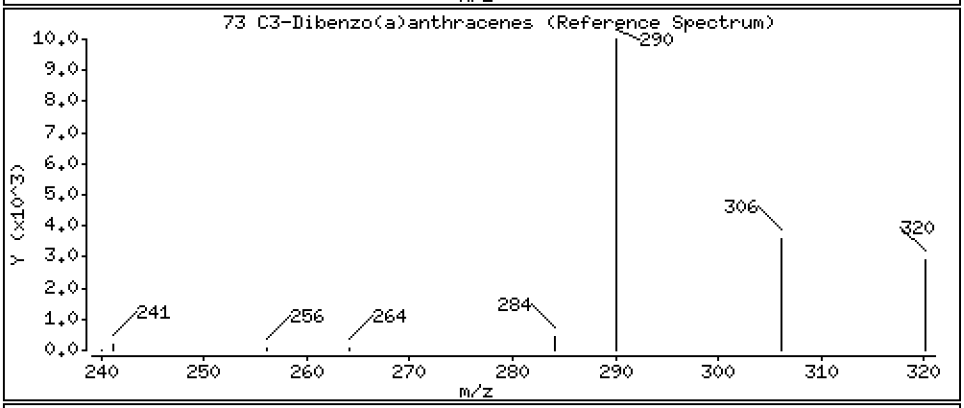
73 C3-Dibenzo(a)anthracenes

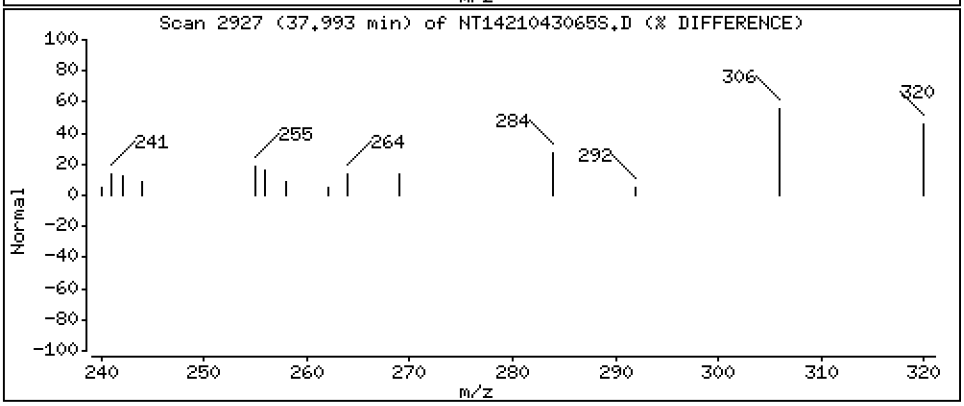
Concentration: 0.04675 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT1421043065S.D
Lab Smp Id: 21D0180-03
Inj Date : 02-MAY-2021 10:49
Operator : VTS Inst ID: nt14.i
Smp Info : 21D0180-03
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\SIM.b\ALKYLRANGES.m
Meth Date : 07-May-2021 11:15 yev Quant Type: ISTD
Cal Date : 01-MAY-2021 01:56 Cal File: NT1421043024S.D
Als bottle: 46
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 | 7.874 | 8.800 | (0.420) | 1613 | 0.04859 | 0.04859(M) |
| 4 | C2-Decalin | 166 | 9.004 | 9.200 | (0.480) | 10082 | 0.30372 | 0.3037(M) |
| 5 | C3-Decalin | 180 | Compound Not Detected. | | | | | |
| 247 | C4-Decalin | 194 | Compound Not Detected. | | | | | |
| 8 | C1-Naphthalenes | 142 | 13.660 | 14.121 | (0.728) | 82654 | 0.21813 | 0.2181(M) |
| 9 | C2-Naphthalenes | 156 | 15.792 | 16.111 | (0.842) | 89396 | 0.23592 | 0.2359(M) |
| 10 | C3-Naphthalenes | 170 | 17.649 | 17.957 | (0.941) | 75990 | 0.20054 | 0.2005(M) |
| 11 | C4-Naphthalenes | 184 | 19.023 | 18.000 | (1.014) | 33003 | 0.08710 | 0.08710(M) |
| 13 | C1-Benzothiophenes | 148 | 13.143 | 14.110 | (0.701) | 10971 | 0.03639 | 0.03639(M) |
| 14 | C2-Benzothiophenes | 162 | 15.275 | 15.660 | (0.814) | 17837 | 0.05917 | 0.05917(M) |
| 15 | C3_Benzothiophenes | 176 | 17.045 | 17.199 | (0.908) | 12216 | 0.04052 | 0.04052(M) |
| 27 | C1-Fluorenes | 180 | 20.406 | 20.735 | (1.088) | 47580 | 0.21453 | 0.2145(M) |
| * 25 | Fluorene-d10 | 176 | 18.762 | 18.774 | (1.000) | 645514 | 2.00000 | |
| 28 | C2-Fluorenes | 194 | 21.974 | 22.000 | (1.171) | 42328 | 0.19085 | 0.1908(M) |
| 29 | C3-Fluorenes | 208 | 23.282 | 23.172 | (1.241) | 47993 | 0.21639 | 0.2164(M) |
| 31 | C1-Dibenzothiophenes | 198 | 22.919 | 23.500 | (1.222) | 51909 | 0.18541 | 0.1854(M) |
| 32 | C2-Dibenzothiophenes | 212 | 24.327 | 24.535 | (1.297) | 68269 | 0.24384 | 0.2438(M) |
| 33 | C3-Dibenzothiophenes | 226 | 25.228 | 25.600 | (1.345) | 72976 | 0.26065 | 0.2607(M) |
| 34 | C4-Dibenzothiophenes | 240 | Compound Not Detected. | | | | | |
| 38 | C1-Phenanthrenes/Anthracenes | 192 | 23.568 | 23.500 | (1.061) | 323489 | 0.95793 | 0.9579(M) |
| * 250 | Anthracene-d10 | 188 | 22.205 | 22.216 | (1.000) | 607222 | 2.00000 | |
| 39 | C2-Phenanthrenes/Anthracenes | 206 | 25.338 | 25.107 | (1.141) | 249170 | 0.73785 | 0.7379(M) |
| 40 | C3-Phenanthrenes/Anthracenes | 220 | 26.273 | 26.856 | (1.183) | 129152 | 0.38245 | 0.3825(M) |
| 41 | C4-Phenanthrenes/Anthracenes | 234 | 27.744 | 27.500 | (1.249) | 54239 | 0.16062 | 0.1606(M) |
| 48 | C1-Fluoranthenes/Pyrenes | 216 | 27.624 | 27.624 | (1.244) | 644596 | 1.98124 | 1.981(M) |
| 49 | C2-Fluoranthenes/Pyrenes | 230 | 29.223 | 28.800 | (1.316) | 290933 | 0.89422 | 0.8942(M) |
| 50 | C3-Fluoranthenes/Pyrenes | 244 | 29.804 | 29.995 | (1.342) | 119081 | 0.36601 | 0.3660(M) |
| 249 | C4-Fluoranthenes/Pyrenes | 258 | 32.901 | 33.037 | (1.482) | 124026 | 0.38121 | 0.3812(M) |
| 52 | C1-Naphthobenzothiophenes | 248 | 30.052 | 30.000 | (1.353) | 106610 | 0.32449 | 0.3245(M) |
| 53 | C2-Naphthobenzothiophenes | 262 | 31.144 | 31.000 | (1.403) | 96073 | 0.29242 | 0.2924(M) |
| 54 | C3-Naphthobenzothiophenes | 276 | 32.113 | 32.000 | (1.446) | 70271 | 0.21388 | 0.2139(M) |
| 248 | C4-Naphthobenzothiophenes | 290 | 32.090 | 33.000 | (1.445) | 42182 | 0.12839 | 0.1284(M) |
| 58 | C1-Benzo(a)anthracenes/Chrysen | 242 | 30.964 | 30.975 | (0.937) | 471269 | 1.34174 | 1.342(M) |

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

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 01-MAY-2021
Lab File ID: NT1421043065S.D Calibration Time: 01:56
Lab Smp Id: 21D0180-03
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\ALKYLRANGES.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.

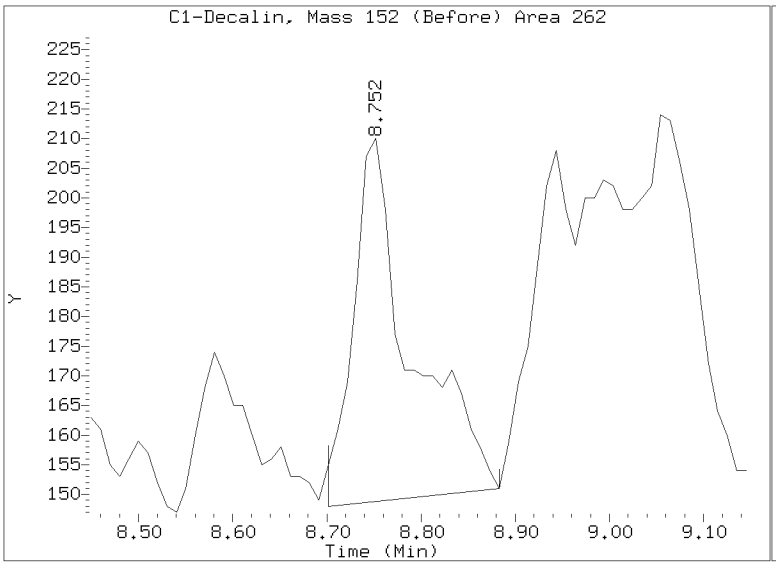
| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 25 Fluorene-d10 | 615800 | 307900 | 1231600 | 645514 | 4.83 |
| 250 Anthracene-d10 | 563384 | 281692 | 1126768 | 607222 | 7.78 |
| 251 Benzo(e)pyrene-d1 | 606671 | 303336 | 1213342 | 752067 |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

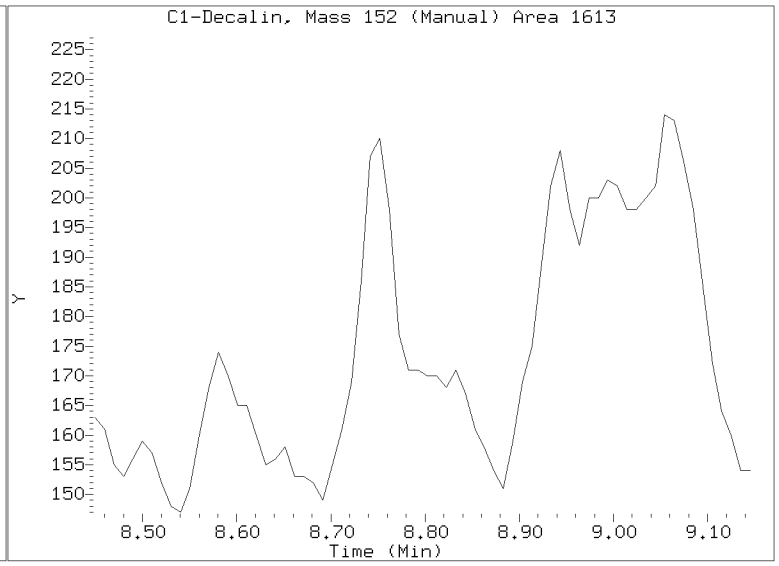
| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 25 Fluorene-d10 | 18.77 | 18.27 | 19.27 | 18.76 | -0.06 |
| 250 Anthracene-d10 | 22.22 | 21.72 | 22.72 | 22.21 | -0.05 |
| 251 Benzo(e)pyrene-d1 | 33.04 | 32.54 | 33.54 | 33.04 | -0.00 |

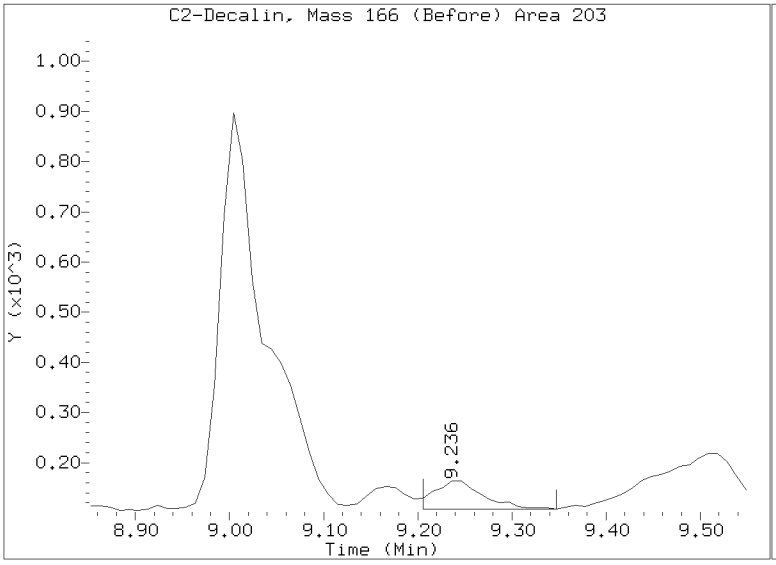
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

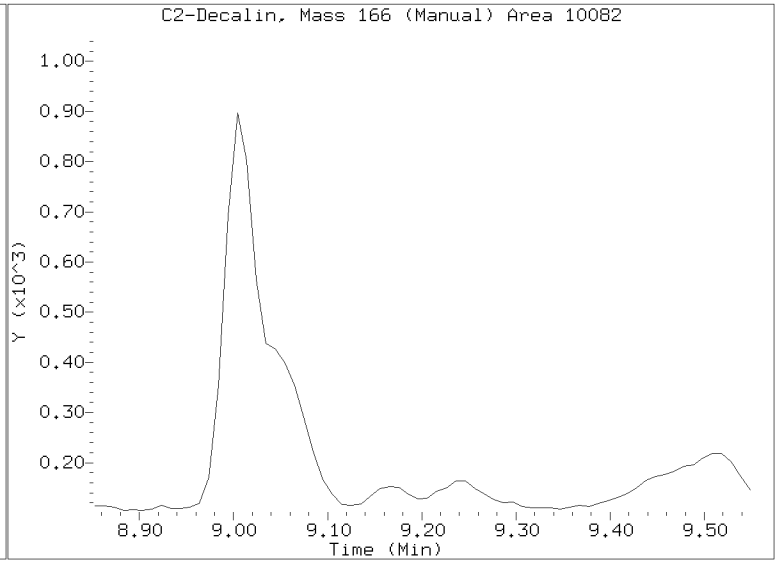
# Quant Ion Manual Peak Adjustment Report

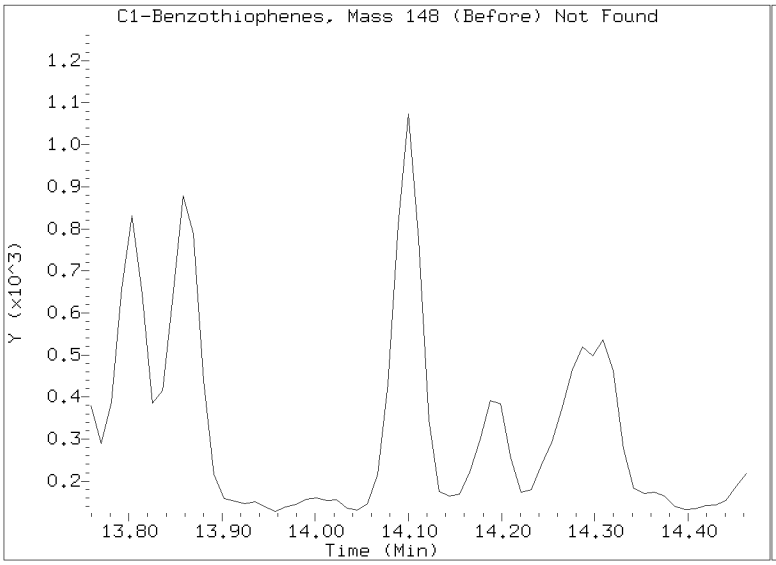
Datafile: //target/share/chem3/nt14.i/20210430.b/SIM.b/NT1421043065S.D
Injection Date: 02-MAY-2021 10:49
Lab ID:21D0180-03 Client ID:
Report Date: 05/07/2021 15:32

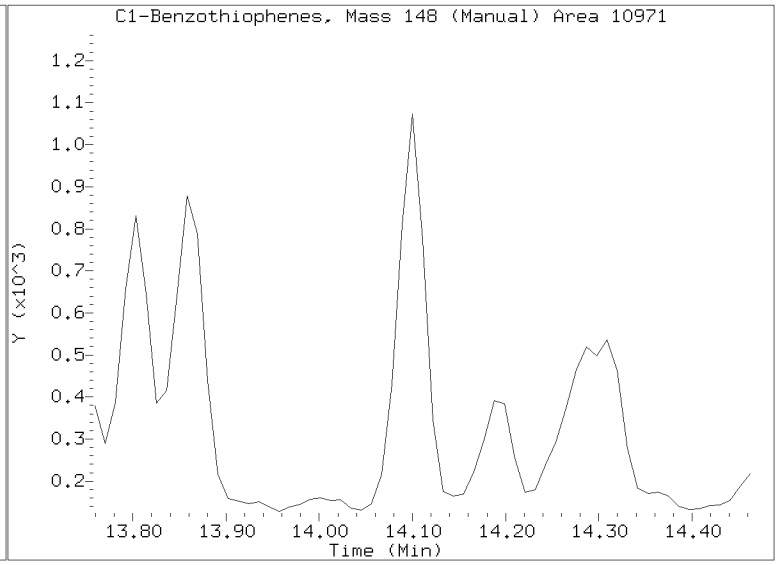


# Quant Ion Manual Peak Adjustment Report

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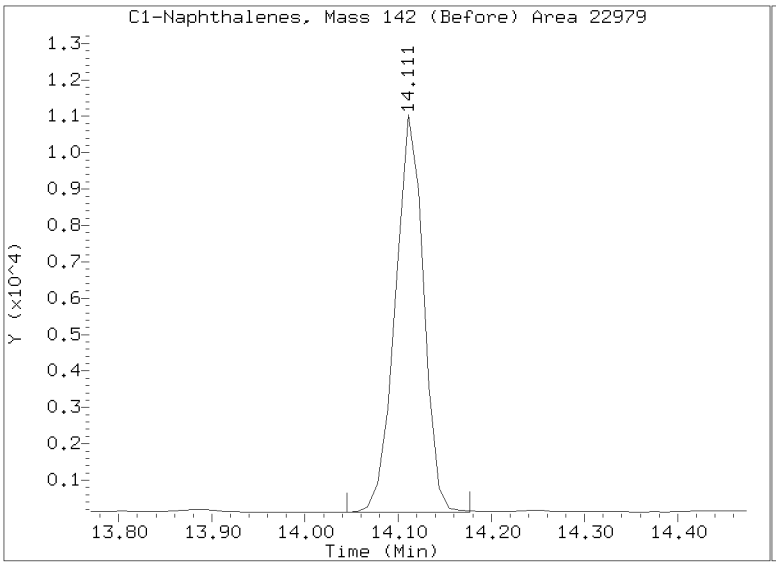
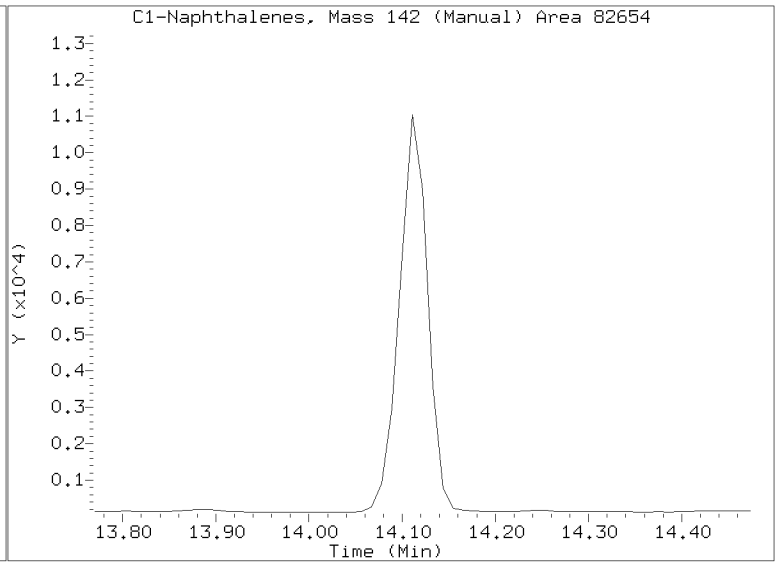
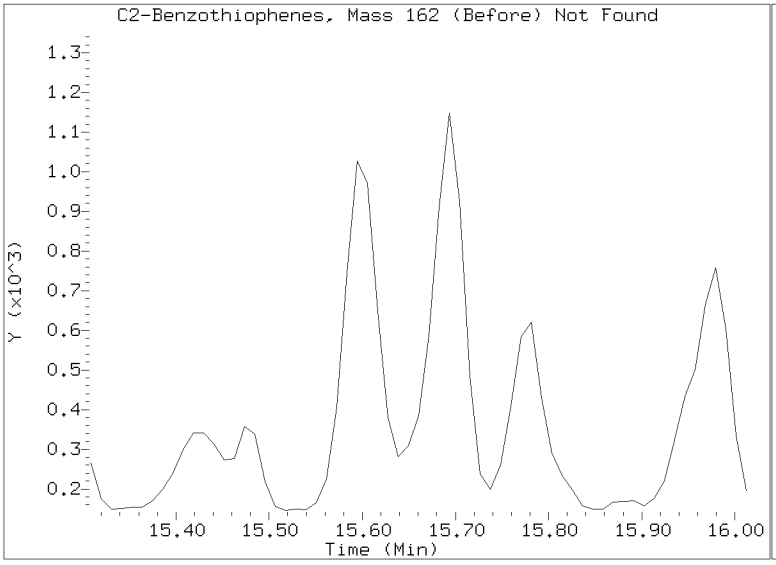
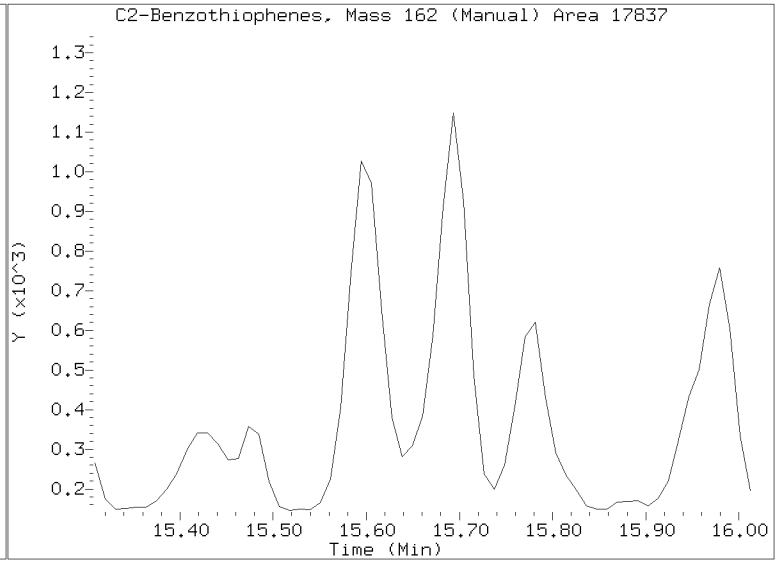
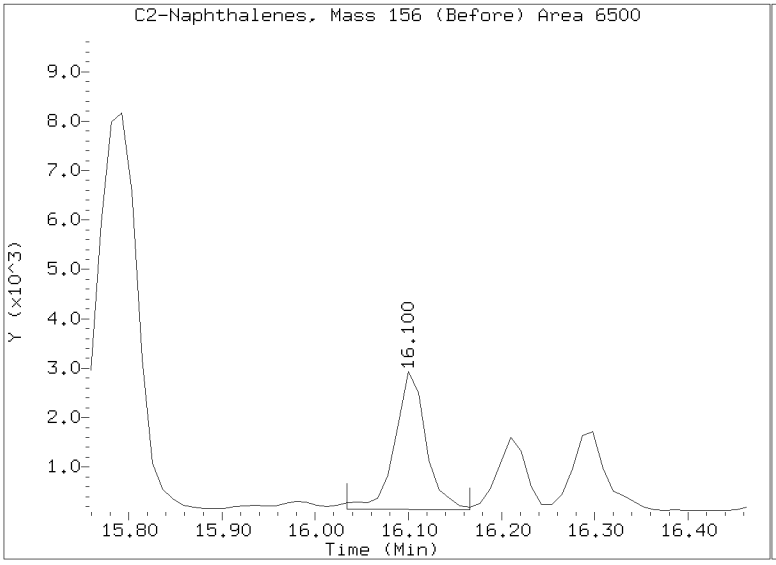
Injection Date: 02-MAY-2021 10:49
Lab ID:21D0180-03 Client ID:
Report Date: 05/07/2021 15:32

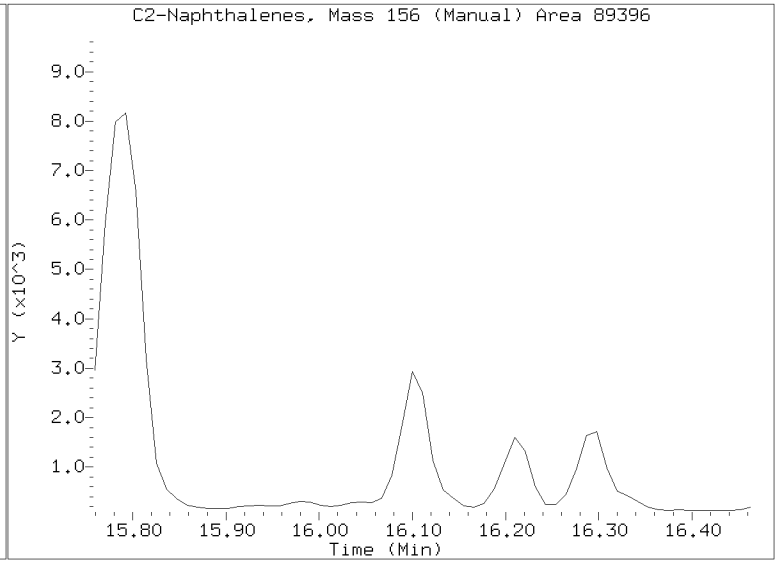


# Quant Ion Manual Peak Adjustment Report

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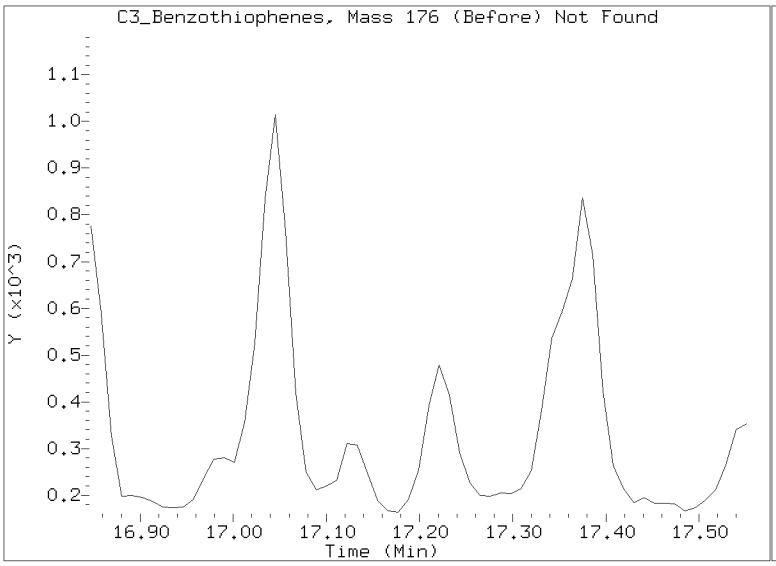
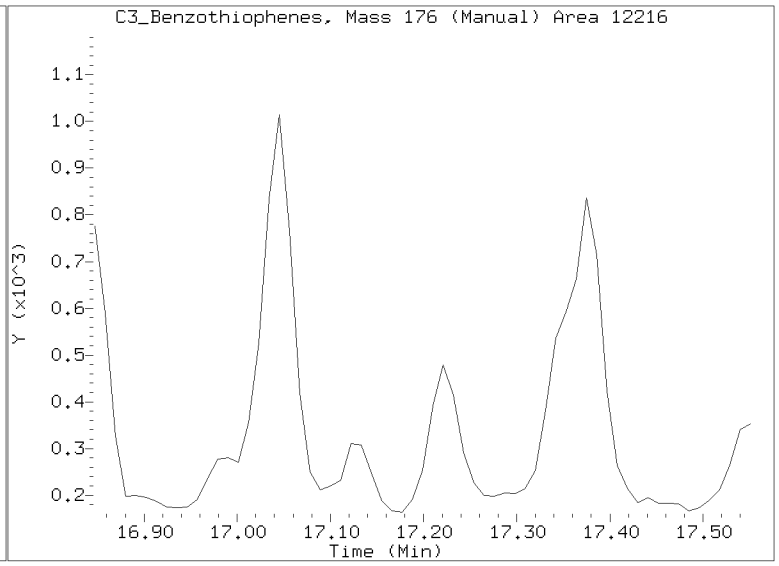
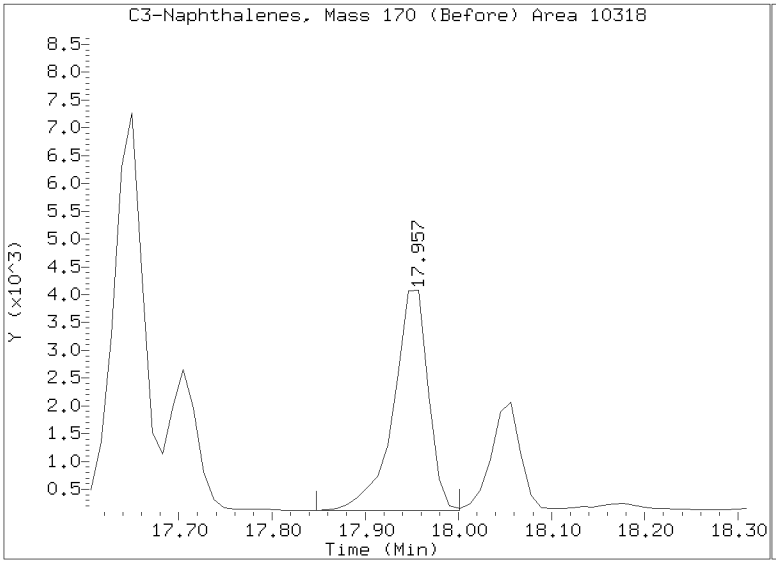
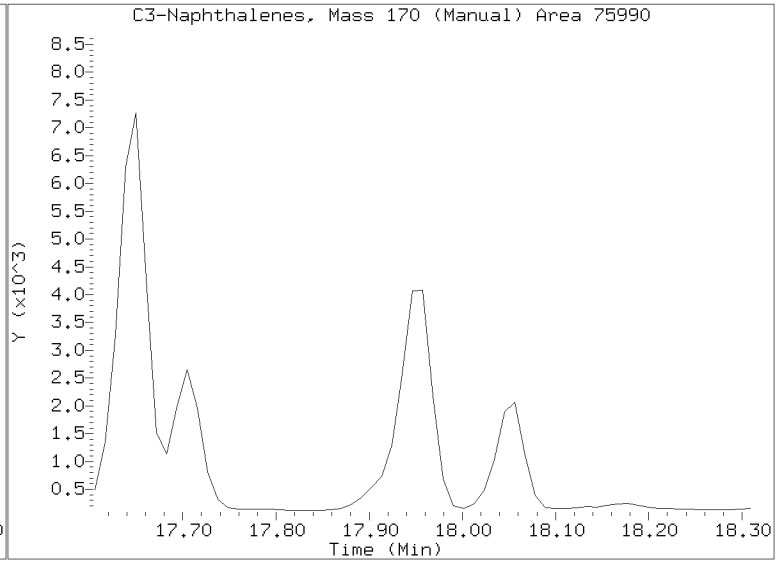
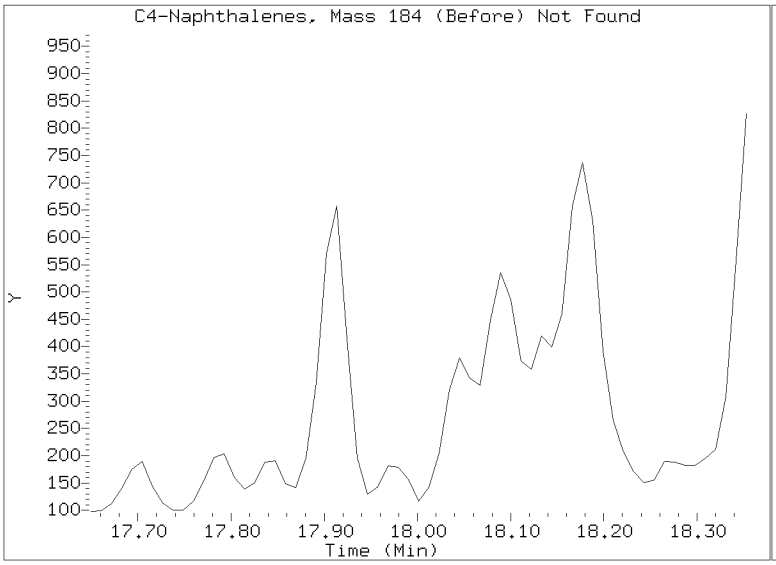
Injection Date: 02-MAY-2021 10:49
Lab ID:21D0180-03 Client ID:
Report Date: 05/07/2021 15:32

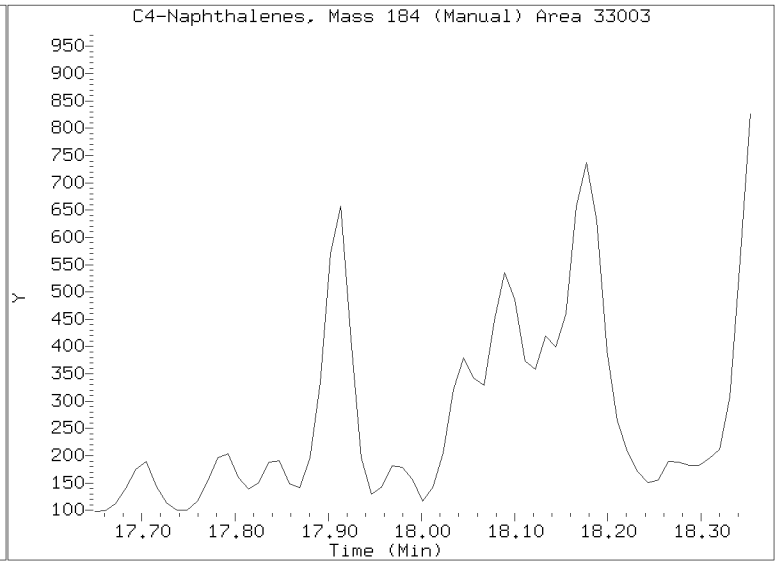


# Quant Ion Manual Peak Adjustment Report

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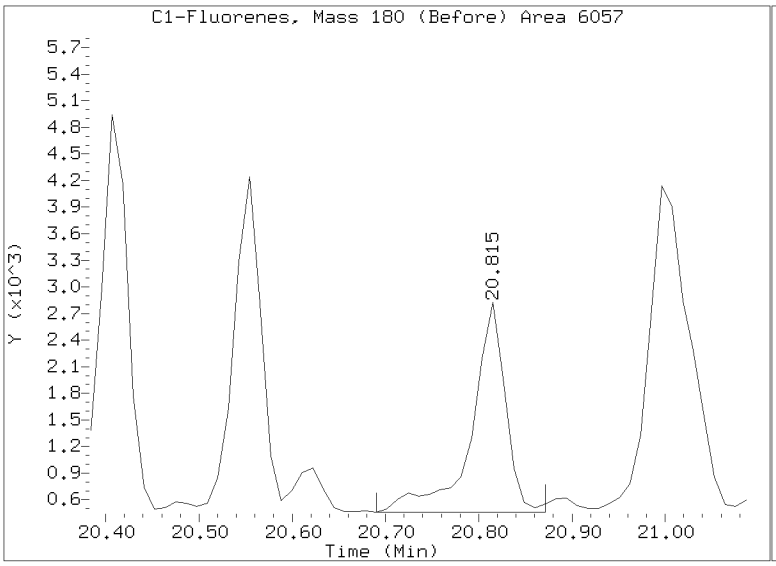


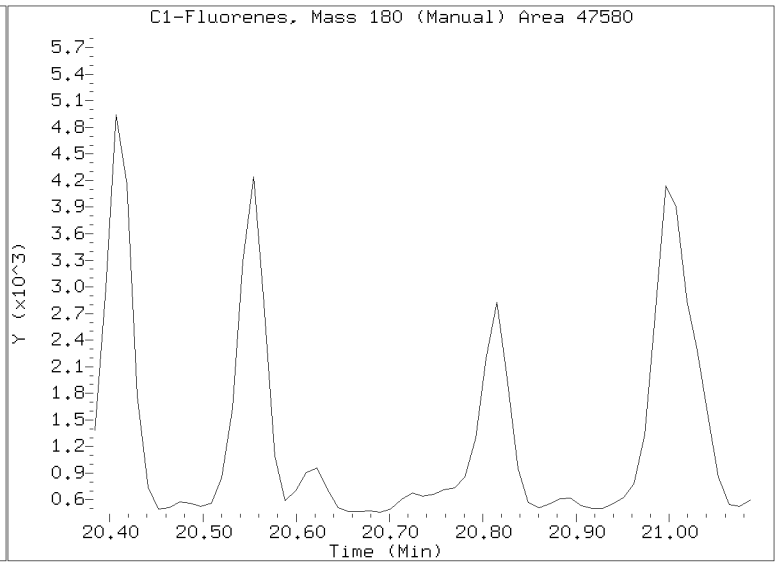


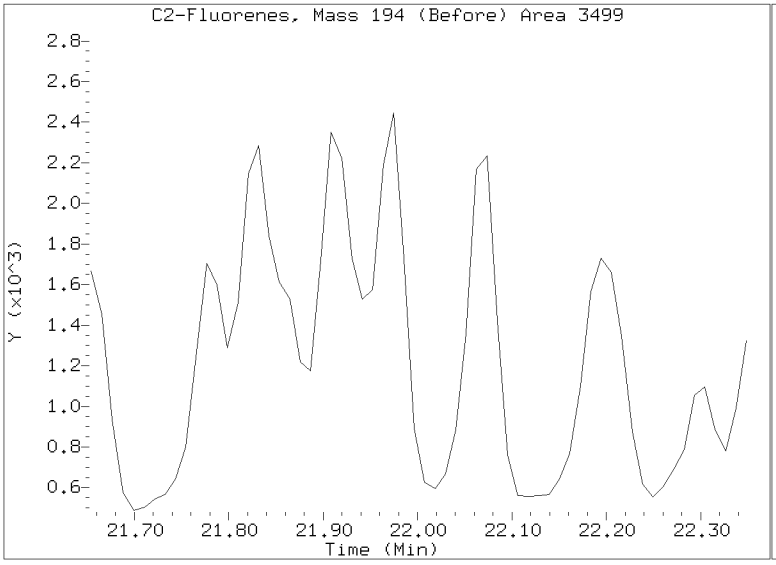


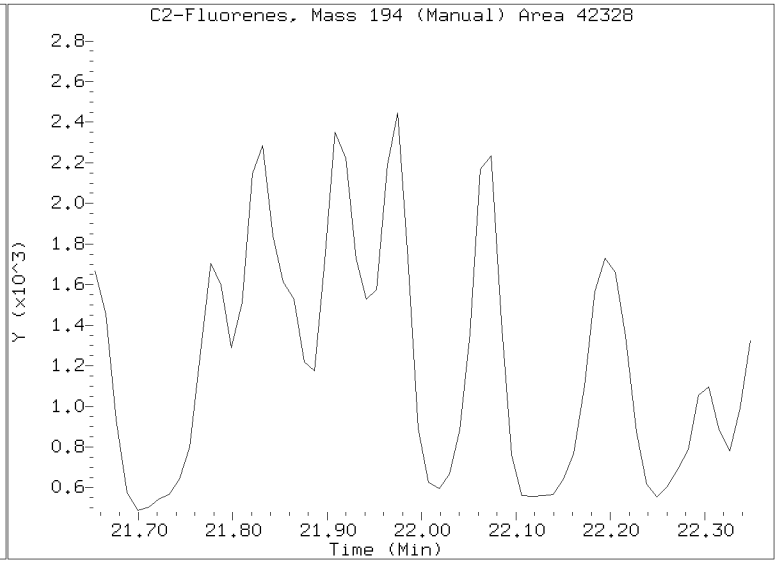


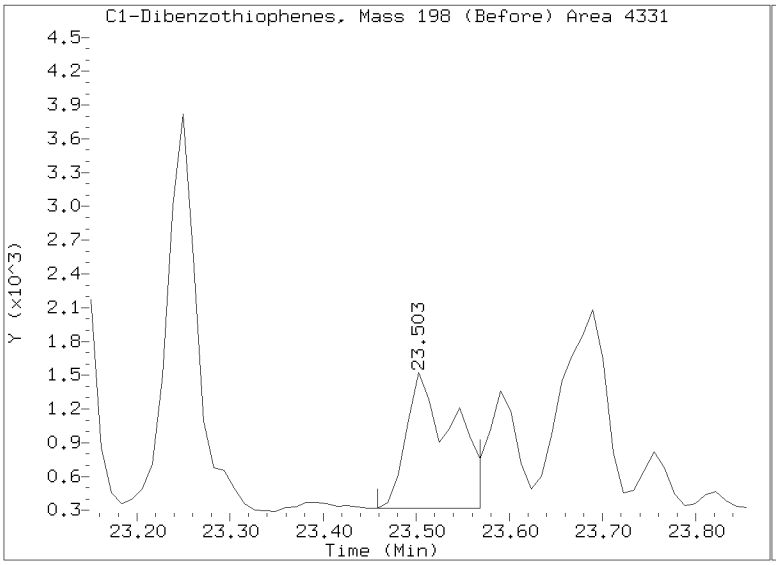


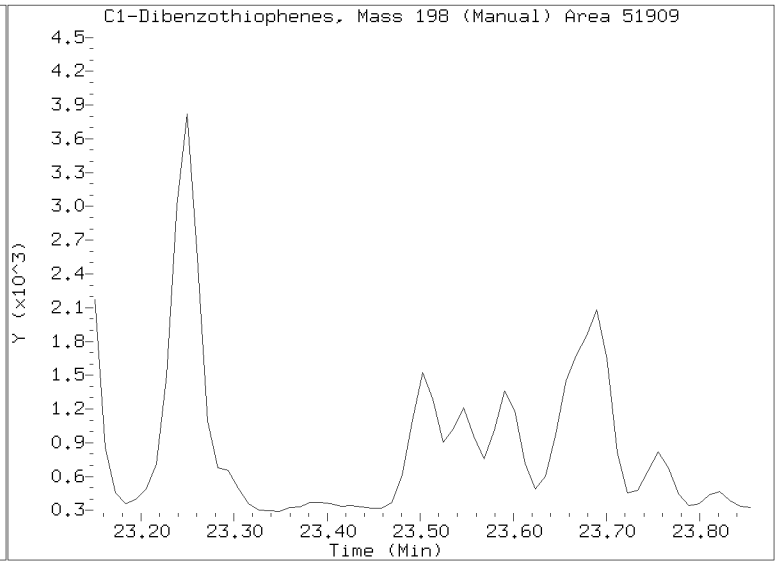

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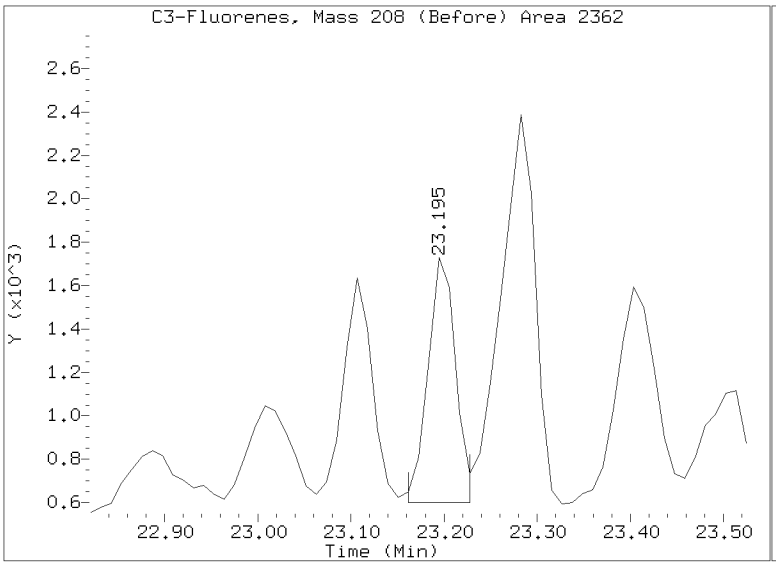


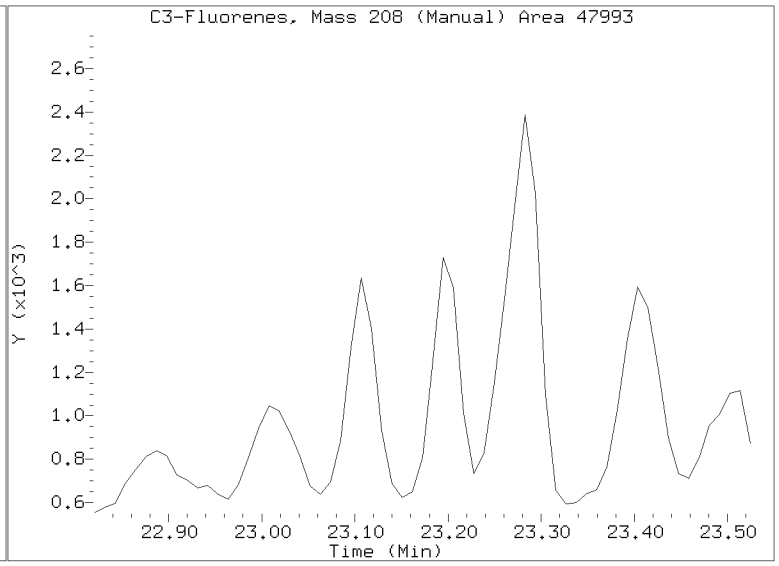


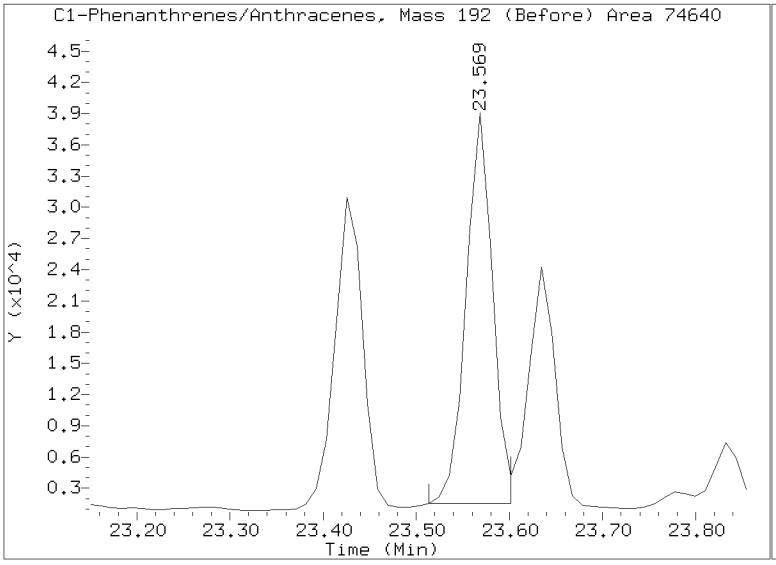


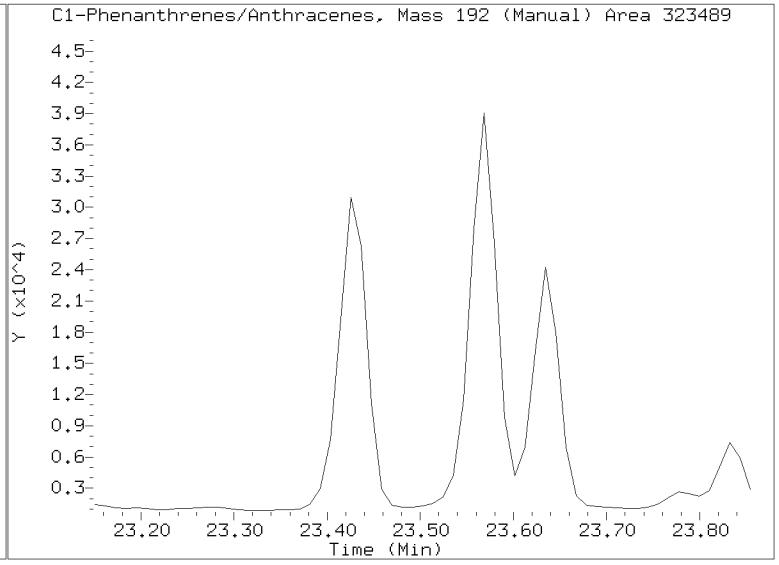


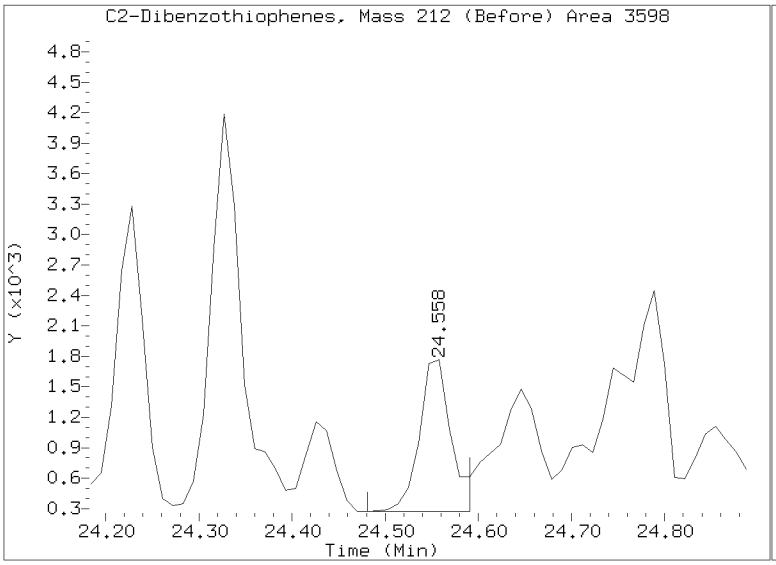


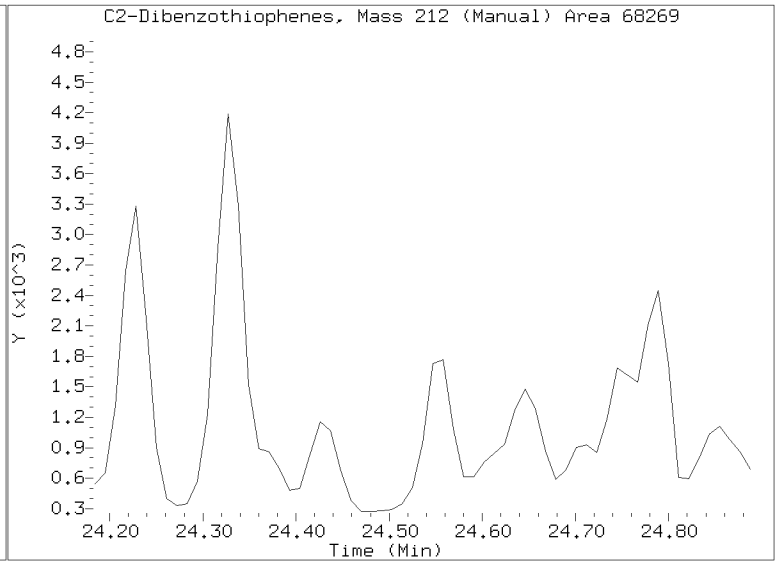

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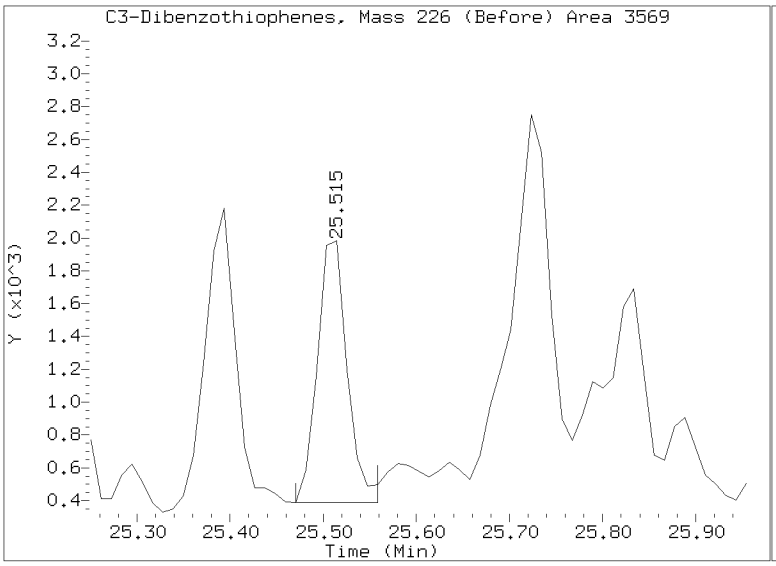


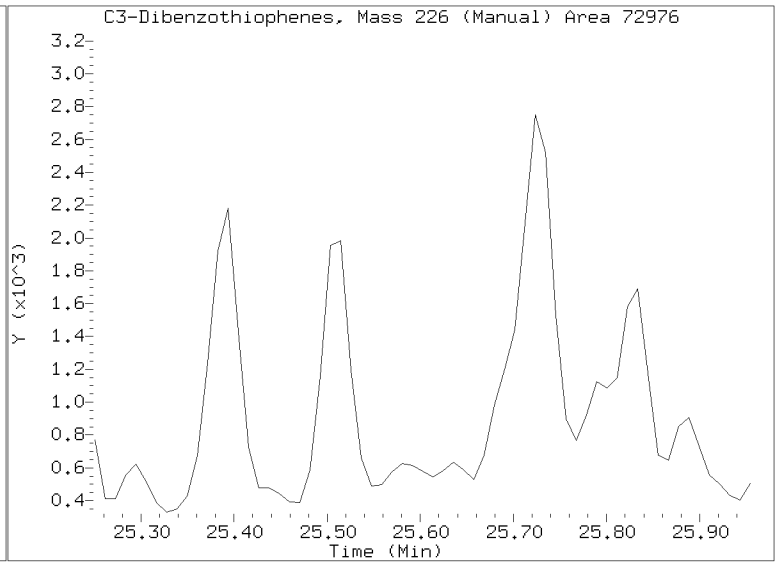


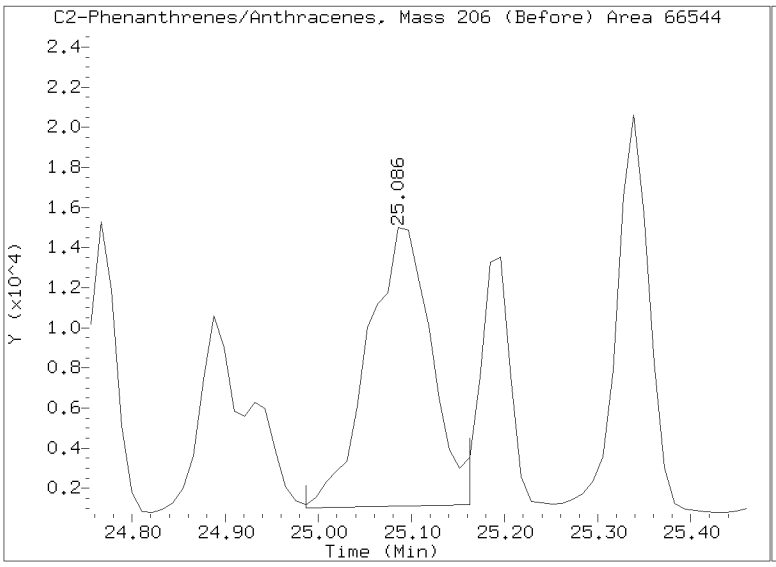


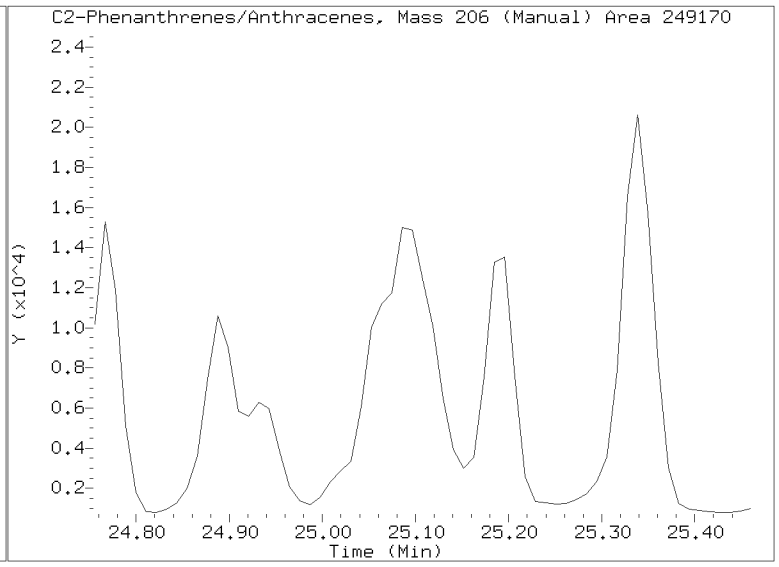


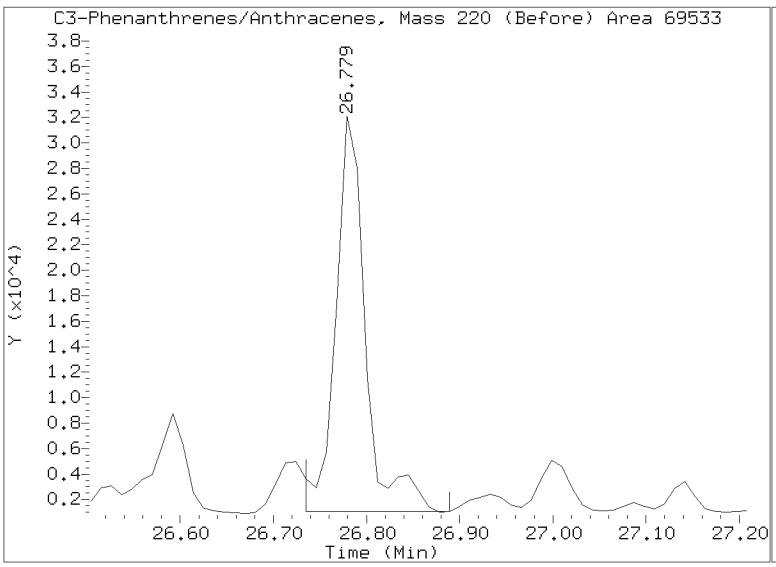


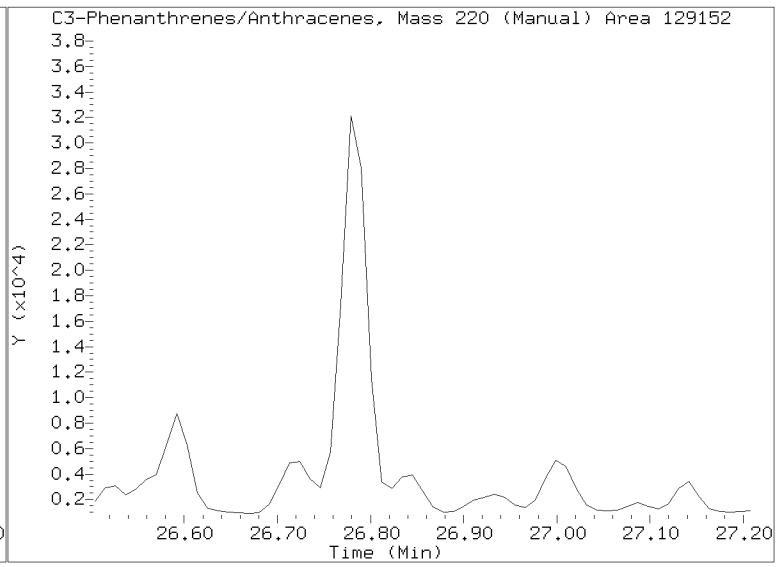

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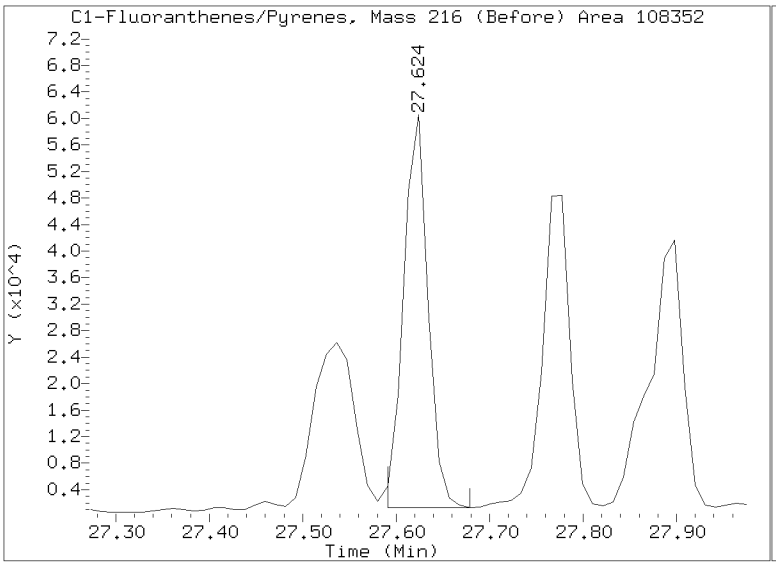


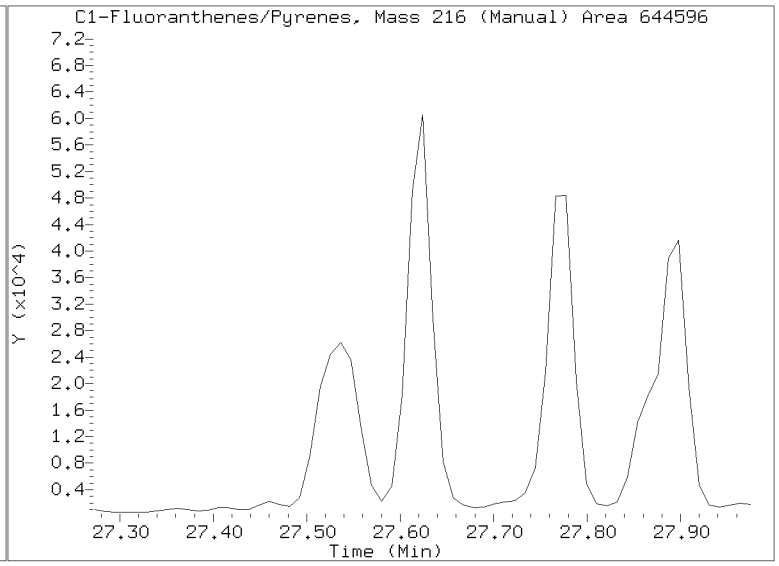


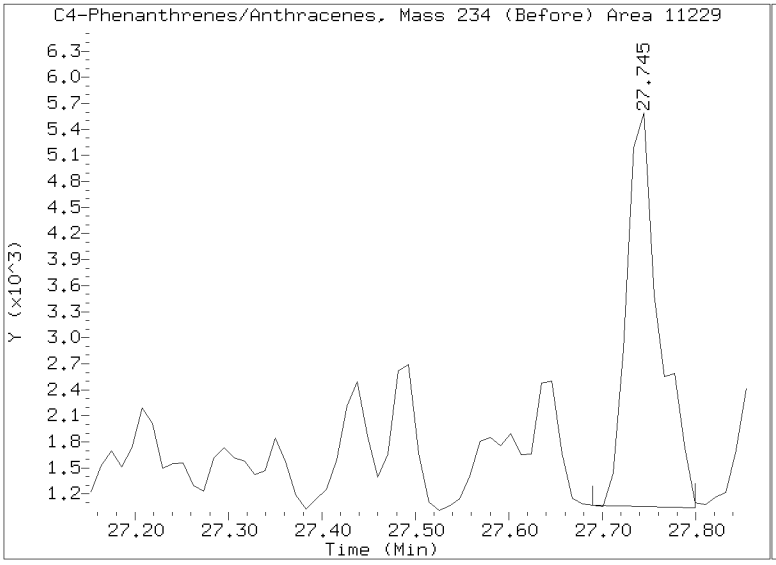


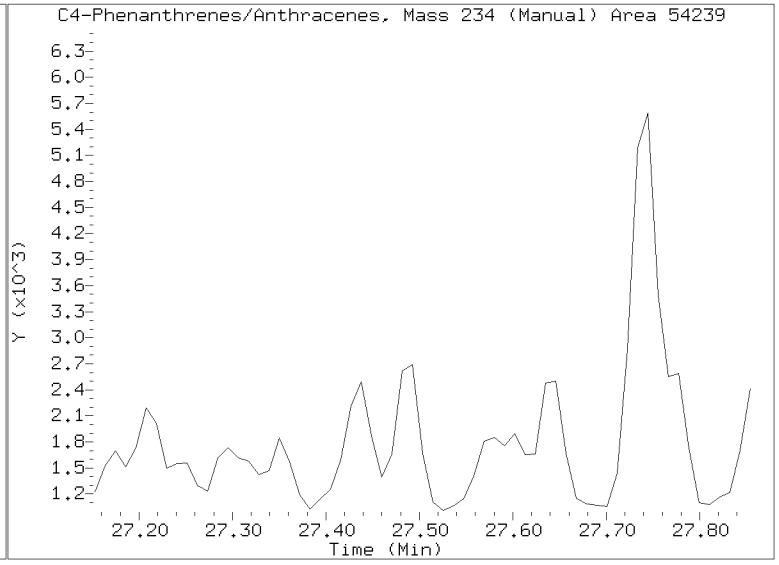


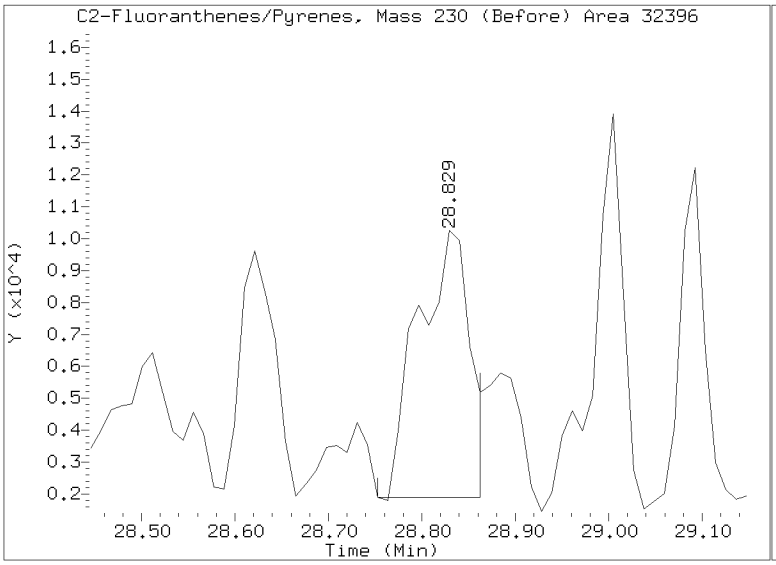


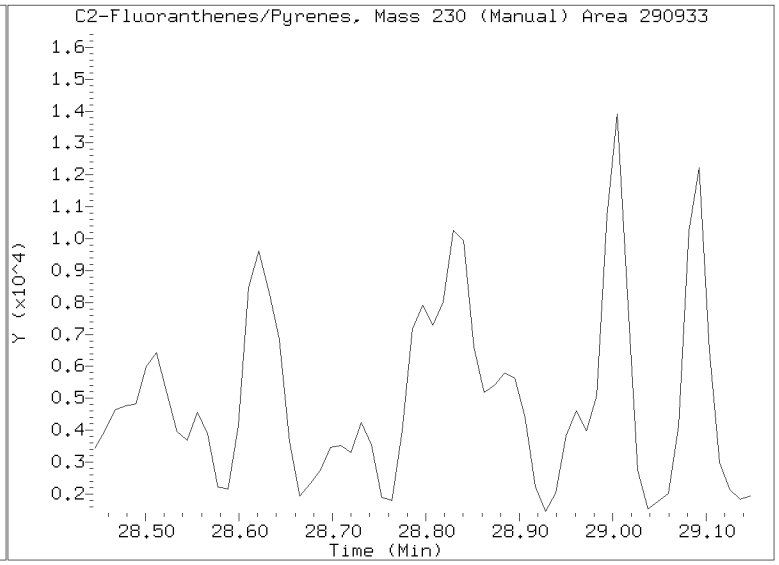

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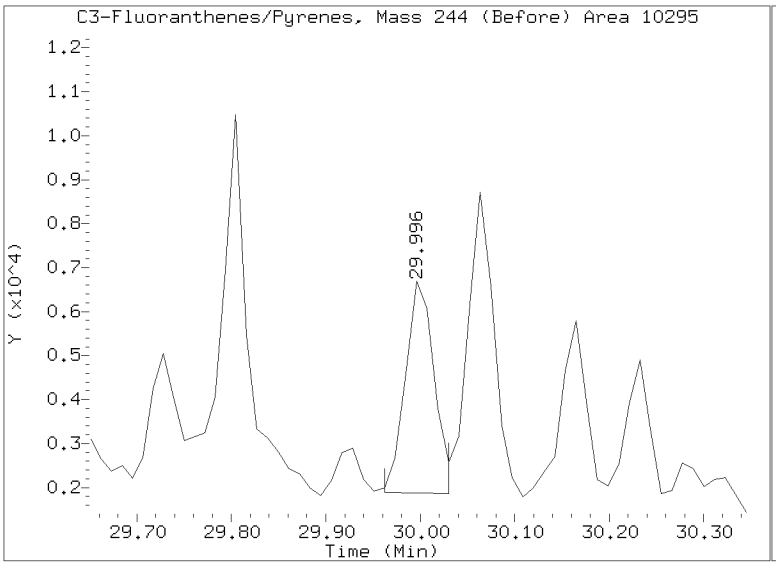


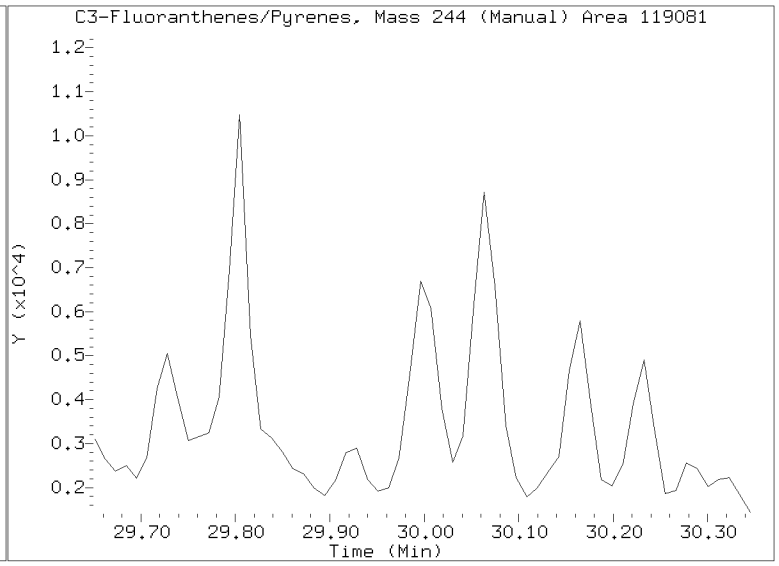


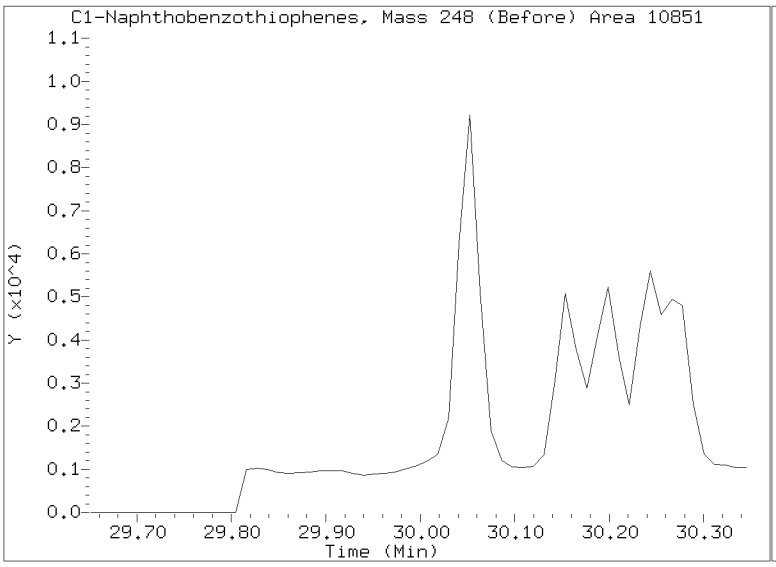


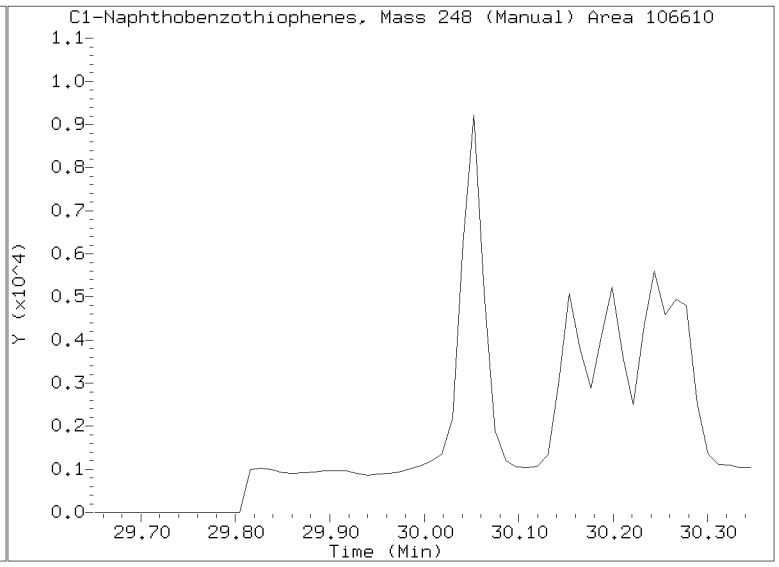


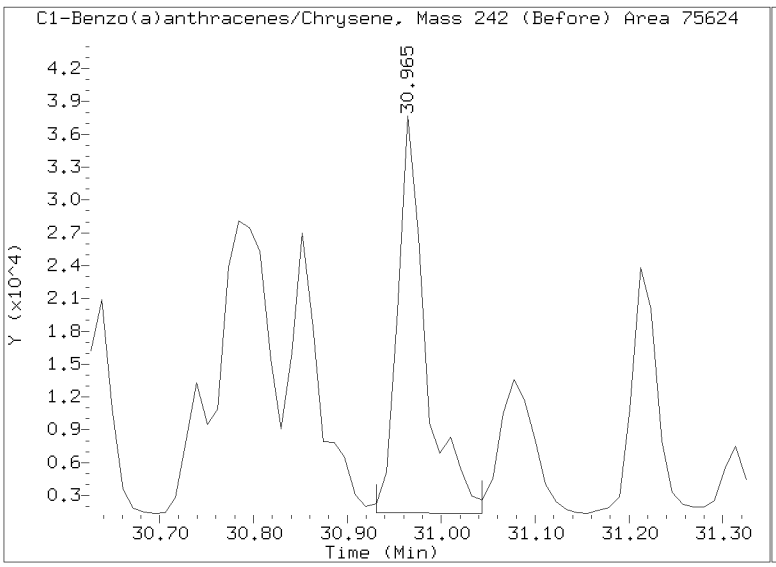


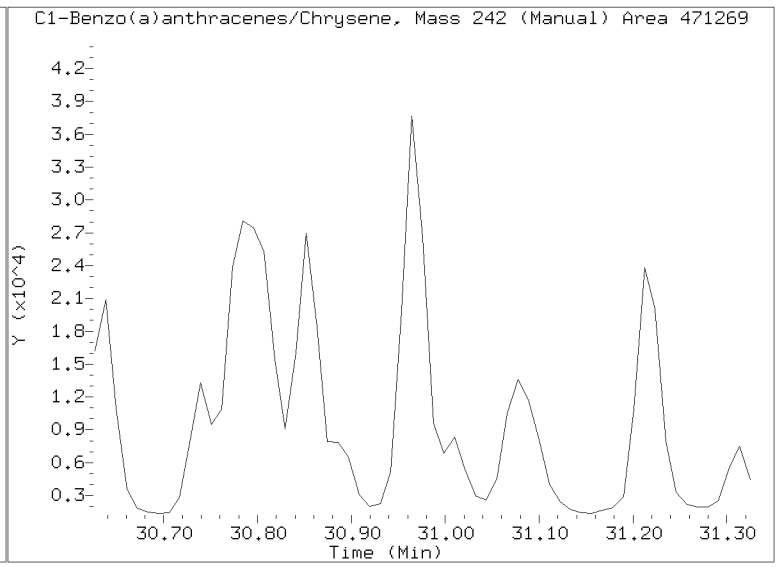

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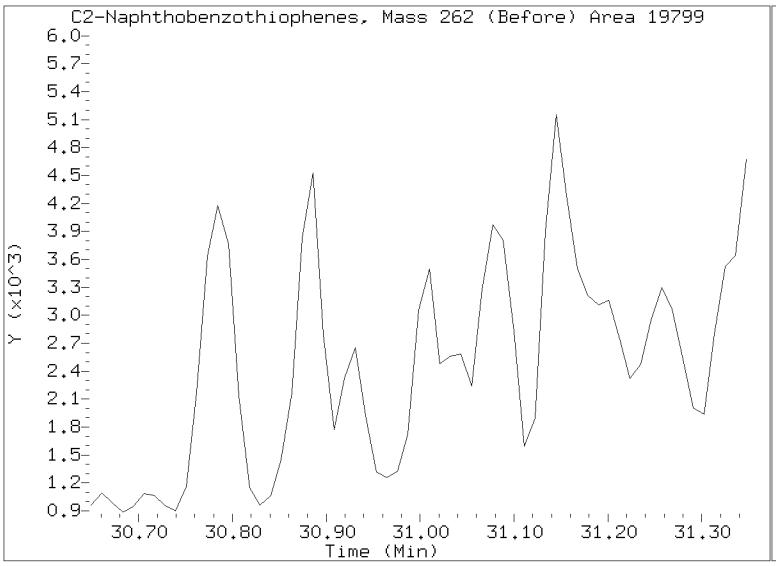


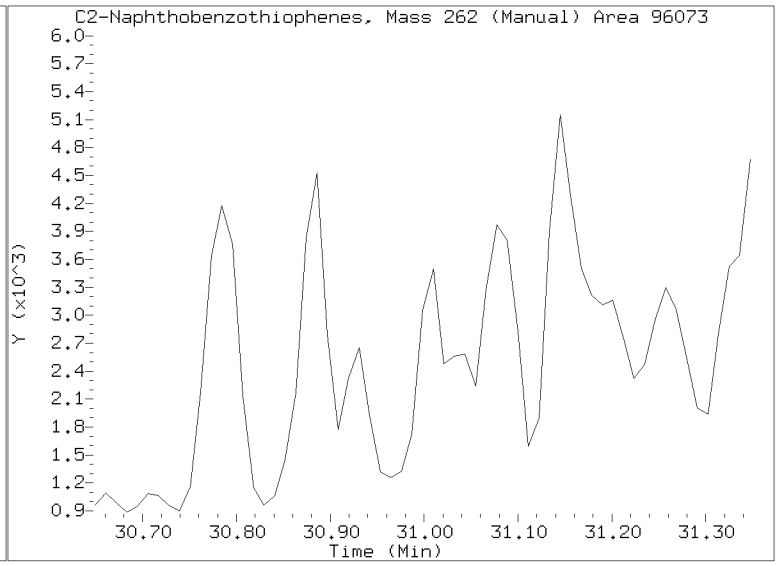


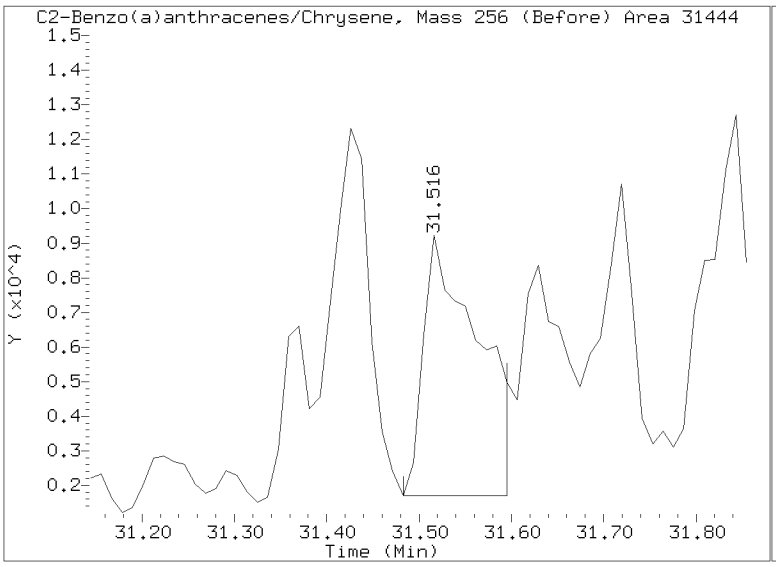


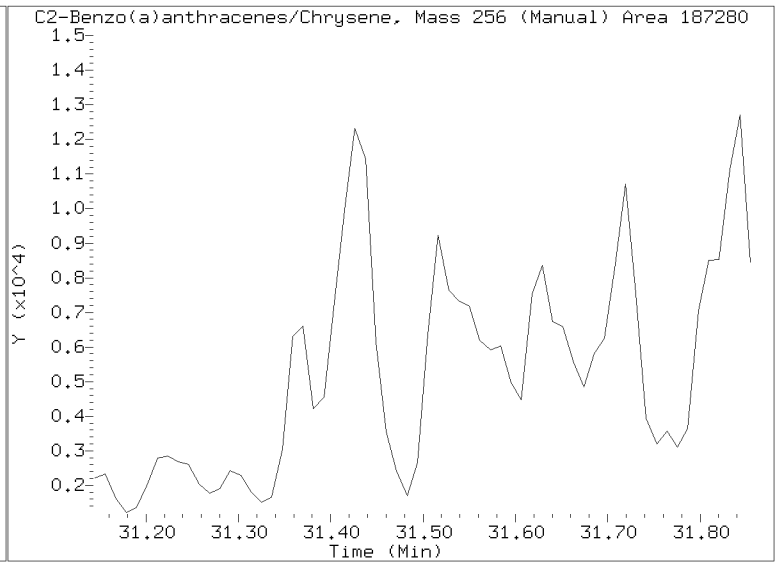


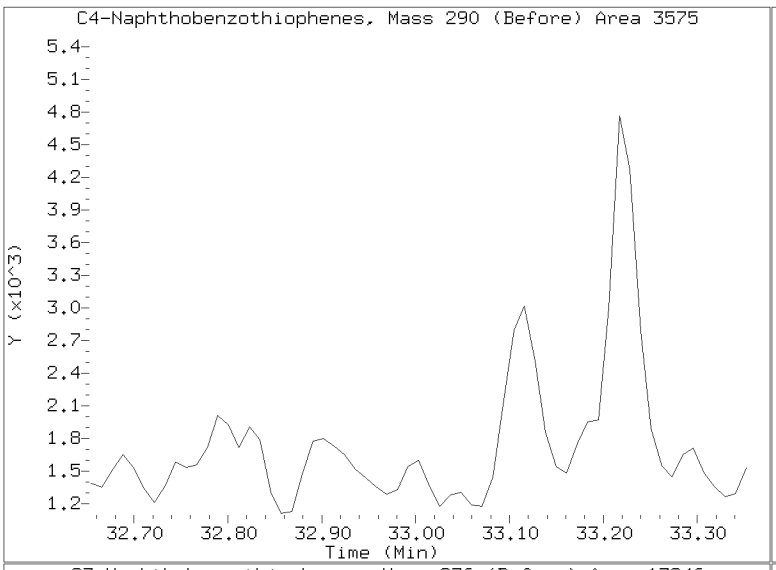


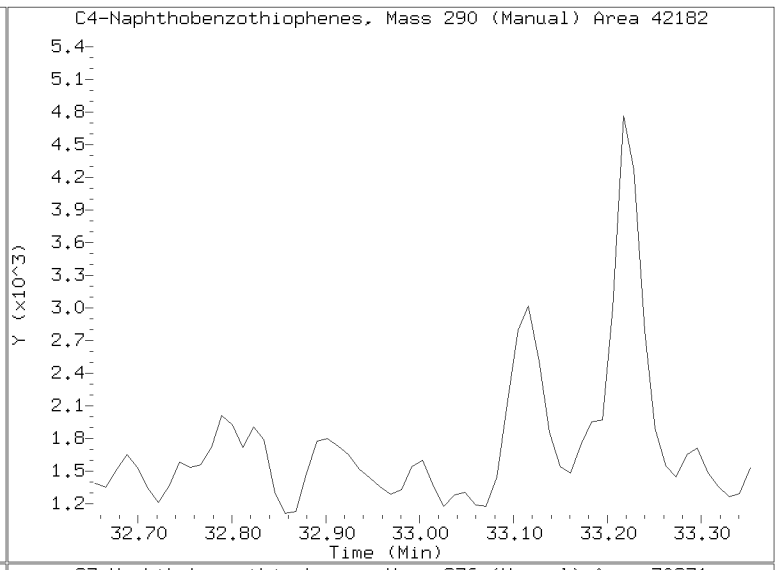


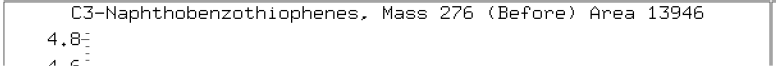


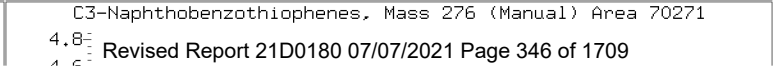

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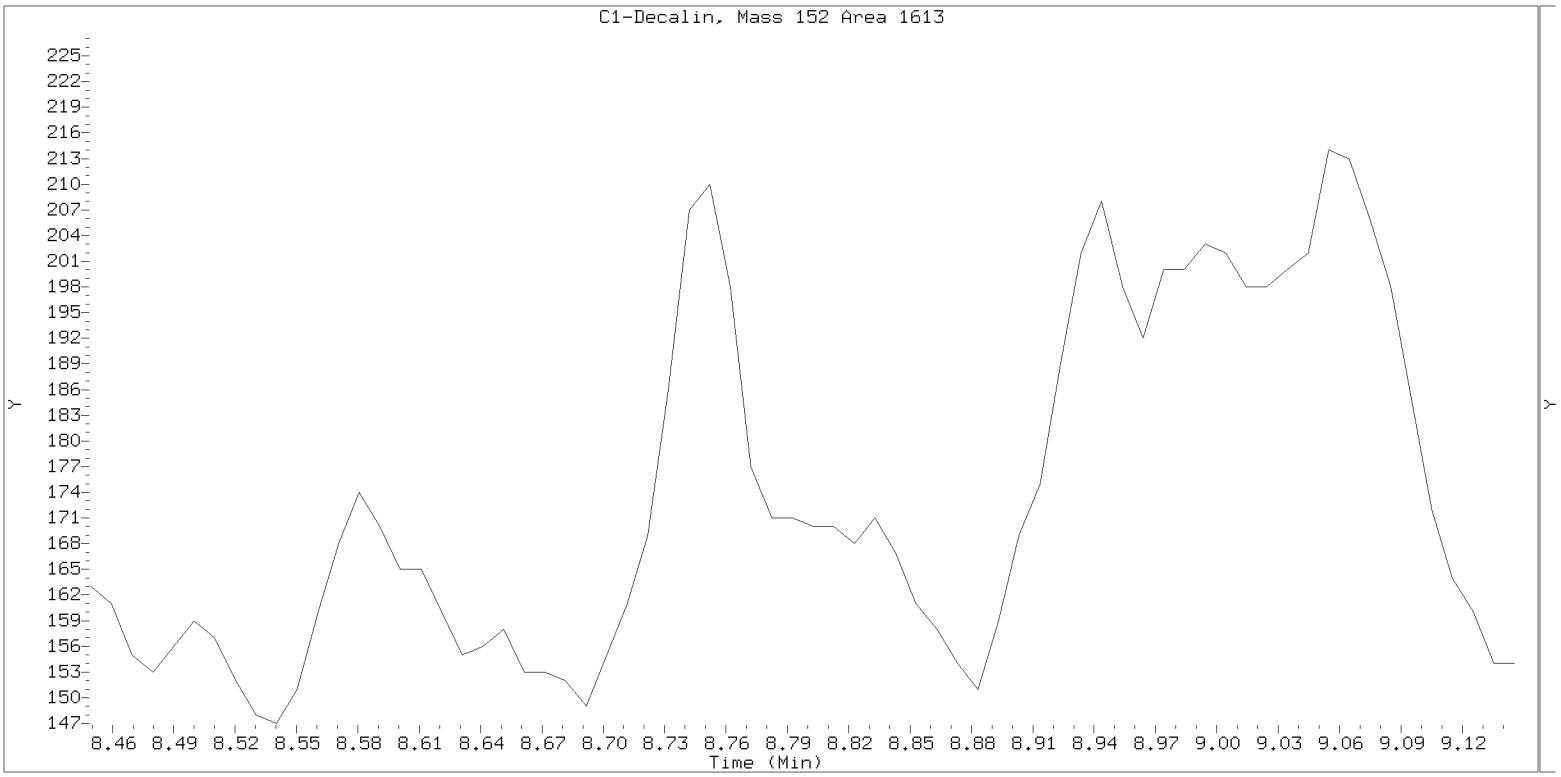

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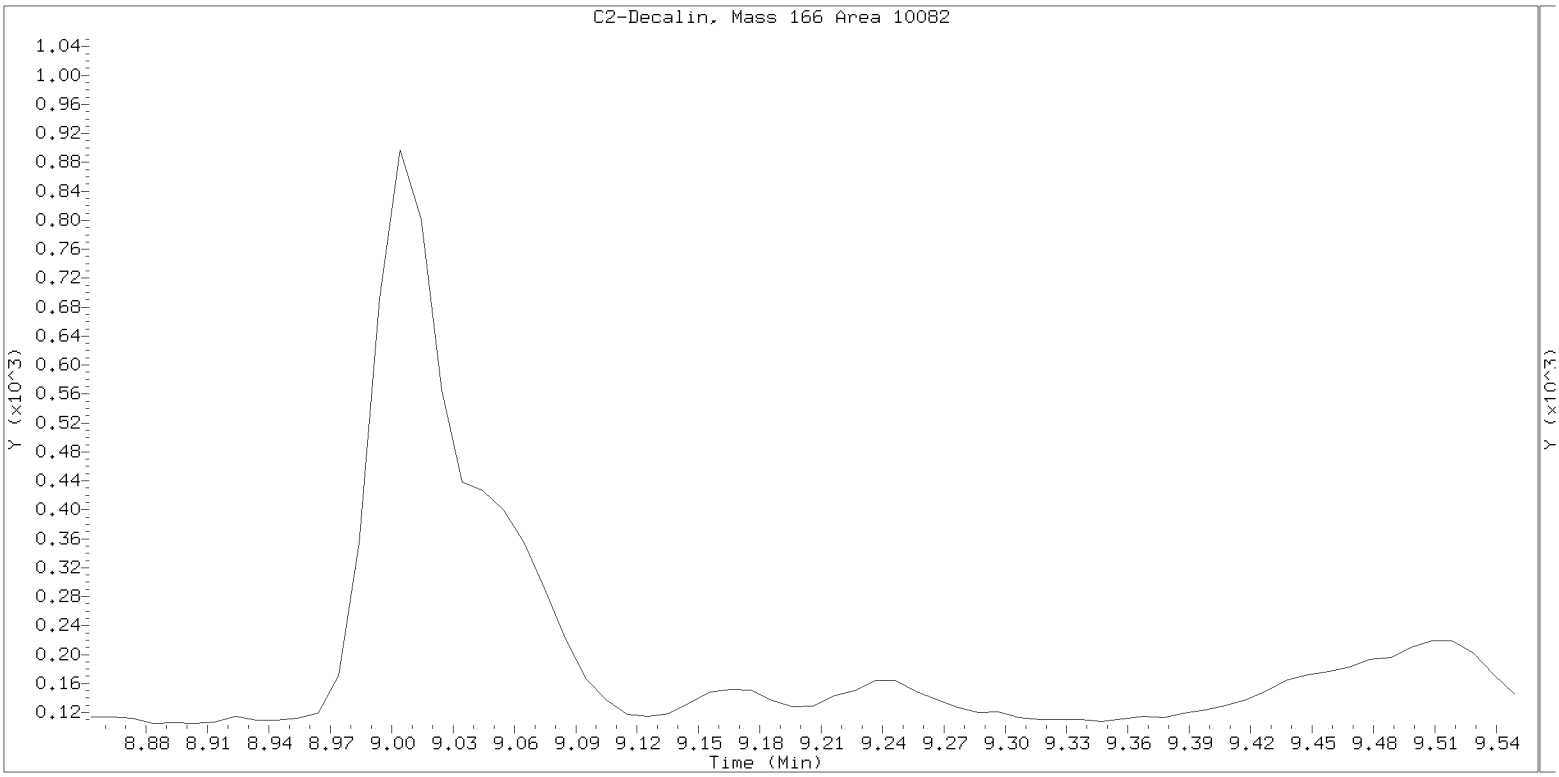

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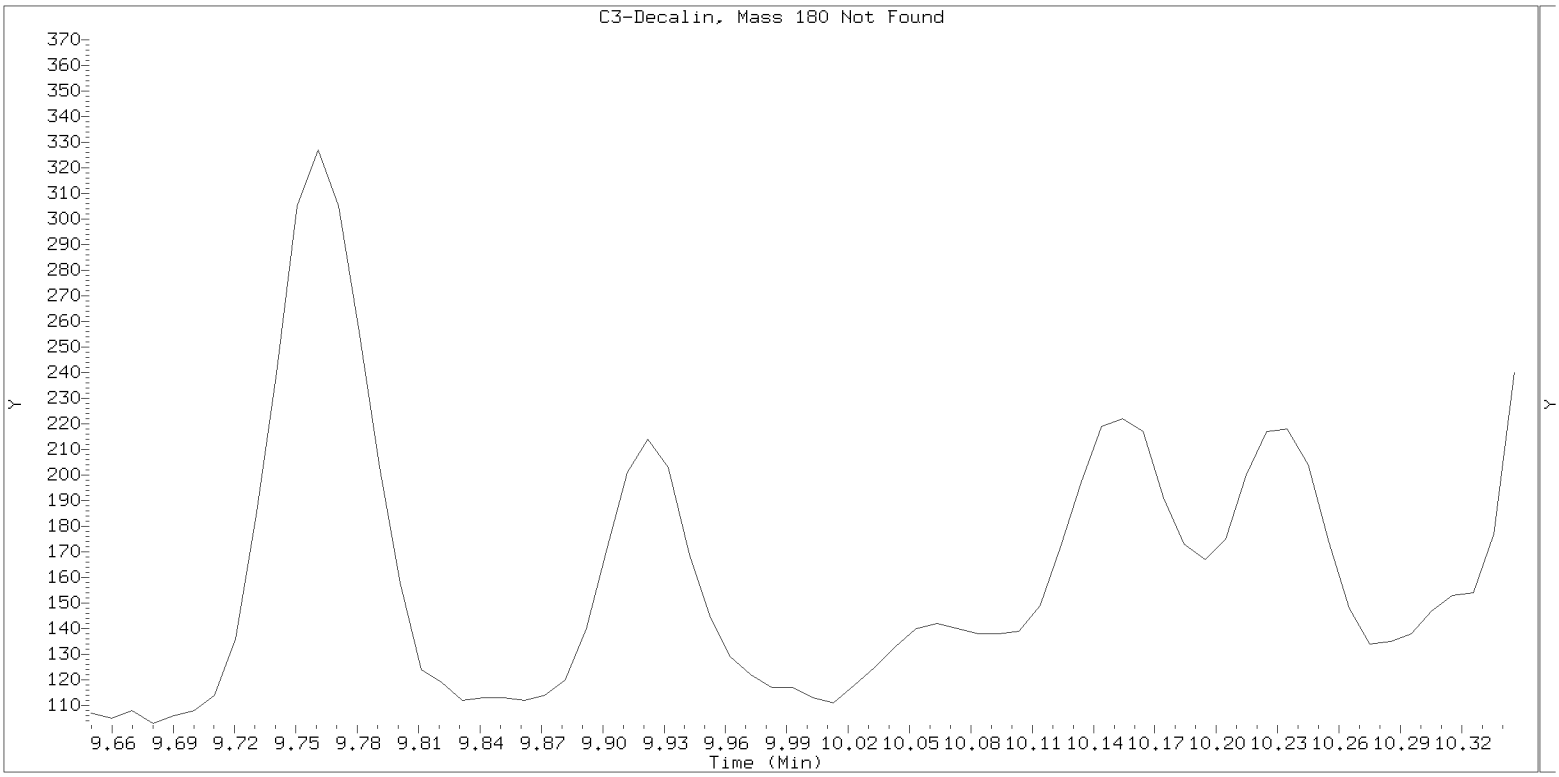

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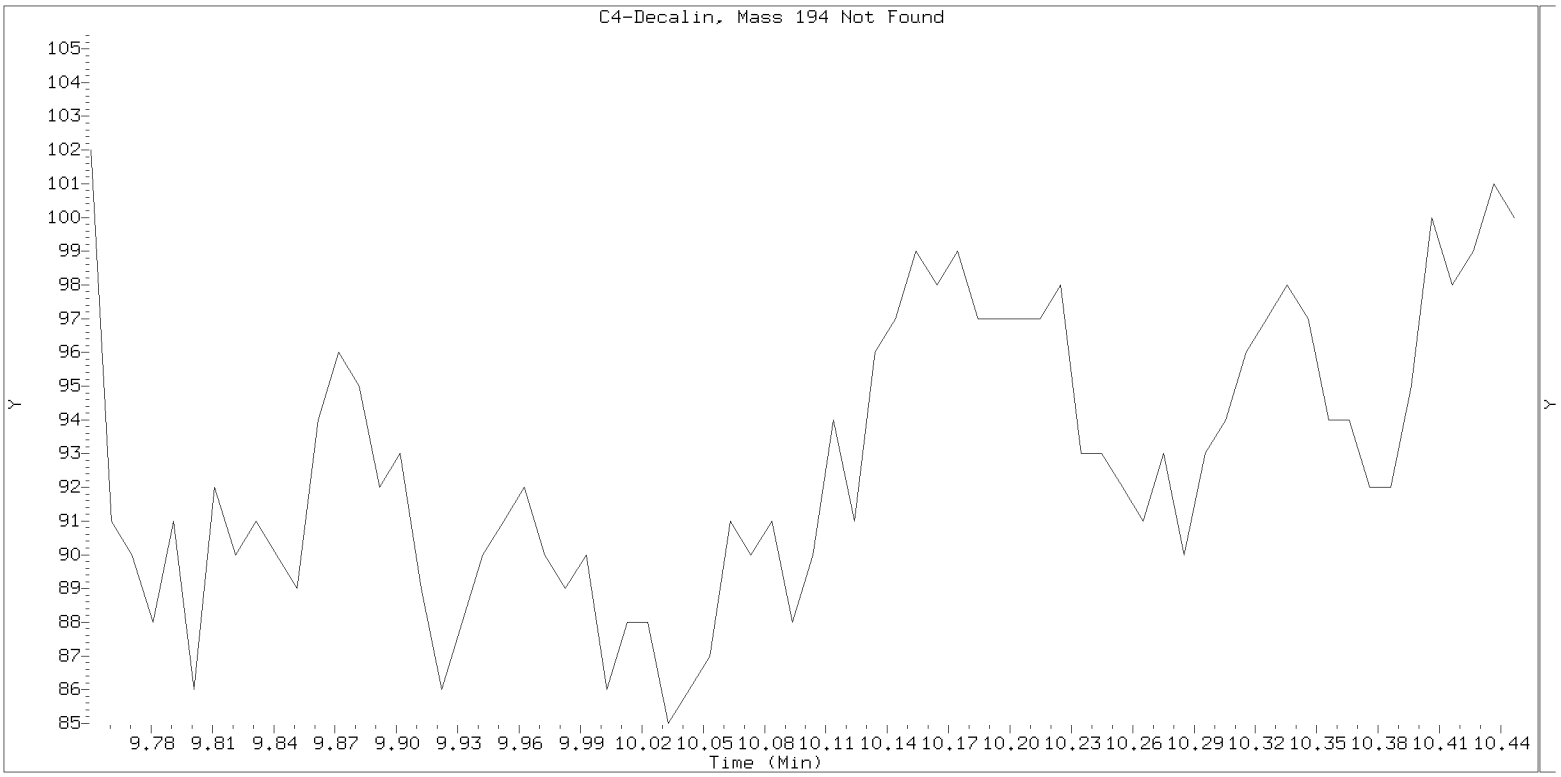

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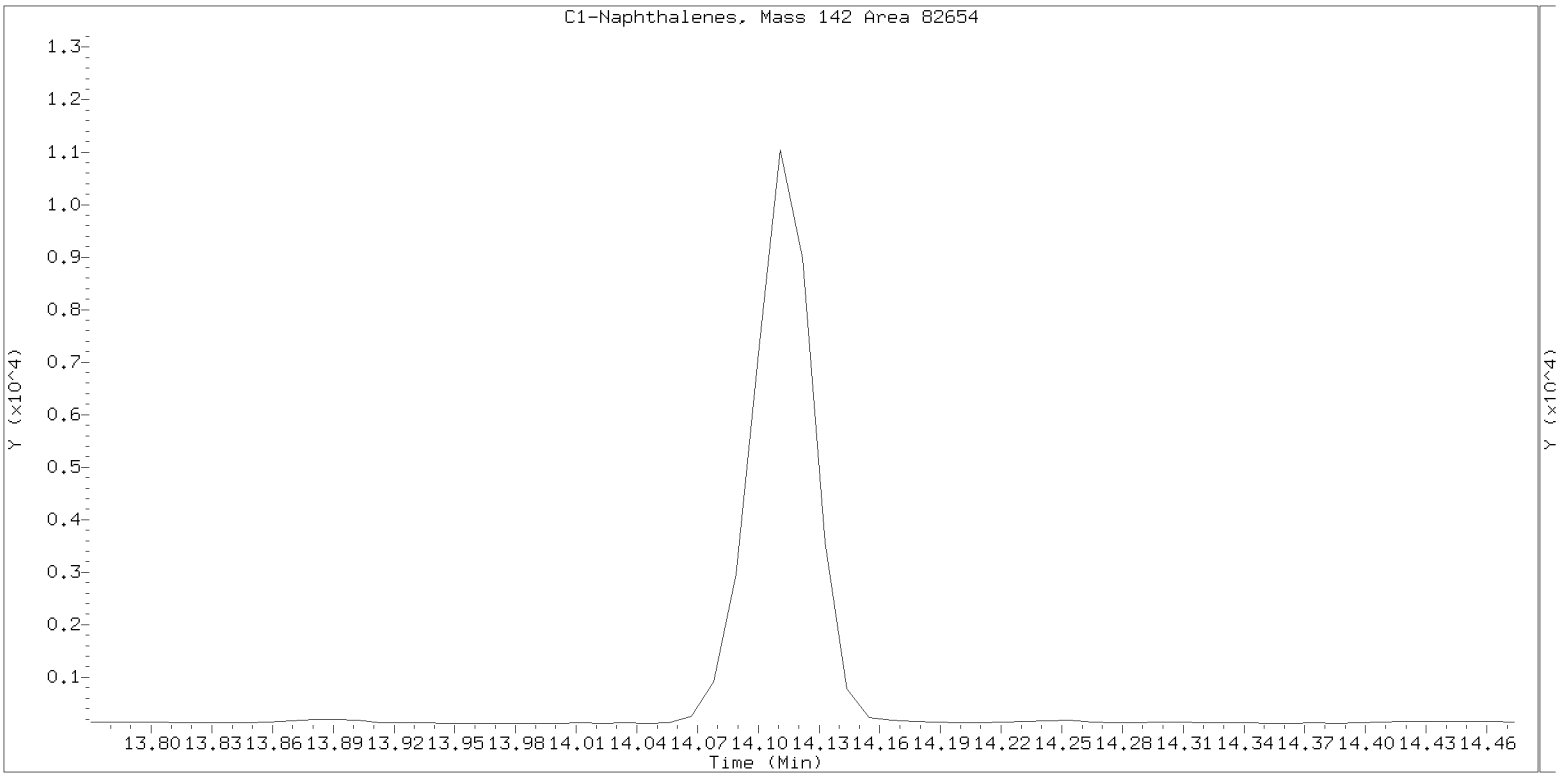


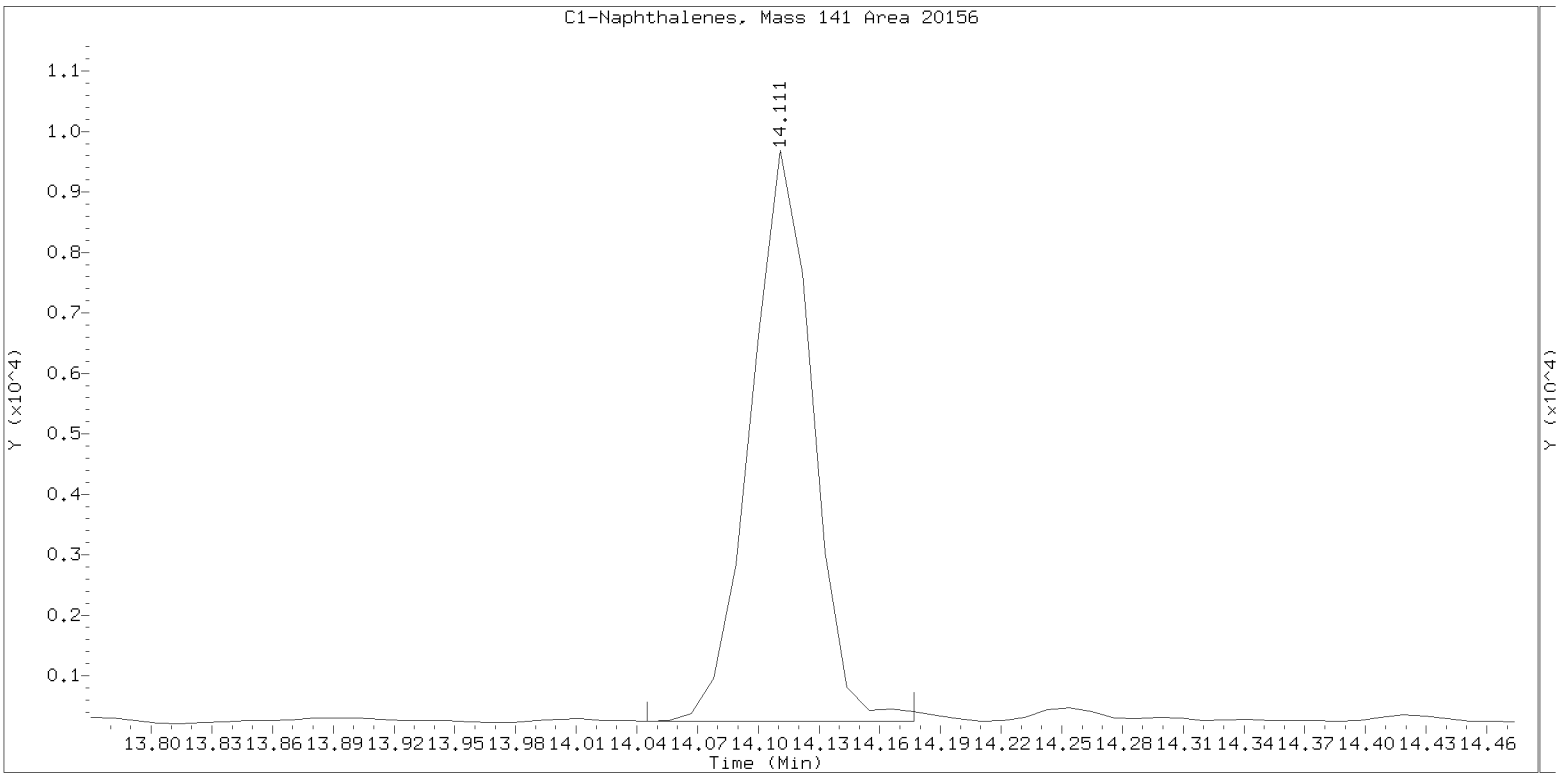


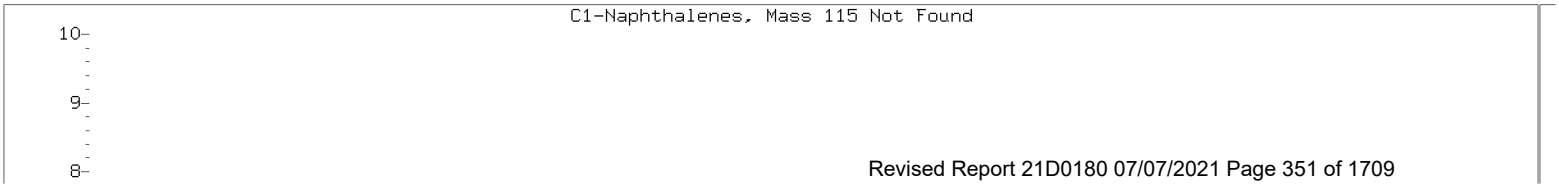

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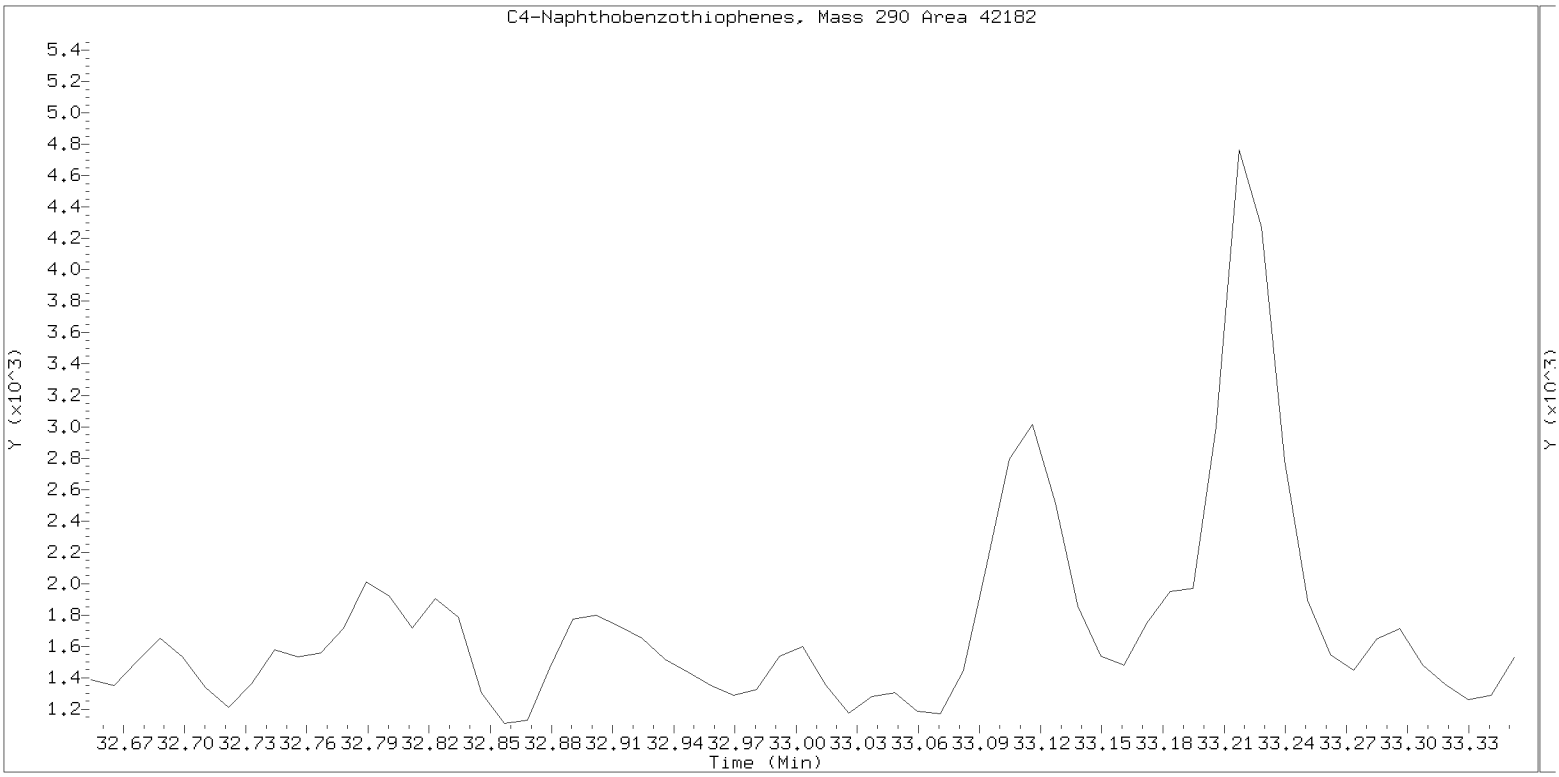

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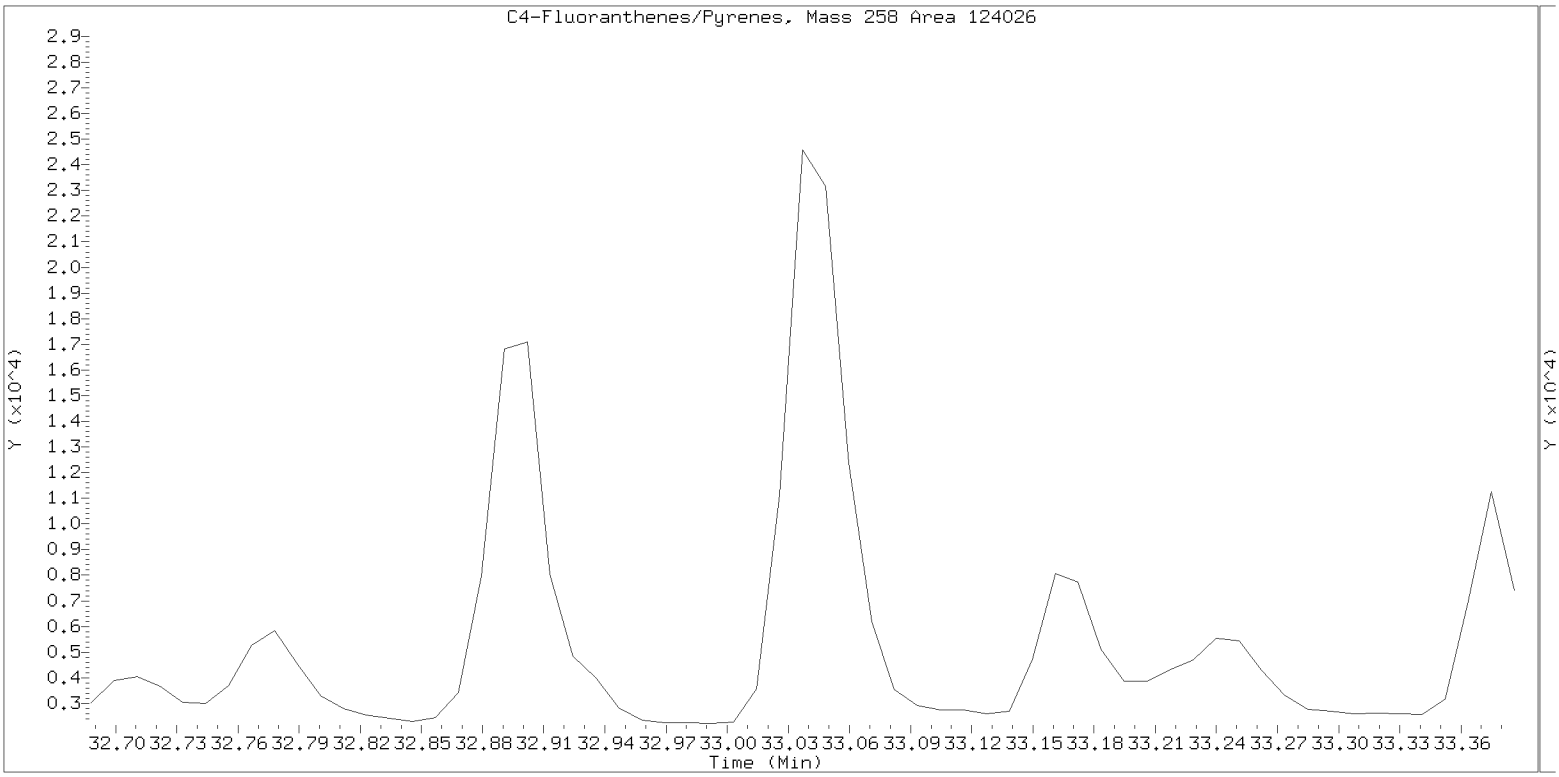

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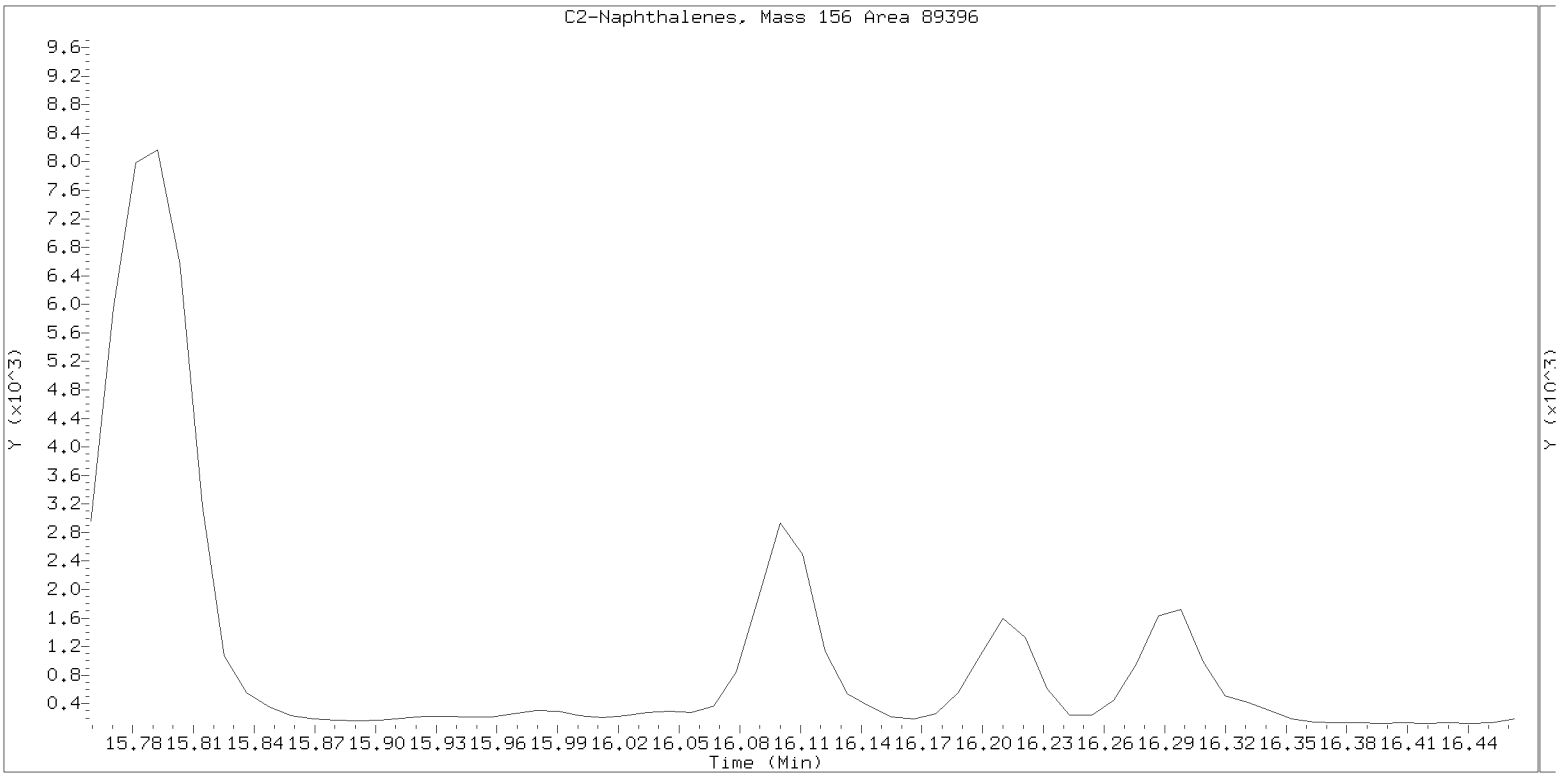


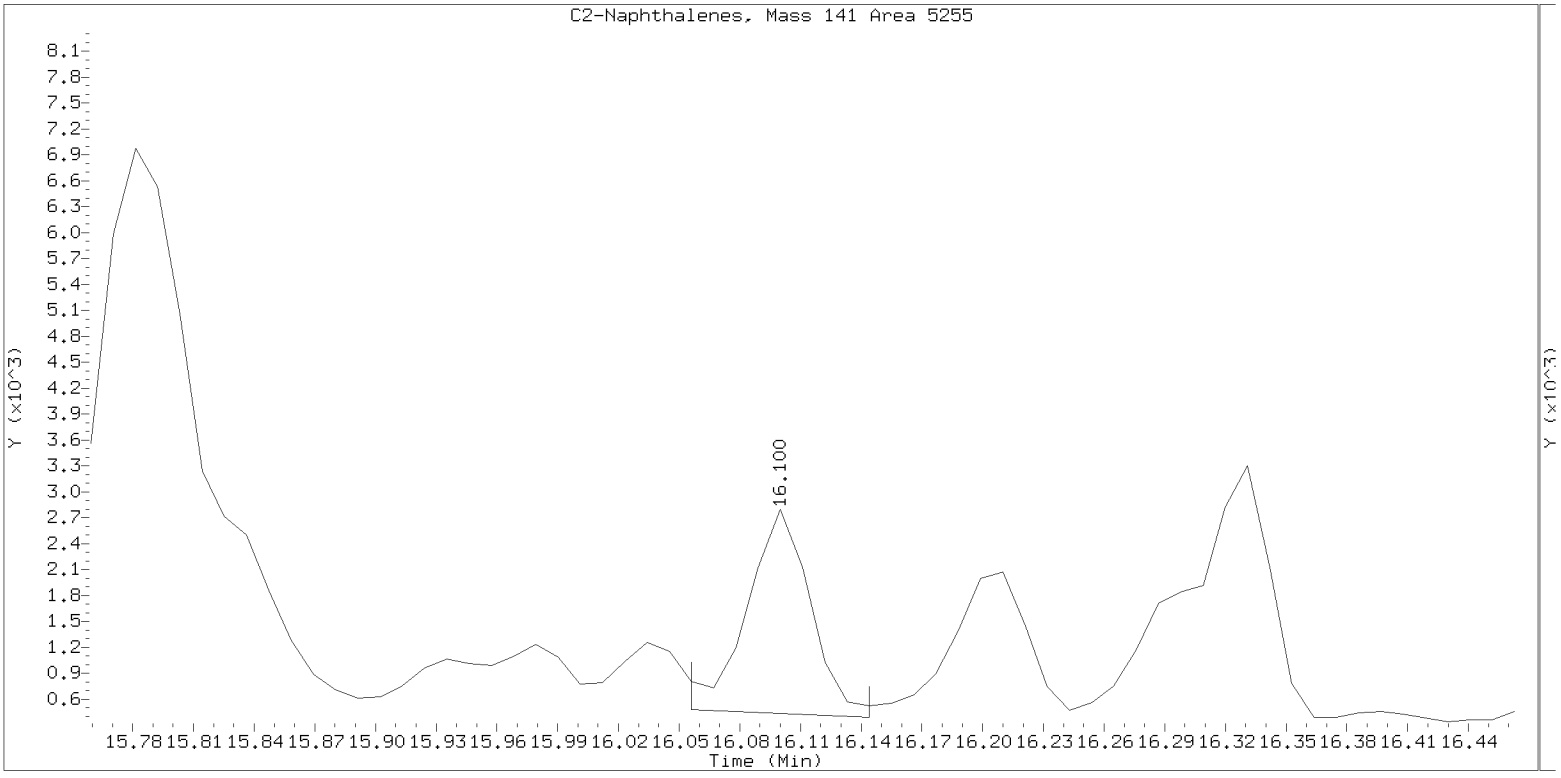


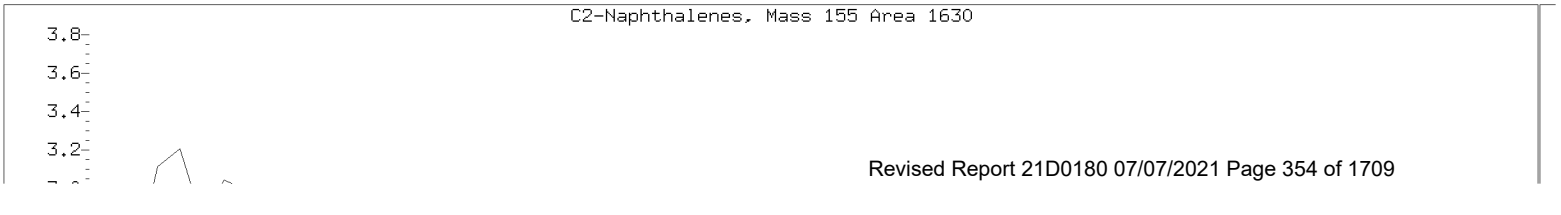

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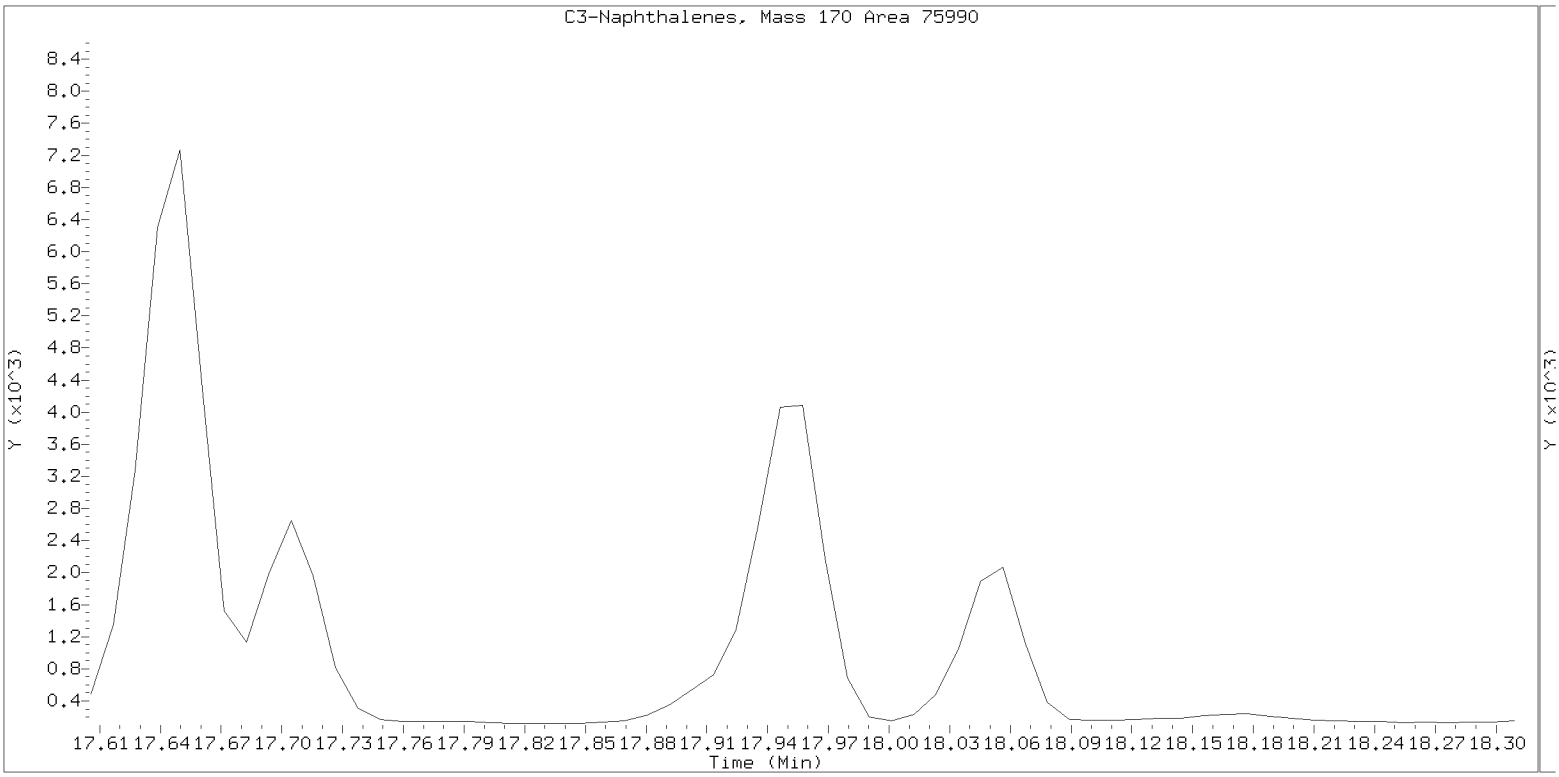


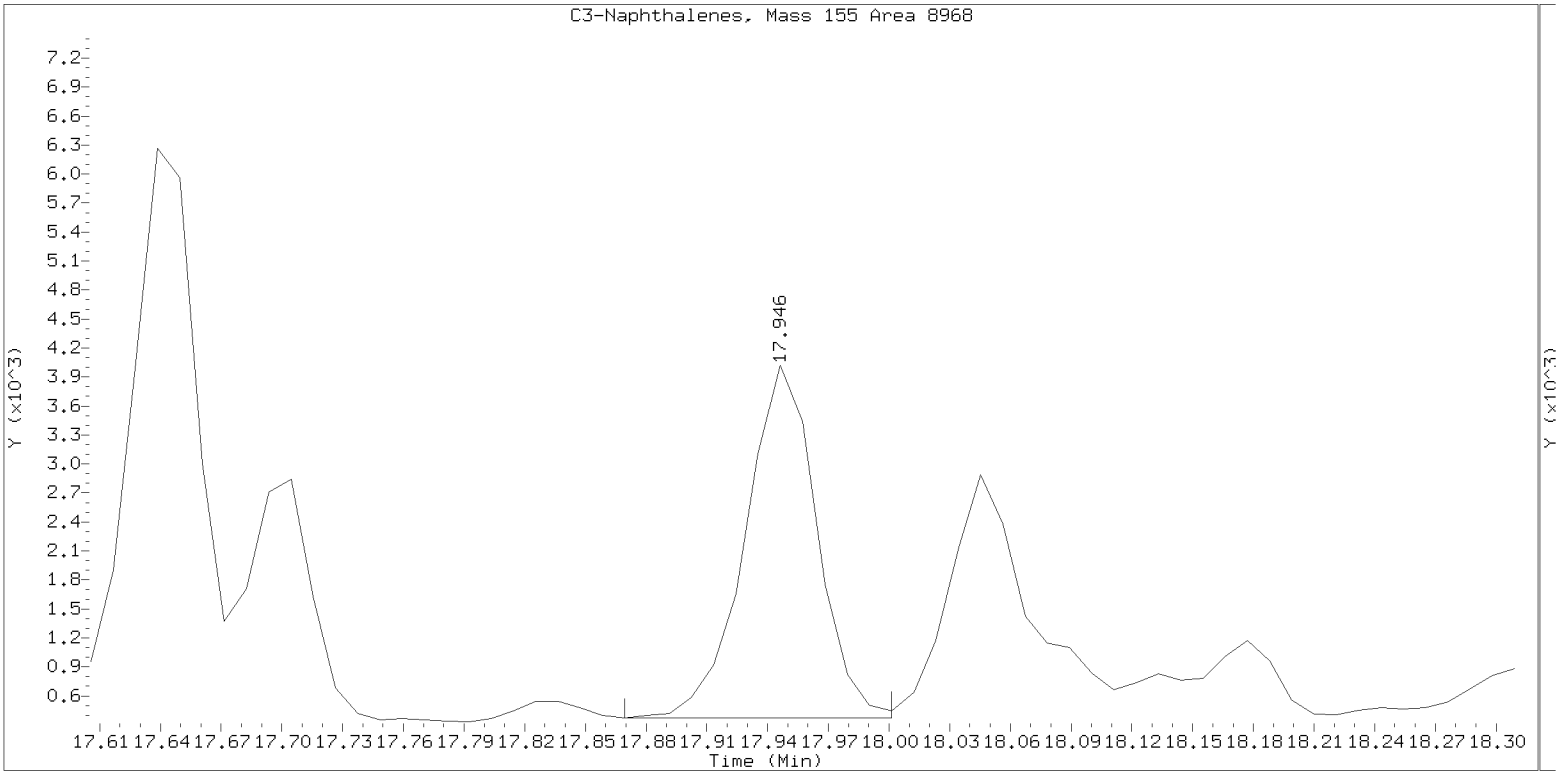


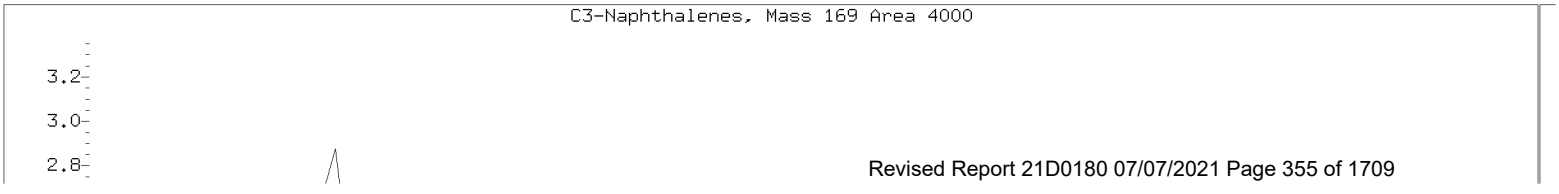

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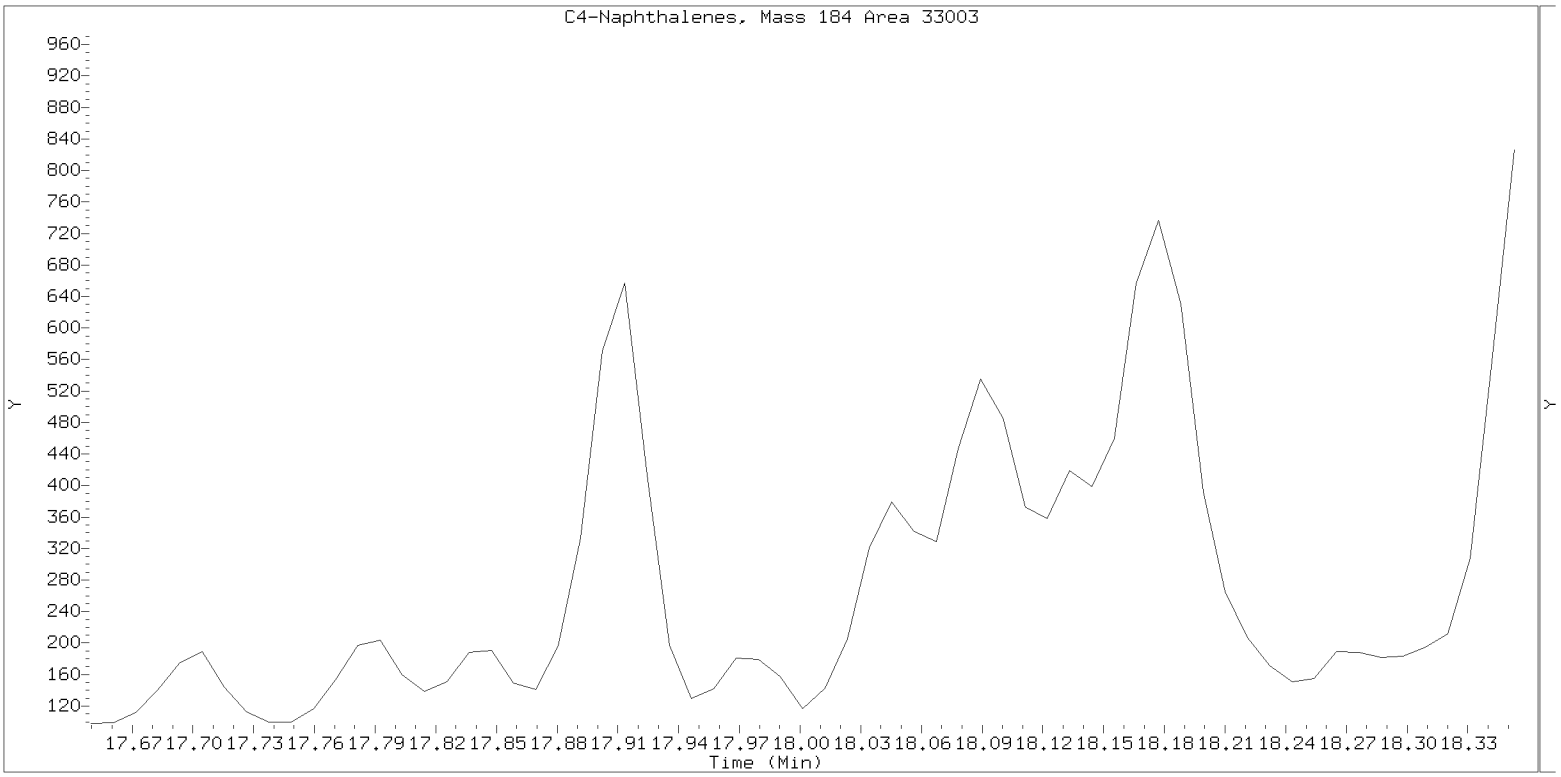


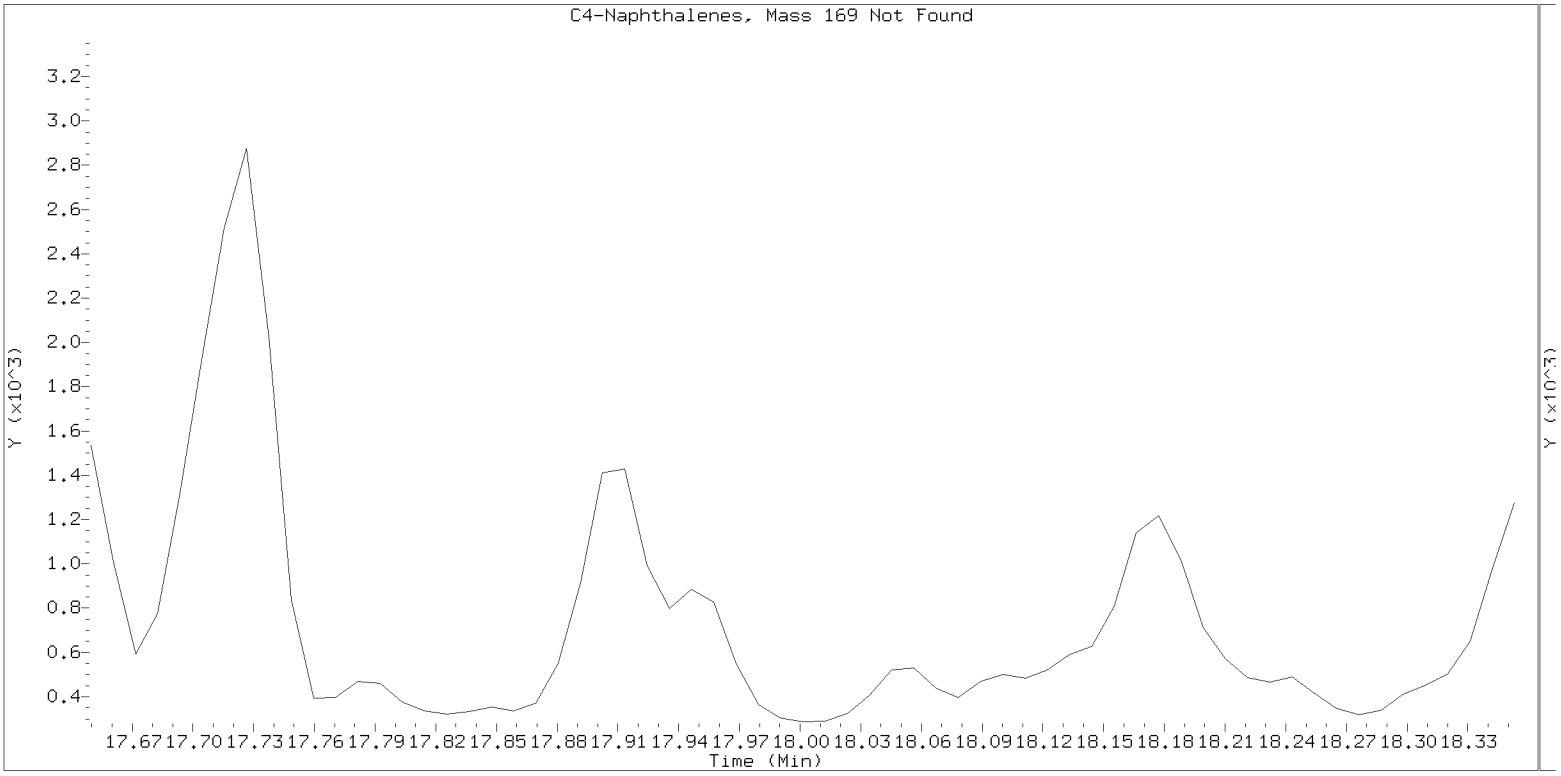


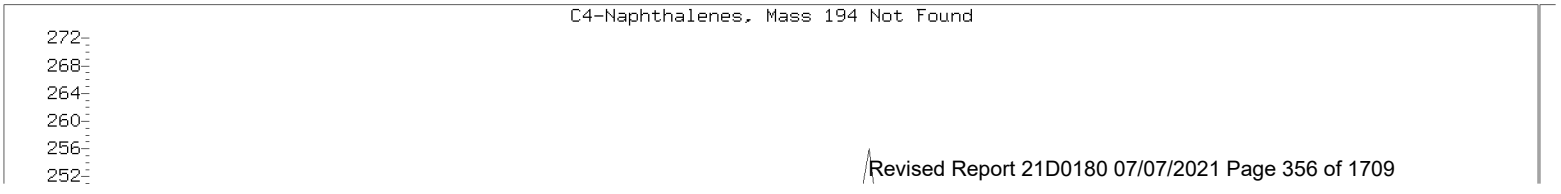

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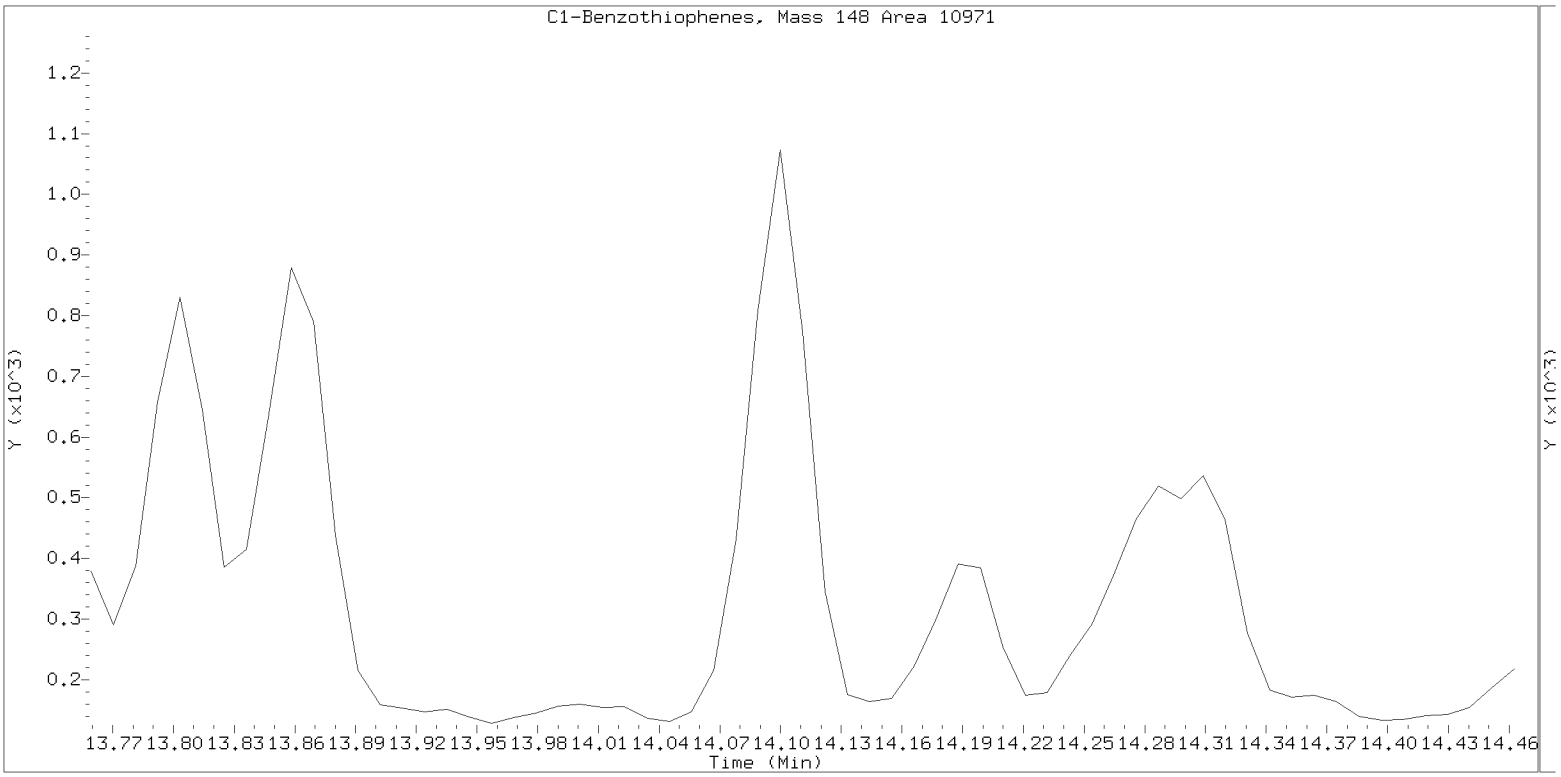


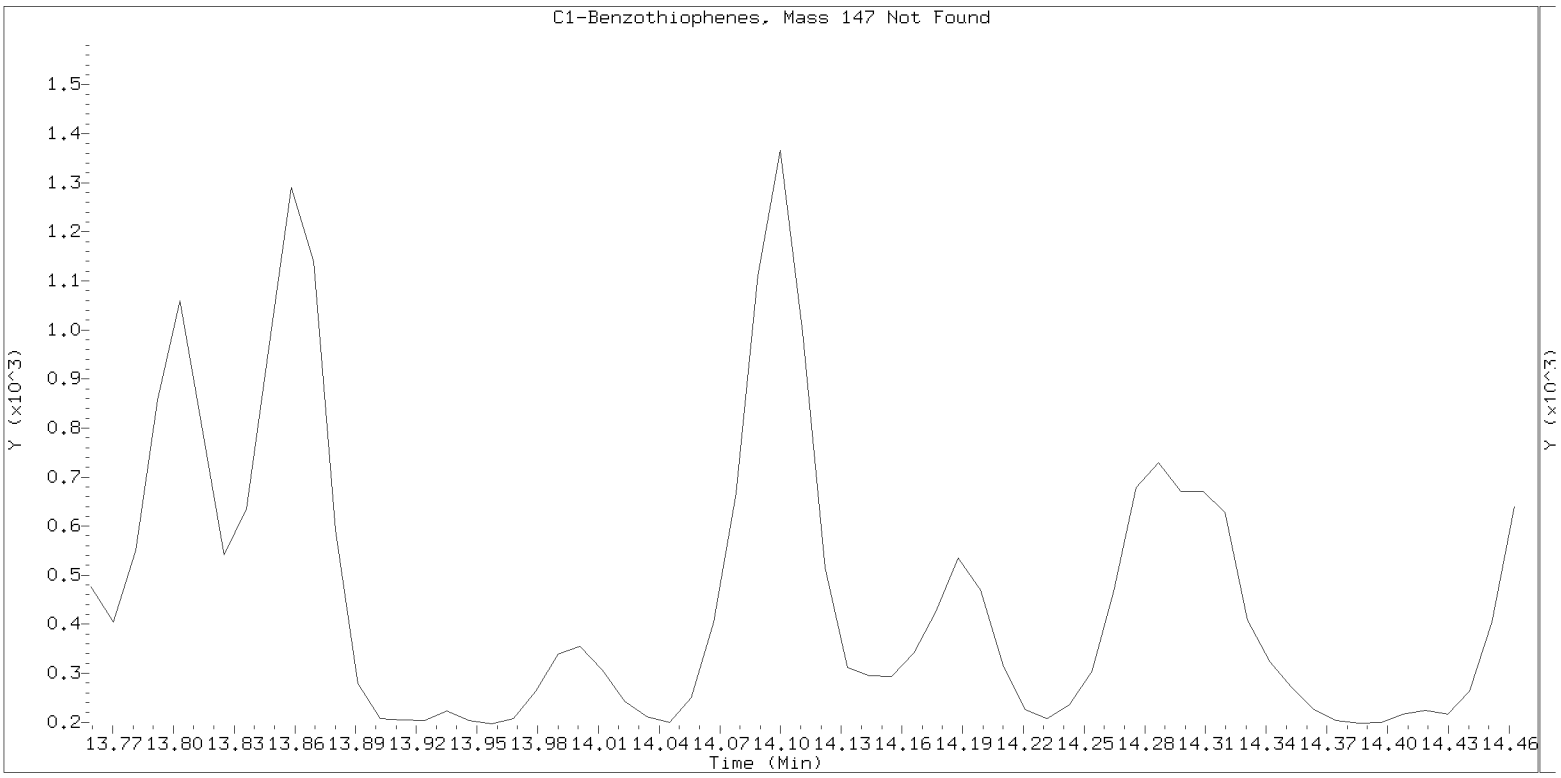

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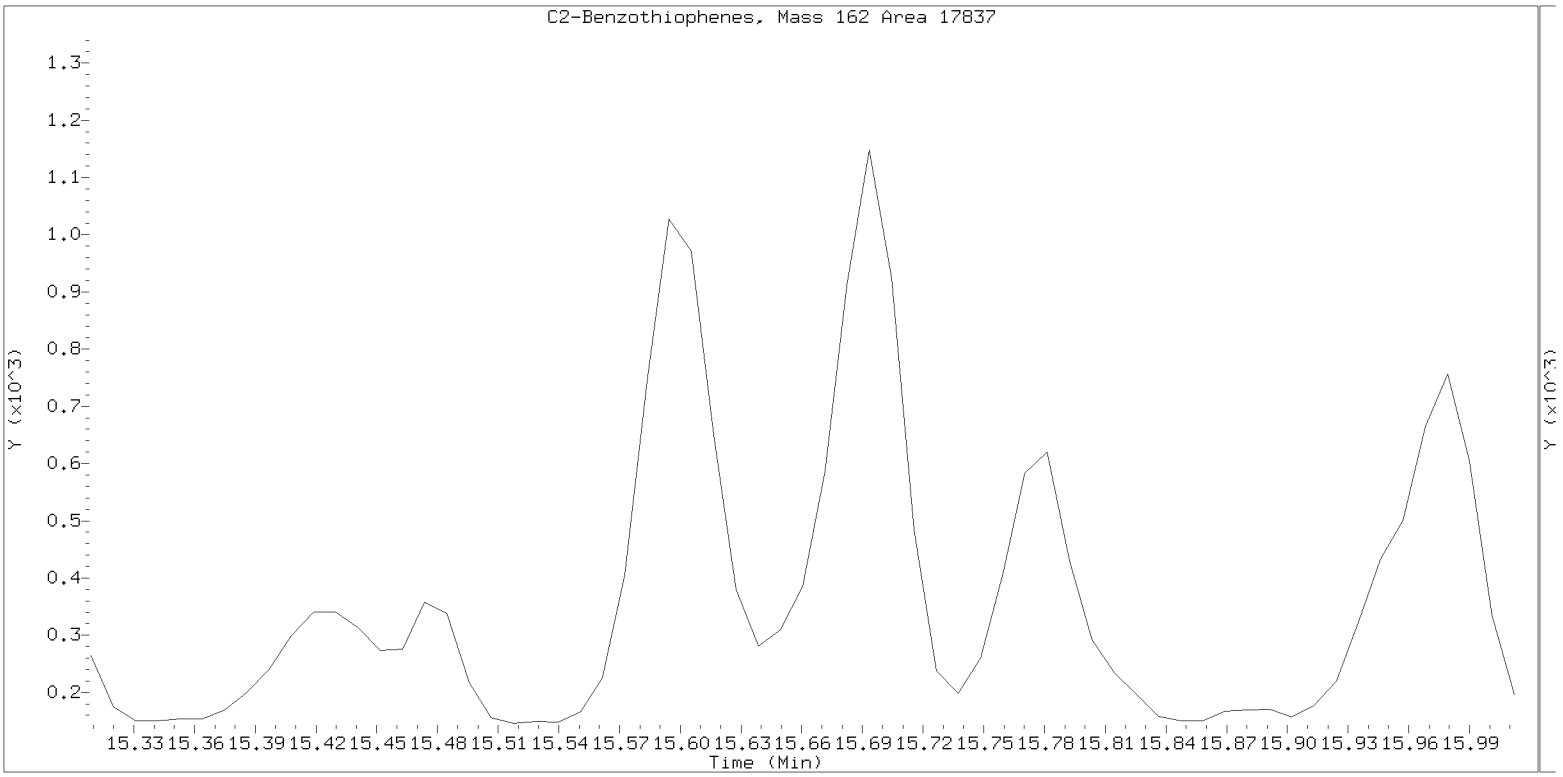


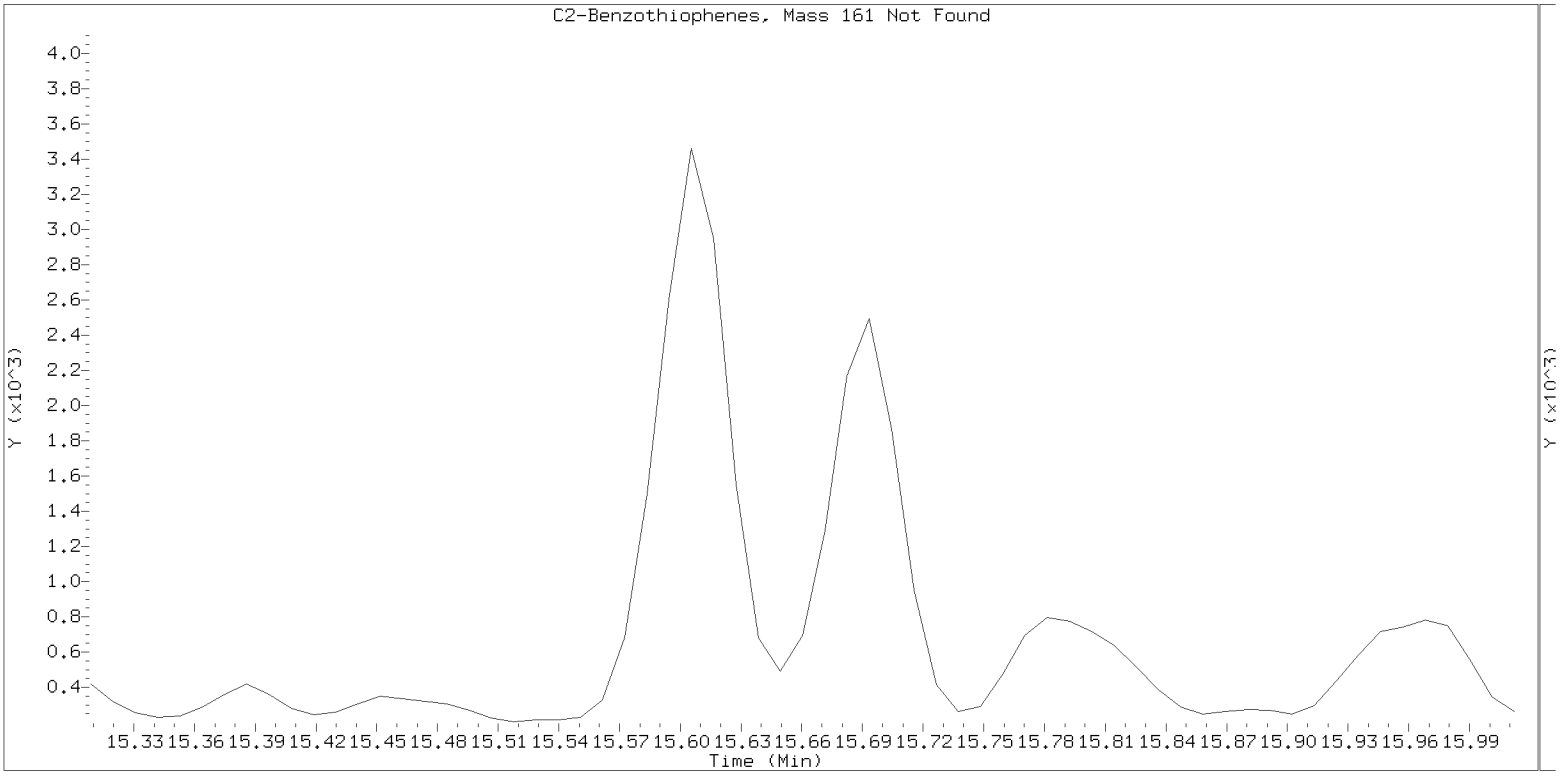


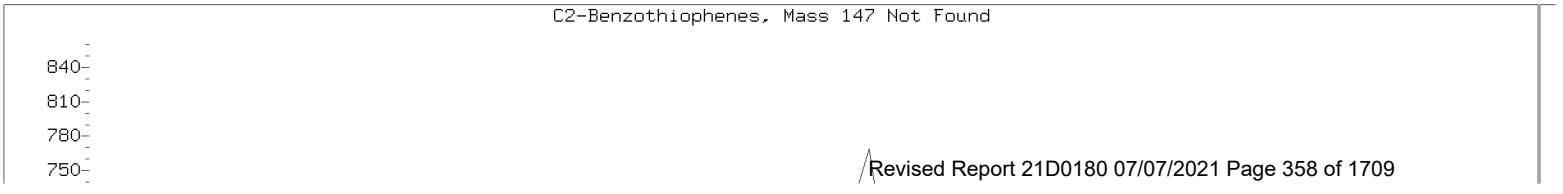

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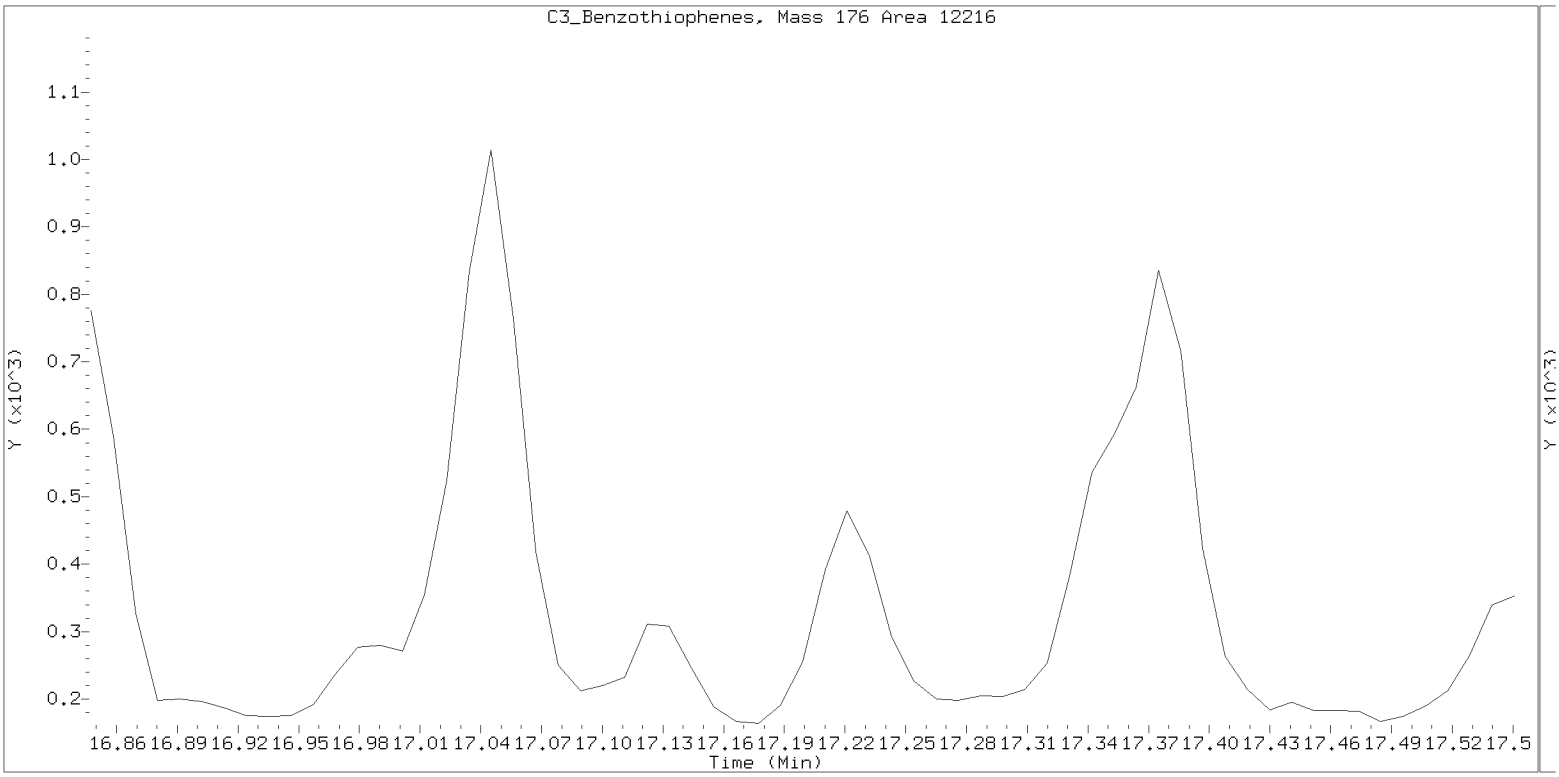


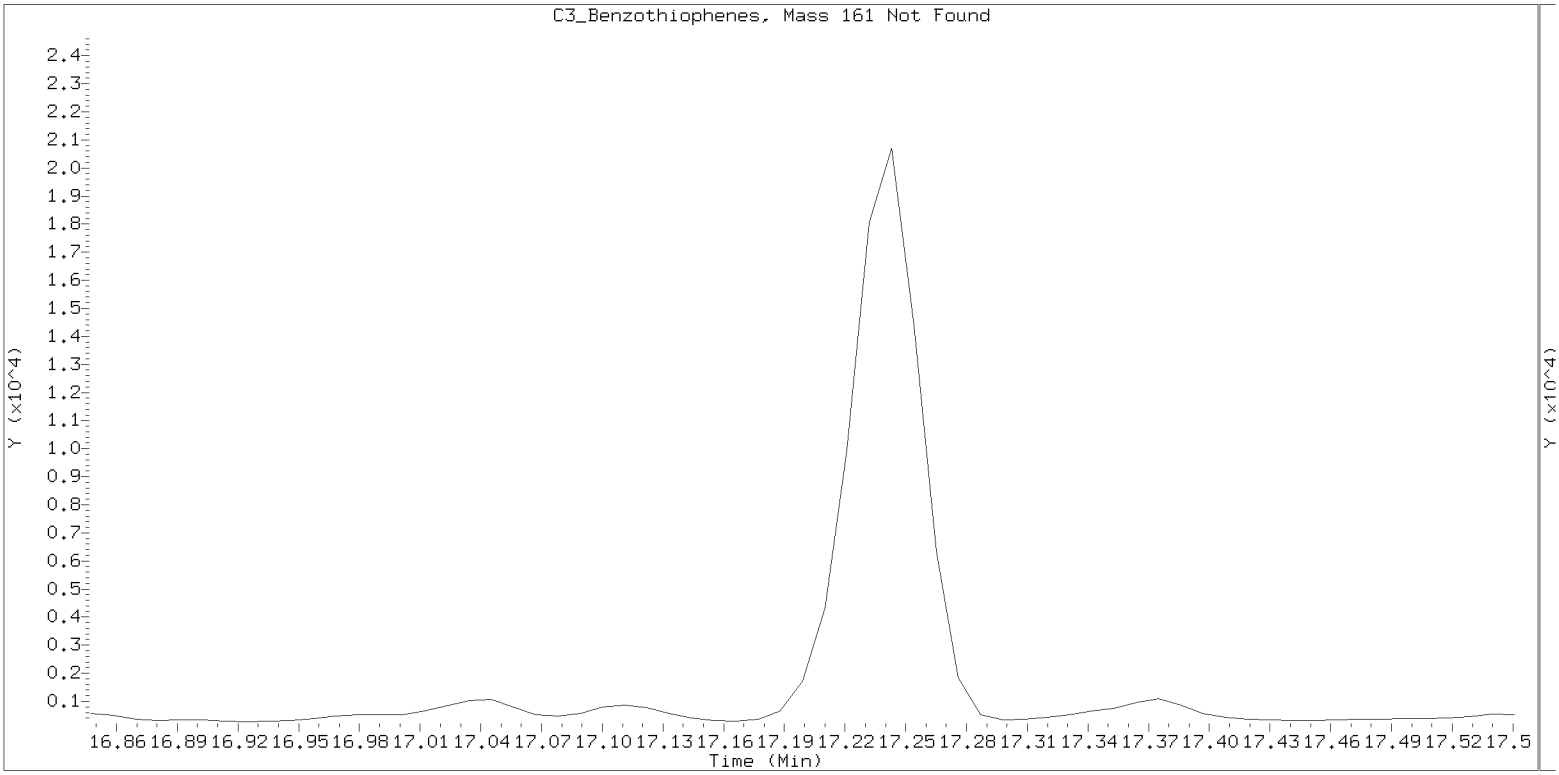


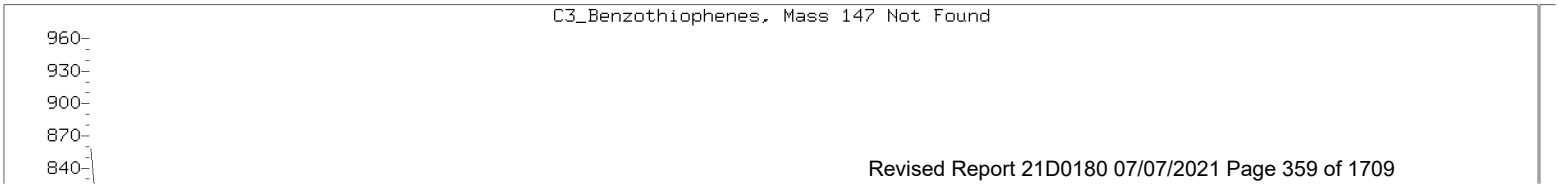

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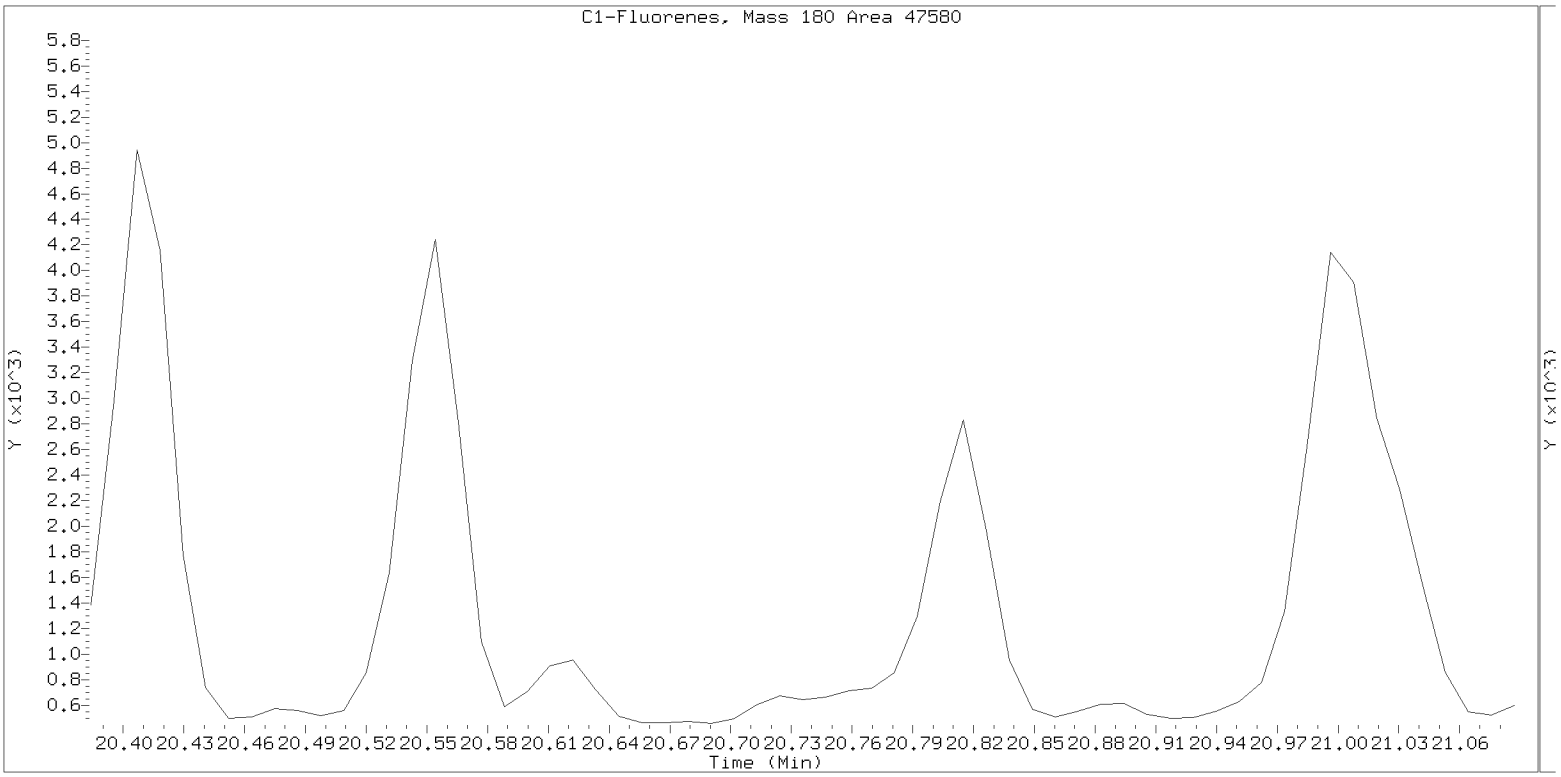


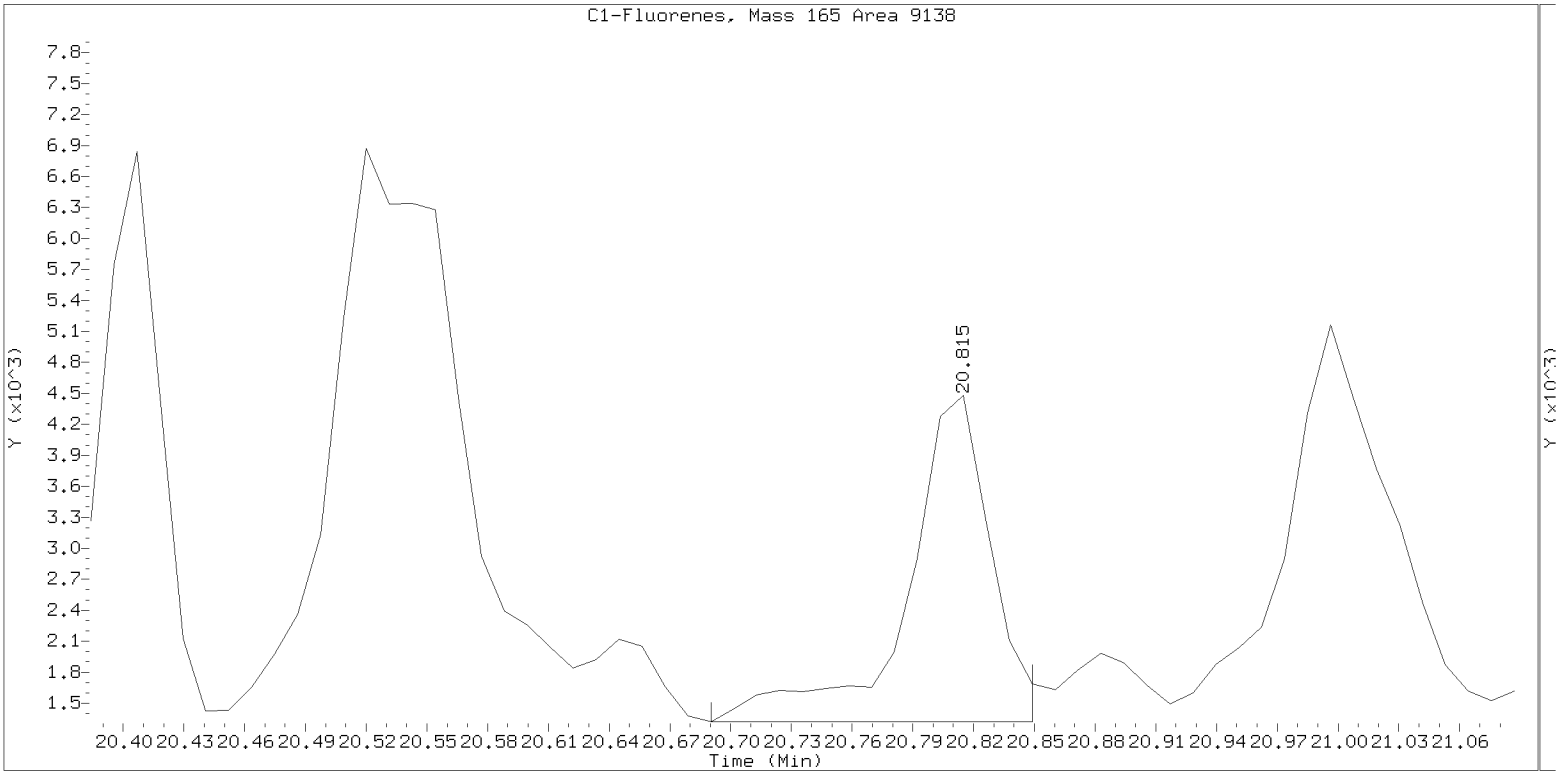


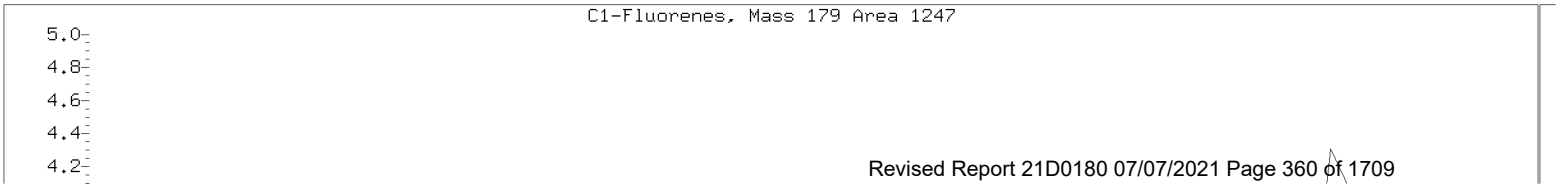

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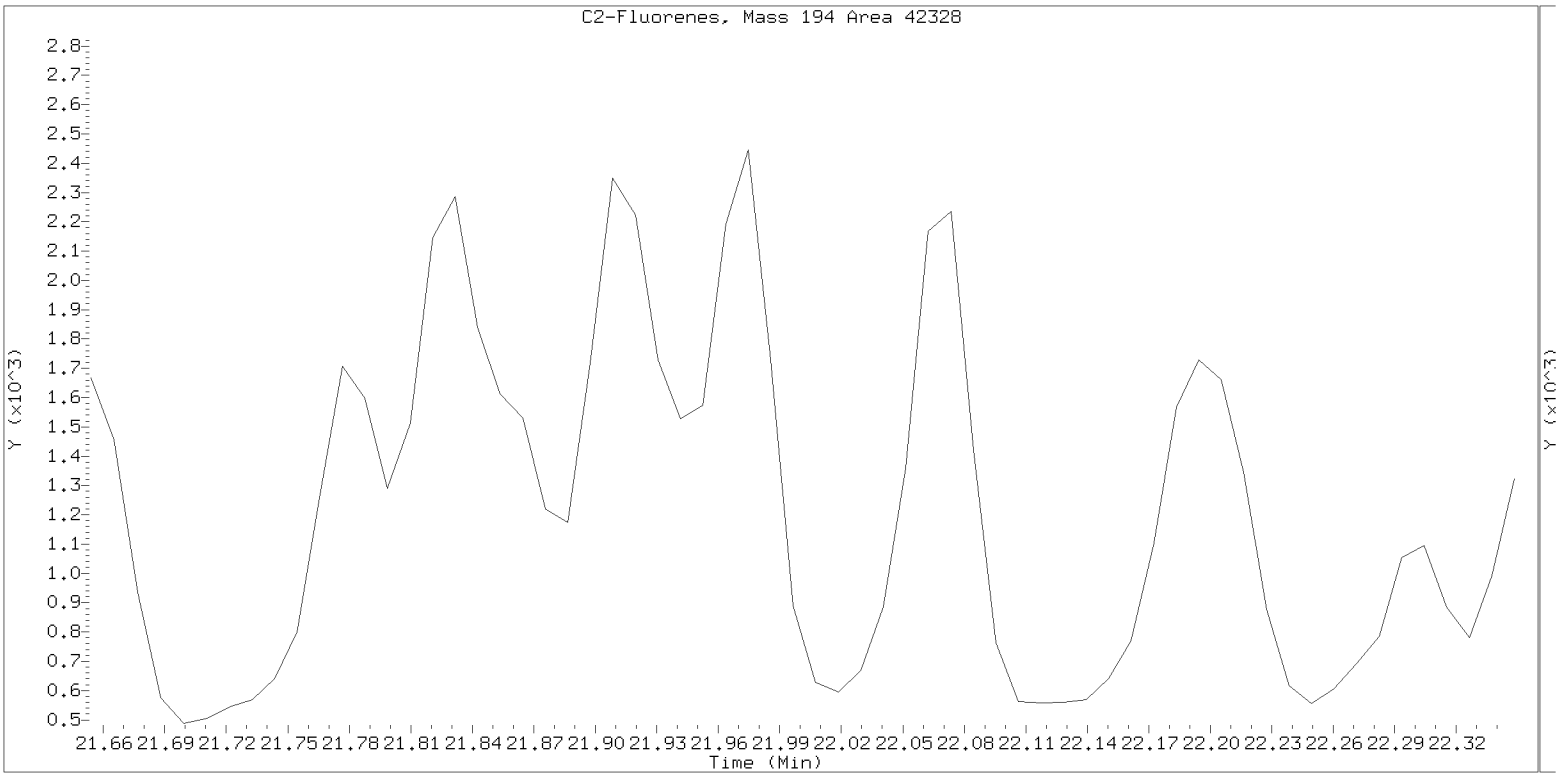


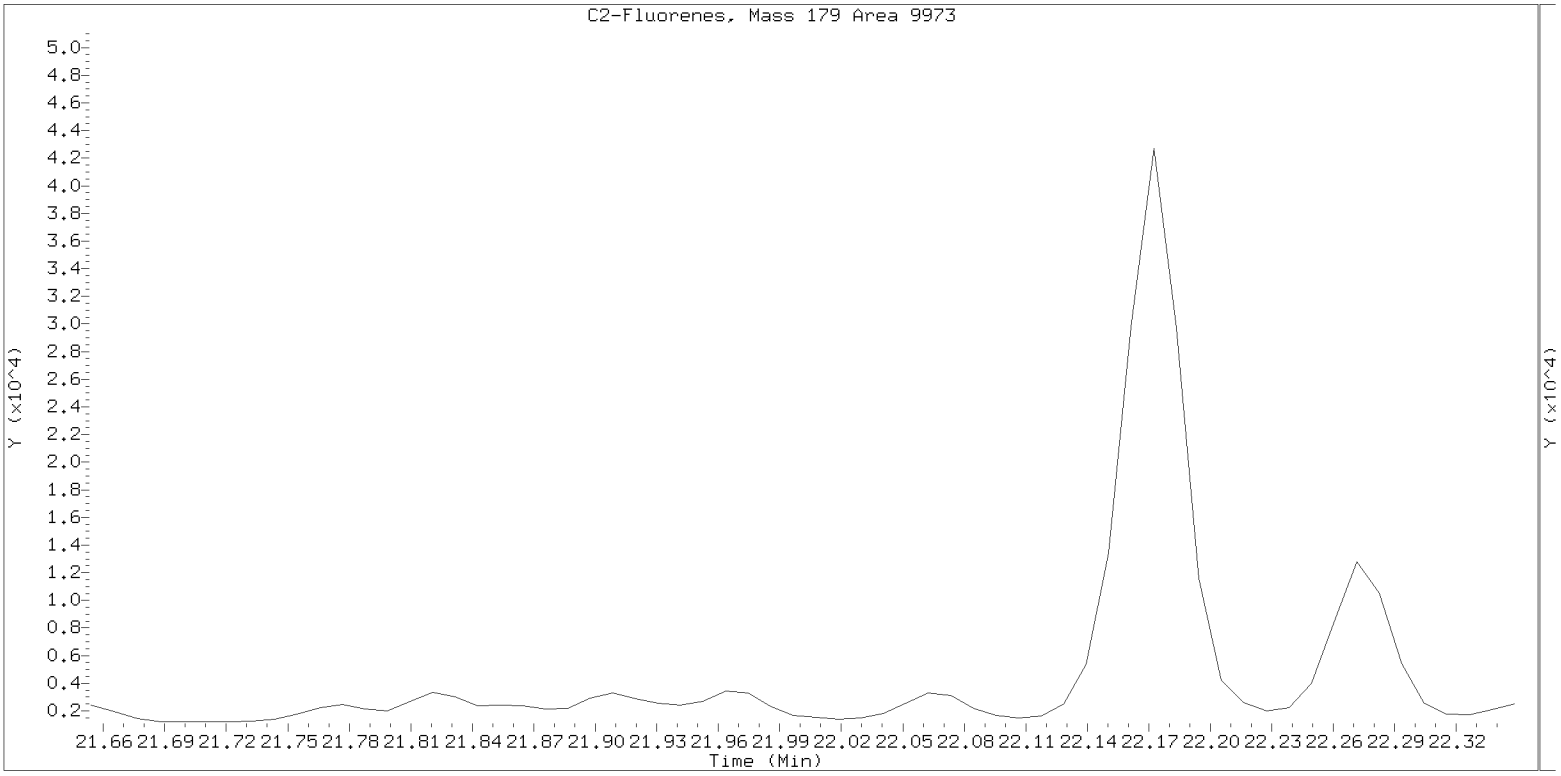


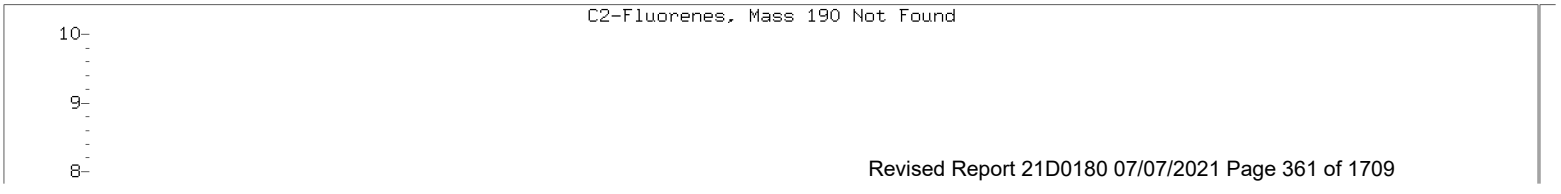

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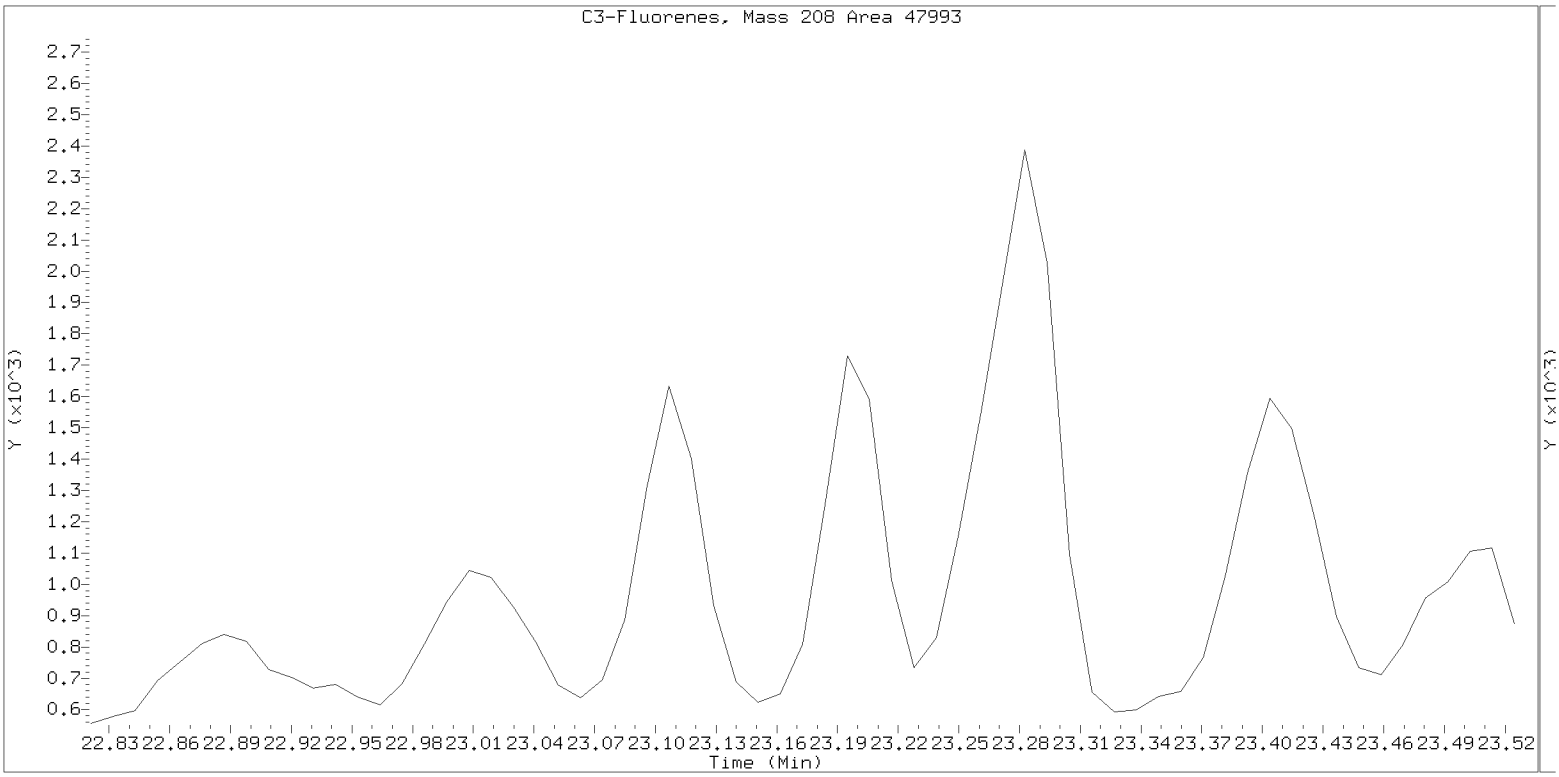


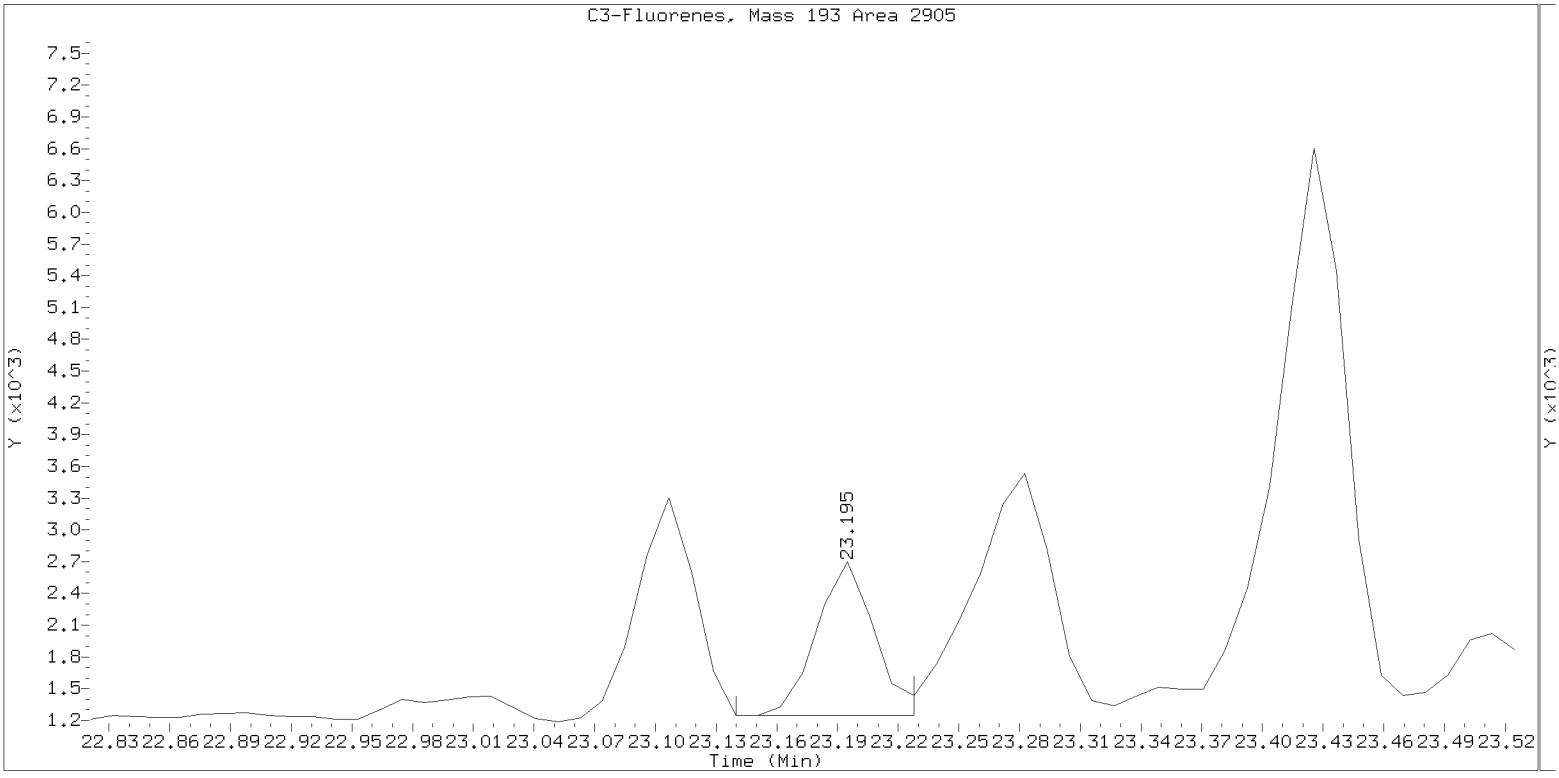


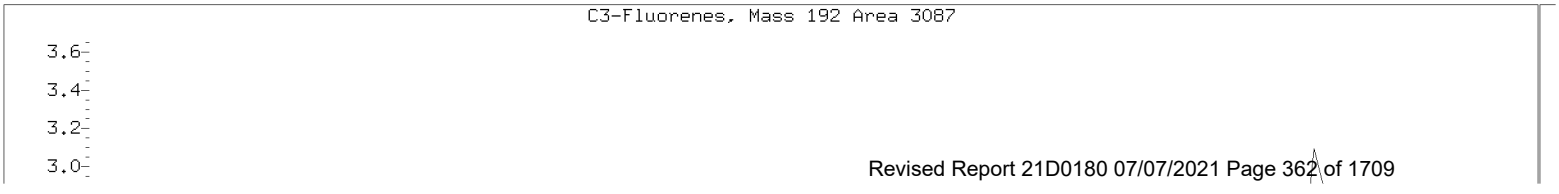

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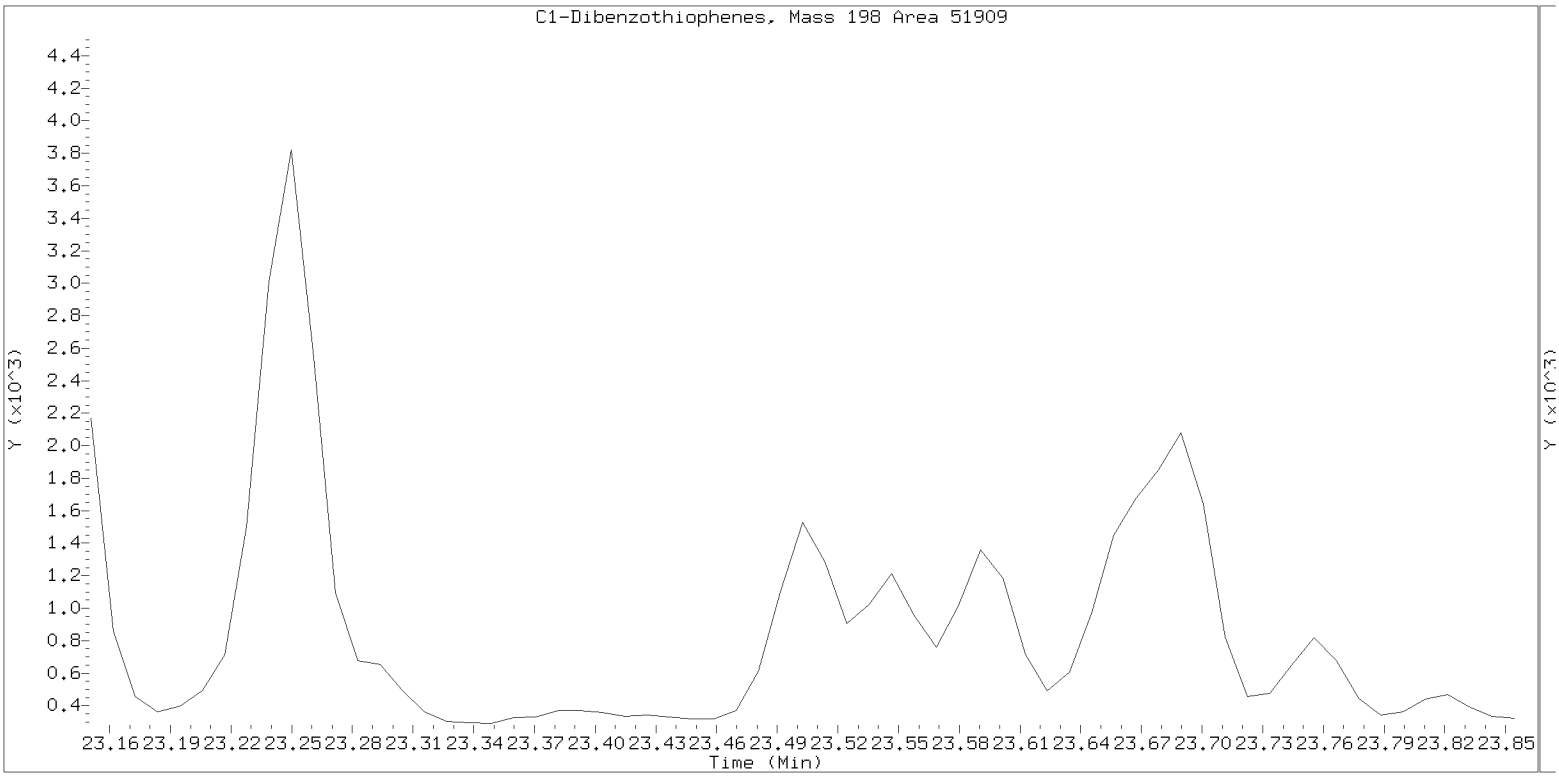


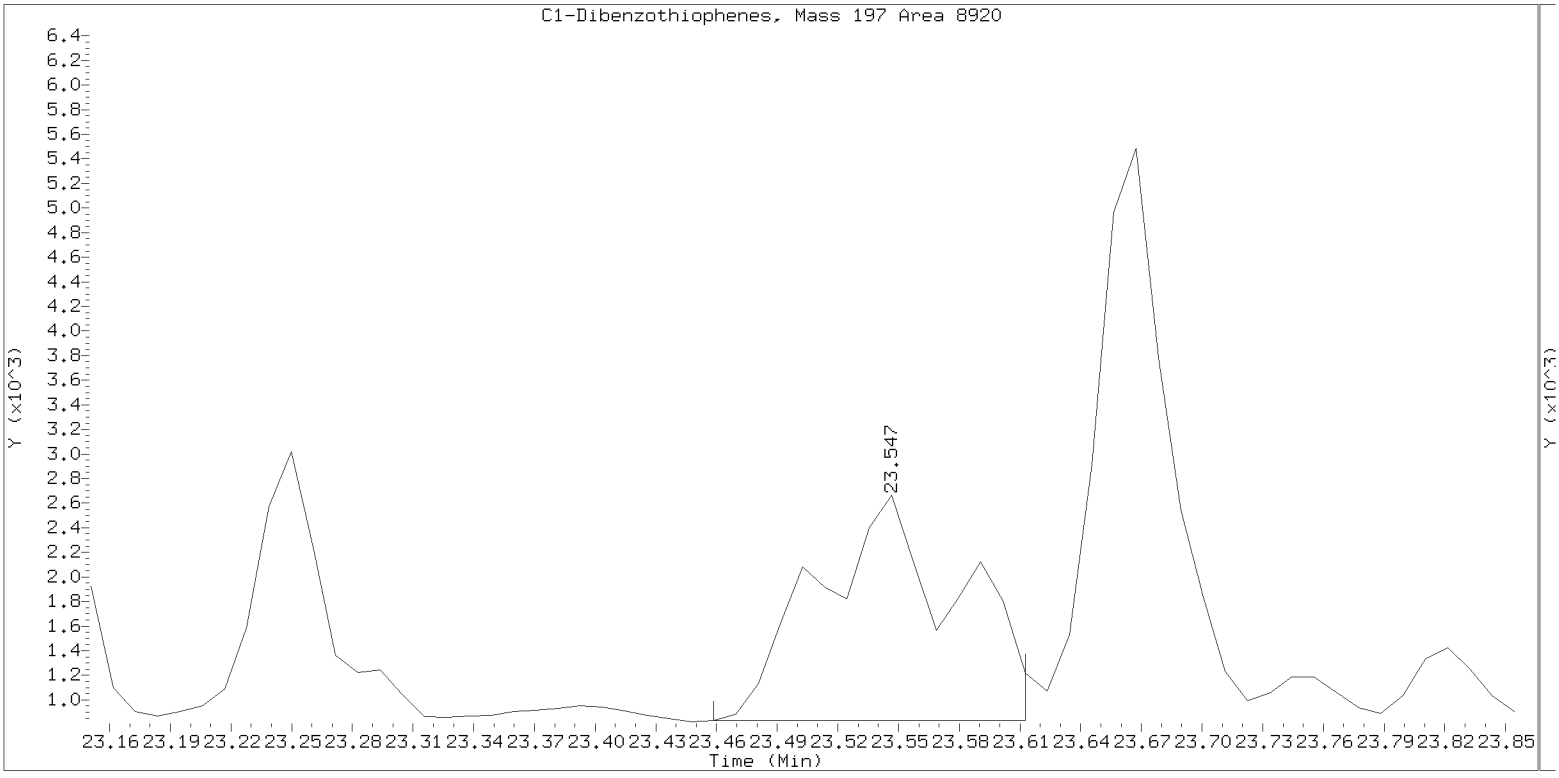


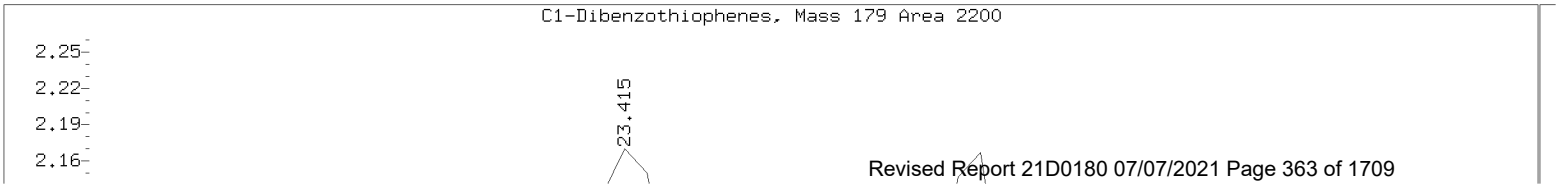

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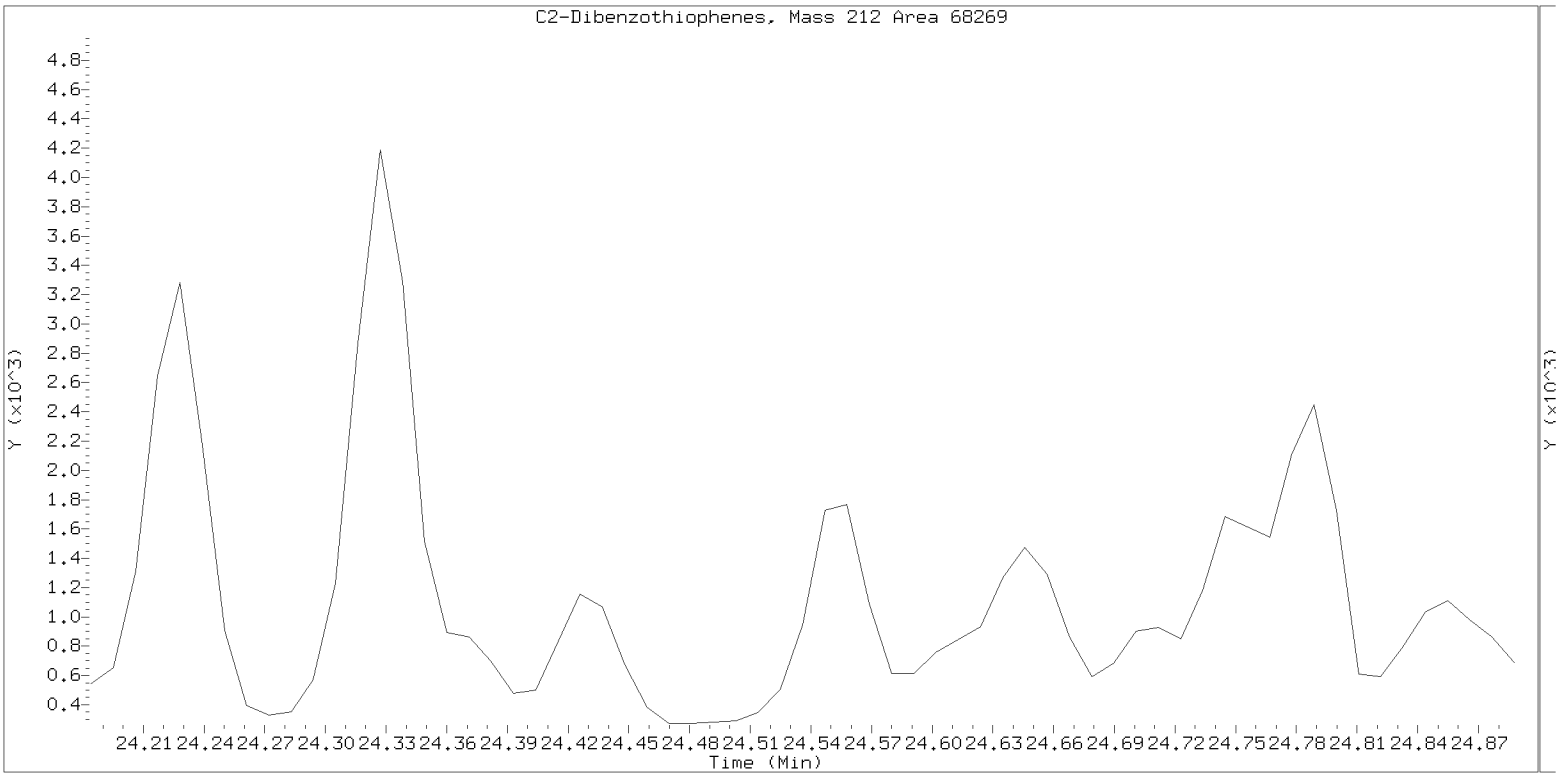


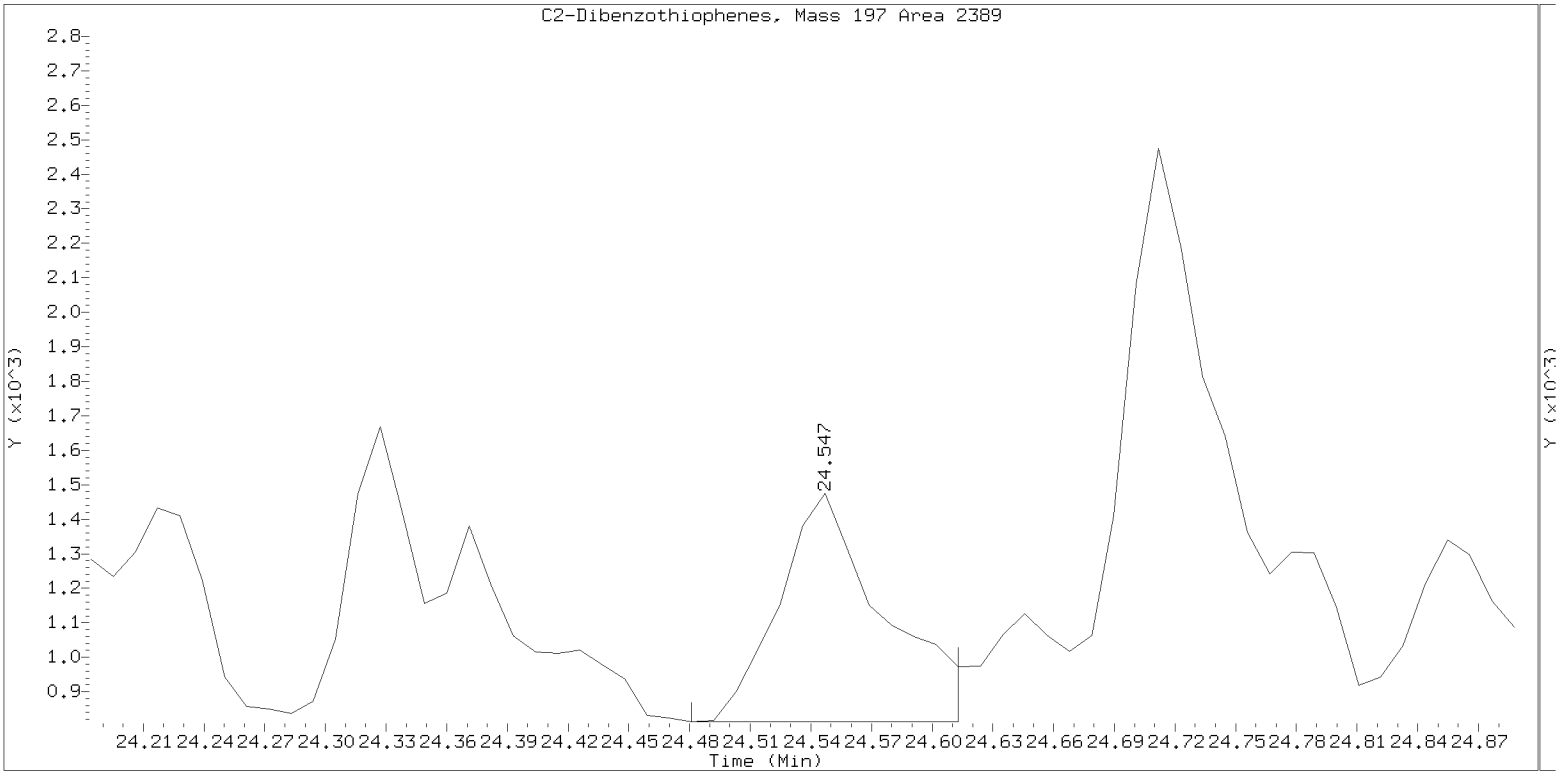


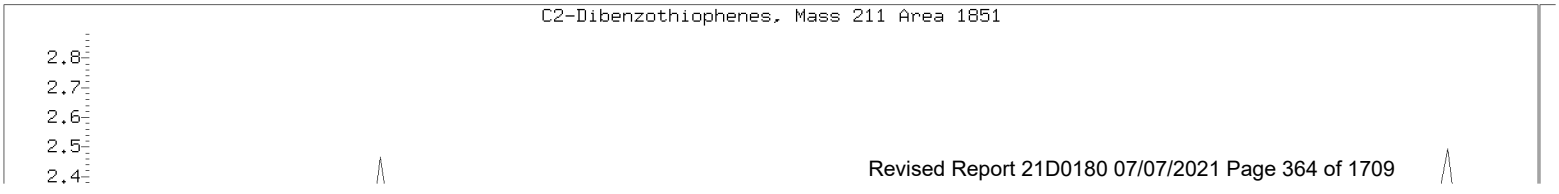

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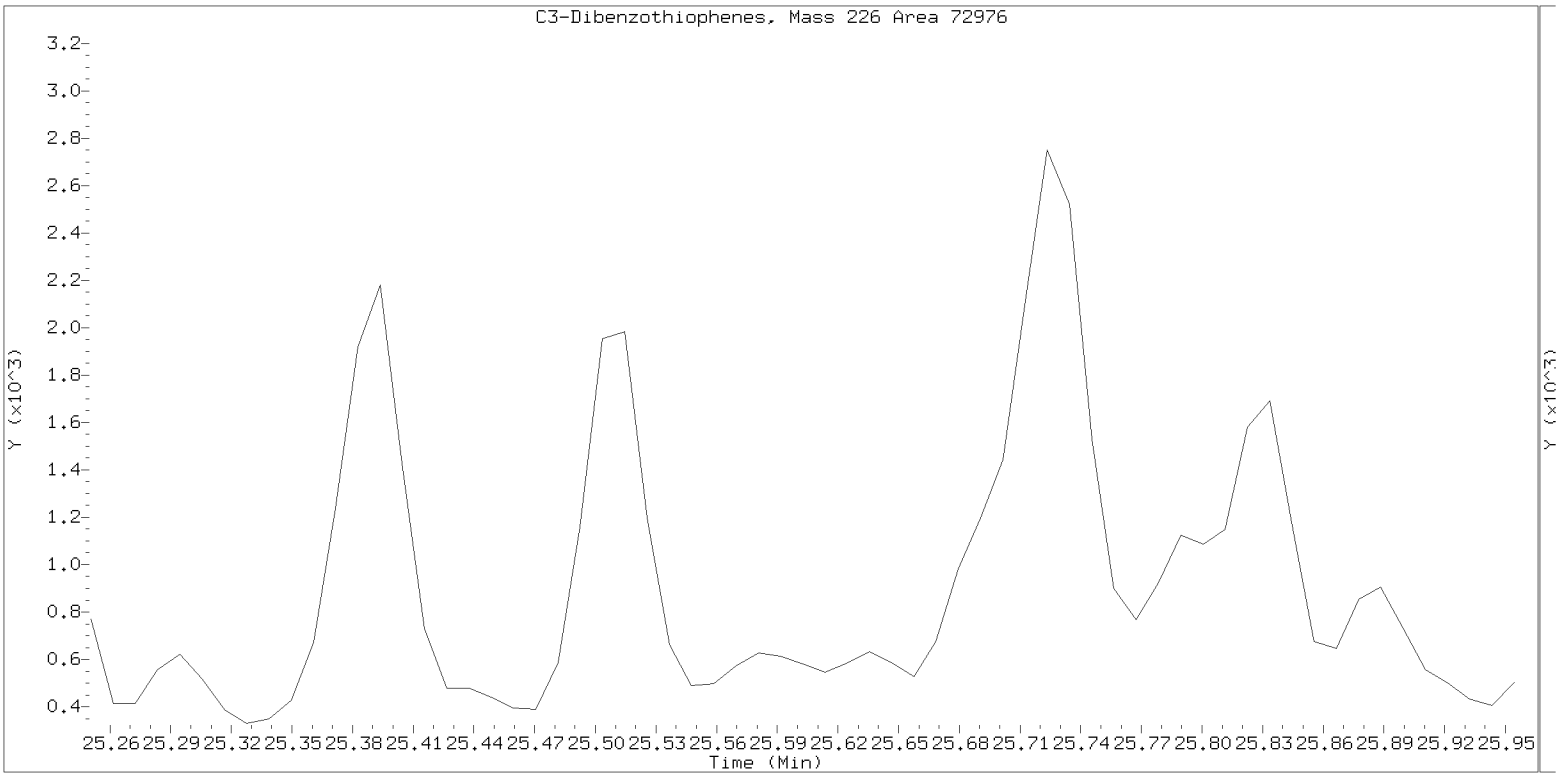


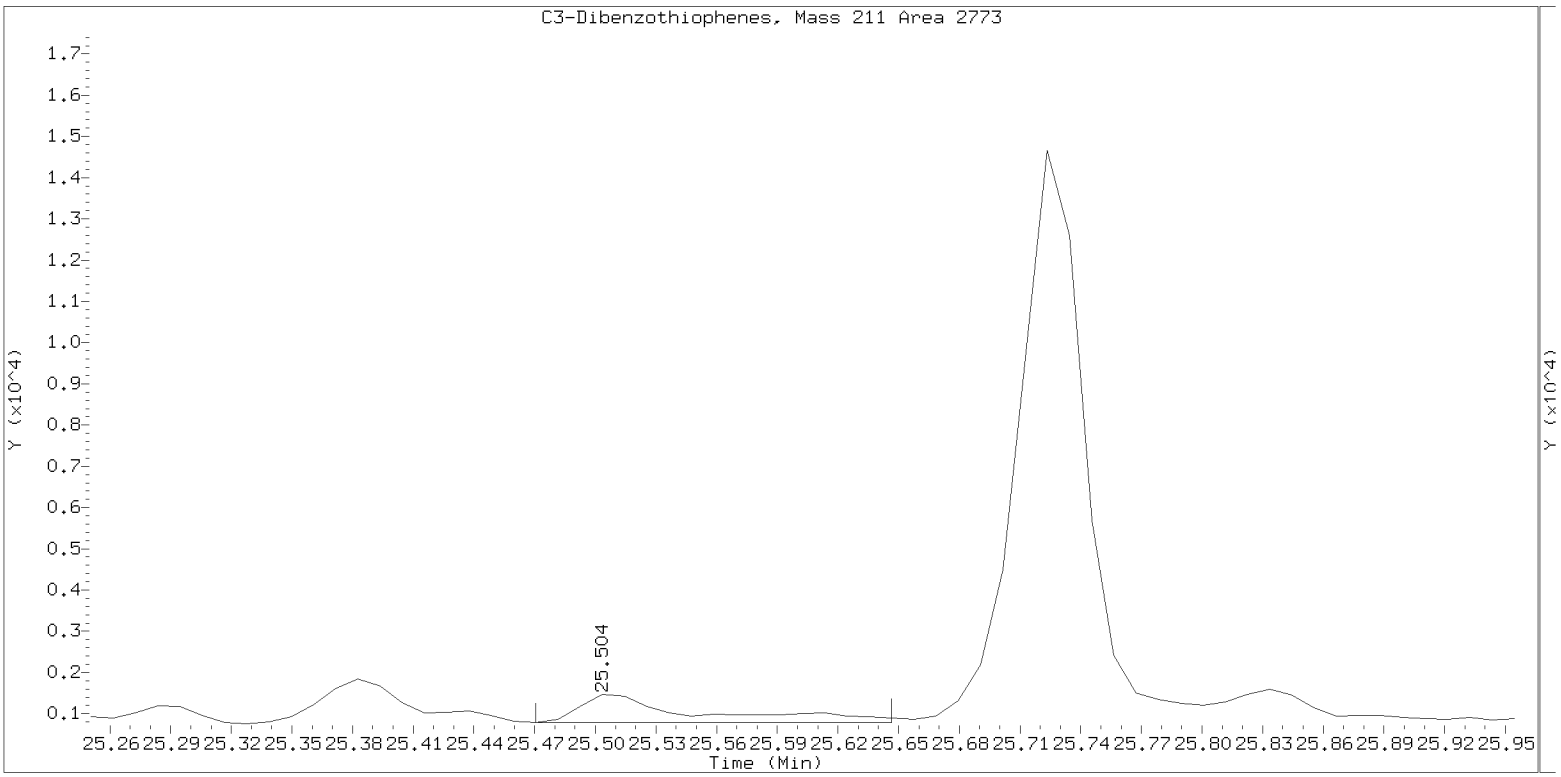


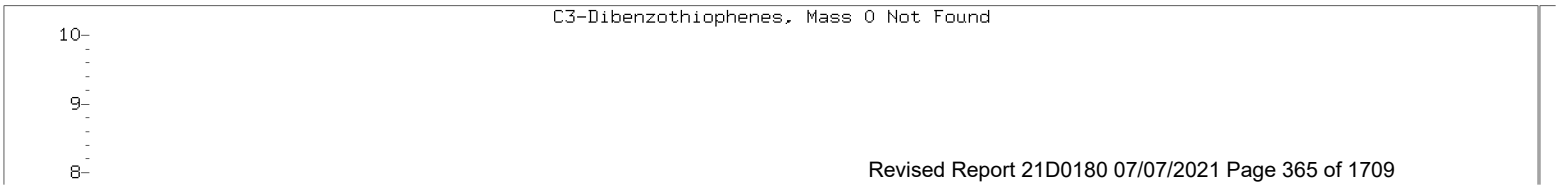

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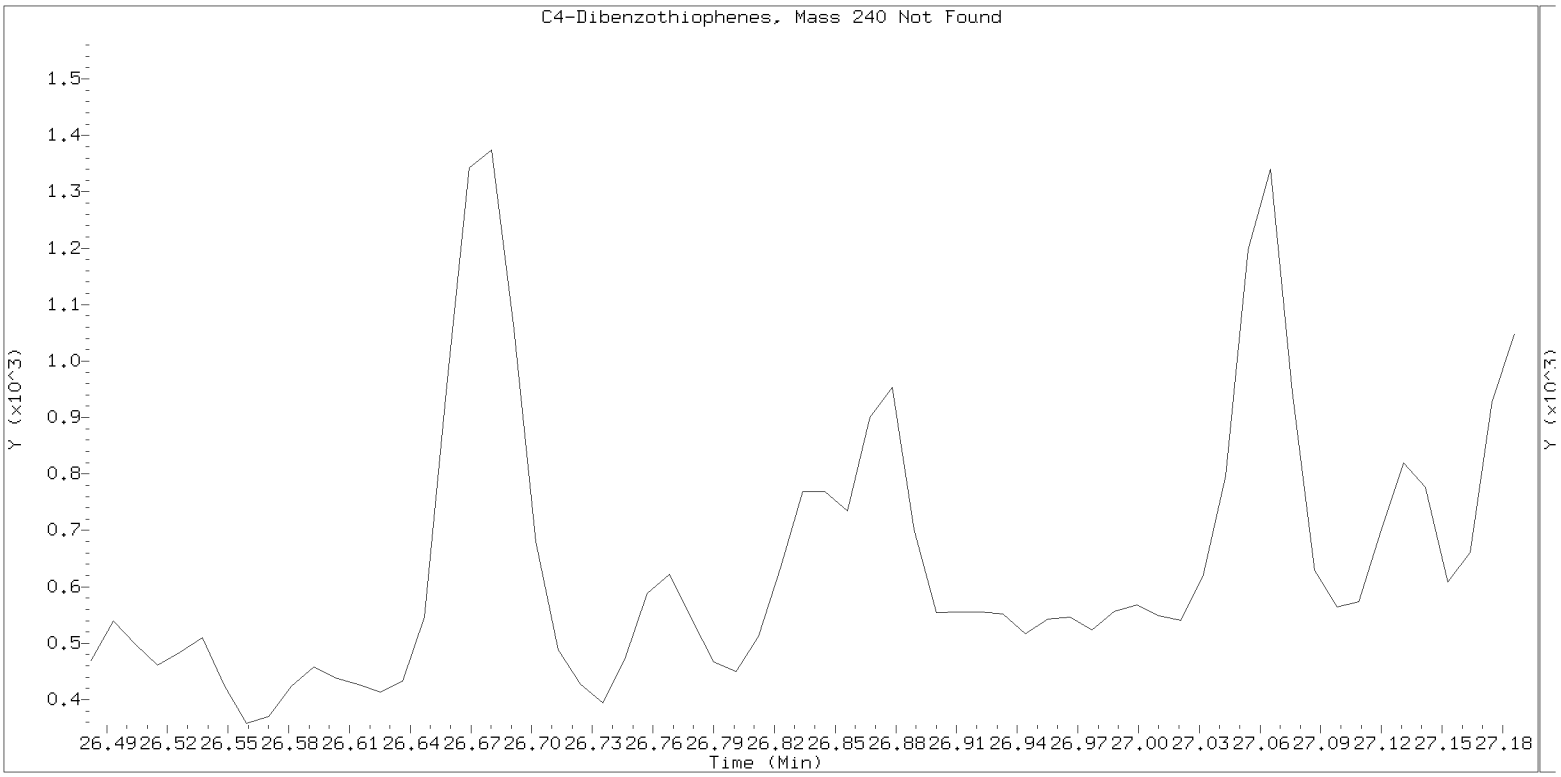


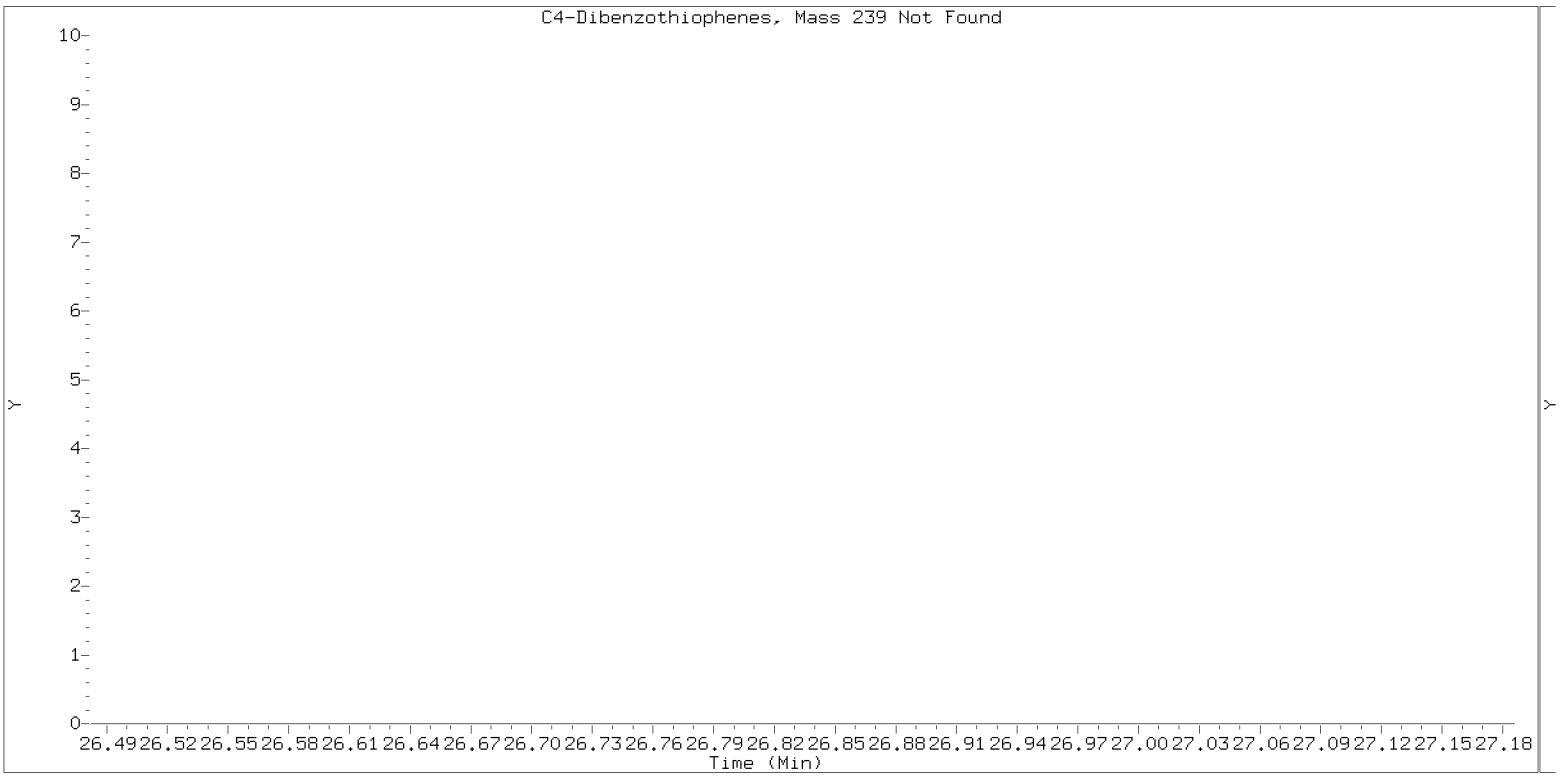


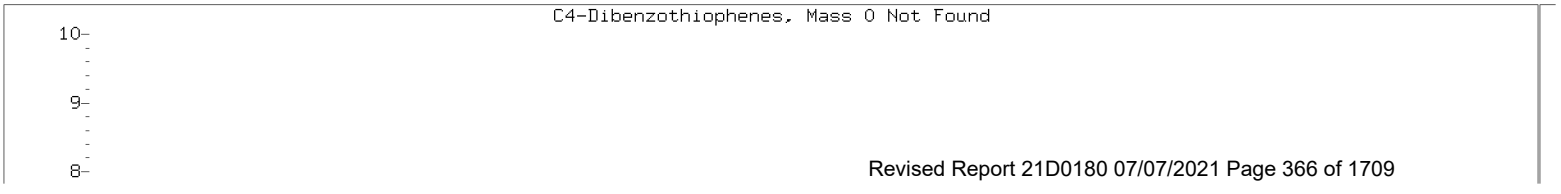

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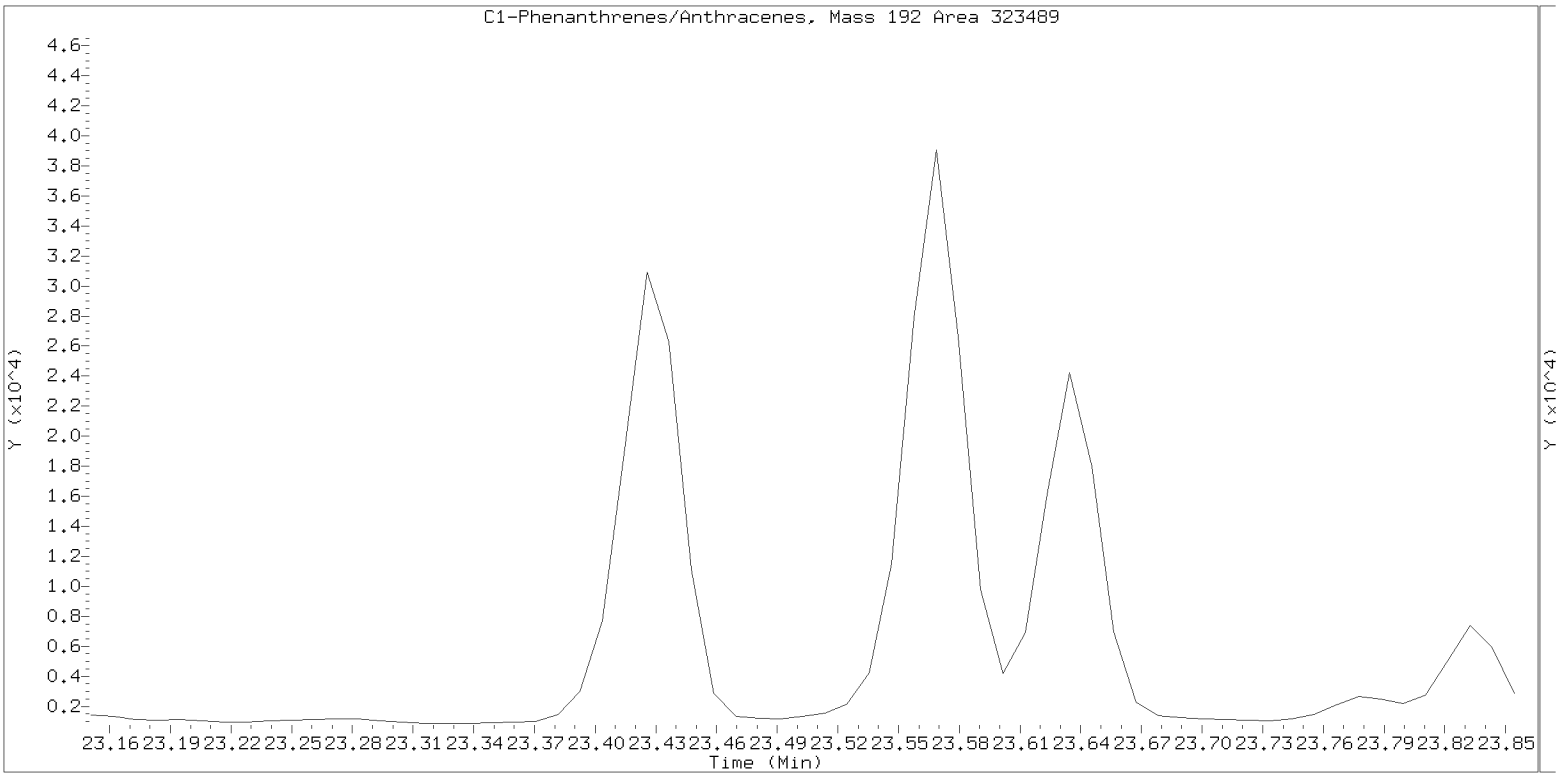


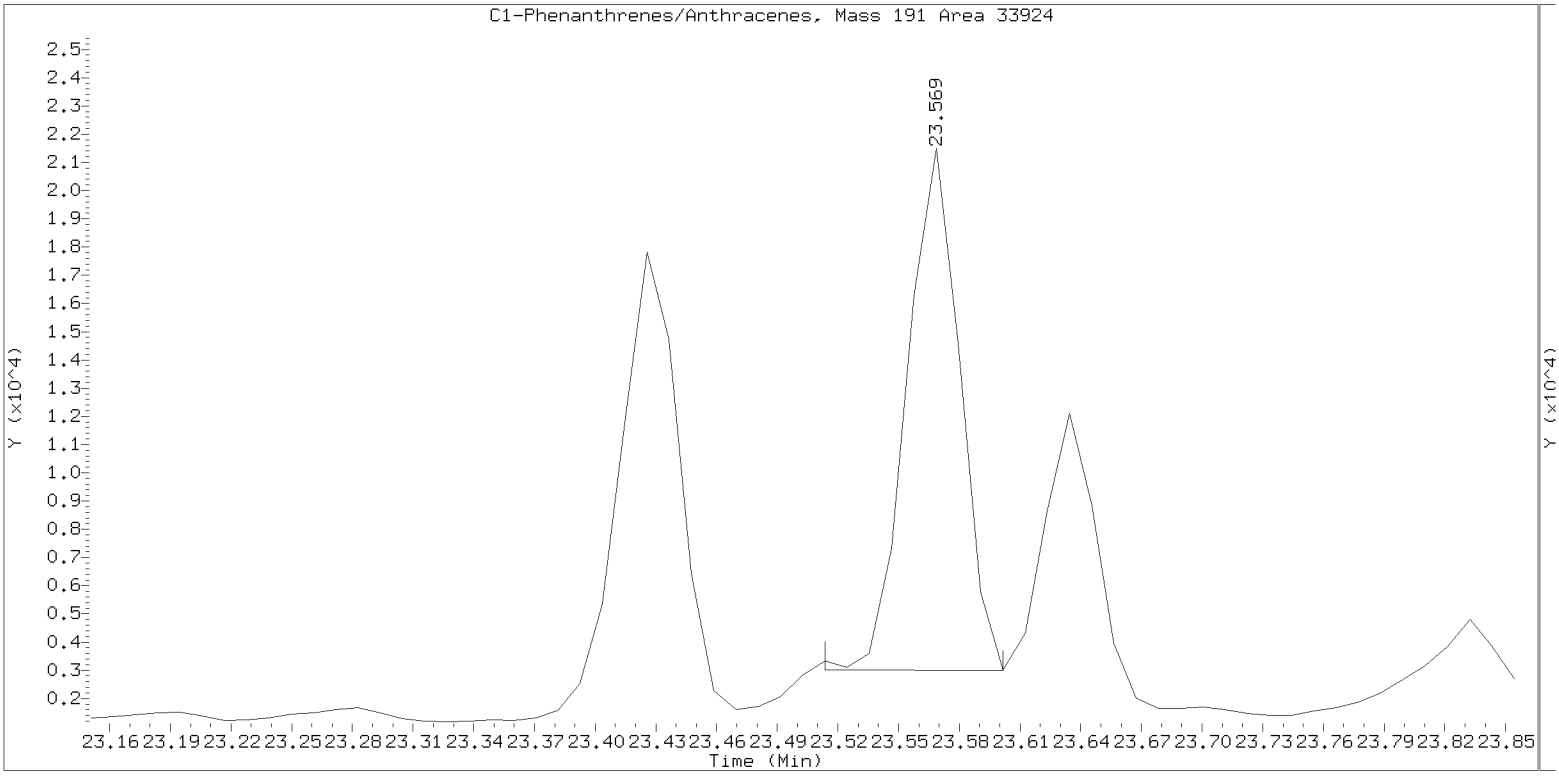


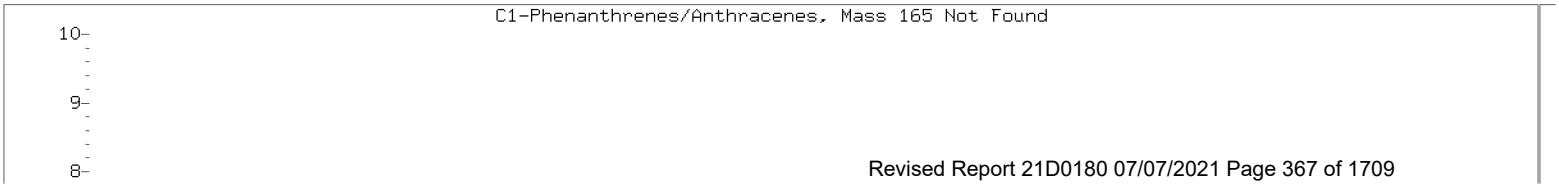

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

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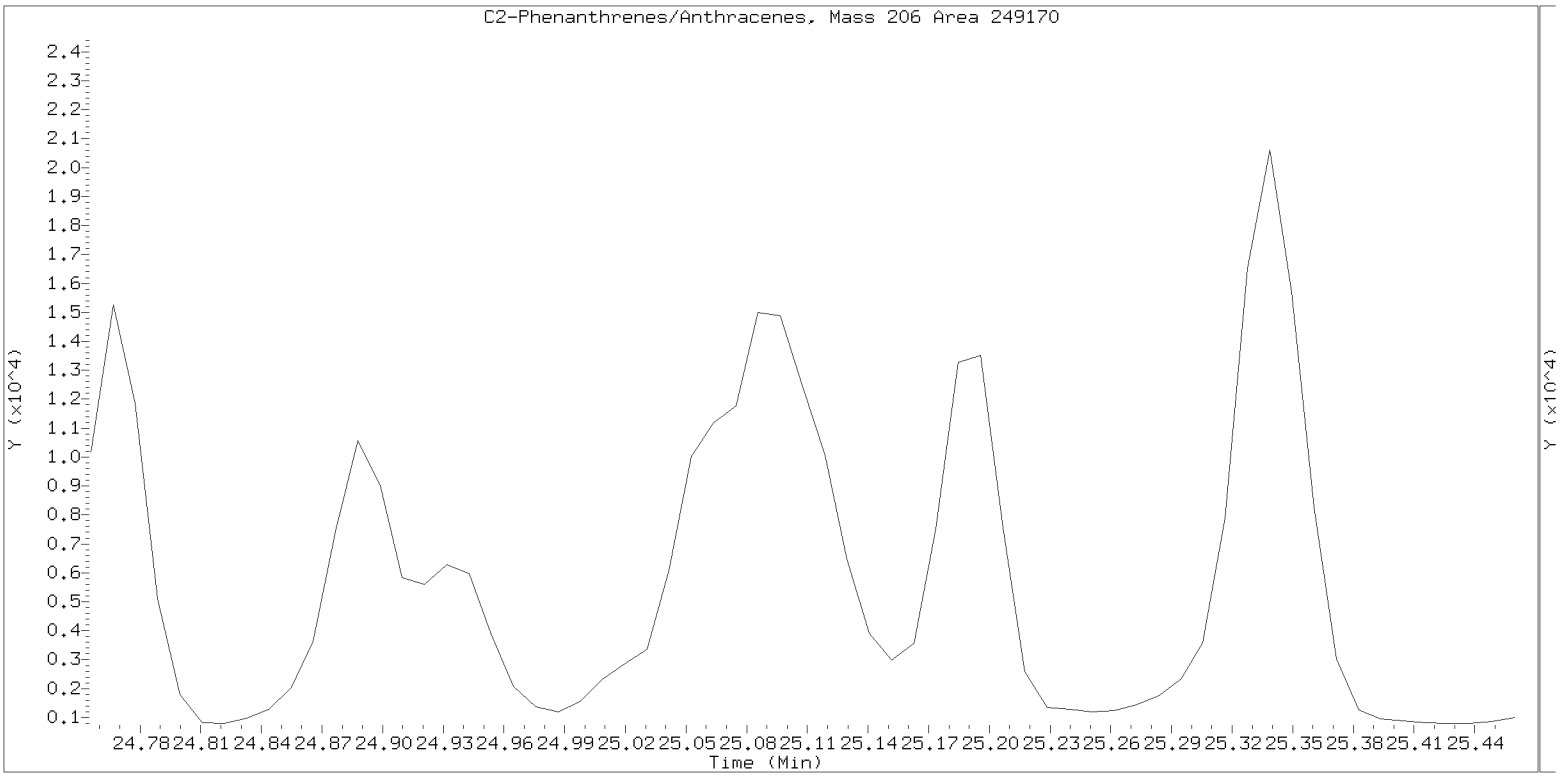


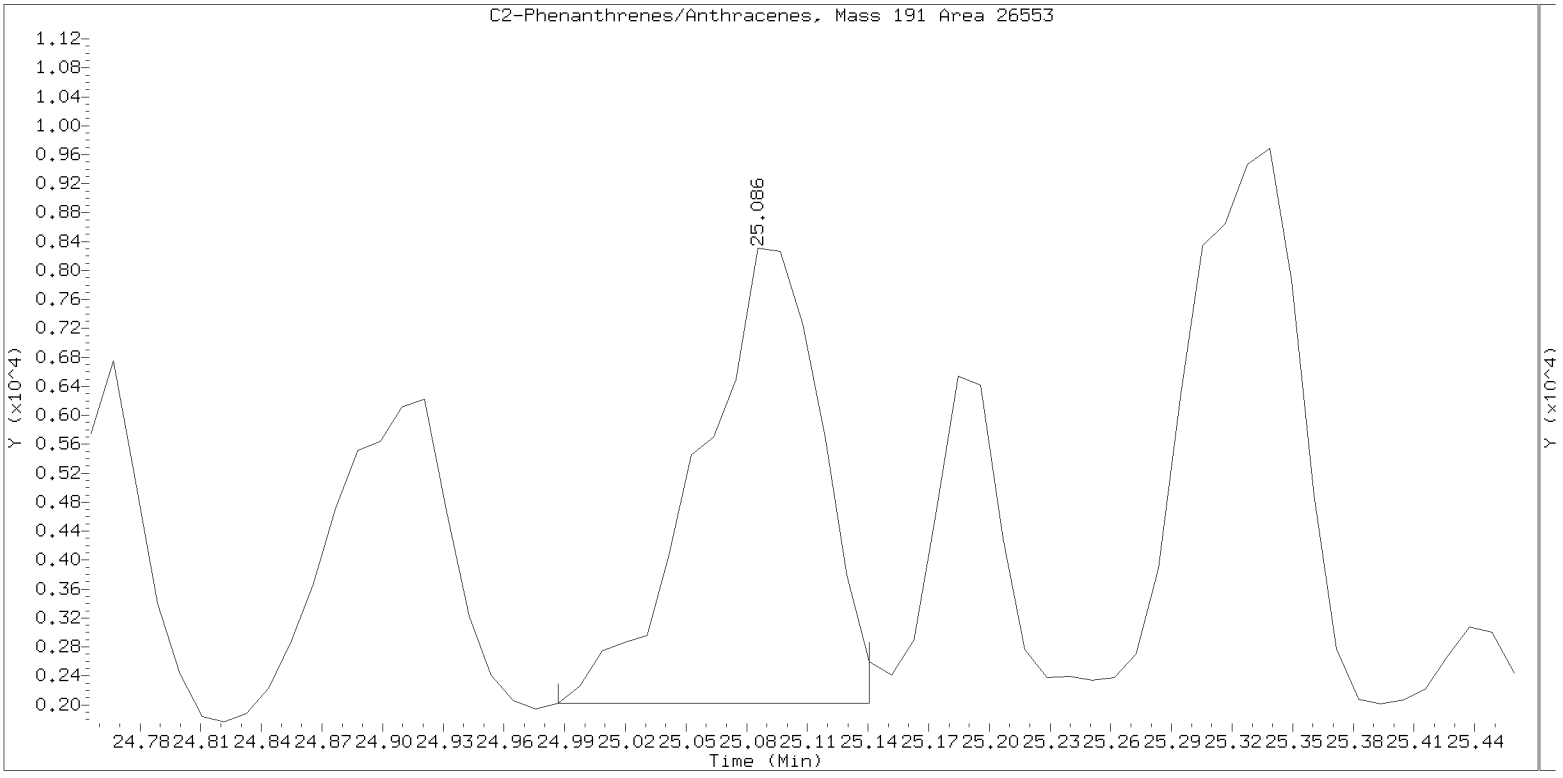


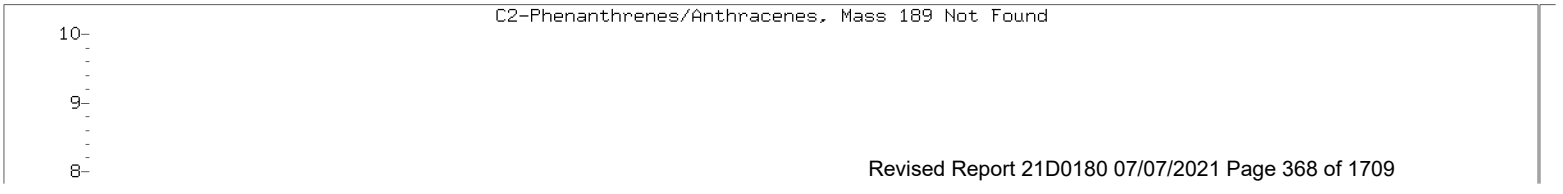

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

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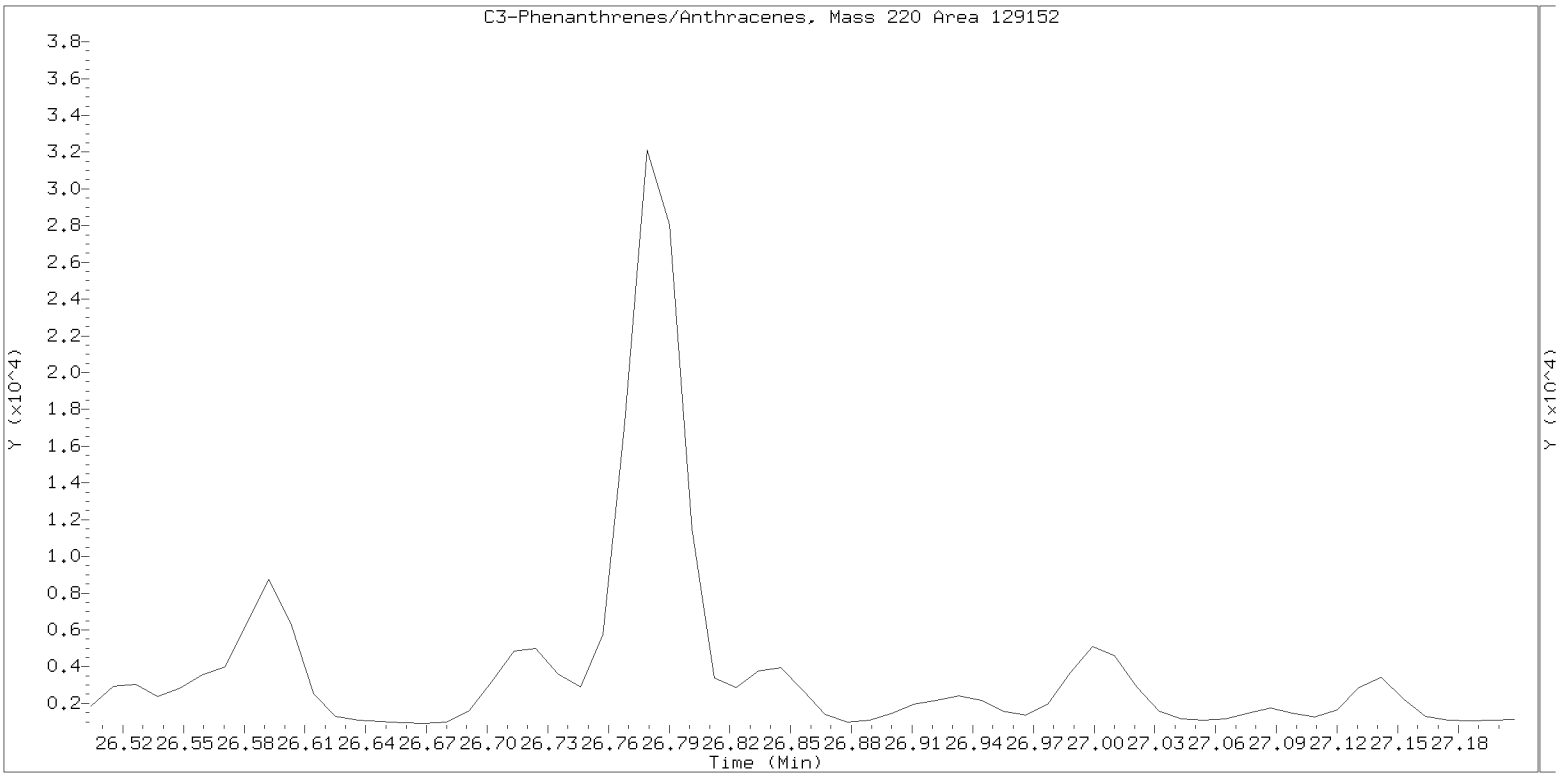


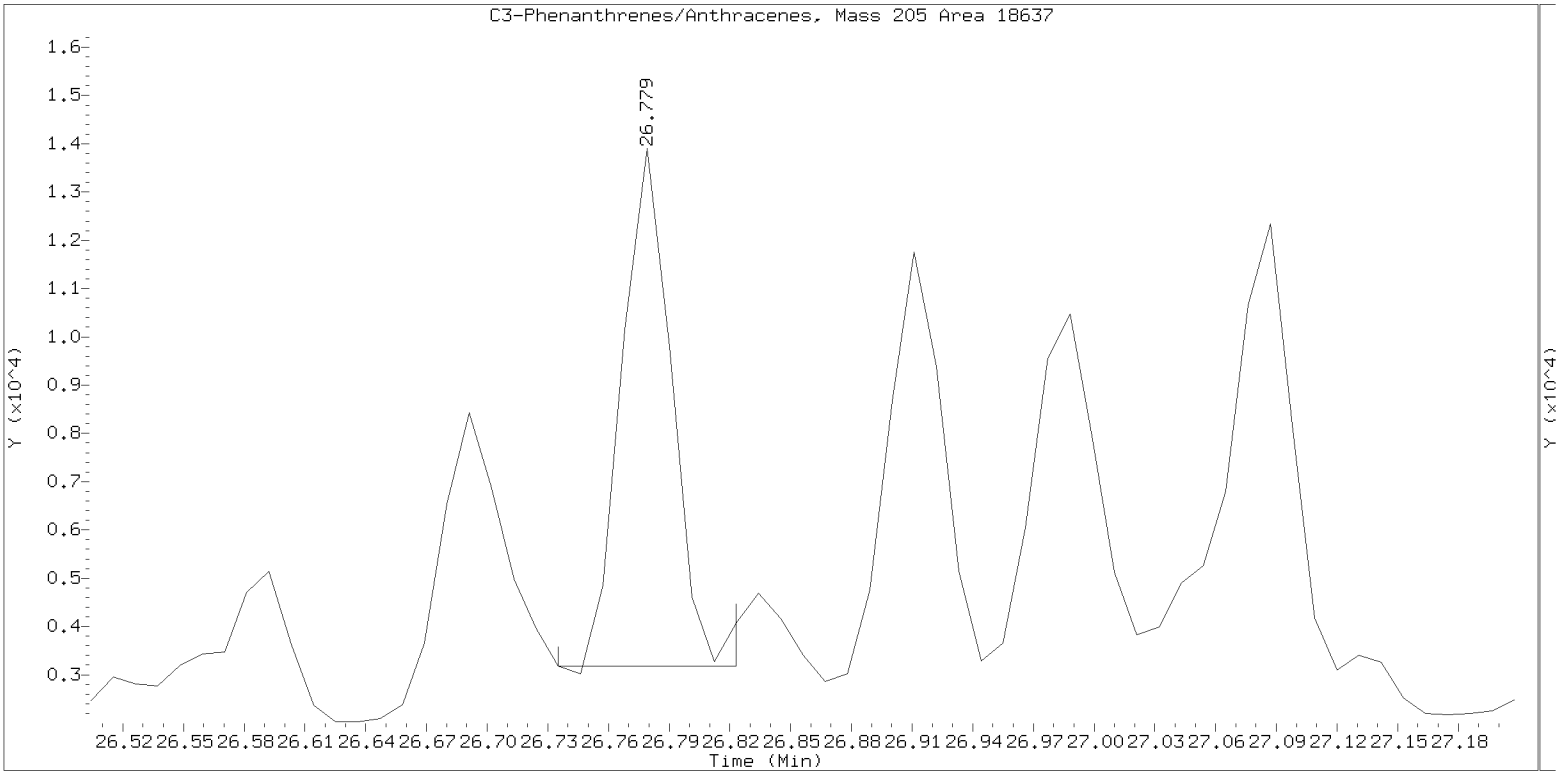


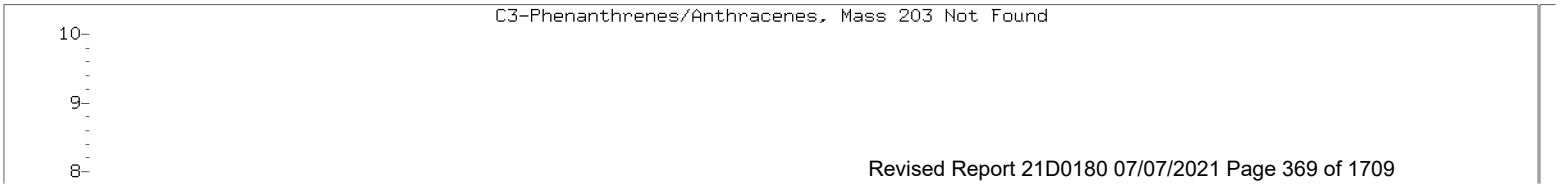

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

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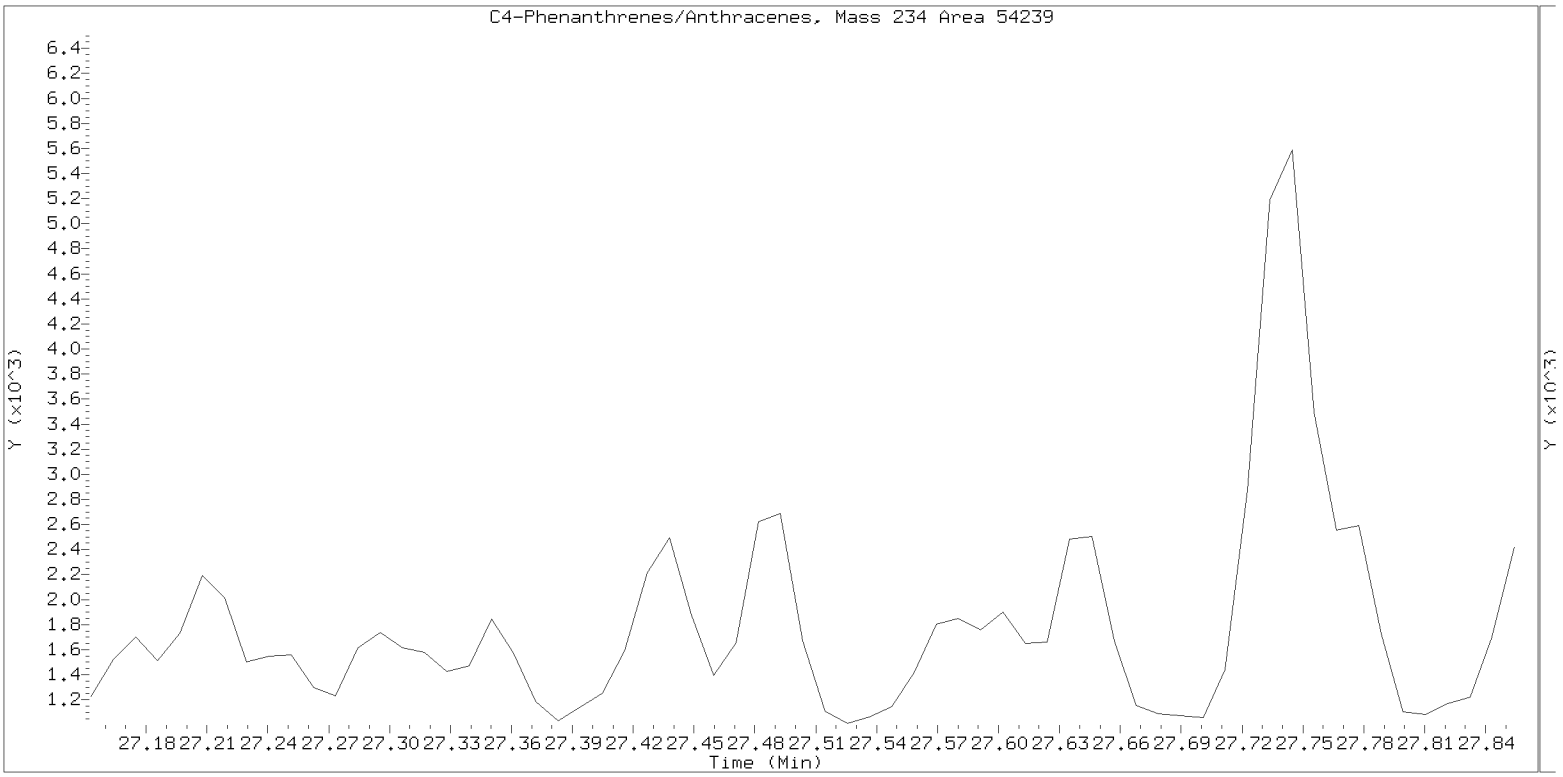


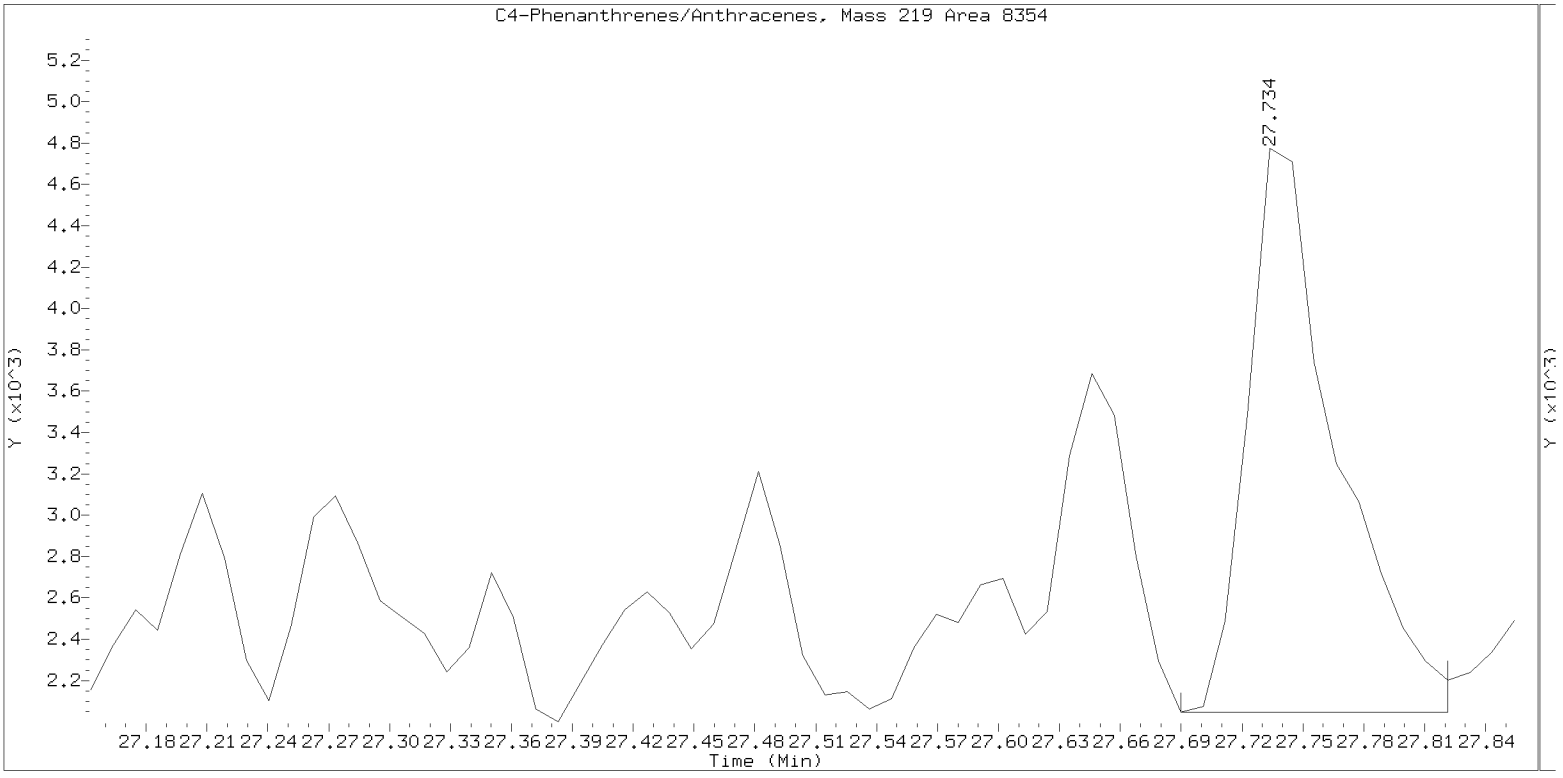

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

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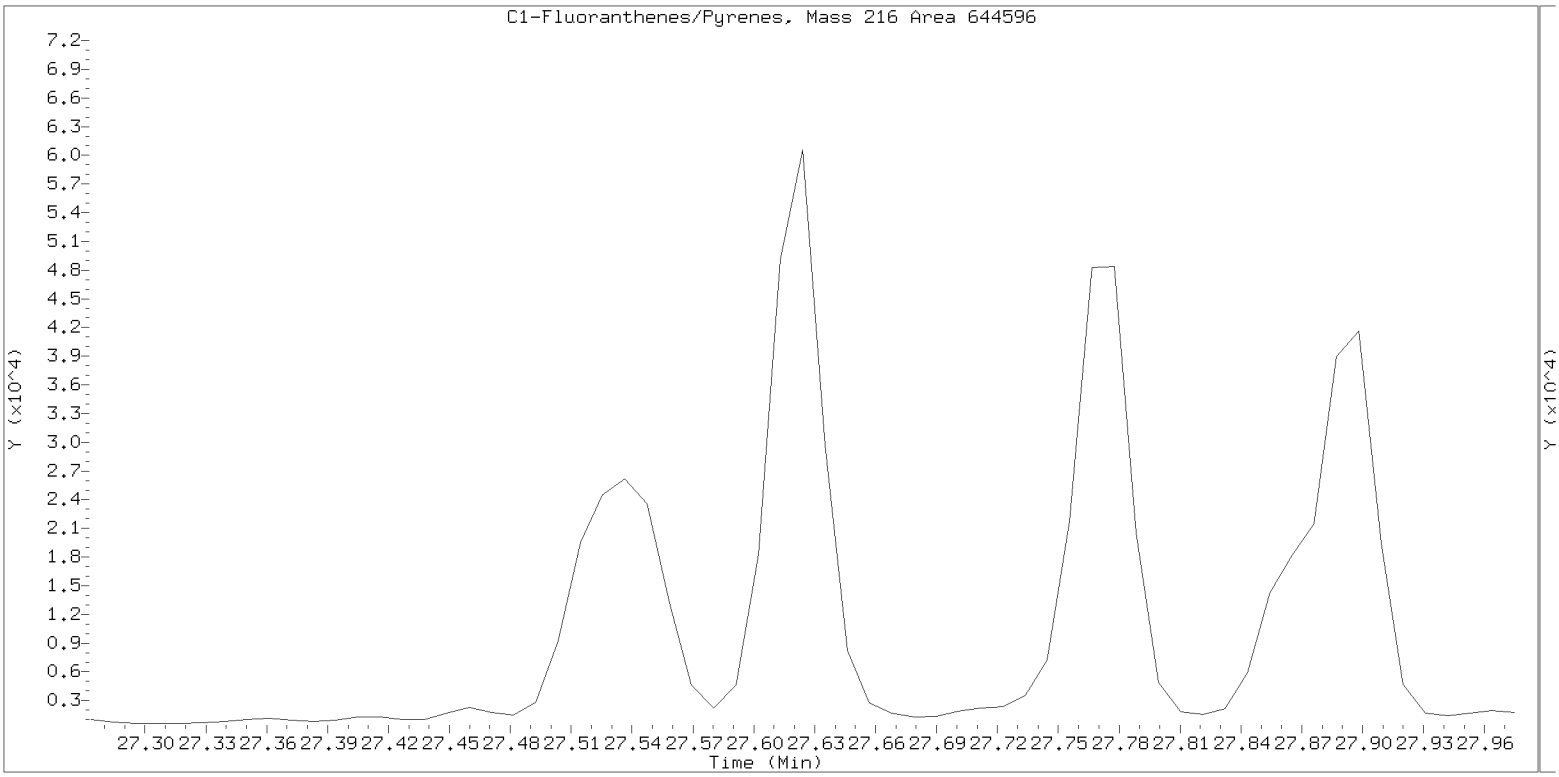


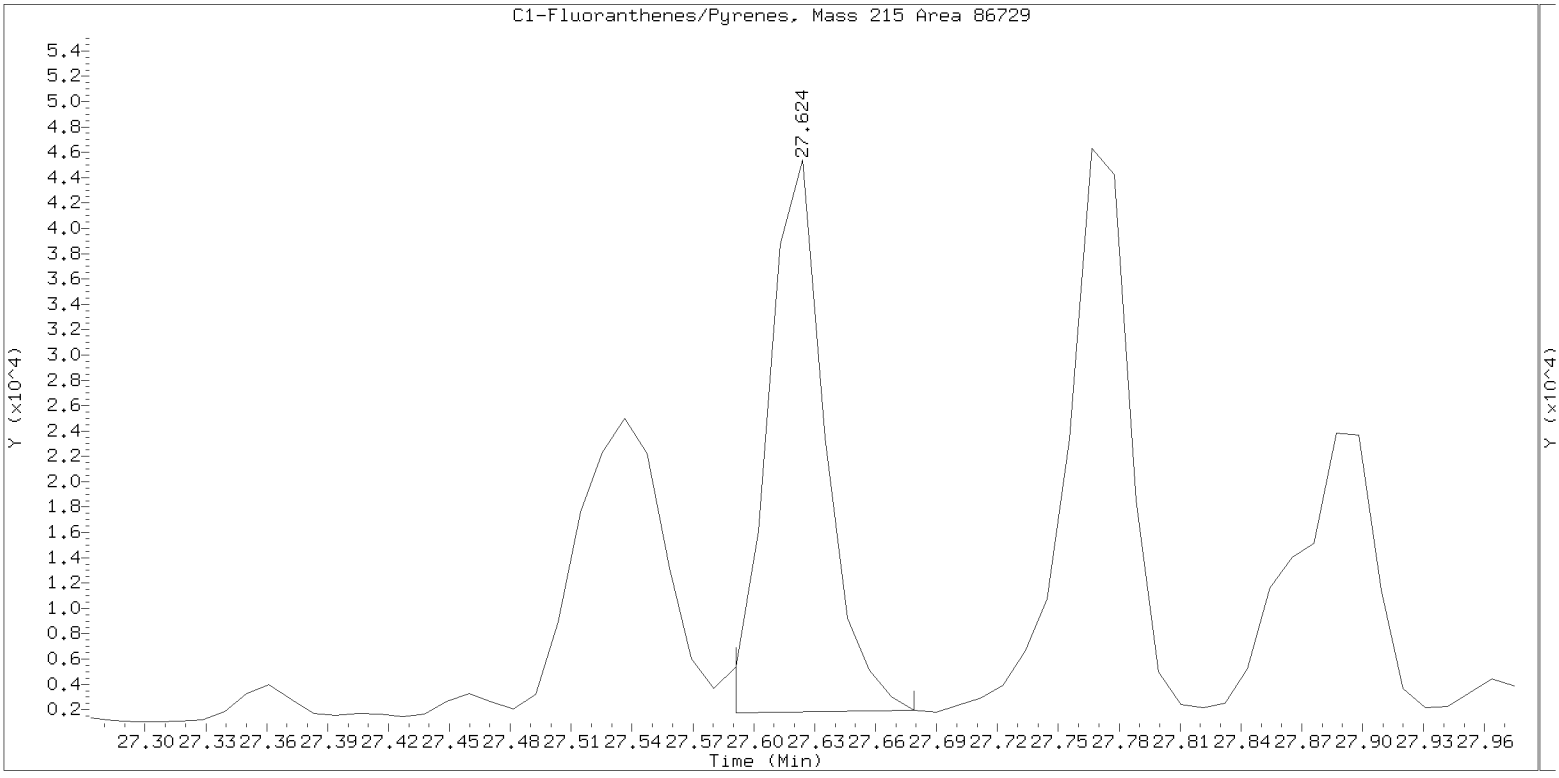


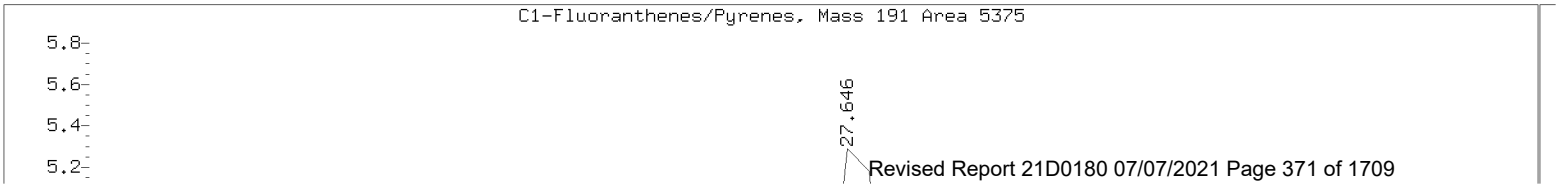

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

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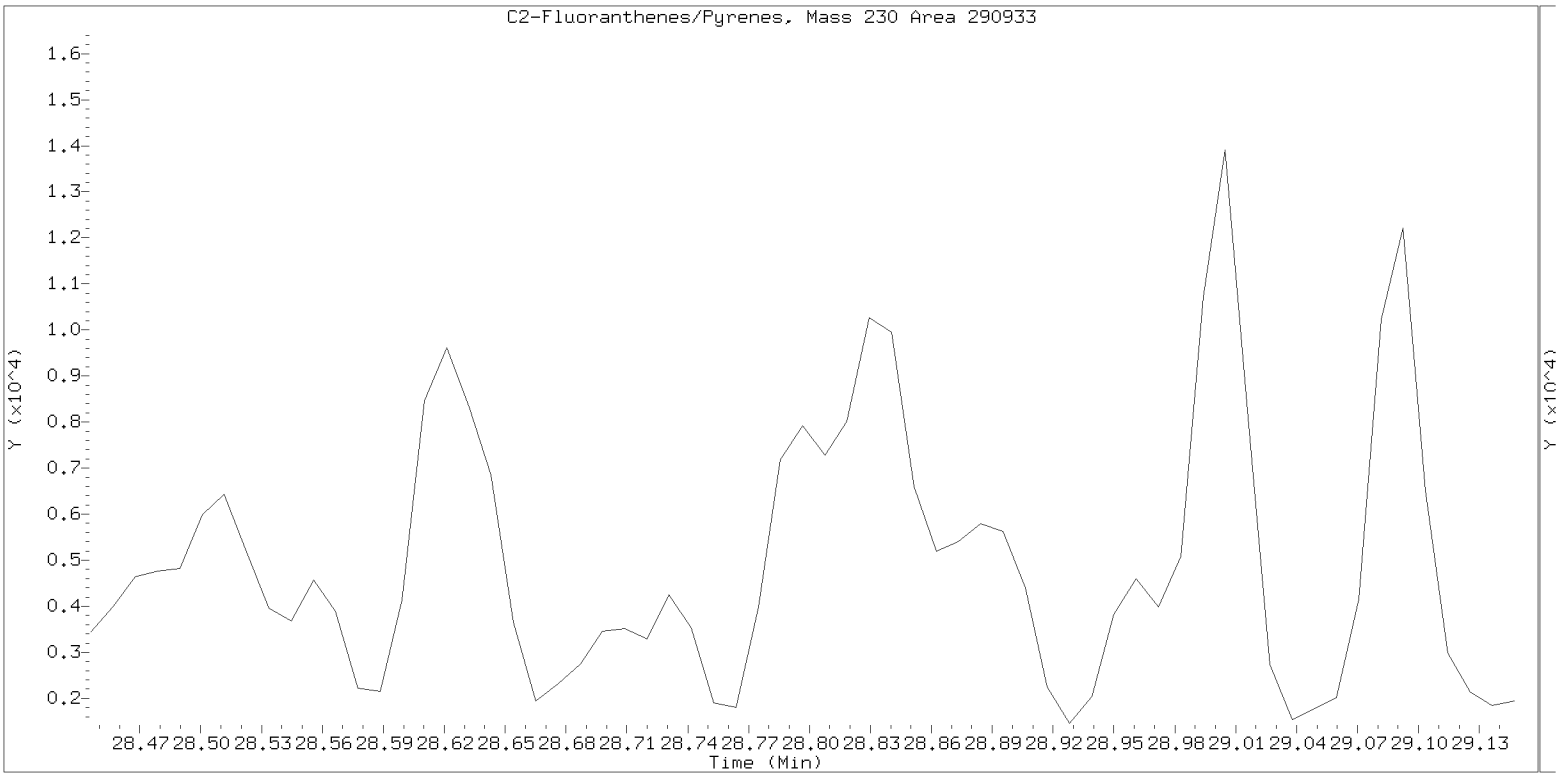


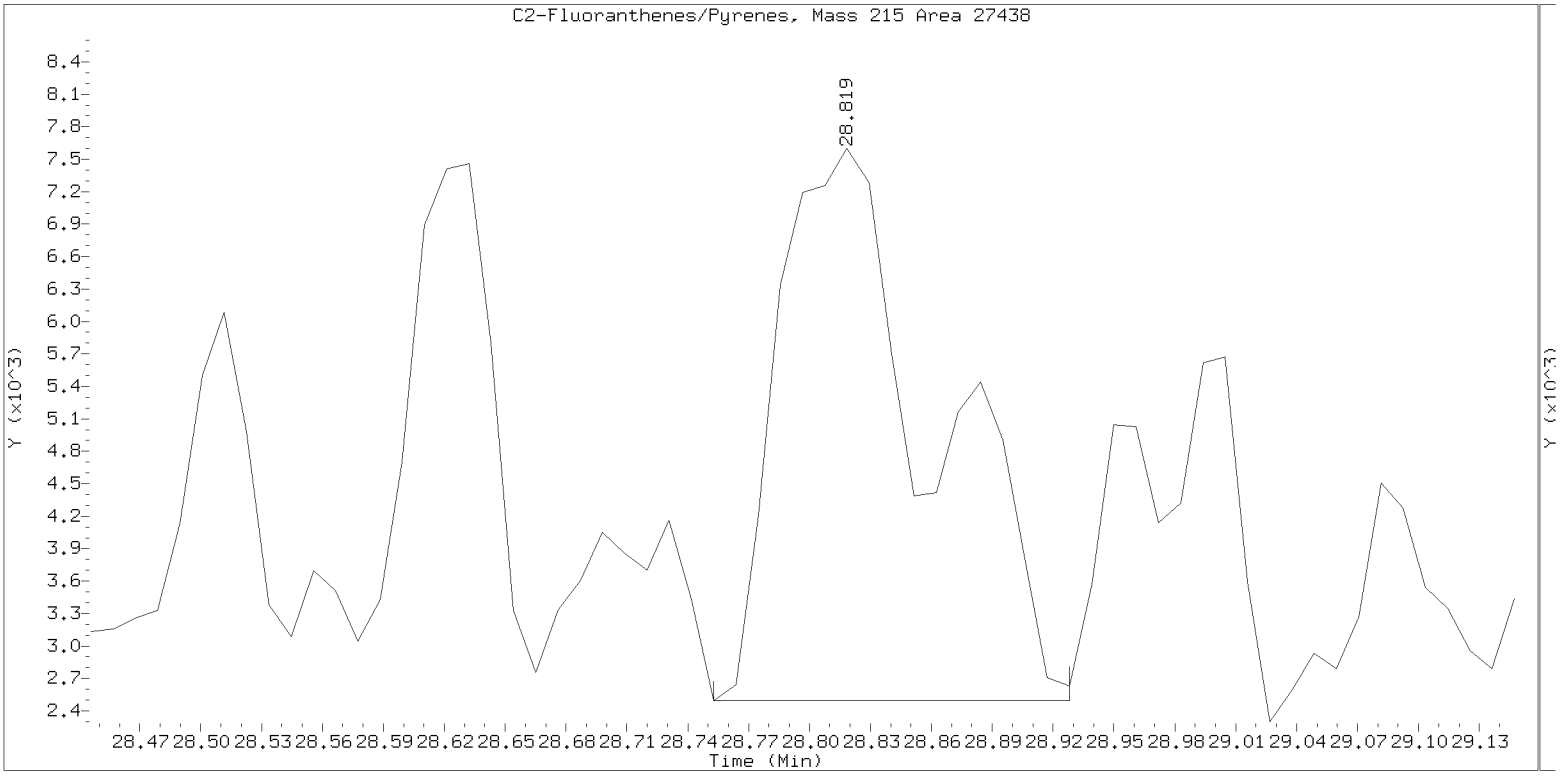

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

Lab ID: 21D0180-03
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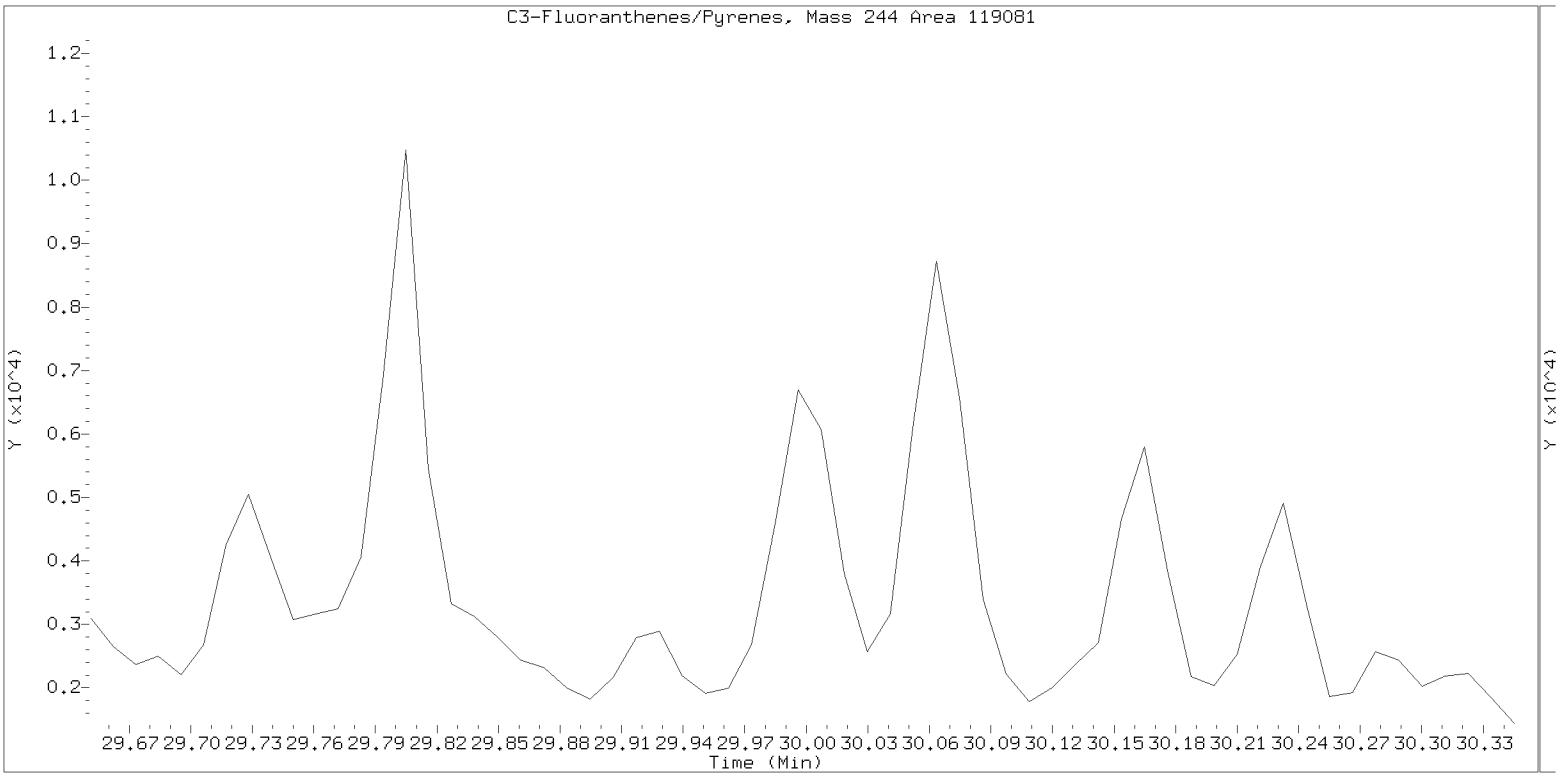


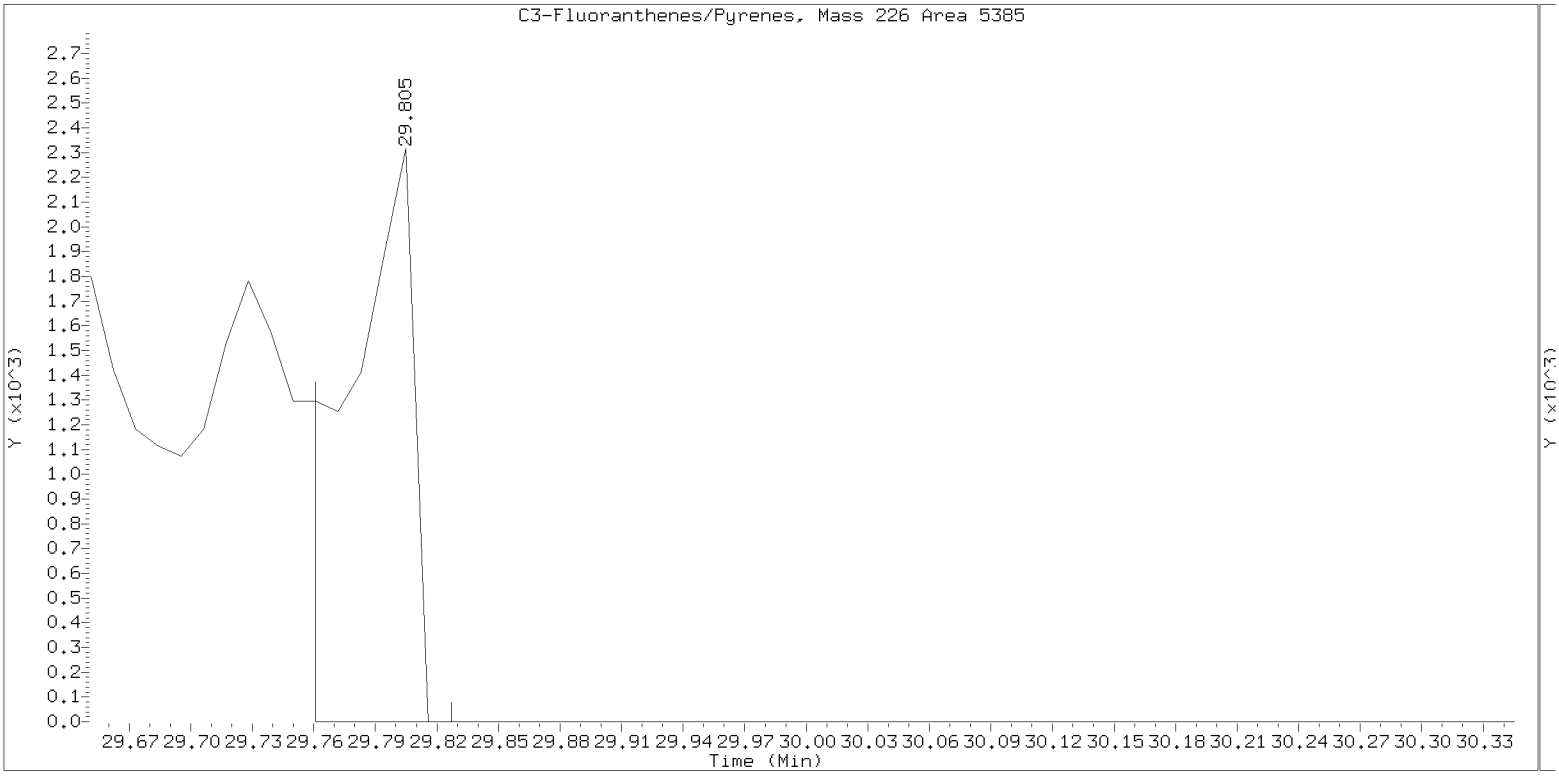

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

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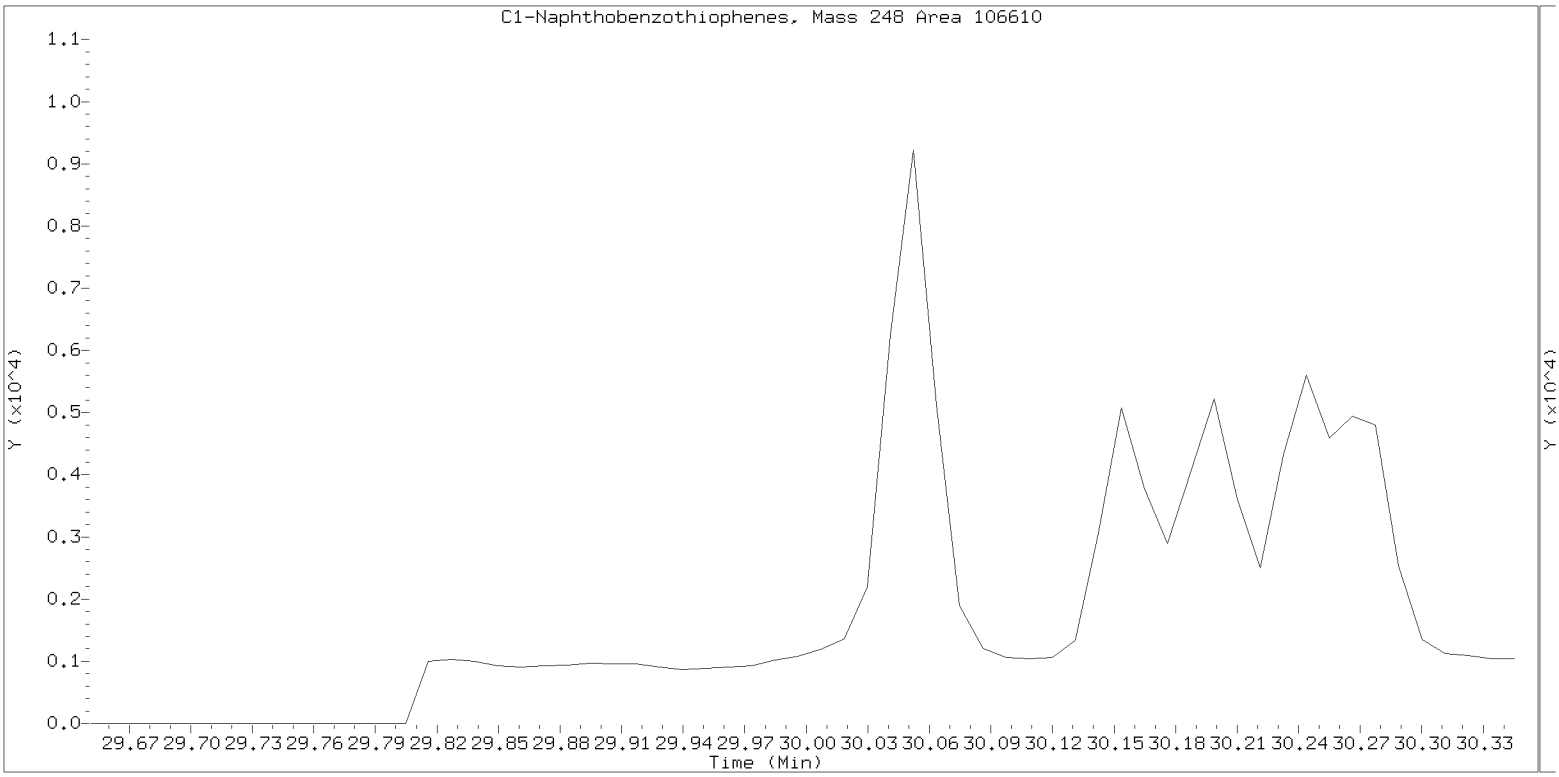

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

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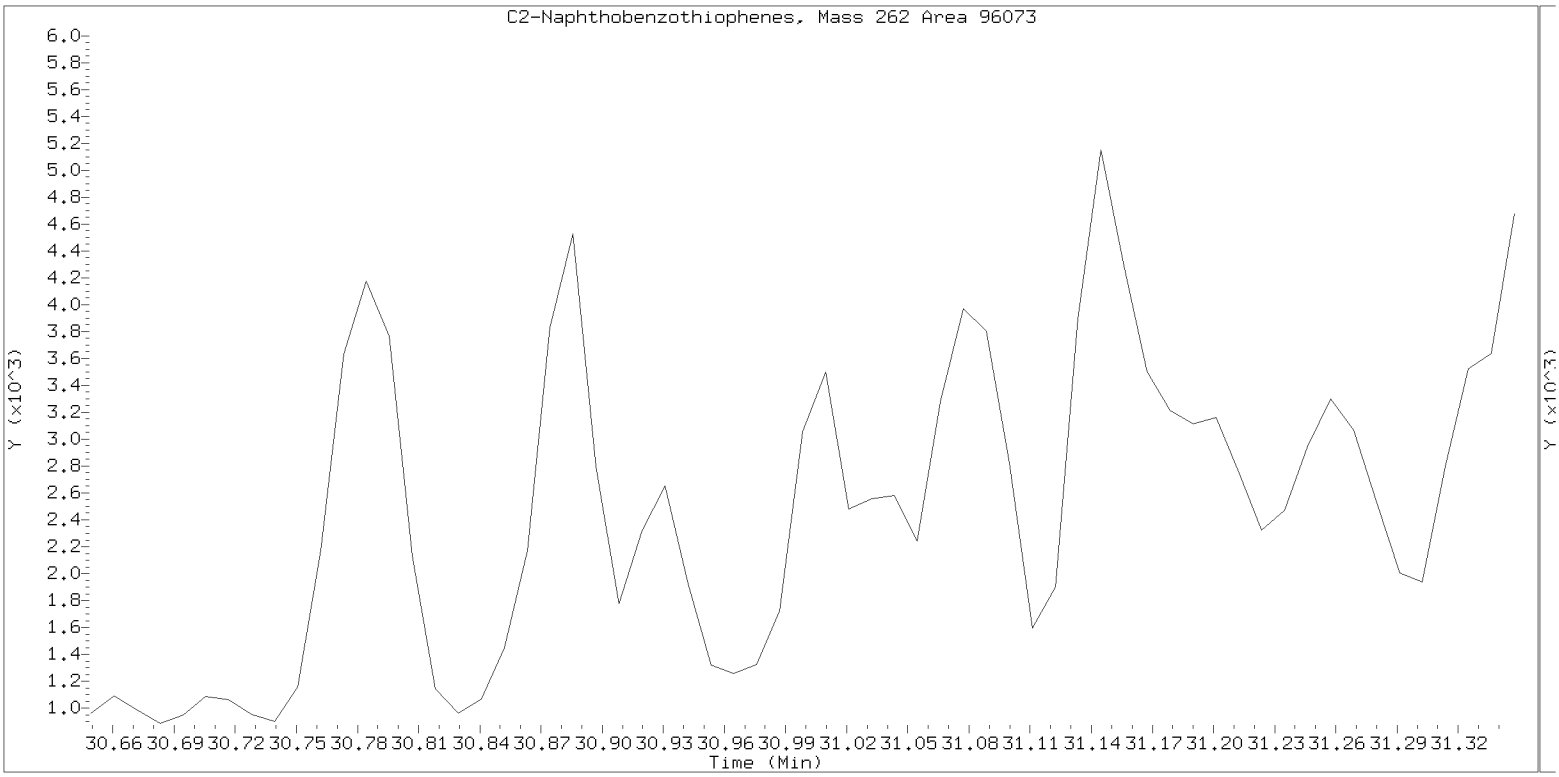

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

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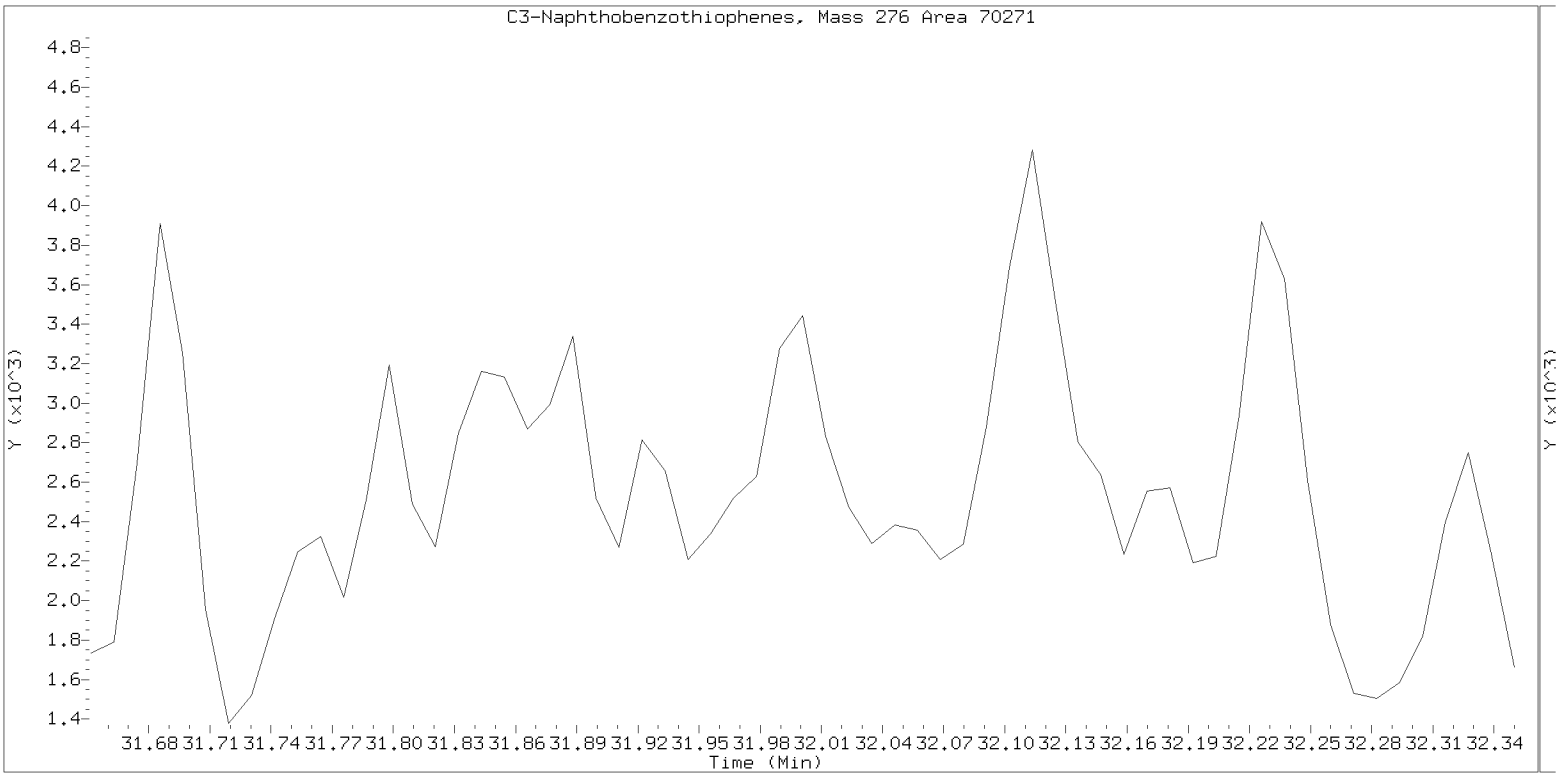

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

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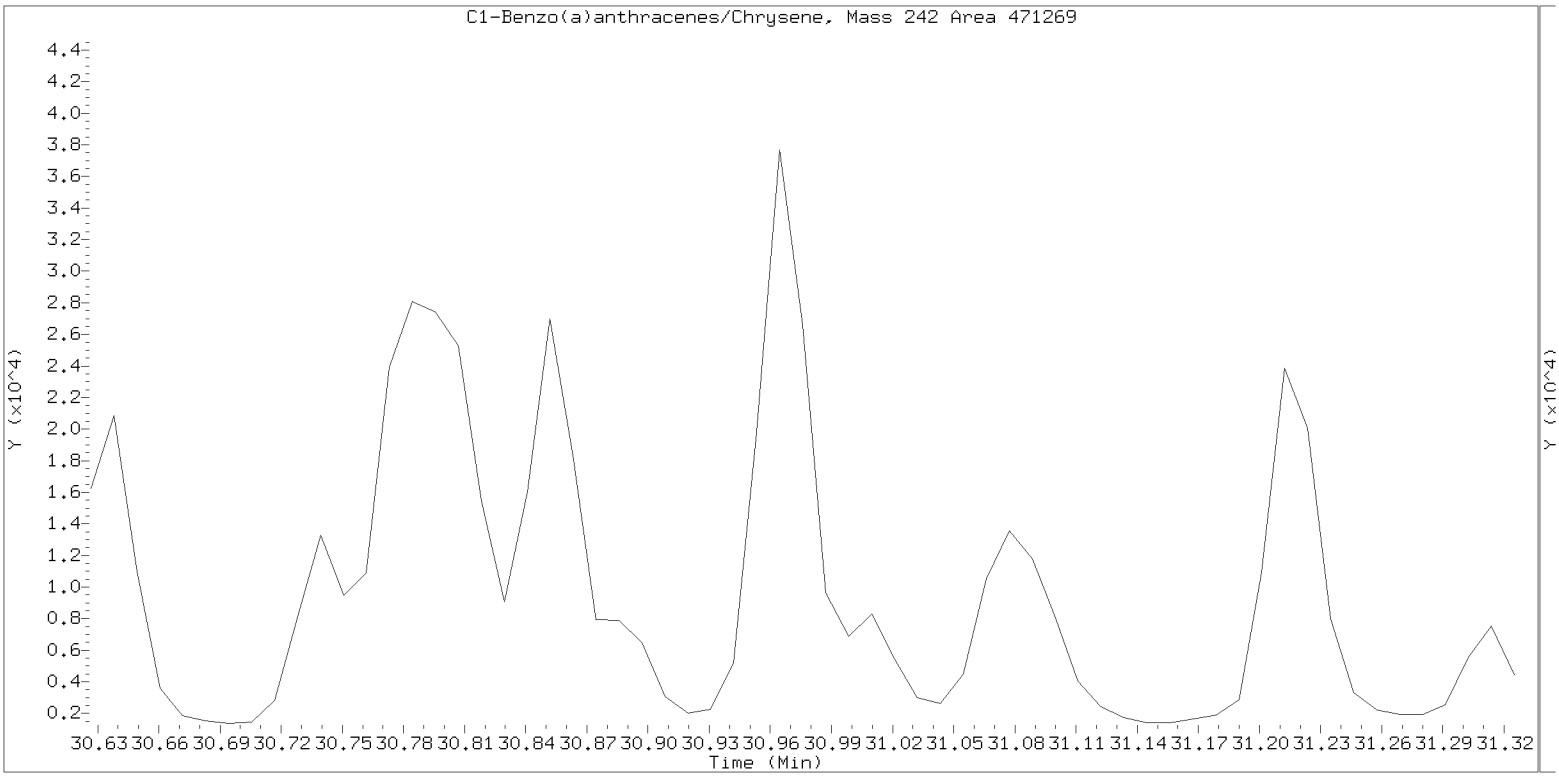


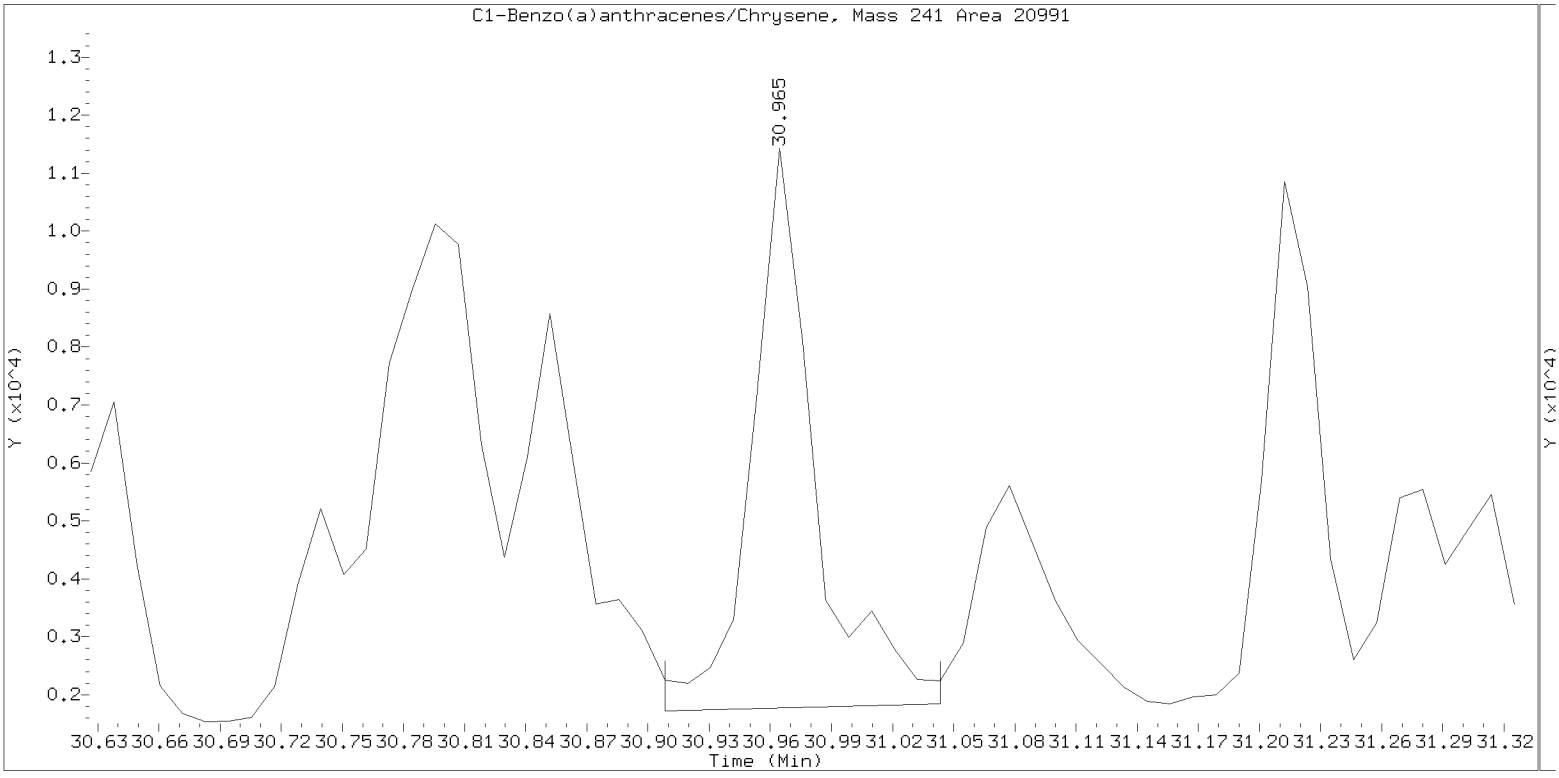


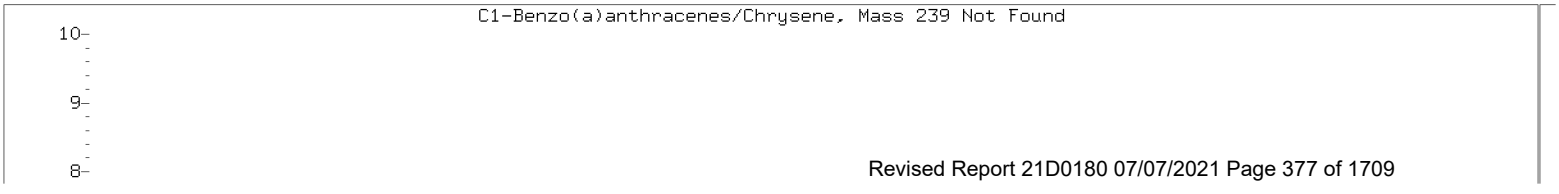

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

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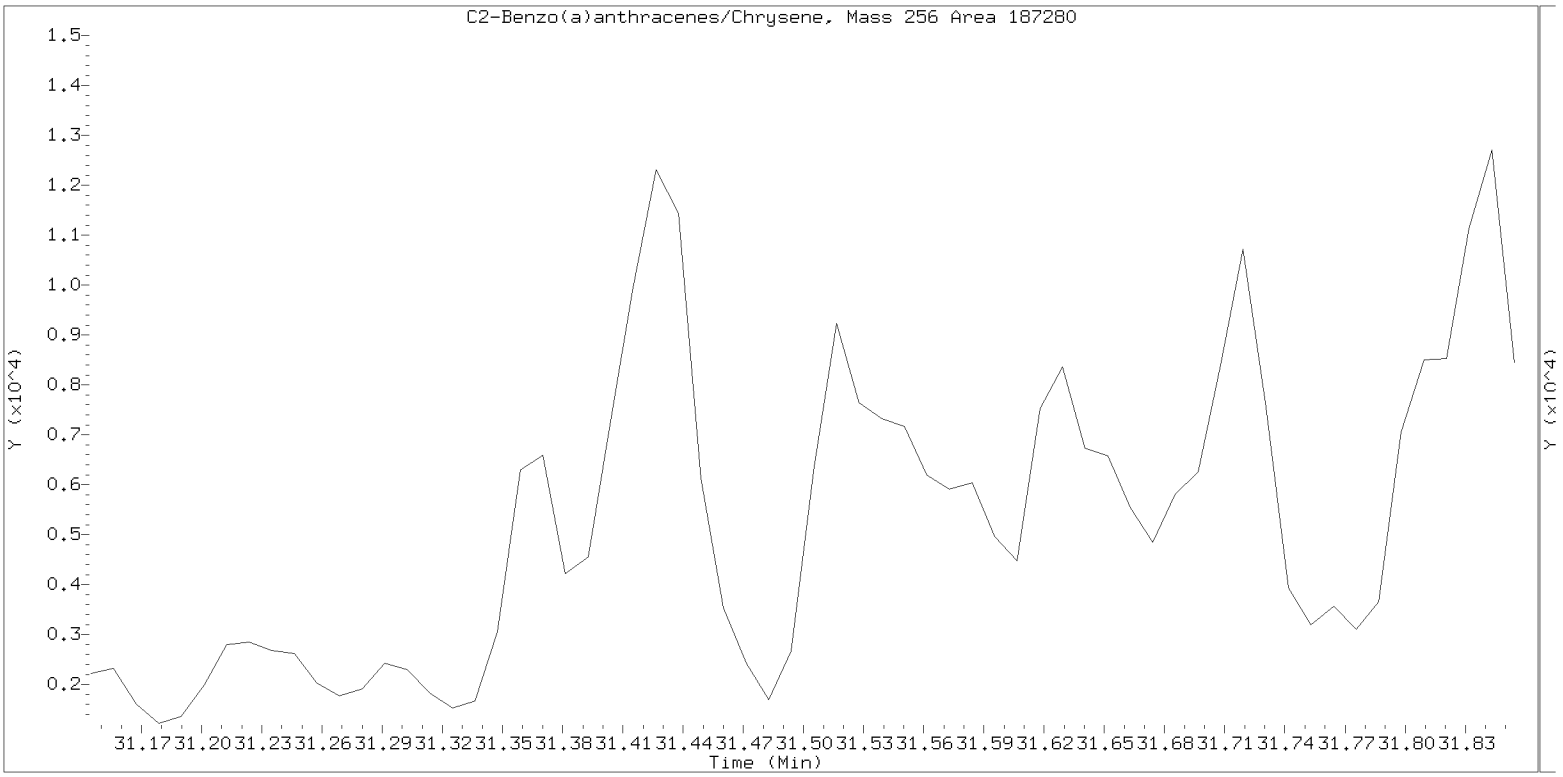


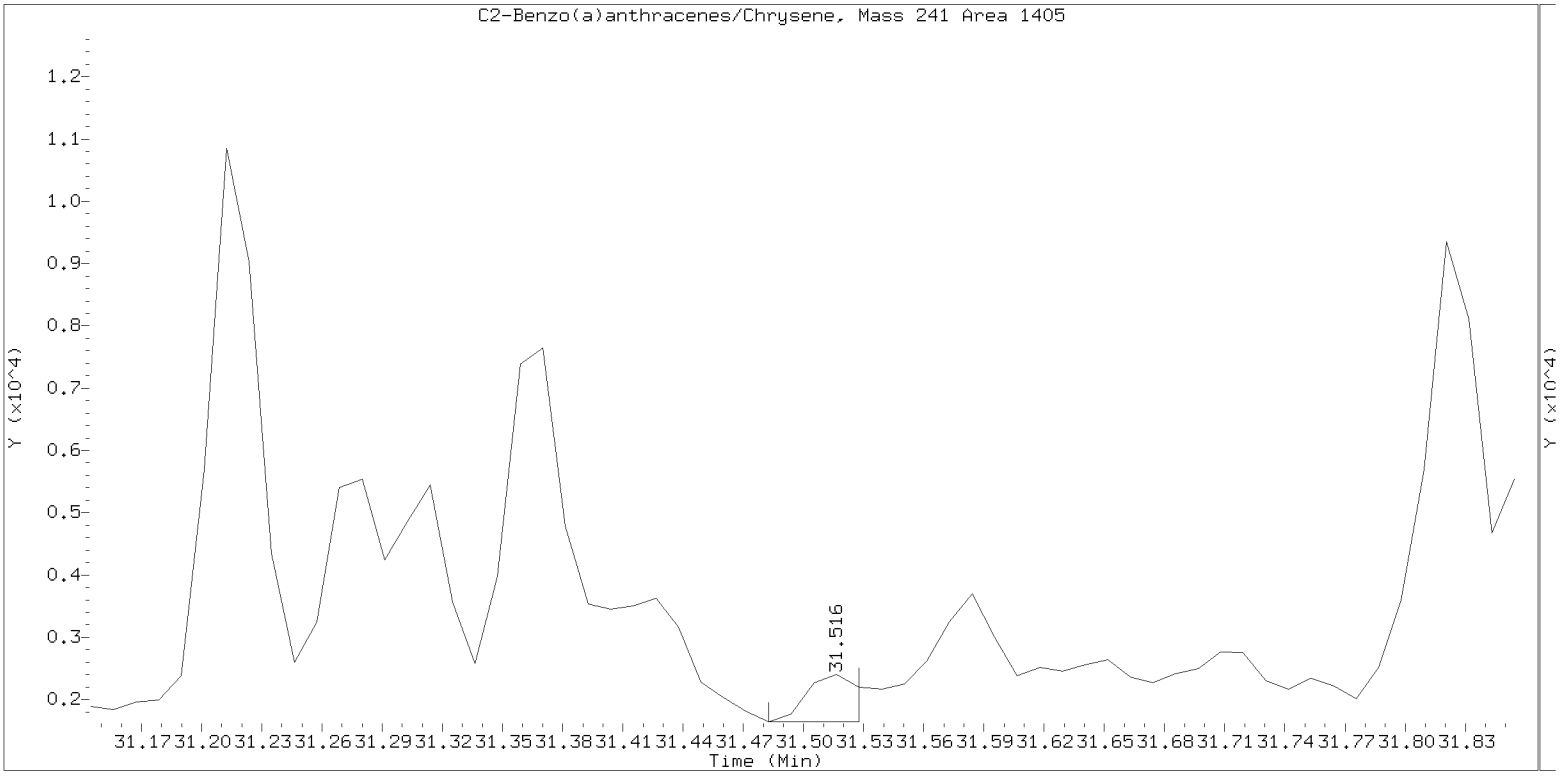


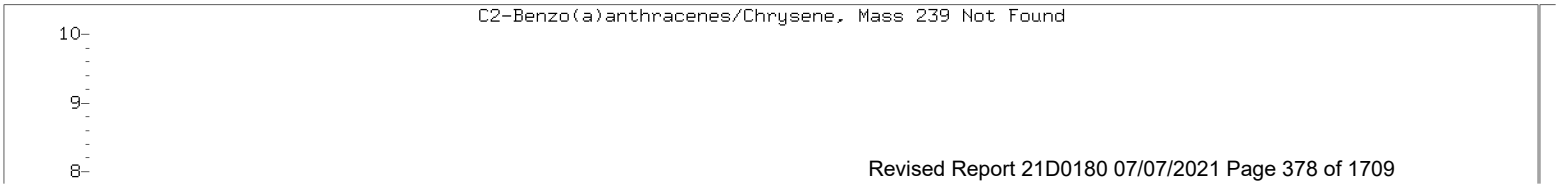

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

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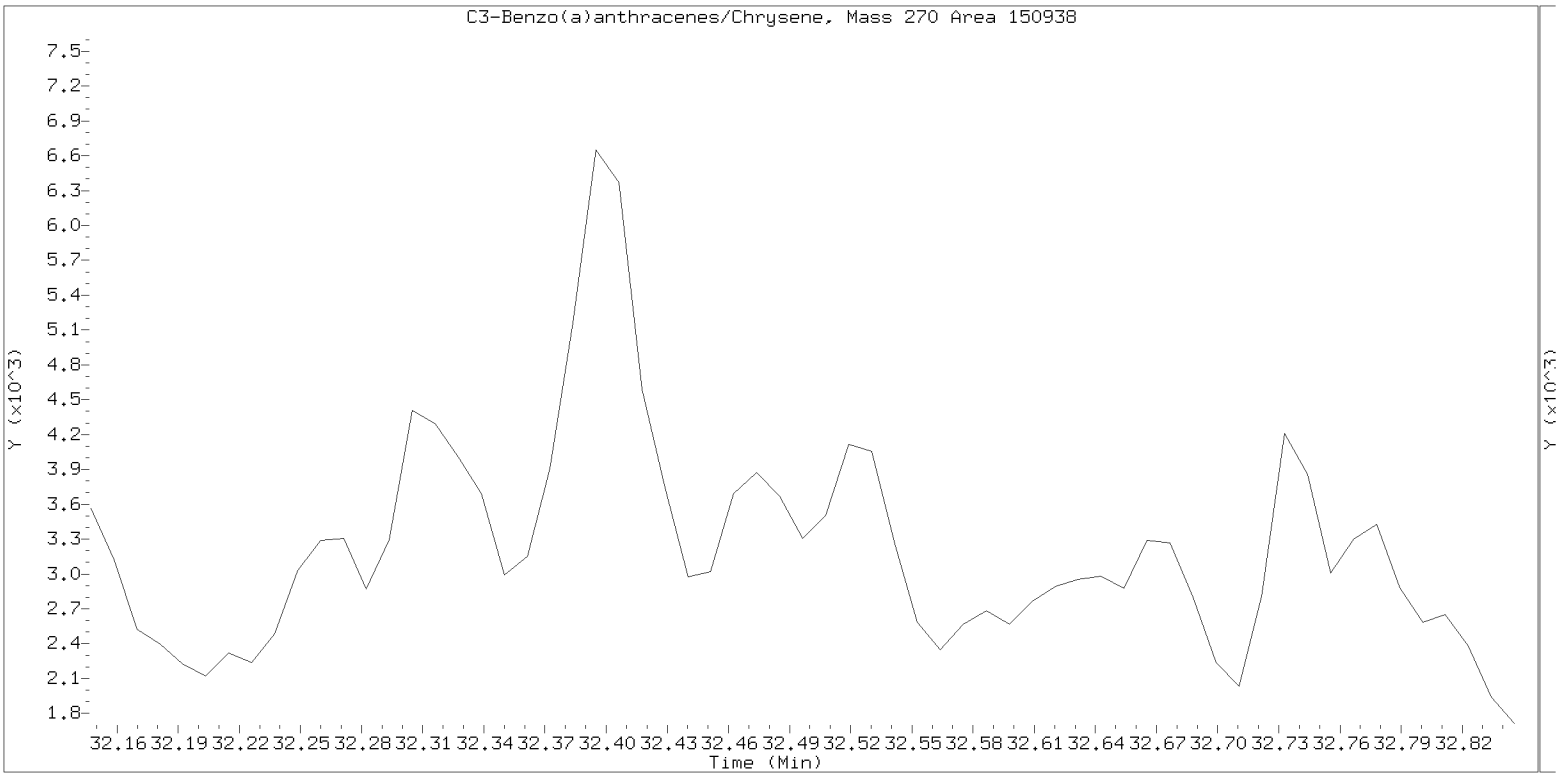


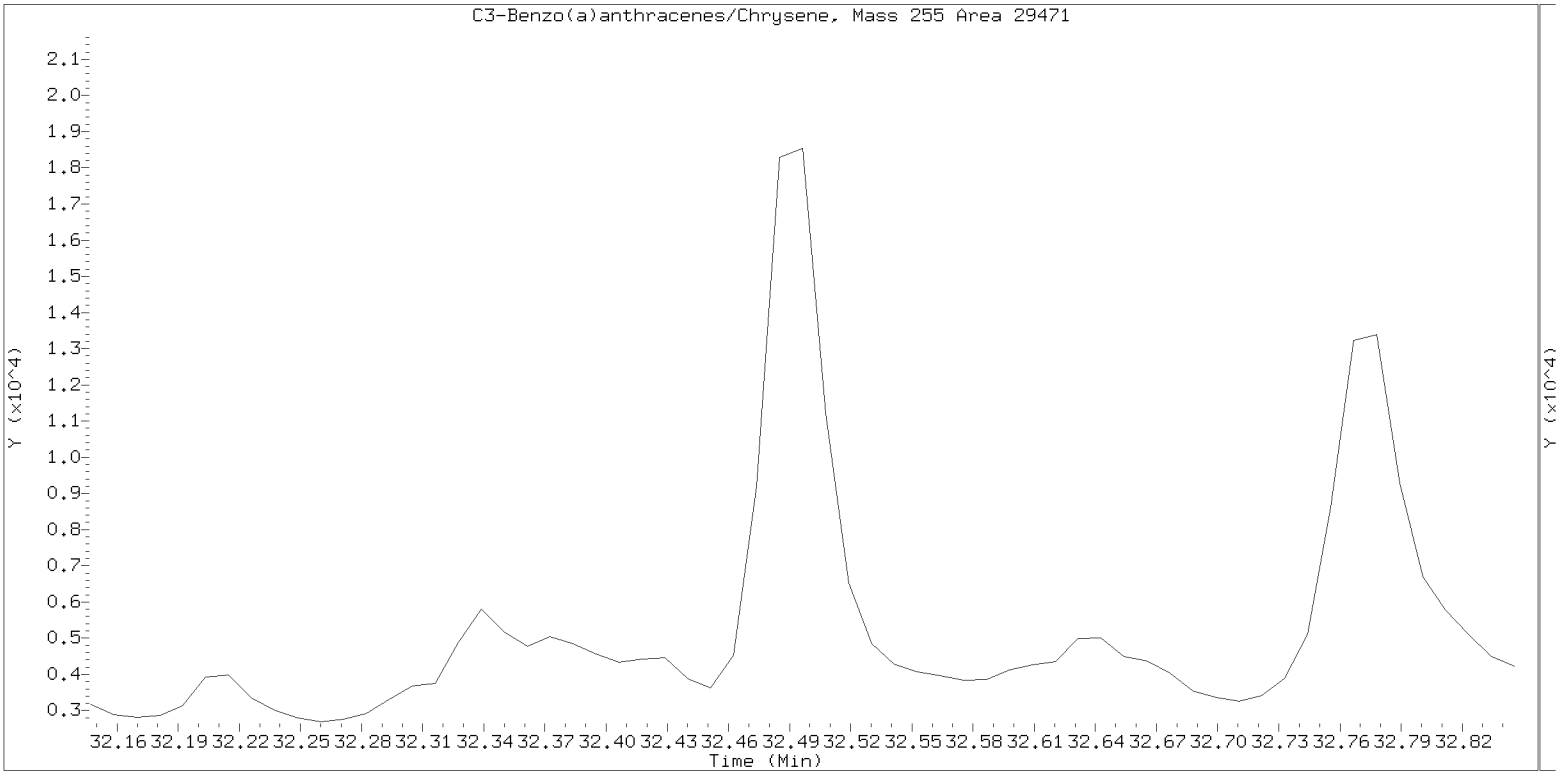


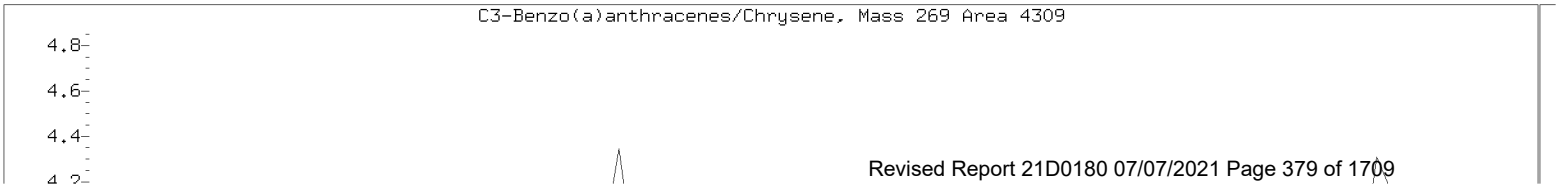

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

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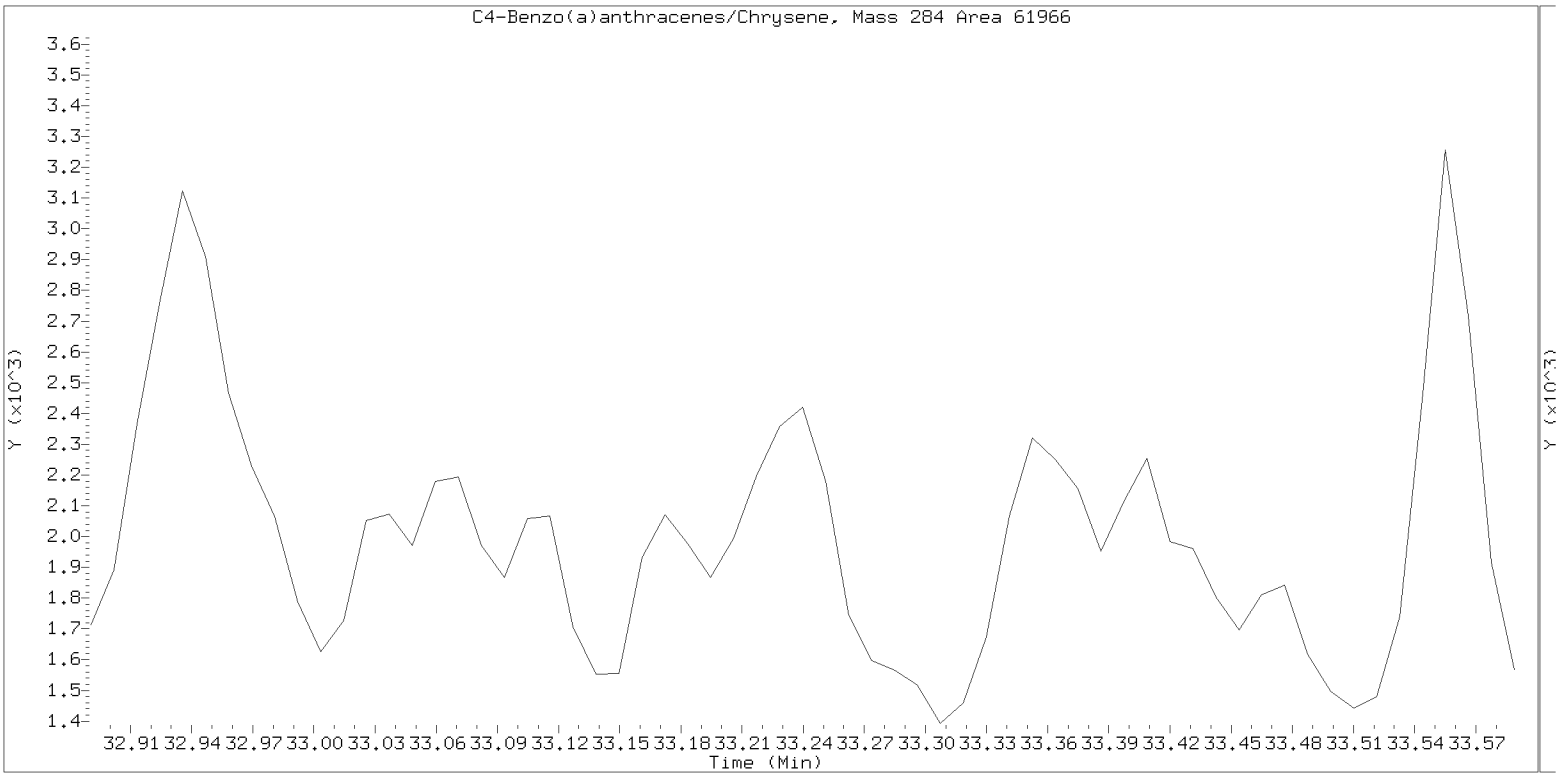


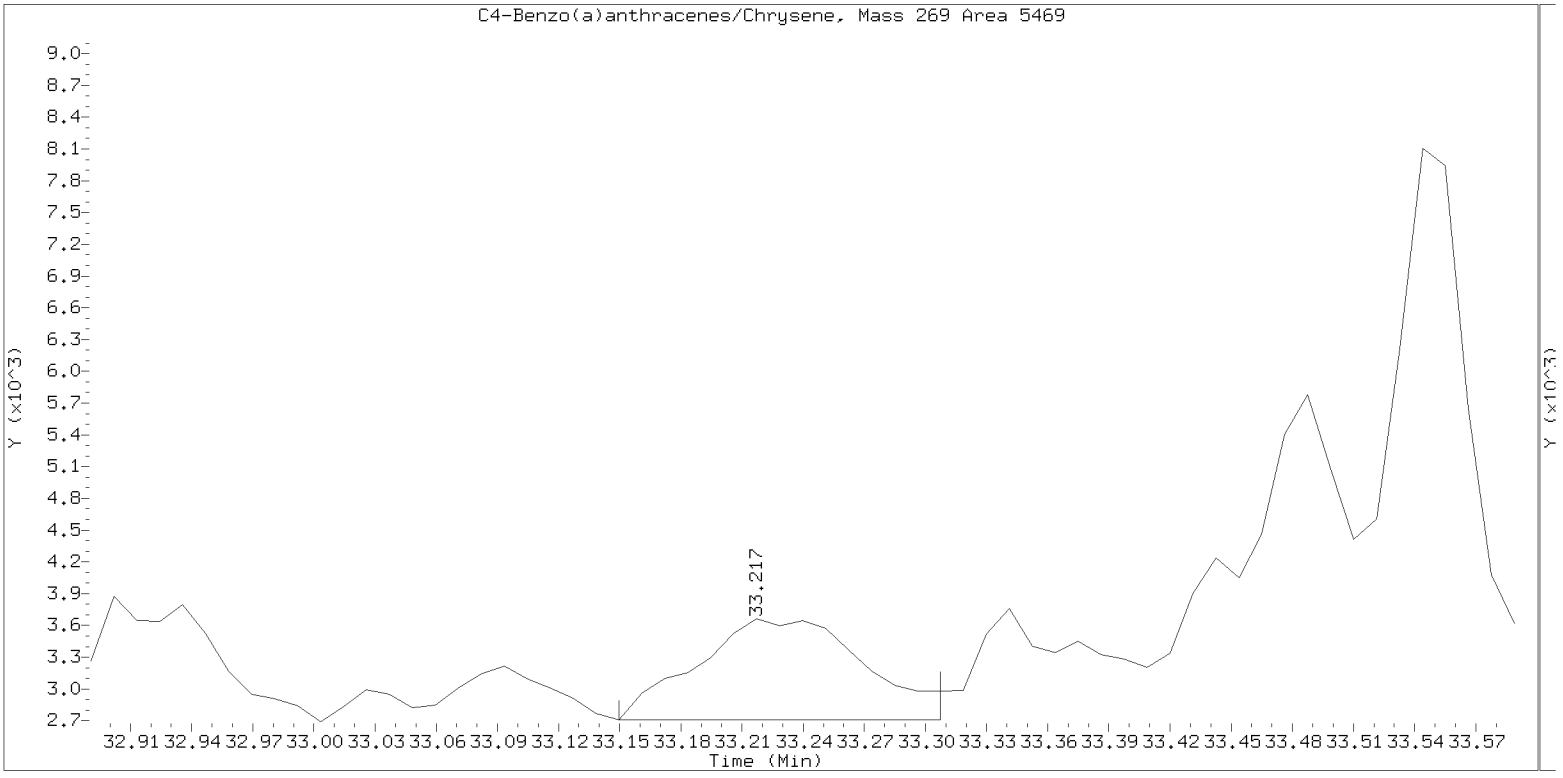


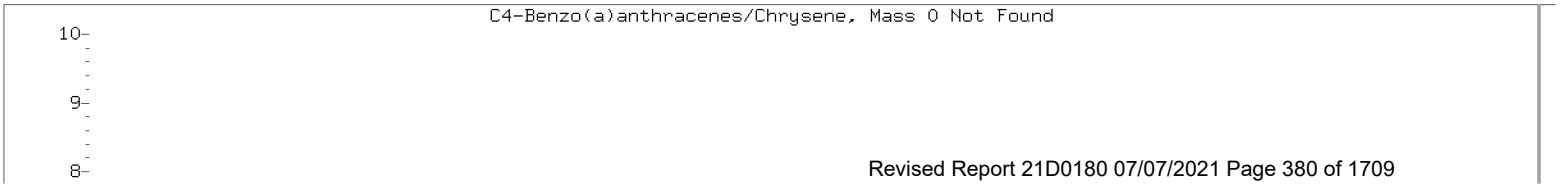

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

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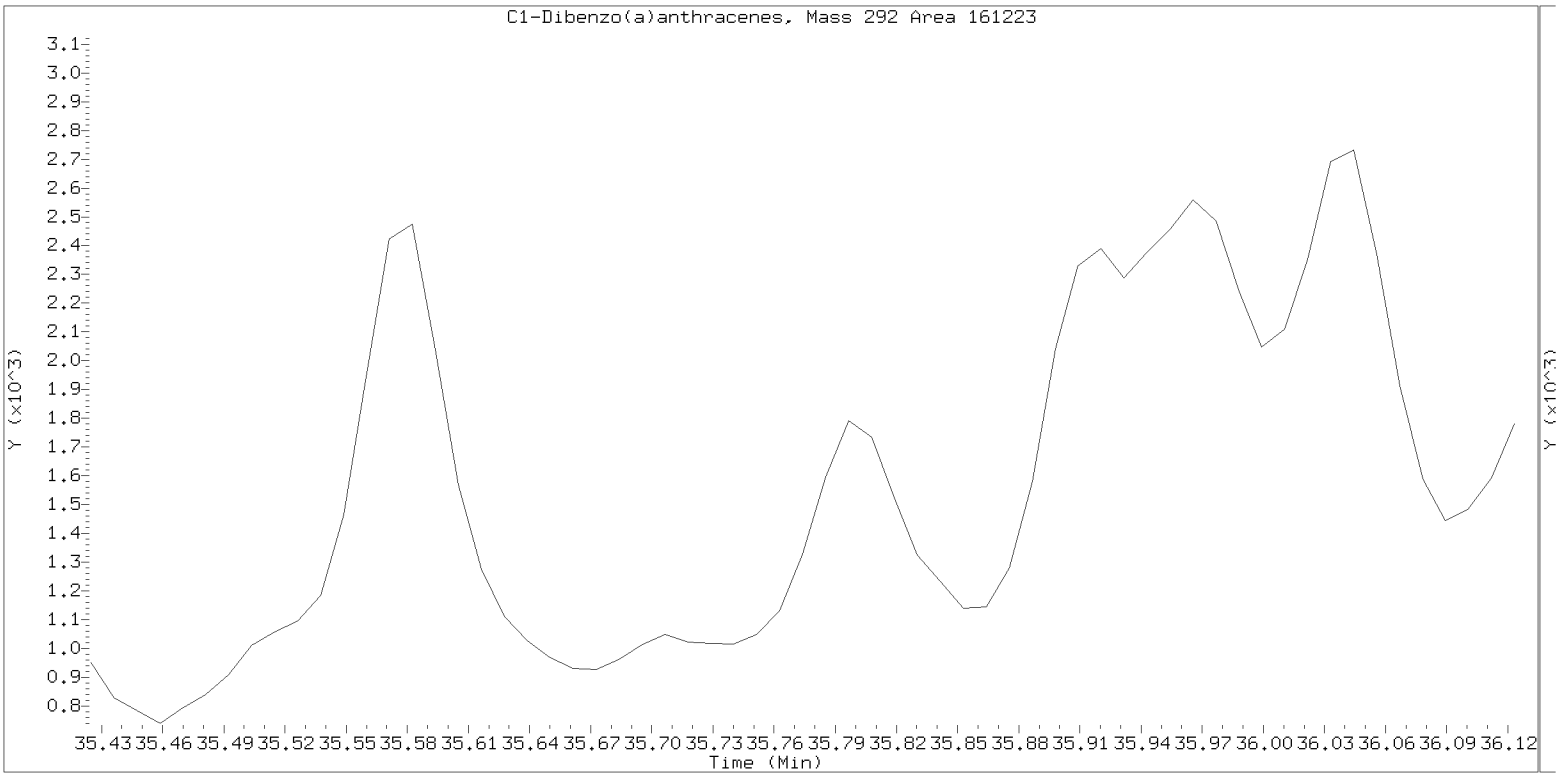

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

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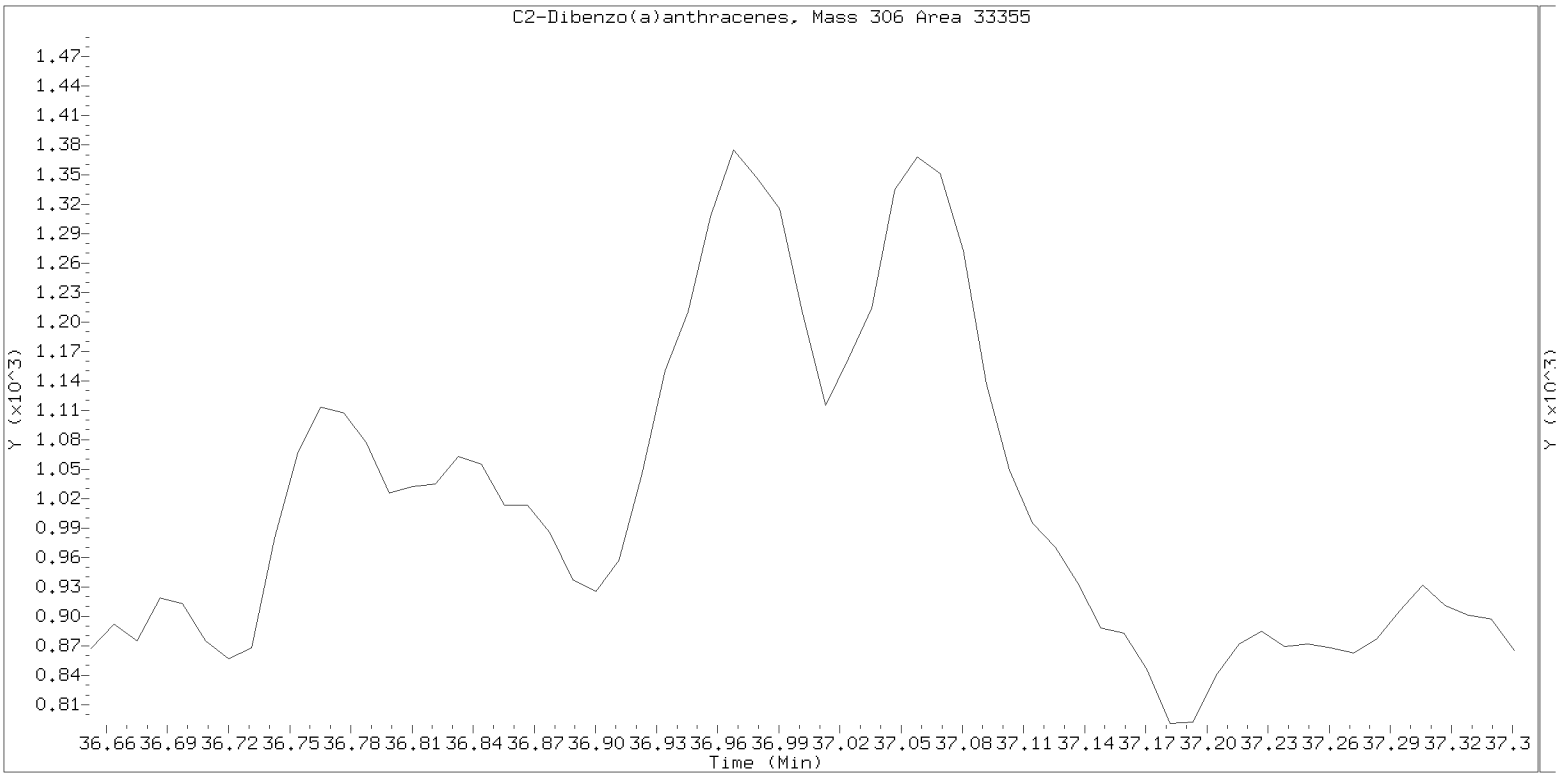

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043065S.D

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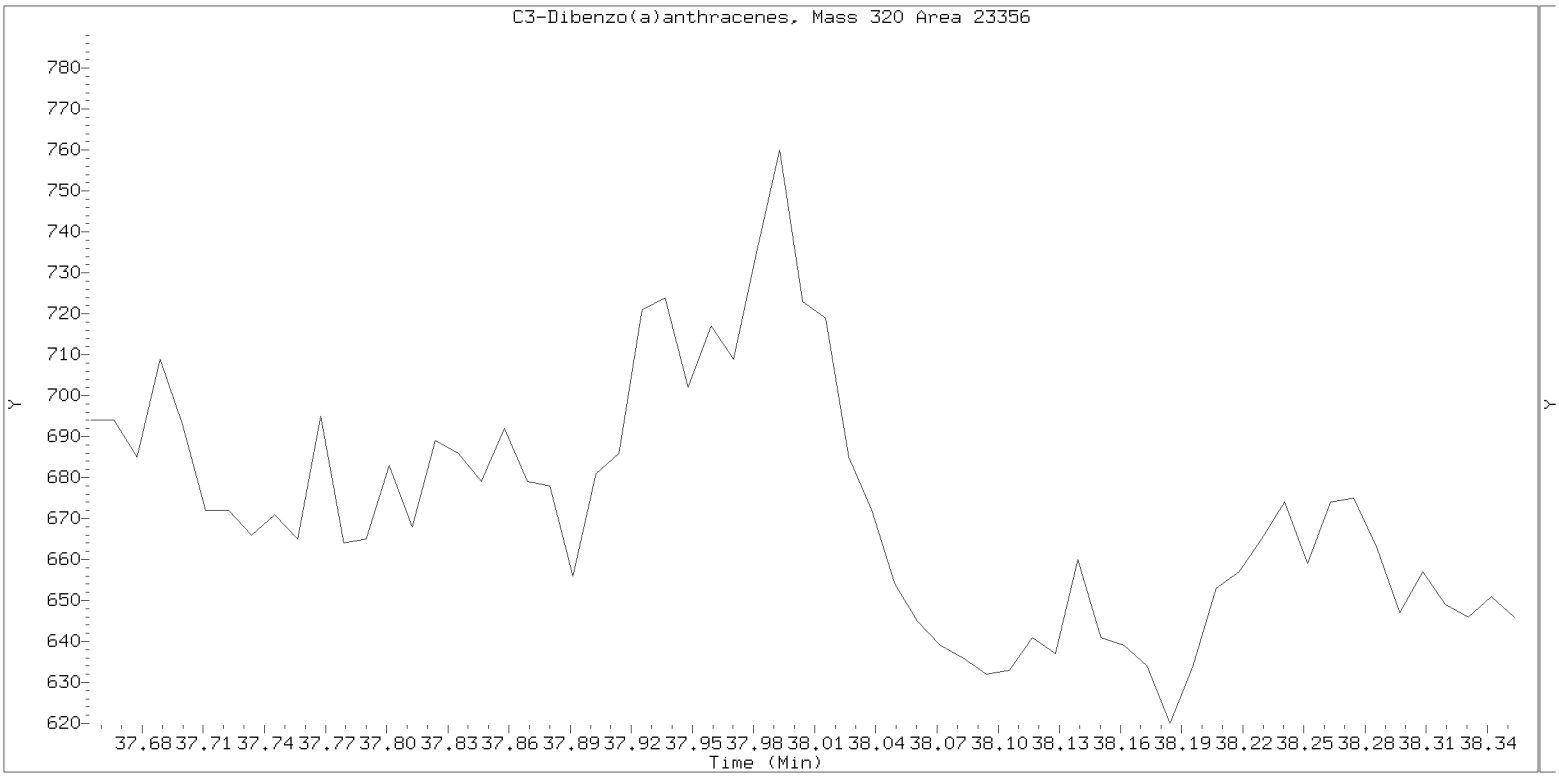


USMPDI-029SG-210414

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

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

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

USMPDI-029SG-210414

# Form I

## ORGANIC ANALYSIS DATA SHEET

## EPA 8270E-SIM

**Alkyl PAH Parents**

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

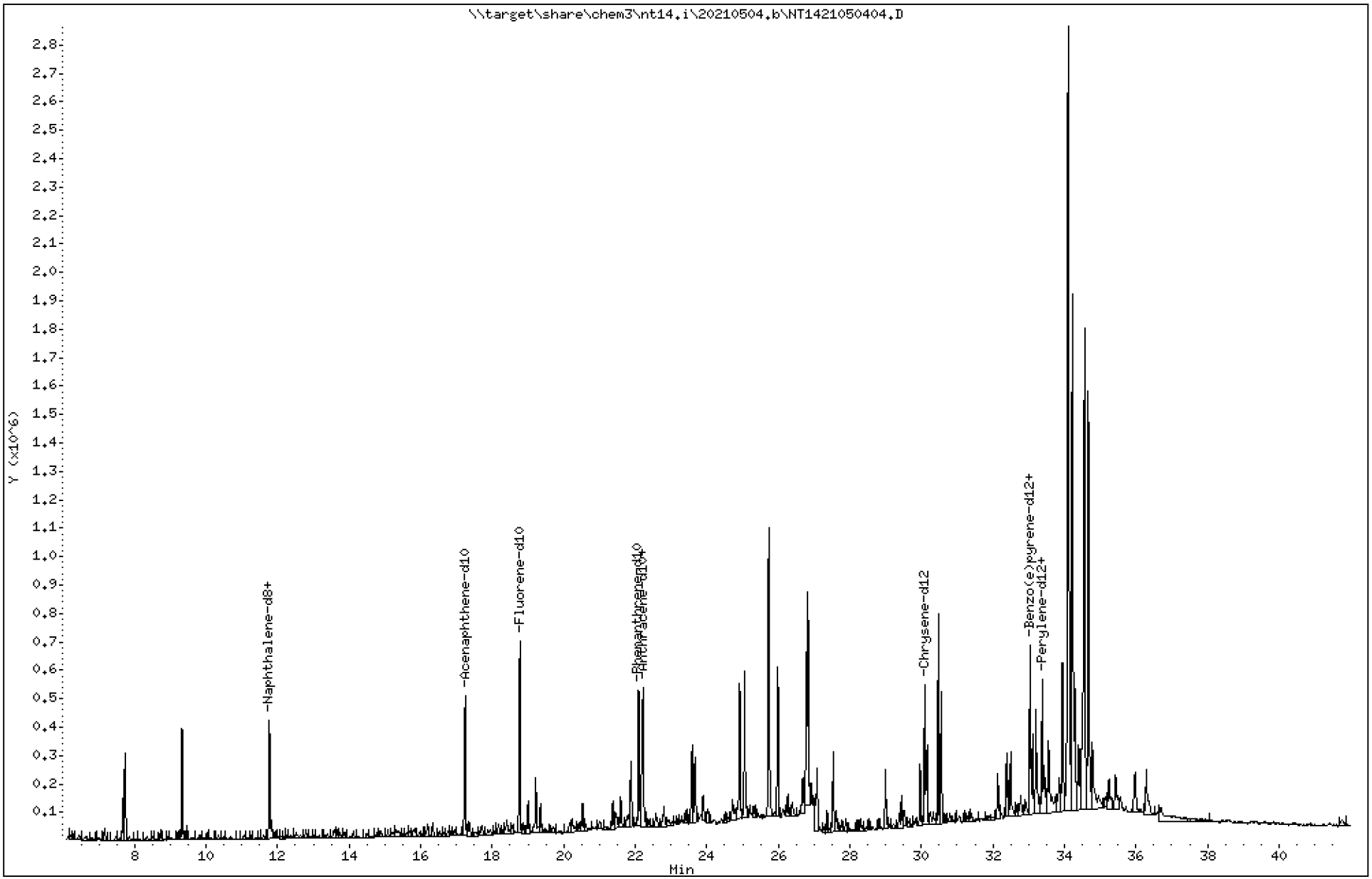
| CAS NO. | COMPOUND | DILUTION | CONC: (ug/kg dry) | Q | DL | RL |
|---|---|---|---|---|---|---|
| 1985-5-0 | Perylene | 1 | 34.0 | | 0.4 | 5.0 |
| 239-35-0 | Benzo(b)naphtho(2,1-d)thiophene | 1 | 8.7 | | 5.0 | 5.0 |

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

Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050404.D
Date : 04-MAY-2021 15:19
Client ID:
Sample Info: 21D0180-04

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

Column phase: Rxi-17Sil MS

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Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050404.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

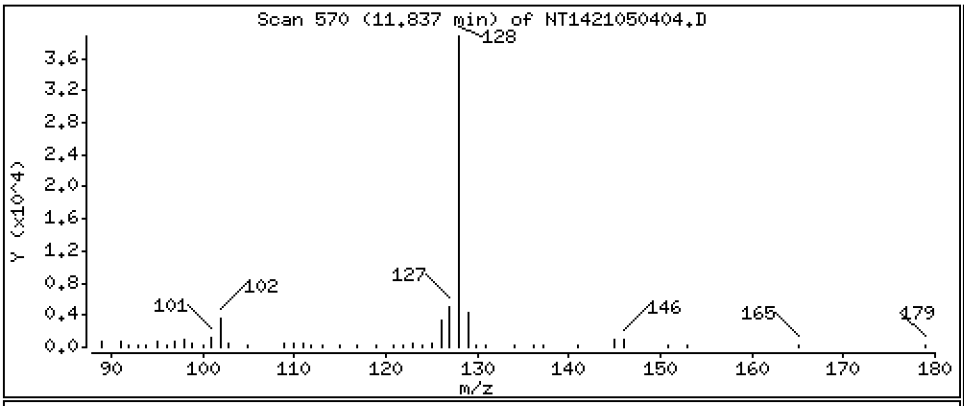
Operator: VTS

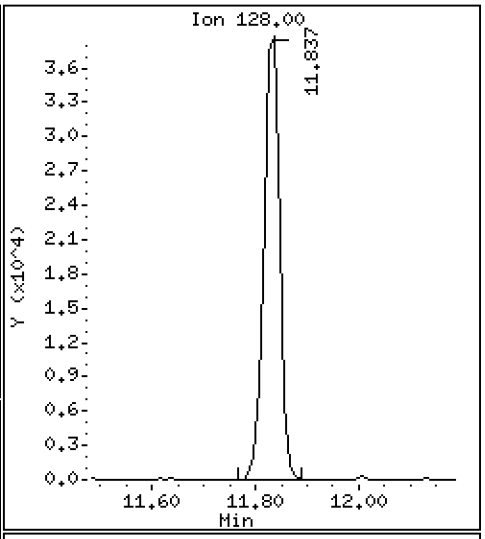
Column phase: Rxi-17Sil MS

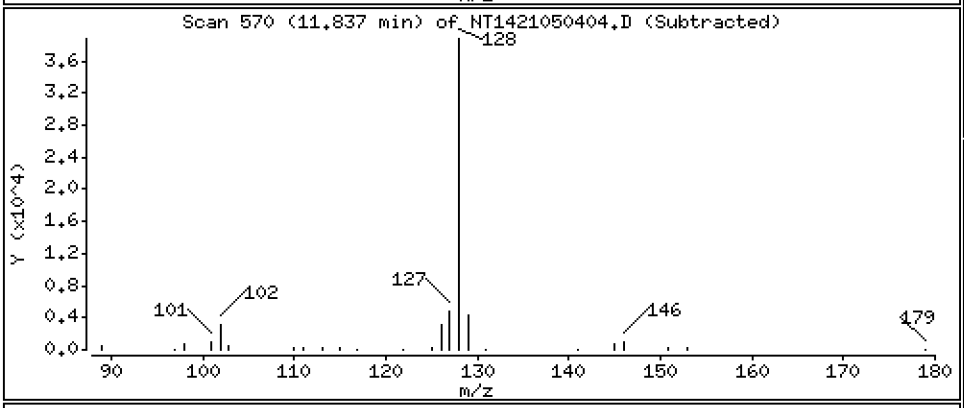
Column diameter: 0.25

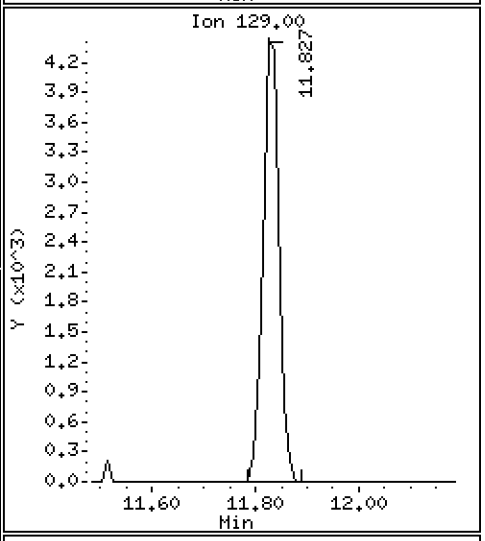
7 Naphthalene

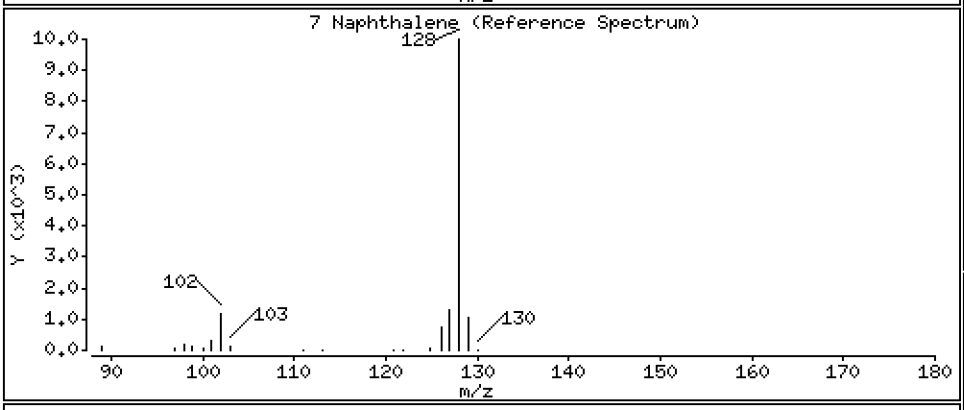
Concentration: 0.2800 ug/mL

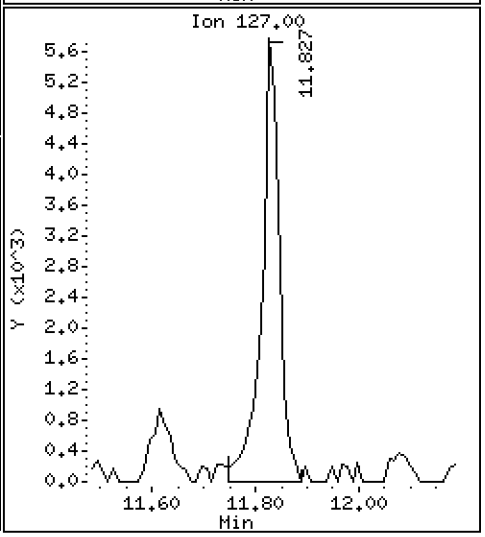


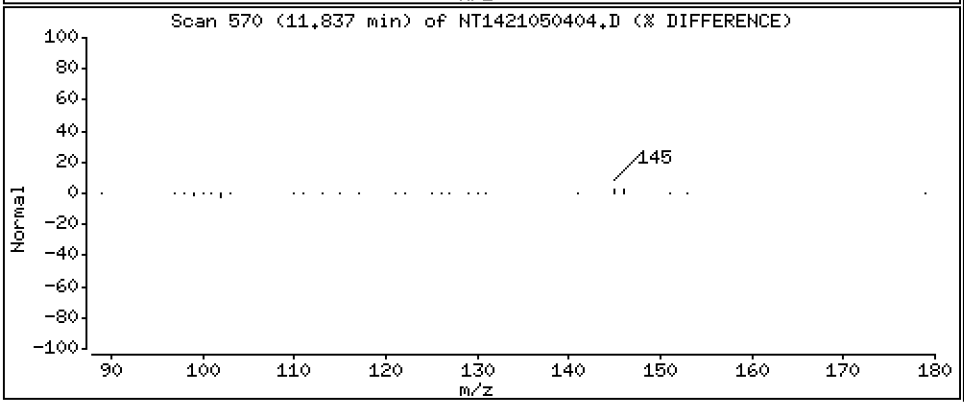



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

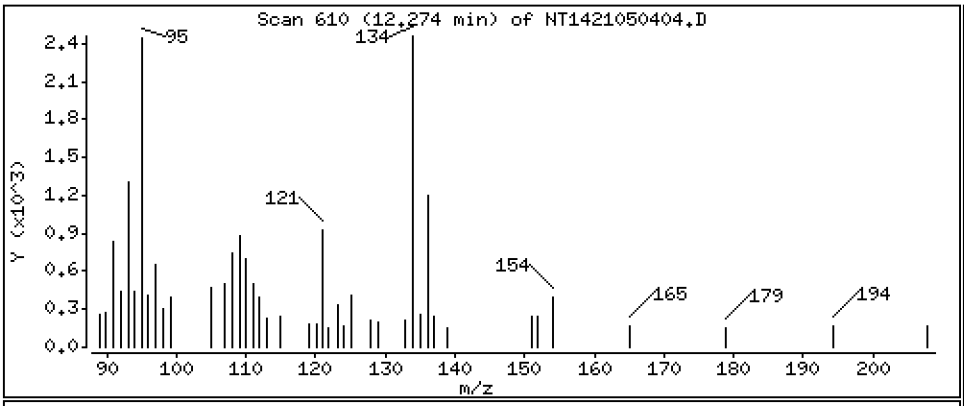
Operator: VTS

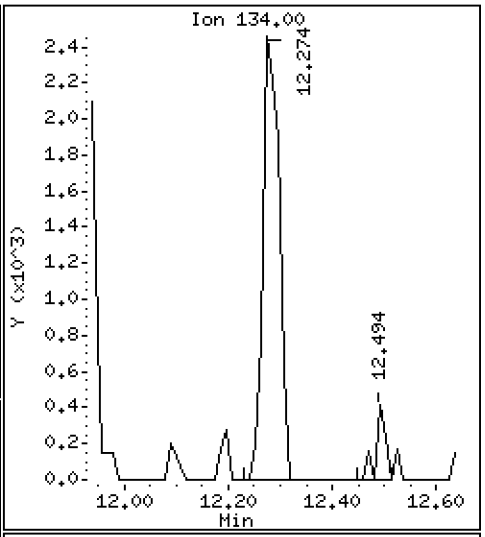
Column phase: Rxi-17Sil MS

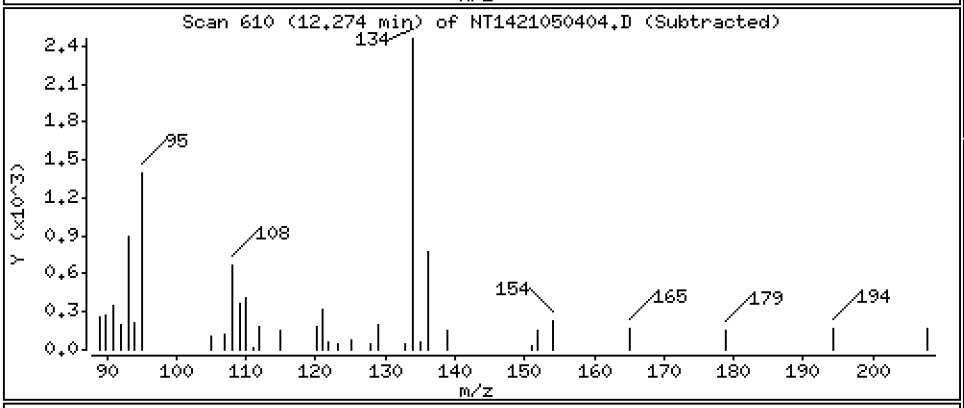
Column diameter: 0.25

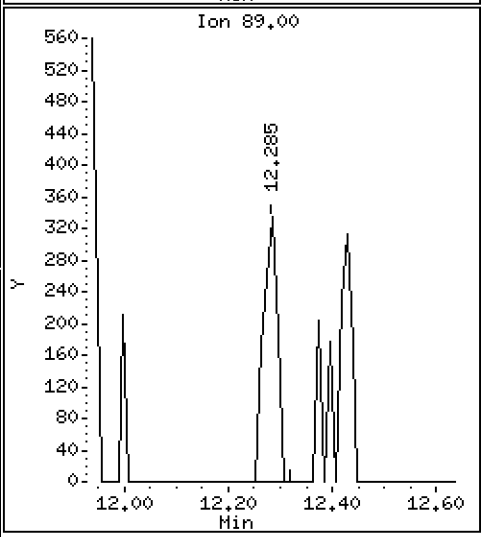
12 Benzo(b)thiophene

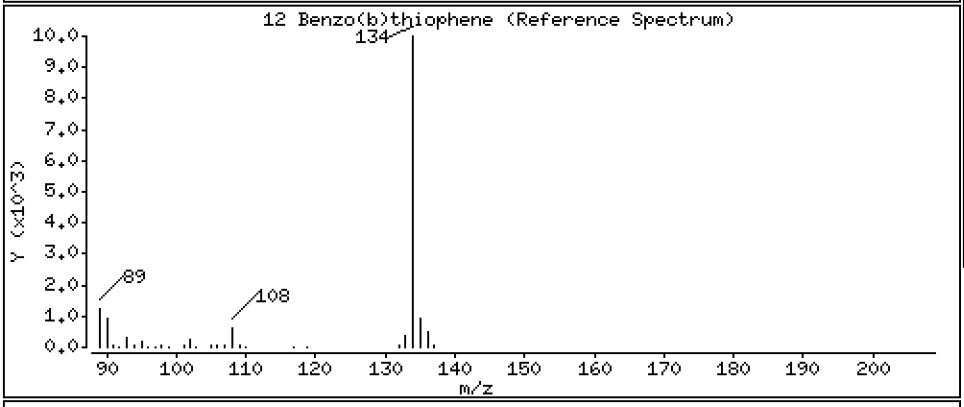
Concentration: 0.02235 ug/mL

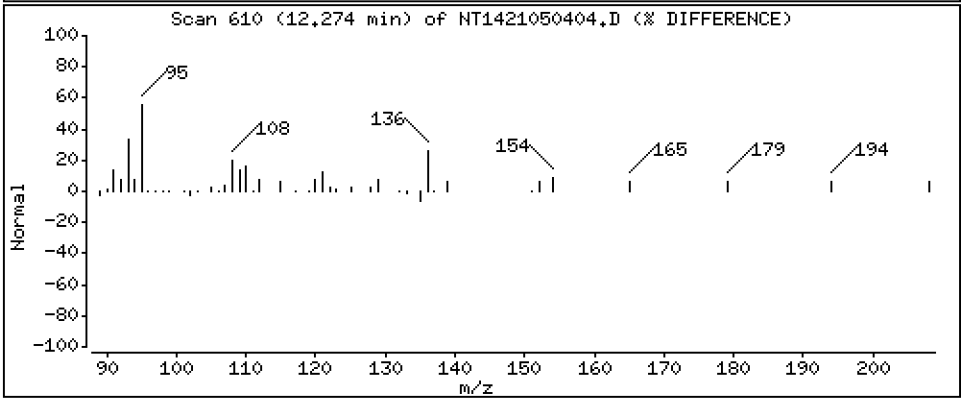


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050404.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

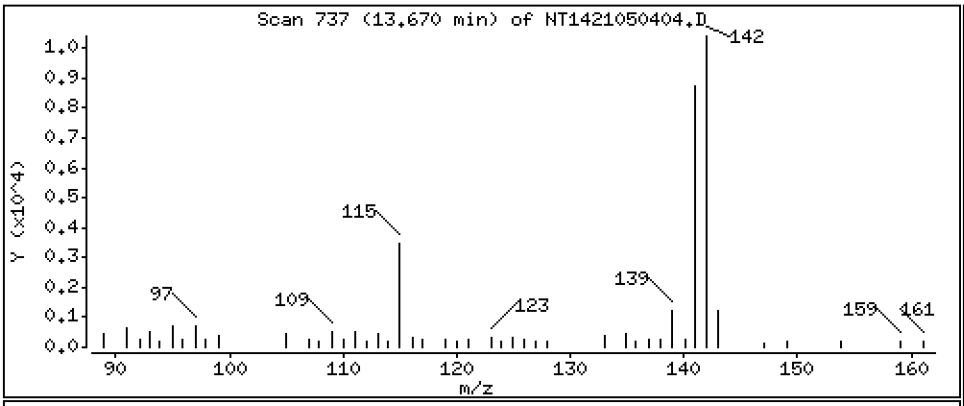
Operator: VTS

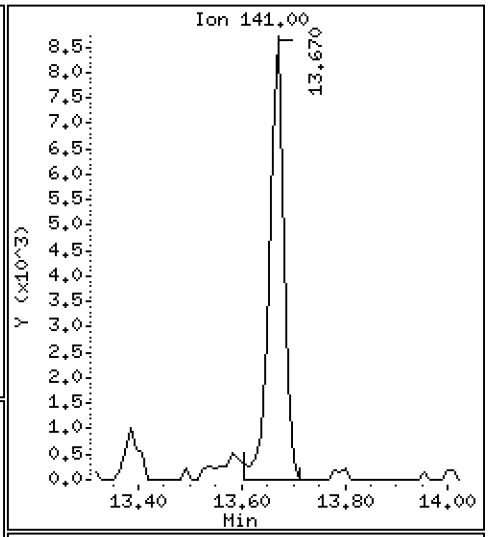
Column phase: Rxi-17Sil MS

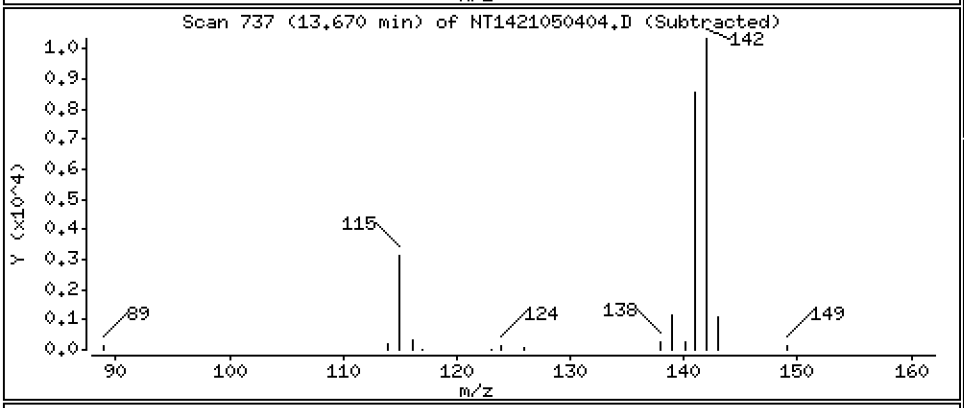
Column diameter: 0.25

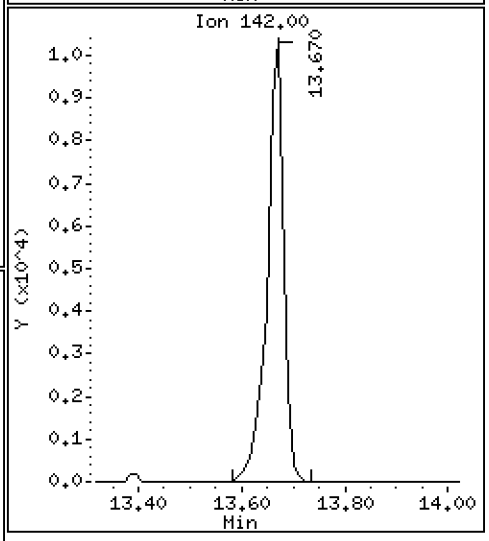
16 2-Methylnaphthalene

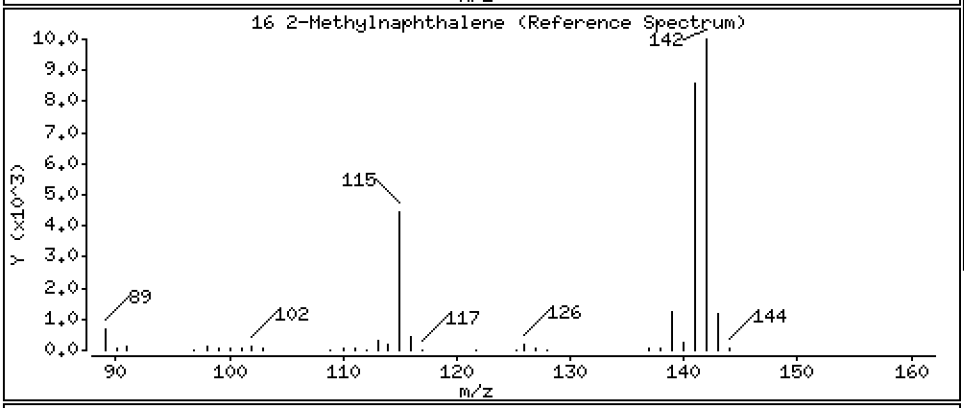
Concentration: 0.1151 ug/mL

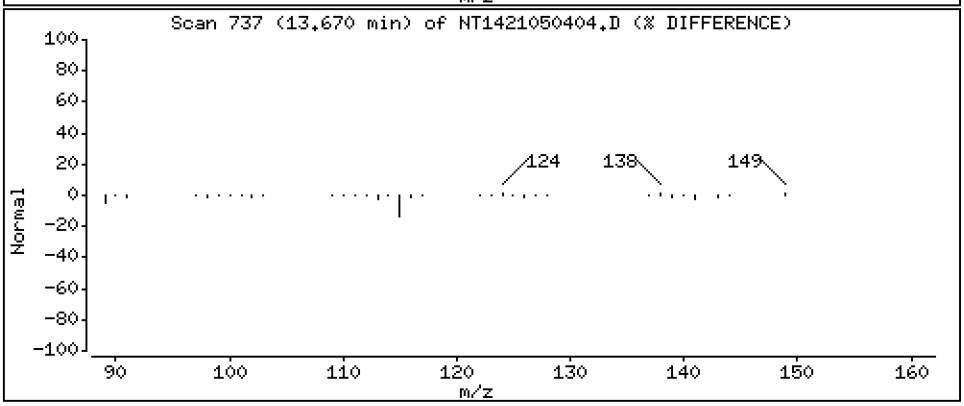


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050404.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

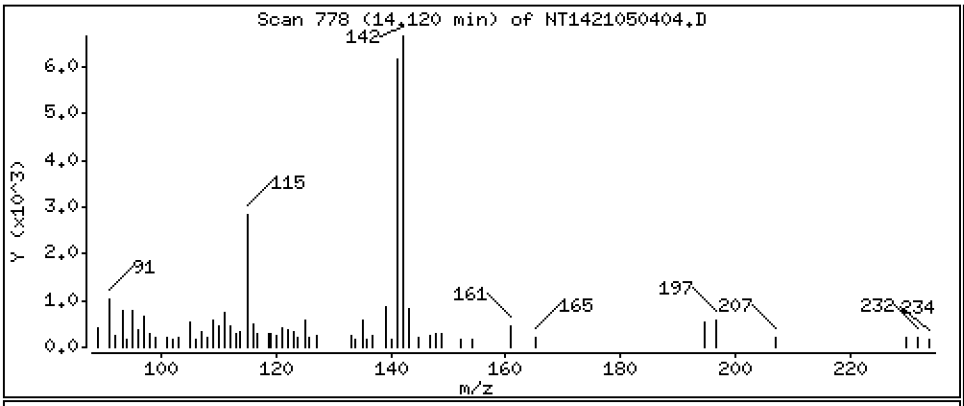
Operator: VTS

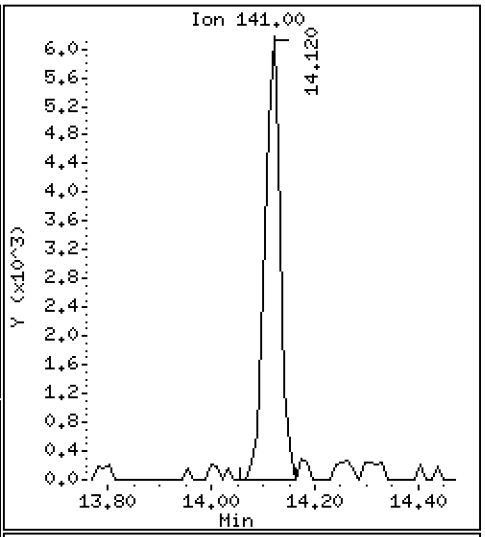
Column phase: Rxi-17Sil MS

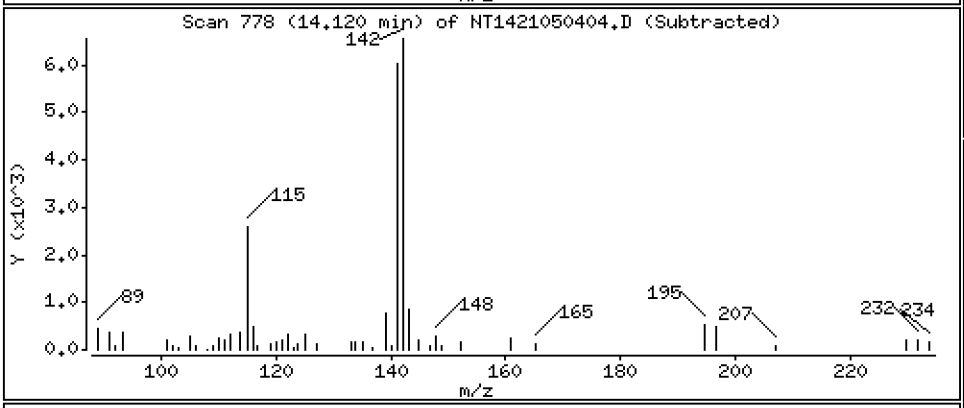
Column diameter: 0.25

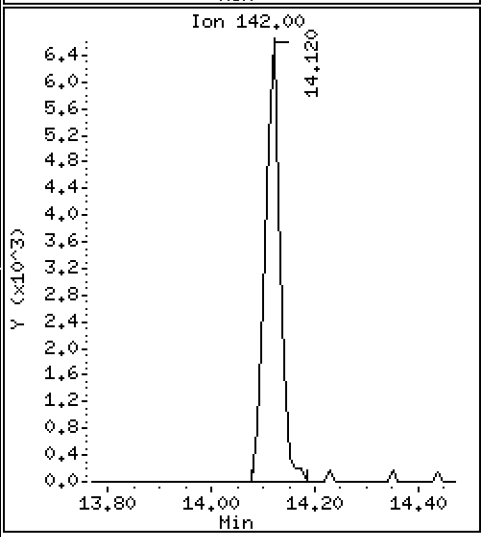
17 1-methylnaphthalene

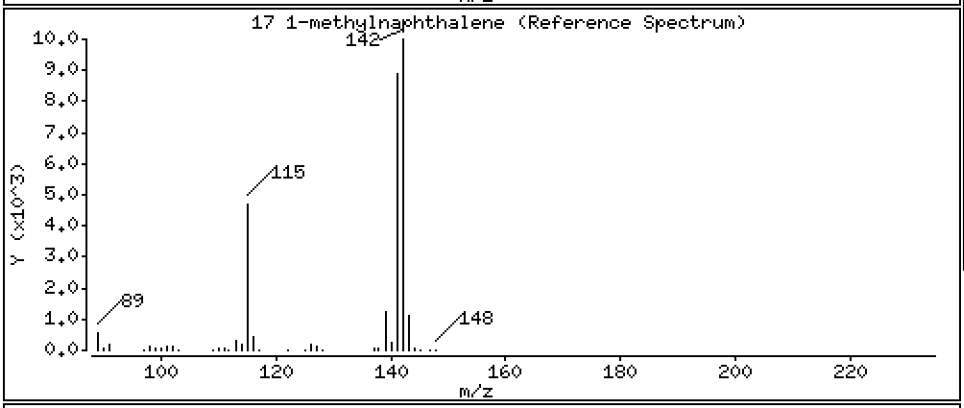
Concentration: 0.09054 ug/mL

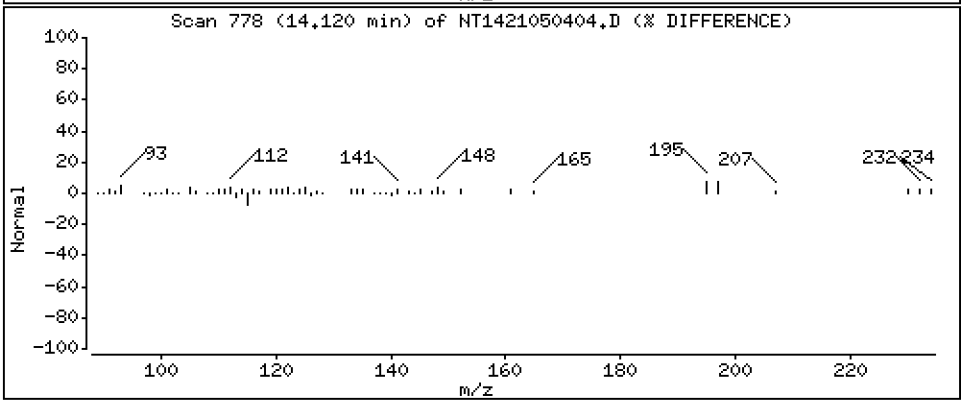


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050404.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

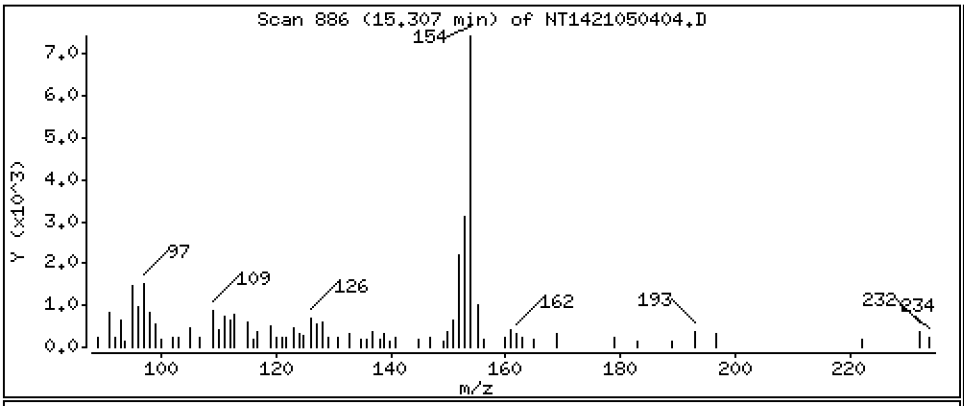
Operator: VTS

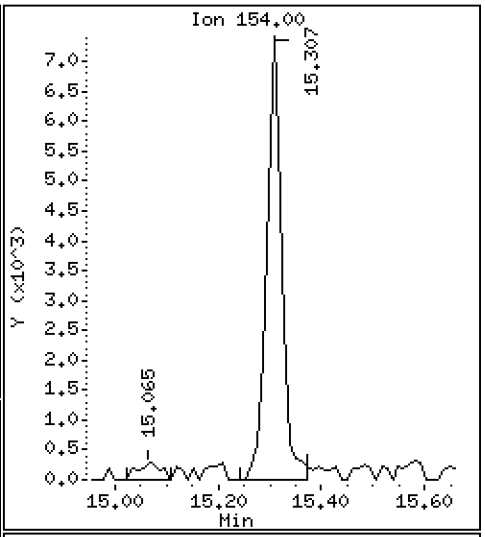
Column phase: Rxi-17Sil MS

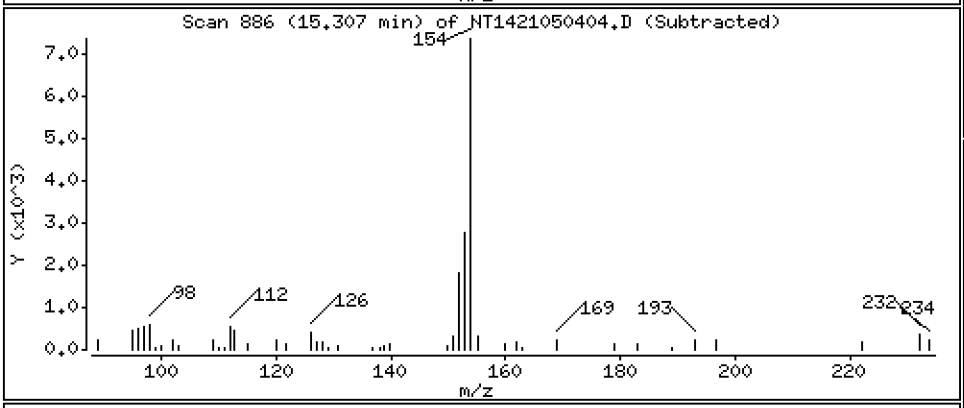
Column diameter: 0.25

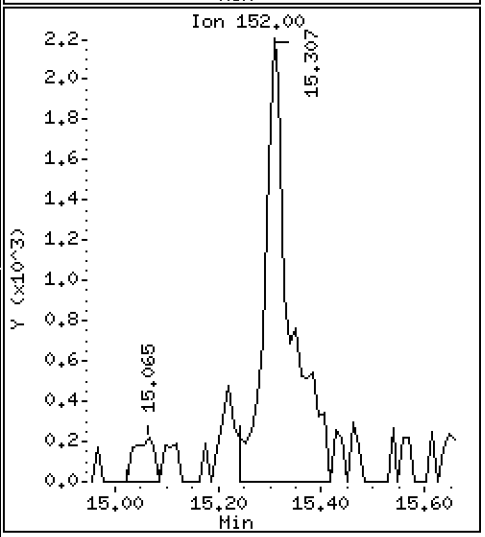
18 Biphenyl

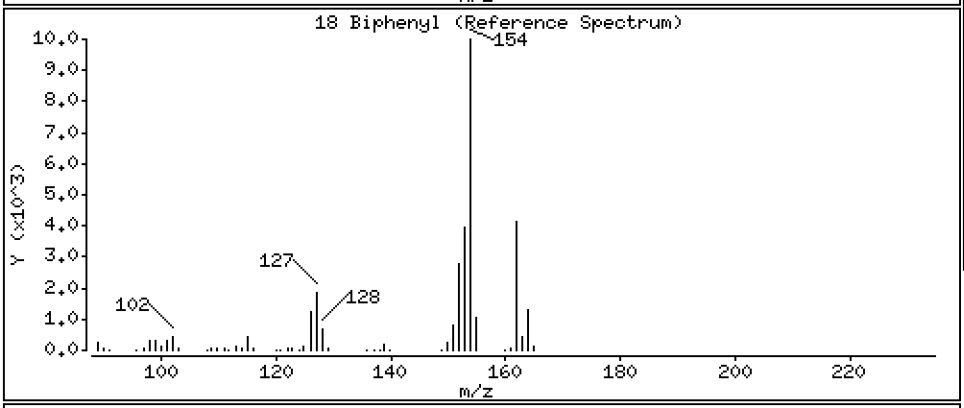
Concentration: 0.07114 ug/mL

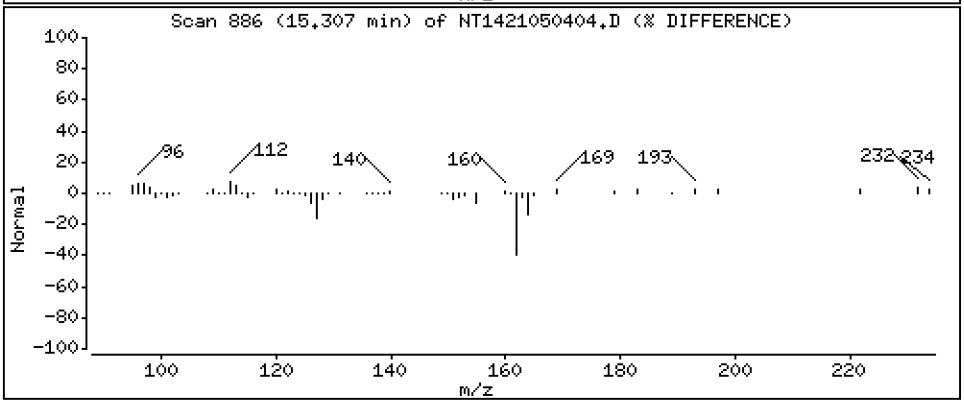


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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

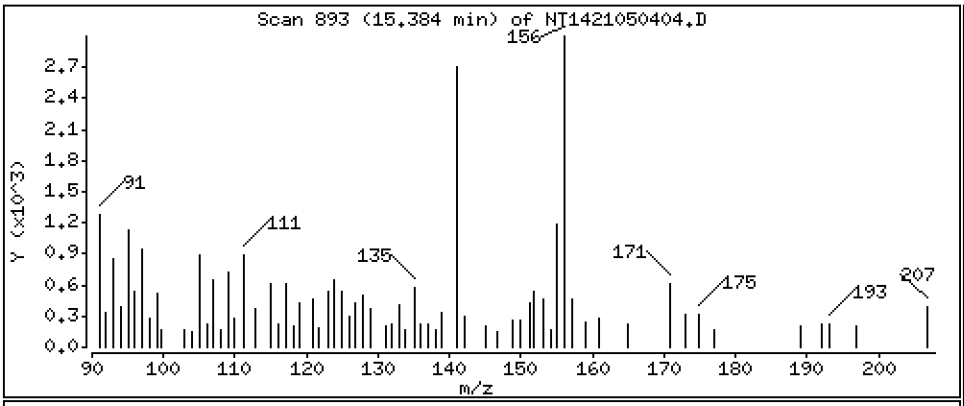
Operator: VTS

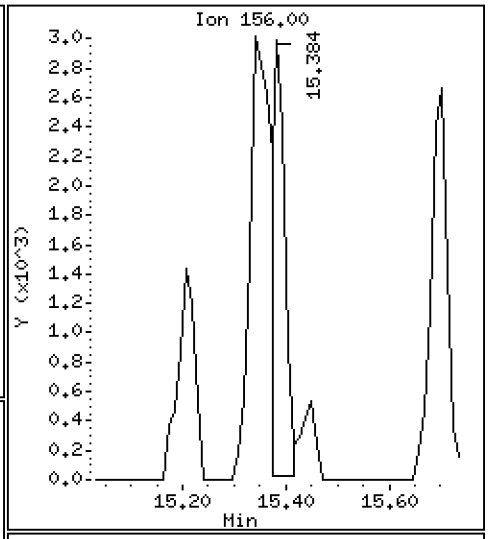
Column phase: Rxi-17Sil MS

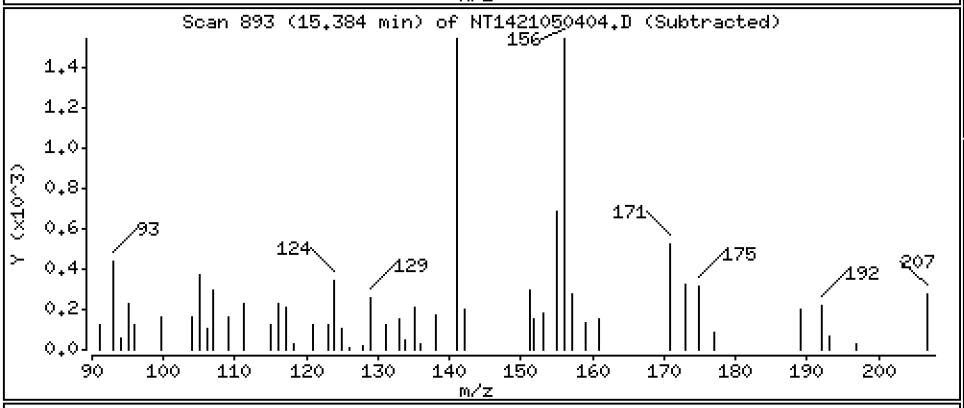
Column diameter: 0.25

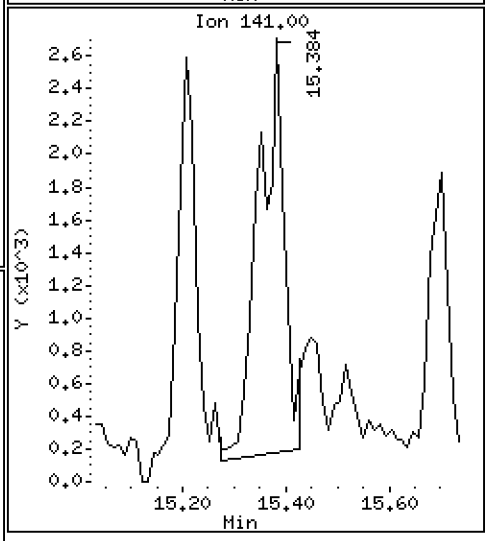
19 2,6-Dimethylnaphthalene

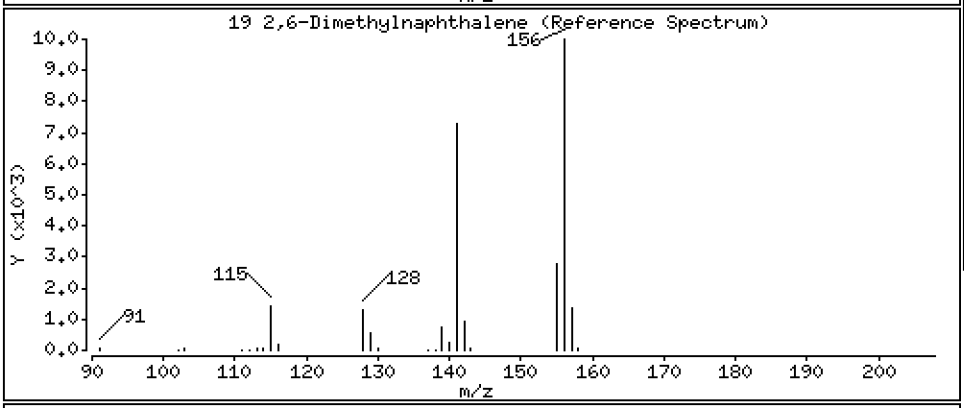
Concentration: 0.03583 ug/mL

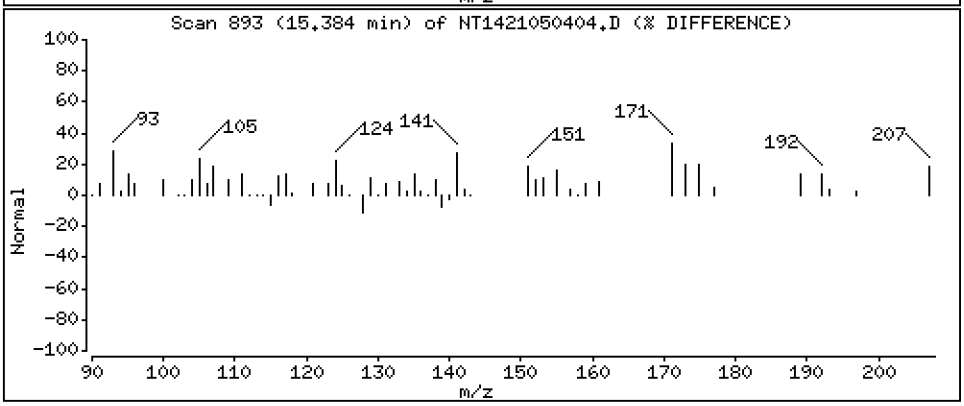


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050404.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

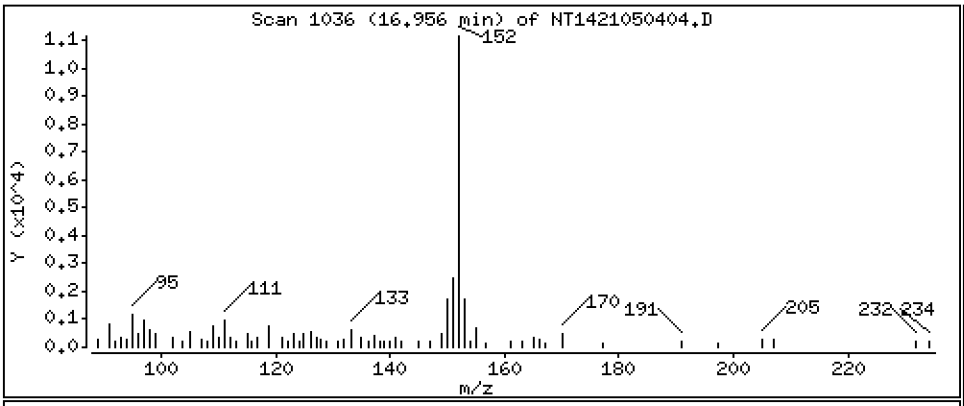
Operator: VTS

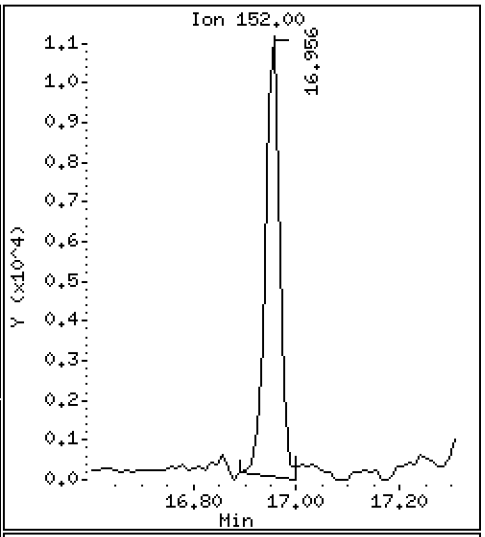
Column phase: Rxi-17Sil MS

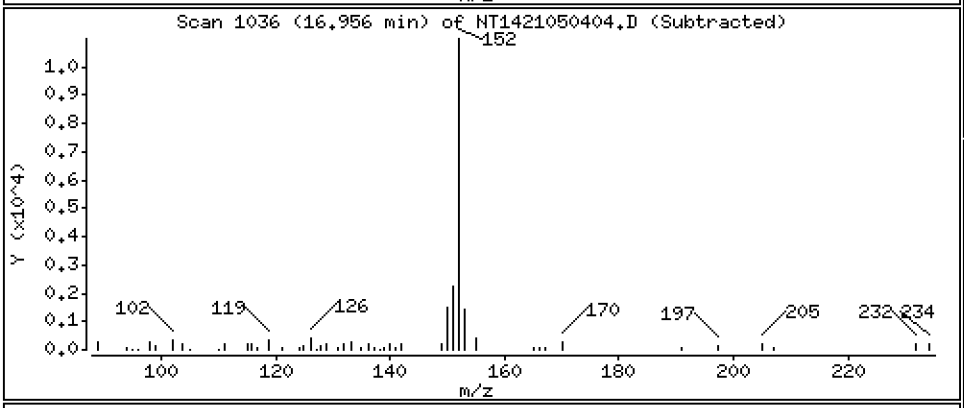
Column diameter: 0.25

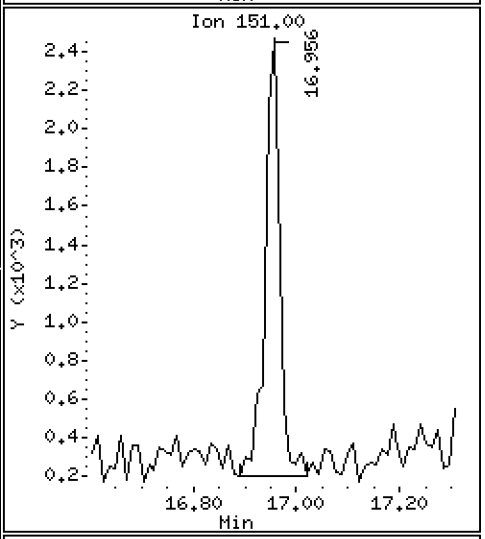
20 Acenaphthylene

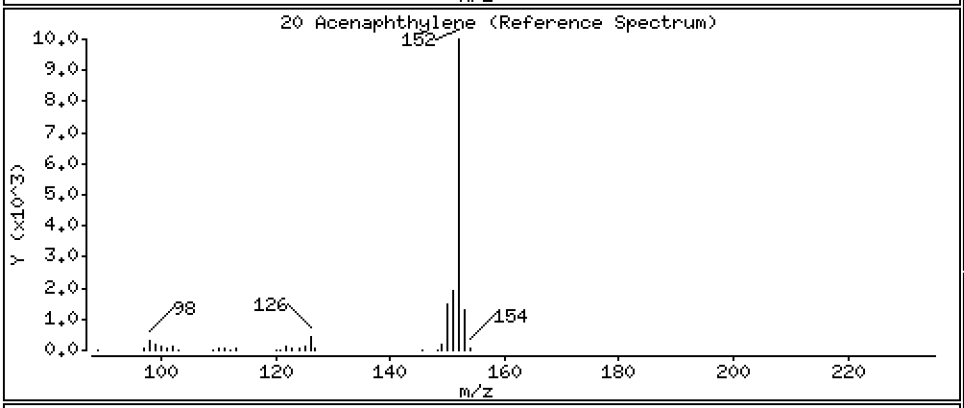
Concentration: 0.09351 ug/mL

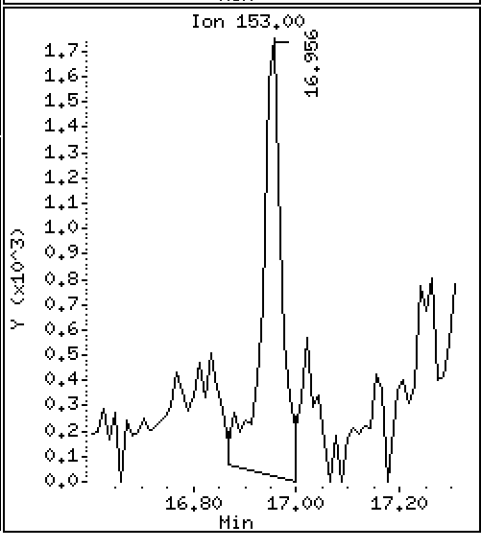


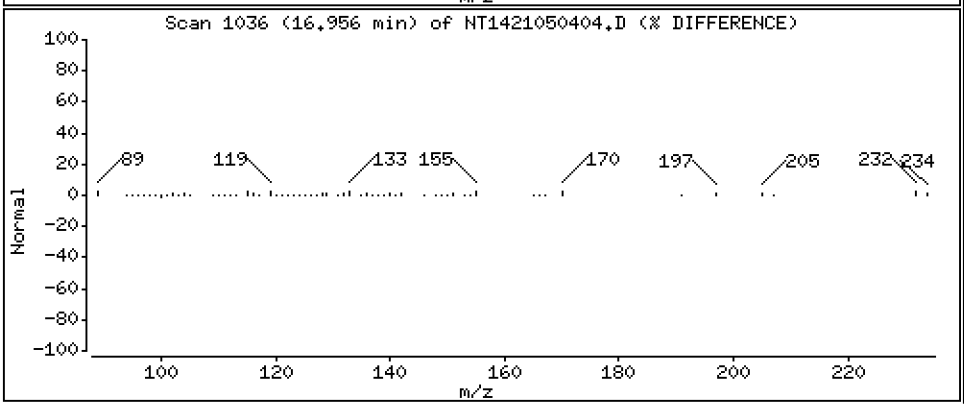



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

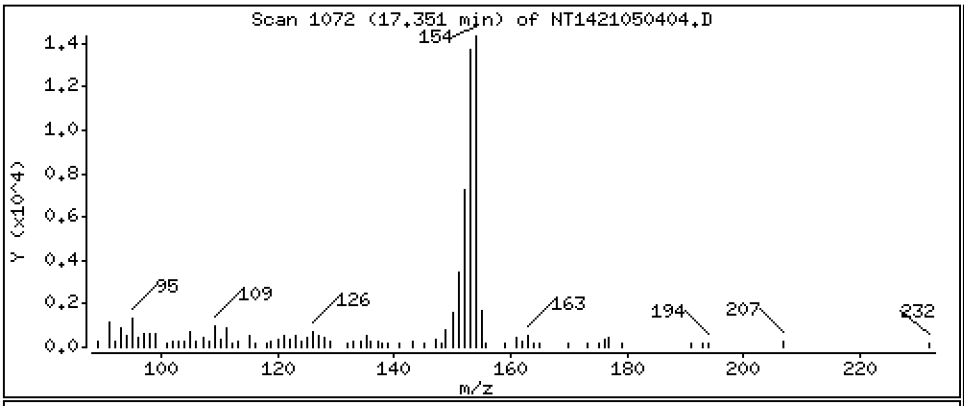
Operator: VTS

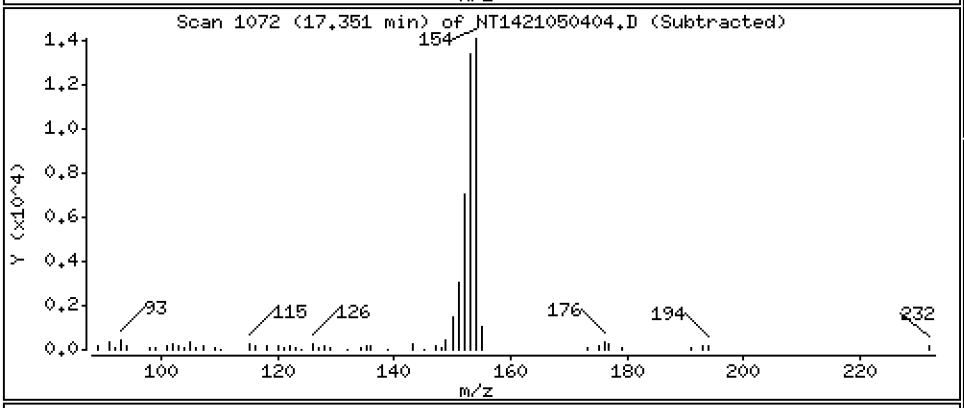
Column phase: Rxi-17Sil MS

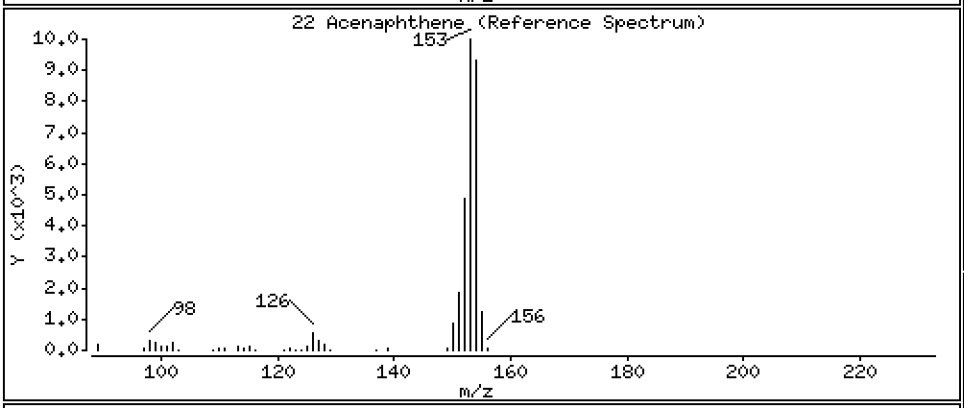
Column diameter: 0.25

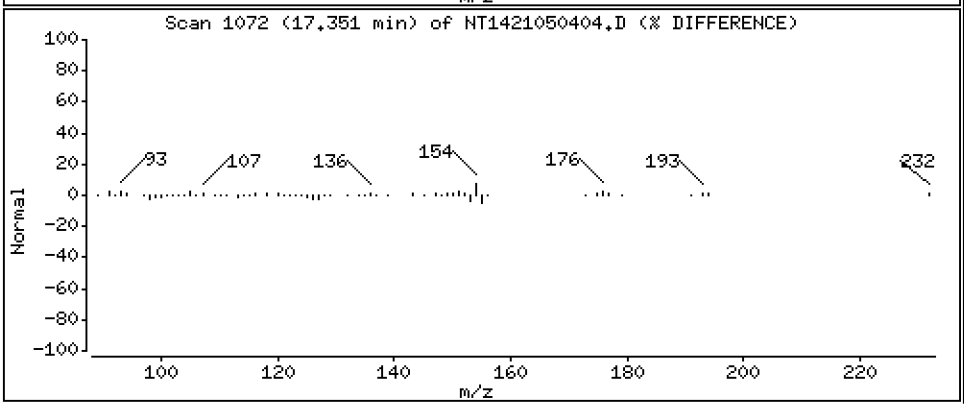
22 Acenaphthene

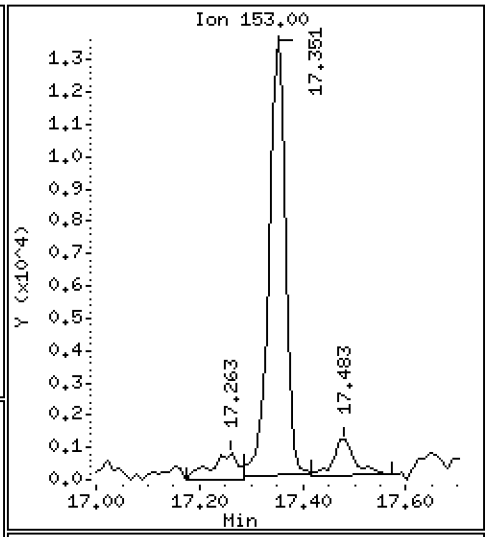
Concentration: 0.2038 ug/mL

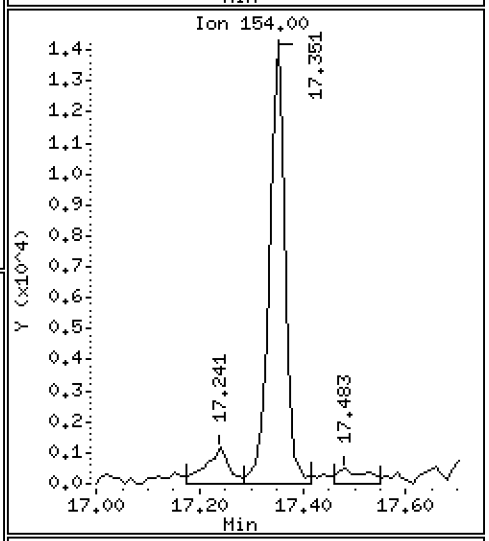


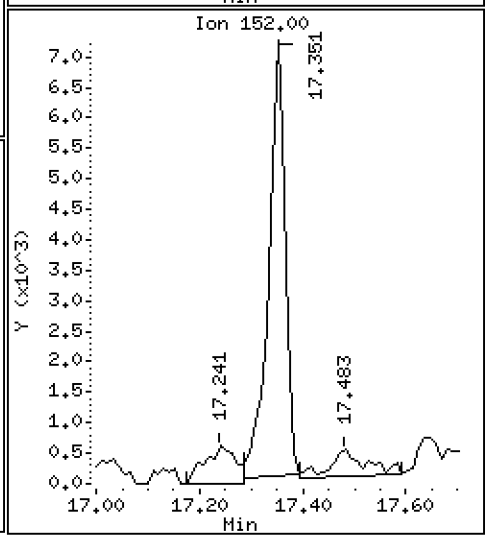



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

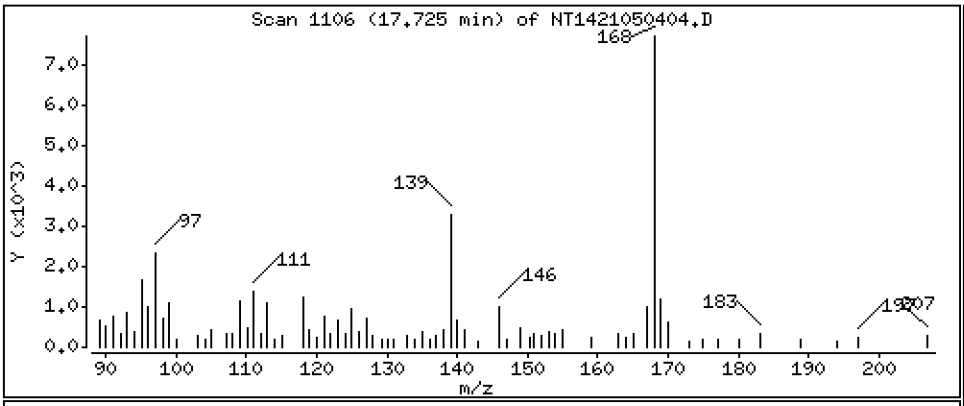
Operator: VTS

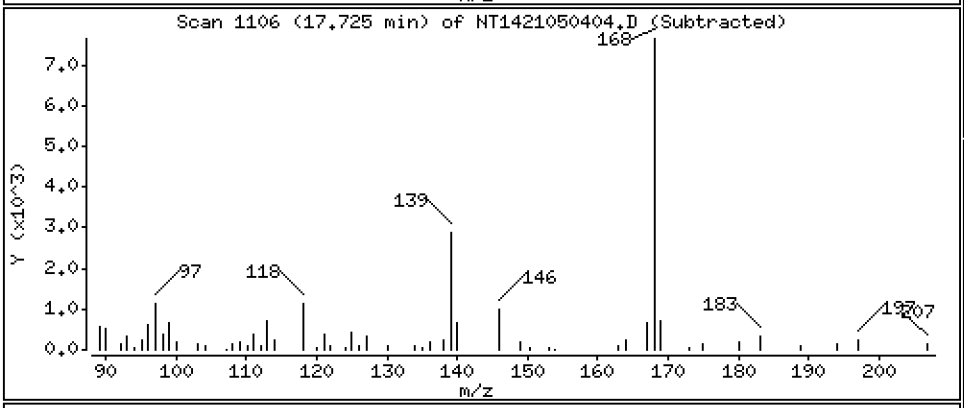
Column phase: Rxi-17Sil MS

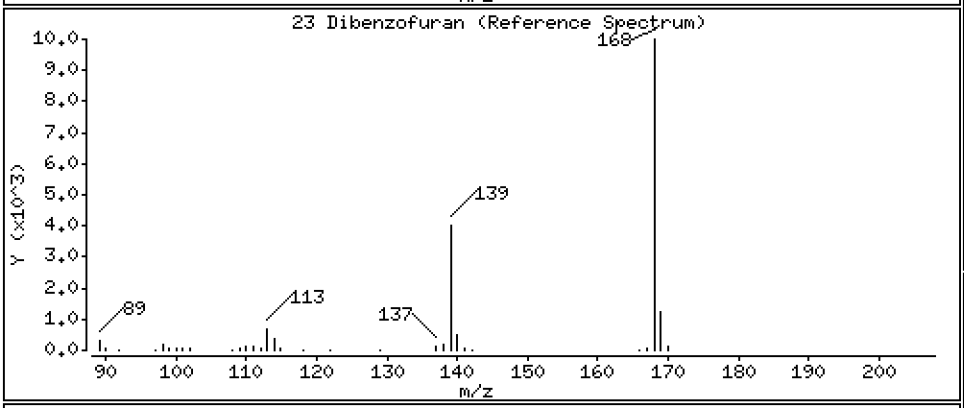
Column diameter: 0.25

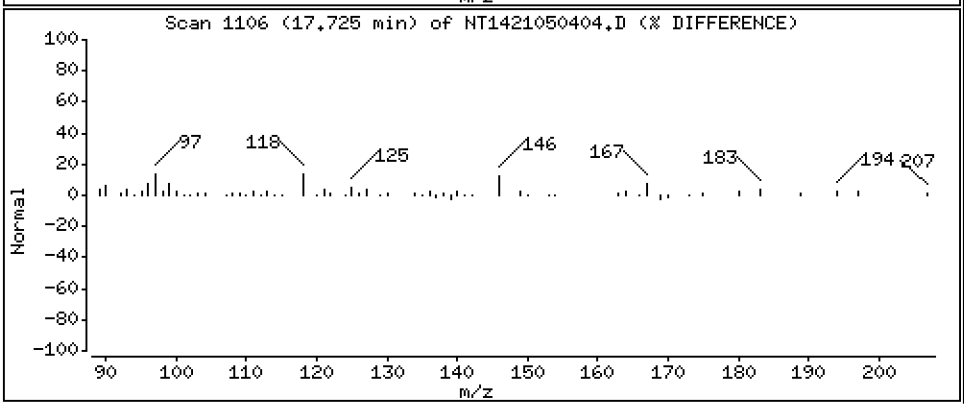
23 Dibenzofuran

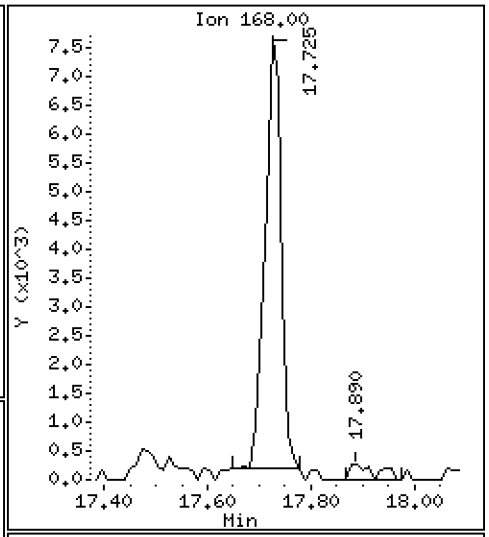
Concentration: 0.06972 ug/mL

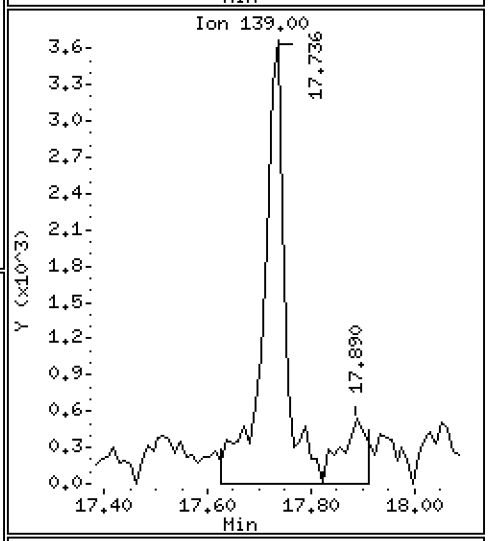


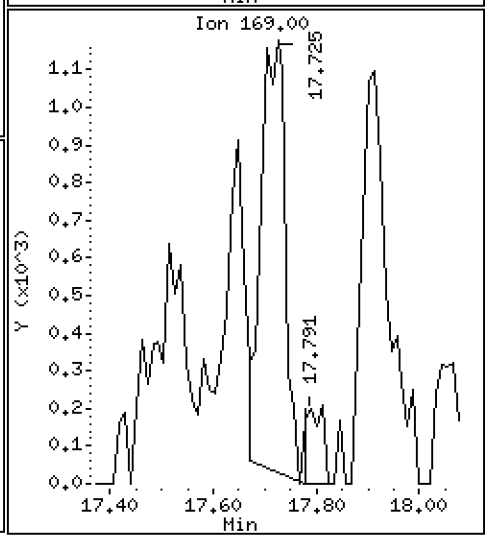



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

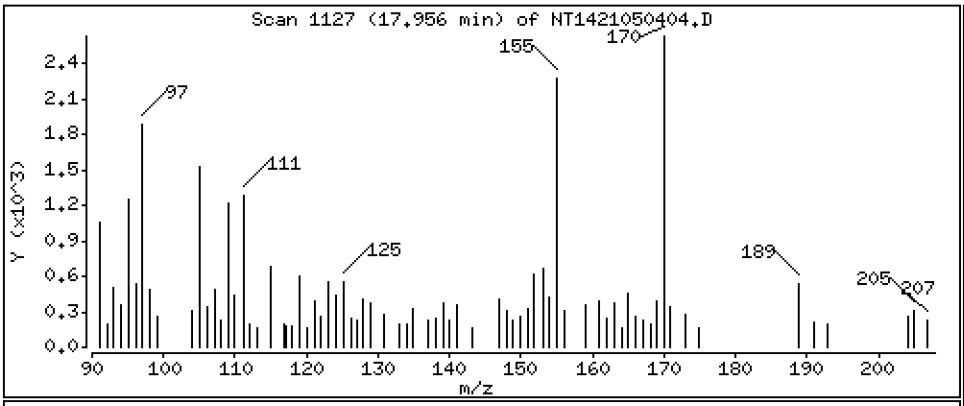
Operator: VTS

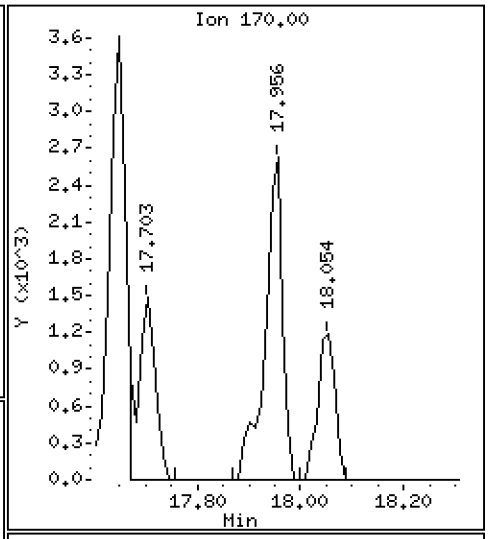
Column phase: Rxi-17Sil MS

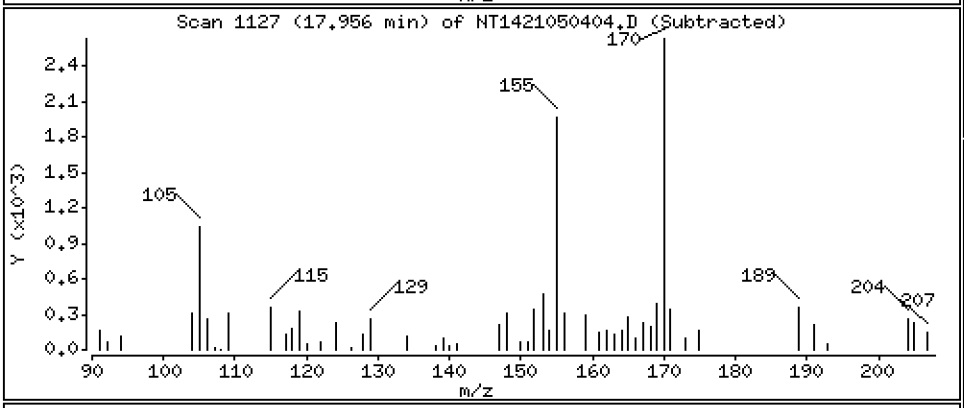
Column diameter: 0.25

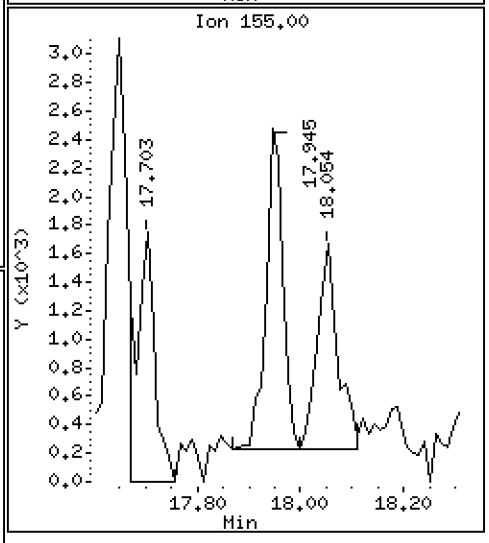
24 1,6,7-Trimethylnaphthalene

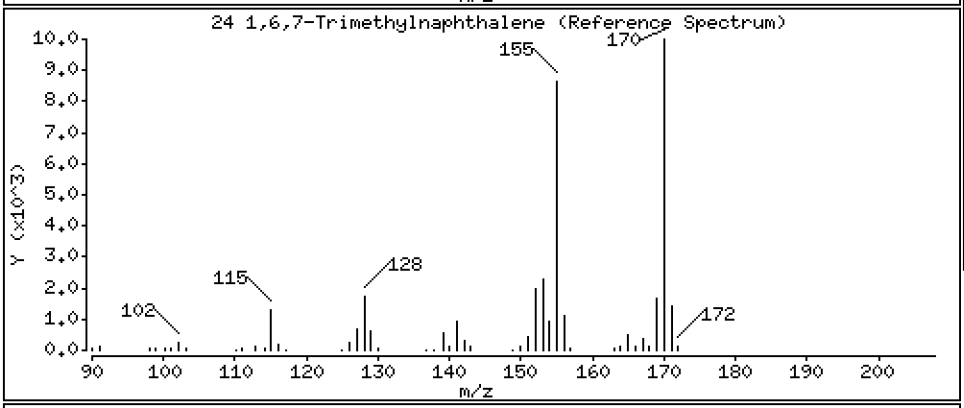
Concentration: 0.04680 ug/mL

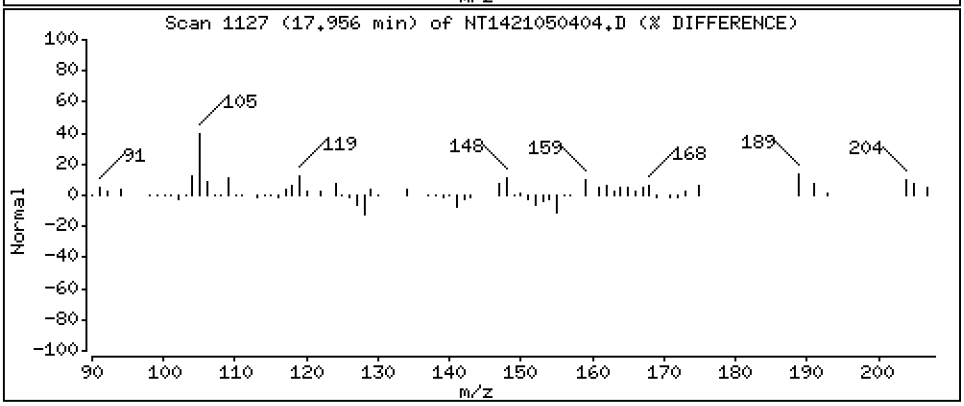


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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

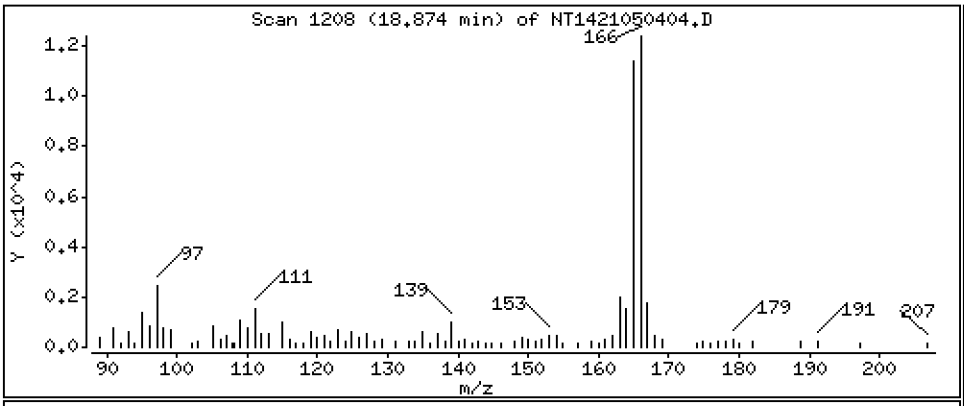
Operator: VTS

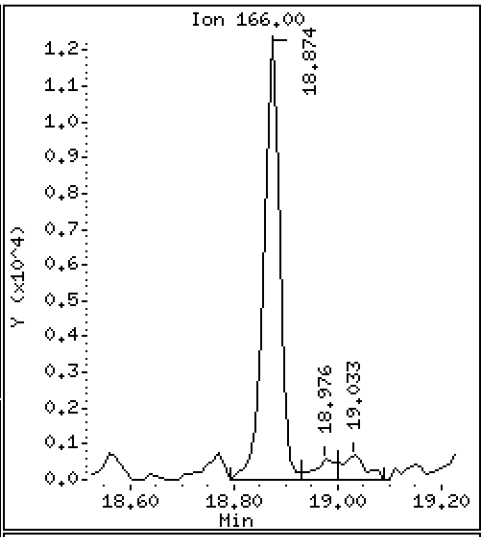
Column phase: Rxi-17Sil MS

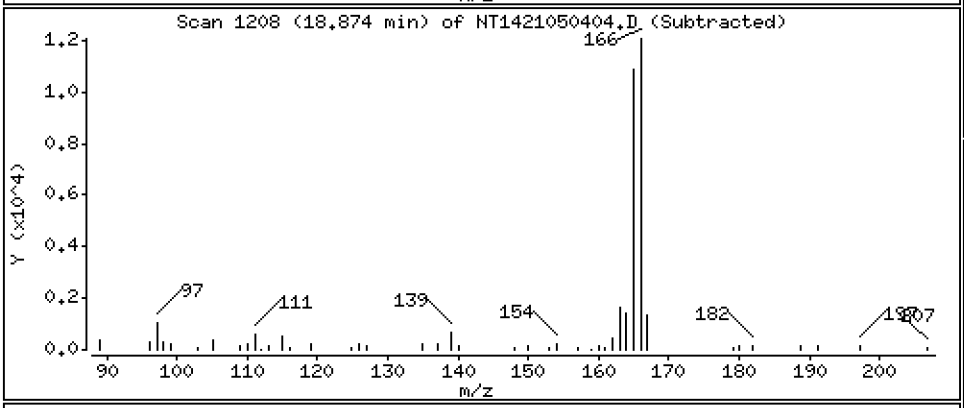
Column diameter: 0.25

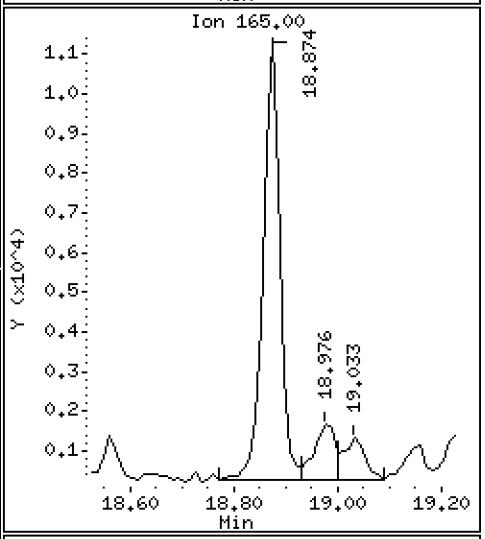
26 Fluorene

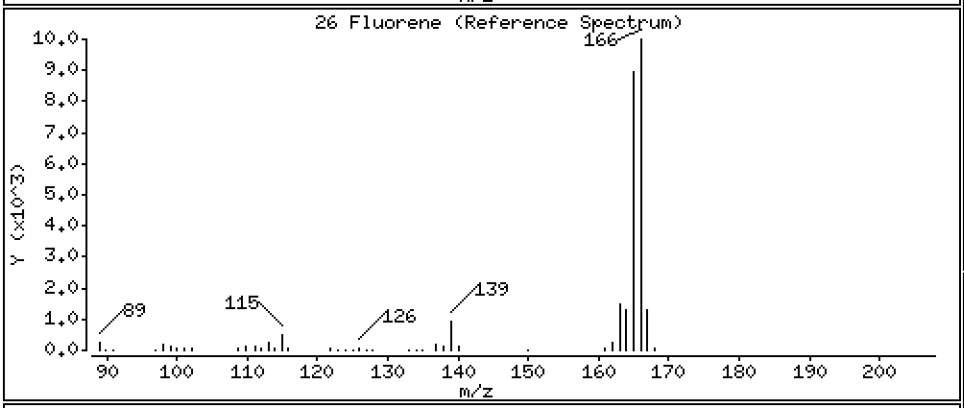
Concentration: 0.1537 ug/mL

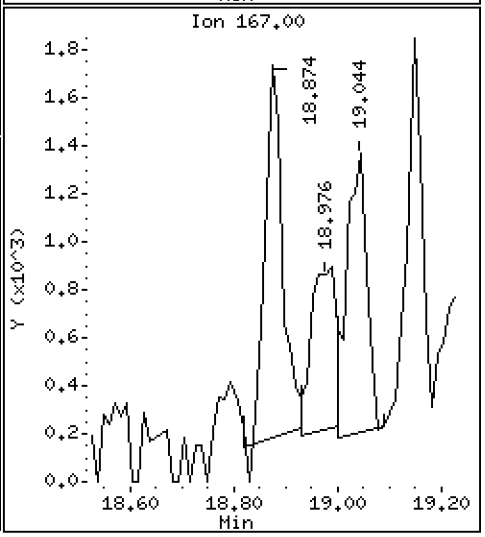


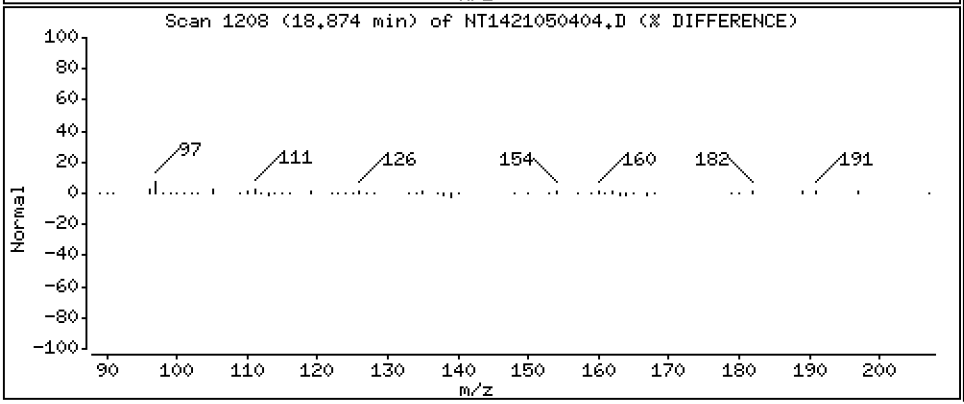



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

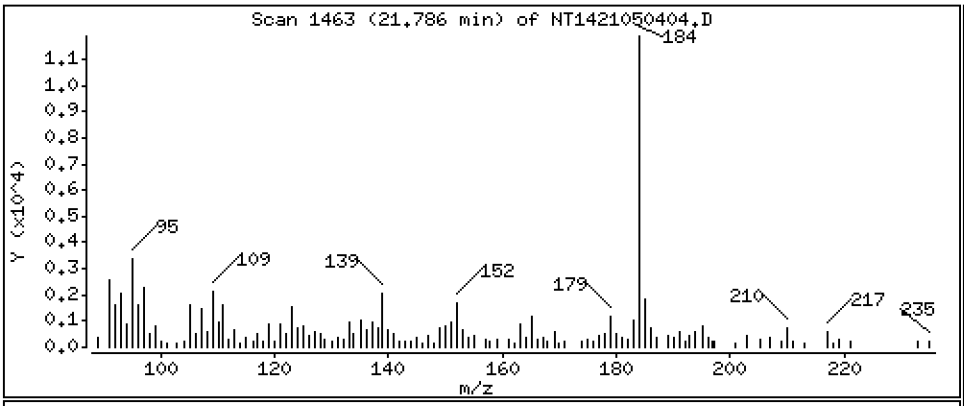
Operator: VTS

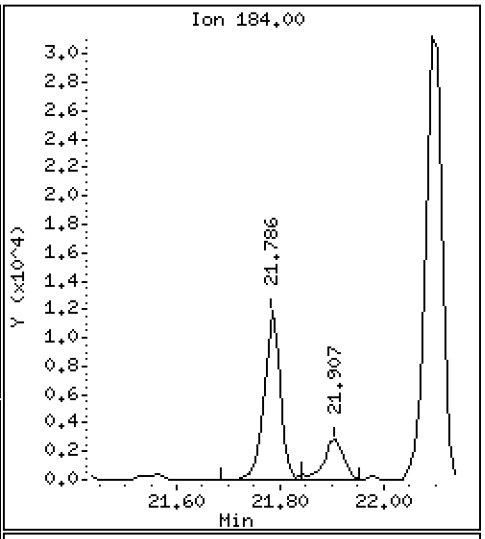
Column phase: Rxi-17Sil MS

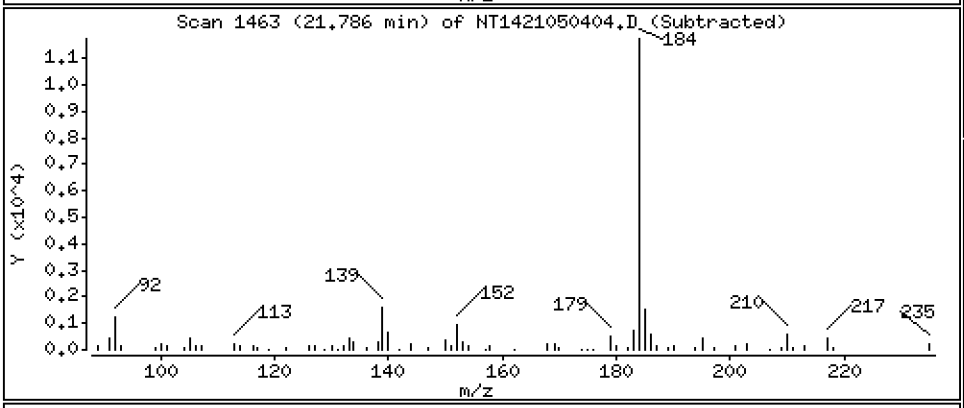
Column diameter: 0.25

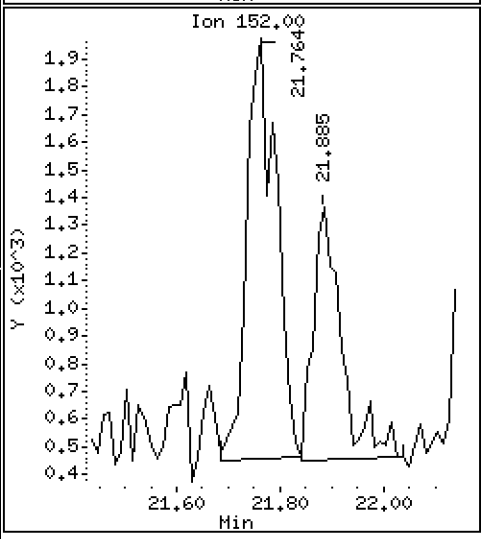
30 Dibenzothiophene

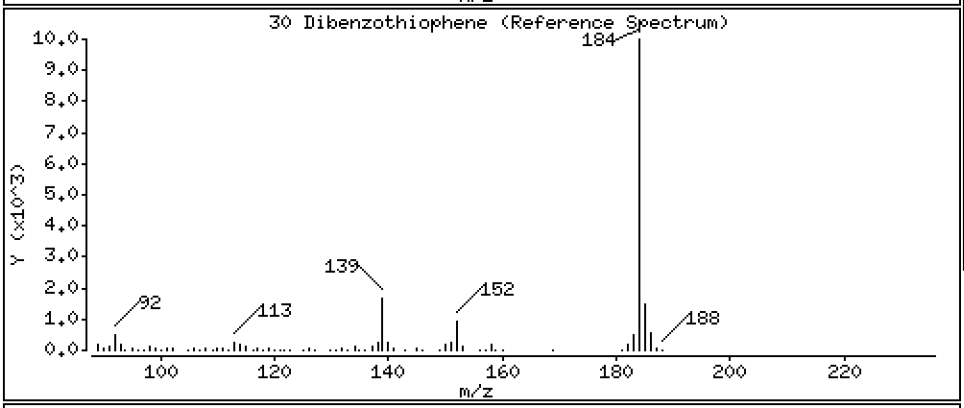
Concentration: 0.1343 ug/mL

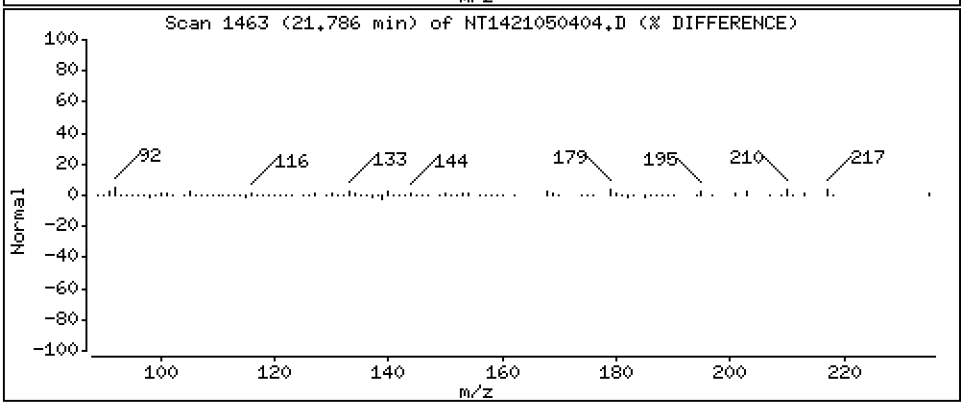


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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

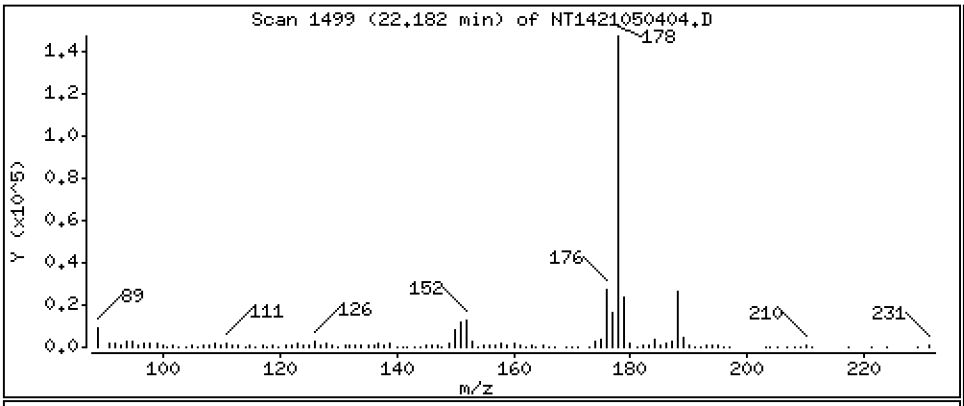
Operator: VTS

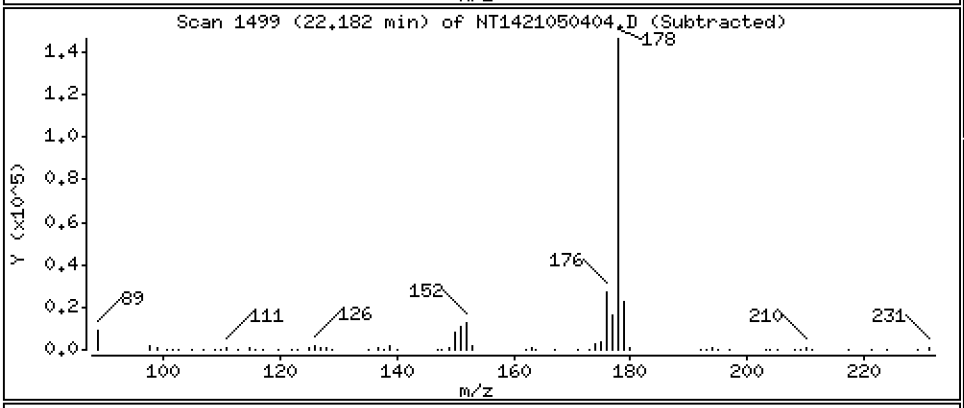
Column phase: Rxi-17Sil MS

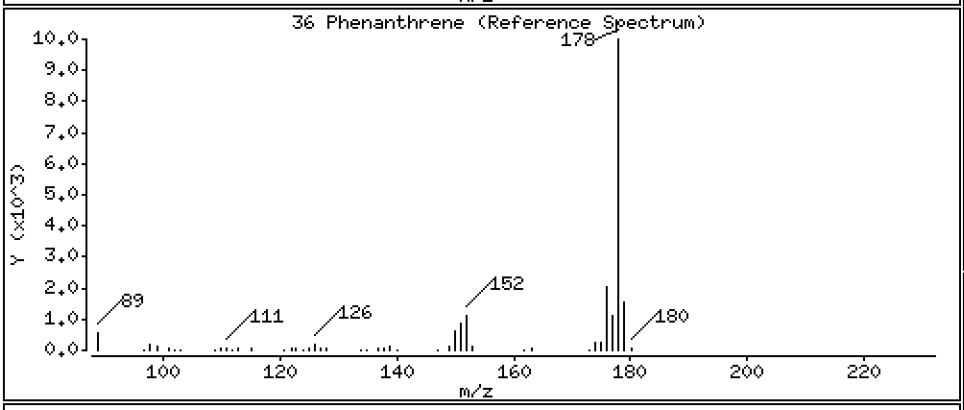
Column diameter: 0.25

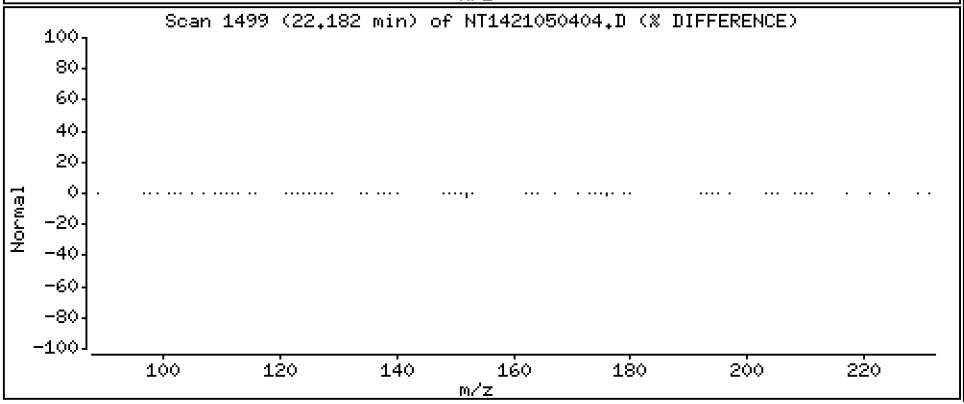
36 Phenanthrene

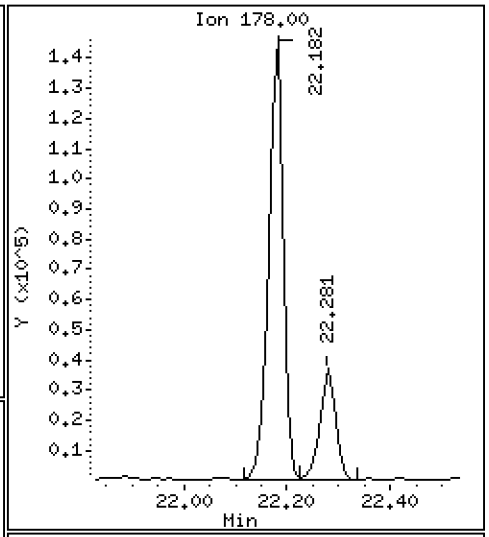
Concentration: 1.073 ug/mL

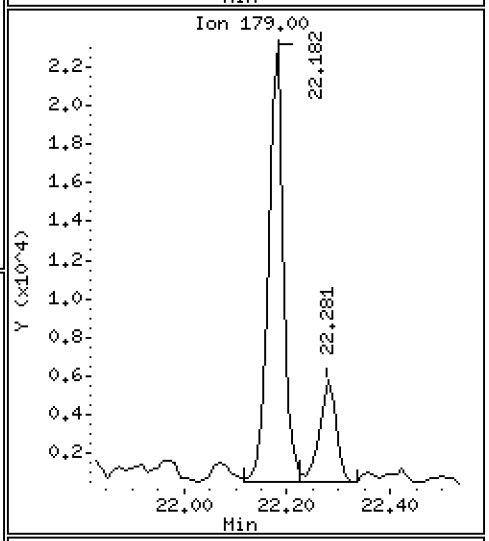


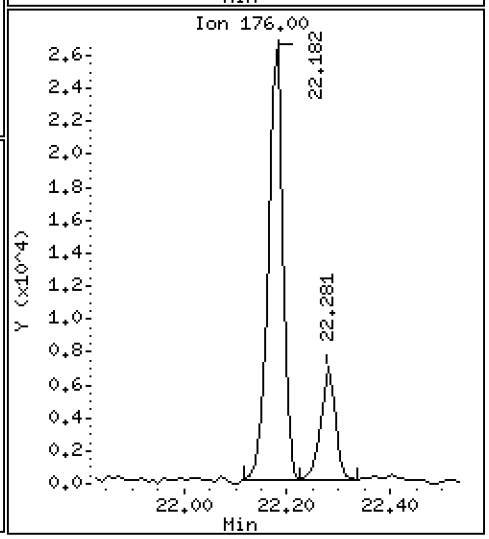



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

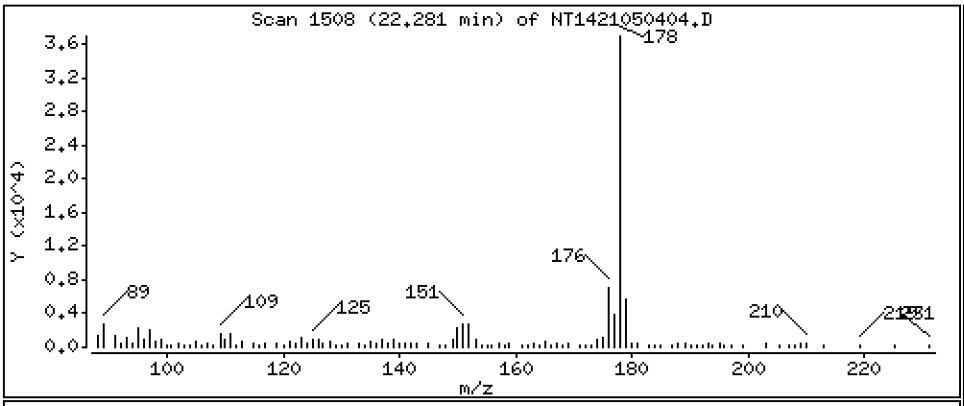
Operator: VTS

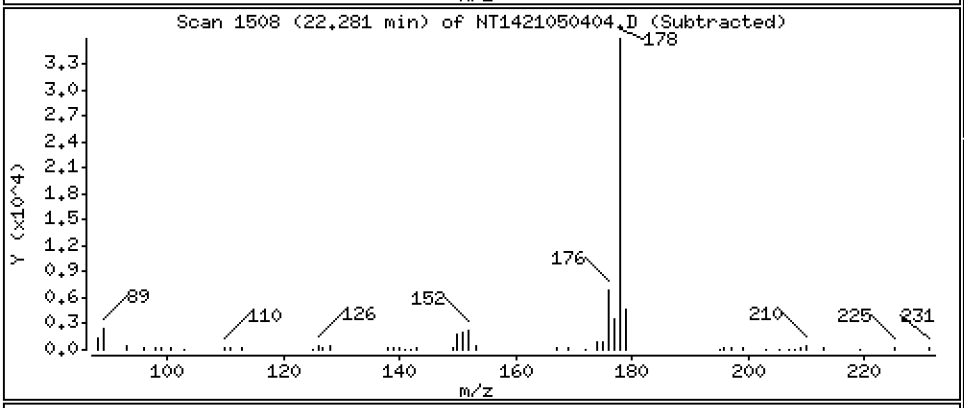
Column phase: Rxi-17Sil MS

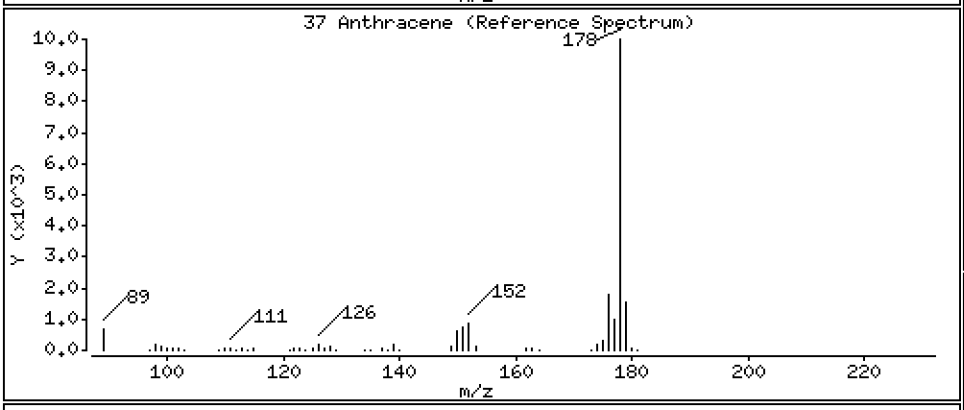
Column diameter: 0.25

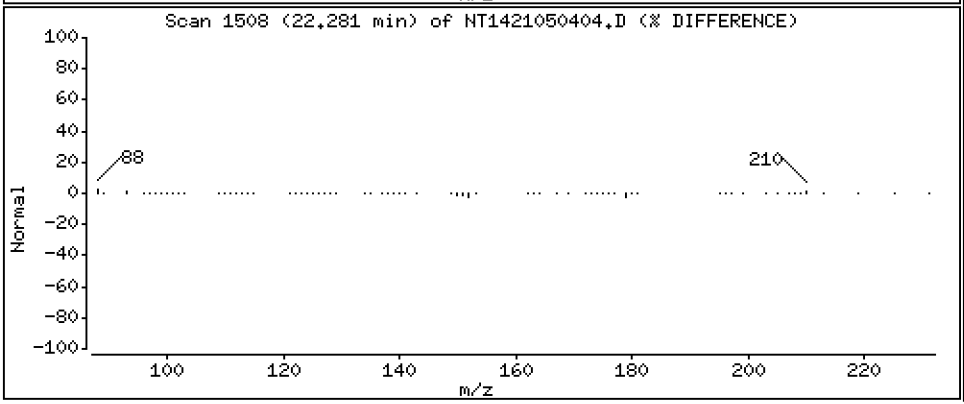
37 Anthracene

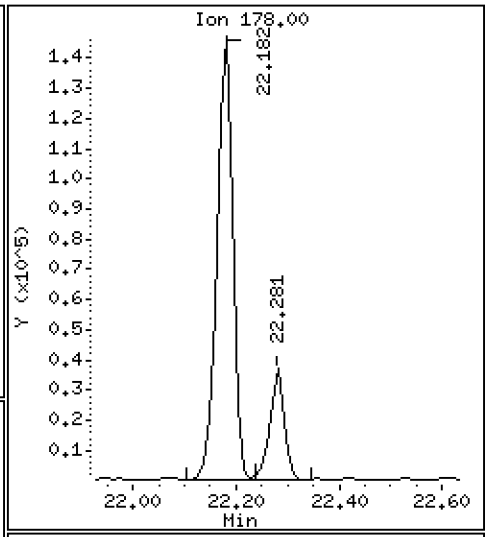
Concentration: 0.2824 ug/mL

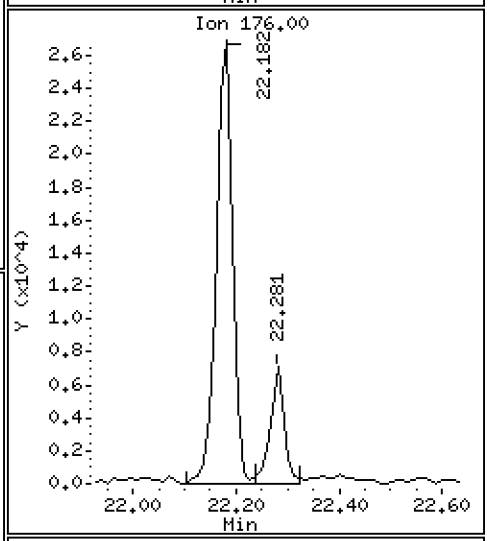


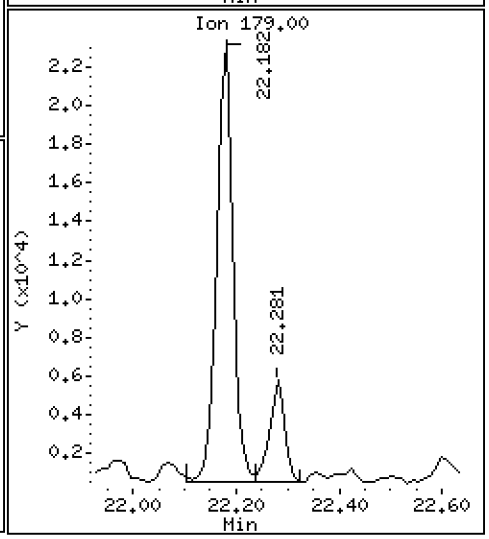



Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050404.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

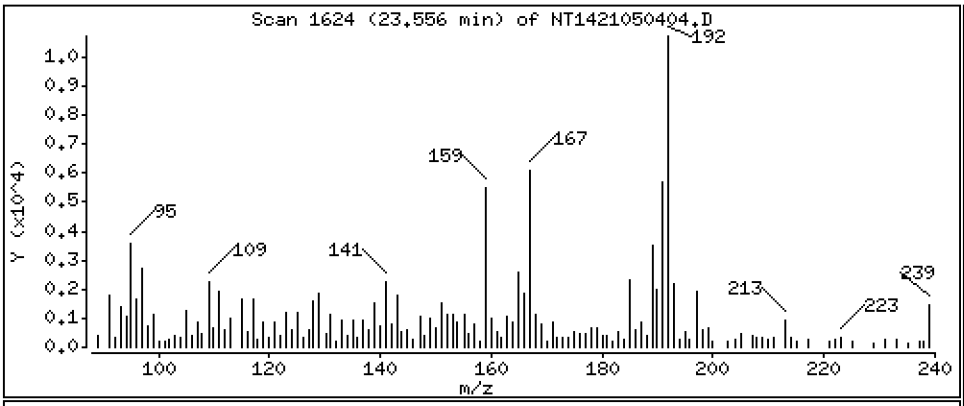
Operator: VTS

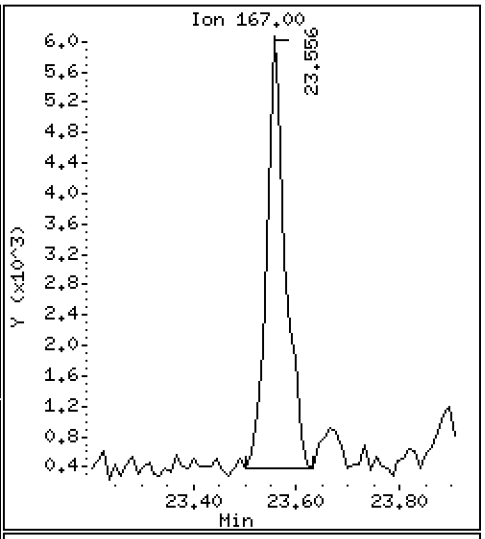
Column phase: Rxi-17Sil MS

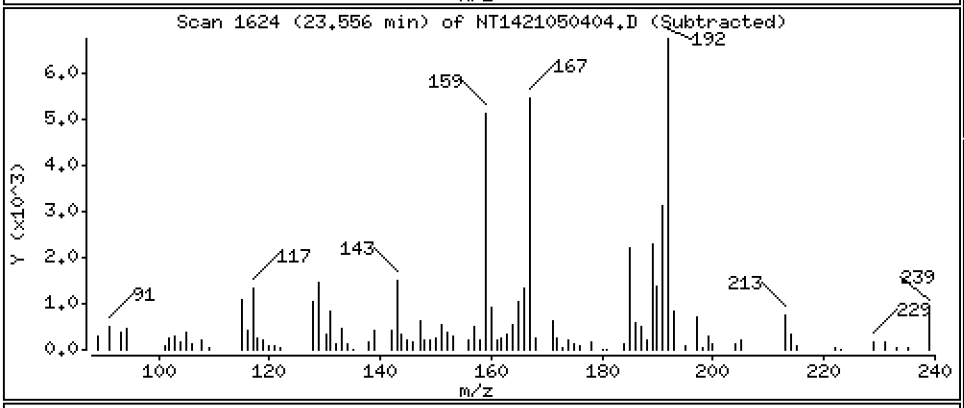
Column diameter: 0.25

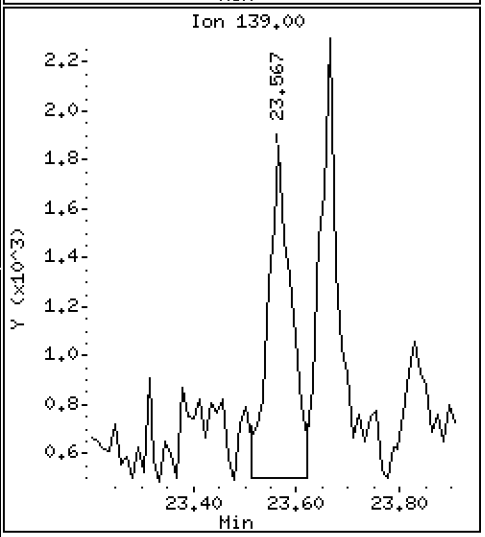
42 Carbazole

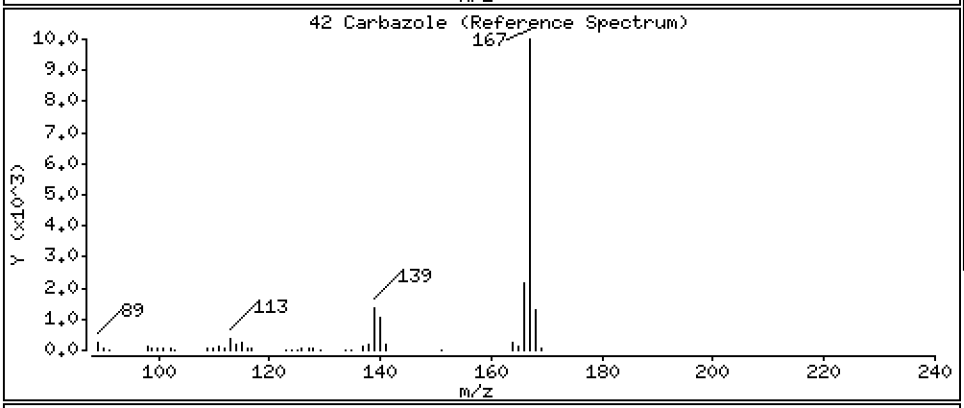
Concentration: 0.07018 ug/mL

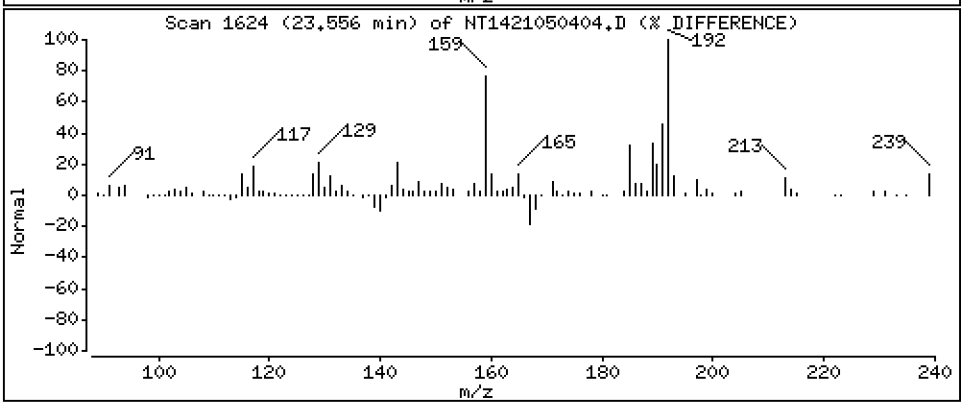


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050404.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

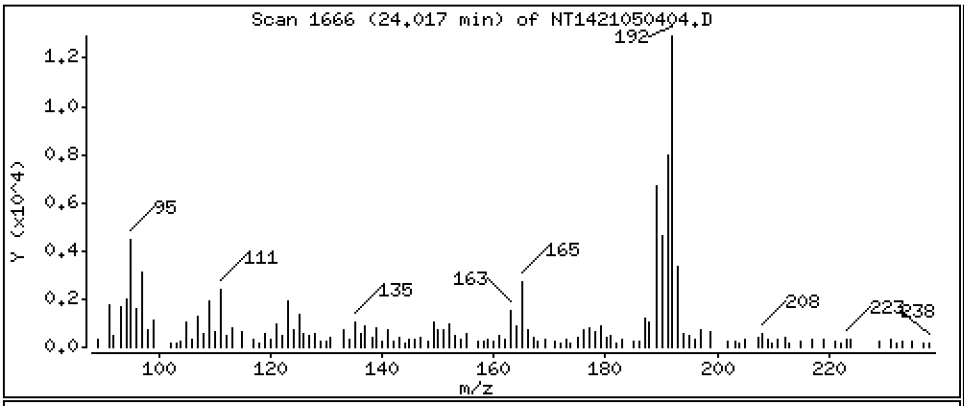
Operator: VTS

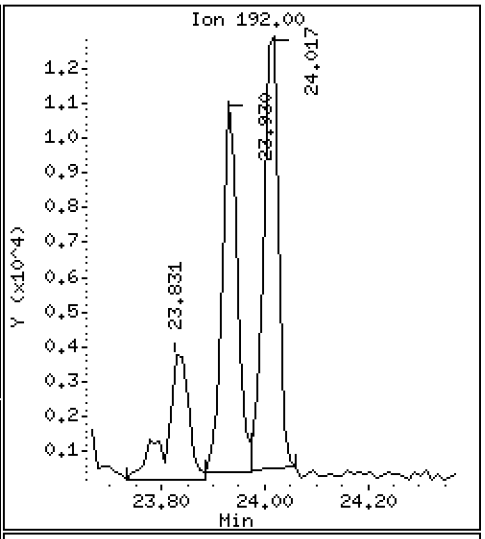
Column phase: Rxi-17Sil MS

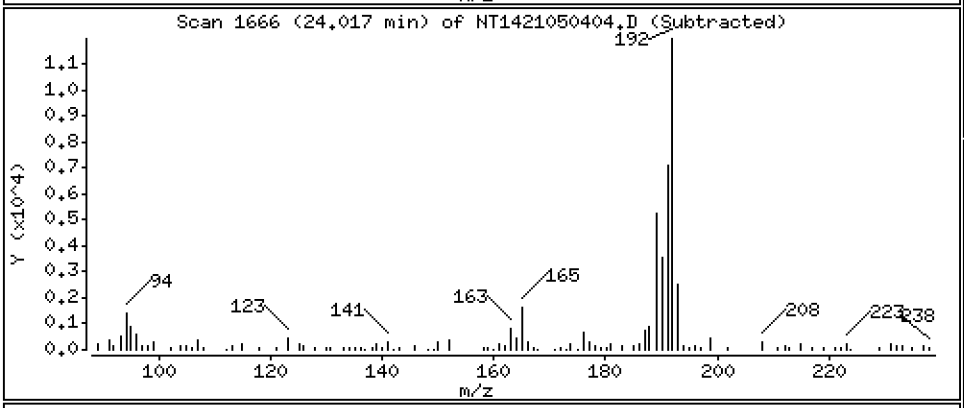
Column diameter: 0.25

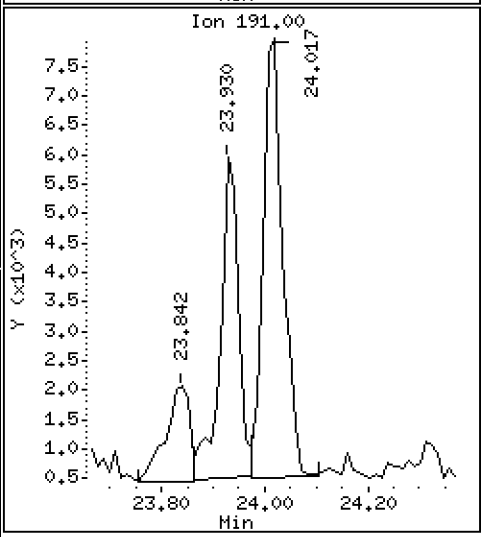
43 1-Methylphenanthrene

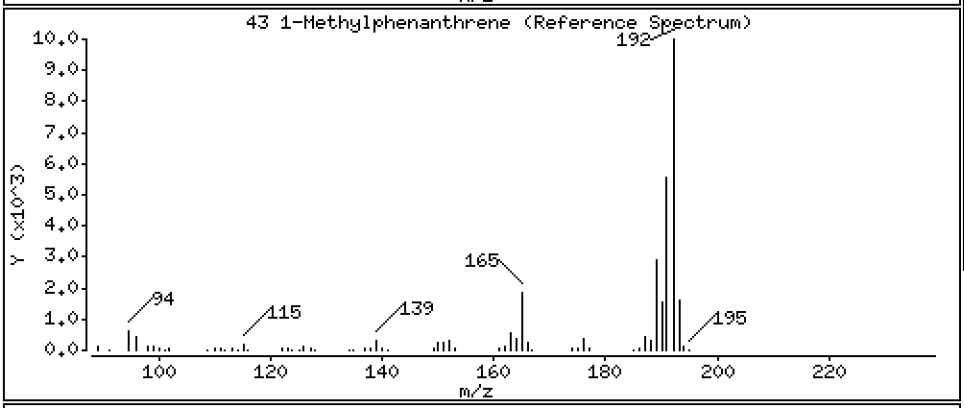
Concentration: 0.1563 ug/mL

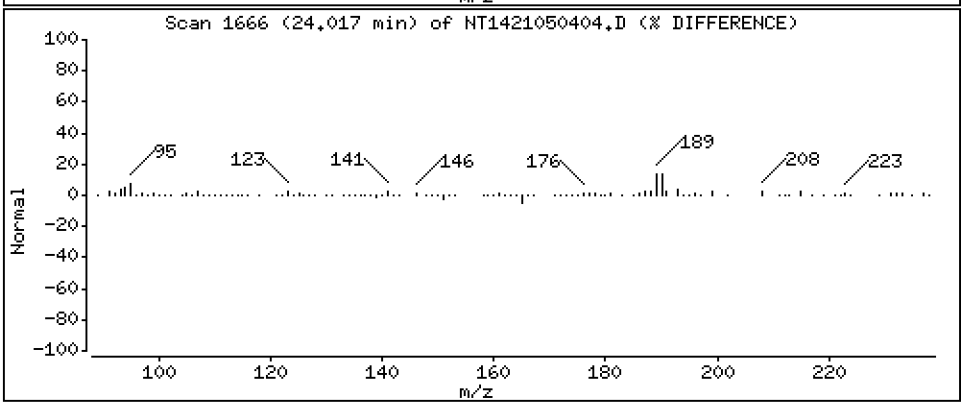


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050404.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

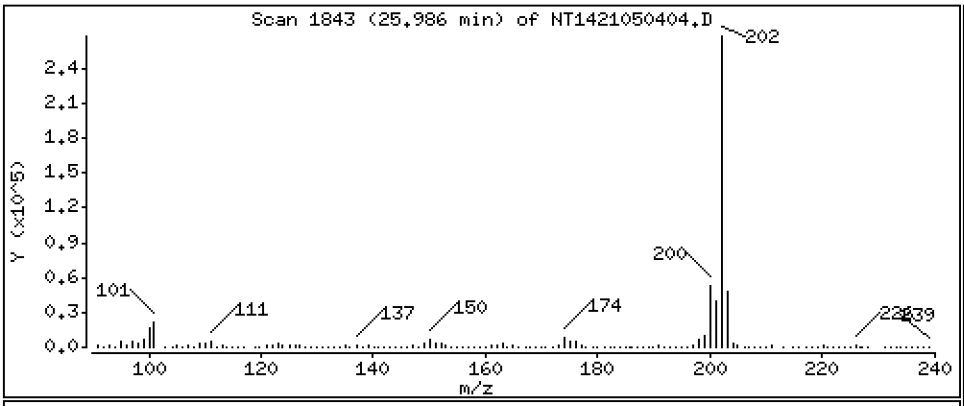
Operator: VTS

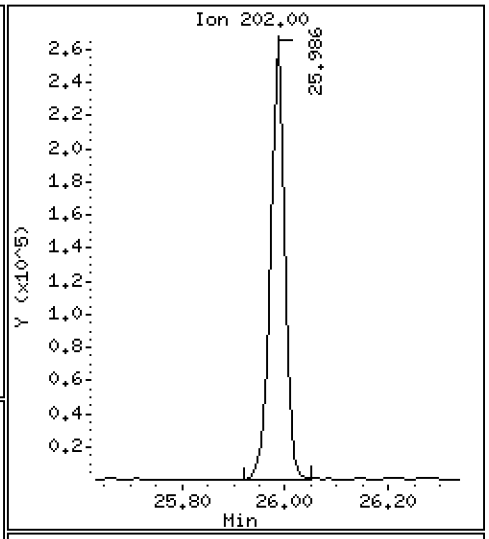
Column phase: Rxi-17Sil MS

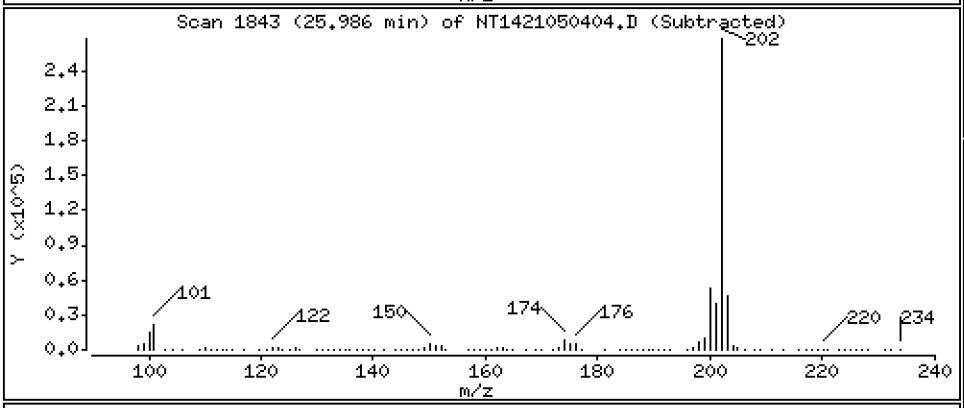
Column diameter: 0.25

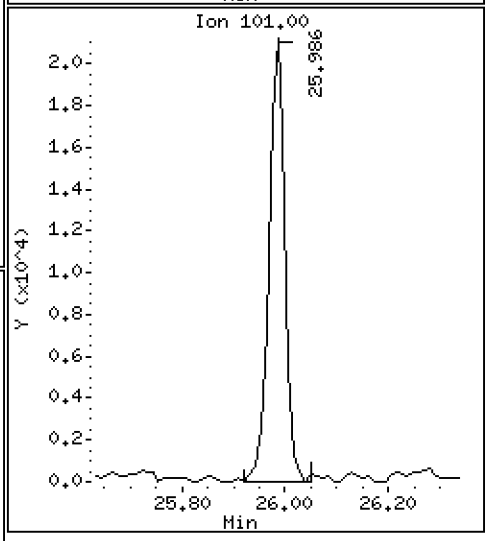
44 Fluoranthene

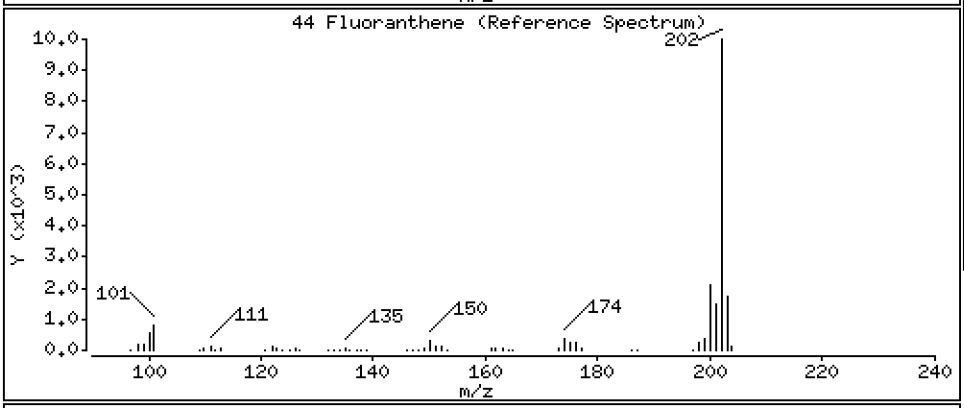
Concentration: 2.166 ug/mL

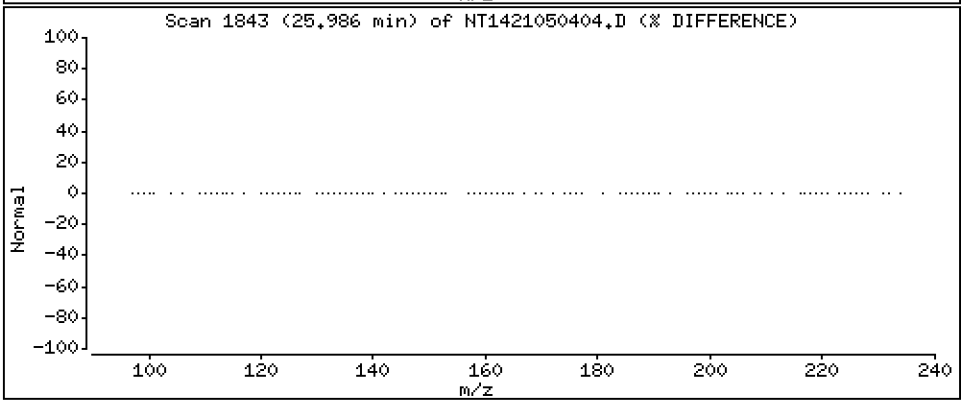


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050404.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

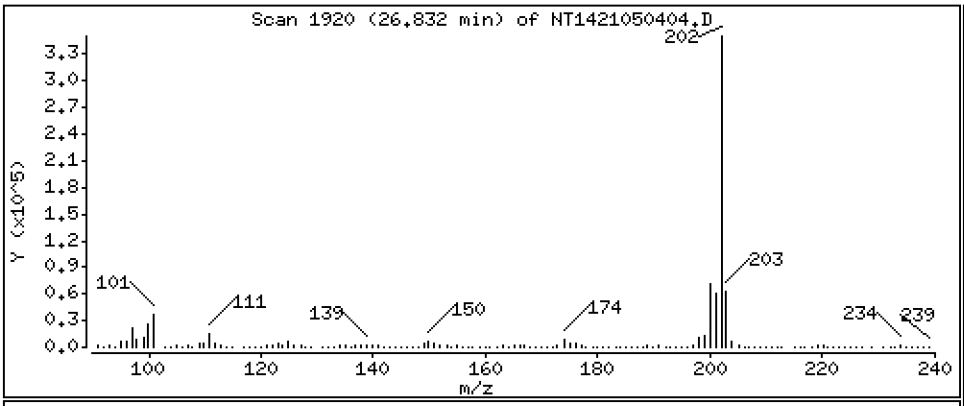
Operator: VTS

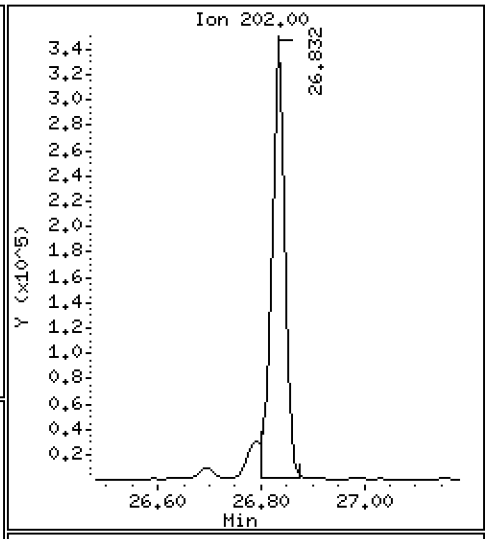
Column phase: Rxi-17Sil MS

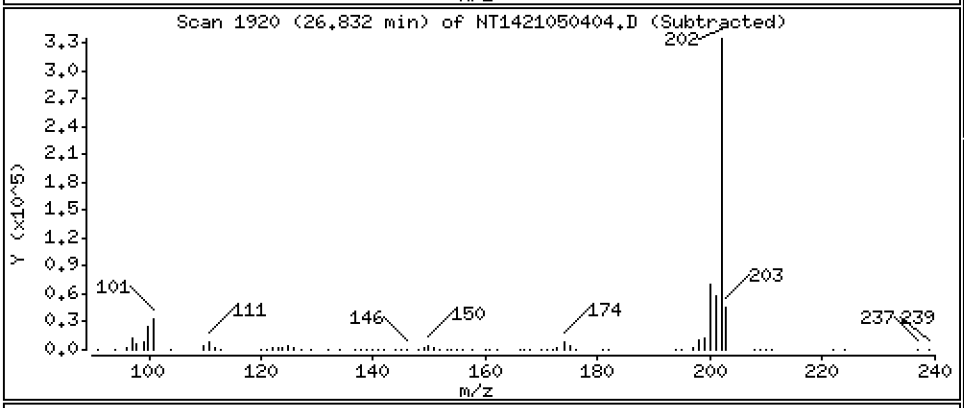
Column diameter: 0.25

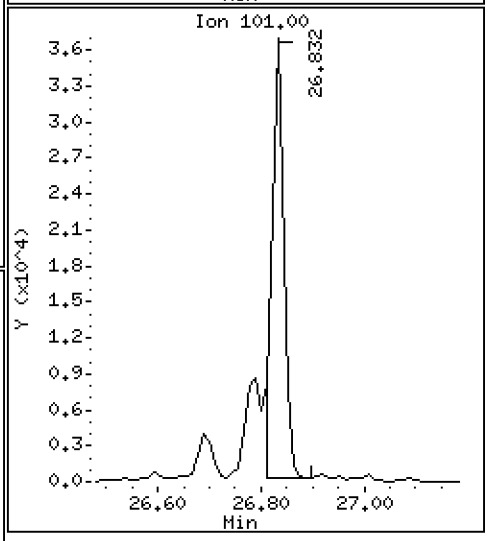
46 Pyrene

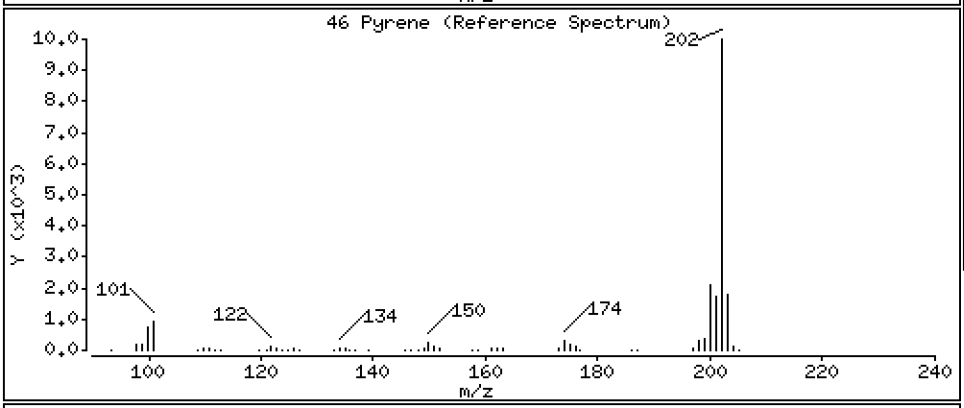
Concentration: 2.525 ug/mL

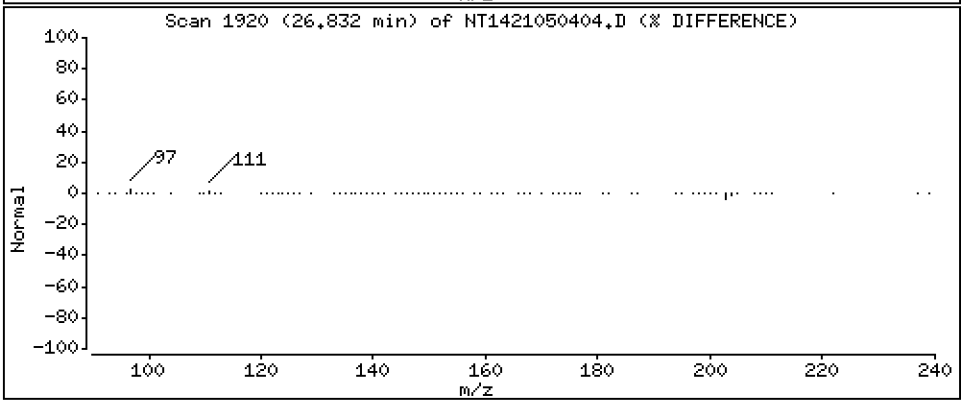


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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

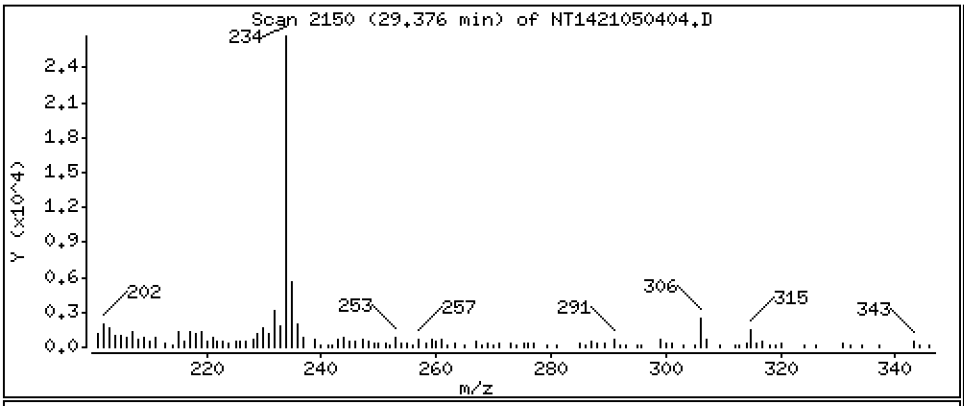
Operator: VTS

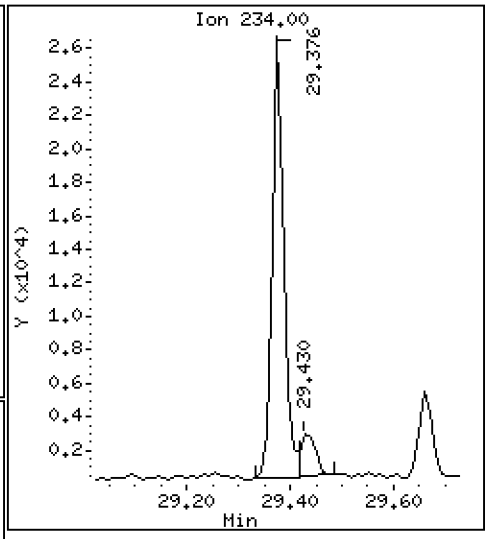
Column phase: Rxi-17Sil MS

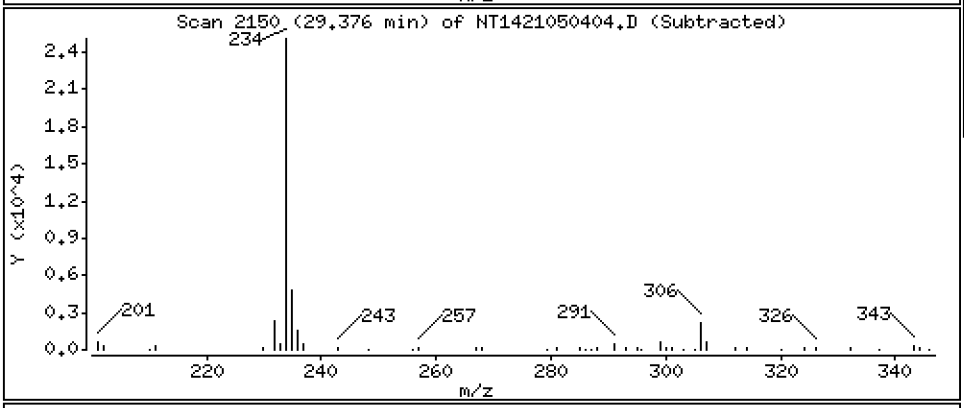
Column diameter: 0.25

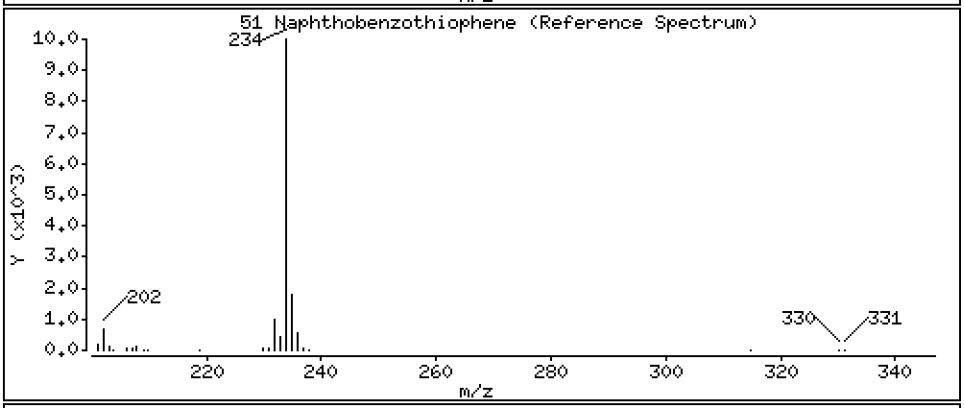
51 Naphthobenzothiophene

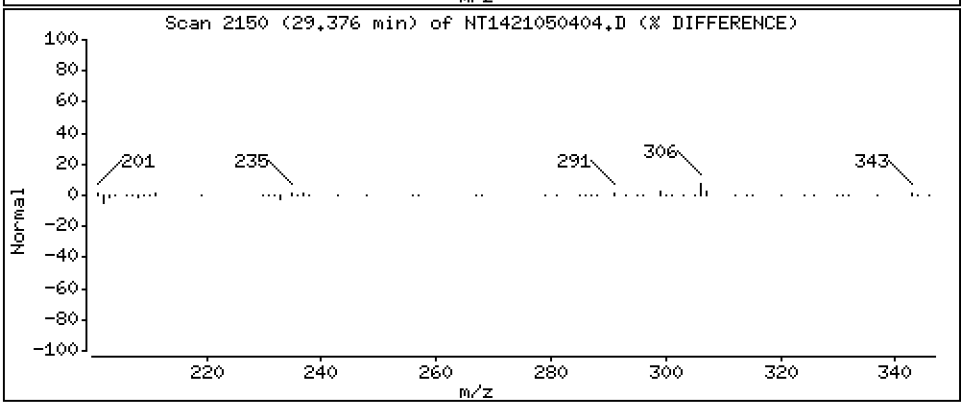
Concentration: 0.1743 ug/mL



Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050404.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

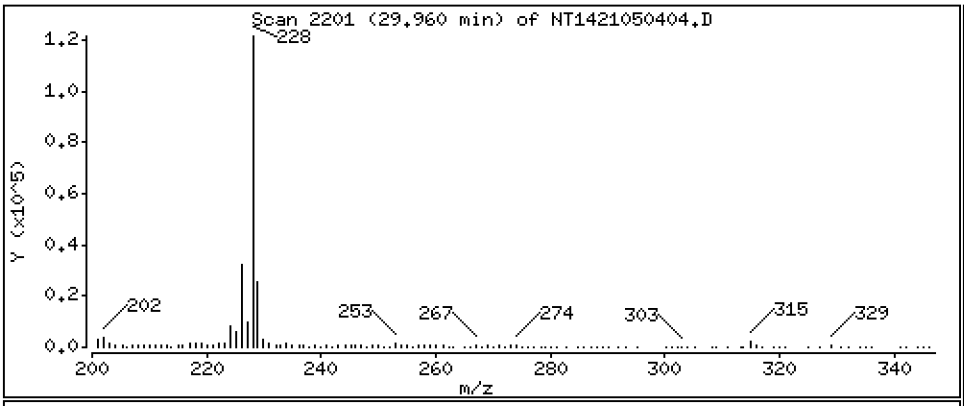
Operator: VTS

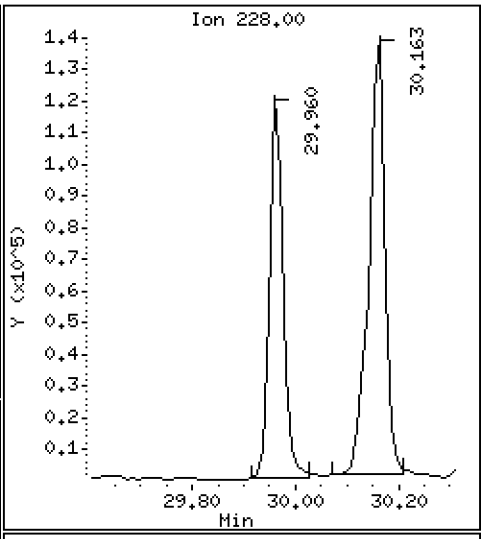
Column phase: Rxi-17Sil MS

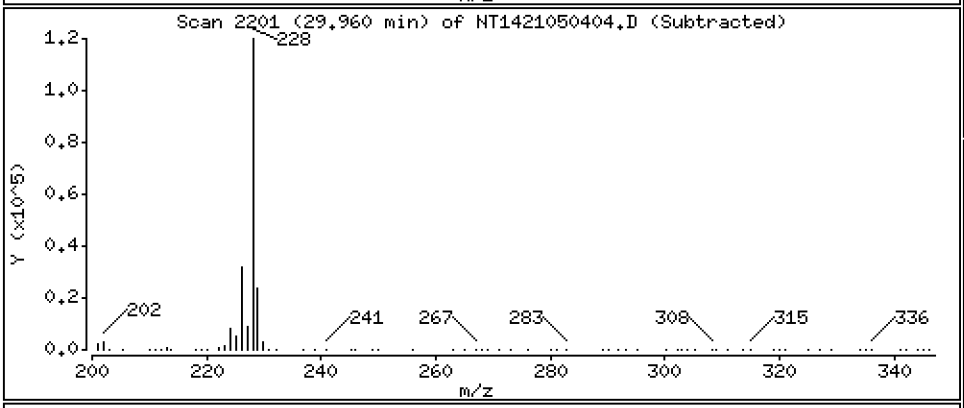
Column diameter: 0.25

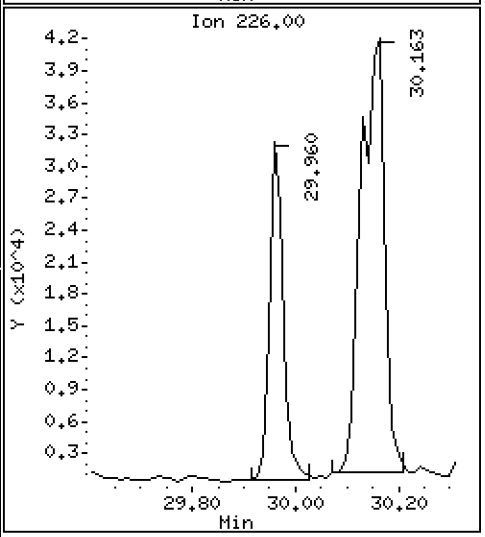
55 Benzo(a)anthracene

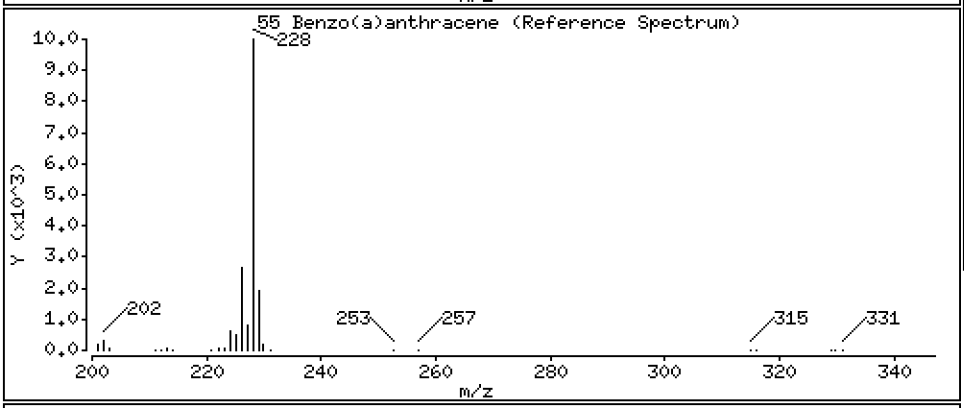
Concentration: 0.8987 ug/mL

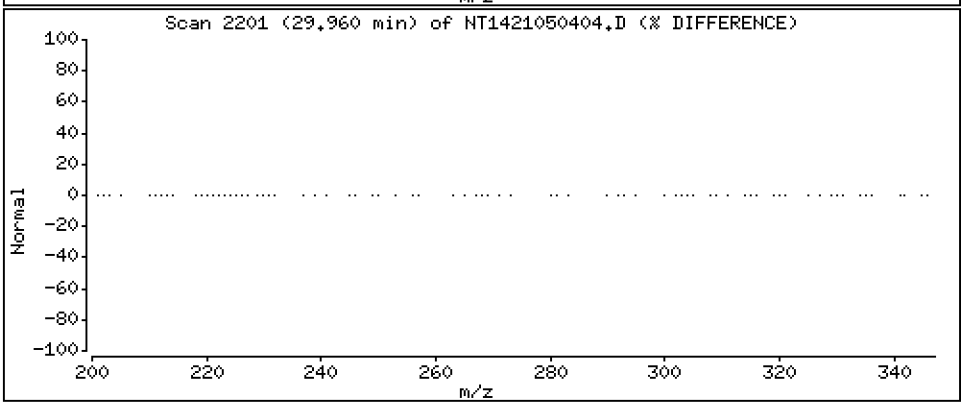


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050404.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

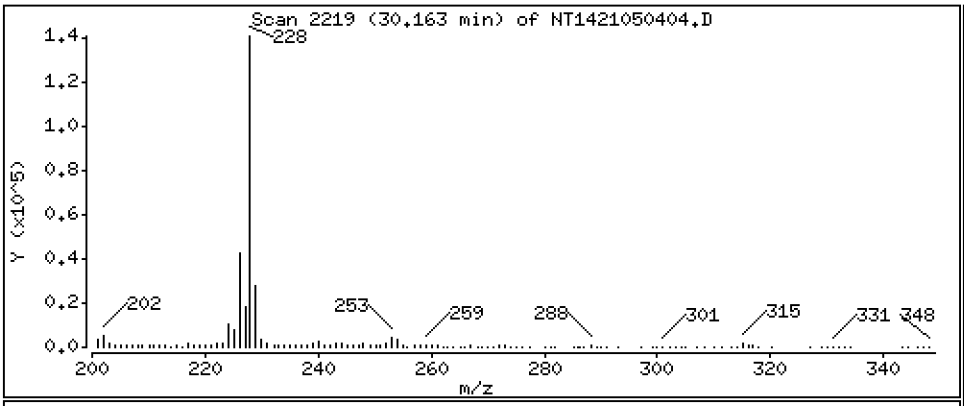
Operator: VTS

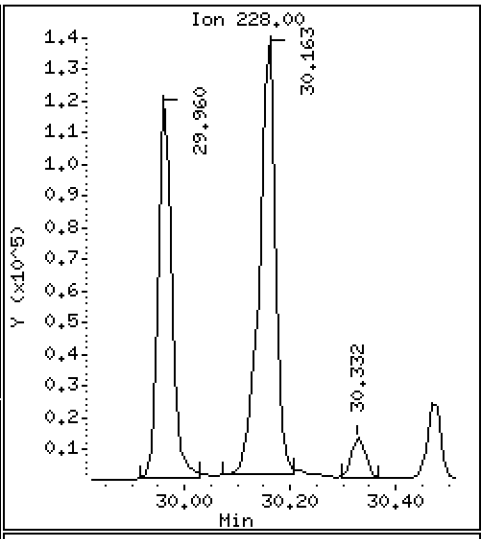
Column phase: Rxi-17Sil MS

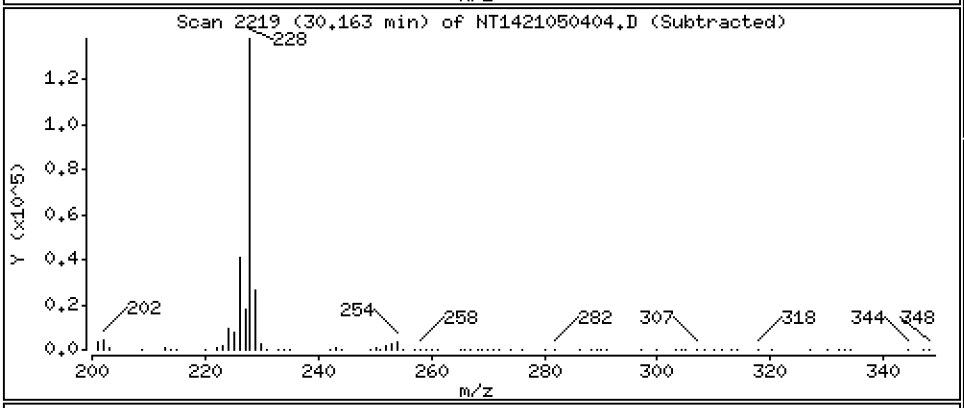
Column diameter: 0.25

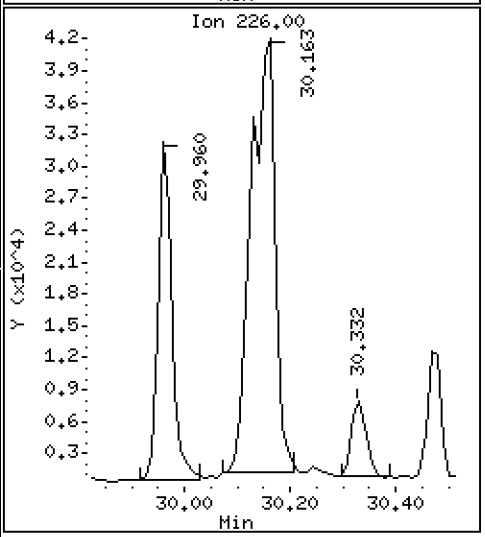
57 Chrysene

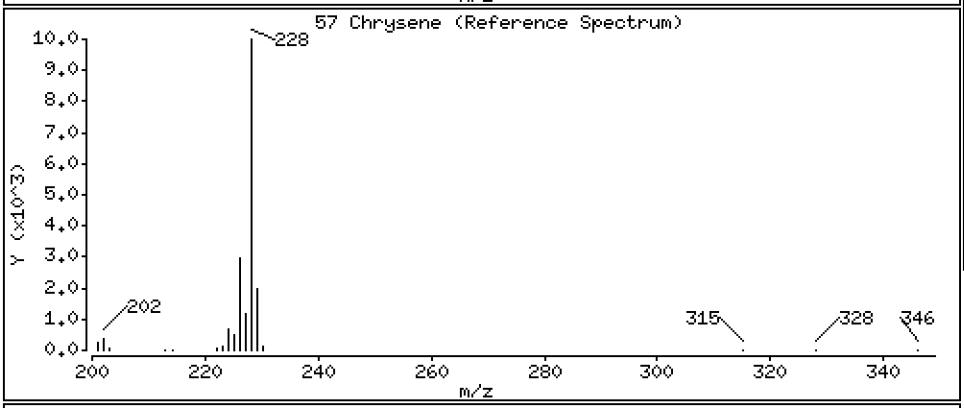
Concentration: 1.172 ug/mL

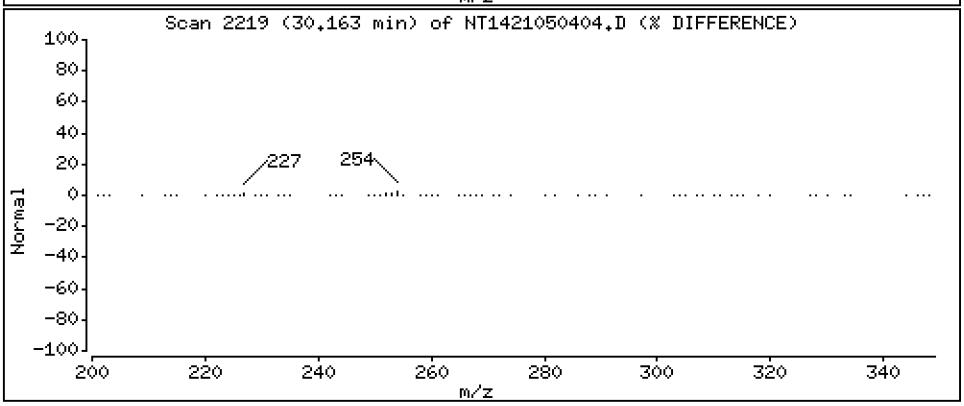


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050404.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

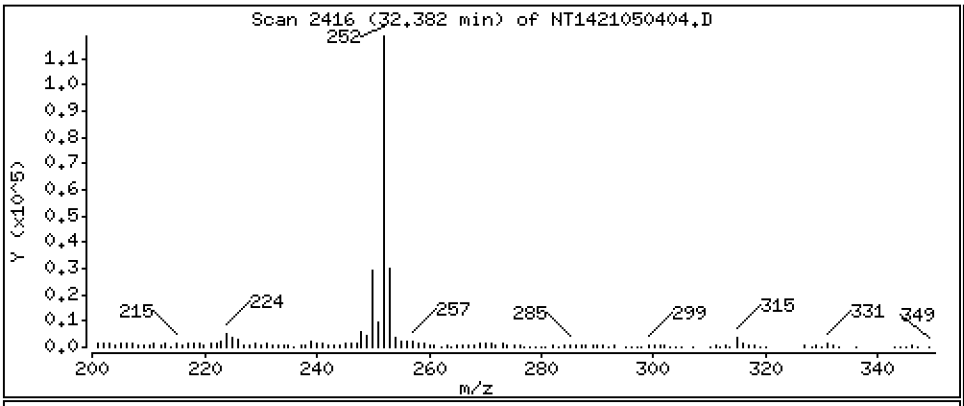
Operator: VTS

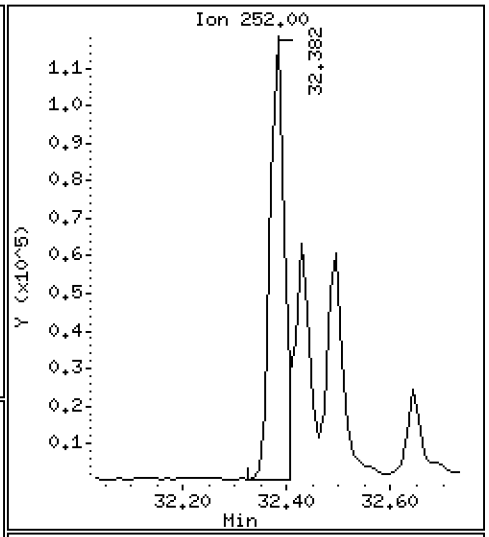
Column phase: Rxi-17Sil MS

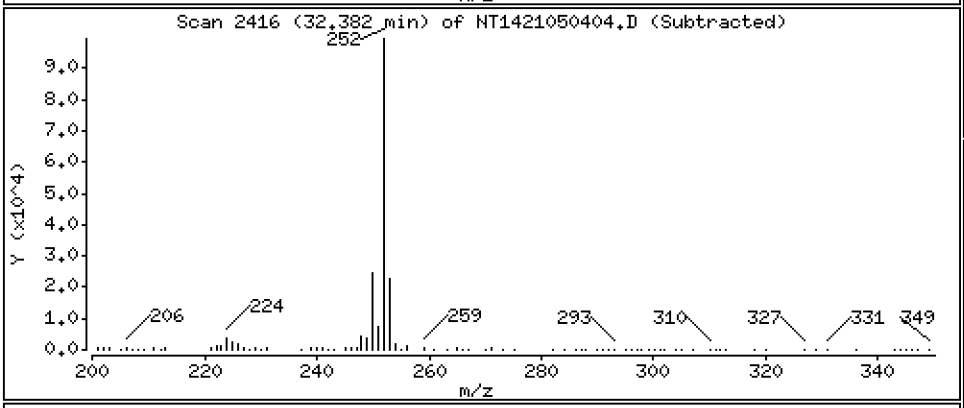
Column diameter: 0.25

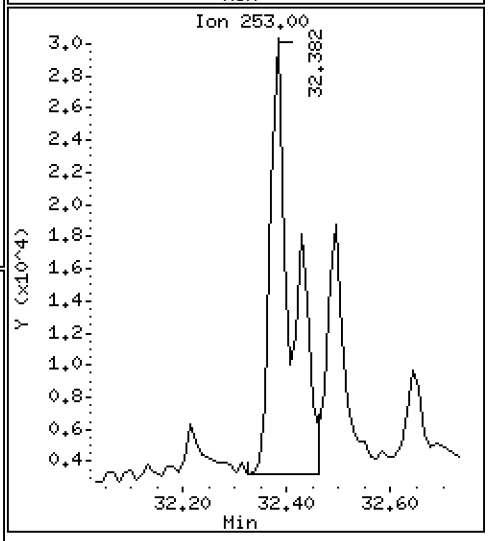
62 Benzo(b)fluoranthene

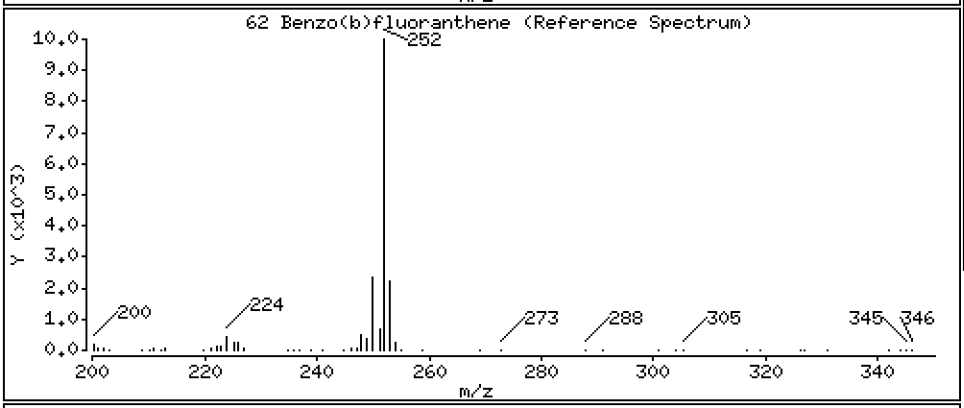
Concentration: 0.9209 ug/mL

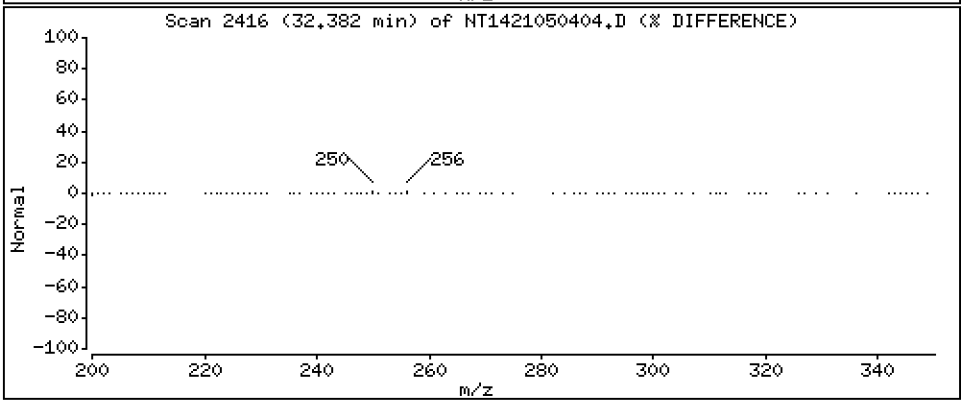


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050404.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

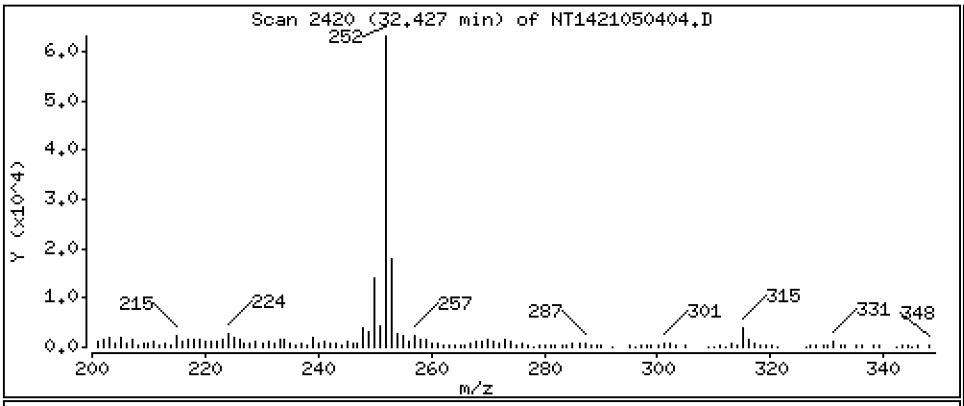
Operator: VTS

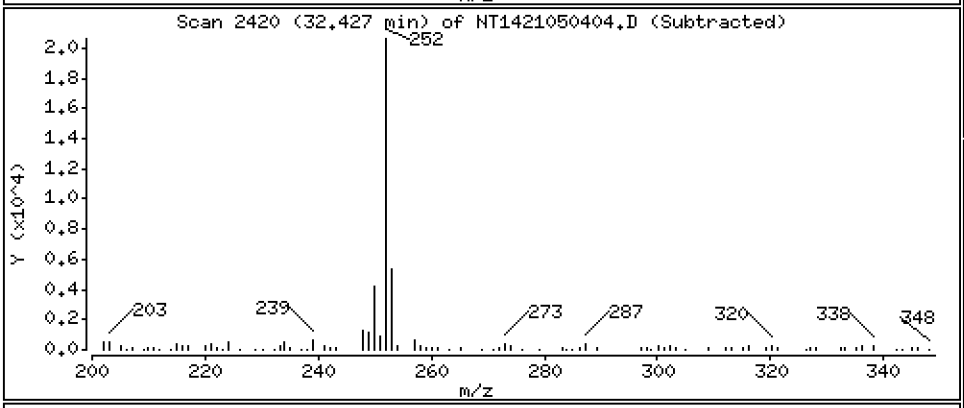
Column phase: Rxi-17Sil MS

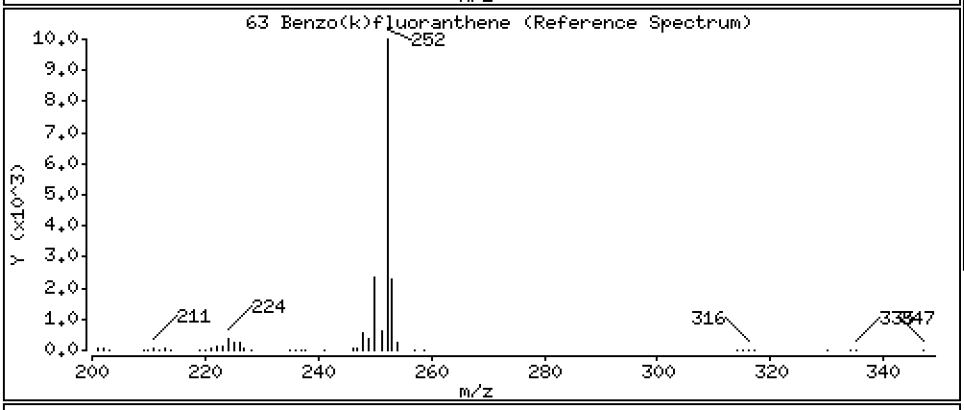
Column diameter: 0.25

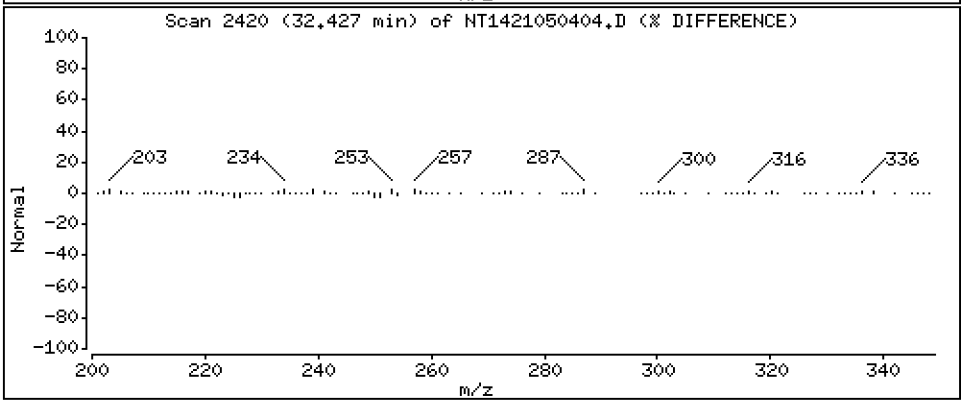
63 Benzo(k)fluoranthene

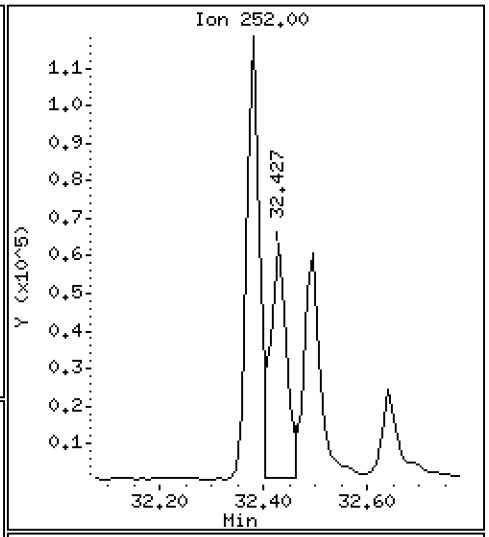
Concentration: 0.4923 ug/mL

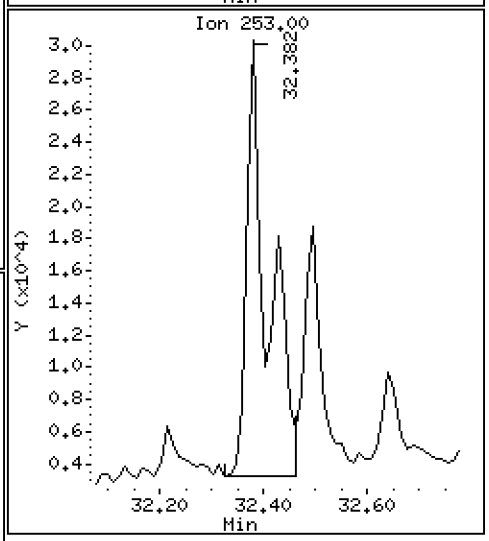


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050404.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

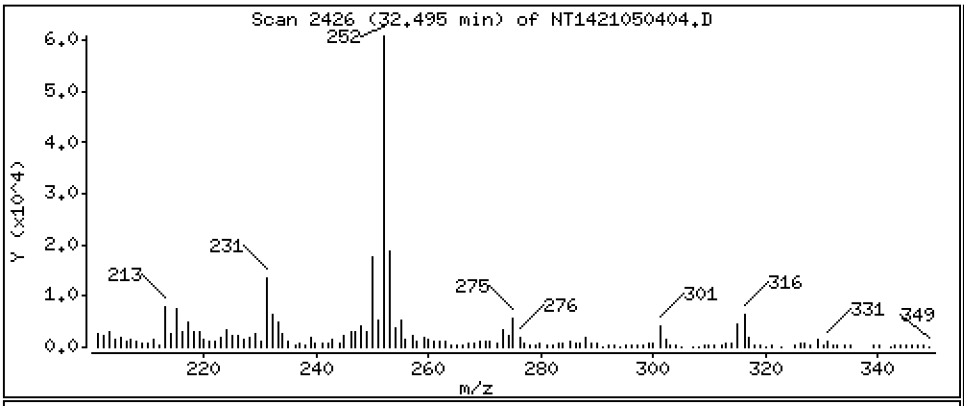
Operator: VTS

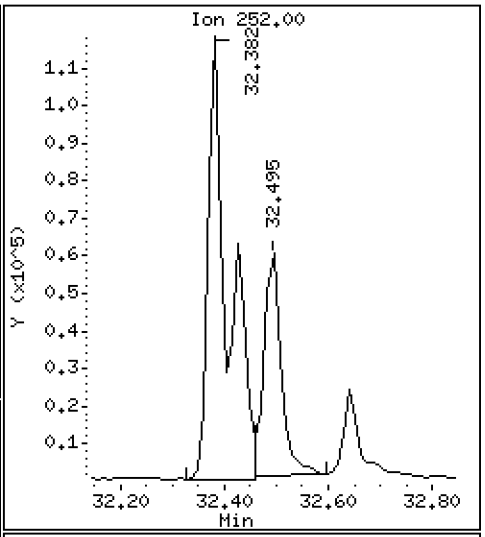
Column phase: Rxi-17Sil MS

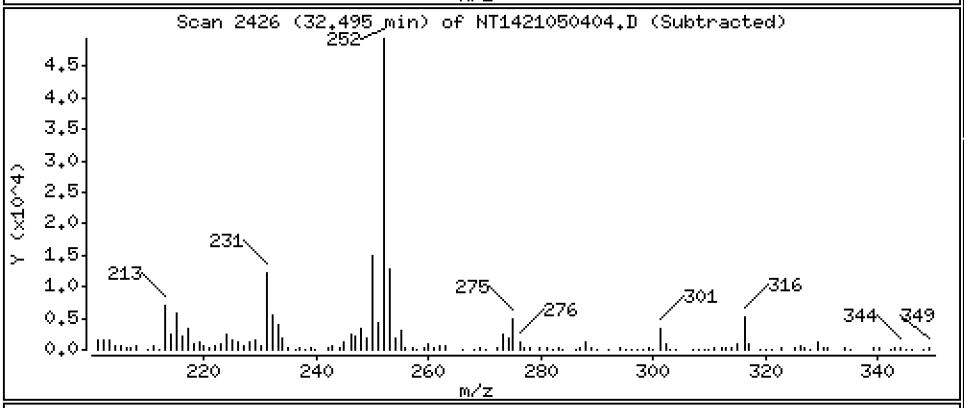
Column diameter: 0.25

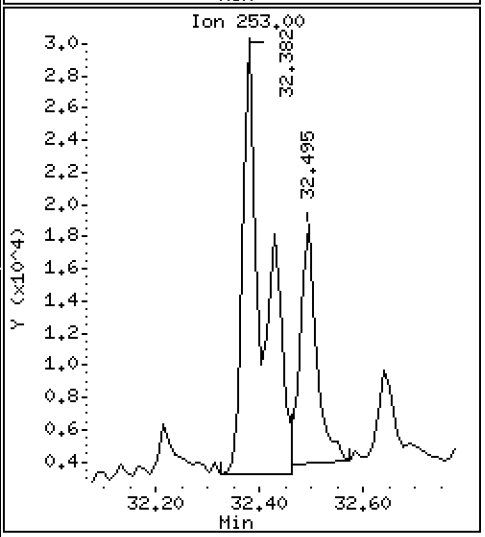
293 Benzo(j)fluoranthene

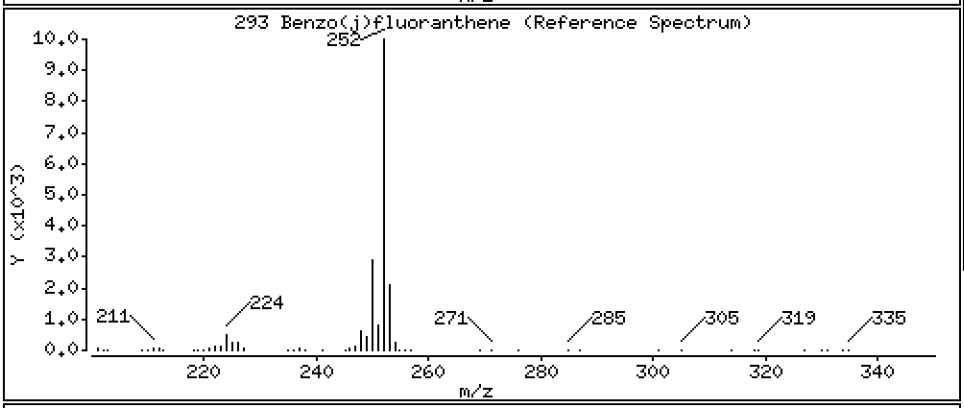
Concentration: 0.5032 ug/mL

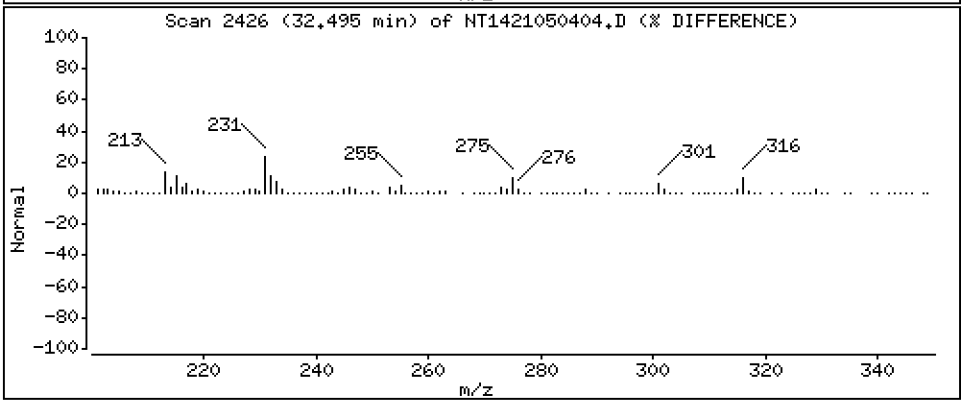


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050404.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

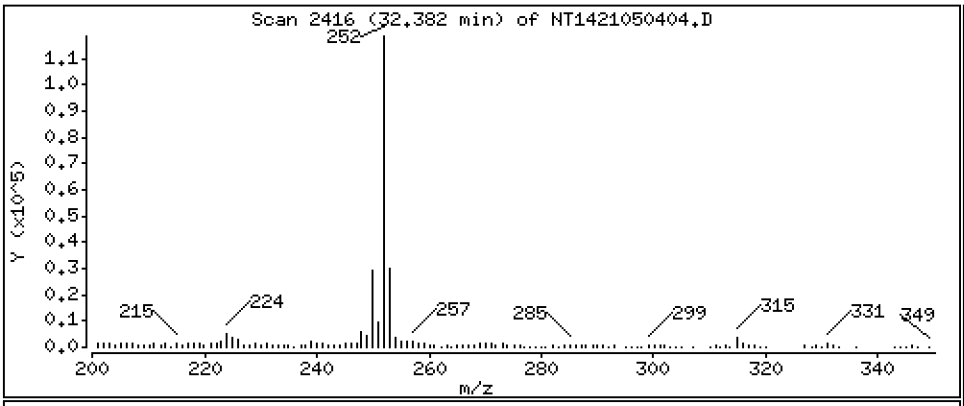
Operator: VTS

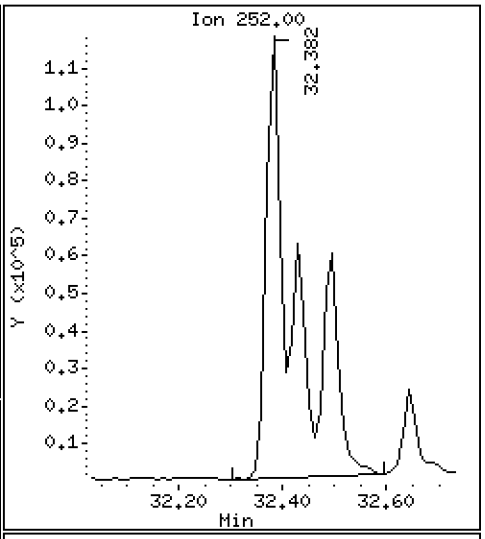
Column phase: Rxi-17Sil MS

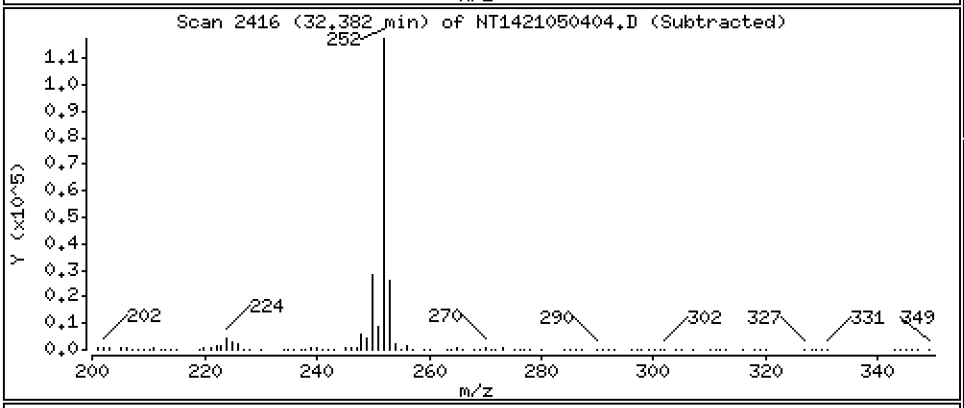
Column diameter: 0.25

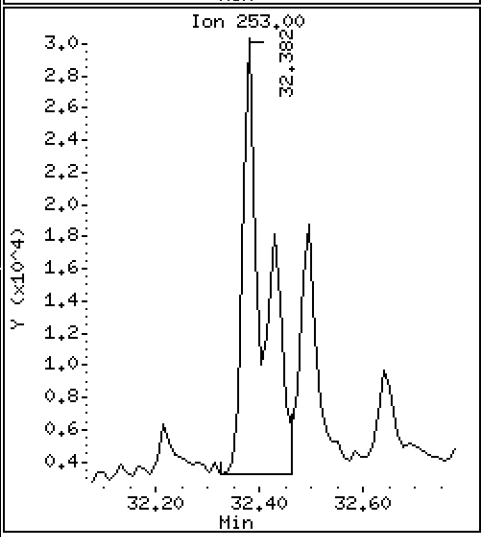
246 Total Benzofluoranthenes

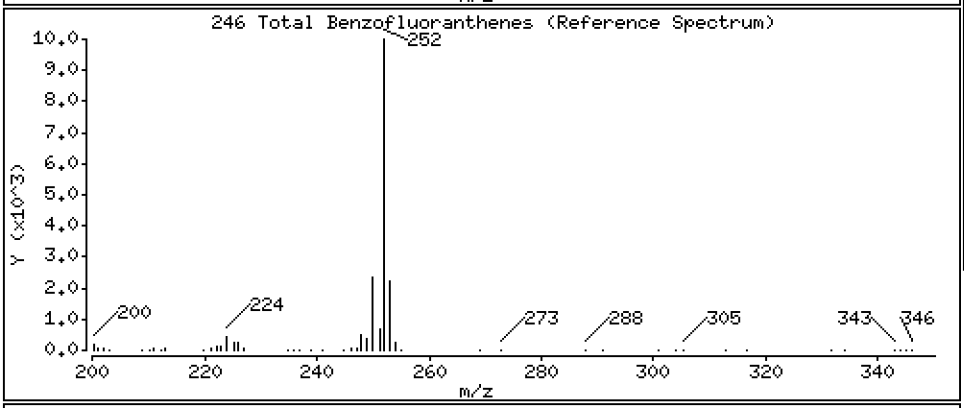
Concentration: 1.781 ug/mL

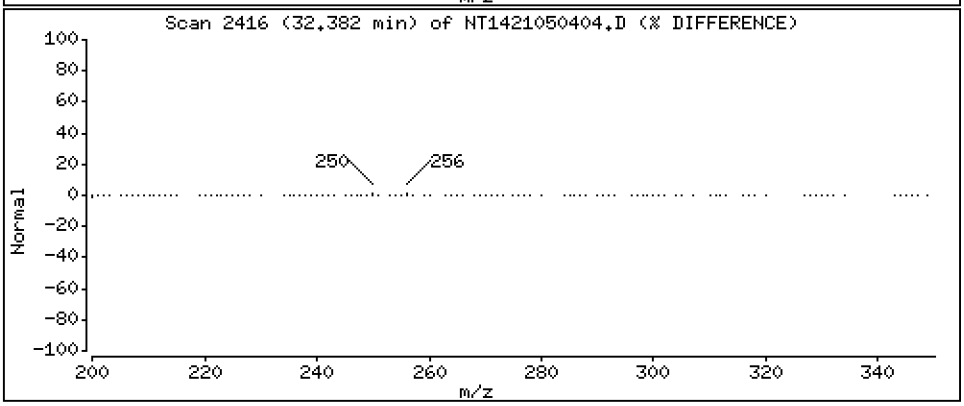


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050404.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

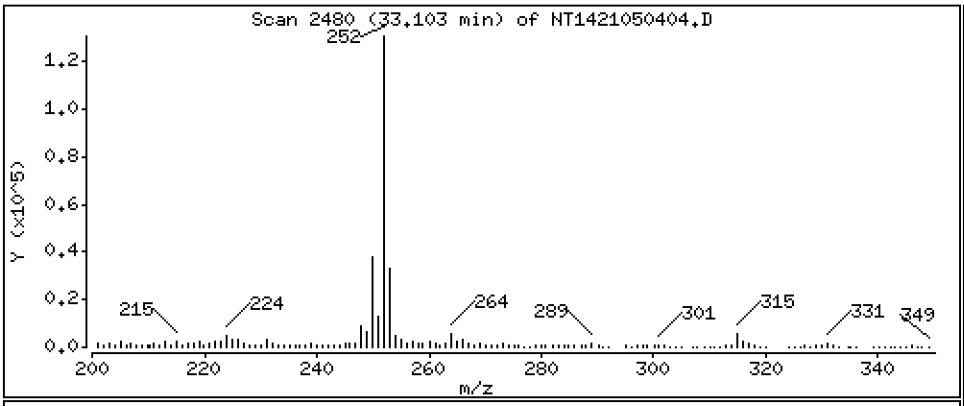
Operator: VTS

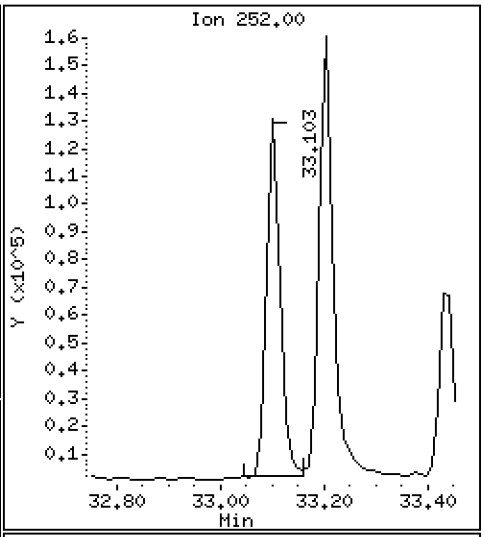
Column phase: Rxi-17Sil MS

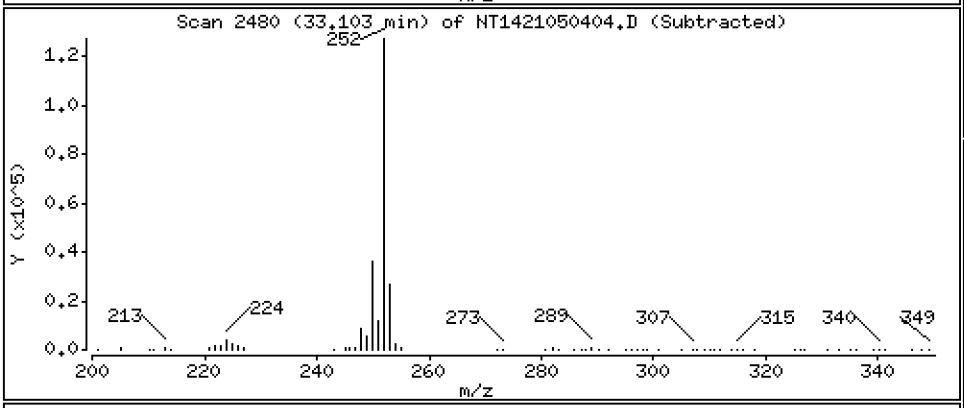
Column diameter: 0.25

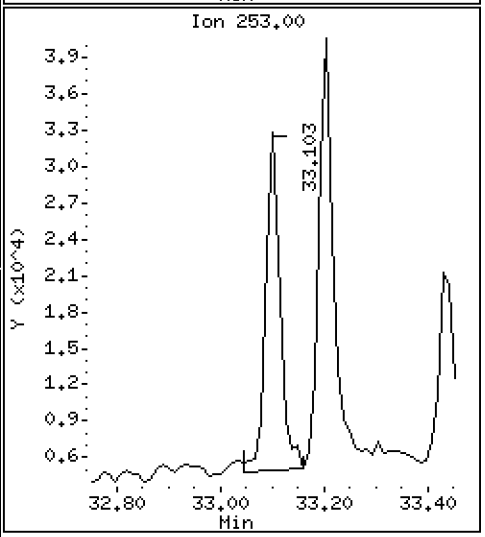
64 Benzo(e)pyrene

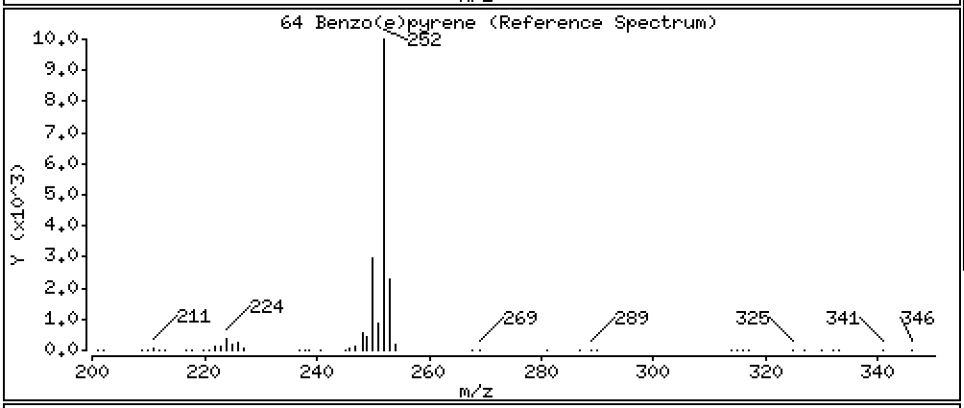
Concentration: 0.9226 ug/mL

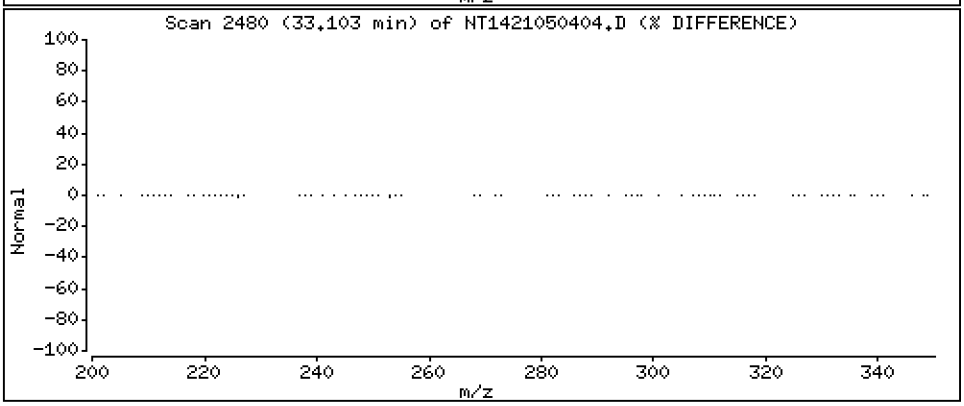


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050404.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

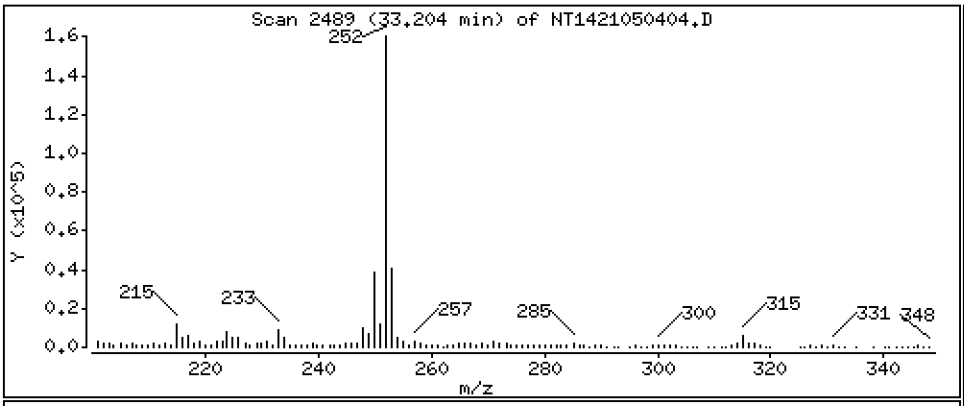
Operator: VTS

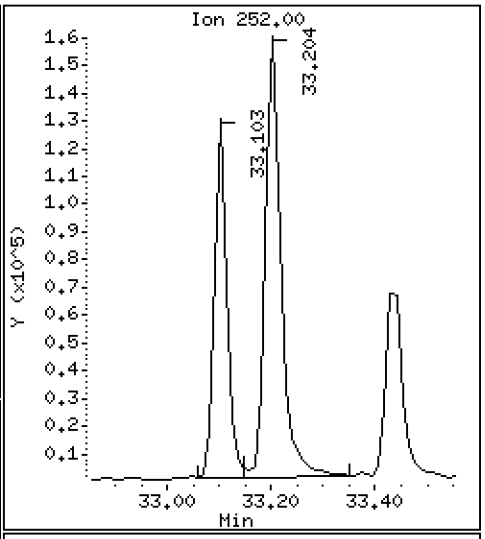
Column phase: Rxi-17Sil MS

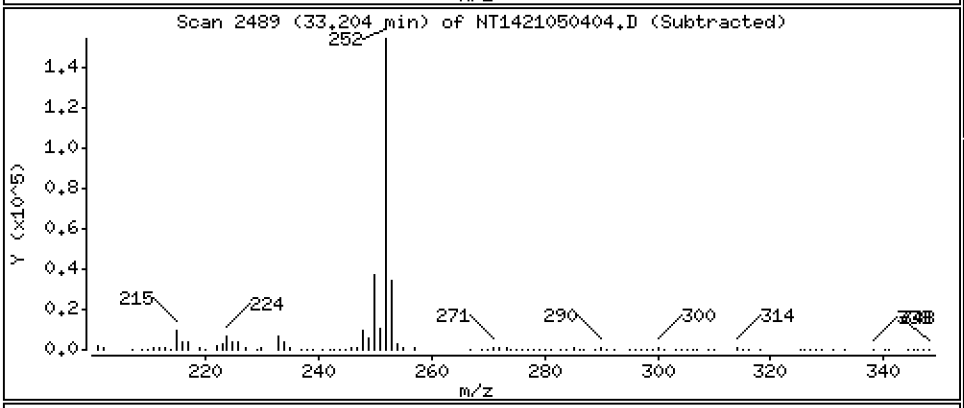
Column diameter: 0.25

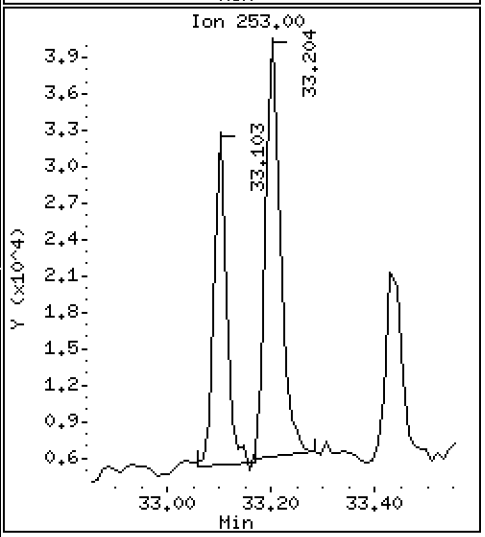
66 Benzo(a)pyrene

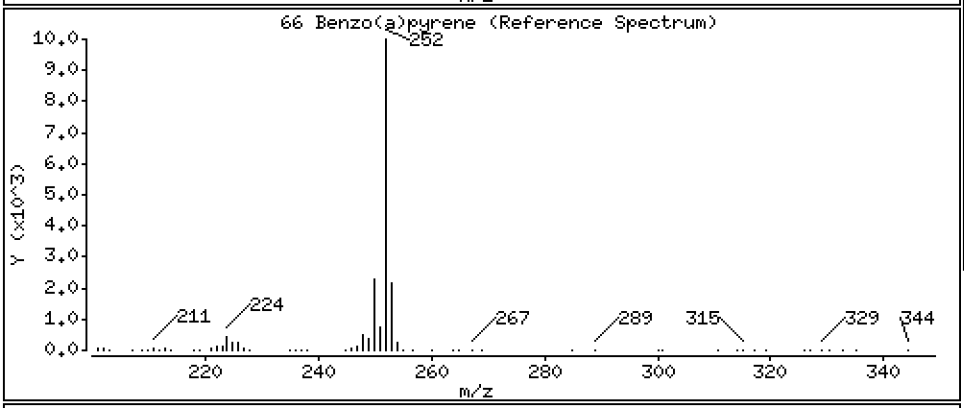
Concentration: 1.312 ug/mL

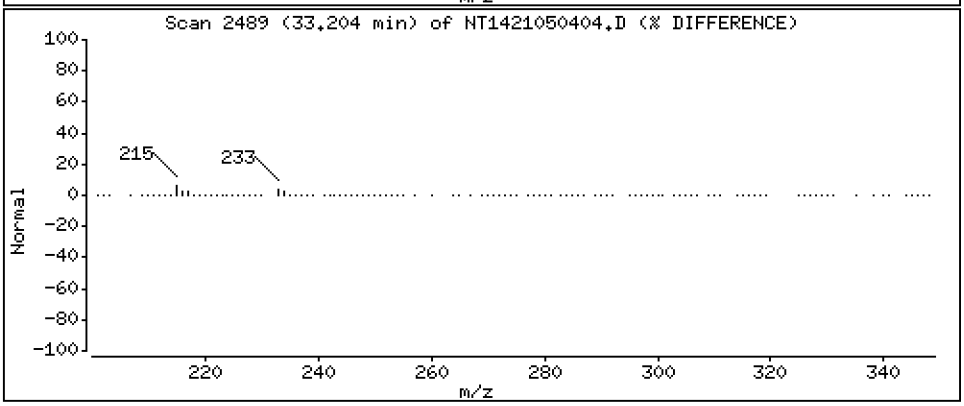


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050404.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

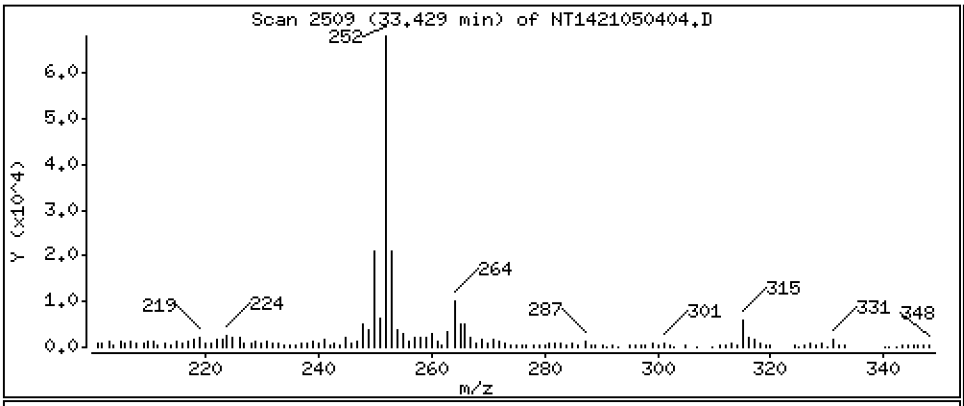
Operator: VTS

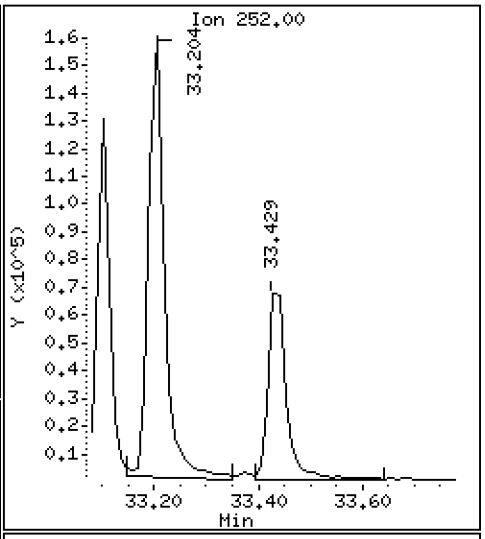
Column phase: Rxi-17Sil MS

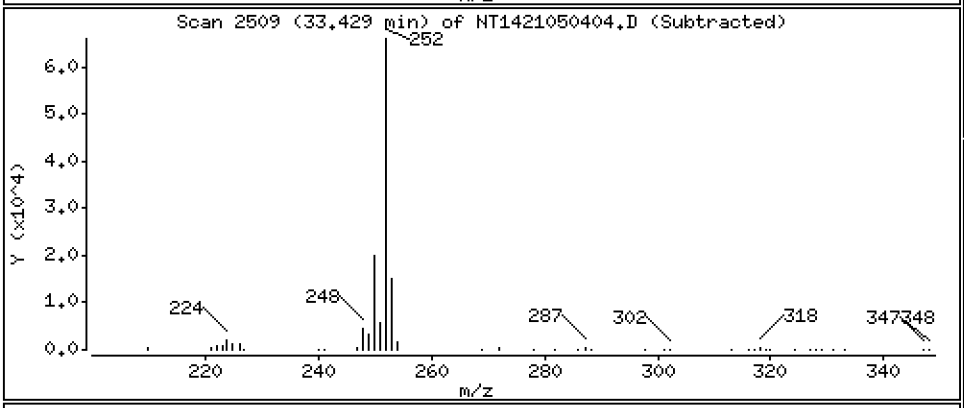
Column diameter: 0.25

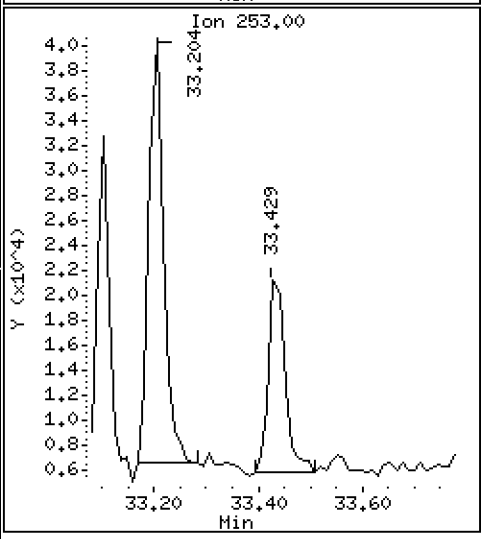
68 Perylene

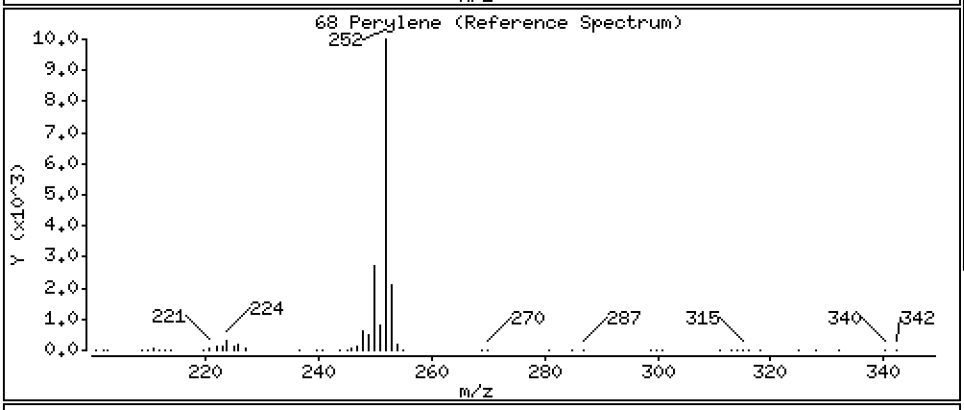
Concentration: 0.6795 ug/mL

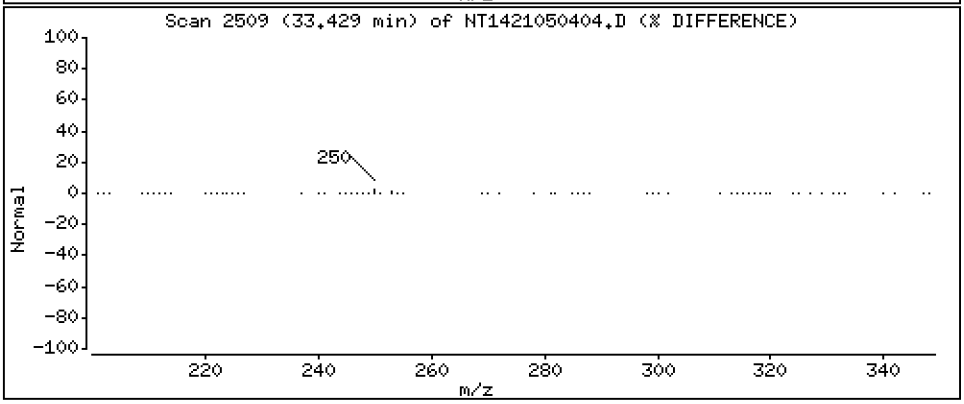


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050404.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

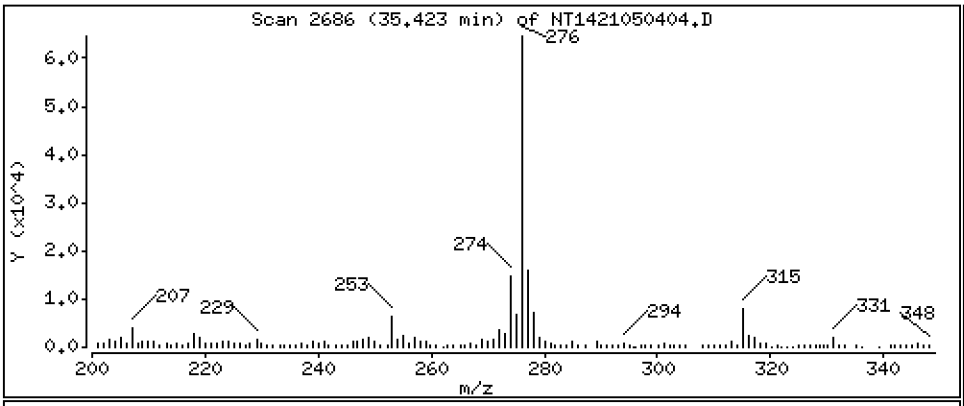
Operator: VTS

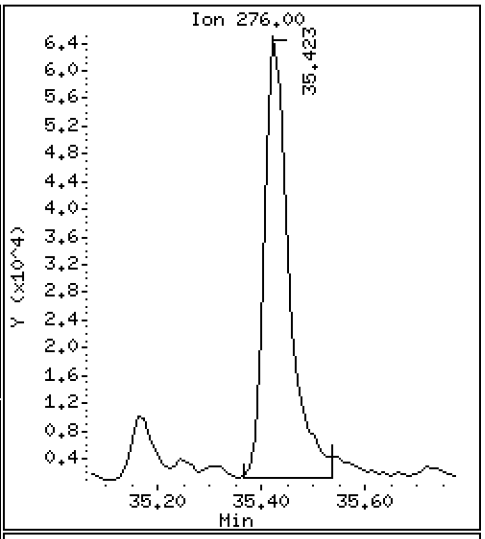
Column phase: Rxi-17Sil MS

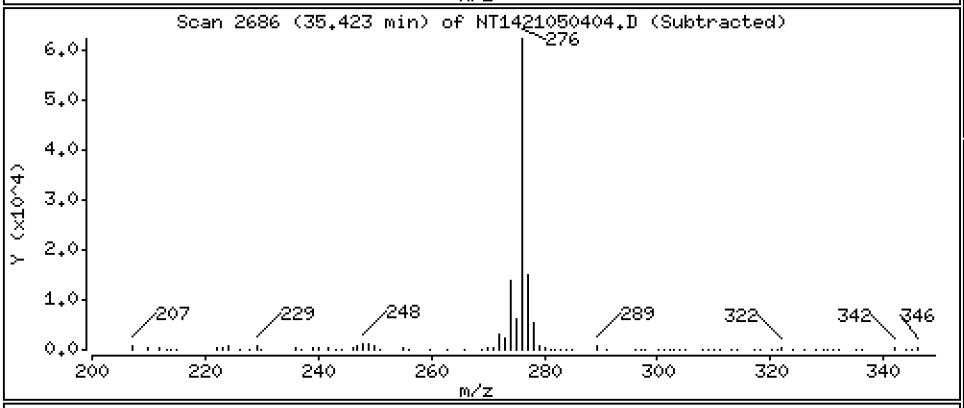
Column diameter: 0.25

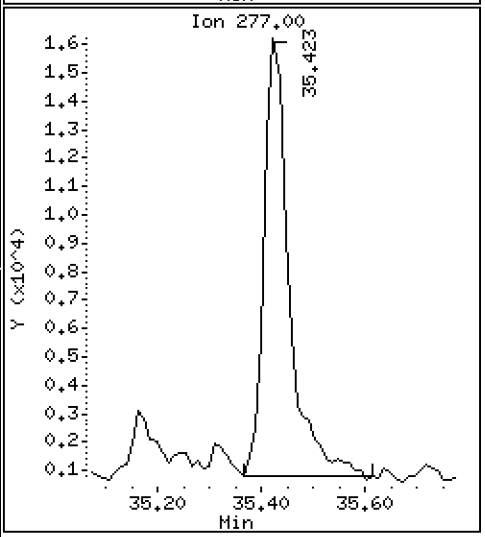
69 Indeno(1,2,3-cd)pyrene

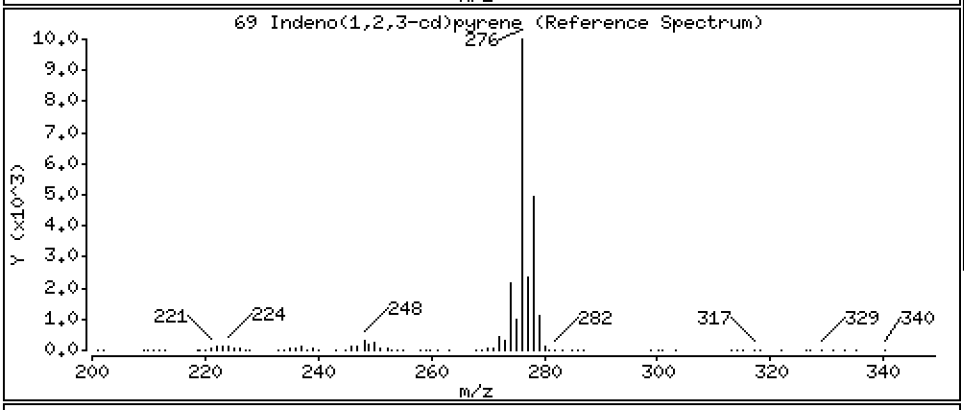
Concentration: 0.8271 ug/mL

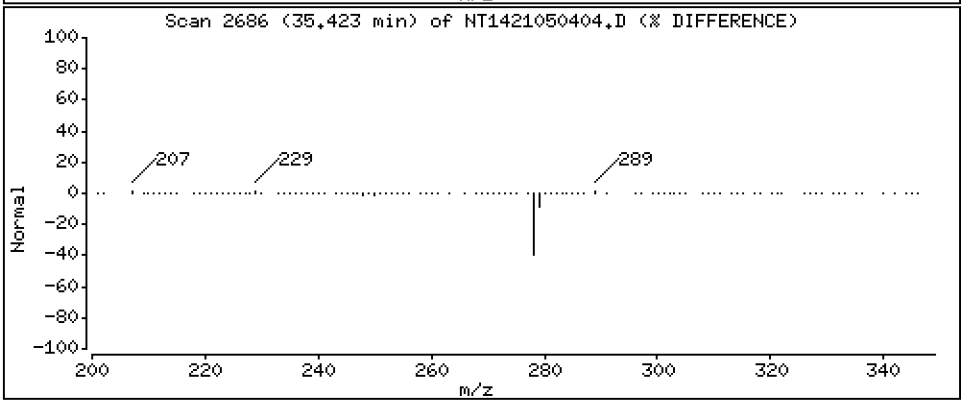


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050404.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

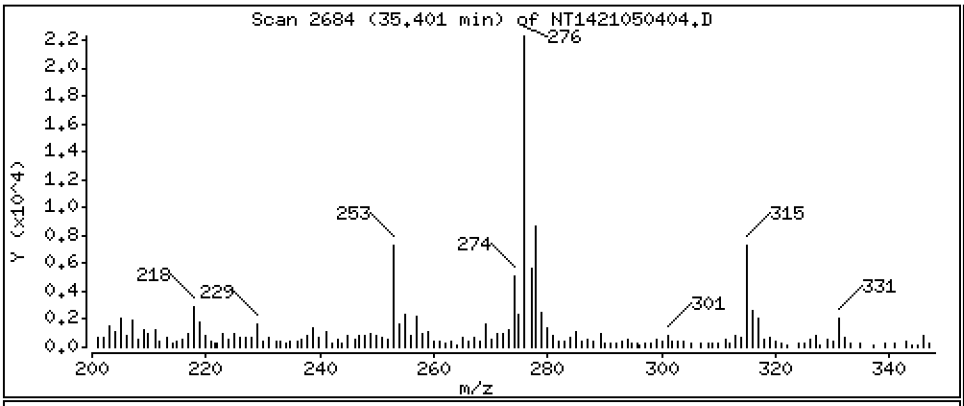
Operator: VTS

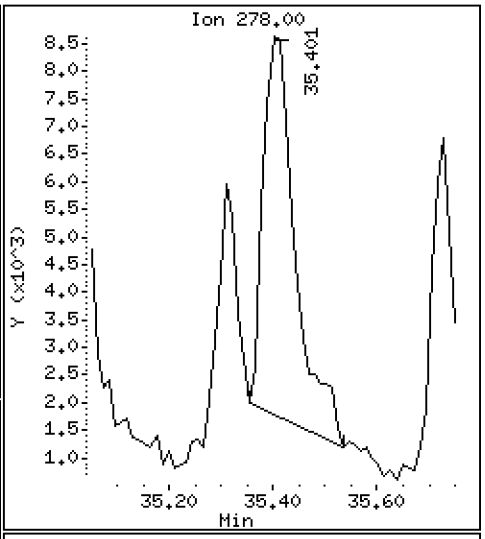
Column phase: Rxi-17Sil MS

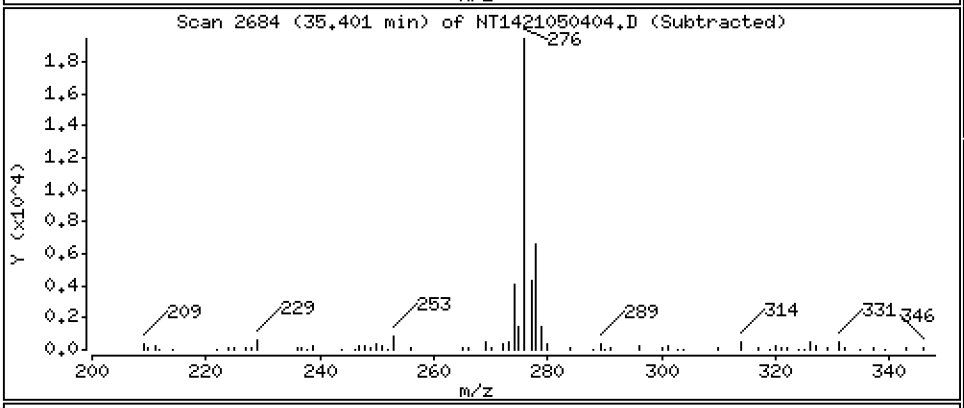
Column diameter: 0.25

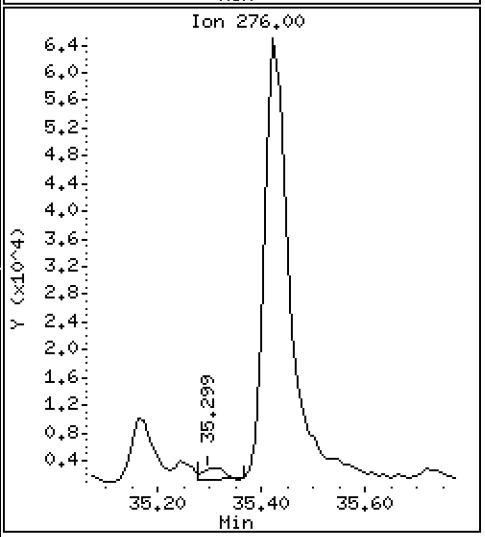
70 Dibenzo(a,h)anthracene

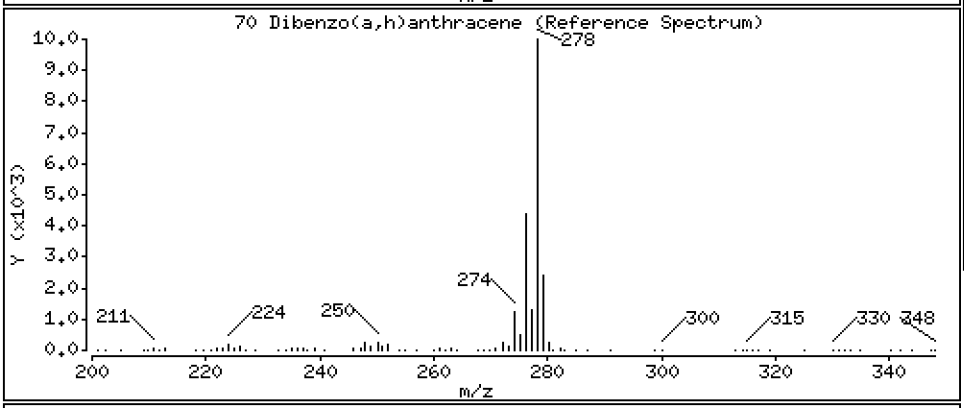
Concentration: 0.1366 ug/mL

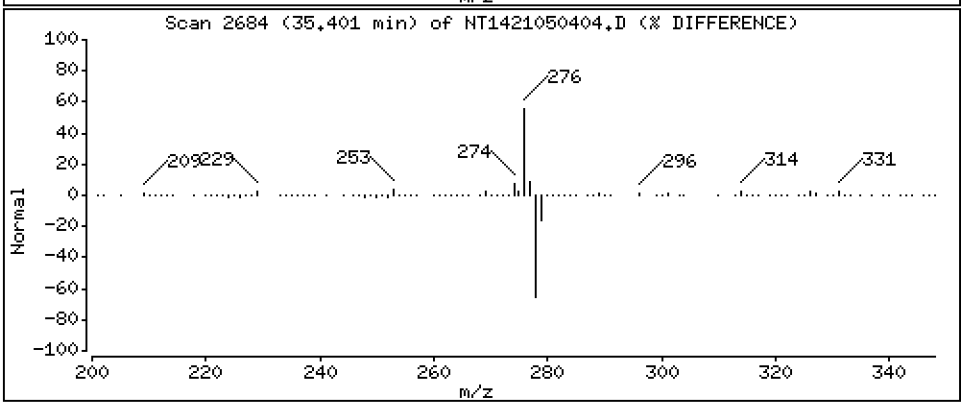


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050404.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

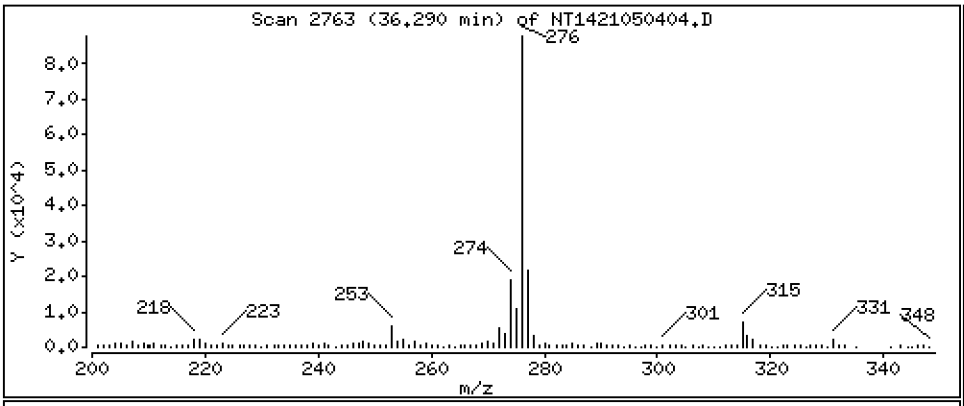
Operator: VTS

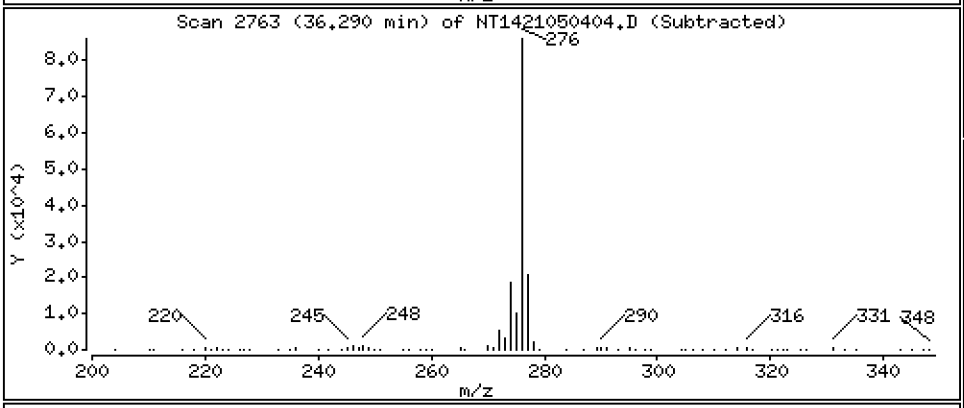
Column phase: Rxi-17Sil MS

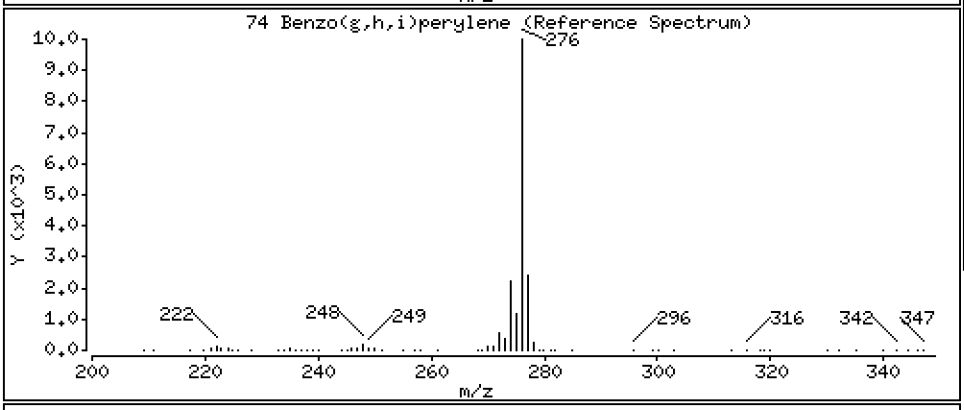
Column diameter: 0.25

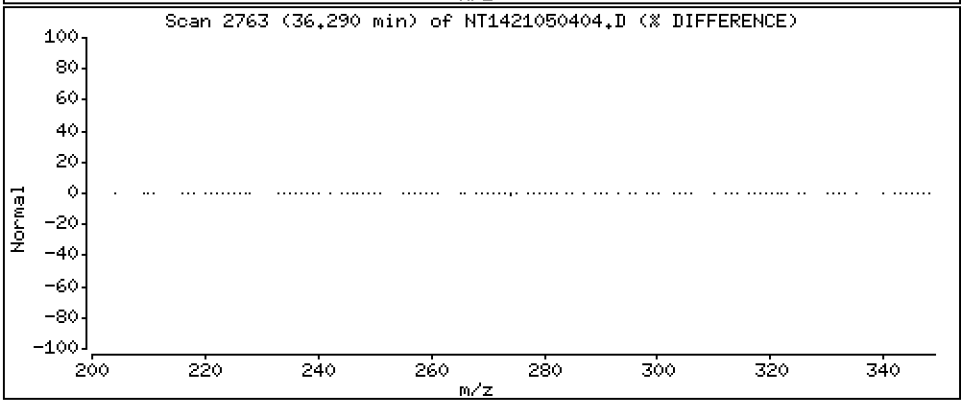
74 Benzo(g,h,i)perylene

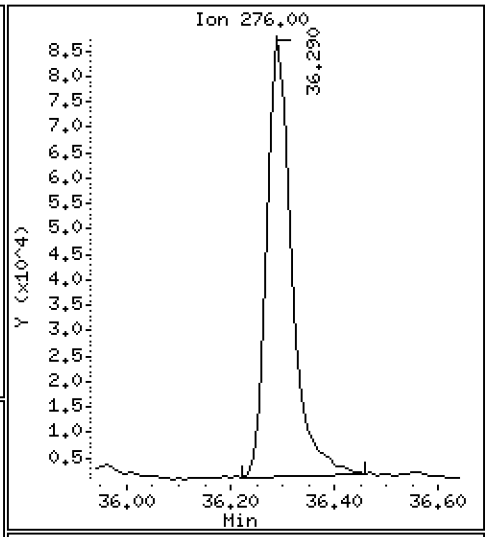
Concentration: 1.311 ug/mL

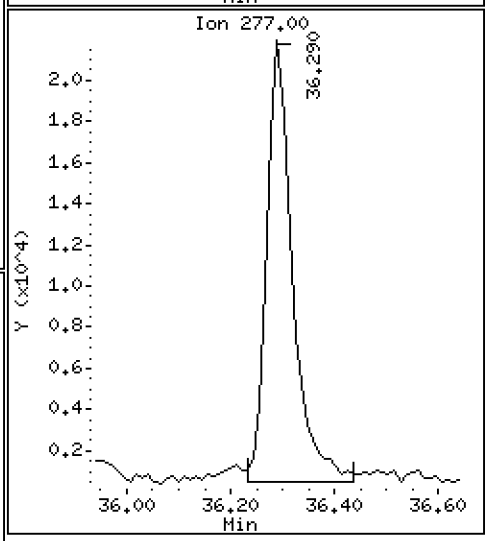


ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210504.b\NT1421050404.D
Lab Smp Id: 21D0180-04
Inj Date : 04-MAY-2021 15:19
Operator : VTS Inst ID: nt14.i
Smp Info : 21D0180-04
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210504.b\ALKYLPNA.m
Meth Date : 04-May-2021 14:17 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: VANS-202011

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

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

## QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421050404.D
Lab Smp Id: 21D0180-04
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210504.b\ALKYLPNA.m
Misc Info:

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

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1421050404.D

Lab ID: 21D0180-04
nt14.i,  20210504.b\ALKYLPNA.m,    04-MAY-2021 15:19

| RT | CO-ELUTION COMPOUNDS |
|---|---|
| NO CO-ELUTIONS | |

Quant Method: ICAL

RRT CHECK

| RRT | CCV RRT | DELTA | COMPOUND |
|---|---|---|---|
| NONE | | | |

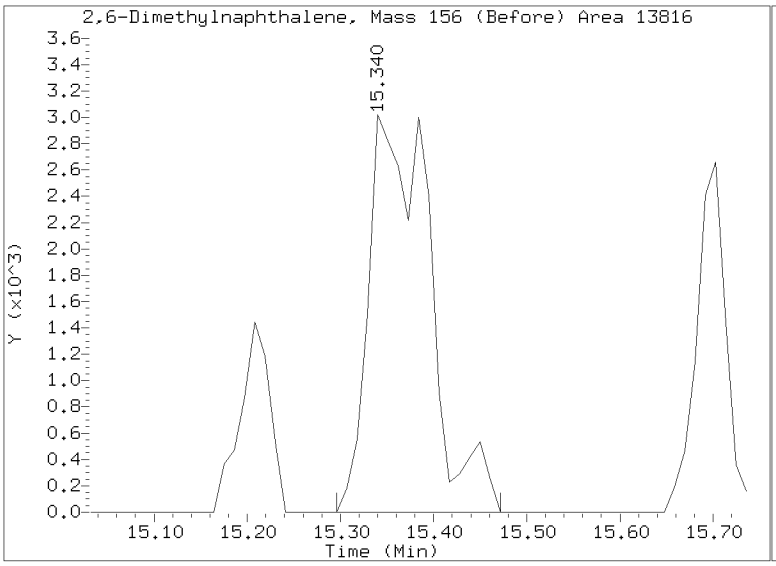
RRT check based on Ccal File: NT1421050402.D

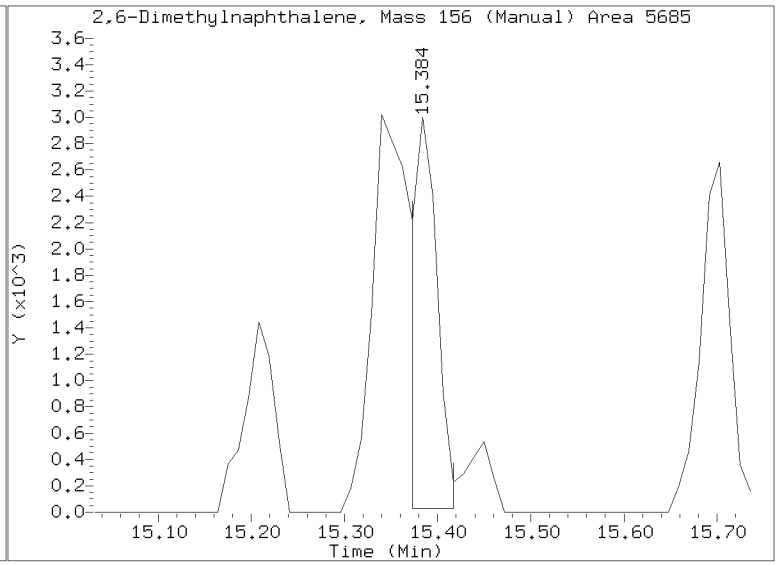
On Column LOD for nt14.i, 20210504.b\ALKYLPNA.m, TARGETS.sub = 0.0000

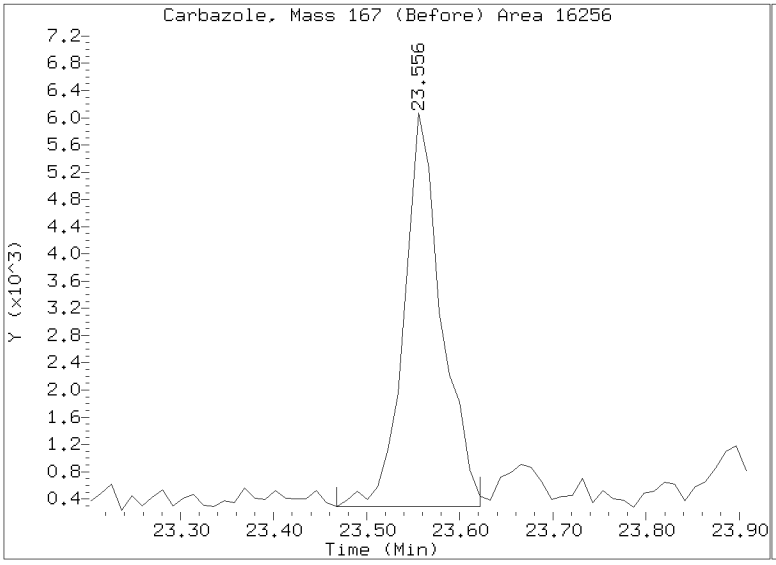
* Only compounds listed in the work order have been verified by the analyst *

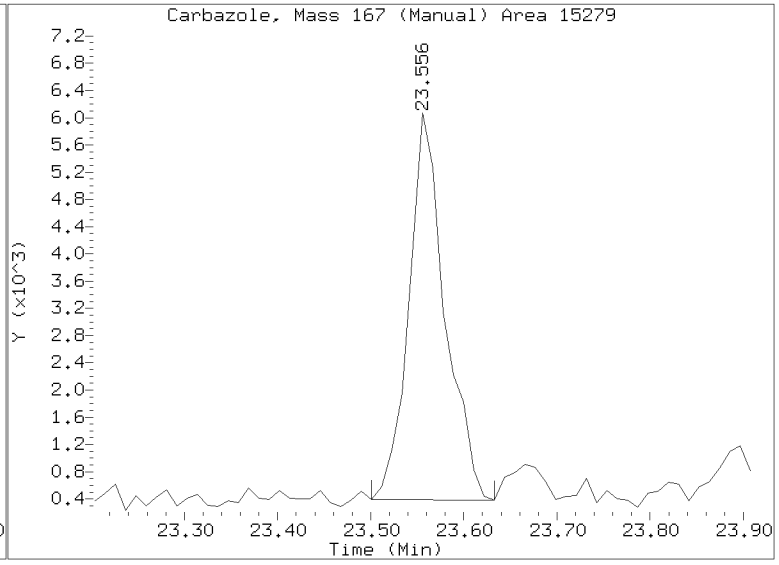
# Quant Ion Manual Peak Adjustment Report

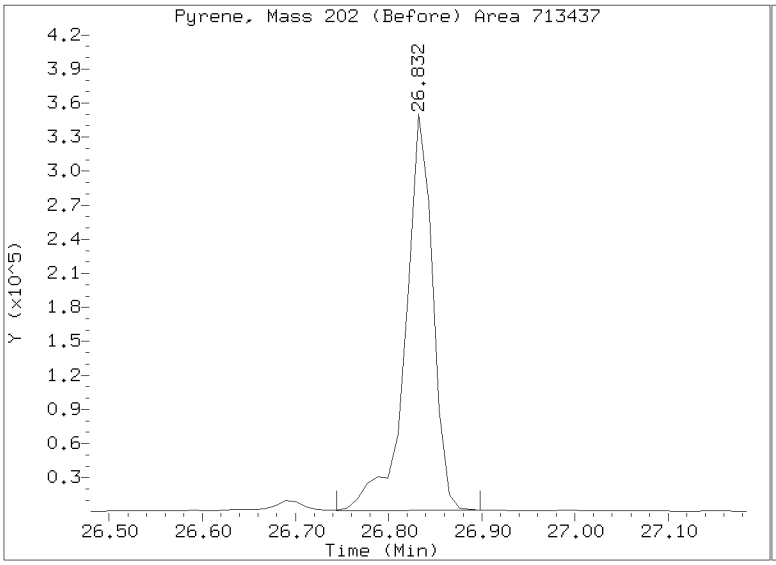
Datafile: //target/share/chem3/nt14.i/20210504.b/NT1421050404.D
Injection Date: 04-MAY-2021 15:19
Lab ID:21D0180-04 Client ID:
Report Date: 05/05/2021 12:34

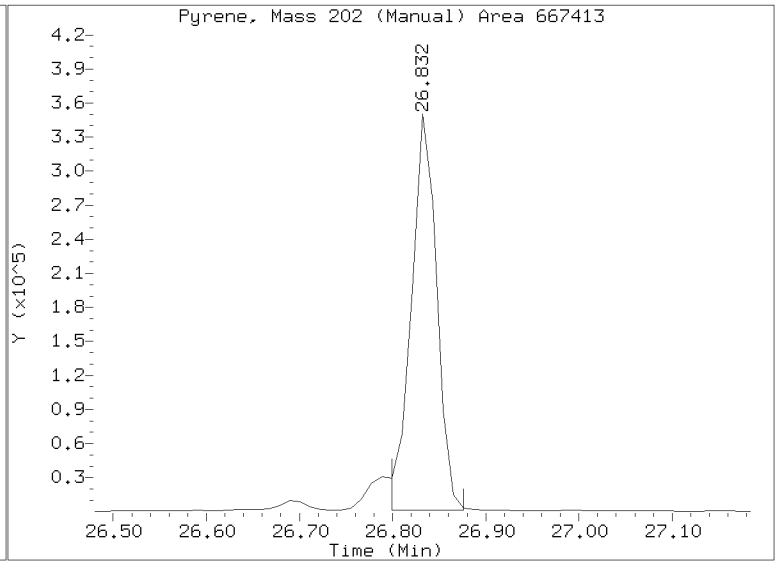


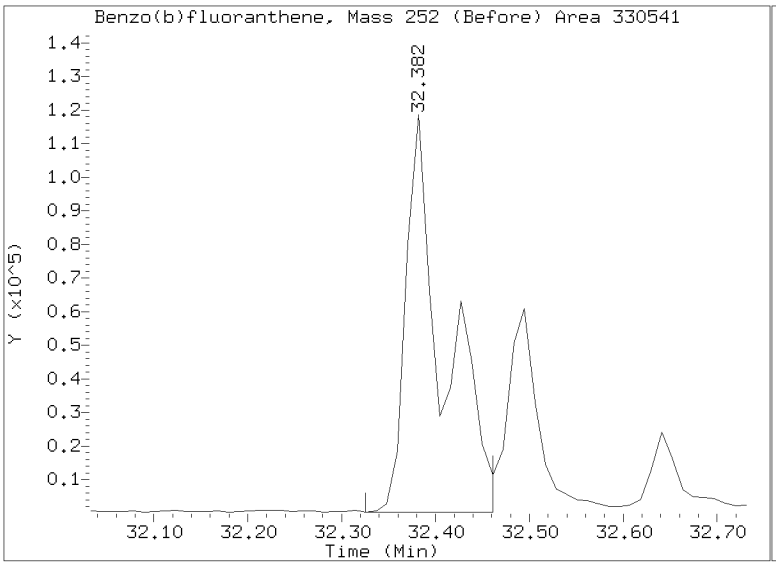



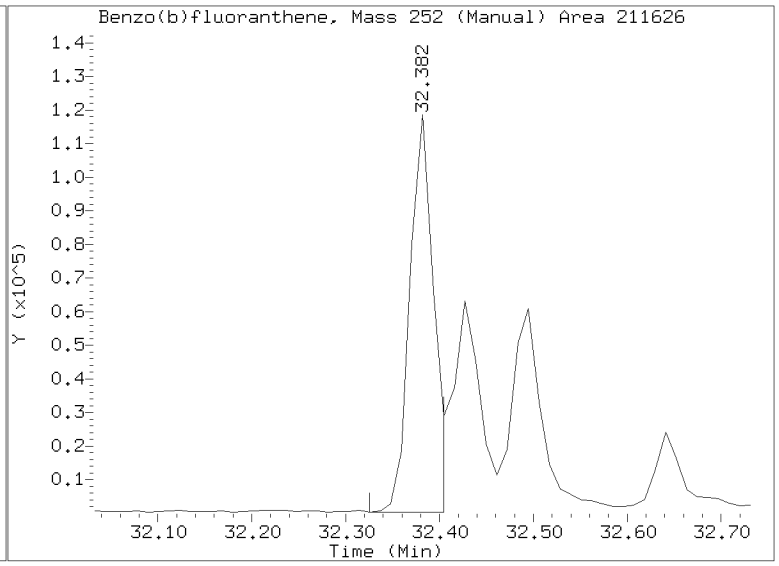



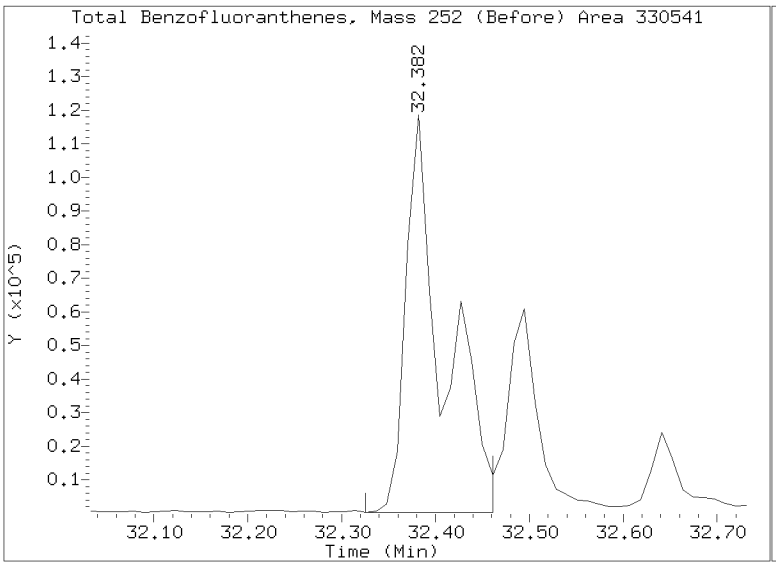



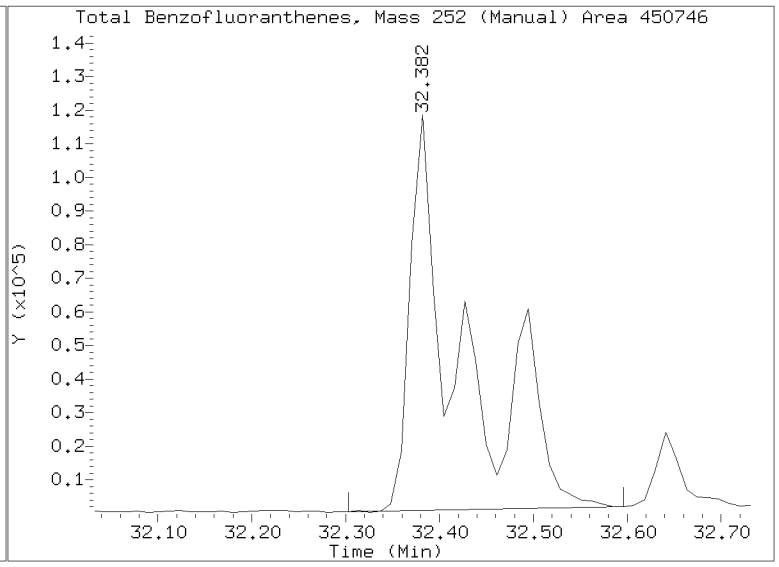
# Quant Ion Manual Peak Adjustment Report

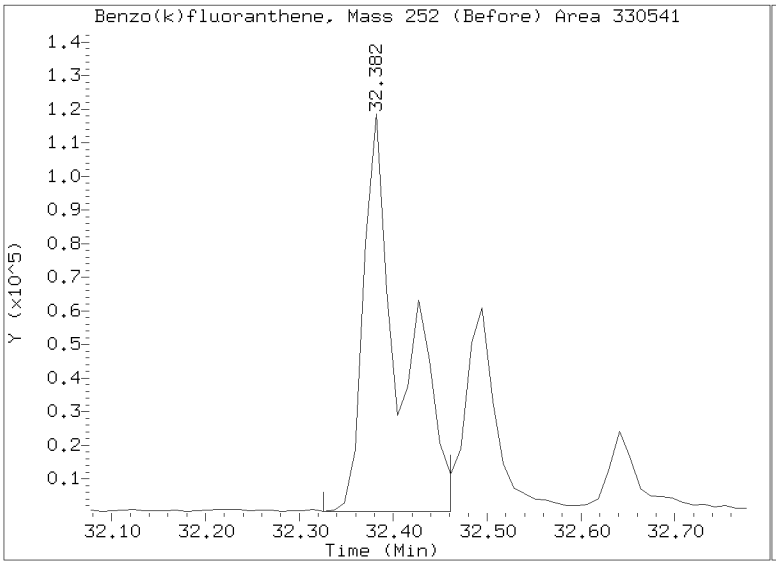
Datafile: //target/share/chem3/nt14.i/20210504.b/NT1421050404.D
Injection Date: 04-MAY-2021 15:19
Lab ID:21D0180-04 Client ID:
Report Date: 05/05/2021 12:34

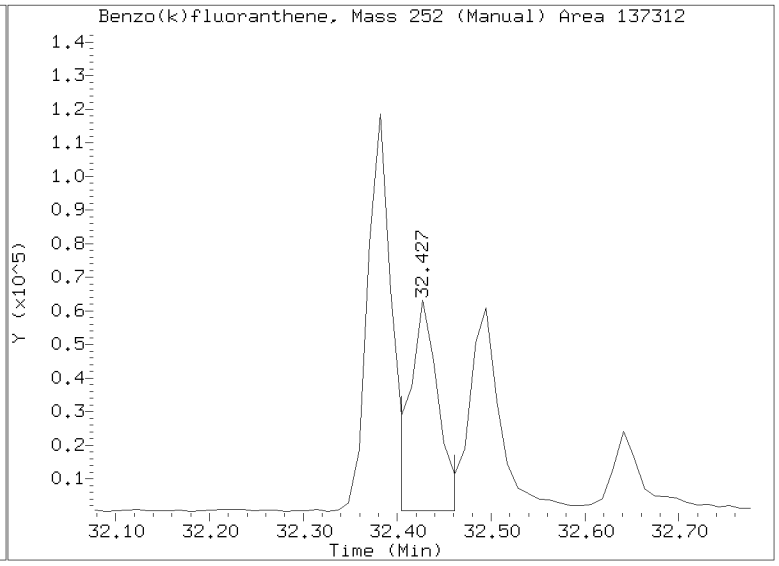


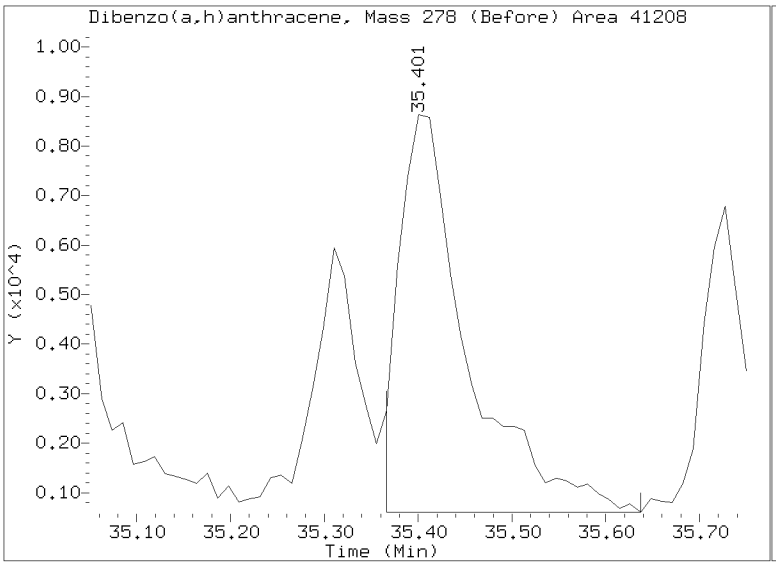



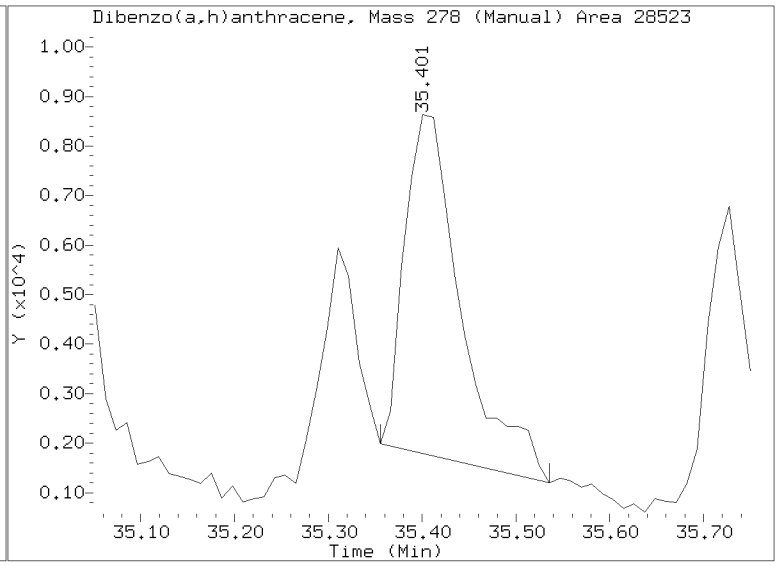



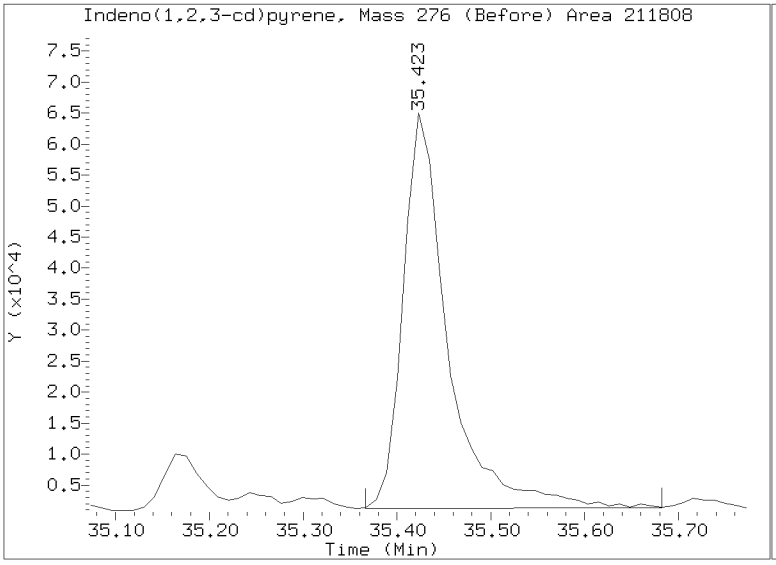



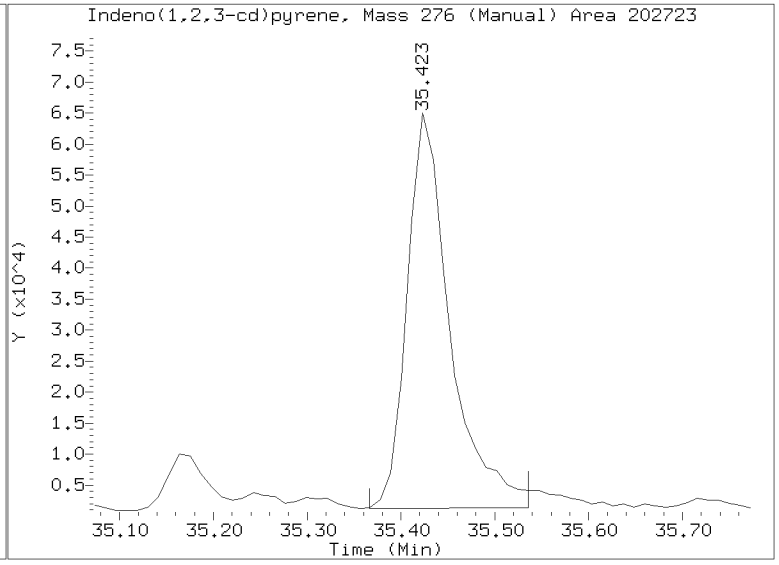
# Quant Ion Manual Peak Adjustment Report

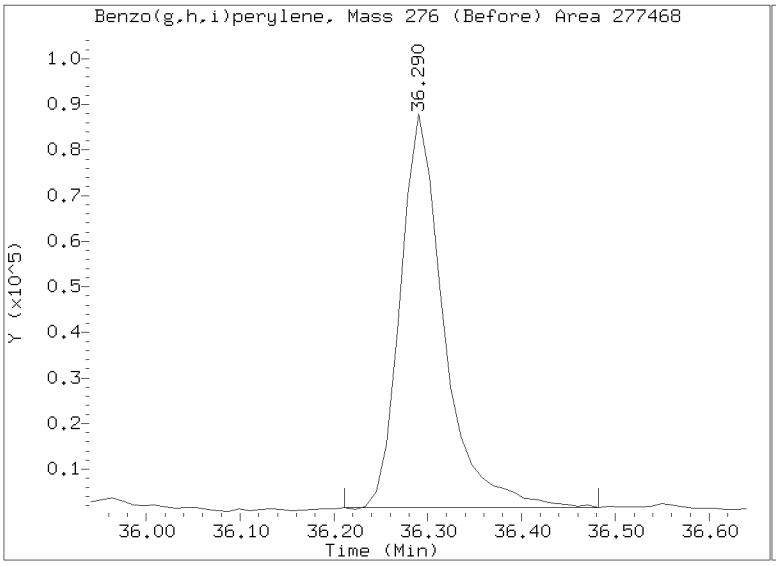
Datafile: //target/share/chem3/nt14.i/20210504.b/NT1421050404.D
Injection Date: 04-MAY-2021 15:19
Lab ID:21D0180-04 Client ID:
Report Date: 05/05/2021 12:34

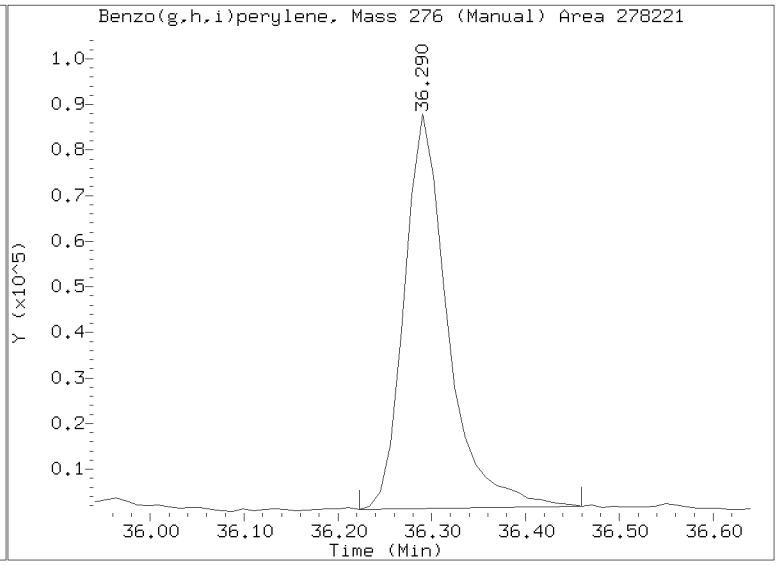


USMPDI-029SG-210414

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

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

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

USMPDI-029SG-210414

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

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

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

Data File: \\target\share\chem3\nt14.i\20210504.b\SIM.b\NT1421050404S.D

Page 1

Date : 04-MAY-2021 15:19

Client ID:

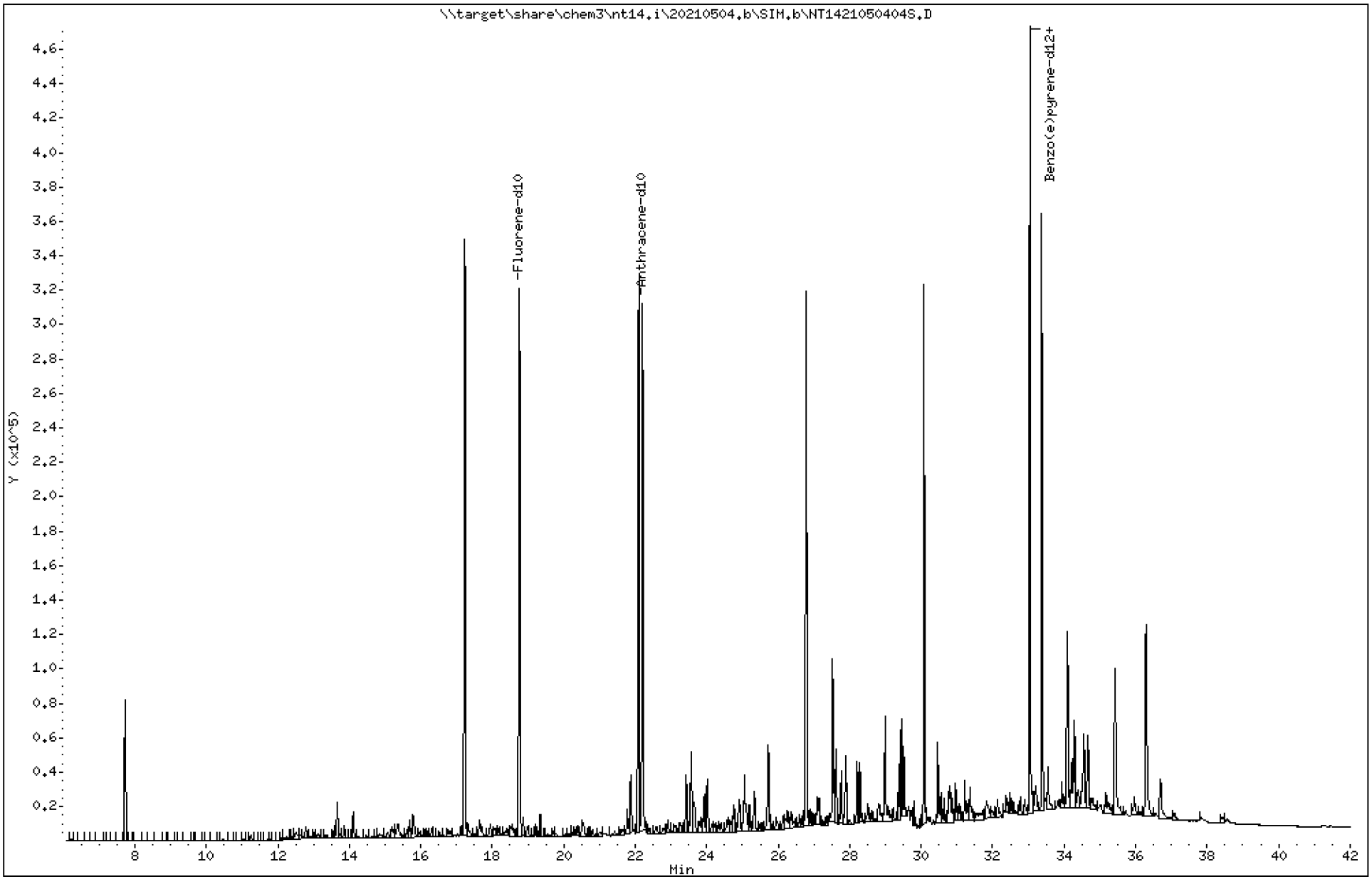
Instrument: nt14.i

Sample Info: 21D0180-04

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

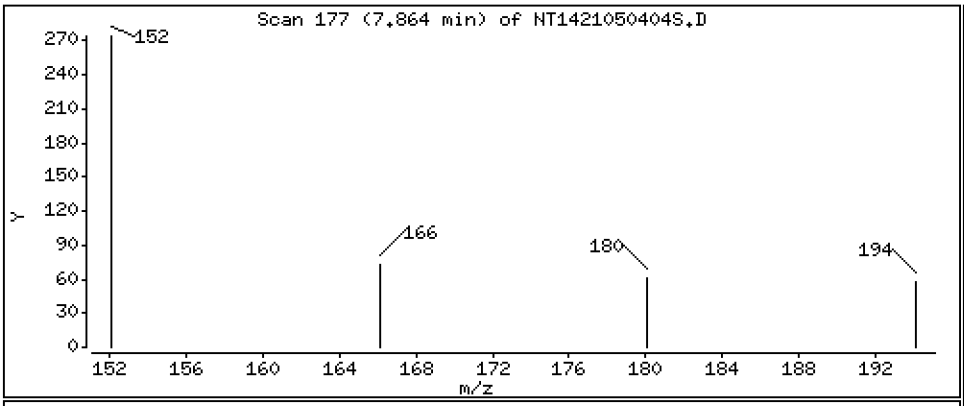
Operator: VTS

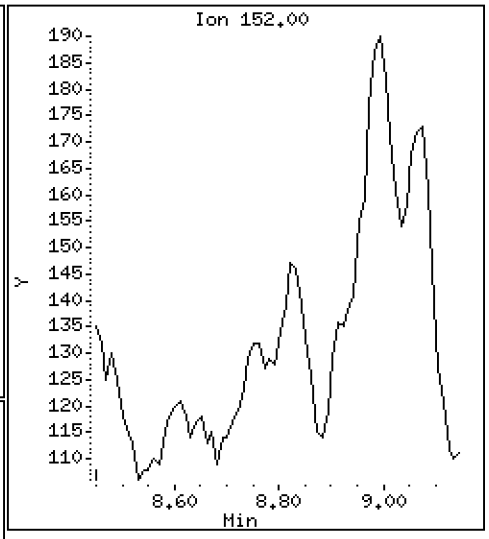
Column phase: Rxi-17Sil MS

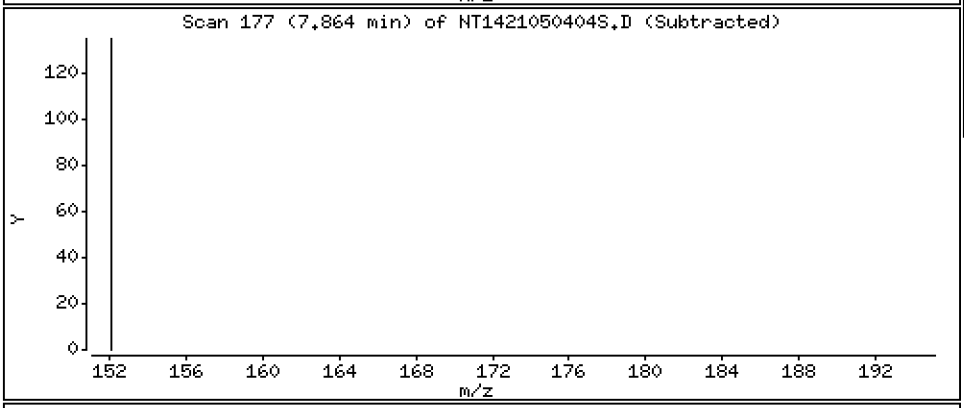
Column diameter: 0.25

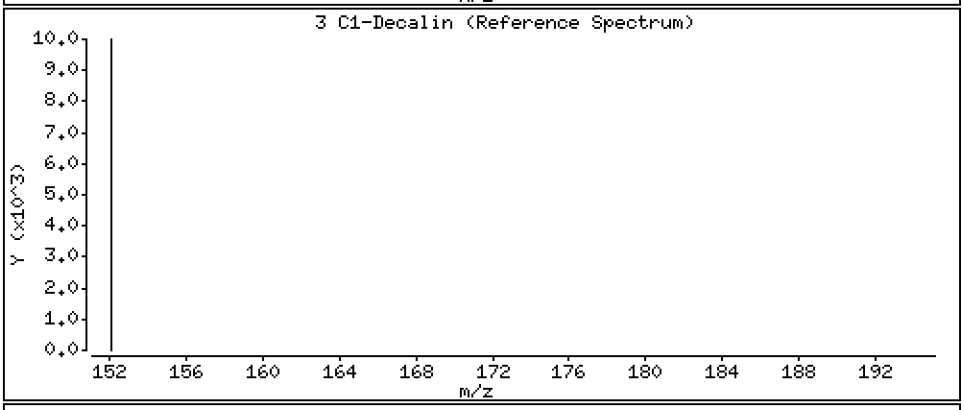
3 C1-Decalin

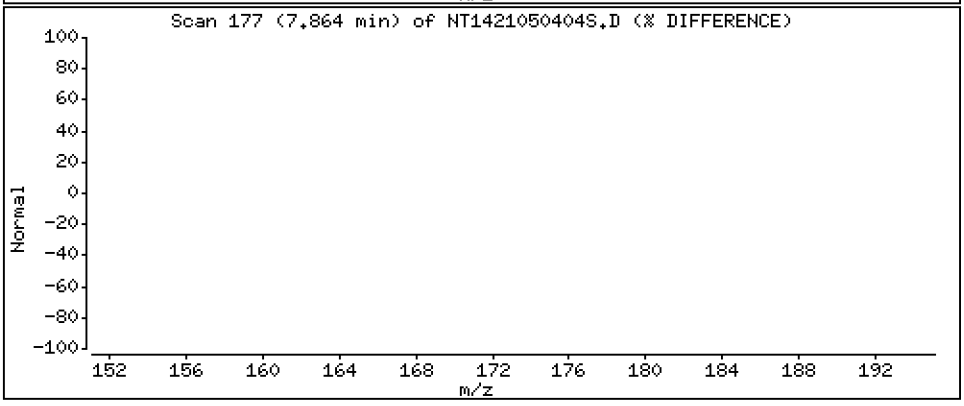
Concentration: 0.04985 ug/mL



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

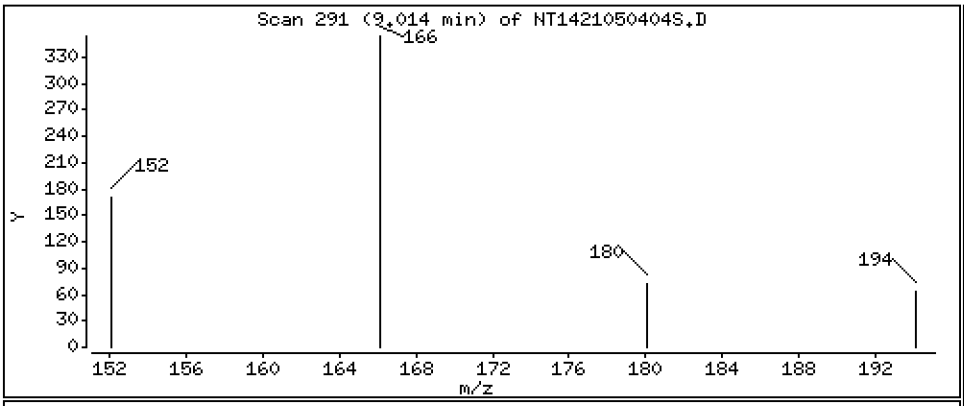
Operator: VTS

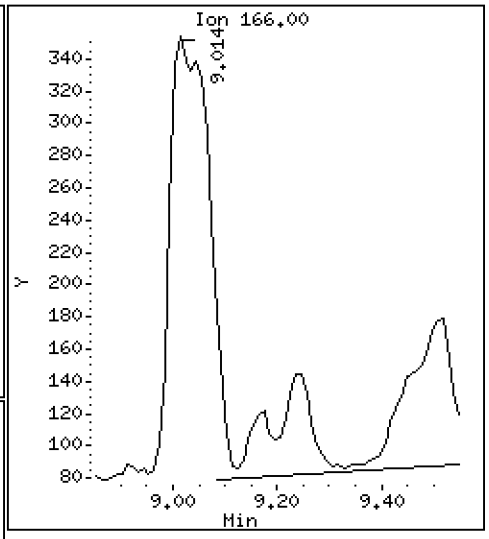
Column phase: Rxi-17Sil MS

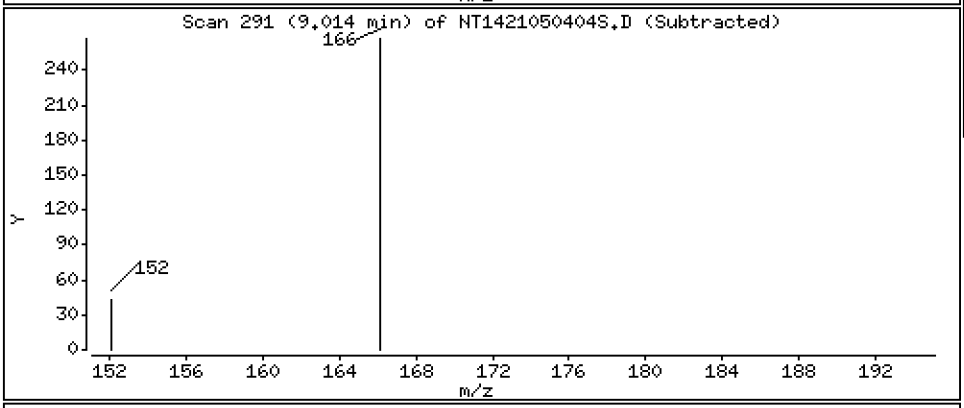
Column diameter: 0.25

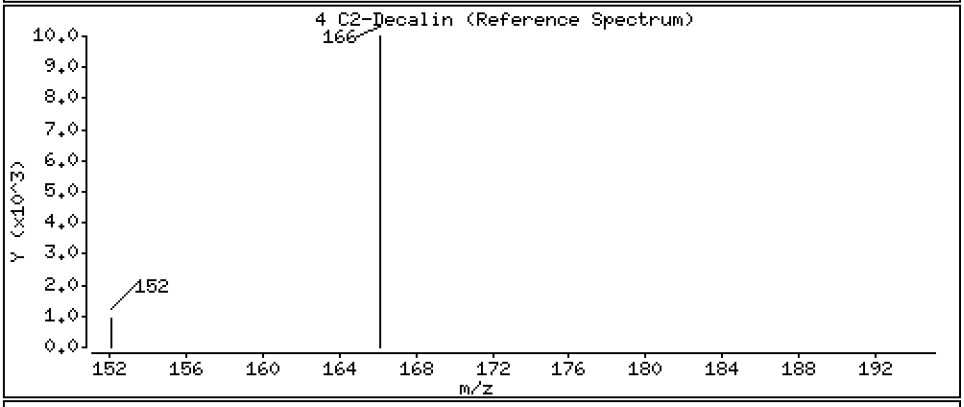
4 C2-Decalin

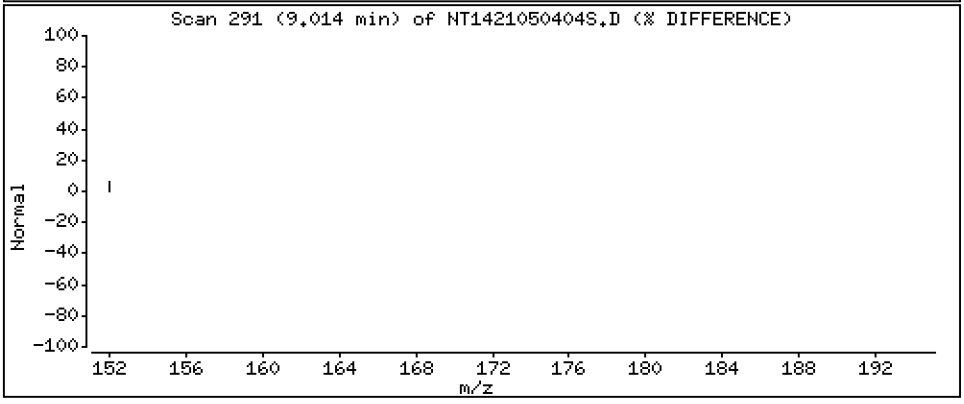
Concentration: 0.1964 ug/mL



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

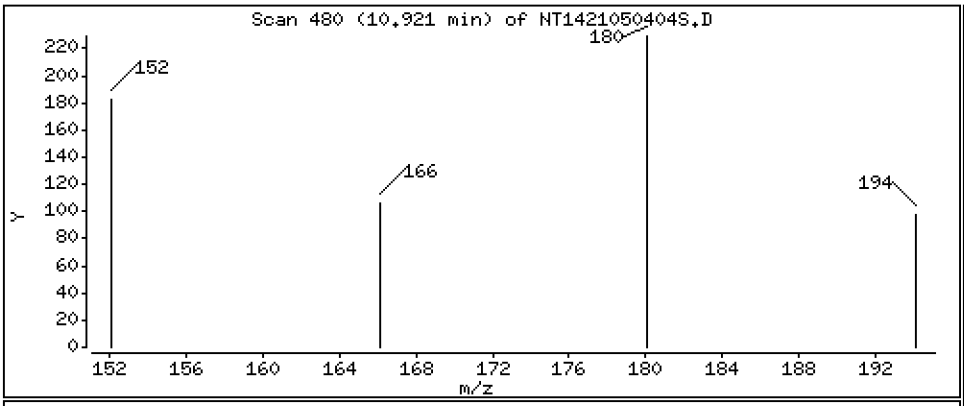
Operator: VTS

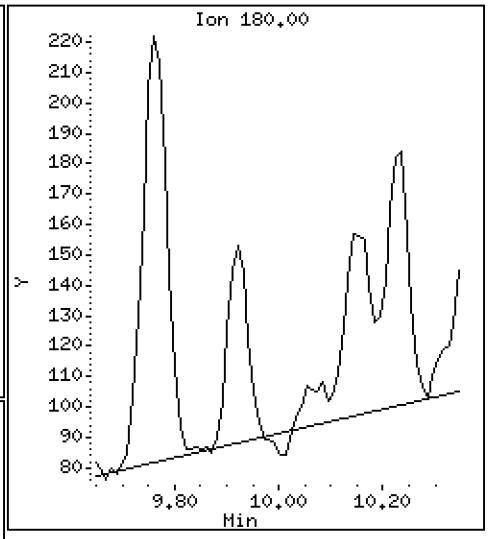
Column phase: Rxi-17Sil MS

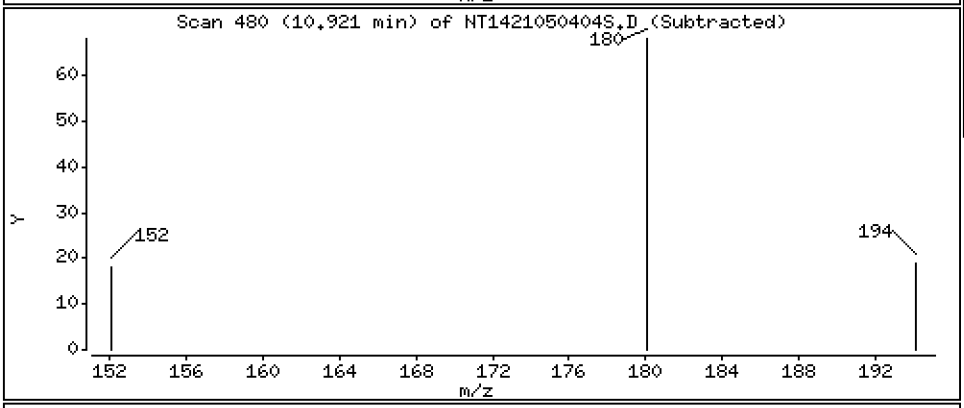
Column diameter: 0.25

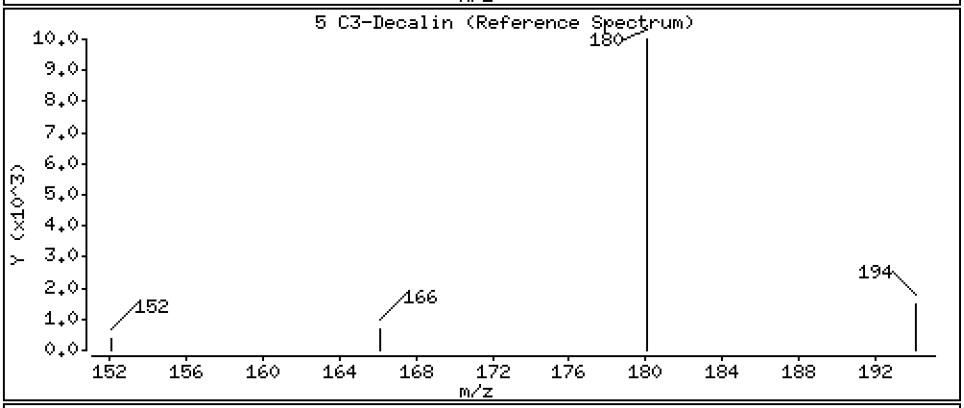
5 C3-Decalin

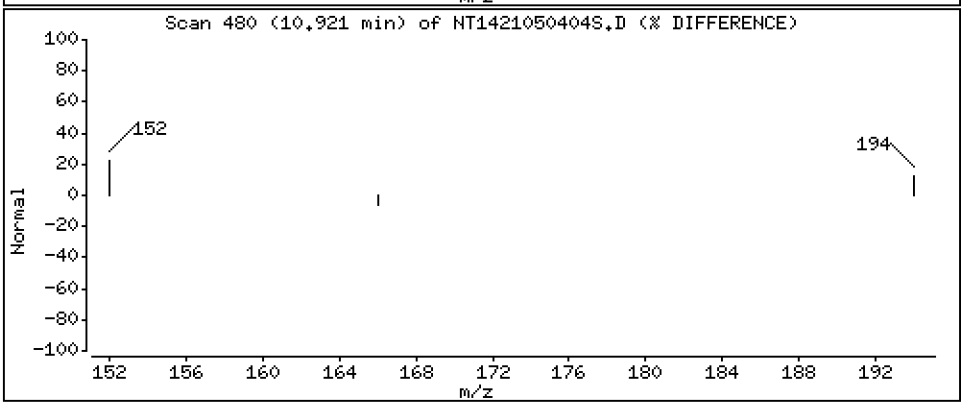
Concentration: 0.1052 ug/mL



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

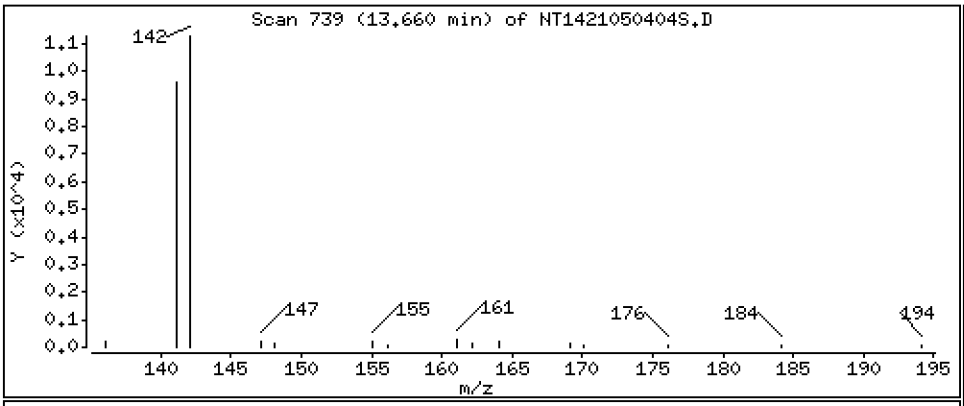
Operator: VTS

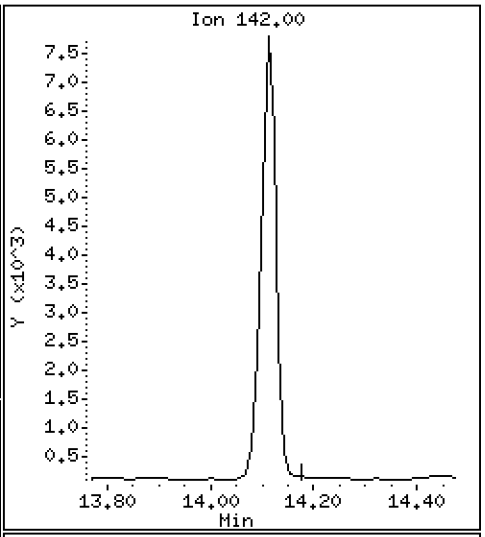
Column phase: Rxi-17Sil MS

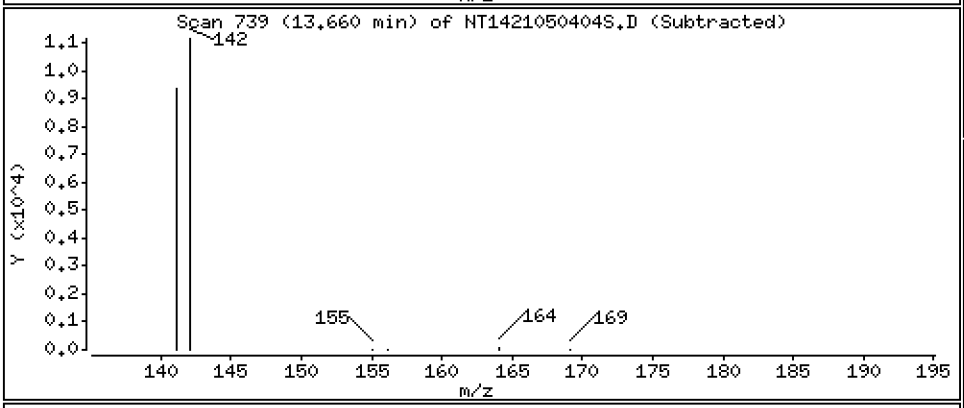
Column diameter: 0.25

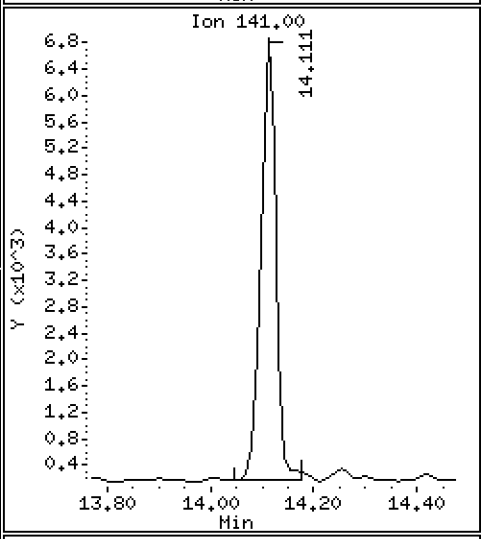
8 C1-Naphthalenes

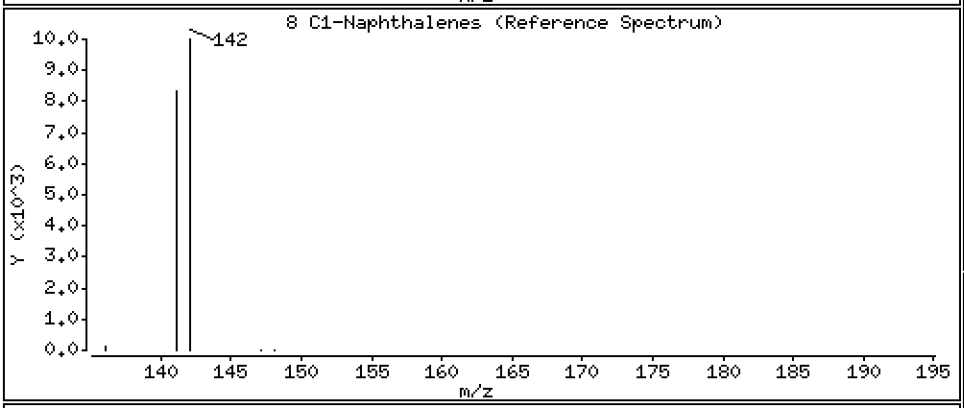
Concentration: 0.1243 ug/mL

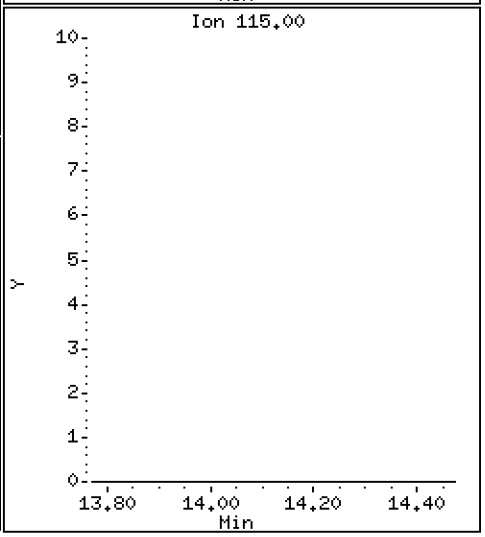


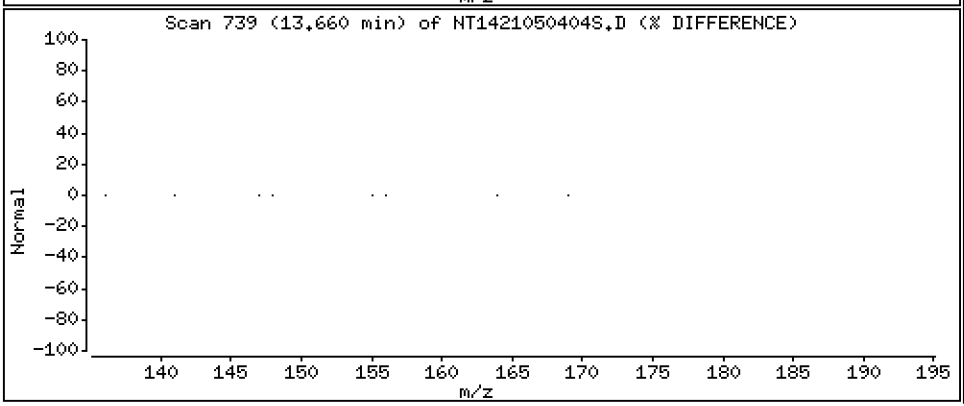



Data File: \\target\share\chem3\nt14.i\20210504.b\SIM.b\NT1421050404S.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

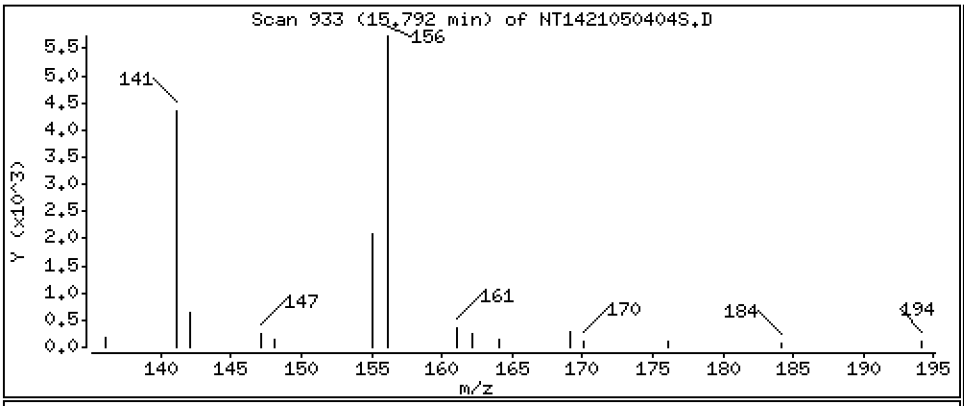
Operator: VTS

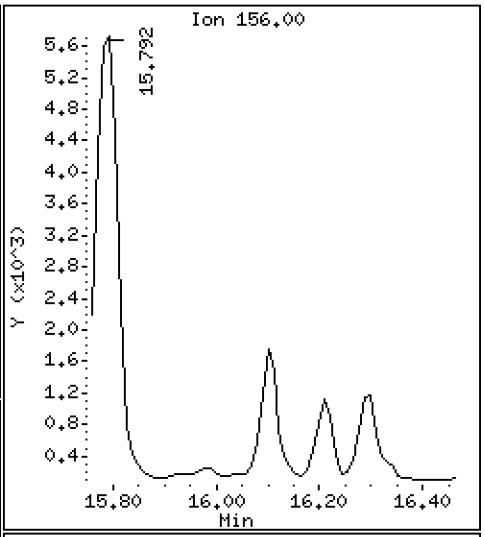
Column phase: Rxi-17Sil MS

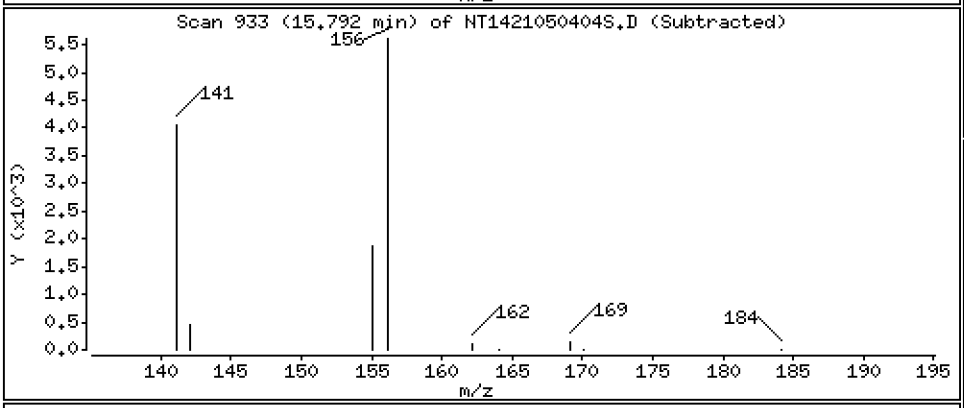
Column diameter: 0.25

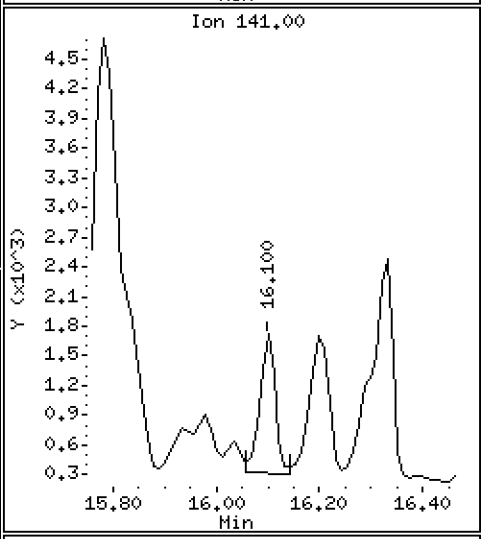
9 C2-Naphthalenes

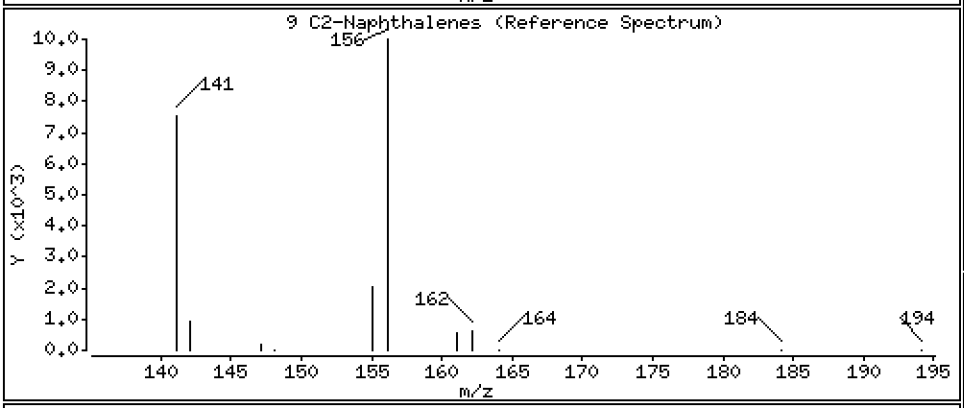
Concentration: 0.1820 ug/mL

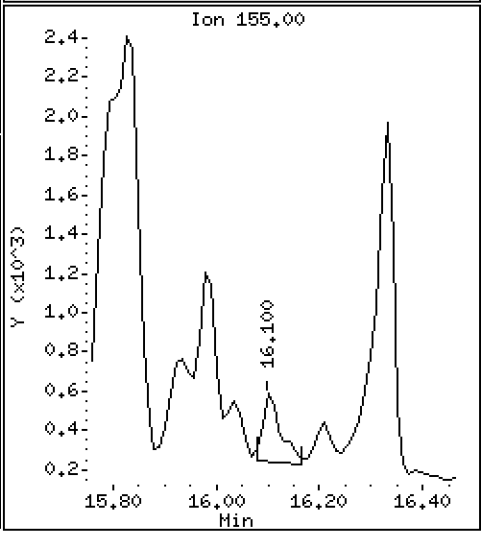


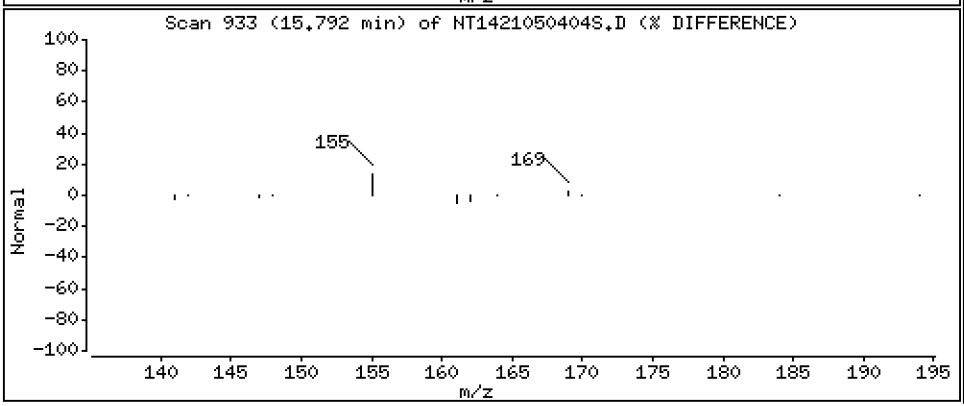



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

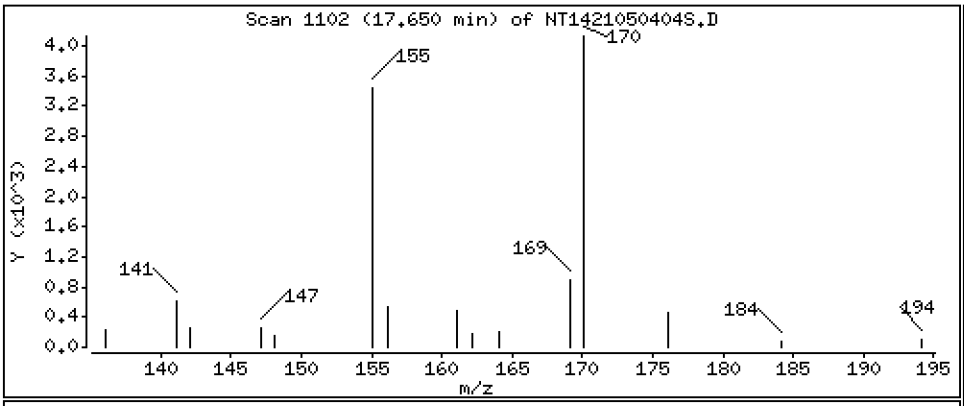
Operator: VTS

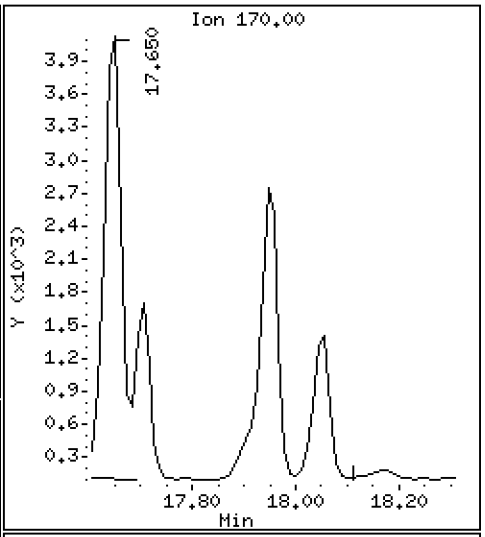
Column phase: Rxi-17Sil MS

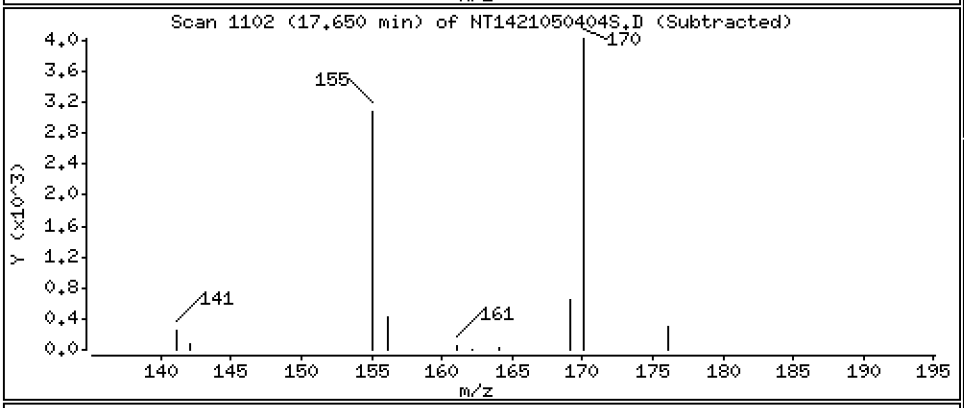
Column diameter: 0.25

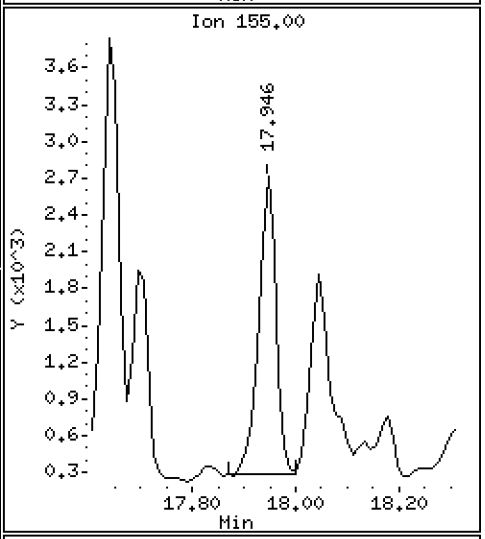
10 C3-Naphthalenes

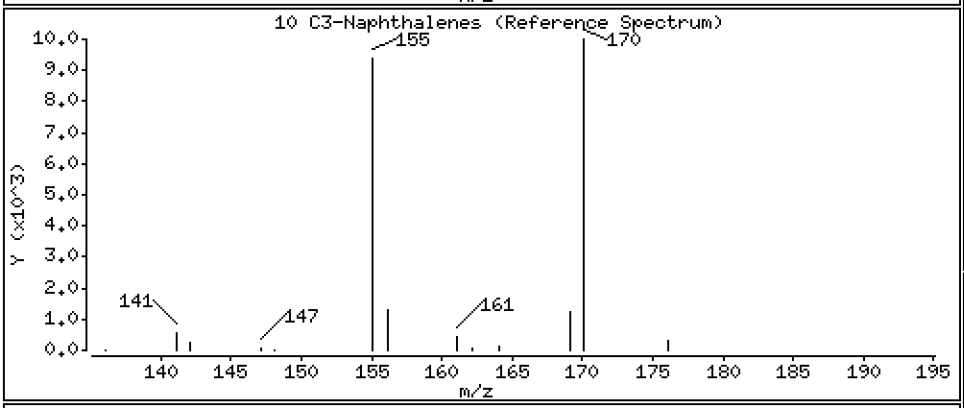
Concentration: 0.1187 ug/mL

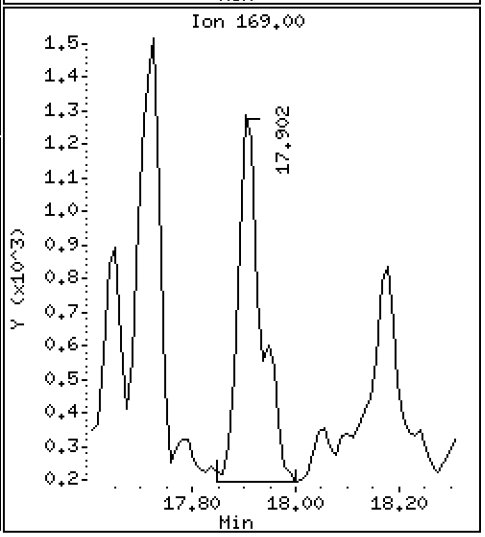


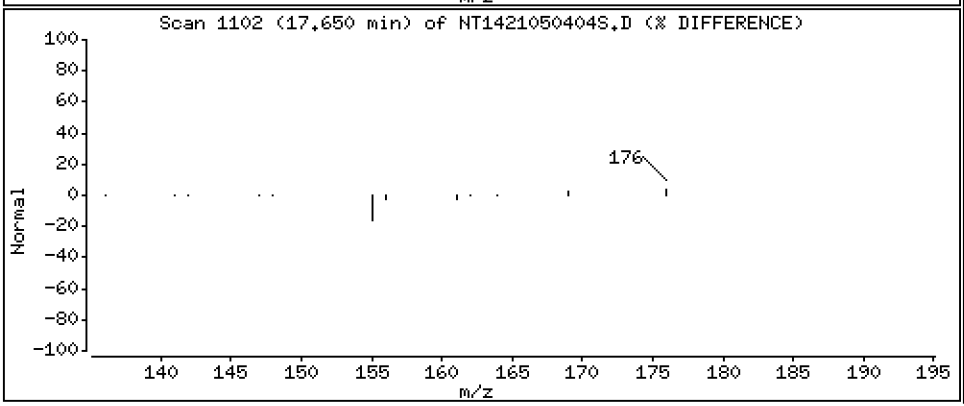



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

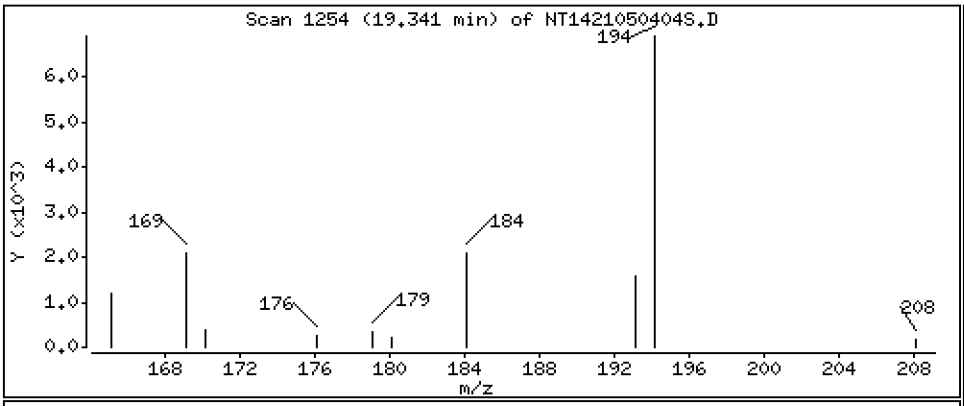
Operator: VTS

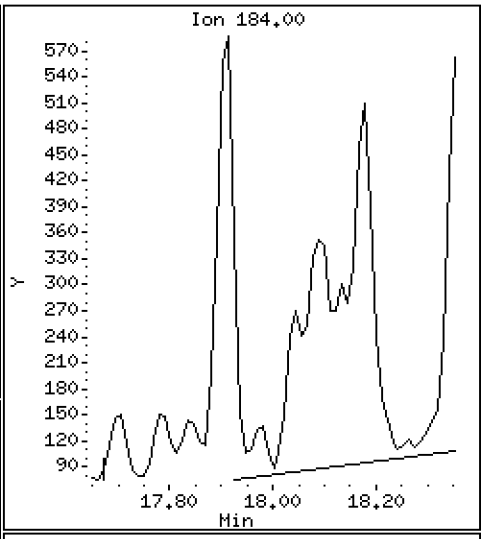
Column phase: Rxi-17Sil MS

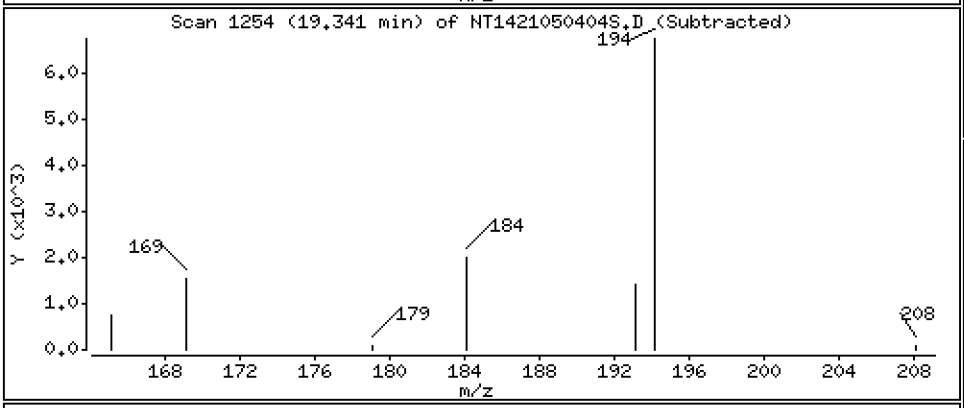
Column diameter: 0.25

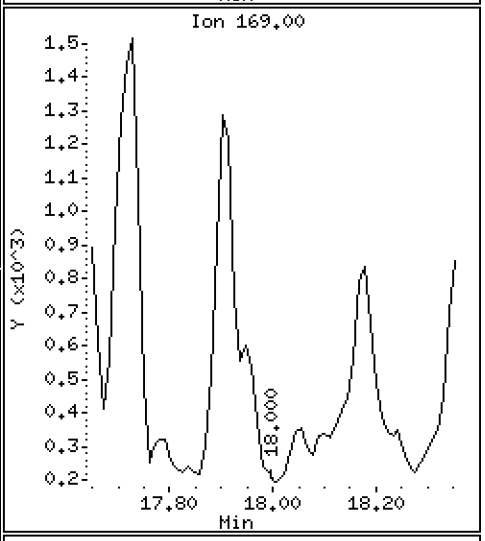
11 C4-Naphthalenes

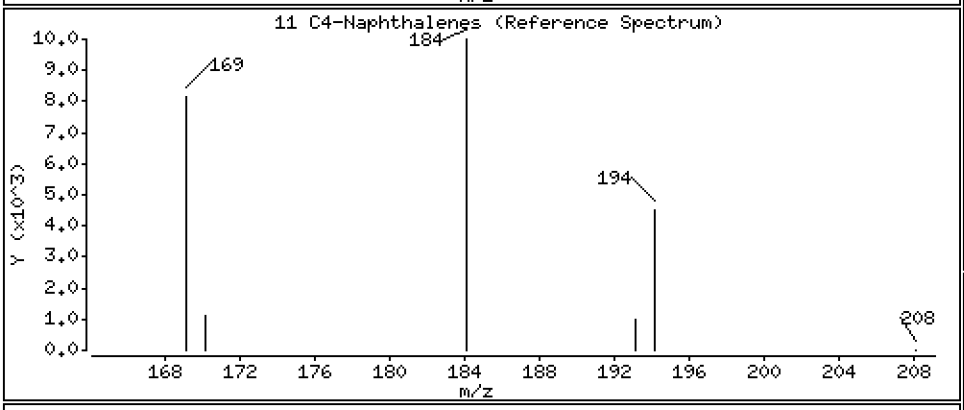
Concentration: 0.1218 ug/mL

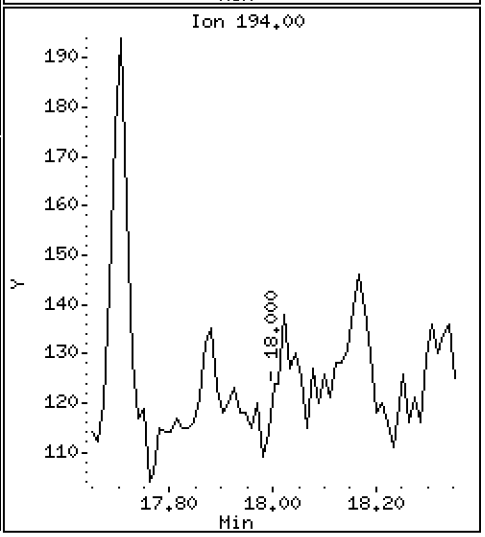


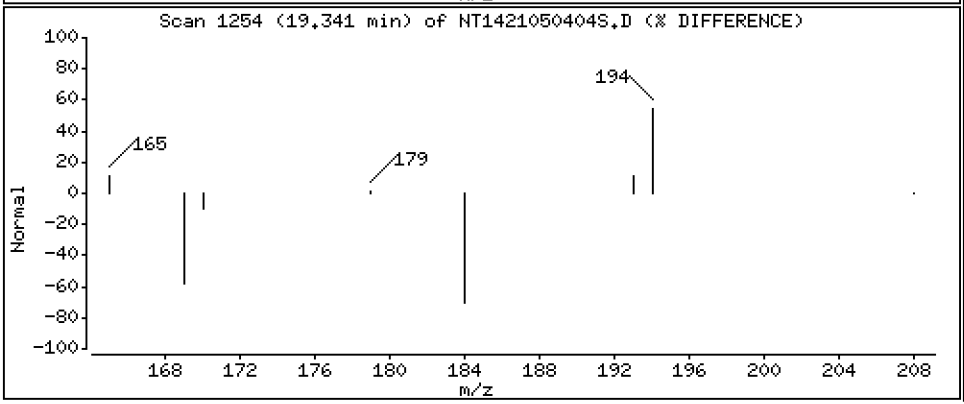



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

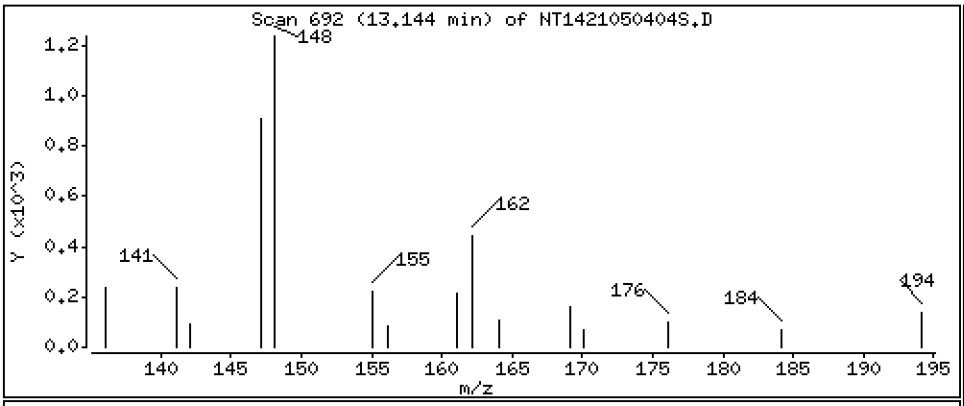
Operator: VTS

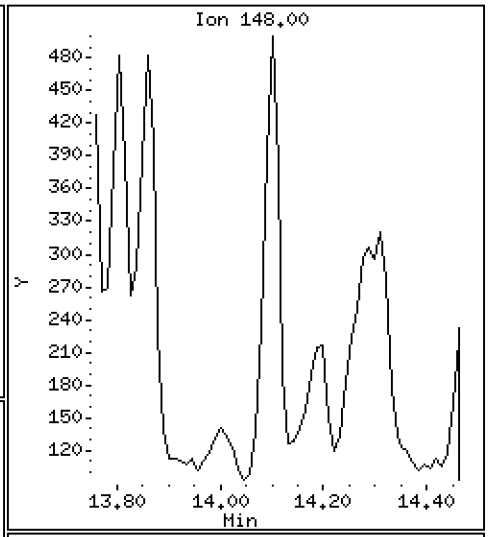
Column phase: Rxi-17Sil MS

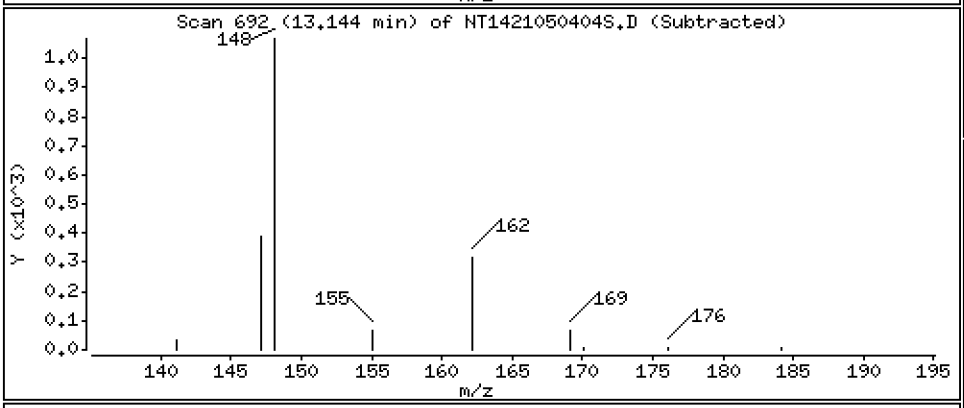
Column diameter: 0.25

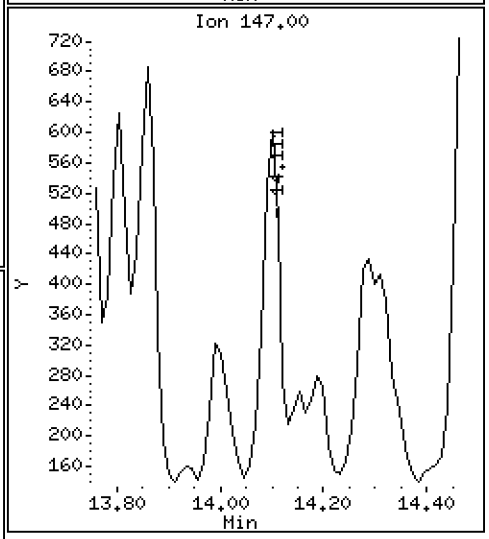
13 C1-Benzothiophenes

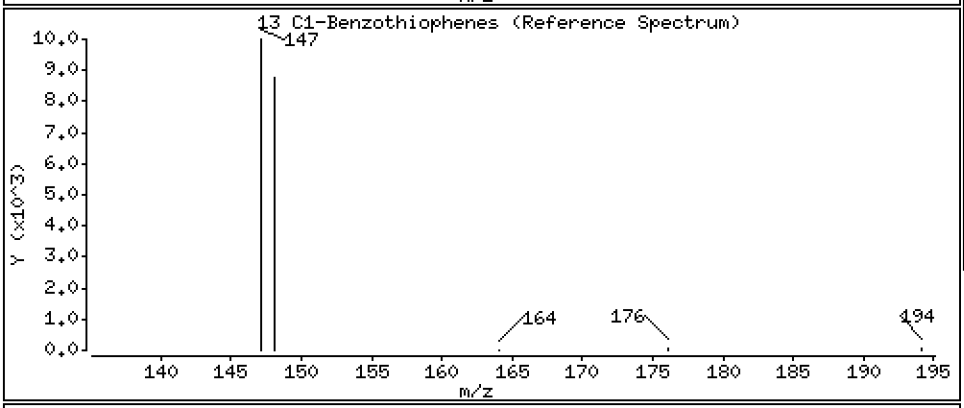
Concentration: 0.04842 ug/mL

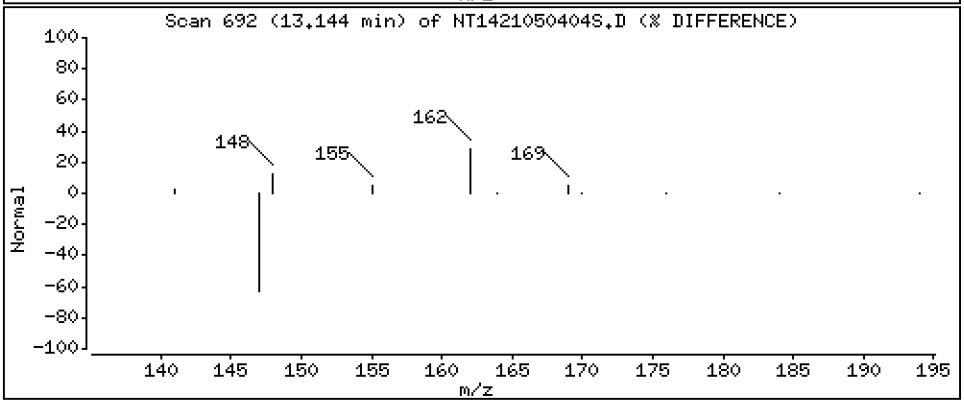


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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

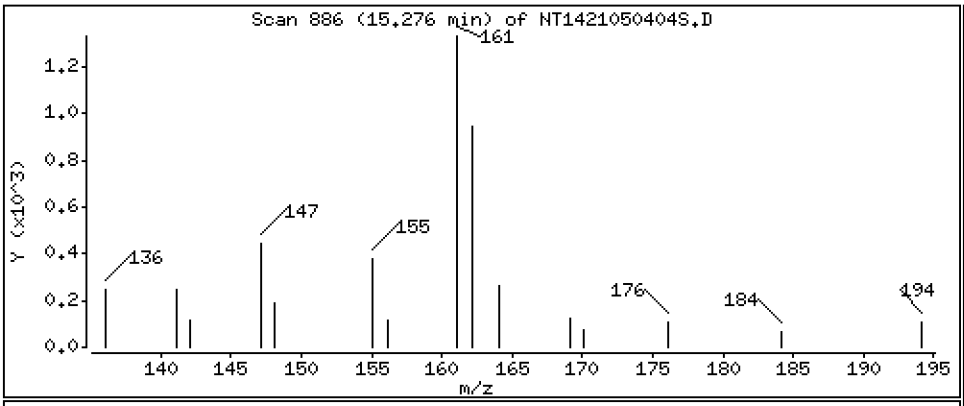
Operator: VTS

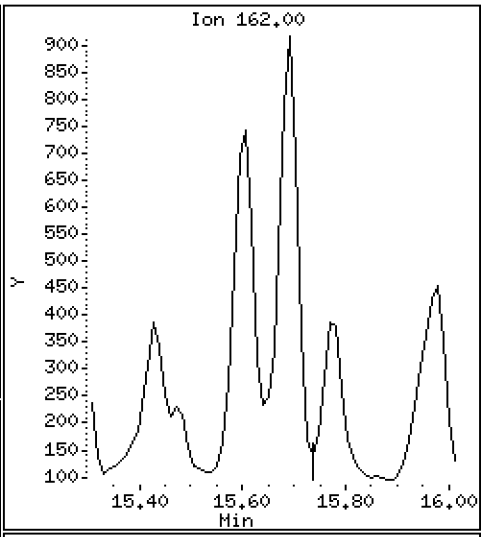
Column phase: Rxi-17Sil MS

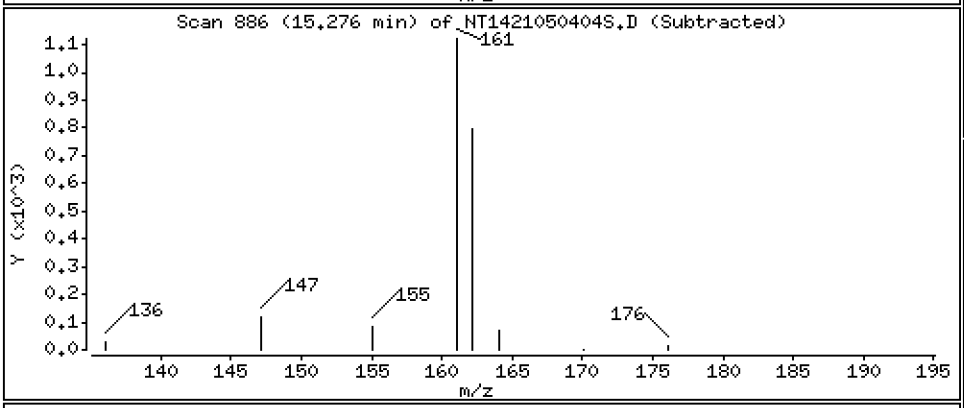
Column diameter: 0.25

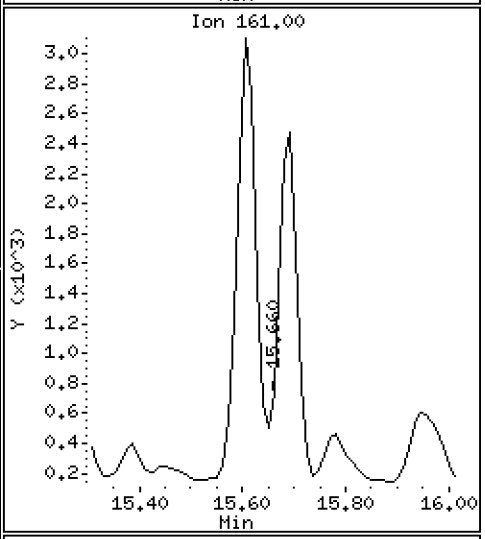
14 C2-Benzothiophenes

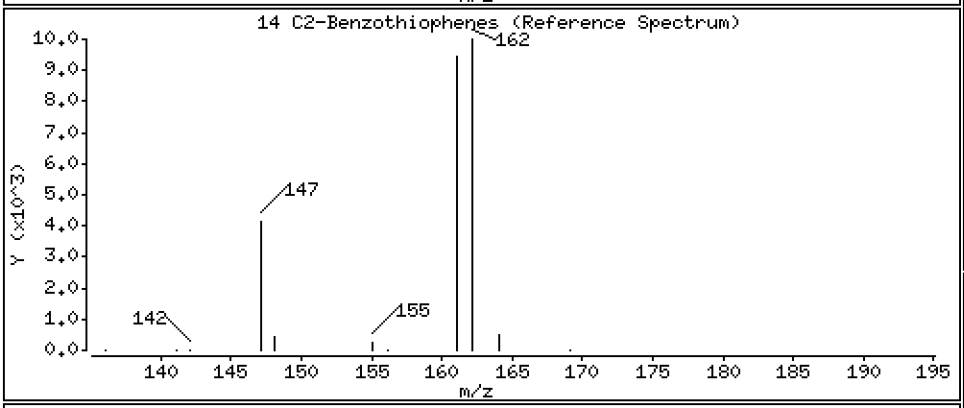
Concentration: 0.04359 ug/mL

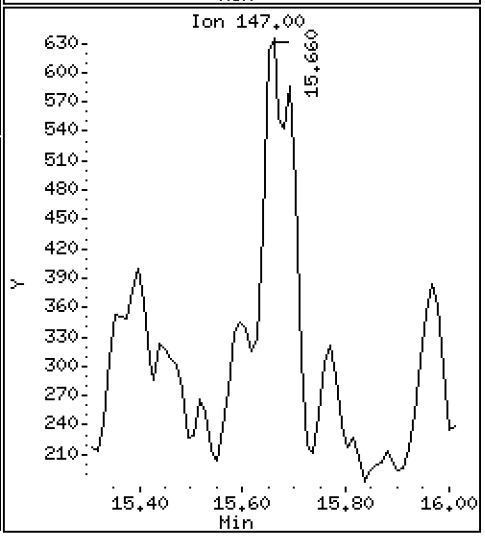


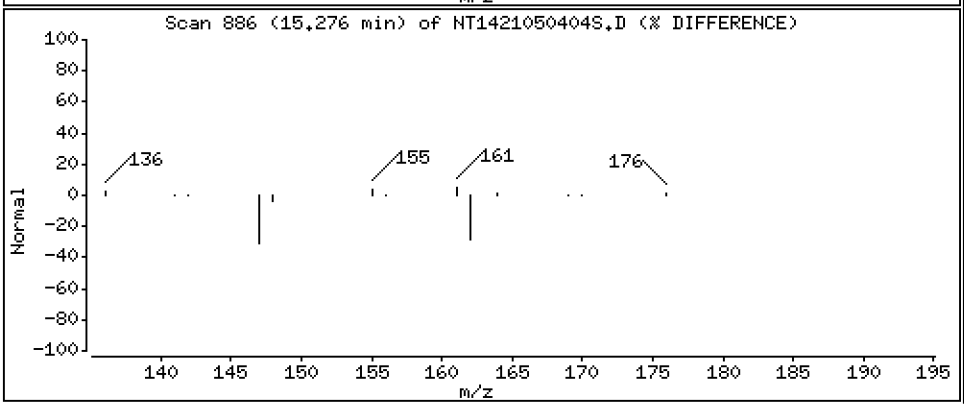



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

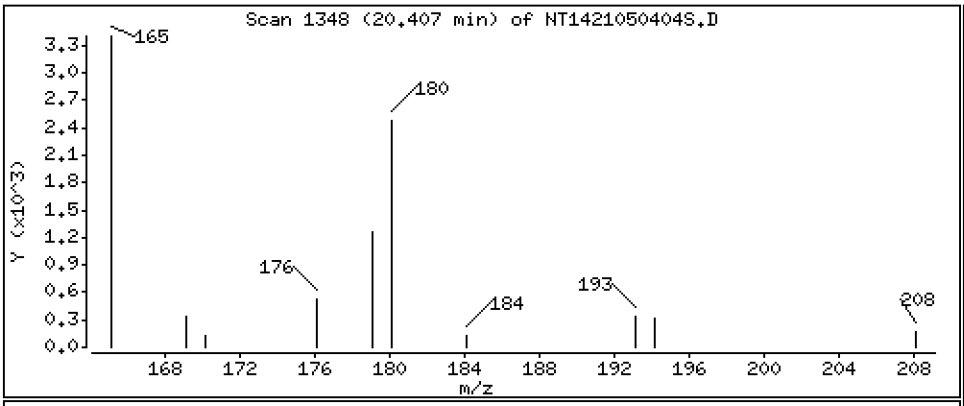
Operator: VTS

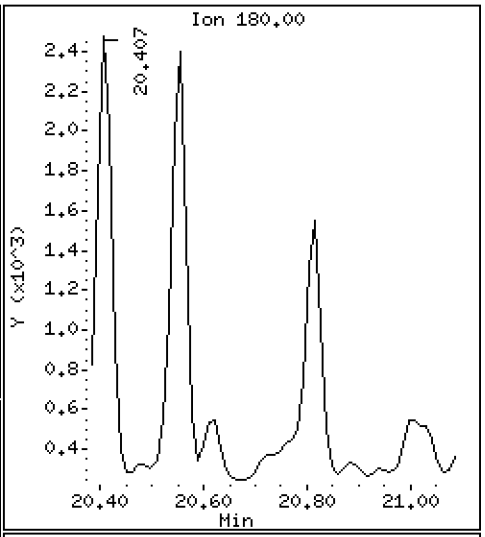
Column phase: Rxi-17Sil MS

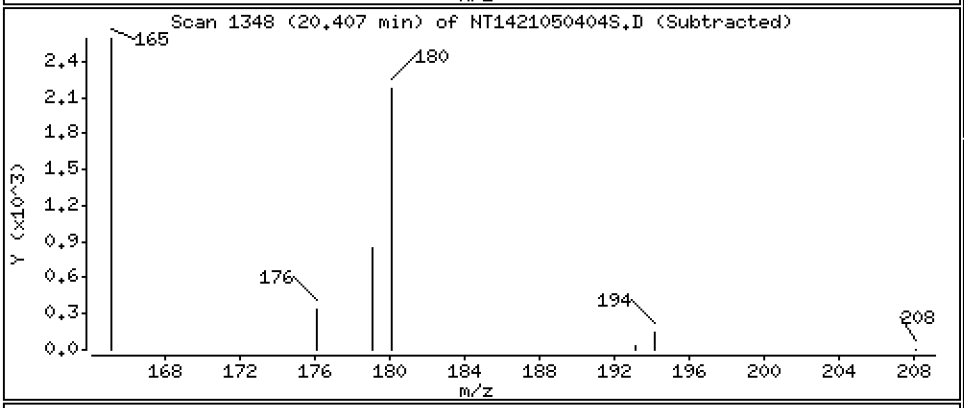
Column diameter: 0.25

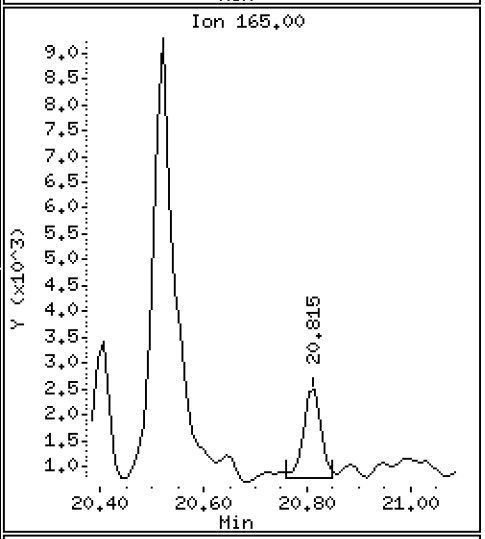
27 C1-Fluorenes

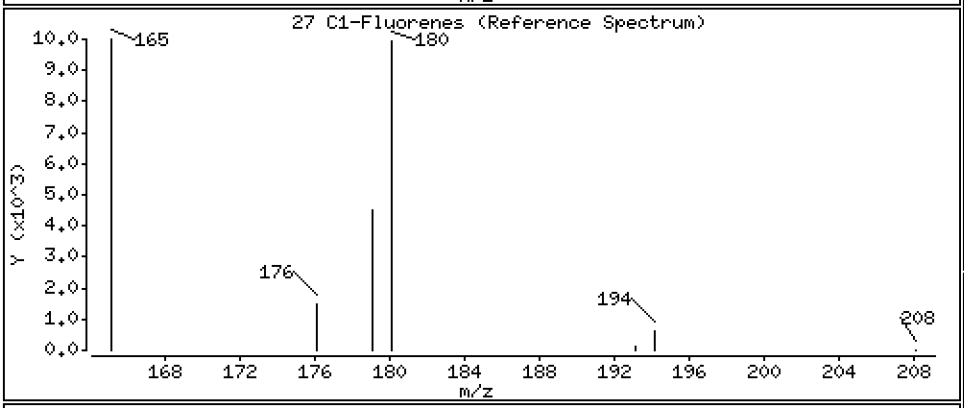
Concentration: 0.1157 ug/mL

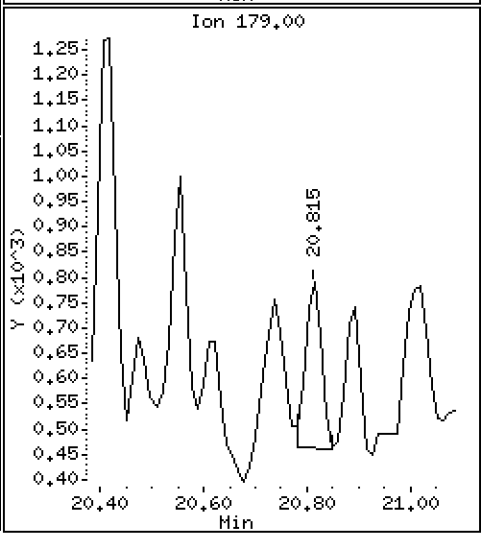


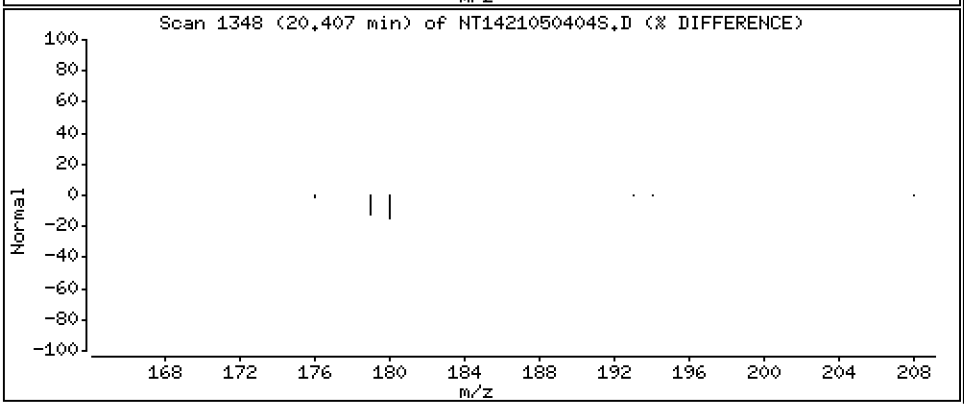



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

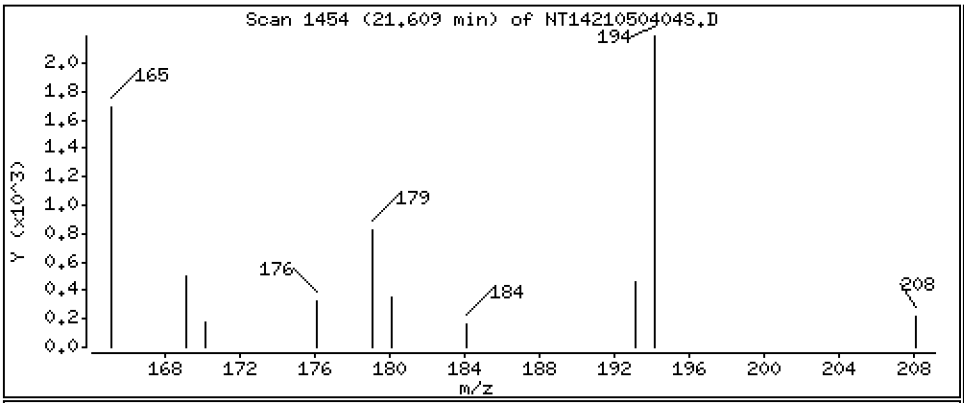
Operator: VTS

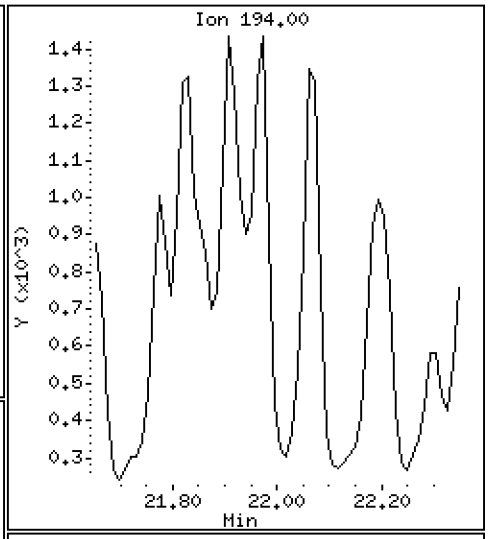
Column phase: Rxi-17Sil MS

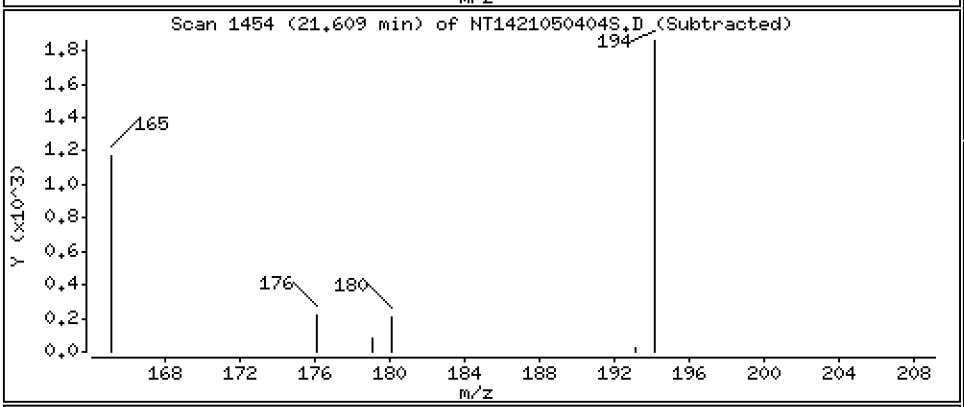
Column diameter: 0.25

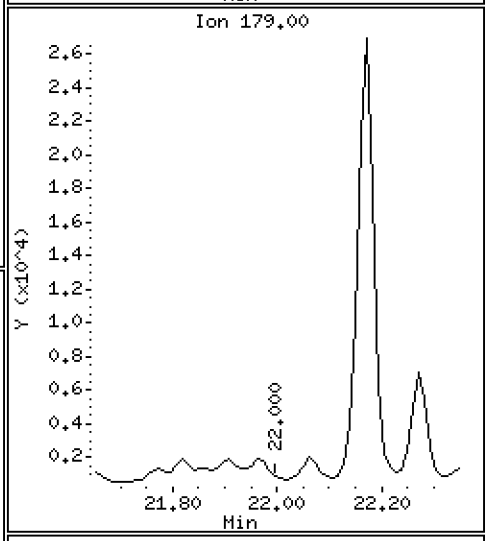
28 C2-Fluorenes

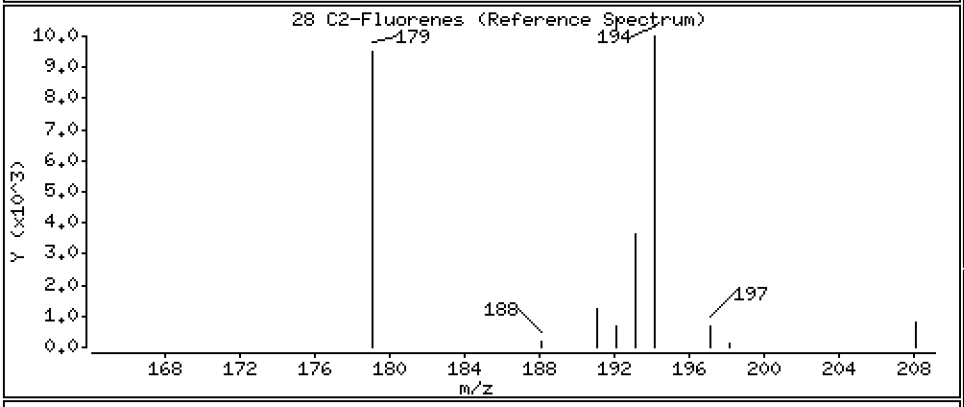
Concentration: 0.1663 ug/mL

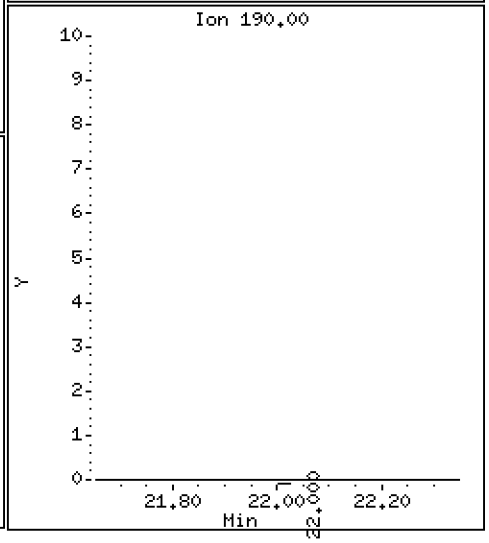


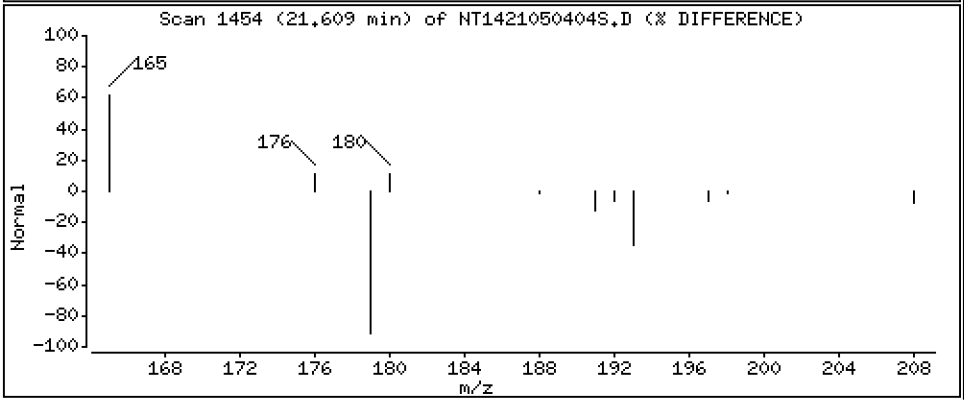



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

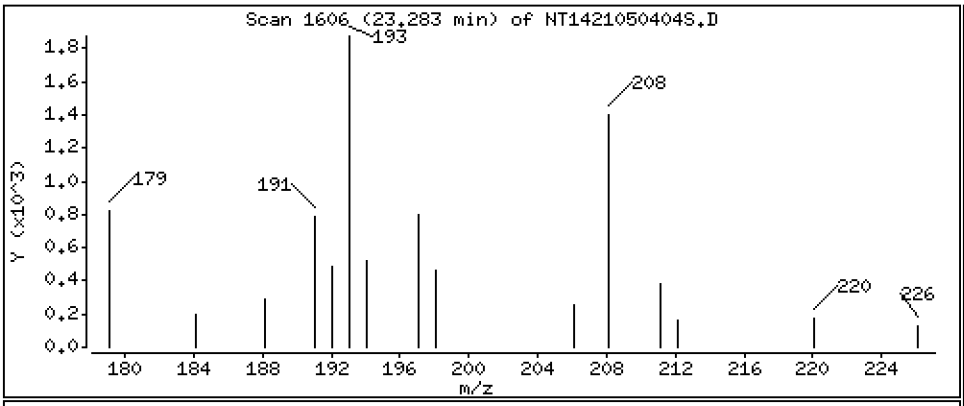
Operator: VTS

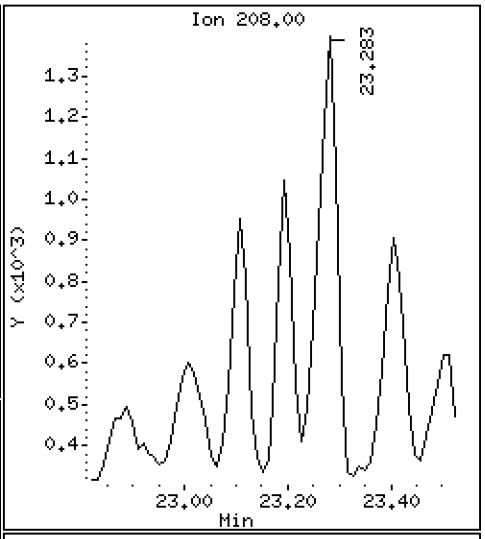
Column phase: Rxi-17Sil MS

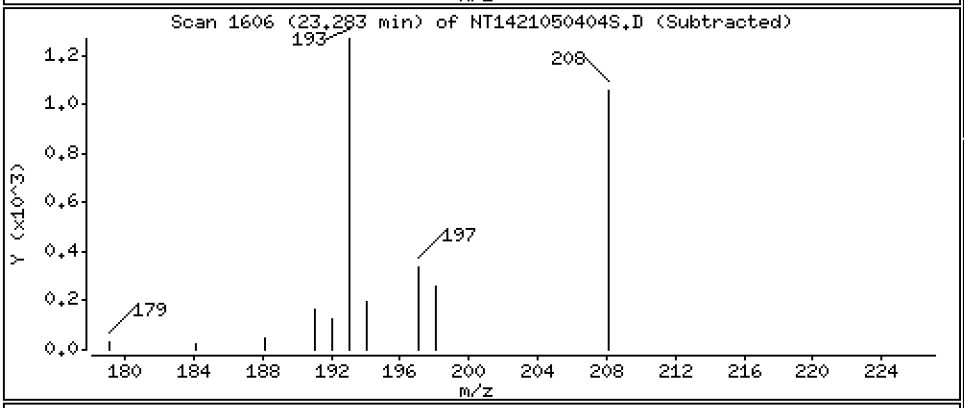
Column diameter: 0.25

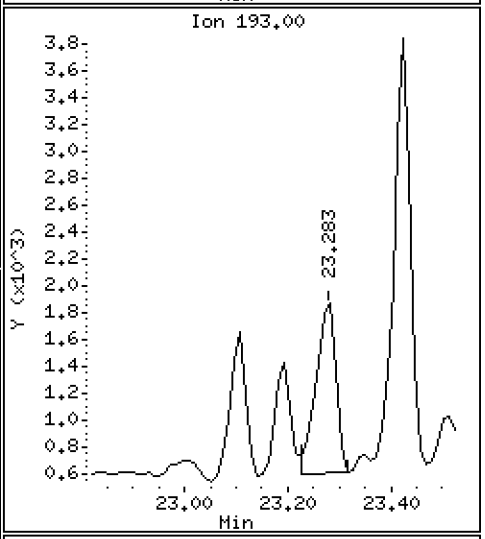
29 C3-Fluorenes

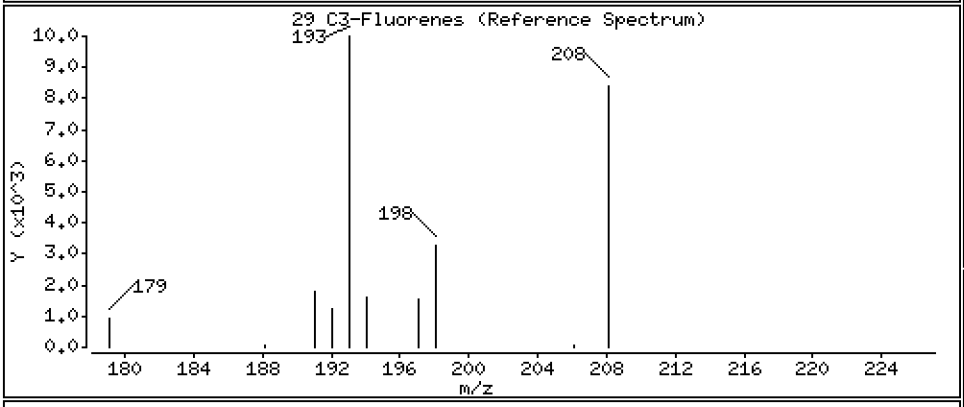
Concentration: 0.1435 ug/mL

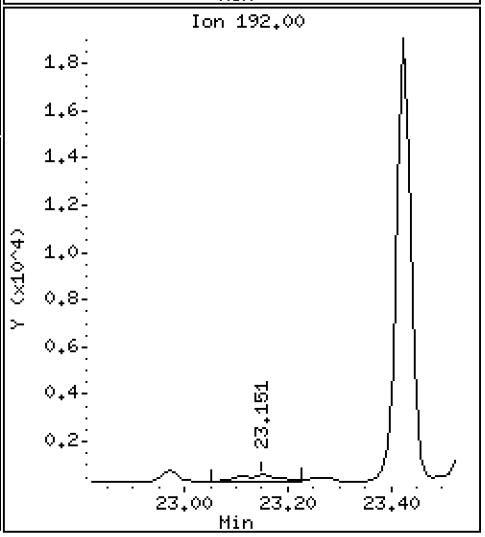


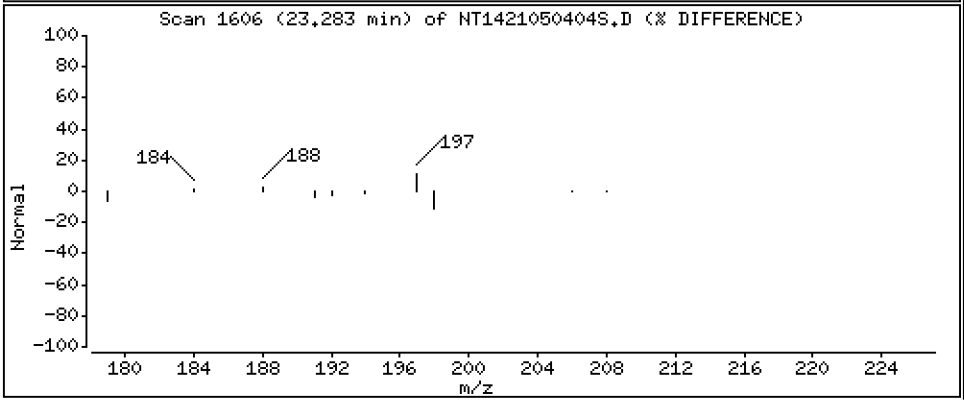



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

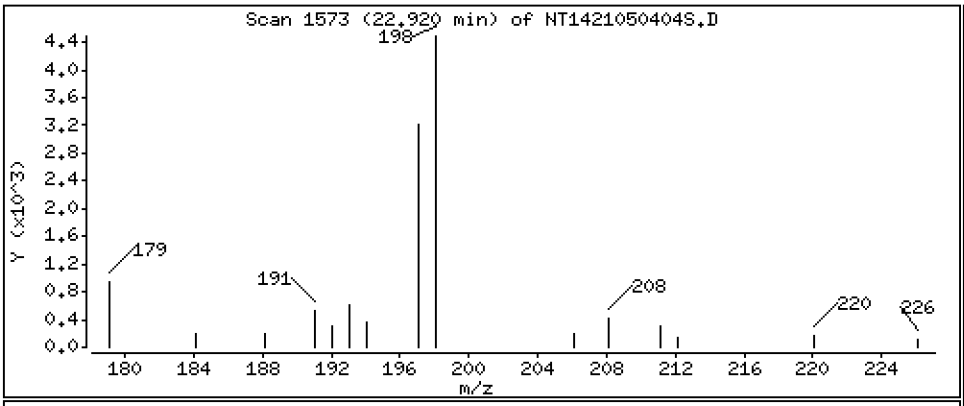
Operator: VTS

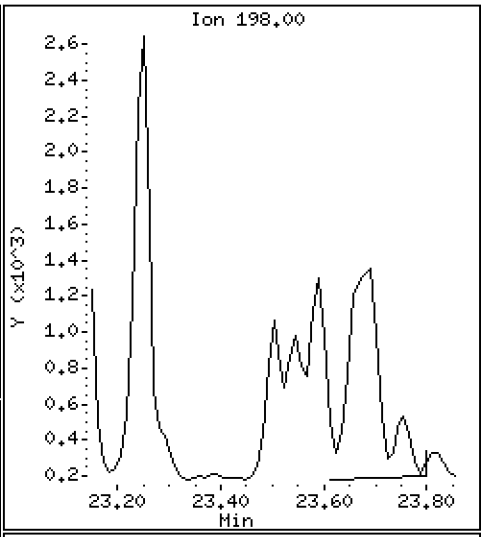
Column phase: Rxi-17Sil MS

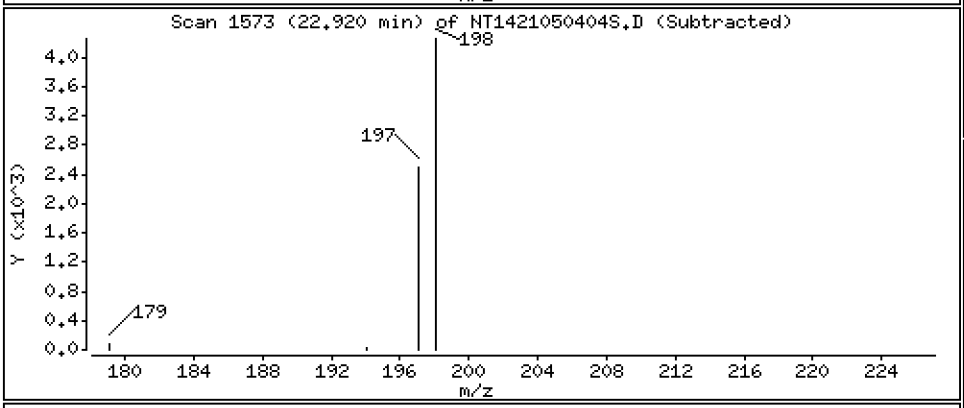
Column diameter: 0.25

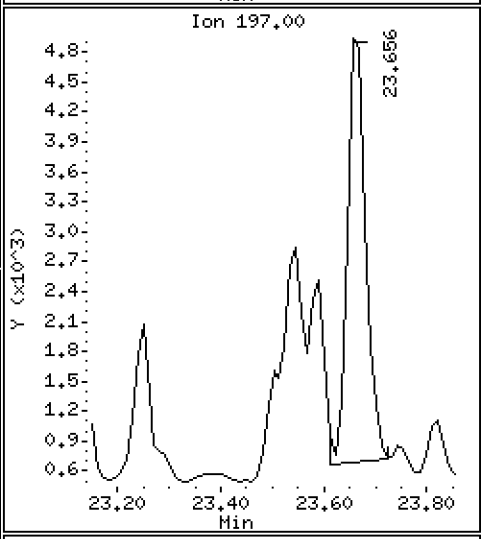
31 C1-Dibenzothiophenes

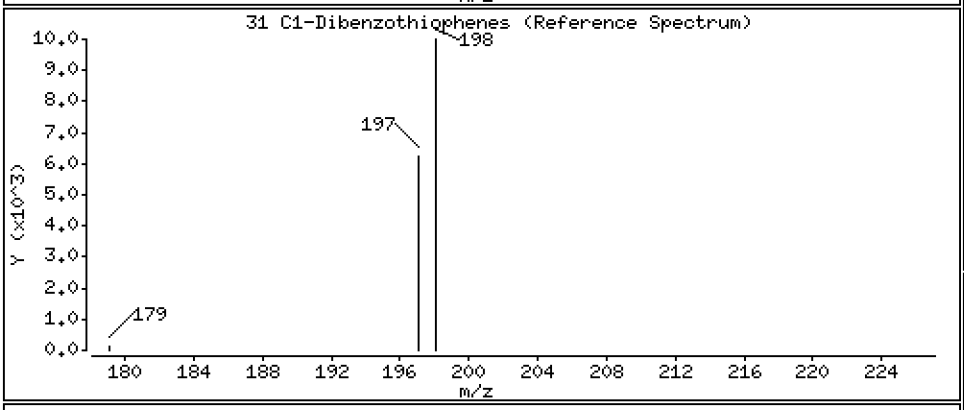
Concentration: 0.1250 ug/mL

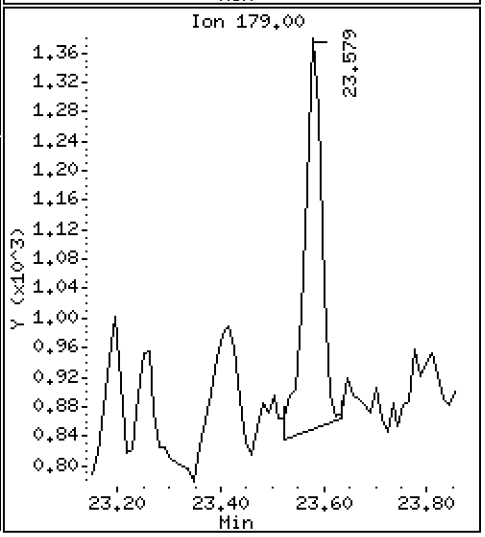


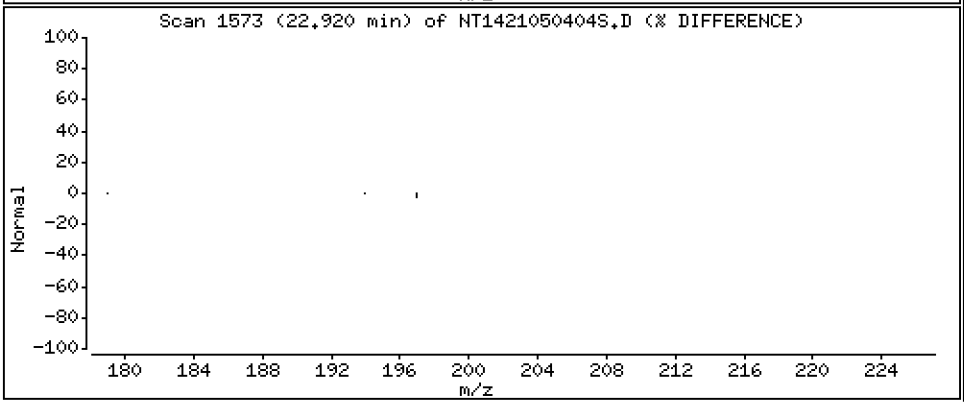



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

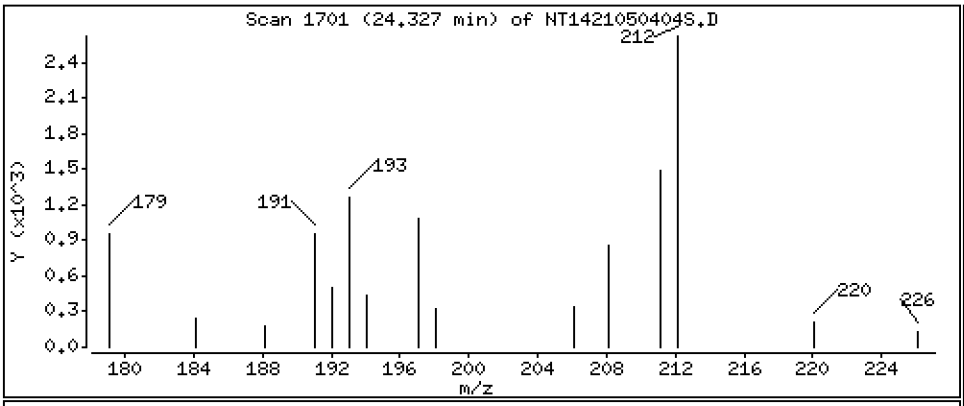
Operator: VTS

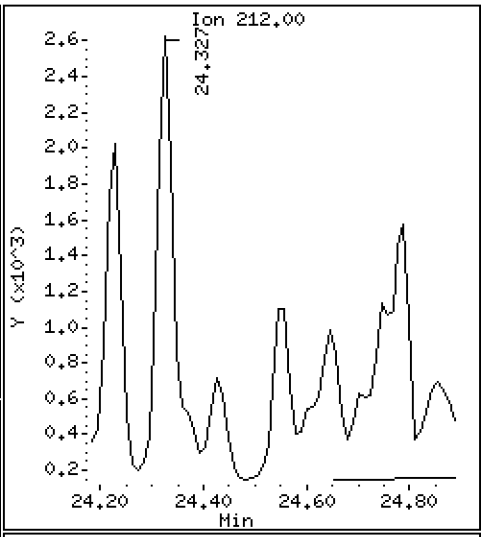
Column phase: Rxi-17Sil MS

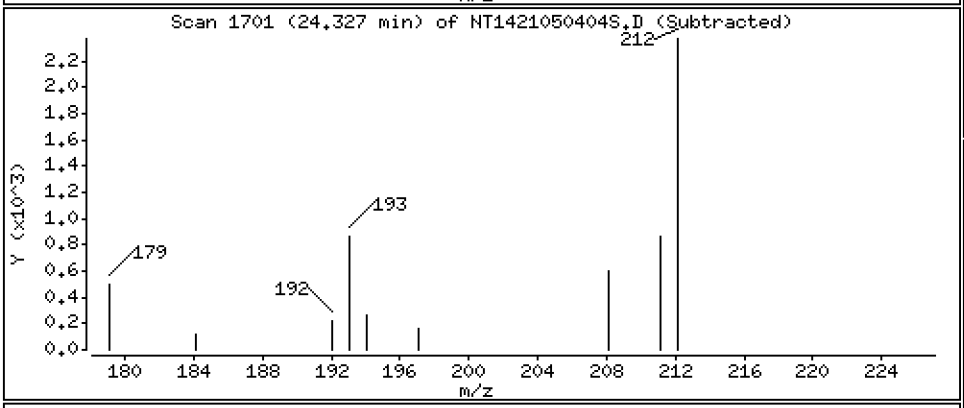
Column diameter: 0.25

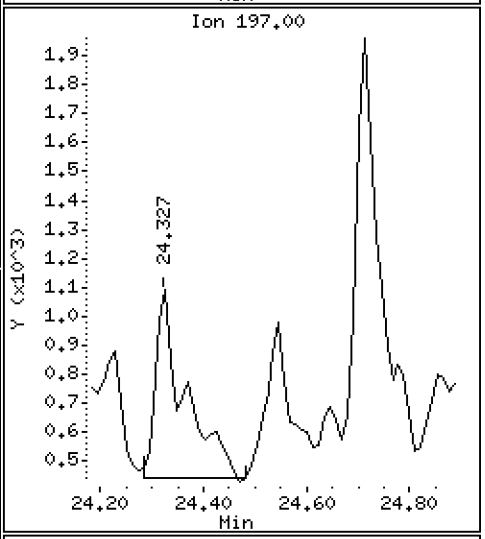
32 C2-Dibenzothiophenes

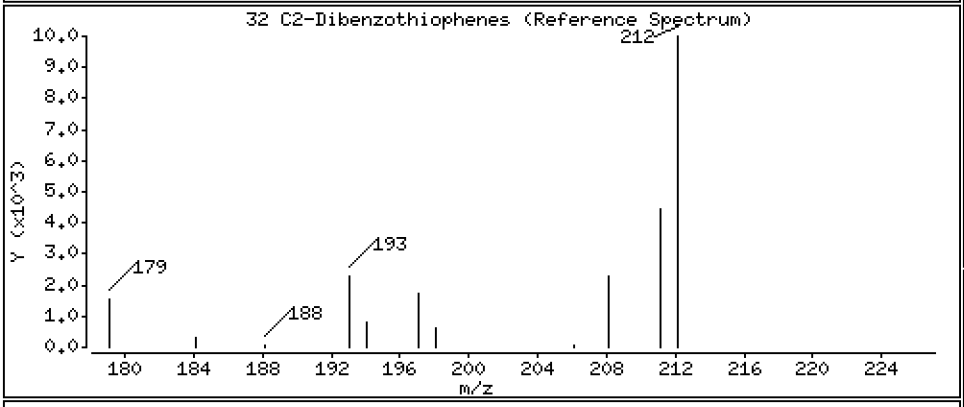
Concentration: 0.1576 ug/mL

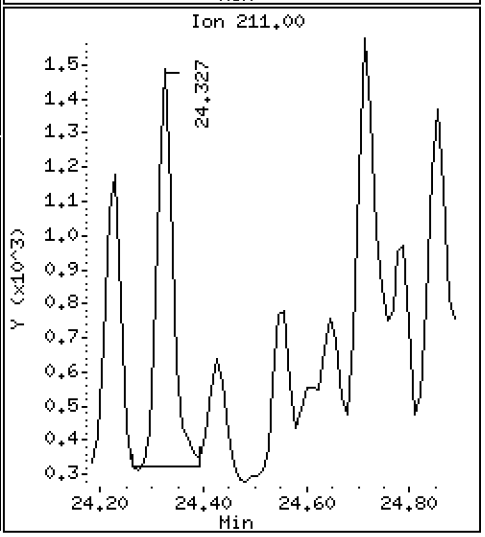


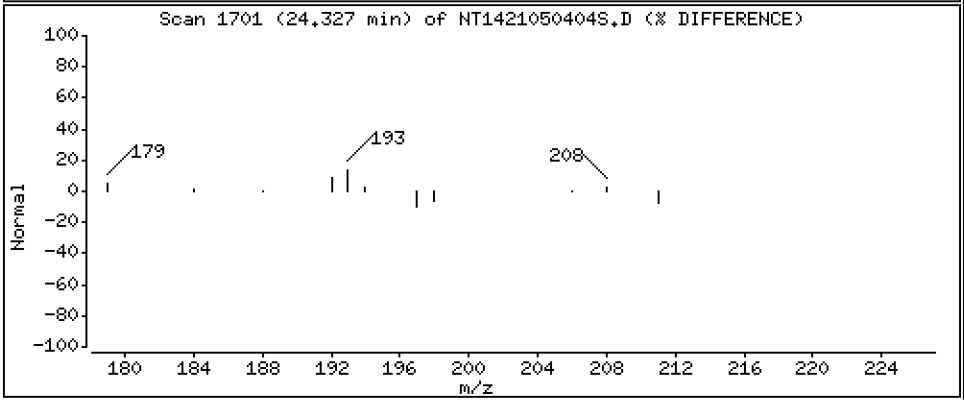



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

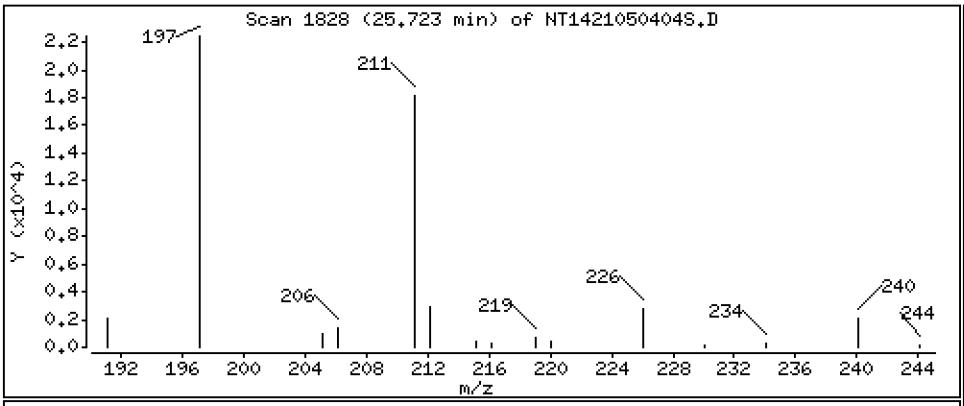
Operator: VTS

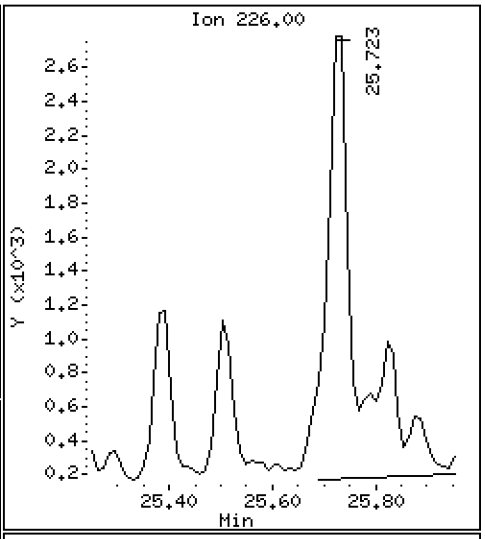
Column phase: Rxi-17Sil MS

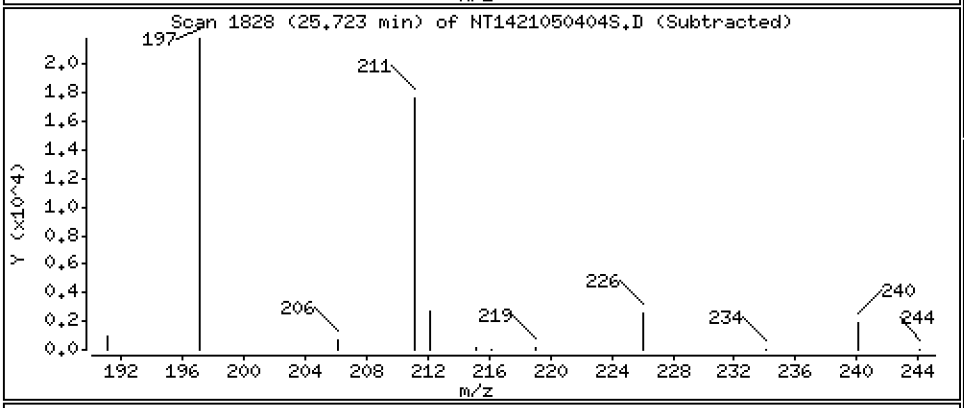
Column diameter: 0.25

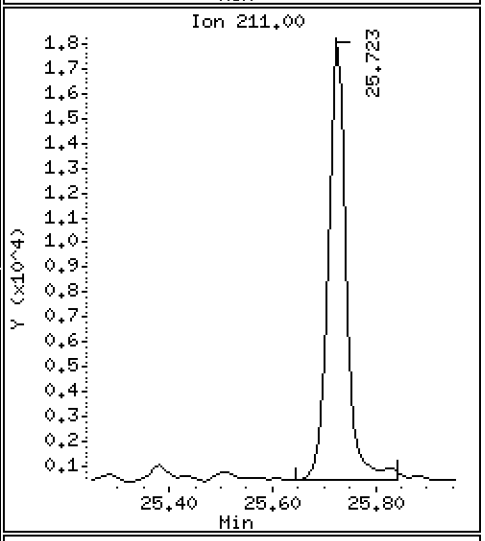
33 C3-Dibenzothiophenes

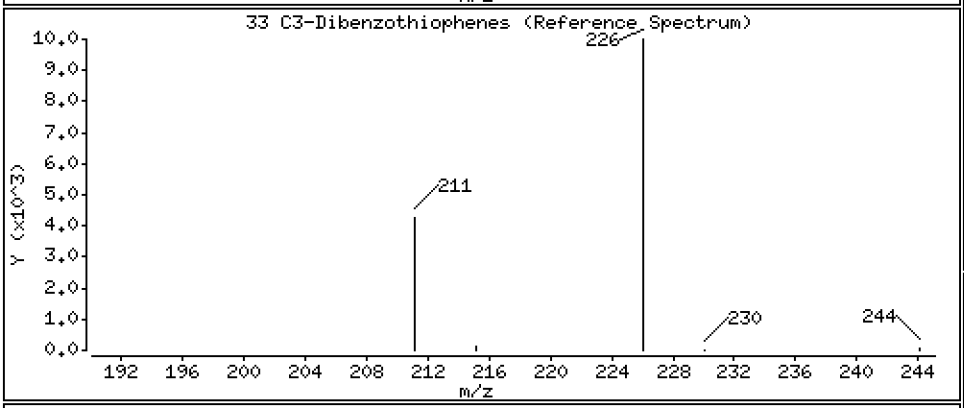
Concentration: 0.1313 ug/mL

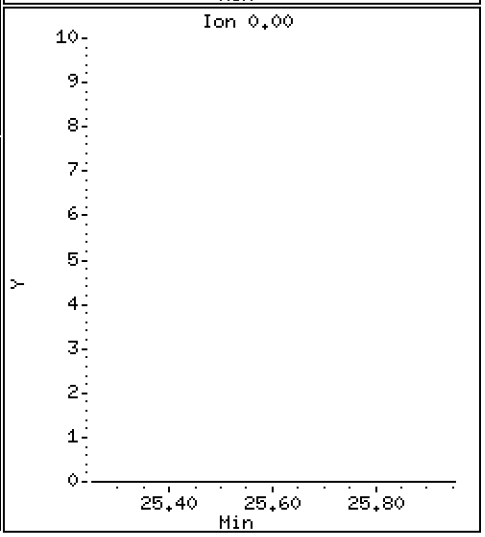


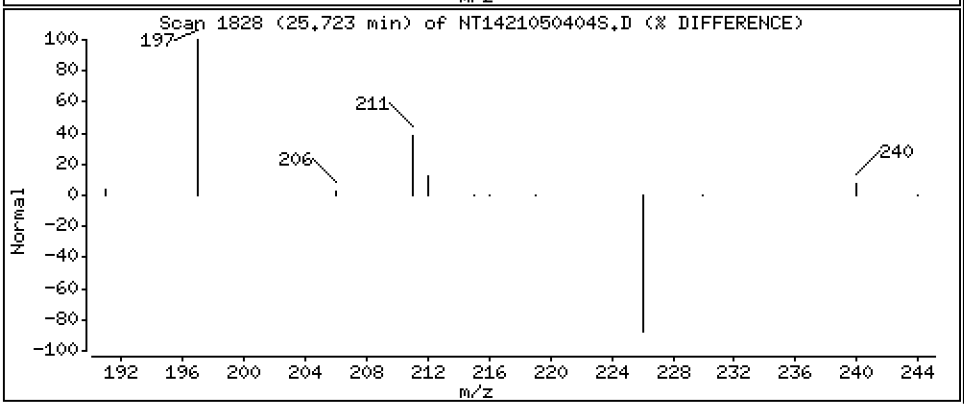



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

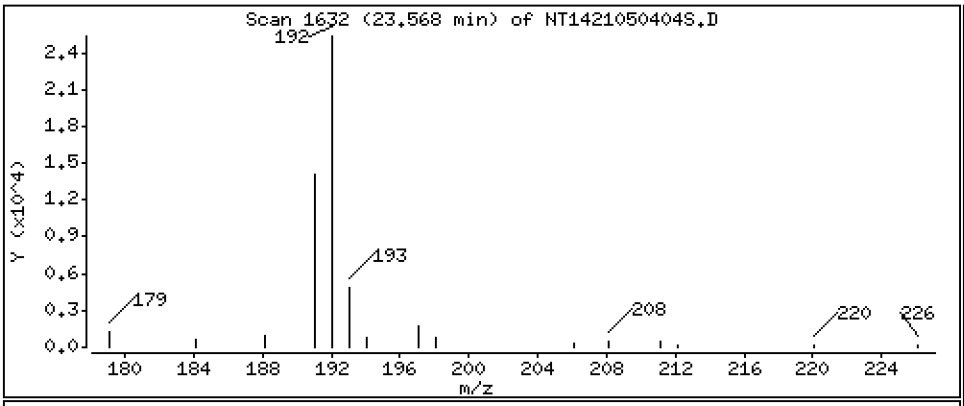
Operator: VTS

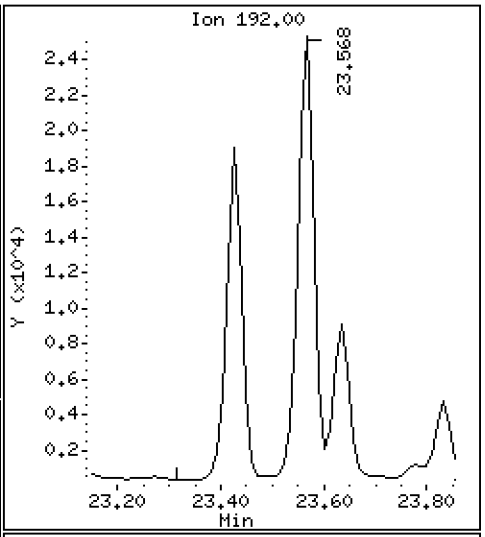
Column phase: Rxi-17Sil MS

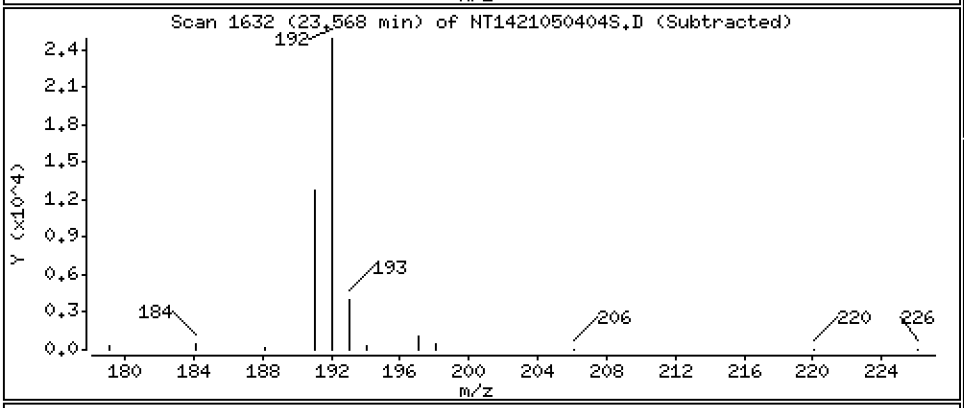
Column diameter: 0.25

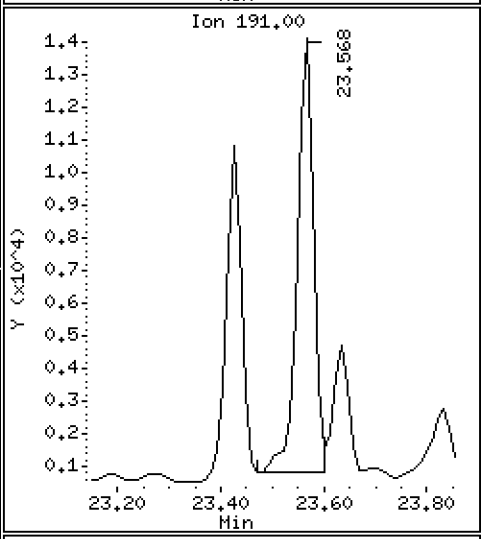
38 C1-Phenanthrenes/Anthracenes

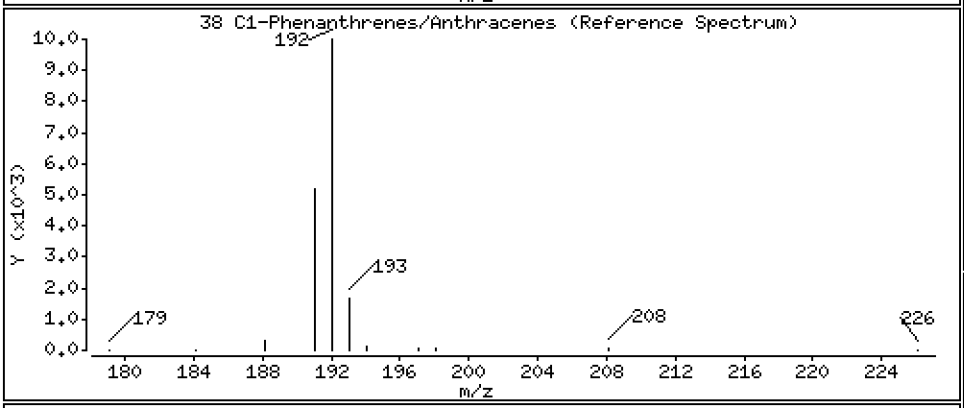
Concentration: 0.5944 ug/mL

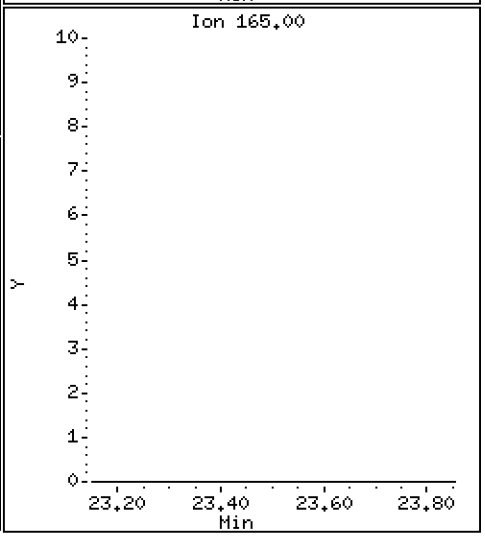


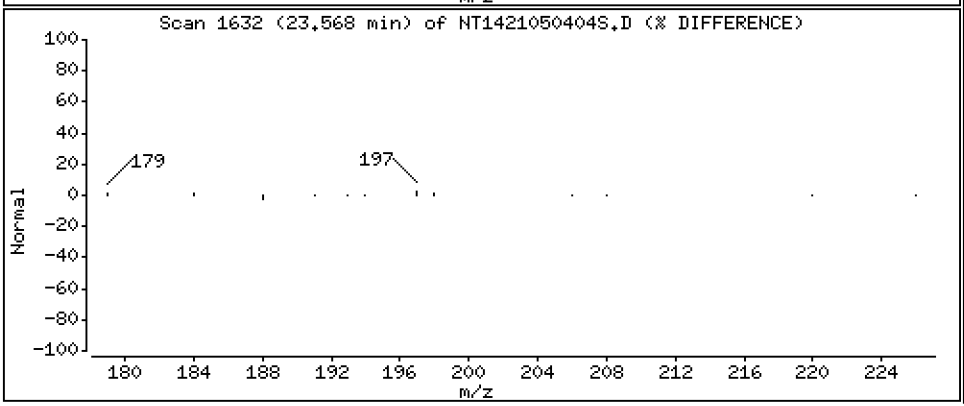



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

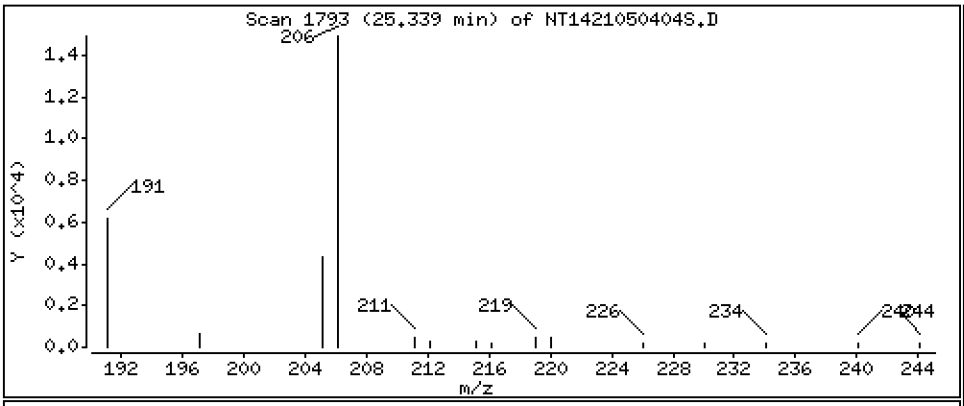
Operator: VTS

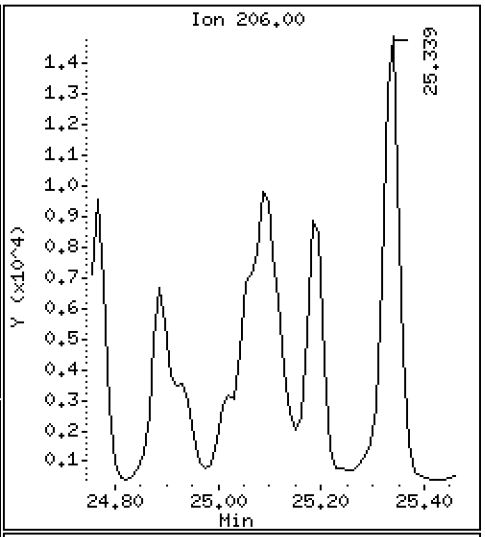
Column phase: Rxi-17Sil MS

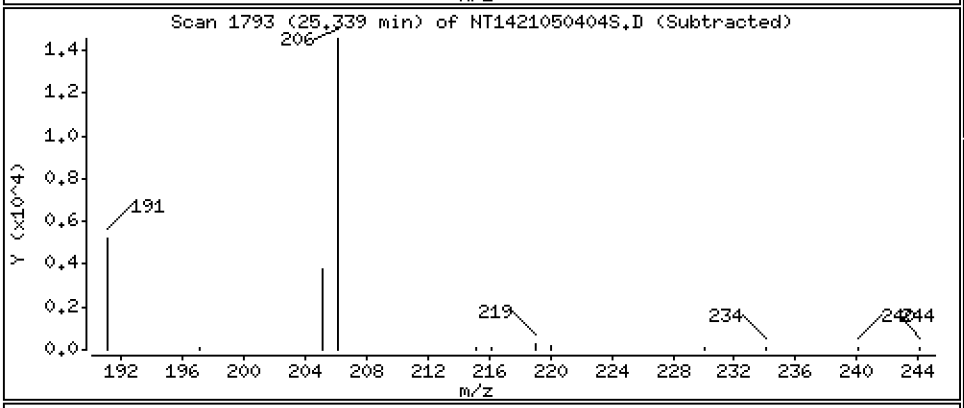
Column diameter: 0.25

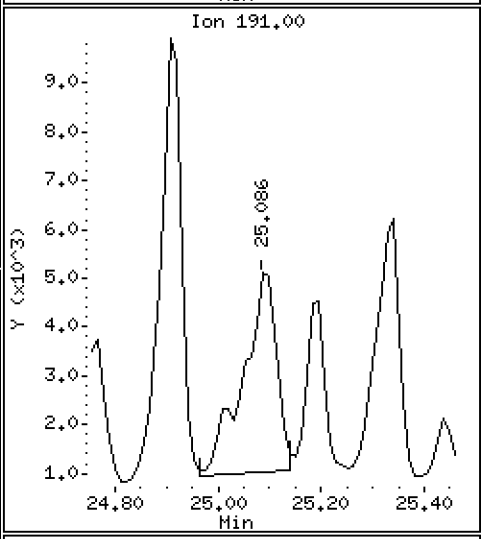
39 C2-Phenanthrenes/Anthracenes

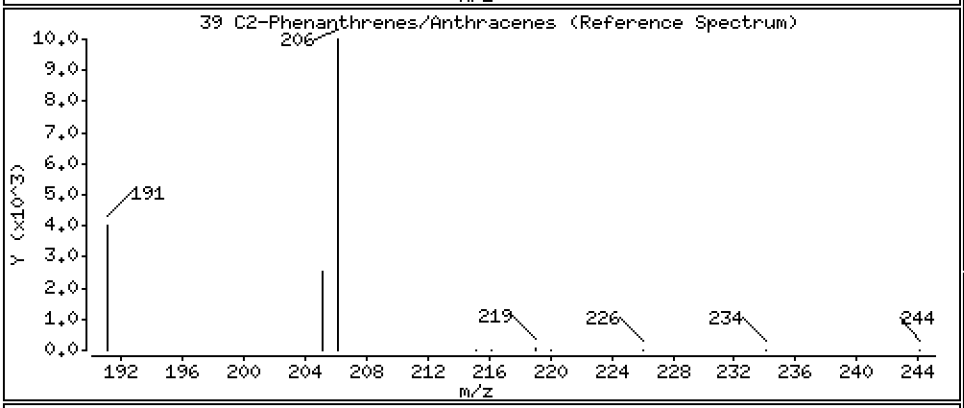
Concentration: 0.5488 ug/mL

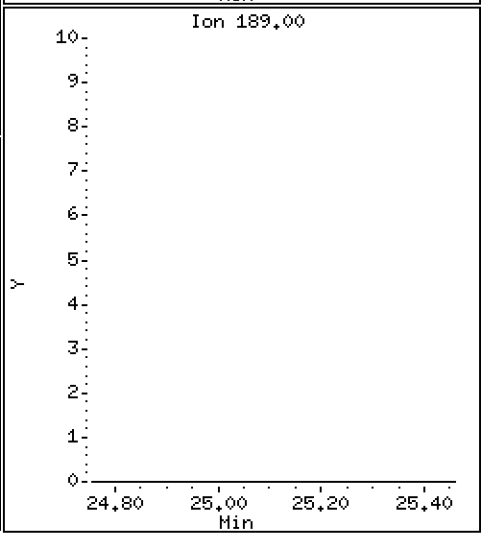


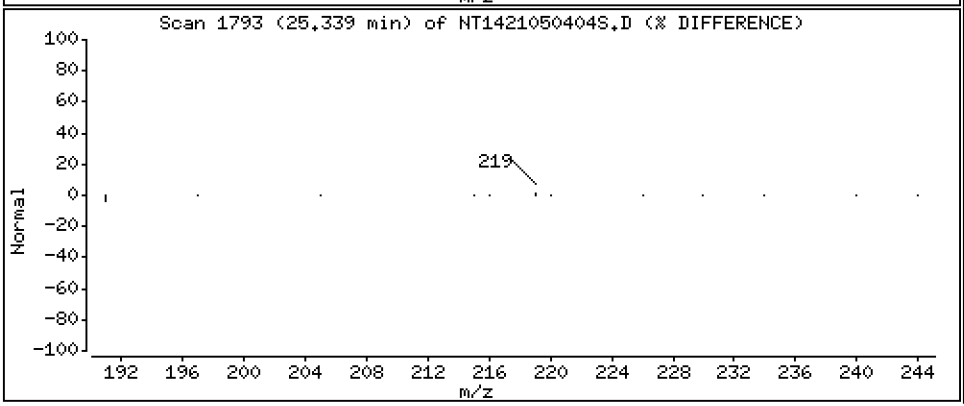



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

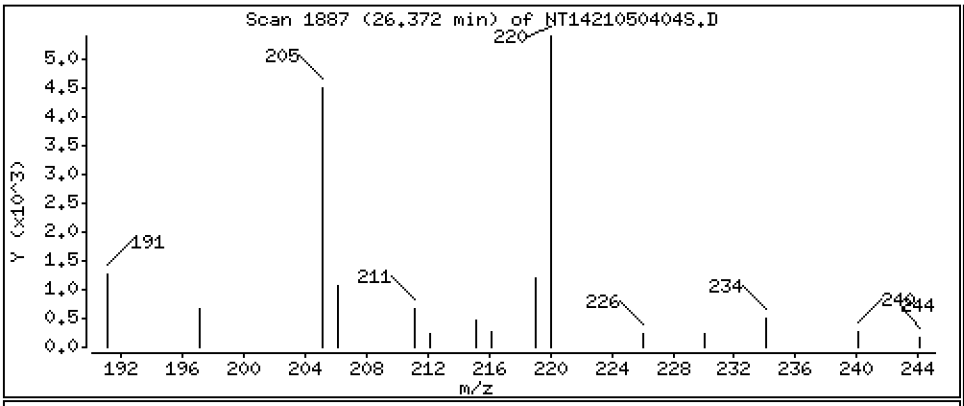
Operator: VTS

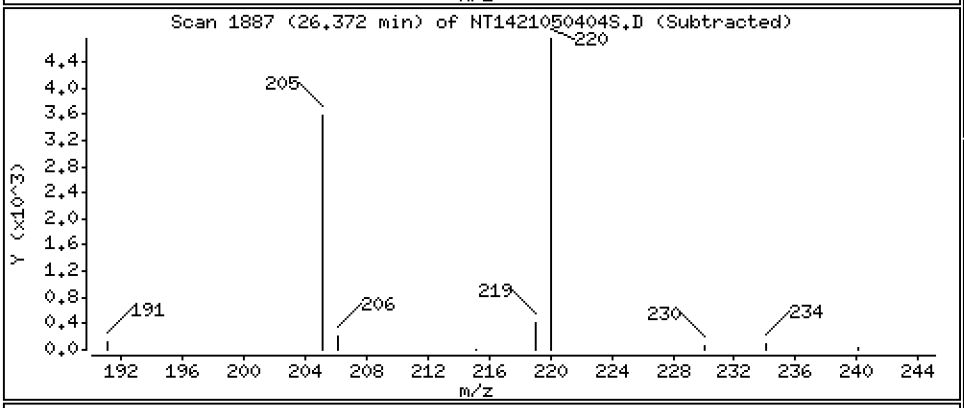
Column phase: Rxi-17Sil MS

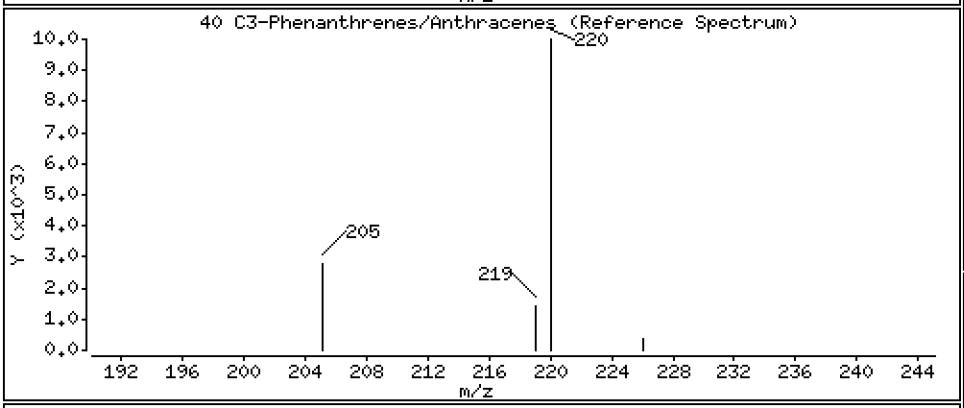
Column diameter: 0.25

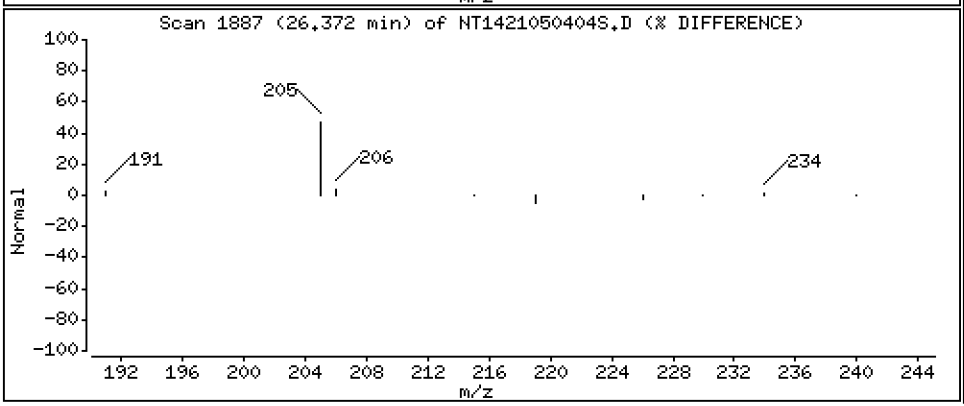
40 C3-Phenanthrenes/Anthracenes

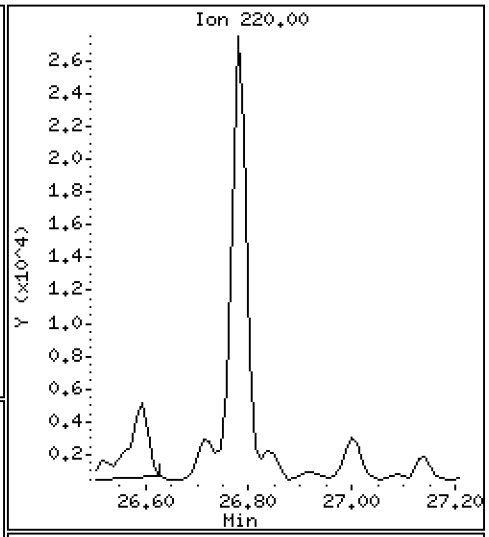
Concentration: 0.1896 ug/mL

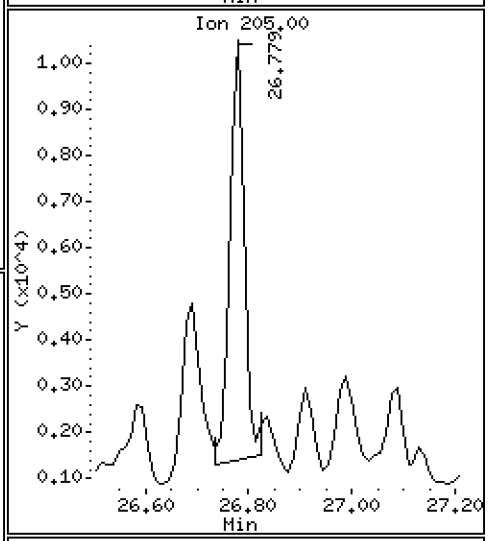


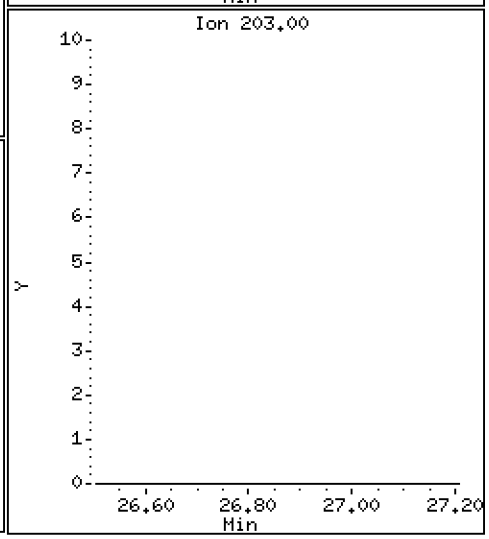



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

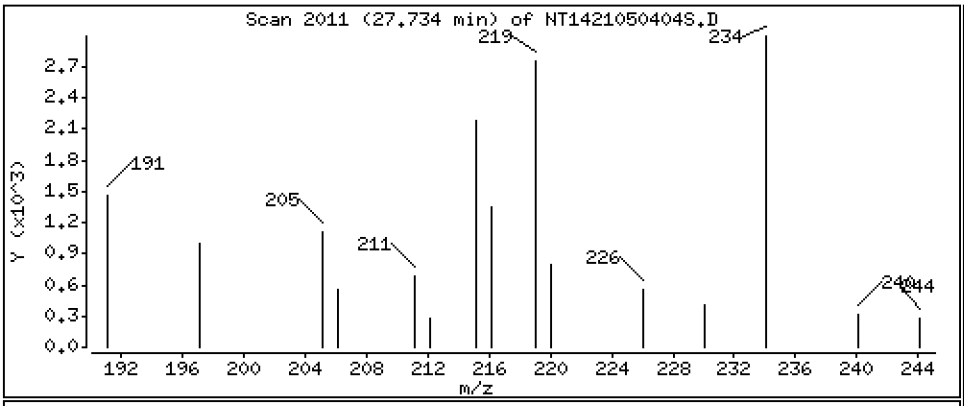
Operator: VTS

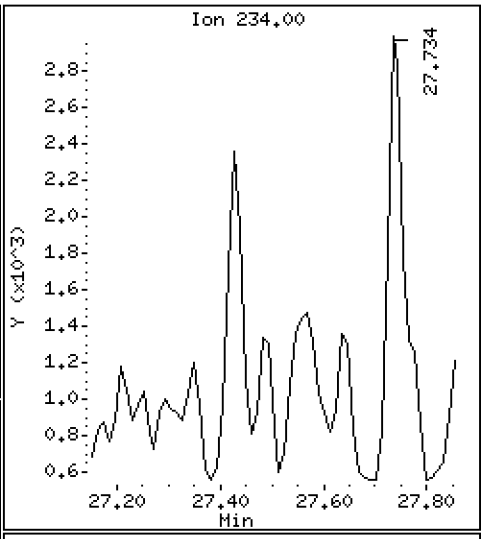
Column phase: Rxi-17Sil MS

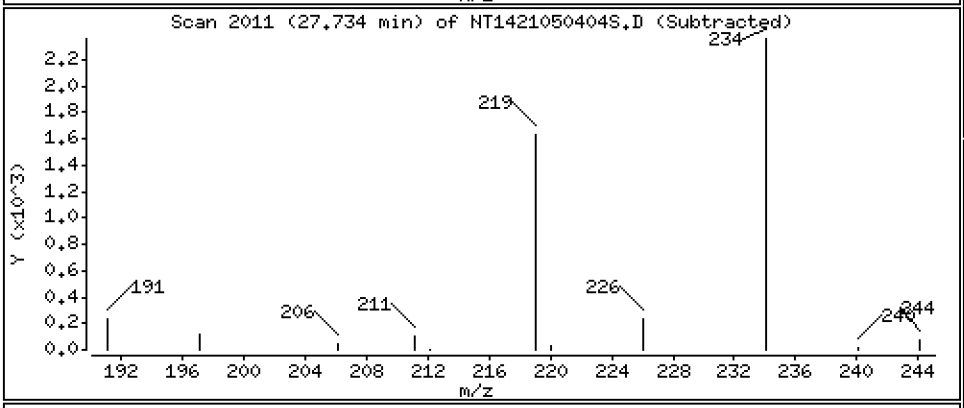
Column diameter: 0.25

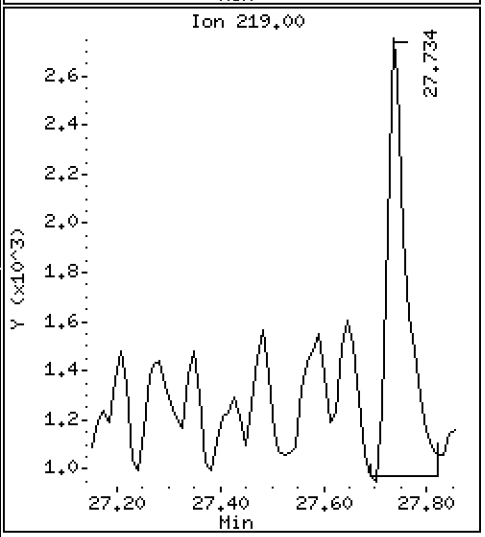
41 C4-Phenanthrenes/Anthracenes

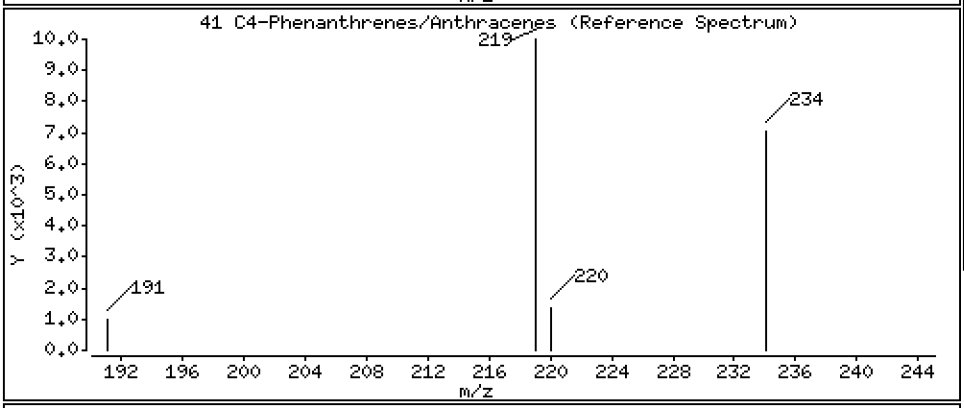
Concentration: 0.09736 ug/mL

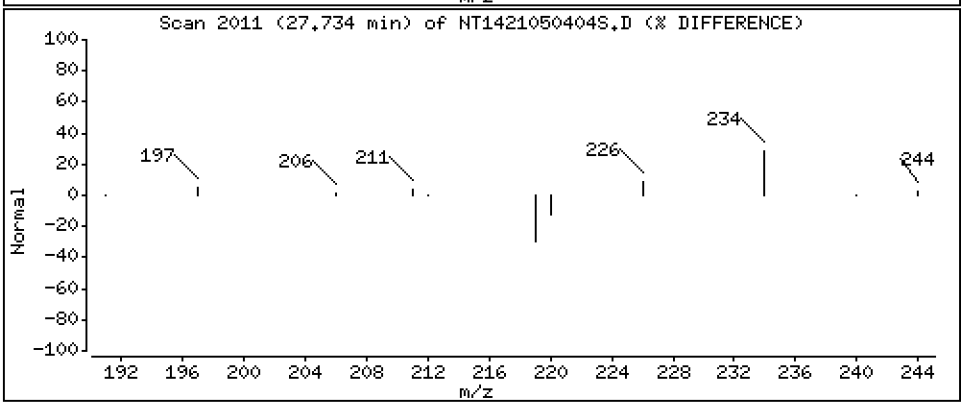


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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

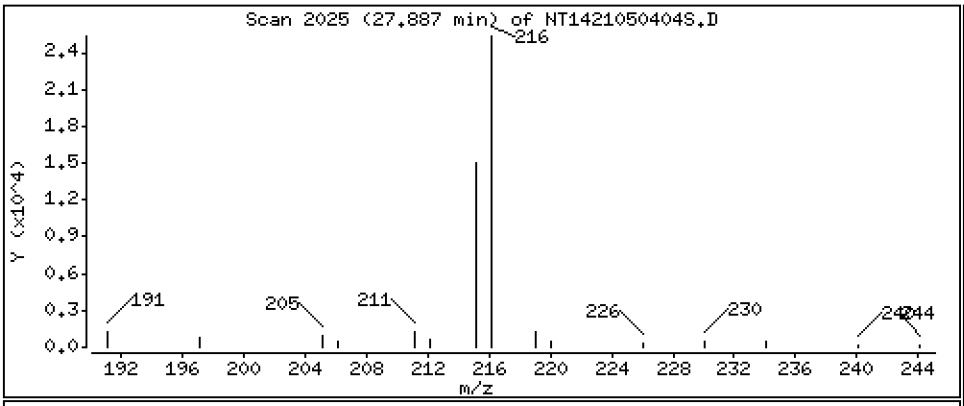
Operator: VTS

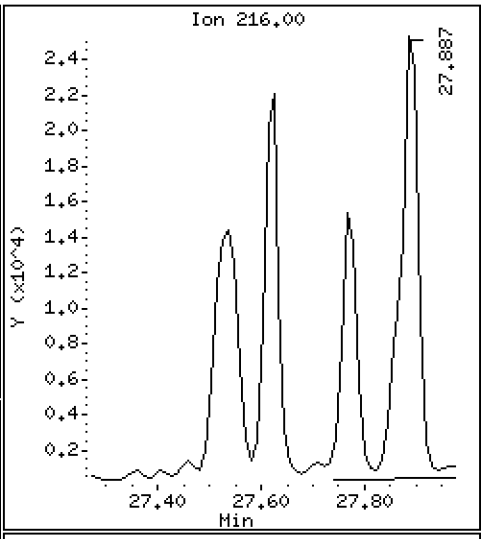
Column phase: Rxi-17Sil MS

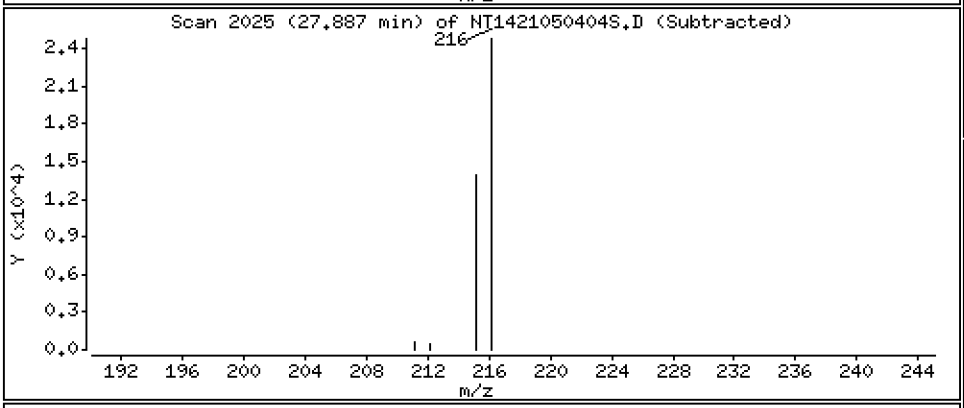
Column diameter: 0.25

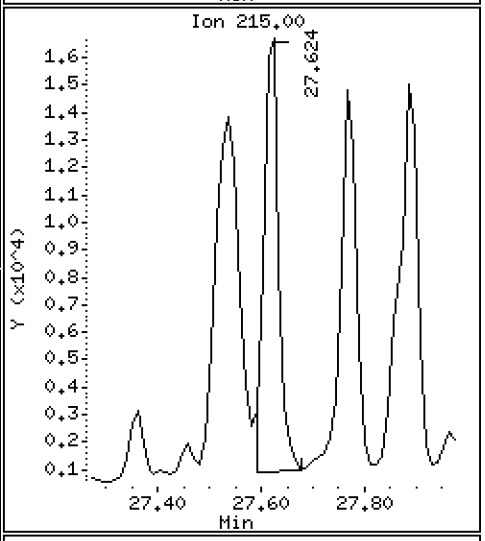
48 C1-Fluoranthenes/Pyrenes

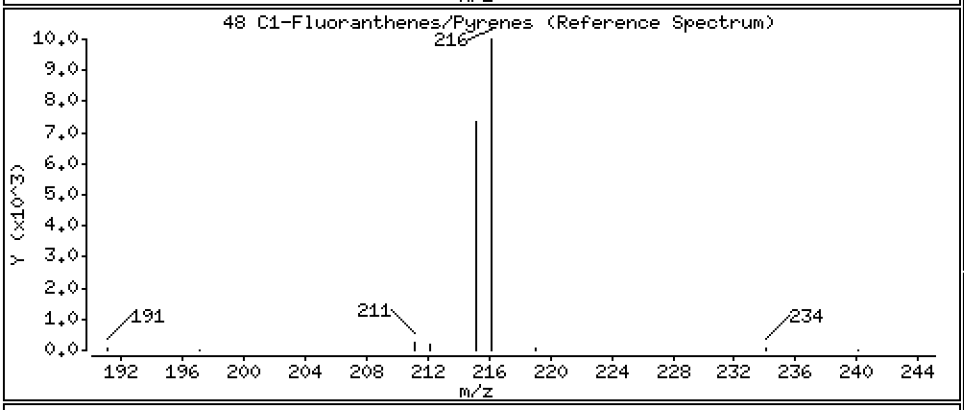
Concentration: 1.039 ug/mL

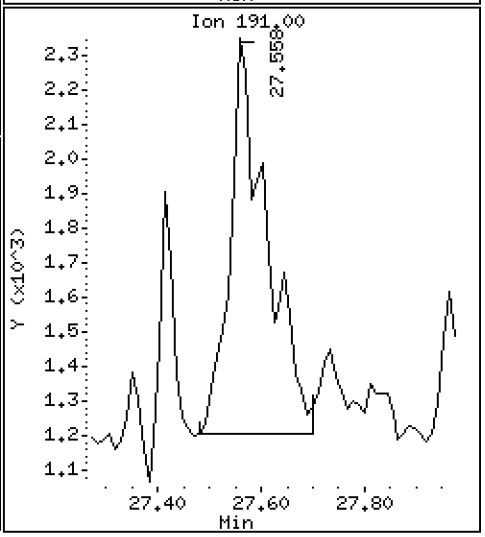


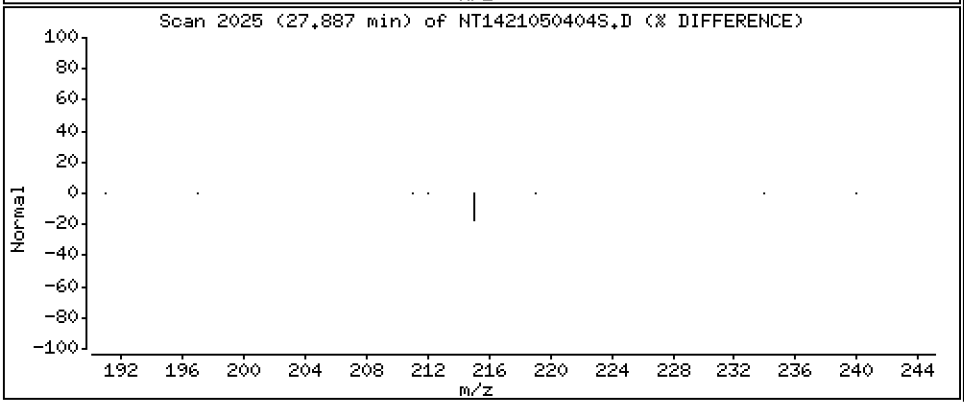



Data File: \\target\share\chem3\nt14.i\20210504.b\SIM.b\NT1421050404S.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

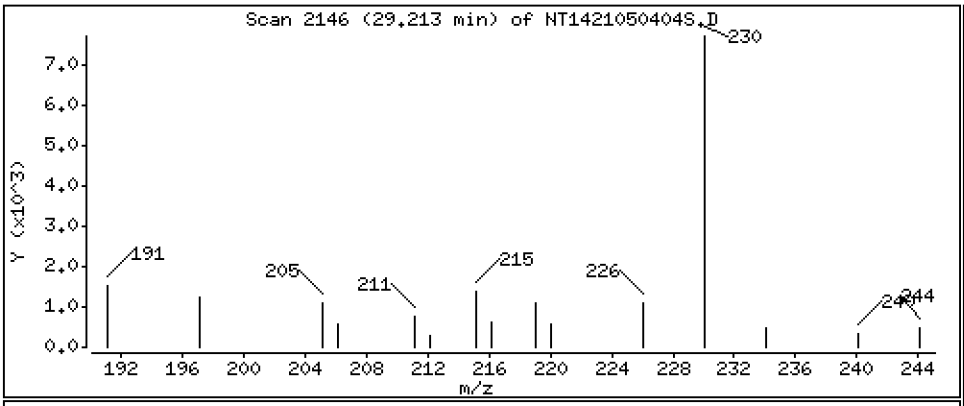
Operator: VTS

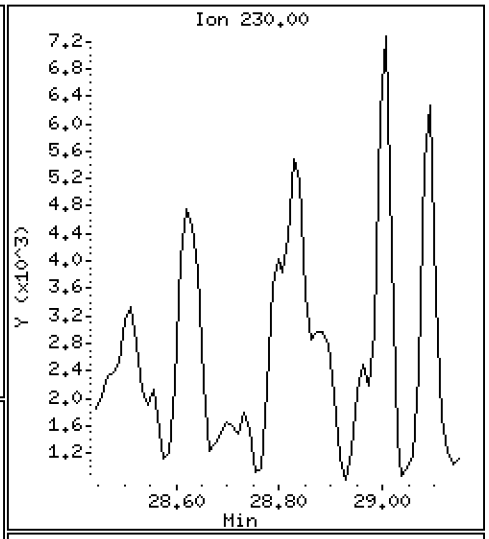
Column phase: Rxi-17Sil MS

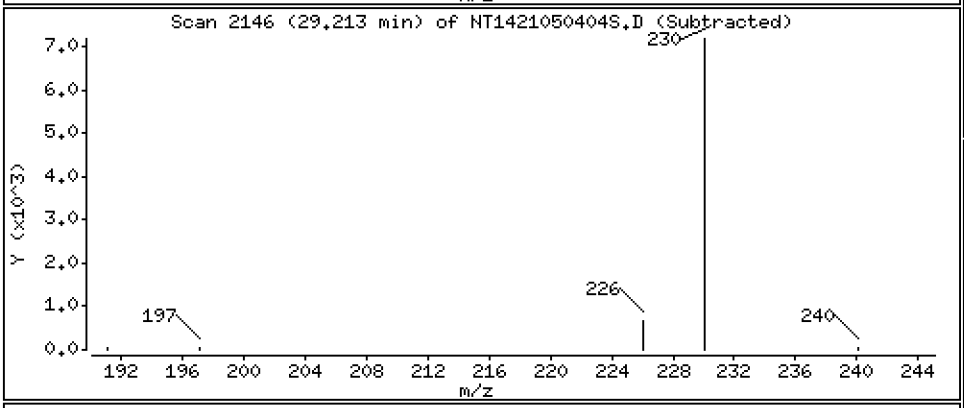
Column diameter: 0.25

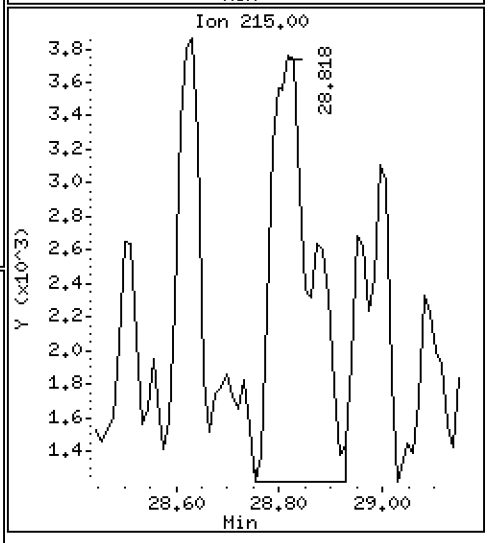
49 C2-Fluoranthenes/Pyrenes

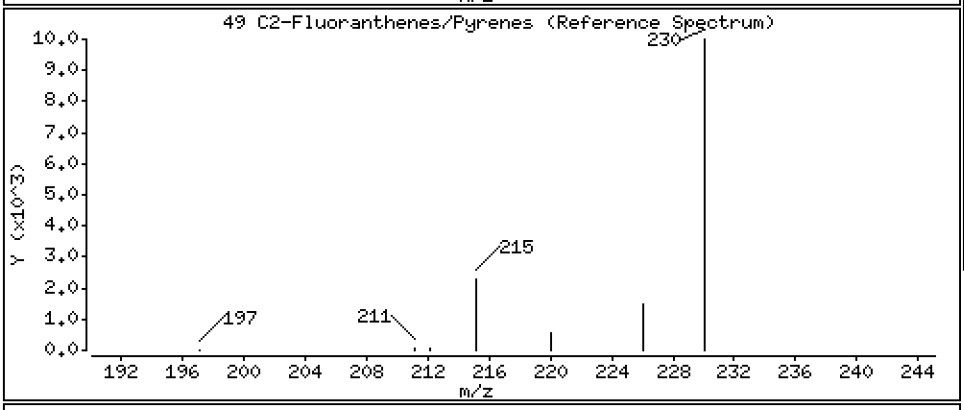
Concentration: 0.5157 ug/mL

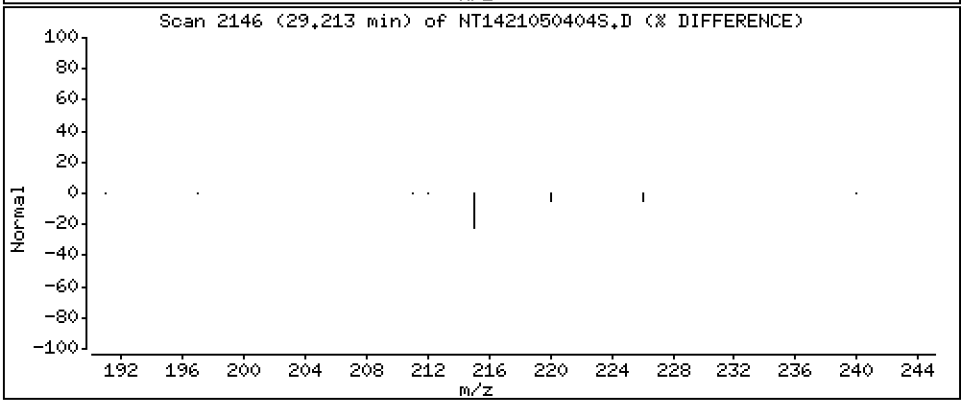


Data File: \\target\share\chem3\nt14.i\20210504.b\SIM.b\NT1421050404S.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

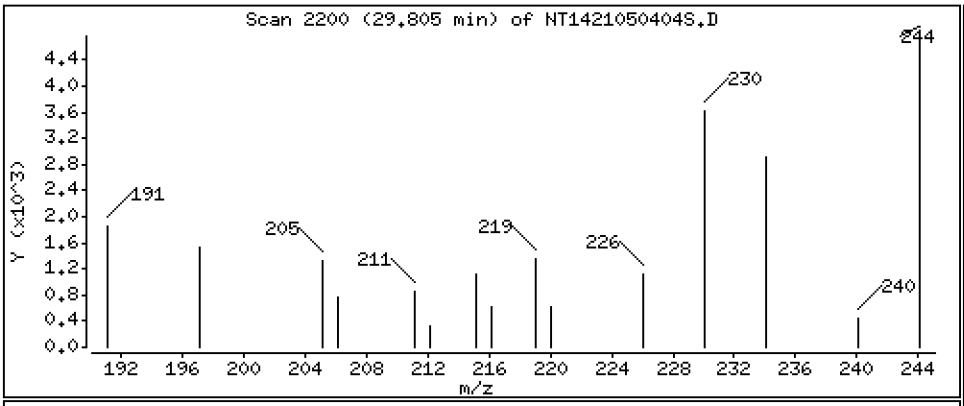
Operator: VTS

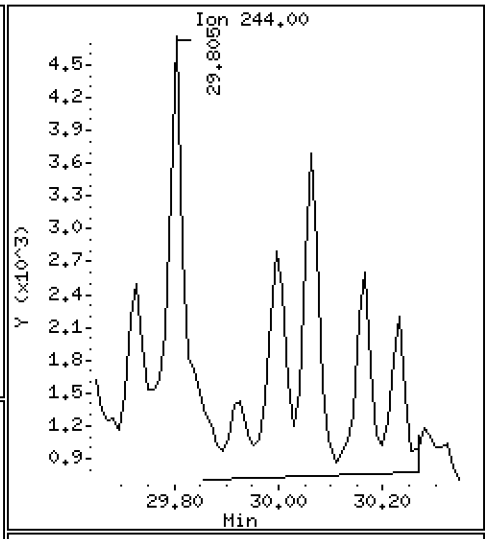
Column phase: Rxi-17Sil MS

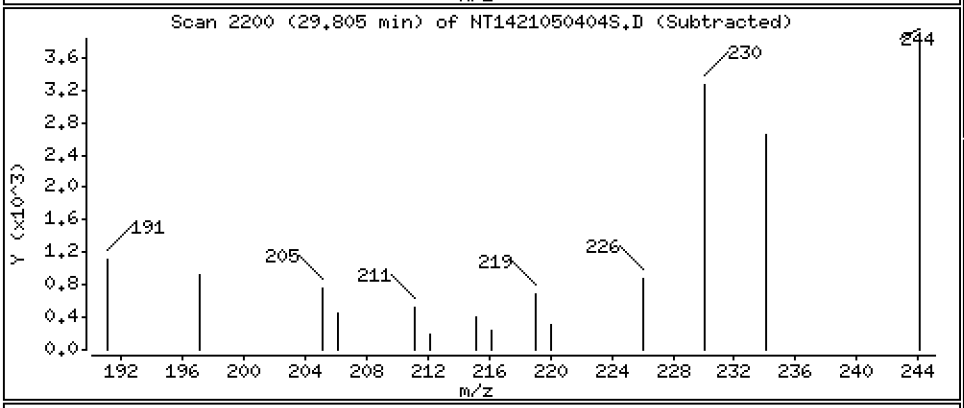
Column diameter: 0.25

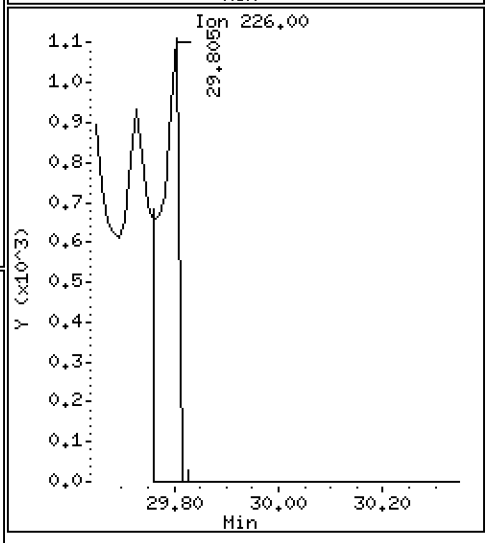
50 C3-Fluoranthenes/Pyrenes

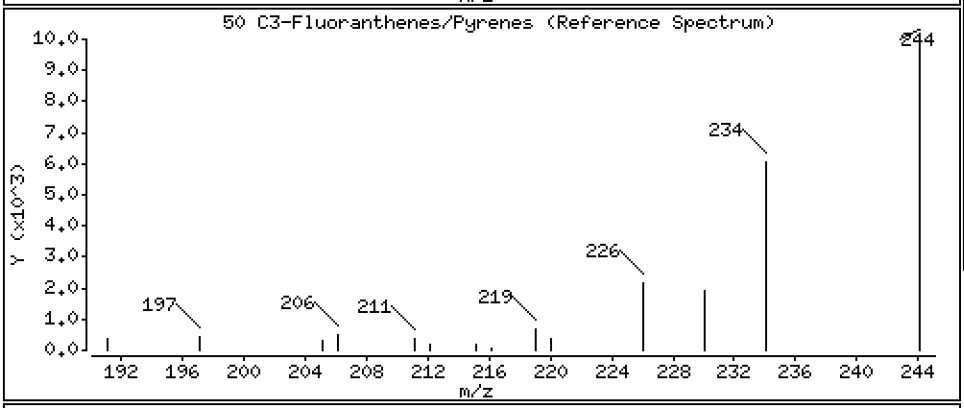
Concentration: 0.1675 ug/mL

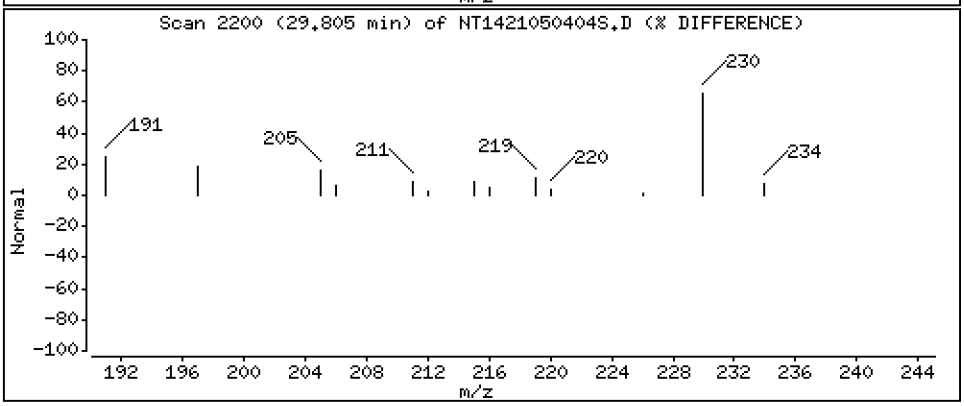


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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

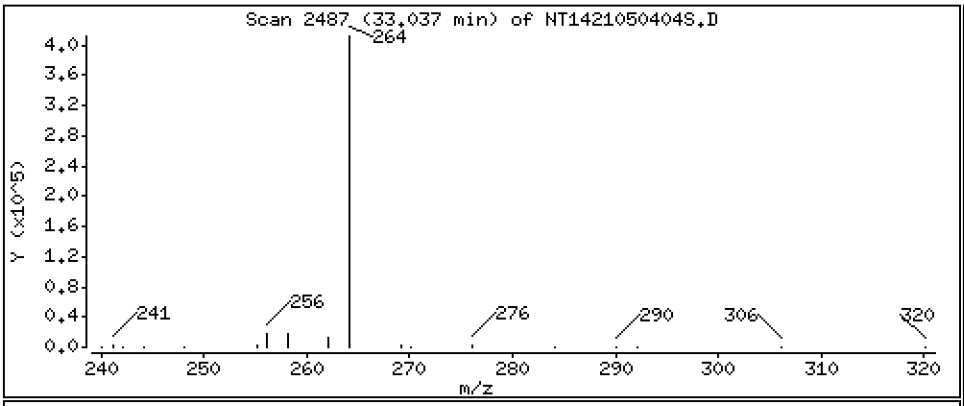
Operator: VTS

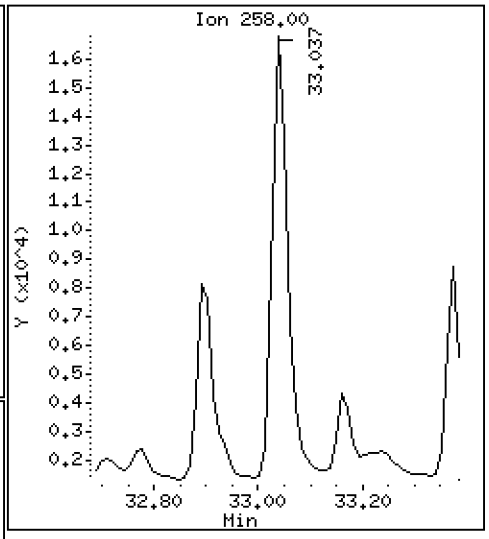
Column phase: Rxi-17Sil MS

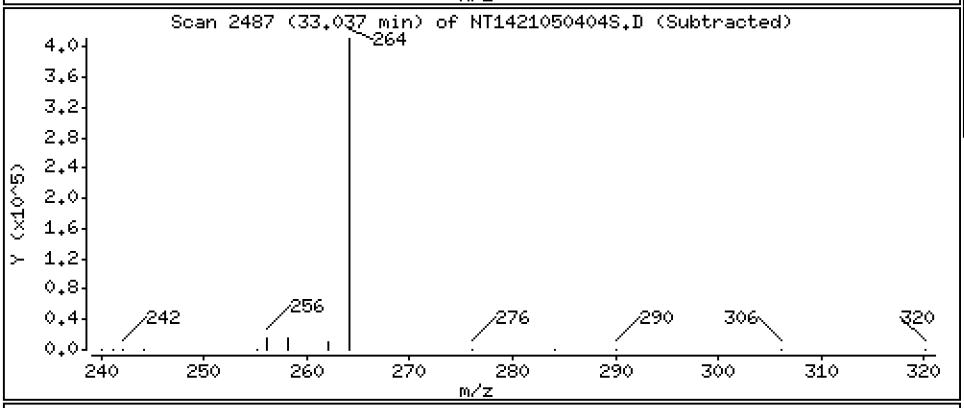
Column diameter: 0.25

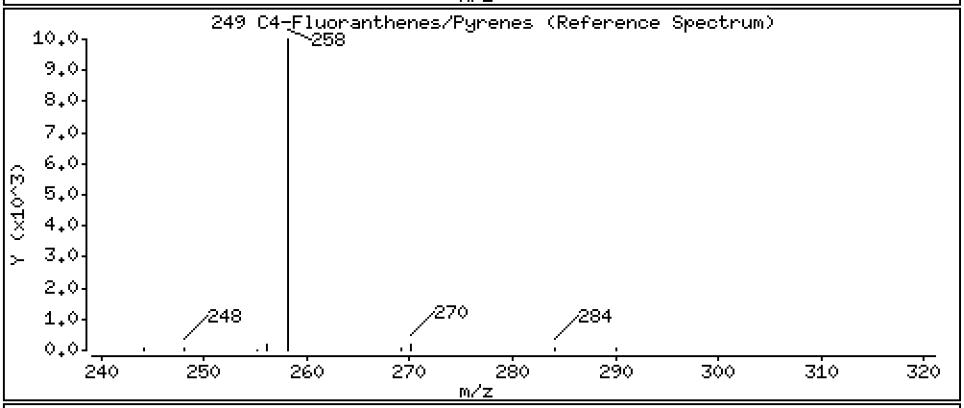
249 C4-Fluoranthenes/Pyrenes

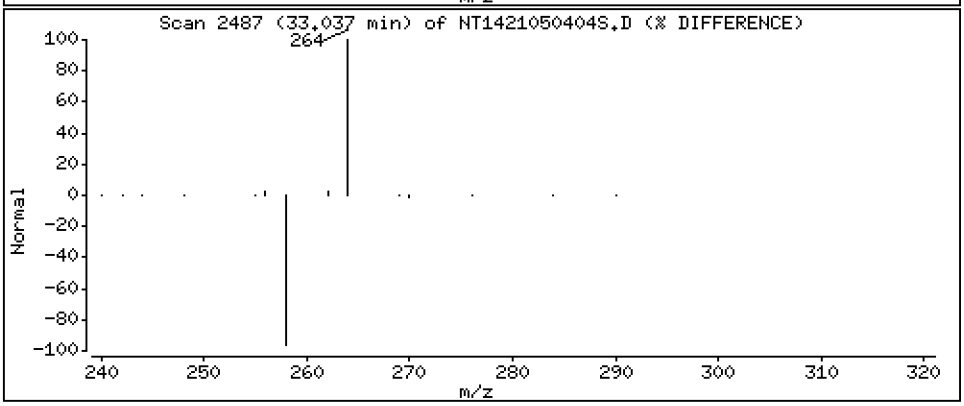
Concentration: 0.3369 ug/mL



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

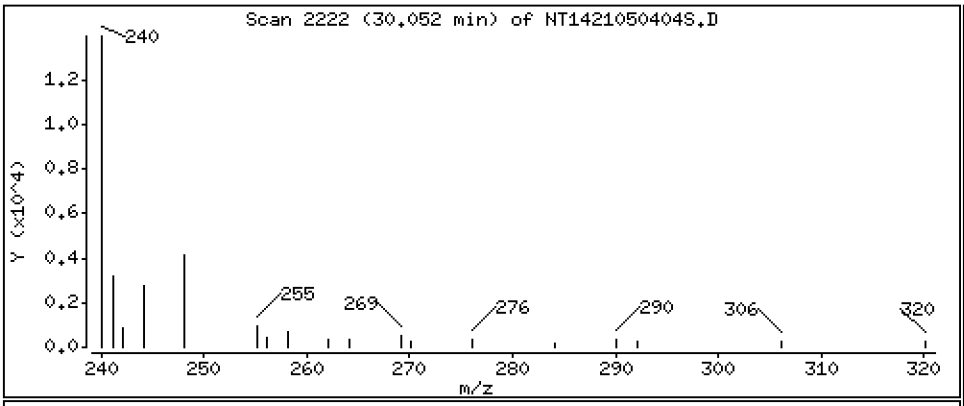
Operator: VTS

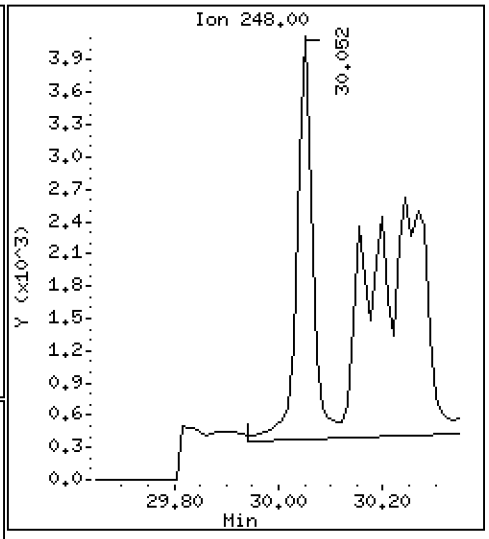
Column phase: Rxi-17Sil MS

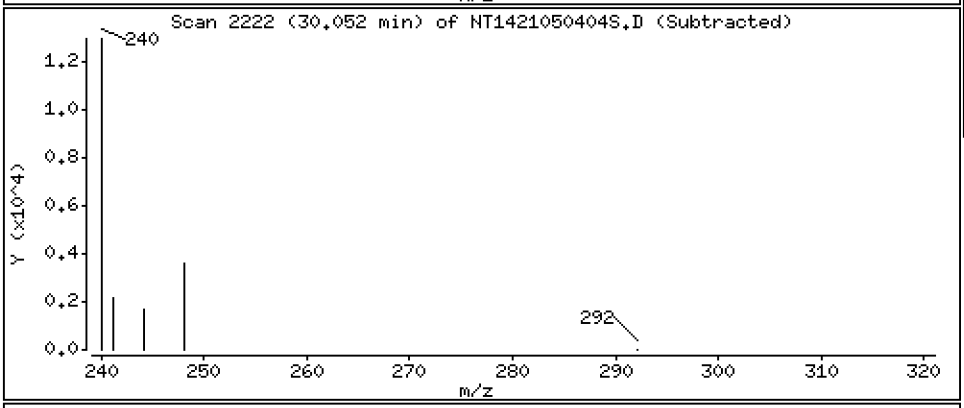
Column diameter: 0.25

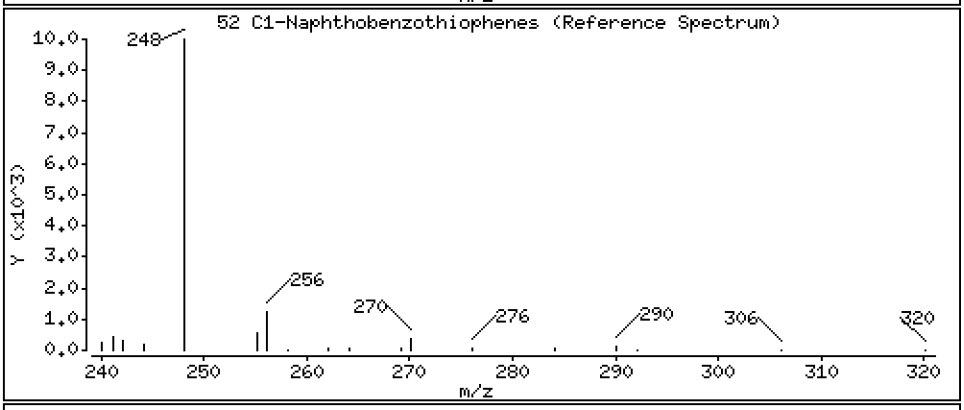
52 C1-Naphthobenzothiophenes

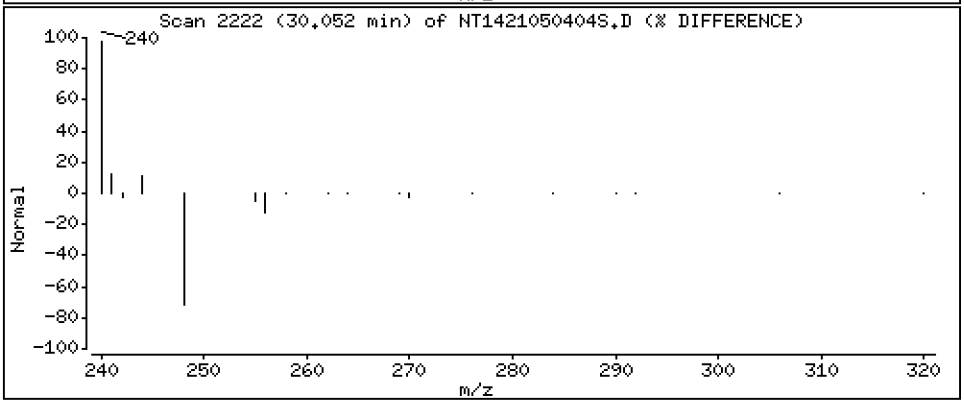
Concentration: 0.1831 ug/mL



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

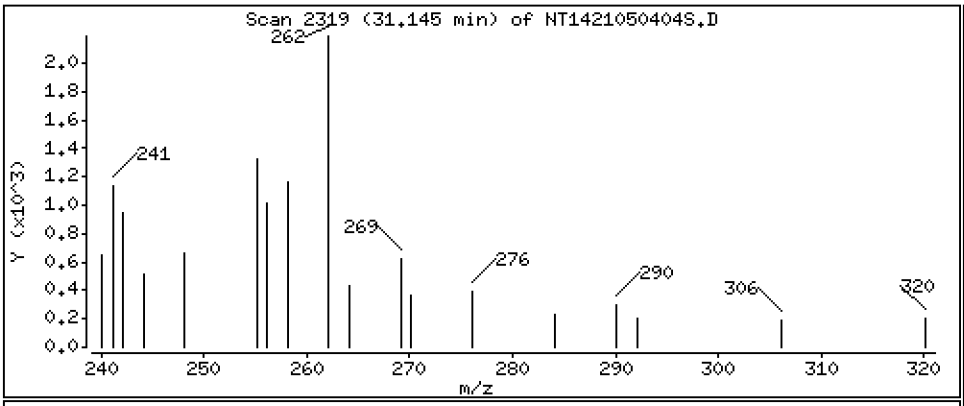
Operator: VTS

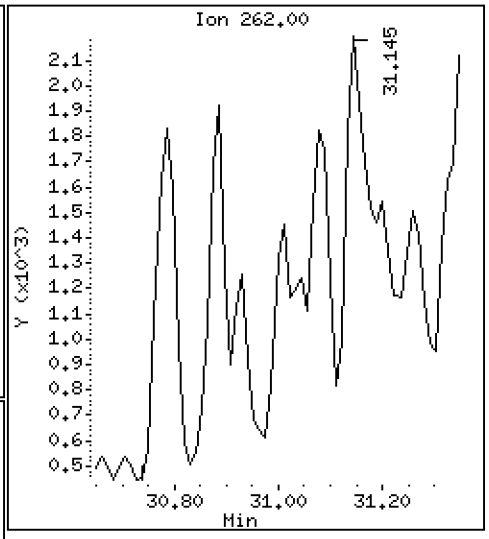
Column phase: Rxi-17Sil MS

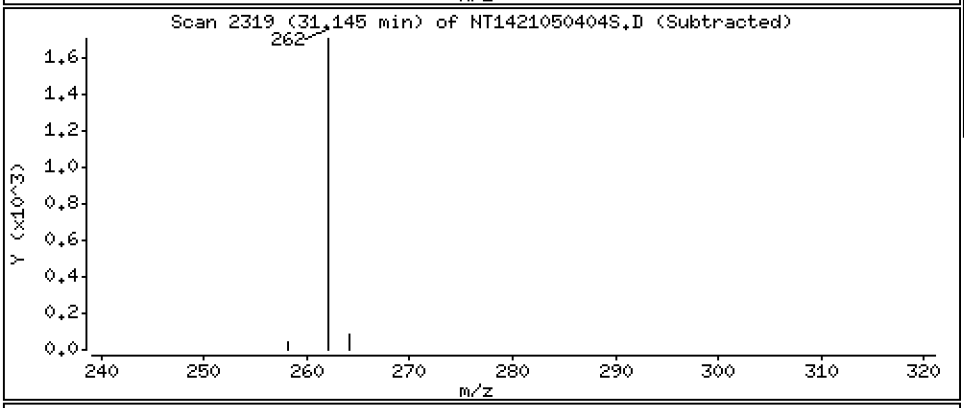
Column diameter: 0.25

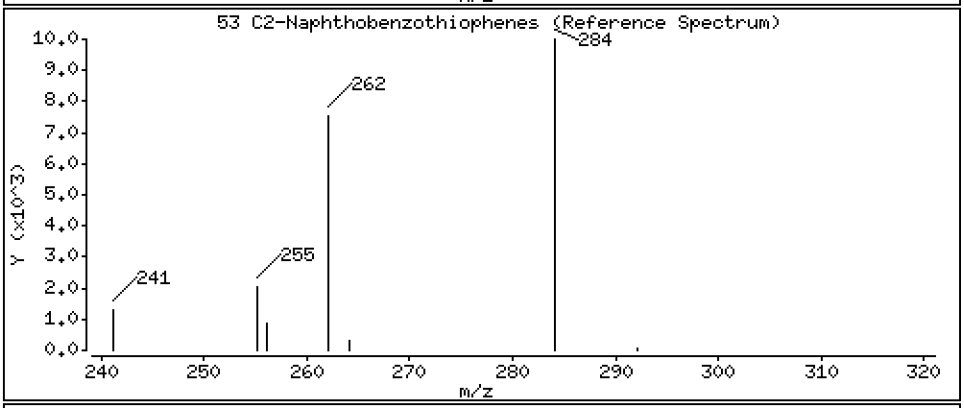
53 C2-Naphthobenzothiophenes

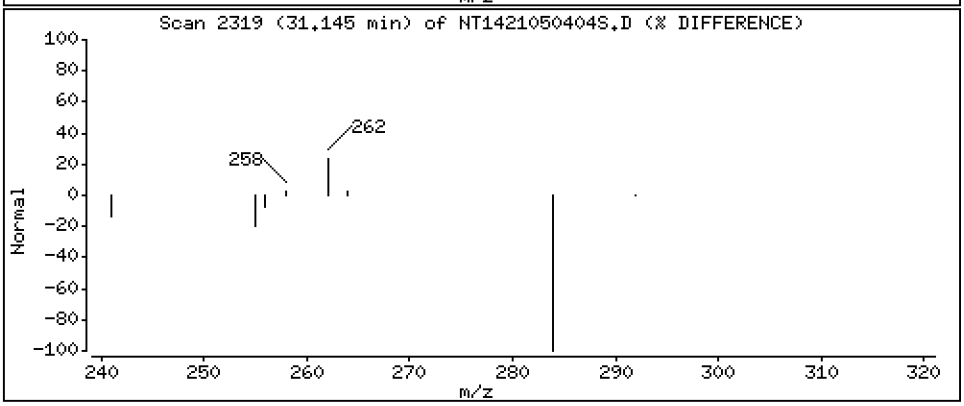
Concentration: 0.1488 ug/mL



Data File: \\target\share\chem3\nt14.i\20210504.b\SIM.b\NT1421050404S.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

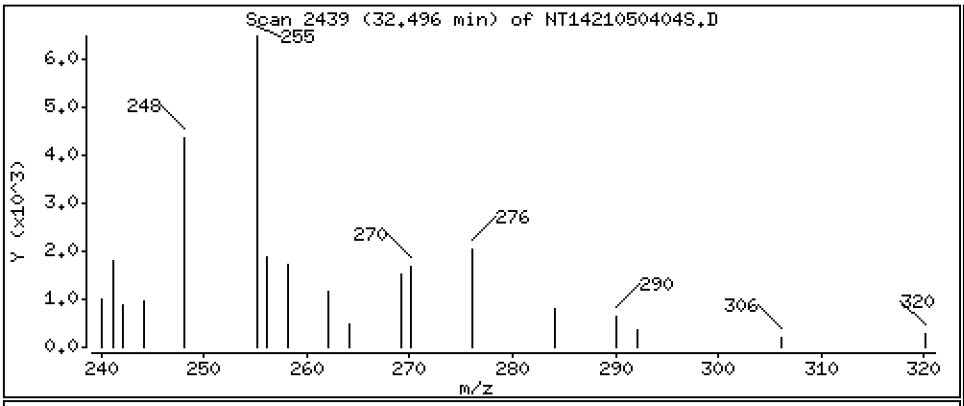
Operator: VTS

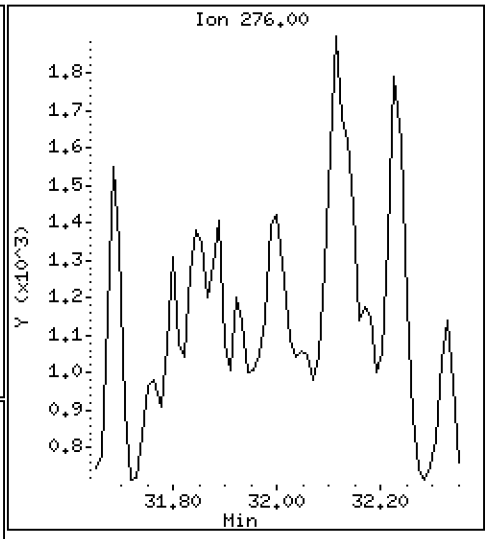
Column phase: Rxi-17Sil MS

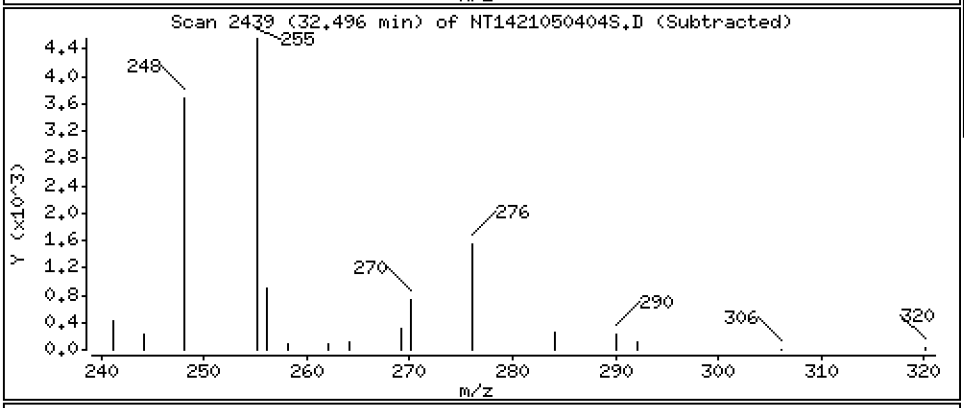
Column diameter: 0.25

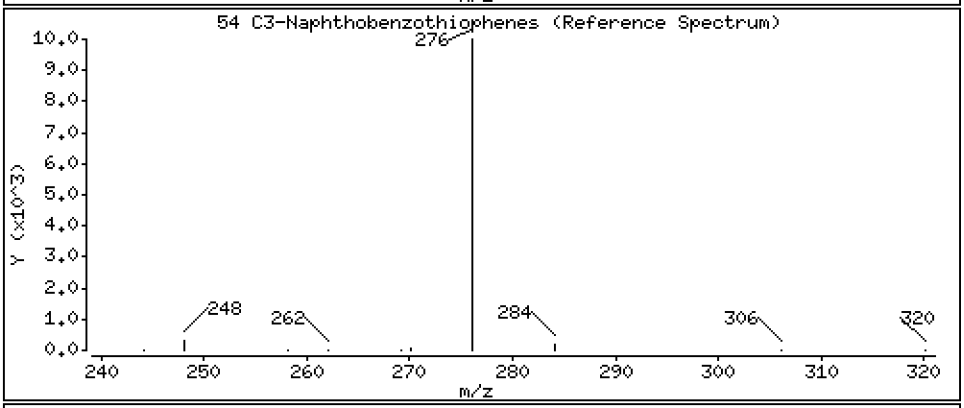
54 C3-Naphthobenzothiophenes

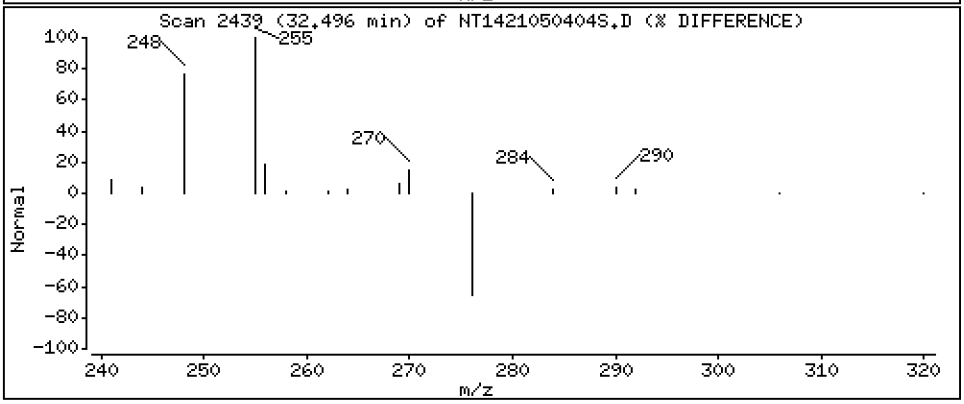
Concentration: 0.1468 ug/mL



Data File: \\target\share\chem3\nt14.i\20210504.b\SIM.b\NT1421050404S.D

Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

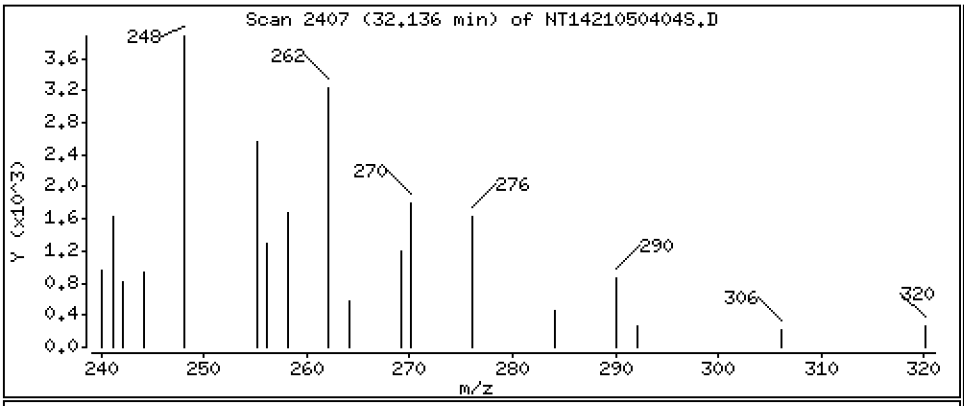
Operator: VTS

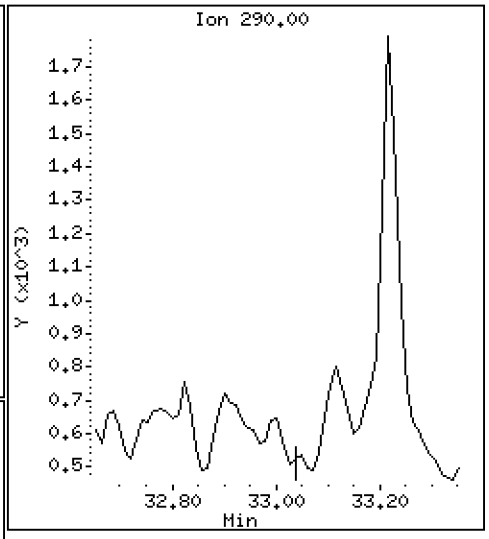
Column phase: Rxi-17Sil MS

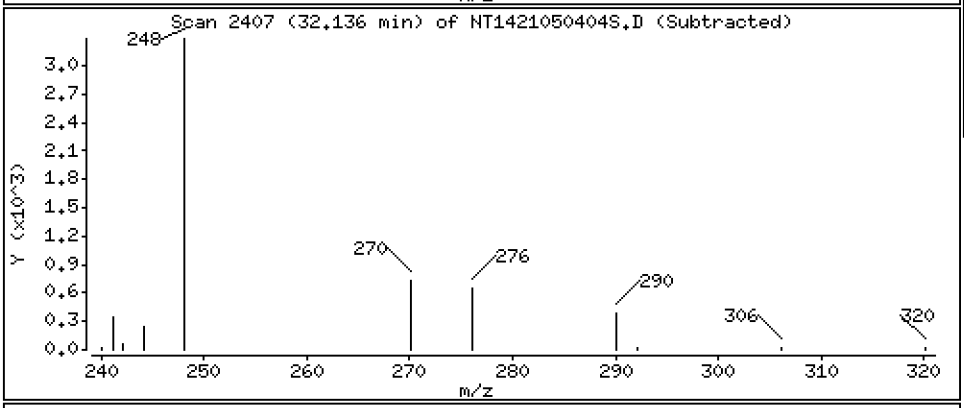
Column diameter: 0.25

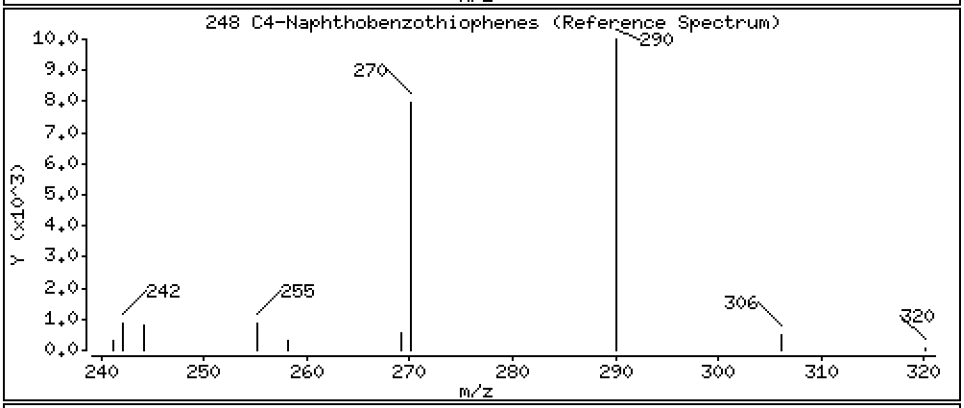
248 C4-Naphthobenzothiophenes

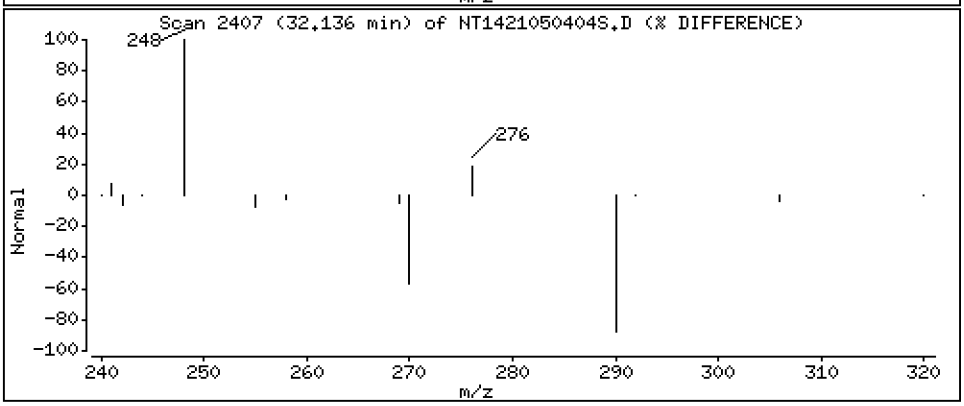
Concentration: 0.04363 ug/mL



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

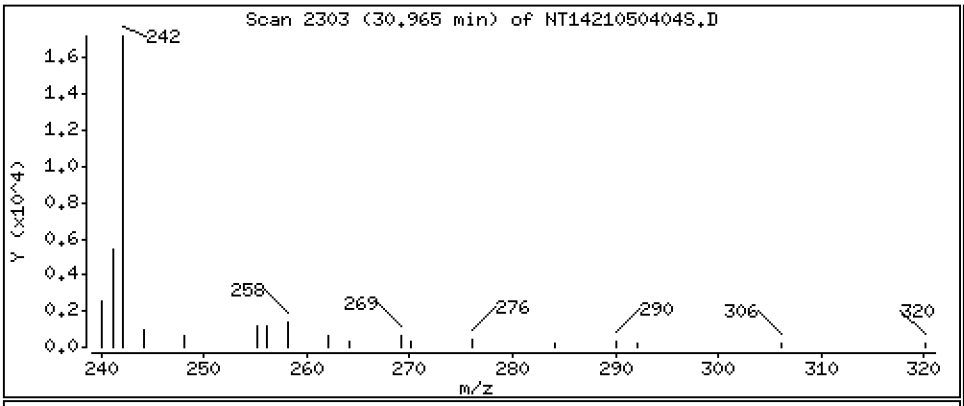
Operator: VTS

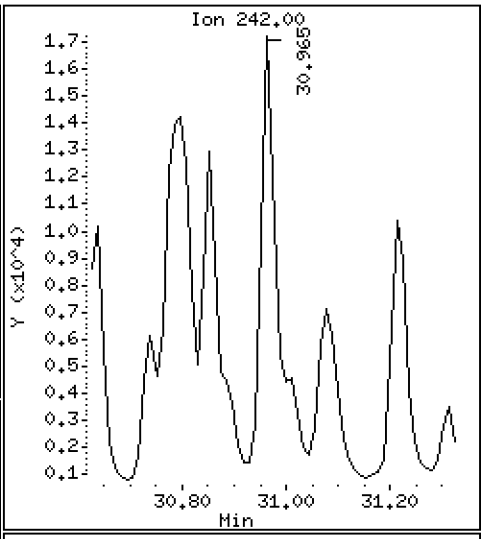
Column phase: Rxi-17Sil MS

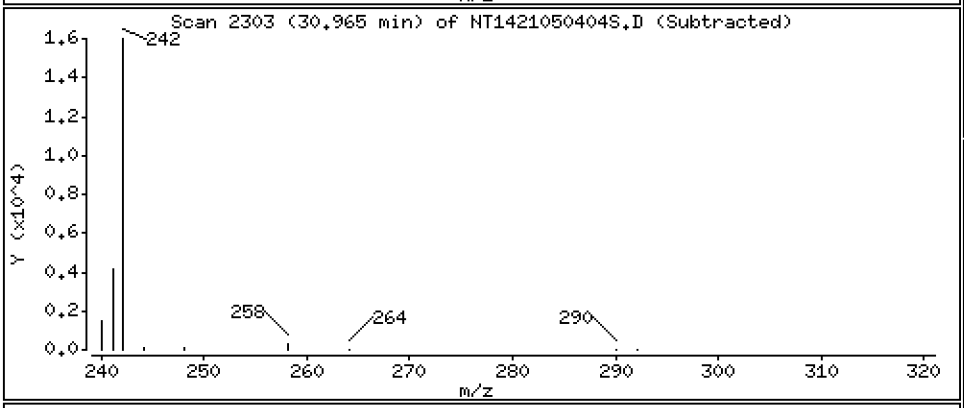
Column diameter: 0.25

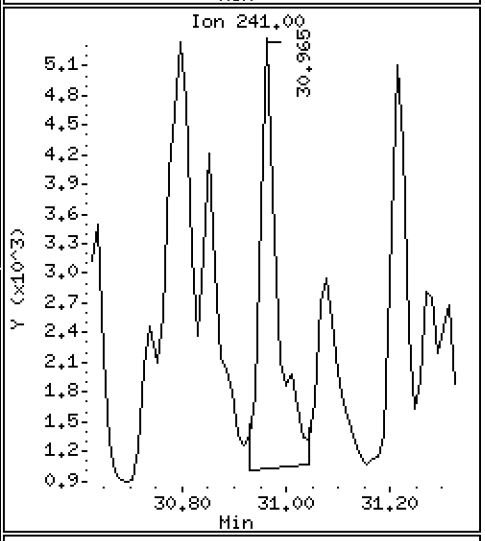
58 C1-Benzo(a)anthracenes/Chrysene

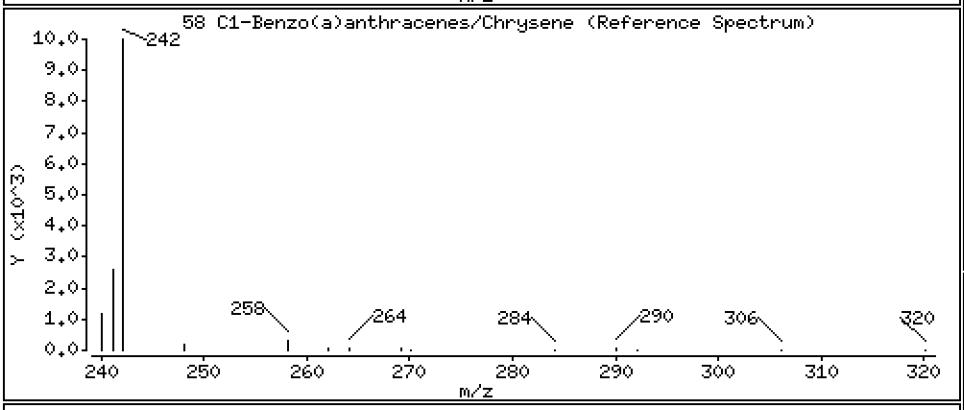
Concentration: 0.7093 ug/mL

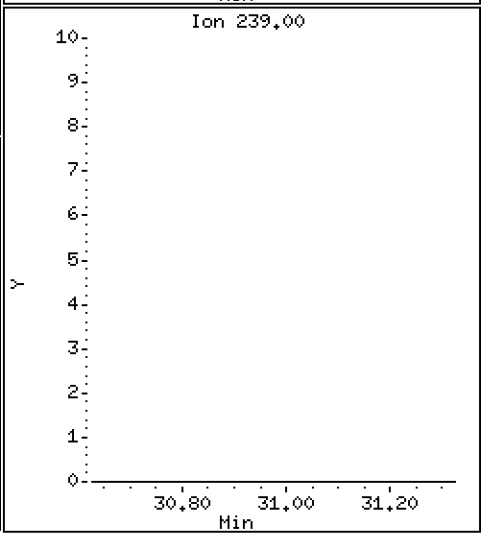


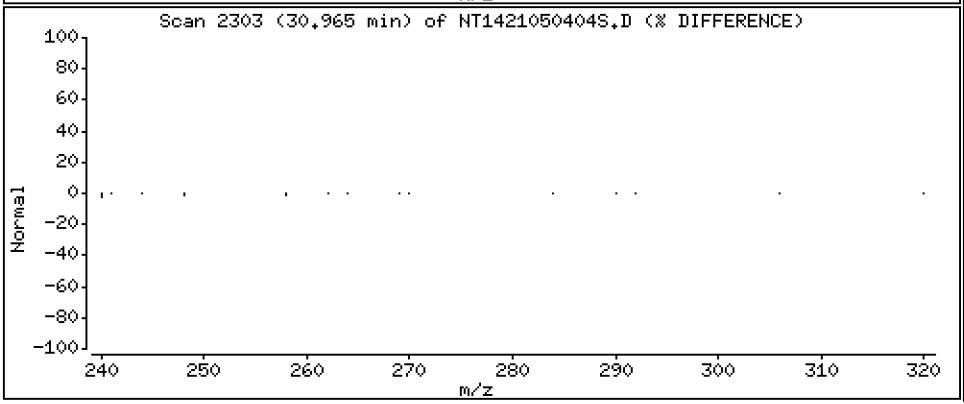



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

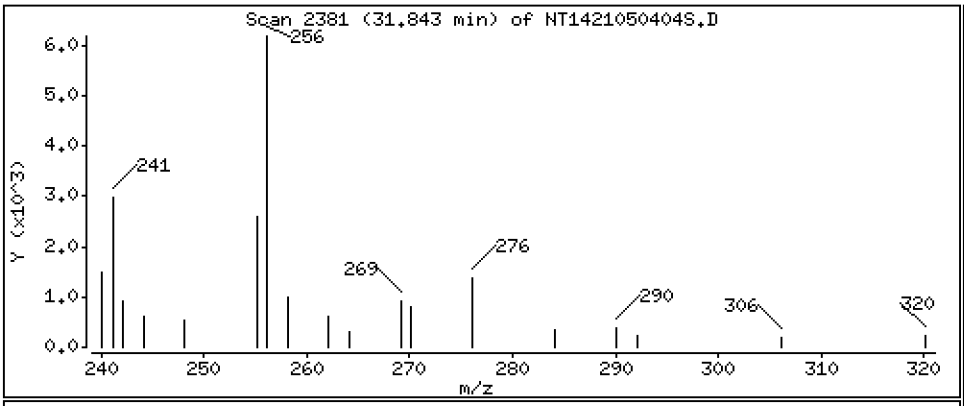
Operator: VTS

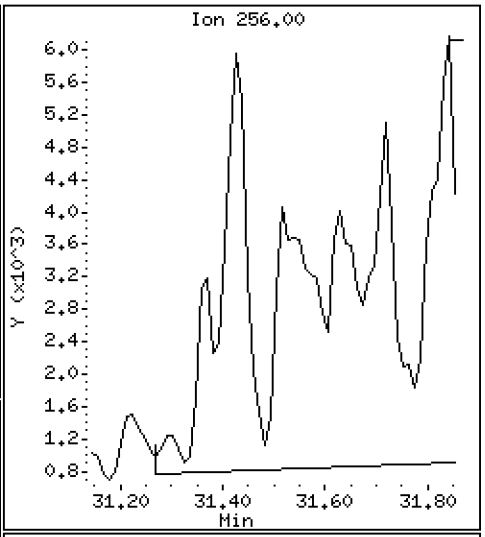
Column phase: Rxi-17Sil MS

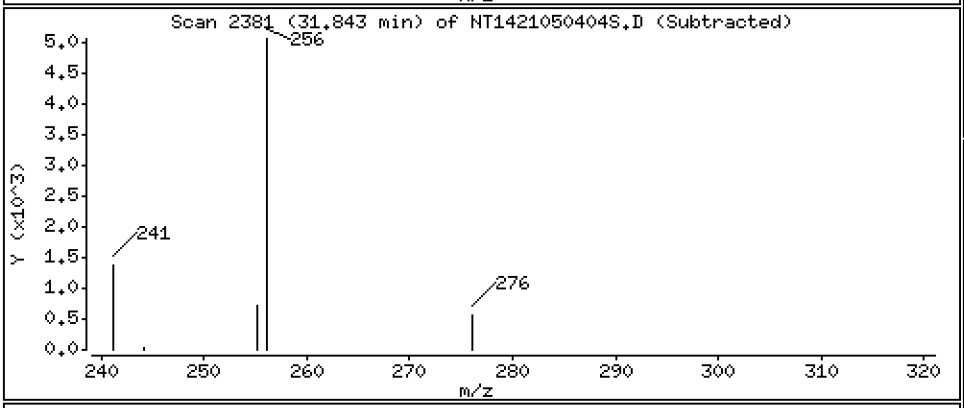
Column diameter: 0.25

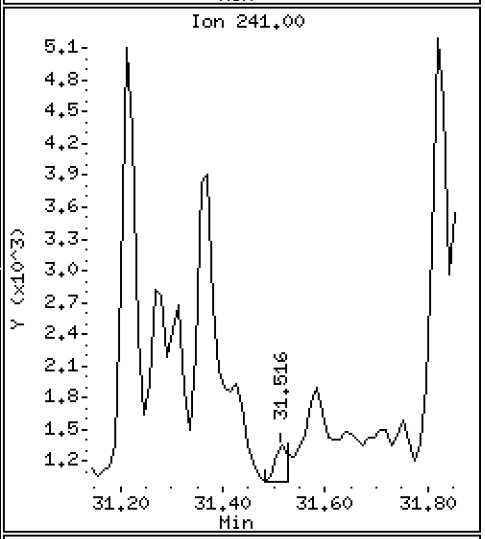
59 C2-Benzo(a)anthracenes/Chrysene

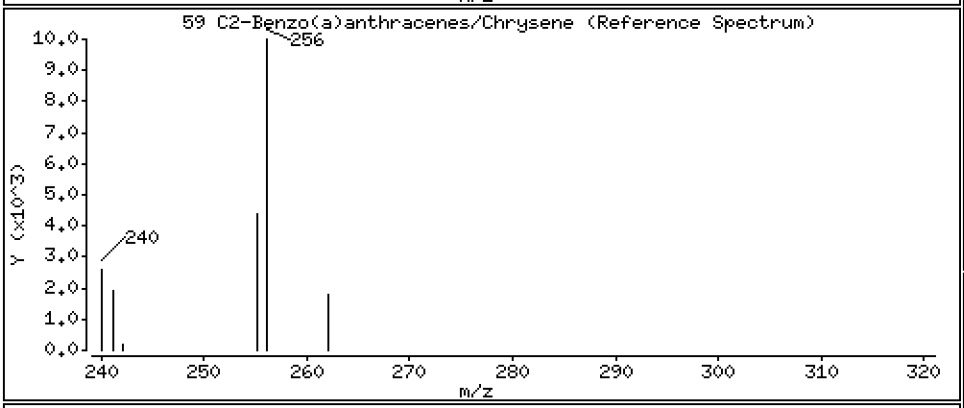
Concentration: 0.3046 ug/mL

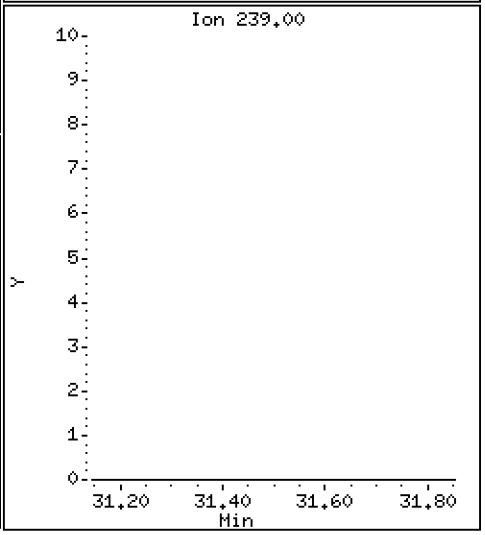


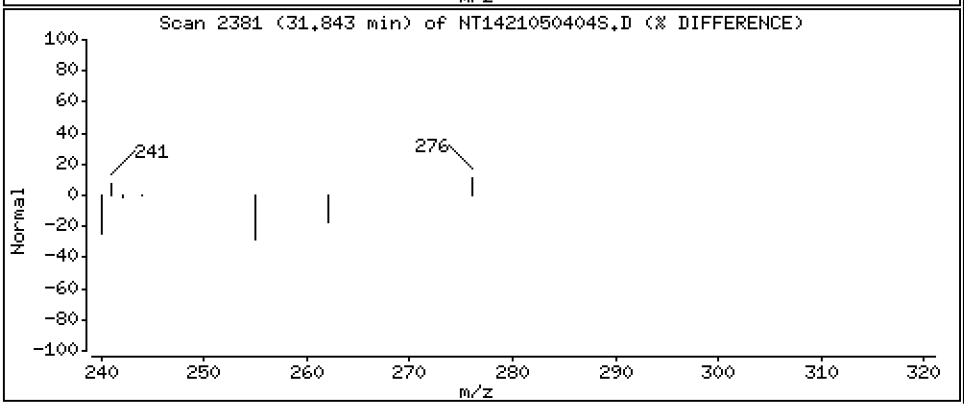



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

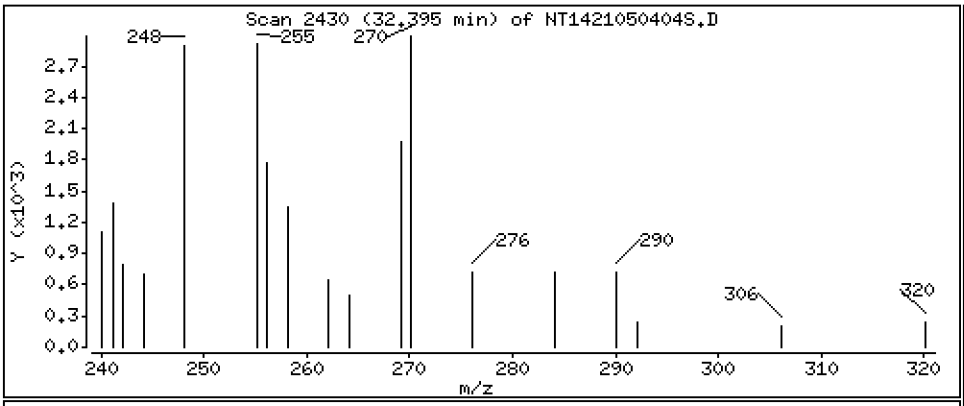
Operator: VTS

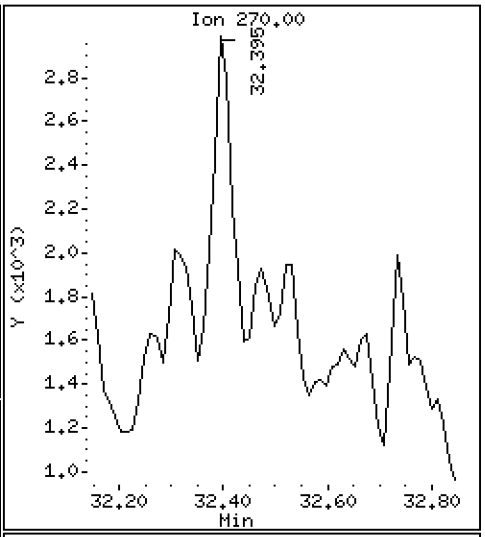
Column phase: Rxi-17Sil MS

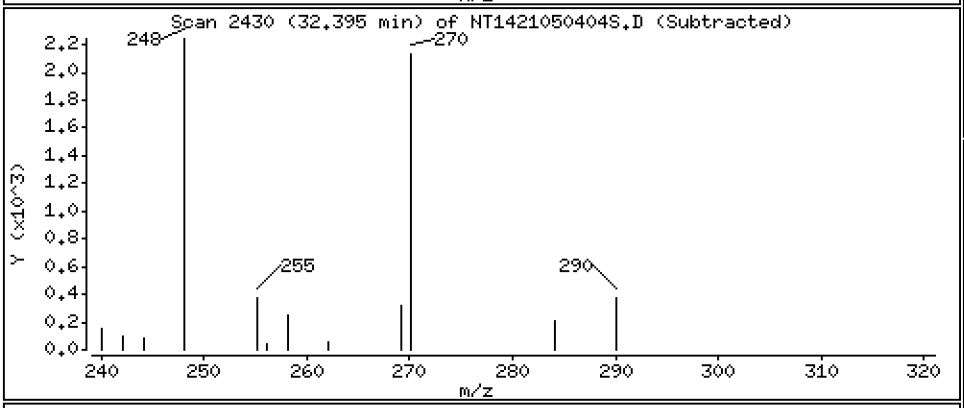
Column diameter: 0.25

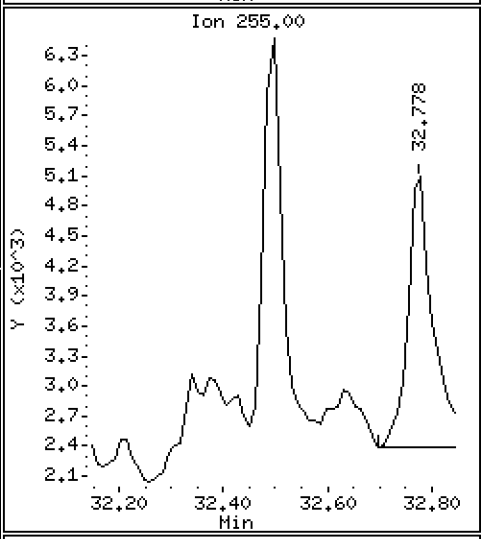
60 C3-Benzo(a)anthracenes/Chrysene

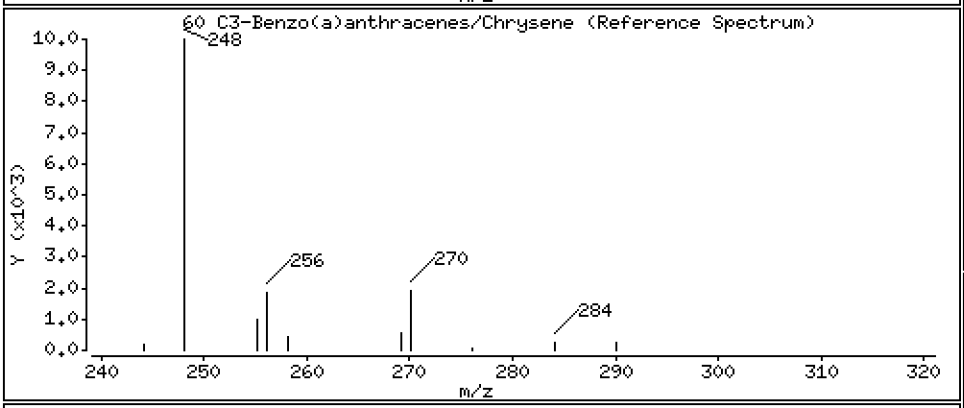
Concentration: 0.2012 ug/mL

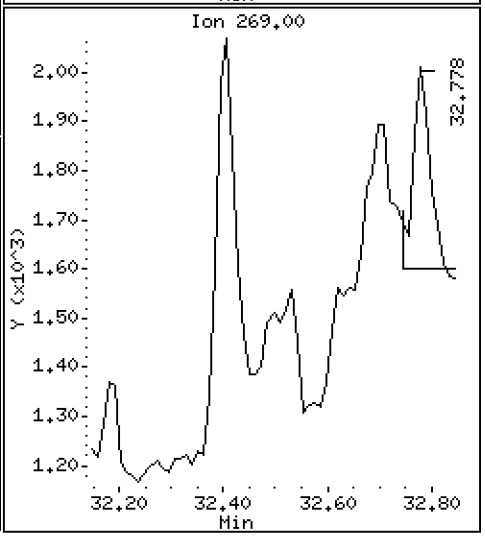


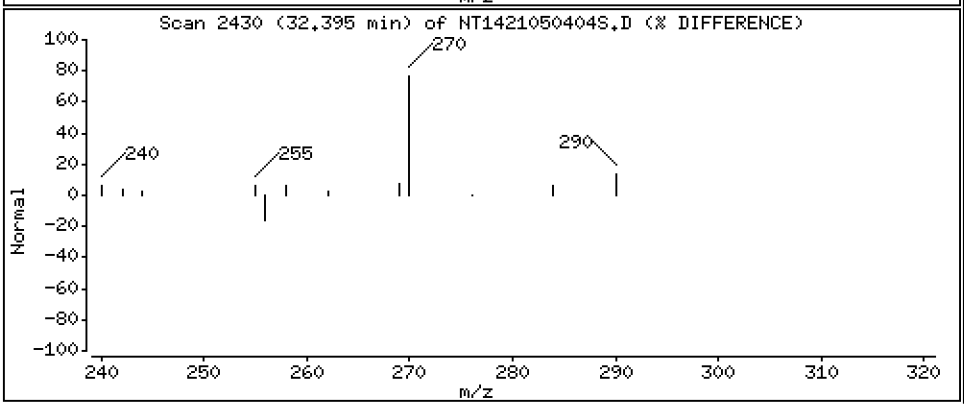



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

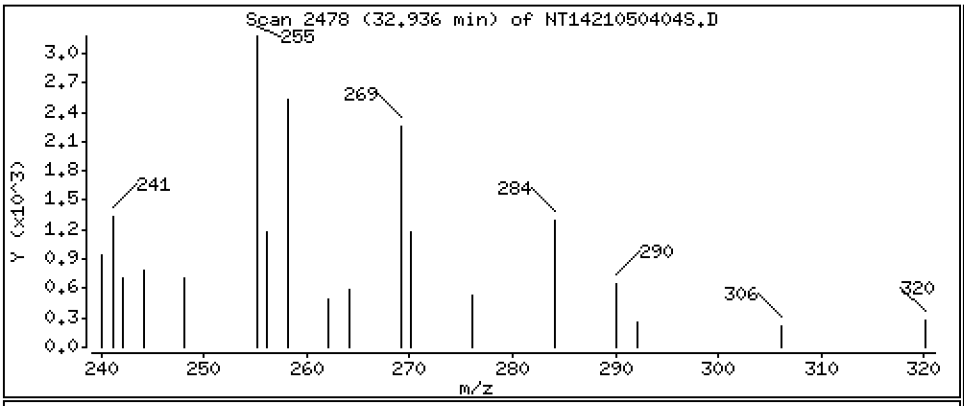
Operator: VTS

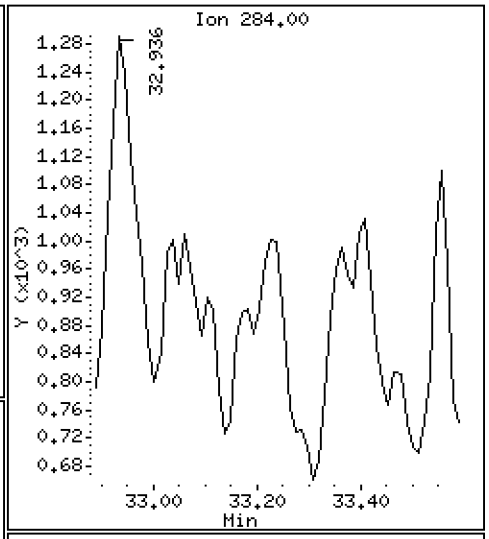
Column phase: Rxi-17Sil MS

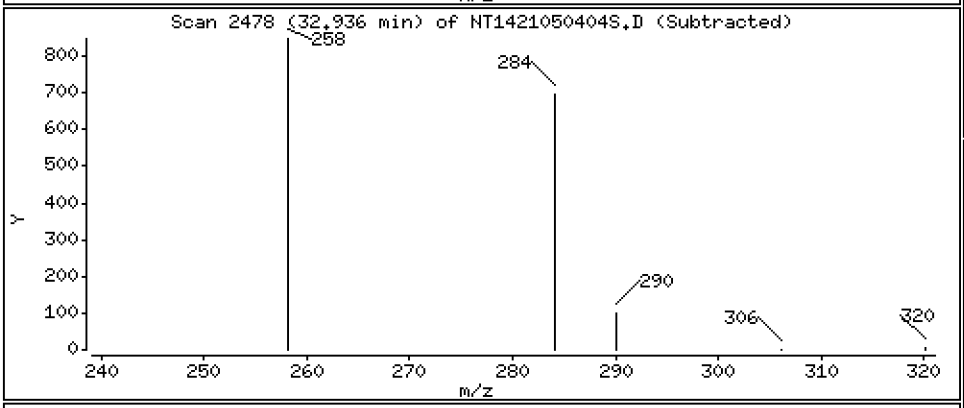
Column diameter: 0.25

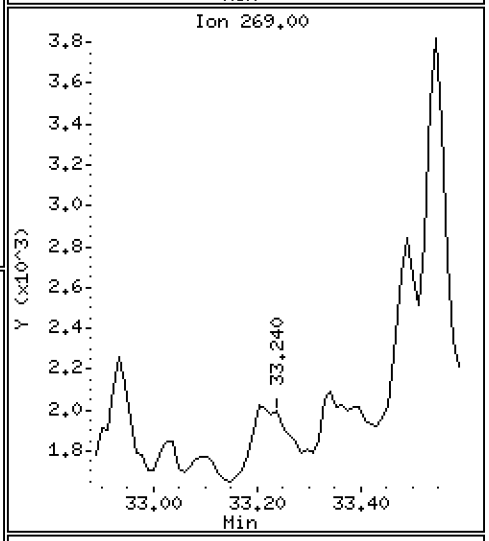
61 C4-Benzo(a)anthracenes/Chrysene

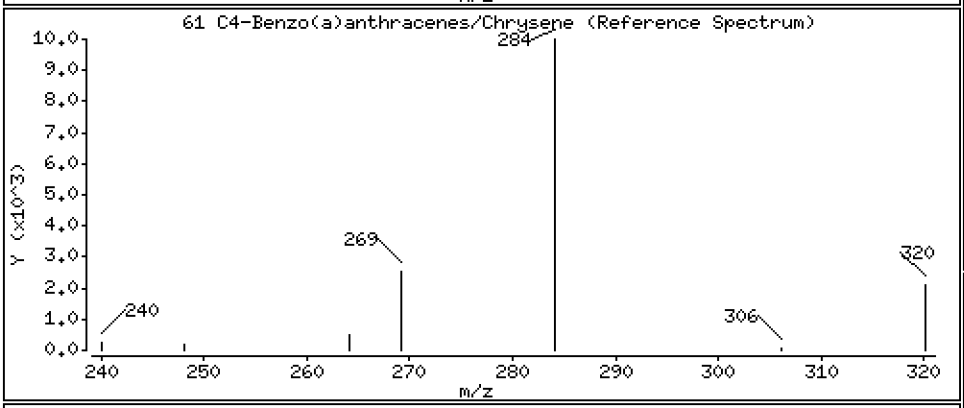
Concentration: 0.09803 ug/mL

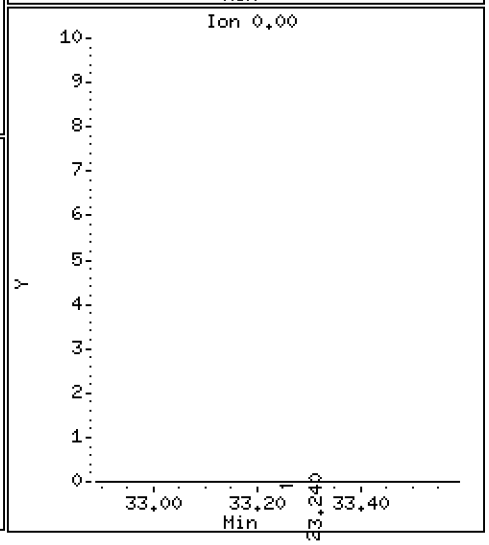


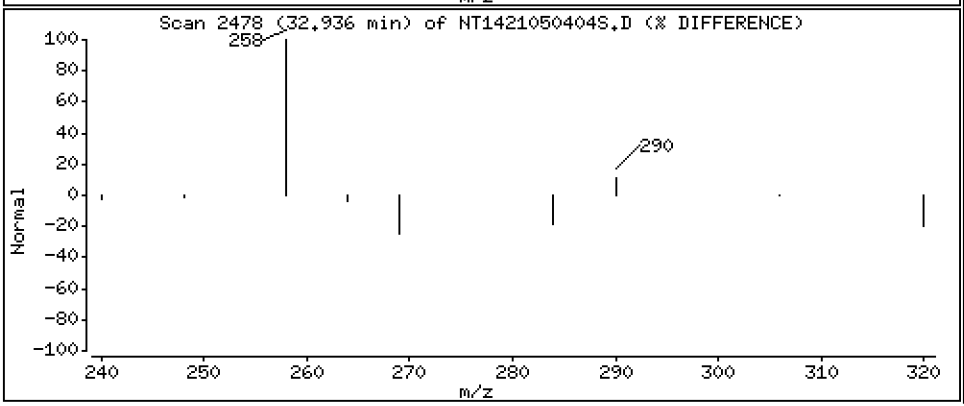



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

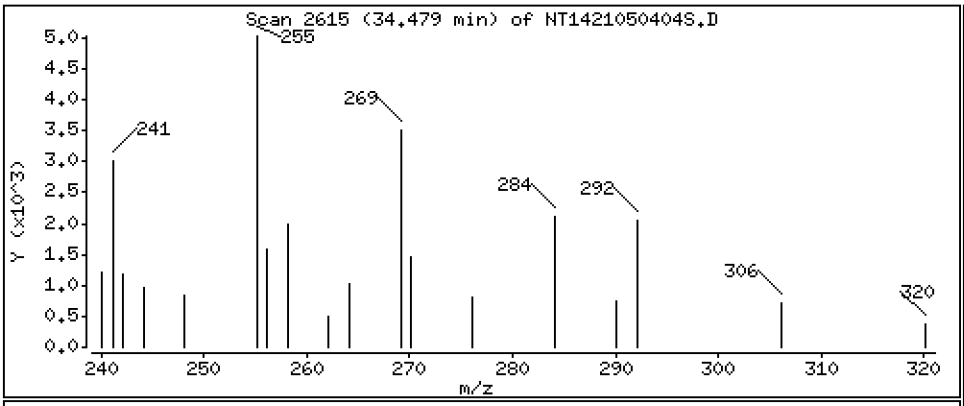
Operator: VTS

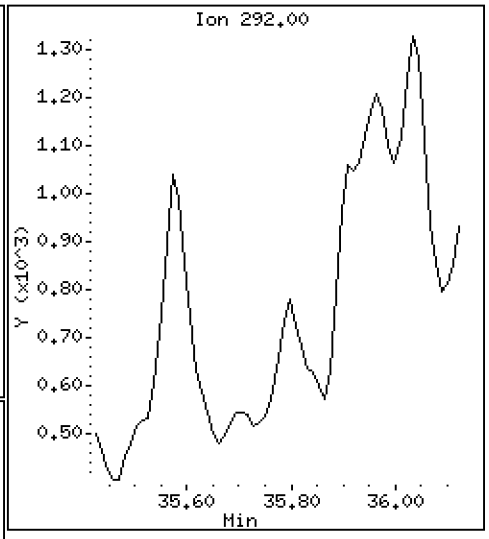
Column phase: Rxi-17Sil MS

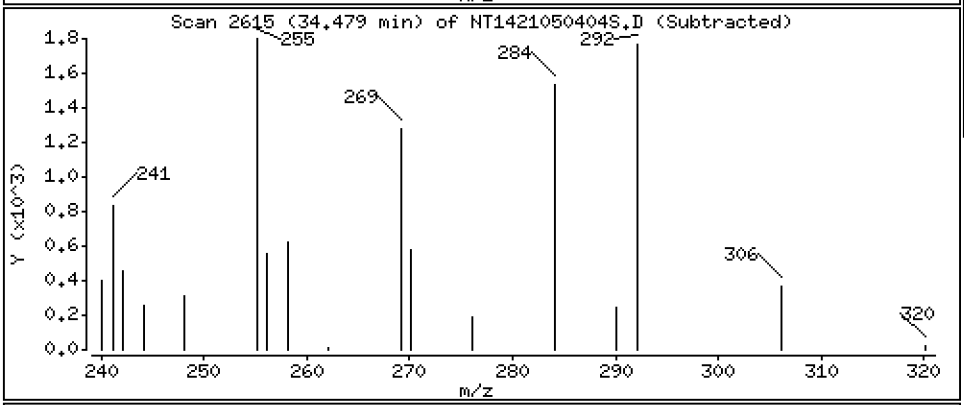
Column diameter: 0.25

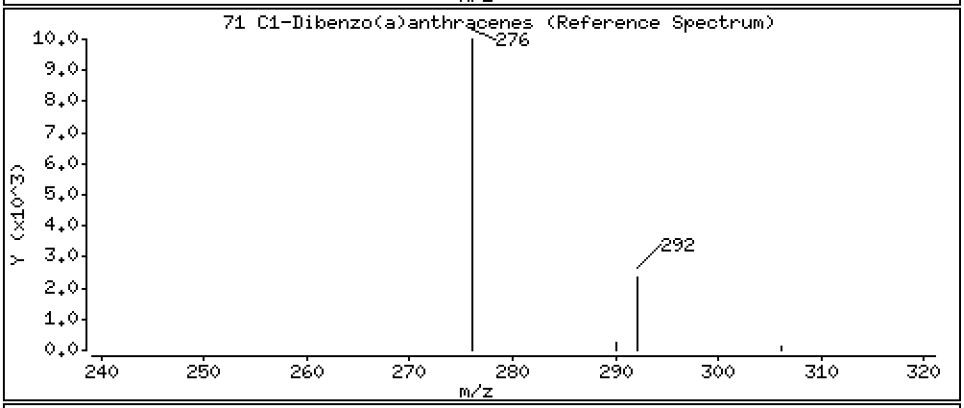
71 C1-Dibenzo(a)anthracenes

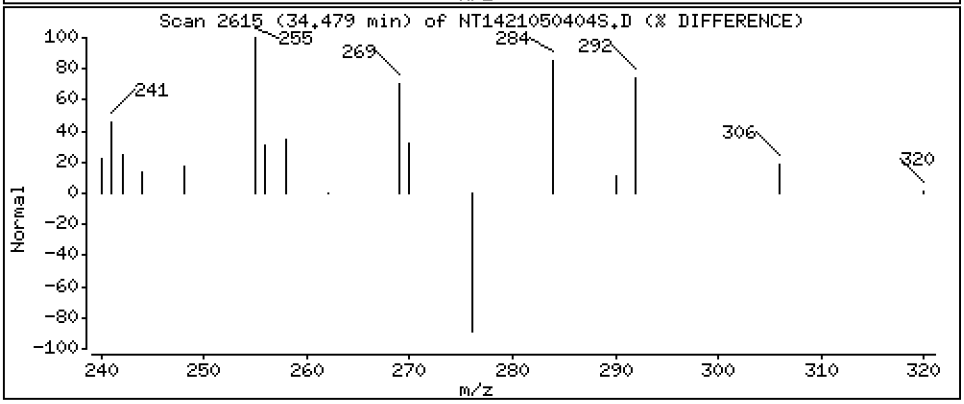
Concentration: 0.1969 ug/mL



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

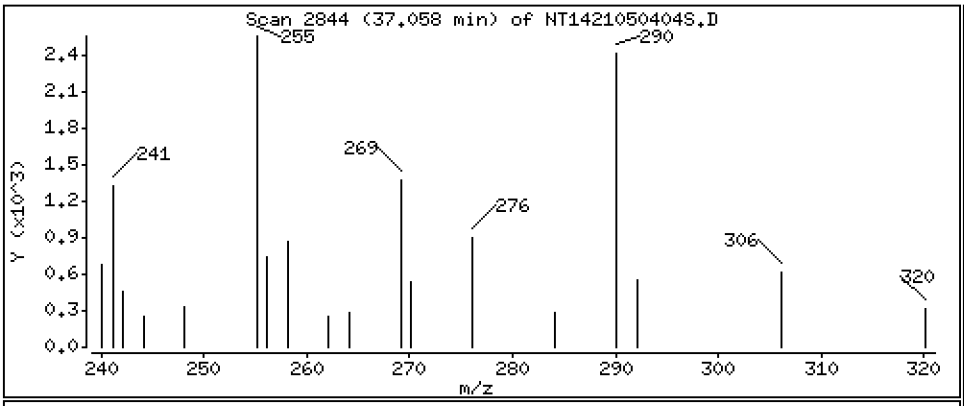
Operator: VTS

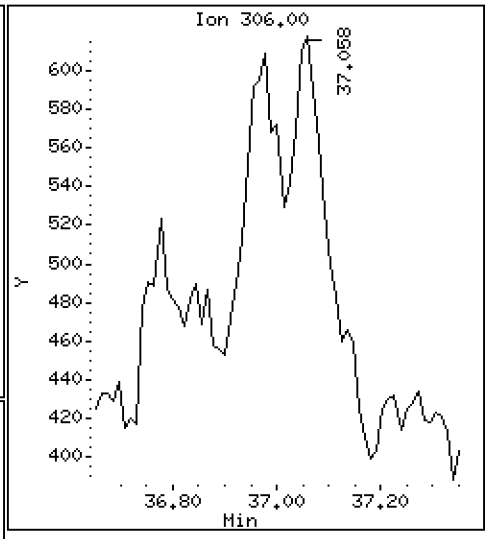
Column phase: Rxi-17Sil MS

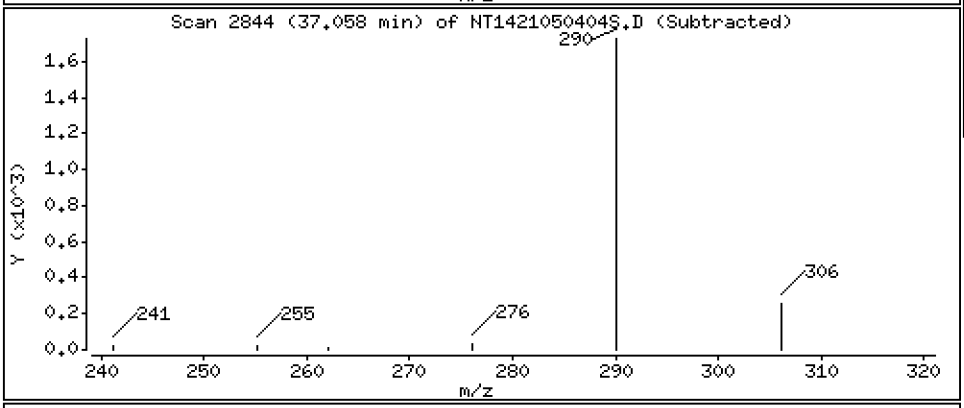
Column diameter: 0.25

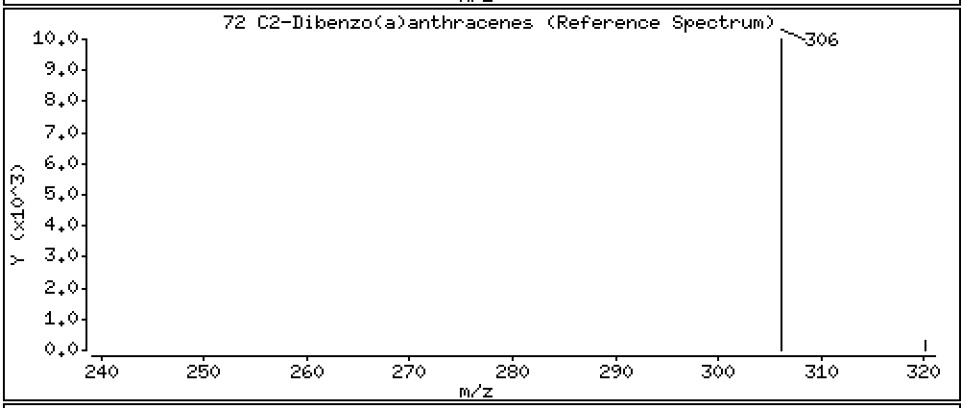
72 C2-Dibenzo(a)anthracenes

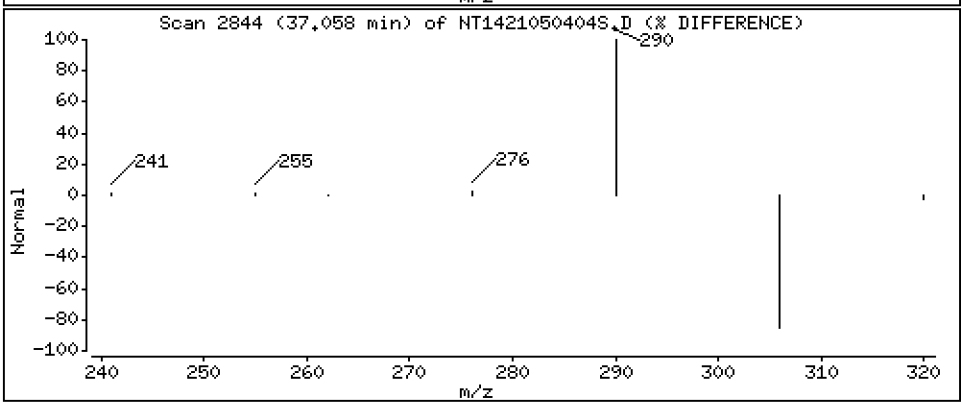
Concentration: 0.02968 ug/mL



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Date : 04-MAY-2021 15:19

Client ID:

Instrument: nt14.i

Sample Info: 21D0180-04

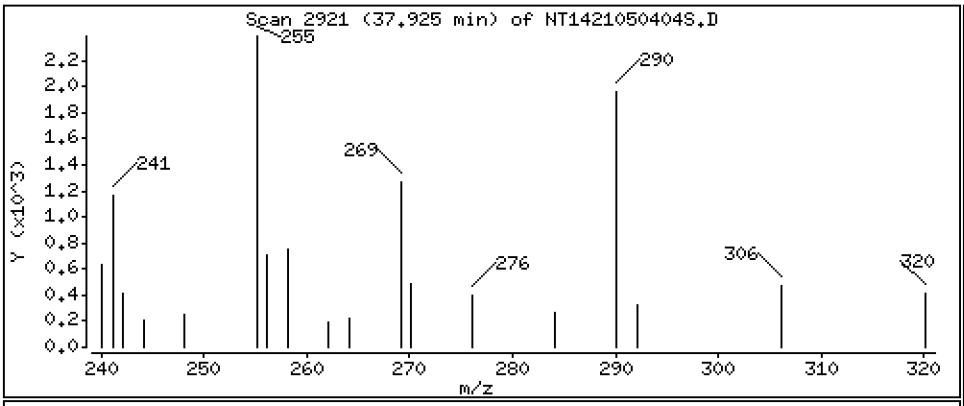
Operator: VTS

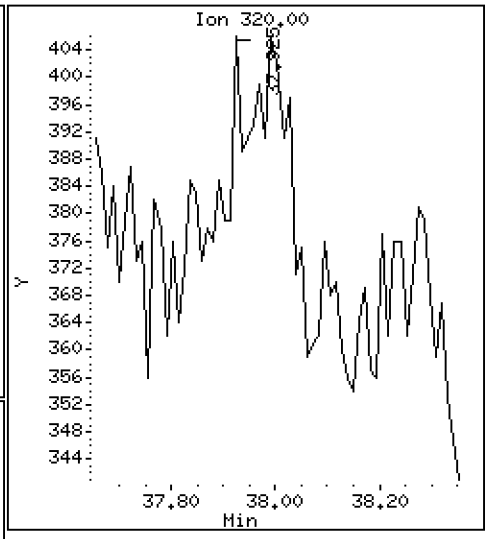
Column phase: Rxi-17Sil MS

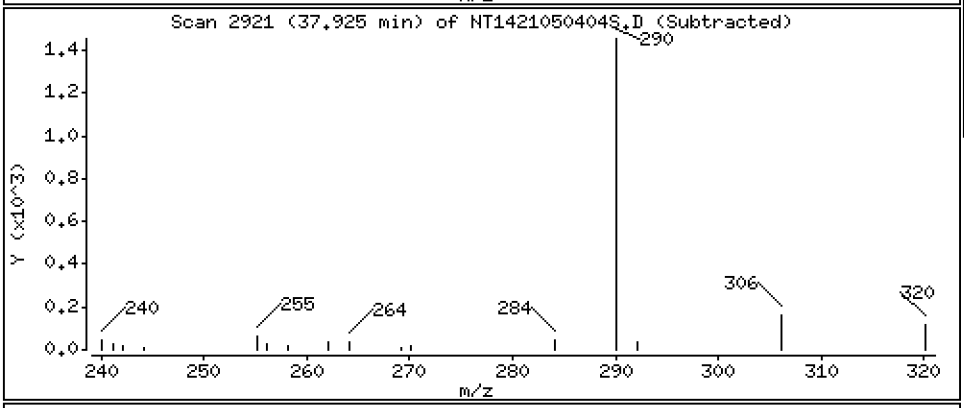
Column diameter: 0.25

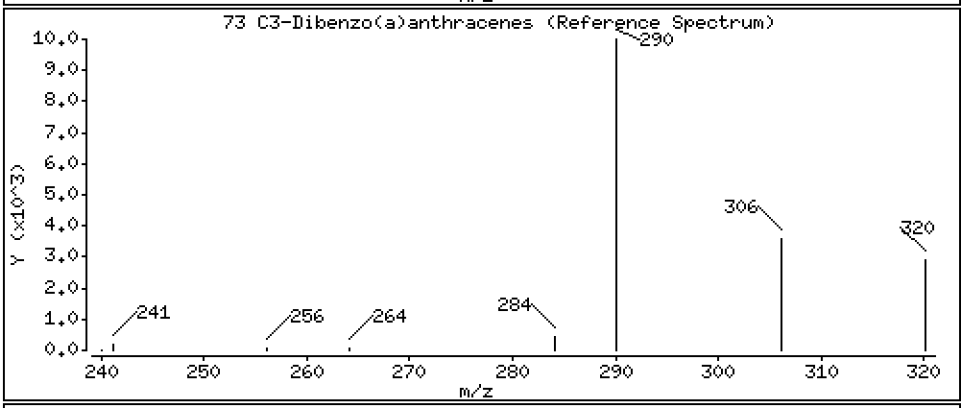
73 C3-Dibenzo(a)anthracenes

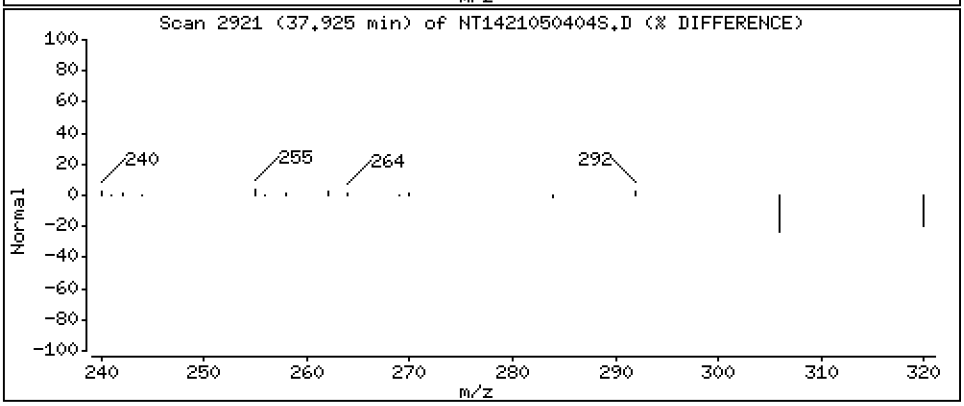
Concentration: 0.02419 ug/mL



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210504.b\SIM.b\NT1421050404S.D
Lab Smp Id: 21D0180-04
Inj Date : 04-MAY-2021 15:19
Operator : VTS Inst ID: nt14.i
Smp Info : 21D0180-04
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210504.b\SIM.b\ALKYLRANGES.m
Meth Date : 07-May-2021 16:19 yev Quant Type: ISTD
Cal Date : 01-MAY-2021 01:56 Cal File: NT1421043024S.D
Als bottle: 4
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 | 7.864 | 8.800 | (0.419) | 1554 | 0.04985 | 0.04985(M) |
| 4 | C2-Decalin | 166 | 9.014 | 9.200 | (0.480) | 6124 | 0.19644 | 0.1964(M) |
| 5 | C3-Decalin | 180 | 10.920 | 10.000 | (0.582) | 3281 | 0.10525 | 0.1052(M) |
| 247 | C4-Decalin | 194 | Compound Not Detected. | | | | | |
| 8 | C1-Naphthalenes | 142 | 13.660 | 14.121 | (0.728) | 44240 | 0.12432 | 0.1243(M) |
| 9 | C2-Naphthalenes | 156 | 15.792 | 16.111 | (0.842) | 64754 | 0.18197 | 0.1820(M) |
| 10 | C3-Naphthalenes | 170 | 17.649 | 17.957 | (0.941) | 42250 | 0.11873 | 0.1187(M) |
| 11 | C4-Naphthalenes | 184 | 19.340 | 18.000 | (1.031) | 43339 | 0.12179 | 0.1218(M) |
| 13 | C1-Benzothiophenes | 148 | 13.143 | 14.110 | (0.701) | 13709 | 0.04842 | 0.04842(M) |
| 14 | C2-Benzothiophenes | 162 | 15.275 | 15.660 | (0.814) | 12342 | 0.04359 | 0.04359(M) |
| 15 | C3_Benzothiophenes | 176 | Compound Not Detected. | | | | | |
| 27 | C1-Fluorenes | 180 | 20.406 | 20.735 | (1.088) | 24093 | 0.11567 | 0.1157(M) |
| * 25 | Fluorene-d10 | 176 | 18.762 | 18.762 | (1.000) | 606225 | 2.00000 | |
| 28 | C2-Fluorenes | 194 | 21.608 | 22.000 | (1.152) | 34647 | 0.16634 | 0.1663(M) |
| 29 | C3-Fluorenes | 208 | 23.282 | 23.172 | (1.241) | 29886 | 0.14348 | 0.1435(M) |
| 31 | C1-Dibenzothiophenes | 198 | 22.919 | 23.500 | (1.222) | 32861 | 0.12498 | 0.1250(M) |
| 32 | C2-Dibenzothiophenes | 212 | 24.327 | 24.535 | (1.297) | 41448 | 0.15764 | 0.1576(M) |
| 33 | C3-Dibenzothiophenes | 226 | 25.723 | 25.600 | (1.371) | 34536 | 0.13135 | 0.1313(M) |
| 34 | C4-Dibenzothiophenes | 240 | Compound Not Detected. | | | | | |
| 38 | C1-Phenanthrenes/Anthracenes | 192 | 23.568 | 23.500 | (1.061) | 185674 | 0.59440 | 0.5944(M) |
| * 250 | Anthracene-d10 | 188 | 22.205 | 22.205 | (1.000) | 561691 | 2.00000 | |
| 39 | C2-Phenanthrenes/Anthracenes | 206 | 25.338 | 25.107 | (1.141) | 171438 | 0.54882 | 0.5488(M) |
| 40 | C3-Phenanthrenes/Anthracenes | 220 | 26.372 | 26.856 | (1.188) | 59228 | 0.18961 | 0.1896(M) |
| 41 | C4-Phenanthrenes/Anthracenes | 234 | 27.733 | 27.500 | (1.249) | 30413 | 0.09736 | 0.09736(M) |
| 48 | C1-Fluoranthenes/Pyrenes | 216 | 27.887 | 27.624 | (1.256) | 312717 | 1.03909 | 1.039(M) |
| 49 | C2-Fluoranthenes/Pyrenes | 230 | 29.212 | 28.800 | (1.316) | 155215 | 0.51574 | 0.5157(M) |
| 50 | C3-Fluoranthenes/Pyrenes | 244 | 29.804 | 29.995 | (1.342) | 50395 | 0.16745 | 0.1675(M) |
| 249 | C4-Fluoranthenes/Pyrenes | 258 | 33.036 | 33.037 | (1.488) | 101380 | 0.33686 | 0.3369(M) |
| 52 | C1-Naphthobenzothiophenes | 248 | 30.052 | 30.000 | (1.353) | 55650 | 0.18311 | 0.1831(M) |
| 53 | C2-Naphthobenzothiophenes | 262 | 31.144 | 31.000 | (1.403) | 45228 | 0.14882 | 0.1488(M) |
| 54 | C3-Naphthobenzothiophenes | 276 | 32.496 | 32.000 | (1.463) | 44618 | 0.14681 | 0.1468(M) |
| 248 | C4-Naphthobenzothiophenes | 290 | 32.135 | 33.000 | (1.447) | 13261 | 0.04363 | 0.04363(M) |
| 58 | C1-Benzo(a)anthracenes/Chrysen | 242 | 30.964 | 30.975 | (0.937) | 233089 | 0.70931 | 0.7093(M) |

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

## QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

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

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

Test Mode:
Use Last Continuing Calibrator.

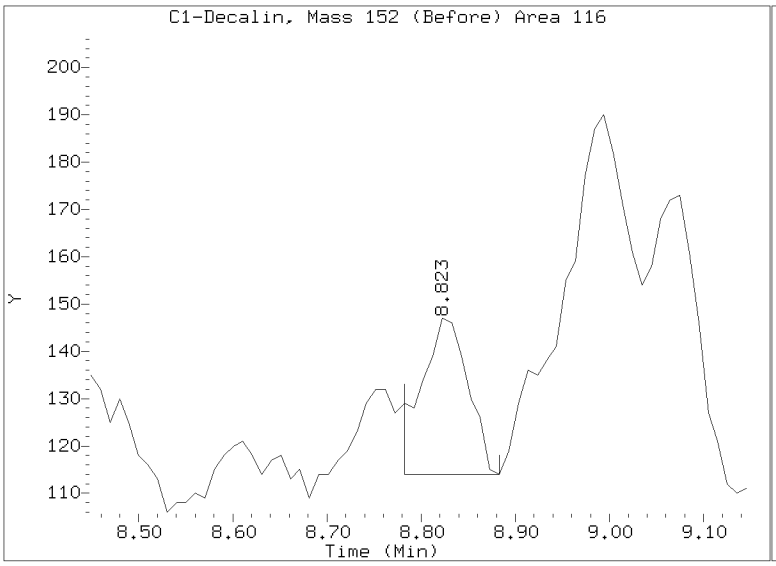
| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 25 Fluorene-d10 | 660770 | 330385 | 1321540 | 606225 | -8.25 |
| 250 Anthracene-d10 | 604254 | 302127 | 1208508 | 561691 | -7.04 |
| 251 Benzo(e)pyrene-d1 | 721275 | 360638 | 1442550 | 703623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

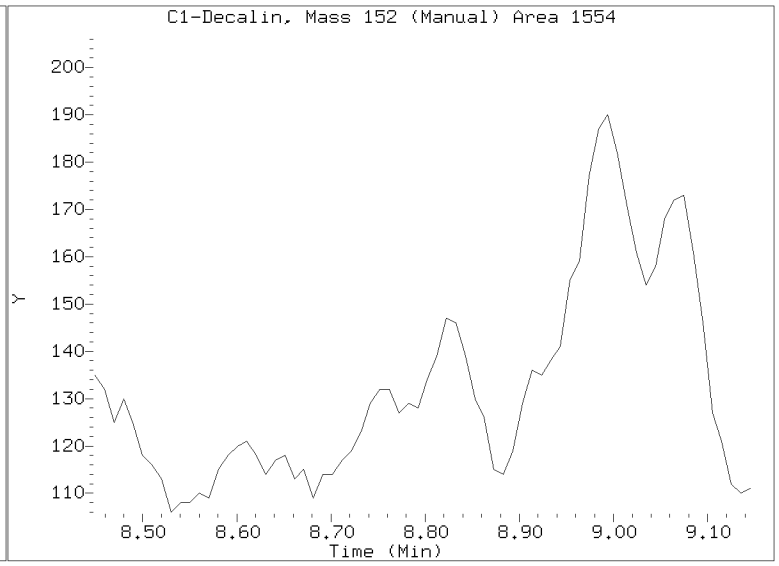
| | | RT LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 25 Fluorene-d10 | 18.76 | 18.26 | 19.26 | 18.76 | -0.00 |
| 250 Anthracene-d10 | 22.21 | 21.71 | 22.71 | 22.21 | -0.00 |
| 251 Benzo(e)pyrene-d1 | 33.04 | 32.54 | 33.54 | 33.04 | -0.00 |

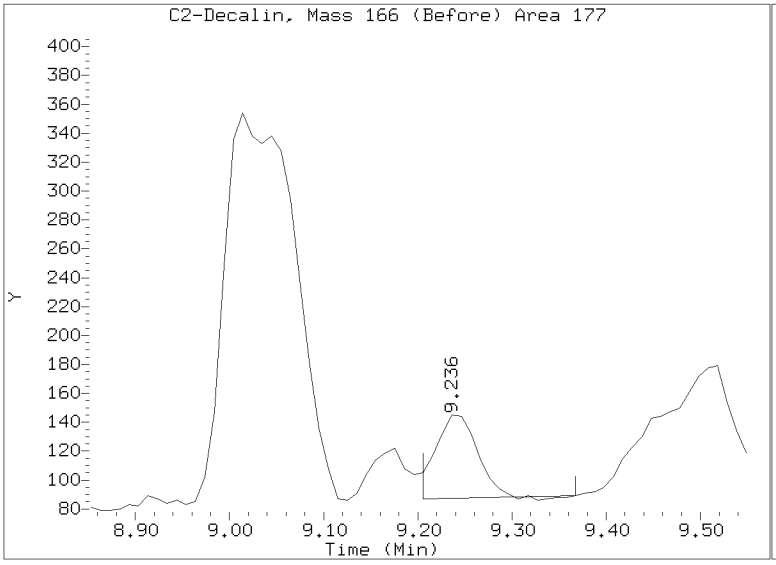
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

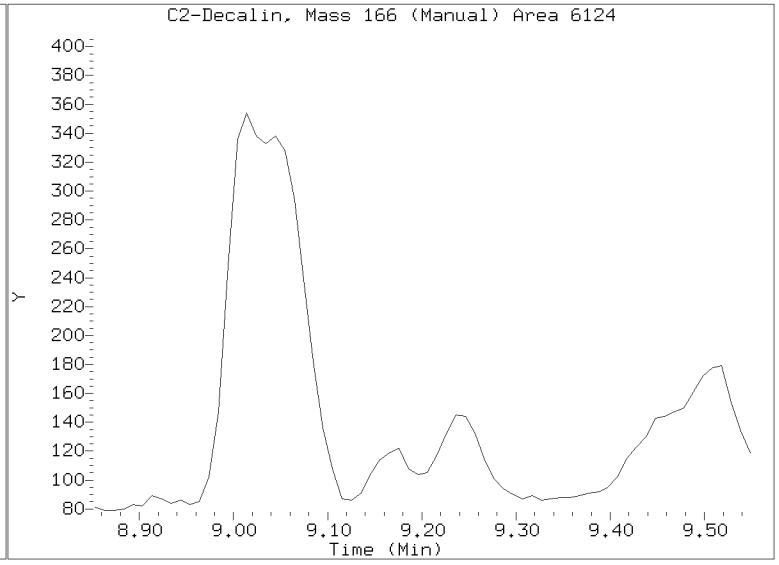
# Quant Ion Manual Peak Adjustment Report

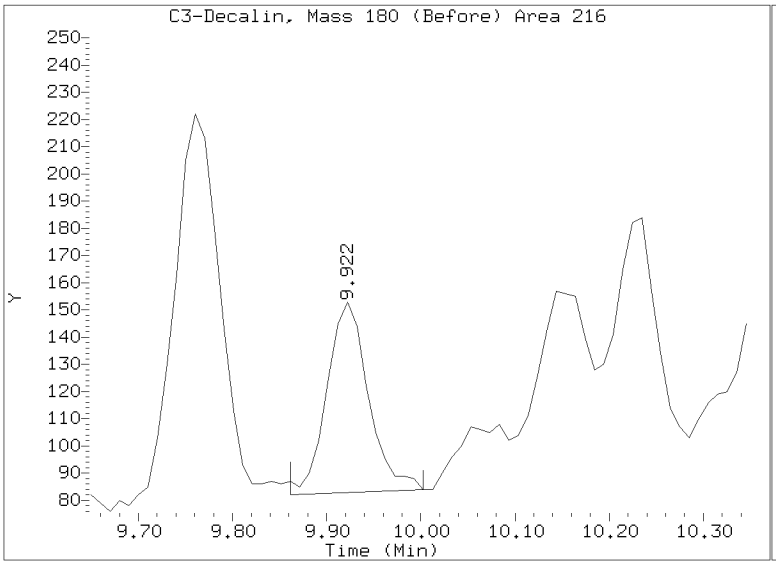
Datafile: //target/share/chem3/nt14.i/20210504.b/SIM.b/NT1421050404S.D
Injection Date: 04-MAY-2021 15:19
Lab ID:21D0180-04 Client ID:
Report Date: 05/07/2021 16:19

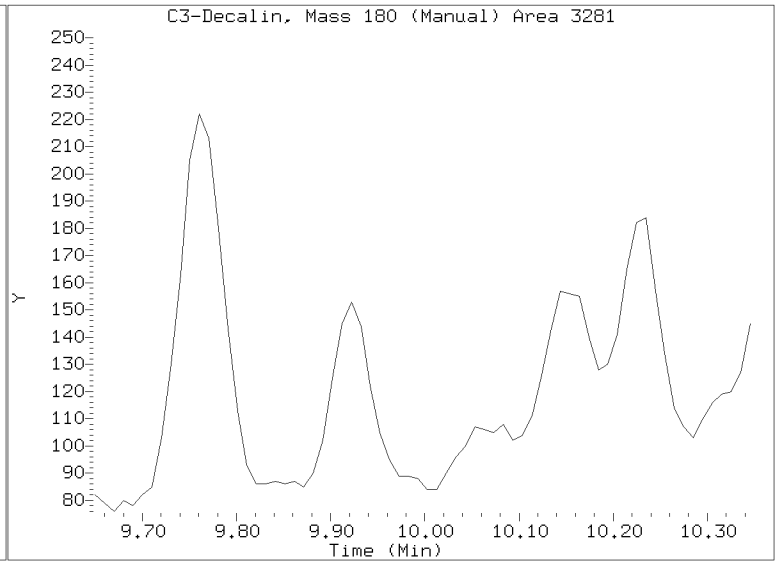


# Quant Ion Manual Peak Adjustment Report

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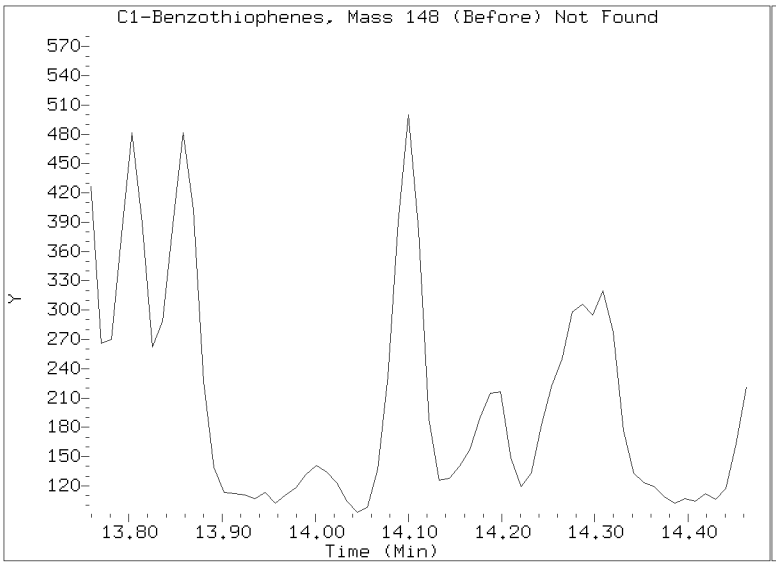
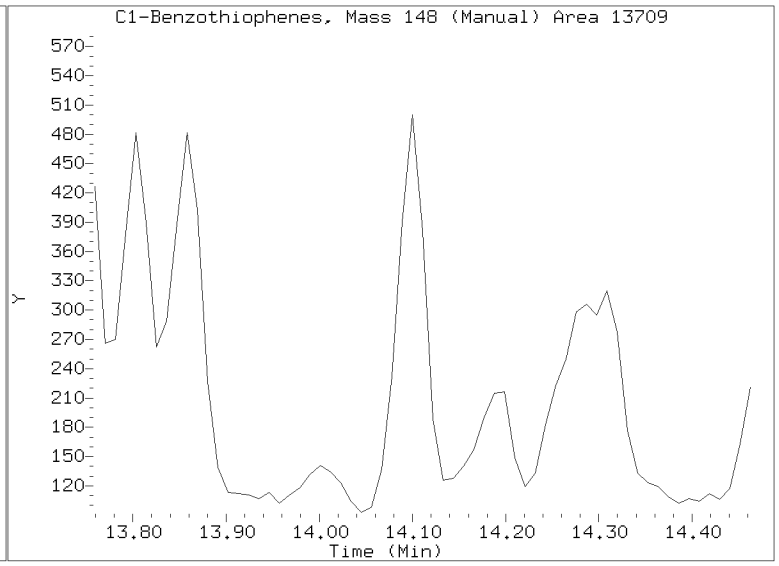
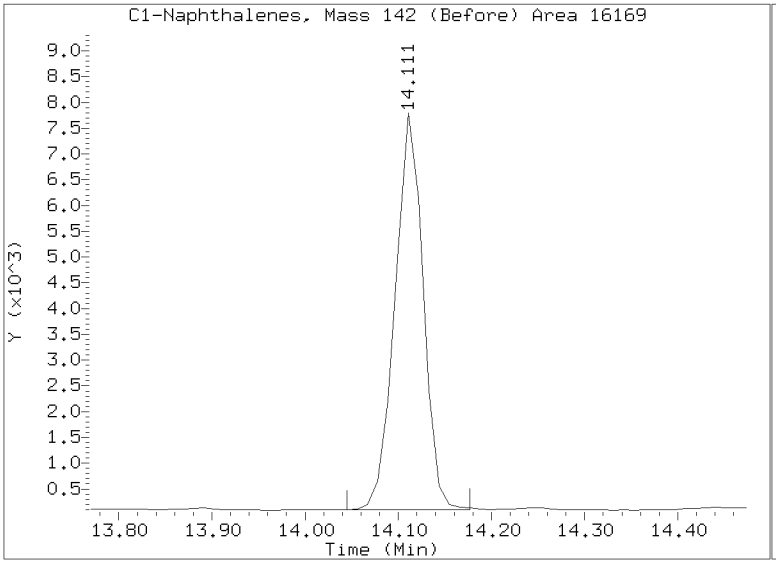
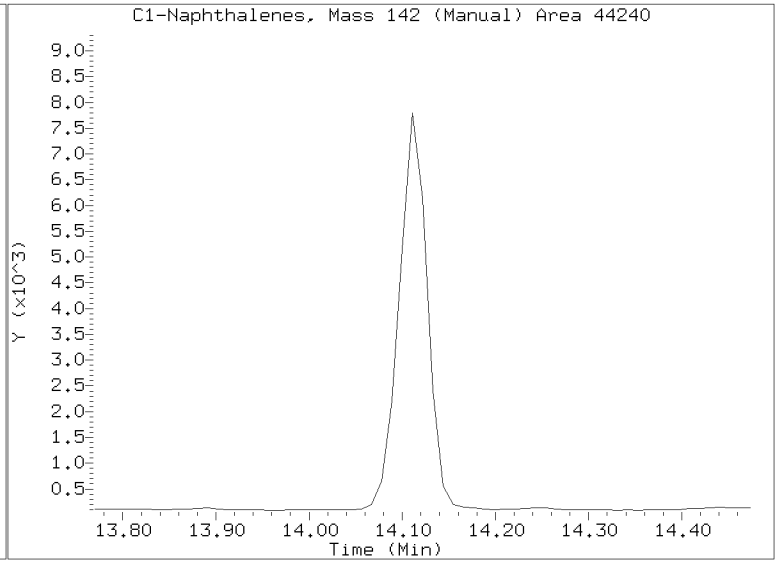
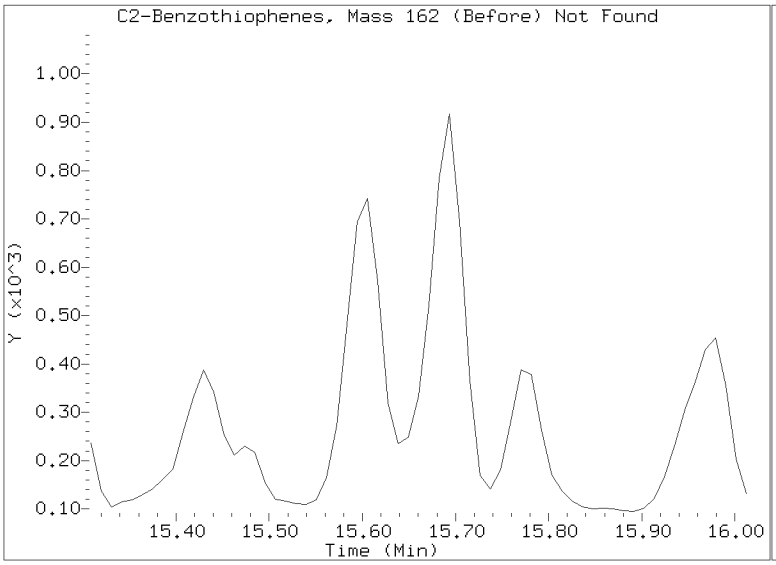
Injection Date: 04-MAY-2021 15:19
Lab ID:21D0180-04 Client ID:
Report Date: 05/07/2021 16:19

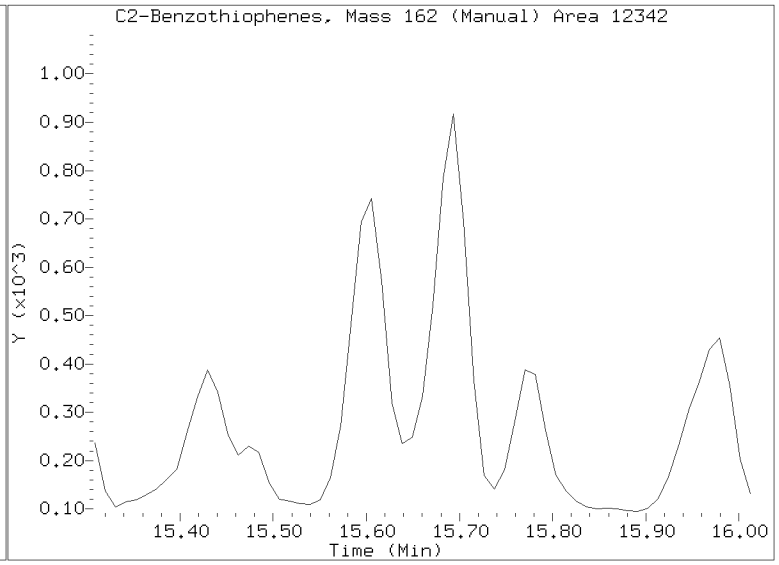


# Quant Ion Manual Peak Adjustment Report

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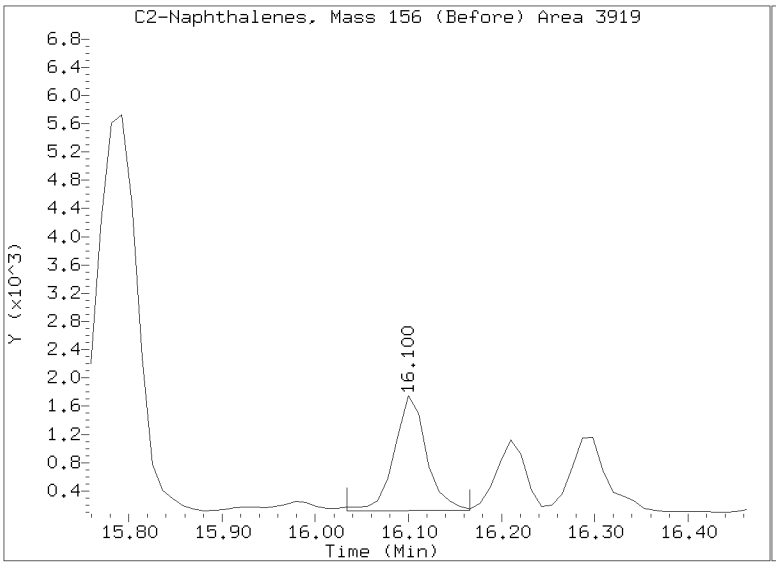
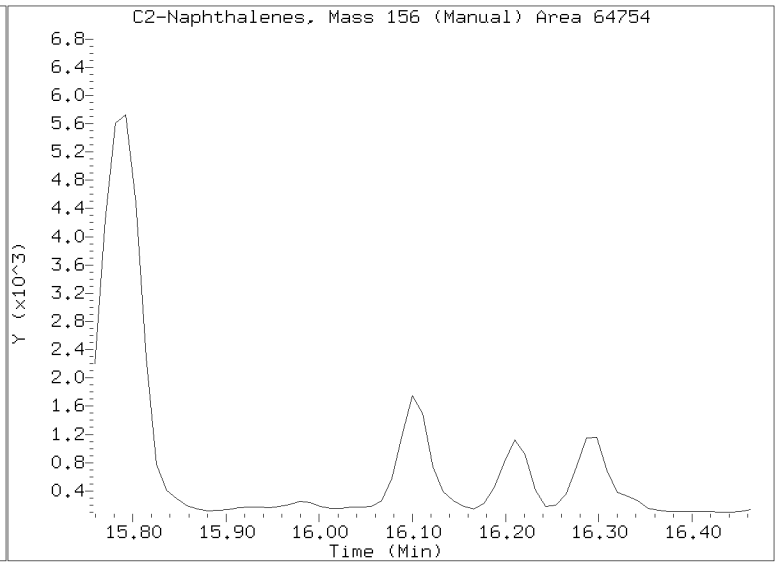
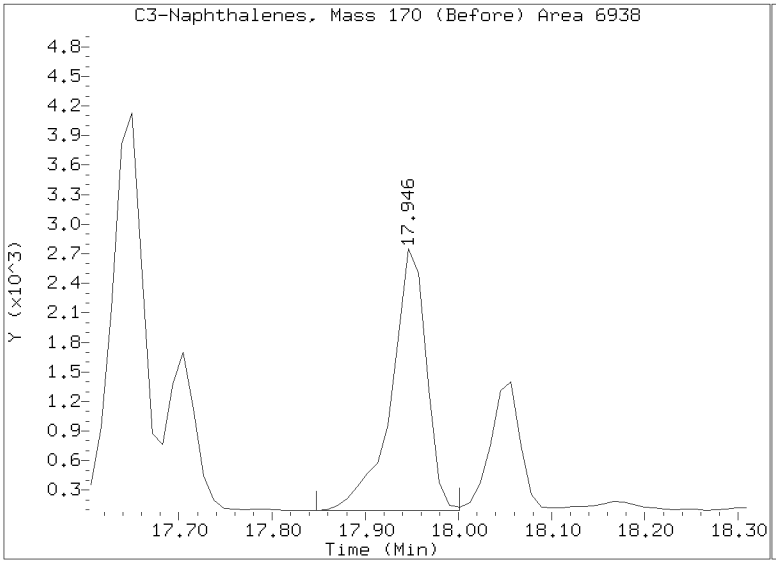
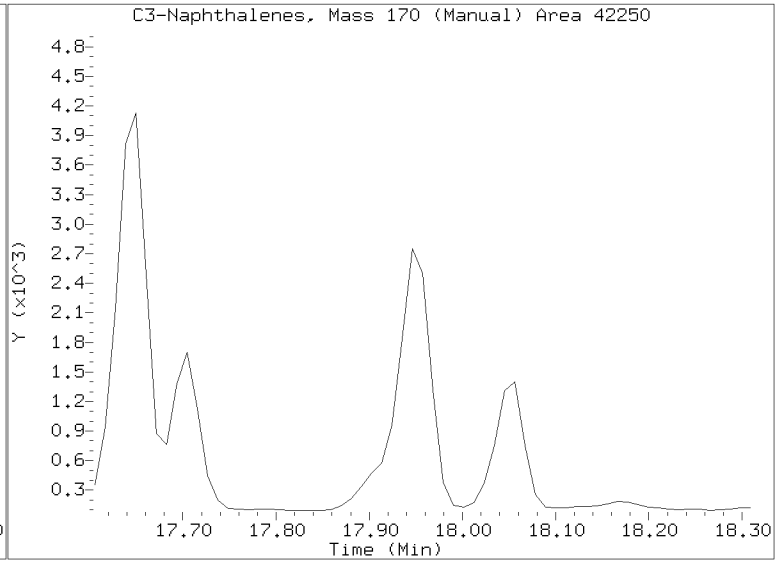
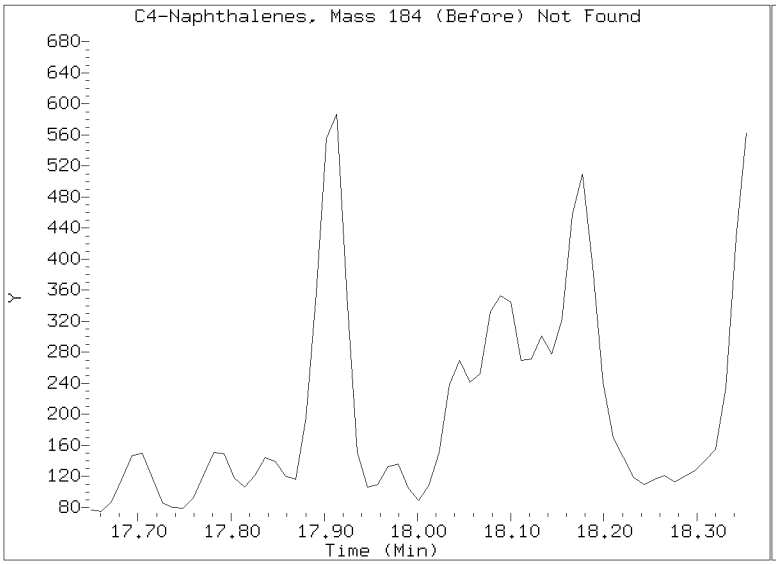
Lab ID:21D0180-04 Client ID:
Report Date: 05/07/2021 16:19

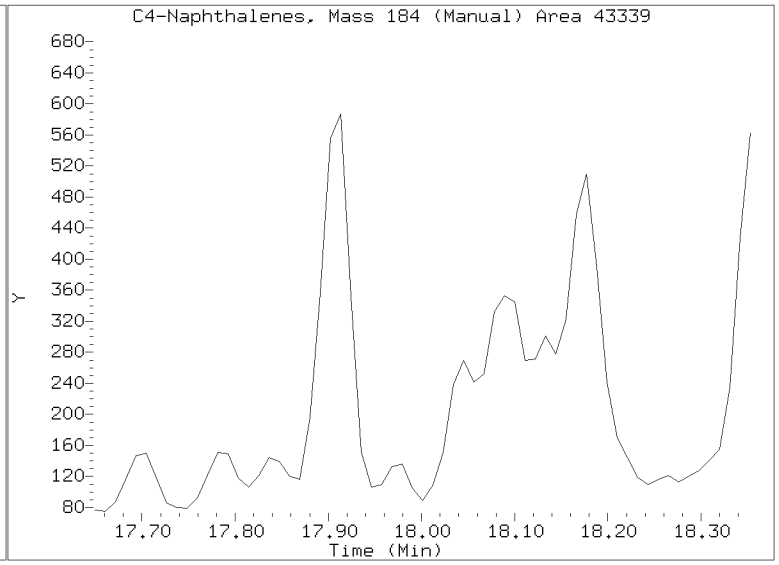


# Quant Ion Manual Peak Adjustment Report

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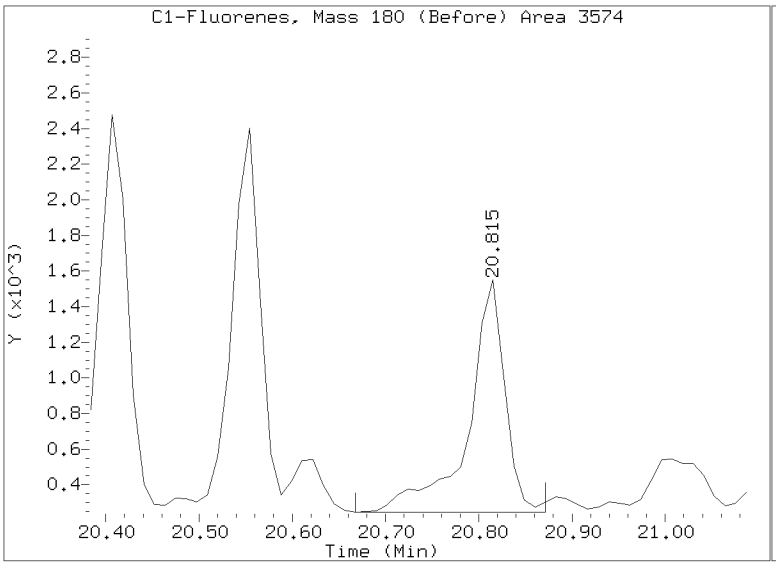
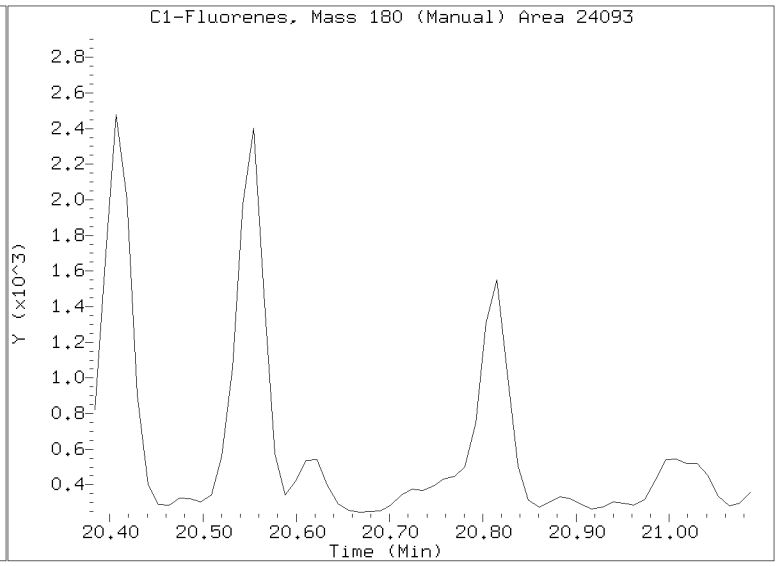
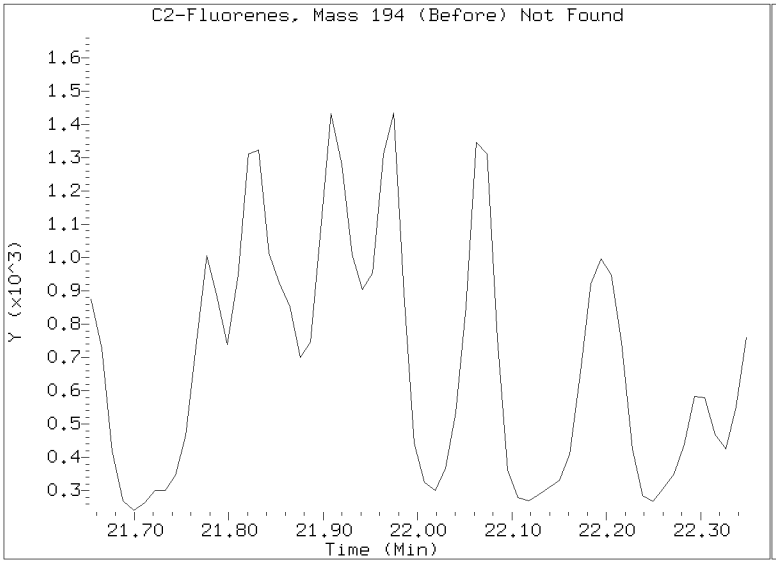
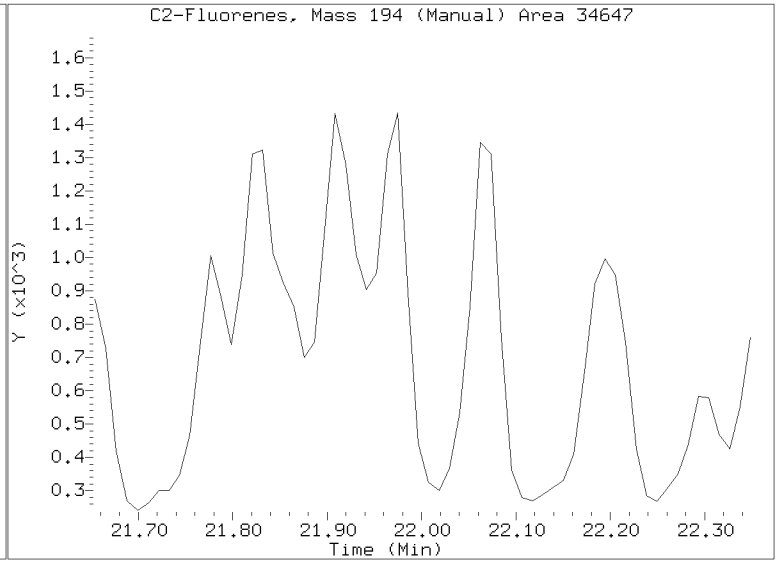
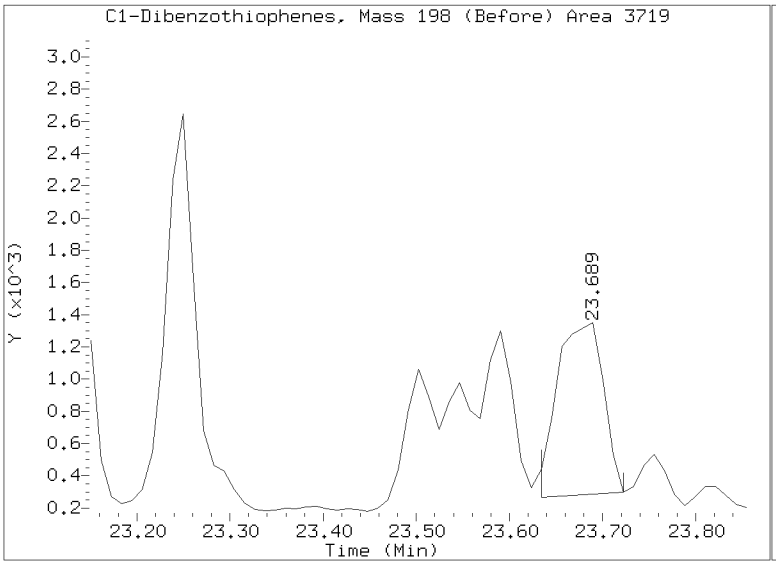
Injection Date: 04-MAY-2021 15:19
Lab ID:21D0180-04 Client ID:
Report Date: 05/07/2021 16:19

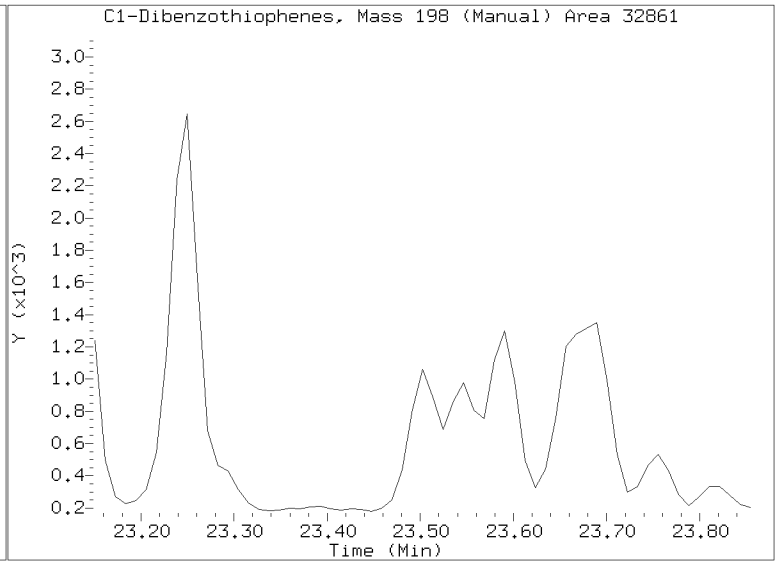


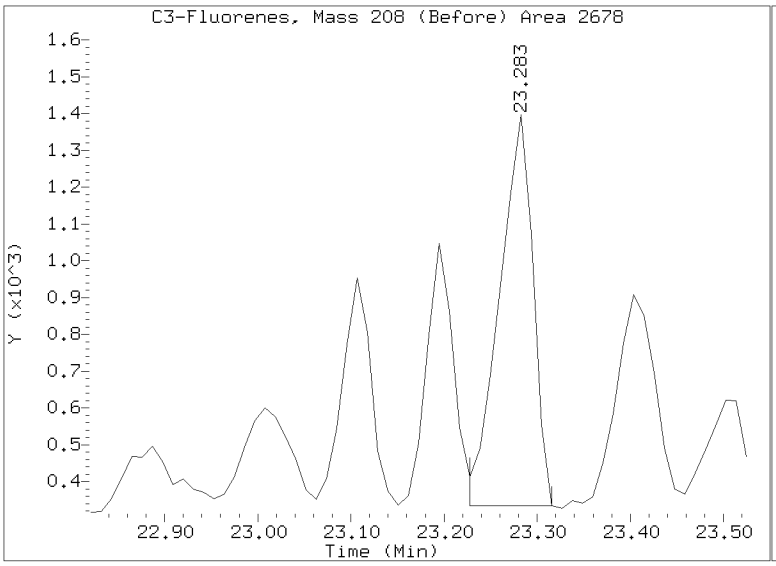



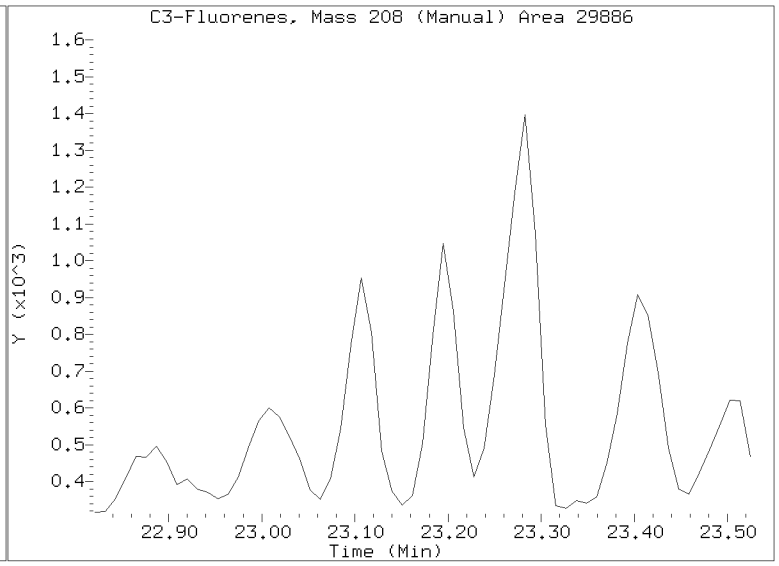



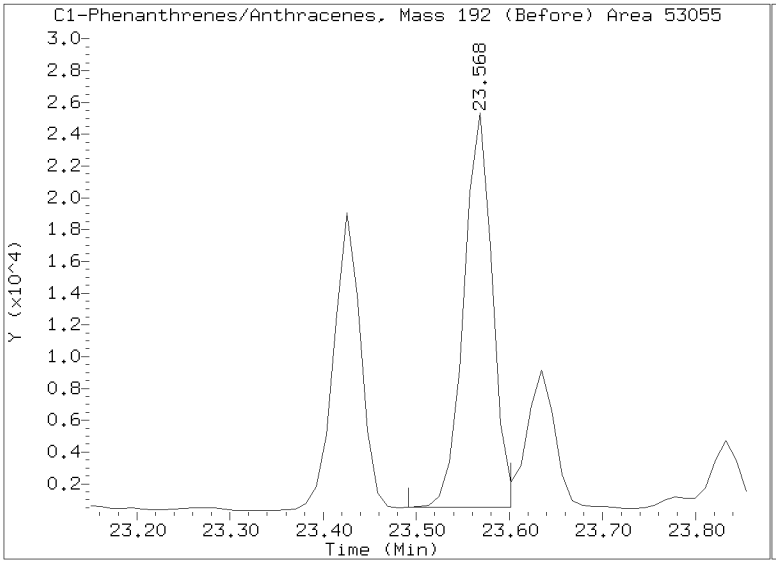



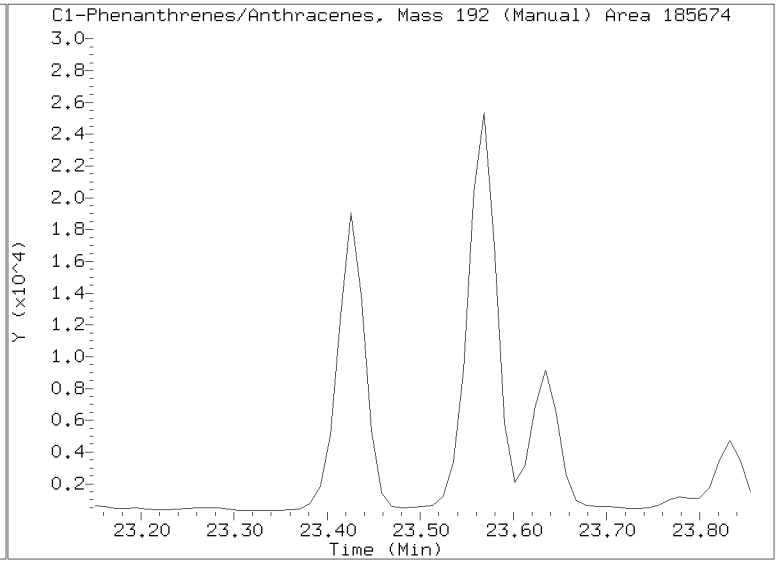
# Quant Ion Manual Peak Adjustment Report

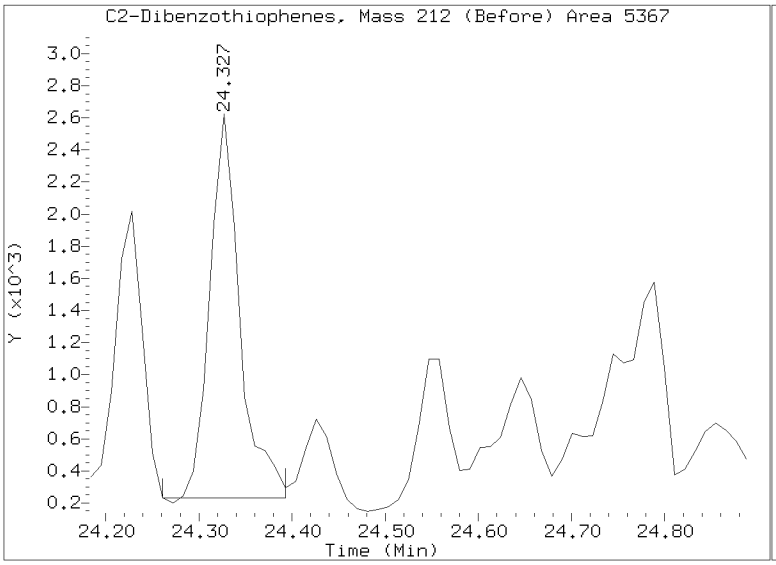
Datafile: //target/share/chem3/nt14.i/20210504.b/SIM.b/NT1421050404S.D
Injection Date: 04-MAY-2021 15:19
Lab ID:21D0180-04 Client ID:
Report Date: 05/07/2021 16:19

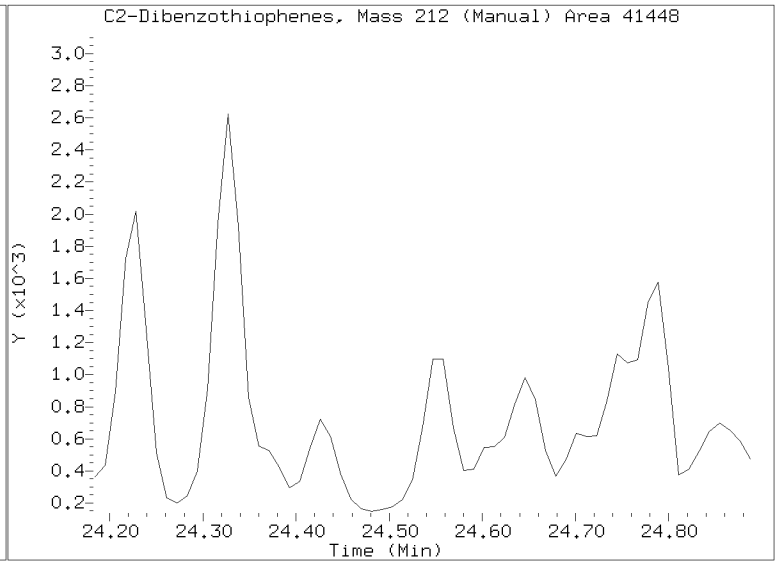


# Quant Ion Manual Peak Adjustment Report

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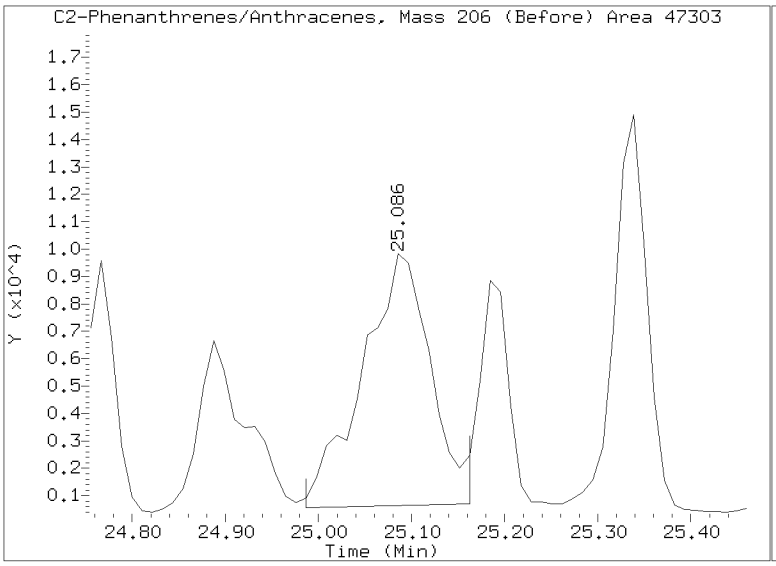
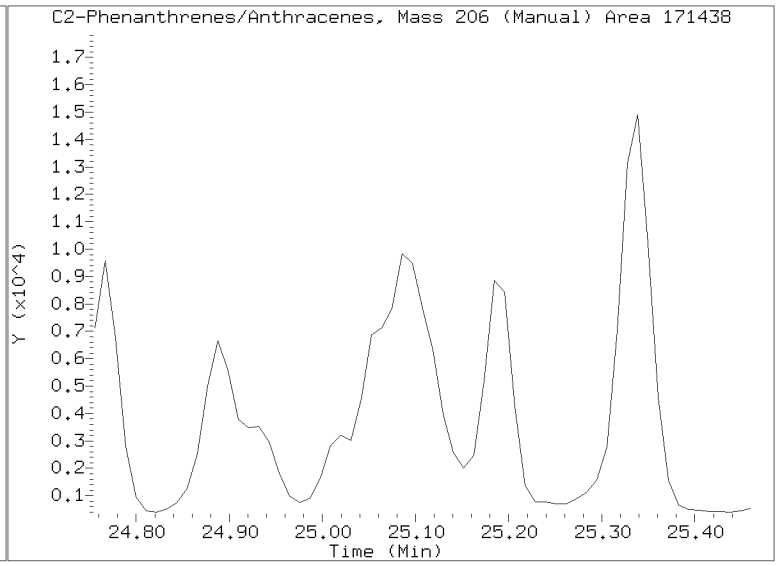
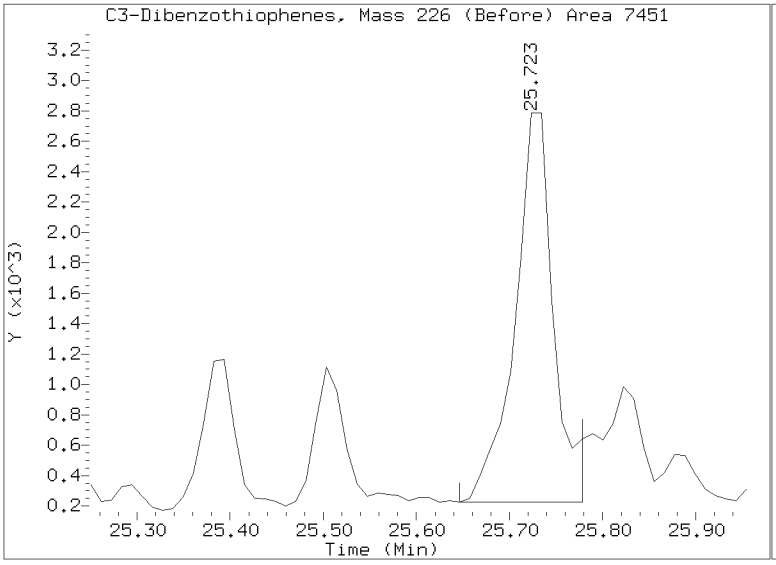
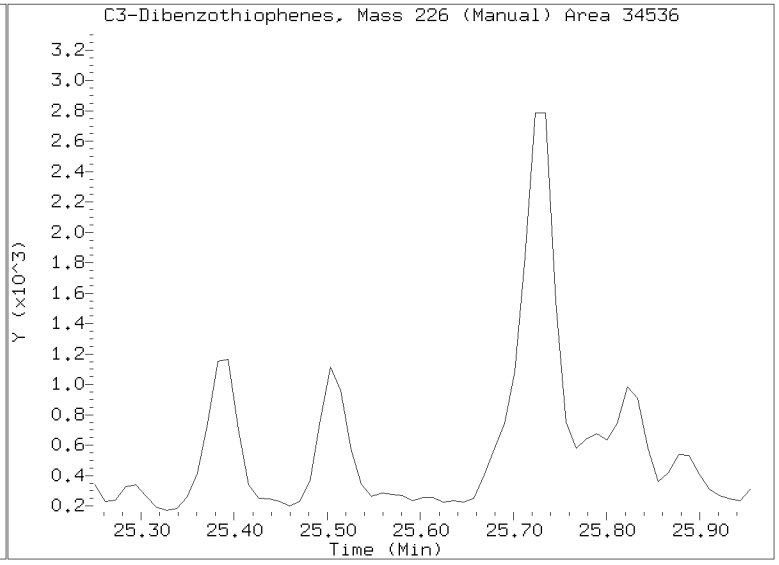
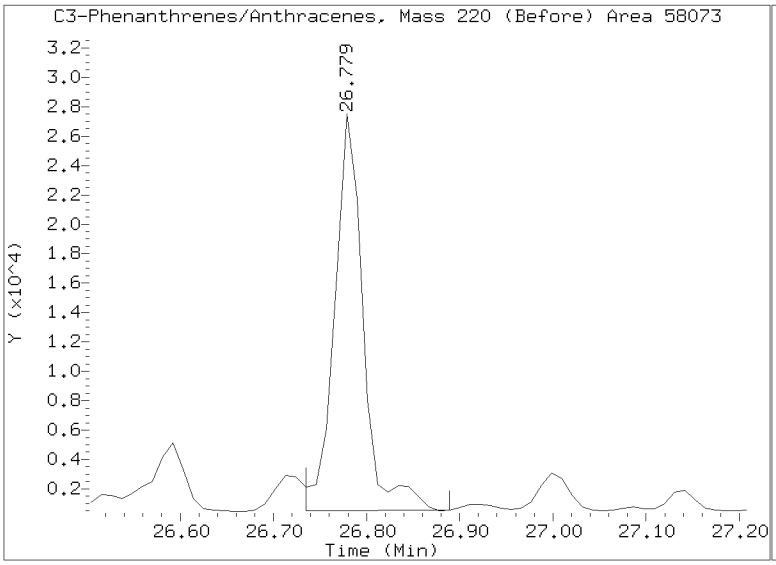
Report Date: 05/07/2021 16:19

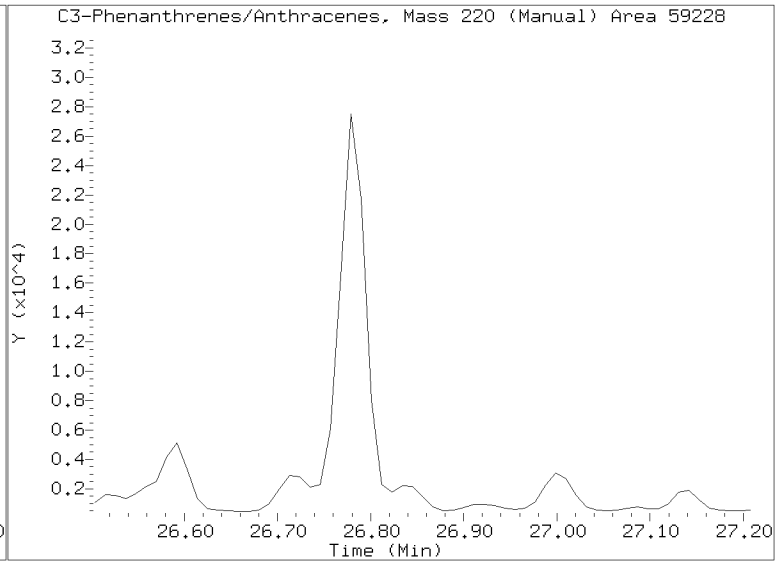


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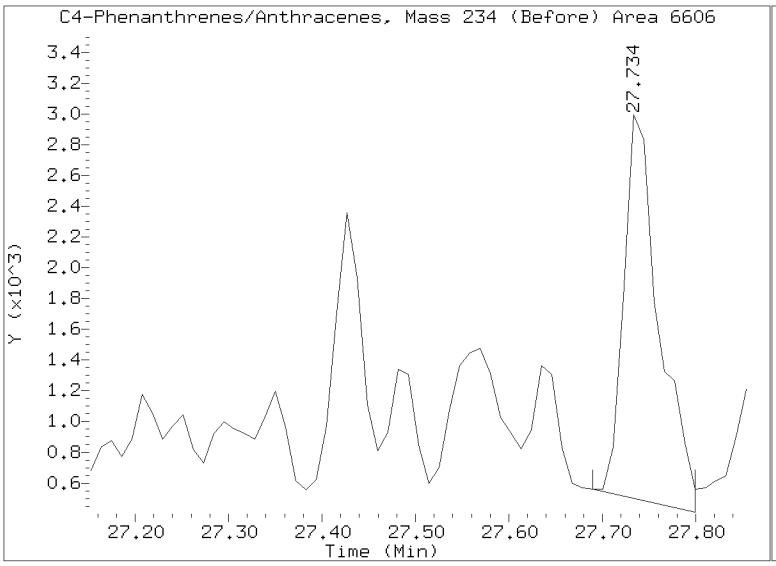


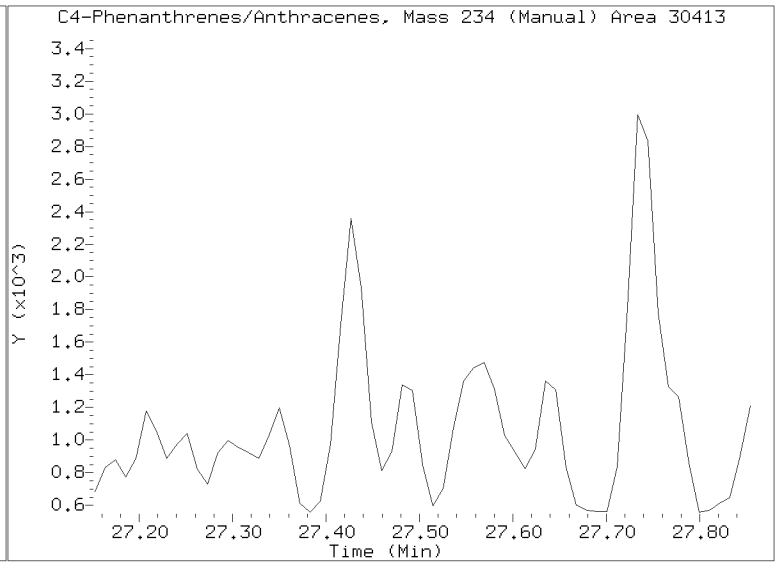


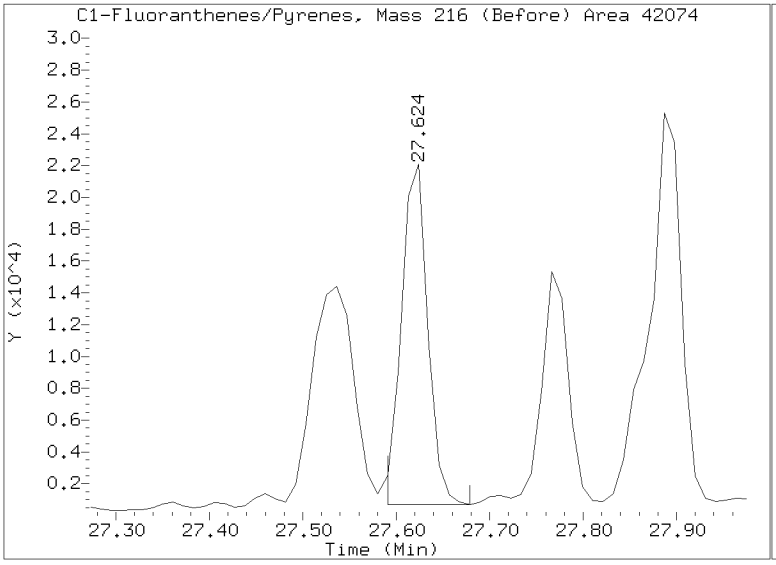


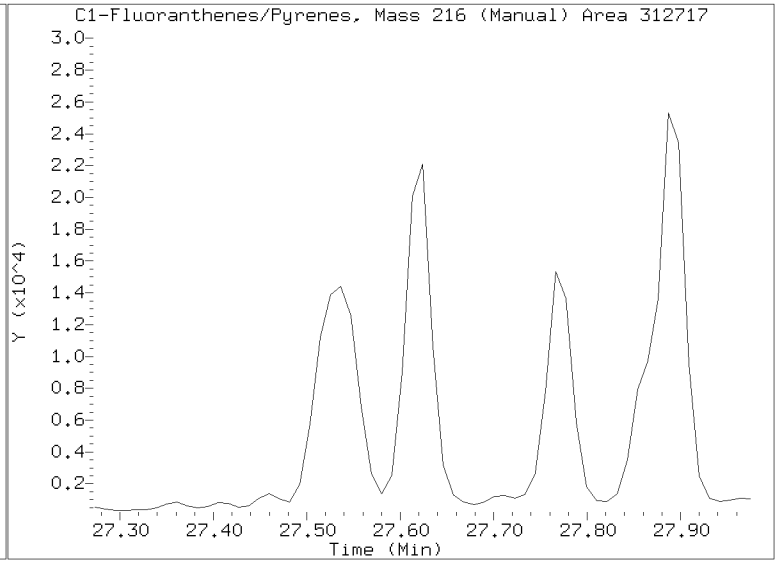


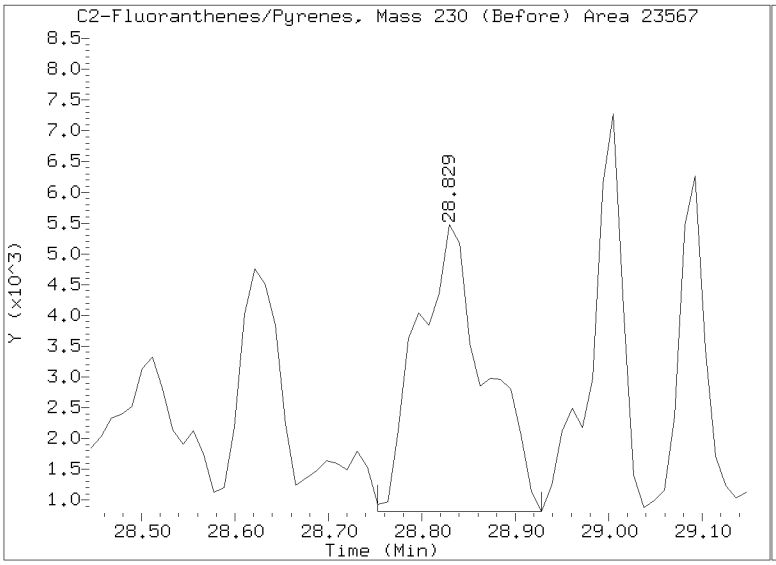


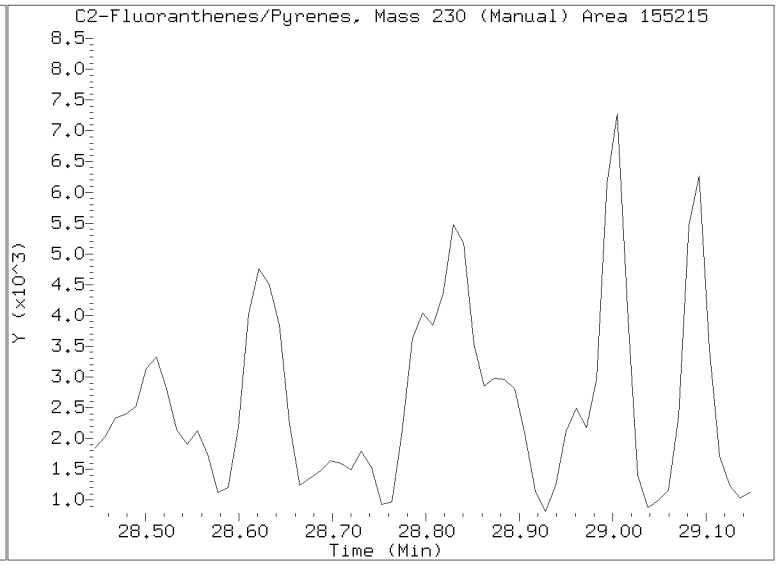

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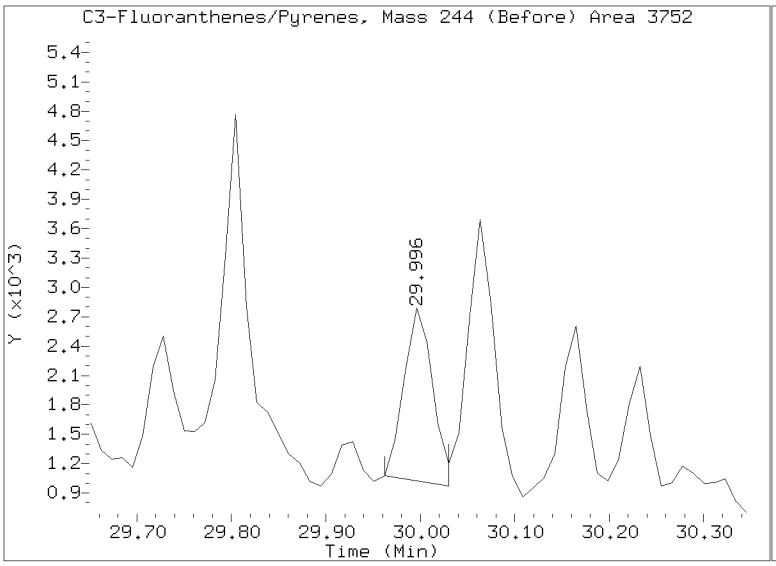


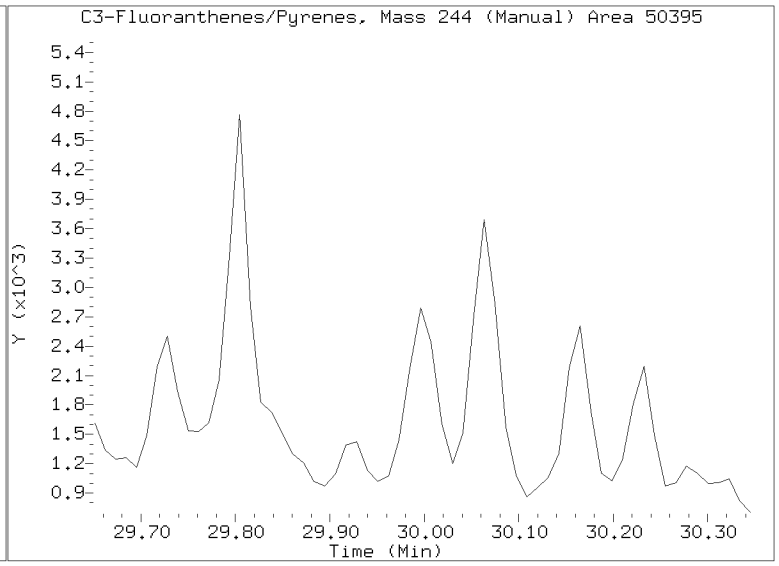


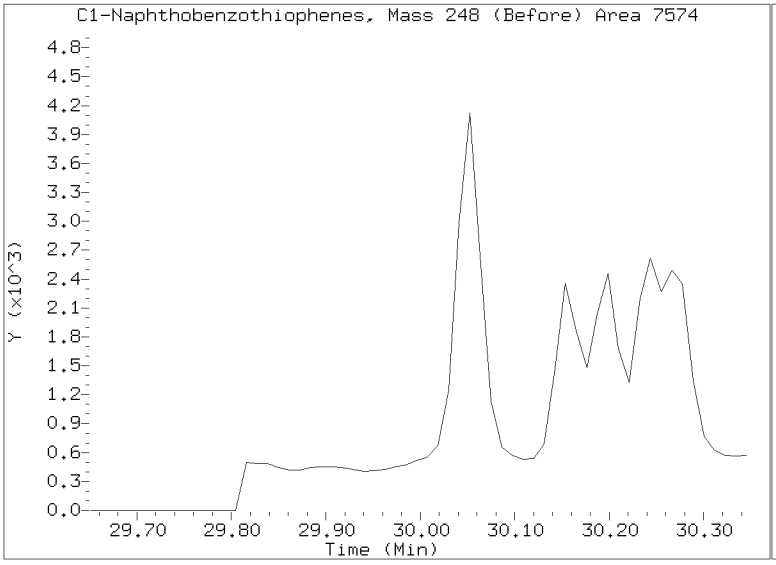


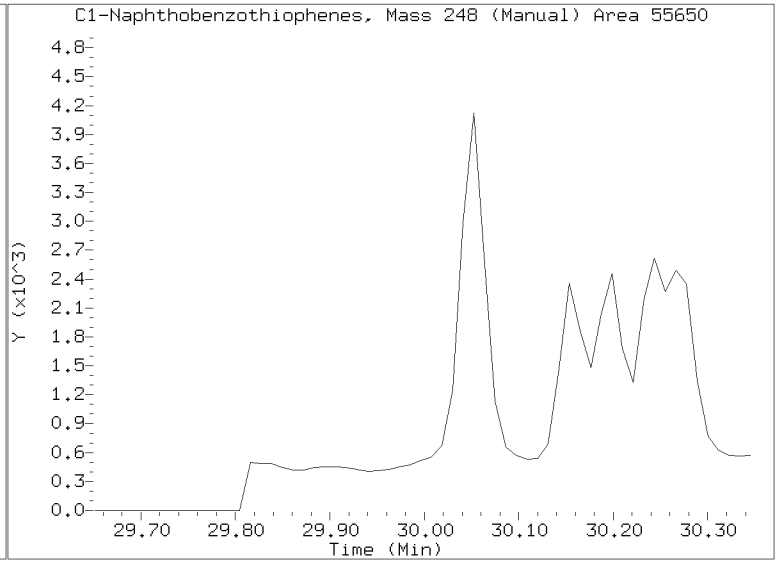


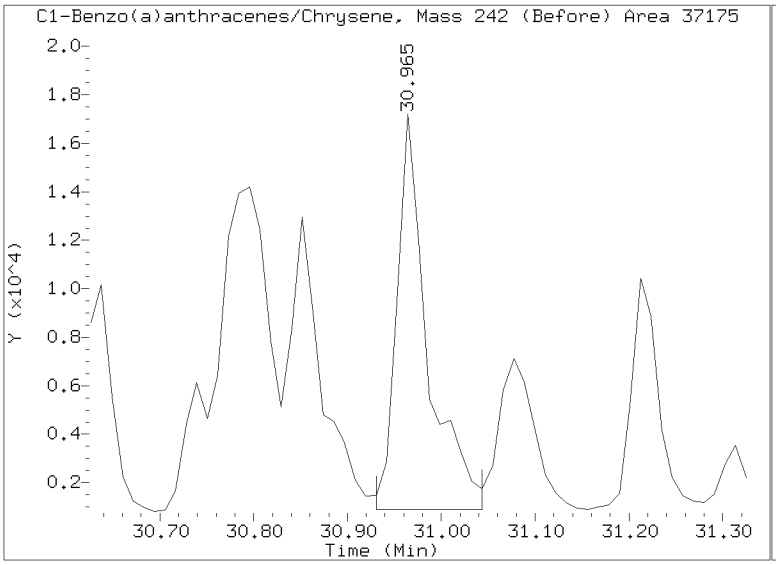


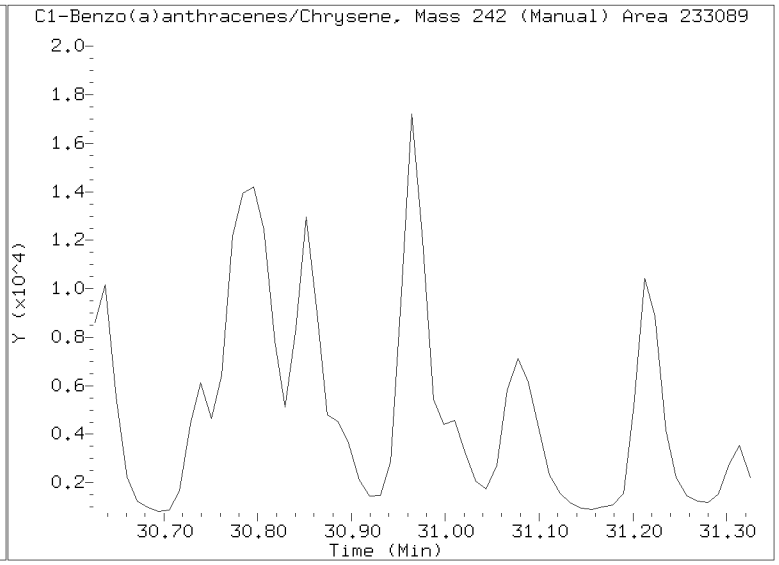

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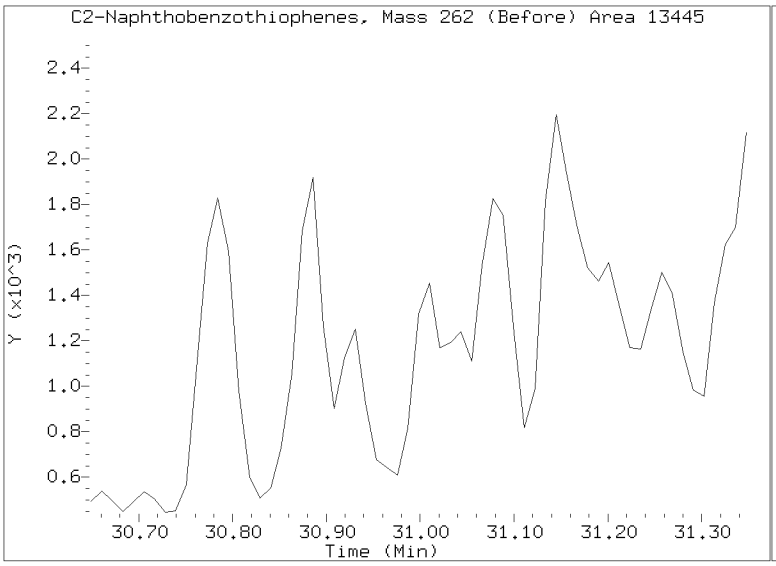


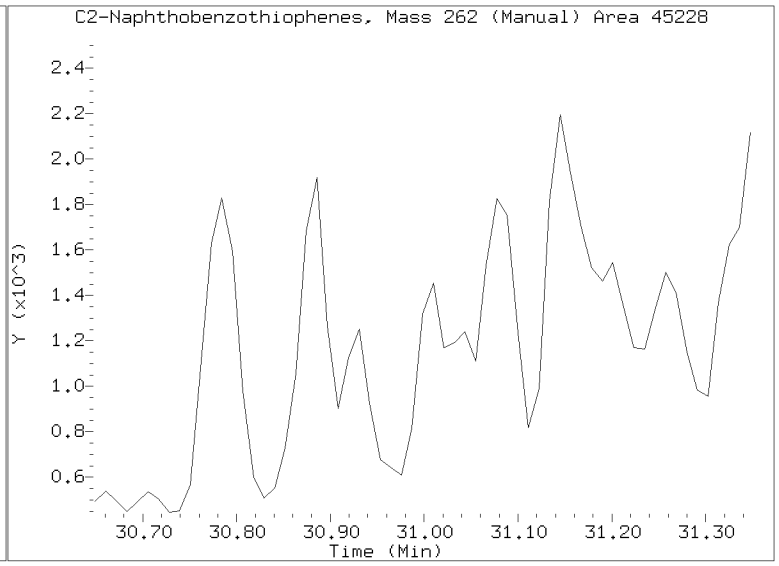


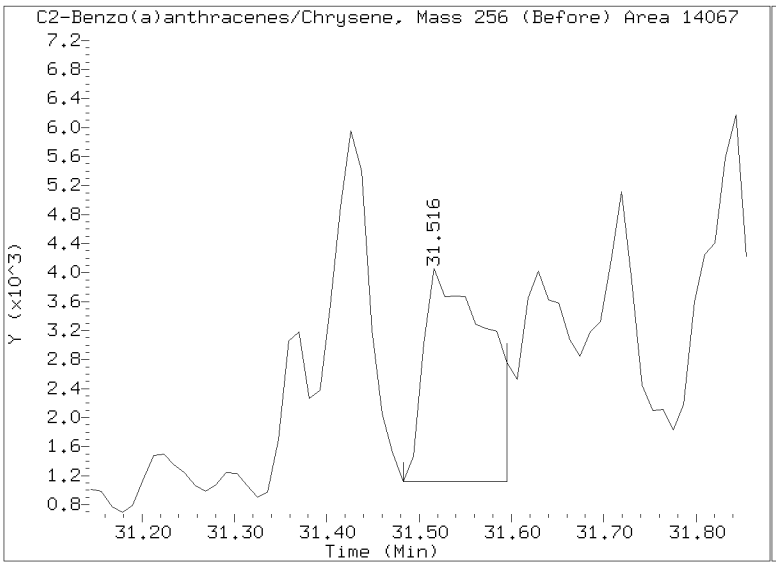


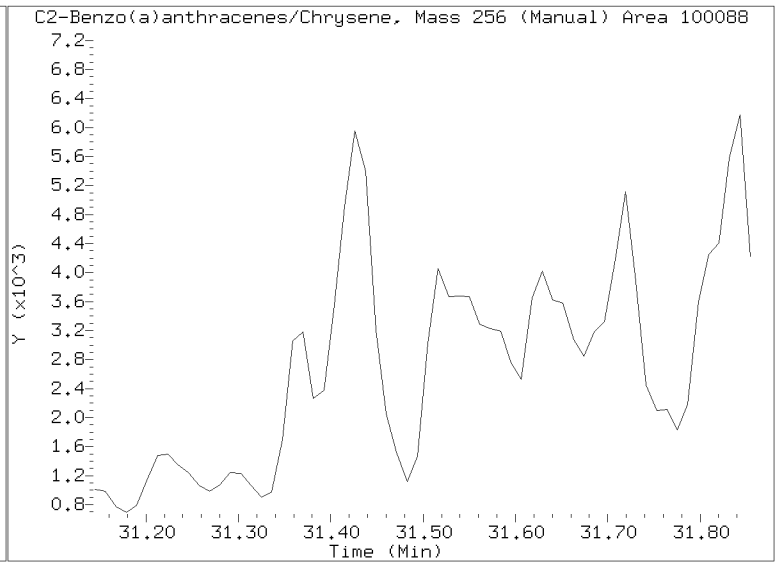


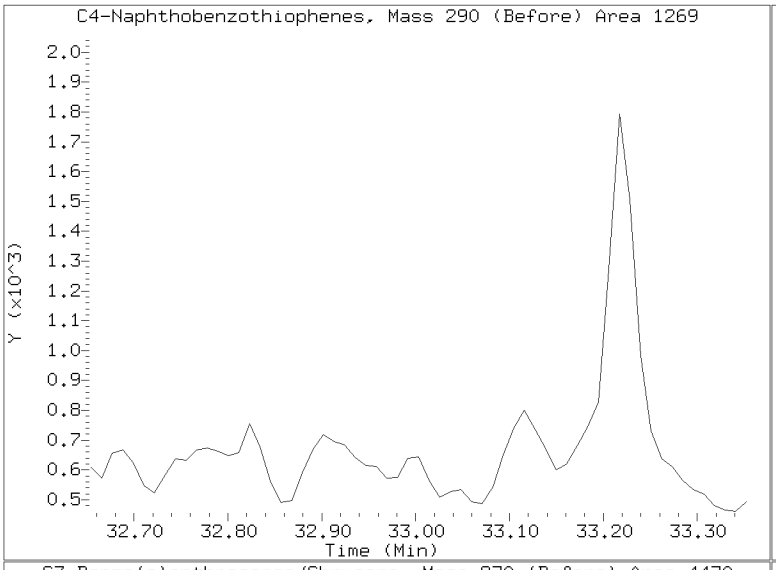


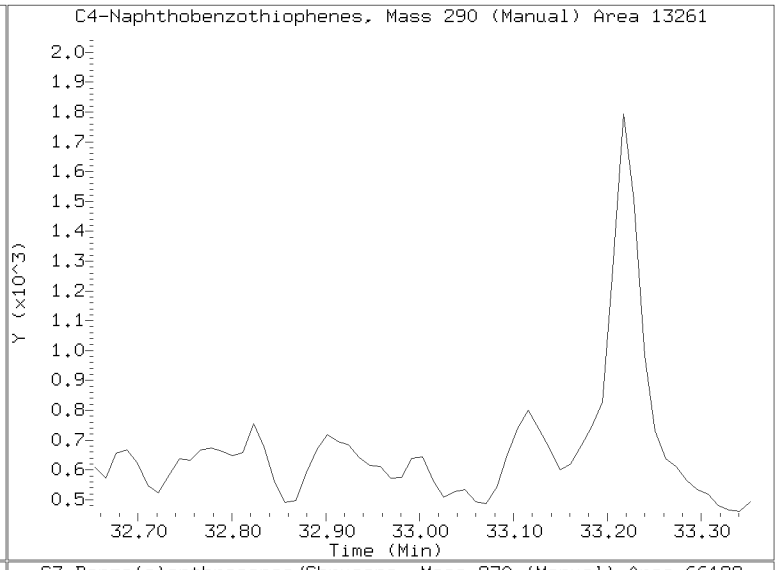


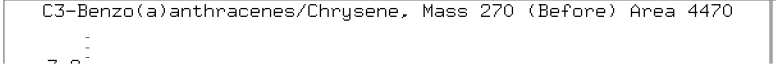


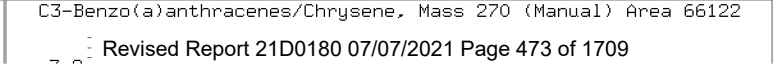

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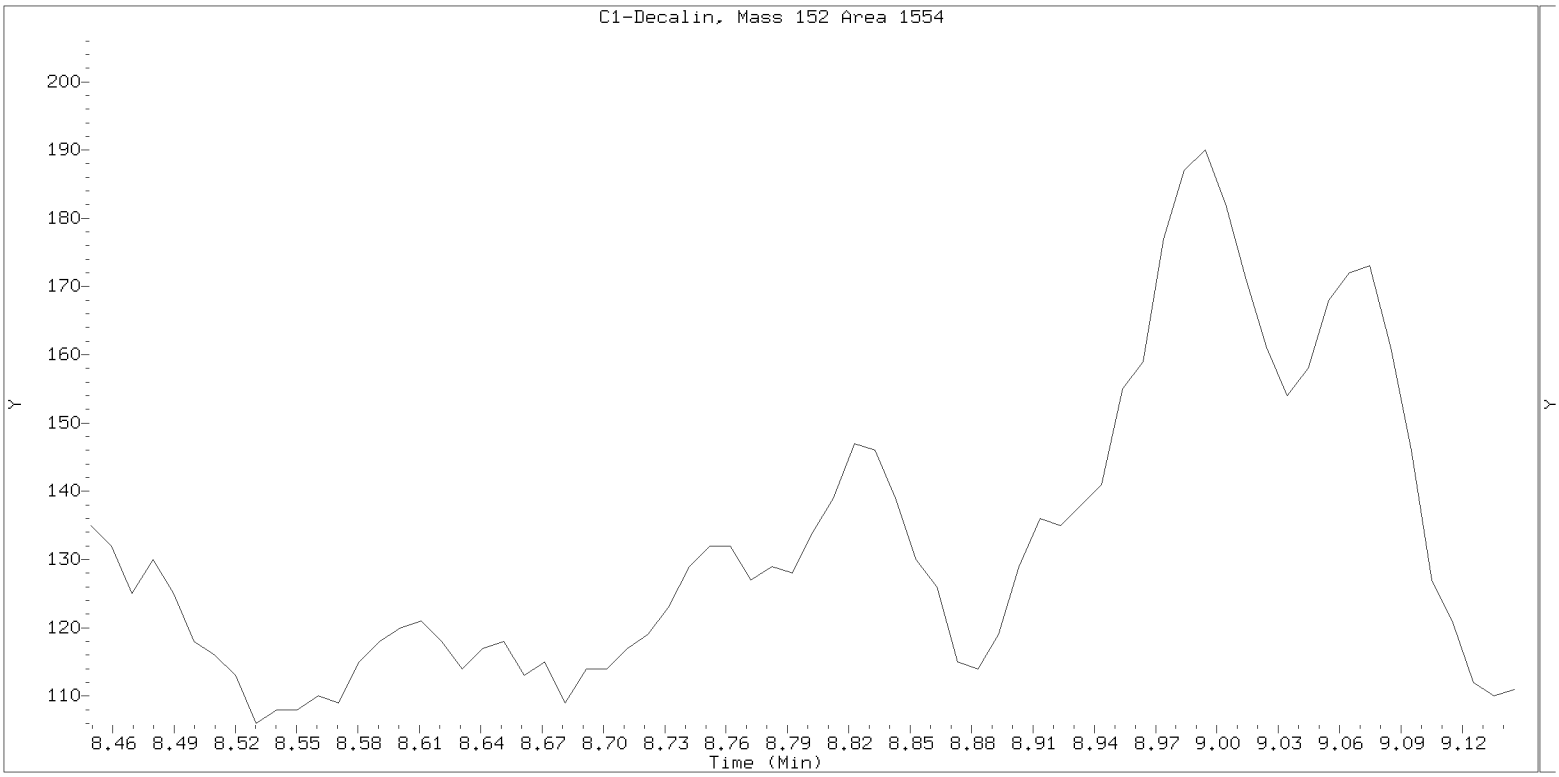

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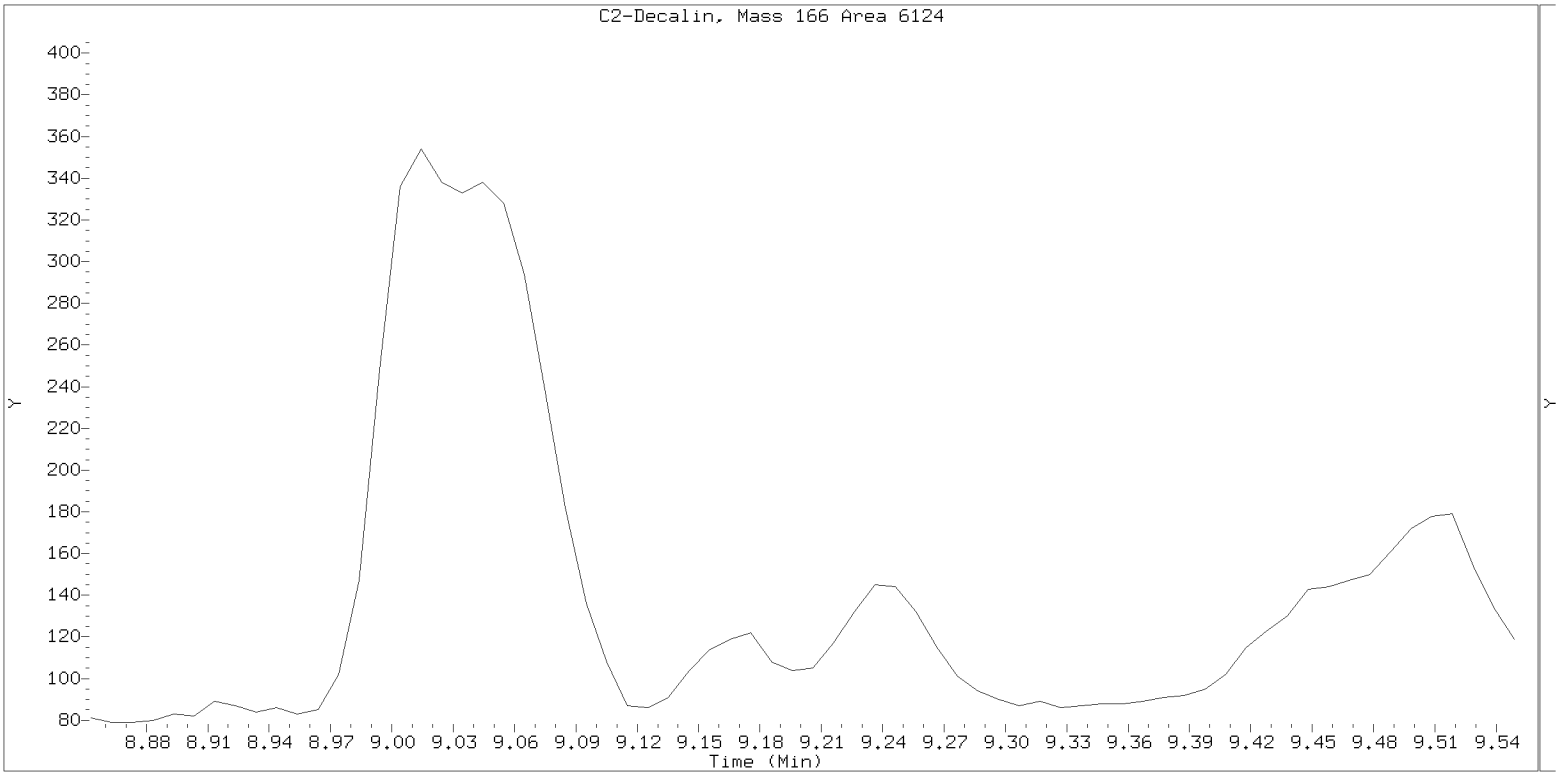

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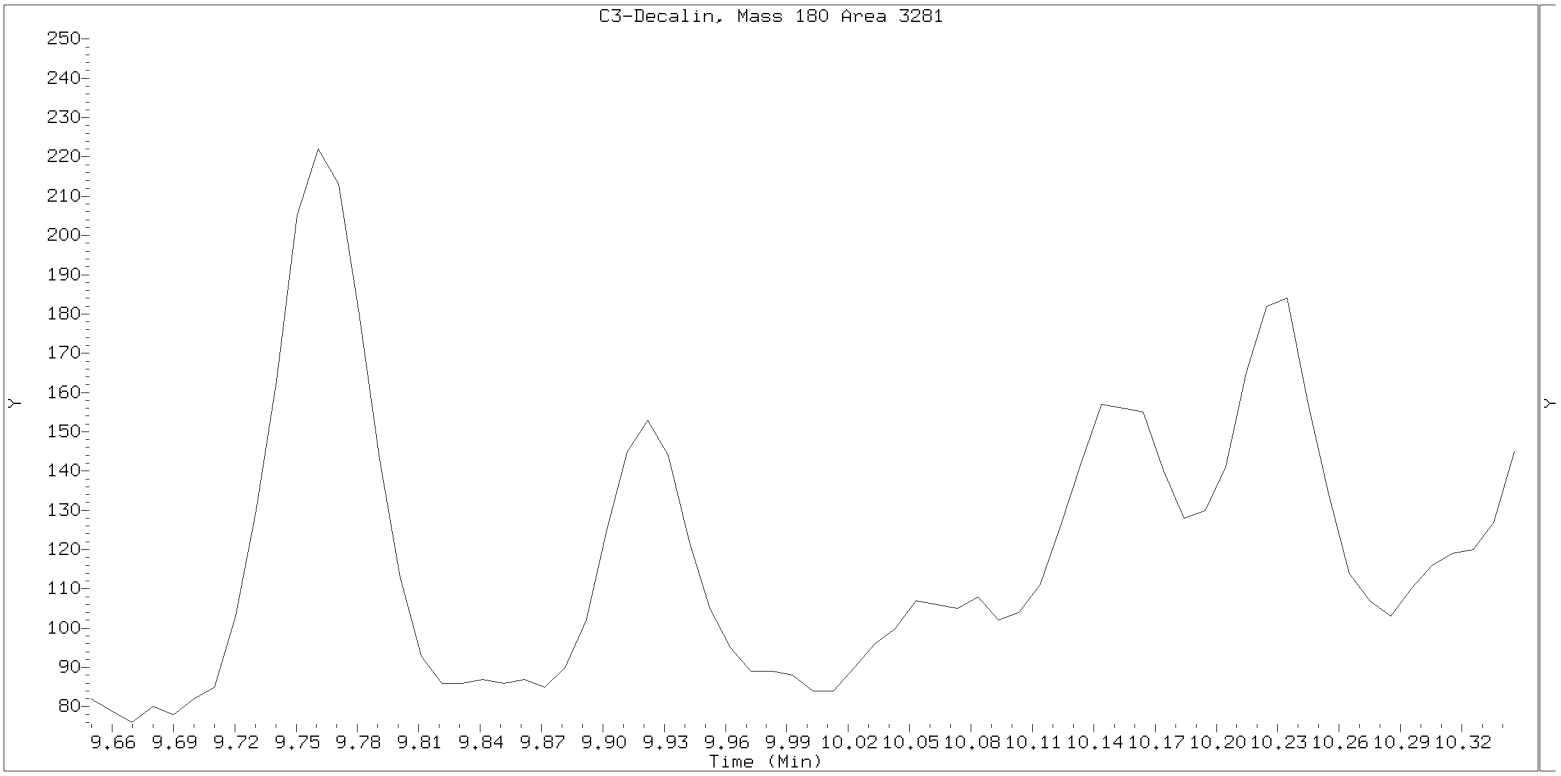

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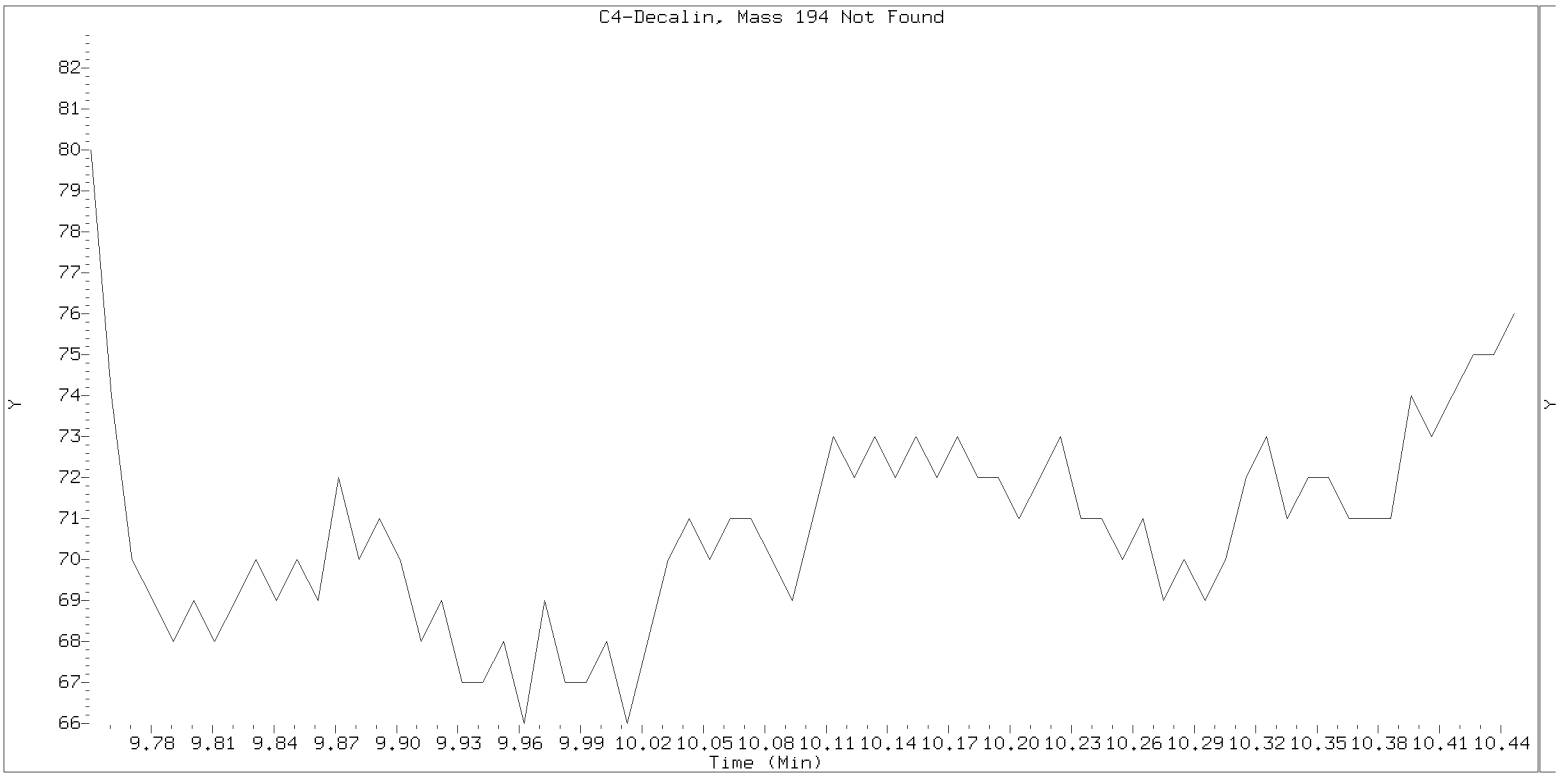

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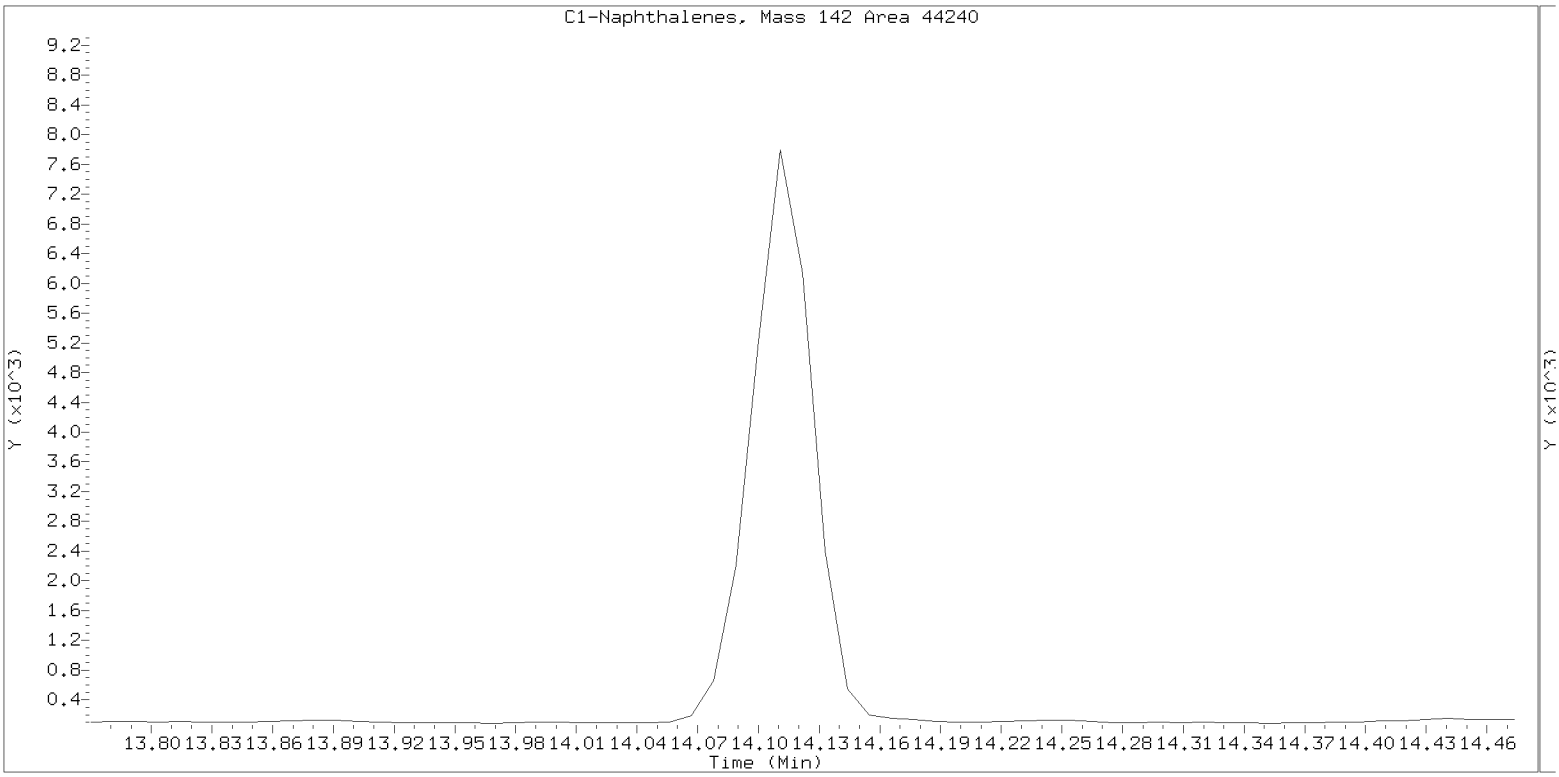


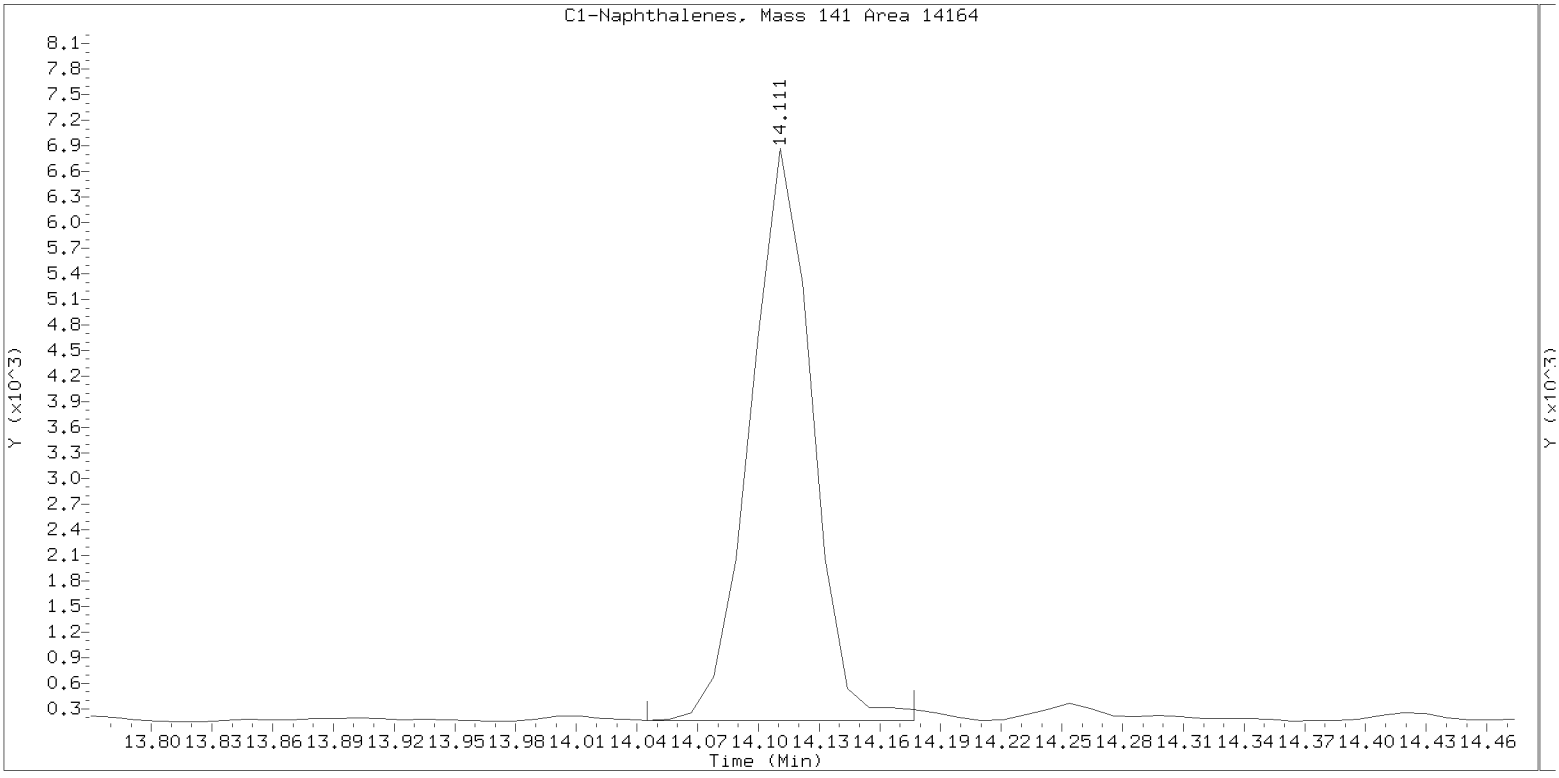


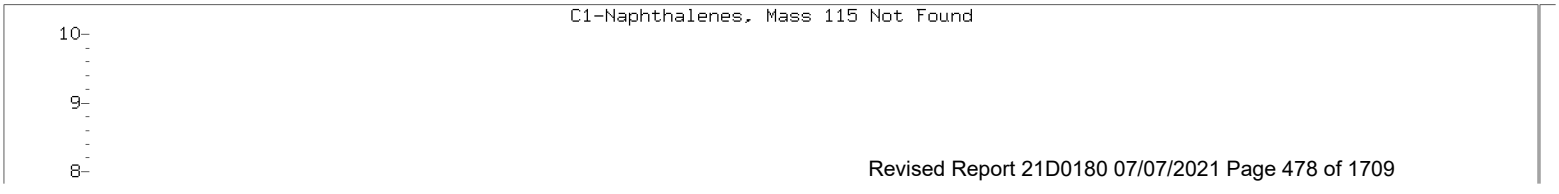

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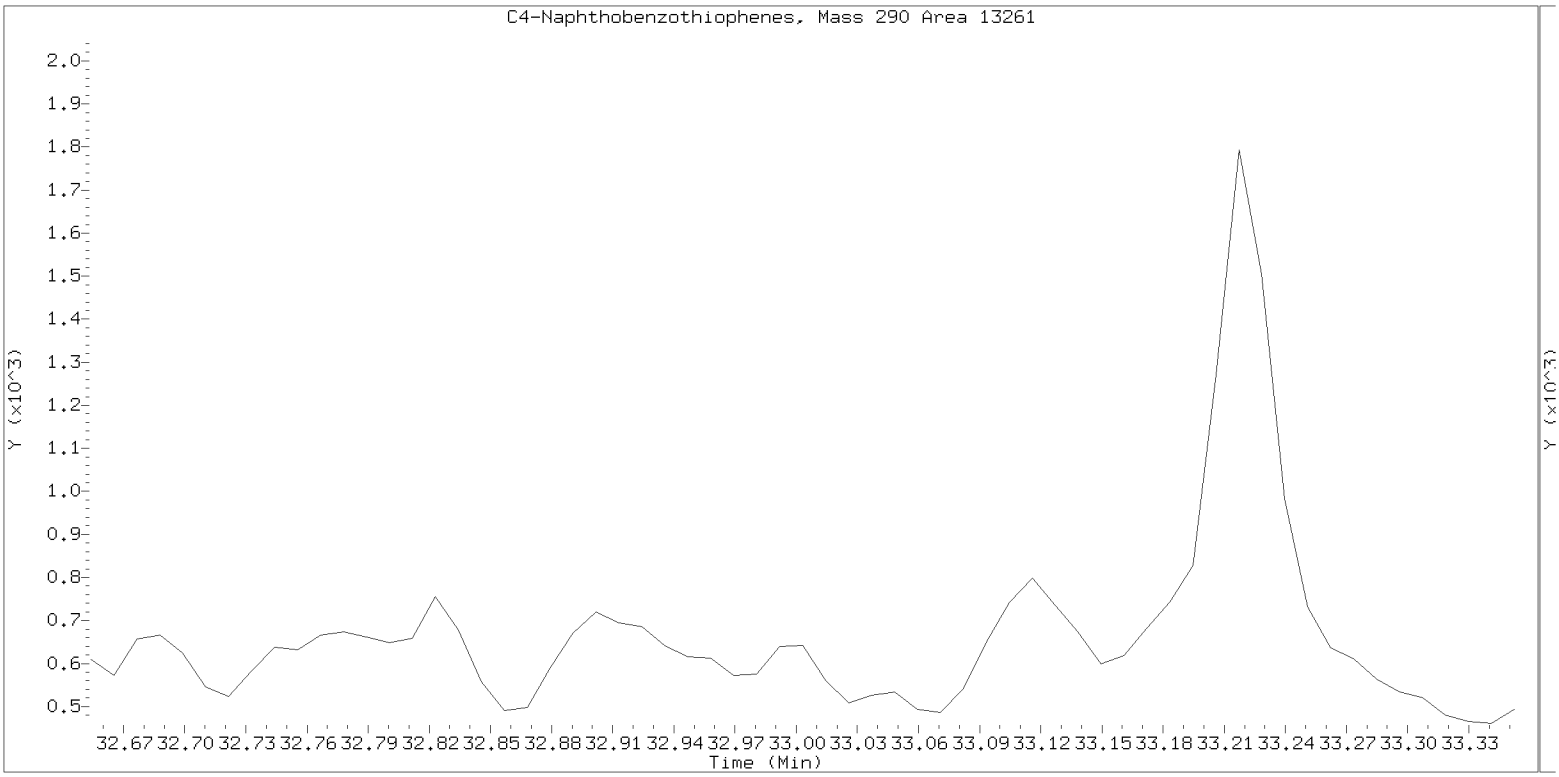

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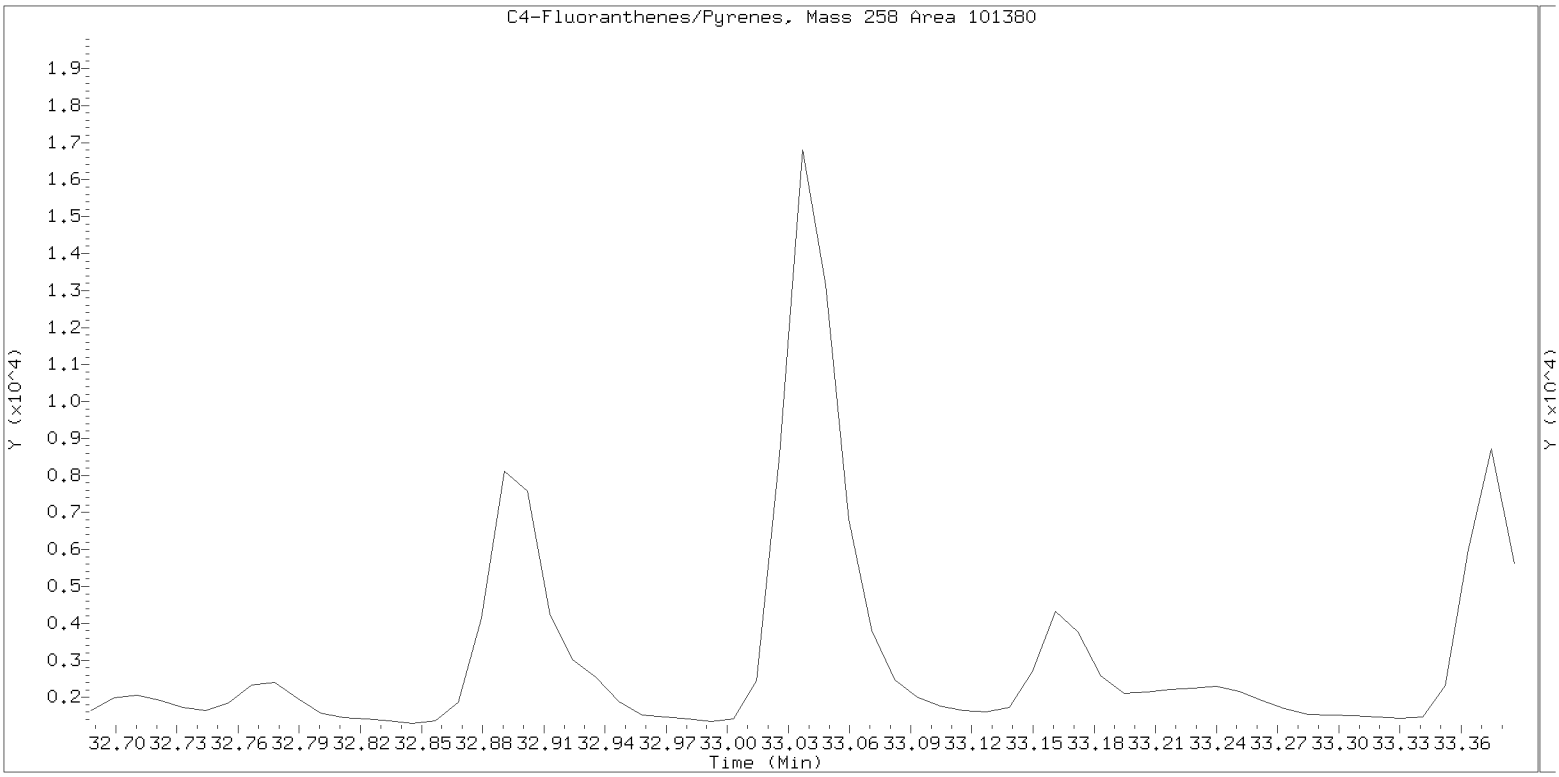

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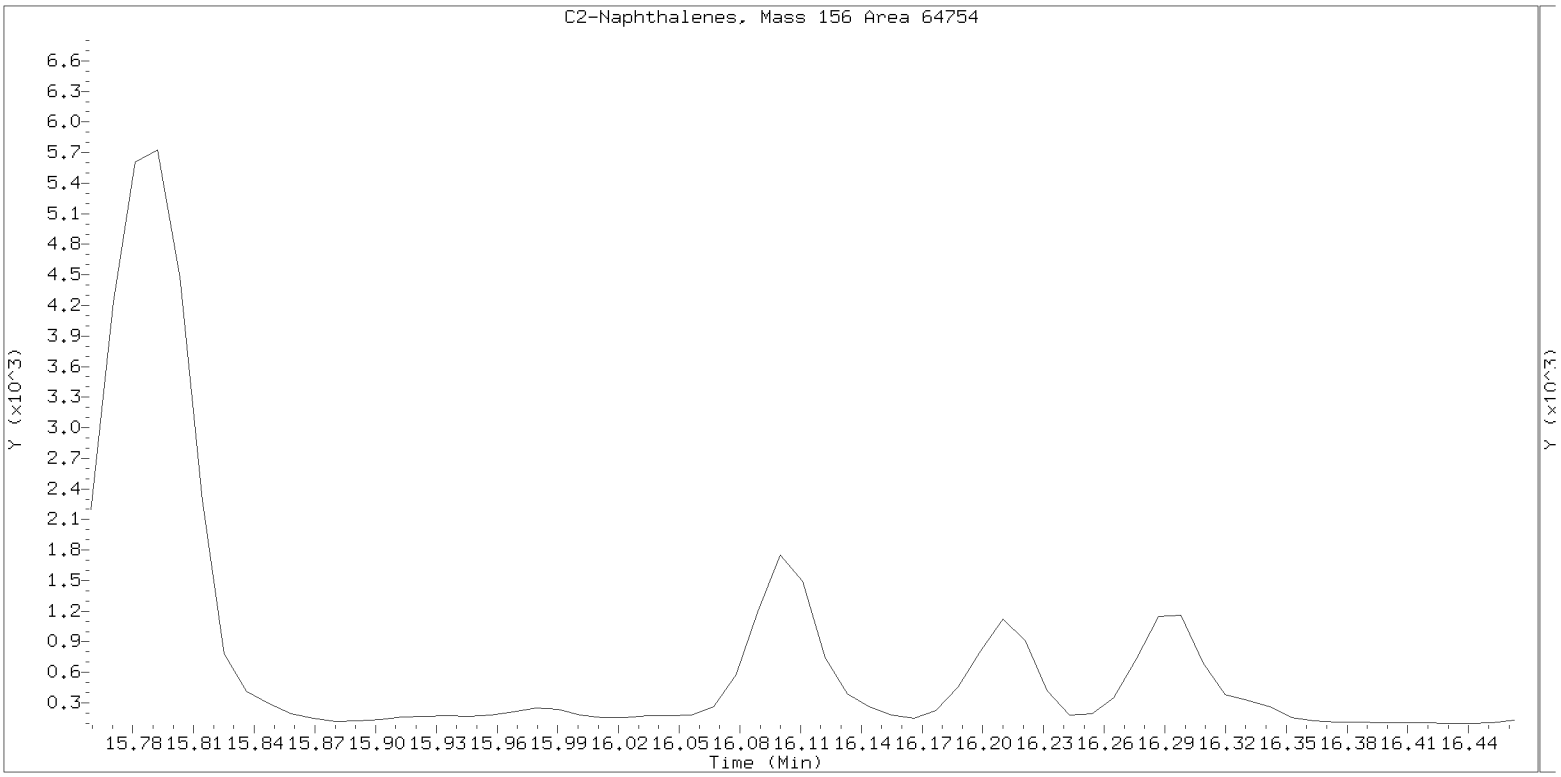


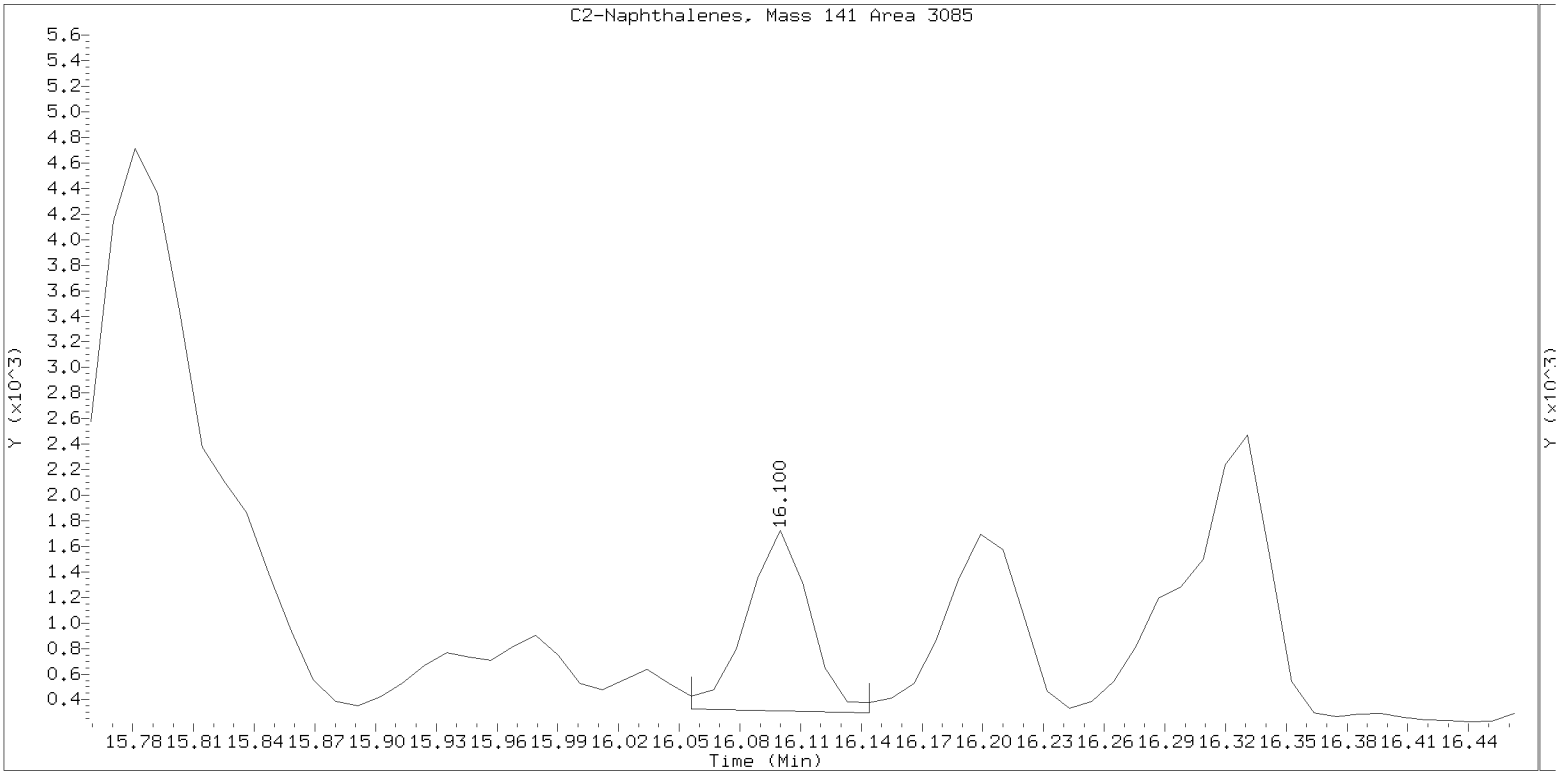


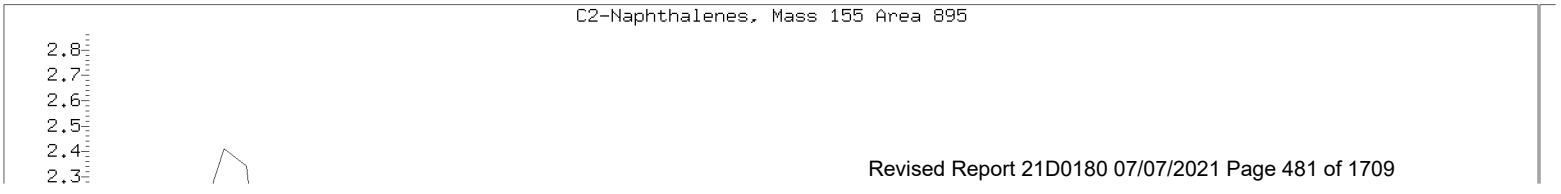

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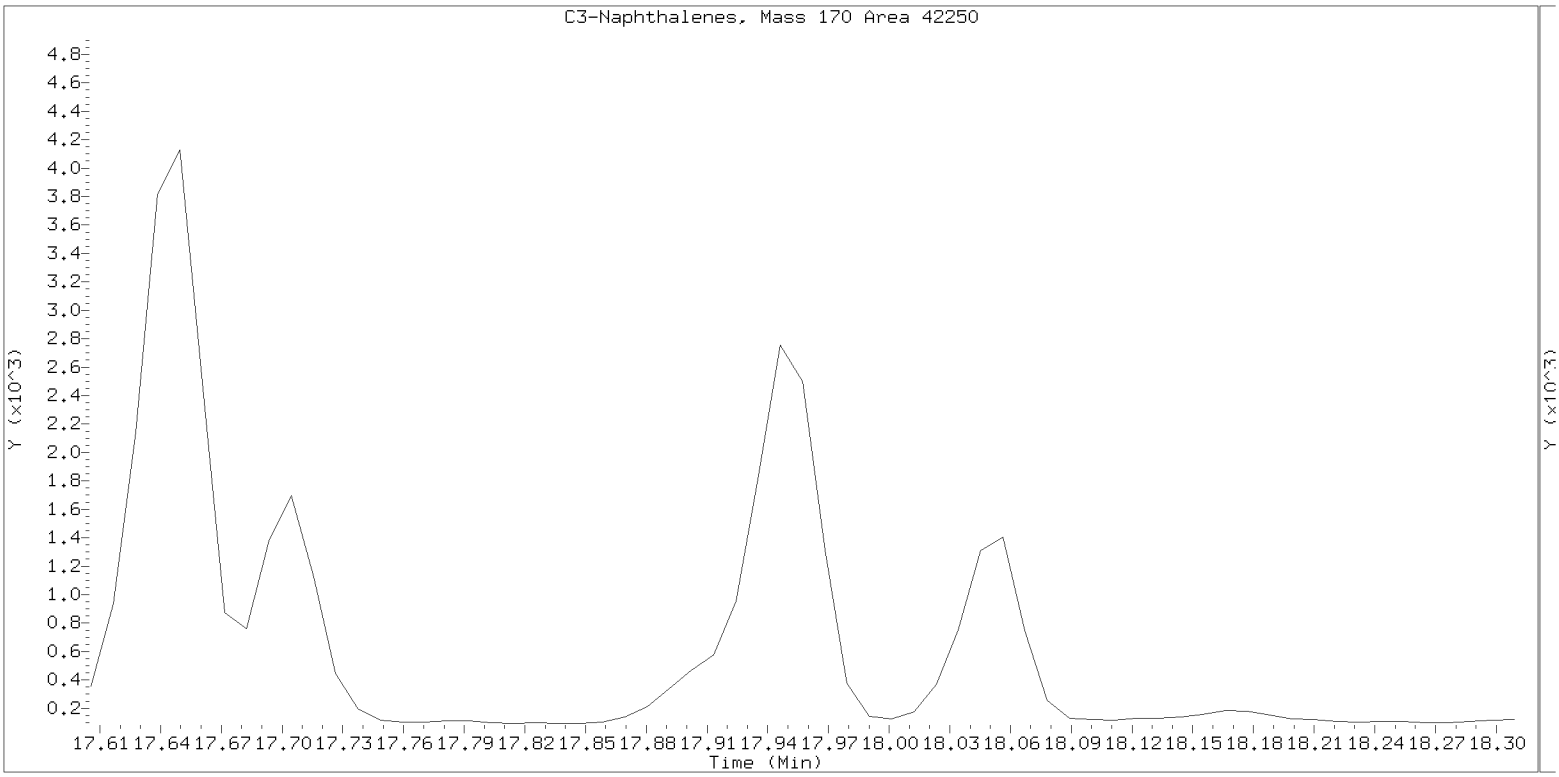


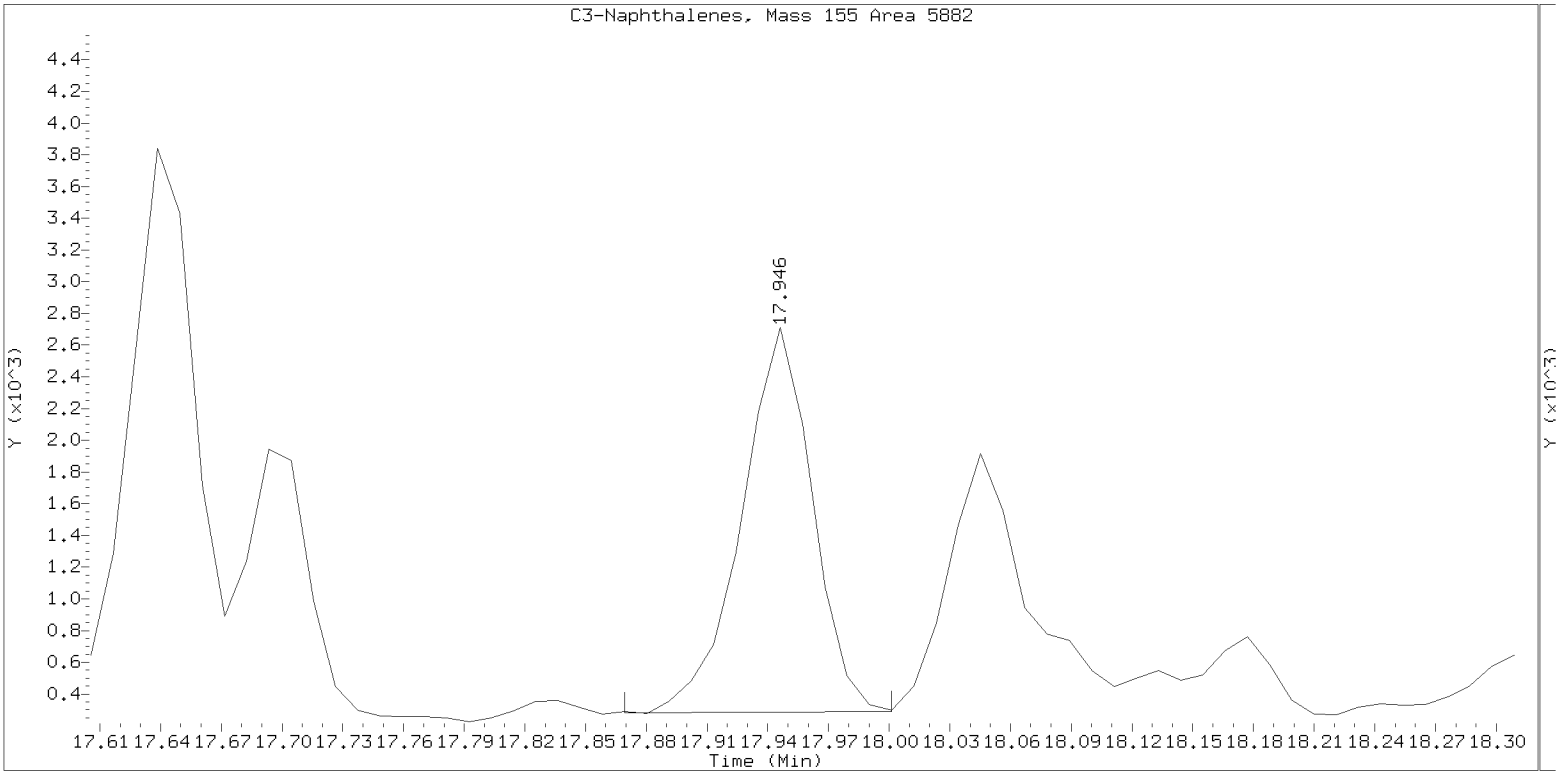


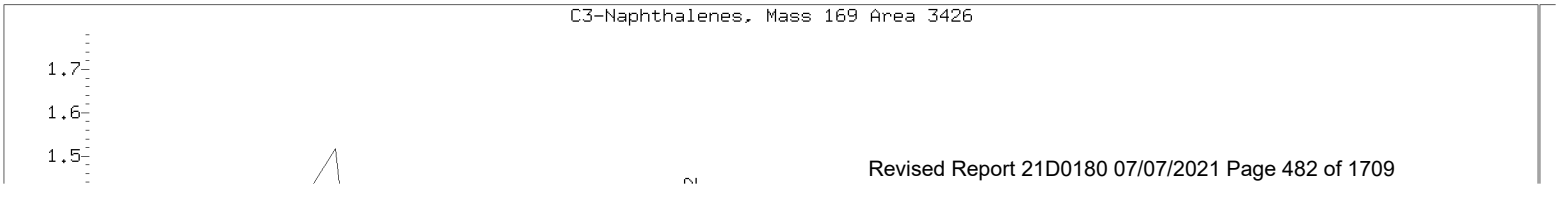

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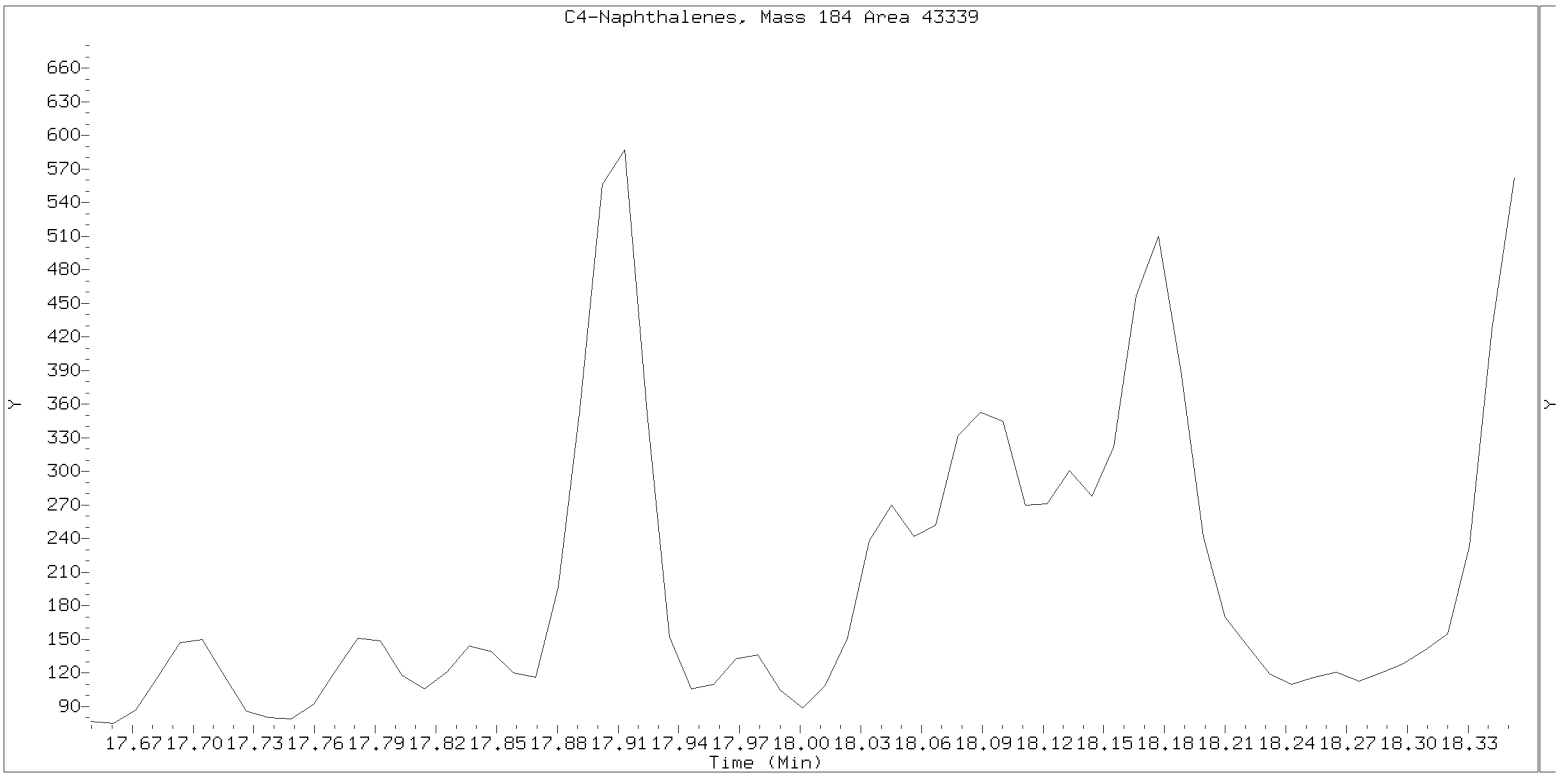


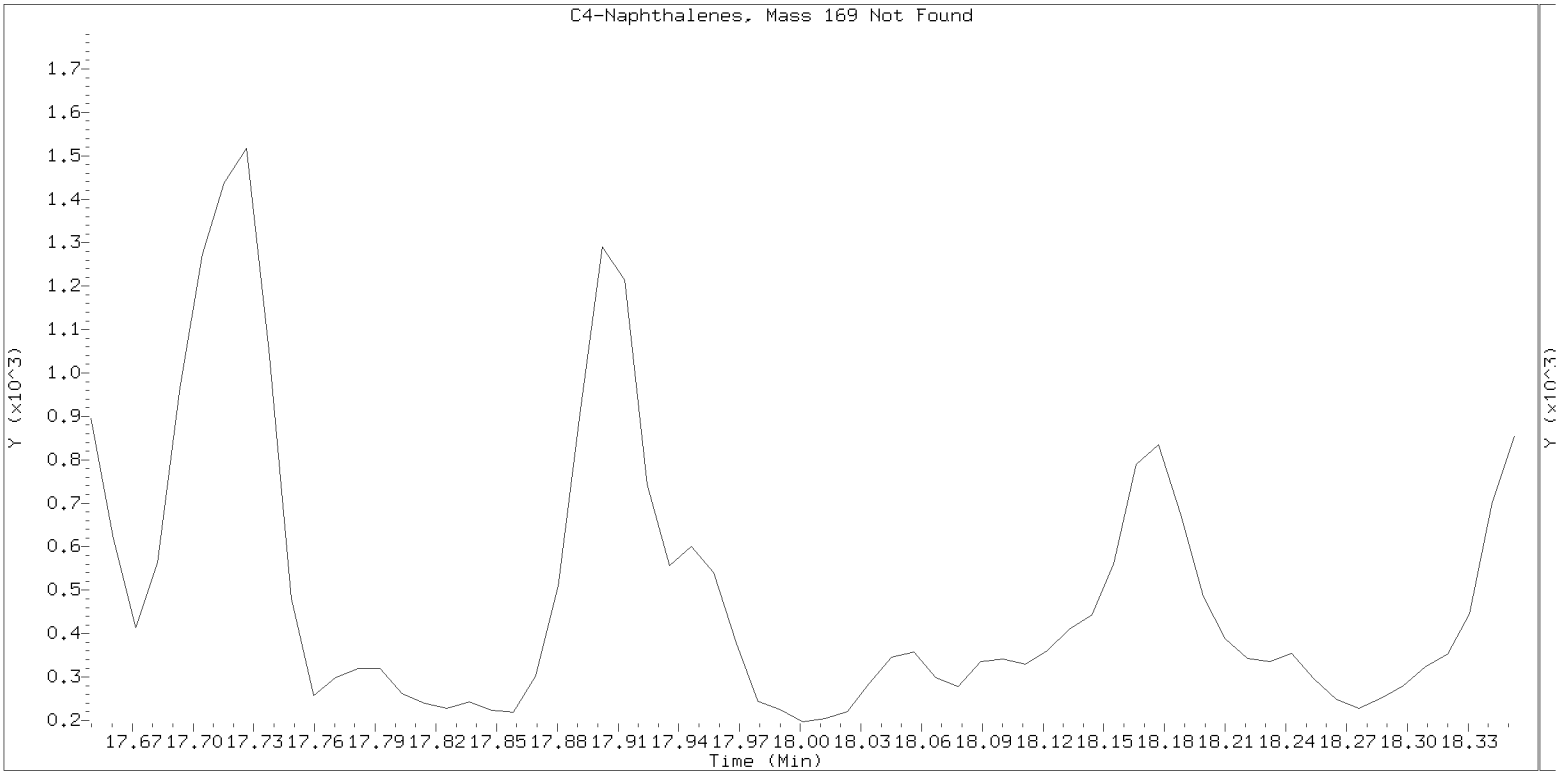


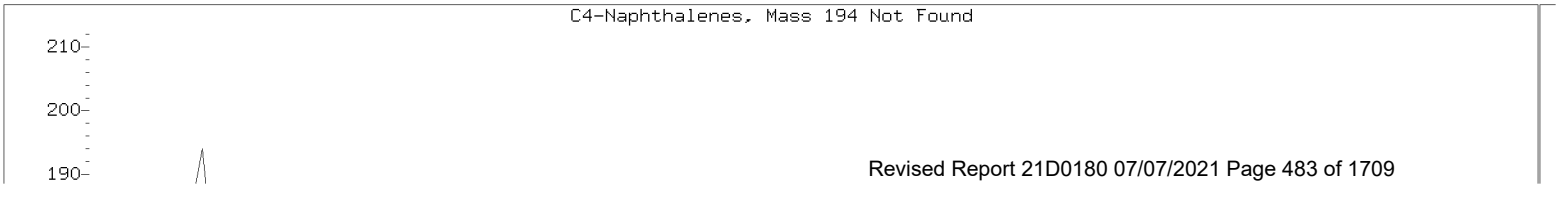

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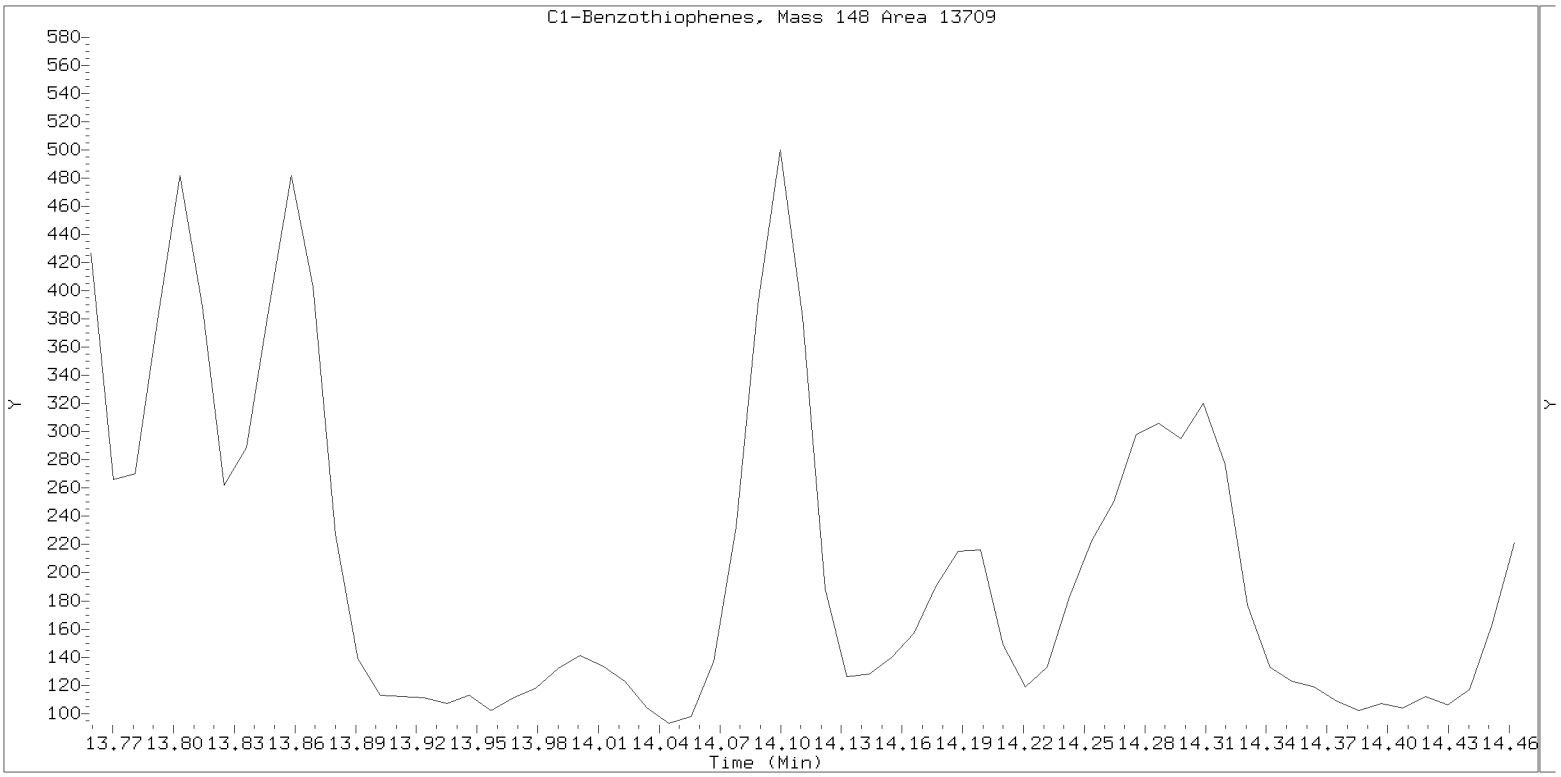


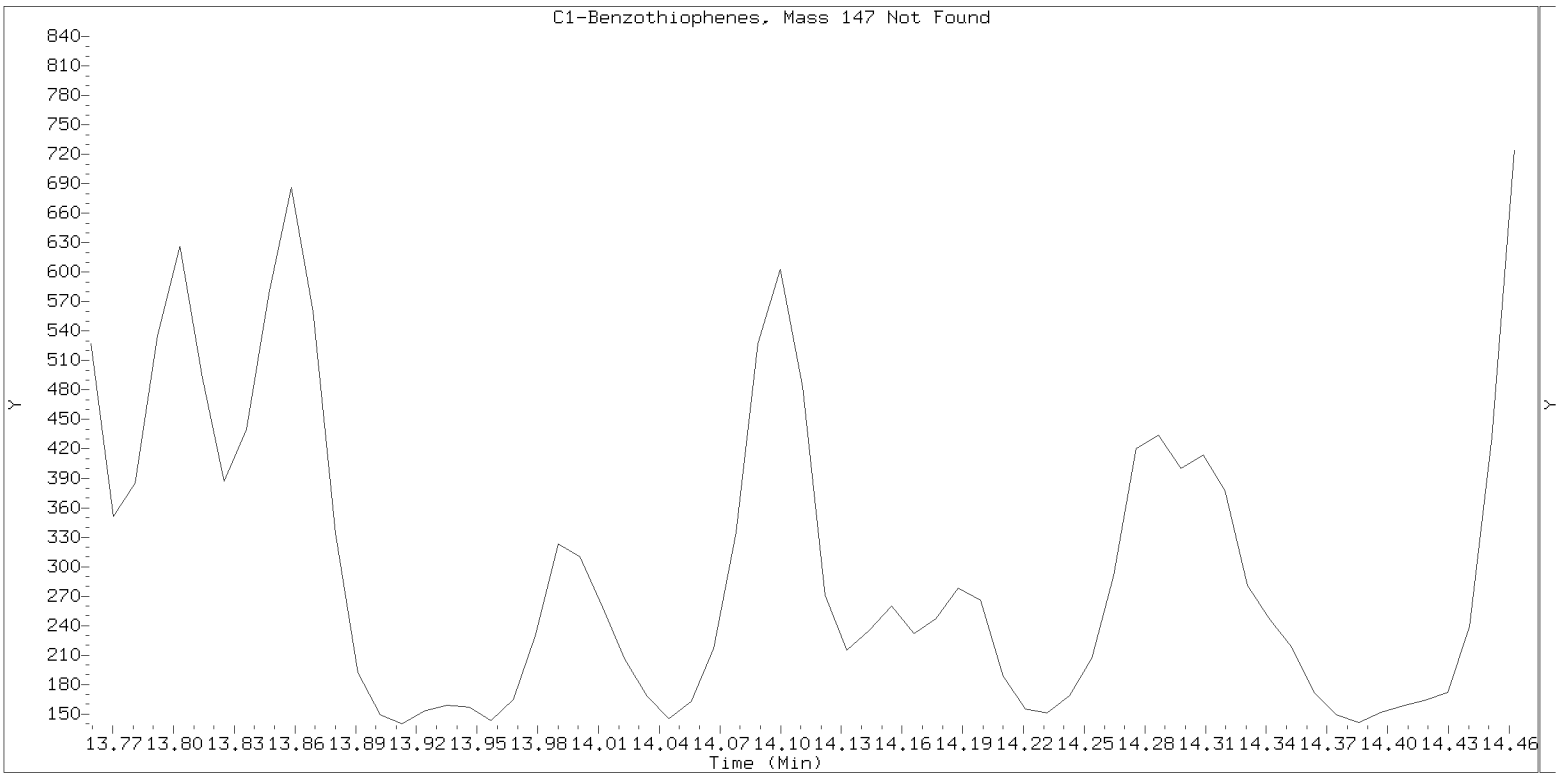

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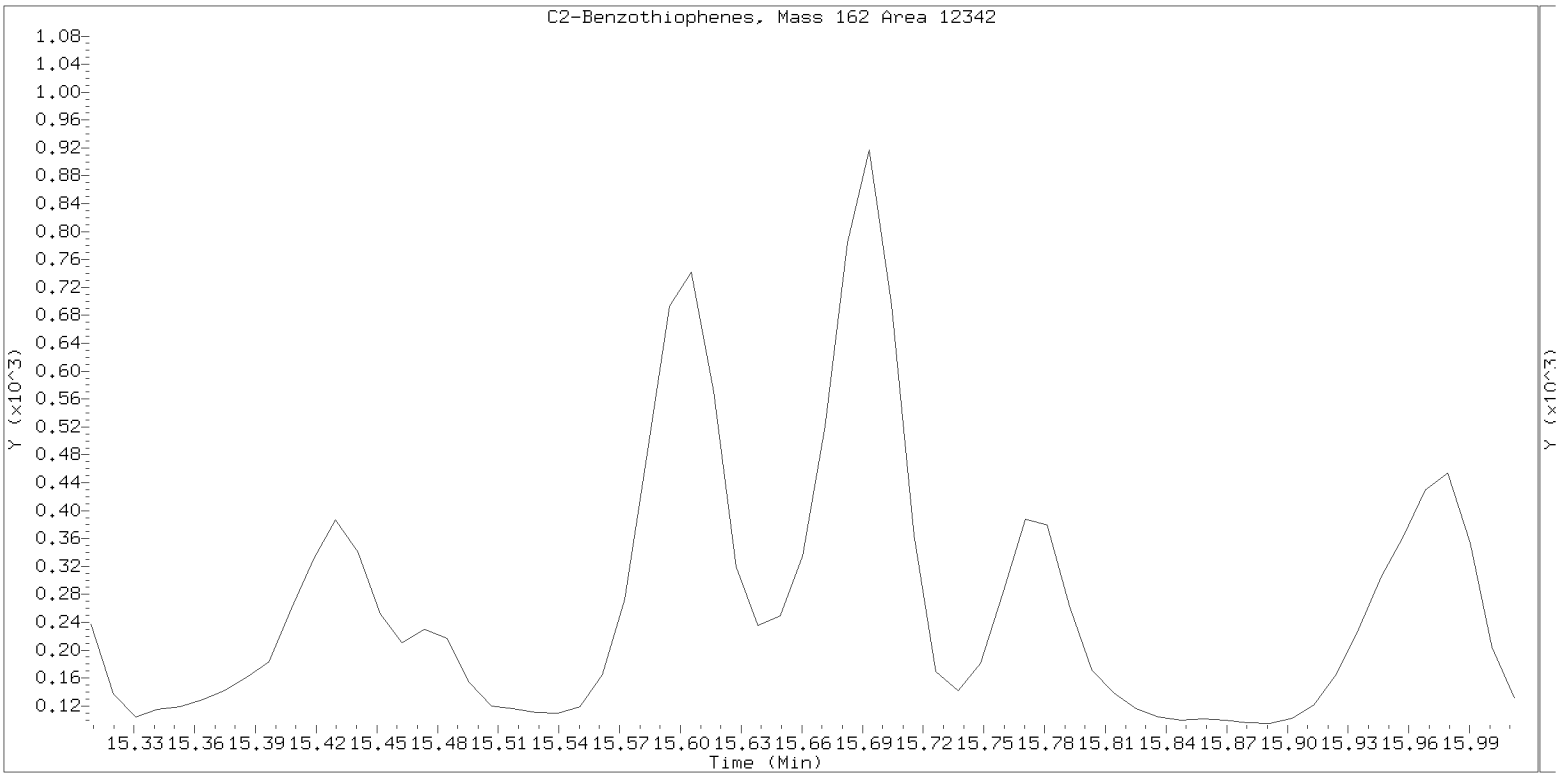


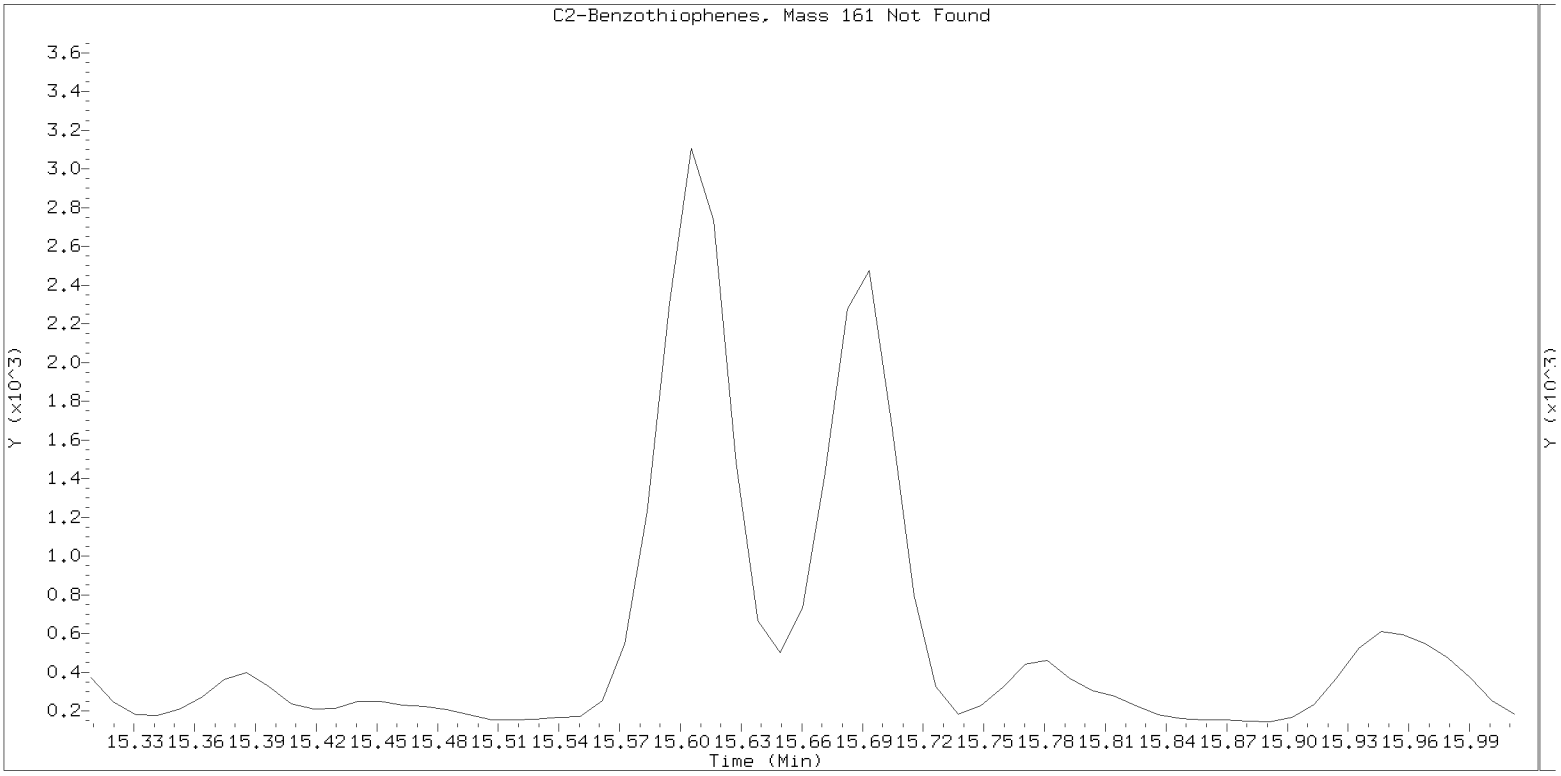


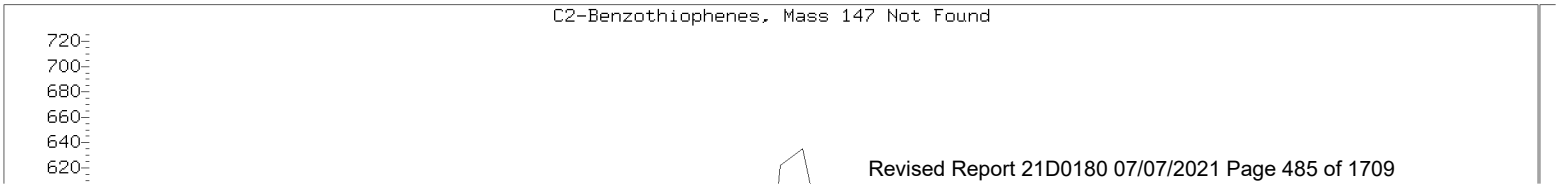

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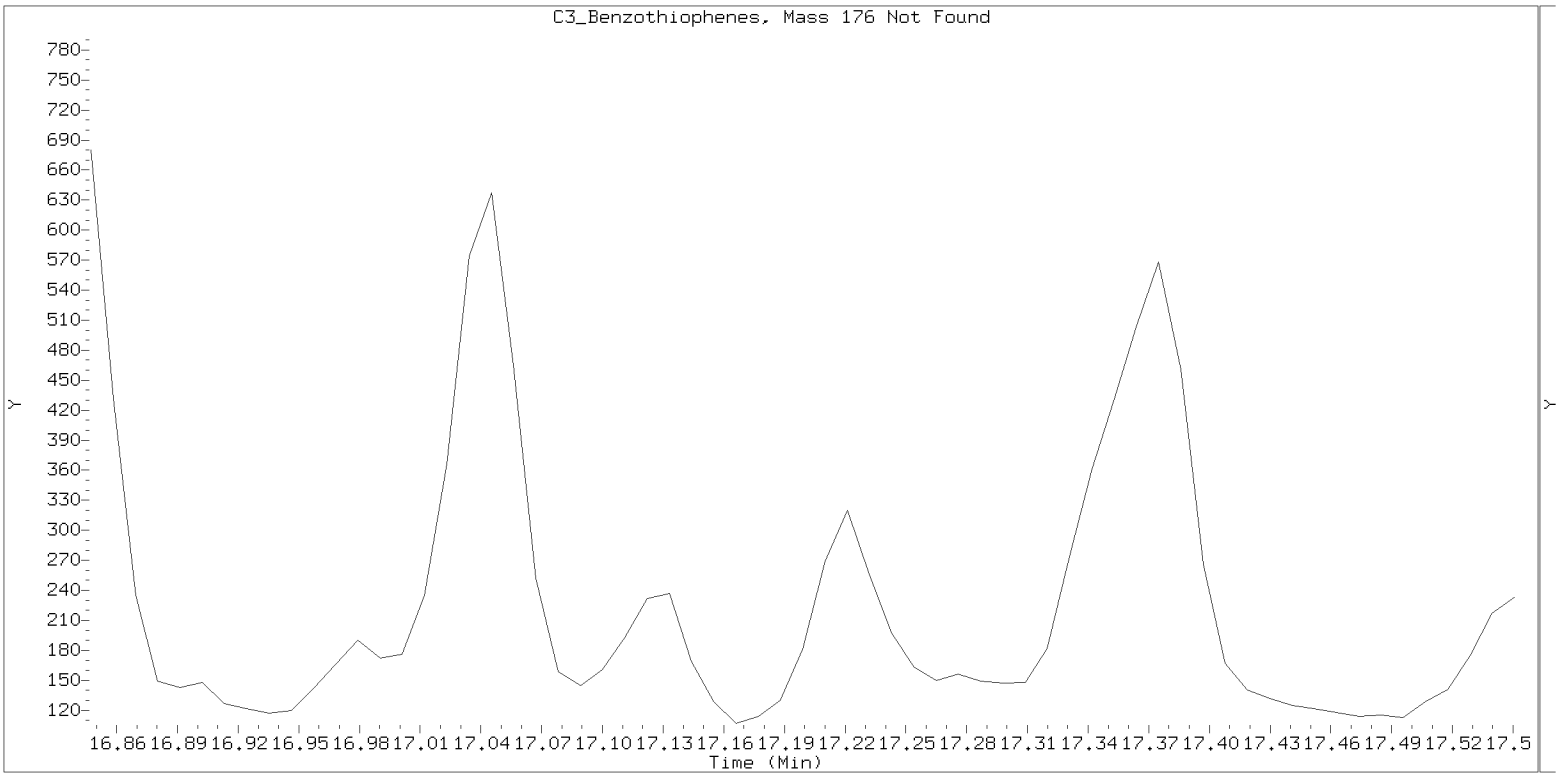


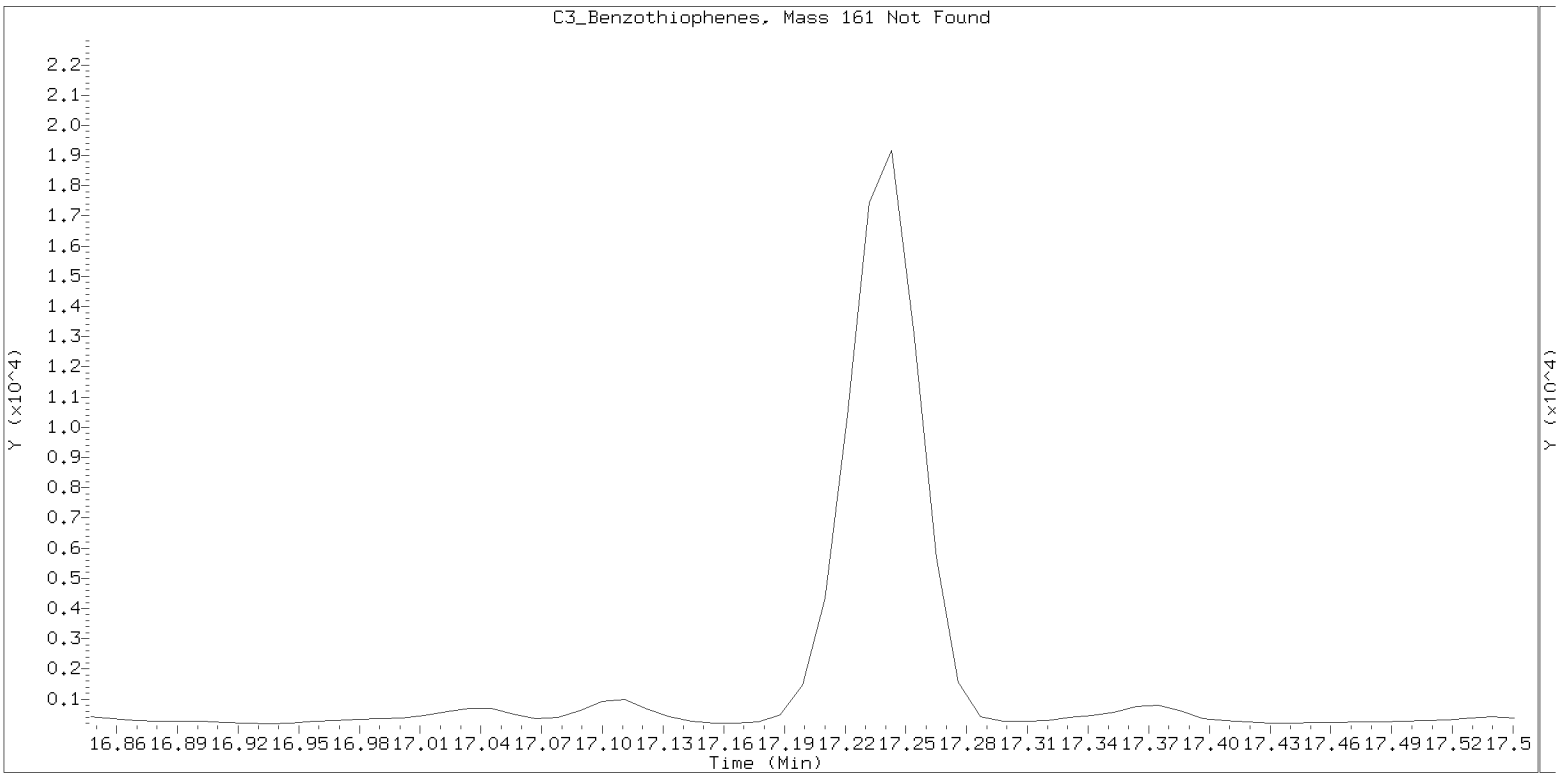


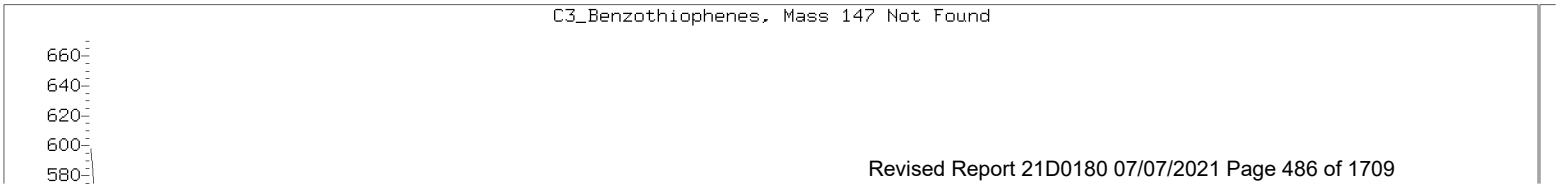

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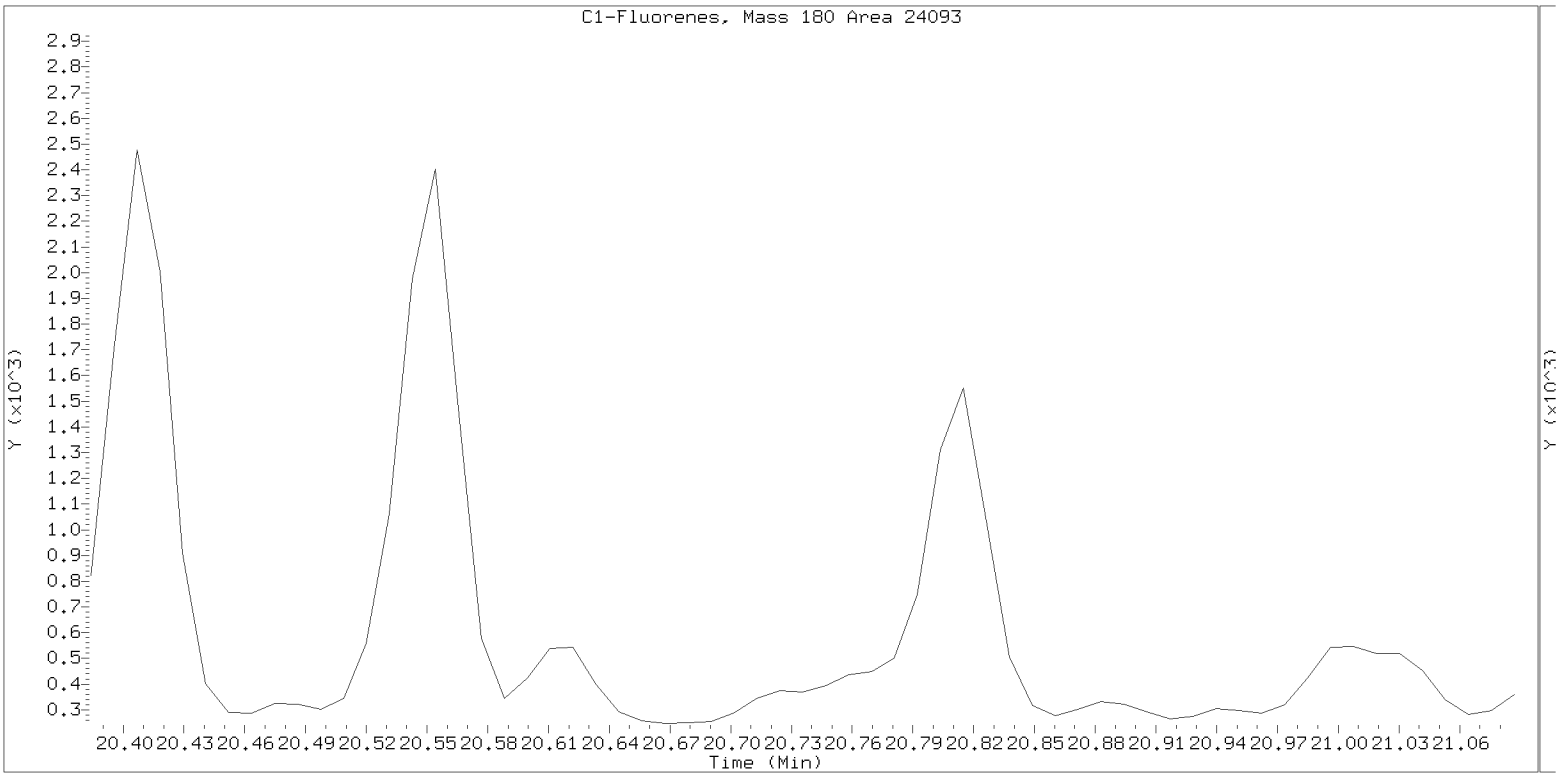


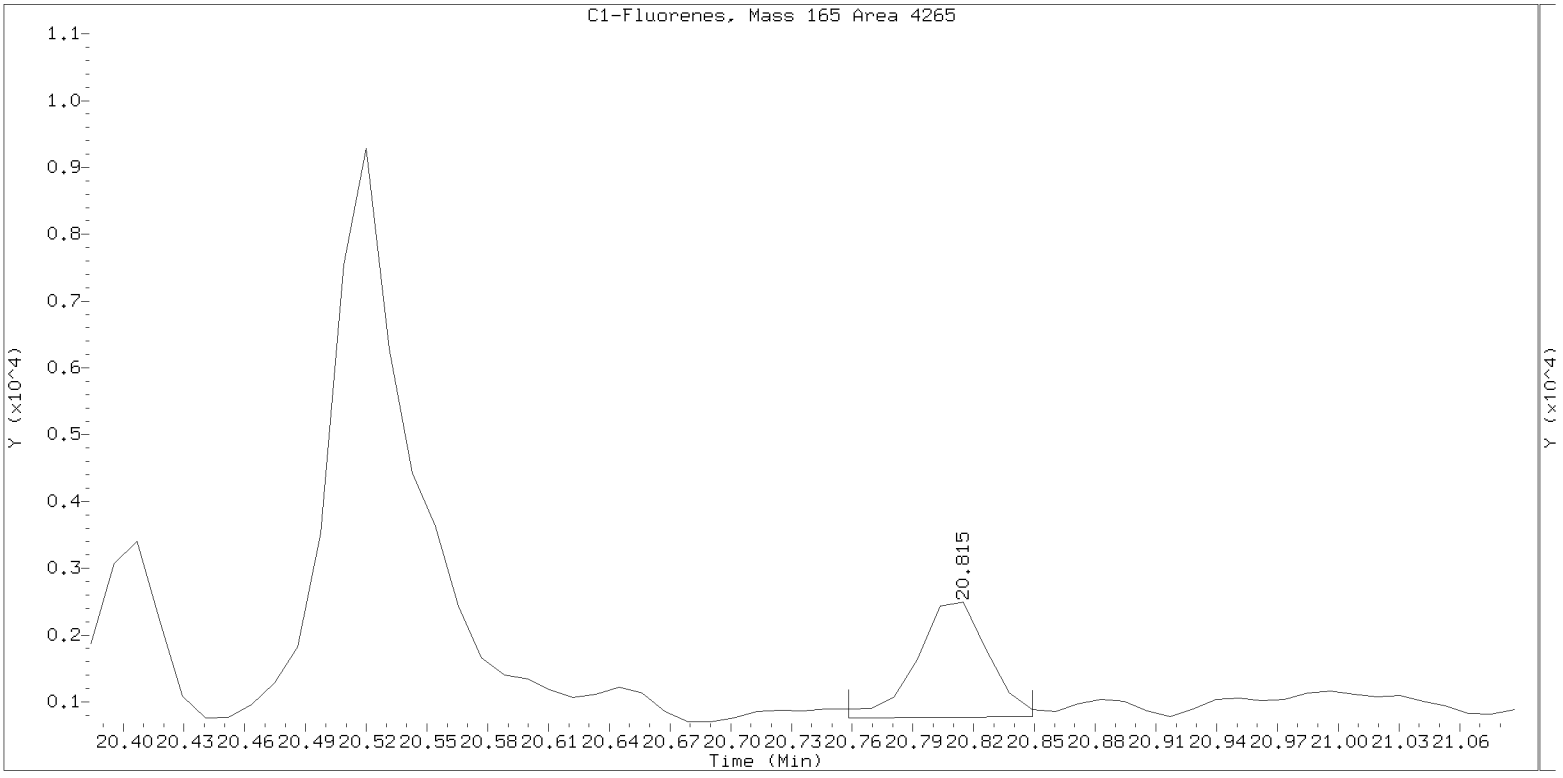


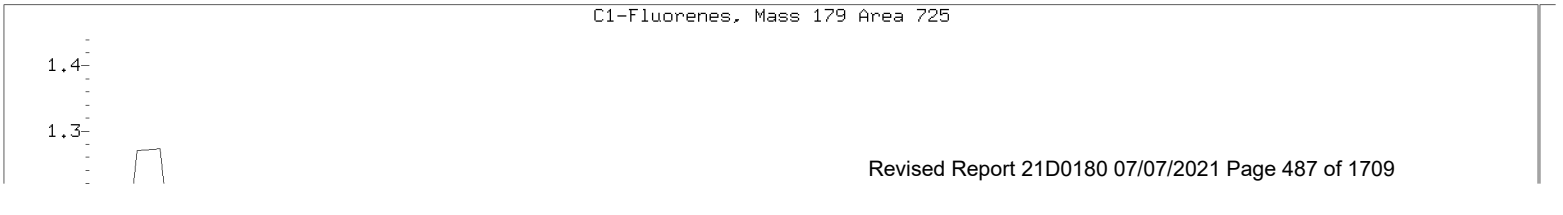

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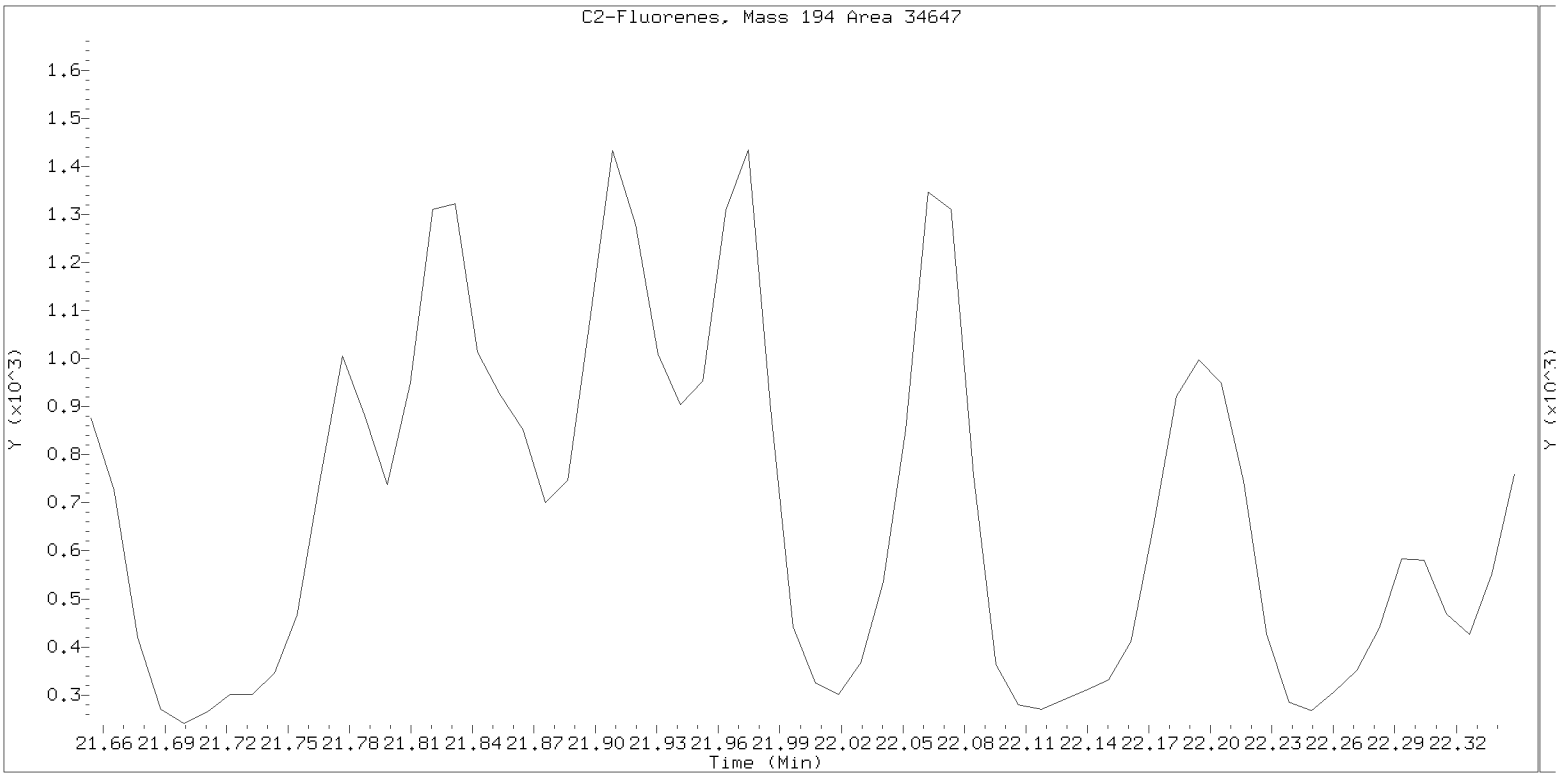


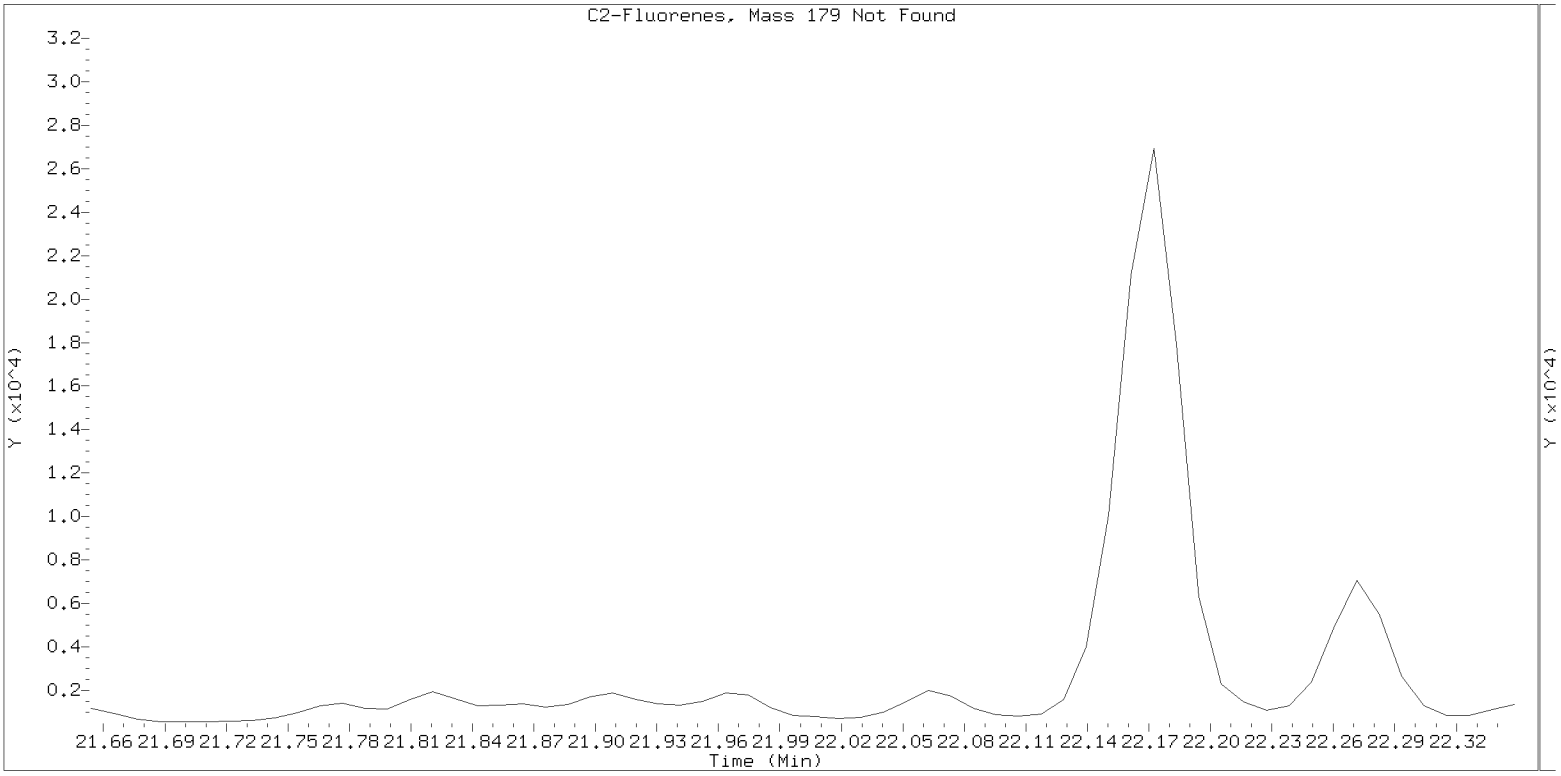


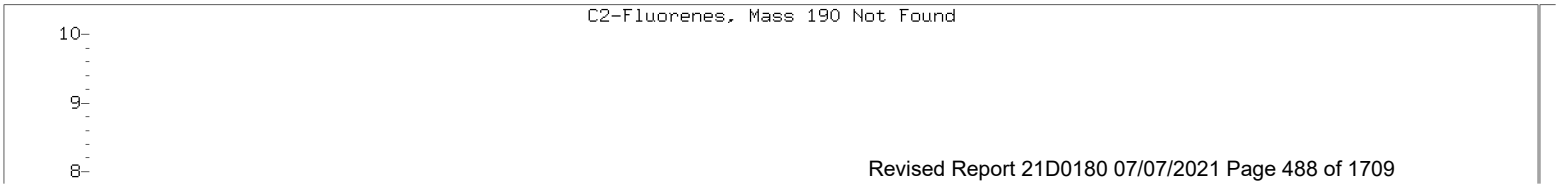

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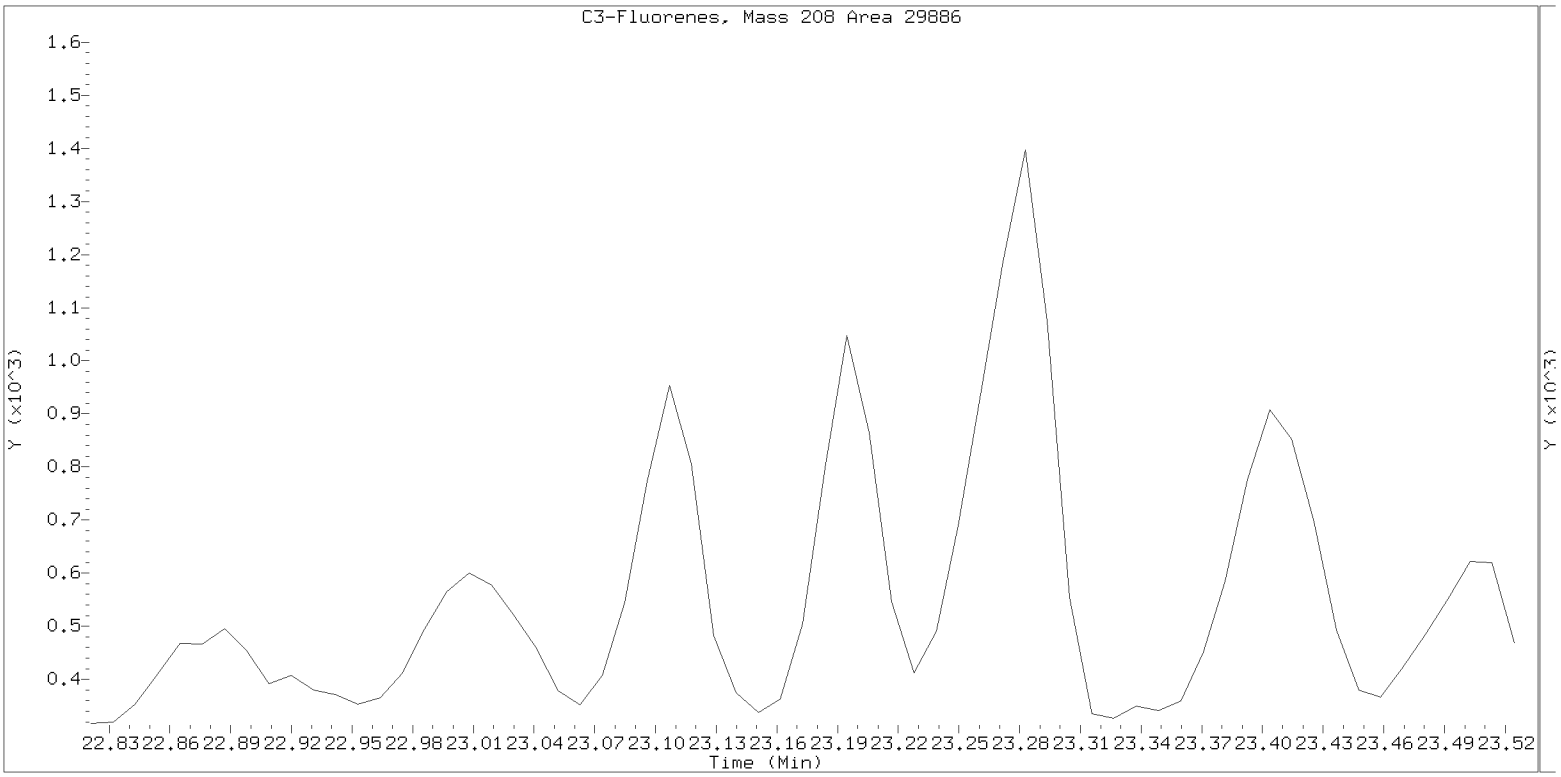


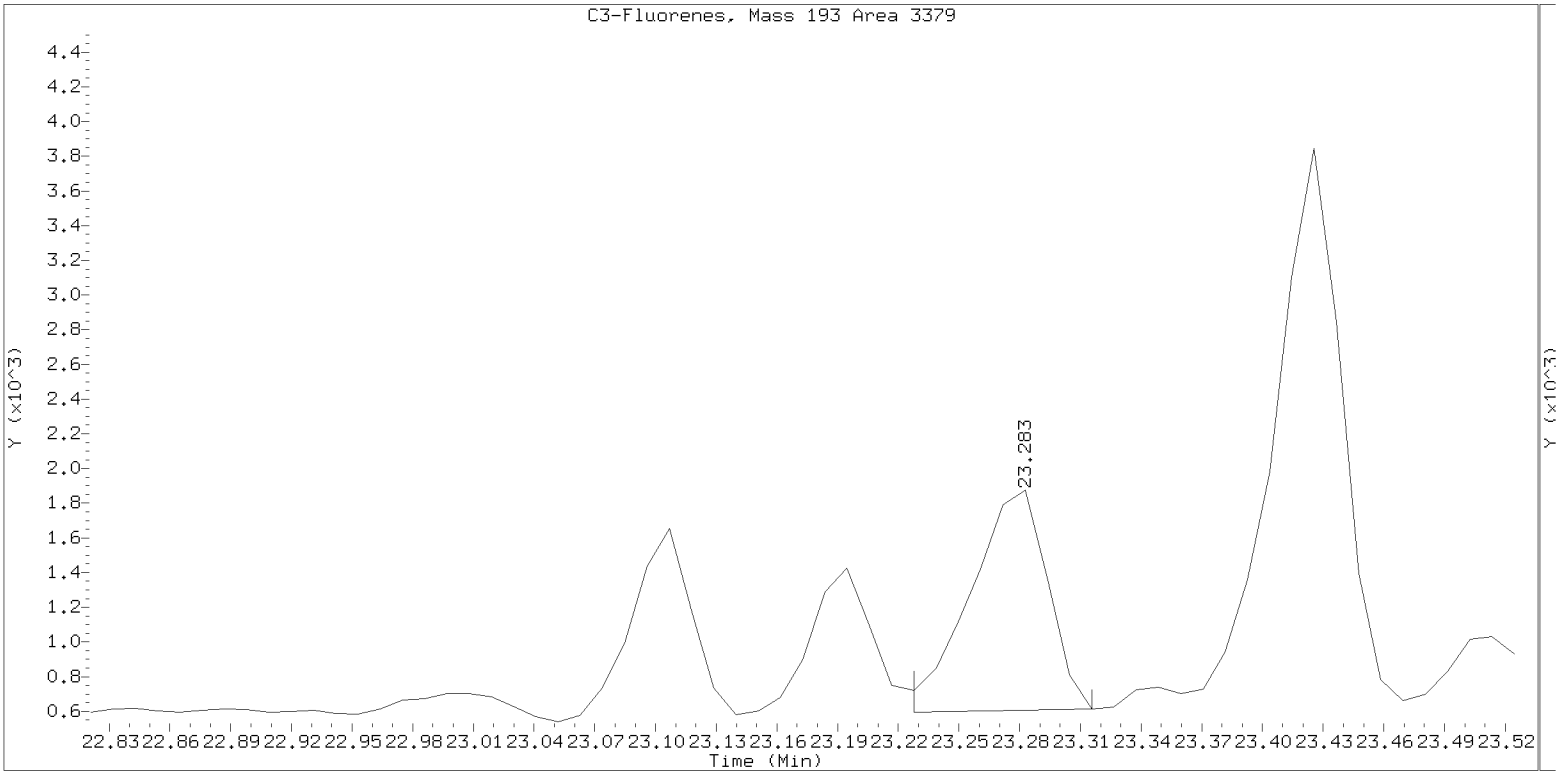


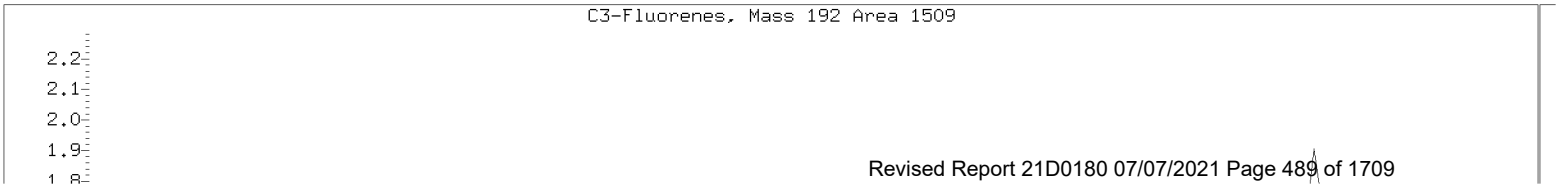

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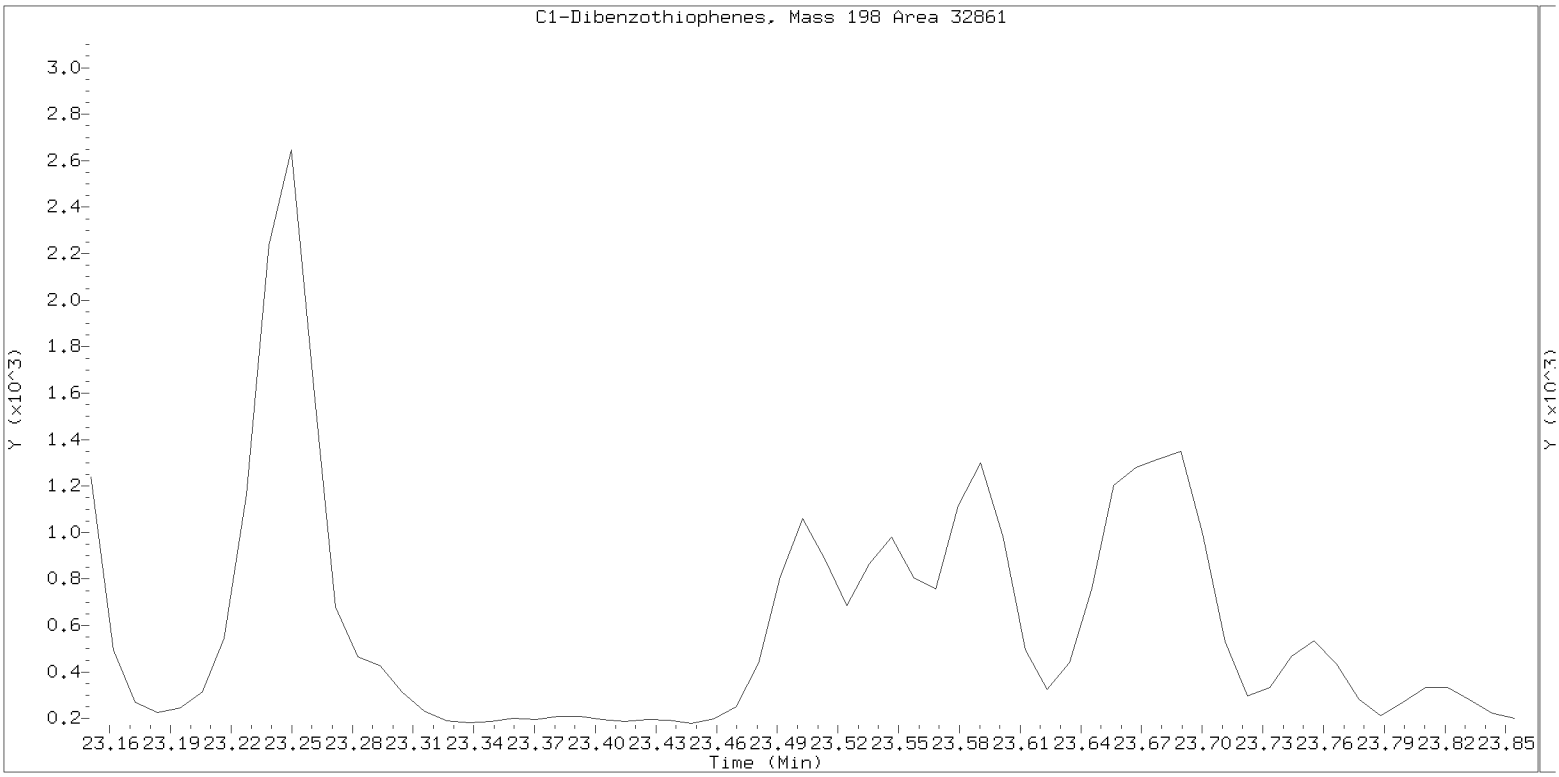


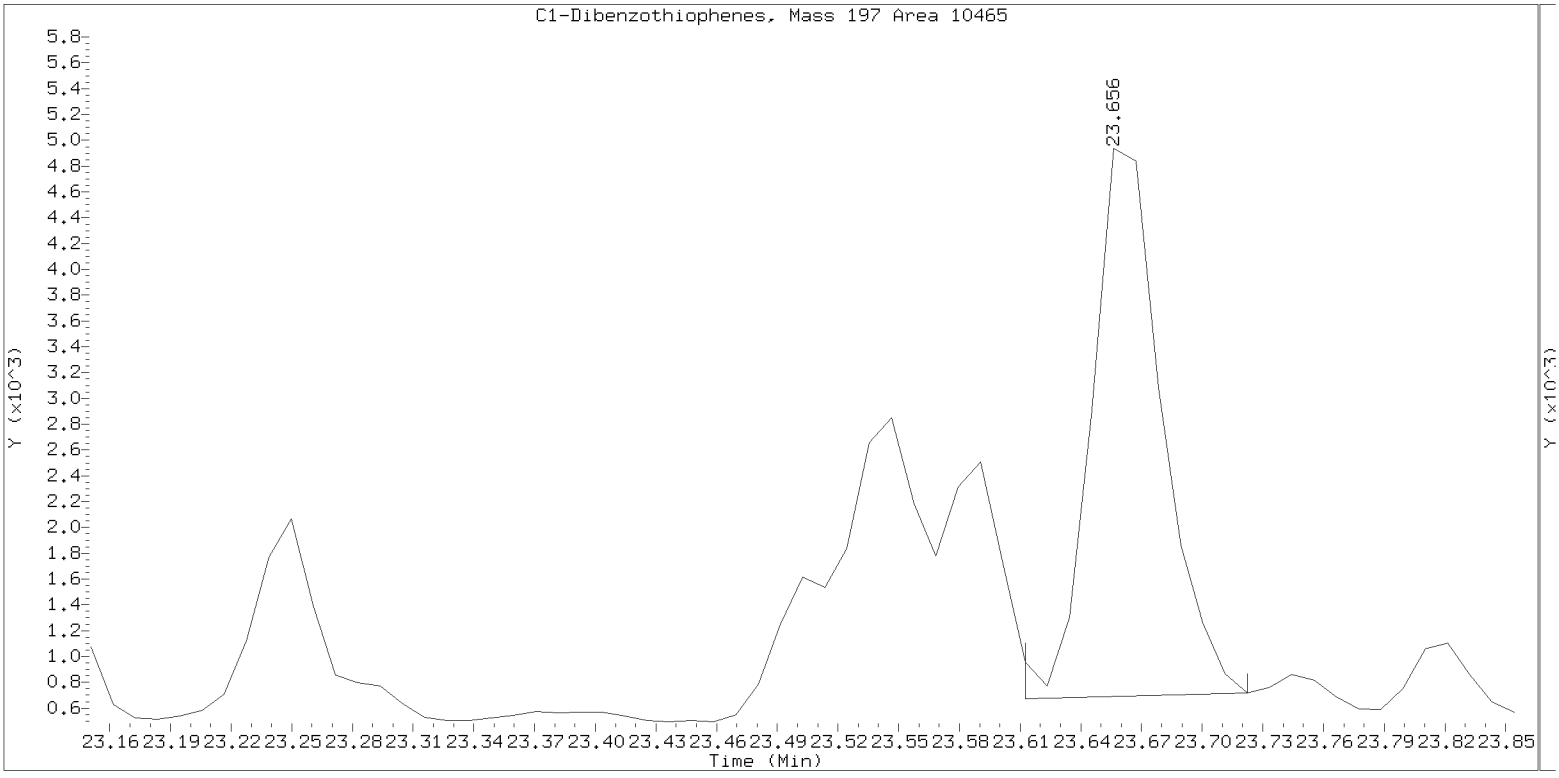


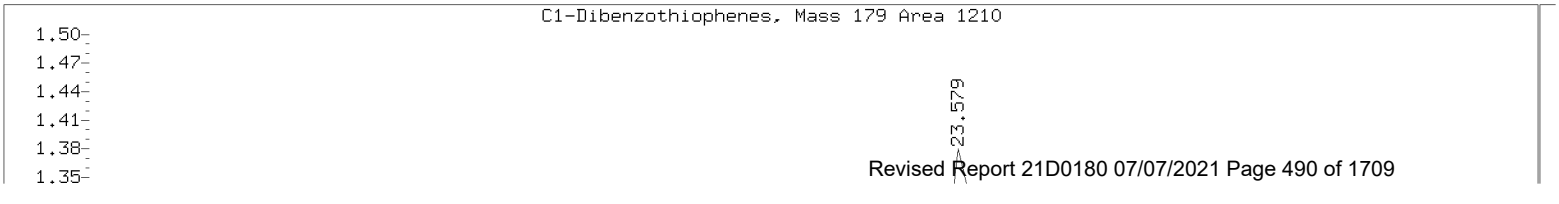

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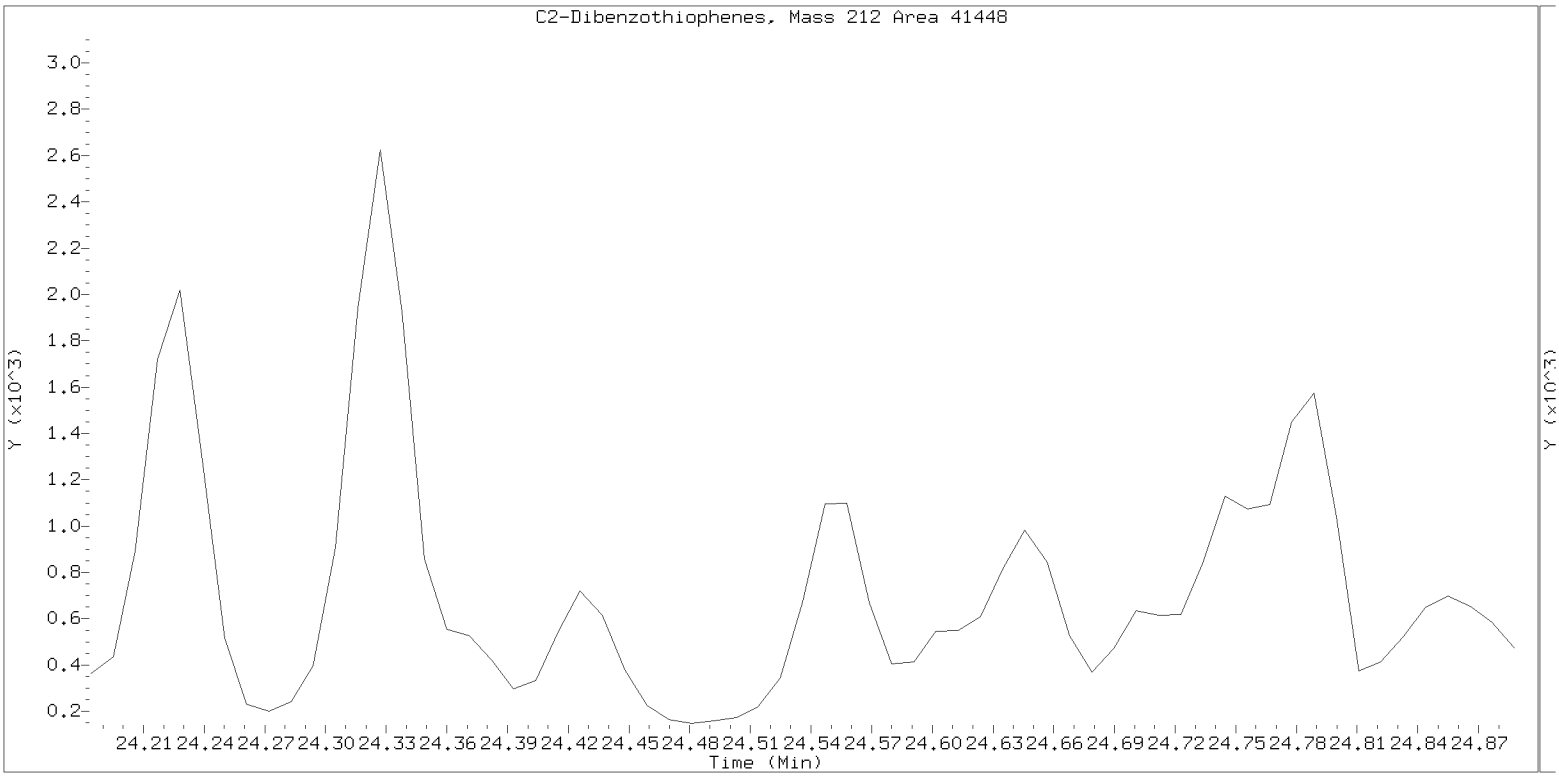


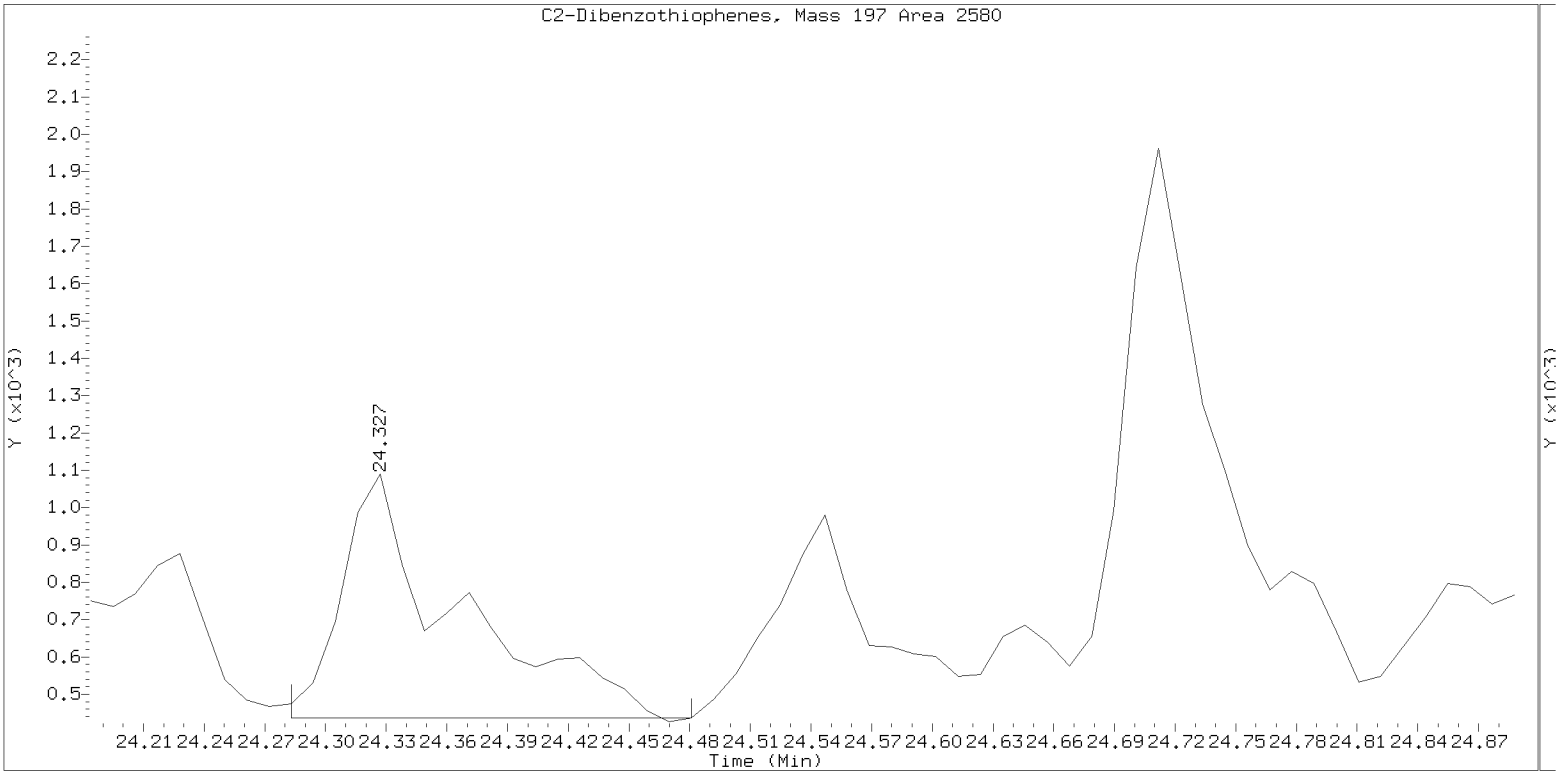


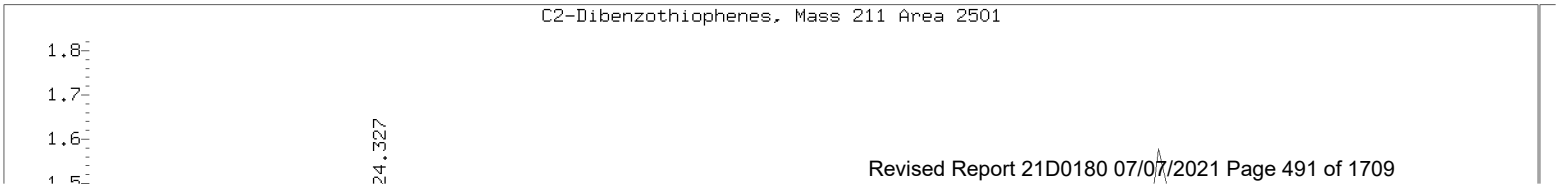

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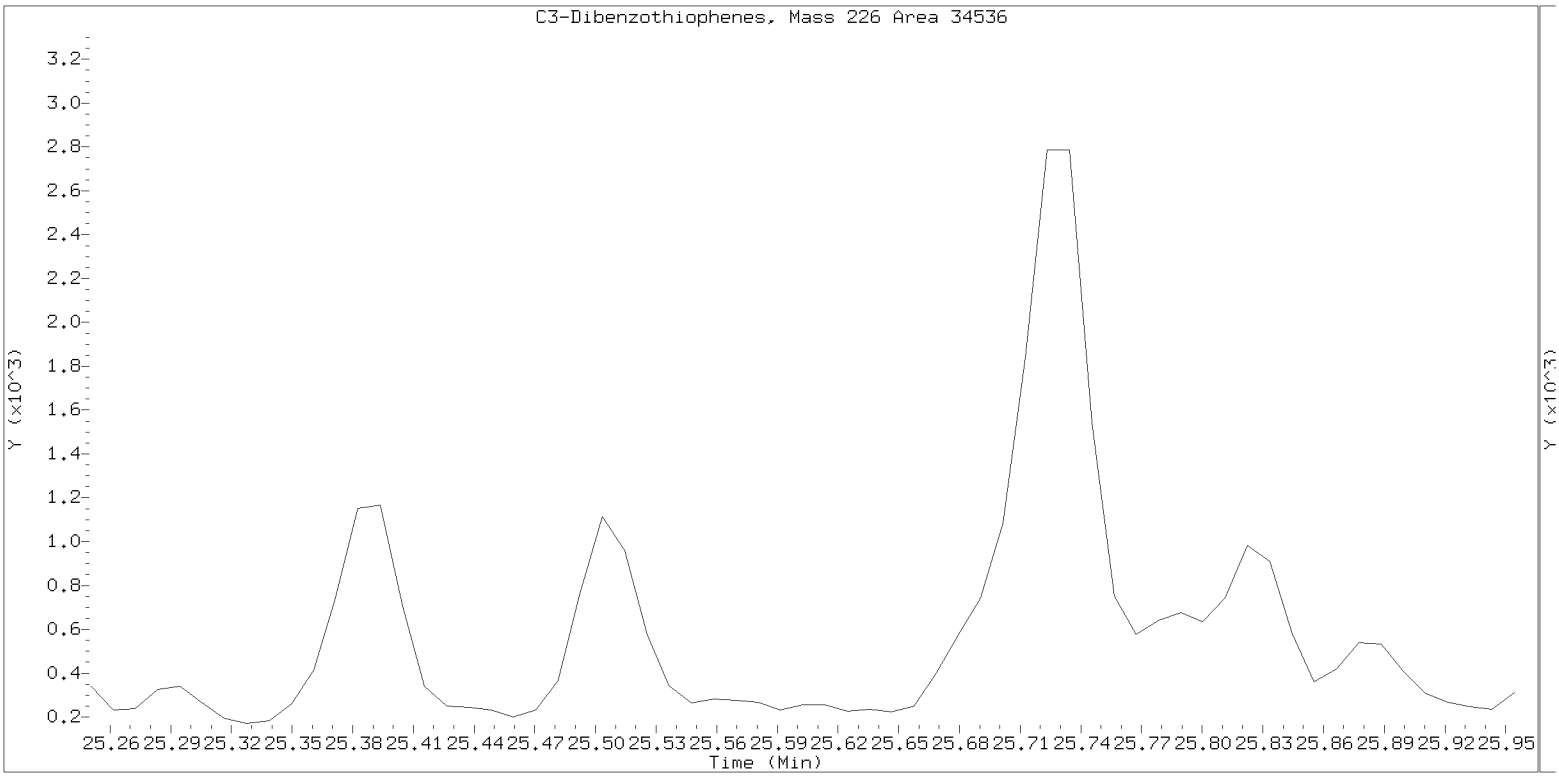


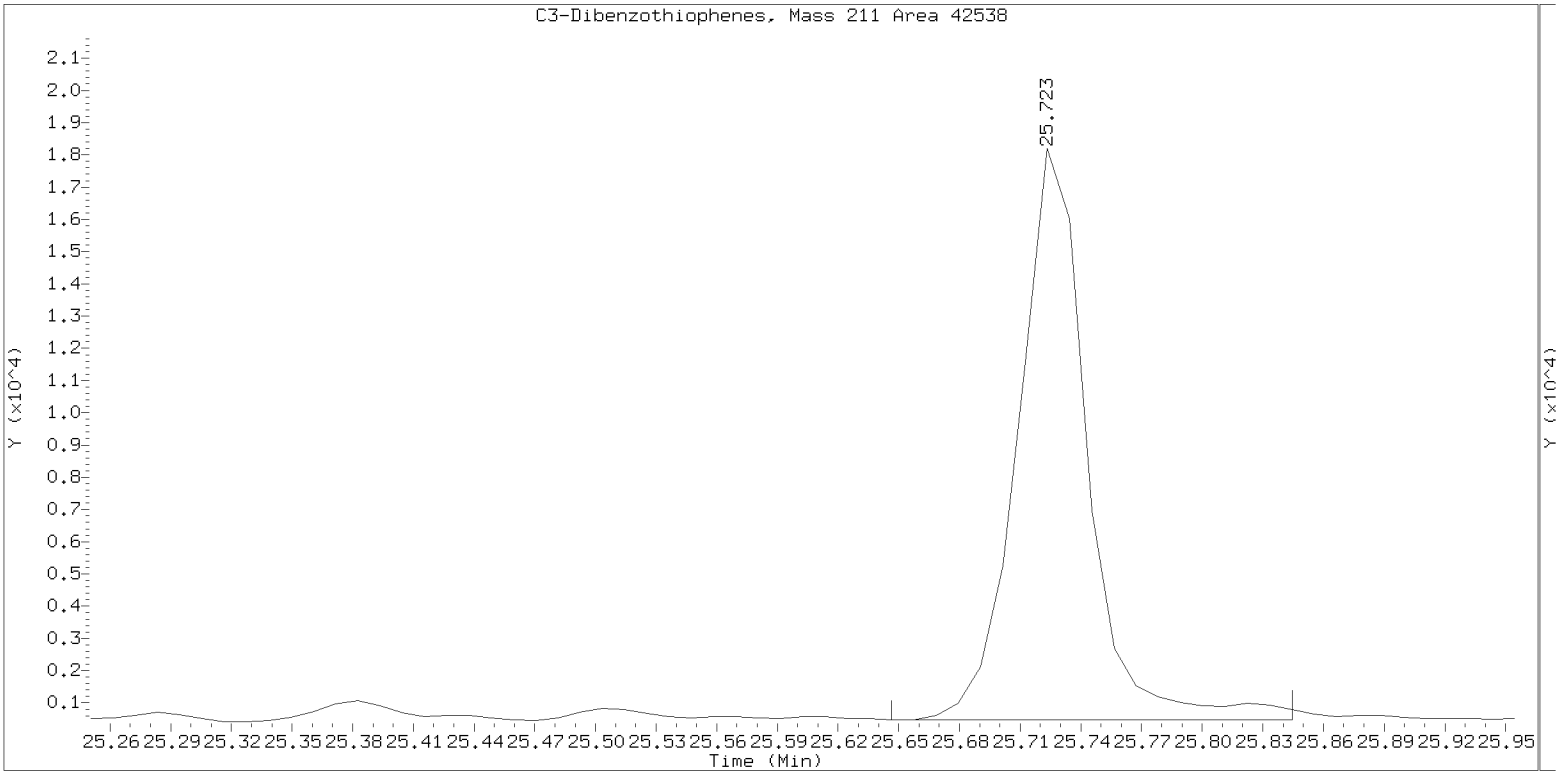


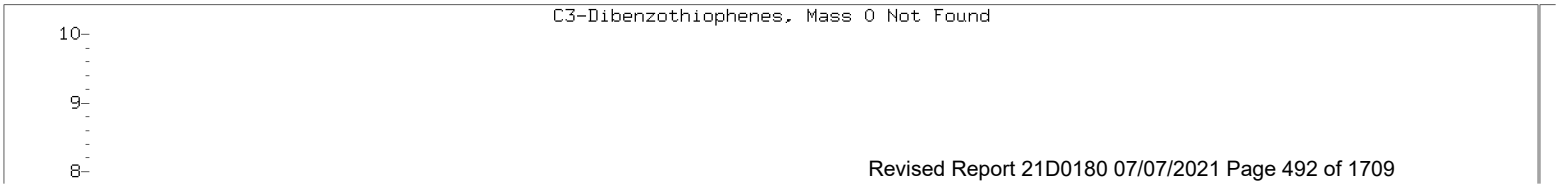

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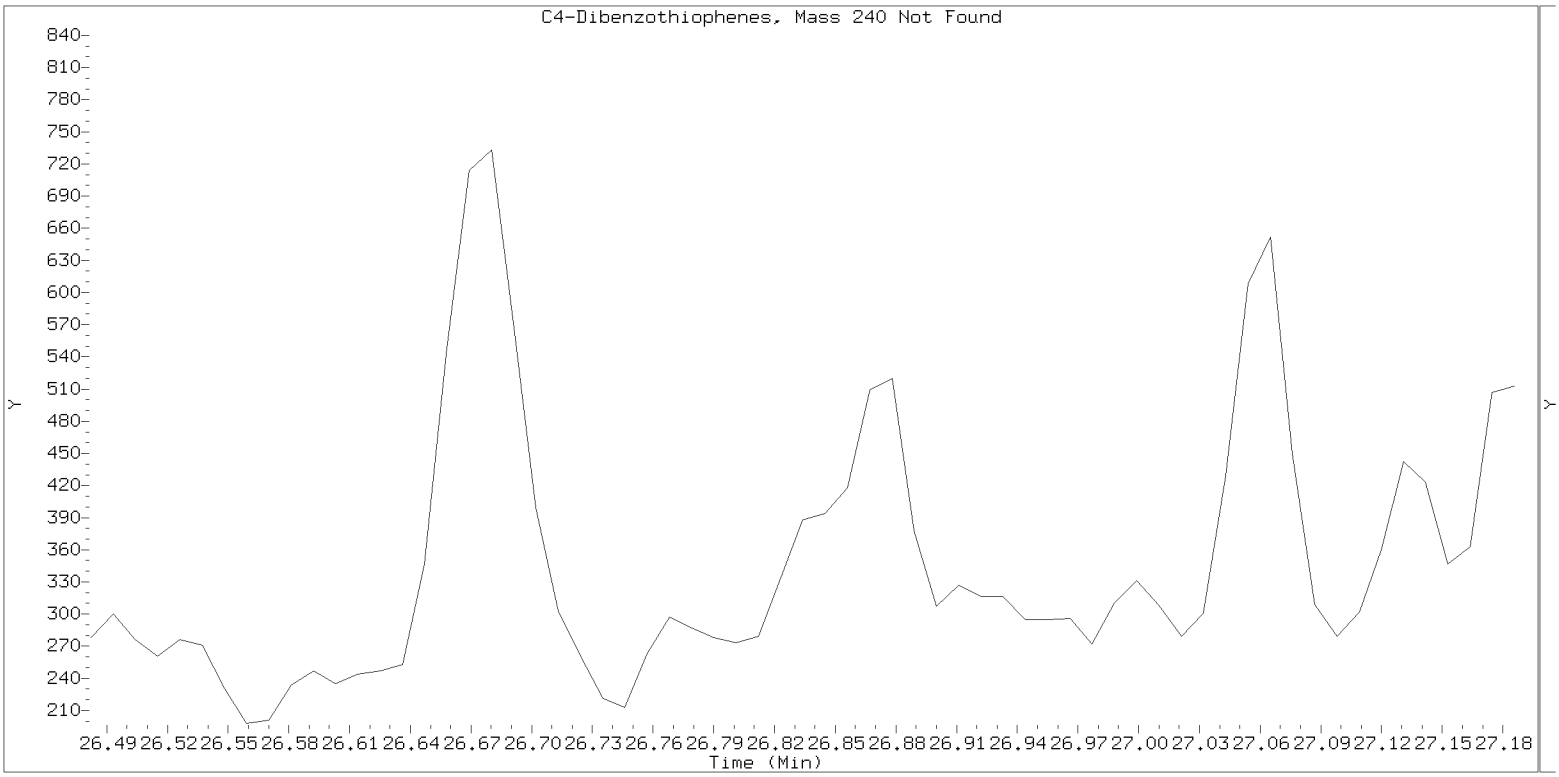


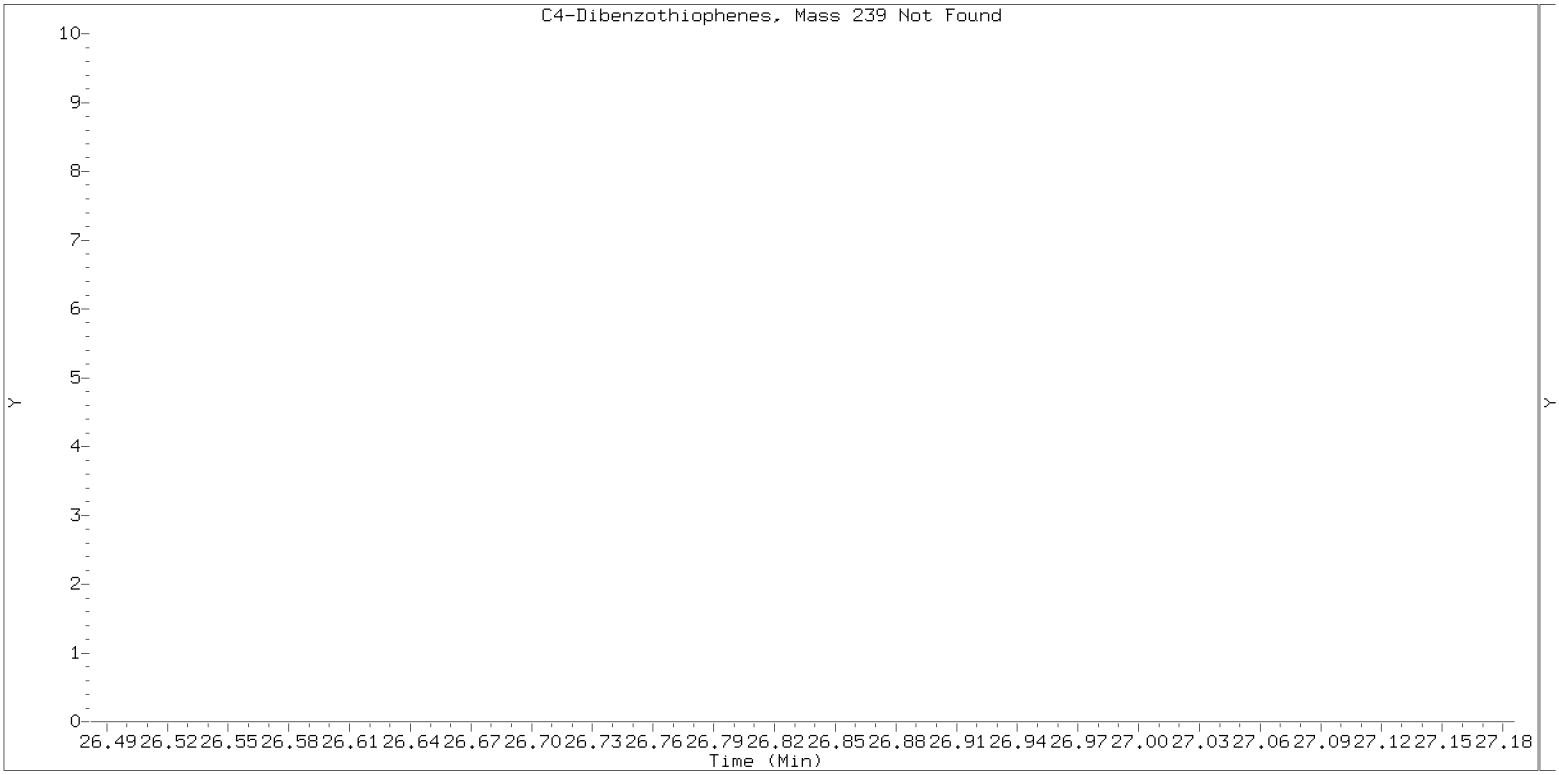


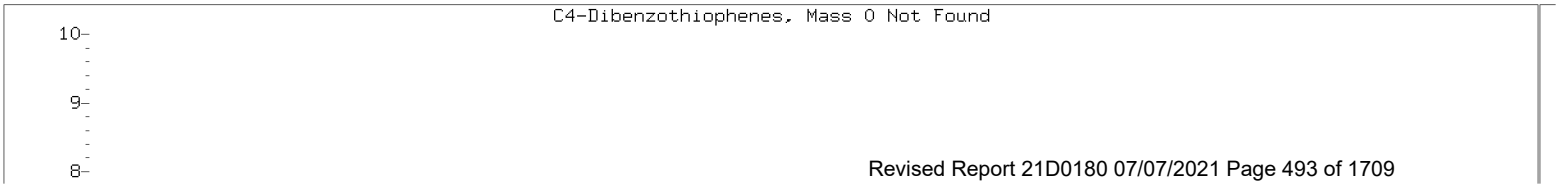

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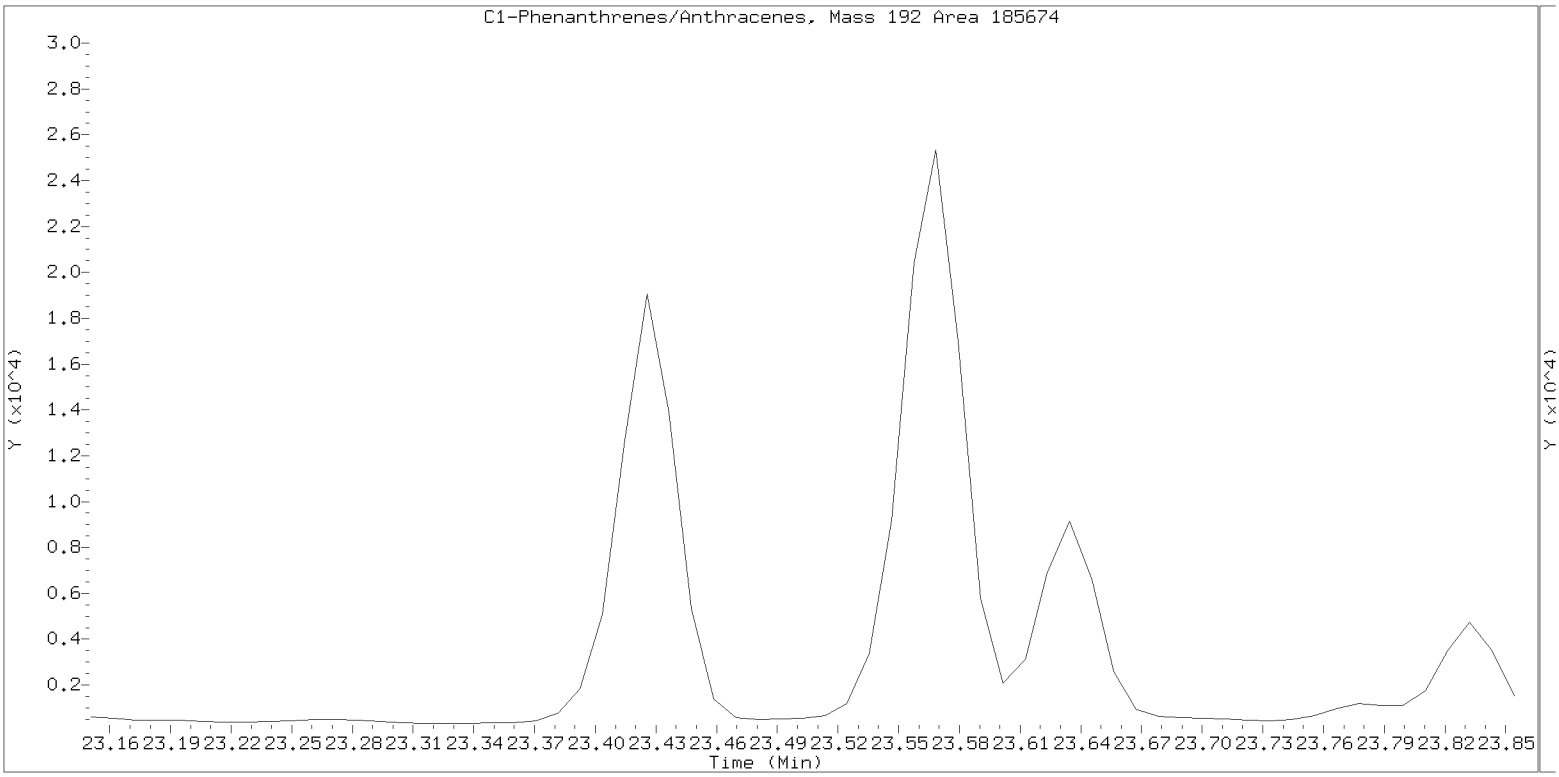


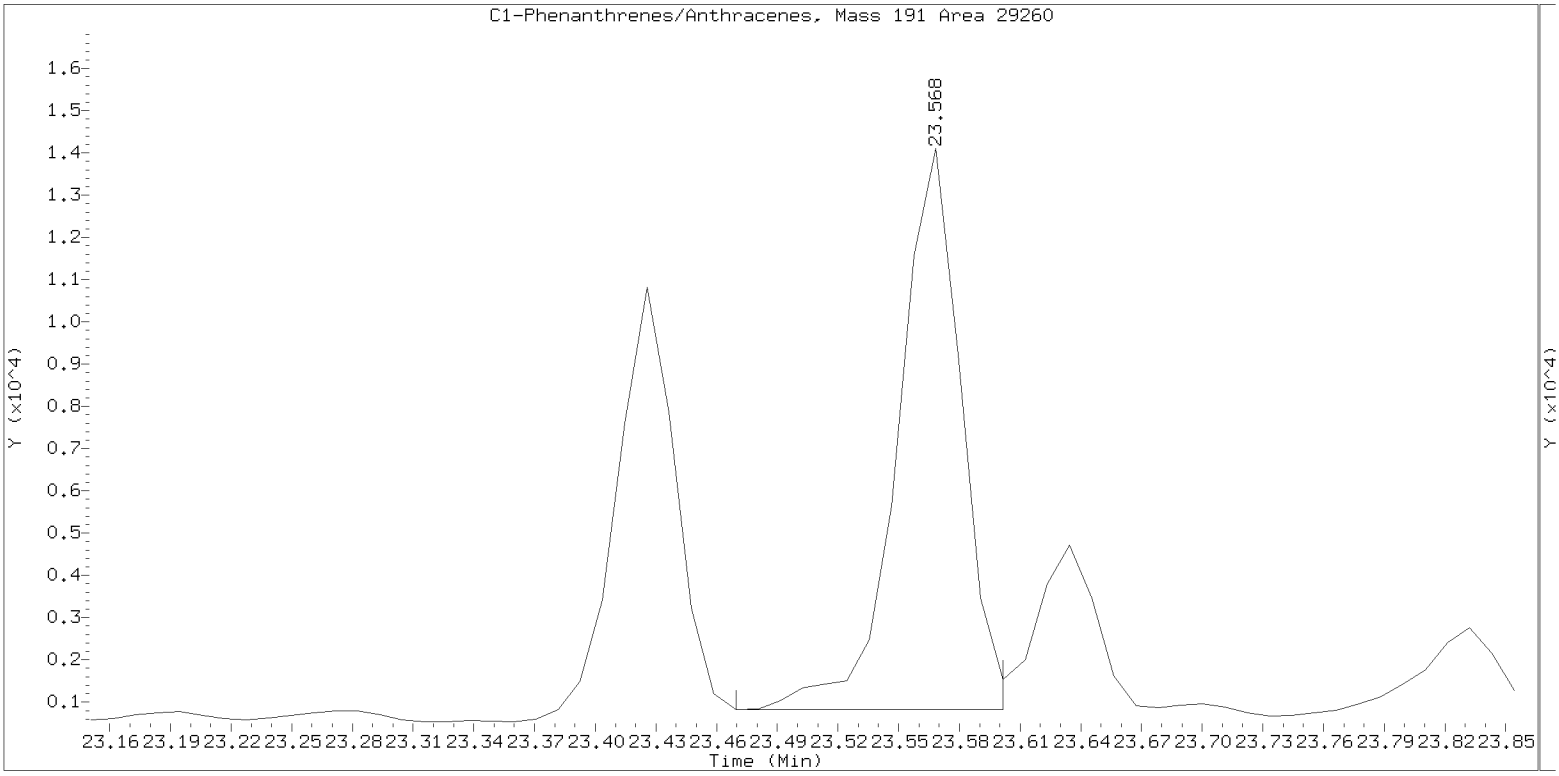


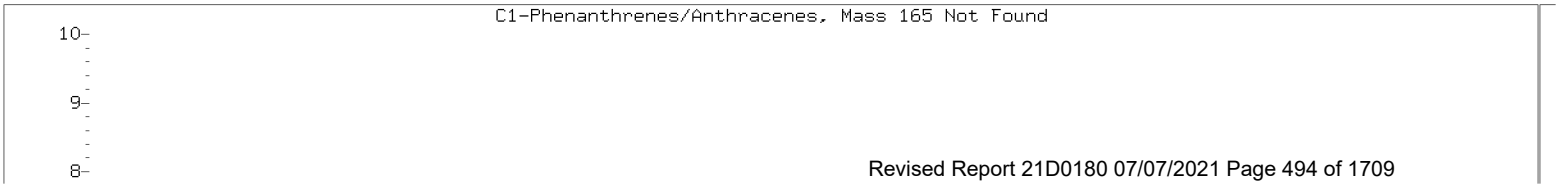

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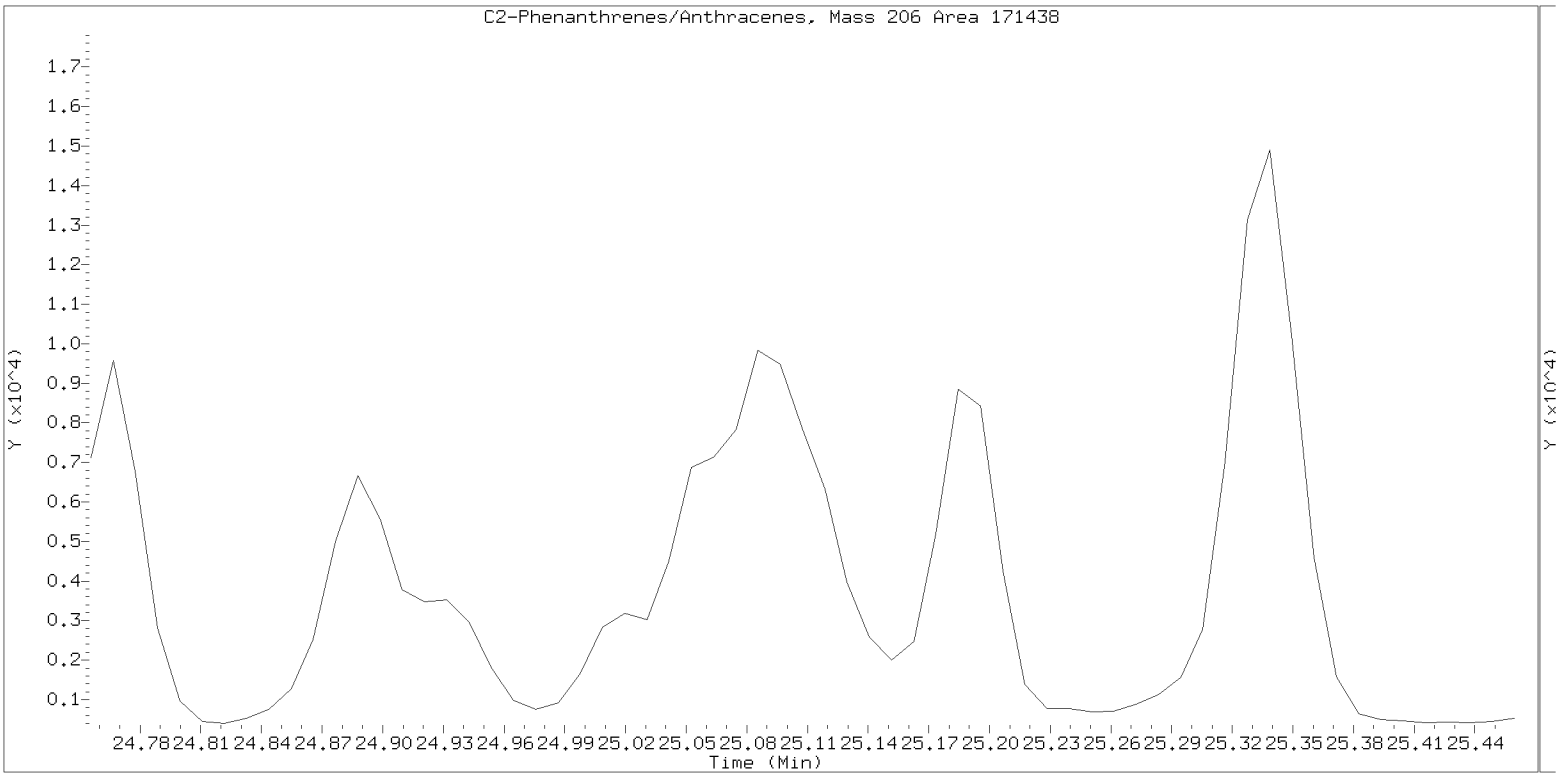


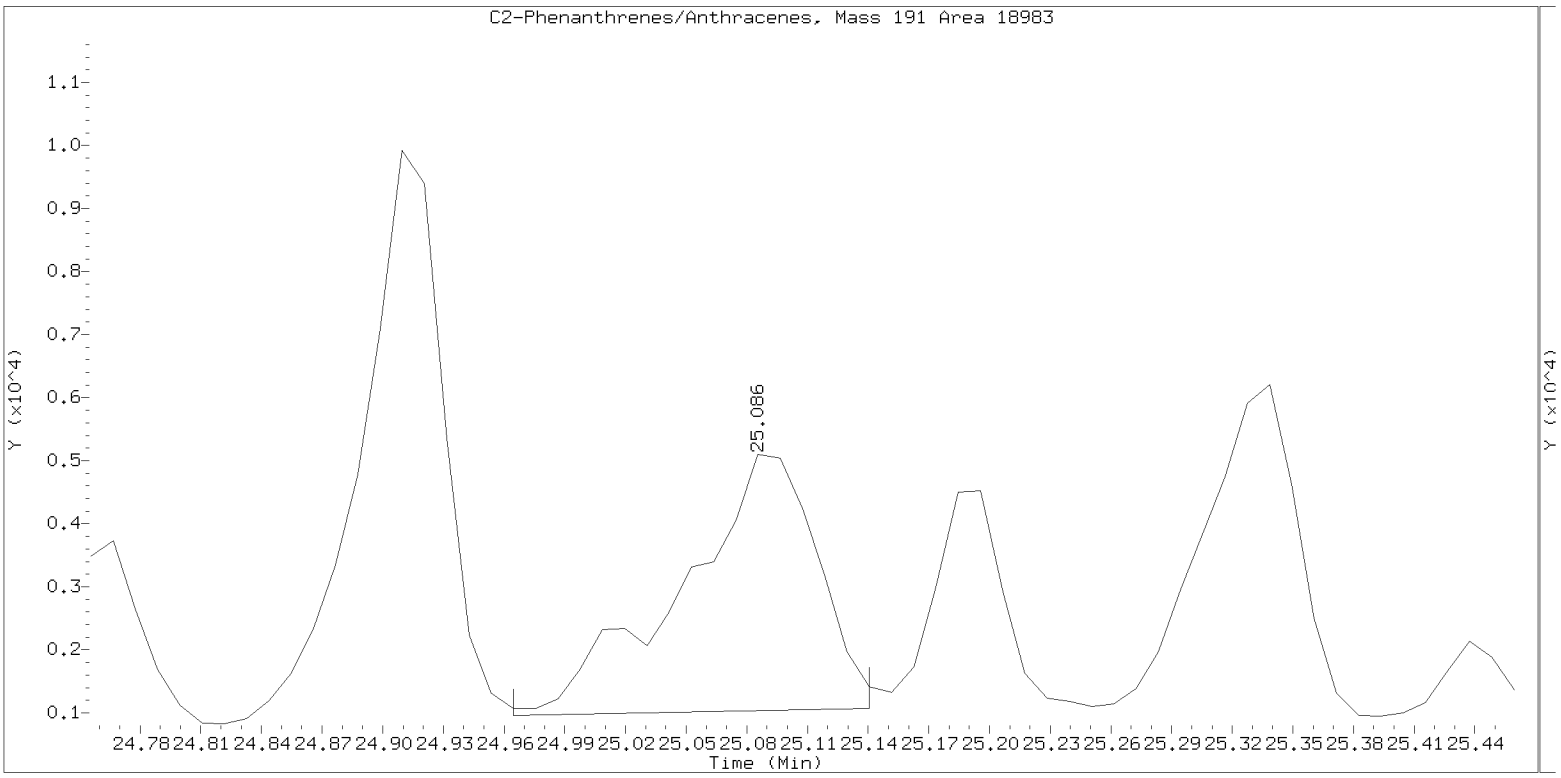


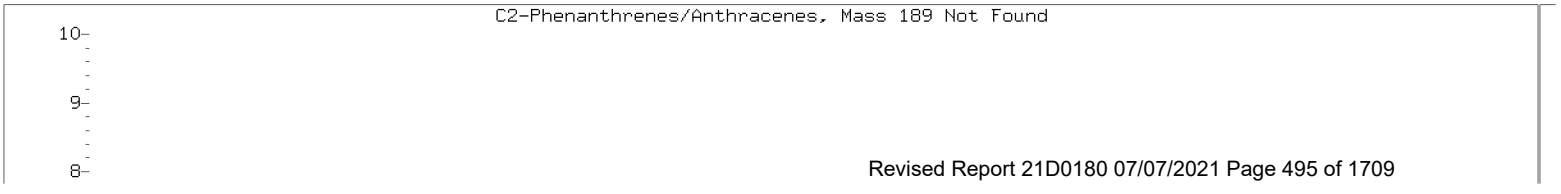

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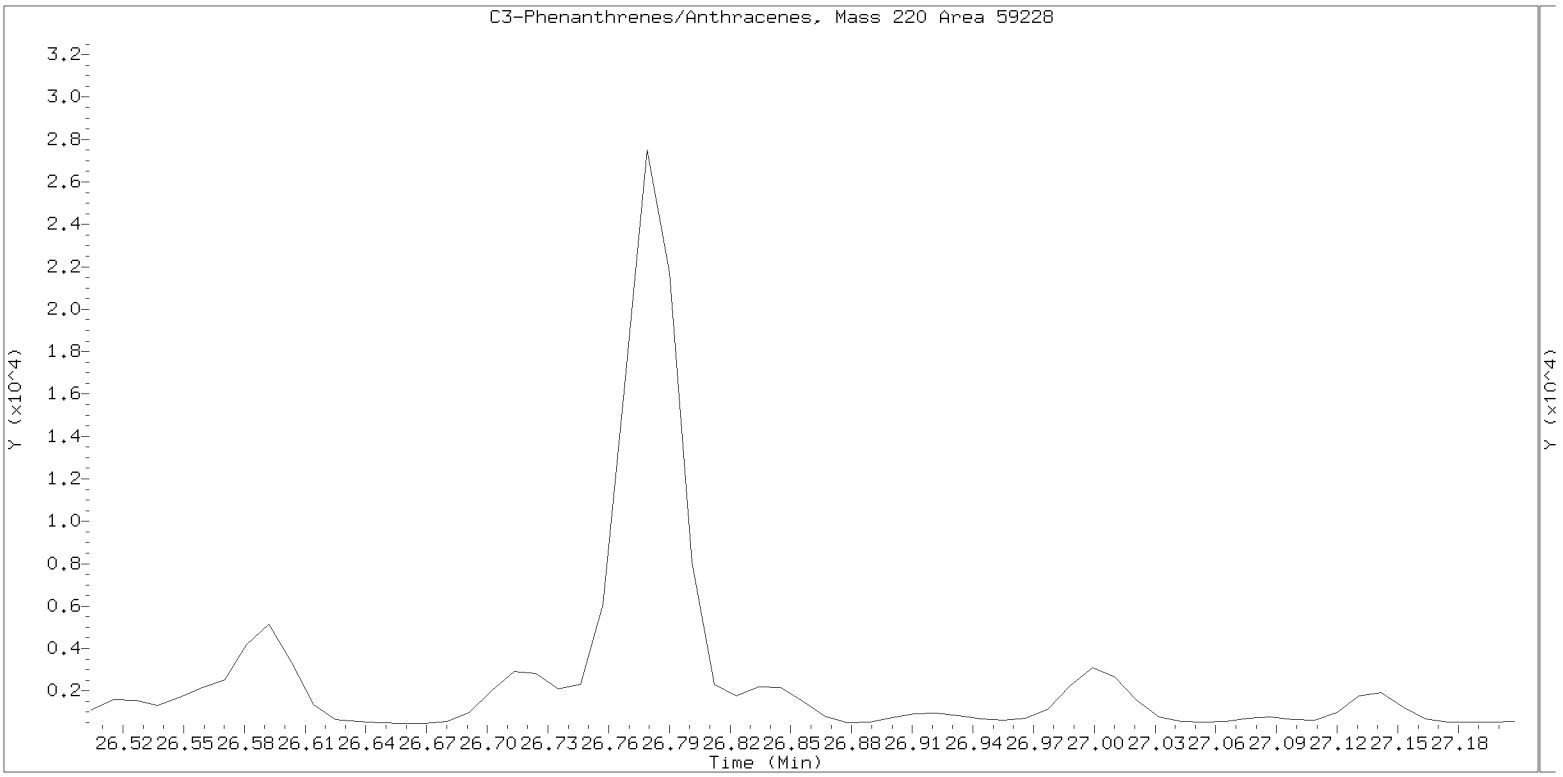


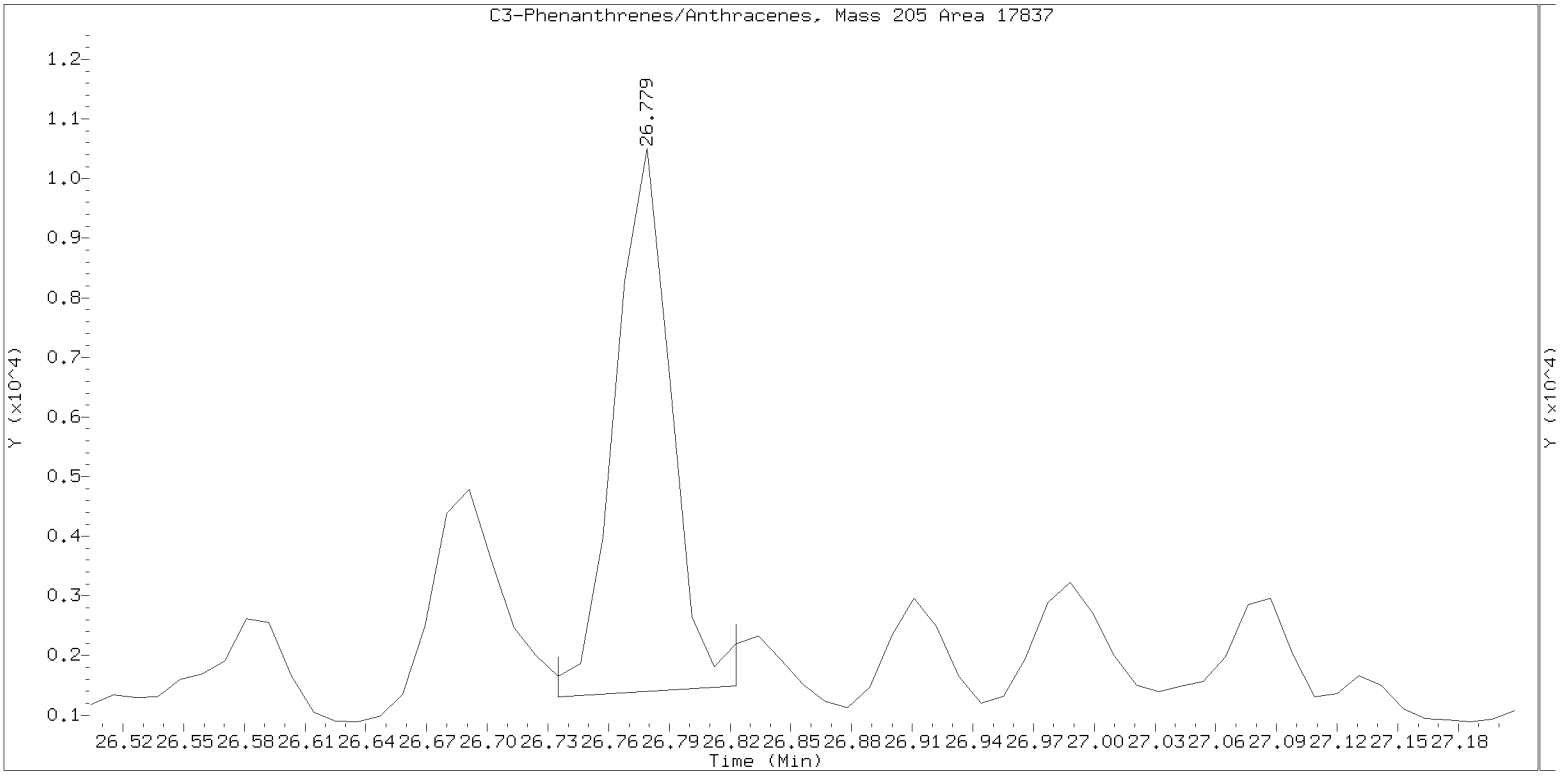


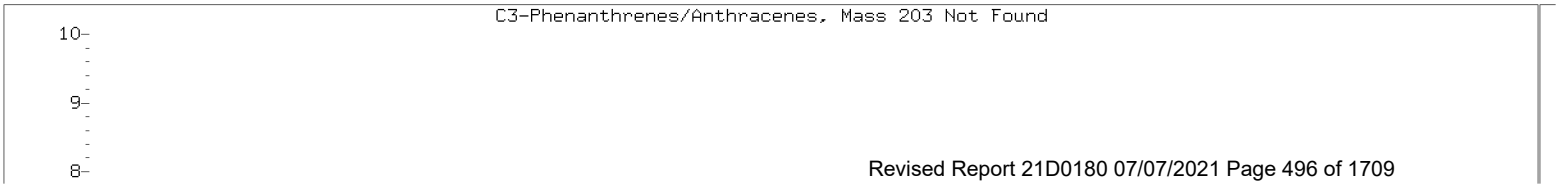

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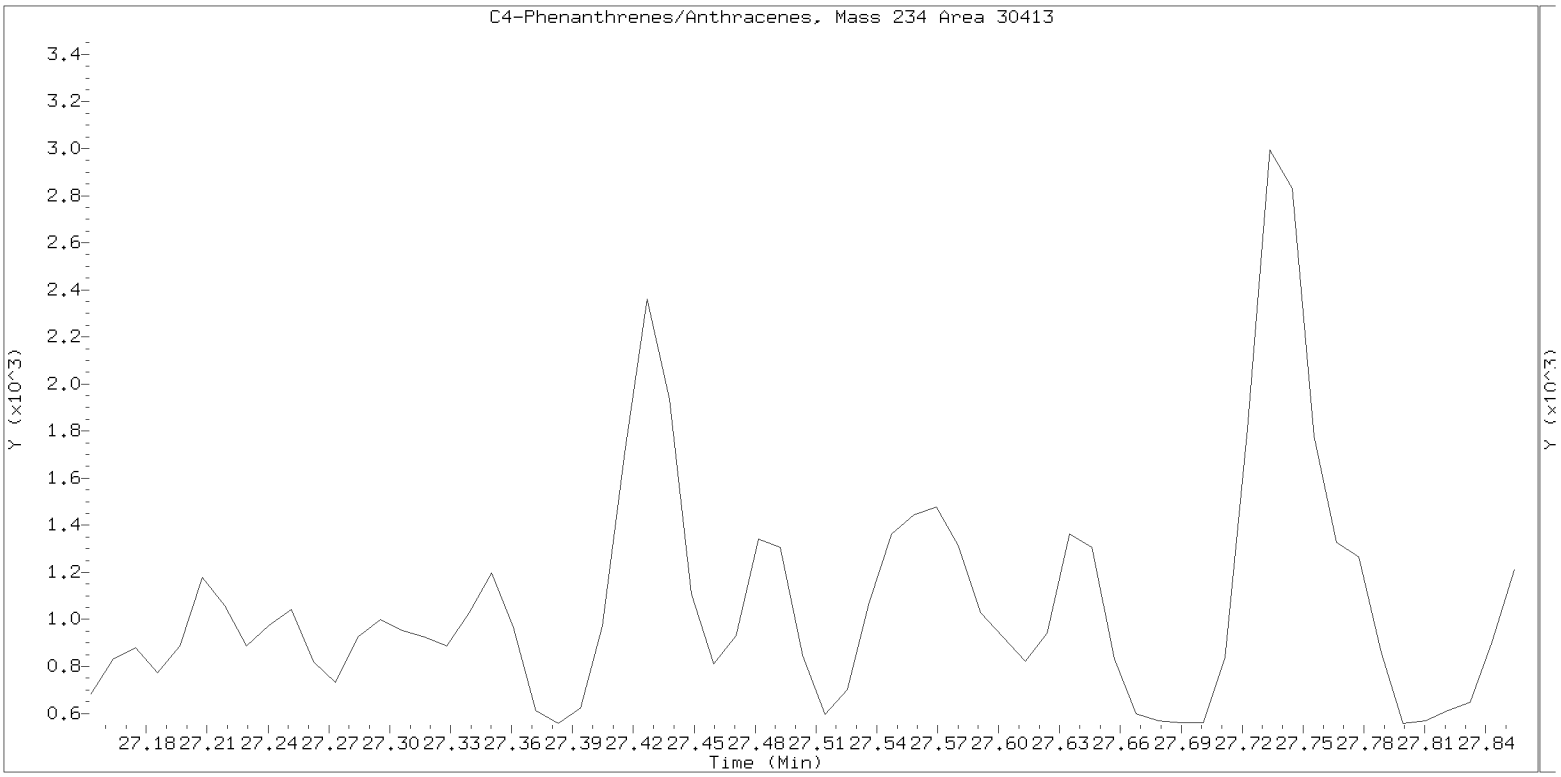


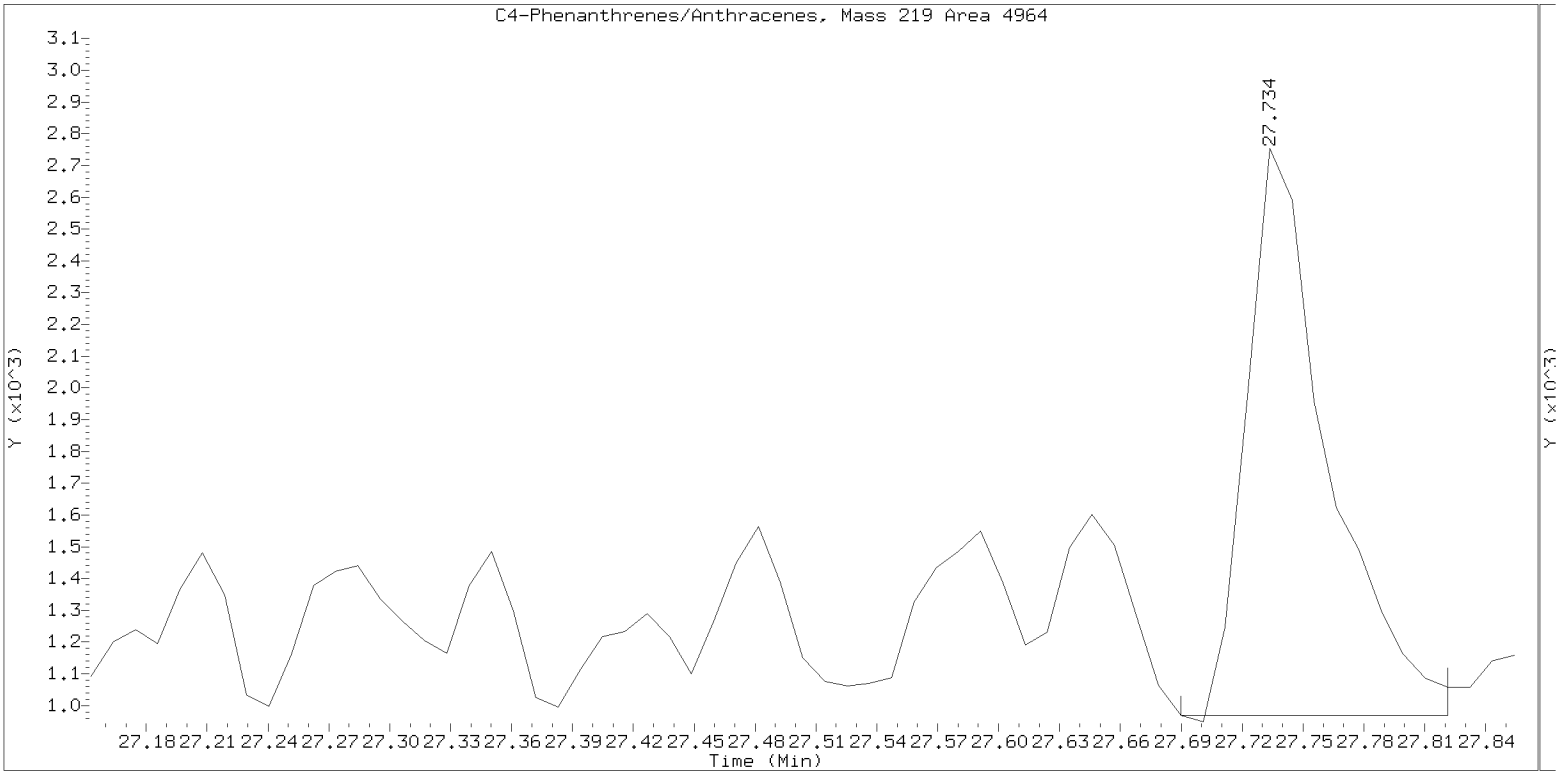

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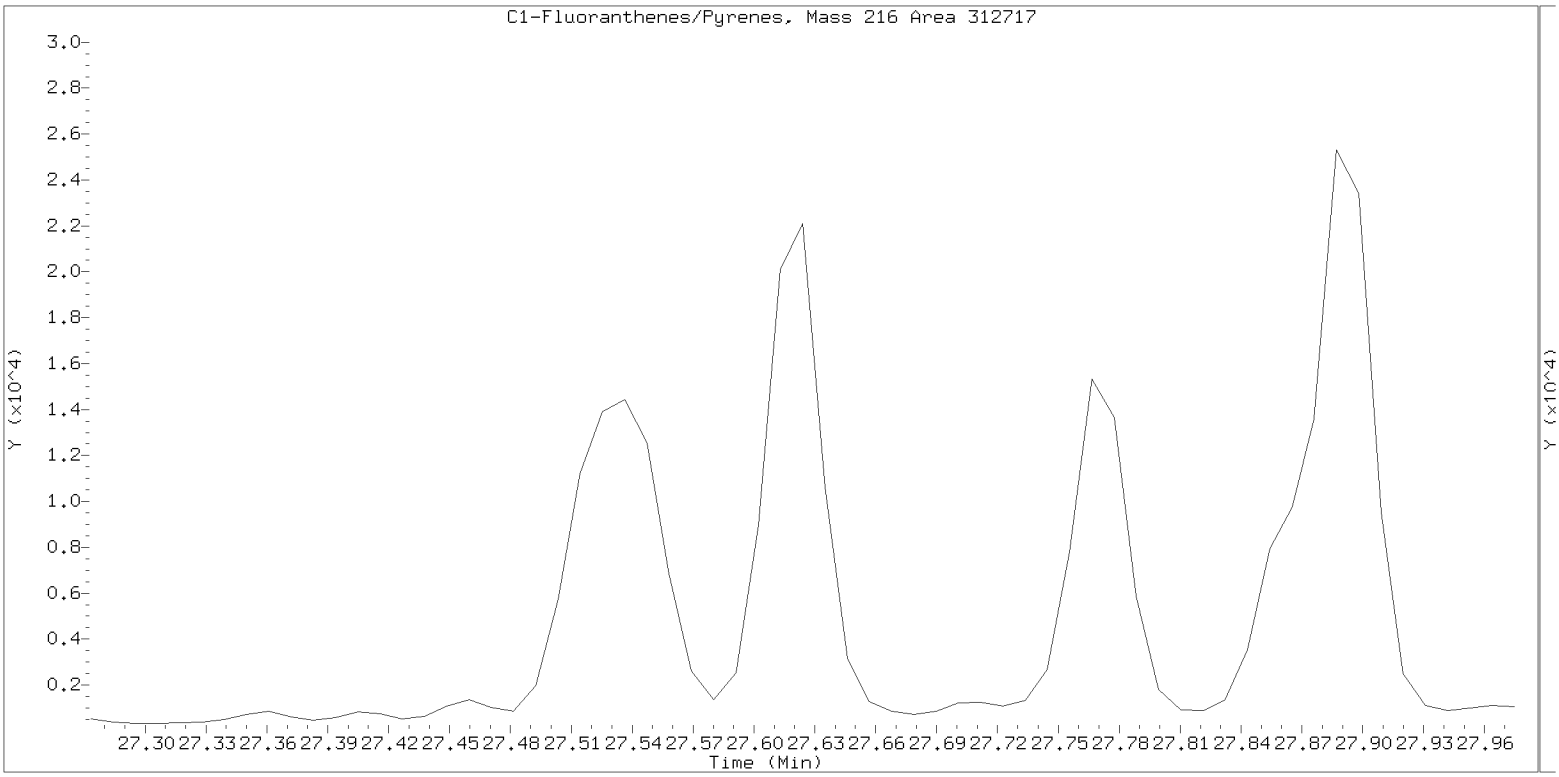
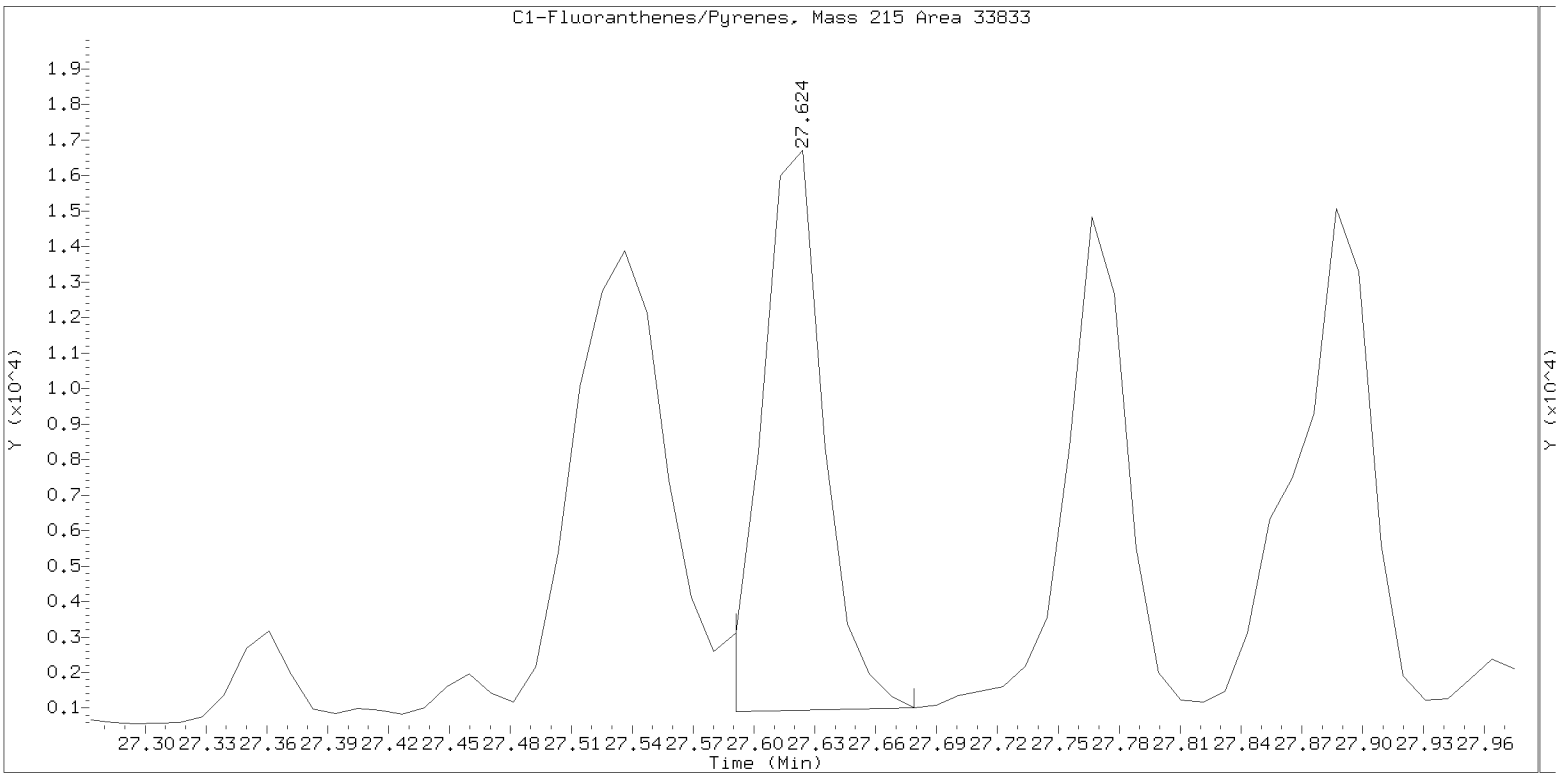
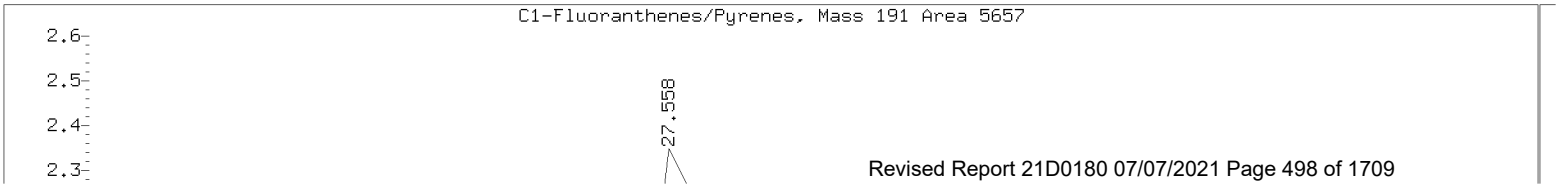
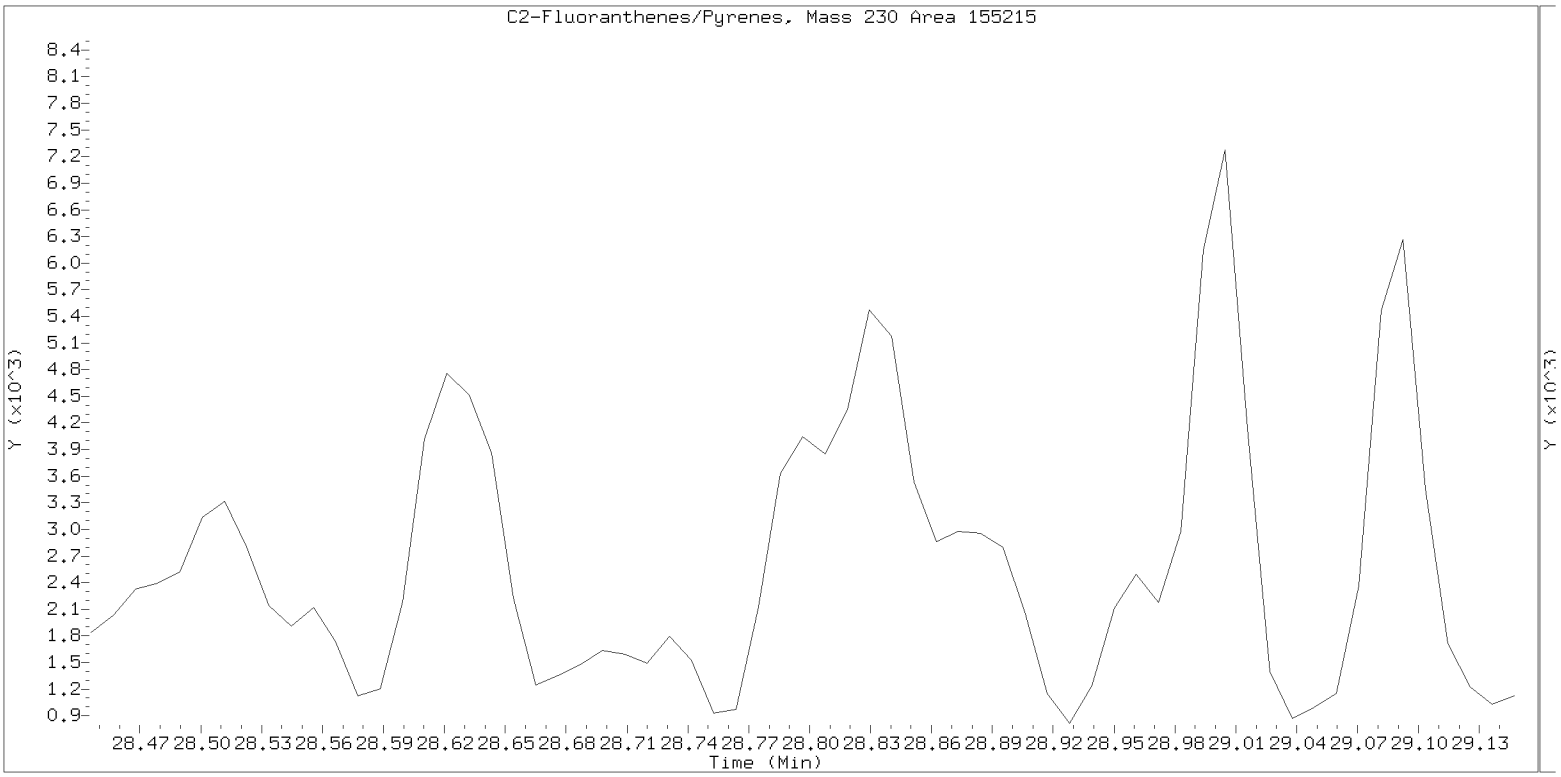


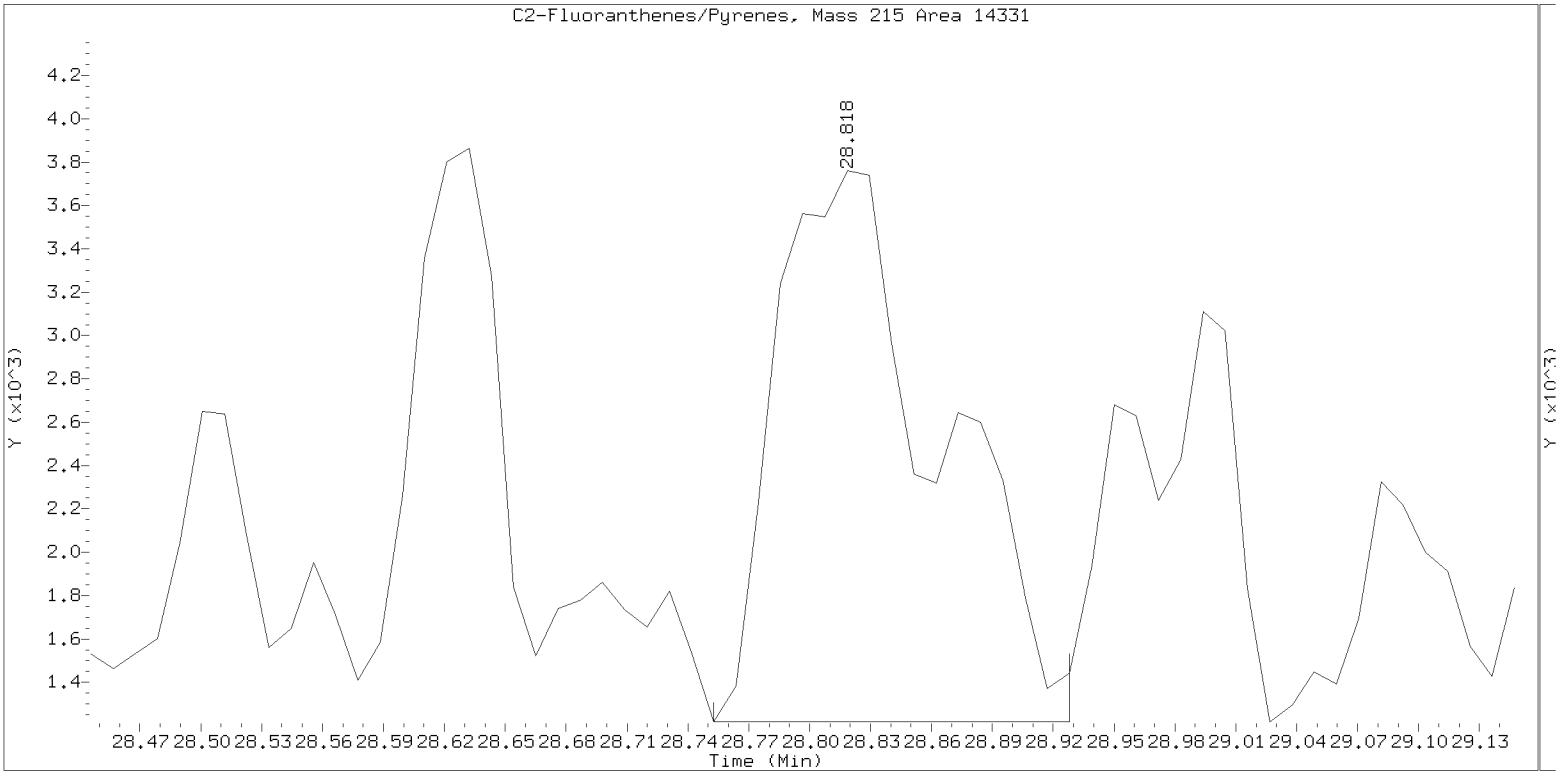



SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

Lab ID: 21D0180-04
nt14.i,  SIM.b\ALKYLRANGES.m,  04-MAY-2021 15:19



SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

Lab ID: 21D0180-04
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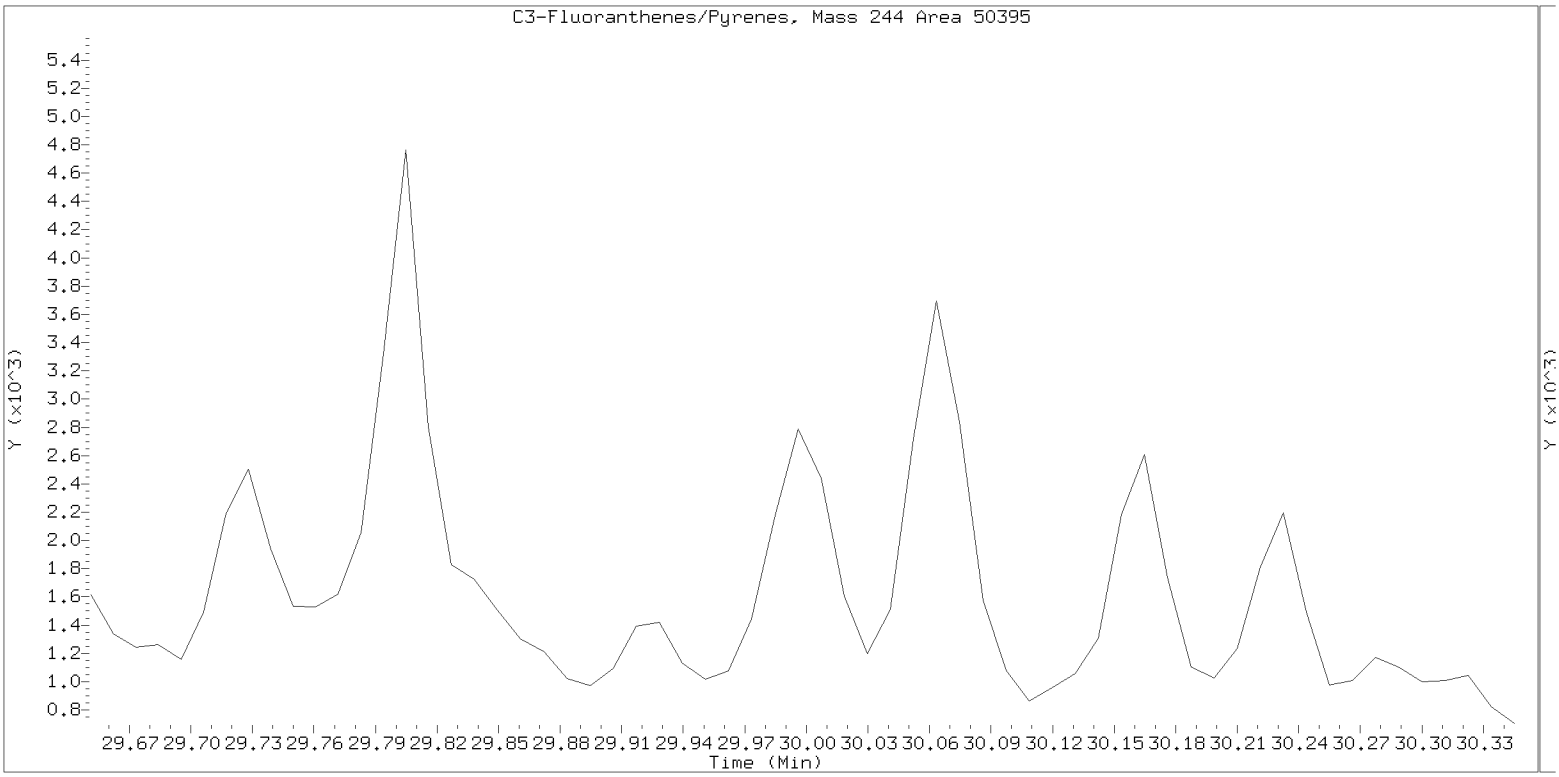


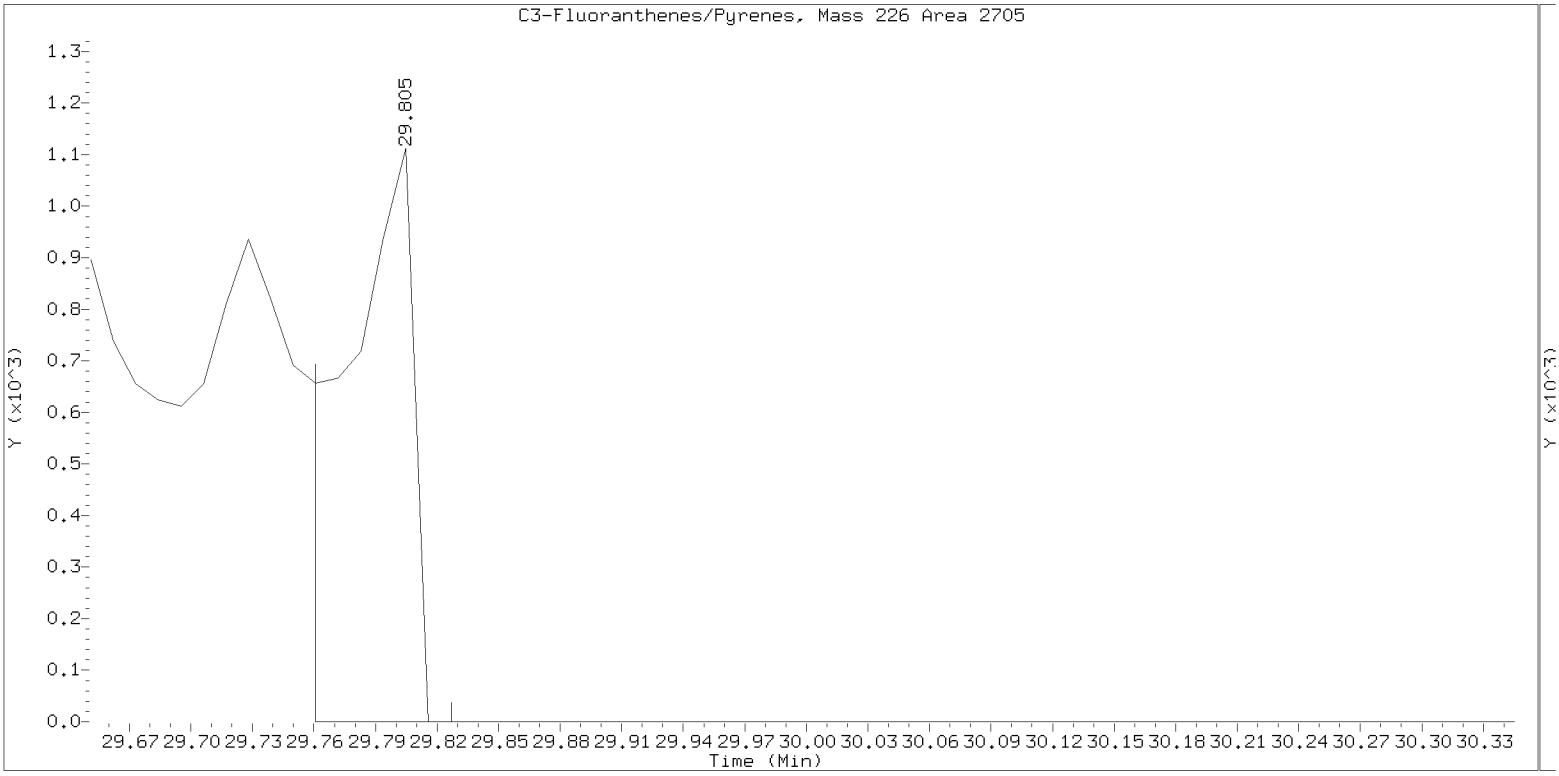

SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

Lab ID: 21D0180-04
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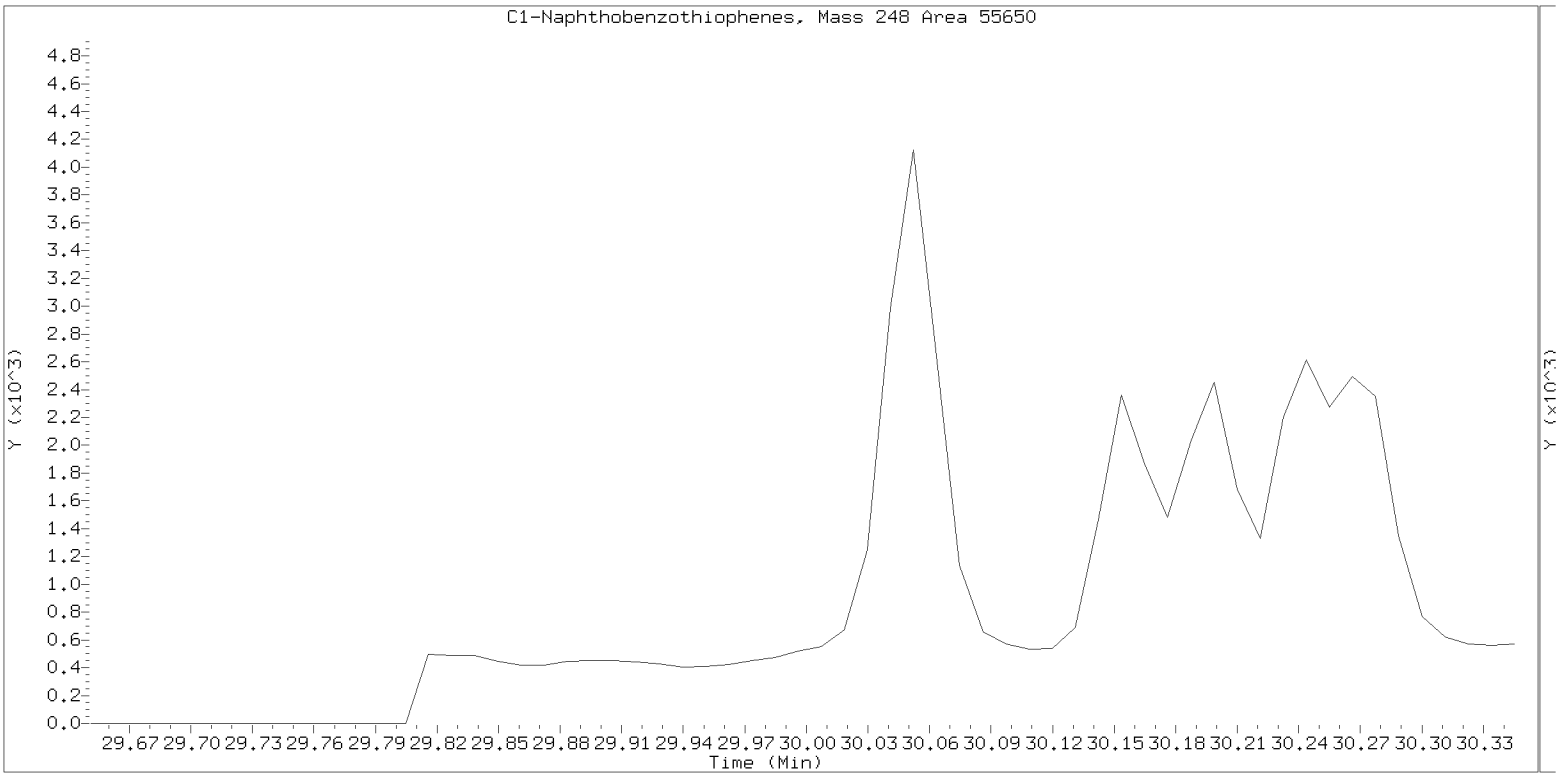

SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

Lab ID: 21D0180-04
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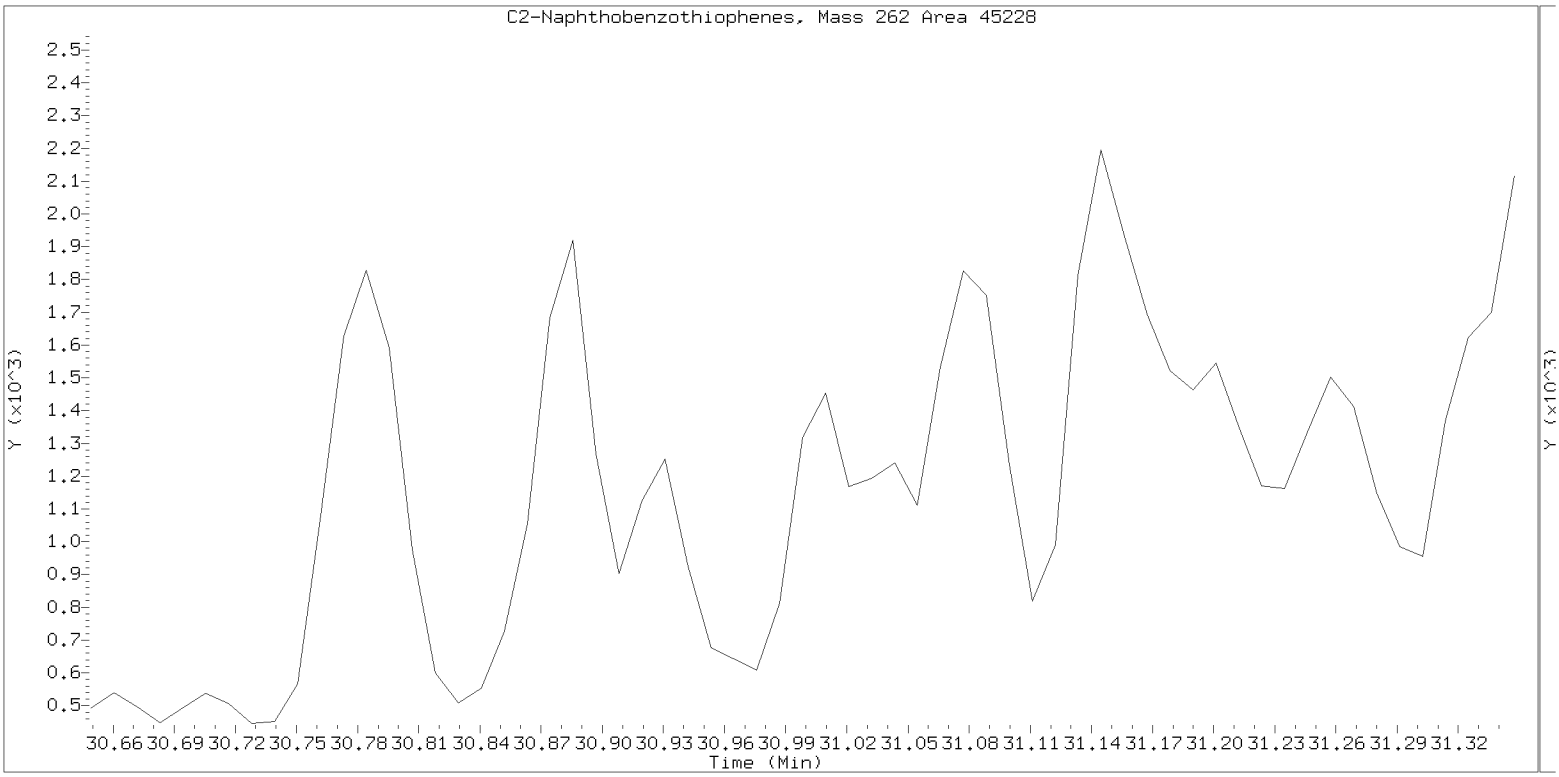

SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

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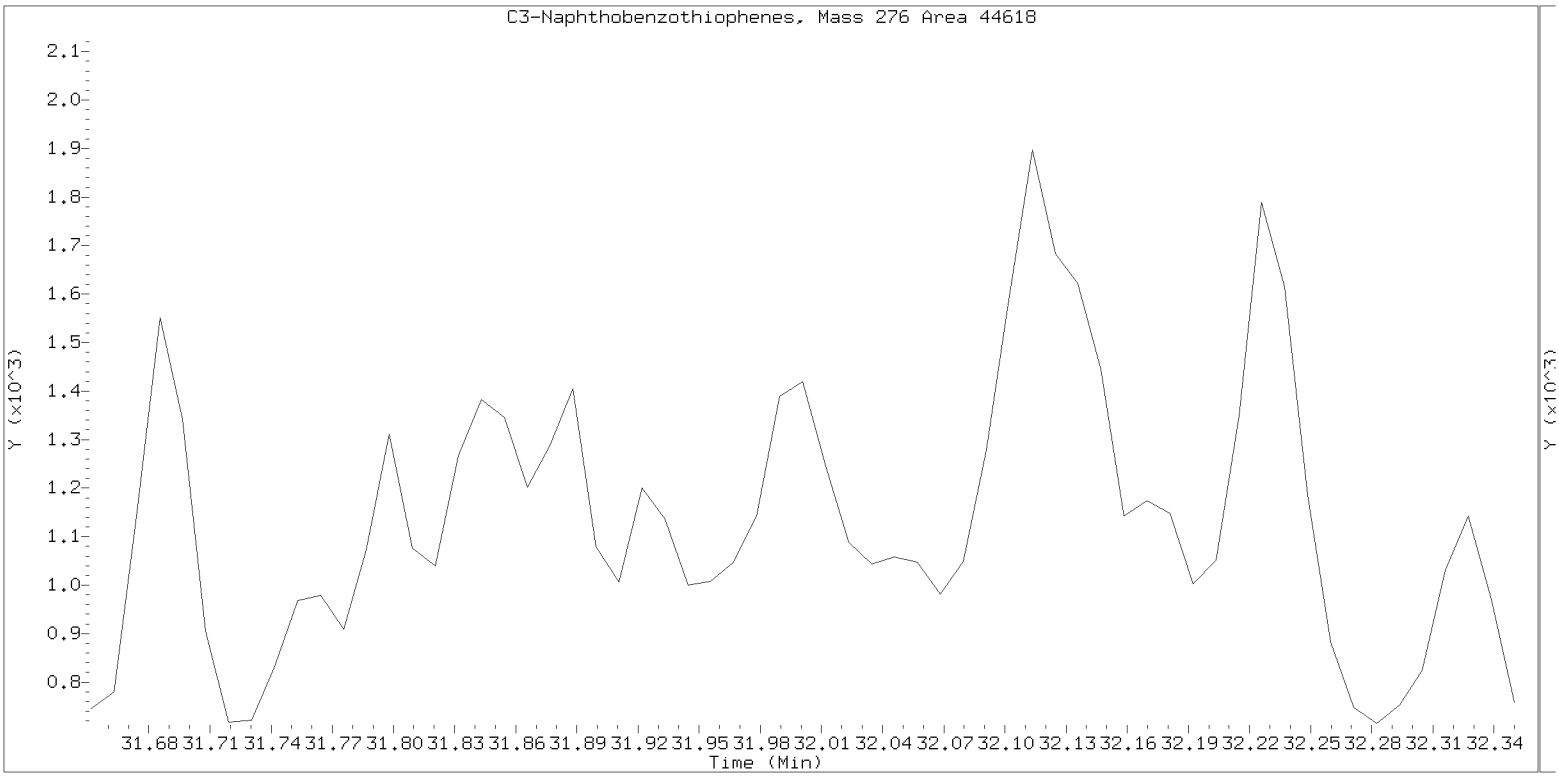

SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

Lab ID: 21D0180-04
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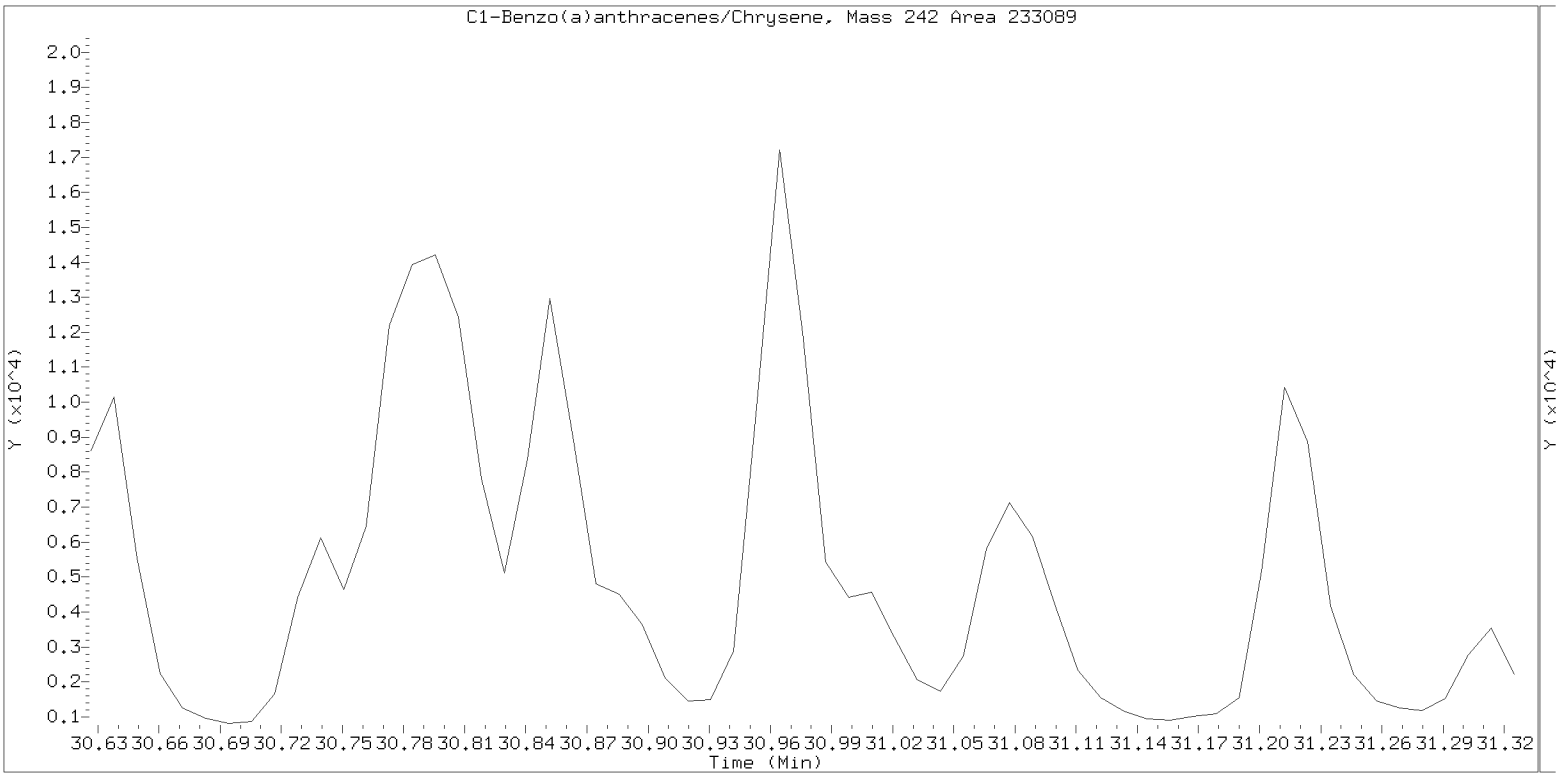


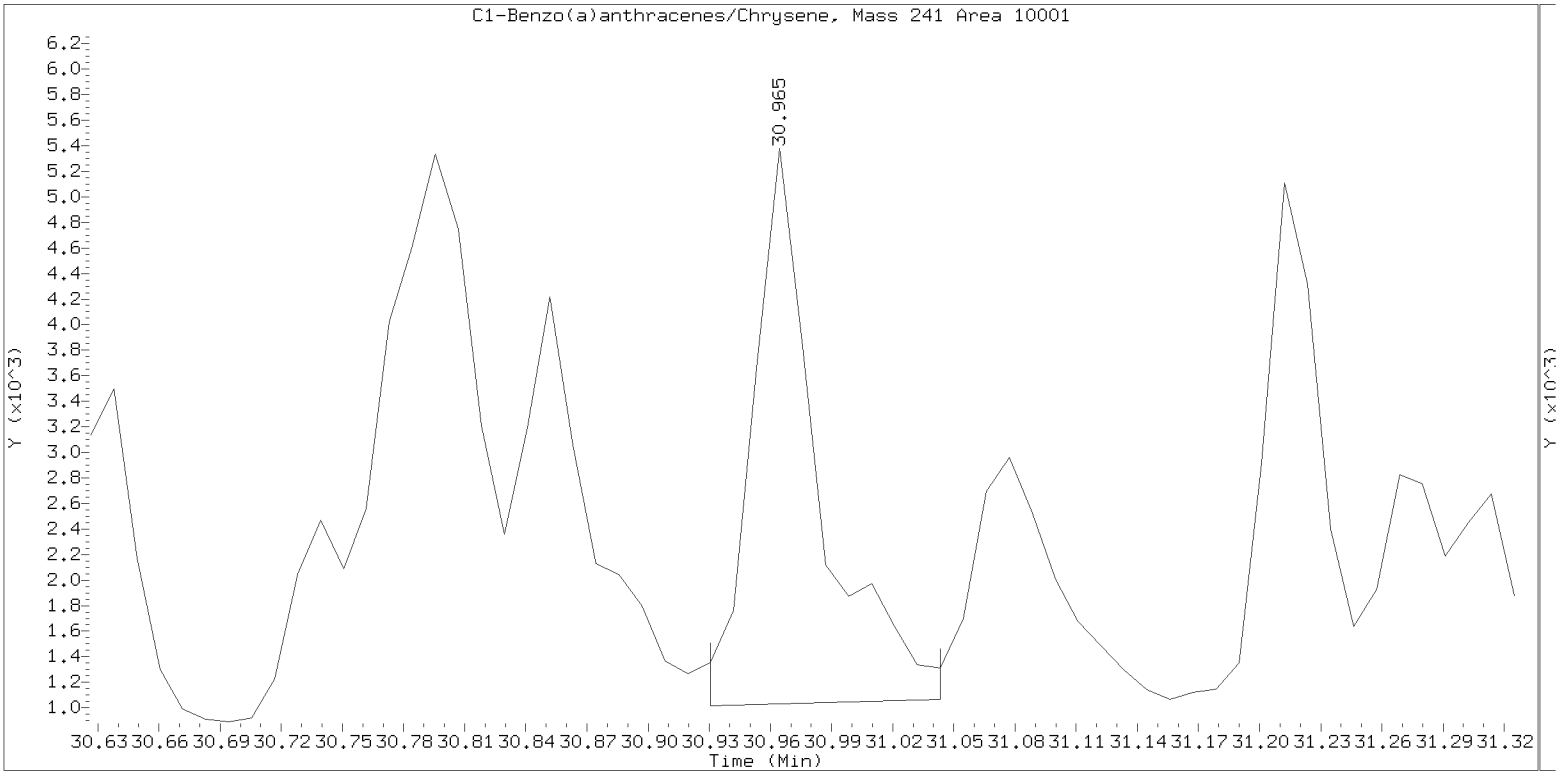


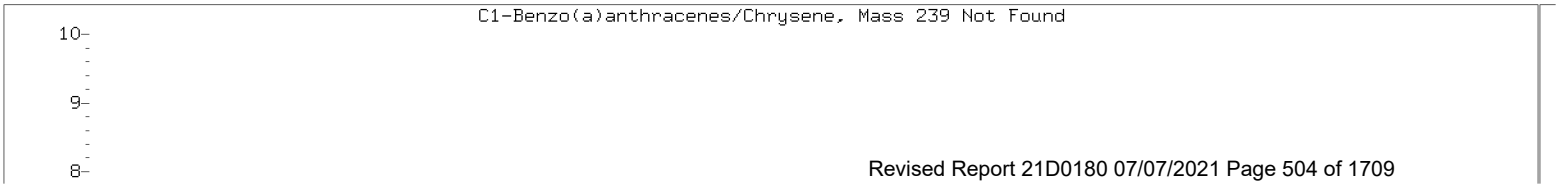

SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

Lab ID: 21D0180-04
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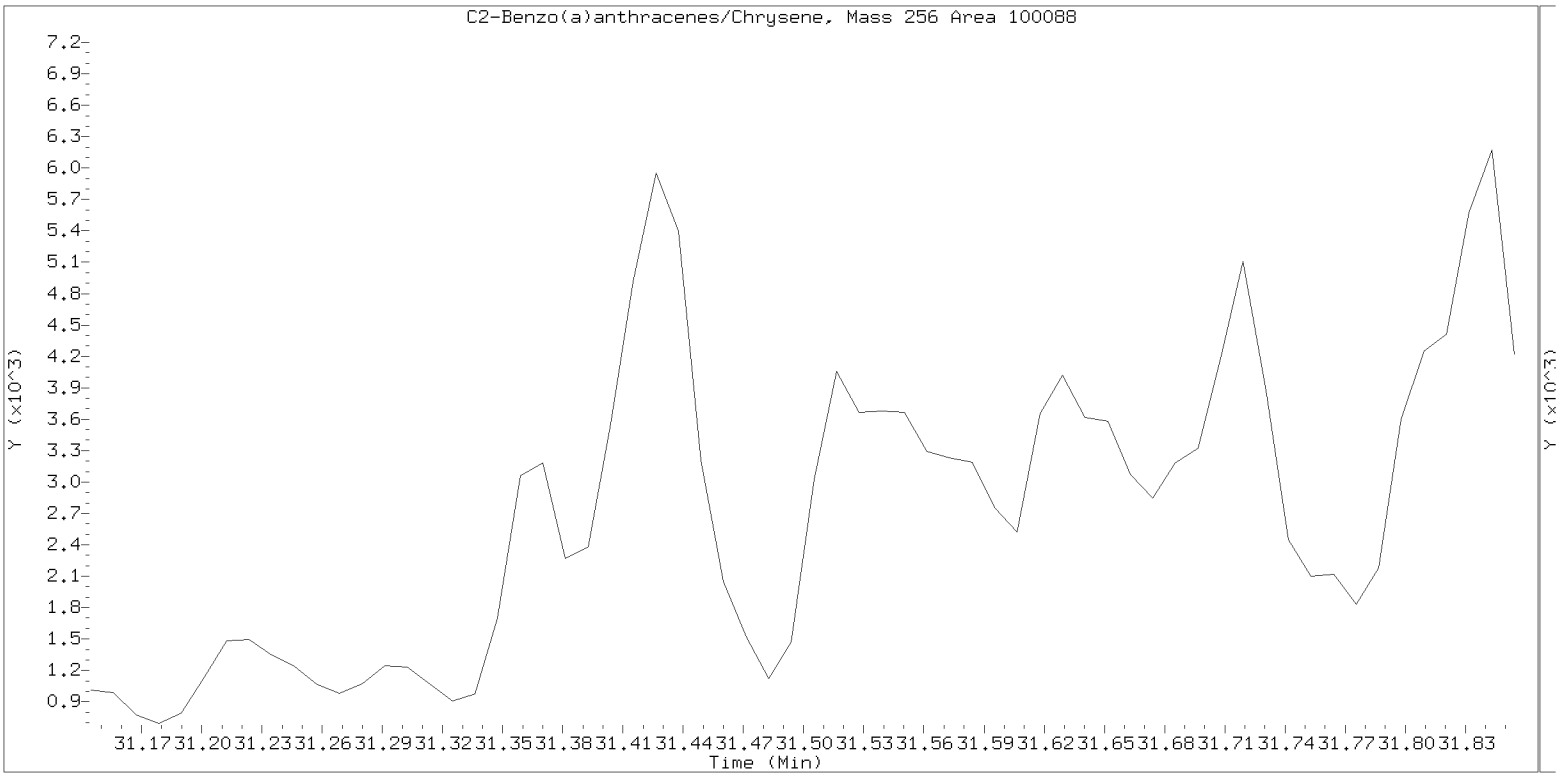


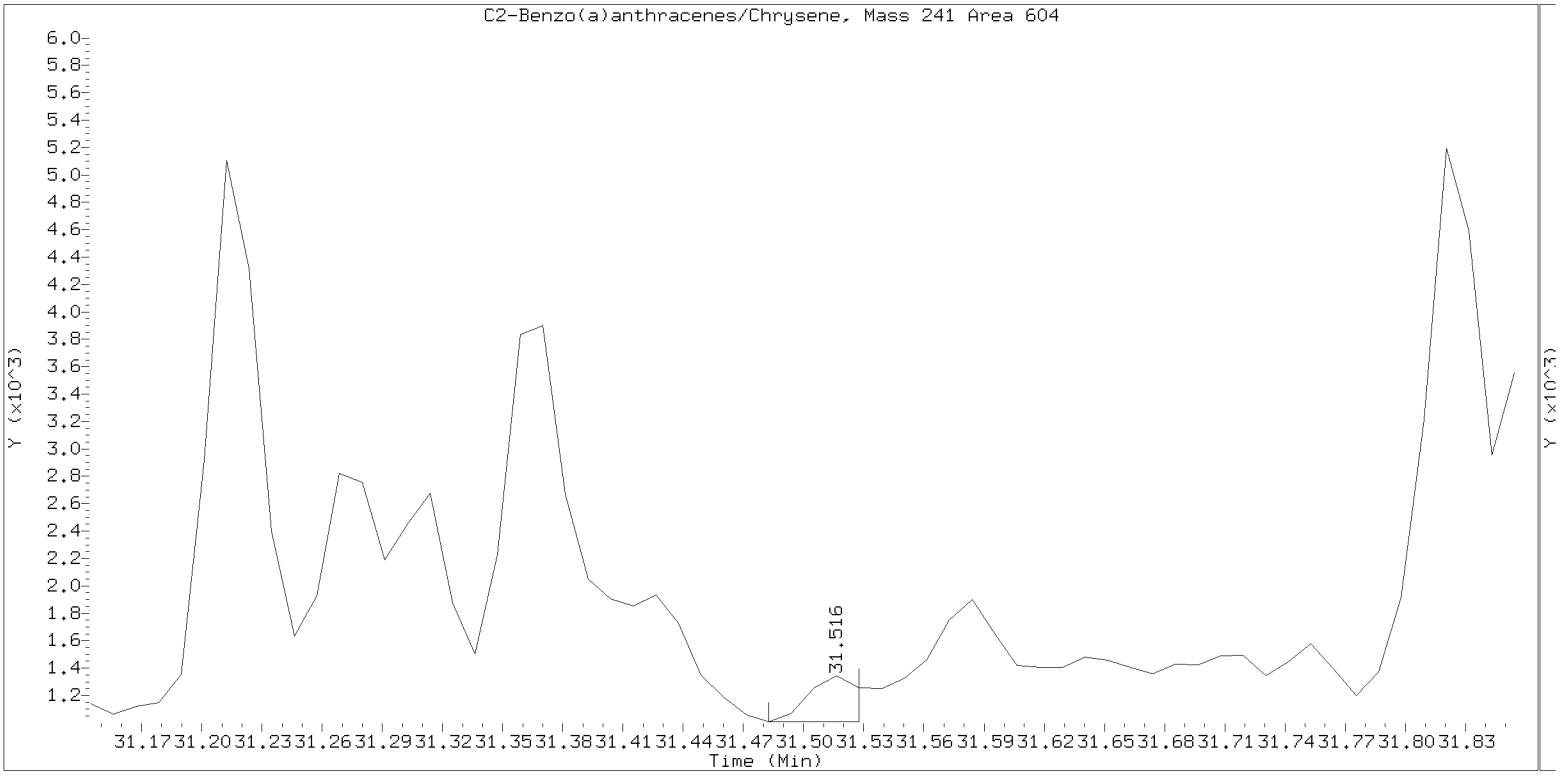


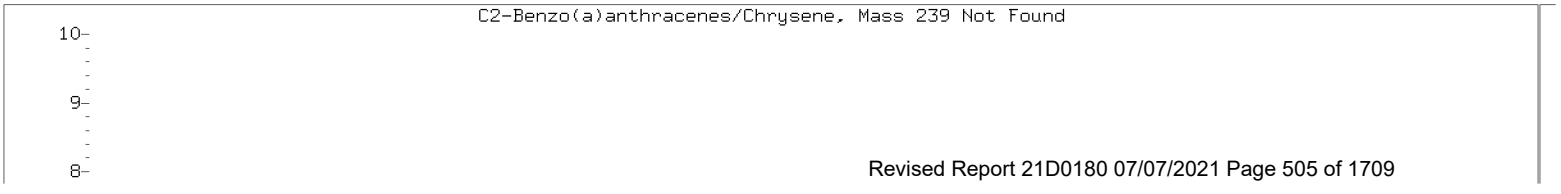

SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

Lab ID: 21D0180-04
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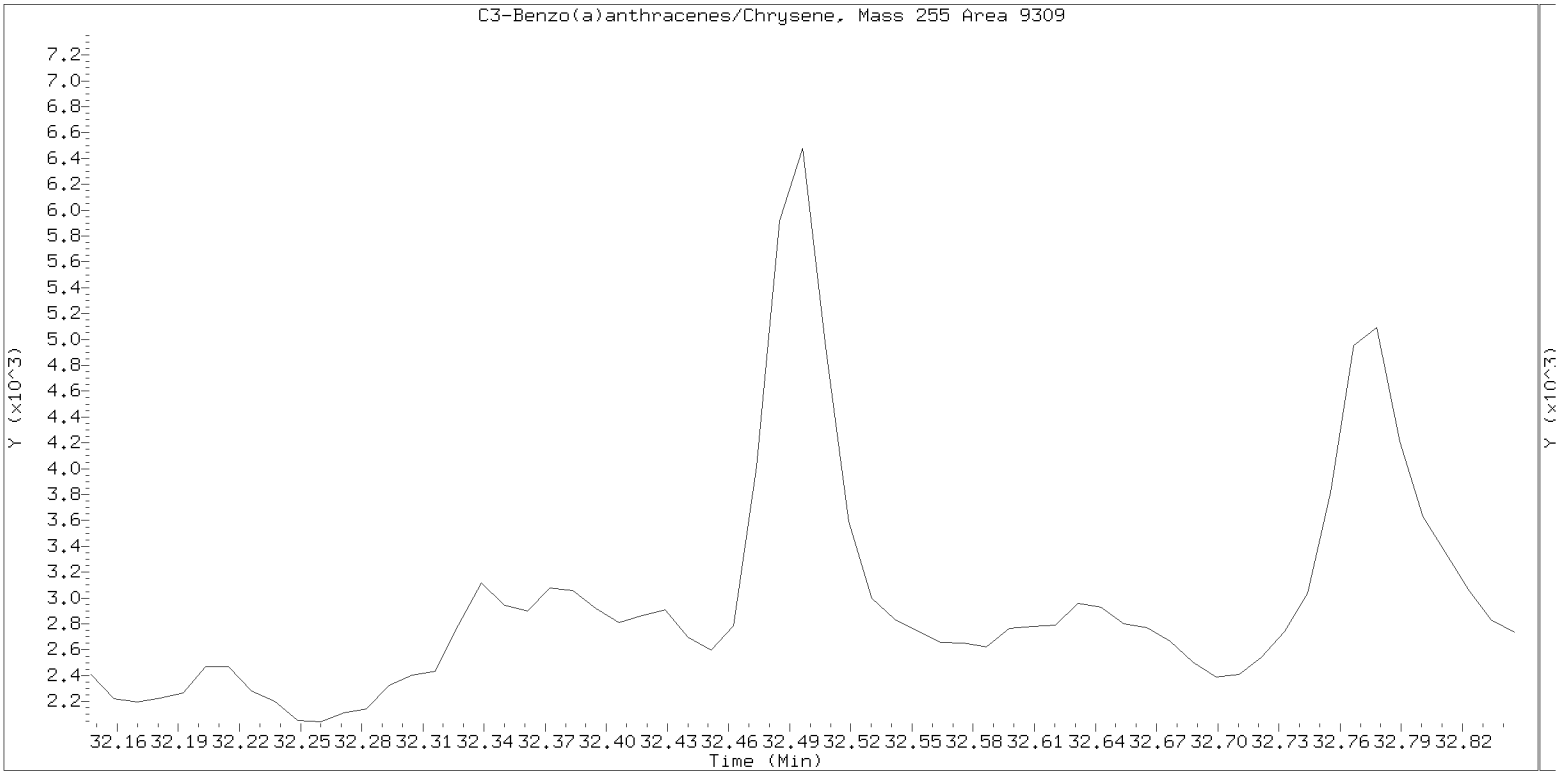


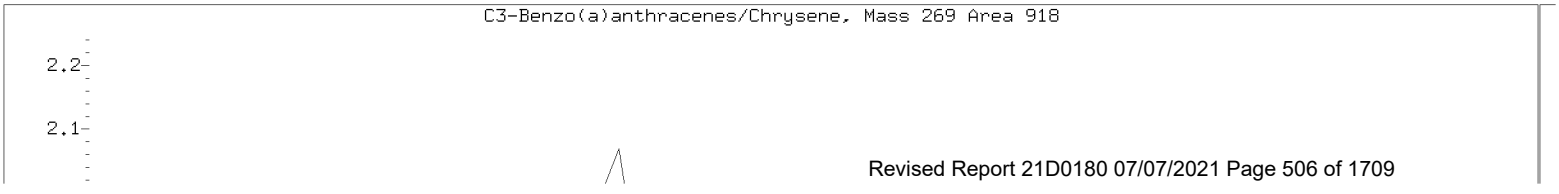

SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

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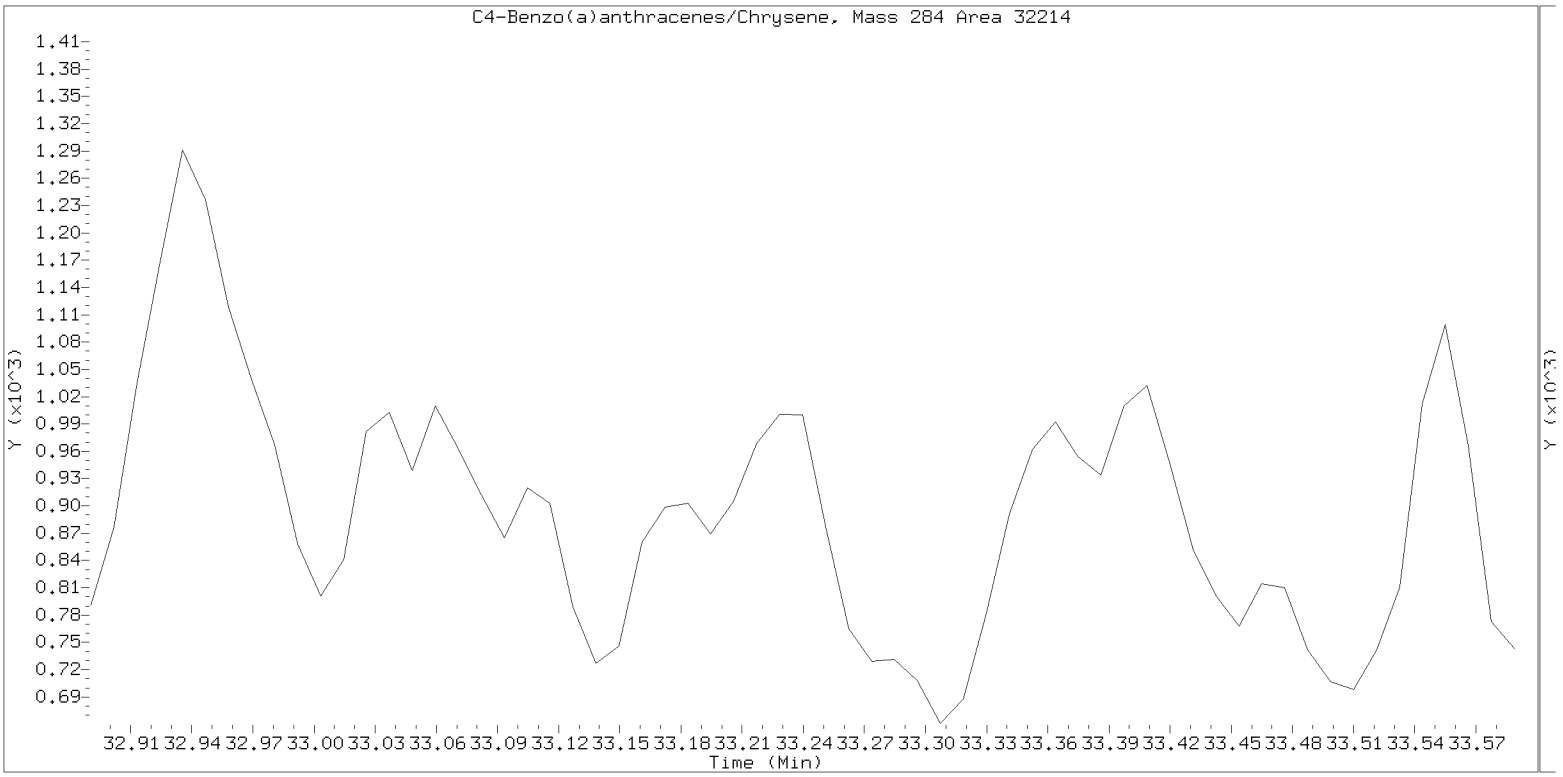


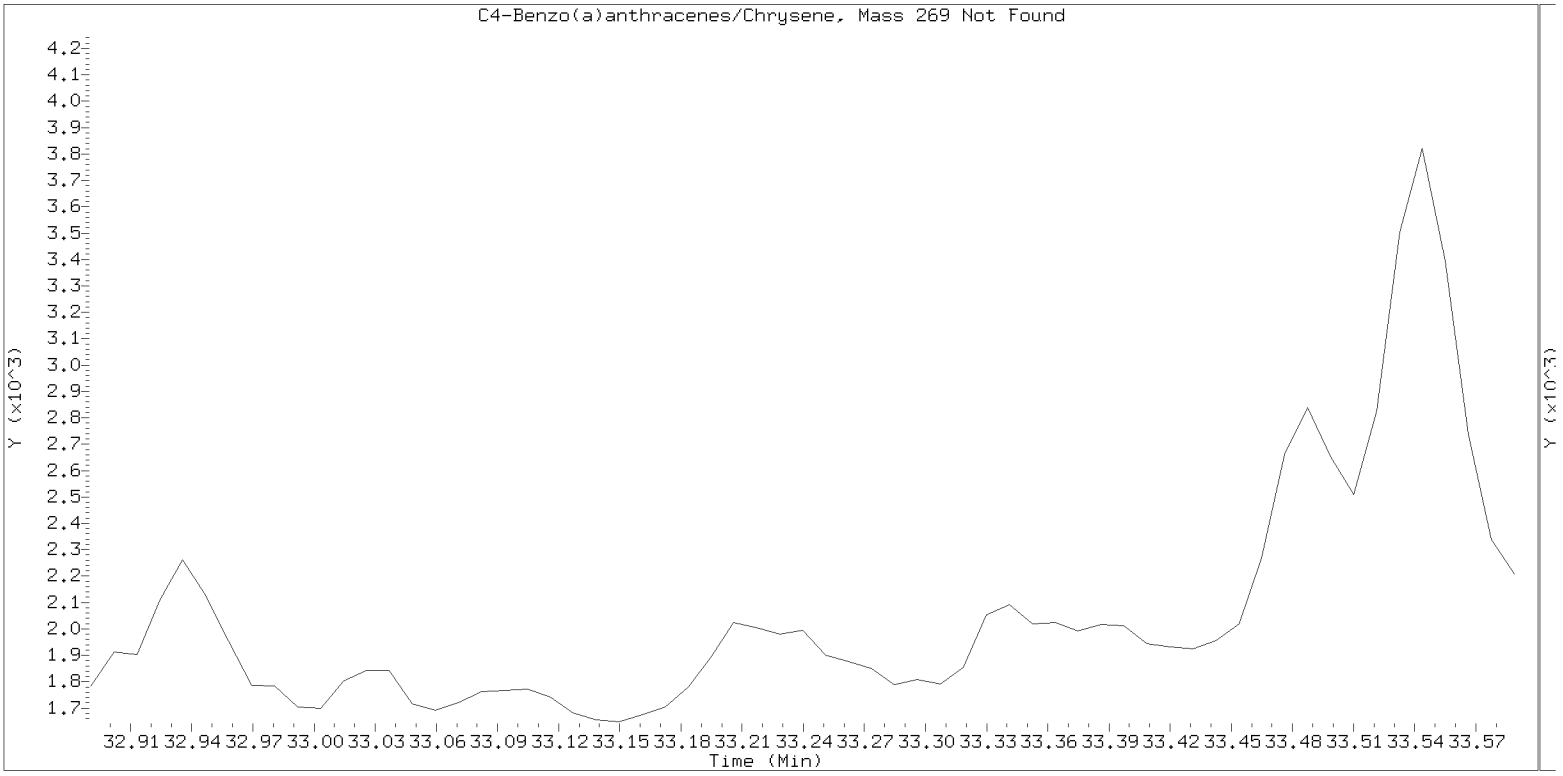


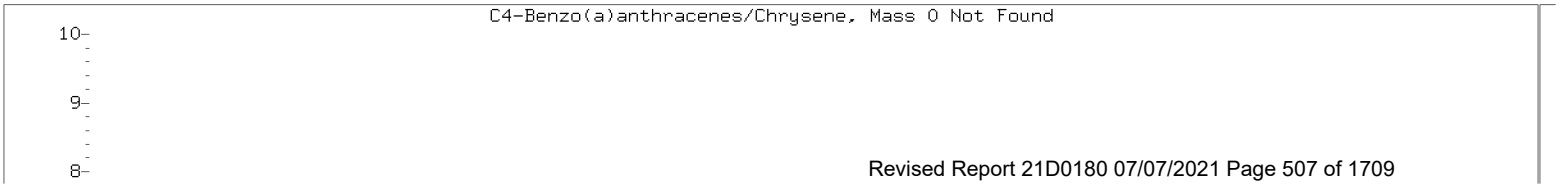

SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

Lab ID: 21D0180-04
nt14.i,  SIM.b\ALKYLRANGES.m,  04-MAY-2021 15:19

SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

Lab ID: 21D0180-04
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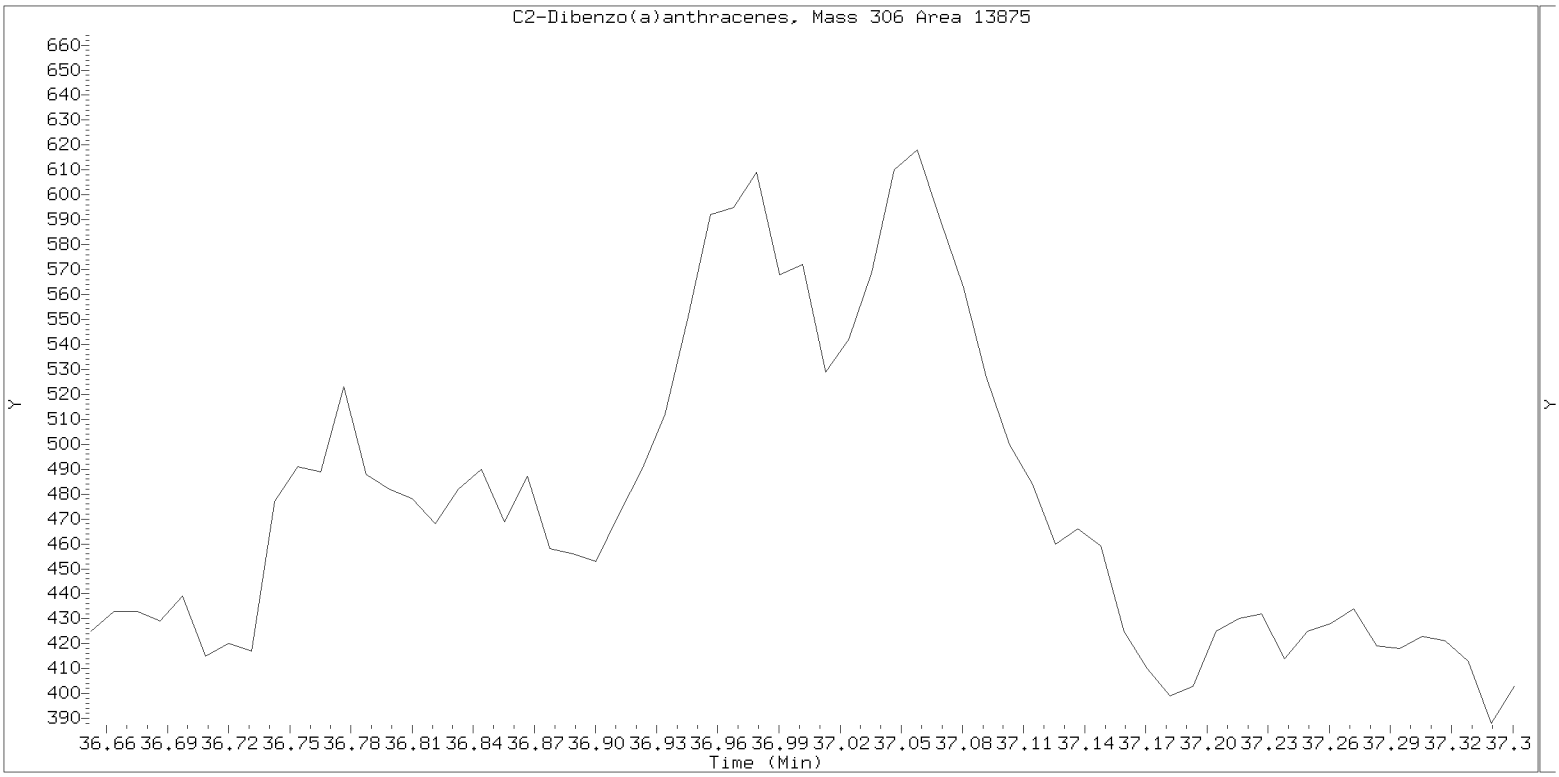

SIM ALKYL PNA RANGE ION WINDOWS - NT1421050404S.D

Lab ID: 21D0180-04
nt14.i,  SIM.b\ALKYLRANGES.m,  04-MAY-2021 15:19

# PREPARATION BATCH SUMMARY

Laboratory: SDG:

Client: Project:

Batch: Batch Matrix: Preparation:

| SAMPLE NAME | LAB SAMPLE ID | LAB FILE ID | DATE PREPARED | OBSERVATIONS |
|---|---|---|---|---|
| | | | | |

# PREPARATION BATCH SUMMARY

## EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21D0180

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

Batch: BJD0507 Batch Matrix: Solid Preparation: EPA 3546 (Microwave)

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

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

**ORGANICS PREPARATION BENCH SHEET**

Batch: BJD0507

**Prepared using: EPA 3546 (Microwave)**

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

**Matrix: Solid** **Date Prepared:** 04/22/21 **Balance ID:** B14646814 **Set Up By:** CTO 4/21/21

**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 |
|---|---|---|---|---|---|---|---|---|
| 21D0179-01 A | 47.7 | (20.98) 20.99 | (1:1) Y / N | (1:1) Y / N | (1:1) | 0.5 | 0.5 | |
| 21D0179-02 A | 45.2 | (22.15) 22.21 | (1:1) Y / N | (1:1) Y / N | (1:1) | 0.5 | 0.5 | |
| 21D0179-03 A | 41.3 | (24.20) 24.25 | (1:1) Y / N | (1:1) Y / N | (1:1) | 0.5 | 0.5 | |
| 21D0179-04 A | 42.6 | (23.49) 23.54 | (1:1) Y / N | (1:1) Y / N | (1:1) | 0.5 | 0.5 | |
| 21D0179-05 A | 38.3 | (26.13) 26.17 | (1:1) Y / N | (1:1) Y / N | (1:1) | 0.5 | 0.5 | |
| 21D0179-06 A | 37.8 | (26.47) 26.48 | (1:1) Y / N | (1:1) Y / N | (1:1) | 0.5 | 0.5 | |
| 21D0180-01 A | 46.6 | (21.45) 21.51 | (1:1) Y / N | (1:1) Y / N | (1:1) | 0.5 | 0.5 | |
| 21D0180-02 A | 45.5 | (21.98) 21.98 | (1:1) Y / N | (1:1) Y / N | (1:1) | 0.5 | 0.5 | |
| 21D0180-03 A | 46.6 | (21.46) 21.46 | (1:1) Y / N | (1:1) Y / N | (1:1) | 0.5 | 0.5 | |
| 21D0180-04 A | 35.6 | (28.09) 28.11 | (1:1) Y / N | (1:1) Y / N | (1:1) | 0.5 | 0.5 | |

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

| Lab Number & Container | % Solids | Initial (g) 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 |
|---|---|---|---|---|---|---|---|---|
| 21D0179-01 A | 47.7 | (20.98) 20.99 | (1:1) Y / N | (1:1) Y / N | (1:1) | 0.5 | 0.5 | |
| 21D0179-02 A | 45.2 | (22.15) 22.21 | (1:1) Y / N | (1:1) Y / N | (1:1) | 0.5 | 0.5 | |
| 21D0179-03 A | 41.3 | (24.20) 24.25 | (1:1) Y / N | (1:1) Y / N | (1:1) | 0.5 | 0.5 | |
| 21D0179-04 A | 42.6 | (23.49) 23.54 | (1:1) Y / N | (1:1) Y / N | (1:1) | 0.5 | 0.5 | |
| 21D0179-05 A | 38.3 | (26.13) 26.17 | (1:1) Y / N | (1:1) Y / N | (1:1) | 0.5 | 0.5 | |
| 21D0179-06 A | 37.8 | (26.47) 26.48 | (1:1) Y / N | (1:1) Y / N | (1:1) | 0.5 | 0.5 | |
| 21D0180-01 A | 46.6 | (21.45) 21.51 | (1:1) Y / N | (1:1) Y / N | (1:1) | 0.5 | 0.5 | |
| 21D0180-02 A | 45.5 | (21.98) 21.98 | (1:1) Y / N | (1:1) Y / N | (1:1) | 0.5 | 0.5 | |
| 21D0180-03 A | 46.6 | (21.46) 21.46 | (1:1) Y / N | (1:1) Y / N | (1:1) | 0.5 | 0.5 | |
| 21D0180-04 A | 35.6 | (28.09) 28.11 | (1:1) Y / N | (1:1) Y / N | (1:1) | 0.5 | 0.5 | |

**Batch QC**

| Lab Number | % Solids | Initial (g) 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 |
|---|---|---|---|---|---|---|---|---|
| BJD0507-BLK1 | 100.0 | (10.00) 10.00 | (1:1) Y / N | (1:1) Y / N | (1:1) | 0.5 | 0.5 | |
| BJD0507-BS1 | 100.0 | (10.00) 10.00 | (1:1) Y / N | (1:1) Y / N | (1:1) | 0.5 | 0.5 | |
| BJD0507-MS1 | 42.6 | (23.49) 23.49 | (1:1) Y / N | (1:1) Y / N | (1:1) | 0.5 | 0.5 | Use 21D0179-04 |
| BJD0507-MSD1 | 42.6 | (23.49) 23.49 | (1:1) Y / N | (1:1) Y / N | (1:1) | 0.5 | 0.5 | Use 21D0179-04 |

04/22/21 — Client ID verified By — Date

DM 4-28-21 — Preparation Reviewed By — Date

04/22/21 11:45 — Extraction Date and Time

Printed: 4/21/2021 1:01:36PM

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

# ORGANICS PREPARATION BENCH SHEET

Batch: BJD0507

**Prepared using: EPA 3546 (Microwave)**

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

## Prep Steps

**Microwave**
(1) 2 3
4/22/21
CT Analyst/Date

**Pre-GPC KD 100°C (No Exchange)**
(1) 2 3 (4) (5) 6
MLB 4/23/21
Analyst/Date

**Pre GPC TurboVap**
1 2 3 (4)
SH 4/23/21
Analyst/Date

**Post-GPC KD 80°C Hexane Exchange 2 x 20 mL 100°C**
(1) (2) 3 (4) (5) 6
MLB 4/27/21
Analyst/Date

**Pre-Cleanup TurboVap**
1 2 3 (4)
4-28-21
DM Analyst/Date

**Post-Cleanup TurboVap**
1 (2) 3 4
4-28-21
DM Analyst/Date

**Vialing**
4-28-21
DM Analyst/Date

## Reagents Used

| Station/Reagent | Standard ID |
|---|---|
| **Microwave** Analyst: CT/VL Date: 4/22/21 | |
| 1:1 Methylene Chloride/Acetone | J##3915 |
| Methylene Chloride | J##3349 |
| Anhydrous Sodium Sulfate | J##3764 |
| Pre-Deactivated Glass Wool | J##4##83 |
| **Pre GPC KD** Analyst: MLB Date: 4/23/21 | |
| Methylene Chloride | J0033349 |
| Hexane | J0029440 |
| ~~**GPC Filter Prep** Analyst: SH Date: 4/23/21~~ (1) | |
| ~~Methylene Chloride~~ | |
| **GPC** Analyst: SH Date: 4/23/21 | |
| Methylene Chloride | J##3349 |
| GPC Calibration File SH 4/23/21 | & CJA0222 - GPC1 |
| **Post GPC KD** Analyst: MLB Date: 4/27/21 | |
| Hexane | J0029440 |
| Methylene Chloride | J0033349 |
| **Vialing** Analyst: DM Date: 4-28-21 | |
| Silica Gel (SPE) darts | J003771 |
| Methylene Chloride | J003349 |
| Hexane | J003533 |
| ~~Tetrabutylammonium hydrogensulfate (TBAS)~~ | |
| ~~Sodium Sulfite~~ | |

## Surrogates & Spike Standards Used

| Type | Vial ID / Standard ID | Vol uL | Analyst | Witness |
|---|---|---|---|---|
| **Surr** 15µg/mL | T (V) I010873 Exp: 11/24/2021 | 100µL | CT | ✓ |
| **Spike** 15/75µg/mL | 15 (V) I010207 Exp: 10/03/2021 | 100µL | CT | ✓ |
| **Spike** 15µg/mL | 42 (V) I010896 Exp: 09/01/2021 | 100µL | CT | ✓ |

(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).

(1) See notes

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

**ORGANICS PREPARATION BENCH SHEET**

Batch: BJD0507

**Prepared using: EPA 3546 (Microwave)**

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

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

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Organic Extractions Laboratory Analyst Notes

Extraction Parameter: S/M ALKYL  Extraction Batch: BTD0527

Total Solids Batch: BTD0427  Work Order(s): 21D0180

| Screens: Soil/Sediment/Solid/Other: | Analyst/Date |
|---|---|
| ☐ No Anomalies (standard soil/wet sediment/sand/gravel)= | |
| ☒ Standing Water Decanted (Not shared)=ϕ1, ϕ2, ϕ3, ϕ4. | MP 04/16/21 |
| ☐ Standing Water Homogenized (Shared samples)= | |
| ☐ Clay/Clumps (Difficult to homogenize)= | |
| ☐ Rocks (%+size)? | |
| ☐ Organics (Leaves/sticks/grass)= | |
| ☒ Oily, obvious fuel/sulfur odors= Sulfur odor=ϕ1, ϕ2, ϕ3, ϕ4. | MP 04/16/21 |
| ☐ 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) | MP 04/16/21 |
| ☒ Multiple Jars Y / (N) | MP 04/16/21 |
| ☐ Sample Pre-Screens indicate analyte activity= | |
| ☐ Sample weights/volumes reduced based on Pre-Screen= | |

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Organic Extractions Laboratory Analyst Notes

Extraction Parameter: TPH LLSIM (5mALK) Extraction Batch BJD0507

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

| Screens: Soil/Sediment/Solid/Other: | Analyst/Date |
|---|---|
| ☐ No Anomalies (standard soil/wet sediment/sand/gravel)= | |
| ☒ Standing Water Decanted (Not shared)=ϕ1, ϕ2, ϕ3, ϕ4, ϕ5, ϕ6. | M, ϕ4/16/21 |
| ☐ Standing Water Homogenized (Shared samples)= | |
| ☐ Clay/Clumps (Difficult to homogenize)= | |
| ☐ Rocks (%+size)? | |
| ☐ Organics (Leaves/sticks/grass)= | |
| ☒ Oily, obvious fuel/sulfur odors= sulfur odor =ϕ1, ϕ2, ϕ3, ϕ4, ϕ5, ϕ6. | M, ϕ4/16/21 |
| ☐ 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). | |
| Blk, Bs and all samples were not filtered before GrPC | SH ϕ4/23/21 |
| | |
| | |
| ☒ Share Samples Y (N) | M, ϕ4/16/21 |
| ☒ Multiple Jars Y (N) | M, ϕ4/16/21 |
| ☐ Sample Pre-Screens indicate analyte activity= | |
| ☐ Sample weights/volumes reduced based on Pre-Screen= | |

Batch: BJD0507
Batch Comment: **NONE**
Project: Gasco Siltronic - US Moorings
Project Comments: <G> MS/MSD per 20 samples, please batch with other work orders, SM2540 Needed </G>
Work Order:21D0179
Work Order Comments: <G> MS/MSD per 20 samples, please batch with other work orders, SM2540 Needed </G>
Sample: 21D0179-01
Sample Comments: **NONE**
Sample: 21D0179-02
Sample Comments: **NONE**
Sample: 21D0179-03
Sample Comments: **NONE**
Sample: 21D0179-04
Sample Comments: MS/MSD
Sample: 21D0179-05
Sample Comments: **NONE**
Sample: 21D0179-06
Sample Comments: **NONE**
Work Order:21D0180
Work Order Comments: <G> MS/MSD per 20 samples, please batch with other work orders, SM2540 Needed </G>
Sample: 21D0180-01
Sample Comments: **NONE**
Sample: 21D0180-02
Sample Comments: **NONE**
Sample: 21D0180-03
Sample Comments: **NONE**
Sample: 21D0180-04
Sample Comments: **NONE**

```
==========================================================================
Injection Date  : 4/16/2021 5:51:20 PM          Seq. Line :  10
Sample Name     : 21D0180 01                     Location : Vial 10
Acq. Operator   : YL                                 Inj :   1
                                                Inj Volume : 1 µl
Sequence File   : C:\HPCHEM\1\SEQUENCE\0401621B.S
Method          : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed    : 2/4/2021 10:37:36 AM by DXP
SCREEN METHOD
==========================================================================
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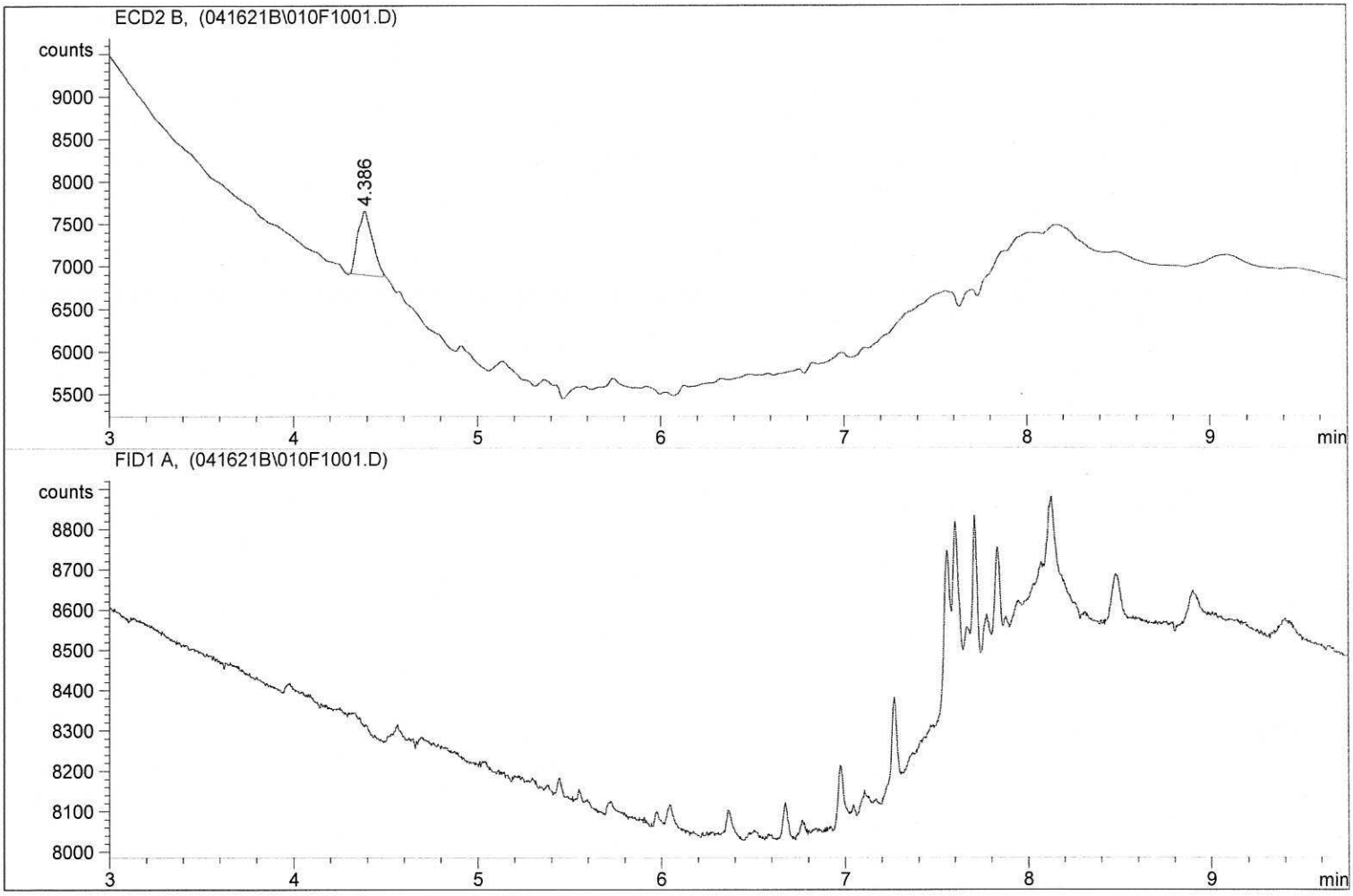


*** End of Report ***

```
==========================================================================
Injection Date  : 4/16/2021 6:05:33 PM          Seq. Line :  11
Sample Name     : 21D0180 02                     Location : Vial 11
Acq. Operator   : YL                                 Inj :   1
                                                Inj Volume : 1 µl
Sequence File   : C:\HPCHEM\1\SEQUENCE\0401621B.S
Method          : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed    : 2/4/2021 10:37:36 AM by DXP
SCREEN METHOD
==========================================================================
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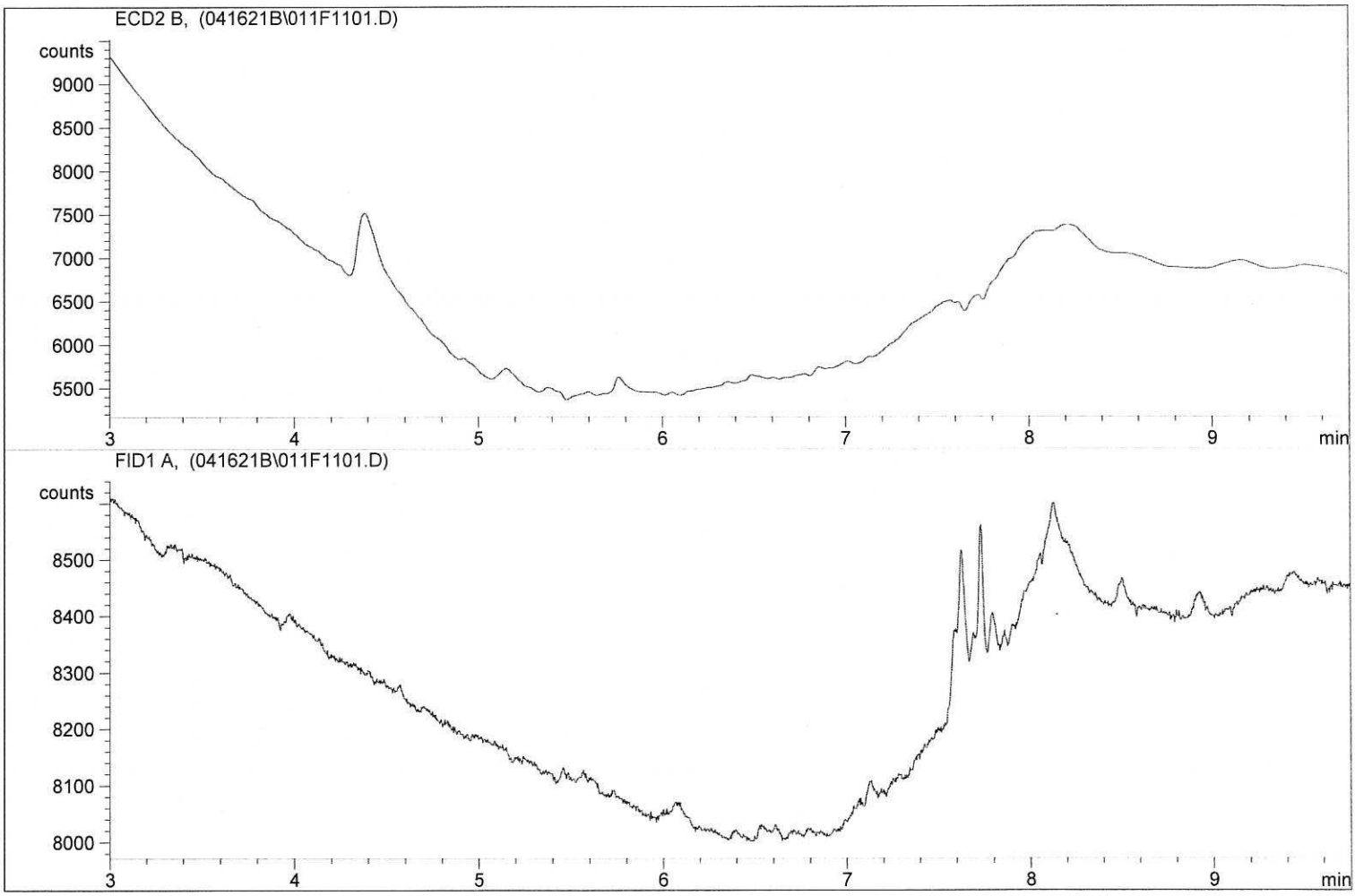


*** End of Report ***

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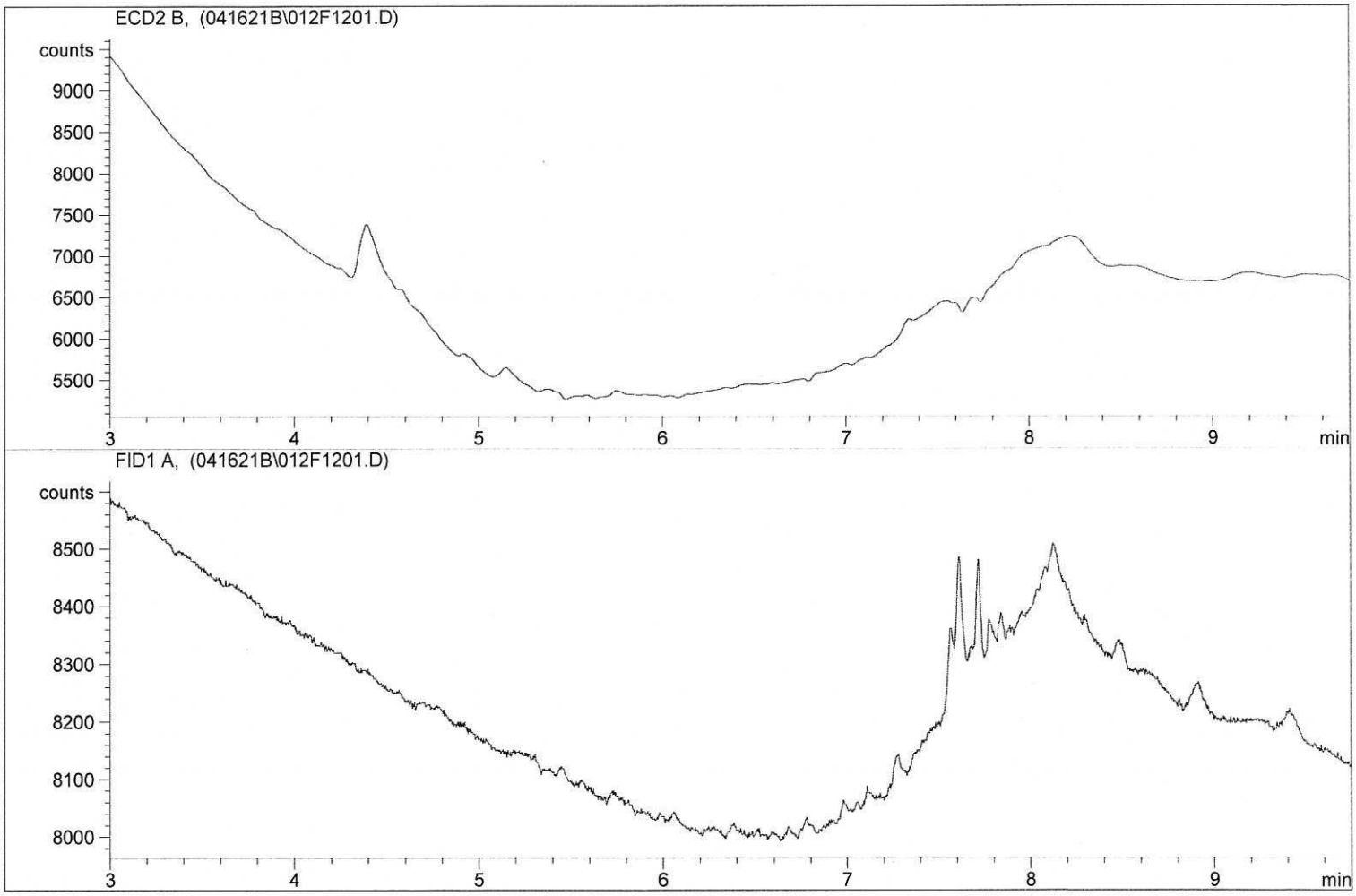


*** End of Report ***

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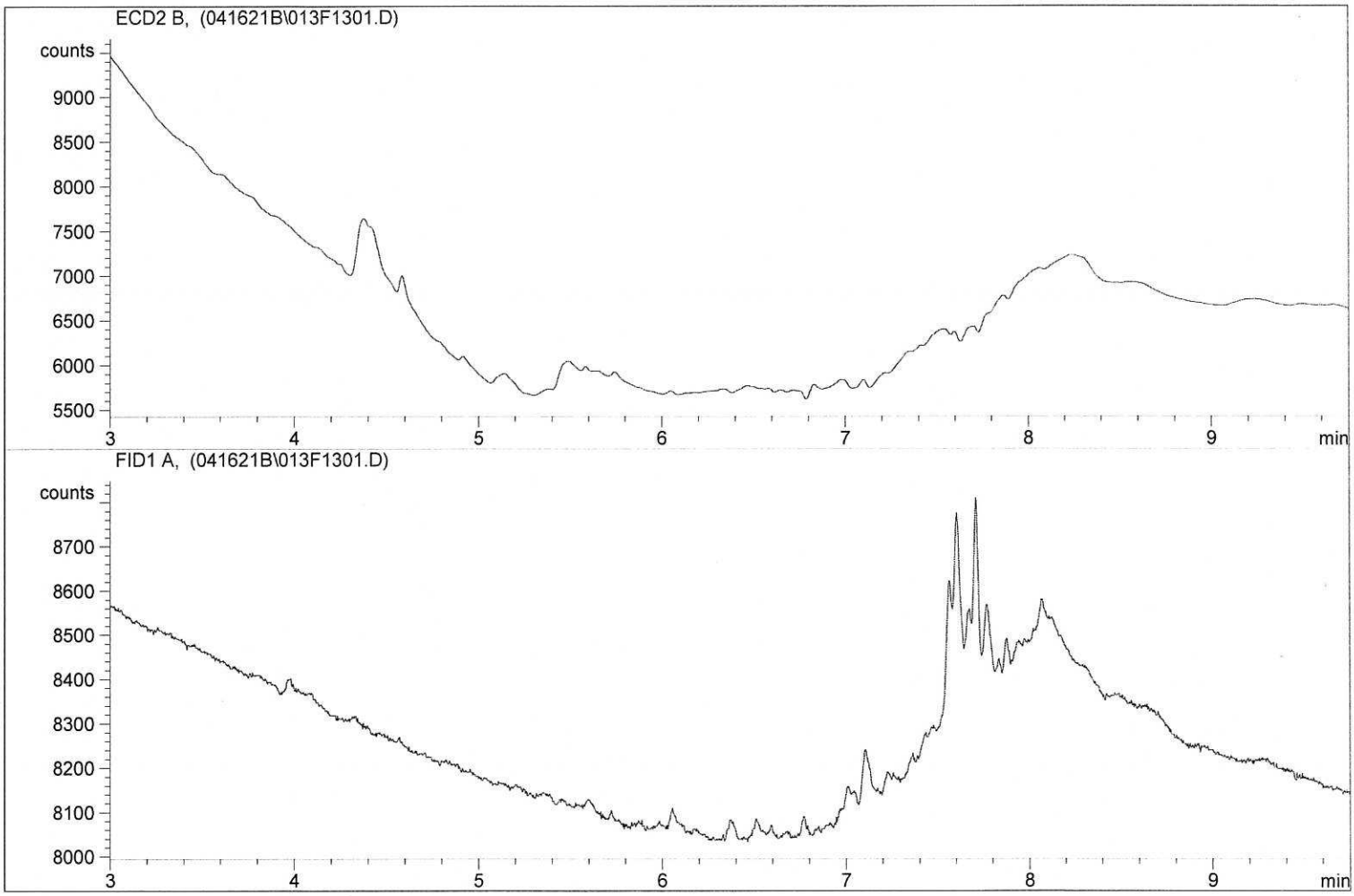


*** End of Report ***

Data File C:\HPCHEM\1\DATA\041621B\001F0101.D Sample Name: DCM RINSE

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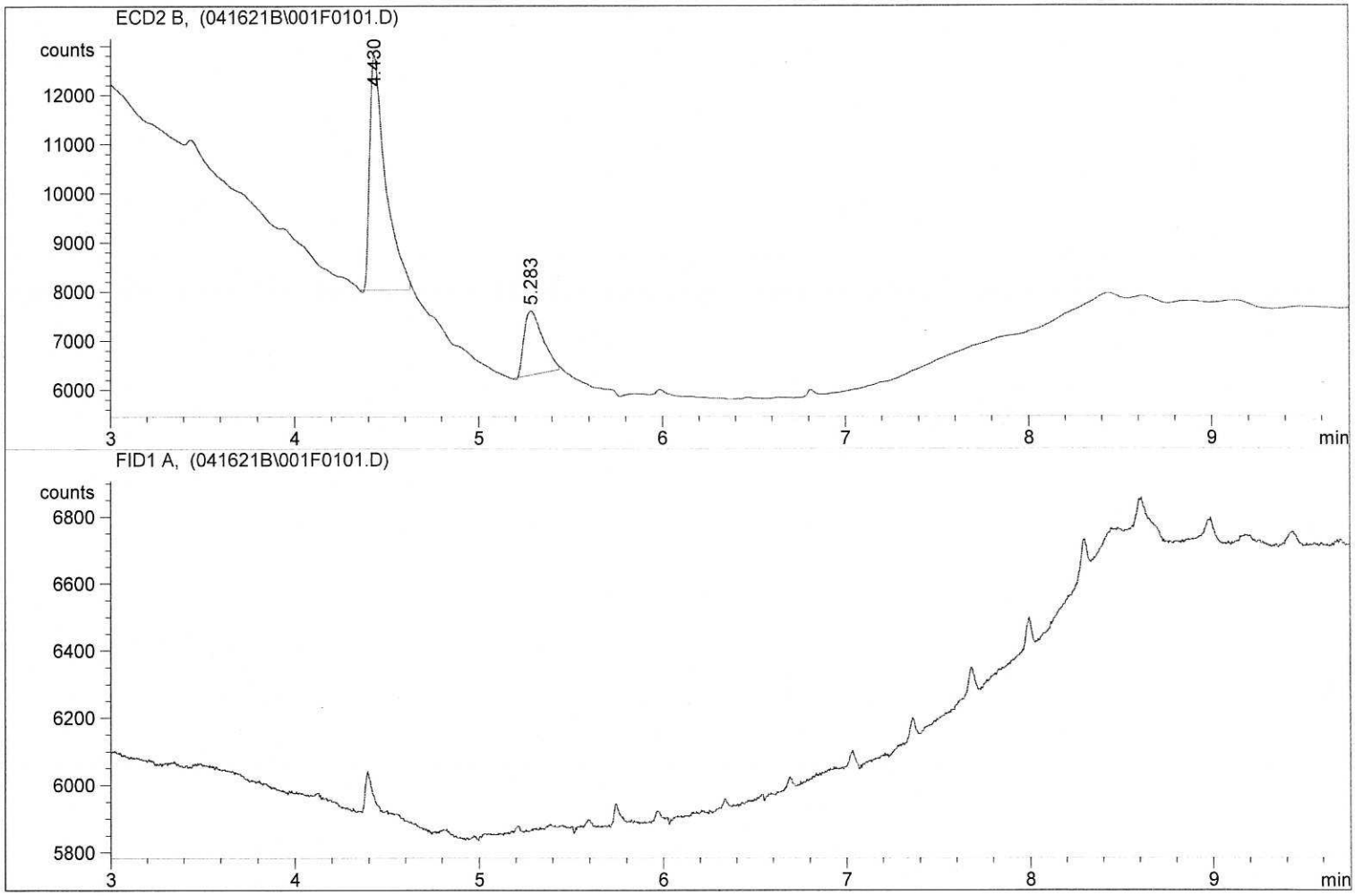
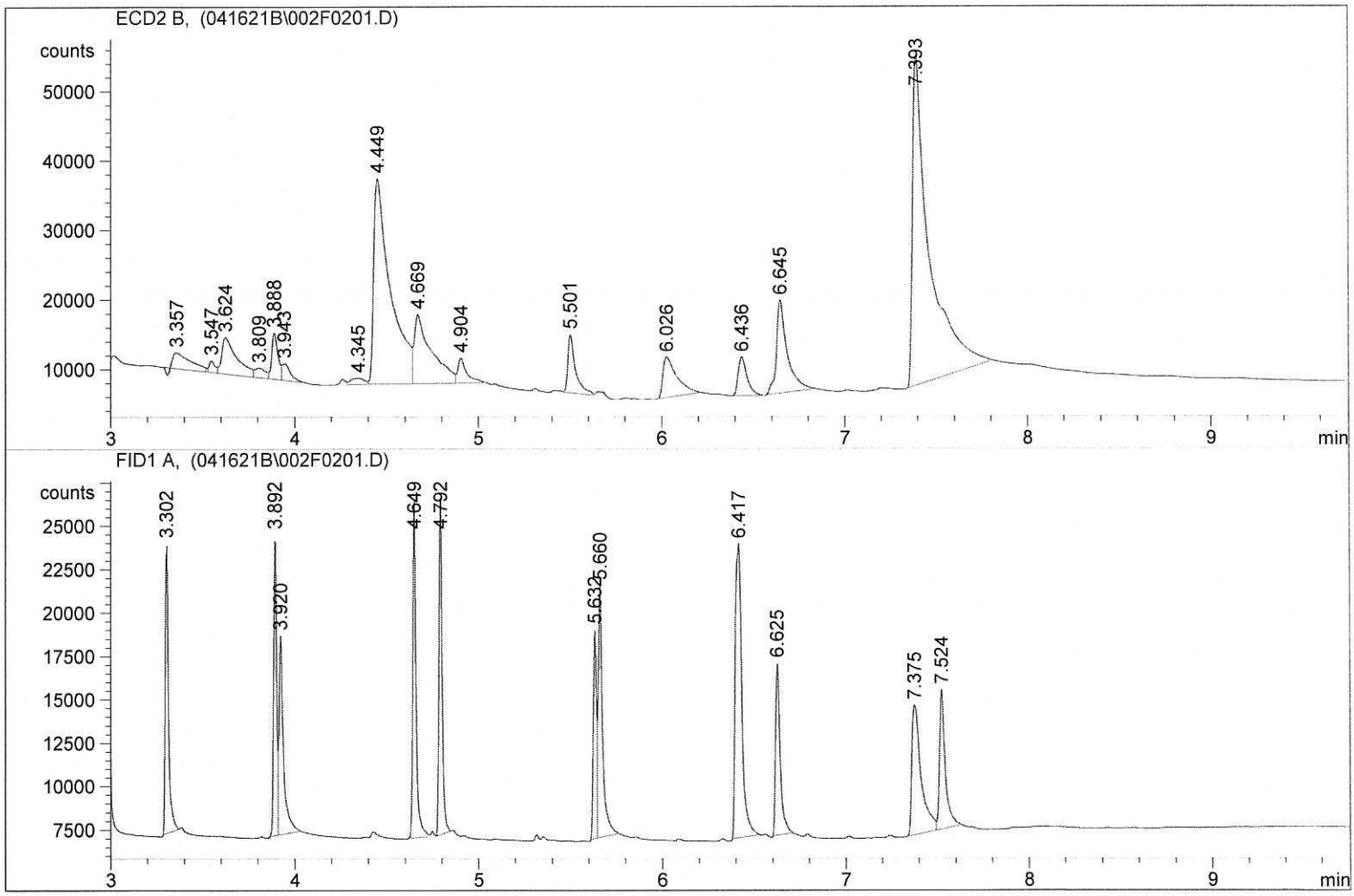


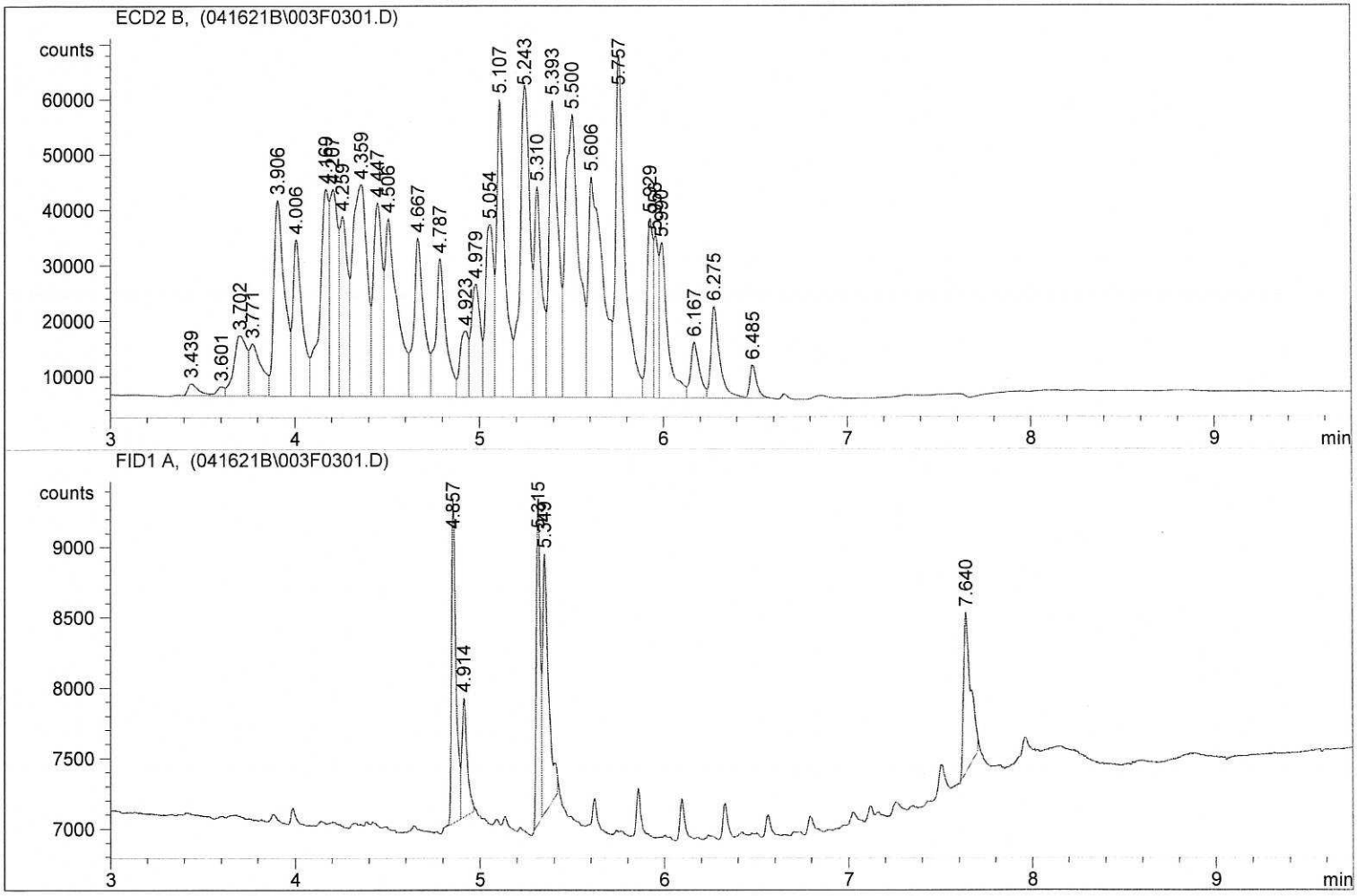

*** End of Report ***

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



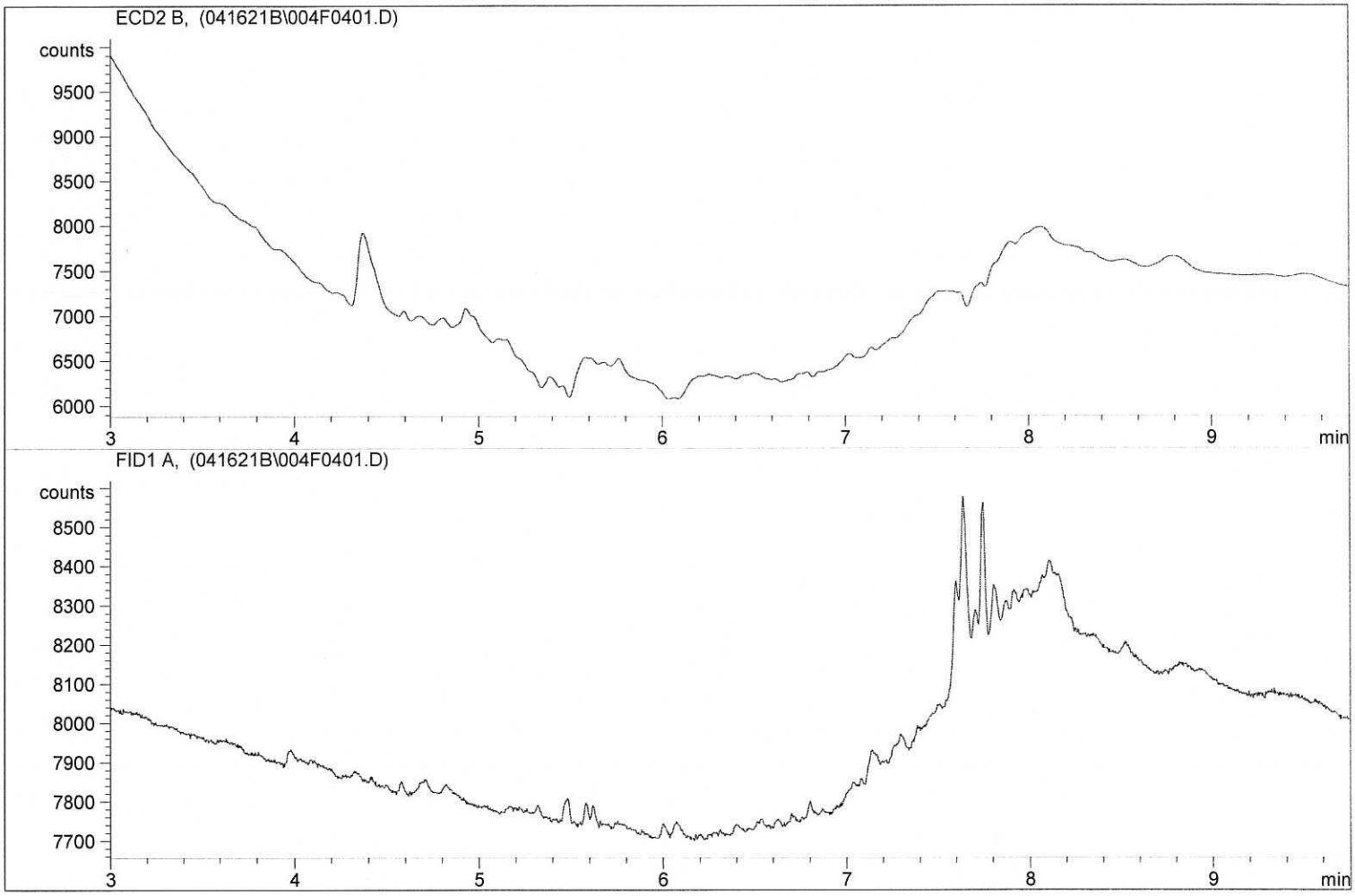

*** End of Report ***

```
==========================================================================
Injection Date  : 4/16/2021 4:13:10 PM          Seq. Line :   3
Sample Name     : AR1660 1PPM                    Location : Vial 3
Acq. Operator   : YL                                Inj :   1
                                                Inj Volume : 1 µl
Sequence File   : C:\HPCHEM\1\SEQUENCE\0401621B.S
Method          : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed    : 2/4/2021 10:37:36 AM by DXP
SCREEN METHOD
==========================================================================
```



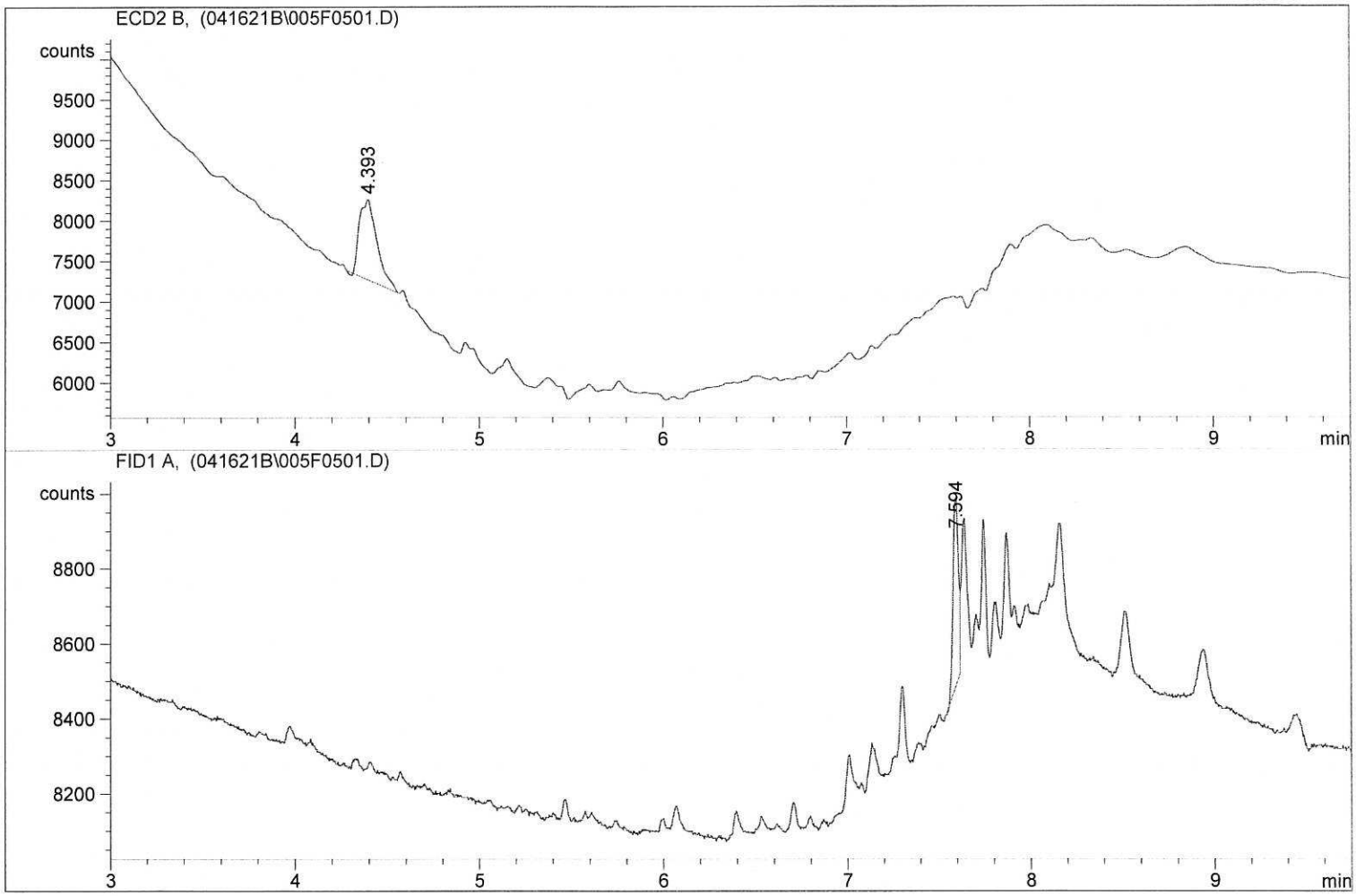

*** End of Report ***

```
==========================================================================
Injection Date  : 4/16/2021 4:26:57 PM          Seq. Line :   4
Sample Name     : 21D0179 01                     Location : Vial 4
Acq. Operator   : YL                                Inj :   1
                                                Inj Volume : 1 µl
Sequence File   : C:\HPCHEM\1\SEQUENCE\0401621B.S
Method          : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed    : 2/4/2021 10:37:36 AM by DXP
SCREEN METHOD
==========================================================================
```



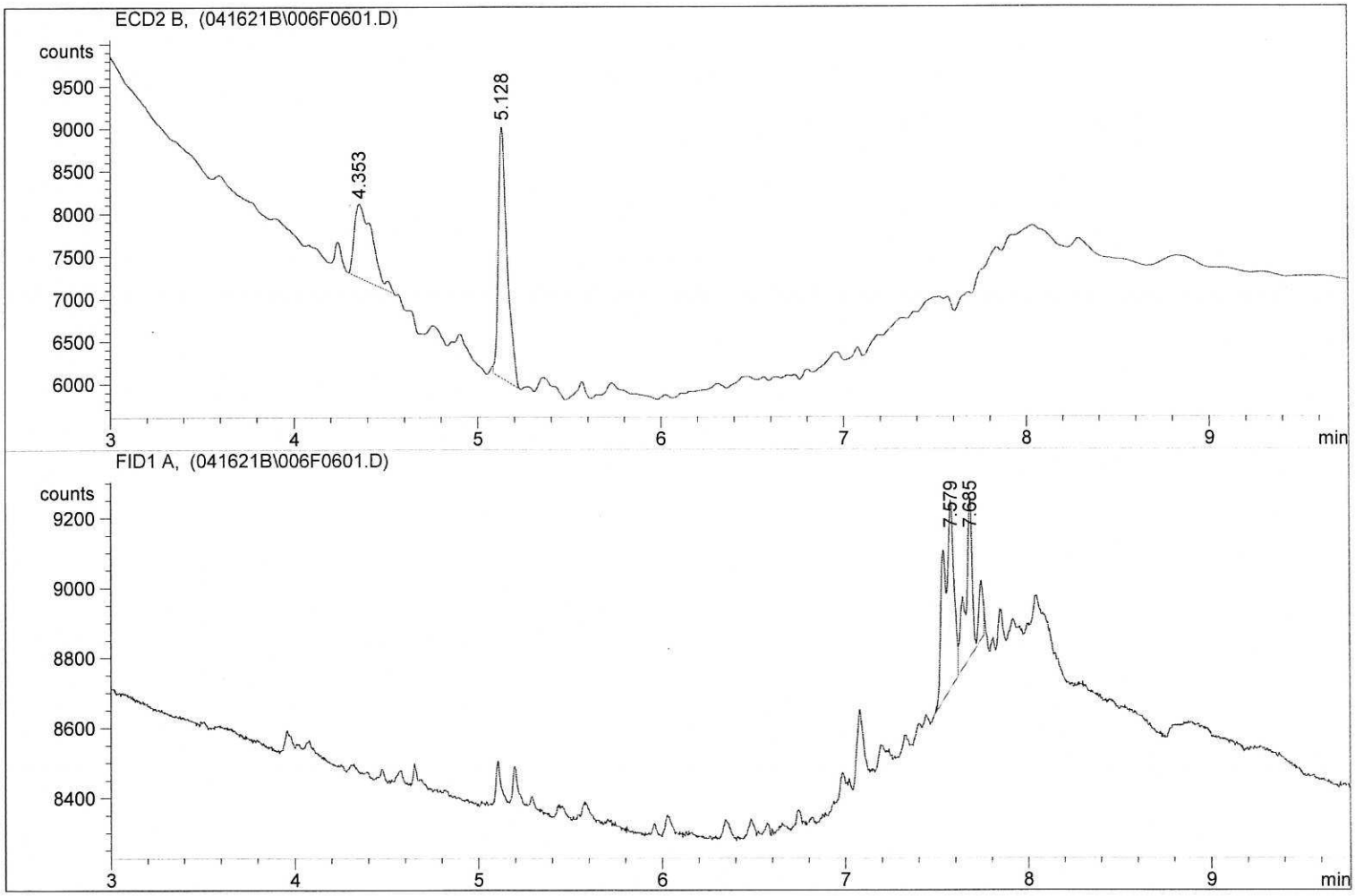

*** End of Report ***

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



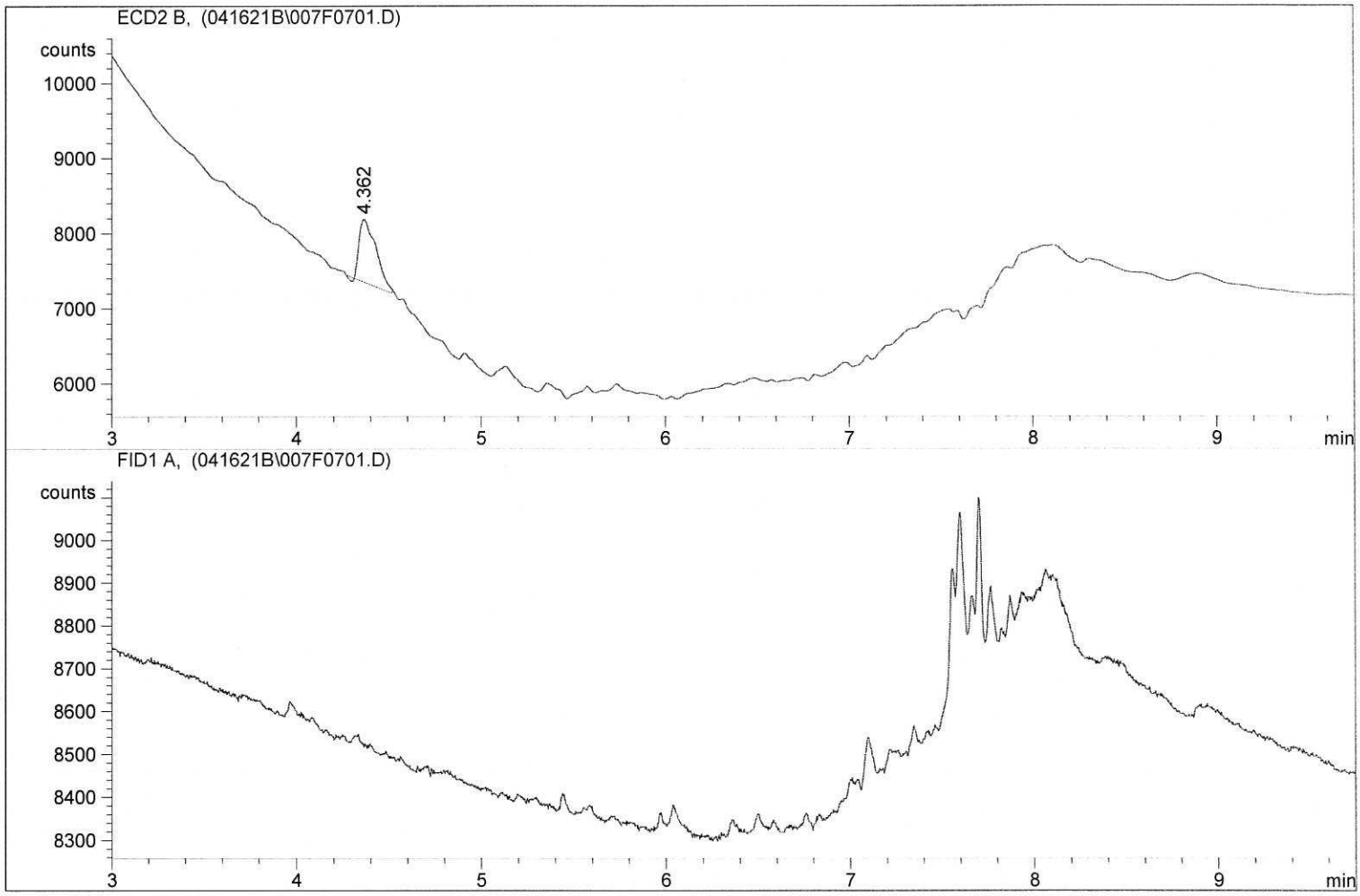

*** End of Report ***

```
==========================================================================
Injection Date  : 4/16/2021 4:55:00 PM          Seq. Line :   6
Sample Name     : 21D0179 03                     Location : Vial 6
Acq. Operator   : YL                                Inj :   1
                                                Inj Volume : 1 µl
Sequence File   : C:\HPCHEM\1\SEQUENCE\0401621B.S
Method          : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed    : 2/4/2021 10:37:36 AM by DXP
SCREEN METHOD
==========================================================================
```




*** End of Report ***

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




*** End of Report ***

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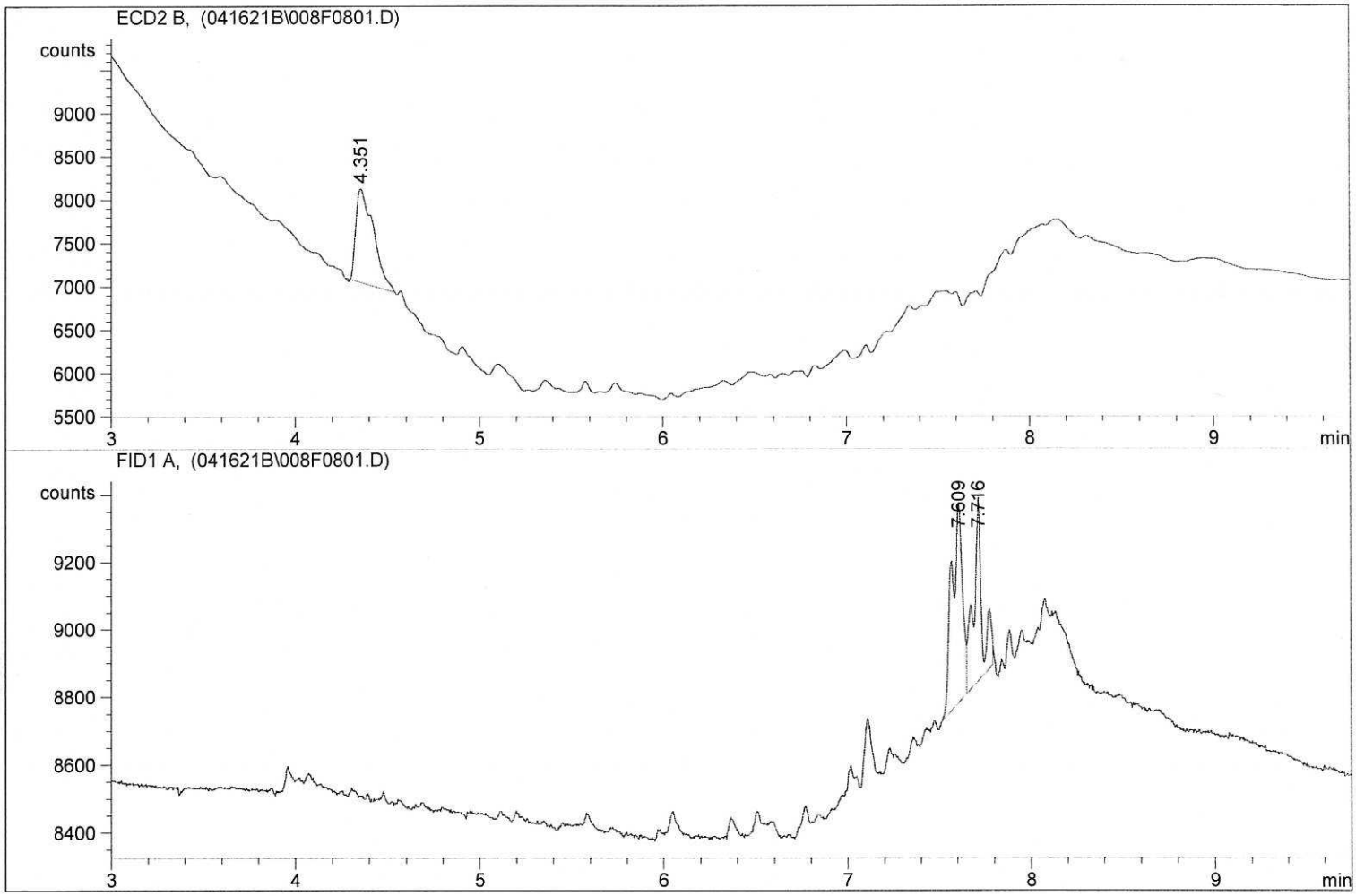
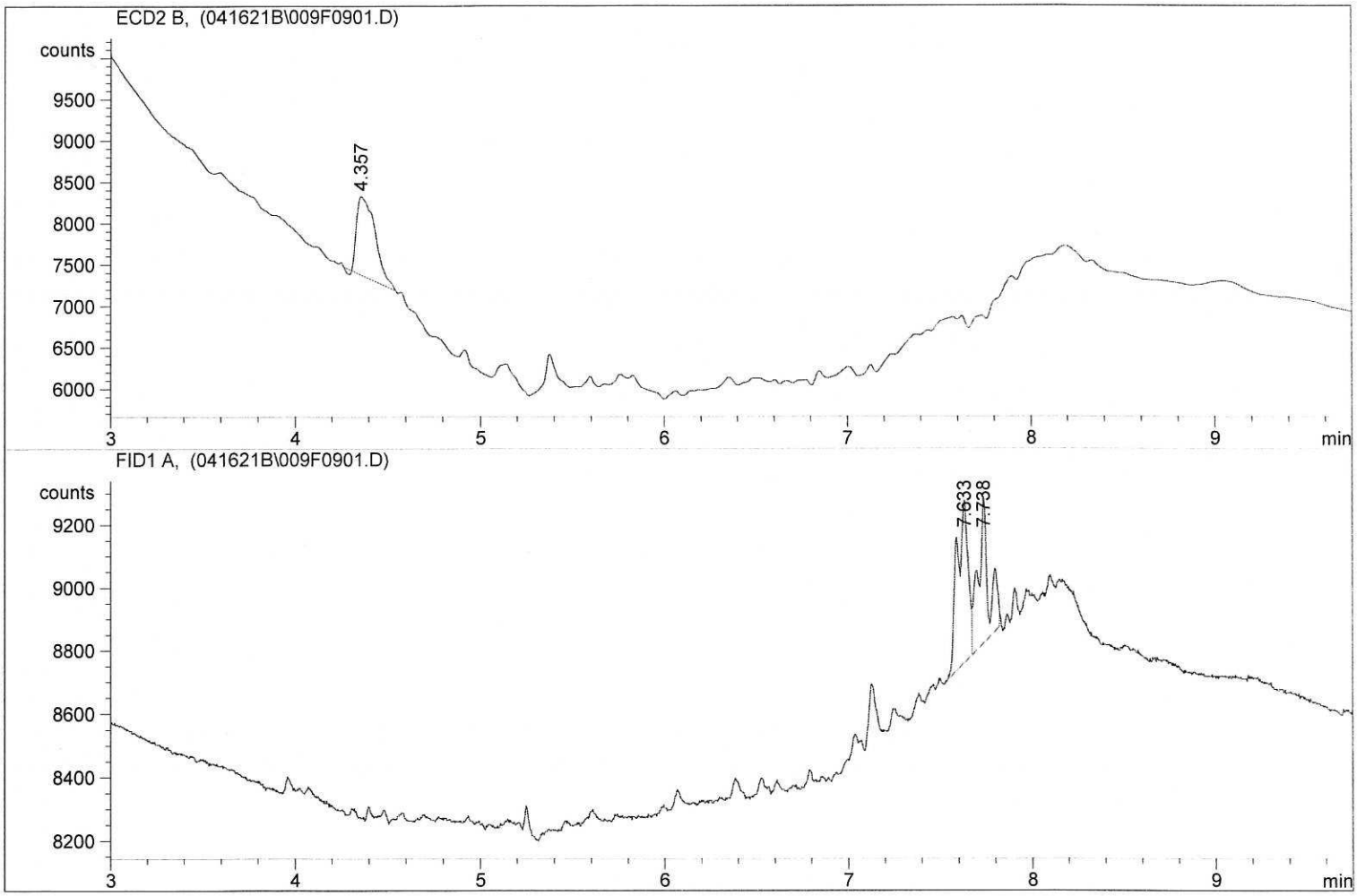



*** End of Report ***

```
==========================================================================
Injection Date  : 4/16/2021 5:37:29 PM          Seq. Line :   9
Sample Name     : 21D0179 06                     Location : Vial 9
Acq. Operator   : YL                                Inj :   1
                                                Inj Volume : 1 µl
Sequence File   : C:\HPCHEM\1\SEQUENCE\0401621B.S
Method          : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed    : 2/4/2021 10:37:36 AM by DXP
SCREEN METHOD
==========================================================================
```

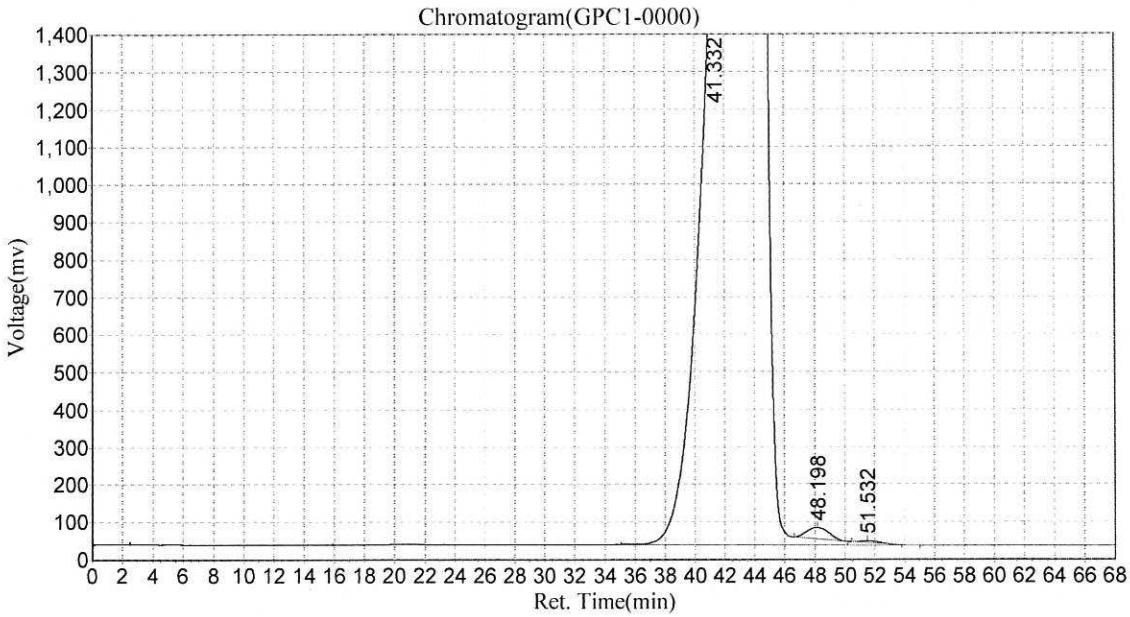



*** End of Report ***

# BJD0507 21D0179/180 PNA

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

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




## Results

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

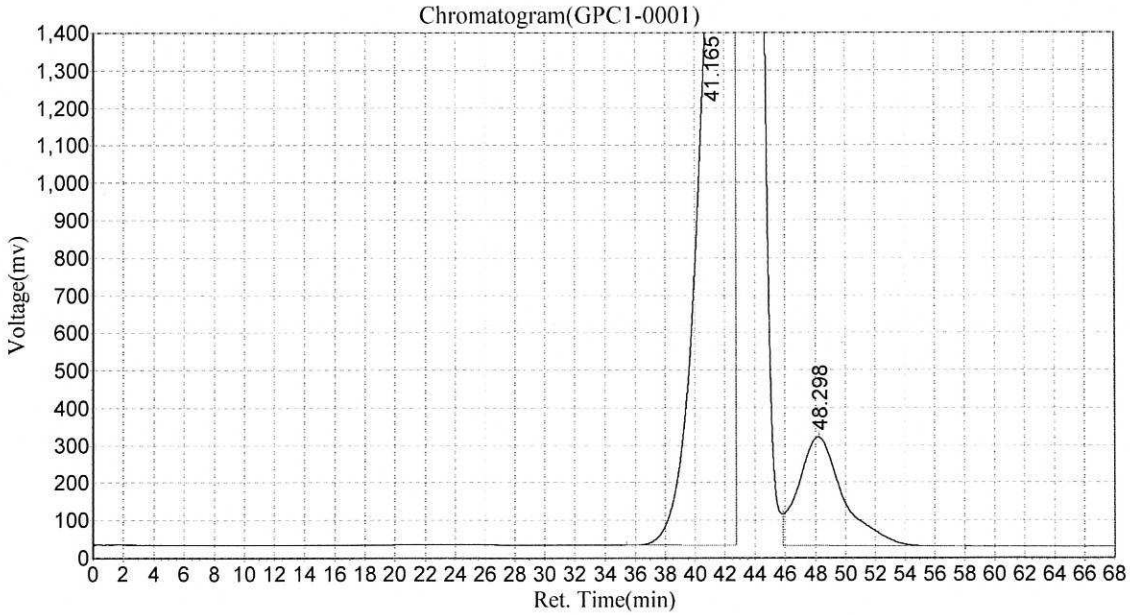
## Ingredient Table

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

# BJD0507 21D0179/180 PNA

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

Analyst£°SH
Date/Time2021-04-23,2:31:52 PM




## Results

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

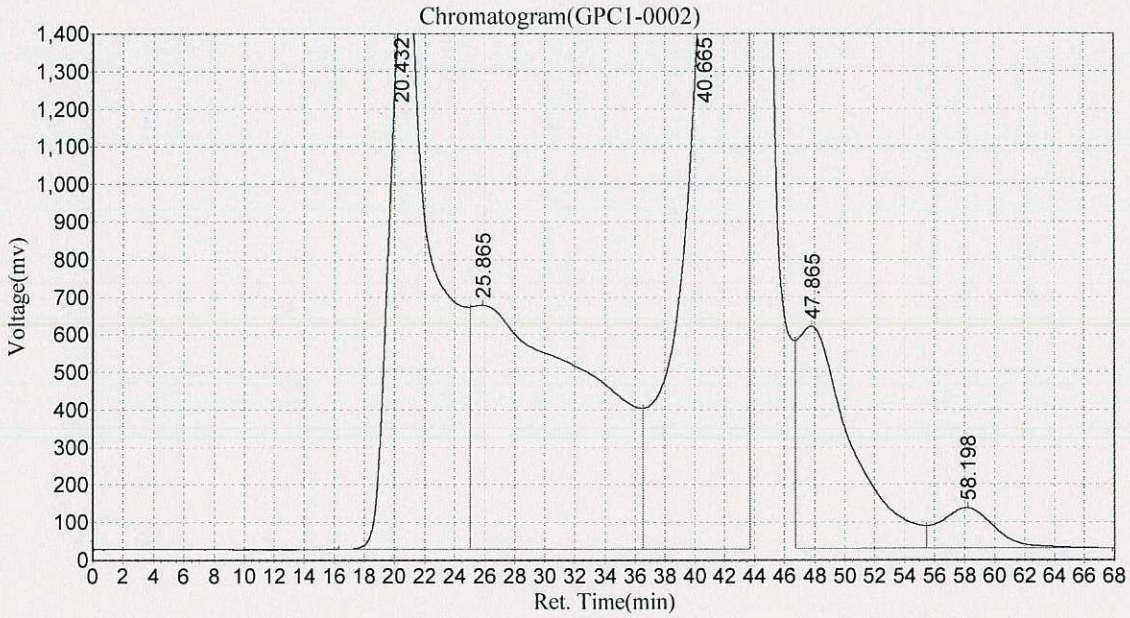
## Ingredient Table

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

# BJD0507 21D0179/180 PNA

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

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




## Results

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

## Ingredient Table

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

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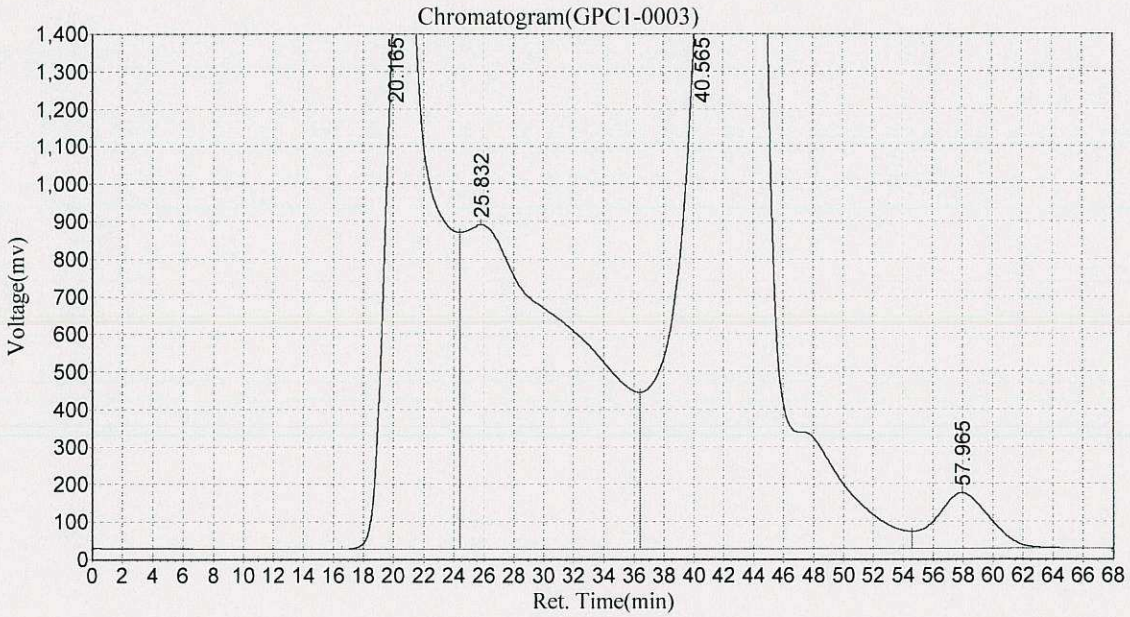
# BJD0507 21D0179/180 PNA

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

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




## Results

| Peak No. | Peak ID | Ret Time | Height | Area | Conc |
|---|---|---|---|---|---|
| 1 | | 20.165 | 1398256.250 | 353720512.000 | 22.8756 |
| 2 | | 25.832 | 864061.750 | 464389376.000 | 30.0327 |
| 3 | | 40.565 | 1397951.875 | 690282624.000 | 44.6416 |
| 4 | | 57.965 | 148588.219 | 37884140.000 | 2.4500 |
| **Total** | | | 3808858.094 | 1546276652.000 | 100.000 |

## Ingredient Table

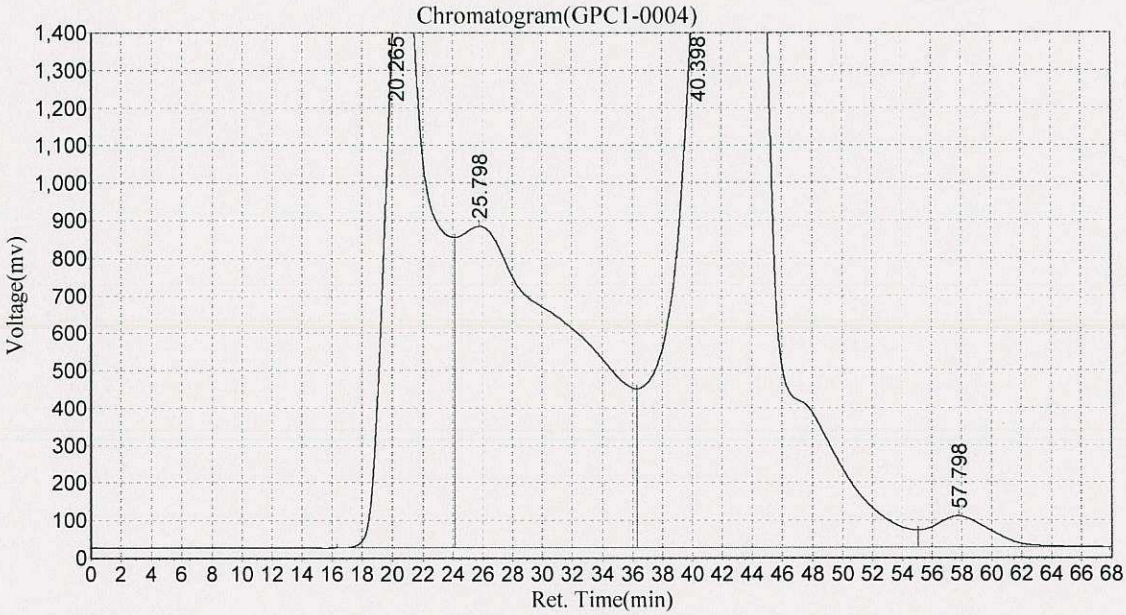
| No | Peak ID | Ret Time | Peak Width | Factor1 | Factor2 | ISTD Wt. |
|---|---|---|---|---|---|---|
| 1 | Collect BAN | 28.000 | 0.010 | 0.00E+000 | 0.00E+000 | 0.0000 |
| 2 | Collect Pest | 33.000 | 0.010 | 0.00E+000 | 0.00E+000 | 0.0000 |
| 3 | Dump Pest | 56.000 | 0.010 | 0.00E+000 | 0.00E+000 |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

-03

# BJD0507 21D0179/180 PNA

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

Analyst£ºSH
Date/Time2021-04-23,6:00:59 PM




## Results

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

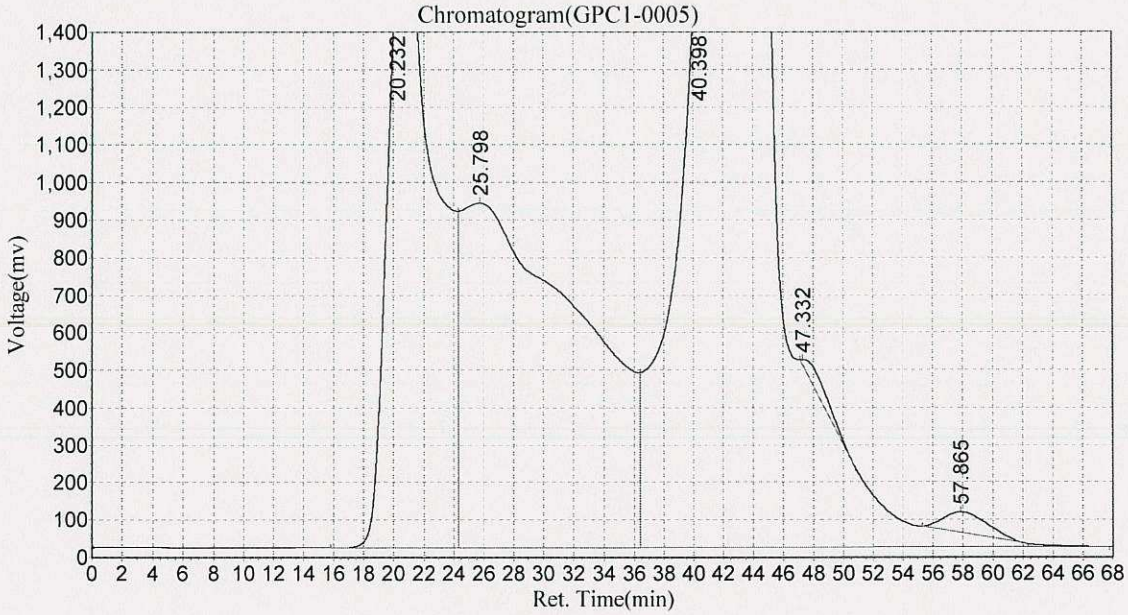
## Ingredient Table

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

# BJD0507 21D0179/180 PNA

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

Analyst£°SH
Date/Time2021-04-23,7:10:42 PM




## Results

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

## Ingredient Table

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

# BJD0507 21D0179/180 PNA

Date:2021-04-23,8:20:23 PM
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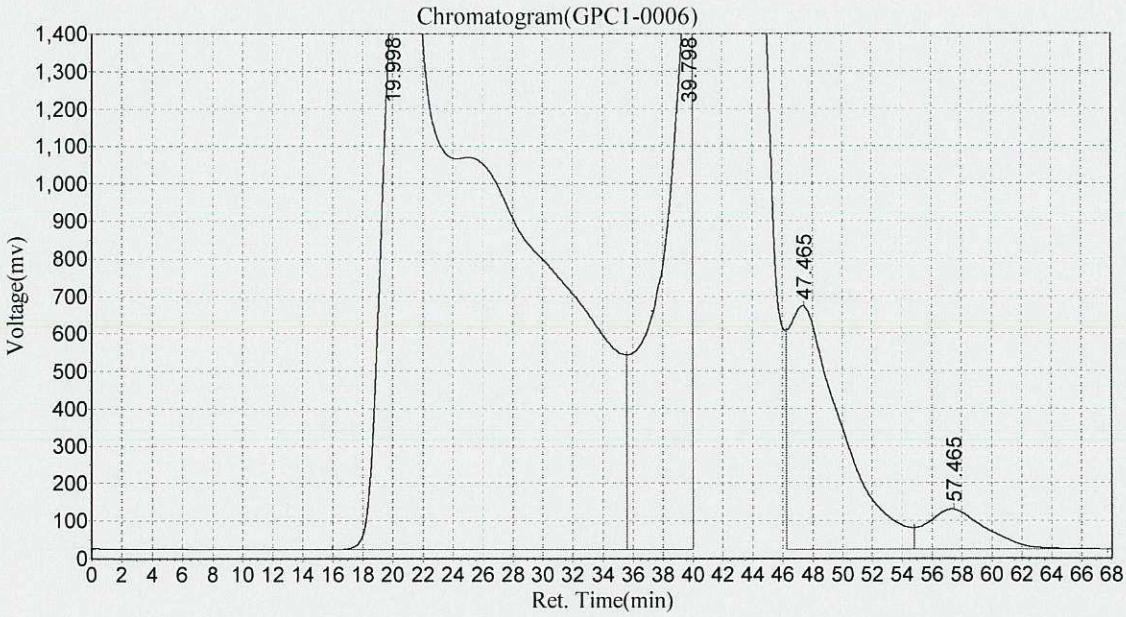
Method File:C:\N2000\GPC1_InHouse.mtd

Analyst£°SH
Date/Time2021-04-23,8:20:24 PM




## Results

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

## Ingredient Table

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

MSD1

# BJD0507 21D0179/180 PNA

Date:2021-04-23,9:30:06 PM
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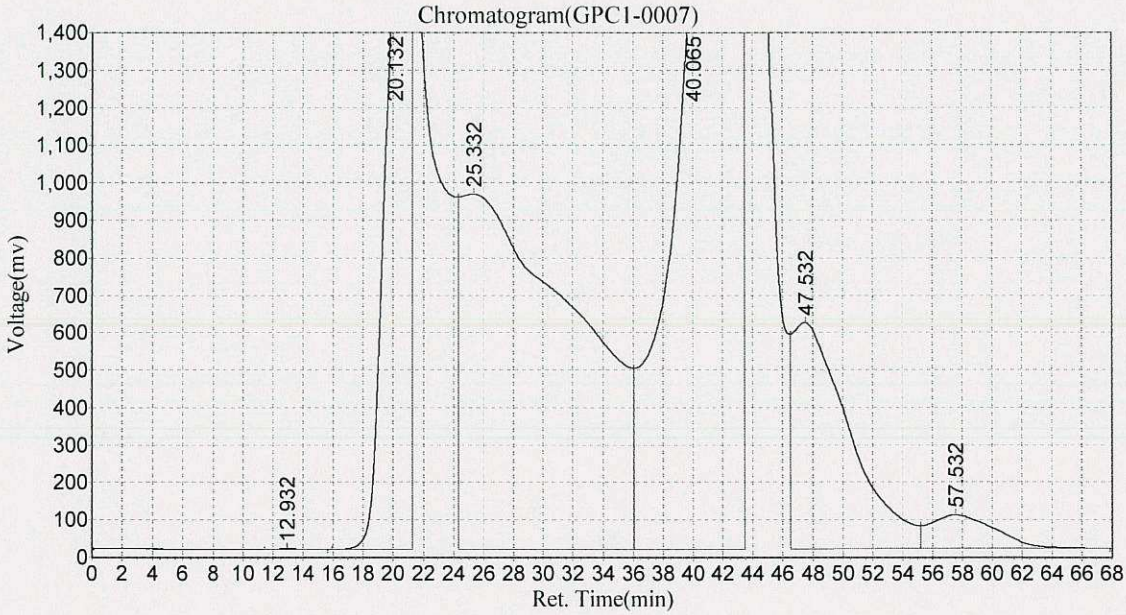
Method File:C:\N2000\GPC1_InHouse.mtd

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




## Results

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

## Ingredient Table

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

-05

# BJD0507 21D0179/180 PNA

Date:2021-04-23,10:39:49 PM
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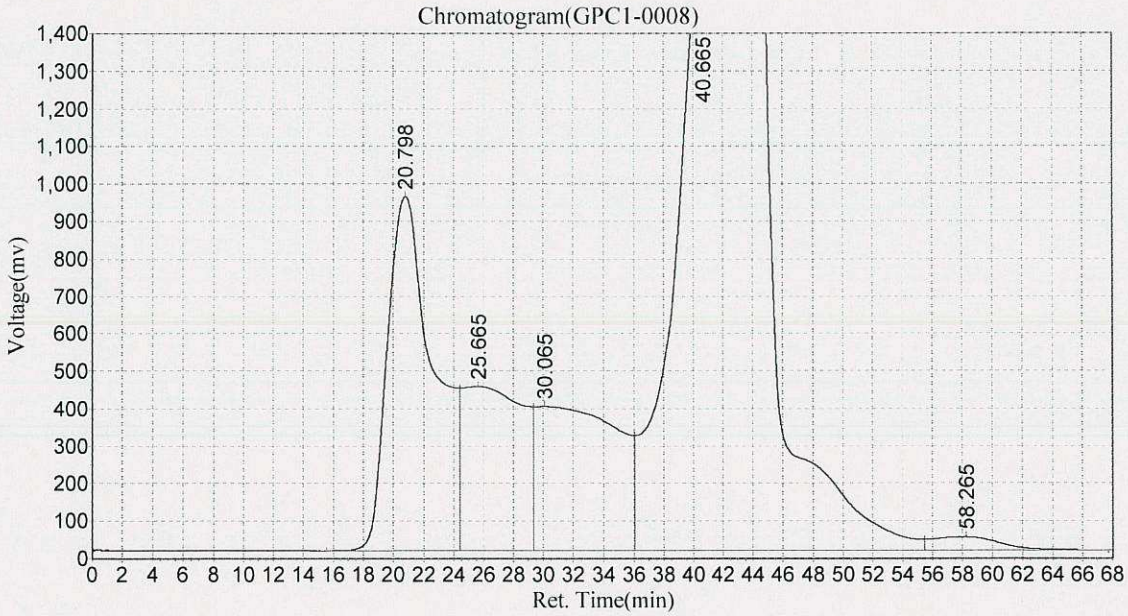
Method File:C:\N2000\GPC1_InHouse.mtd

Analyst£°SH
Date/Time2021-04-23,10:39:49 PM




## Results

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

## Ingredient Table

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

- Φ6

# BJD0507 21D0179/180 PNA

Date:2021-04-23,11:49:31 PM
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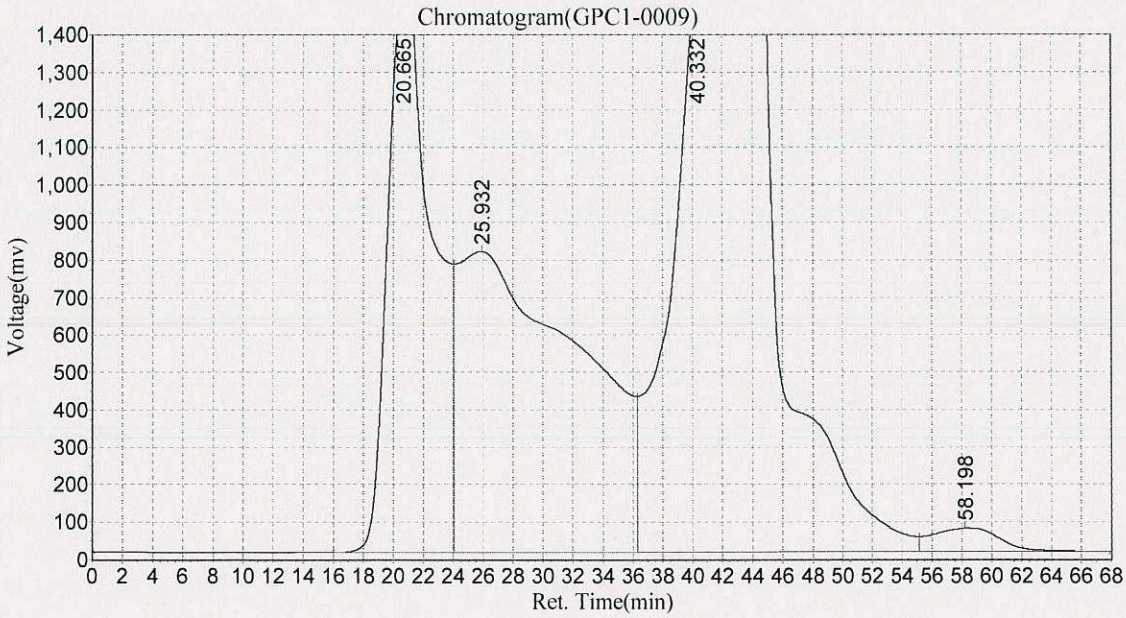
Method File:C:\N2000\GPC1_InHouse.mtd

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




## Results

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

## Ingredient Table

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

# BJD0507 21D0179(180) PNA

Date:2021-04-24,12:59:12 AM
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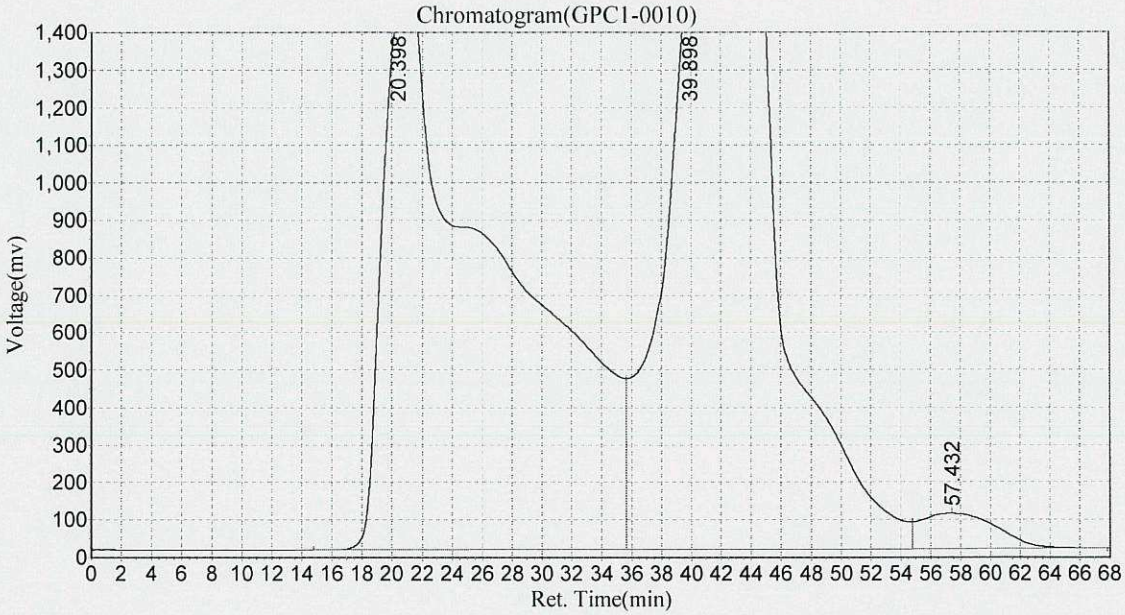
Method File:C:\N2000\GPC1_InHouse.mtd

Analyst£°SH
Date/Time2021-04-24,12:59:13 AM




## Results

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

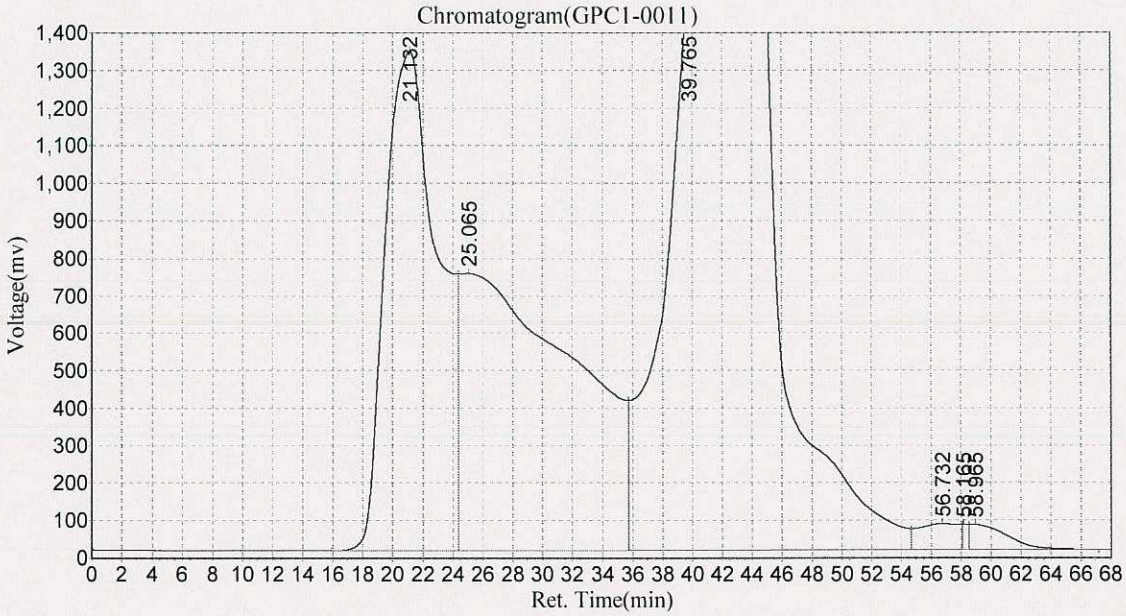
## Ingredient Table

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

# BJD0507 21D0179/180 PNA

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

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




## Results

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

## Ingredient Table

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

# BJD0507 21D0179/180 PNA

Date:2021-04-24,3:18:36 AM
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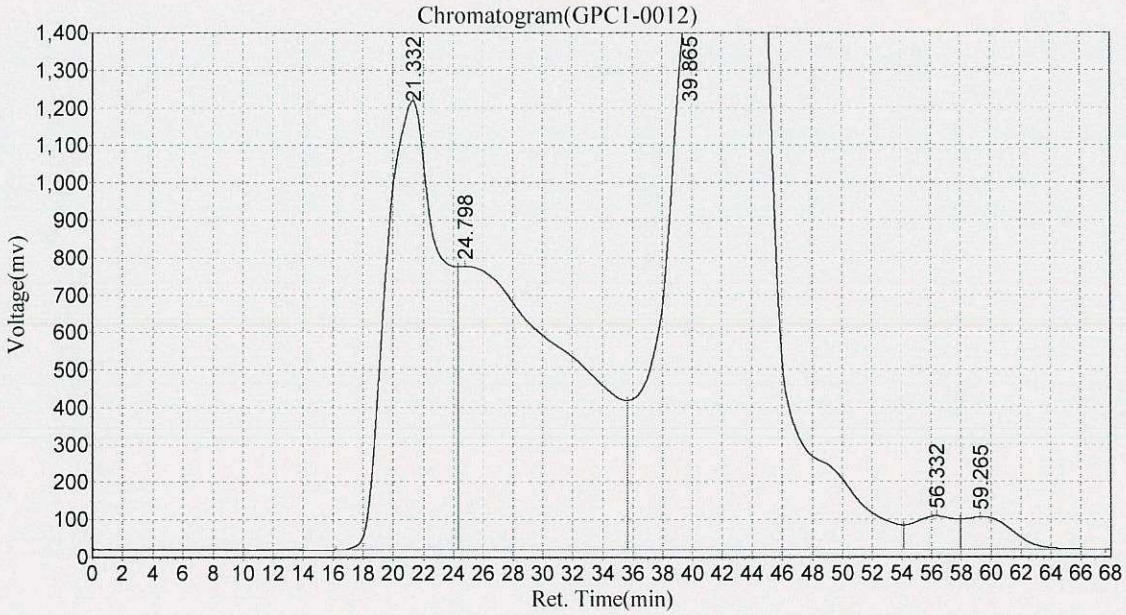
Method File:C:\N2000\GPC1_InHouse.mtd

Analyst£°SH
Date/Time2021-04-24,3:18:37 AM




## Results

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

## Ingredient Table

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

# BJD0507 21D0179/180 PNA

Date:2021-04-24,4:28:20 AM
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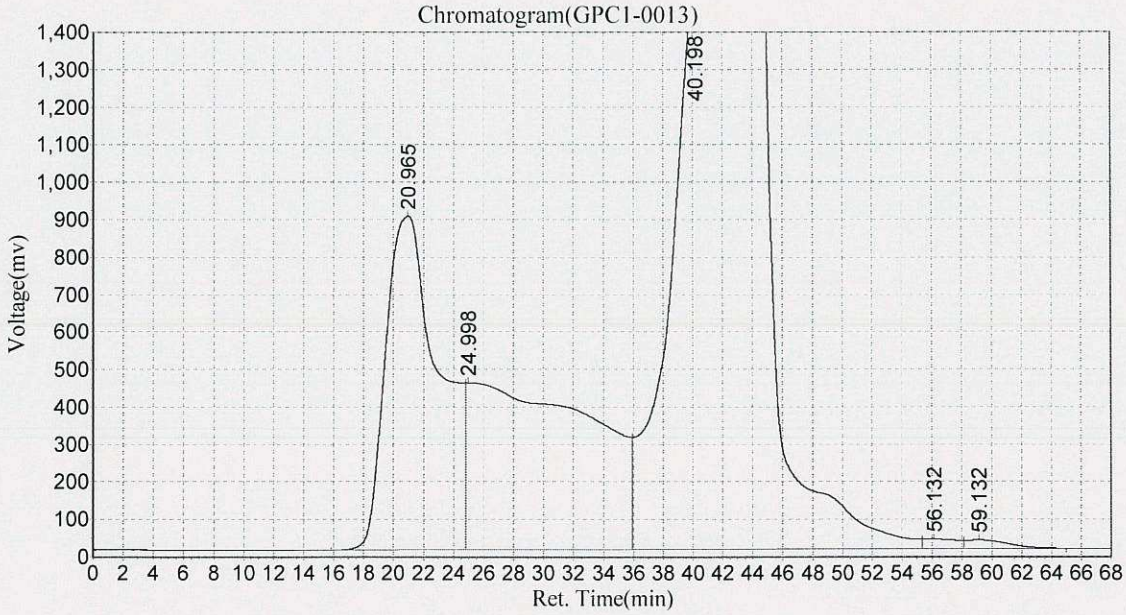
Method File:C:\N2000\GPC1_InHouse.mtd

Analyst£ºSH
Date/Time2021-04-24,4:28:20 AM




## Results

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

## Ingredient Table

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

# CLEANUP BATCH SUMMARY

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Cleanup Batch: | CJD0310 | Cleanup Type: | GPC |
| Cleanup Method: | EPA 3640A GPC Cleanup 1:1 | Analysis: | EPA 8270E-SIM |

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

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# CLEANUP BENCH SHEET

CJD0310

**Matrix: Solid** **Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1** **Printed: 4/28/2021 11:44:56AM**

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

# CLEANUP BENCH SHEET

CJD0310

**Matrix: Solid** **Cleanup using: Organics - EPA 3640A GPC Cleanup 1:1** **Printed: 4/28/2021 11:44:56AM**

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

# CLEANUP BATCH SUMMARY

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Cleanup Batch: | CJD0311 | Cleanup Type: | Silica Gel |
| Cleanup Method: | EPA 3630C Silica Gel Cleanup | Analysis: | EPA 8270E-SIM |

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

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# CLEANUP BENCH SHEET

CJD0311

**Matrix: Solid** **Cleanup using: Organics - EPA 3630C Silica Gel Cleanup** **Printed: 4/28/2021 11:46:17AM**

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

# CLEANUP BENCH SHEET

CJD0311

**Matrix: Solid** **Cleanup using: Organics - EPA 3630C Silica Gel Cleanup** **Printed: 4/28/2021 11:46:17AM**

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

# Form I

## METHOD BLANK DATA SHEET

## EPA 8270E-SIM

**Blank**

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

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

Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042404.D



Date : 24-APR-2021 11:18

Client ID:

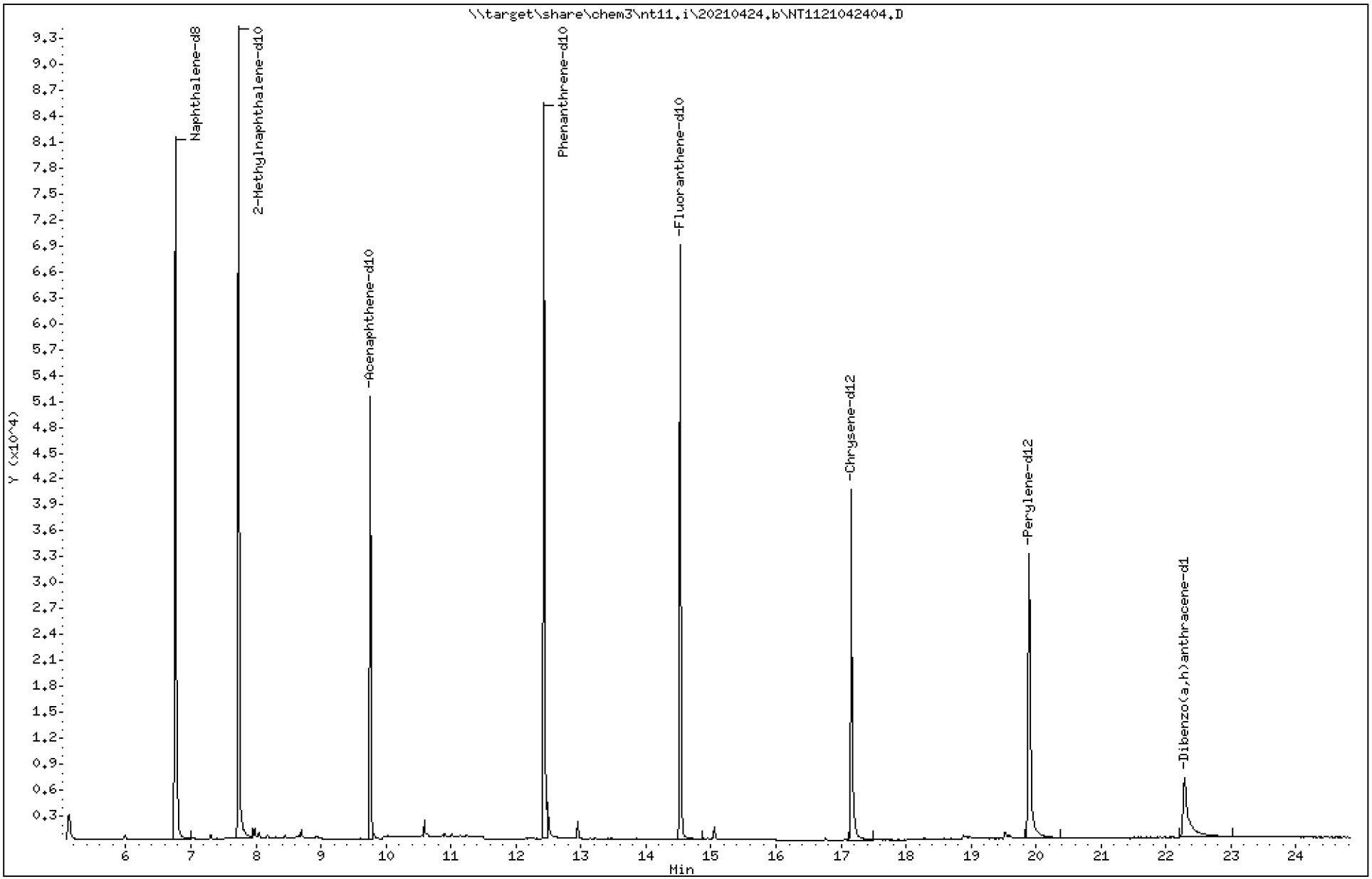
Instrument: nt11.i

Sample Info: BJD0479-BLK1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

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Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042404.D

Date : 24-APR-2021 11:18

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BLK1

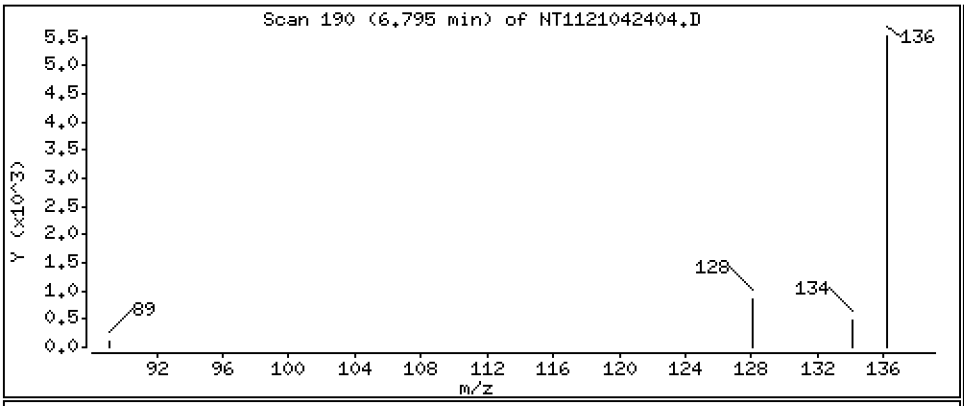
Operator: VTS

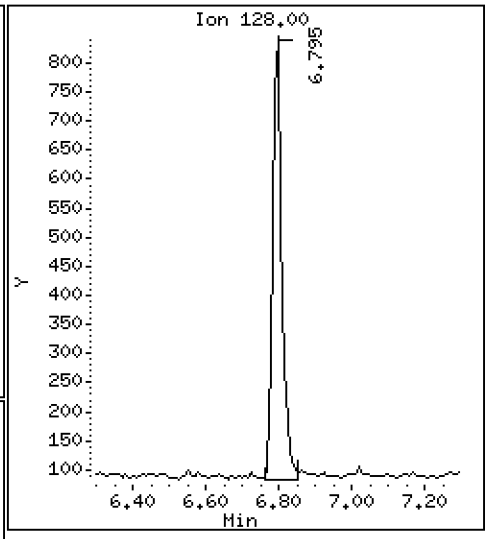
Column phase: Rxi-17Sil MS

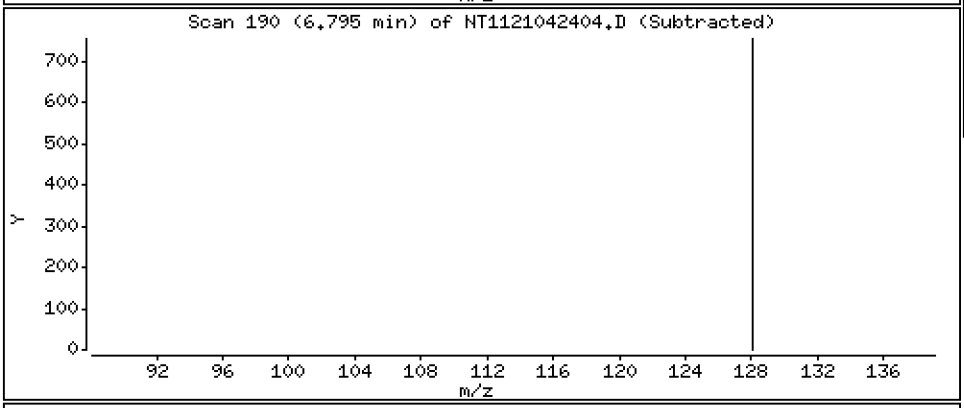
Column diameter: 0.25

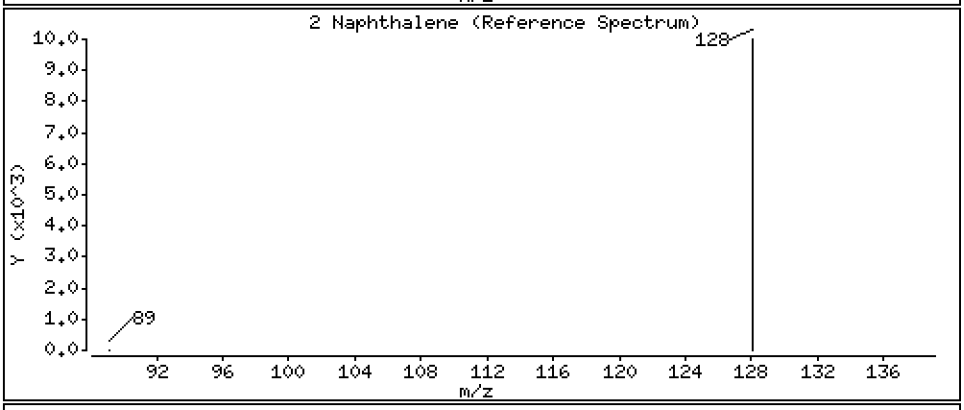
2 Naphthalene

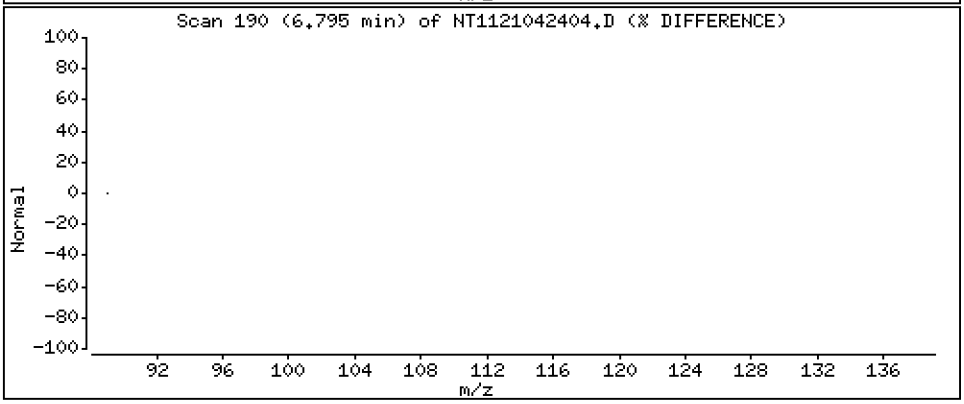
Concentration: 1.82 ng/mL



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Date : 24-APR-2021 11:18

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BLK1

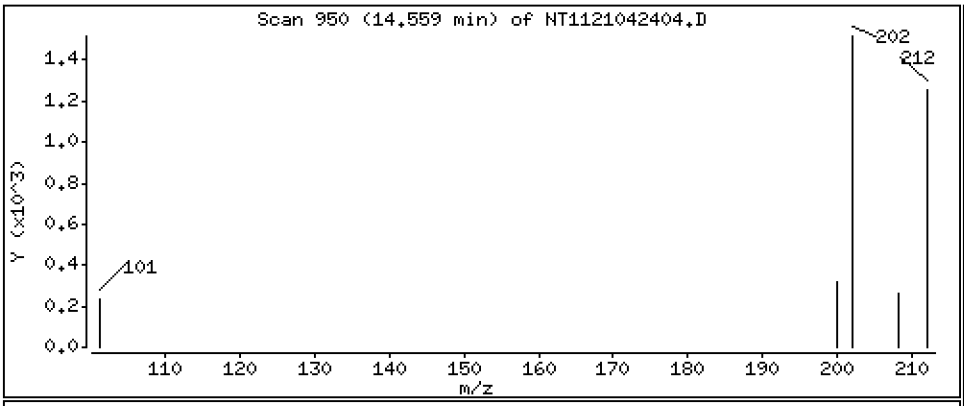
Operator: VTS

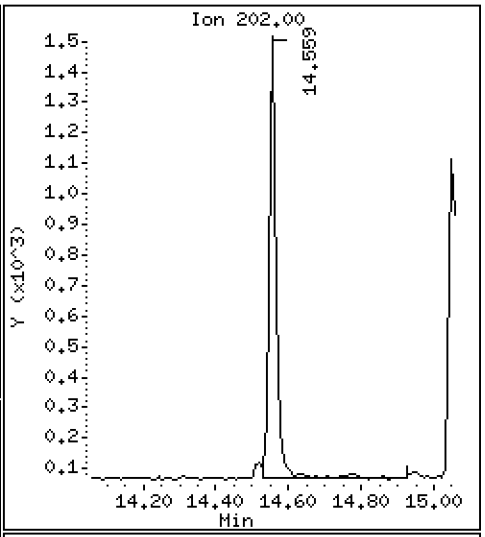
Column phase: Rxi-17Sil MS

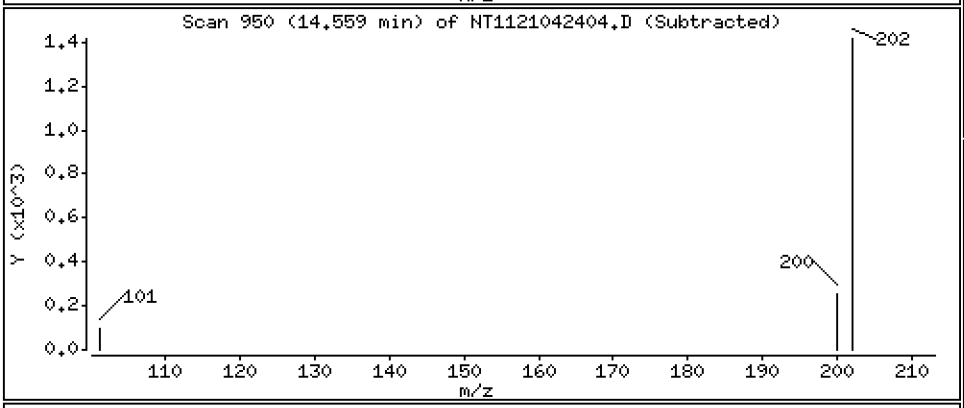
Column diameter: 0.25

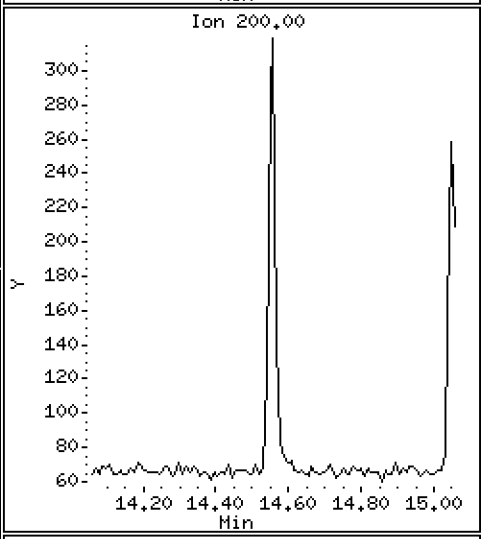
25 Fluoranthene

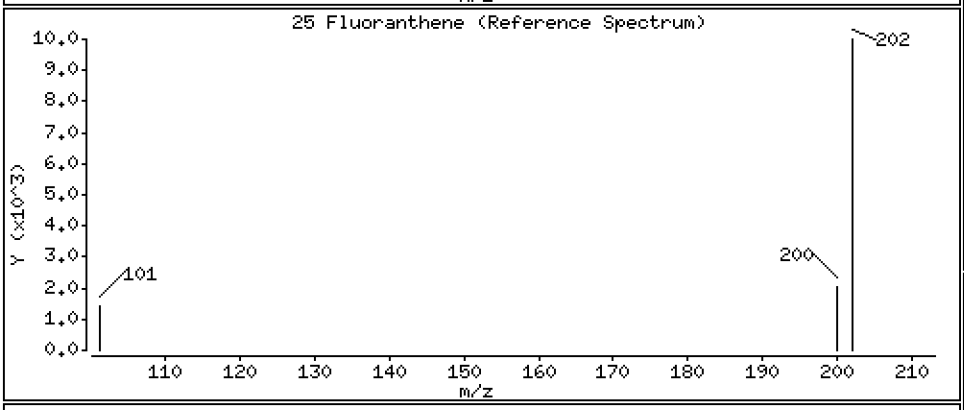
Concentration: 3.46 ng/mL

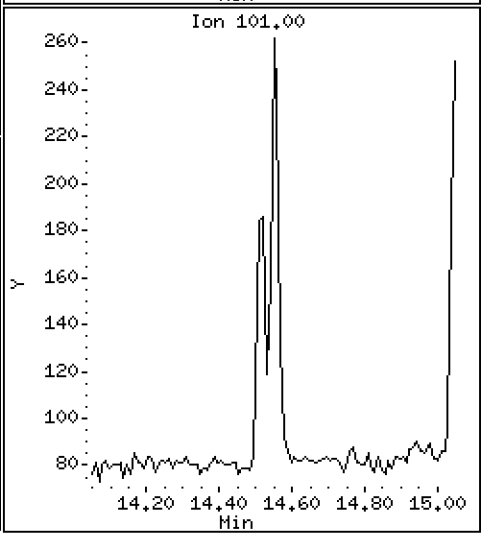


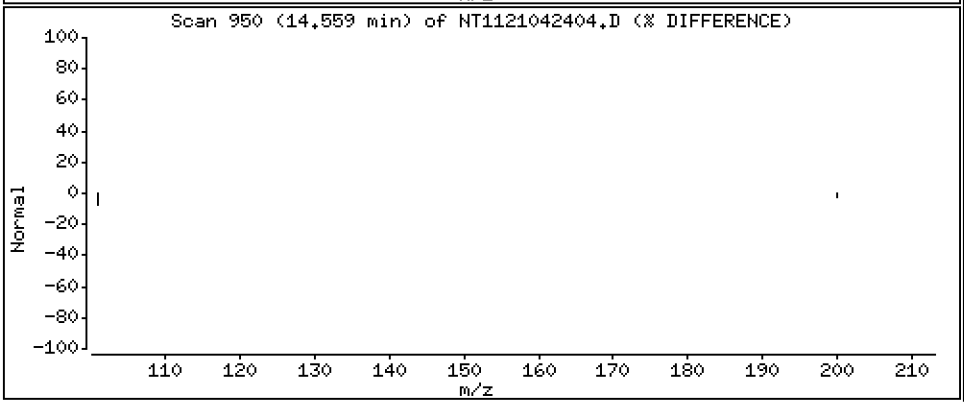



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Date : 24-APR-2021 11:18

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BLK1

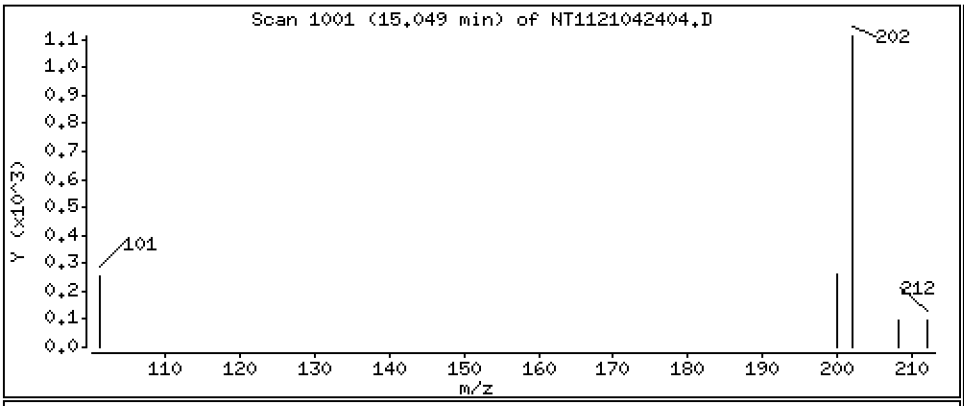
Operator: VTS

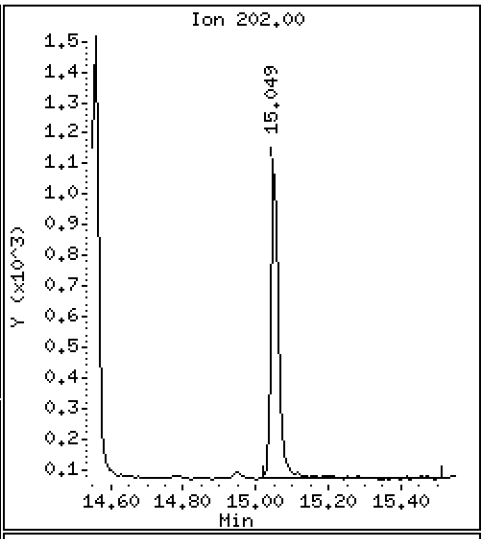
Column phase: Rxi-17Sil MS

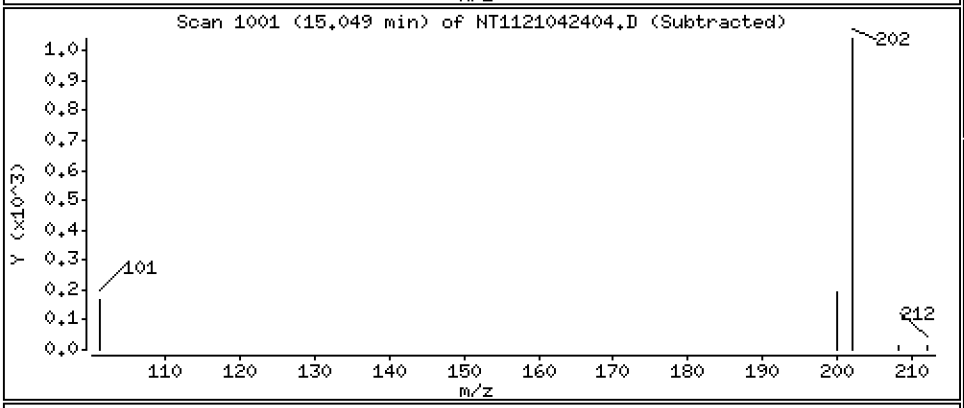
Column diameter: 0.25

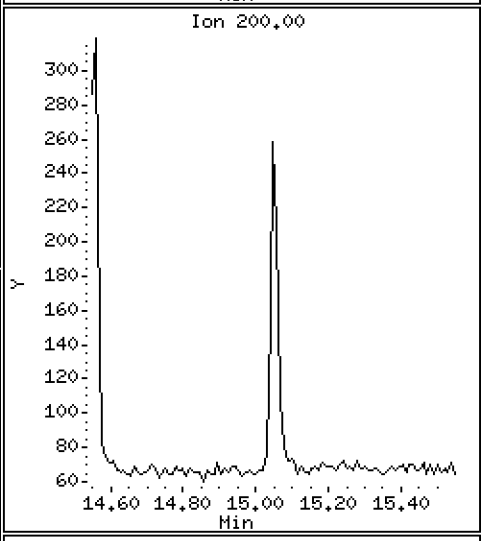
26 Pyrene

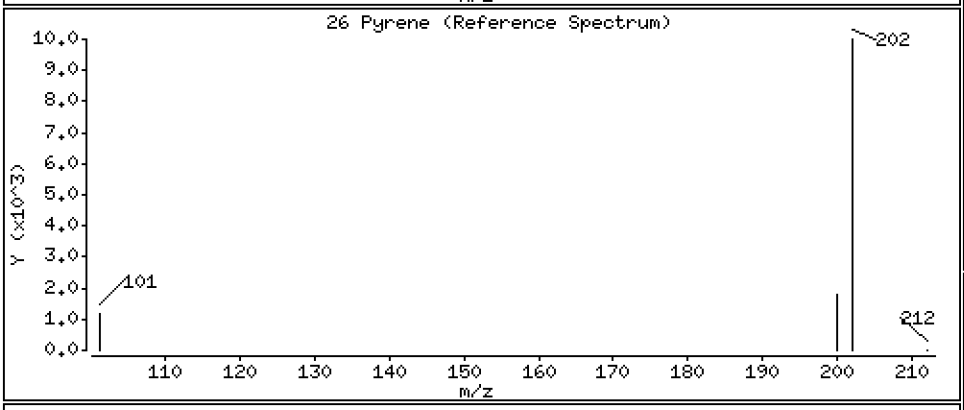
Concentration: 2.61 ng/mL

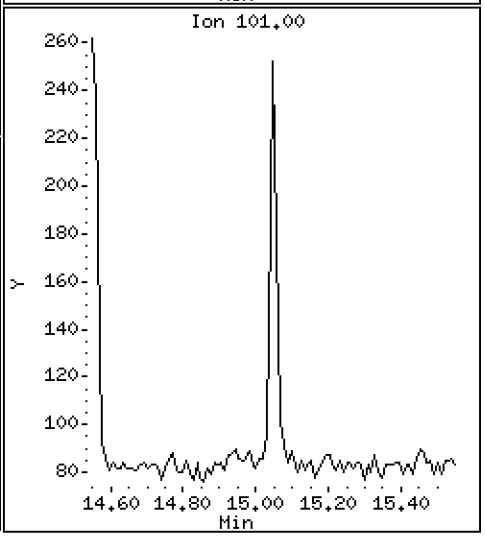


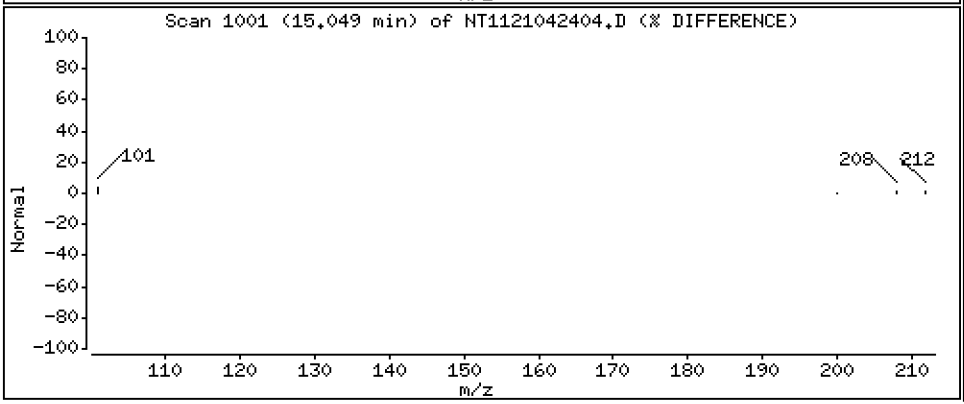



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Date : 24-APR-2021 11:18

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BLK1

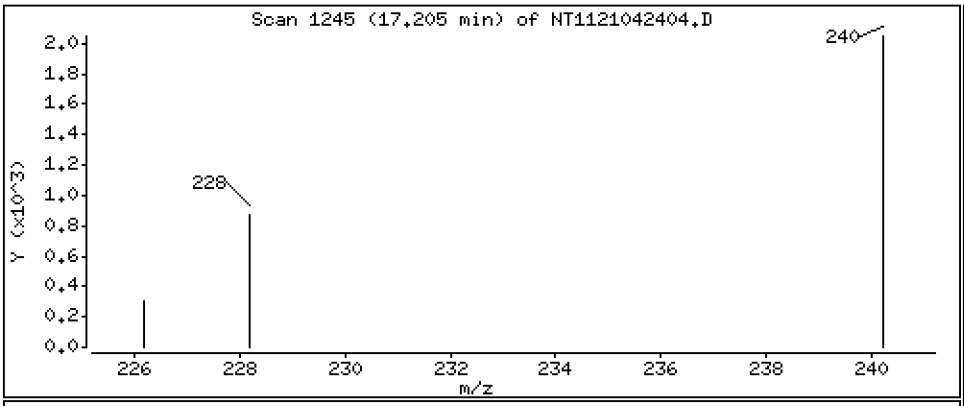
Operator: VTS

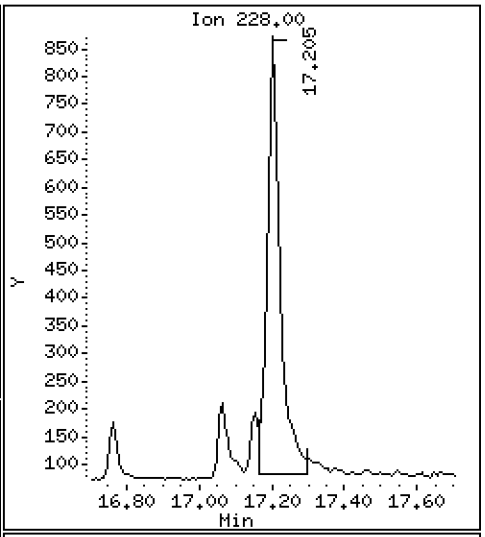
Column phase: Rxi-17Sil MS

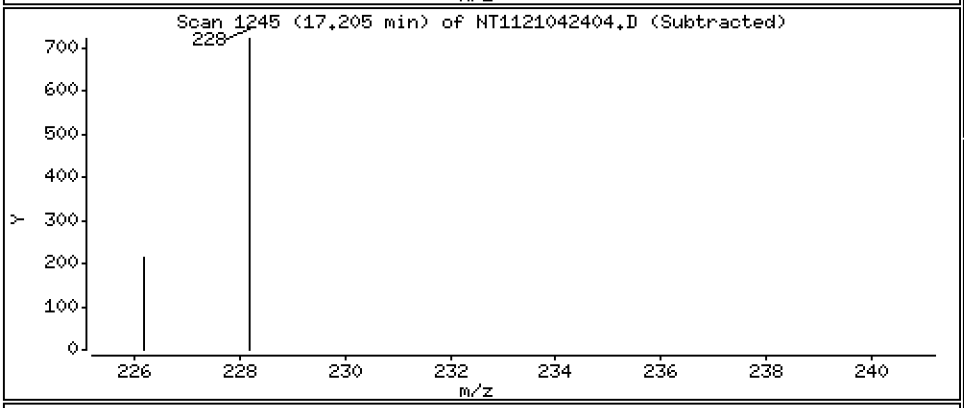
Column diameter: 0.25

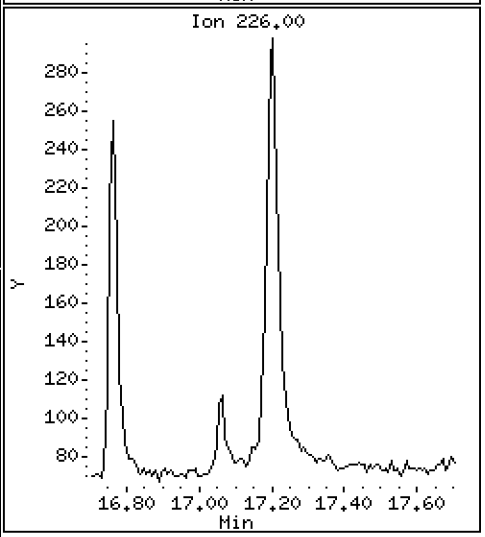
29 Chrysene

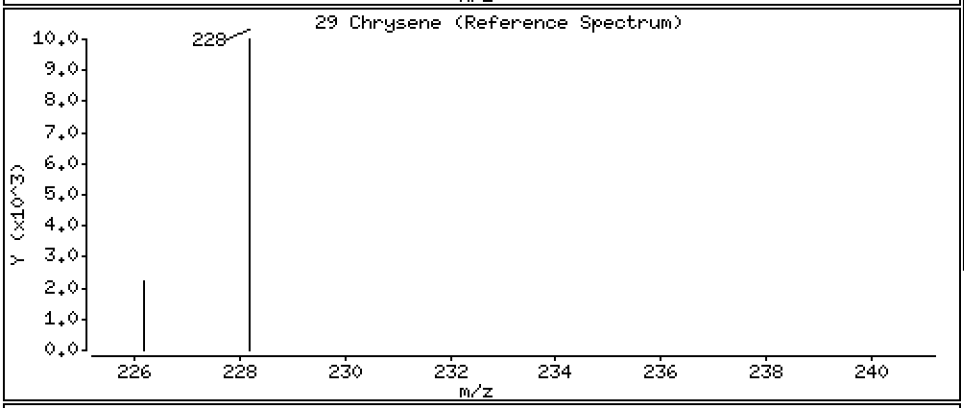
Concentration: 3.49 ng/mL

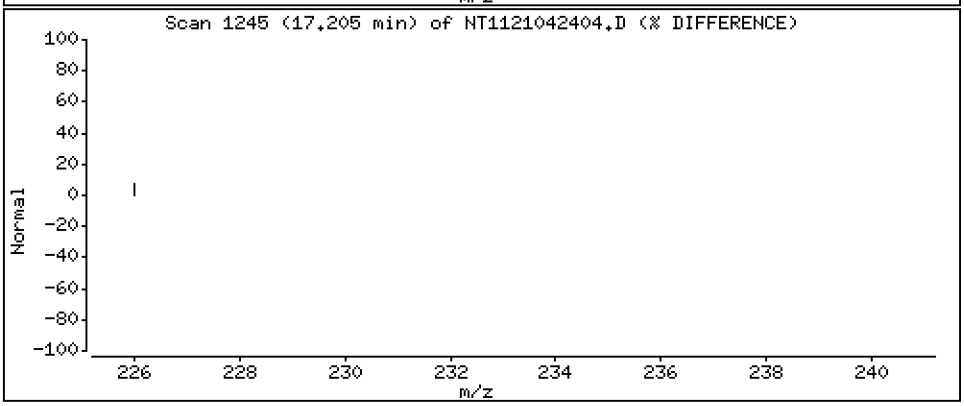


ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

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

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

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

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1121042404.D
Lab Smp Id: BJD0479-BLK1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20210424.b\lowsim.m
Misc Info:

Calibration Date: 24-APR-2021
Calibration Time: 10:14
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1121042404.D

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

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

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

NONE

RRT check based on Ccal File: NT1121042402.D

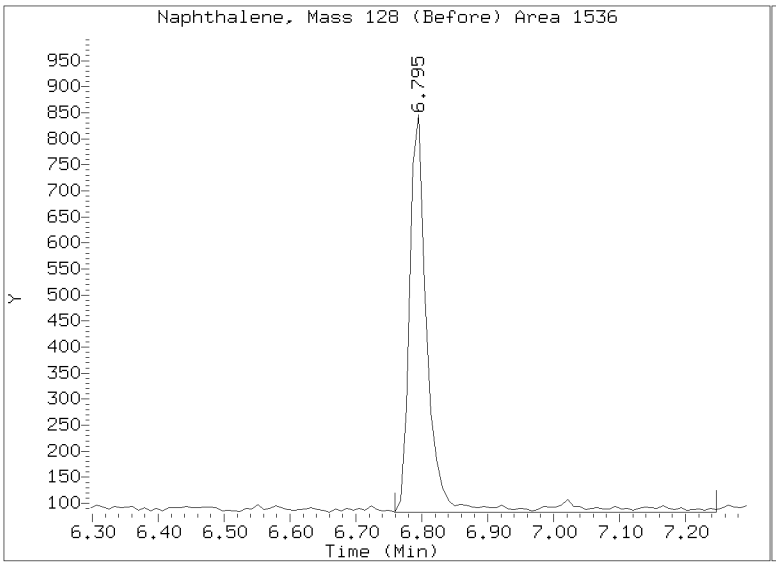
On Column LOD for nt11.i, 20210424.b\lowsim.m, PAH.sub = 0.0000

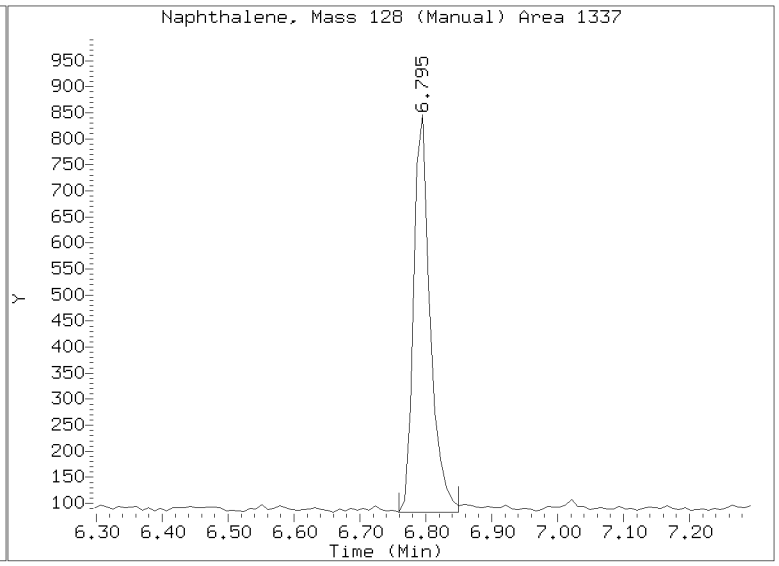
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000

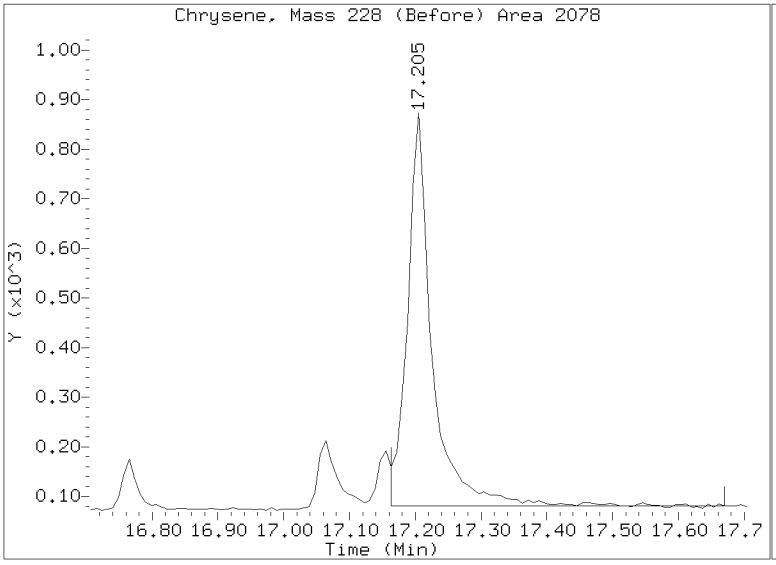
* Only compounds listed in the work order have been verified by the analyst *

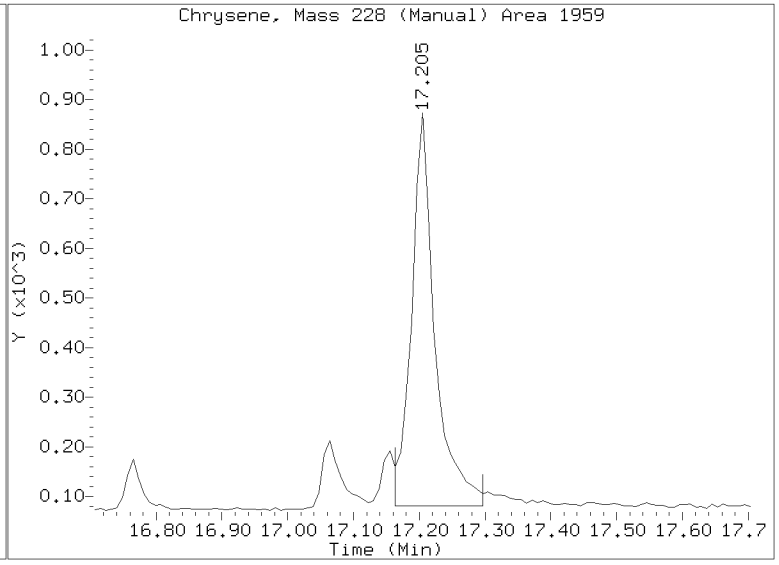
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20210424.b/NT1121042404.D
Injection Date: 24-APR-2021 11:18
Lab ID:BJD0479-BLK1 Client ID:
Report Date: 04/27/2021 14:15



# Form I

## METHOD BLANK DATA SHEET

## EPA 8270E-SIM

**Blank**

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

| CAS NO. | COMPOUND | DILUTION | CONC: (ug/kg wet) | Q | DL | RL |
|---|---|---|---|---|---|---|
| 493-02-7 | trans-Decalin | 1 | 5.0 | U | 0.03 | 5.0 |
| 493-01-6 | cis-Decalin | 1 | 5.0 | U | 0.5 | 5.0 |
| 91-20-3 | Naphthalene | 1 | 5.0 | U | 0.4 | 5.0 |
| 90-12-0 | 1-Methylnaphthalene | 1 | 5.0 | U | 0.4 | 5.0 |
| 91-57-6 | 2-Methylnaphthalene | 1 | 5.0 | U | 0.4 | 5.0 |
| 92-52-4 | Biphenyl | 1 | 5.0 | U | 0.3 | 5.0 |
| 581-42-0 | 2,6-Dimethylnaphthalene | 1 | 5.0 | U | 0.4 | 5.0 |
| 208-96-8 | Acenaphthylene | 1 | 5.0 | U | 0.3 | 5.0 |
| 83-32-9 | Acenaphthene | 1 | 5.0 | U | 0.5 | 5.0 |
| 132-64-9 | Dibenzofuran | 1 | 5.0 | U | 0.4 | 5.0 |
| 2245-38-7 | 2,3,5-Trimethylnaphthalene | 1 | 5.0 | U | 0.4 | 5.0 |
| 86-73-7 | Fluorene | 1 | 5.0 | U | 0.5 | 5.0 |
| 95-15-8 | Benzo(b)thiophene | 1 | 5.0 | U | 0.4 | 5.0 |
| 85-01-8 | Phenanthrene | 1 | 5.0 | U | 0.9 | 5.0 |
| 120-12-7 | Anthracene | 1 | 5.0 | U | 0.05 | 5.0 |
| 86-74-8 | Carbazole | 1 | 5.0 | U | 0.7 | 5.0 |
| 832-69-9 | 1-Methylphenanthrene | 1 | 5.0 | U | 0.5 | 5.0 |
| 206-44-0 | Fluoranthene | 1 | 5.0 | U | 1.4 | 5.0 |
| 132-65-0 | Dibenzothiophene | 1 | 5.0 | U | 0.7 | 5.0 |
| 129-00-0 | Pyrene | 1 | 5.0 | U | 1.0 | 5.0 |
| 56-55-3 | Benzo(a)anthracene | 1 | 5.0 | U | 1.4 | 5.0 |
| 218-01-9 | Chrysene | 1 | 5.0 | U | 0.7 | 5.0 |
| 205-99-2 | Benzo(b)fluoranthene | 1 | 5.0 | U | 0.8 | 5.0 |
| 205-82-3 | Benzo(j)fluoranthene | 1 | 5.0 | U | 0.7 | 5.0 |
| 207-08-9 | Benzo(k)fluoranthene | 1 | 5.0 | U | 0.8 | 5.0 |
| 197-97-2 | Benzo(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 | 93.2 | 62.1 | 30 - 160 | |
| Acenaphthene-d10 | 150.00 | 106 | 70.8 | 30 - 160 | |

# Form I

## METHOD BLANK DATA SHEET

## EPA 8270E-SIM

**Blank**

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

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

Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043053.D



Date : 02-MAY-2021 01:11

Client ID:

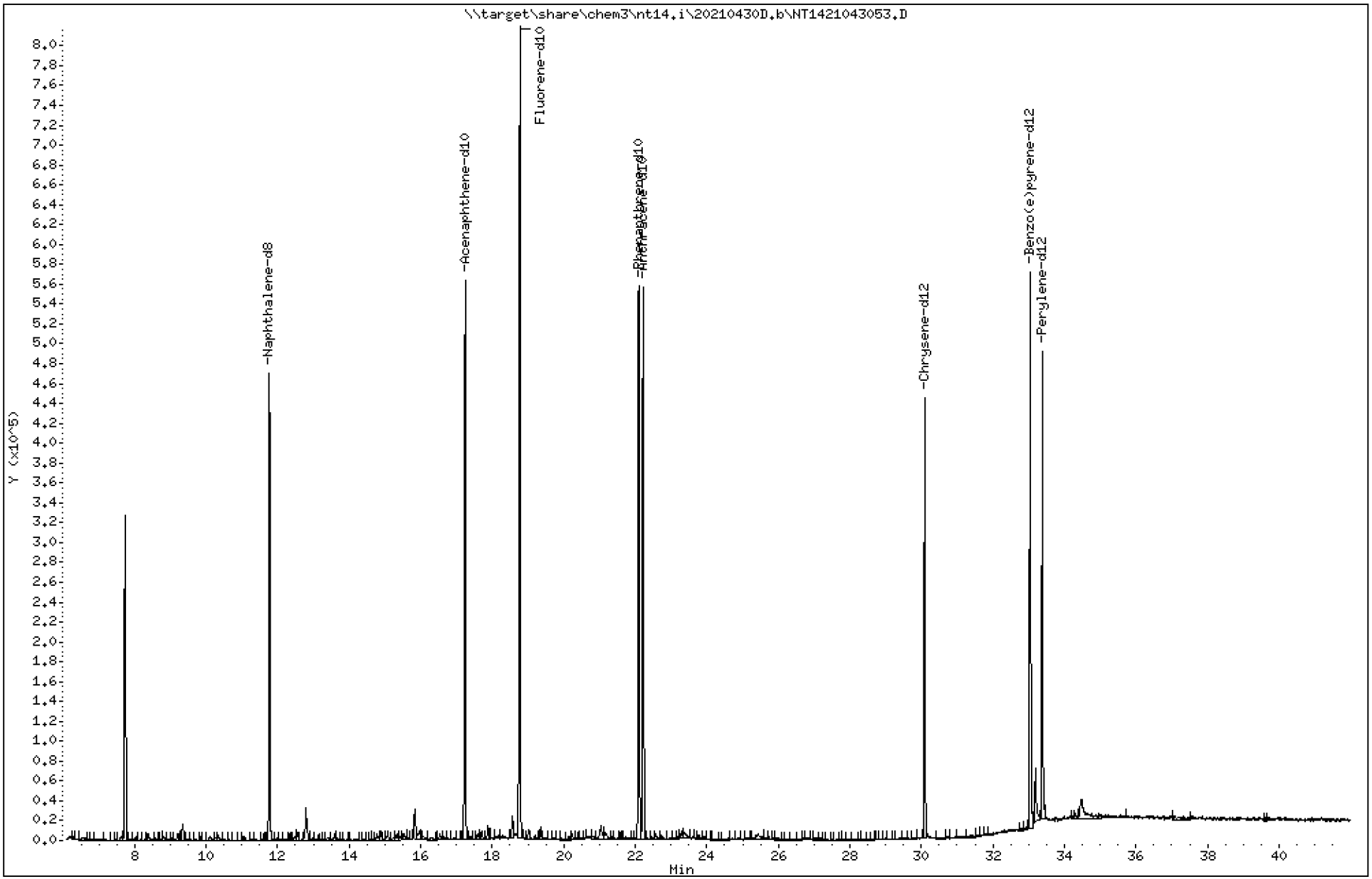
Instrument: nt14.i

Sample Info: BJD0507-BLK1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25




Revised Report 21D0180 07/07/2021 Page 566 of 1709

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430D.b\NT1421043053.D
Lab Smp Id: BJD0507-BLK1
Inj Date : 02-MAY-2021 01:11
Operator : VTS Inst ID: nt14.i
Smp Info : BJD0507-BLK1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
Meth Date : 04-May-2021 08:25 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 34
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 | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| 1 | trans-Decalin | 138 | Compound Not Detected. | | | | | |
| 2 | cis-Decalin | 138 | Compound Not Detected. | | | | | |
| $ 6 | Naphthalene-d8 | 136 | 11.766 | 11.776 | (0.627) | 631921 | 1.86414 | 1.864(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 | 17.241 | 17.241 | (0.918) | 351468 | 2.12339 | 2.123(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 | 18.772 | 18.772 | (1.000) | 587393 | 2.00000 | |
| 26 | Fluorene | 166 | Compound Not Detected. | | | | | |
| 30 | Dibenzothiophene | 184 | Compound Not Detected. | | | | | |
| $ 35 | Phenanthrene-d10 | 188 | 22.093 | 22.104 | (0.995) | 575639 | 2.08809 | 2.088(R) |
| 36 | Phenanthrene | 178 | Compound Not Detected. | | | | | |
| * 250 | Anthracene-d10 | 188 | 22.214 | 22.214 | (1.000) | 510143 | 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 | 30.084 | 30.084 | (0.910) | 428431 | 2.22416 | 2.224(R) |
| 57 | Chrysene | 228 | Compound Not Detected. | | | | | |
| 62 | Benzo(b)fluoranthene | 252 | Compound Not Detected. | | | | | |
| 63 | Benzo(k)fluoranthene | 252 | Compound Not Detected. | | | | | |
| 293 | Benzo(j)fluoranthene | 252 | Compound Not Detected. | | | | | |
| 246 | Total Benzofluoranthenes | 252 | Compound Not Detected. | | | | | |

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

## QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043053.D
Lab Smp Id: BJD0507-BLK1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
Misc Info:

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

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1421043053.D

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

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

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

NONE

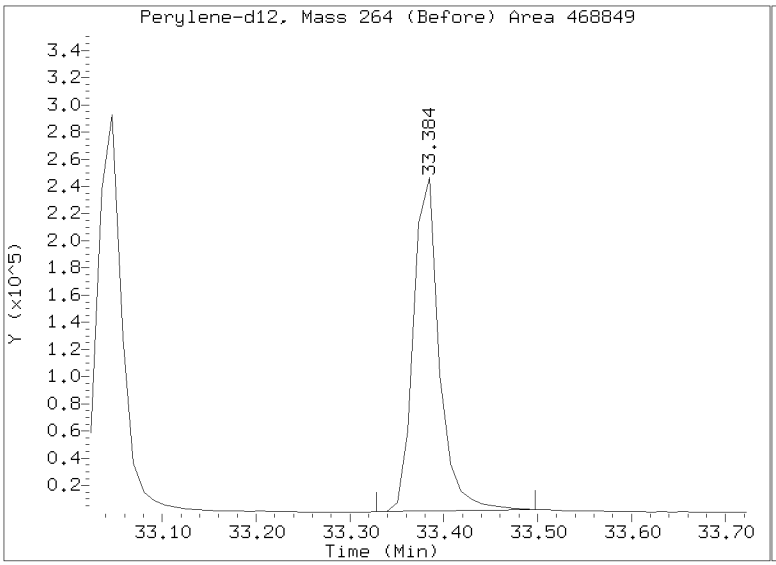
RRT check based on Ccal File: NT1421043051ICV.D

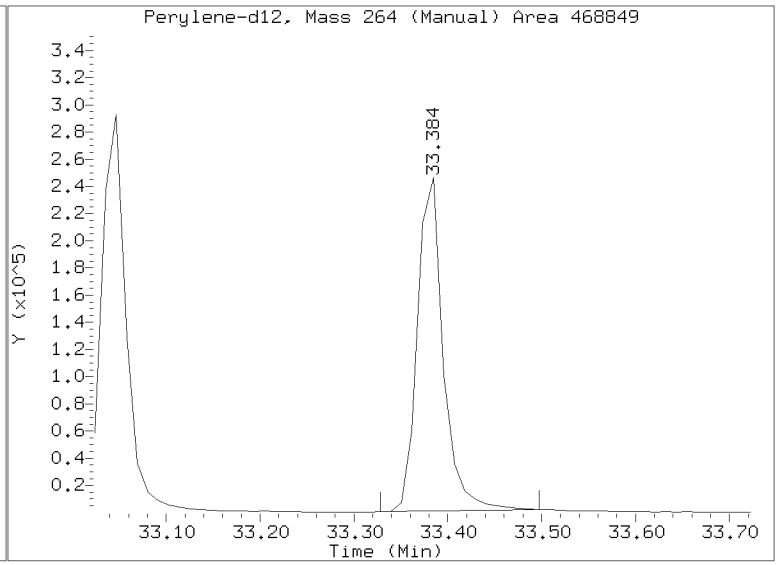
On Column LOD for nt14.i, 20210430D.b\ALKYLPNA.m, TARGETS.sub = 0.0000

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

# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043053.D
Injection Date: 02-MAY-2021 01:11
Lab ID:BJD0507-BLK1 Client ID:
Report Date: 05/04/2021 13:20



# Form I

## METHOD BLANK DATA SHEET

## EPA 8270E-SIM

**Blank**

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

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

# Form I

## METHOD BLANK DATA SHEET

## EPA 8270E-SIM

**Blank**

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

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

Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430S3S.D



Date : 02-MAY-2021 01:11

Client ID:

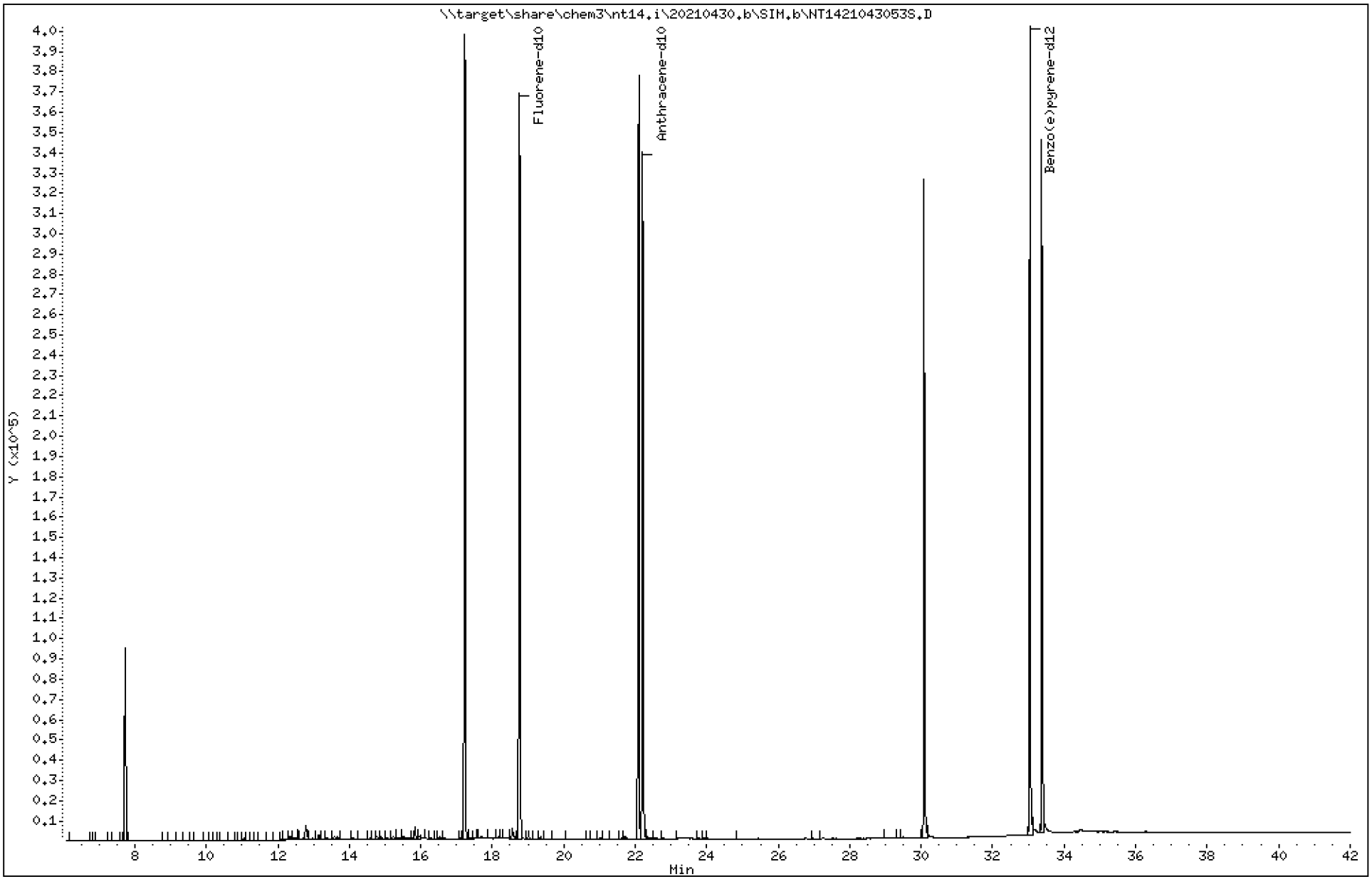
Instrument: nt14.i

Sample Info: BJD0507-BLK1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25




Revised Report 21D0180 07/07/2021 Page 574 of 1709

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT1421043053S.D
Lab Smp Id: BJD0507-BLK1
Inj Date : 02-MAY-2021 01:11
Operator : VTS Inst ID: nt14.i
Smp Info : BJD0507-BLK1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\SIM.b\ALKYLRANGES.m
Meth Date : 07-May-2021 11:15 yev Quant Type: ISTD
Cal Date : 01-MAY-2021 01:56 Cal File: NT1421043024S.D
Als bottle: 34
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ALKYLRANGES.sub
Target Version: 4.14
Processing Host: ORGDATA102

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| 3 | C1-Decalin | 152 | Compound Not Detected. | | | | | |
| 4 | C2-Decalin | 166 | Compound Not Detected. | | | | | |
| 5 | C3-Decalin | 180 | Compound Not Detected. | | | | | |
| 247 | C4-Decalin | 194 | Compound Not Detected. | | | | | |
| 8 | C1-Naphthalenes | 142 | Compound Not Detected. | | | | | |
| 9 | C2-Naphthalenes | 156 | Compound Not Detected. | | | | | |
| 10 | C3-Naphthalenes | 170 | Compound Not Detected. | | | | | |
| 11 | C4-Naphthalenes | 184 | Compound Not Detected. | | | | | |
| 13 | C1-Benzothiophenes | 148 | Compound Not Detected. | | | | | |
| 14 | C2-Benzothiophenes | 162 | Compound Not Detected. | | | | | |
| 15 | C3_Benzothiophenes | 176 | Compound Not Detected. | | | | | |
| 27 | C1-Fluorenes | 180 | Compound Not Detected. | | | | | |
| * 25 | Fluorene-d10 | 176 | 18.762 | 18.774 | (1.000) | 682587 | 2.00000 | |
| 28 | C2-Fluorenes | 194 | Compound Not Detected. | | | | | |
| 29 | C3-Fluorenes | 208 | Compound Not Detected. | | | | | |
| 31 | C1-Dibenzothiophenes | 198 | Compound Not Detected. | | | | | |
| 32 | C2-Dibenzothiophenes | 212 | Compound Not Detected. | | | | | |
| 33 | C3-Dibenzothiophenes | 226 | Compound Not Detected. | | | | | |
| 34 | C4-Dibenzothiophenes | 240 | Compound Not Detected. | | | | | |
| 38 | C1-Phenanthrenes/Anthracenes | 192 | Compound Not Detected. | | | | | |
| * 250 | Anthracene-d10 | 188 | 22.205 | 22.216 | (1.000) | 602752 | 2.00000 | |
| 39 | C2-Phenanthrenes/Anthracenes | 206 | Compound Not Detected. | | | | | |
| 40 | C3-Phenanthrenes/Anthracenes | 220 | Compound Not Detected. | | | | | |
| 41 | C4-Phenanthrenes/Anthracenes | 234 | Compound Not Detected. | | | | | |
| 48 | C1-Fluoranthenes/Pyrenes | 216 | Compound Not Detected. | | | | | |
| 49 | C2-Fluoranthenes/Pyrenes | 230 | Compound Not Detected. | | | | | |
| 50 | C3-Fluoranthenes/Pyrenes | 244 | Compound Not Detected. | | | | | |
| 249 | C4-Fluoranthenes/Pyrenes | 258 | Compound Not Detected. | | | | | |
| 52 | C1-Naphthobenzothiophenes | 248 | Compound Not Detected. | | | | | |
| 53 | C2-Naphthobenzothiophenes | 262 | Compound Not Detected. | | | | | |
| 54 | C3-Naphthobenzothiophenes | 276 | Compound Not Detected. | | | | | |
| 248 | C4-Naphthobenzothiophenes | 290 | Compound Not Detected. | | | | | |
| 58 | C1-Benzo(a)anthracenes/Chrysen | 242 | Compound Not Detected. | | | | | |

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 01-MAY-2021
Lab File ID: NT1421043053S.D Calibration Time: 01:56
Lab Smp Id: BJD0507-BLK1
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\ALKYLRANGES.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.

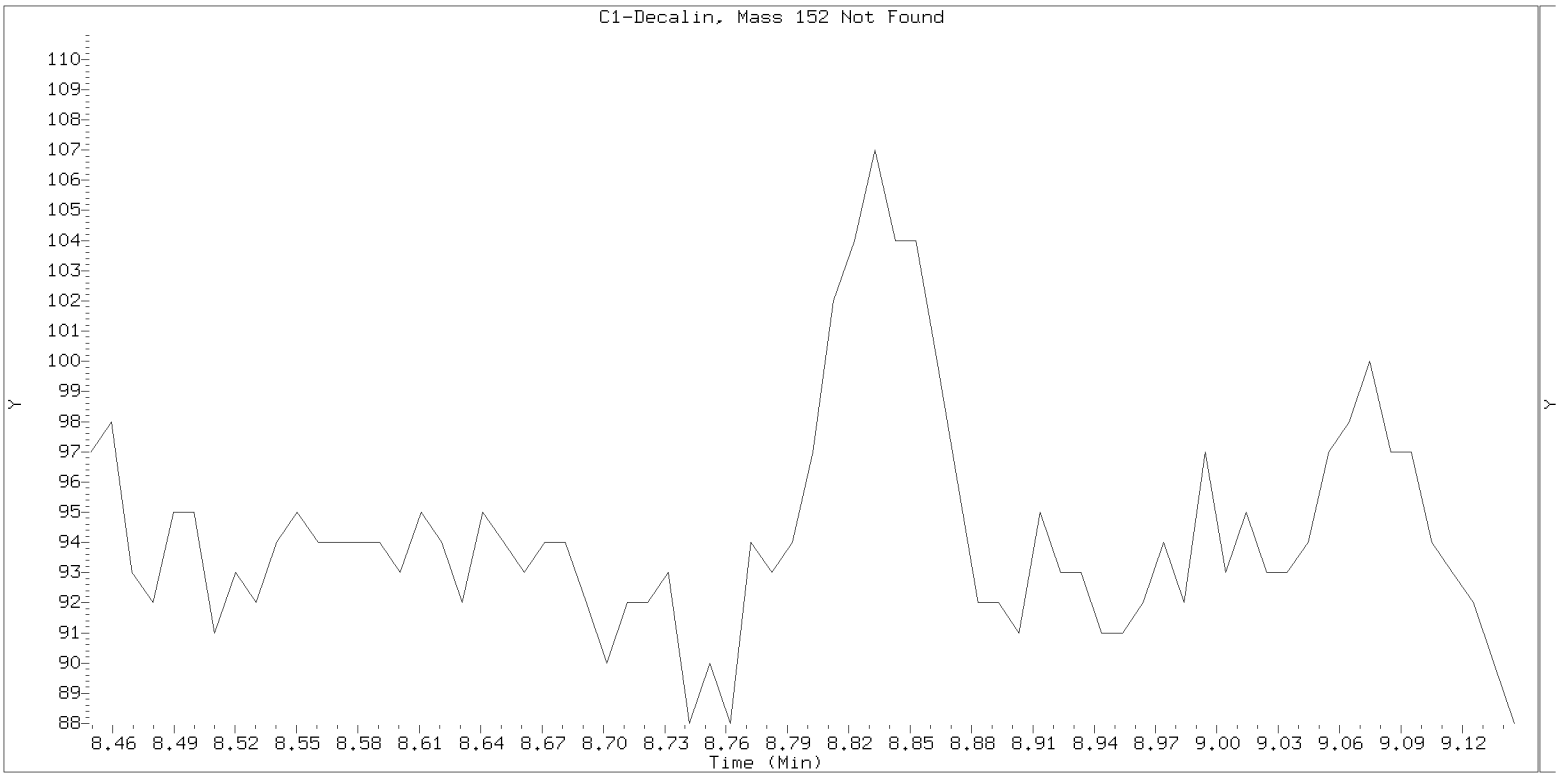
| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 25 Fluorene-d10 | 615800 | 307900 | 1231600 | 682587 | 10.85 |
| 250 Anthracene-d10 | 563384 | 281692 | 1126768 | 602752 | 6.99 |
| 251 Benzo(e)pyrene-d1 | 606671 | 303336 | 1213342 | 662179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

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

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

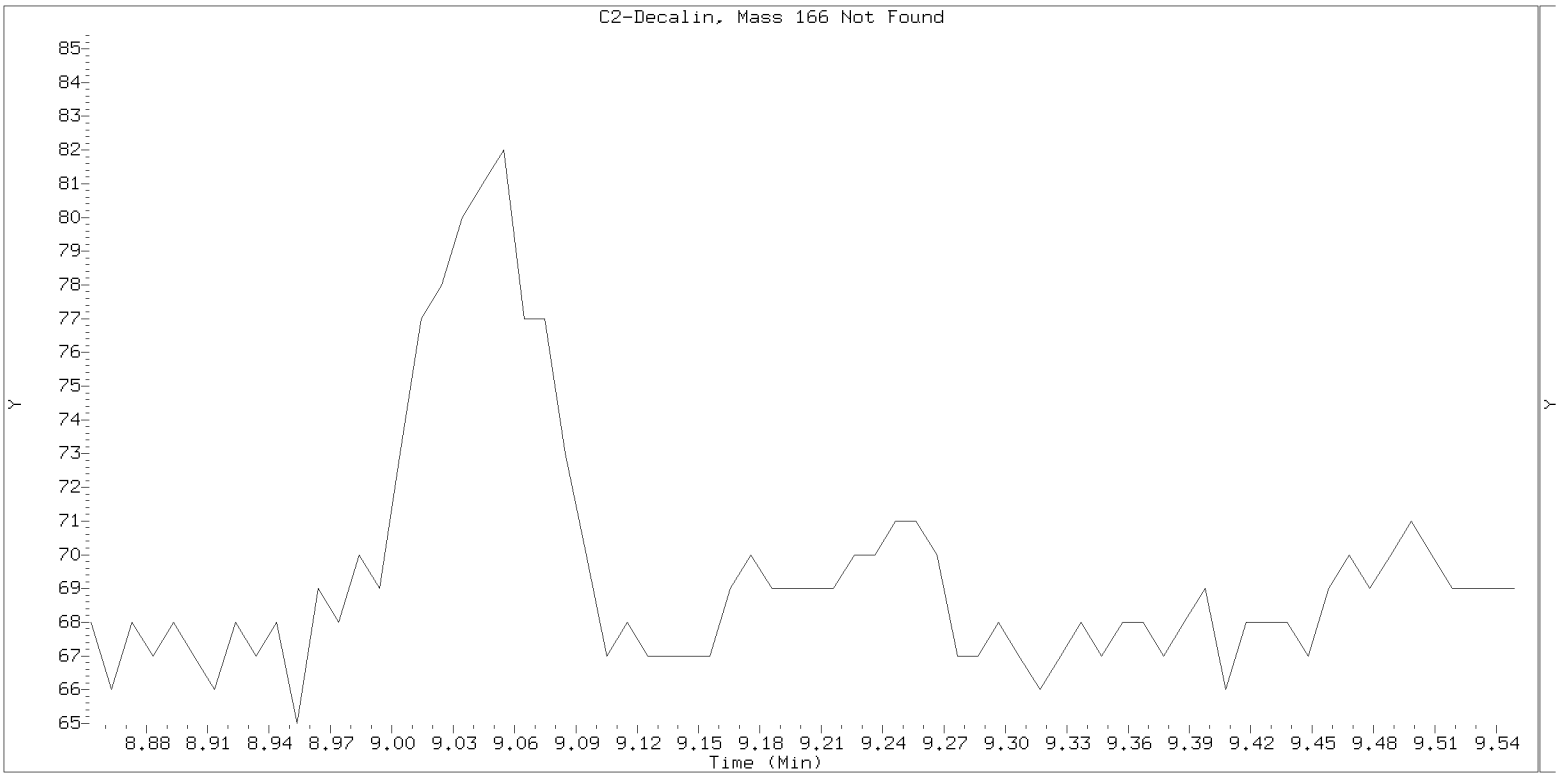
SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

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



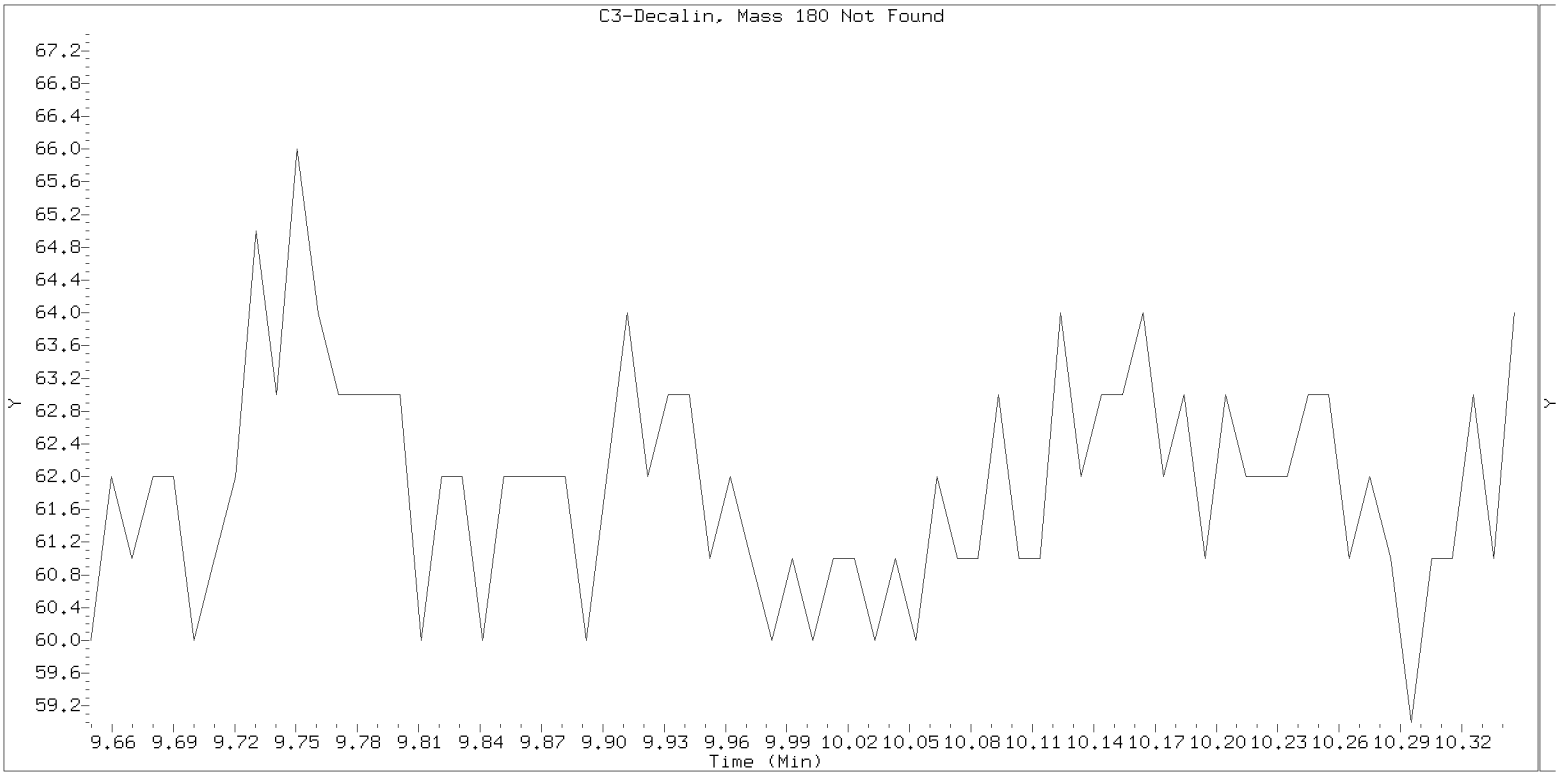
SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

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



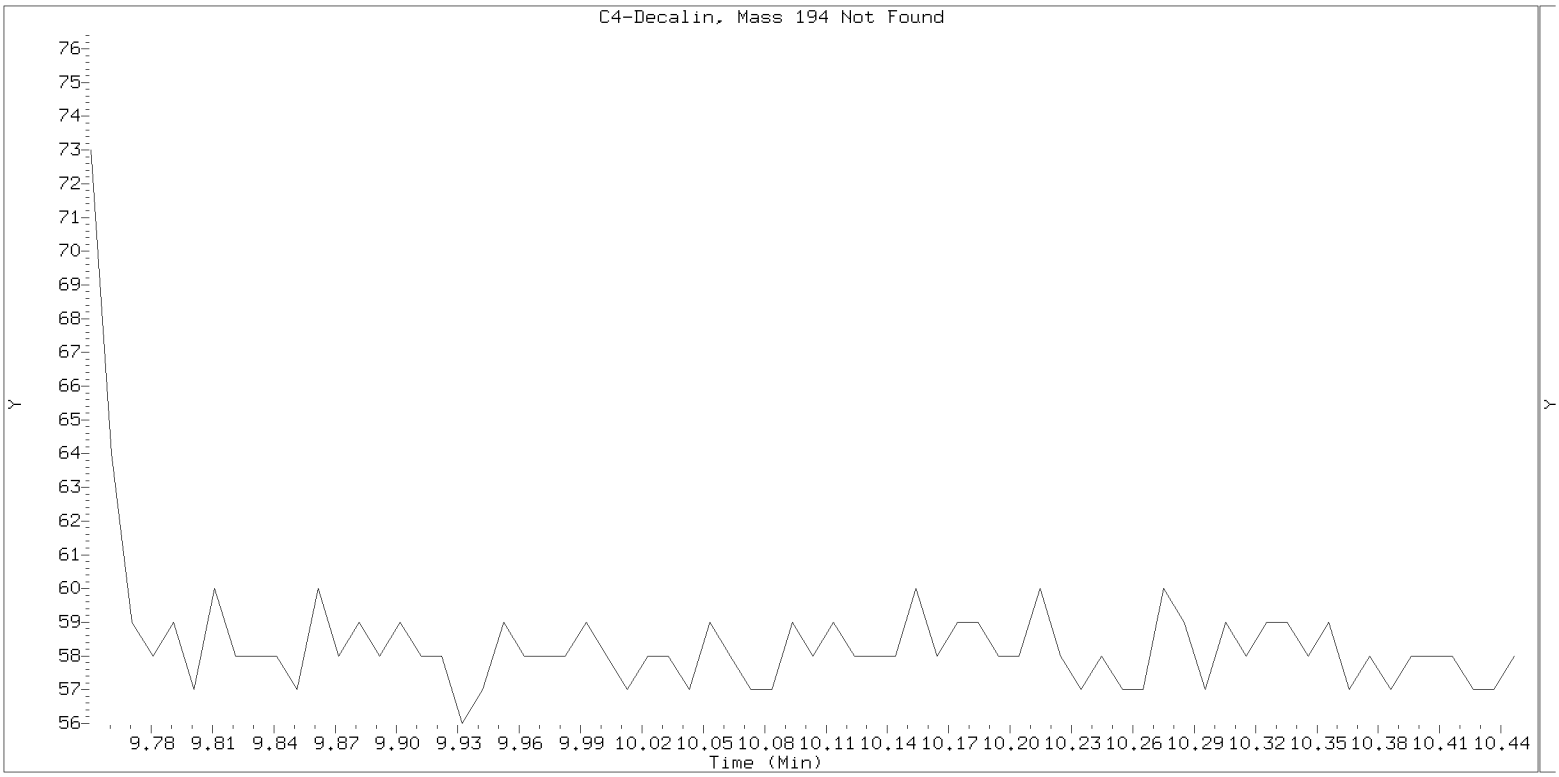
SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

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



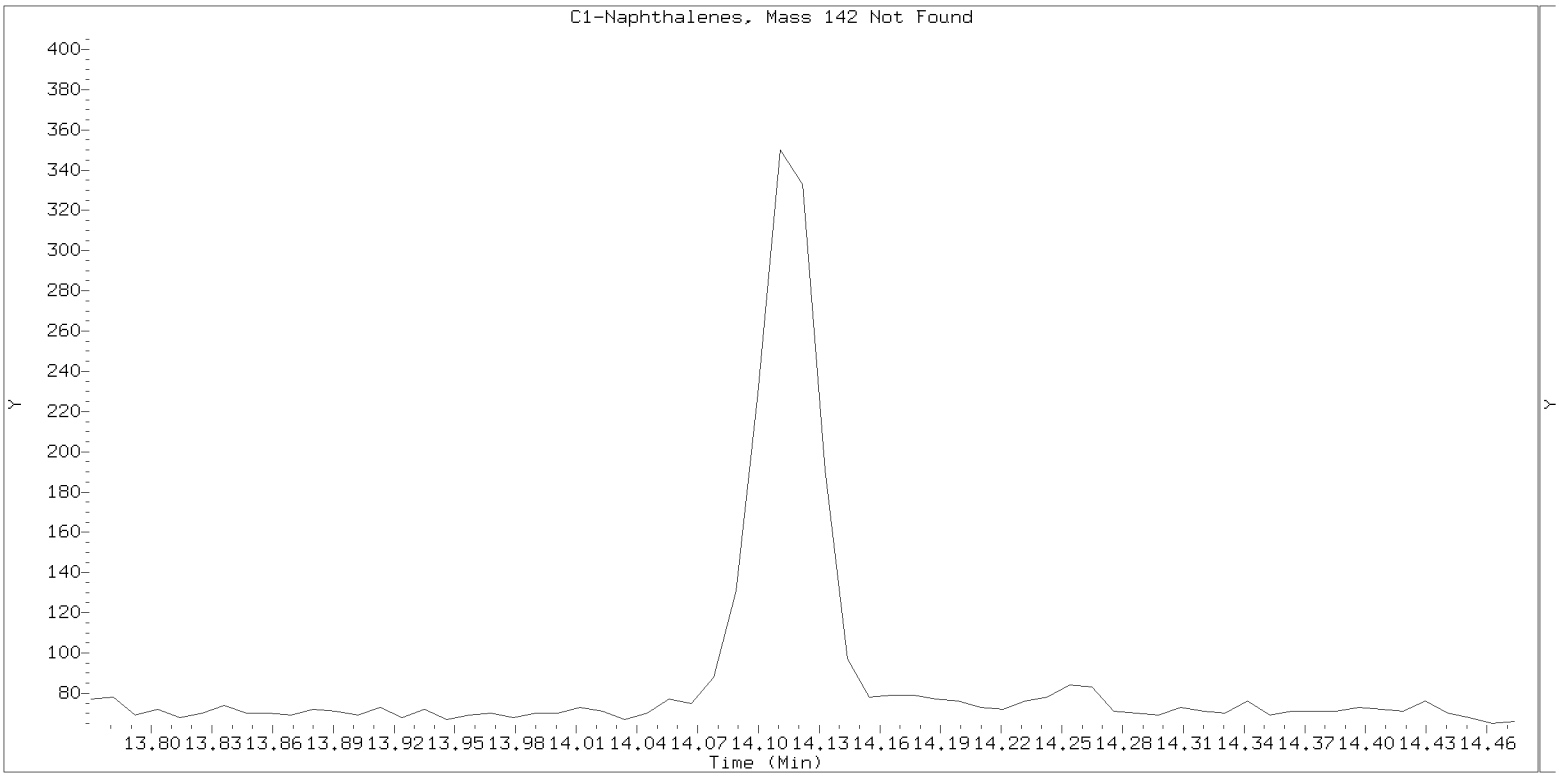
SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

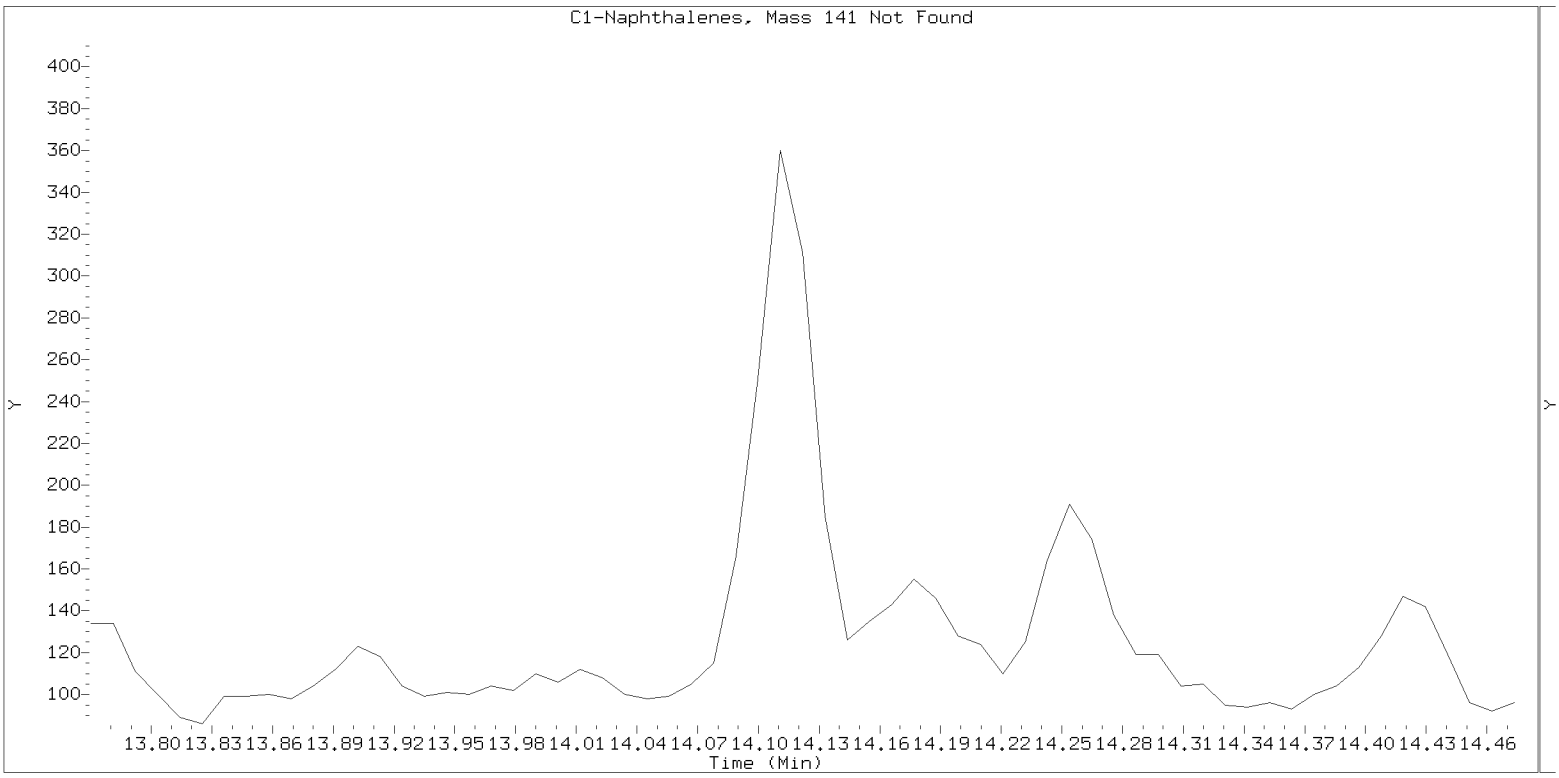
Lab ID: BJD0507-BLK1
nt14.i,  SIM.b\ALKYLRANGES.m,  02-MAY-2021 01:11

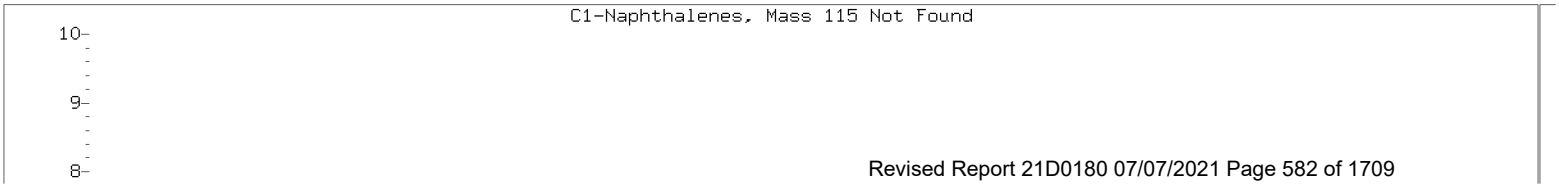


SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

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

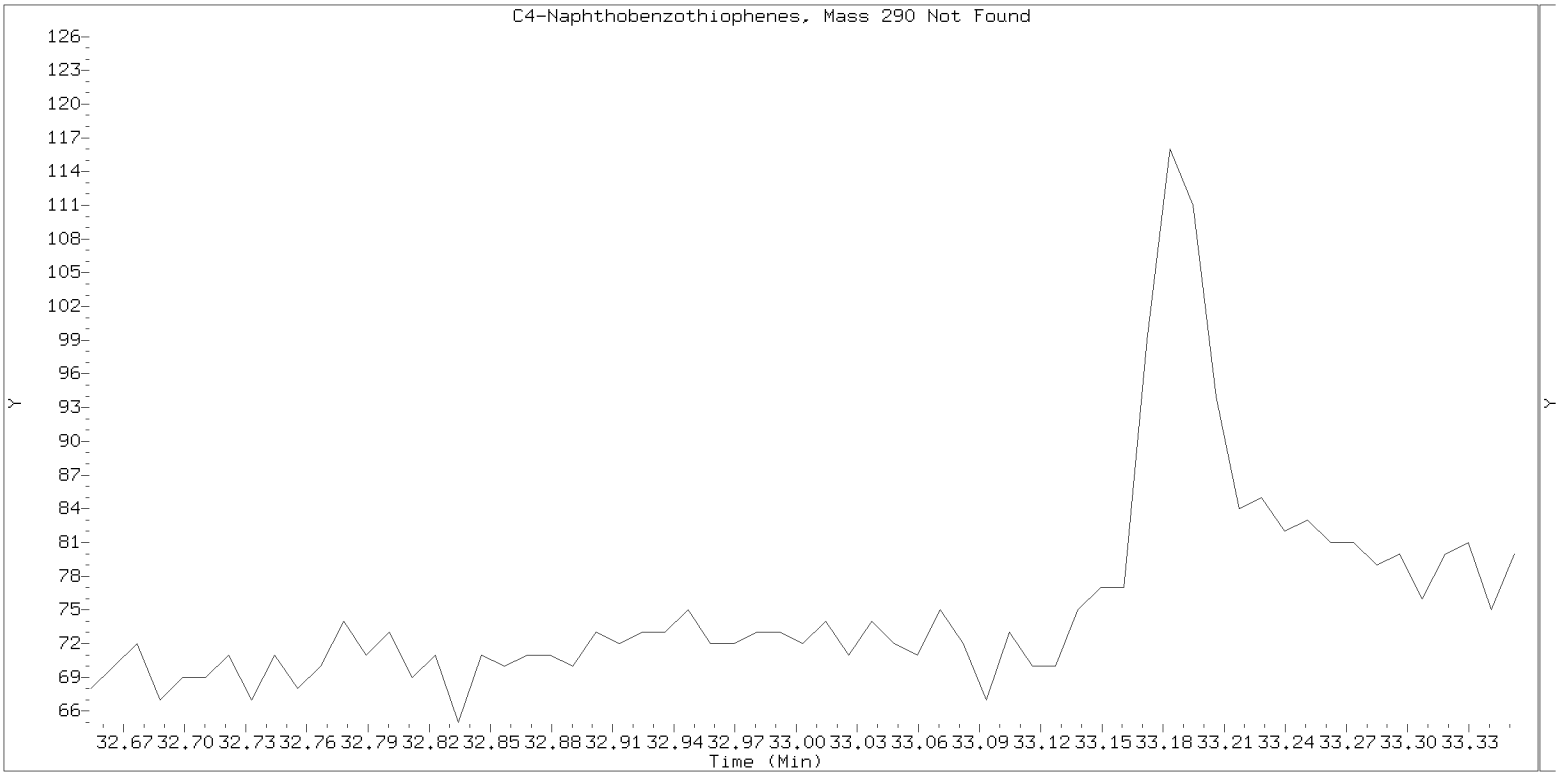


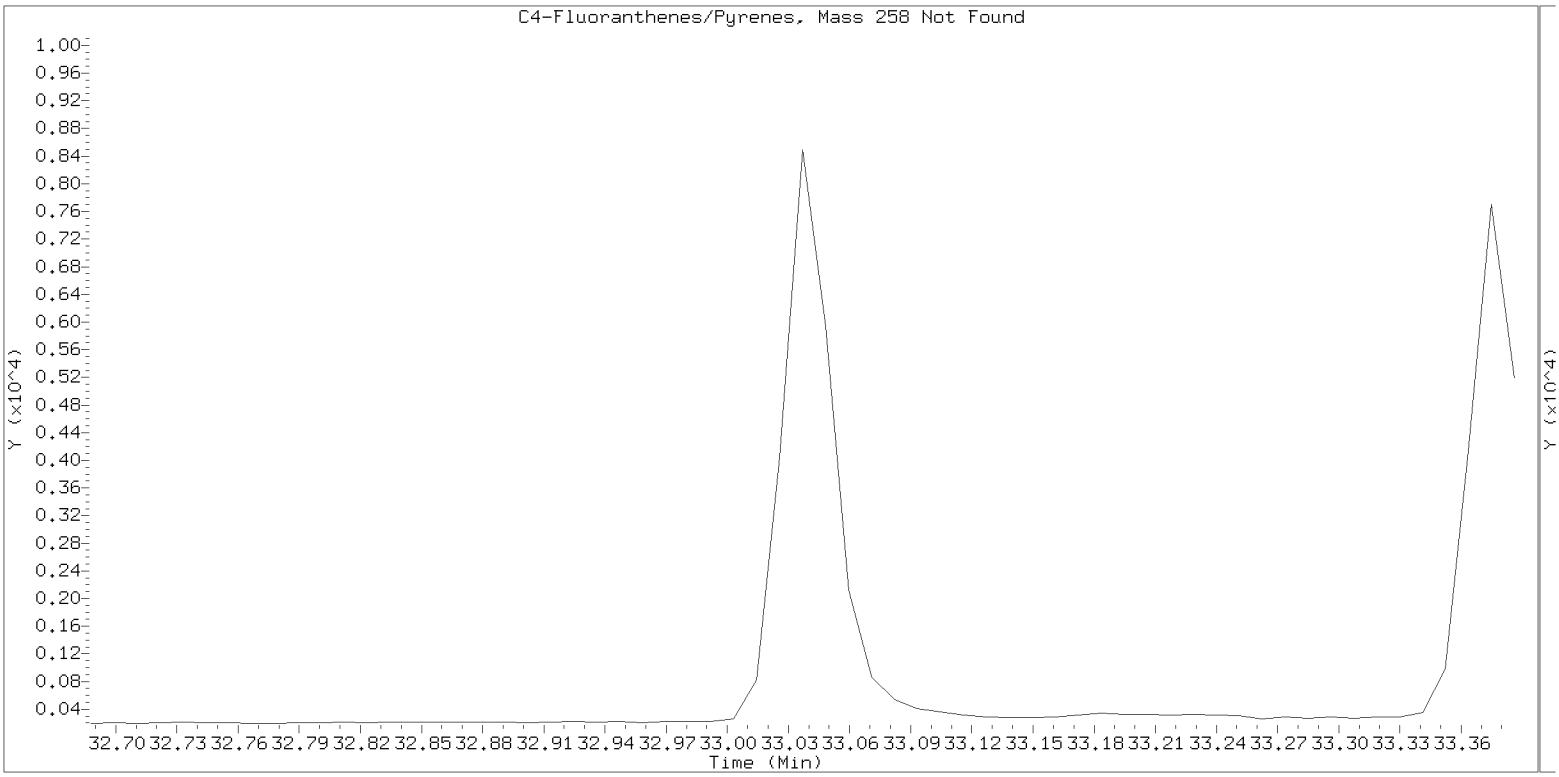
SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

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



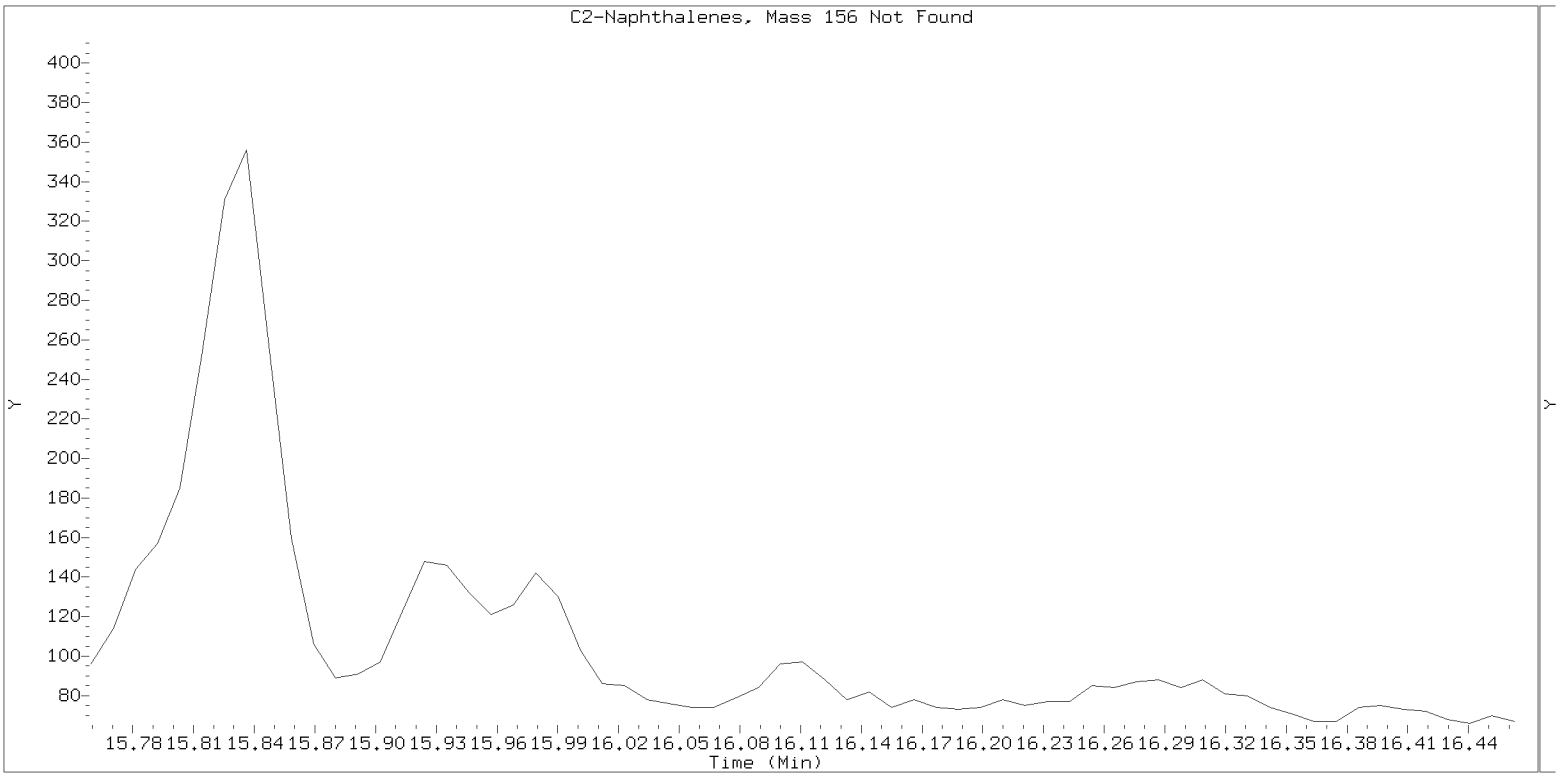
SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

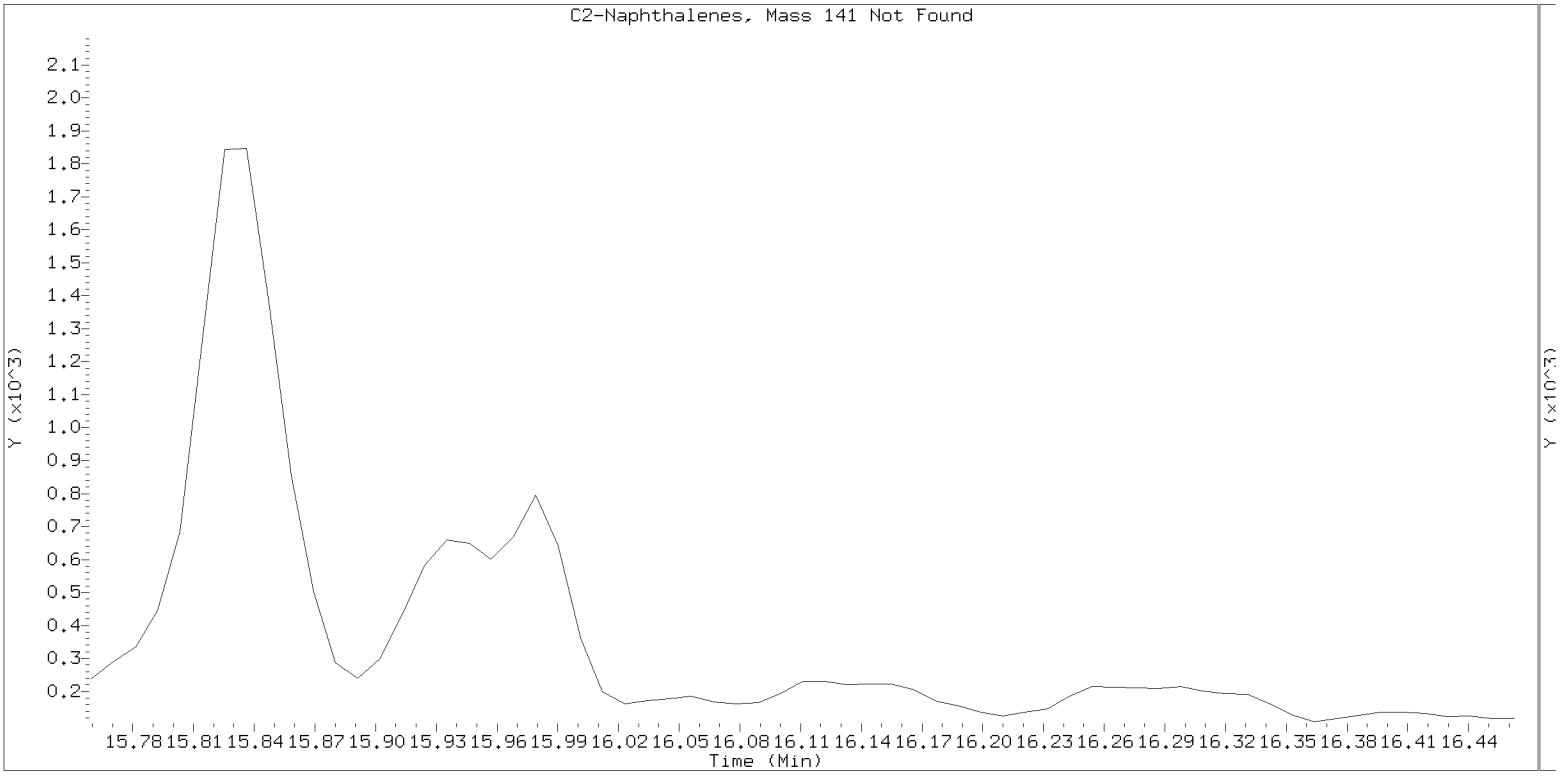
Lab ID: BJD0507-BLK1
nt14.i,  SIM.b\ALKYLRANGES.m,  02-MAY-2021 01:11

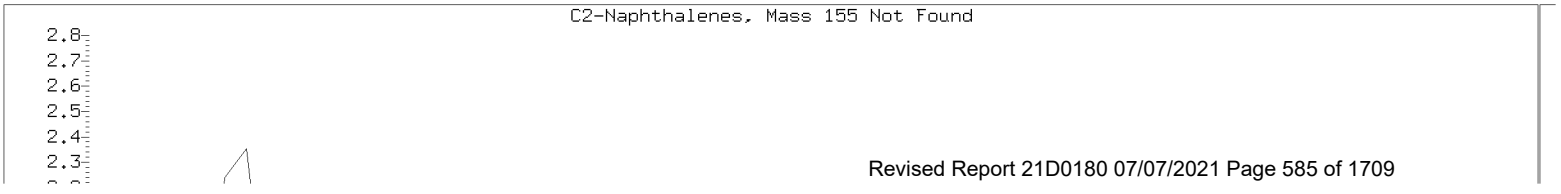


SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

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

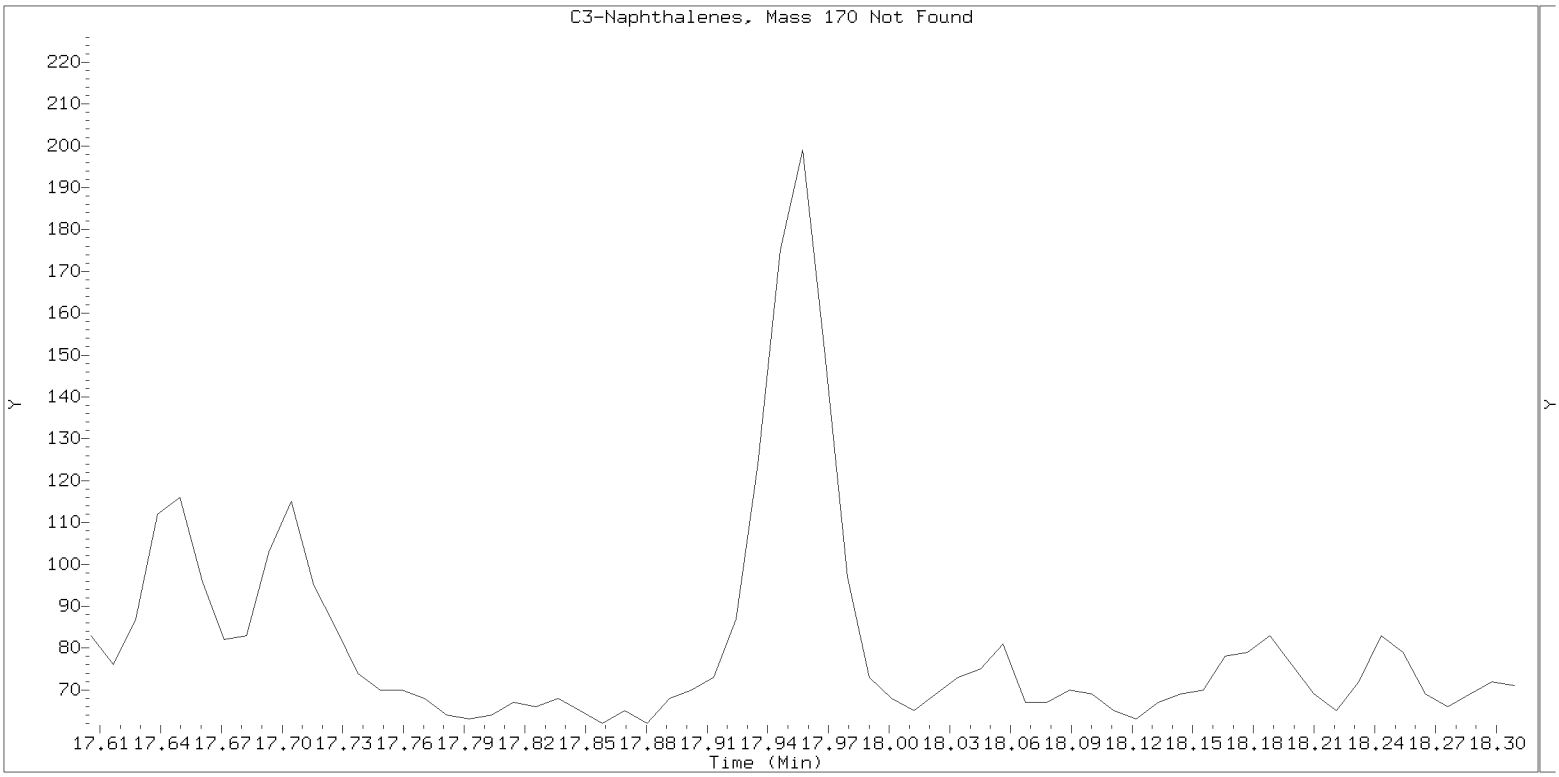


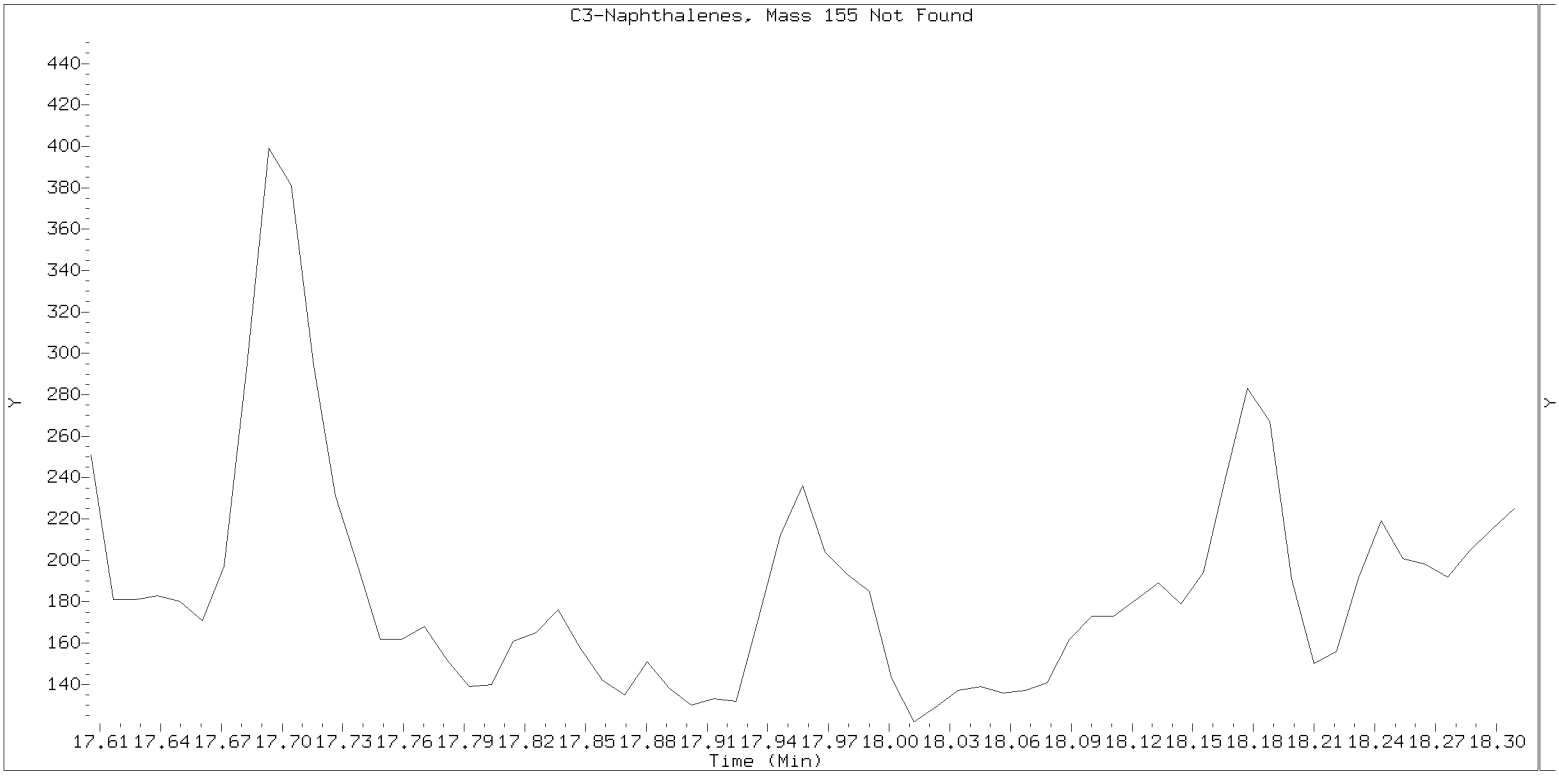



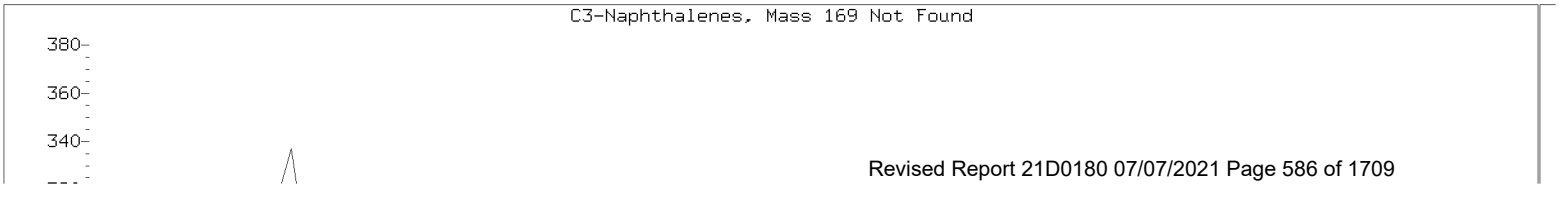



SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

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



SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

Lab ID: BJD0507-BLK1
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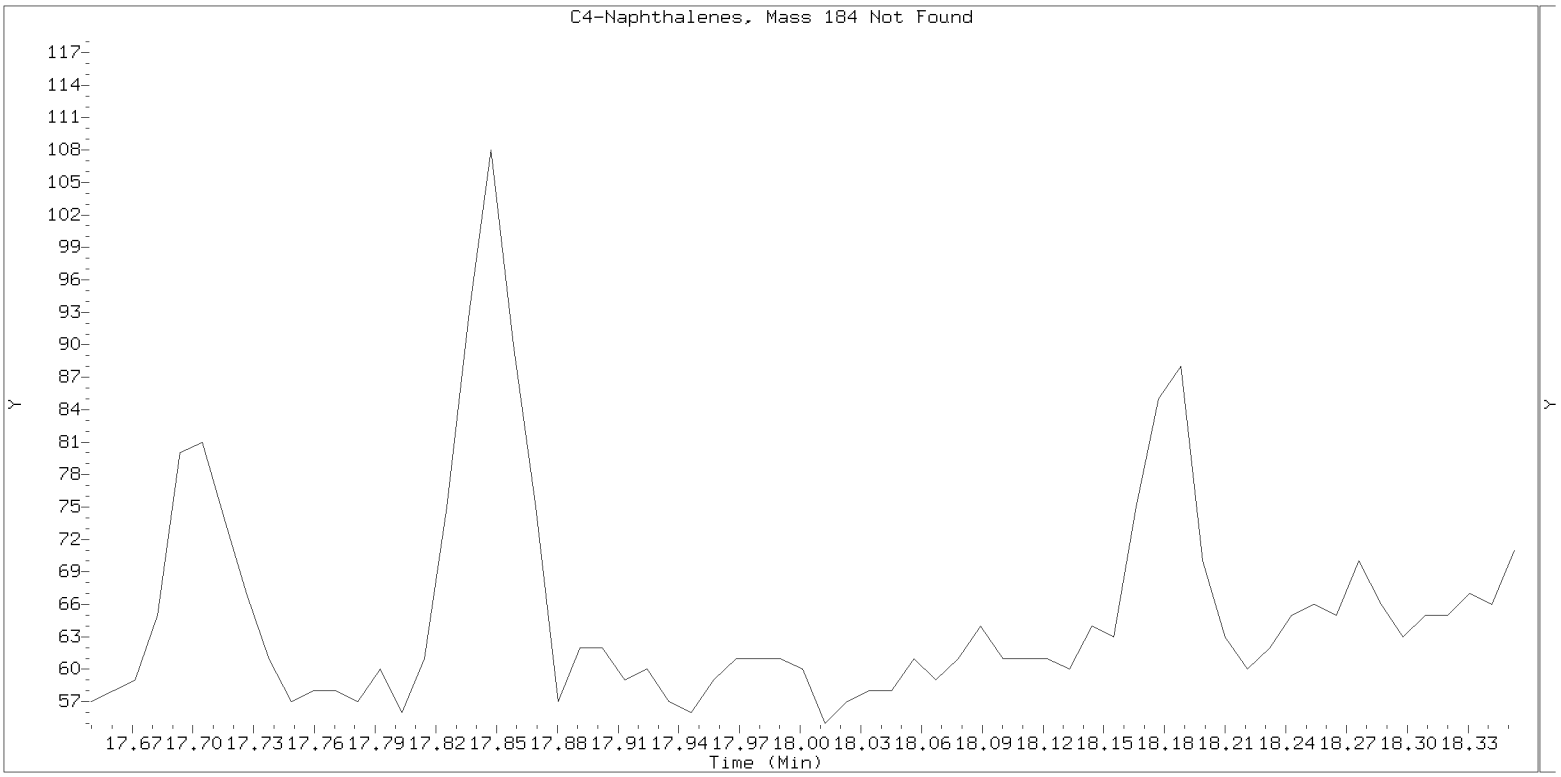


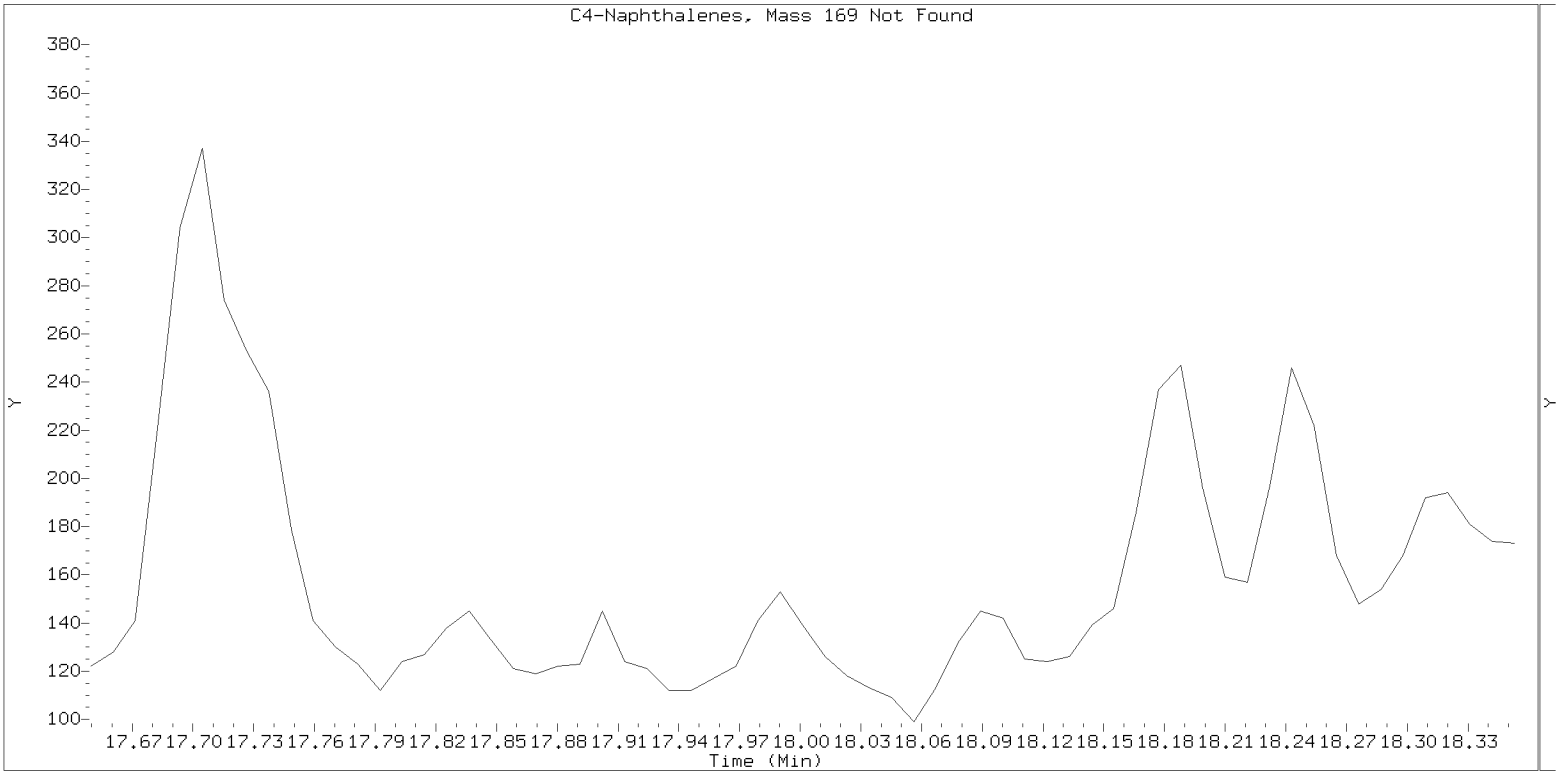


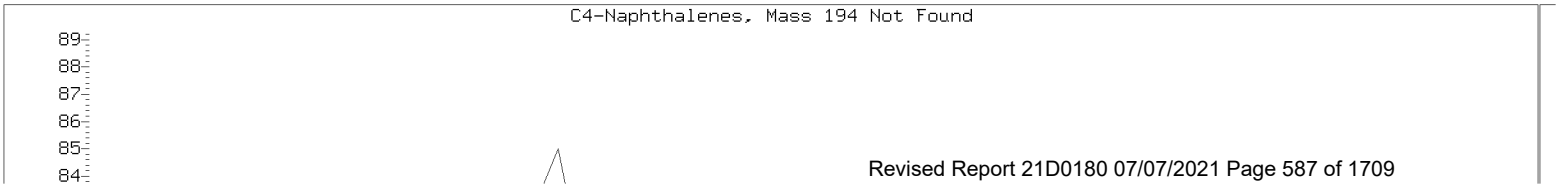

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

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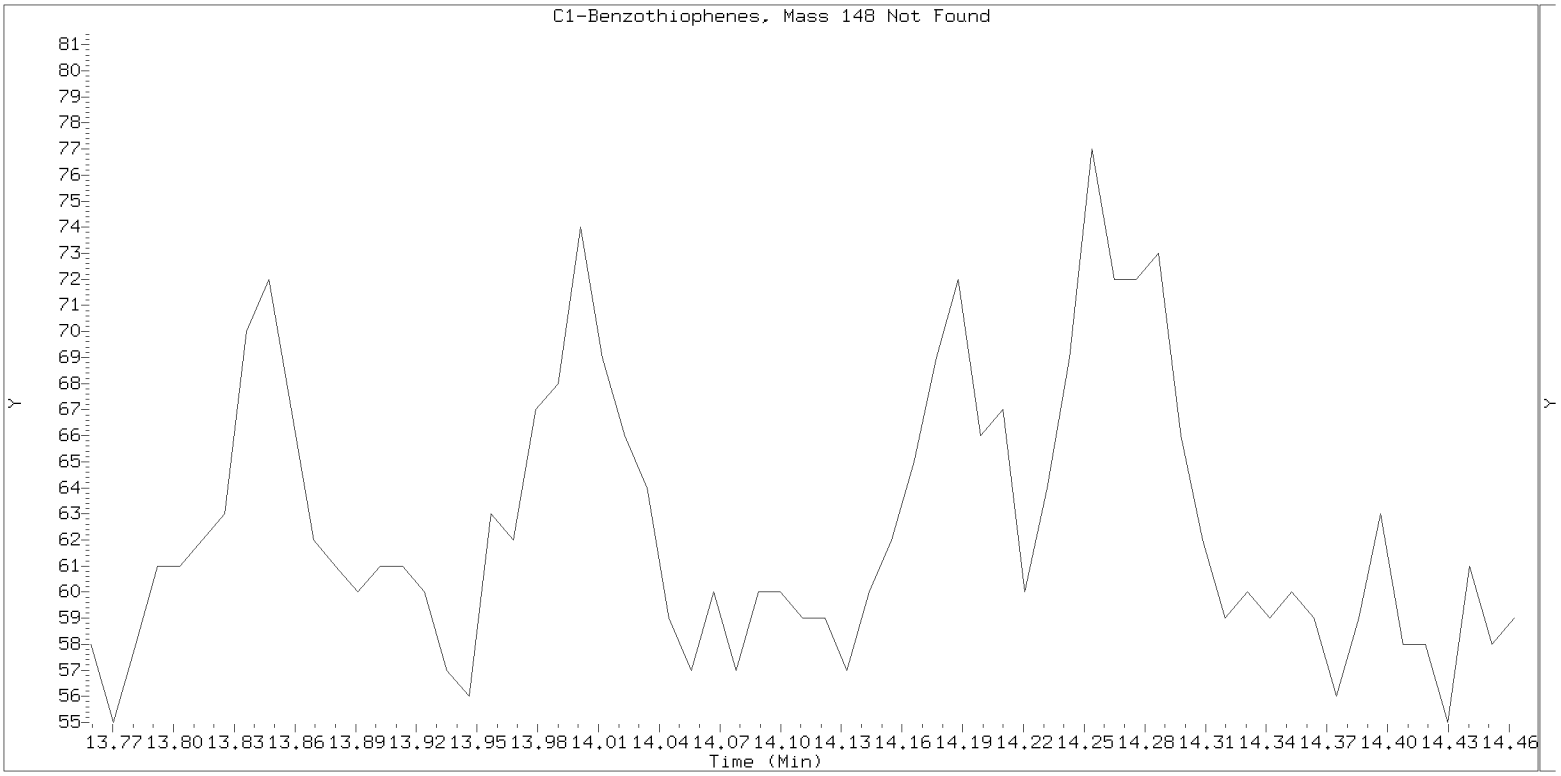


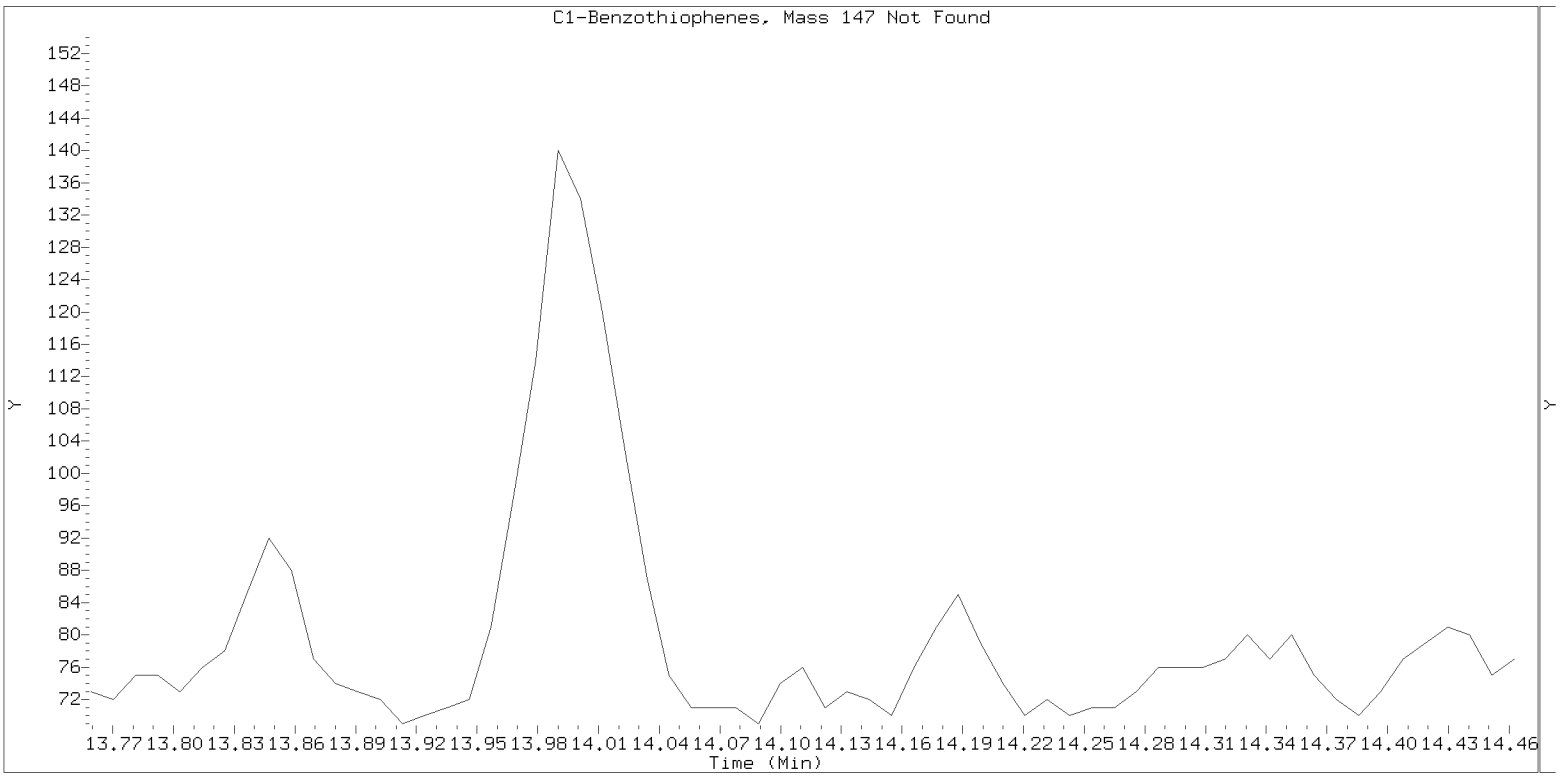

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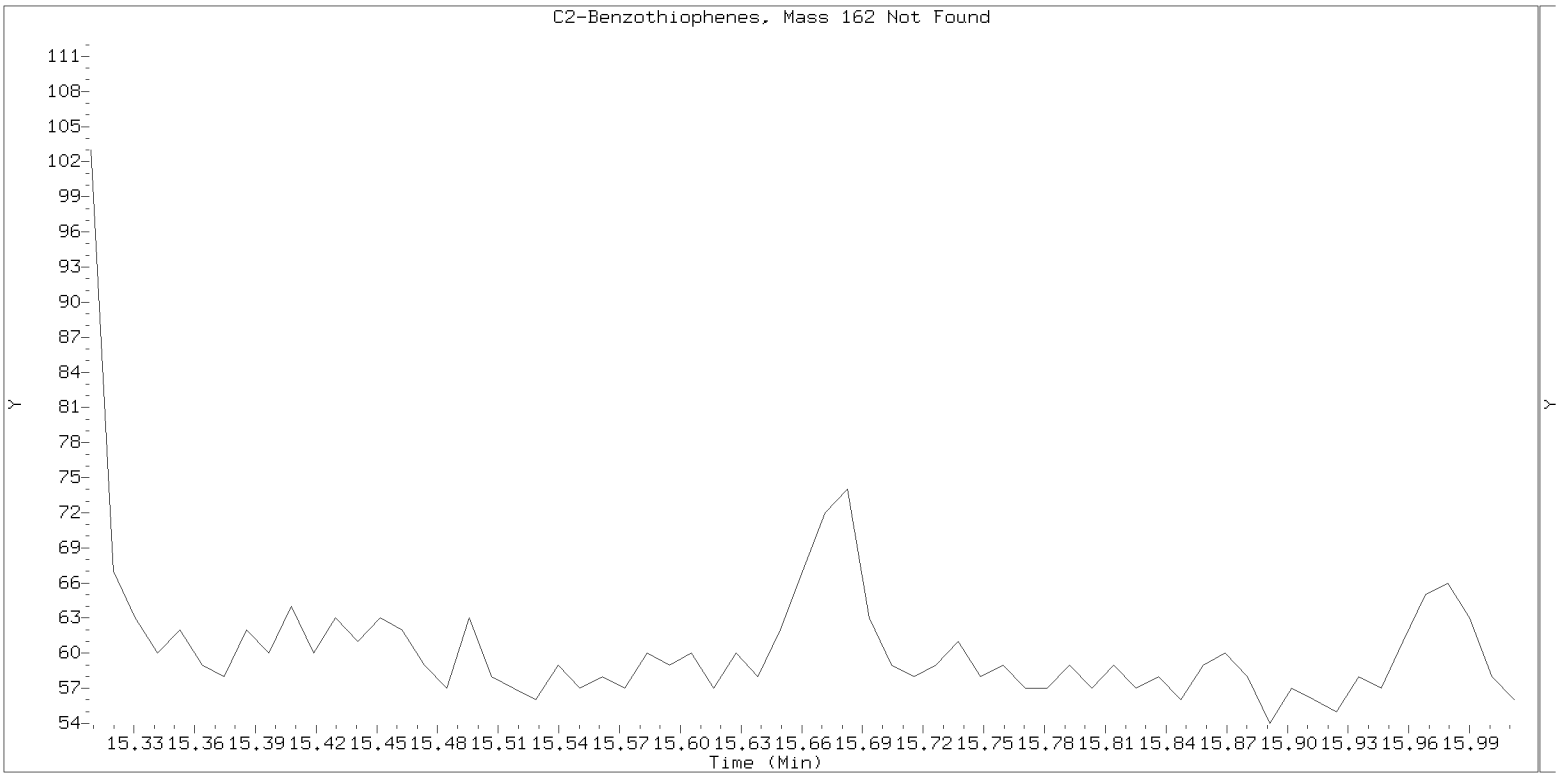


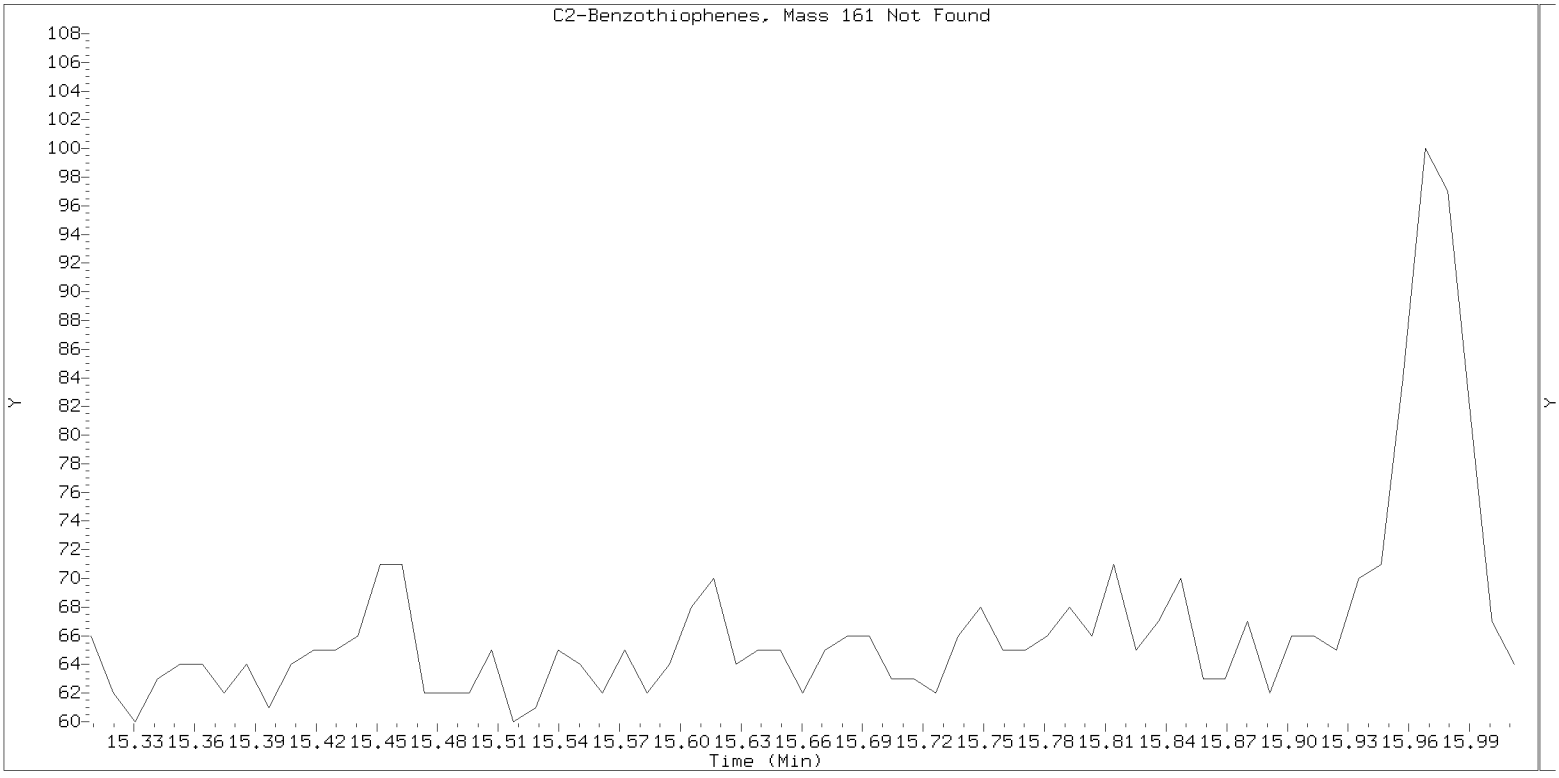


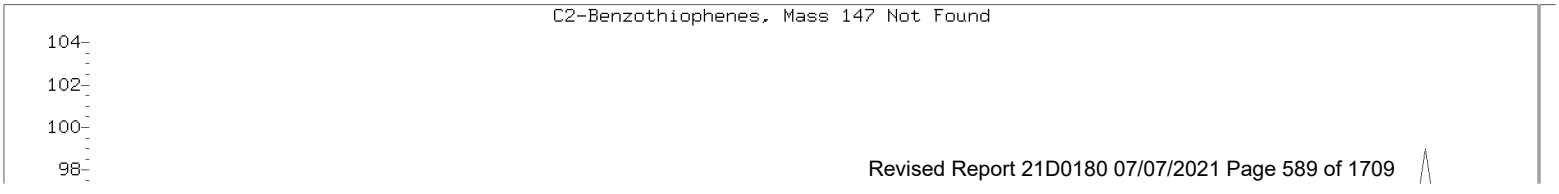

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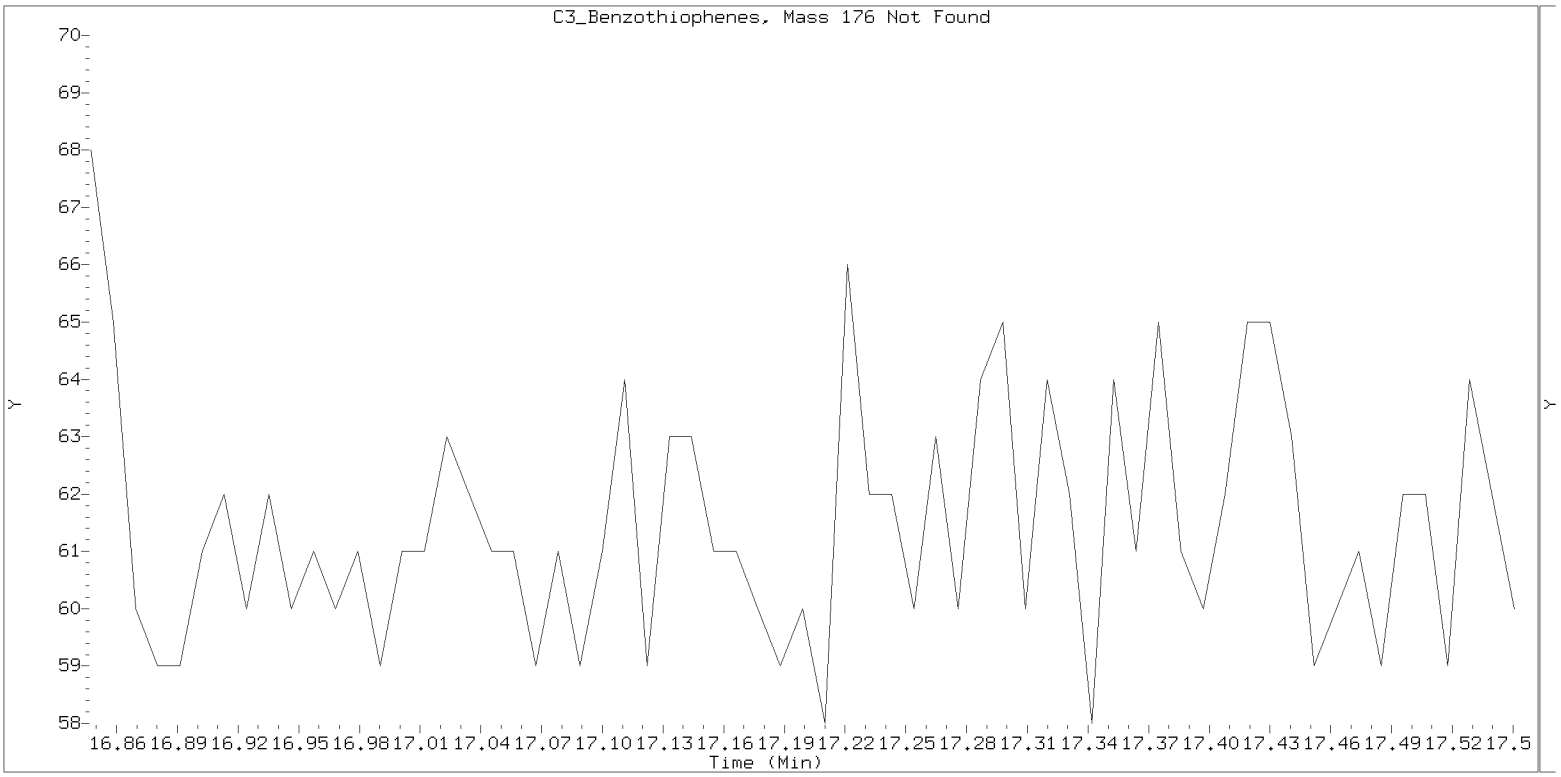


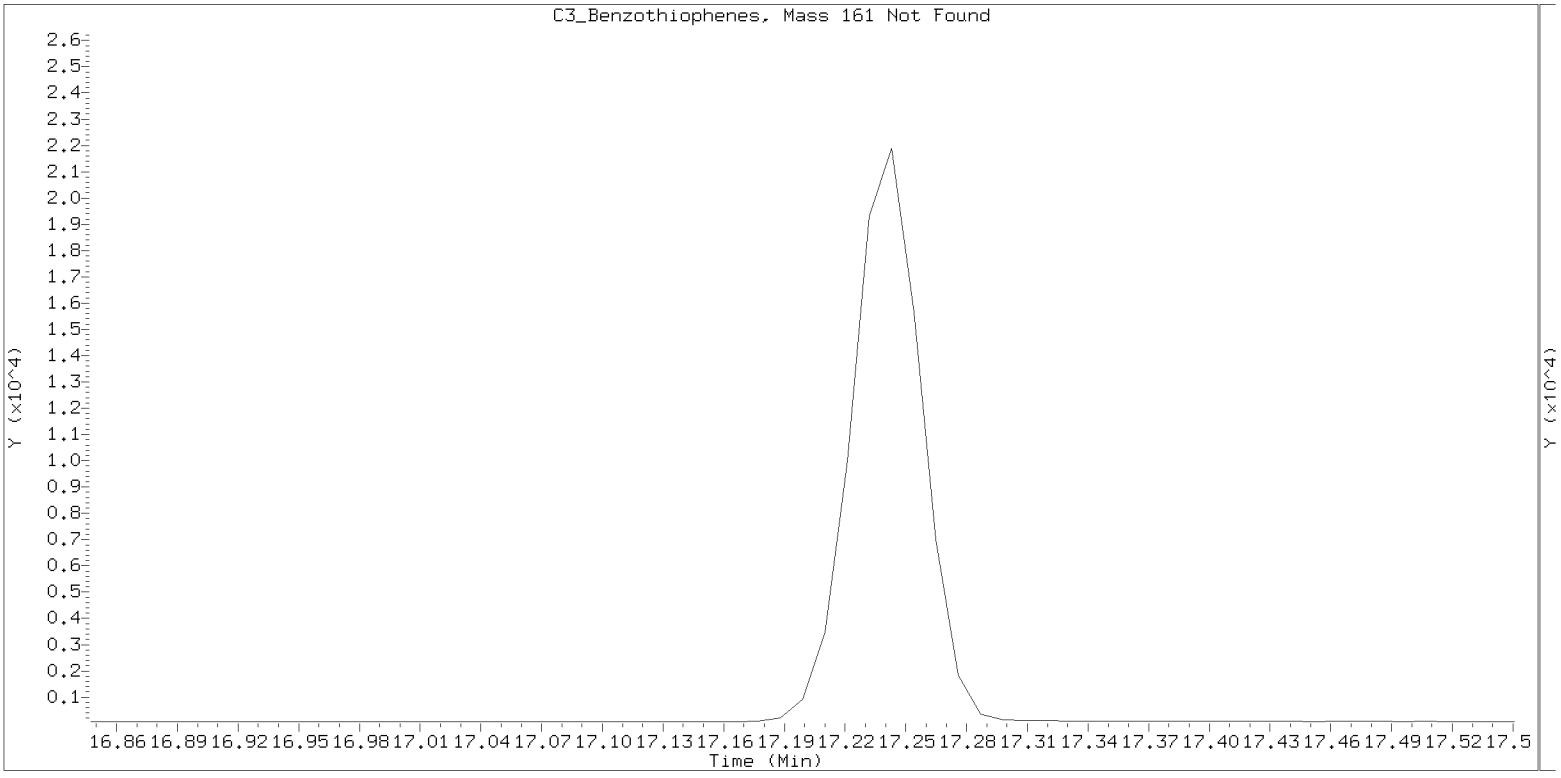


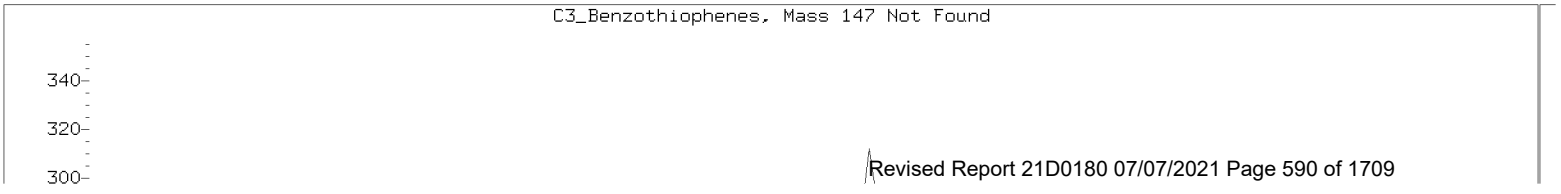

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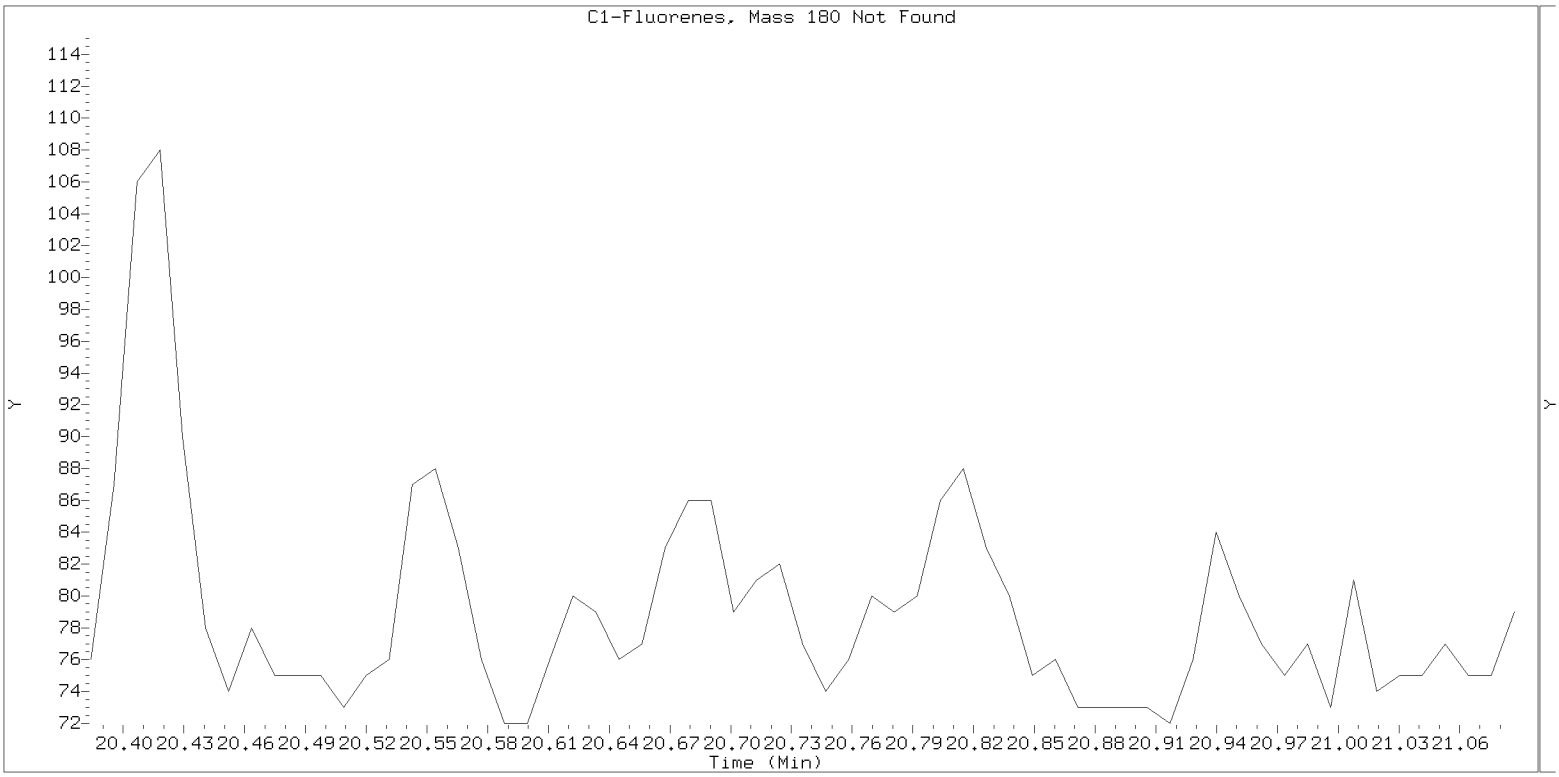


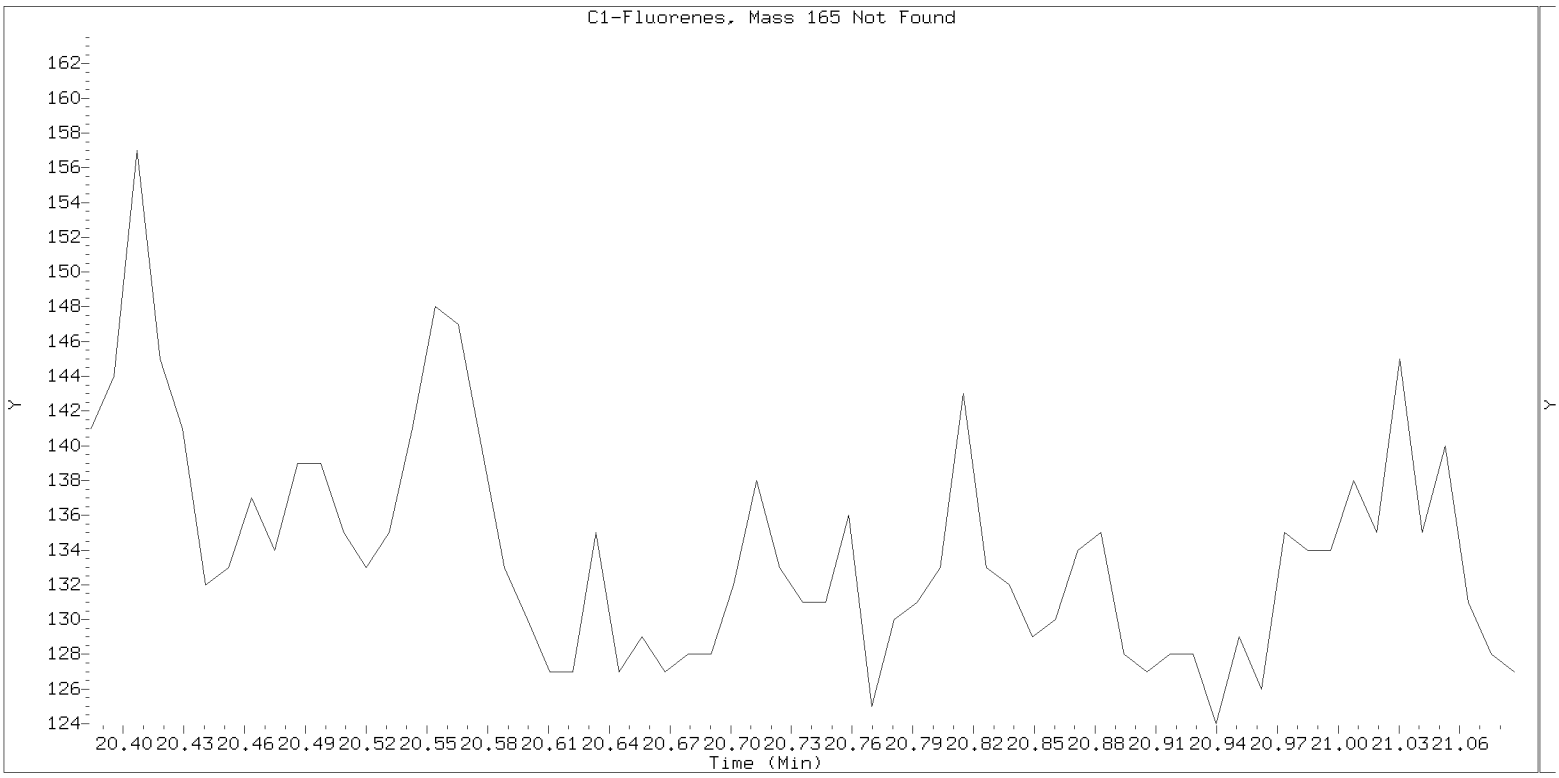


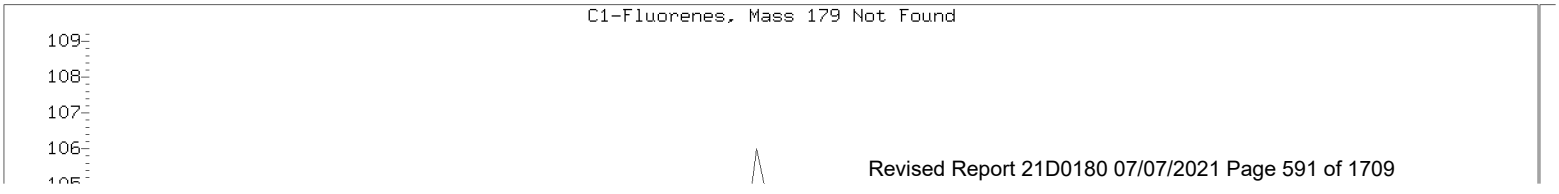

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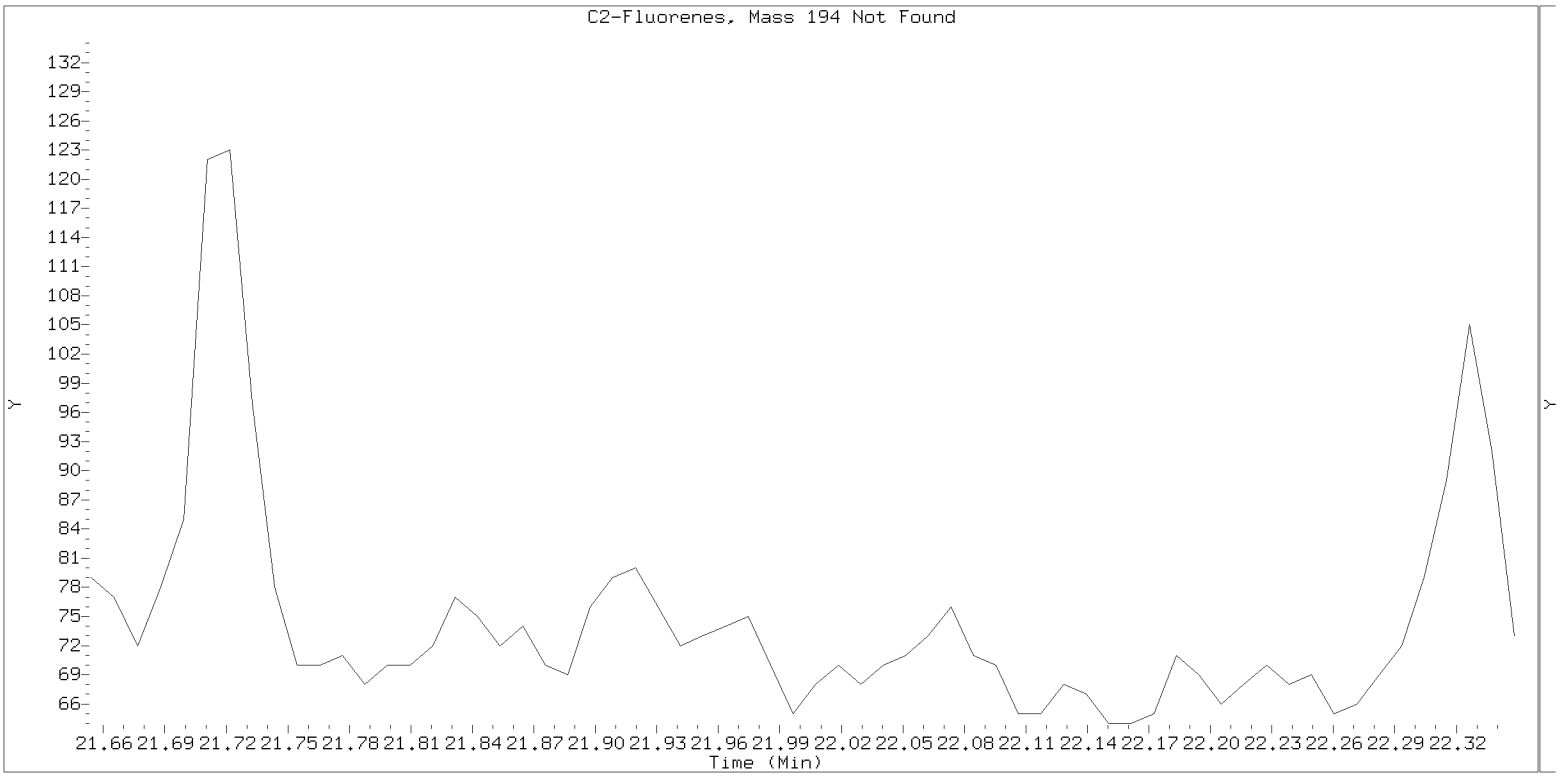


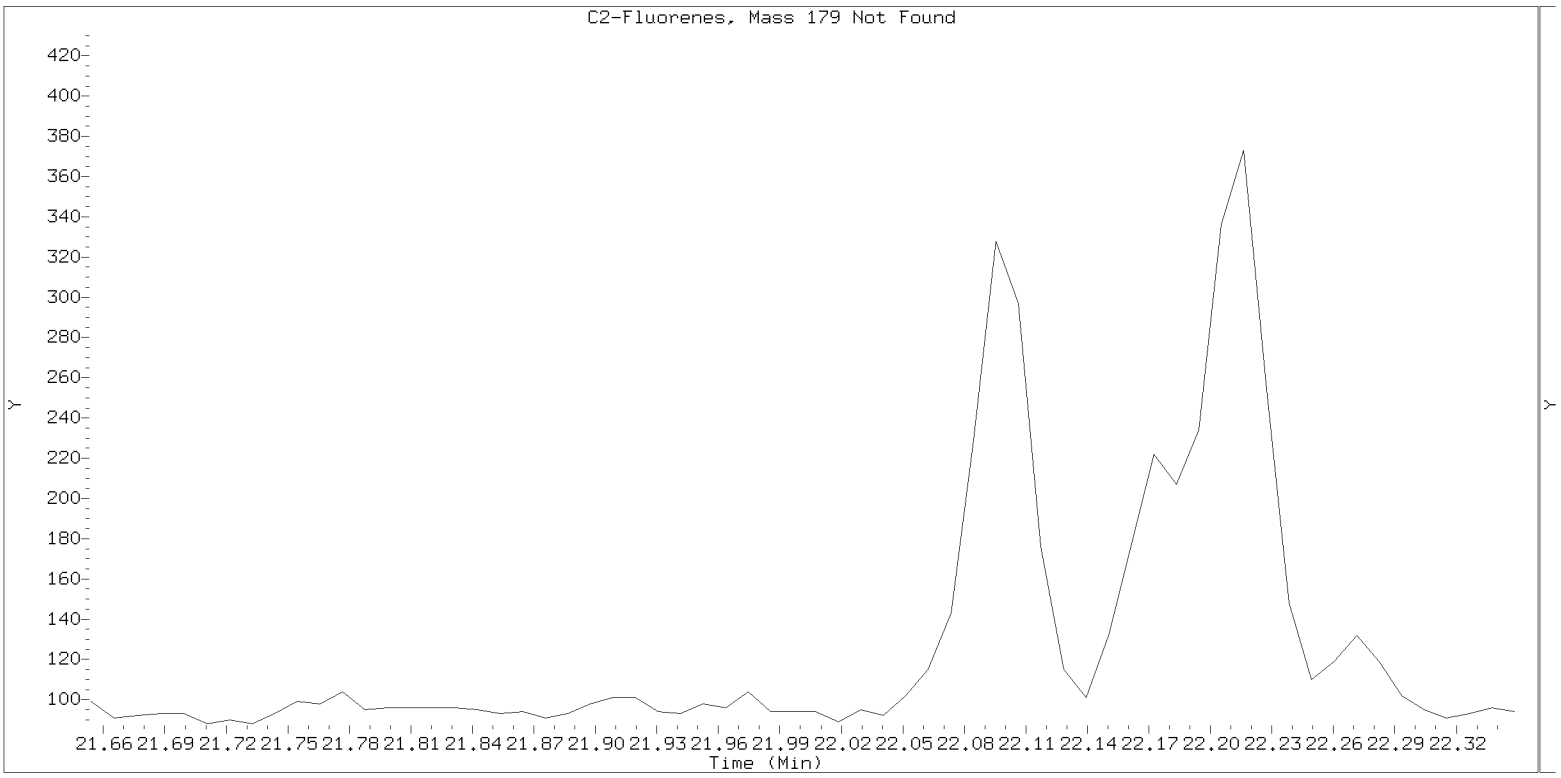


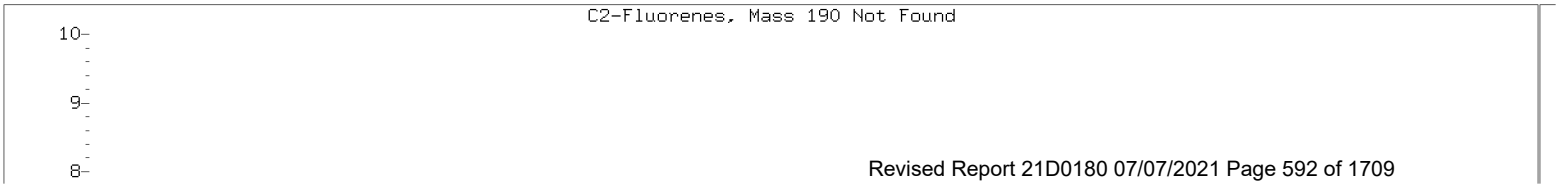

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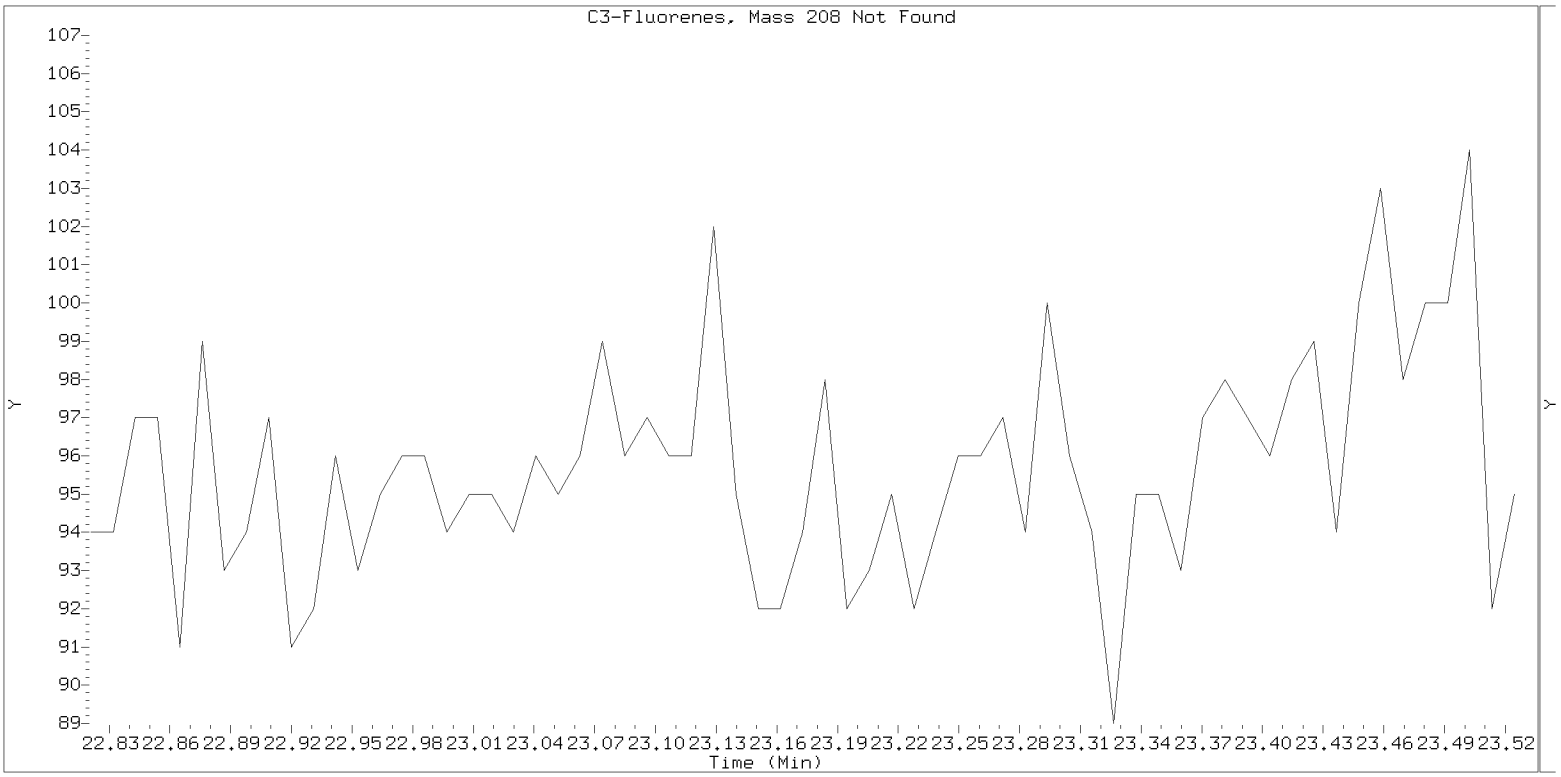


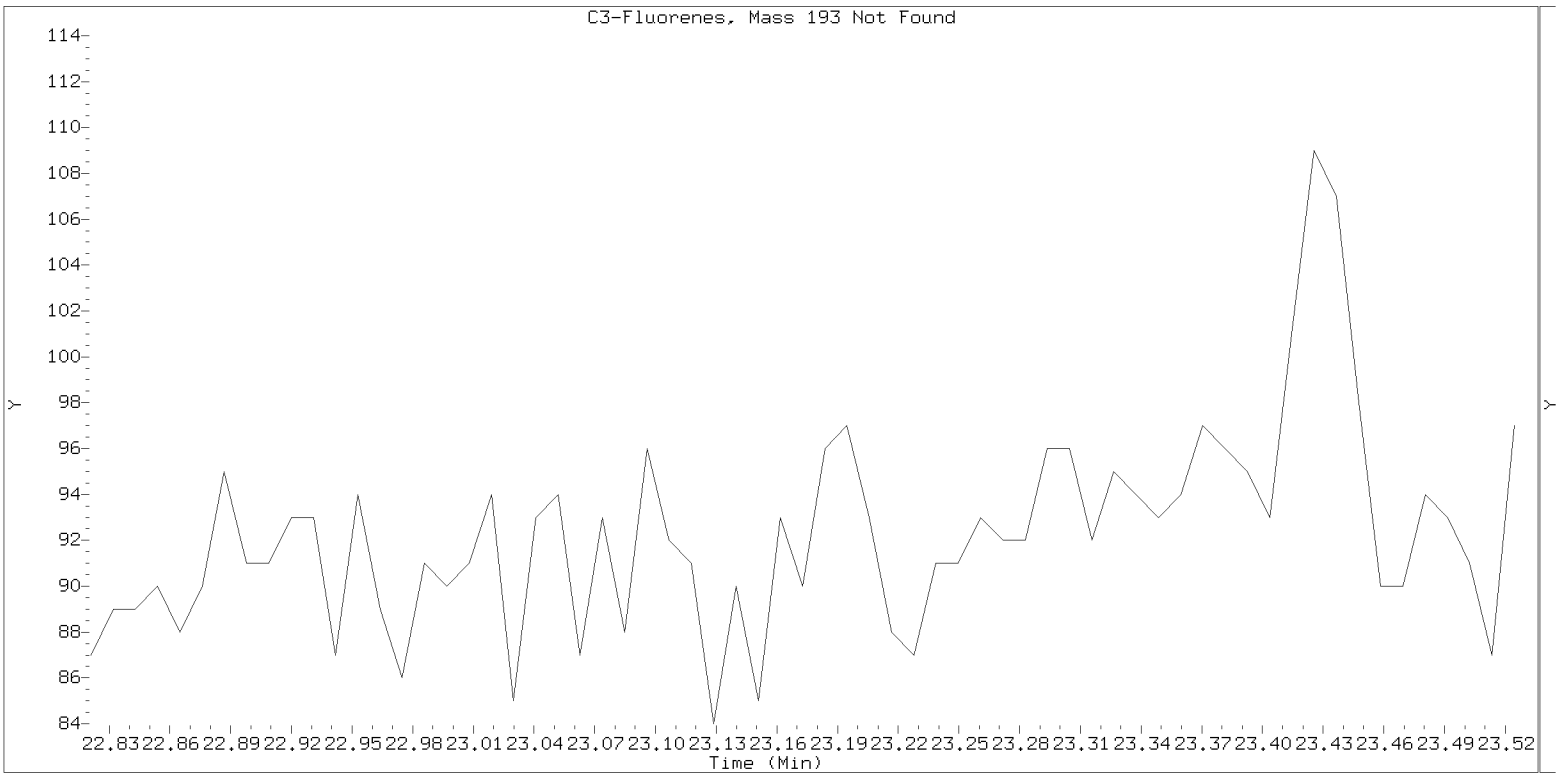


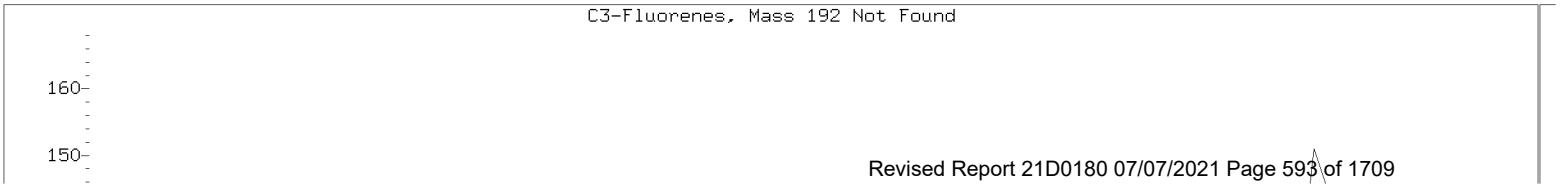

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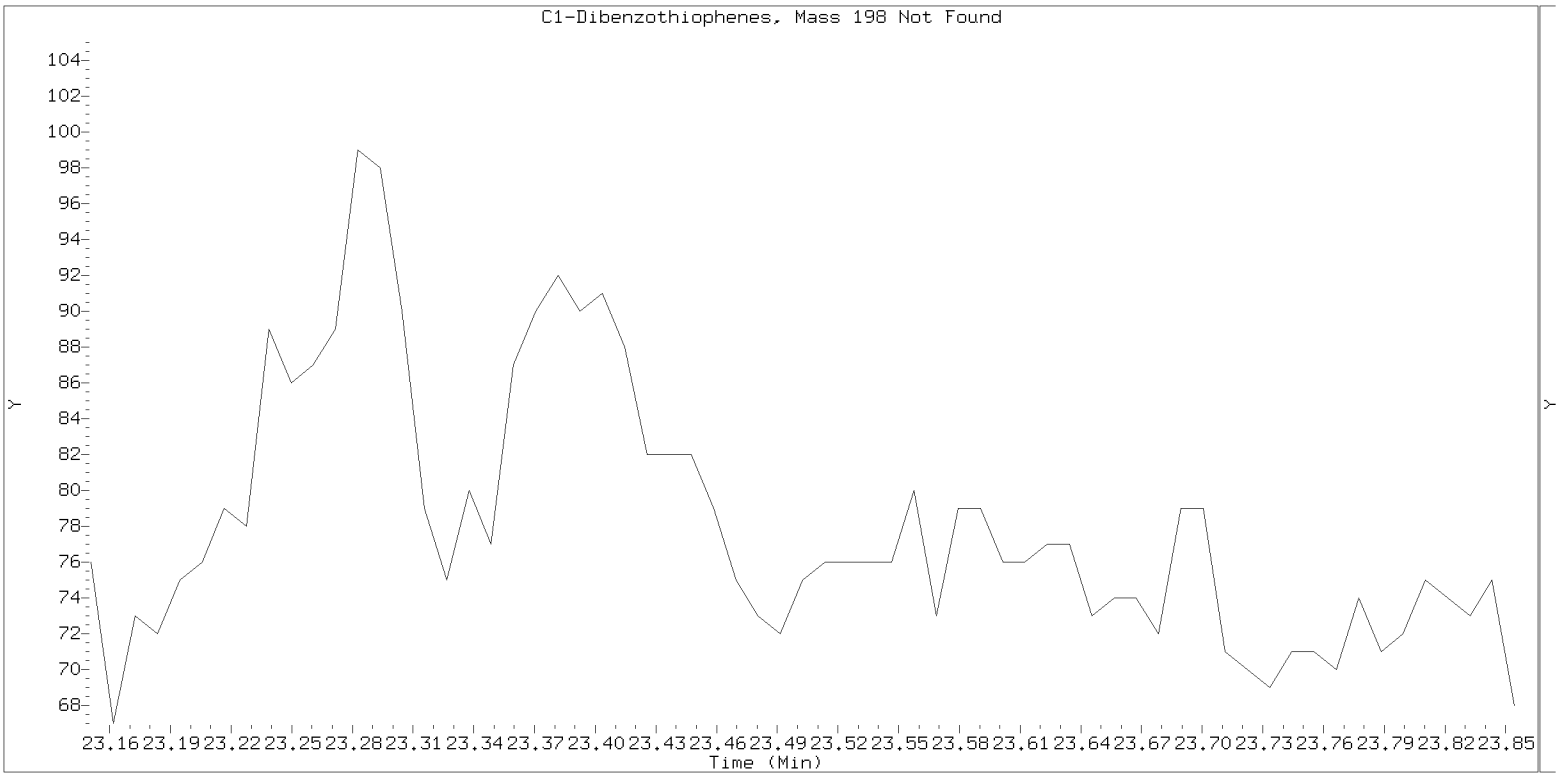


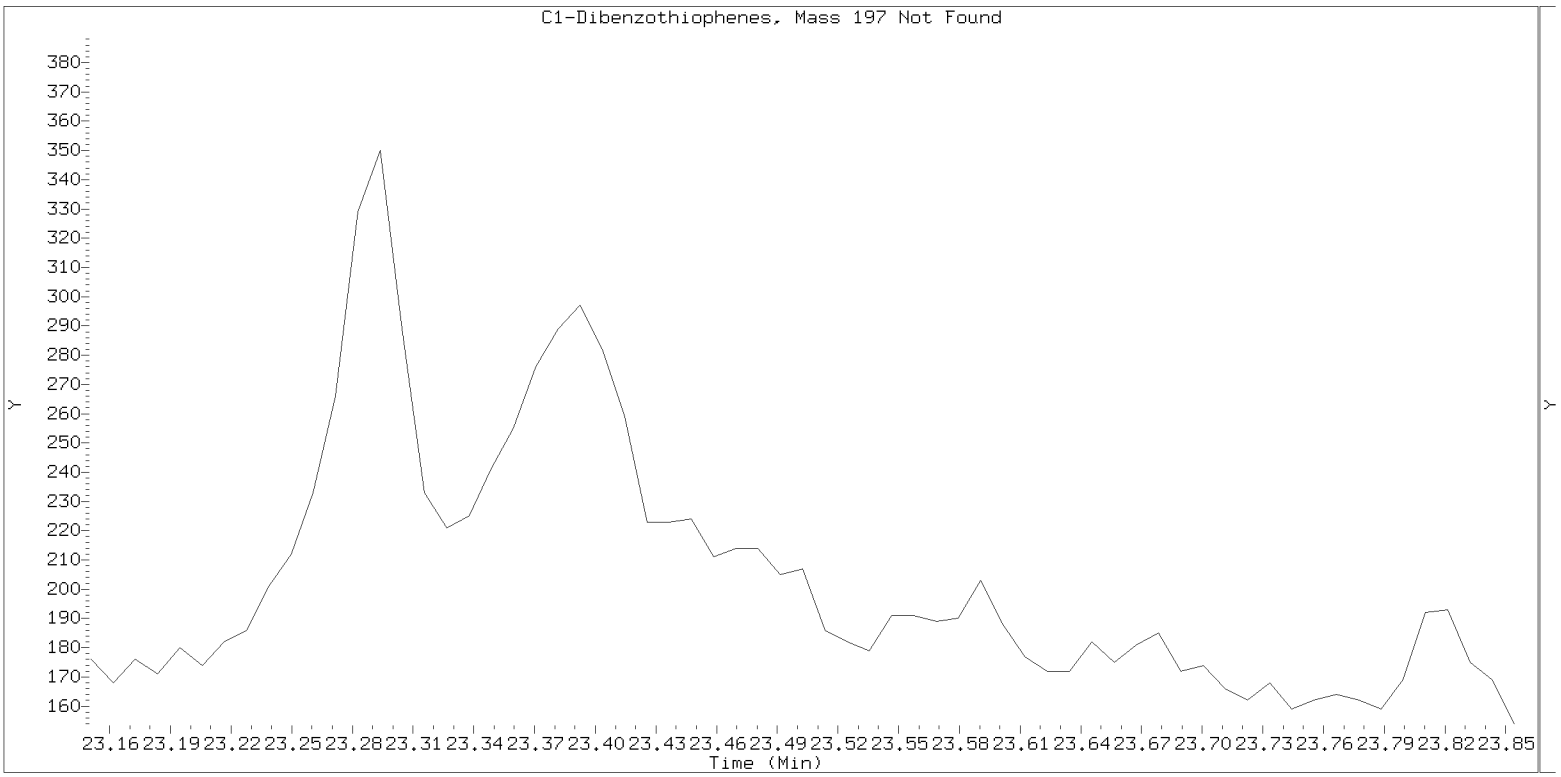


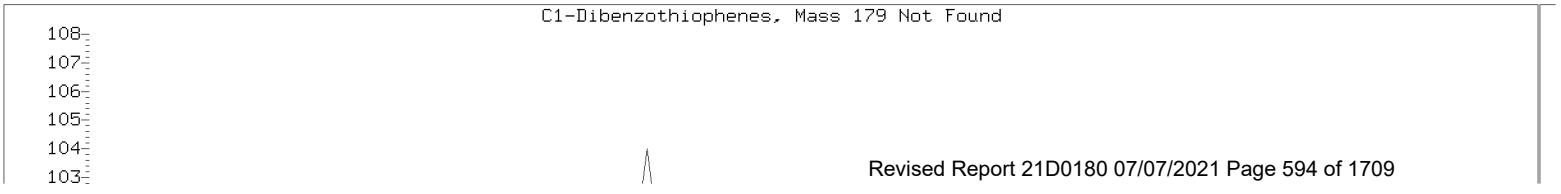

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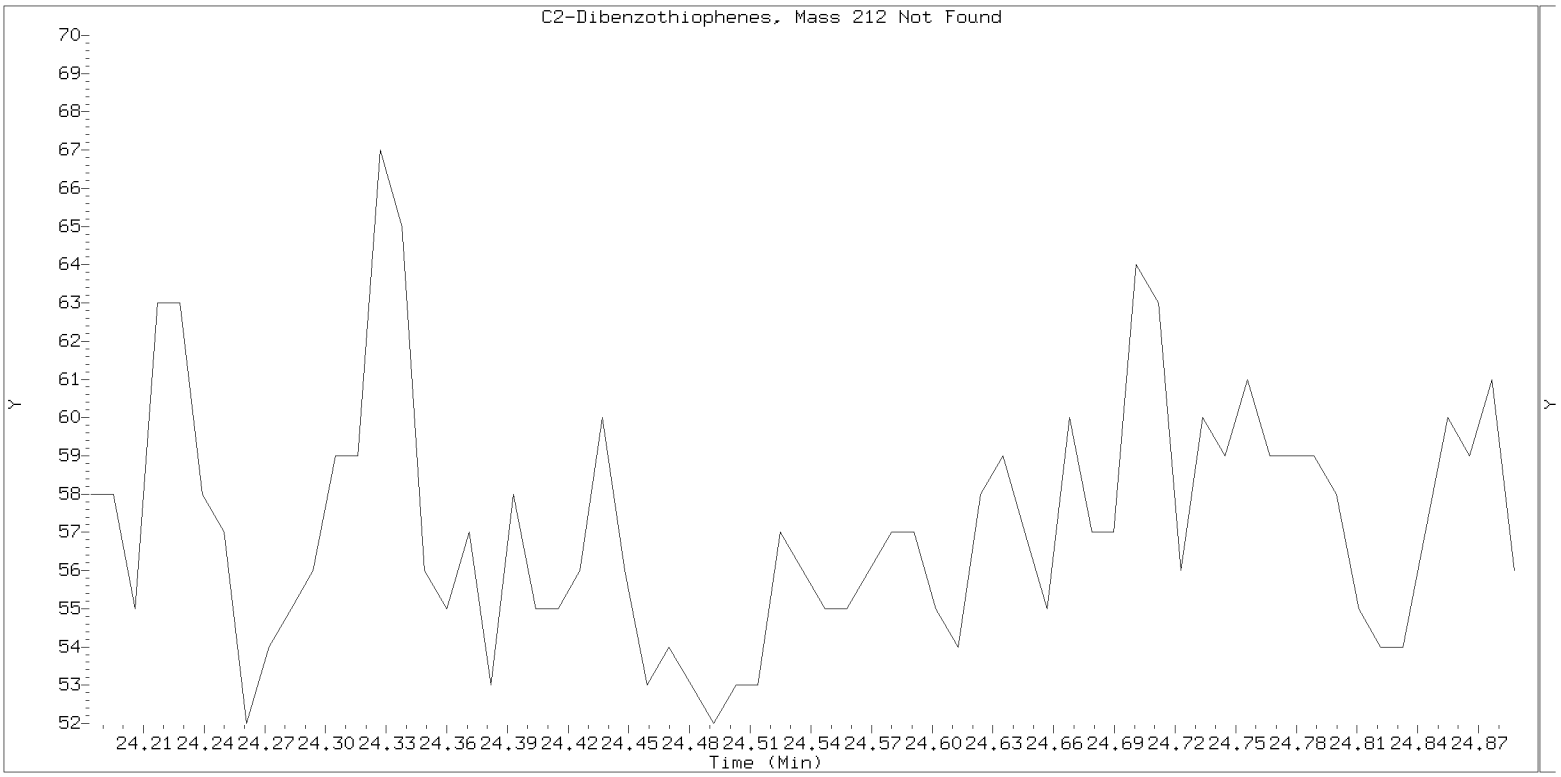


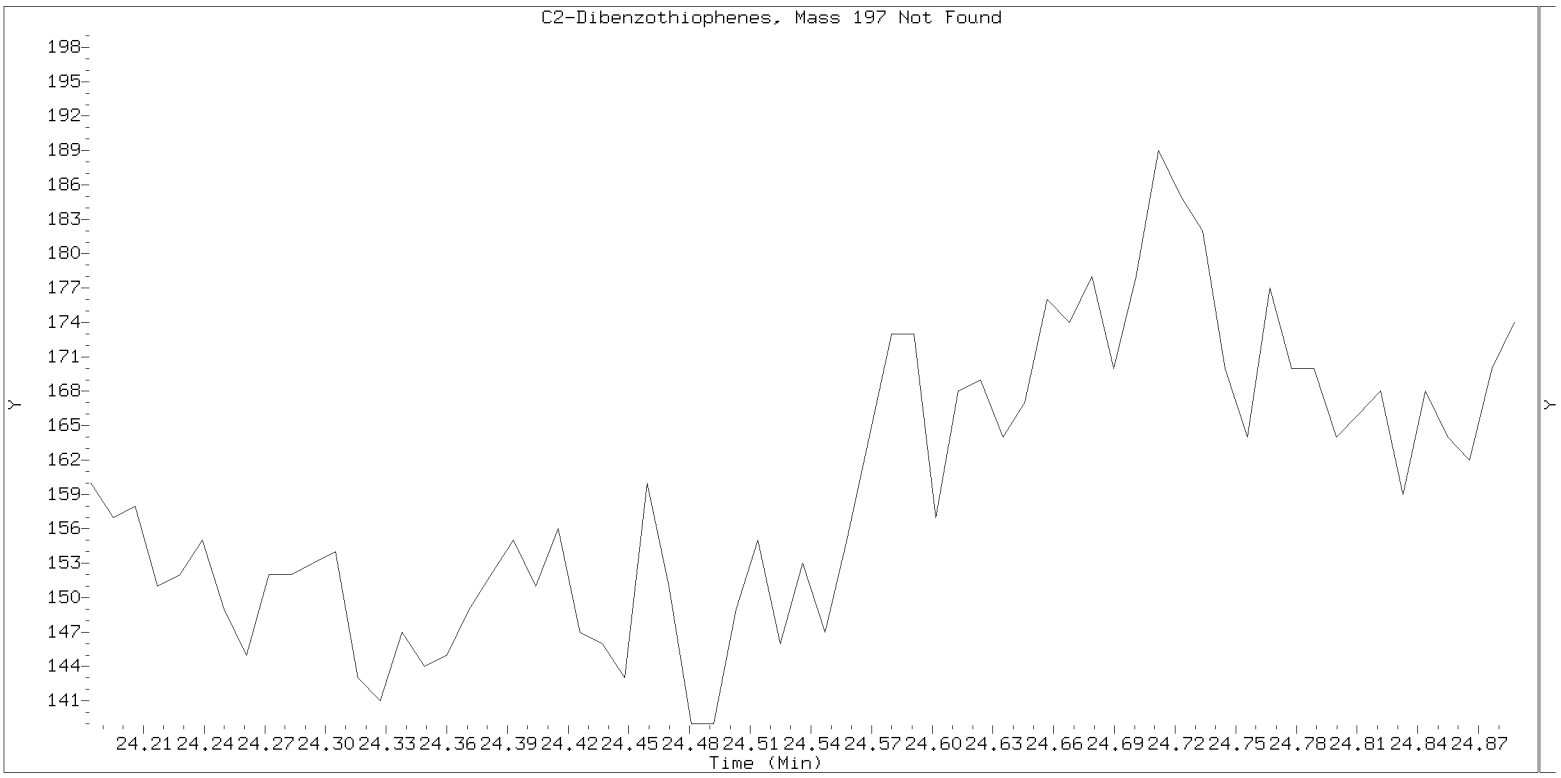


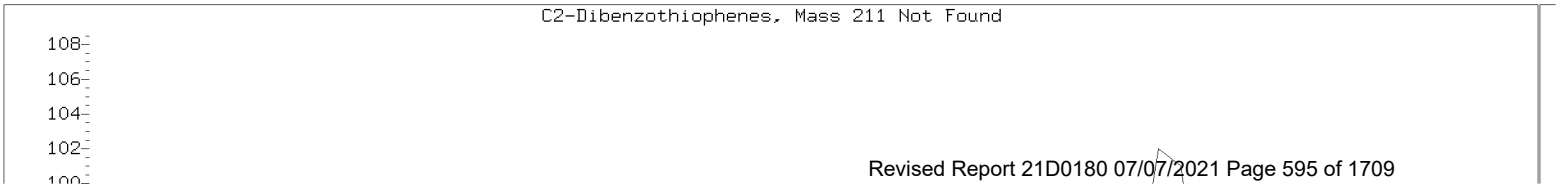

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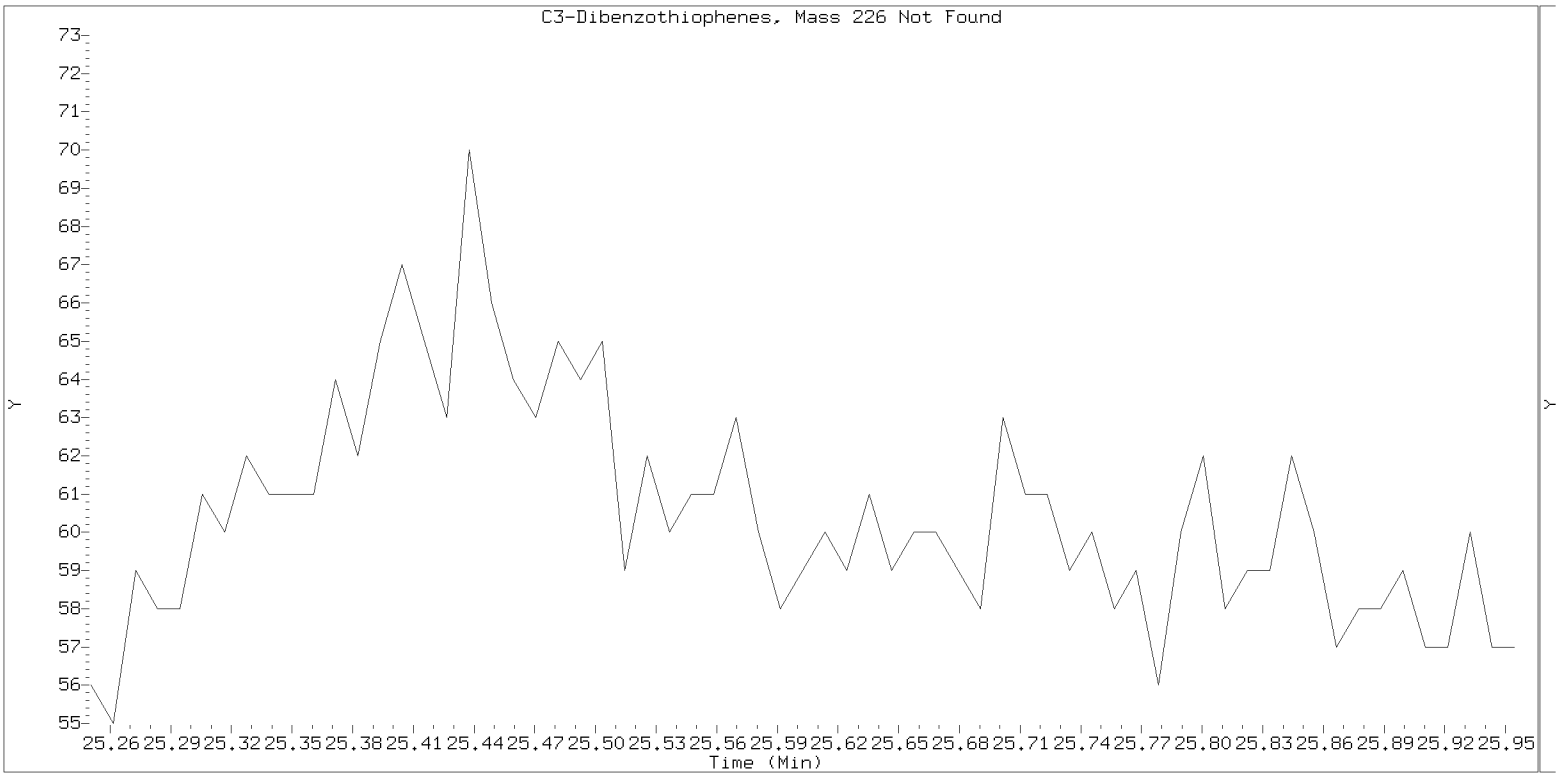


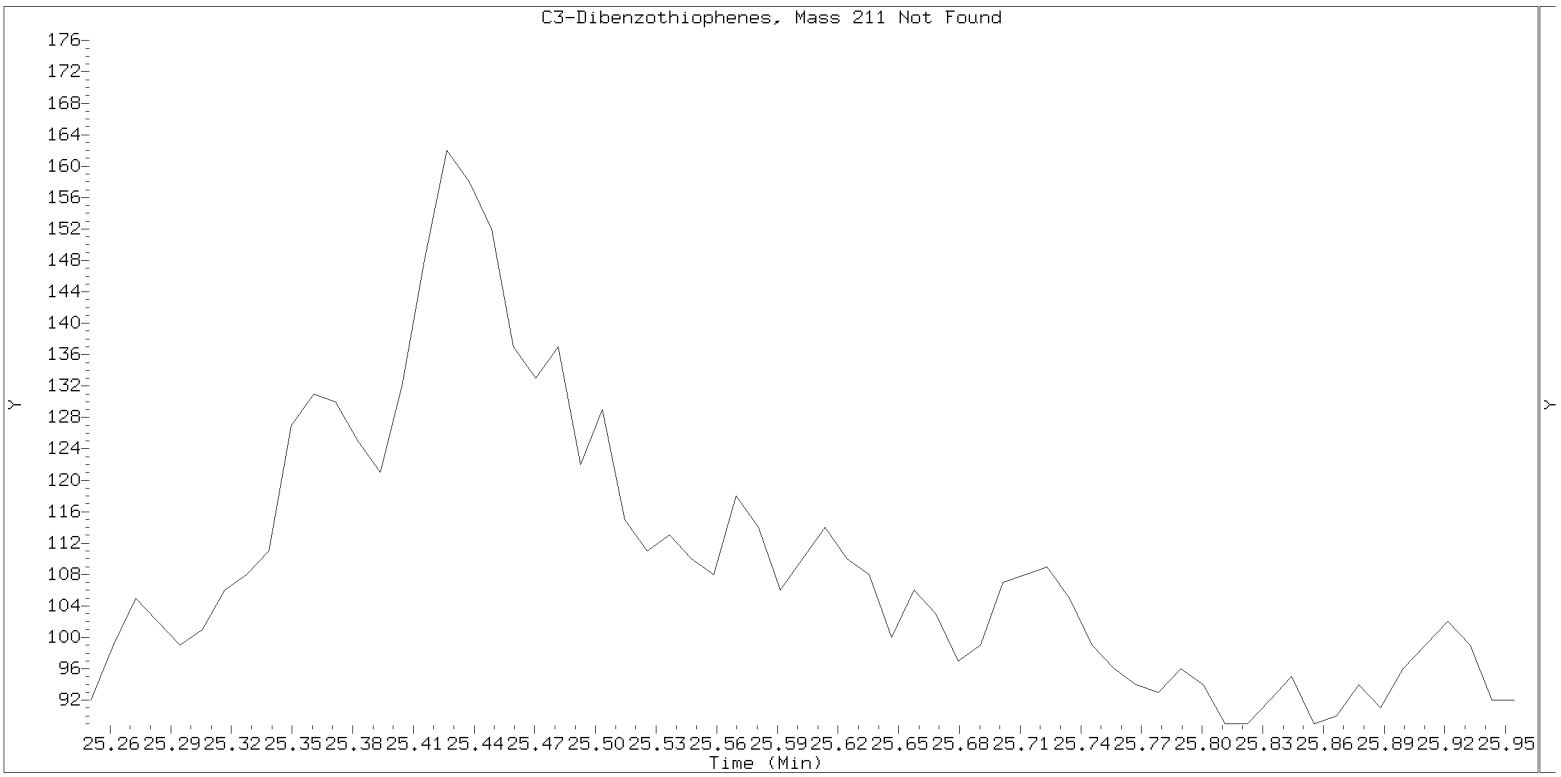


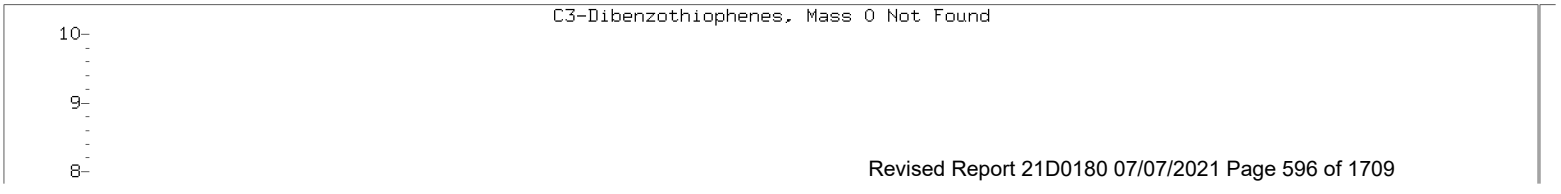

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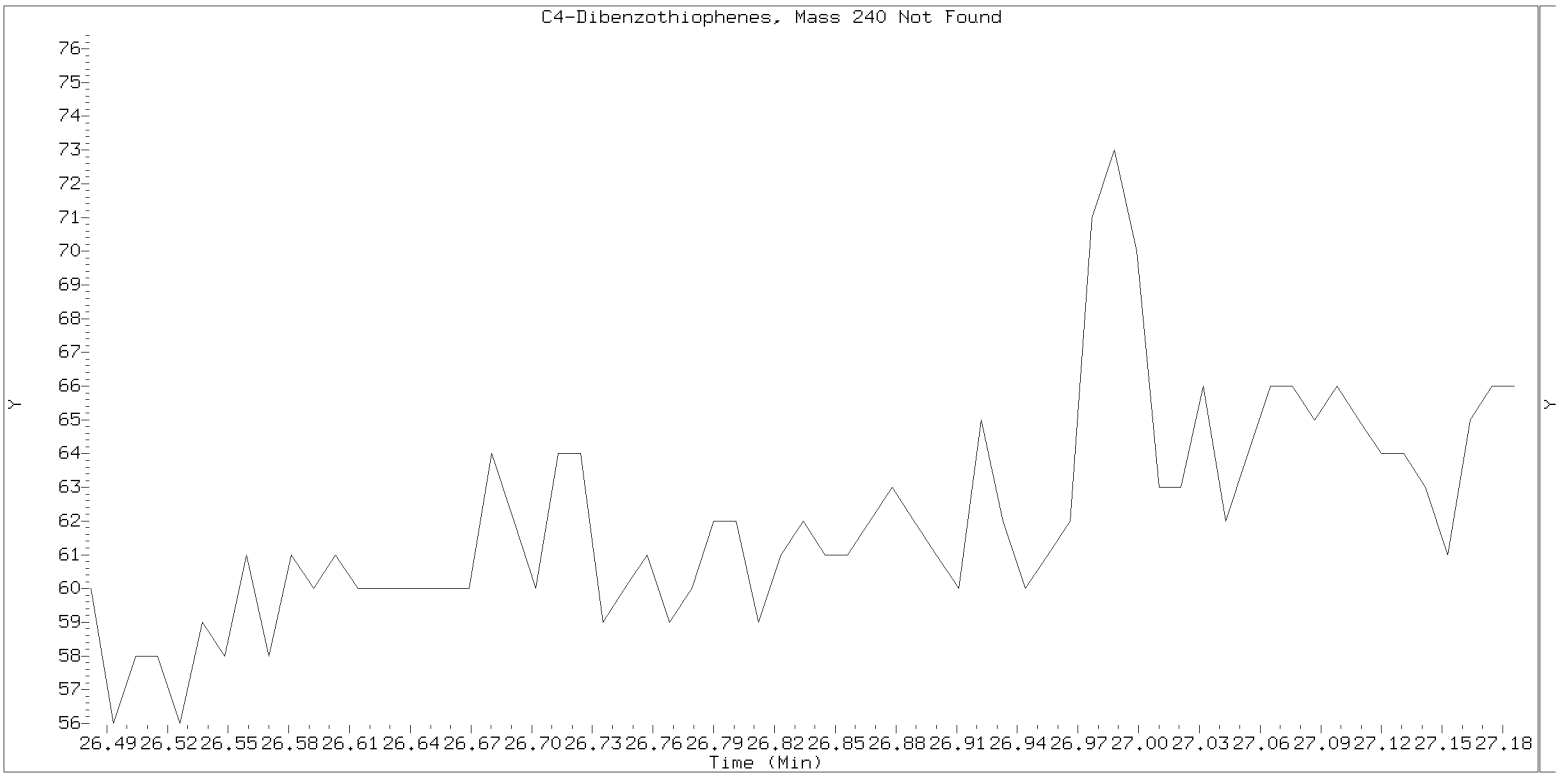


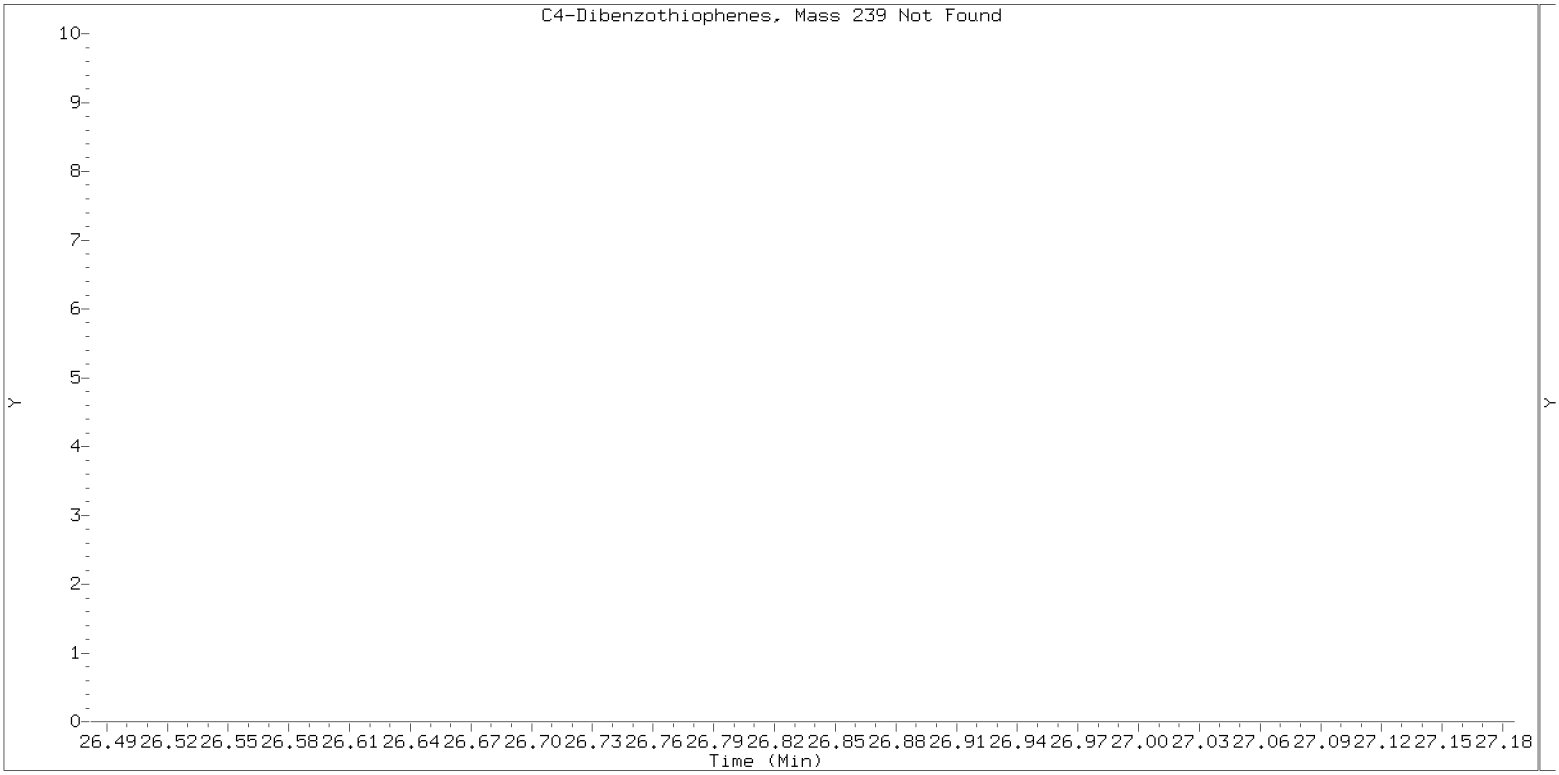


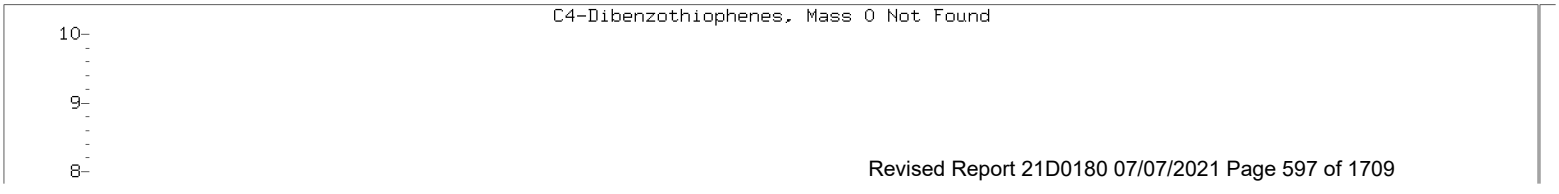

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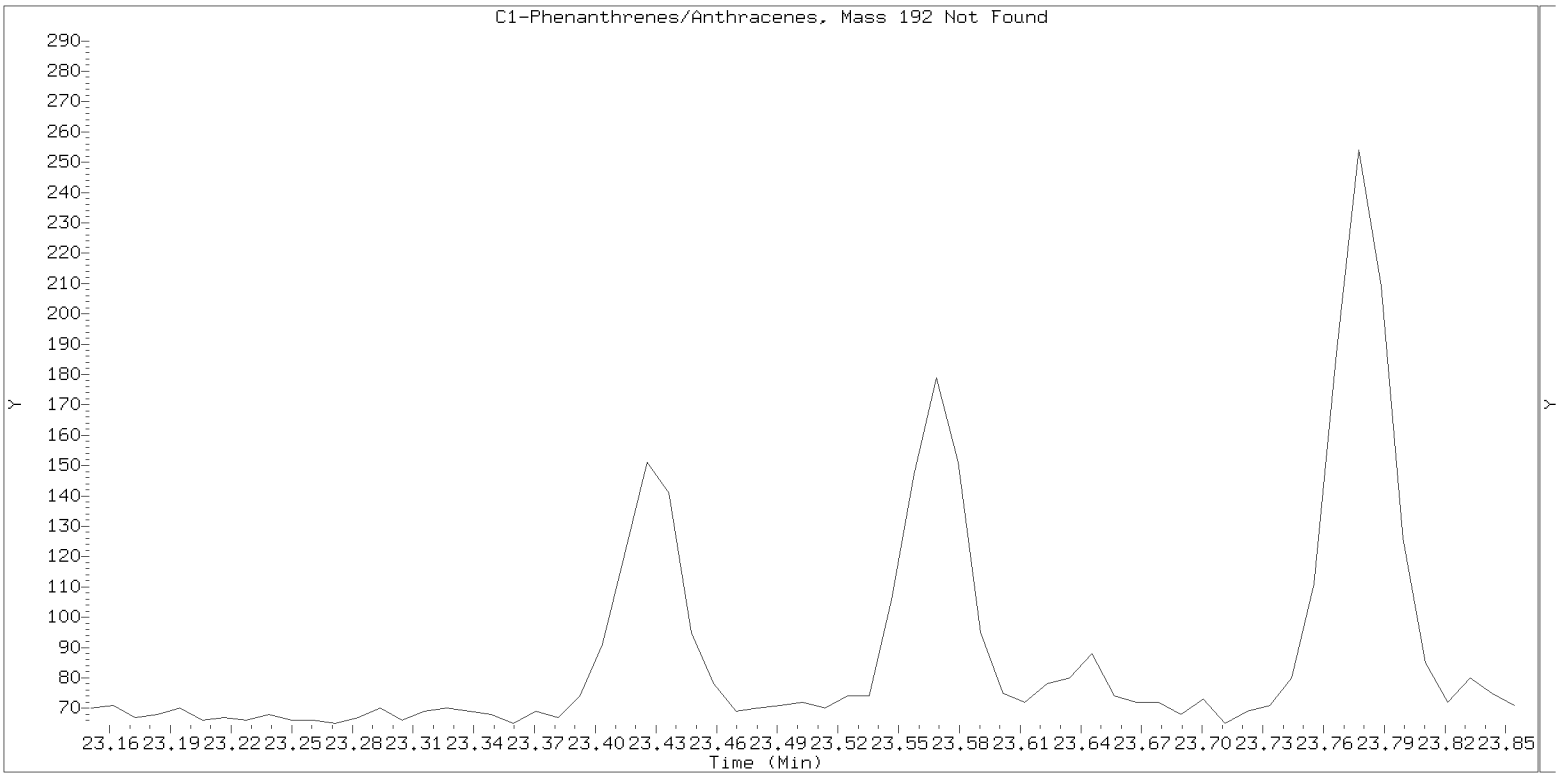


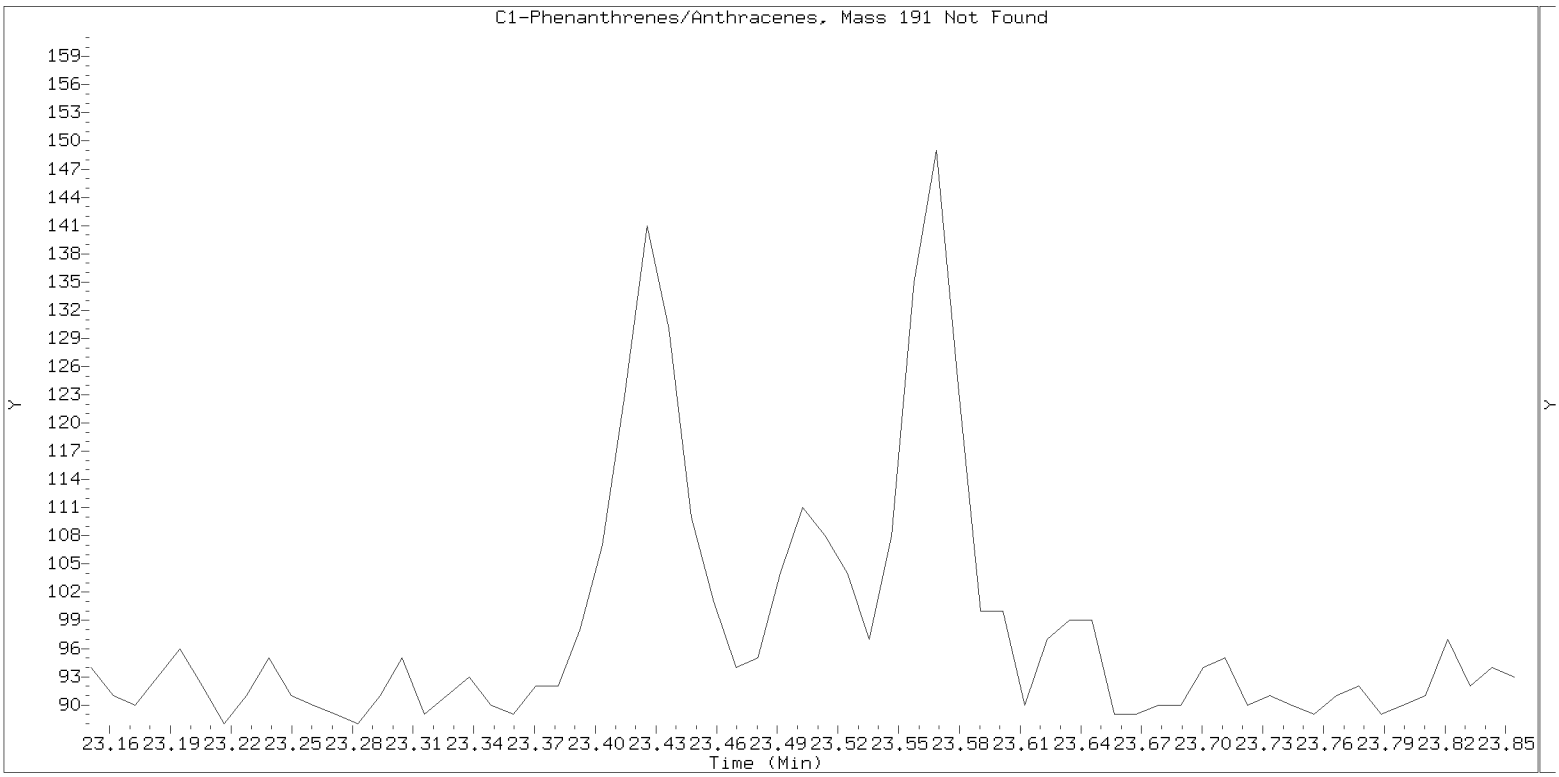


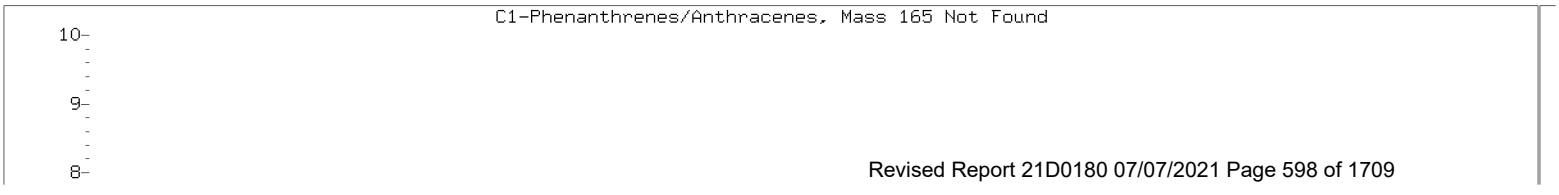

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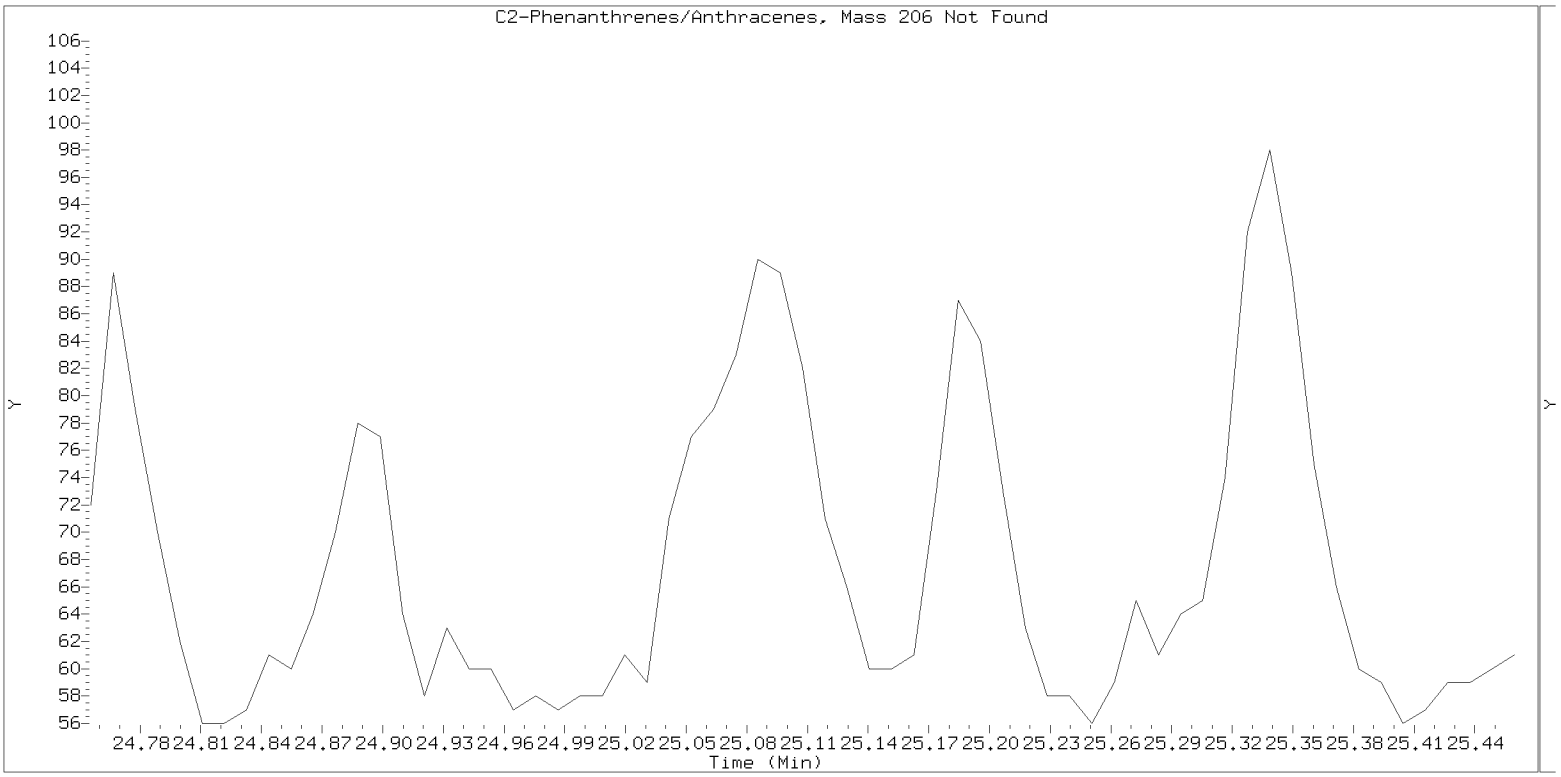


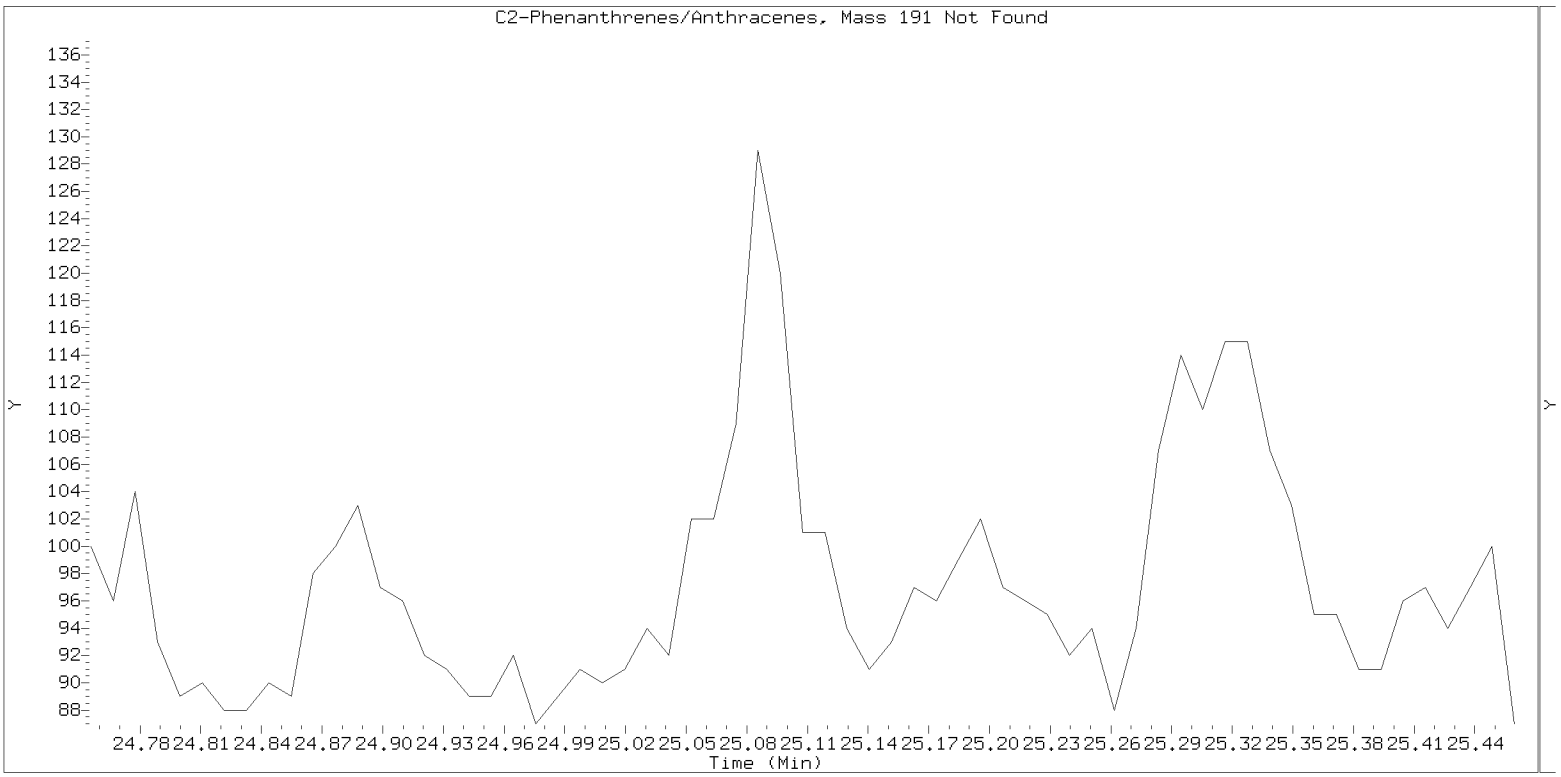


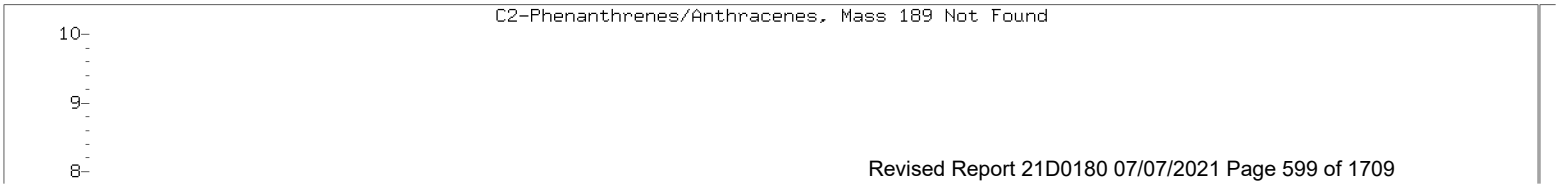

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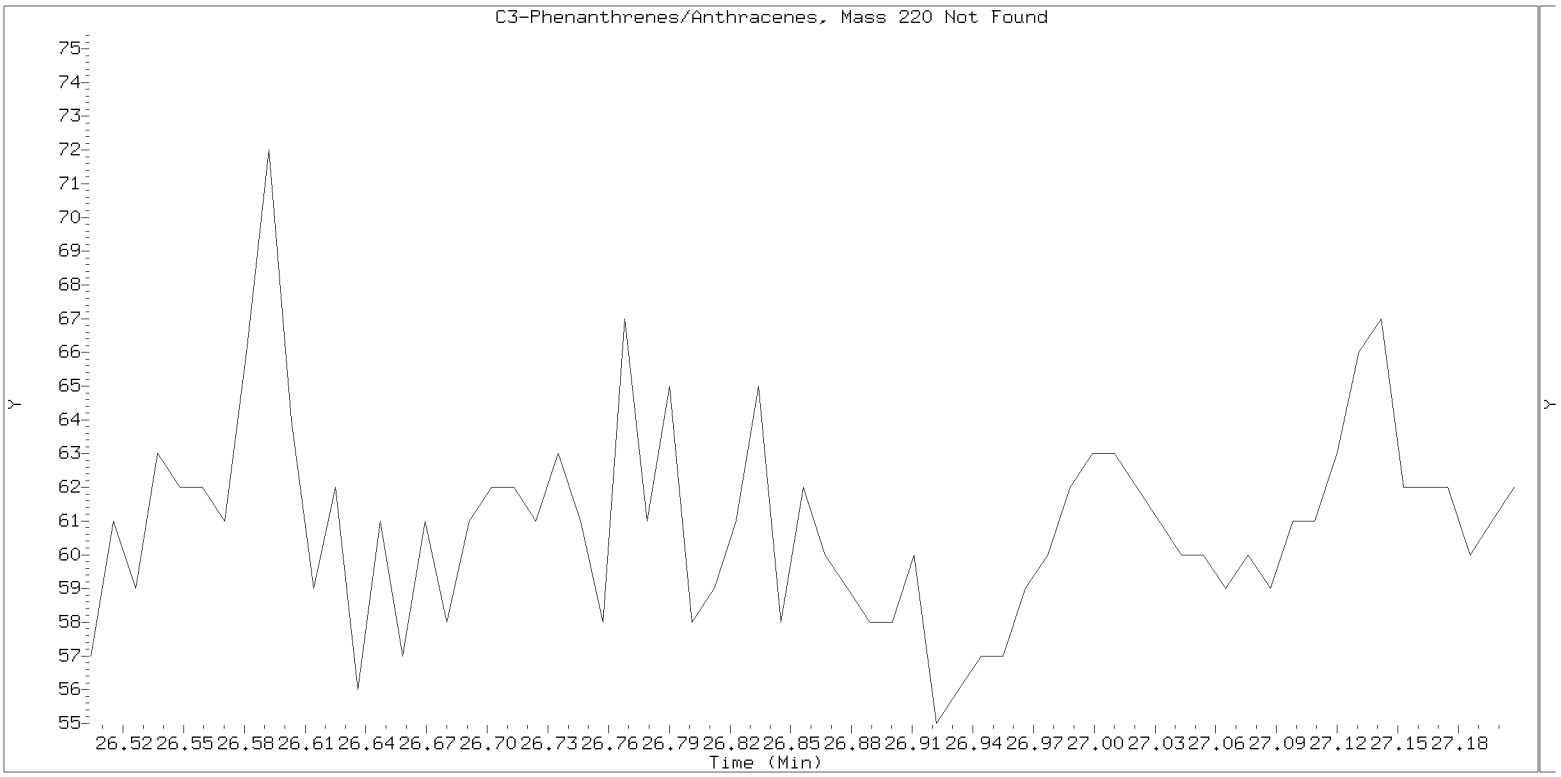


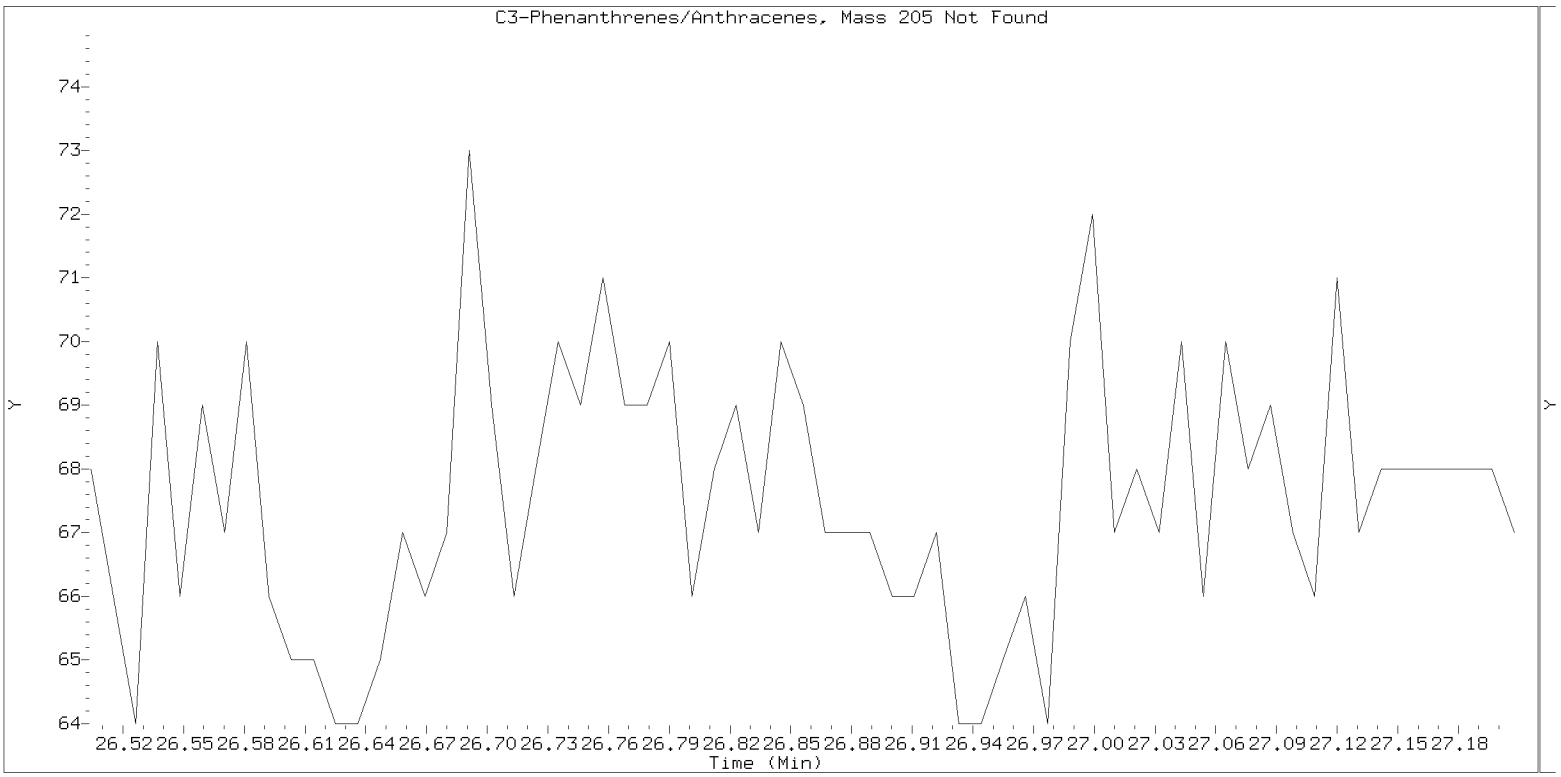


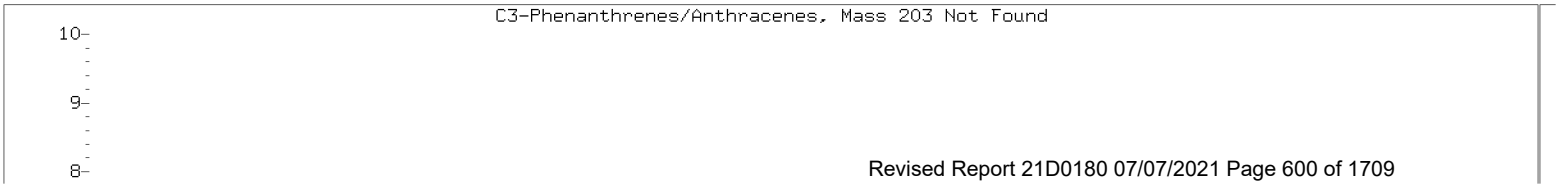

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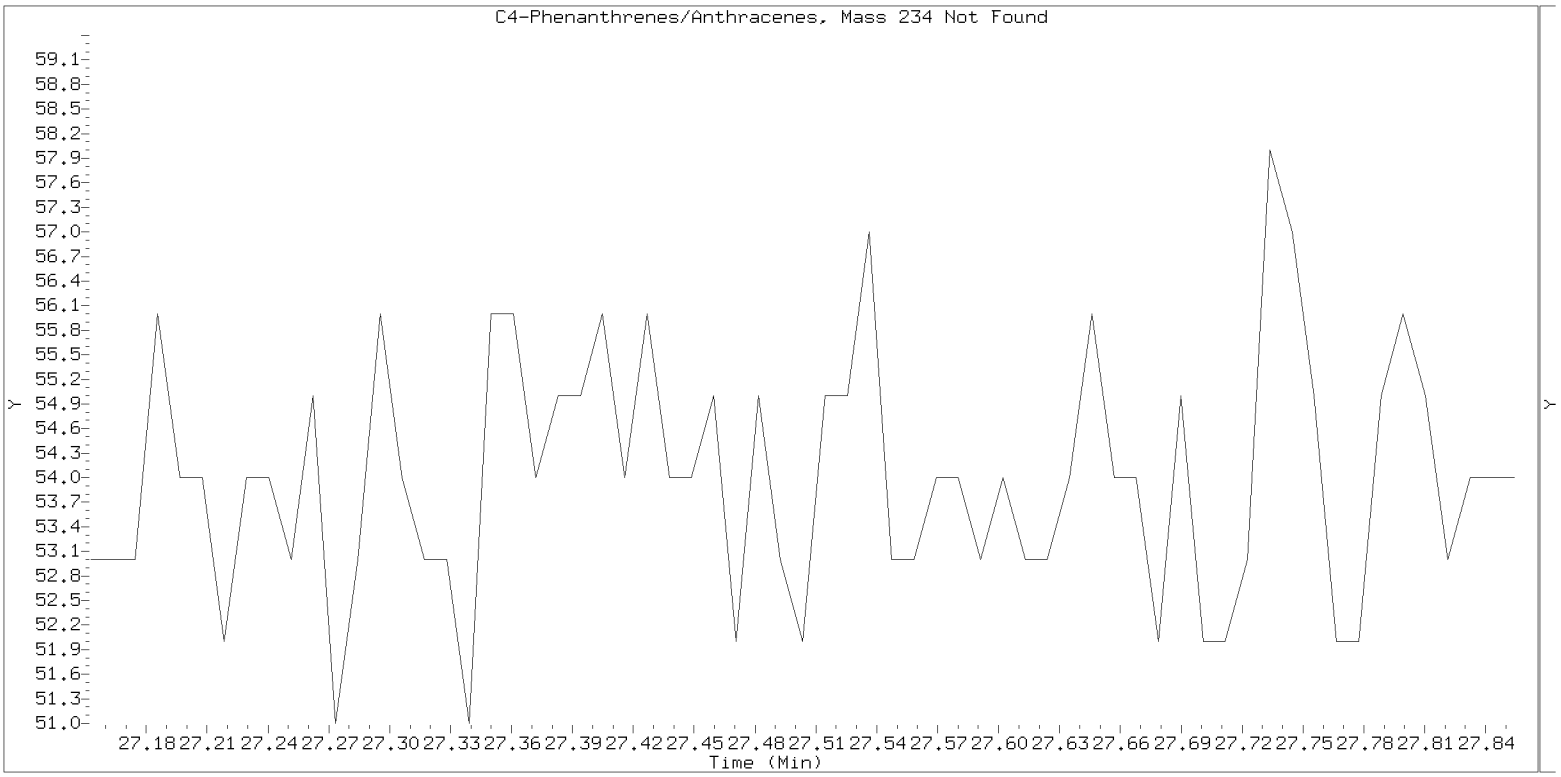


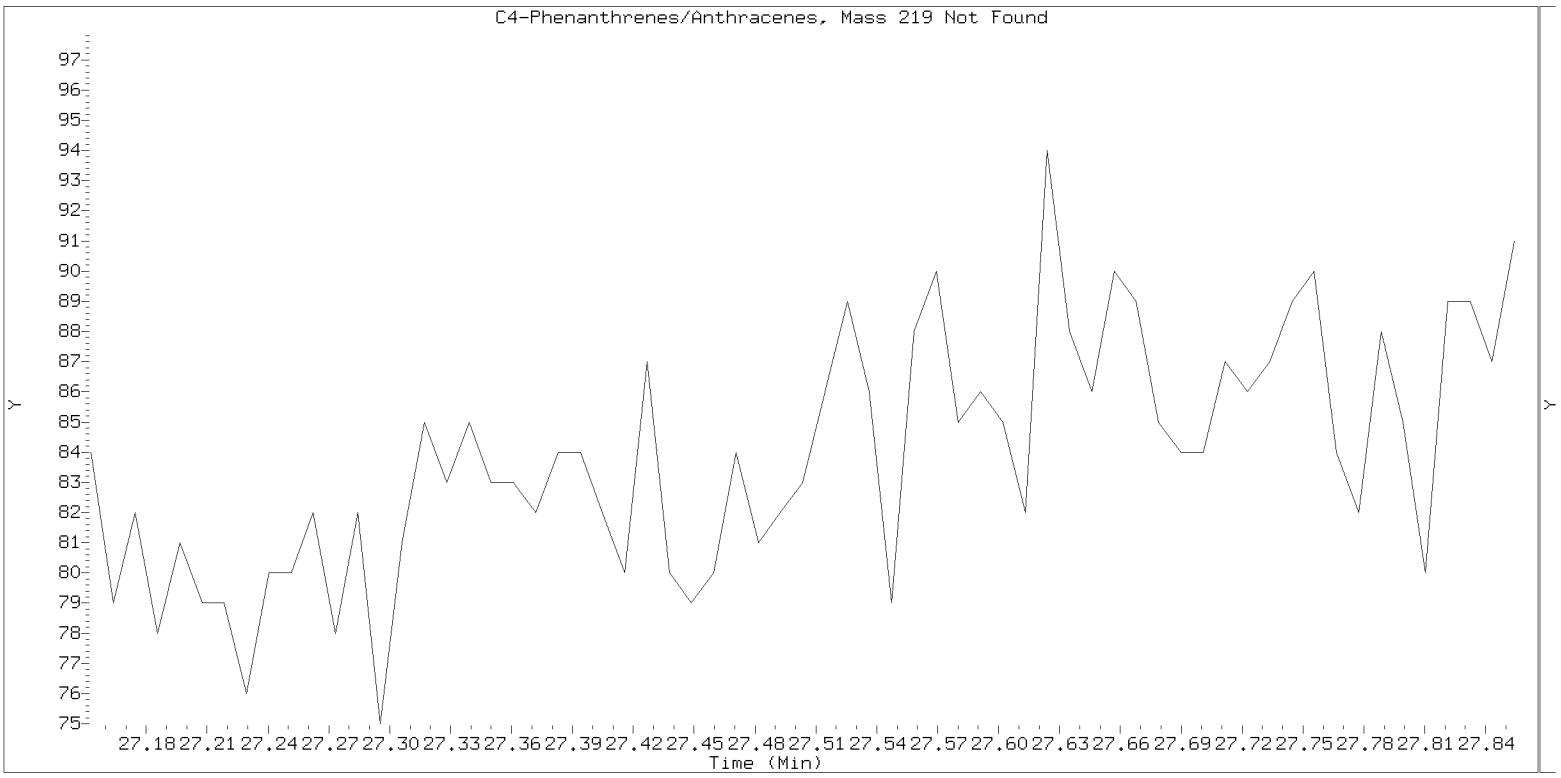

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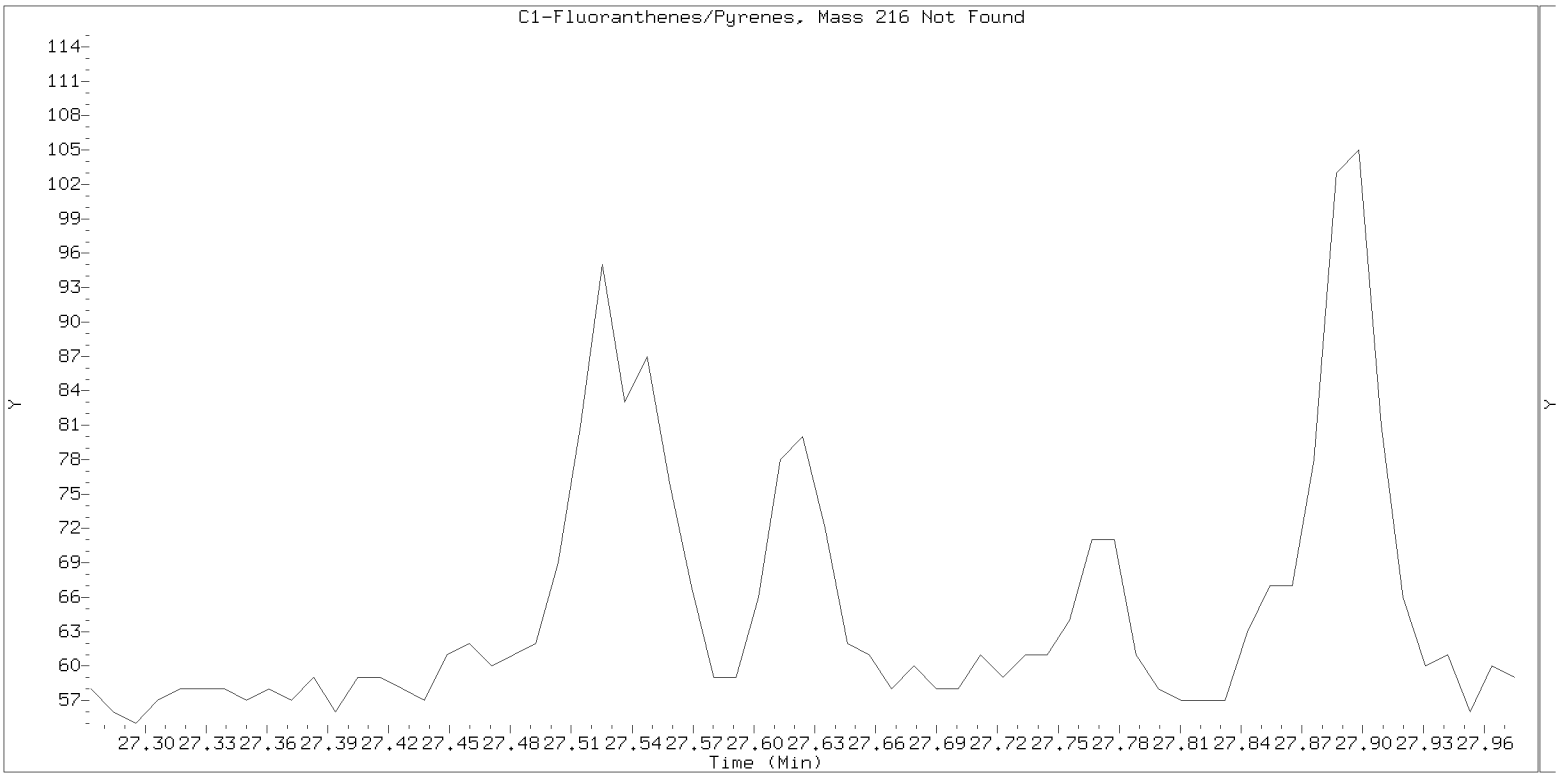


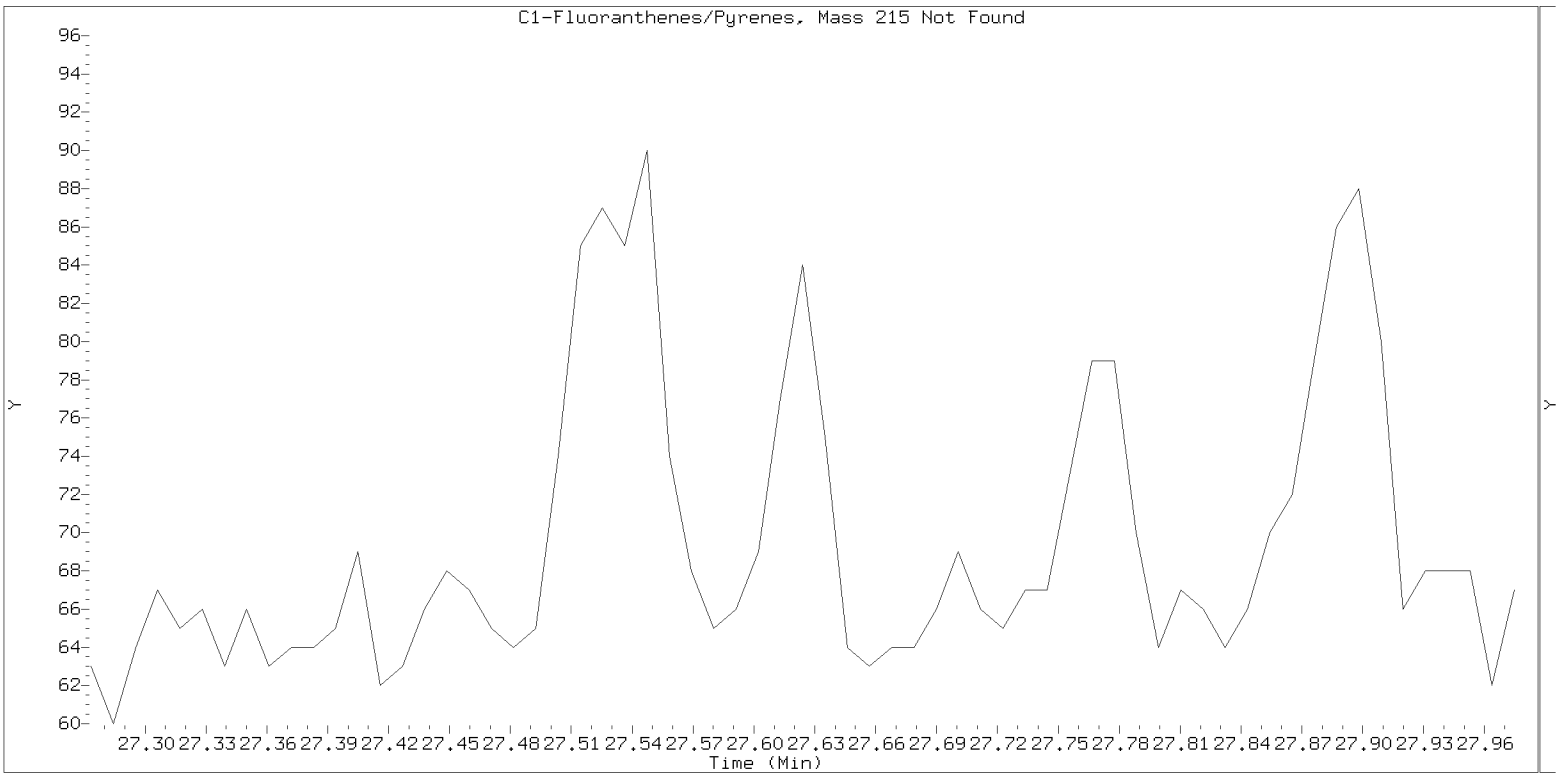


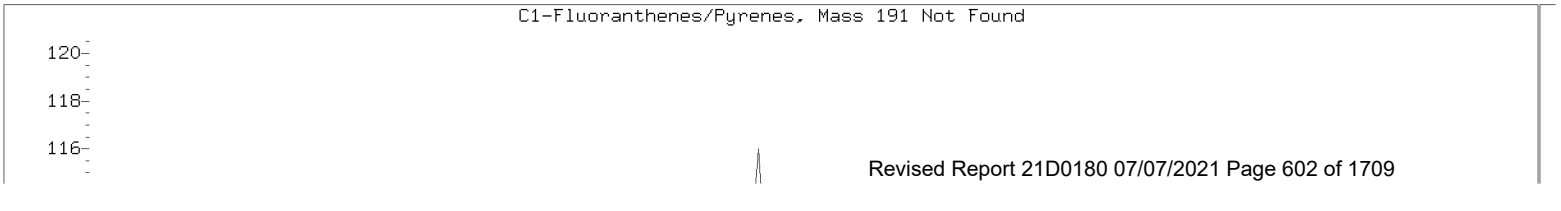

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

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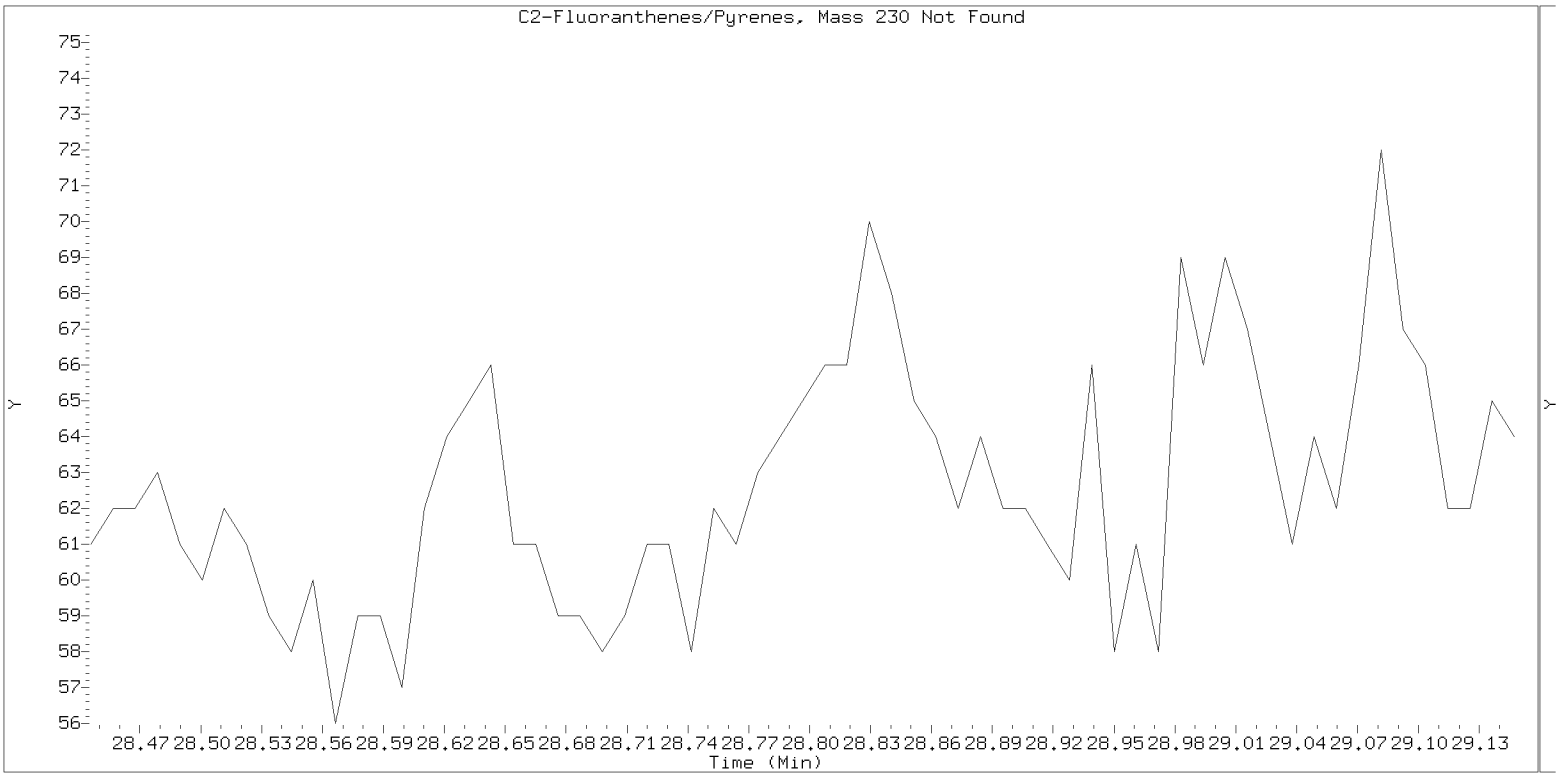


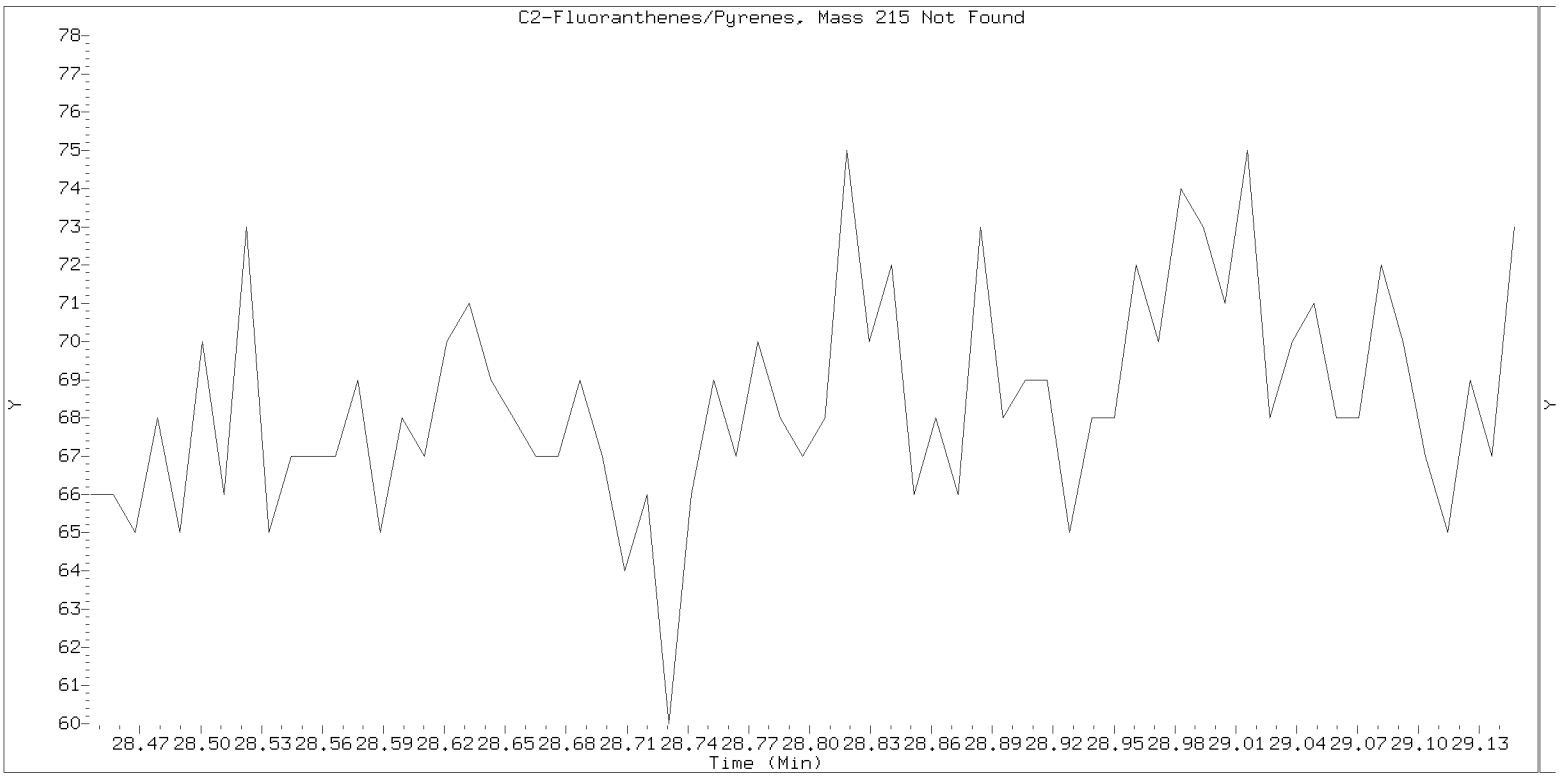

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

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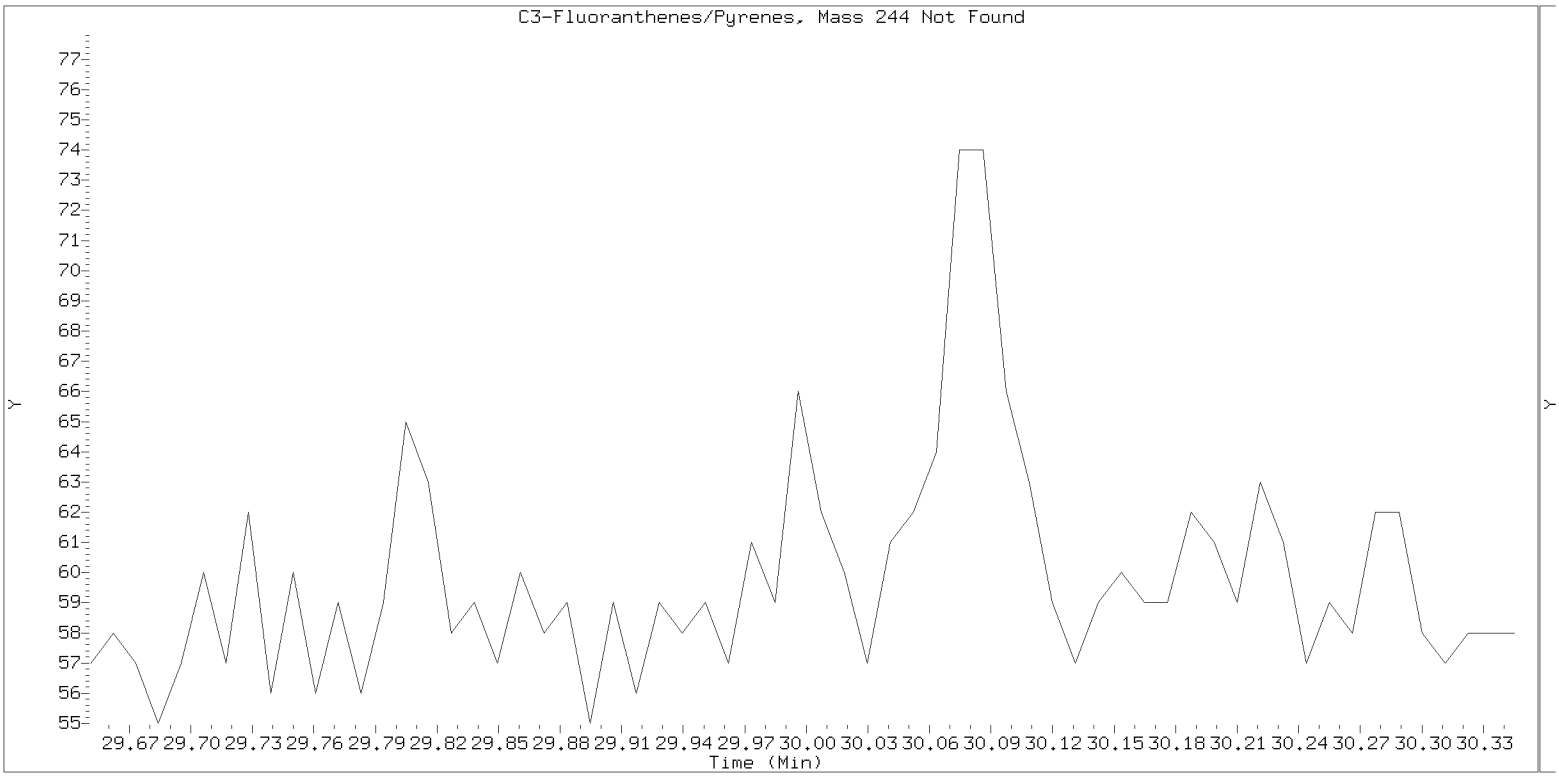


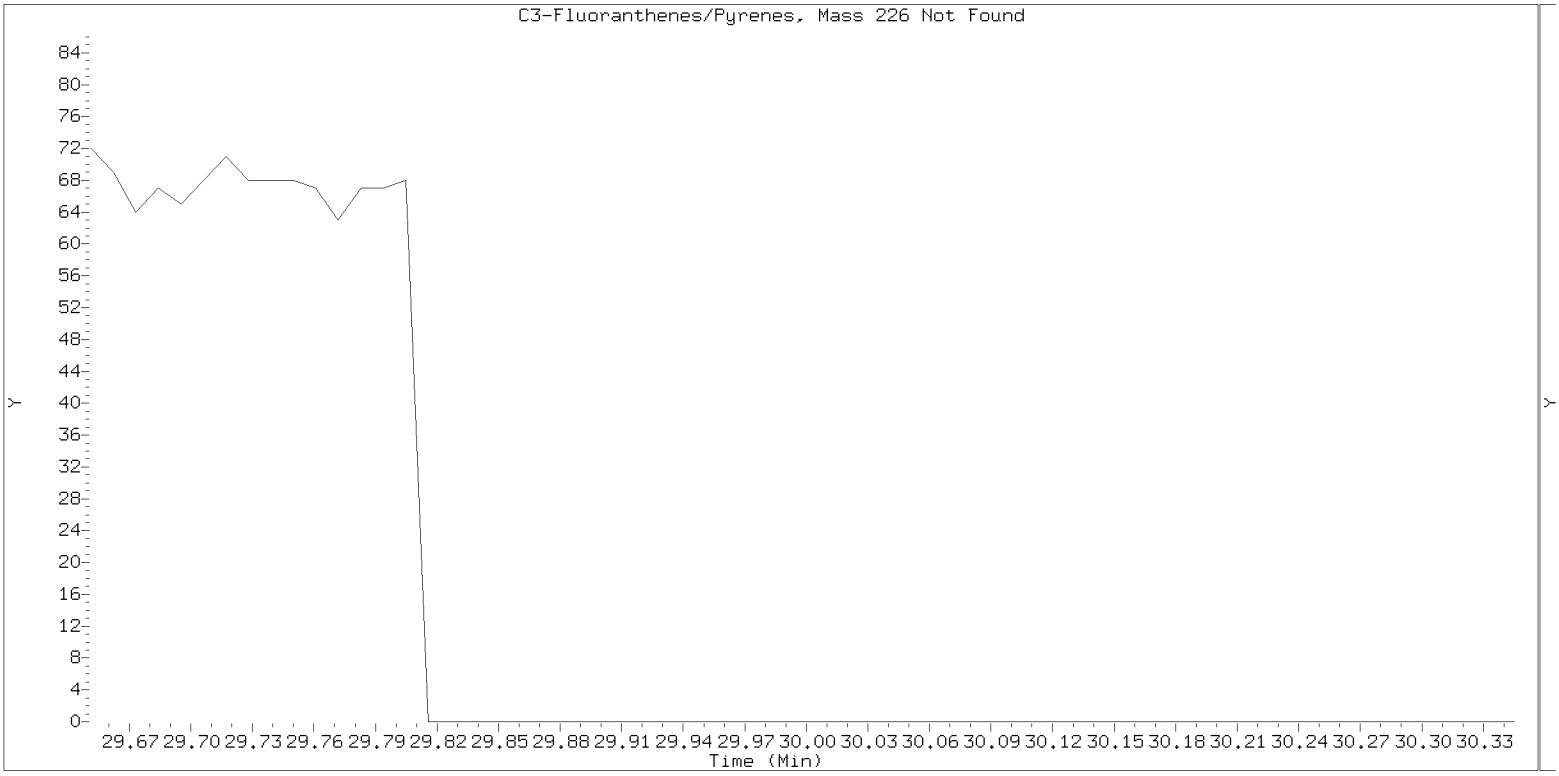

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

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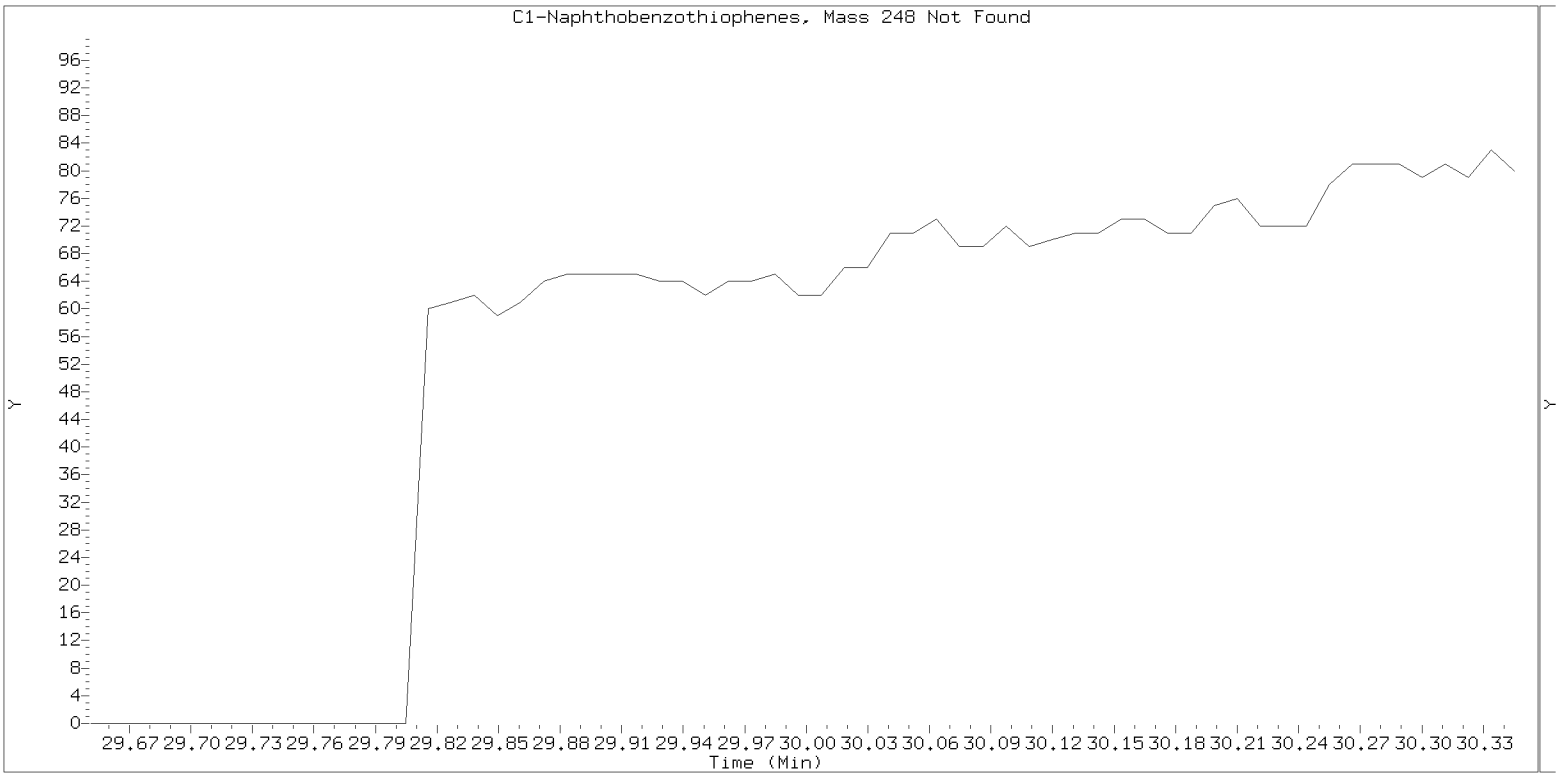

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

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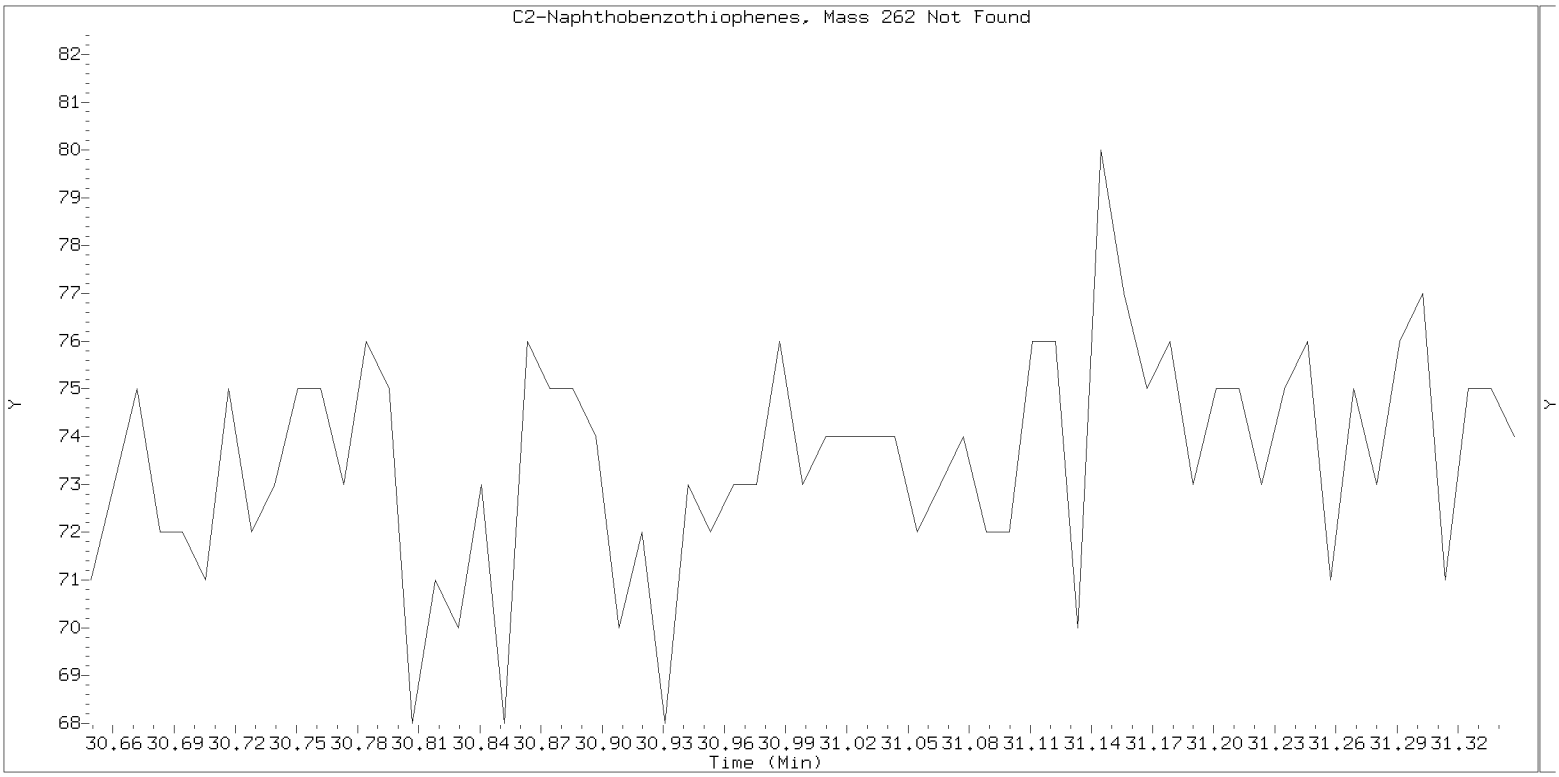

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

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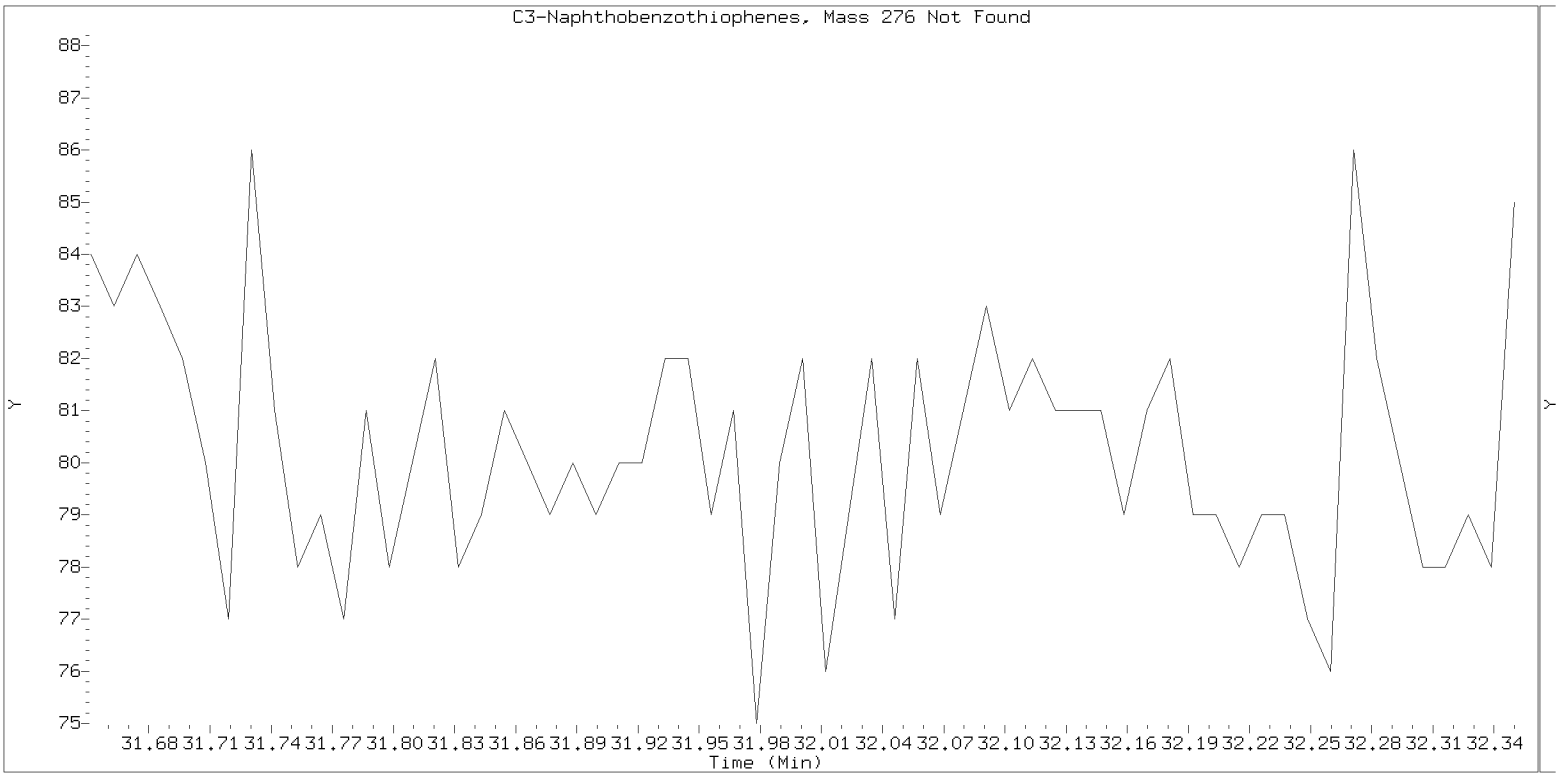

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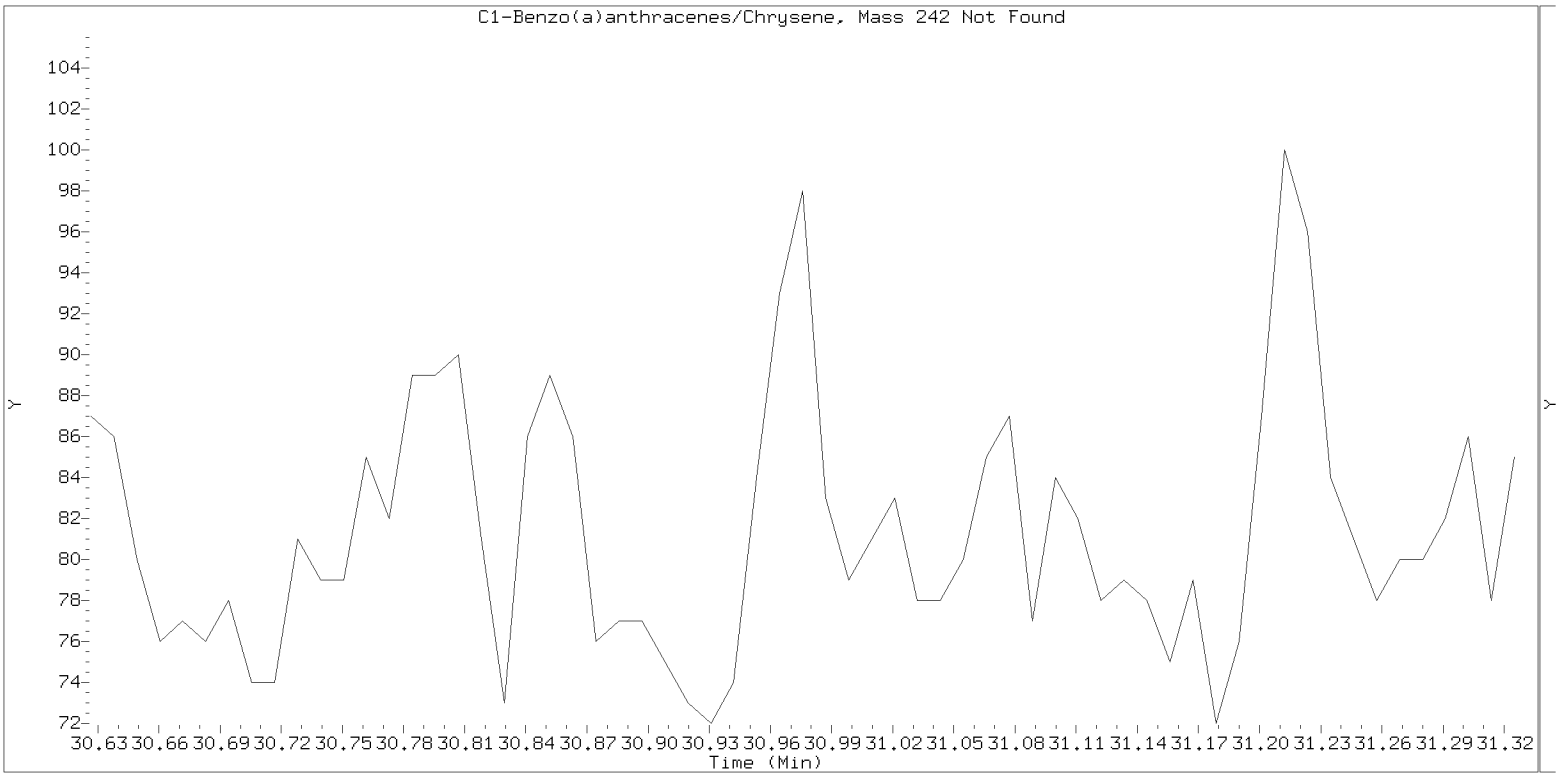


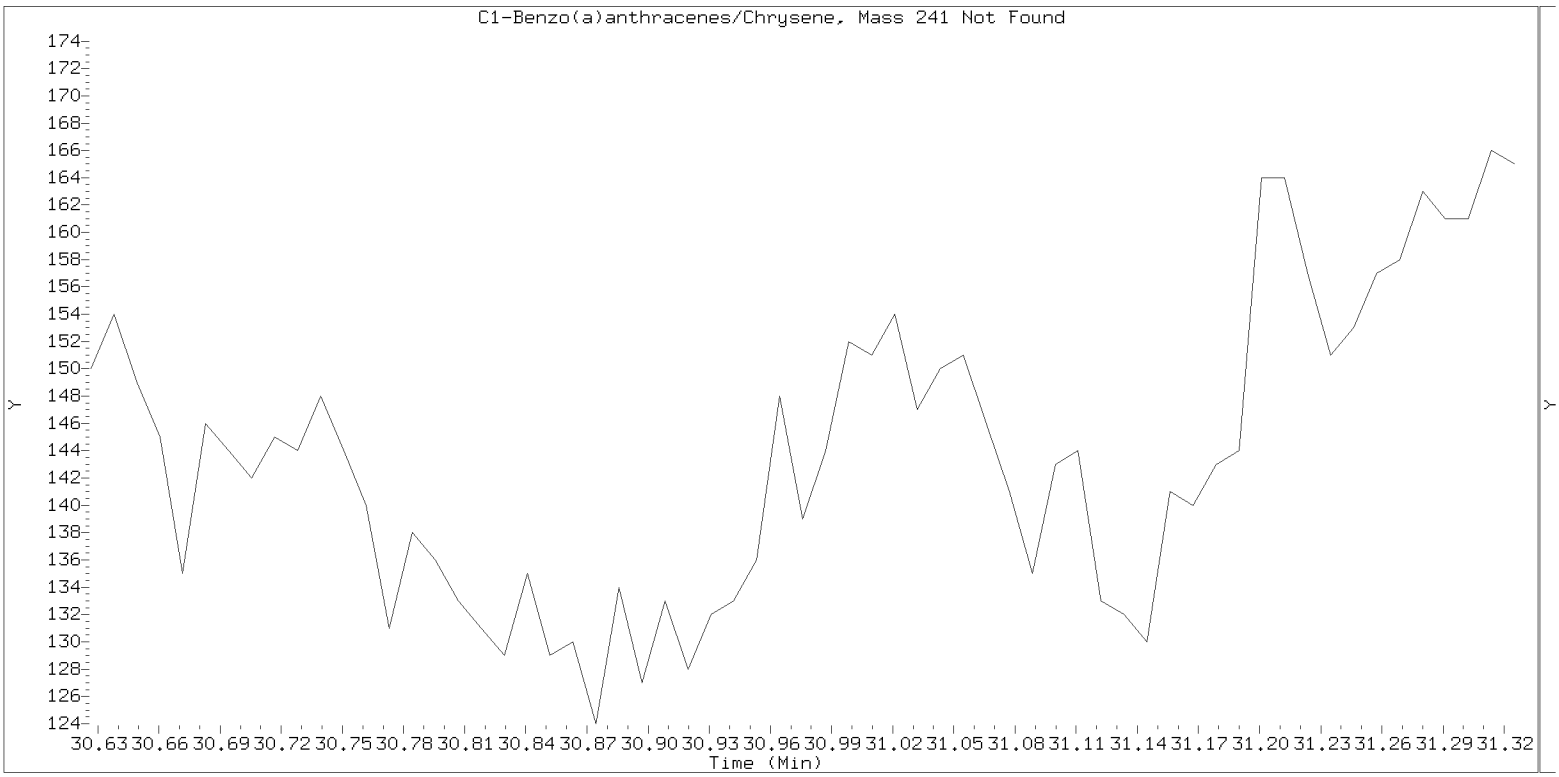


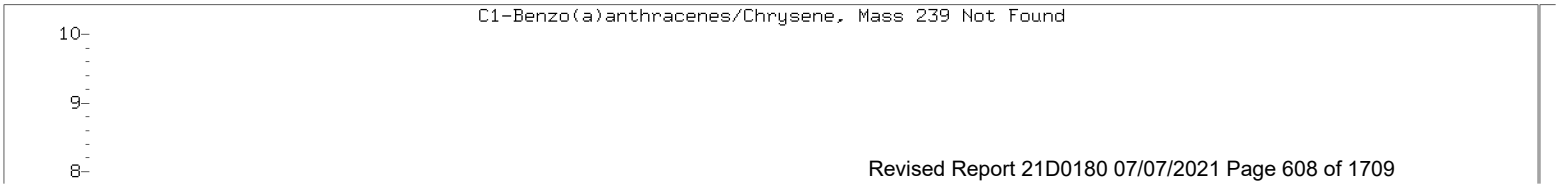

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

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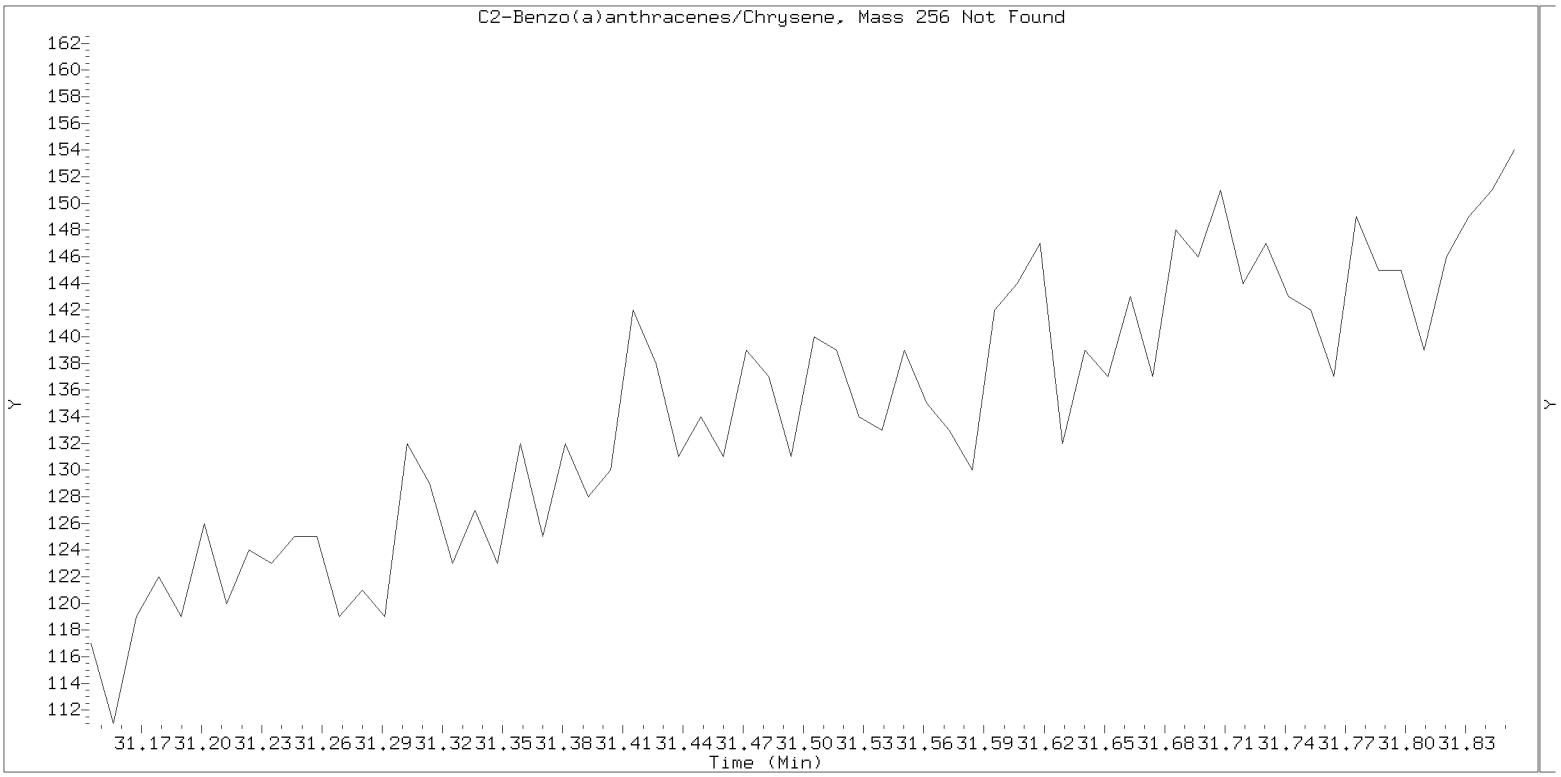


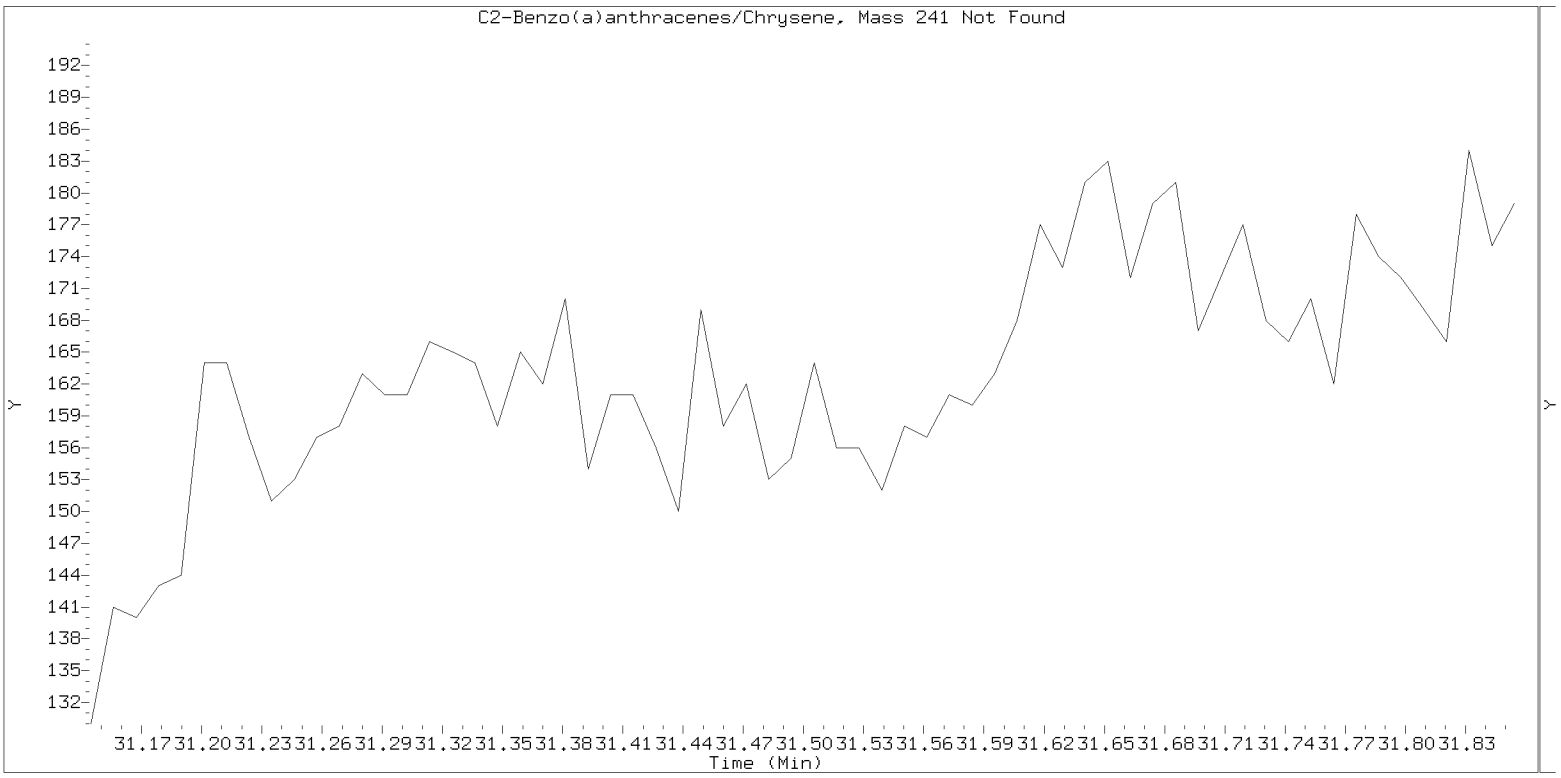


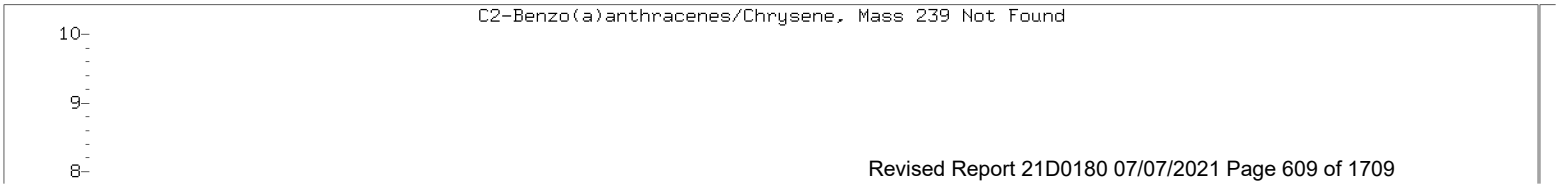

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

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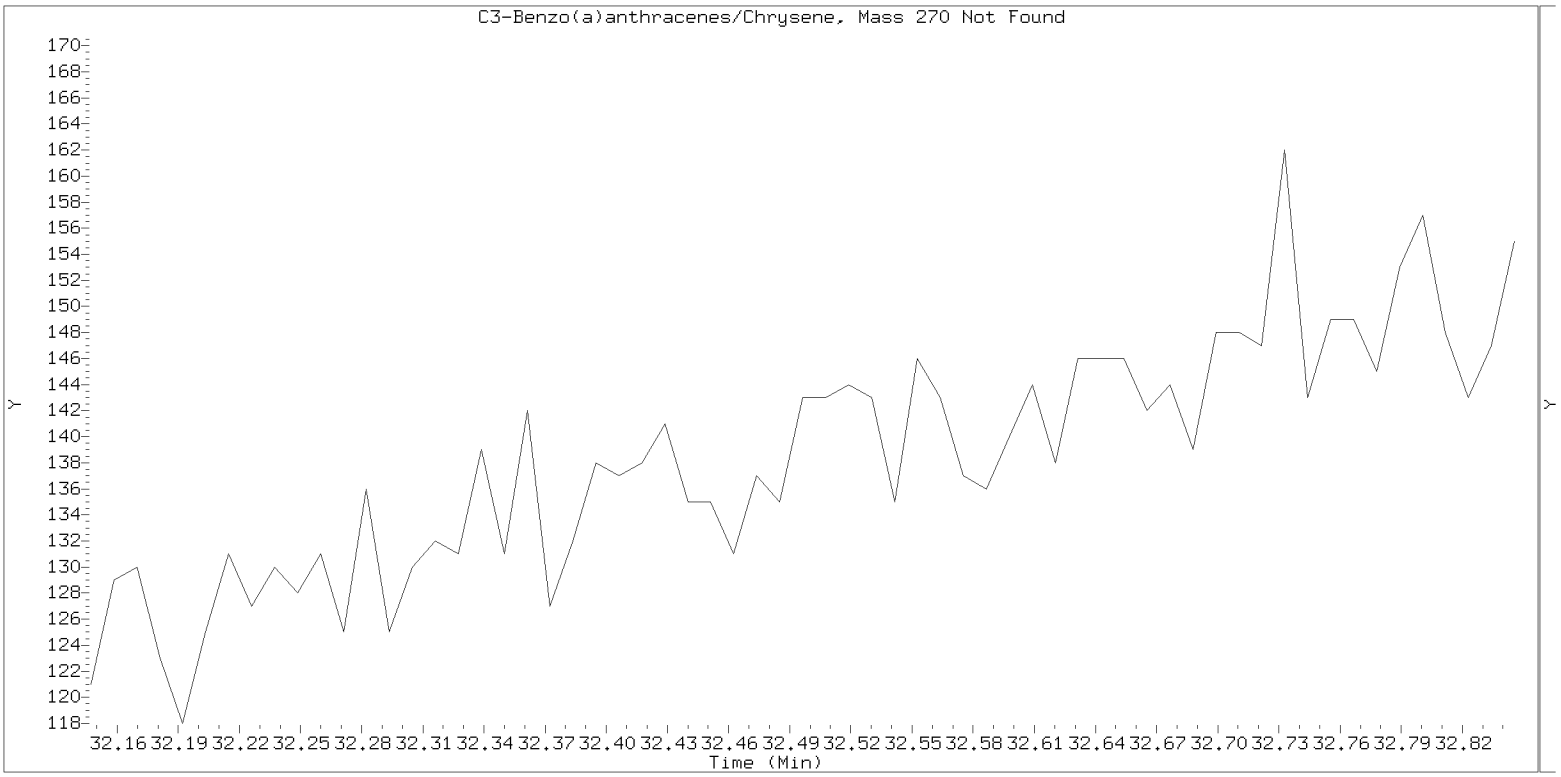


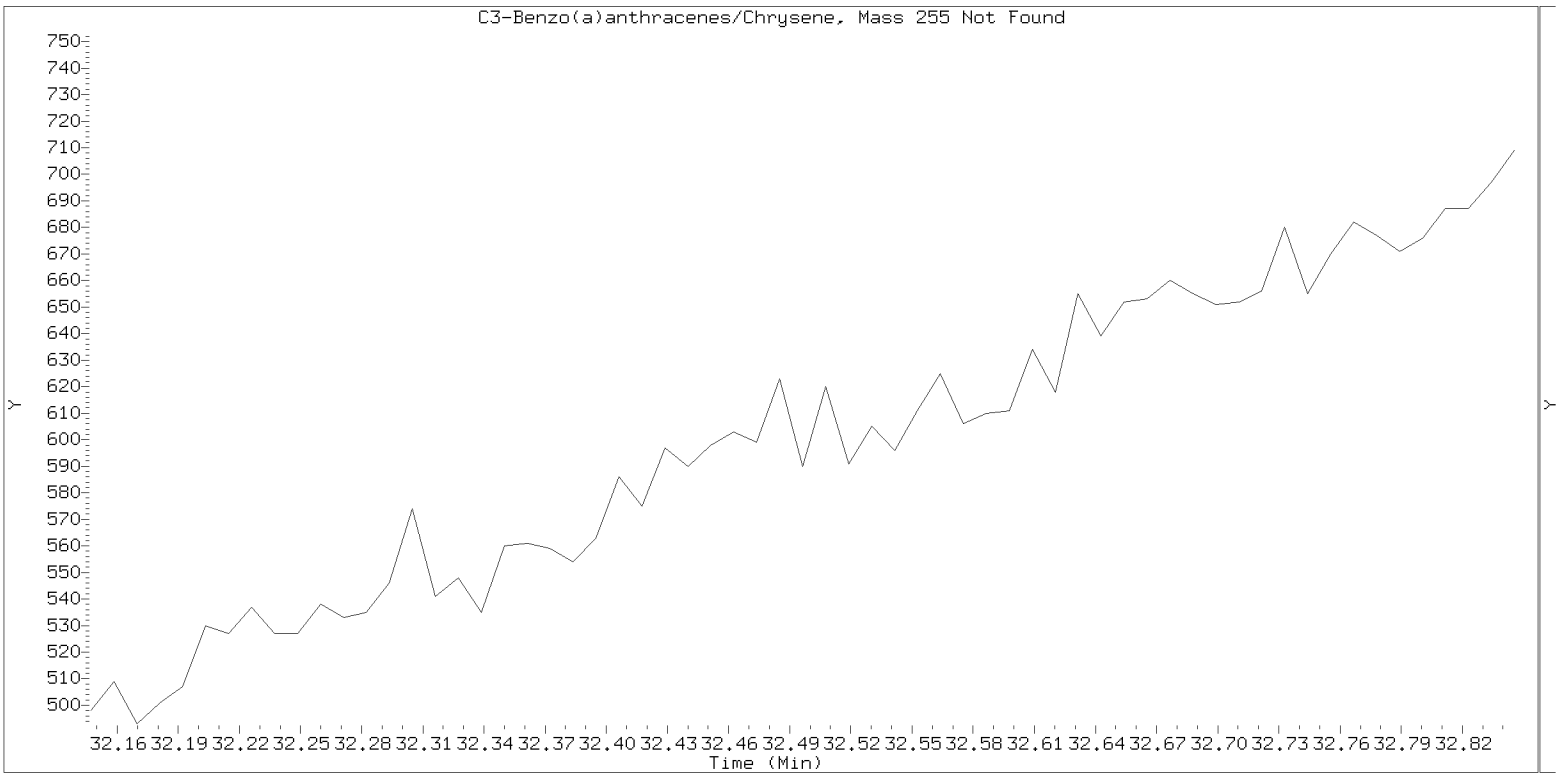


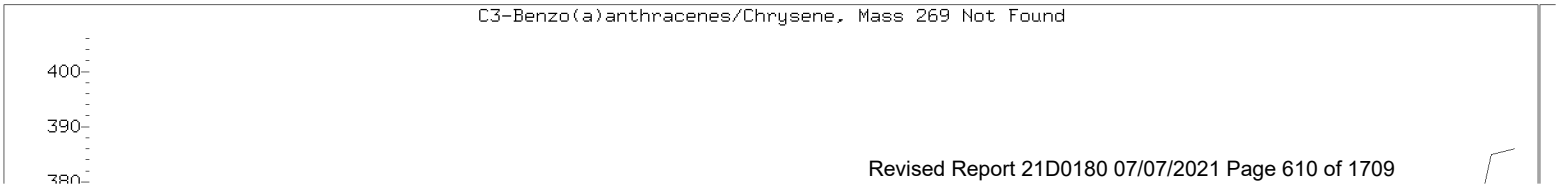

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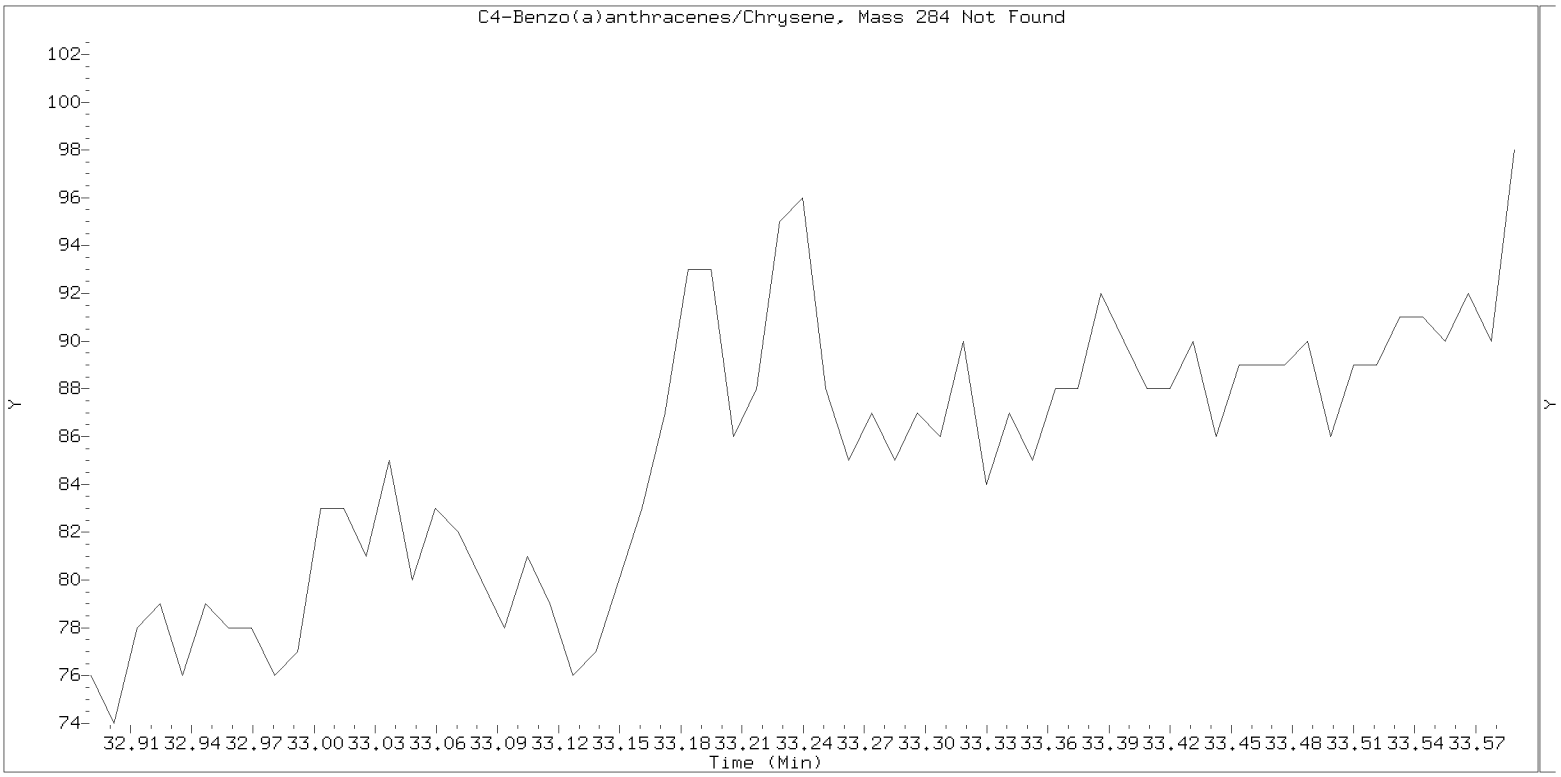


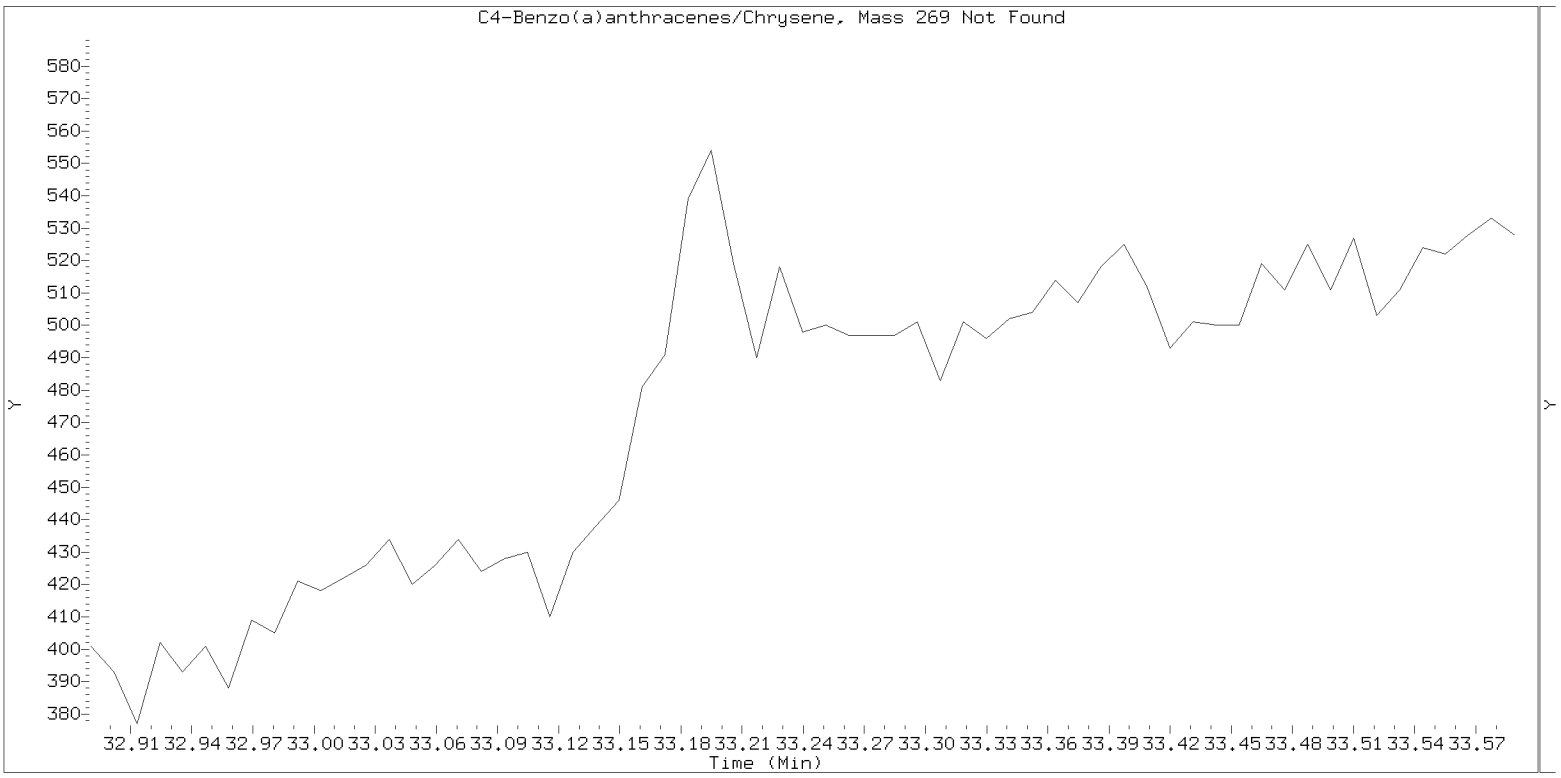


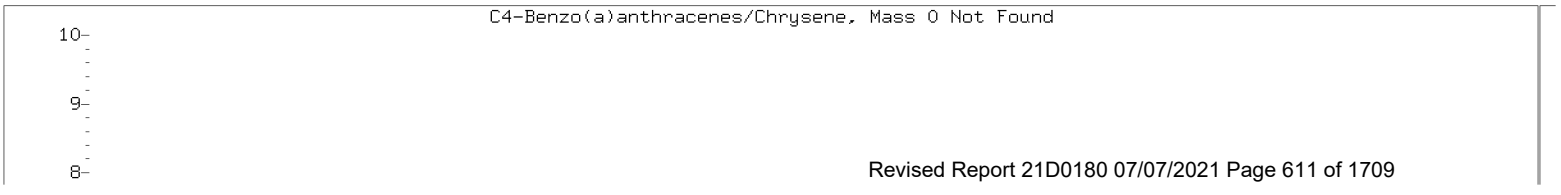

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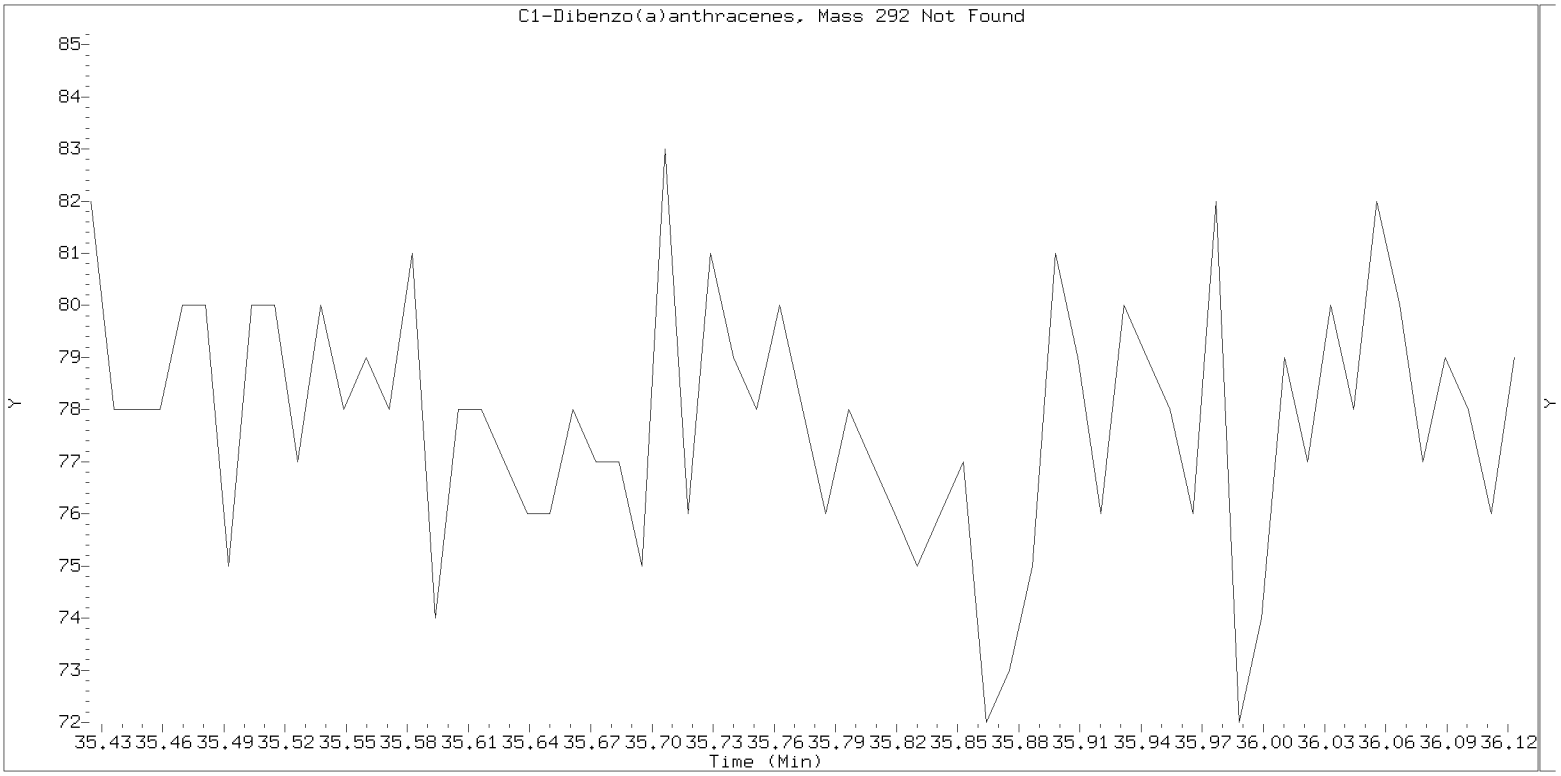

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

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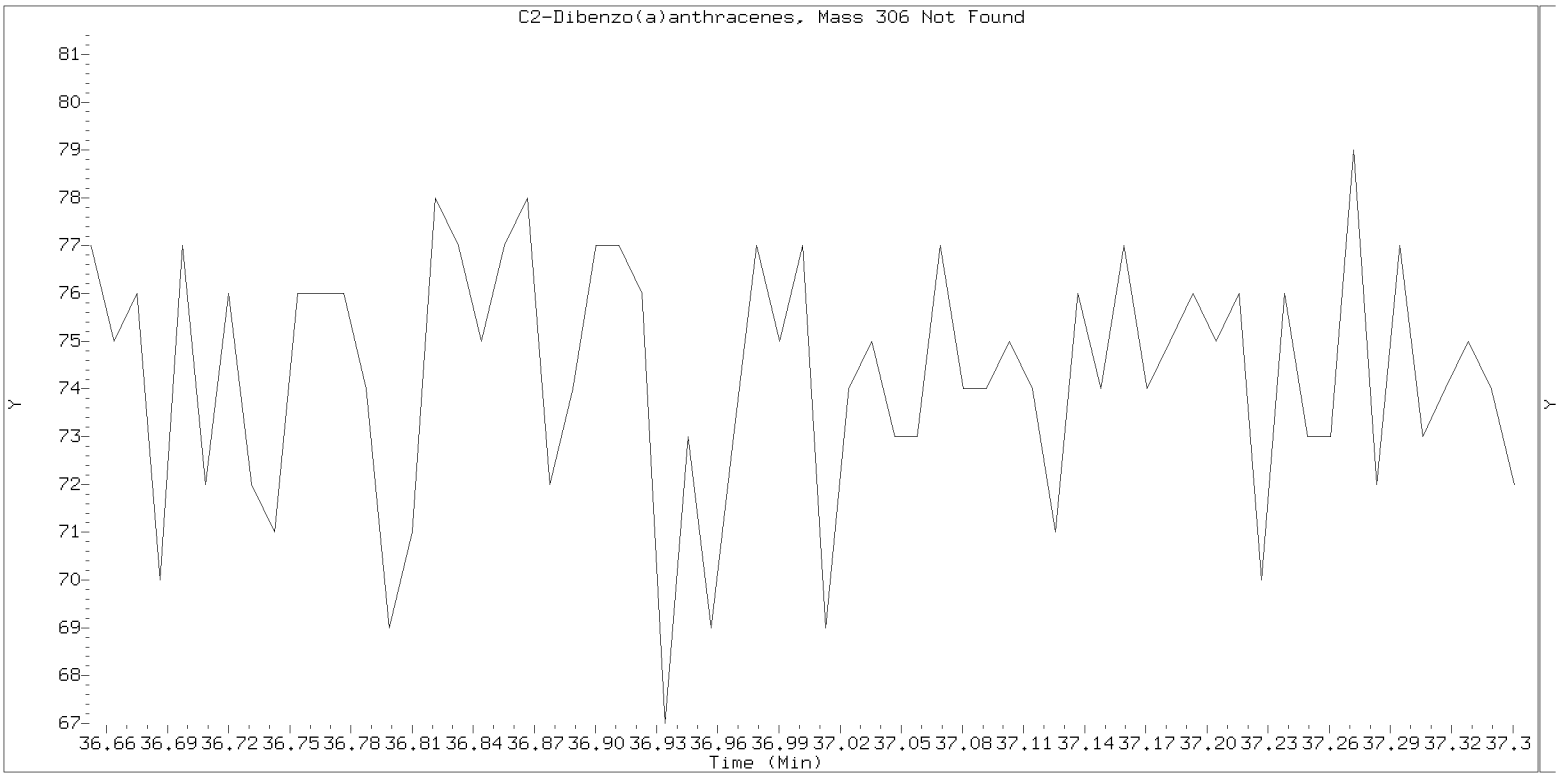

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043053S.D

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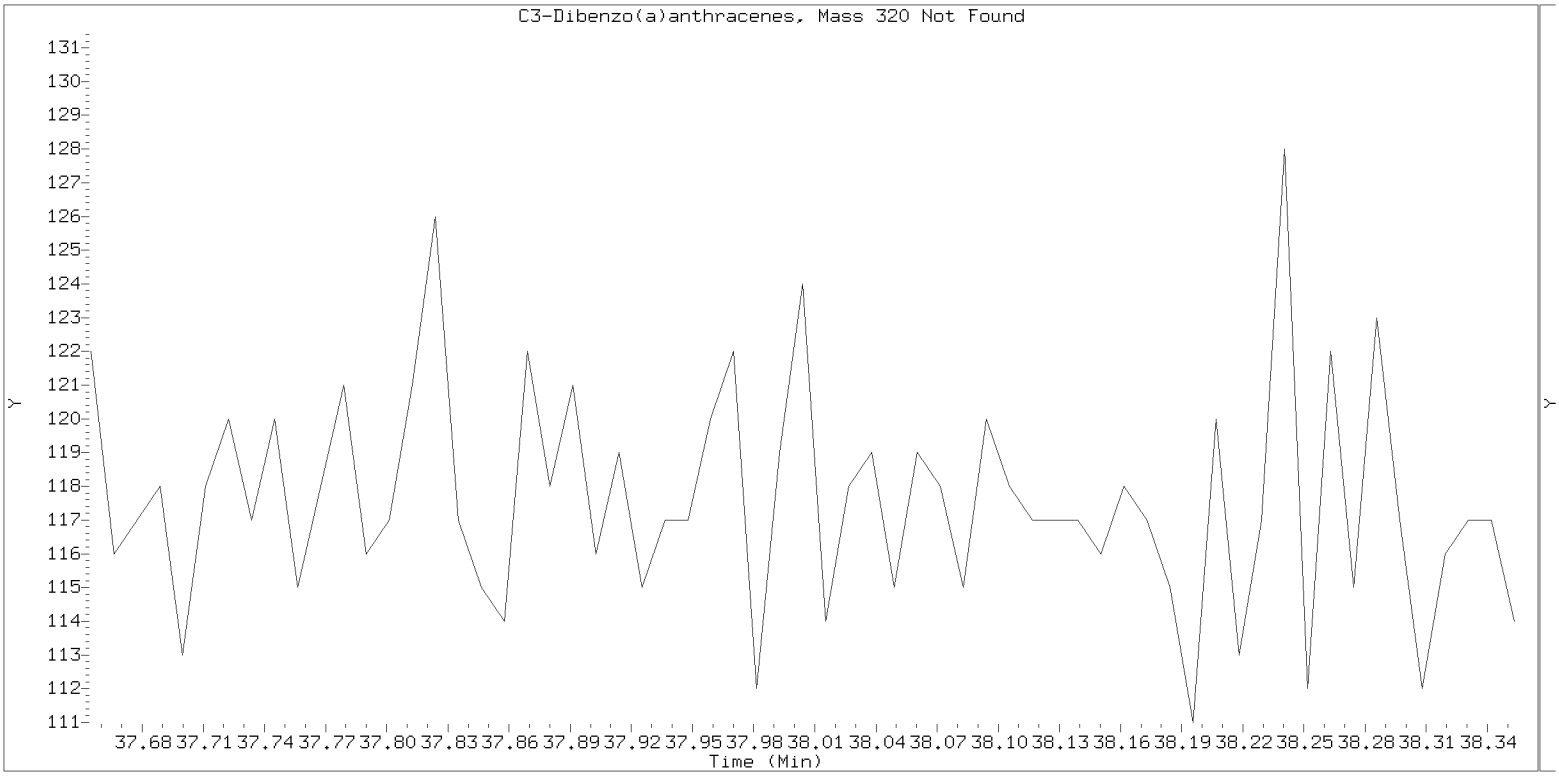


# LCS / LCS DUPLICATE RECOVERY

## EPA 8270E-SIM

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

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

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042405.D

Page 1

Date : 24-APR-2021 11:51

Client ID:

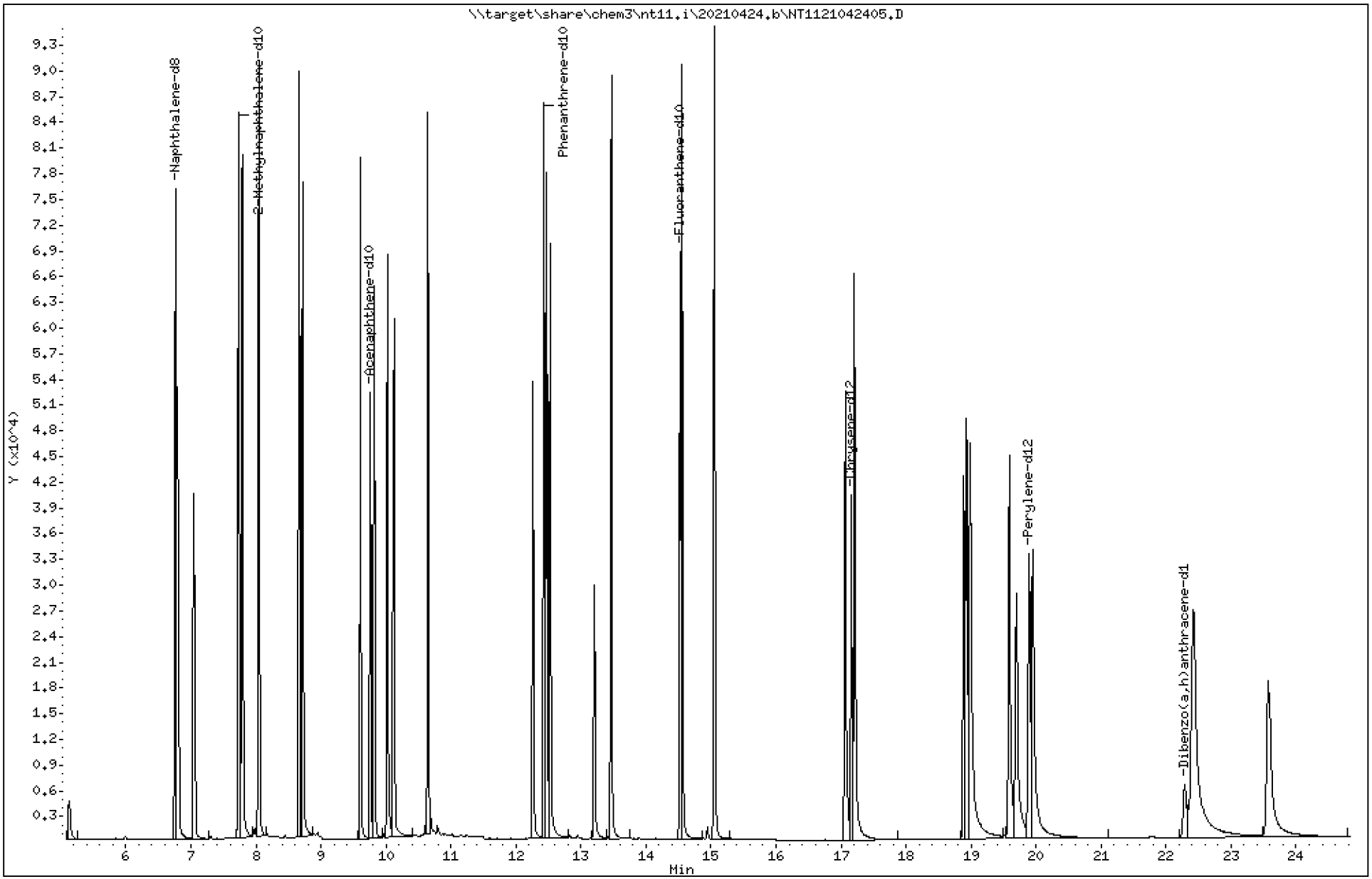
Instrument: nt11.i

Sample Info: BJD0479-BS1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25




Revised Report 21D0180 07/07/2021 Page 616 of 1709

Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042405.D

Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

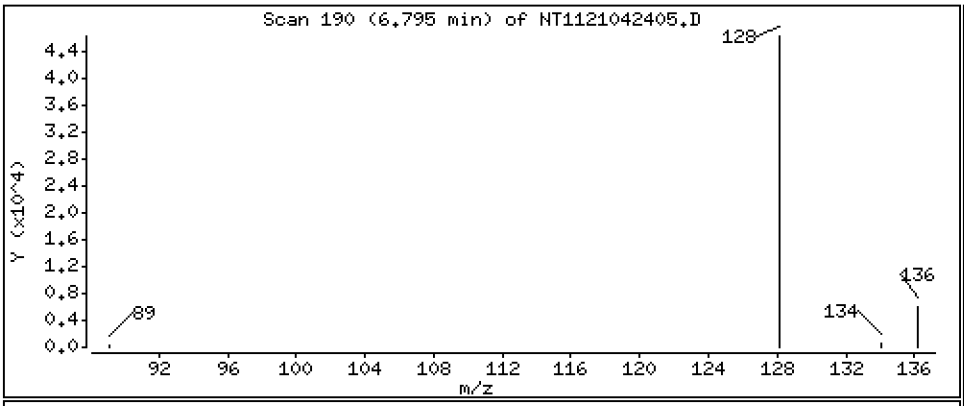
Operator: VTS

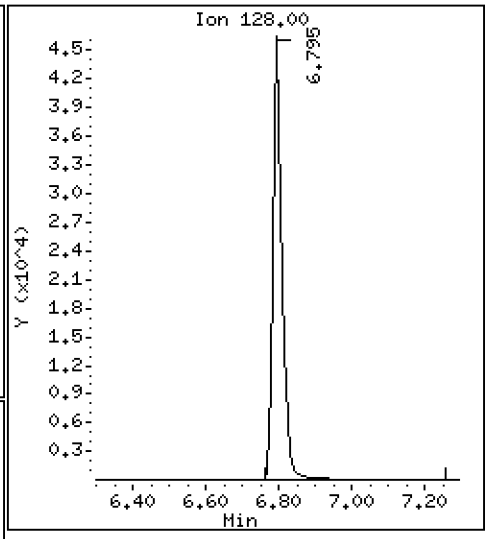
Column phase: Rxi-17Sil MS

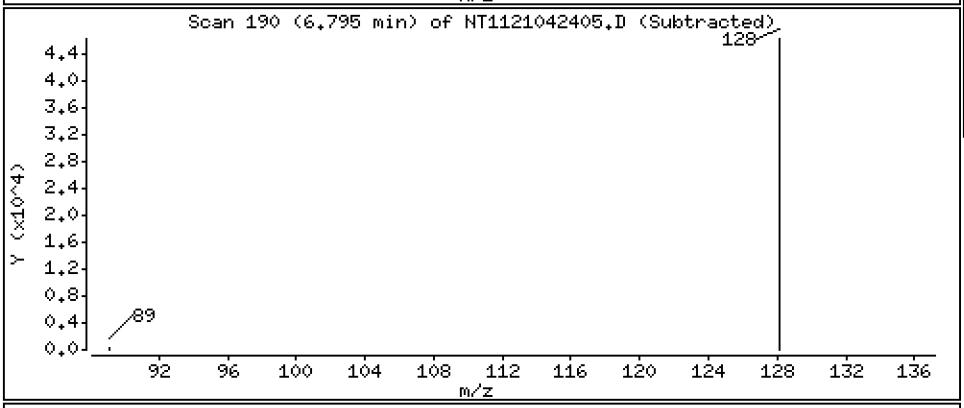
Column diameter: 0.25

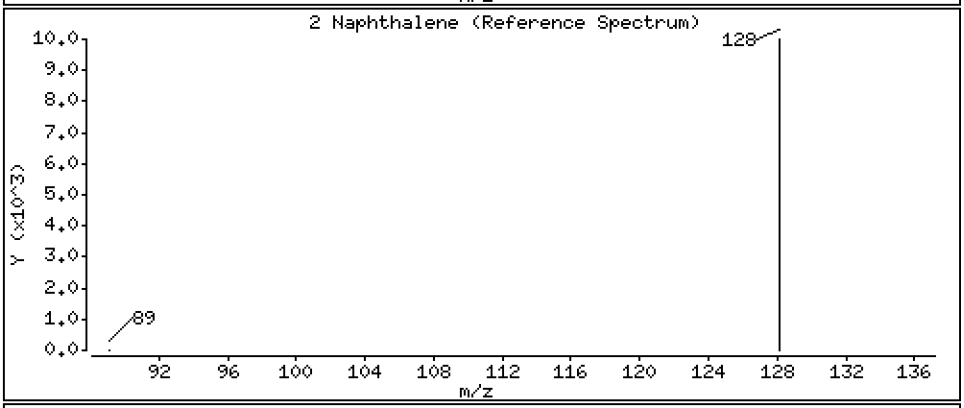
2 Naphthalene

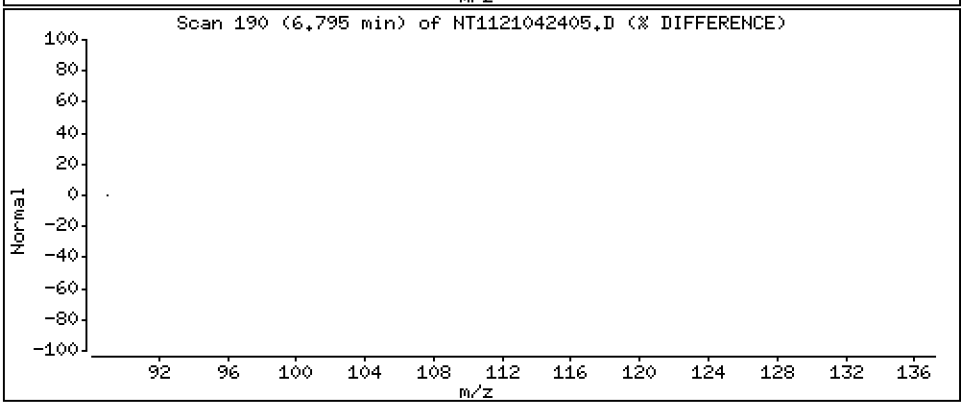
Concentration: 114 ng/mL



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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

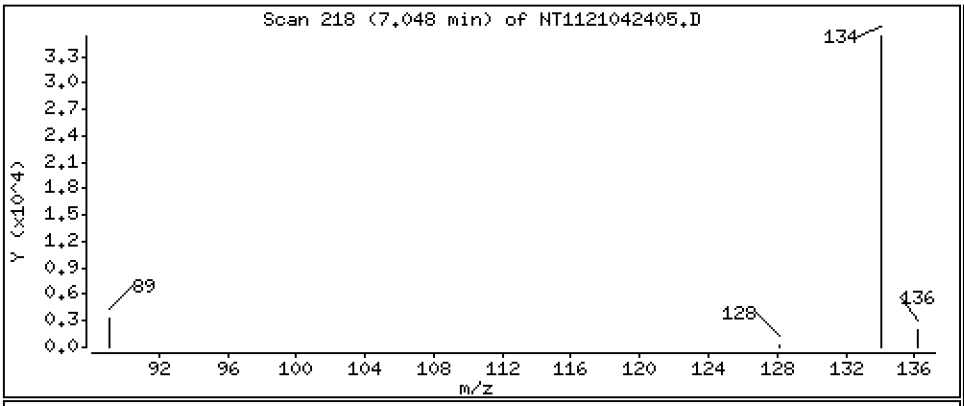
Operator: VTS

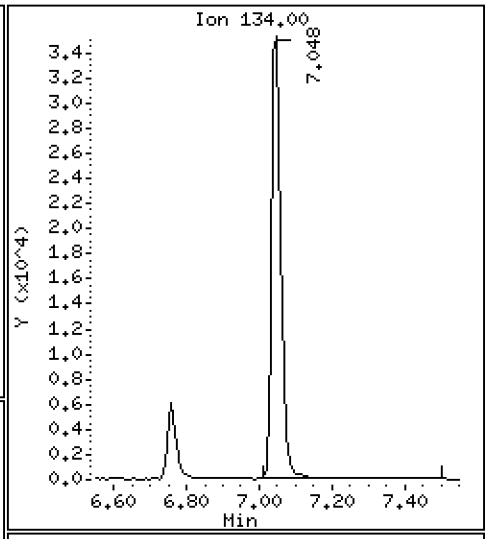
Column phase: Rxi-17Sil MS

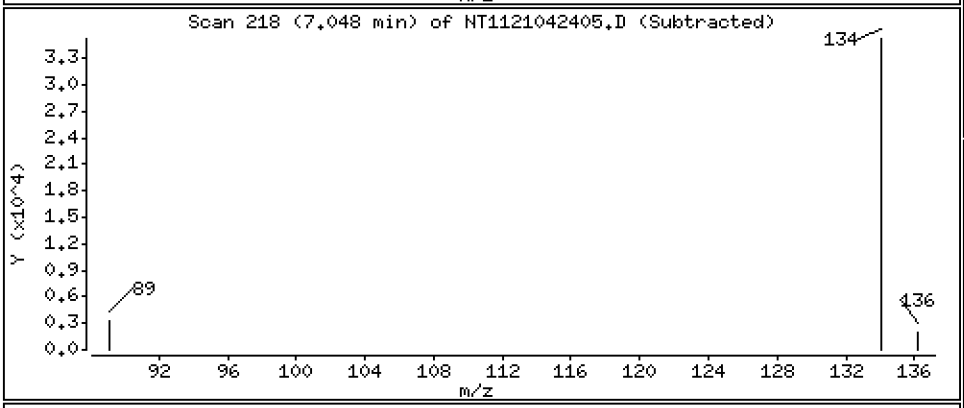
Column diameter: 0.25

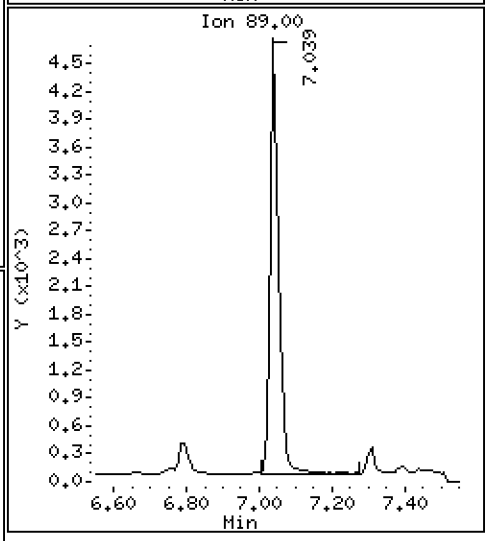
3 Benzo(b)thiophene

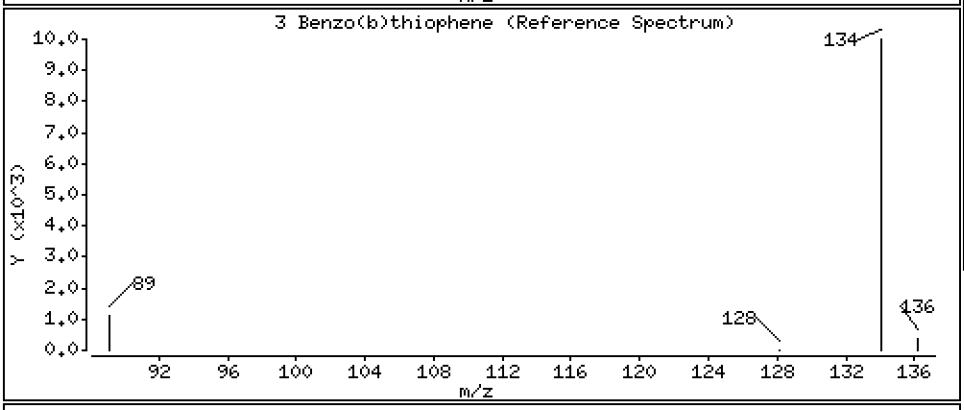
Concentration: 113 ng/mL

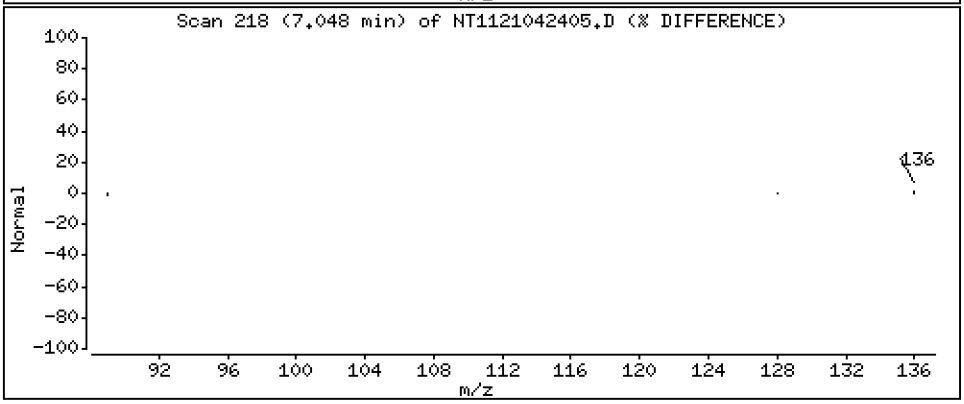


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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

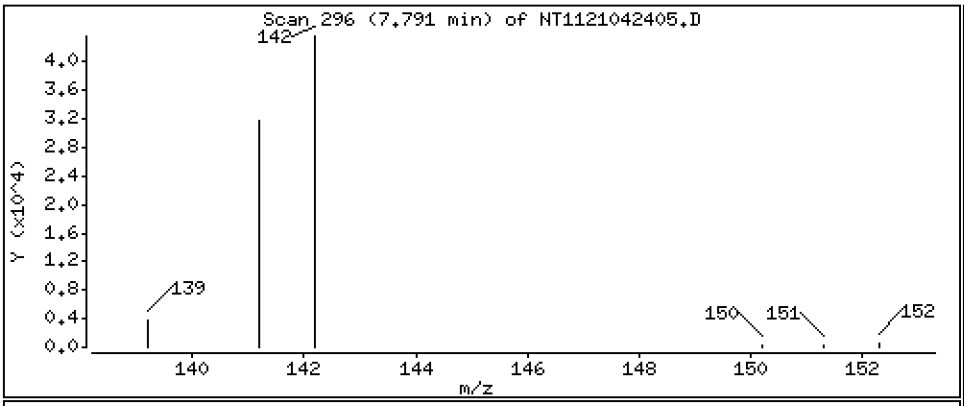
Operator: VTS

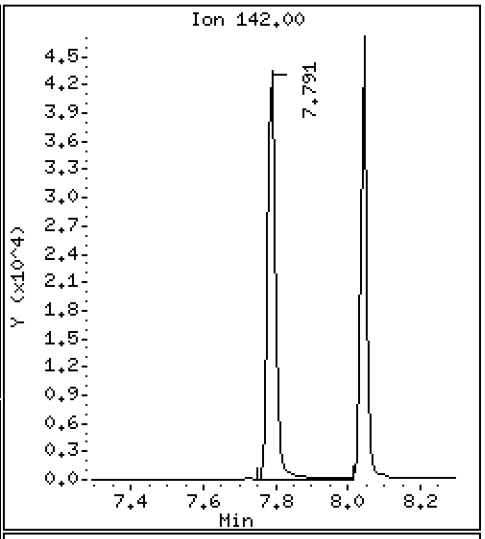
Column phase: Rxi-17Sil MS

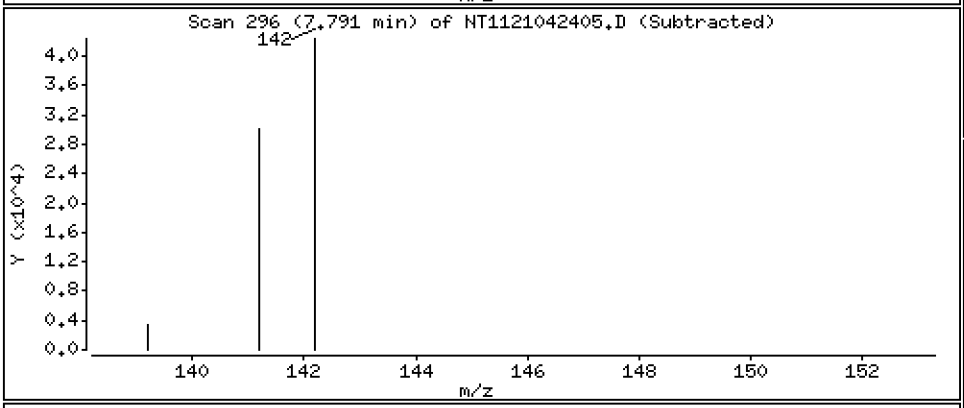
Column diameter: 0.25

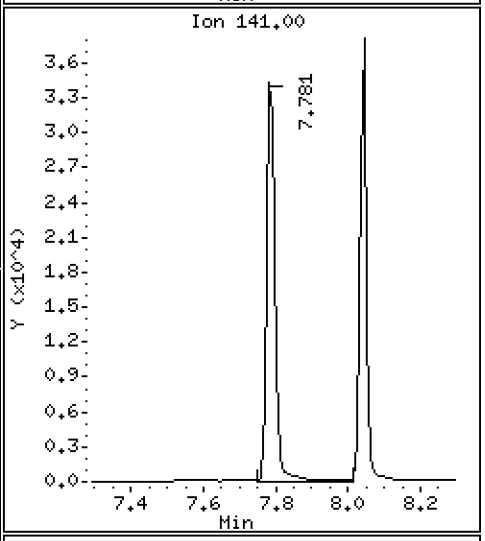
5 2-Methylnaphthalene

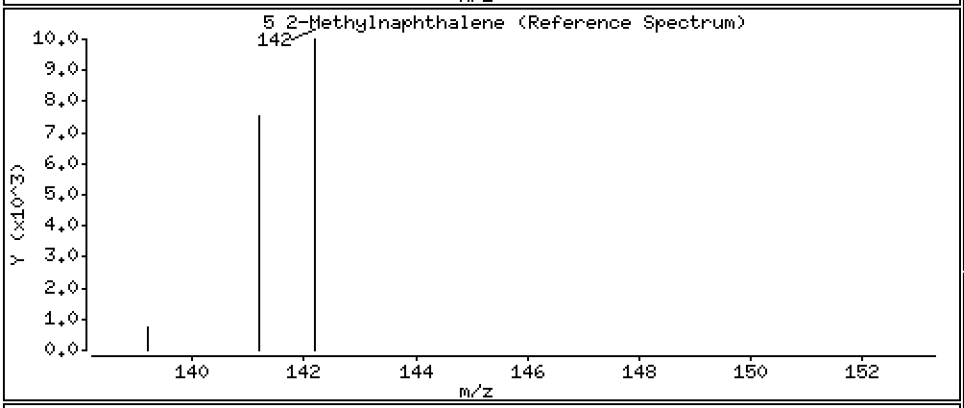
Concentration: 119 ng/mL

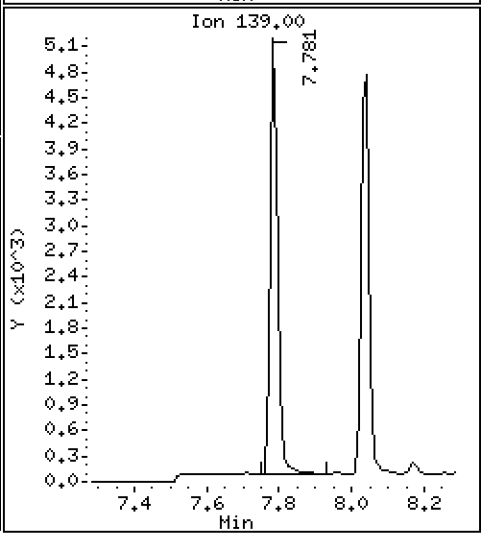


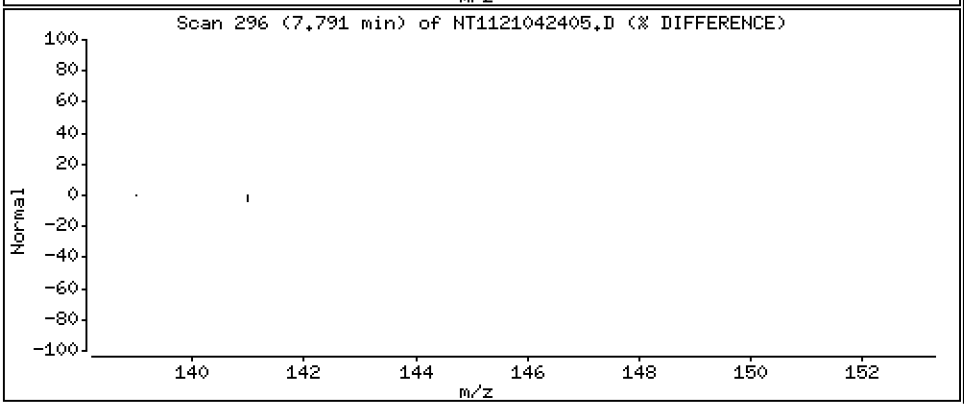



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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

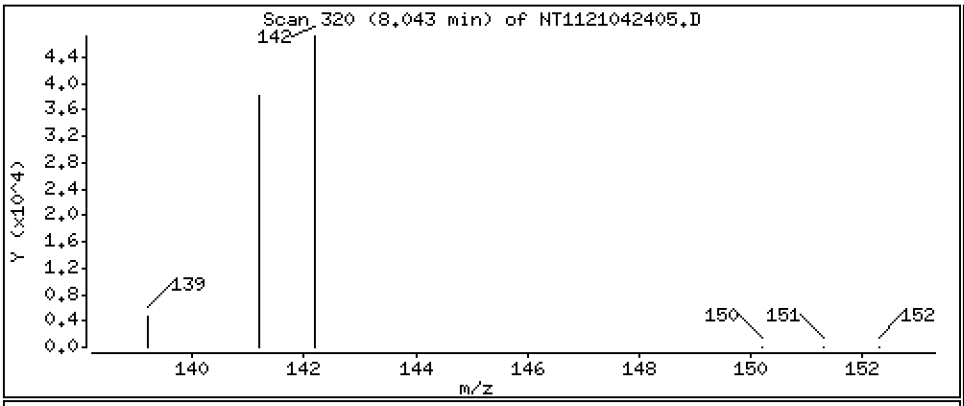
Operator: VTS

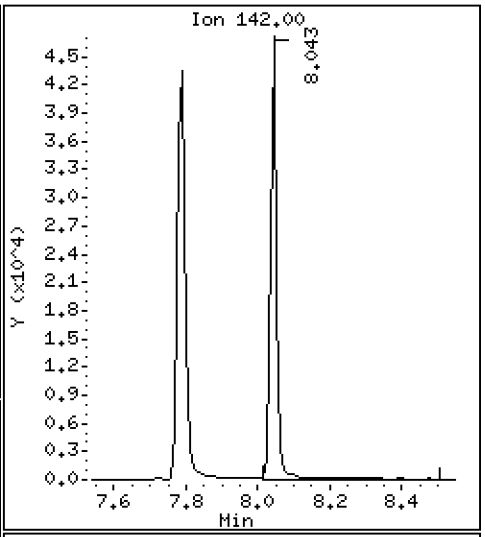
Column phase: Rxi-17Sil MS

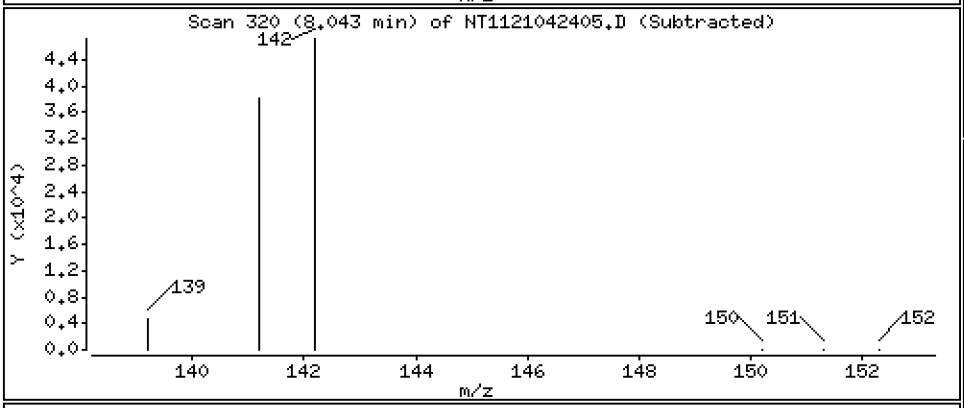
Column diameter: 0.25

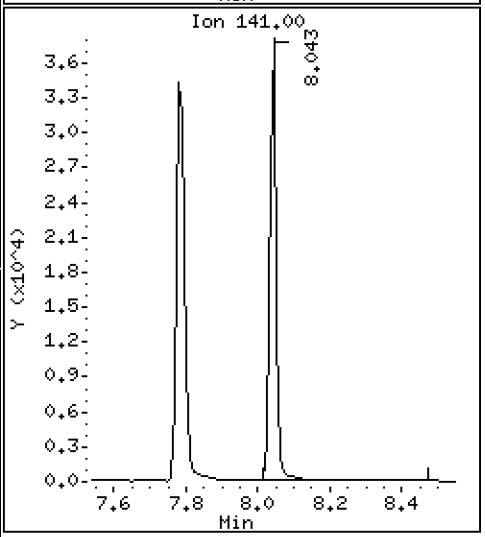
6 1-Methylnaphthalene

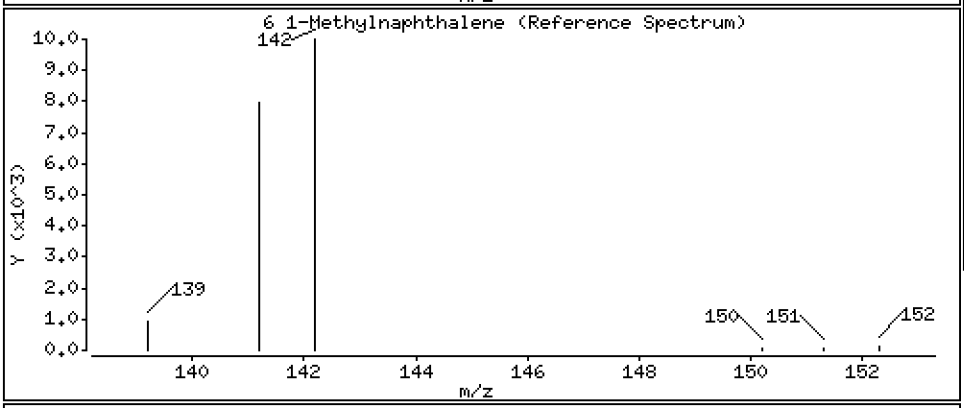
Concentration: 125 ng/mL

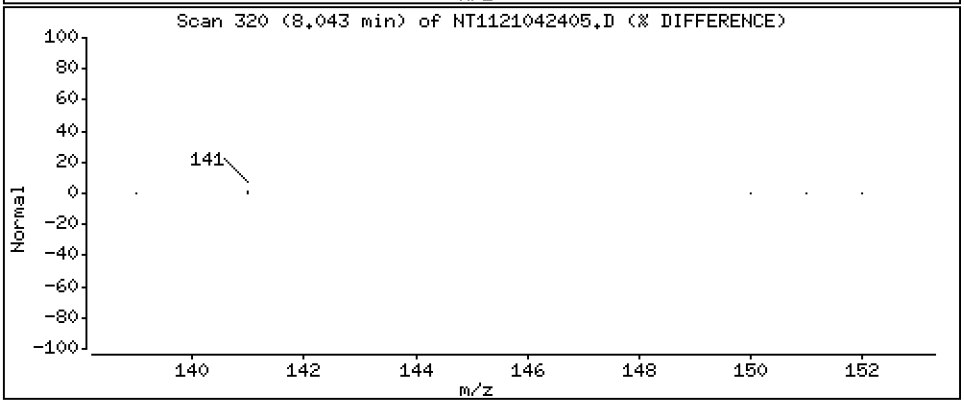


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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

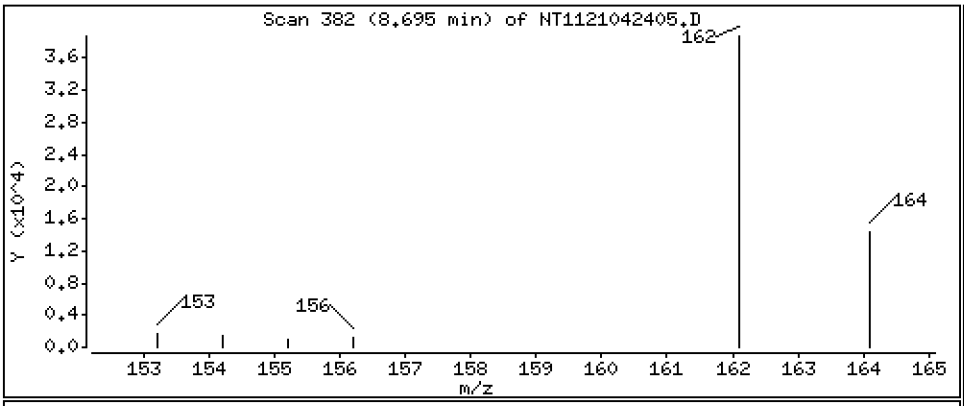
Operator: VTS

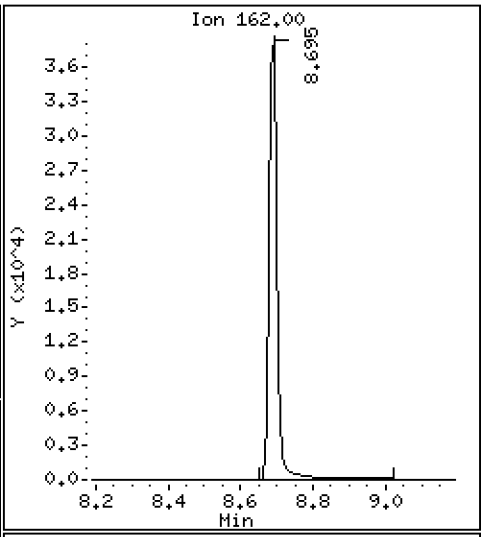
Column phase: Rxi-17Sil MS

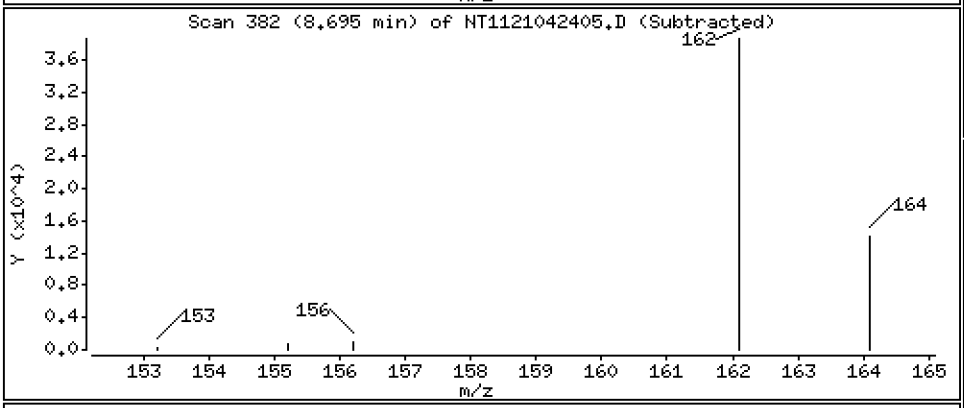
Column diameter: 0.25

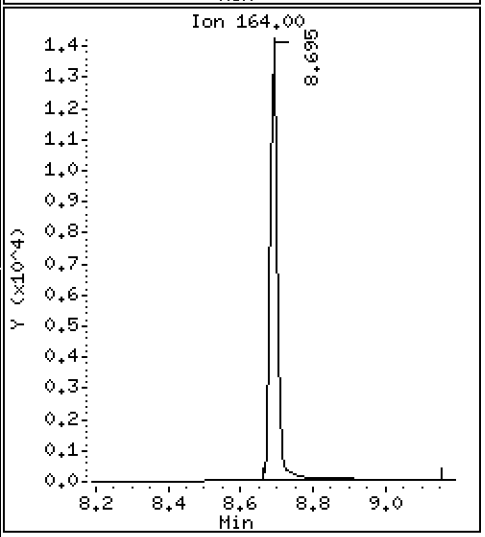
7 2-Chloronaphthalene

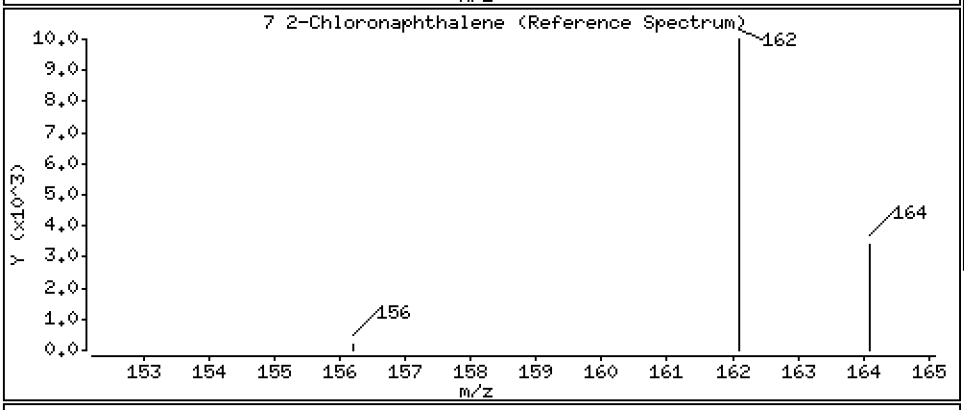
Concentration: 109 ng/mL

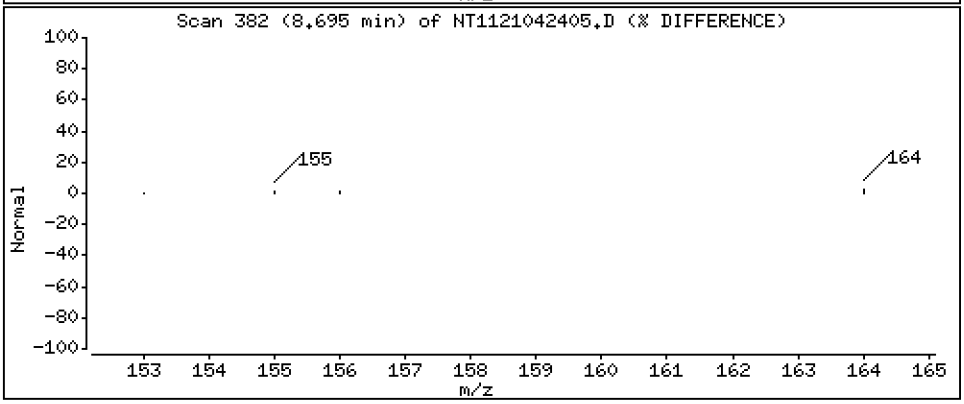


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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

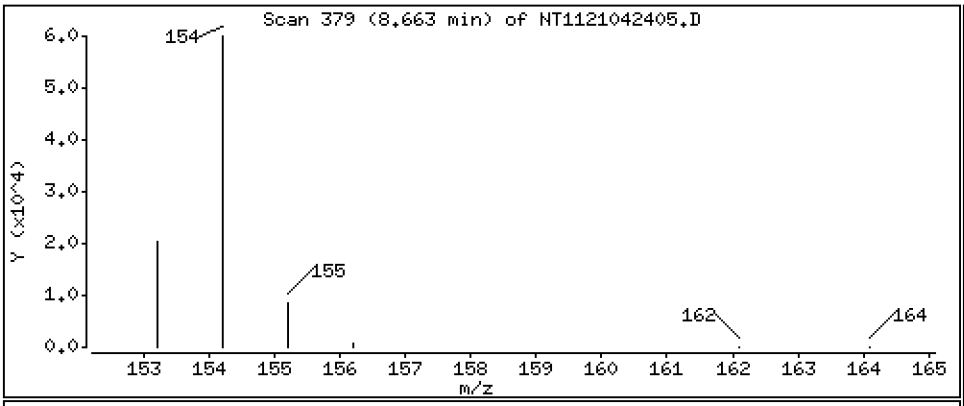
Operator: VTS

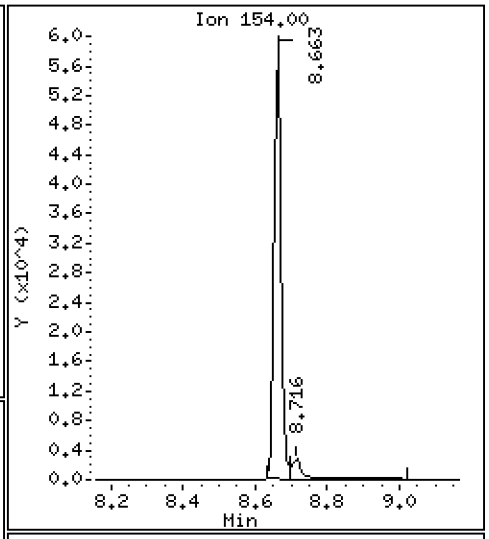
Column phase: Rxi-17Sil MS

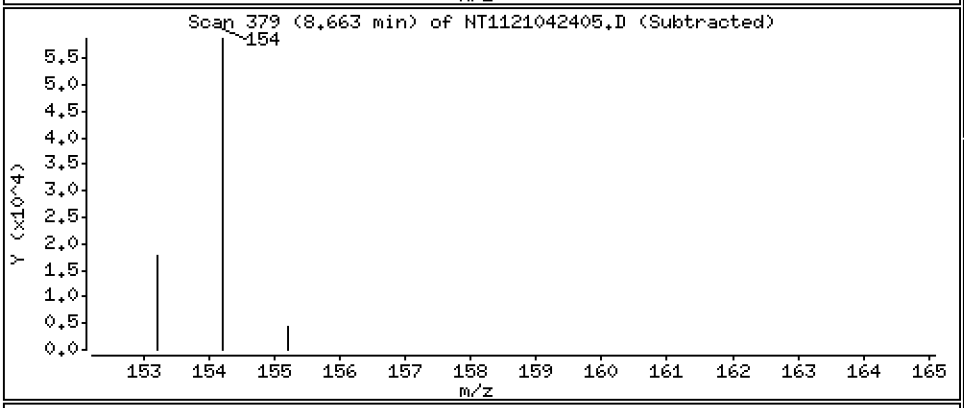
Column diameter: 0.25

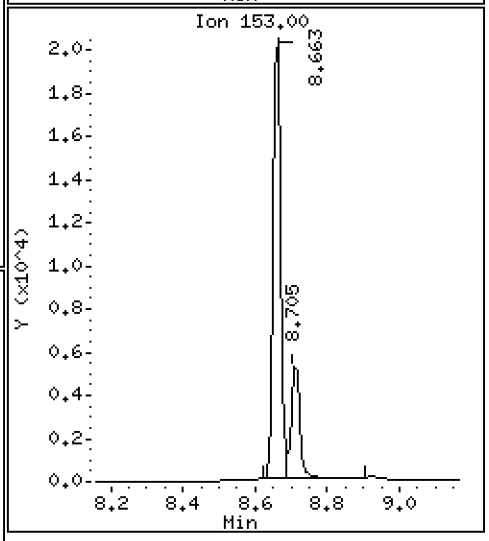
8 Biphenyl

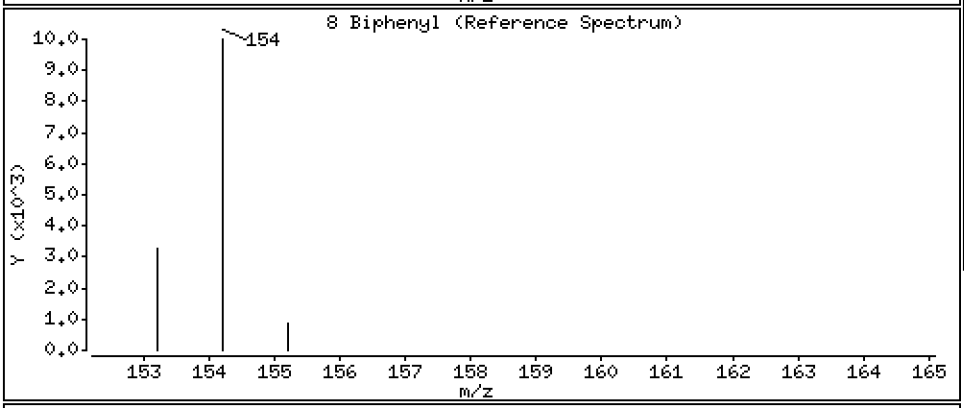
Concentration: 105 ng/mL

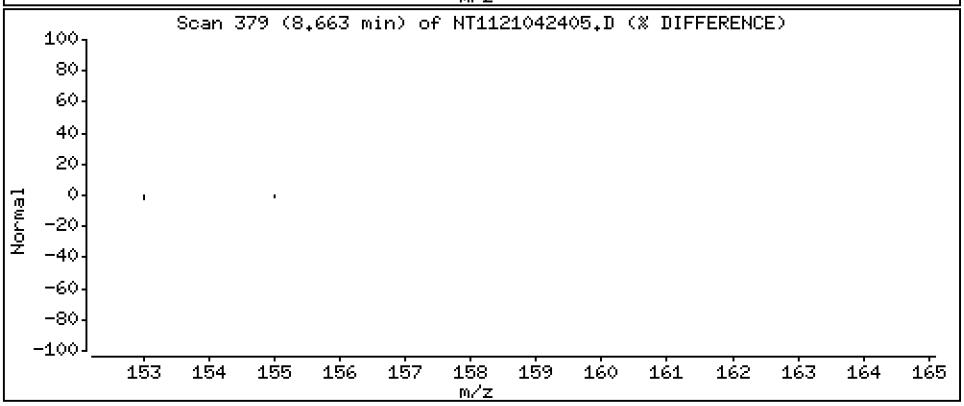


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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

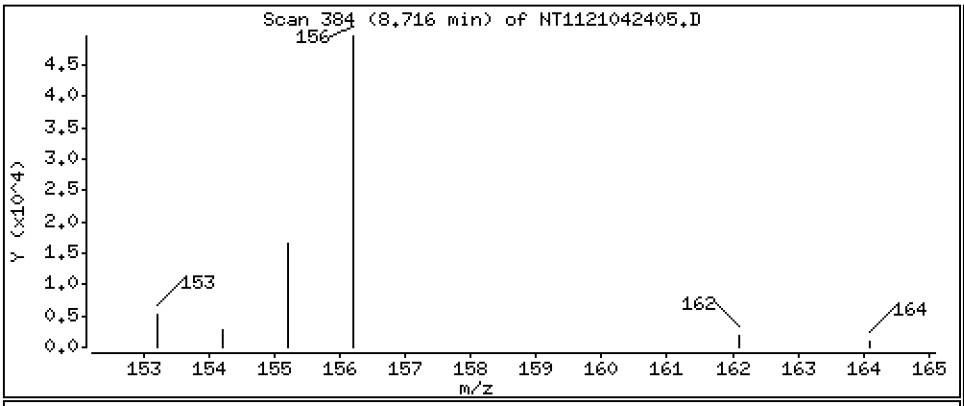
Operator: VTS

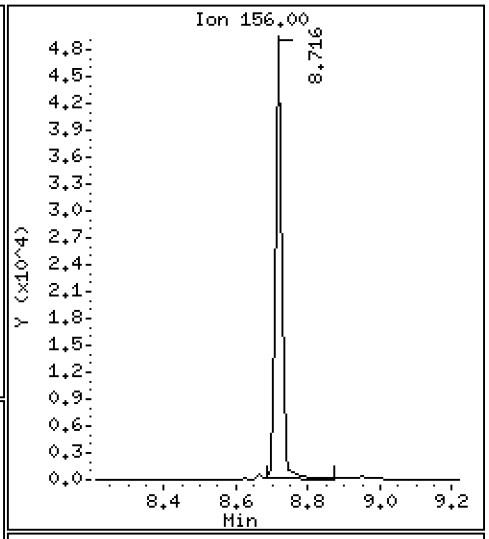
Column phase: Rxi-17Sil MS

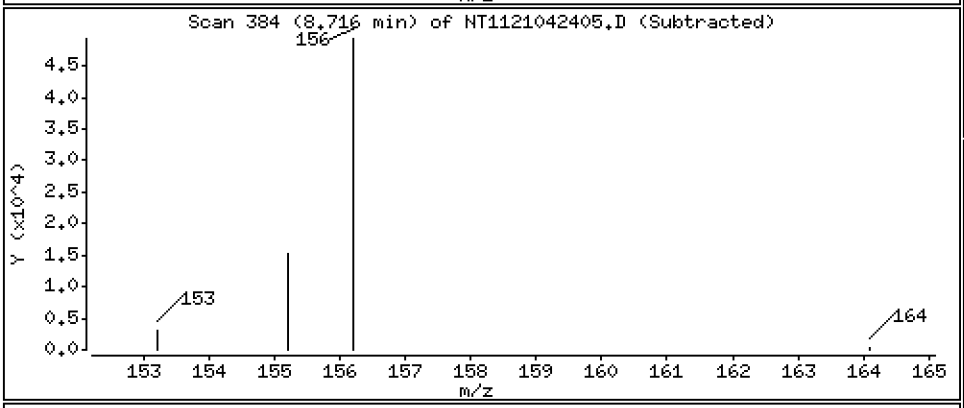
Column diameter: 0.25

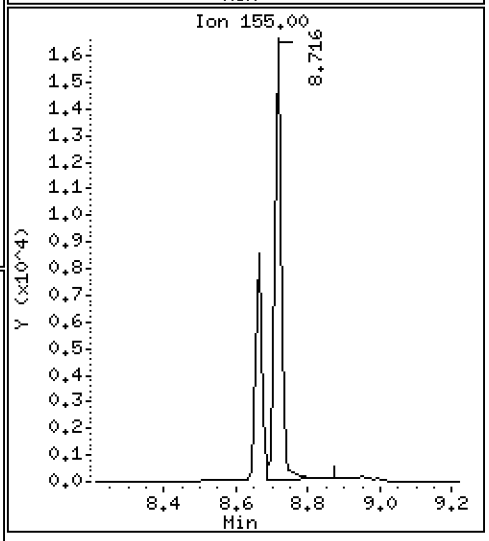
9 2,6-Dimethylnaphthalene

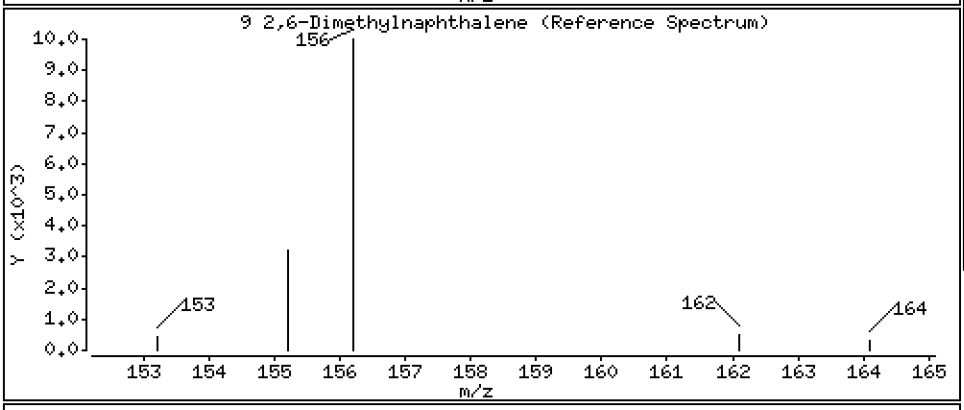
Concentration: 108 ng/mL

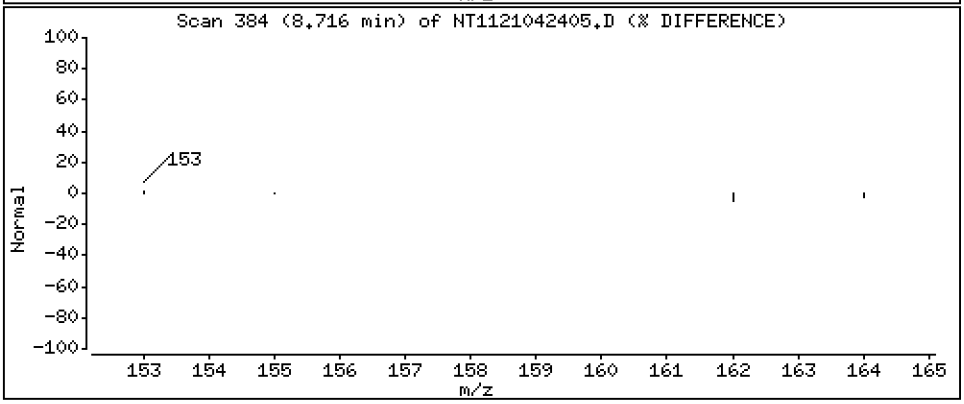


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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

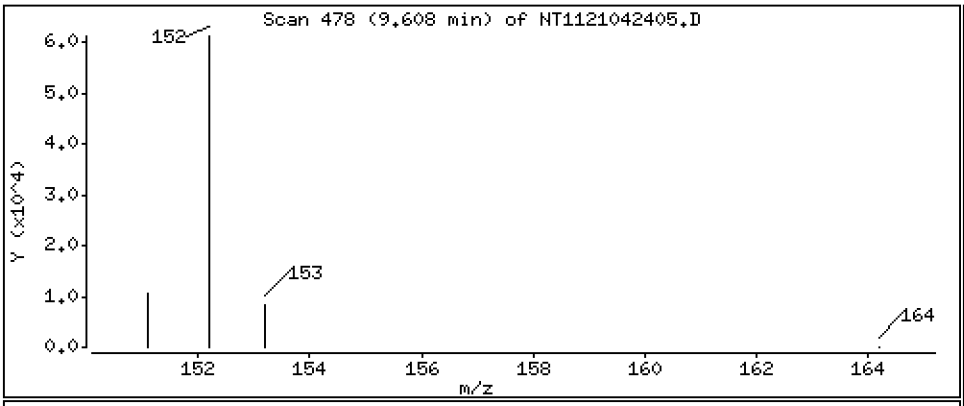
Operator: VTS

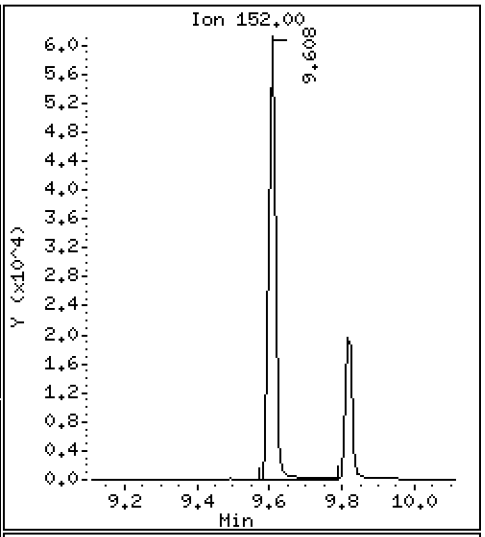
Column phase: Rxi-17Sil MS

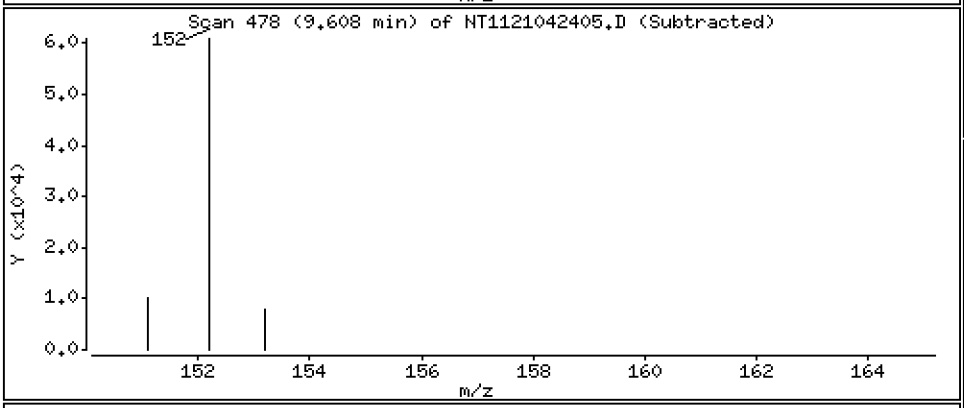
Column diameter: 0.25

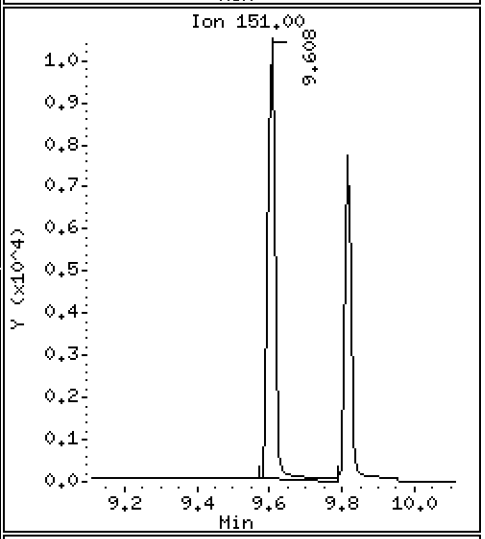
10 Acenaphthylene

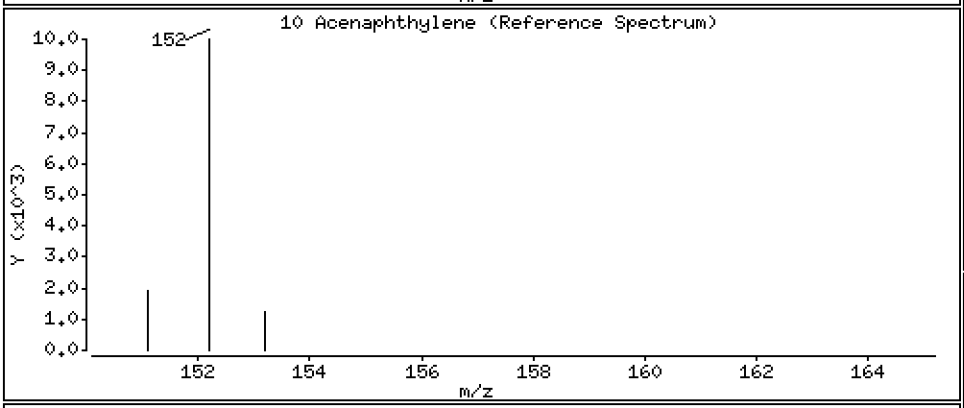
Concentration: 101 ng/mL

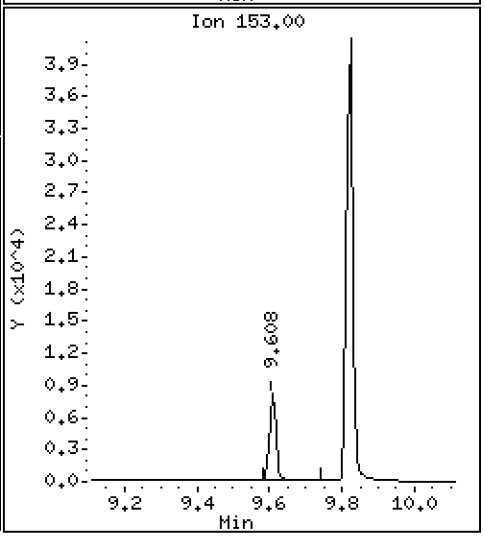


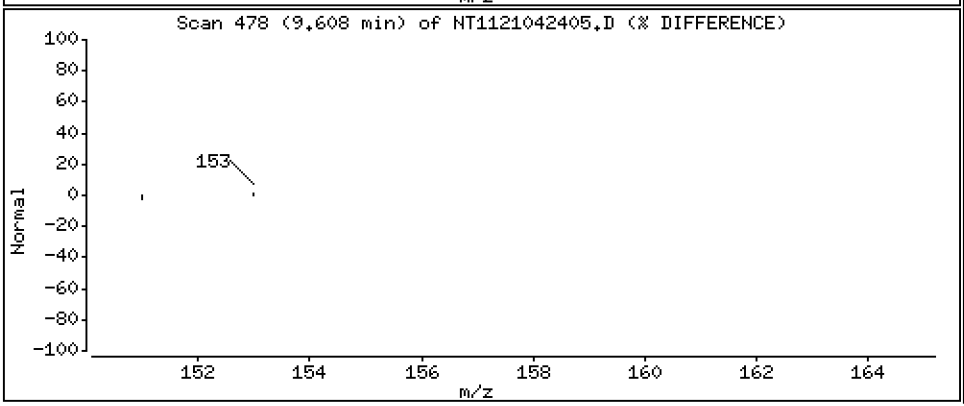



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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

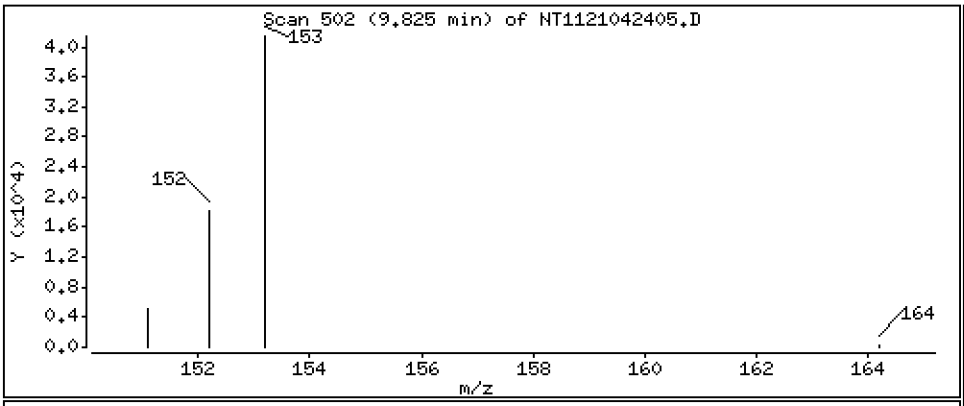
Operator: VTS

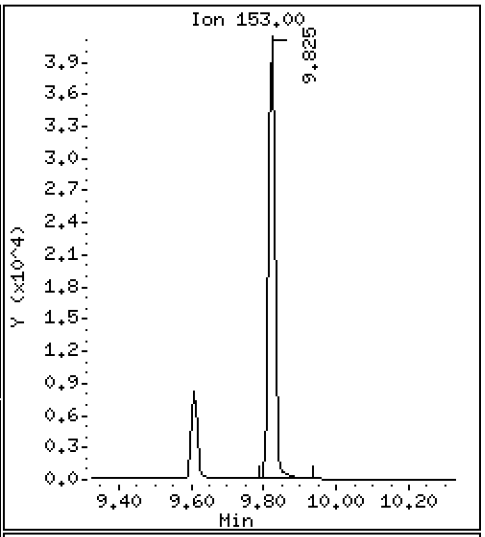
Column phase: Rxi-17Sil MS

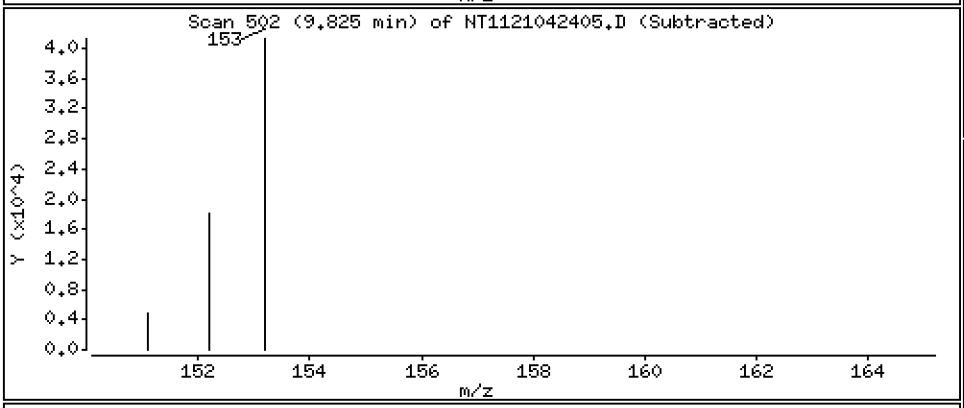
Column diameter: 0.25

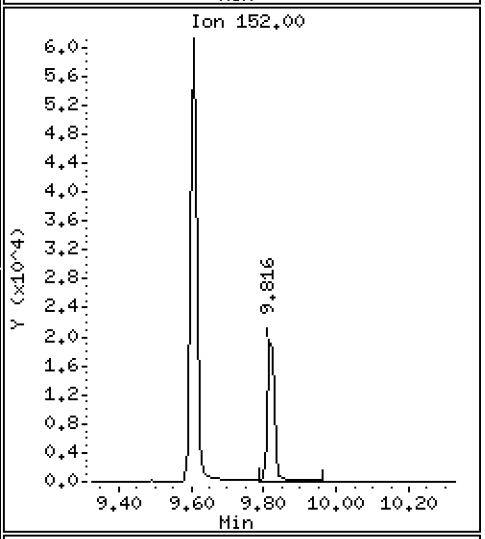
12 Acenaphthene

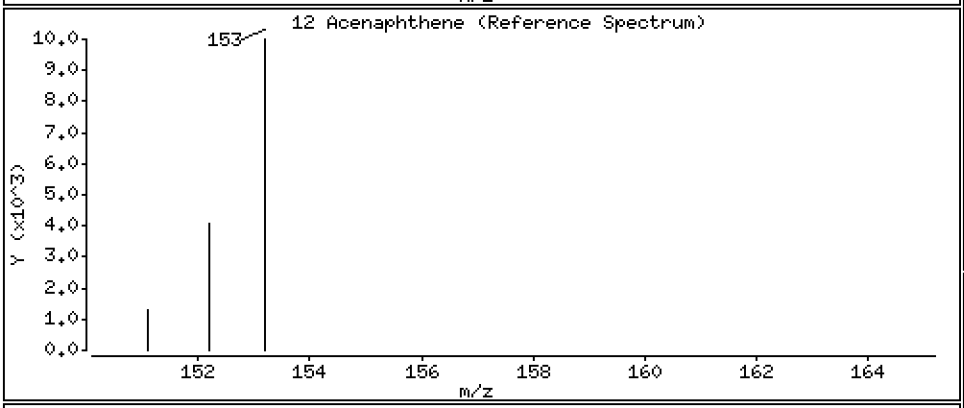
Concentration: 107 ng/mL

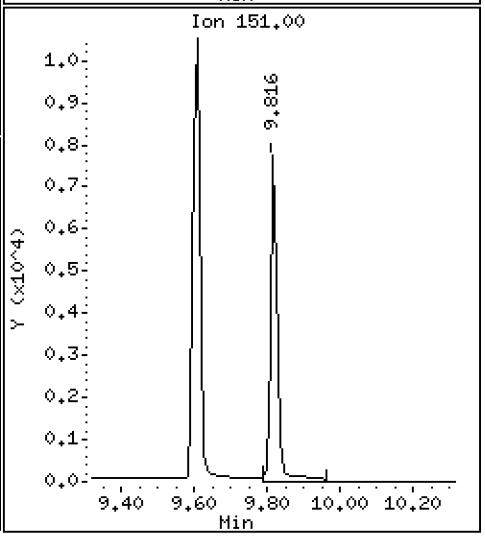


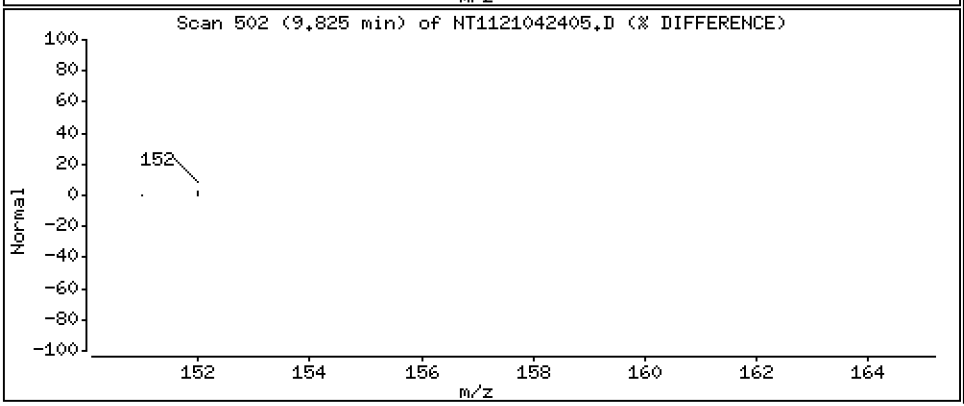



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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

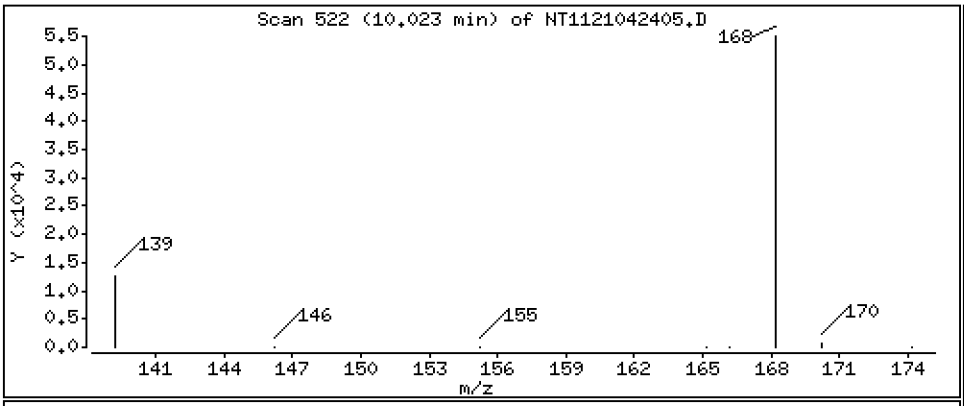
Operator: VTS

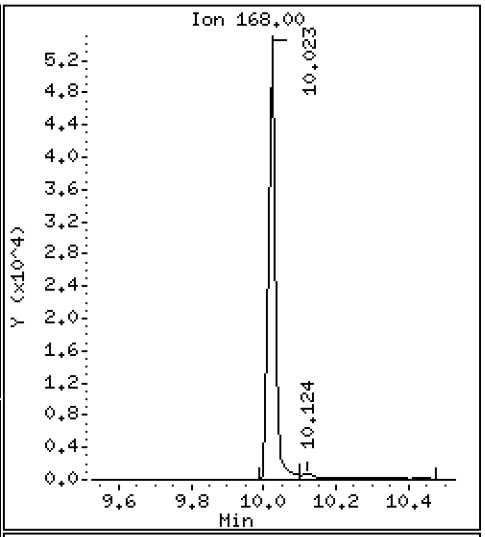
Column phase: Rxi-17Sil MS

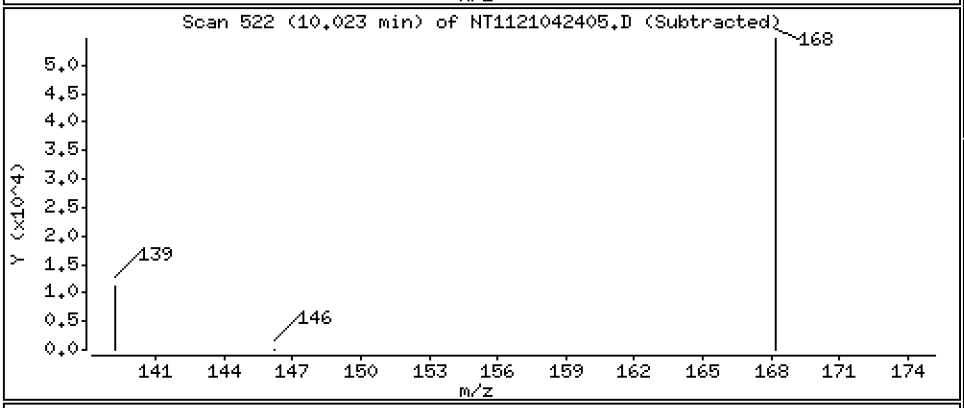
Column diameter: 0.25

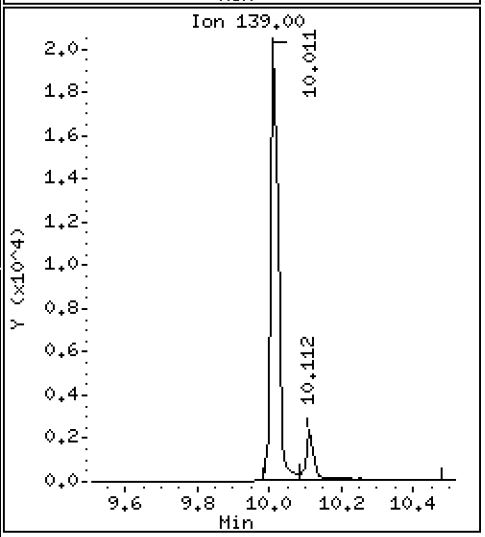
13 Dibenzofuran

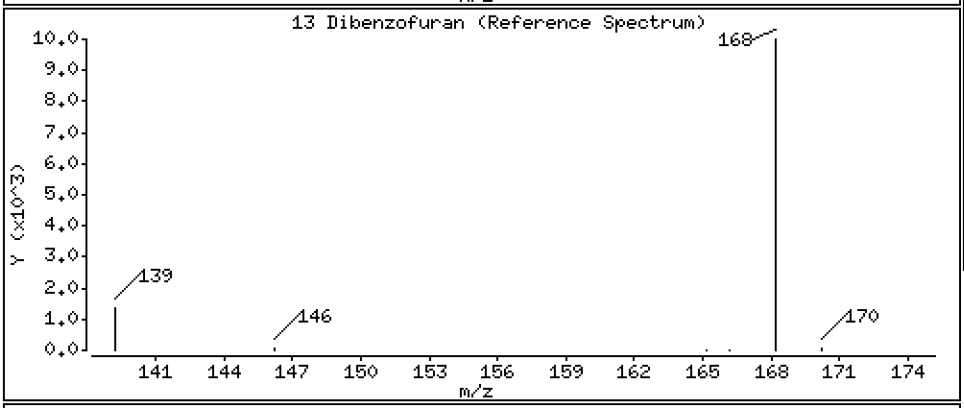
Concentration: 107 ng/mL

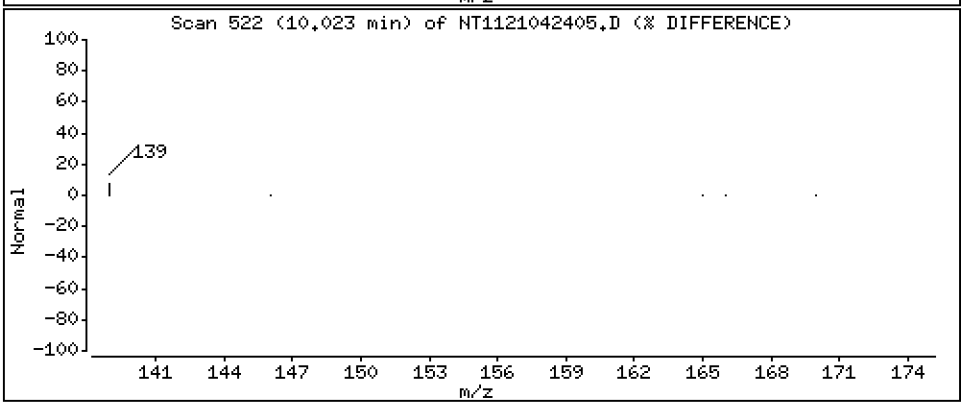


Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042405.D

Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

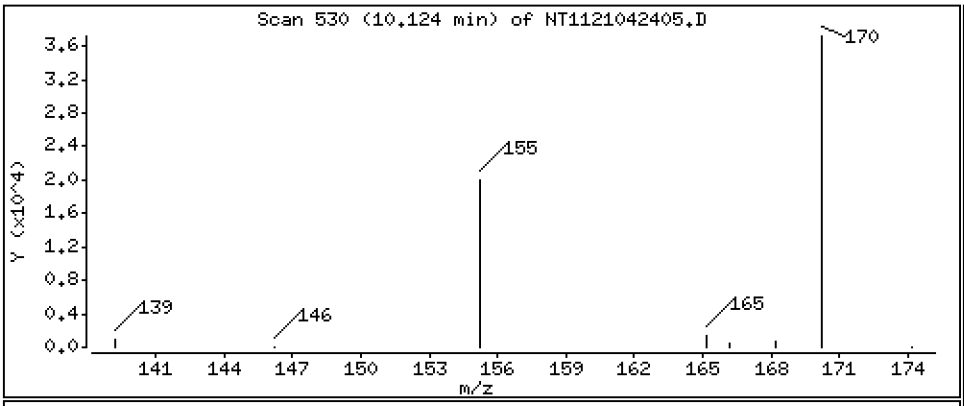
Operator: VTS

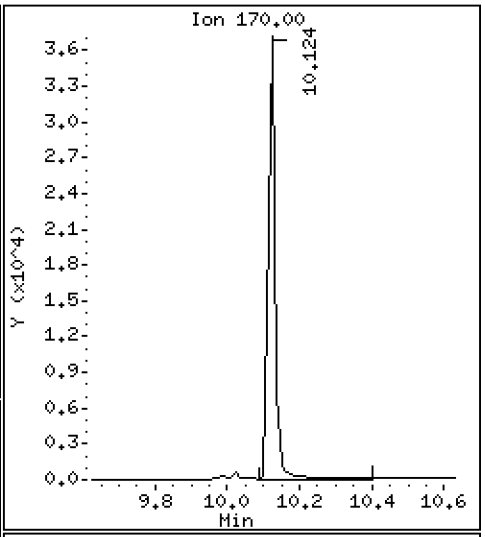
Column phase: Rxi-17Sil MS

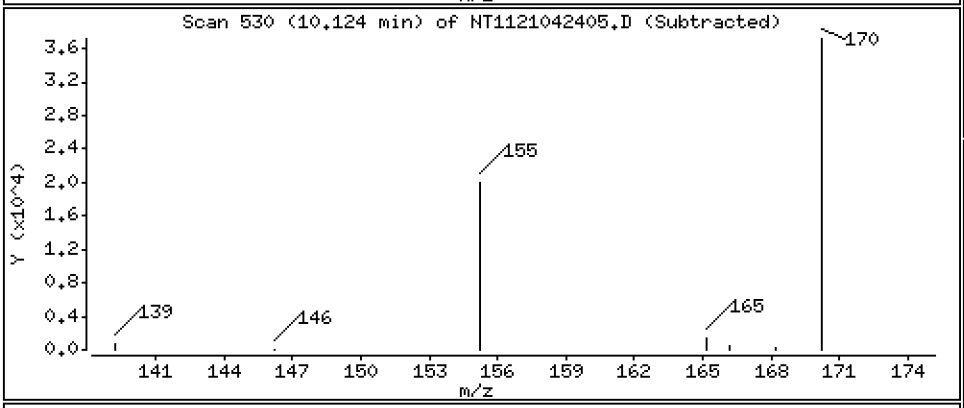
Column diameter: 0.25

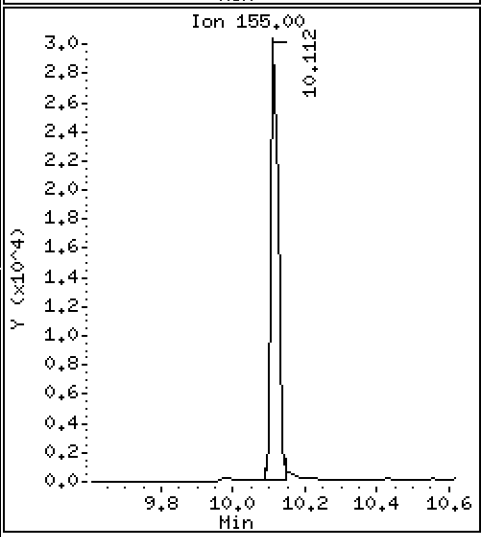
14 2,3,5-Trimethylnaphthalene

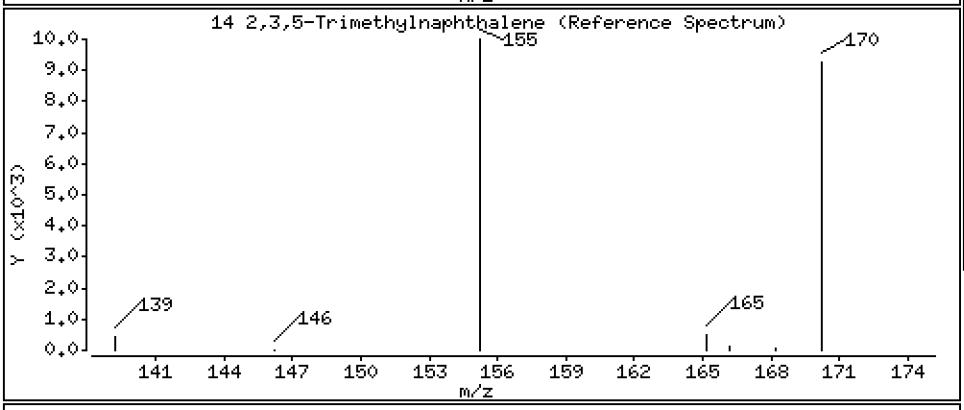
Concentration: 116 ng/mL

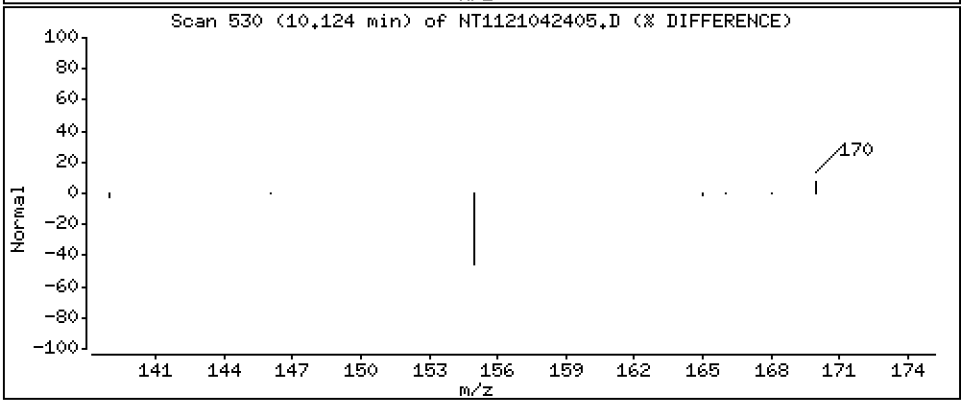


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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

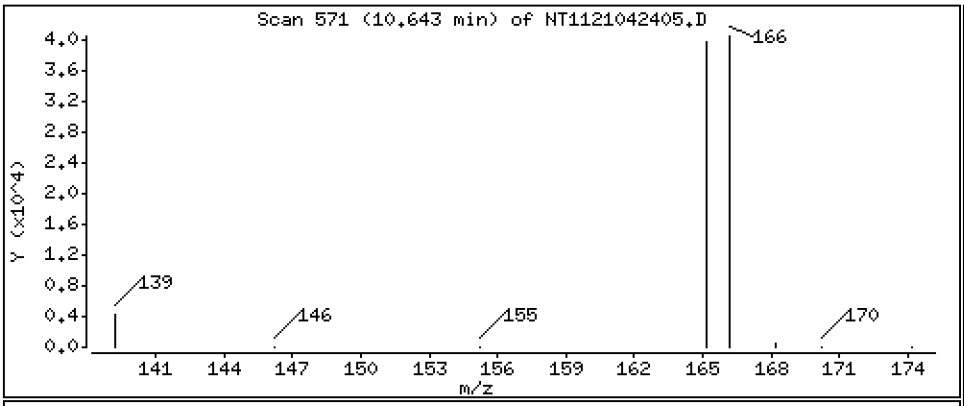
Operator: VTS

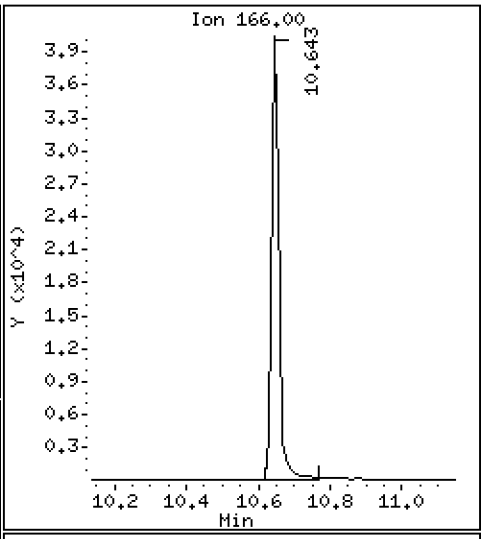
Column phase: Rxi-17Sil MS

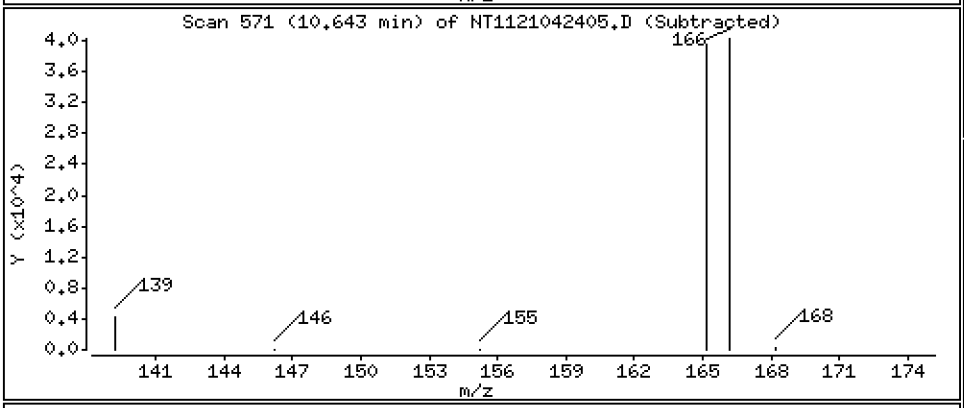
Column diameter: 0.25

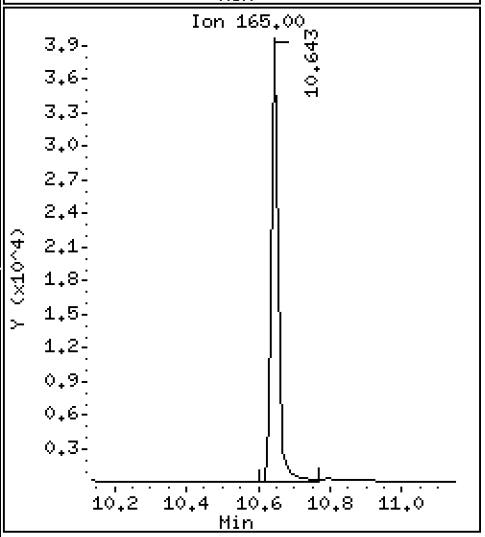
16 Fluorene

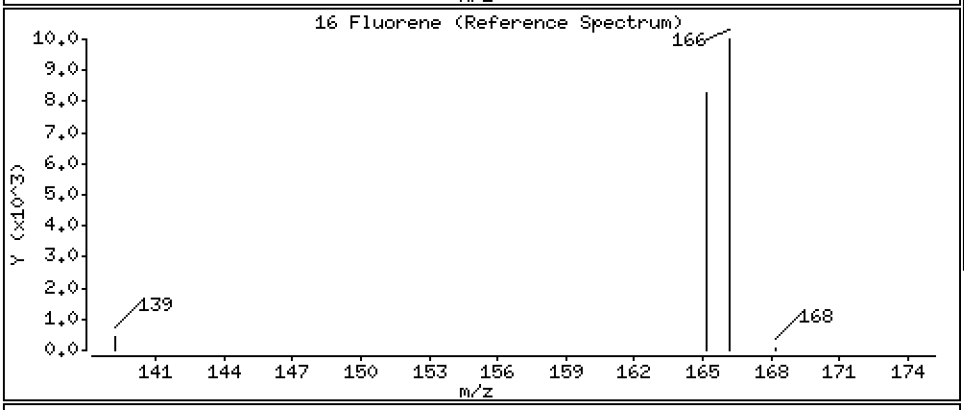
Concentration: 117 ng/mL

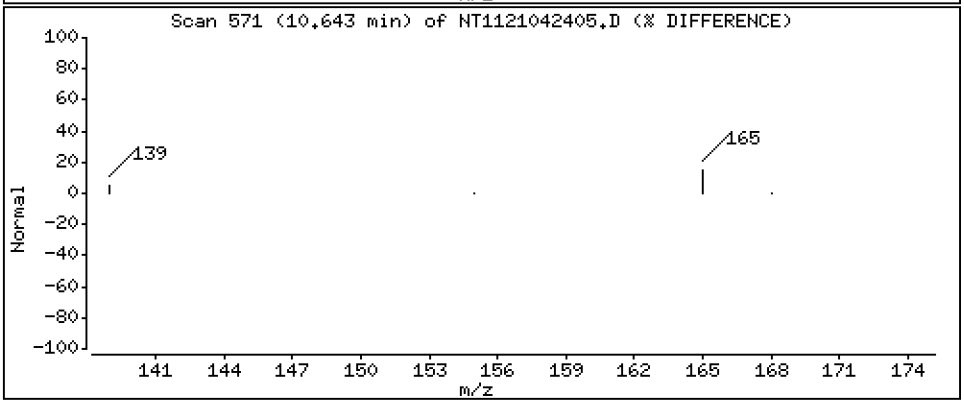


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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

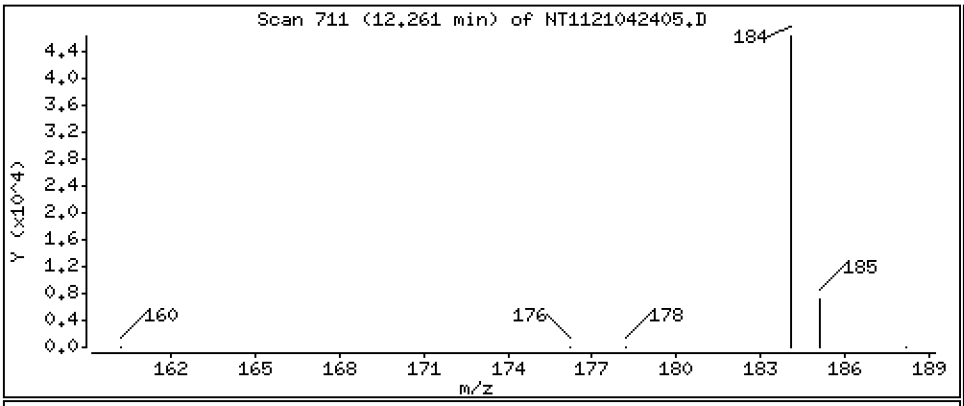
Operator: VTS

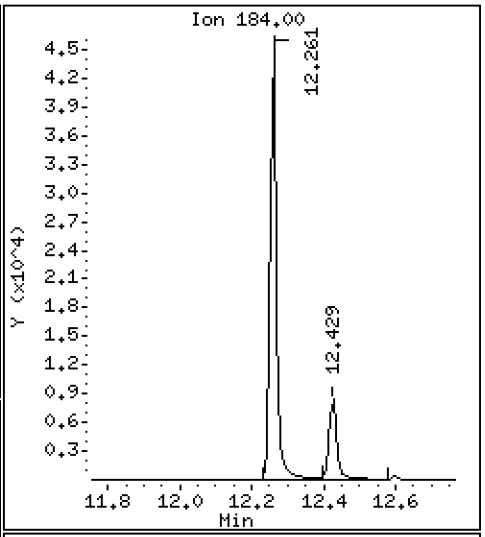
Column phase: Rxi-17Sil MS

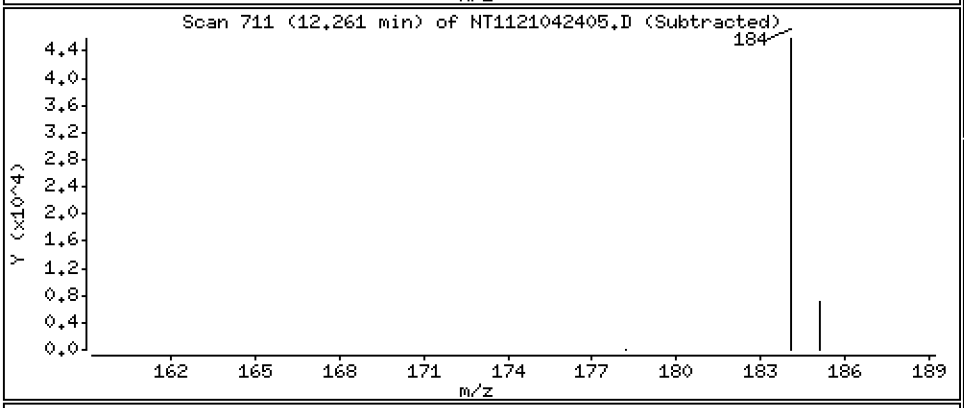
Column diameter: 0.25

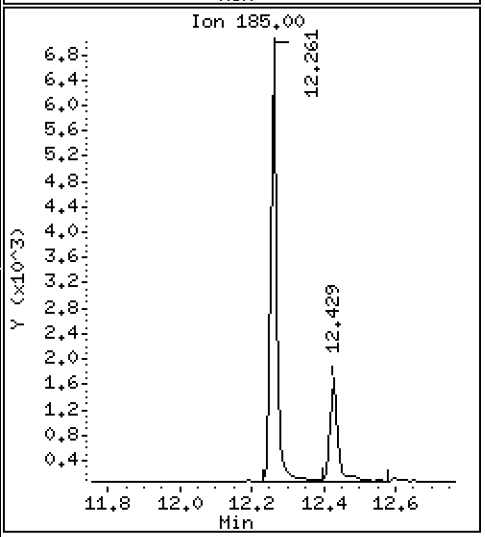
17 Dibenzothiophene

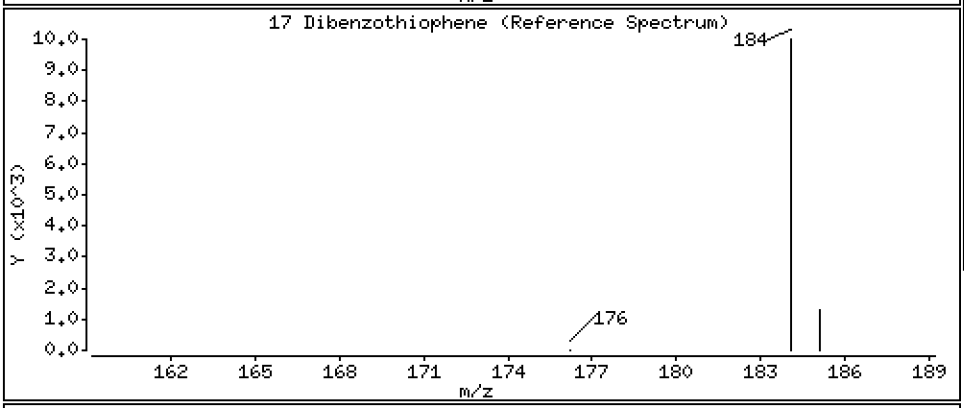
Concentration: 118 ng/mL

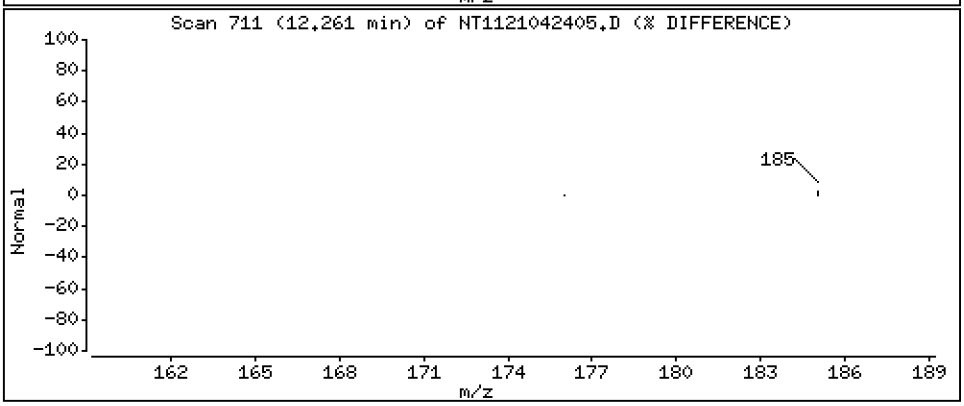


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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

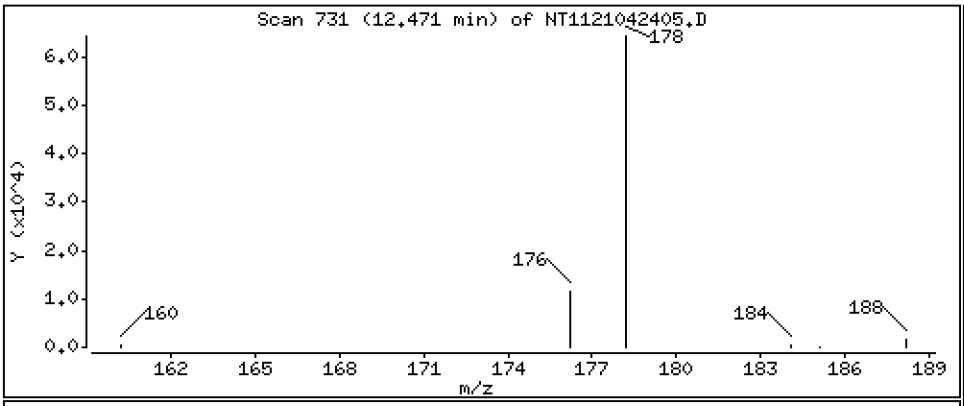
Operator: VTS

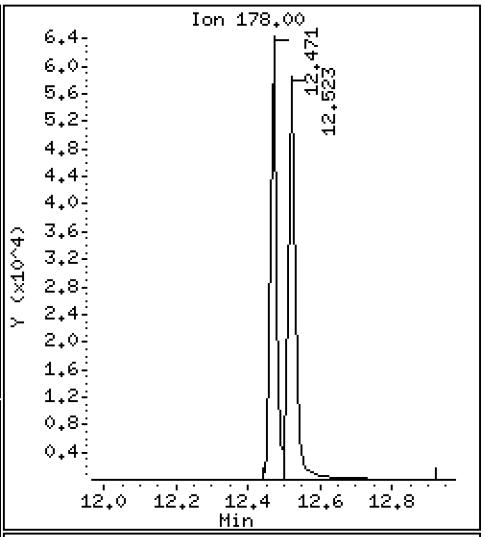
Column phase: Rxi-17Sil MS

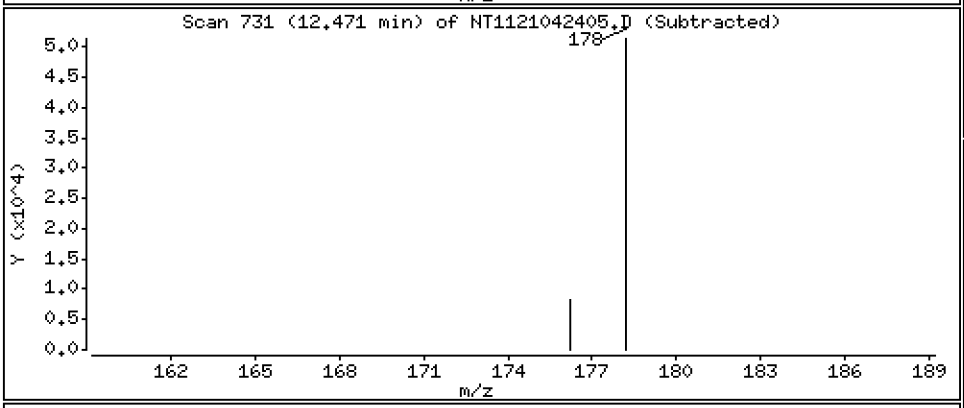
Column diameter: 0.25

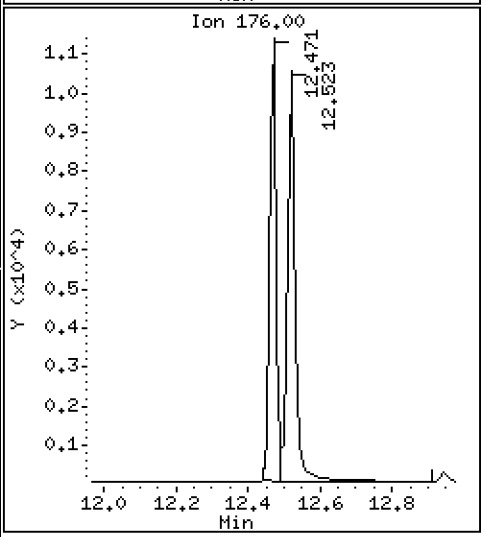
19 Phenanthrene

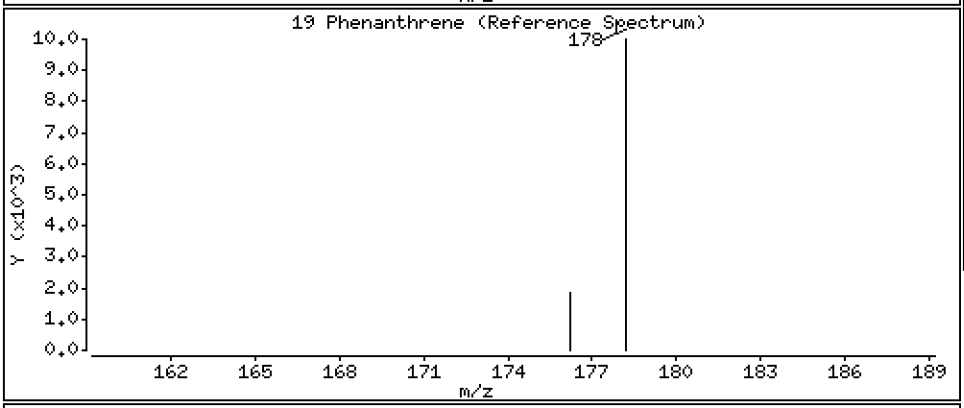
Concentration: 135 ng/mL

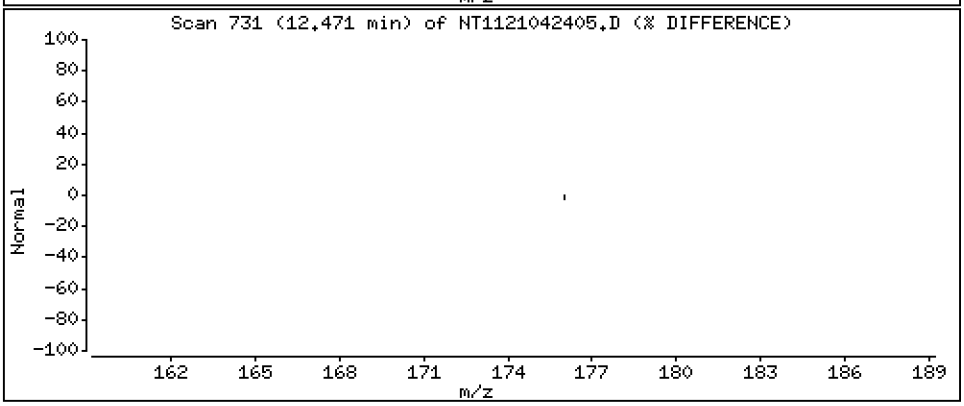


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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

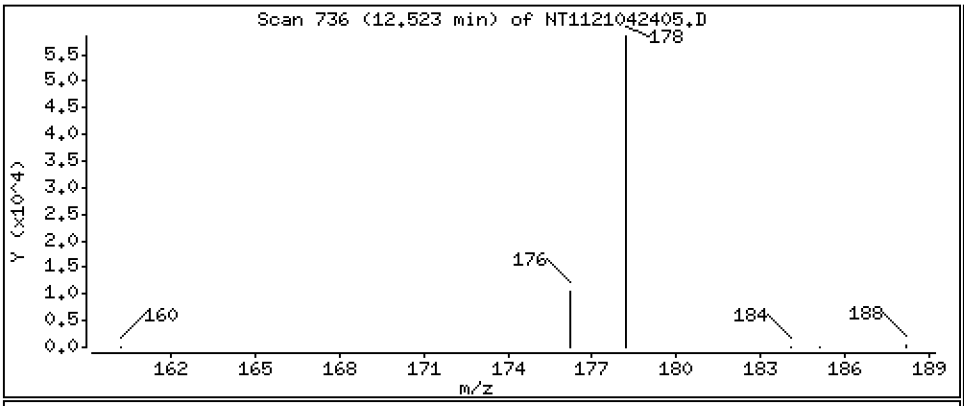
Operator: VTS

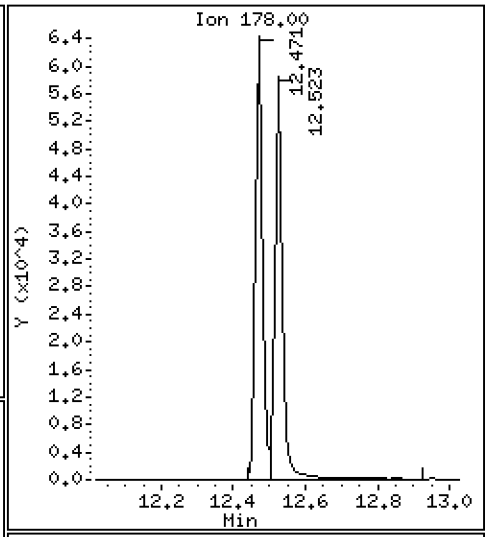
Column phase: Rxi-17Sil MS

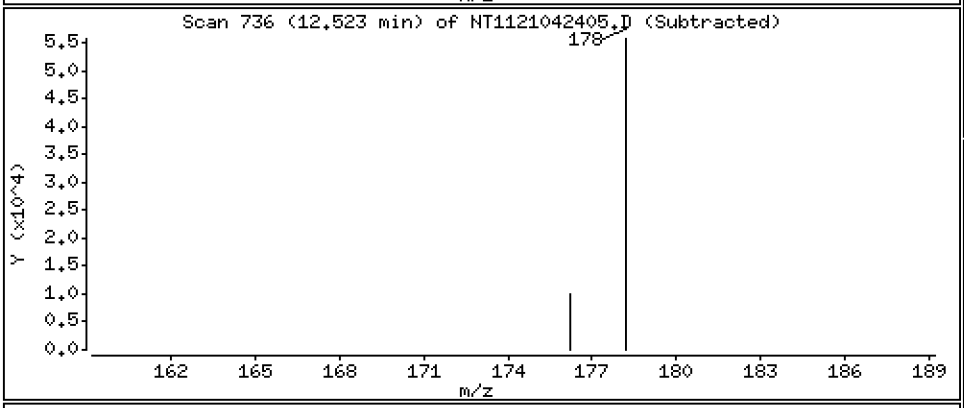
Column diameter: 0.25

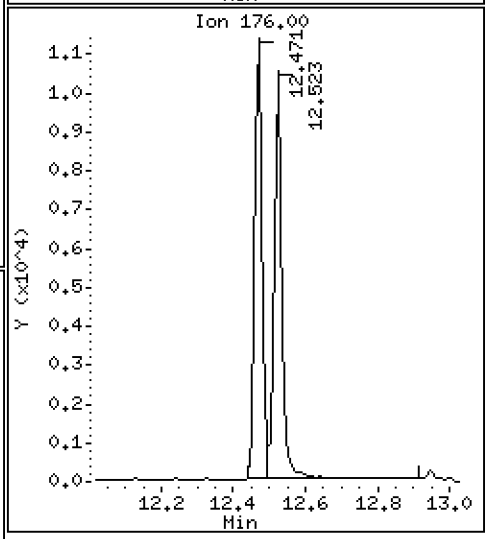
21 Anthracene

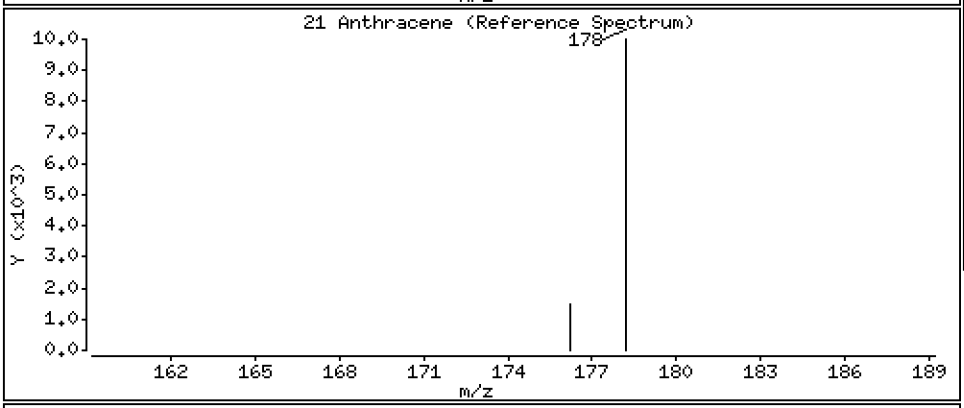
Concentration: 126 ng/mL

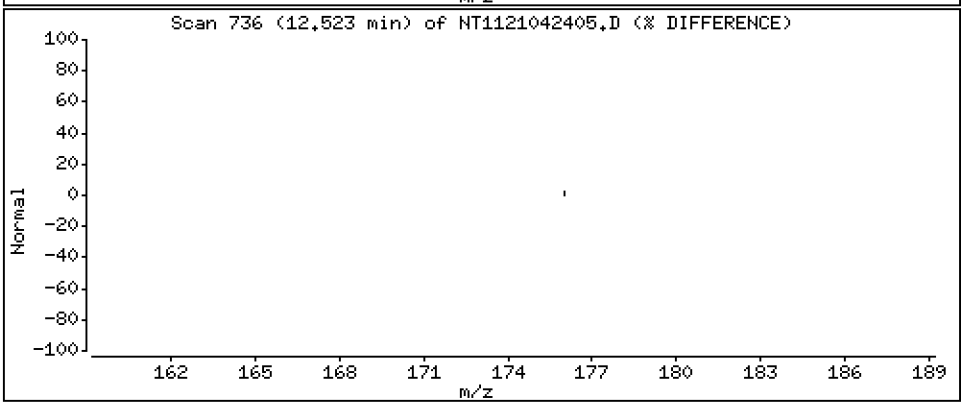


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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

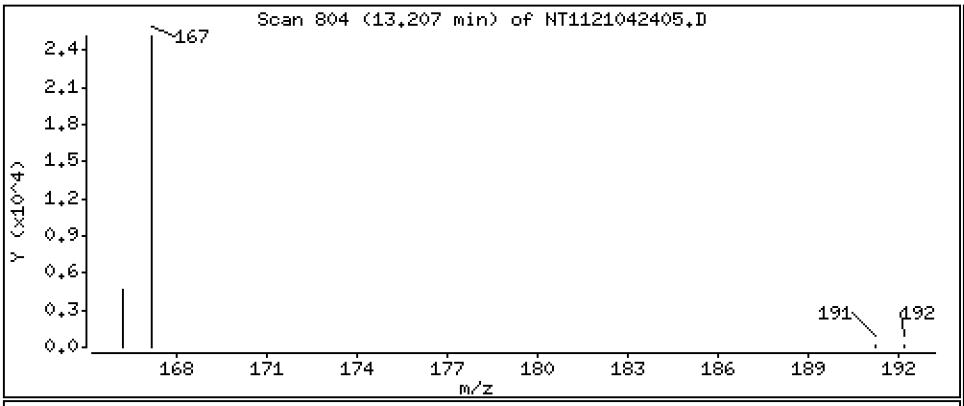
Operator: VTS

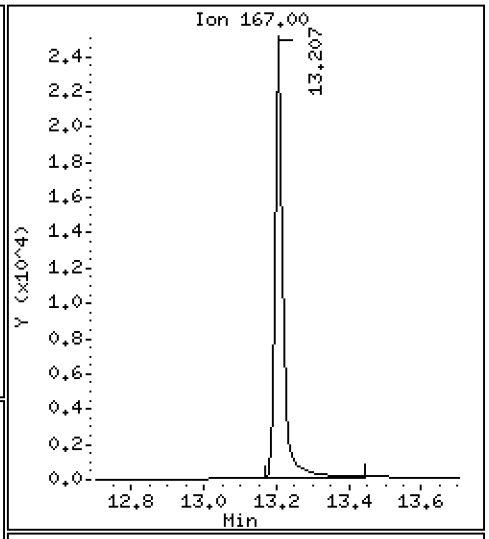
Column phase: Rxi-17Sil MS

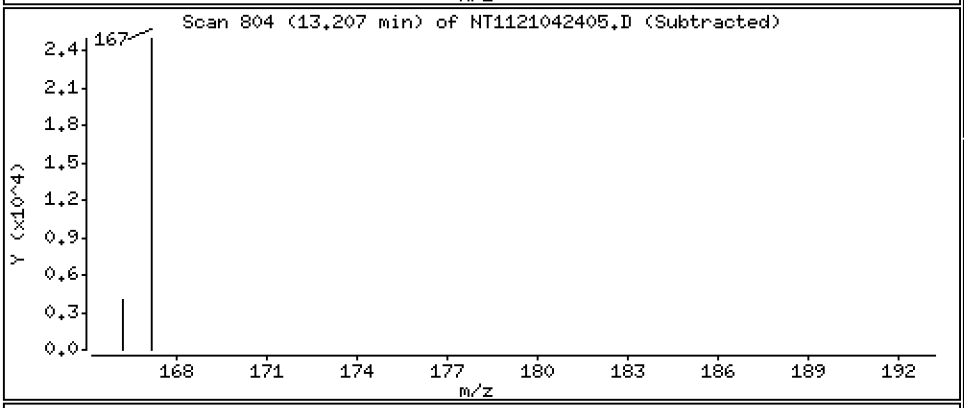
Column diameter: 0.25

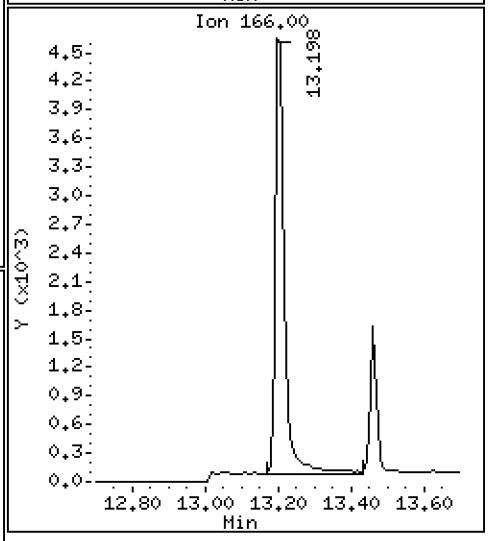
22 Carbazole

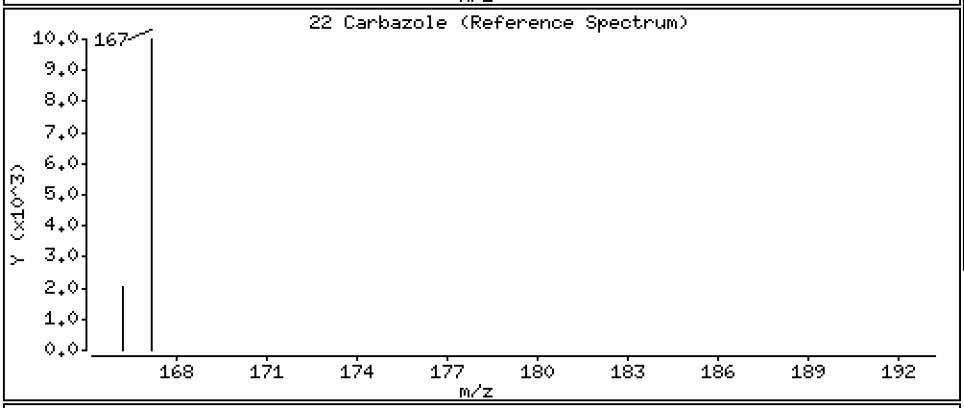
Concentration: 57.5 ng/mL

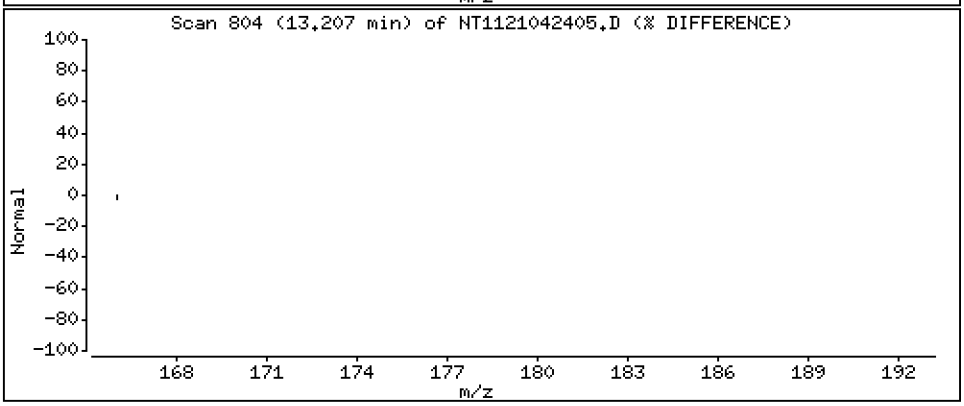


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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

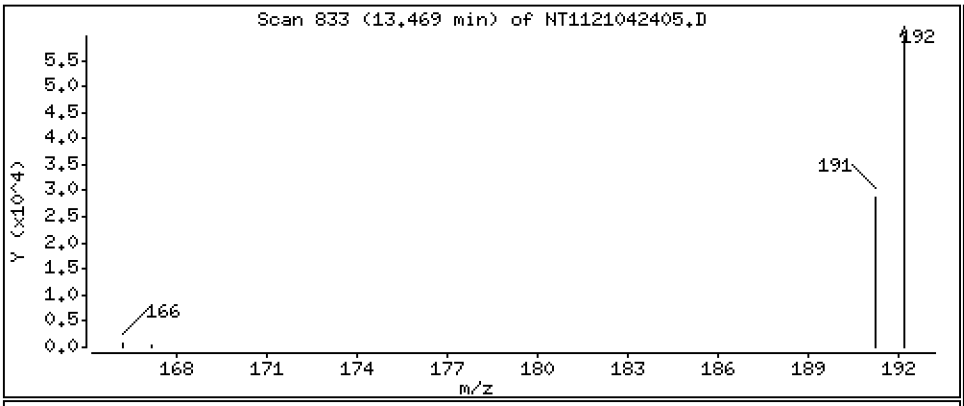
Operator: VTS

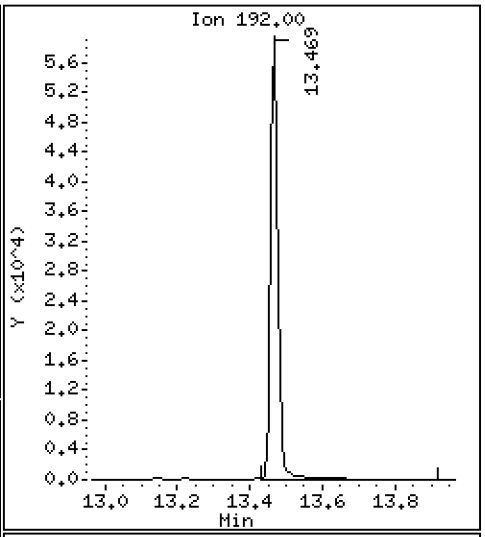
Column phase: Rxi-17Sil MS

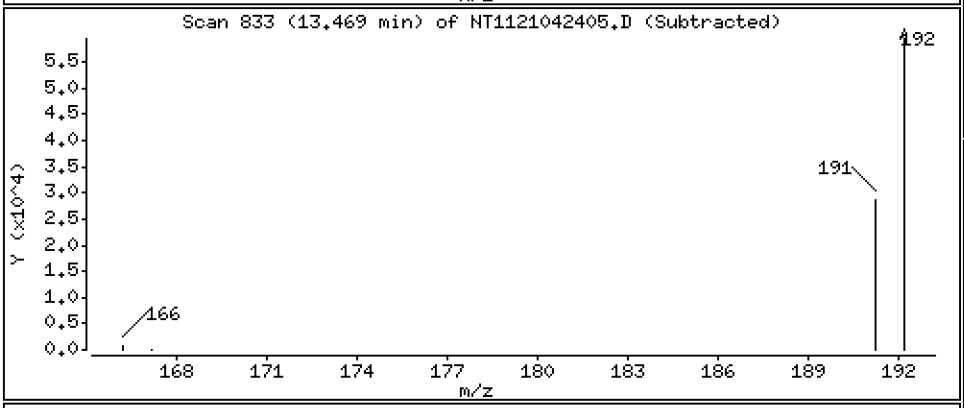
Column diameter: 0.25

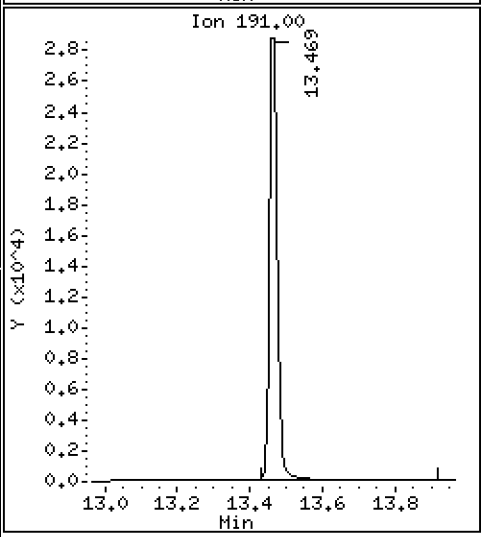
23 1-Methylphenanthrene

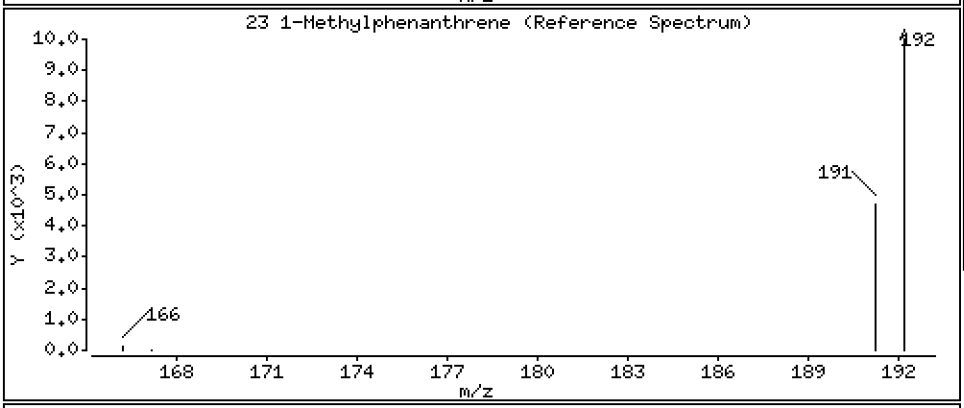
Concentration: 141 ng/mL

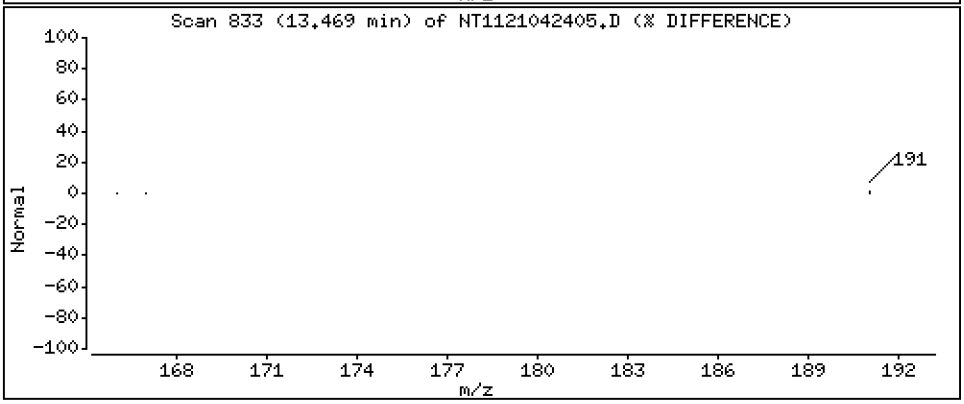


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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

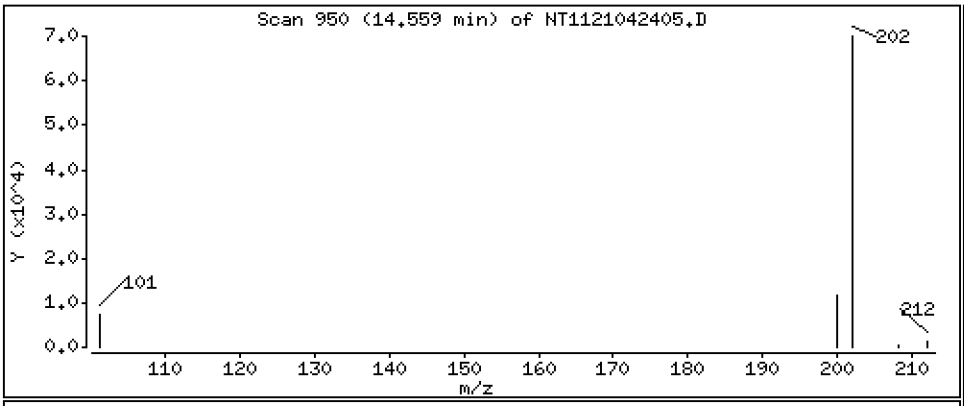
Operator: VTS

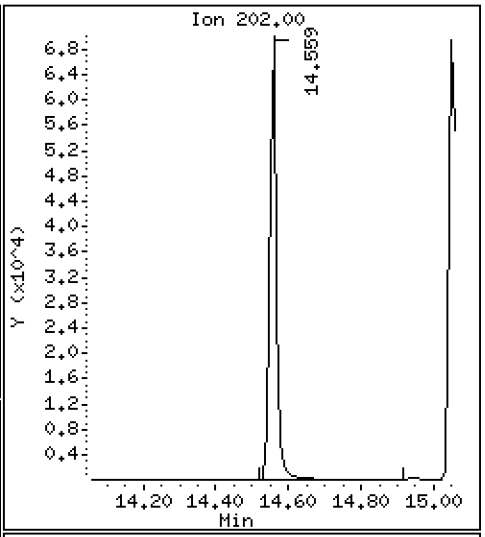
Column phase: Rxi-17Sil MS

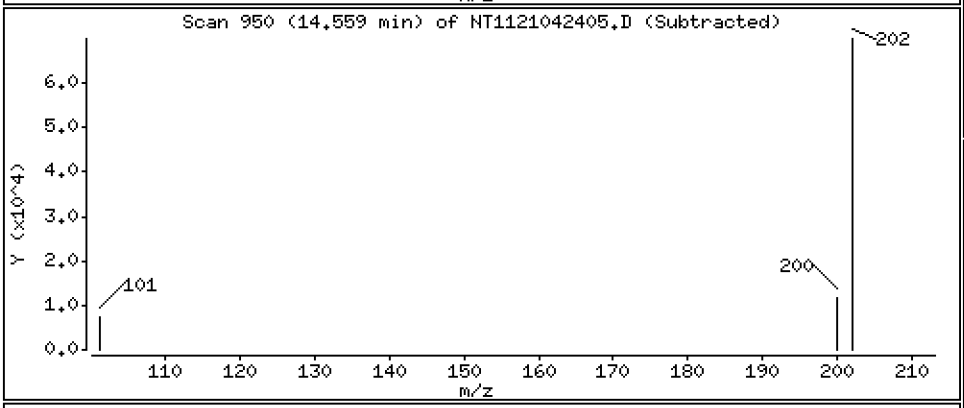
Column diameter: 0.25

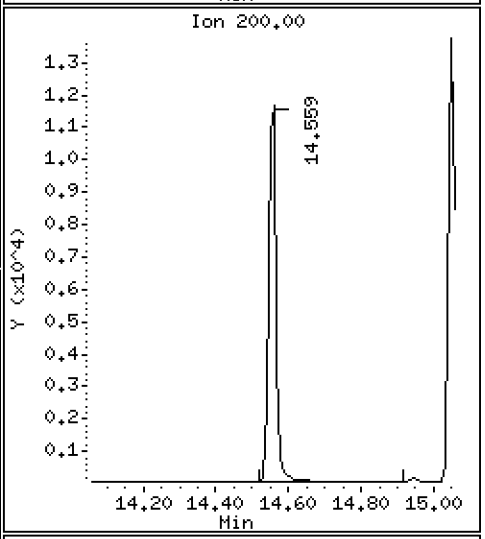
25 Fluoranthene

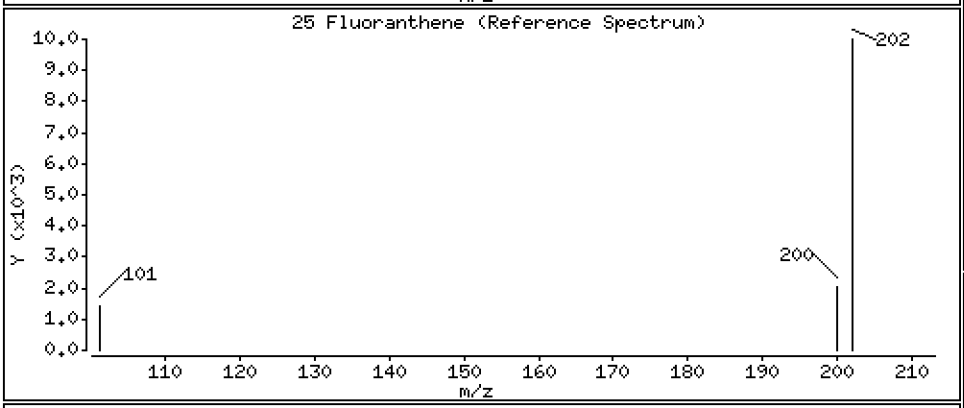
Concentration: 147 ng/mL

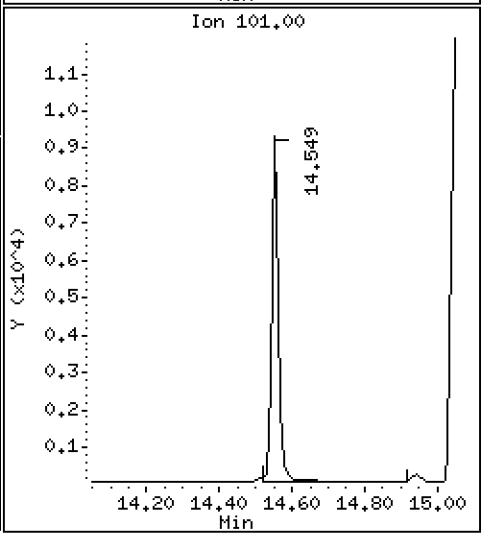


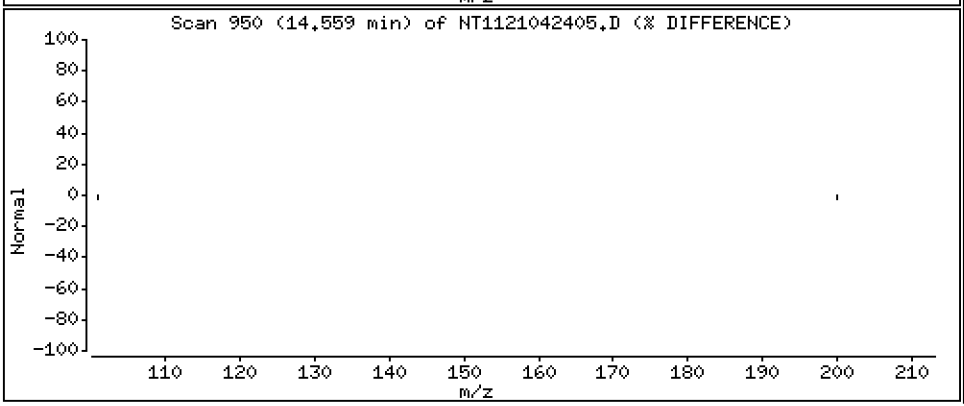



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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

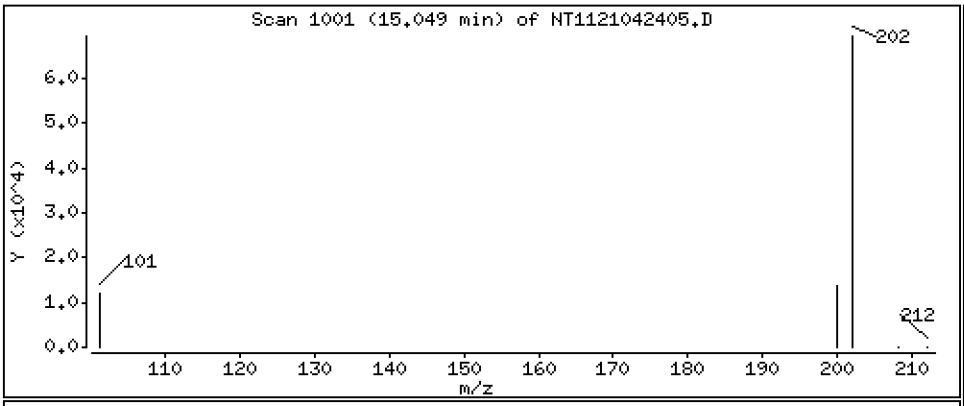
Operator: VTS

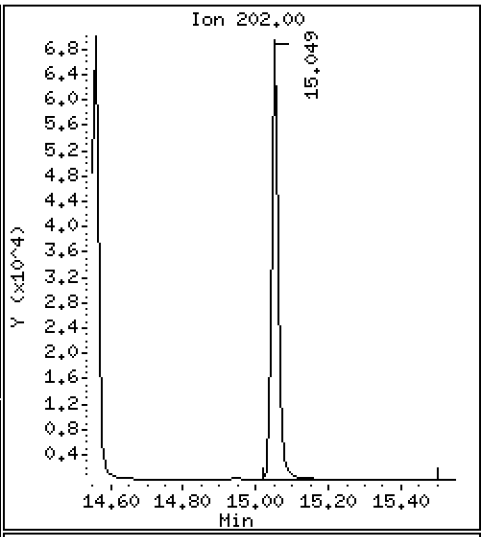
Column phase: Rxi-17Sil MS

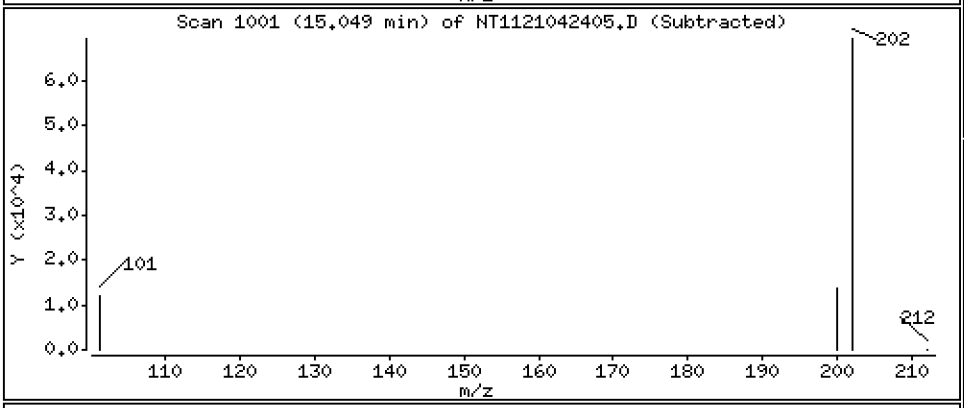
Column diameter: 0.25

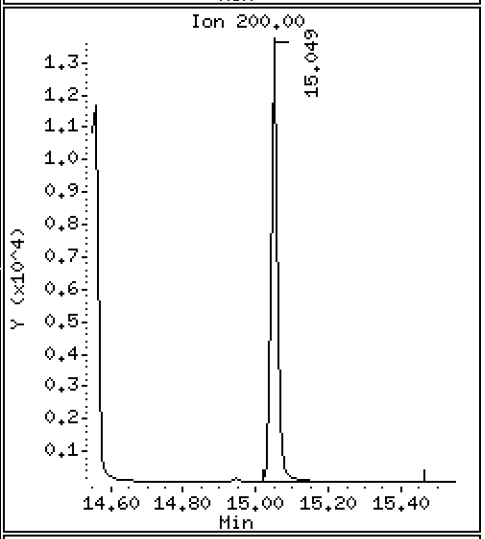
26 Pyrene

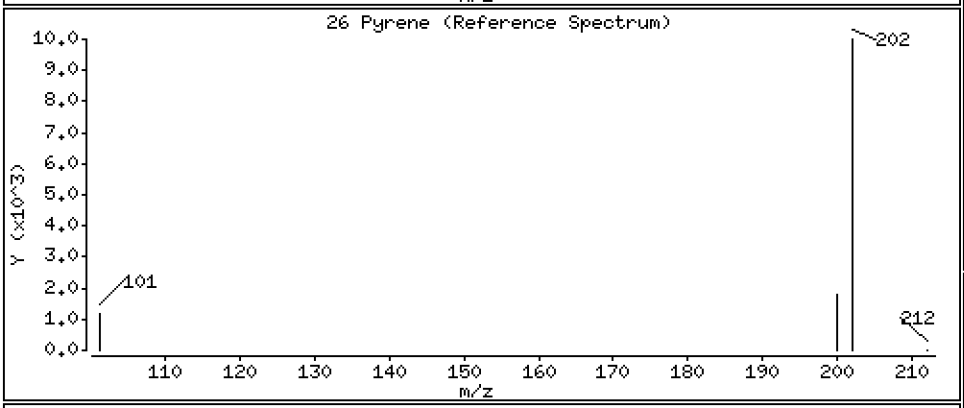
Concentration: 148 ng/mL

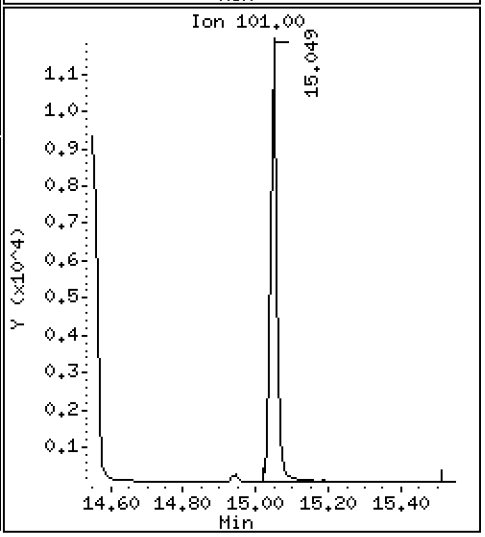


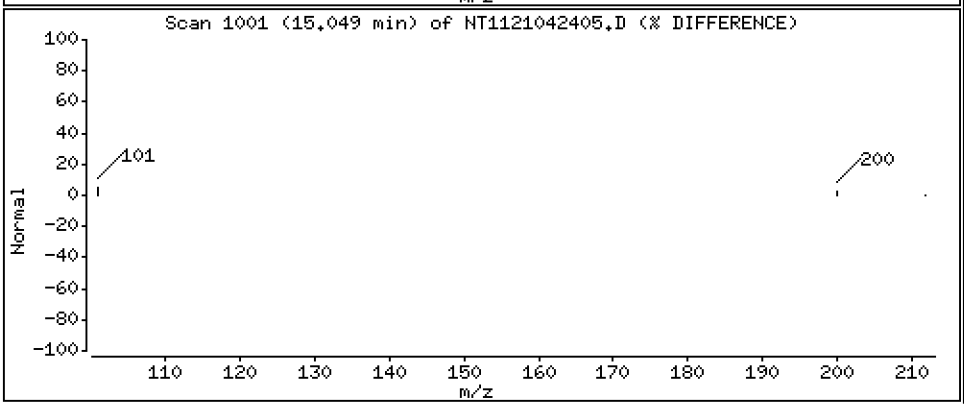



Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042405.D

Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

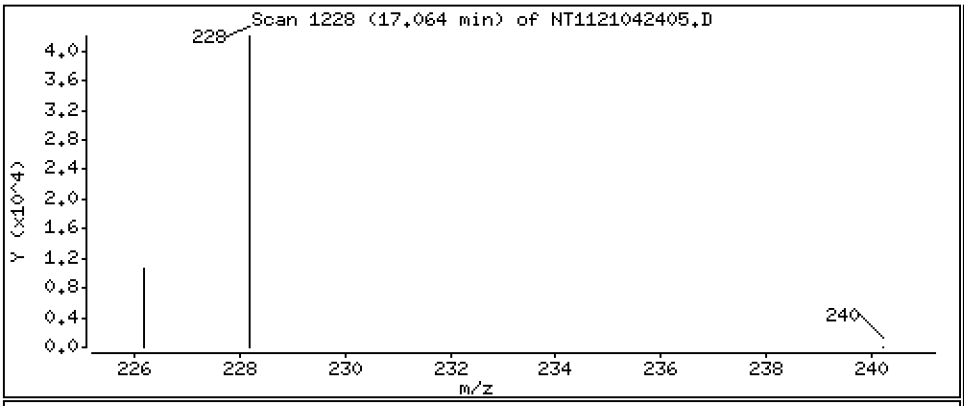
Operator: VTS

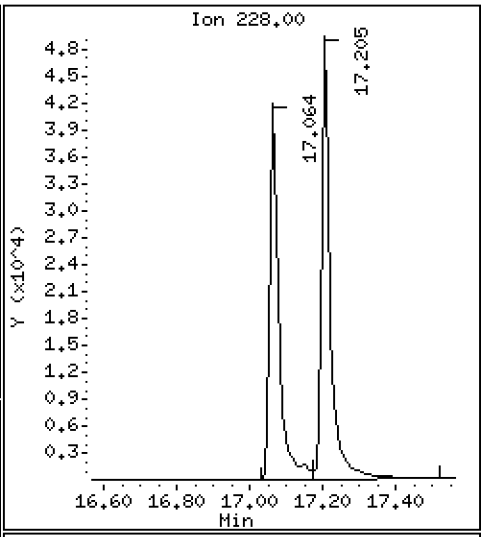
Column phase: Rxi-17Sil MS

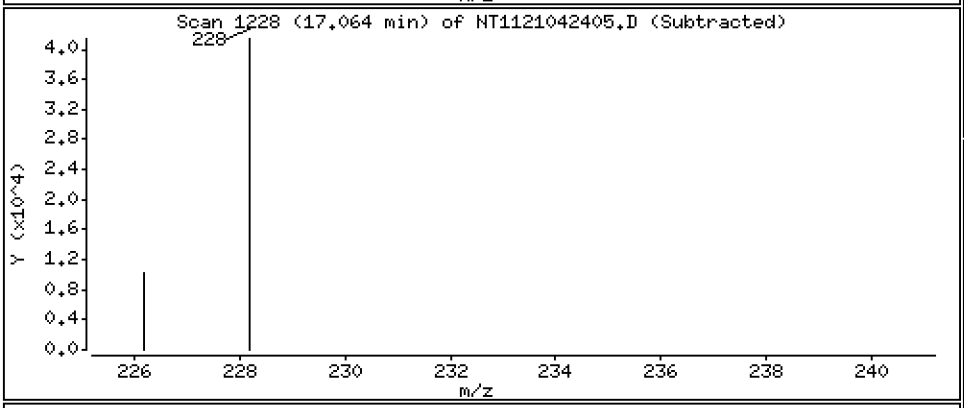
Column diameter: 0.25

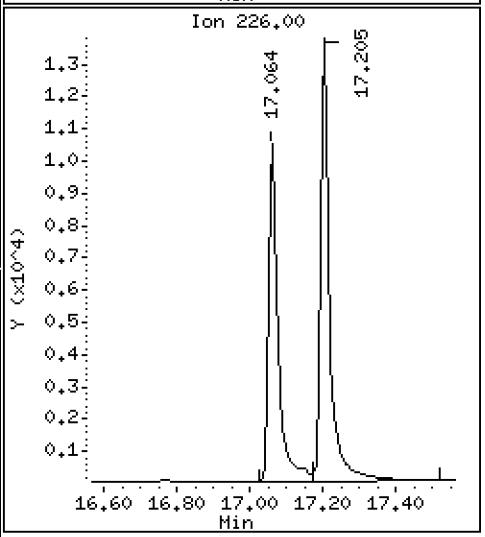
27 Benzo(a)anthracene

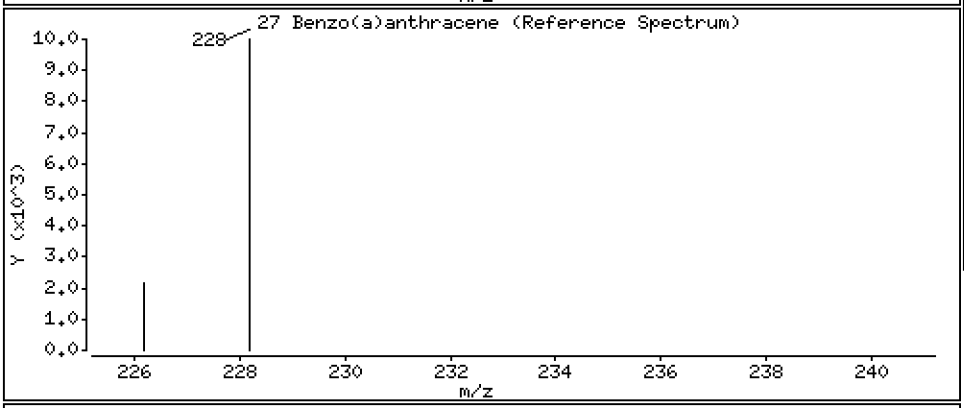
Concentration: 147 ng/mL

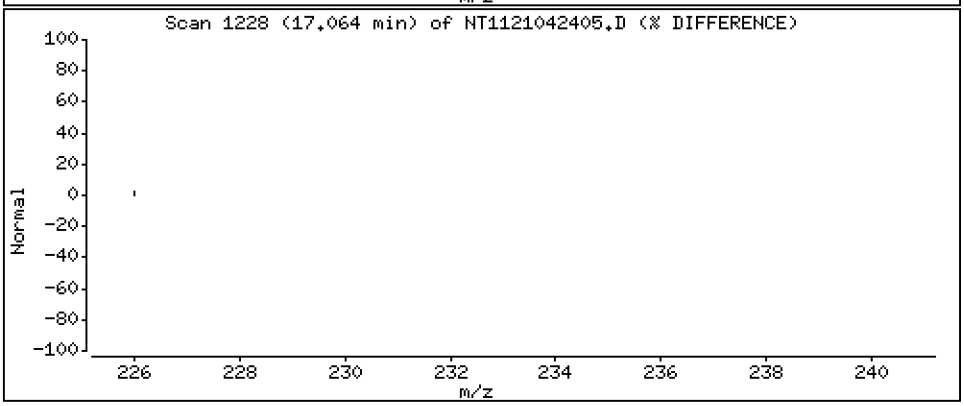


Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042405.D

Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

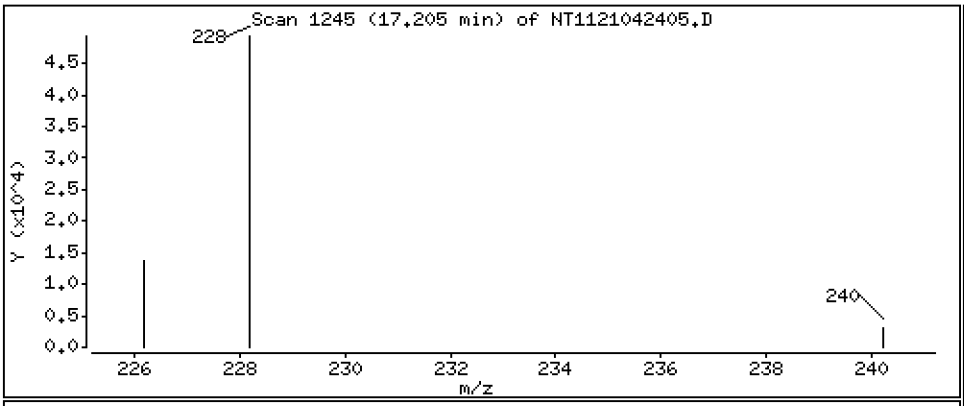
Operator: VTS

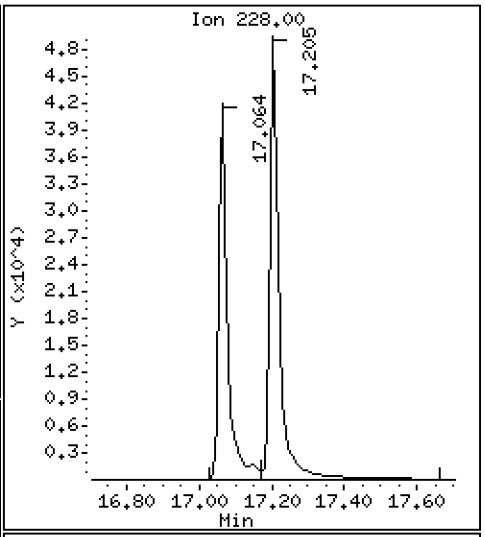
Column phase: Rxi-17Sil MS

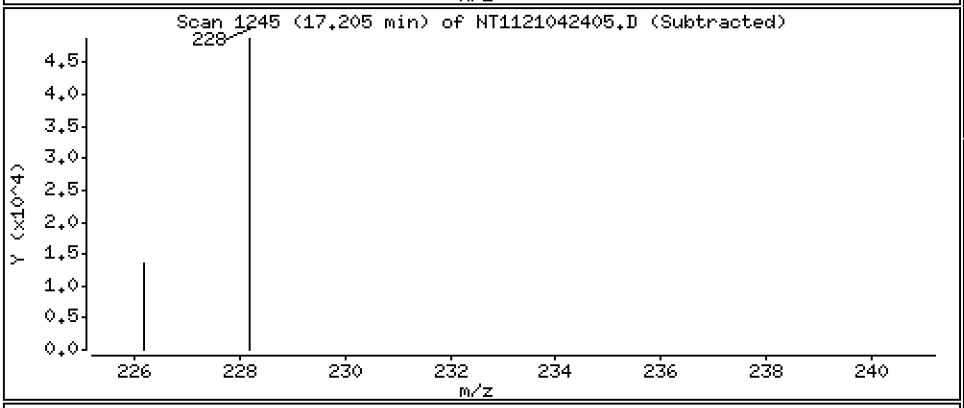
Column diameter: 0.25

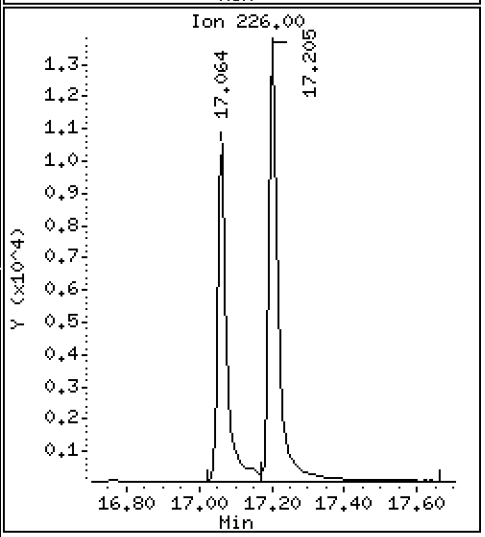
29 Chrysene

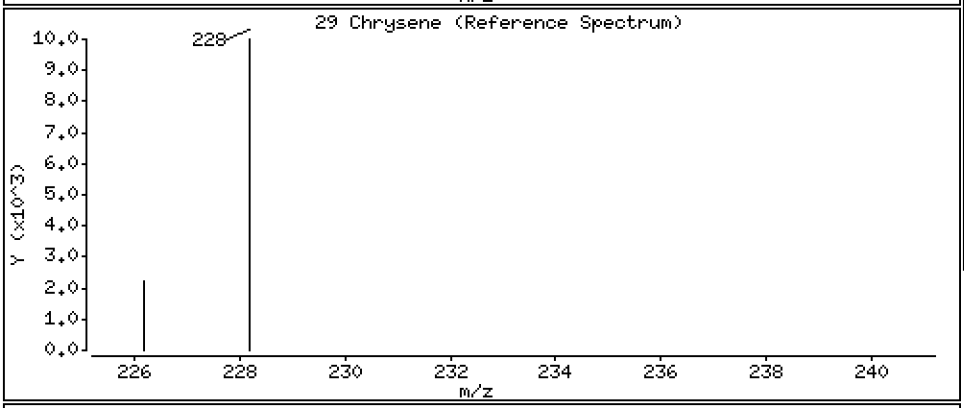
Concentration: 155 ng/mL

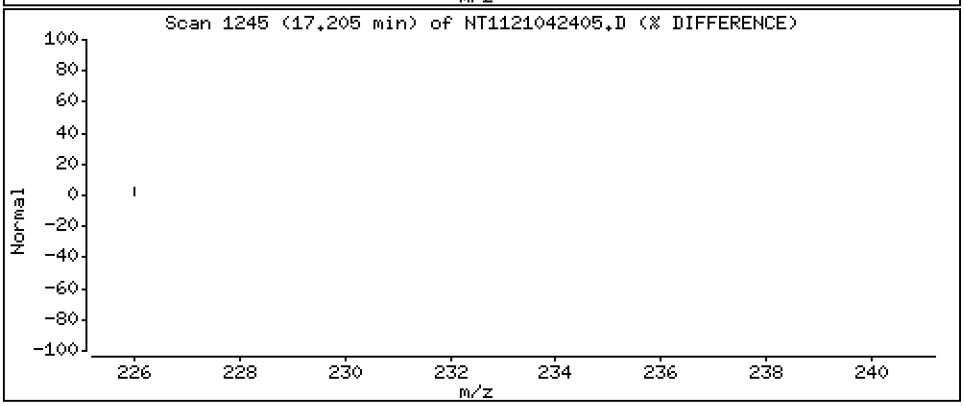


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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

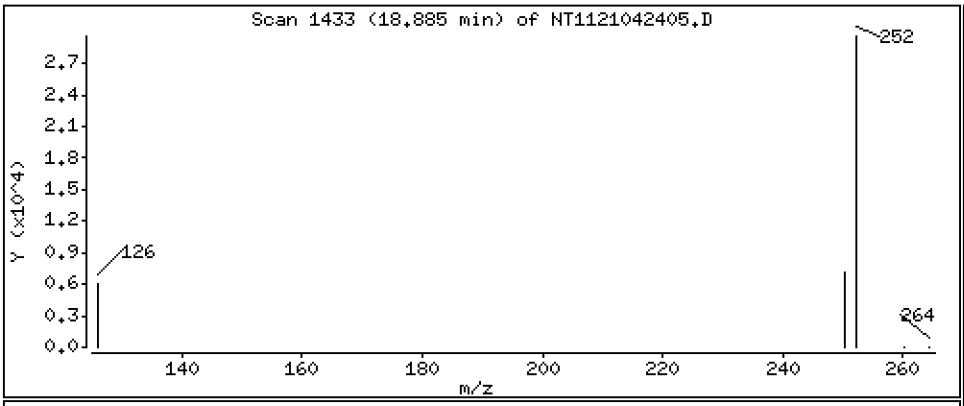
Operator: VTS

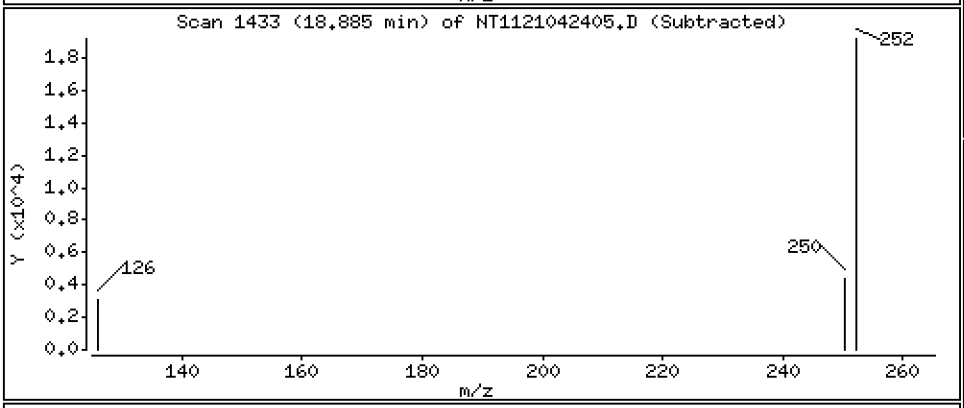
Column phase: Rxi-17Sil MS

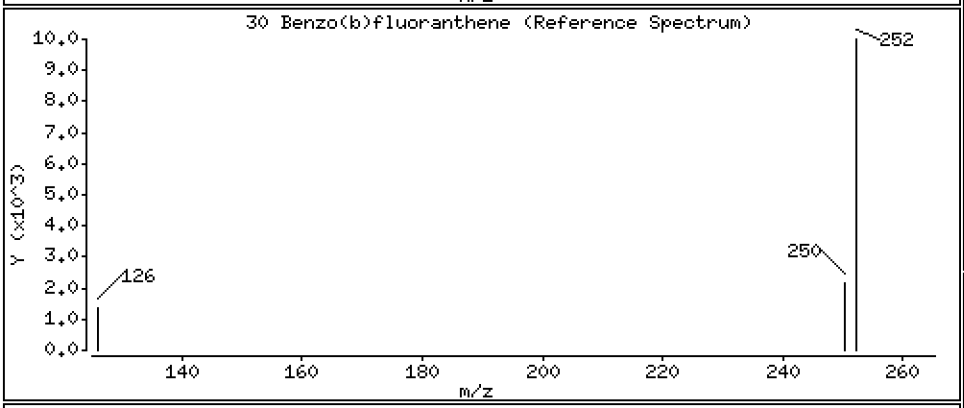
Column diameter: 0.25

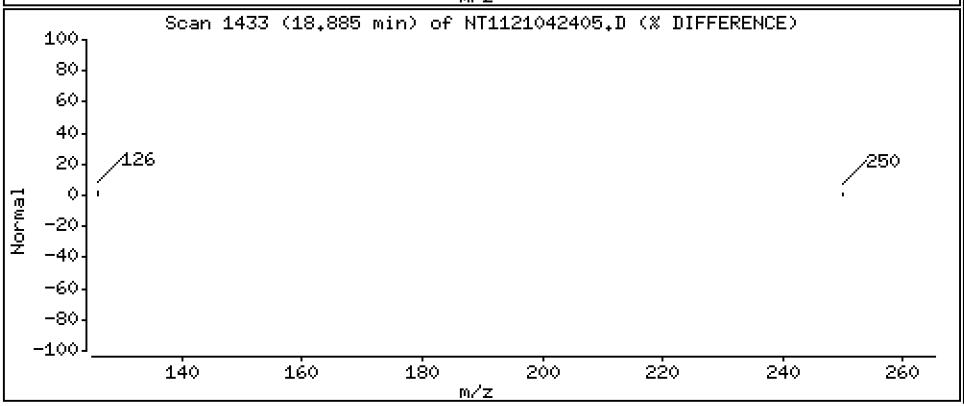
30 Benzo(b)fluoranthene

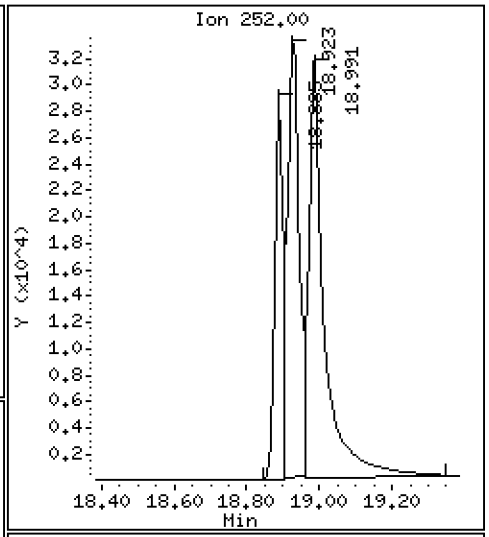
Concentration: 126 ng/mL

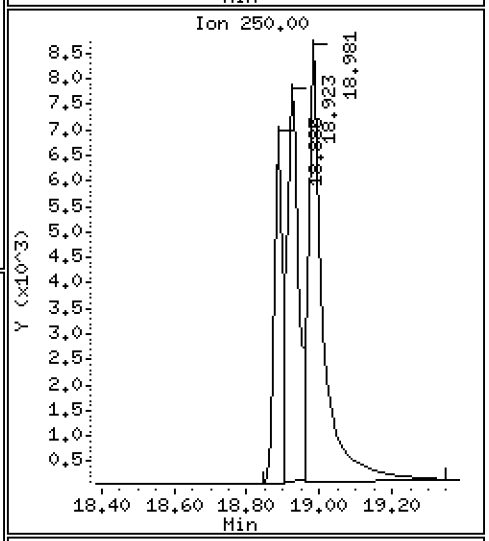


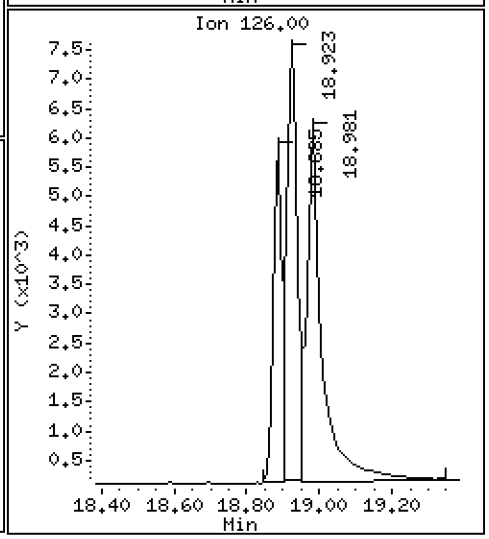



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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

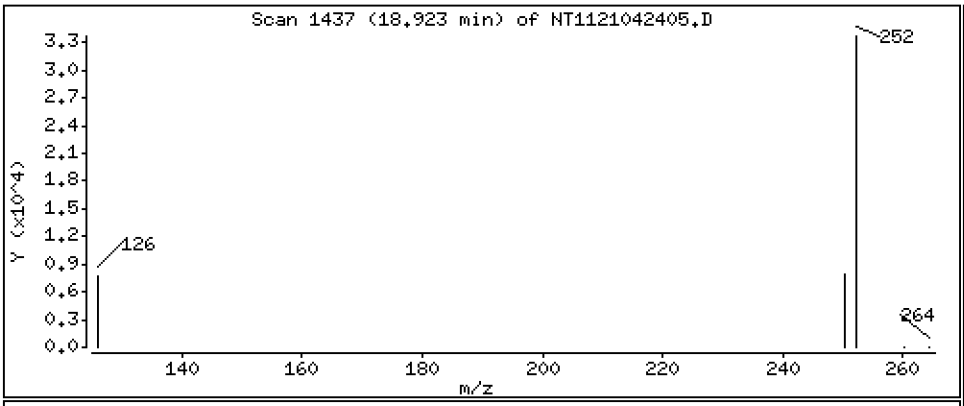
Operator: VTS

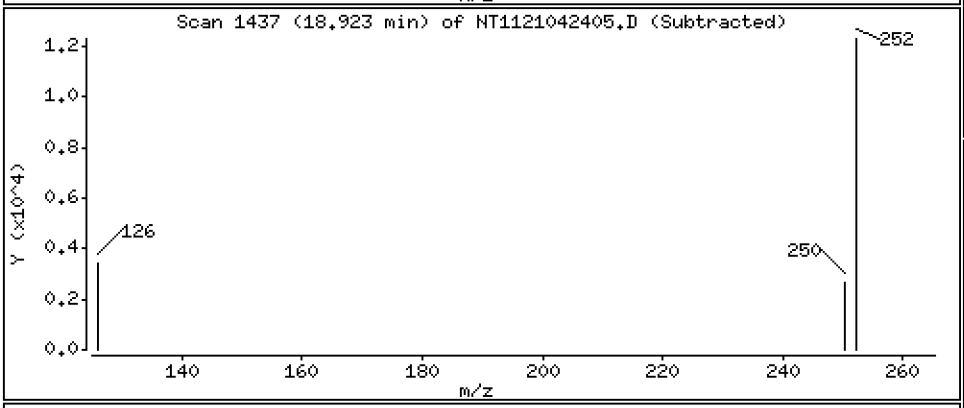
Column phase: Rxi-17Sil MS

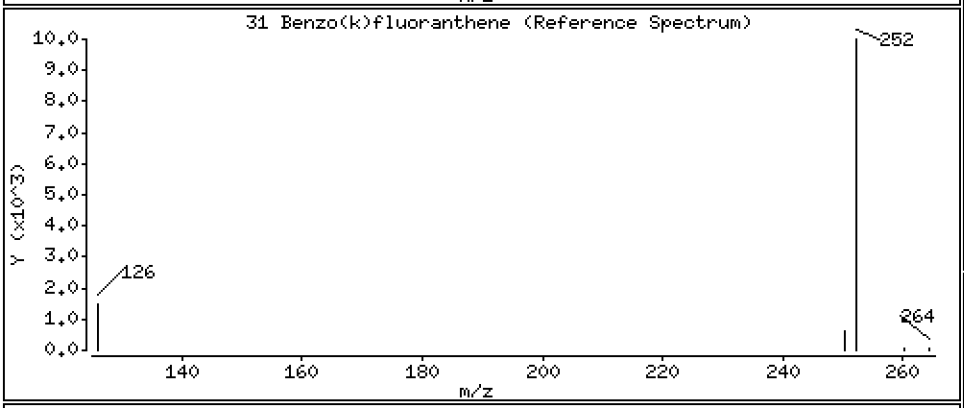
Column diameter: 0.25

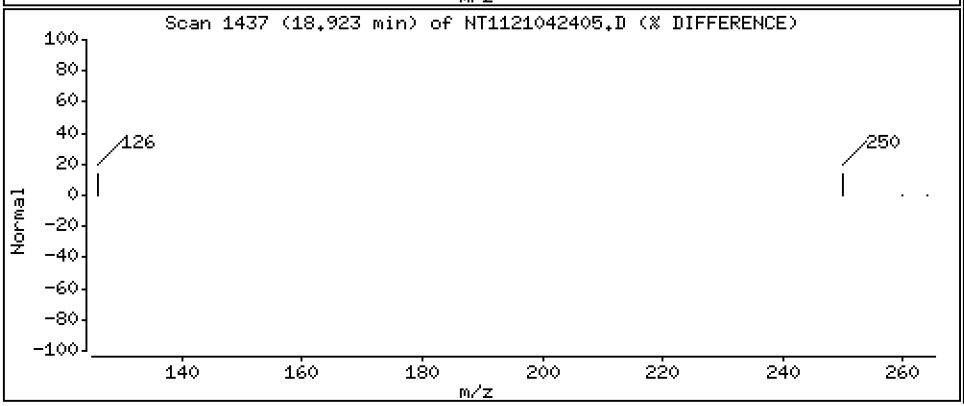
31 Benzo(k)fluoranthene

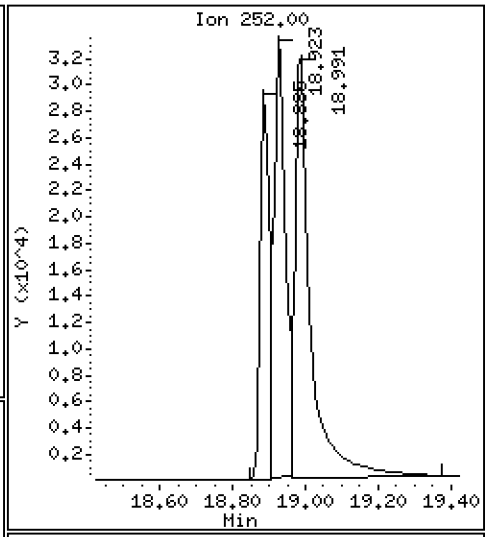
Concentration: 158 ng/mL

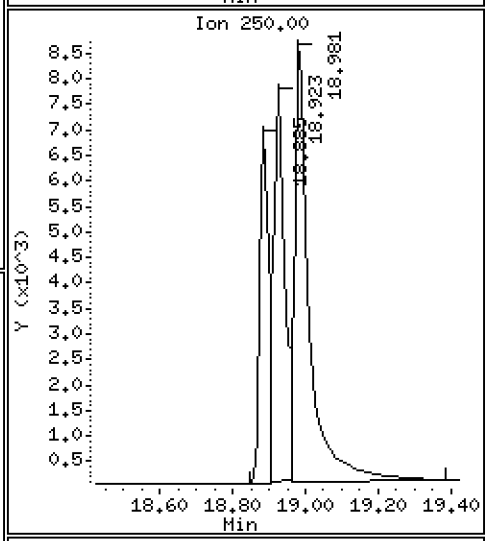


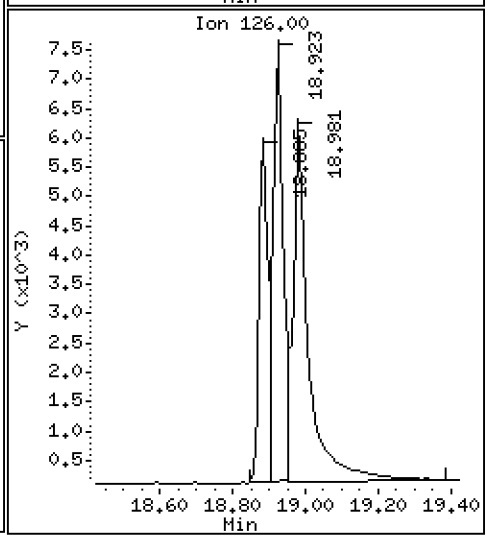



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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

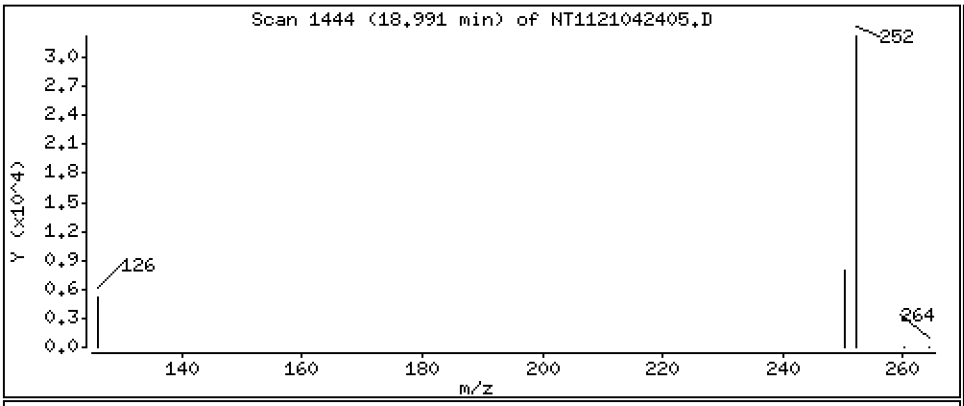
Operator: VTS

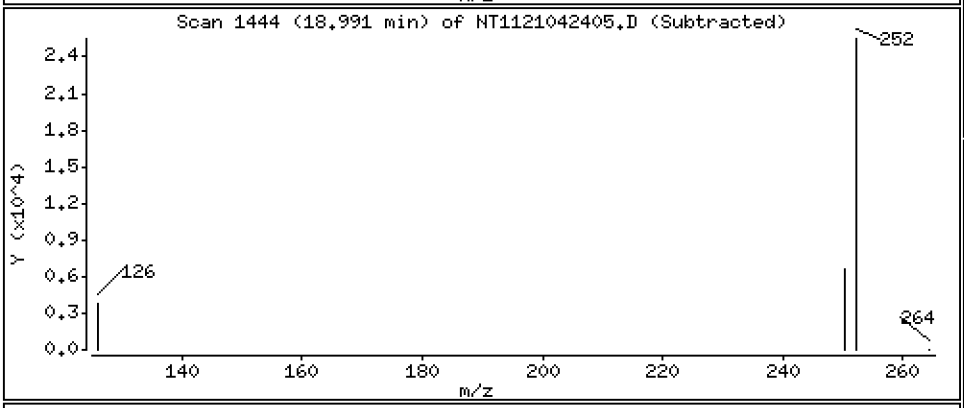
Column phase: Rxi-17Sil MS

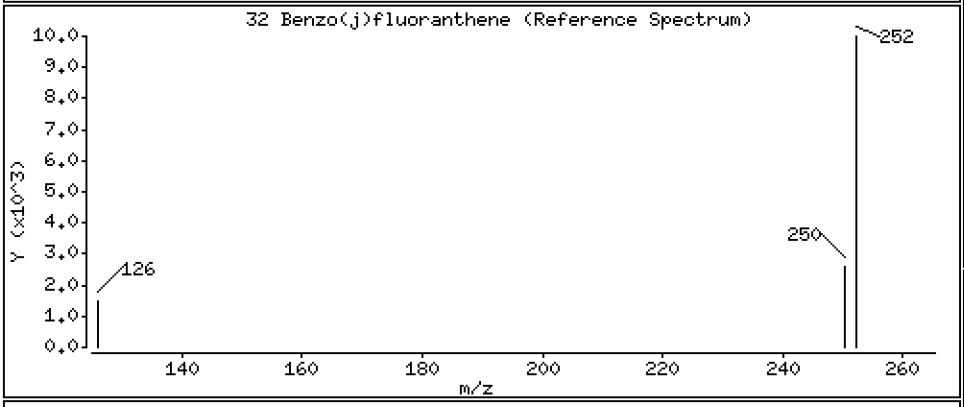
Column diameter: 0.25

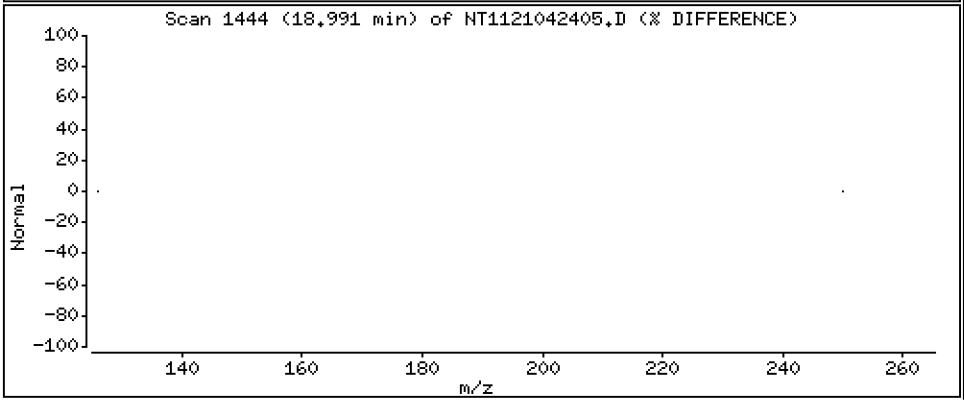
32 Benzo(j)fluoranthene

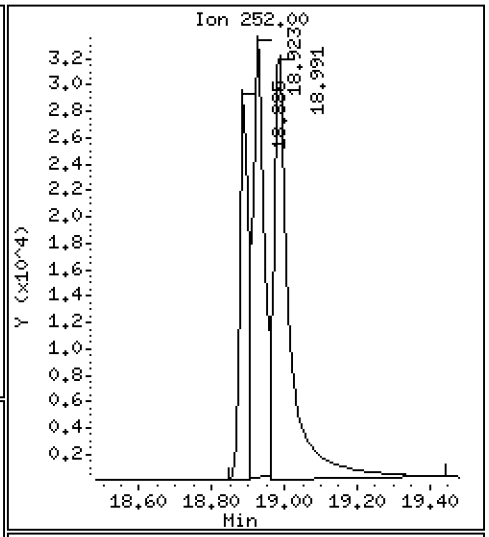
Concentration: 177 ng/mL

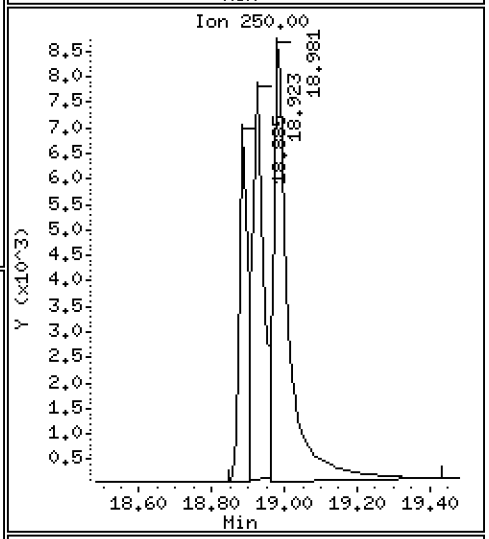


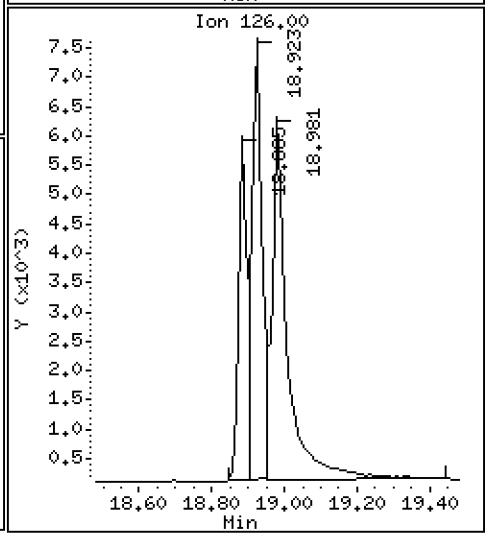



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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

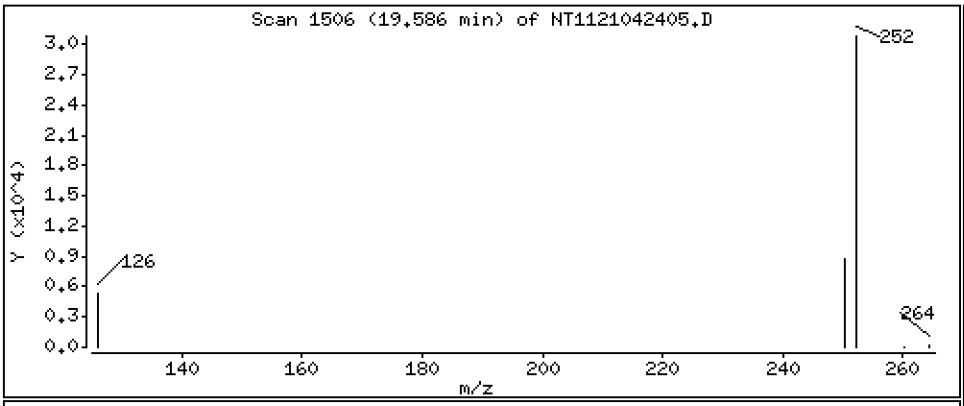
Operator: VTS

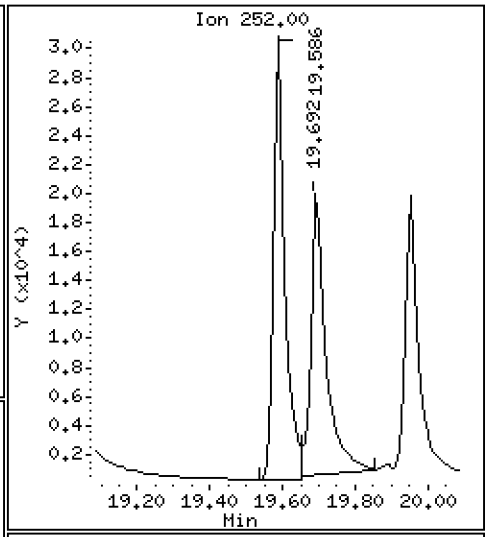
Column phase: Rxi-17Sil MS

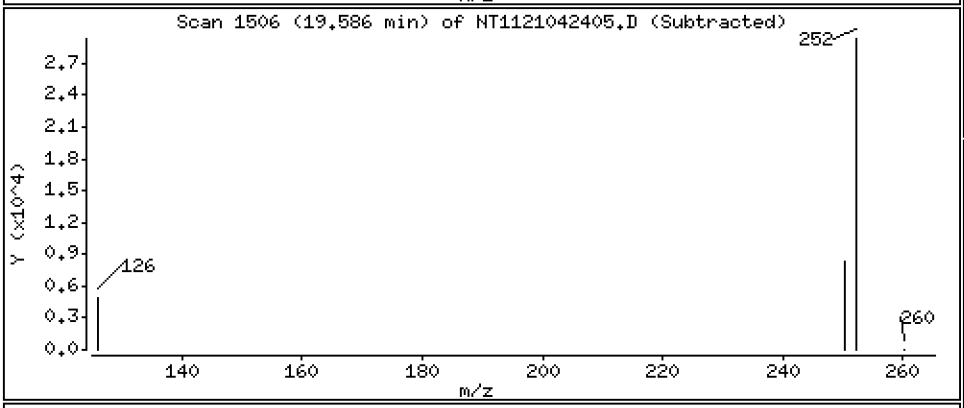
Column diameter: 0.25

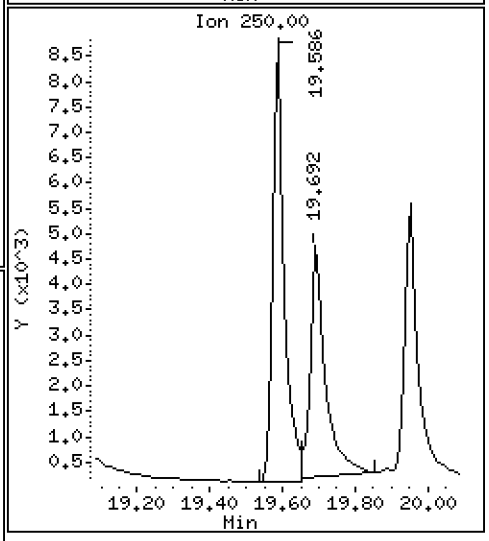
34 Benzo(e)pyrene

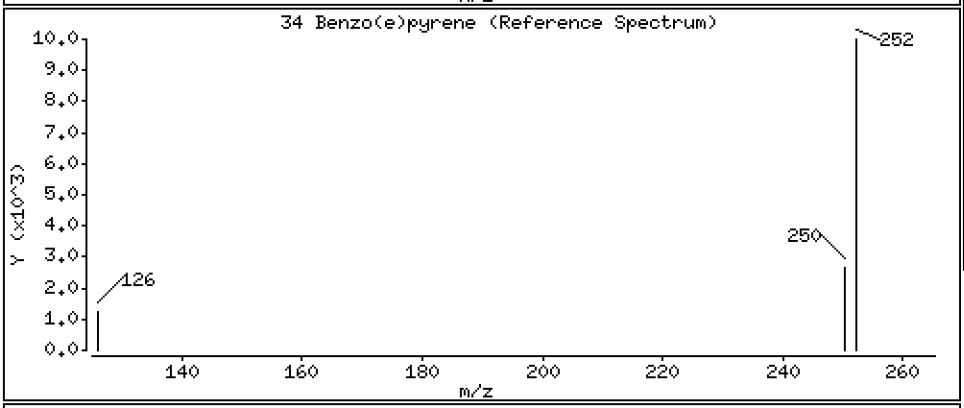
Concentration: 150 ng/mL

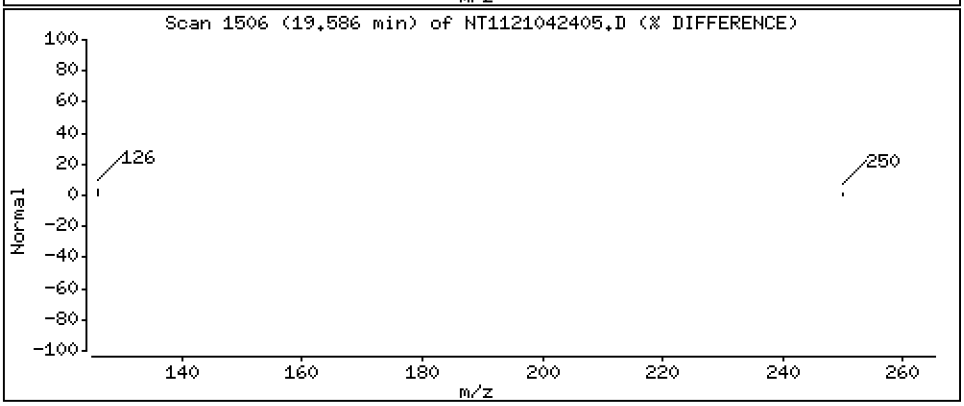


Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042405.D

Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

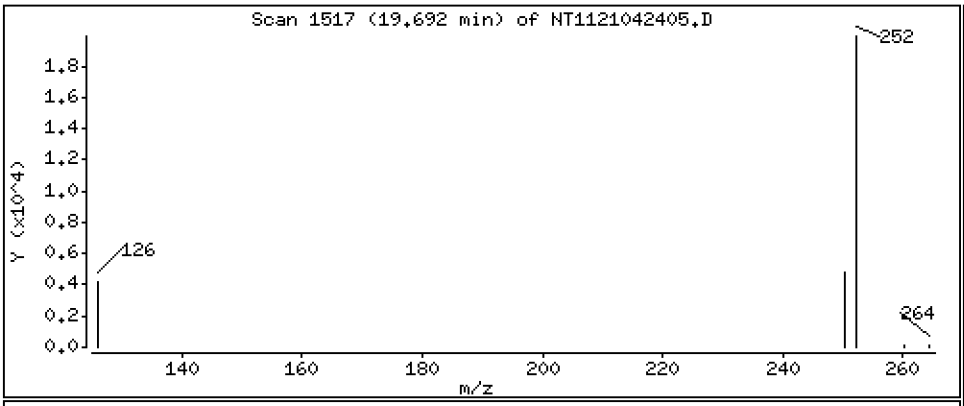
Operator: VTS

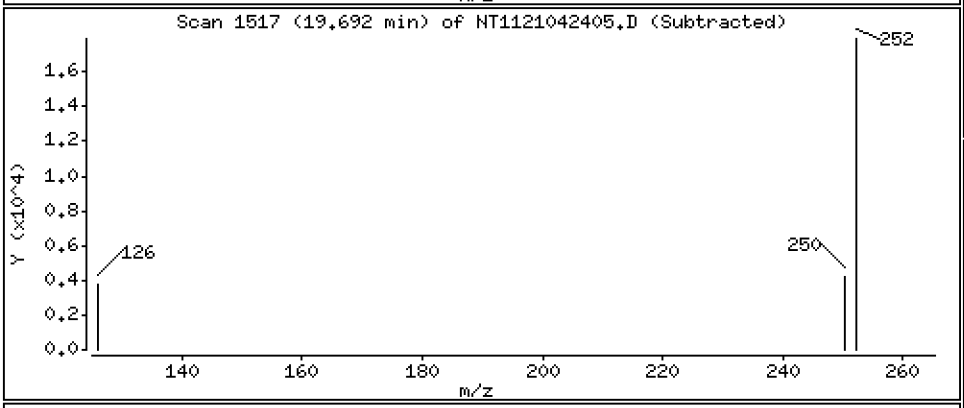
Column phase: Rxi-17Sil MS

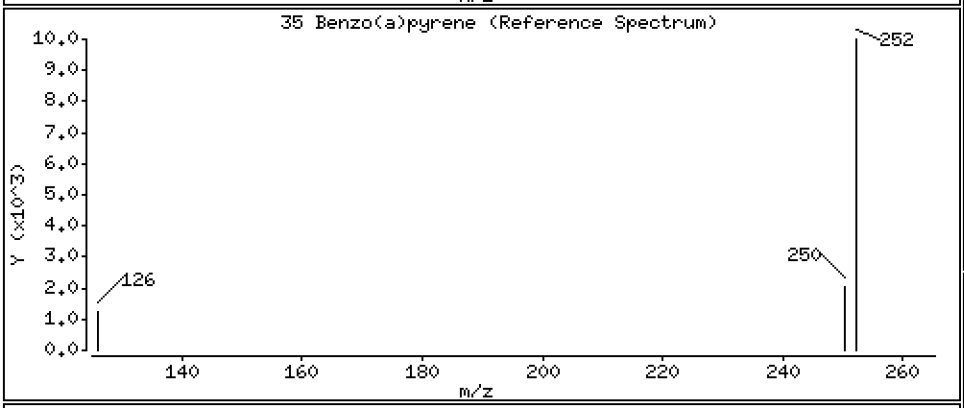
Column diameter: 0.25

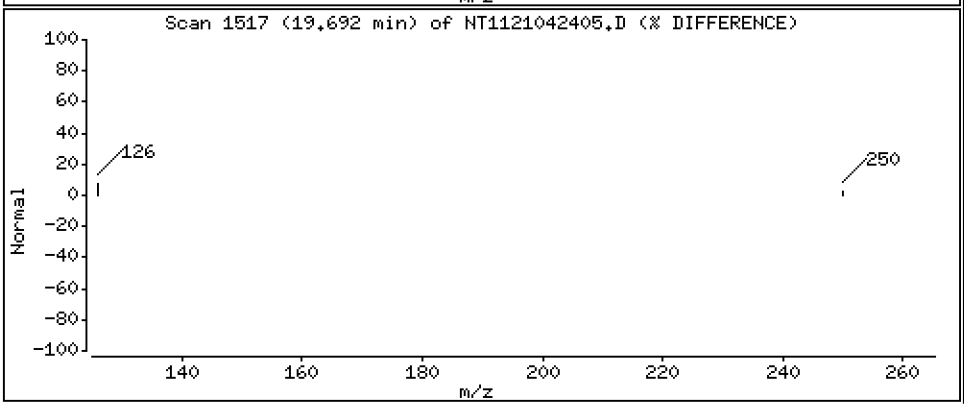
35 Benzo(a)pyrene

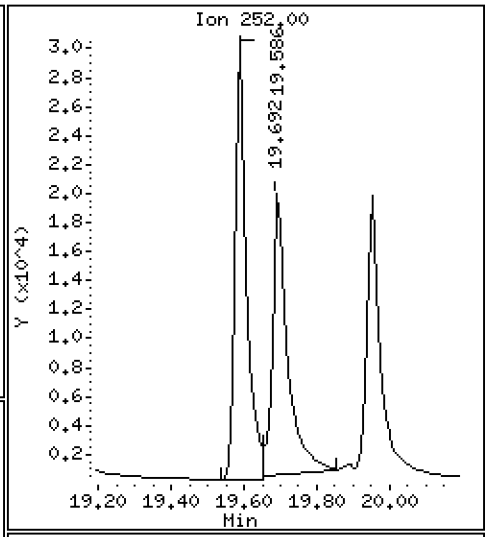
Concentration: 133 ng/mL

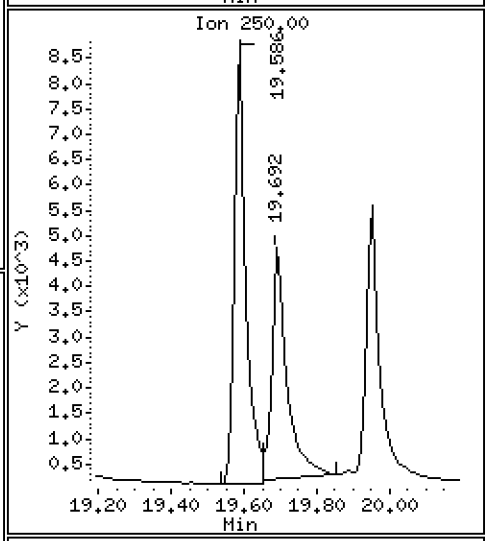


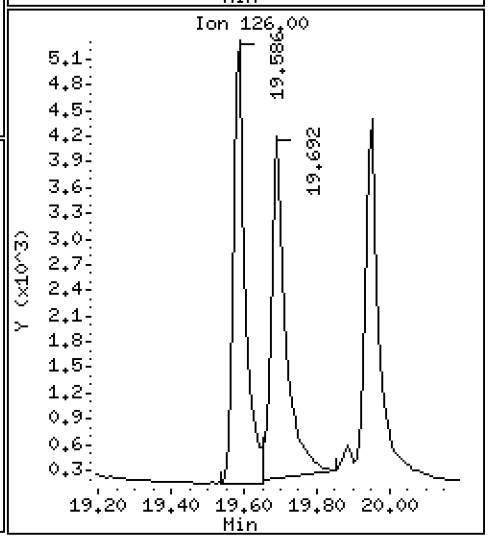



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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

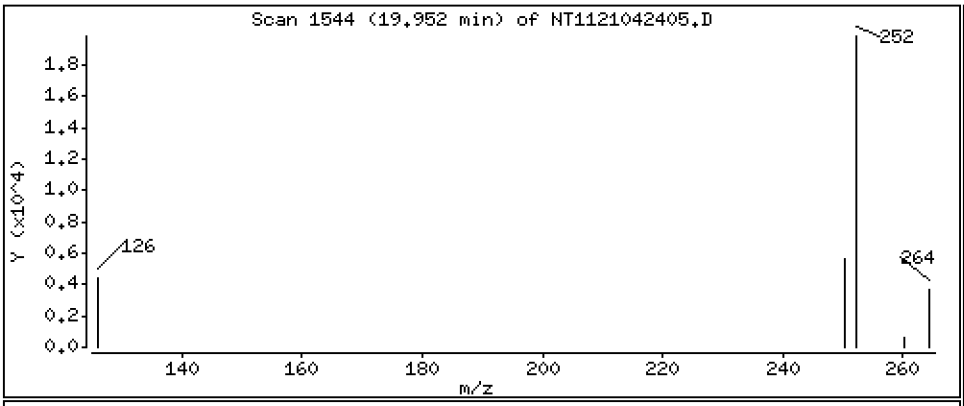
Operator: VTS

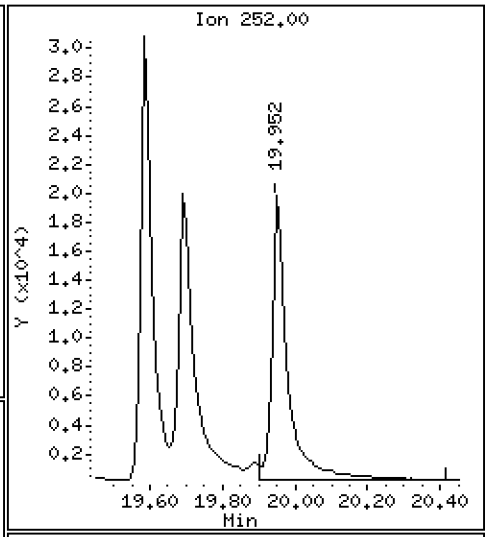
Column phase: Rxi-17Sil MS

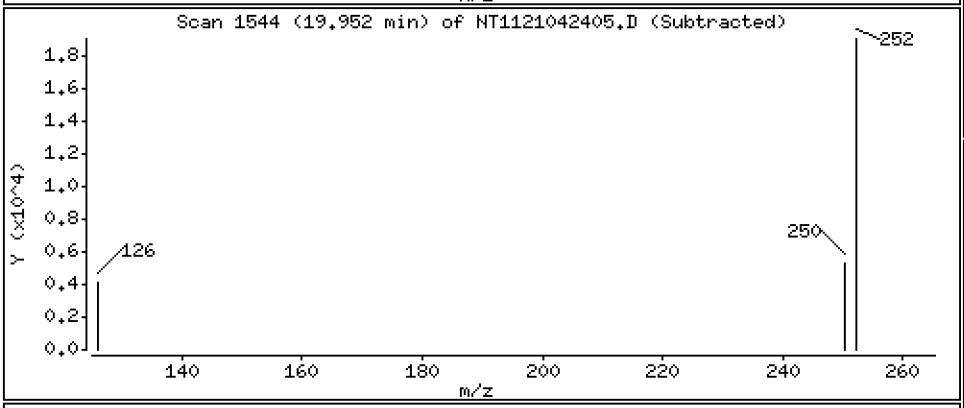
Column diameter: 0.25

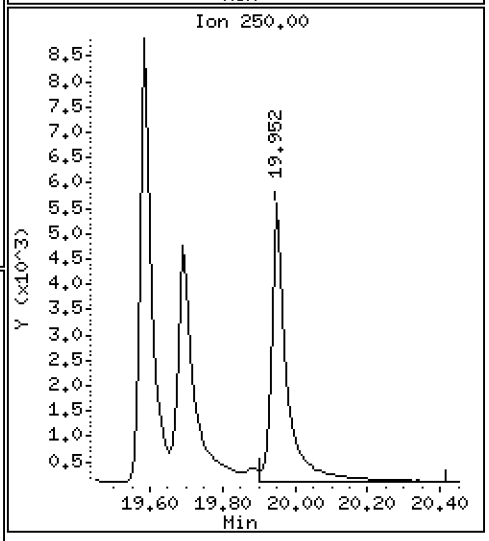
37 Perylene

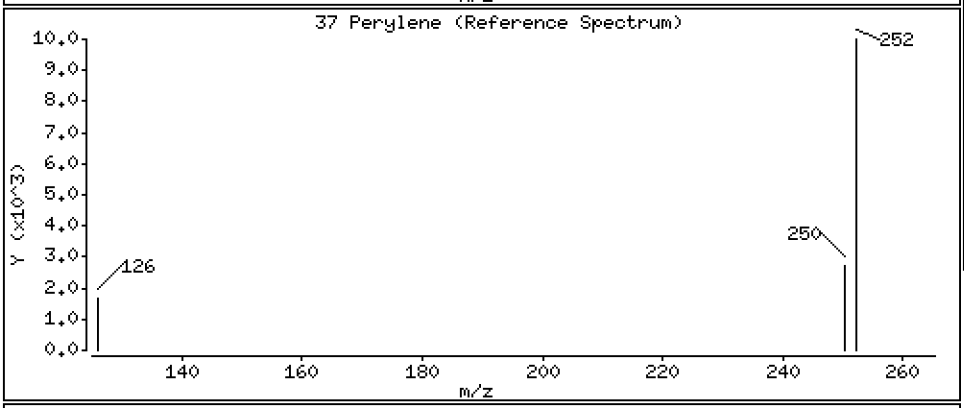
Concentration: 123 ng/mL

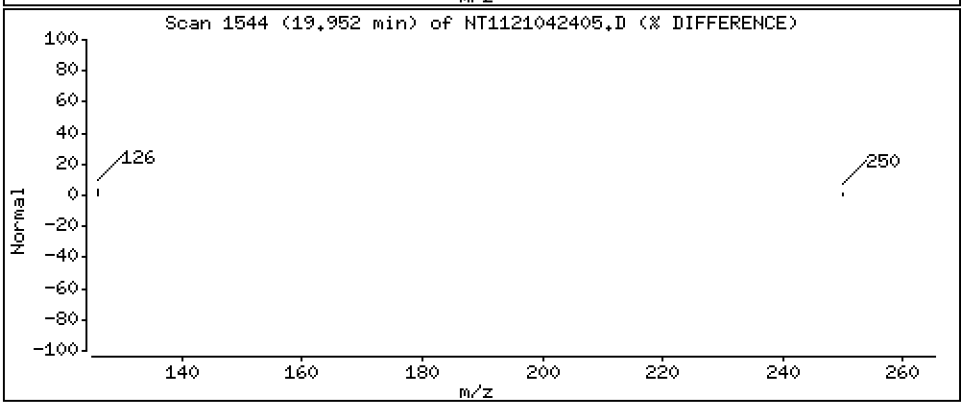


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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

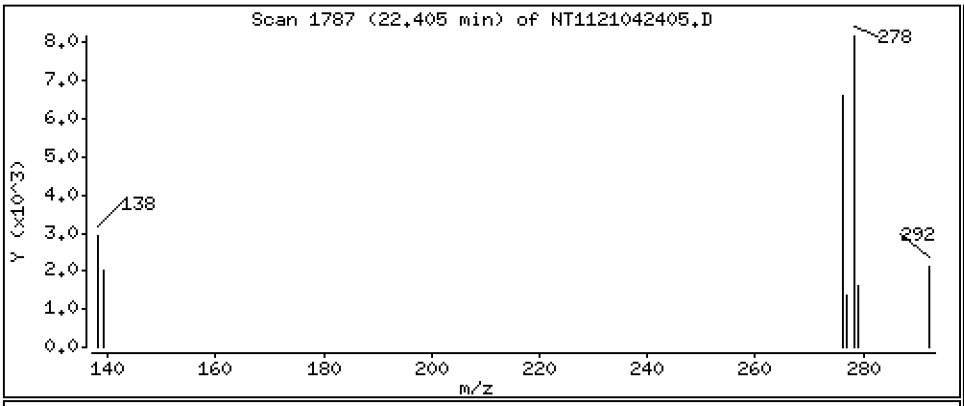
Operator: VTS

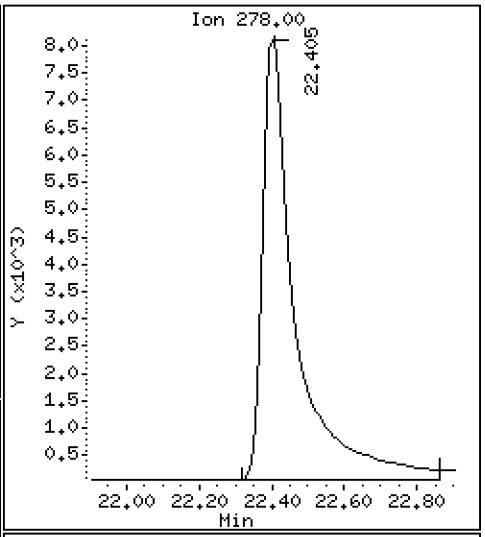
Column phase: Rxi-17Sil MS

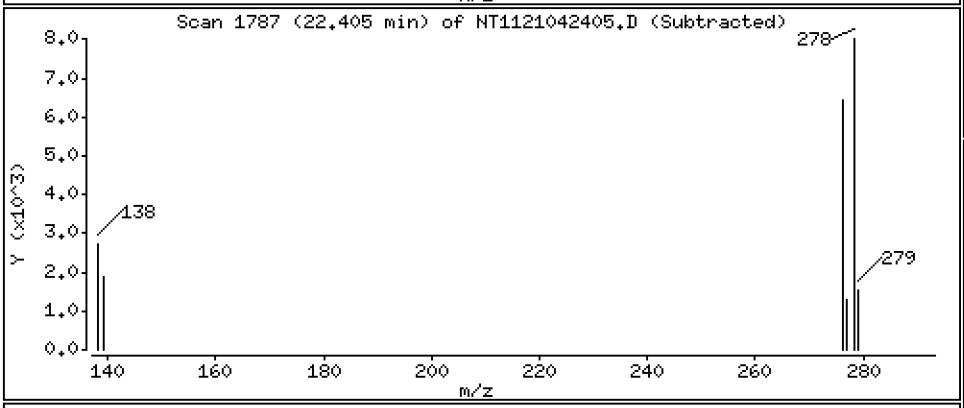
Column diameter: 0.25

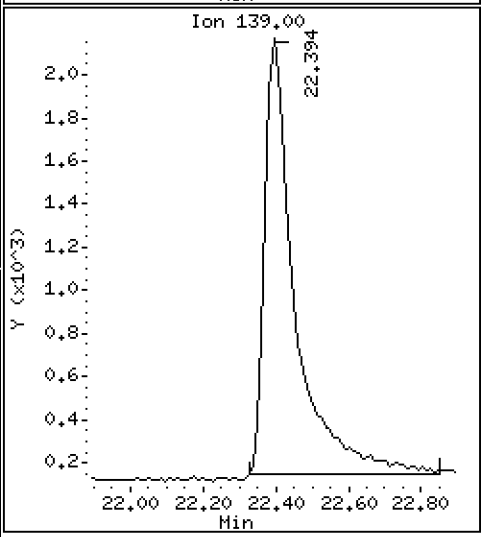
39 Dibenzo(a,h)anthracene

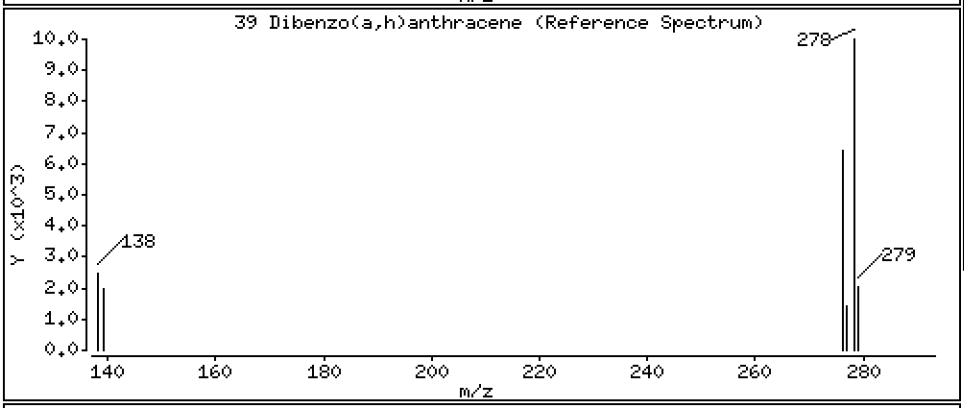
Concentration: 144 ng/mL

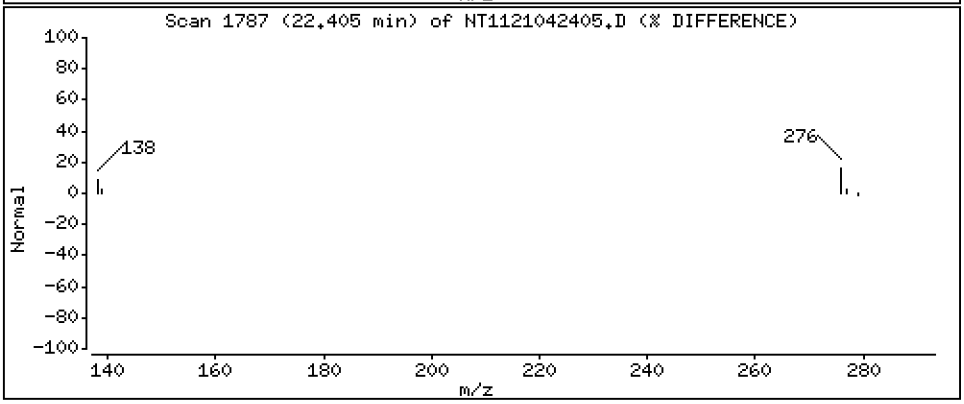


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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

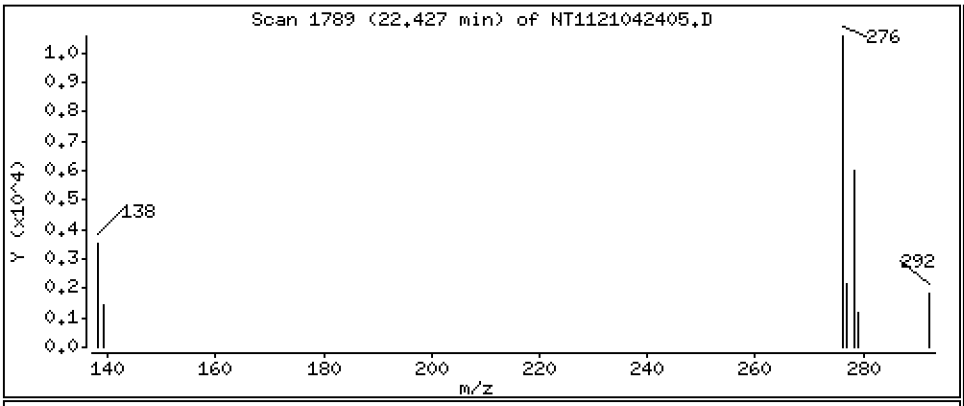
Operator: VTS

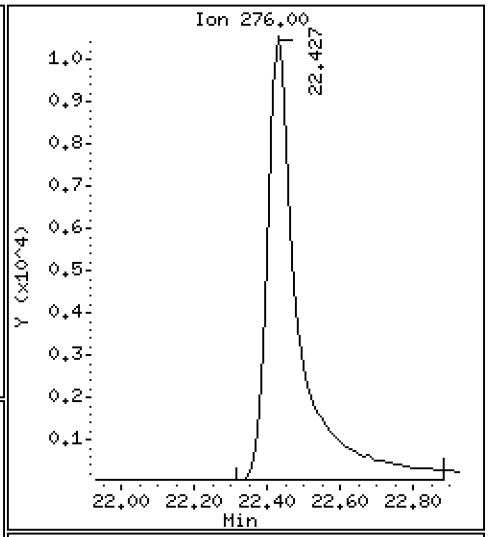
Column phase: Rxi-17Sil MS

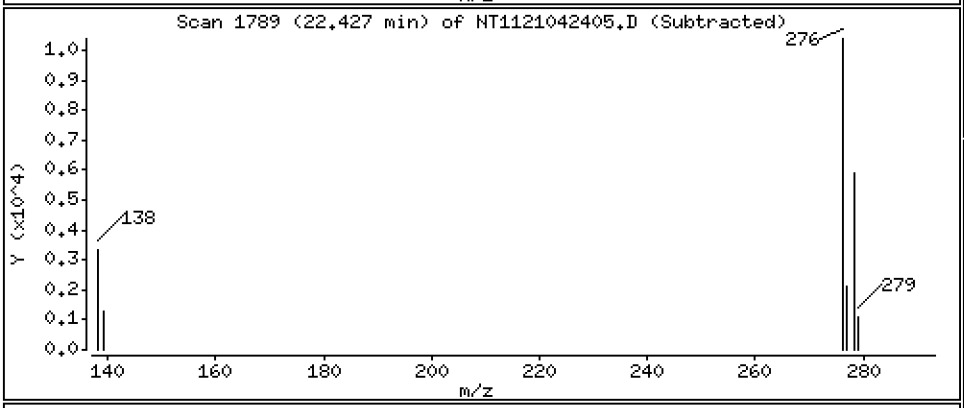
Column diameter: 0.25

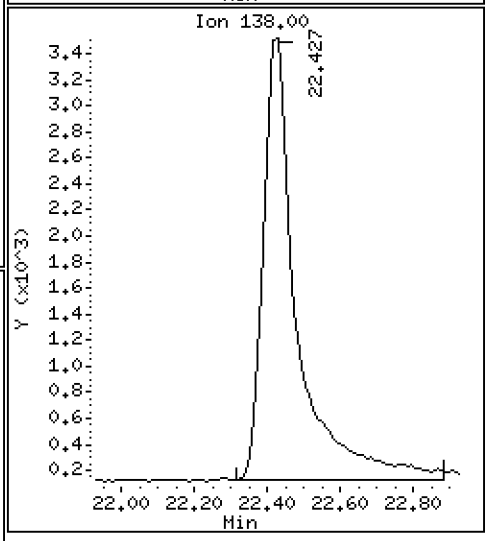
40 Indeno(1,2,3-cd)pyrene

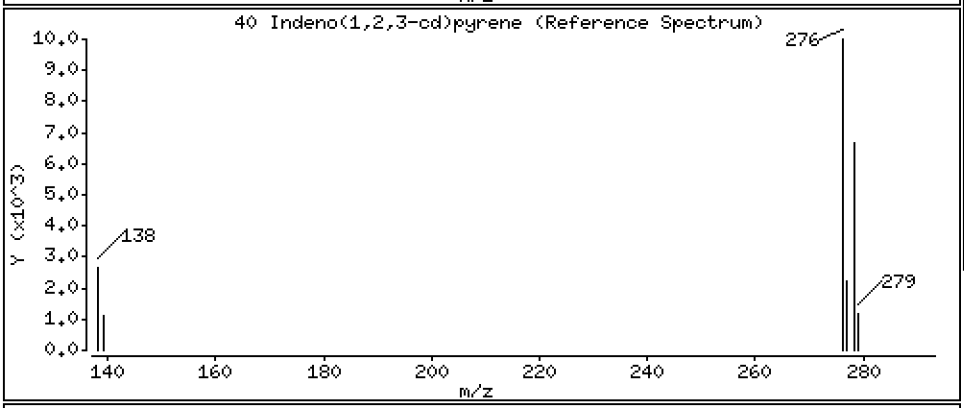
Concentration: 152 ng/mL

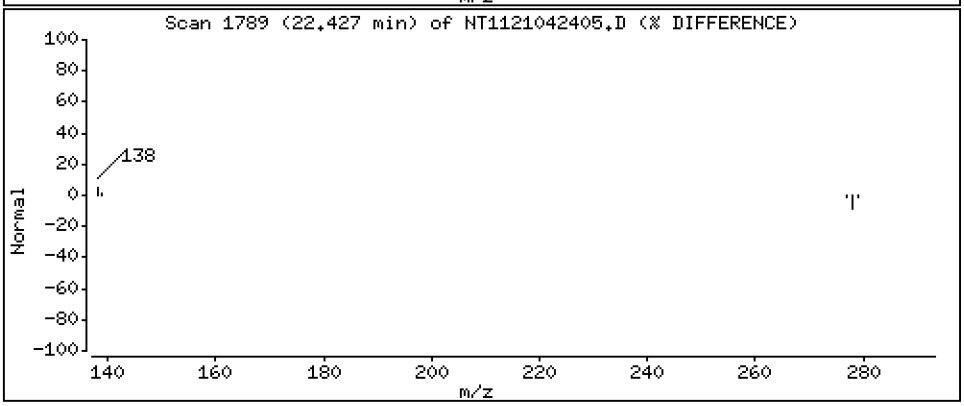


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Date : 24-APR-2021 11:51

Client ID:

Instrument: nt11.i

Sample Info: BJD0479-BS1

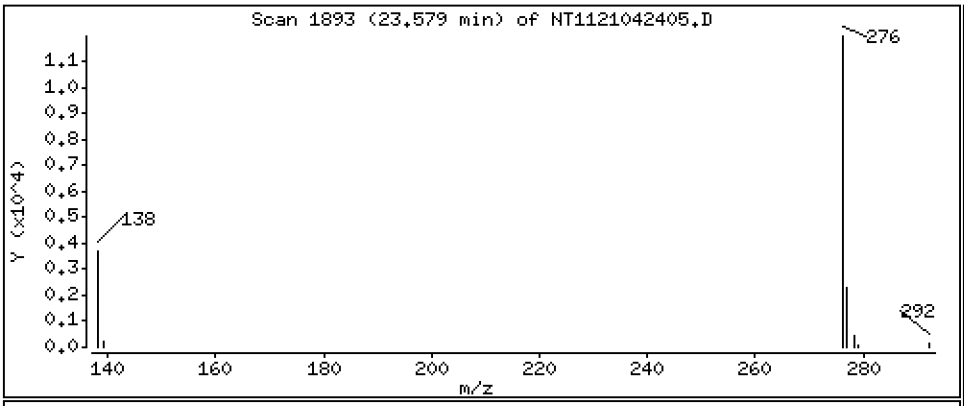
Operator: VTS

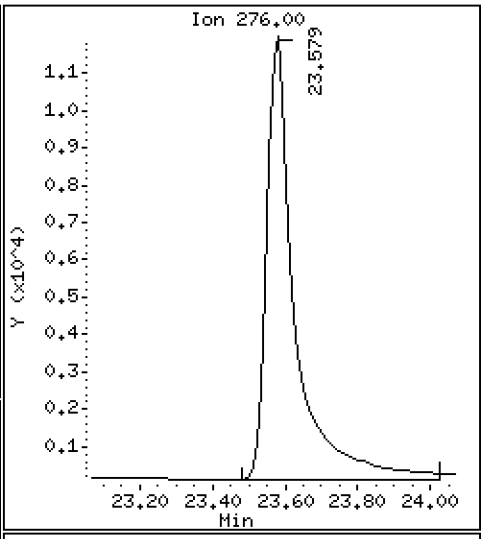
Column phase: Rxi-17Sil MS

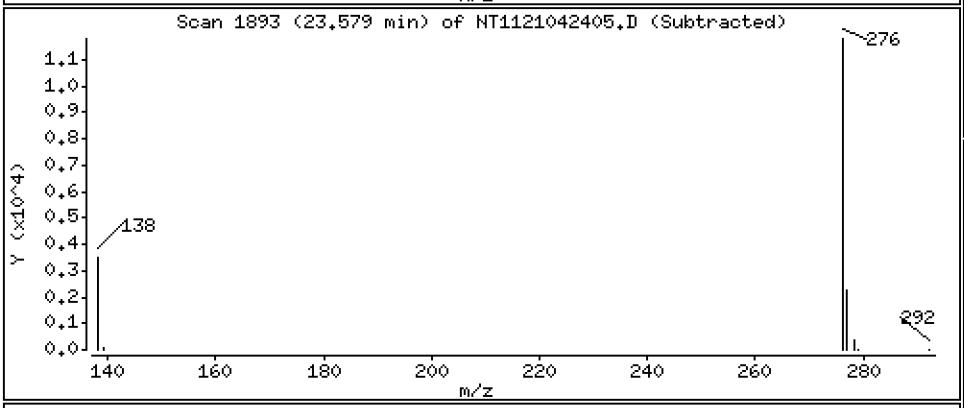
Column diameter: 0.25

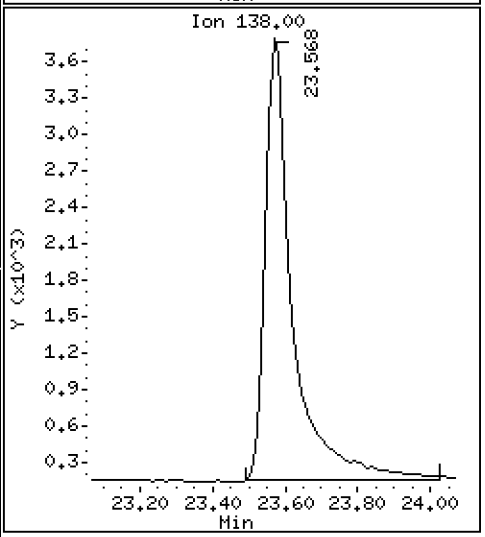
41 Benzo(g,h,i)perylene

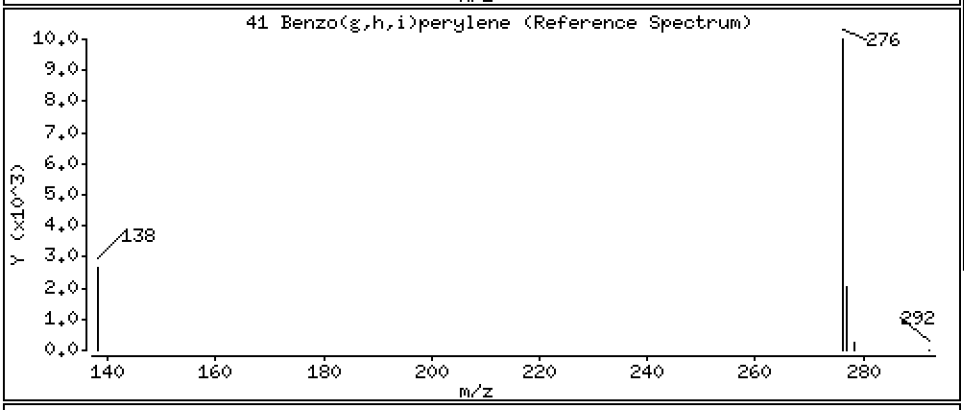
Concentration: 154 ng/mL

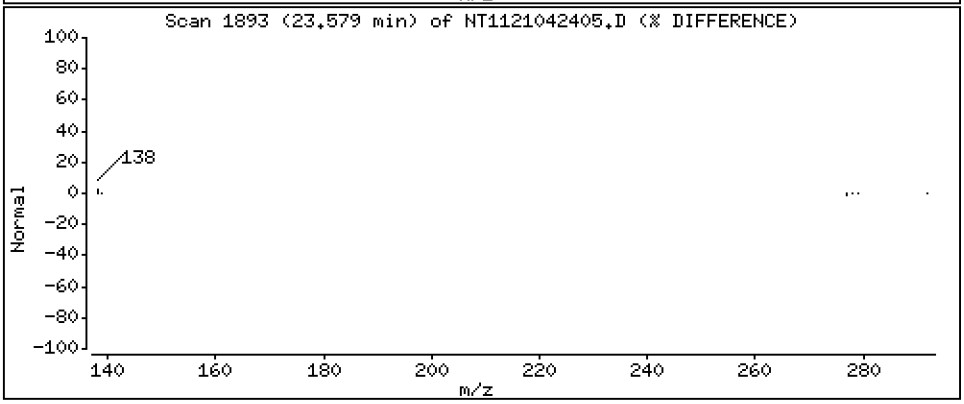


ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

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

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

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1121042405.D
Lab Smp Id: BJD0479-BS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20210424.b\lowsim.m
Misc Info:

Calibration Date: 24-APR-2021
Calibration Time: 10:14
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1121042405.D

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

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

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

NONE

RRT check based on Ccal File: NT1121042402.D

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

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

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

# LCS / LCS DUPLICATE RECOVERY

## EPA 8270E-SIM

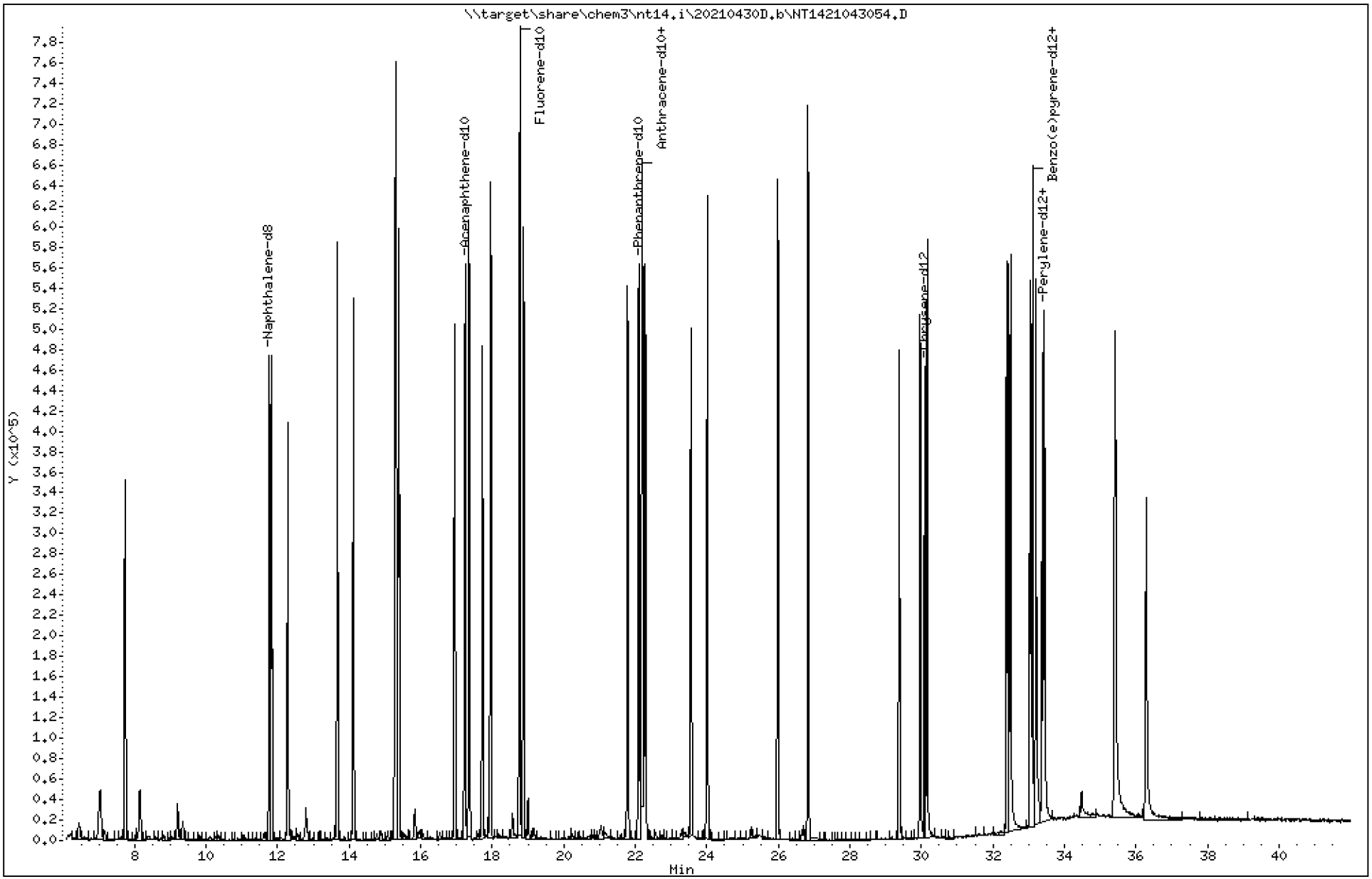
| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Matrix: | Solid | Analyzed: | 05/02/21 02:00 |
| Batch: | BJD0507 | Laboratory ID: | BJD0507-BS1 |
| Preparation: | EPA 3546 (Microwave) | Sequence Name: | LCS |
| Initial/Final: | 10 g / 0.5 mL | | |

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

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043054.D
Date : 02-MAY-2021 02:00
Client ID:
Sample Info: BJD0507-BS1

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




Revised Report 21D0180 07/07/2021 Page 652 of 1709

Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043054.D

Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

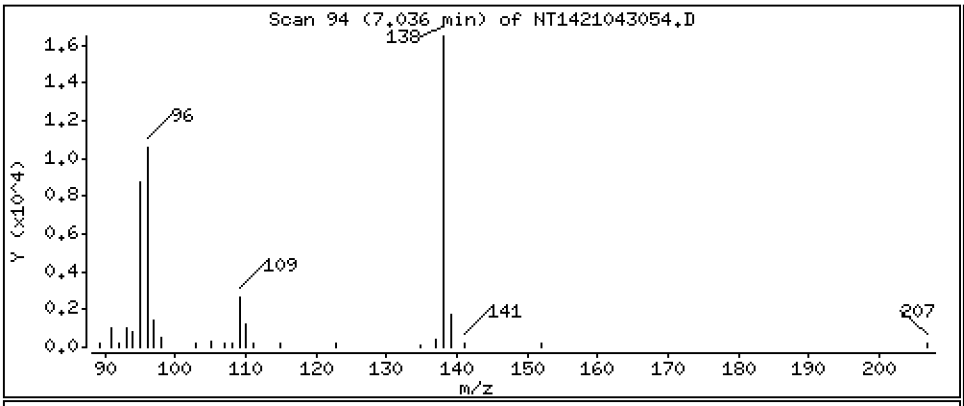
Operator: VTS

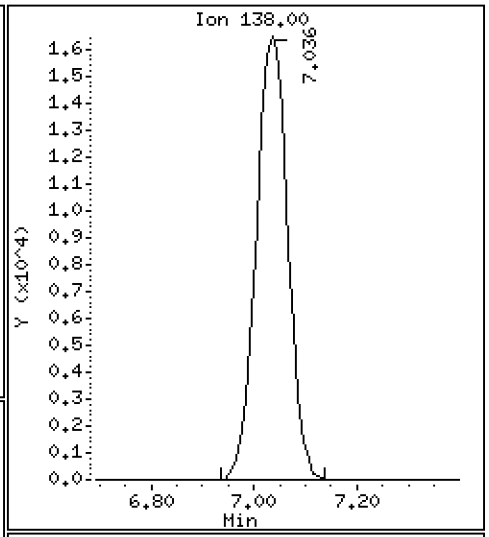
Column phase: Rxi-17Sil MS

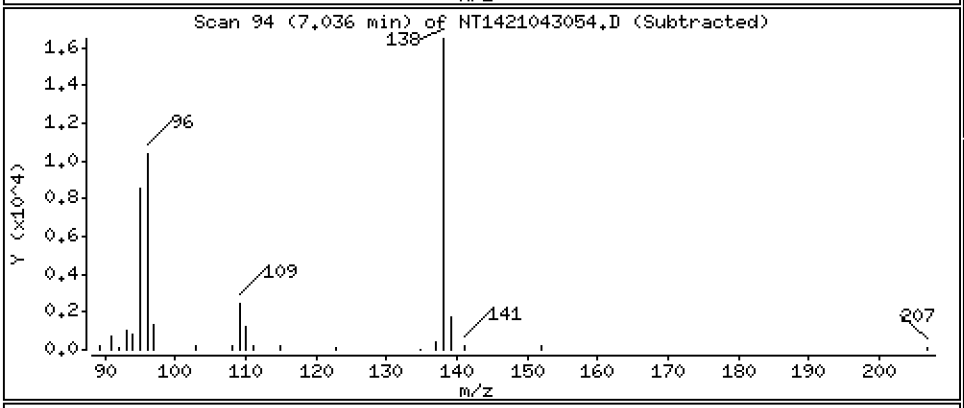
Column diameter: 0.25

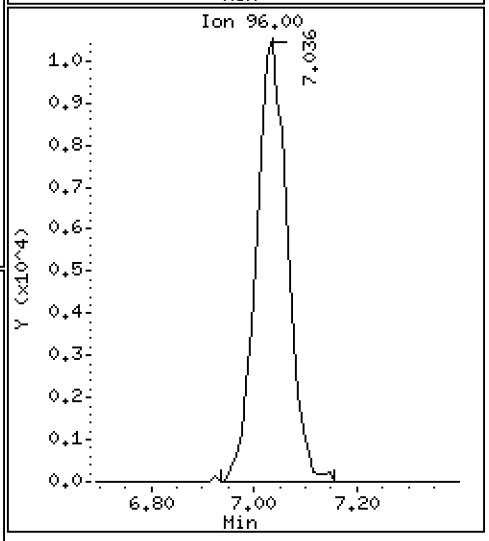
1 trans-Decalin

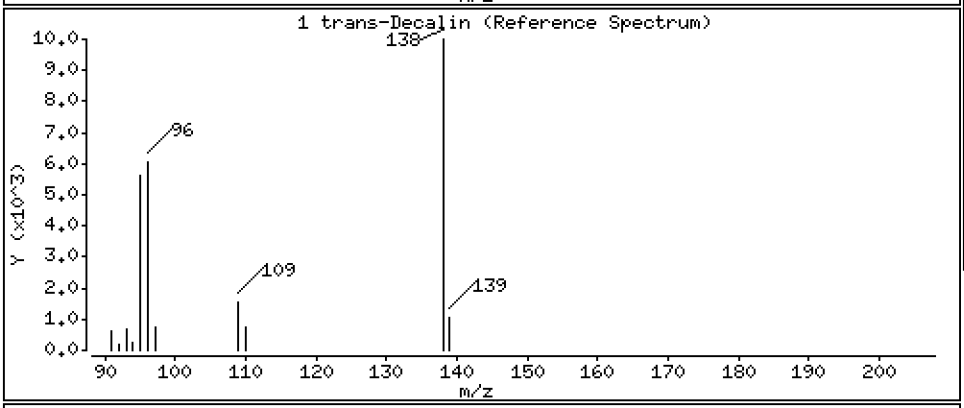
Concentration: 1.645 ug/mL

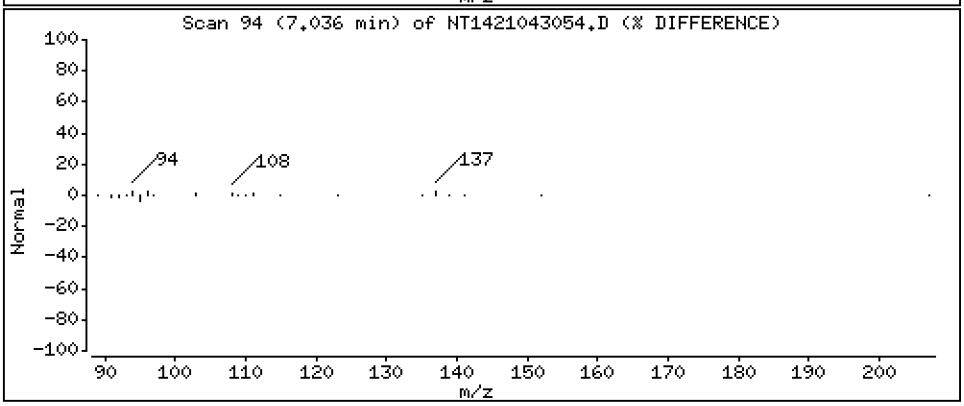


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Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

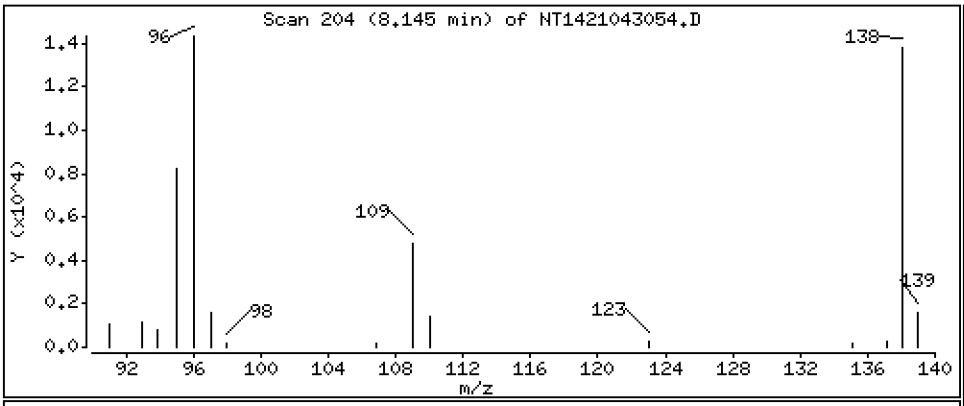
Operator: VTS

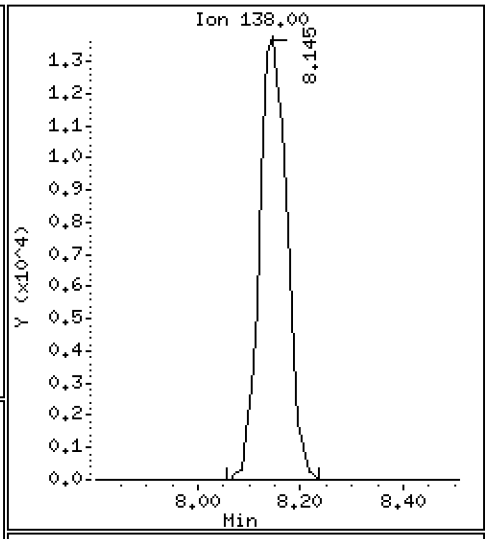
Column phase: Rxi-17Sil MS

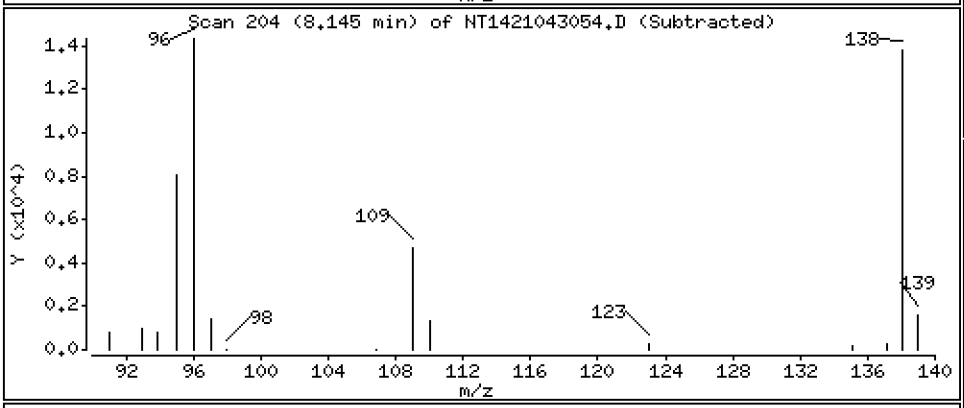
Column diameter: 0.25

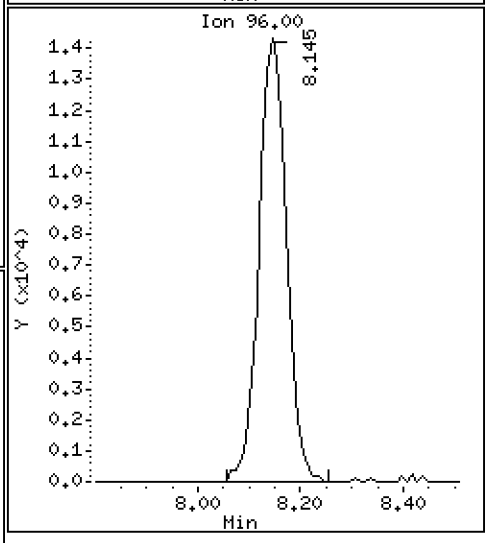
2 cis-Decalin

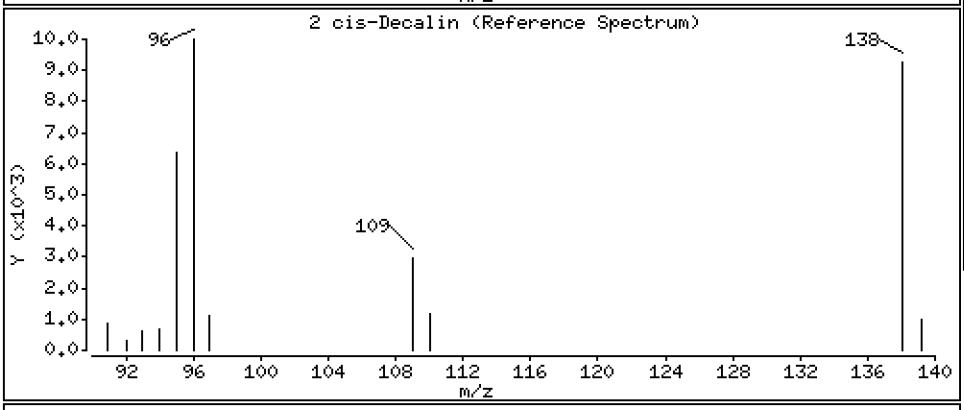
Concentration: 1.737 ug/mL

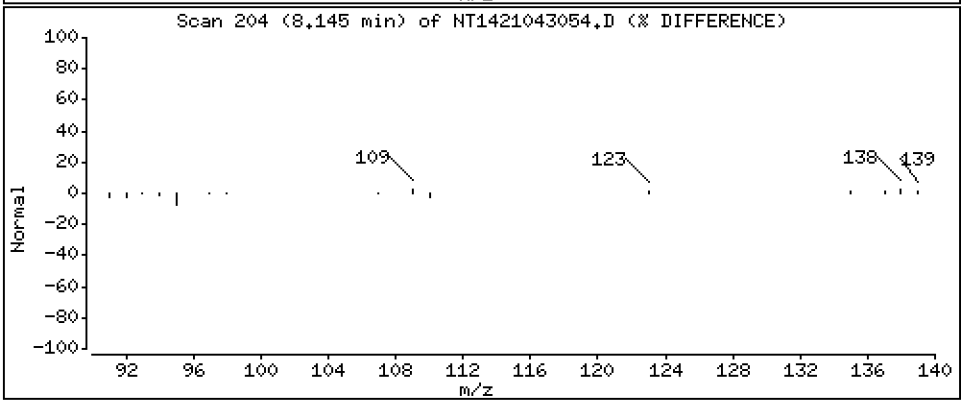


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043054.D

Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

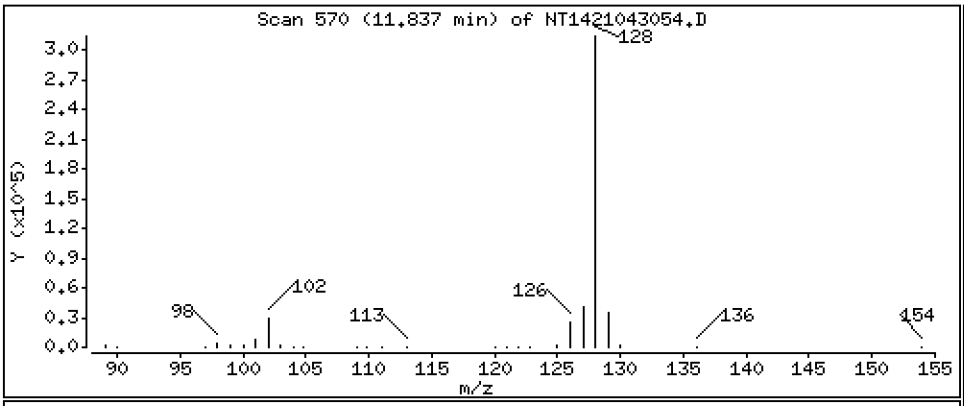
Operator: VTS

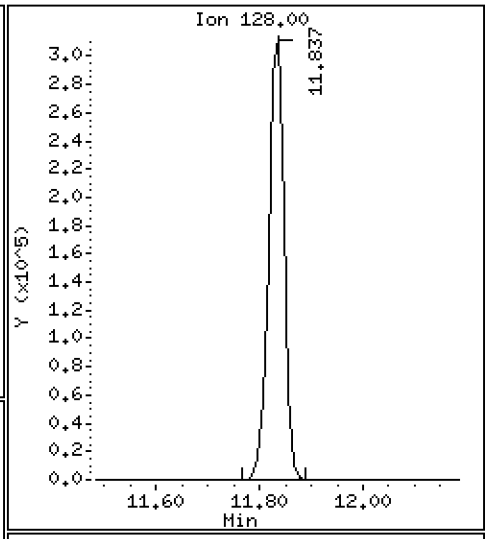
Column phase: Rxi-17Sil MS

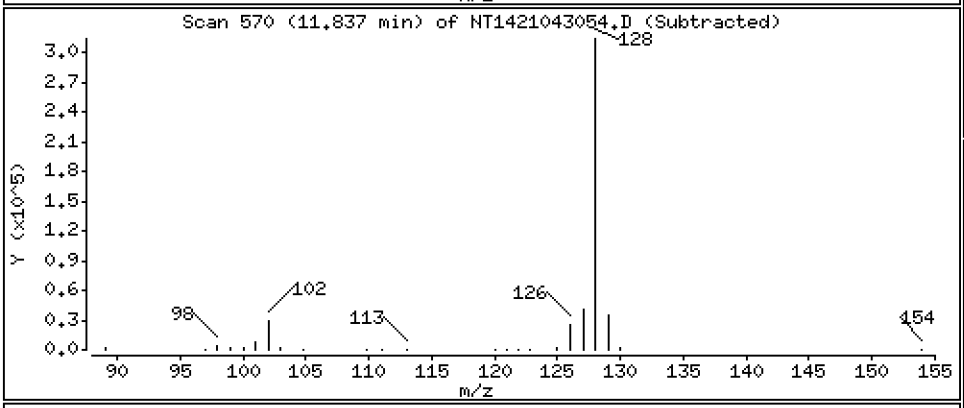
Column diameter: 0.25

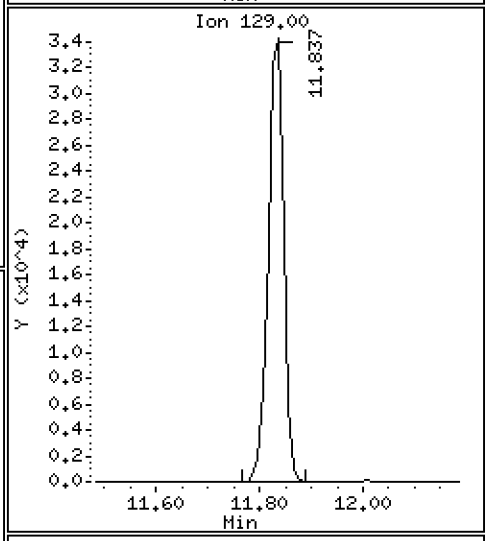
7 Naphthalene

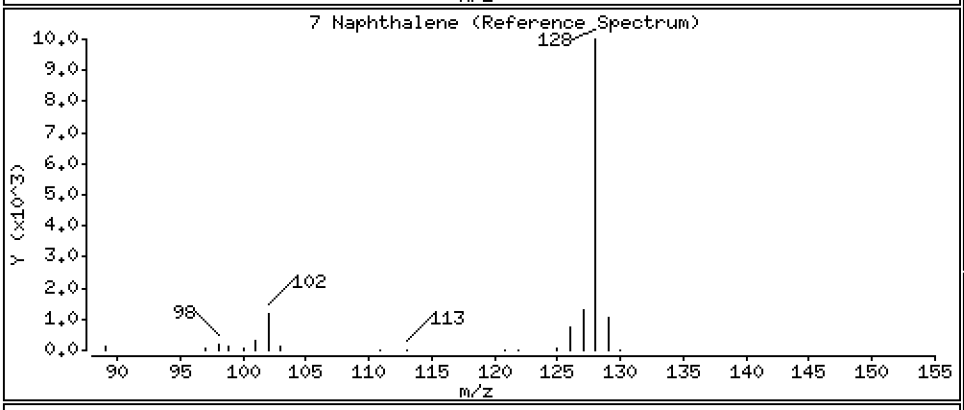
Concentration: 1.960 ug/mL

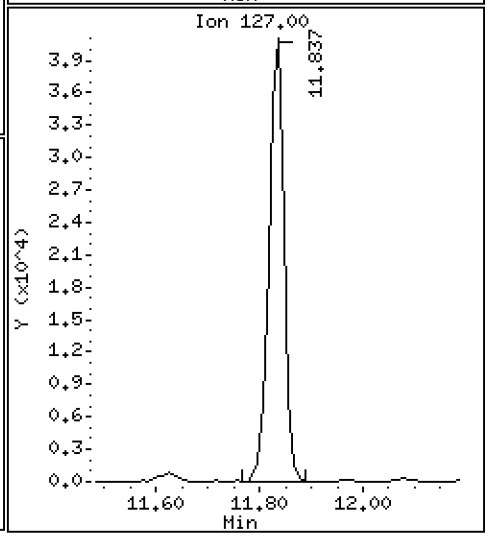


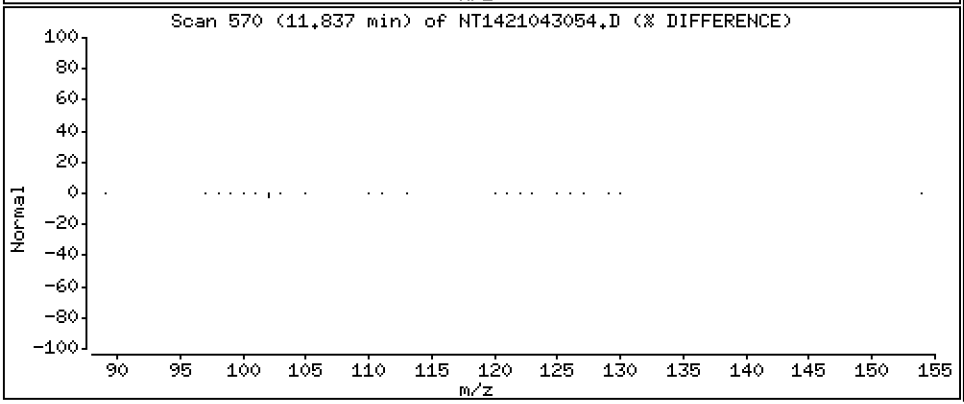



Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043054.D

Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

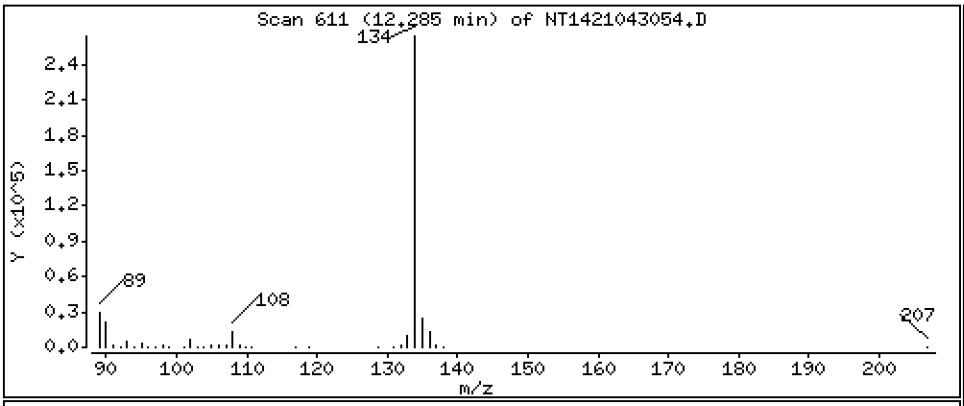
Operator: VTS

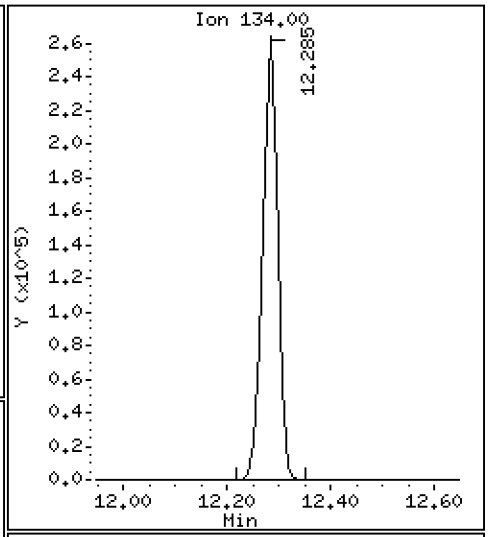
Column phase: Rxi-17Sil MS

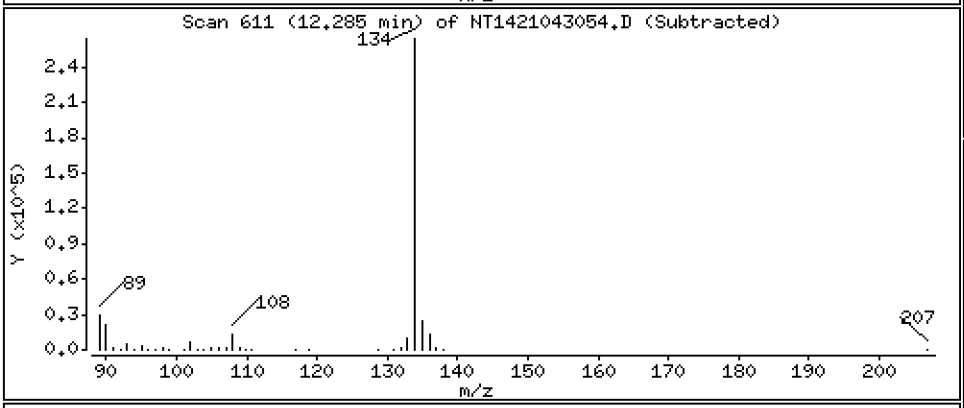
Column diameter: 0.25

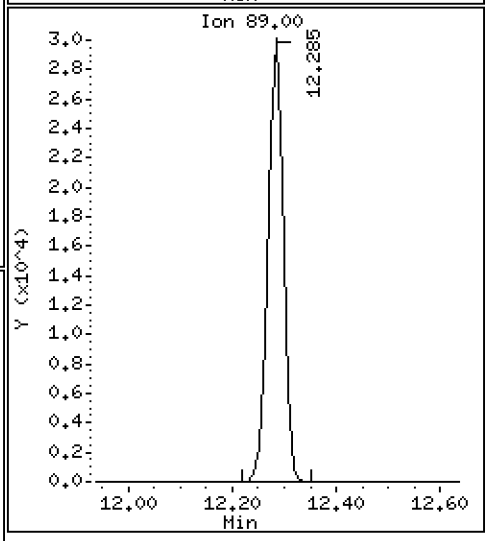
12 Benzo(b)thiophene

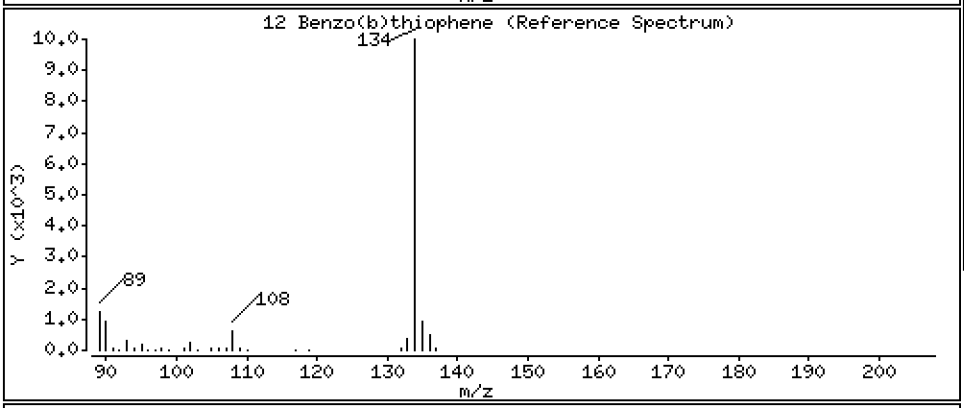
Concentration: 1.962 ug/mL

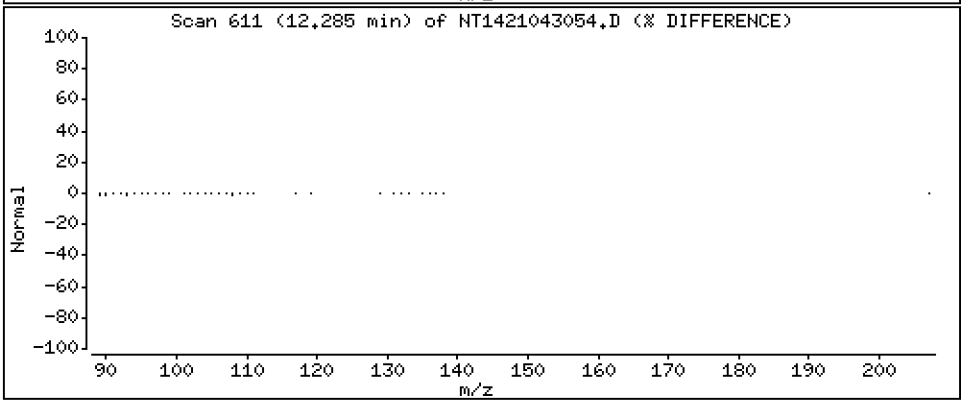


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043054.D

Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

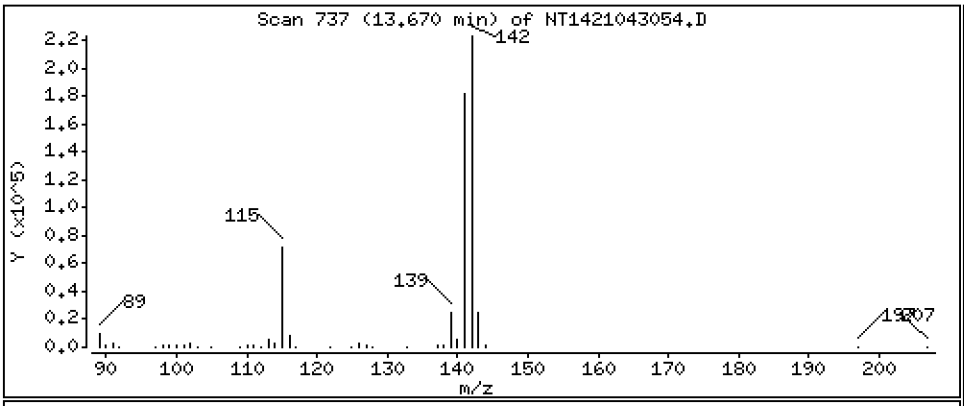
Operator: VTS

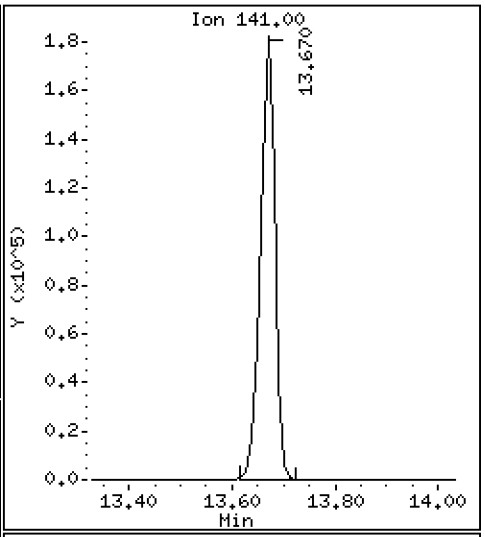
Column phase: Rxi-17Sil MS

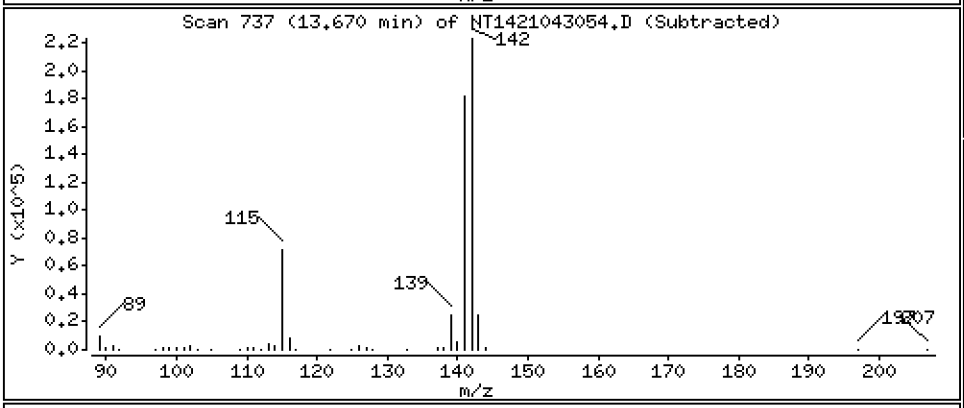
Column diameter: 0.25

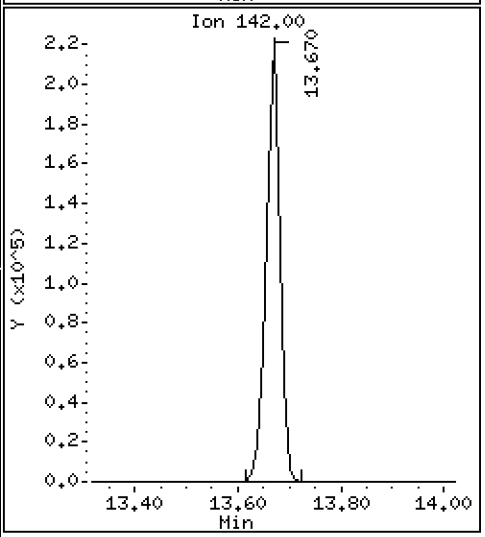
16 2-Methylnaphthalene

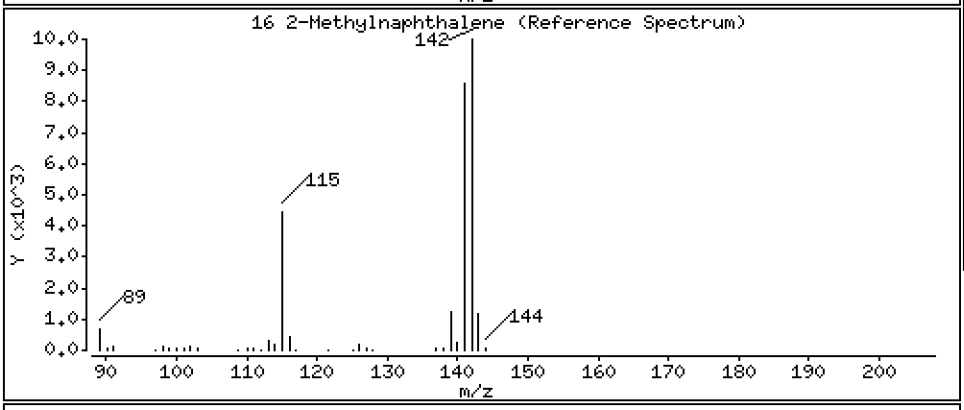
Concentration: 2.036 ug/mL

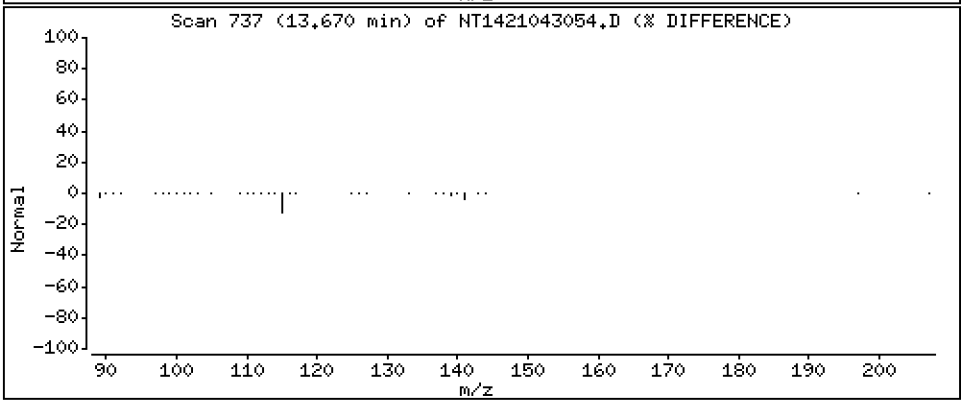


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043054.D

Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

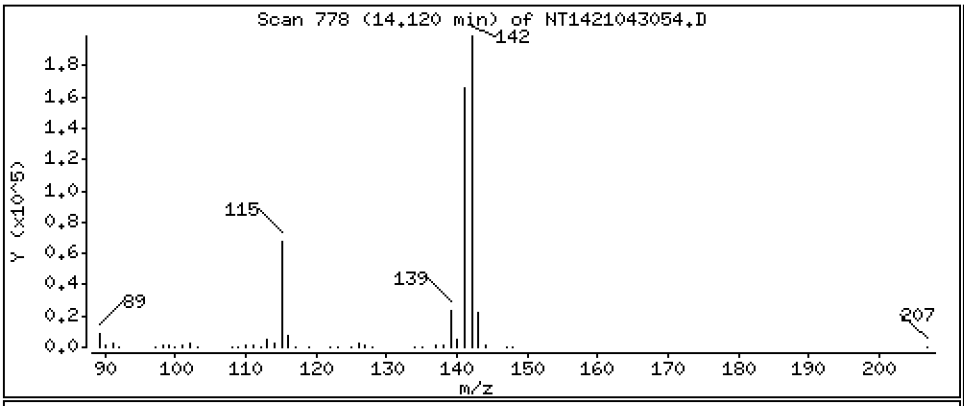
Operator: VTS

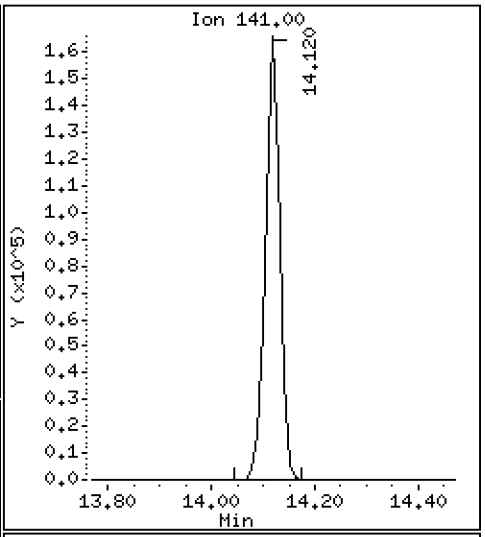
Column phase: Rxi-17Sil MS

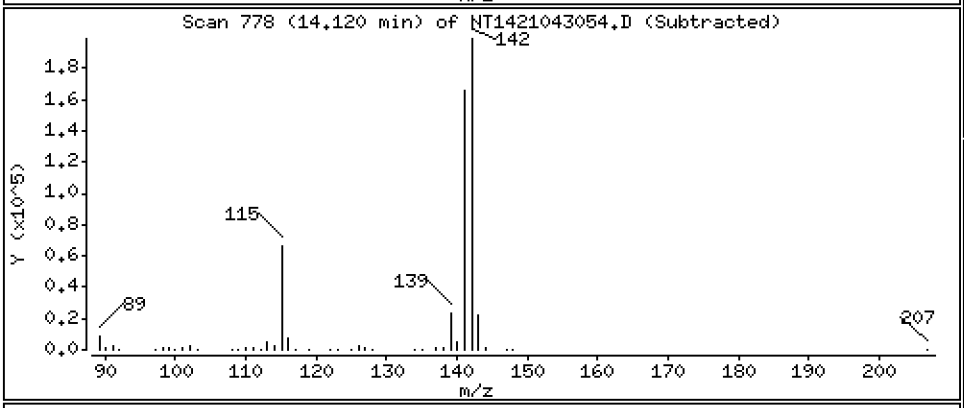
Column diameter: 0.25

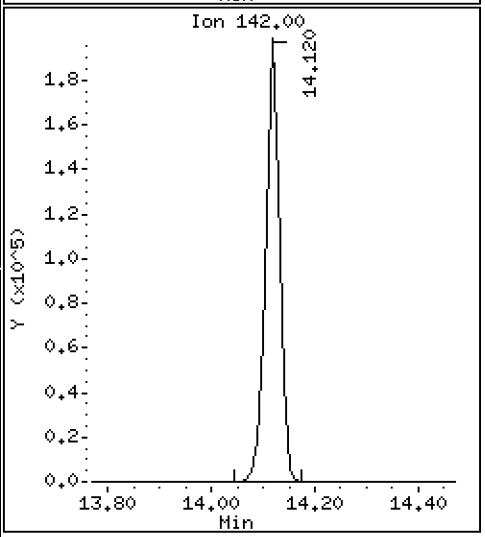
17 1-methylnaphthalene

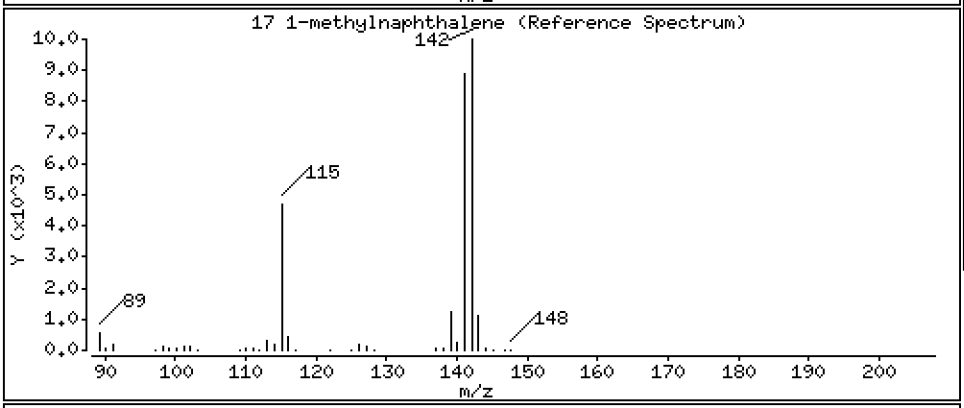
Concentration: 2.048 ug/mL

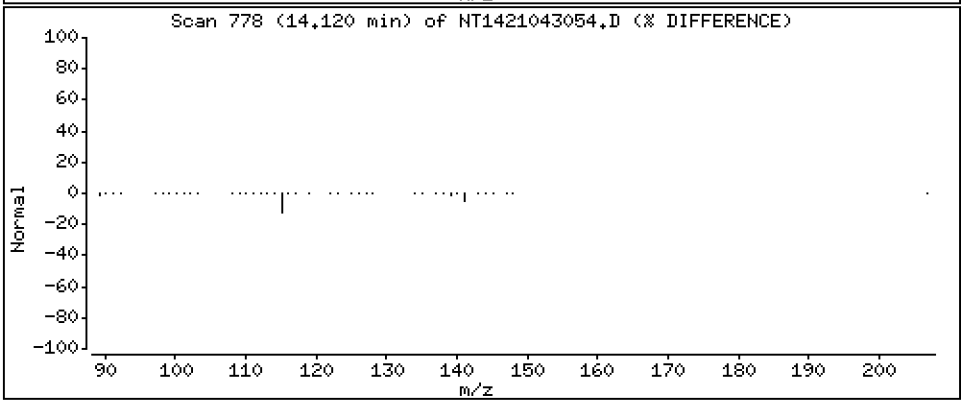


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Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

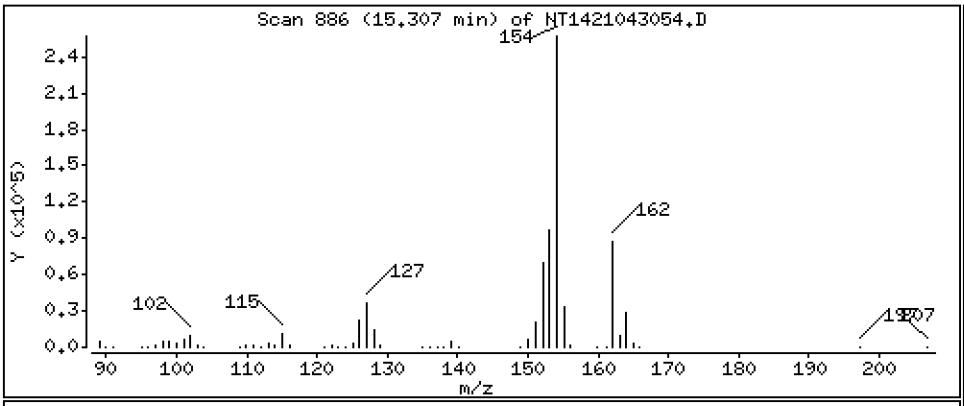
Operator: VTS

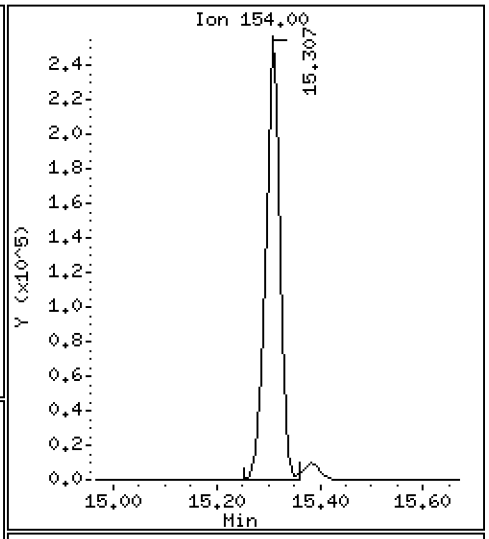
Column phase: Rxi-17Sil MS

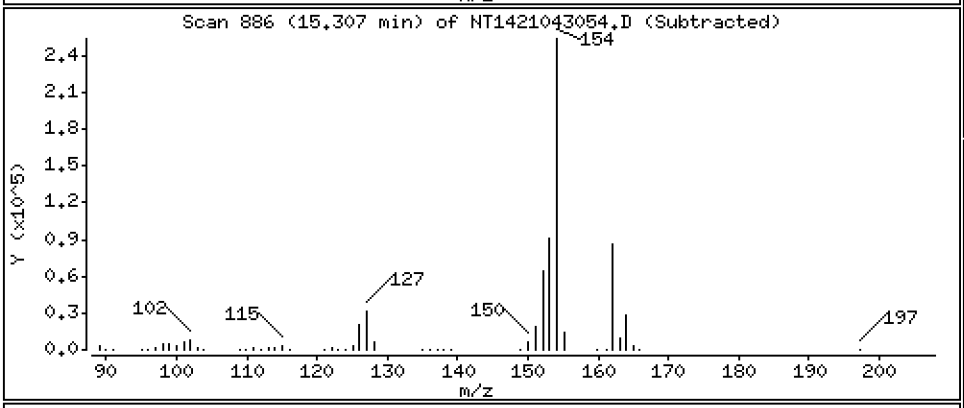
Column diameter: 0.25

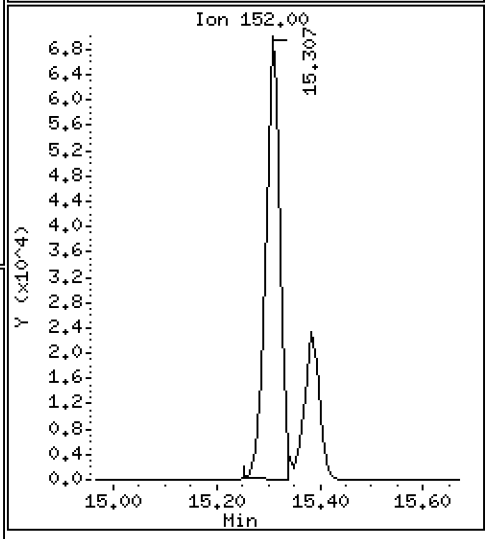
18 Biphenyl

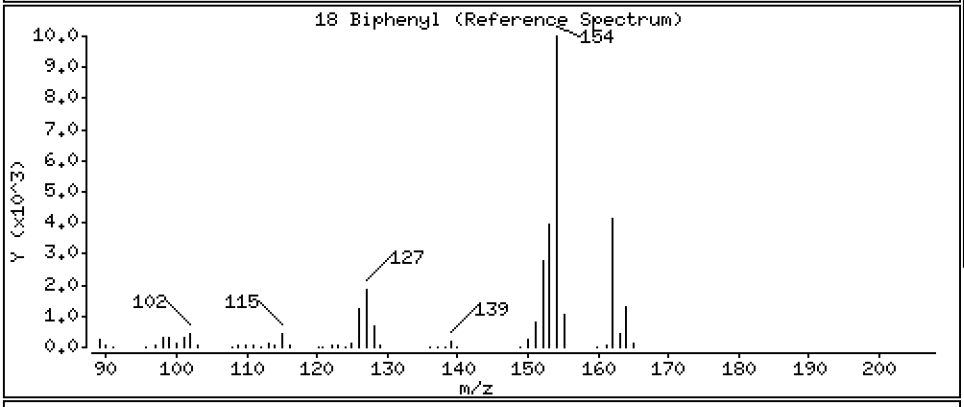
Concentration: 2.065 ug/mL

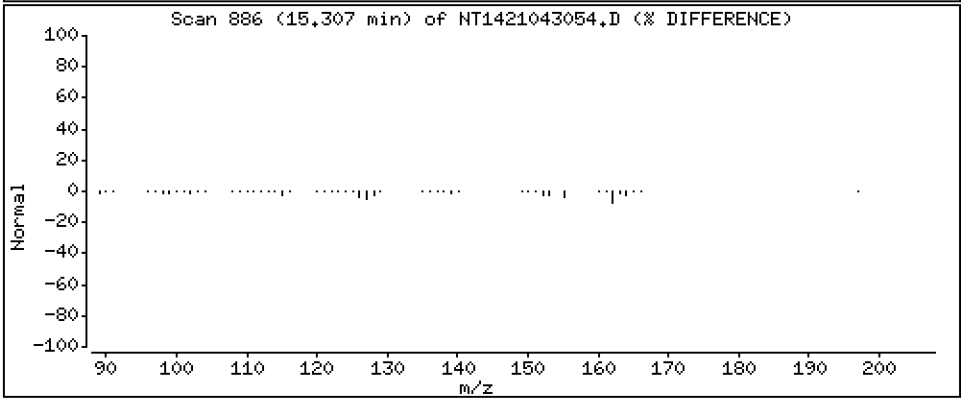


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Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

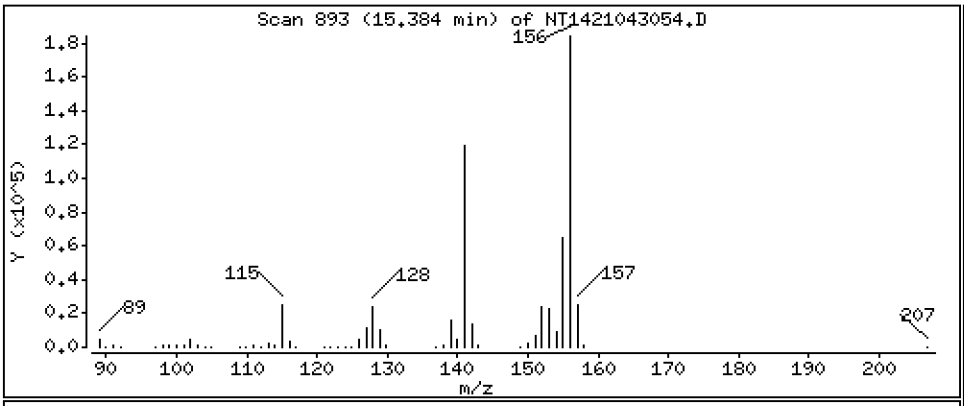
Operator: VTS

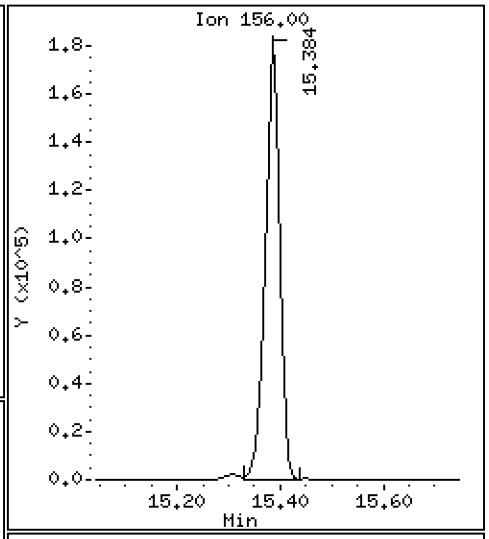
Column phase: Rxi-17Sil MS

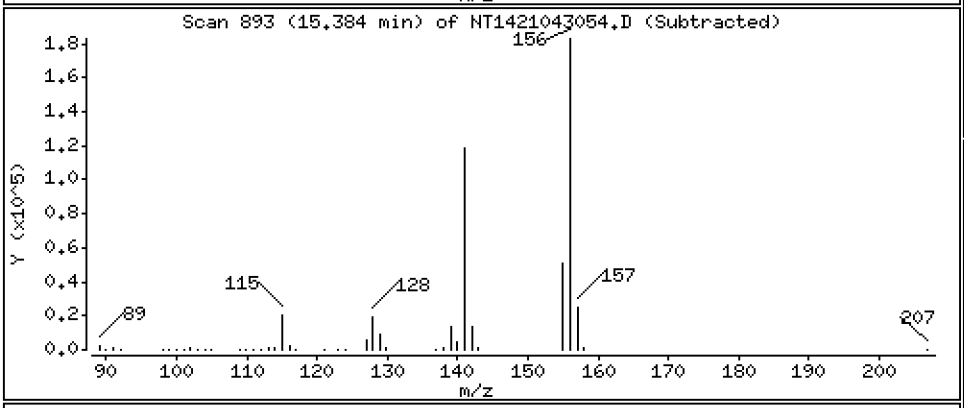
Column diameter: 0.25

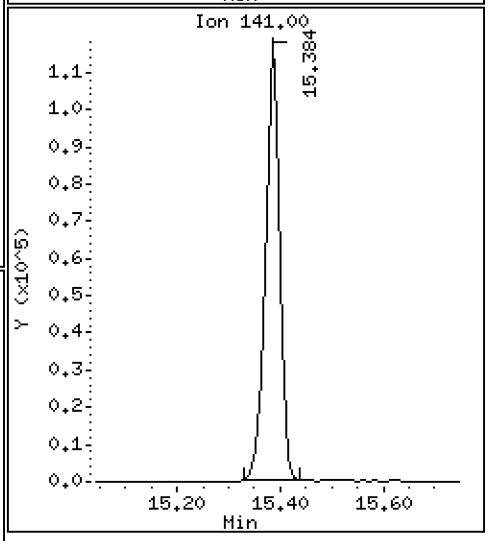
19 2,6-Dimethylnaphthalene

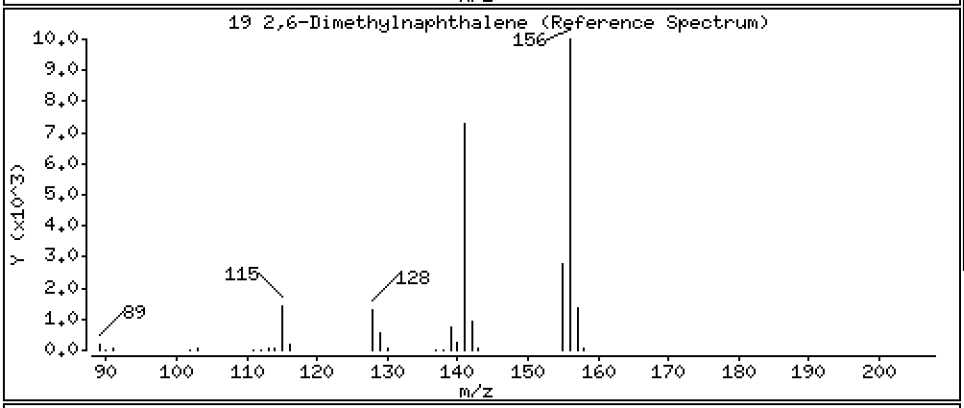
Concentration: 2.146 ug/mL

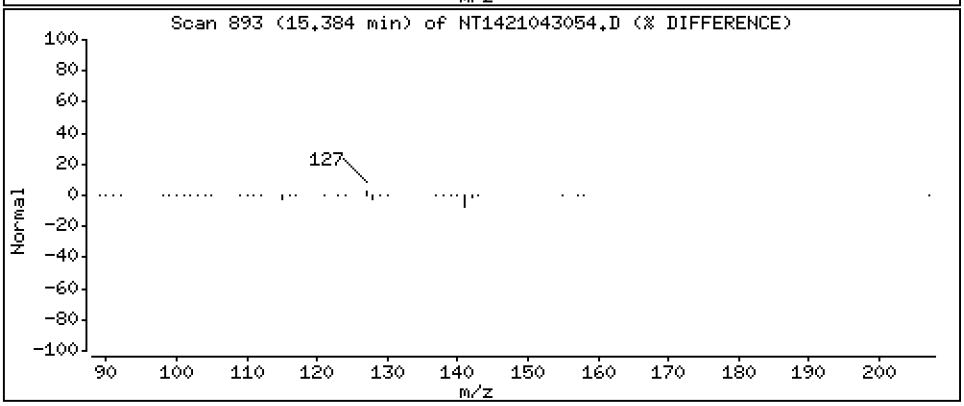


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043054.D

Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

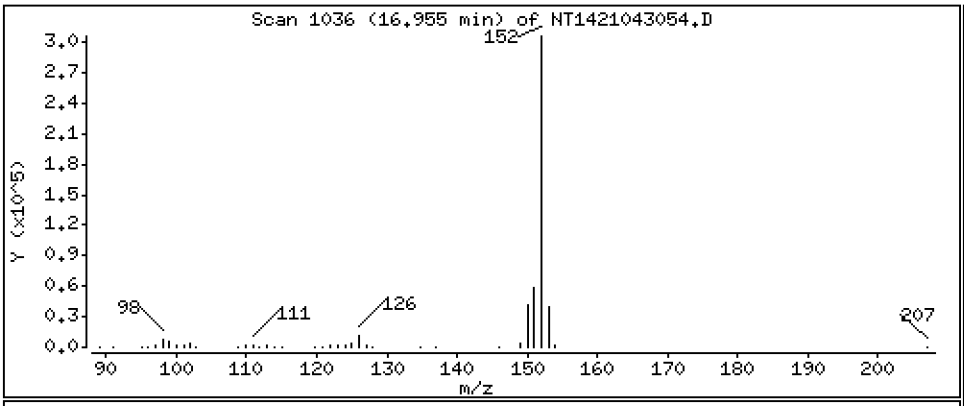
Operator: VTS

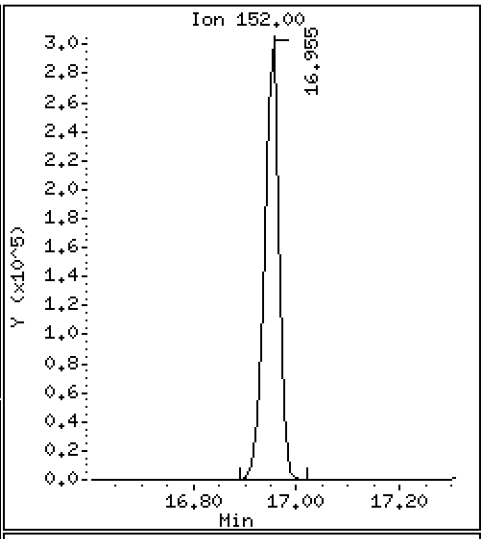
Column phase: Rxi-17Sil MS

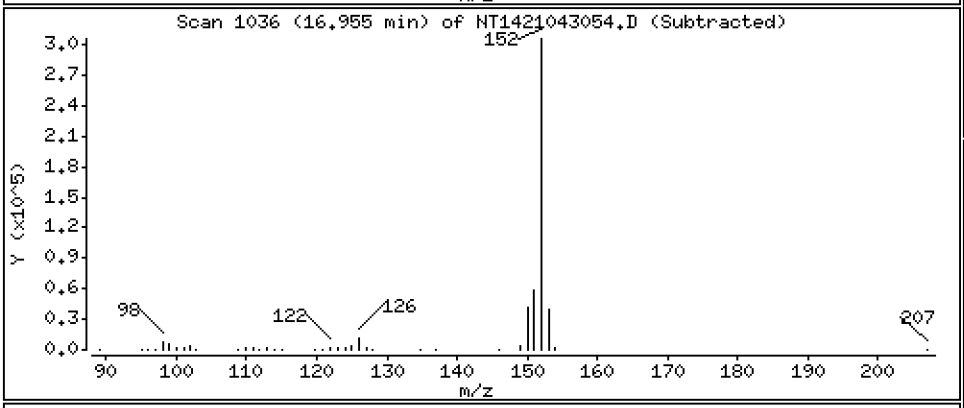
Column diameter: 0.25

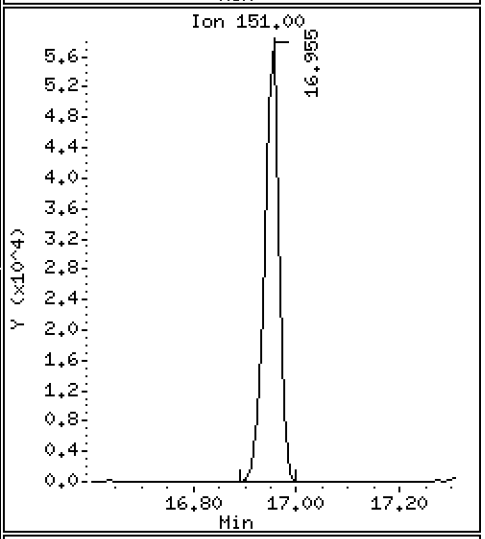
20 Acenaphthylene

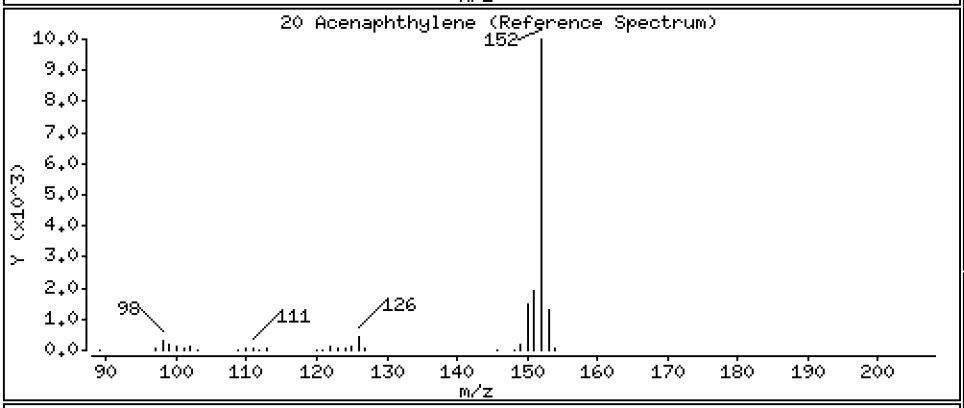
Concentration: 2.284 ug/mL

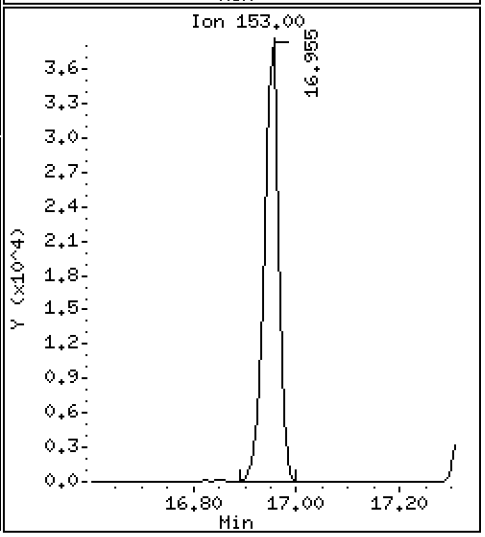


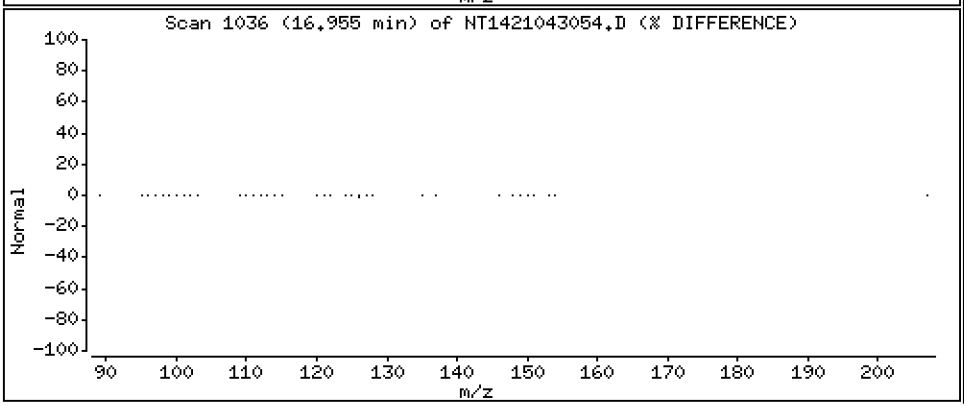



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Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

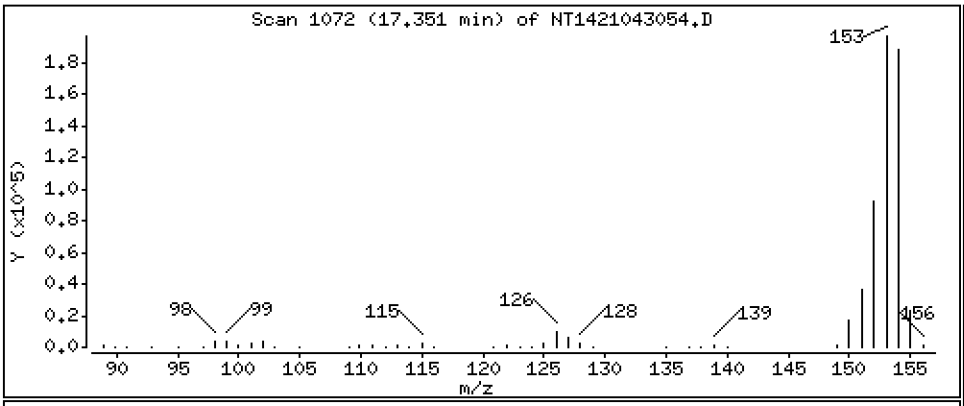
Operator: VTS

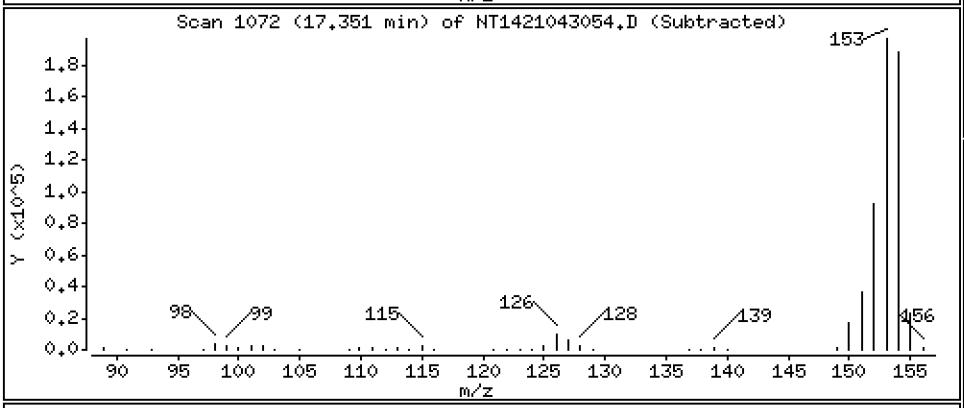
Column phase: Rxi-17Sil MS

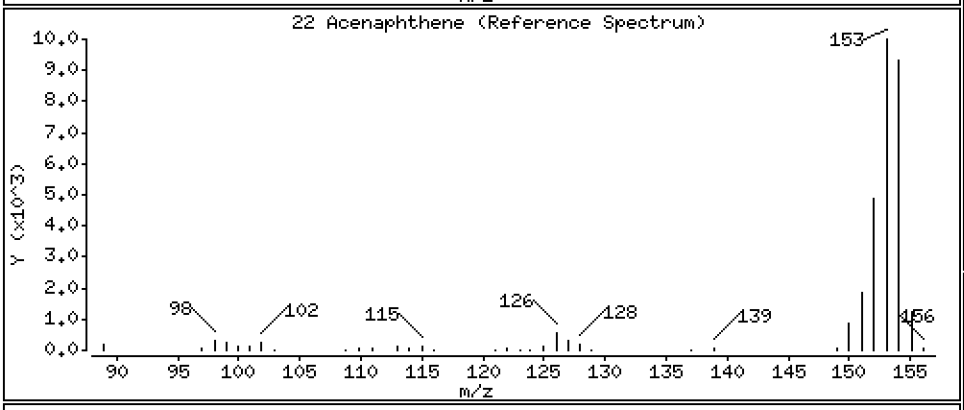
Column diameter: 0.25

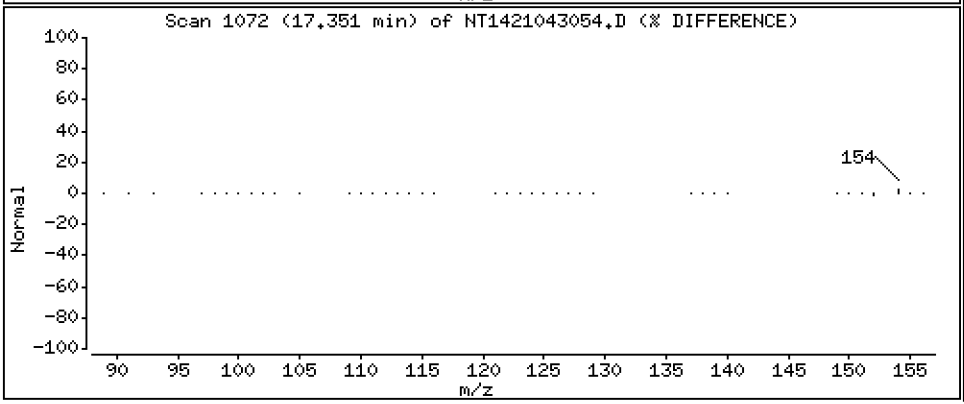
22 Acenaphthene

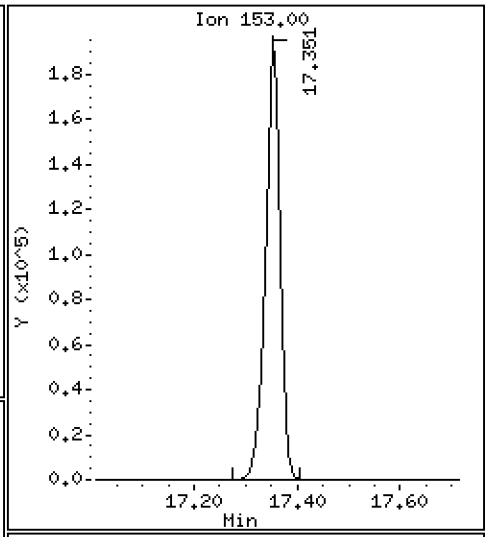
Concentration: 2.315 ug/mL

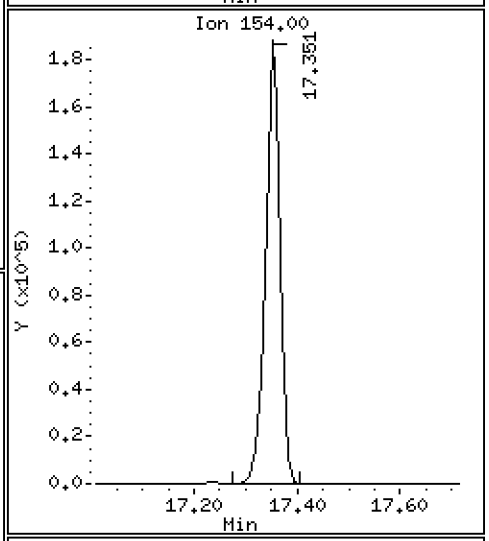


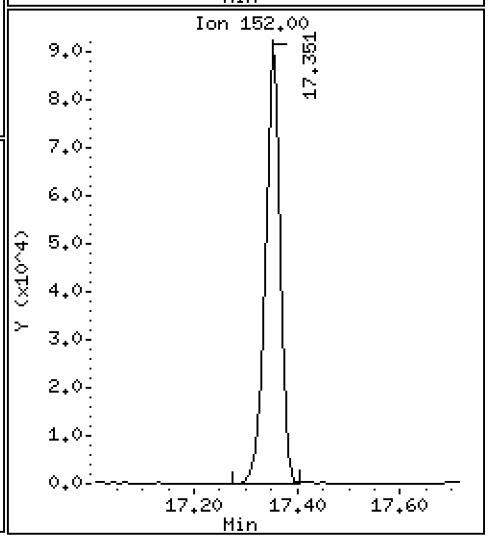



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Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

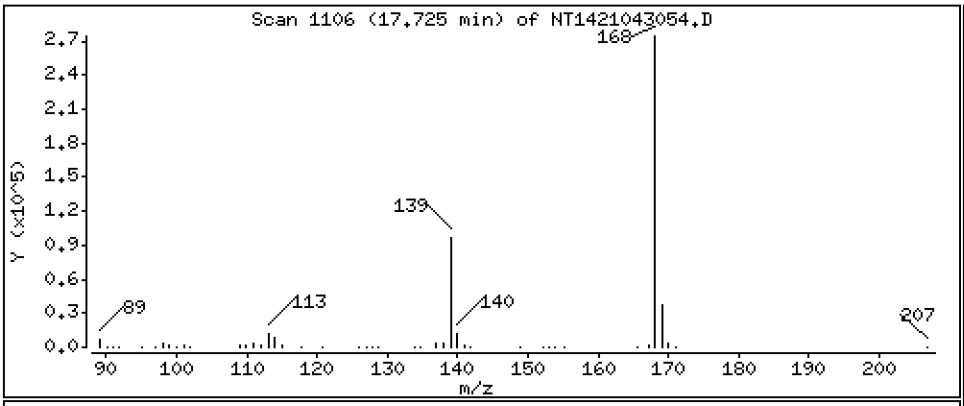
Operator: VTS

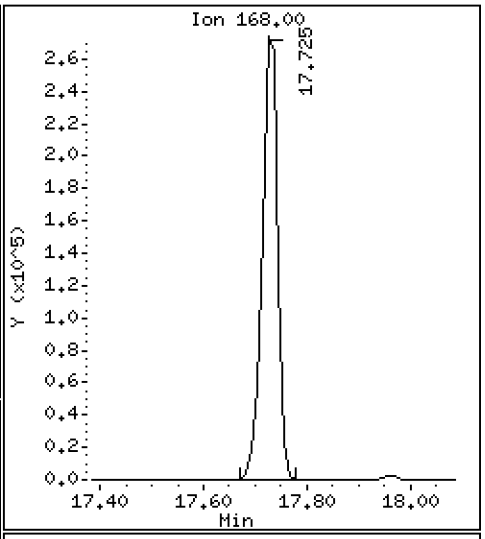
Column phase: Rxi-17Sil MS

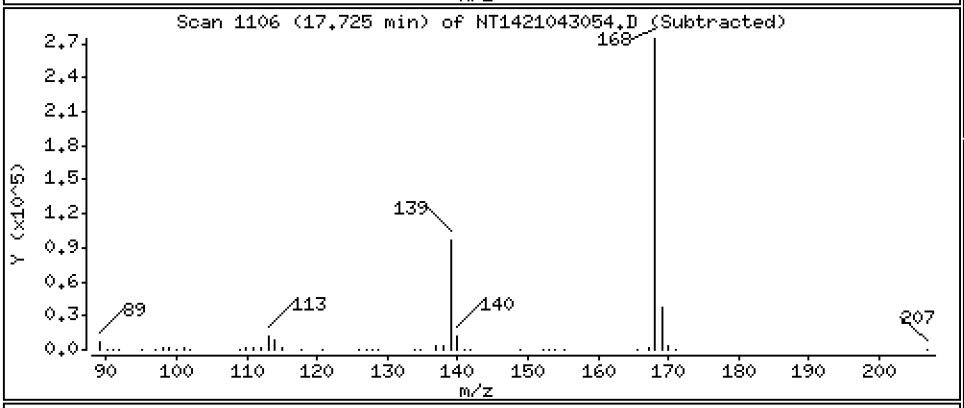
Column diameter: 0.25

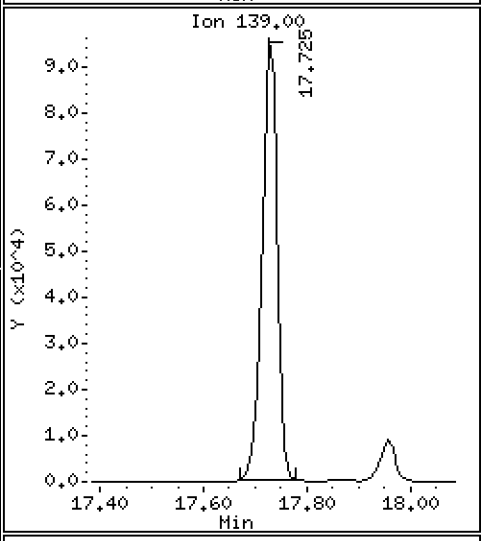
23 Dibenzofuran

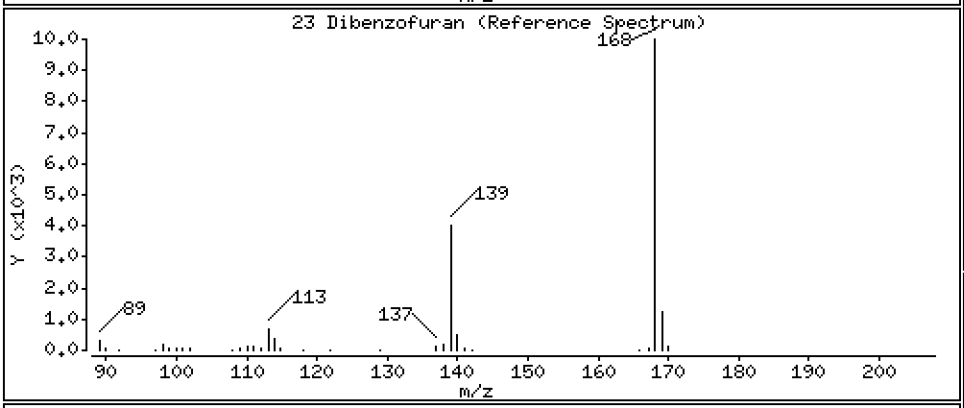
Concentration: 2.213 ug/mL

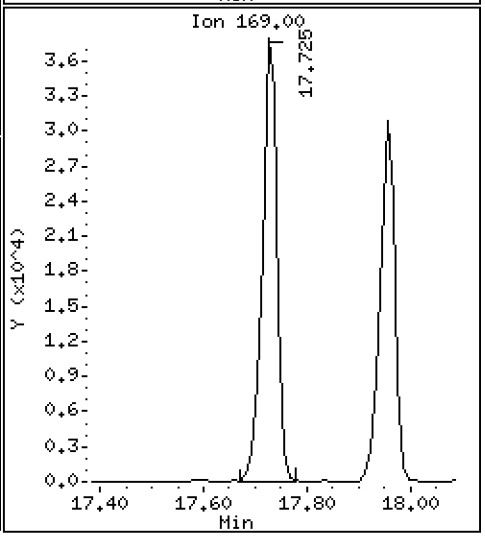


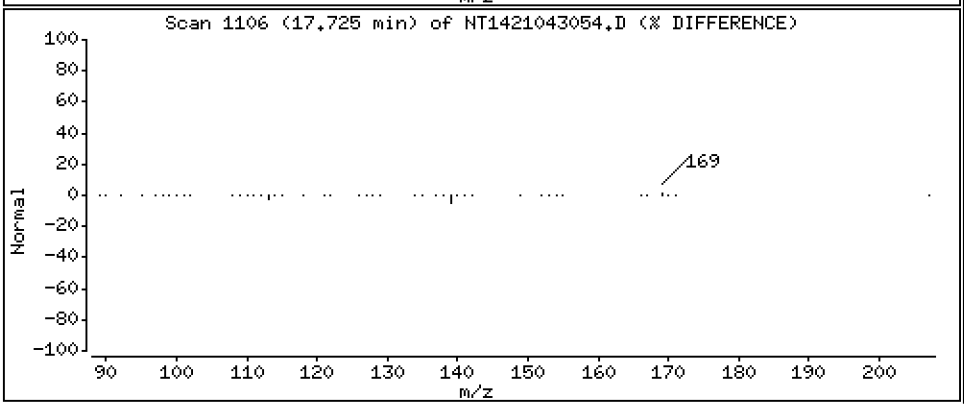



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Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

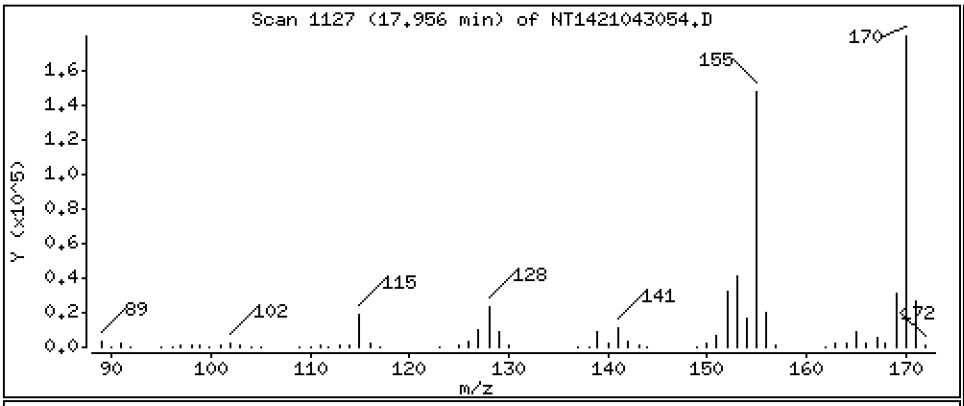
Operator: VTS

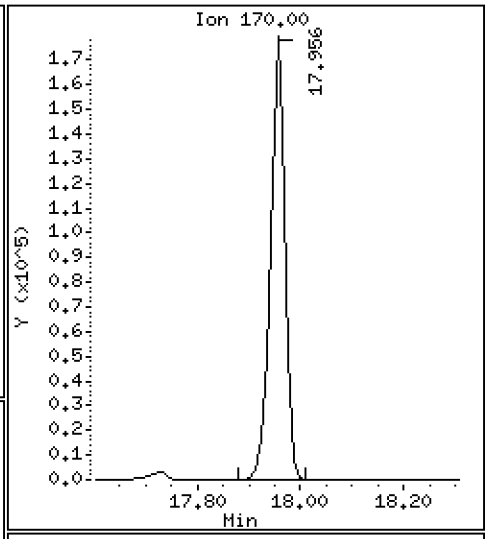
Column phase: Rxi-17Sil MS

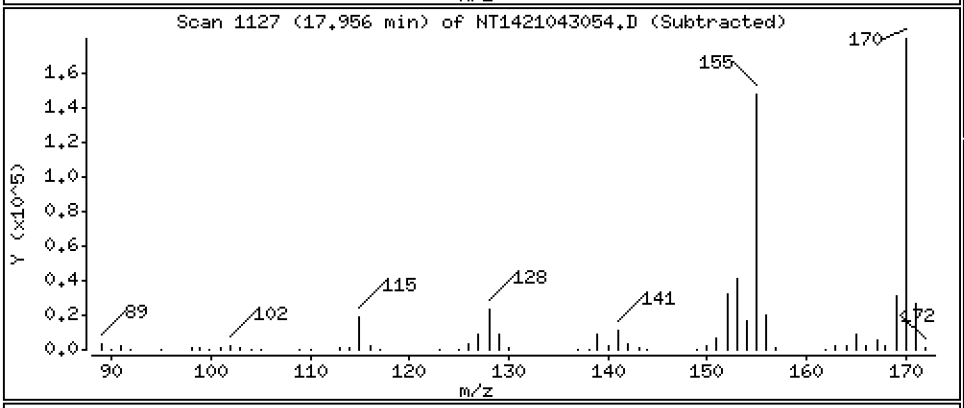
Column diameter: 0.25

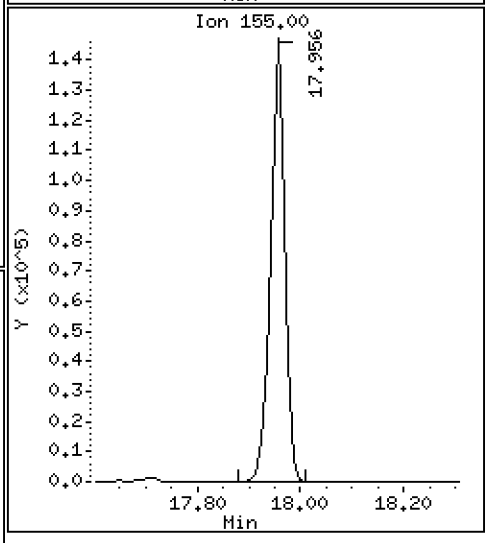
24 1,6,7-Trimethylnaphthalene

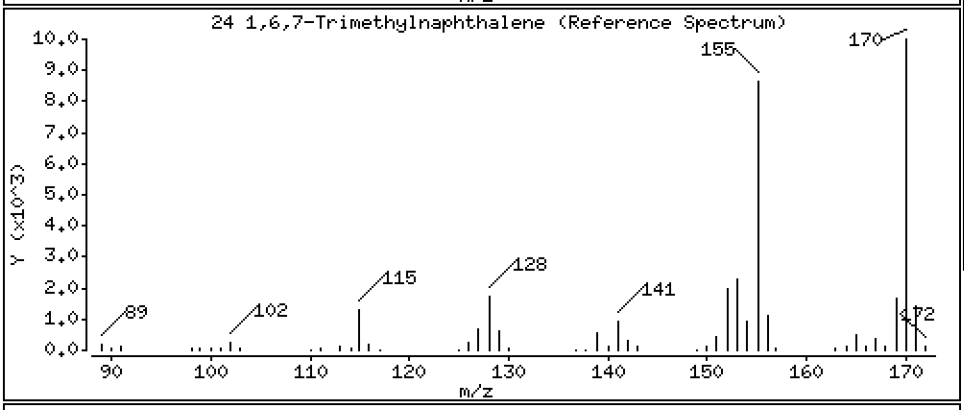
Concentration: 2.419 ug/mL

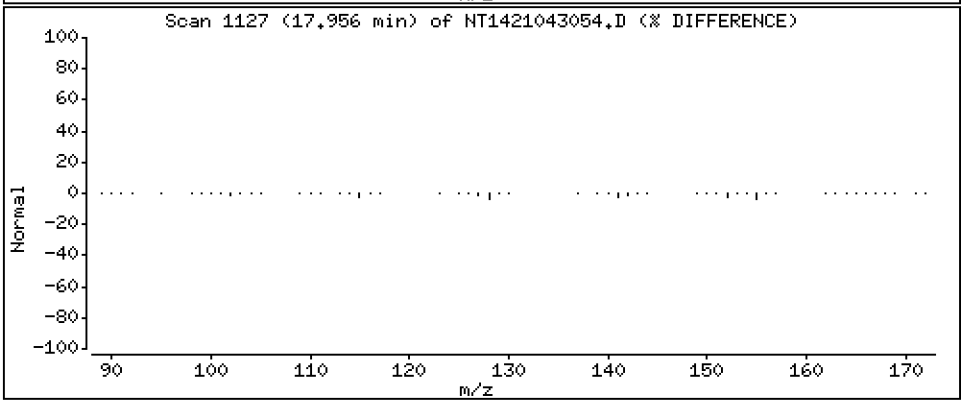


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043054.D

Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

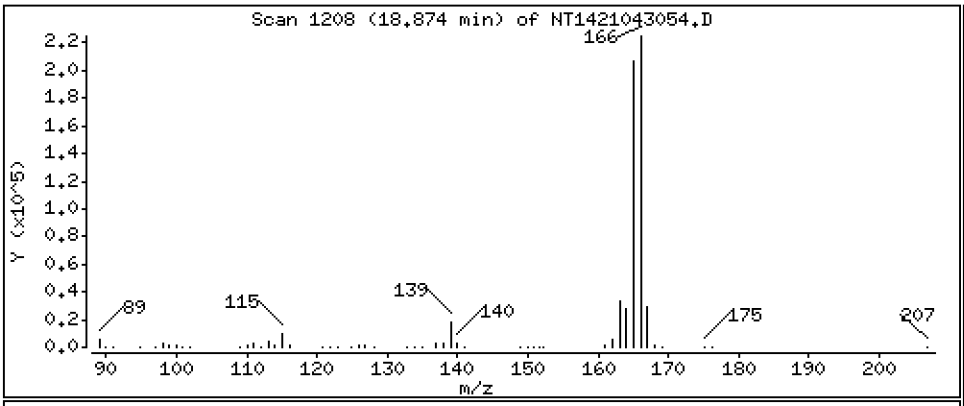
Operator: VTS

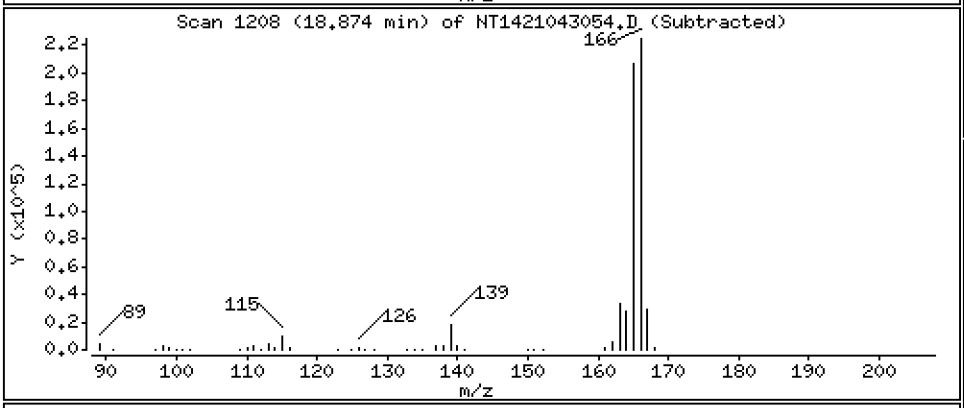
Column phase: Rxi-17Sil MS

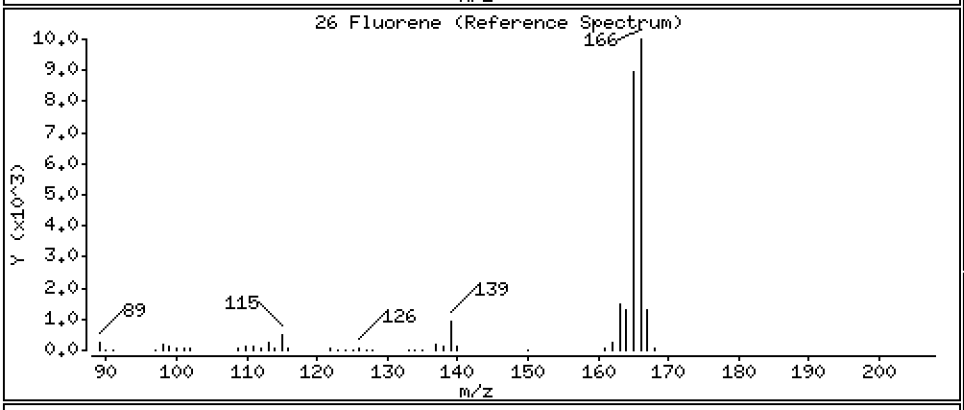
Column diameter: 0.25

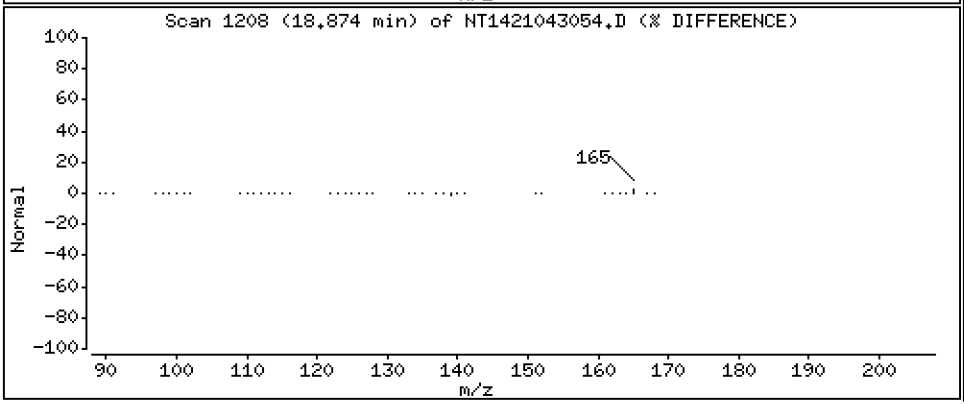
26 Fluorene

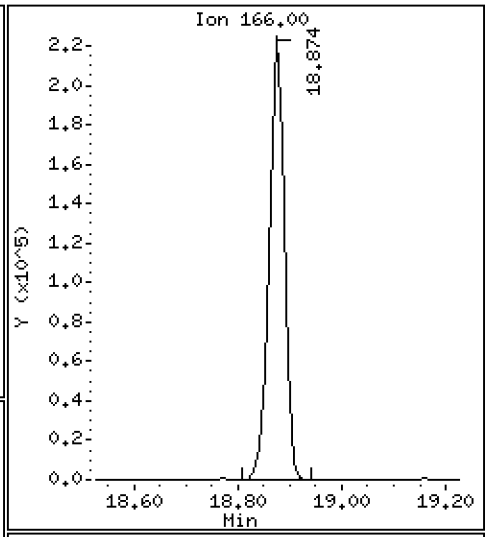
Concentration: 2.357 ug/mL

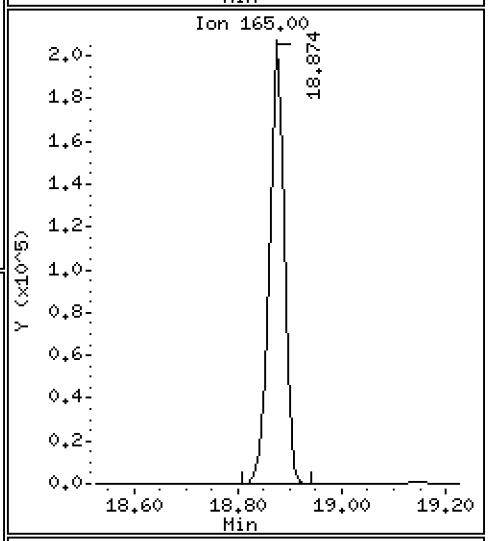


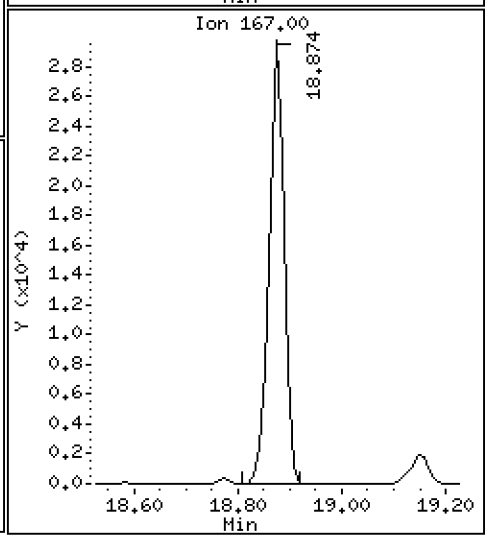



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Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

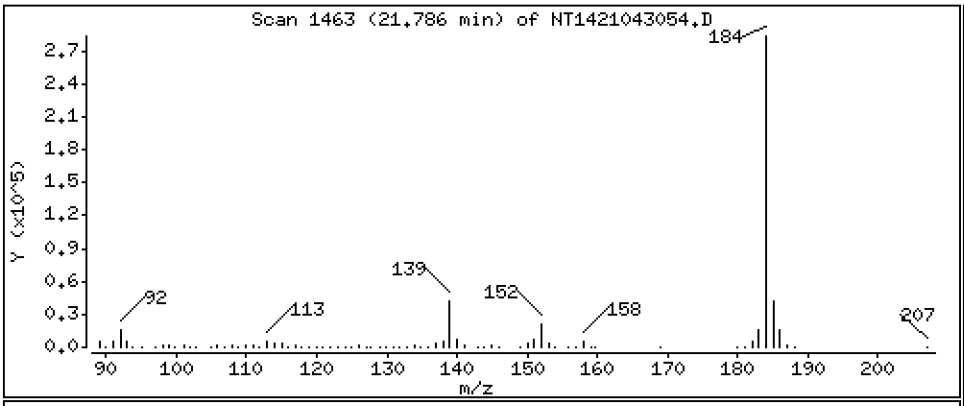
Operator: VTS

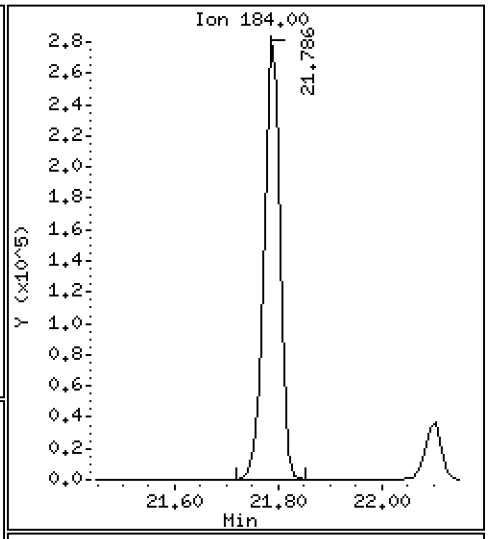
Column phase: Rxi-17Sil MS

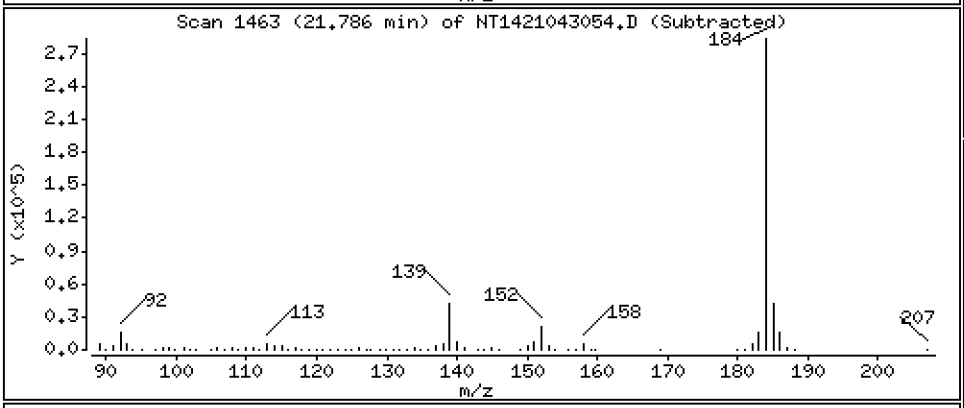
Column diameter: 0.25

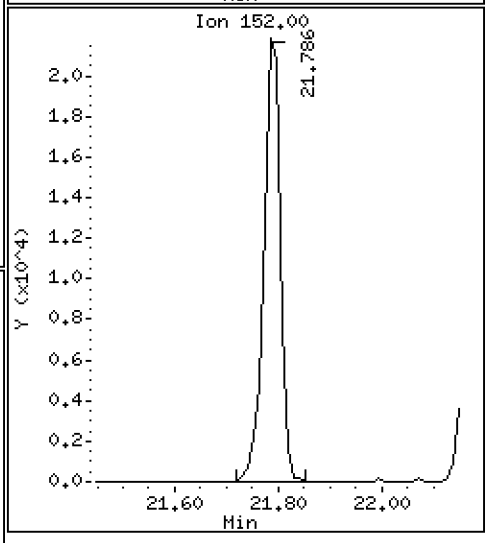
30 Dibenzothiophene

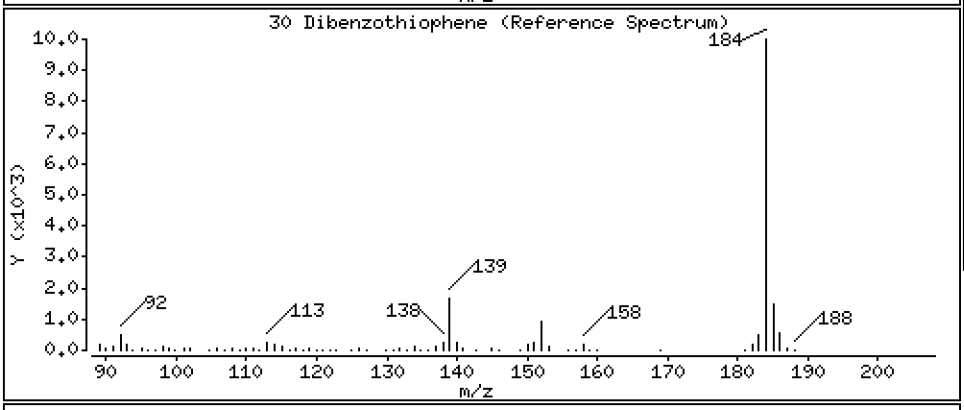
Concentration: 2.386 ug/mL

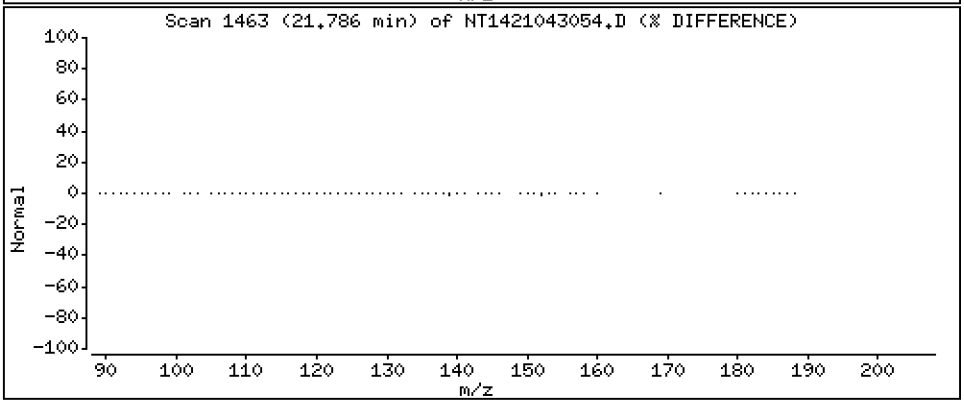


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043054.D

Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

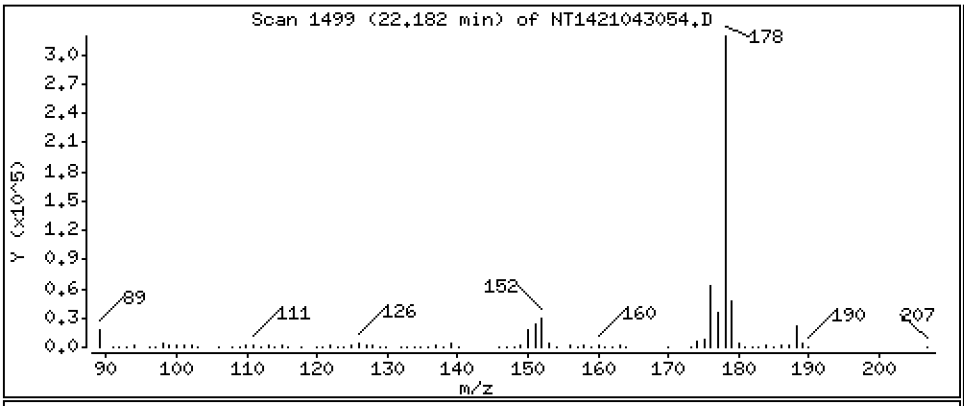
Operator: VTS

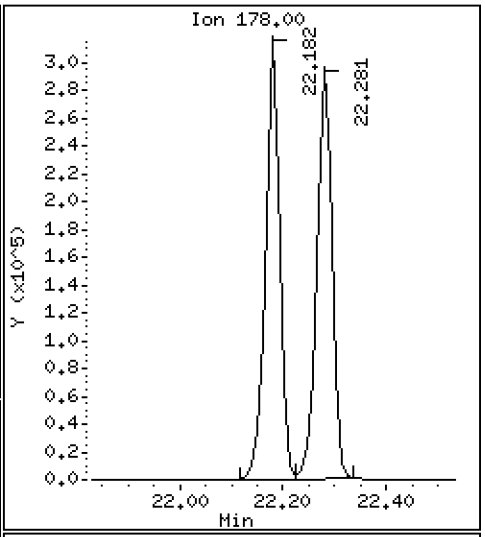
Column phase: Rxi-17Sil MS

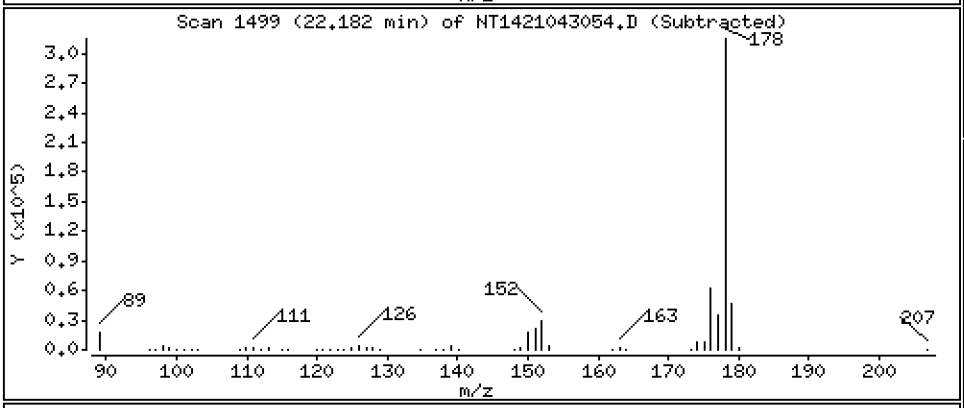
Column diameter: 0.25

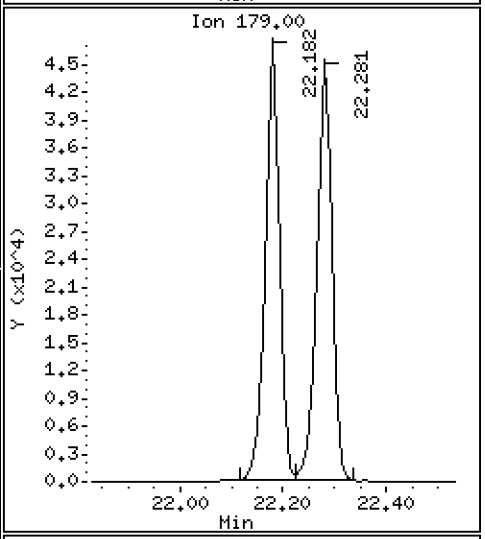
36 Phenanthrene

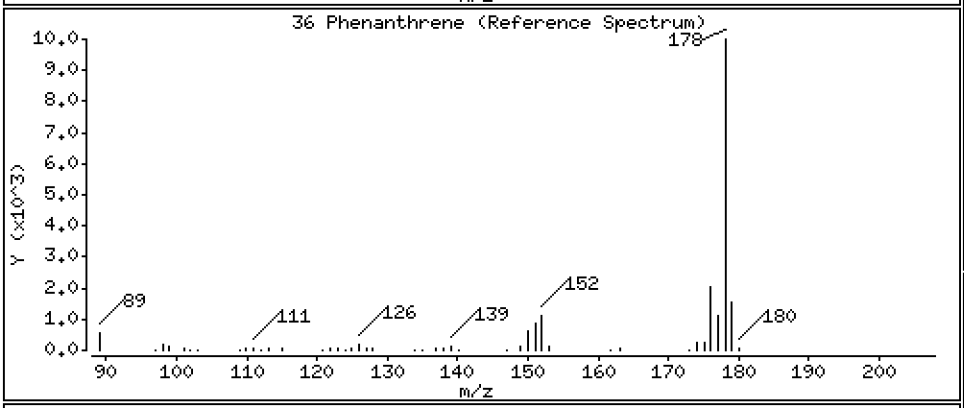
Concentration: 2.119 ug/mL

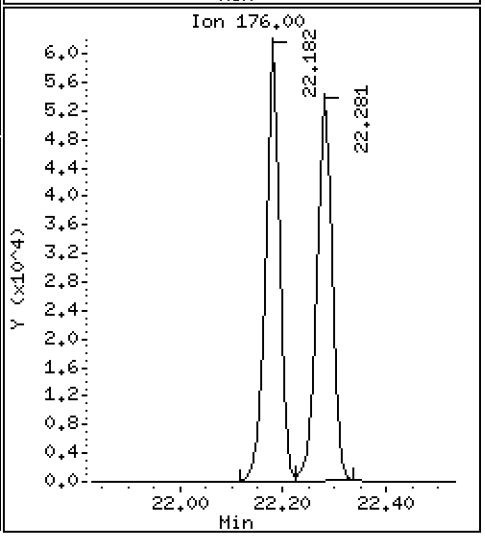


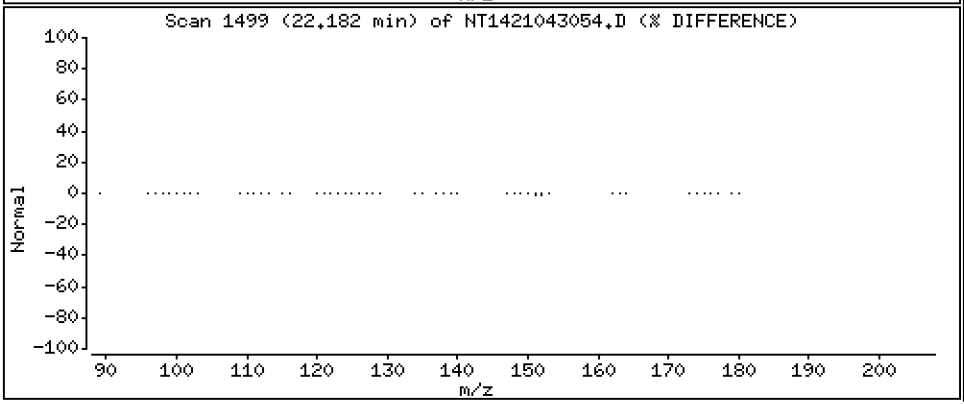



Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043054.D

Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

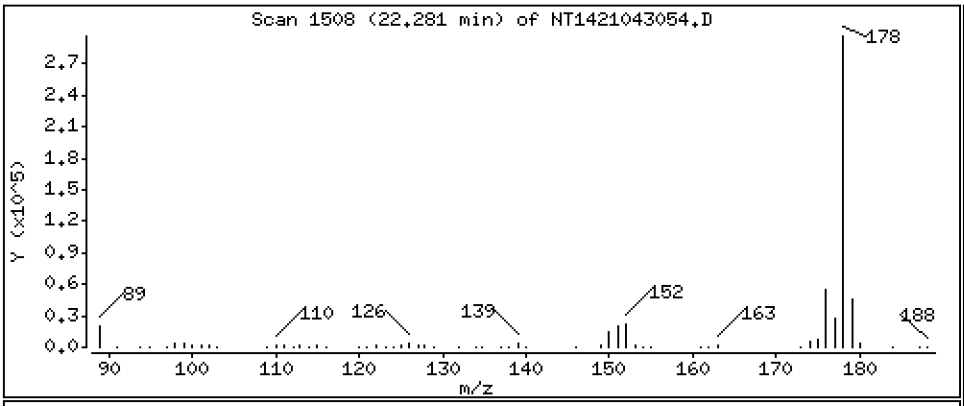
Operator: VTS

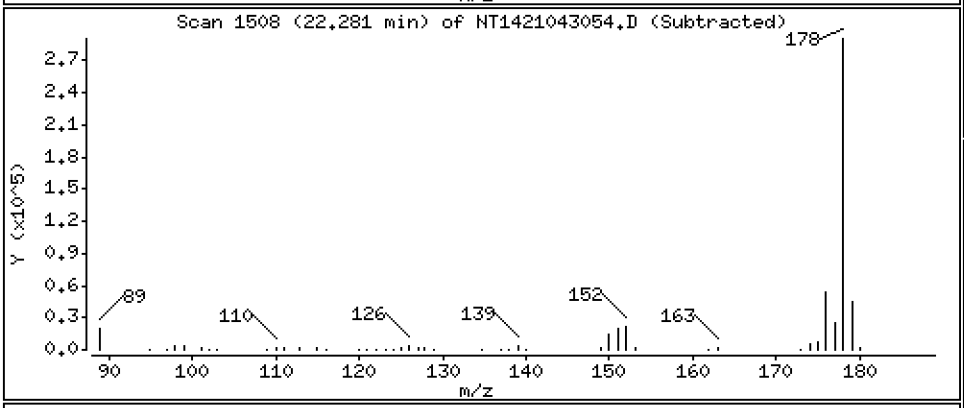
Column phase: Rxi-17Sil MS

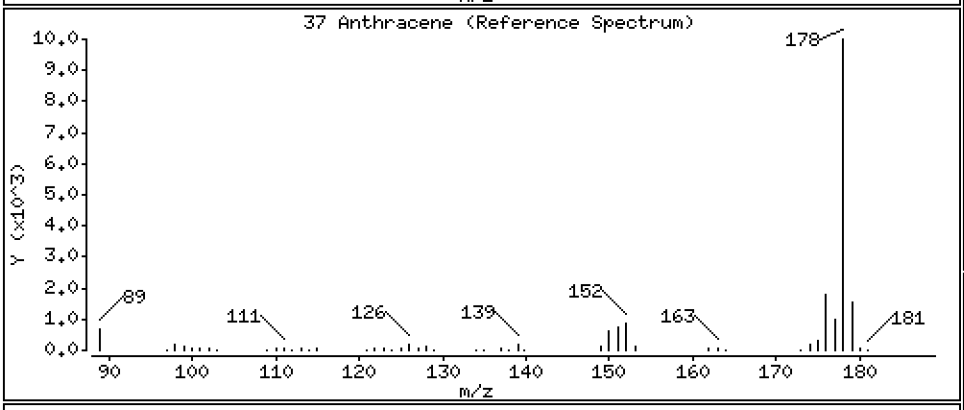
Column diameter: 0.25

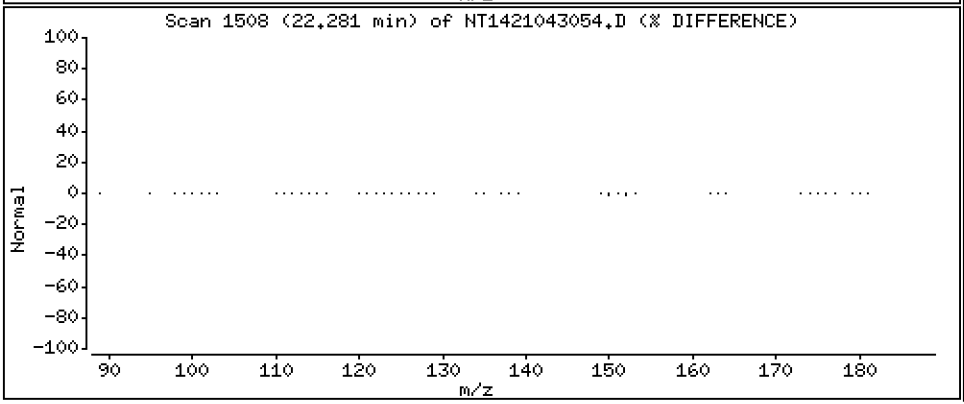
37 Anthracene

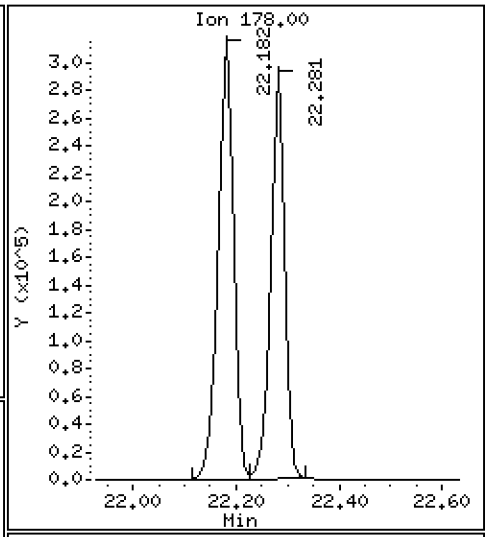
Concentration: 2.098 ug/mL

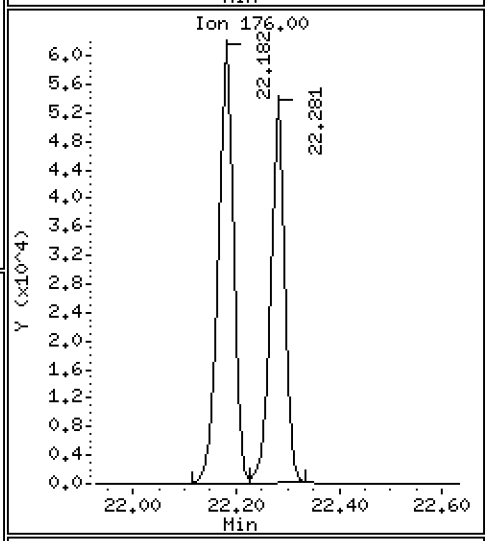


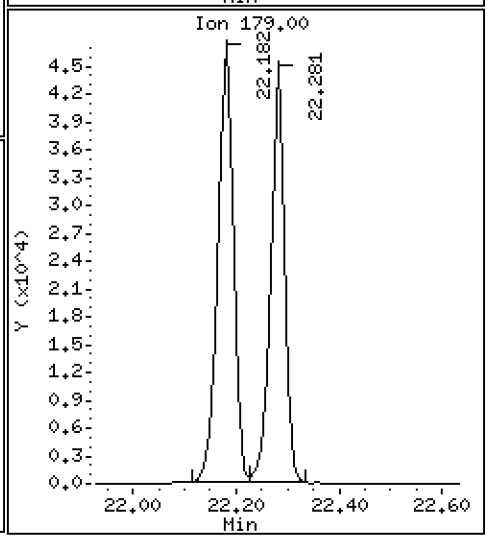



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Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

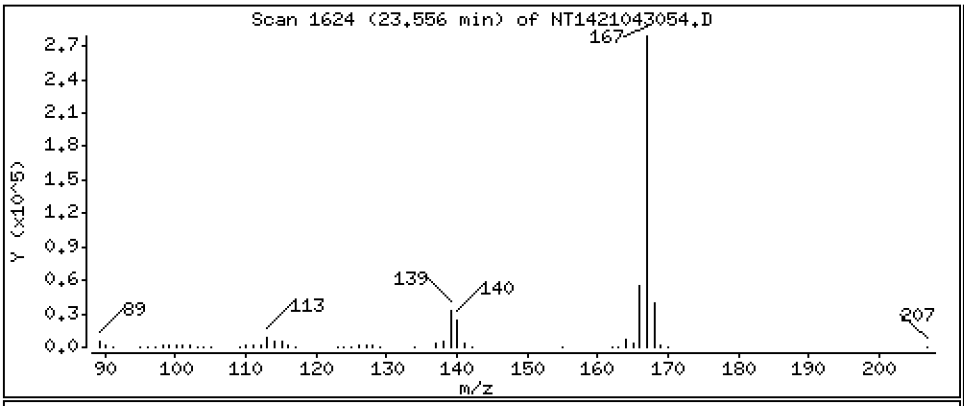
Operator: VTS

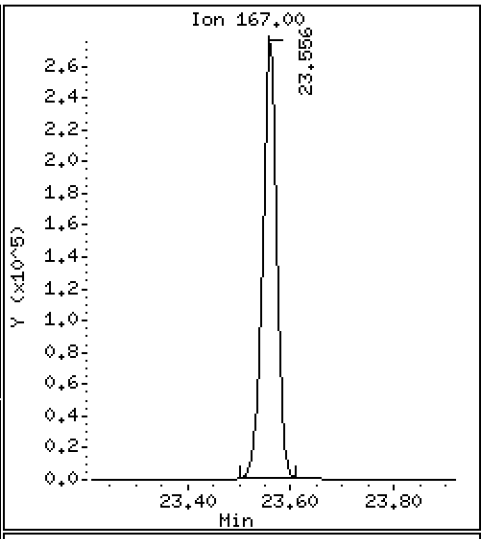
Column phase: Rxi-17Sil MS

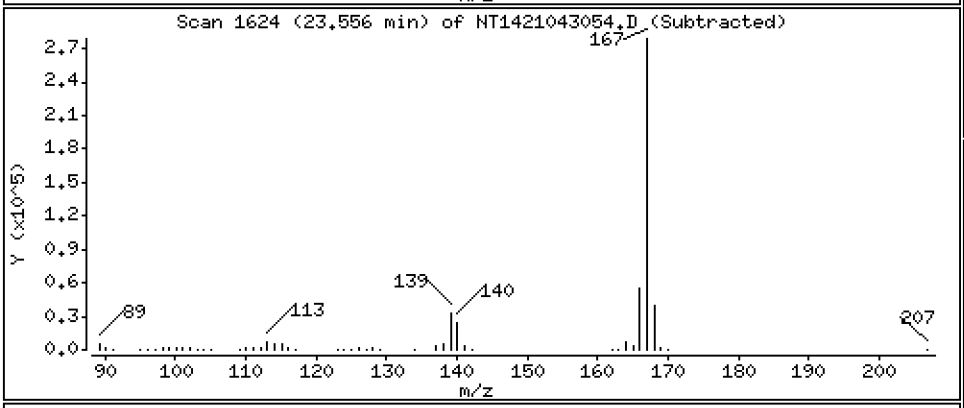
Column diameter: 0.25

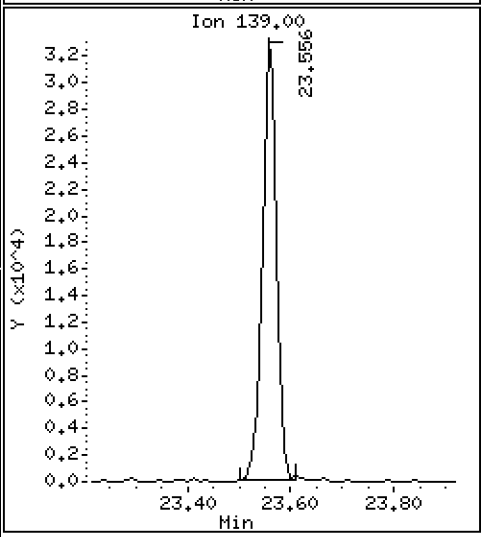
42 Carbazole

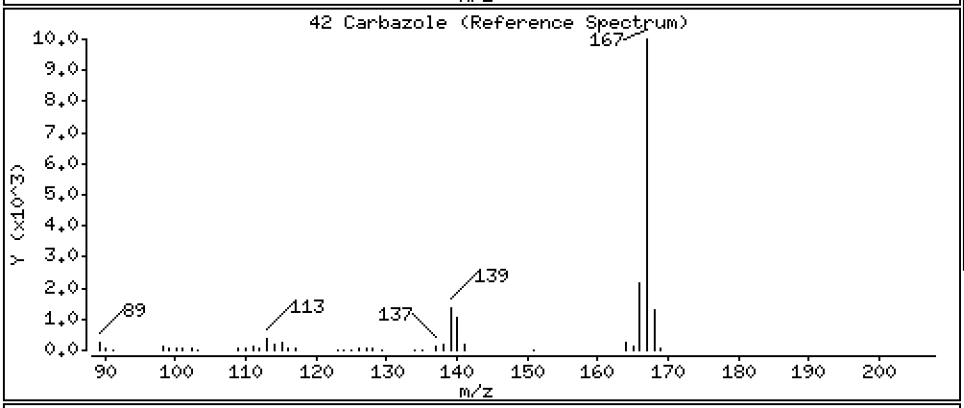
Concentration: 2.414 ug/mL

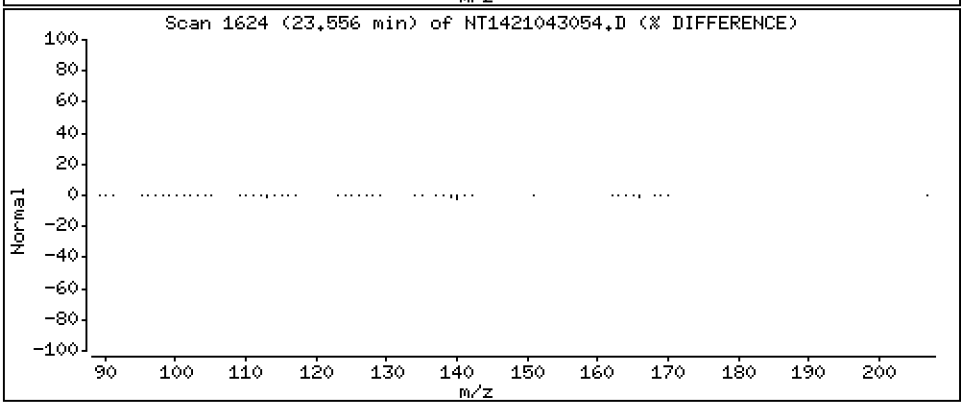


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Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

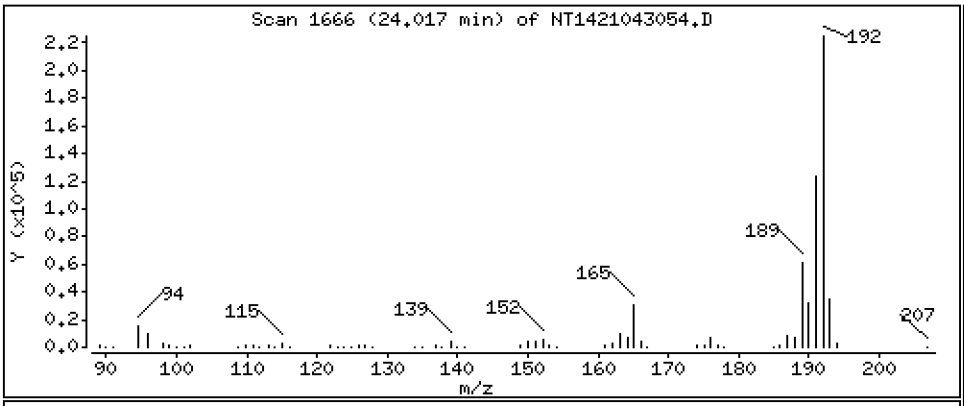
Operator: VTS

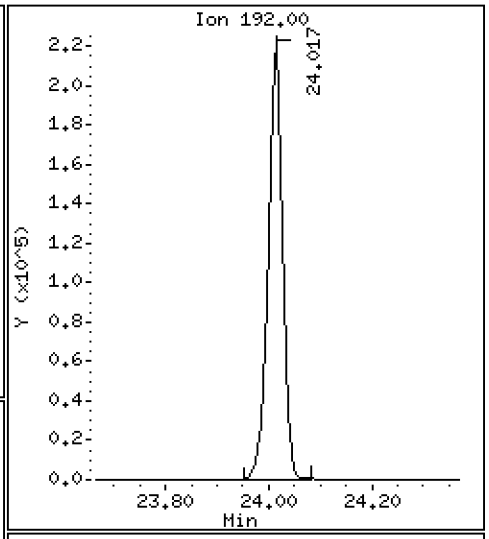
Column phase: Rxi-17Sil MS

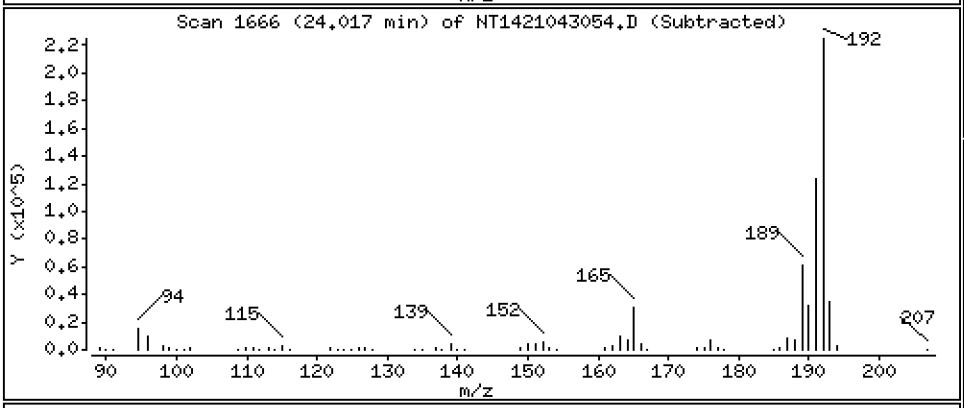
Column diameter: 0.25

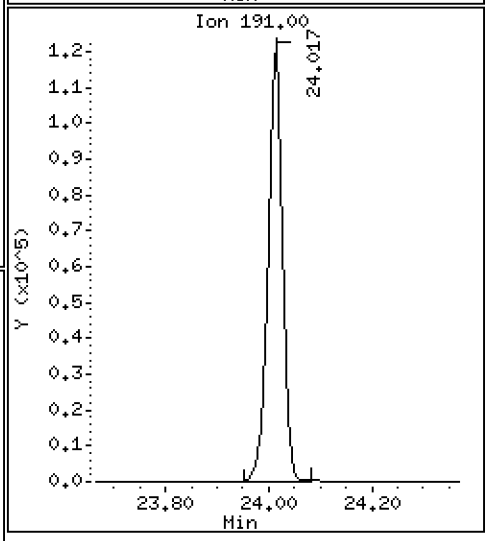
43 1-Methylphenanthrene

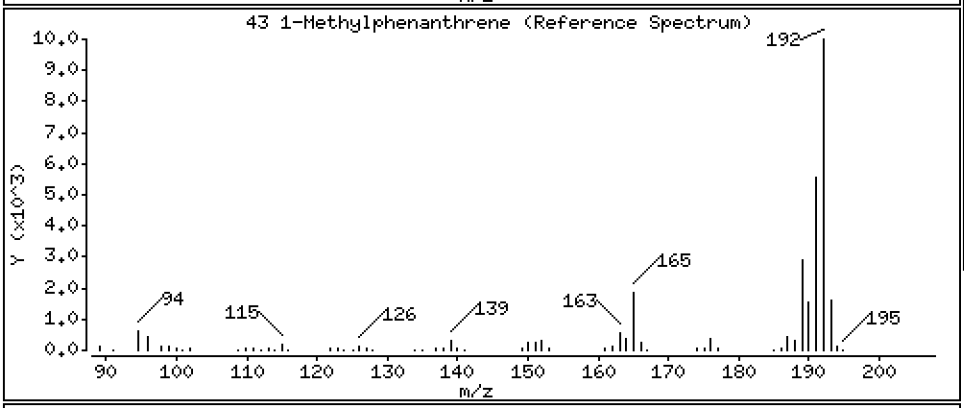
Concentration: 2.494 ug/mL

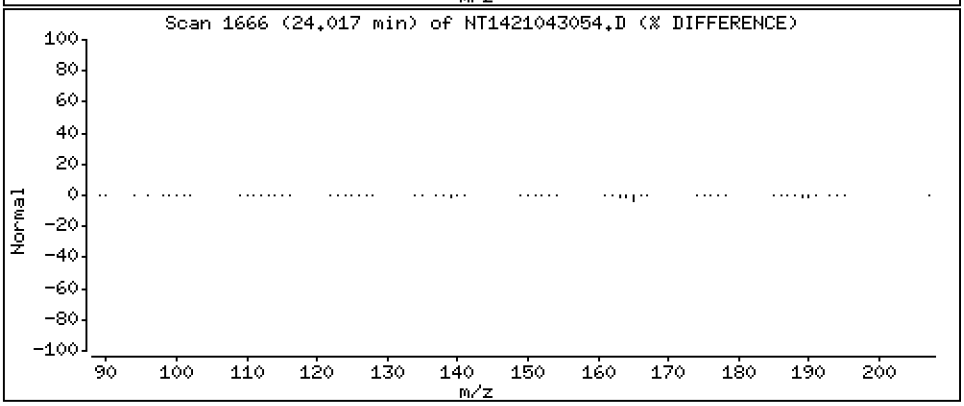


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043054.D

Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

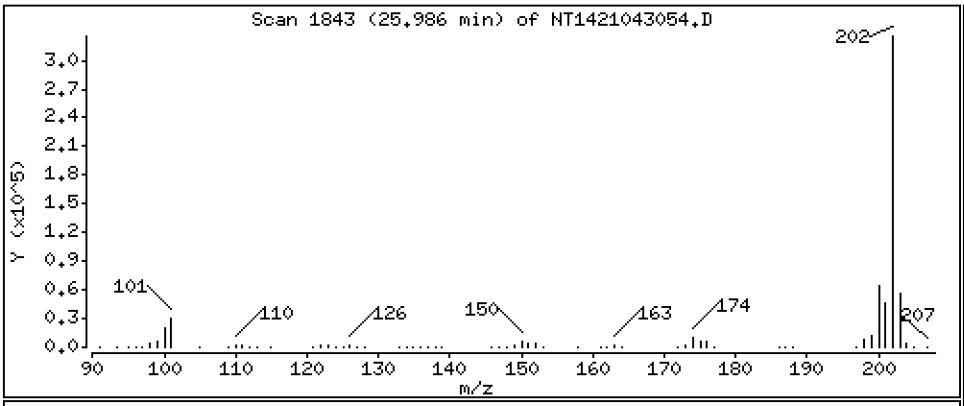
Operator: VTS

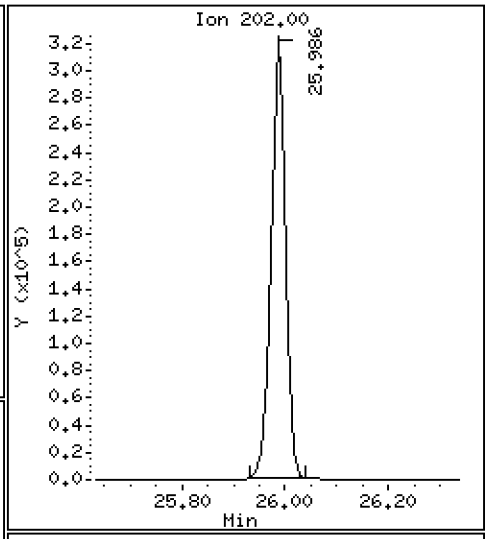
Column phase: Rxi-17Sil MS

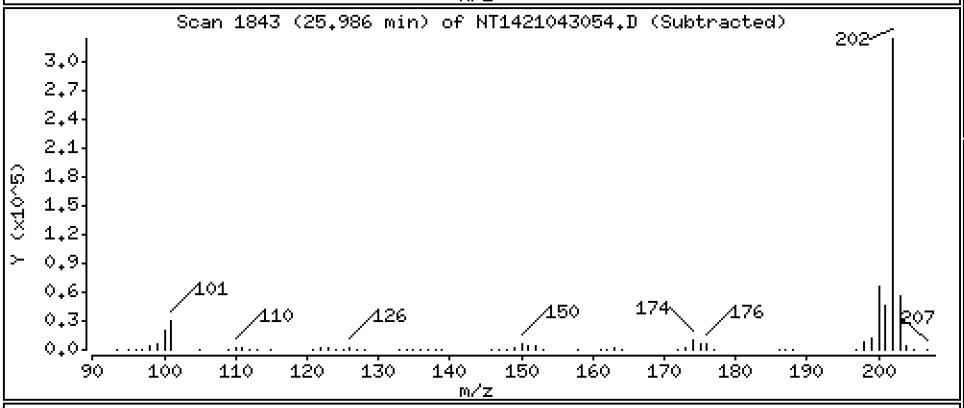
Column diameter: 0.25

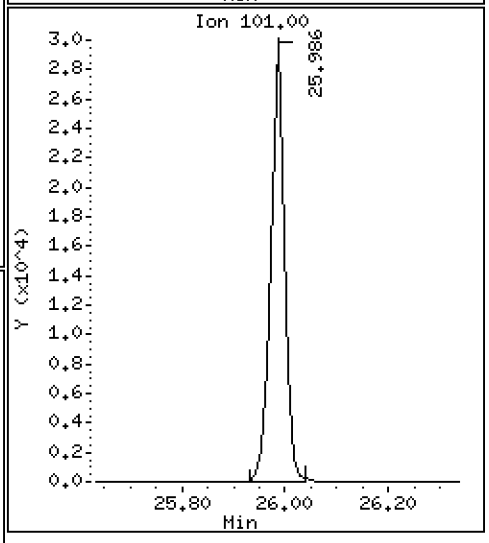
44 Fluoranthene

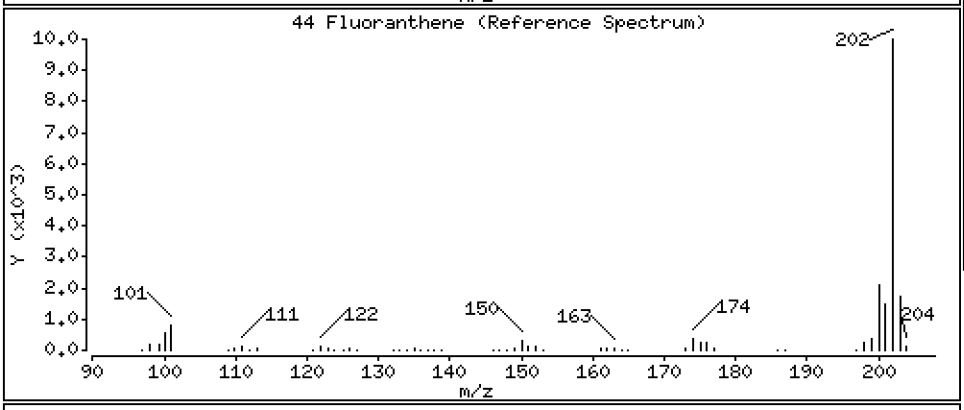
Concentration: 2.457 ug/mL

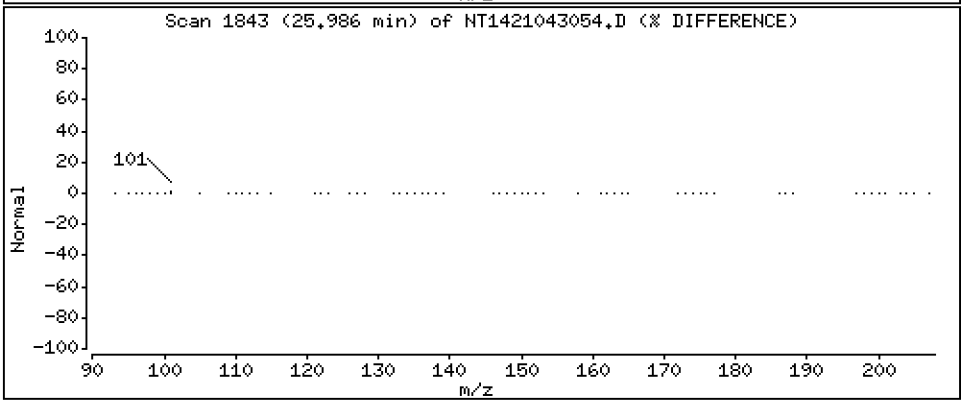


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043054.D

Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

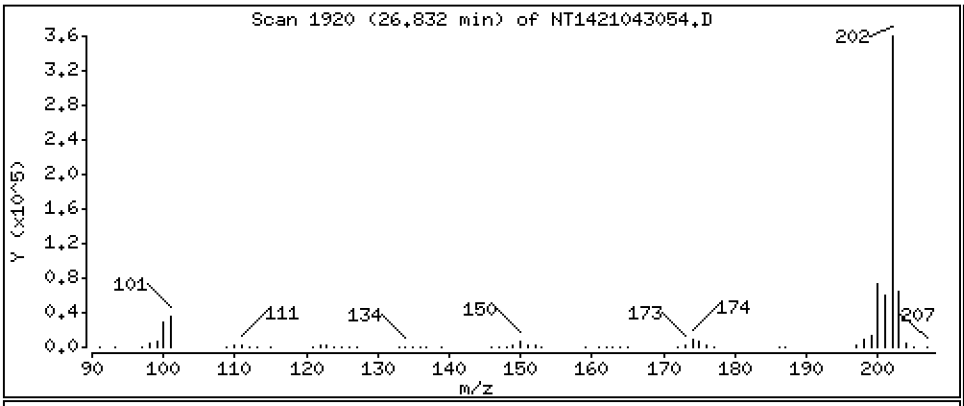
Operator: VTS

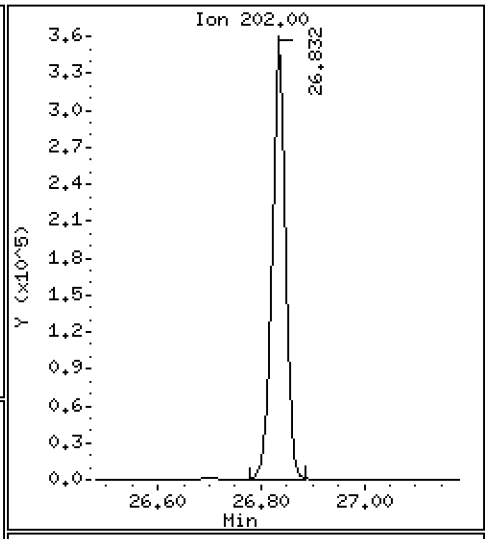
Column phase: Rxi-17Sil MS

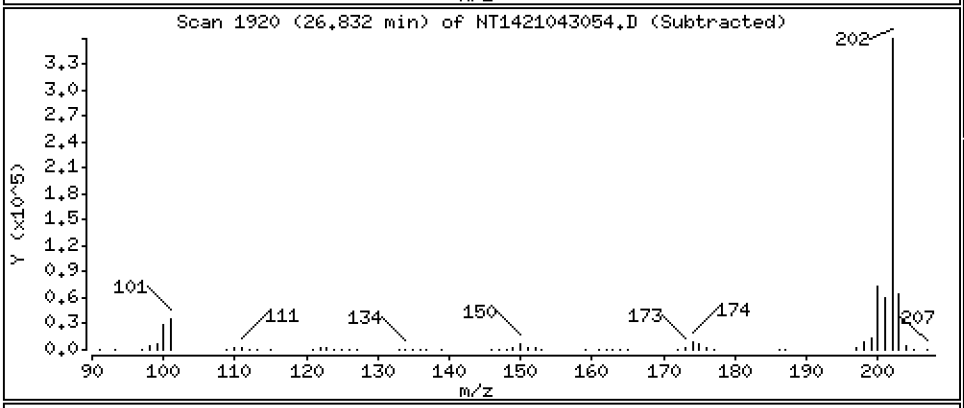
Column diameter: 0.25

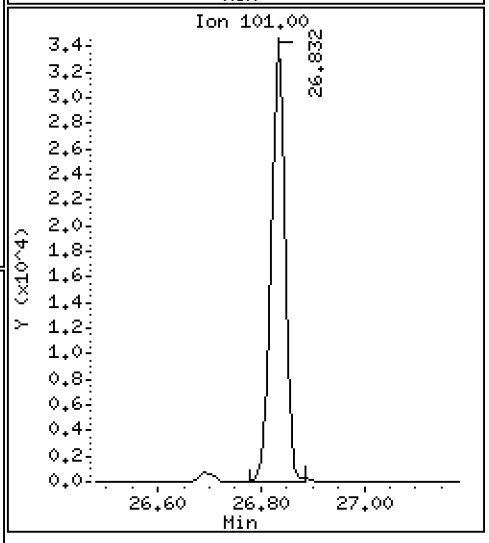
46 Pyrene

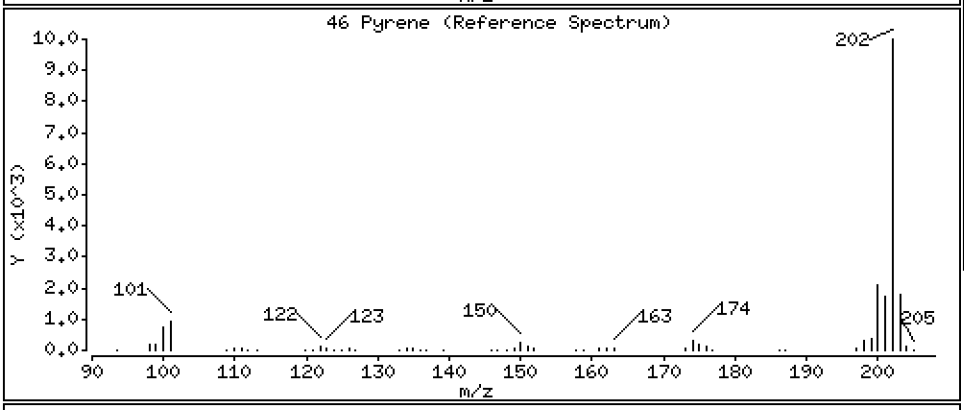
Concentration: 2.464 ug/mL

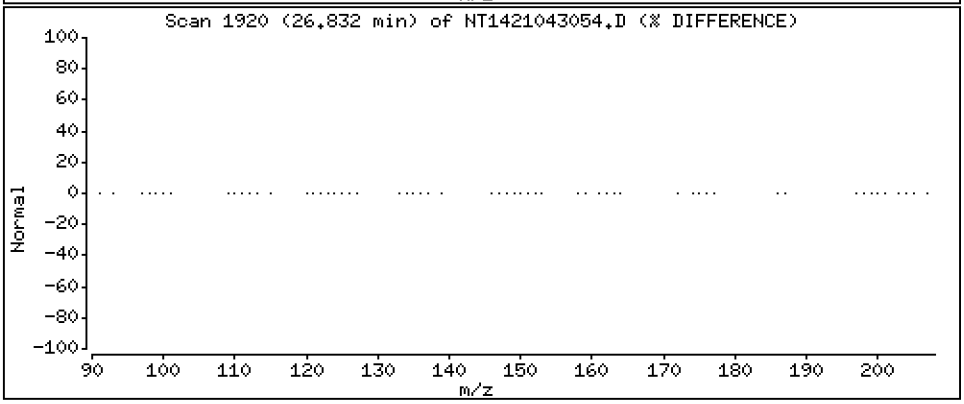


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Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

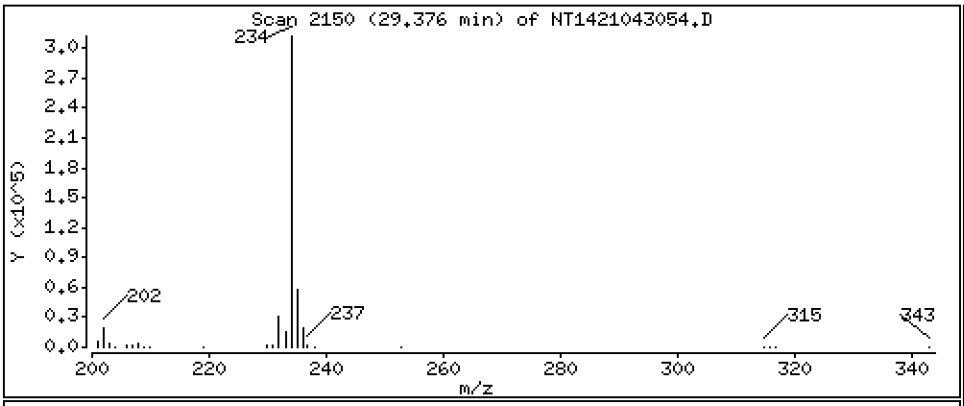
Operator: VTS

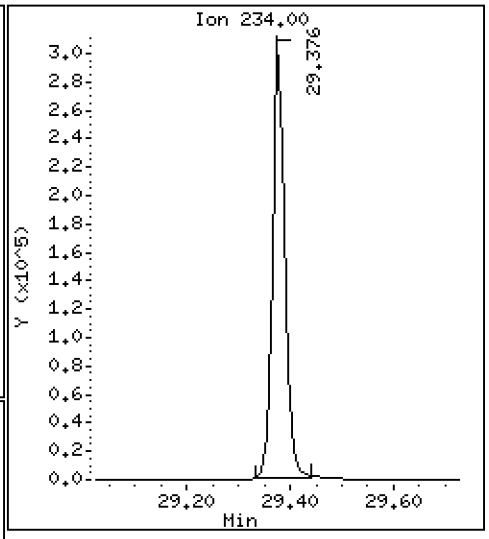
Column phase: Rxi-17Sil MS

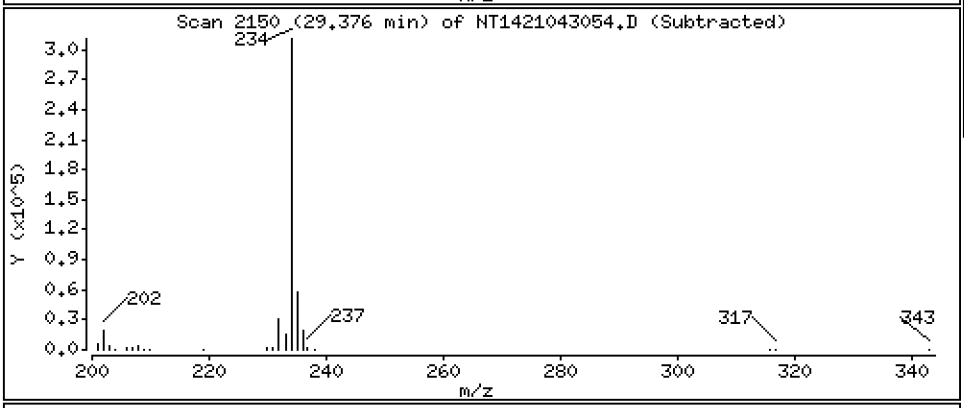
Column diameter: 0.25

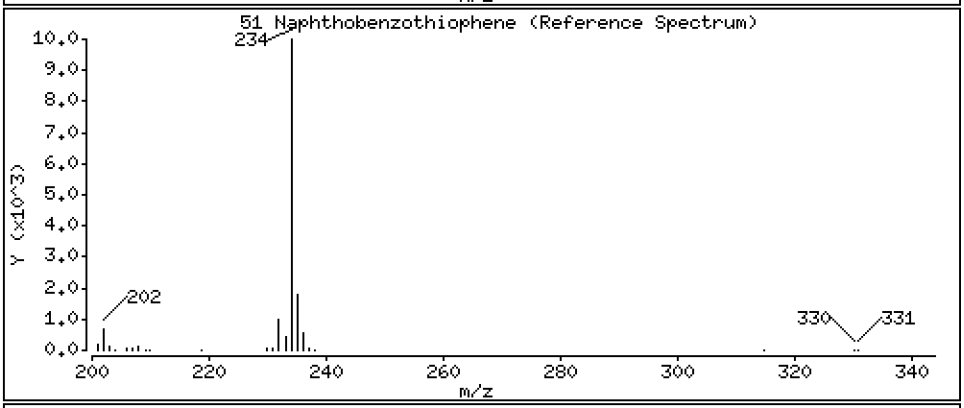
51 Naphthobenzothiophene

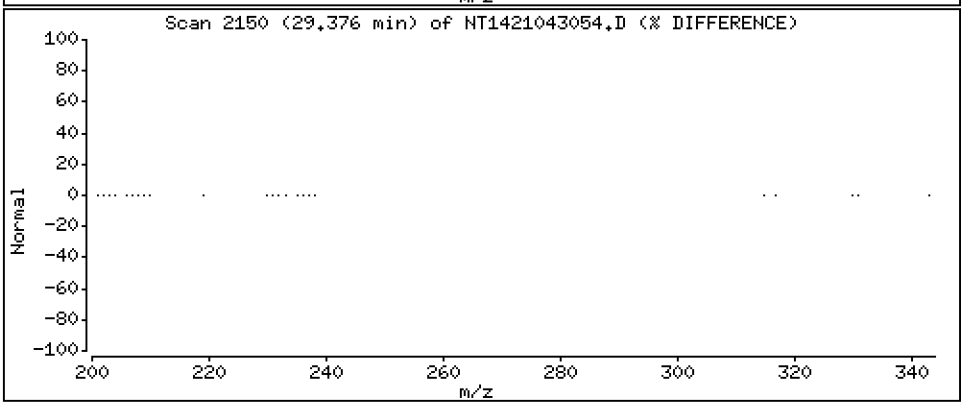
Concentration: 1.971 ug/mL



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Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

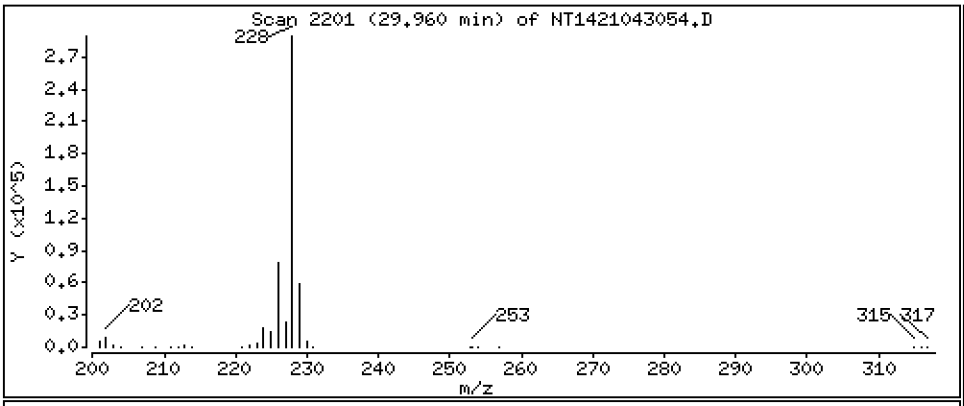
Operator: VTS

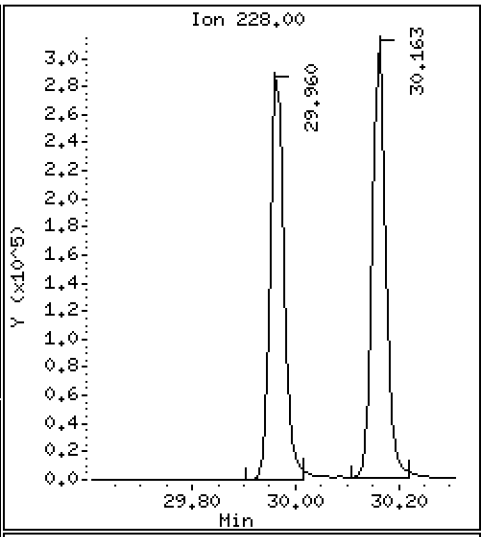
Column phase: Rxi-17Sil MS

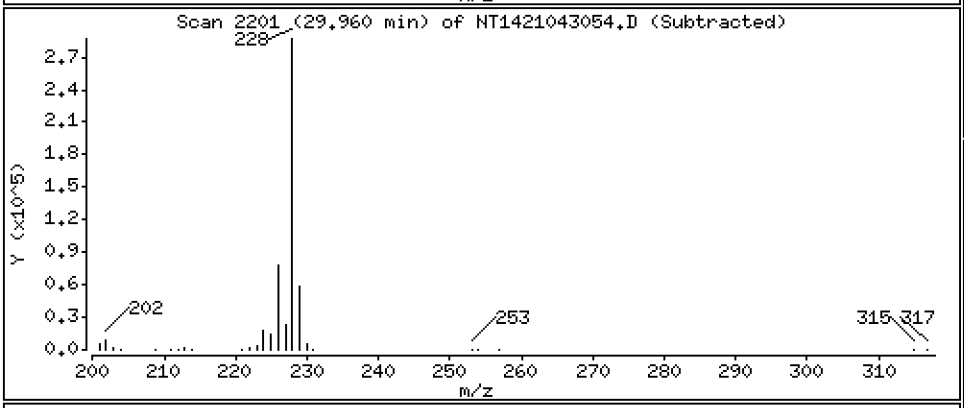
Column diameter: 0.25

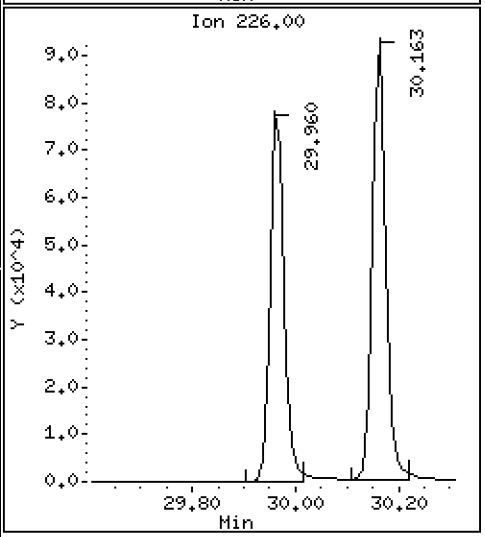
55 Benzo(a)anthracene

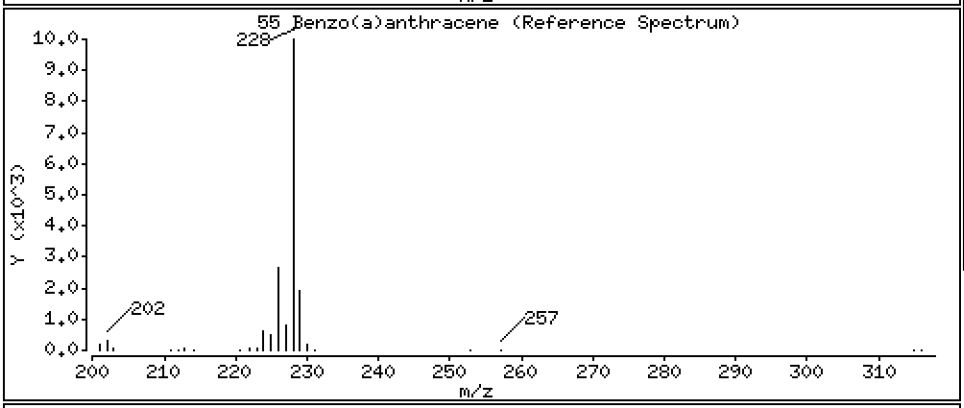
Concentration: 2.236 ug/mL

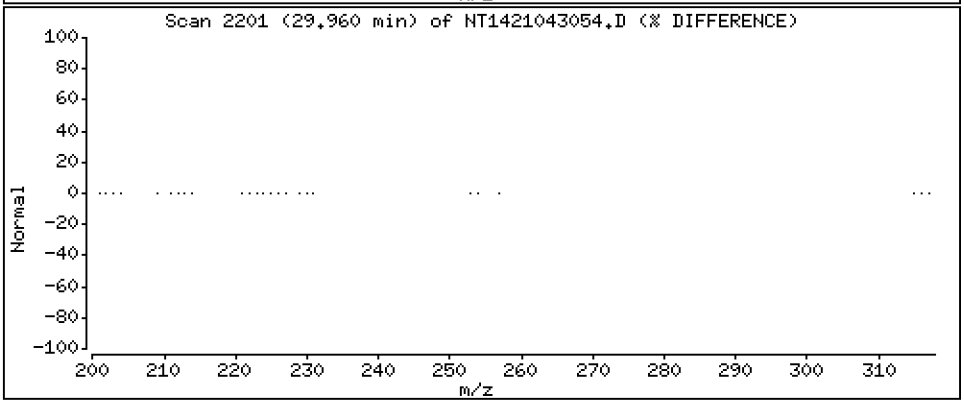


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043054.D

Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

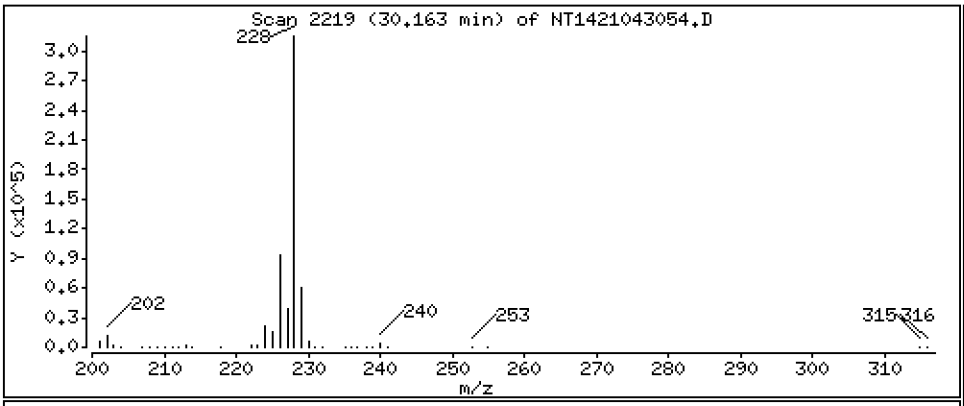
Operator: VTS

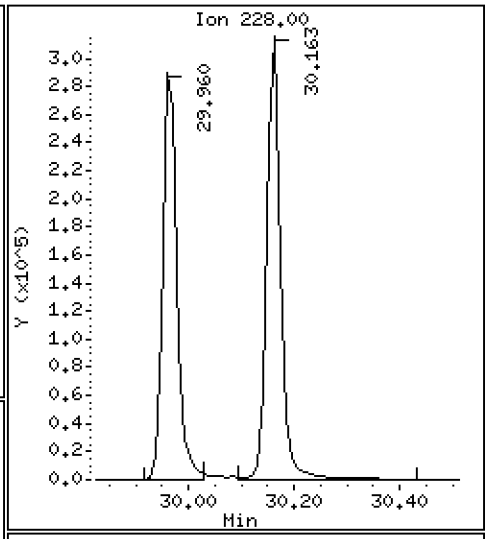
Column phase: Rxi-17Sil MS

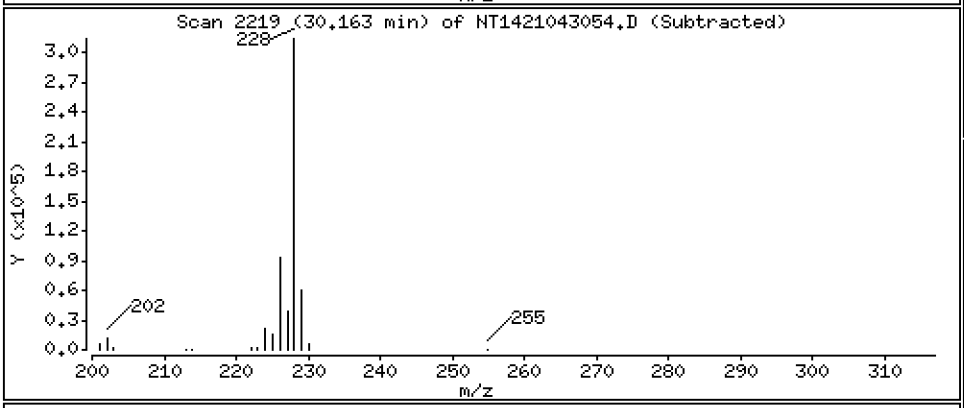
Column diameter: 0.25

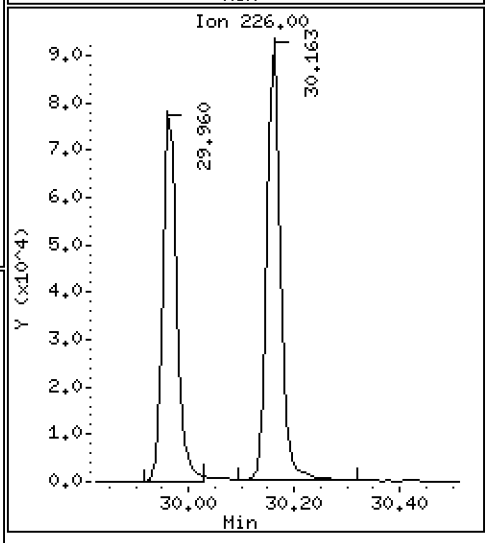
57 Chrysene

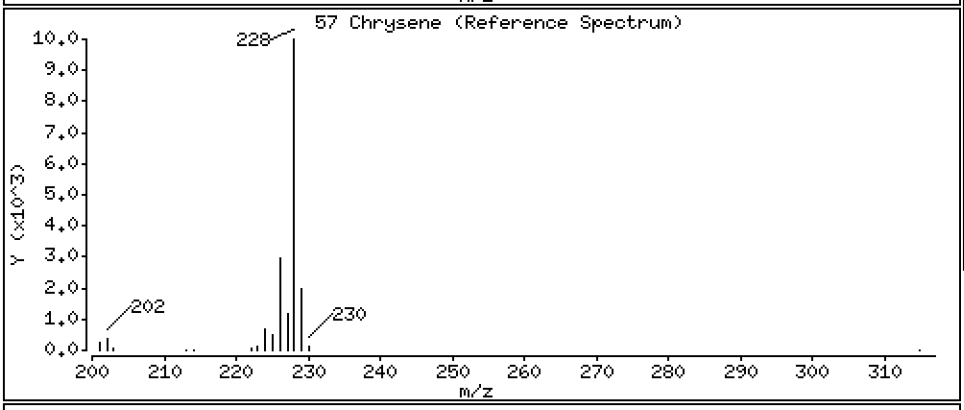
Concentration: 2.321 ug/mL

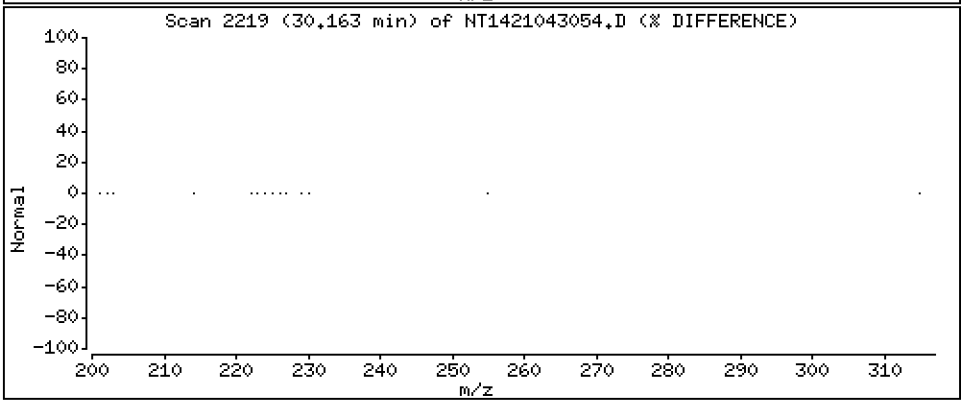


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043054.D

Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

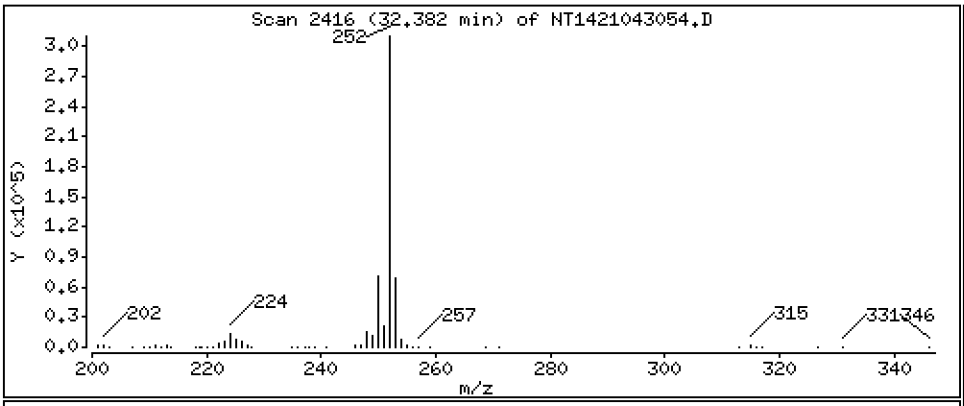
Operator: VTS

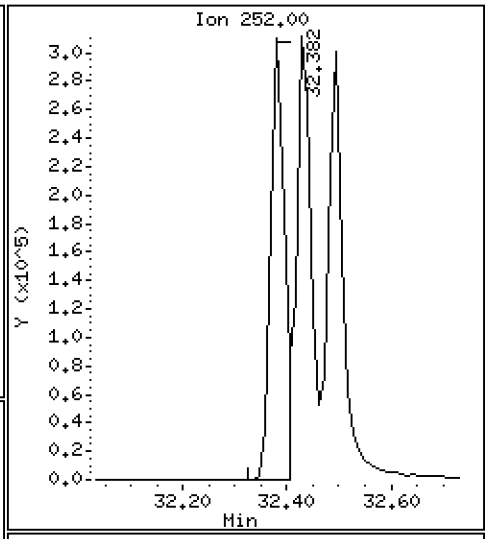
Column phase: Rxi-17Sil MS

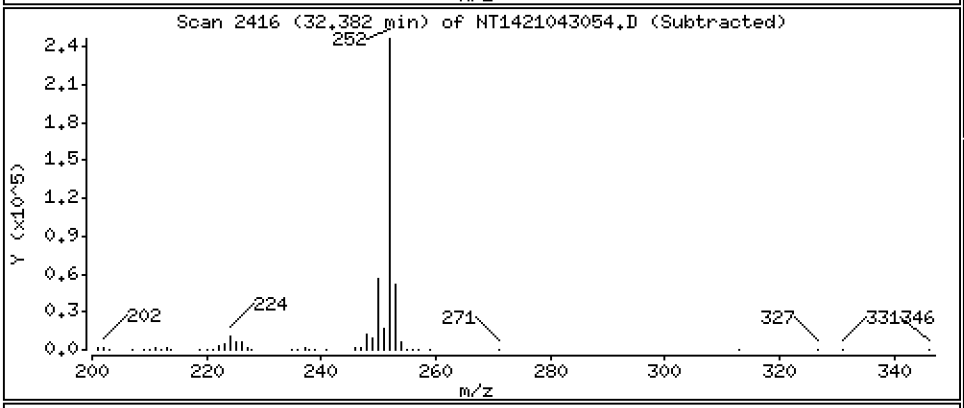
Column diameter: 0.25

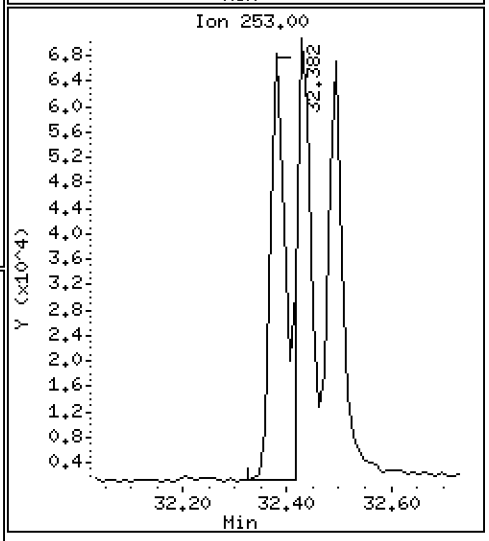
62 Benzo(b)fluoranthene

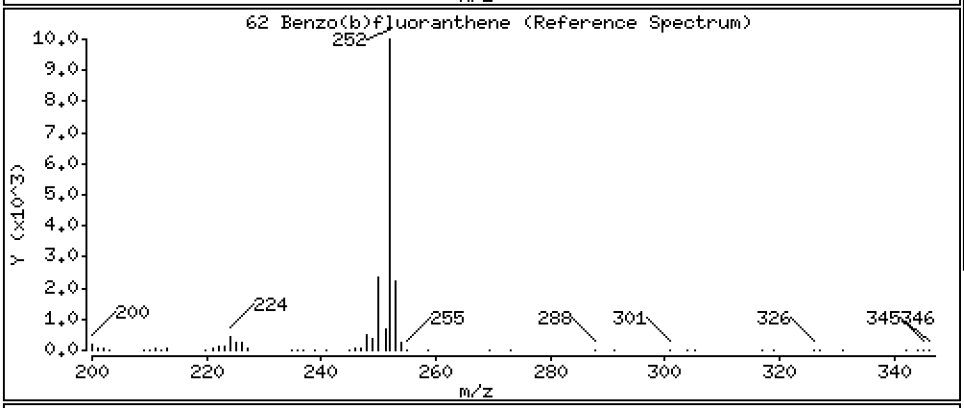
Concentration: 2.359 ug/mL

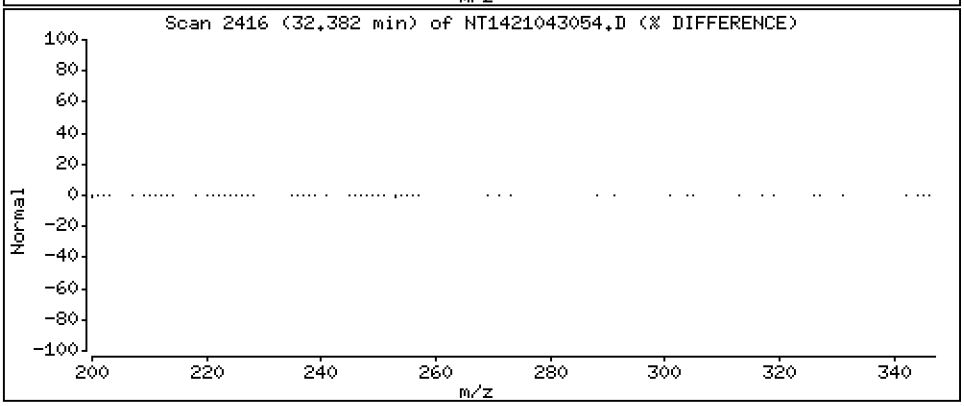


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043054.D

Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

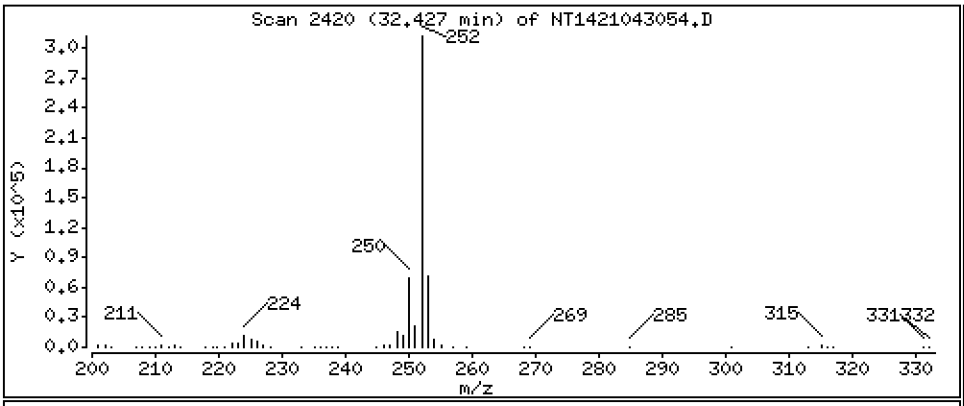
Operator: VTS

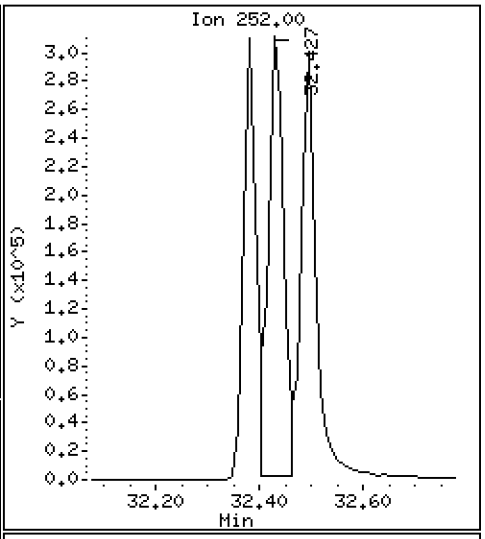
Column phase: Rxi-17Sil MS

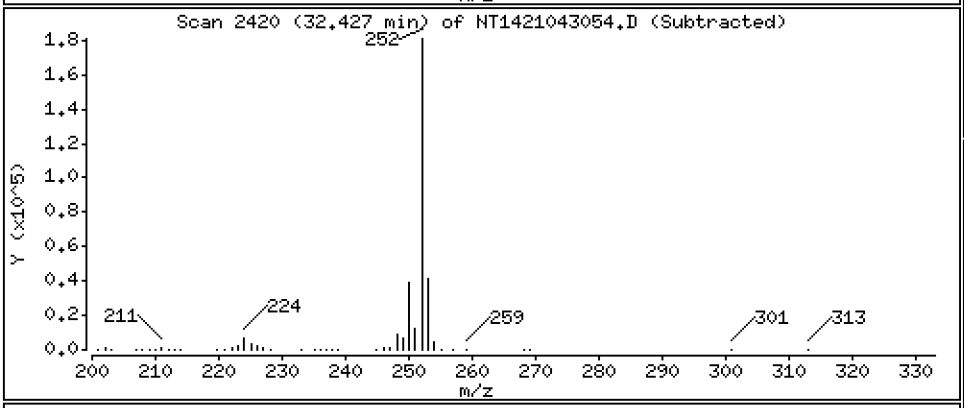
Column diameter: 0.25

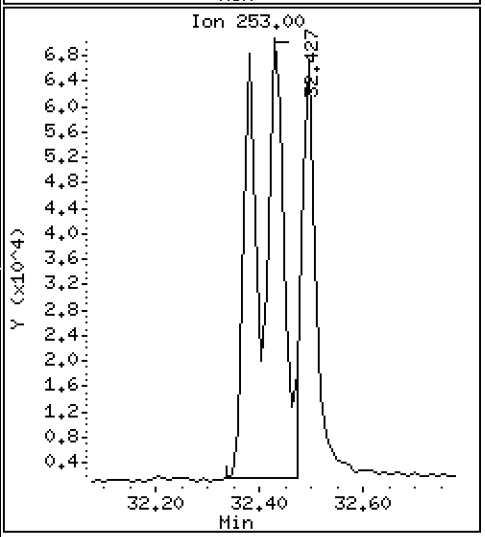
63 Benzo(k)fluoranthene

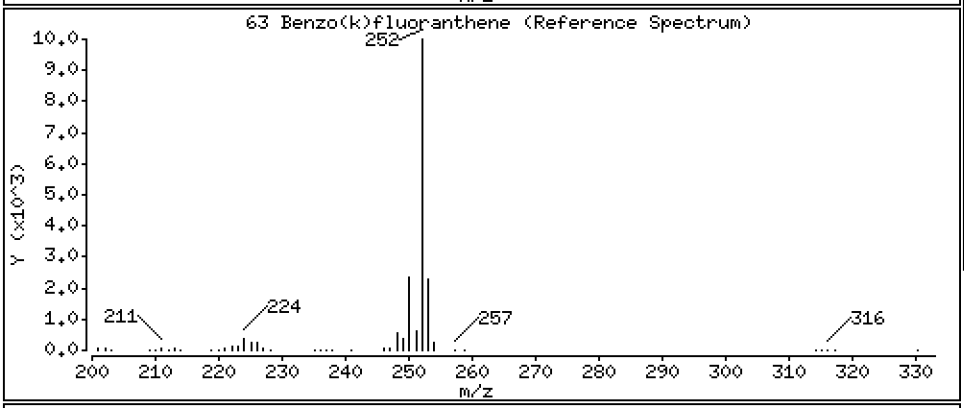
Concentration: 2.271 ug/mL

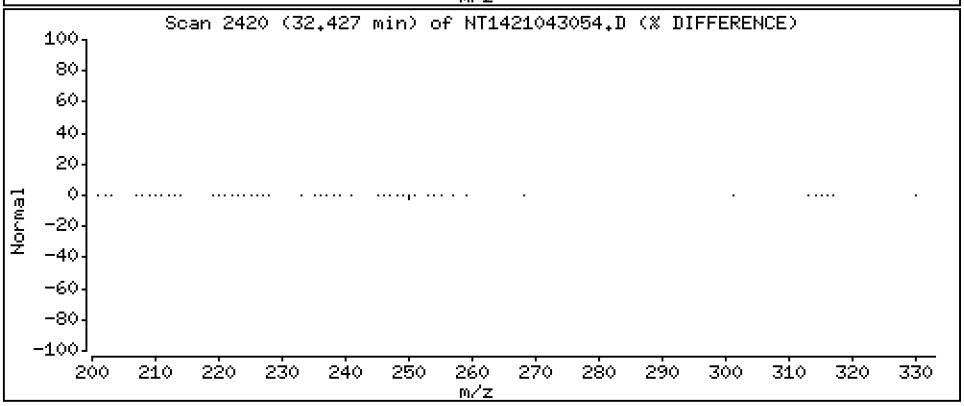


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043054.D

Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

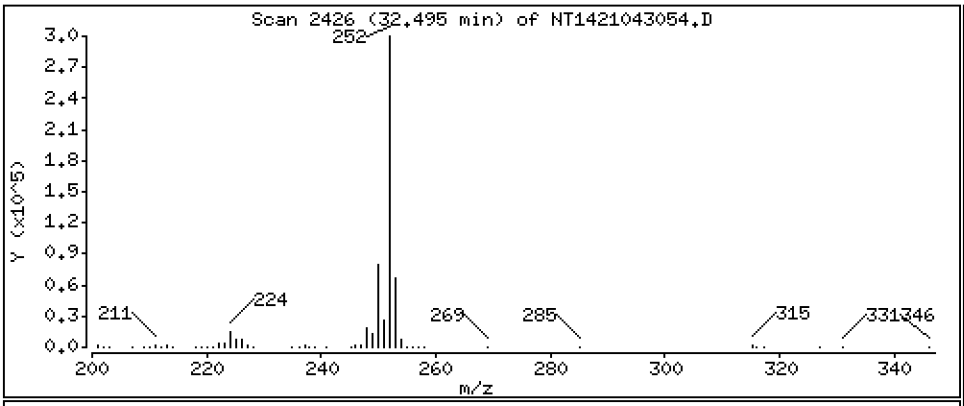
Operator: VTS

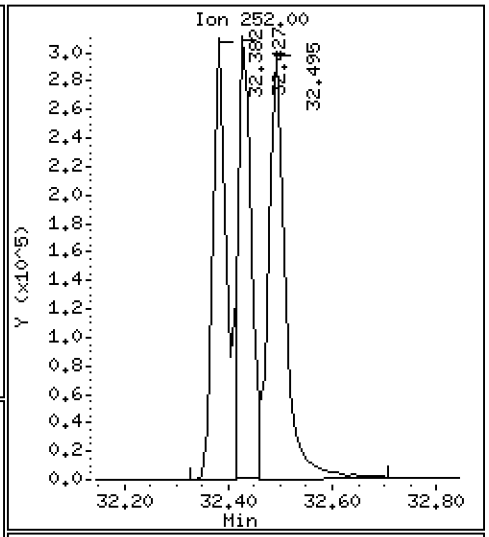
Column phase: Rxi-17Sil MS

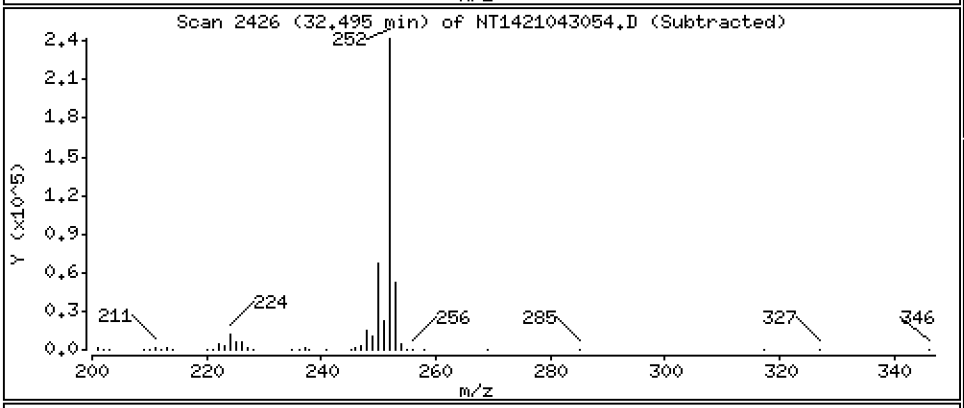
Column diameter: 0.25

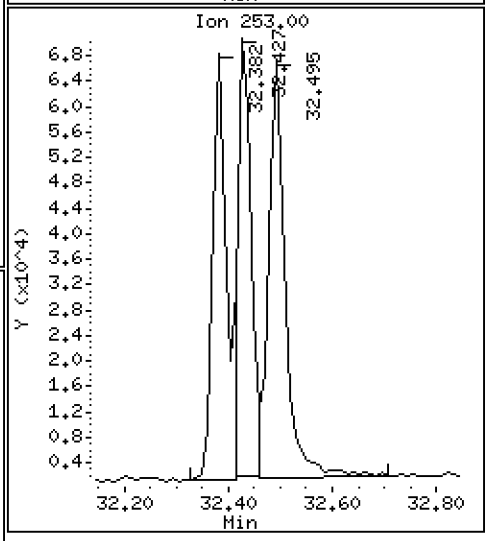
293 Benzo(j)fluoranthene

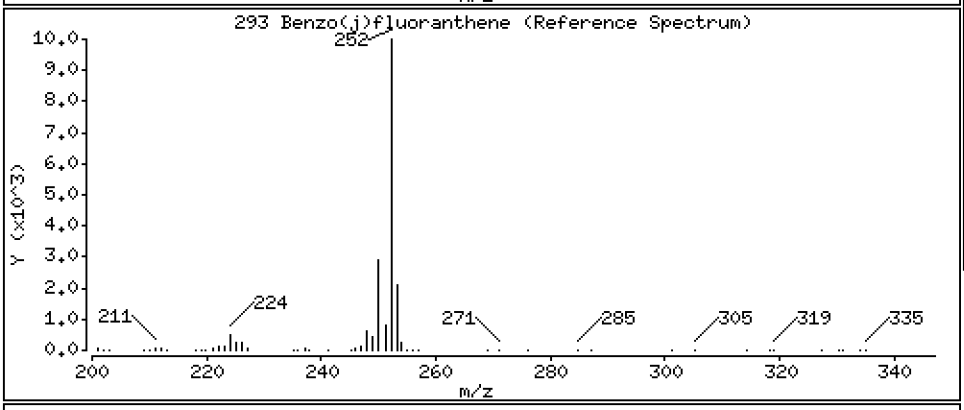
Concentration: 2.519 ug/mL

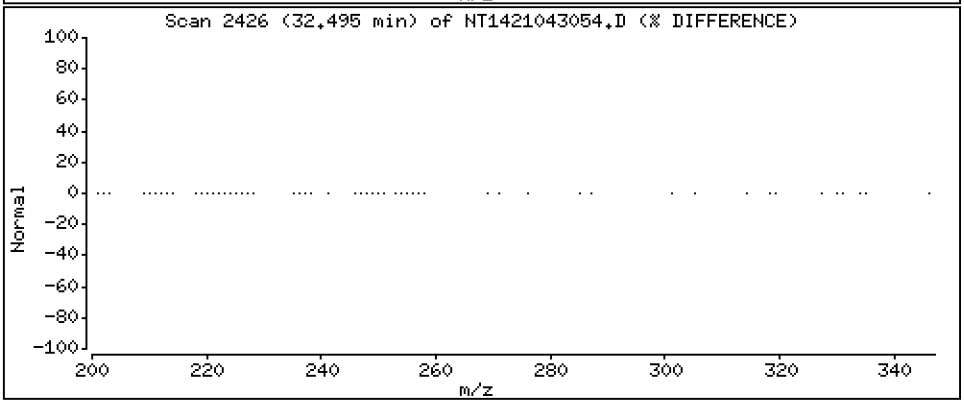


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043054.D

Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

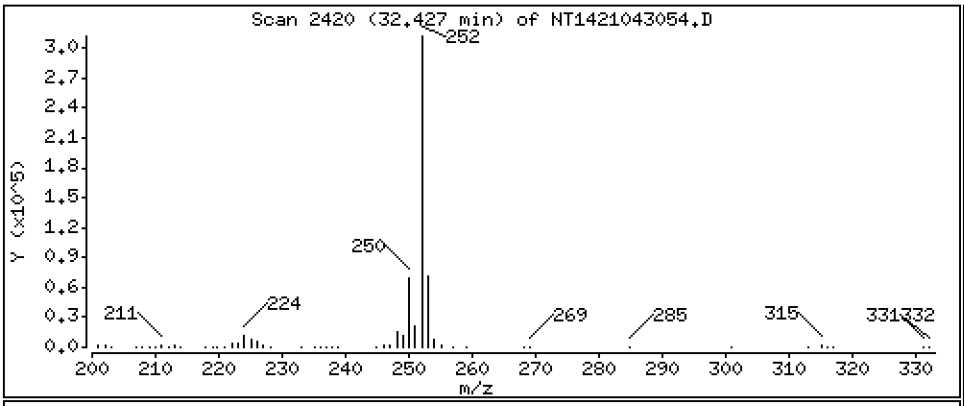
Operator: VTS

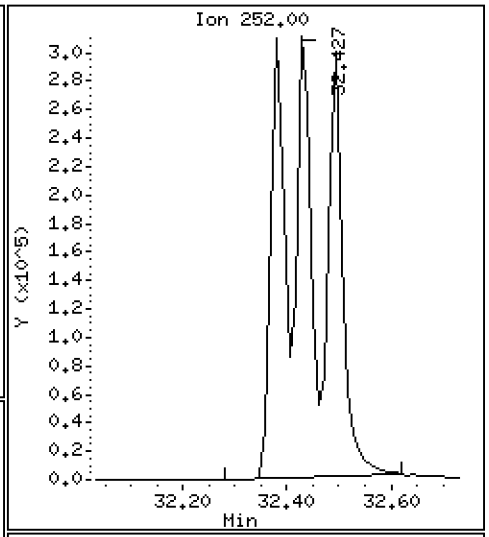
Column phase: Rxi-17Sil MS

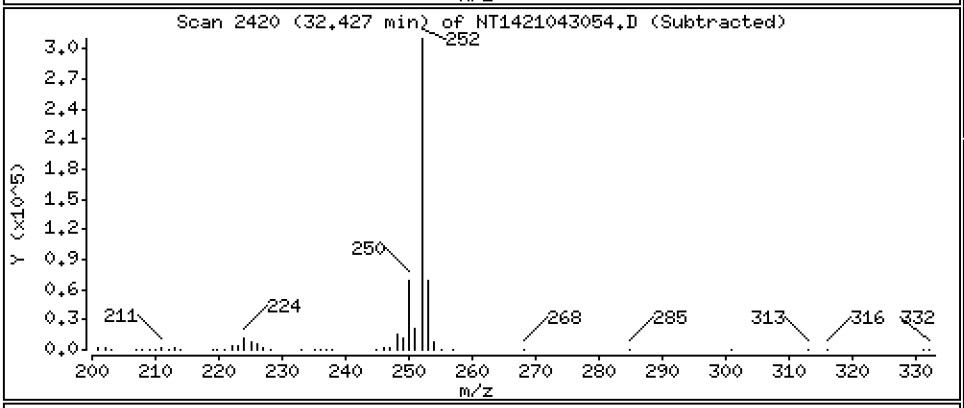
Column diameter: 0.25

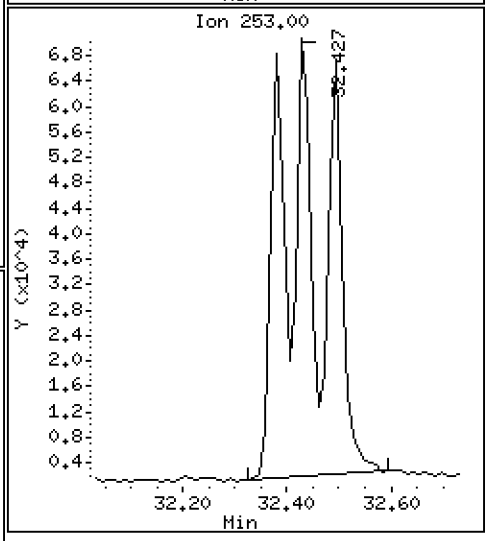
246 Total Benzofluoranthenes

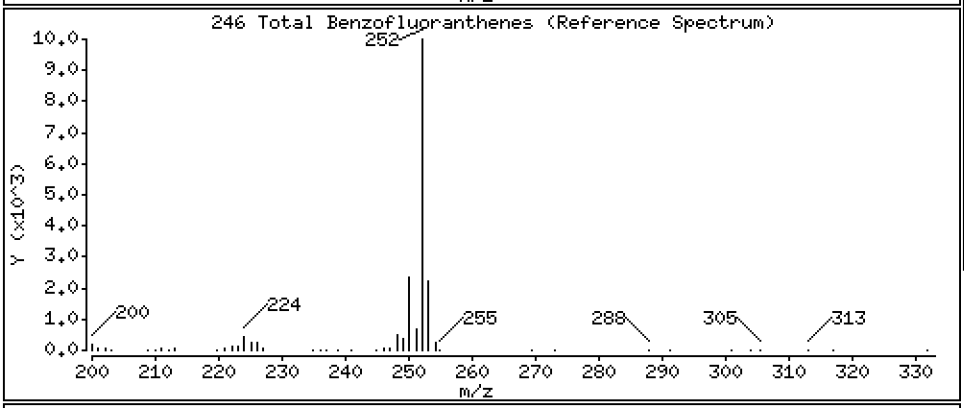
Concentration: 6.761 ug/mL

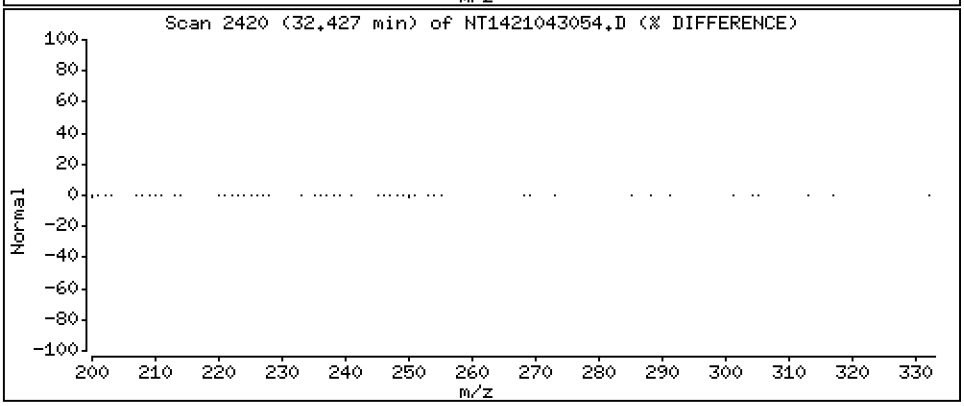


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Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

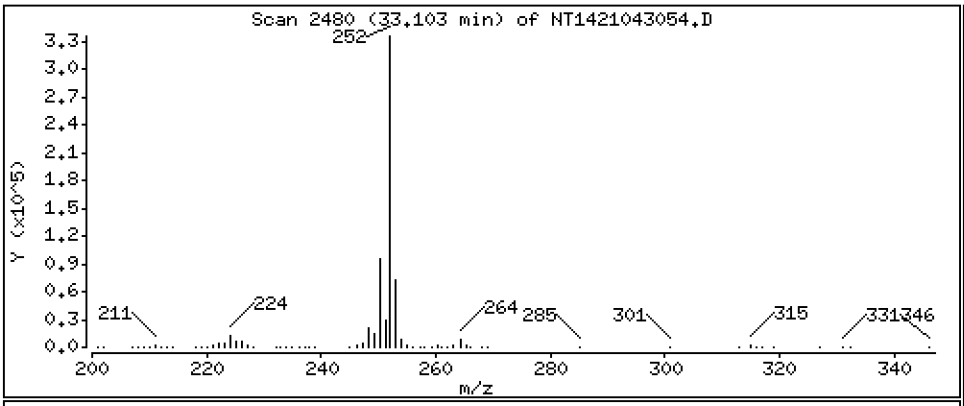
Operator: VTS

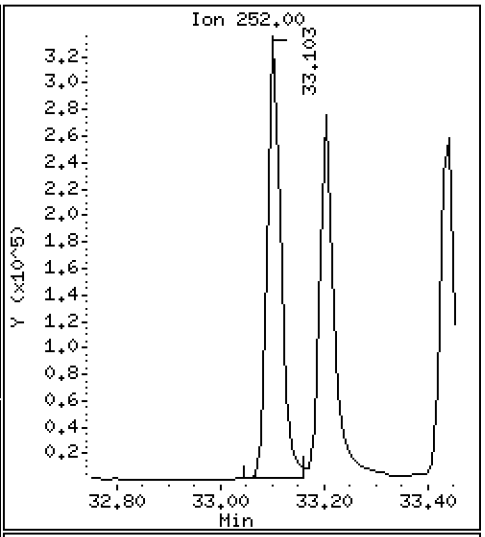
Column phase: Rxi-17Sil MS

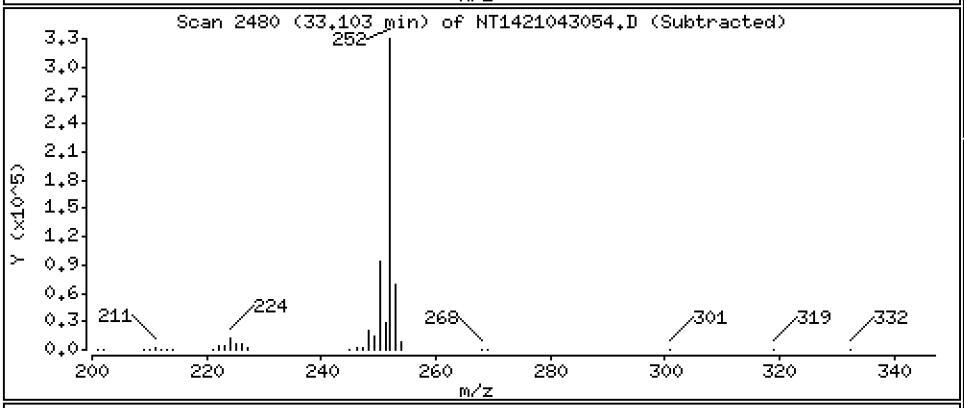
Column diameter: 0.25

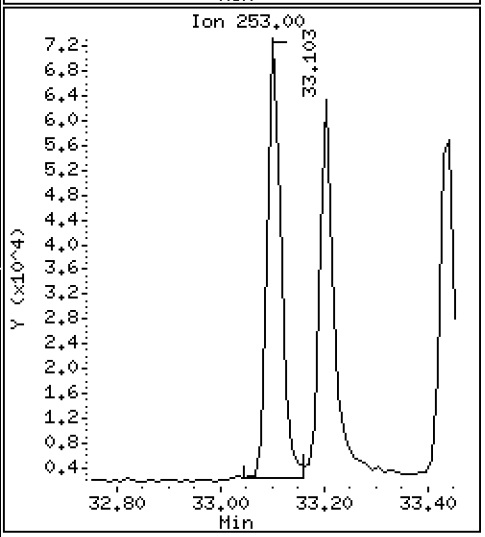
64 Benzo(e)pyrene

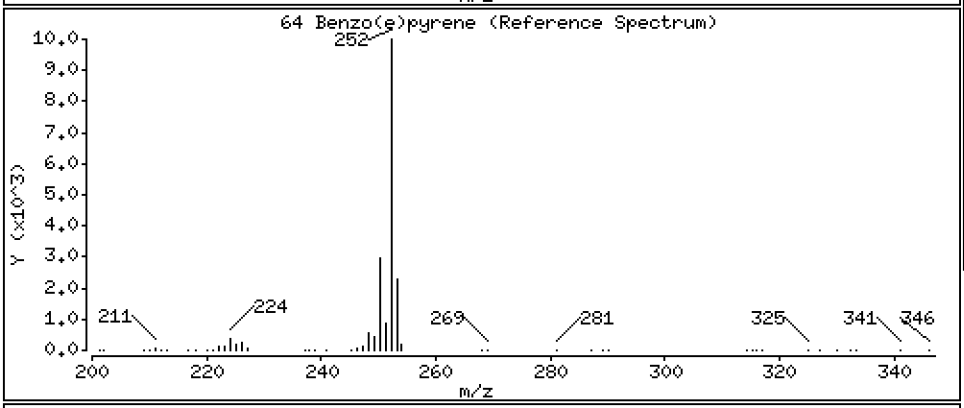
Concentration: 2.440 ug/mL

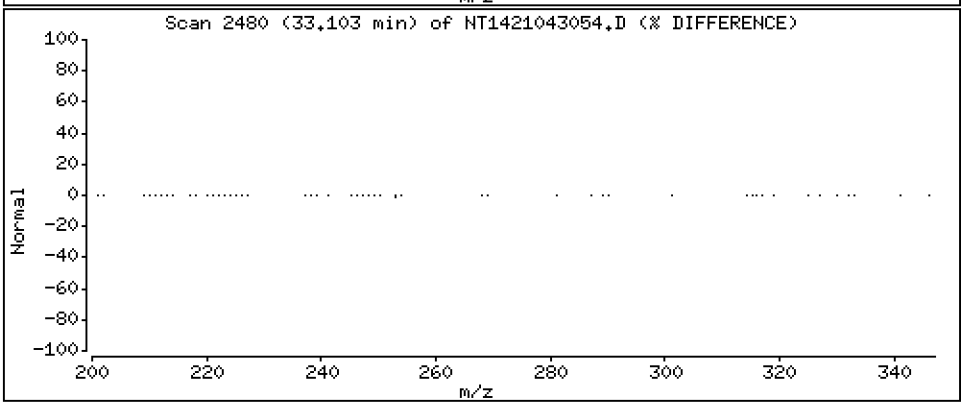


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Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

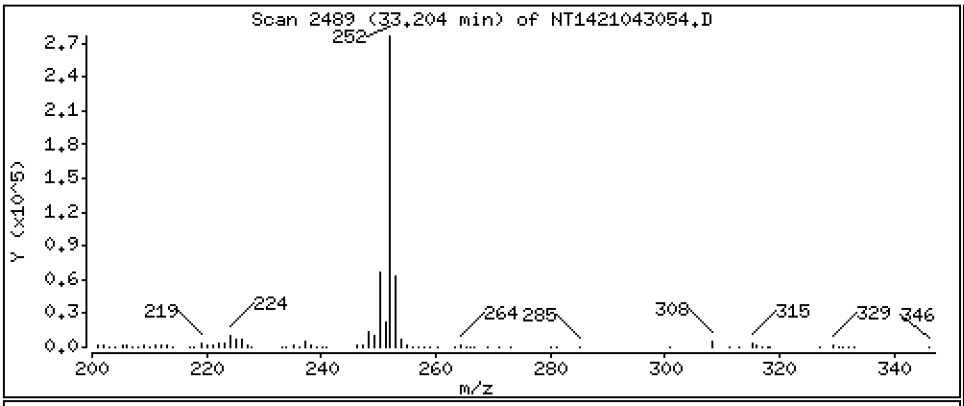
Operator: VTS

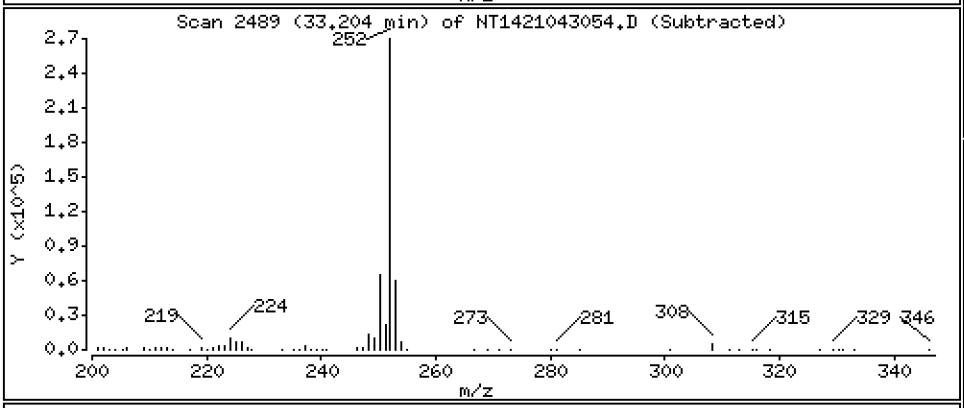
Column phase: Rxi-17Sil MS

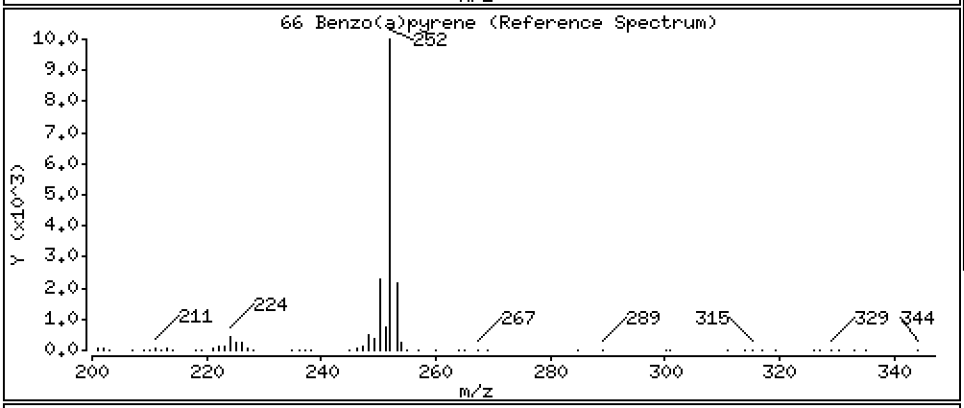
Column diameter: 0.25

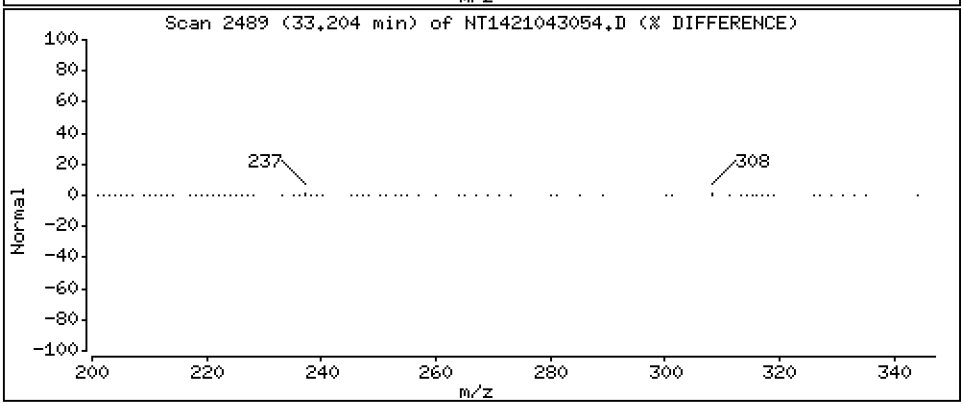
66 Benzo(a)pyrene

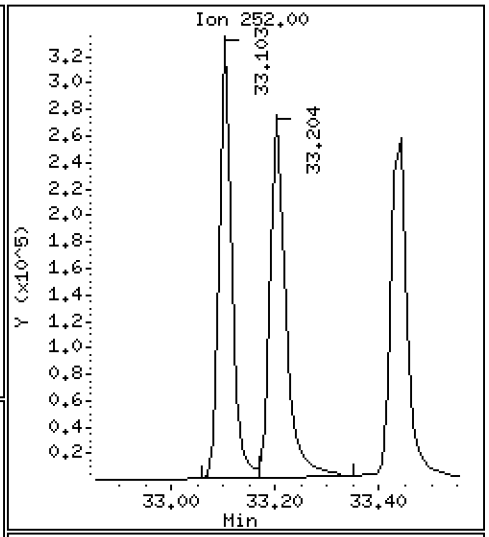
Concentration: 2.257 ug/mL

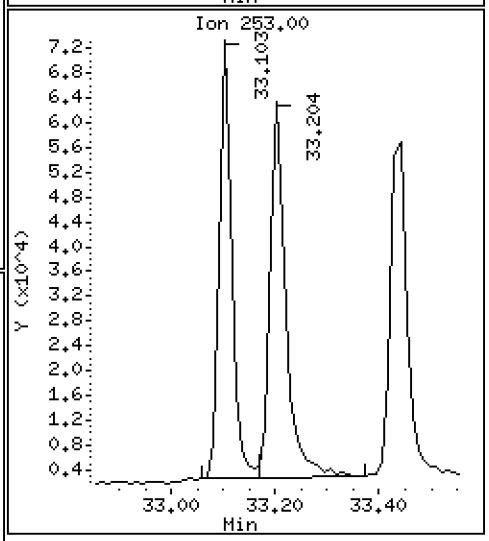


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Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

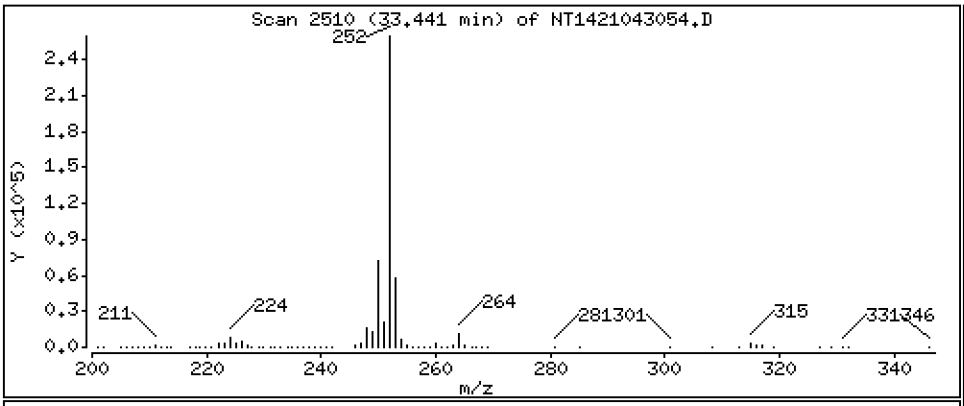
Operator: VTS

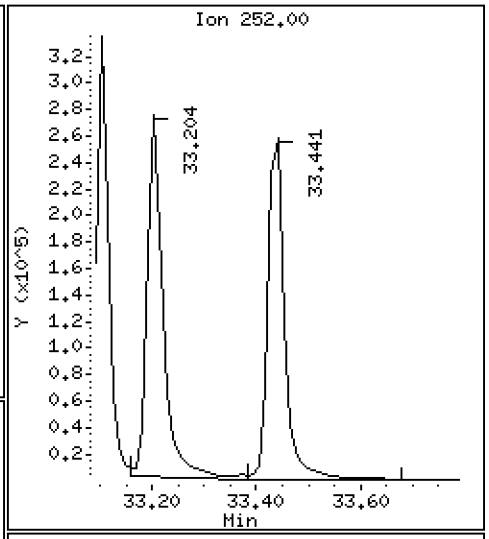
Column phase: Rxi-17Sil MS

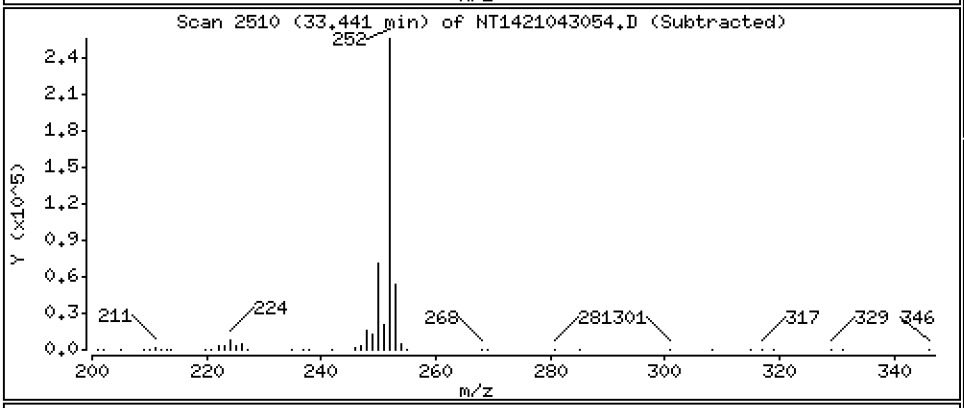
Column diameter: 0.25

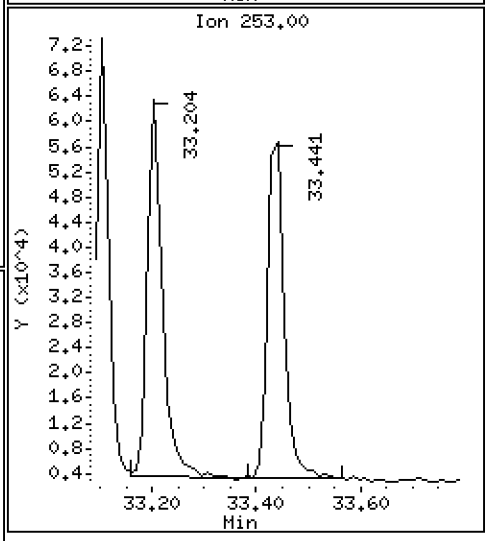
68 Perylene

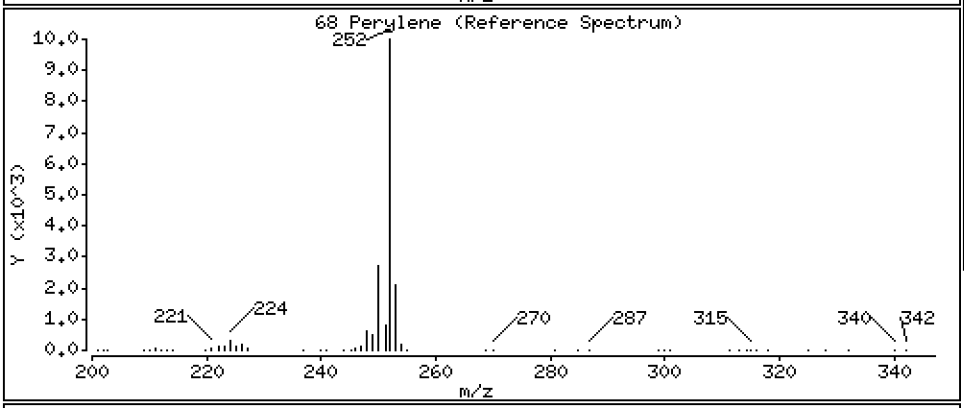
Concentration: 2.445 ug/mL

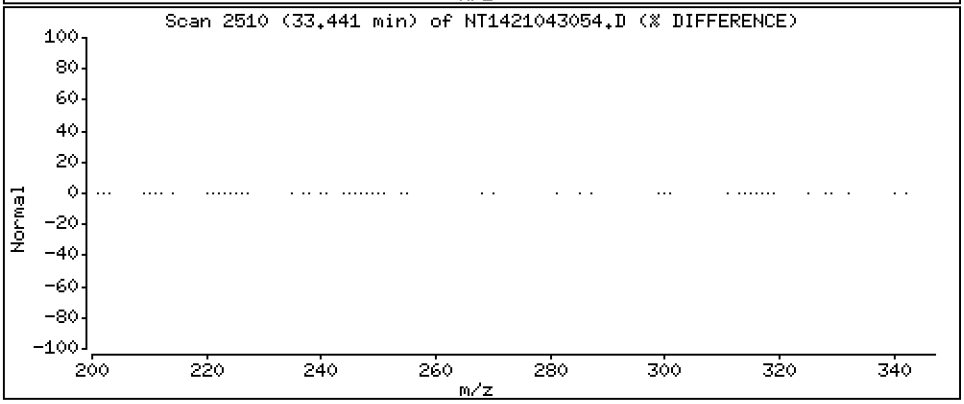


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Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

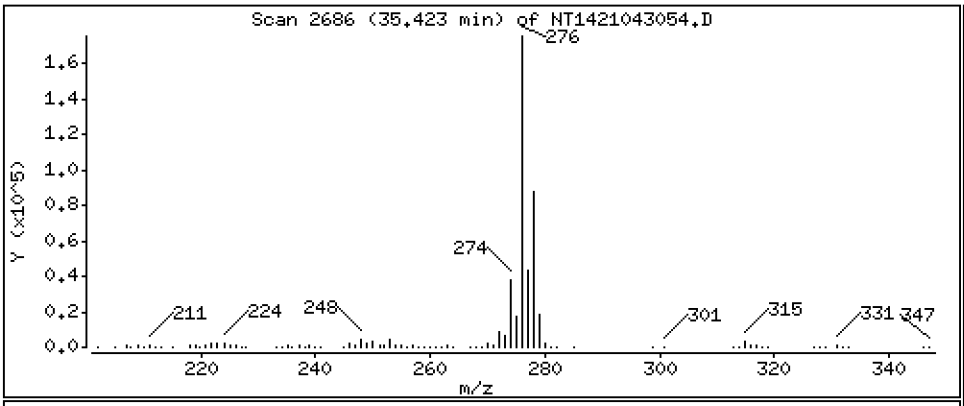
Operator: VTS

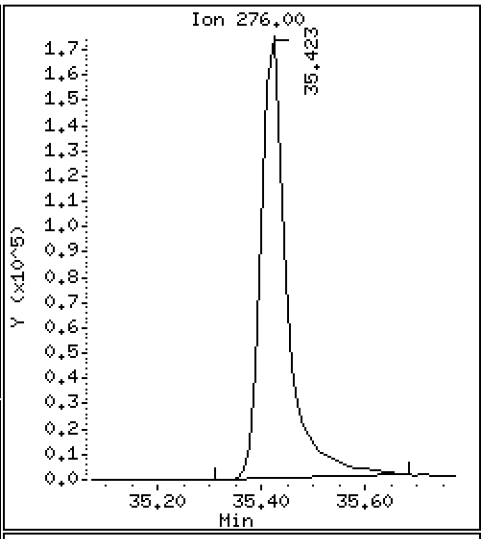
Column phase: Rxi-17Sil MS

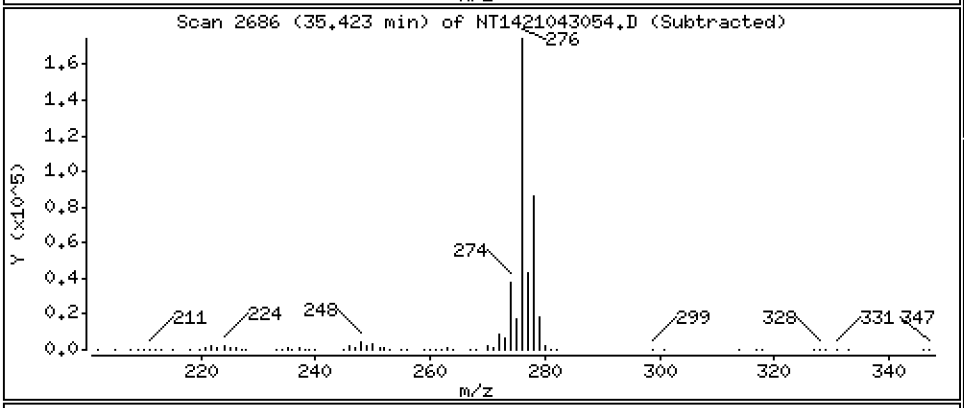
Column diameter: 0.25

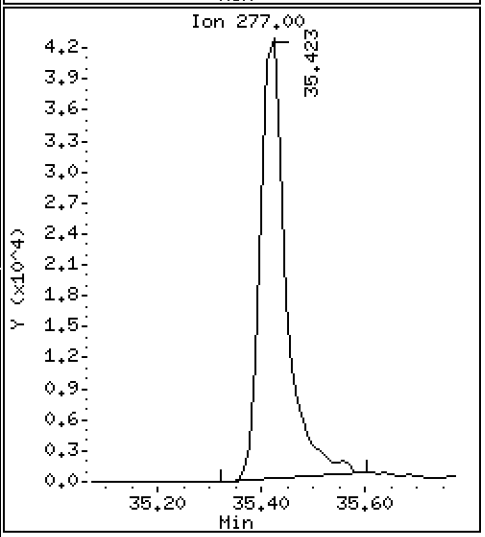
69 Indeno(1,2,3-cd)pyrene

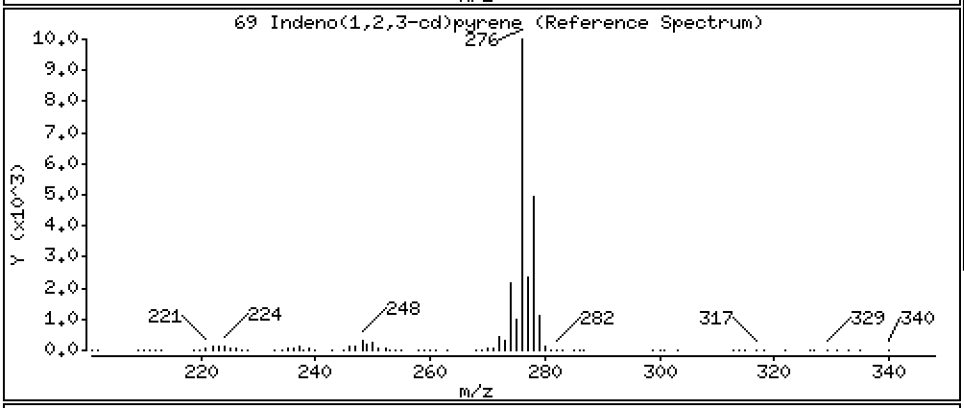
Concentration: 2.385 ug/mL

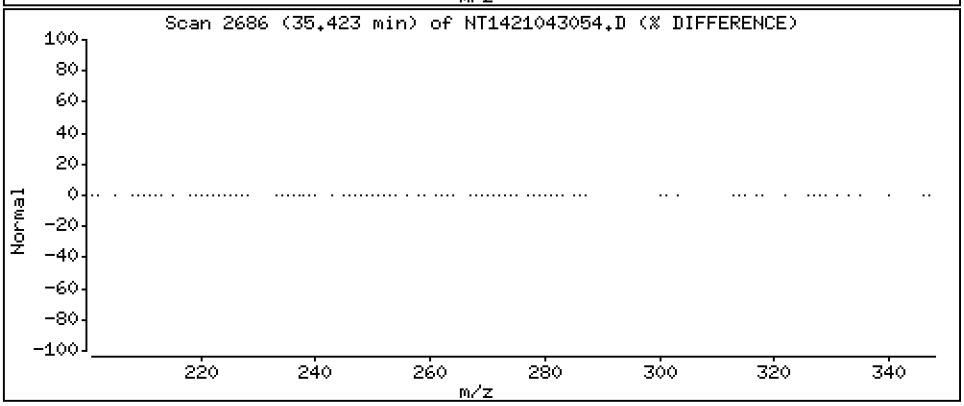


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Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

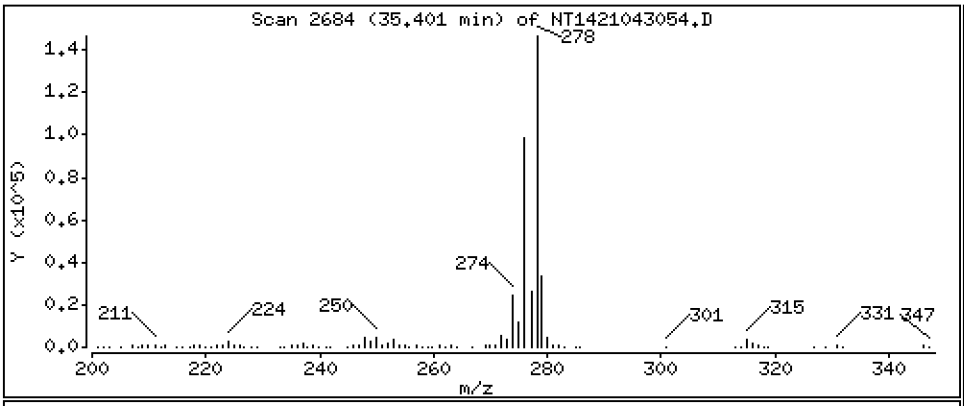
Operator: VTS

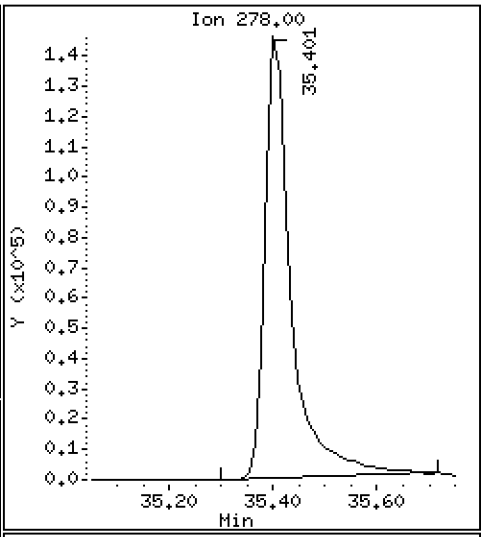
Column phase: Rxi-17Sil MS

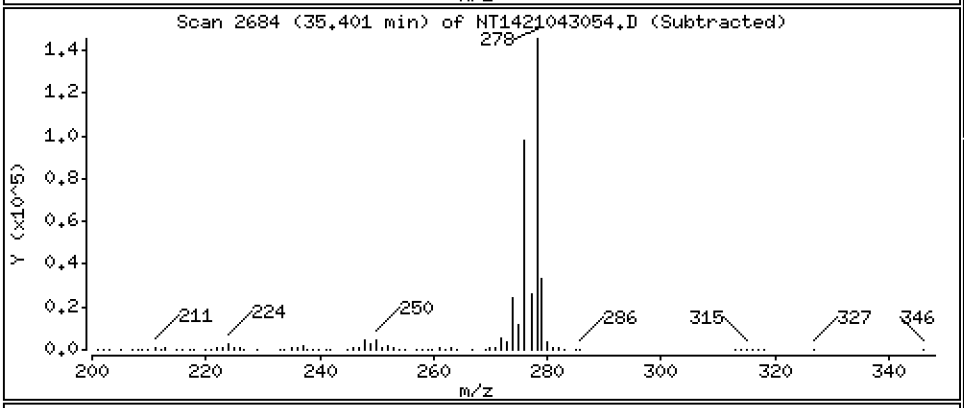
Column diameter: 0.25

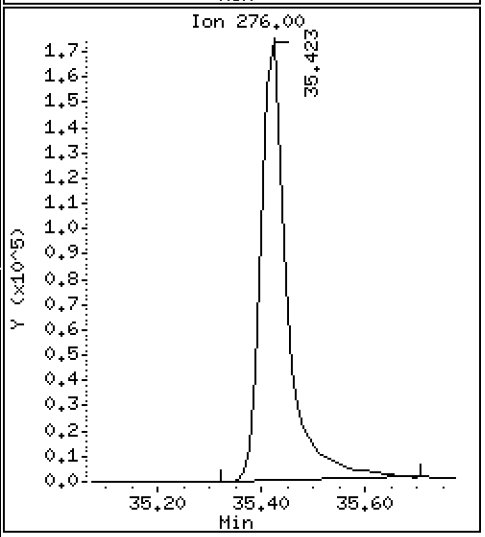
70 Dibenzo(a,h)anthracene

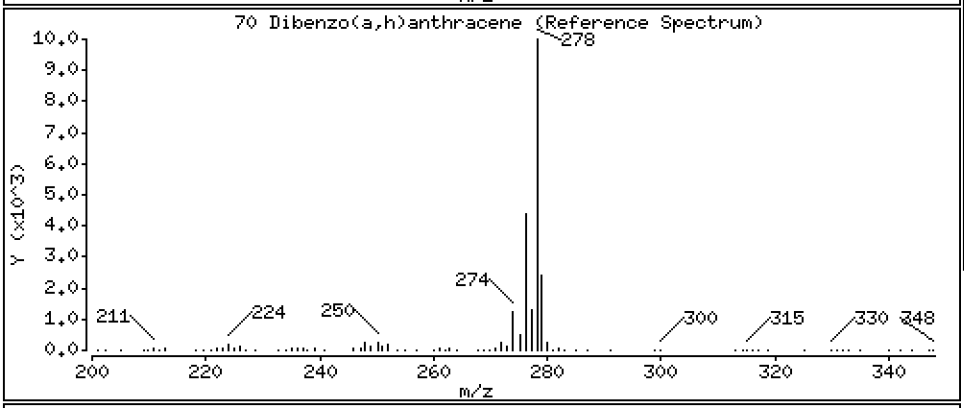
Concentration: 2.324 ug/mL

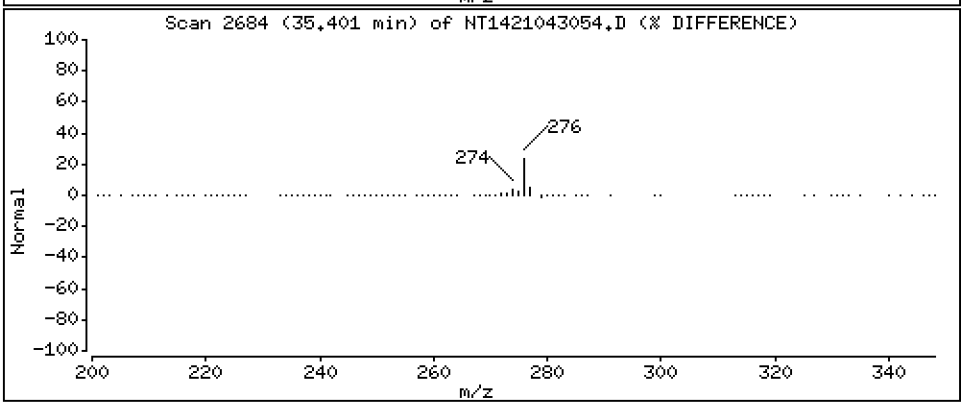


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Date : 02-MAY-2021 02:00

Client ID:

Instrument: nt14.i

Sample Info: BJD0507-BS1

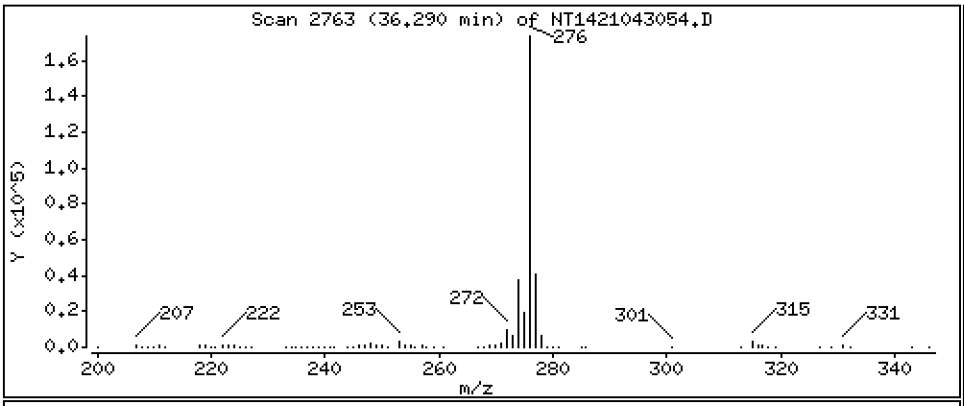
Operator: VTS

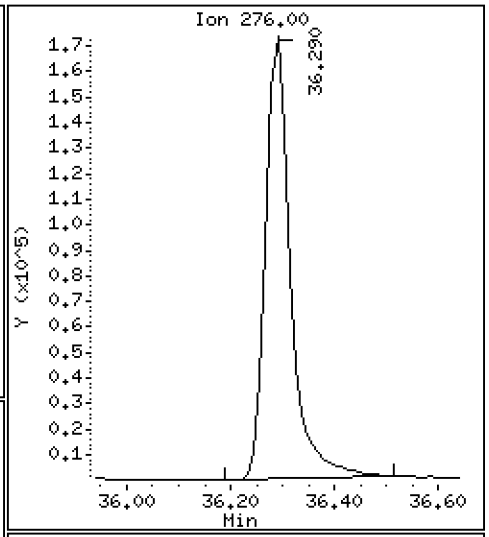
Column phase: Rxi-17Sil MS

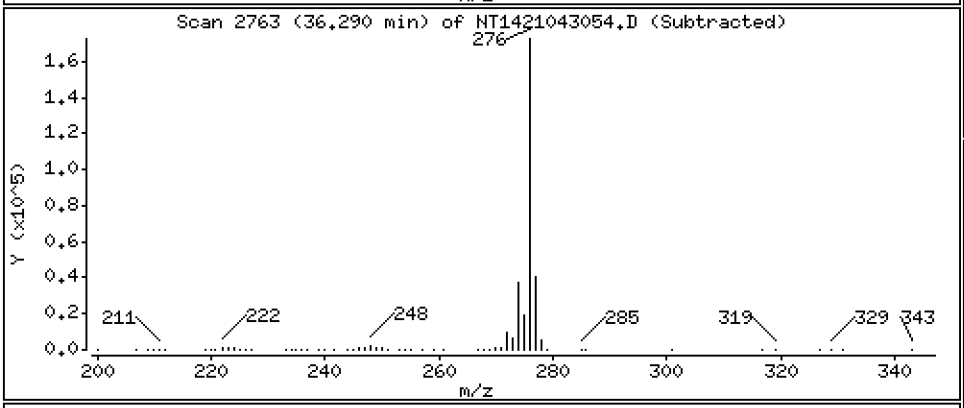
Column diameter: 0.25

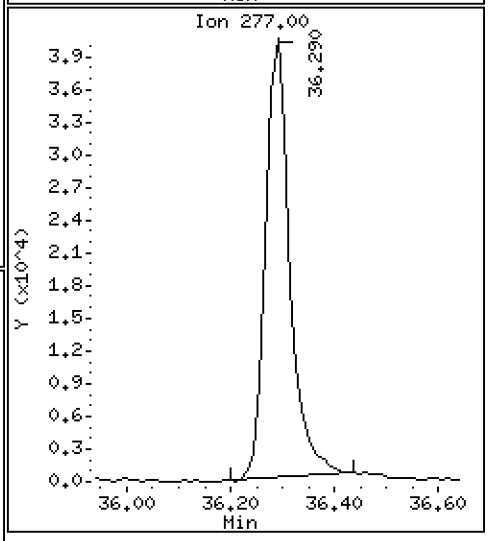
74 Benzo(g,h,i)perylene

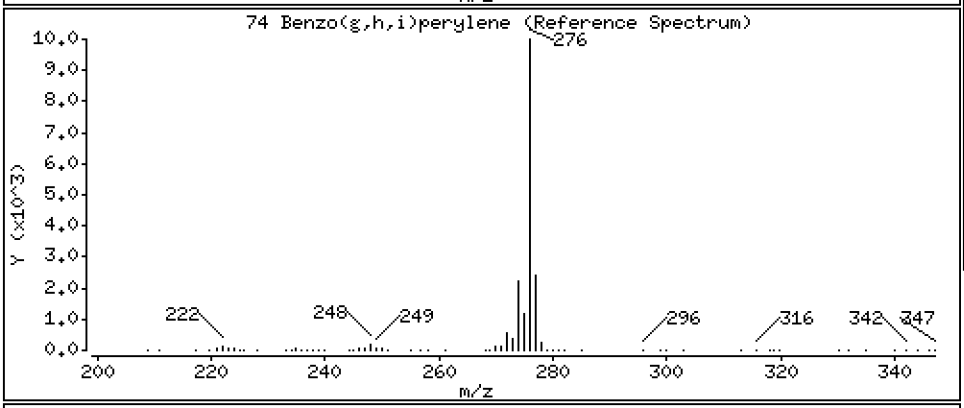
Concentration: 2.655 ug/mL

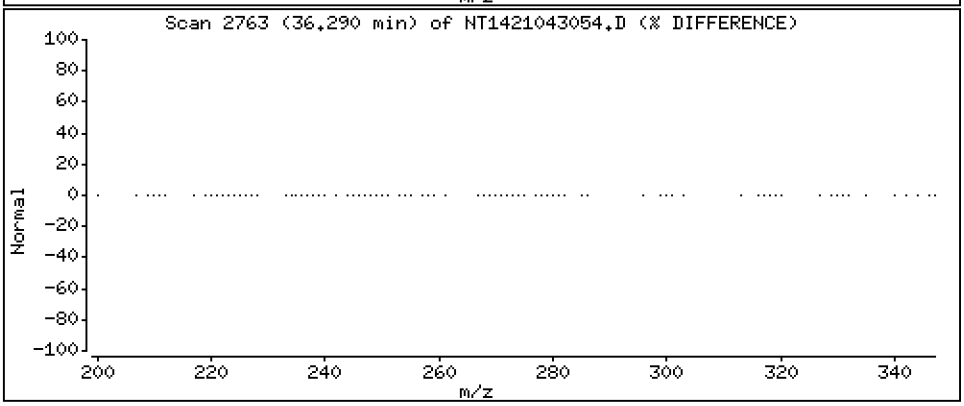


ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430D.b\NT1421043054.D
Lab Smp Id: BJD0507-BS1
Inj Date : 02-MAY-2021 02:00
Operator : VTS Inst ID: nt14.i
Smp Info : BJD0507-BS1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
Meth Date : 04-May-2021 08:25 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 35
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 | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 1 trans-Decalin | 138 | 7.035 | 7.045 | (0.375) | 70627 | 1.64538 | 1.645 |
| | 2 cis-Decalin | 138 | 8.145 | 8.155 | (0.434) | 51460 | 1.73658 | 1.737 |
| $ | 6 Naphthalene-d8 | 136 | 11.766 | 11.776 | (0.627) | 653241 | 1.96435 | 1.964(R) |
| | 7 Naphthalene | 128 | 11.836 | 11.836 | (0.631) | 663018 | 1.96012 | 1.960 |
| | 12 Benzo(b)thiophene | 134 | 12.284 | 12.295 | (0.654) | 527882 | 1.96158 | 1.962 |
| | 16 2-Methylnaphthalene | 141 | 13.669 | 13.680 | (0.728) | 367513 | 2.03601 | 2.036 |
| | 17 1-methylnaphthalene | 141 | 14.120 | 14.120 | (0.752) | 350276 | 2.04803 | 2.048 |
| | 18 Biphenyl | 154 | 15.307 | 15.318 | (0.815) | 533555 | 2.06537 | 2.065 |
| | 19 2,6-Dimethylnaphthalene | 156 | 15.383 | 15.394 | (0.820) | 381504 | 2.14614 | 2.146 |
| | 20 Acenaphthylene | 152 | 16.955 | 16.955 | (0.903) | 638910 | 2.28391 | 2.284 |
| $ | 21 Acenaphthene-d10 | 164 | 17.241 | 17.241 | (0.918) | 351900 | 2.16716 | 2.167(R) |
| | 22 Acenaphthene | 153 | 17.351 | 17.362 | (0.924) | 416211 | 2.31502 | 2.315 |
| | 23 Dibenzofuran | 168 | 17.724 | 17.735 | (0.944) | 602893 | 2.21303 | 2.213 |
| | 24 1,6,7-Trimethylnaphthalene | 170 | 17.955 | 17.955 | (0.956) | 377355 | 2.41882 | 2.419 |
| * | 25 Fluorene-d10 | 176 | 18.772 | 18.772 | (1.000) | 576235 | 2.00000 | |
| | 26 Fluorene | 166 | 18.874 | 18.874 | (1.005) | 466590 | 2.35667 | 2.357 |
| | 30 Dibenzothiophene | 184 | 21.785 | 21.796 | (1.161) | 596240 | 2.38566 | 2.386 |
| $ | 35 Phenanthrene-d10 | 188 | 22.104 | 22.104 | (0.995) | 572390 | 2.06996 | 2.070(R) |
| | 36 Phenanthrene | 178 | 22.181 | 22.181 | (0.999) | 654067 | 2.11868 | 2.119 |
| * | 250 Anthracene-d10 | 188 | 22.214 | 22.214 | (1.000) | 511706 | 2.00000 | |
| | 37 Anthracene | 178 | 22.280 | 22.280 | (1.003) | 597046 | 2.09802 | 2.098 |
| | 42 Carbazole | 167 | 23.555 | 23.566 | (1.060) | 577776 | 2.41371 | 2.414 |
| | 43 1-Methylphenanthrene | 192 | 24.017 | 24.017 | (1.081) | 467397 | 2.49360 | 2.494 |
| | 44 Fluoranthene | 202 | 25.985 | 25.985 | (1.170) | 673662 | 2.45708 | 2.457 |
| | 46 Pyrene | 202 | 26.832 | 26.832 | (1.208) | 700046 | 2.46396 | 2.464 |
| | 51 Naphthobenzothiophene | 234 | 29.375 | 29.375 | (1.322) | 545841 | 1.97148 | 1.971 |
| | 55 Benzo(a)anthracene | 228 | 29.960 | 29.960 | (0.907) | 555512 | 2.23605 | 2.236 |
| $ | 56 Chrysene-d12 | 240 | 30.084 | 30.084 | (0.910) | 441702 | 2.23609 | 2.236(R) |
| | 57 Chrysene | 228 | 30.163 | 30.163 | (0.913) | 589177 | 2.32059 | 2.321 |
| | 62 Benzo(b)fluoranthene | 252 | 32.381 | 32.382 | (0.980) | 544614 | 2.35886 | 2.359(M) |
| | 63 Benzo(k)fluoranthene | 252 | 32.427 | 32.427 | (0.981) | 638321 | 2.27118 | 2.271(M) |
| | 293 Benzo(j)fluoranthene | 252 | 32.494 | 32.494 | (0.983) | 651294 | 2.51852 | 2.519 |
| | 246 Total Benzofluoranthenes | 252 | 32.427 | 32.382 | (0.981) | 1712159 | 6.76082 | 6.761(M) |

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

## QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043054.D
Lab Smp Id: BJD0507-BS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
Misc Info:

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

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1421043054.D

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

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

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

NONE

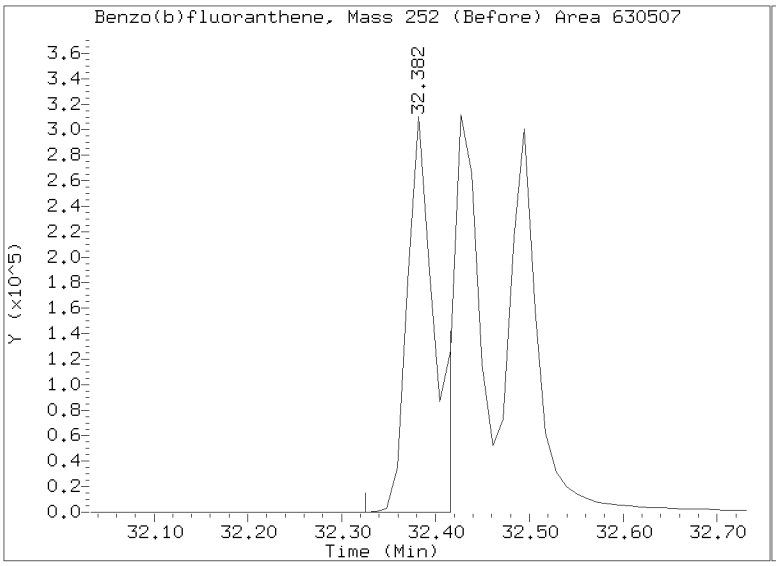
RRT check based on Ccal File: NT1421043051ICV.D

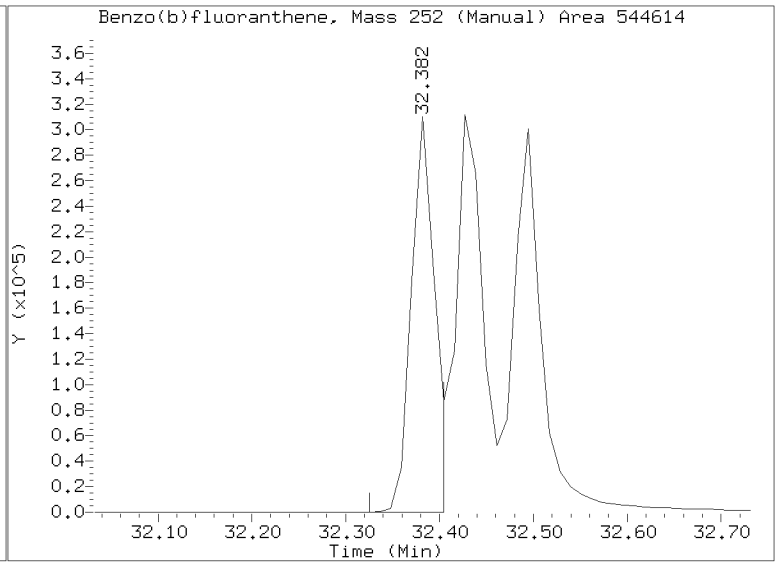
On Column LOD for nt14.i, 20210430D.b\ALKYLPNA.m, TARGETS.sub = 0.0000

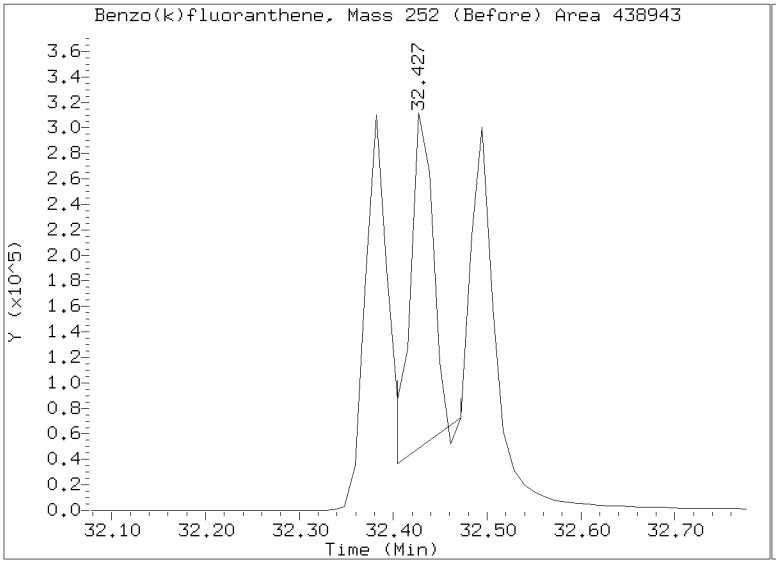
* Only compounds listed in the work order have been verified by the analyst *

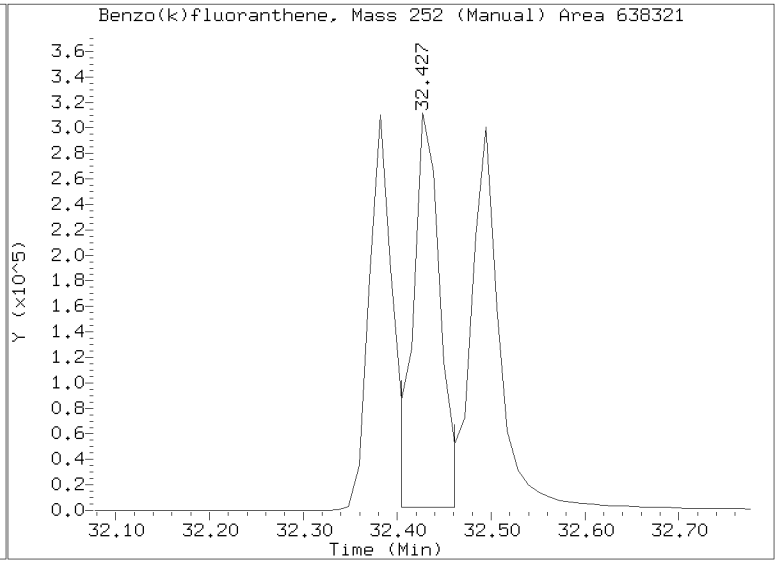
# Quant Ion Manual Peak Adjustment Report

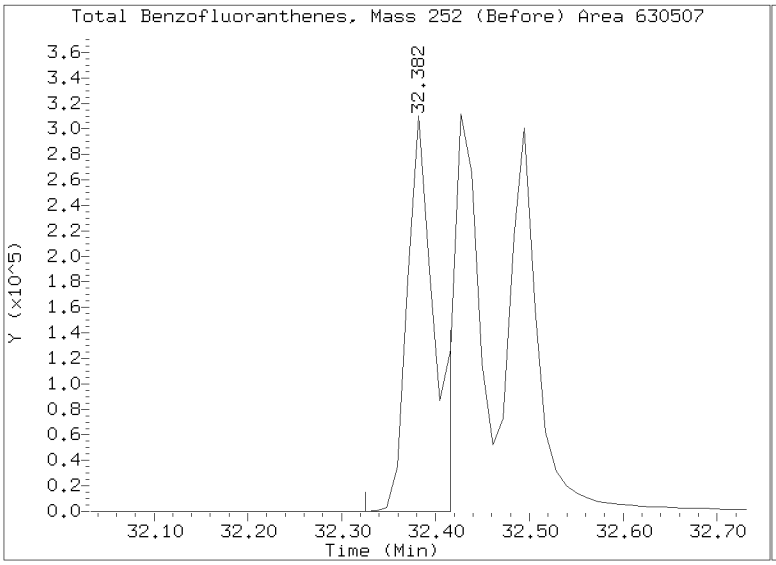
Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043054.D
Injection Date: 02-MAY-2021 02:00
Lab ID:BJD0507-BS1 Client ID:
Report Date: 05/04/2021 13:20

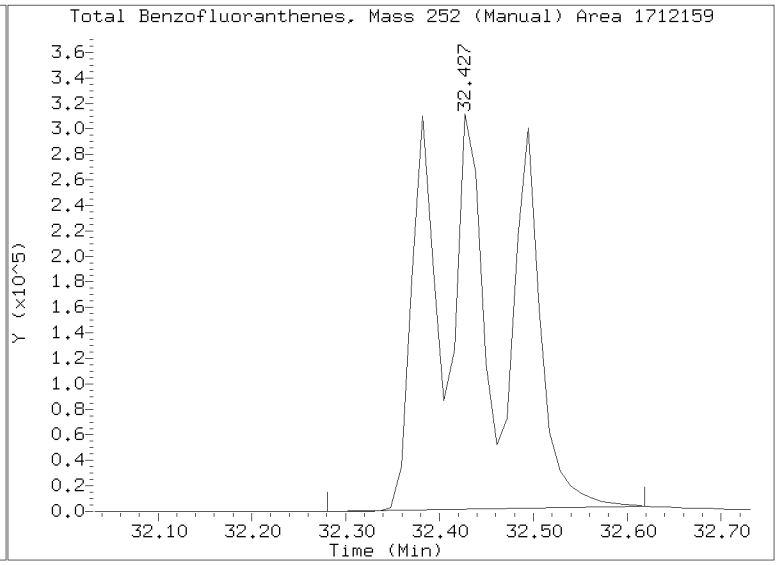


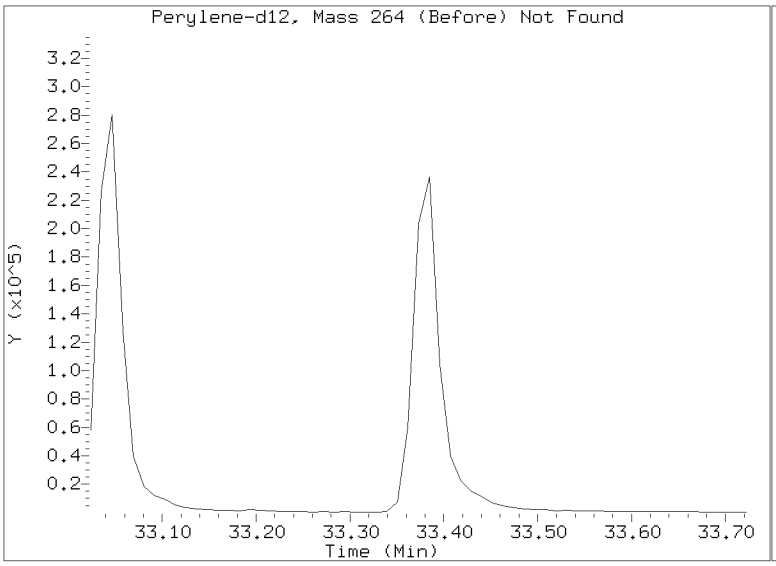



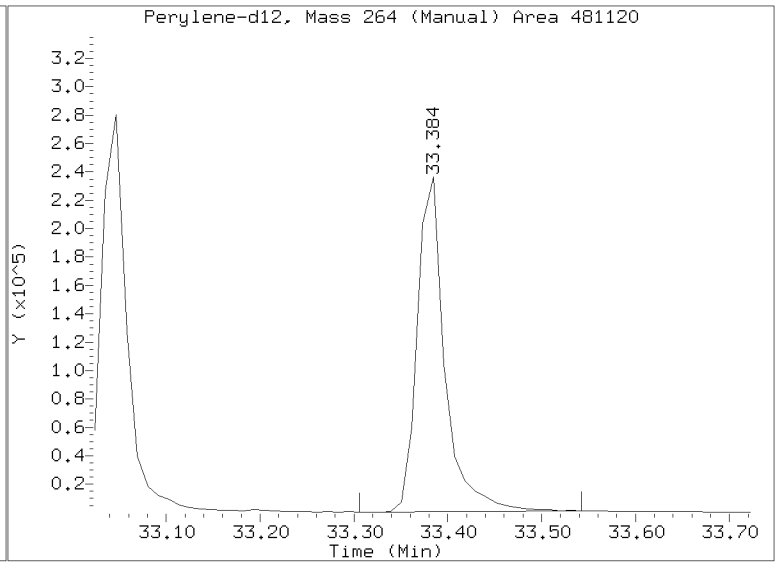



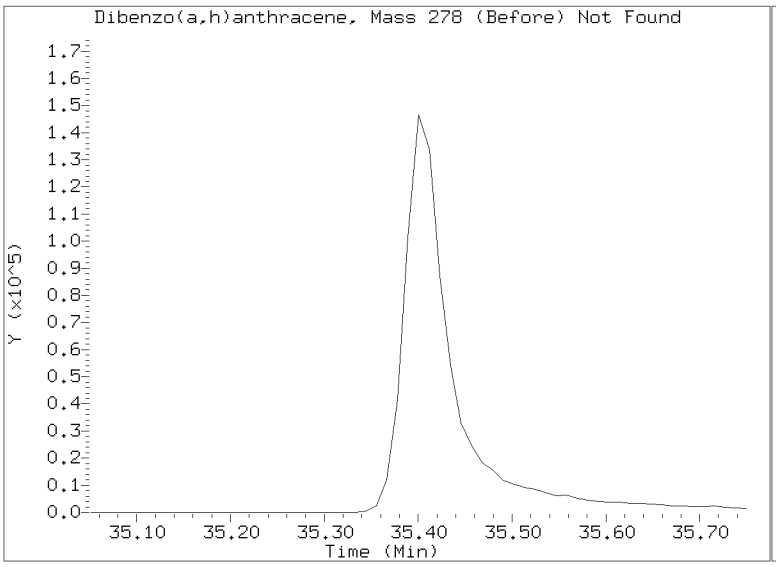



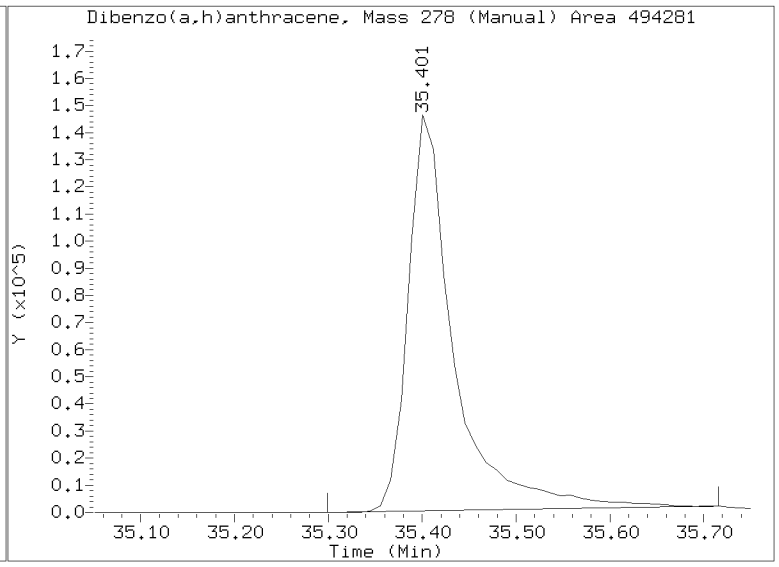
# Quant Ion Manual Peak Adjustment Report

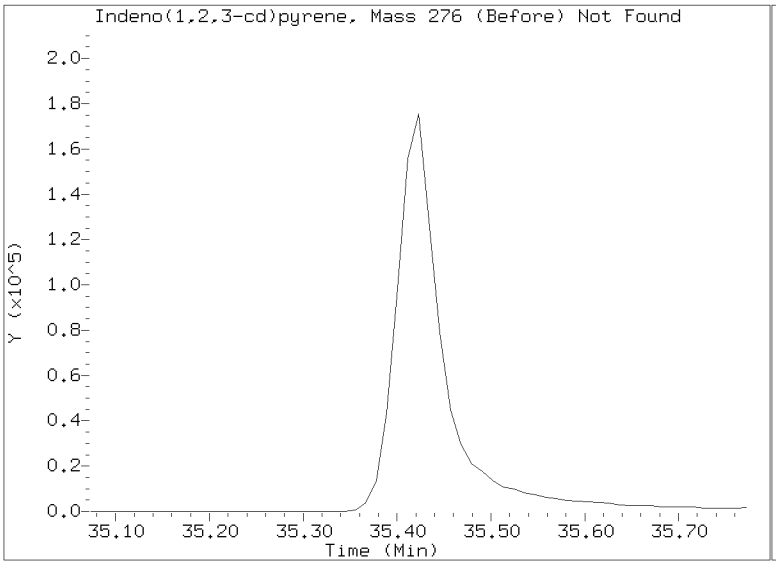
Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043054.D
Injection Date: 02-MAY-2021 02:00
Lab ID:BJD0507-BS1 Client ID:
Report Date: 05/04/2021 13:20

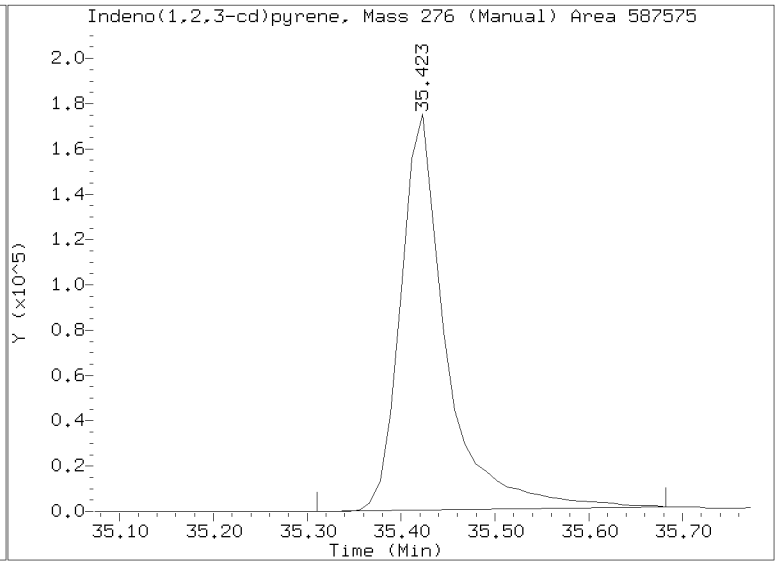


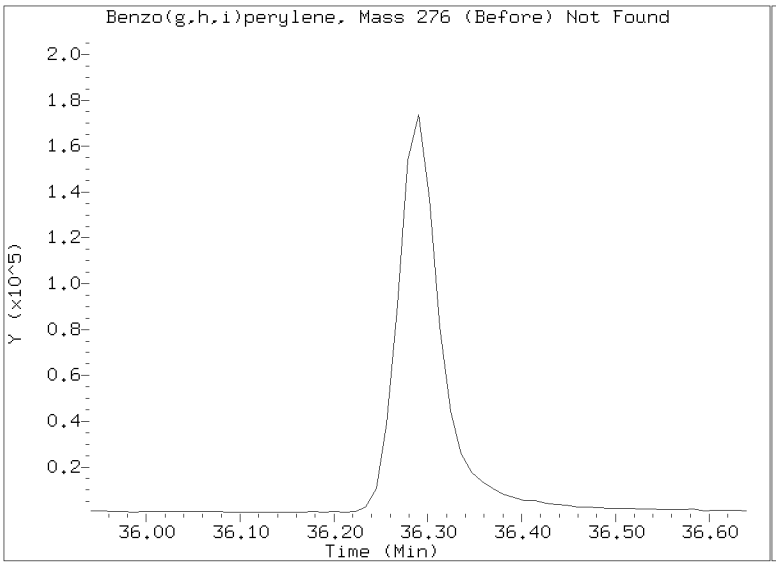



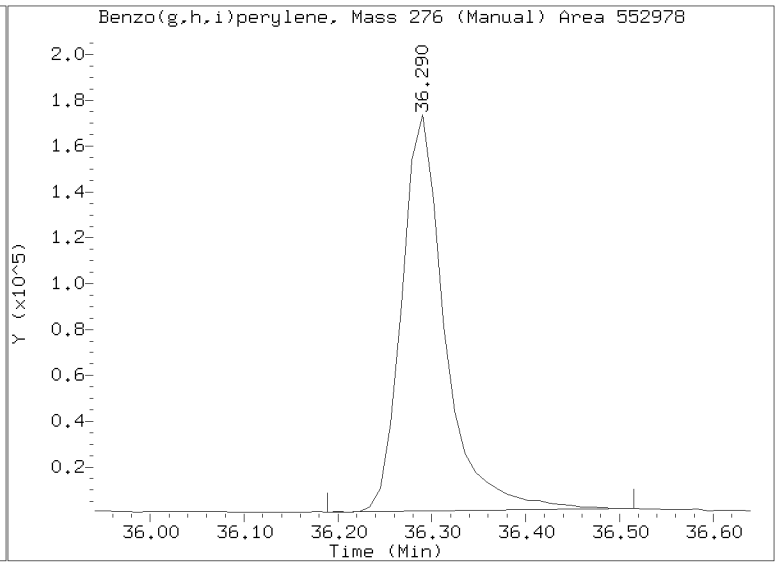



# Quant Ion Manual Peak Adjustment Report

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



Analytical Resources, Incorporated
Analytical Chemists and Consultants

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

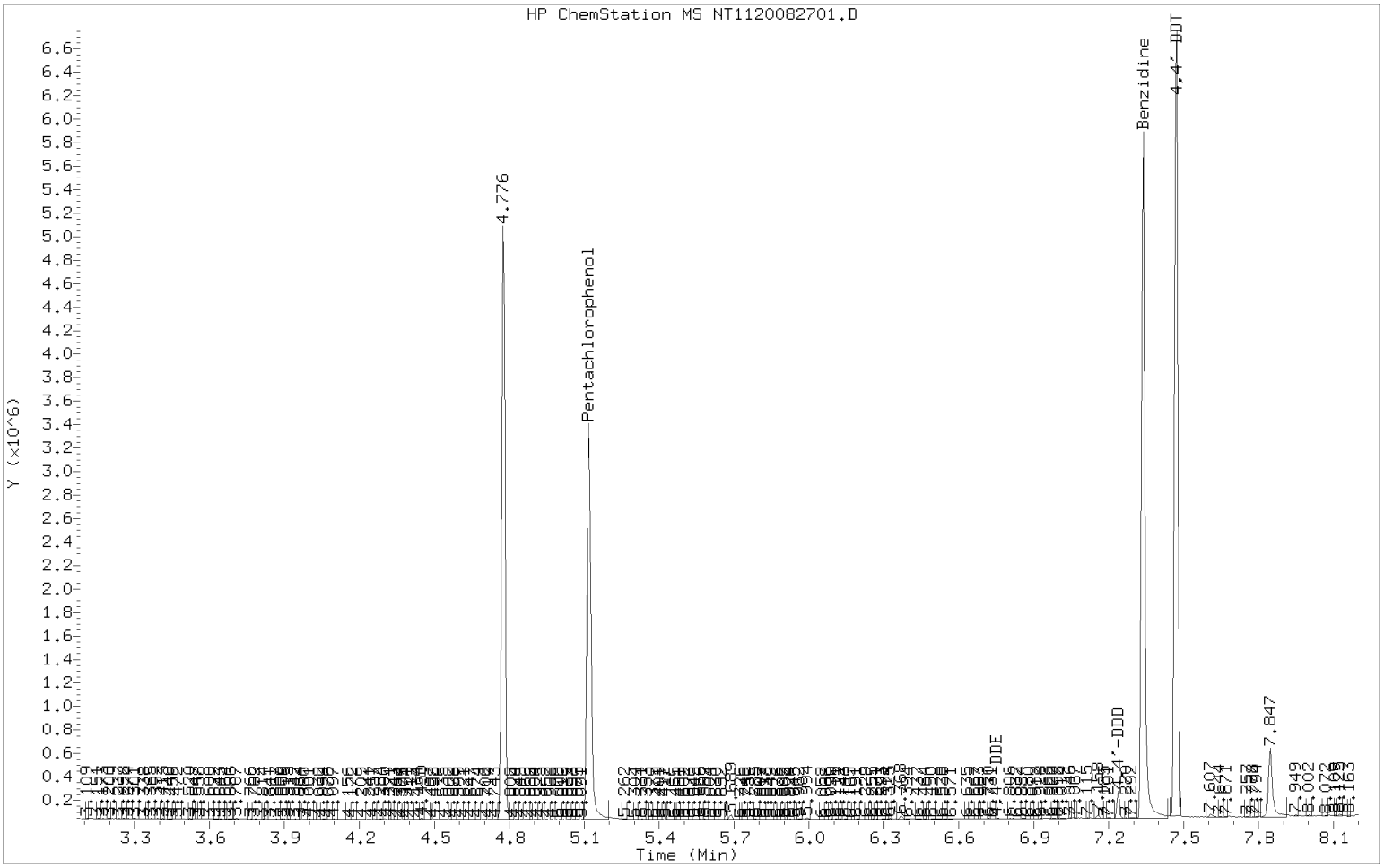
| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Lab File ID: | NT1120082701.D | Injection Date: | 08/27/20 |
| Instrument ID: | NT11 | Injection Time: | 12:20 |
| Sequence: | SIH0304 | Lab Sample ID: | SIH0304-TUN1 |

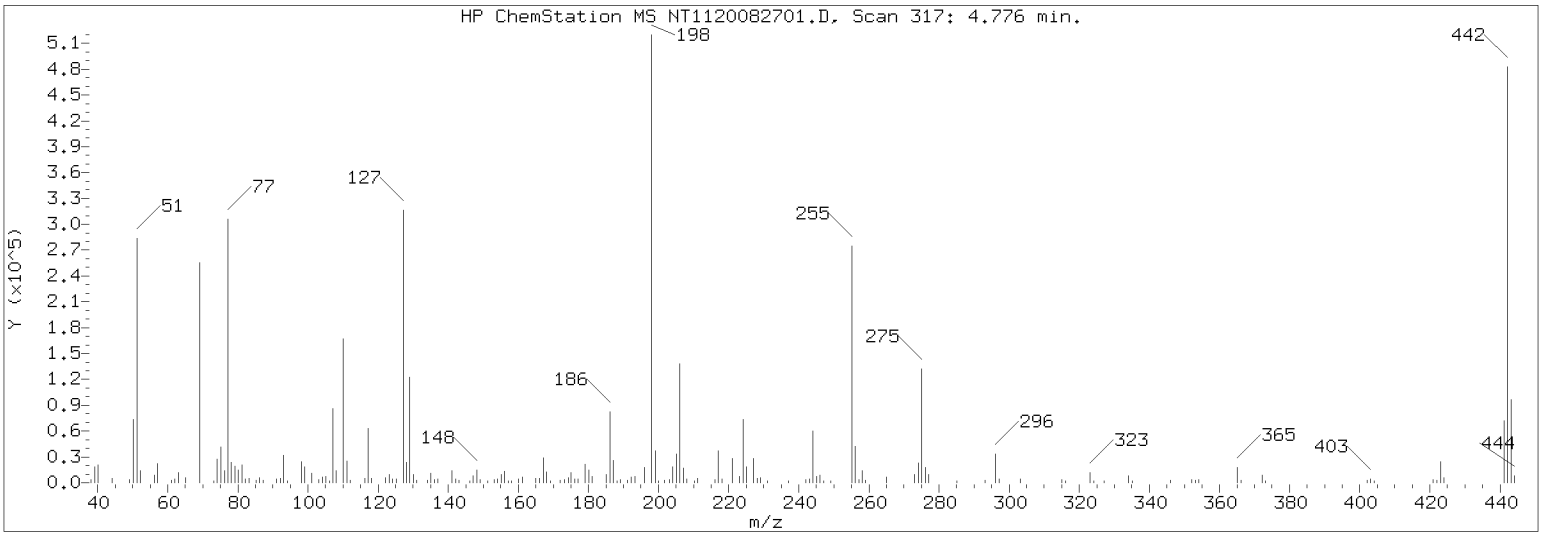
| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 68 | Less than 2% of 69 | 0 | PASS |
| 69 | Less than 100% of 198 | 48.1 | PASS |
| 70 | Less than 2% of 69 | 0 | PASS |
| 197 | Less than 2% of 198 | 0 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS |
| 199 | 5 - 9% of 198 | 7.19 | PASS |
| 365 | 1 - 100% of 198 | 3.42 | PASS |
| 441 | Less than 150% of 443 | 75.1 | PASS |
| 442 | 1 - 200% of 198 | 98.2 | PASS |
| 443 | 15 - 24% of 442 | 20.3 | 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 | SIH0304-TUN1 | NT1120082701.D | 08/27/2020 | 12:20 |
| Cal Standard | SIH0304-CAL4 | NT1120082702.D | 08/27/2020 | 12:35 |
| Cal Standard | SIH0304-CAL6 | NT1120082703.D | 08/27/2020 | 13:07 |
| Cal Standard | SIH0304-CAL1 | NT1120082704.D | 08/27/2020 | 13:38 |
| Cal Standard | SIH0304-CAL5 | NT1120082705.D | 08/27/2020 | 14:08 |
| Cal Standard | SIH0304-CAL2 | NT1120082706.D | 08/27/2020 | 14:38 |
| Cal Standard | SIH0304-CAL3 | NT1120082707.D | 08/27/2020 | 15:08 |
| Secondary Cal Check | SIH0304-SCV1 | NT1120082708.D | 08/27/2020 | 15:38 |
| Initial Cal Blank | SIH0304-ICB1 | NT1120082709.D | 08/27/2020 | 16:09 |

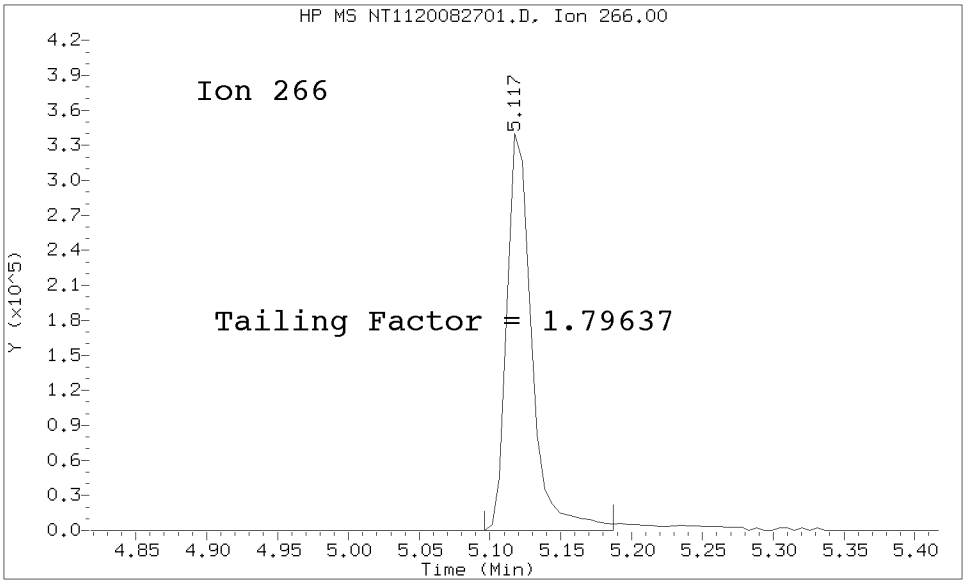
# DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

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



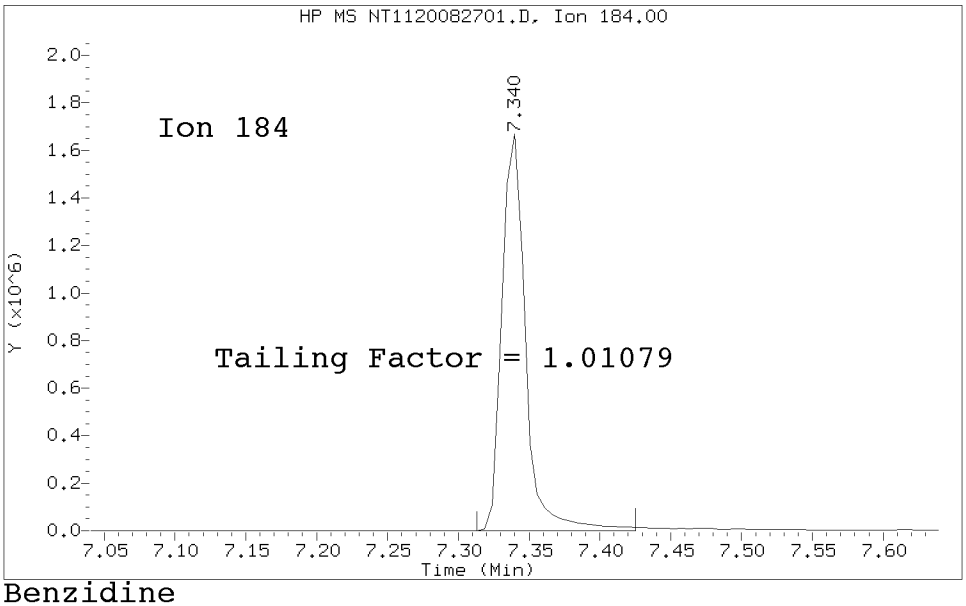



Datafile Analyzed: /20200827.b/NT1120082701.D/NT1120082701.D
Method Used: \20200827.b\DFTPP8270E.m\sw846ddt.m  Inst: nt11
Injection Date: 27-AUG-2020 12:20  Operator: JZ
Sample Info:  SIH0304-TUN1
Report Date: 08/28/2020 09:13




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

Tail Factor = 1.796  Maximum Allowed = 2.0




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

Tail Factor = 1.011  Maximum Allowed = 2.0

# 8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

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

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

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

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

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

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

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

Analytical Resources, Incorporated
Analytical Chemists and Consultants

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

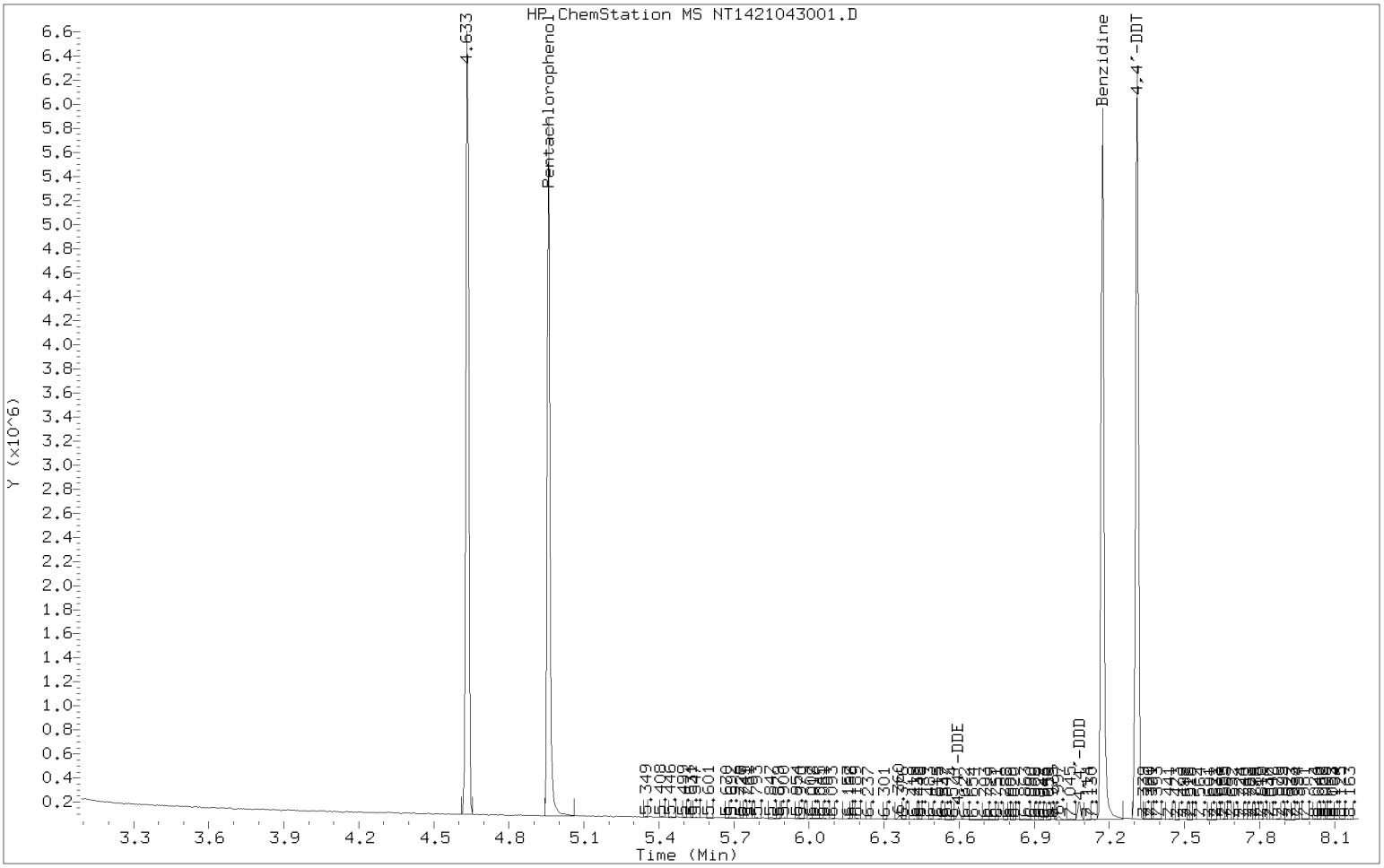
| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Lab File ID: | NT1421043001.D | Injection Date: | 04/30/21 |
| Instrument ID: | NT14 | Injection Time: | 07:42 |
| Sequence: | SJD0305 |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

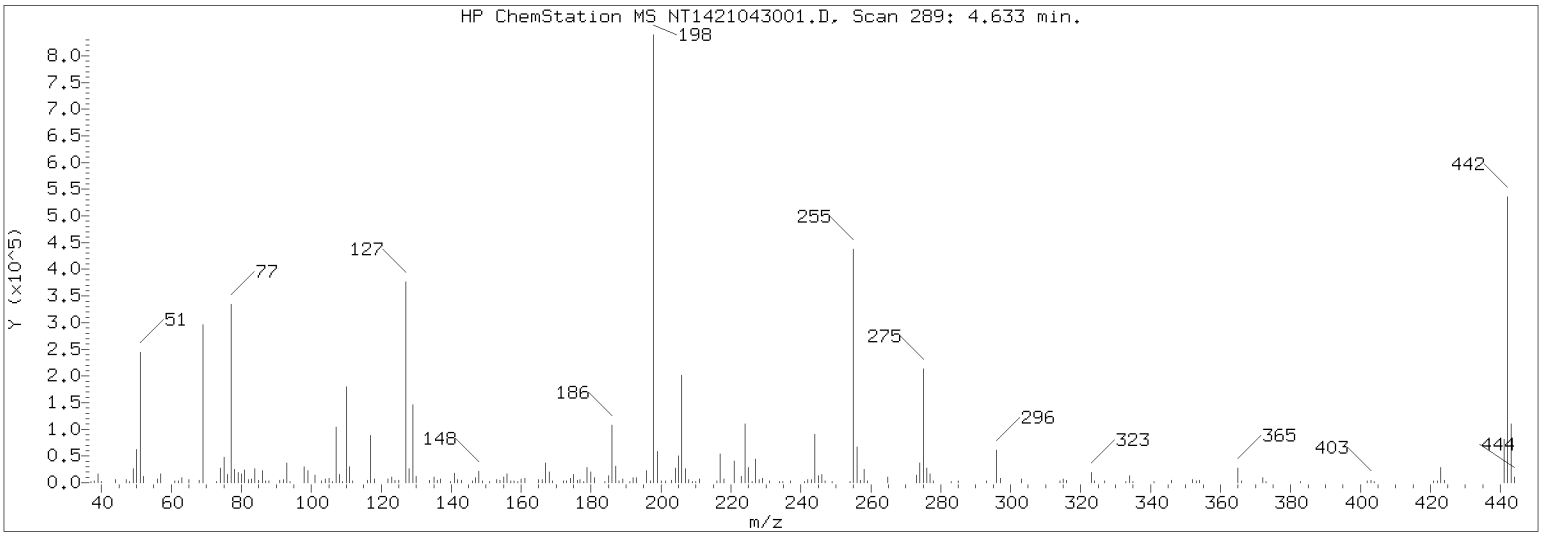
| m/z | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 68 | Less than 2% of 69 | 1.49 | PASS |
| 69 | Less than 100% of 198 | 35.4 | PASS |
| 70 | Less than 2% of 69 | 0 | PASS |
| 197 | Less than 2% of 198 | 0.392 | PASS |
| 198 | Base peak, 100% relative abundance | 100 | PASS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

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

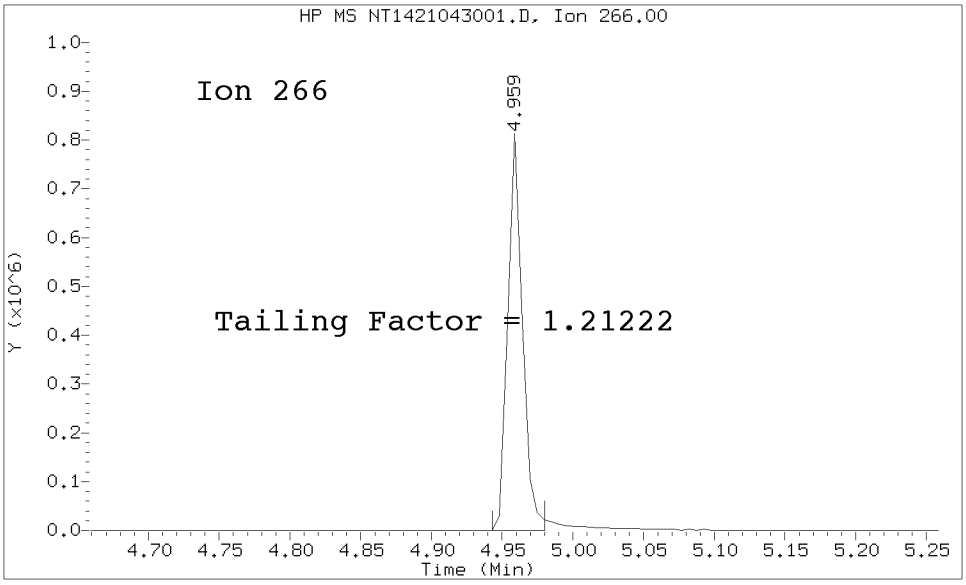
# DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

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



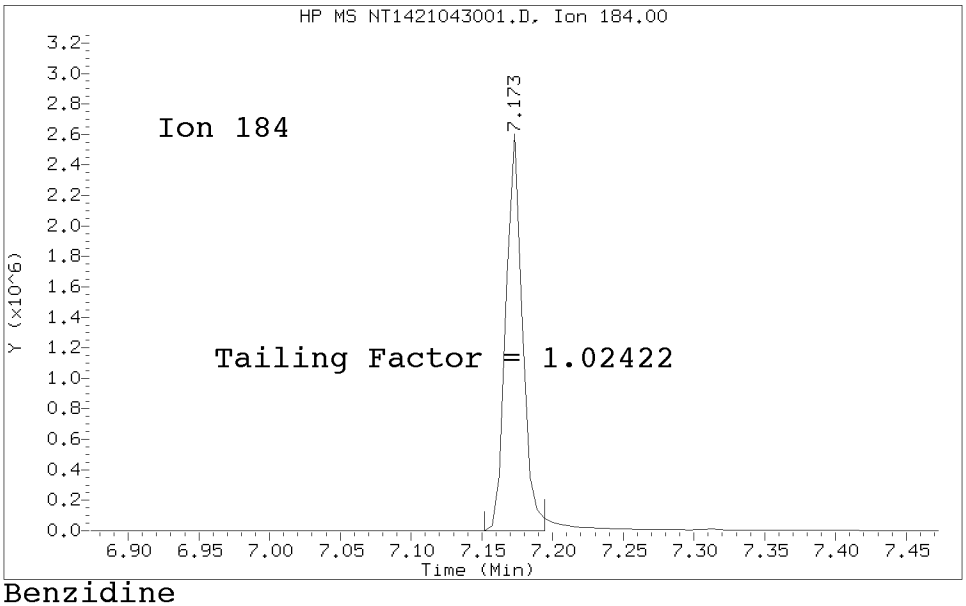



Datafile Analyzed: /20210430.b/NT1421043001.D/NT1421043001.D
Method Used: \20210430.b\DFTPP8270E.m\sw846ddt.m  Inst: nt14
Injection Date: 30-APR-2021 07:42  Operator: JZ
Sample Info:  SJD0305-TUN1
Report Date: 05/01/2021 09:19




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

Tail Factor = 1.212  Maximum Allowed = 2.0




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

Tail Factor = 1.024  Maximum Allowed = 2.0

# 8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

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

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

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

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

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

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

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

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# INITIAL CALIBRATION DATA

## EPA 8270E-SIM

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

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

# INITIAL CALIBRATION DATA

## EPA 8270E-SIM

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

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RRF | | RRF | | RRF | | RRF | | RRF | | RRF |
| Dibenzo(a,h)anthracene | 10 | 0.900195 | 50 | 0.6652844 | 100 | 0.7786969 | 250 | 0.9218947 | 500 | 0.9833981 | 1000 | 1.01565 |
| Benzo(g,h,i)perylene | 10 | 1.320816 | 50 | 0.9583396 | 100 | 1.075226 | 250 | 1.049342 | 500 | 1.121641 | 1000 | 1.098418 |
| Benzo(b)thiophene | 10 | 1.019824 | 50 | 0.898906 | 100 | 0.920506 | 250 | 0.9096465 | 500 | 0.8931667 | 1000 | 0.8546992 |
| 2-Methylnaphthalene-d10 | 10 | 0.9029176 | 50 | 0.7864943 | 100 | 0.7919638 | 250 | 0.7913808 | 500 | 0.7899229 | 1000 | 0.7624283 |
| Dibenzo[a,h]anthracene-d14 | 10 | 0.6264958 | 50 | 0.5491311 | 100 | 0.5924731 | 250 | 0.785253 | 500 | 0.8175077 | 1000 | 0.8503878 |
| Fluoranthene-d10 | 10 | 1.155991 | 50 | 1.05095 | 100 | 1.079208 | 250 | 1.02859 | 500 | 1.010169 | 1000 | 0.9664667 |

# INITIAL CALIBRATION DATA

## EPA 8270E-SIM

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

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

# INITIAL CALIBRATION DATA

## EPA 8270E-SIM

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

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

Printed: 8/28/2020 9:29:05AM

# ANALYSIS SEQUENCE

**SIH0304**

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

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

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

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

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

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

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

Security Status Report

Date: 28-Aug-2020 09:31

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

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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

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

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

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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

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

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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

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

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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

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

# ARI Labs, Inc.
## RETENTION TIME SUMMARY REPORT

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

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

| | Compound | RT01 | RT02 | RT03 | RT04 | RT05 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|
| * | 1 Naphthalene-d8 | 6.813 | 6.804 | 6.804 | 6.804 | 6.804 | 6.804 | 6.604-7.004 | 6.806 | 0.004 |
| | 2 Naphthalene | 6.840 | 6.840 | 6.840 | 6.840 | 6.840 | 6.840 | 6.640-7.040 | 6.840 | 0.000 |
| | 3 Benzo(b)thiophene | 7.094 | 7.093 | 7.093 | 7.093 | 7.093 | 7.093 | 6.893-7.293 | 7.093 | 0.000 |
| $ | 4 2-Methylnaphthalene-d1 | 7.781 | 7.781 | 7.781 | 7.781 | 7.781 | 7.781 | 7.581-7.981 | 7.781 | 0.000 |
| | 5 2-Methylnaphthalene | 7.833 | 7.833 | 7.833 | 7.833 | 7.833 | 7.833 | 7.633-8.033 | 7.833 | 0.000 |
| | 6 1-Methylnaphthalene | 8.086 | 8.085 | 8.085 | 8.085 | 8.085 | 8.085 | 7.885-8.285 | 8.085 | 0.000 |
| | 7 2-Chloronaphthalene | 8.737 | 8.737 | 8.737 | 8.737 | 8.737 | 8.737 | 8.537-8.937 | 8.737 | 0.000 |
| | 8 Biphenyl | 8.705 | 8.705 | 8.705 | 8.705 | 8.705 | 8.705 | 8.505-8.905 | 8.705 | 0.000 |
| | 9 2,6-Dimethylnaphthalen | 8.758 | 8.758 | 8.758 | 8.758 | 8.758 | 8.758 | 8.558-8.958 | 8.758 | 0.000 |
| | 10 Acenaphthylene | 9.654 | 9.654 | 9.654 | 9.654 | 9.654 | 9.654 | 9.454-9.854 | 9.654 | 0.000 |
| * | 11 Acenaphthene-d10 | 9.807 | 9.807 | 9.807 | 9.807 | 9.807 | 9.807 | 9.607-10.007 | 9.807 | 0.000 |
| | 12 Acenaphthene | 9.871 | 9.871 | 9.871 | 9.871 | 9.871 | 9.871 | 9.671-10.071 | 9.871 | 0.000 |
| | 13 Dibenzofuran | 10.075 | 10.075 | 10.075 | 10.075 | 10.075 | 10.075 | 9.875-10.275 | 10.075 | 0.000 |
| | 14 2,3,5-Trimethylnaphtha | 10.176 | 10.176 | 10.176 | 10.176 | 10.163 | 10.176 | 9.976-10.376 | 10.173 | 0.006 |
| $ | 15 Fluorene-d10 | +++++ | +++++ | +++++ | +++++ | +++++ | 16.449 | 16.249-16.649 | +++++ | +++++ |
| | 16 Fluorene | 10.694 | 10.694 | 10.694 | 10.694 | 10.694 | 10.694 | 10.494-10.894 | 10.694 | 0.000 |
| | 17 Dibenzothiophene | 12.314 | 12.304 | 12.304 | 12.304 | 12.303 | 12.304 | 12.104-12.504 | 12.306 | 0.005 |

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

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

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

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

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

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

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

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

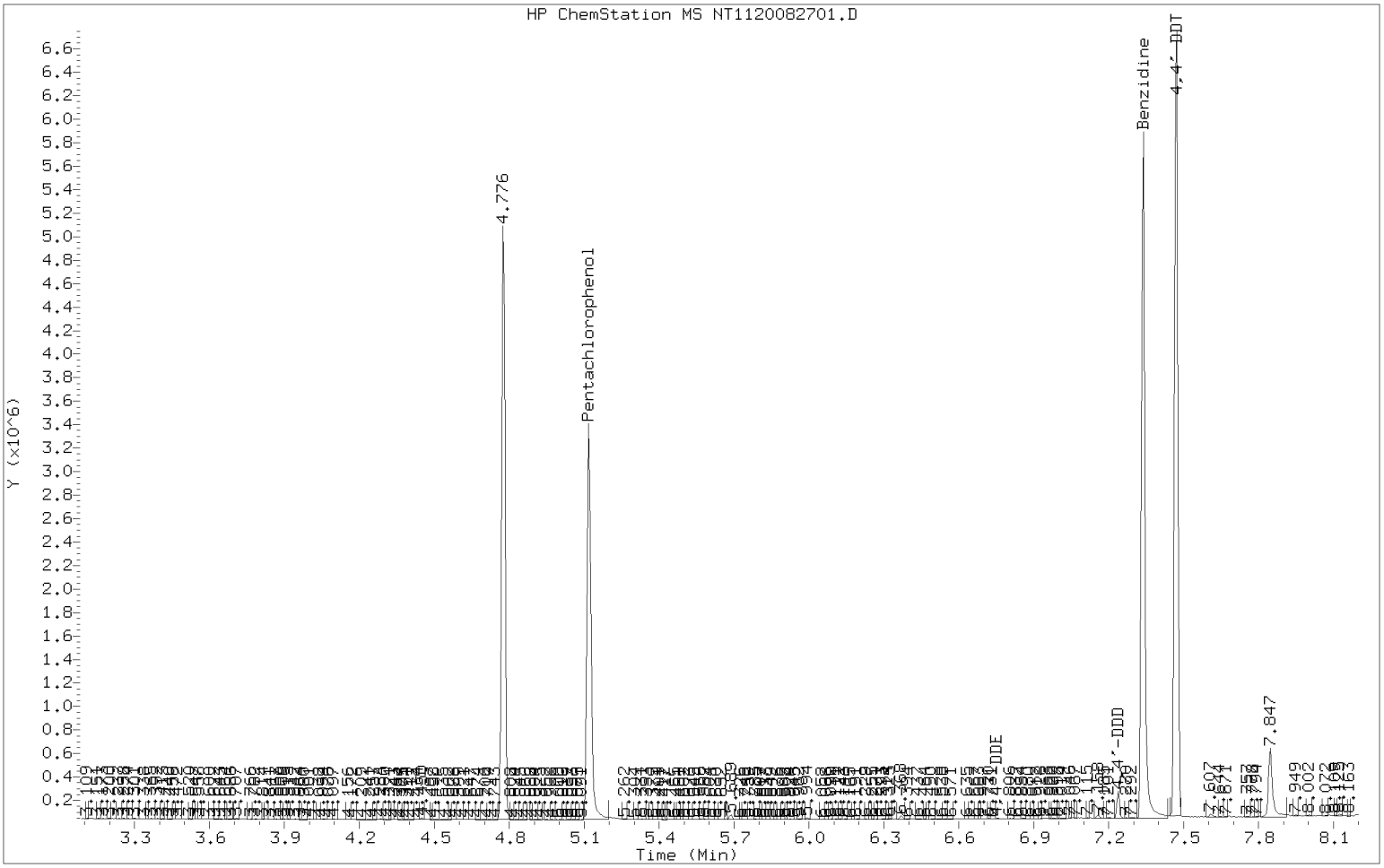
ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

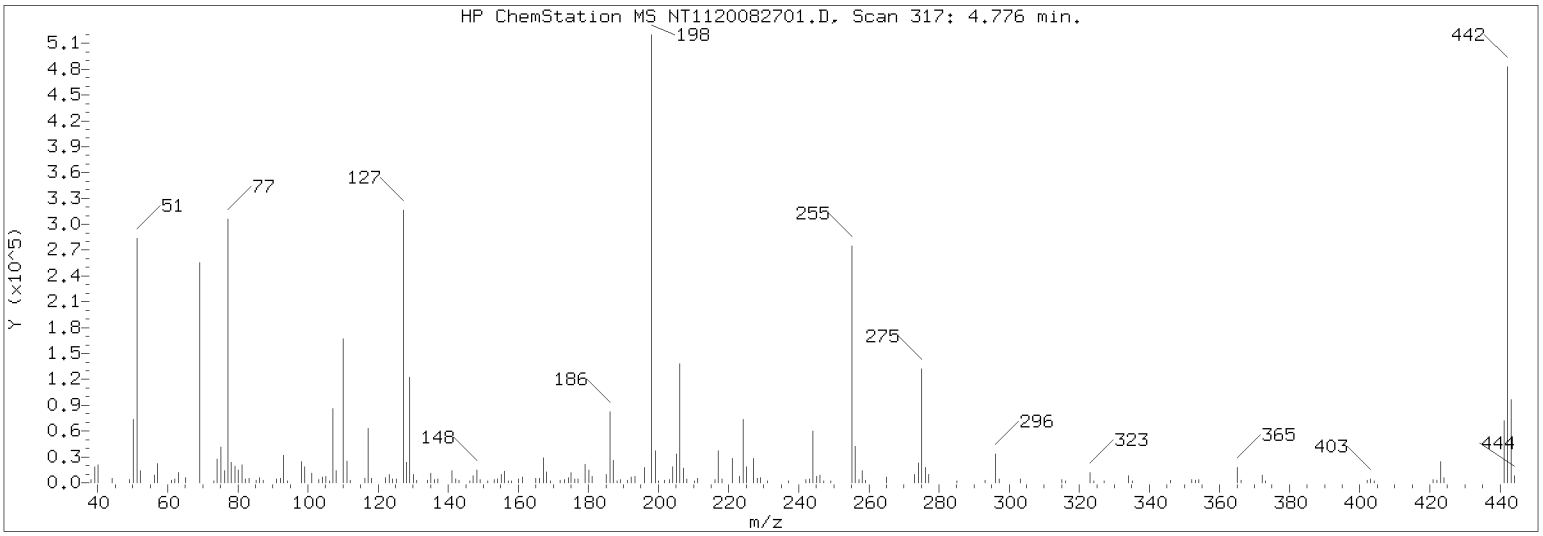
Method File: \\target\share\chem3\nt11.i\20200827.b\LOWSIM.m
Batch File: \\target\share\chem3\nt11.i\20200827.b
Inst ID: nt11.i

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

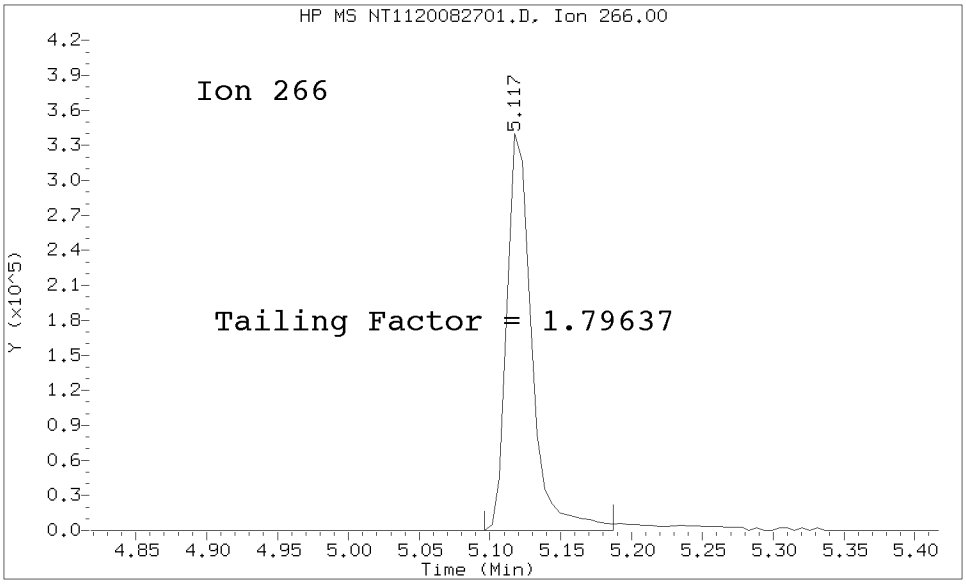
# DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

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



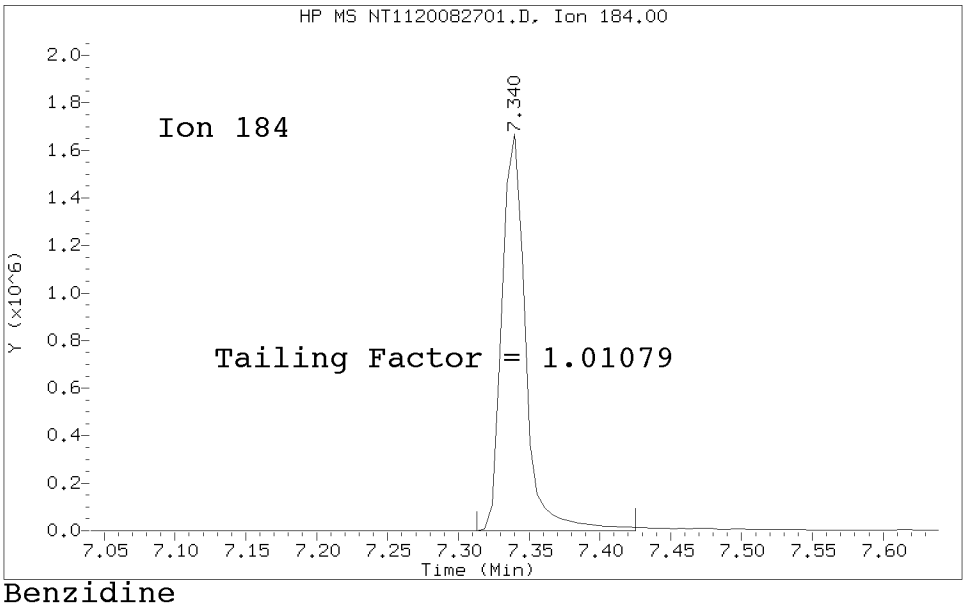



Datafile Analyzed: /20200827.b/NT1120082701.D/NT1120082701.D
Method Used: \20200827.b\DFTPP8270E.m\sw846ddt.m  Inst: nt11
Injection Date: 27-AUG-2020 12:20  Operator: JZ
Sample Info:  SIH0304-TUN1
Report Date: 08/28/2020 09:13




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

Tail Factor = 1.796  Maximum Allowed = 2.0




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

Tail Factor = 1.011  Maximum Allowed = 2.0

# 8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

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

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

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

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

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

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

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

Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082702.D

Date : 27-AUG-2020 12:35

Client ID:

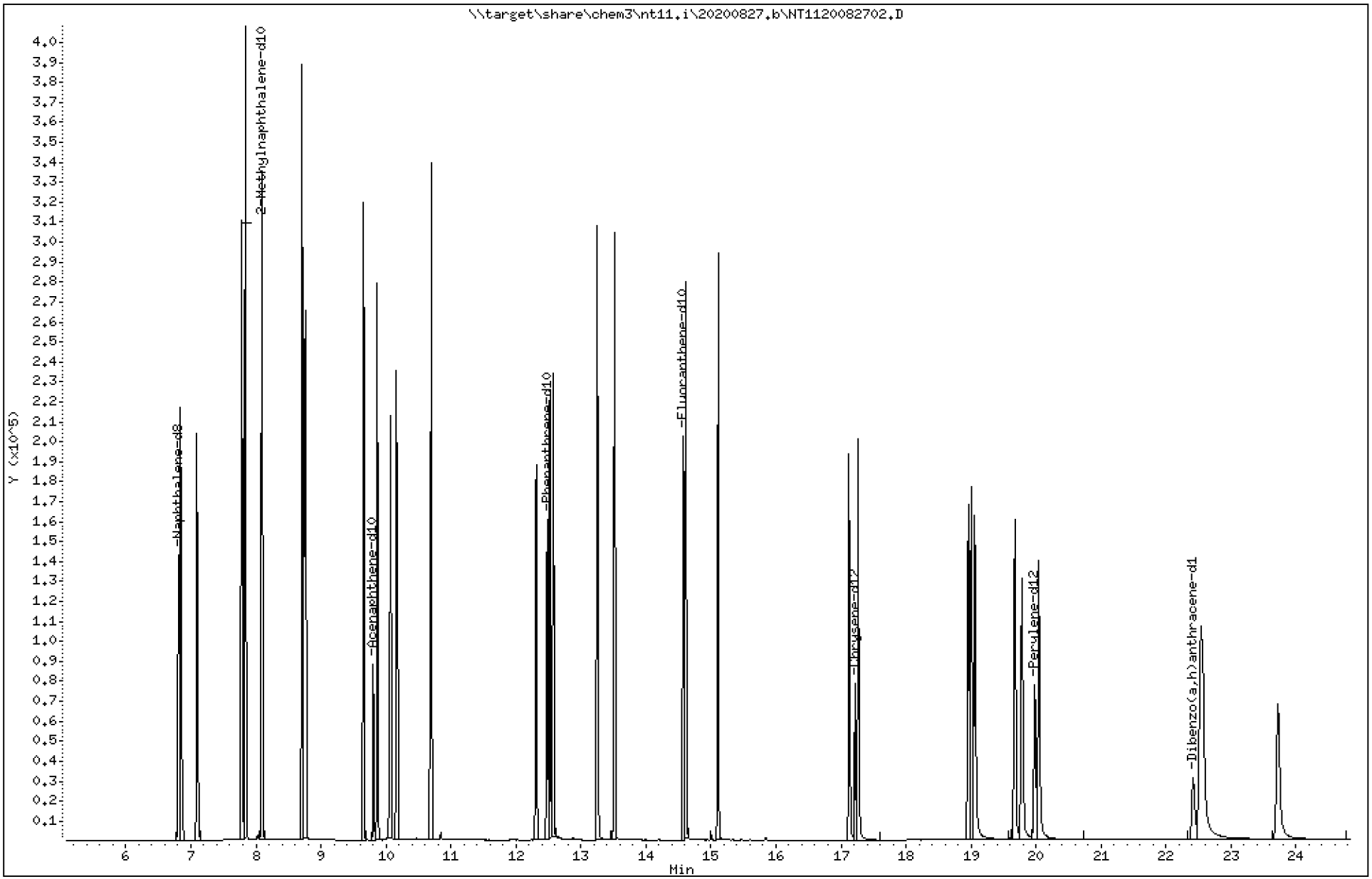
Sample Info: SIH0304-CAL4

Column phase: Rxi-17Sil MS

Instrument: nt11.i

Operator: VTS

Column diameter: 0.25

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ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

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

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

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1120082702.D
Lab Smp Id: SIH0304-CAL4
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Misc Info:

Calibration Date: 27-AUG-2020
Calibration Time: 12:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1120082702.D

Lab ID: SIH0304-CAL4
nt11.i,  20200827.b\lowsim.m,    27-AUG-2020 12:35

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

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

NONE

RRT check based on Ccal File: NT1120082704.D

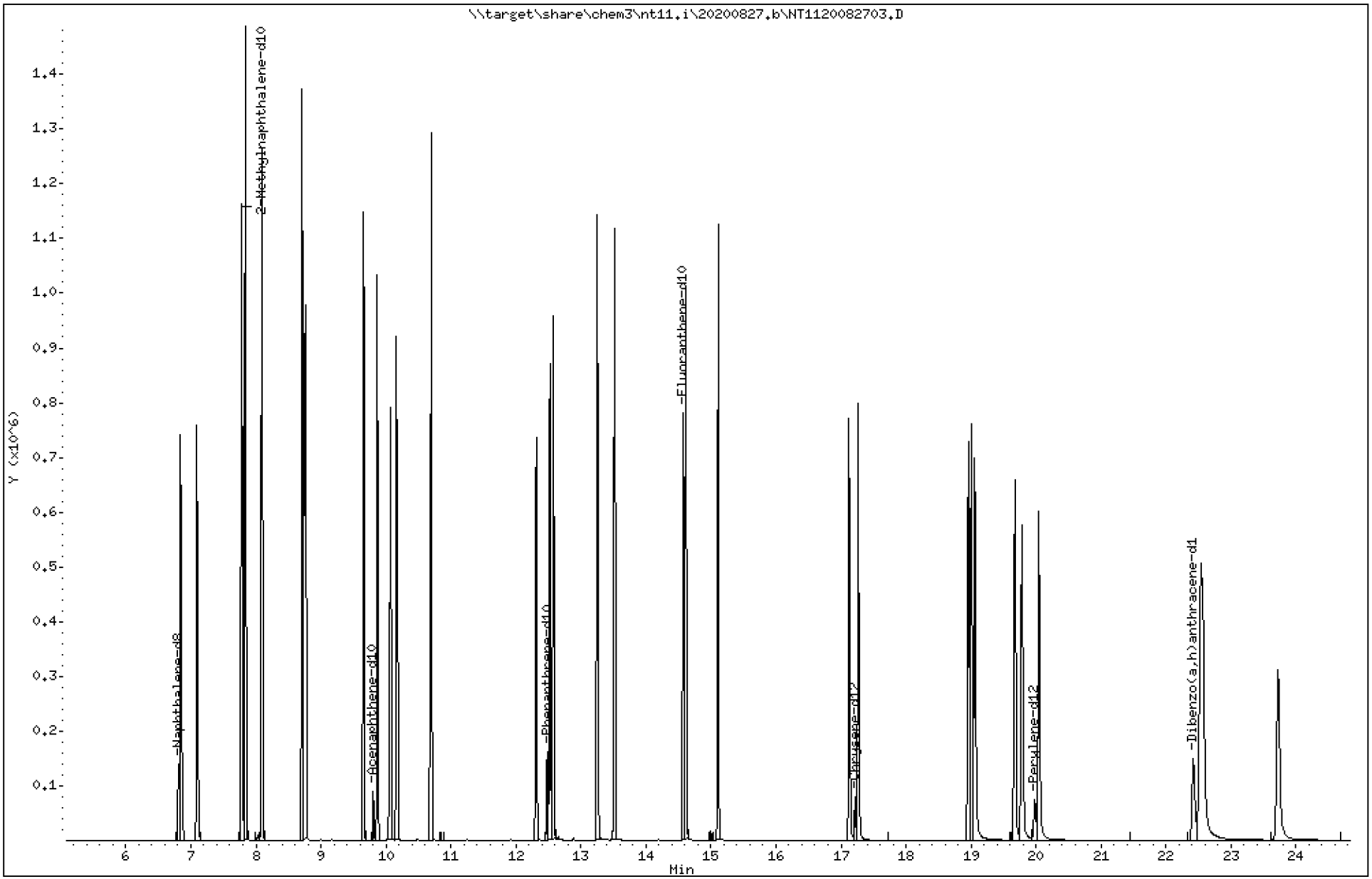
On Column LOD for nt11.i, 20200827.b\lowsim.m, PAH.sub = 0.0000

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

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

Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082703.D
Date : 27-AUG-2020 13:07
Client ID:
Sample Info: SIH0304-CAL6

Instrument: nt11.i
Operator: VTS
Column phase: Rxi-17Sil MS
Column diameter: 0.25

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ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

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

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

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

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1120082703.D
Lab Smp Id: SIH0304-CAL6
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20200827.b\LOWSIM.m
Misc Info:

Calibration Date: 27-AUG-2020
Calibration Time: 12:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1120082703.D

Lab ID: SIH0304-CAL6
nt11.i,  20200827.b\LOWSIM.m,    27-AUG-2020 13:07

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

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

NONE

RRT check based on Ccal File: NT1120082704.D

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

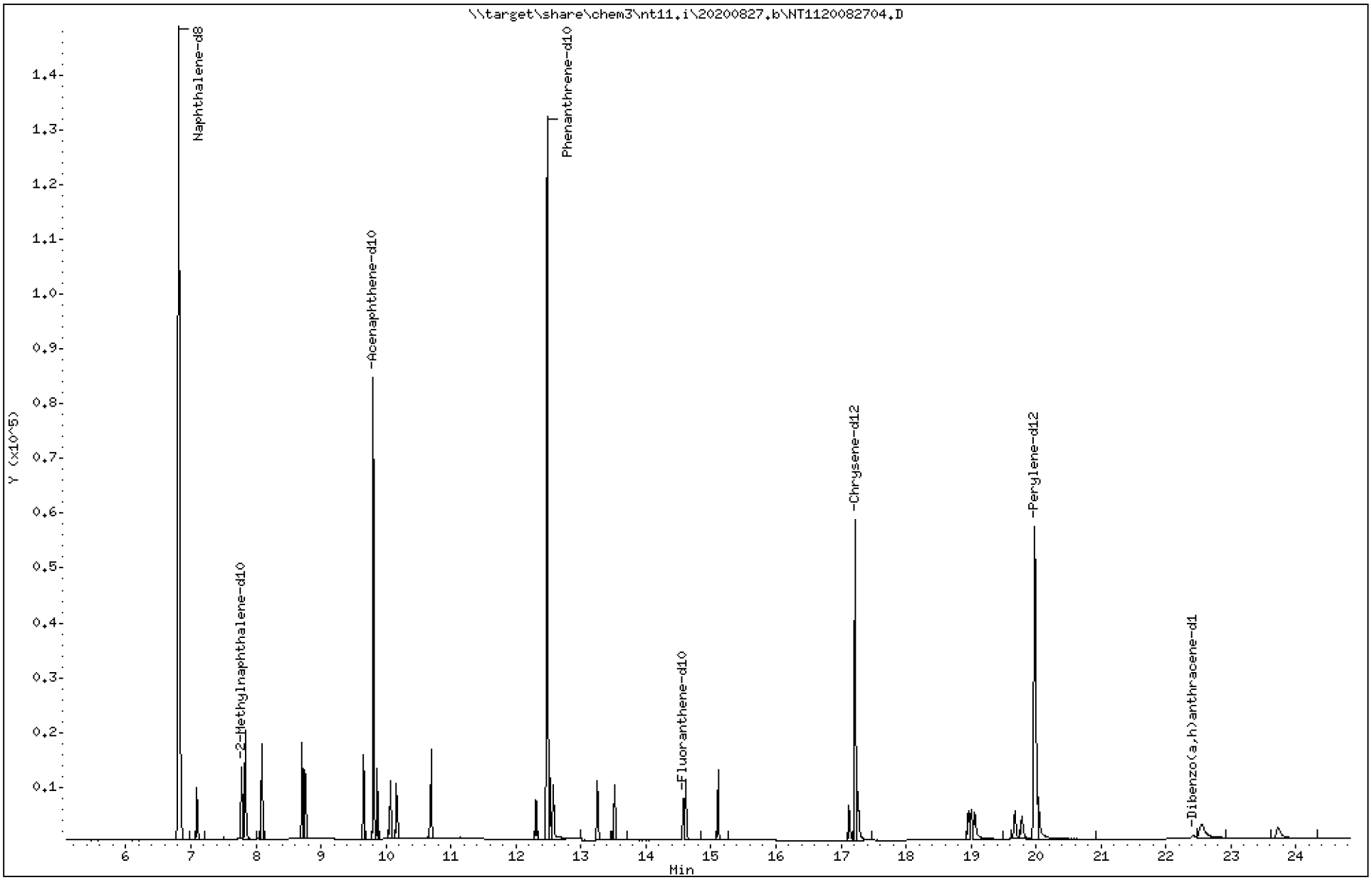
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000

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

Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082704.D
Date : 27-AUG-2020 13:38
Client ID:
Sample Info: SIH0304-CAL1

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS

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ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

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

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

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

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1120082704.D
Lab Smp Id: SIH0304-CAL1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Misc Info:

Calibration Date: 27-AUG-2020
Calibration Time: 12:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1120082704.D

Lab ID: SIH0304-CAL1
nt11.i,  20200827.b\lowsim.m,    27-AUG-2020 13:38

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

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

NONE

RRT check based on Ccal File: NT1120082704.D

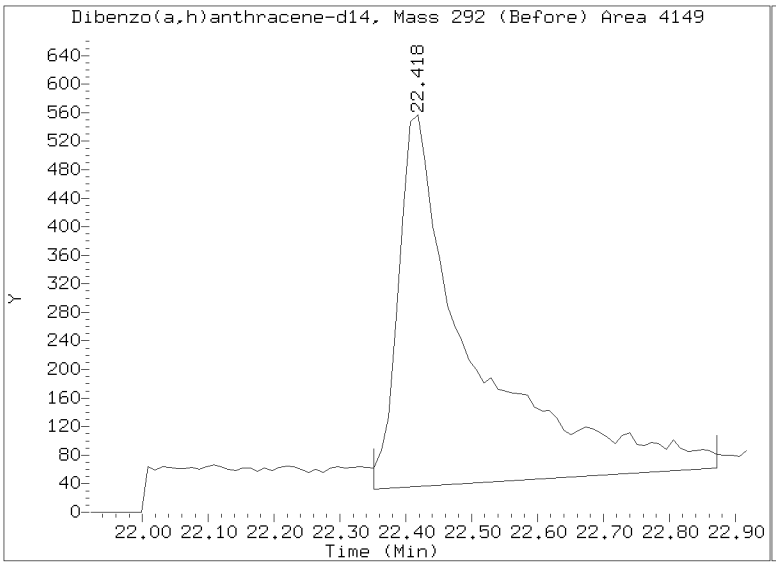
On Column LOD for nt11.i, 20200827.b\lowsim.m, PAH.sub = 0.0000

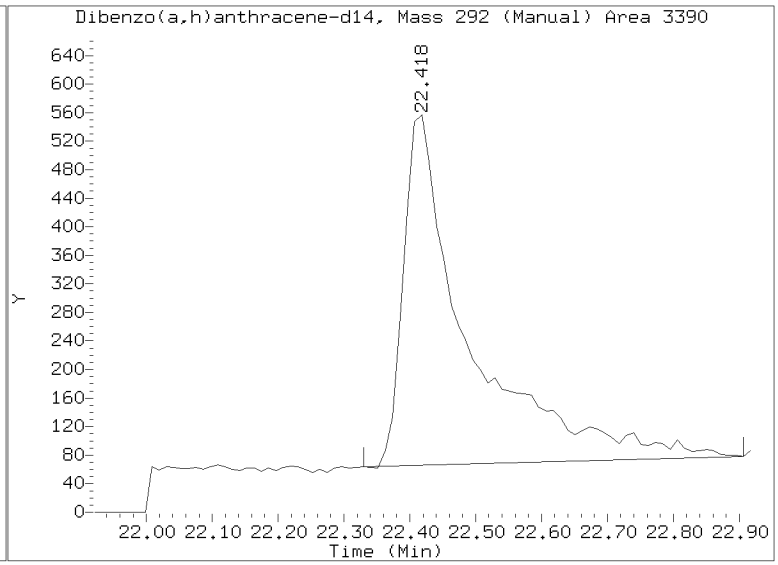
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000

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

# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20200827.b/NT1120082704.D
Injection Date: 27-AUG-2020 13:38
Lab ID:SIH0304-CAL1 Client ID:
Report Date: 08/28/2020 09:10



Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082705.D

Date : 27-AUG-2020 14:08

Client ID:

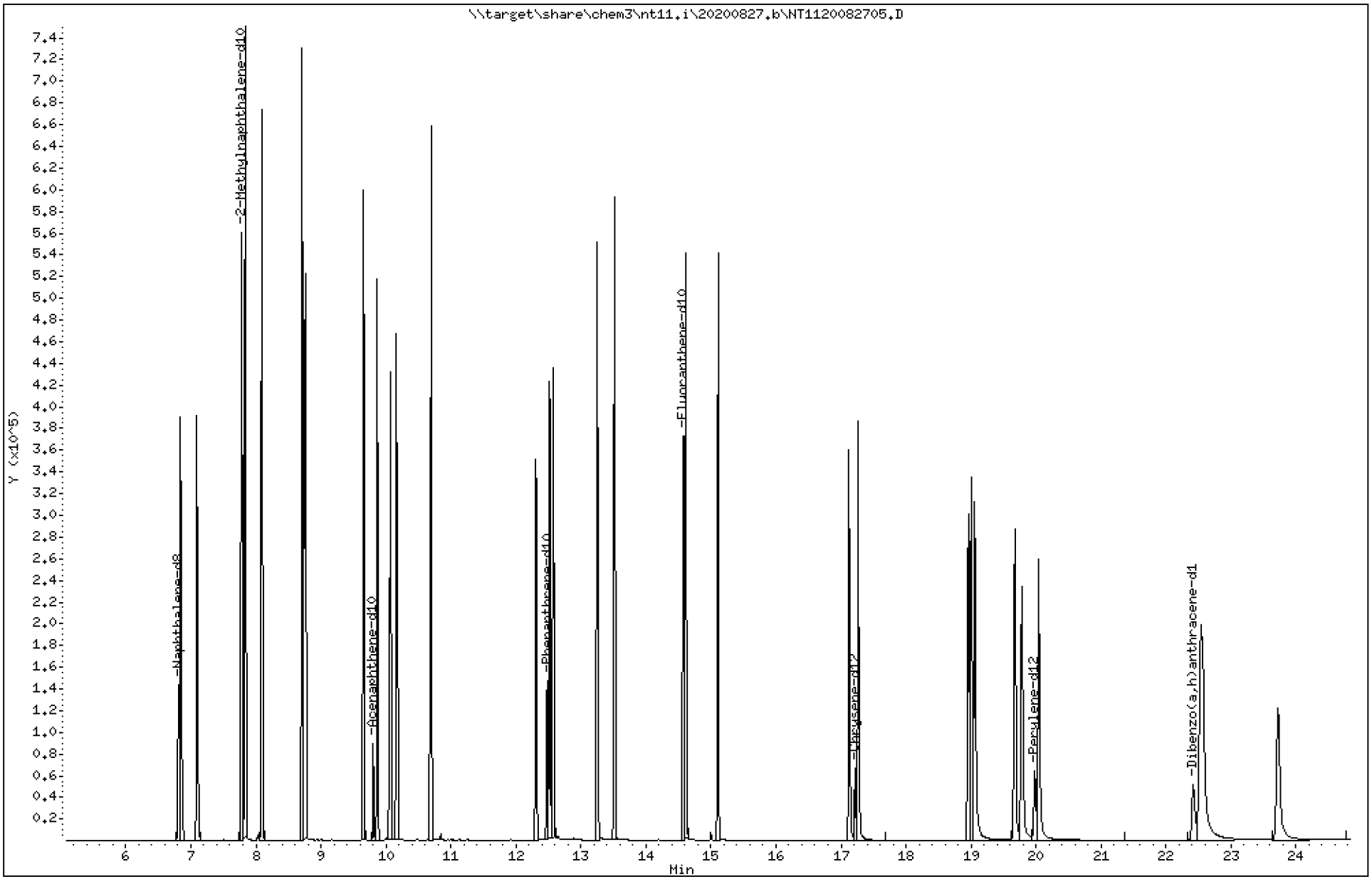
Sample Info: SIH0304-CAL5

Column phase: Rxi-17Sil MS

Instrument: nt11.i

Operator: VTS

Column diameter: 0.25

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ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

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

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

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1120082705.D
Lab Smp Id: SIH0304-CAL5
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Misc Info:

Calibration Date: 27-AUG-2020
Calibration Time: 12:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1120082705.D

Lab ID: SIH0304-CAL5
nt11.i,  20200827.b\lowsim.m,    27-AUG-2020 14:08

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

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

NONE

RRT check based on Ccal File: NT1120082704.D

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

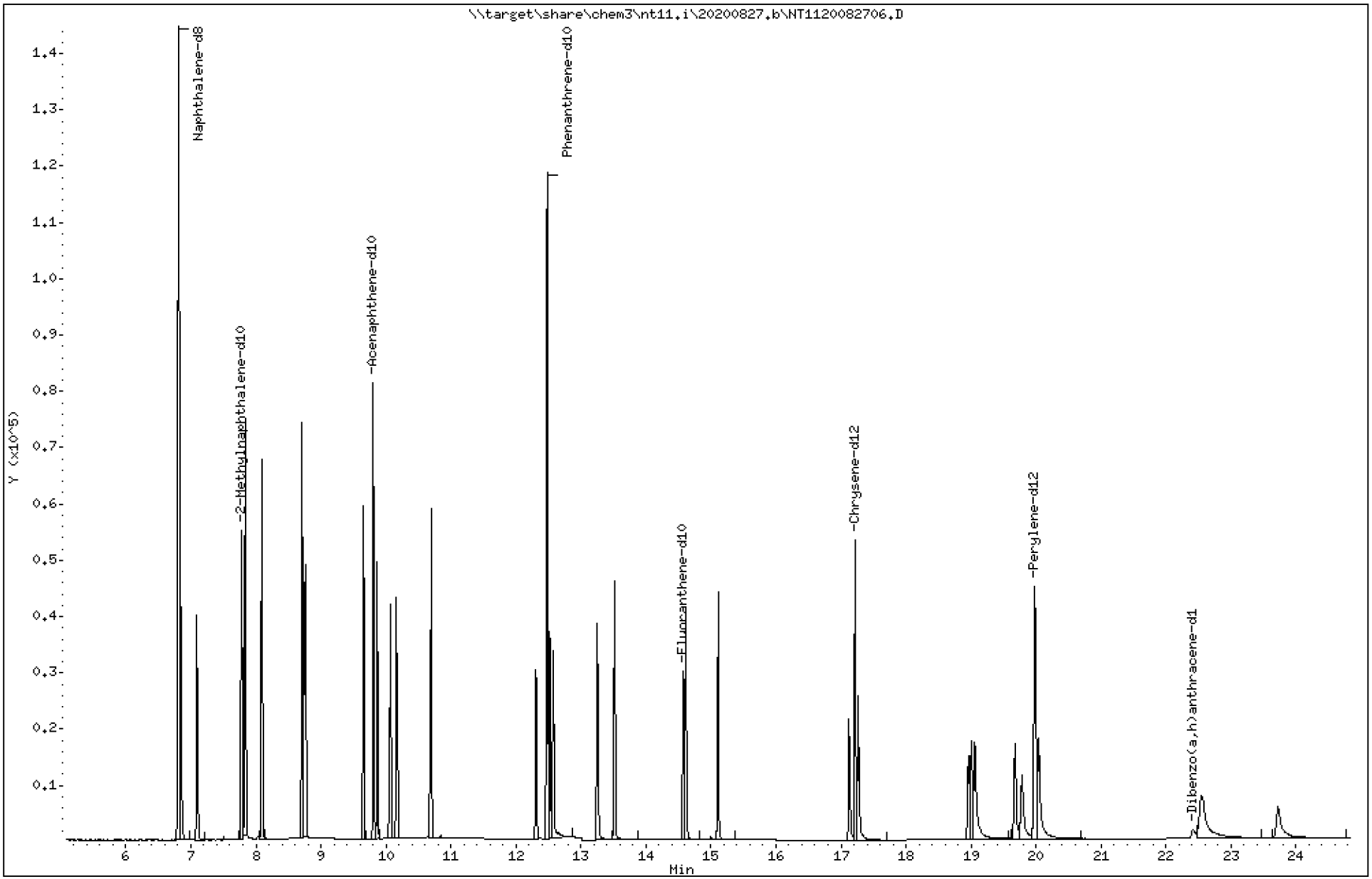
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000

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

Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082706.D
Date : 27-AUG-2020 14:38
Client ID:
Sample Info: SIH0304-CAL2

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS

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ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

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

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

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1120082706.D
Lab Smp Id: SIH0304-CAL2
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Misc Info:

Calibration Date: 27-AUG-2020
Calibration Time: 12:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1120082706.D

Lab ID: SIH0304-CAL2
nt11.i,  20200827.b\lowsim.m,    27-AUG-2020 14:38

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

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

NONE

RRT check based on Ccal File: NT1120082704.D

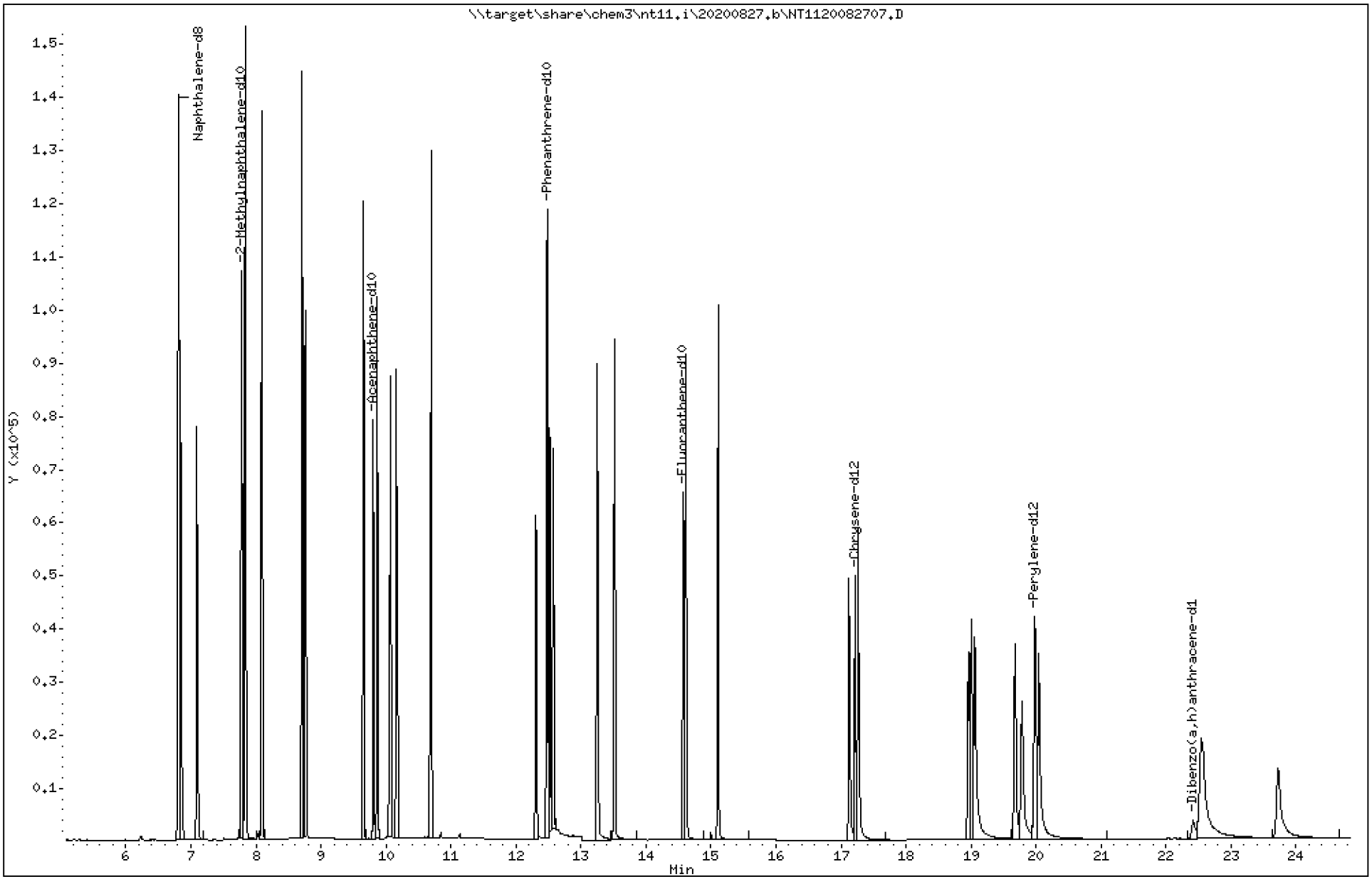
On Column LOD for nt11.i, 20200827.b\lowsim.m, PAH.sub = 0.0000

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

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

Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082707.D
Date : 27-AUG-2020 15:08
Client ID:
Sample Info: SIH0304-CAL3

Instrument: nt11.i
Operator: VTS
Column phase: Rxi-17Sil MS
Column diameter: 0.25

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ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

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

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

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1120082707.D
Lab Smp Id: SIH0304-CAL3
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Misc Info:

Calibration Date: 27-AUG-2020
Calibration Time: 12:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1120082707.D

Lab ID: SIH0304-CAL3
nt11.i,  20200827.b\lowsim.m,    27-AUG-2020 15:08

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

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

NONE

RRT check based on Ccal File: NT1120082704.D

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

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

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

Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D



Date : 27-AUG-2020 15:38

Client ID:

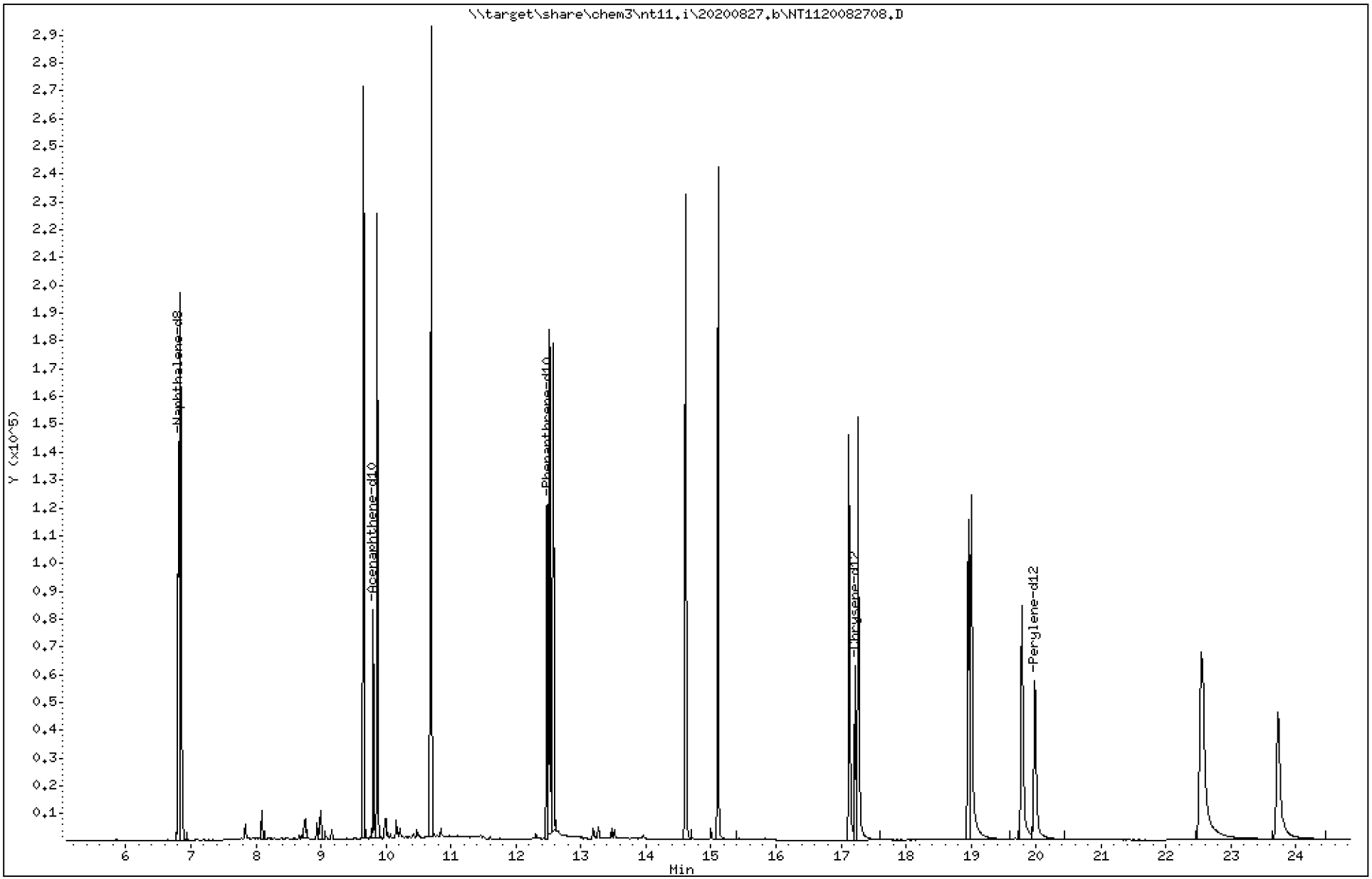
Instrument: nt11.i

Sample Info: SIH0304-SCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

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Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

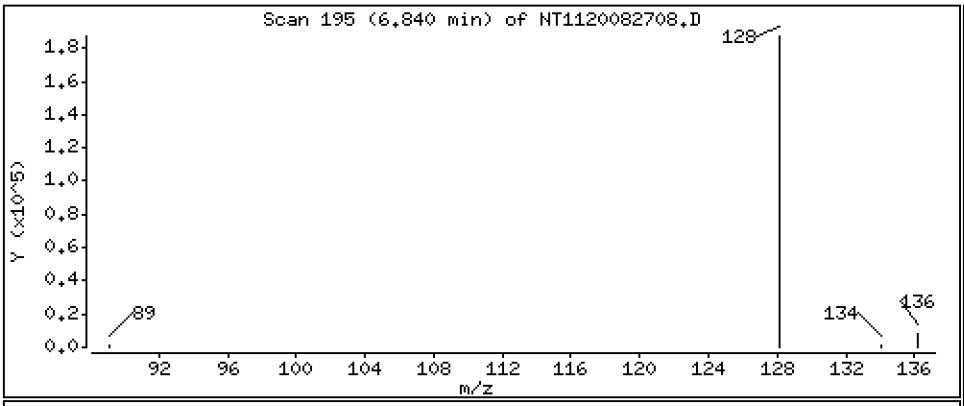
Operator: VTS

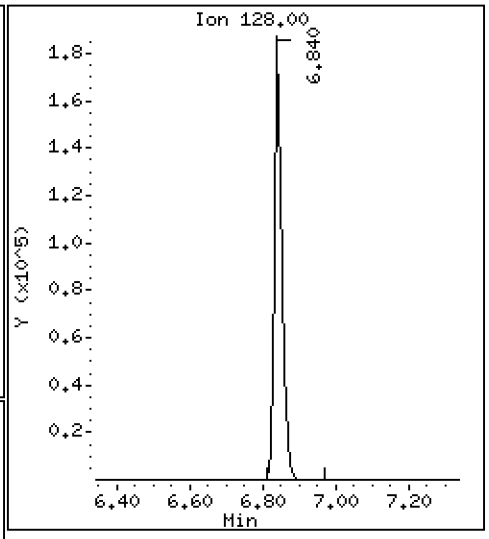
Column phase: Rxi-17Sil MS

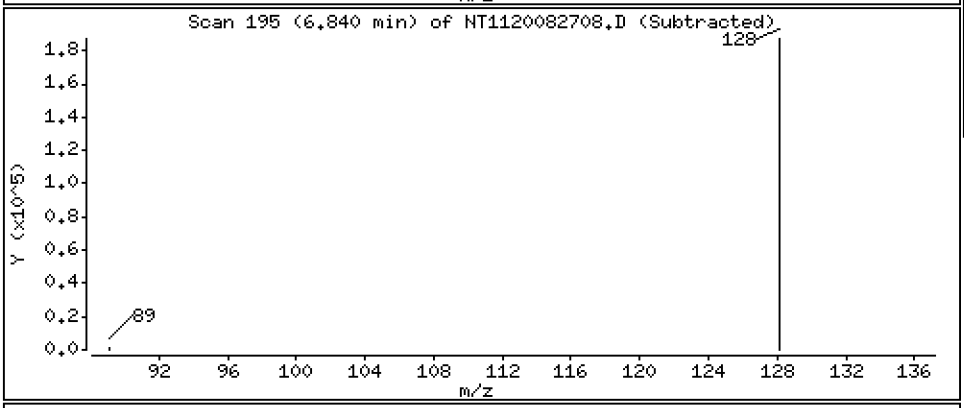
Column diameter: 0.25

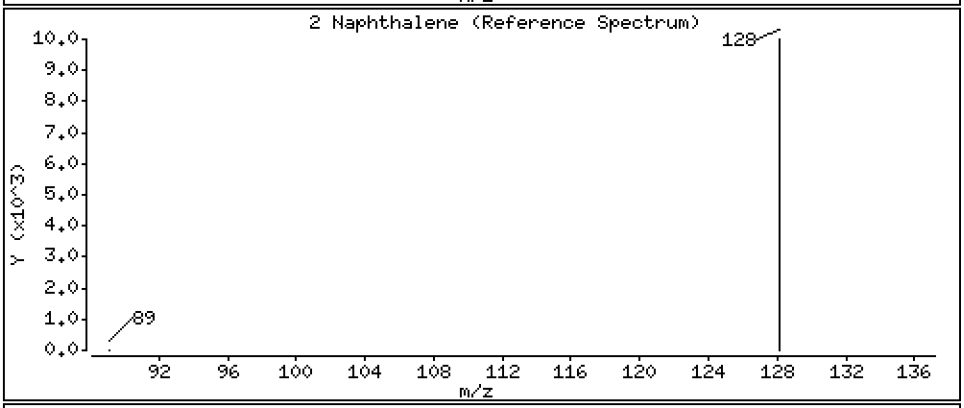
2 Naphthalene

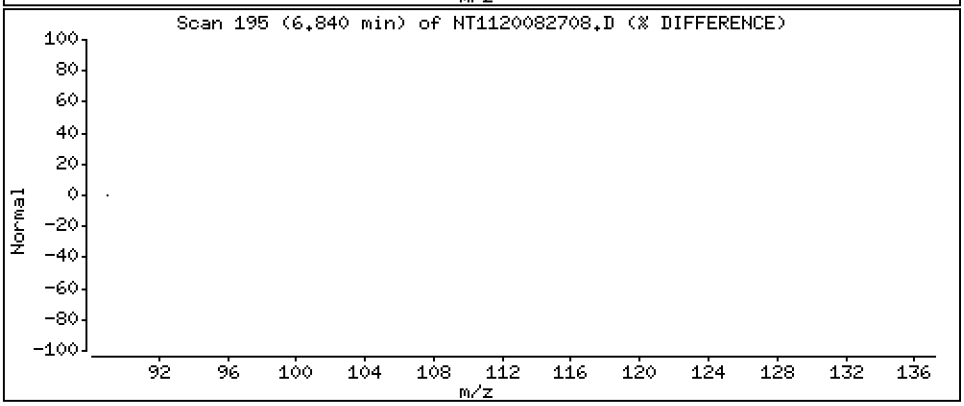
Concentration: 224 ng/mL



Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

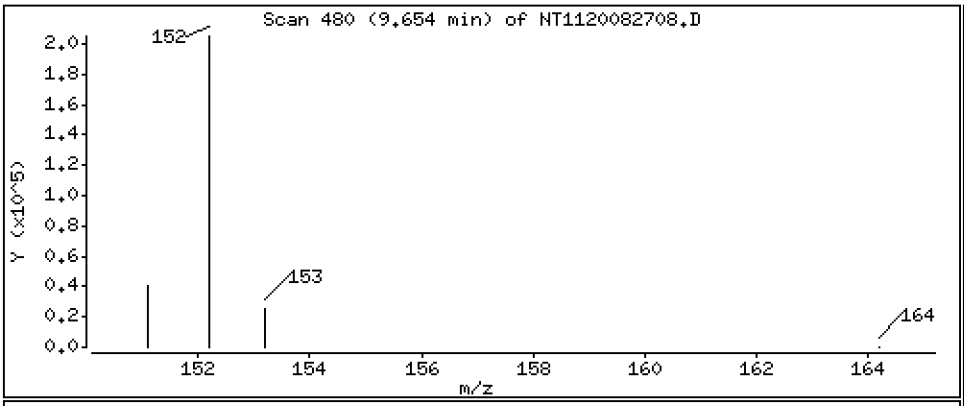
Operator: VTS

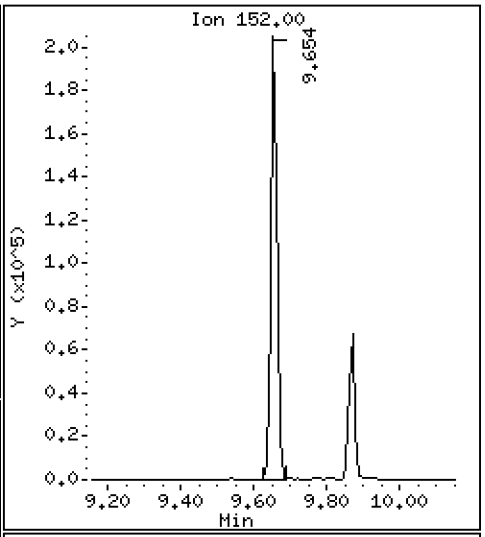
Column phase: Rxi-17Sil MS

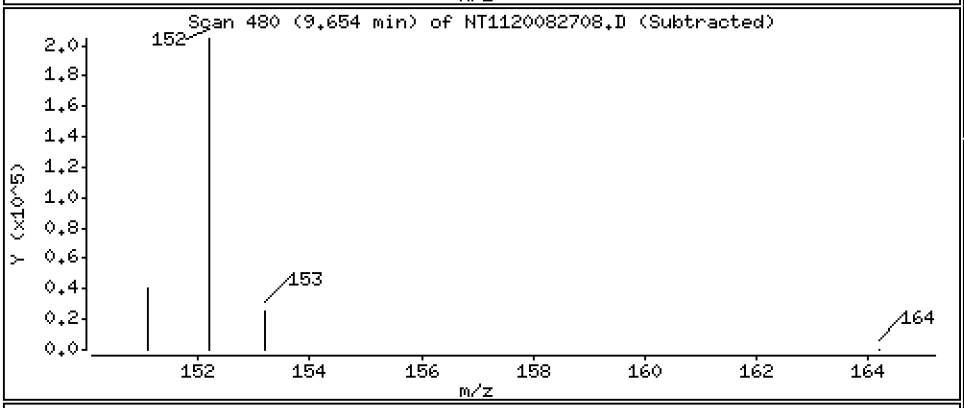
Column diameter: 0.25

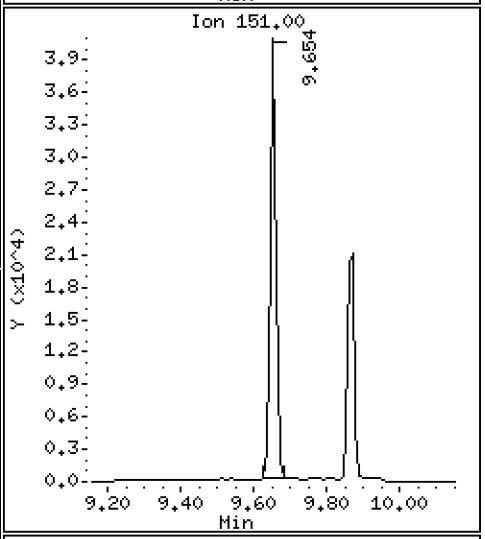
10 Acenaphthylene

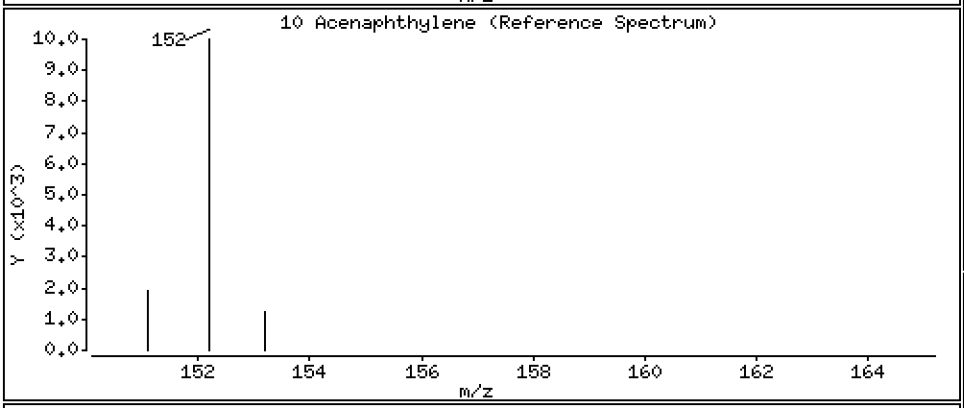
Concentration: 233 ng/mL

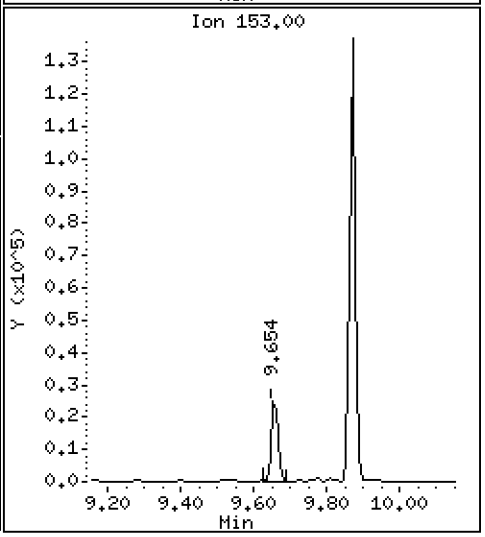


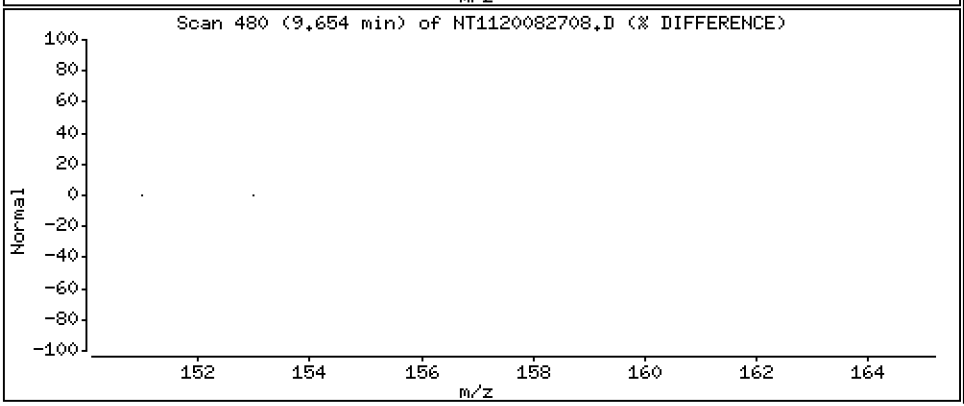



Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

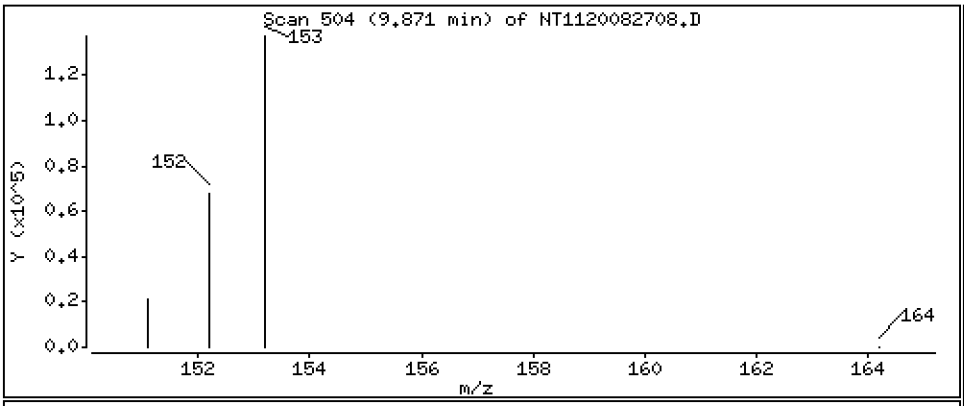
Operator: VTS

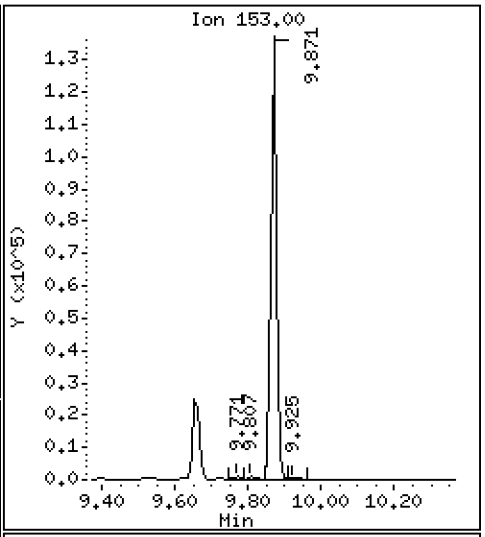
Column phase: Rxi-17Sil MS

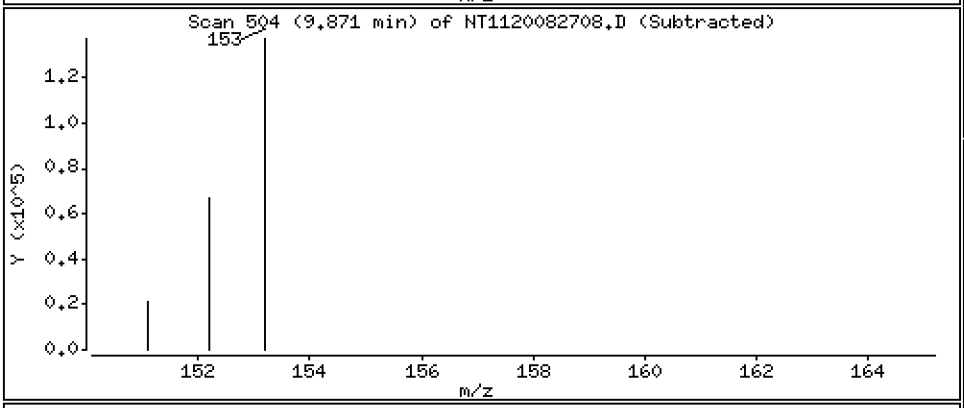
Column diameter: 0.25

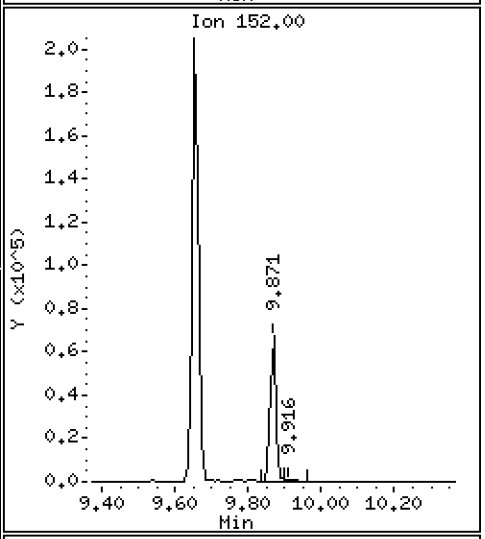
12 Acenaphthene

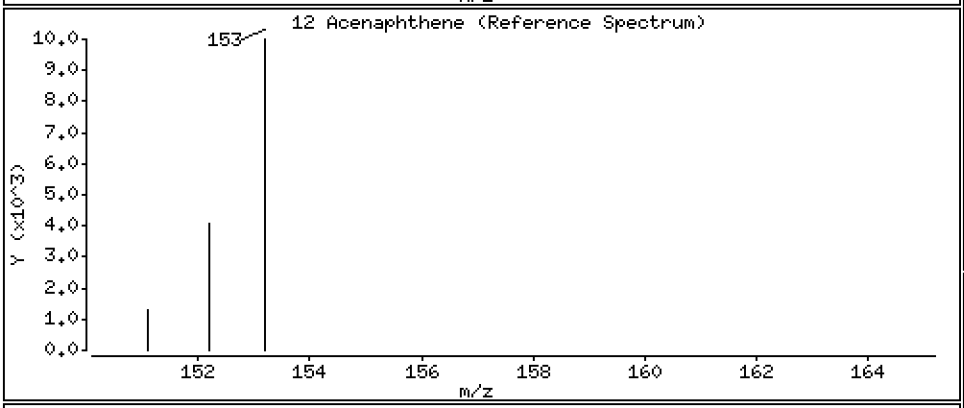
Concentration: 222 ng/mL

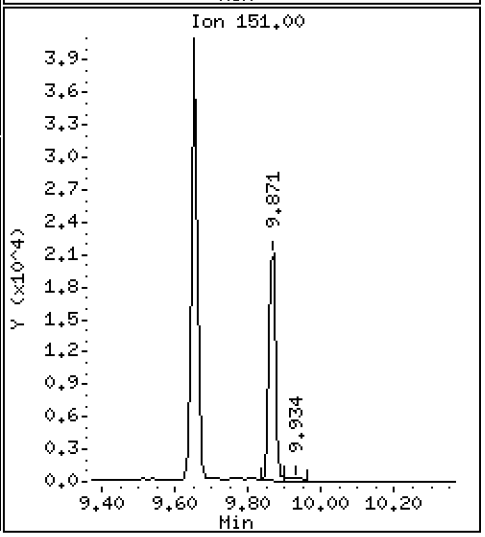


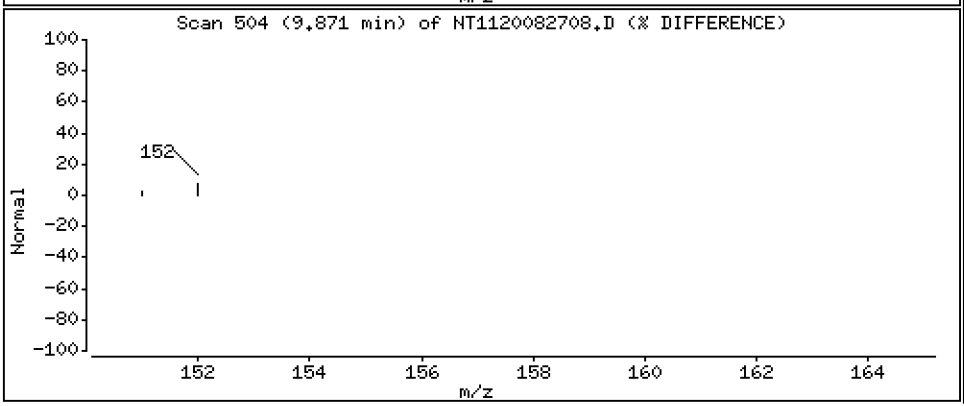



Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

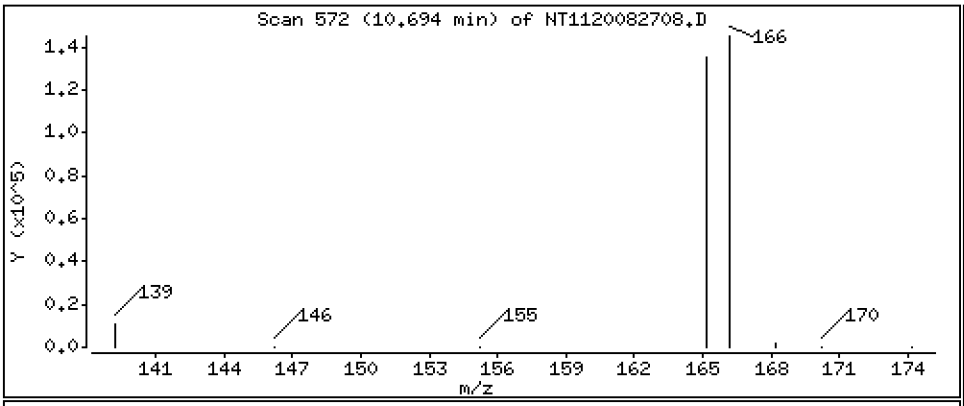
Operator: VTS

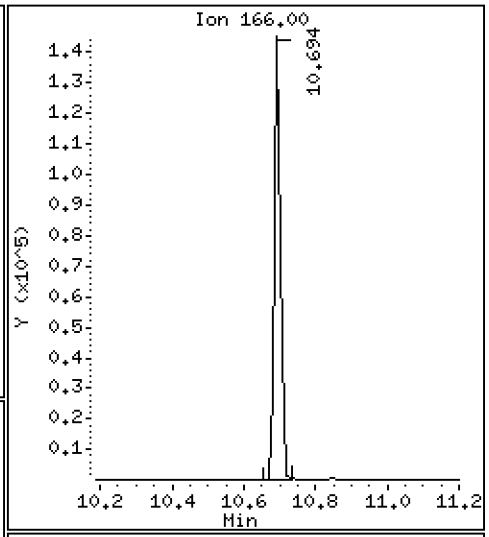
Column phase: Rxi-17Sil MS

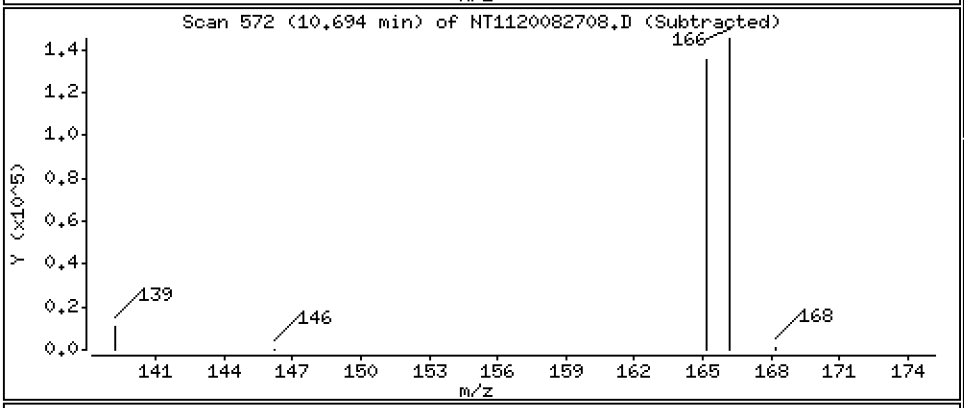
Column diameter: 0.25

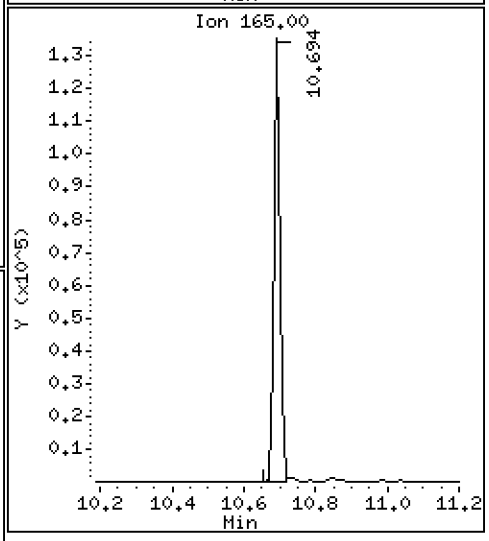
16 Fluorene

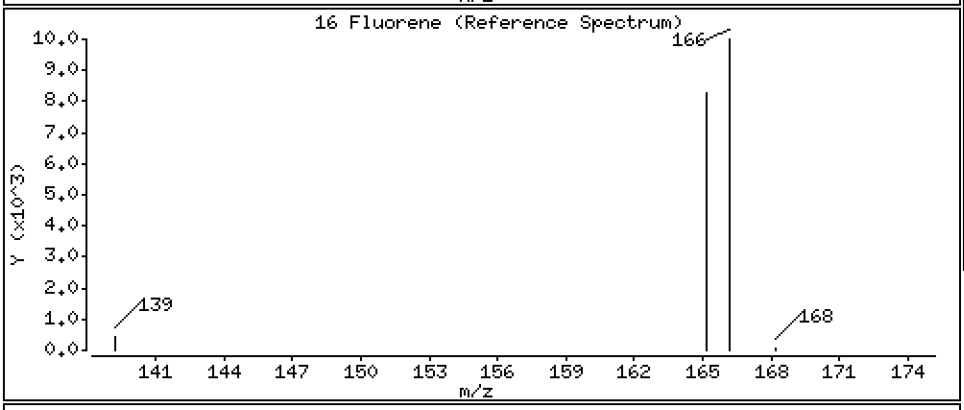
Concentration: 233 ng/mL

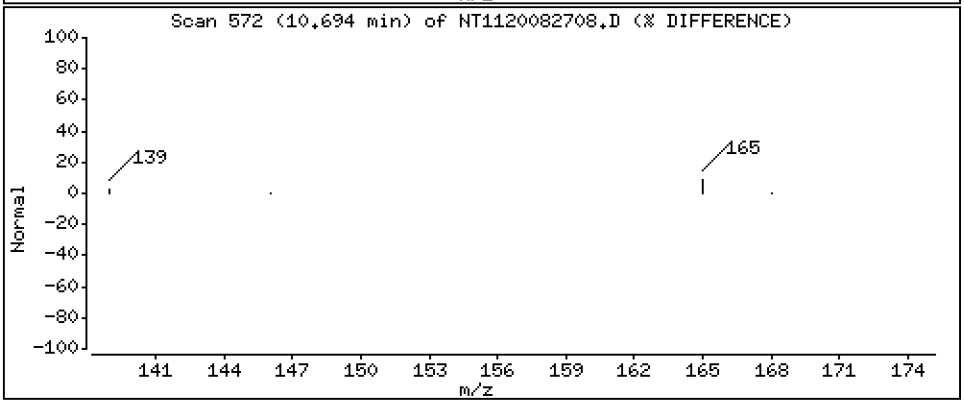


Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

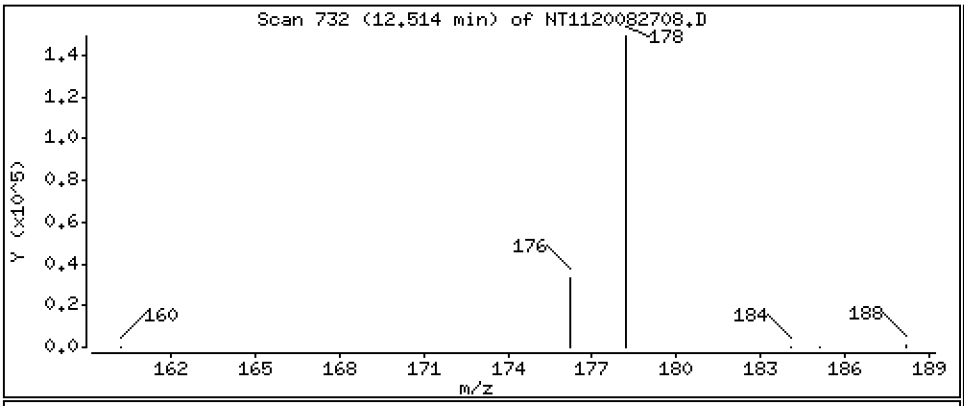
Operator: VTS

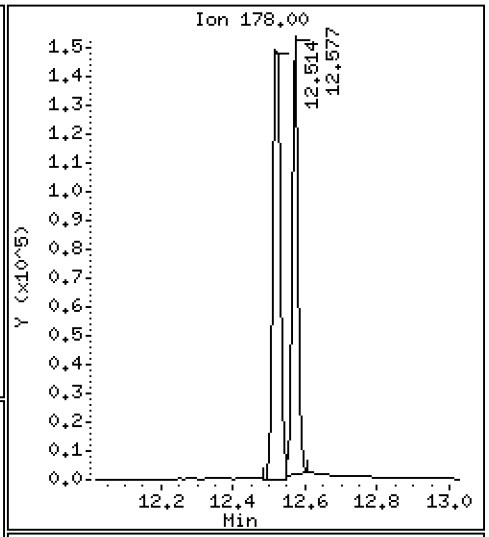
Column phase: Rxi-17Sil MS

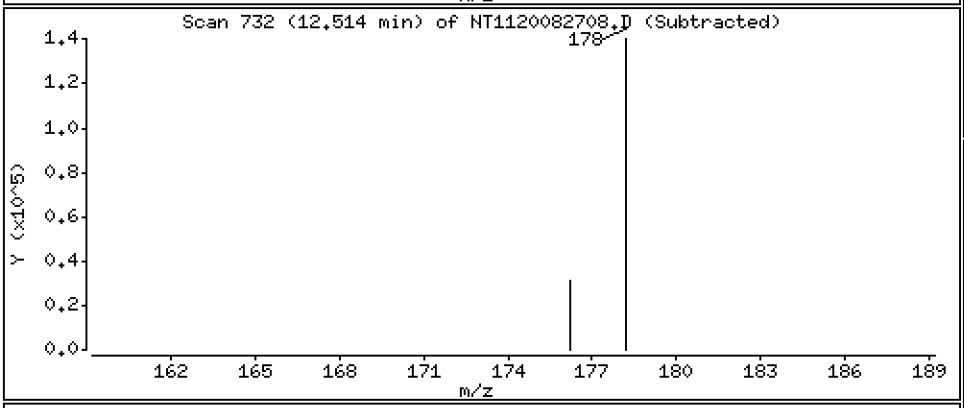
Column diameter: 0.25

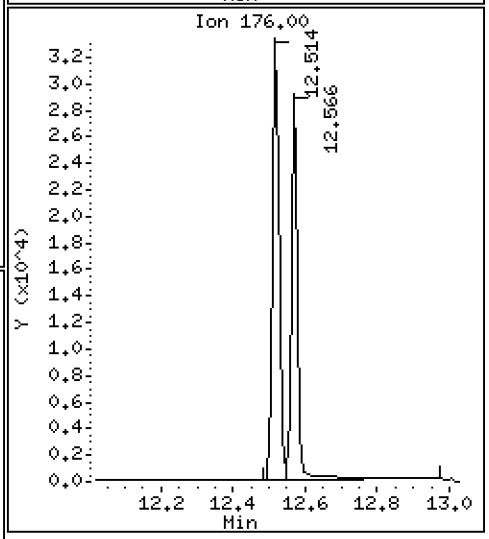
19 Phenanthrene

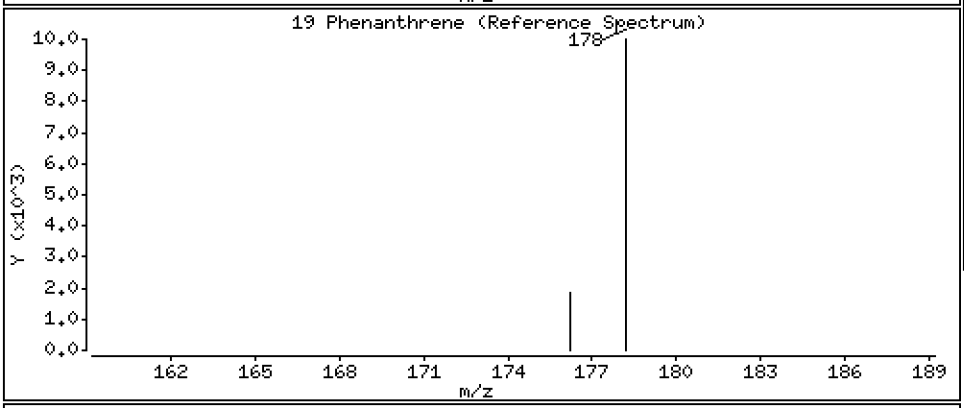
Concentration: 233 ng/mL

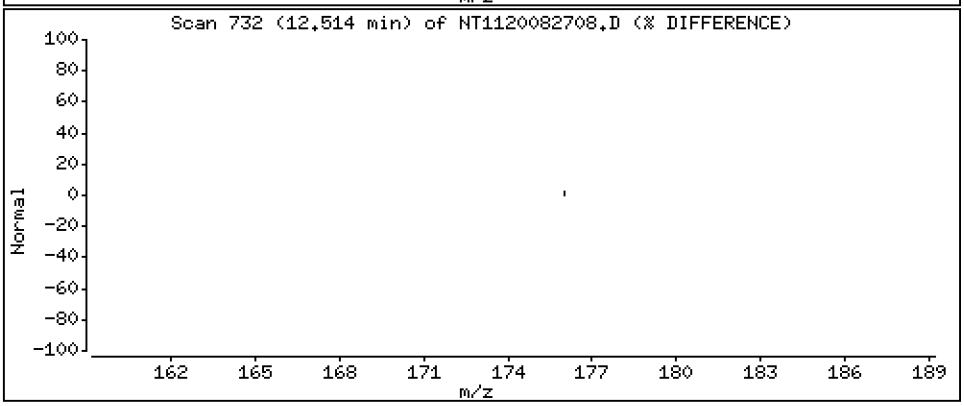


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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

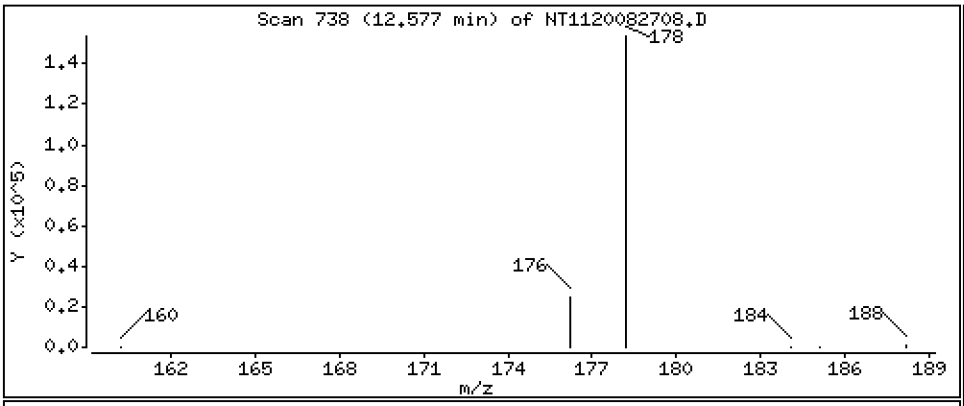
Operator: VTS

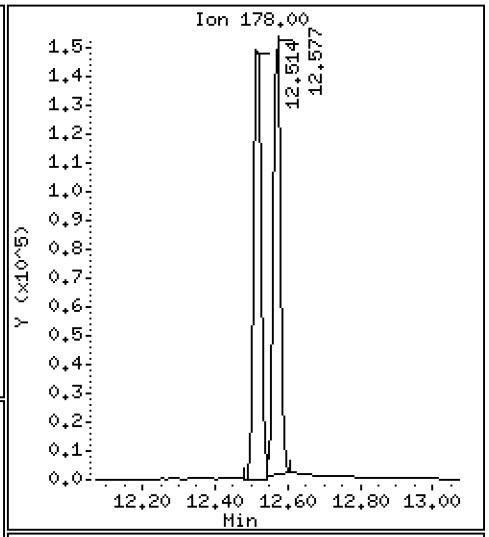
Column phase: Rxi-17Sil MS

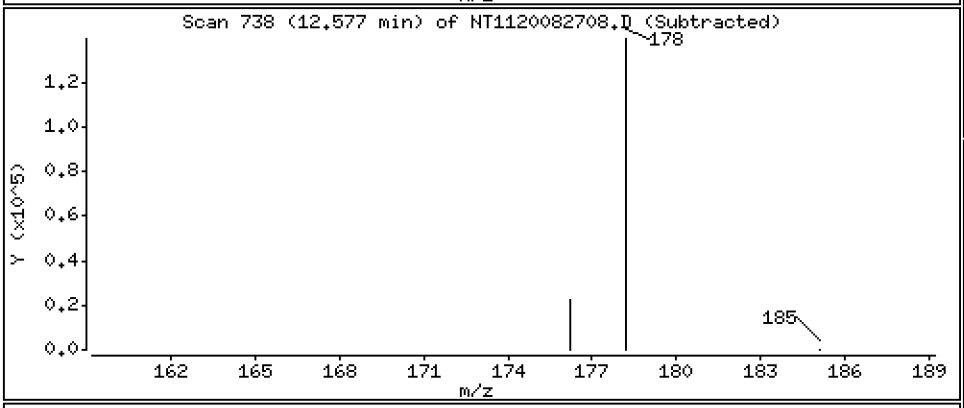
Column diameter: 0.25

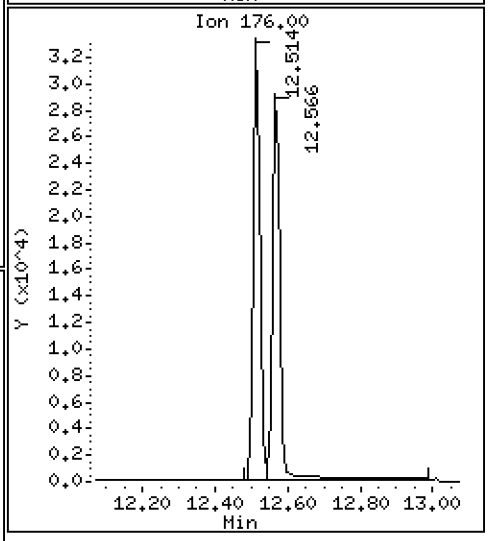
21 Anthracene

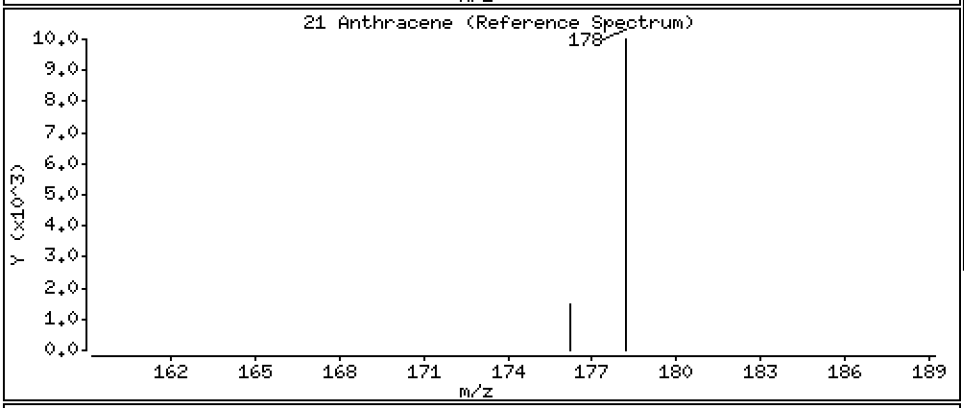
Concentration: 223 ng/mL

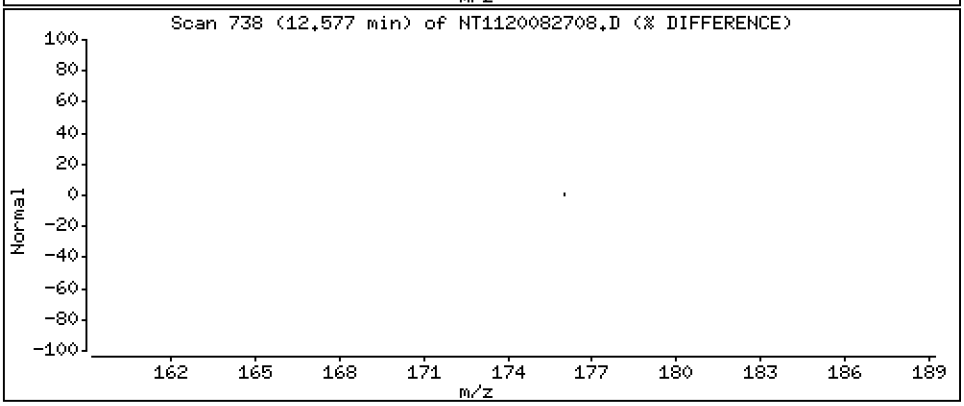


Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

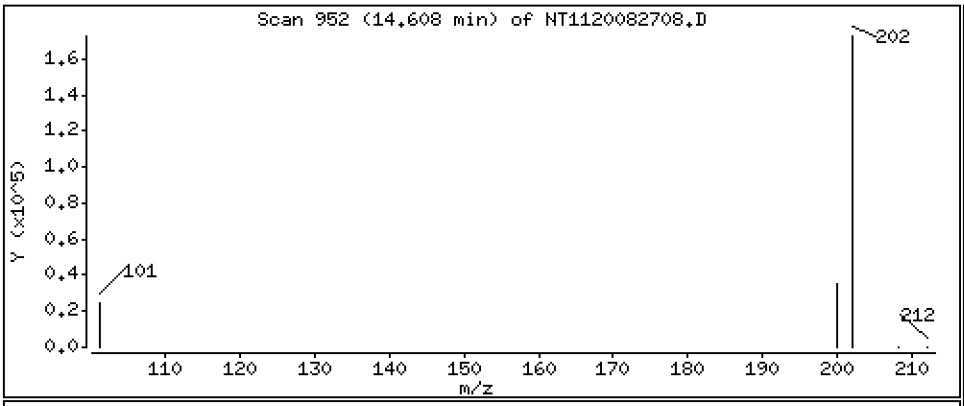
Operator: VTS

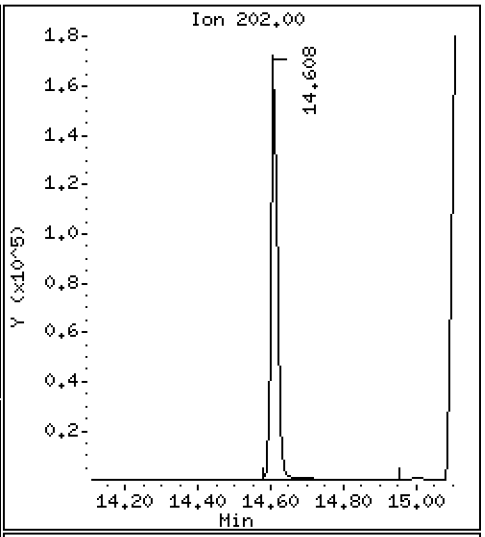
Column phase: Rxi-17Sil MS

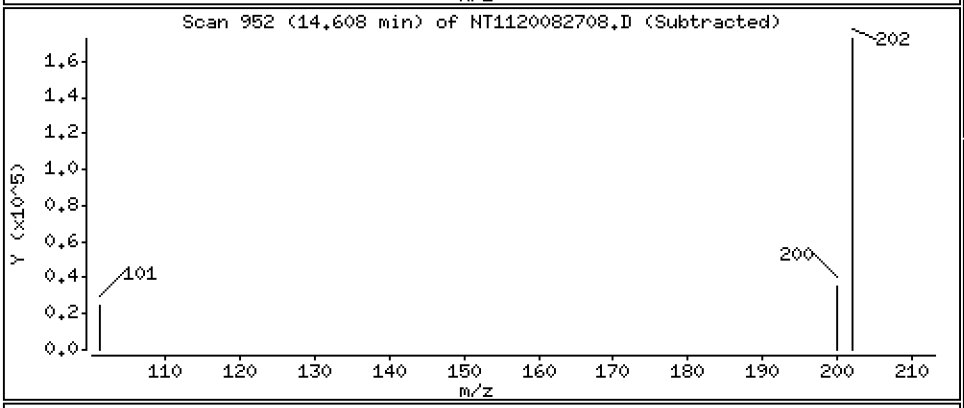
Column diameter: 0.25

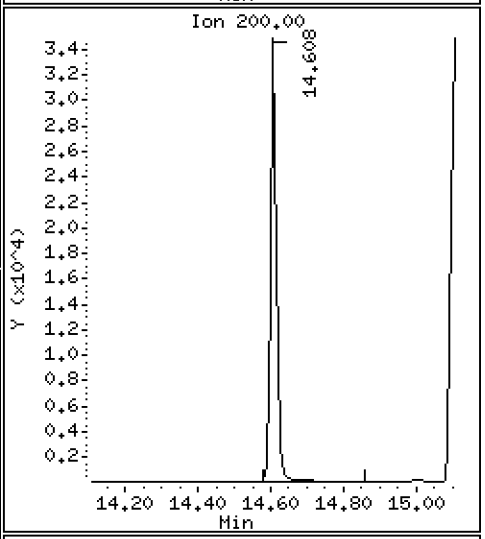
25 Fluoranthene

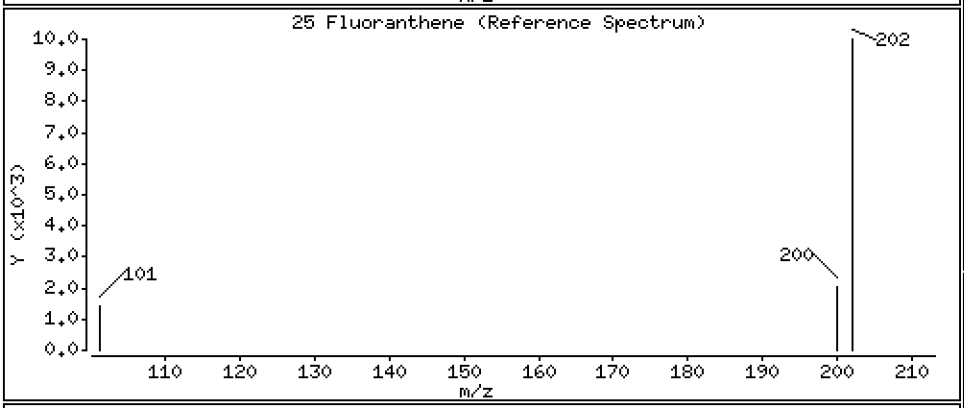
Concentration: 236 ng/mL

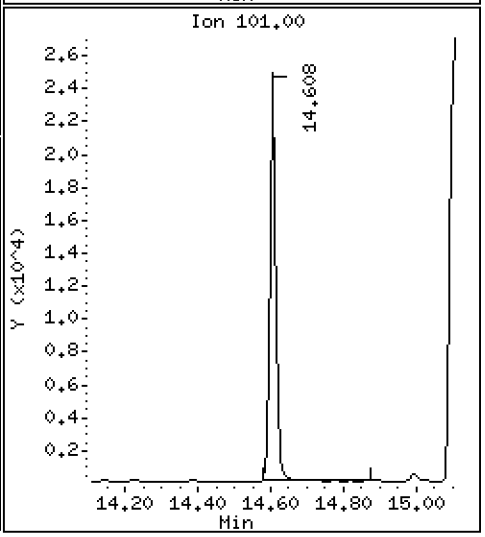


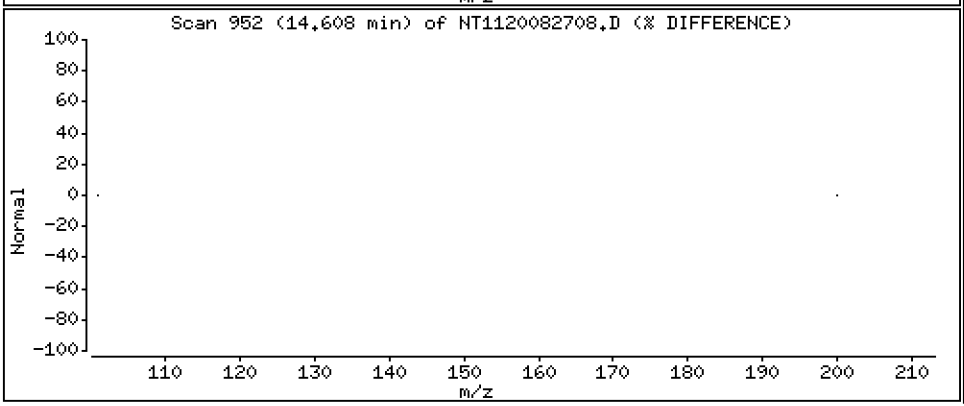



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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

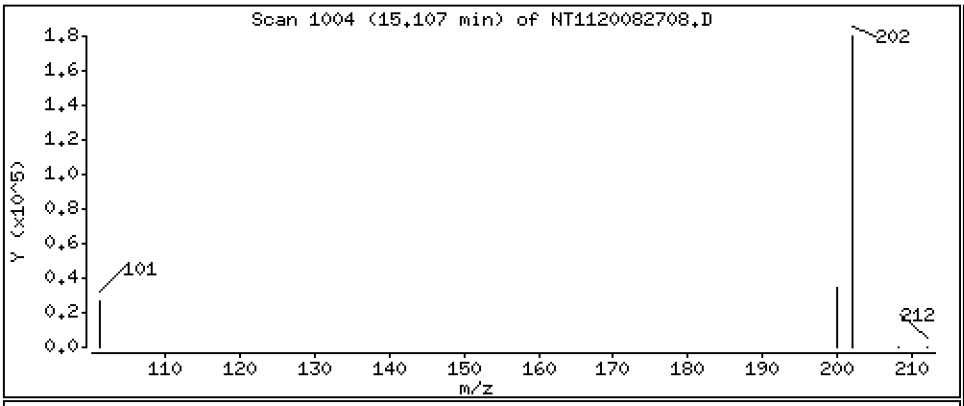
Operator: VTS

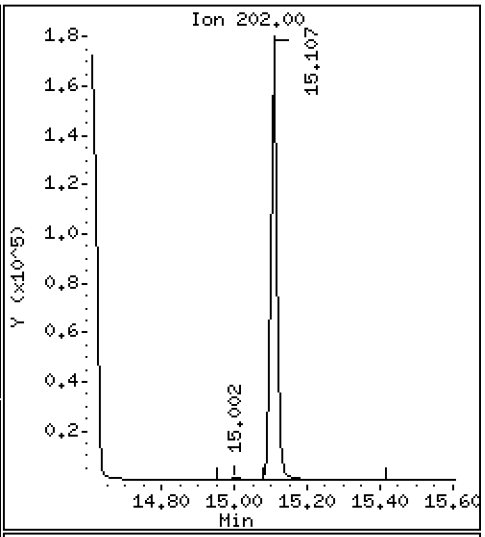
Column phase: Rxi-17Sil MS

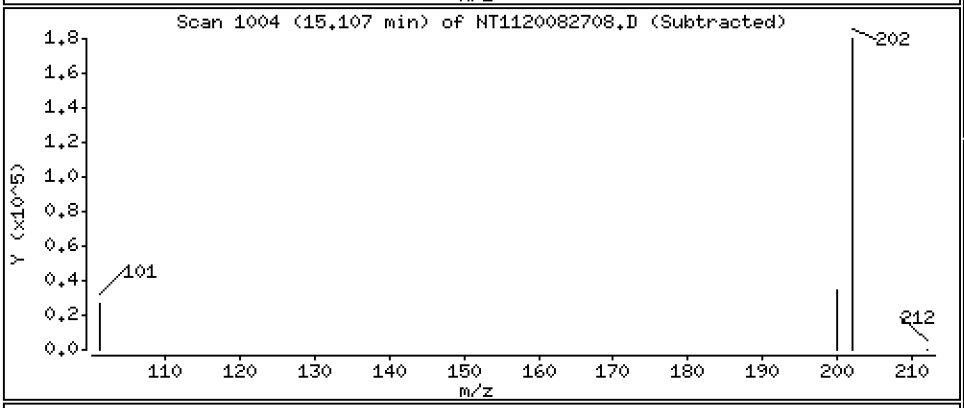
Column diameter: 0.25

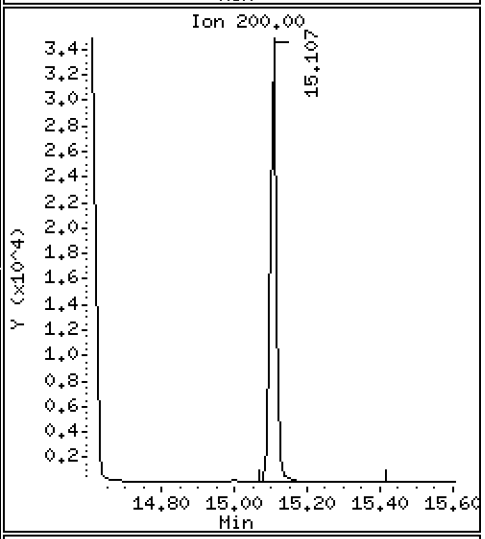
26 Pyrene

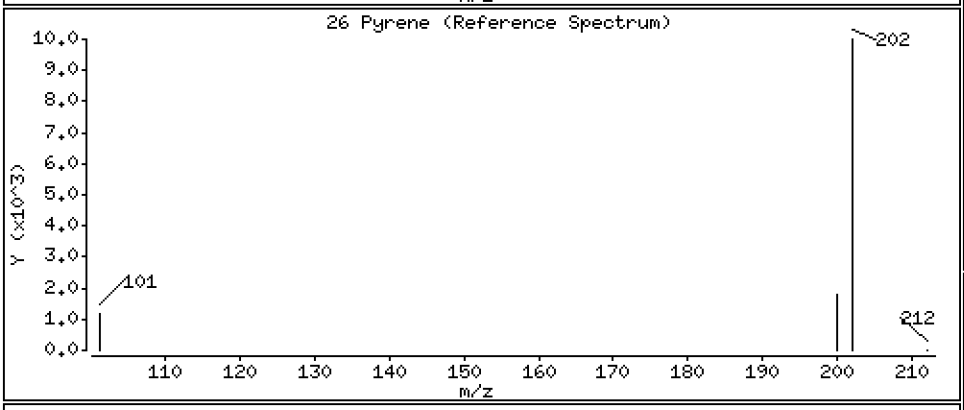
Concentration: 235 ng/mL

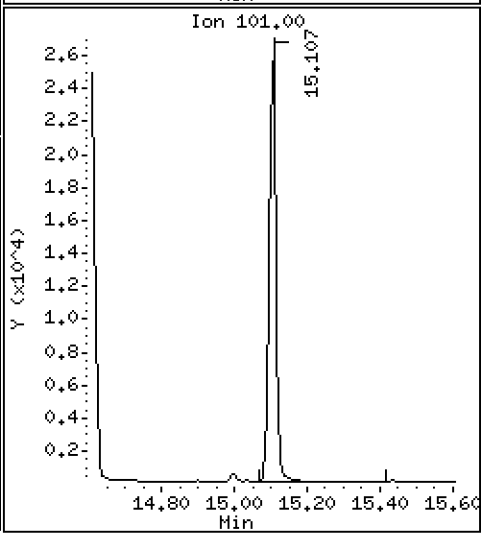


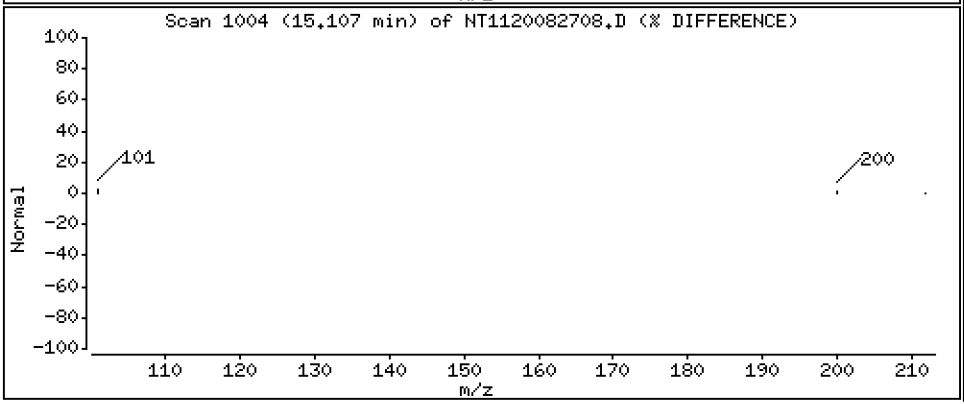



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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

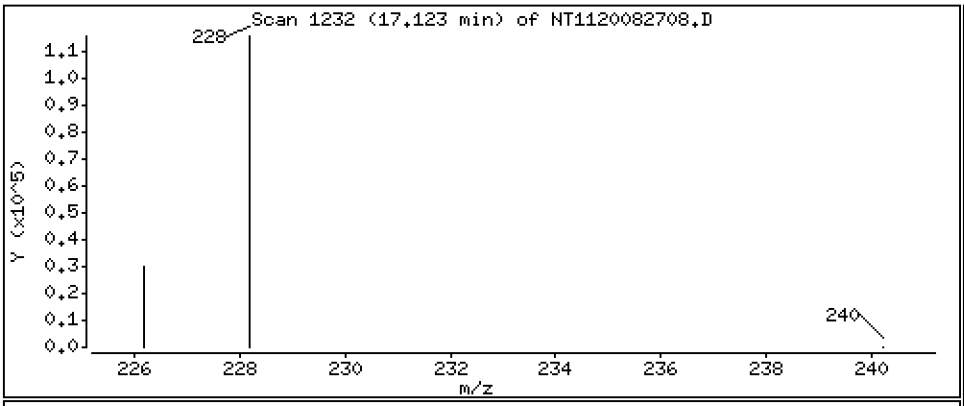
Operator: VTS

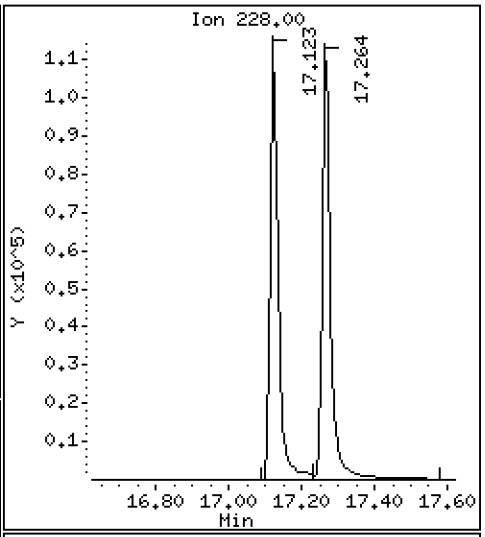
Column phase: Rxi-17Sil MS

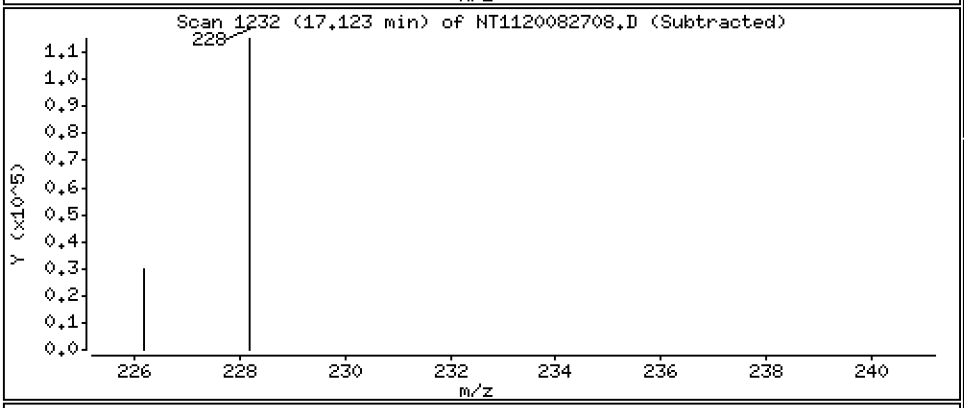
Column diameter: 0.25

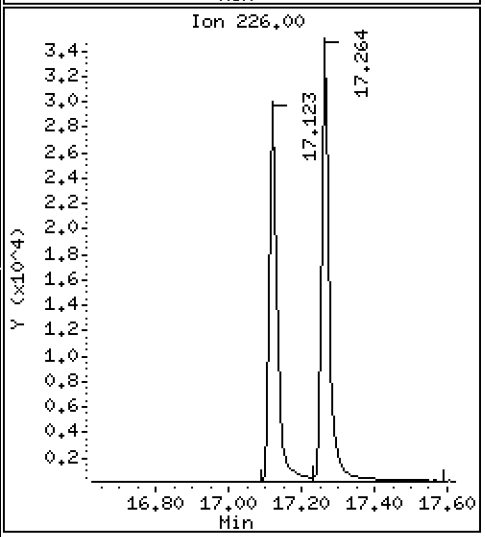
27 Benzo(a)anthracene

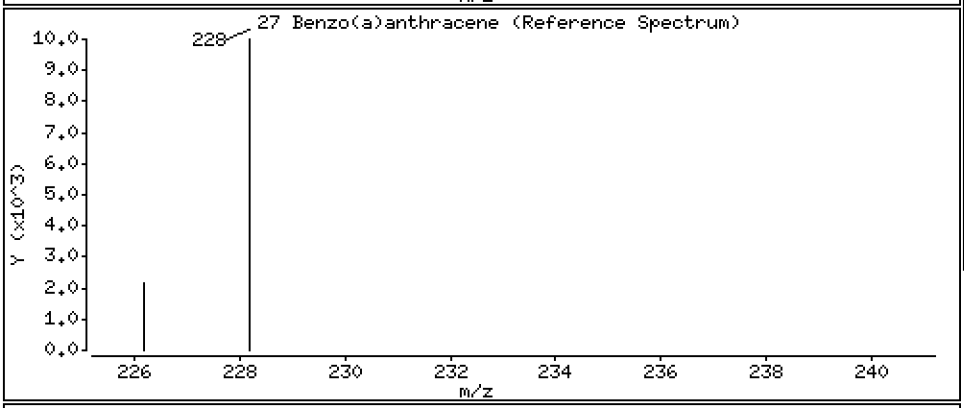
Concentration: 223 ng/mL

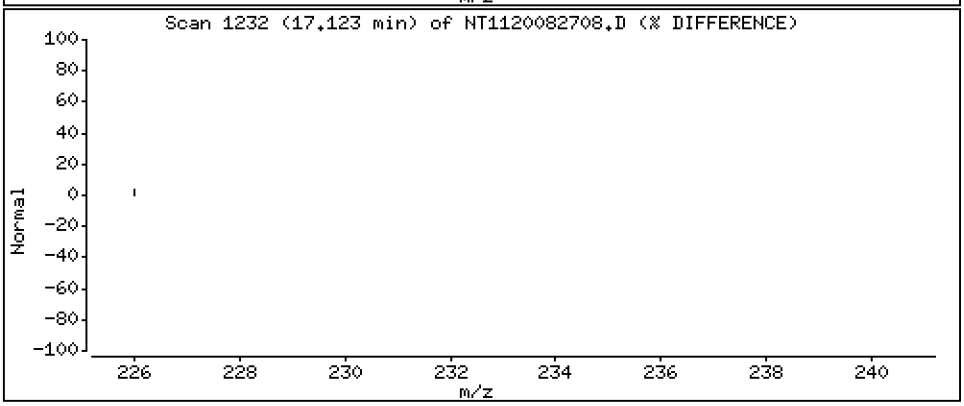


Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

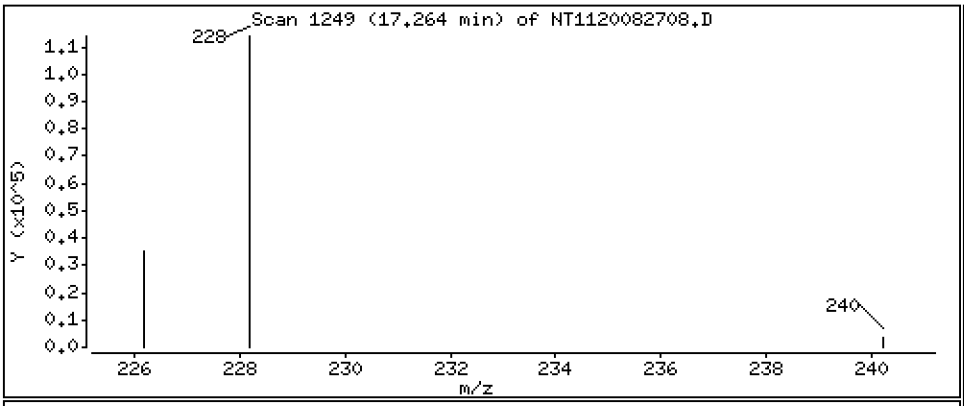
Operator: VTS

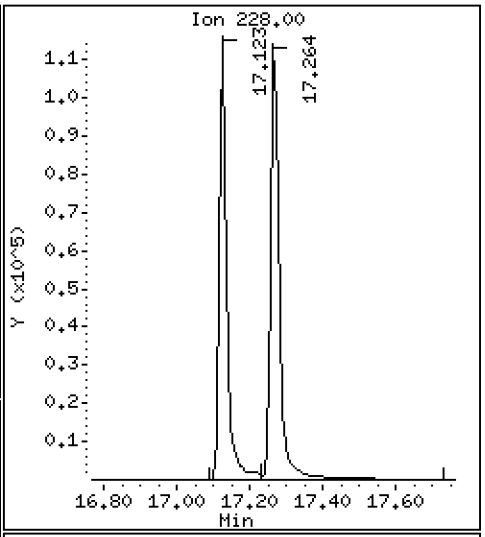
Column phase: Rxi-17Sil MS

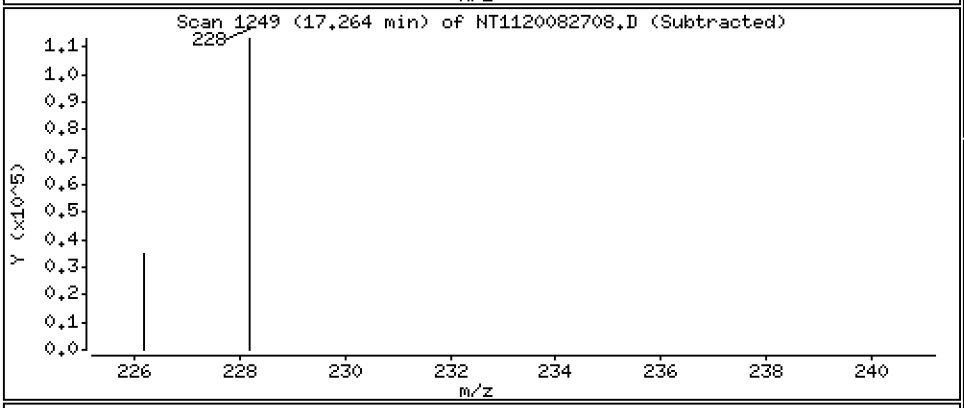
Column diameter: 0.25

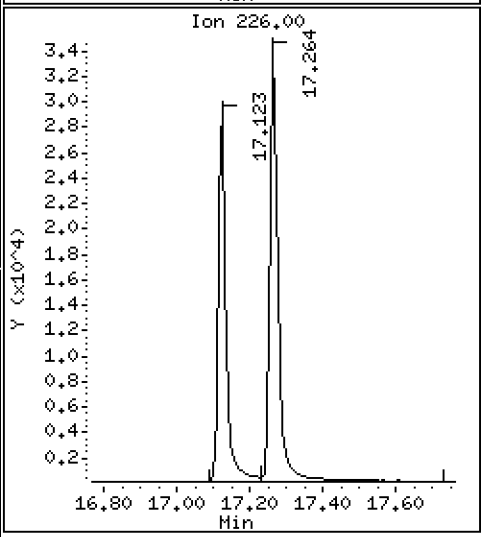
29 Chrysene

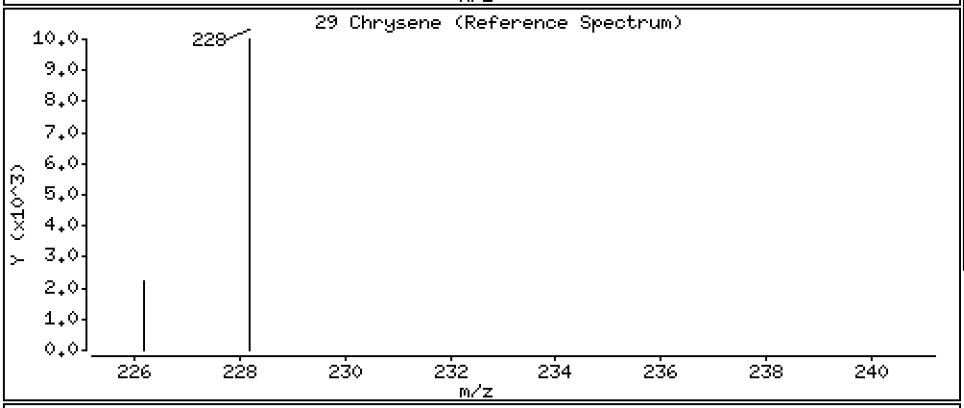
Concentration: 215 ng/mL

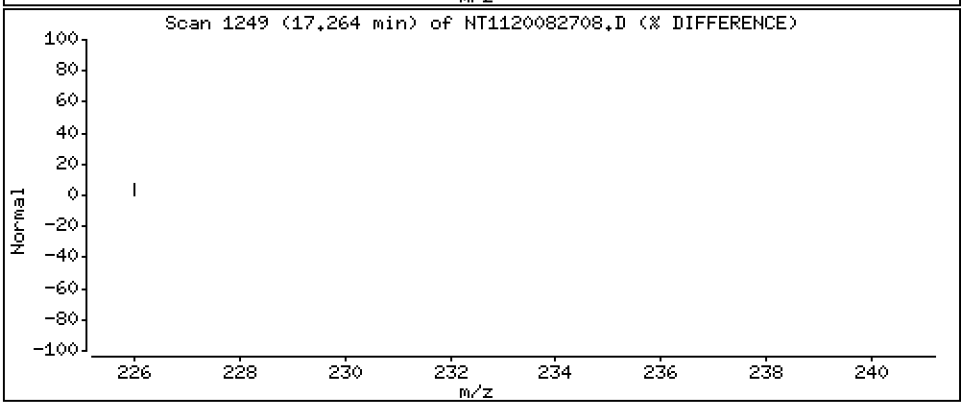


Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

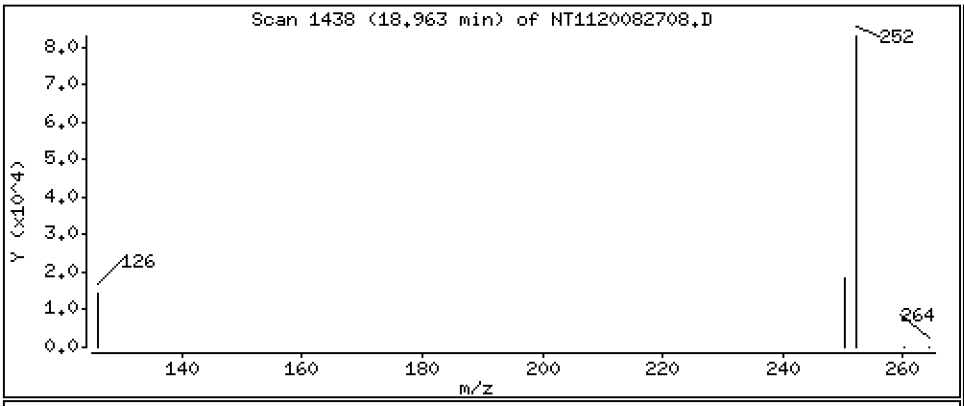
Operator: VTS

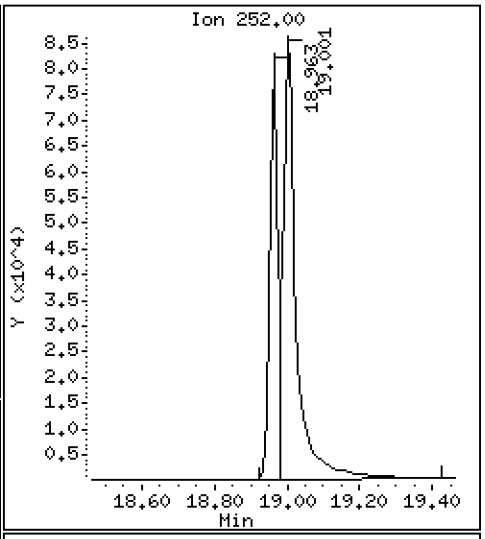
Column phase: Rxi-17Sil MS

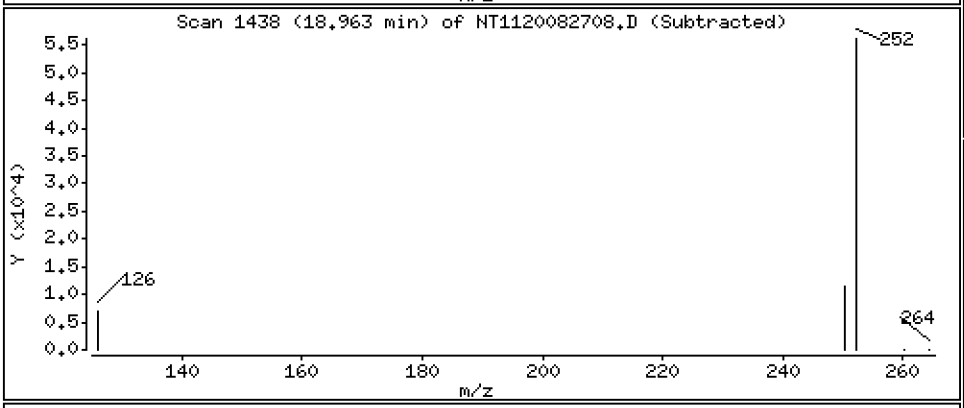
Column diameter: 0.25

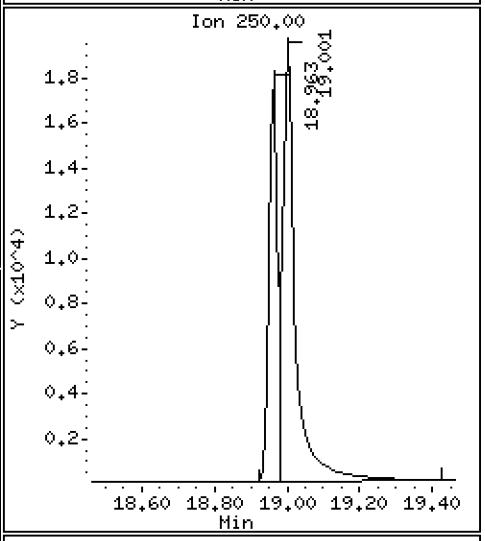
30 Benzo(b)fluoranthene

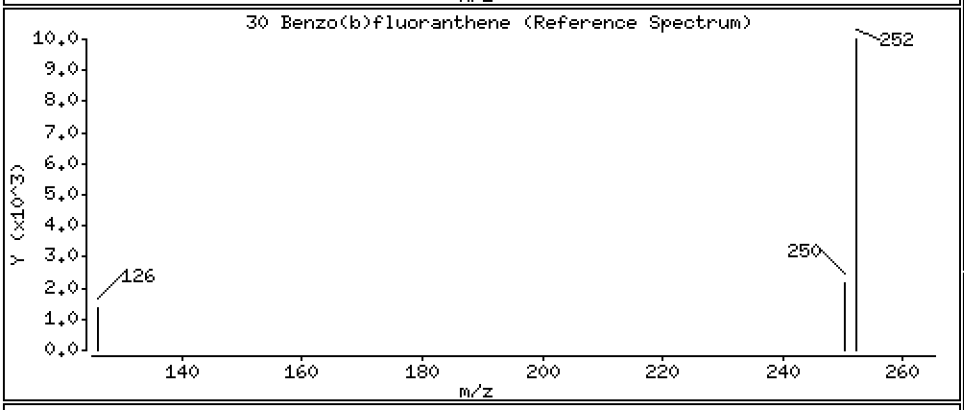
Concentration: 212 ng/mL

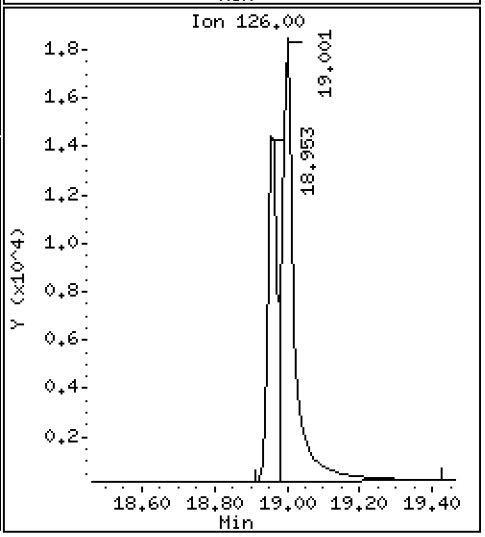


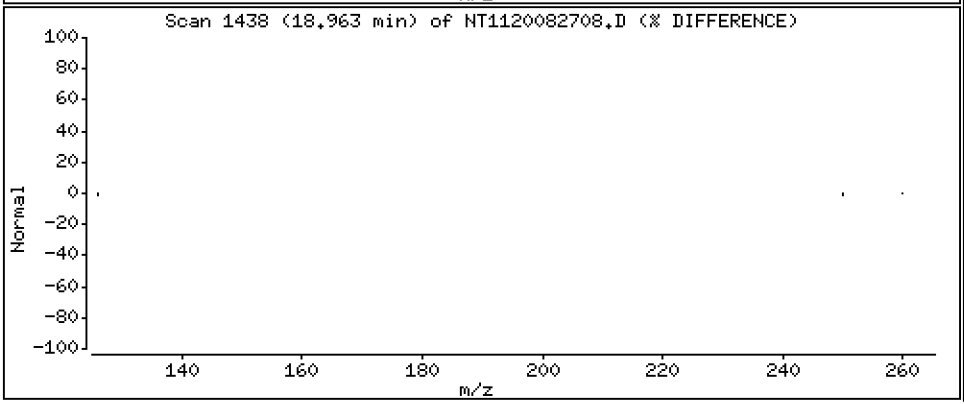



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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

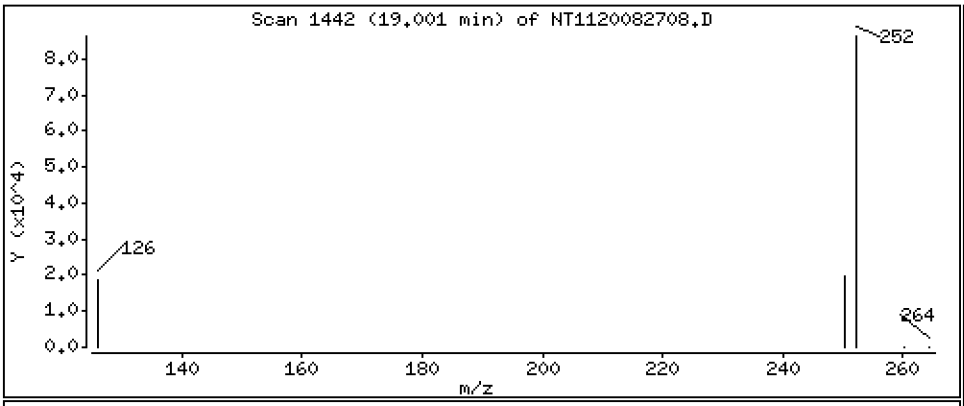
Operator: VTS

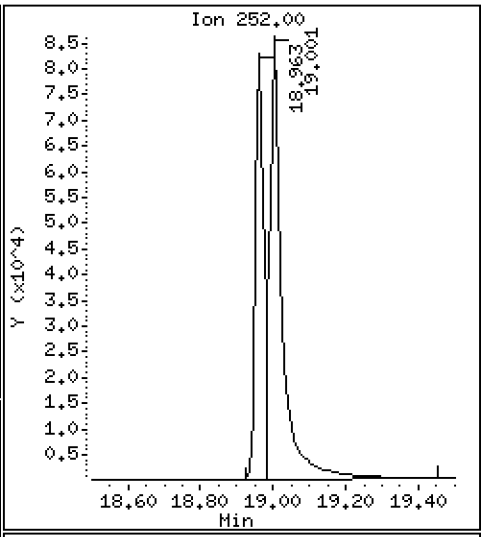
Column phase: Rxi-17Sil MS

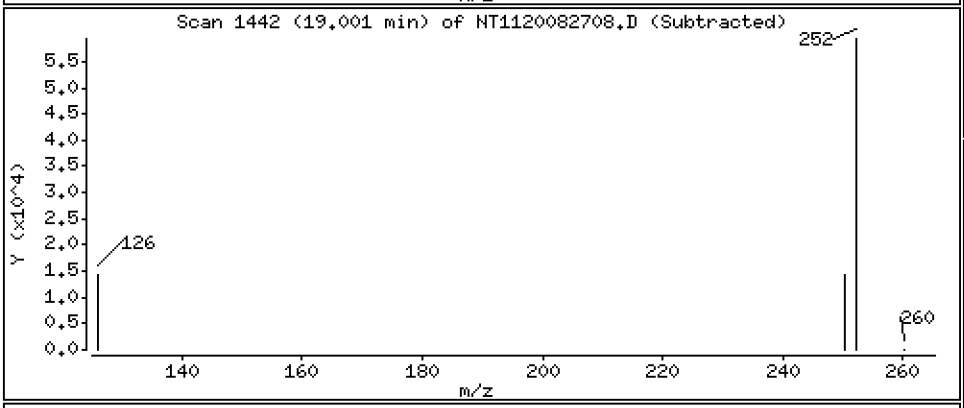
Column diameter: 0.25

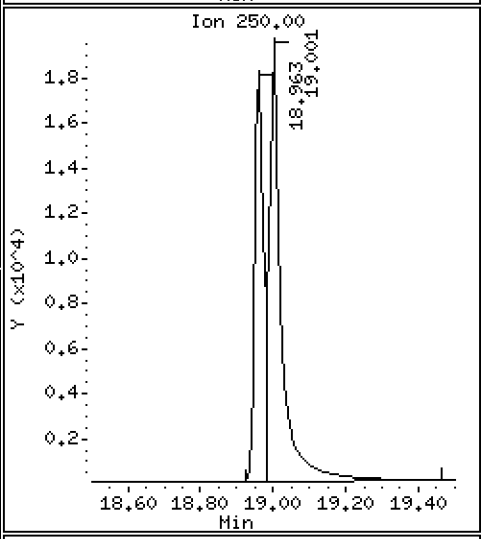
31 Benzo(k)fluoranthene

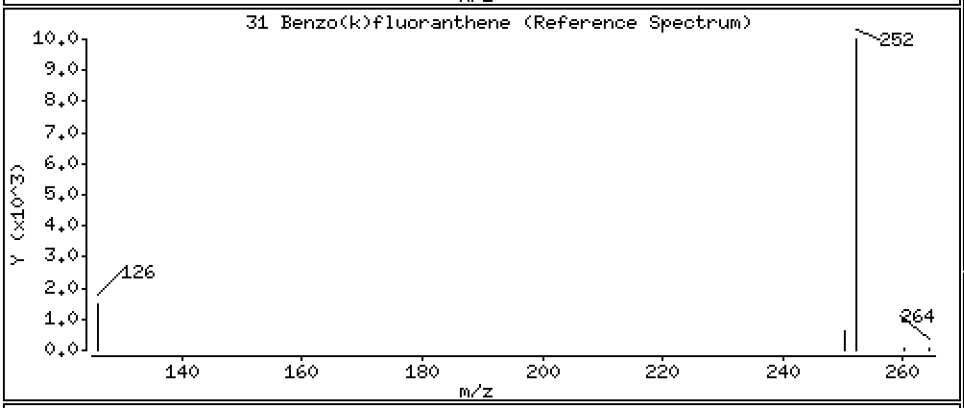
Concentration: 260 ng/mL

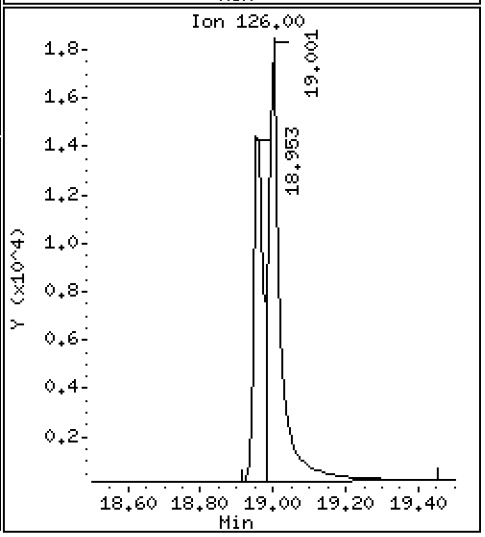


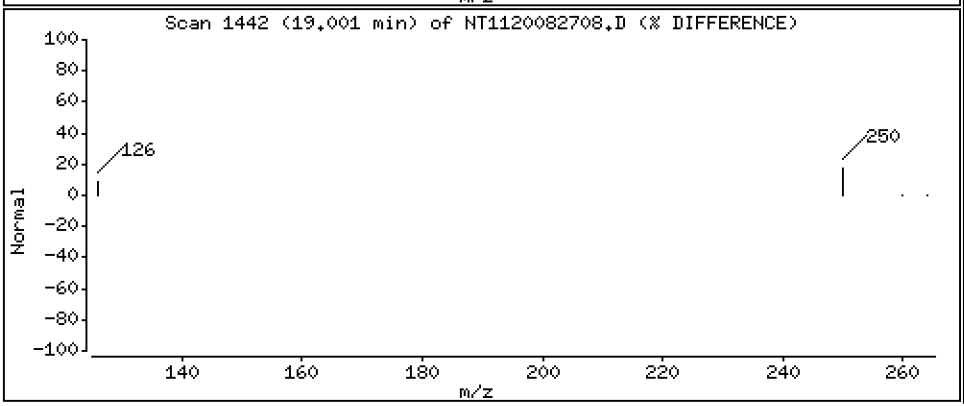



Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

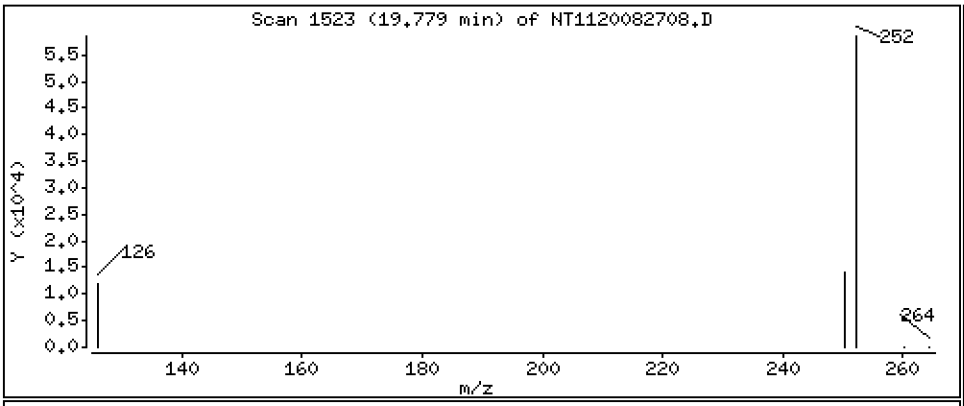
Operator: VTS

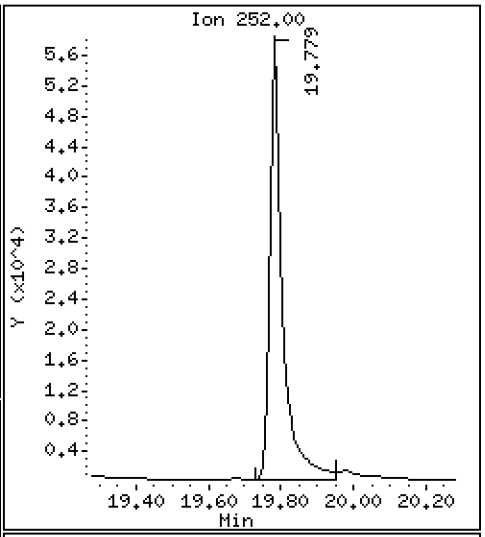
Column phase: Rxi-17Sil MS

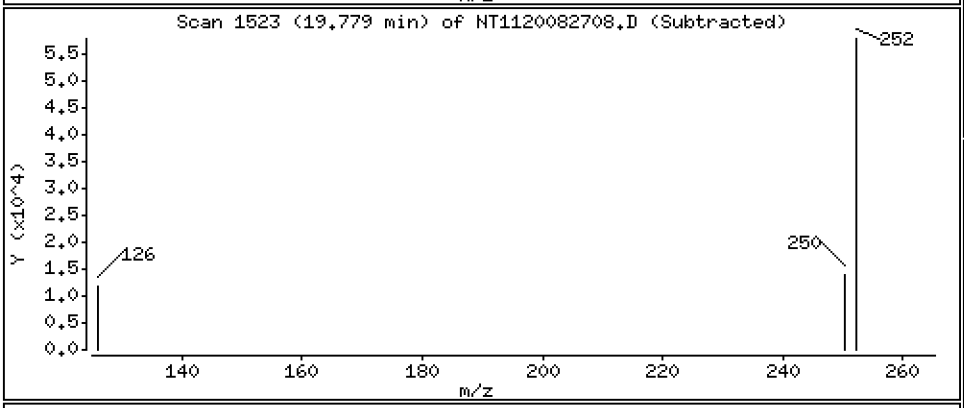
Column diameter: 0.25

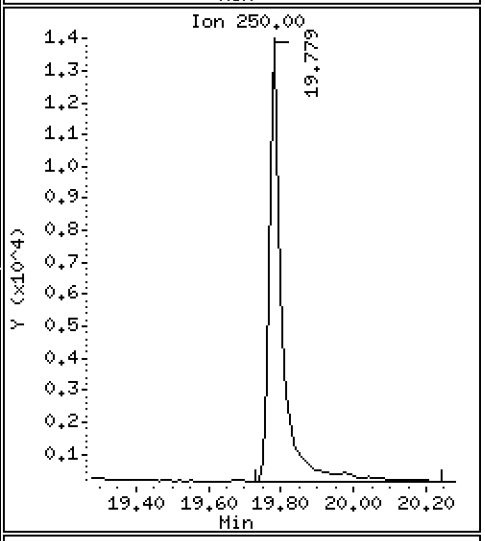
35 Benzo(a)pyrene

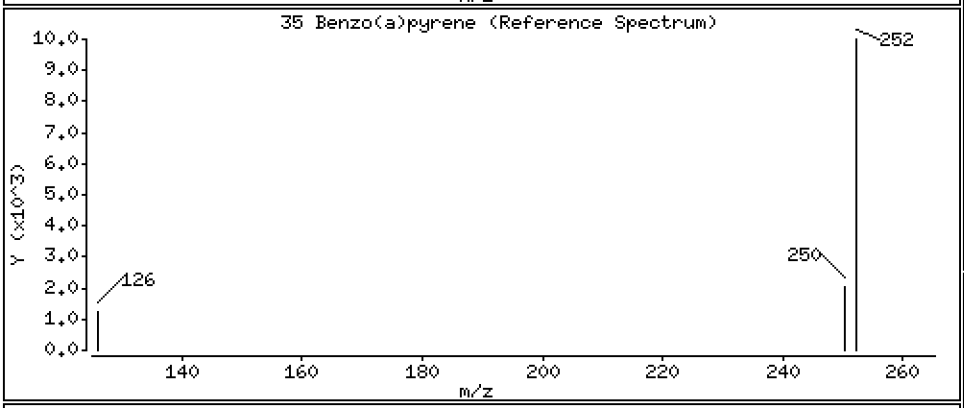
Concentration: 213 ng/mL

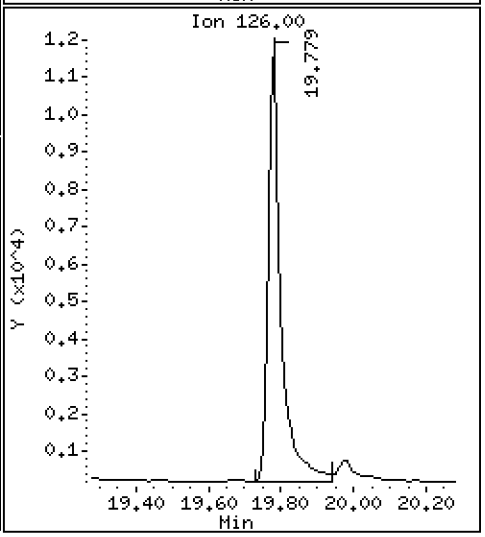


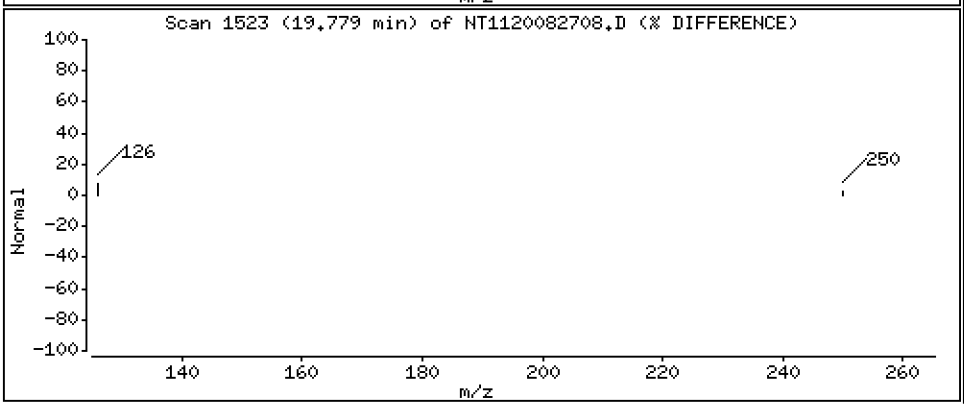



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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

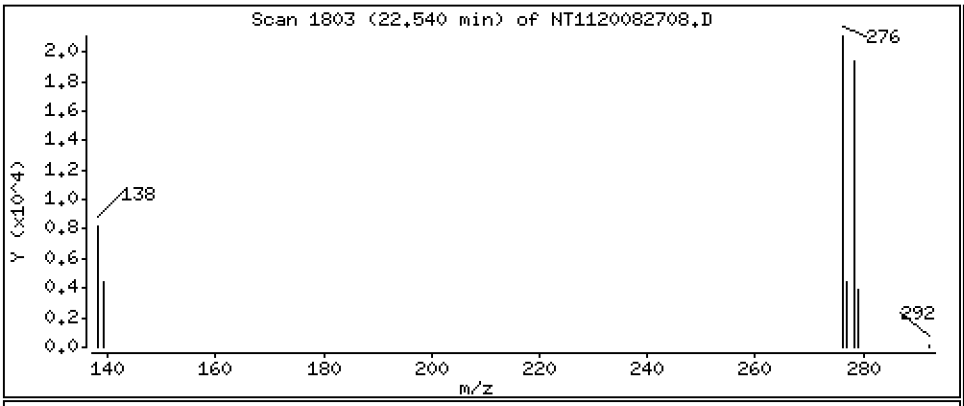
Operator: VTS

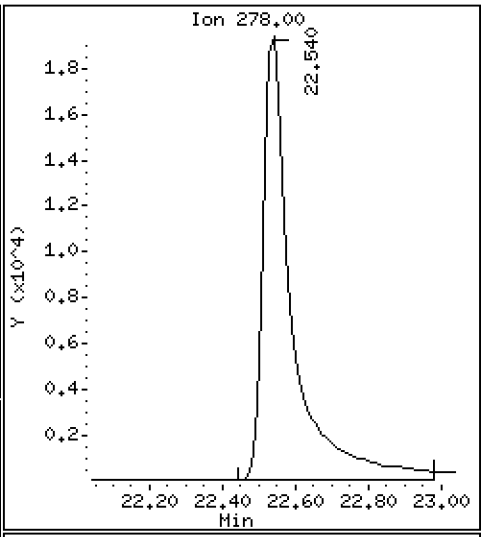
Column phase: Rxi-17Sil MS

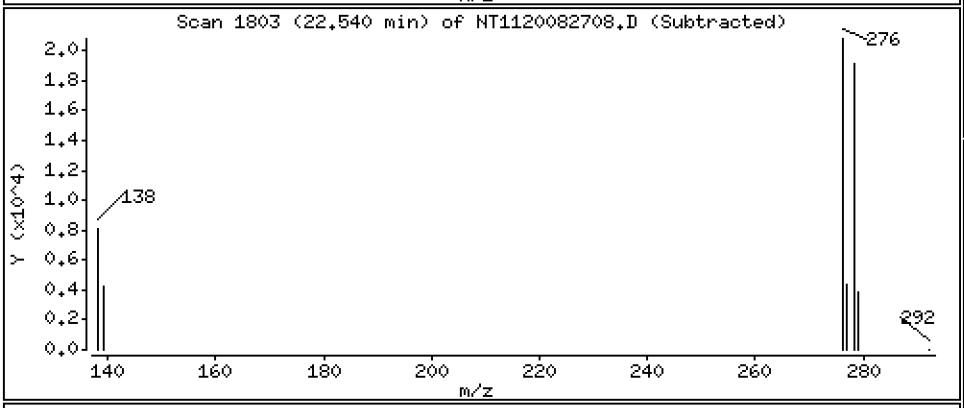
Column diameter: 0.25

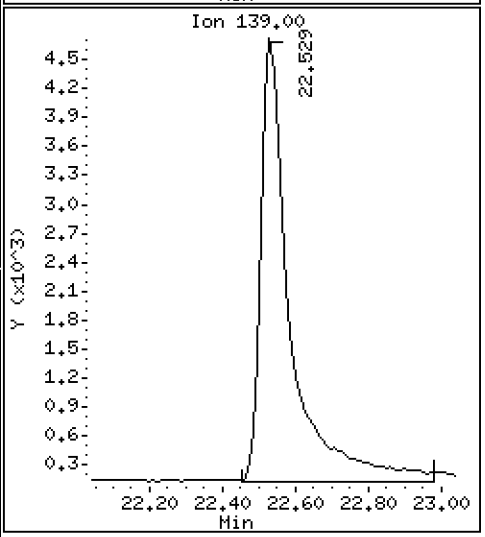
39 Dibenzo(a,h)anthracene

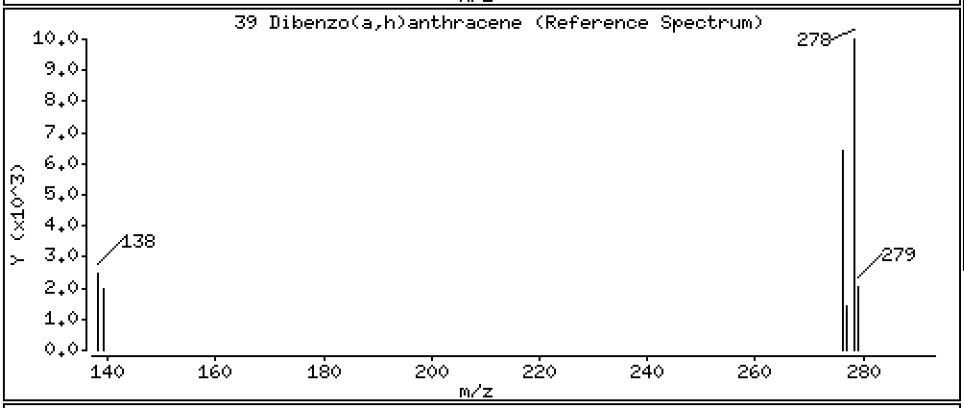
Concentration: 192 ng/mL

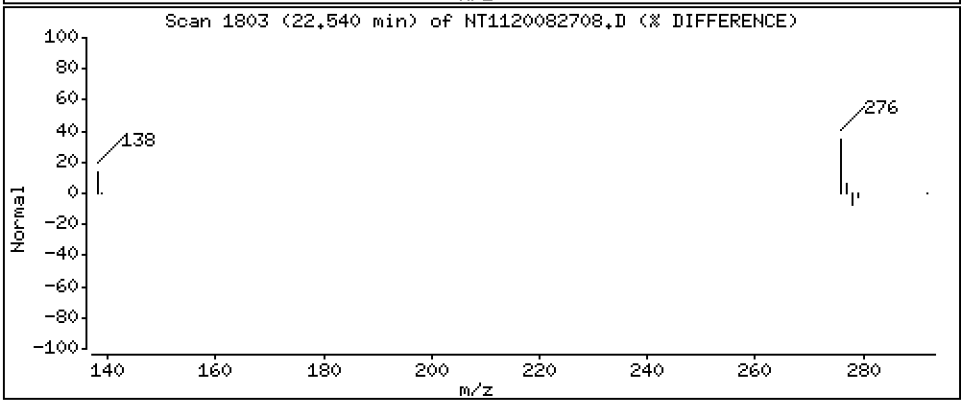


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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

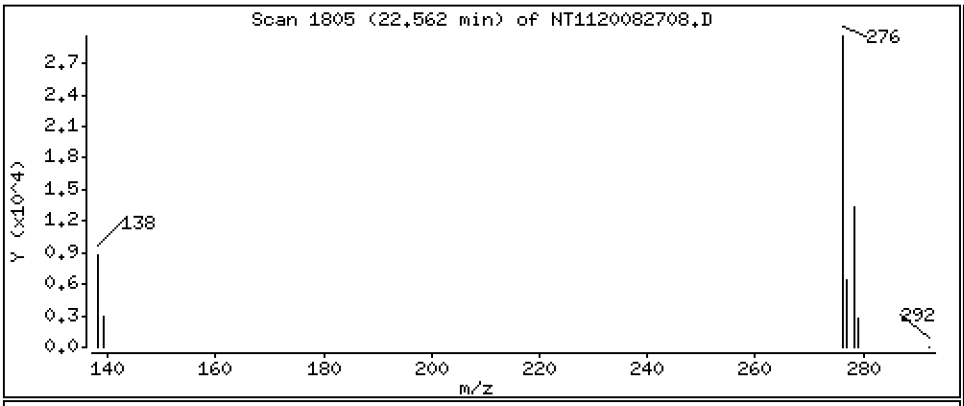
Operator: VTS

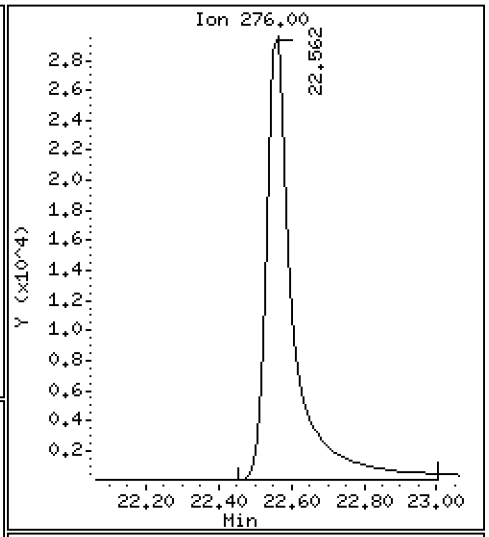
Column phase: Rxi-17Sil MS

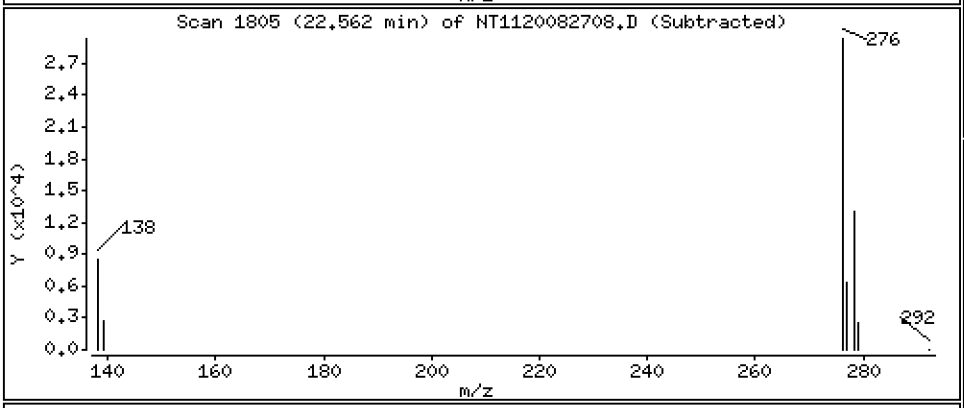
Column diameter: 0.25

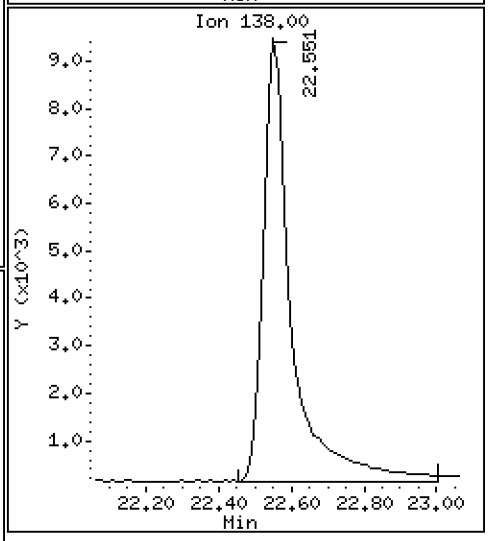
40 Indeno(1,2,3-cd)pyrene

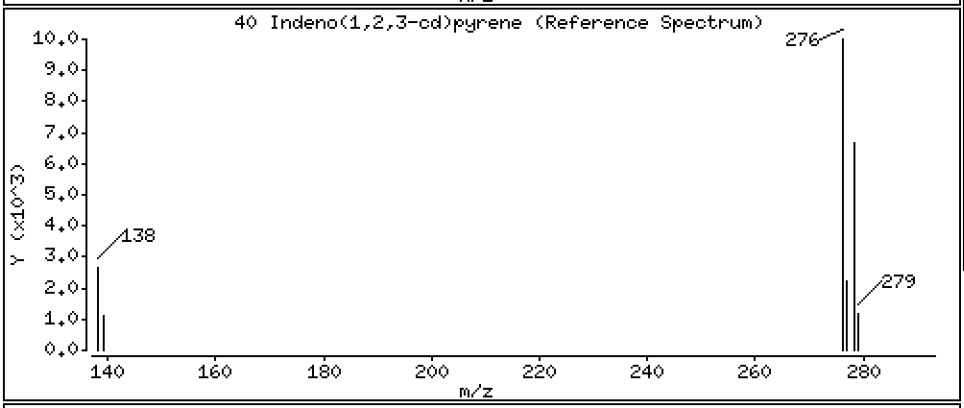
Concentration: 227 ng/mL

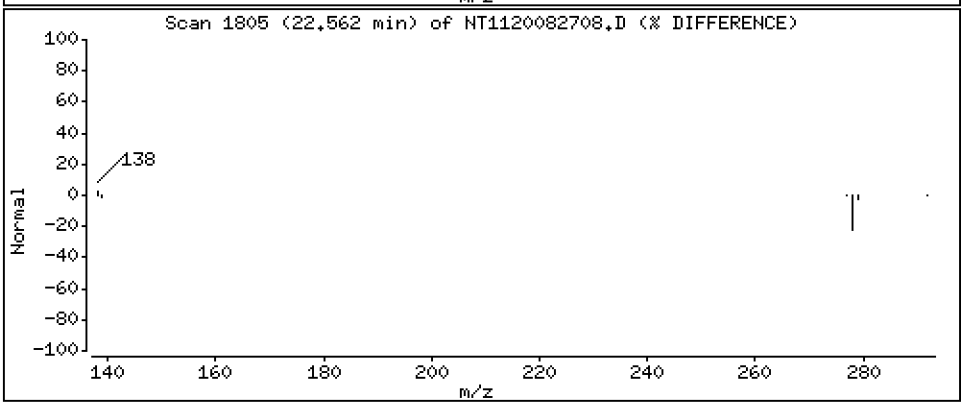


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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

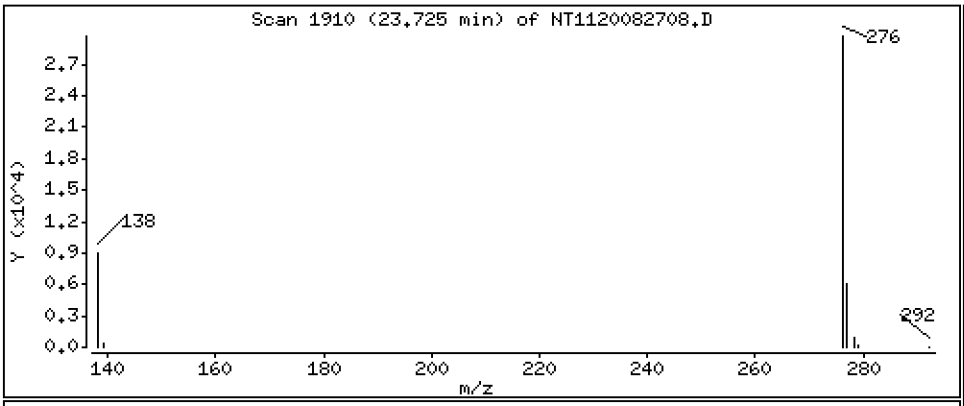
Operator: VTS

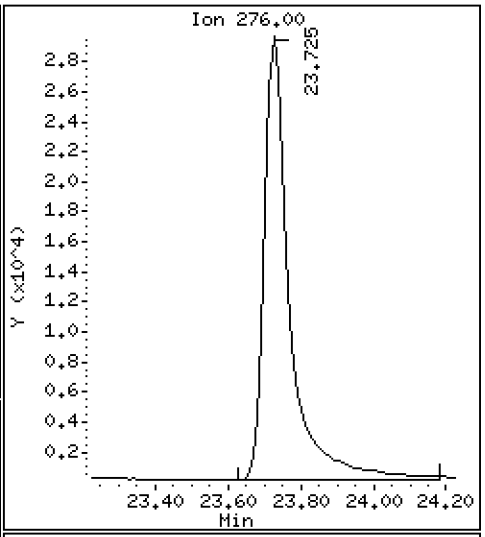
Column phase: Rxi-17Sil MS

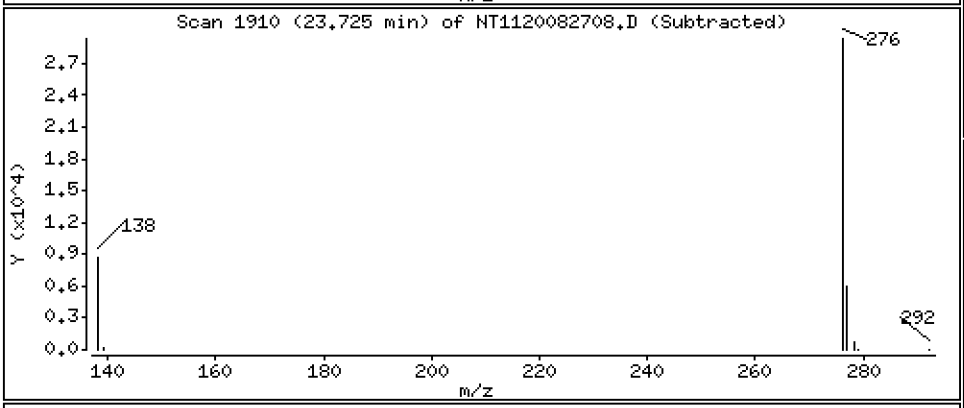
Column diameter: 0.25

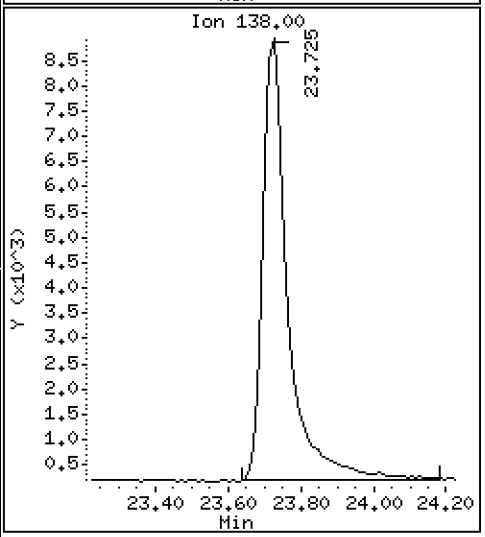
41 Benzo(g,h,i)perylene

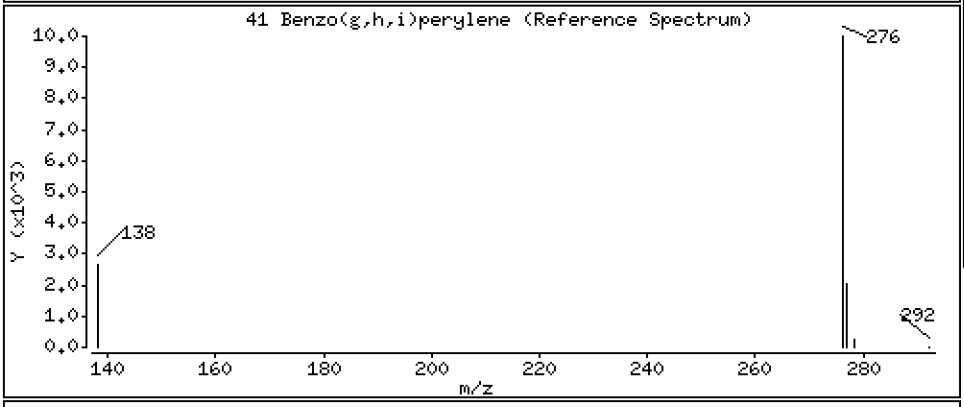
Concentration: 214 ng/mL

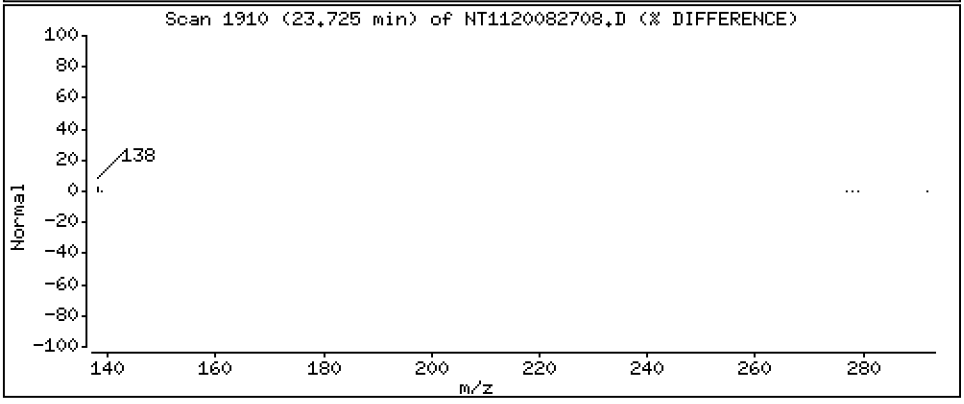


ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

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

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

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1120082708.D
Lab Smp Id: SIH0304-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Misc Info:

Calibration Date: 27-AUG-2020
Calibration Time: 12:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1120082708.D

Lab ID: SIH0304-SCV1
nt11.i,  20200827.b\lowsim.m,    27-AUG-2020 15:38

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

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

RRT CHECK

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

NONE

RRT check based on Ccal File: NT1120082704.D

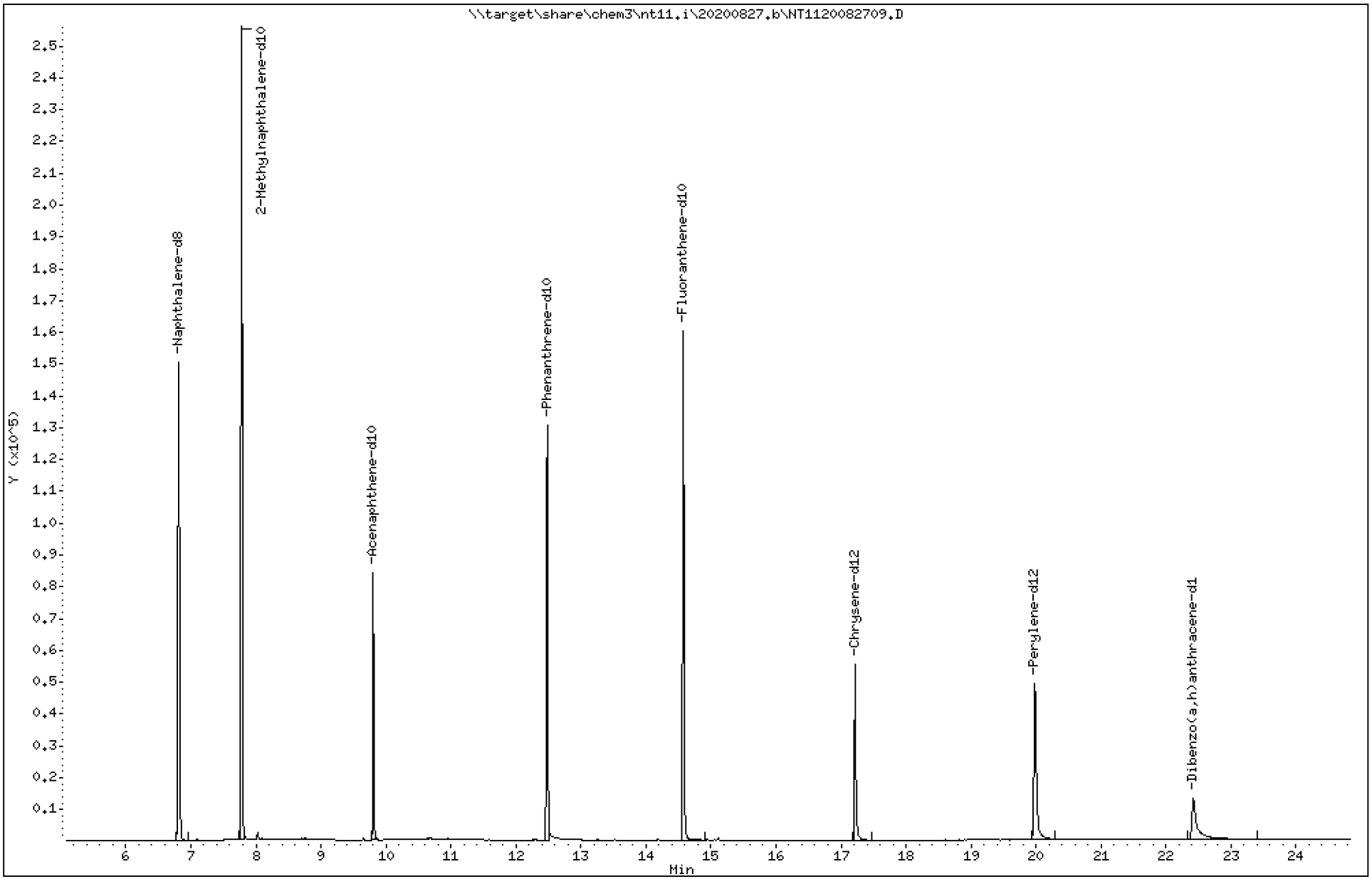
On Column LOD for nt11.i, 20200827.b\lowsim.m, PAH.sub = 0.0000

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

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

Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082709.D
Date : 27-AUG-2020 16:09
Client ID:
Sample Info: SIH0304-ICB1

Instrument: nt11.i
Operator: VTS
Column phase: Rxi-17Sil MS
Column diameter: 0.25

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ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

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

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

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1120082709.D
Lab Smp Id: SIH0304-ICB1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Misc Info:

Calibration Date: 27-AUG-2020
Calibration Time: 12:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1120082709.D

Lab ID: SIH0304-ICB1
nt11.i,  20200827.b\lowsim.m,    27-AUG-2020 16:09

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

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

NONE

RRT check based on Ccal File: NT1120082704.D

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

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

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

# INITIAL CALIBRATION DATA

## EPA 8270E-SIM

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

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

# INITIAL CALIBRATION DATA

## EPA 8270E-SIM

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

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

# INITIAL CALIBRATION DATA

## EPA 8270E-SIM

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

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

# INITIAL CALIBRATION DATA

## EPA 8270E-SIM

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

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

# INITIAL CALIBRATION DATA

## EPA 8270E-SIM

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

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

# INITIAL CALIBRATION DATA

## EPA 8270E-SIM

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

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

Printed: 5/1/2021 9:45:57AM

# ANALYSIS SEQUENCE

**SJD0305**

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

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

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

| | Time | Filename | LabID | ClientId | DF | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0742 | NT1421043001.D | SJD0305-TUN1 | | 1 | \|NO ISTDS FOUND\|\| | | | | | |
| 2 | 0756 | NT1421043002.D | SJD0305-CAL5 | | 1 | \|18.78 | 420456\|\|22.22 | 381033\|\|33.05 | 370998\| | | |
| 3 | 0843 | NT1421043003.D | SJD0305-CAL7 | | 1 | \|18.78 | 463680\|\|22.22 | 358366\|\|33.05 | 363264\| | | |
| 4 | 0931 | NT1421043004.D | SJD0305-CAL1 | | 1 | \|18.78 | 393878\|\|22.22 | 335095\|\|33.05 | 358059\| | | |
| 5 | 1019 | NT1421043005.D | SJD0305-CAL6 | | 1 | \|18.78 | 459220\|\|22.22 | 341294\|\|33.05 | 348573\| | | |
| 6 | 1107 | NT1421043006.D | SJD0305-CAL2 | | 1 | \|18.77 | 514907\|\|22.22 | 378499\|\|33.05 | 385845\| | | |
| 7 | 1155 | NT1421043007.D | SJD0305-CAL4 | | 1 | \|18.78 | 445719\|\|22.22 | 328813\|\|33.05 | 341443\| | | |
| 8 | 1243 | NT1421043008.D | SJD0305-CAL3 | | 1 | \|18.78 | 369261\|\|22.22 | 315516\|\|33.05 | 324493\| | | |
| 9 | 1332 | NT1421043009.D | SJD0305-CAL1 | | 1 | \|18.78 | 472157\|\|22.22 | 325856\|\|33.05 | 333740\| | | |
| 10 | 1441 | NT1421043010.D | SJD0305-SCV1 | | 1 | \|18.78 | 351020\|\|22.23 | 309177\|\|33.05 | 328565\| | | |
| 11 | 1529 | NT1421043011.D | SJD0305-ICB1 | | 1 | \|18.77 | 376278\|\|22.23 | 322067\|\|33.05 | 328767\| | | |

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

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

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

Security Status Report

Date: 01-May-2021 09:39

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

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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

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

| Compound | 0.1000000 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 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 trans-Decalin | 0.15275 | 0.15083 | 0.16034 | 0.14187 | 0.16243 | 0.13671 | | | | | | |
| | 0.13796 | | | | | | AVRG | | 0.14898 | | 6.98791 | |
| 2 cis-Decalin | 0.09882 | 0.09515 | 0.12354 | 0.09852 | 0.11574 | 0.09345 | | | | | | |
| | 0.09473 | | | | | | AVRG | | 0.10285 | | 11.52544 | |
| 3 C1-Decalin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+000 | | 0.000e+000 | <- |
| 4 C2-Decalin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+000 | | 0.000e+000 | <- |

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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

| Compound | 0.1000000 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 | 1.12916 | 1.11068 | 1.33816 | 1.13126 | 1.31207 | 1.08127 | | | | | | |
| | 1.11548 | | | | | | AVRG | | 1.17401 | | 8.92579 | |
| 8 C1-Naphthalenes | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+000 | | 0.000e+000 | <- |
| 9 C2-Naphthalenes | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+000 | | 0.000e+000 | <- |
| 10 C3-Naphthalenes | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+000 | | 0.000e+000 | <- |
| 11 C4-Naphthalenes | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+000 | | 0.000e+000 | <- |

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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

| Compound | 0.1000000 Level 1 | 0.2500000 Level 2 | 0.5000000 Level 3 | 1.0000 Level 4 | 2.5000 Level 5 | 5.0000 Level 6 | 10.0000 Level 7 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 Benzo(b)thiophene | 0.88115 | 0.87408 | 1.06521 | 0.90063 | 1.05907 | 0.86551 | | | | | | | |
| | 0.89256 | | | | | | | AVRG | | 0.93403 | | 9.45177 | |
| 13 C1-Benzothiophenes | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | | | |
| | +++++ | | | | | | | AVRG | | 0.000e+000 | | 0.000e+000 | <- |
| 14 C2-Benzothiophenes | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | | | |
| | +++++ | | | | | | | AVRG | | 0.000e+000 | | 0.000e+000 | <- |
| 15 C3_Benzothiophenes | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | | | |
| | +++++ | | | | | | | AVRG | | 0.000e+000 | | 0.000e+000 | <- |
| 16 2-Methylnaphthalene | 0.57909 | 0.59784 | 0.69763 | 0.61777 | 0.72287 | 0.57743 | | | | | | | |
| | 0.59290 | | | | | | | AVRG | | 0.62650 | | 9.44971 | |
| 17 1-methylnaphthalene | 0.55401 | 0.56574 | 0.67385 | 0.58531 | 0.67904 | 0.54125 | | | | | | | |
| | 0.55608 | | | | | | | AVRG | | 0.59361 | | 9.79919 | |
| 18 Biphenyl | 0.86891 | 0.83485 | 1.03213 | 0.87400 | 1.01733 | 0.81506 | | | | | | | |
| | 0.83412 | | | | | | | AVRG | | 0.89663 | | 10.03625 | |

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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

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

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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

| Compound | 0.1000000 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 | 0.75466 / 0.87519 | 0.79308 | 0.92580 | 0.83023 | 1.04606 | 0.84710 | AVRG | | 0.86745 | | 11.07909 | |
| 31 C1-Dibenzothiophenes | +++++ / +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+000 | | 0.000e+000 | <- |
| 32 C2-Dibenzothiophenes | +++++ / +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+000 | | 0.000e+000 | <- |
| 33 C3-Dibenzothiophenes | +++++ / +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+000 | | 0.000e+000 | <- |
| 34 C4-Dibenzothiophenes | +++++ / +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+000 | | 0.000e+000 | <- |

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Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Last Edit : 01-May-2021 07:34 van

| Compound | 0.1000000 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 | 1.23153 | 1.18768 | 1.17228 | 1.24267 | 1.22910 | 1.18905 | | | | | |
| | 1.19395 | | | | | | AVRG | | 1.20661 | | 2.25259 |
| 37 Anthracene | 0.99289 | 1.08515 | 1.09551 | 1.12794 | 1.15706 | 1.15216 | | | | | |
| | 1.17514 | | | | | | AVRG | | 1.11226 | | 5.57401 |
| 38 C1-Phenanthrenes/Anthracenes | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+000 | | 0.000e+000 <- |
| 39 C2-Phenanthrenes/Anthracenes | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+000 | | 0.000e+000 <- |
| 40 C3-Phenanthrenes/Anthracenes | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+000 | | 0.000e+000 <- |
| 41 C4-Phenanthrenes/Anthracenes | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+000 | | 0.000e+000 <- |
| 42 Carbazole | 9889 | 33334 | 56745 | 136890 | 456095 | 821511 | | | | | |
| | 1826349 | | | | | | QUAD | 0.000e+000 | 1.09394 | -0.02222 | 0.99980 |

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

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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 | 0.82932 / 1.23594 | 0.92642 | 1.05184 | 1.24978 | 1.10656 | 1.17510 | AVRG | | 1.08214 | | 14.61512 | |
| 52 C1-Naphthobenzothiophenes | +++++ / +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+000 | | 0.000e+000 | <- |
| 53 C2-Naphthobenzothiophenes | +++++ / +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+000 | | 0.000e+000 | <- |
| 54 C3-Naphthobenzothiophenes | +++++ / +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+000 | | 0.000e+000 | <- |
| 248 C4-Naphthobenzothiophenes | +++++ / +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | AVRG | | 0.000e+000 | | 0.000e+000 | <- |

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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 | 9383 / 1937453 | 32694 | 58891 | 138453 | 446476 | 827232 | QUAD | 0.000e+000 | 1.13118 | -0.03627 | 0.99965 | |
| 57 Chrysene | 0.79439 / 1.03691 | 0.86153 | 0.93817 | 0.92122 | 0.98577 | 1.00043 | AVRG | | 0.93406 | | 9.02168 | |
| 58 C1-Benzo(a)anthracenes/Chryse | ##### / ##### | ##### | ##### | ##### | ##### | ##### | AVRG | | 0.000e+000 | | 0.000e+000 | <- |
| 59 C2-Benzo(a)anthracenes/Chryse | ##### / ##### | ##### | ##### | ##### | ##### | ##### | AVRG | | 0.000e+000 | | 0.000e+000 | <- |
| 60 C3-Benzo(a)anthracenes/Chryse | ##### / ##### | ##### | ##### | ##### | ##### | ##### | AVRG | | 0.000e+000 | | 0.000e+000 | <- |
| 61 C4-Benzo(a)anthracenes/Chryse | ##### / ##### | ##### | ##### | ##### | ##### | ##### | AVRG | | 0.000e+000 | | 0.000e+000 | <- |
| 62 Benzo(b)fluoranthene | 8858 / 1819751 | 29358 | 50224 | 118787 | 420145 | 768268 | QUAD | 0.000e+000 | 1.22204 | -0.04466 | 0.99931 | |

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| Compound | 0.1000000 Level 1 | 0.2500000 Level 2 | 0.5000000 Level 3 | 1.0000 Level 4 | 2.5000 Level 5 | 5.0000 Level 6 | Curve | Coefficients b | m1 | m2 | %RSD or R^2 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10.0000 Level 7 | | | | | | | | | | | |
| 293 Benzo(j)fluoranthene | 0.85312 | 0.79962 | 0.87599 | 1.04748 | 1.02994 | 1.09036 | | | | | | |
| | 0.96320 | | | | | | AVRG | | 0.95139 | | 11.61242 | |
| 63 Benzo(k)fluoranthene | 11468 | 37291 | 66116 | 150364 | 487427 | 948756 | | | | | | |
| | 2177474 | | | | | | QUAD | 0.000e+000 | 0.99968 | -0.02771 | 0.99979 | |
| 64 Benzo(e)pyrene | 0.74981 | 0.77554 | 0.77819 | 0.82715 | 0.89971 | 0.93135 | | | | | | |
| | 1.00109 | | | | | | AVRG | | 0.85183 | | 11.04961 | |
| 246 Total Benzofluoranthenes | 32397 | 105389 | 173318 | 424060 | 1316043 | 2536622 | | | | | | |
| | 5667360 | | | | | | QUAD | 0.000e+000 | 1.10177 | -0.00903 | 0.99983 | |
| 65 Benzo(a)pyrene-d12 | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | | | | | | |
| | +++++ | | | | | | AVRG | | 0.000e+000 | | 0.000e+000 | <- |
| 66 Benzo(a)pyrene | 9145 | 26806 | 53980 | 123458 | 408730 | 786034 | | | | | | |
| | 1671590 | | | | | | QUAD | 0.000e+000 | 1.15794 | -0.01584 | 0.99967 | |
| 68 Perylene | 0.70917 | 0.73598 | 0.70702 | 0.76375 | 0.89946 | 0.90334 | | | | | | |
| | 0.97644 | | | | | | AVRG | | 0.81360 | | 13.53089 | |

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

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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 | 1.11450 / 1.11242 | 1.07148 | 1.29126 | 1.12392 | 1.30596 | 1.05994 | AVRG | | 1.15421 | | 8.79172 | |

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

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

# ARI Labs, Inc.
## RETENTION TIME SUMMARY REPORT

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

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

| Compound | RT01 | RT02 | RT03 | RT04 | RT05 | RT06 | RT07 | EXPEC RT | RT WINDOW | AVG RT | STD DEV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 trans-Decalin | 7.046 | 7.046 | 7.046 | 7.056 | 7.046 | 7.036 | 7.035 | 7.035 | 4.035-10.035 | 7.044 | 0.007 |
| 2 cis-Decalin | 8.145 | 8.155 | 8.155 | 8.165 | 8.155 | 8.155 | 8.165 | 8.165 | 5.165-11.165 | 8.157 | 0.007 |
| 3 C1-Decalin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 8.800 | 5.800-11.800 | +++++ | +++++ |
| 4 C2-Decalin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 9.200 | 6.200-12.200 | +++++ | +++++ |
| 5 C3-Decalin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 10.000 | 7.000-13.000 | +++++ | +++++ |
| 247 C4-Decalin | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 10.100 | 7.100-13.100 | +++++ | +++++ |
| $ 6 Naphthalene-d8 | 11.776 | 11.776 | 11.776 | 11.776 | 11.776 | 11.776 | 11.776 | 11.776 | 8.776-14.776 | 11.776 | 0.000 |
| 7 Naphthalene | 11.837 | 11.847 | 11.847 | 11.837 | 11.837 | 11.847 | 11.847 | 11.847 | 8.847-14.847 | 11.842 | 0.005 |
| 8 C1-Naphthalenes | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 14.000 | 11.000-17.000 | +++++ | +++++ |
| 9 C2-Naphthalenes | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 16.000 | 13.000-19.000 | +++++ | +++++ |
| 10 C3-Naphthalenes | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 18.000 | 15.000-21.000 | +++++ | +++++ |
| 11 C4-Naphthalenes | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 18.500 | 15.500-21.500 | +++++ | +++++ |
| 12 Benzo(b)thiophene | 12.296 | 12.296 | 12.296 | 12.296 | 12.296 | 12.296 | 12.296 | 12.296 | 9.296-15.296 | 12.296 | 0.000 |
| 13 C1-Benzothiophenes | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 14.200 | 11.200-17.200 | +++++ | +++++ |
| 14 C2-Benzothiophenes | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 15.800 | 12.800-18.800 | +++++ | +++++ |
| 15 C3_Benzothiophenes | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | +++++ | 17.200 | 14.200-20.200 | +++++ | +++++ |
| 16 2-Methylnaphthalene | 13.680 | 13.681 | 13.680 | 13.681 | 13.681 | 13.680 | 13.680 | 13.680 | 10.680-16.680 | 13.680 | 0.000 |

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

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

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

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

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

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

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

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

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

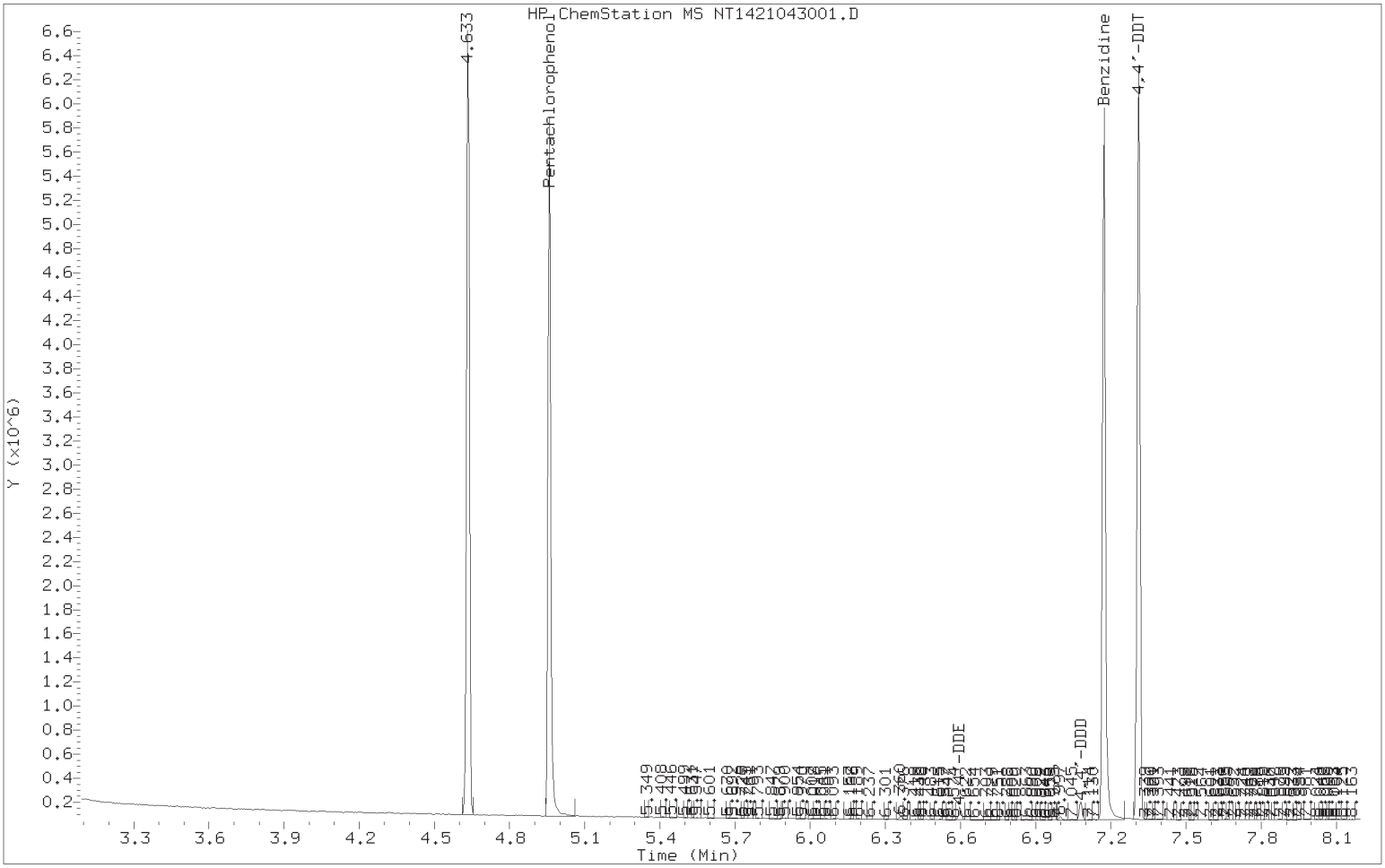
ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

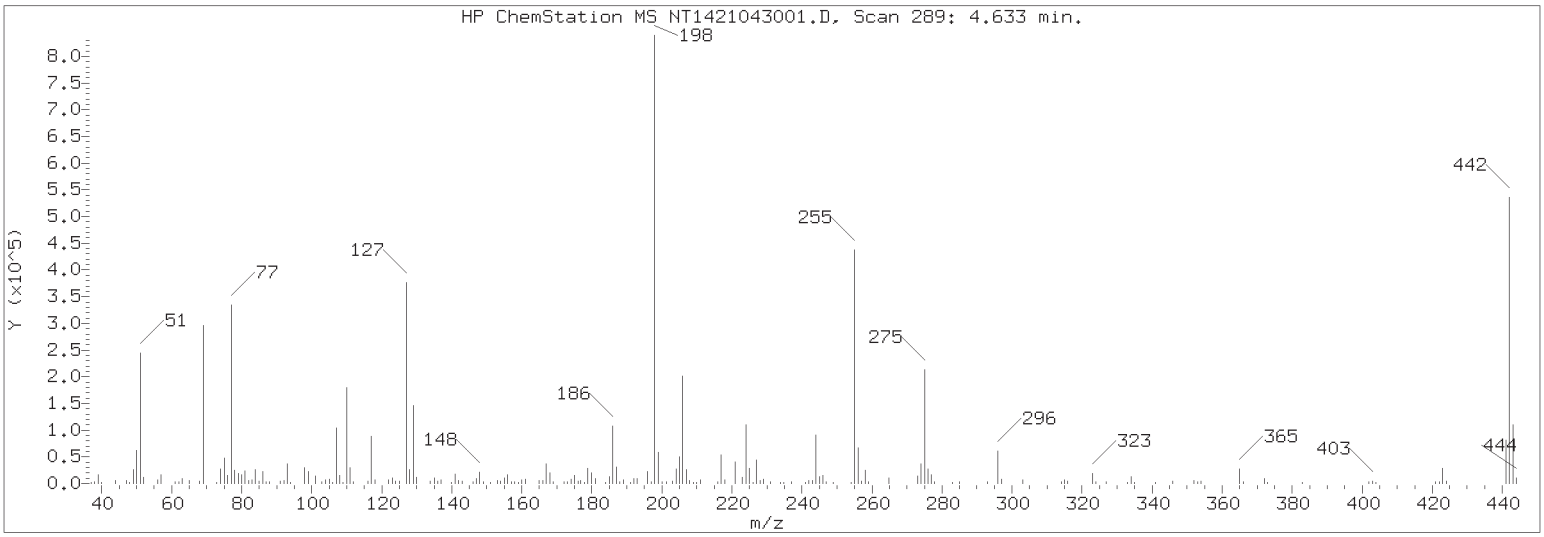
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Batch File: \\target\share\chem3\nt14.i\20210430.b
Inst ID: nt14.i

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

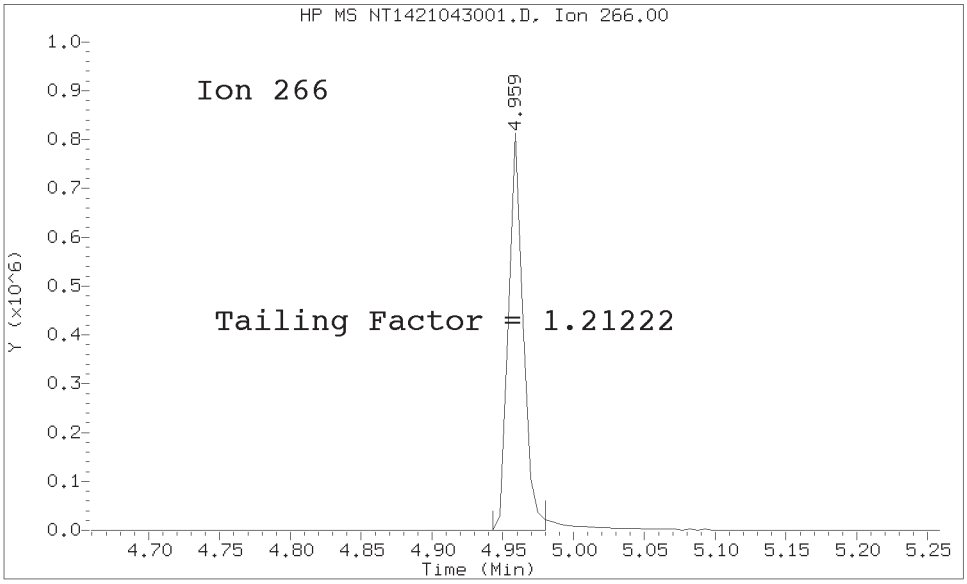
# DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

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



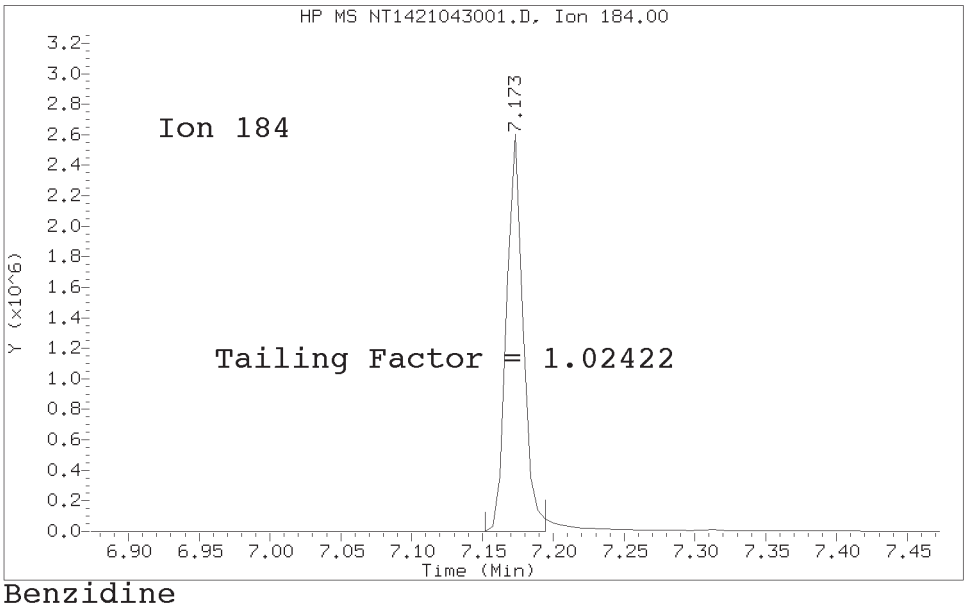



Datafile Analyzed: /20210430.b/NT1421043001.D/NT1421043001.D
Method Used: \20210430.b\DFTPP8270E.m\sw846ddt.m  Inst: nt14
Injection Date: 30-APR-2021 07:42  Operator: JZ
Sample Info:  SJD0305-TUN1
Report Date: 05/01/2021 09:19




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

Tail Factor = 1.212  Maximum Allowed = 2.0




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

Tail Factor = 1.024  Maximum Allowed = 2.0

# 8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

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

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

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

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

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

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

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

+------------------+------------------+------------------+------------------+

Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043002.D



Date : 30-APR-2021 07:56

Client ID:

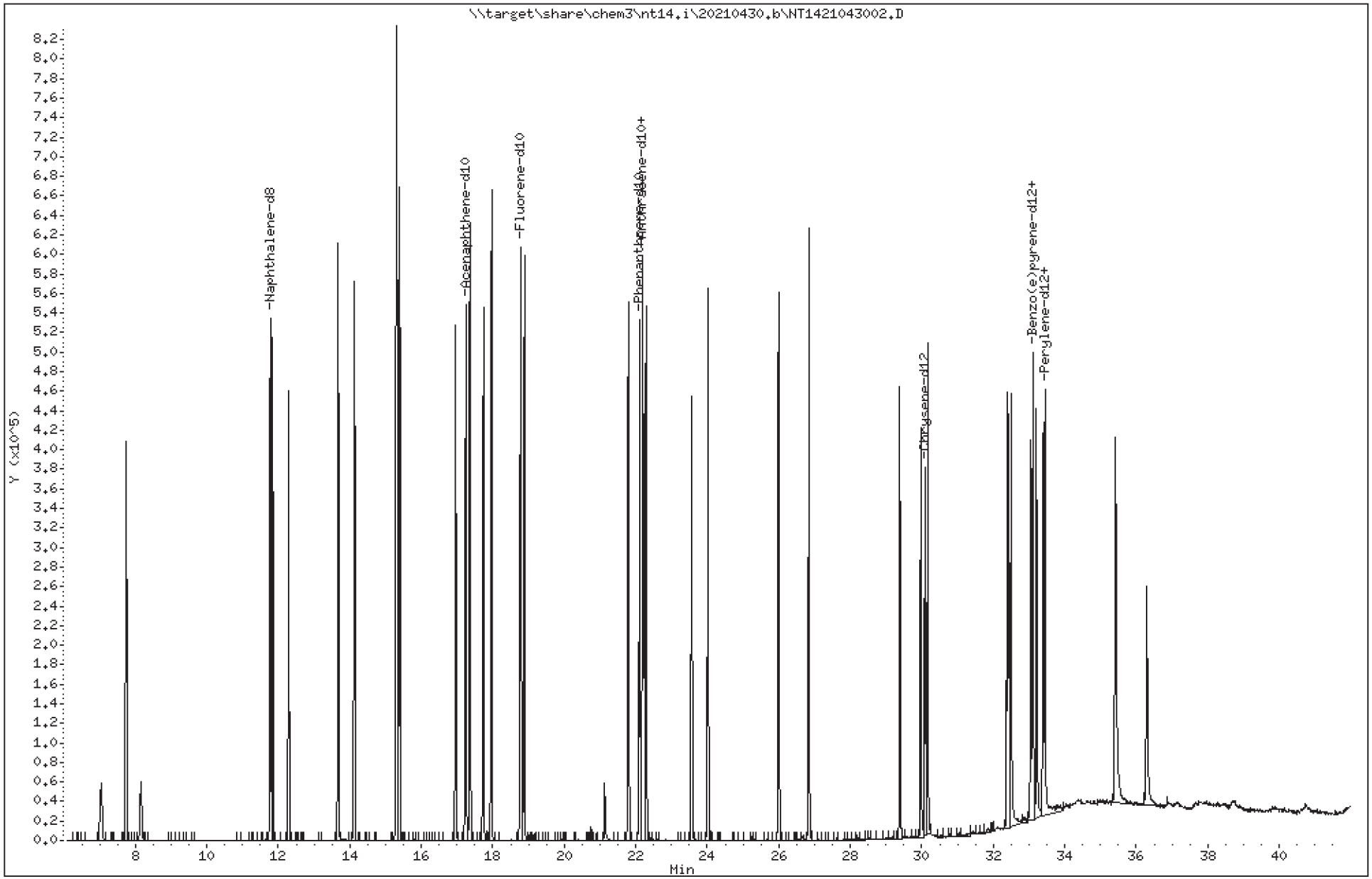
Instrument: nt14.i

Sample Info: SJD0305-CAL5

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25




Revised Report 21D0180 07/07/2021 Page 827 of 1709

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043002.D
Lab Smp Id: SJD0305-CAL5
Inj Date : 30-APR-2021 07:56
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-CAL5
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Meth Date : 01-May-2021 07:40 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.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: VANS-202011

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

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

## QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043002.D
Lab Smp Id: SJD0305-CAL5
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1421043002.D

Lab ID: SJD0305-CAL5
nt14.i,  20210430.b\ALKYLPNA.m,    30-APR-2021 07:56

| RT | CO-ELUTION COMPOUNDS |
|---|---|
| NO CO-ELUTIONS | |

Quant Method: ICAL

RRT CHECK

| RRT | CCV RRT | DELTA | COMPOUND |
|---|---|---|---|
| NONE | | | |

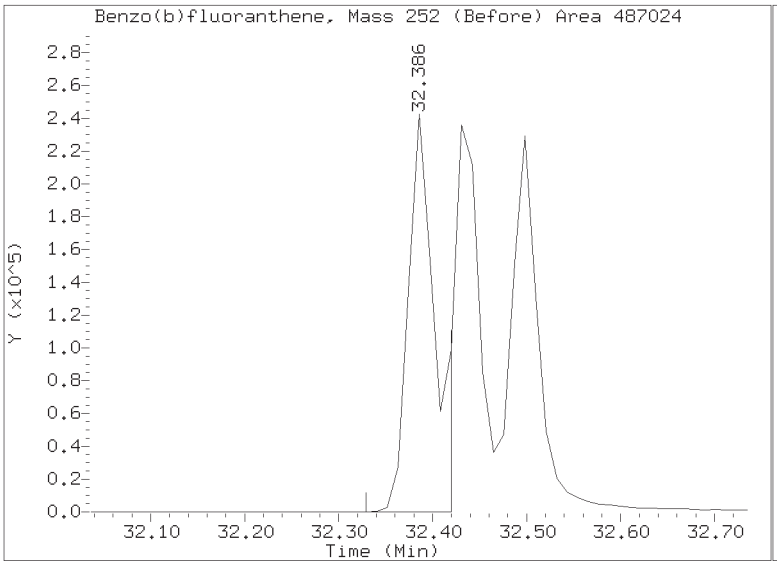
RRT check based on Ccal File: NT1421043009.D

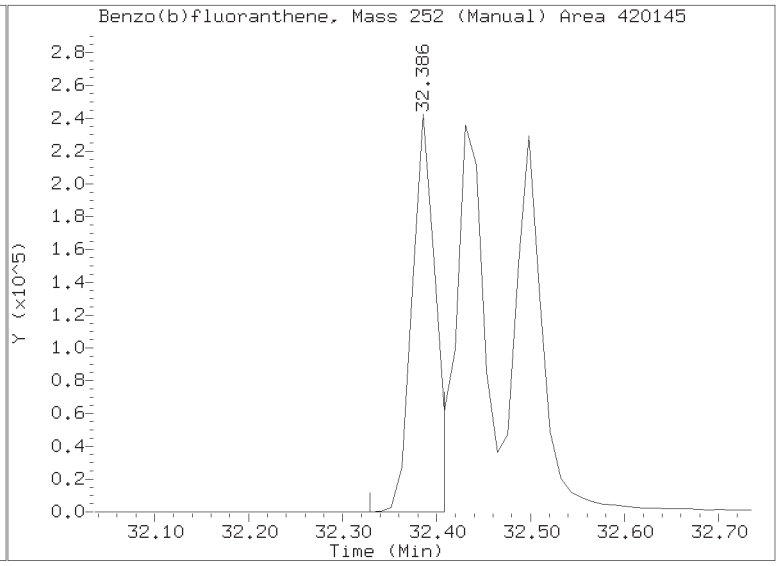
On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

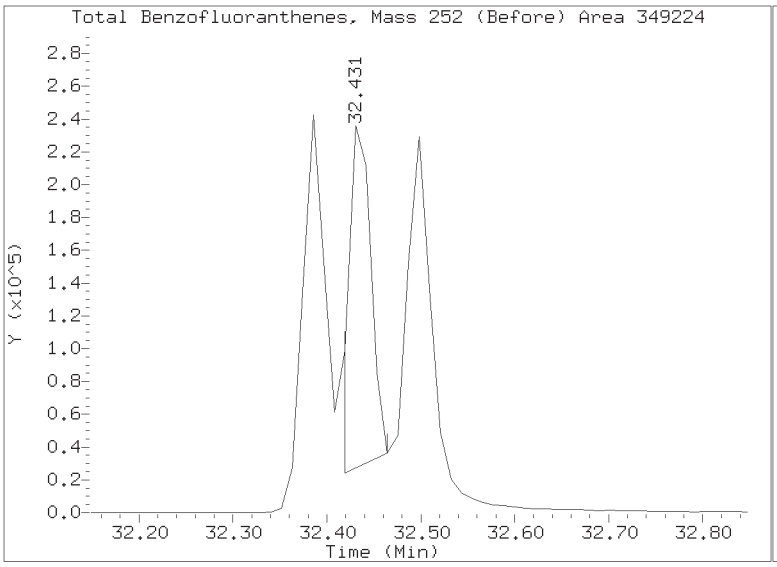
* Only compounds listed in the work order have been verified by the analyst *

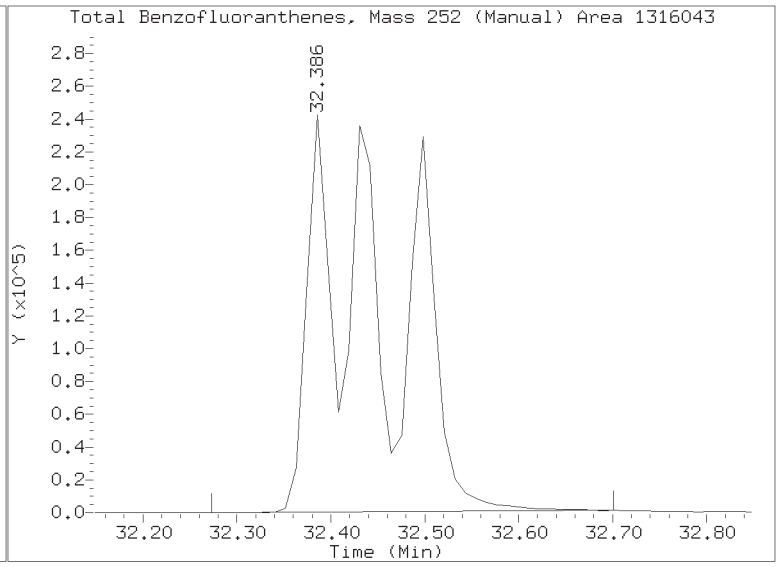
# Quant Ion Manual Peak Adjustment Report

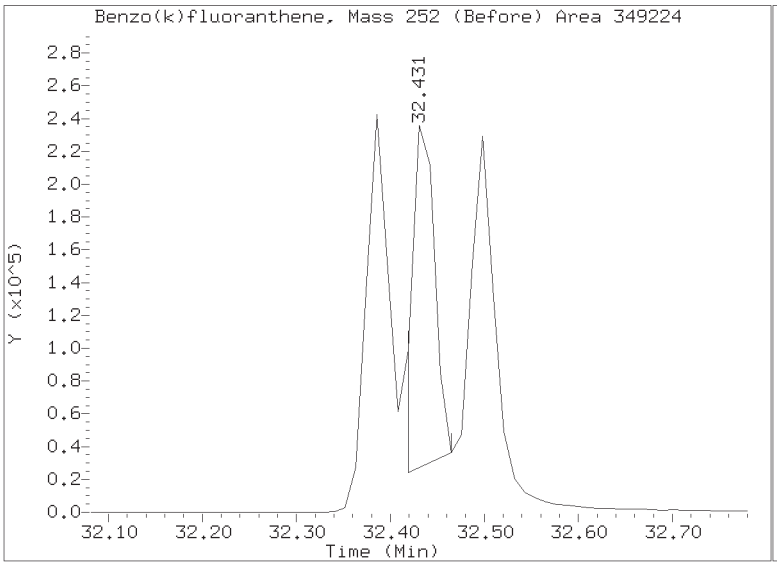
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043002.D
Injection Date: 30-APR-2021 07:56
Lab ID:SJD0305-CAL5 Client ID:
Report Date: 05/01/2021 09:18

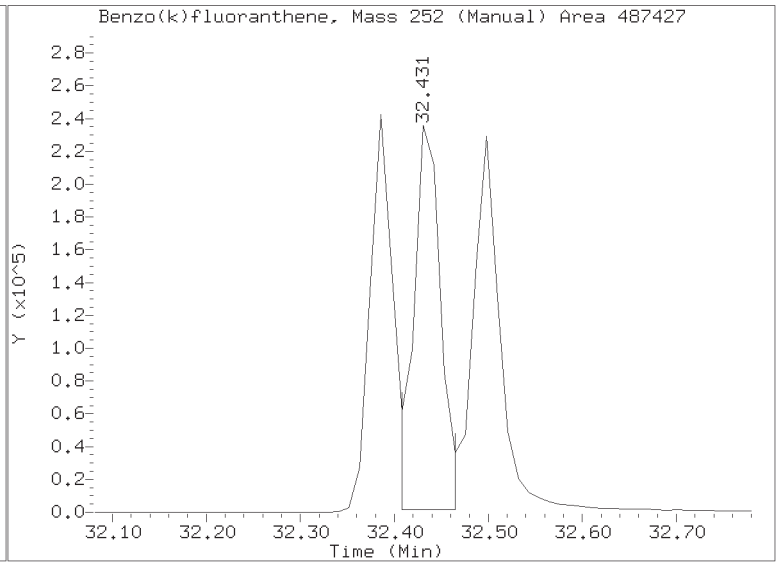


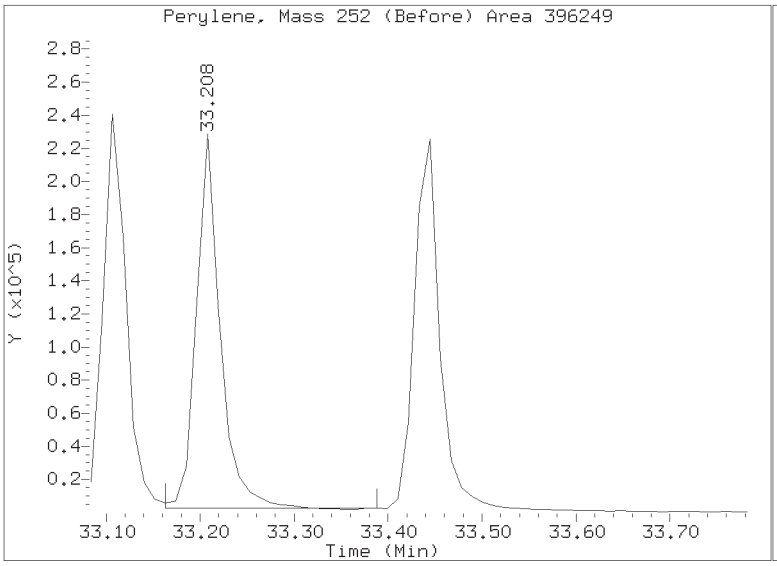



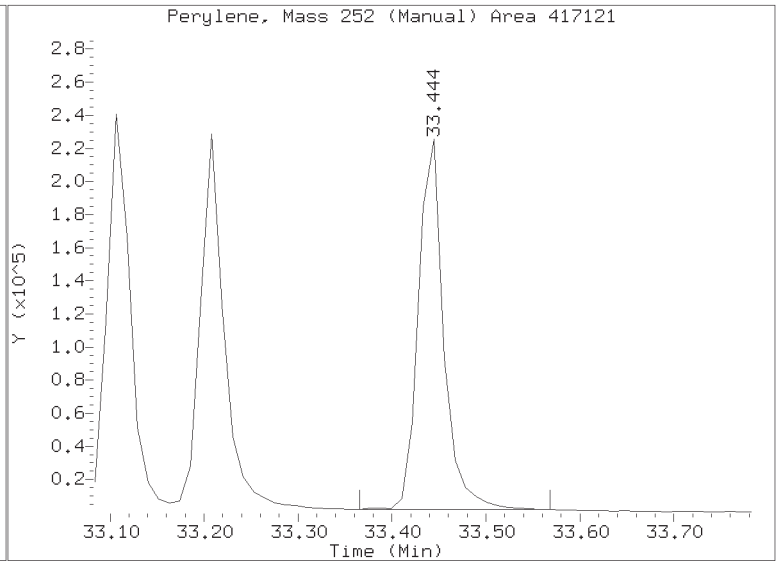



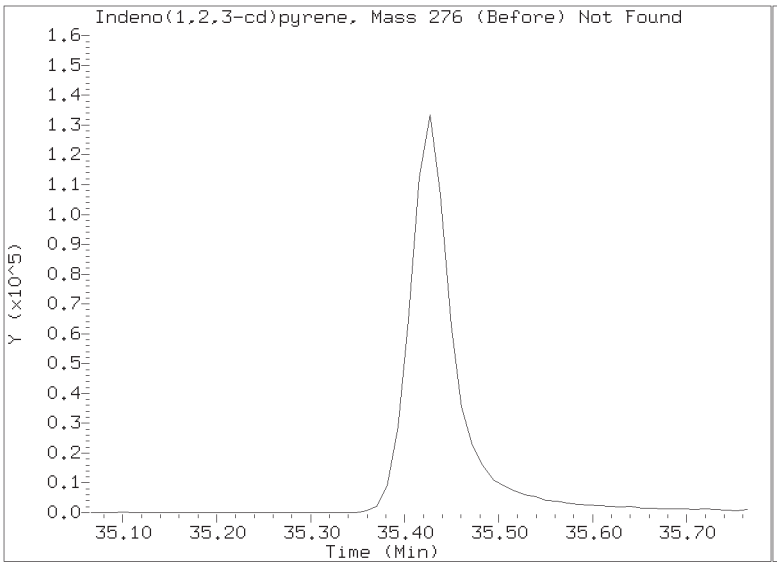



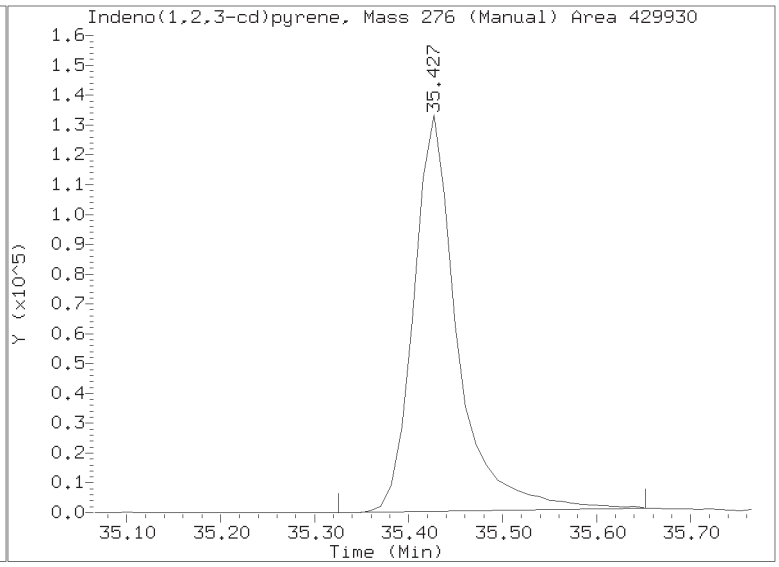
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043002.D
Injection Date: 30-APR-2021 07:56
Lab ID:SJD0305-CAL5 Client ID:
Report Date: 05/01/2021 09:18



Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043003.D

Page 1

Date : 30-APR-2021 08:43

Client ID:

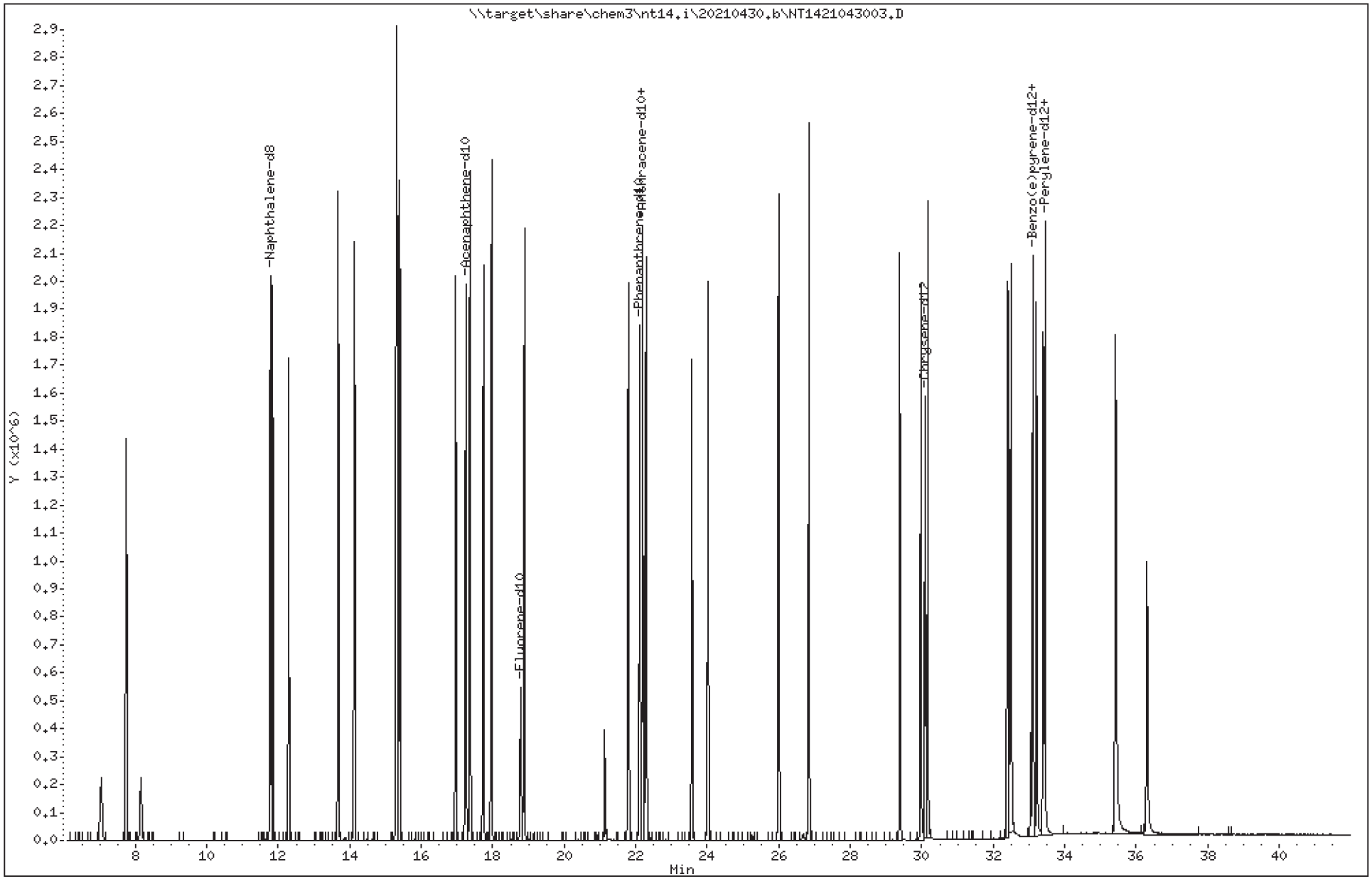
Instrument: nt14.i

Sample Info: SJD0305-CAL7

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

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ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043003.D
Lab Smp Id: SJD0305-CAL7
Inj Date : 30-APR-2021 08:43
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-CAL7
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Meth Date : 01-May-2021 07:40 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.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: VANS-202011

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

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

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043003.D
Lab Smp Id: SJD0305-CAL7
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1421043003.D

Lab ID: SJD0305-CAL7
nt14.i,  20210430.b\ALKYLPNA.m,    30-APR-2021 08:43

| RT | CO-ELUTION COMPOUNDS |
|---|---|
| NO CO-ELUTIONS | |

Quant Method: ICAL

RRT CHECK

| RRT | CCV RRT | DELTA | COMPOUND |
|---|---|---|---|
| NONE | | | |

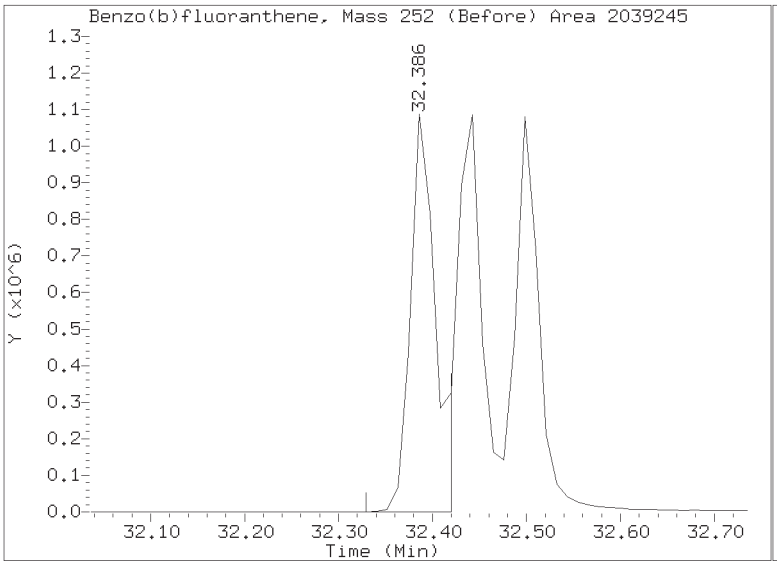
RRT check based on Ccal File: NT1421043009.D

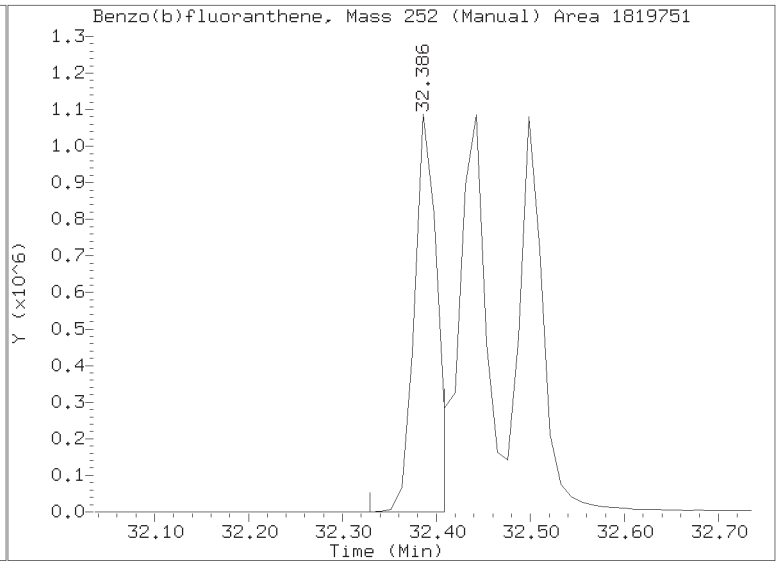
On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

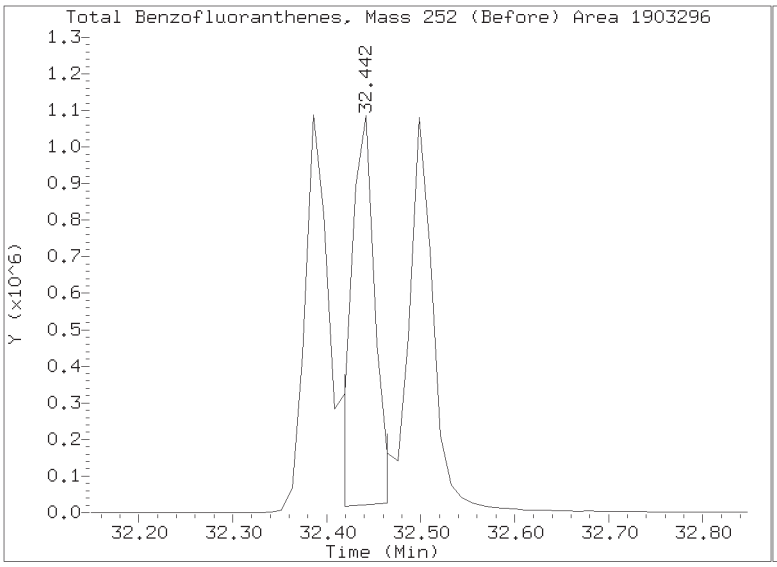
* Only compounds listed in the work order have been verified by the analyst *

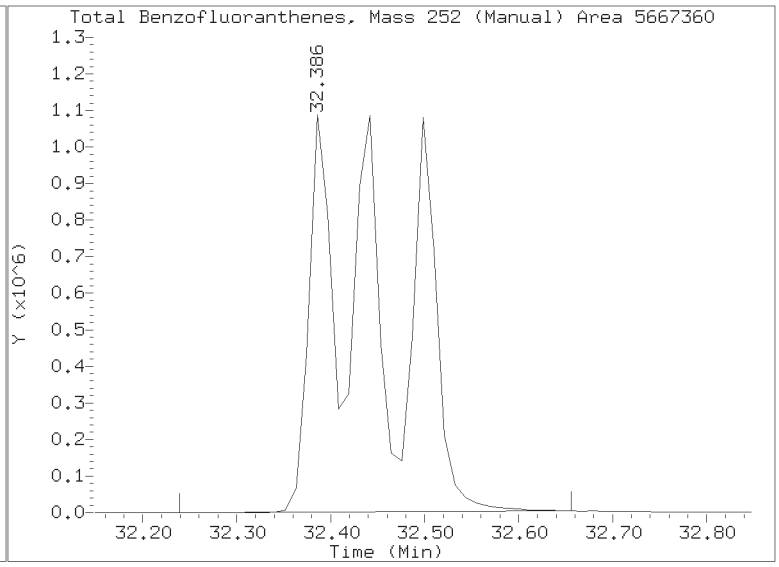
# Quant Ion Manual Peak Adjustment Report

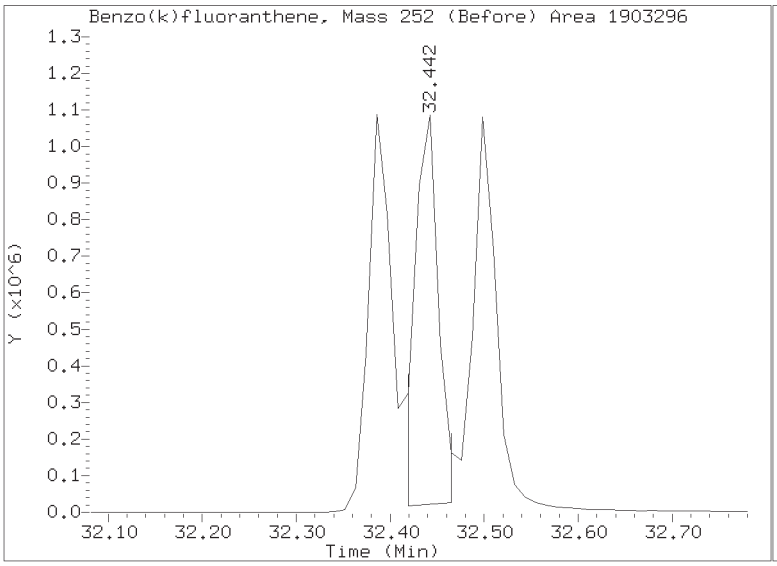
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043003.D
Injection Date: 30-APR-2021 08:43
Lab ID:SJD0305-CAL7 Client ID:
Report Date: 05/01/2021 09:18

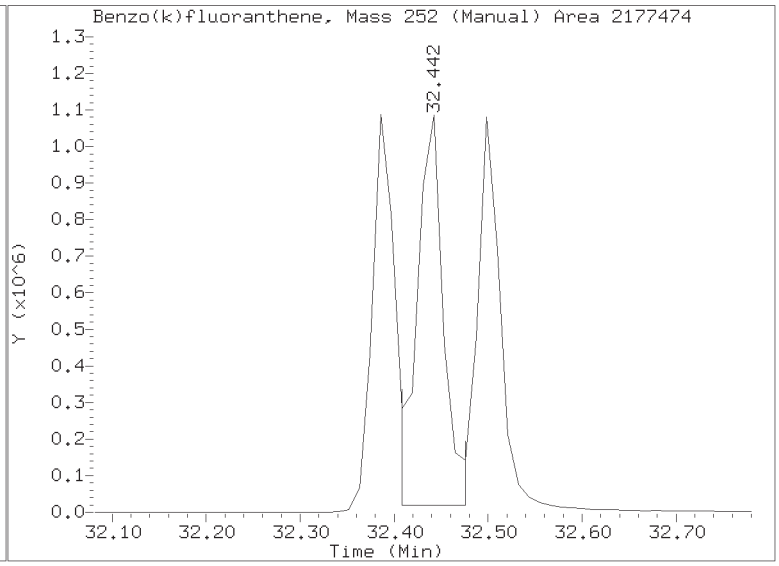


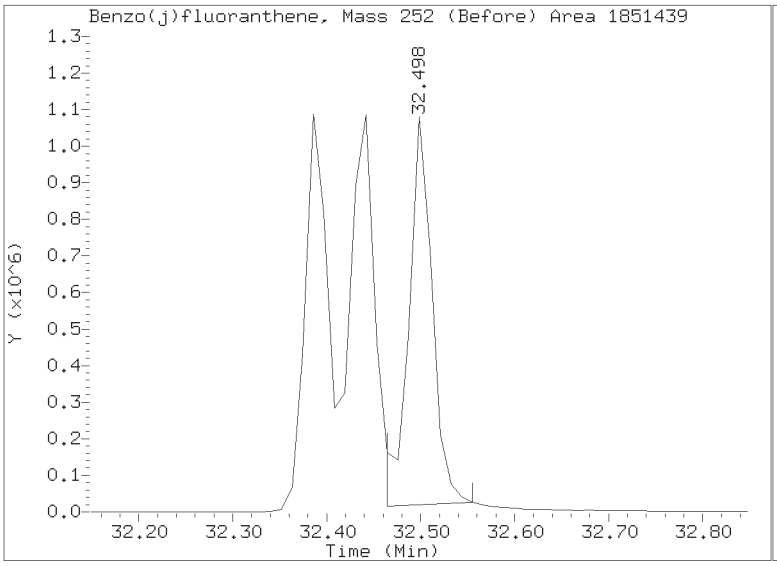



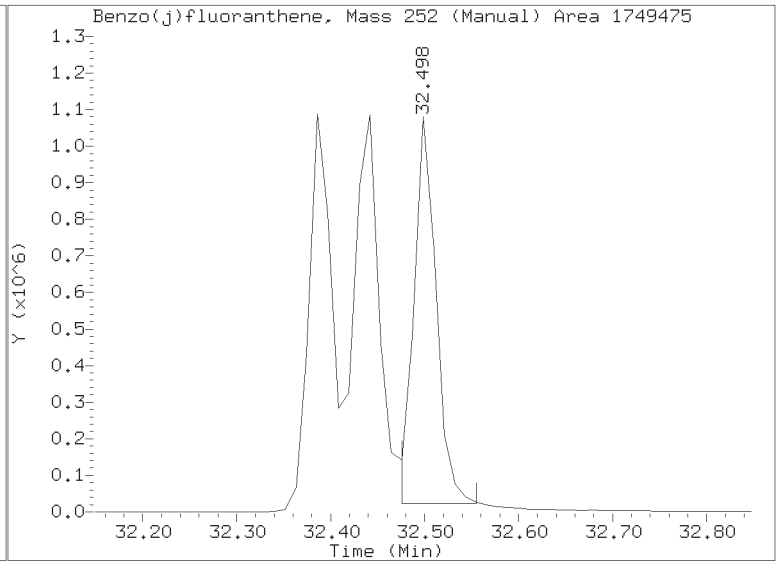



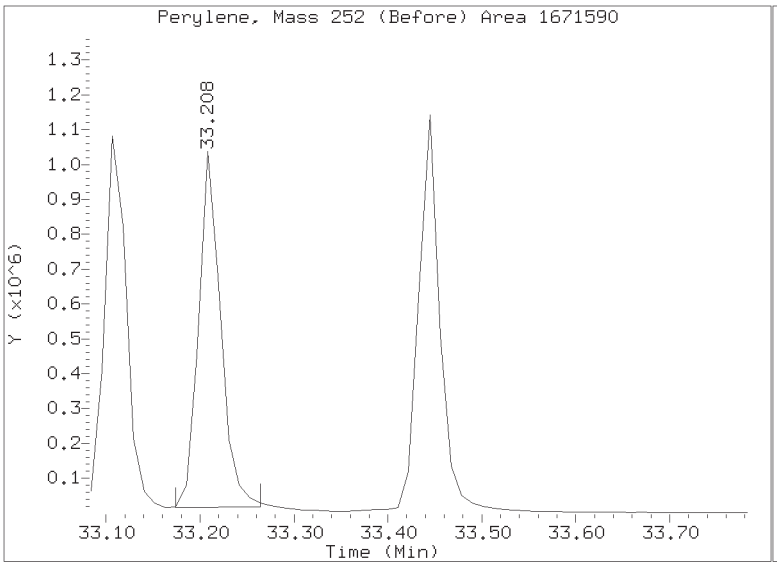



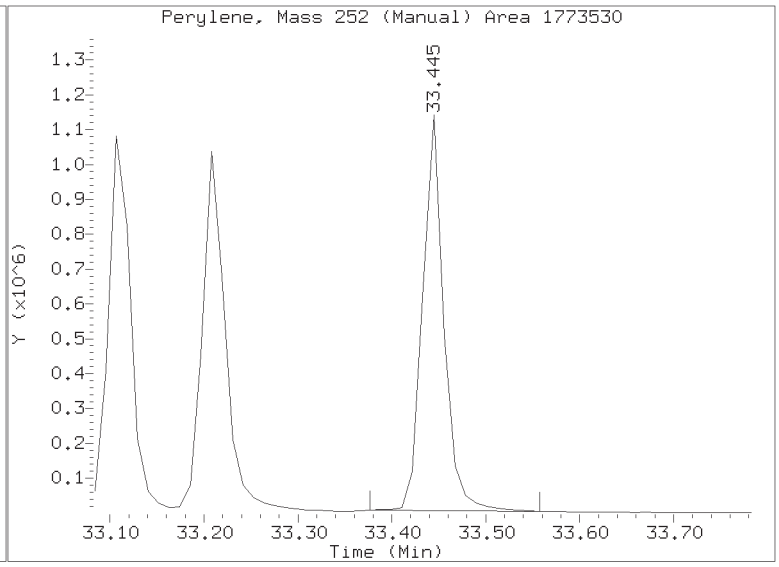
# Quant Ion Manual Peak Adjustment Report

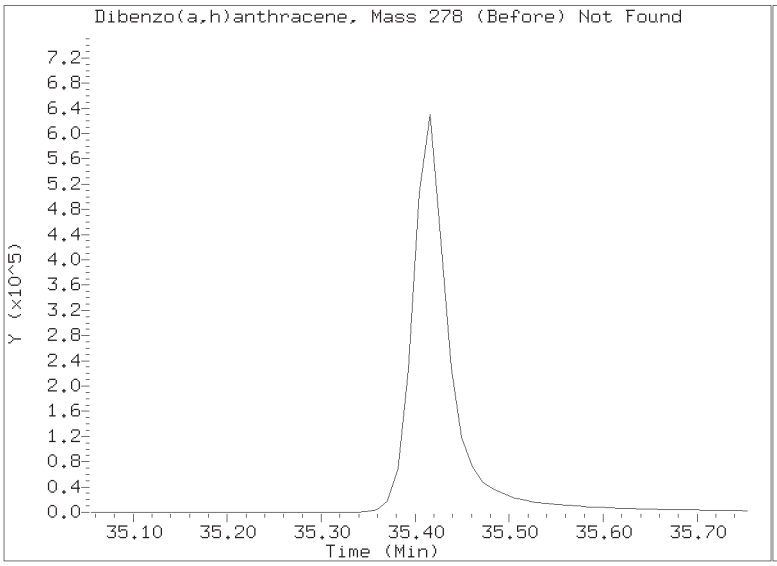
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043003.D
Injection Date: 30-APR-2021 08:43
Lab ID:SJD0305-CAL7 Client ID:
Report Date: 05/01/2021 09:18

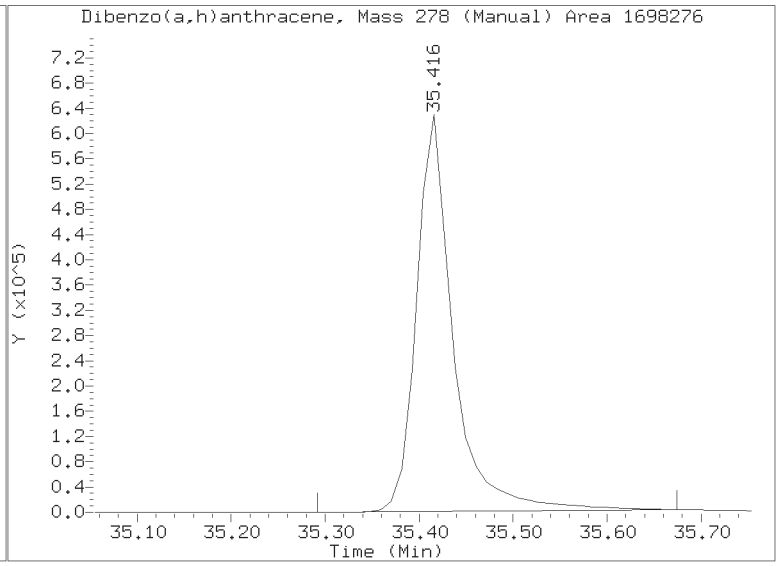


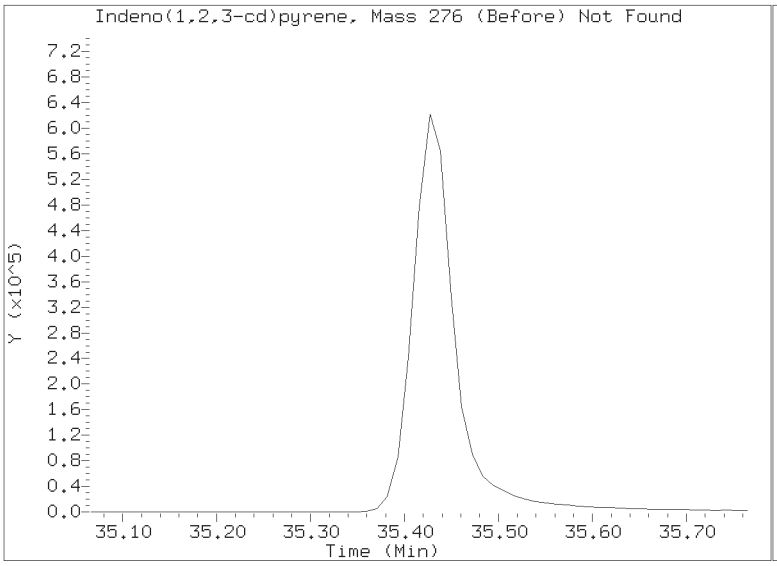



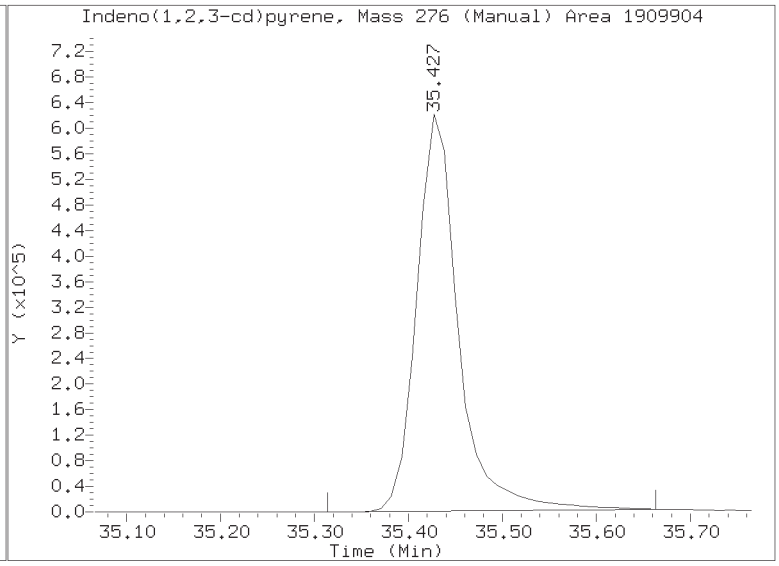



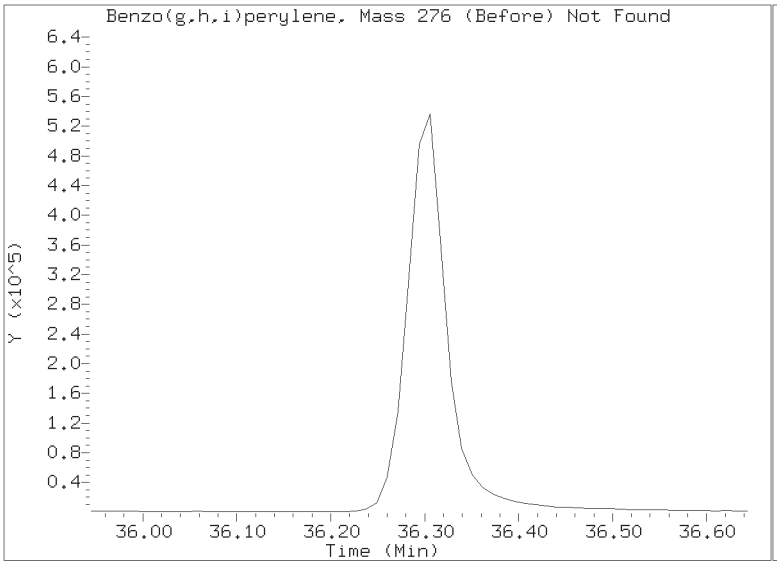



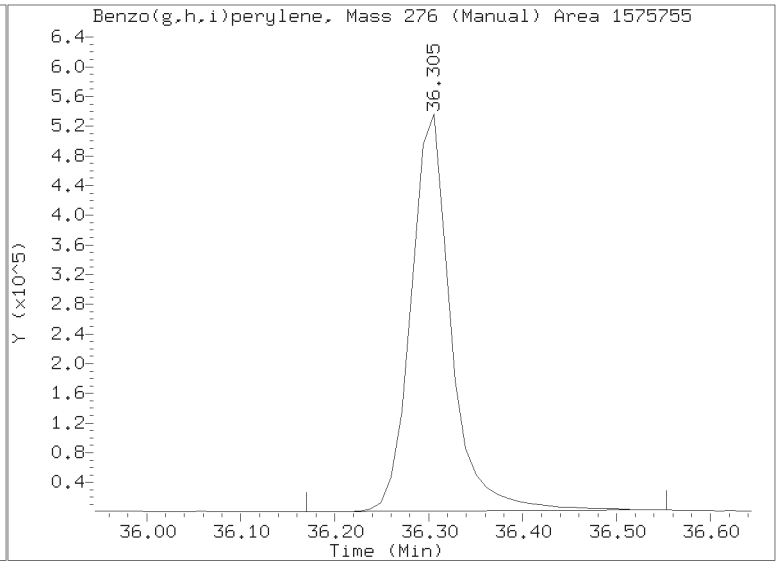
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043003.D
Injection Date: 30-APR-2021 08:43
Lab ID:SJD0305-CAL7 Client ID:
Report Date: 05/01/2021 09:18



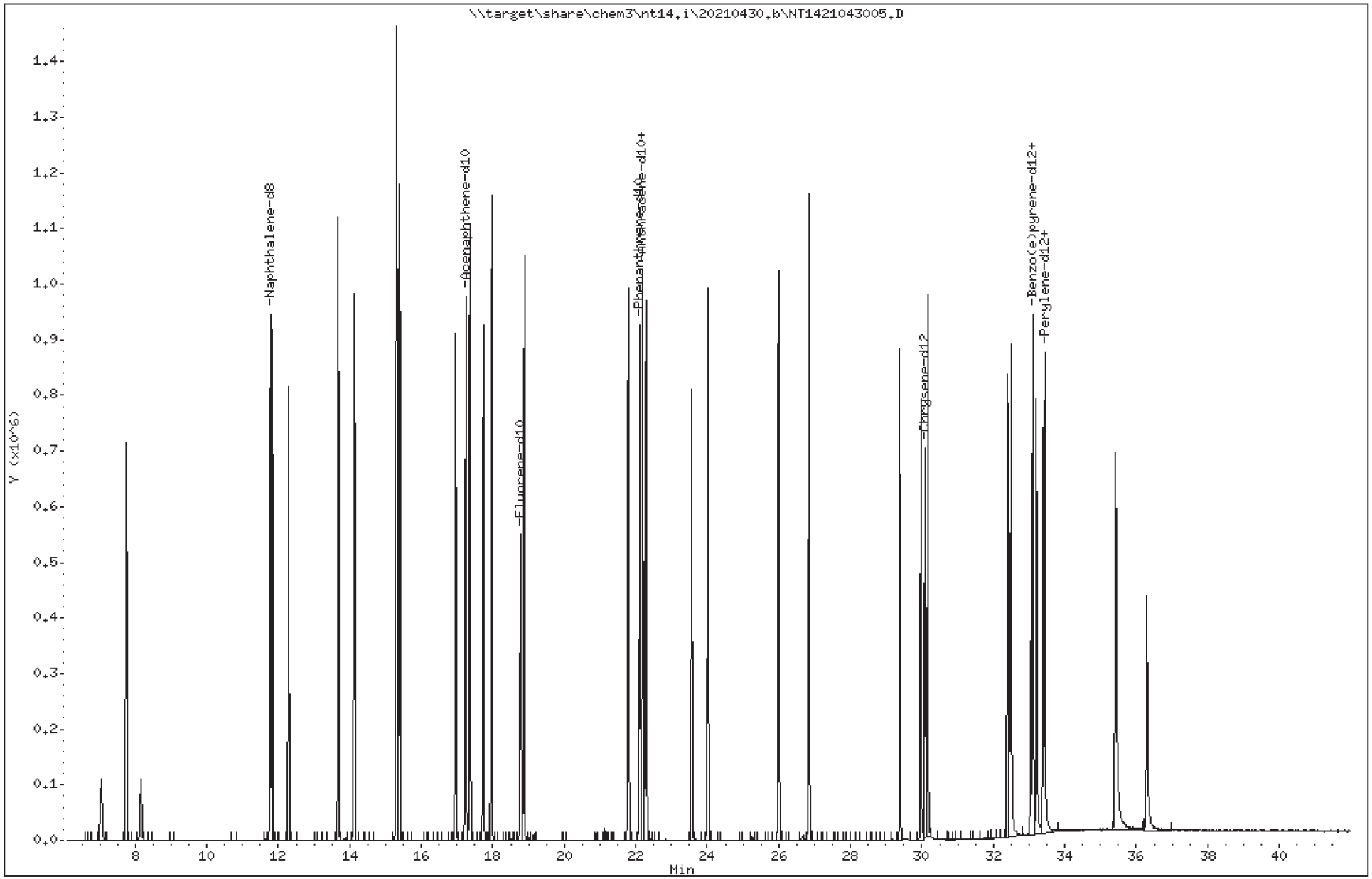



Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043005.D
Date : 30-APR-2021 10:19
Client ID:
Sample Info: SJD0305-CAL6

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

Column phase: Rxi-17Sil MS




Revised Report 21D0180 07/07/2021 Page 842 of 1709

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043005.D
Lab Smp Id: SJD0305-CAL6
Inj Date : 30-APR-2021 10:19
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-CAL6
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Meth Date : 01-May-2021 07:40 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.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: VANS-202011

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

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

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043005.D
Lab Smp Id: SJD0305-CAL6
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1421043005.D

Lab ID: SJD0305-CAL6
nt14.i,  20210430.b\ALKYLPNA.m,    30-APR-2021 10:19

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

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

NONE

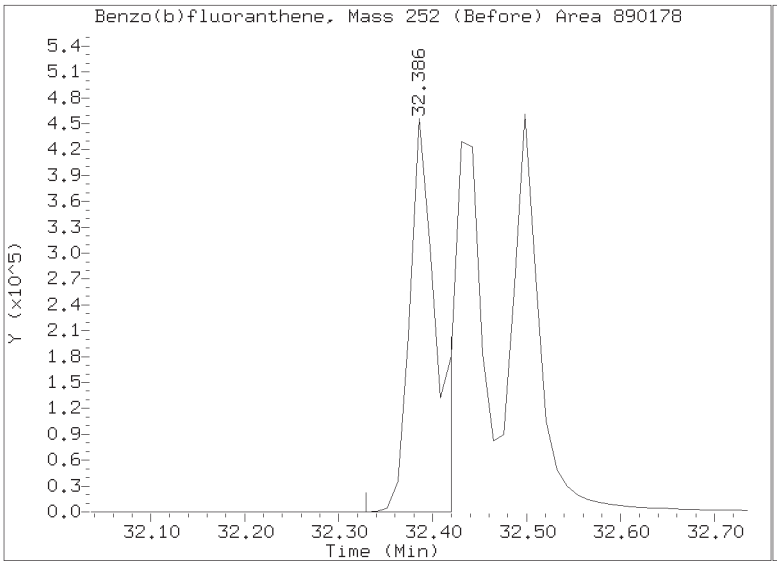
RRT check based on Ccal File: NT1421043009.D

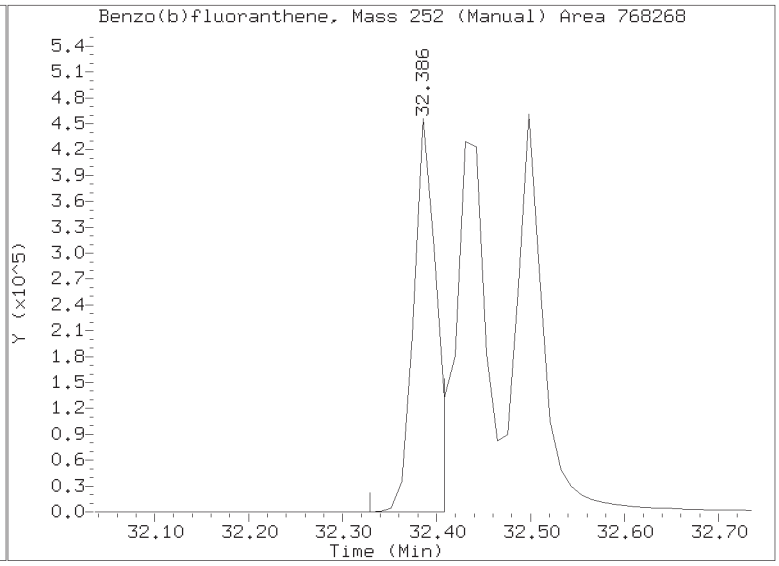
On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

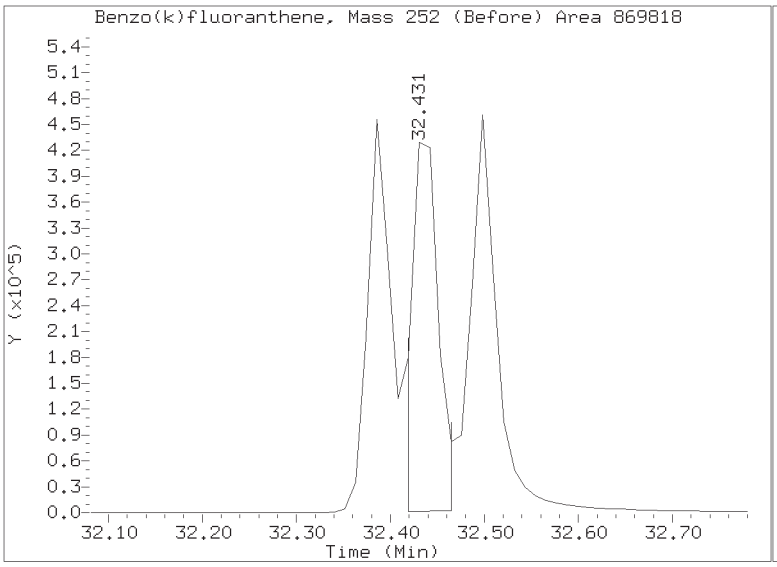
* Only compounds listed in the work order have been verified by the analyst *

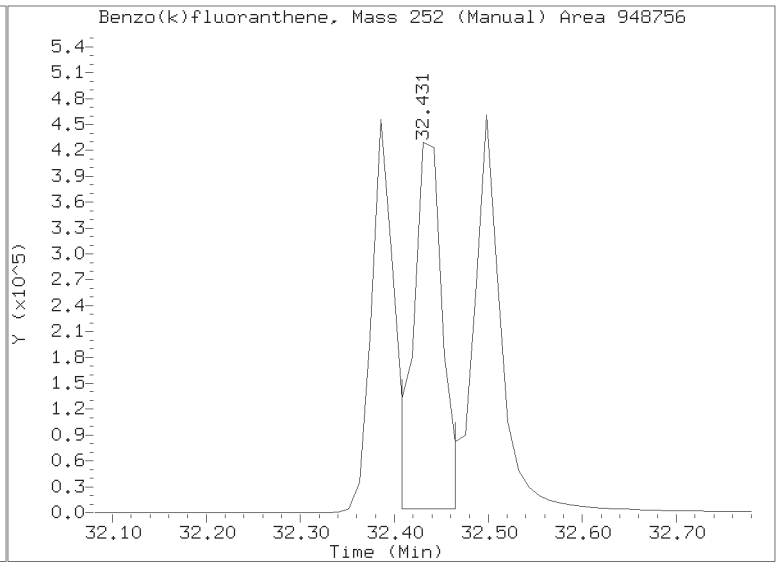
# Quant Ion Manual Peak Adjustment Report

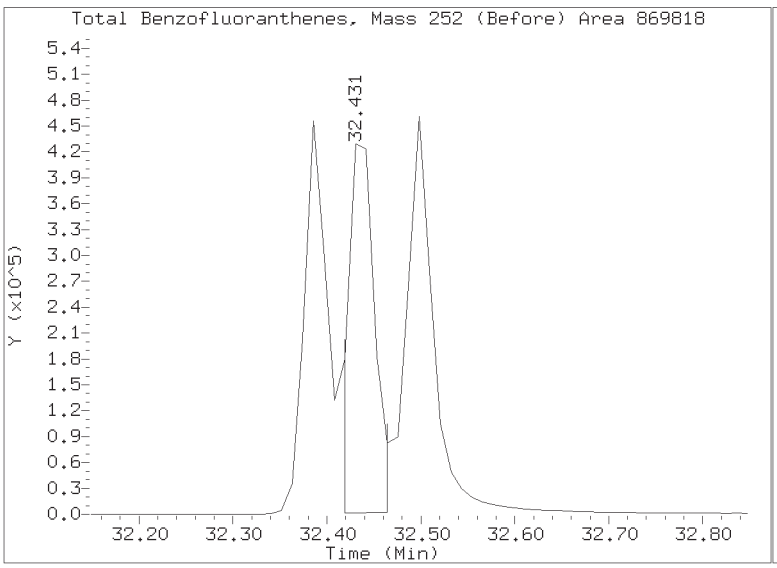
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043005.D
Injection Date: 30-APR-2021 10:19
Lab ID:SJD0305-CAL6 Client ID:
Report Date: 05/01/2021 09:18

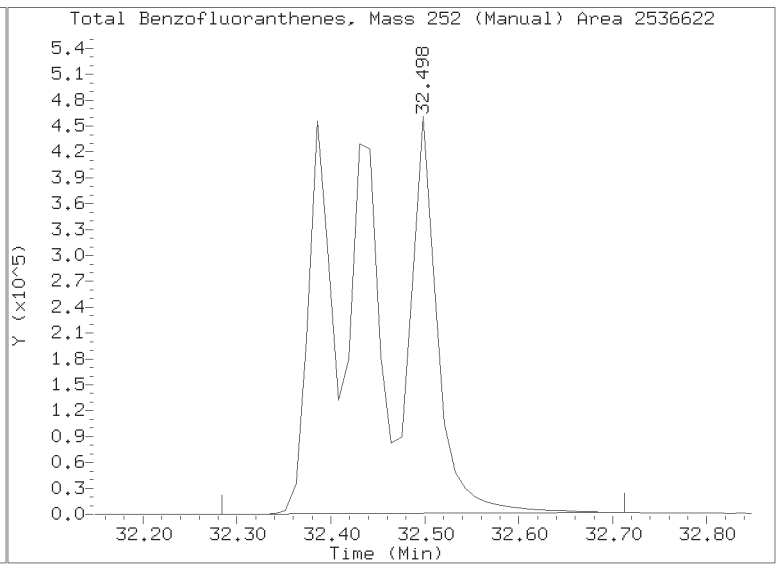


# Quant Ion Manual Peak Adjustment Report

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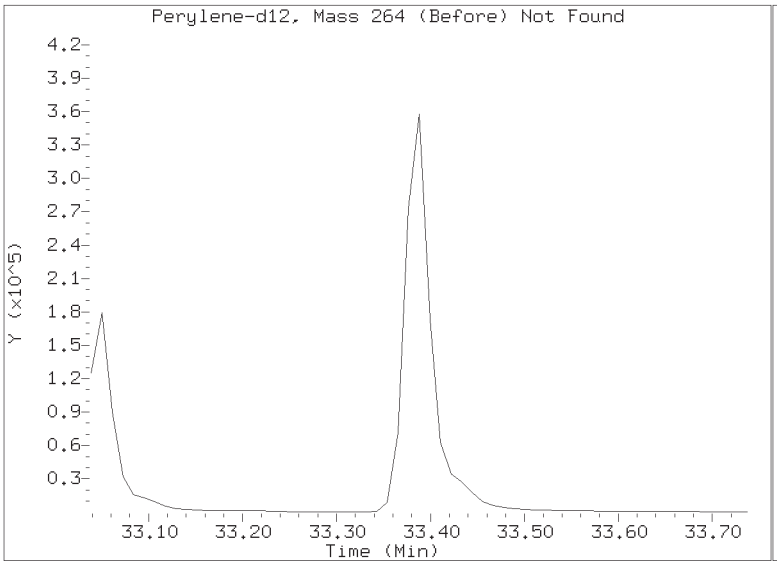
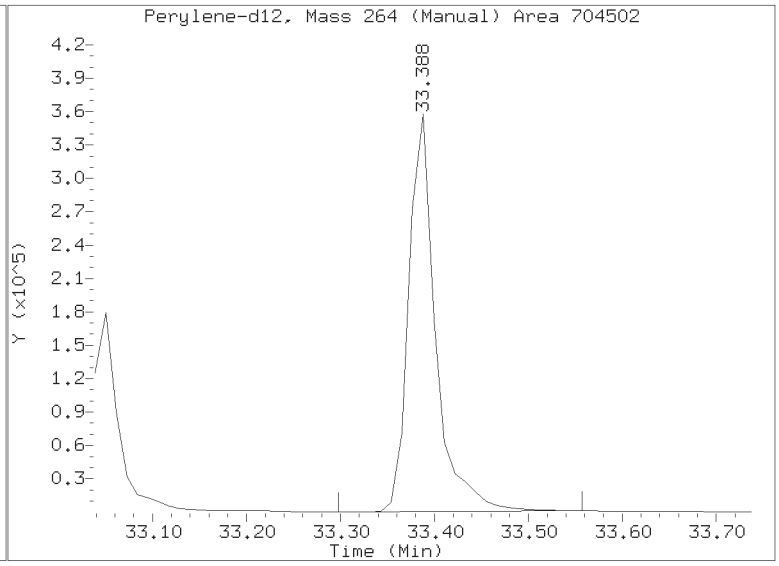
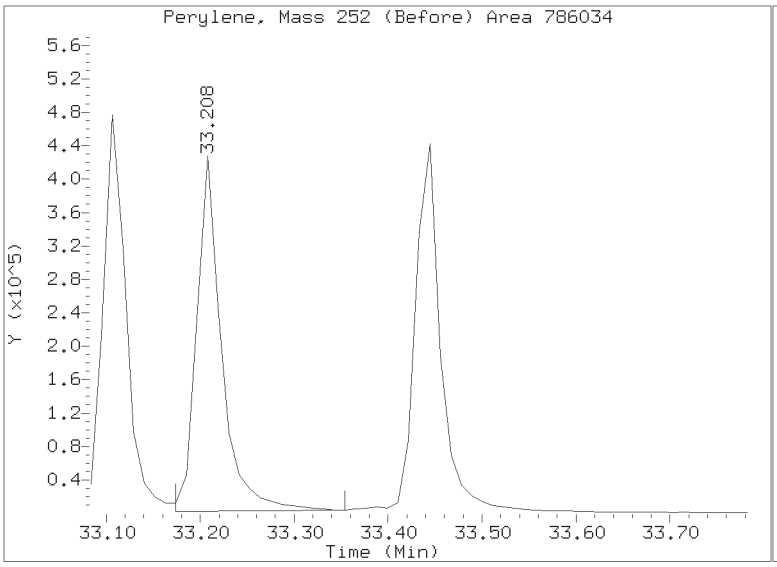
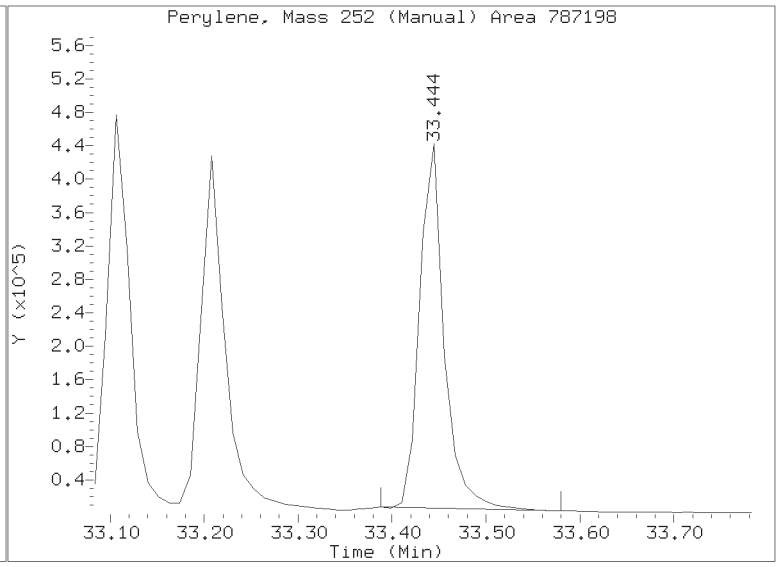
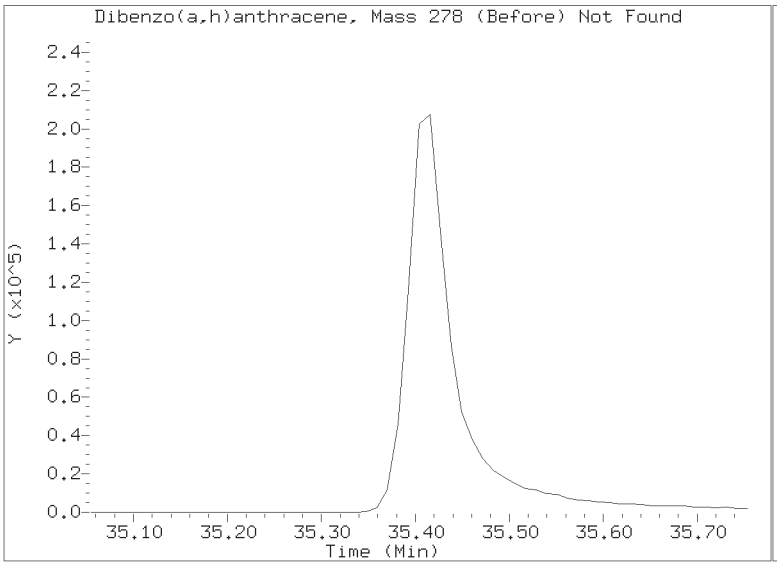
Injection Date: 30-APR-2021 10:19
Lab ID:SJD0305-CAL6 Client ID:
Report Date: 05/01/2021 09:18

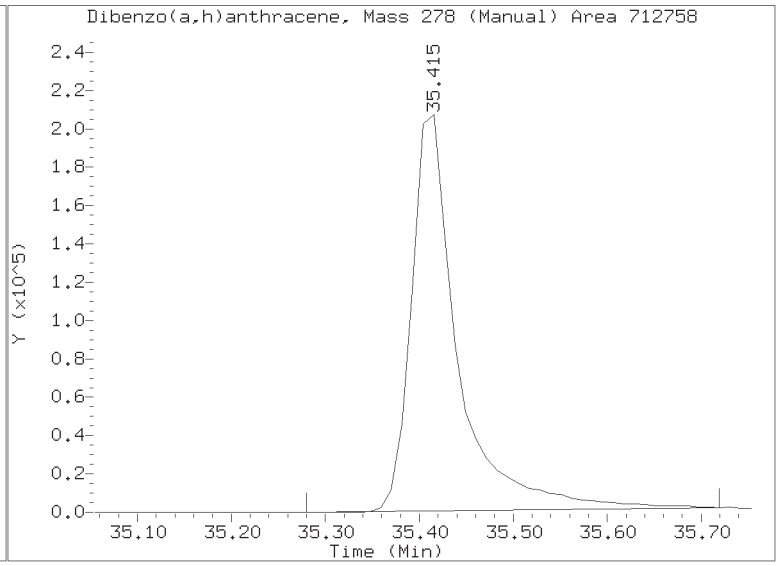


# Quant Ion Manual Peak Adjustment Report

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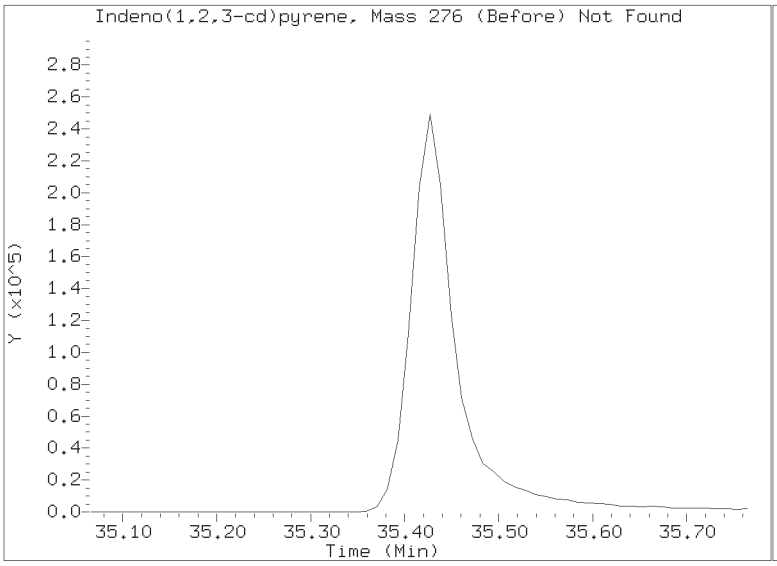
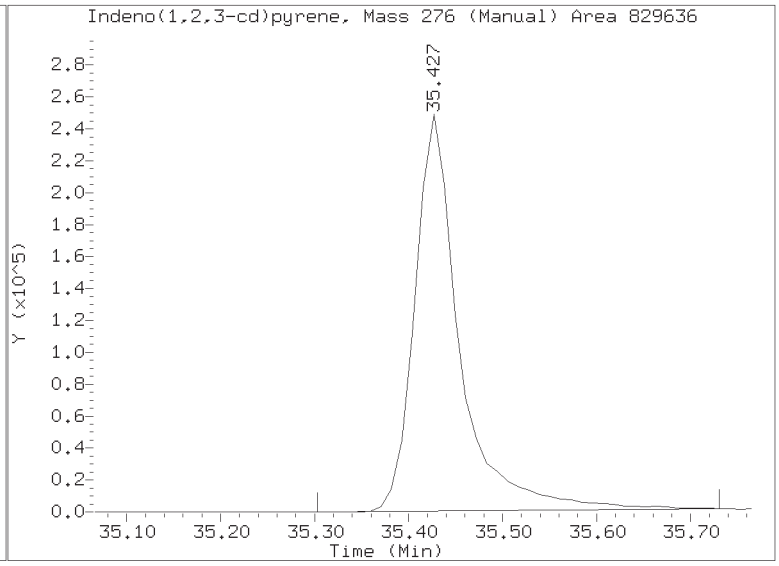
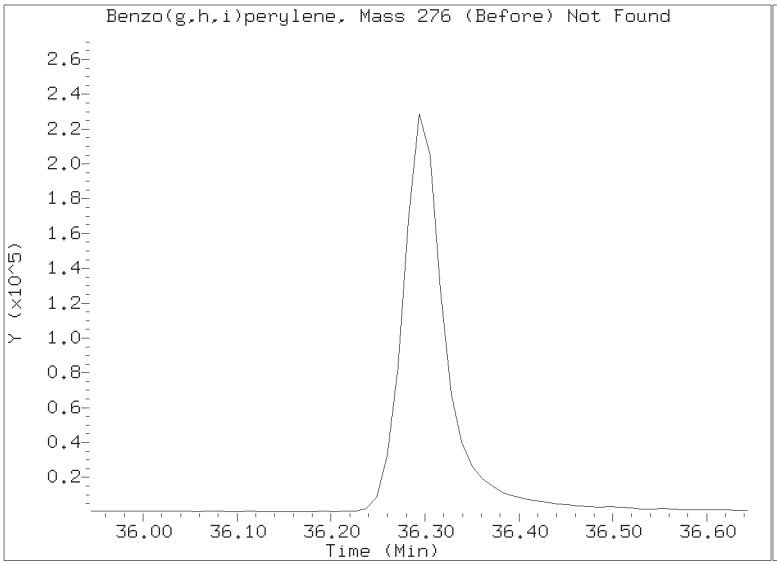
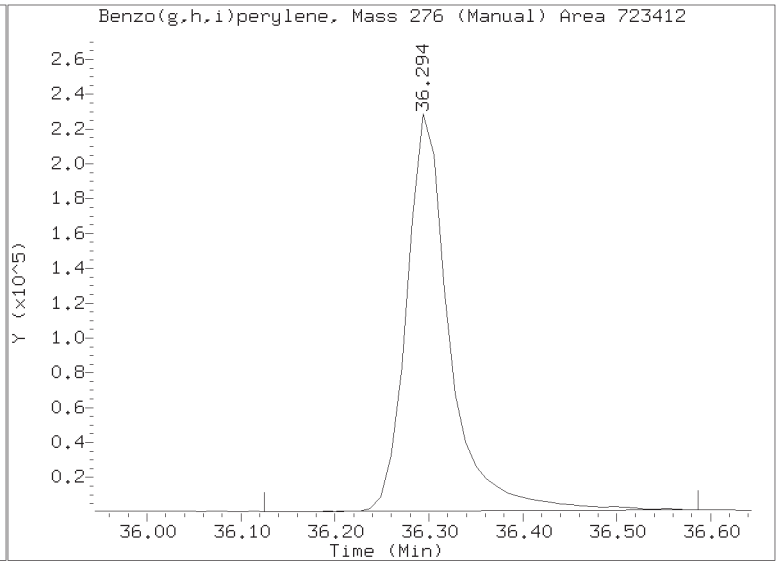
Injection Date: 30-APR-2021 10:19
Lab ID:SJD0305-CAL6 Client ID:
Report Date: 05/01/2021 09:18



Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043006.D

Page 1

Date : 30-APR-2021 11:07

Client ID:

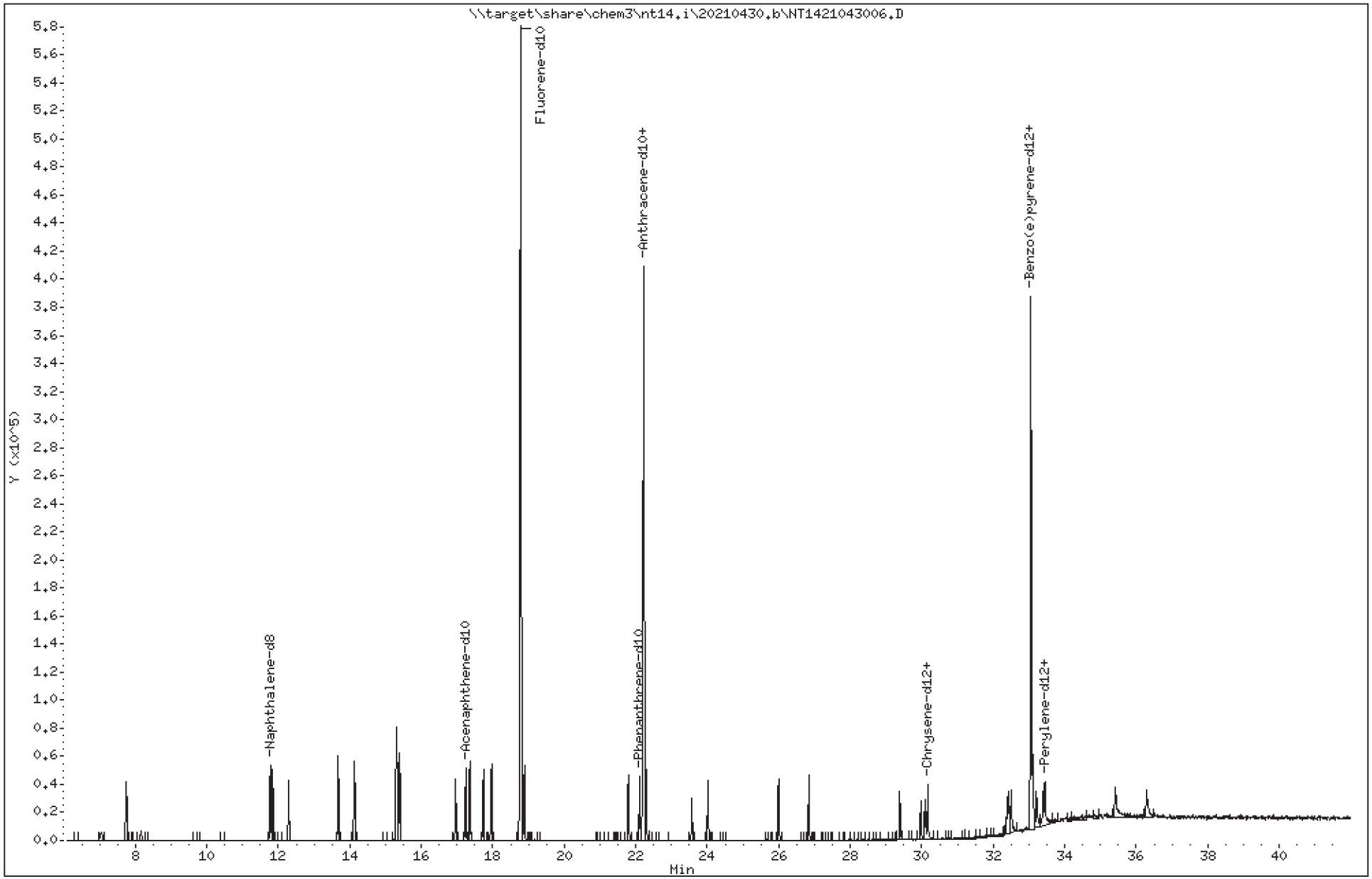
Instrument: nt14.i

Sample Info: SJD0305-CAL2

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

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ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043006.D
Lab Smp Id: SJD0305-CAL2
Inj Date : 30-APR-2021 11:07
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-CAL2
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Meth Date : 01-May-2021 07:40 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.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: VANS-202011

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

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

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043006.D
Lab Smp Id: SJD0305-CAL2
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1421043006.D

Lab ID: SJD0305-CAL2
nt14.i,  20210430.b\ALKYLPNA.m,    30-APR-2021 11:07

| RT | CO-ELUTION COMPOUNDS |
|---|---|
| NO CO-ELUTIONS | |

Quant Method: ICAL

RRT CHECK

| RRT | CCV RRT | DELTA | COMPOUND |
|---|---|---|---|
| NONE | | | |

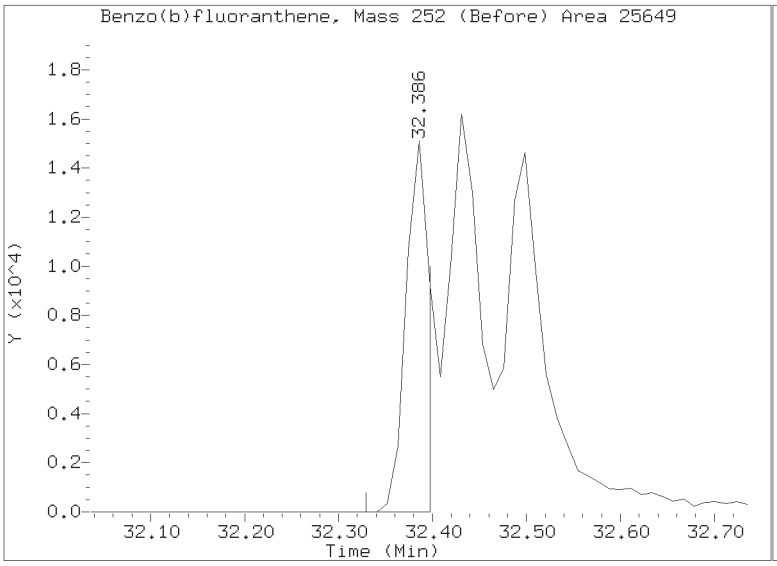
RRT check based on Ccal File: NT1421043009.D

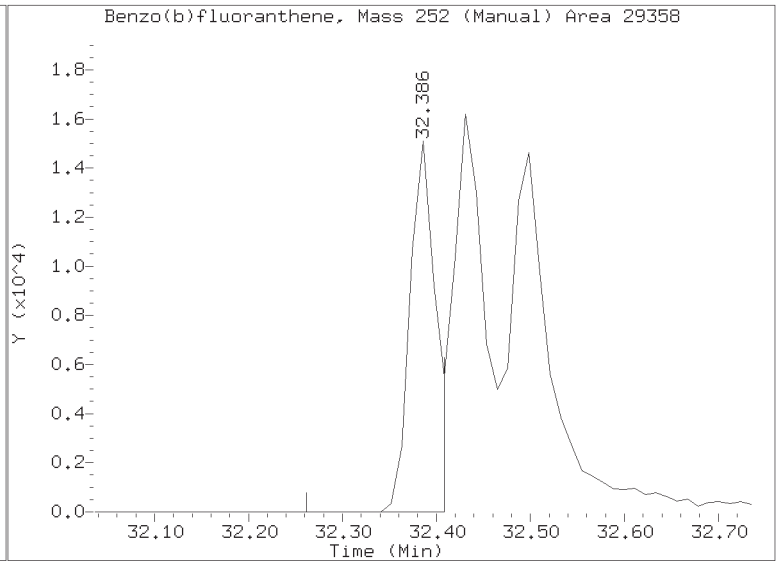
On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

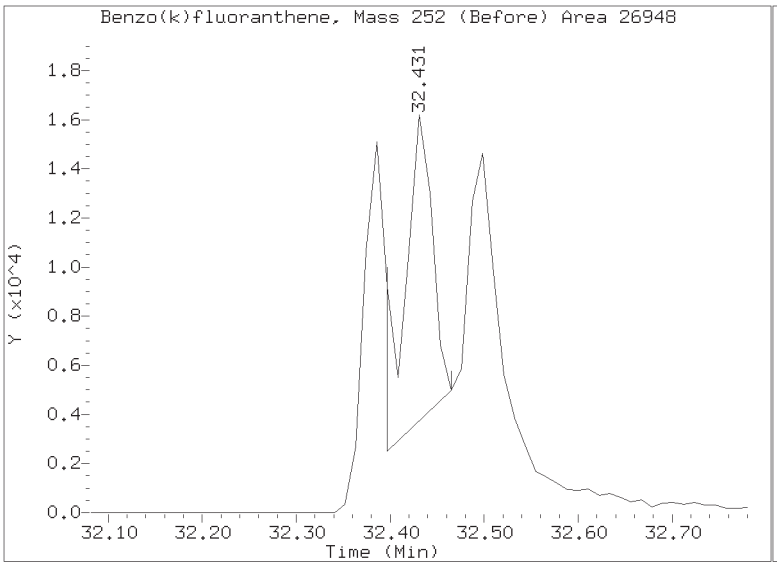
* Only compounds listed in the work order have been verified by the analyst *

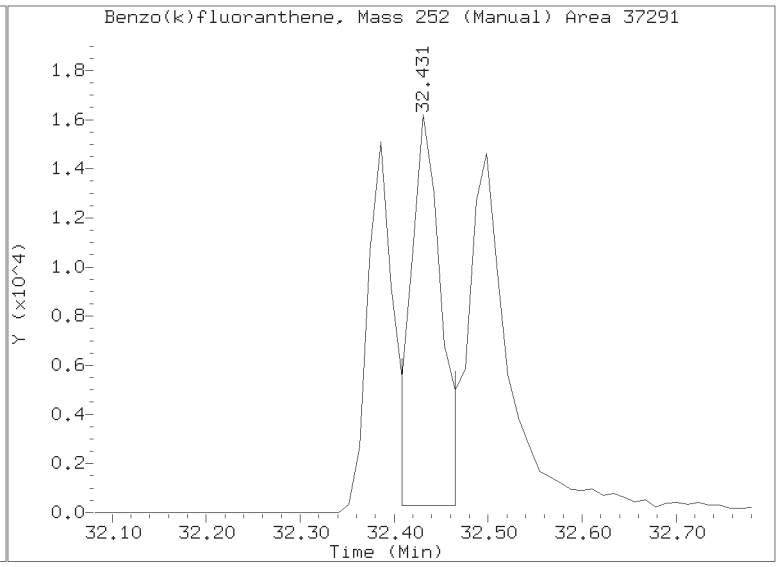
# Quant Ion Manual Peak Adjustment Report

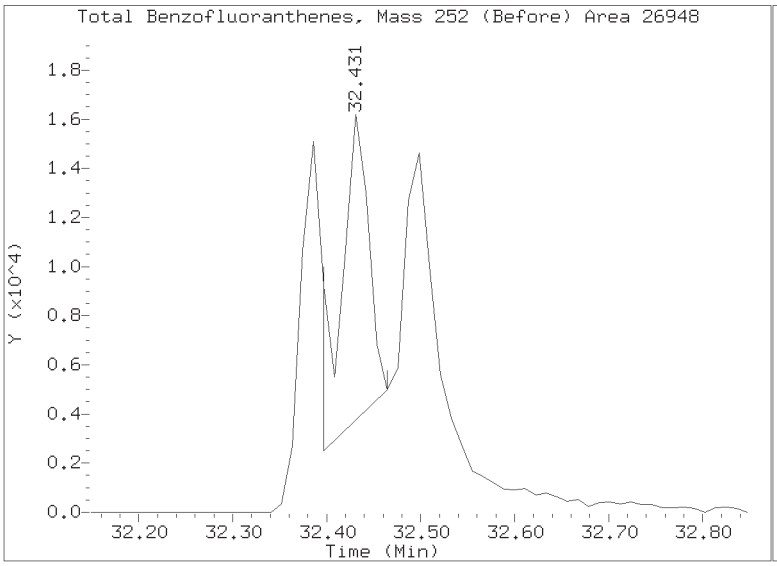
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043006.D
Injection Date: 30-APR-2021 11:07
Lab ID:SJD0305-CAL2 Client ID:
Report Date: 05/01/2021 09:18

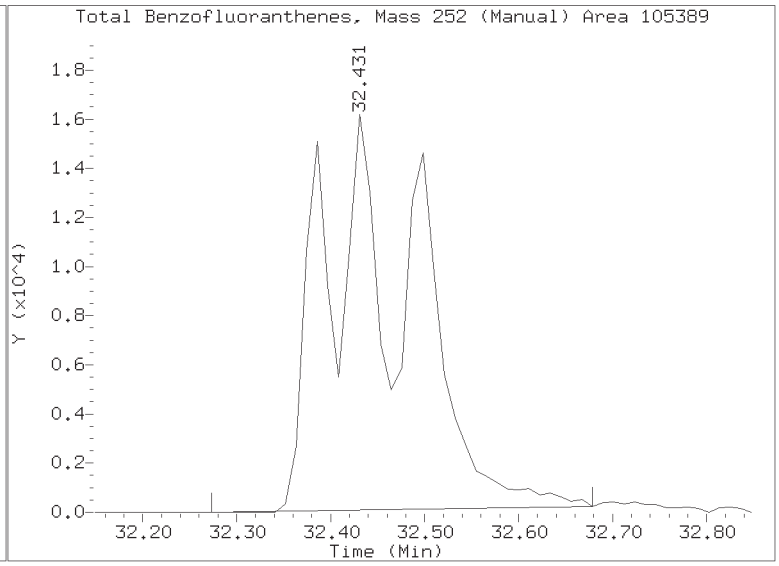


# Quant Ion Manual Peak Adjustment Report

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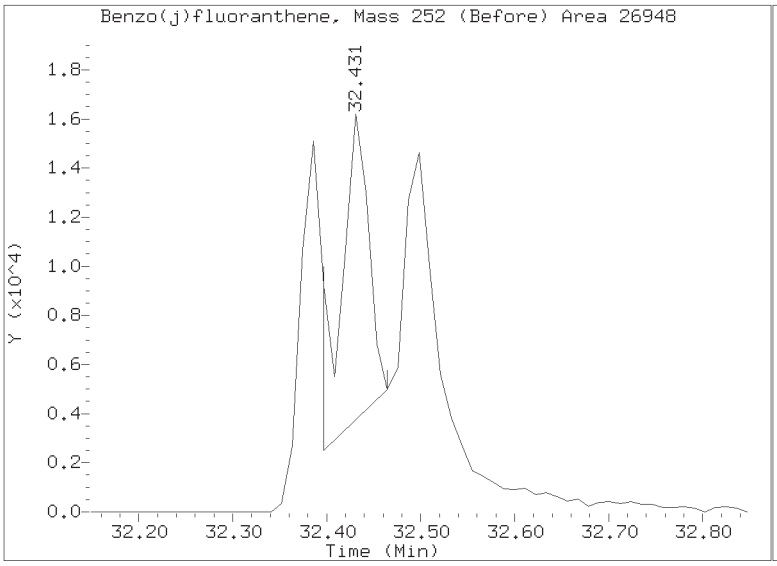
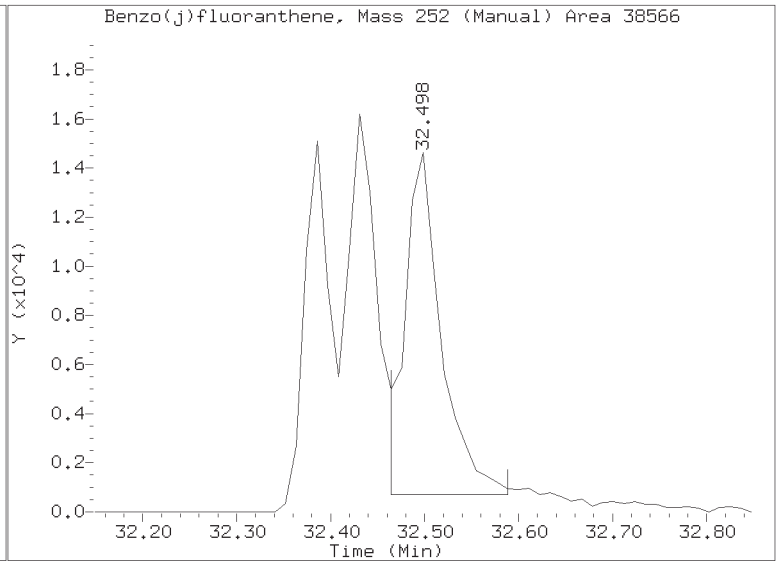
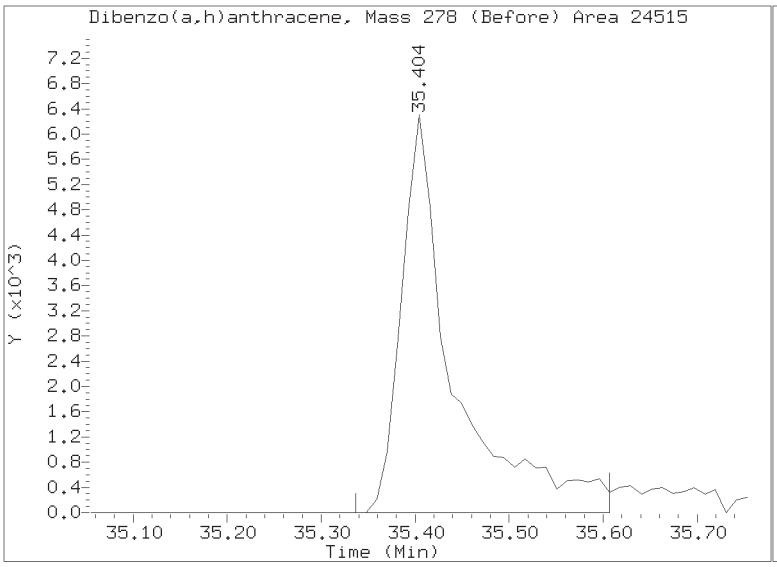
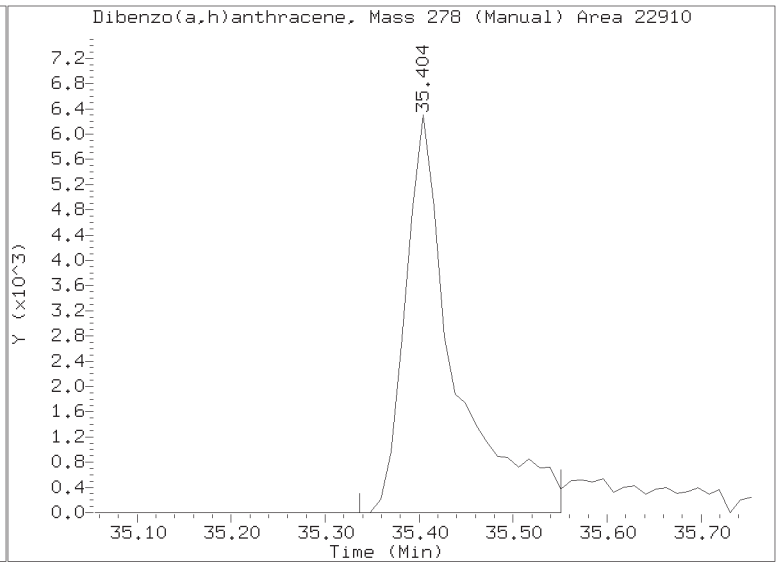
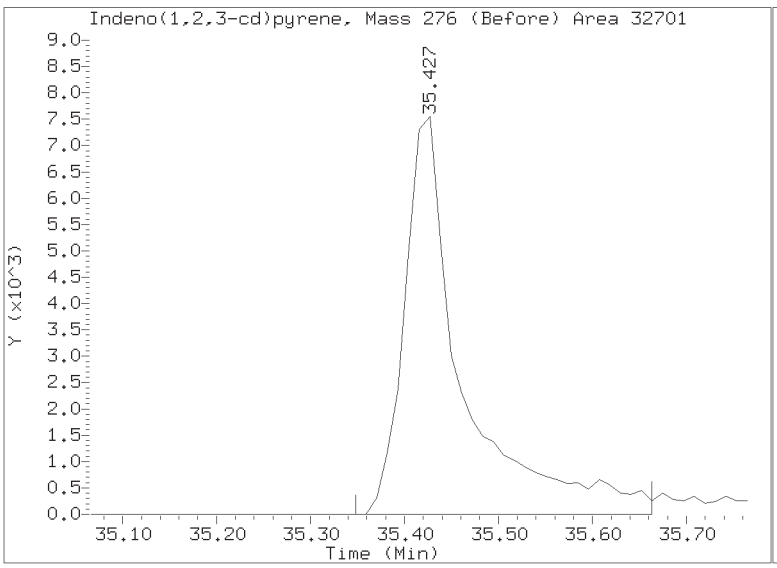
Injection Date: 30-APR-2021 11:07
Lab ID:SJD0305-CAL2 Client ID:
Report Date: 05/01/2021 09:18

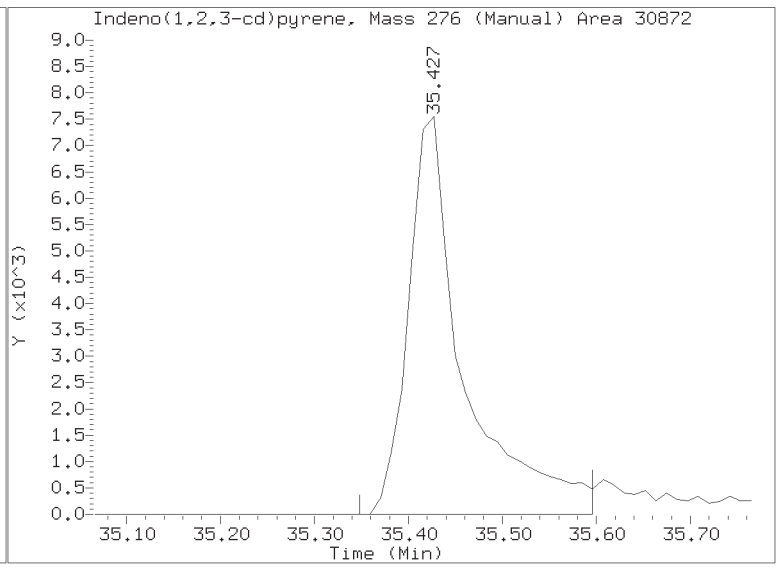


# Quant Ion Manual Peak Adjustment Report

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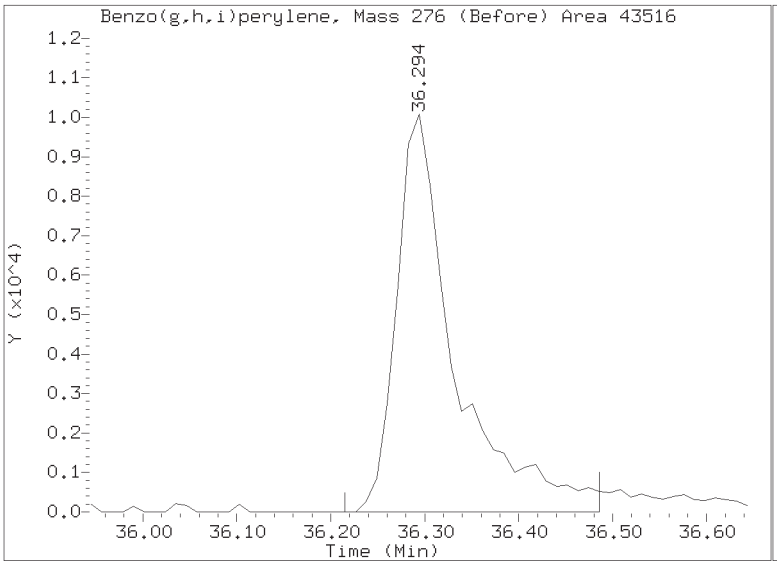
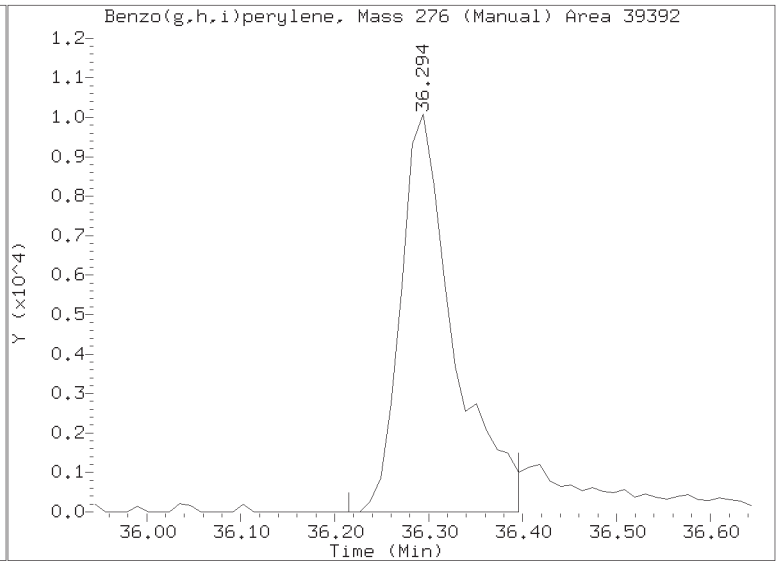
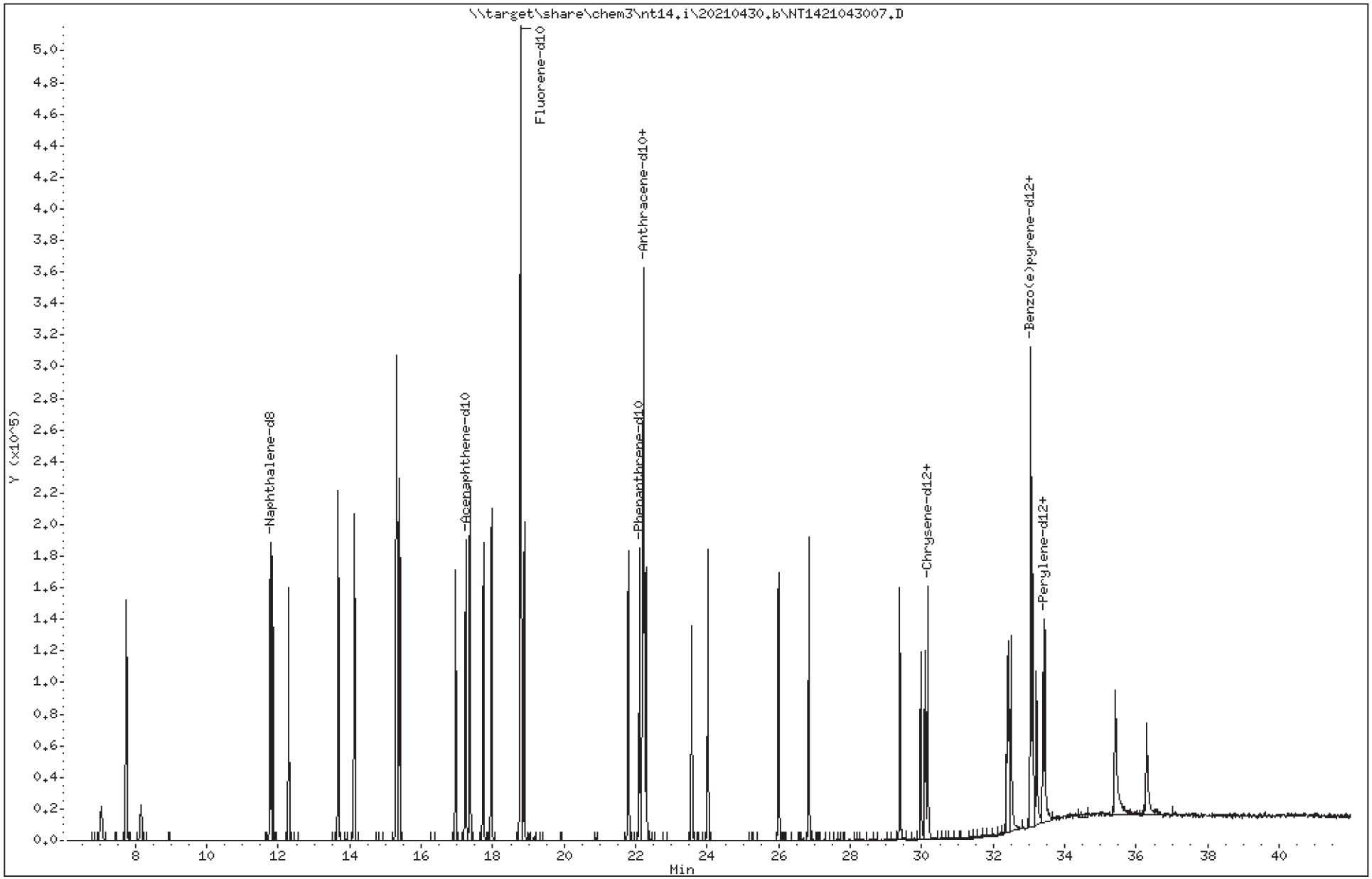
Injection Date: 30-APR-2021 11:07
Lab ID:SJD0305-CAL2 Client ID:
Report Date: 05/01/2021 09:18



Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043007.D
Date : 30-APR-2021 11:55
Client ID:
Sample Info: SJD0305-CAL4

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




Revised Report 21D0180 07/07/2021 Page 858 of 1709

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043007.D
Lab Smp Id: SJD0305-CAL4
Inj Date : 30-APR-2021 11:55
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-CAL4
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Meth Date : 01-May-2021 07:40 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 7 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: VANS-202011

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

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

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043007.D
Lab Smp Id: SJD0305-CAL4
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1421043007.D

Lab ID: SJD0305-CAL4
nt14.i,  20210430.b\ALKYLPNA.m,    30-APR-2021 11:55

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

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

NONE

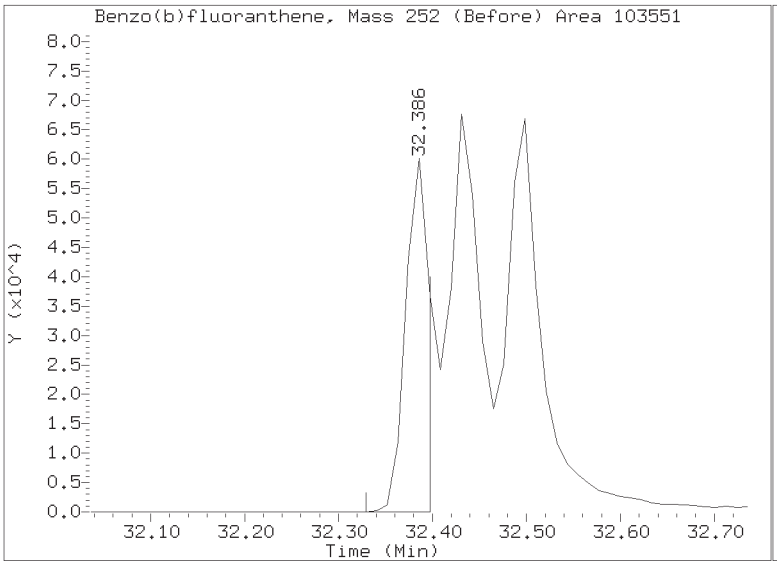
RRT check based on Ccal File: NT1421043009.D

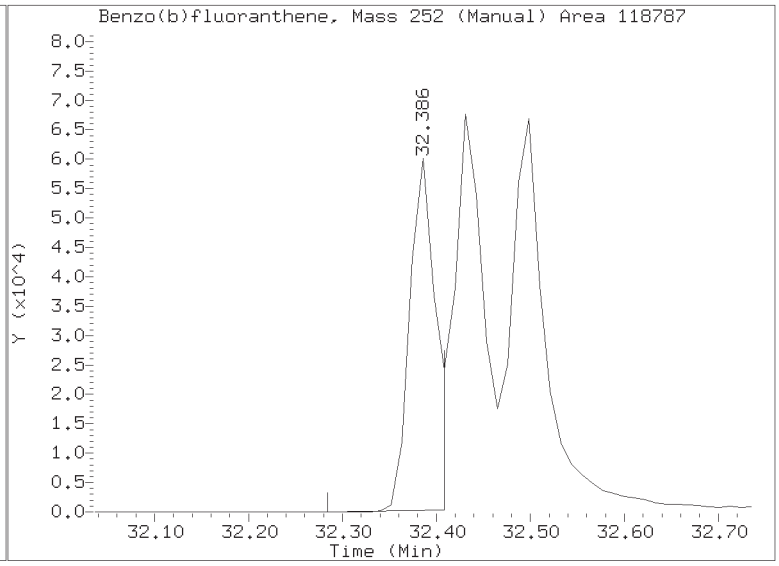
On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

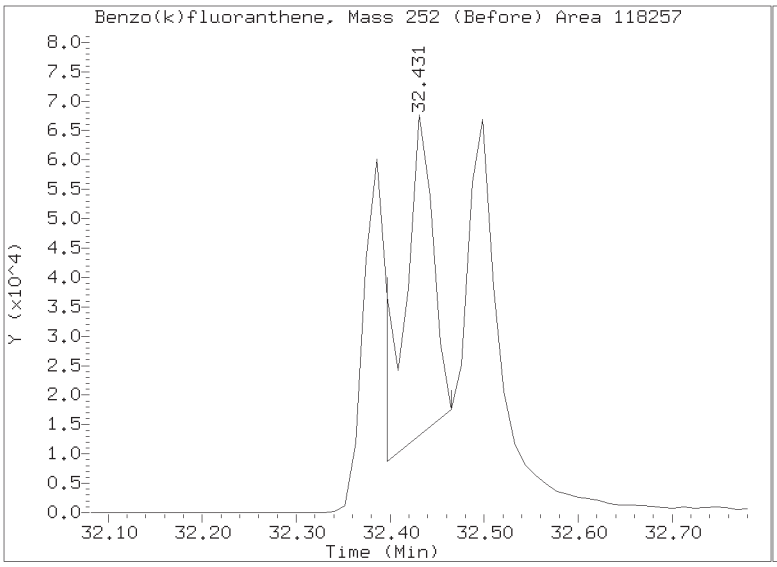
* Only compounds listed in the work order have been verified by the analyst *

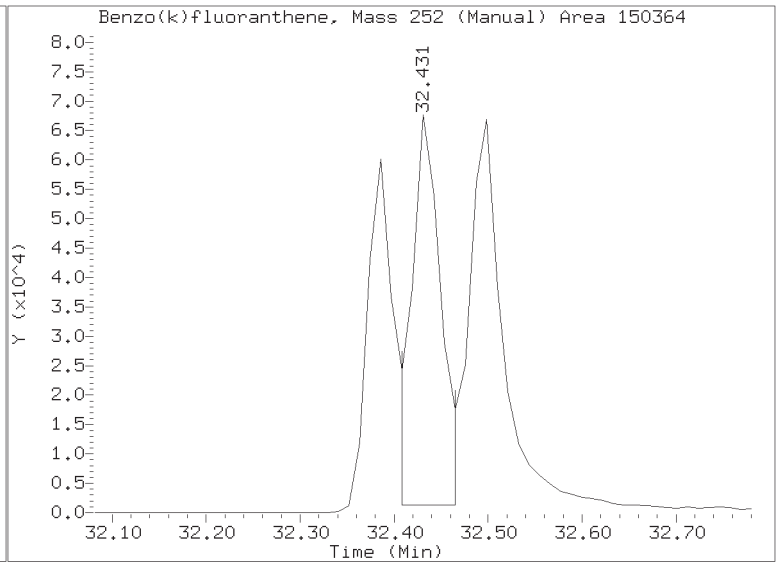
# Quant Ion Manual Peak Adjustment Report

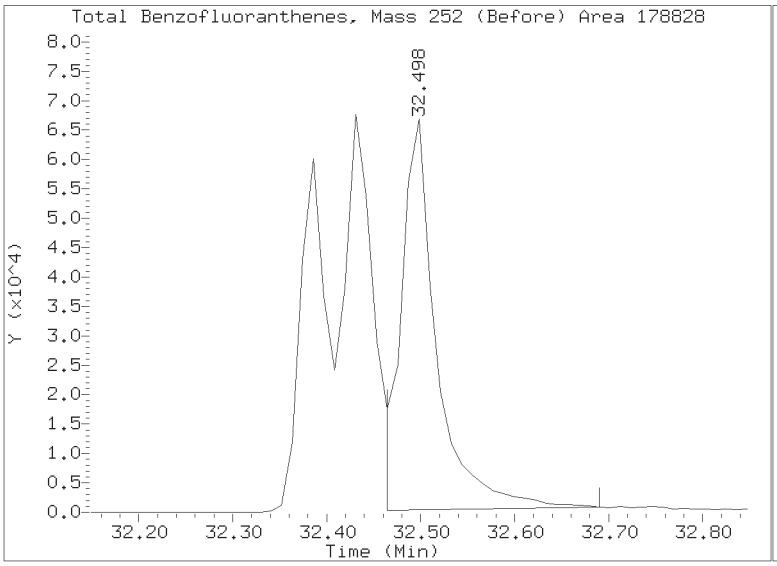
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043007.D
Injection Date: 30-APR-2021 11:55
Lab ID:SJD0305-CAL4 Client ID:
Report Date: 05/01/2021 09:18

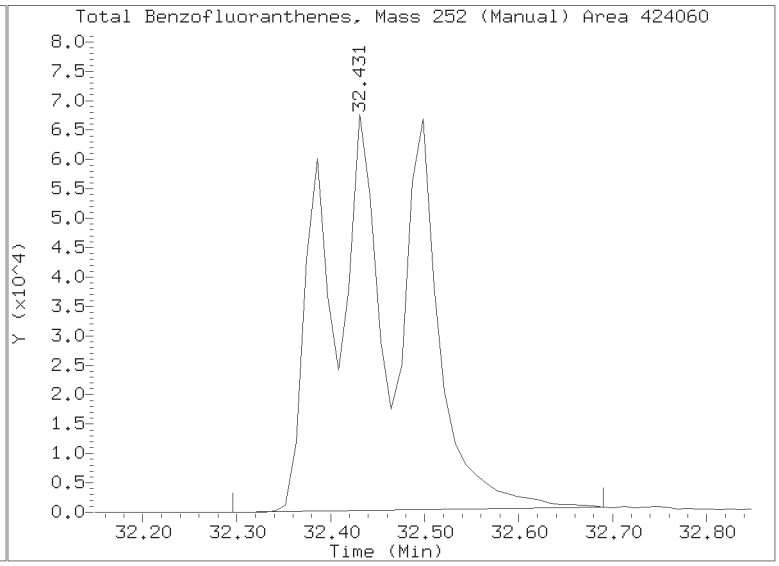


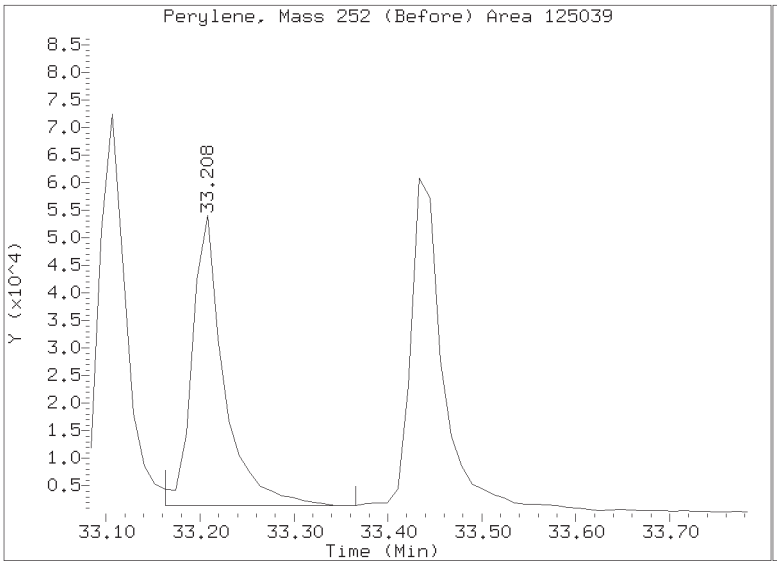



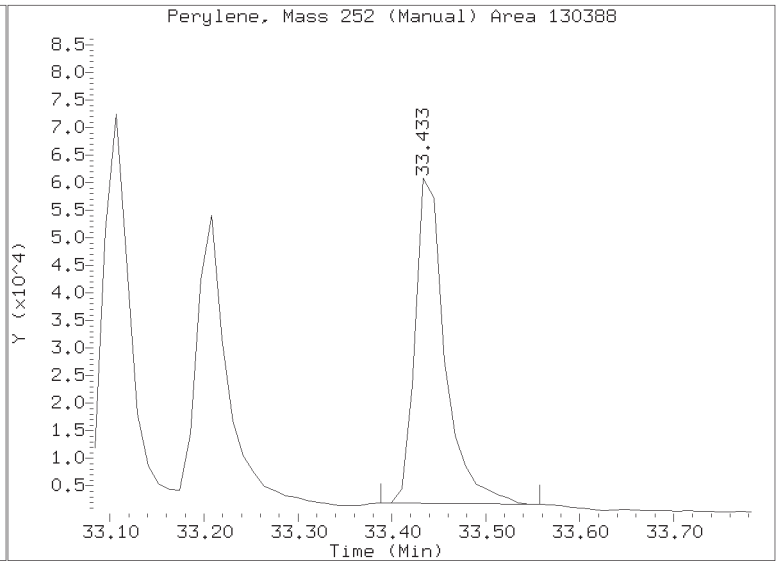



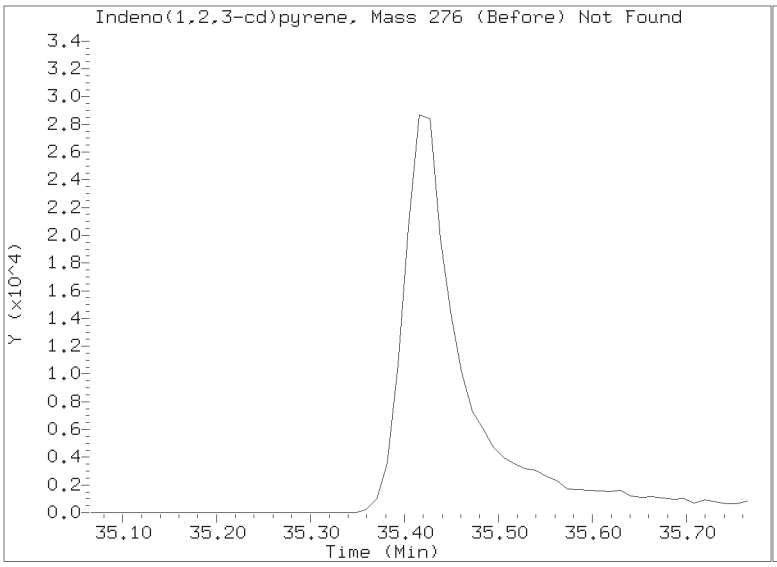



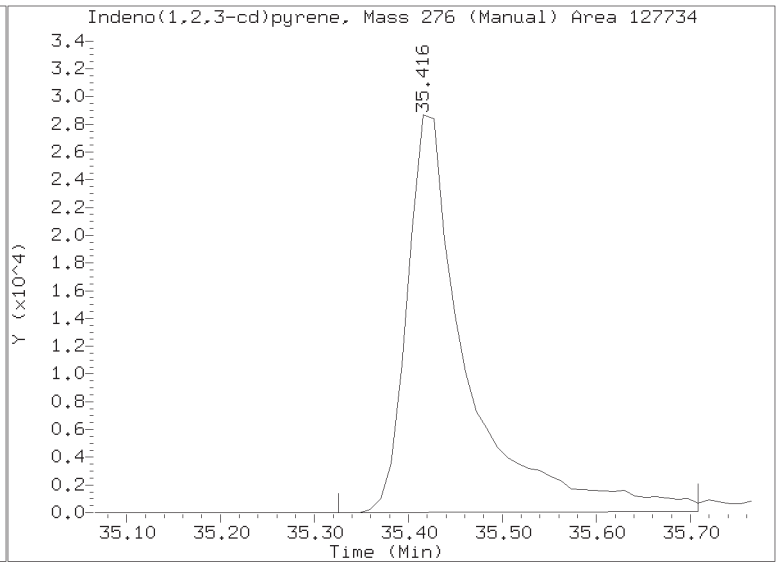
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043007.D
Injection Date: 30-APR-2021 11:55
Lab ID:SJD0305-CAL4 Client ID:
Report Date: 05/01/2021 09:18



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043008.D
Lab Smp Id: SJD0305-CAL3
Inj Date : 30-APR-2021 12:43
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-CAL3
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Meth Date : 01-May-2021 07:40 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.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: VANS-202011

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

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

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043008.D
Lab Smp Id: SJD0305-CAL3
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1421043008.D

Lab ID: SJD0305-CAL3
nt14.i,  20210430.b\ALKYLPNA.m,    30-APR-2021 12:43

| RT | CO-ELUTION COMPOUNDS |
|---|---|
| NO CO-ELUTIONS | |

Quant Method: ICAL

RRT CHECK

| RRT | CCV RRT | DELTA | COMPOUND |
|---|---|---|---|
| NONE | | | |

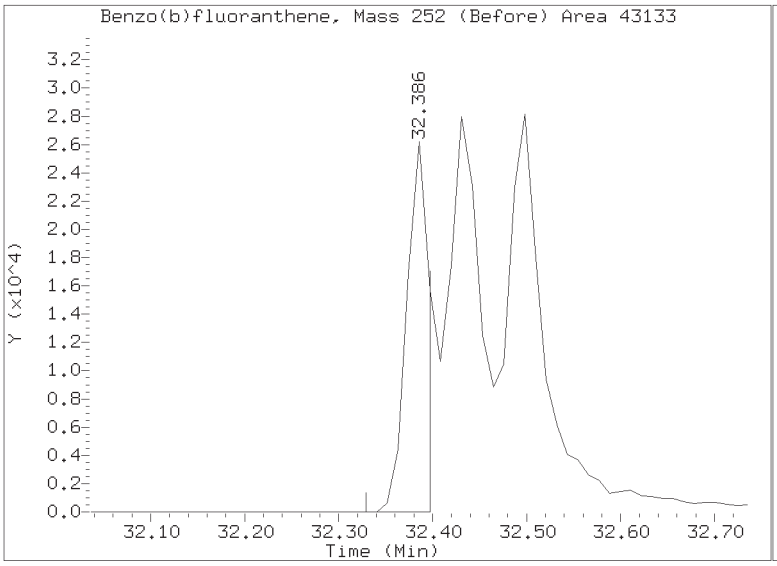
RRT check based on Ccal File: NT1421043009.D

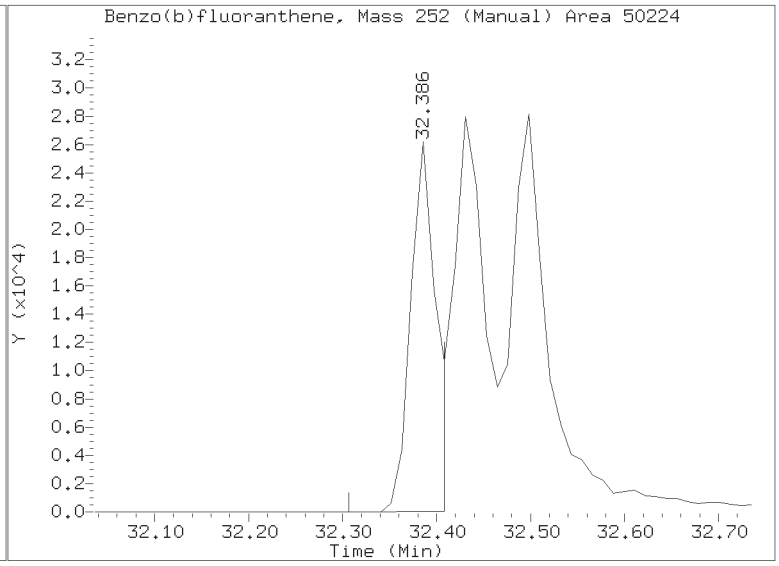
On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

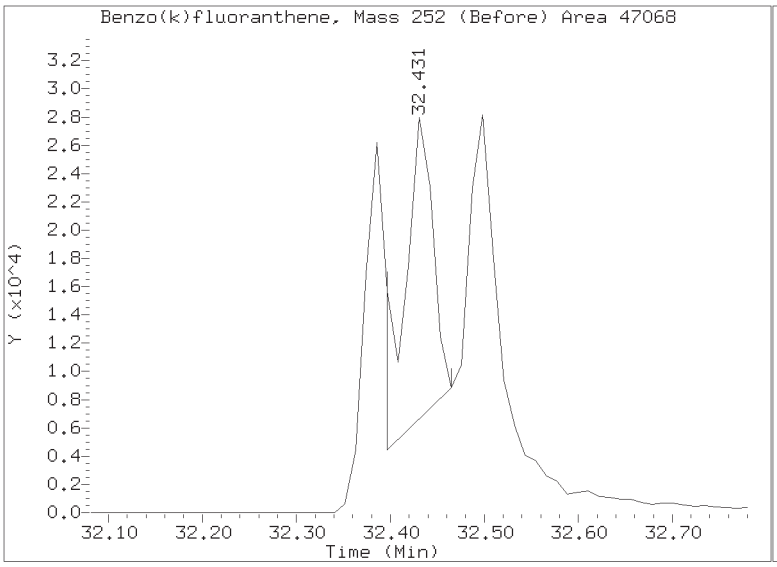
* Only compounds listed in the work order have been verified by the analyst *

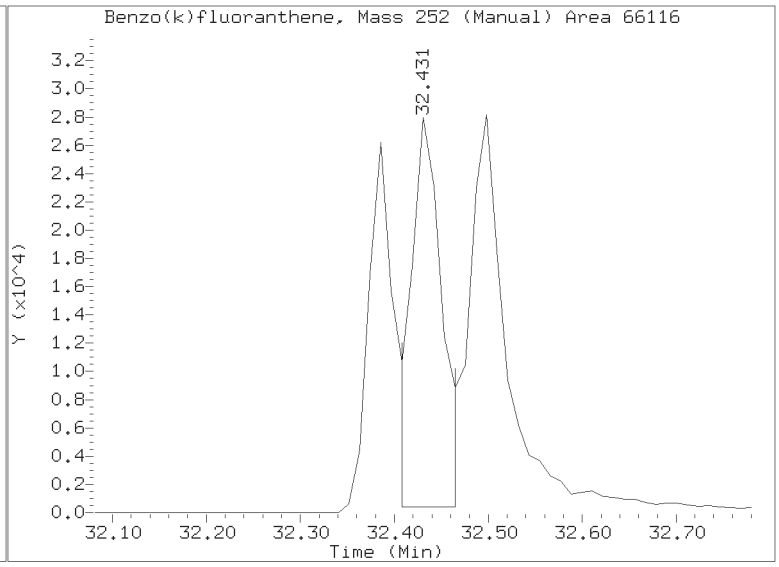
# Quant Ion Manual Peak Adjustment Report

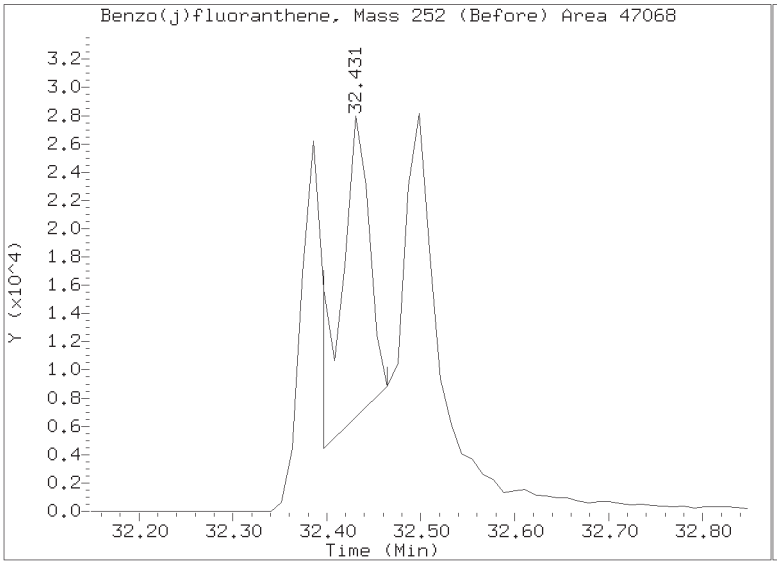
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043008.D
Injection Date: 30-APR-2021 12:43
Lab ID:SJD0305-CAL3 Client ID:
Report Date: 05/01/2021 09:18

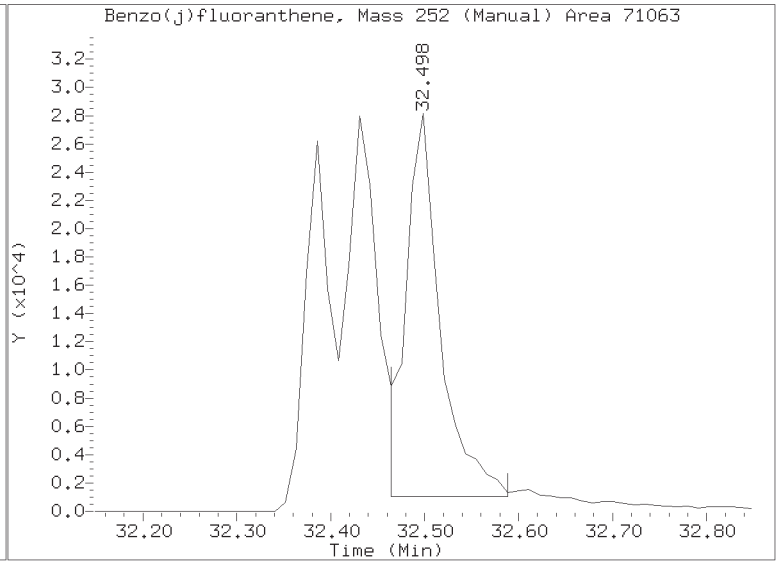


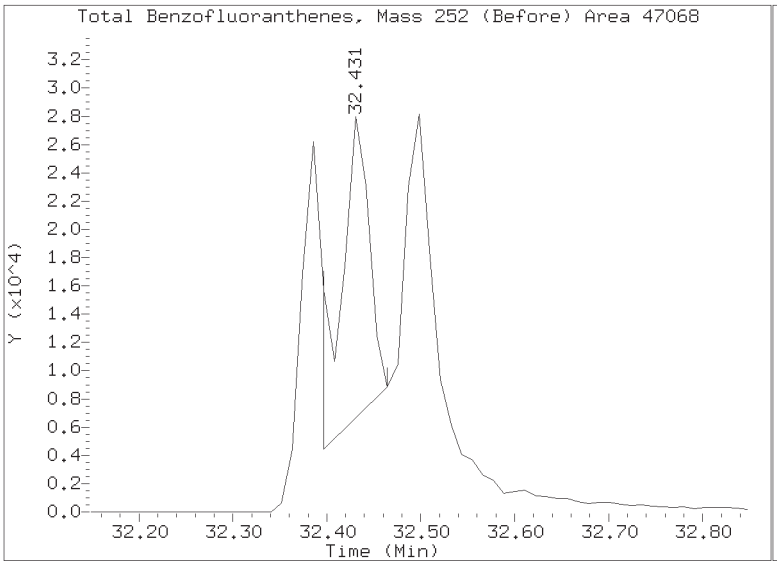



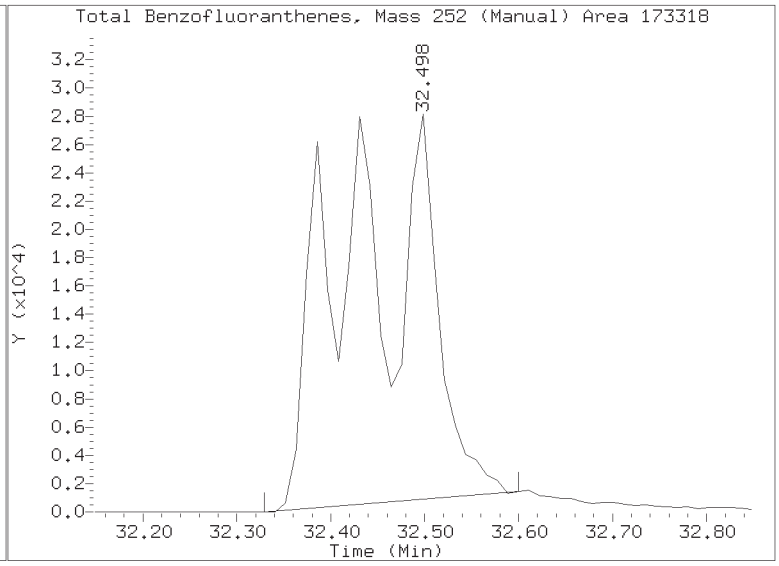



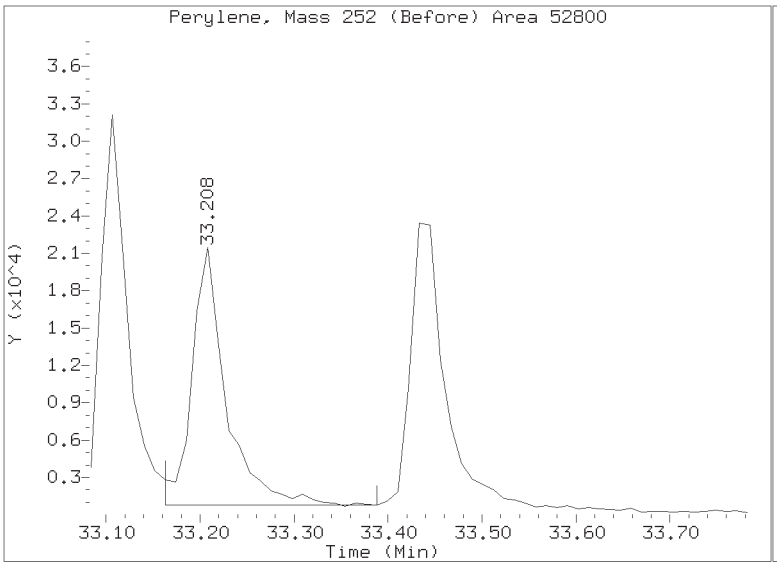



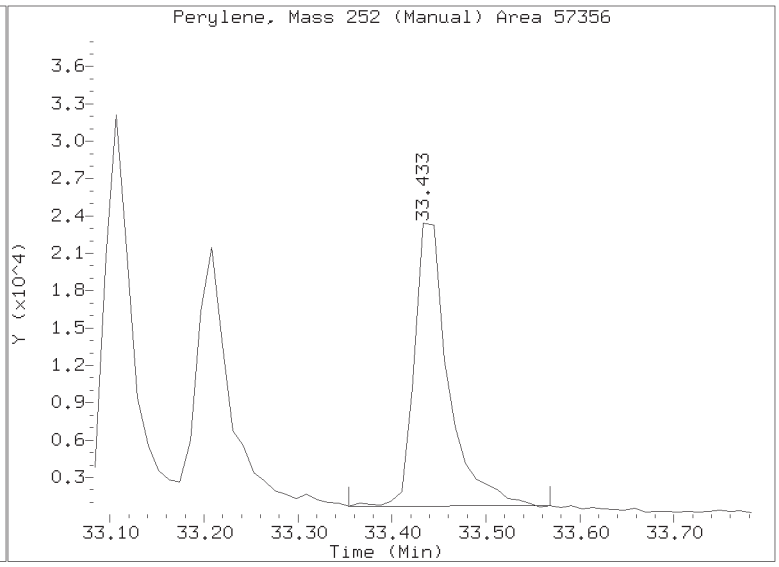
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043008.D
Injection Date: 30-APR-2021 12:43
Lab ID:SJD0305-CAL3 Client ID:
Report Date: 05/01/2021 09:18



Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043009.D



Date : 30-APR-2021 13:32

Client ID:

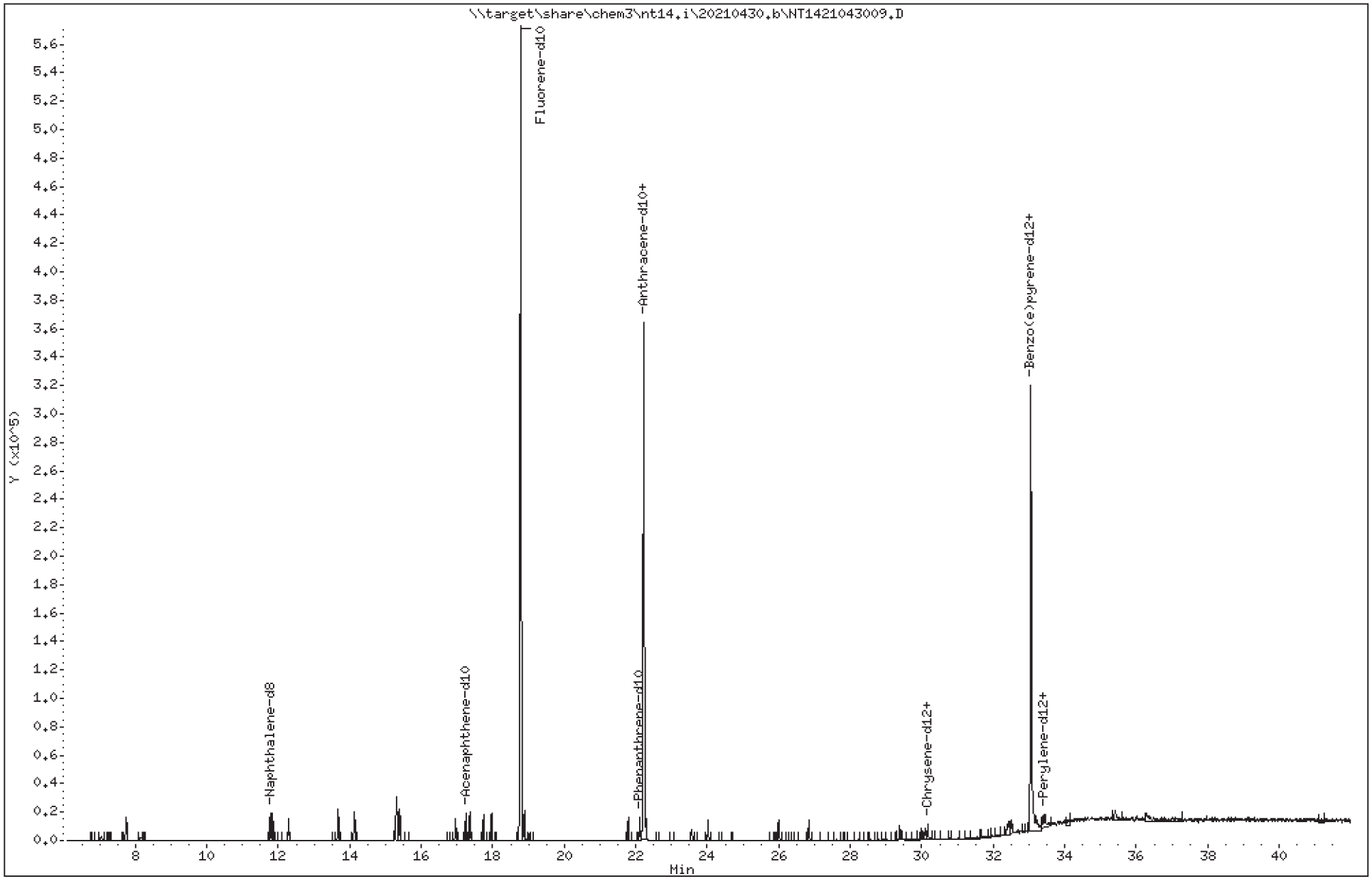
Instrument: nt14.i

Sample Info: SJD0305-CAL1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

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ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043009.D
Lab Smp Id: SJD0305-CAL1
Inj Date : 30-APR-2021 13:32
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-CAL1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Meth Date : 01-May-2021 07:40 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.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: VANS-202011

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

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

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043009.D
Lab Smp Id: SJD0305-CAL1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1421043009.D

Lab ID: SJD0305-CAL1
nt14.i,  20210430.b\ALKYLPNA.m,    30-APR-2021 13:32

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

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

NONE

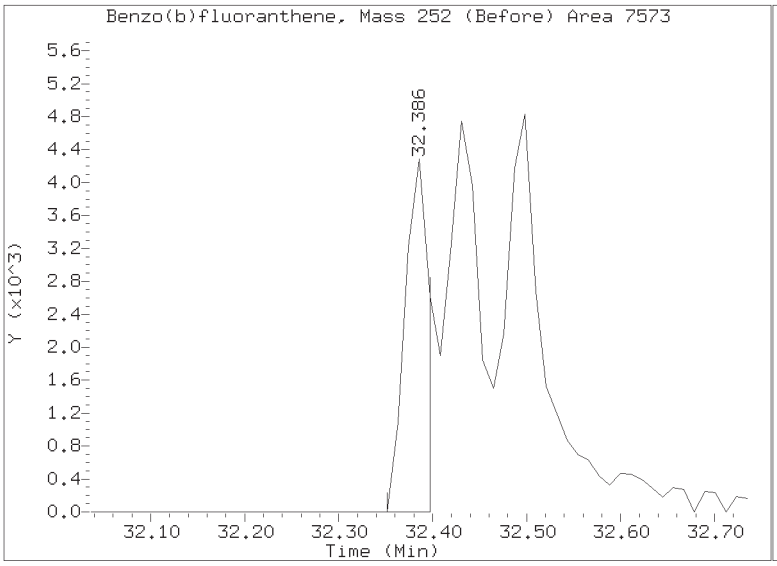
RRT check based on Ccal File: NT1421043009.D

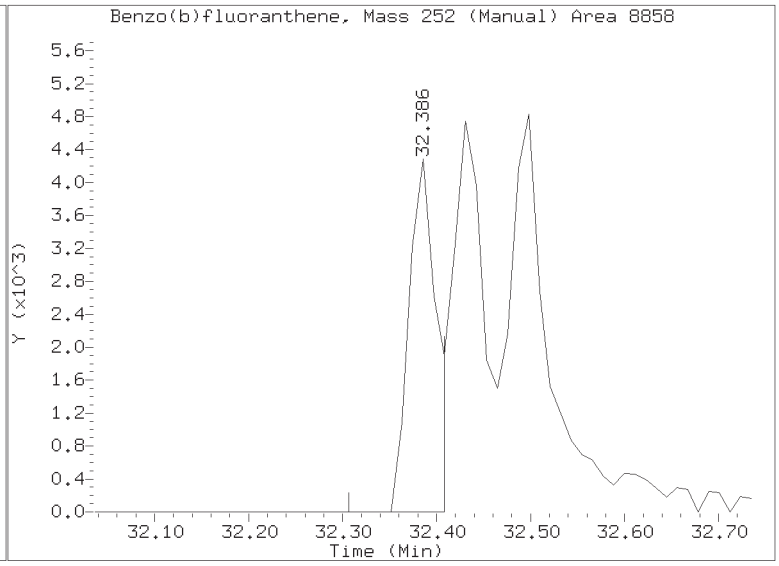
On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

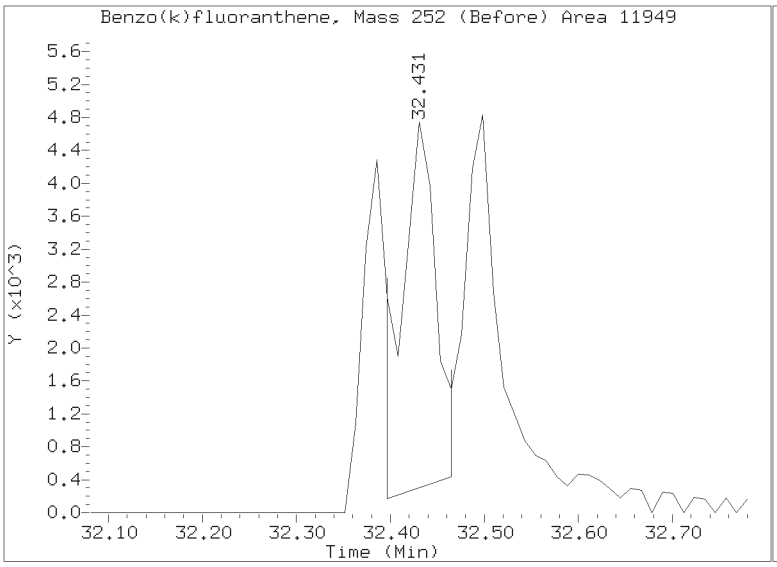
* Only compounds listed in the work order have been verified by the analyst *

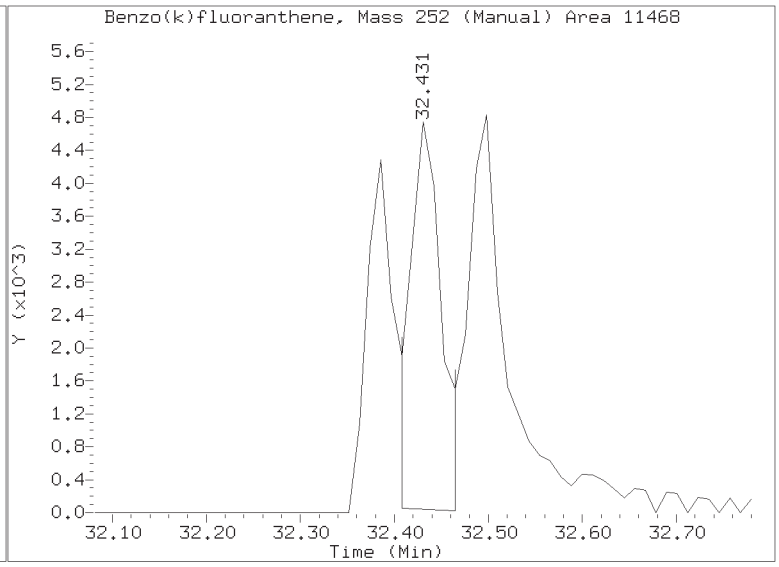
# Quant Ion Manual Peak Adjustment Report

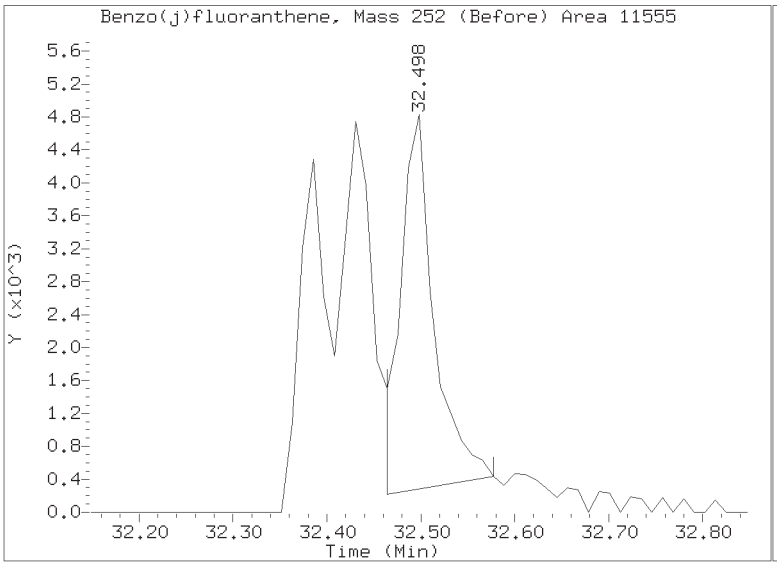
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043009.D
Injection Date: 30-APR-2021 13:32
Lab ID:SJD0305-CAL1 Client ID:
Report Date: 05/01/2021 09:18

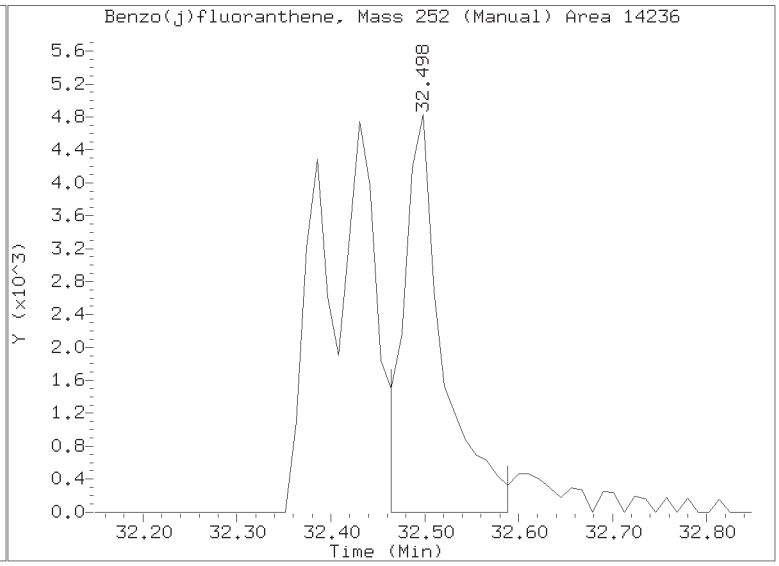


# Quant Ion Manual Peak Adjustment Report

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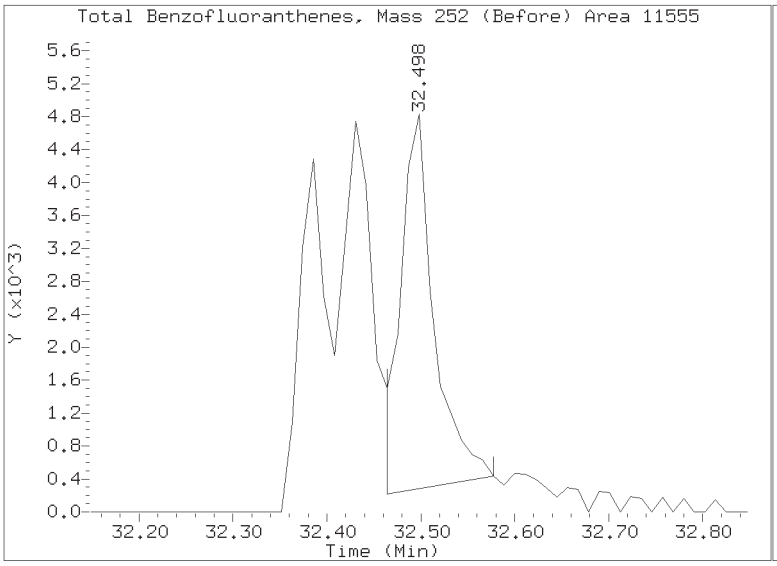
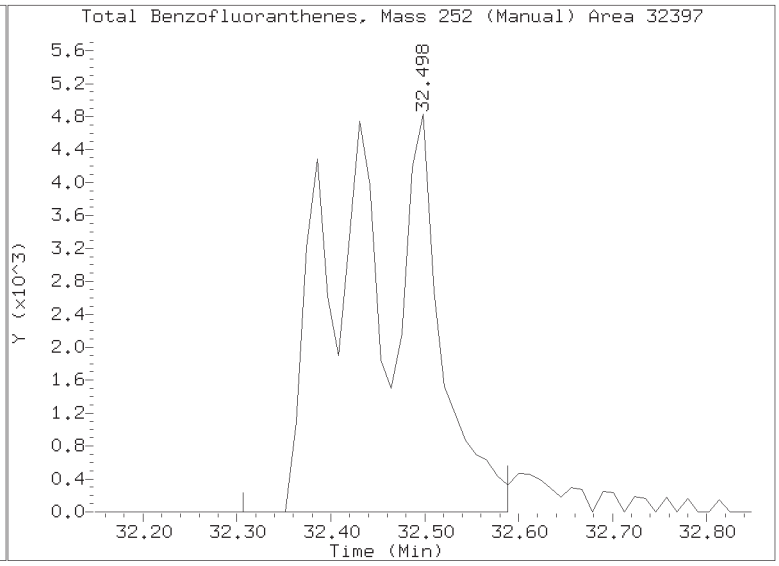
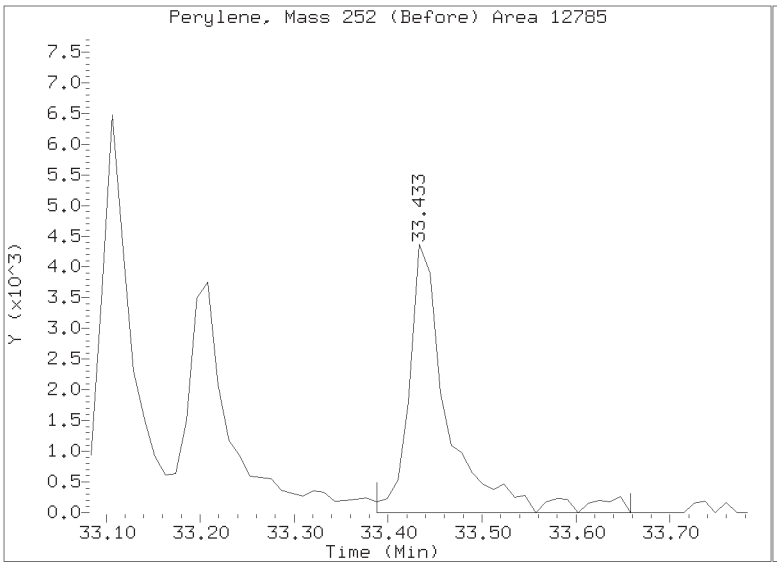
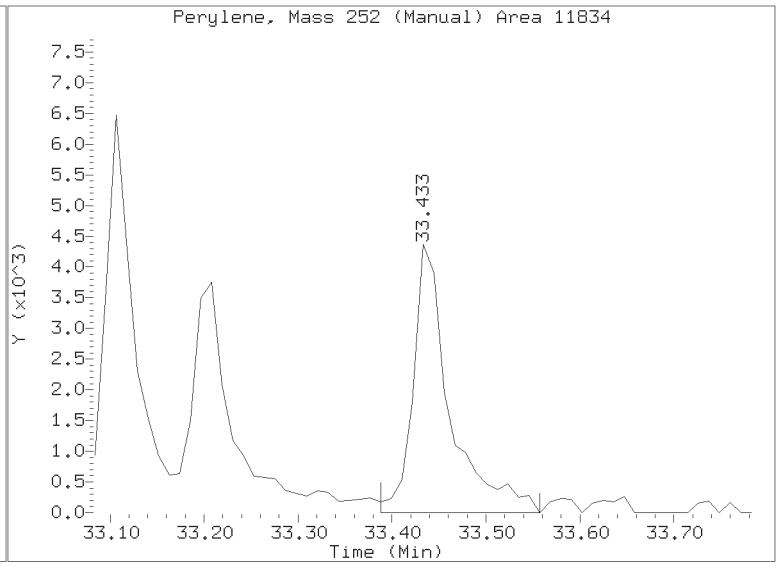
Injection Date: 30-APR-2021 13:32
Lab ID:SJD0305-CAL1 Client ID:
Report Date: 05/01/2021 09:18



Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D



Date : 30-APR-2021 14:41

Client ID:

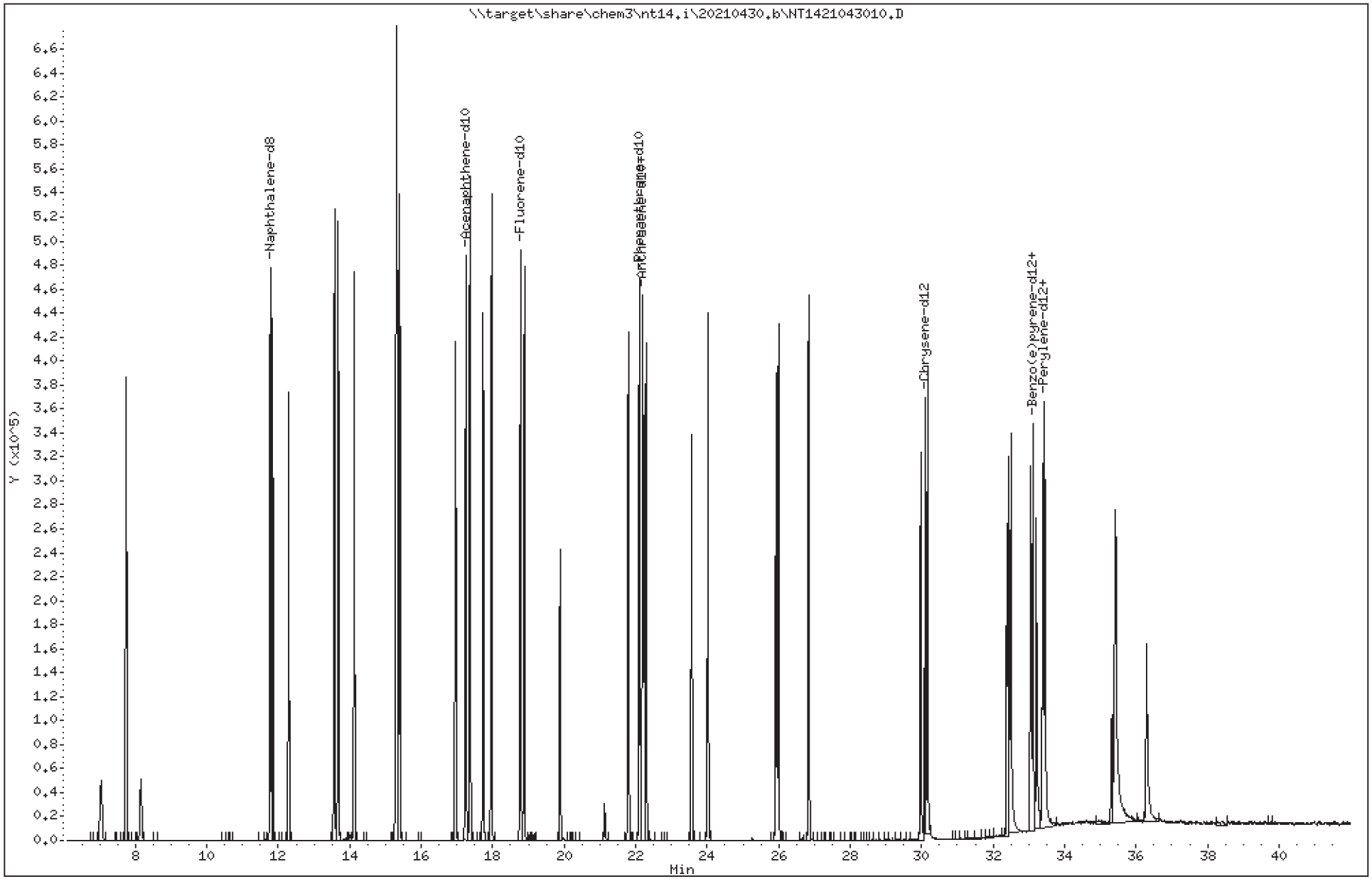
Instrument: nt14.i

Sample Info: SJD0305-SCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

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Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

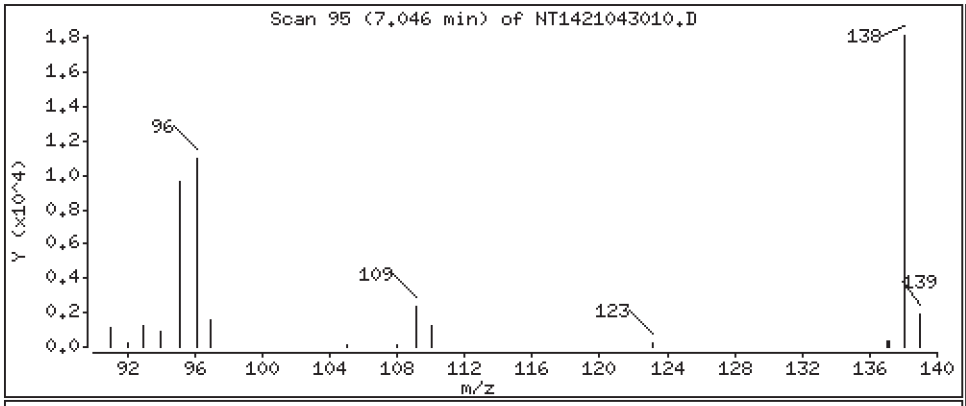
Operator: VTS

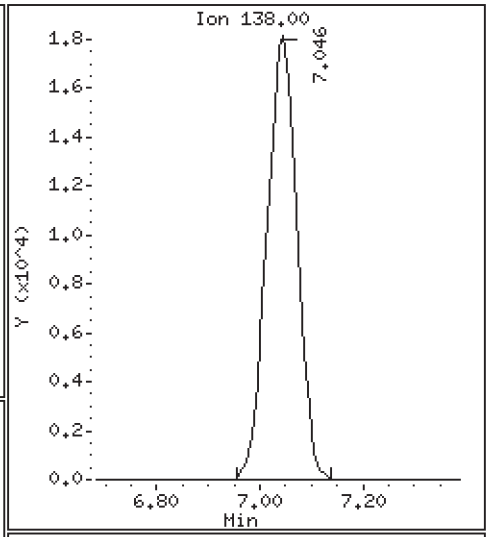
Column phase: Rxi-17Sil MS

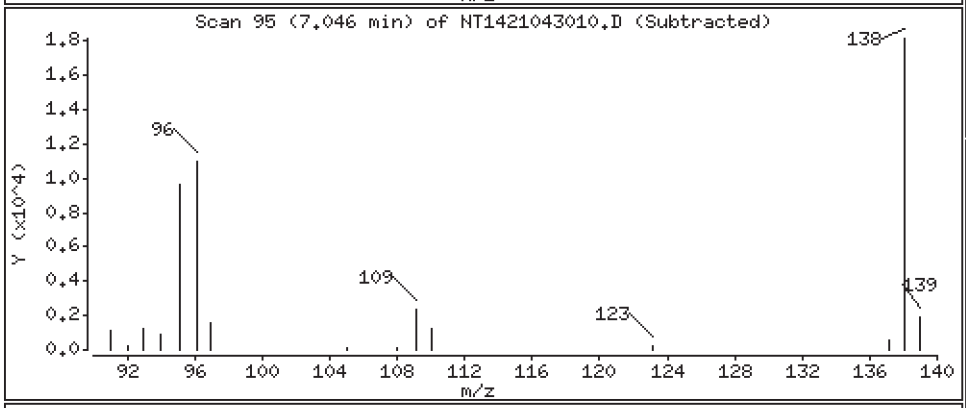
Column diameter: 0.25

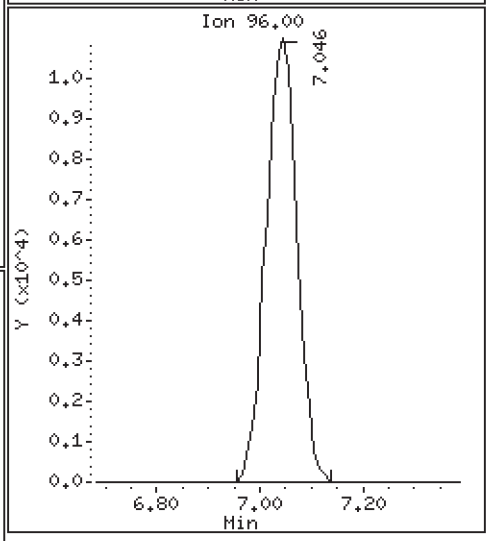
1 trans-Decalin

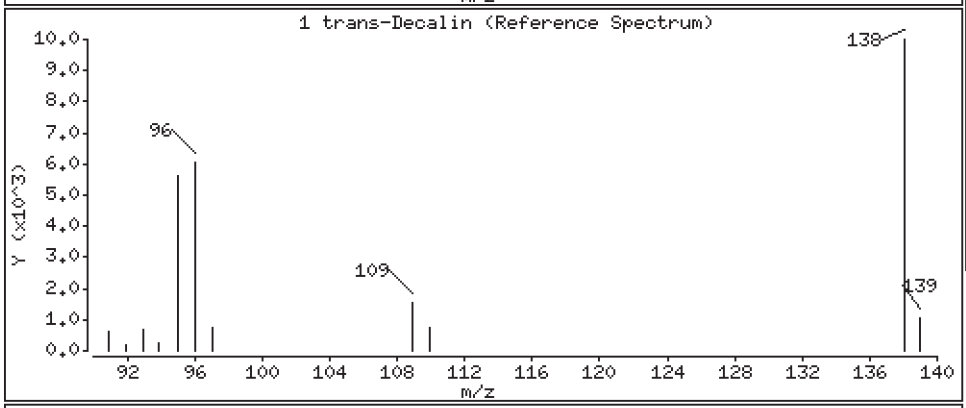
Concentration: 2.843 ug/mL

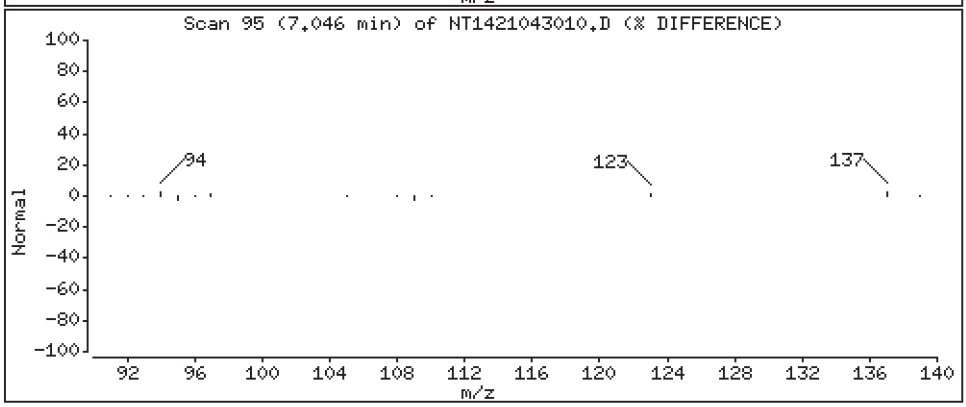


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

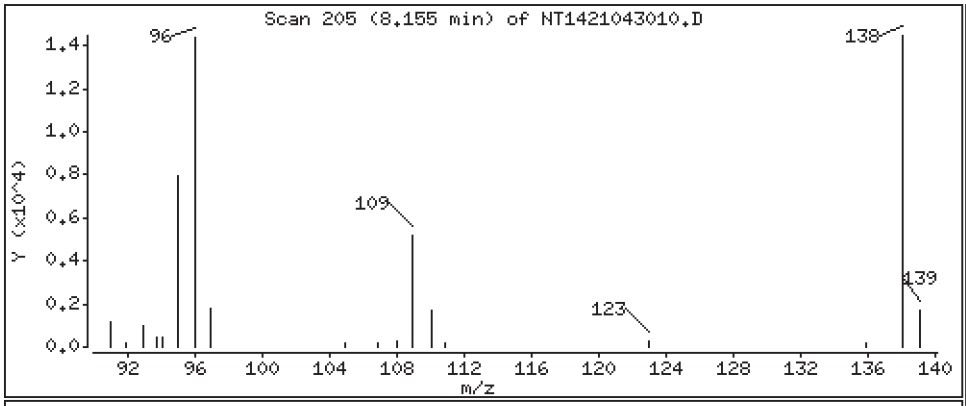
Operator: VTS

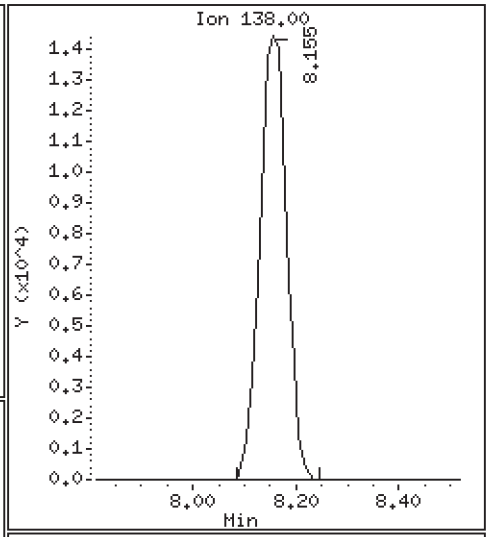
Column phase: Rxi-17Sil MS

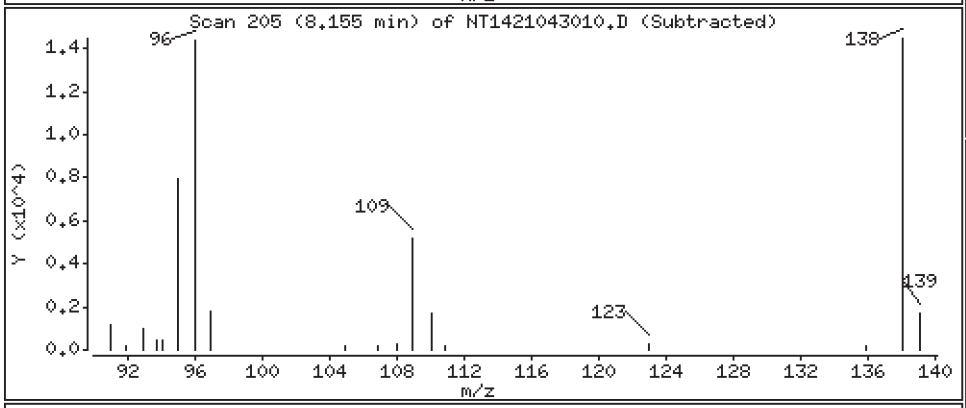
Column diameter: 0.25

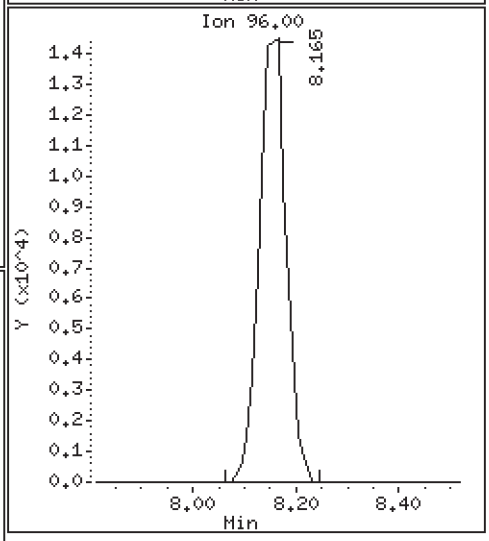
2 cis-Decalin

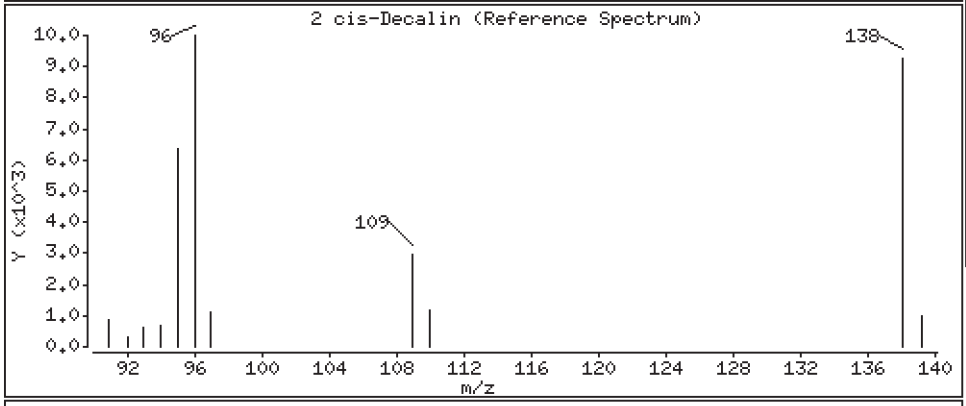
Concentration: 2.910 ug/mL

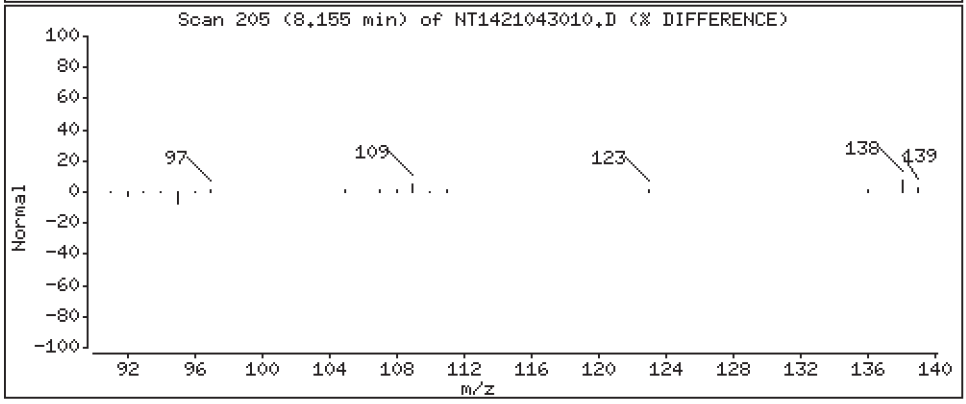


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

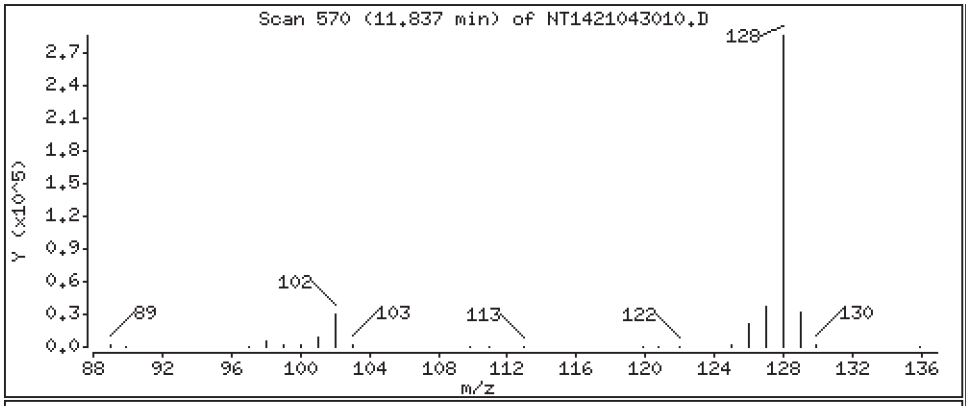
Operator: VTS

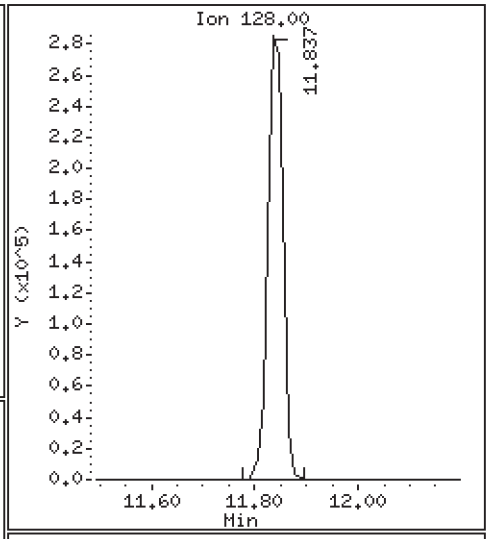
Column phase: Rxi-17Sil MS

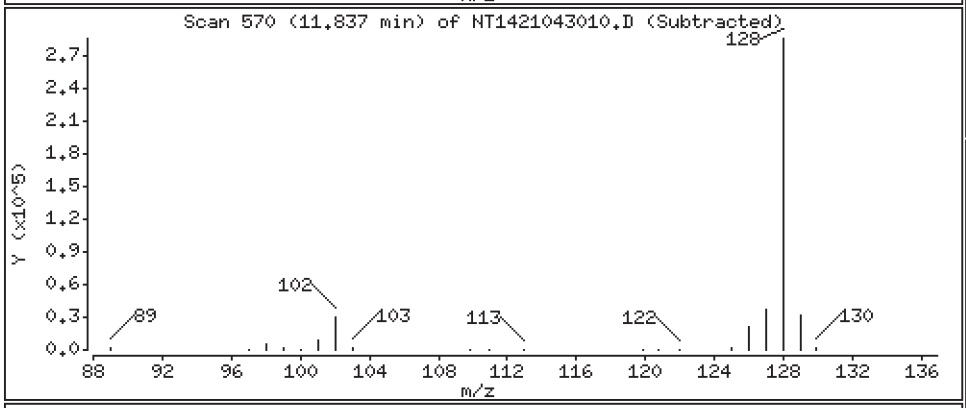
Column diameter: 0.25

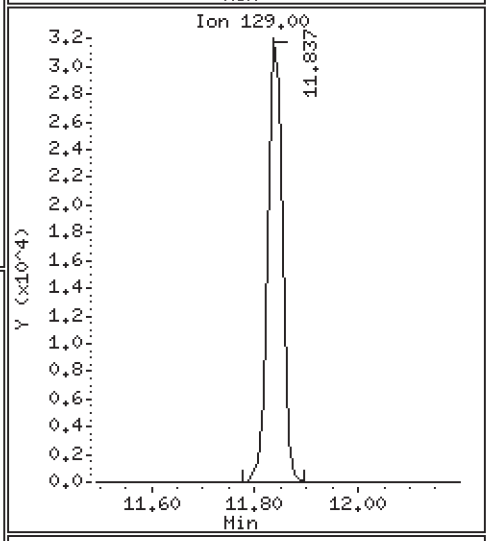
7 Naphthalene

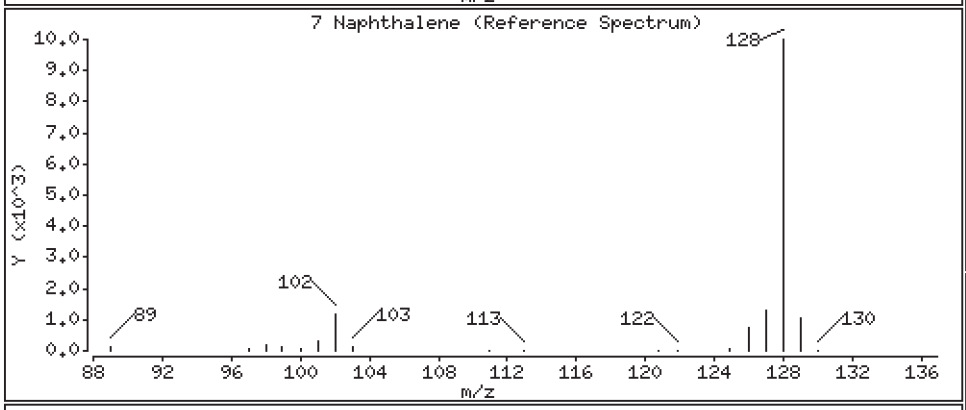
Concentration: 2.783 ug/mL

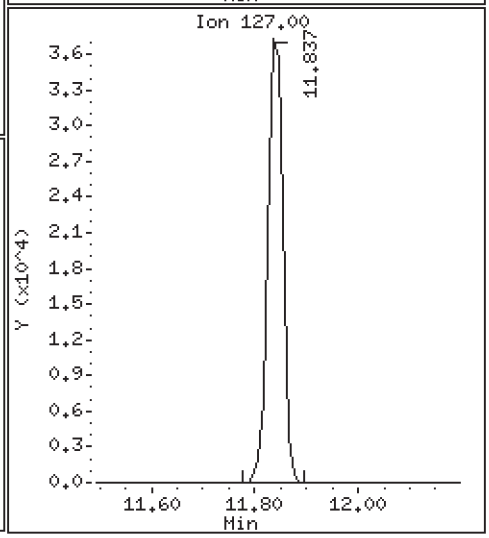


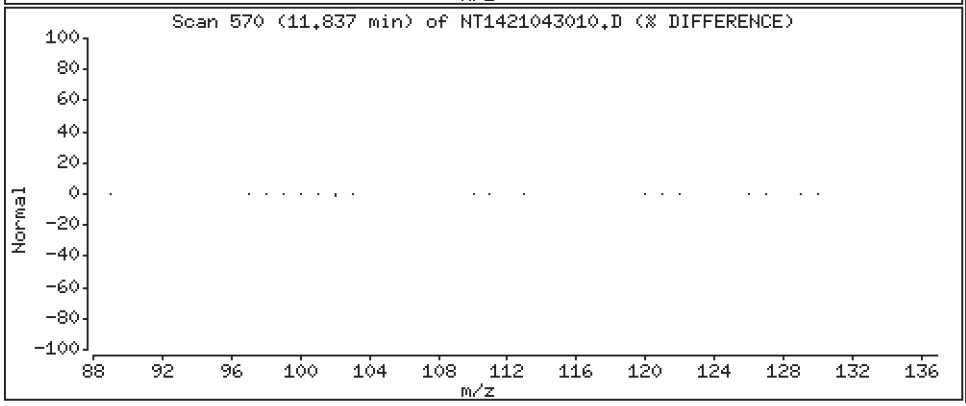



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

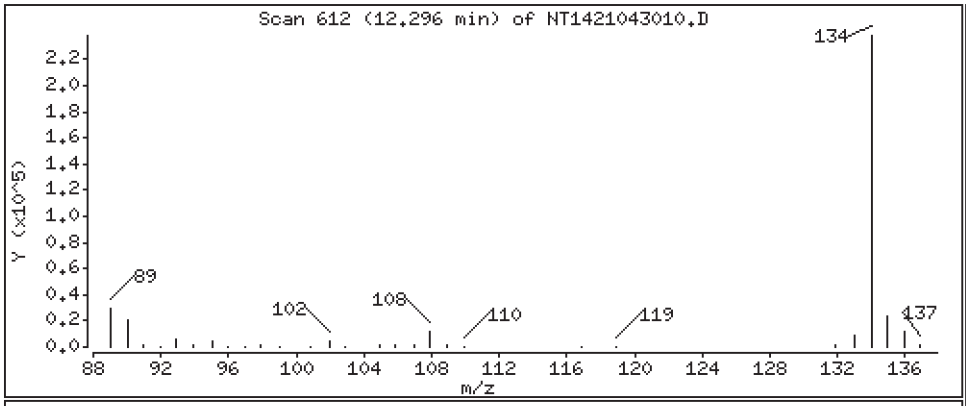
Operator: VTS

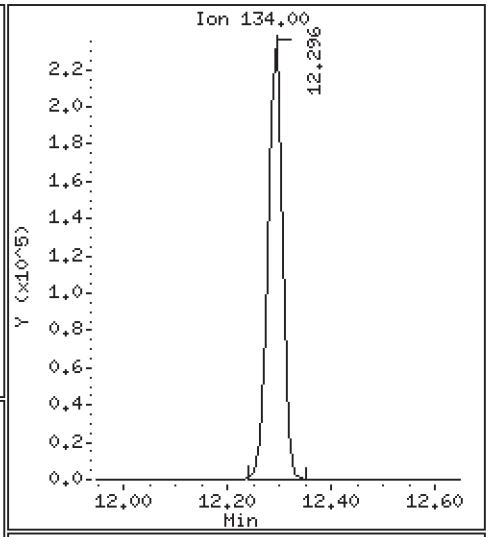
Column phase: Rxi-17Sil MS

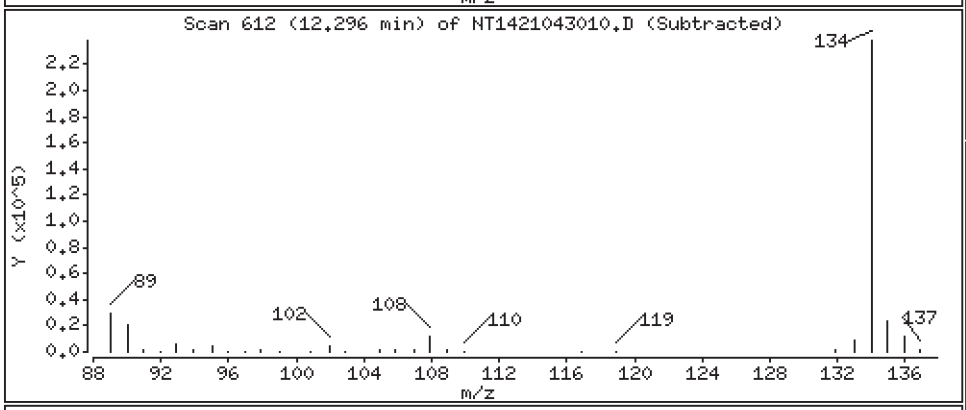
Column diameter: 0.25

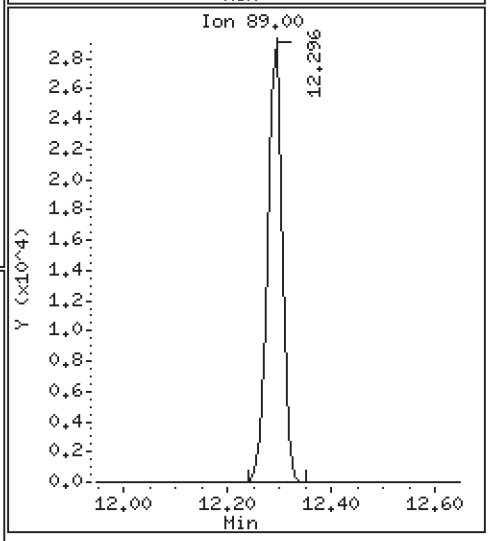
12 Benzo(b)thiophene

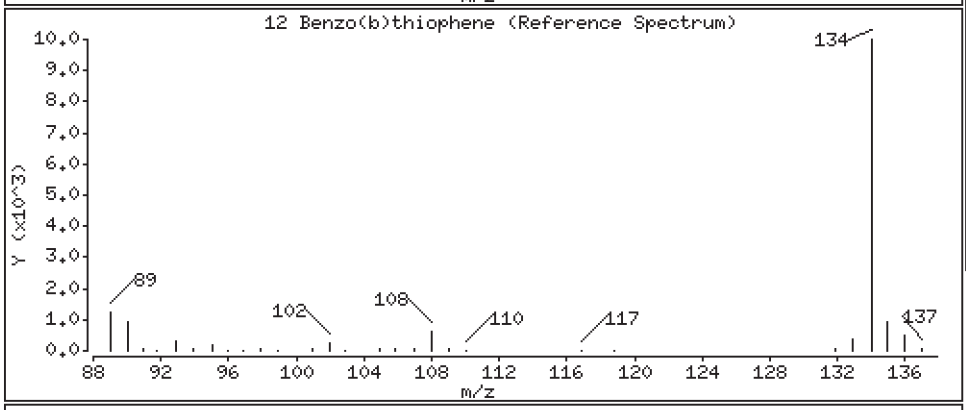
Concentration: 2.787 ug/mL

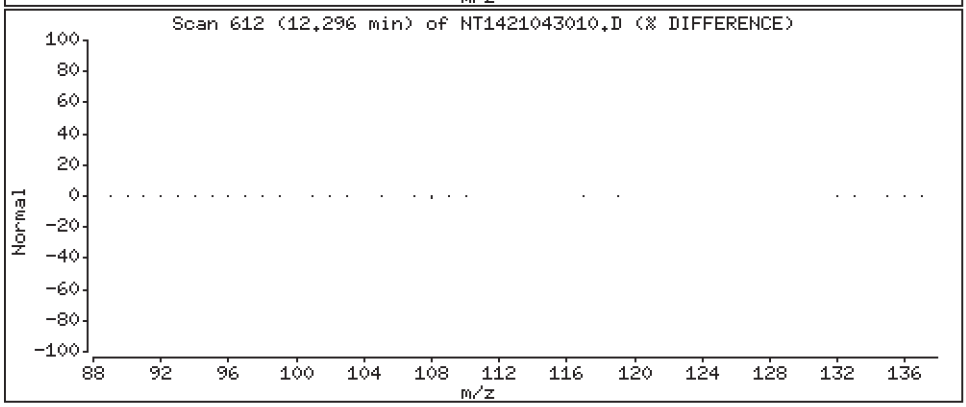


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

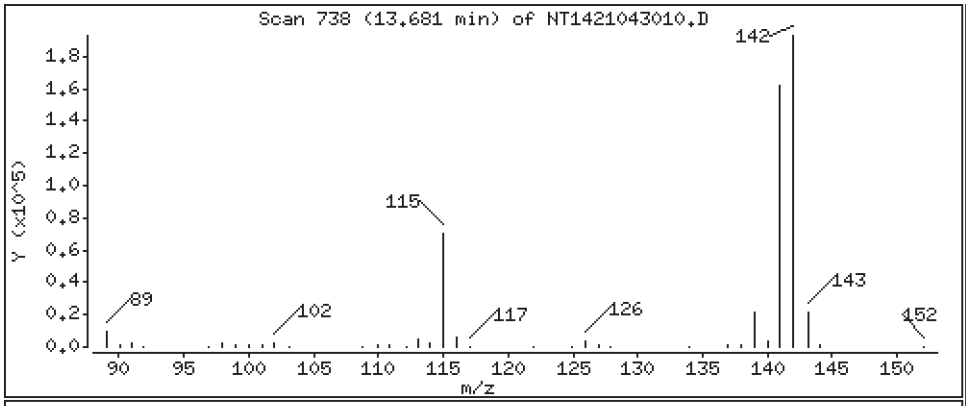
Operator: VTS

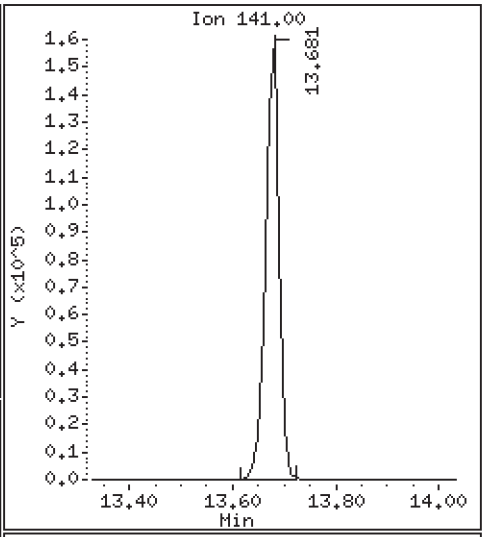
Column phase: Rxi-17Sil MS

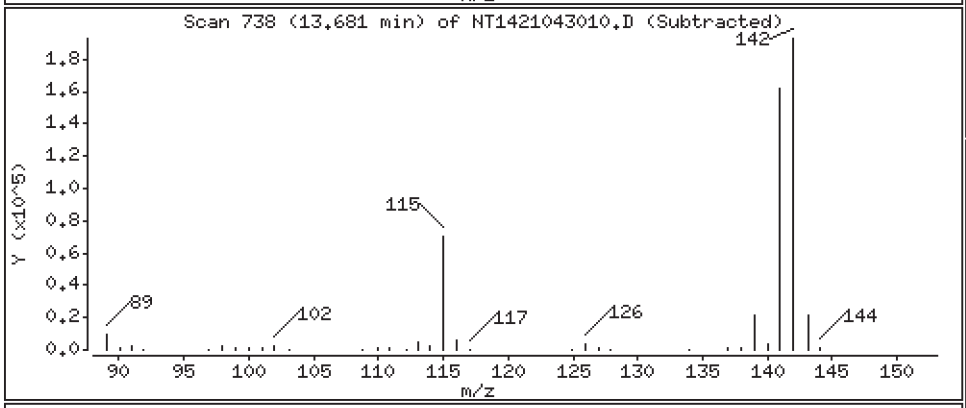
Column diameter: 0.25

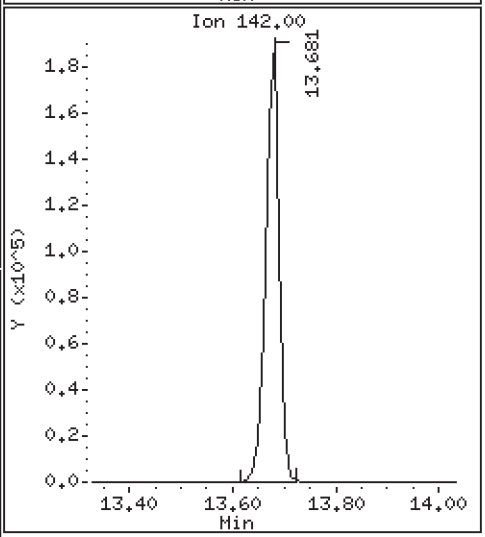
16 2-Methylnaphthalene

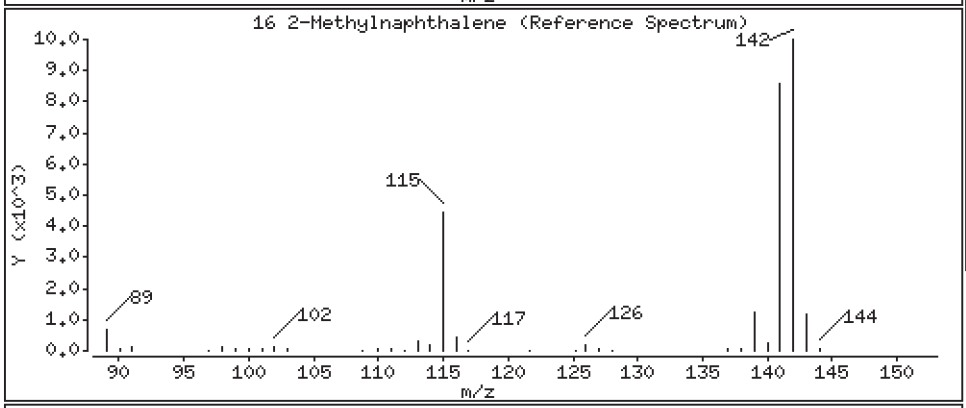
Concentration: 2.845 ug/mL

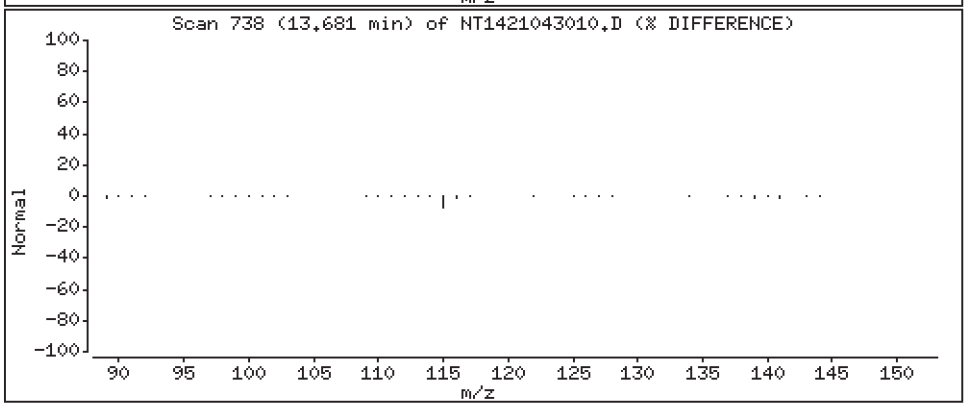


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

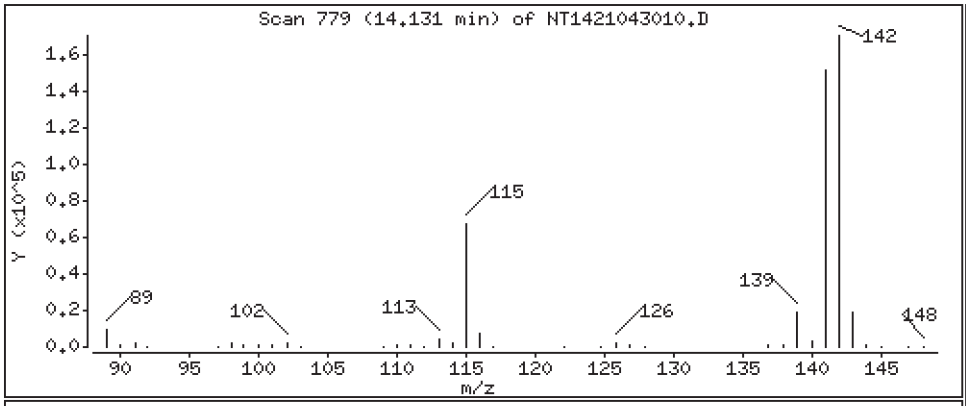
Operator: VTS

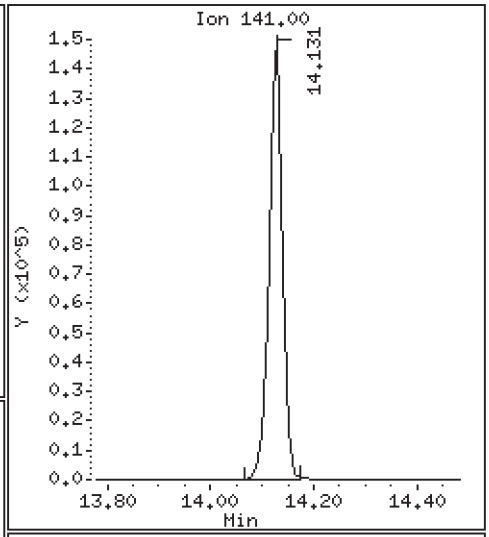
Column phase: Rxi-17Sil MS

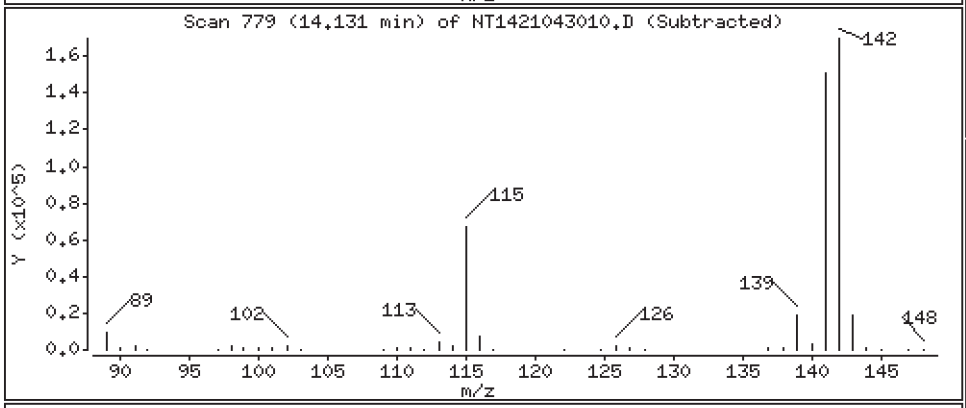
Column diameter: 0.25

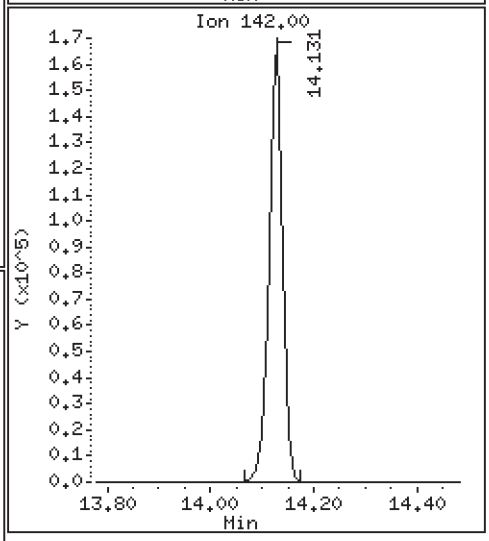
17 1-methylnaphthalene

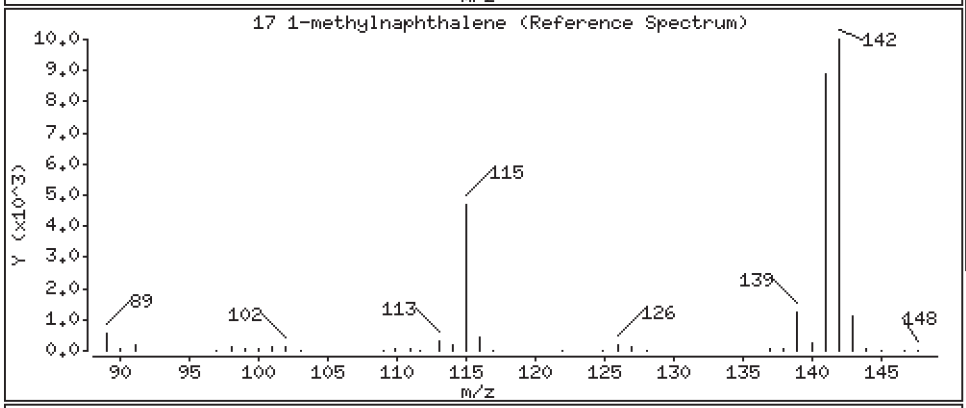
Concentration: 2.821 ug/mL

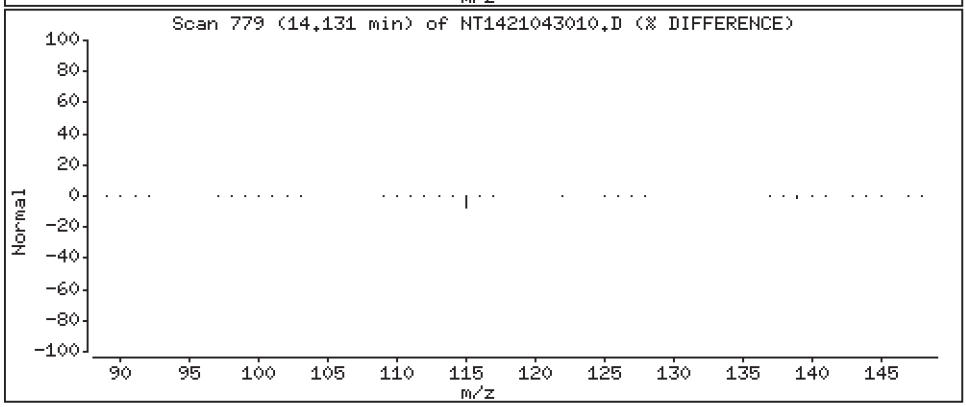


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

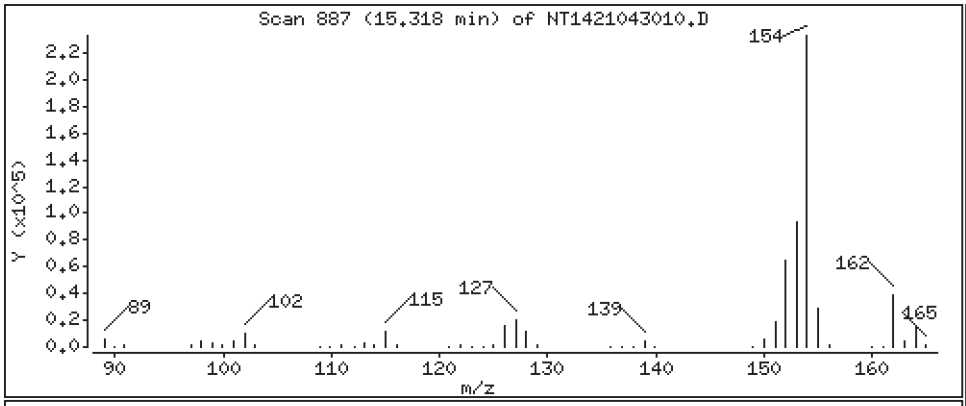
Operator: VTS

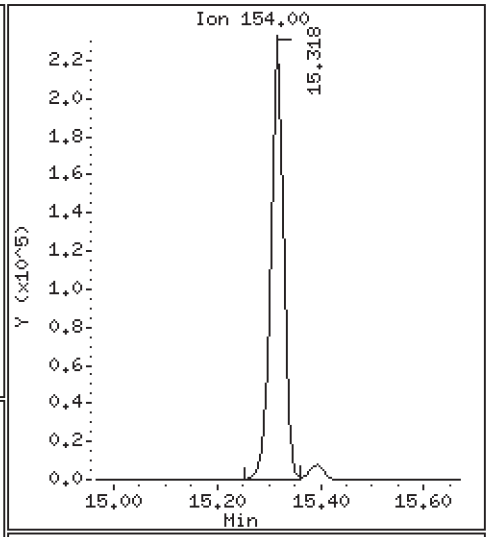
Column phase: Rxi-17Sil MS

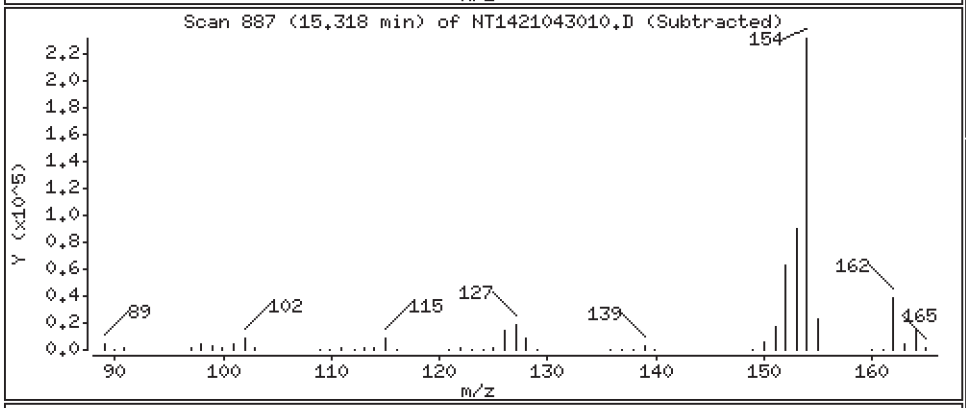
Column diameter: 0.25

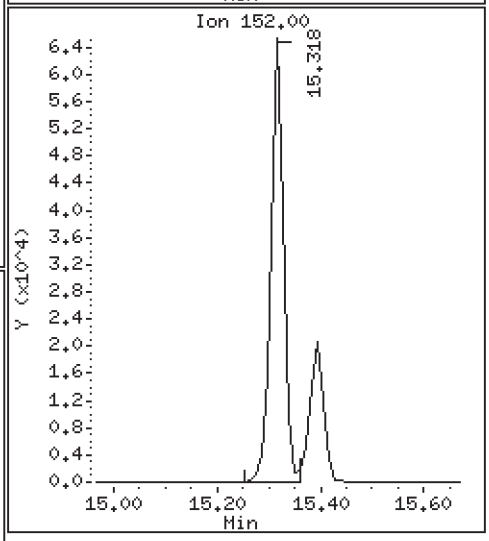
18 Biphenyl

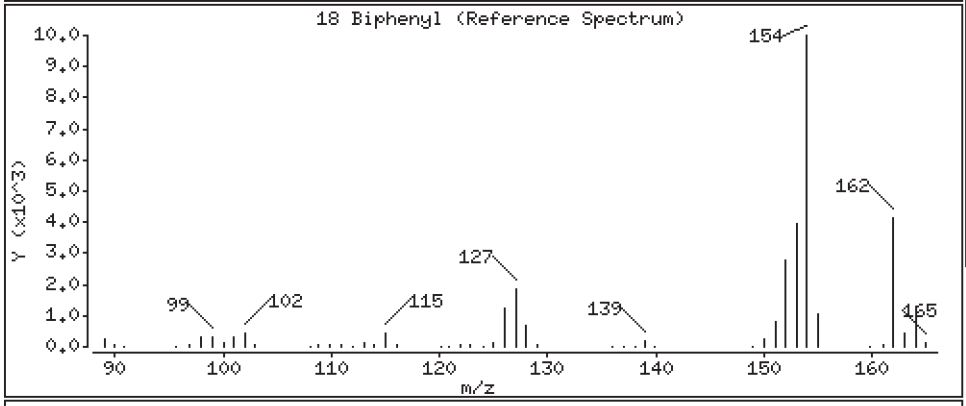
Concentration: 2.765 ug/mL

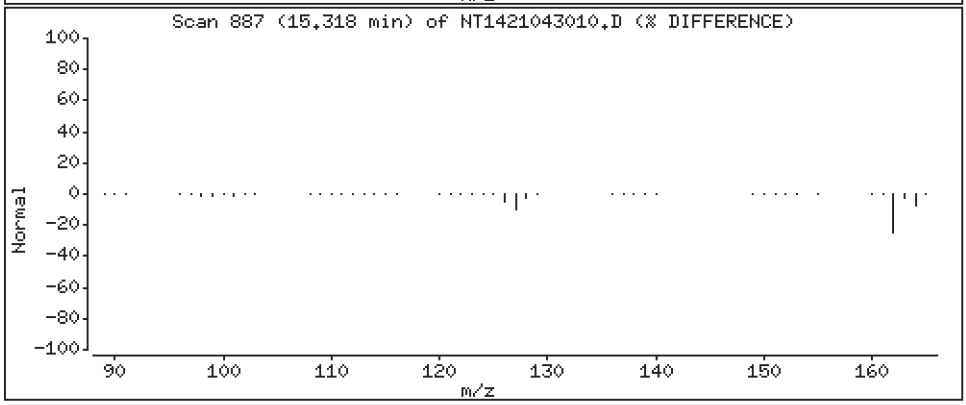


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

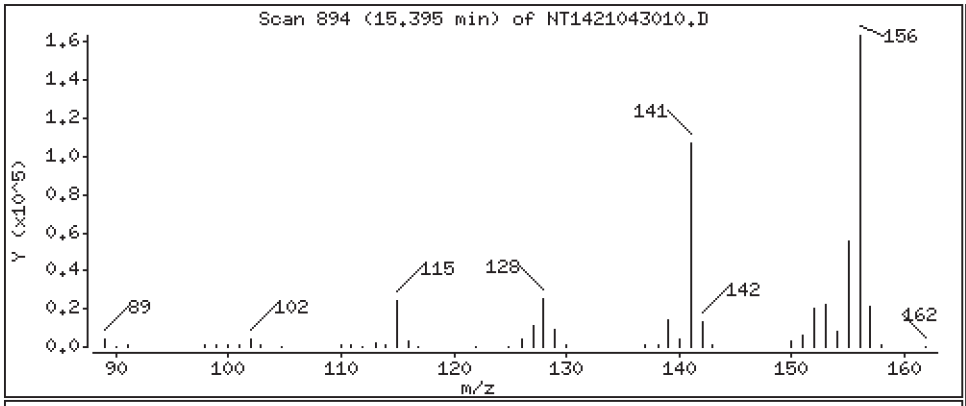
Operator: VTS

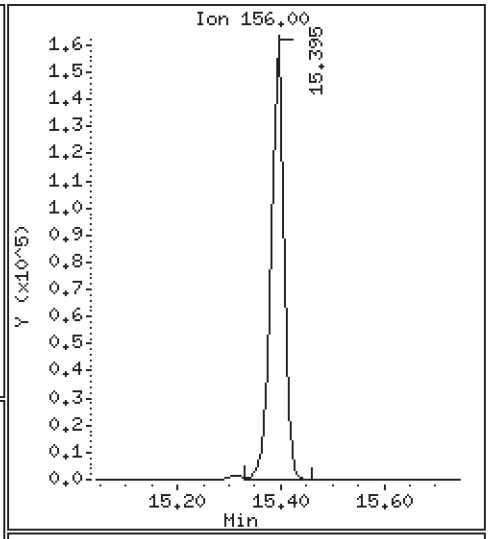
Column phase: Rxi-17Sil MS

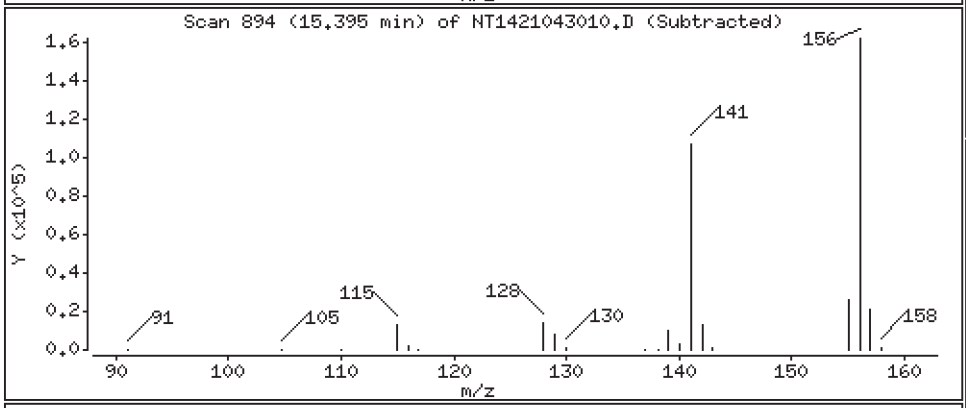
Column diameter: 0.25

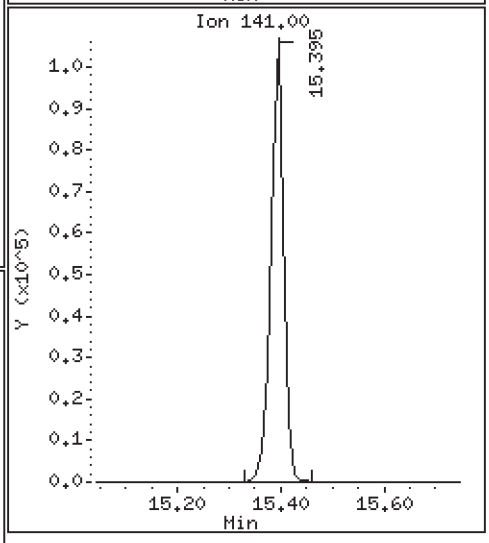
19 2,6-Dimethylnaphthalene

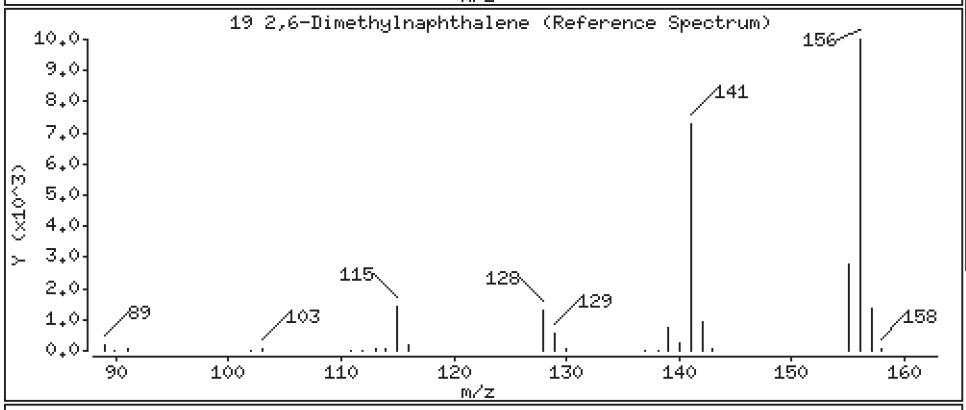
Concentration: 2.822 ug/mL

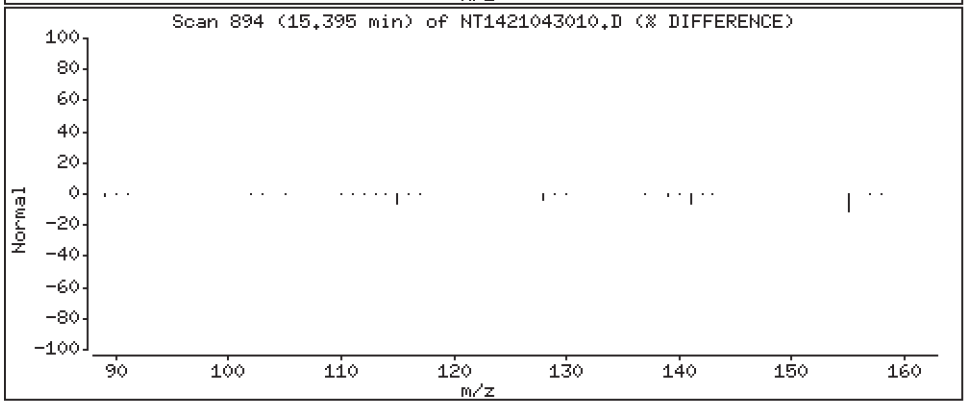


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

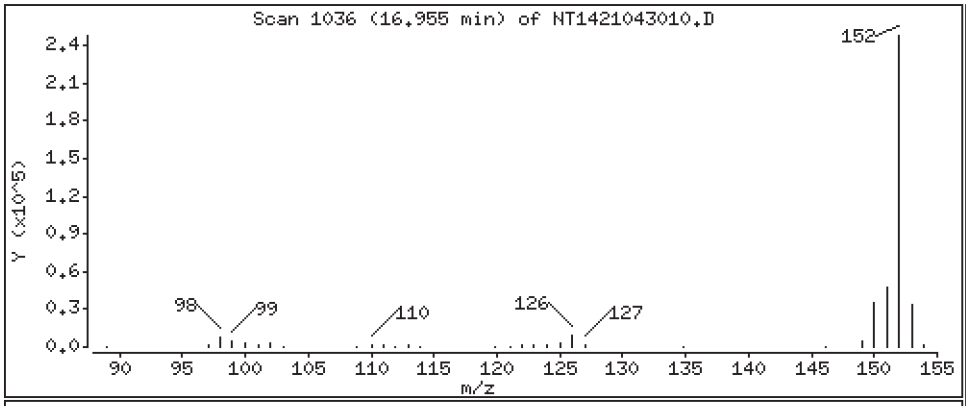
Operator: VTS

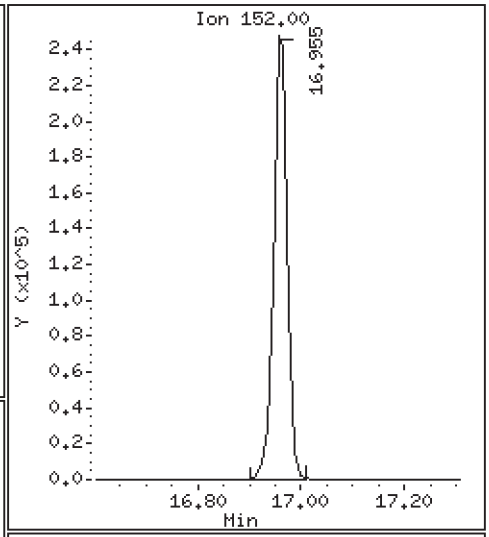
Column phase: Rxi-17Sil MS

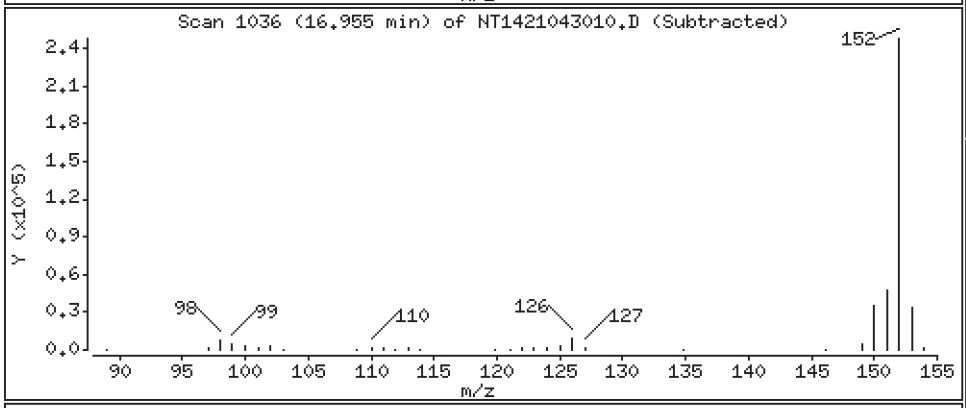
Column diameter: 0.25

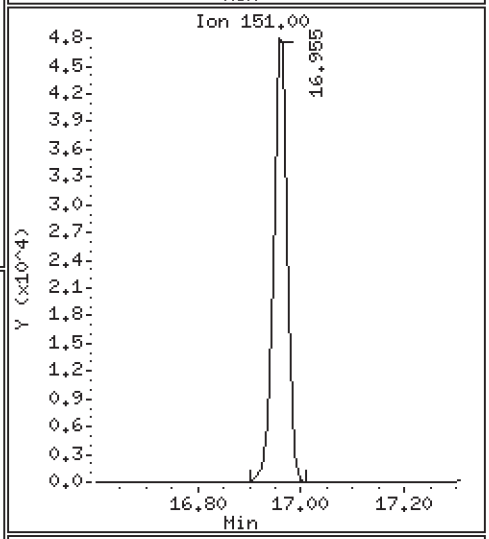
20 Acenaphthylene

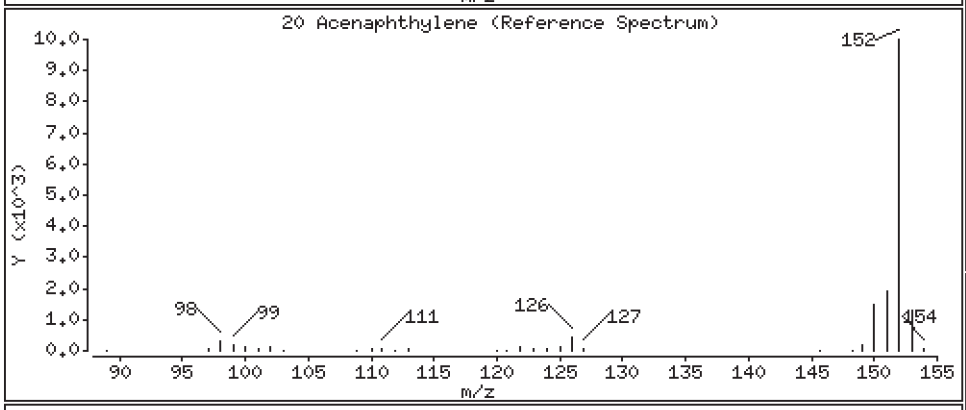
Concentration: 2.889 ug/mL

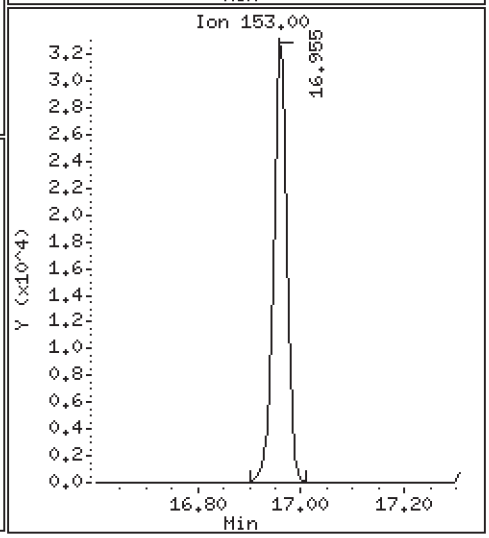


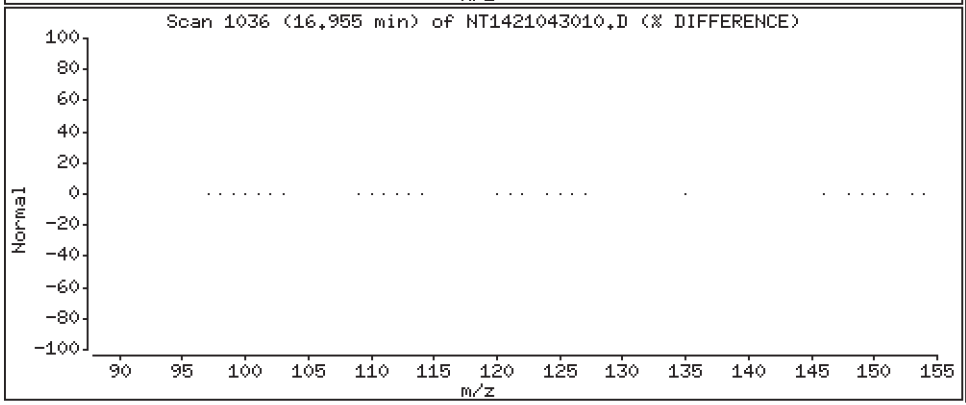



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

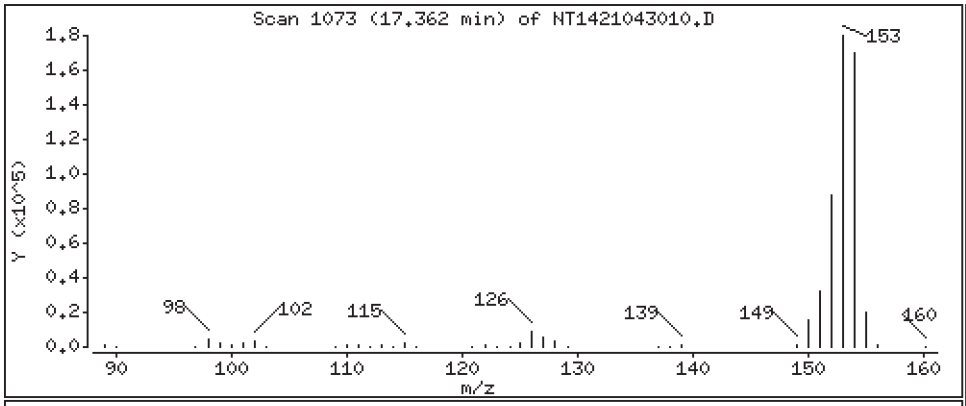
Operator: VTS

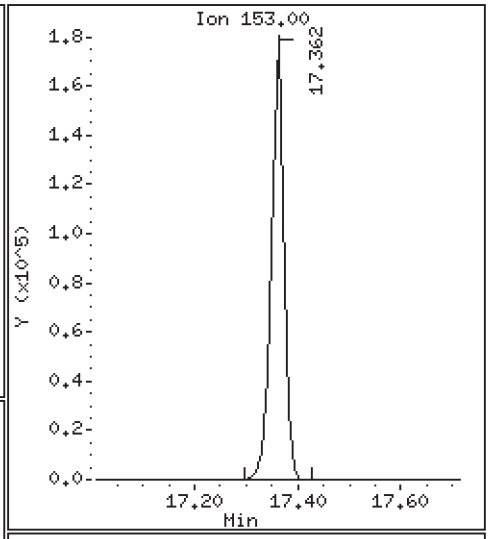
Column phase: Rxi-17Sil MS

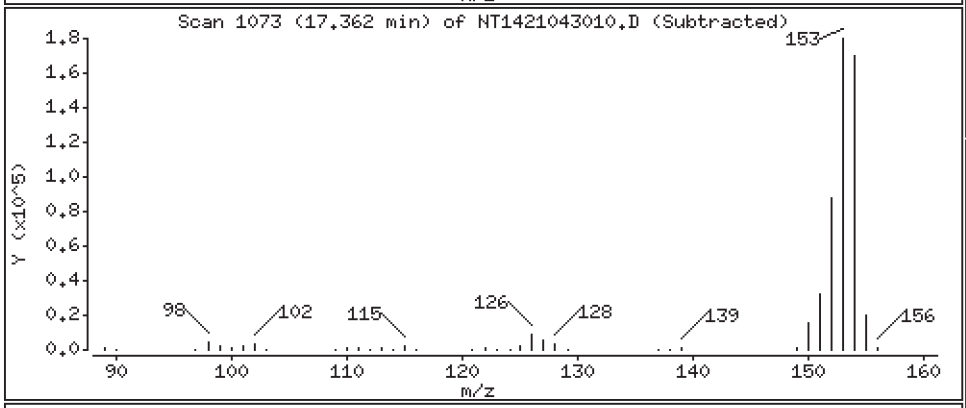
Column diameter: 0.25

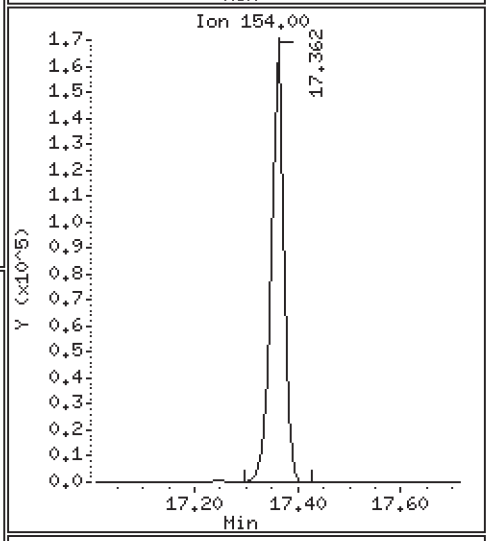
22 Acenaphthene

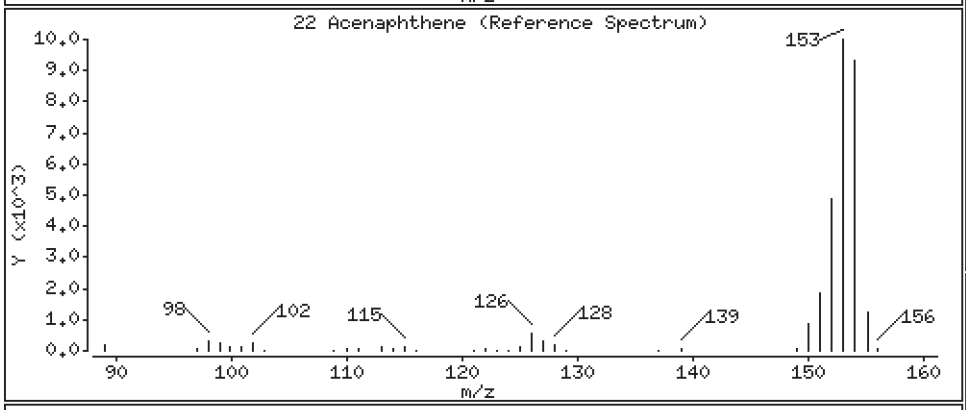
Concentration: 3.010 ug/mL

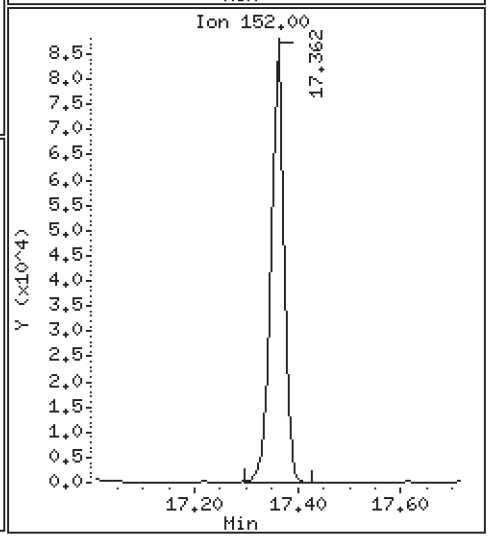


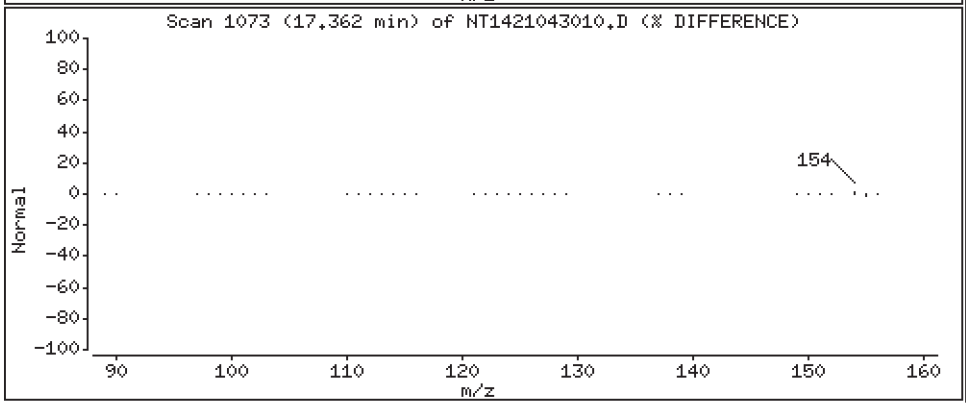



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

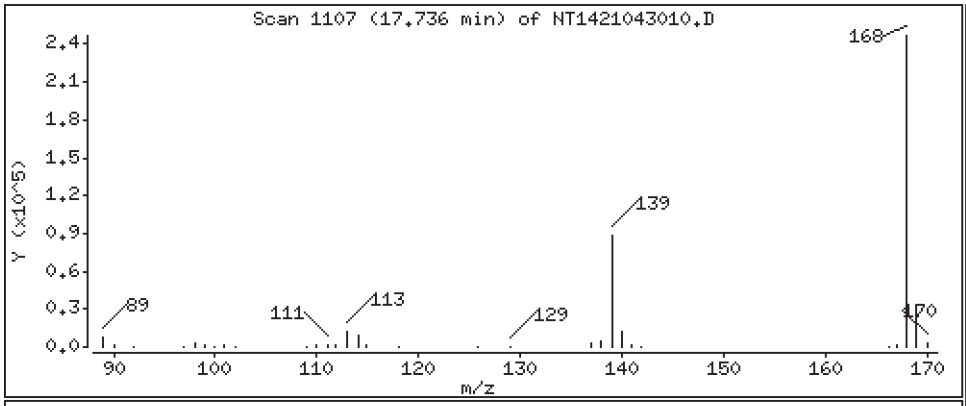
Operator: VTS

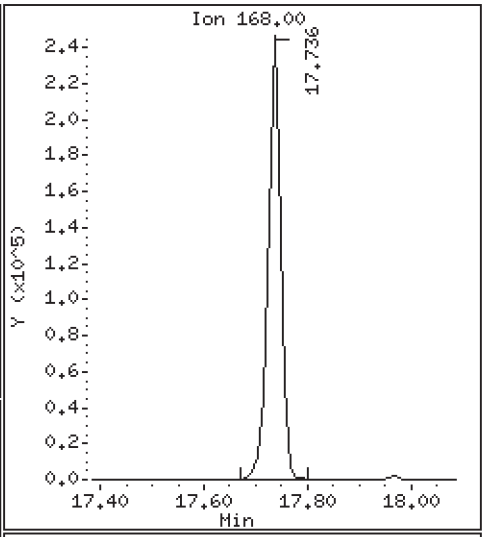
Column phase: Rxi-17Sil MS

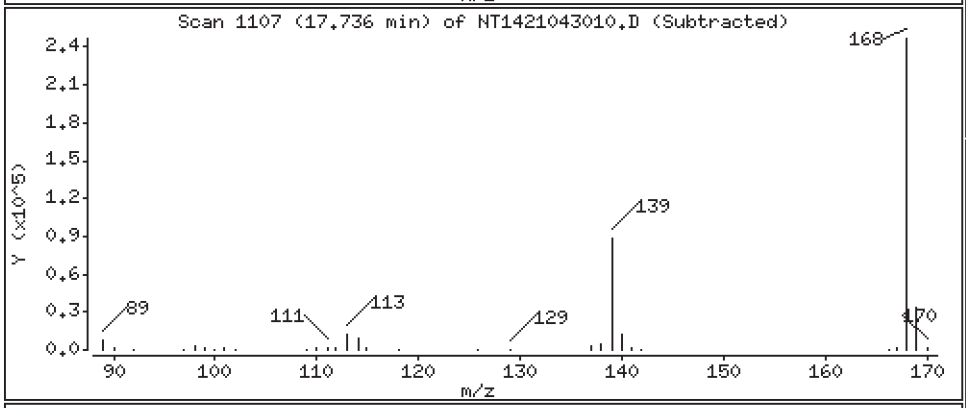
Column diameter: 0.25

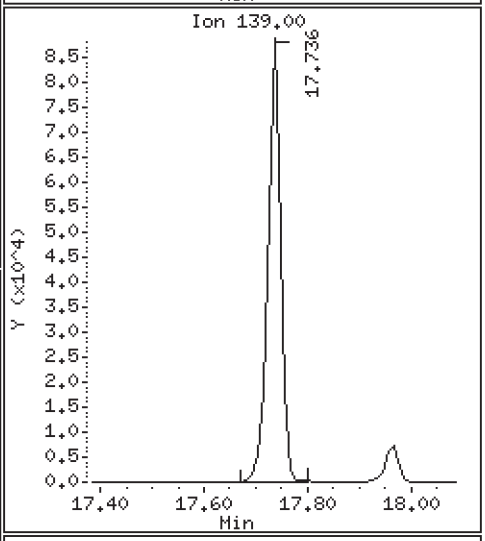
23 Dibenzofuran

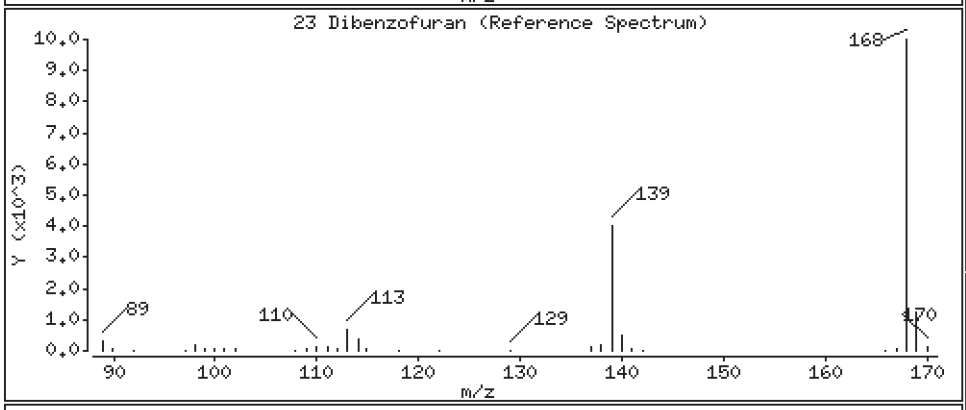
Concentration: 2.768 ug/mL

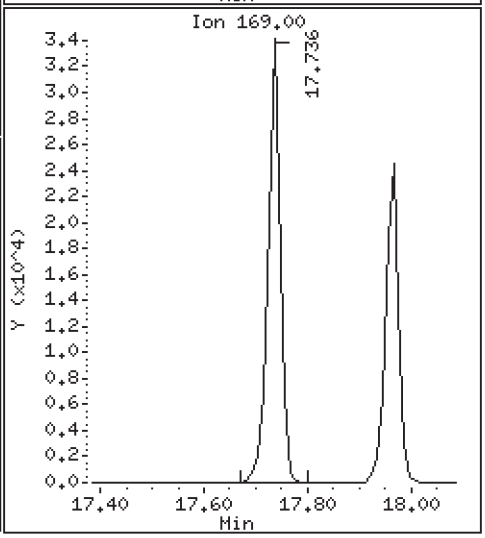


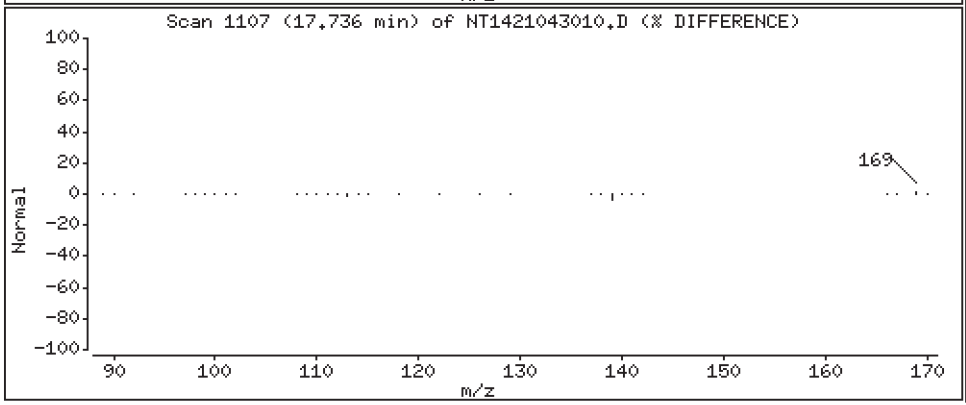



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

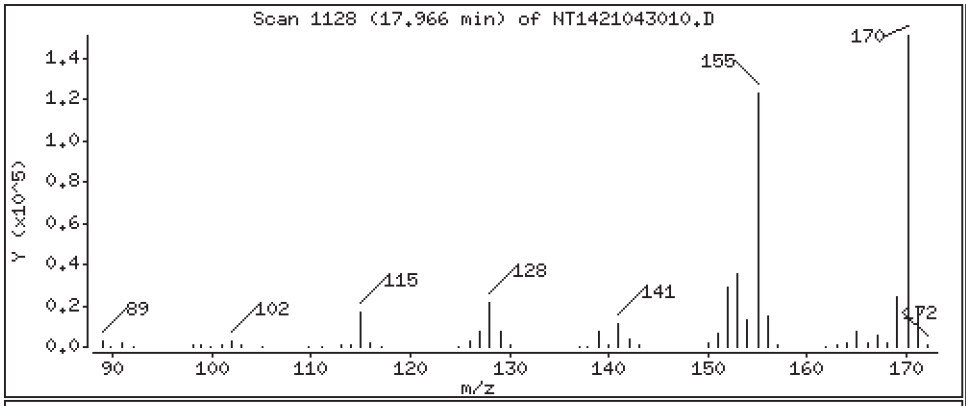
Operator: VTS

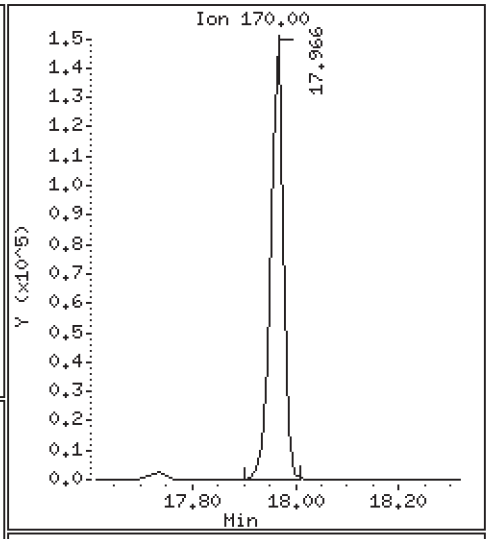
Column phase: Rxi-17Sil MS

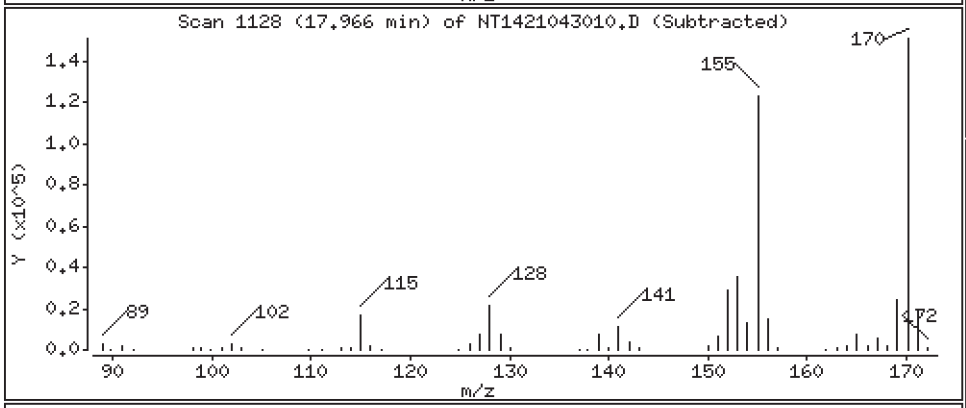
Column diameter: 0.25

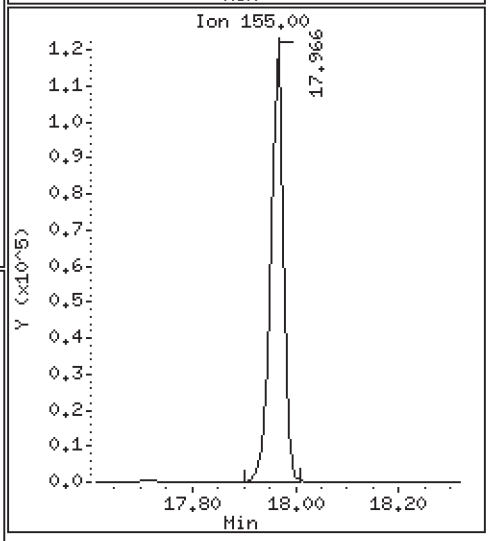
24 1,6,7-Trimethylnaphthalene

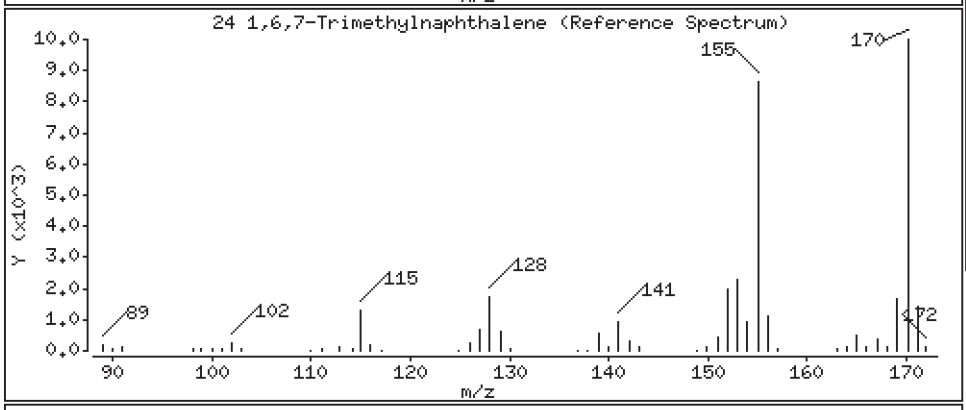
Concentration: 2.923 ug/mL

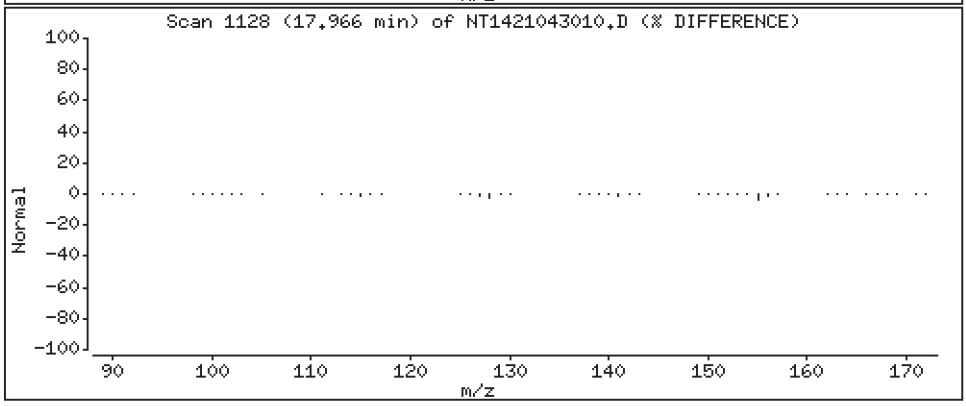


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

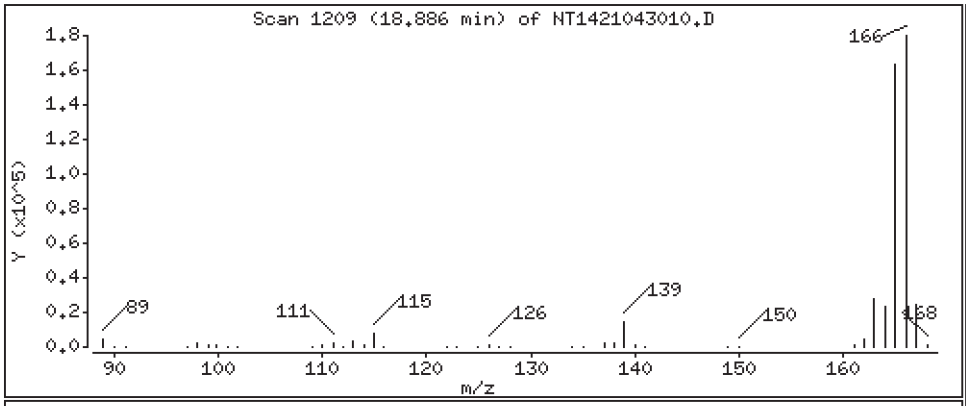
Operator: VTS

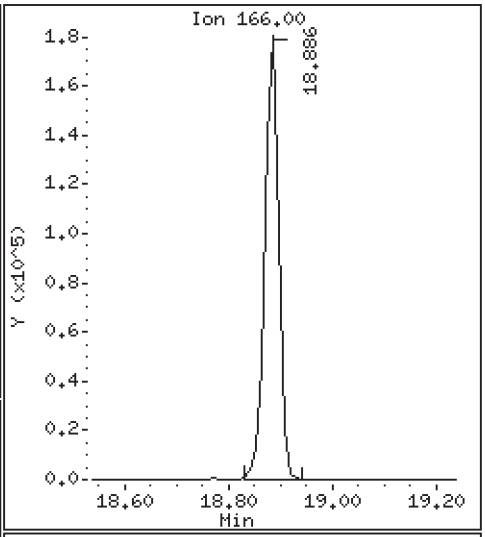
Column phase: Rxi-17Sil MS

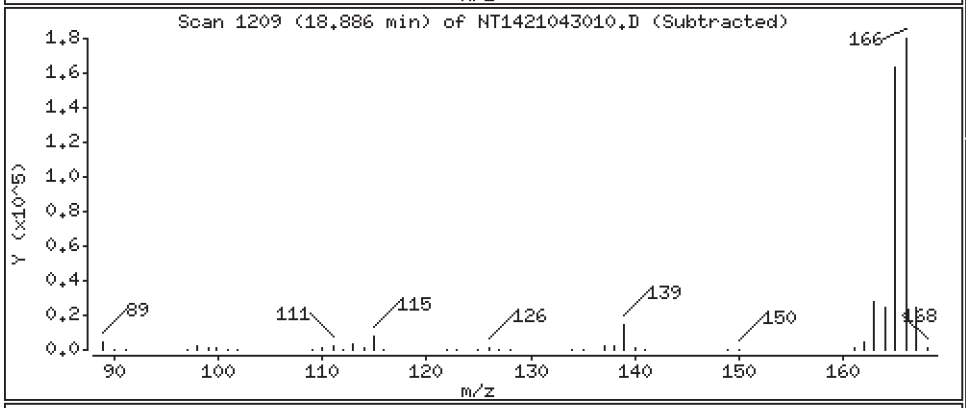
Column diameter: 0.25

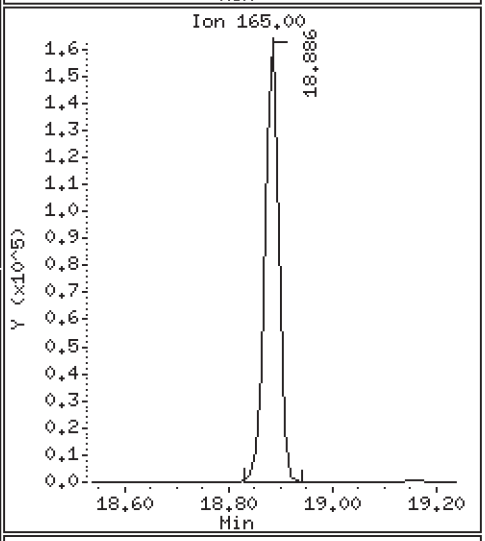
26 Fluorene

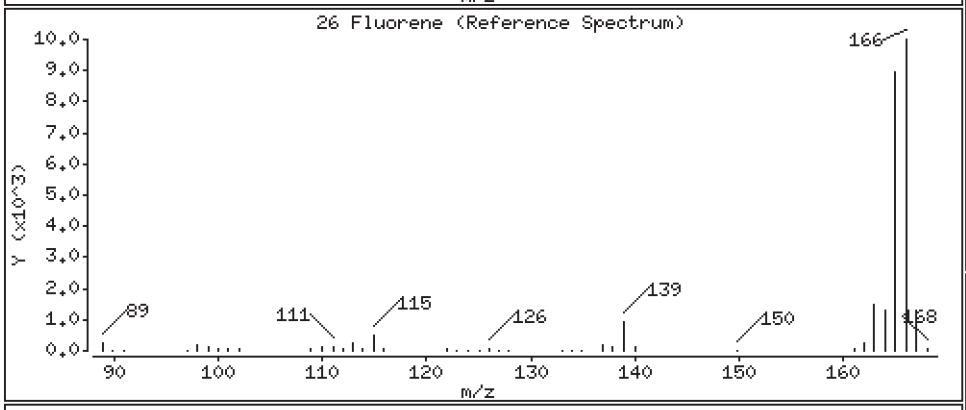
Concentration: 2.844 ug/mL

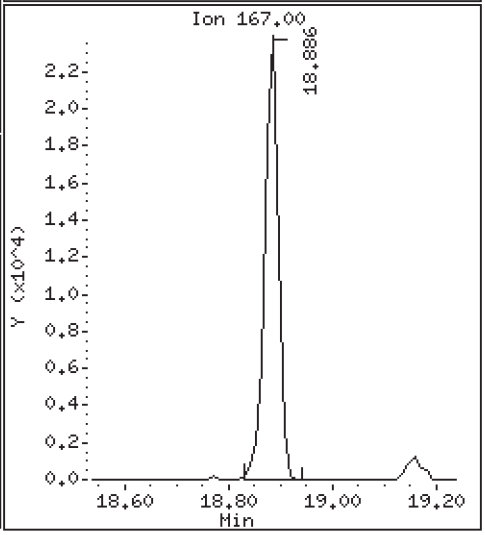


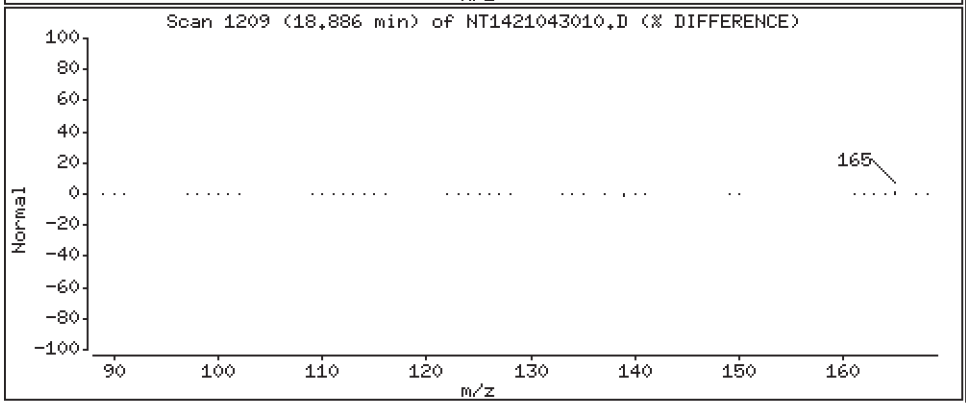



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

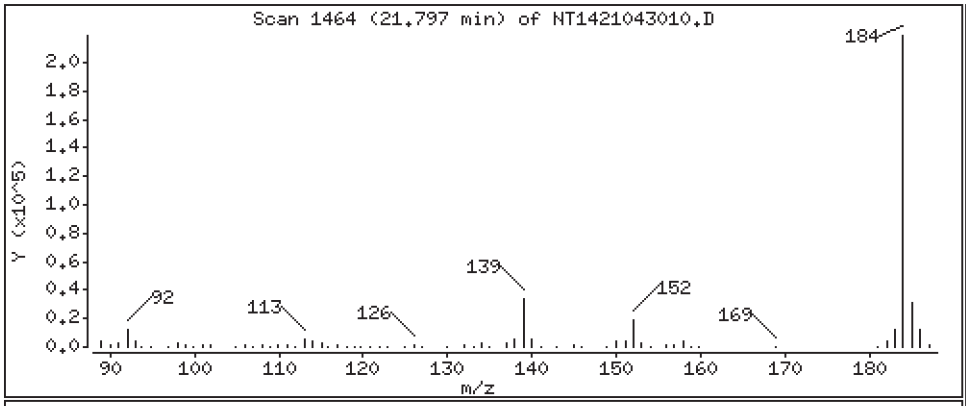
Operator: VTS

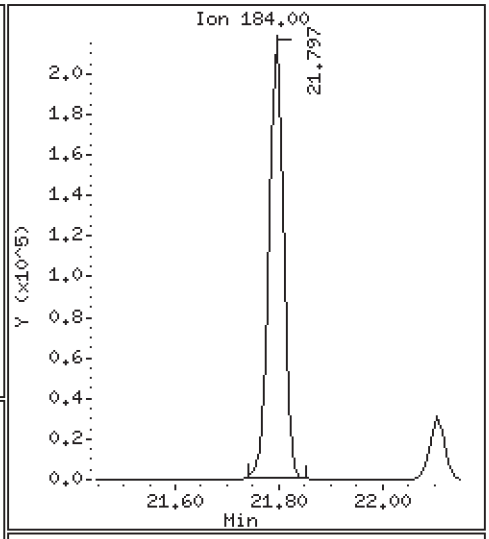
Column phase: Rxi-17Sil MS

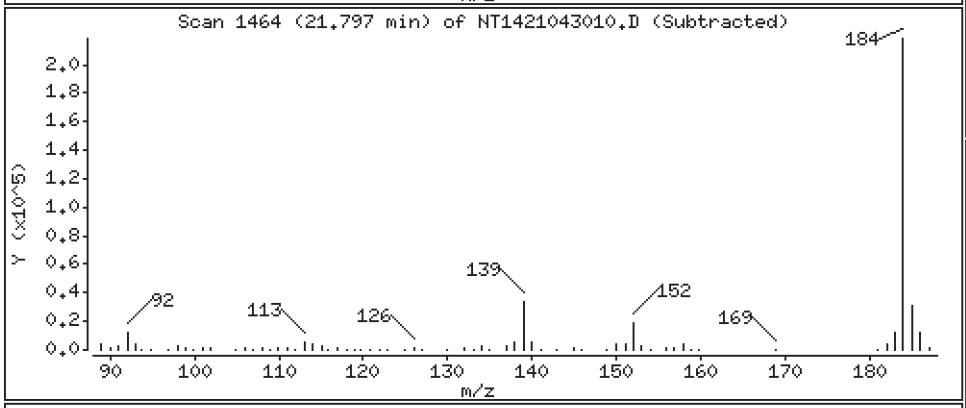
Column diameter: 0.25

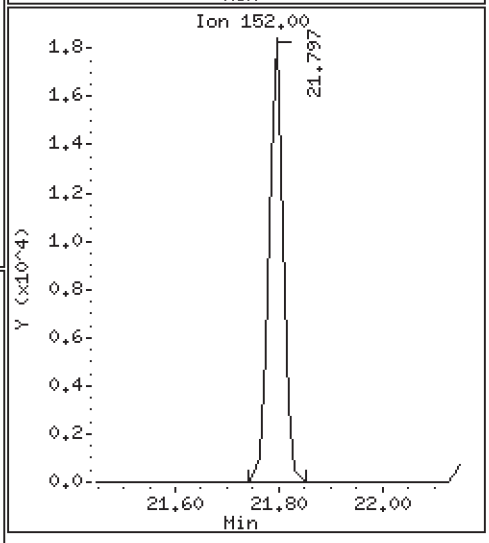
30 Dibenzothiophene

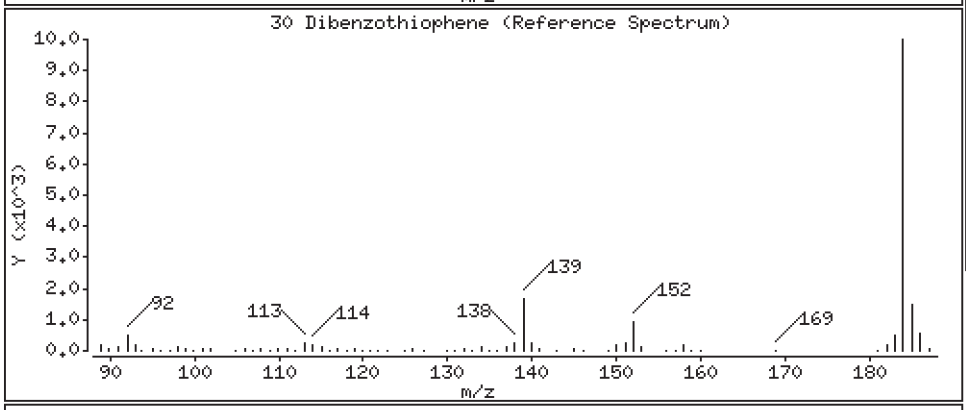
Concentration: 2.782 ug/mL

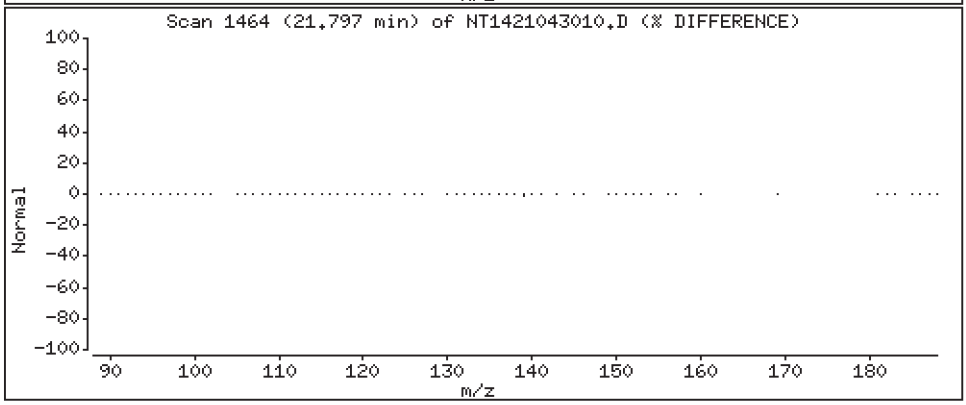


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

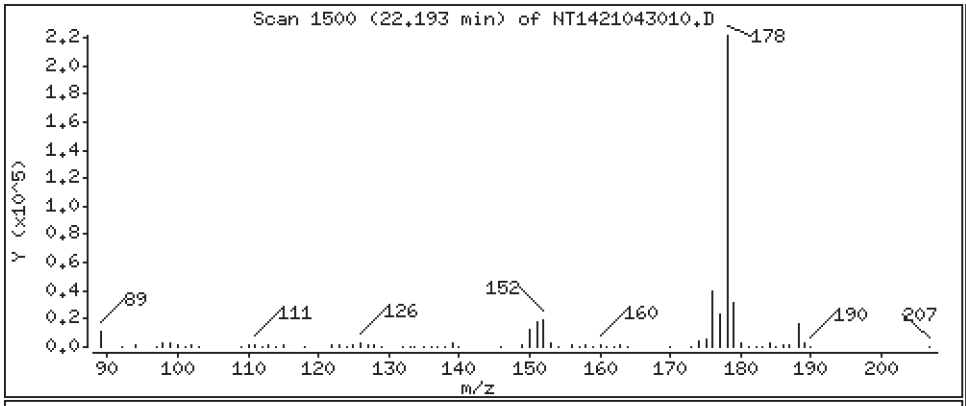
Operator: VTS

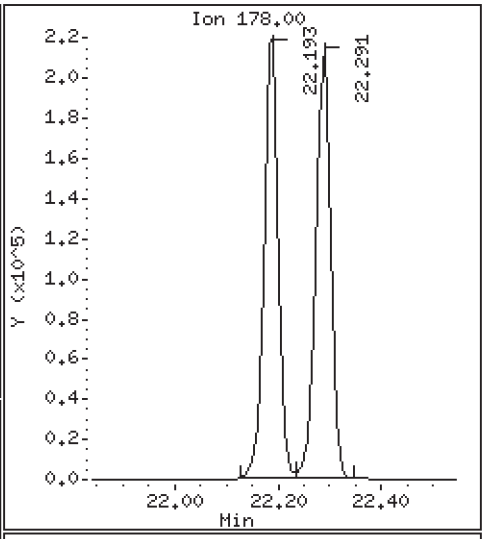
Column phase: Rxi-17Sil MS

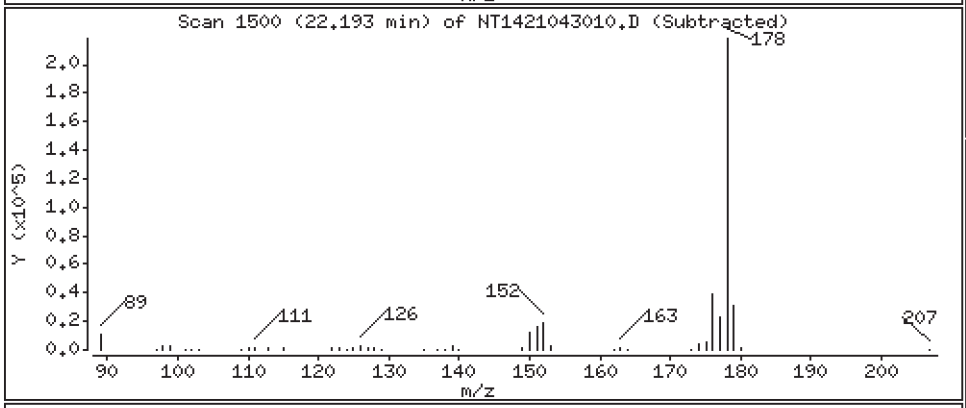
Column diameter: 0.25

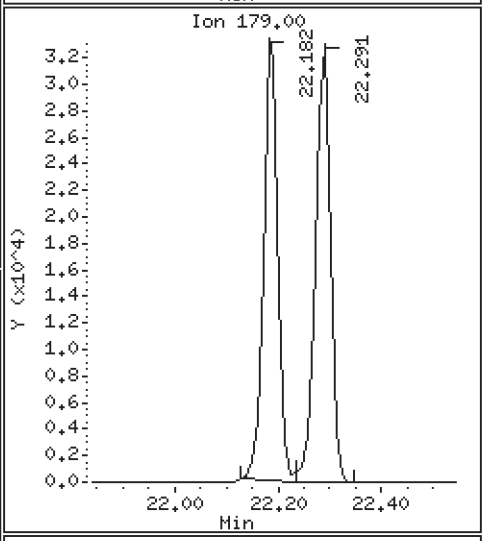
36 Phenanthrene

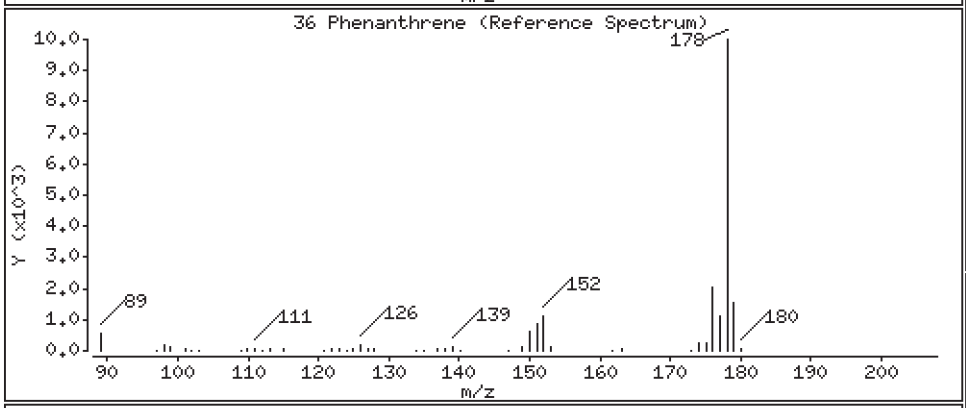
Concentration: 2.468 ug/mL

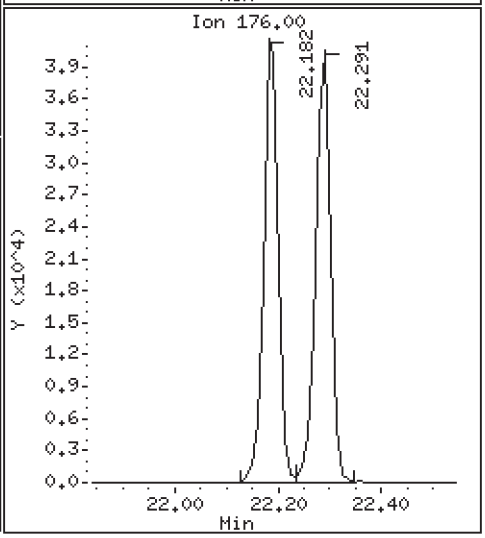


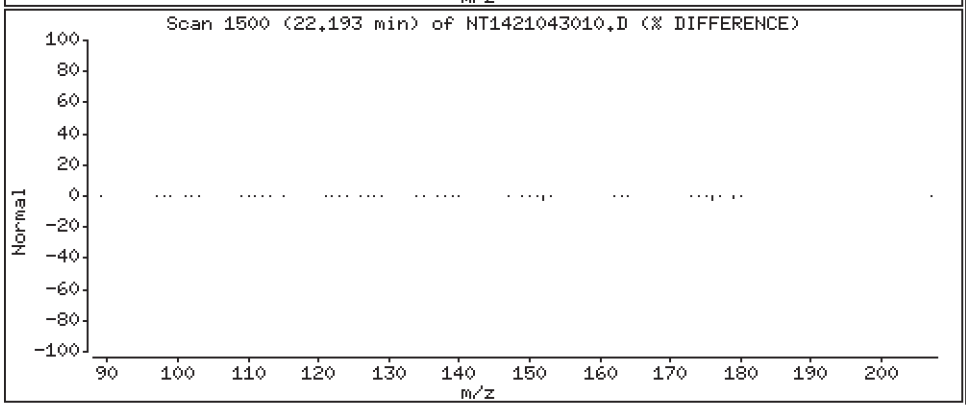



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

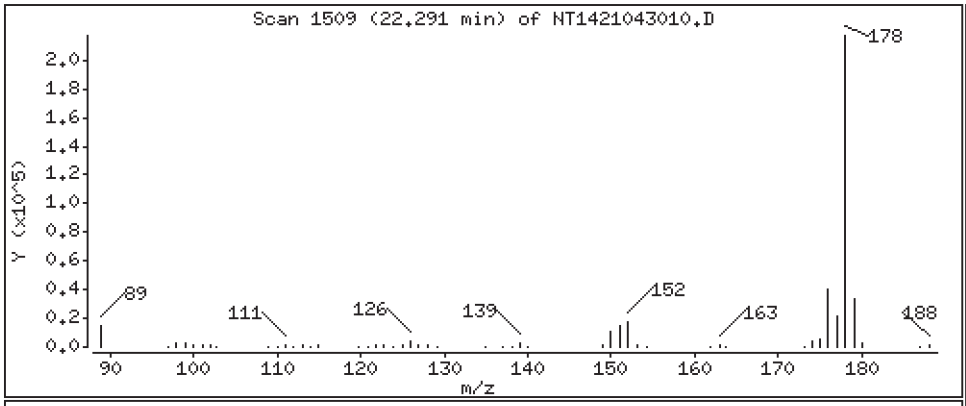
Operator: VTS

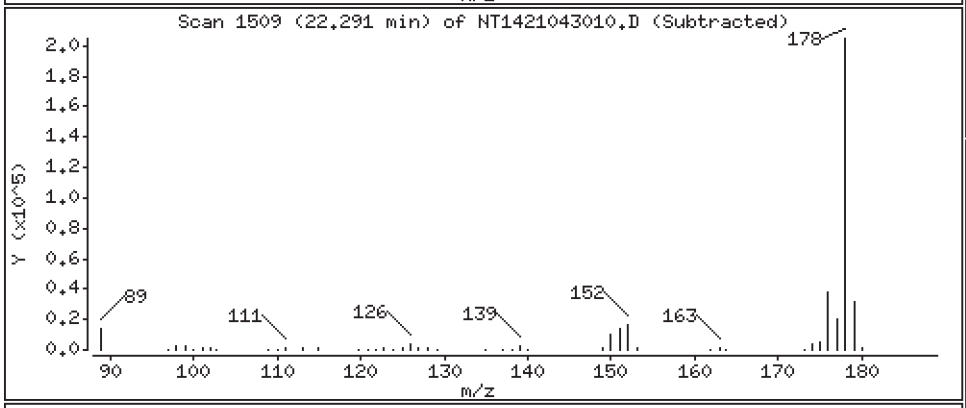
Column phase: Rxi-17Sil MS

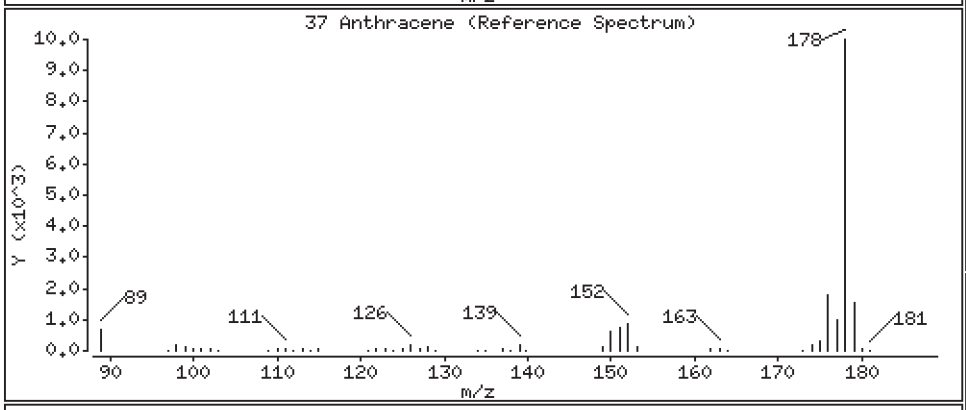
Column diameter: 0.25

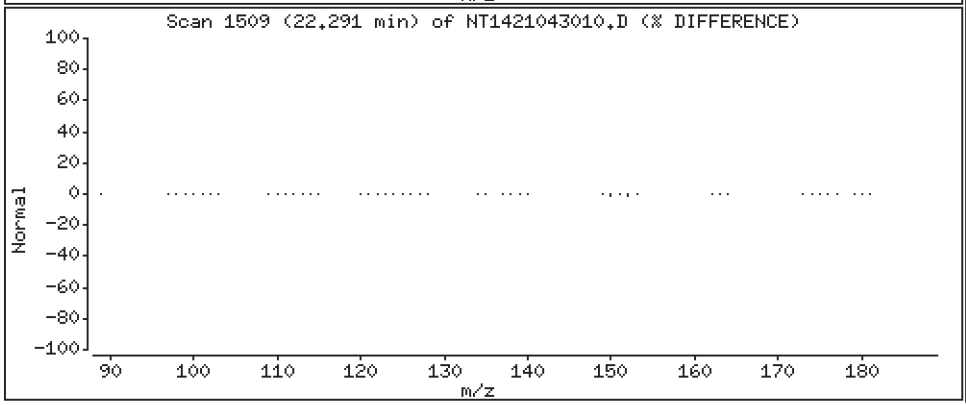
37 Anthracene

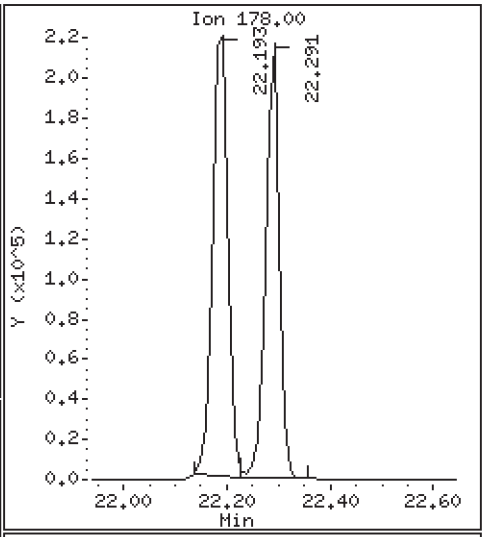
Concentration: 2.492 ug/mL

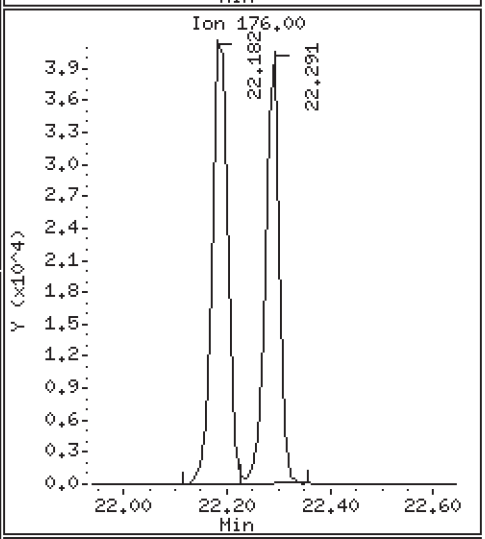


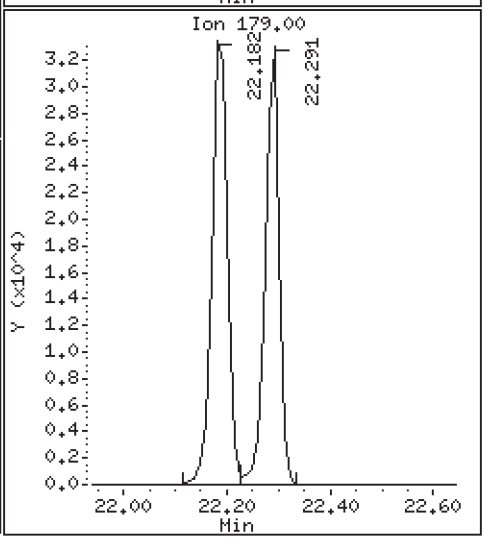



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

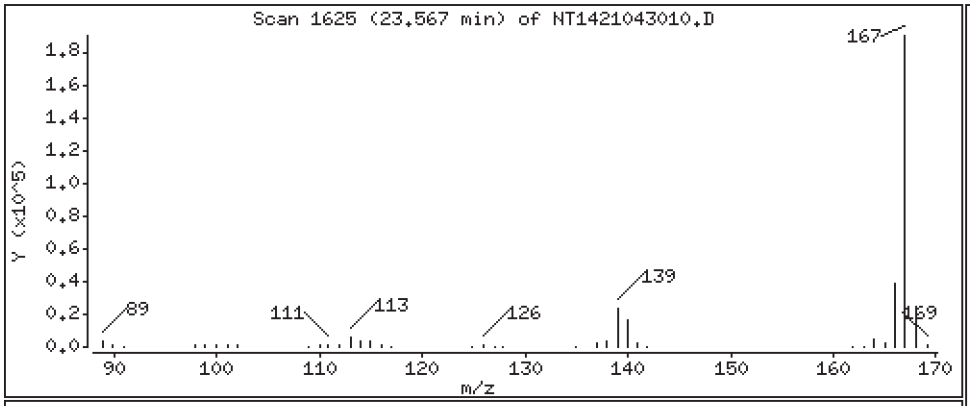
Operator: VTS

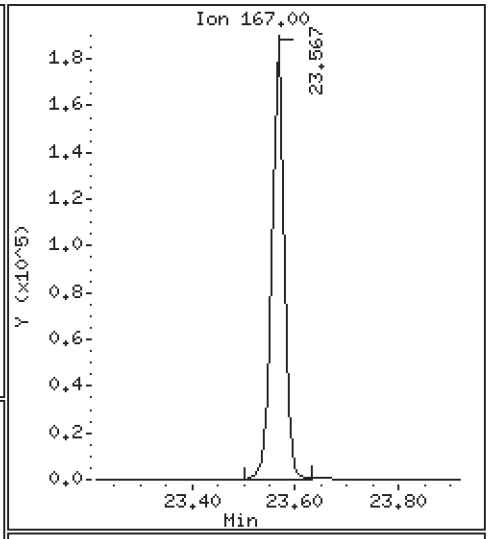
Column phase: Rxi-17Sil MS

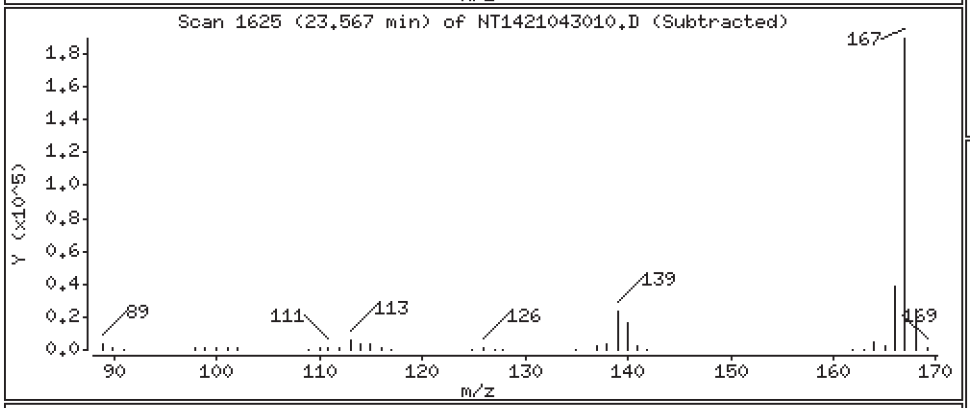
Column diameter: 0.25

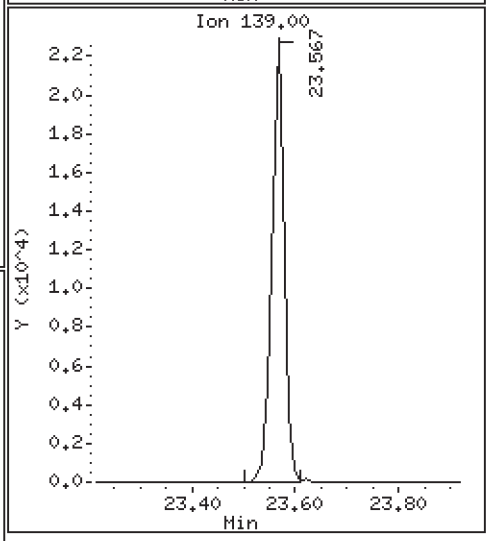
42 Carbazole

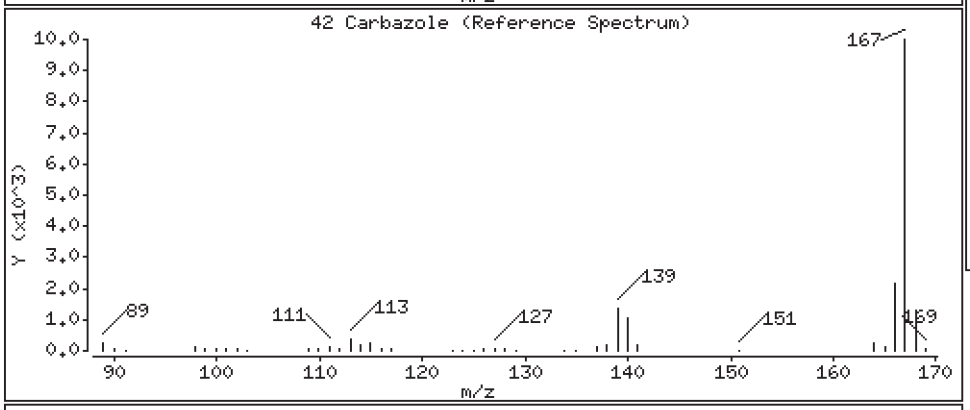
Concentration: 2.343 ug/mL

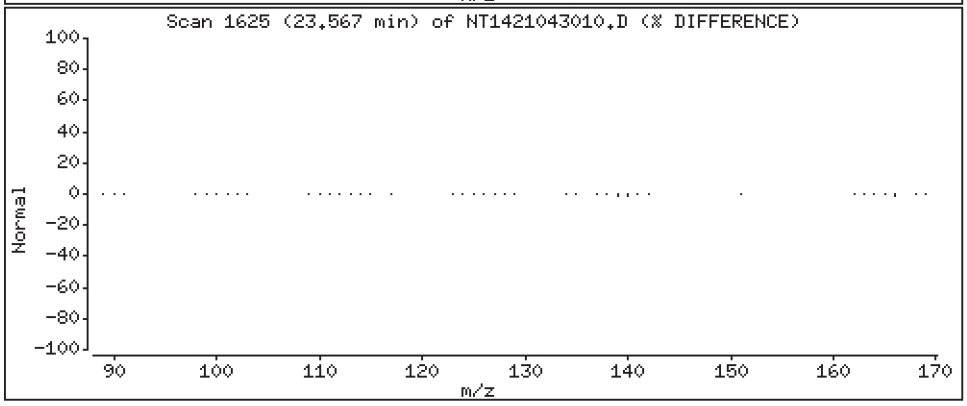


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

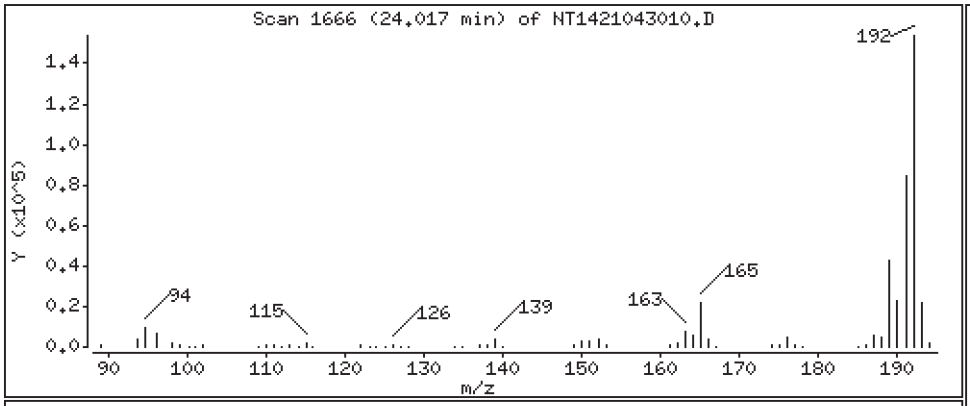
Operator: VTS

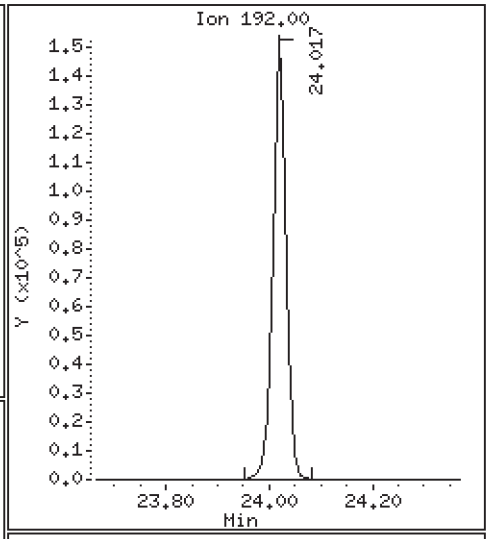
Column phase: Rxi-17Sil MS

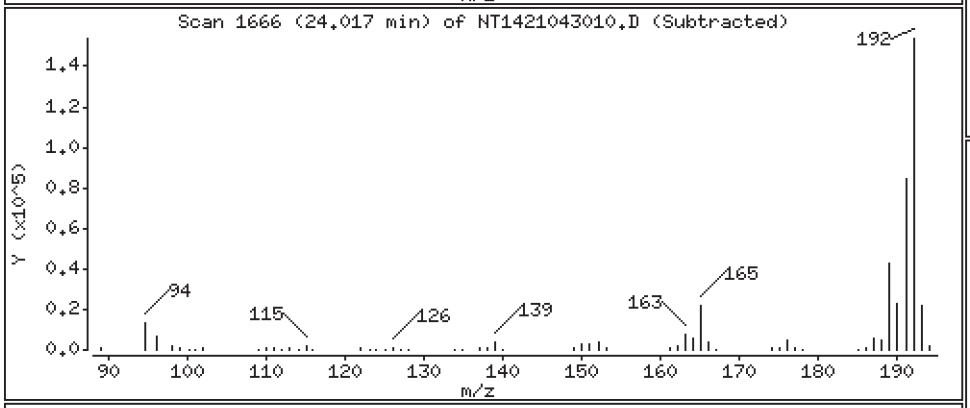
Column diameter: 0.25

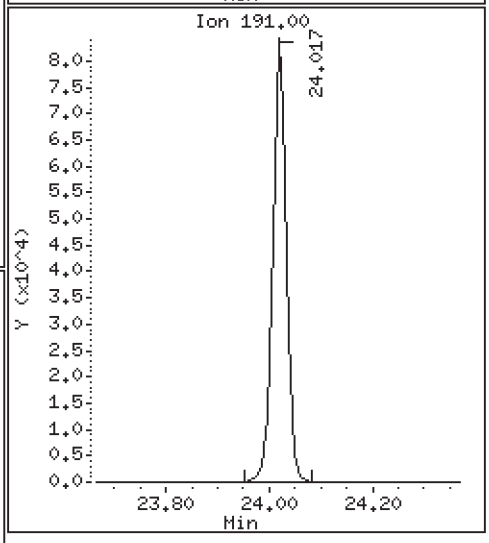
43 1-Methylphenanthrene

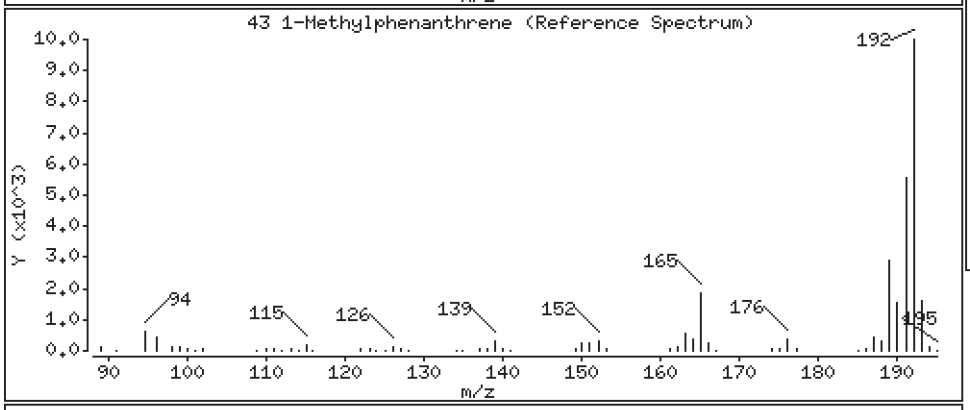
Concentration: 2.594 ug/mL

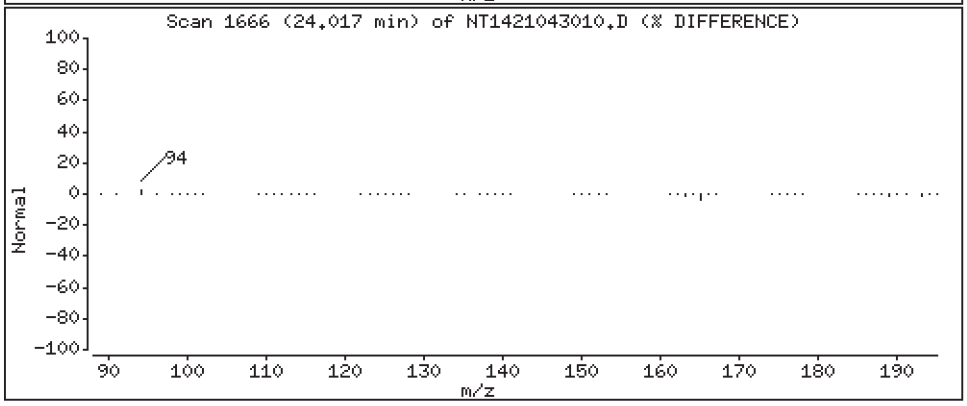


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

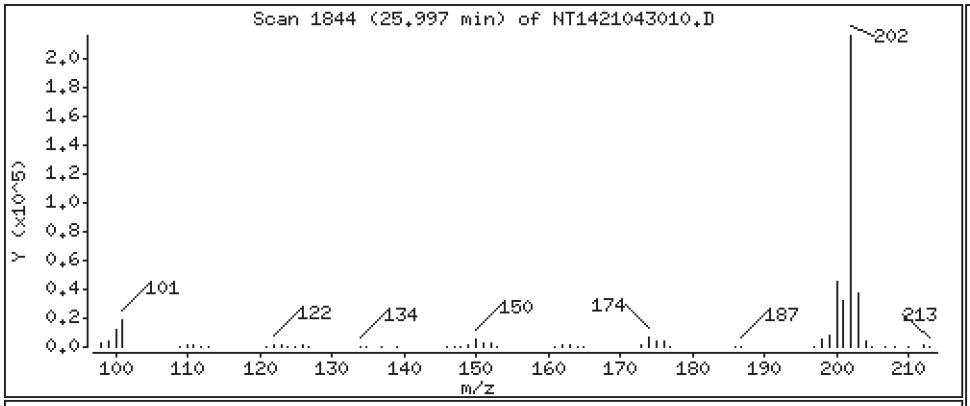
Operator: VTS

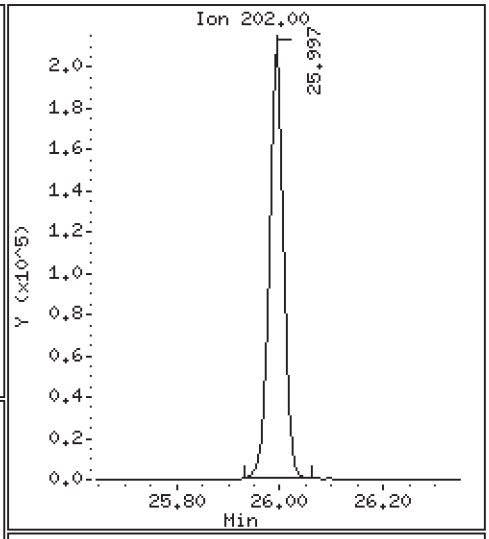
Column phase: Rxi-17Sil MS

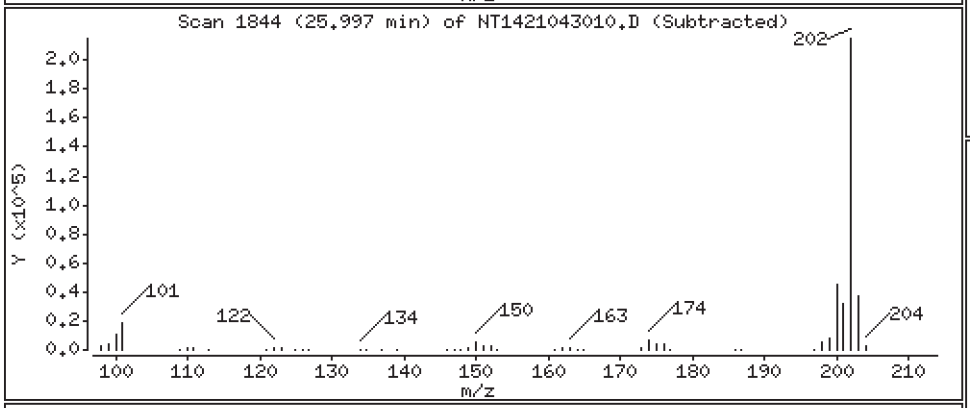
Column diameter: 0.25

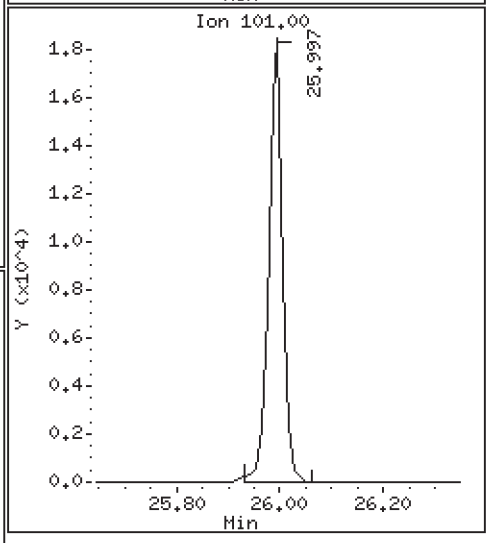
44 Fluoranthene

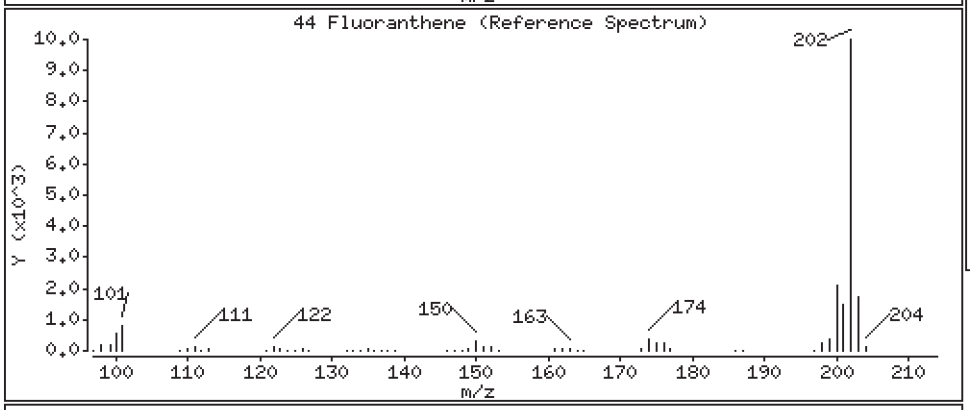
Concentration: 2.634 ug/mL

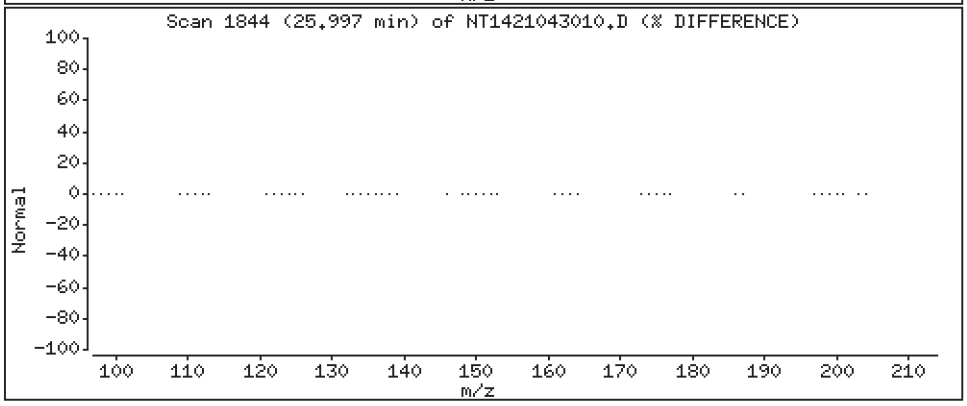


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

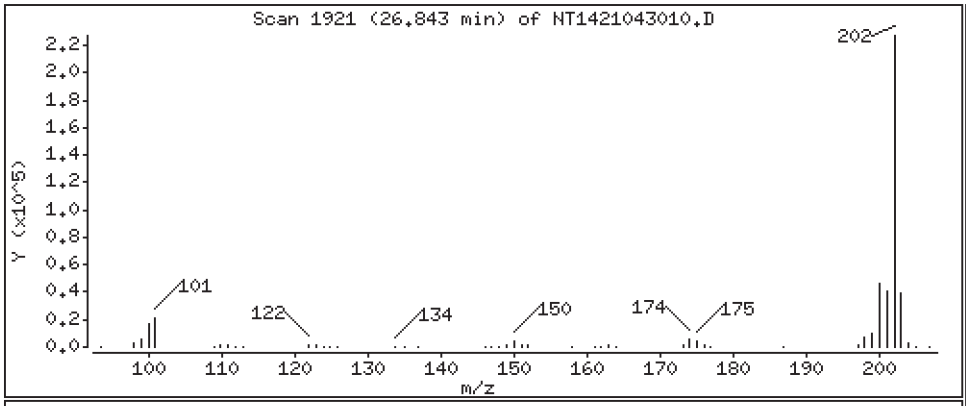
Operator: VTS

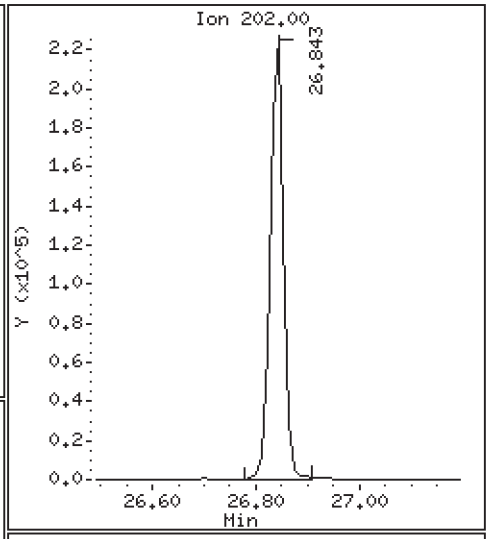
Column phase: Rxi-17Sil MS

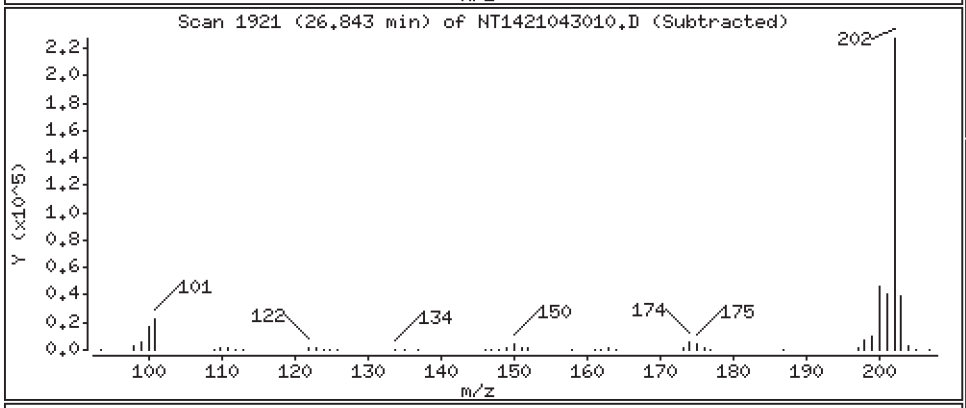
Column diameter: 0.25

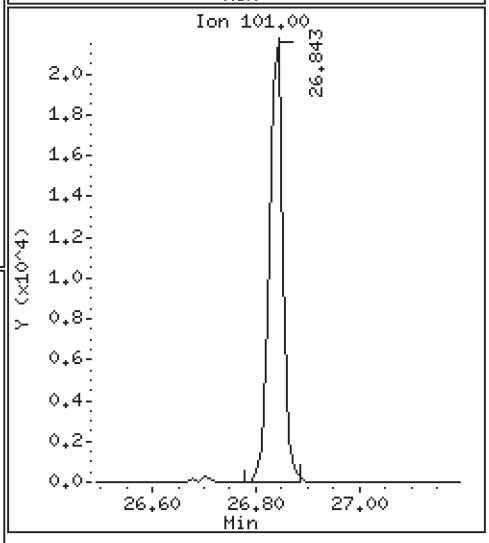
46 Pyrene

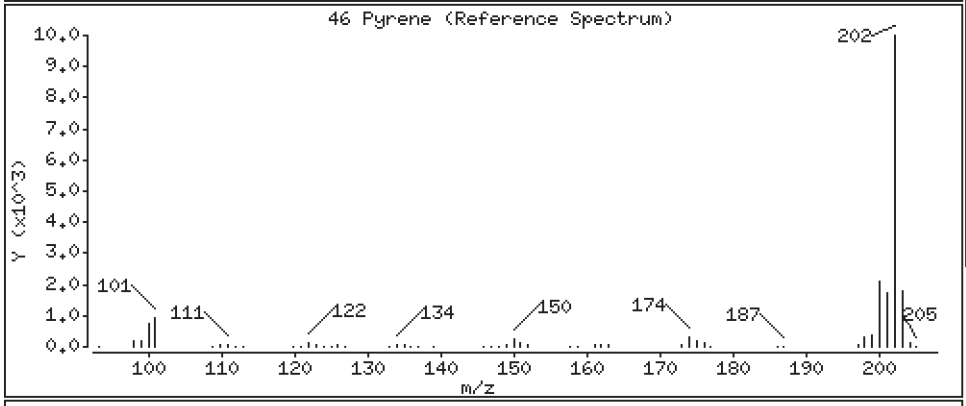
Concentration: 2.527 ug/mL

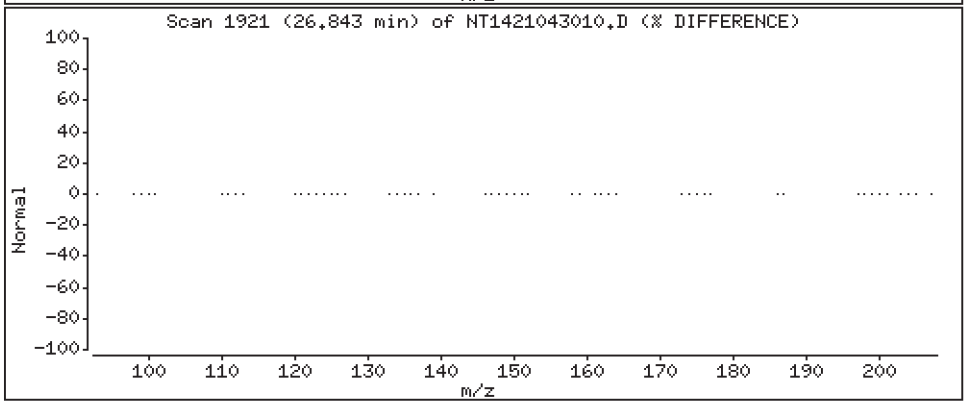


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

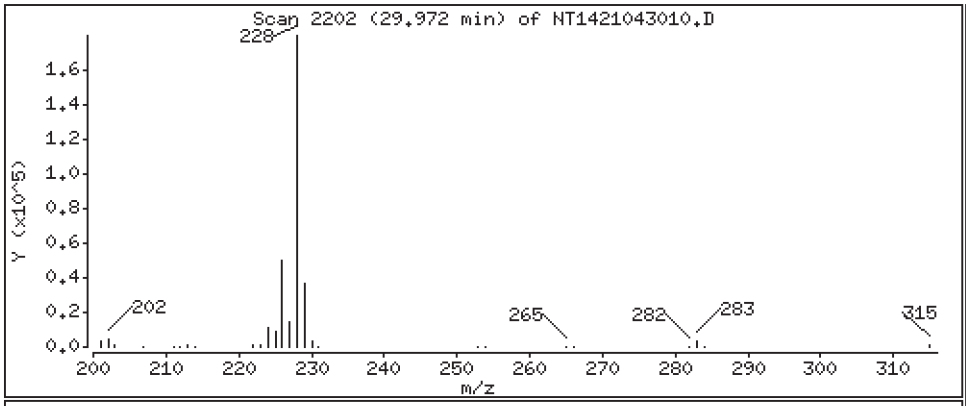
Operator: VTS

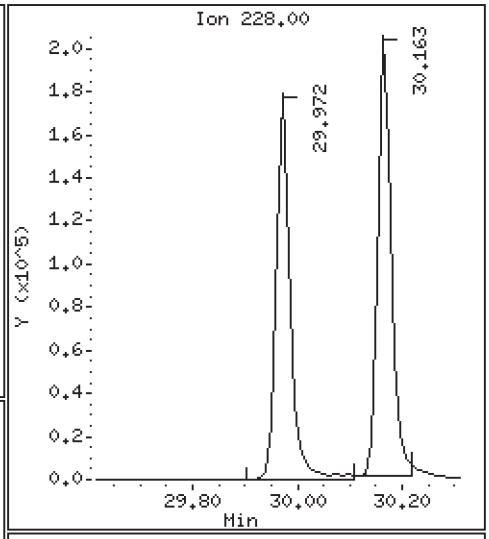
Column phase: Rxi-17Sil MS

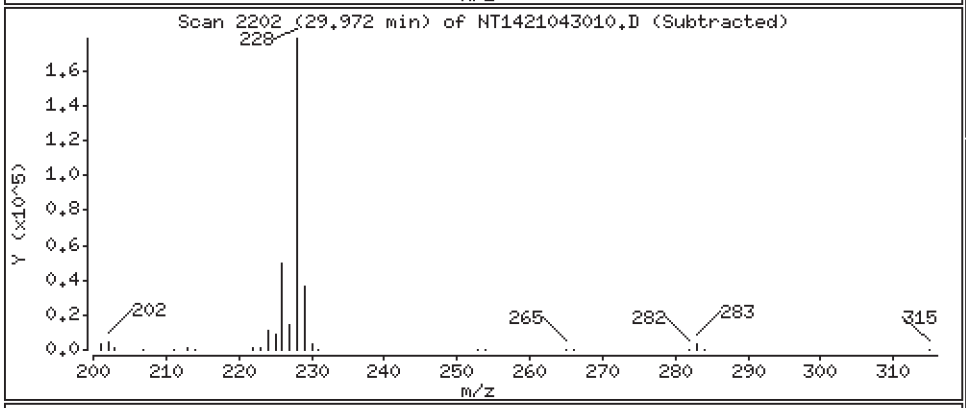
Column diameter: 0.25

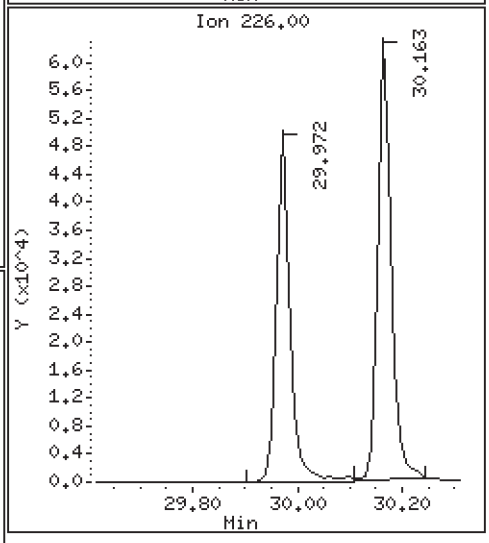
55 Benzo(a)anthracene

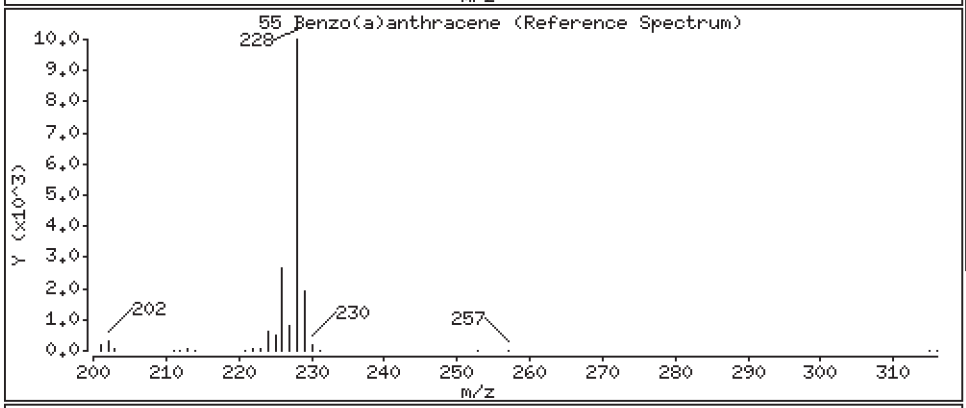
Concentration: 2.278 ug/mL

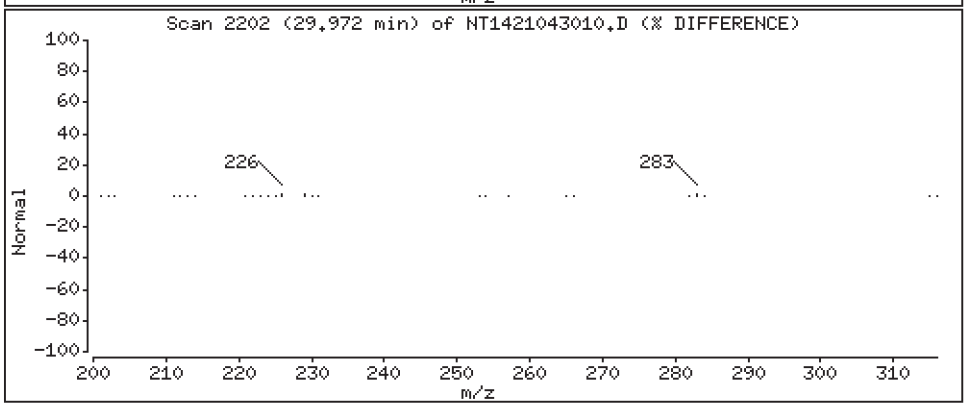


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

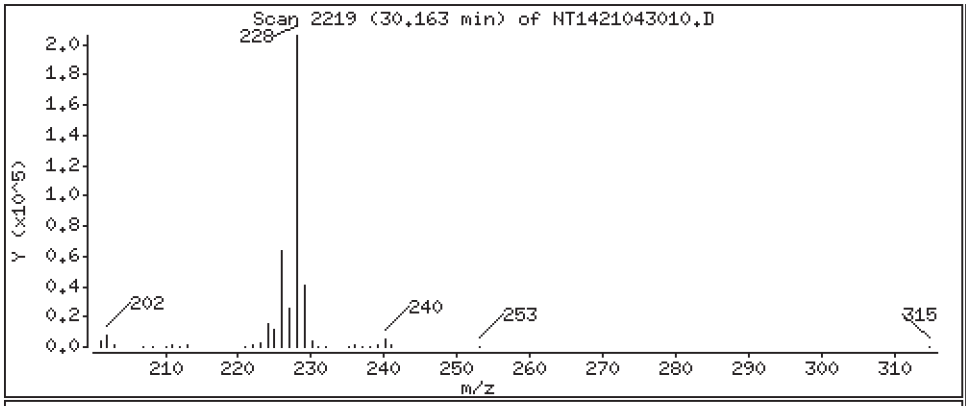
Operator: VTS

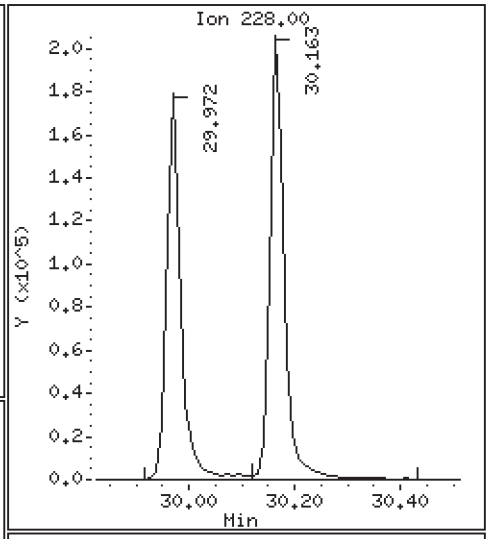
Column phase: Rxi-17Sil MS

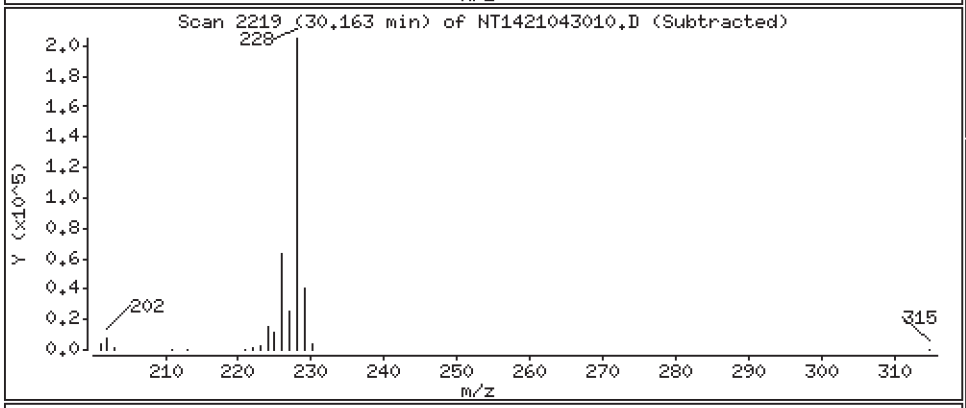
Column diameter: 0.25

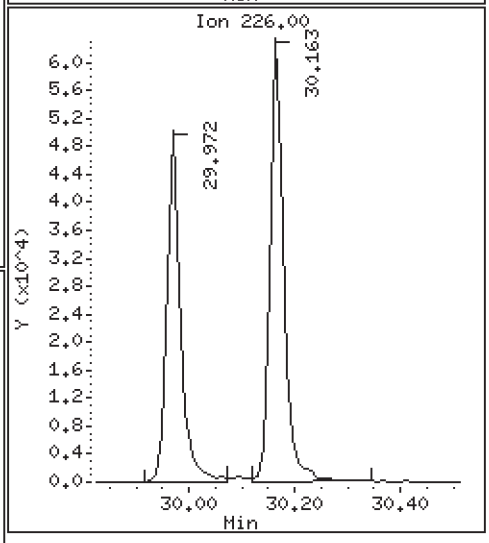
57 Chrysene

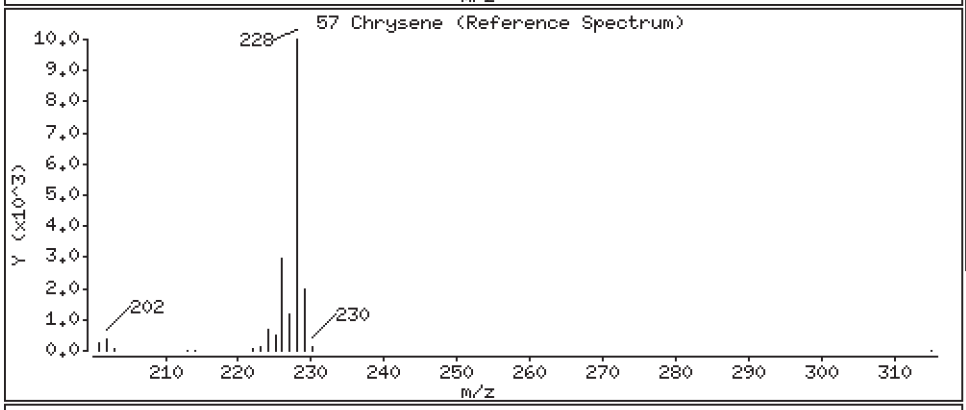
Concentration: 2.574 ug/mL

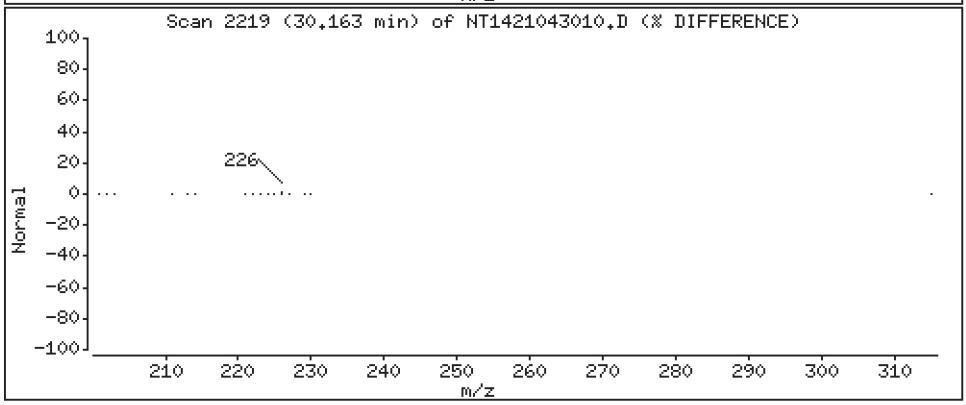


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

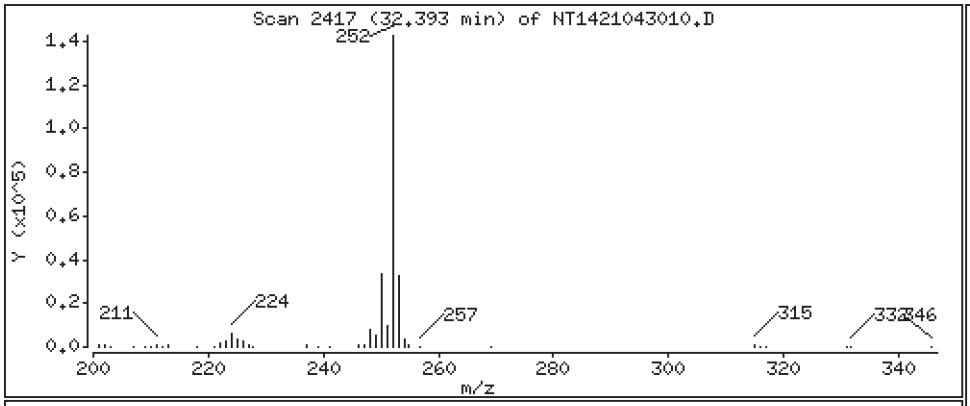
Operator: VTS

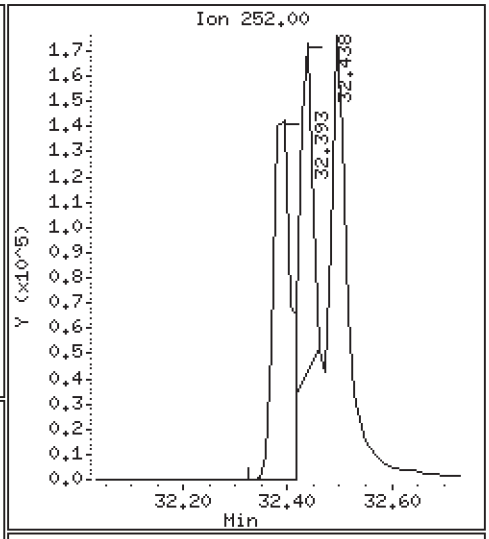
Column phase: Rxi-17Sil MS

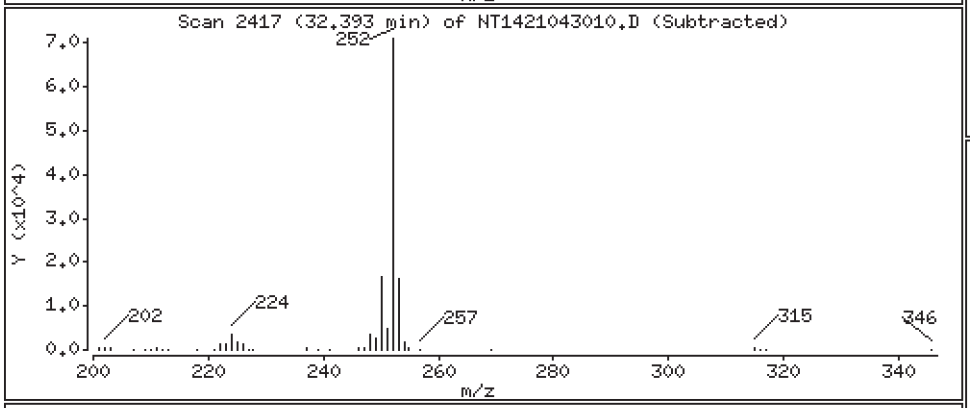
Column diameter: 0.25

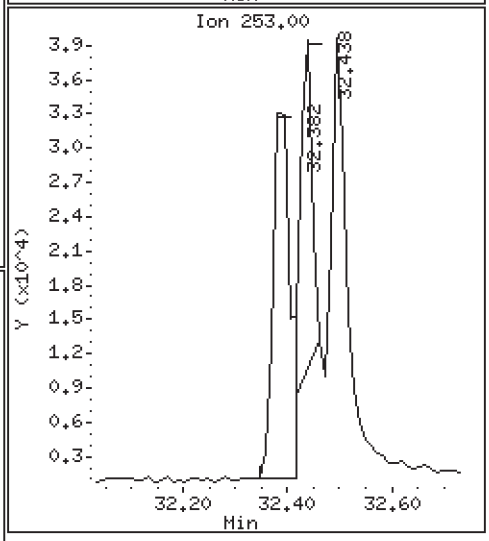
62 Benzo(b)fluoranthene

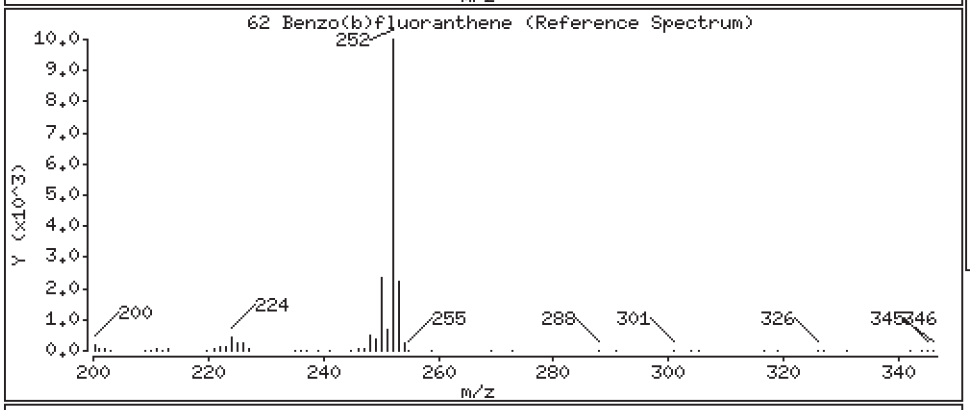
Concentration: 2.326 ug/mL

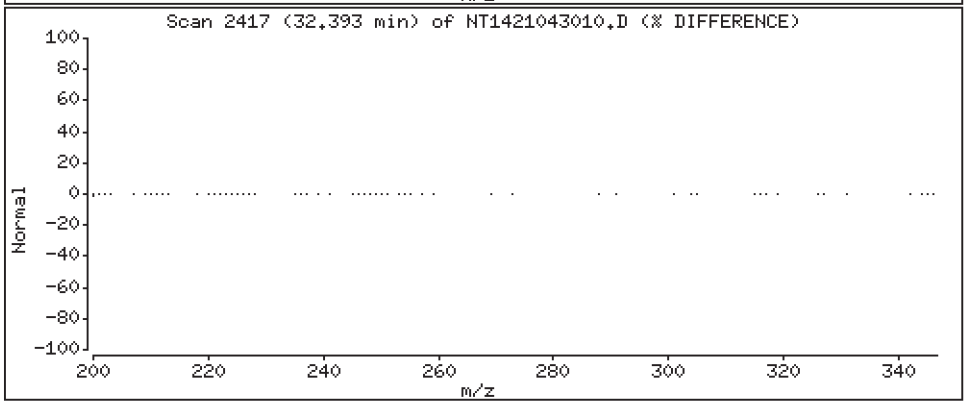


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

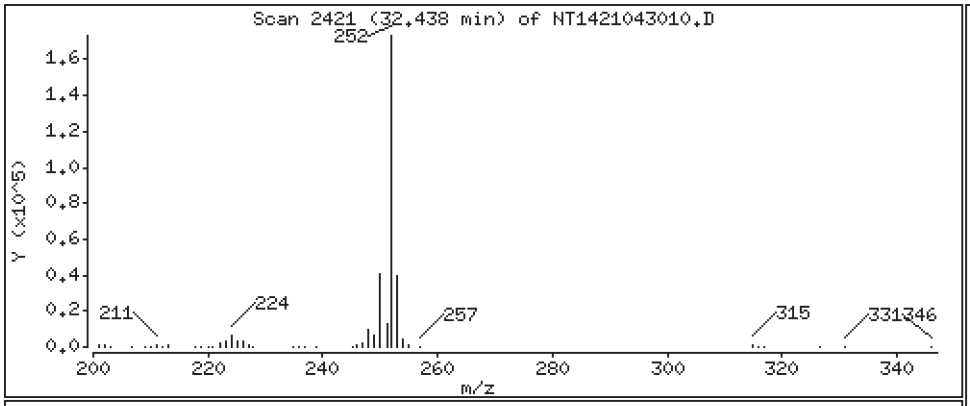
Operator: VTS

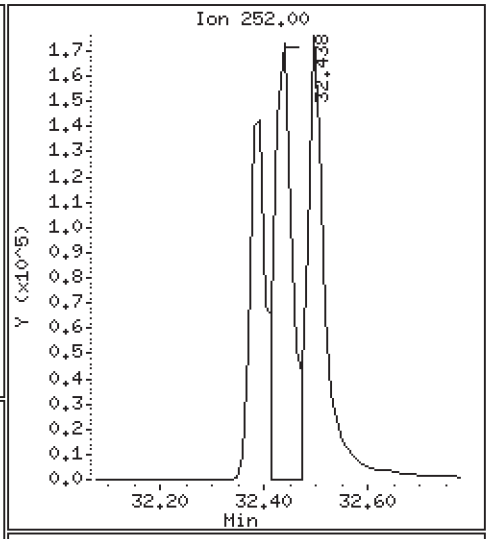
Column phase: Rxi-17Sil MS

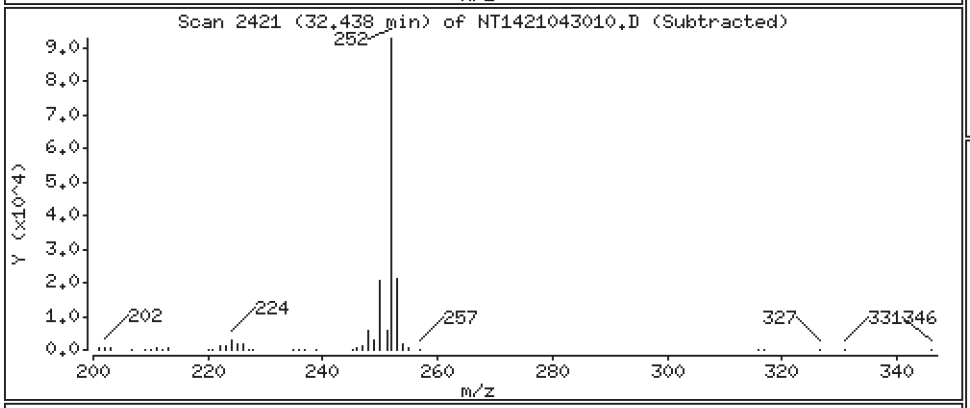
Column diameter: 0.25

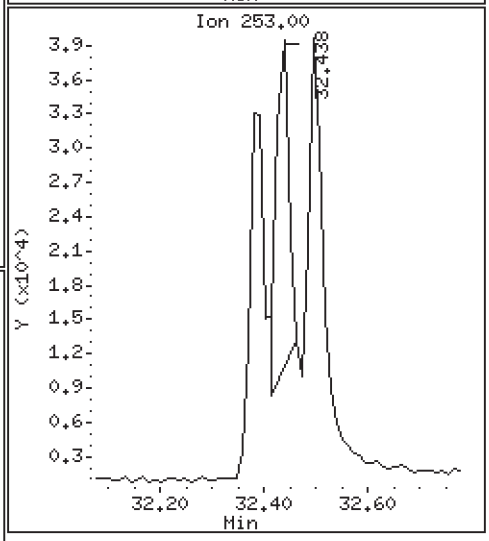
63 Benzo(k)fluoranthene

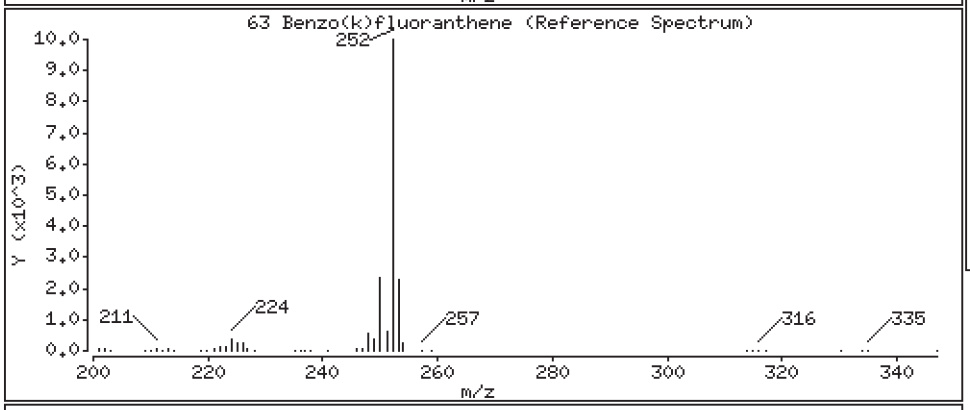
Concentration: 2.304 ug/mL

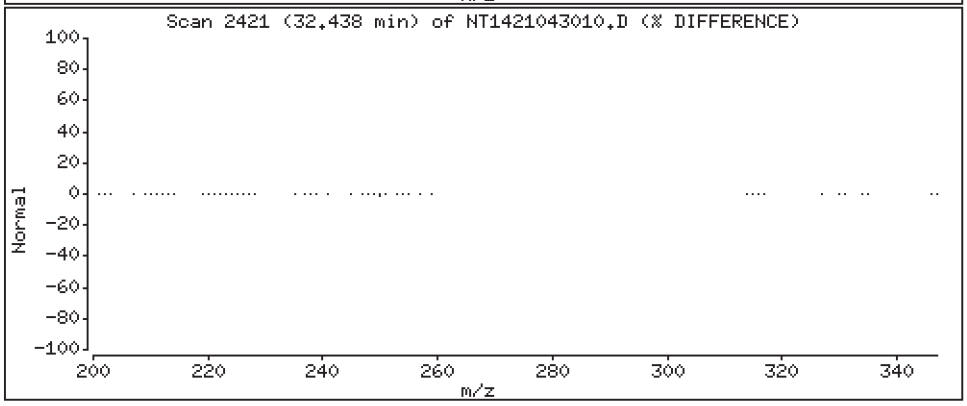


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

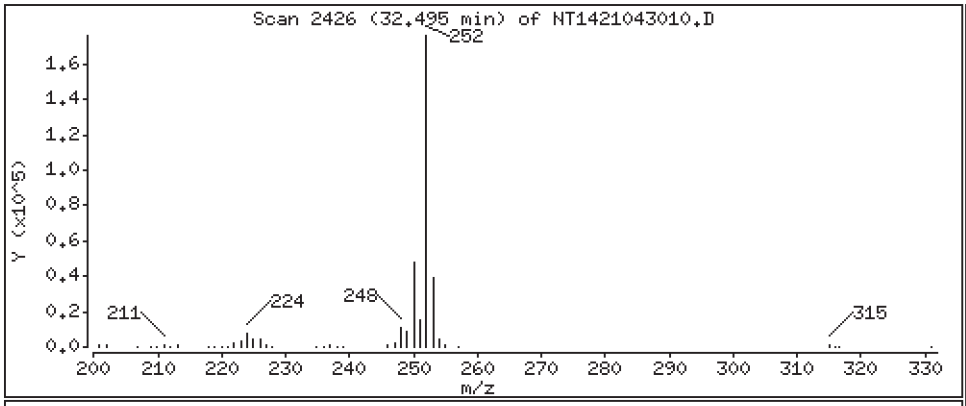
Operator: VTS

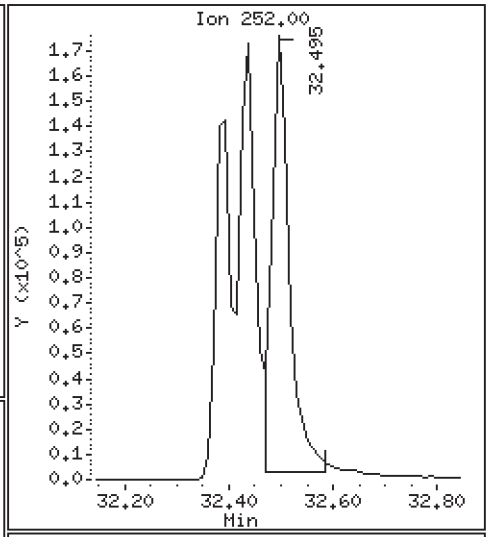
Column phase: Rxi-17Sil MS

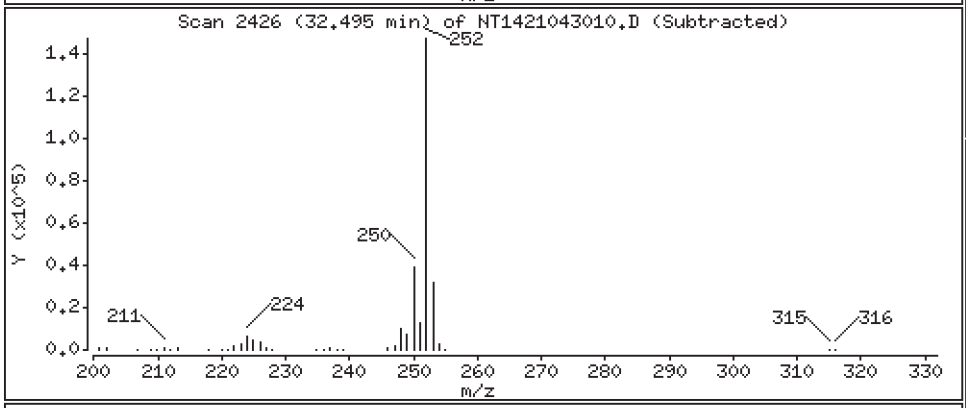
Column diameter: 0.25

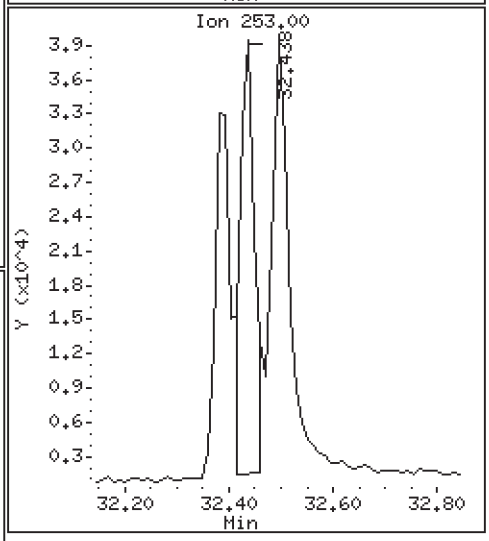
293 Benzo(j)fluoranthene

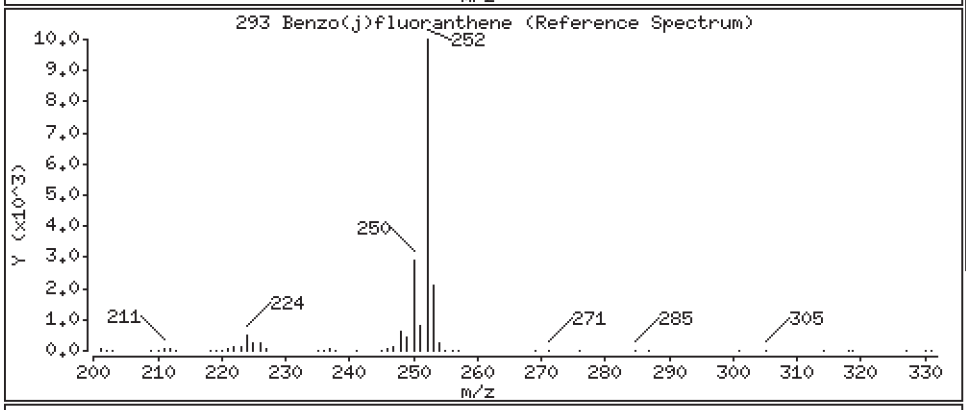
Concentration: 2.516 ug/mL

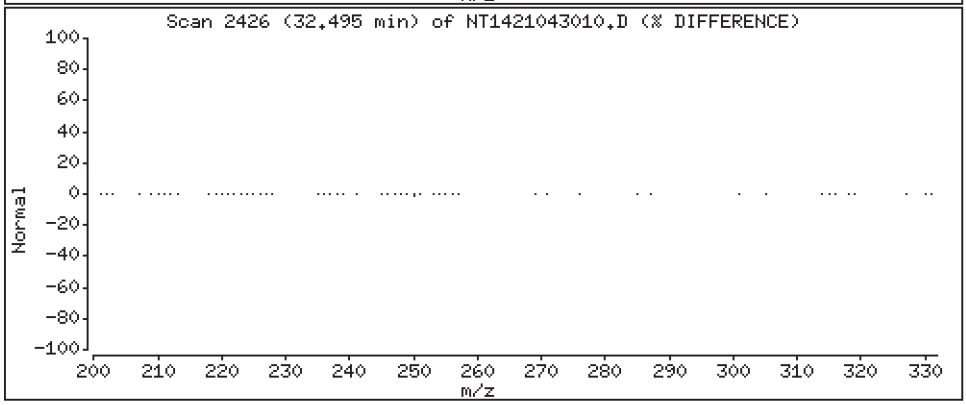


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

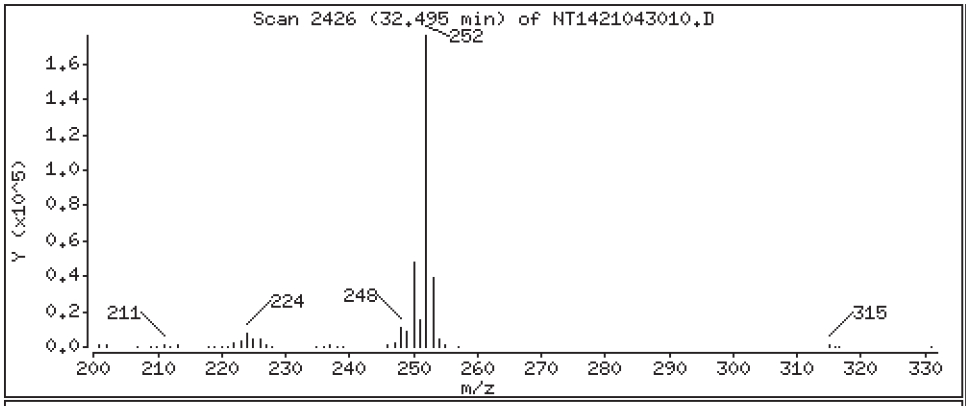
Operator: VTS

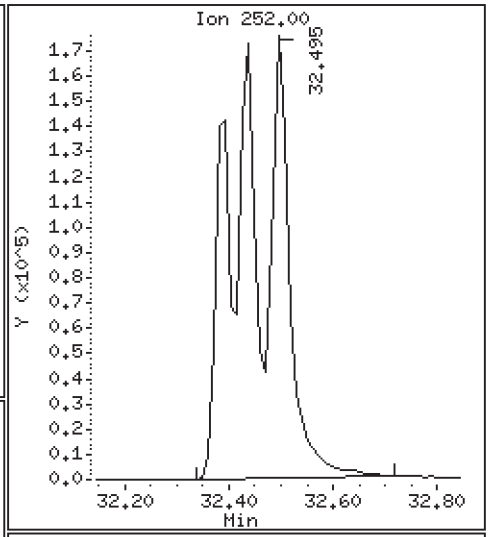
Column phase: Rxi-17Sil MS

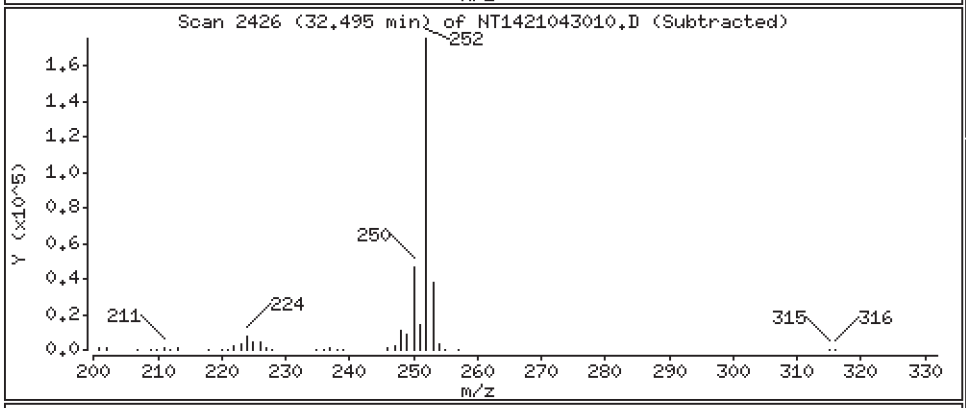
Column diameter: 0.25

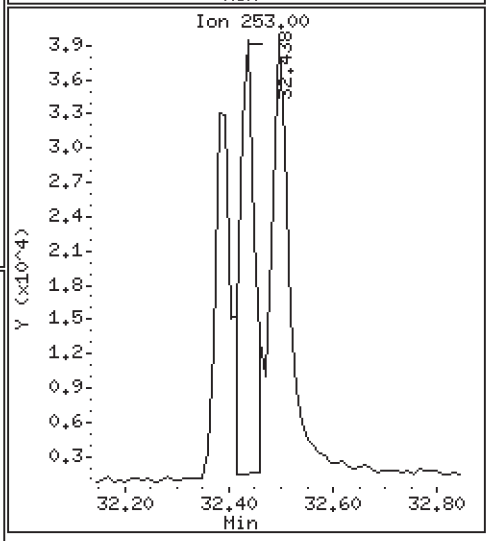
246 Total Benzofluoranthenes

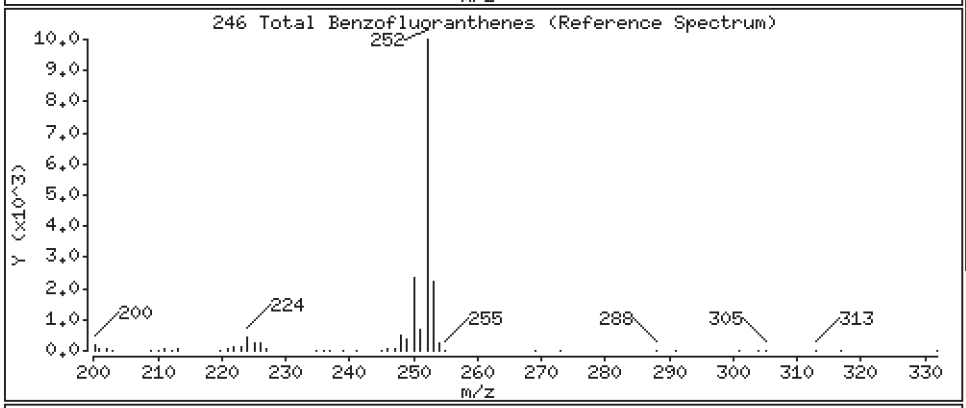
Concentration: 6.960 ug/mL

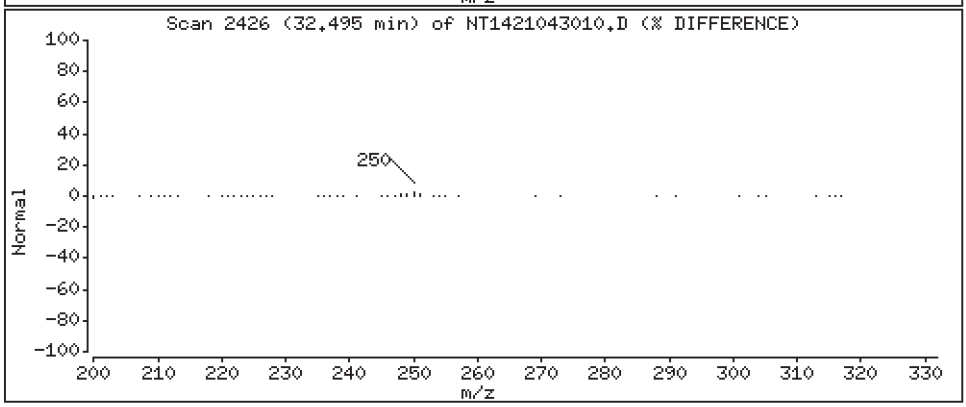


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

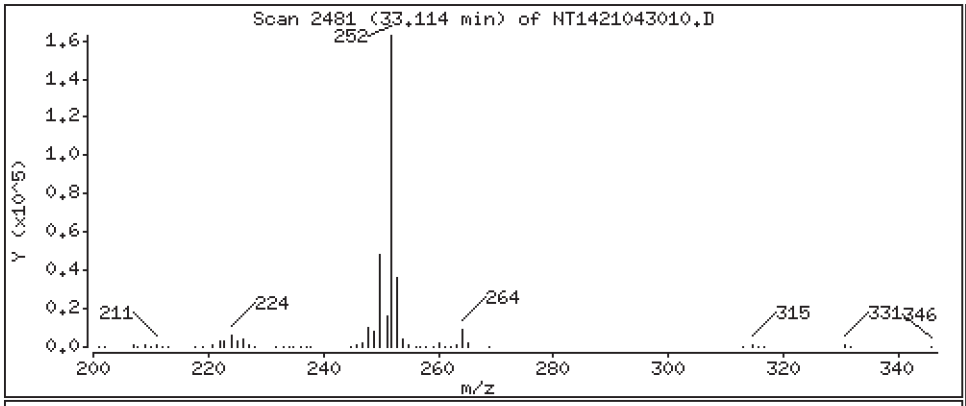
Operator: VTS

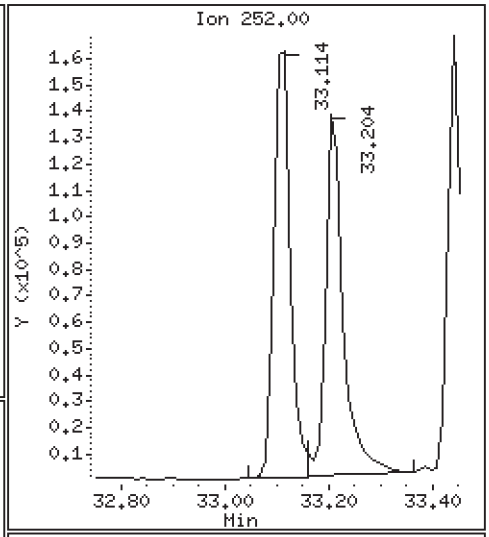
Column phase: Rxi-17Sil MS

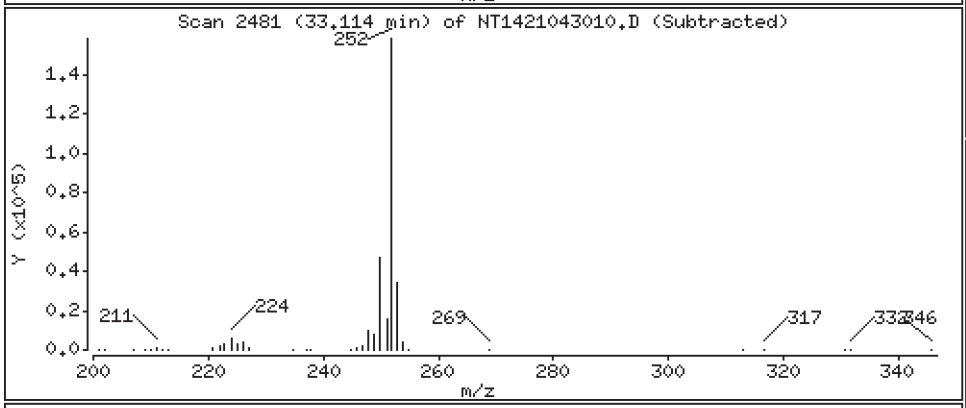
Column diameter: 0.25

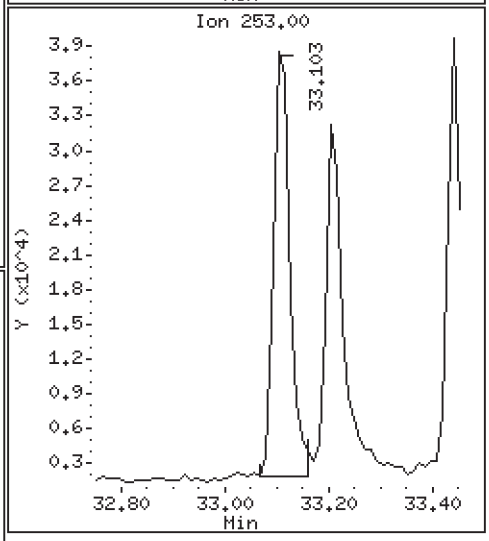
64 Benzo(e)pyrene

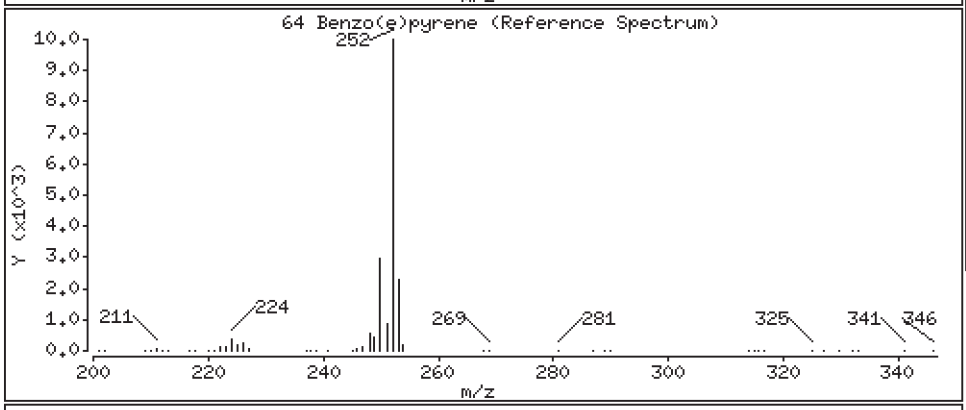
Concentration: 2.454 ug/mL

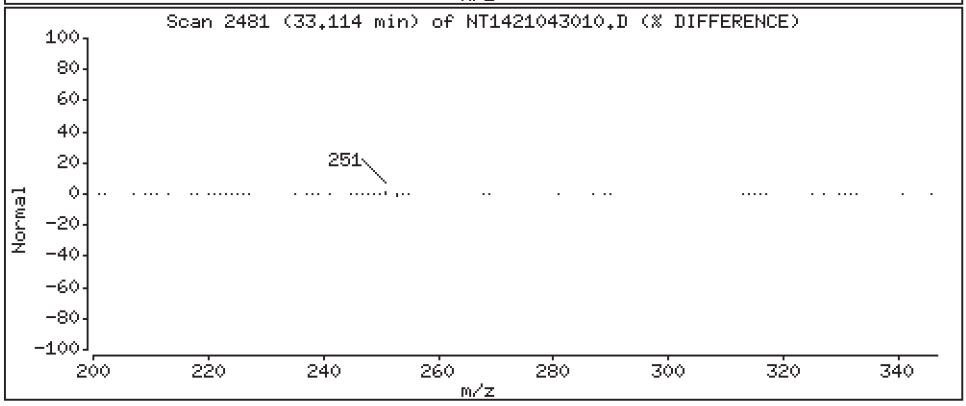


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

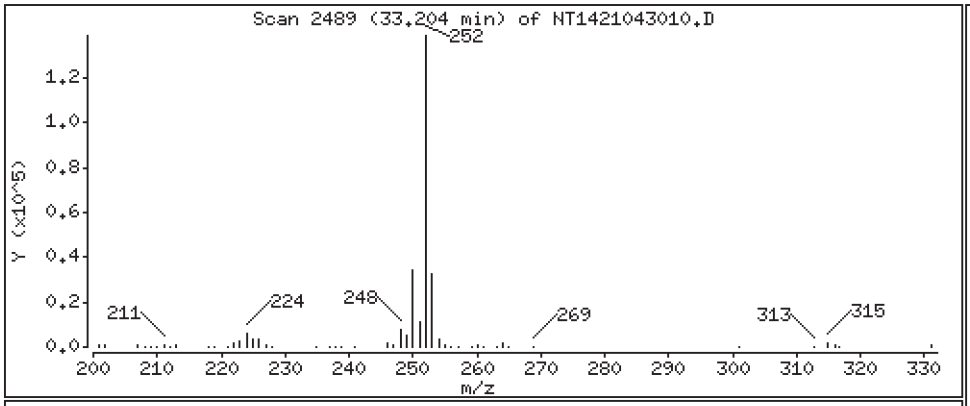
Operator: VTS

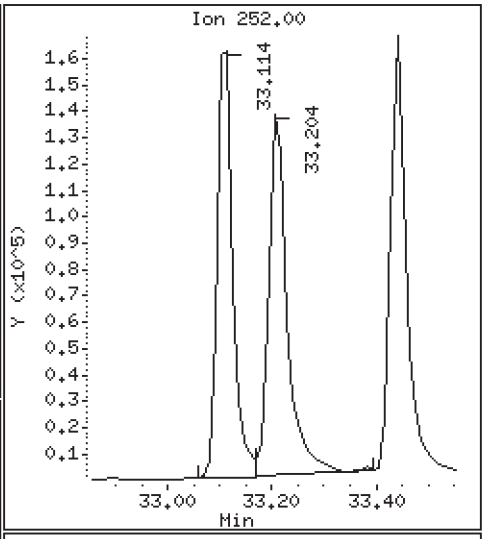
Column phase: Rxi-17Sil MS

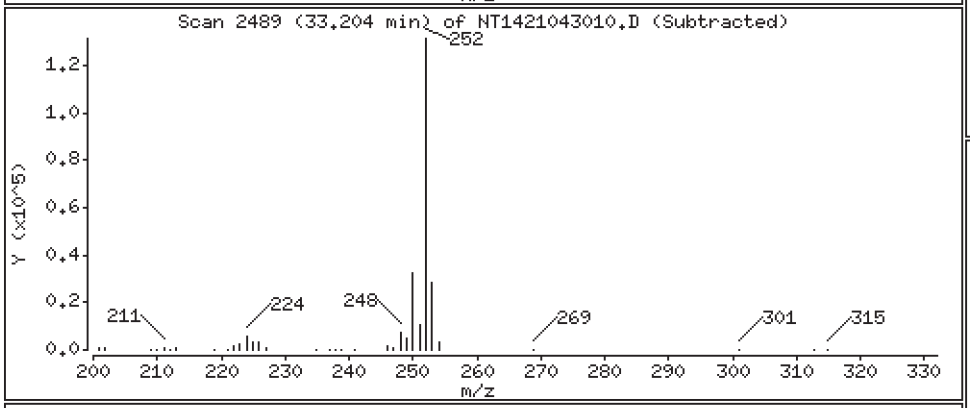
Column diameter: 0.25

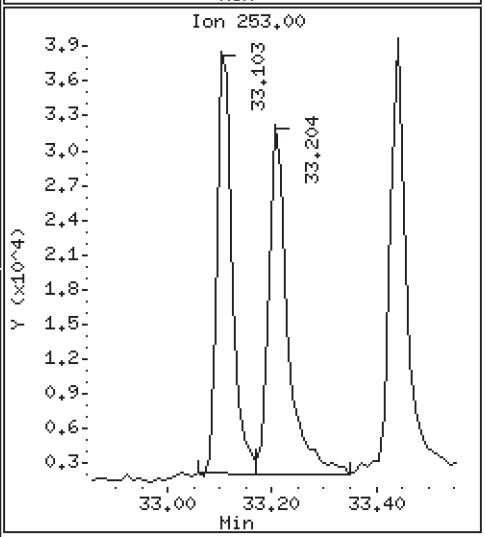
66 Benzo(a)pyrene

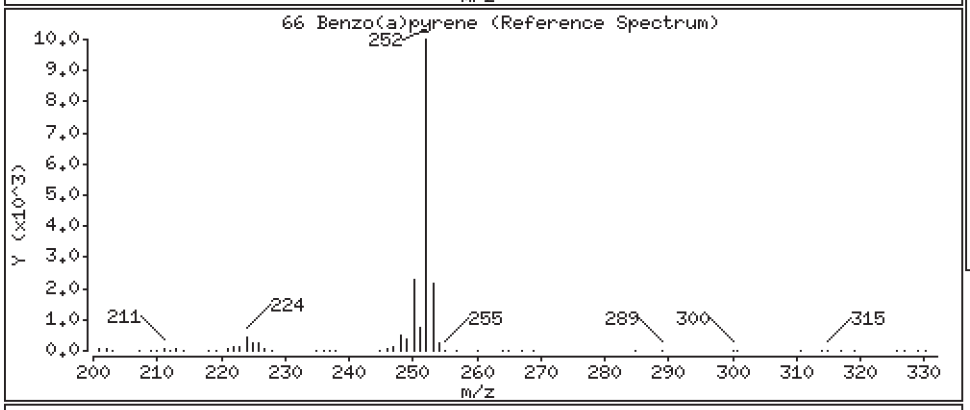
Concentration: 2.211 ug/mL

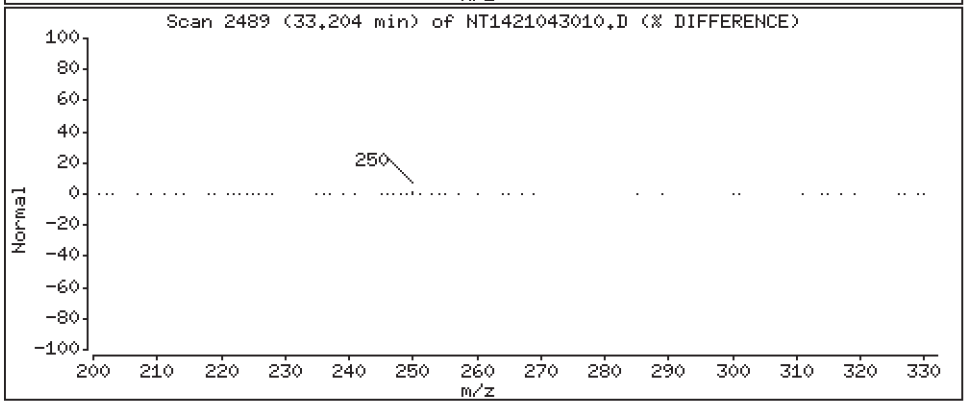


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

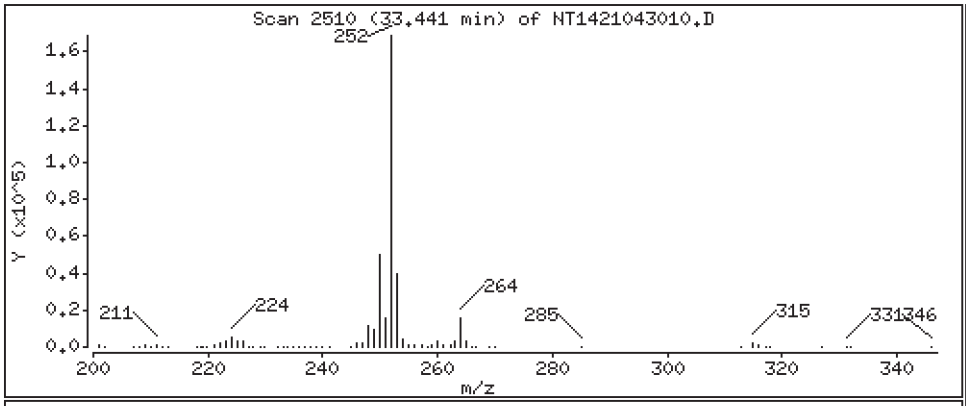
Operator: VTS

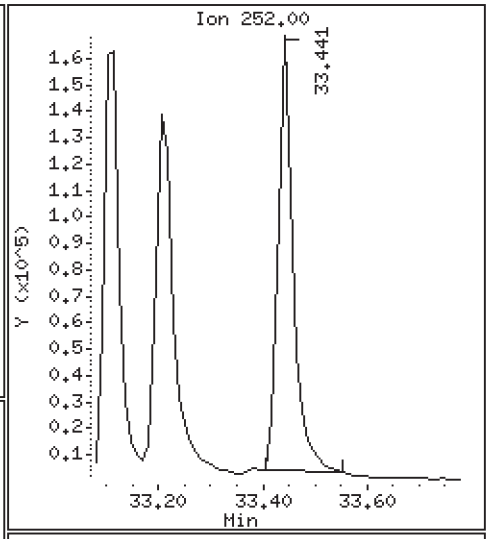
Column phase: Rxi-17Sil MS

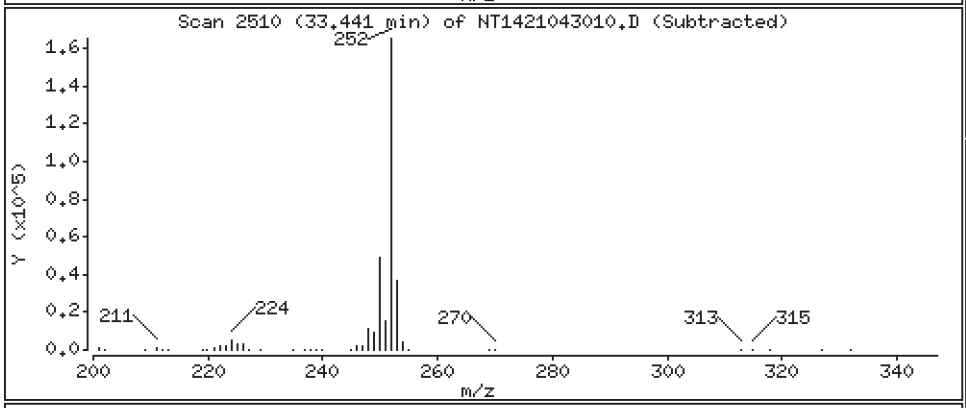
Column diameter: 0.25

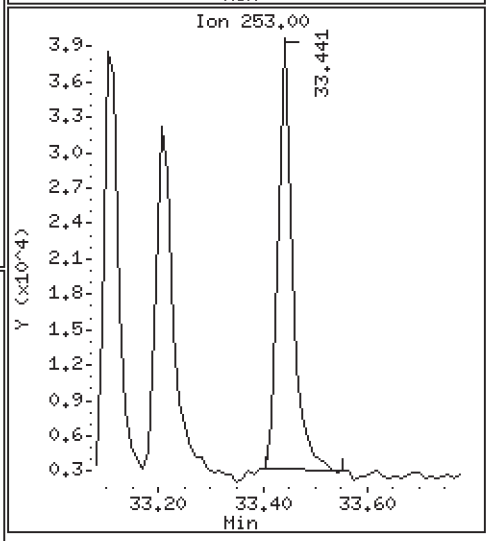
68 Perylene

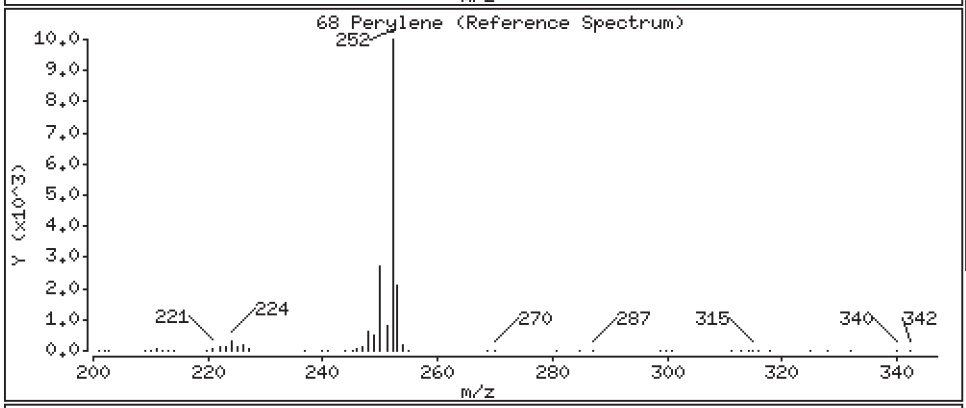
Concentration: 2.415 ug/mL

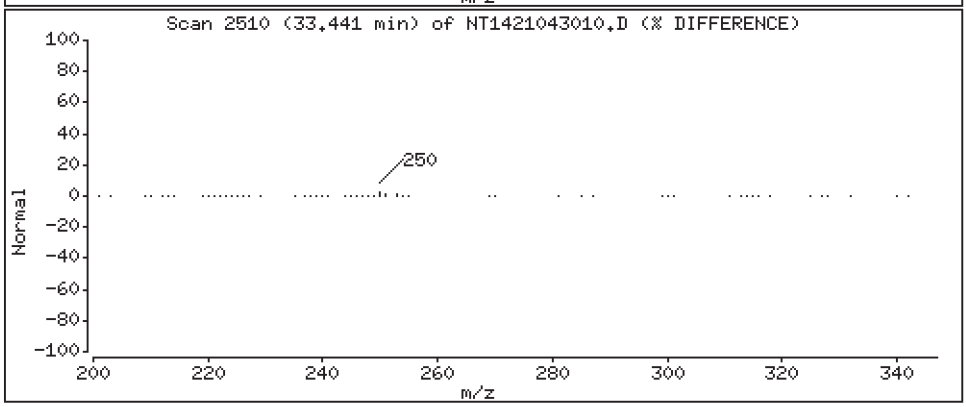


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

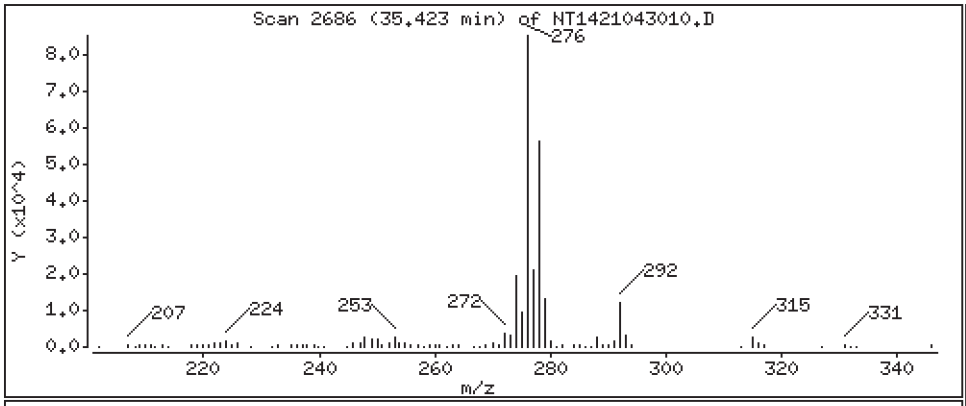
Operator: VTS

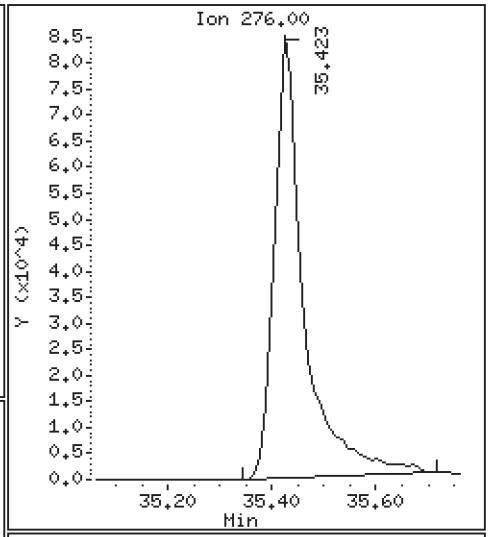
Column phase: Rxi-17Sil MS

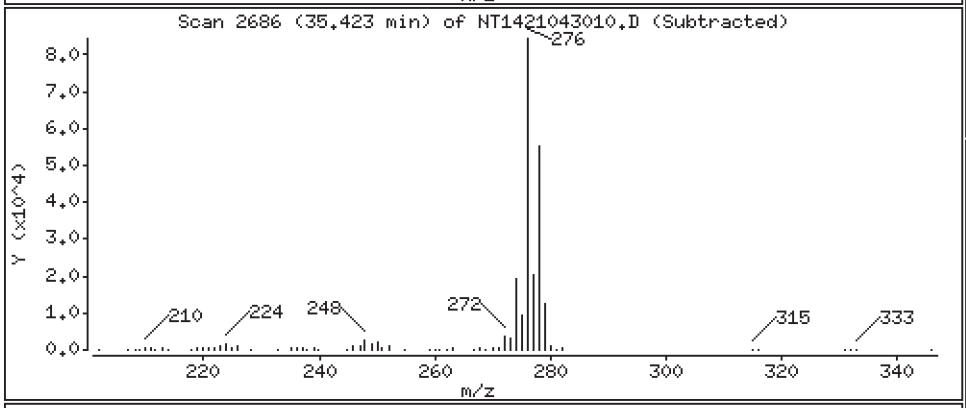
Column diameter: 0.25

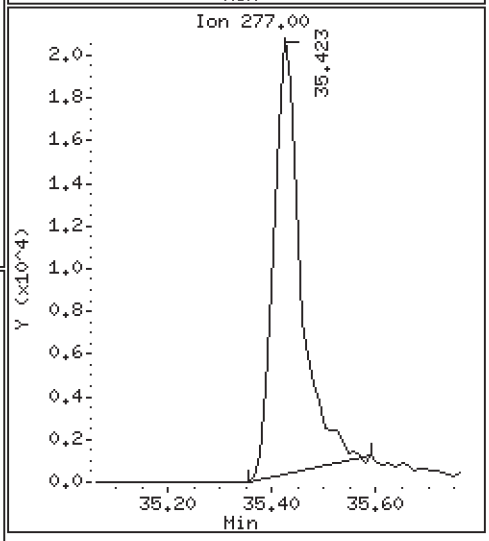
69 Indeno(1,2,3-cd)pyrene

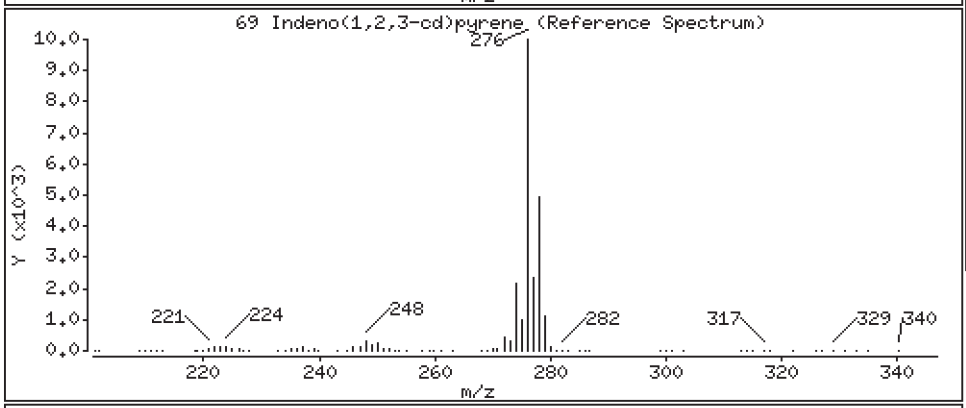
Concentration: 2.236 ug/mL

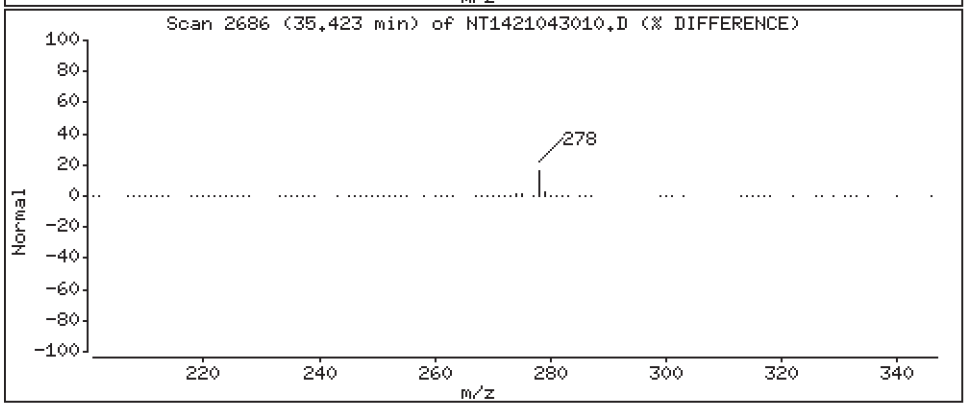


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

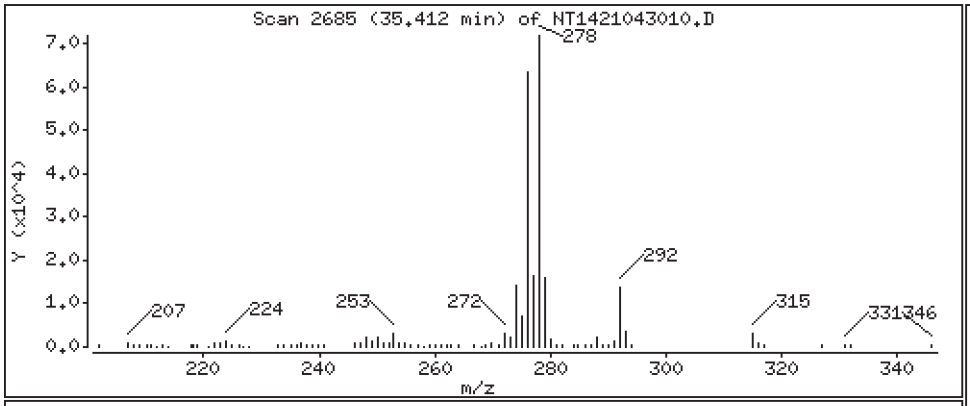
Operator: VTS

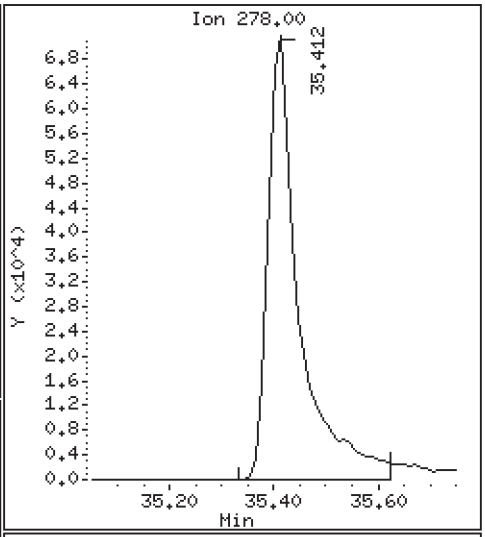
Column phase: Rxi-17Sil MS

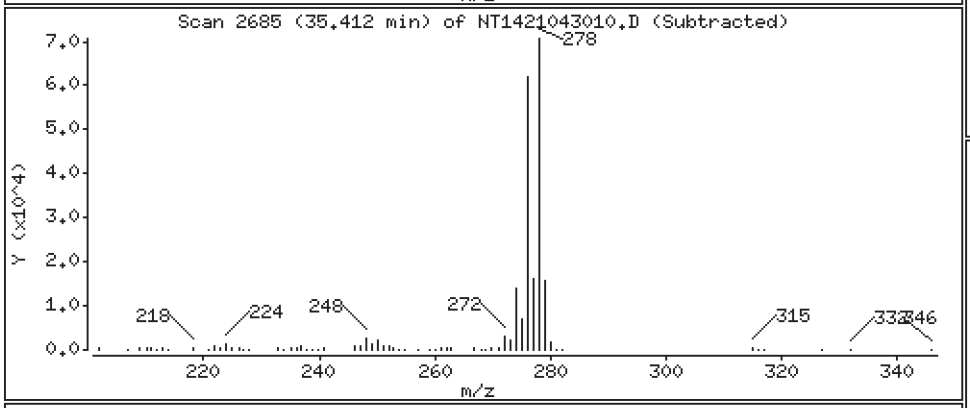
Column diameter: 0.25

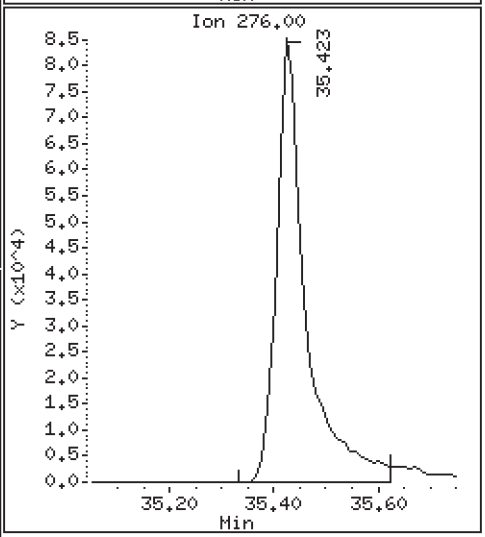
70 Dibenzo(a,h)anthracene

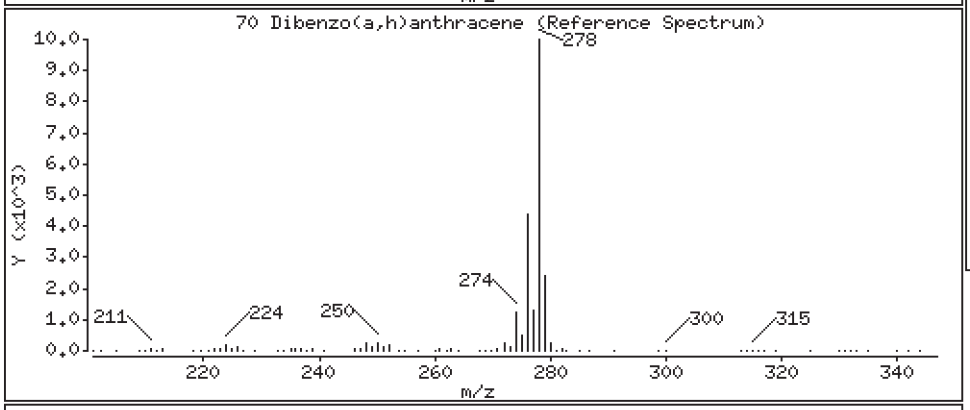
Concentration: 2.291 ug/mL

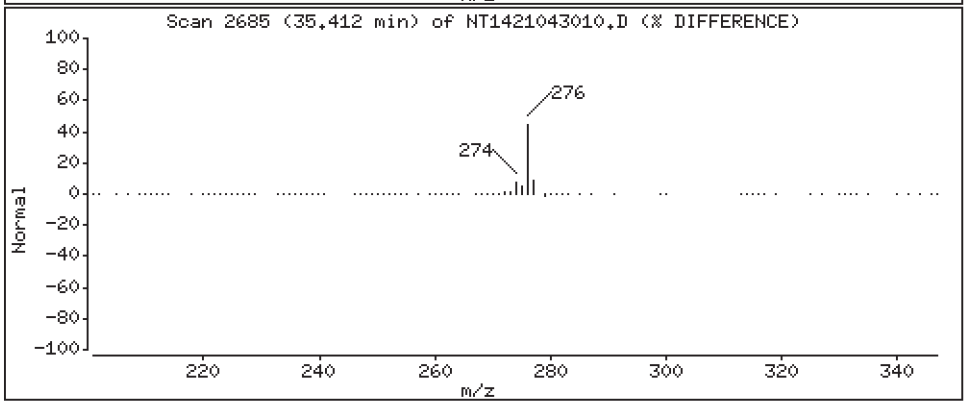


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

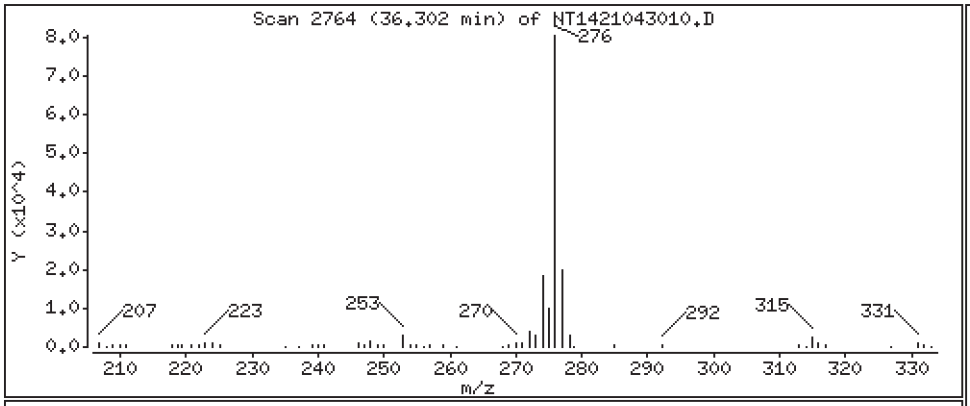
Operator: VTS

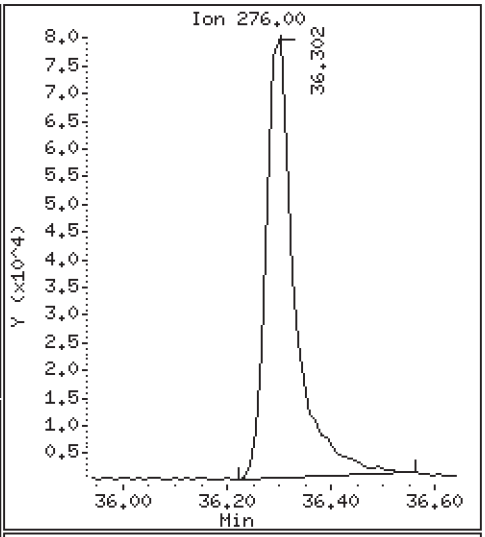
Column phase: Rxi-17Sil MS

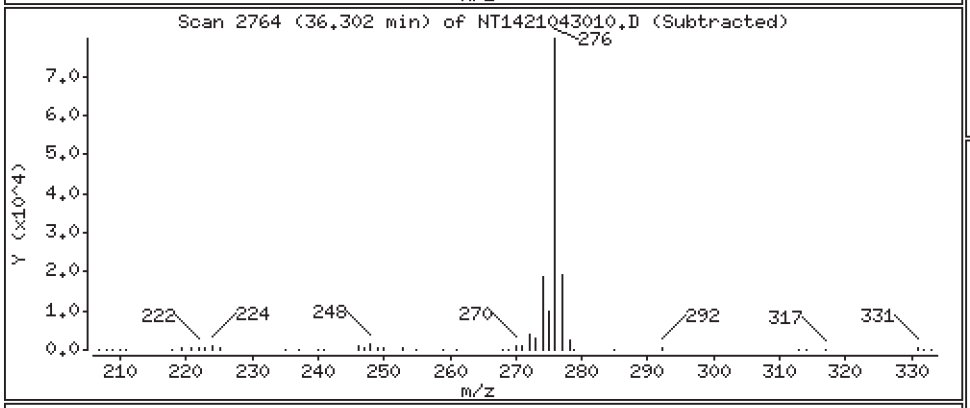
Column diameter: 0.25

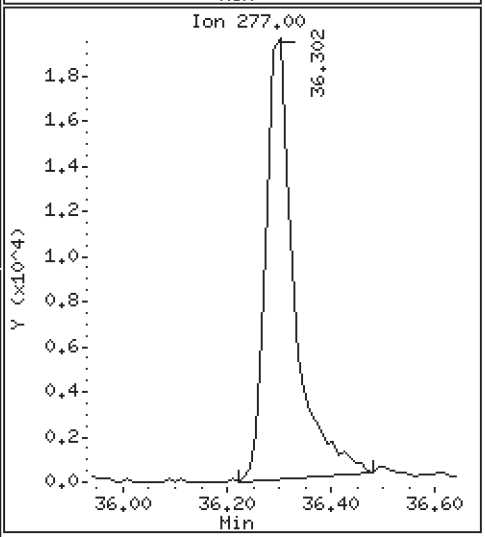
74 Benzo(g,h,i)perylene

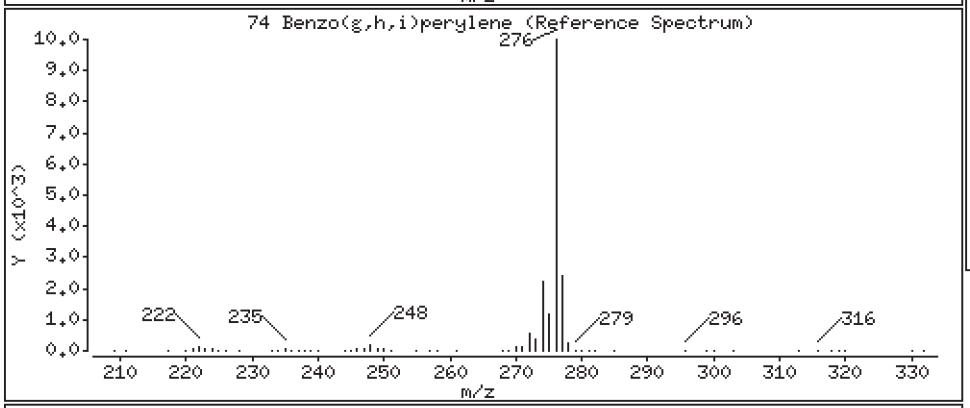
Concentration: 2.352 ug/mL

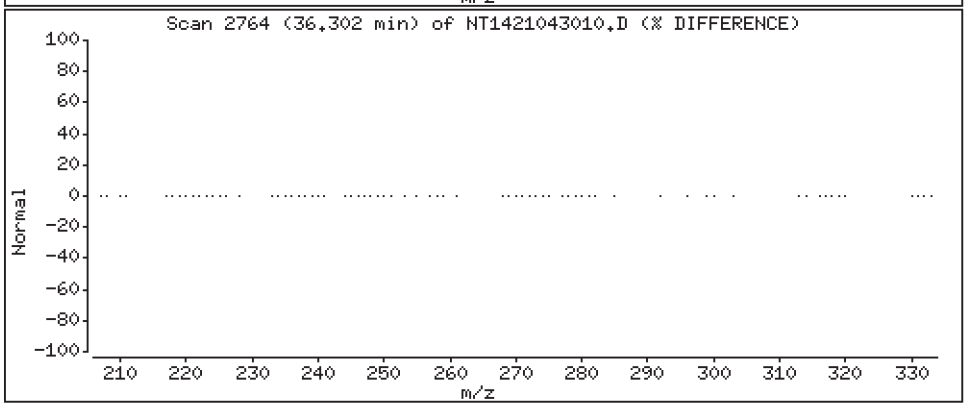


ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D
Lab Smp Id: SJD0305-SCV1
Inj Date : 30-APR-2021 14:41
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-SCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Meth Date : 01-May-2021 07:40 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 9
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 | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 1 trans-Decalin | 138 | 7.045 | 7.035 | (0.375) | 74342 | 2.84314 | 2.843 |
| | 2 cis-Decalin | 138 | 8.155 | 8.165 | (0.434) | 52523 | 2.90966 | 2.910 |
| $ | 6 Naphthalene-d8 | 136 | 11.776 | 11.776 | (0.627) | 604964 | 2.98636 | 2.986(R) |
| | 7 Naphthalene | 128 | 11.836 | 11.846 | (0.630) | 573337 | 2.78250 | 2.783 |
| | 12 Benzo(b)thiophene | 134 | 12.295 | 12.295 | (0.655) | 456850 | 2.78683 | 2.787 |
| | 16 2-Methylnaphthalene | 141 | 13.680 | 13.680 | (0.728) | 312811 | 2.84483 | 2.845 |
| | 17 1-methylnaphthalene | 141 | 14.131 | 14.131 | (0.752) | 293934 | 2.82127 | 2.821 |
| | 18 Biphenyl | 154 | 15.317 | 15.317 | (0.815) | 435061 | 2.76462 | 2.765 |
| | 19 2,6-Dimethylnaphthalene | 156 | 15.394 | 15.394 | (0.820) | 305582 | 2.82199 | 2.822 |
| | 20 Acenaphthylene | 152 | 16.955 | 16.955 | (0.903) | 492364 | 2.88930 | 2.889 |
| $ | 21 Acenaphthene-d10 | 164 | 17.252 | 17.241 | (0.918) | 298420 | 3.01695 | 3.017(R) |
| | 22 Acenaphthene | 153 | 17.362 | 17.361 | (0.924) | 329675 | 3.01019 | 3.010 |
| | 23 Dibenzofuran | 168 | 17.735 | 17.735 | (0.944) | 459290 | 2.76760 | 2.768 |
| | 24 1,6,7-Trimethylnaphthalene | 170 | 17.966 | 17.966 | (0.957) | 277803 | 2.92320 | 2.923 |
| * | 25 Fluorene-d10 | 176 | 18.783 | 18.781 | (1.000) | 351020 | 2.00000 | |
| | 26 Fluorene | 166 | 18.885 | 18.883 | (1.005) | 342973 | 2.84375 | 2.844 |
| | 30 Dibenzothiophene | 184 | 21.796 | 21.794 | (1.160) | 423593 | 2.78230 | 2.782 |
| $ | 35 Phenanthrene-d10 | 188 | 22.104 | 22.102 | (0.995) | 446008 | 2.66948 | 2.669(R) |
| | 36 Phenanthrene | 178 | 22.192 | 22.190 | (0.999) | 460265 | 2.46754 | 2.468 |
| * | 250 Anthracene-d10 | 188 | 22.225 | 22.223 | (1.000) | 309177 | 2.00000 | |
| | 37 Anthracene | 178 | 22.291 | 22.289 | (1.003) | 428535 | 2.49230 | 2.492 |
| | 42 Carbazole | 167 | 23.566 | 23.565 | (1.060) | 338612 | 2.34287 | 2.343 |
| | 43 1-Methylphenanthrene | 192 | 24.017 | 24.015 | (1.081) | 293776 | 2.59400 | 2.594 |
| | 44 Fluoranthene | 202 | 25.996 | 25.994 | (1.170) | 436345 | 2.63403 | 2.634 |
| | 46 Pyrene | 202 | 26.843 | 26.841 | (1.208) | 433716 | 2.52654 | 2.527 |
| | 51 Naphthobenzothiophene | 234 | Compound Not Detected. | | | | | |
| | 55 Benzo(a)anthracene | 228 | 29.971 | 29.964 | (0.907) | 342259 | 2.27793 | 2.278 |
| $ | 56 Chrysene-d12 | 240 | 30.095 | 30.087 | (0.911) | 337659 | 2.82827 | 2.828(RM) |
| | 57 Chrysene | 228 | 30.163 | 30.166 | (0.913) | 394981 | 2.57401 | 2.574 |
| | 62 Benzo(b)fluoranthene | 252 | 32.393 | 32.386 | (0.980) | 324344 | 2.32564 | 2.326 |
| | 63 Benzo(k)fluoranthene | 252 | 32.438 | 32.430 | (0.982) | 391530 | 2.30379 | 2.304(M) |
| | 293 Benzo(j)fluoranthene | 252 | 32.494 | 32.498 | (0.983) | 393189 | 2.51567 | 2.516(M) |
| | 246 Total Benzofluoranthenes | 252 | 32.494 | 32.497 | (0.983) | 1066161 | 6.96004 | 6.960(M) |

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

## QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043010.D
Lab Smp Id: SJD0305-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1421043010.D

Lab ID: SJD0305-SCV1
nt14.i,  20210430.b\ALKYLPNA.m,    30-APR-2021 14:41

| RT | CO-ELUTION COMPOUNDS |
|---|---|
| NO CO-ELUTIONS | |

Quant Method: ICAL

RRT CHECK

| RRT | CCV RRT | DELTA | COMPOUND |
|---|---|---|---|
| NONE | | | |

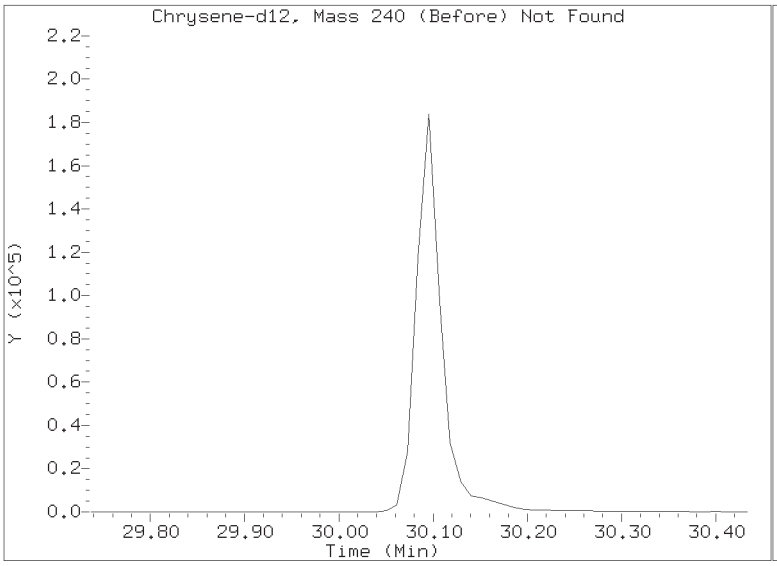
RRT check based on Ccal File: NT1421043009.D

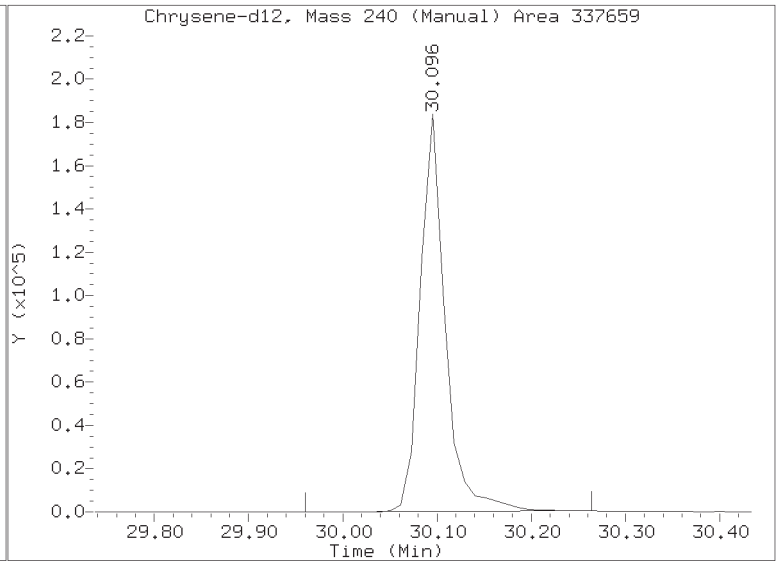
On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

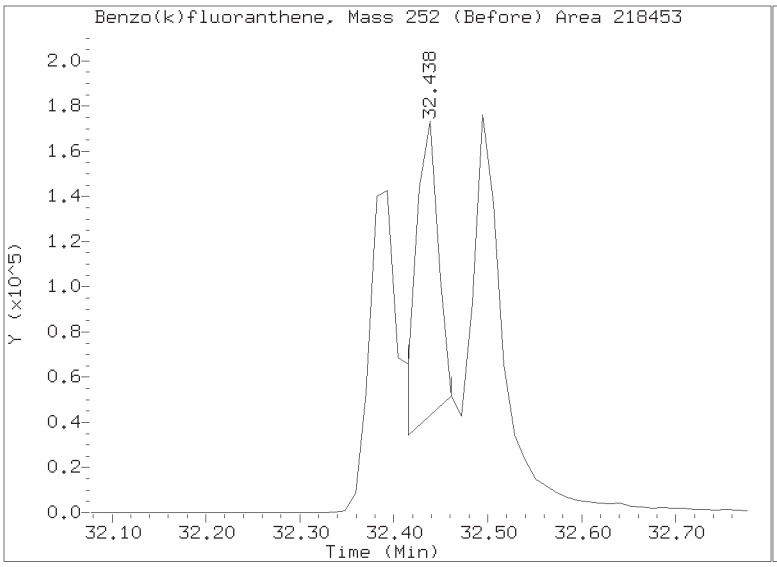
* Only compounds listed in the work order have been verified by the analyst *

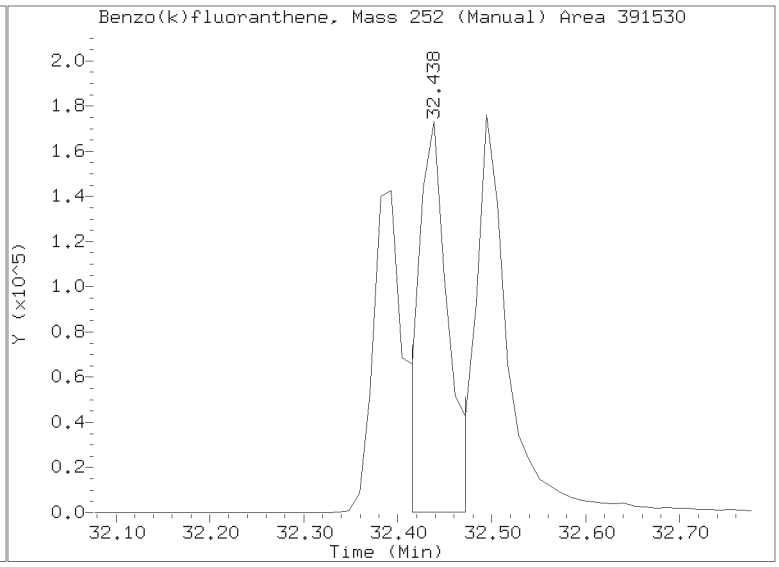
# Quant Ion Manual Peak Adjustment Report

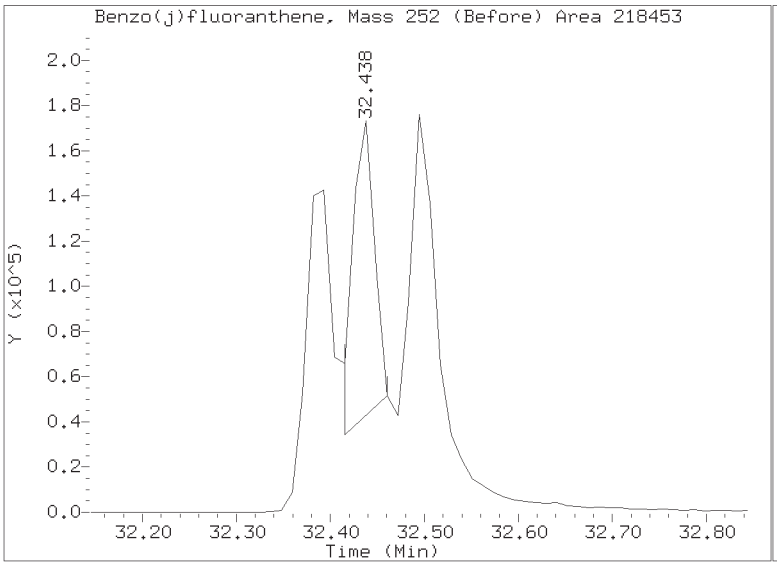
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D
Injection Date: 30-APR-2021 14:41
Lab ID:SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18

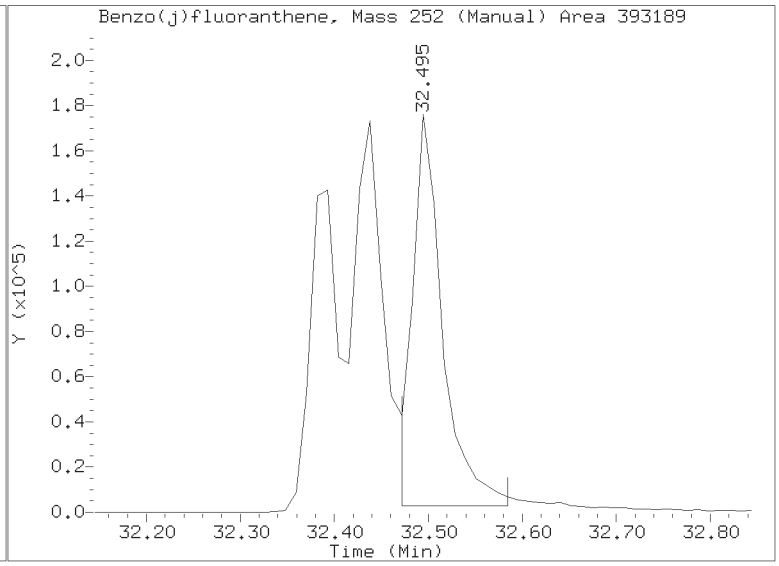


# Quant Ion Manual Peak Adjustment Report

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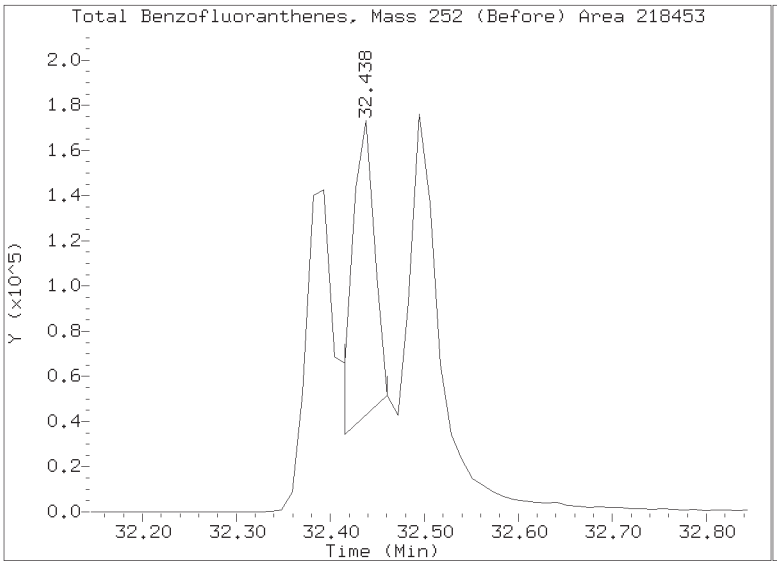
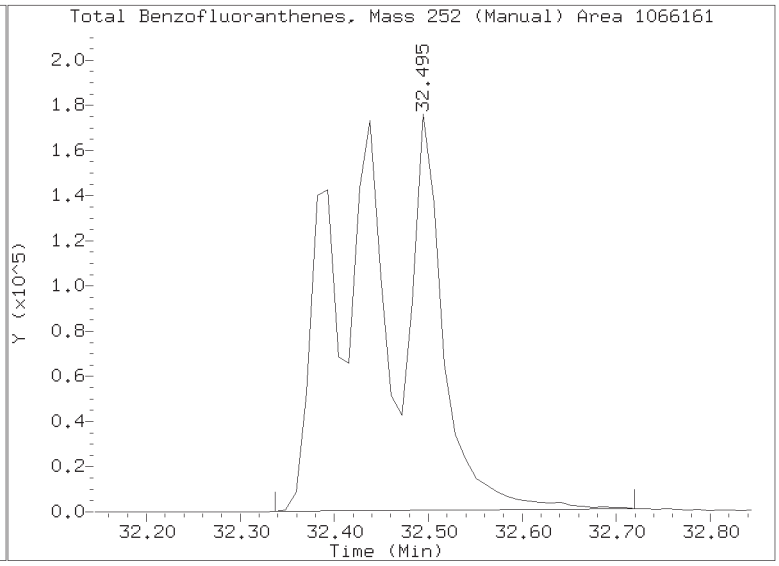
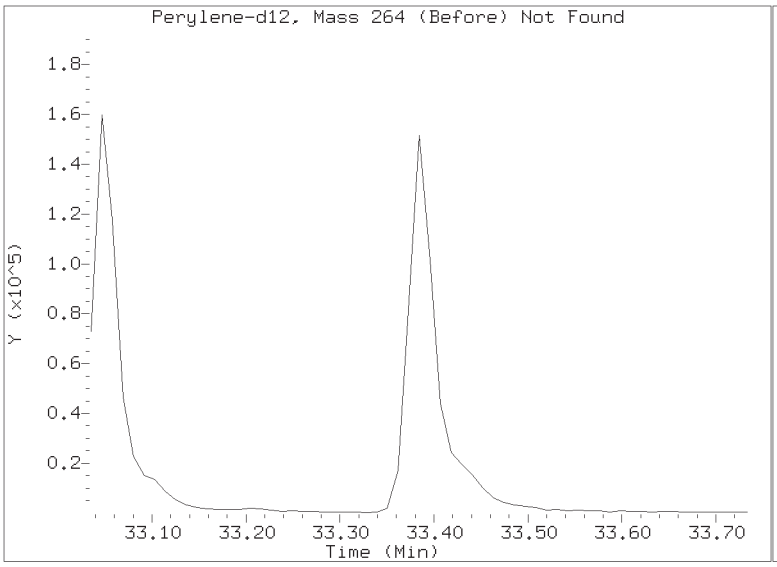
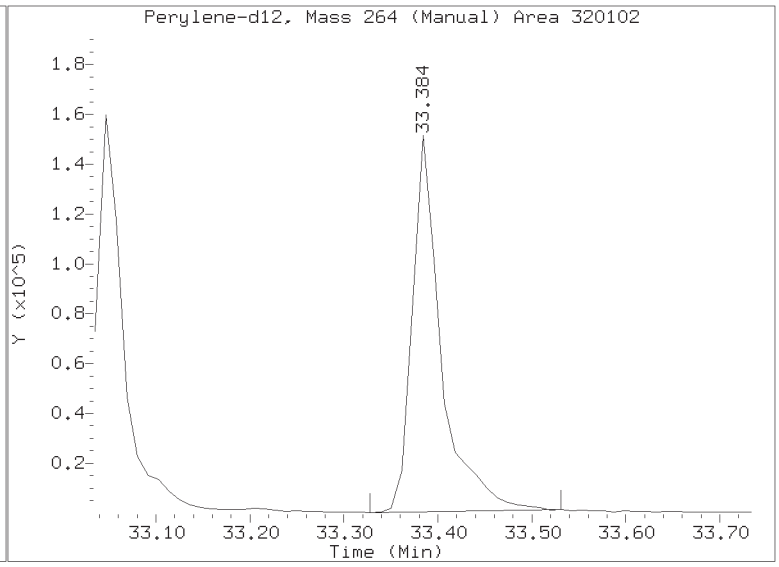
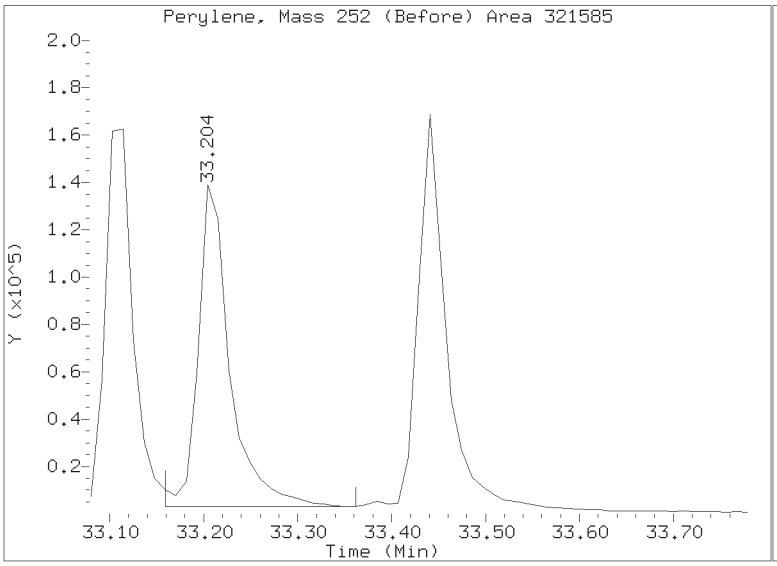
Injection Date: 30-APR-2021 14:41
Lab ID:SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18

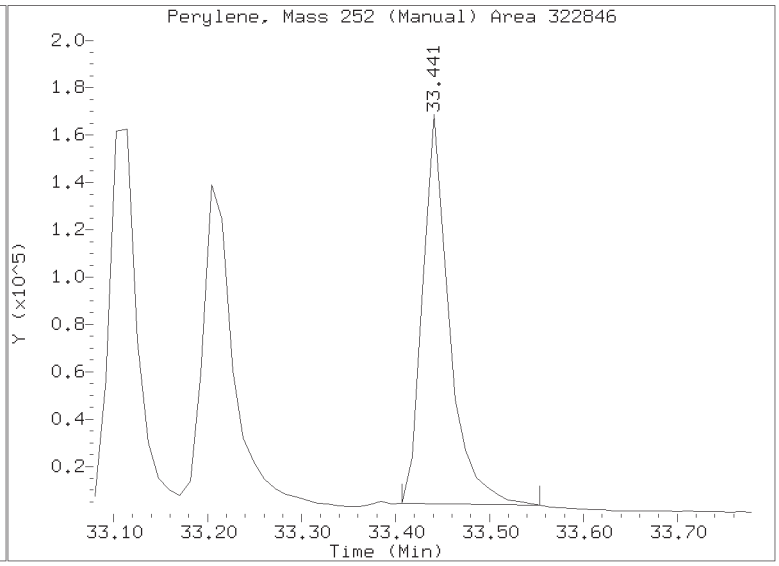


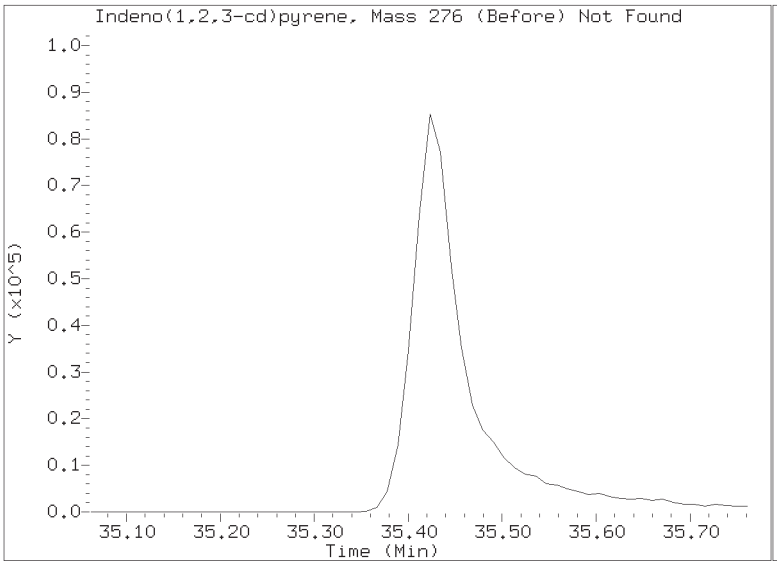



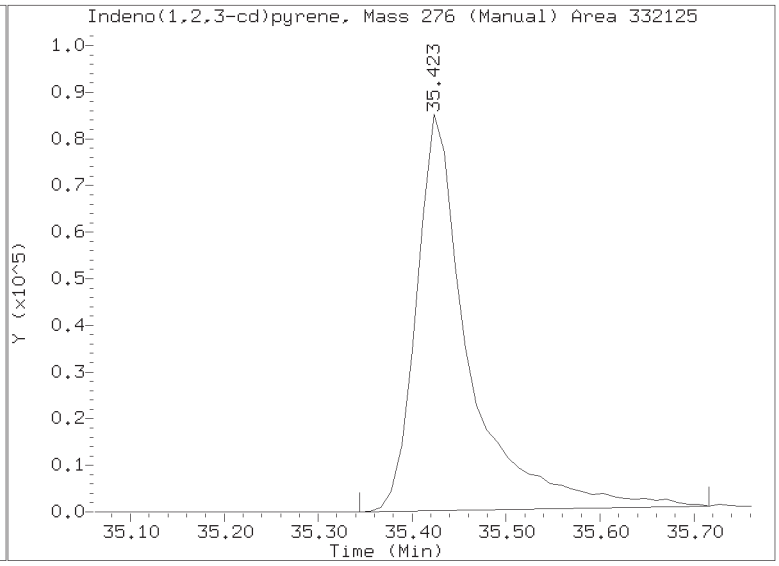



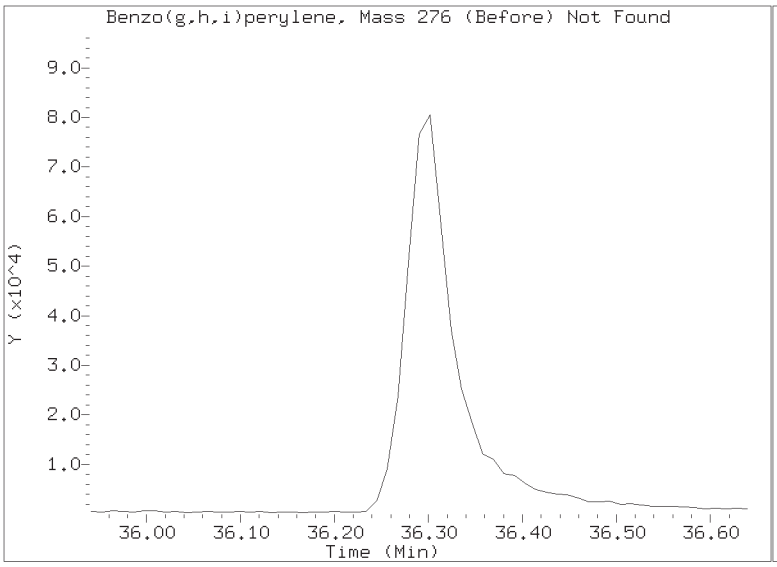



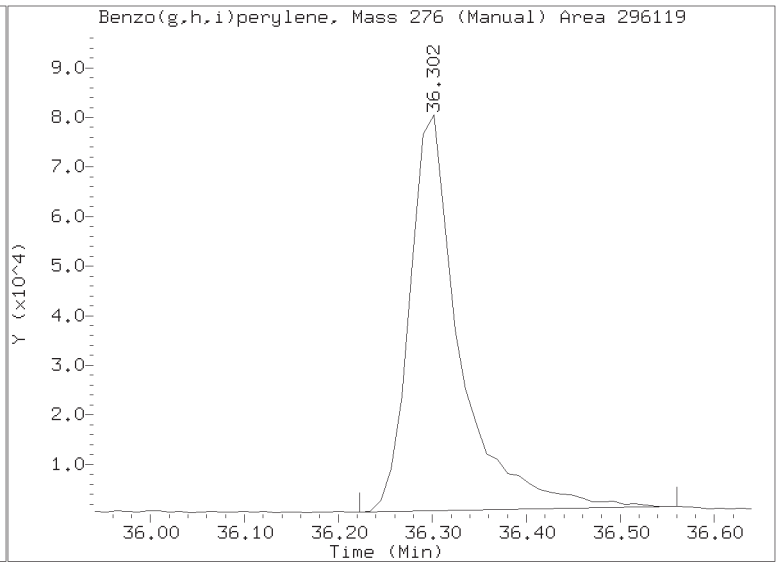
# Quant Ion Manual Peak Adjustment Report

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



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043011.D
Lab Smp Id: SJD0305-ICB1
Inj Date : 30-APR-2021 15:29
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-ICB1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Meth Date : 01-May-2021 07:40 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 10
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 | 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 | 11.776 | 11.776 | (0.627) | 649759 | 2.99218 | 2.992(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 | 17.241 | 17.241 | (0.918) | 320325 | 3.02102 | 3.021(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 | 18.772 | 18.781 | (1.000) | 376278 | 2.00000 | |
| | 26 Fluorene | 166 | Compound Not Detected. | | | | | |
| | 30 Dibenzothiophene | 184 | Compound Not Detected. | | | | | |
| $ | 35 Phenanthrene-d10 | 188 | 22.104 | 22.102 | (0.995) | 487636 | 2.80182 | 2.802(R) |
| | 36 Phenanthrene | 178 | Compound Not Detected. | | | | | |
| * | 250 Anthracene-d10 | 188 | 22.225 | 22.223 | (1.000) | 322067 | 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 | 30.095 | 30.087 | (0.911) | 346182 | 2.89788 | 2.898(RM) |
| | 57 Chrysene | 228 | Compound Not Detected. | | | | | |
| | 62 Benzo(b)fluoranthene | 252 | Compound Not Detected. | | | | | |
| | 63 Benzo(k)fluoranthene | 252 | Compound Not Detected. | | | | | |
| | 293 Benzo(j)fluoranthene | 252 | Compound Not Detected. | | | | | |
| | 246 Total Benzofluoranthenes | 252 | Compound Not Detected. | | | | | |

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

## QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043011.D
Lab Smp Id: SJD0305-ICB1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1421043011.D

Lab ID: SJD0305-ICB1
nt14.i,  20210430.b\ALKYLPNA.m,    30-APR-2021 15:29

| RT | CO-ELUTION COMPOUNDS |
|---|---|
| NO CO-ELUTIONS | |

Quant Method: ICAL

RRT CHECK

| RRT | CCV RRT | DELTA | COMPOUND |
|---|---|---|---|
| NONE | | | |

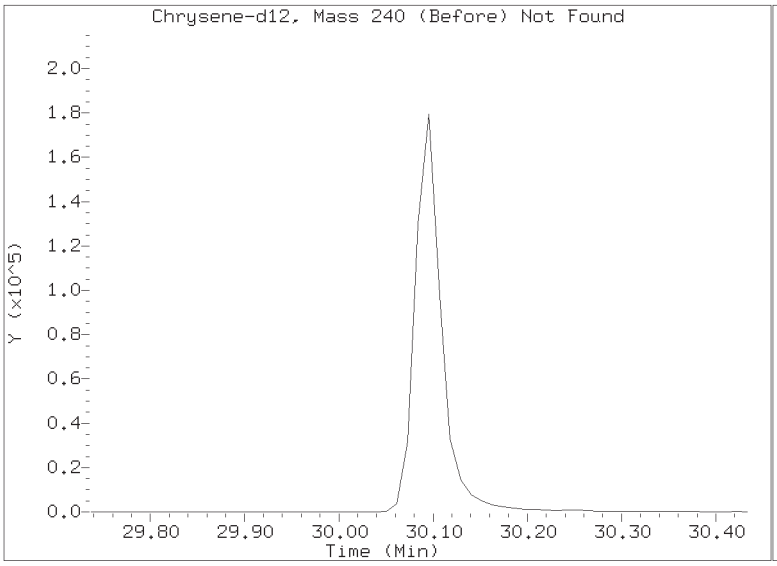
RRT check based on Ccal File: NT1421043009.D

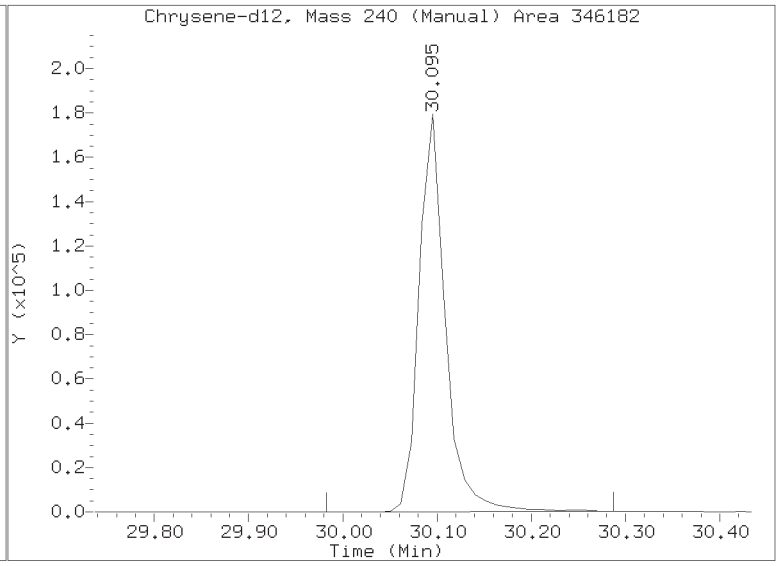
On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

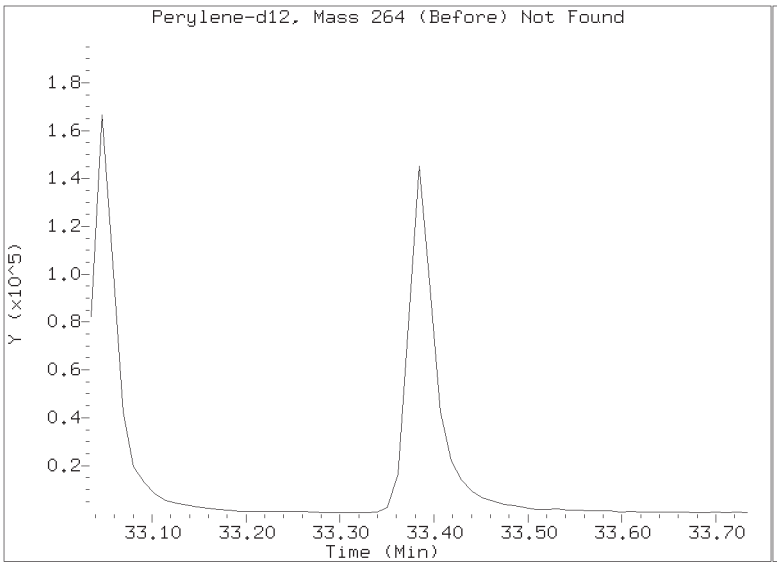
* Only compounds listed in the work order have been verified by the analyst *

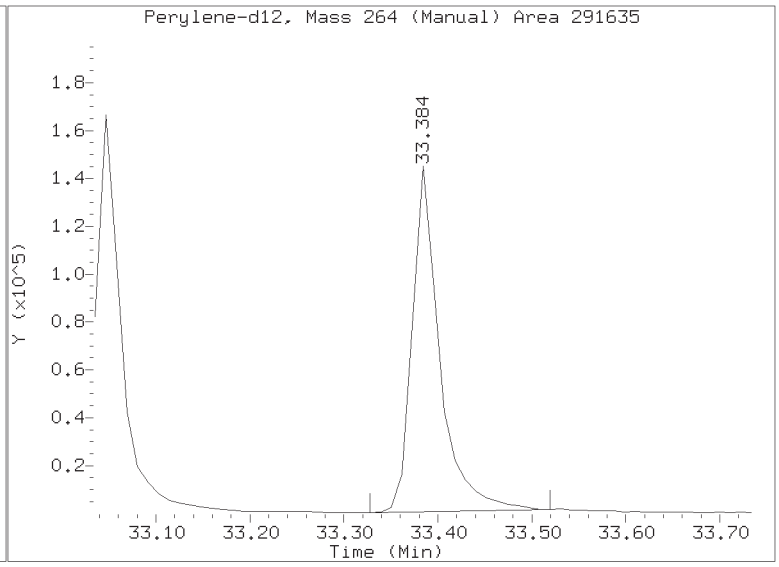
# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043011.D
Injection Date: 30-APR-2021 15:29
Lab ID:SJD0305-ICB1 Client ID:
Report Date: 05/01/2021 09:18



# SECOND-SOURCE CALIBRATION VERIFICATION

## EPA 8270E-SIM

**Laboratory:** Analytical Resources, Inc.
**SDG:** 21D0180
**Client:** Anchor QEA, LLC
**Project:** Gasco Siltronic - US Moorings
**Calibration:** DH00073
**Laboratory ID:** SIH0304-SCV1
**Sequence:** SIH0304
**Sequence Name:** PAH 250 SCV
**Standard ID:** I004581

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

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Page 1

Date : 27-AUG-2020 15:38

Client ID:

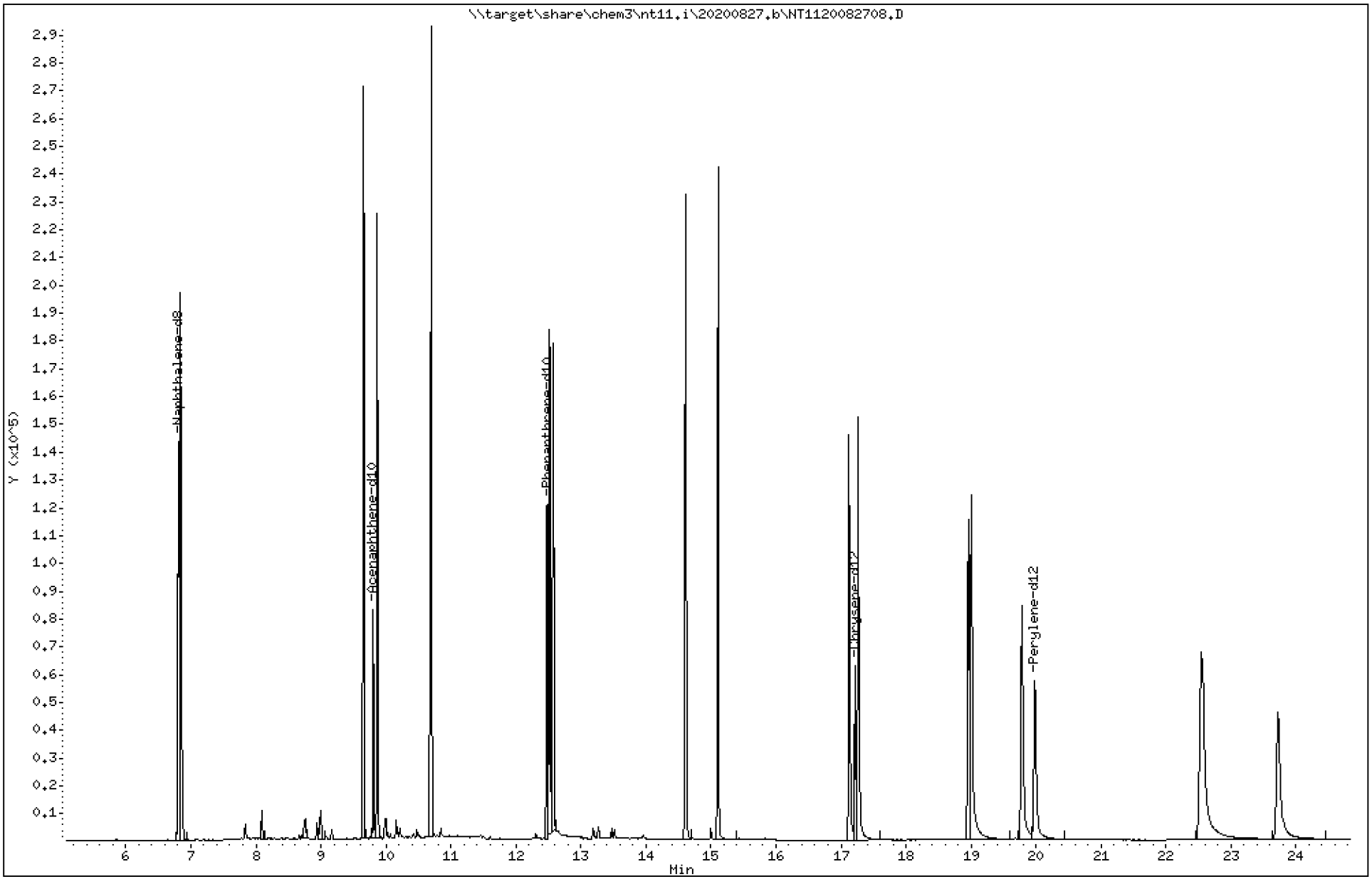
Instrument: nt11.i

Sample Info: SIH0304-SCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25




Revised Report 21D0180 07/07/2021 Page 924 of 1709

Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

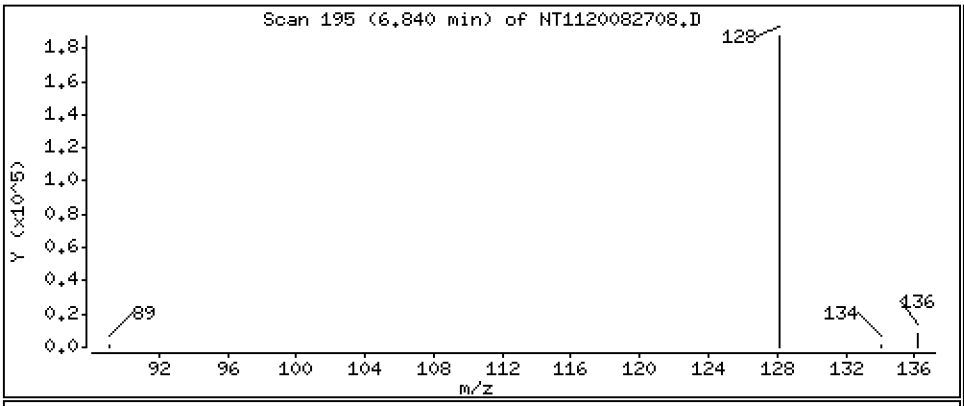
Operator: VTS

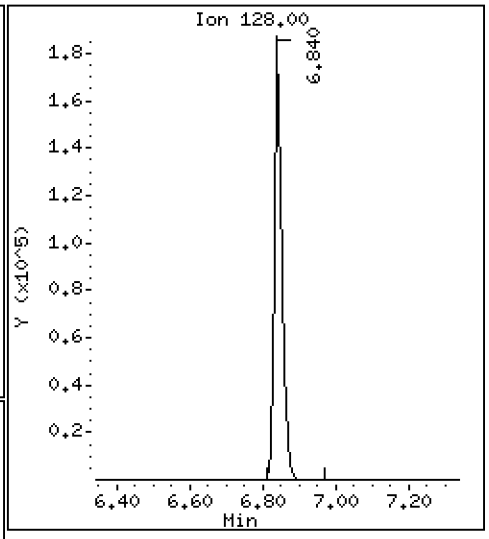
Column phase: Rxi-17Sil MS

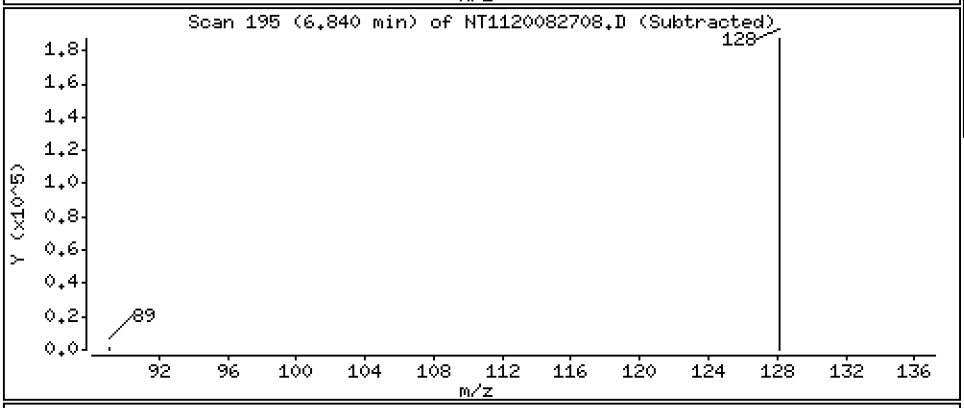
Column diameter: 0.25

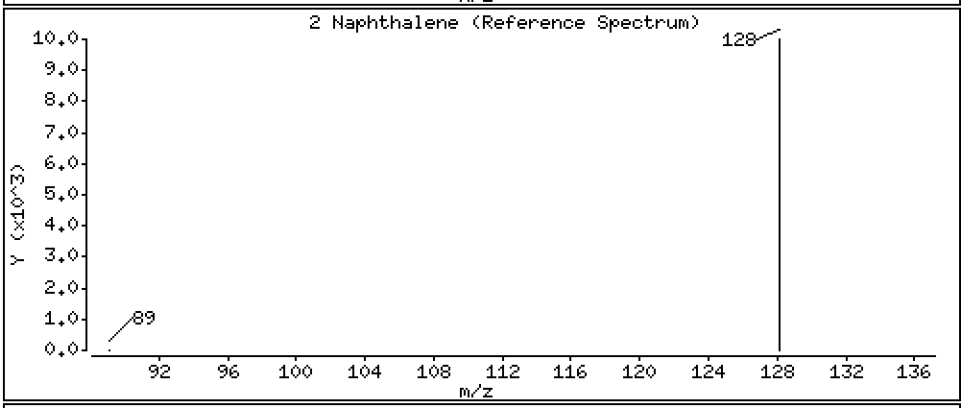
2 Naphthalene

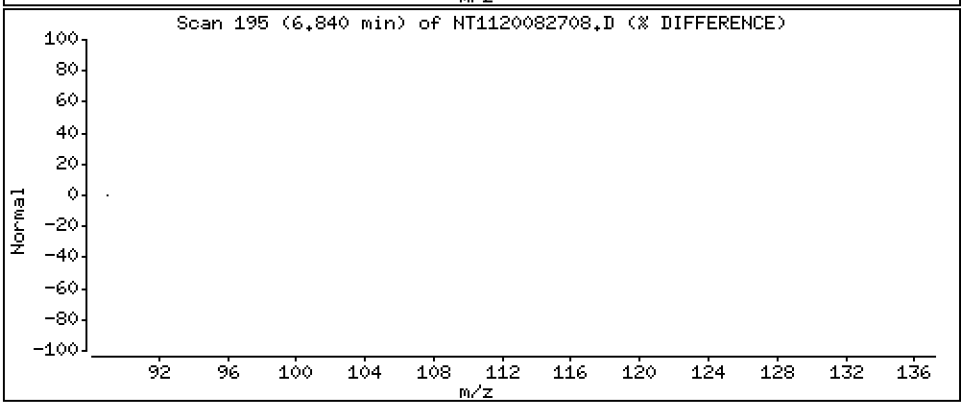
Concentration: 224 ng/mL



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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

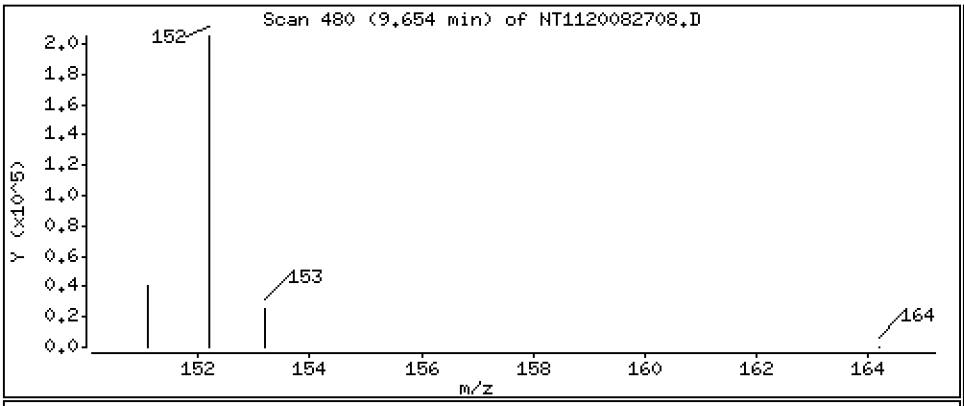
Operator: VTS

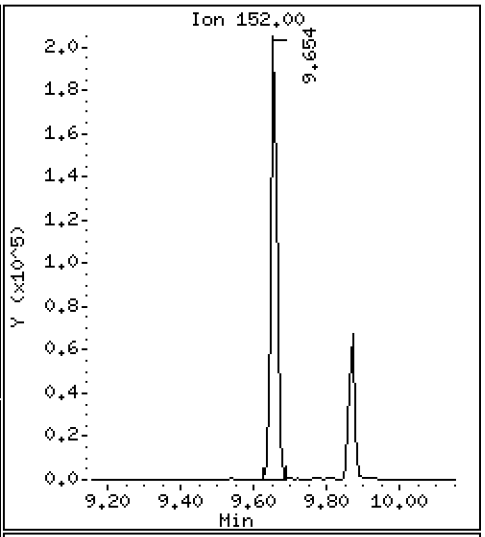
Column phase: Rxi-17Sil MS

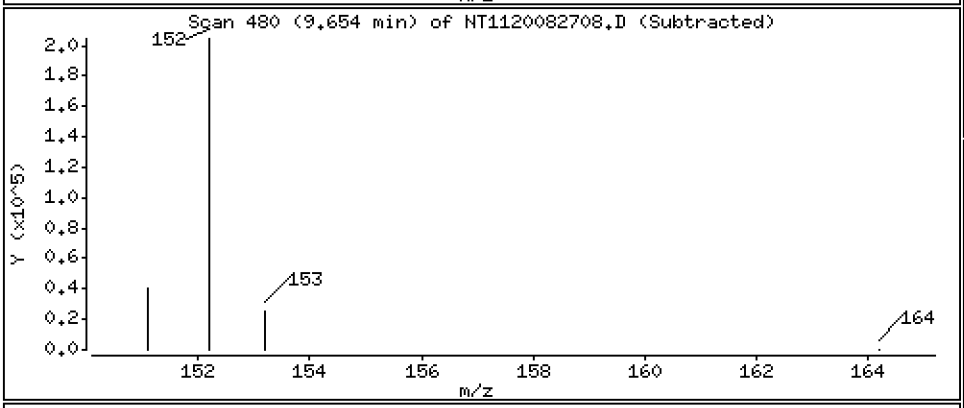
Column diameter: 0.25

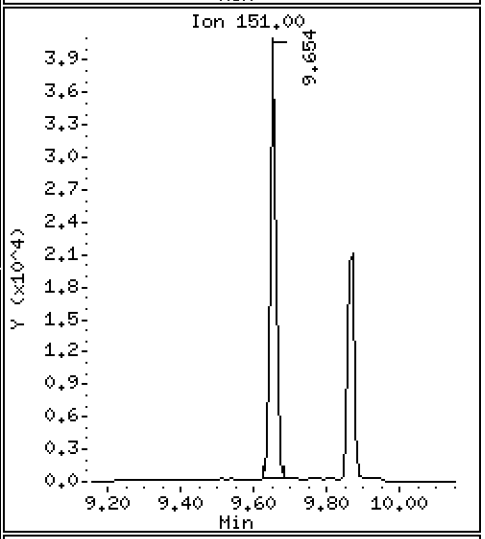
10 Acenaphthylene

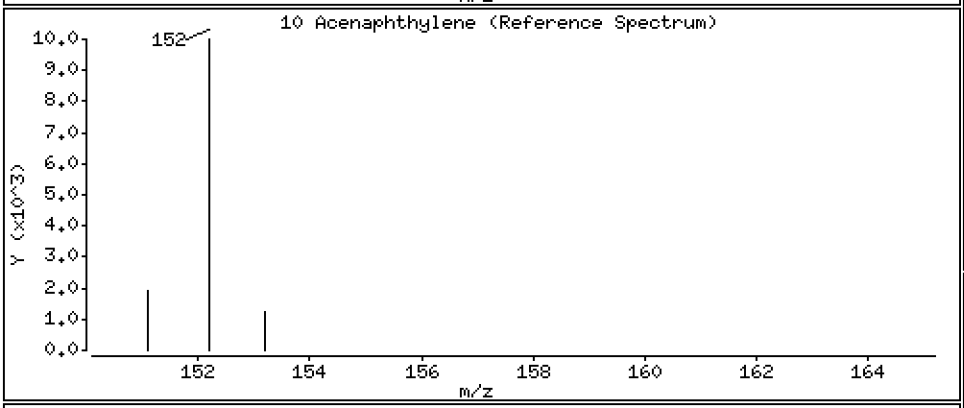
Concentration: 233 ng/mL

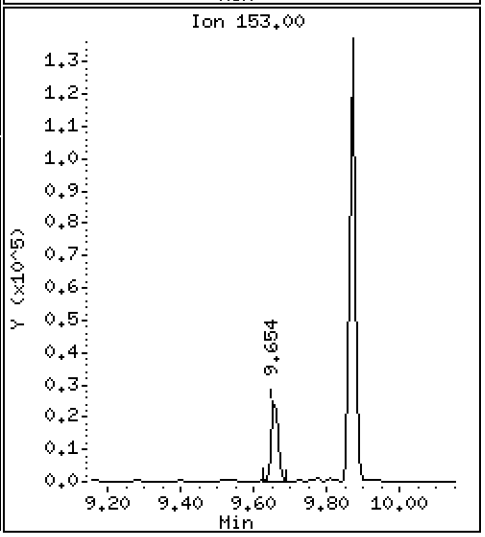


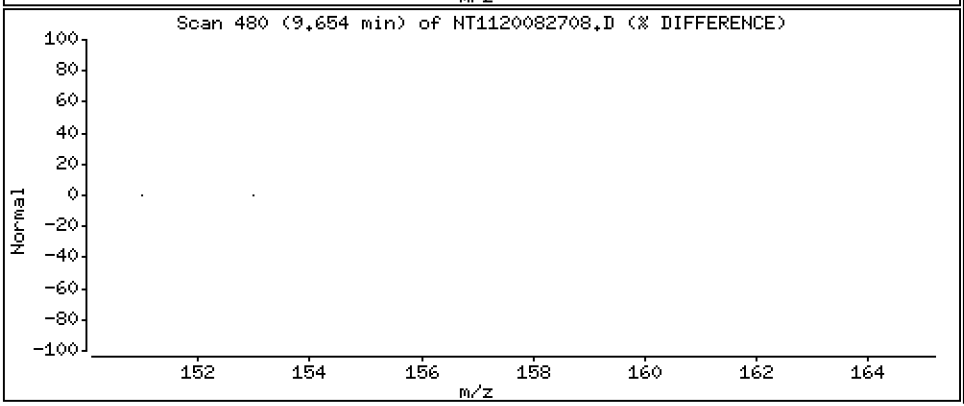



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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

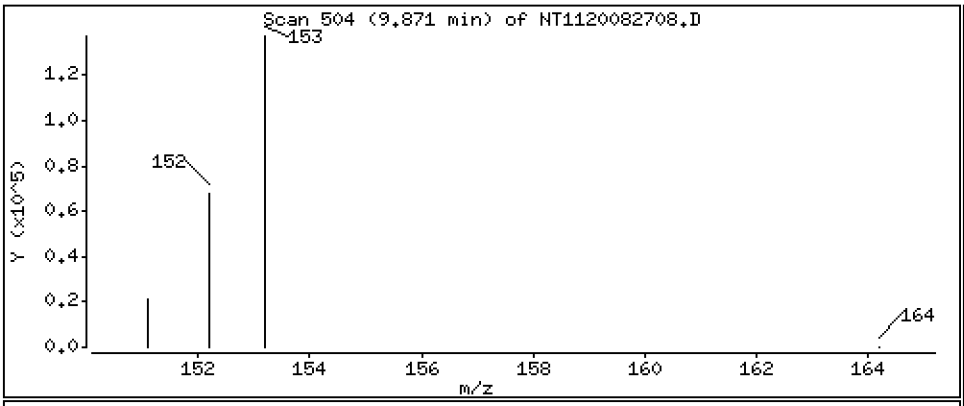
Operator: VTS

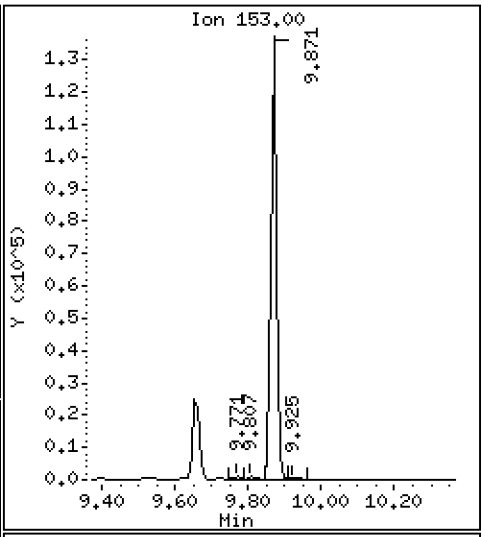
Column phase: Rxi-17Sil MS

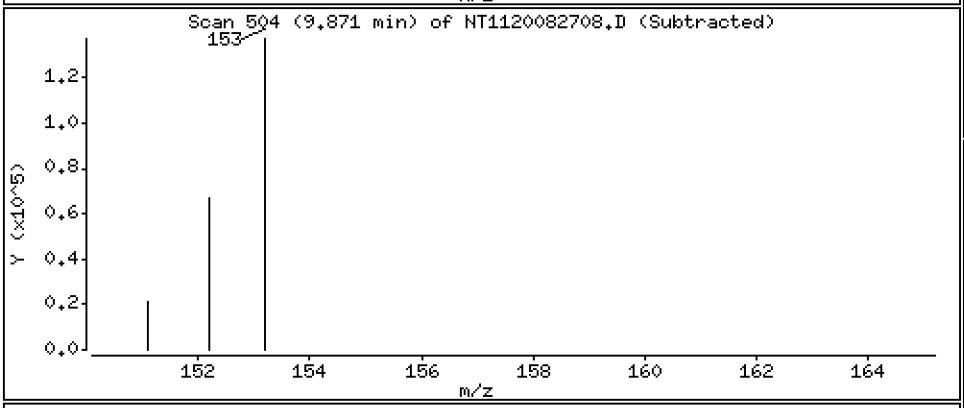
Column diameter: 0.25

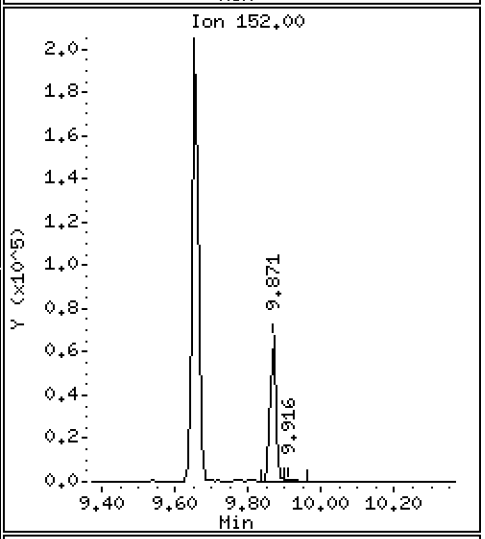
12 Acenaphthene

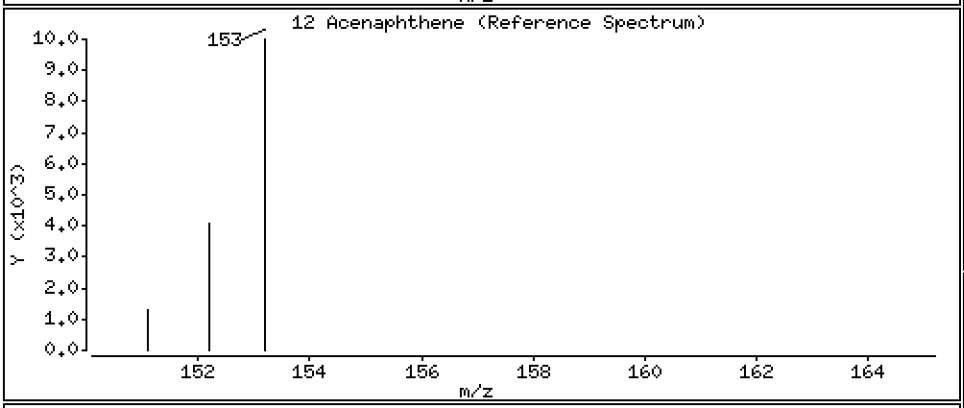
Concentration: 222 ng/mL

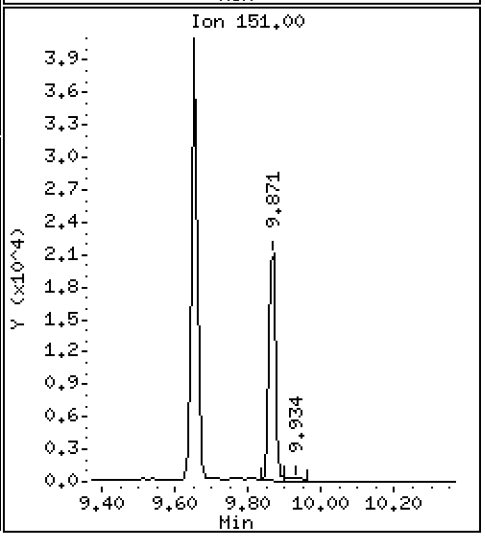


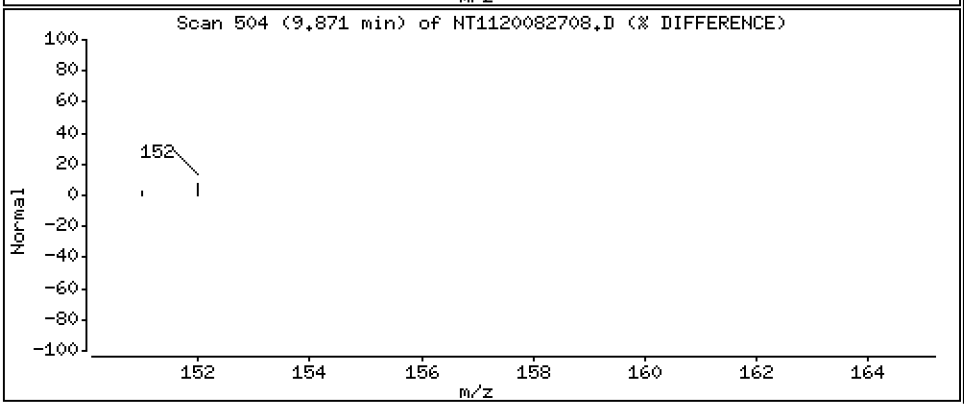



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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

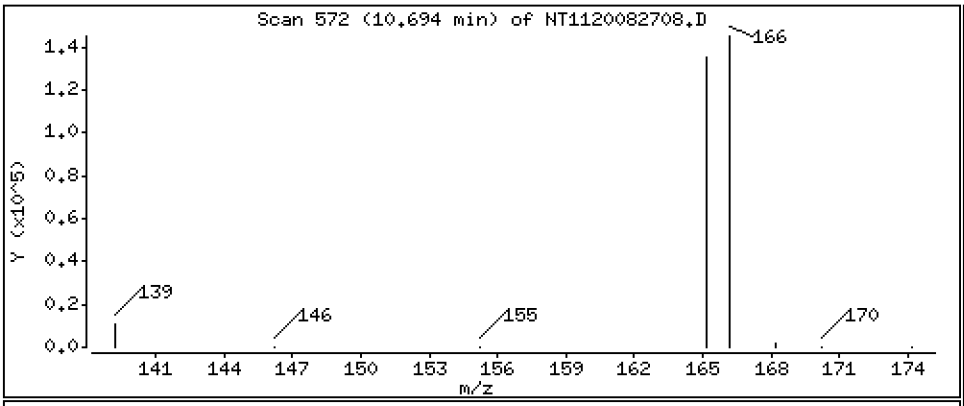
Operator: VTS

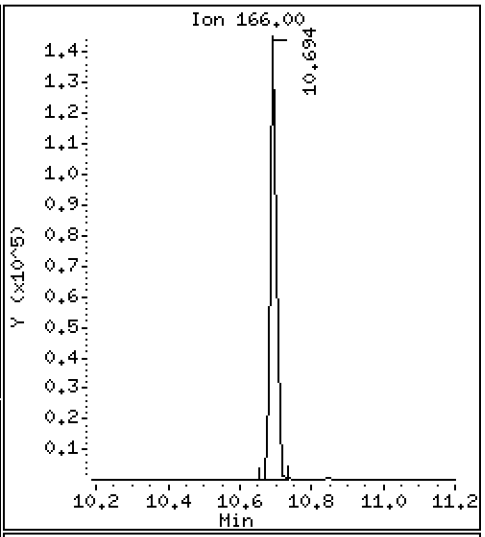
Column phase: Rxi-17Sil MS

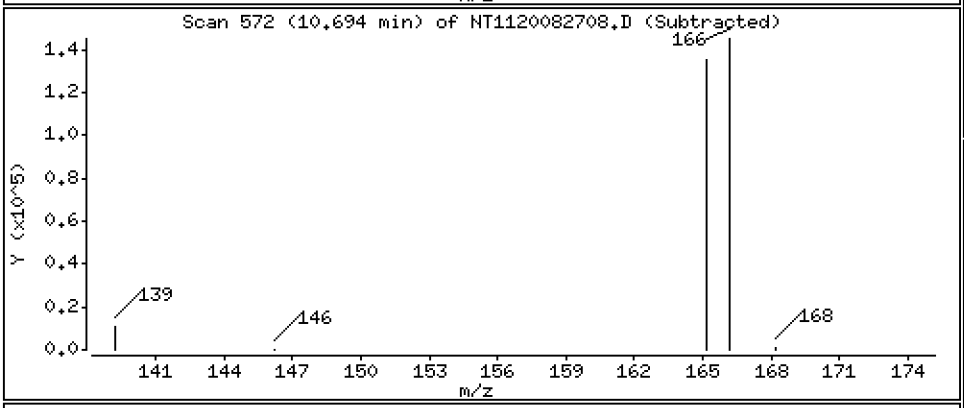
Column diameter: 0.25

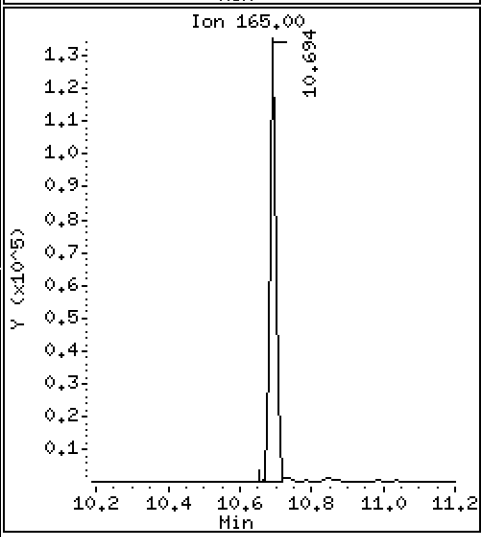
16 Fluorene

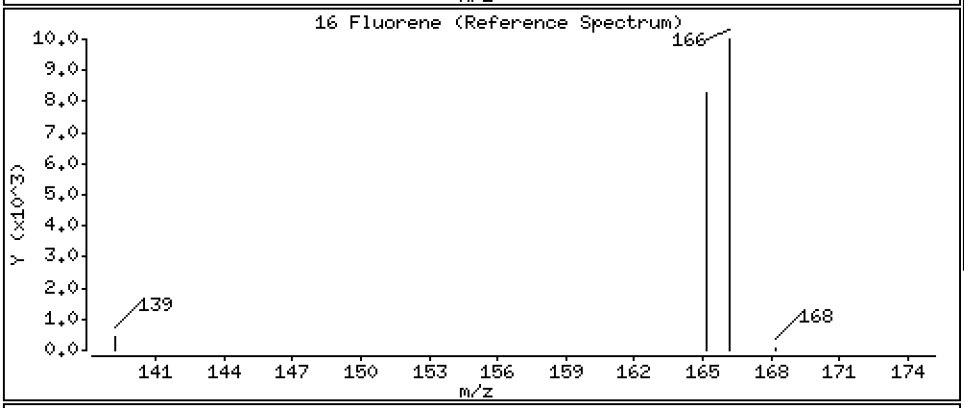
Concentration: 233 ng/mL

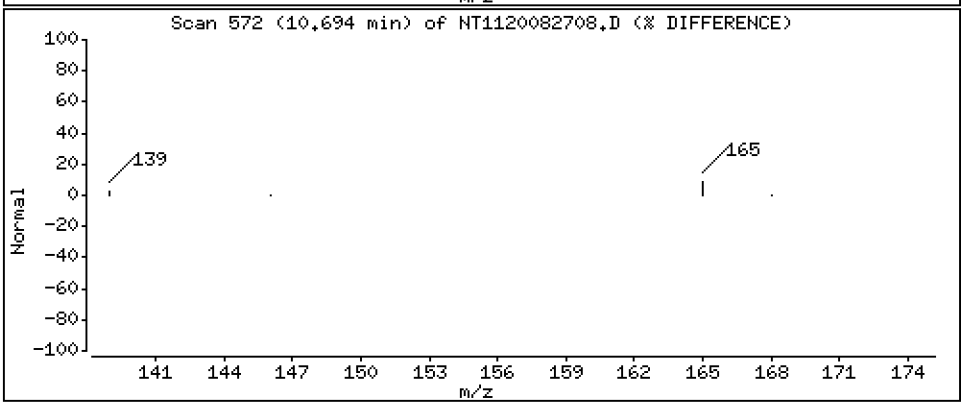


Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

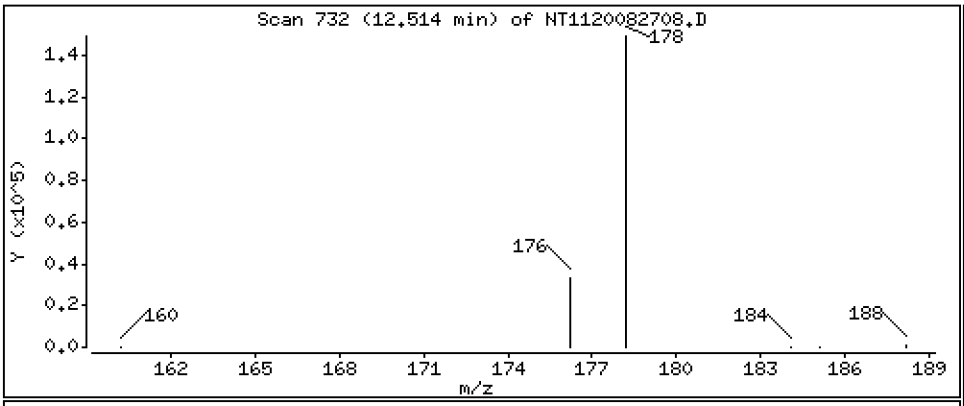
Operator: VTS

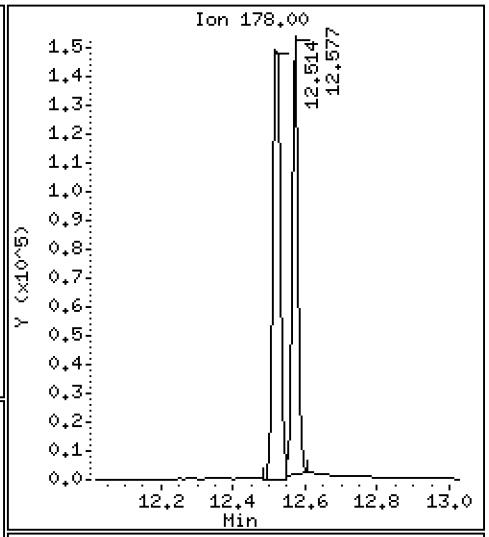
Column phase: Rxi-17Sil MS

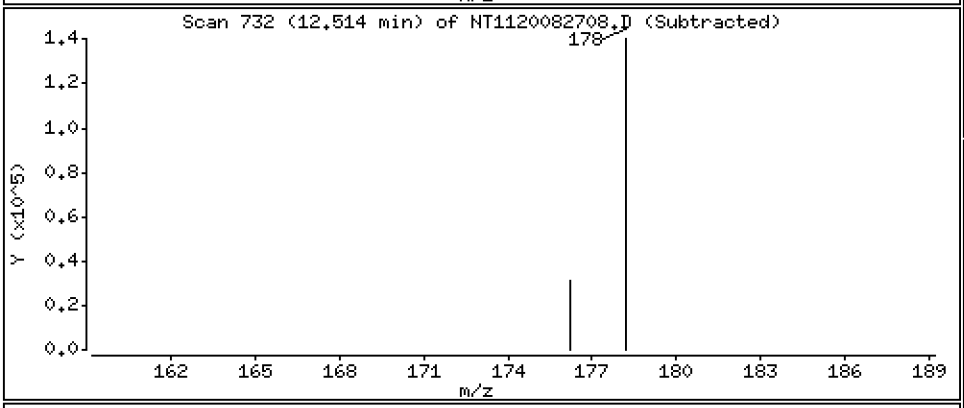
Column diameter: 0.25

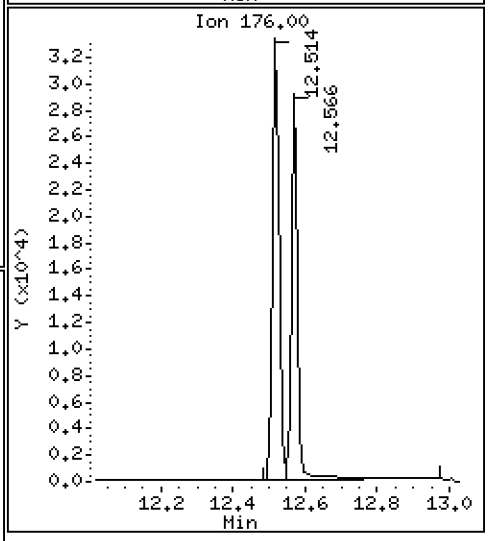
19 Phenanthrene

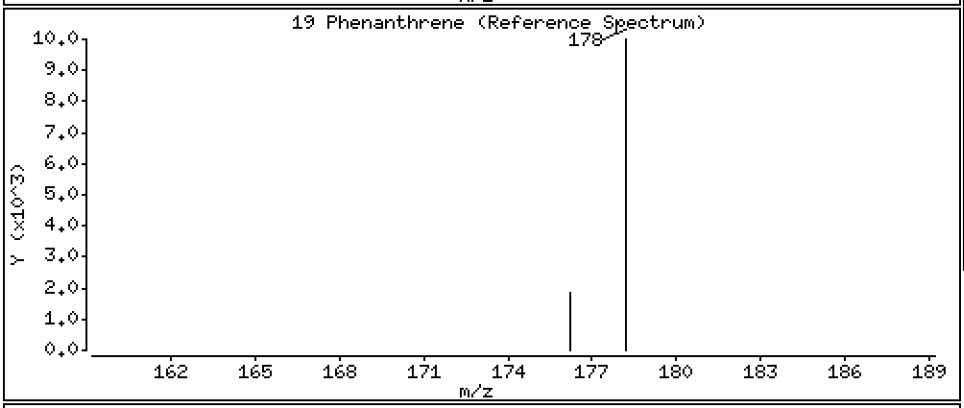
Concentration: 233 ng/mL

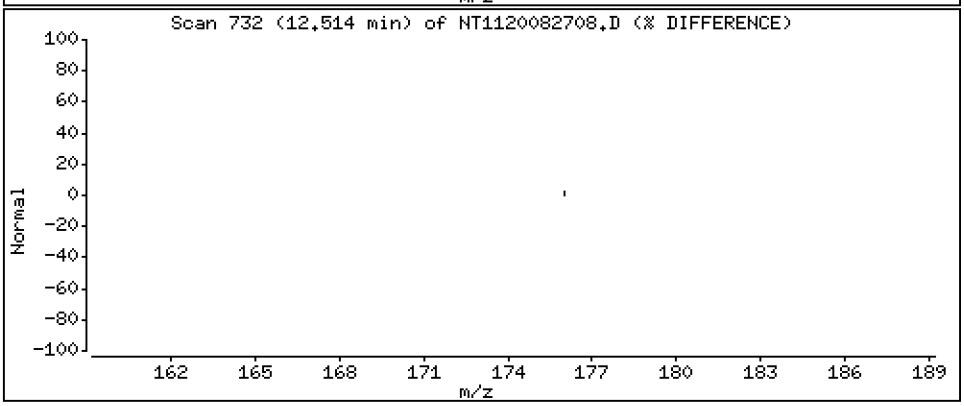


Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

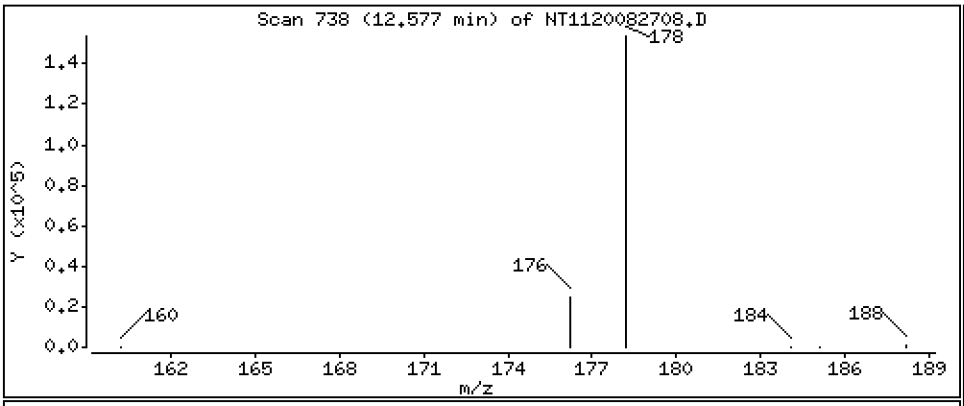
Operator: VTS

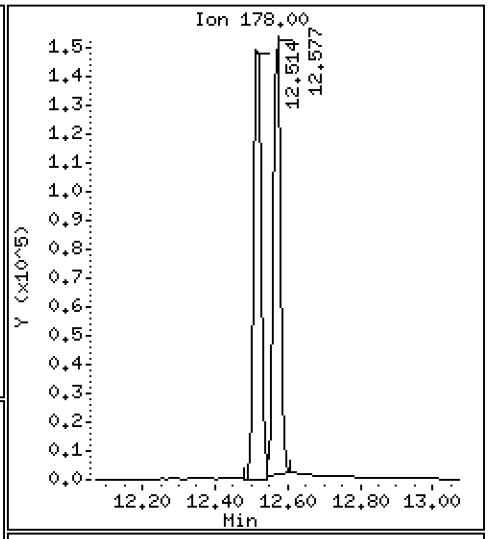
Column phase: Rxi-17Sil MS

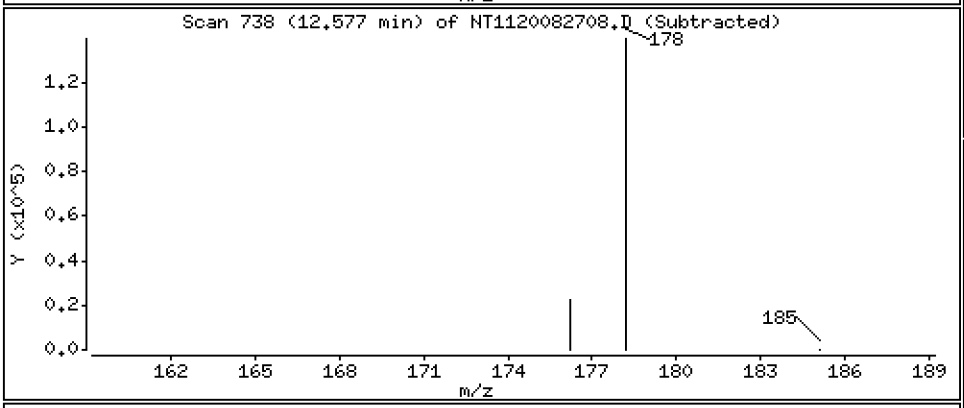
Column diameter: 0.25

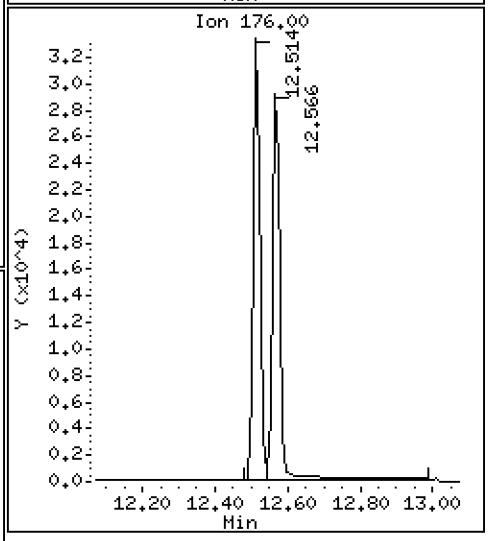
21 Anthracene

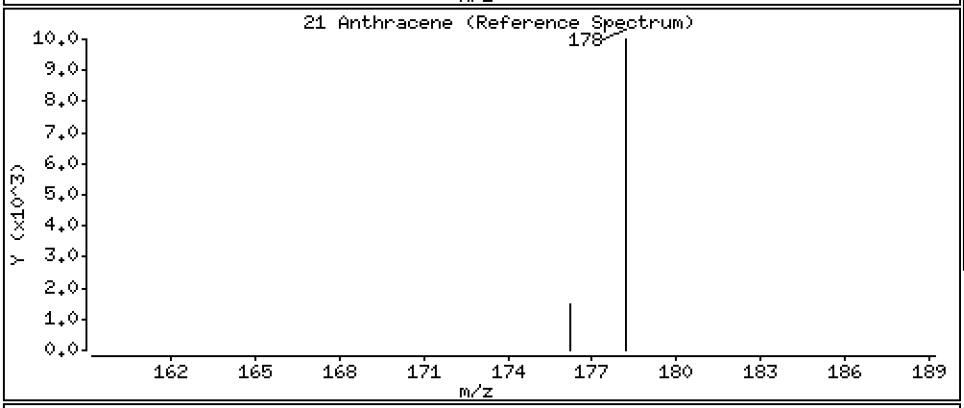
Concentration: 223 ng/mL

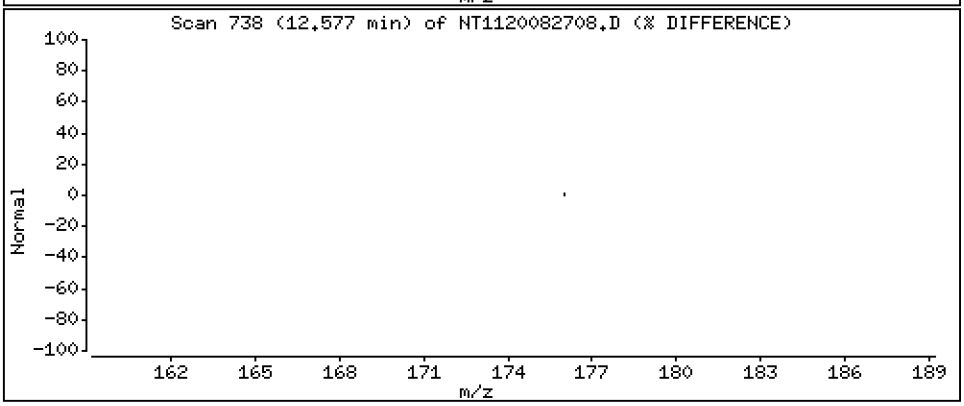


Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

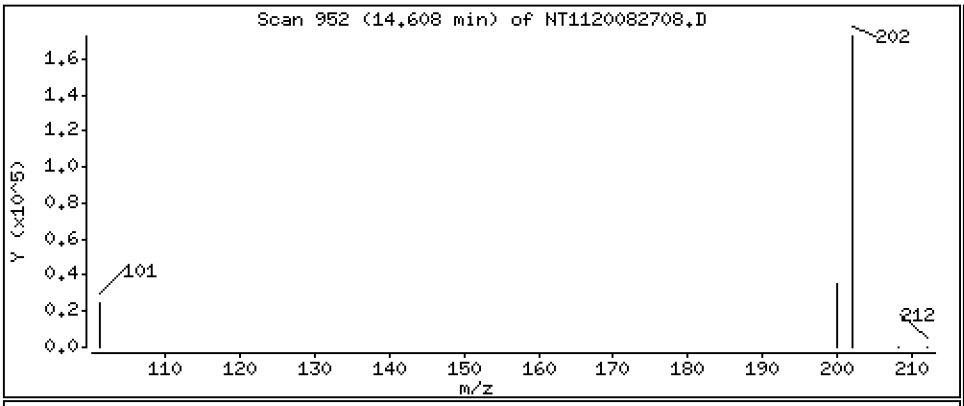
Operator: VTS

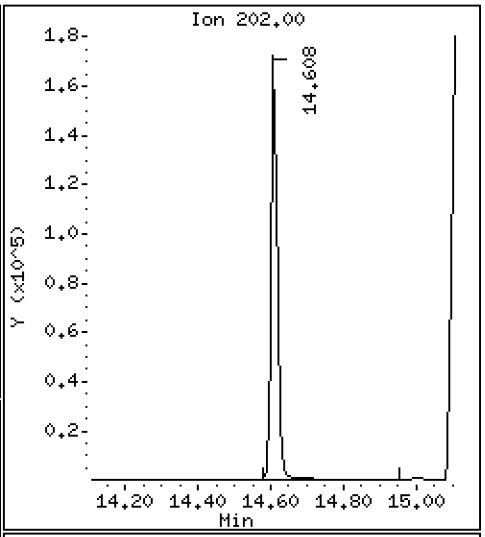
Column phase: Rxi-17Sil MS

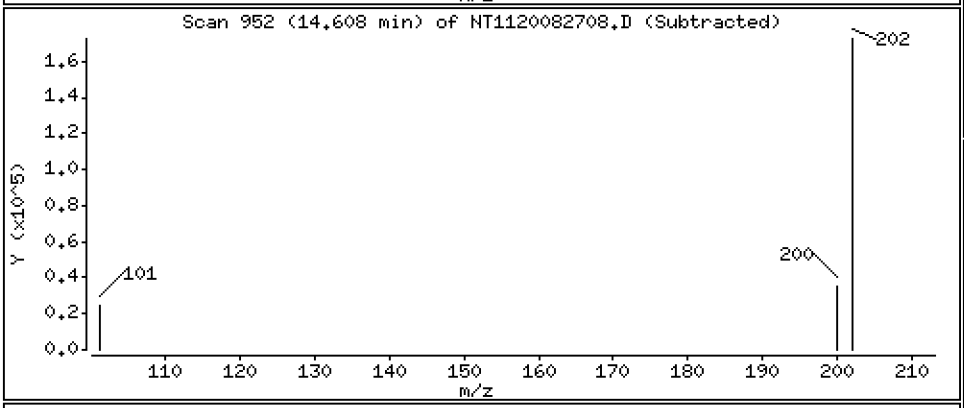
Column diameter: 0.25

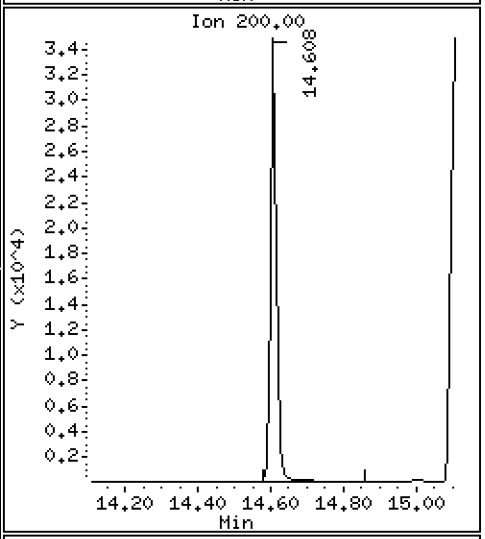
25 Fluoranthene

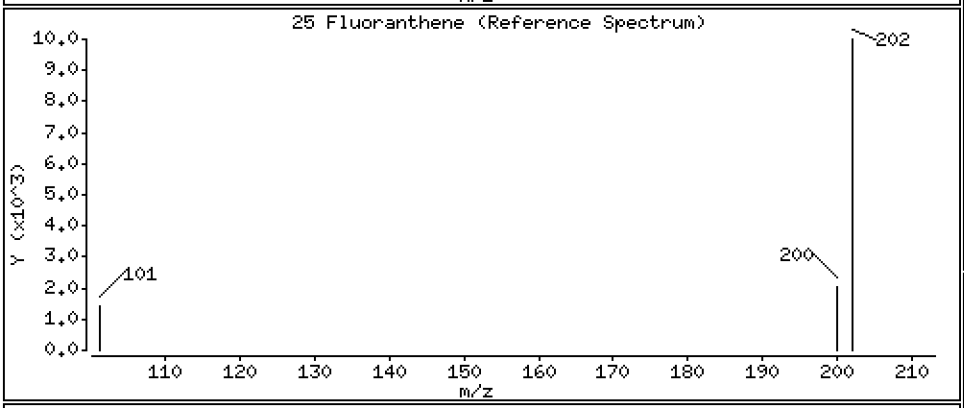
Concentration: 236 ng/mL

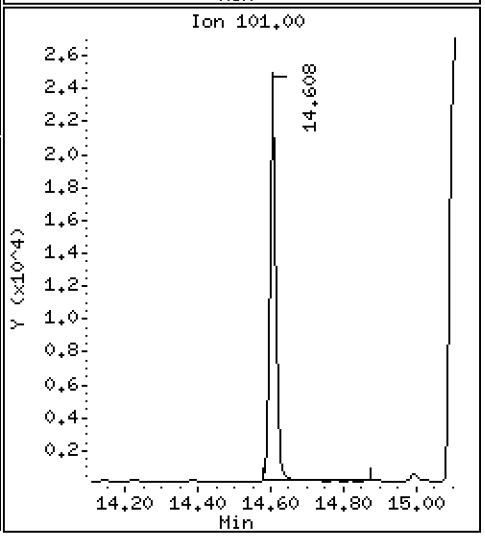


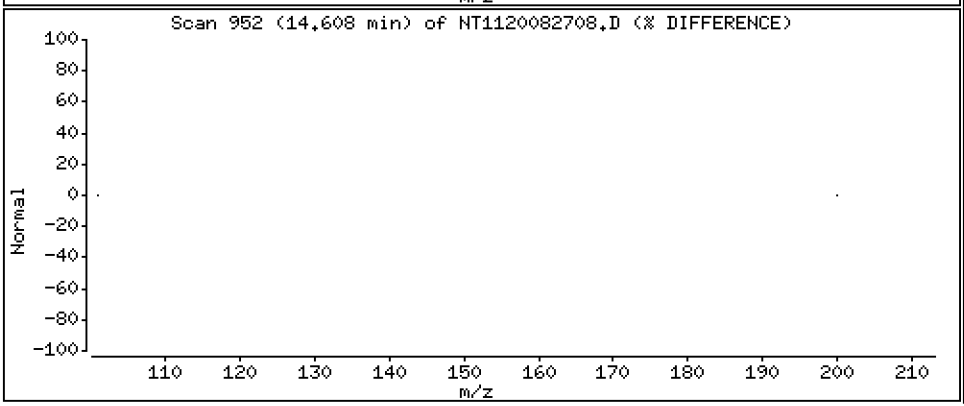



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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

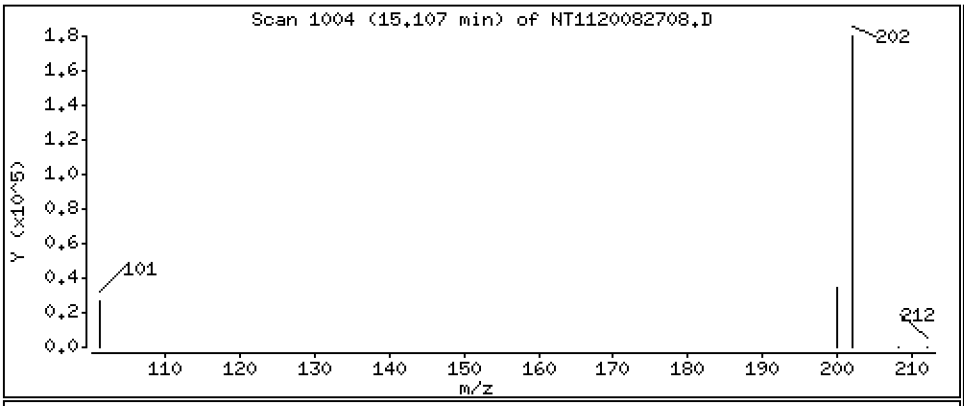
Operator: VTS

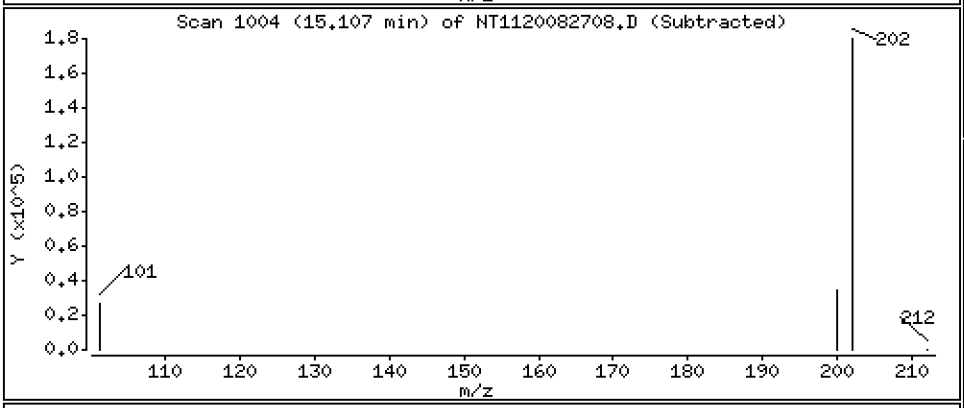
Column phase: Rxi-17Sil MS

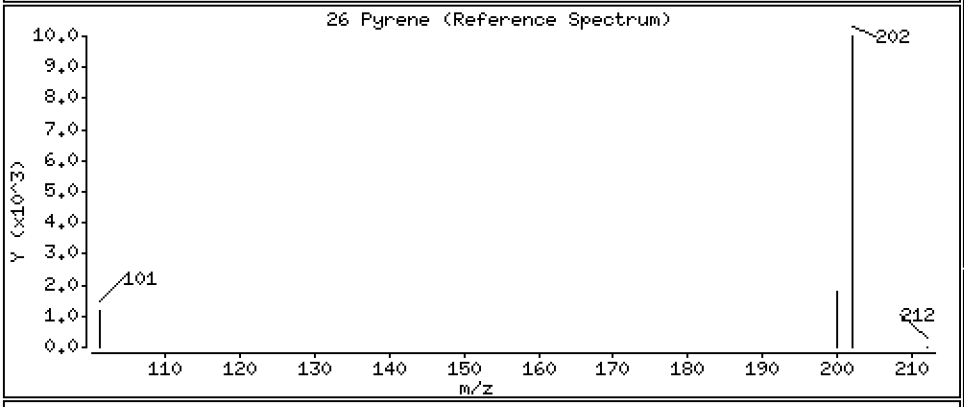
Column diameter: 0.25

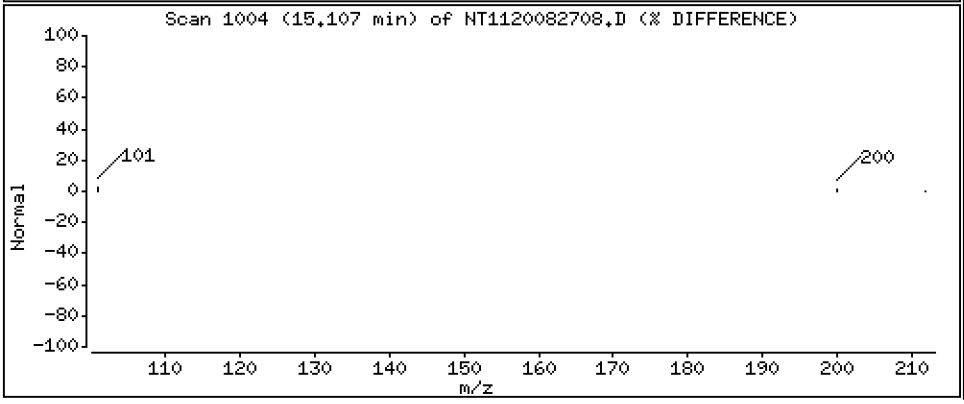
26 Pyrene

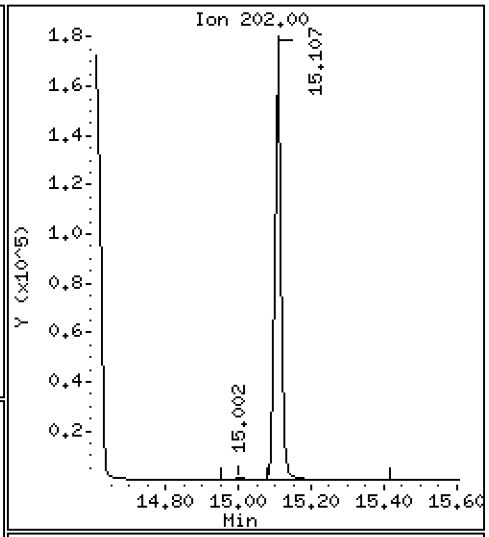
Concentration: 235 ng/mL

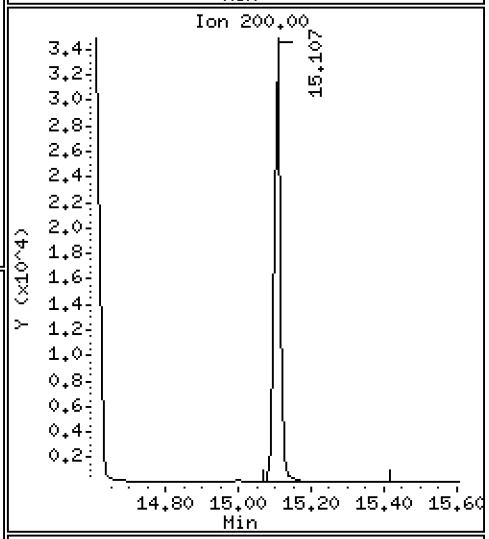


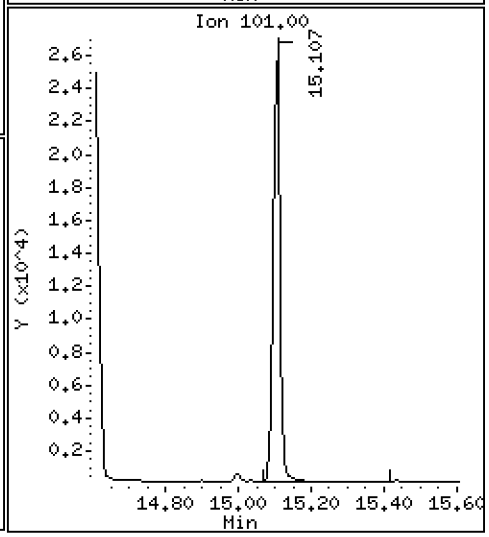



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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

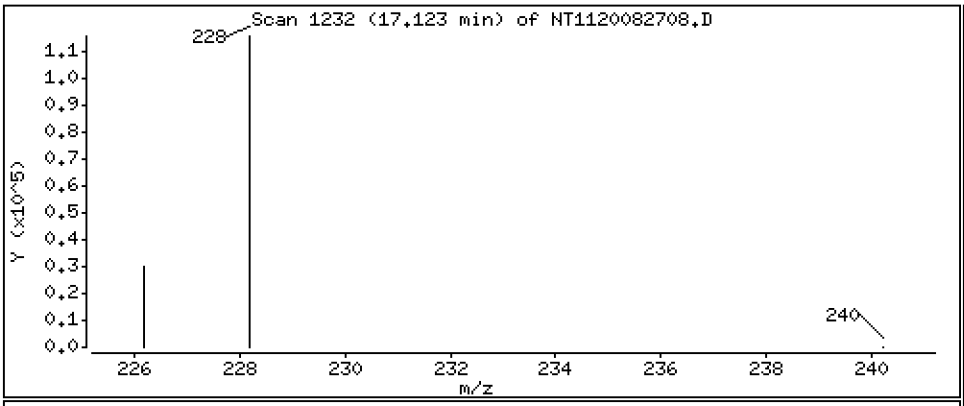
Operator: VTS

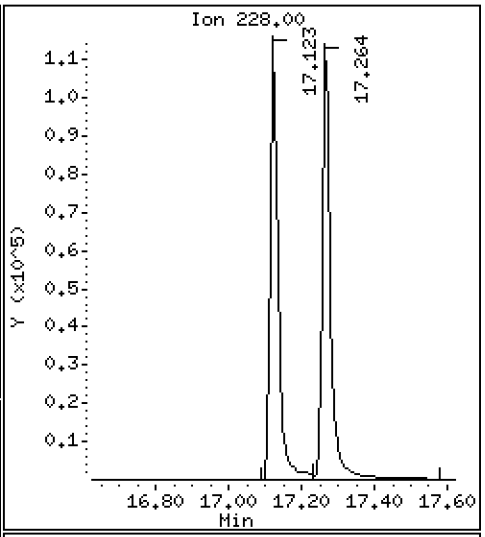
Column phase: Rxi-17Sil MS

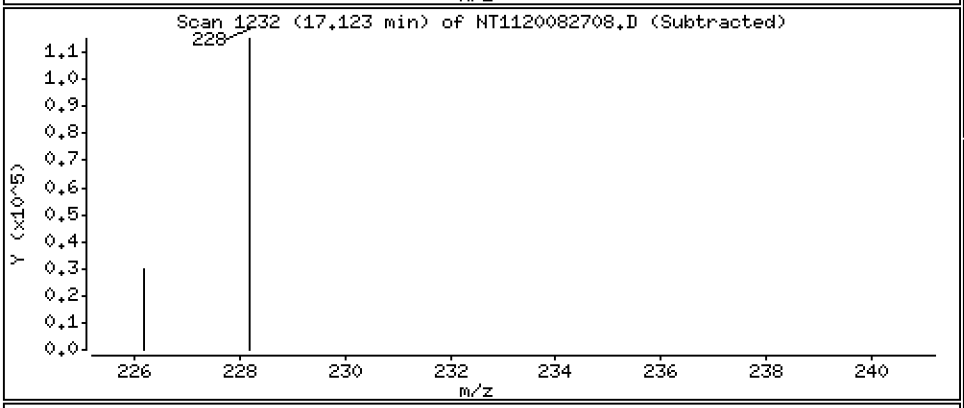
Column diameter: 0.25

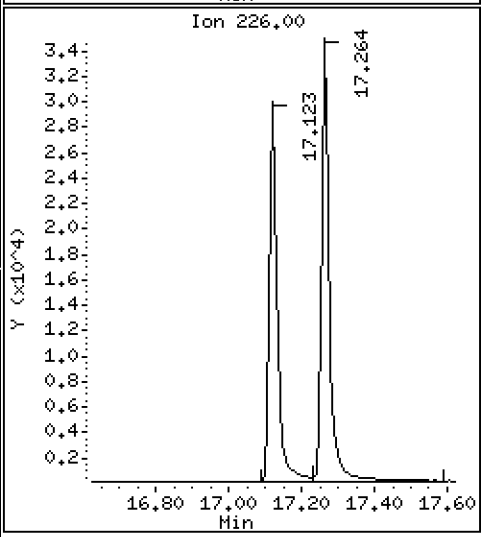
27 Benzo(a)anthracene

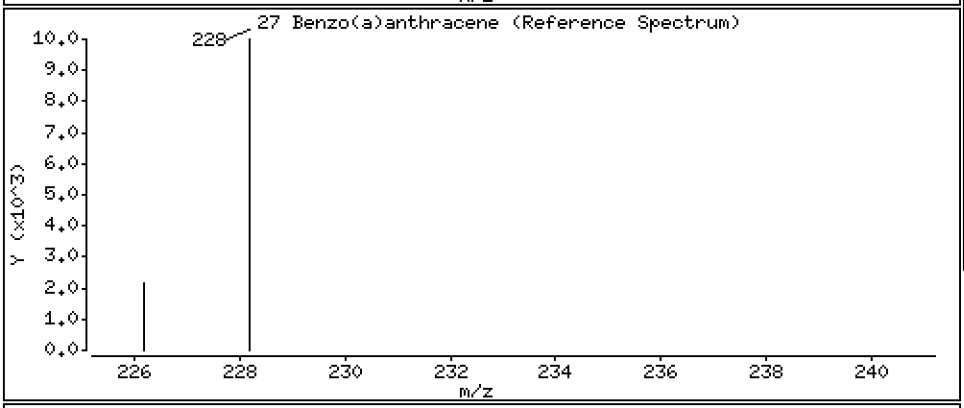
Concentration: 223 ng/mL

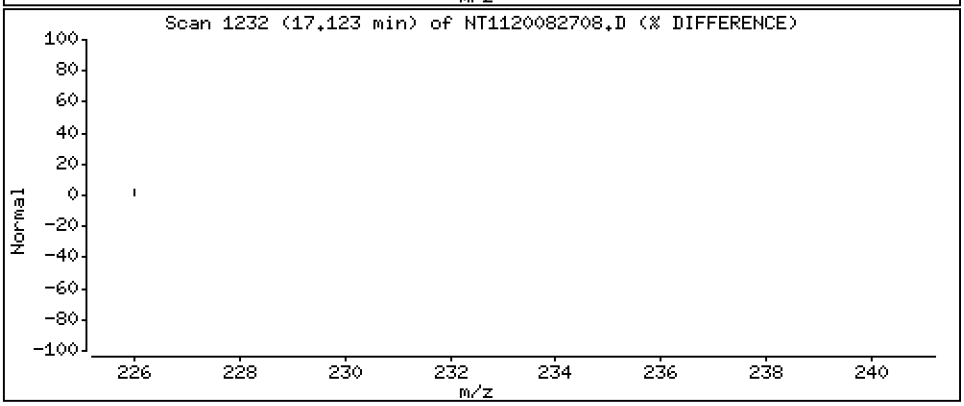


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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

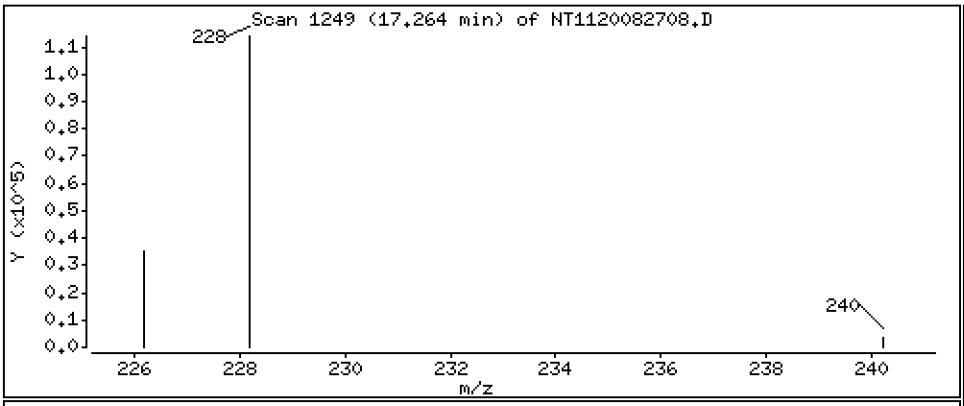
Operator: VTS

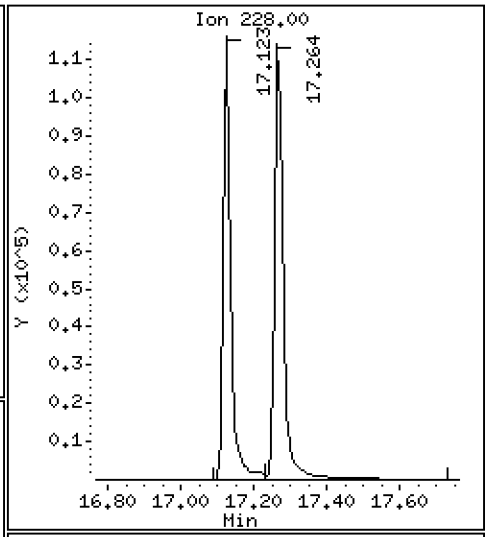
Column phase: Rxi-17Sil MS

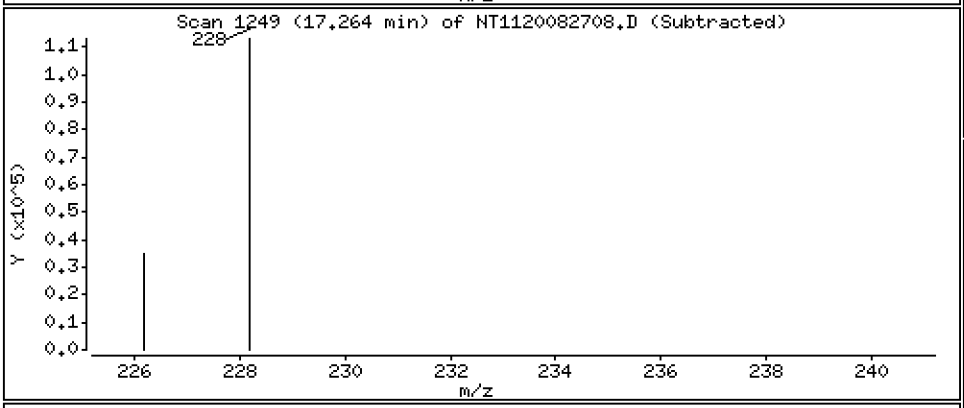
Column diameter: 0.25

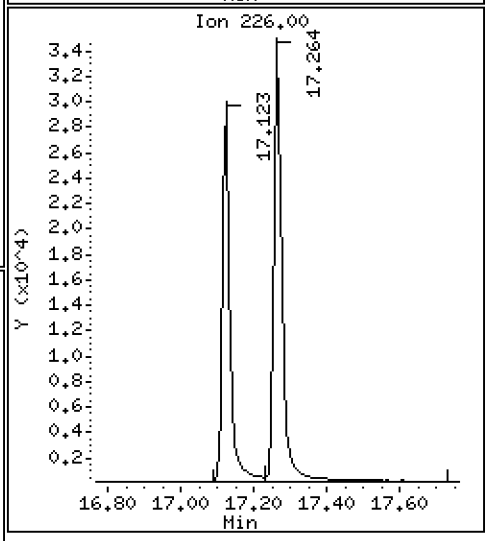
29 Chrysene

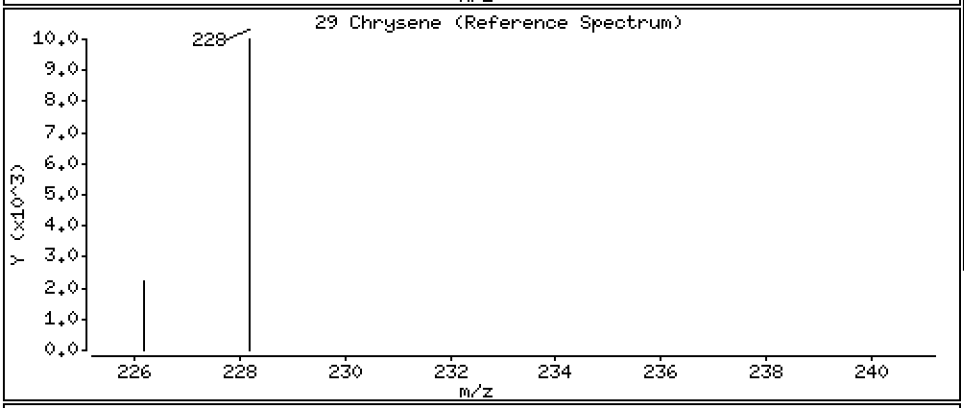
Concentration: 215 ng/mL

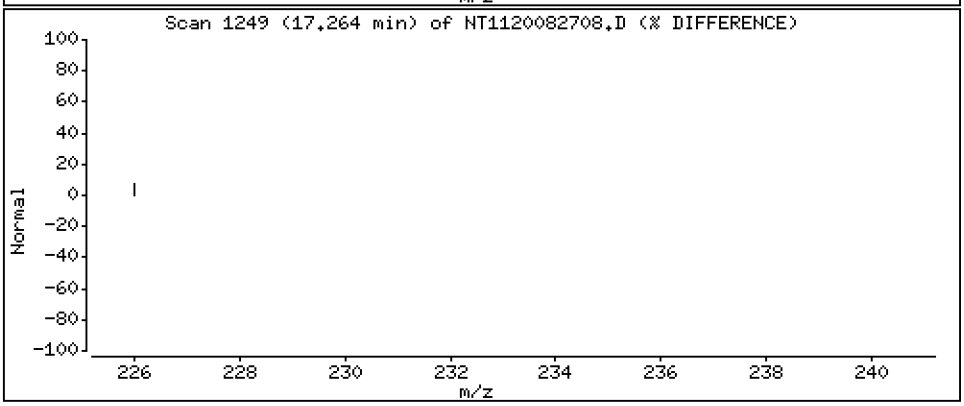


Date : 27-AUG-2020 15:38

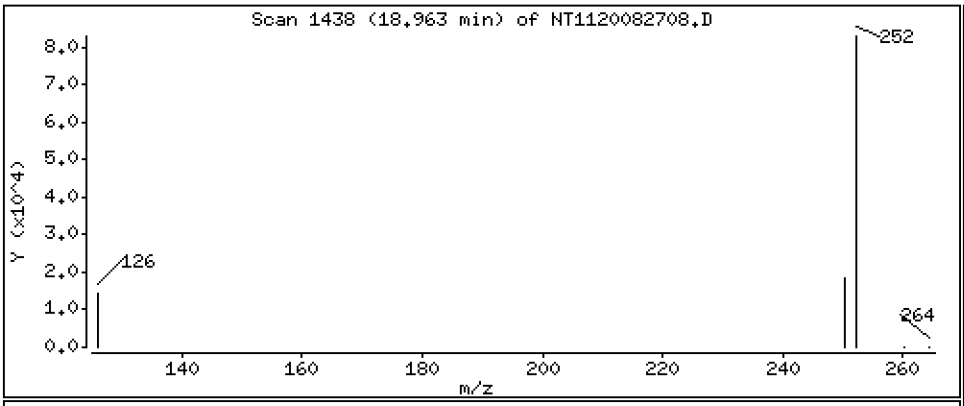
Client ID: Instrument: nt11.i

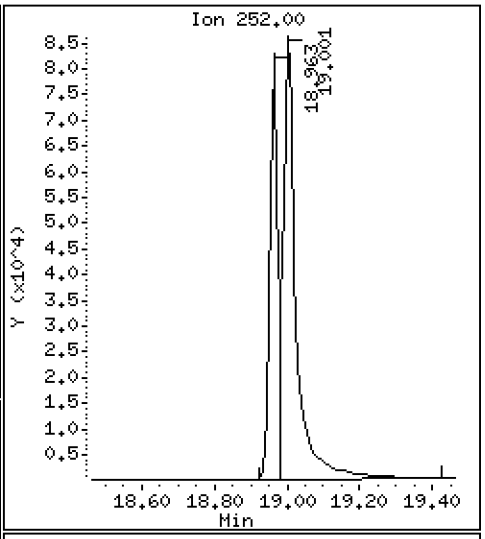
Sample Info: SIH0304-SCV1

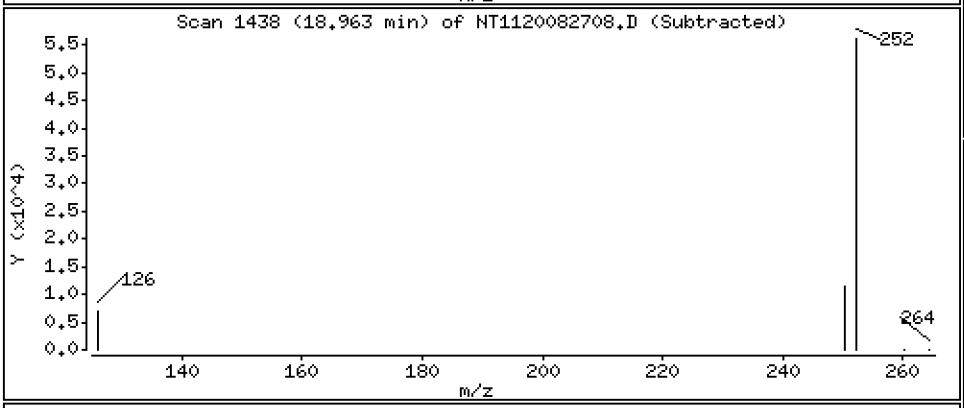
Operator: VTS

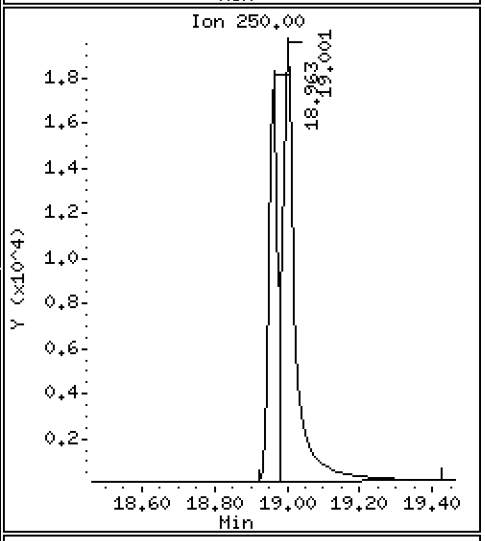
Column phase: Rxi-17Sil MS Column diameter: 0.25

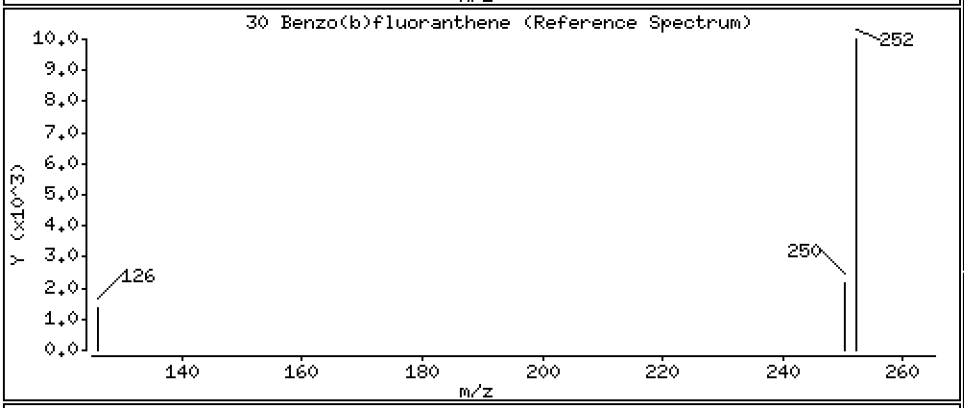
30 Benzo(b)fluoranthene Concentration: 212 ng/mL

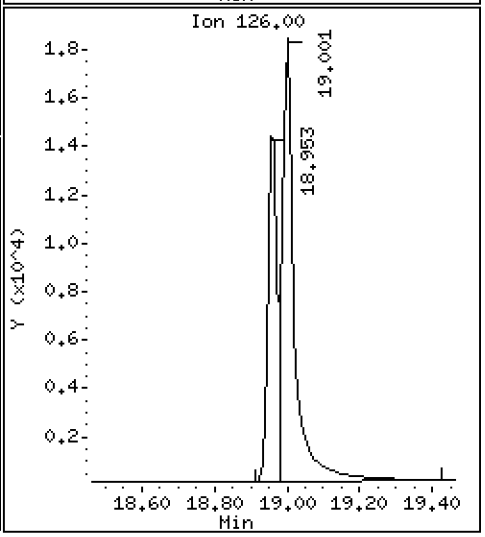


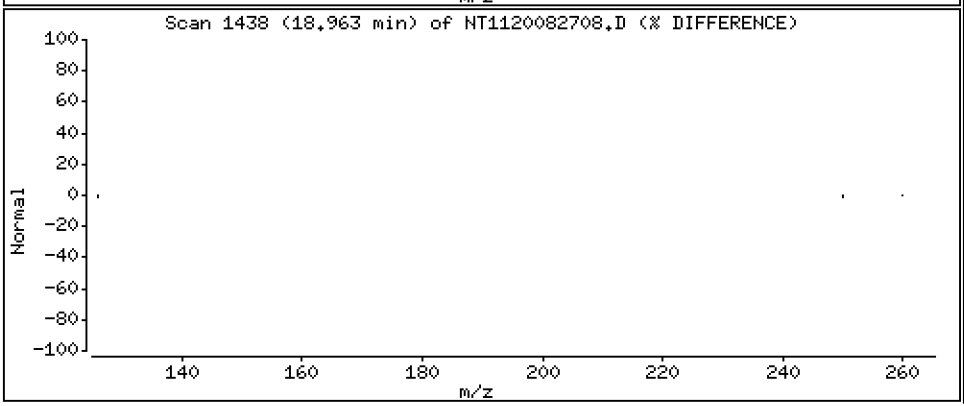



Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

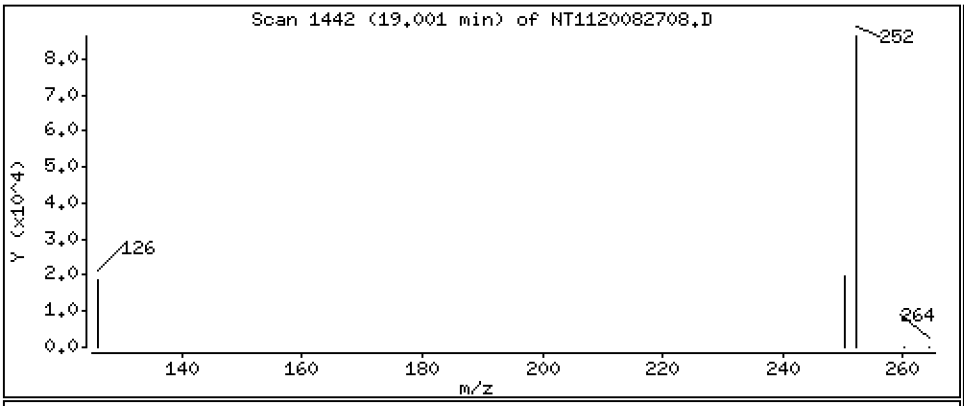
Operator: VTS

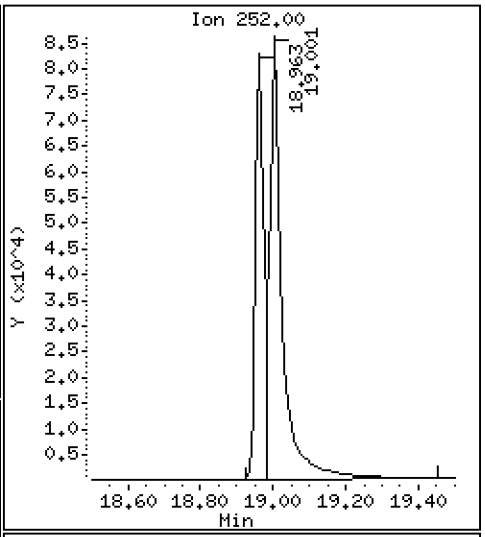
Column phase: Rxi-17Sil MS

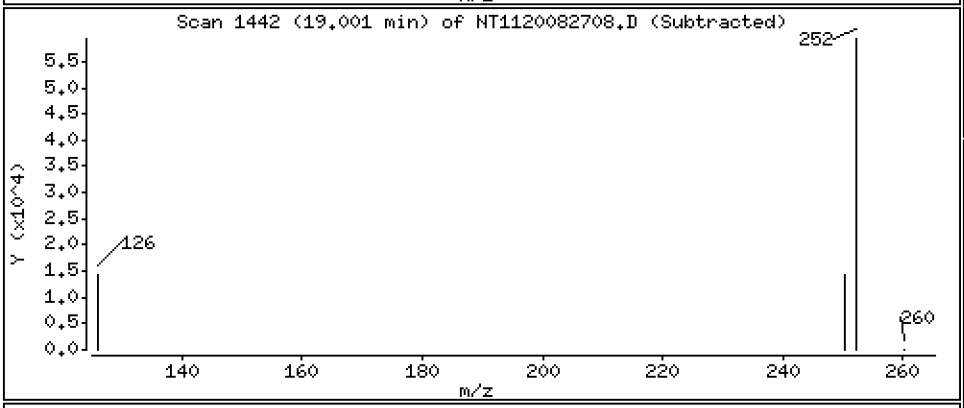
Column diameter: 0.25

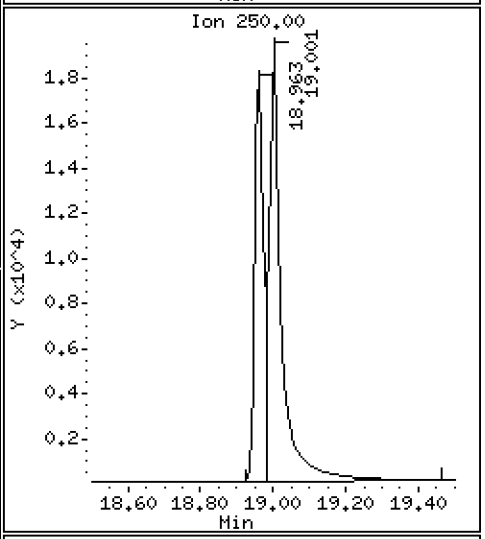
31 Benzo(k)fluoranthene

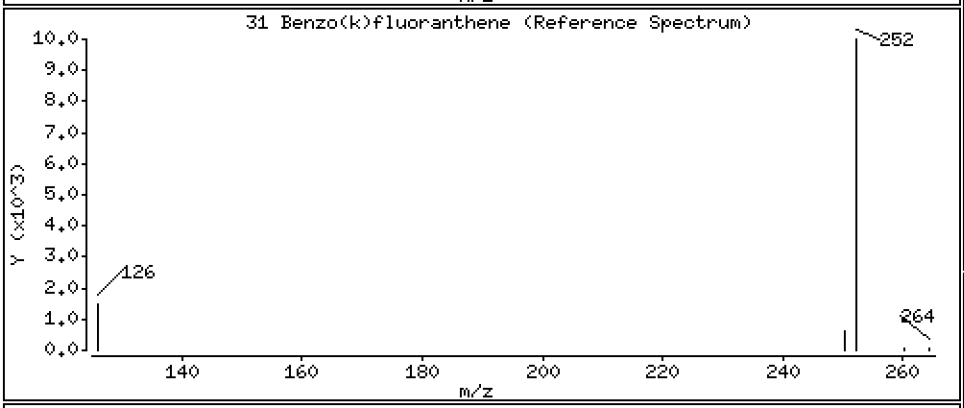
Concentration: 260 ng/mL

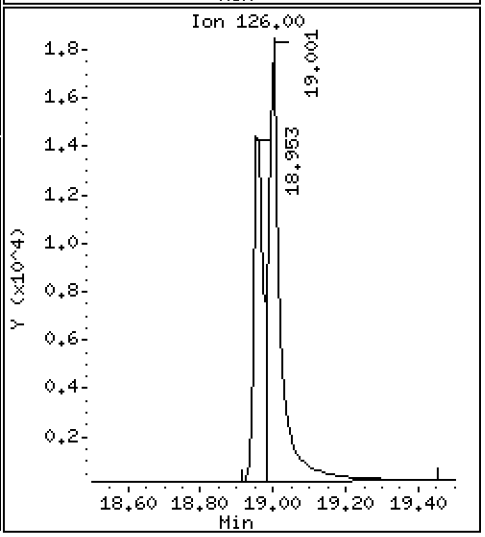


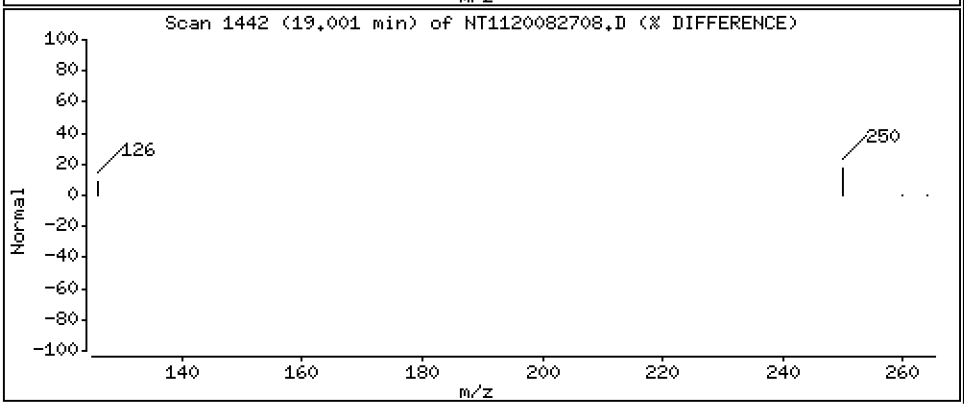



Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

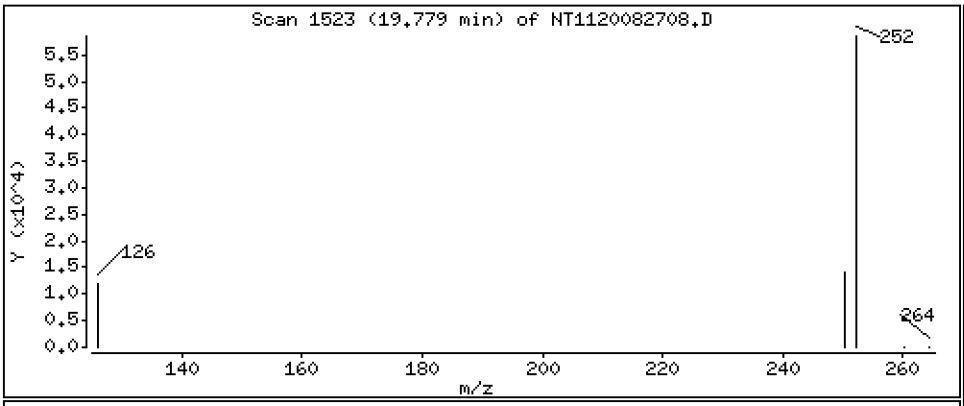
Operator: VTS

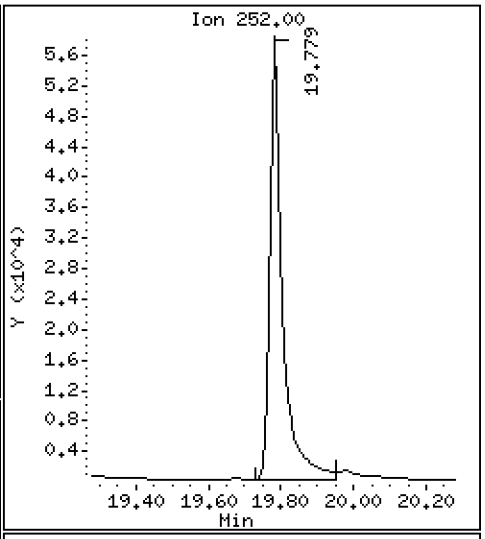
Column phase: Rxi-17Sil MS

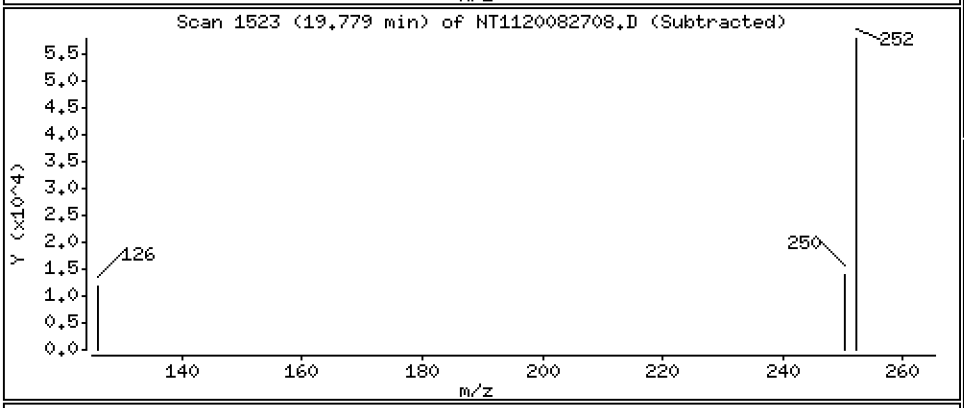
Column diameter: 0.25

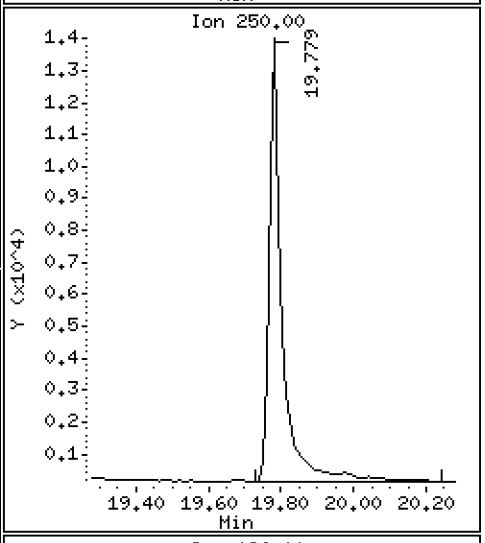
35 Benzo(a)pyrene

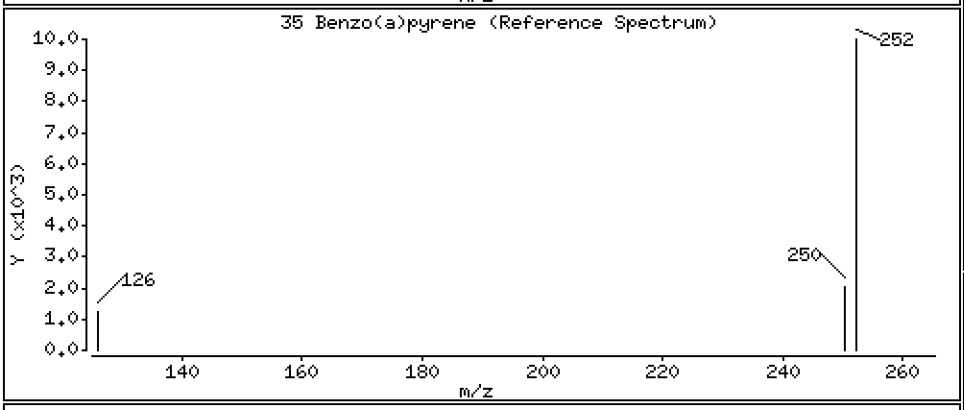
Concentration: 213 ng/mL

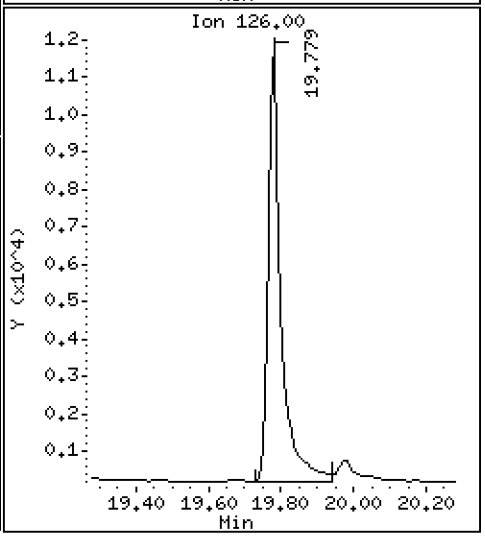


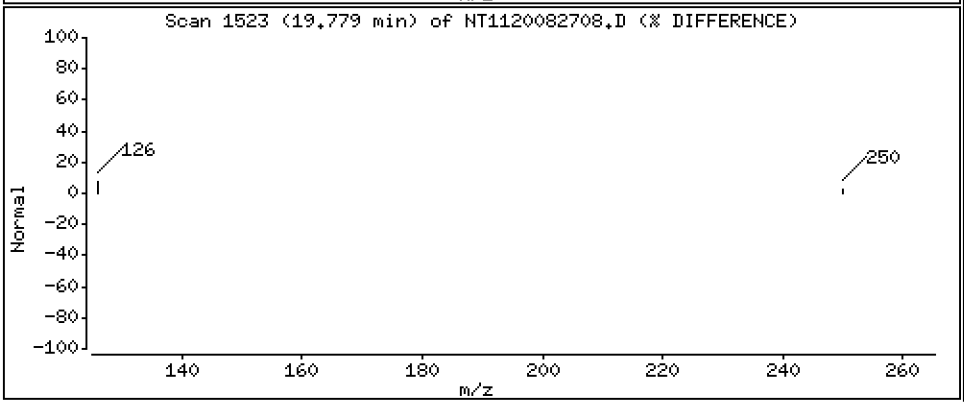



Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

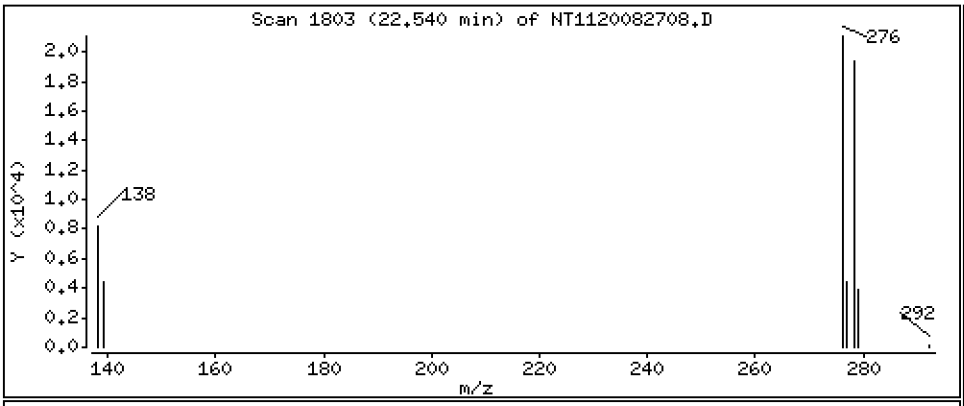
Operator: VTS

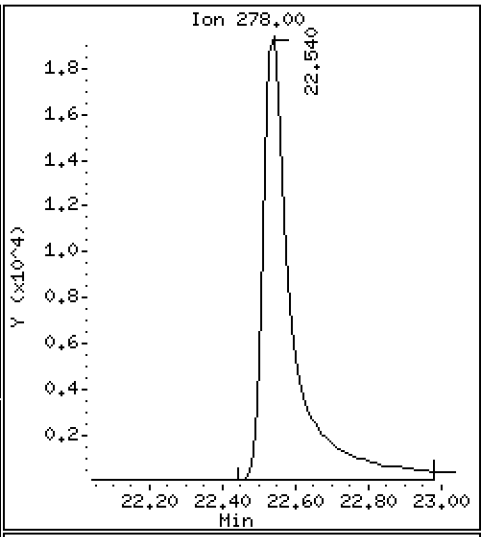
Column phase: Rxi-17Sil MS

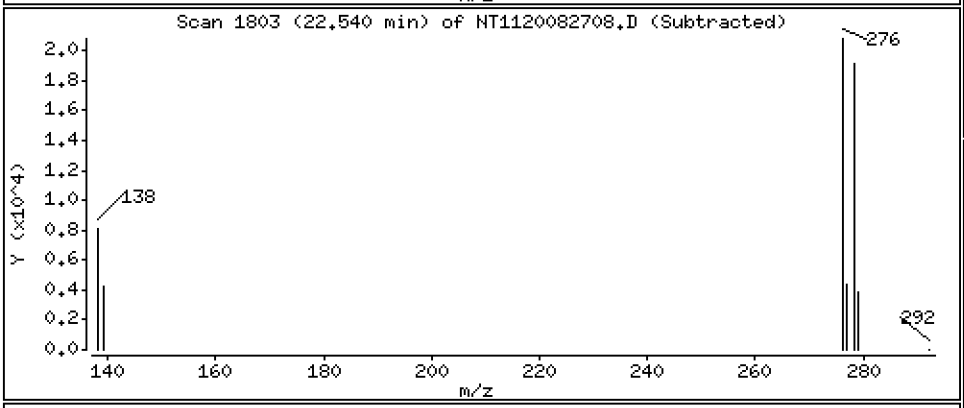
Column diameter: 0.25

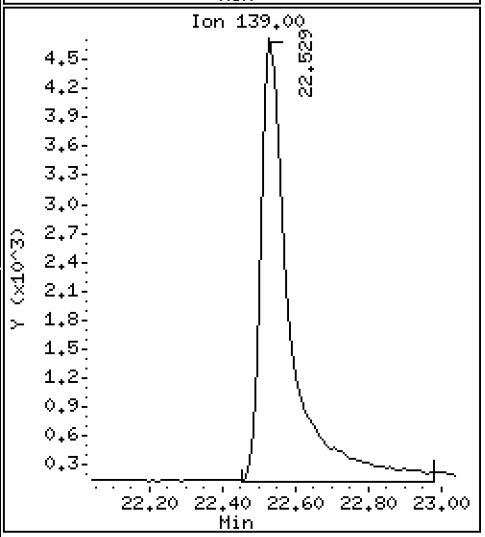
39 Dibenzo(a,h)anthracene

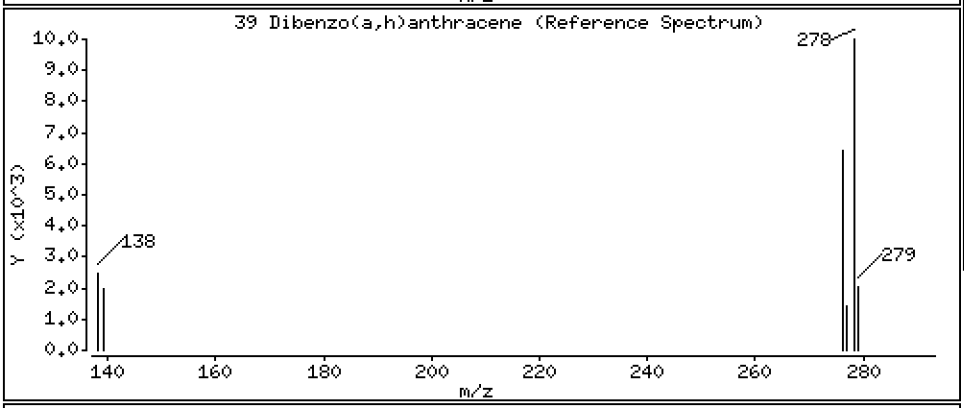
Concentration: 192 ng/mL

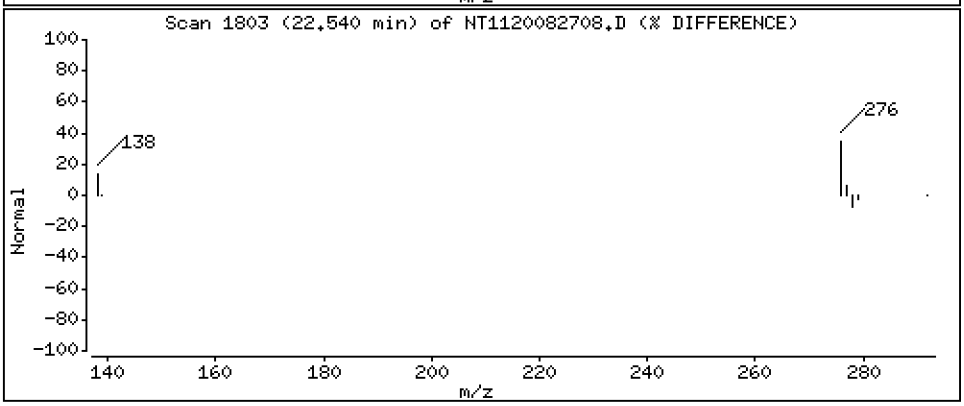


Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

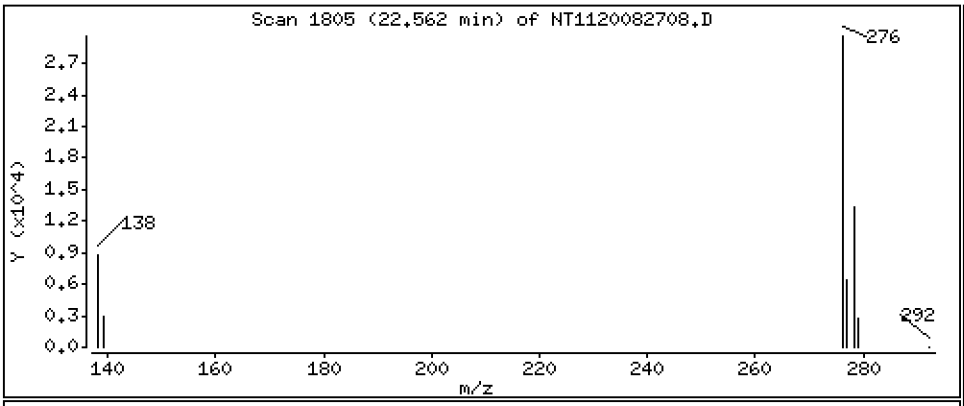
Operator: VTS

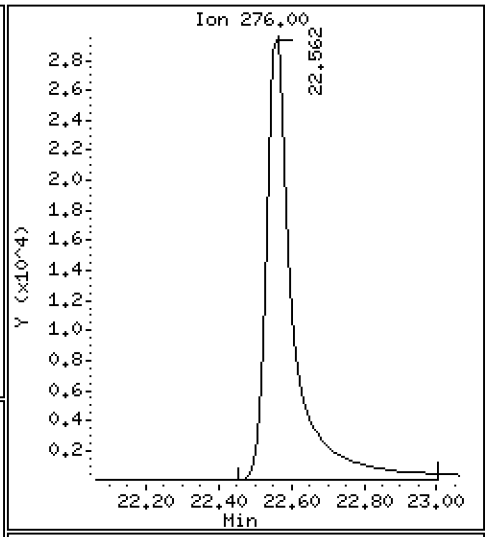
Column phase: Rxi-17Sil MS

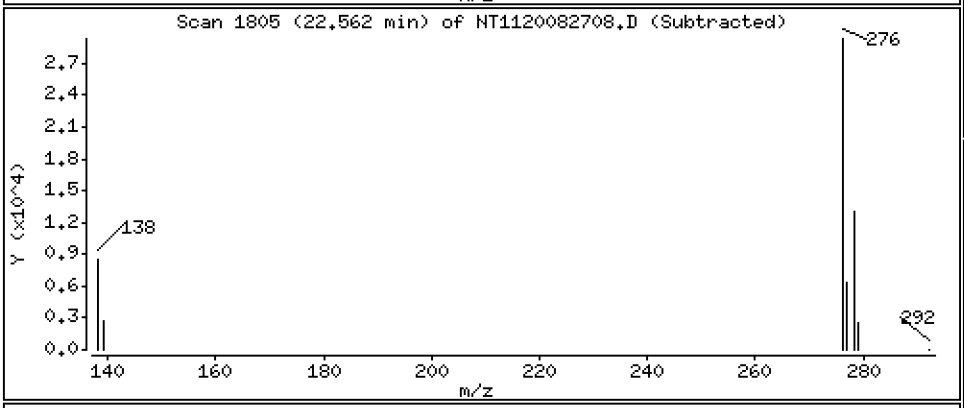
Column diameter: 0.25

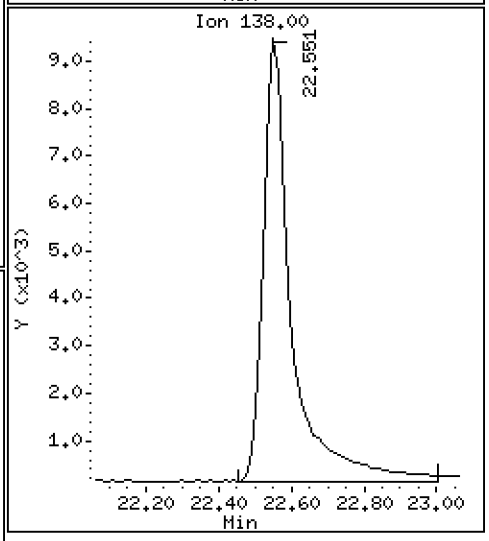
40 Indeno(1,2,3-cd)pyrene

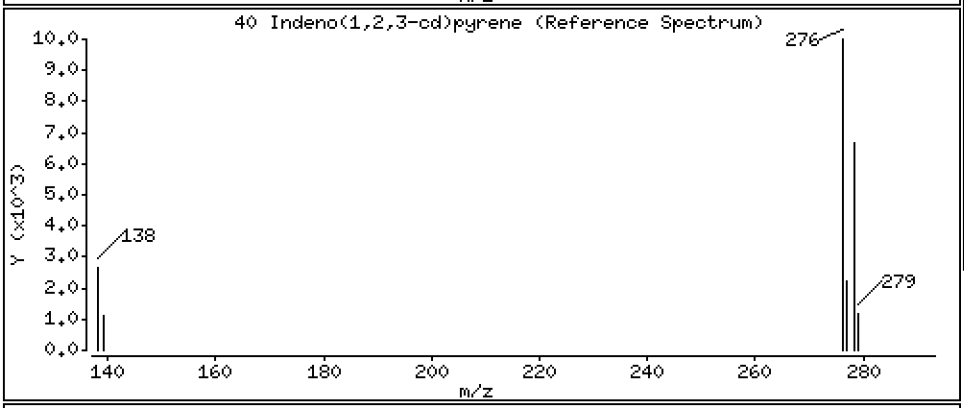
Concentration: 227 ng/mL

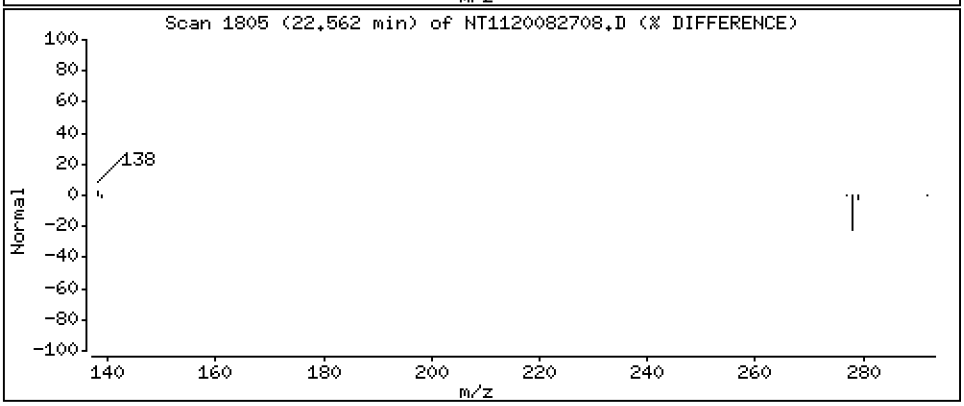


Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

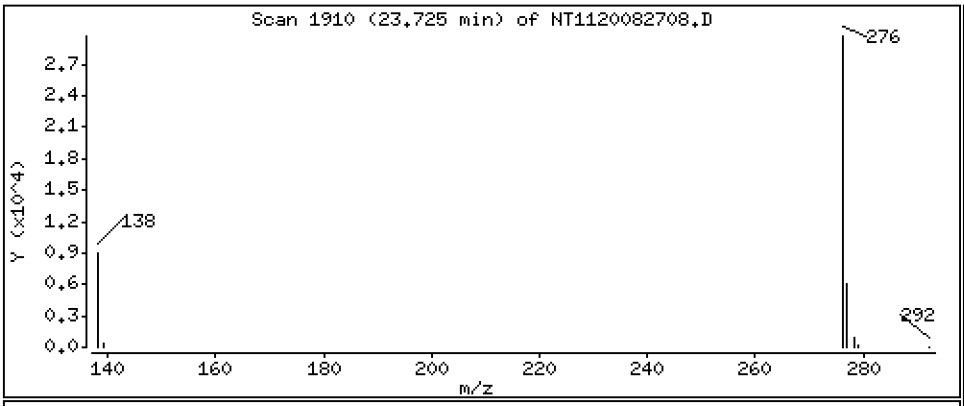
Operator: VTS

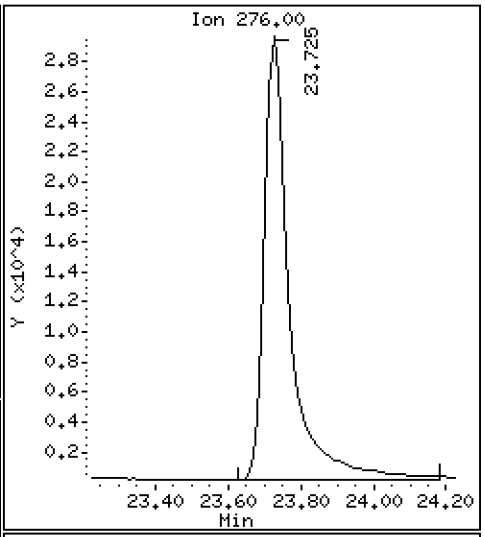
Column phase: Rxi-17Sil MS

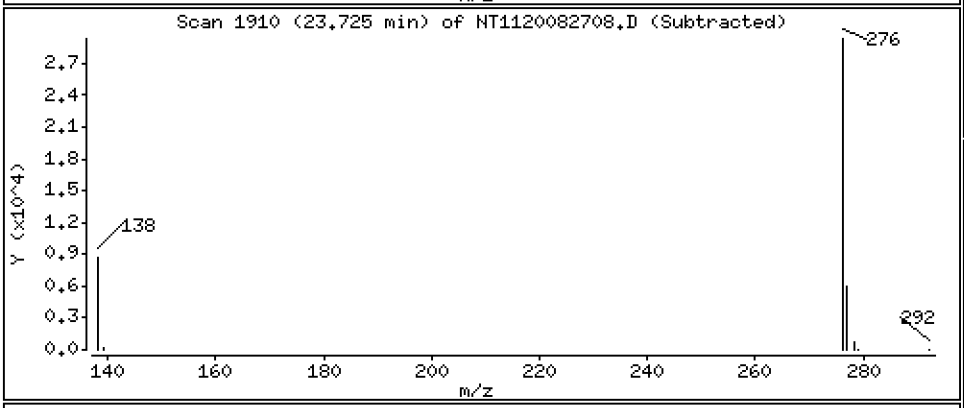
Column diameter: 0.25

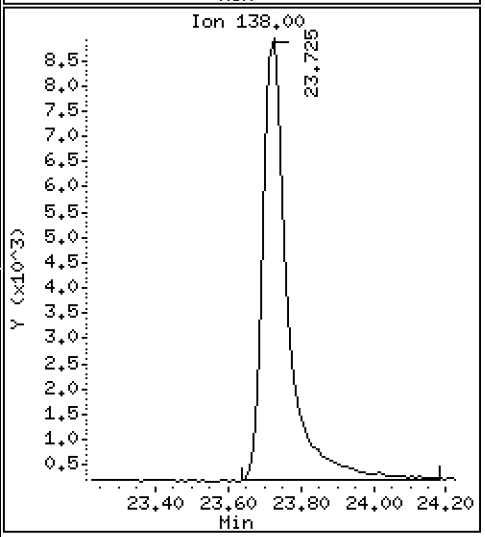
41 Benzo(g,h,i)perylene

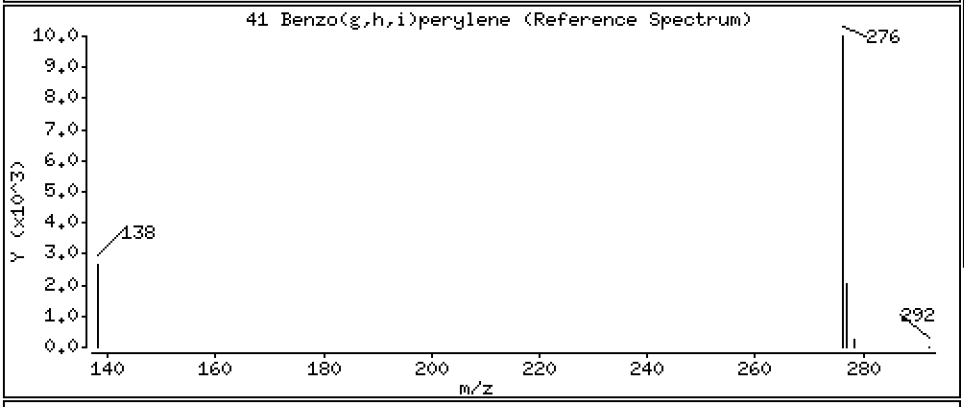
Concentration: 214 ng/mL

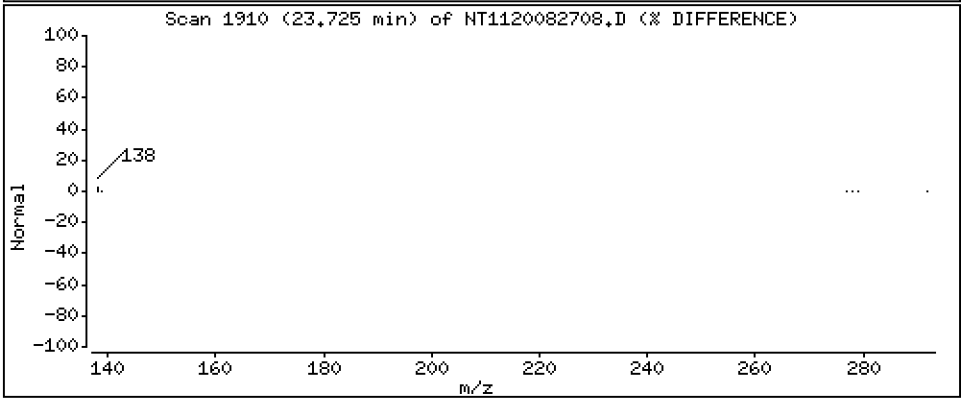


ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

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

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

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1120082708.D
Lab Smp Id: SIH0304-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Misc Info:

Calibration Date: 27-AUG-2020
Calibration Time: 12:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1120082708.D

Lab ID: SIH0304-SCV1
nt11.i,  20200827.b\lowsim.m,    27-AUG-2020 15:38

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

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

RRT CHECK

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

NONE

RRT check based on Ccal File: NT1120082704.D

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

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

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

# SECOND-SOURCE CALIBRATION VERIFICATION

## EPA 8270E-SIM

**Laboratory:** Analytical Resources, Inc.
**SDG:** 21D0180
**Client:** Anchor QEA, LLC
**Project:** Gasco Siltronic - US Moorings
**Calibration:** EE00001
**Laboratory ID:** SJD0305-SCV1
**Sequence:** SJD0305
**Sequence Name:** Secondary Cal Check
**Standard ID:** J004707

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

# SECOND-SOURCE CALIBRATION VERIFICATION

## EPA 8270E-SIM

**Laboratory:** Analytical Resources, Inc.
**SDG:** 21D0180
**Client:** Anchor QEA, LLC
**Project:** Gasco Siltronic - US Moorings
**Calibration:** EE00001
**Laboratory ID:** SJD0305-SCV1
**Sequence:** SJD0305
**Sequence Name:** Secondary Cal Check
**Standard ID:** J004707

| | | | | |
|---|---|---|---|---|
| Perylene-d12 | 2.5000 | 2.51 | 0.2 | 20.00 |

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D



Date : 30-APR-2021 14:41

Client ID:

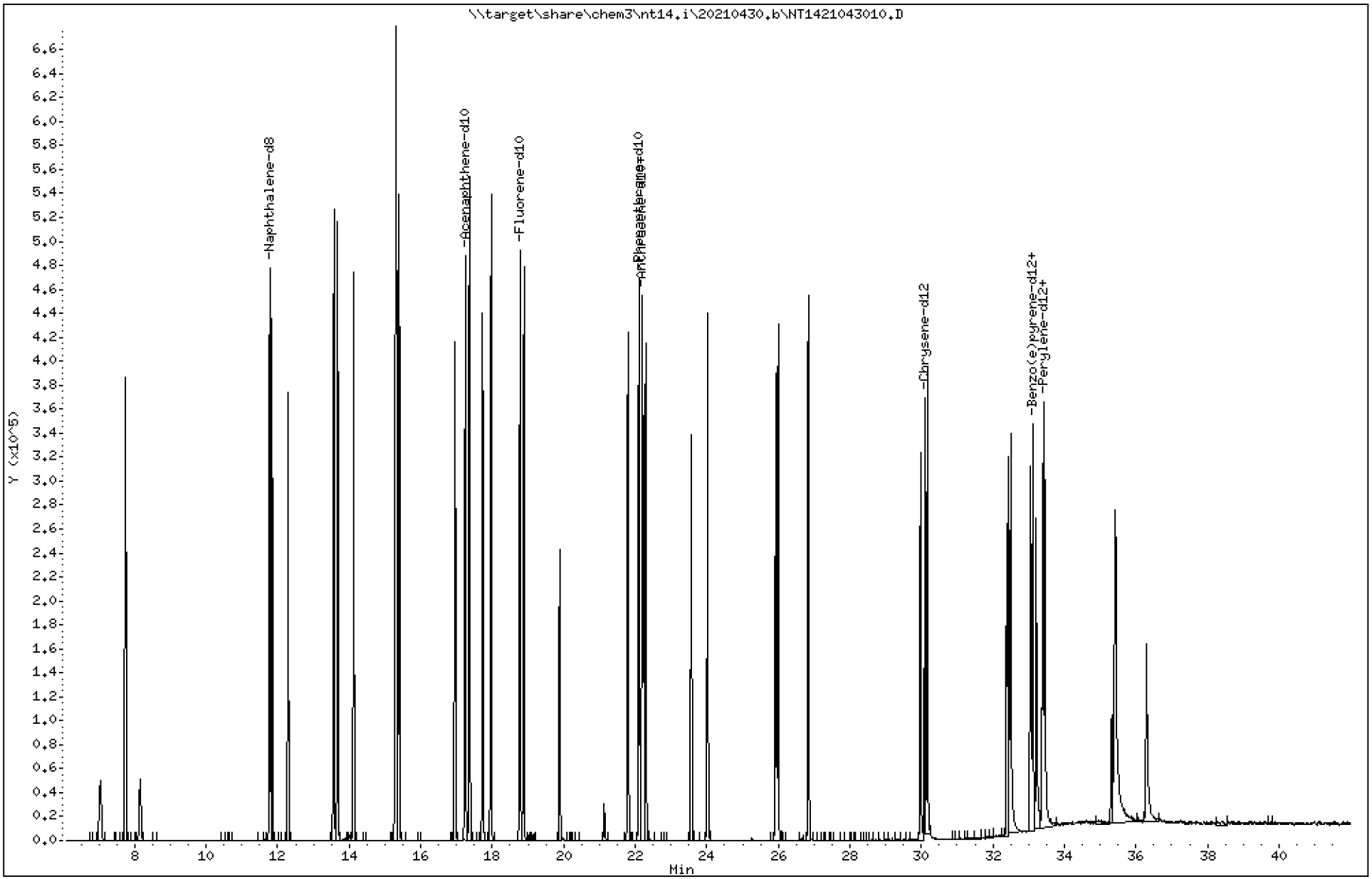
Instrument: nt14.i

Sample Info: SJD0305-SCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25




Revised Report 21D0180 07/07/2021 Page 948 of 1709

Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

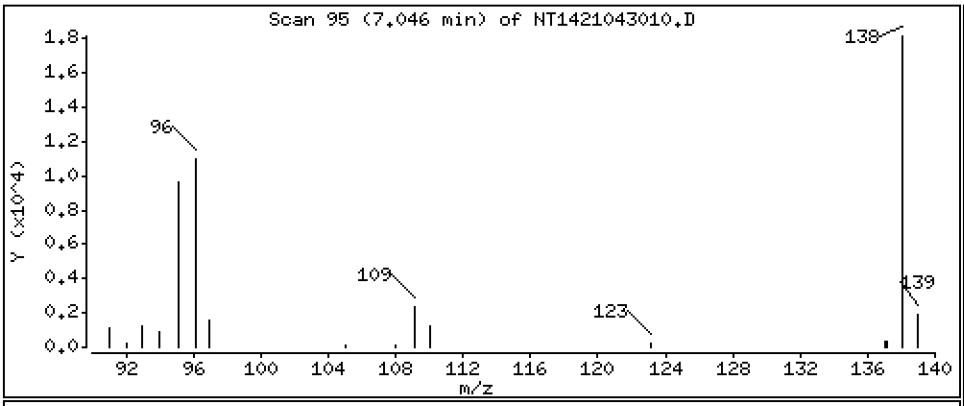
Operator: VTS

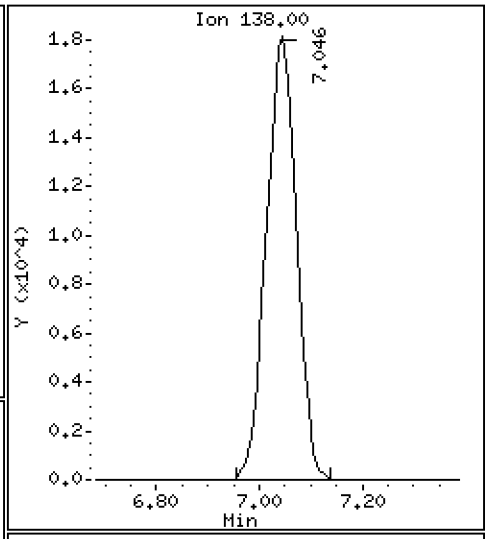
Column phase: Rxi-17Sil MS

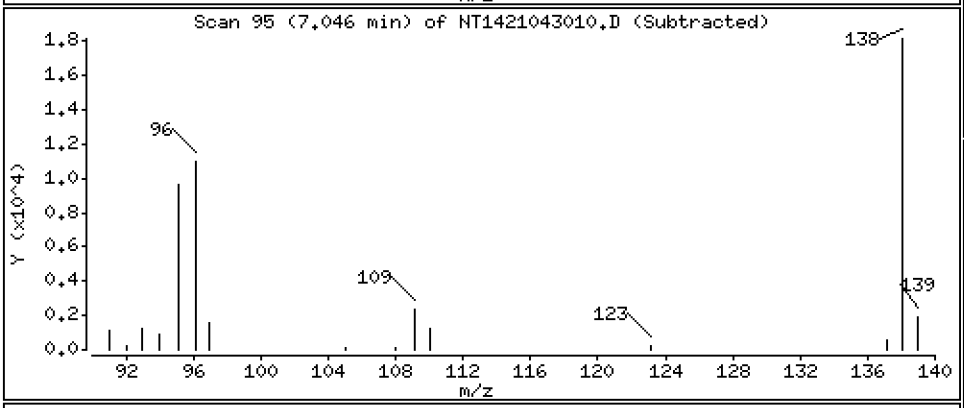
Column diameter: 0.25

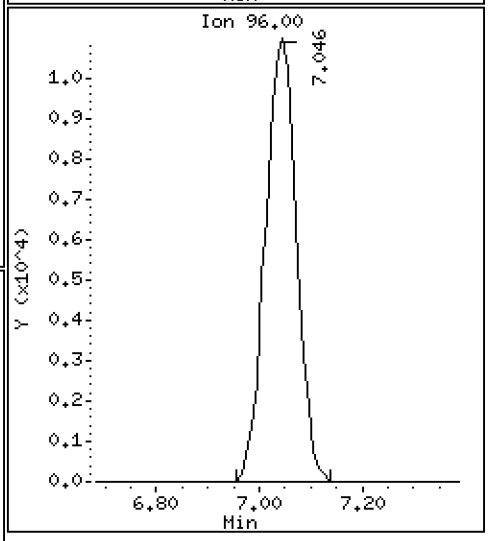
1 trans-Decalin

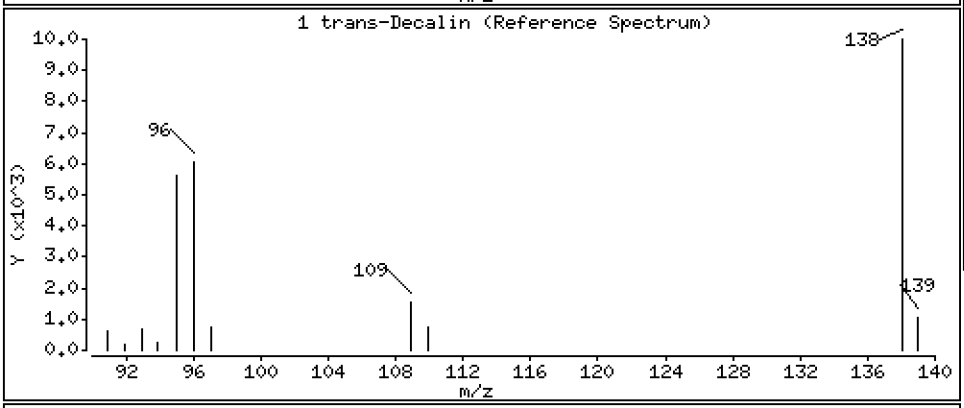
Concentration: 2.843 ug/mL

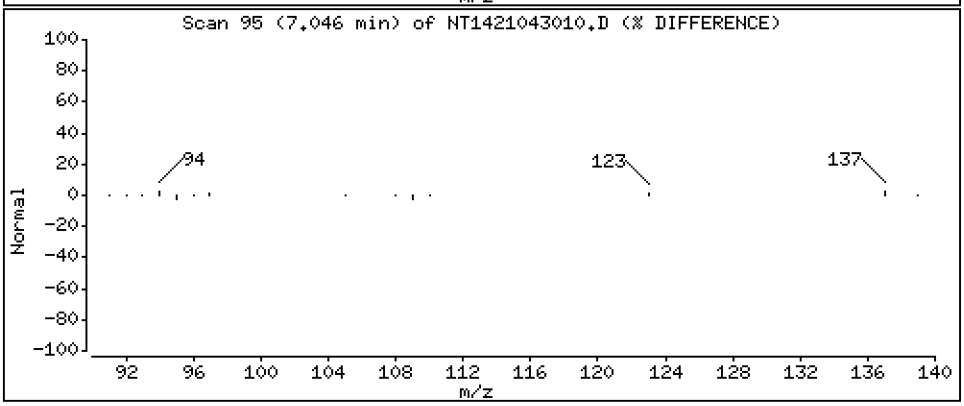


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

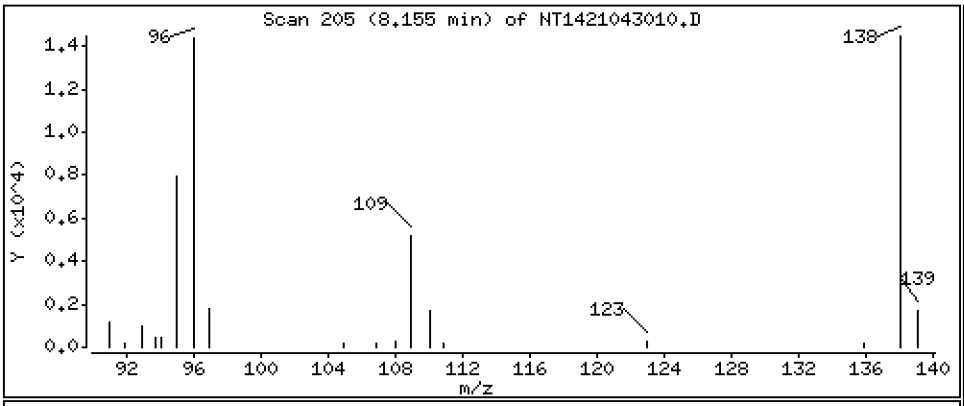
Operator: VTS

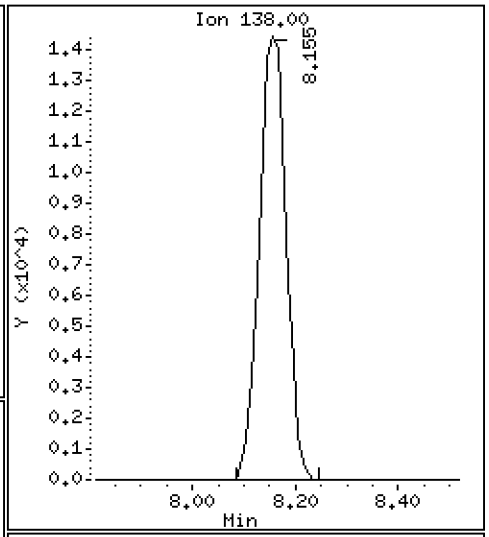
Column phase: Rxi-17Sil MS

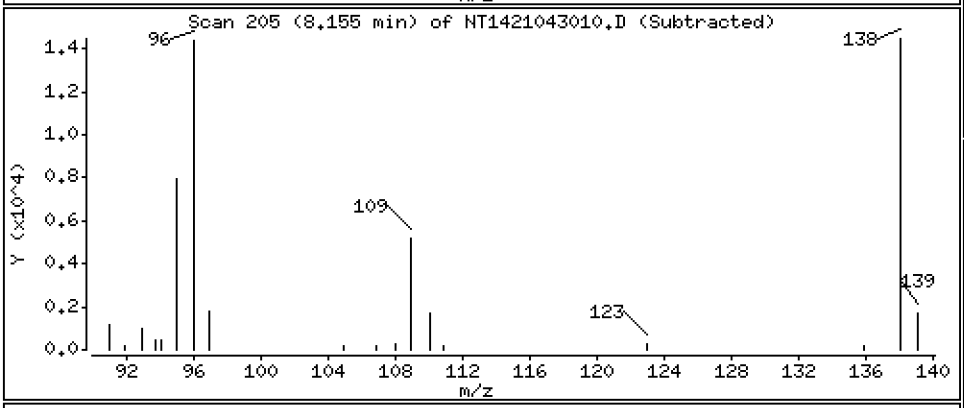
Column diameter: 0.25

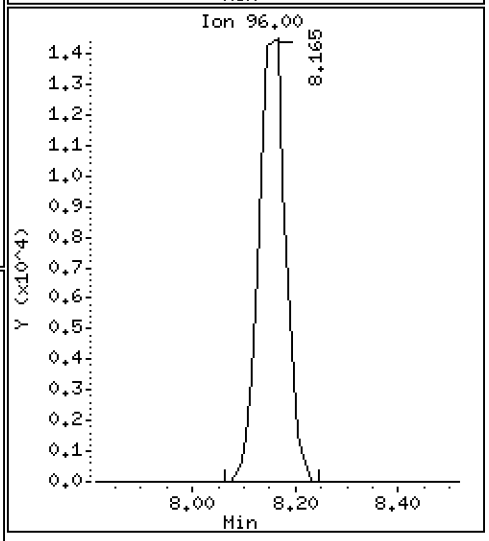
2 cis-Decalin

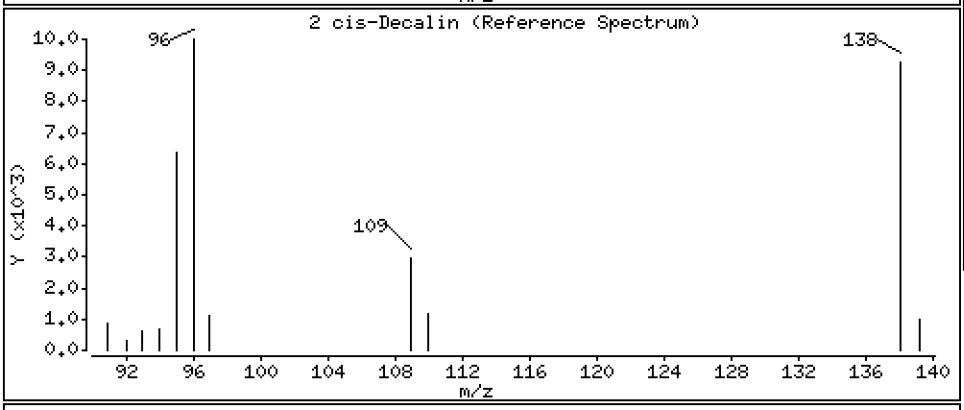
Concentration: 2.910 ug/mL

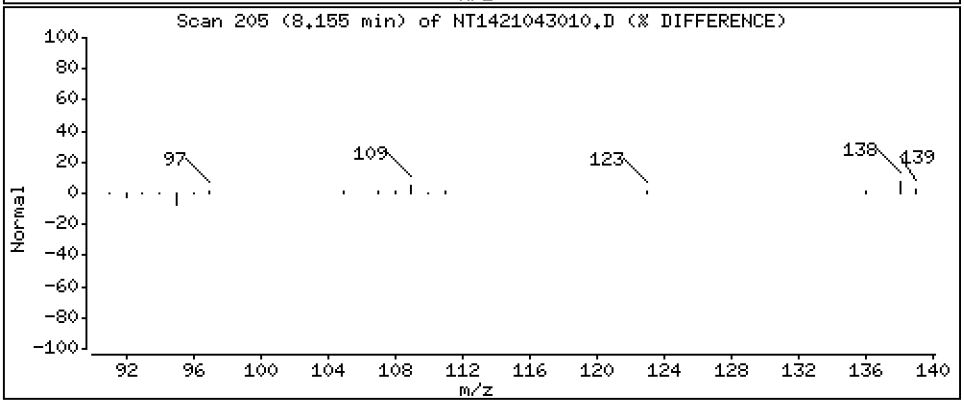


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

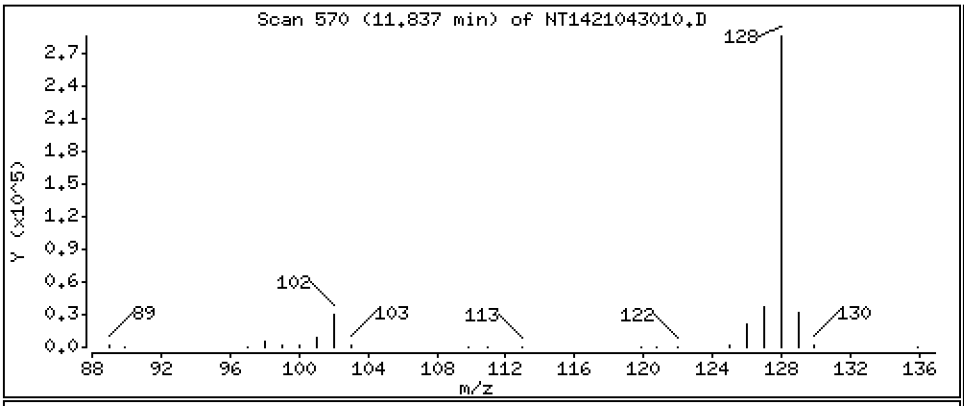
Operator: VTS

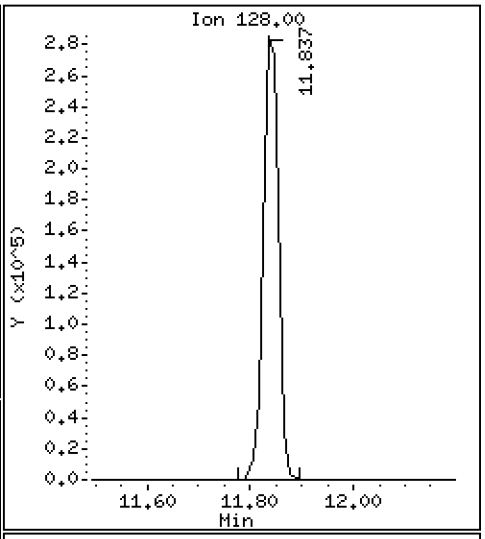
Column phase: Rxi-17Sil MS

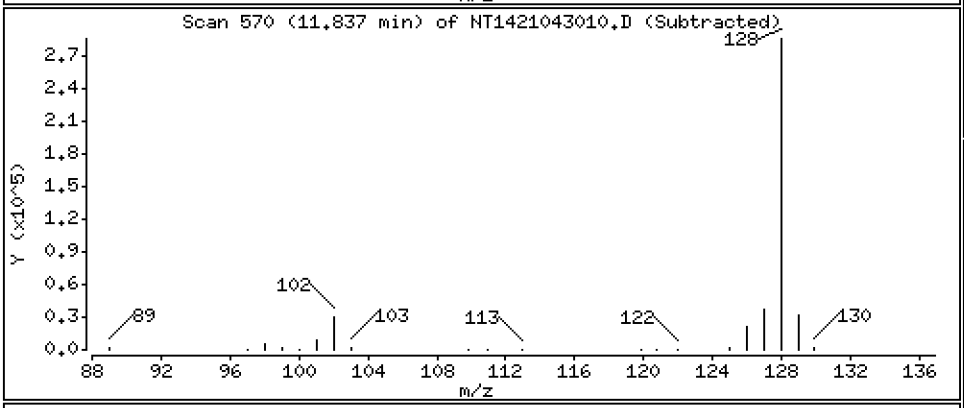
Column diameter: 0.25

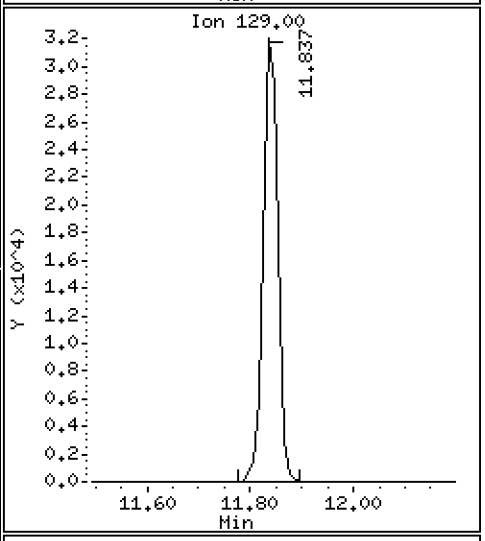
7 Naphthalene

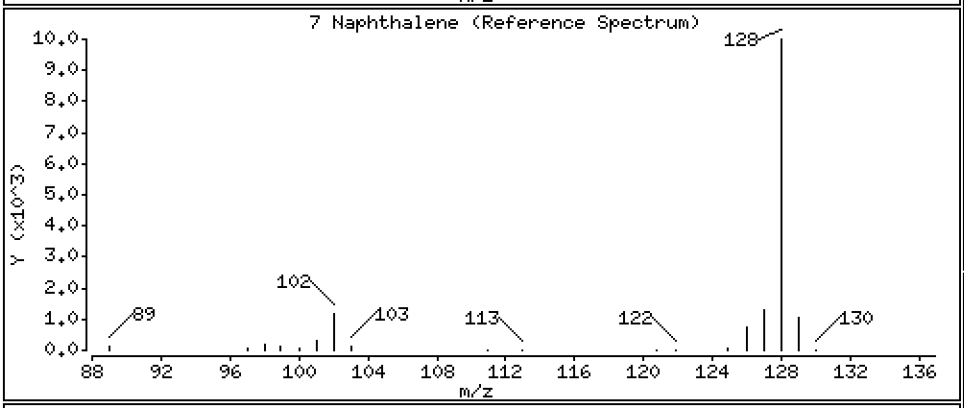
Concentration: 2.783 ug/mL

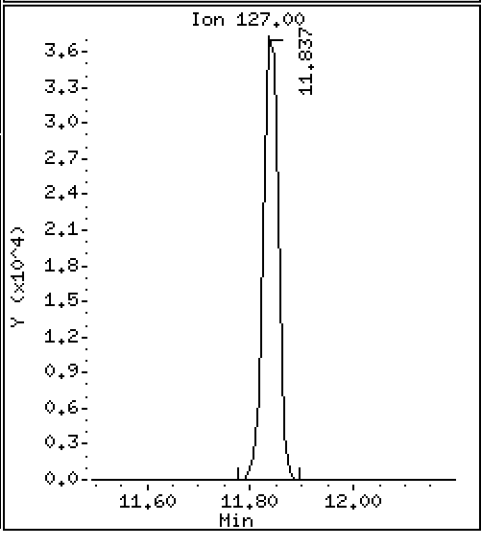


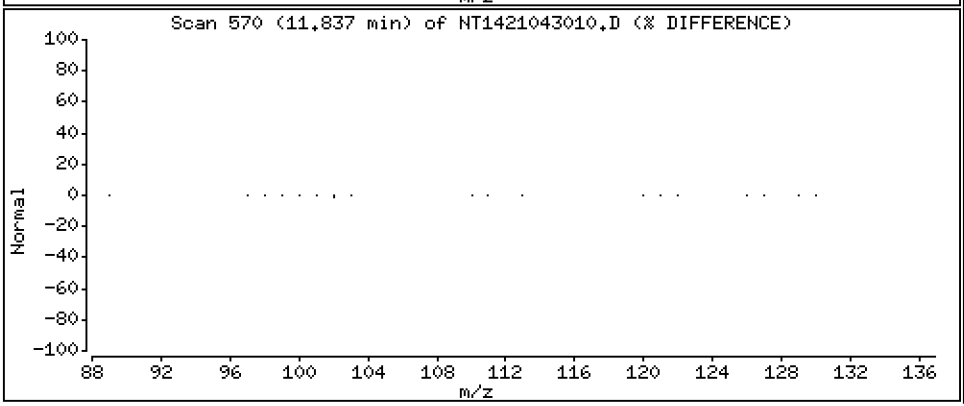



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

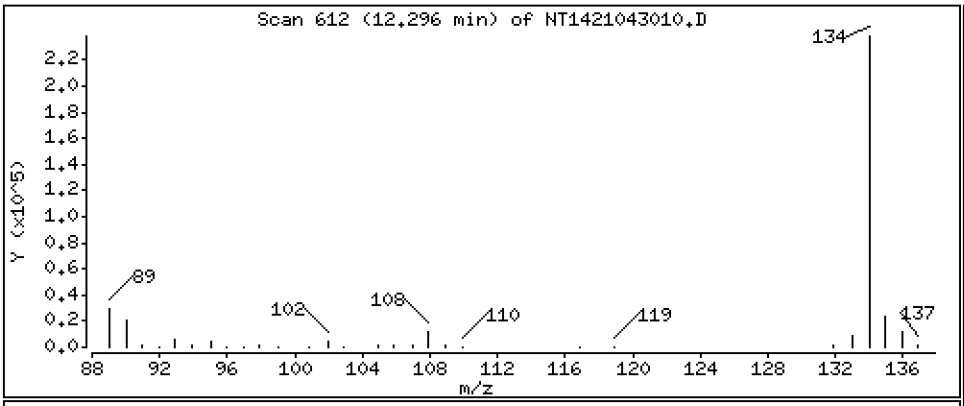
Operator: VTS

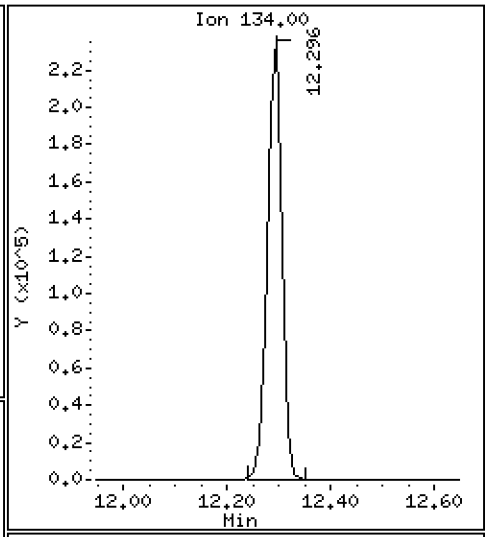
Column phase: Rxi-17Sil MS

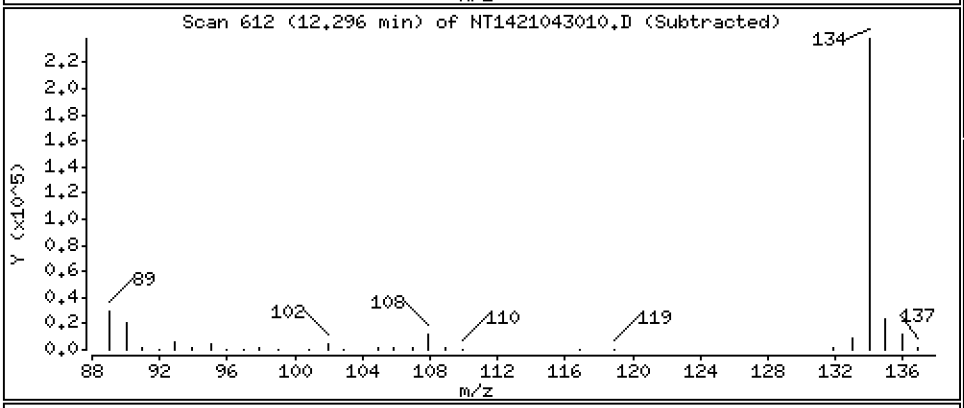
Column diameter: 0.25

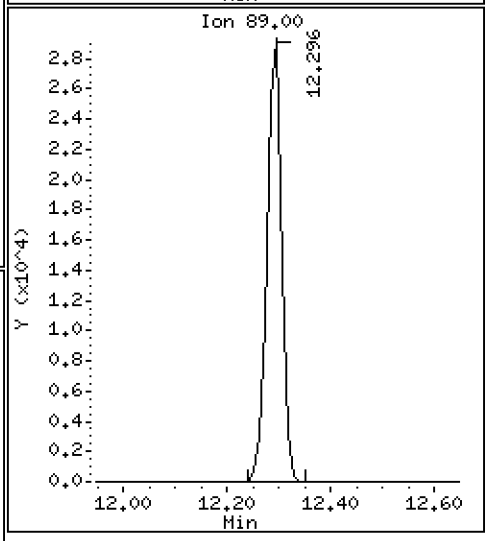
12 Benzo(b)thiophene

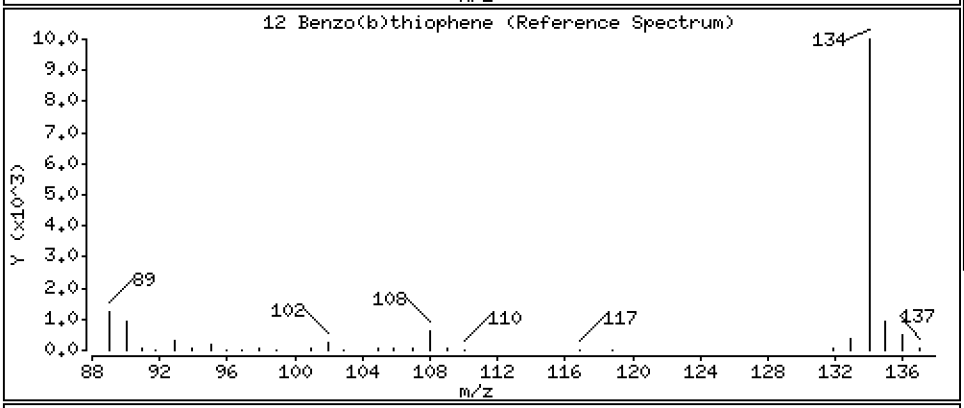
Concentration: 2.787 ug/mL

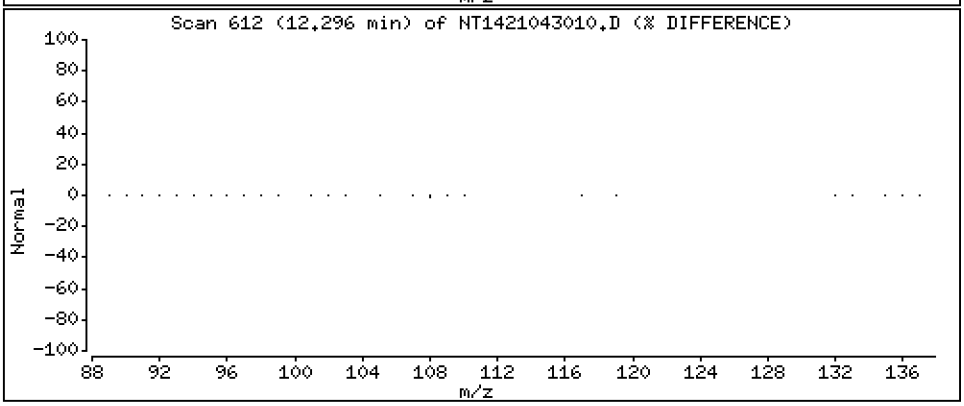


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

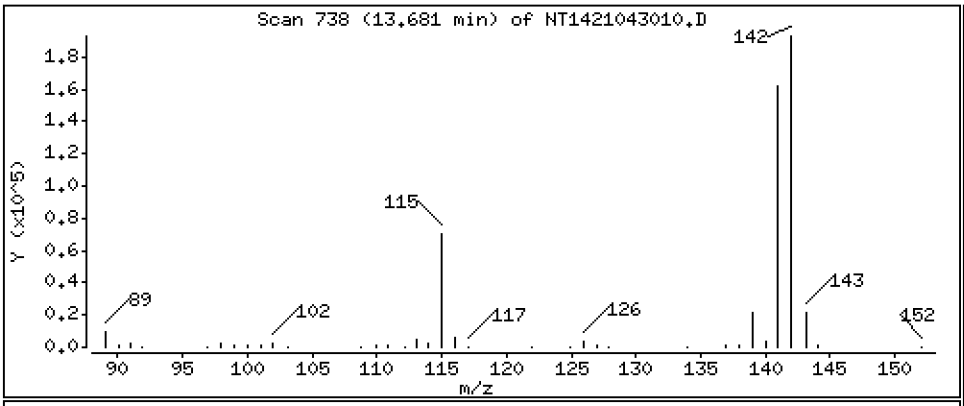
Operator: VTS

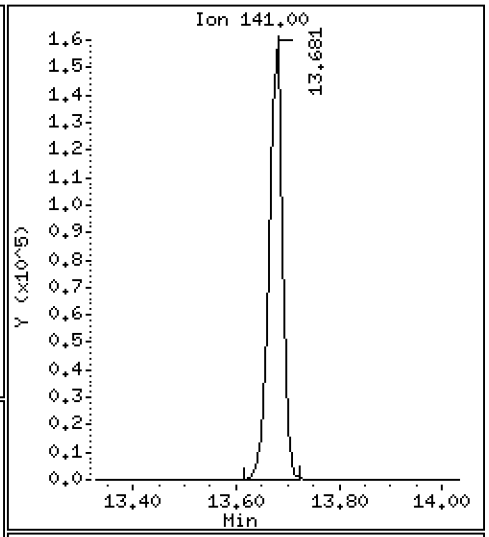
Column phase: Rxi-17Sil MS

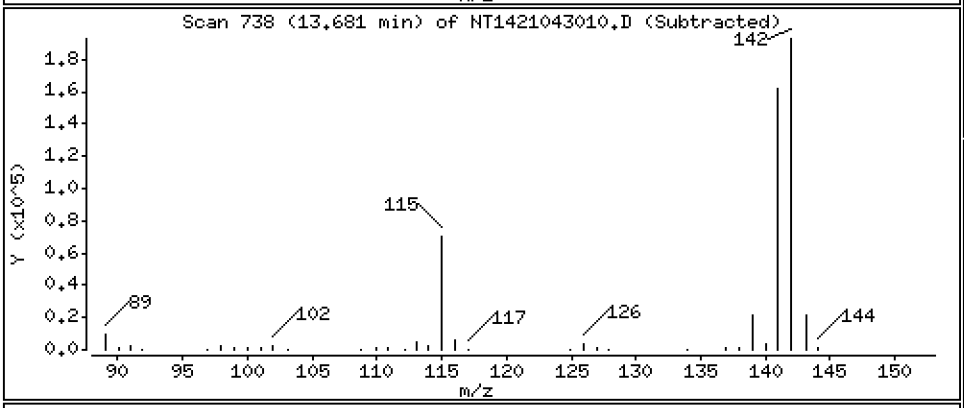
Column diameter: 0.25

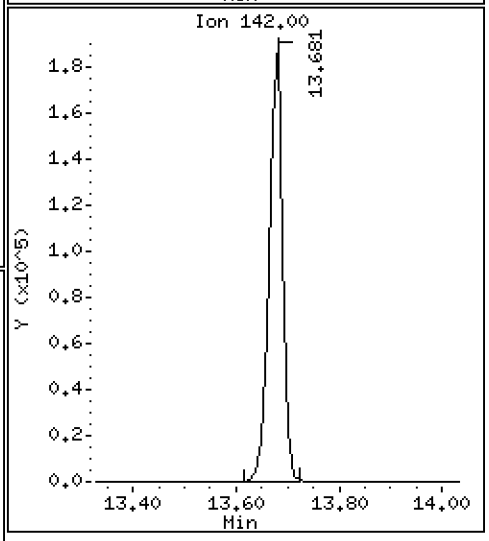
16 2-Methylnaphthalene

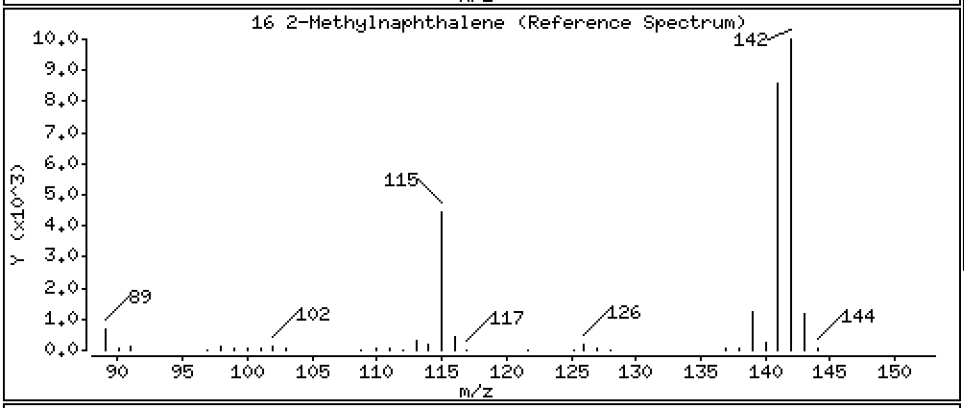
Concentration: 2.845 ug/mL

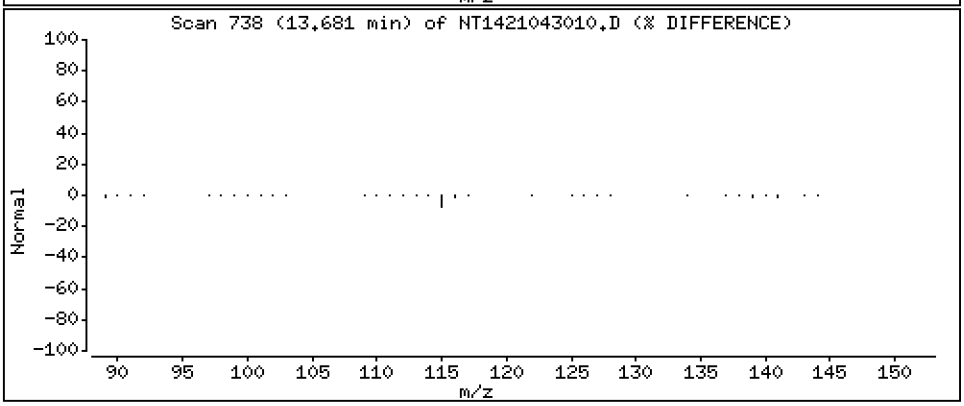


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

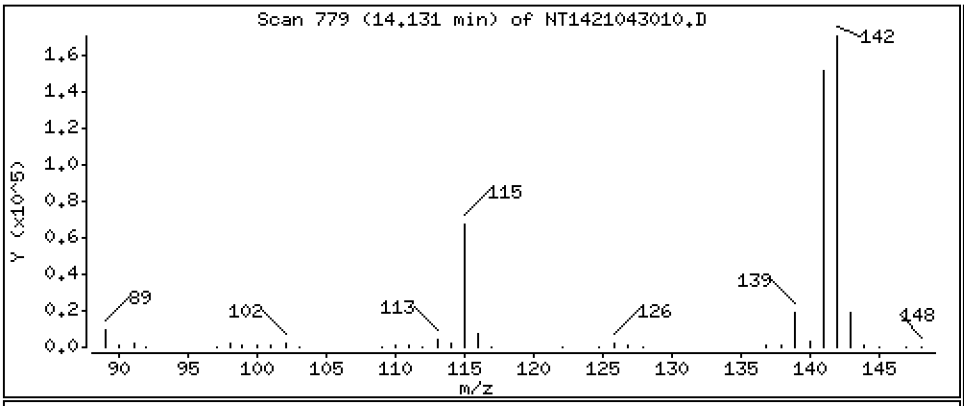
Operator: VTS

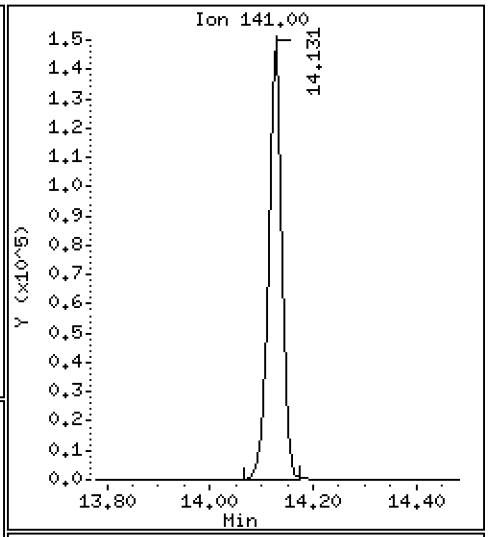
Column phase: Rxi-17Sil MS

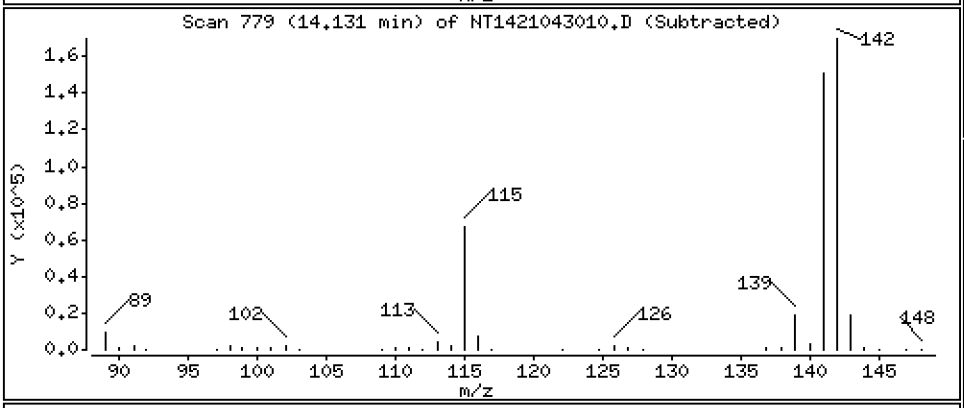
Column diameter: 0.25

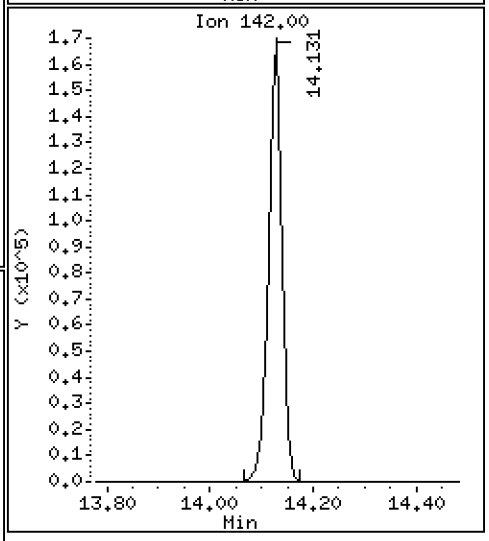
17 1-methylnaphthalene

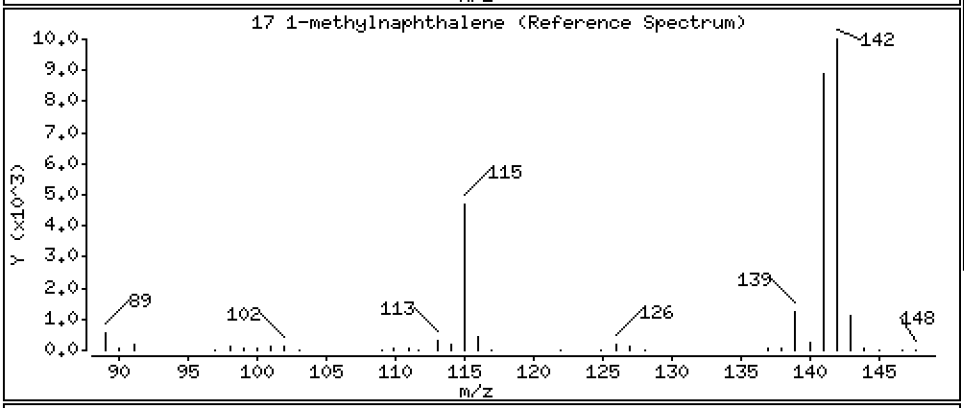
Concentration: 2.821 ug/mL

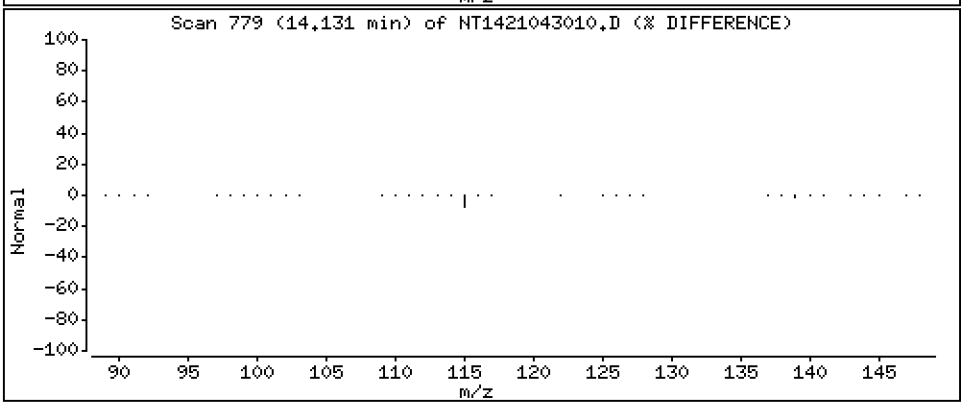


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

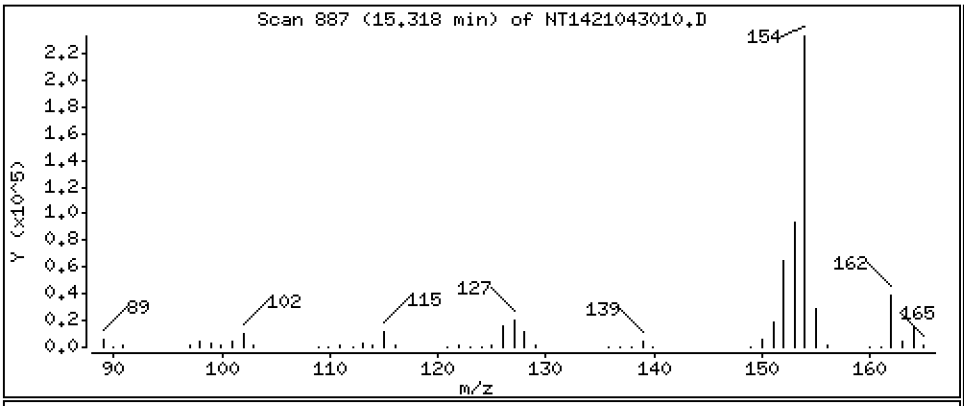
Operator: VTS

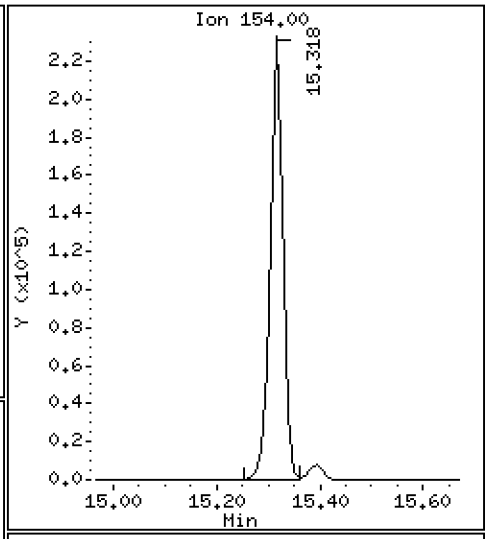
Column phase: Rxi-17Sil MS

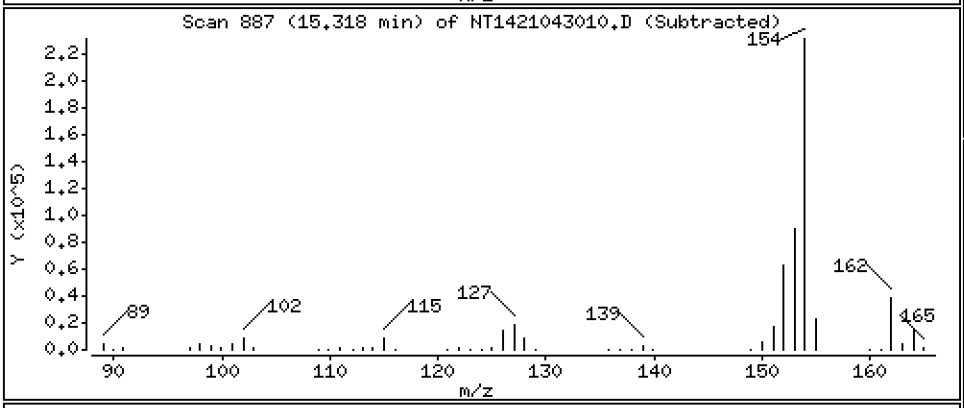
Column diameter: 0.25

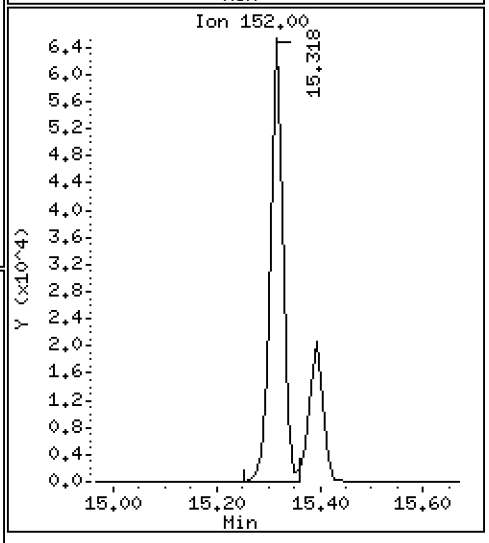
18 Biphenyl

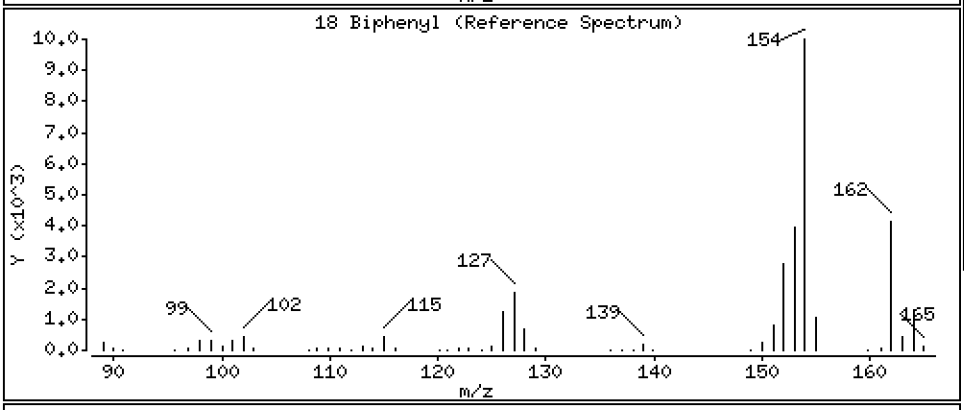
Concentration: 2.765 ug/mL

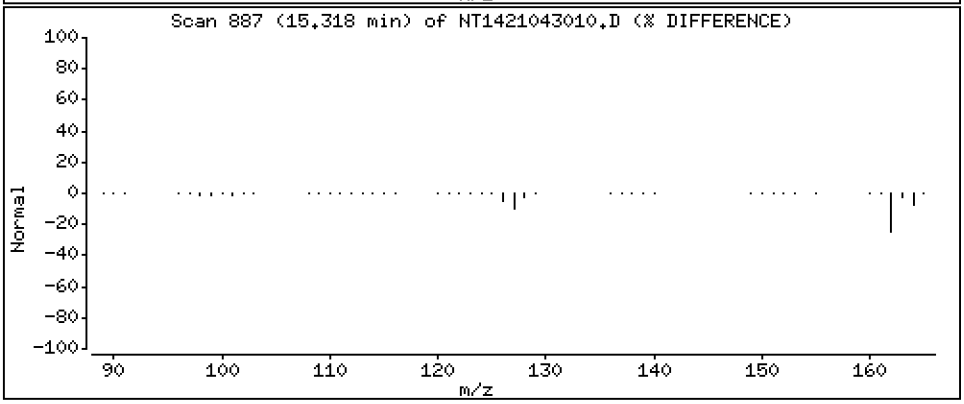


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

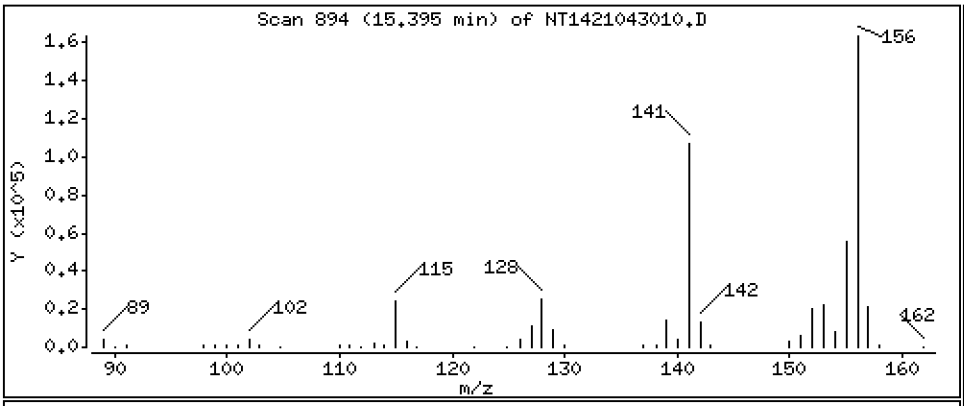
Operator: VTS

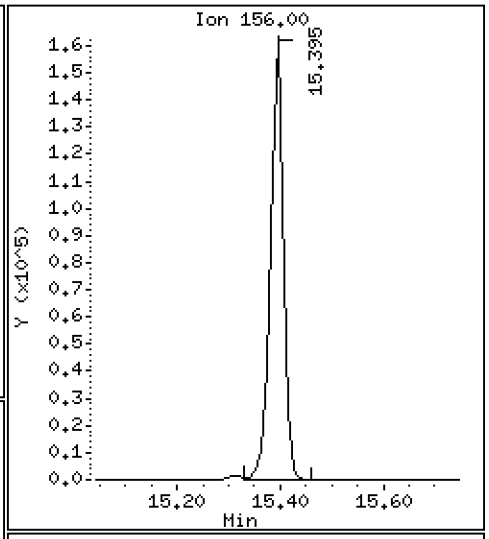
Column phase: Rxi-17Sil MS

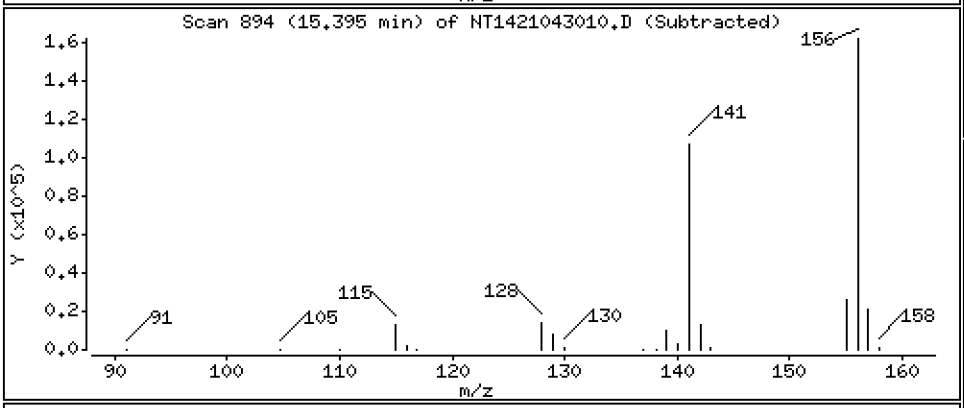
Column diameter: 0.25

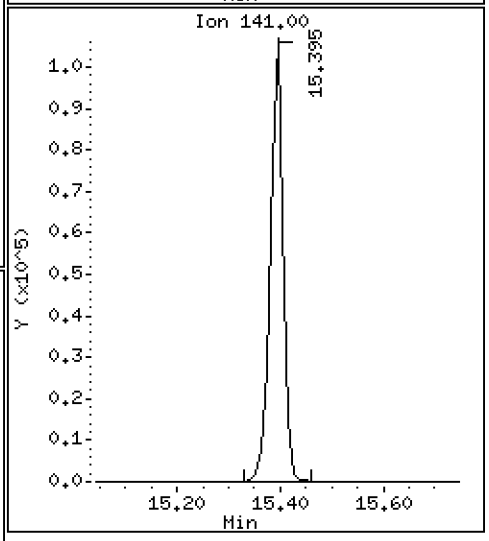
19 2,6-Dimethylnaphthalene

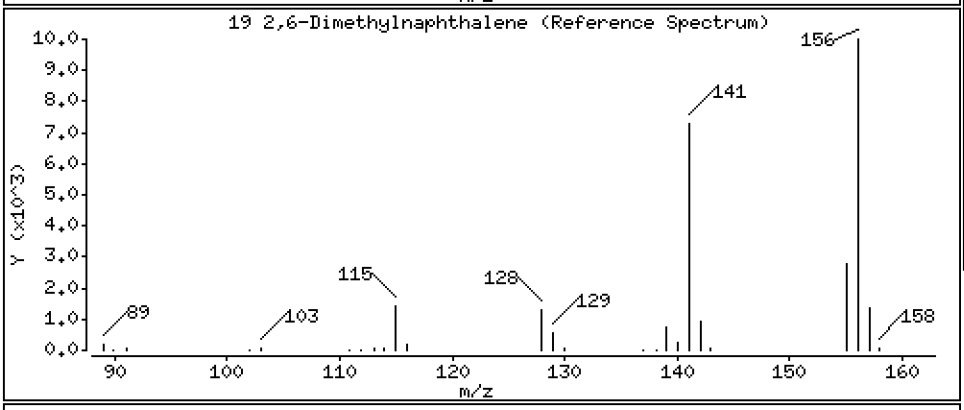
Concentration: 2.822 ug/mL

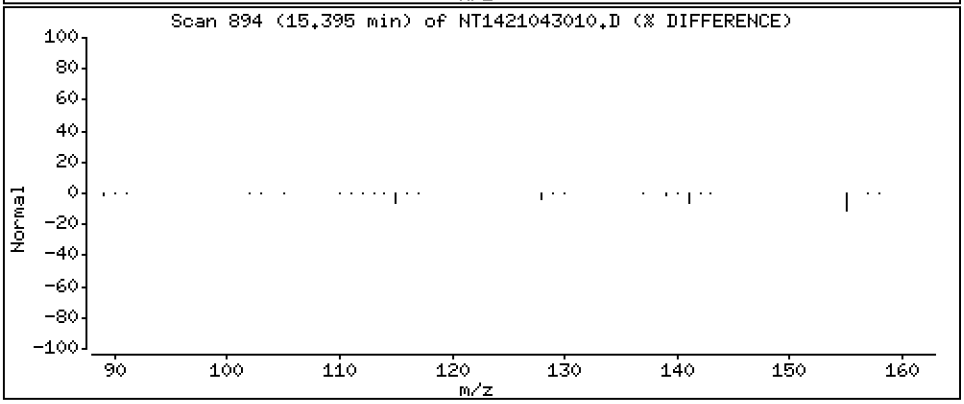


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

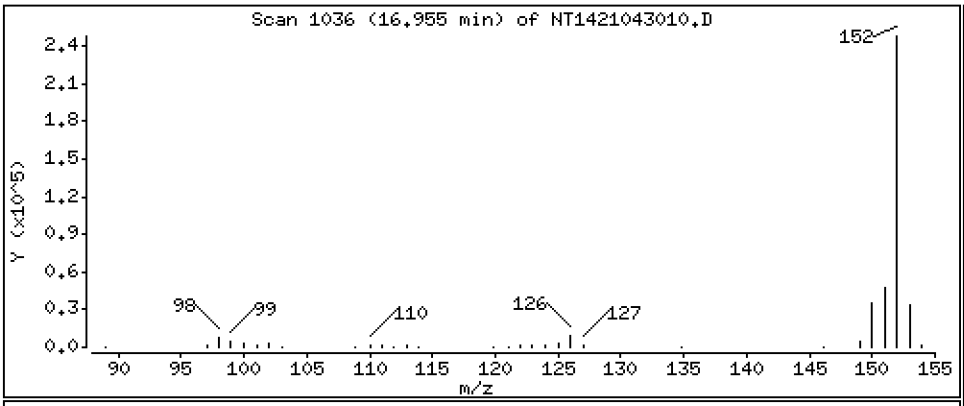
Operator: VTS

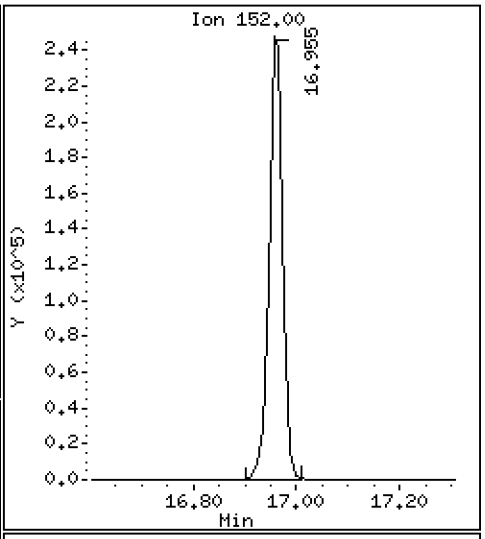
Column phase: Rxi-17Sil MS

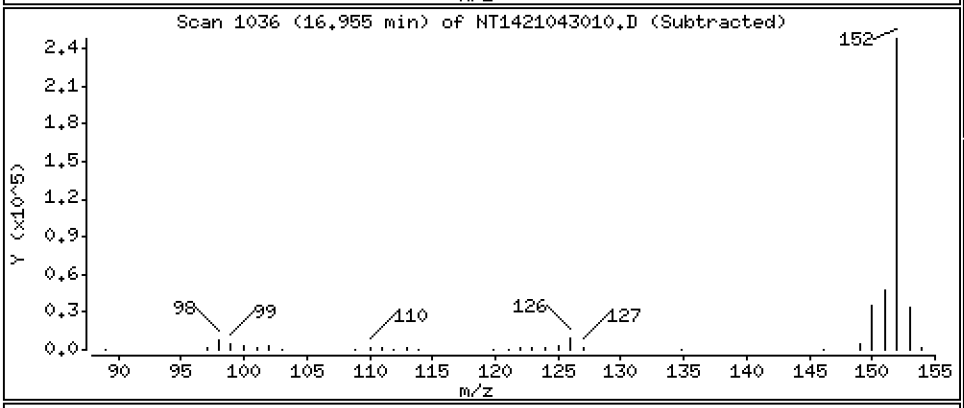
Column diameter: 0.25

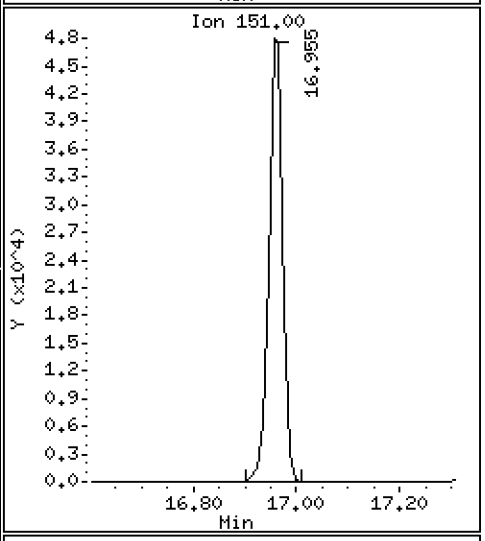
20 Acenaphthylene

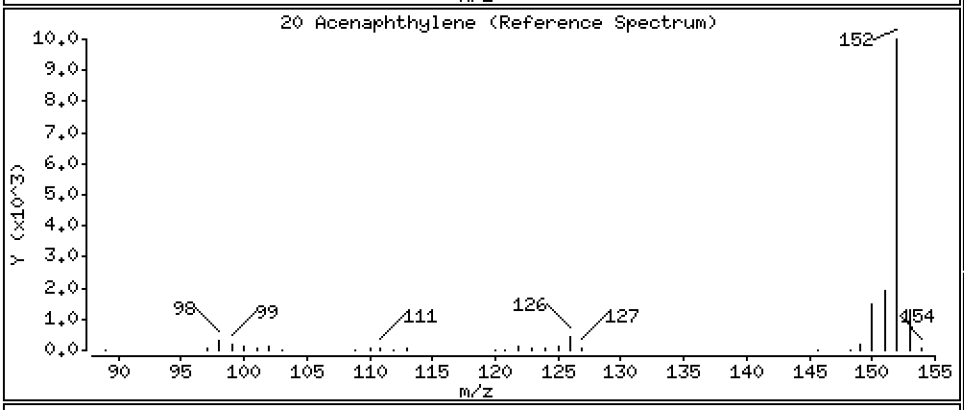
Concentration: 2.889 ug/mL

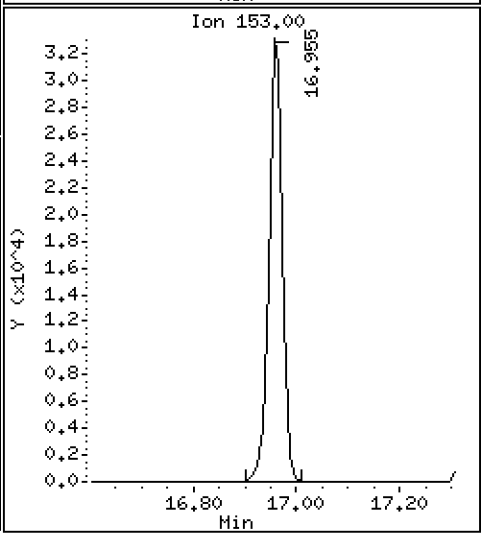


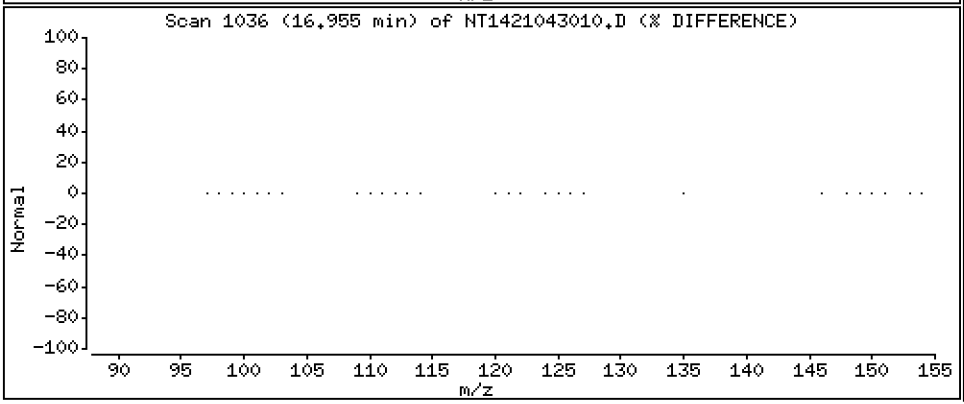



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

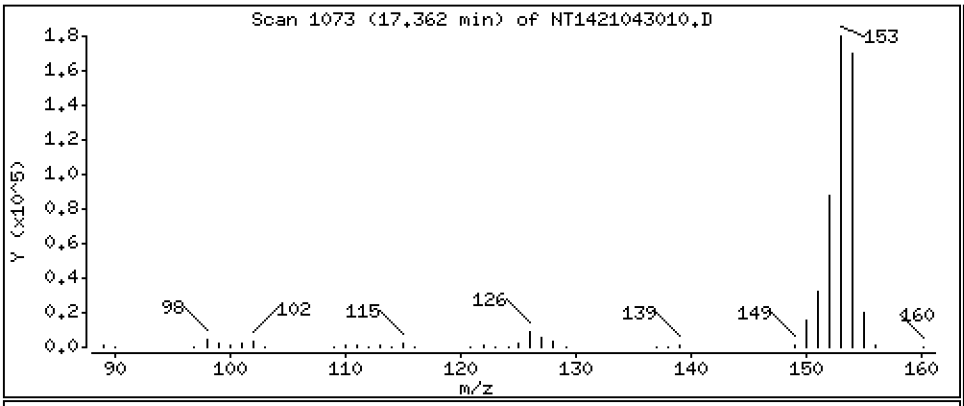
Operator: VTS

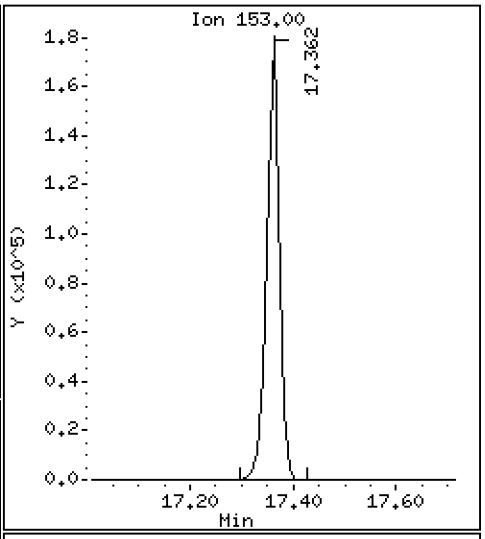
Column phase: Rxi-17Sil MS

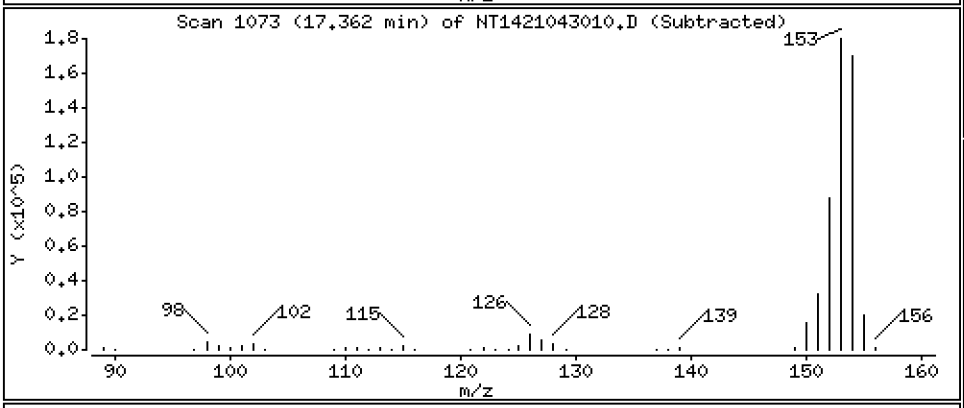
Column diameter: 0.25

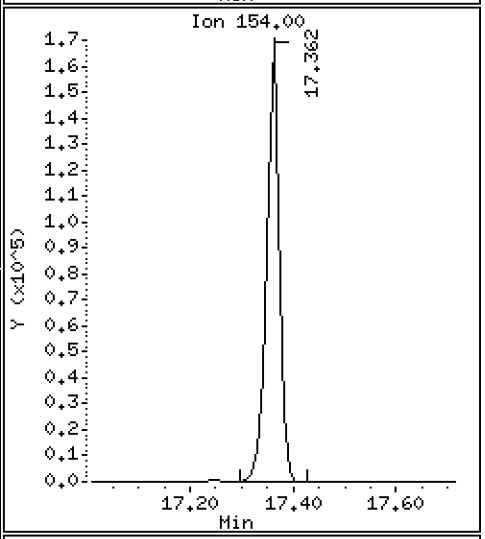
22 Acenaphthene

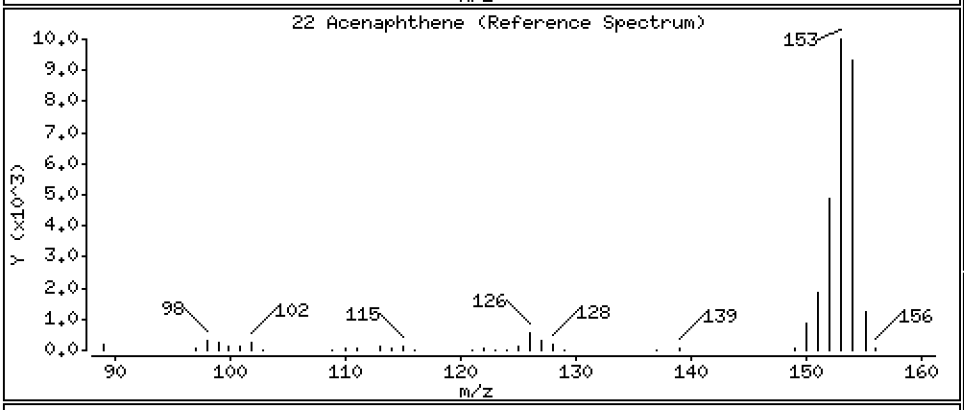
Concentration: 3.010 ug/mL

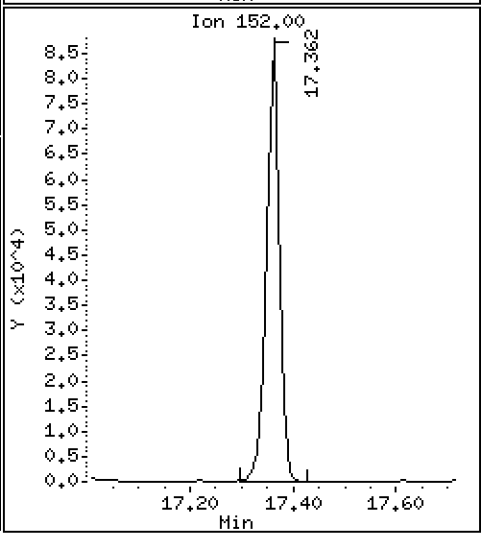


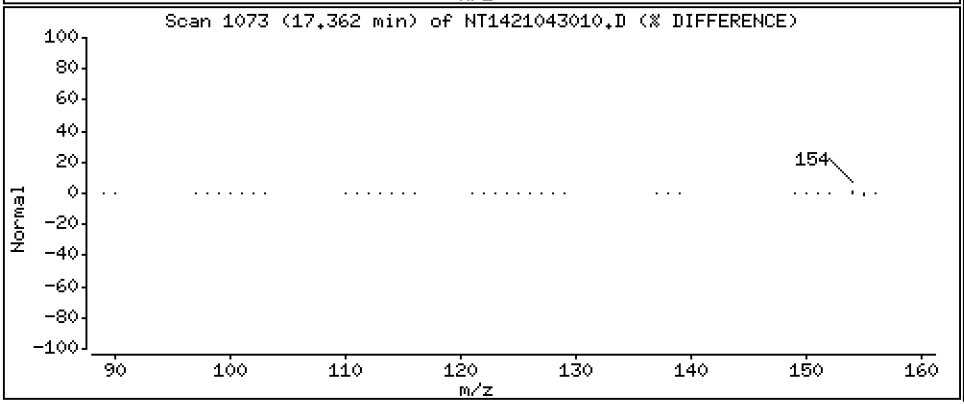



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

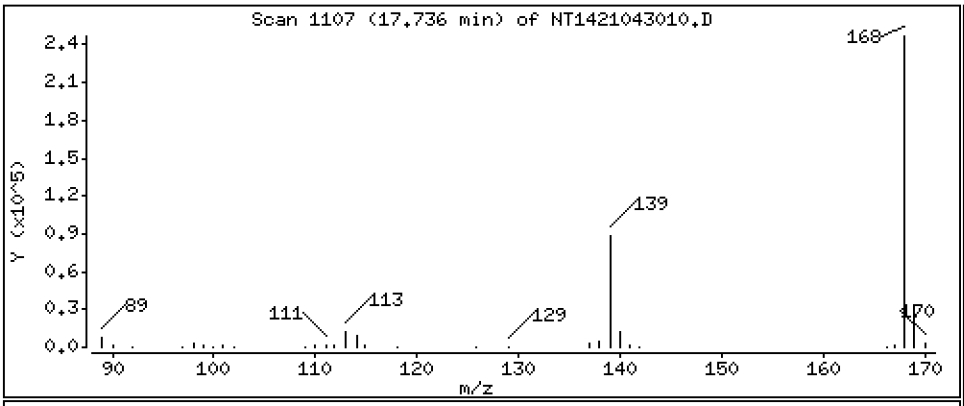
Operator: VTS

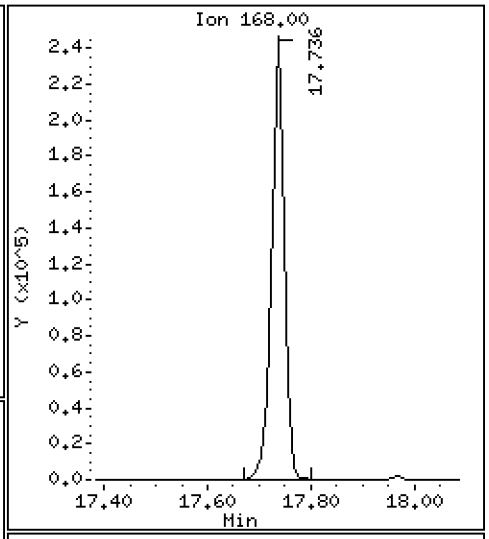
Column phase: Rxi-17Sil MS

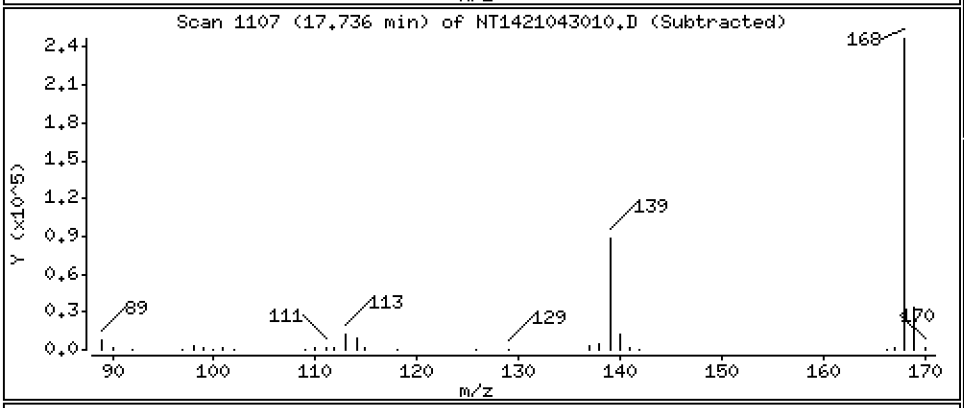
Column diameter: 0.25

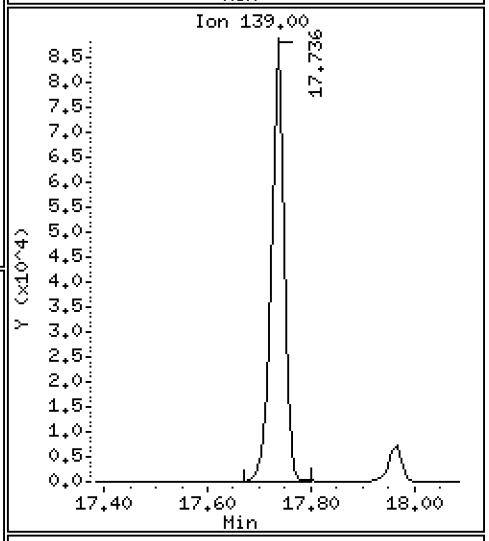
23 Dibenzofuran

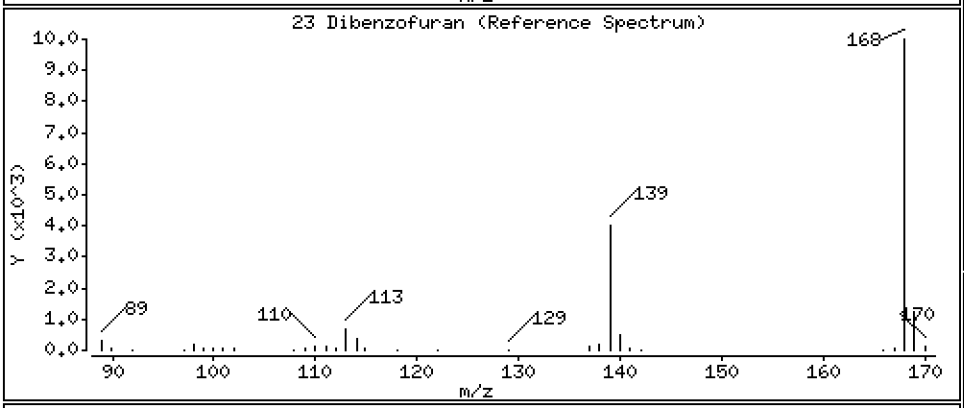
Concentration: 2.768 ug/mL

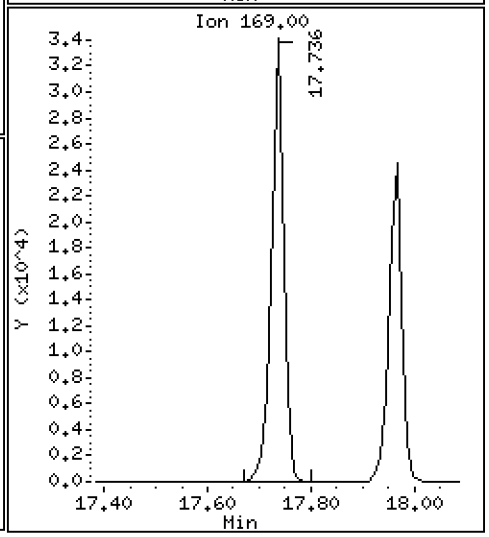


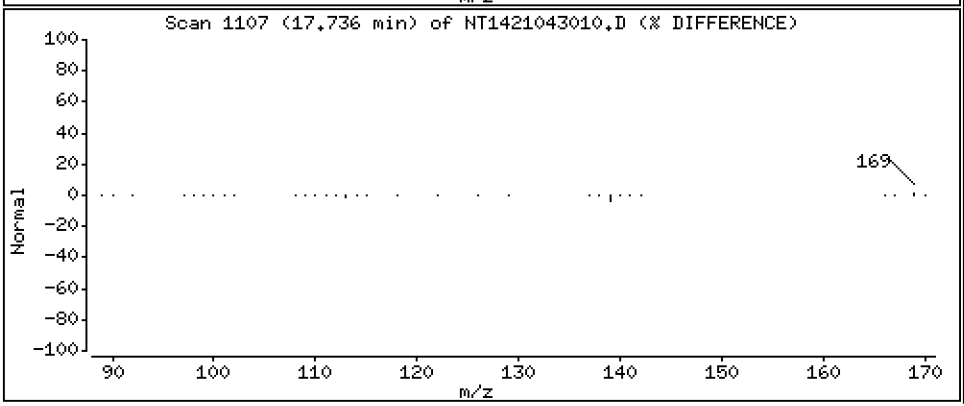



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

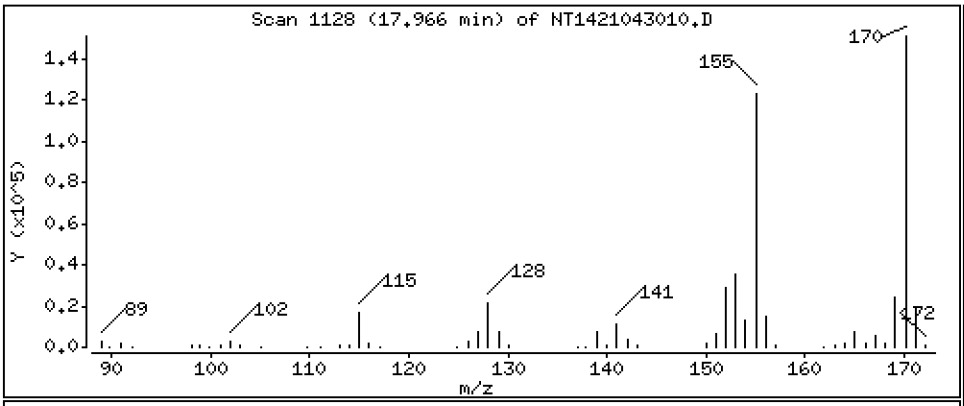
Operator: VTS

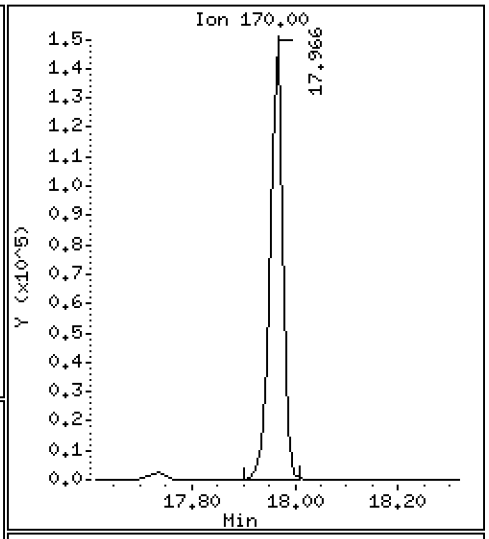
Column phase: Rxi-17Sil MS

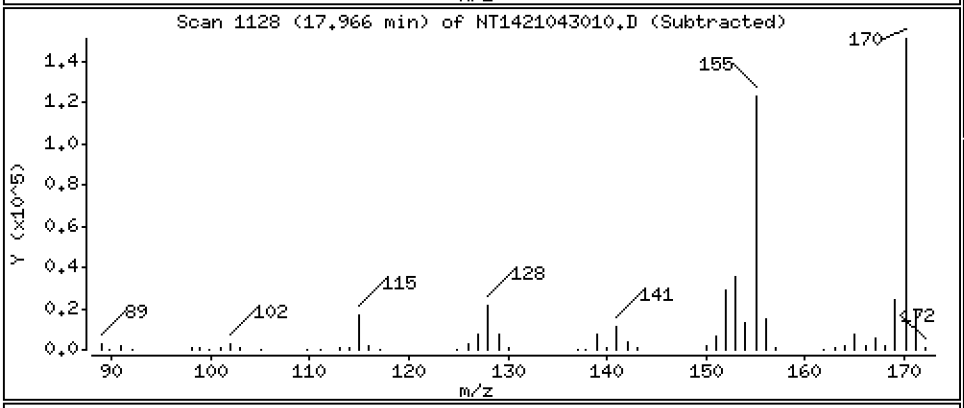
Column diameter: 0.25

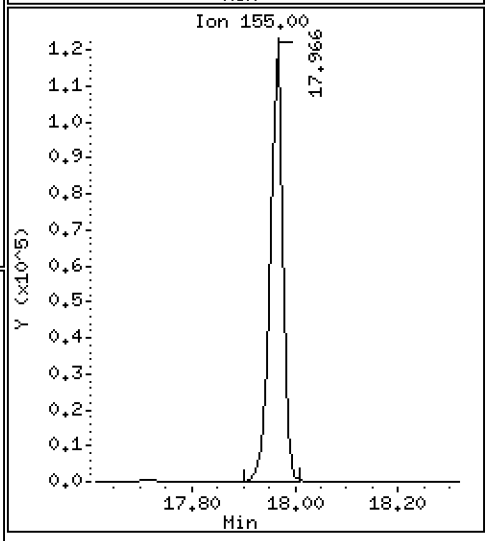
24 1,6,7-Trimethylnaphthalene

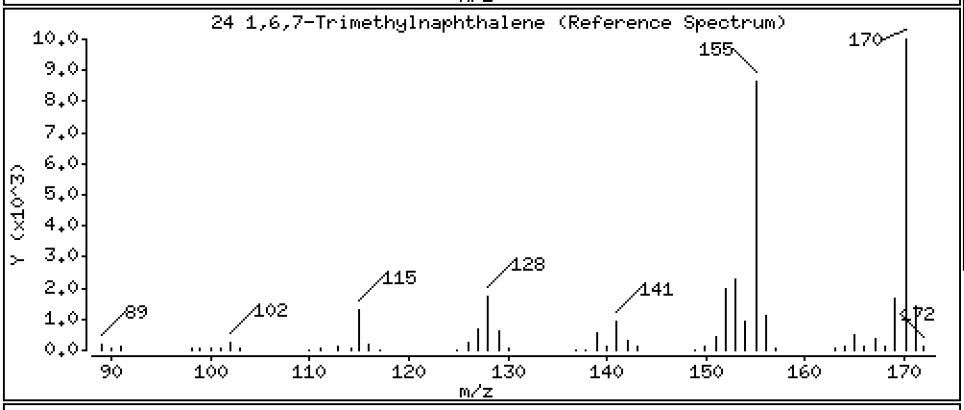
Concentration: 2.923 ug/mL

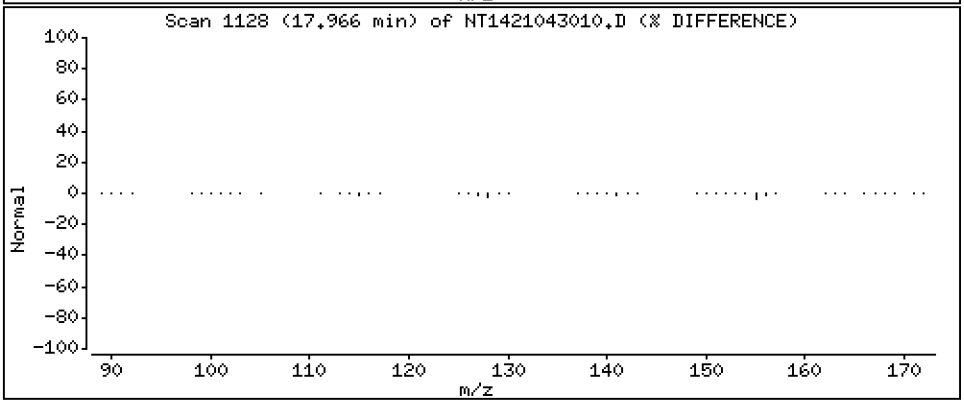


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

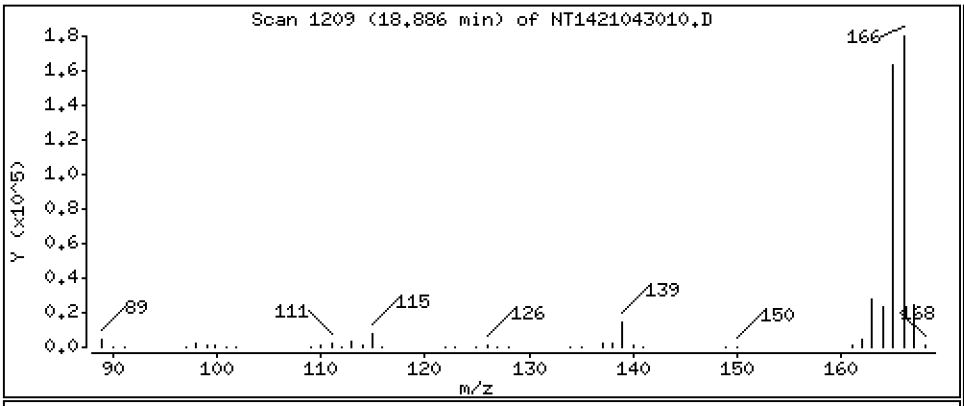
Operator: VTS

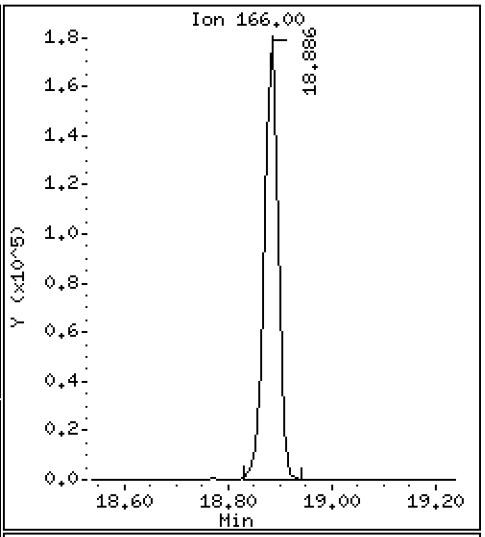
Column phase: Rxi-17Sil MS

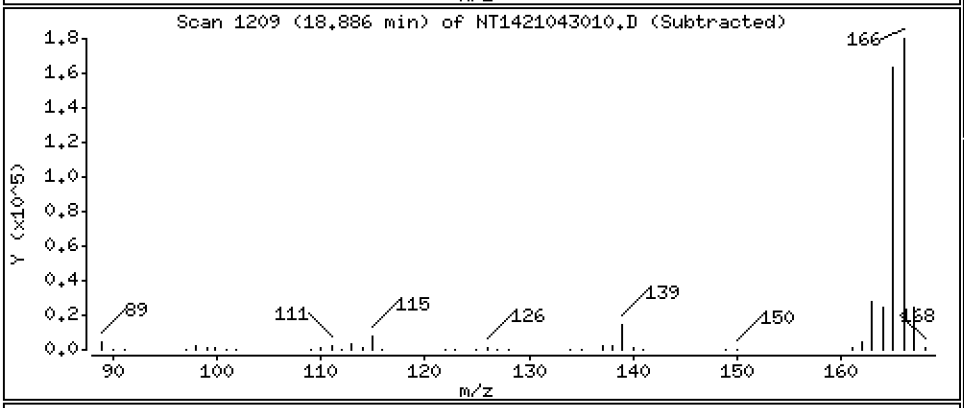
Column diameter: 0.25

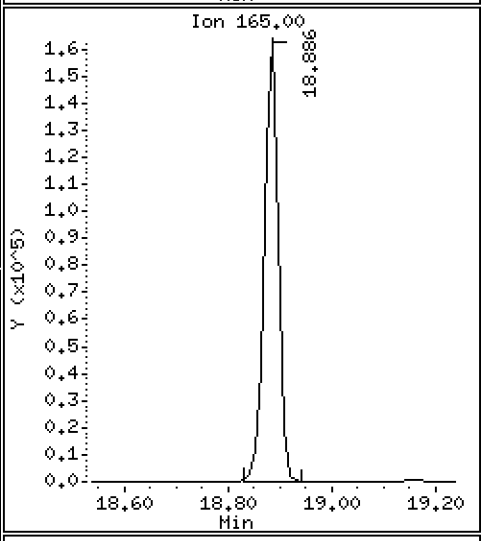
26 Fluorene

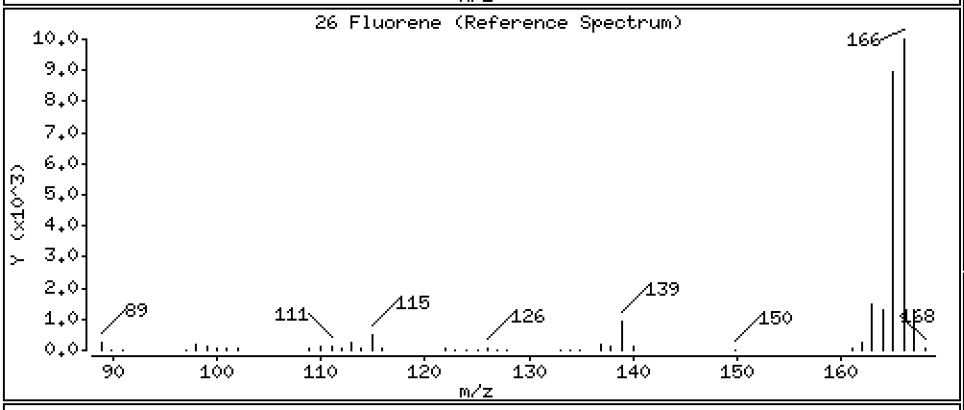
Concentration: 2.844 ug/mL

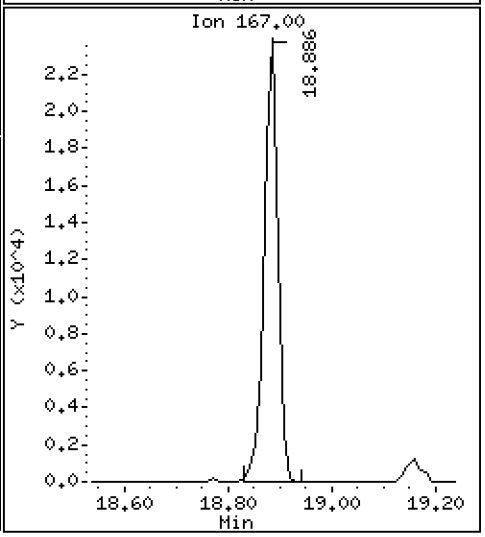


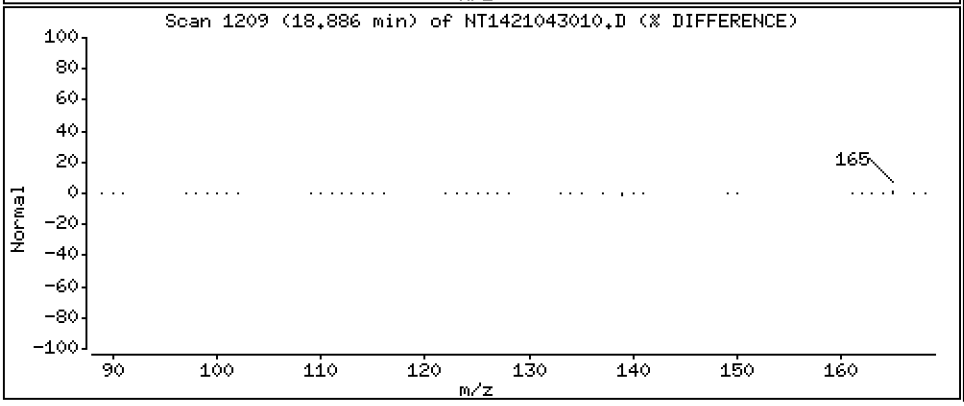



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

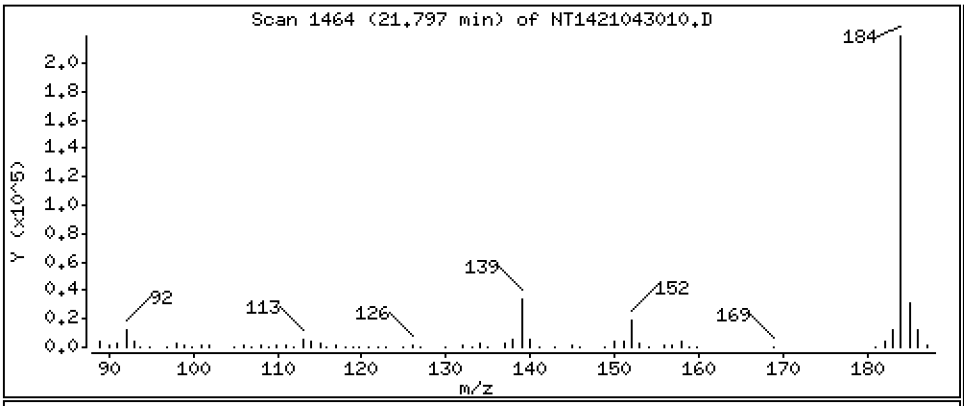
Operator: VTS

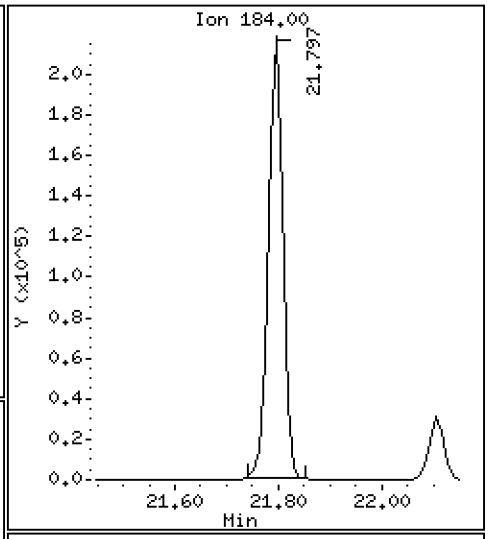
Column phase: Rxi-17Sil MS

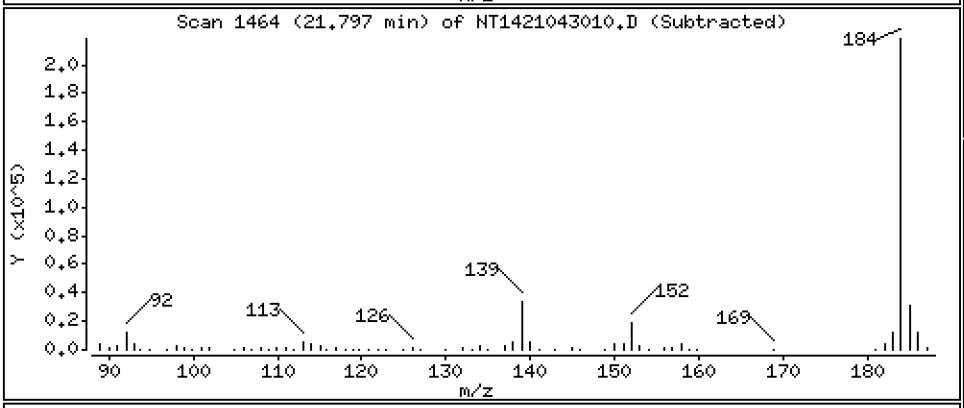
Column diameter: 0.25

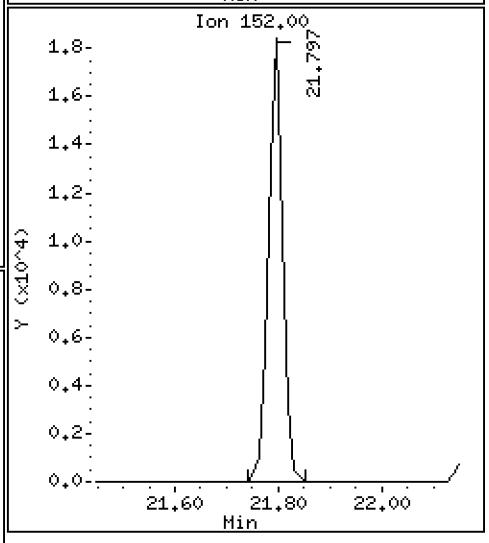
30 Dibenzothiophene

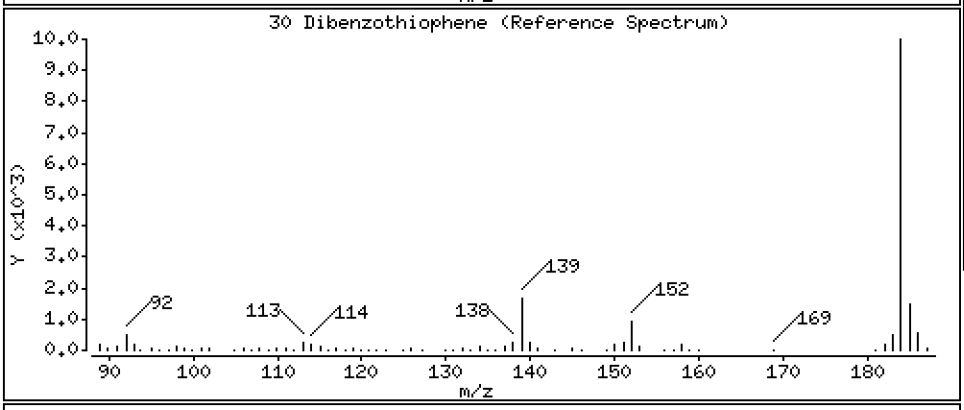
Concentration: 2.782 ug/mL

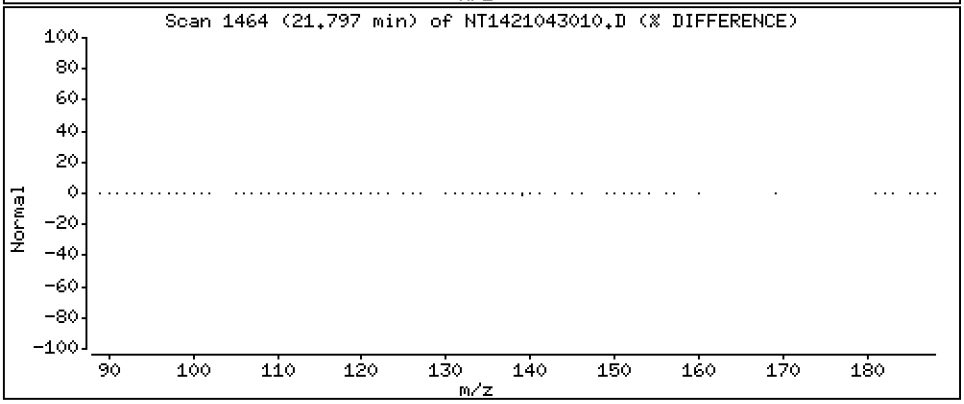


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

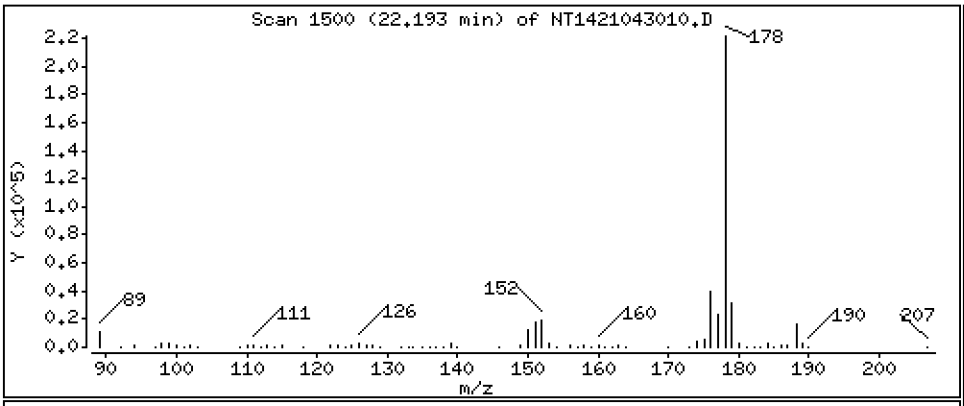
Operator: VTS

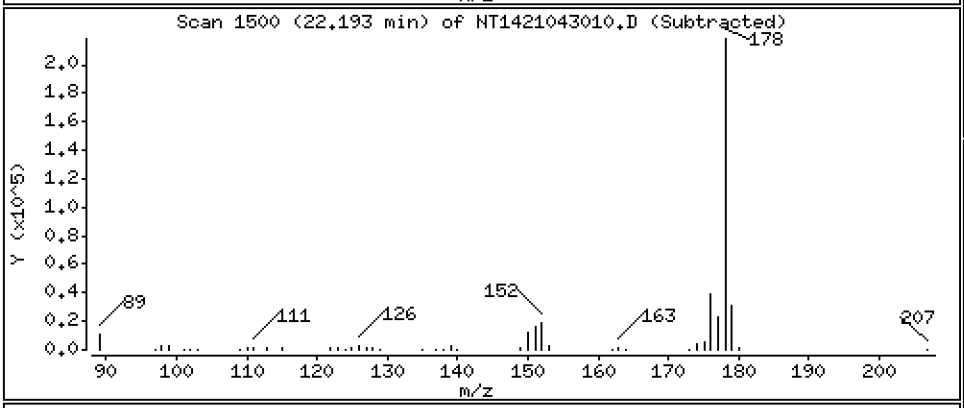
Column phase: Rxi-17Sil MS

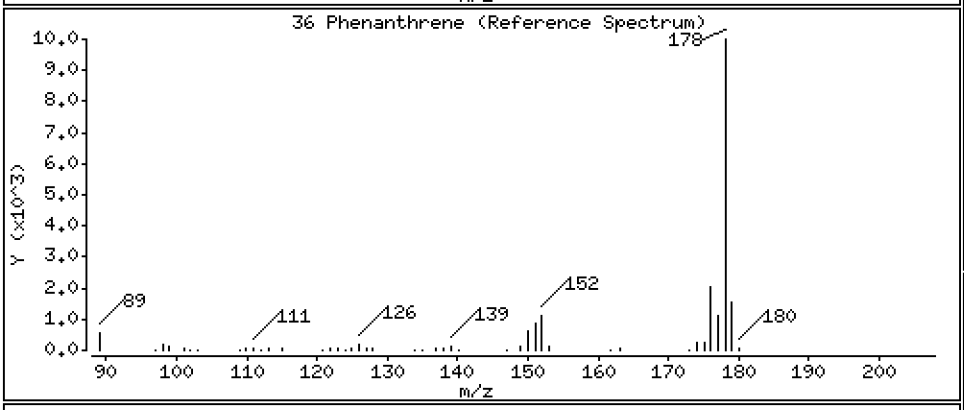
Column diameter: 0.25

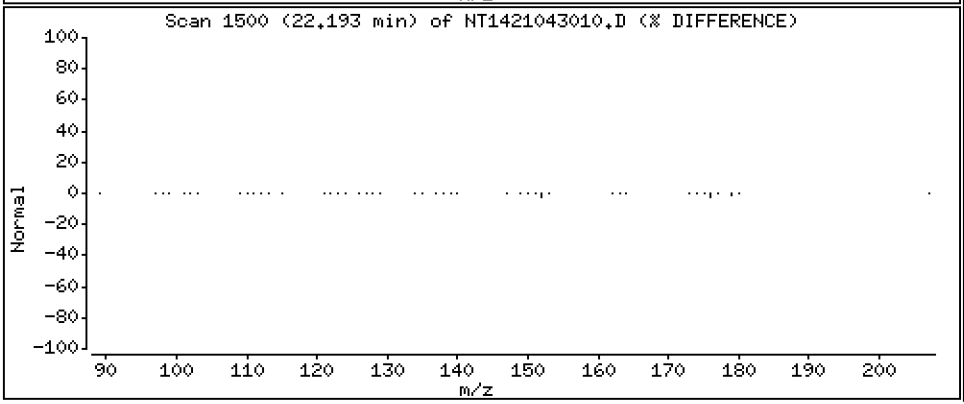
36 Phenanthrene

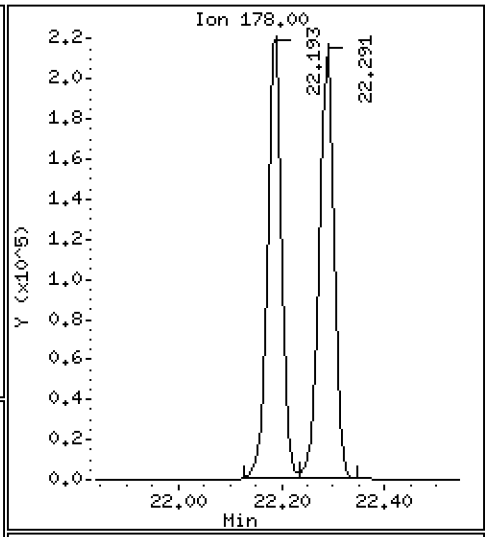
Concentration: 2.468 ug/mL

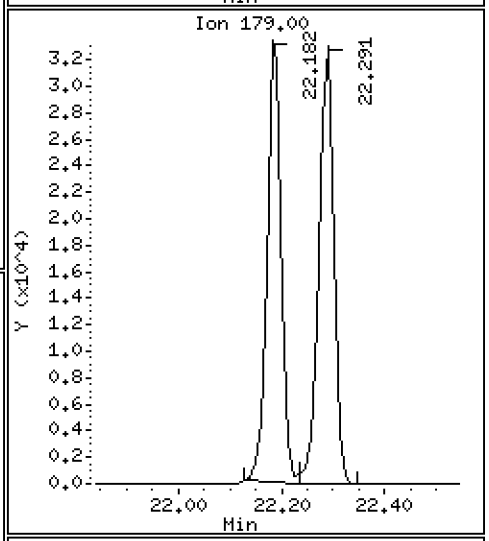


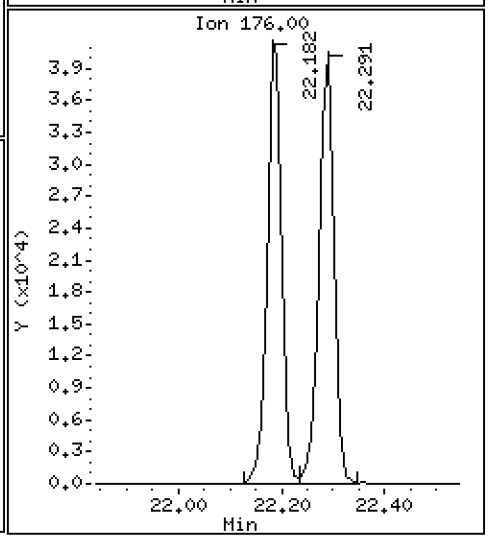



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

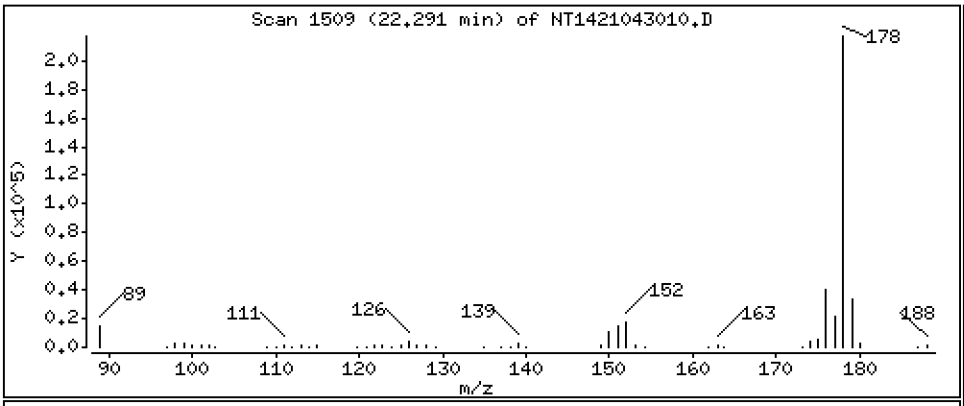
Operator: VTS

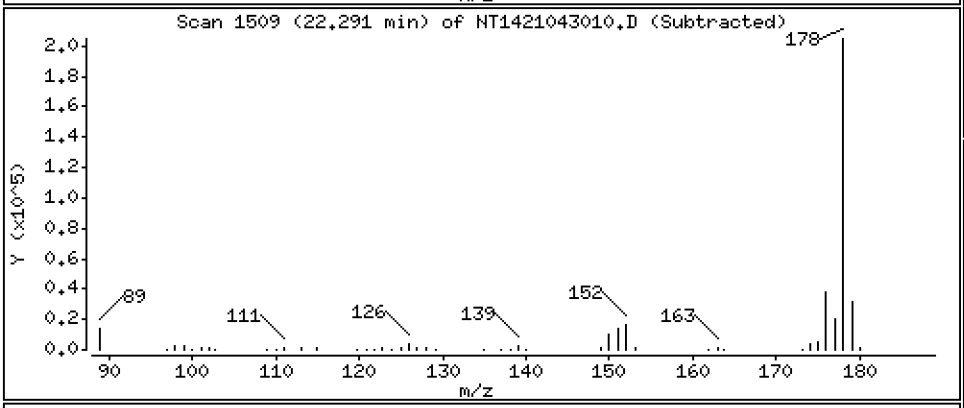
Column phase: Rxi-17Sil MS

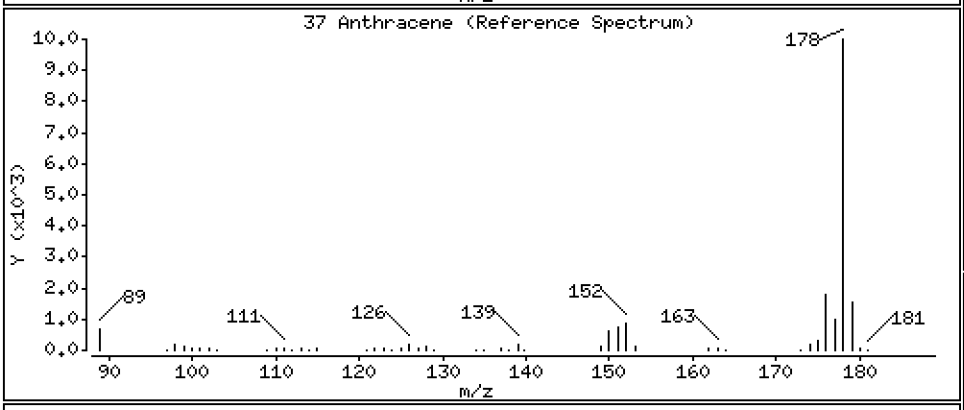
Column diameter: 0.25

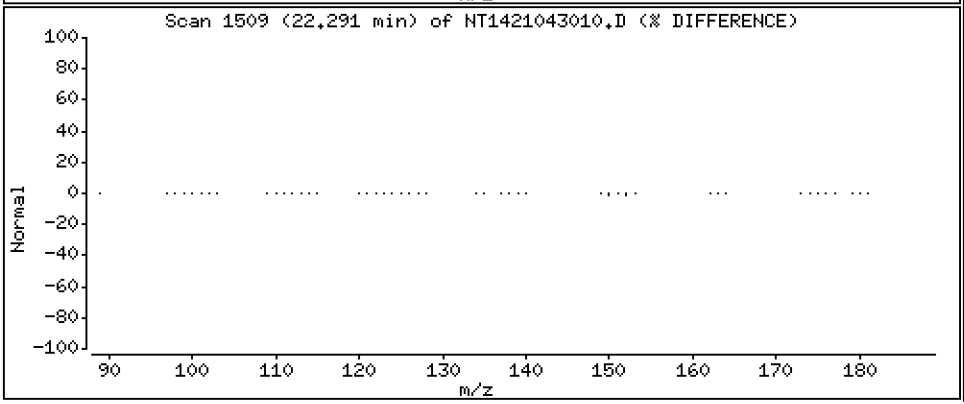
37 Anthracene

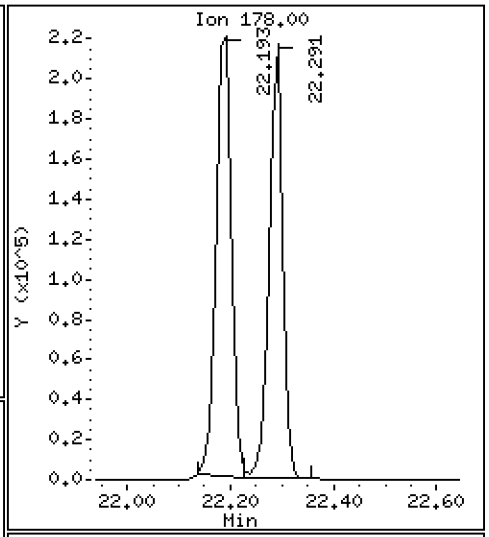
Concentration: 2.492 ug/mL

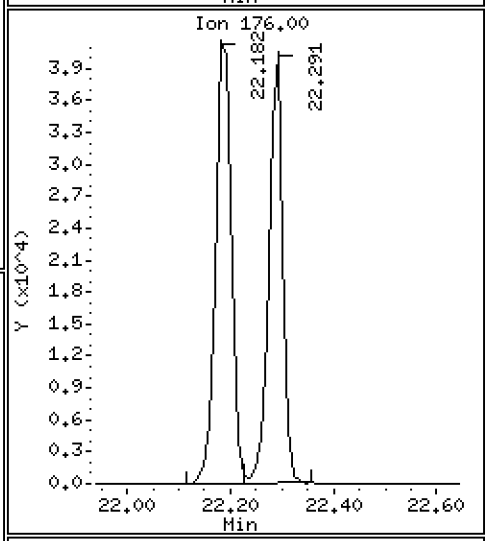


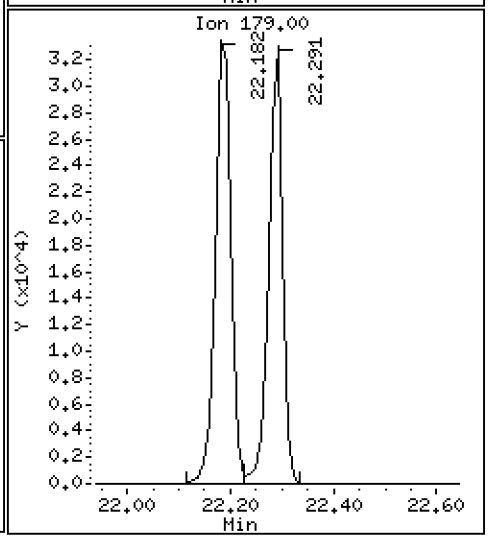



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

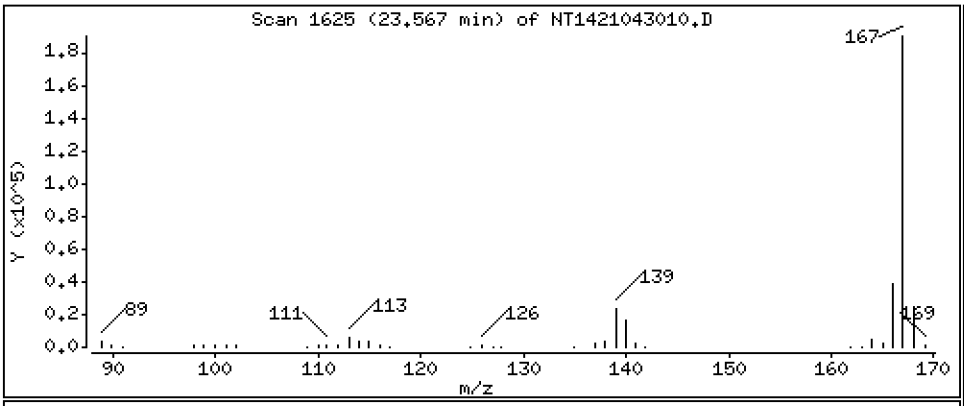
Operator: VTS

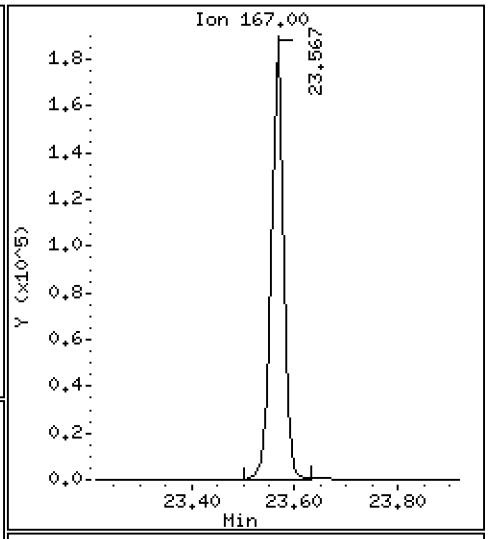
Column phase: Rxi-17Sil MS

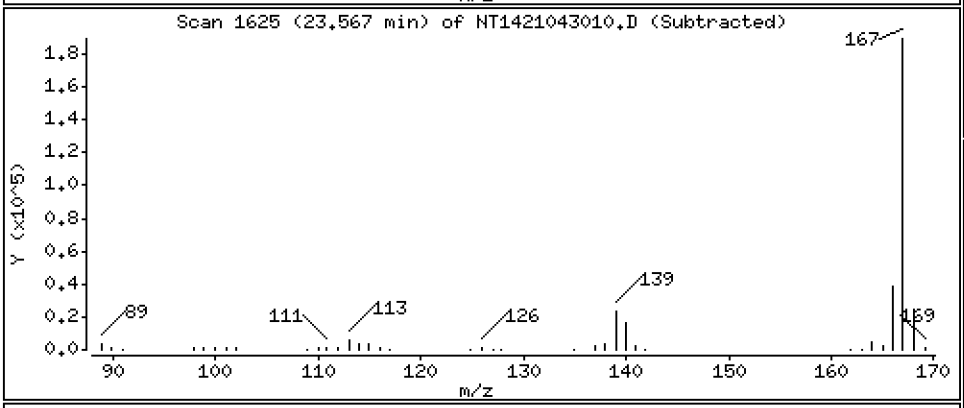
Column diameter: 0.25

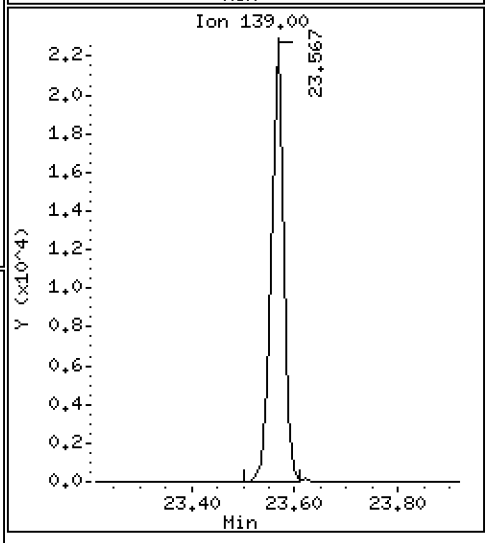
42 Carbazole

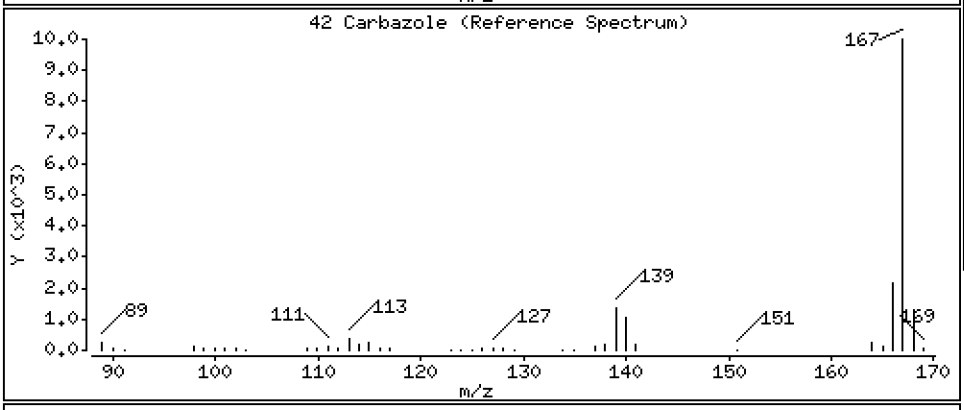
Concentration: 2.343 ug/mL

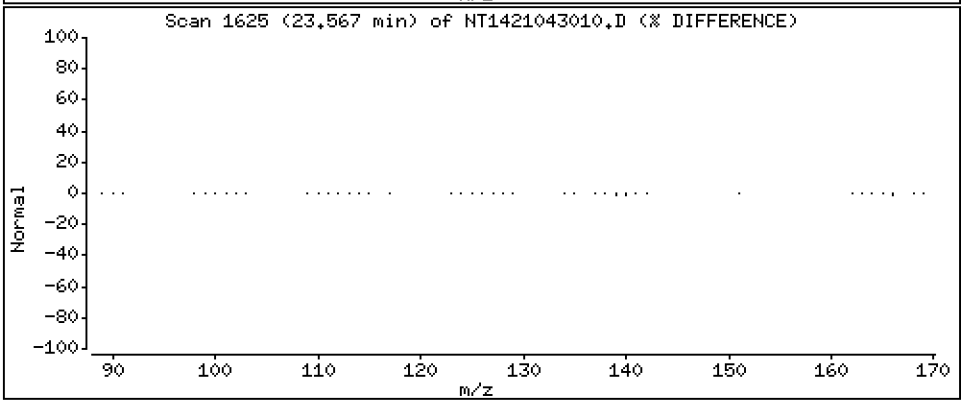


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

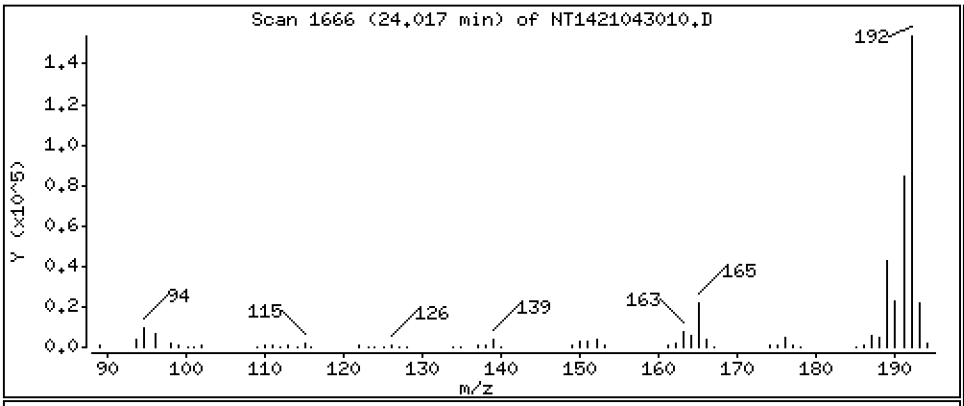
Operator: VTS

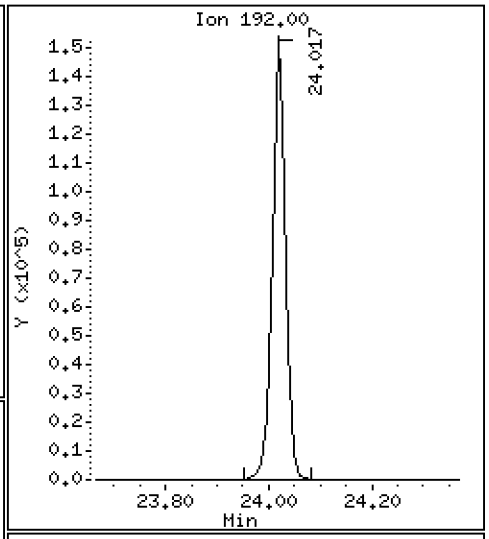
Column phase: Rxi-17Sil MS

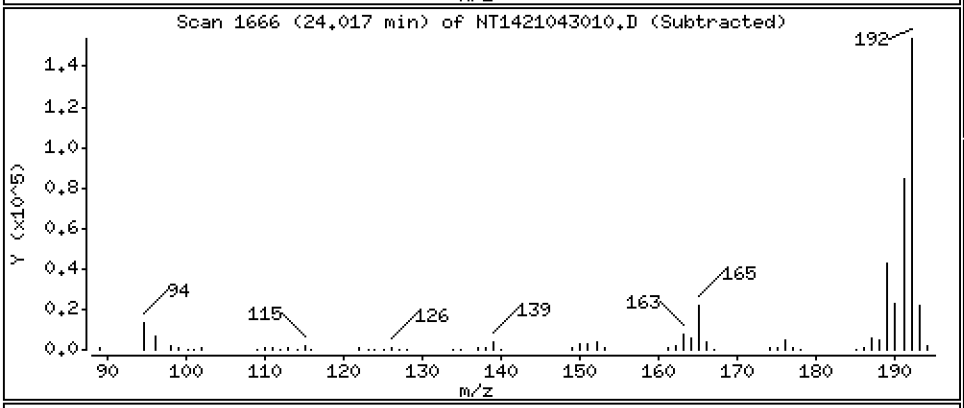
Column diameter: 0.25

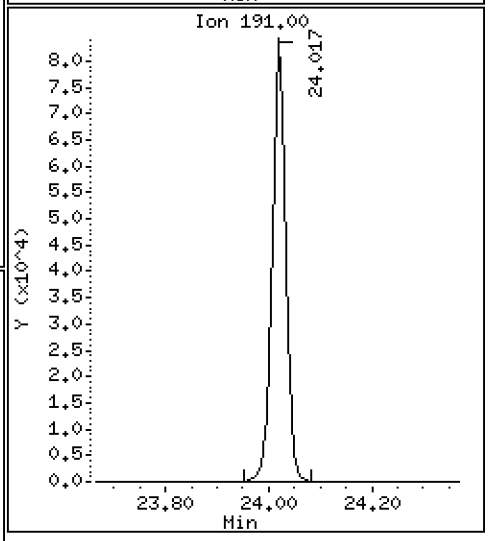
43 1-Methylphenanthrene

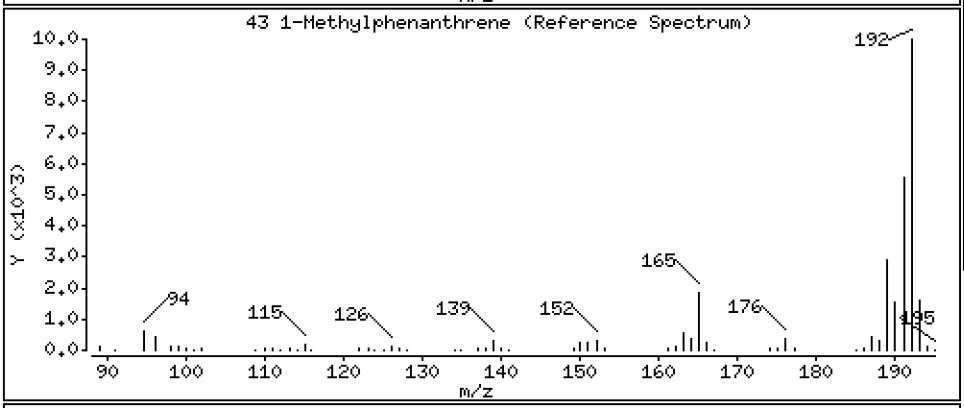
Concentration: 2.594 ug/mL

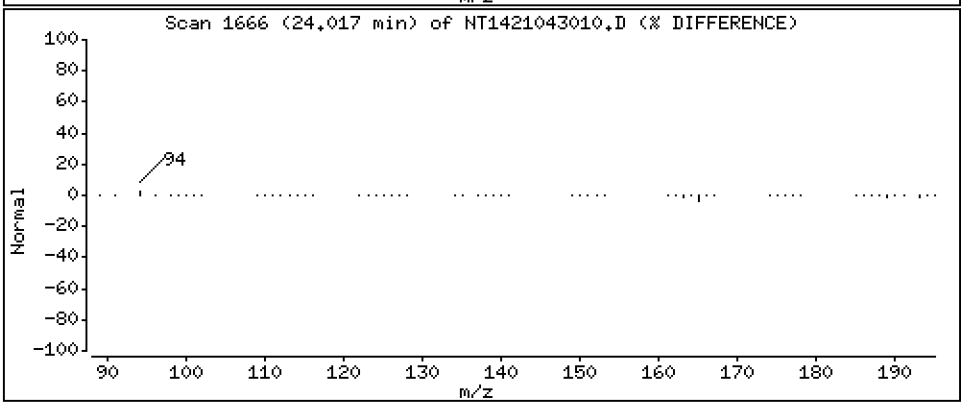


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

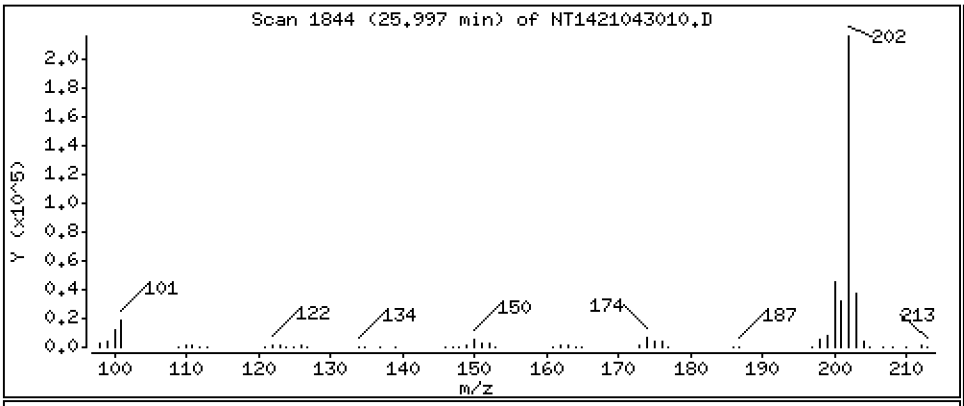
Operator: VTS

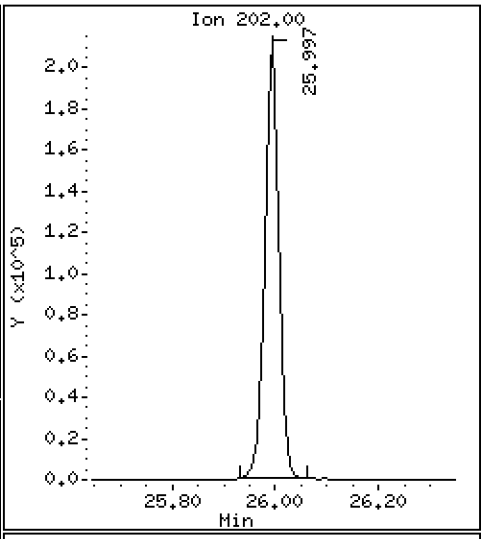
Column phase: Rxi-17Sil MS

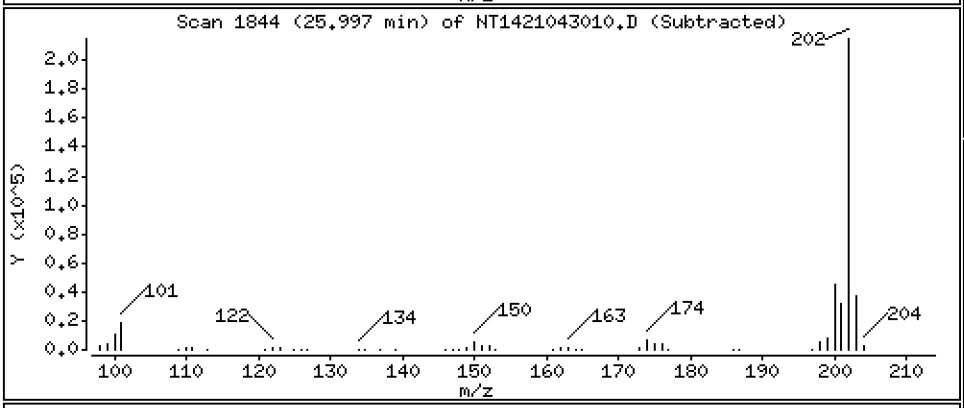
Column diameter: 0.25

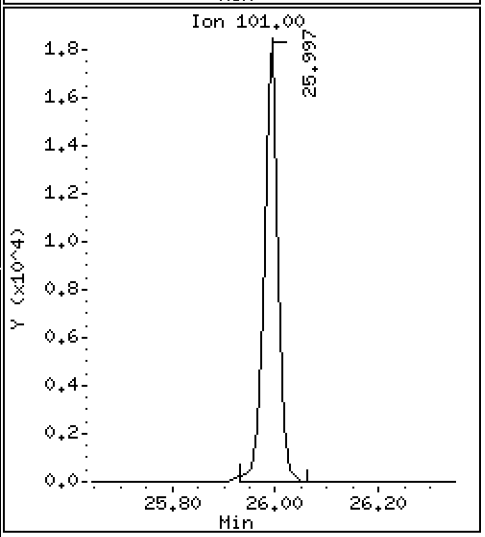
44 Fluoranthene

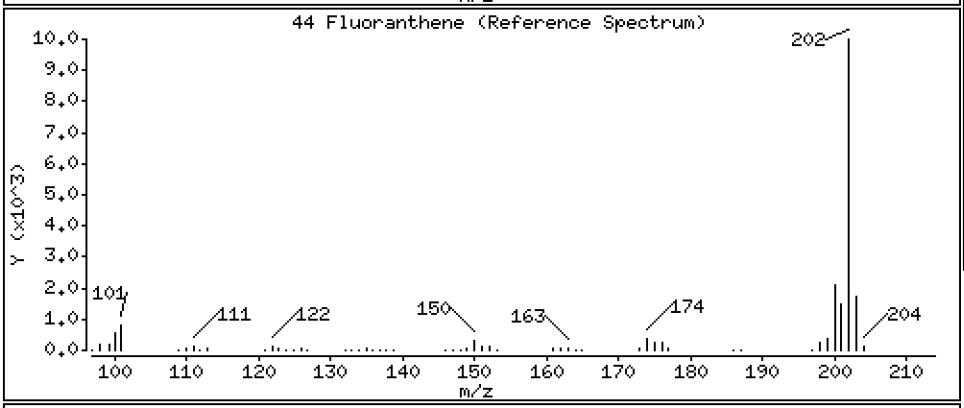
Concentration: 2.634 ug/mL

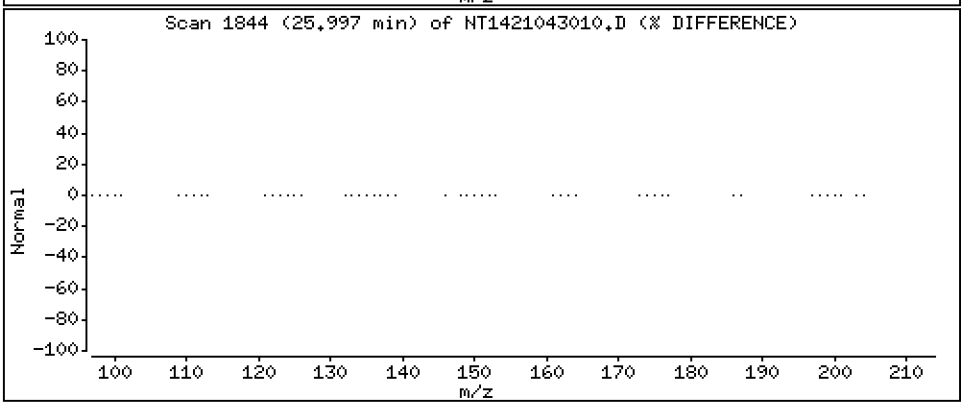


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

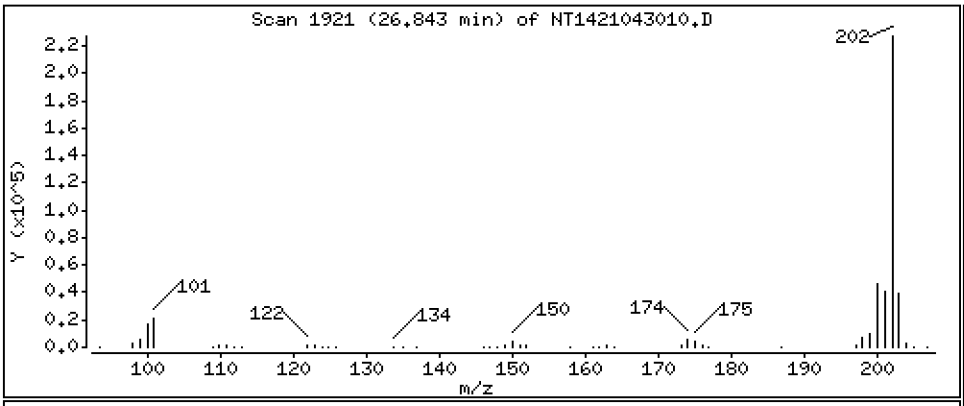
Operator: VTS

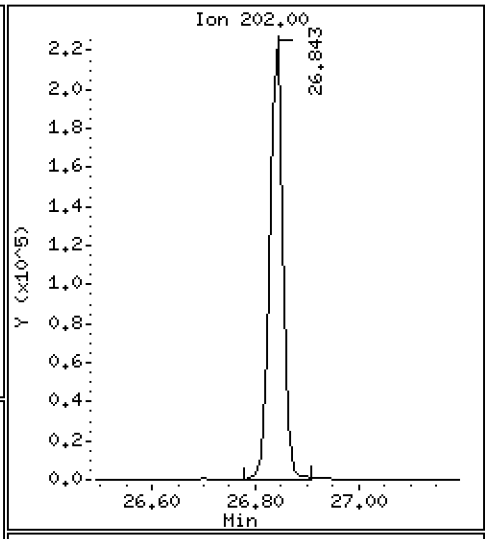
Column phase: Rxi-17Sil MS

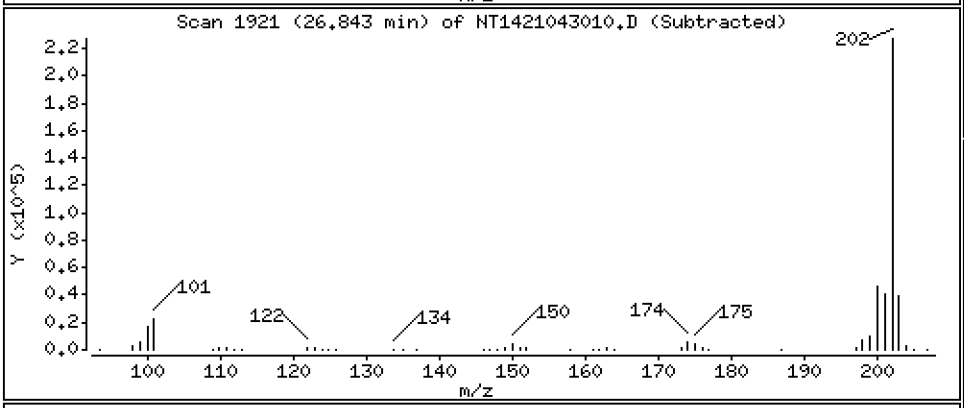
Column diameter: 0.25

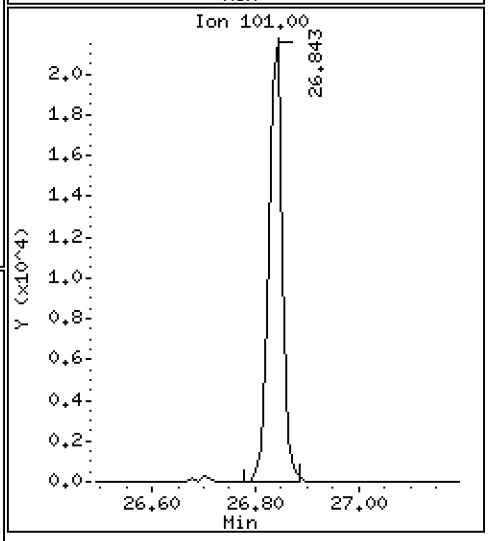
46 Pyrene

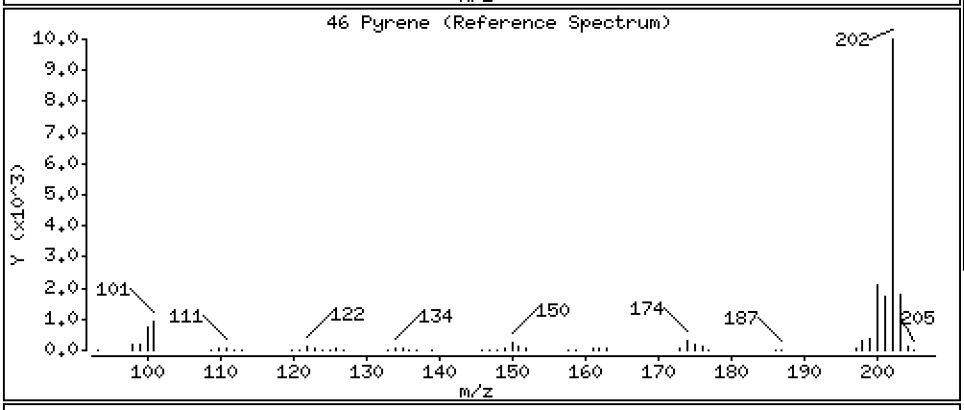
Concentration: 2.527 ug/mL

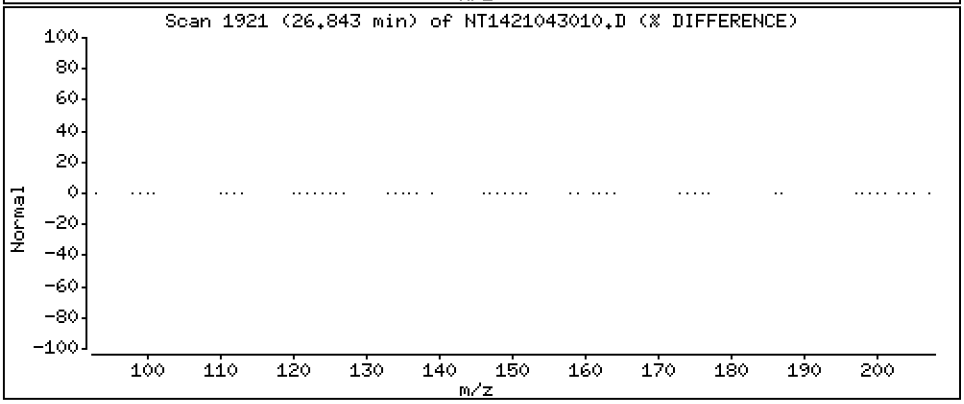


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

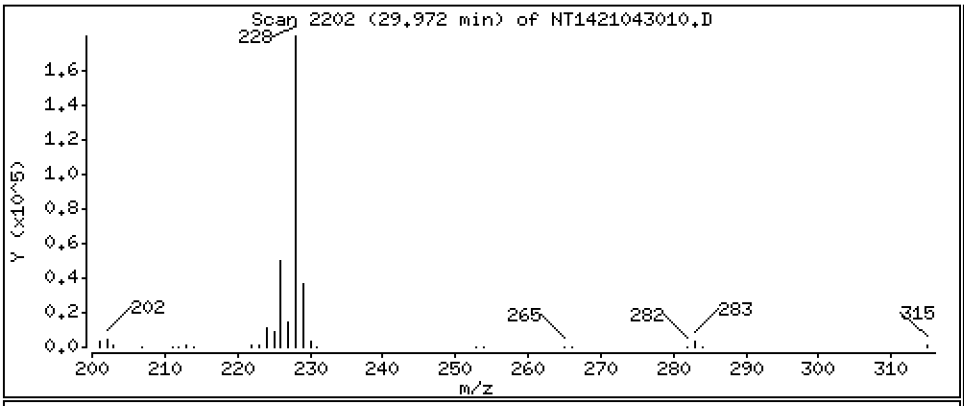
Operator: VTS

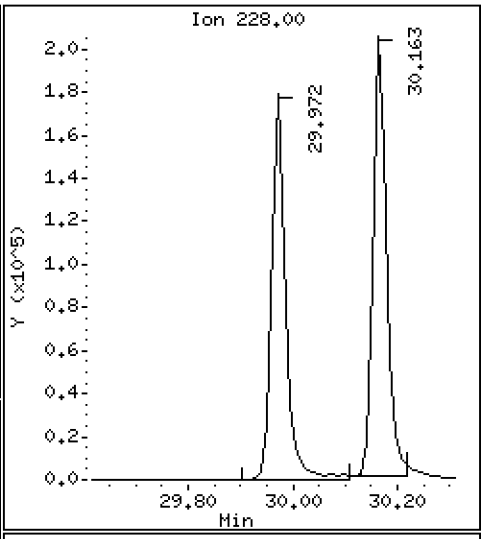
Column phase: Rxi-17Sil MS

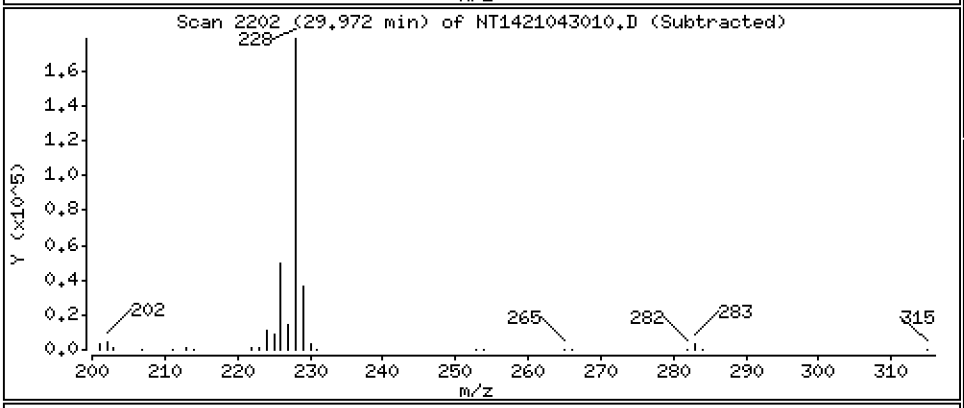
Column diameter: 0.25

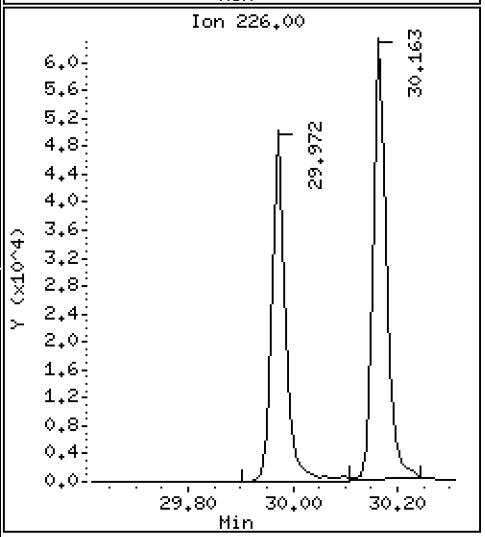
55 Benzo(a)anthracene

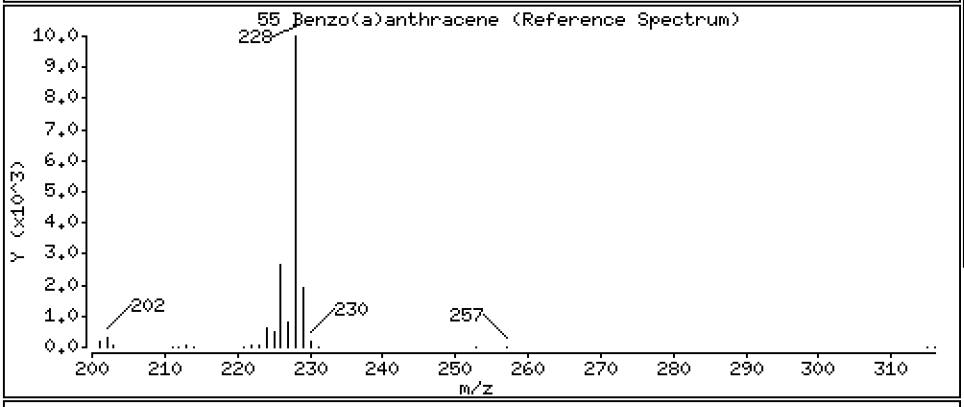
Concentration: 2.278 ug/mL

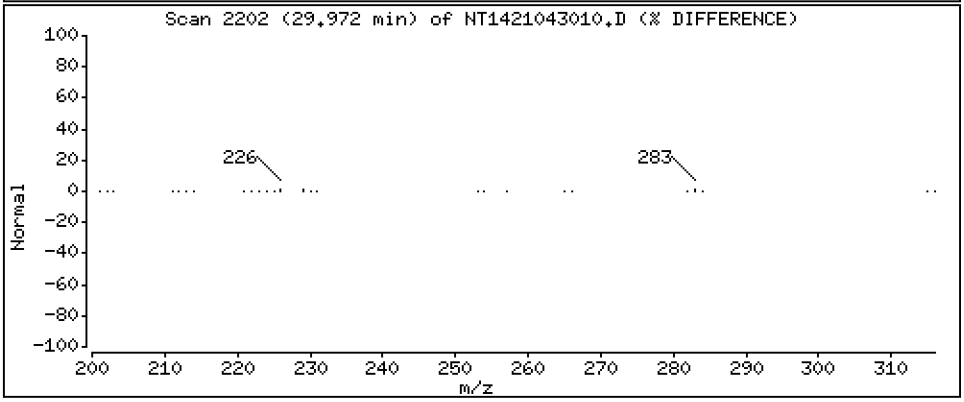


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

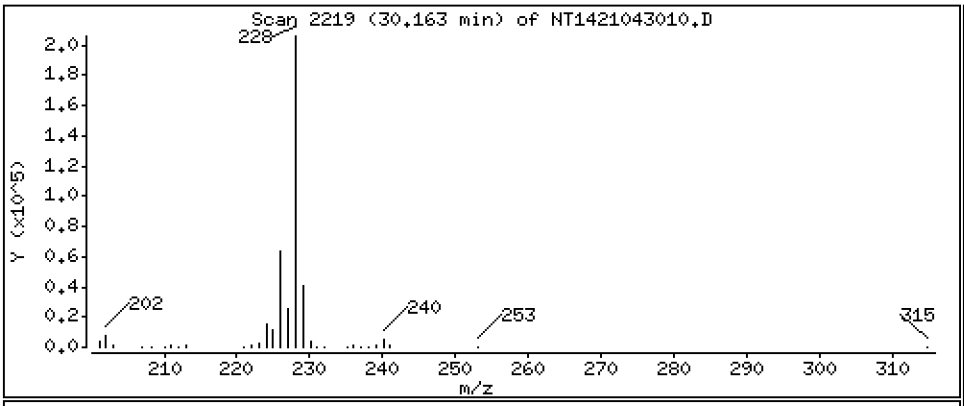
Operator: VTS

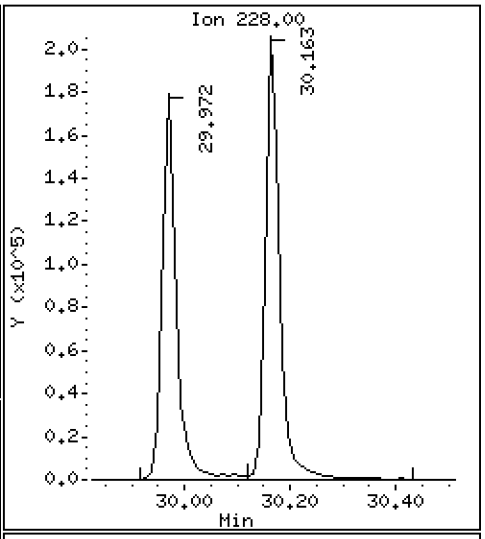
Column phase: Rxi-17Sil MS

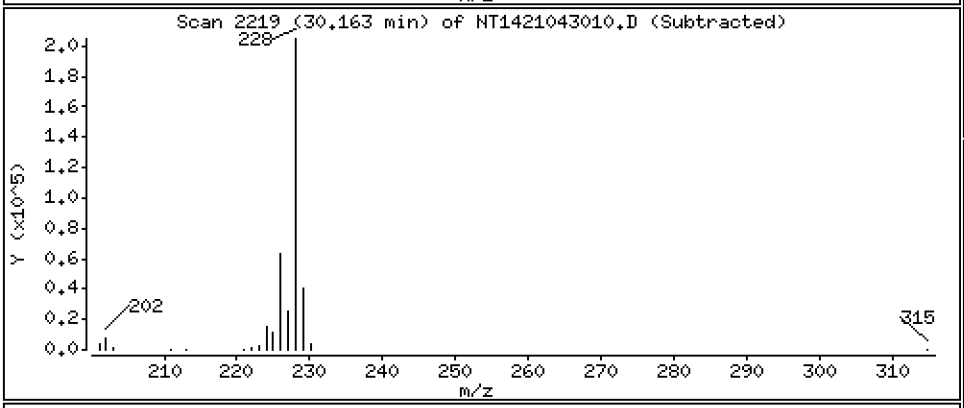
Column diameter: 0.25

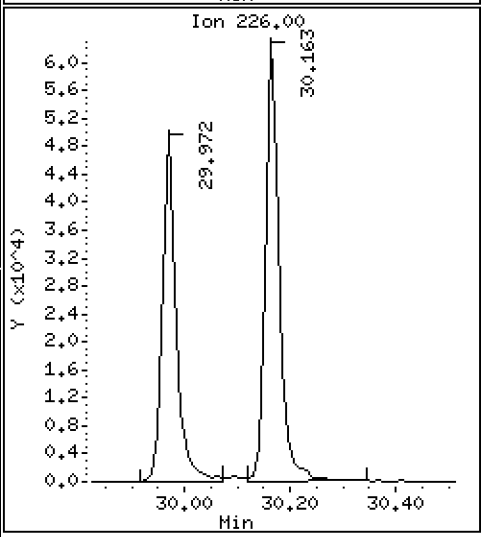
57 Chrysene

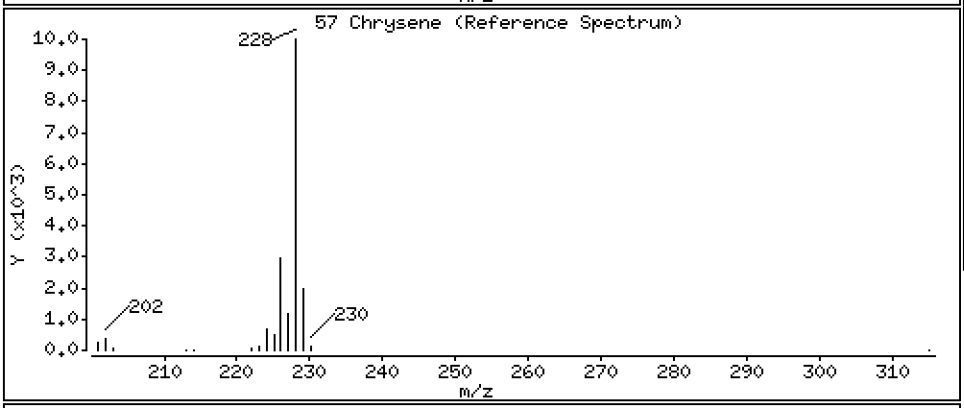
Concentration: 2.574 ug/mL

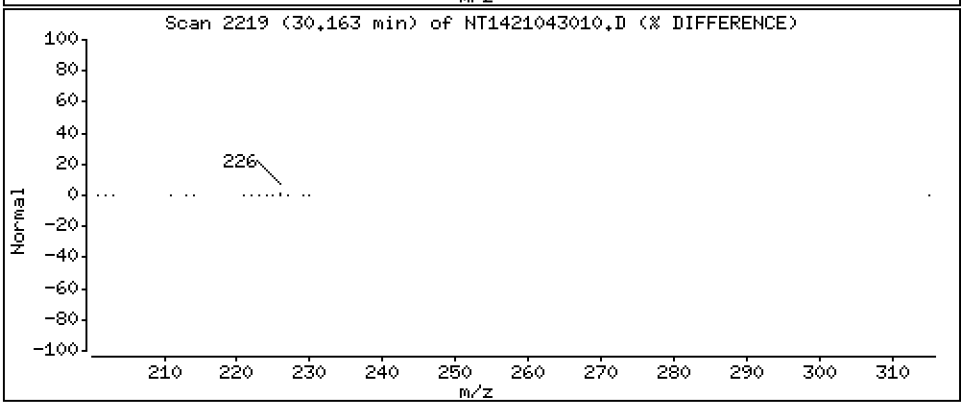


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

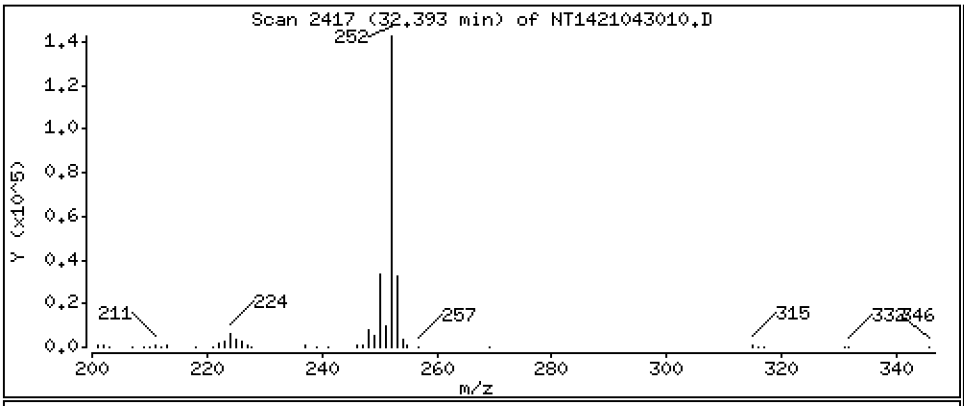
Operator: VTS

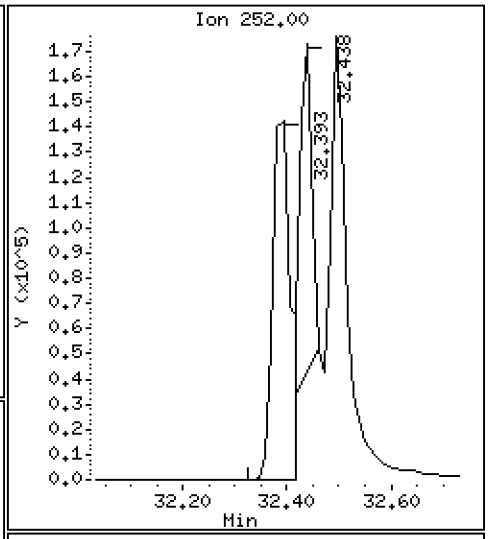
Column phase: Rxi-17Sil MS

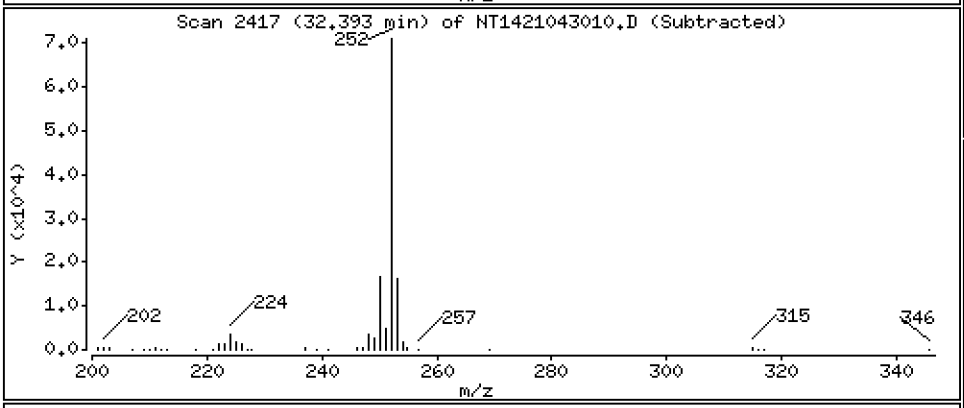
Column diameter: 0.25

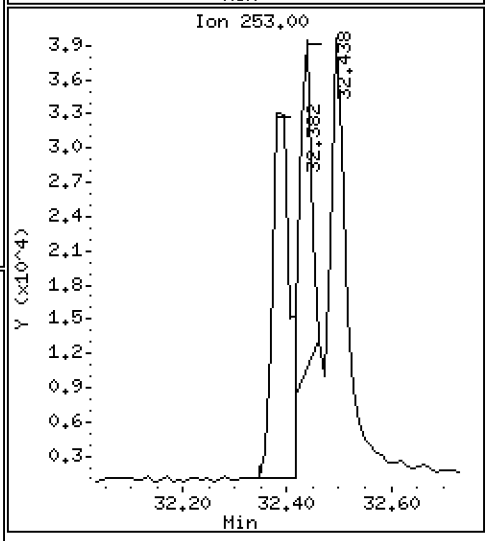
62 Benzo(b)fluoranthene

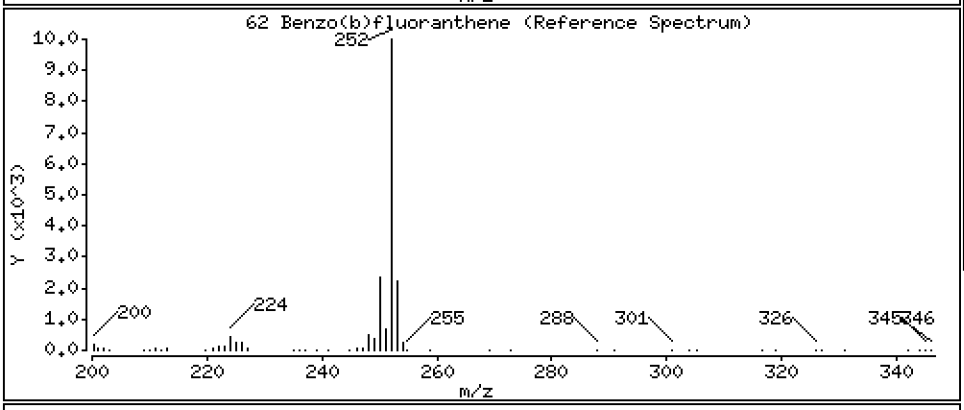
Concentration: 2.326 ug/mL

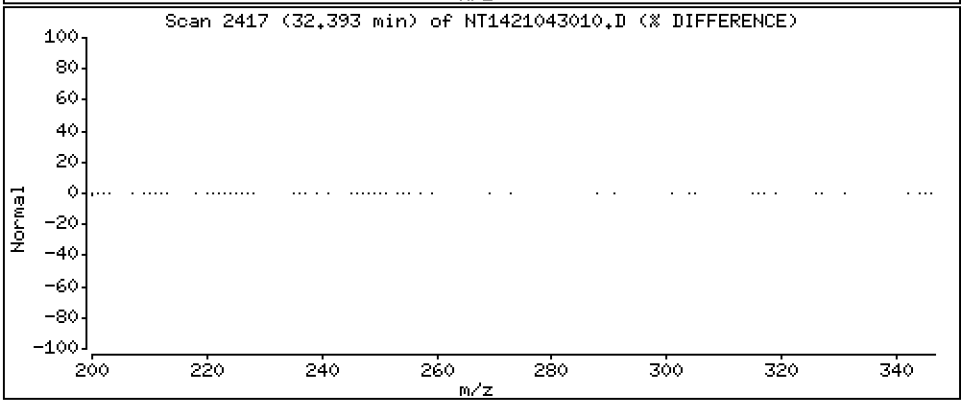


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

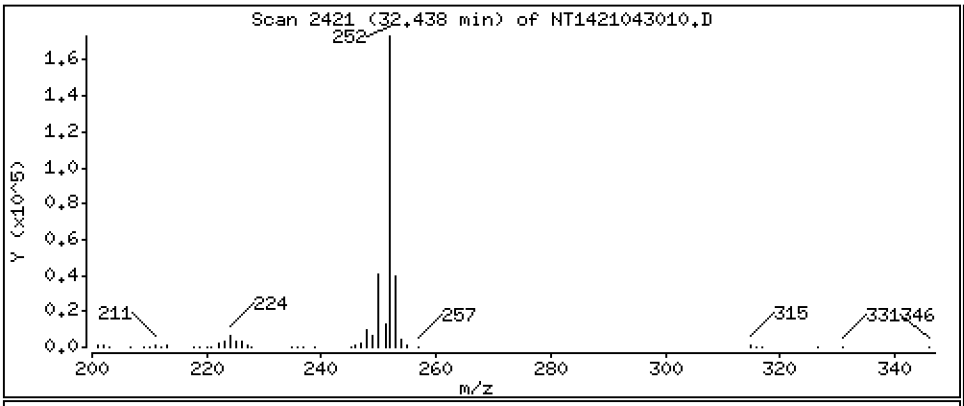
Operator: VTS

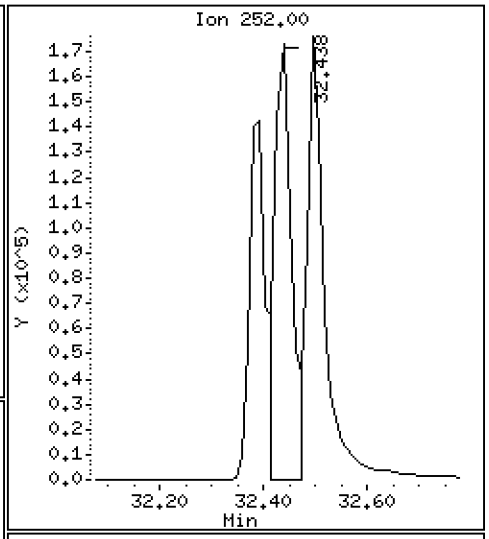
Column phase: Rxi-17Sil MS

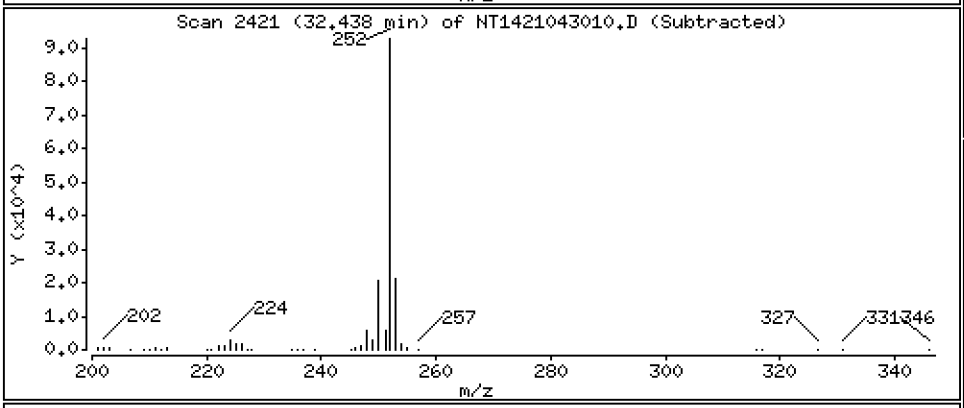
Column diameter: 0.25

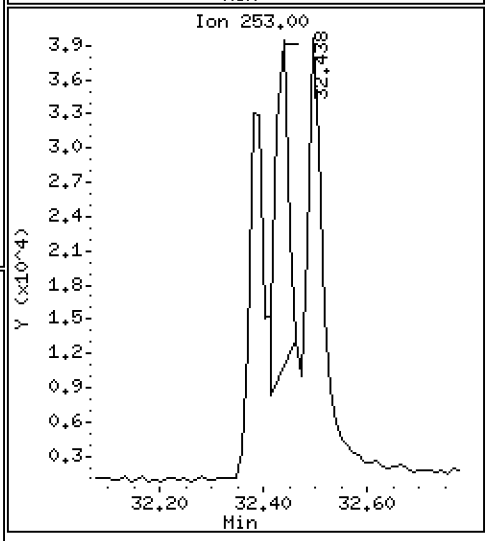
63 Benzo(k)fluoranthene

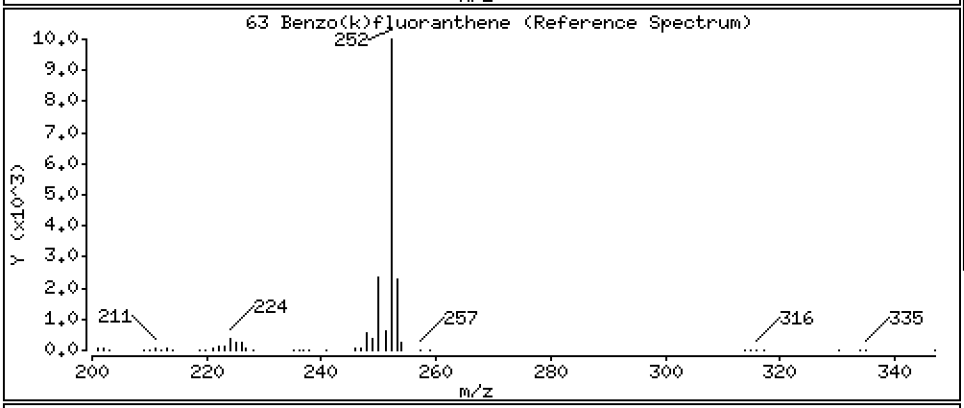
Concentration: 2.304 ug/mL

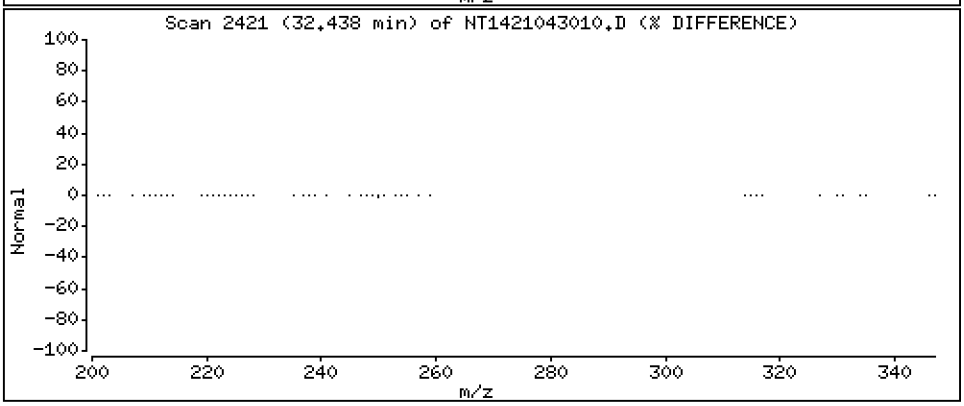


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

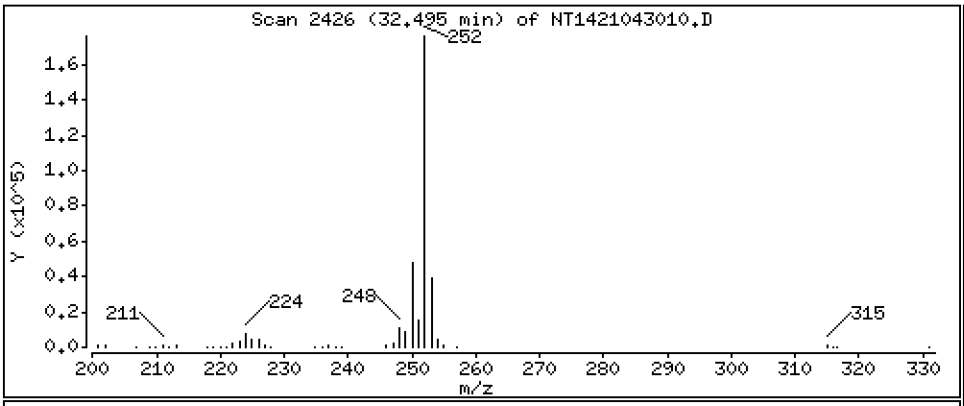
Operator: VTS

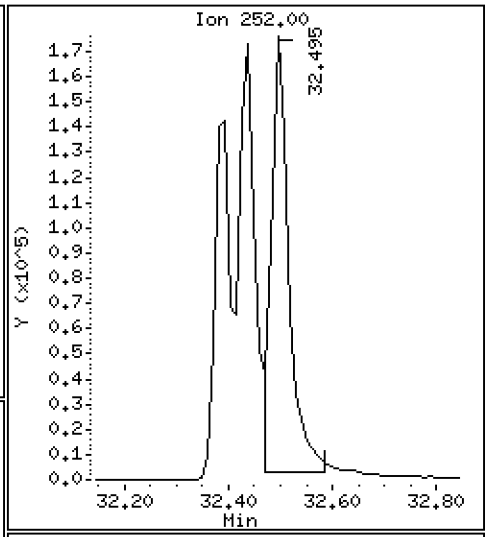
Column phase: Rxi-17Sil MS

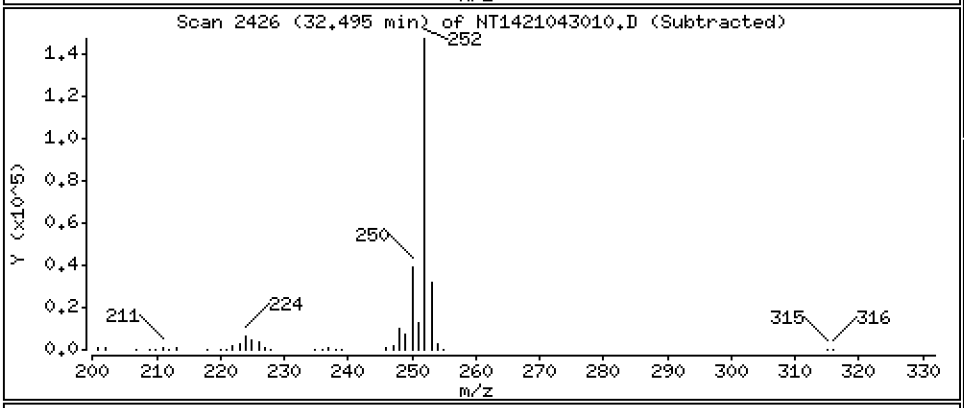
Column diameter: 0.25

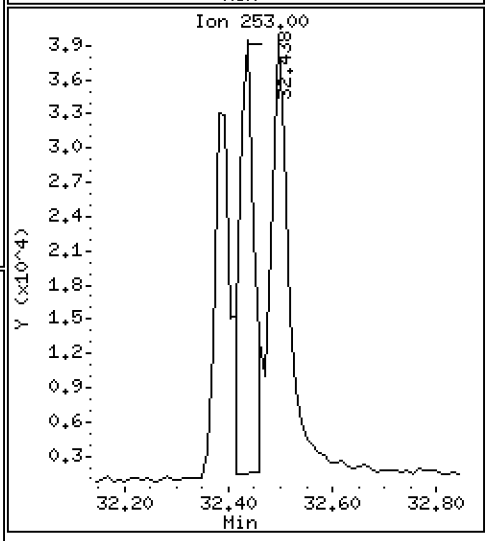
293 Benzo(j)fluoranthene

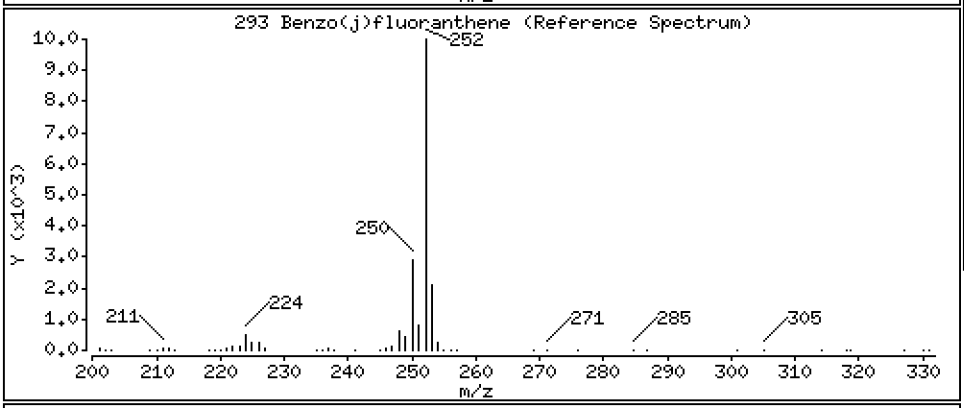
Concentration: 2.516 ug/mL

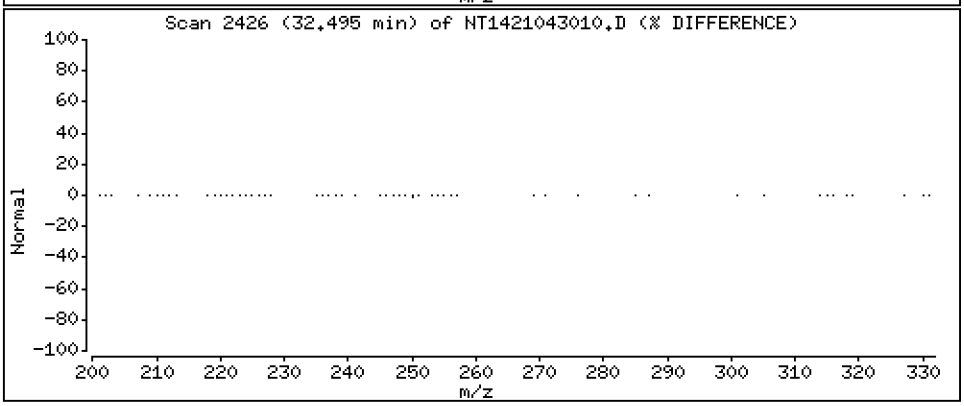


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

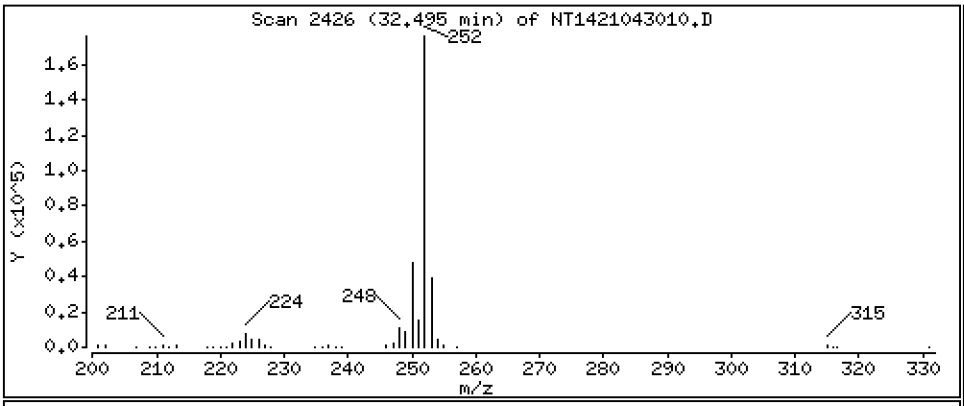
Operator: VTS

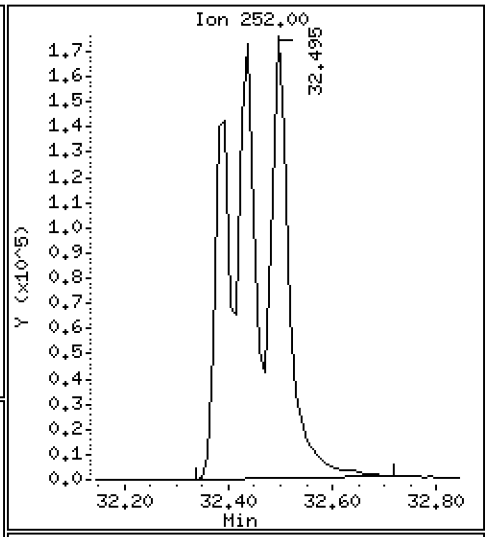
Column phase: Rxi-17Sil MS

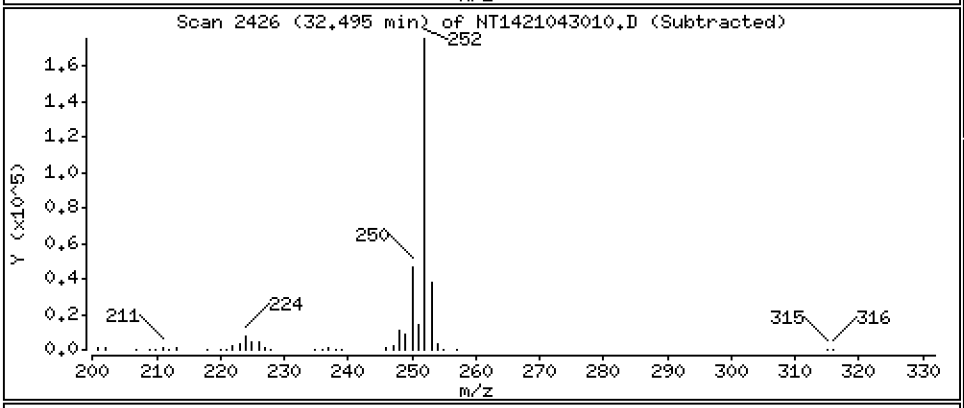
Column diameter: 0.25

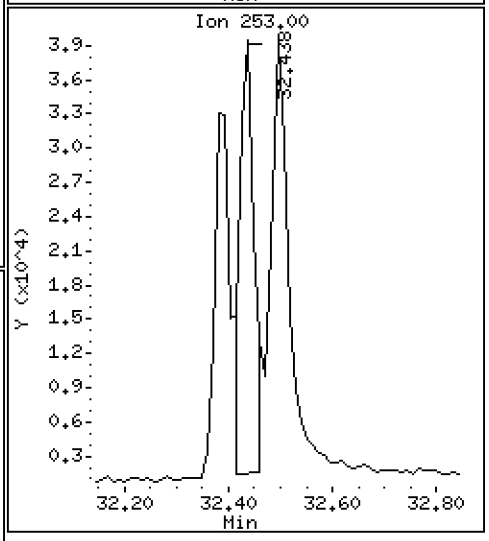
246 Total Benzofluoranthenes

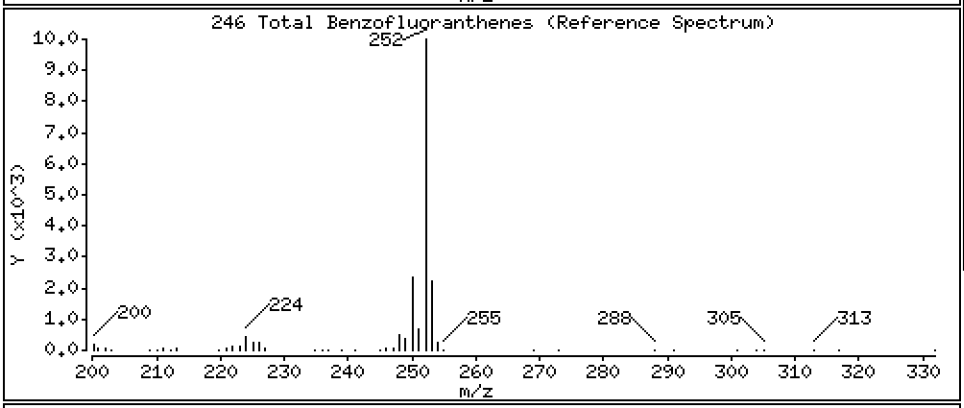
Concentration: 6.960 ug/mL

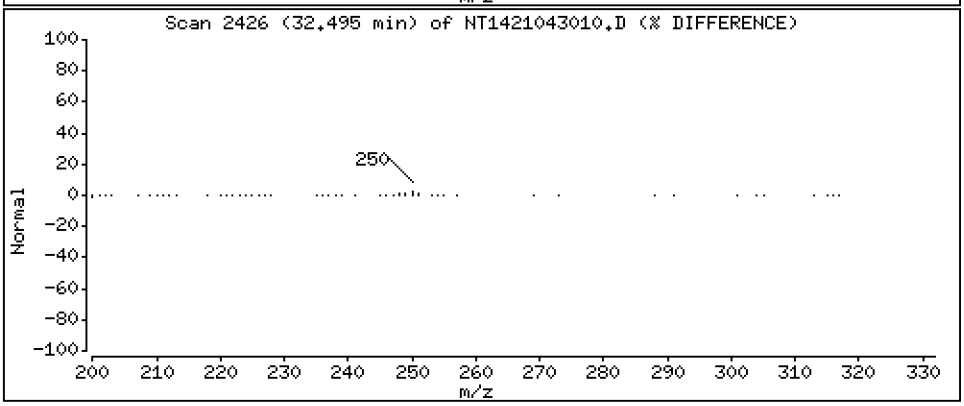


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

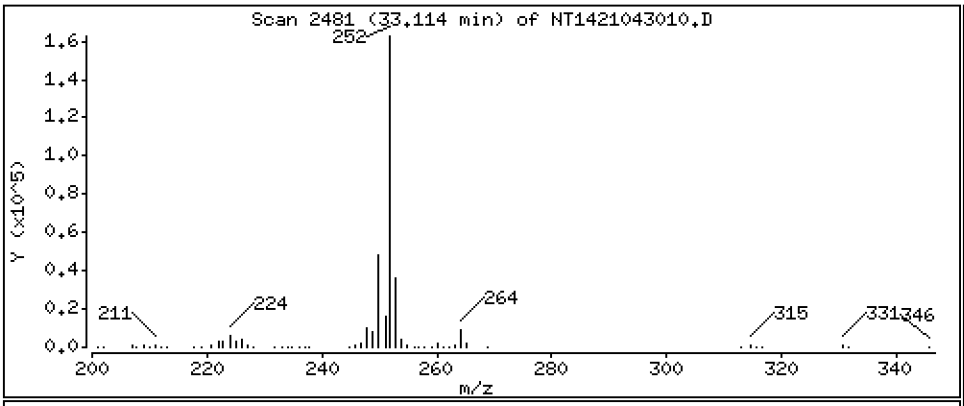
Operator: VTS

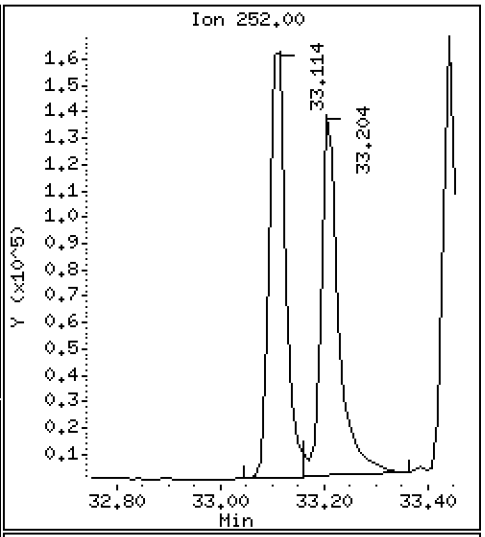
Column phase: Rxi-17Sil MS

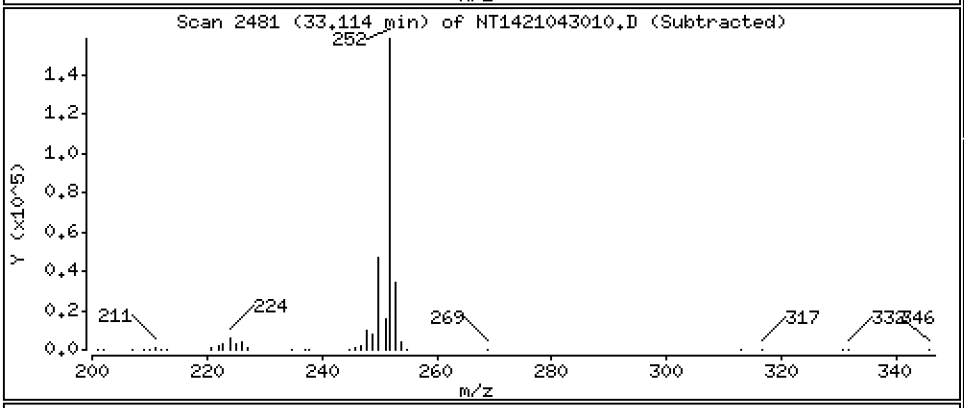
Column diameter: 0.25

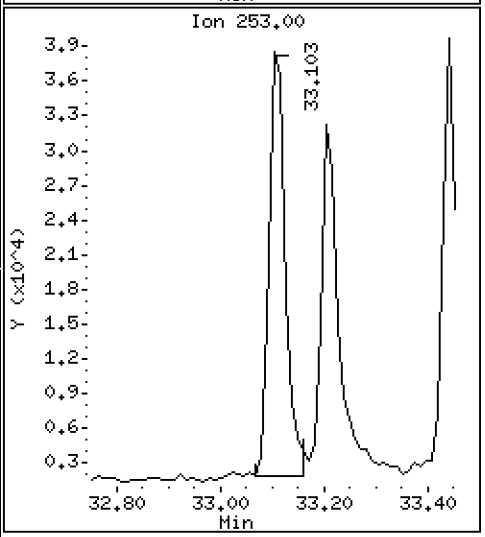
64 Benzo(e)pyrene

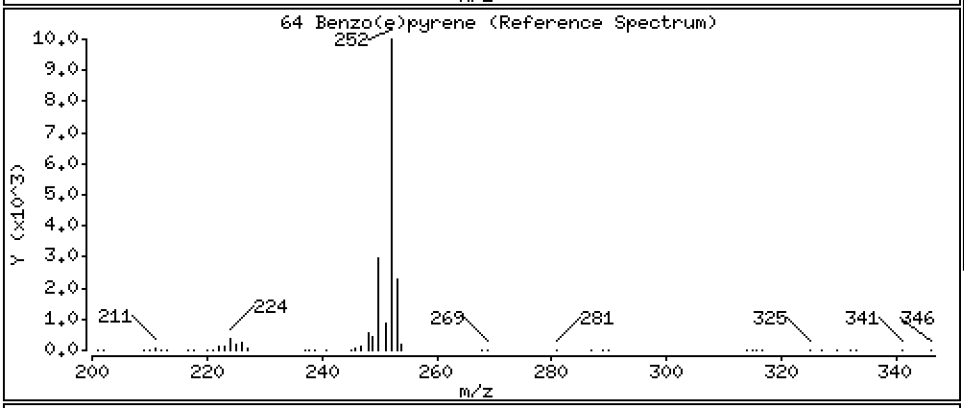
Concentration: 2.454 ug/mL

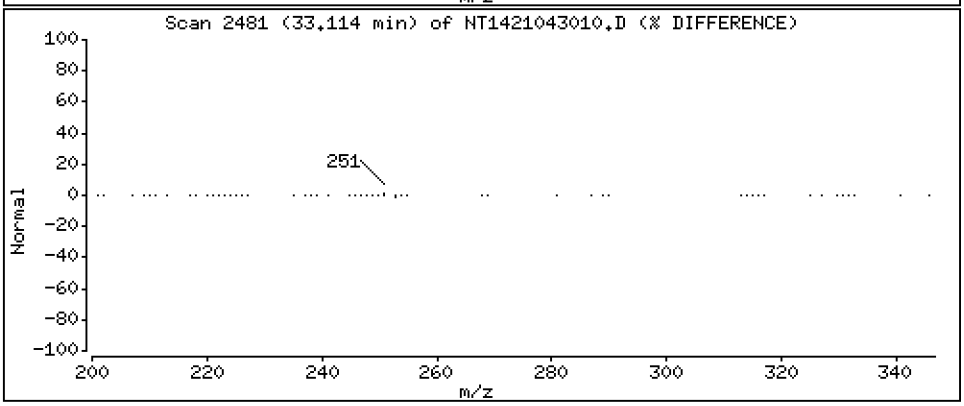


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

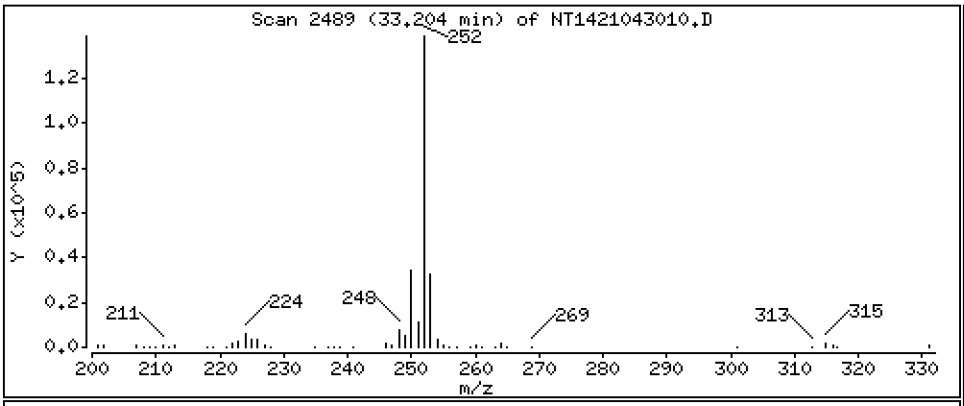
Operator: VTS

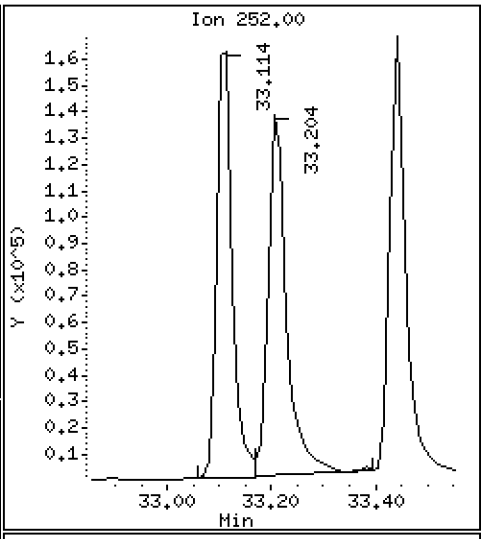
Column phase: Rxi-17Sil MS

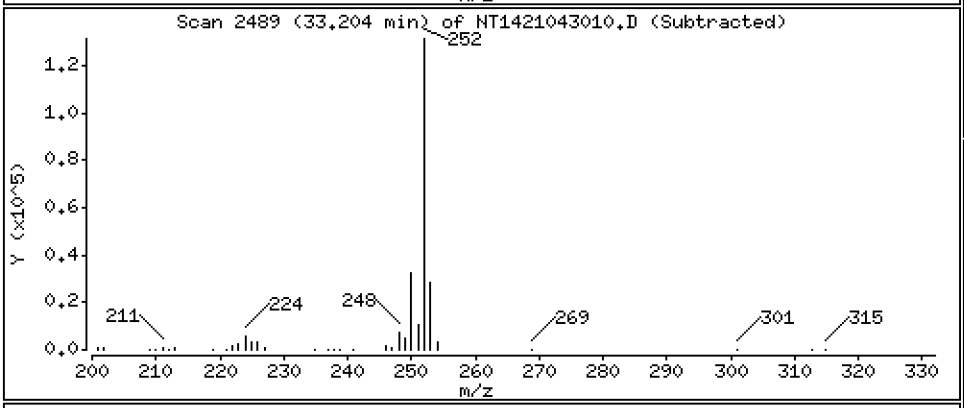
Column diameter: 0.25

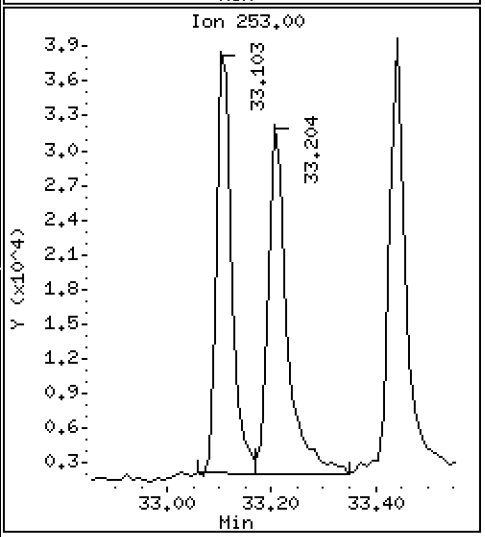
66 Benzo(a)pyrene

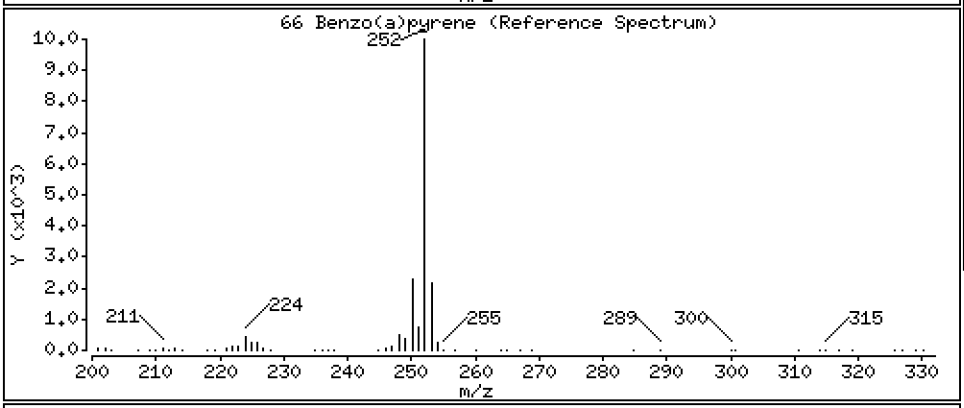
Concentration: 2.211 ug/mL

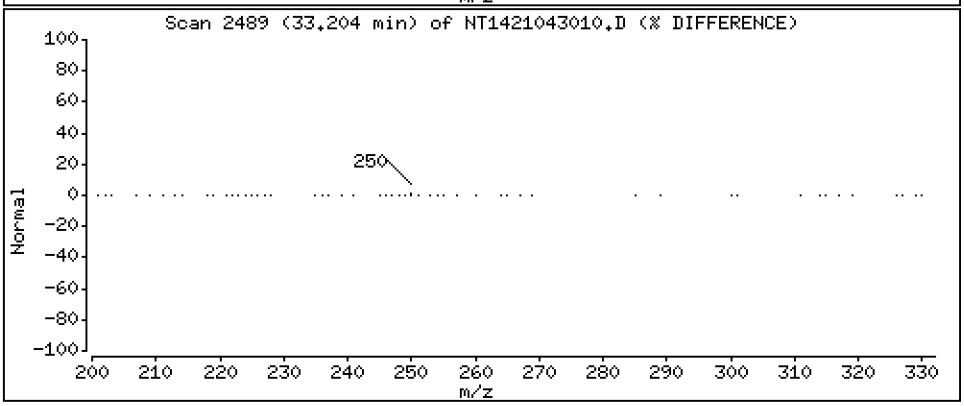


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

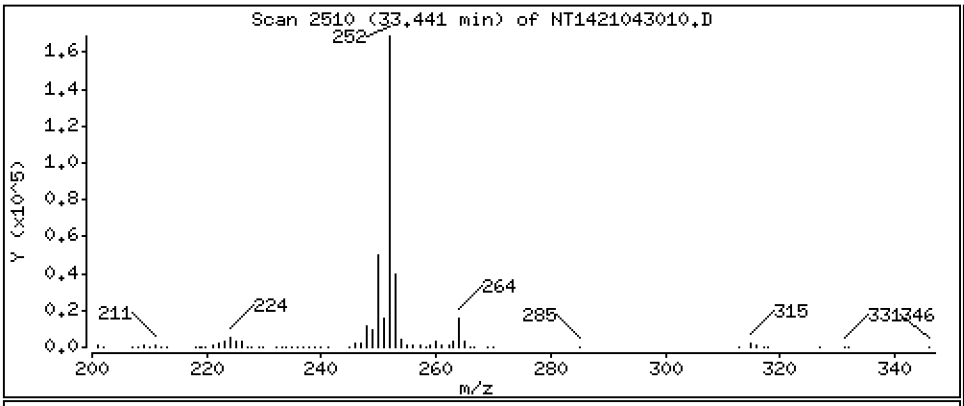
Operator: VTS

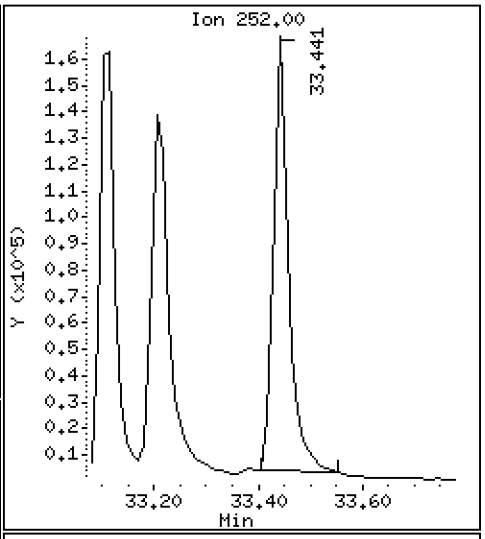
Column phase: Rxi-17Sil MS

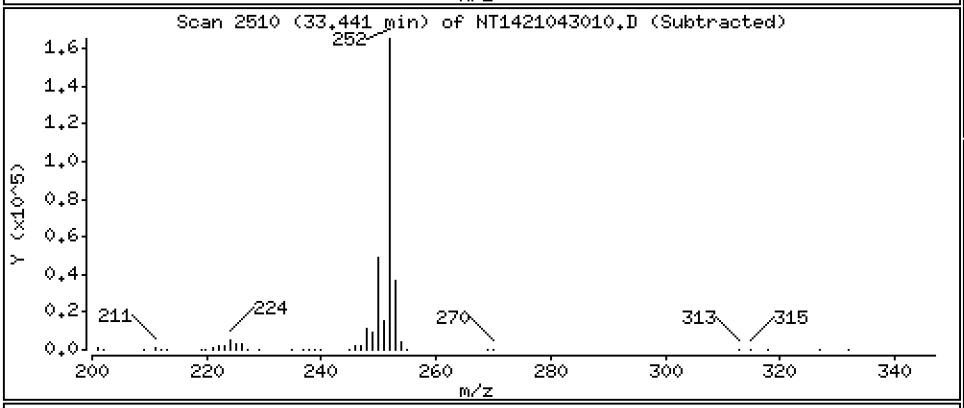
Column diameter: 0.25

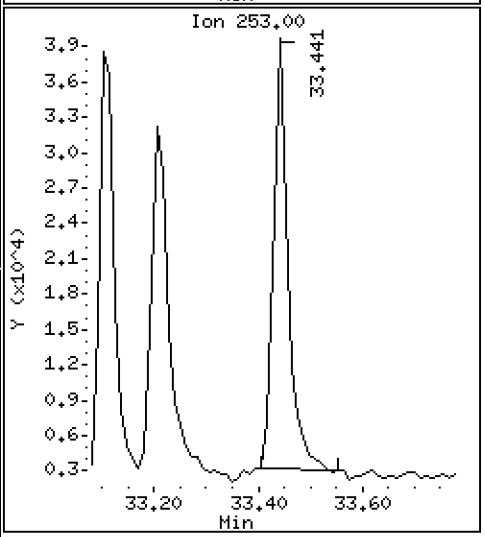
68 Perylene

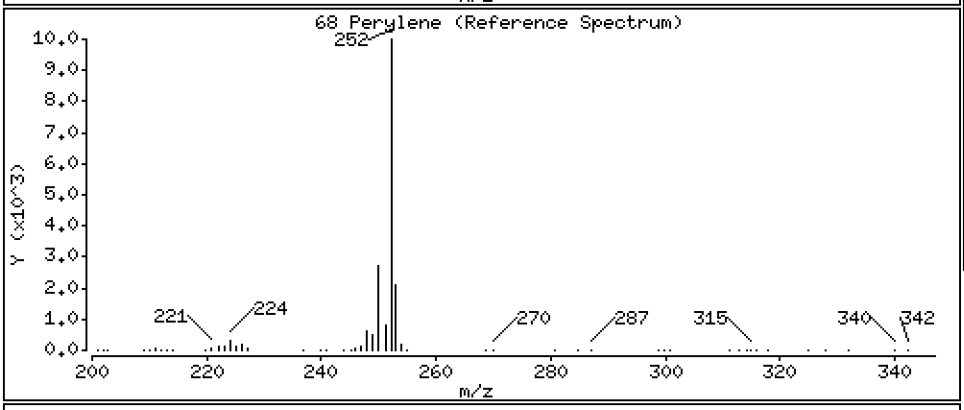
Concentration: 2.415 ug/mL

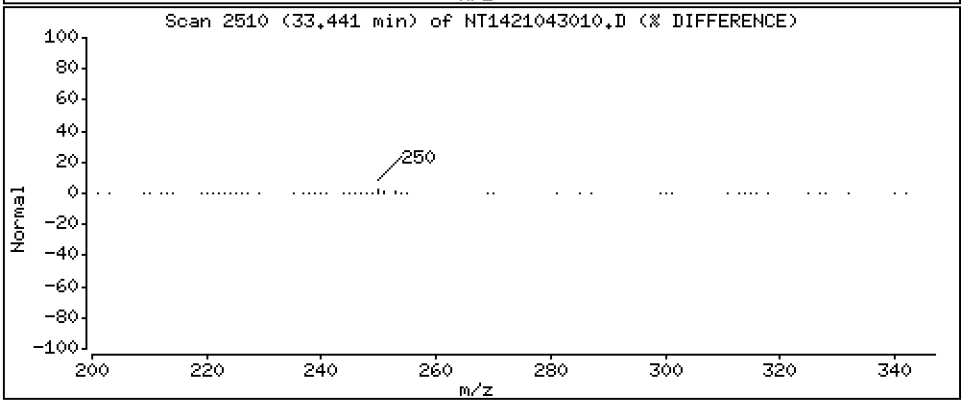


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

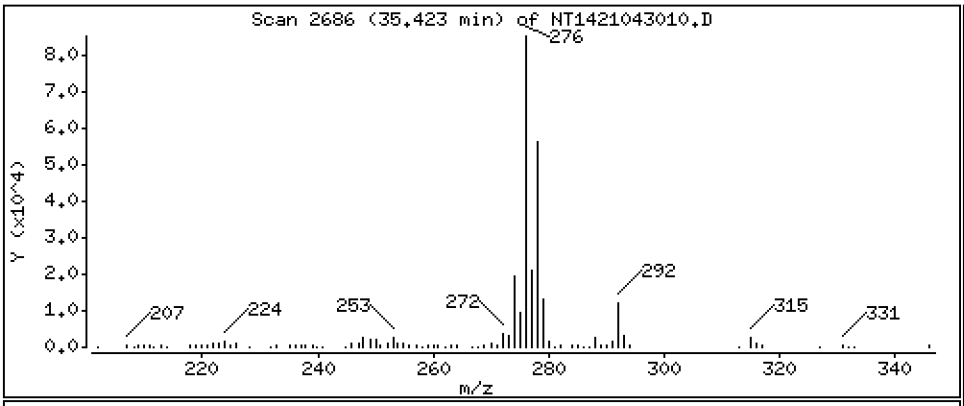
Operator: VTS

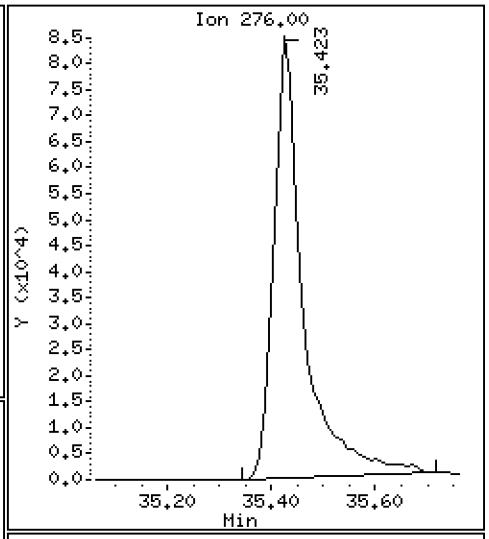
Column phase: Rxi-17Sil MS

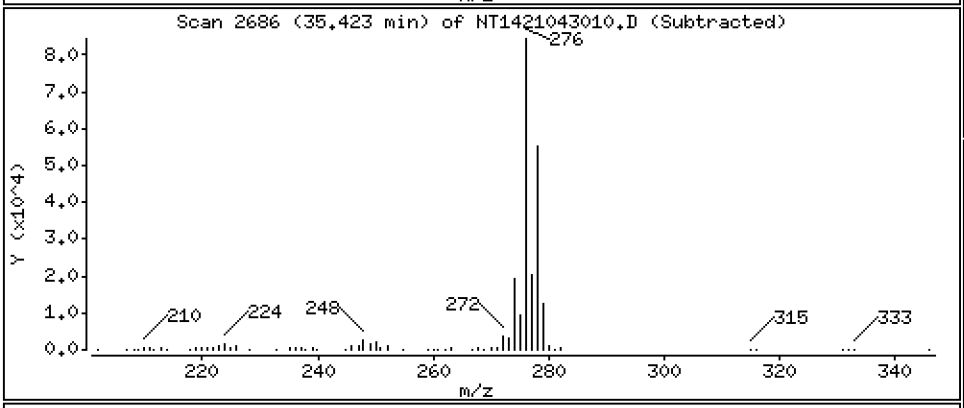
Column diameter: 0.25

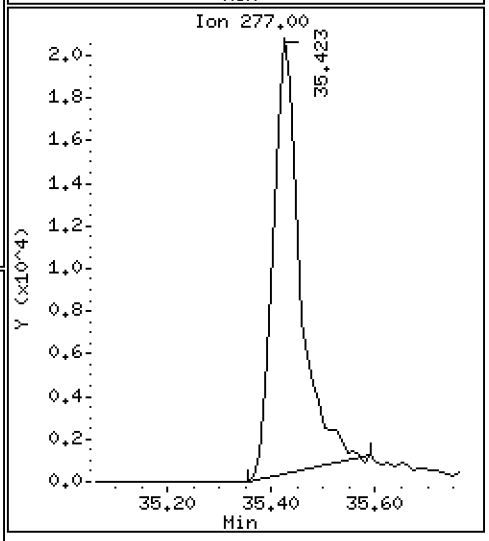
69 Indeno(1,2,3-cd)pyrene

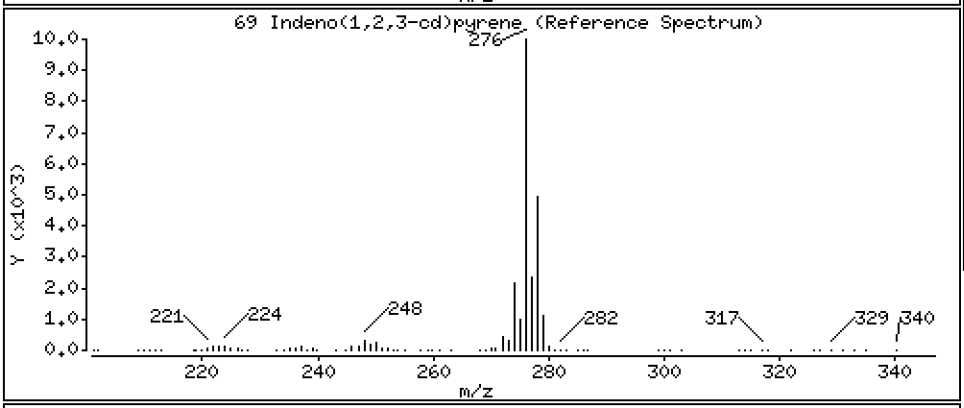
Concentration: 2.236 ug/mL

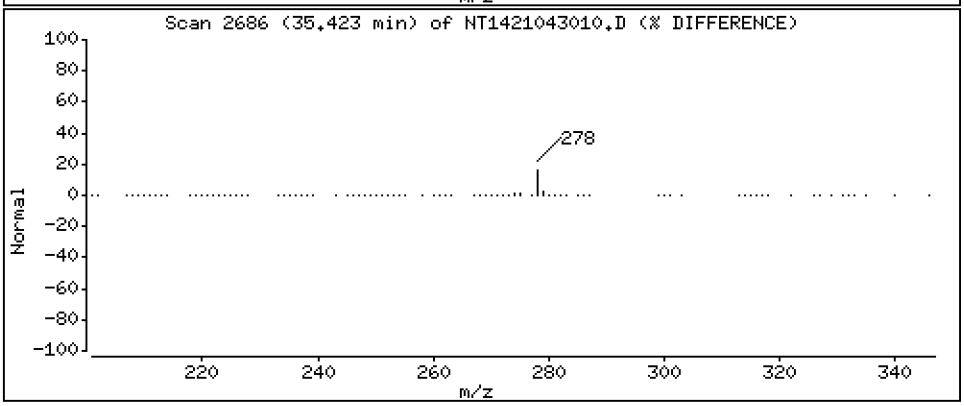


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

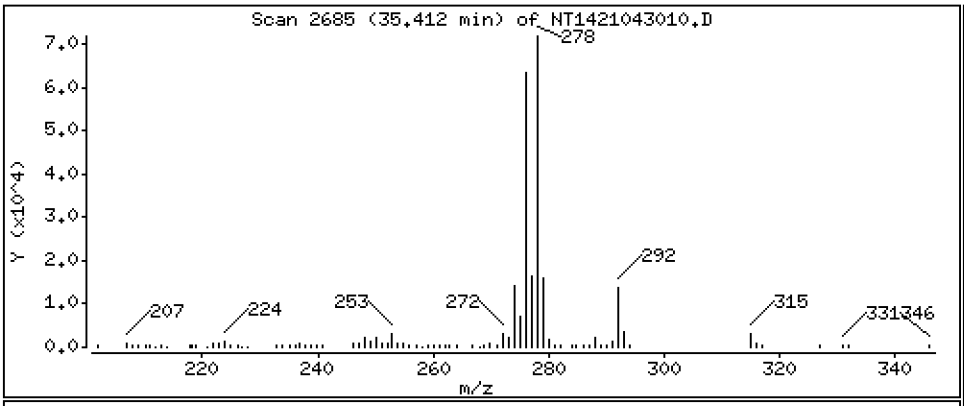
Operator: VTS

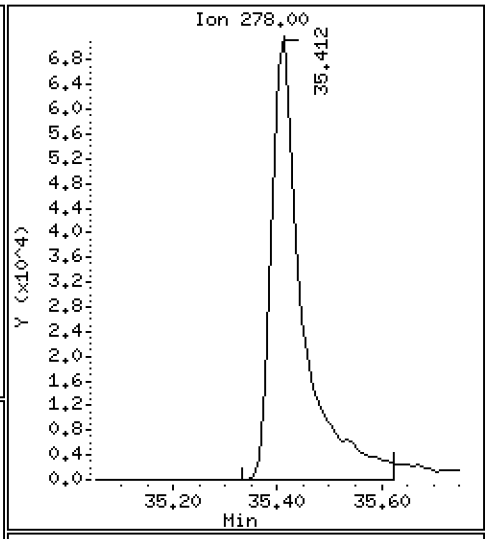
Column phase: Rxi-17Sil MS

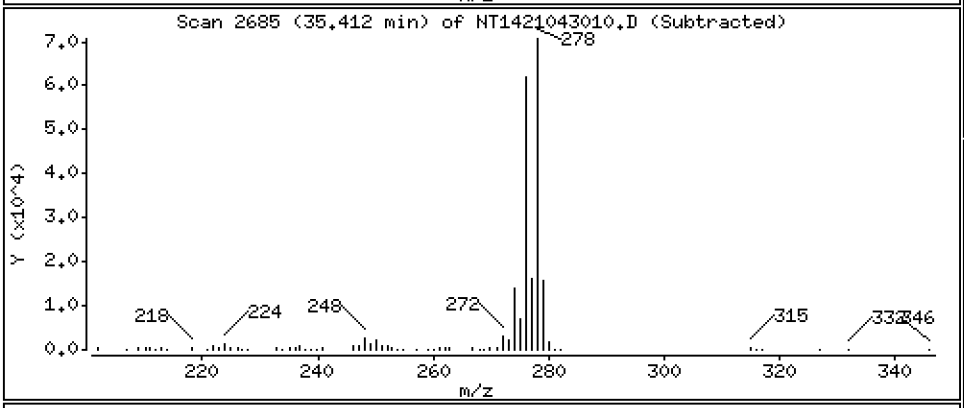
Column diameter: 0.25

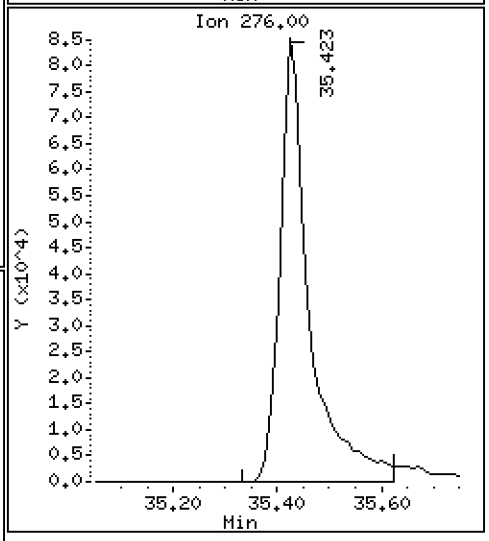
70 Dibenzo(a,h)anthracene

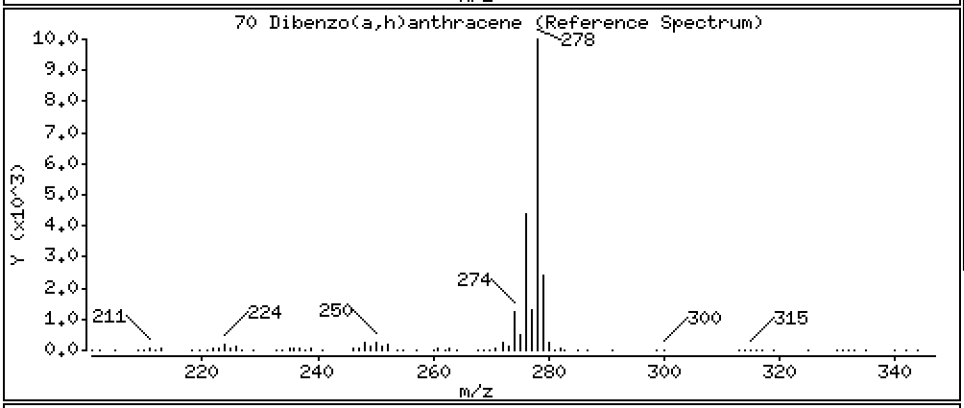
Concentration: 2.291 ug/mL

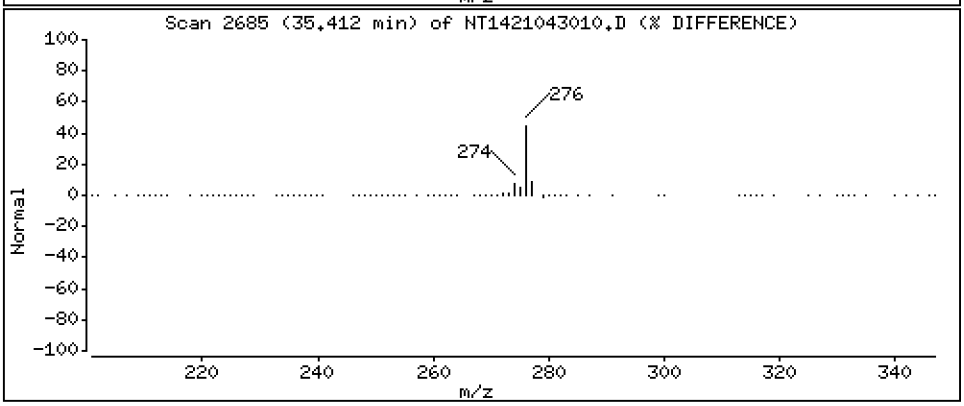


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

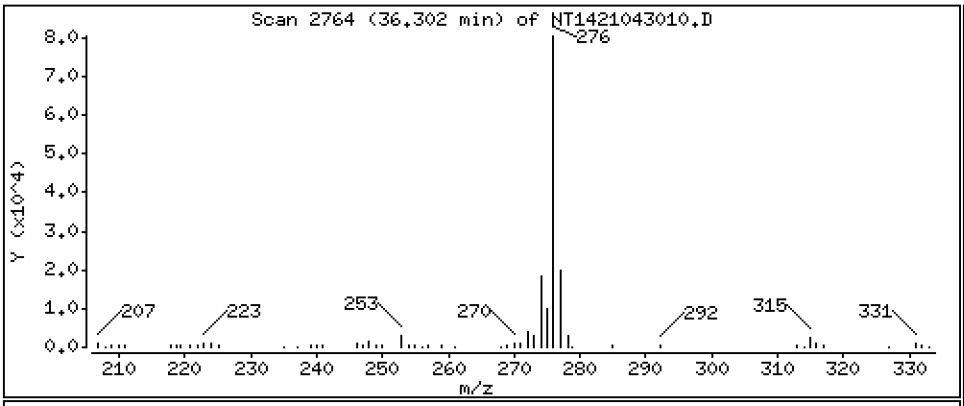
Operator: VTS

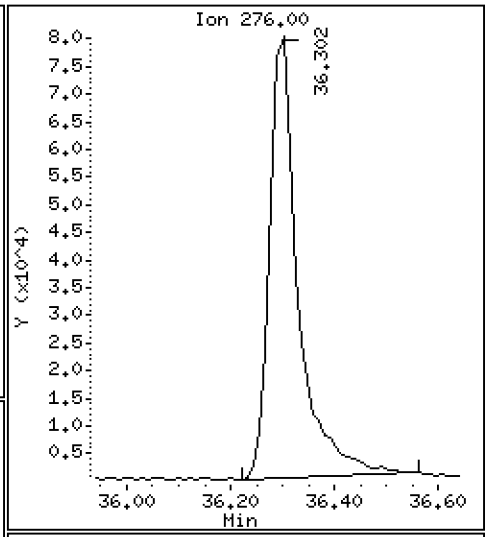
Column phase: Rxi-17Sil MS

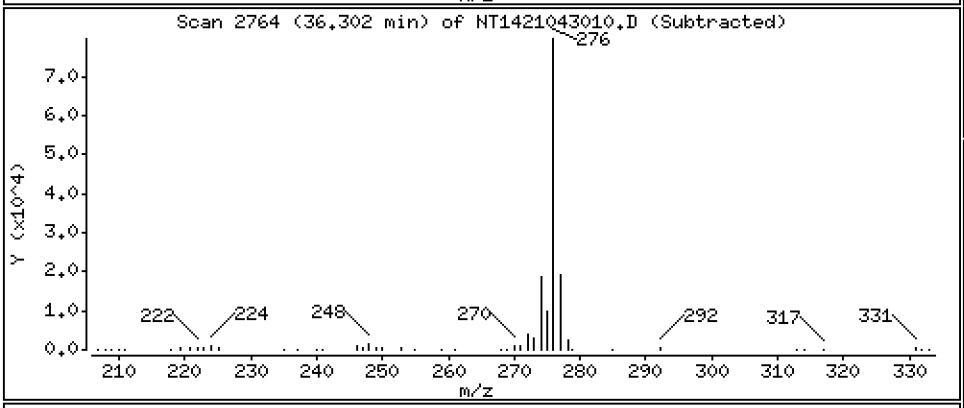
Column diameter: 0.25

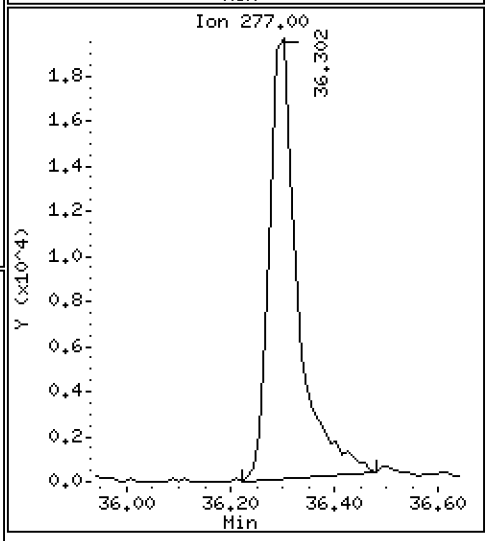
74 Benzo(g,h,i)perylene

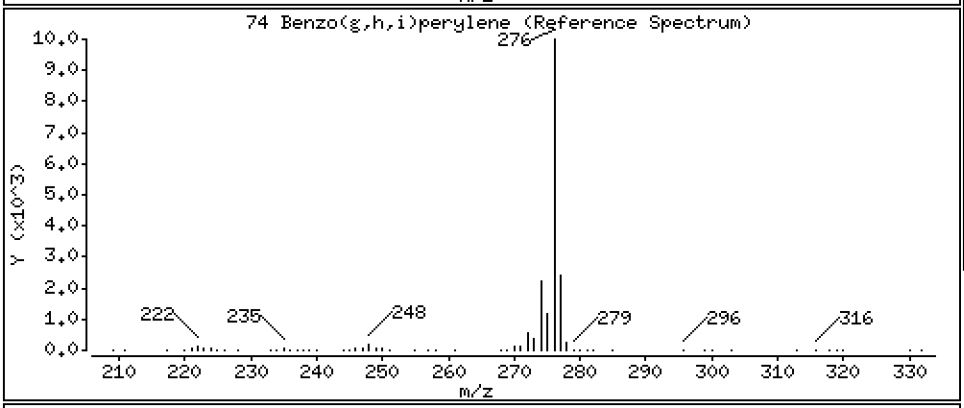
Concentration: 2.352 ug/mL

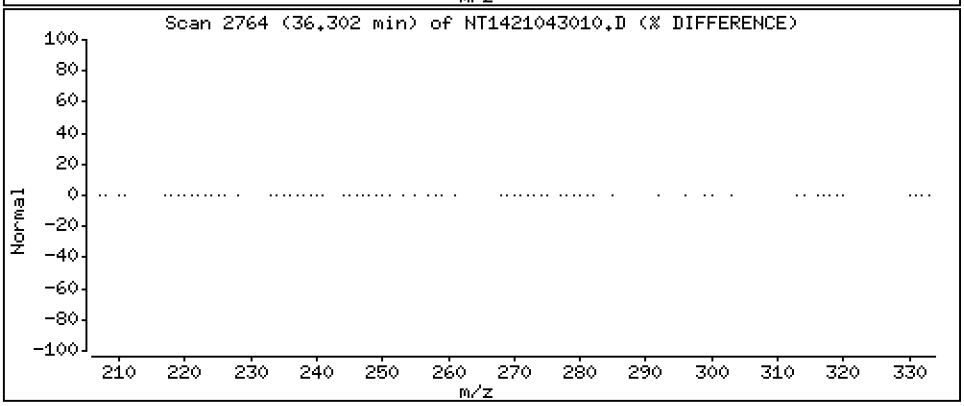


ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D
Lab Smp Id: SJD0305-SCV1
Inj Date : 30-APR-2021 14:41
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-SCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Meth Date : 01-May-2021 07:40 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 9
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 | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 1 trans-Decalin | 138 | 7.045 | 7.035 | (0.375) | 74342 | 2.84314 | 2.843 |
| | 2 cis-Decalin | 138 | 8.155 | 8.165 | (0.434) | 52523 | 2.90966 | 2.910 |
| $ | 6 Naphthalene-d8 | 136 | 11.776 | 11.776 | (0.627) | 604964 | 2.98636 | 2.986(R) |
| | 7 Naphthalene | 128 | 11.836 | 11.846 | (0.630) | 573337 | 2.78250 | 2.783 |
| | 12 Benzo(b)thiophene | 134 | 12.295 | 12.295 | (0.655) | 456850 | 2.78683 | 2.787 |
| | 16 2-Methylnaphthalene | 141 | 13.680 | 13.680 | (0.728) | 312811 | 2.84483 | 2.845 |
| | 17 1-methylnaphthalene | 141 | 14.131 | 14.131 | (0.752) | 293934 | 2.82127 | 2.821 |
| | 18 Biphenyl | 154 | 15.317 | 15.317 | (0.815) | 435061 | 2.76462 | 2.765 |
| | 19 2,6-Dimethylnaphthalene | 156 | 15.394 | 15.394 | (0.820) | 305582 | 2.82199 | 2.822 |
| | 20 Acenaphthylene | 152 | 16.955 | 16.955 | (0.903) | 492364 | 2.88930 | 2.889 |
| $ | 21 Acenaphthene-d10 | 164 | 17.252 | 17.241 | (0.918) | 298420 | 3.01695 | 3.017(R) |
| | 22 Acenaphthene | 153 | 17.362 | 17.361 | (0.924) | 329675 | 3.01019 | 3.010 |
| | 23 Dibenzofuran | 168 | 17.735 | 17.735 | (0.944) | 459290 | 2.76760 | 2.768 |
| | 24 1,6,7-Trimethylnaphthalene | 170 | 17.966 | 17.966 | (0.957) | 277803 | 2.92320 | 2.923 |
| * | 25 Fluorene-d10 | 176 | 18.783 | 18.781 | (1.000) | 351020 | 2.00000 | |
| | 26 Fluorene | 166 | 18.885 | 18.883 | (1.005) | 342973 | 2.84375 | 2.844 |
| | 30 Dibenzothiophene | 184 | 21.796 | 21.794 | (1.160) | 423593 | 2.78230 | 2.782 |
| $ | 35 Phenanthrene-d10 | 188 | 22.104 | 22.102 | (0.995) | 446008 | 2.66948 | 2.669(R) |
| | 36 Phenanthrene | 178 | 22.192 | 22.190 | (0.999) | 460265 | 2.46754 | 2.468 |
| * | 250 Anthracene-d10 | 188 | 22.225 | 22.223 | (1.000) | 309177 | 2.00000 | |
| | 37 Anthracene | 178 | 22.291 | 22.289 | (1.003) | 428535 | 2.49230 | 2.492 |
| | 42 Carbazole | 167 | 23.566 | 23.565 | (1.060) | 338612 | 2.34287 | 2.343 |
| | 43 1-Methylphenanthrene | 192 | 24.017 | 24.015 | (1.081) | 293776 | 2.59400 | 2.594 |
| | 44 Fluoranthene | 202 | 25.996 | 25.994 | (1.170) | 436345 | 2.63403 | 2.634 |
| | 46 Pyrene | 202 | 26.843 | 26.841 | (1.208) | 433716 | 2.52654 | 2.527 |
| | 51 Naphthobenzothiophene | 234 | Compound Not Detected. | | | | | |
| | 55 Benzo(a)anthracene | 228 | 29.971 | 29.964 | (0.907) | 342259 | 2.27793 | 2.278 |
| $ | 56 Chrysene-d12 | 240 | 30.095 | 30.087 | (0.911) | 337659 | 2.82827 | 2.828(RM) |
| | 57 Chrysene | 228 | 30.163 | 30.166 | (0.913) | 394981 | 2.57401 | 2.574 |
| | 62 Benzo(b)fluoranthene | 252 | 32.393 | 32.386 | (0.980) | 324344 | 2.32564 | 2.326 |
| | 63 Benzo(k)fluoranthene | 252 | 32.438 | 32.430 | (0.982) | 391530 | 2.30379 | 2.304(M) |
| | 293 Benzo(j)fluoranthene | 252 | 32.494 | 32.498 | (0.983) | 393189 | 2.51567 | 2.516(M) |
| | 246 Total Benzofluoranthenes | 252 | 32.494 | 32.497 | (0.983) | 1066161 | 6.96004 | 6.960(M) |

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

## QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043010.D
Lab Smp Id: SJD0305-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1421043010.D

Lab ID: SJD0305-SCV1
nt14.i,  20210430.b\ALKYLPNA.m,    30-APR-2021 14:41

| RT | CO-ELUTION COMPOUNDS |
|---|---|
| NO CO-ELUTIONS | |

Quant Method: ICAL

RRT CHECK

| RRT | CCV RRT | DELTA | COMPOUND |
|---|---|---|---|
| NONE | | | |

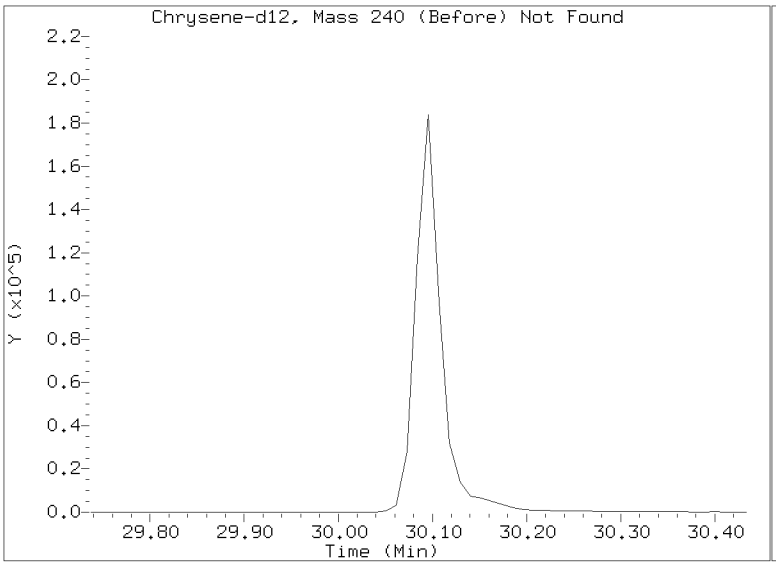
RRT check based on Ccal File: NT1421043009.D

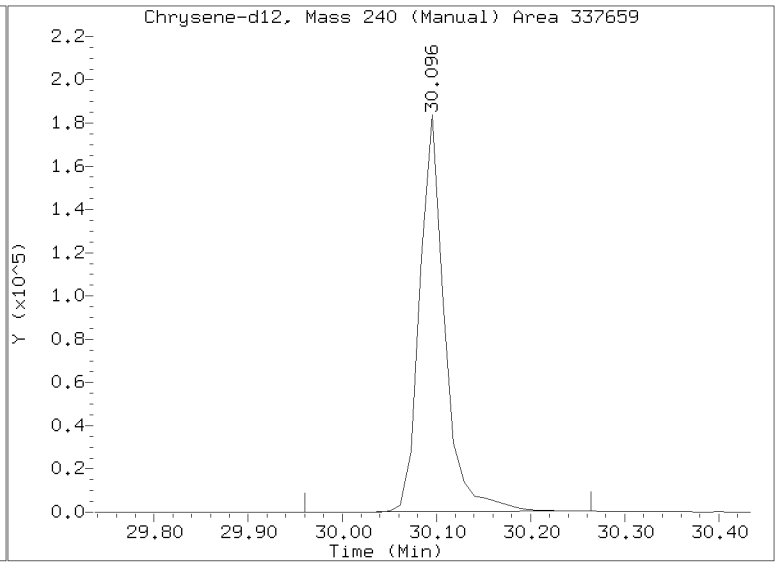
On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

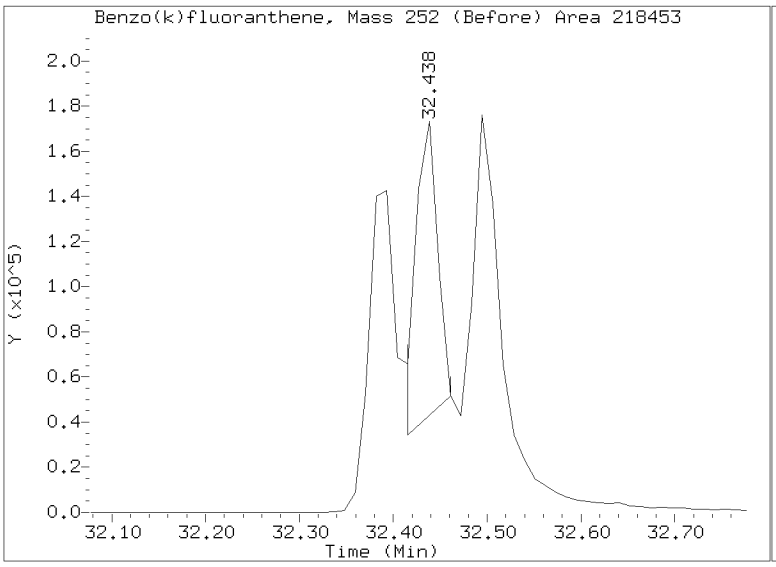
* Only compounds listed in the work order have been verified by the analyst *

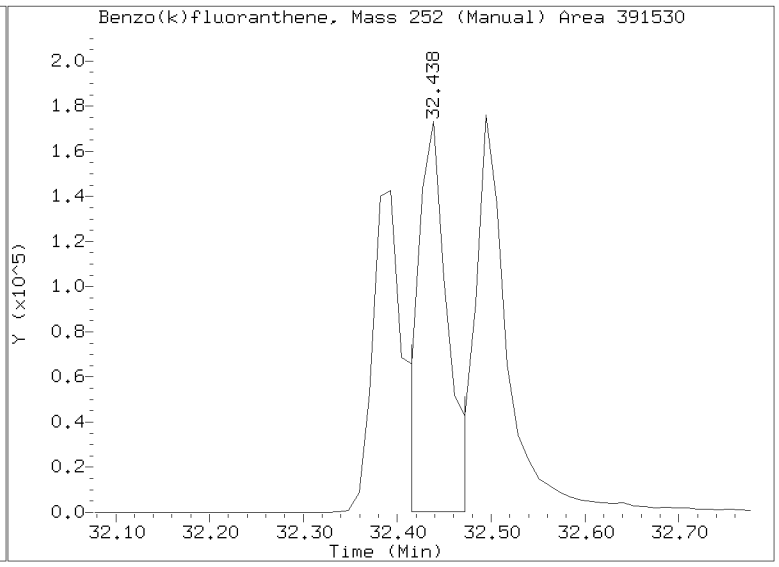
# Quant Ion Manual Peak Adjustment Report

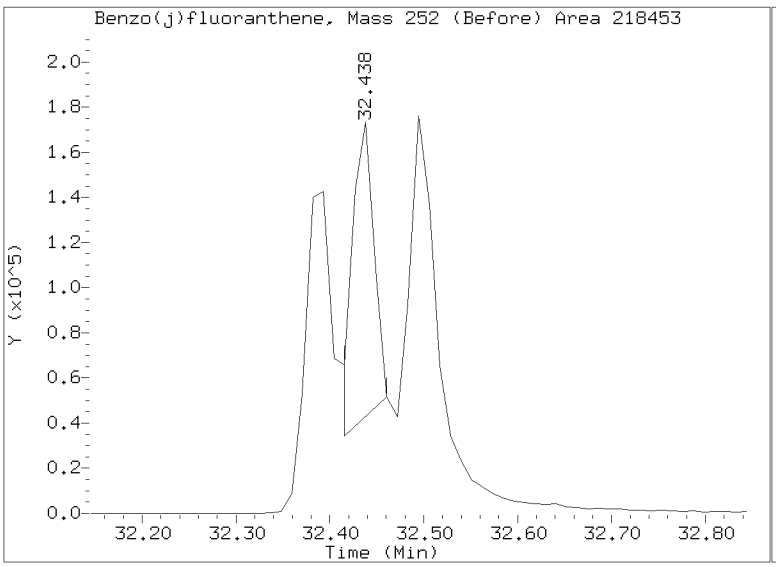
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D
Injection Date: 30-APR-2021 14:41
Lab ID:SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18

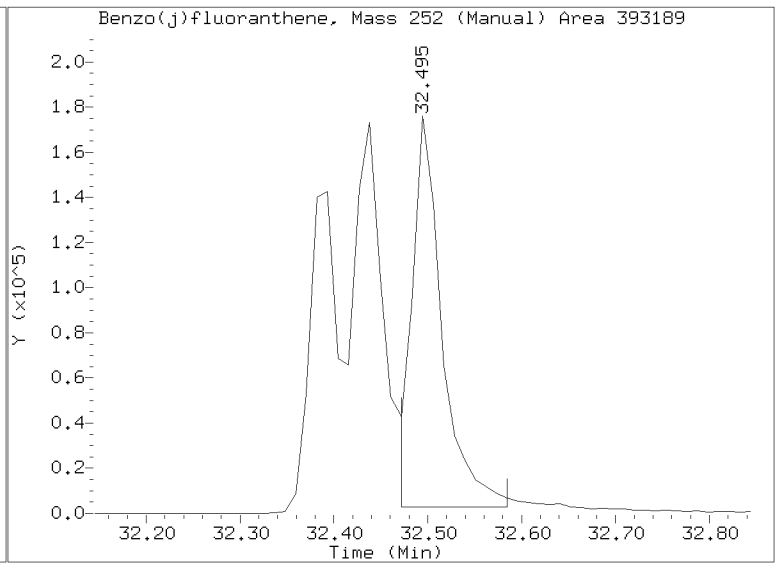


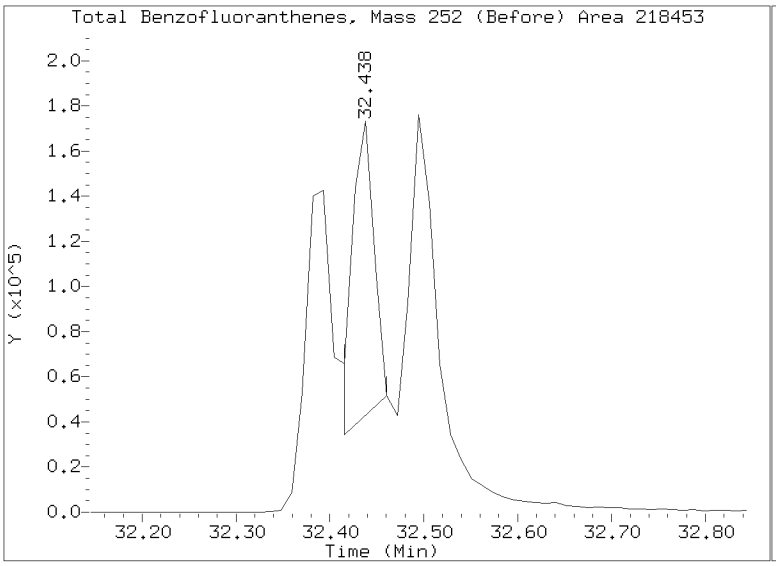



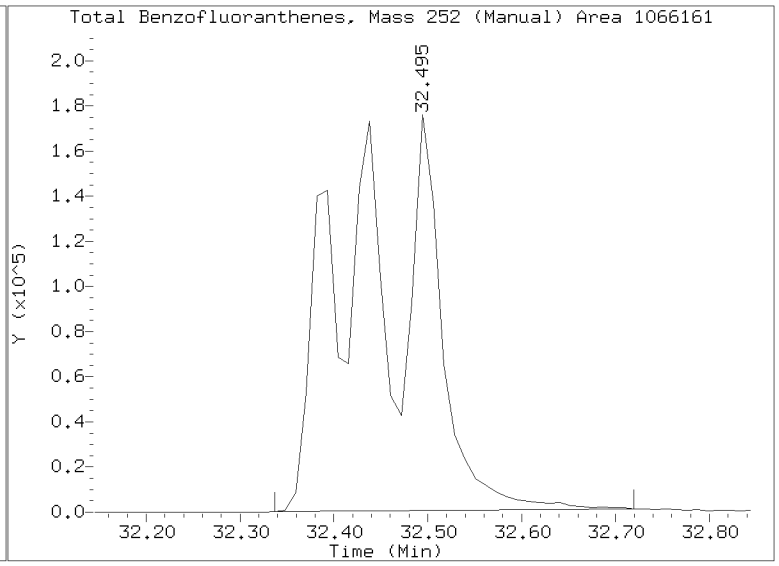



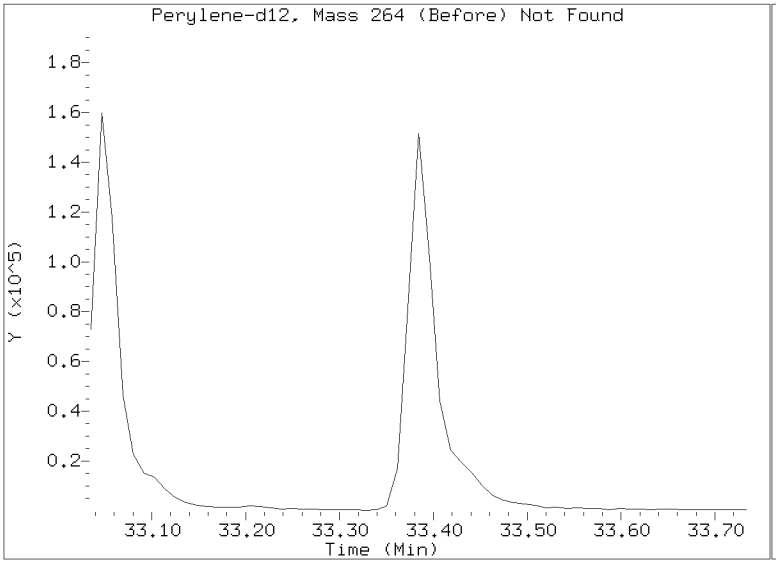



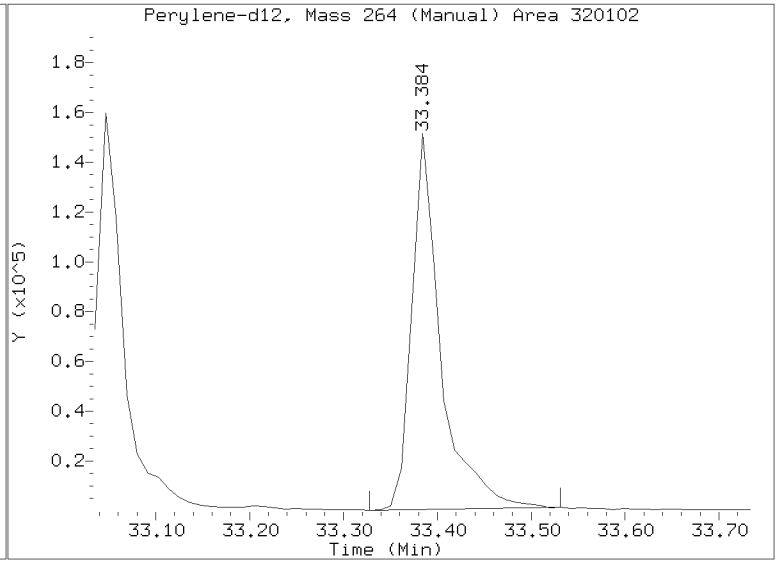
# Quant Ion Manual Peak Adjustment Report

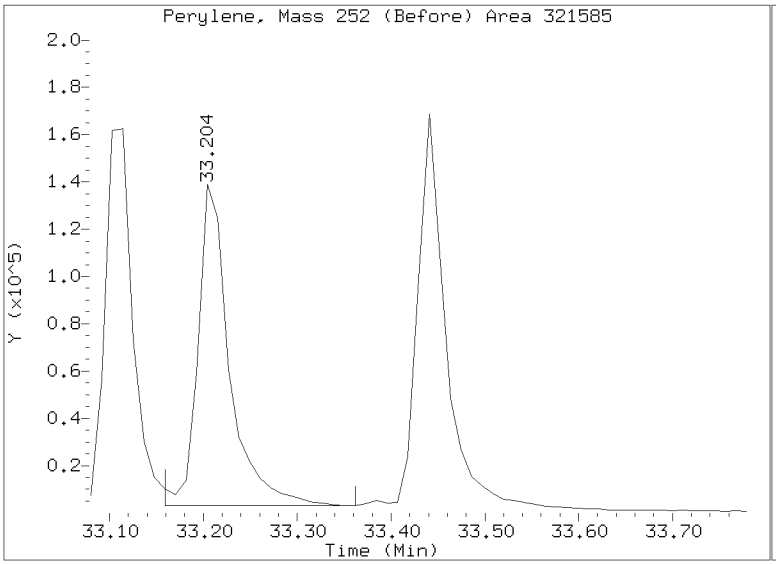
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D
Injection Date: 30-APR-2021 14:41
Lab ID:SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18

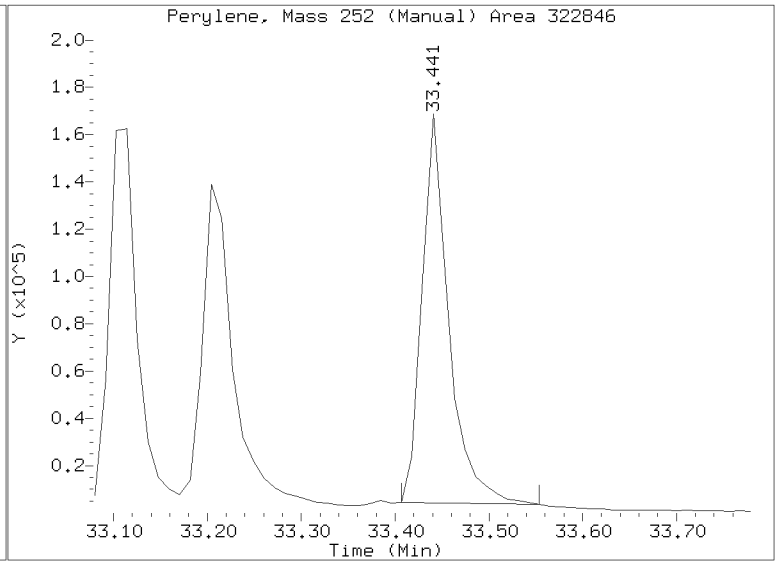


# Quant Ion Manual Peak Adjustment Report

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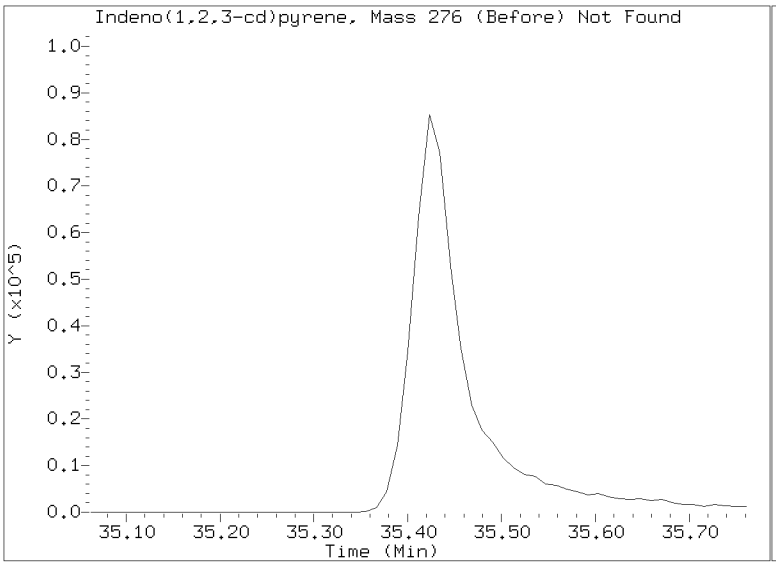
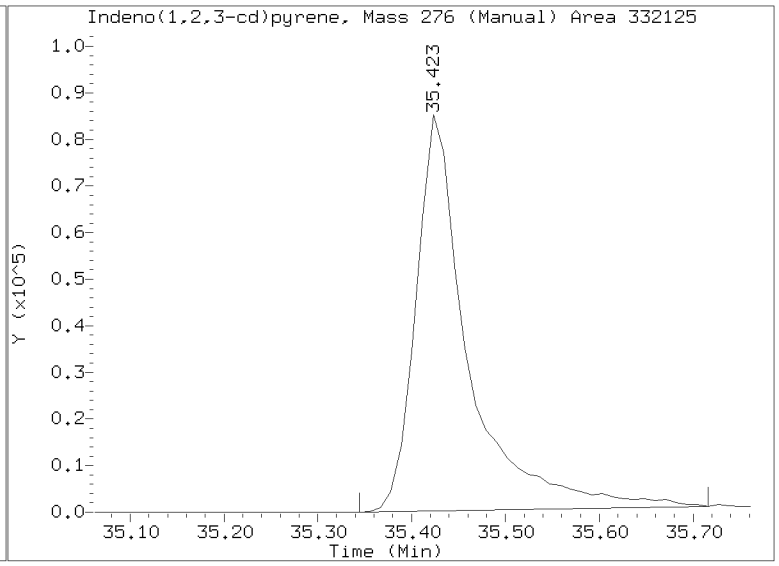
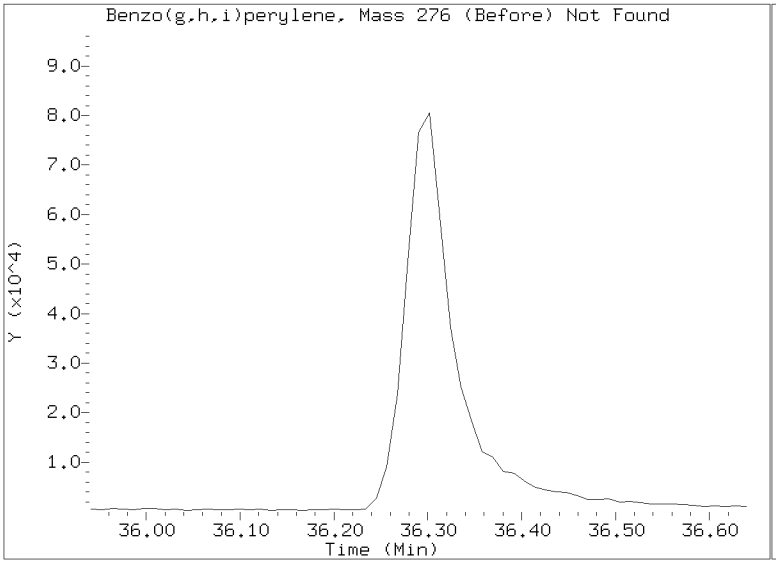
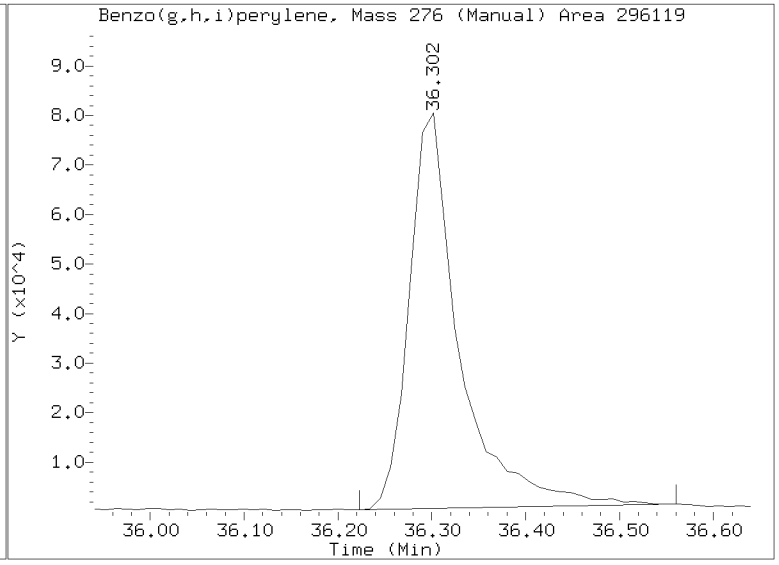
Lab ID:SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18



# SECOND-SOURCE CALIBRATION VERIFICATION

## EPA 8270E-SIM

**Laboratory:** Analytical Resources, Inc.
**SDG:** 21D0180
**Client:** Anchor QEA, LLC
**Project:** Gasco Siltronic - US Moorings
**Calibration:** DH00073
**Laboratory ID:** SIH0304-SCV1
**Sequence:** SIH0304
**Standard ID:** I004581

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

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Page 1

Date : 27-AUG-2020 15:38

Client ID:

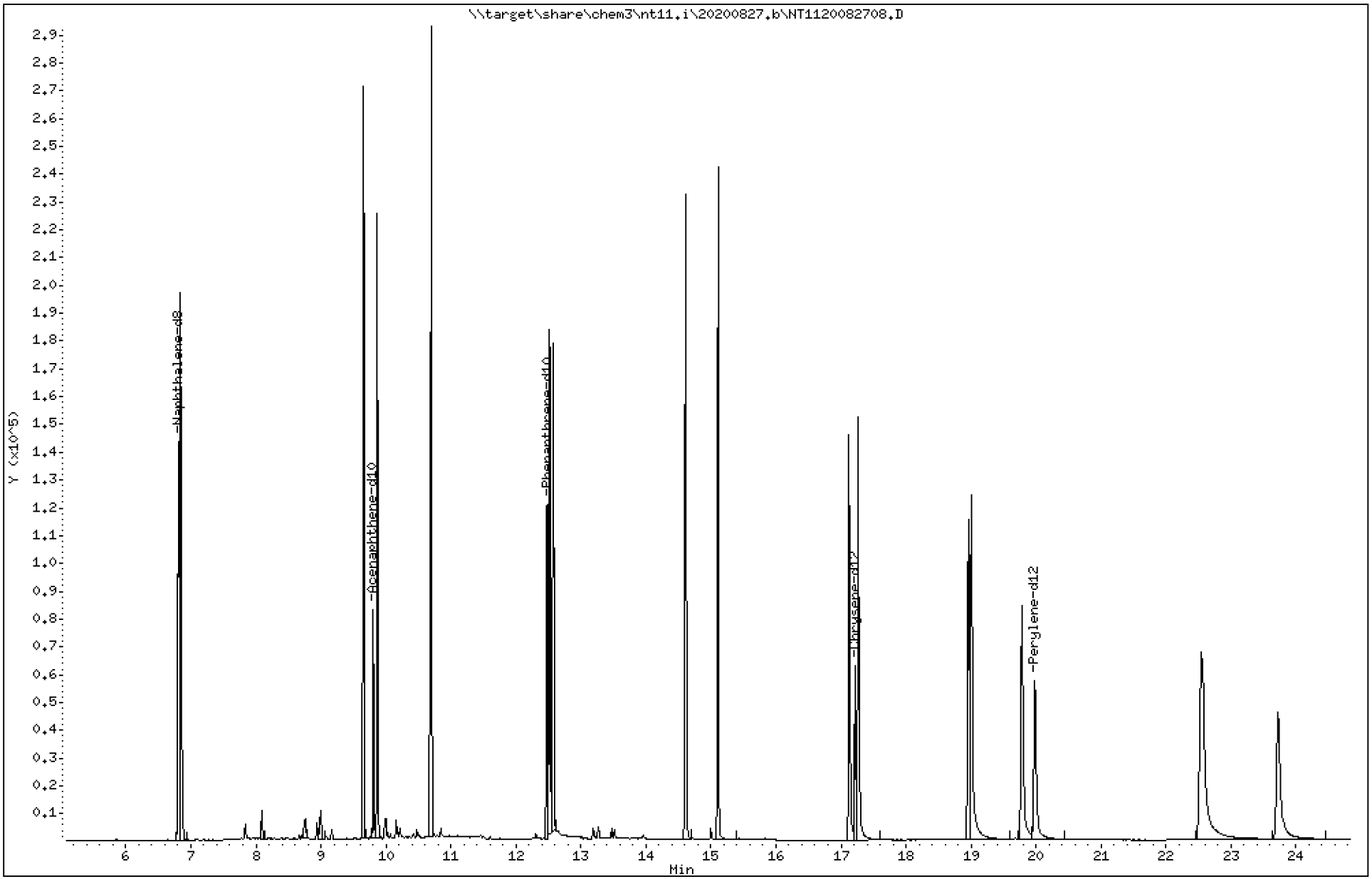
Instrument: nt11.i

Sample Info: SIH0304-SCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25




Revised Report 21D0180 07/07/2021 Page 989 of 1709

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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

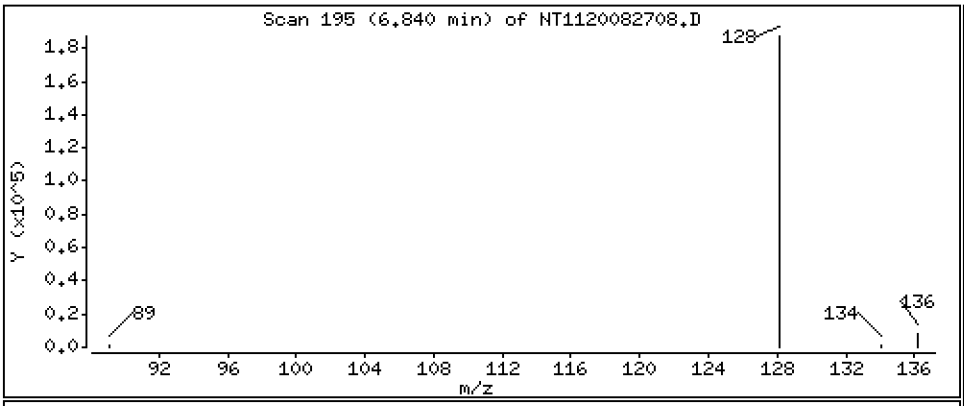
Operator: VTS

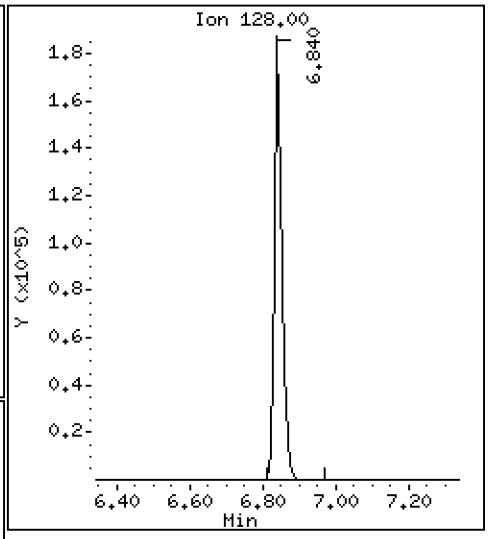
Column phase: Rxi-17Sil MS

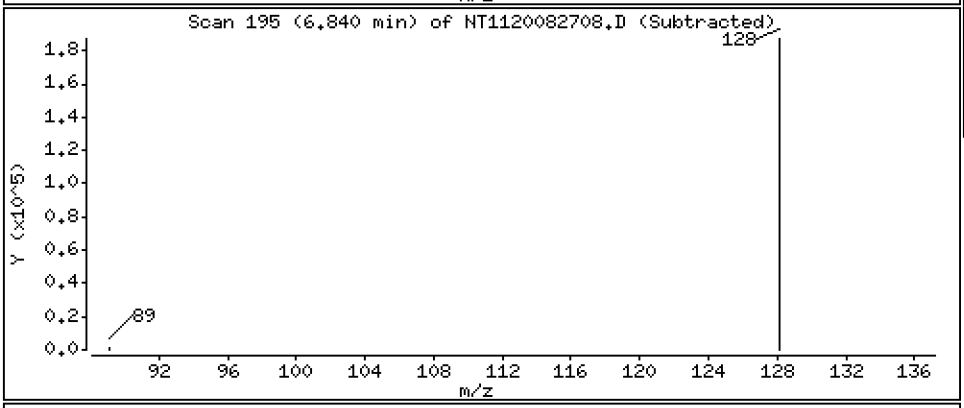
Column diameter: 0.25

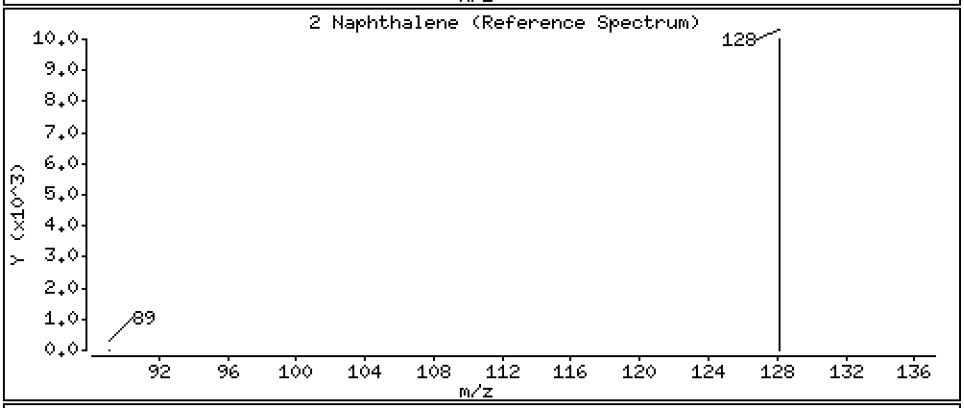
2 Naphthalene

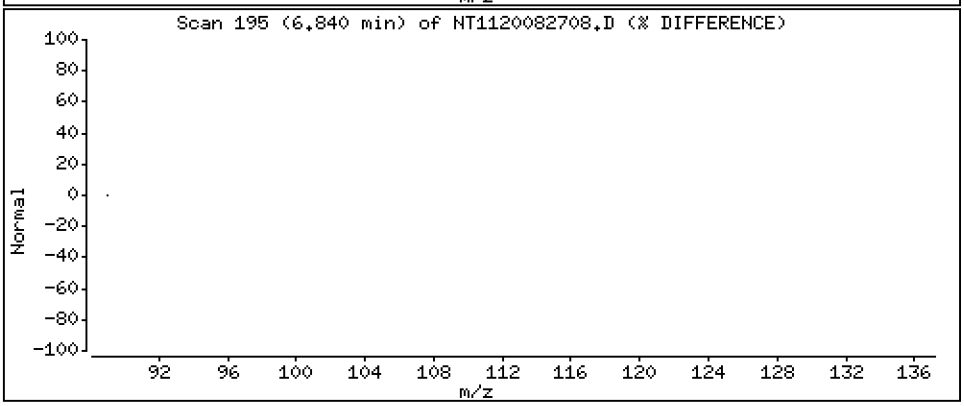
Concentration: 224 ng/mL



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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

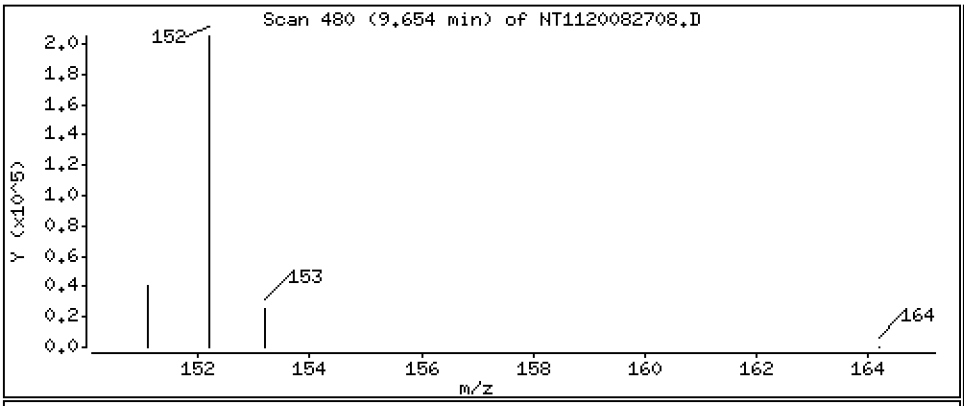
Operator: VTS

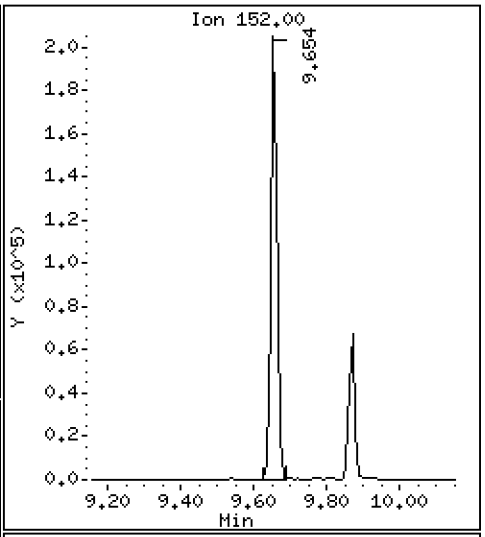
Column phase: Rxi-17Sil MS

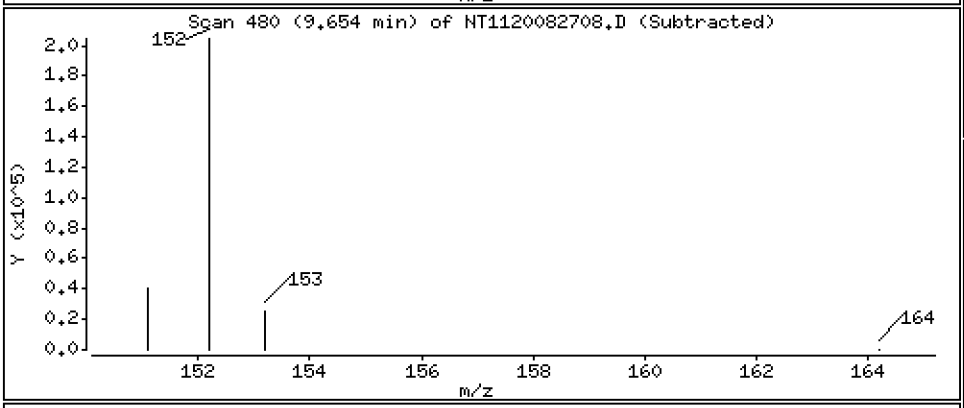
Column diameter: 0.25

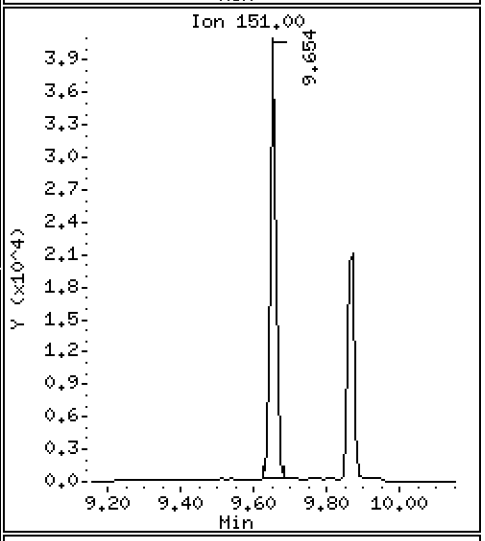
10 Acenaphthylene

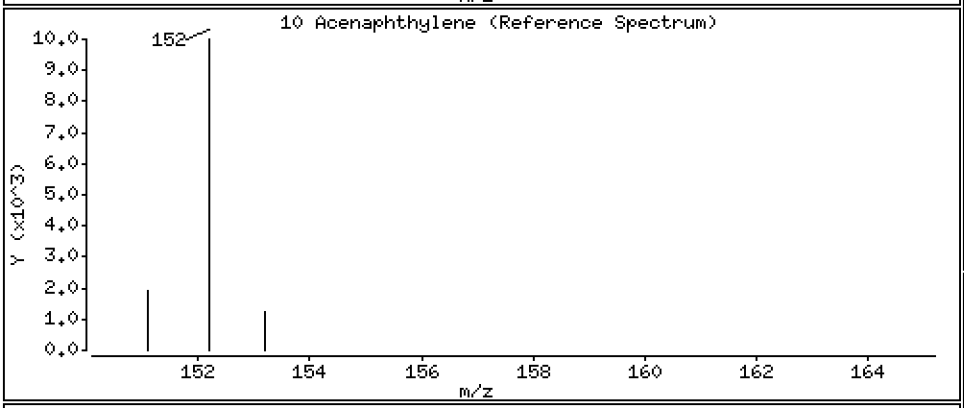
Concentration: 233 ng/mL

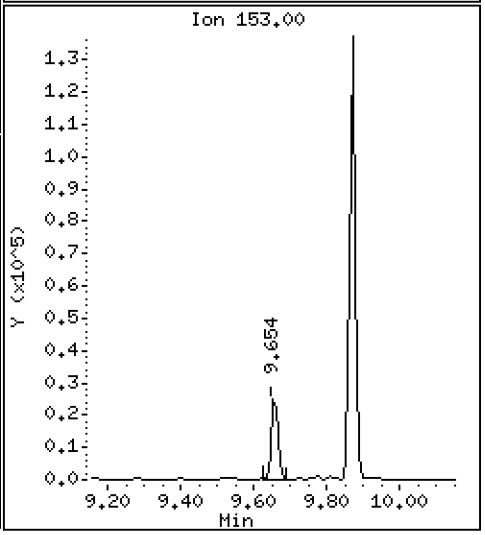


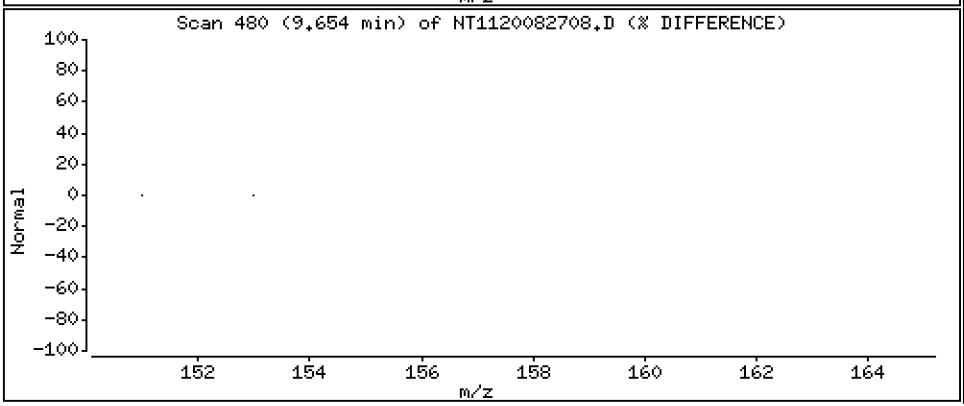



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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

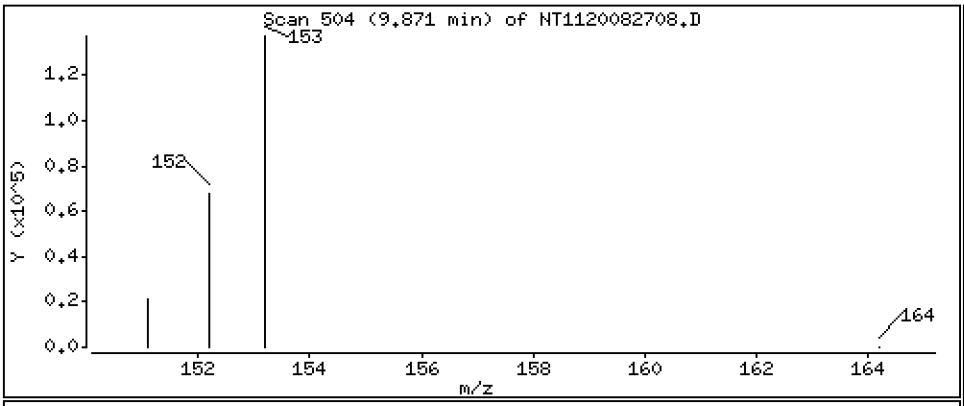
Operator: VTS

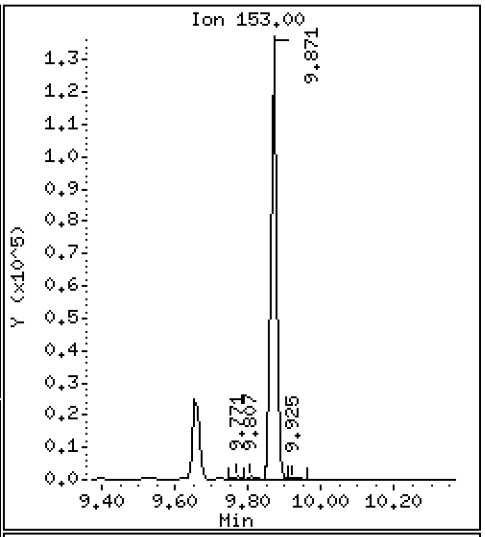
Column phase: Rxi-17Sil MS

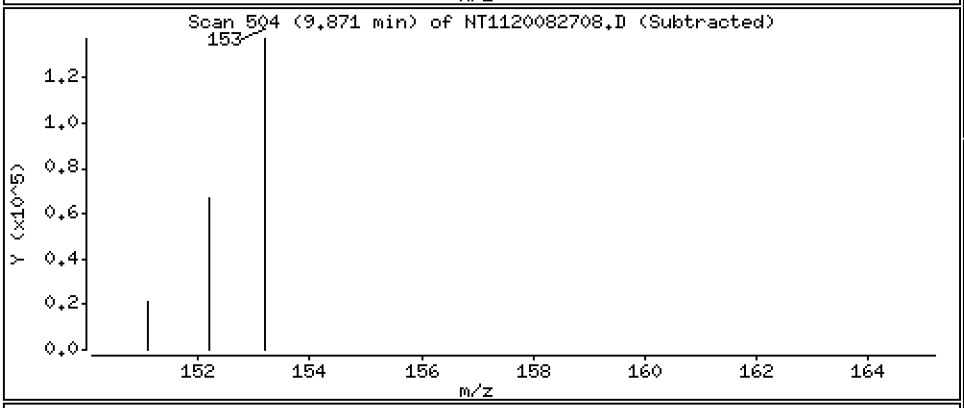
Column diameter: 0.25

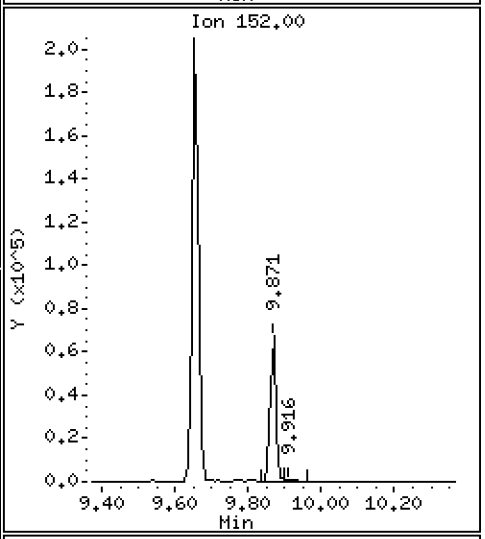
12 Acenaphthene

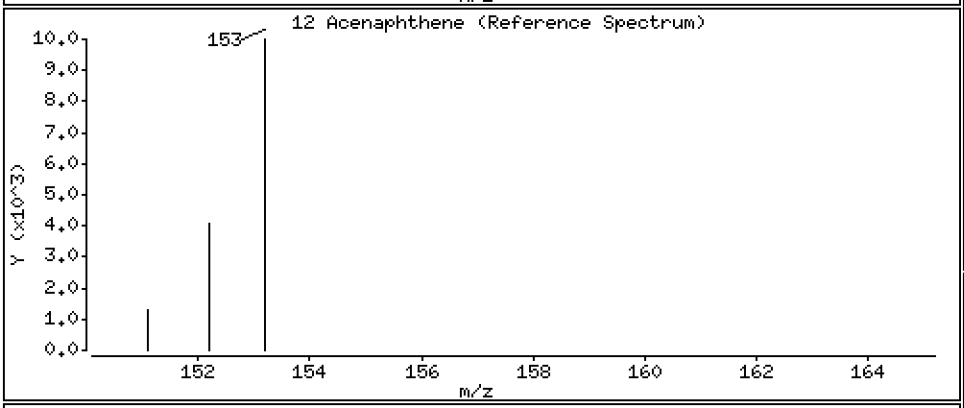
Concentration: 222 ng/mL

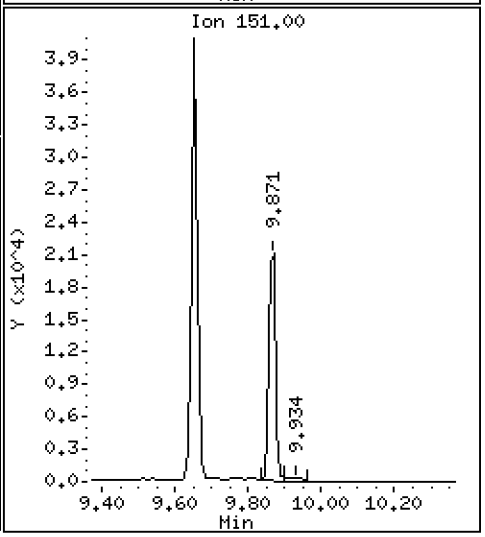


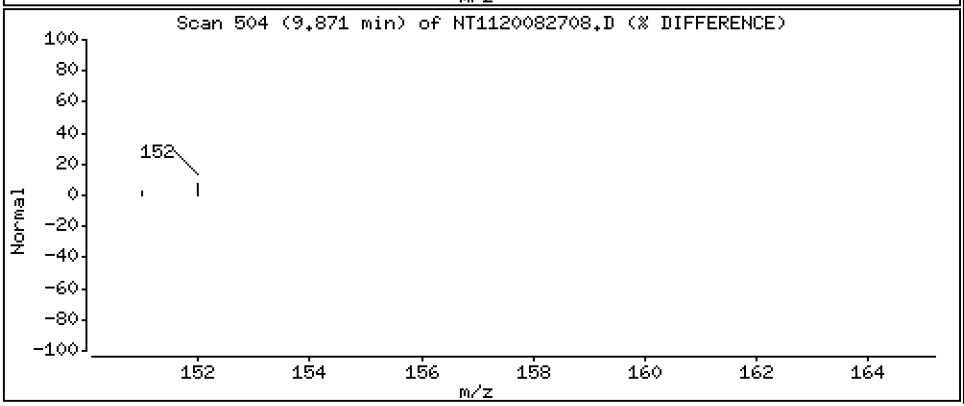



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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

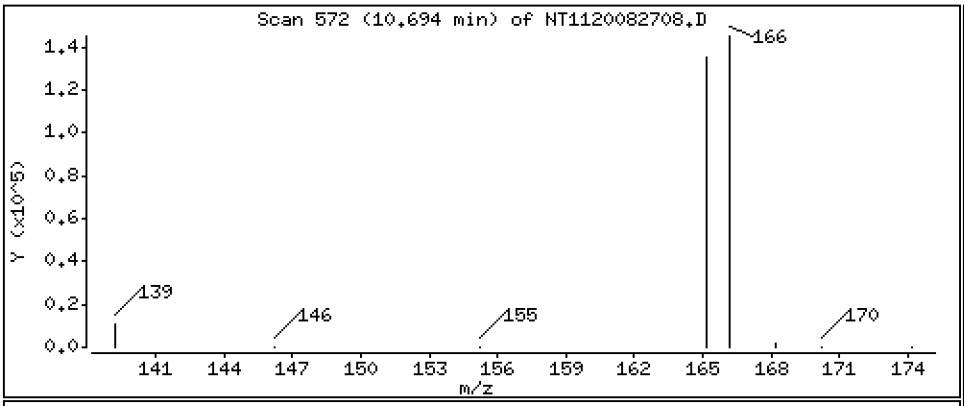
Operator: VTS

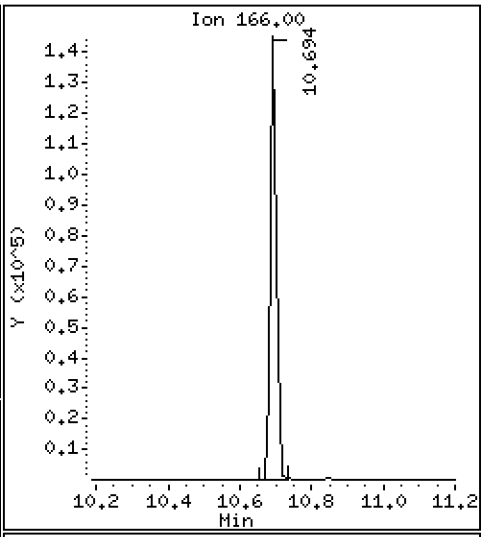
Column phase: Rxi-17Sil MS

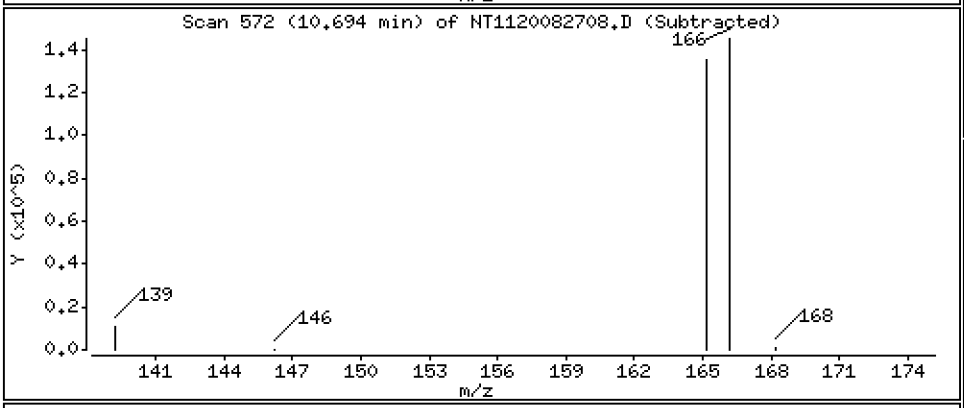
Column diameter: 0.25

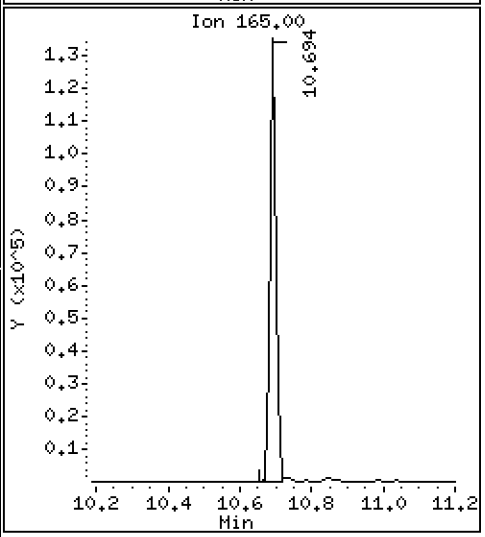
16 Fluorene

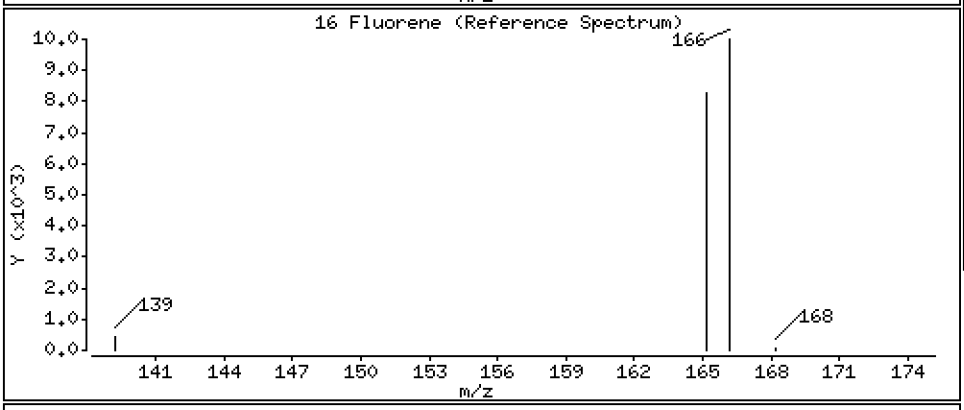
Concentration: 233 ng/mL

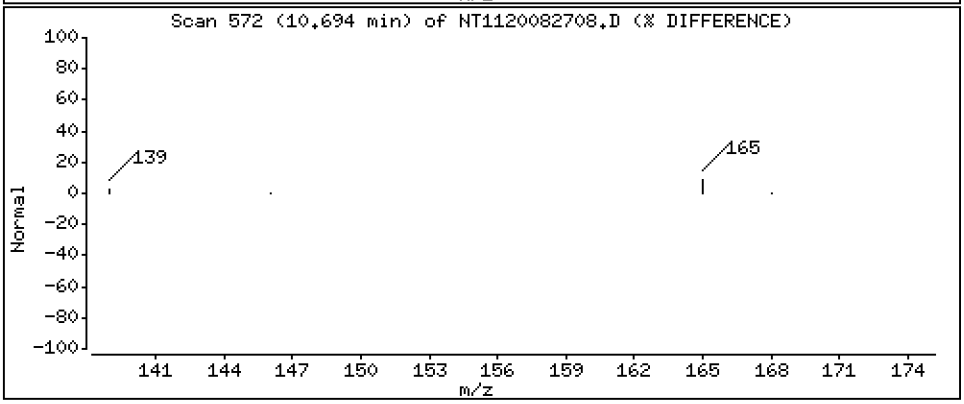


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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

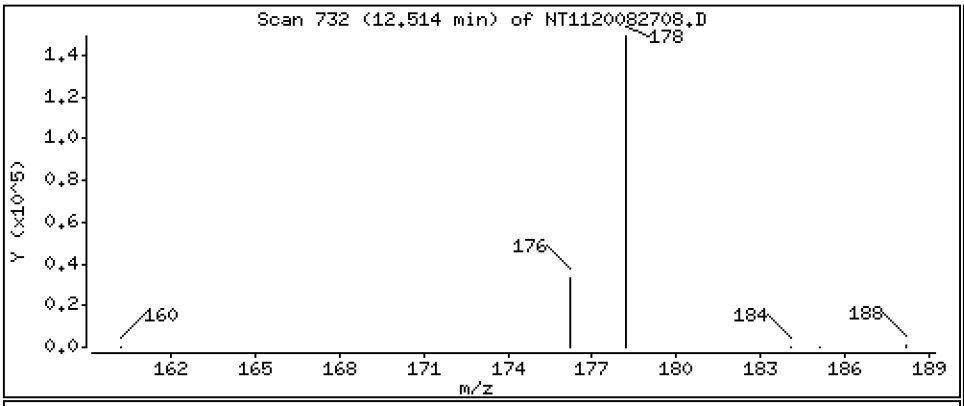
Operator: VTS

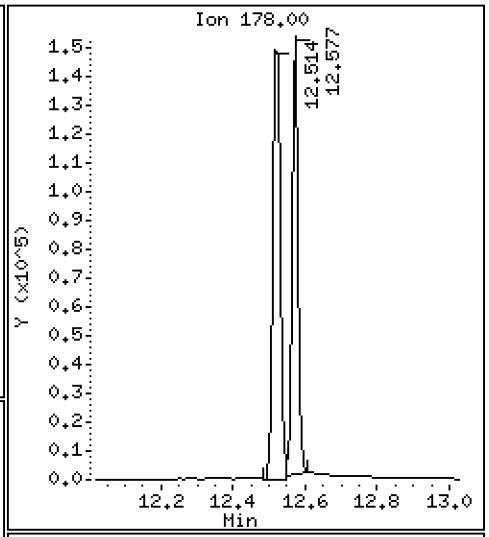
Column phase: Rxi-17Sil MS

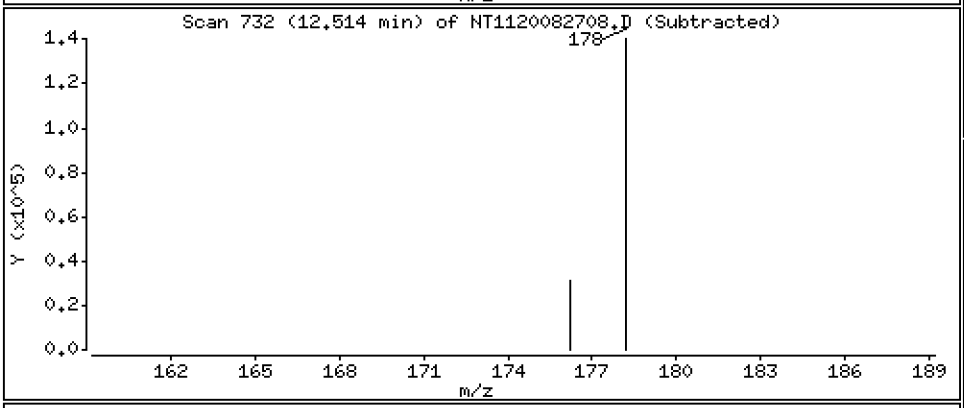
Column diameter: 0.25

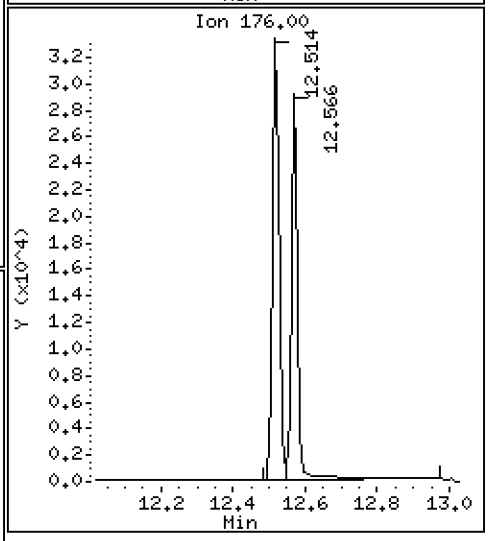
19 Phenanthrene

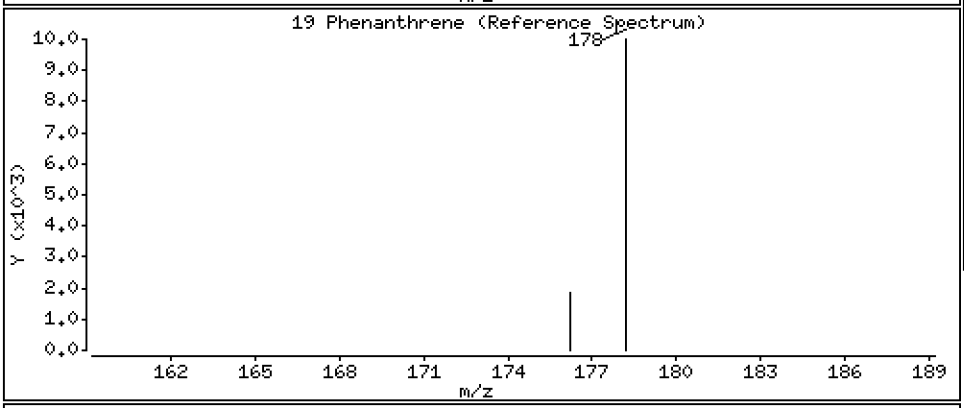
Concentration: 233 ng/mL

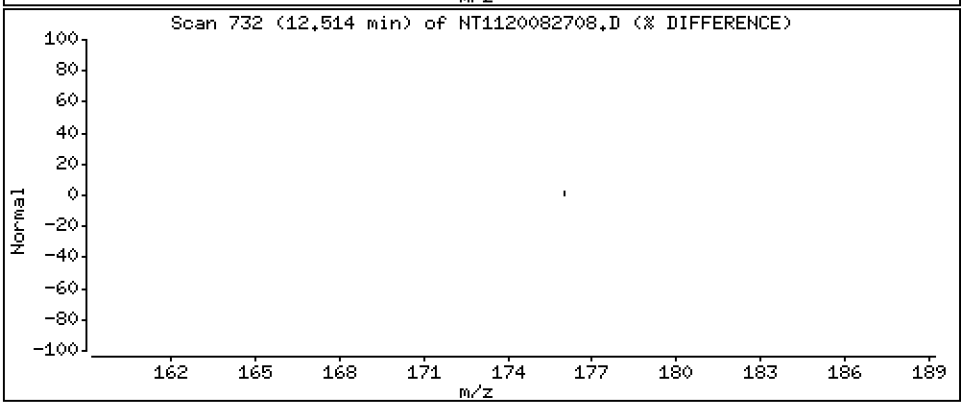


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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

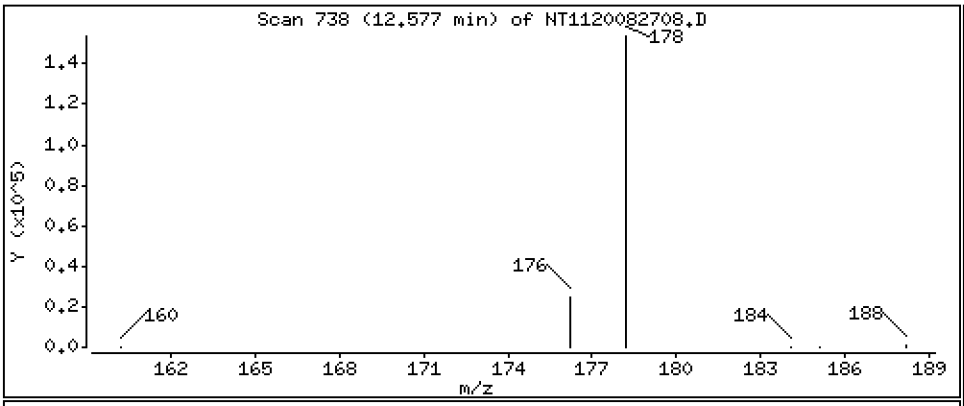
Operator: VTS

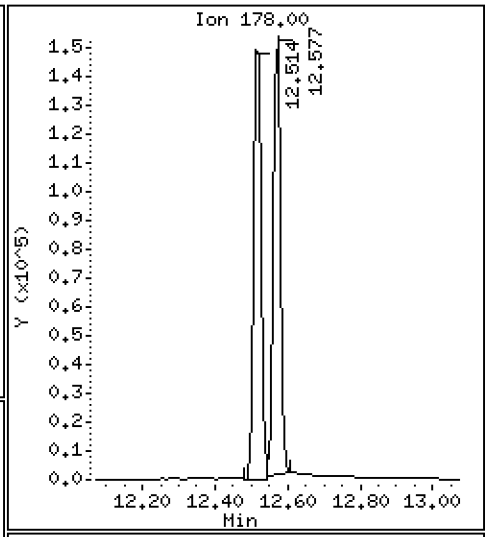
Column phase: Rxi-17Sil MS

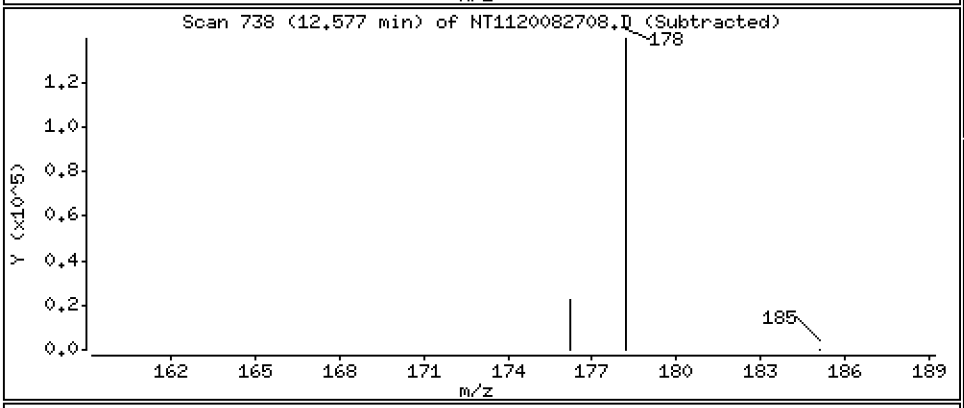
Column diameter: 0.25

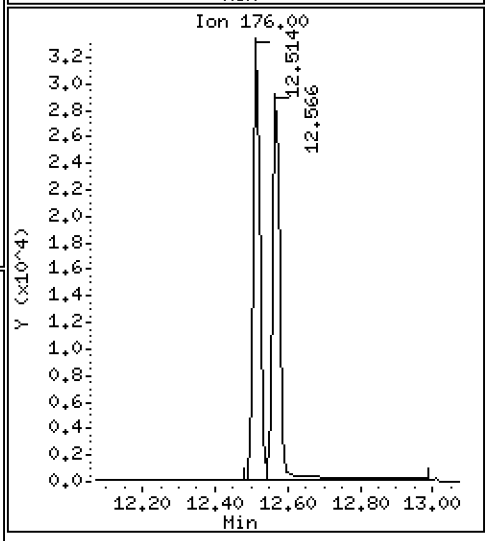
21 Anthracene

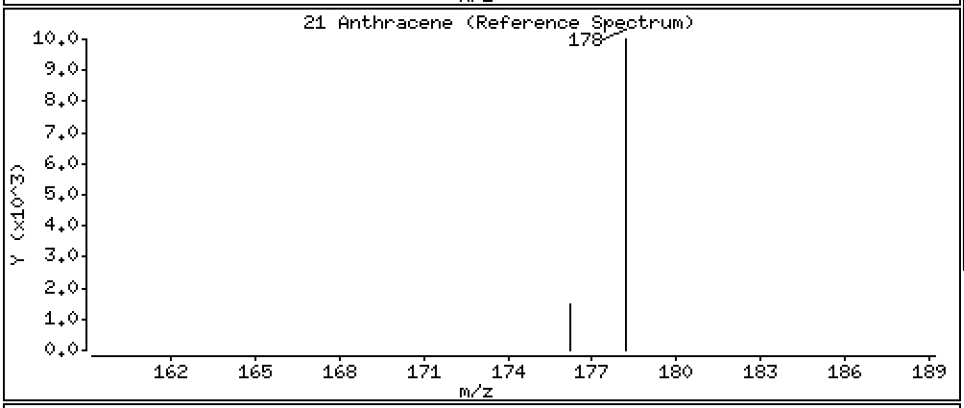
Concentration: 223 ng/mL

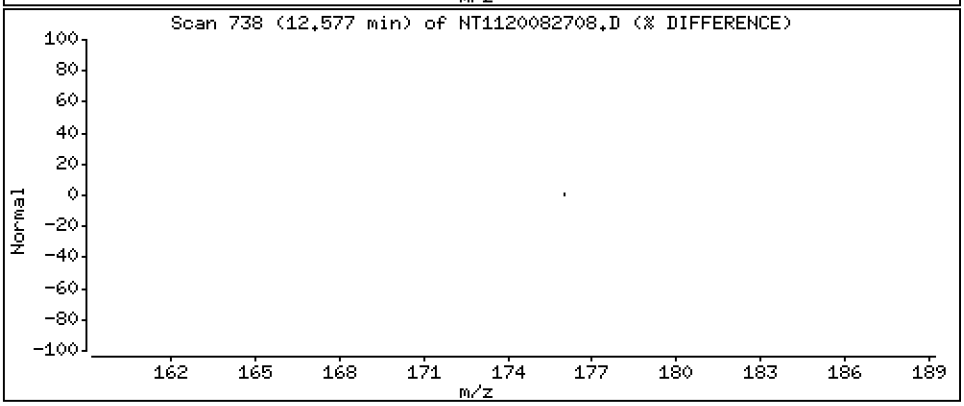


Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

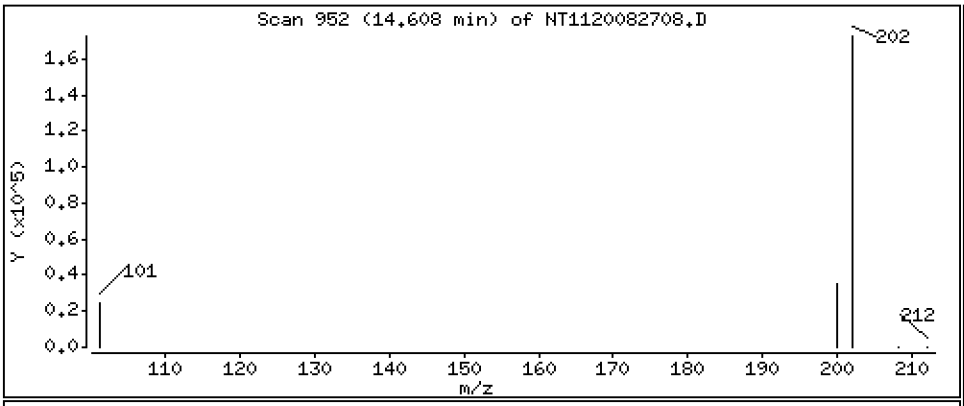
Operator: VTS

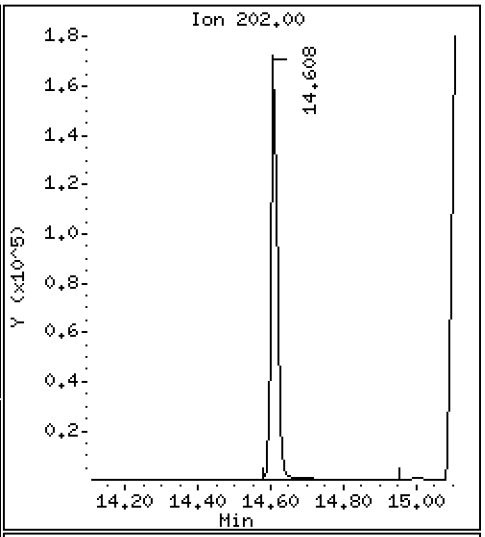
Column phase: Rxi-17Sil MS

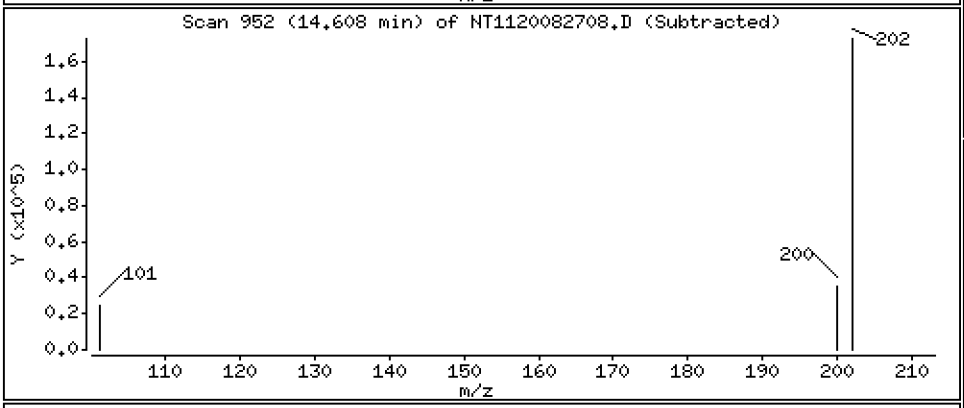
Column diameter: 0.25

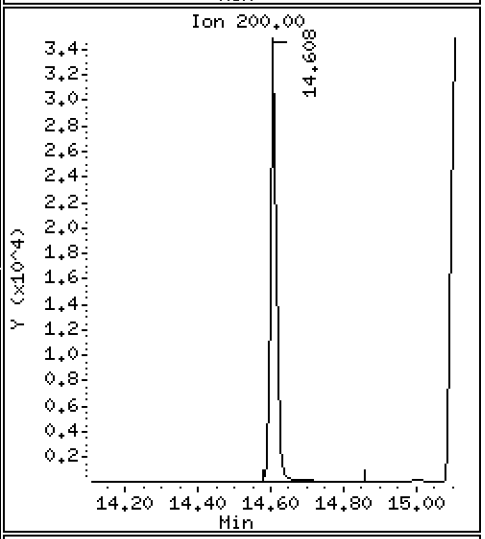
25 Fluoranthene

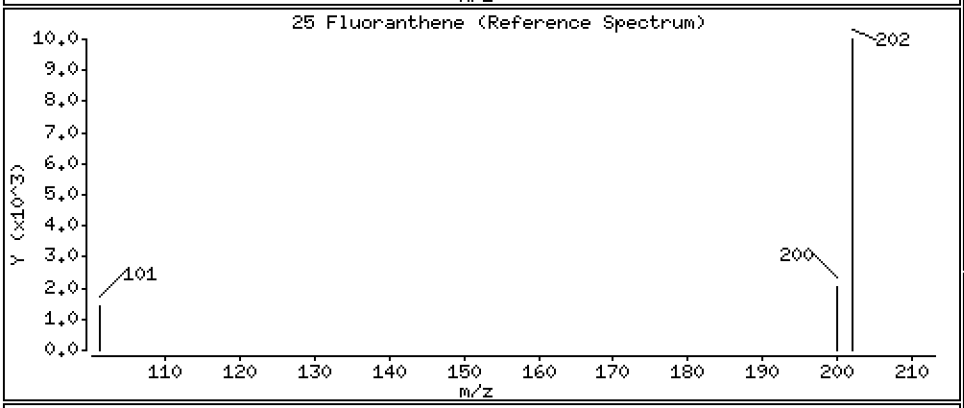
Concentration: 236 ng/mL

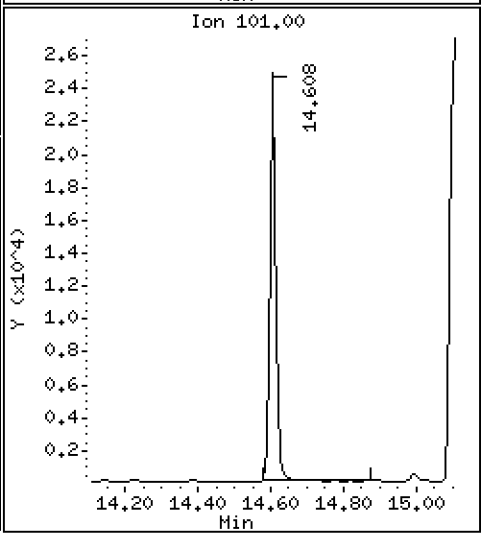


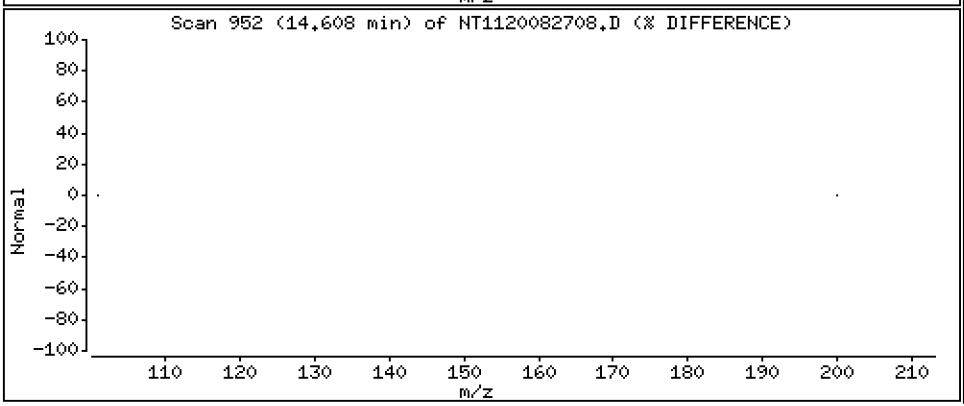



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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

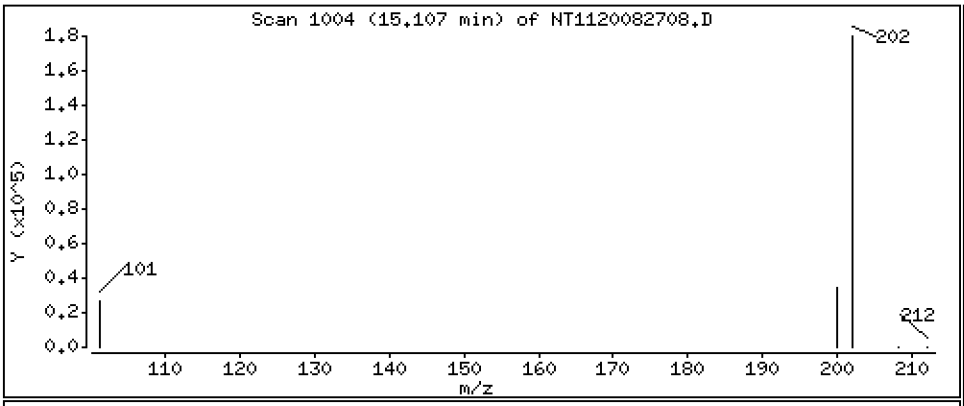
Operator: VTS

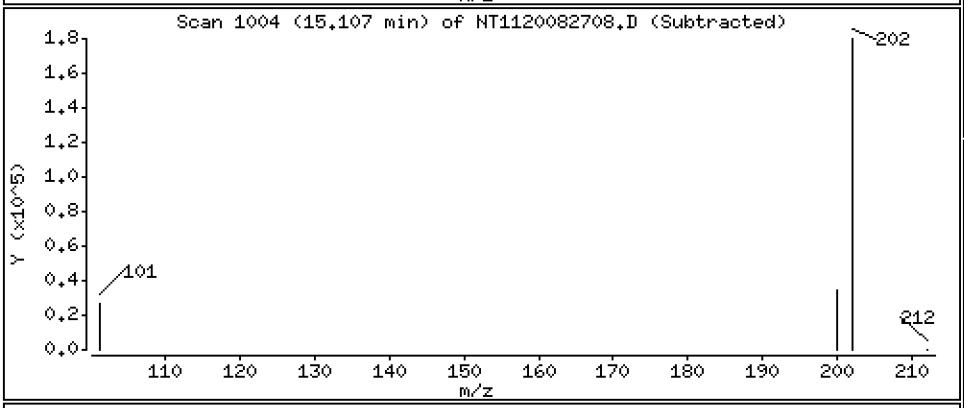
Column phase: Rxi-17Sil MS

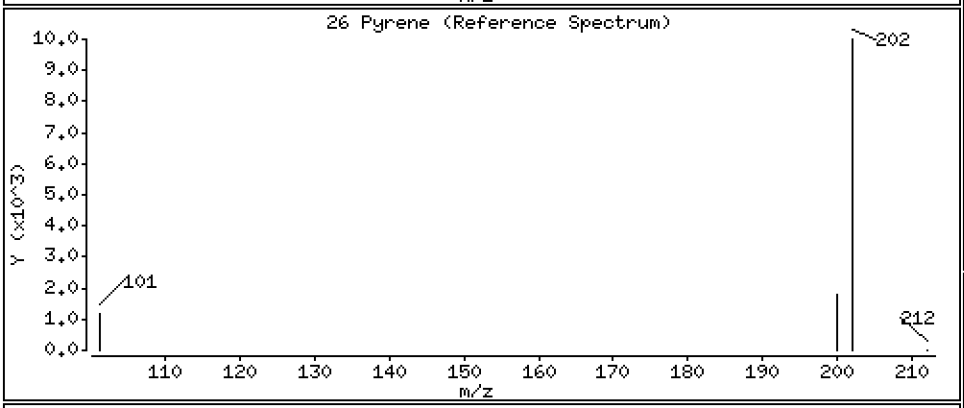
Column diameter: 0.25

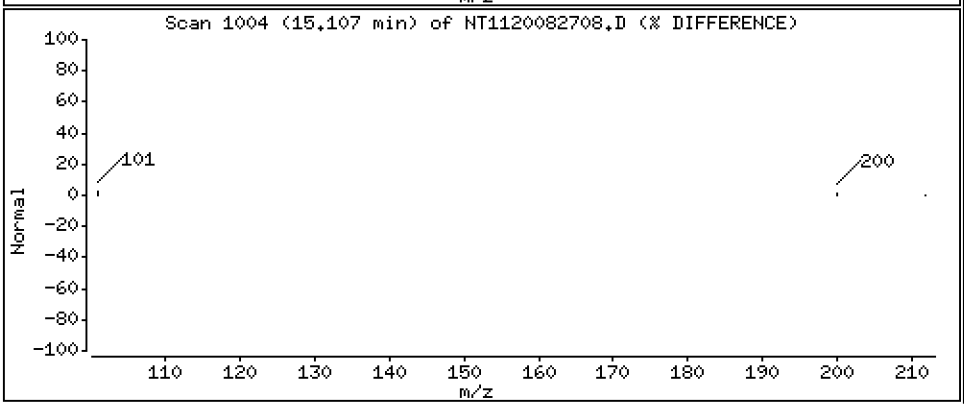
26 Pyrene

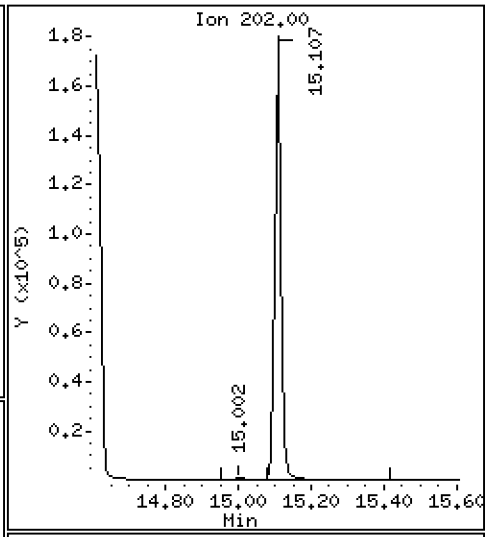
Concentration: 235 ng/mL

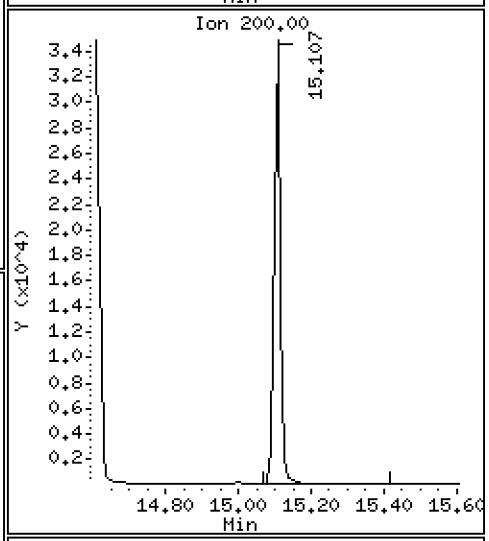


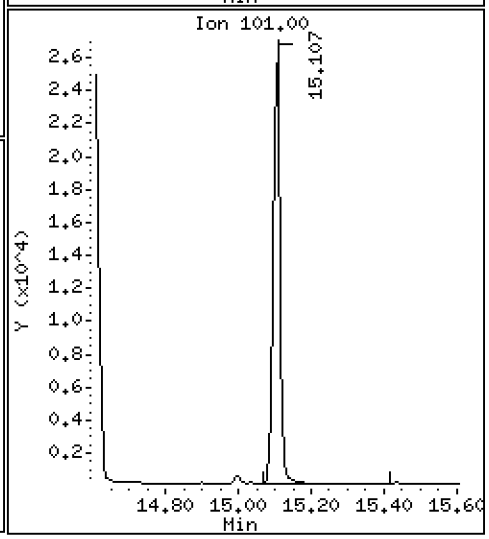



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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

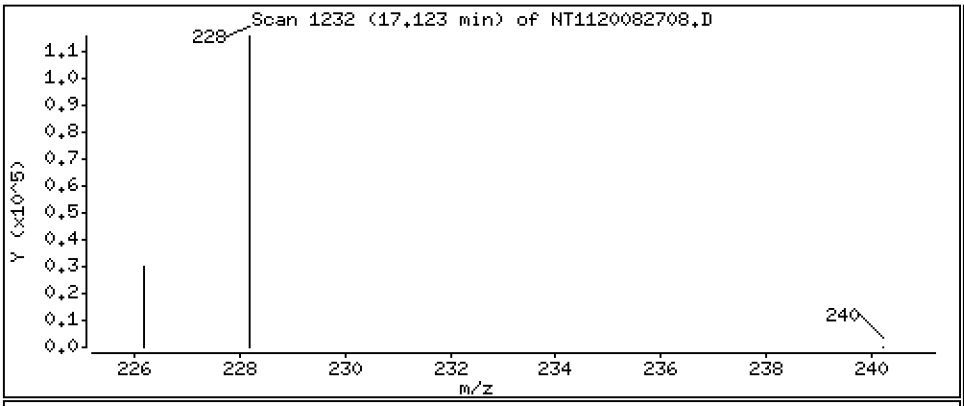
Operator: VTS

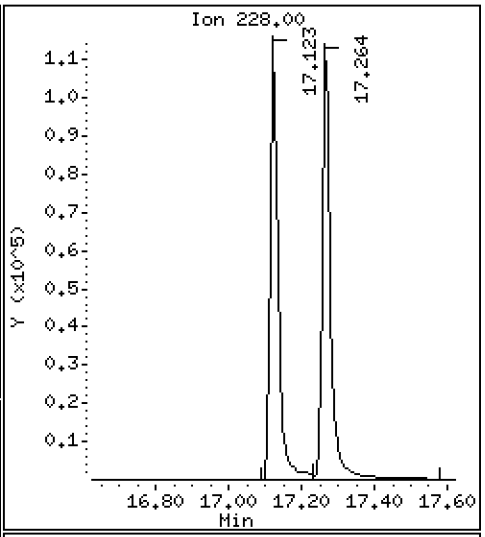
Column phase: Rxi-17Sil MS

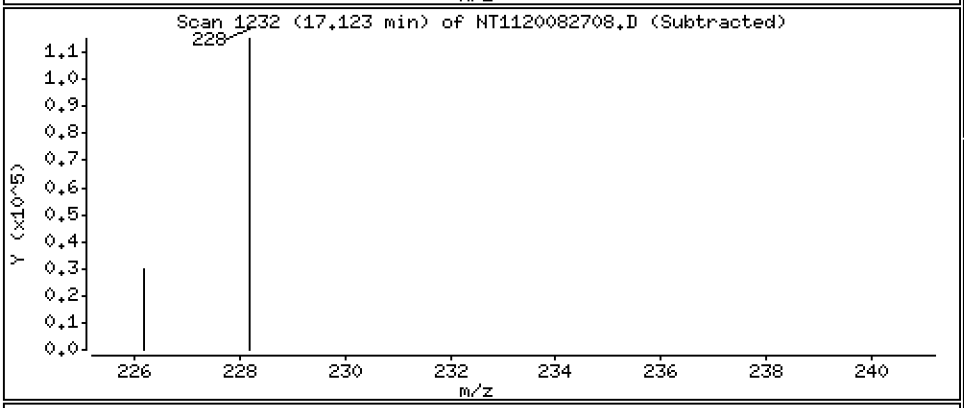
Column diameter: 0.25

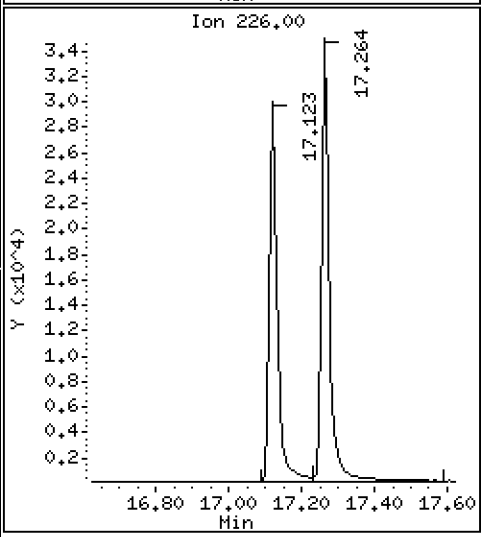
27 Benzo(a)anthracene

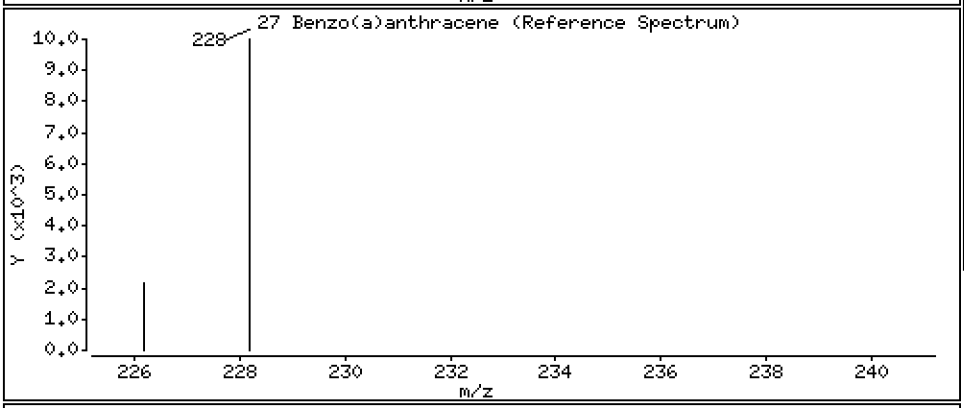
Concentration: 223 ng/mL

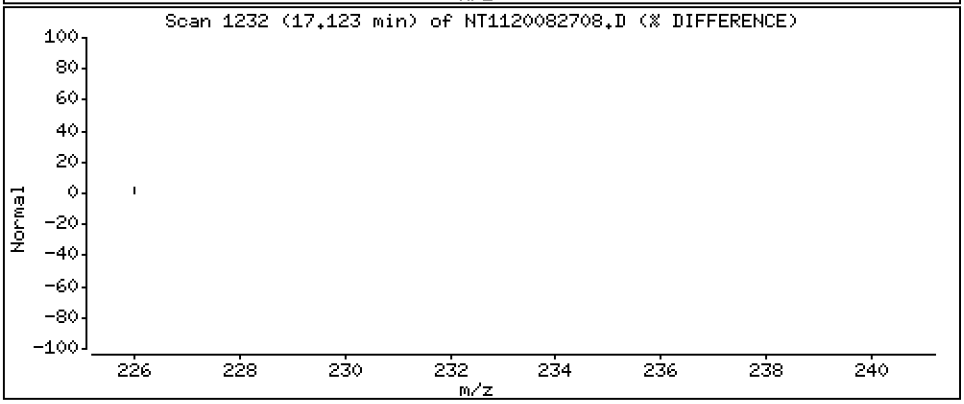


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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

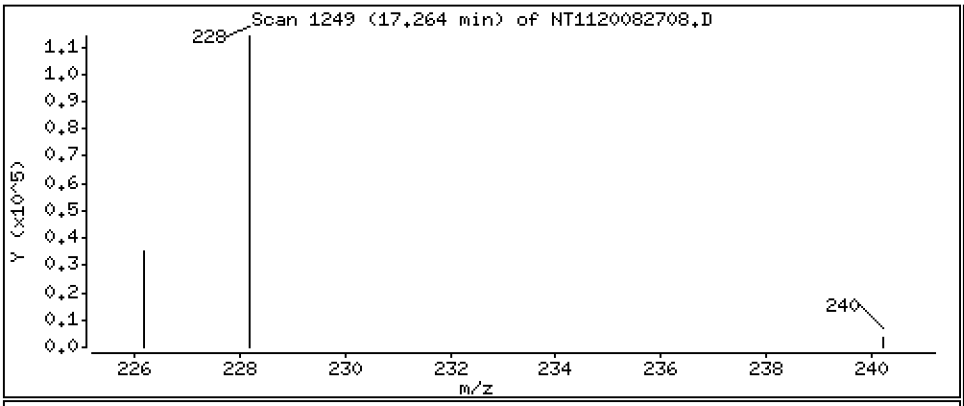
Operator: VTS

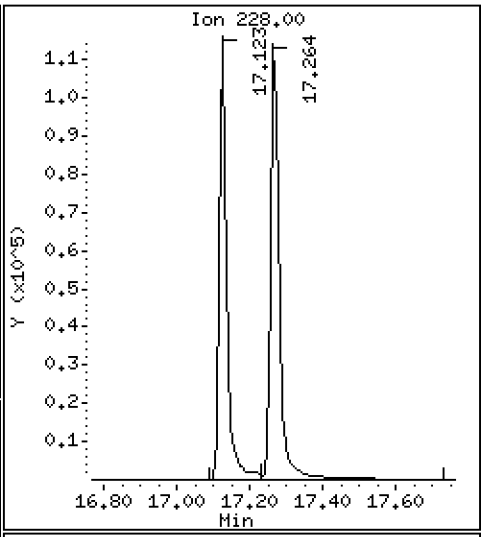
Column phase: Rxi-17Sil MS

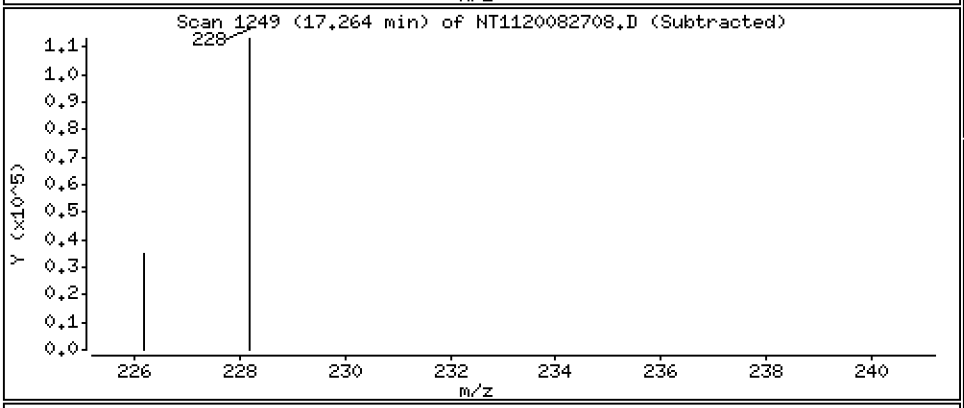
Column diameter: 0.25

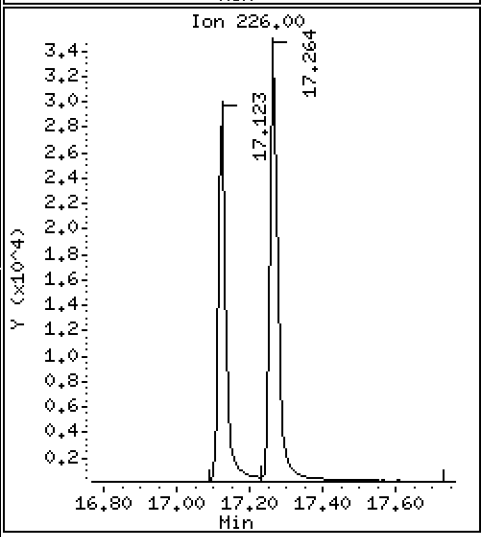
29 Chrysene

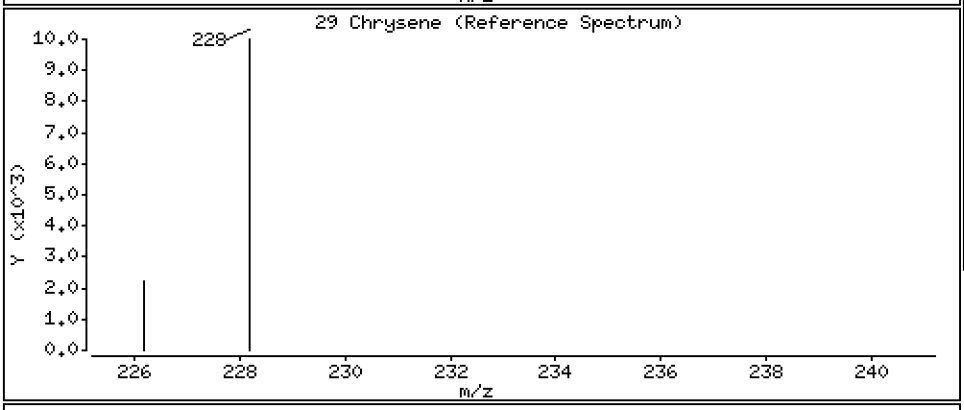
Concentration: 215 ng/mL

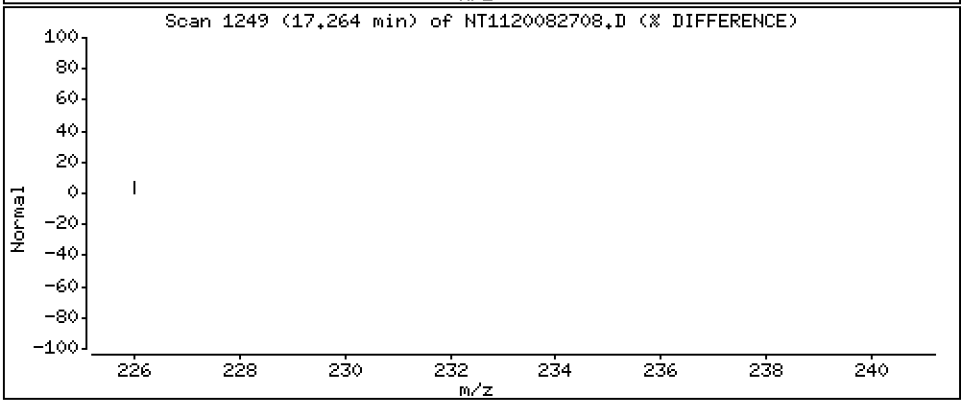


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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

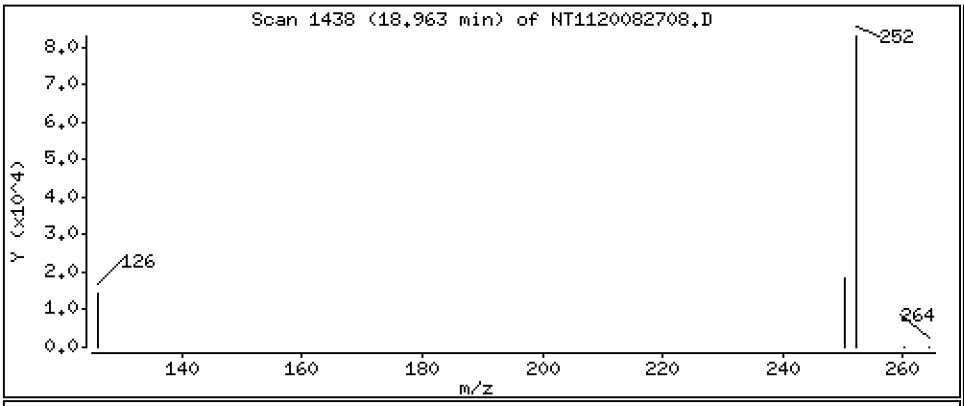
Operator: VTS

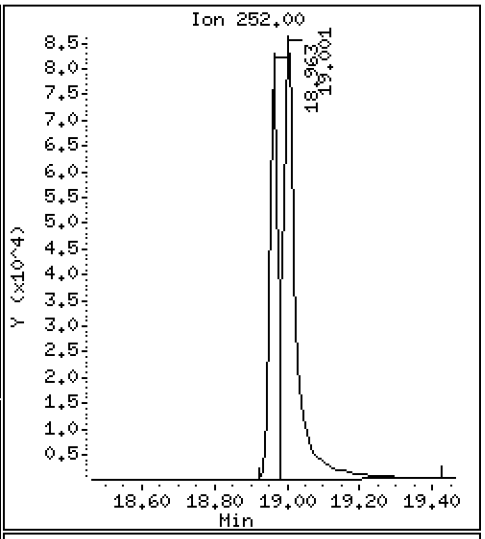
Column phase: Rxi-17Sil MS

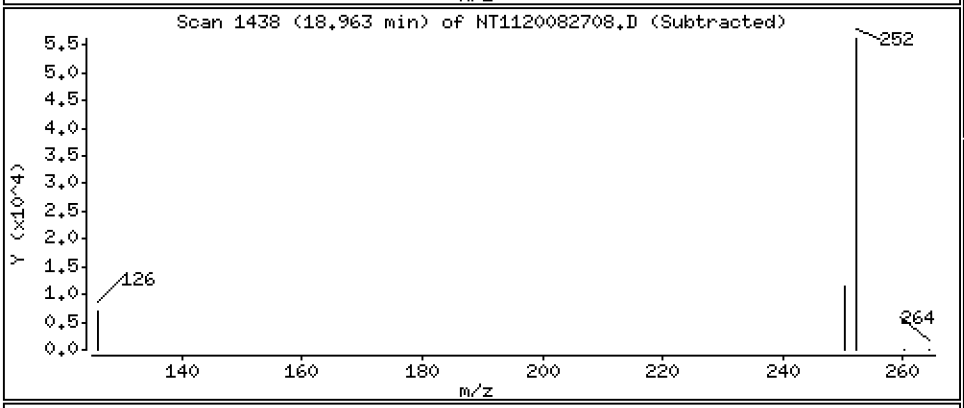
Column diameter: 0.25

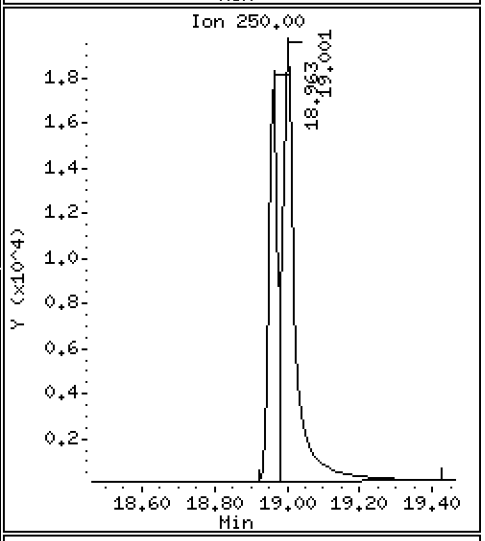
30 Benzo(b)fluoranthene

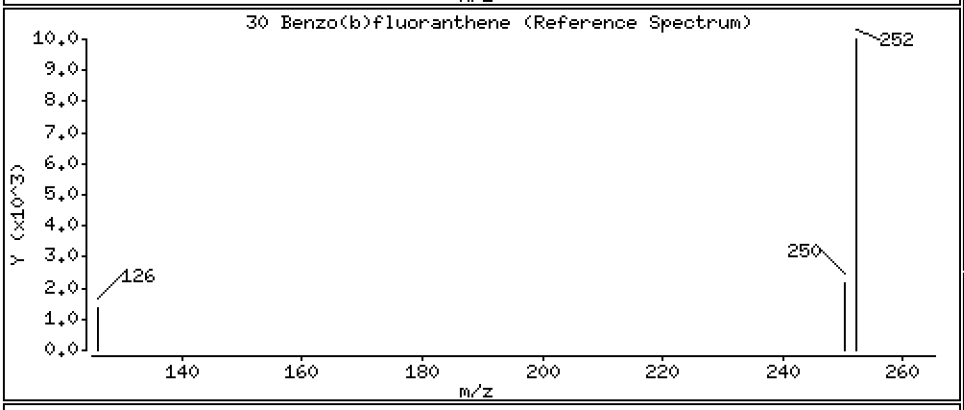
Concentration: 212 ng/mL

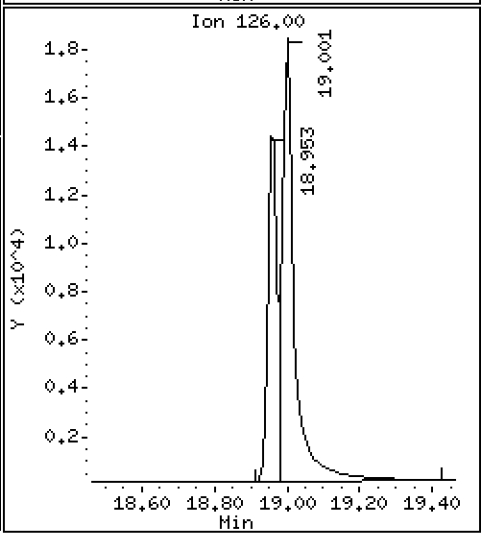


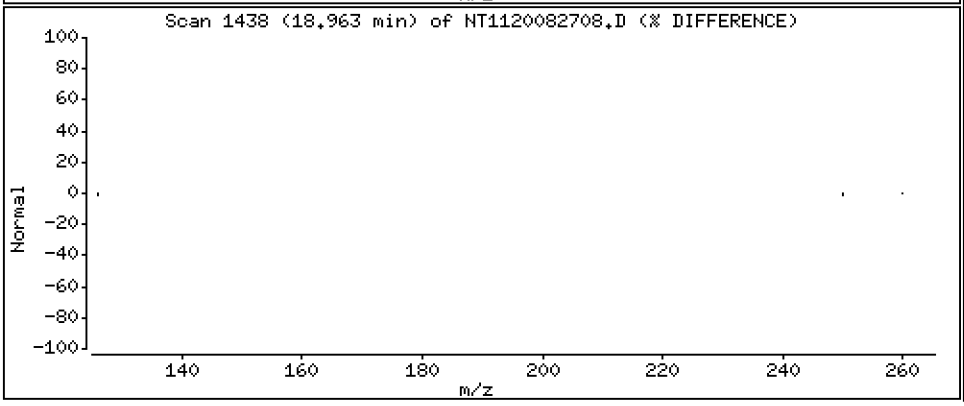



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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

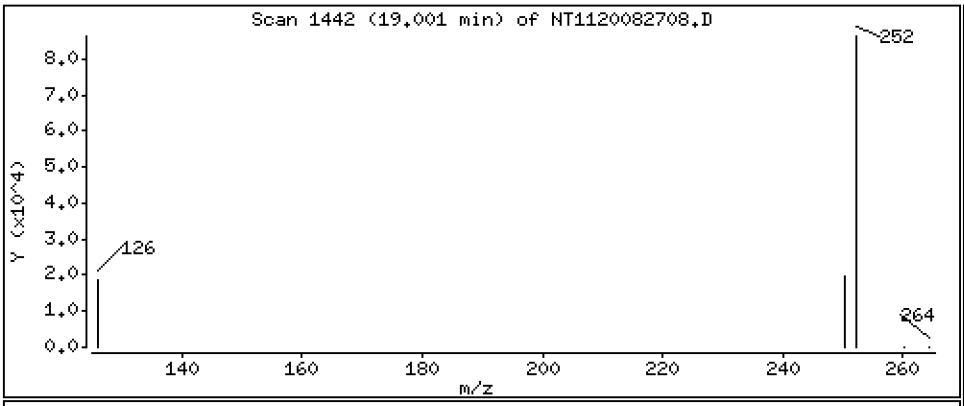
Operator: VTS

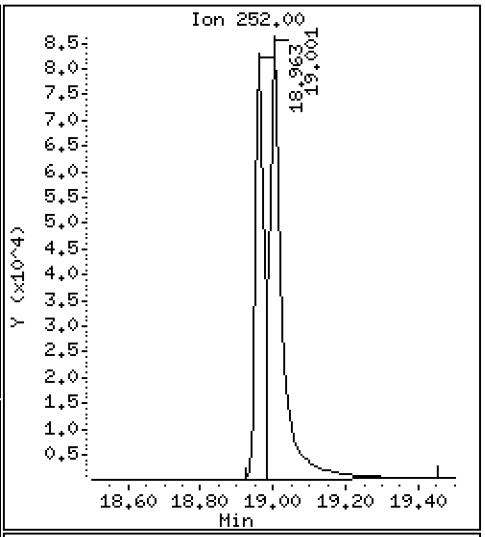
Column phase: Rxi-17Sil MS

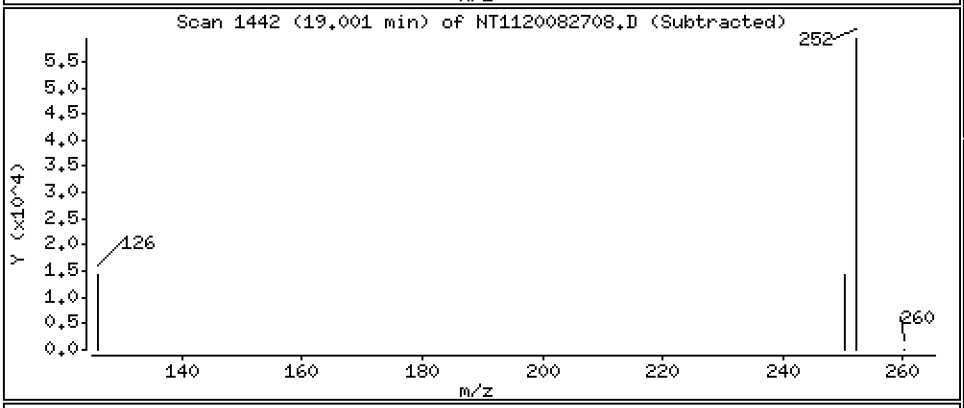
Column diameter: 0.25

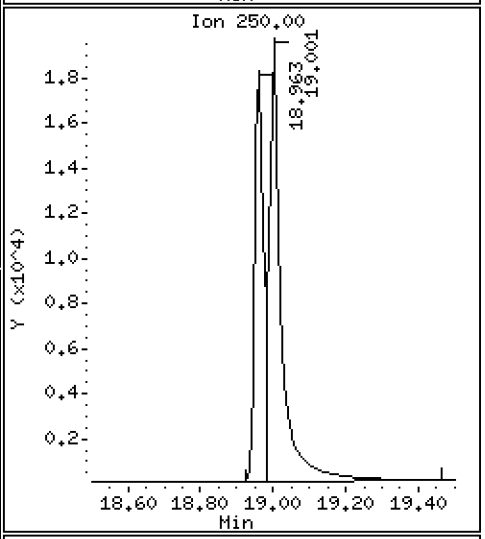
31 Benzo(k)fluoranthene

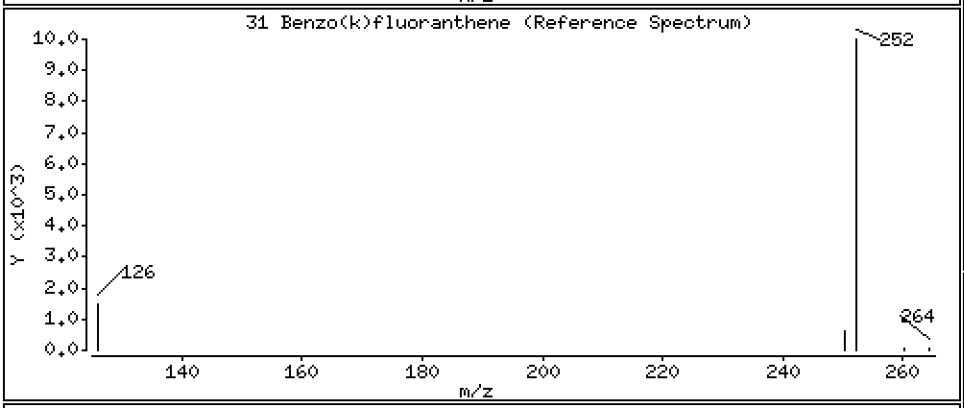
Concentration: 260 ng/mL

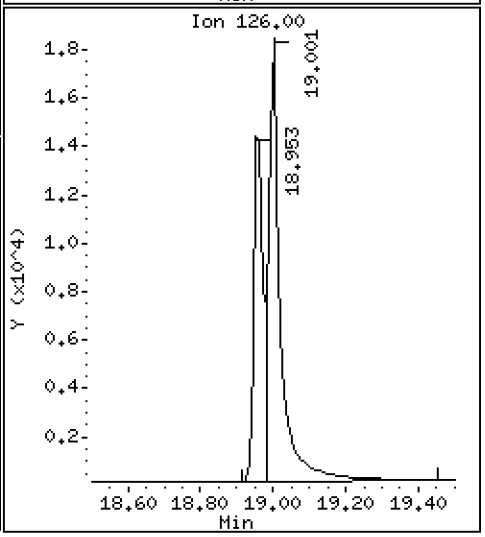


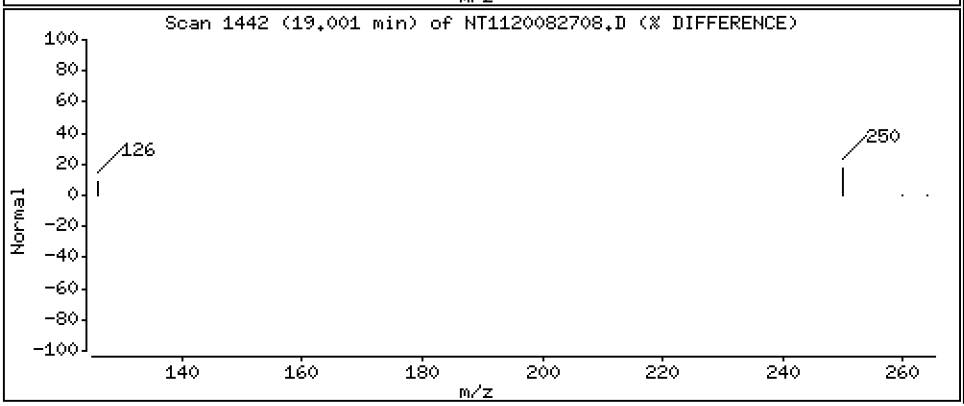



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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

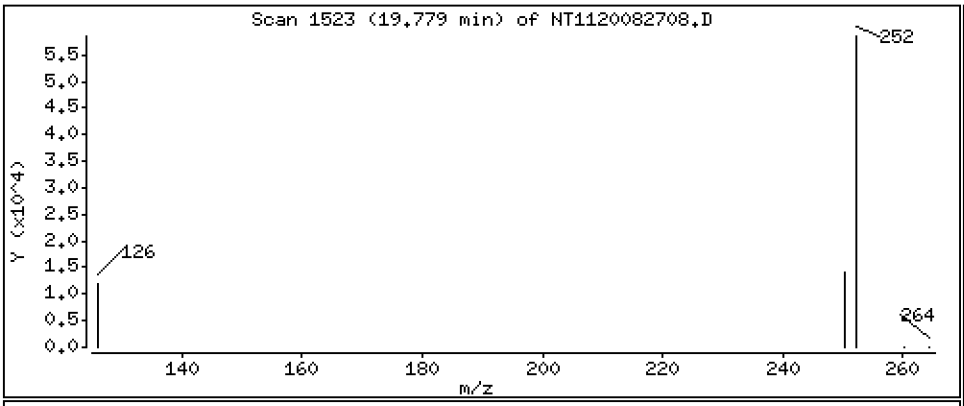
Operator: VTS

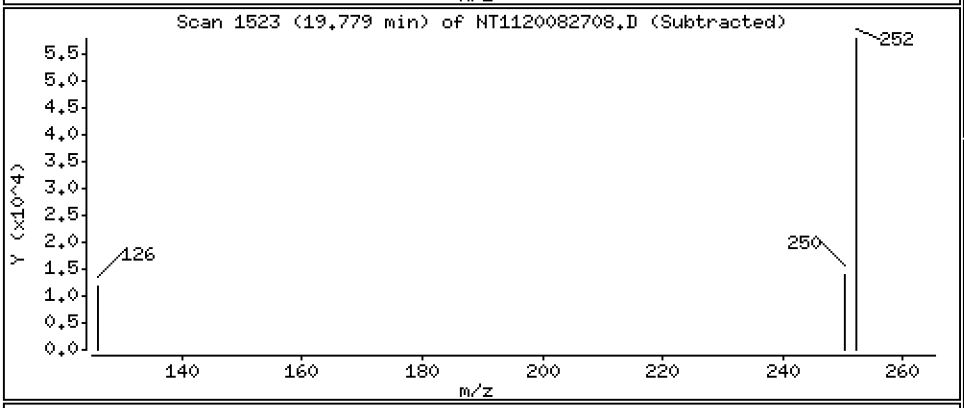
Column phase: Rxi-17Sil MS

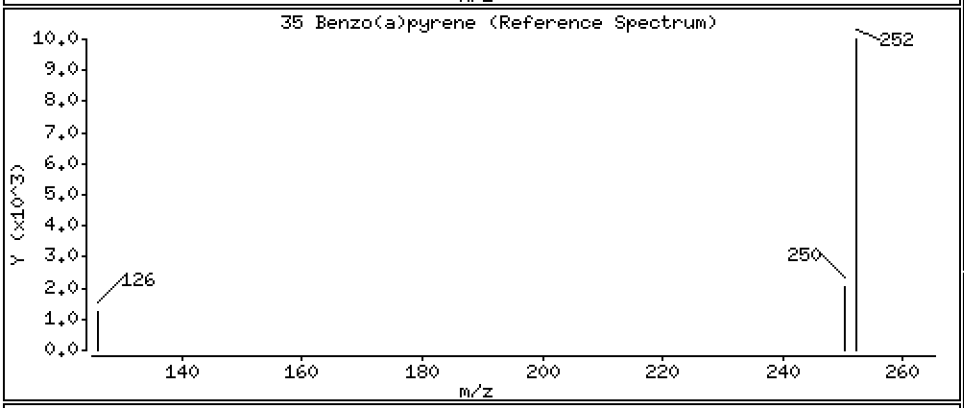
Column diameter: 0.25

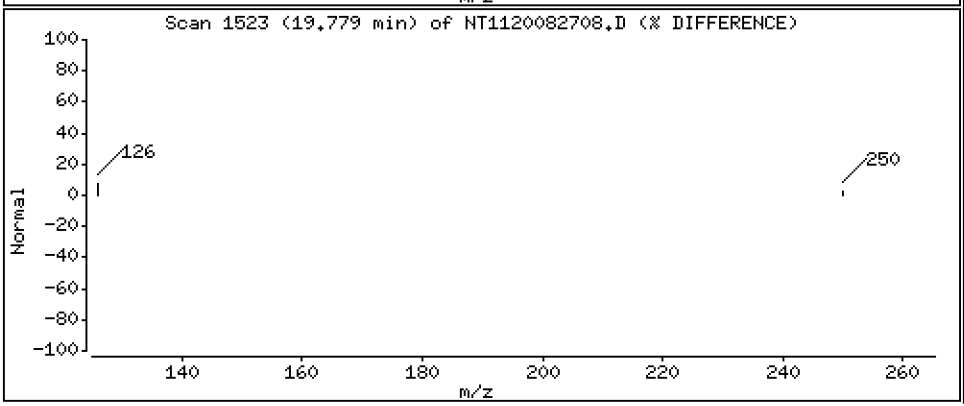
35 Benzo(a)pyrene

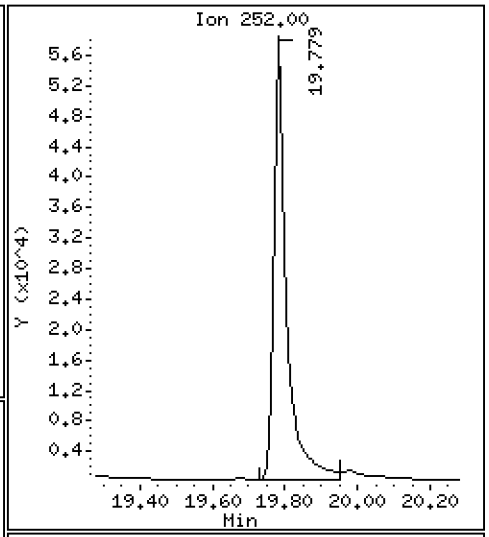
Concentration: 213 ng/mL

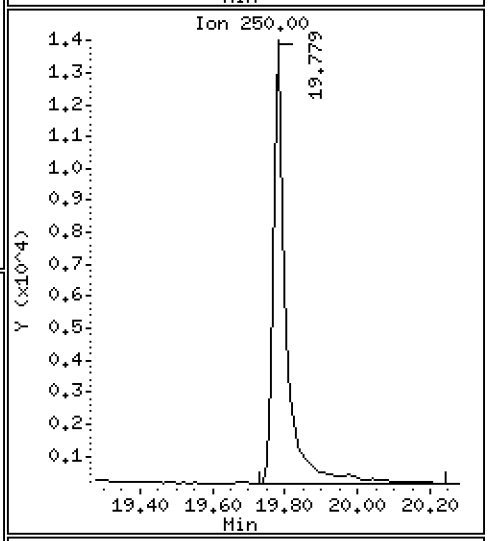


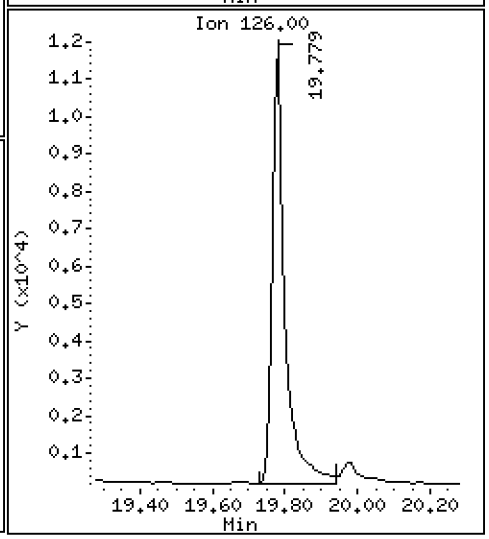



Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

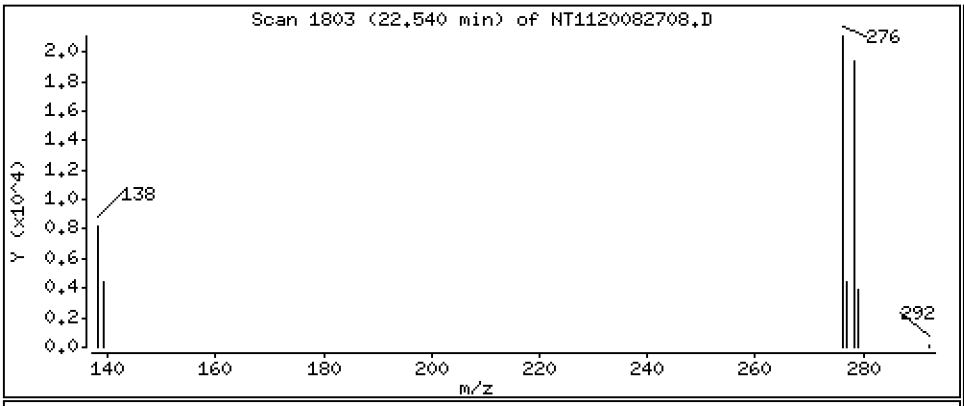
Operator: VTS

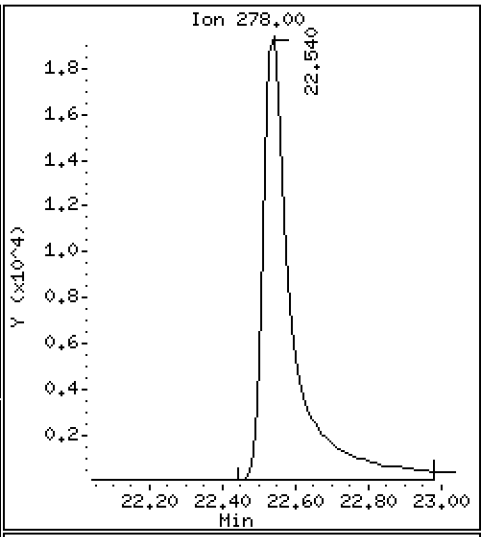
Column phase: Rxi-17Sil MS

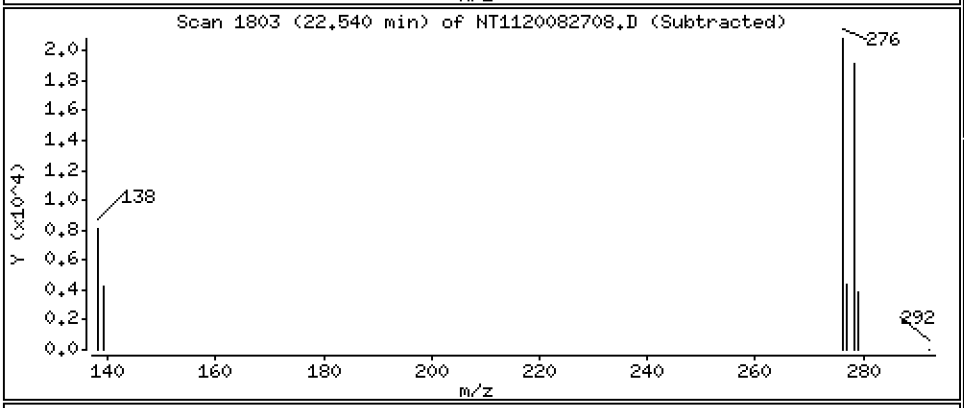
Column diameter: 0.25

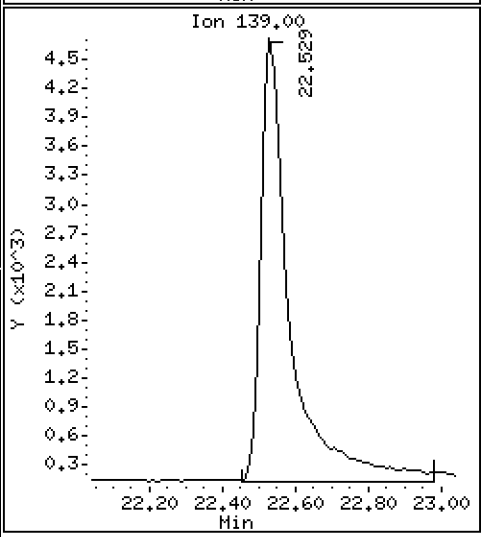
39 Dibenzo(a,h)anthracene

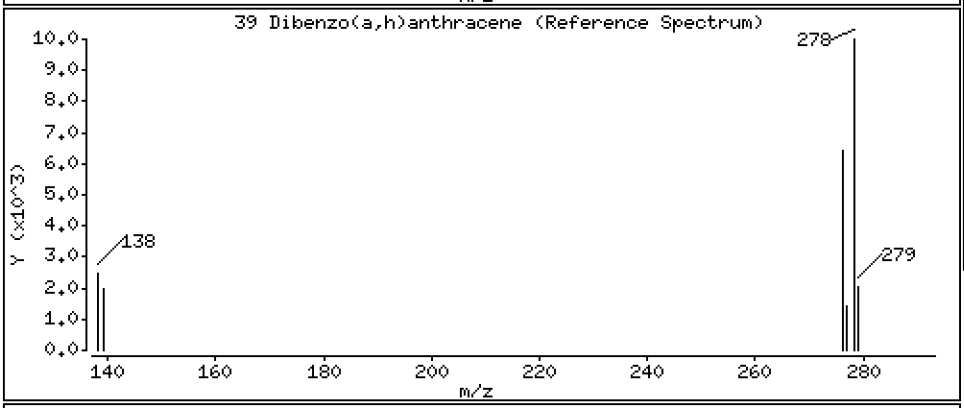
Concentration: 192 ng/mL

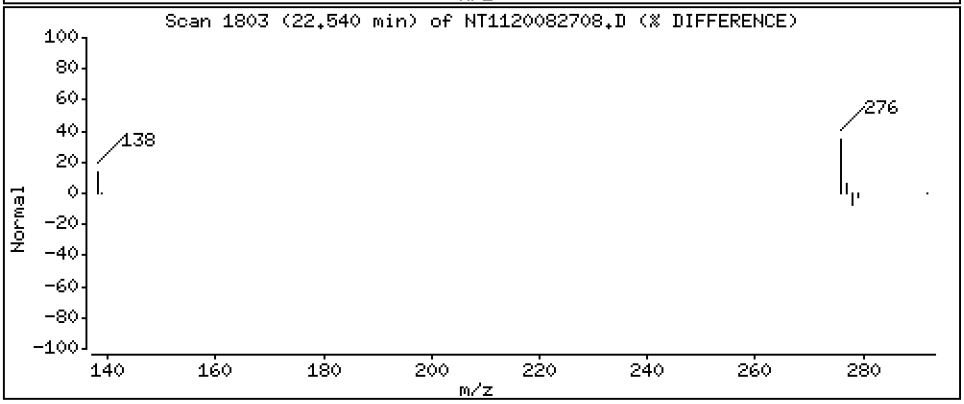


Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

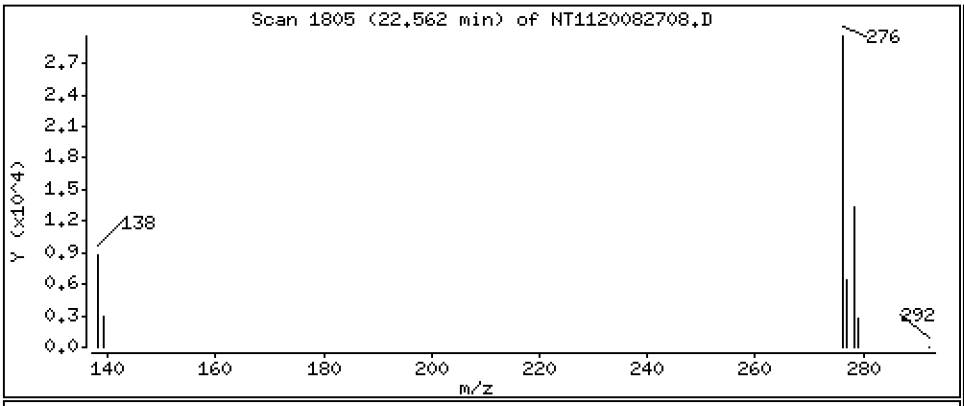
Operator: VTS

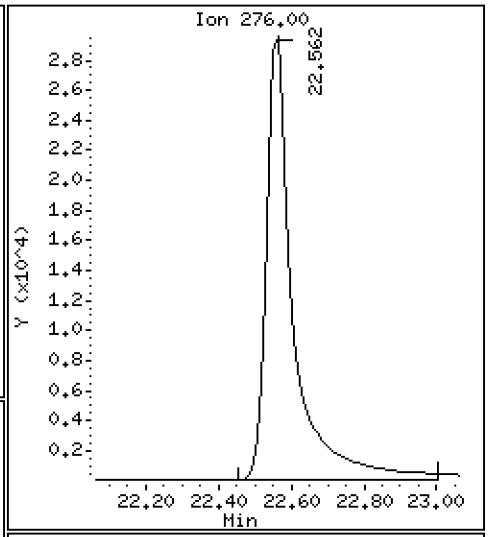
Column phase: Rxi-17Sil MS

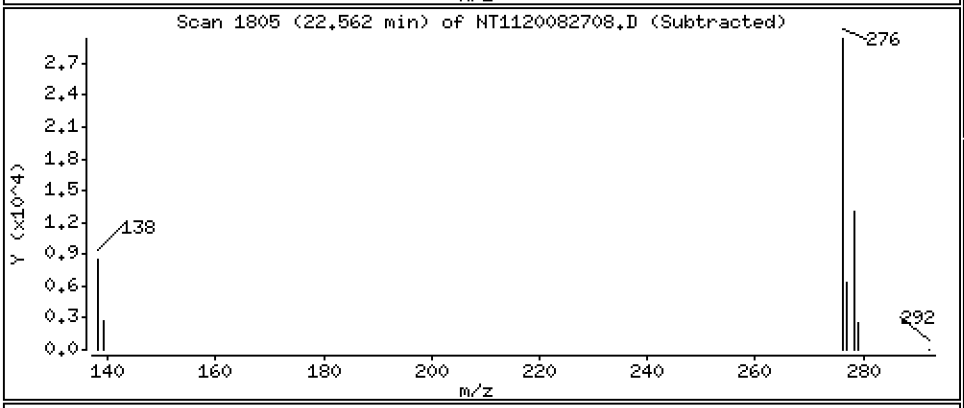
Column diameter: 0.25

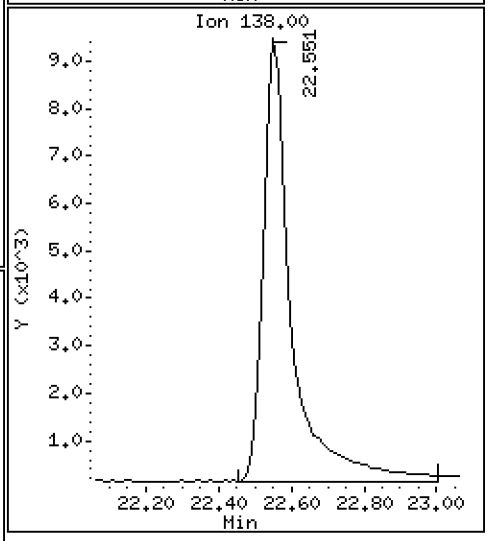
40 Indeno(1,2,3-cd)pyrene

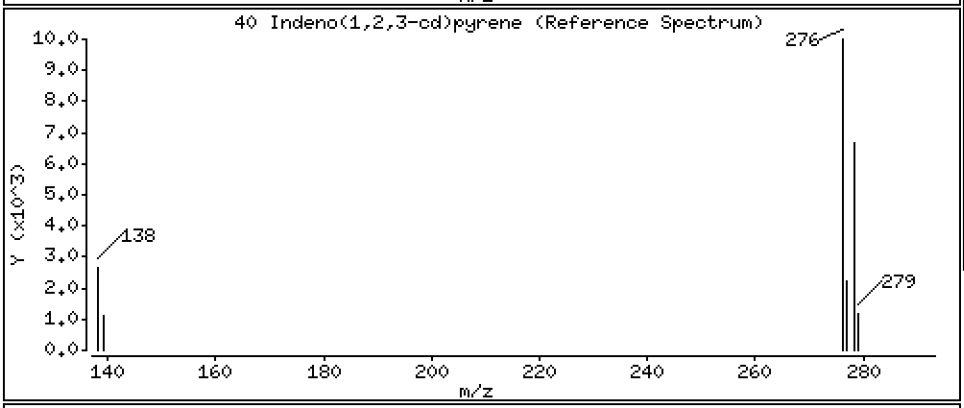
Concentration: 227 ng/mL

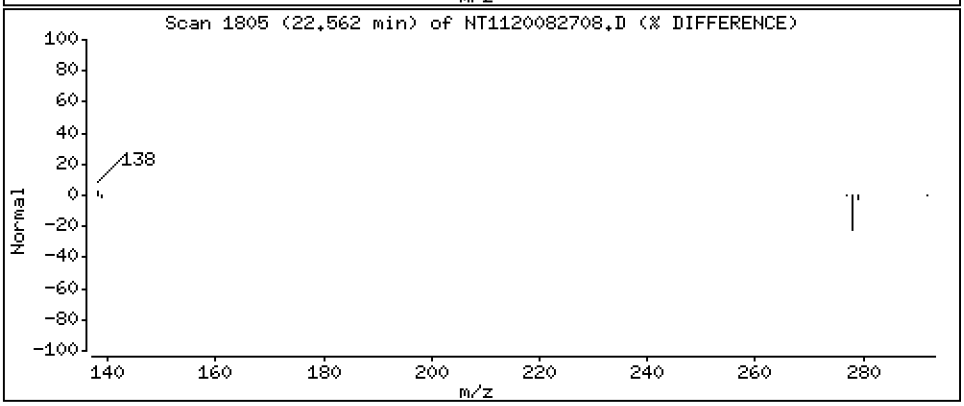


Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

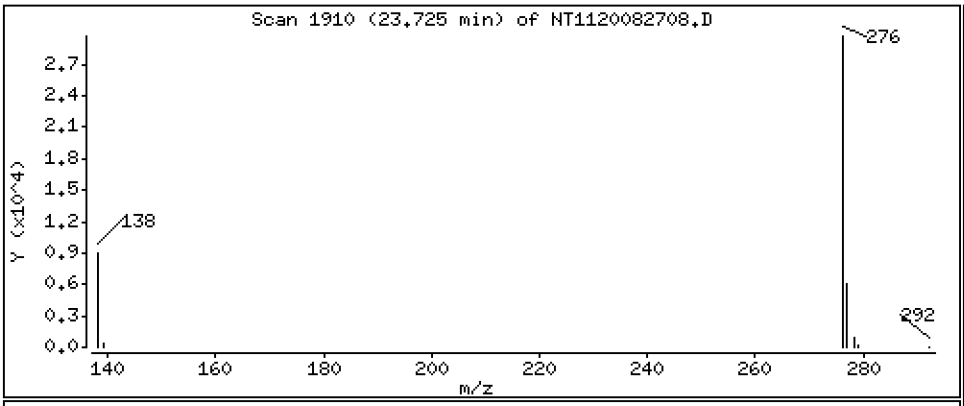
Operator: VTS

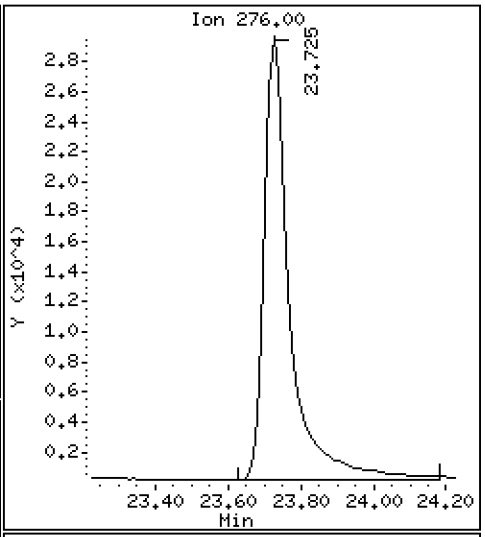
Column phase: Rxi-17Sil MS

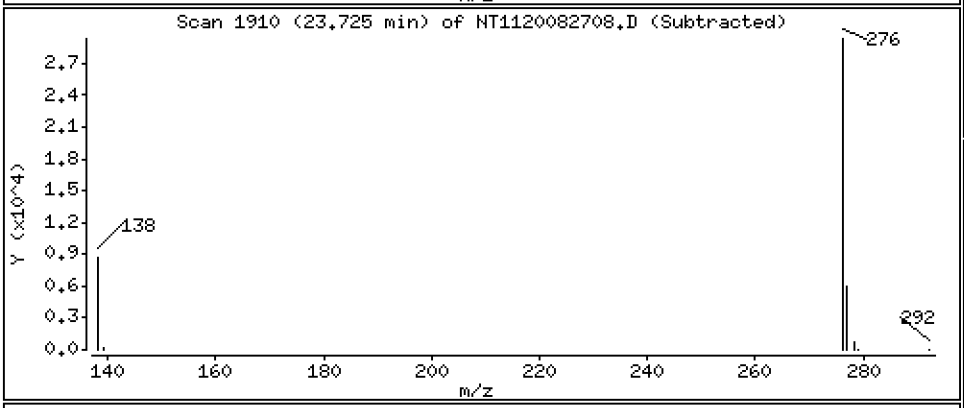
Column diameter: 0.25

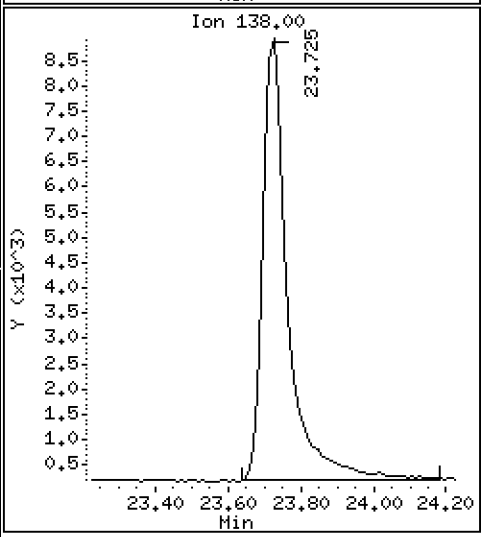
41 Benzo(g,h,i)perylene

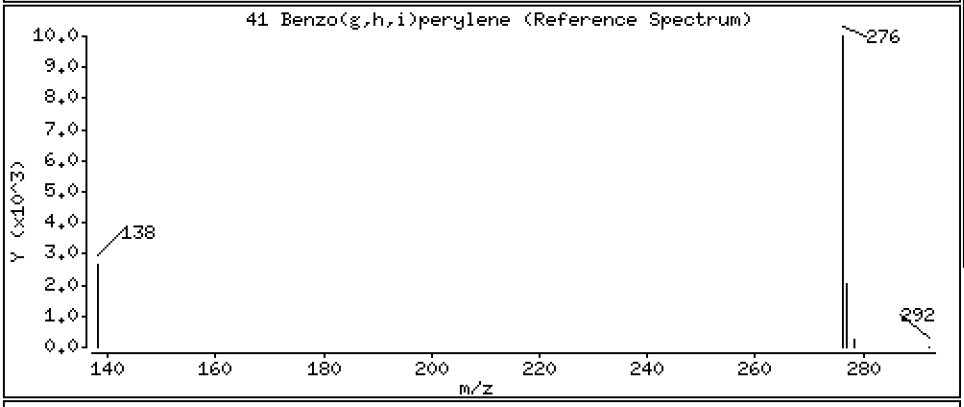
Concentration: 214 ng/mL

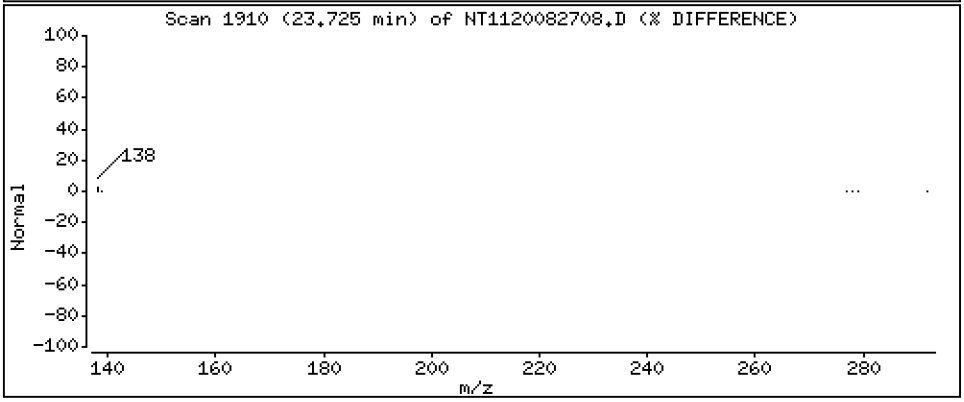


ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

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

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

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1120082708.D
Lab Smp Id: SIH0304-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Misc Info:

Calibration Date: 27-AUG-2020
Calibration Time: 12:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1120082708.D

Lab ID: SIH0304-SCV1
nt11.i,  20200827.b\lowsim.m,    27-AUG-2020 15:38

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

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

RRT CHECK

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

NONE

RRT check based on Ccal File: NT1120082704.D

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

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

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

# SECOND-SOURCE CALIBRATION VERIFICATION

## EPA 8270E-SIM

**Laboratory:** Analytical Resources, Inc.
**SDG:** 21D0180
**Client:** Anchor QEA, LLC
**Project:** Gasco Siltronic - US Moorings
**Calibration:** EE00001
**Laboratory ID:** SJD0305-SCV1
**Sequence:** SJD0305
**Standard ID:** J004707

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

# SECOND-SOURCE CALIBRATION VERIFICATION

## EPA 8270E-SIM

**Laboratory:** Analytical Resources, Inc. **SDG:** 21D0180

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

**Calibration:** EE00001 **Laboratory ID:** SJD0305-SCV1

**Sequence:** SJD0305 **Standard ID:** J004707

| | | | | |
|---|---|---|---|---|
| Acenaphthene-d10 | 2.5000 | 3.02 | 20.7 | 20.00 |
| Phenanthrene-d10 | 2.5000 | 2.67 | 6.8 | 20.00 |
| Chrysene-d12 | 2.5000 | 2.83 | 13.1 | 20.00 |
| Perylene-d12 | 2.5000 | 2.51 | 0.2 | 20.00 |

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D



Date : 30-APR-2021 14:41

Client ID:

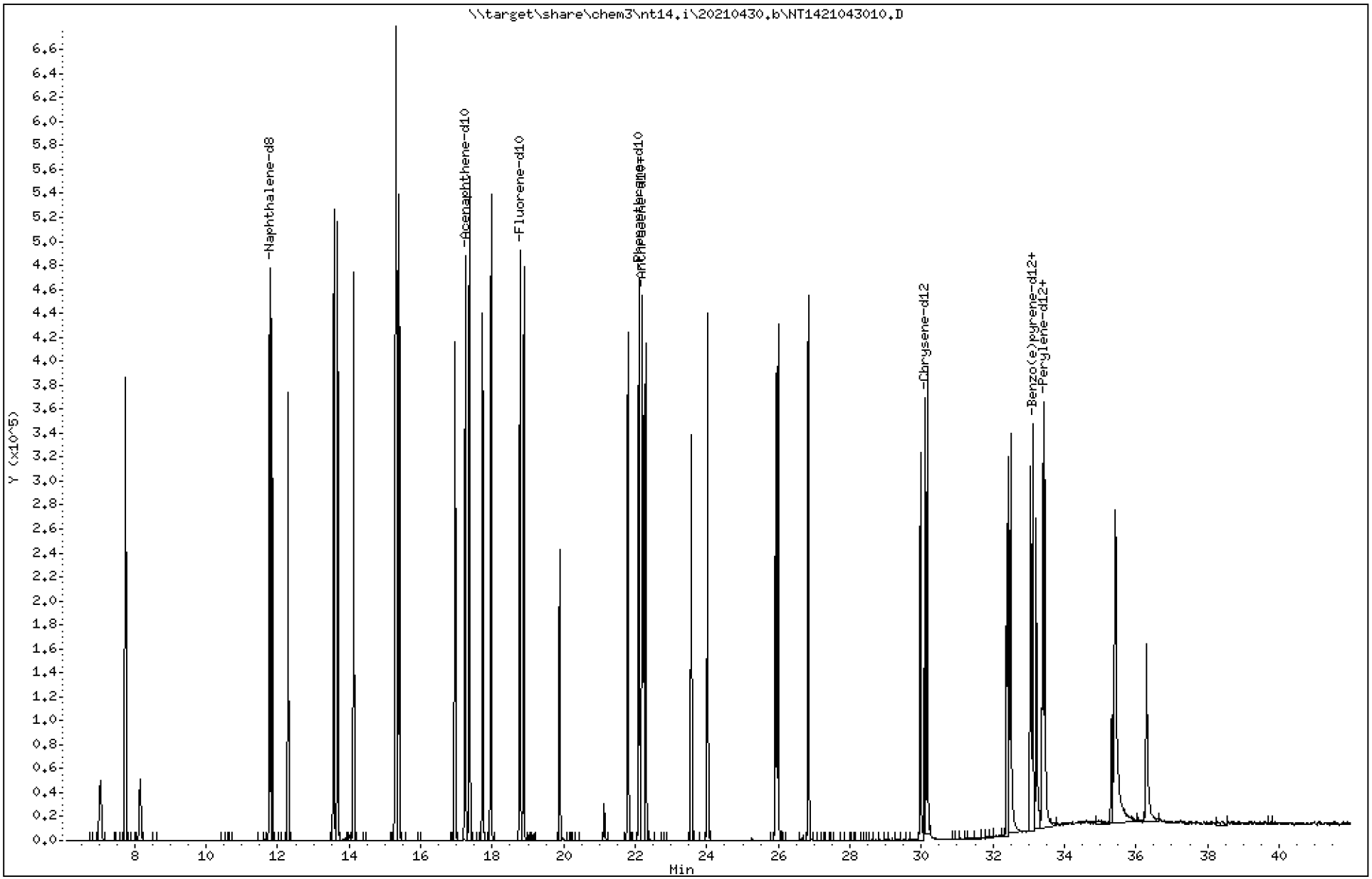
Instrument: nt14.i

Sample Info: SJD0305-SCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

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Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

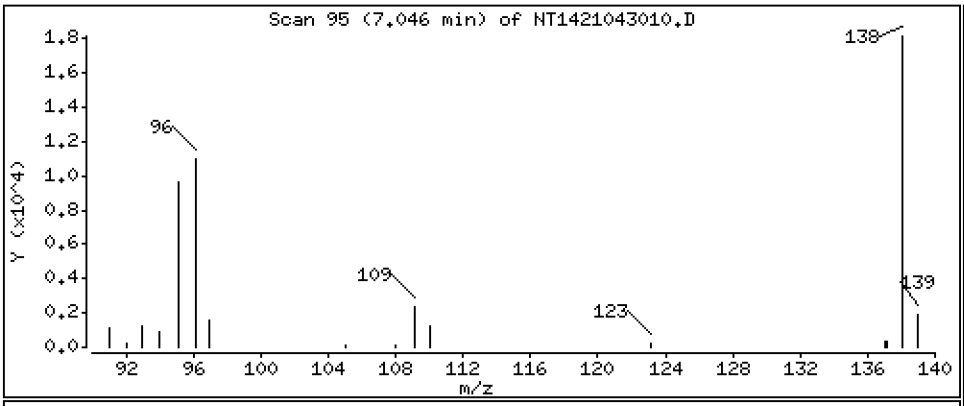
Operator: VTS

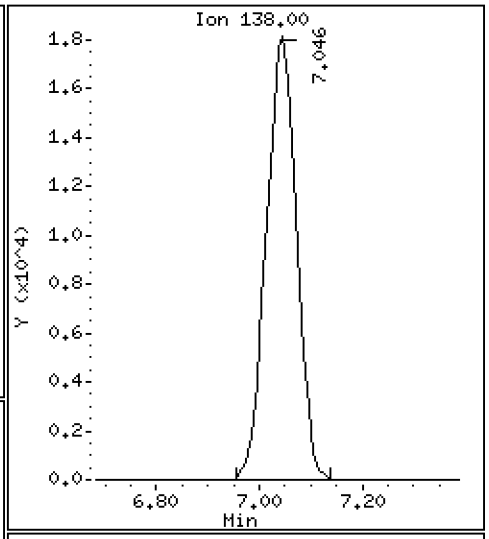
Column phase: Rxi-17Sil MS

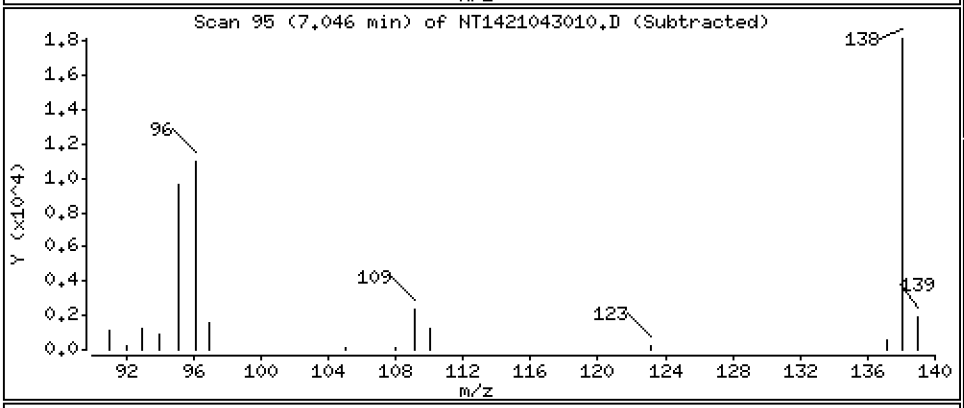
Column diameter: 0.25

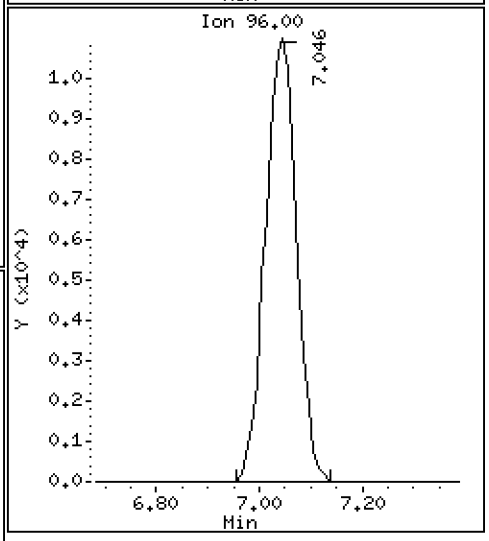
1 trans-Decalin

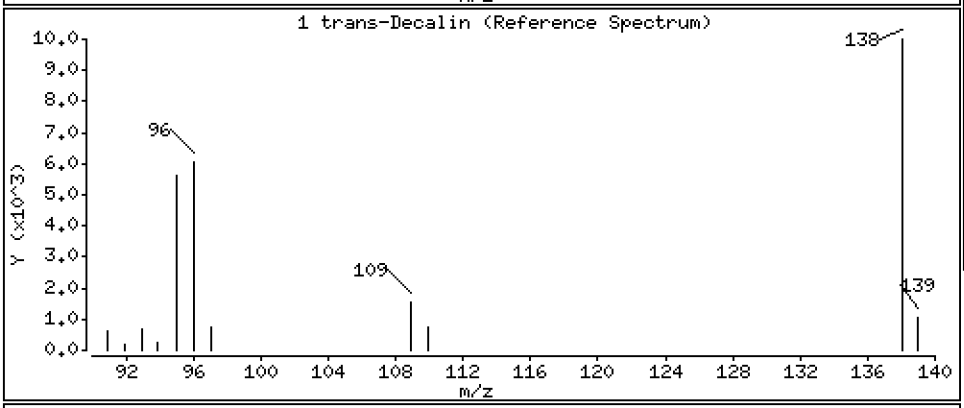
Concentration: 2.843 ug/mL

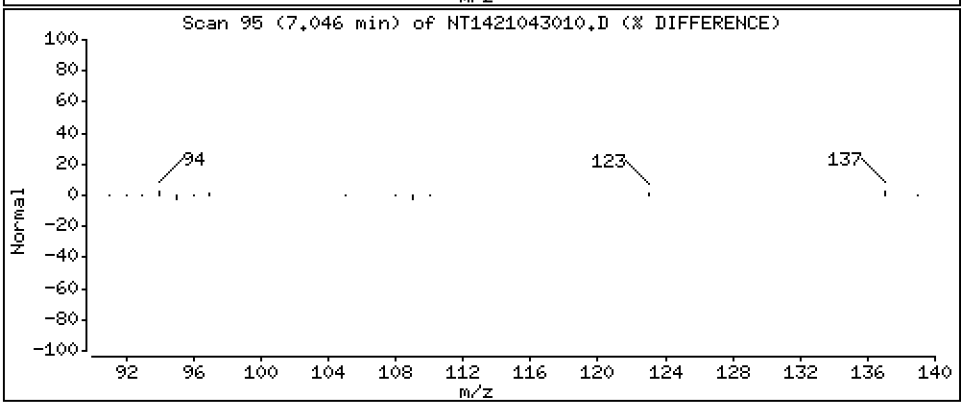


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

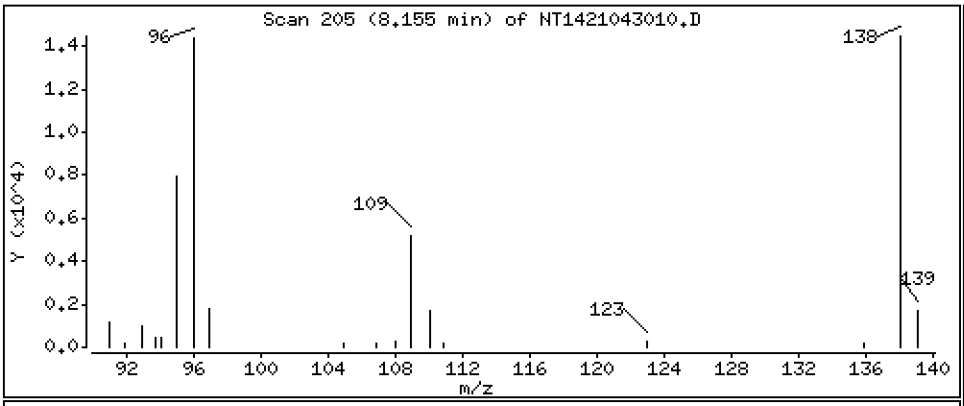
Operator: VTS

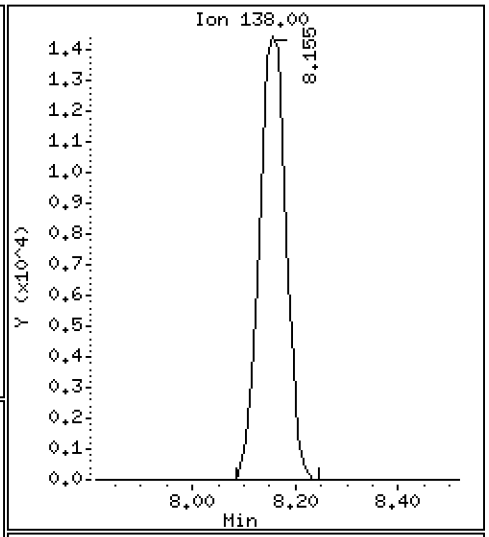
Column phase: Rxi-17Sil MS

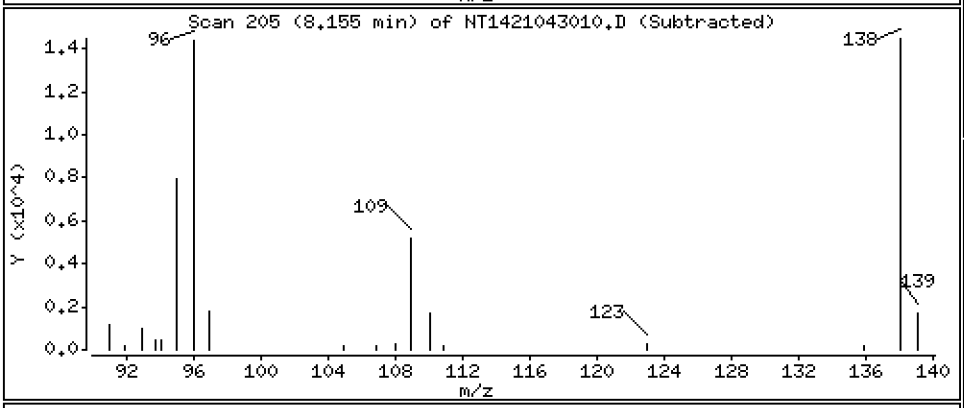
Column diameter: 0.25

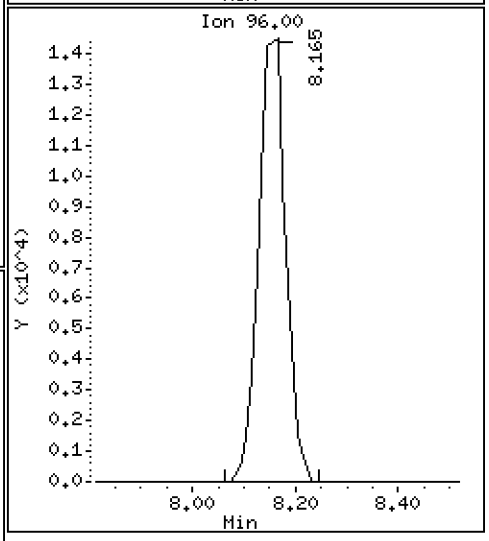
2 cis-Decalin

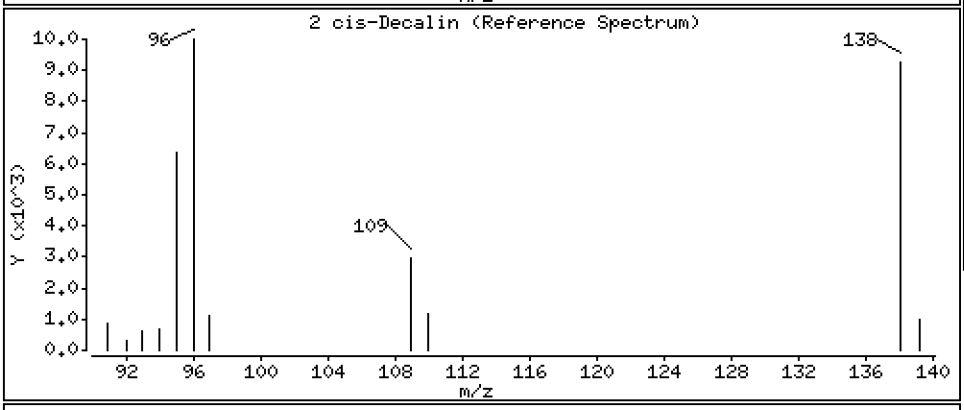
Concentration: 2.910 ug/mL

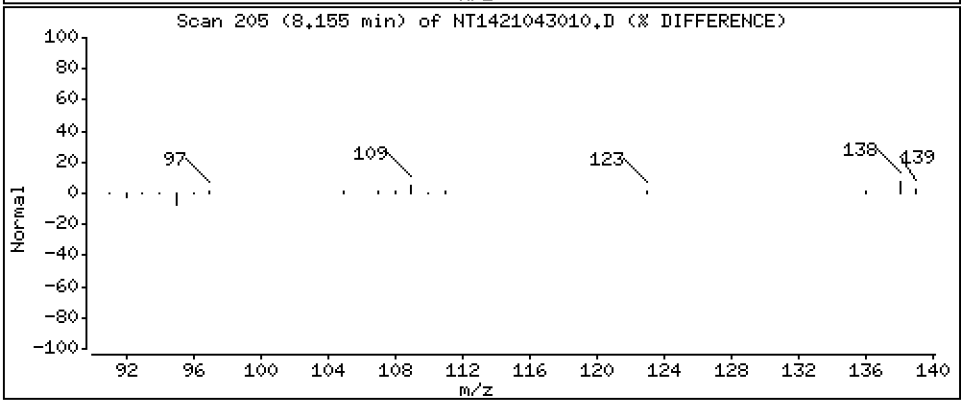


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

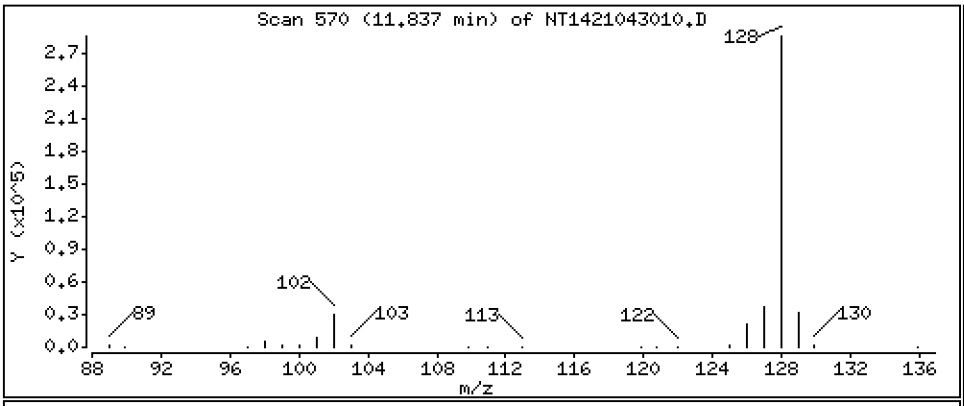
Operator: VTS

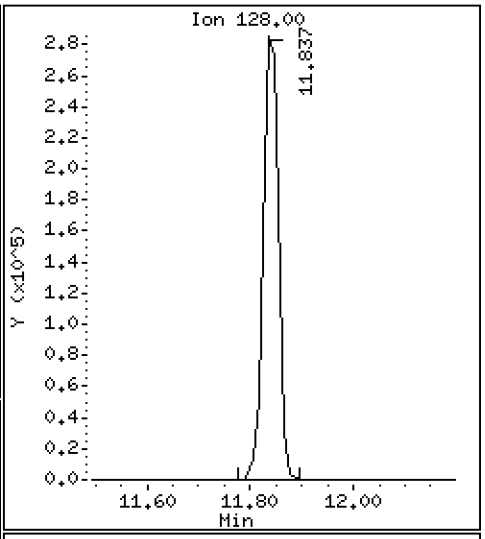
Column phase: Rxi-17Sil MS

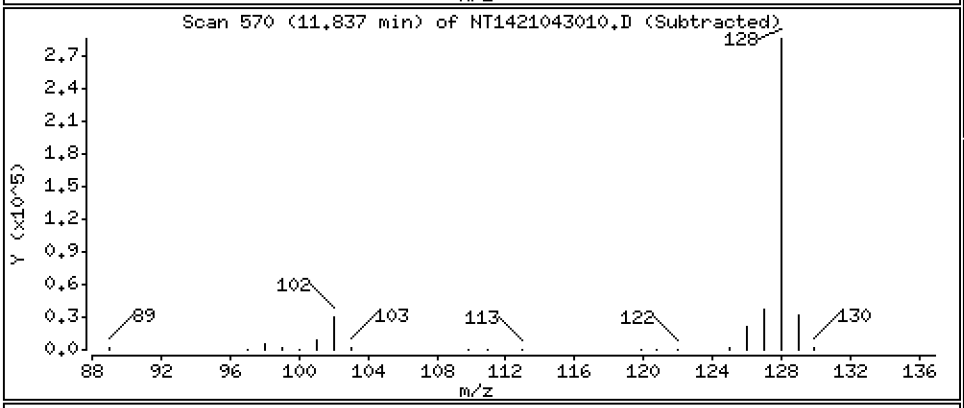
Column diameter: 0.25

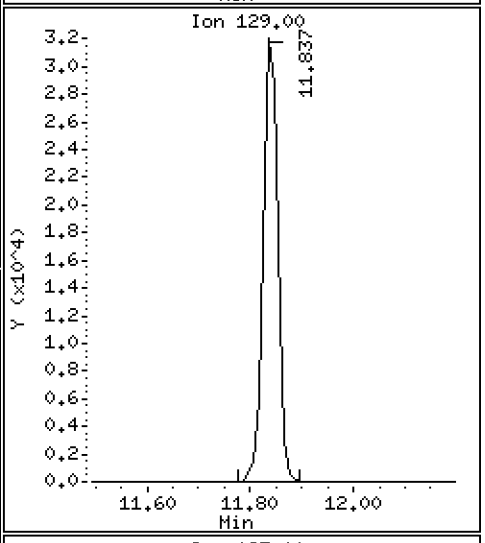
7 Naphthalene

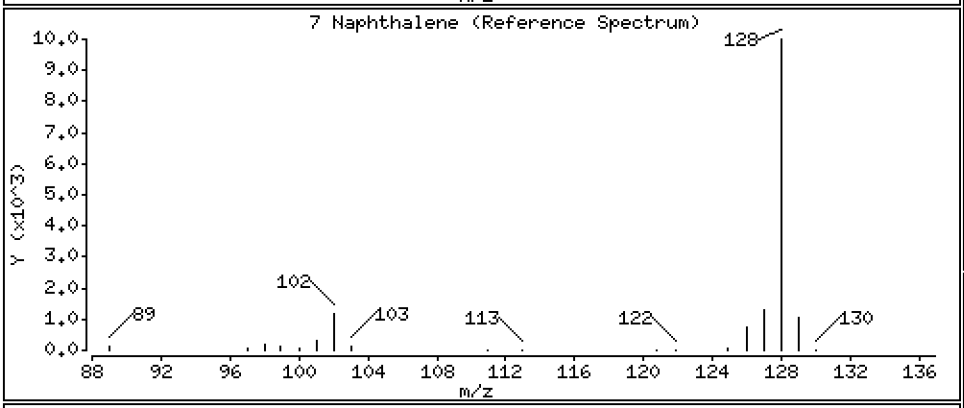
Concentration: 2.783 ug/mL

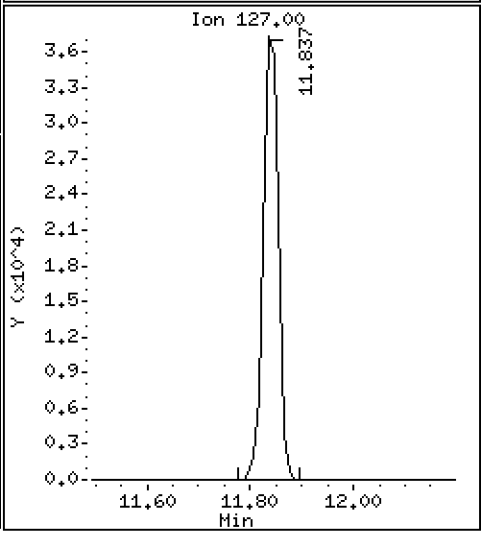


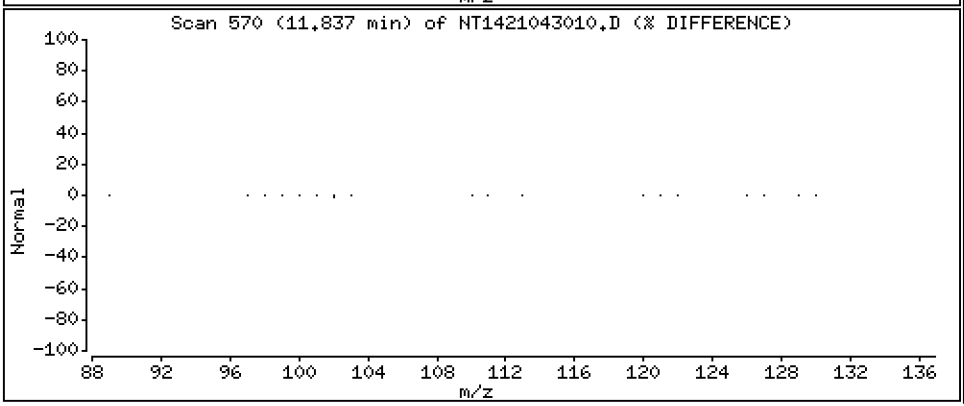



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

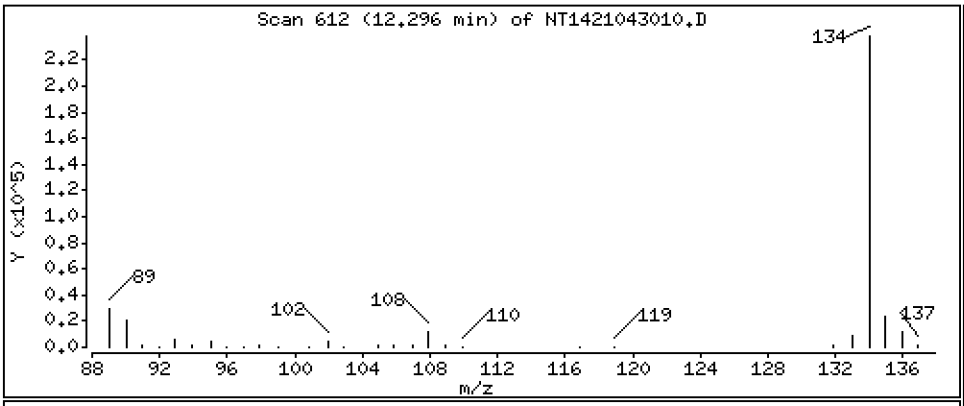
Operator: VTS

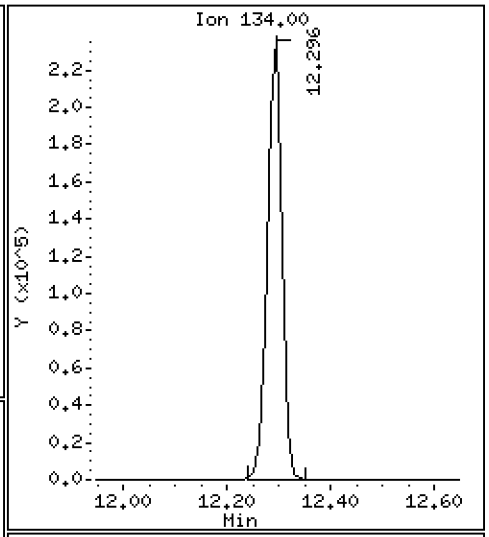
Column phase: Rxi-17Sil MS

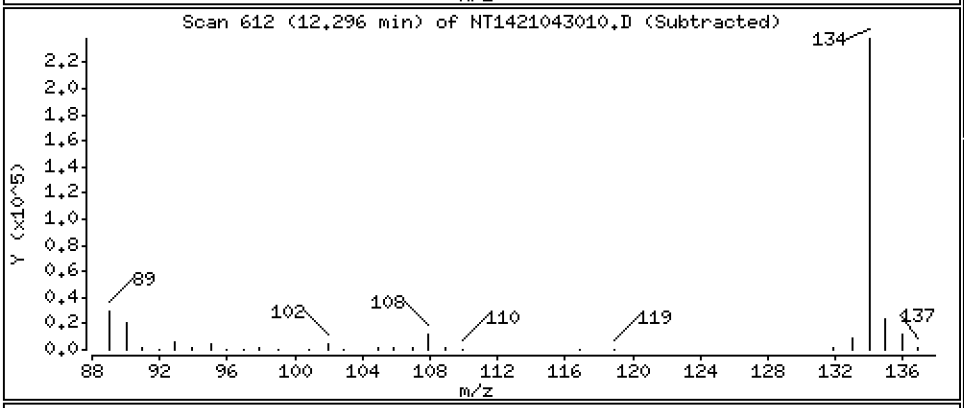
Column diameter: 0.25

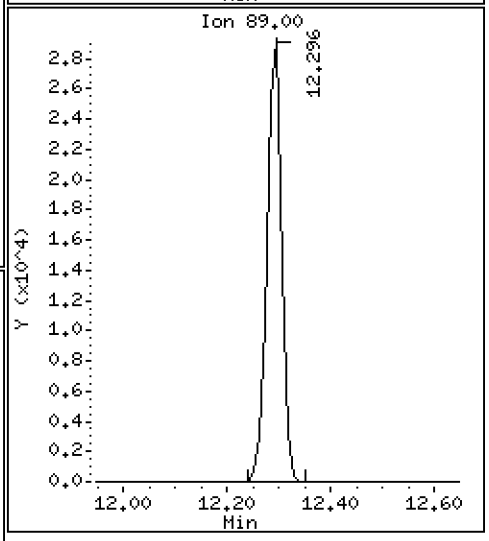
12 Benzo(b)thiophene

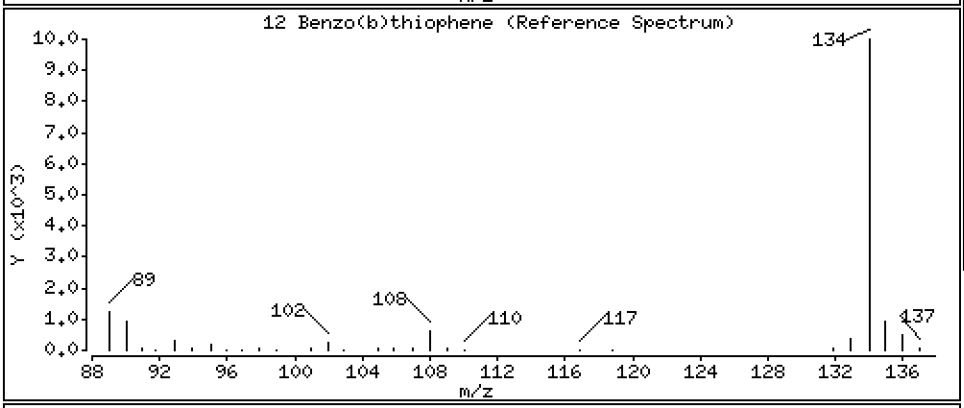
Concentration: 2.787 ug/mL

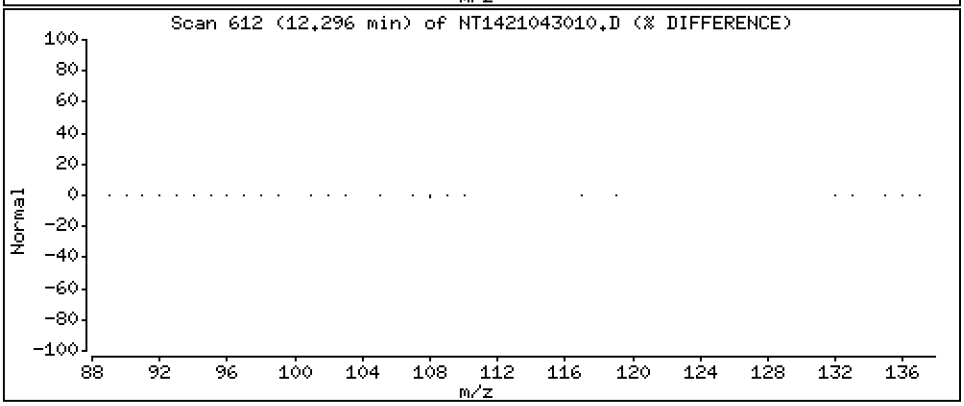


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

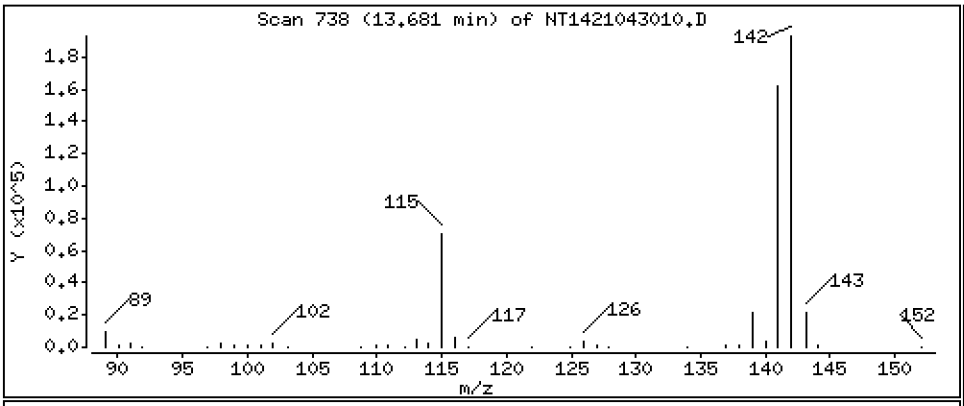
Operator: VTS

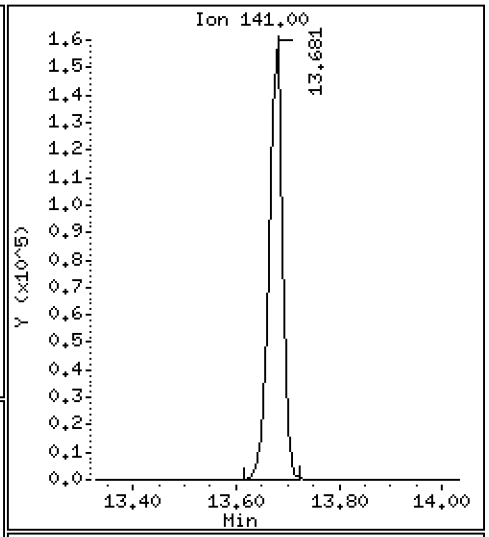
Column phase: Rxi-17Sil MS

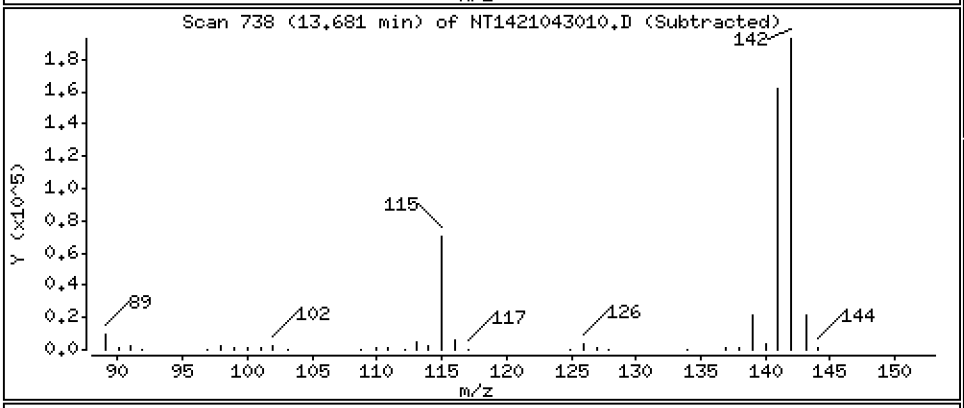
Column diameter: 0.25

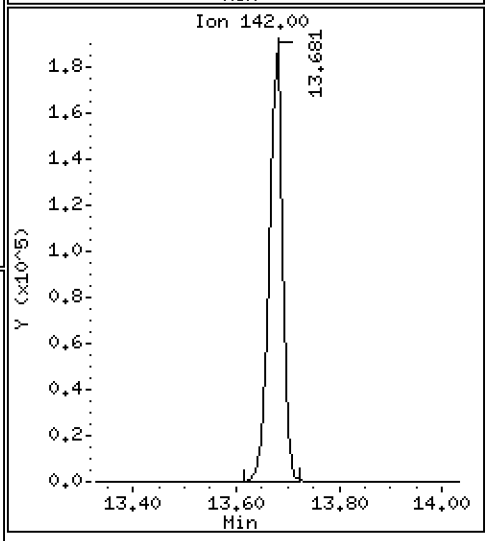
16 2-Methylnaphthalene

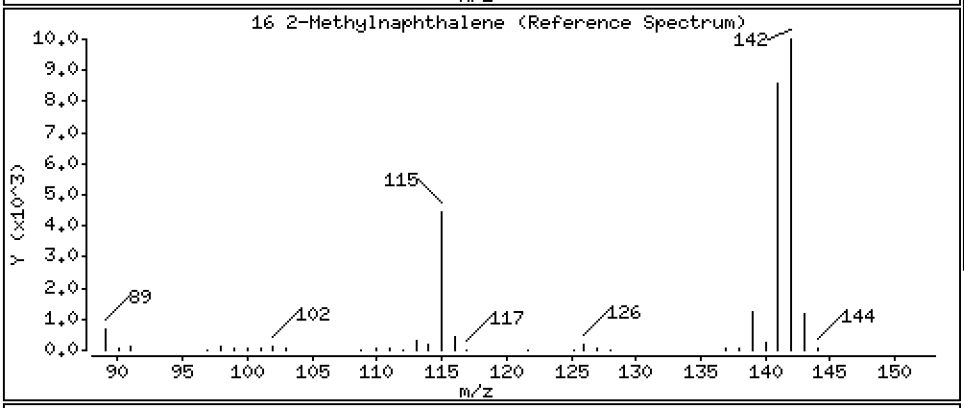
Concentration: 2.845 ug/mL

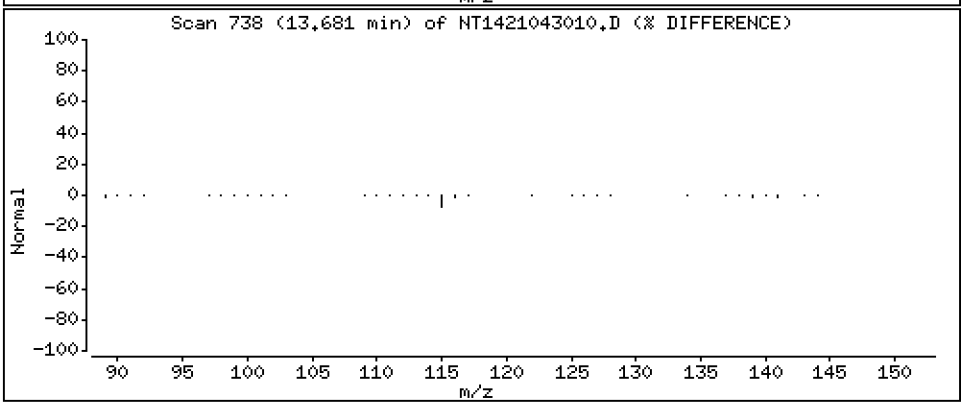


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

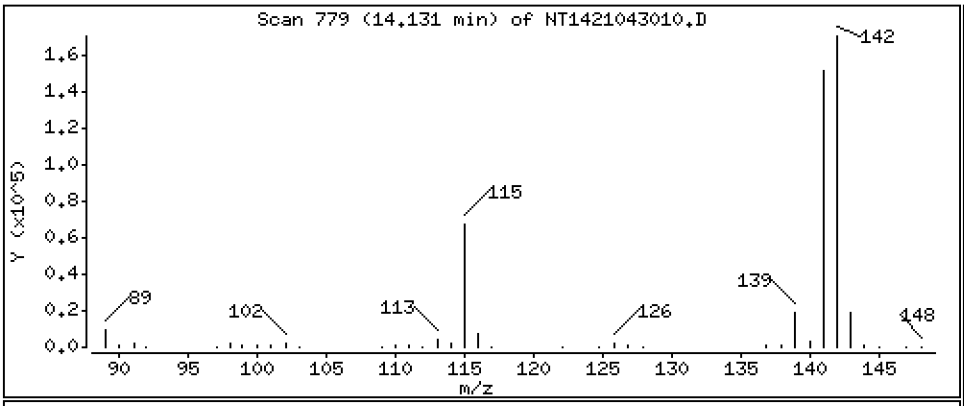
Operator: VTS

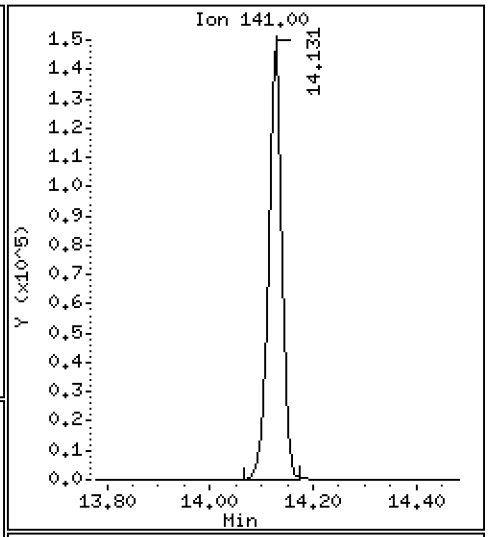
Column phase: Rxi-17Sil MS

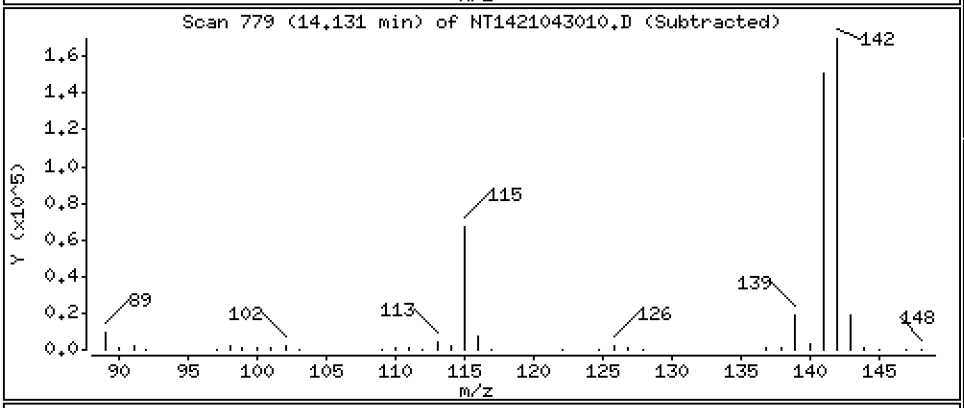
Column diameter: 0.25

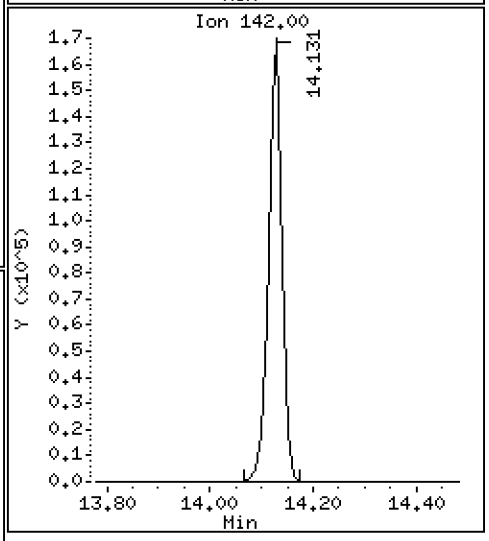
17 1-methylnaphthalene

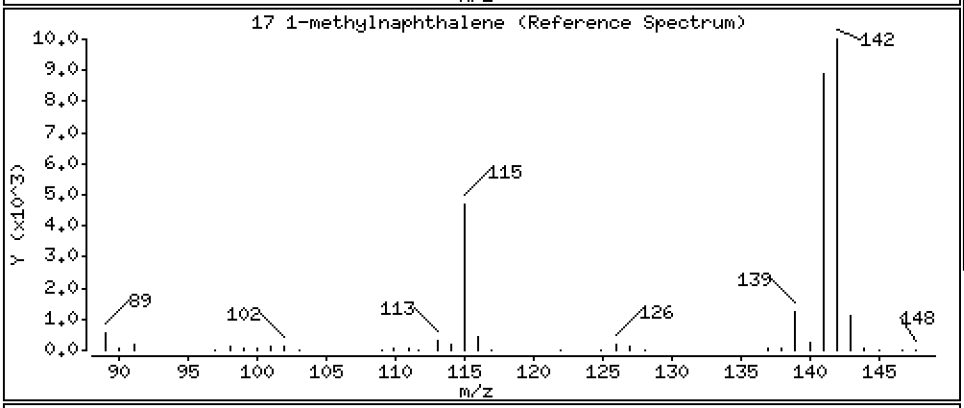
Concentration: 2.821 ug/mL

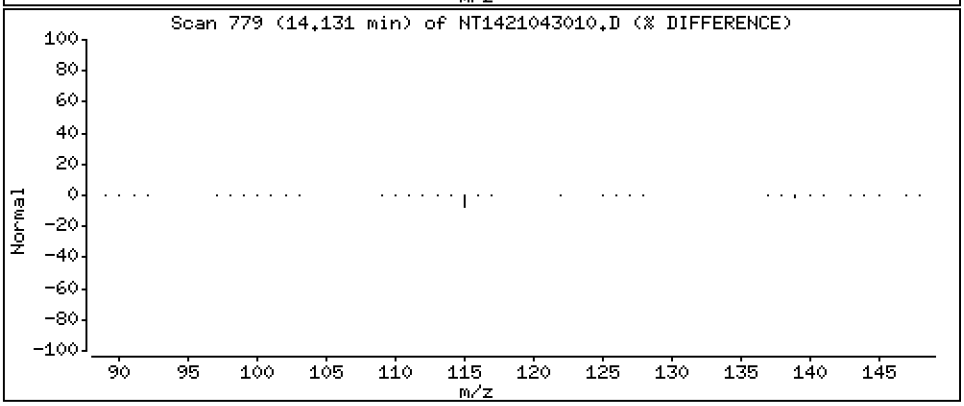


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

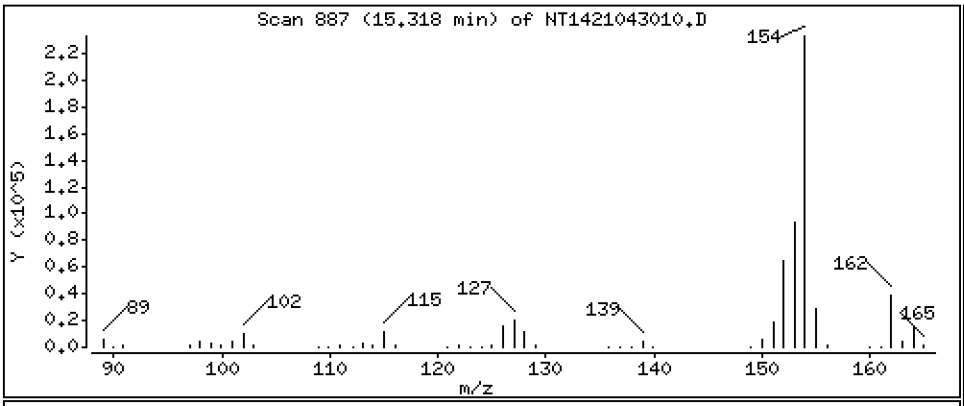
Operator: VTS

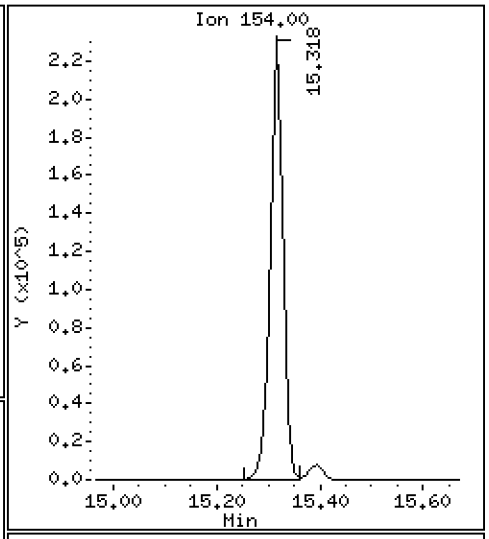
Column phase: Rxi-17Sil MS

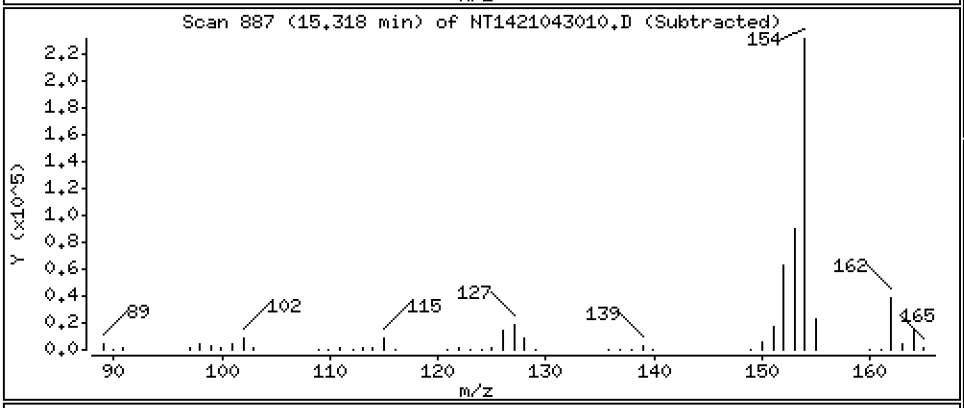
Column diameter: 0.25

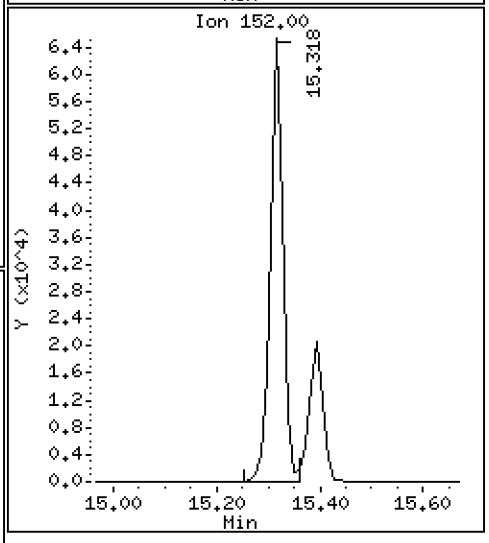
18 Biphenyl

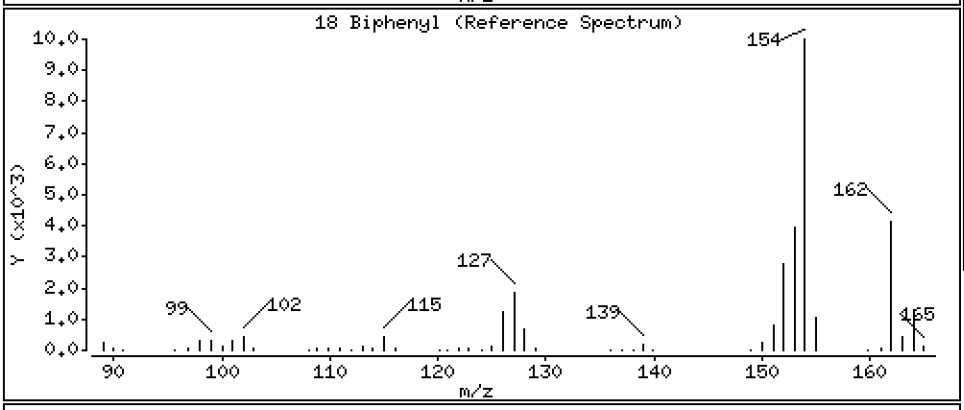
Concentration: 2.765 ug/mL

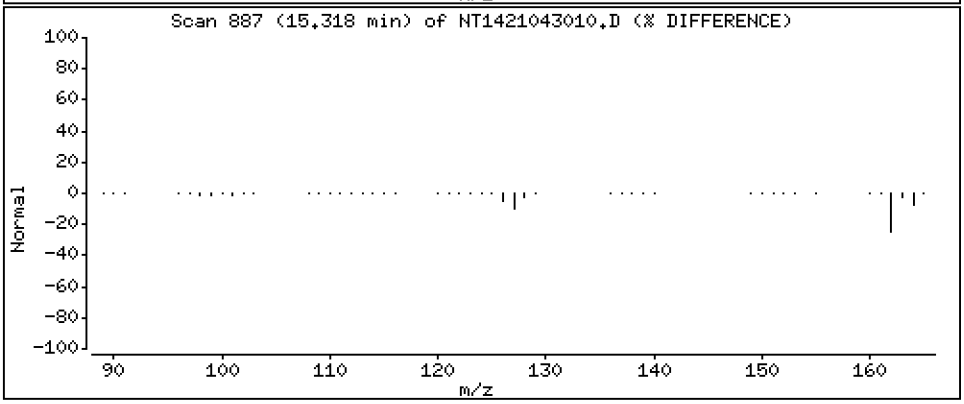


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

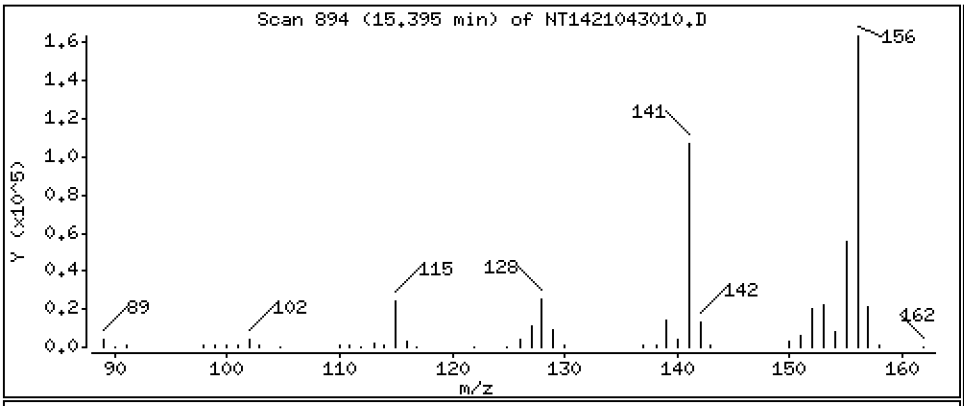
Operator: VTS

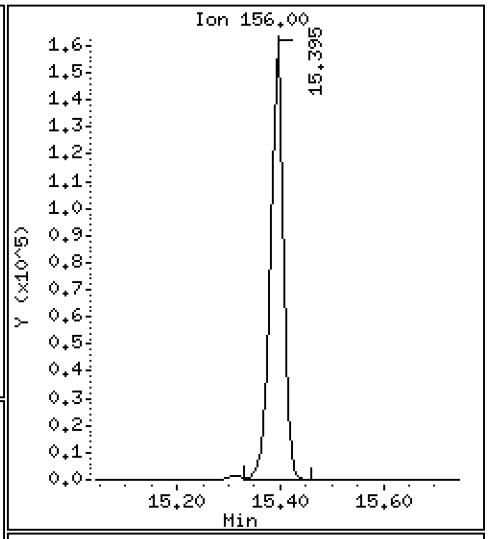
Column phase: Rxi-17Sil MS

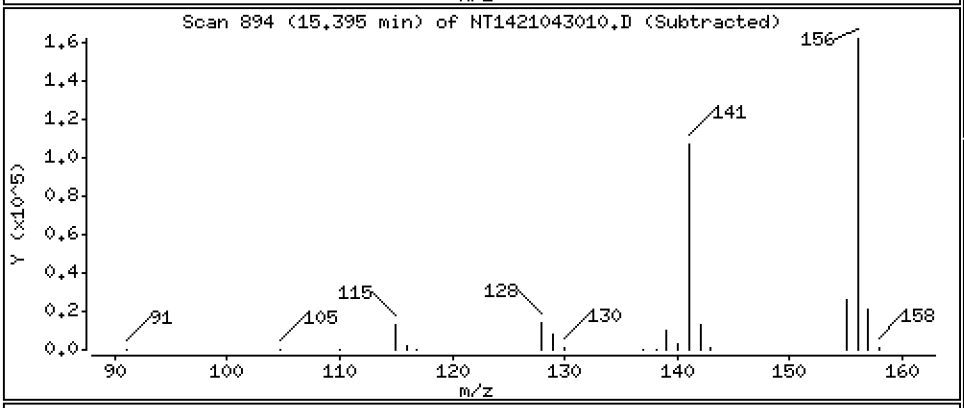
Column diameter: 0.25

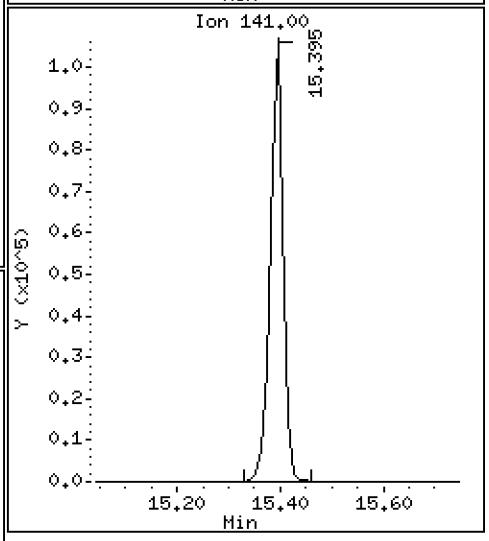
19 2,6-Dimethylnaphthalene

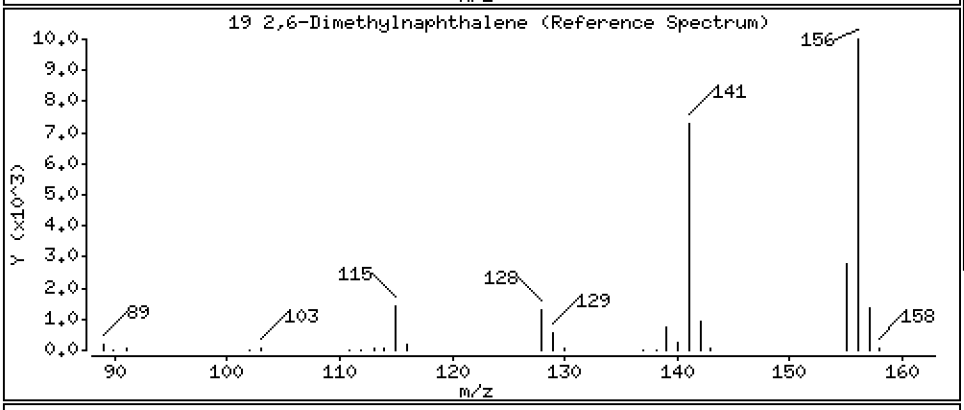
Concentration: 2.822 ug/mL

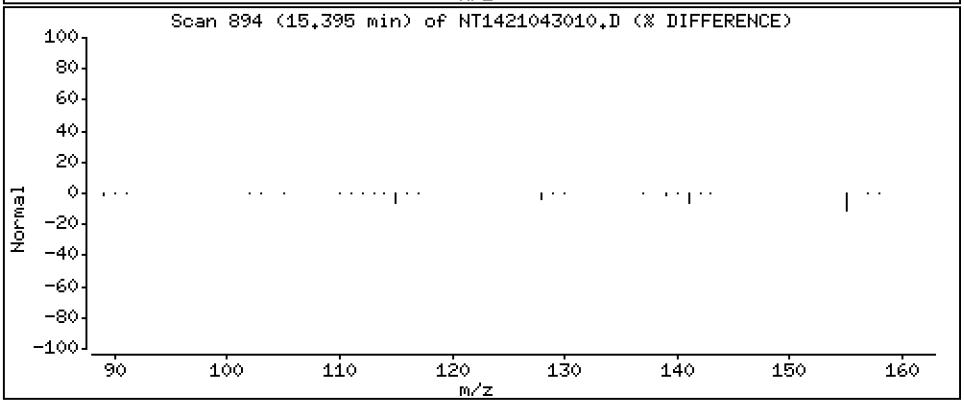


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

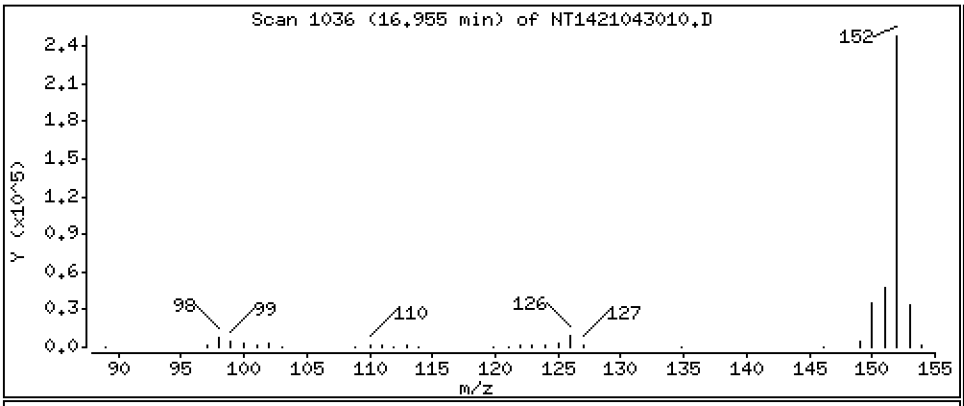
Operator: VTS

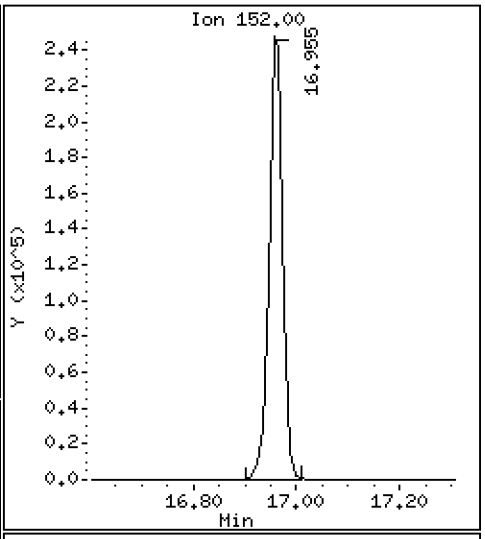
Column phase: Rxi-17Sil MS

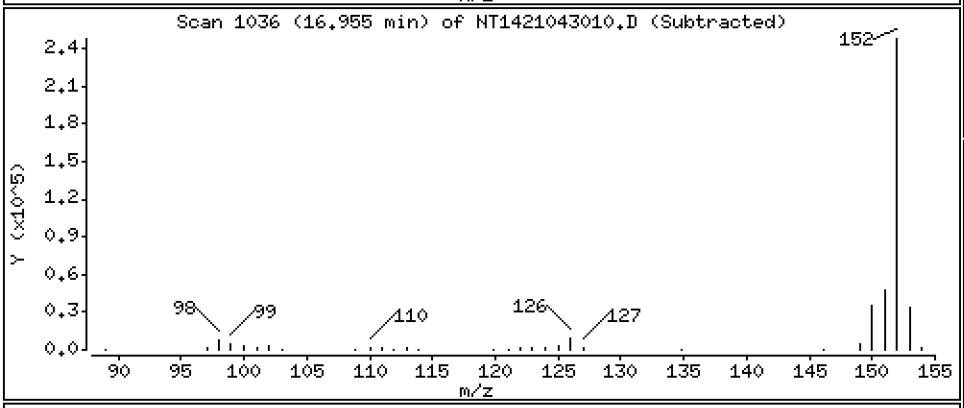
Column diameter: 0.25

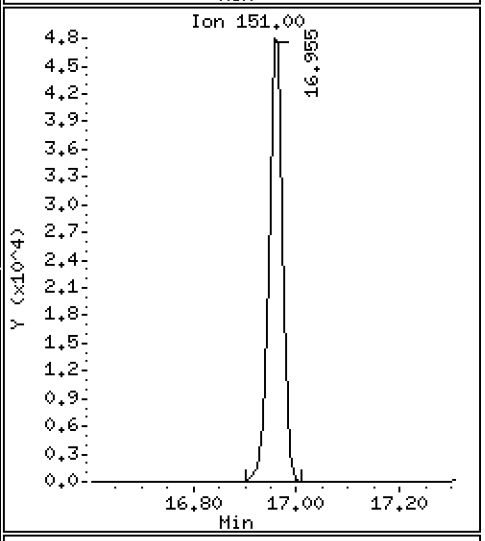
20 Acenaphthylene

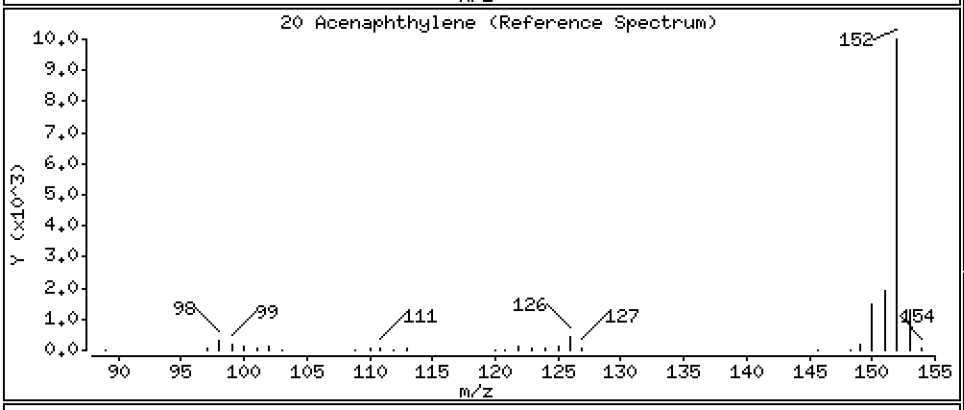
Concentration: 2.889 ug/mL

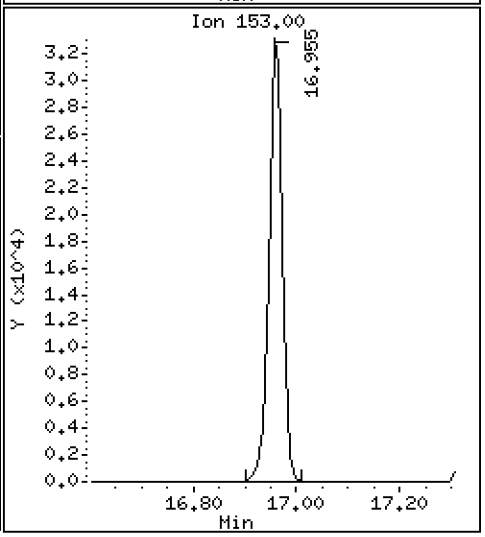


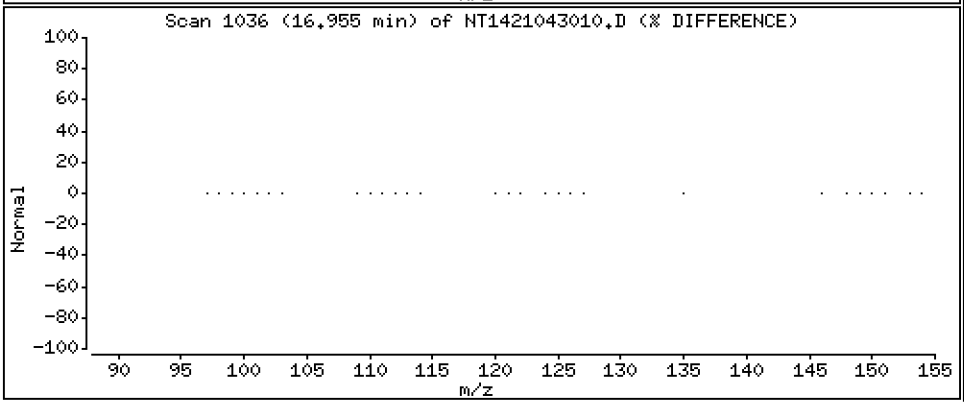



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

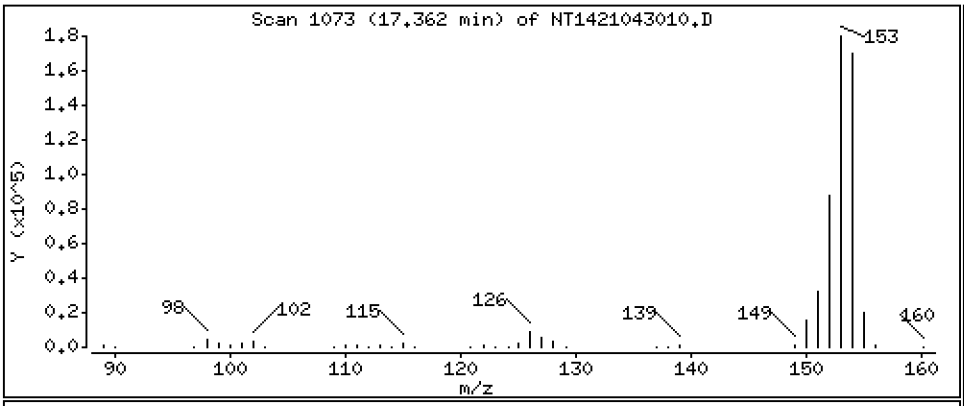
Operator: VTS

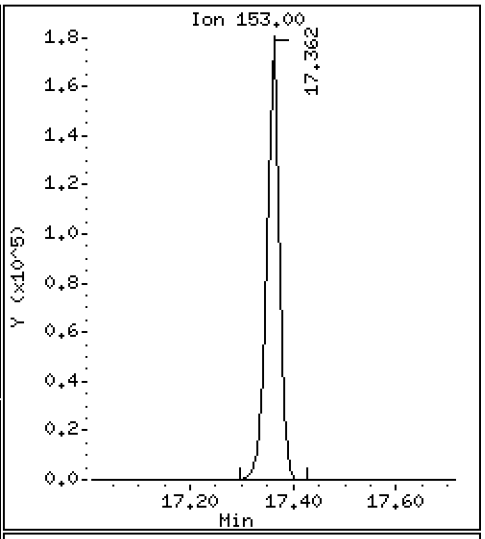
Column phase: Rxi-17Sil MS

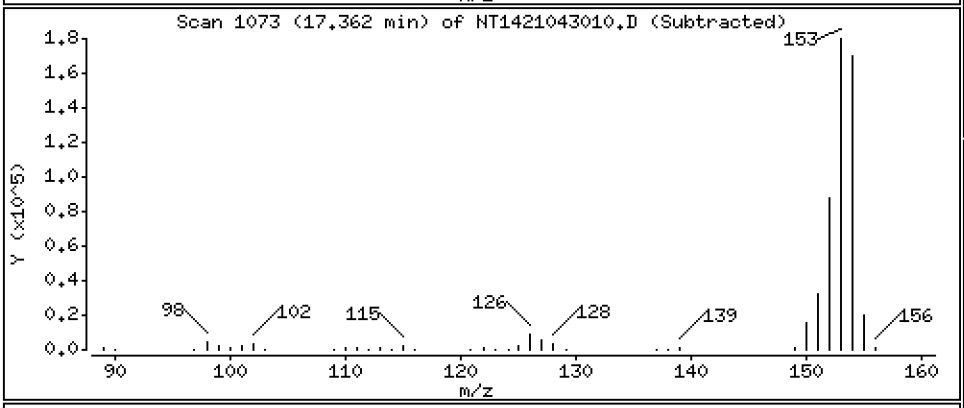
Column diameter: 0.25

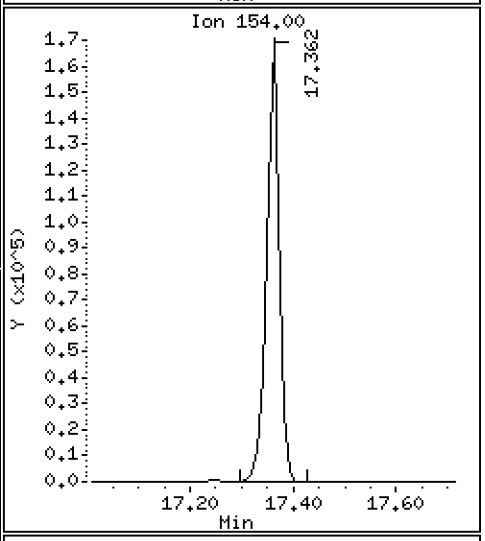
22 Acenaphthene

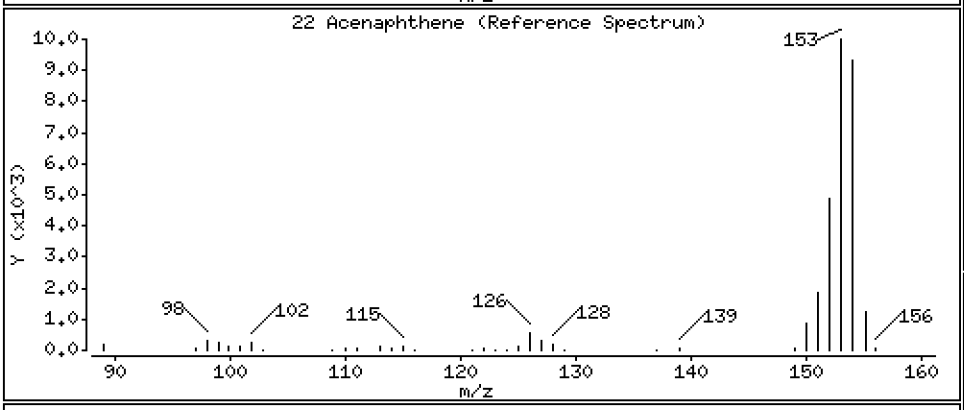
Concentration: 3.010 ug/mL

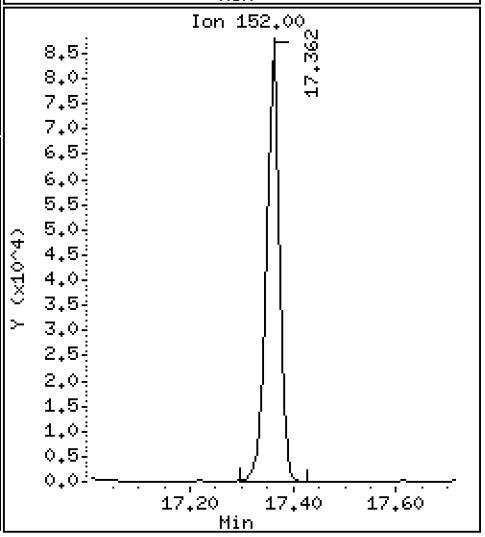


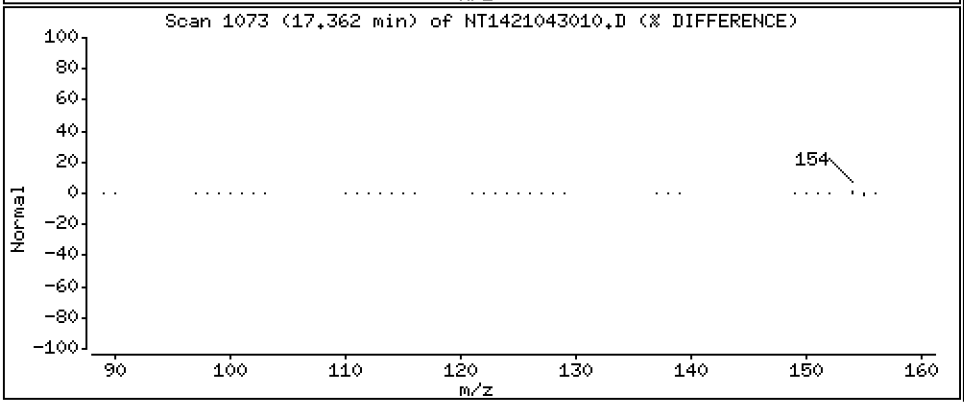



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

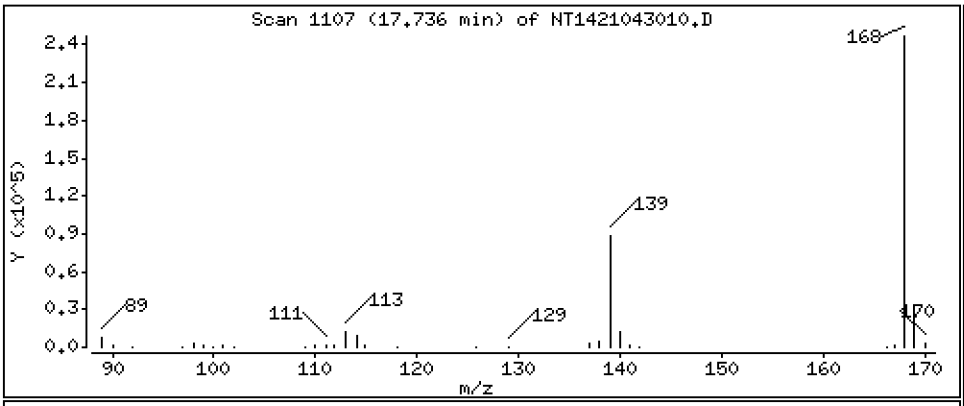
Operator: VTS

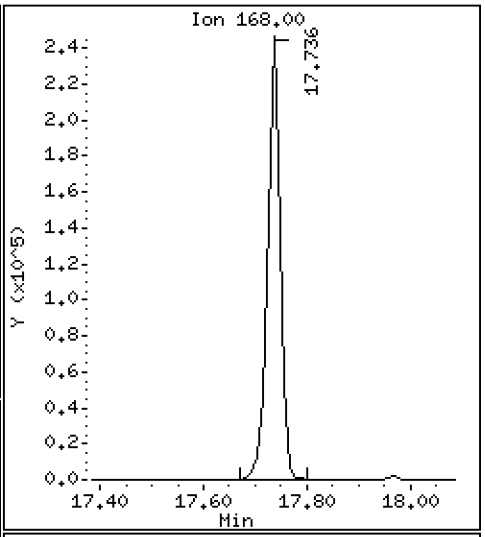
Column phase: Rxi-17Sil MS

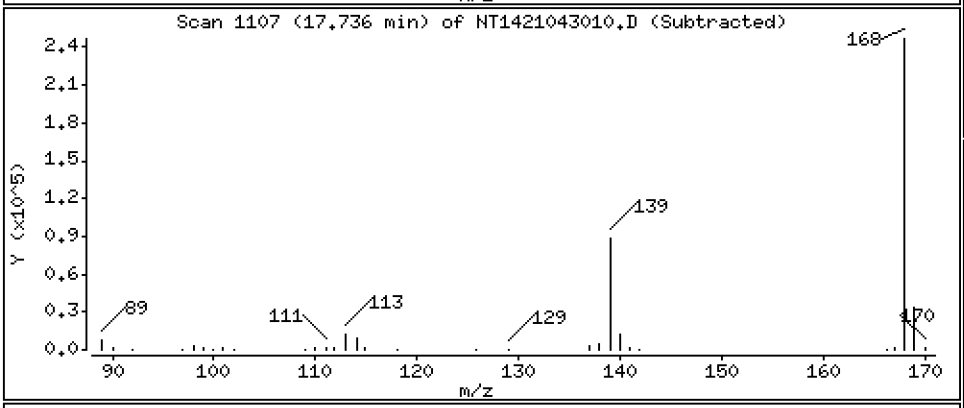
Column diameter: 0.25

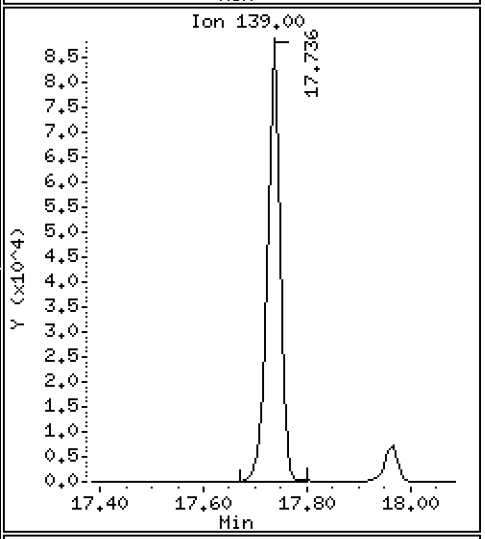
23 Dibenzofuran

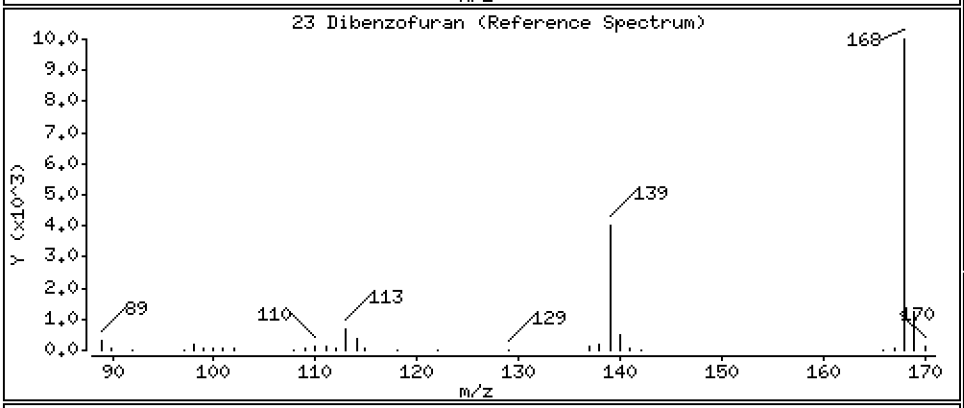
Concentration: 2.768 ug/mL

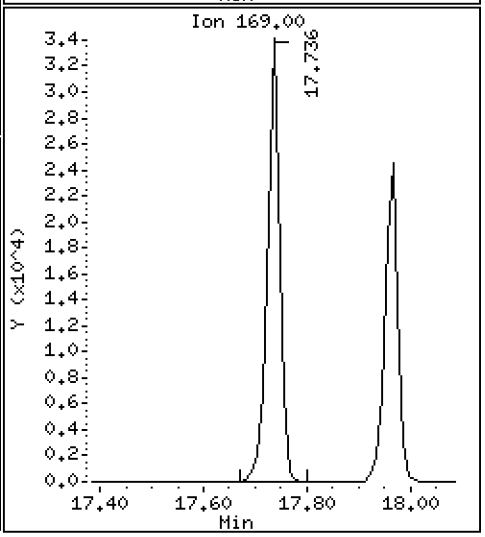


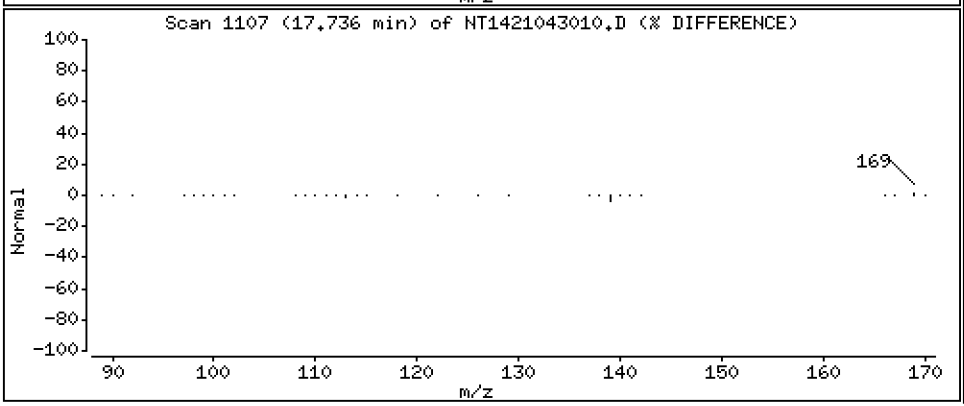



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

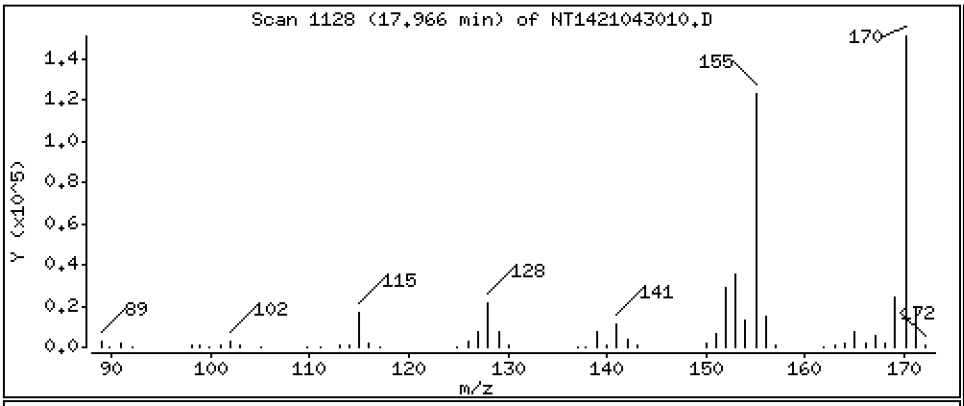
Operator: VTS

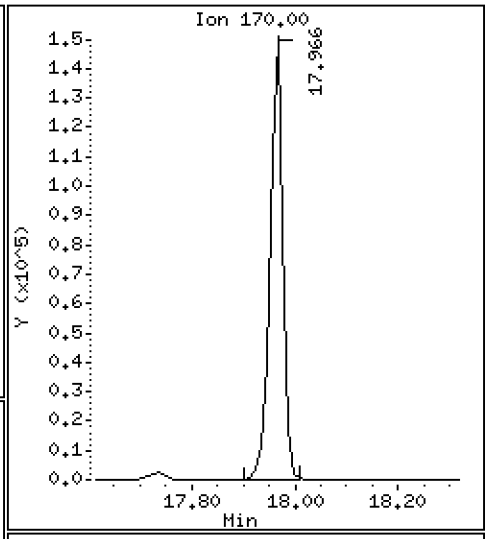
Column phase: Rxi-17Sil MS

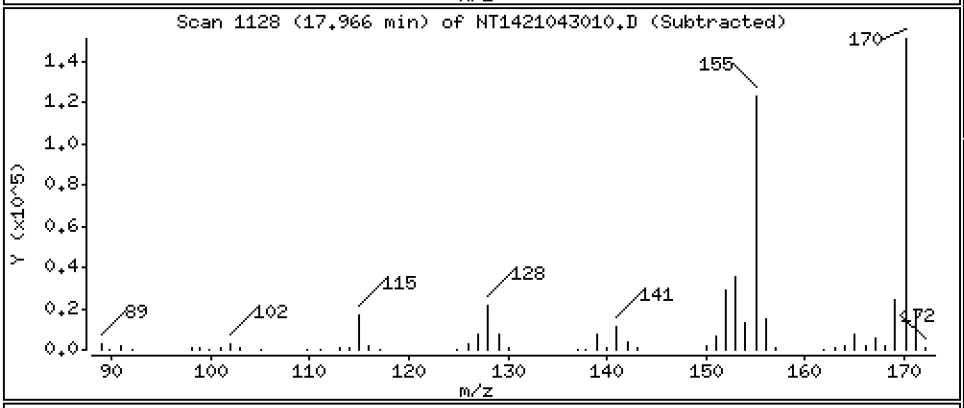
Column diameter: 0.25

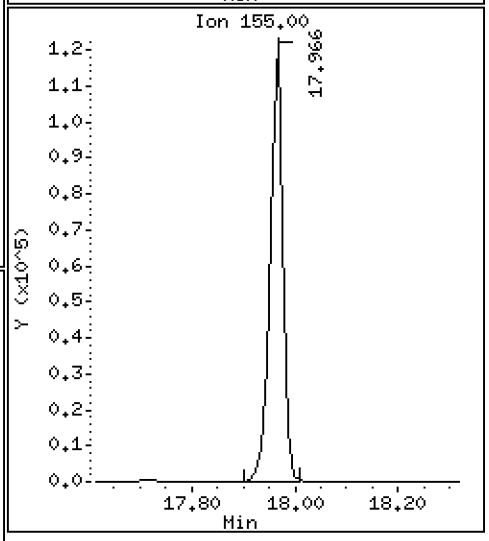
24 1,6,7-Trimethylnaphthalene

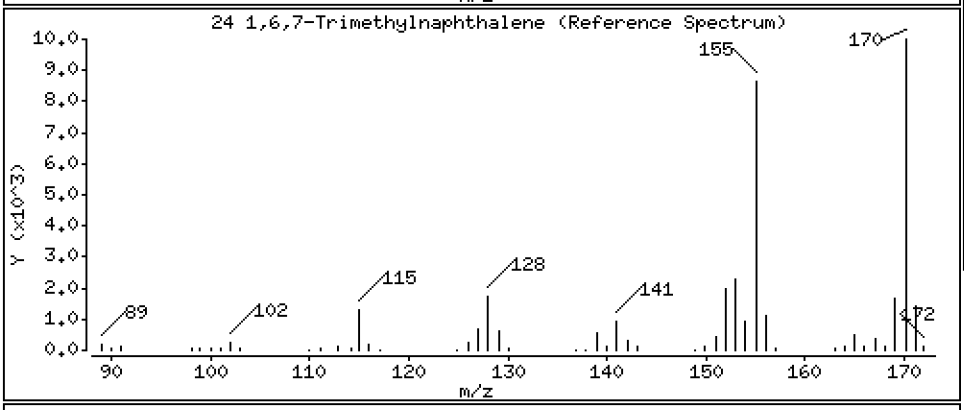
Concentration: 2.923 ug/mL

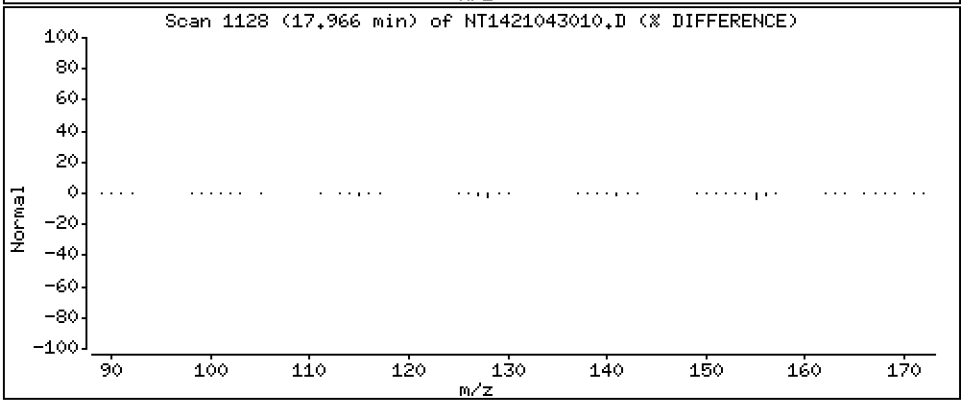


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

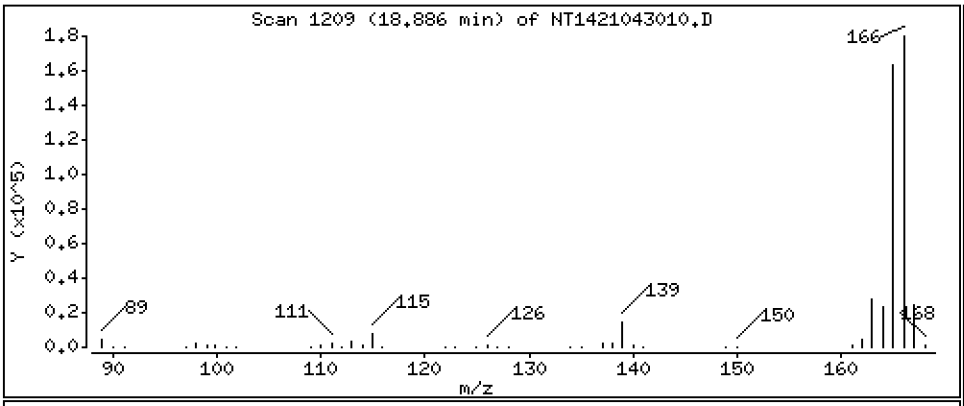
Operator: VTS

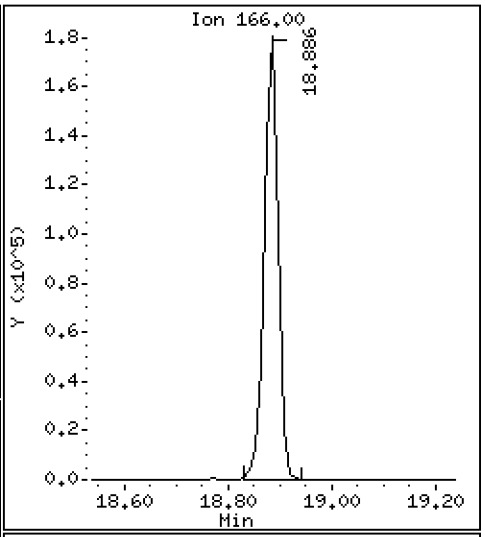
Column phase: Rxi-17Sil MS

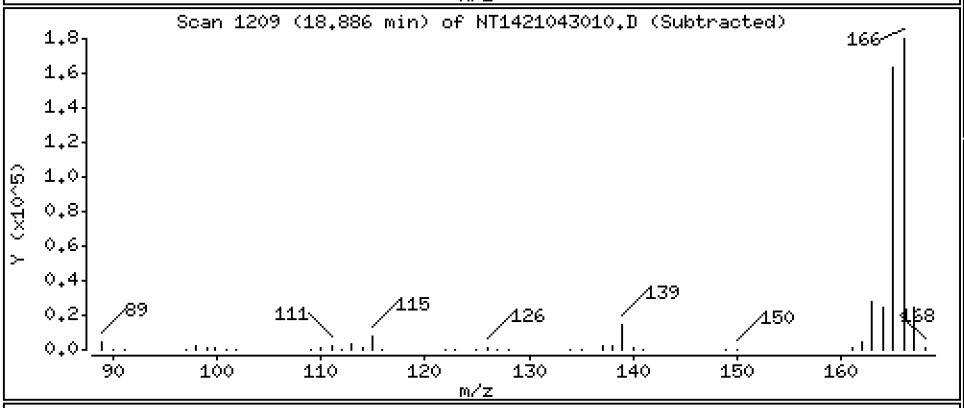
Column diameter: 0.25

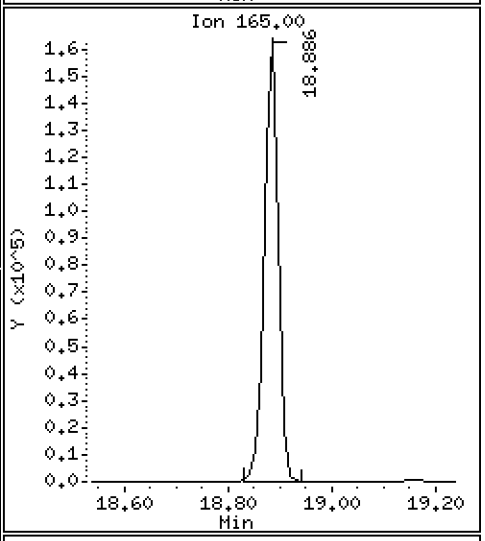
26 Fluorene

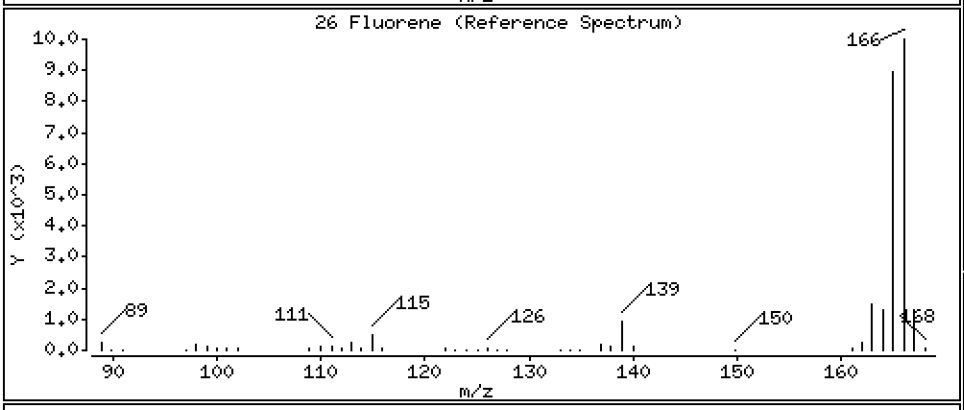
Concentration: 2.844 ug/mL

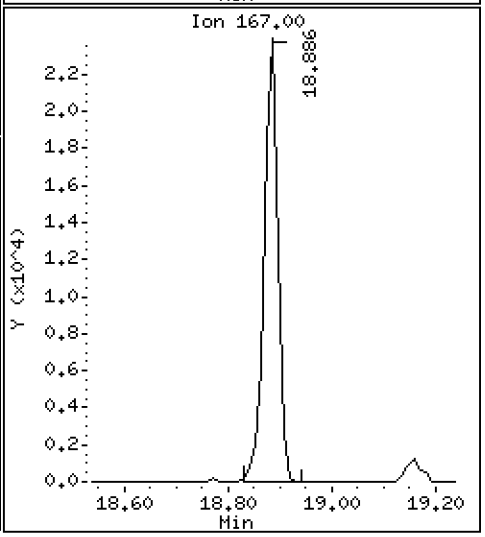


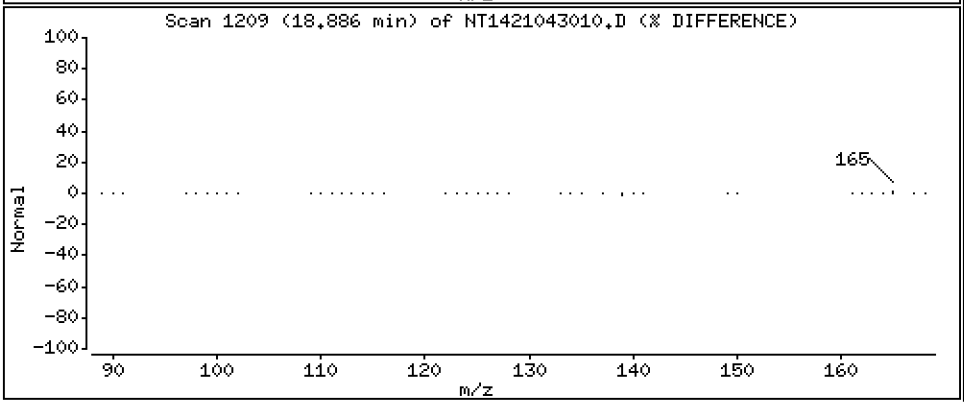



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

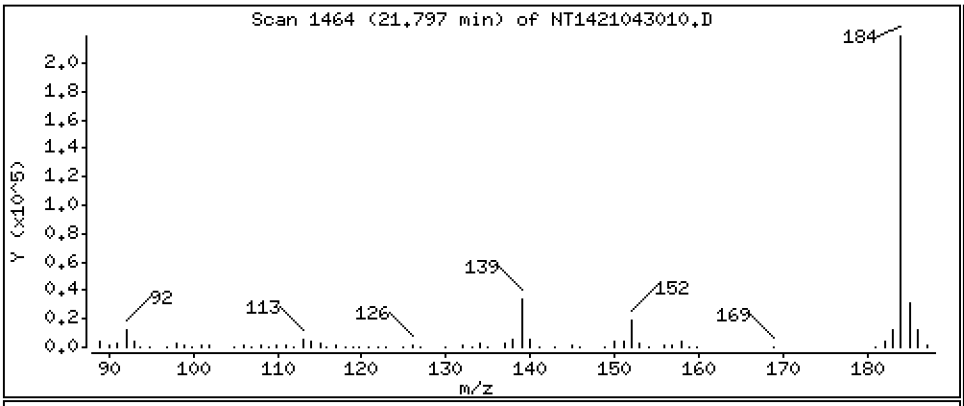
Operator: VTS

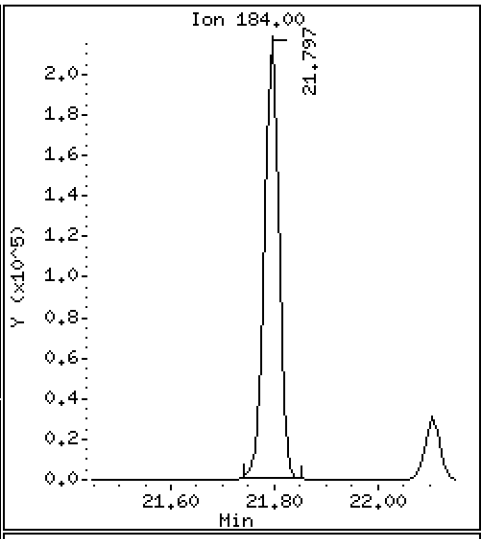
Column phase: Rxi-17Sil MS

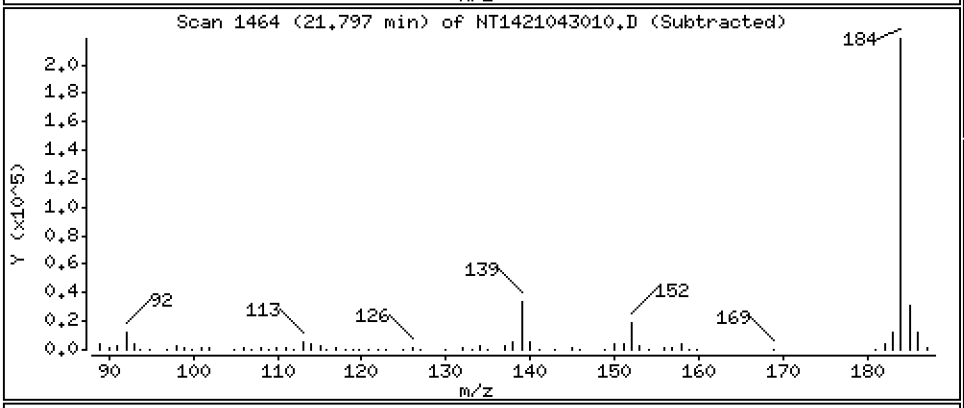
Column diameter: 0.25

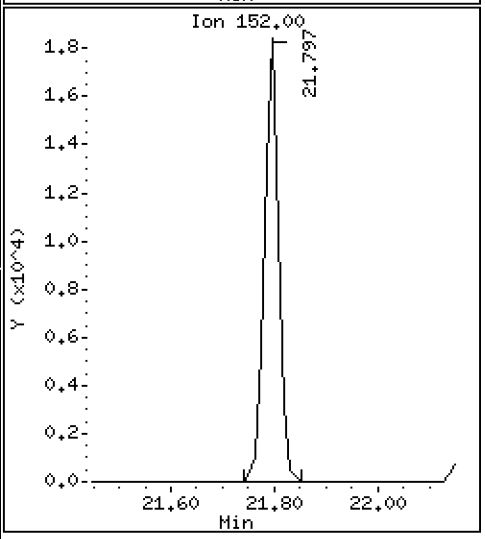
30 Dibenzothiophene

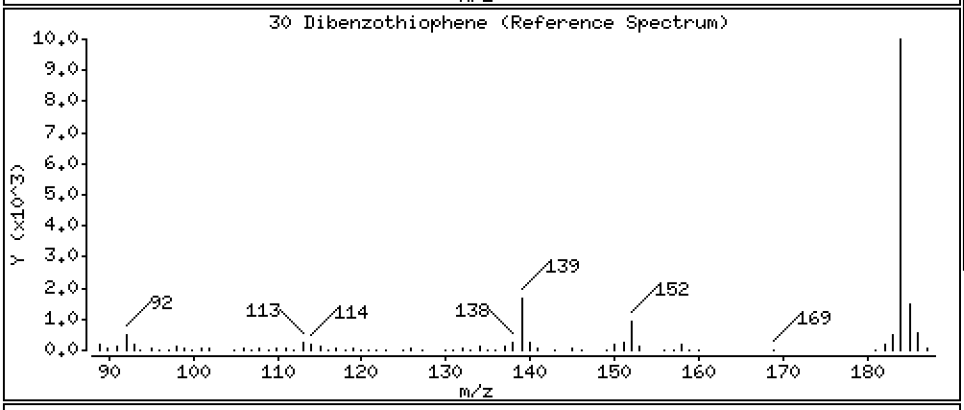
Concentration: 2.782 ug/mL

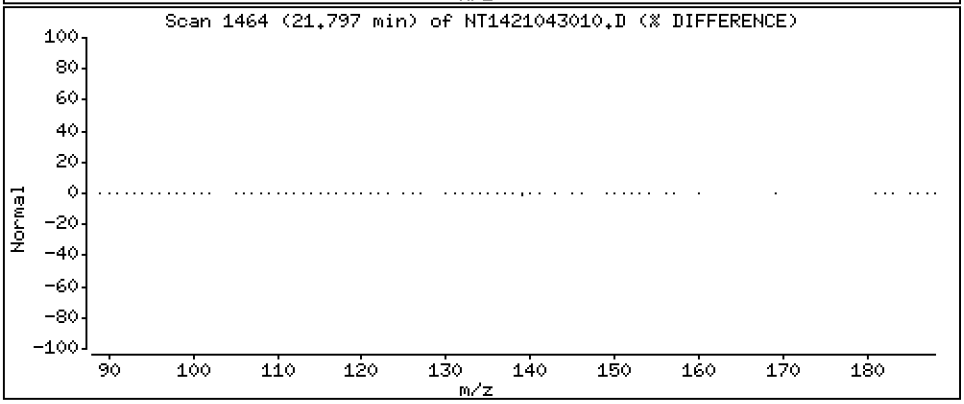


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

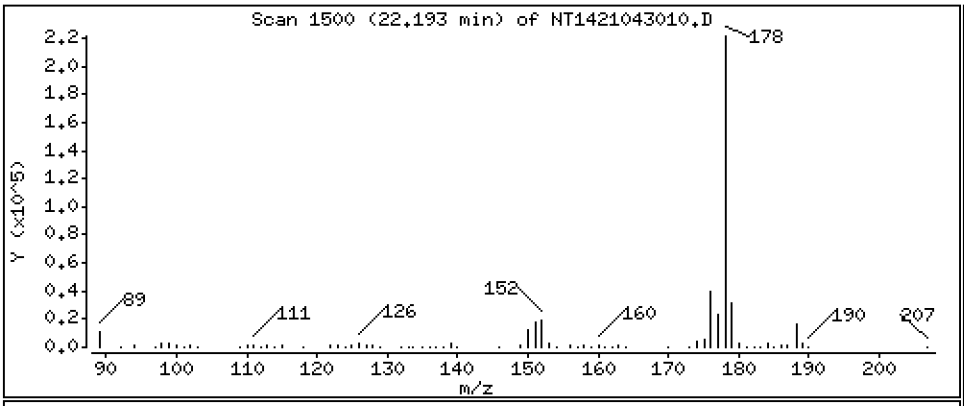
Operator: VTS

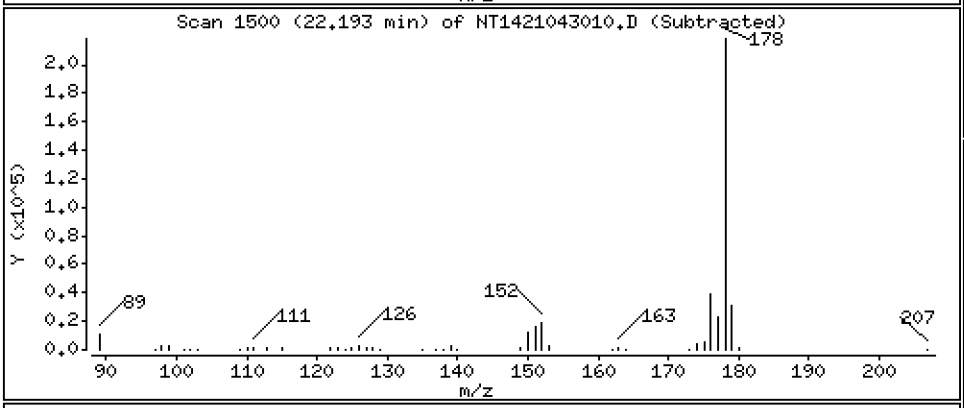
Column phase: Rxi-17Sil MS

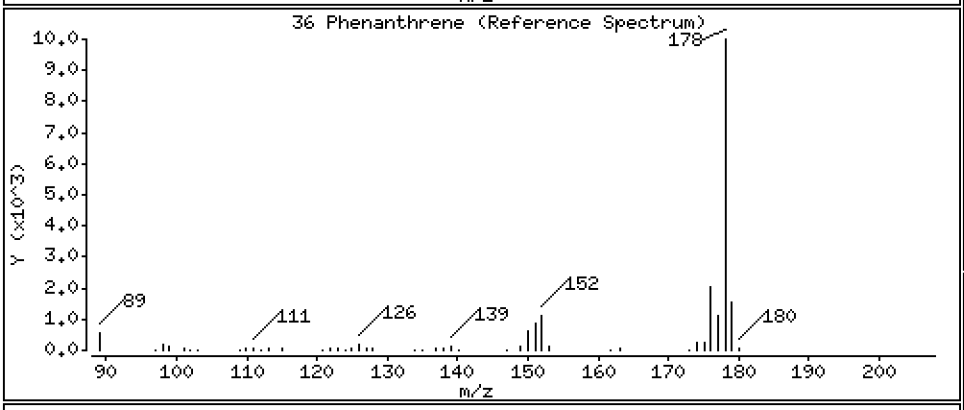
Column diameter: 0.25

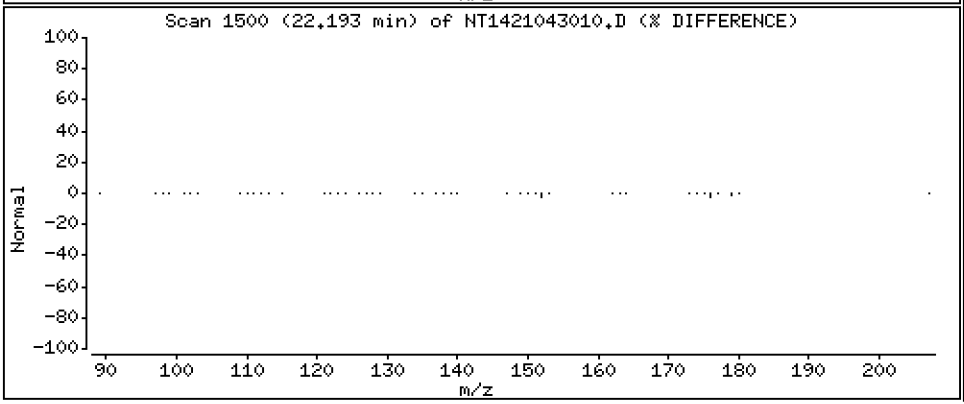
36 Phenanthrene

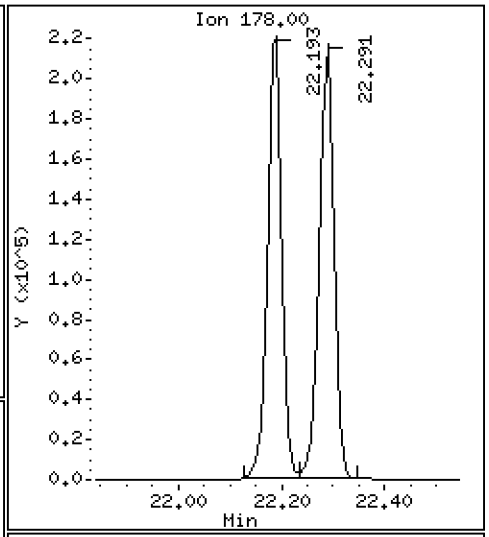
Concentration: 2.468 ug/mL

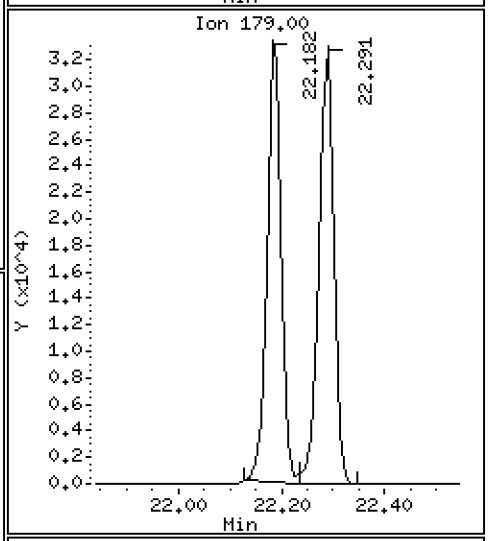


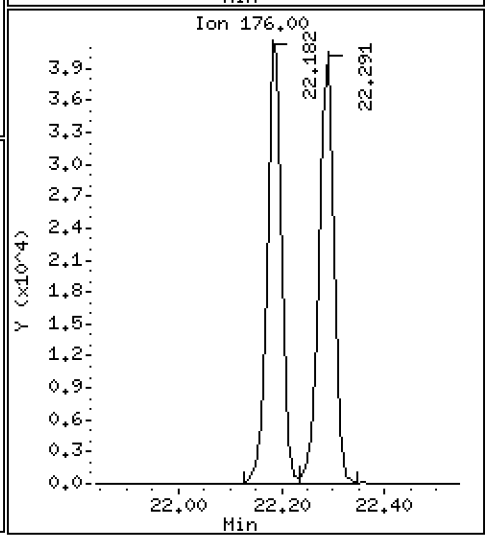



Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

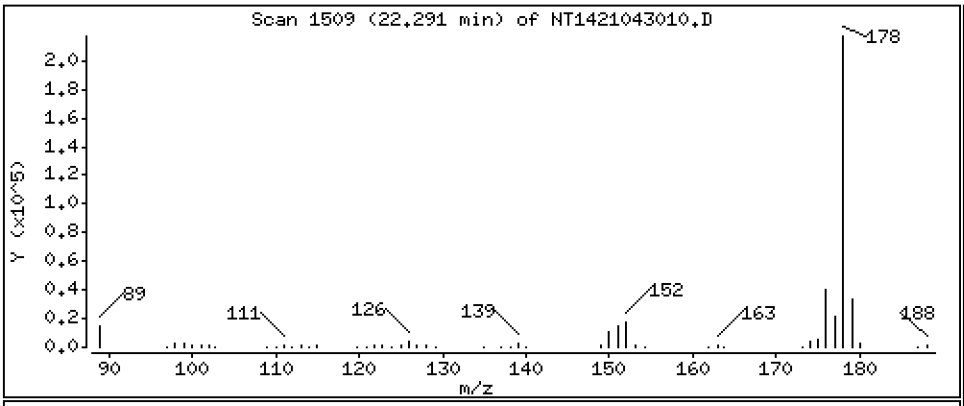
Operator: VTS

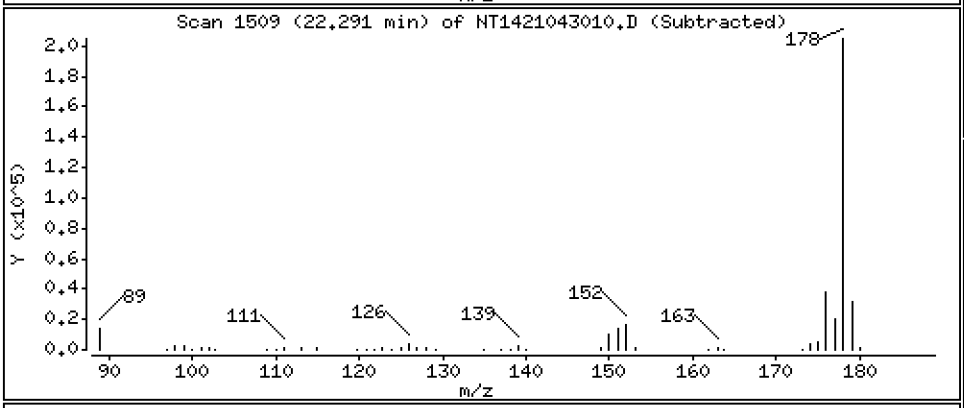
Column phase: Rxi-17Sil MS

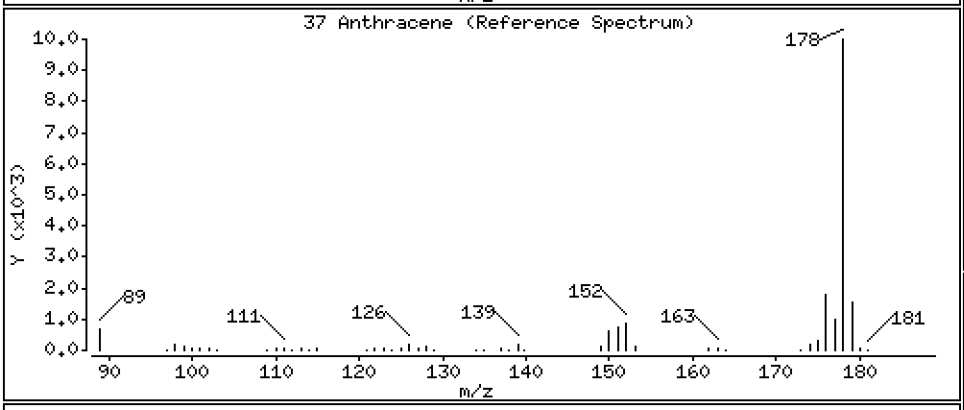
Column diameter: 0.25

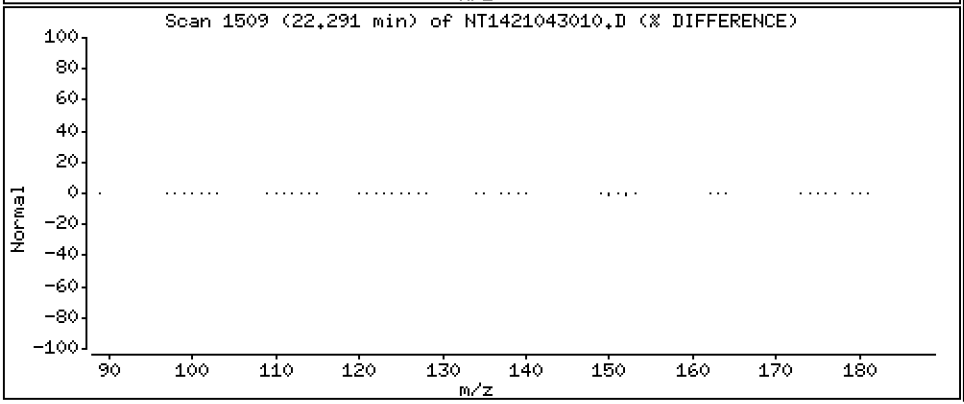
37 Anthracene

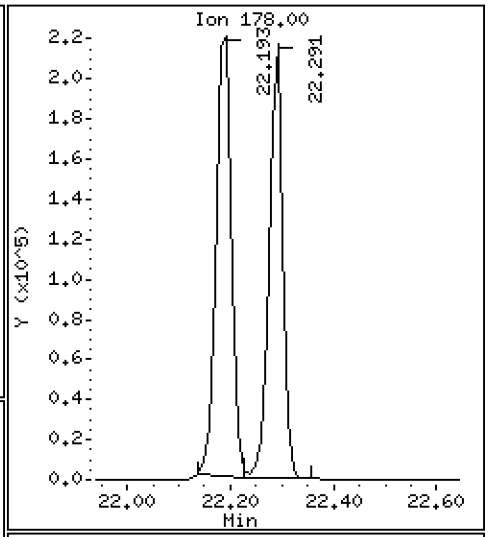
Concentration: 2.492 ug/mL

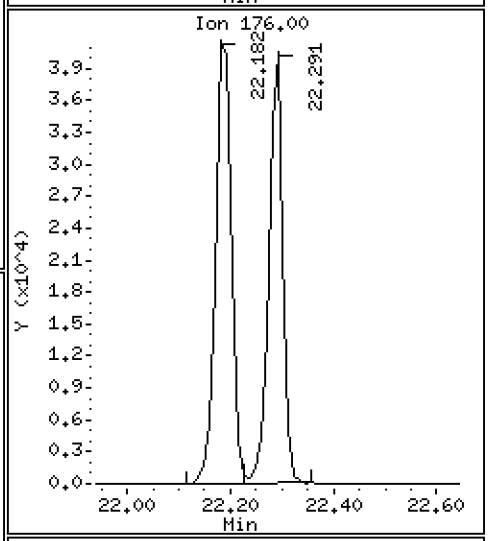


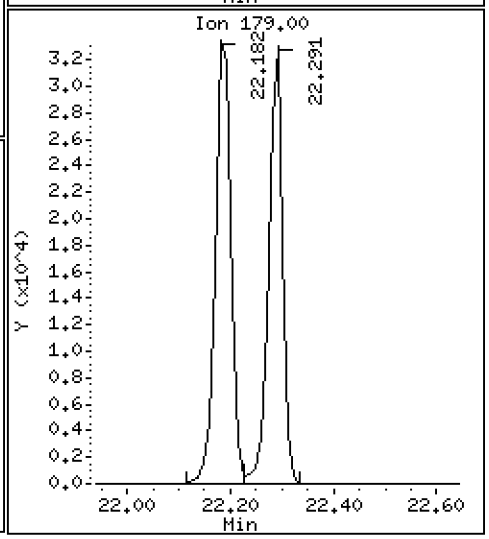



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

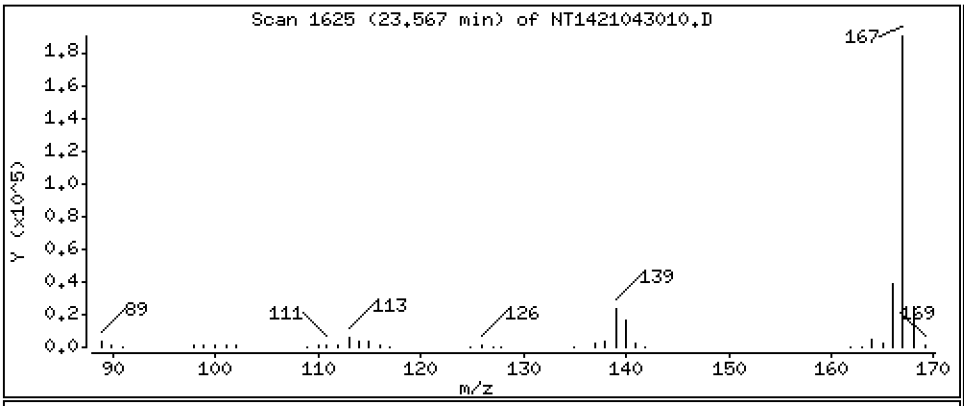
Operator: VTS

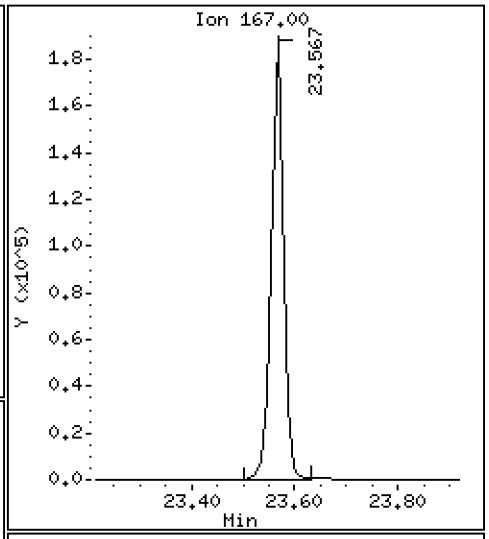
Column phase: Rxi-17Sil MS

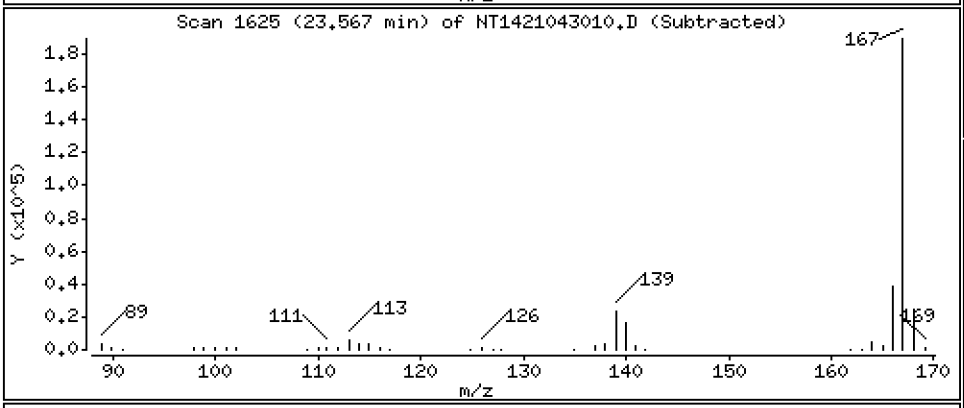
Column diameter: 0.25

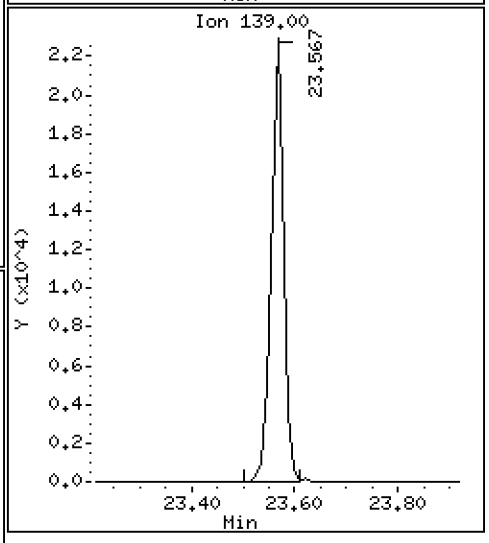
42 Carbazole

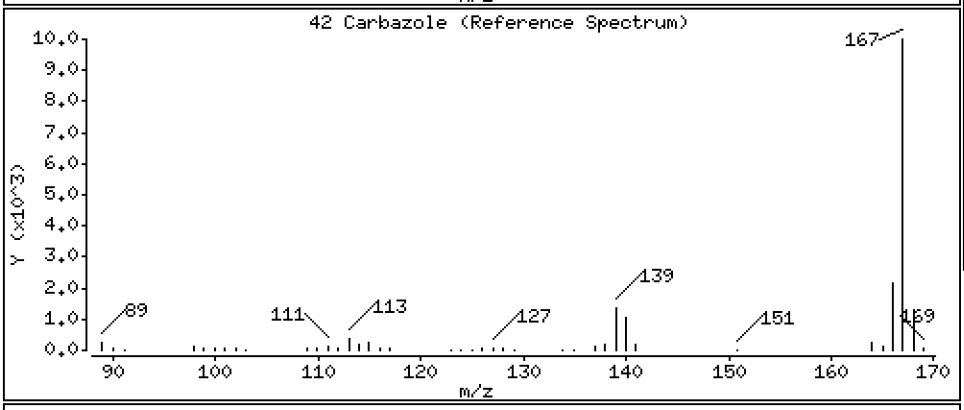
Concentration: 2.343 ug/mL

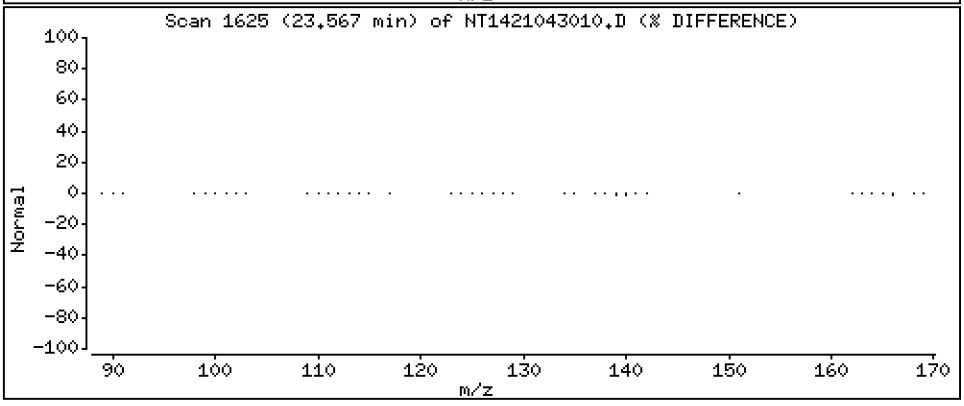


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

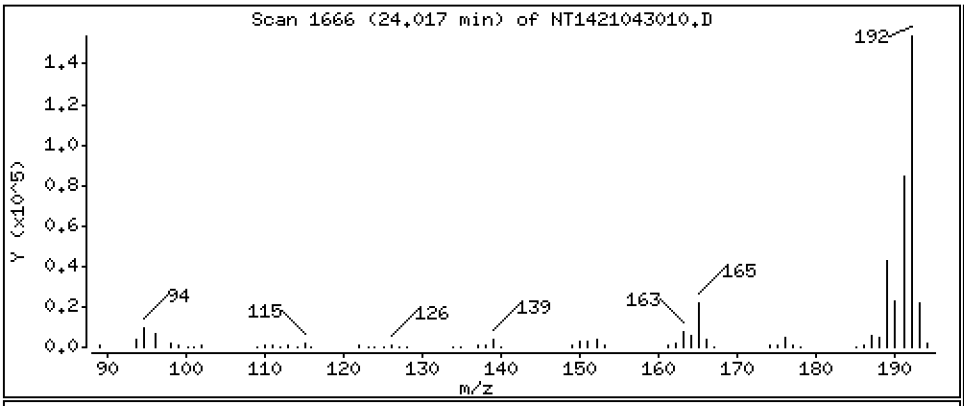
Operator: VTS

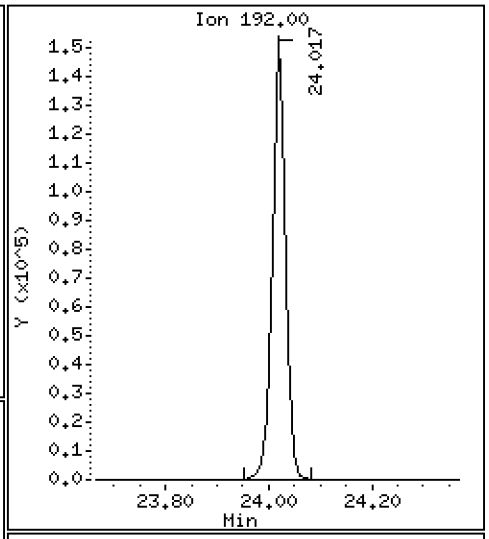
Column phase: Rxi-17Sil MS

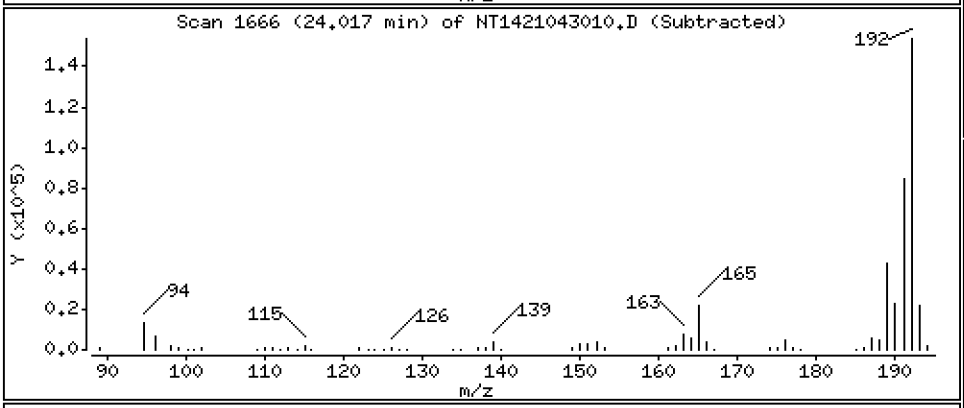
Column diameter: 0.25

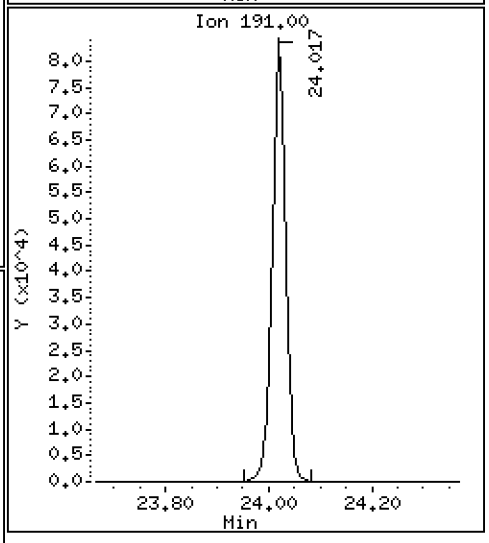
43 1-Methylphenanthrene

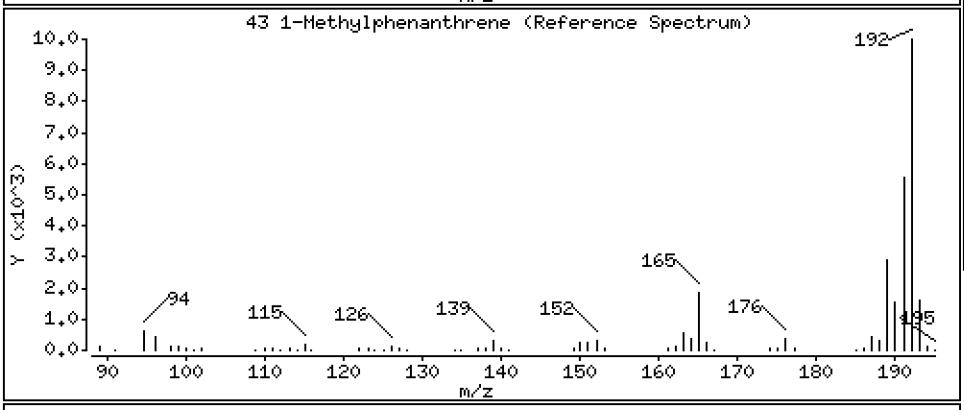
Concentration: 2.594 ug/mL

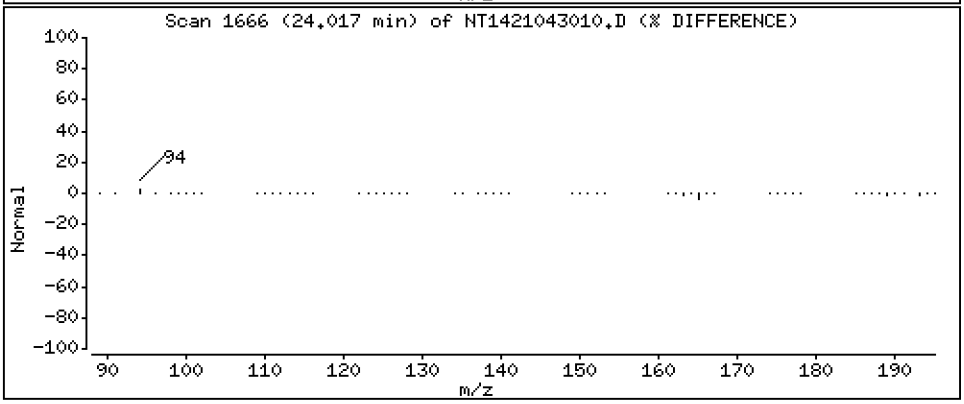


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

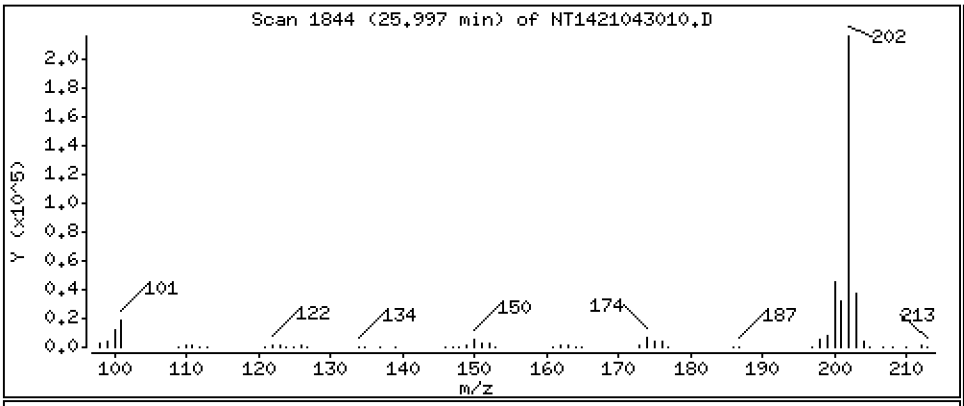
Operator: VTS

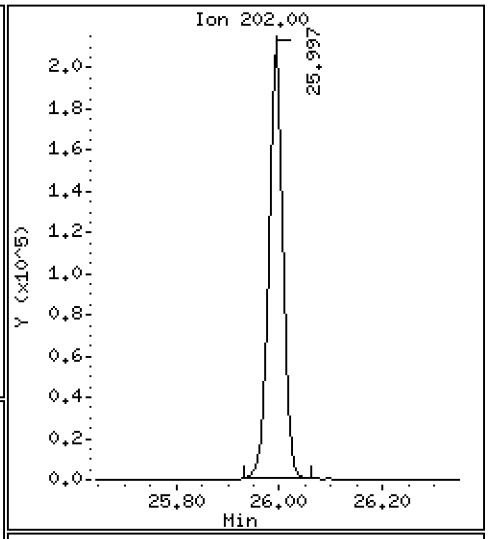
Column phase: Rxi-17Sil MS

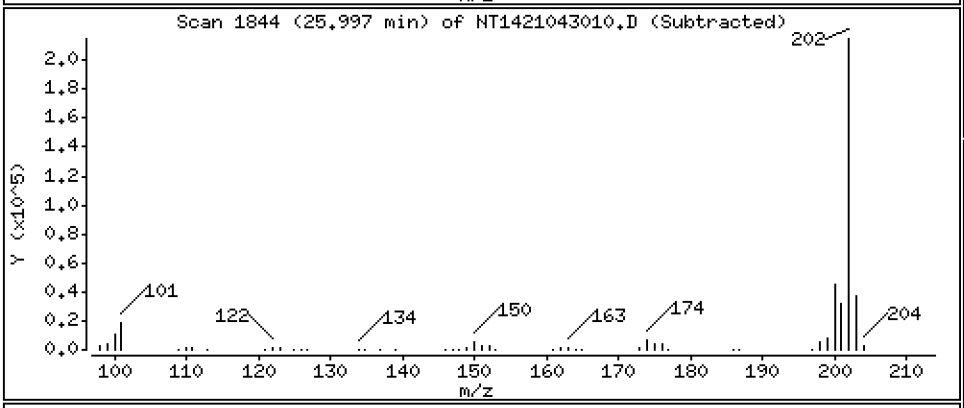
Column diameter: 0.25

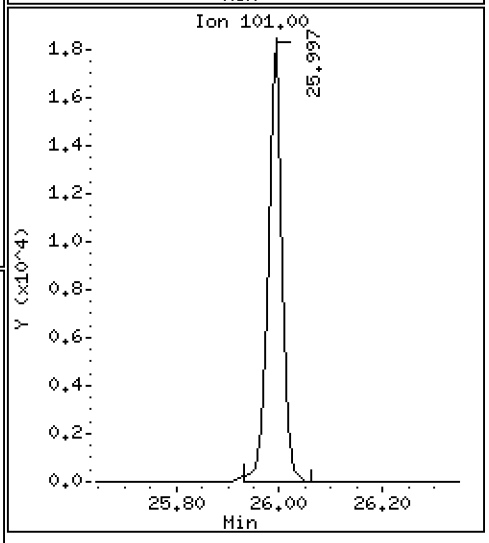
44 Fluoranthene

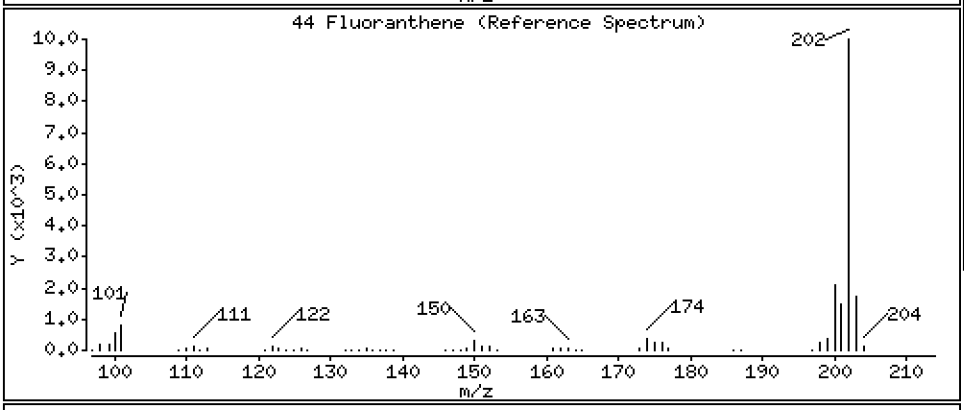
Concentration: 2.634 ug/mL

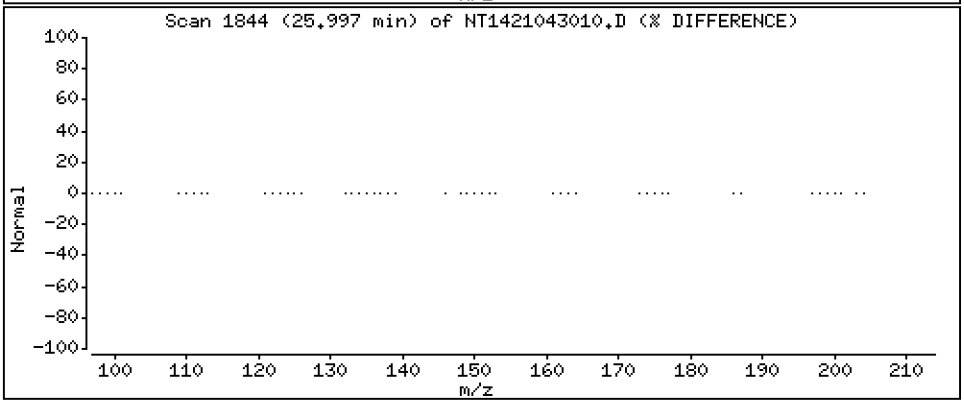


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

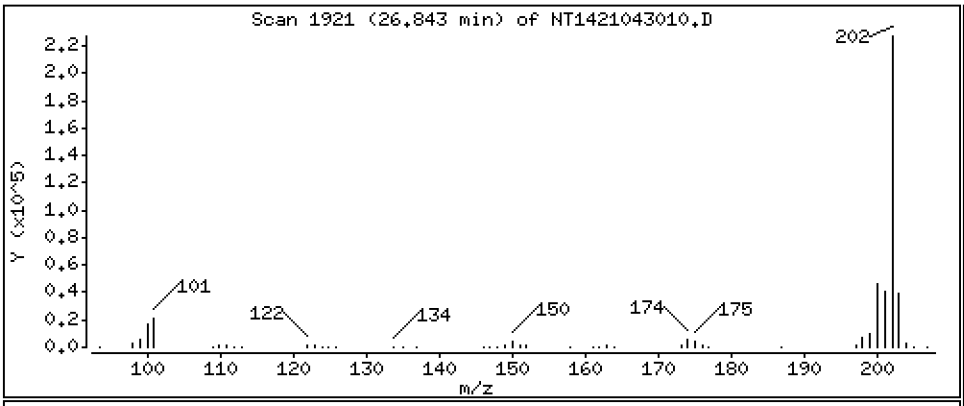
Operator: VTS

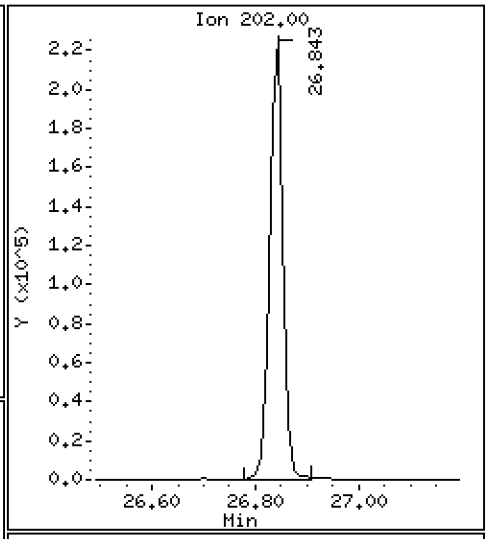
Column phase: Rxi-17Sil MS

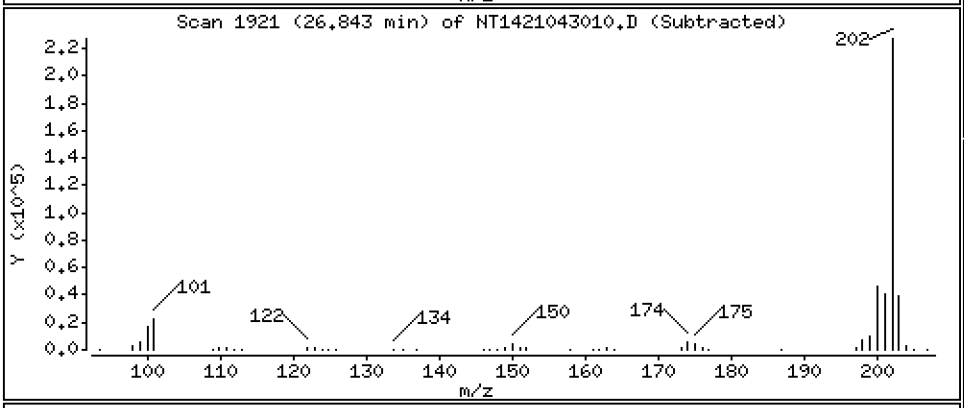
Column diameter: 0.25

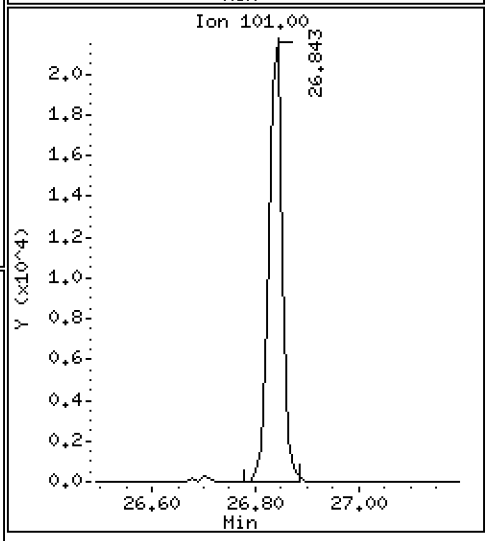
46 Pyrene

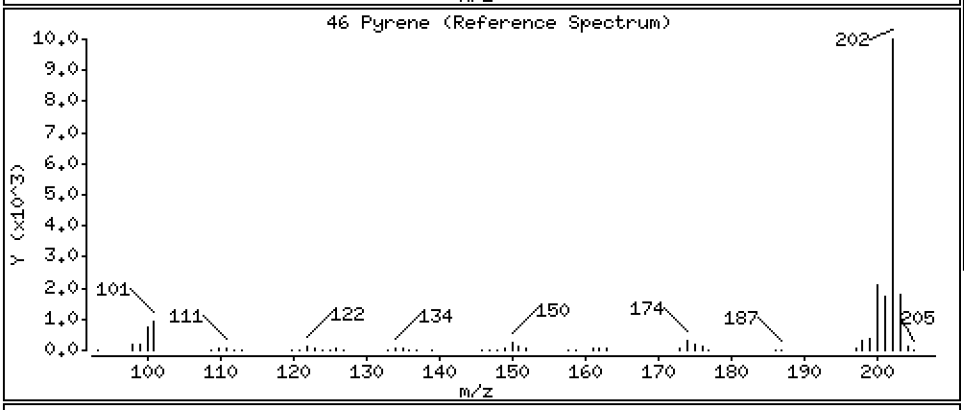
Concentration: 2.527 ug/mL

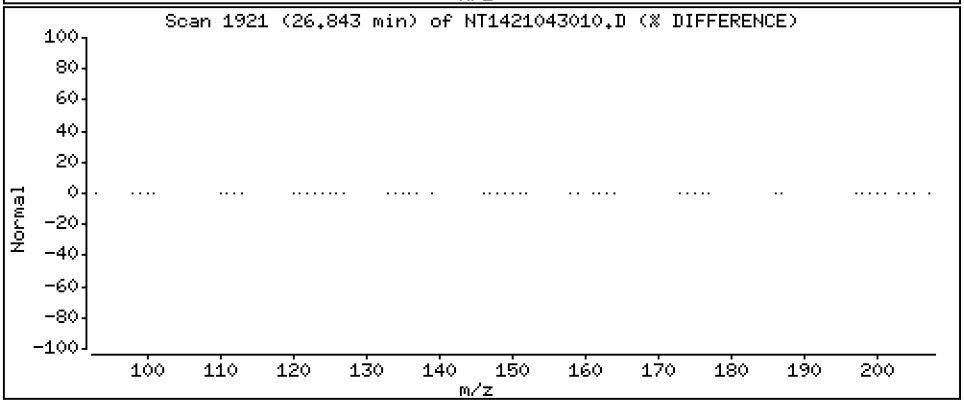


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

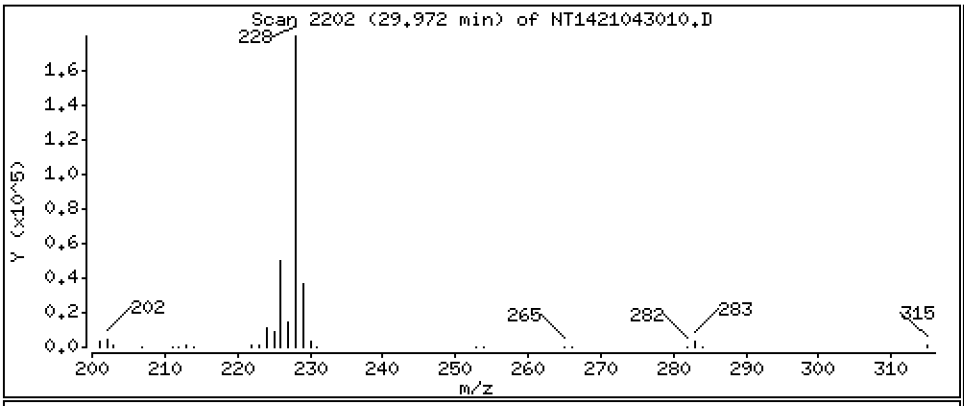
Operator: VTS

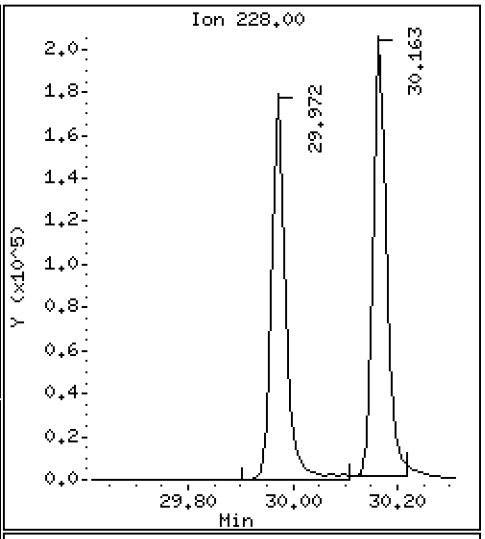
Column phase: Rxi-17Sil MS

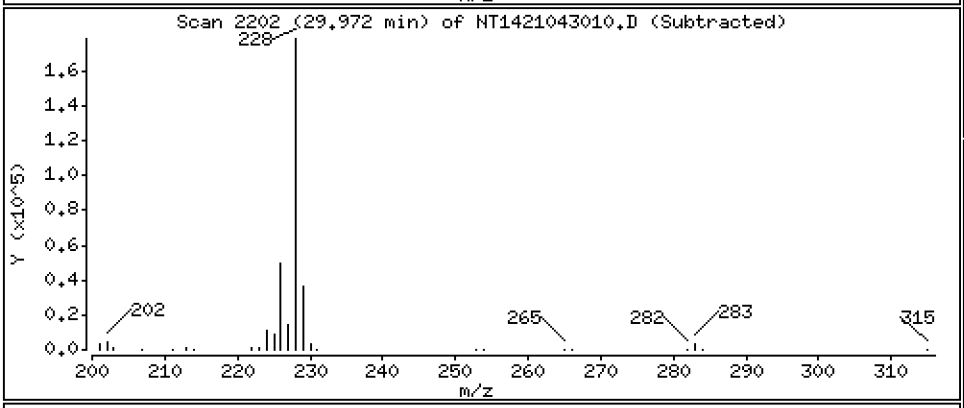
Column diameter: 0.25

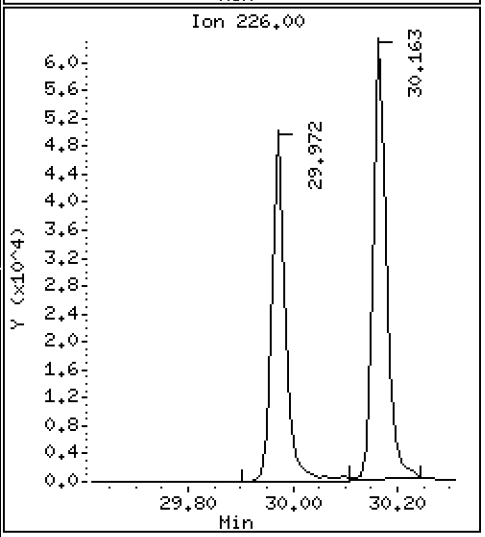
55 Benzo(a)anthracene

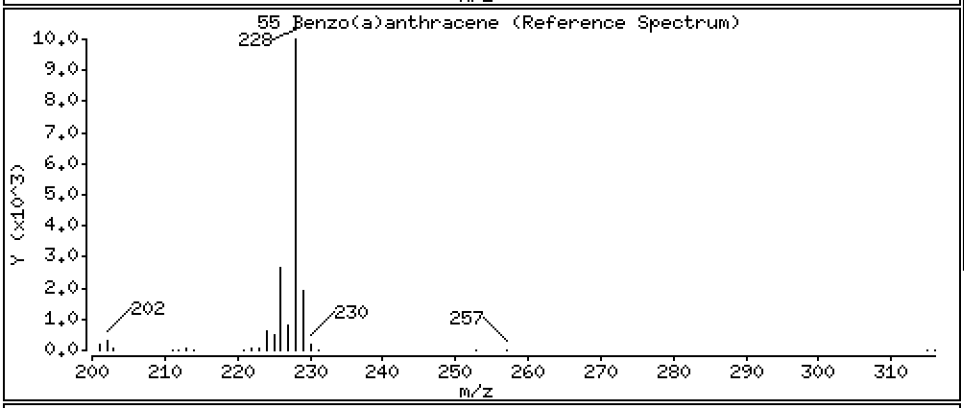
Concentration: 2.278 ug/mL

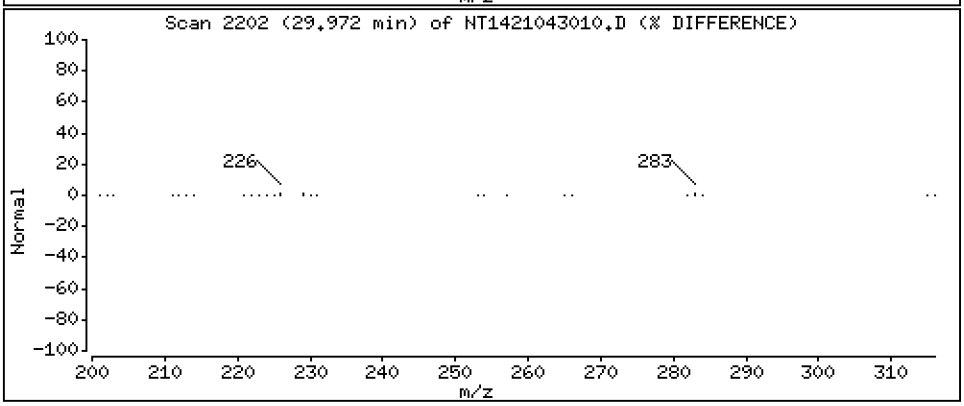


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

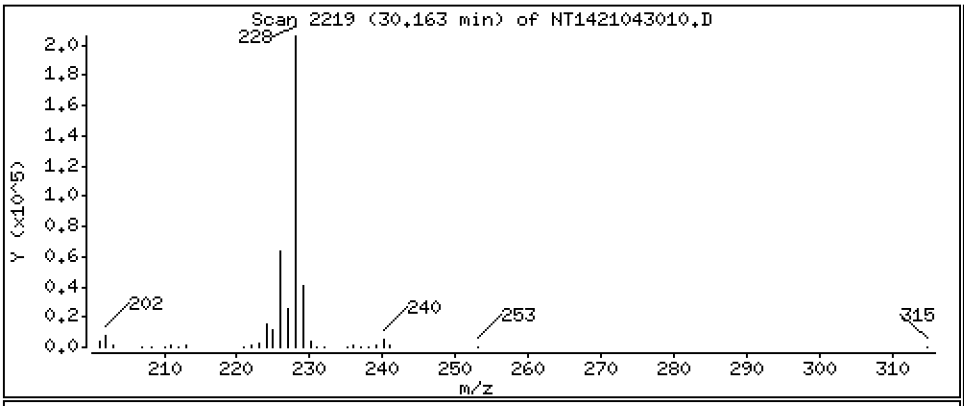
Operator: VTS

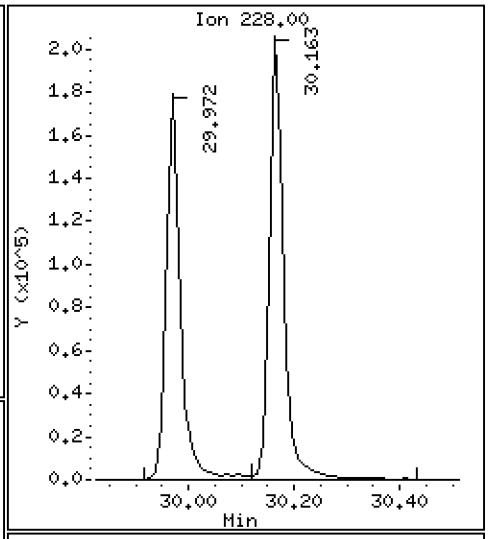
Column phase: Rxi-17Sil MS

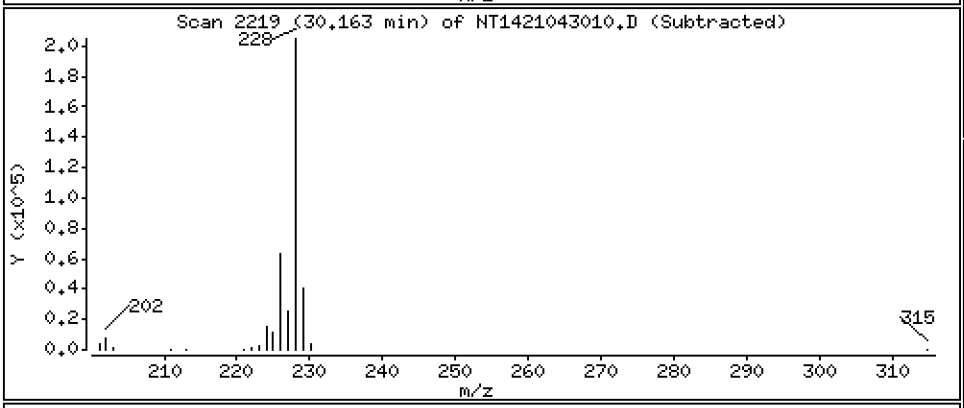
Column diameter: 0.25

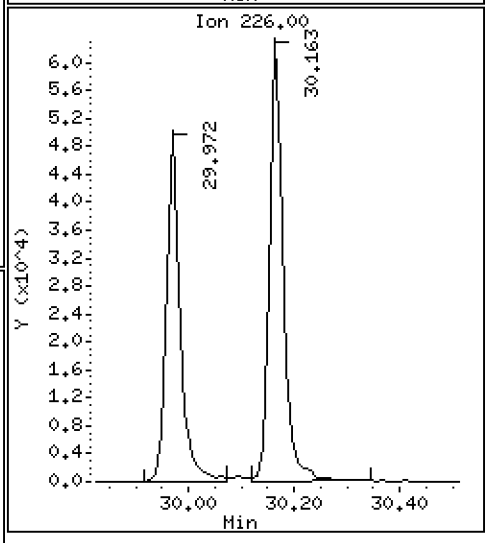
57 Chrysene

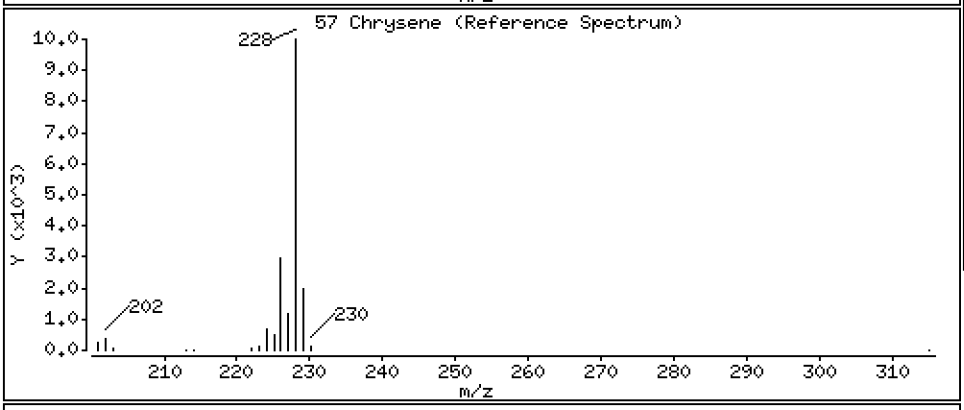
Concentration: 2.574 ug/mL

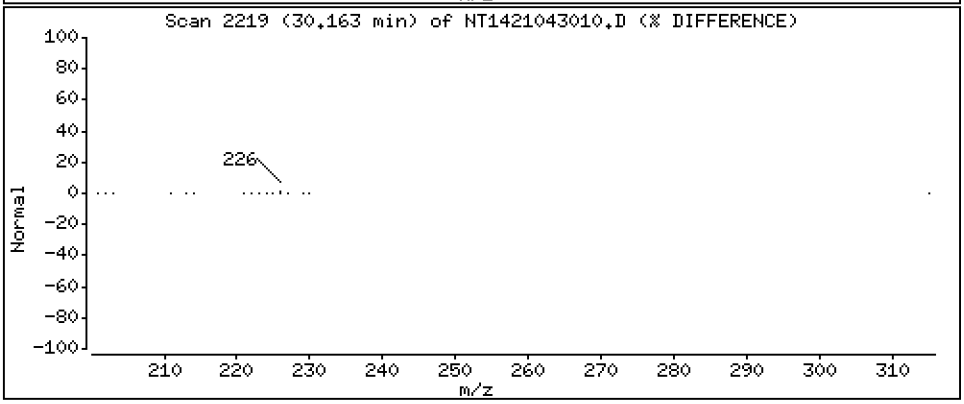


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

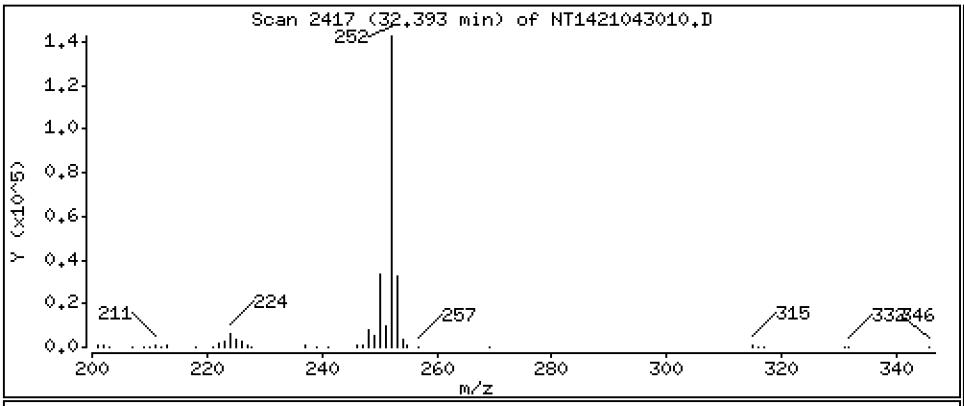
Operator: VTS

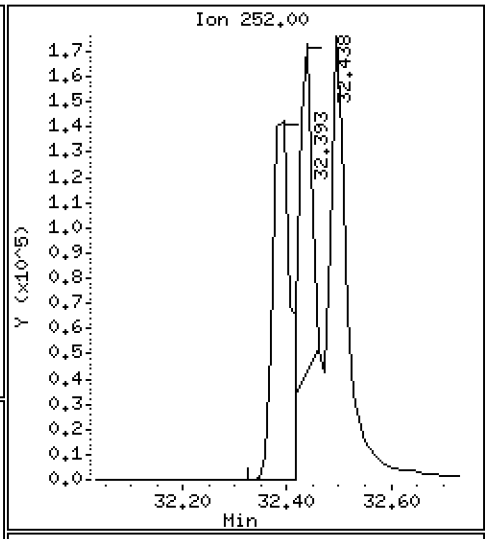
Column phase: Rxi-17Sil MS

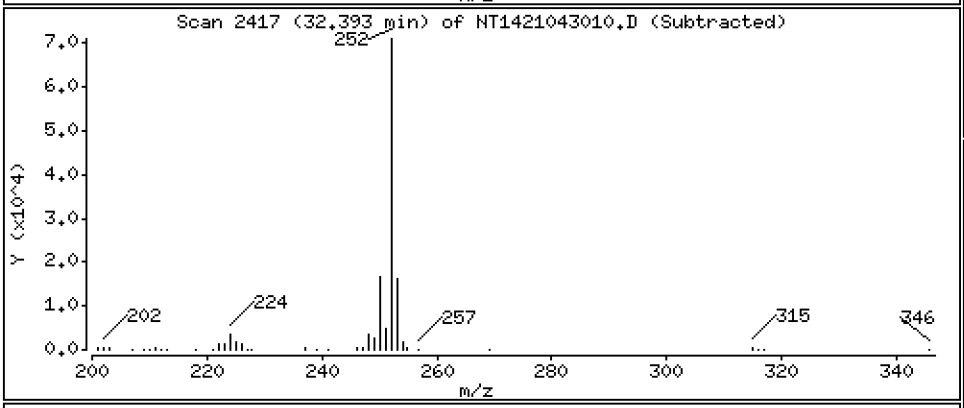
Column diameter: 0.25

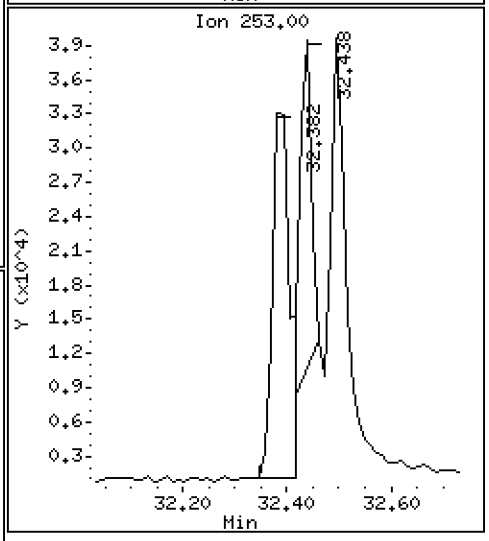
62 Benzo(b)fluoranthene

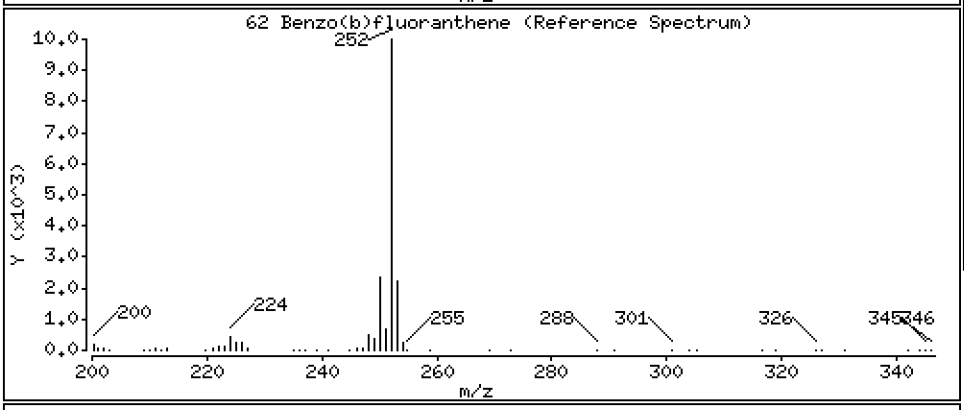
Concentration: 2.326 ug/mL

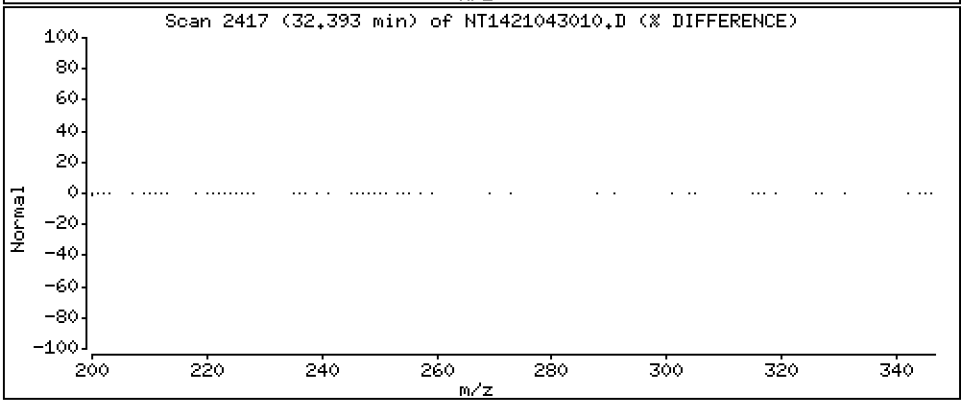


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

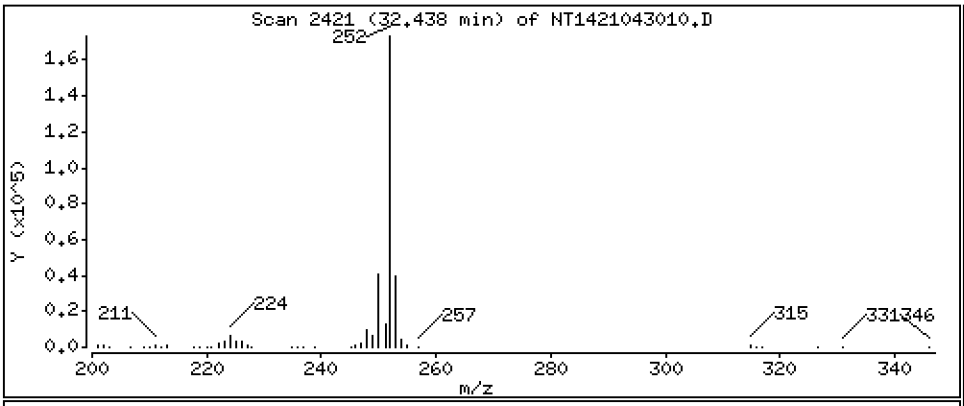
Operator: VTS

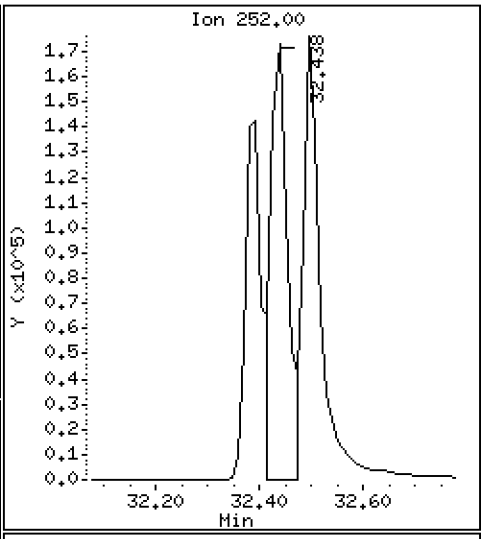
Column phase: Rxi-17Sil MS

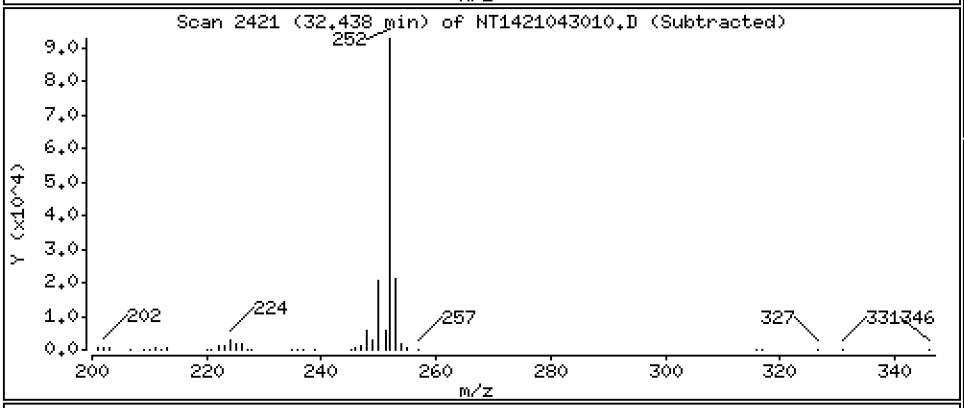
Column diameter: 0.25

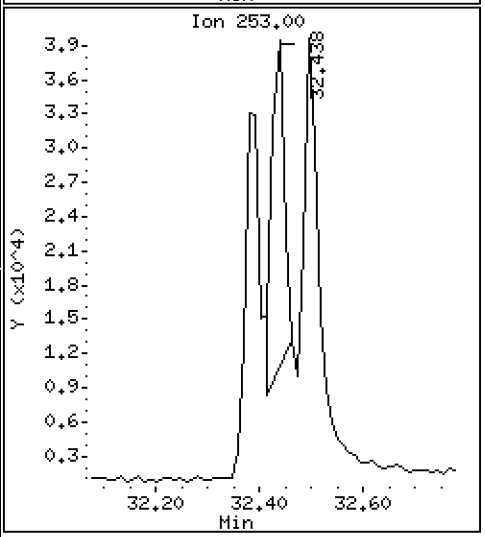
63 Benzo(k)fluoranthene

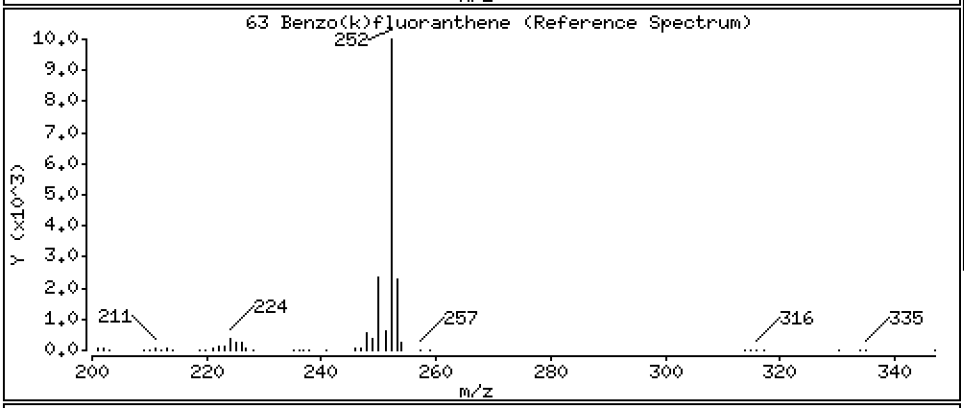
Concentration: 2.304 ug/mL

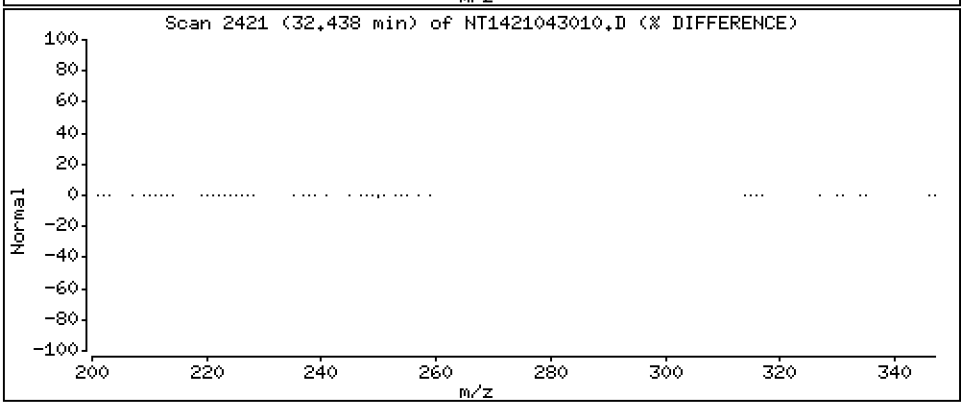


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

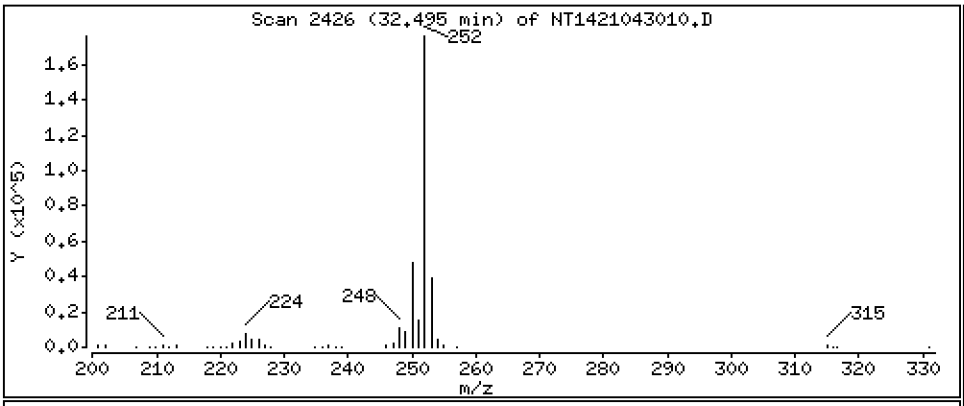
Operator: VTS

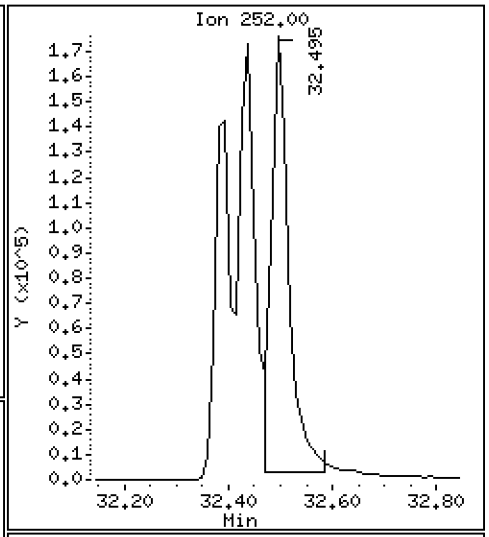
Column phase: Rxi-17Sil MS

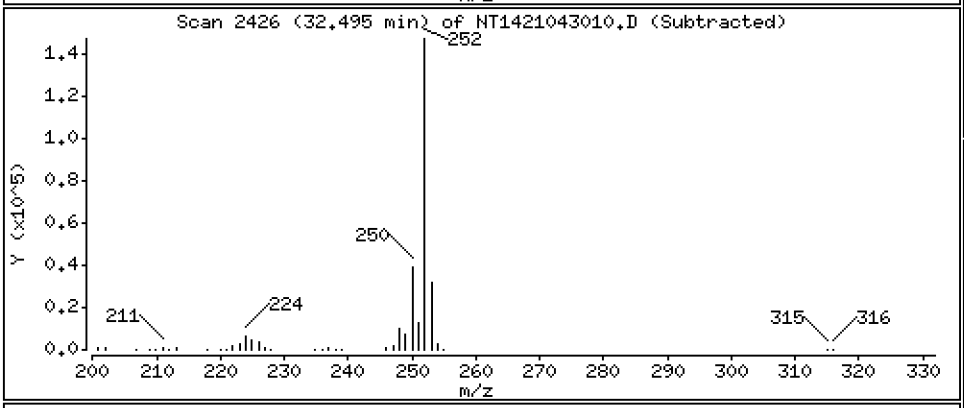
Column diameter: 0.25

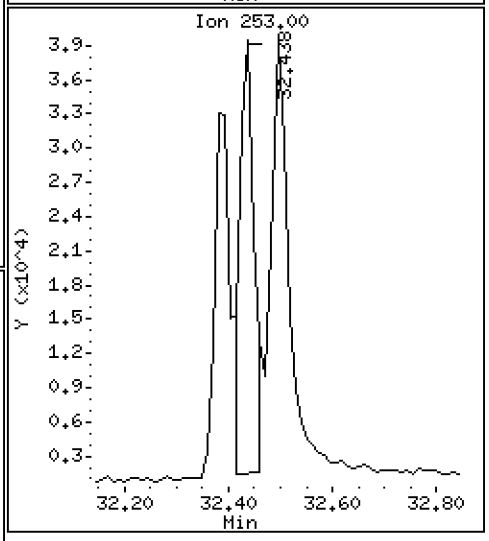
293 Benzo(j)fluoranthene

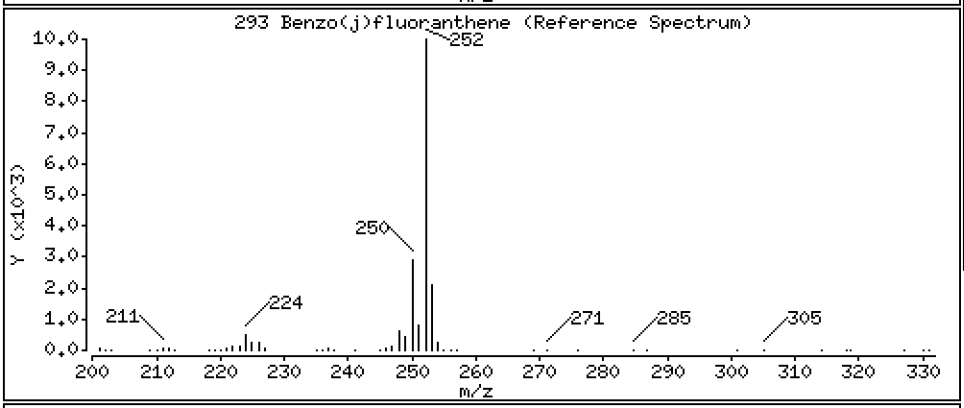
Concentration: 2.516 ug/mL

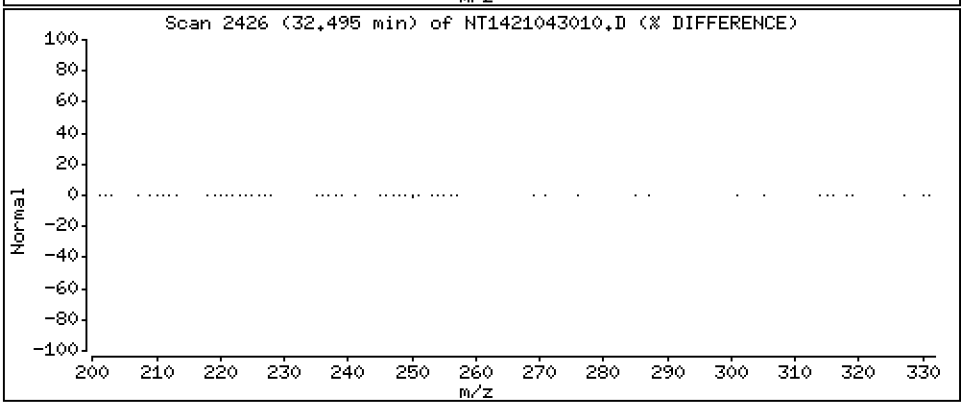


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

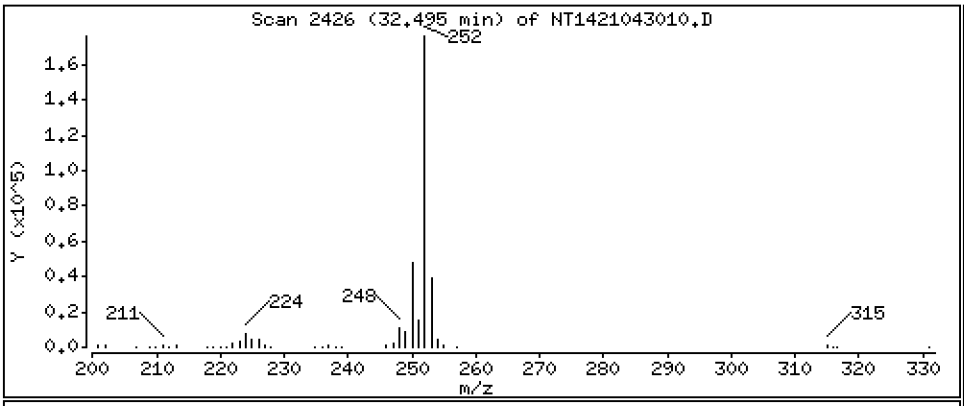
Operator: VTS

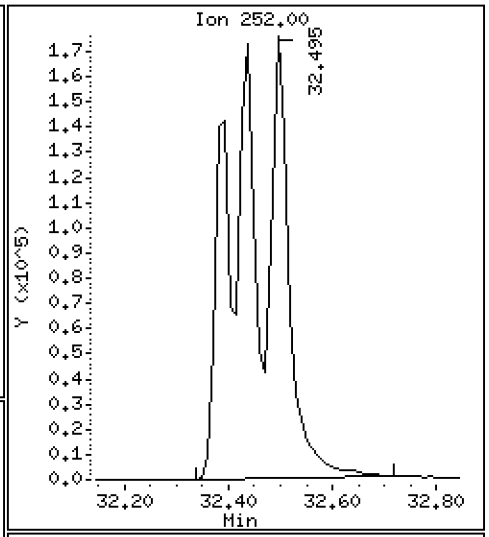
Column phase: Rxi-17Sil MS

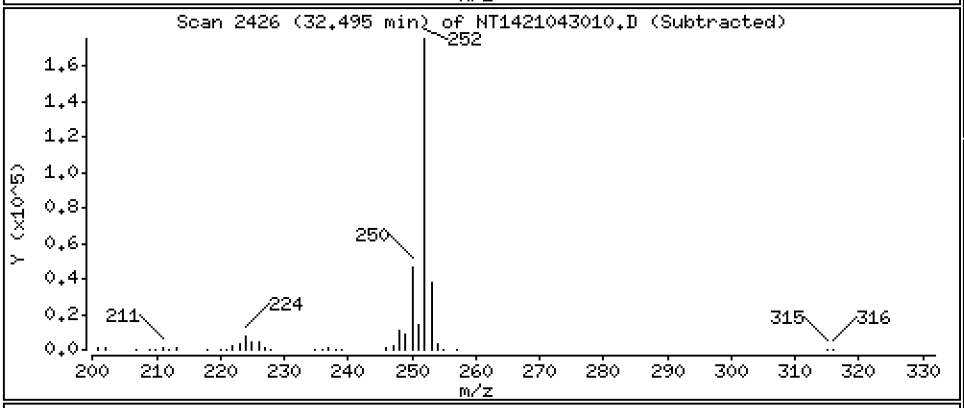
Column diameter: 0.25

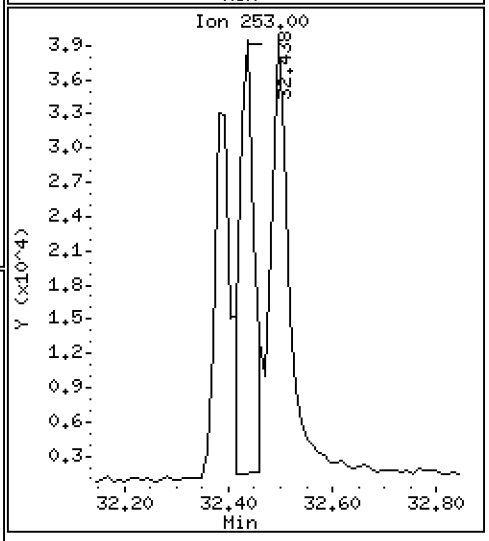
246 Total Benzofluoranthenes

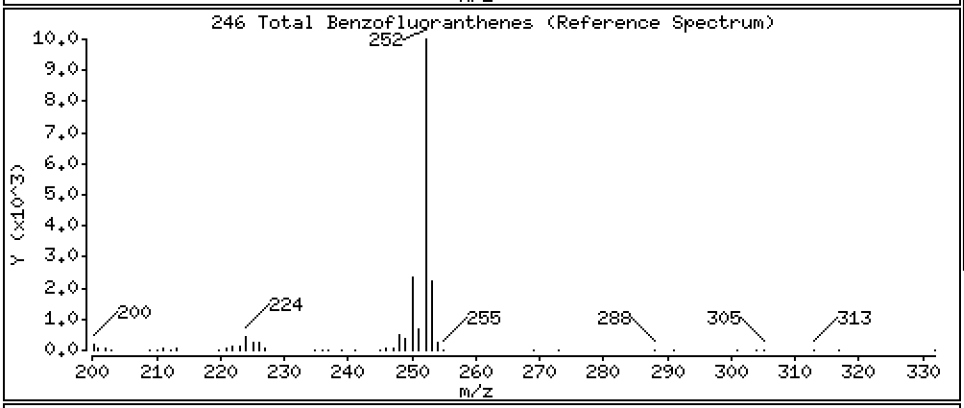
Concentration: 6.960 ug/mL

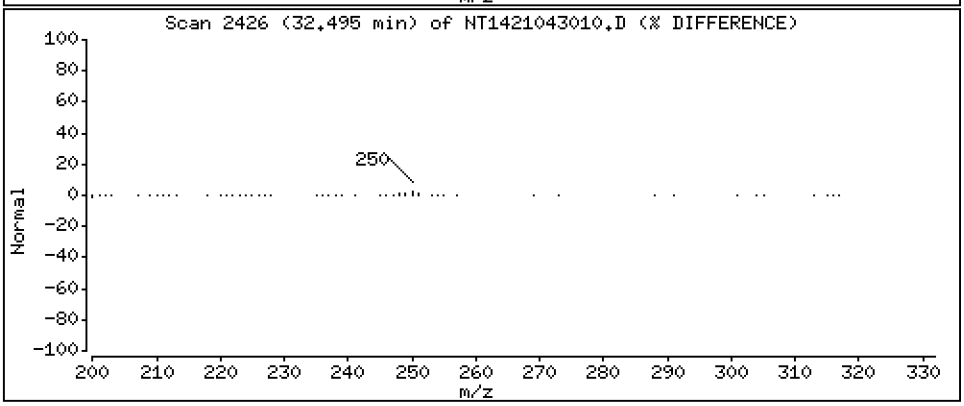


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

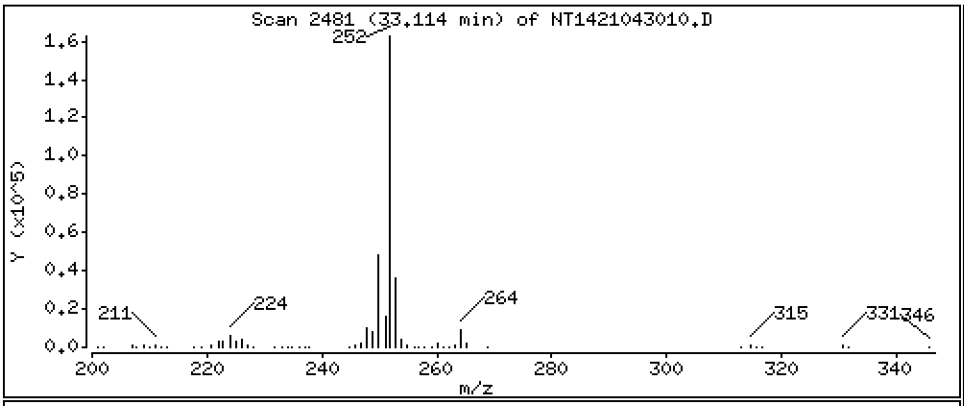
Operator: VTS

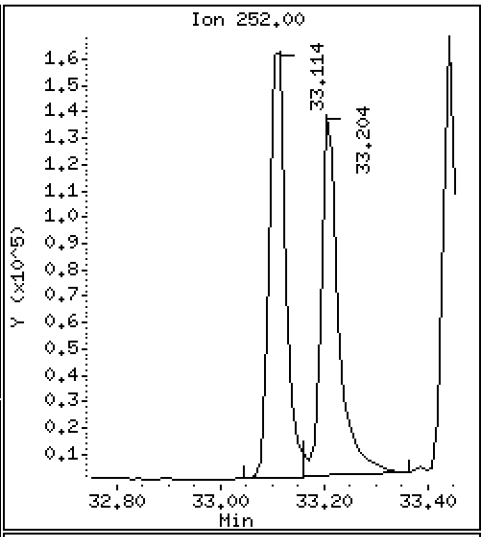
Column phase: Rxi-17Sil MS

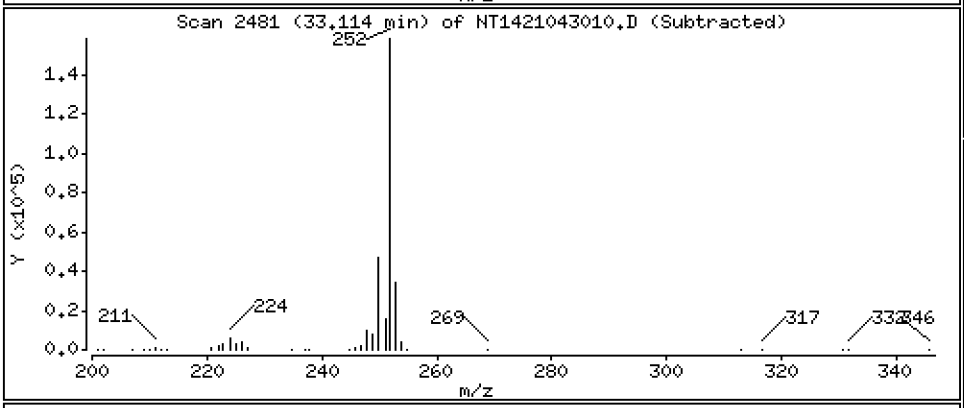
Column diameter: 0.25

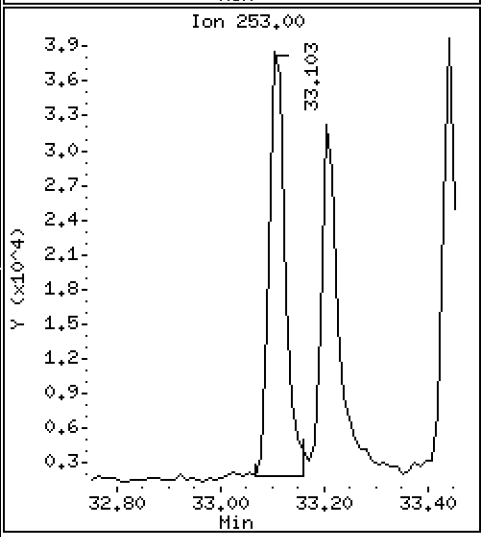
64 Benzo(e)pyrene

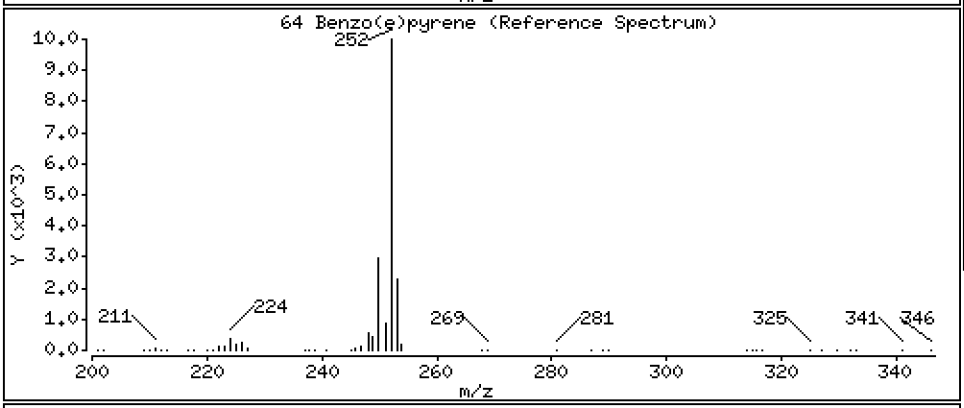
Concentration: 2.454 ug/mL

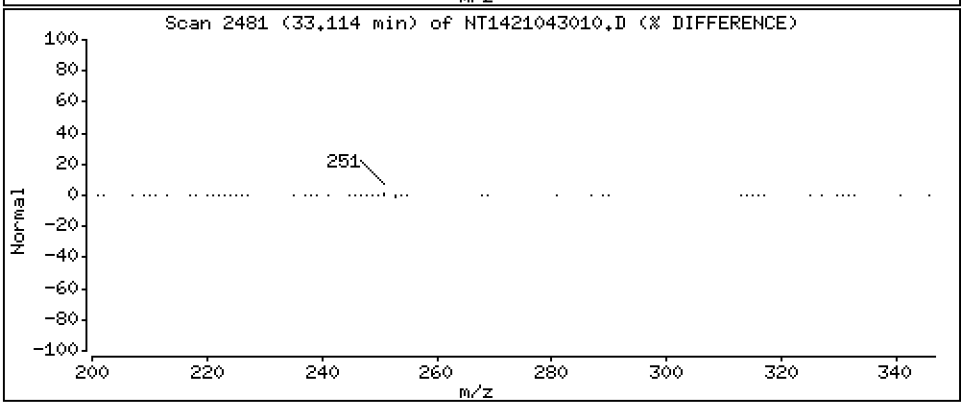


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

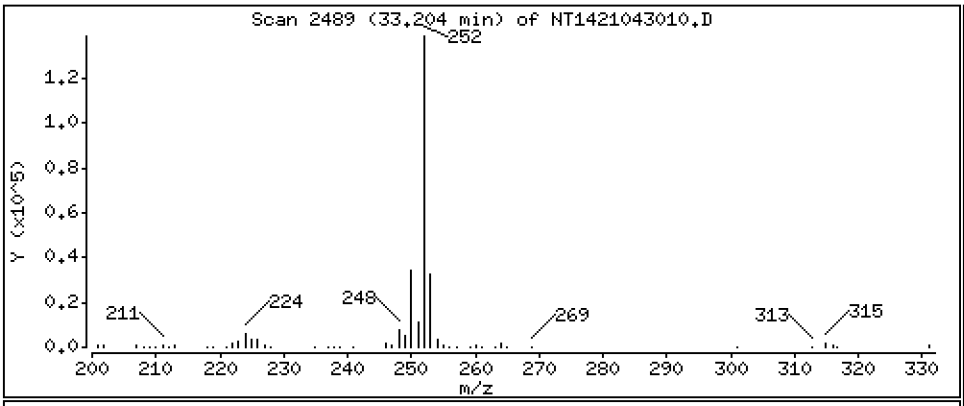
Operator: VTS

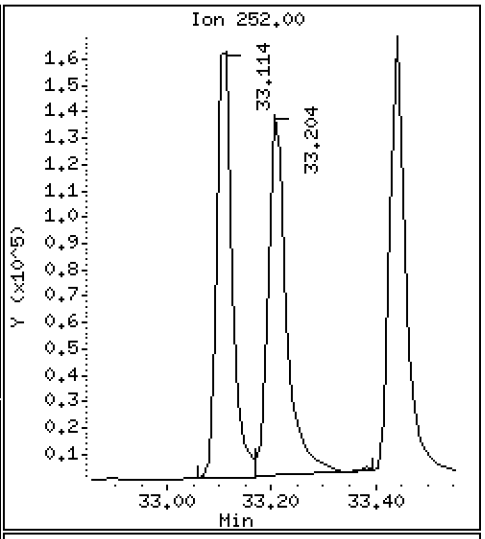
Column phase: Rxi-17Sil MS

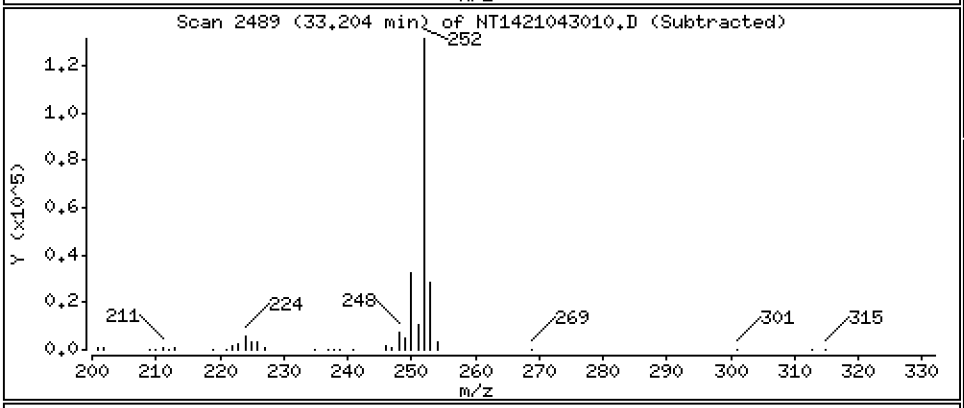
Column diameter: 0.25

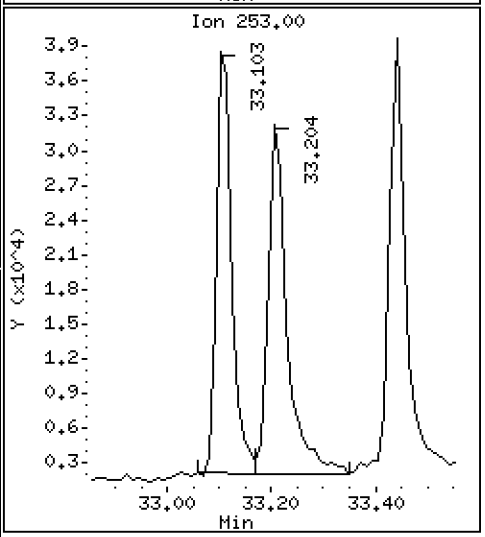
66 Benzo(a)pyrene

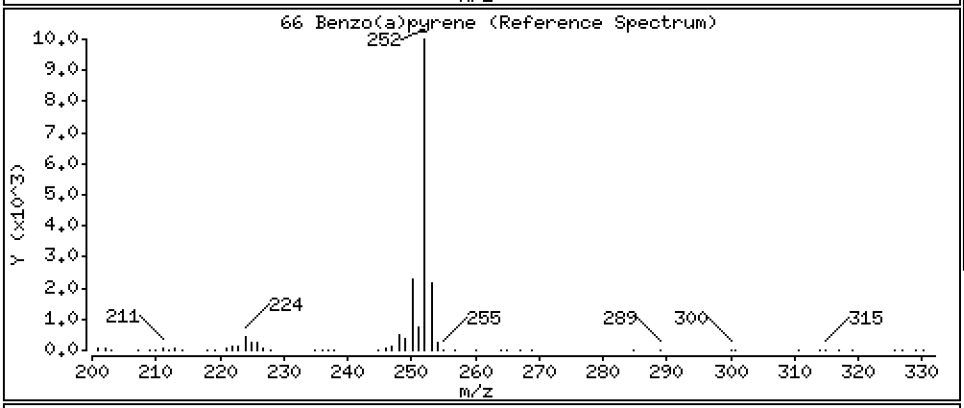
Concentration: 2.211 ug/mL

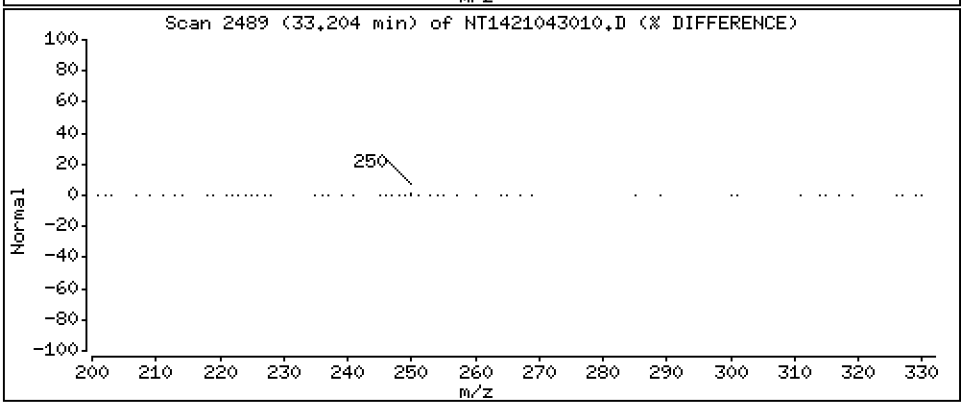


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

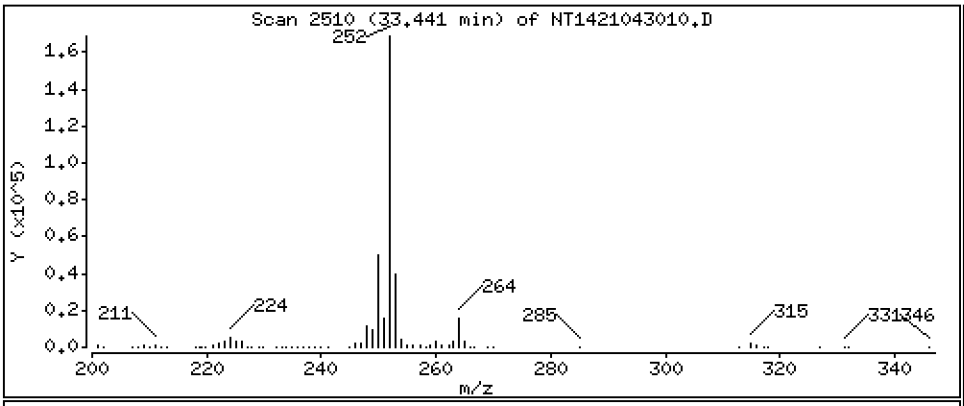
Operator: VTS

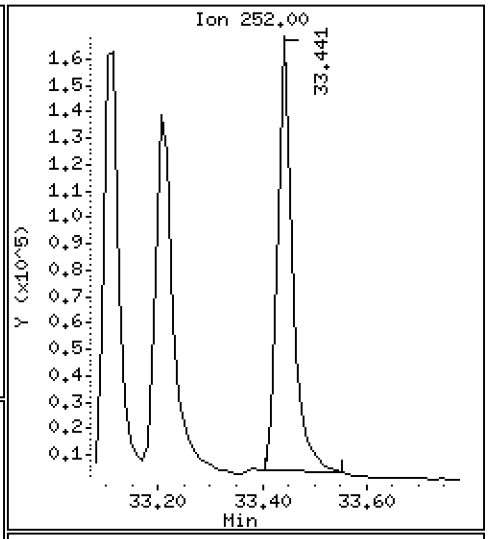
Column phase: Rxi-17Sil MS

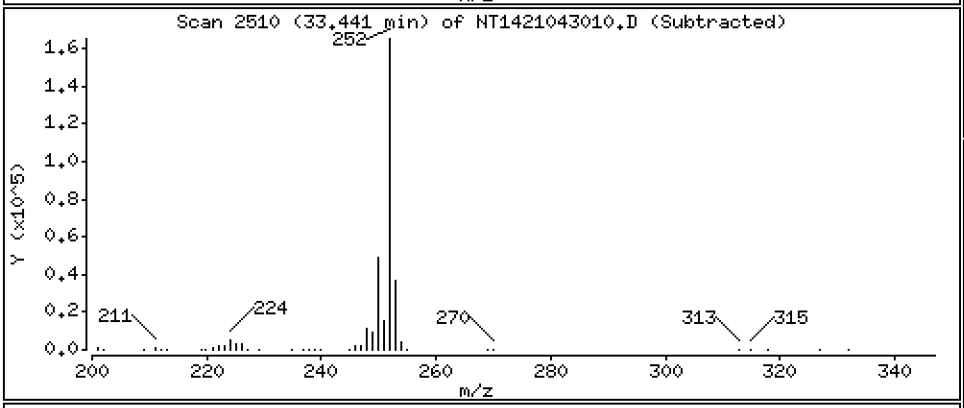
Column diameter: 0.25

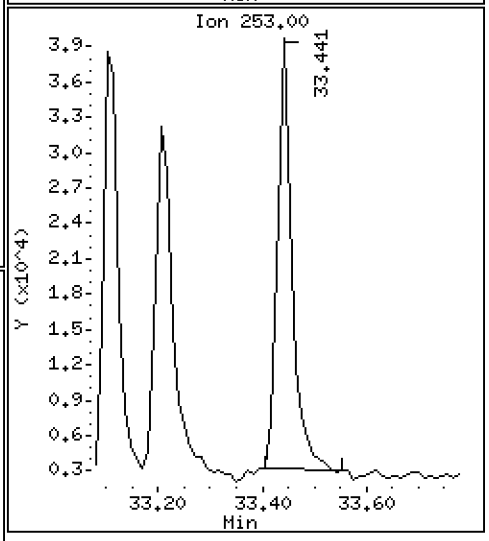
68 Perylene

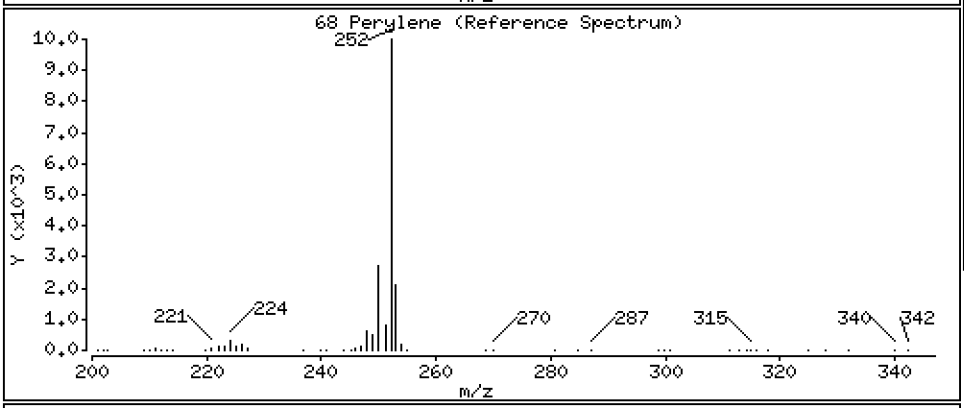
Concentration: 2.415 ug/mL

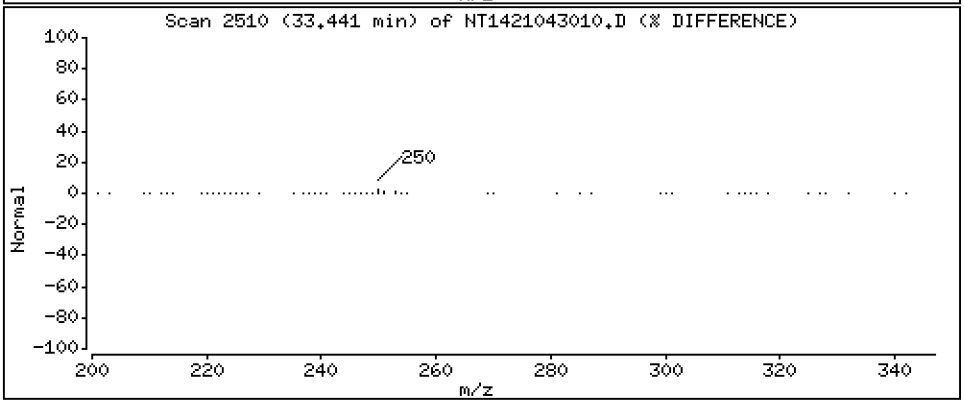


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

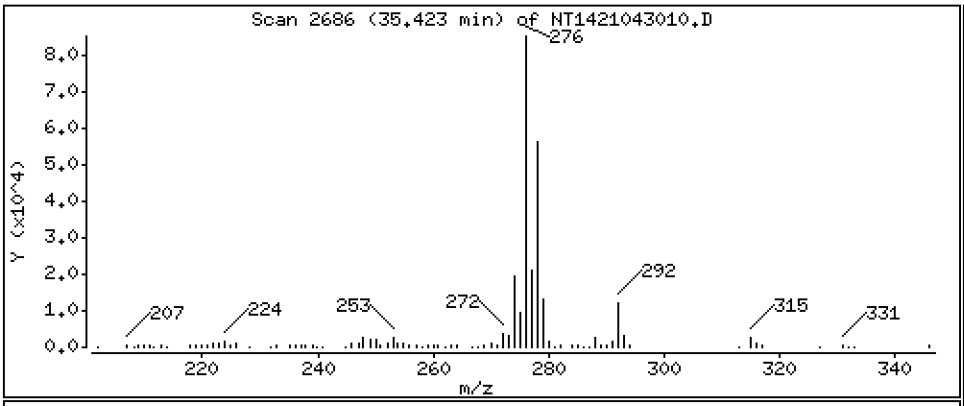
Operator: VTS

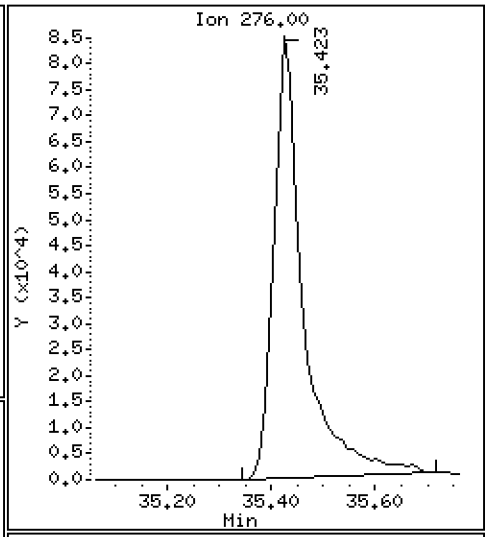
Column phase: Rxi-17Sil MS

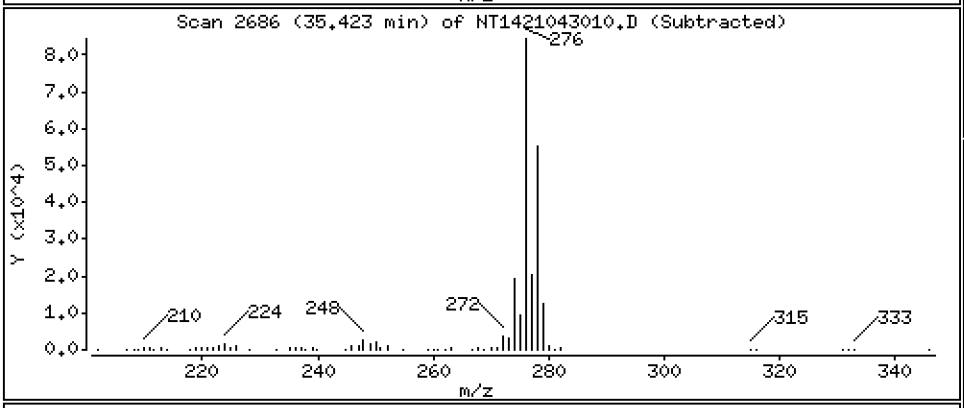
Column diameter: 0.25

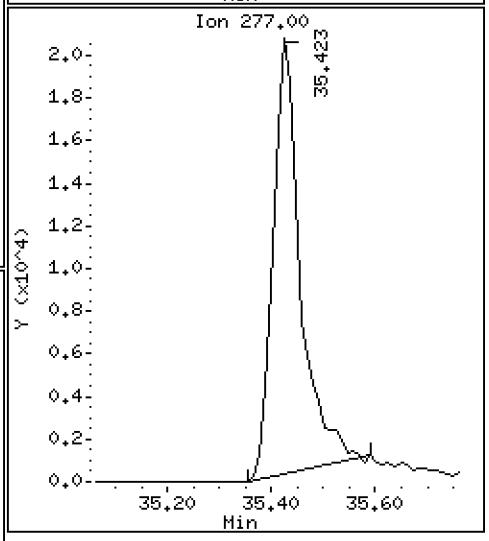
69 Indeno(1,2,3-cd)pyrene

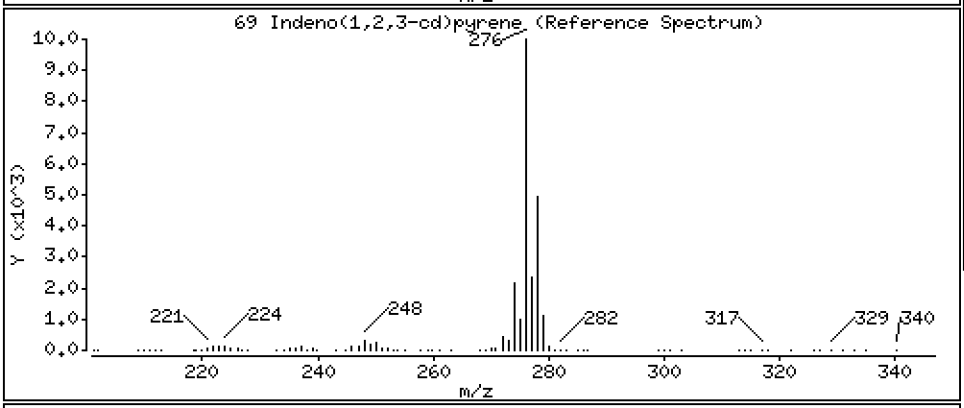
Concentration: 2.236 ug/mL

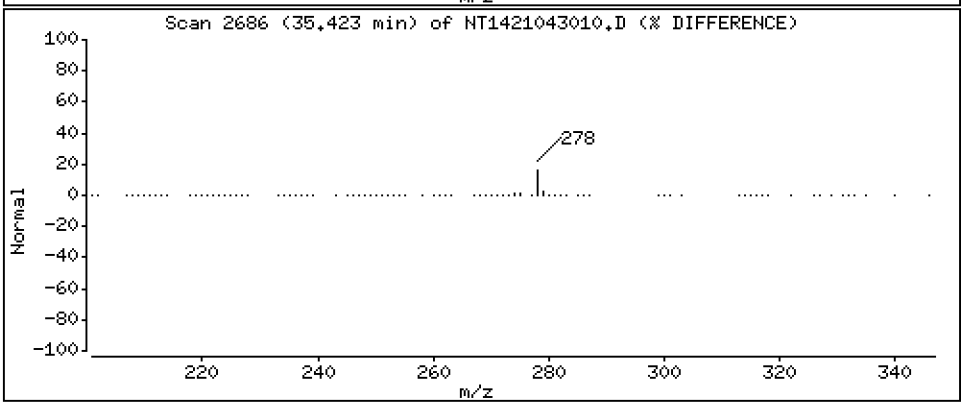


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

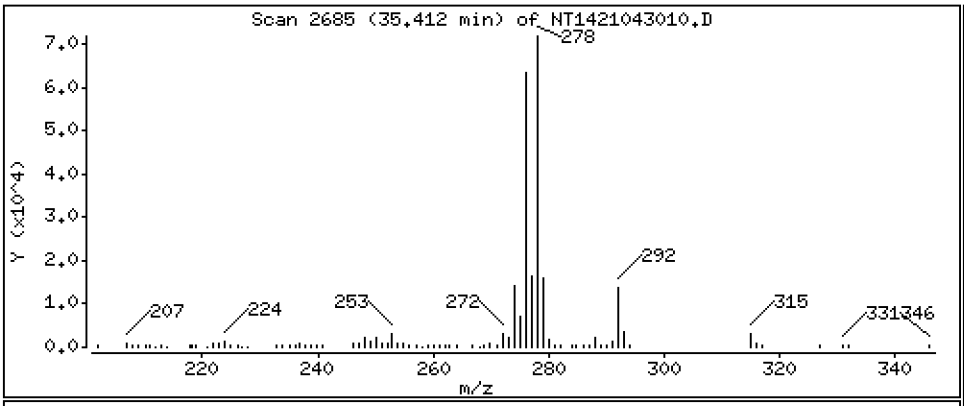
Operator: VTS

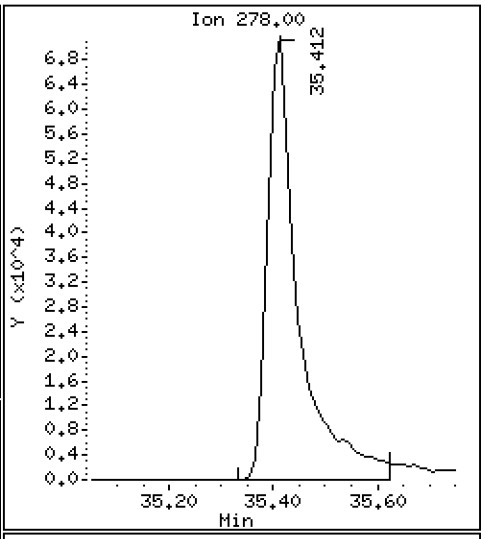
Column phase: Rxi-17Sil MS

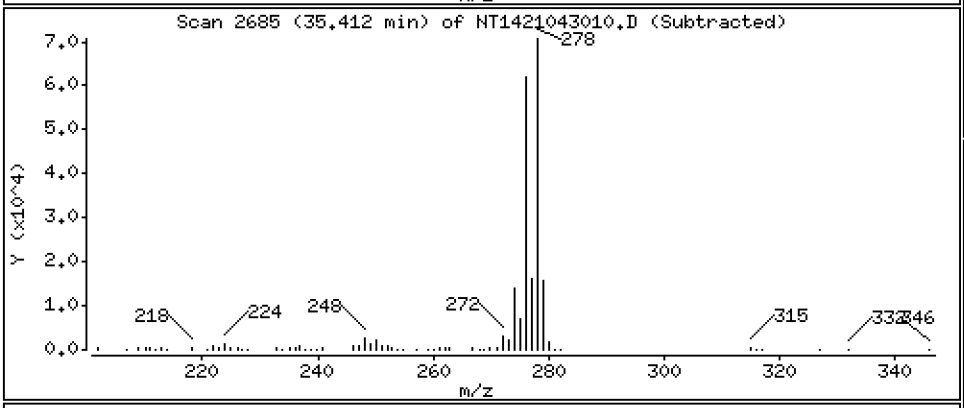
Column diameter: 0.25

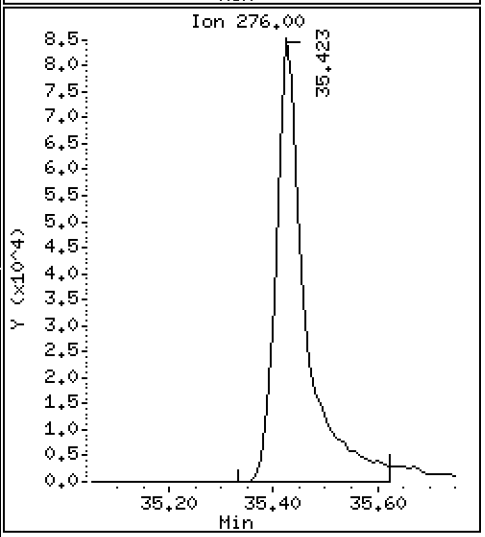
70 Dibenzo(a,h)anthracene

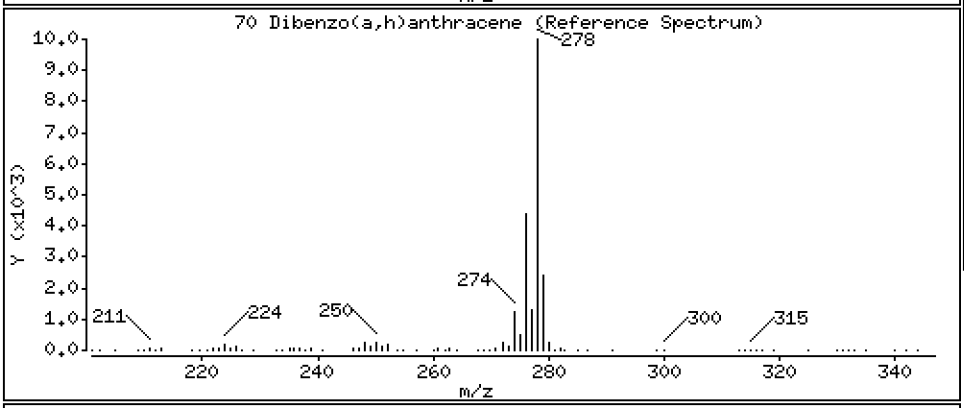
Concentration: 2.291 ug/mL

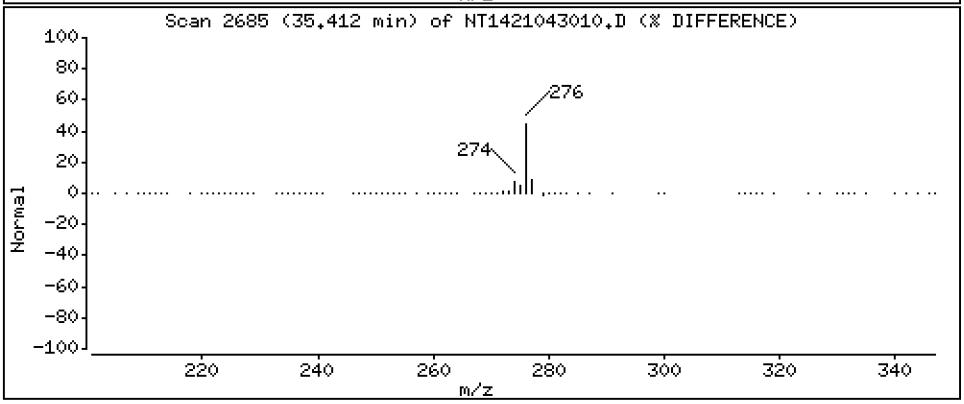


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

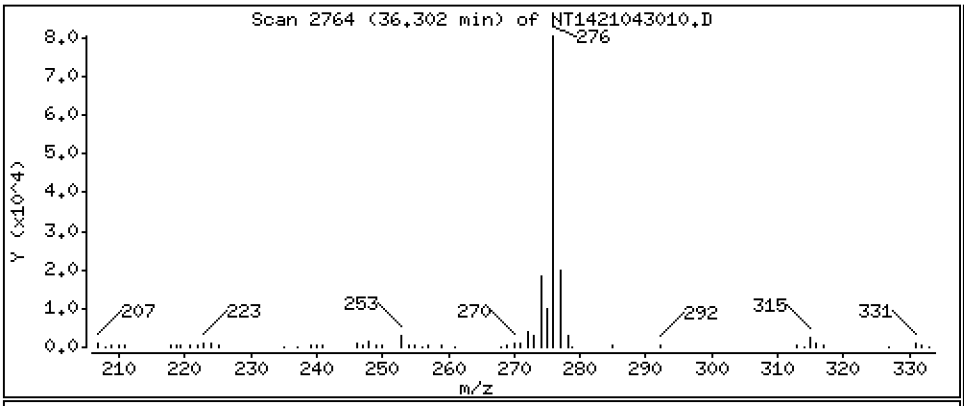
Operator: VTS

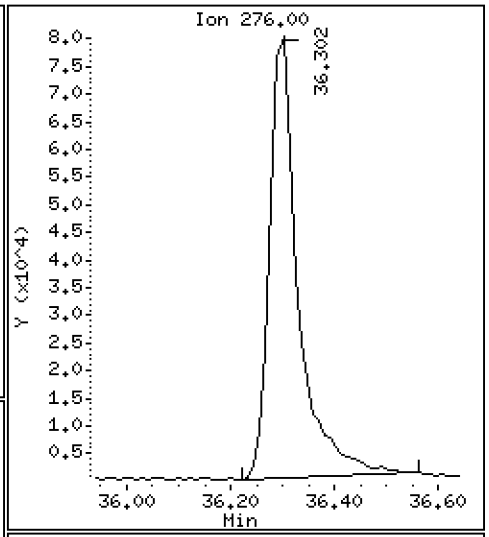
Column phase: Rxi-17Sil MS

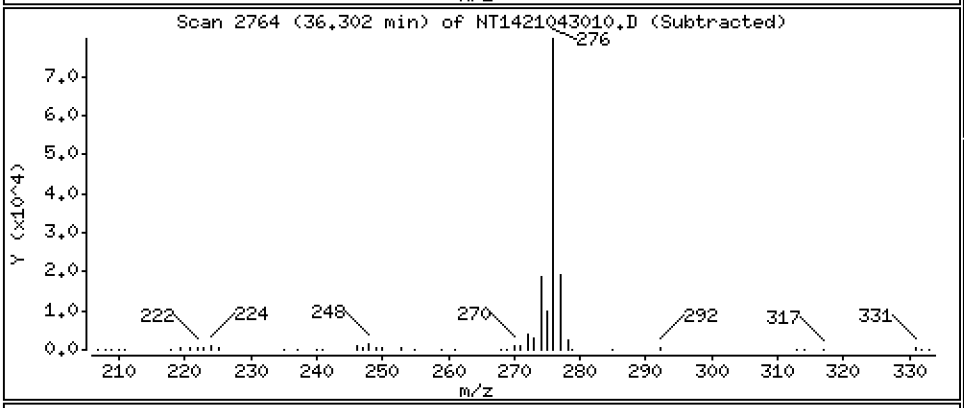
Column diameter: 0.25

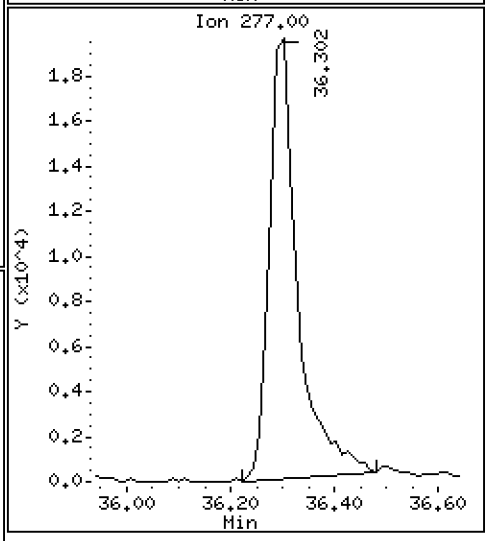
74 Benzo(g,h,i)perylene

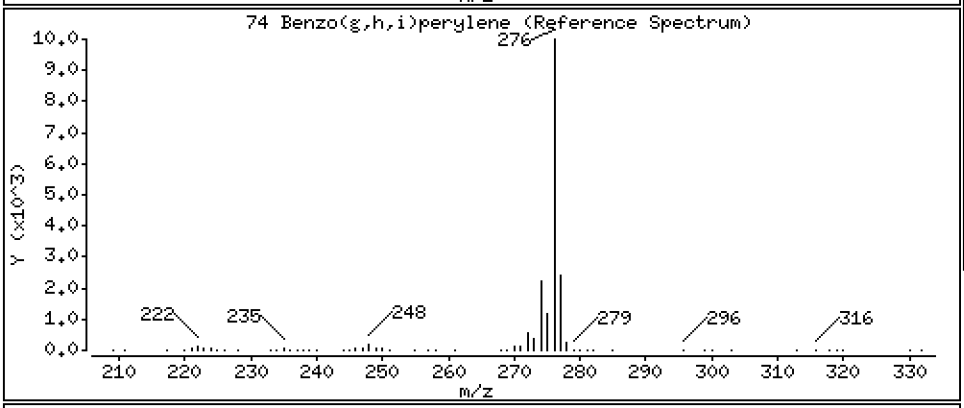
Concentration: 2.352 ug/mL

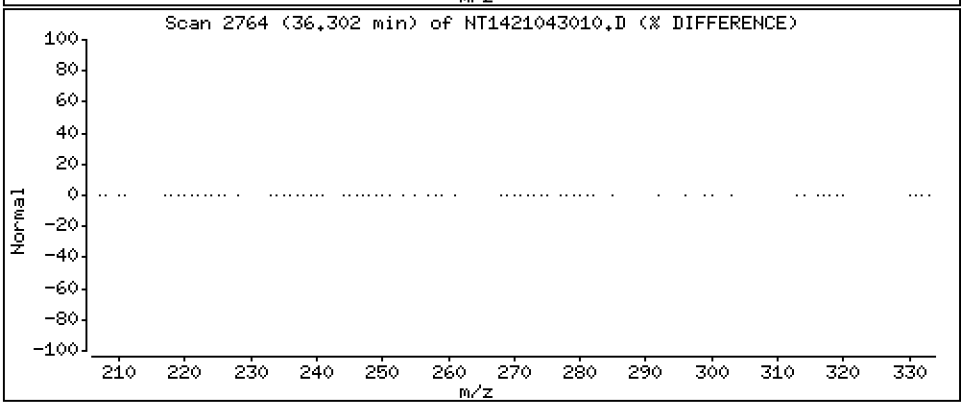


ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D
Lab Smp Id: SJD0305-SCV1
Inj Date : 30-APR-2021 14:41
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-SCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Meth Date : 01-May-2021 07:40 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 9
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 | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 1 trans-Decalin | 138 | 7.045 | 7.035 | (0.375) | 74342 | 2.84314 | 2.843 |
| | 2 cis-Decalin | 138 | 8.155 | 8.165 | (0.434) | 52523 | 2.90966 | 2.910 |
| $ | 6 Naphthalene-d8 | 136 | 11.776 | 11.776 | (0.627) | 604964 | 2.98636 | 2.986(R) |
| | 7 Naphthalene | 128 | 11.836 | 11.846 | (0.630) | 573337 | 2.78250 | 2.783 |
| | 12 Benzo(b)thiophene | 134 | 12.295 | 12.295 | (0.655) | 456850 | 2.78683 | 2.787 |
| | 16 2-Methylnaphthalene | 141 | 13.680 | 13.680 | (0.728) | 312811 | 2.84483 | 2.845 |
| | 17 1-methylnaphthalene | 141 | 14.131 | 14.131 | (0.752) | 293934 | 2.82127 | 2.821 |
| | 18 Biphenyl | 154 | 15.317 | 15.317 | (0.815) | 435061 | 2.76462 | 2.765 |
| | 19 2,6-Dimethylnaphthalene | 156 | 15.394 | 15.394 | (0.820) | 305582 | 2.82199 | 2.822 |
| | 20 Acenaphthylene | 152 | 16.955 | 16.955 | (0.903) | 492364 | 2.88930 | 2.889 |
| $ | 21 Acenaphthene-d10 | 164 | 17.252 | 17.241 | (0.918) | 298420 | 3.01695 | 3.017(R) |
| | 22 Acenaphthene | 153 | 17.362 | 17.361 | (0.924) | 329675 | 3.01019 | 3.010 |
| | 23 Dibenzofuran | 168 | 17.735 | 17.735 | (0.944) | 459290 | 2.76760 | 2.768 |
| | 24 1,6,7-Trimethylnaphthalene | 170 | 17.966 | 17.966 | (0.957) | 277803 | 2.92320 | 2.923 |
| * | 25 Fluorene-d10 | 176 | 18.783 | 18.781 | (1.000) | 351020 | 2.00000 | |
| | 26 Fluorene | 166 | 18.885 | 18.883 | (1.005) | 342973 | 2.84375 | 2.844 |
| | 30 Dibenzothiophene | 184 | 21.796 | 21.794 | (1.160) | 423593 | 2.78230 | 2.782 |
| $ | 35 Phenanthrene-d10 | 188 | 22.104 | 22.102 | (0.995) | 446008 | 2.66948 | 2.669(R) |
| | 36 Phenanthrene | 178 | 22.192 | 22.190 | (0.999) | 460265 | 2.46754 | 2.468 |
| * | 250 Anthracene-d10 | 188 | 22.225 | 22.223 | (1.000) | 309177 | 2.00000 | |
| | 37 Anthracene | 178 | 22.291 | 22.289 | (1.003) | 428535 | 2.49230 | 2.492 |
| | 42 Carbazole | 167 | 23.566 | 23.565 | (1.060) | 338612 | 2.34287 | 2.343 |
| | 43 1-Methylphenanthrene | 192 | 24.017 | 24.015 | (1.081) | 293776 | 2.59400 | 2.594 |
| | 44 Fluoranthene | 202 | 25.996 | 25.994 | (1.170) | 436345 | 2.63403 | 2.634 |
| | 46 Pyrene | 202 | 26.843 | 26.841 | (1.208) | 433716 | 2.52654 | 2.527 |
| | 51 Naphthobenzothiophene | 234 | Compound Not Detected. | | | | | |
| | 55 Benzo(a)anthracene | 228 | 29.971 | 29.964 | (0.907) | 342259 | 2.27793 | 2.278 |
| $ | 56 Chrysene-d12 | 240 | 30.095 | 30.087 | (0.911) | 337659 | 2.82827 | 2.828(RM) |
| | 57 Chrysene | 228 | 30.163 | 30.166 | (0.913) | 394981 | 2.57401 | 2.574 |
| | 62 Benzo(b)fluoranthene | 252 | 32.393 | 32.386 | (0.980) | 324344 | 2.32564 | 2.326 |
| | 63 Benzo(k)fluoranthene | 252 | 32.438 | 32.430 | (0.982) | 391530 | 2.30379 | 2.304(M) |
| | 293 Benzo(j)fluoranthene | 252 | 32.494 | 32.498 | (0.983) | 393189 | 2.51567 | 2.516(M) |
| | 246 Total Benzofluoranthenes | 252 | 32.494 | 32.497 | (0.983) | 1066161 | 6.96004 | 6.960(M) |

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

## QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043010.D
Lab Smp Id: SJD0305-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1421043010.D

Lab ID: SJD0305-SCV1
nt14.i,  20210430.b\ALKYLPNA.m,    30-APR-2021 14:41

| RT | CO-ELUTION COMPOUNDS |
|---|---|
| NO CO-ELUTIONS | |

Quant Method: ICAL

RRT CHECK

| RRT | CCV RRT | DELTA | COMPOUND |
|---|---|---|---|
| NONE | | | |

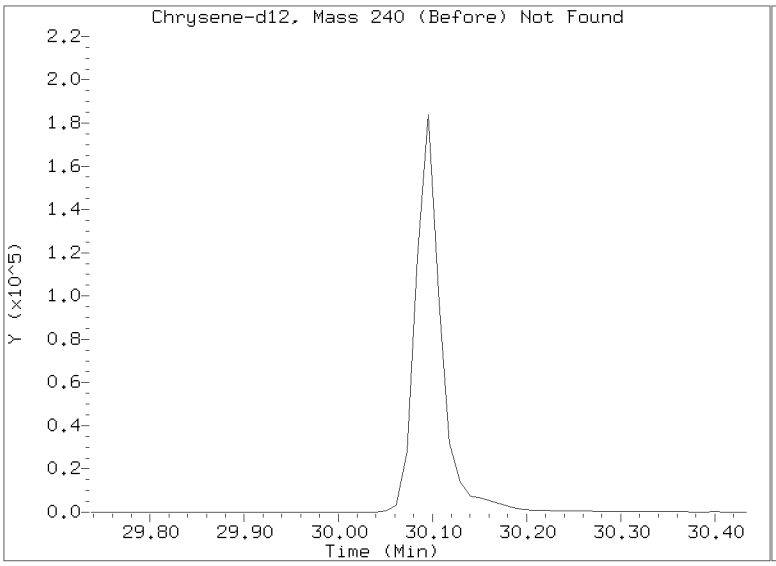
RRT check based on Ccal File: NT1421043009.D

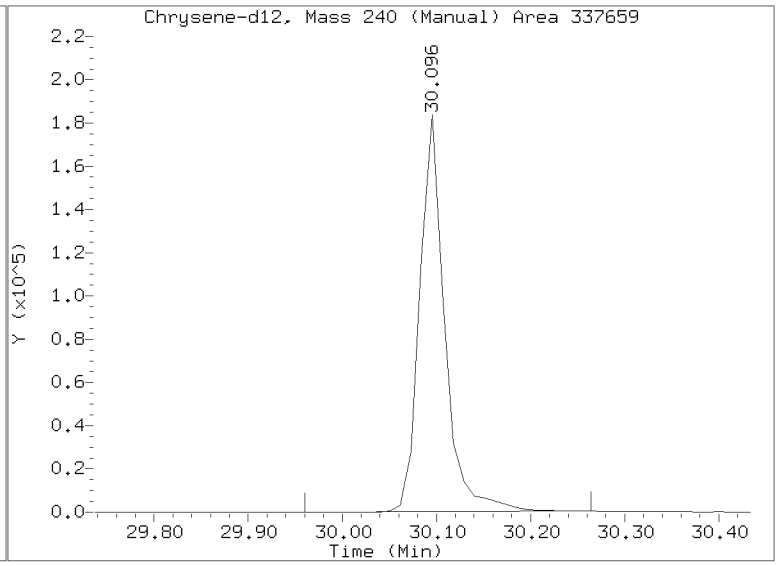
On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

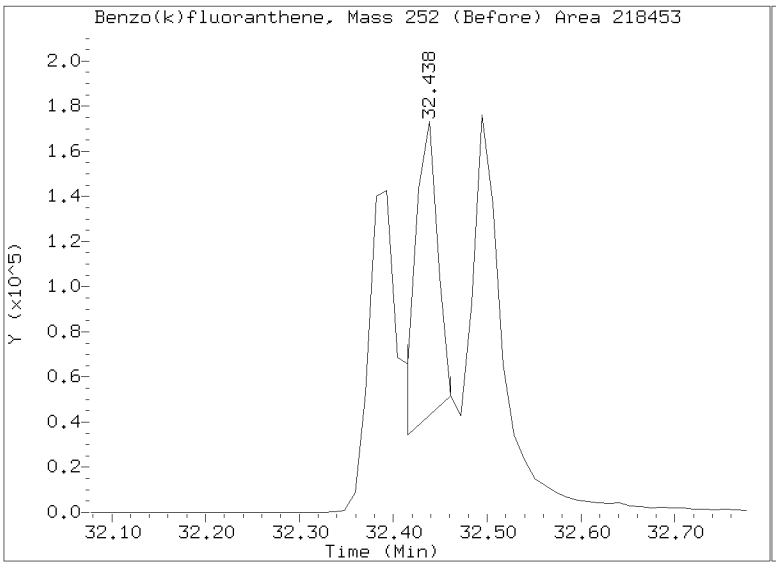
* Only compounds listed in the work order have been verified by the analyst *

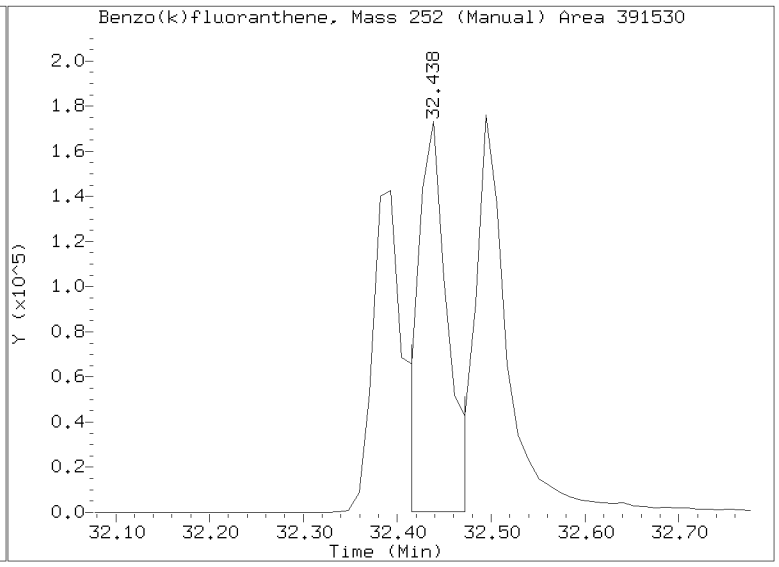
# Quant Ion Manual Peak Adjustment Report

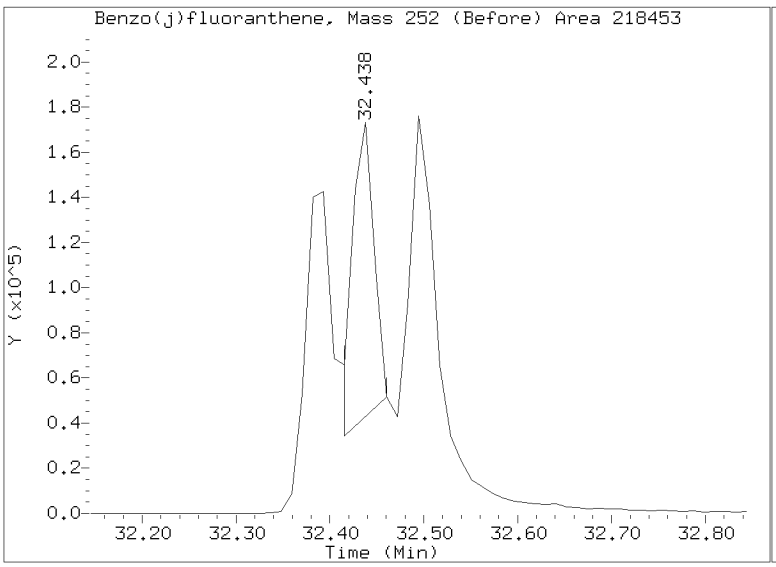
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D
Injection Date: 30-APR-2021 14:41
Lab ID:SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18

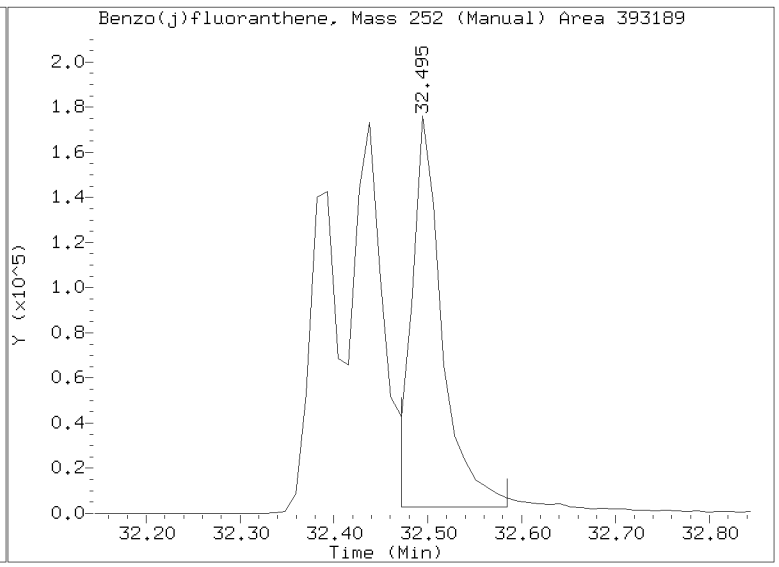


# Quant Ion Manual Peak Adjustment Report

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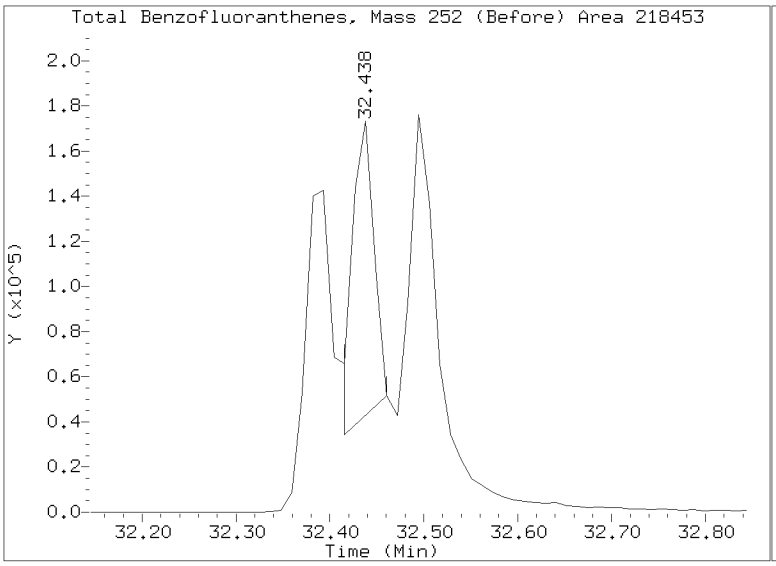
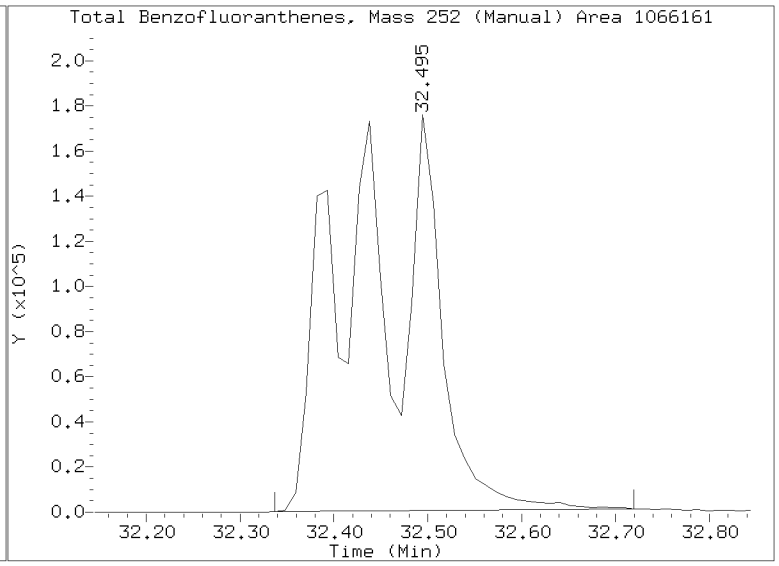
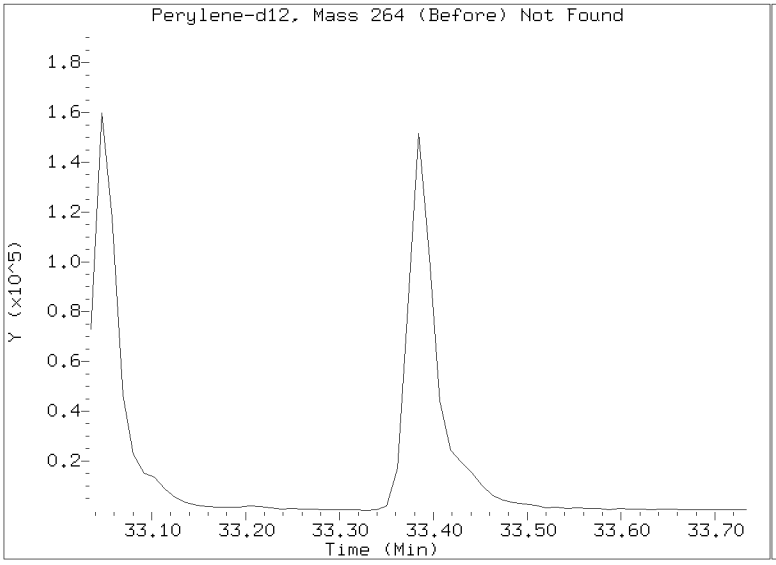
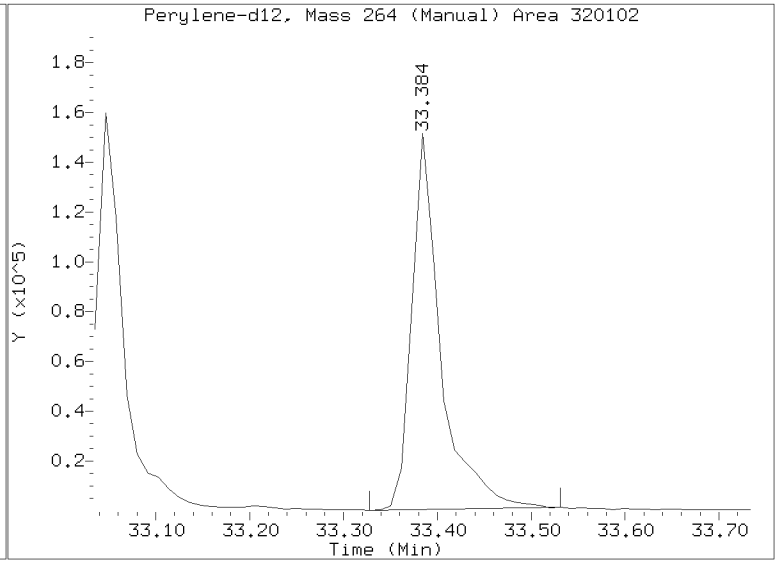
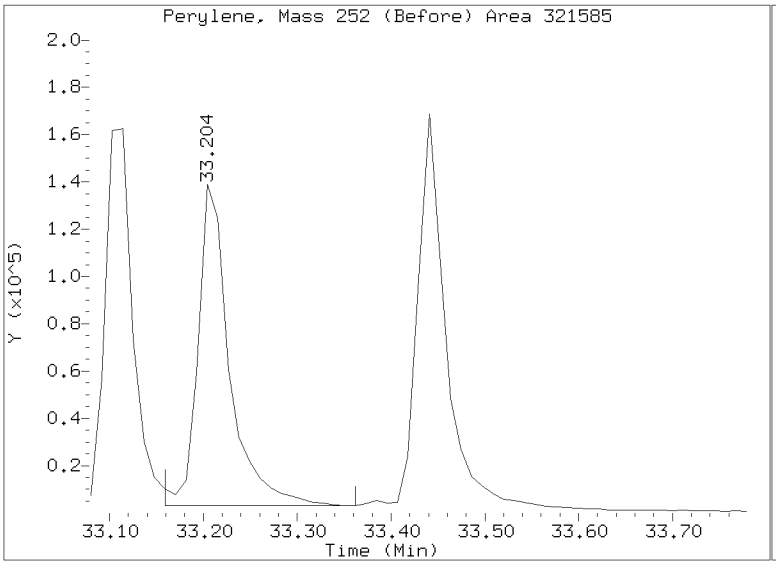
Injection Date: 30-APR-2021 14:41
Lab ID:SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18

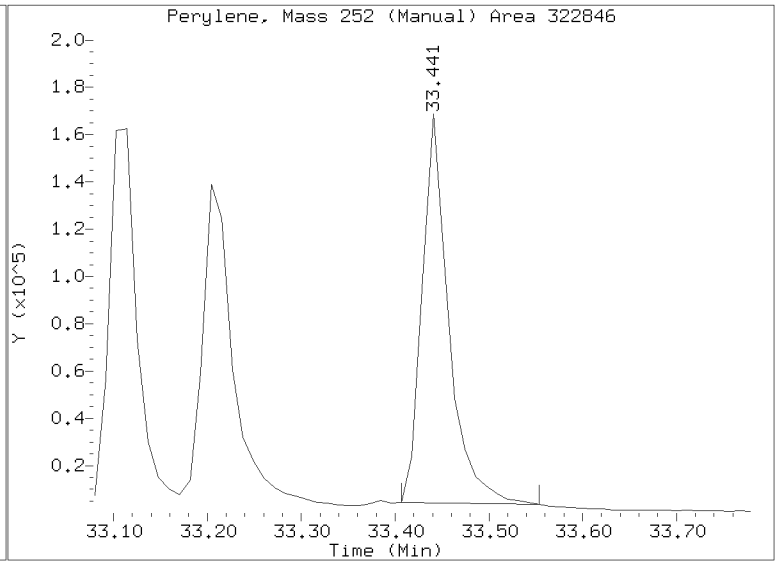


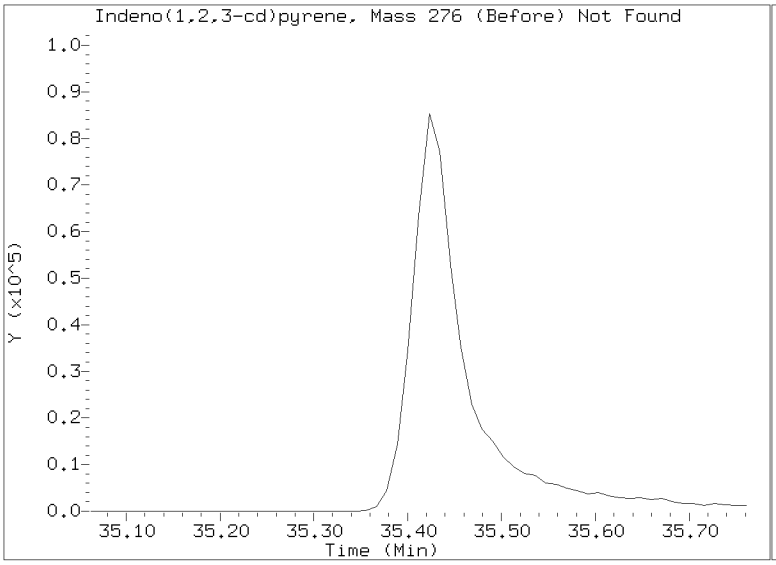



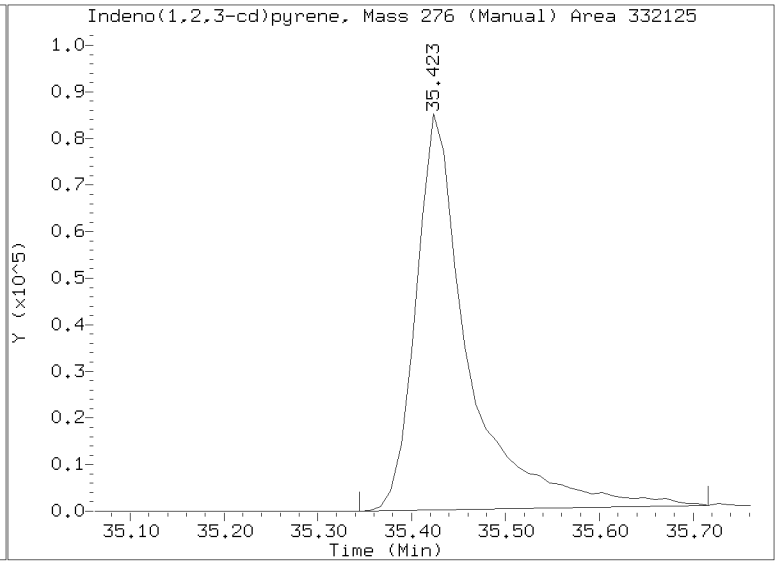



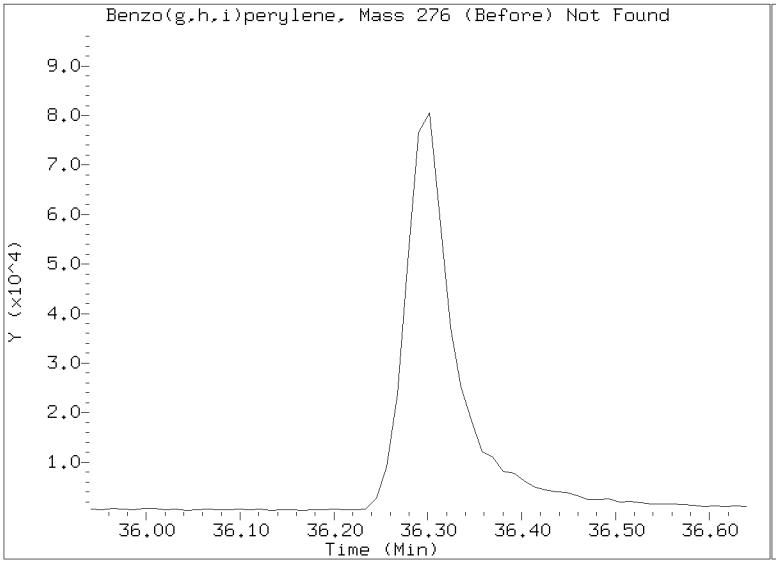



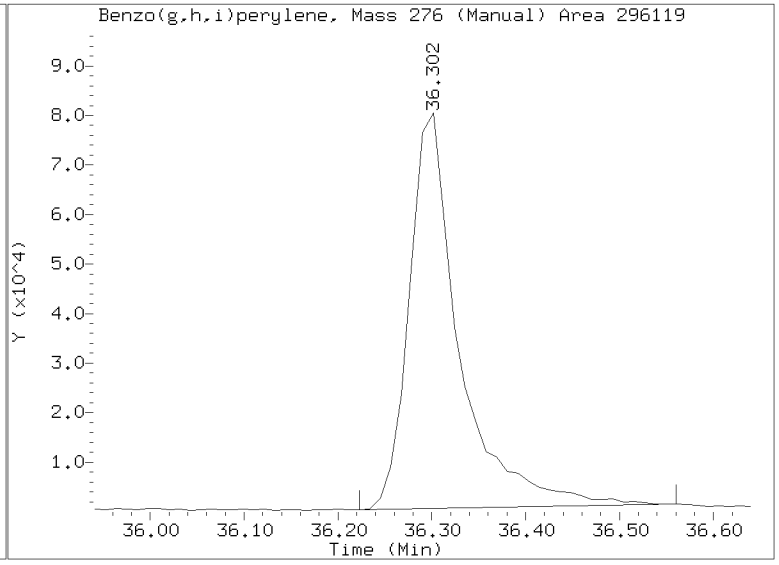
# Quant Ion Manual Peak Adjustment Report

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



# INITIAL CALIBRATION CHECK

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | NT11 | Calibration: | DH00073 |
| Lab File ID: | NT1121042402.D | Calibration Date: | 08/27/2020 |
| Sequence: | SJD0344 | Injection Date: | 04/24/21 |
| Lab Sample ID: | SJD0344-ICV1 | Injection Time: | 10:14 |
| Sequence Name: | Initial Cal Check | | |

| | | CONC. (ng/mL) | | RESPONSE FACTOR | | | % DRIFT/DIFF | | |
|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN | ICV | LIMIT | |
| Naphthalene | A | 250.00 | 225 | 1.1612470 | 1.0468610 | | -10.0 | +/-20 | |
| 2-Methylnaphthalene | A | 250.00 | 240 | 0.9361384 | 0.8988441 | | -4.0 | +/-20 | |
| Acenaphthylene | A | 250.00 | 196 | 2.2945630 | 1.7967450 | | -21.6 | +/-20 | * |
| Acenaphthene | A | 250.00 | 199 | 1.5175830 | 1.2103870 | | -20.4 | +/-20 | * |
| Fluorene | A | 250.00 | 209 | 1.5604500 | 1.3064420 | | -16.4 | +/-20 | |
| Phenanthrene | A | 250.00 | 218 | 1.3083250 | 1.1414460 | | -12.8 | +/-20 | |
| Anthracene | A | 250.00 | 225 | 1.3072390 | 1.1786660 | | -10.0 | +/-20 | |
| Fluoranthene | A | 250.00 | 225 | 1.3043810 | 1.1719640 | | -10.0 | +/-20 | |
| Pyrene | A | 250.00 | 226 | 1.3381820 | 1.2071160 | | -9.6 | +/-20 | |
| Benzo(a)anthracene | A | 250.00 | 217 | 1.4691530 | 1.2753800 | | -13.2 | +/-20 | |
| Chrysene | A | 250.00 | 210 | 1.6542610 | 1.3923580 | | -16.0 | +/-20 | |
| Benzo(b)fluoranthene | A | 250.00 | 217 | 1.0886210 | 0.9470865 | | -13.2 | +/-20 | |
| Benzo(k)fluoranthene | A | 250.00 | 227 | 1.4304320 | 1.3000420 | | -9.2 | +/-20 | |
| Benzo(j)fluoranthene | A | 250.00 | 212 | 1.5458300 | 1.3093600 | | -15.2 | +/-20 | |
| Benzo(a)pyrene | A | 250.00 | 237 | 1.1369780 | 1.0797630 | | -5.2 | +/-20 | |
| Indeno(1,2,3-cd)pyrene | A | 250.00 | 251 | 1.1041170 | 1.1077670 | | 0.4 | +/-20 | |
| Dibenzo(a,h)anthracene | A | 250.00 | 249 | 0.8775199 | 0.9387310 | | -0.4 | +/-20 | |
| Benzo(g,h,i)perylene | A | 250.00 | 241 | 1.1039640 | 1.0636310 | | -3.6 | +/-20 | |
| 2-Methylnaphthalene-d10 | A | 250.00 | 243 | 0.8041846 | 0.7825527 | | -2.8 | +/-20 | |
| Dibenzo[a,h]anthracene-d14 | A | 250.00 | 246 | 0.7035414 | 0.7730730 | | -1.6 | +/-20 | |
| Fluoranthene-d10 | A | 250.00 | 211 | 1.0485620 | 0.8838737 | | -15.6 | +/-20 | |

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042402.D



Date : 24-APR-2021 10:14

Client ID:

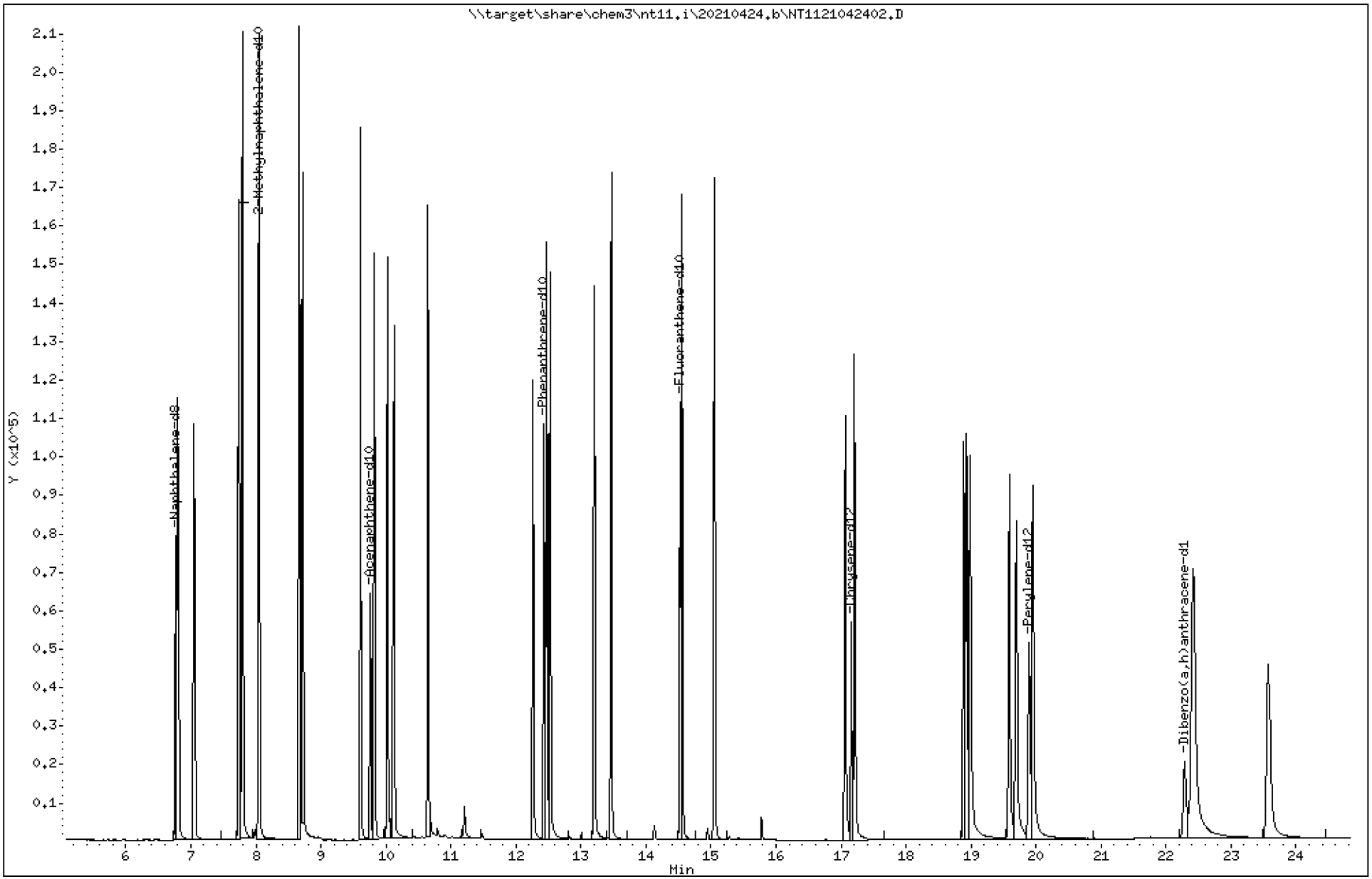
Instrument: nt11.i

Sample Info: SJD0344-ICV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25




Revised Report 21D0180 07/07/2021 Page 1054 of 1709

ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20210424.b\NT1121042402.D
Lab Smp Id: SJD0344-ICV1
Inj Date : 24-APR-2021 10:14 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SJD0344-ICV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20210424.b\lowsim.m
Meth Date : 24-Apr-2021 10:50 van Quant Type: ISTD
Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: VANS-202011

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ng/mL) | ON-COL (ng/mL) |
|---|---|---|---|---|---|---|---|---|
| * | 1 Naphthalene-d8 | 136 | 6.768 | 6.768 | (1.000) | 134531 | 200.000 | |
| | 2 Naphthalene | 128 | 6.795 | 6.795 | (1.004) | 176044 | 250.000 | 225 |
| | 3 Benzo(b)thiophene | 134 | 7.048 | 7.048 | (1.041) | 144675 | 250.000 | 235 |
| $ | 4 2-Methylnaphthalene-d10 | 152 | 7.738 | 7.738 | (1.143) | 131597 | 250.000 | 243 |
| | 5 2-Methylnaphthalene | 142 | 7.791 | 7.791 | (1.151) | 151153 | 250.000 | 240 |
| | 6 1-Methylnaphthalene | 142 | 8.043 | 8.043 | (1.188) | 145604 | 250.000 | 249 |
| | 7 2-Chloronaphthalene | 162 | 8.694 | 8.694 | (0.891) | 135672 | 250.000 | 202 |
| | 8 Biphenyl | 154 | 8.663 | 8.663 | (0.888) | 170831 | 250.000 | 191 |
| | 9 2,6-Dimethylnaphthalene | 156 | 8.715 | 8.715 | (0.893) | 136060 | 250.000 | 205 |
| | 10 Acenaphthylene | 152 | 9.607 | 9.607 | (0.984) | 172894 | 250.000 | 196 |
| * | 11 Acenaphthene-d10 | 164 | 9.761 | 9.761 | (1.000) | 76981 | 200.000 | |
| | 12 Acenaphthene | 153 | 9.824 | 9.824 | (1.006) | 116471 | 250.000 | 199 |
| | 13 Dibenzofuran | 168 | 10.023 | 10.023 | (1.027) | 146921 | 250.000 | 188 |
| | 14 2,3,5-Trimethylnaphthalene | 170 | 10.124 | 10.124 | (1.037) | 94758 | 250.000 | 198 |
| | 16 Fluorene | 166 | 10.642 | 10.642 | (1.090) | 125714 | 250.000 | 209 |
| | 17 Dibenzothiophene | 184 | 12.260 | 12.260 | (0.986) | 138244 | 250.000 | 215 |
| * | 18 Phenanthrene-d10 | 188 | 12.428 | 12.428 | (1.000) | 116022 | 200.000 | |
| | 19 Phenanthrene | 178 | 12.470 | 12.470 | (1.003) | 165541 | 250.000 | 218 |
| | 21 Anthracene | 178 | 12.523 | 12.523 | (1.008) | 170939 | 250.000 | 225 |
| | 22 Carbazole | 167 | 13.206 | 13.206 | (1.063) | 187703 | 250.000 | 232 |
| | 23 1-Methylphenanthrene | 192 | 13.469 | 13.469 | (1.084) | 149300 | 250.000 | 223 |
| $ | 24 Fluoranthene-d10 | 212 | 14.520 | 14.520 | (1.168) | 128186 | 250.000 | 211 |
| | 25 Fluoranthene | 202 | 14.558 | 14.558 | (1.171) | 169967 | 250.000 | 225 |
| | 26 Pyrene | 202 | 15.048 | 15.048 | (1.211) | 175065 | 250.000 | 226 |
| | 27 Benzo(a)anthracene | 228 | 17.064 | 17.064 | (0.995) | 132936 | 250.000 | 217 |
| * | 28 Chrysene-d12 | 240 | 17.155 | 17.155 | (1.000) | 83386 | 200.000 | |
| | 29 Chrysene | 228 | 17.205 | 17.205 | (1.003) | 145129 | 250.000 | 210 |
| | 30 Benzo(b)fluoranthene | 252 | 18.885 | 18.885 | (0.949) | 116069 | 250.000 | 217 |
| | 31 Benzo(k)fluoranthene | 252 | 18.923 | 18.923 | (0.951) | 159325 | 250.000 | 227 |
| | 32 Benzo(j)fluoranthene | 252 | 18.981 | 18.981 | (0.954) | 160467 | 250.000 | 212 |
| | 34 Benzo(e)pyrene | 252 | 19.586 | 19.586 | (0.985) | 130611 | 250.000 | 216 |
| | 35 Benzo(a)pyrene | 252 | 19.692 | 19.692 | (0.990) | 132329 | 250.000 | 237 |
| * | 36 Perylene-d12 | 264 | 19.893 | 19.893 | (1.000) | 98043 | 200.000 | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ng/mL) | AMOUNTS ON-COL (ng/mL) |
|---|---|---|---|---|---|---|---|---|
| | 37 Perylene | 252 | 19.951 | 19.951 | (1.003) | 140102 | 250.000 | 221 |
| $ | 38 Dibenzo(a,h)anthracene-d14 | 292 | 22.283 | 22.283 | (1.120) | 94743 | 250.000 | 246 |
| | 39 Dibenzo(a,h)anthracene | 278 | 22.405 | 22.405 | (1.126) | 115045 | 250.000 | 249 |
| | 40 Indeno(1,2,3-cd)pyrene | 276 | 22.427 | 22.427 | (1.127) | 135761 | 250.000 | 251 |
| | 41 Benzo(g,h,i)perylene | 276 | 23.568 | 23.568 | (1.185) | 130352 | 250.000 | 241 |

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1121042402.D
Lab Smp Id: SJD0344-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20210424.b\lowsim.m
Misc Info:

Calibration Date: 23-APR-2021
Calibration Time: 13:25
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 1 Naphthalene-d8 | 124324 | 62162 | 248648 | 134531 | 8.21 |
| 11 Acenaphthene-d10 | 71130 | 35565 | 142260 | 76981 | 8.23 |
| 18 Phenanthrene-d10 | 109059 | 54530 | 218118 | 116022 | 6.38 |
| 28 Chrysene-d12 | 79646 | 39823 | 159292 | 83386 | 4.70 |
| 36 Perylene-d12 | 94327 | 47164 | 188654 | 98043 | 3.94 |

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

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

REVIEW SUMMARY FOR FILE - NT1121042402.D

Lab ID: SJD0344-ICV1
nt11.i,  20210424.b\lowsim.m,    24-APR-2021 10:14

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check.  Ccal file.

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

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

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

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20210424.b

Instrument: nt11.i  Date: 24-APR-2021  Method: 20210424.b\lowsim.m

INITIAL CAL: 27-AUG-2020

| Compound | %RSD or R^2 |
|---|---|
| NO Q-FLAGS | |

ICV CAL: NT1121042402.D  24-APR-2021 10:14

| Compound | %D |
|---|---|
| Acenaphthylene | -21.7 |
| Acenaphthene | -20.2 |
| Dibenzofuran | -24.6 |
| 2,3,5-Trimethylnaphthalene | -21.0 |
| Biphenyl | -23.4 |

# INITIAL CALIBRATION CHECK

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | NT11 | Calibration: | DH00073 |
| Lab File ID: | NT1121042702.D | Calibration Date: | 08/27/2020 |
| Sequence: | SJD0374 | Injection Date: | 04/27/21 |
| Lab Sample ID: | SJD0374-ICV1 | Injection Time: | 12:42 |
| Sequence Name: | Initial Cal Check | | |

| | | CONC. (ng/mL) | | RESPONSE FACTOR | | | % DRIFT/DIFF | | |
|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN | ICV | LIMIT | |
| Naphthalene | A | 250.00 | 232 | 1.1612470 | 1.0793530 | | -7.2 | +/-20 | |
| 2-Methylnaphthalene | A | 250.00 | 248 | 0.9361384 | 0.9289157 | | -0.8 | +/-20 | |
| 1-Methylnaphthalene | A | 250.00 | 261 | 0.8702122 | 0.9089650 | | 4.4 | +/-20 | |
| 2-Chloronaphthalene | A | 250.00 | 208 | 1.7417600 | 1.4476110 | | -16.8 | +/-20 | |
| Acenaphthylene | A | 250.00 | 205 | 2.2945630 | 1.8790420 | | -18.0 | +/-20 | |
| Acenaphthene | A | 250.00 | 208 | 1.5175830 | 1.2627880 | | -16.8 | +/-20 | |
| Dibenzofuran | A | 250.00 | 196 | 2.0257800 | 1.5880660 | | -21.6 | +/-20 | * |
| Fluorene | A | 250.00 | 206 | 1.5604500 | 1.2832630 | | -17.6 | +/-20 | |
| Phenanthrene | A | 250.00 | 227 | 1.3083250 | 1.1882880 | | -9.2 | +/-20 | |
| Anthracene | A | 250.00 | 241 | 1.3072390 | 1.2595070 | | -3.6 | +/-20 | |
| Carbazole | A | 250.00 | 244 | 1.3929680 | 1.3580690 | | -2.4 | +/-20 | |
| Fluoranthene | A | 250.00 | 231 | 1.3043810 | 1.2048890 | | -7.6 | +/-20 | |
| Pyrene | A | 250.00 | 235 | 1.3381820 | 1.2598390 | | -6.0 | +/-20 | |
| Benzo(a)anthracene | A | 250.00 | 239 | 1.4691530 | 1.4065430 | | -4.4 | +/-20 | |
| Chrysene | A | 250.00 | 224 | 1.6542610 | 1.4834930 | | -10.4 | +/-20 | |
| Benzo(b)fluoranthene | A | 250.00 | 257 | 1.0886210 | 1.1174050 | | 2.8 | +/-20 | |
| Benzo(k)fluoranthene | A | 250.00 | 223 | 1.4304320 | 1.2779150 | | -10.8 | +/-20 | |
| Benzo(j)fluoranthene | A | 250.00 | 213 | 1.5458300 | 1.3151860 | | -14.8 | +/-20 | |
| Benzofluoranthenes, Total | A | 750.00 | 693 | 1.3549610 | 1.2368350 | | -7.6 | +/-20 | |
| Benzo(a)pyrene | A | 250.00 | 257 | 1.1369780 | 1.1680570 | | 2.8 | +/-20 | |
| Perylene | A | 250.00 | 234 | 1.2953700 | 1.2124680 | | -6.4 | +/-20 | |
| Indeno(1,2,3-cd)pyrene | A | 250.00 | 297 | 1.1041170 | 1.3125700 | | 18.8 | +/-20 | |
| Dibenzo(a,h)anthracene | A | 250.00 | 297 | 0.8775199 | 1.1210480 | | 18.8 | +/-20 | |
| Benzo(g,h,i)perylene | A | 250.00 | 278 | 1.1039640 | 1.2259870 | | 11.2 | +/-20 | |
| 2-Methylnaphthalene-d10 | A | 250.00 | 254 | 0.8041846 | 0.8172302 | | 1.6 | +/-20 | |
| Dibenzo[a,h]anthracene-d14 | A | 250.00 | 297 | 0.7035414 | 0.9369326 | | 18.8 | +/-20 | |
| Fluoranthene-d10 | A | 250.00 | 229 | 1.0485620 | 0.9590487 | | -8.4 | +/-20 | |

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042702.D

Date : 27-APR-2021 12:42

Client ID:

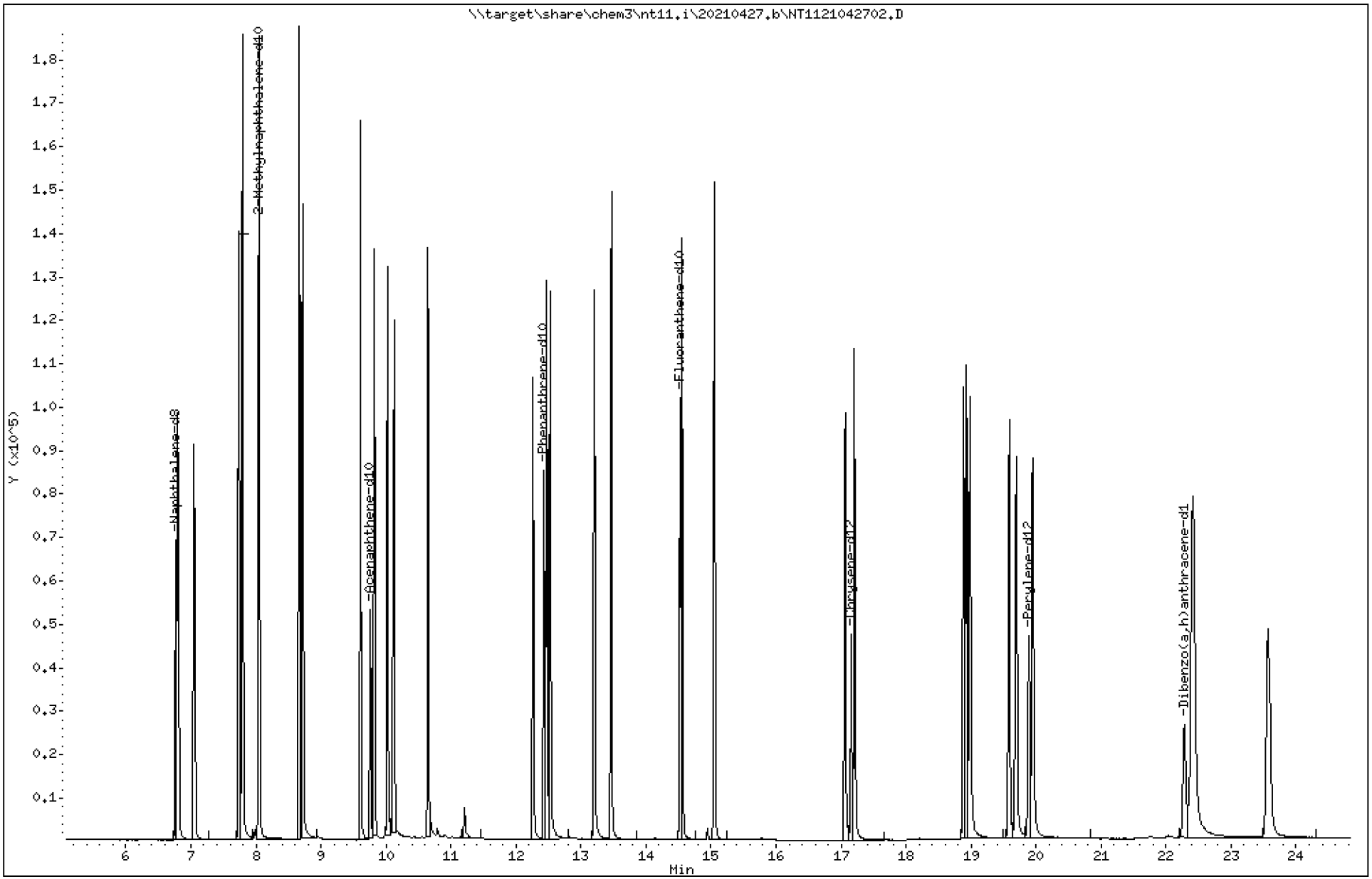
Instrument: nt11.i

Sample Info: SJD0374-ICV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25




Revised Report 21D0180 07/07/2021 Page 1061 of 1709

ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20210427.b\NT1121042702.D
Lab Smp Id: SJD0374-ICV1
Inj Date : 27-APR-2021 12:42 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SJD0374-ICV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20210427.b\lowsim.m
Meth Date : 27-Apr-2021 13:08 van Quant Type: ISTD
Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: VANS-202011

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ng/mL) | ON-COL (ng/mL) |
|---|---|---|---|---|---|---|---|---|
| * 1 | Naphthalene-d8 | 136 | 6.768 | 6.768 | (1.000) | 112036 | 200.000 | |
| 2 | Naphthalene | 128 | 6.795 | 6.795 | (1.004) | 151158 | 250.000 | 232 |
| 3 | Benzo(b)thiophene | 134 | 7.048 | 7.048 | (1.041) | 123940 | 250.000 | 242 |
| $ 4 | 2-Methylnaphthalene-d10 | 152 | 7.738 | 7.738 | (1.143) | 114449 | 250.000 | 254 |
| 5 | 2-Methylnaphthalene | 142 | 7.791 | 7.791 | (1.151) | 130090 | 250.000 | 248 |
| 6 | 1-Methylnaphthalene | 142 | 8.043 | 8.043 | (1.188) | 127296 | 250.000 | 261 |
| 7 | 2-Chloronaphthalene | 162 | 8.694 | 8.694 | (0.891) | 116938 | 250.000 | 208 |
| 8 | Biphenyl | 154 | 8.663 | 8.663 | (0.888) | 148334 | 250.000 | 198 |
| 9 | 2,6-Dimethylnaphthalene | 156 | 8.715 | 8.715 | (0.893) | 116011 | 250.000 | 209 |
| 10 | Acenaphthylene | 152 | 9.607 | 9.607 | (0.984) | 151789 | 250.000 | 205 |
| * 11 | Acenaphthene-d10 | 164 | 9.761 | 9.761 | (1.000) | 64624 | 200.000 | |
| 12 | Acenaphthene | 153 | 9.824 | 9.824 | (1.006) | 102008 | 250.000 | 208 |
| 13 | Dibenzofuran | 168 | 10.023 | 10.023 | (1.027) | 128284 | 250.000 | 196 |
| 14 | 2,3,5-Trimethylnaphthalene | 170 | 10.124 | 10.124 | (1.037) | 84016 | 250.000 | 209 |
| 16 | Fluorene | 166 | 10.642 | 10.642 | (1.090) | 103662 | 250.000 | 206 |
| 17 | Dibenzothiophene | 184 | 12.260 | 12.260 | (0.986) | 121870 | 250.000 | 228 |
| * 18 | Phenanthrene-d10 | 188 | 12.428 | 12.428 | (1.000) | 96378 | 200.000 | |
| 19 | Phenanthrene | 178 | 12.470 | 12.470 | (1.003) | 143156 | 250.000 | 227 |
| 21 | Anthracene | 178 | 12.523 | 12.523 | (1.008) | 151736 | 250.000 | 241 |
| 22 | Carbazole | 167 | 13.207 | 13.207 | (1.063) | 163610 | 250.000 | 244 |
| 23 | 1-Methylphenanthrene | 192 | 13.469 | 13.469 | (1.084) | 133544 | 250.000 | 240 |
| $ 24 | Fluoranthene-d10 | 212 | 14.520 | 14.520 | (1.168) | 115539 | 250.000 | 229 |
| 25 | Fluoranthene | 202 | 14.558 | 14.558 | (1.171) | 145156 | 250.000 | 231 |
| 26 | Pyrene | 202 | 15.048 | 15.048 | (1.211) | 151776 | 250.000 | 235 |
| 27 | Benzo(a)anthracene | 228 | 17.064 | 17.064 | (0.995) | 120968 | 250.000 | 239 |
| * 28 | Chrysene-d12 | 240 | 17.155 | 17.155 | (1.000) | 68803 | 200.000 | |
| 29 | Chrysene | 228 | 17.205 | 17.205 | (1.003) | 127586 | 250.000 | 224 |
| 30 | Benzo(b)fluoranthene | 252 | 18.885 | 18.885 | (0.949) | 121751 | 250.000 | 257 |
| 31 | Benzo(k)fluoranthene | 252 | 18.923 | 18.923 | (0.951) | 139240 | 250.000 | 223 |
| 32 | Benzo(j)fluoranthene | 252 | 18.981 | 18.981 | (0.954) | 143301 | 250.000 | 213 |
| 34 | Benzo(e)pyrene | 252 | 19.586 | 19.586 | (0.985) | 125649 | 250.000 | 234 |
| 35 | Benzo(a)pyrene | 252 | 19.692 | 19.692 | (0.990) | 127270 | 250.000 | 257 |
| * 36 | Perylene-d12 | 264 | 19.893 | 19.893 | (1.000) | 87167 | 200.000 | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ng/mL) | AMOUNTS ON-COL (ng/mL) |
|---|---|---|---|---|---|---|---|---|
| | 37 Perylene | 252 | 19.951 | 19.951 | (1.003) | 132109 | 250.000 | 234 |
| $ | 38 Dibenzo(a,h)anthracene-d14 | 292 | 22.283 | 22.283 | (1.120) | 102087 | 250.000 | 297 |
| | 39 Dibenzo(a,h)anthracene | 278 | 22.394 | 22.394 | (1.126) | 122148 | 250.000 | 297 |
| | 40 Indeno(1,2,3-cd)pyrene | 276 | 22.427 | 22.427 | (1.127) | 143016 | 250.000 | 297 |
| | 41 Benzo(g,h,i)perylene | 276 | 23.568 | 23.568 | (1.185) | 133582 | 250.000 | 278 |

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1121042702.D
Lab Smp Id: SJD0374-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20210427.b\lowsim.m
Misc Info:

Calibration Date: 24-APR-2021
Calibration Time: 10:14
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 1 Naphthalene-d8 | 134531 | 67266 | 269062 | 112036 | -16.72 |
| 11 Acenaphthene-d10 | 76981 | 38491 | 153962 | 64624 | -16.05 |
| 18 Phenanthrene-d10 | 116022 | 58011 | 232044 | 96378 | -16.93 |
| 28 Chrysene-d12 | 83386 | 41693 | 166772 | 68803 | -17.49 |
| 36 Perylene-d12 | 98043 | 49022 | 196086 | 87167 | -11.09 |

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

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

REVIEW SUMMARY FOR FILE - NT1121042702.D

Lab ID: SJD0374-ICV1
nt11.i,  20210427.b\lowsim.m,    27-APR-2021 12:42

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Quant Method: ICAL

No RRT check.  Ccal file.

On Column LOD for nt11.i, 20210427.b\lowsim.m, PAH.sub = 0.0000

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

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

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20210427.b

Instrument: nt11.i  Date: 27-APR-2021  Method: 20210427.b\lowsim.m

INITIAL CAL: 27-AUG-2020

| Compound | %RSD or R^2 |
|---|---|
| NO Q-FLAGS | |

ICV CAL: NT1121042702.D  27-APR-2021 12:42

| Compound | %D |
|---|---|
| Dibenzofuran | -21.6 |
| Biphenyl | -20.8 |

# INITIAL CALIBRATION CHECK

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | NT14 | Calibration: | EE00001 |
| Lab File ID: | NT1421043051ICV.D | Calibration Date: | 04/30/2021 |
| Sequence: | SJE0004 | Injection Date: | 05/01/21 |
| Lab Sample ID: | SJE0004-ICV1 | Injection Time: | 23:35 |
| 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 | 2.6 | 0.1489821 | 0.1559299 | | 4.7 | +/-20 | |
| cis-Decalin | A | 2.5000 | 2.7 | 0.1028504 | 0.1128629 | | 9.7 | +/-20 | |
| Naphthalene | A | 2.5000 | 2.7 | 1.1740120 | 1.2713610 | | 8.3 | +/-20 | |
| 1-Methylnaphthalene | A | 2.5000 | 2.8 | 0.5936130 | 0.6625586 | | 11.6 | +/-20 | |
| 2-Methylnaphthalene | A | 2.5000 | 2.8 | 0.6265036 | 0.6954155 | | 11.0 | +/-20 | |
| Biphenyl | A | 2.5000 | 2.8 | 0.8966280 | 0.9896226 | | 10.4 | +/-20 | |
| 2,6-Dimethylnaphthalene | A | 2.5000 | 2.9 | 0.6169792 | 0.7139580 | | 15.7 | +/-20 | |
| Acenaphthylene | A | 2.5000 | 3.1 | 0.9709370 | 1.1929300 | | 22.9 | +/-20 | * |
| Acenaphthene | A | 2.5000 | 2.9 | 0.6240076 | 0.7235131 | | 16.0 | +/-20 | |
| Dibenzofuran | A | 2.5000 | 2.8 | 0.9455456 | 1.0702570 | | 13.2 | +/-20 | |
| 2,3,5-Trimethylnaphthalene | A | 2.5000 | 3.0 | 0.5414731 | 0.6535855 | | 20.7 | +/-20 | * |
| Fluorene | A | 2.5000 | 2.9 | 0.6871732 | 0.7981096 | | 16.2 | +/-20 | |
| Benzo(b)thiophene | A | 2.5000 | 2.7 | 0.9340302 | 1.0163830 | | 8.8 | +/-20 | |
| Phenanthrene | A | 2.5000 | 2.5 | 1.2066070 | 1.2044630 | | -0.2 | +/-20 | |
| Anthracene | A | 2.5000 | 2.6 | 1.1122650 | 1.1540750 | | 3.8 | +/-20 | |
| Carbazole | A | 2.5000 | 2.7 | 0.8290303 | 1.0114890 | | 7.8 | +/-20 | |
| 1-Methylphenanthrene | A | 2.5000 | 2.8 | 0.7326040 | 0.8269761 | | 12.9 | +/-20 | |
| Fluoranthene | A | 2.5000 | 2.8 | 1.0715980 | 1.2187440 | | 13.7 | +/-20 | |
| Dibenzothiophene | A | 2.5000 | 3.0 | 0.8674458 | 1.0367970 | | 19.5 | +/-20 | |
| Pyrene | A | 2.5000 | 2.9 | 1.1104570 | 1.2665710 | | 14.0 | +/-20 | |
| Benzo(a)anthracene | A | 2.5000 | 2.6 | 0.8222601 | 0.9551922 | | 3.9 | +/-20 | |
| Chrysene | A | 2.5000 | 2.5 | 0.9340580 | 0.9324969 | | -0.2 | +/-20 | |
| Benzo(b)fluoranthene | A | 2.5000 | 2.8 | 0.7491309 | 0.9759649 | | 14.0 | +/-20 | |
| Benzo(j)fluoranthene | A | 2.5000 | 2.4 | 0.9513865 | 0.9220897 | | -3.1 | +/-20 | |
| Benzo(k)fluoranthene | A | 2.5000 | 2.6 | 0.9278309 | 1.0684950 | | 2.8 | +/-20 | |
| Benzo(e)pyrene | A | 2.5000 | 2.8 | 0.8518347 | 0.9399273 | | 10.4 | +/-20 | |
| Benzo(a)pyrene | A | 2.5000 | 2.5 | 0.7422947 | 0.8801991 | | 0.4 | +/-20 | |
| Indeno(1,2,3-cd)pyrene | A | 2.5000 | 2.8 | 0.7887712 | 1.0212500 | | 12.0 | +/-20 | |
| Dibenzo(a,h)anthracene | A | 2.5000 | 2.8 | 0.6549683 | 0.8917410 | | 13.0 | +/-20 | |
| Benzo(g,h,i)perylene | A | 2.5000 | 3.0 | 0.7663214 | 0.9228760 | | 20.4 | +/-20 | |
| Perylene | A | 2.5000 | 2.9 | 0.8135951 | 0.9339567 | | 14.8 | +/-20 | |

* Values outside of QC limits

# INITIAL CALIBRATION CHECK

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | NT14 | Calibration: | EE00001 |
| Lab File ID: | NT1421043051ICV.D | Calibration Date: | 04/30/2021 |
| Sequence: | SJE0004 | Injection Date: | 05/01/21 |
| Lab Sample ID: | SJE0004-ICV1 | Injection Time: | 23:35 |
| Sequence Name: | Initial Cal Check | | |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN | ICV | LIMIT |
| Benzo(b)naphtho(2,1-d)thiophene | A | 2.5000 | 2.8 | 1.0821370 | 1.2150300 | | 12.3 | +/-20 |
| Naphthalene-d8 | A | 2.5000 | 2.74 | 1.1542130 | 1.2637900 | | 9.5 | +/-20 |
| Acenaphthene-d10 | A | 2.5000 | 2.87 | 0.5635830 | 0.6475369 | | 14.9 | +/-20 |
| Phenanthrene-d10 | A | 2.5000 | 2.53 | 1.0807840 | 1.0922710 | | 1.1 | +/-20 |
| Chrysene-d12 | A | 2.5000 | 2.66 | 0.7267179 | 0.7722814 | | 6.3 | +/-20 |
| Perylene-d12 | A | 2.5000 | 2.66 | 0.6899017 | 0.8292883 | | 6.4 | +/-20 |

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210430D.b\NT142104305lICV.D

Date : 01-MAY-2021 23:35

Client ID:

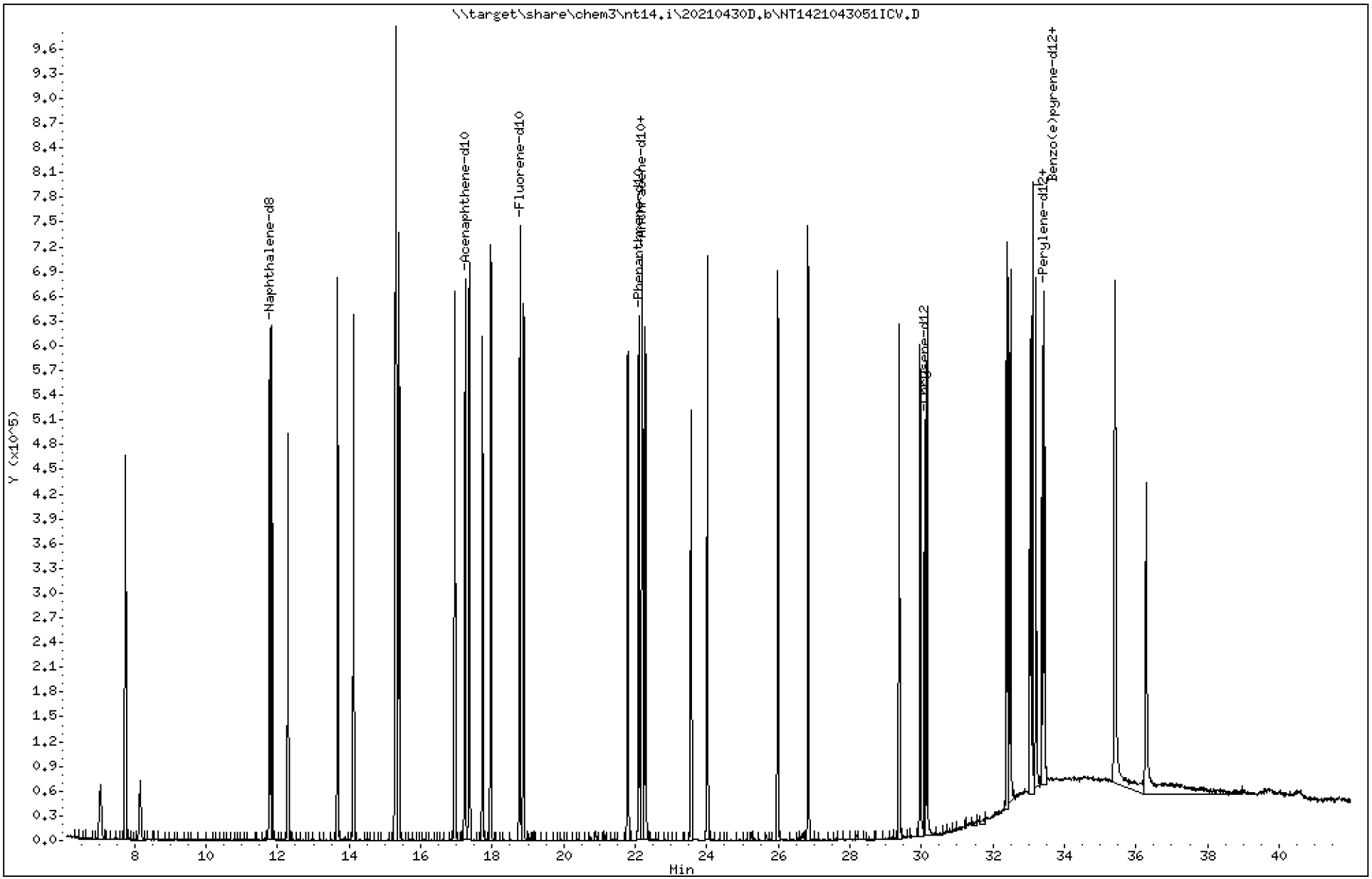
Sample Info: SJE0004-ICV1

Column phase: Rxi-17Sil MS

Instrument: nt14.i

Operator: VTS

Column diameter: 0.25




Revised Report 21D0180 07/07/2021 Page 1069 of 1709

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430D.b\NT1421043051ICV.D
Lab Smp Id: SJE0004-ICV1
Inj Date : 01-MAY-2021 23:35
Operator : VTS Inst ID: nt14.i
Smp Info : SJE0004-ICV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
Meth Date : 04-May-2021 08:25 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.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) | ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 1 trans-Decalin | 138 | 7.045 | 7.045 | (0.375) | 98322 | 2.50000 | 2.617 |
| | 2 cis-Decalin | 138 | 8.155 | 8.155 | (0.434) | 71166 | 2.50000 | 2.743 |
| $ | 6 Naphthalene-d8 | 136 | 11.776 | 11.776 | (0.627) | 796886 | 2.50000 | 2.737 |
| | 7 Naphthalene | 128 | 11.836 | 11.836 | (0.631) | 801660 | 2.50000 | 2.707 |
| | 12 Benzo(b)thiophene | 134 | 12.295 | 12.295 | (0.655) | 640883 | 2.50000 | 2.720 |
| | 16 2-Methylnaphthalene | 141 | 13.680 | 13.680 | (0.729) | 438496 | 2.50000 | 2.775 |
| | 17 1-methylnaphthalene | 141 | 14.120 | 14.120 | (0.752) | 417778 | 2.50000 | 2.790 |
| | 18 Biphenyl | 154 | 15.318 | 15.318 | (0.816) | 624009 | 2.50000 | 2.759 |
| | 19 2,6-Dimethylnaphthalene | 156 | 15.394 | 15.394 | (0.820) | 450188 | 2.50000 | 2.893 |
| | 20 Acenaphthylene | 152 | 16.955 | 16.955 | (0.903) | 752205 | 2.50000 | 3.072 |
| $ | 21 Acenaphthene-d10 | 164 | 17.241 | 17.241 | (0.918) | 408306 | 2.50000 | 2.872 |
| | 22 Acenaphthene | 153 | 17.362 | 17.362 | (0.925) | 456213 | 2.50000 | 2.899 |
| | 23 Dibenzofuran | 168 | 17.735 | 17.735 | (0.945) | 674853 | 2.50000 | 2.830 |
| | 24 1,6,7-Trimethylnaphthalene | 170 | 17.955 | 17.955 | (0.956) | 412120 | 2.50000 | 3.018 |
| * | 25 Fluorene-d10 | 176 | 18.772 | 18.772 | (1.000) | 504442 | 2.00000 | |
| | 26 Fluorene | 166 | 18.874 | 18.874 | (1.005) | 503250 | 2.50000 | 2.904 |
| | 30 Dibenzothiophene | 184 | 21.796 | 21.796 | (1.161) | 653755 | 2.50000 | 2.988 |
| $ | 35 Phenanthrene-d10 | 188 | 22.104 | 22.104 | (0.995) | 626831 | 2.50000 | 2.527 |
| | 36 Phenanthrene | 178 | 22.181 | 22.181 | (0.999) | 691216 | 2.50000 | 2.496 |
| * | 250 Anthracene-d10 | 188 | 22.214 | 22.214 | (1.000) | 459103 | 2.00000 | |
| | 37 Anthracene | 178 | 22.280 | 22.280 | (1.003) | 662299 | 2.50000 | 2.594 |
| | 42 Carbazole | 167 | 23.566 | 23.566 | (1.061) | 580472 | 2.50000 | 2.695 |
| | 43 1-Methylphenanthrene | 192 | 24.017 | 24.017 | (1.081) | 474584 | 2.50000 | 2.822 |
| | 44 Fluoranthene | 202 | 25.985 | 25.985 | (1.170) | 699411 | 2.50000 | 2.843 |
| | 46 Pyrene | 202 | 26.832 | 26.832 | (1.208) | 726858 | 2.50000 | 2.851 |
| | 51 Naphthobenzothiophene | 234 | 29.375 | 29.375 | (1.322) | 697280 | 2.50000 | 2.807 |
| | 55 Benzo(a)anthracene | 228 | 29.960 | 29.960 | (0.907) | 617047 | 2.50000 | 2.598 |
| $ | 56 Chrysene-d12 | 240 | 30.084 | 30.084 | (0.910) | 498888 | 2.50000 | 2.657 |
| | 57 Chrysene | 228 | 30.163 | 30.163 | (0.913) | 602386 | 2.50000 | 2.496 |
| | 62 Benzo(b)fluoranthene | 252 | 32.382 | 32.382 | (0.980) | 630466 | 2.50000 | 2.849(M) |
| | 63 Benzo(k)fluoranthene | 252 | 32.427 | 32.427 | (0.981) | 690240 | 2.50000 | 2.571(M) |
| | 293 Benzo(j)fluoranthene | 252 | 32.494 | 32.494 | (0.983) | 595663 | 2.50000 | 2.423 |
| | 246 Total Benzofluoranthenes | 252 | 32.382 | 32.382 | (0.980) | 1865489 | 7.50000 | 7.719(M) |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|
| * 251 Benzo(e)pyrene-d12 | 264 | 33.046 | 33.046 | (1.000) | 516794 | 2.00000 | |
| 64 Benzo(e)pyrene | 252 | 33.102 | 33.102 | (1.002) | 607186 | 2.50000 | 2.759 |
| 66 Benzo(a)pyrene | 252 | 33.204 | 33.204 | (1.005) | 568602 | 2.50000 | 2.510 |
| $ 67 Perylene-d12 | 264 | 33.373 | 33.373 | (1.010) | 535714 | 2.50000 | 2.661 |
| 68 Perylene | 252 | 33.440 | 33.440 | (1.012) | 603329 | 2.50000 | 2.870 |
| 69 Indeno(1,2,3-cd)pyrene | 276 | 35.423 | 35.423 | (1.072) | 659720 | 2.50000 | 2.799(M) |
| 70 Dibenzo(a,h)anthracene | 278 | 35.400 | 35.400 | (1.071) | 576058 | 2.50000 | 2.824(M) |
| 74 Benzo(g,h,i)perylene | 276 | 36.290 | 36.290 | (1.098) | 596171 | 2.50000 | 3.011(M) |

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043051ICV.D
Lab Smp Id: SJE0004-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
Misc Info:

Calibration Date: 01-MAY-2021
Calibration Time: 13:10
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 25 Fluorene-d10 | 470584 | 235292 | 941168 | 504442 | 7.19 |
| 250 Anthracene-d10 | 406977 | 203489 | 813954 | 459103 | 12.81 |
| 251 Benzo(e)pyrene-d1 | 456524 | 228262 | 913048 | 516794 | 13.20 |

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

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

REVIEW SUMMARY FOR FILE - NT1421043051ICV.D

Lab ID: SJE0004-ICV1
nt14.i,  20210430D.b\ALKYLPNA.m,    01-MAY-2021 23:35

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

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

NONE

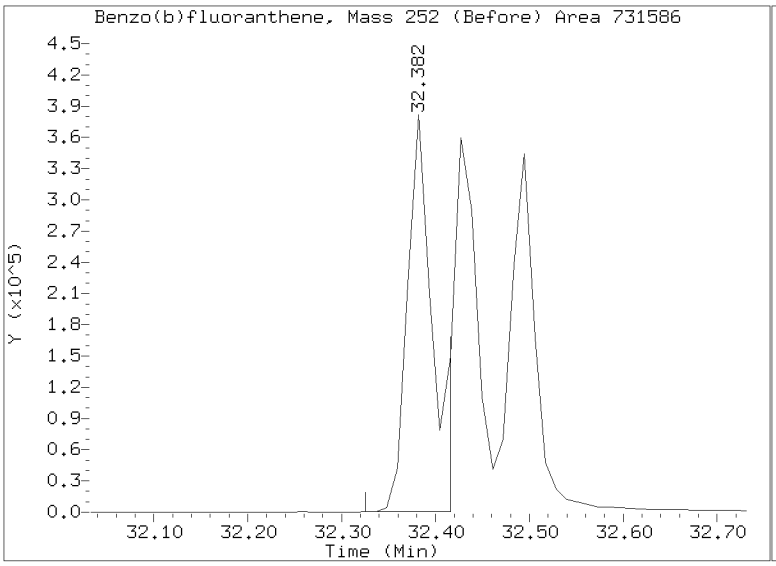
No RRT check.  Ccal file.

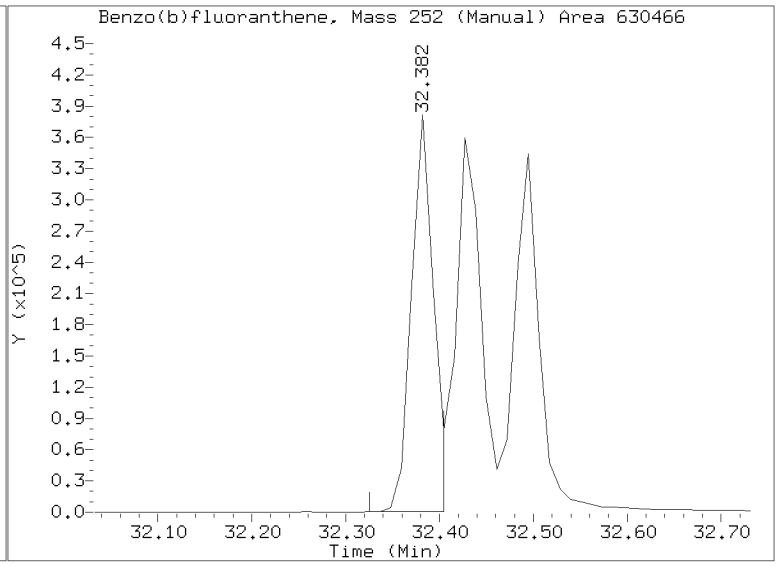
On Column LOD for nt14.i, 20210430D.b\ALKYLPNA.m, TARGETS.sub = 0.0000

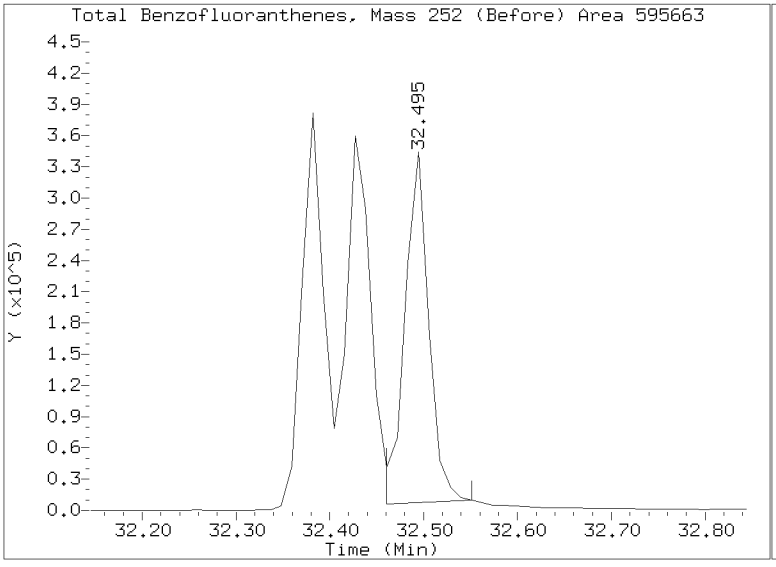
* Only compounds listed in the work order have been verified by the analyst *

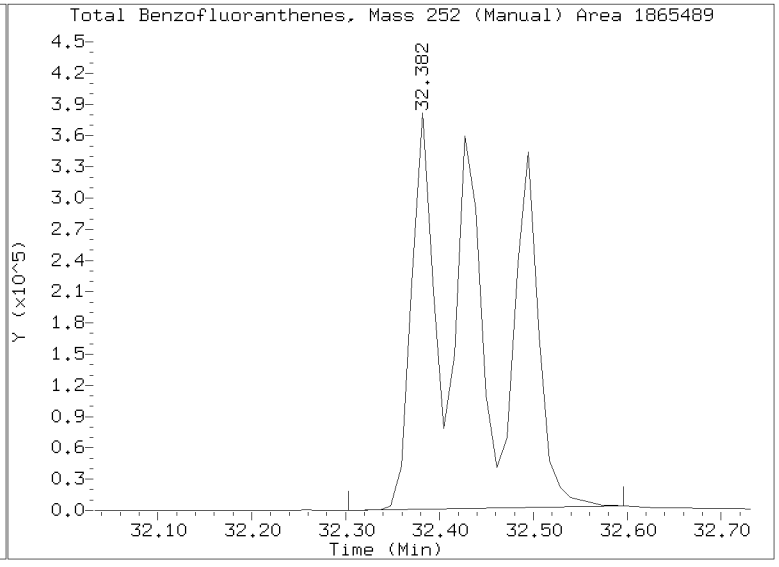
# Quant Ion Manual Peak Adjustment Report

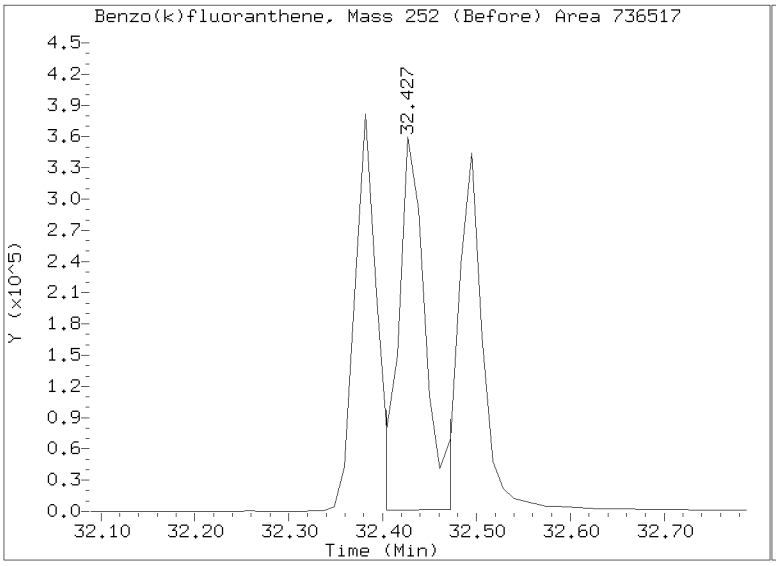
Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043051ICV.D
Injection Date: 01-MAY-2021 23:35
Lab ID:SJE0004-ICV1 Client ID:
Report Date: 05/04/2021 13:20

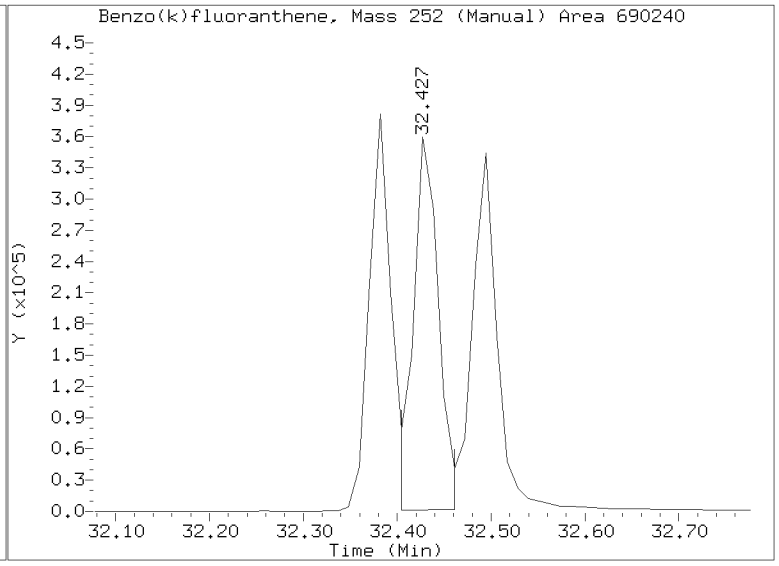


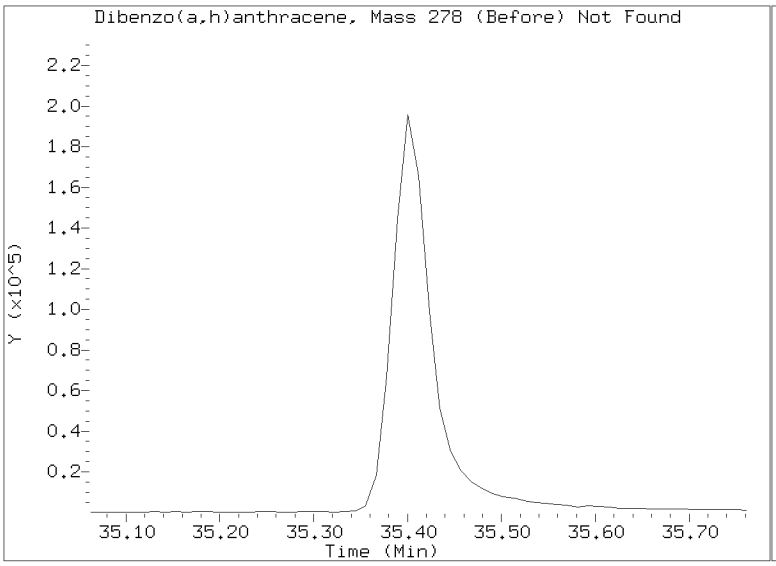



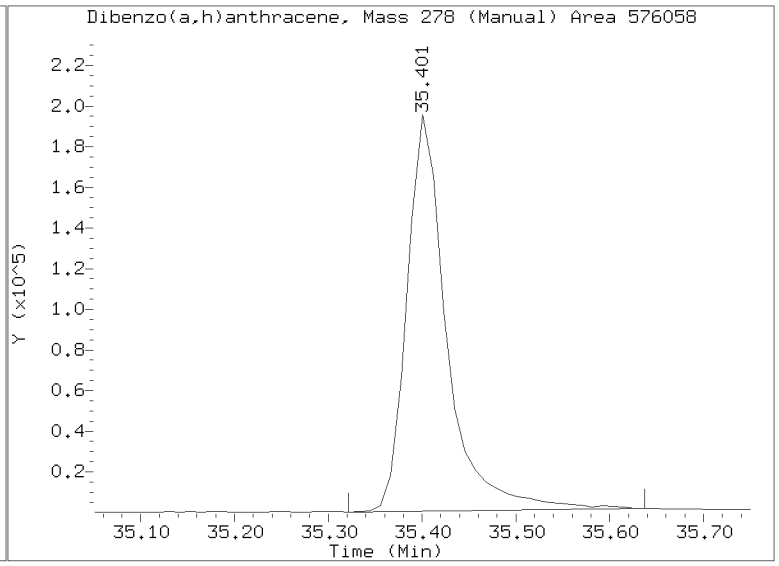



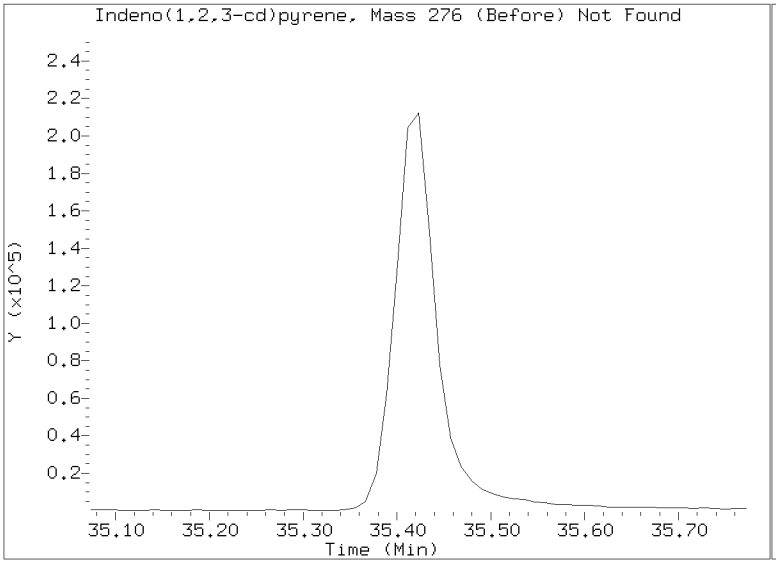



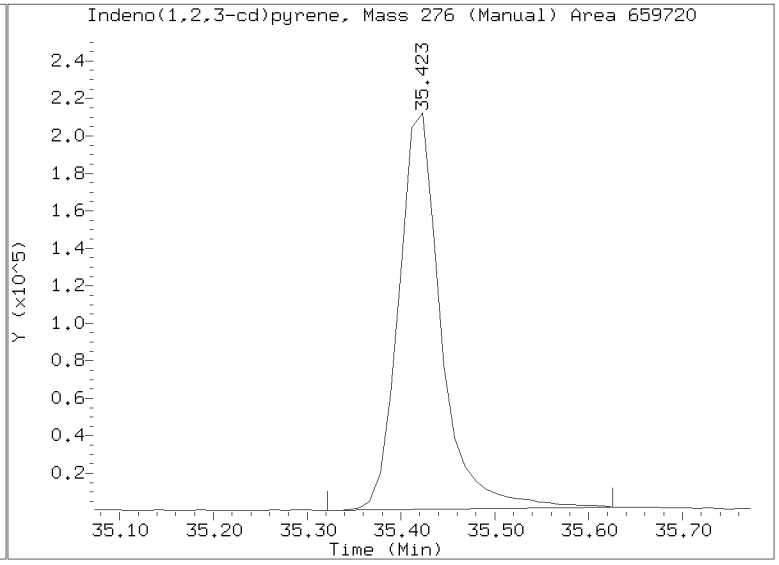
# Quant Ion Manual Peak Adjustment Report

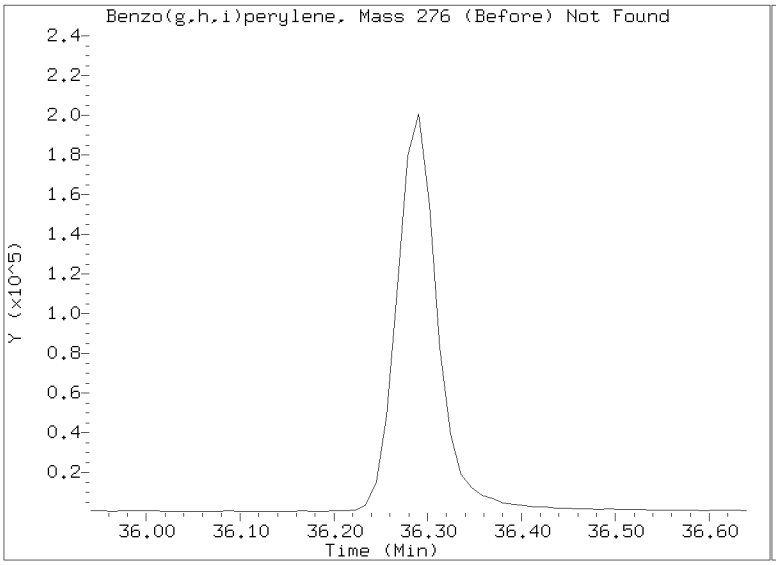
Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043051ICV.D
Injection Date: 01-MAY-2021 23:35
Lab ID:SJE0004-ICV1 Client ID:
Report Date: 05/04/2021 13:20

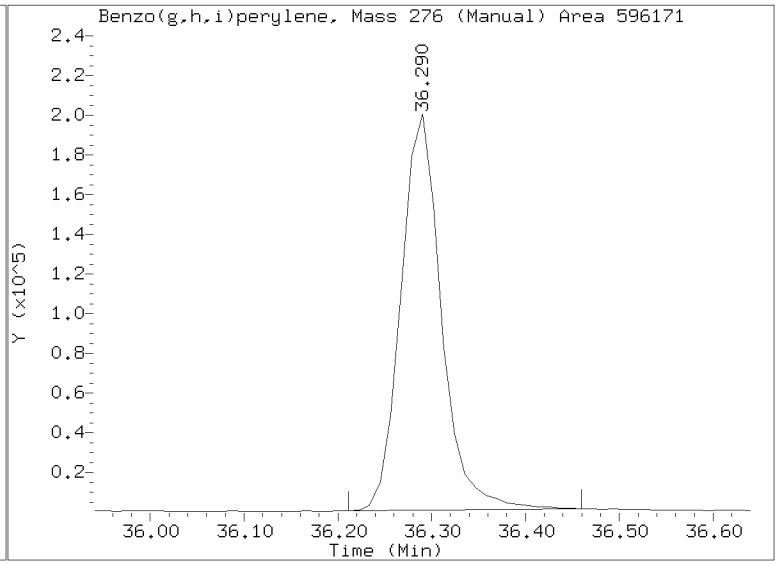


Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210430D.b

Instrument: nt14.i  Date: 01-MAY-2021  Method: 20210430D.b\ALKYLPNA.m

INITIAL CAL: 30-APR-2021

| Compound | %RSD or R^2 |
|---|---|
| NO Q-FLAGS | |

ICV CAL: NT1421043051ICV.D  01-MAY-2021 23:35

| Compound | %D |
|---|---|
| Acenaphthylene | 22.9 |
| 1,6,7-Trimethylnaphthalene | 20.7 |

# INITIAL CALIBRATION CHECK

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | NT14 | Calibration: | EE00001 |
| Lab File ID: | NT1421050402.D | Calibration Date: | 04/30/2021 |
| Sequence: | SJE0028 | Injection Date: | 05/04/21 |
| Lab Sample ID: | SJE0028-ICV1 | Injection Time: | 12:52 |
| 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 | 2.82 | 0.1489821 | 0.1678984 | | 12.7 | +/-20 | |
| cis-Decalin | A | 2.5000 | 2.89 | 0.1028504 | 0.1189258 | | 15.6 | +/-20 | |
| Naphthalene | A | 2.5000 | 2.84 | 1.1740120 | 1.3348740 | | 13.7 | +/-20 | |
| 1-Methylnaphthalene | A | 2.5000 | 2.87 | 0.5936130 | 0.6804039 | | 14.6 | +/-20 | |
| 2-Methylnaphthalene | A | 2.5000 | 2.88 | 0.6265036 | 0.7227643 | | 15.4 | +/-20 | |
| Biphenyl | A | 2.5000 | 2.87 | 0.8966280 | 1.0275900 | | 14.6 | +/-20 | |
| 2,6-Dimethylnaphthalene | A | 2.5000 | 2.95 | 0.6169792 | 0.7289871 | | 18.2 | +/-20 | |
| Acenaphthylene | A | 2.5000 | 3.15 | 0.9709370 | 1.2223180 | | 25.9 | +/-20 | * |
| Acenaphthene | A | 2.5000 | 3.00 | 0.6240076 | 0.7495540 | | 20.1 | +/-20 | |
| Dibenzofuran | A | 2.5000 | 2.92 | 0.9455456 | 1.1042250 | | 16.8 | +/-20 | |
| 2,3,5-Trimethylnaphthalene | A | 2.5000 | 3.10 | 0.5414731 | 0.6707522 | | 23.9 | +/-20 | * |
| Fluorene | A | 2.5000 | 2.99 | 0.6871732 | 0.8204571 | | 19.4 | +/-20 | |
| Benzo(b)thiophene | A | 2.5000 | 2.86 | 0.9340302 | 1.0668580 | | 14.2 | +/-20 | |
| Phenanthrene | A | 2.5000 | 2.52 | 1.2066070 | 1.2178800 | | 0.9 | +/-20 | |
| Anthracene | A | 2.5000 | 2.57 | 1.1122650 | 1.1429580 | | 2.8 | +/-20 | |
| Carbazole | A | 2.5000 | 2.66 | 0.8290303 | 0.9966685 | | 6.3 | +/-20 | |
| 1-Methylphenanthrene | A | 2.5000 | 2.86 | 0.7326040 | 0.8387431 | | 14.5 | +/-20 | |
| Fluoranthene | A | 2.5000 | 2.87 | 1.0715980 | 1.2285880 | | 14.6 | +/-20 | |
| Dibenzothiophene | A | 2.5000 | 3.02 | 0.8674458 | 1.0491830 | | 21.0 | +/-20 | * |
| Pyrene | A | 2.5000 | 2.93 | 1.1104570 | 1.2990960 | | 17.0 | +/-20 | |
| Benzo(a)anthracene | A | 2.5000 | 2.58 | 0.8222601 | 0.9490566 | | 3.3 | +/-20 | |
| Chrysene | A | 2.5000 | 2.51 | 0.9340580 | 0.9388320 | | 0.5 | +/-20 | |
| Benzo(b)fluoranthene | A | 2.5000 | 2.73 | 0.7491309 | 0.9322946 | | 9.1 | +/-20 | |
| Benzo(j)fluoranthene | A | 2.5000 | 2.65 | 0.9513865 | 1.0072060 | | 5.9 | +/-20 | |
| Benzo(k)fluoranthene | A | 2.5000 | 2.55 | 0.9278309 | 1.0593620 | | 2.0 | +/-20 | |
| Benzofluoranthenes, Total | A | 7.5000 | 7.73 | 0.8388531 | 0.9638832 | | 3.1 | +/-20 | |
| Benzo(e)pyrene | A | 2.5000 | 2.74 | 0.8518347 | 0.9346561 | | 9.7 | +/-20 | |
| Benzo(a)pyrene | A | 2.5000 | 2.55 | 0.7422947 | 0.8935545 | | 1.9 | +/-20 | |
| Indeno(1,2,3-cd)pyrene | A | 2.5000 | 2.67 | 0.7887712 | 0.9728936 | | 6.9 | +/-20 | |
| Dibenzo(a,h)anthracene | A | 2.5000 | 2.65 | 0.6549683 | 0.8337260 | | 6.0 | +/-20 | |
| Benzo(g,h,i)perylene | A | 2.5000 | 2.95 | 0.7663214 | 0.9054806 | | 18.2 | +/-20 | |

* Values outside of QC limits

# INITIAL CALIBRATION CHECK

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | NT14 | Calibration: | EE00001 |
| Lab File ID: | NT1421050402.D | Calibration Date: | 04/30/2021 |
| Sequence: | SJE0028 | Injection Date: | 05/04/21 |
| Lab Sample ID: | SJE0028-ICV1 | Injection Time: | 12:52 |
| Sequence Name: | Initial Cal Check | | |

| | | CONC. (ug/mL) | | RESPONSE FACTOR | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN | ICV | LIMIT |
| Perylene | A | 2.5000 | 2.75 | 0.8135951 | 0.8942855 | | 9.9 | +/-20 |
| Benzo(b)naphtho(2,1-d)thiophene | A | 2.5000 | 2.86 | 1.0821370 | 1.2387310 | | 14.5 | +/-20 |
| Naphthalene-d8 | A | 2.5000 | 2.86 | 1.1542130 | 1.3199450 | | 14.4 | |
| Acenaphthene-d10 | A | 2.5000 | 2.95 | 0.5635830 | 0.6660241 | | 18.2 | |
| Phenanthrene-d10 | A | 2.5000 | 2.56 | 1.0807840 | 1.1048450 | | 2.2 | |
| Chrysene-d12 | A | 2.5000 | 2.70 | 0.7267179 | 0.7847557 | | 8.0 | |
| Perylene-d12 | A | 2.5000 | 2.56 | 0.6899017 | 0.7981815 | | 2.6 | |

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050402.D



Date : 04-MAY-2021 12:52

Client ID:

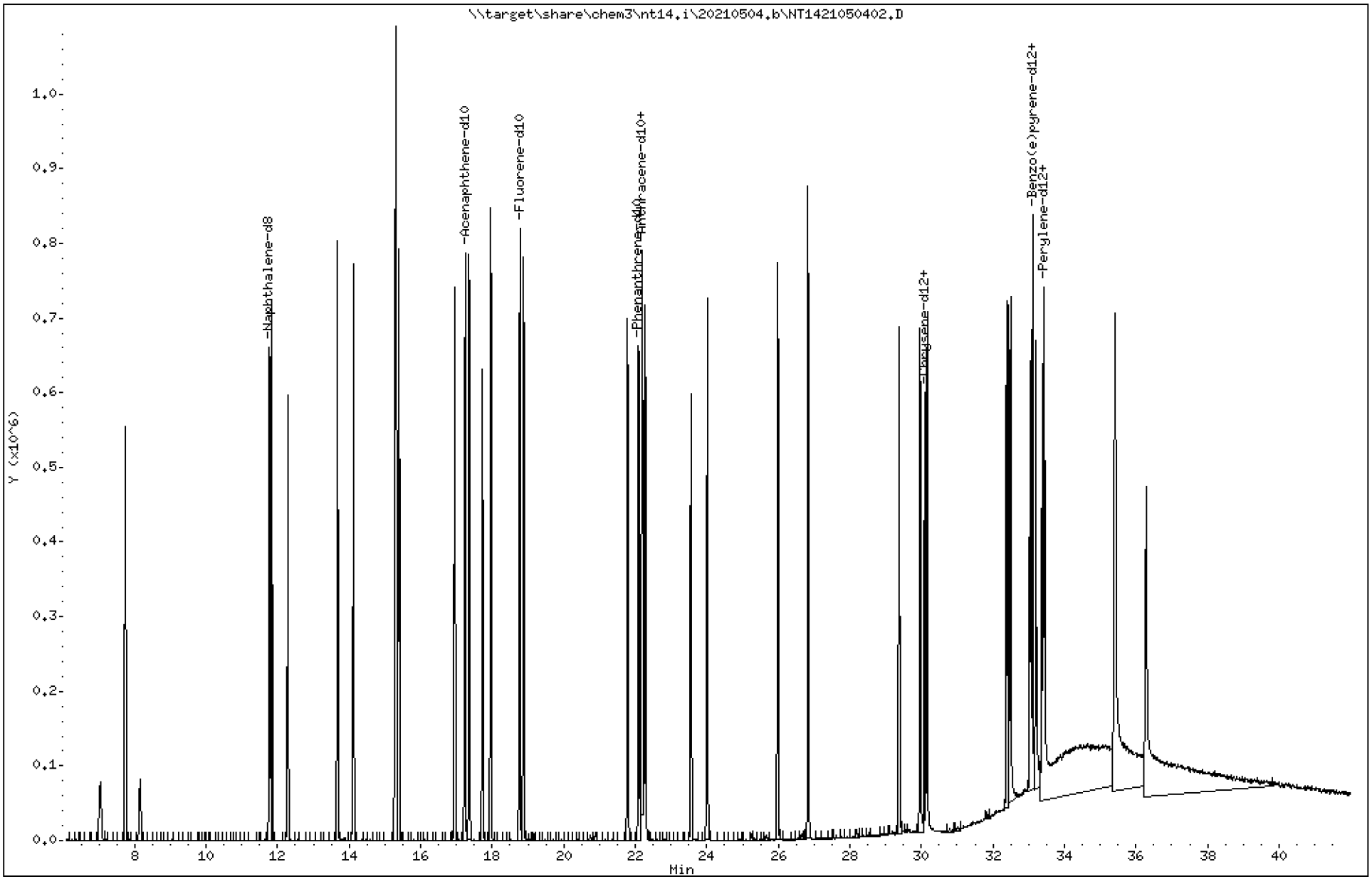
Instrument: nt14.i

Sample Info: SJE0028-ICV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25




Revised Report 21D0180 07/07/2021 Page 1079 of 1709

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210504.b\NT1421050402.D
Lab Smp Id: SJE0028-ICV1
Inj Date : 04-MAY-2021 12:52
Operator : VTS Inst ID: nt14.i
Smp Info : SJE0028-ICV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210504.b\ALKYLPNA.m
Meth Date : 04-May-2021 14:17 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.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) | ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 1 trans-Decalin | 138 | 7.035 | 7.035 | (0.375) | 117718 | 2.50000 | 2.817 |
| | 2 cis-Decalin | 138 | 8.155 | 8.155 | (0.434) | 83382 | 2.50000 | 2.891 |
| $ | 6 Naphthalene-d8 | 136 | 11.766 | 11.766 | (0.627) | 925448 | 2.50000 | 2.859 |
| | 7 Naphthalene | 128 | 11.836 | 11.836 | (0.631) | 935915 | 2.50000 | 2.843 |
| | 12 Benzo(b)thiophene | 134 | 12.284 | 12.284 | (0.654) | 748002 | 2.50000 | 2.856 |
| | 16 2-Methylnaphthalene | 141 | 13.669 | 13.669 | (0.728) | 506749 | 2.50000 | 2.884 |
| | 17 1-methylnaphthalene | 141 | 14.120 | 14.120 | (0.752) | 477049 | 2.50000 | 2.866 |
| | 18 Biphenyl | 154 | 15.307 | 15.307 | (0.815) | 720470 | 2.50000 | 2.865 |
| | 19 2,6-Dimethylnaphthalene | 156 | 15.384 | 15.384 | (0.820) | 511112 | 2.50000 | 2.954 |
| | 20 Acenaphthylene | 152 | 16.955 | 16.955 | (0.903) | 856999 | 2.50000 | 3.147 |
| $ | 21 Acenaphthene-d10 | 164 | 17.241 | 17.241 | (0.918) | 466967 | 2.50000 | 2.954 |
| | 22 Acenaphthene | 153 | 17.351 | 17.351 | (0.924) | 525532 | 2.50000 | 3.003 |
| | 23 Dibenzofuran | 168 | 17.735 | 17.735 | (0.945) | 774201 | 2.50000 | 2.920 |
| | 24 1,6,7-Trimethylnaphthalene | 170 | 17.955 | 17.955 | (0.956) | 470282 | 2.50000 | 3.097 |
| * | 25 Fluorene-d10 | 176 | 18.772 | 18.772 | (1.000) | 560901 | 2.00000 | |
| | 26 Fluorene | 166 | 18.874 | 18.874 | (1.005) | 575244 | 2.50000 | 2.985 |
| | 30 Dibenzothiophene | 184 | 21.785 | 21.785 | (1.161) | 735610 | 2.50000 | 3.024 |
| $ | 35 Phenanthrene-d10 | 188 | 22.093 | 22.093 | (0.995) | 706057 | 2.50000 | 2.556 |
| | 36 Phenanthrene | 178 | 22.181 | 22.181 | (0.999) | 778292 | 2.50000 | 2.523 |
| * | 250 Anthracene-d10 | 188 | 22.214 | 22.214 | (1.000) | 511244 | 2.00000 | |
| | 37 Anthracene | 178 | 22.280 | 22.280 | (1.003) | 730413 | 2.50000 | 2.569 |
| | 42 Carbazole | 167 | 23.555 | 23.555 | (1.060) | 636926 | 2.50000 | 2.657 |
| | 43 1-Methylphenanthrene | 192 | 24.017 | 24.017 | (1.081) | 536003 | 2.50000 | 2.862 |
| | 44 Fluoranthene | 202 | 25.985 | 25.985 | (1.170) | 785135 | 2.50000 | 2.866 |
| | 46 Pyrene | 202 | 26.832 | 26.832 | (1.208) | 830194 | 2.50000 | 2.925 |
| | 51 Naphthobenzothiophene | 234 | 29.375 | 29.375 | (1.322) | 791617 | 2.50000 | 2.862 |
| | 55 Benzo(a)anthracene | 228 | 29.960 | 29.960 | (0.907) | 681584 | 2.50000 | 2.582 |
| $ | 56 Chrysene-d12 | 240 | 30.084 | 30.084 | (0.910) | 563588 | 2.50000 | 2.700 |
| | 57 Chrysene | 228 | 30.163 | 30.163 | (0.913) | 674241 | 2.50000 | 2.513 |
| | 62 Benzo(b)fluoranthene | 252 | 32.382 | 32.382 | (0.980) | 669546 | 2.50000 | 2.727(M) |
| | 63 Benzo(k)fluoranthene | 252 | 32.427 | 32.427 | (0.981) | 760802 | 2.50000 | 2.550(M) |
| | 293 Benzo(j)fluoranthene | 252 | 32.494 | 32.494 | (0.983) | 723345 | 2.50000 | 2.647(M) |
| | 246 Total Benzofluoranthenes | 252 | 32.382 | 32.382 | (0.980) | 2076696 | 7.50000 | 7.729(M) |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | AMOUNTS CAL-AMT (ug/mL) | AMOUNTS ON-COL (ug/mL) |
|---|---|---|---|---|---|---|---|
| * 251 Benzo(e)pyrene-d12 | 264 | 33.046 | 33.046 | (1.000) | 574536 | 2.00000 | |
| 64 Benzo(e)pyrene | 252 | 33.102 | 33.102 | (1.002) | 671242 | 2.50000 | 2.743 |
| 66 Benzo(a)pyrene | 252 | 33.204 | 33.204 | (1.005) | 641724 | 2.50000 | 2.547 |
| $ 67 Perylene-d12 | 264 | 33.373 | 33.373 | (1.010) | 573230 | 2.50000 | 2.564(M) |
| 68 Perylene | 252 | 33.429 | 33.429 | (1.012) | 642249 | 2.50000 | 2.748(M) |
| 69 Indeno(1,2,3-cd)pyrene | 276 | 35.423 | 35.423 | (1.072) | 698703 | 2.50000 | 2.672(M) |
| 70 Dibenzo(a,h)anthracene | 278 | 35.400 | 35.400 | (1.071) | 598757 | 2.50000 | 2.649(M) |
| 74 Benzo(g,h,i)perylene | 276 | 36.290 | 36.290 | (1.098) | 650289 | 2.50000 | 2.954(M) |

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421050402.D
Lab Smp Id: SJE0028-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210504.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 25 Fluorene-d10 | 560901 | 280451 | 1121802 | 560901 | 0.00 |
| 250 Anthracene-d10 | 511244 | 255622 | 1022488 | 511244 | 0.00 |
| 251 Benzo(e)pyrene-d1 | 574536 | 287268 | 1149072 | 574536 | 0.00 |

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

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

REVIEW SUMMARY FOR FILE - NT1421050402.D

Lab ID: SJE0028-ICV1
nt14.i,  20210504.b\ALKYLPNA.m,    04-MAY-2021 12:52

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

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

NONE

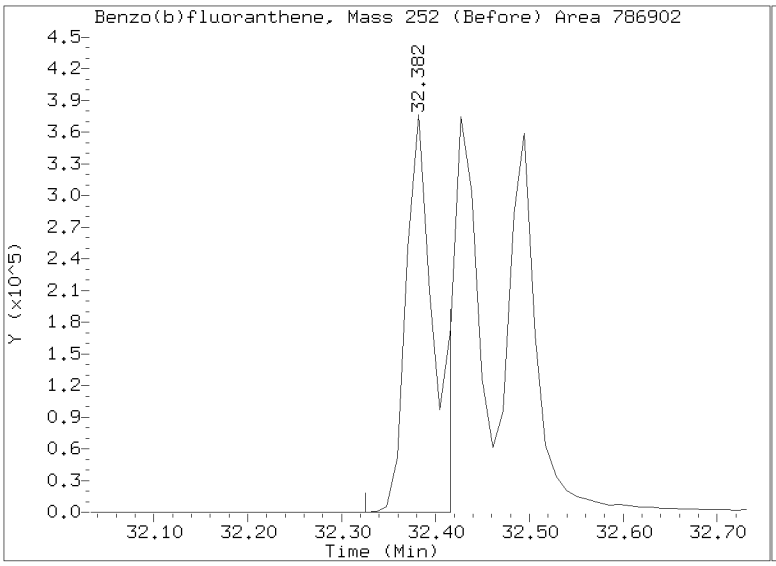
No RRT check.  Ccal file.

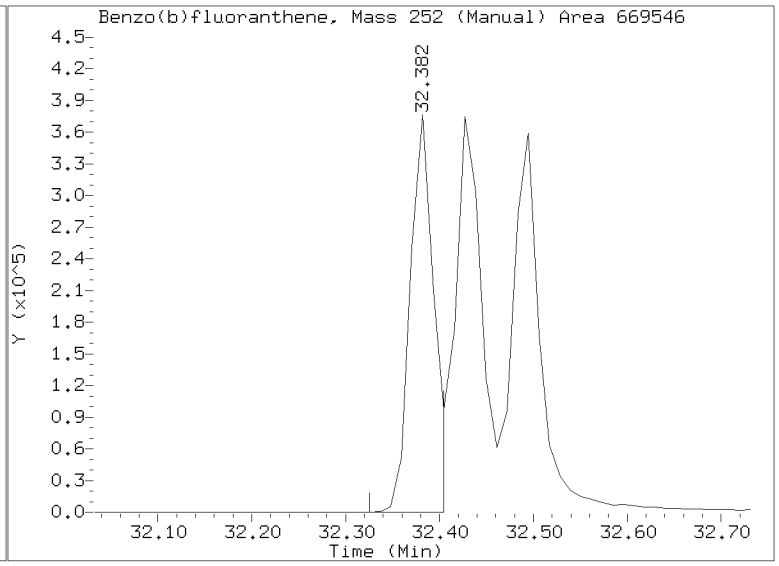
On Column LOD for nt14.i, 20210504.b\ALKYLPNA.m, TARGETS.sub = 0.0000

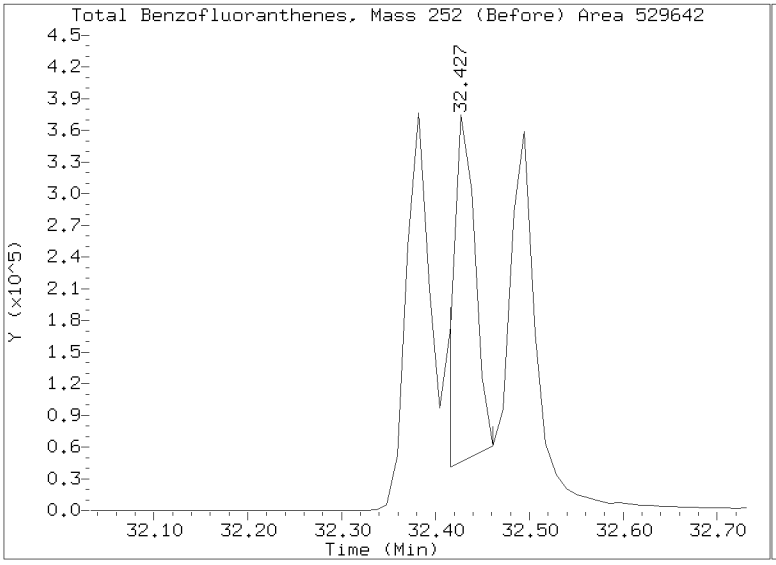
* Only compounds listed in the work order have been verified by the analyst *

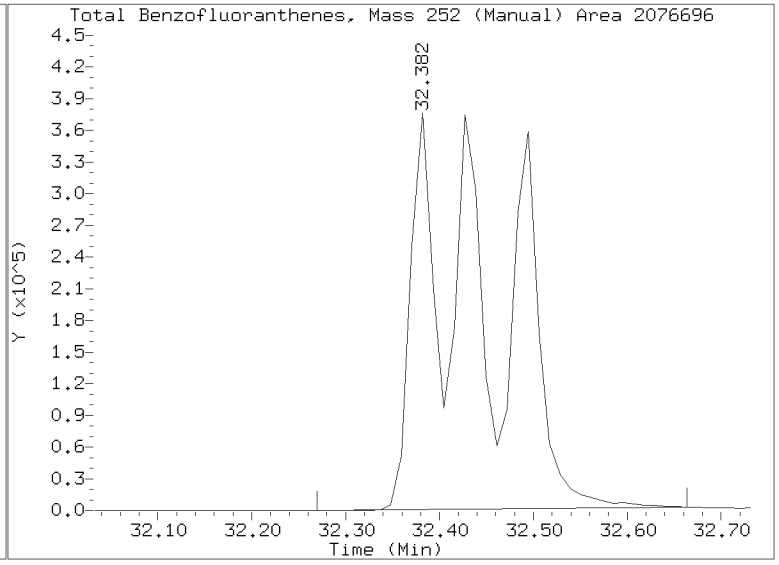
# Quant Ion Manual Peak Adjustment Report

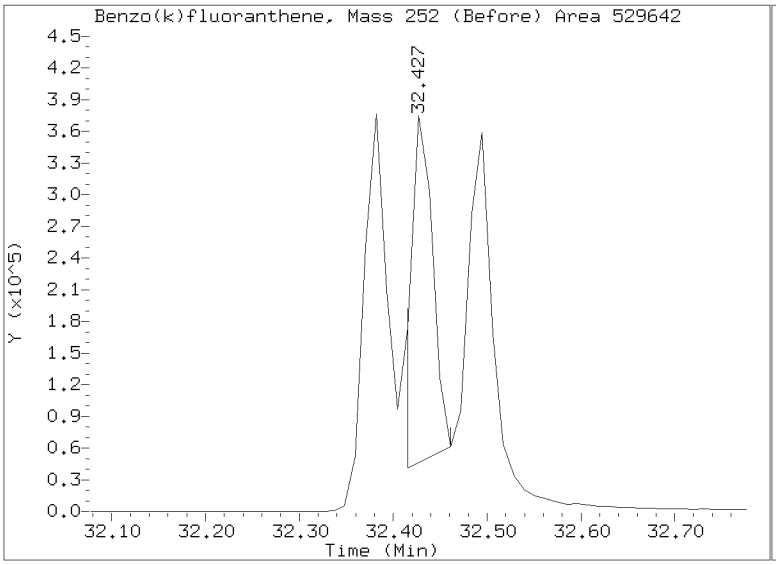
Datafile: //target/share/chem3/nt14.i/20210504.b/NT1421050402.D
Injection Date: 04-MAY-2021 12:52
Lab ID:SJE0028-ICV1 Client ID:
Report Date: 05/05/2021 12:34

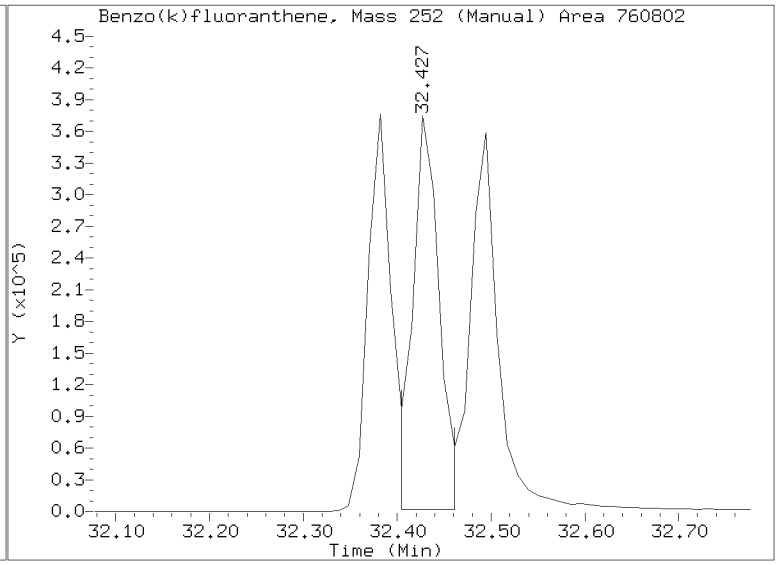


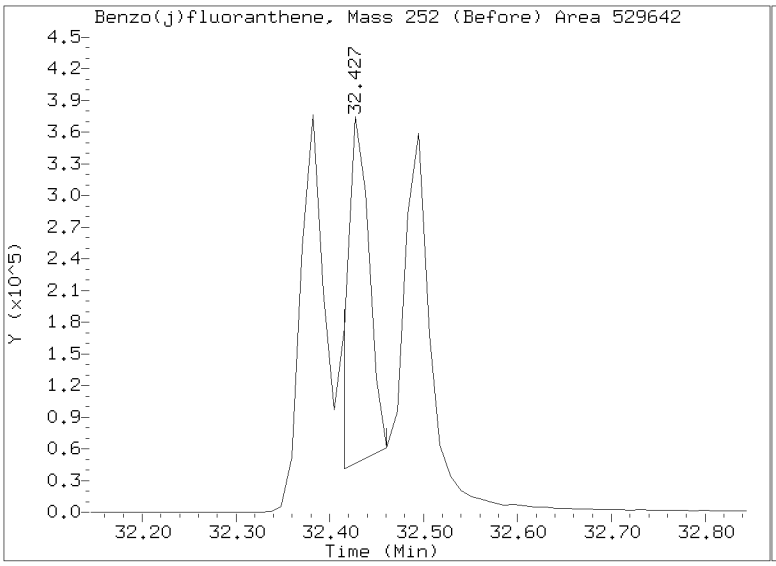



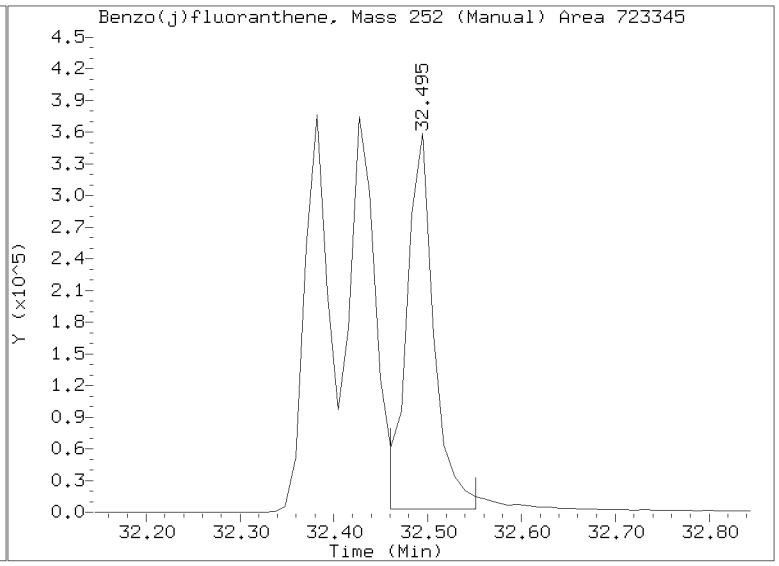



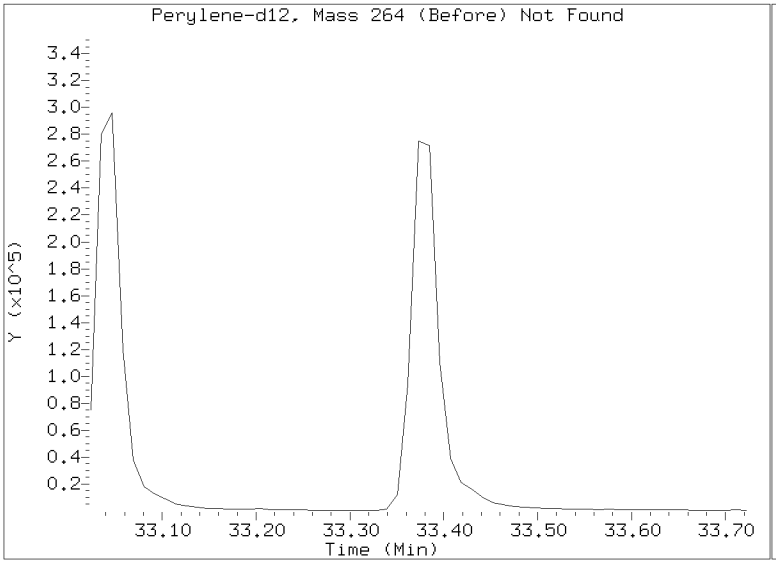



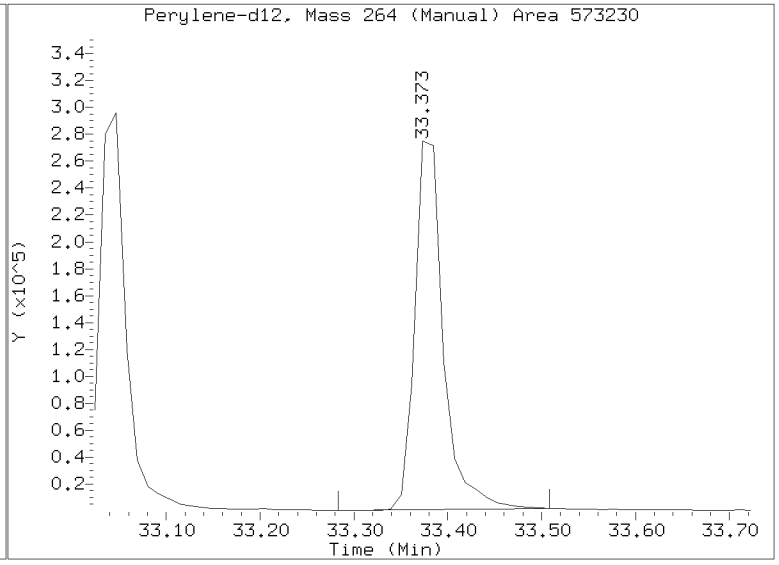
# Quant Ion Manual Peak Adjustment Report

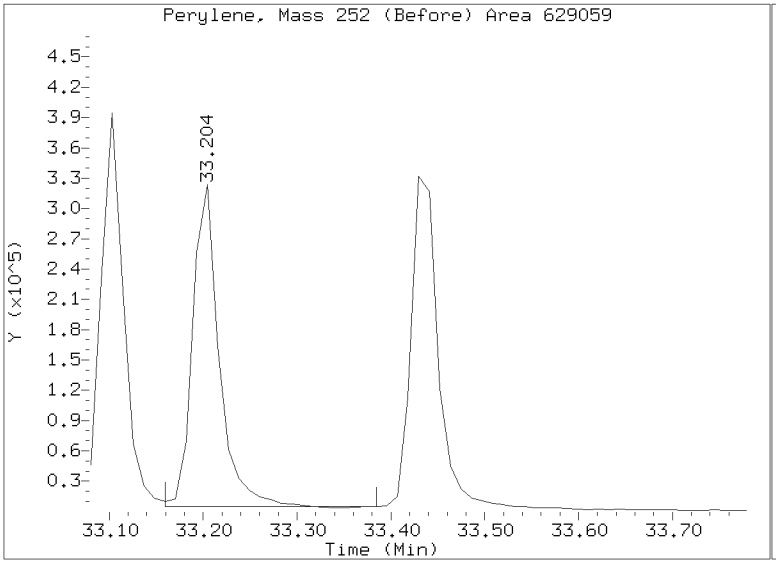
Datafile: //target/share/chem3/nt14.i/20210504.b/NT1421050402.D
Injection Date: 04-MAY-2021 12:52
Lab ID:SJE0028-ICV1 Client ID:
Report Date: 05/05/2021 12:34

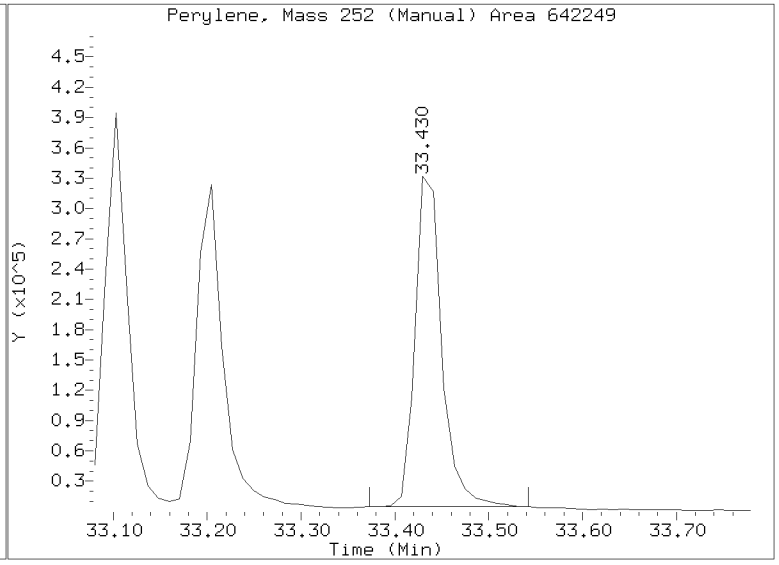


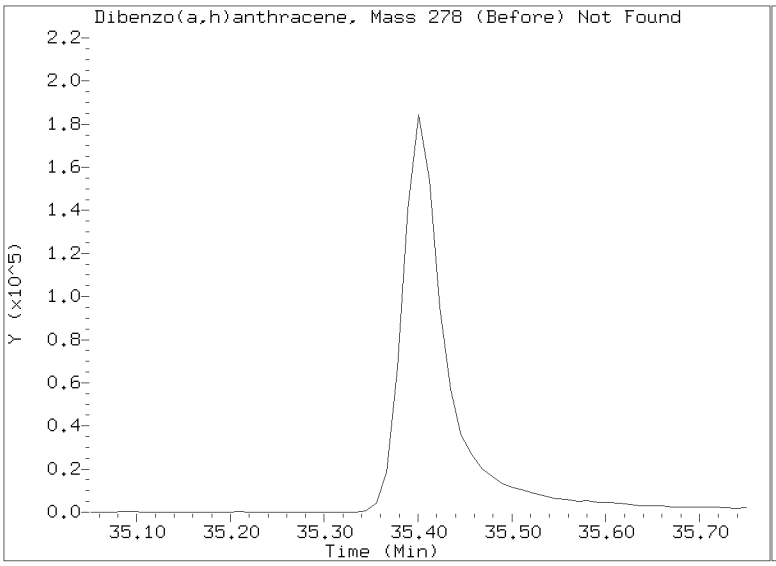



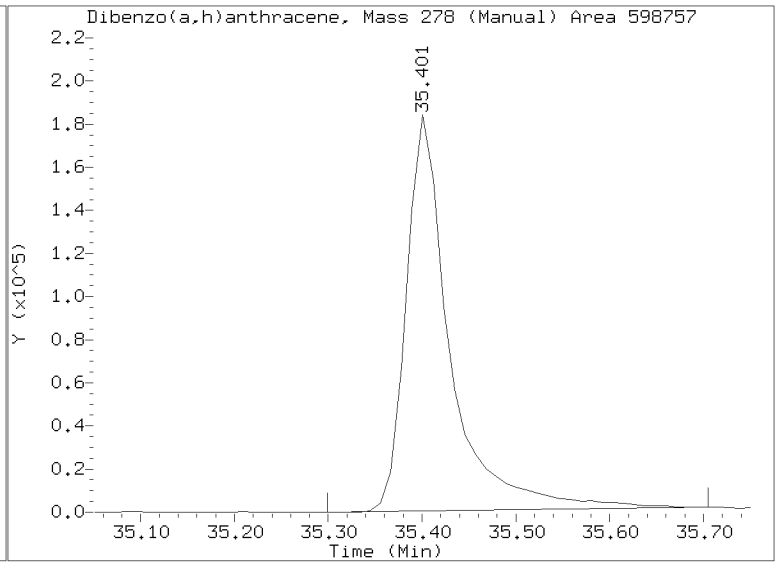



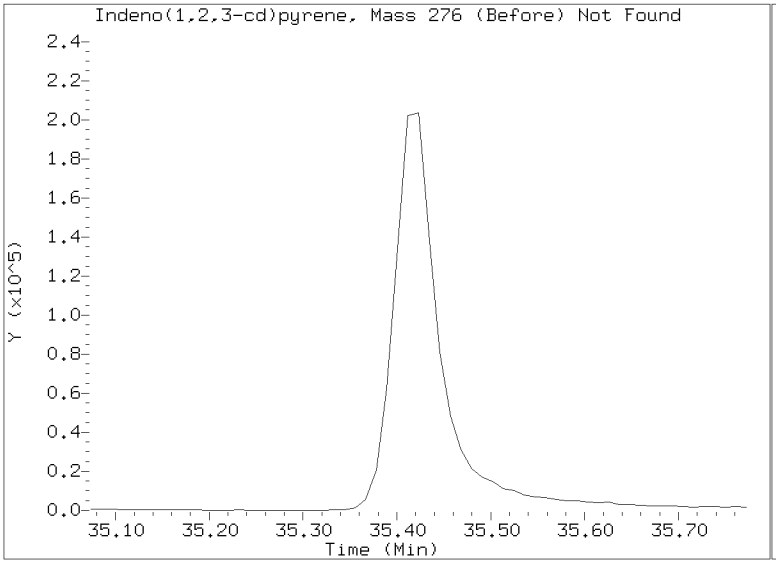



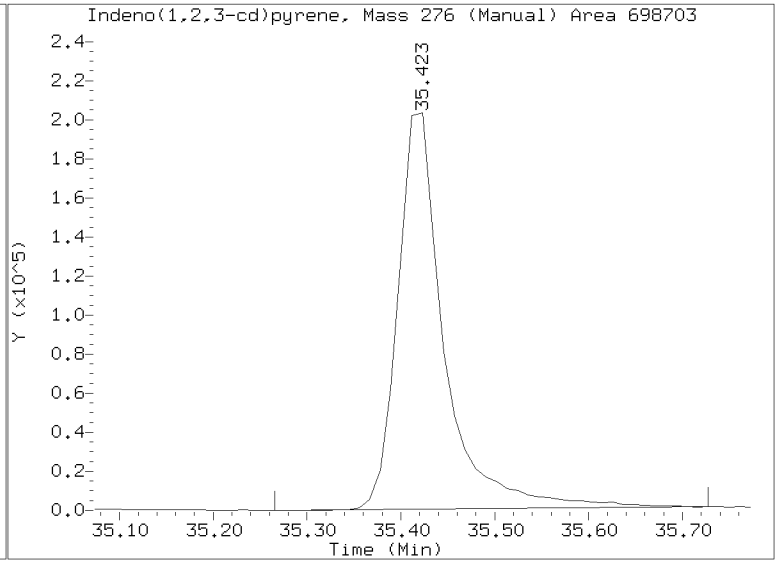
# Quant Ion Manual Peak Adjustment Report

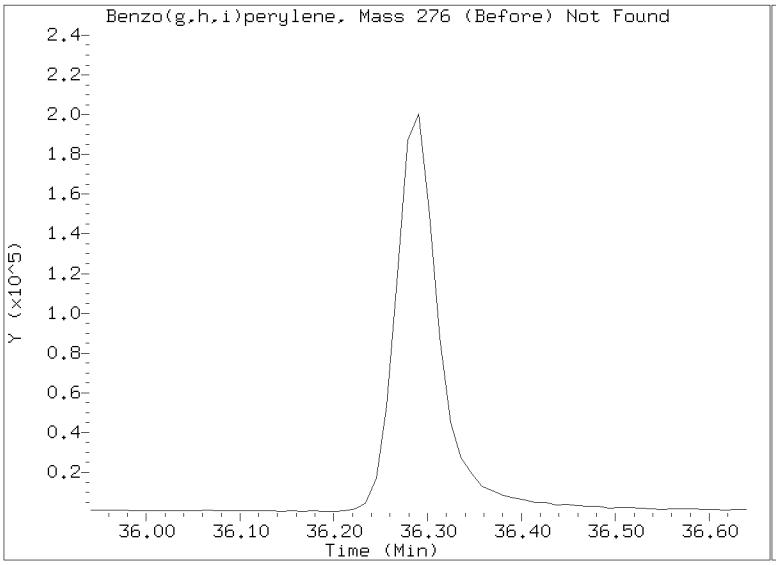
Datafile: //target/share/chem3/nt14.i/20210504.b/NT1421050402.D
Injection Date: 04-MAY-2021 12:52
Lab ID:SJE0028-ICV1 Client ID:
Report Date: 05/05/2021 12:34

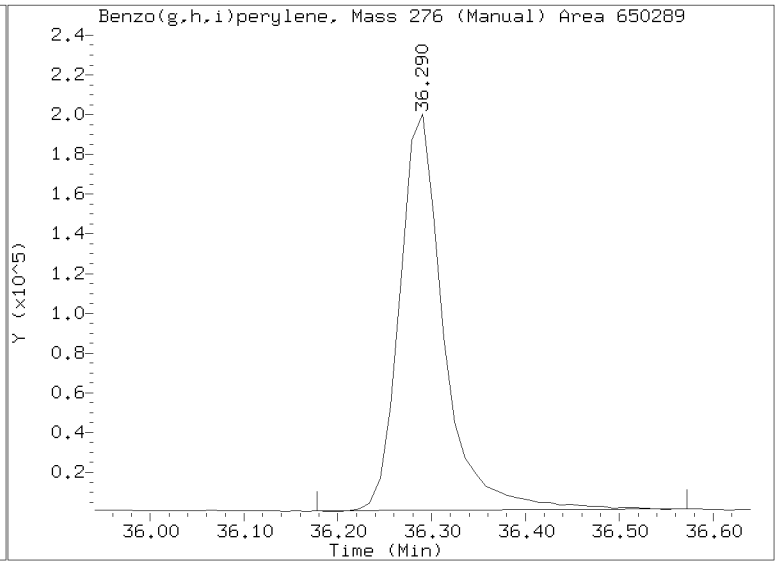


Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210504.b

Instrument: nt14.i  Date: 04-MAY-2021  Method: 20210504.b\ALKYLPNA.m

INITIAL CAL: 30-APR-2021

| Compound | %RSD or R^2 |
|---|---|
| NO Q-FLAGS | |

ICV CAL: NT1421050402.D  04-MAY-2021 12:52

| Compound | %D |
|---|---|
| Acenaphthylene | 25.9 |
| Dibenzothiophene | 21.0 |
| 1,6,7-Trimethylnaphthalene | 23.9 |

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# SECOND-SOURCE
# CONTINUING CALIBRATION CHECK
## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | NT11 | Calibration: | DH00073 |
| Lab File ID: | NT1120082708.D | Calibration Date: | 08/27/2020 |
| Sequence: | SIH0304 | Injection Date: | 08/27/20 |
| Lab Sample ID: | SIH0304-SCV1 | Injection Time: | 15:38 |
| Sequence Name: | PAH 250 SCV | | |

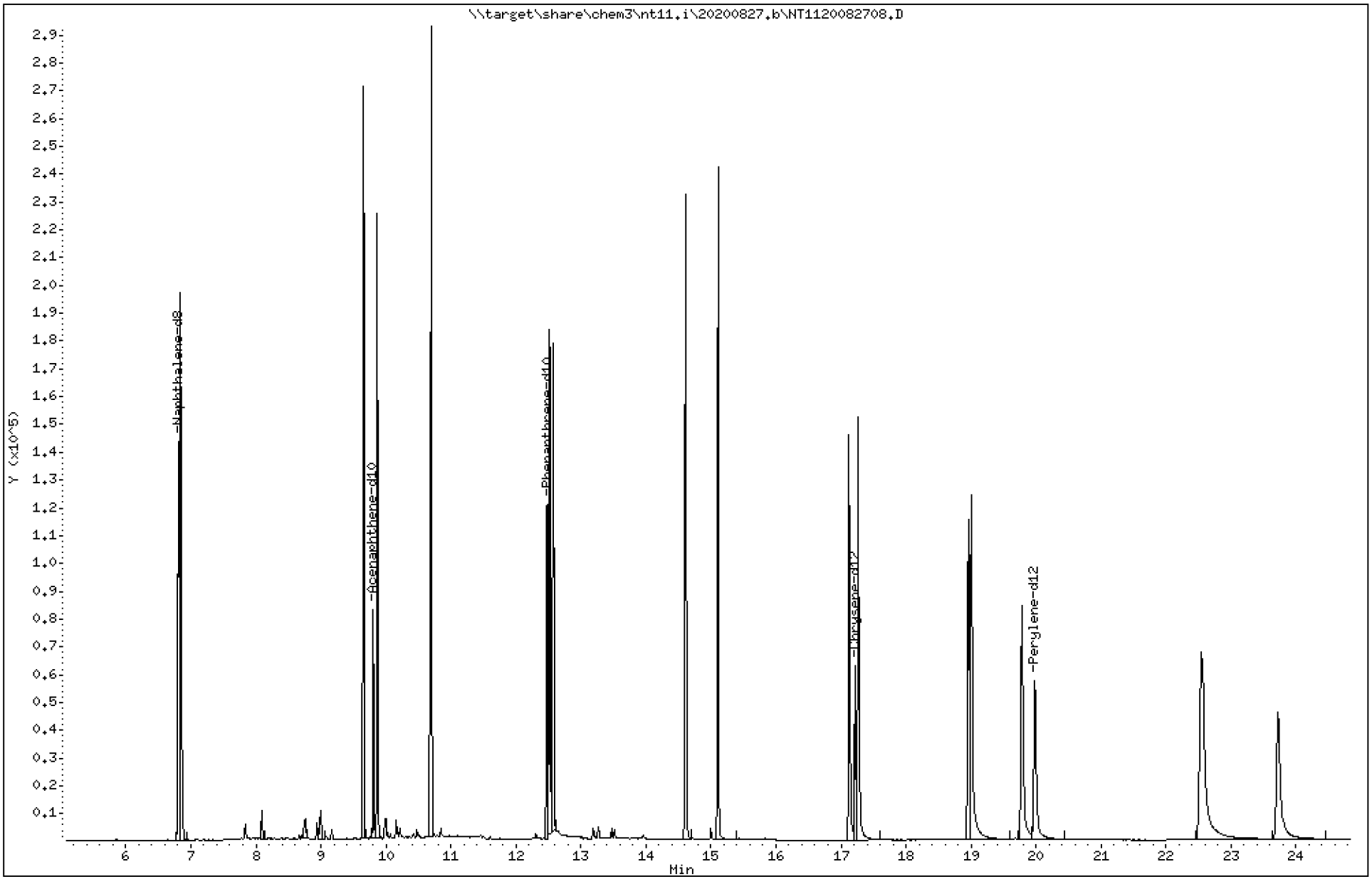
| | | CONC. (ng/mL) | | RESPONSE FACTOR (RRF) | | | % DRIFT/DIFF | | |
|---|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN | CCV | LIMIT | |
| Naphthalene | A | 250.00 | 224 | 1.1612470 | 1.0427060 | | -10.2 | +/-20 | |
| Acenaphthylene | A | 250.00 | 233 | 2.2945630 | 2.1409260 | | -6.7 | +/-20 | |
| Acenaphthene | A | 250.00 | 222 | 1.5175830 | 1.3472150 | | -11.2 | +/-20 | |
| Fluorene | A | 250.00 | 233 | 1.5604500 | 1.4573750 | | -6.6 | +/-20 | |
| Phenanthrene | A | 250.00 | 233 | 1.3083250 | 1.2168170 | | -7.0 | +/-20 | |
| Anthracene | A | 250.00 | 223 | 1.3072390 | 1.1639480 | | -11.0 | +/-20 | |
| Fluoranthene | A | 250.00 | 236 | 1.3043810 | 1.2324390 | | -5.5 | +/-20 | |
| Pyrene | A | 250.00 | 235 | 1.3381820 | 1.2585060 | | -6.0 | +/-20 | |
| Benzo(a)anthracene | A | 250.00 | 223 | 1.4691530 | 1.3105600 | | -10.8 | +/-20 | |
| Chrysene | A | 250.00 | 215 | 1.6542610 | 1.4247980 | | -13.9 | +/-20 | |
| Benzo(b)fluoranthene | A | 250.00 | 212 | 1.0886210 | 0.9248430 | | -15.0 | +/-20 | |
| Benzo(k)fluoranthene | A | 250.00 | 260 | 1.4304320 | 1.4893160 | | 4.1 | +/-20 | |
| Benzofluoranthenes, Total | A | 500.00 | 473 | 1.3549610 | 1.2070800 | | -5.5 | | |
| Benzo(a)pyrene | A | 250.00 | 213 | 1.1369780 | 0.9691179 | | -14.8 | +/-20 | |
| Indeno(1,2,3-cd)pyrene | A | 250.00 | 227 | 1.1041170 | 1.0017760 | | -9.3 | +/-20 | |
| Dibenzo(a,h)anthracene | A | 250.00 | 192 | 0.8775199 | 0.7181910 | | -23.2 | +/-20 | * |
| Benzo(g,h,i)perylene | A | 250.00 | 214 | 1.1039640 | 0.9470106 | | -14.2 | +/-20 | |

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D
Date : 27-AUG-2020 15:38
Client ID:
Sample Info: SIH0304-SCV1

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS




Revised Report 21D0180 07/07/2021 Page 1089 of 1709

Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

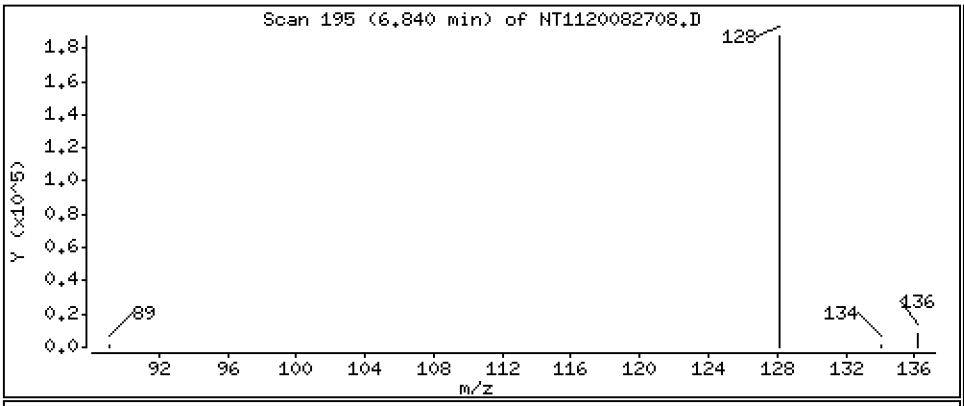
Operator: VTS

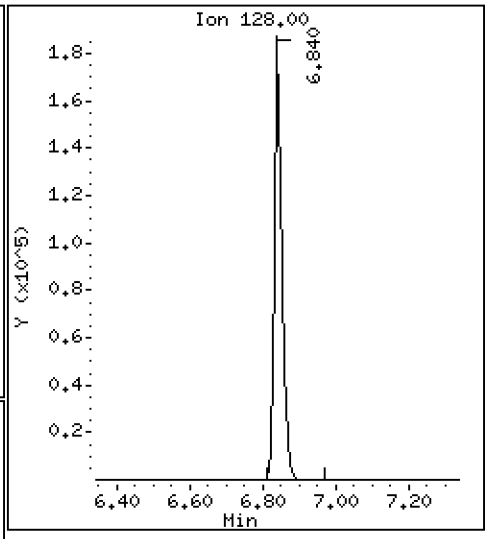
Column phase: Rxi-17Sil MS

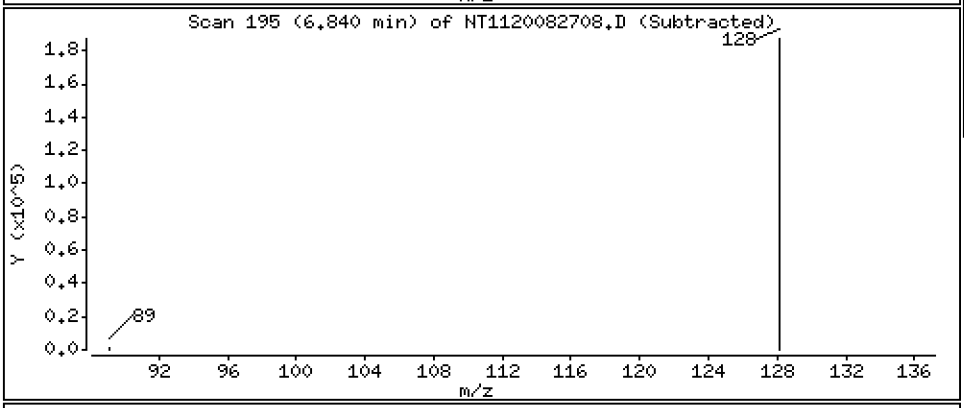
Column diameter: 0.25

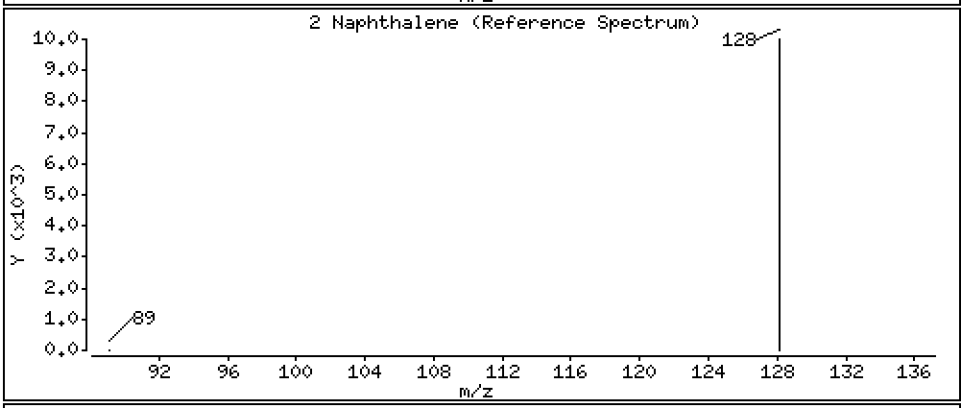
2 Naphthalene

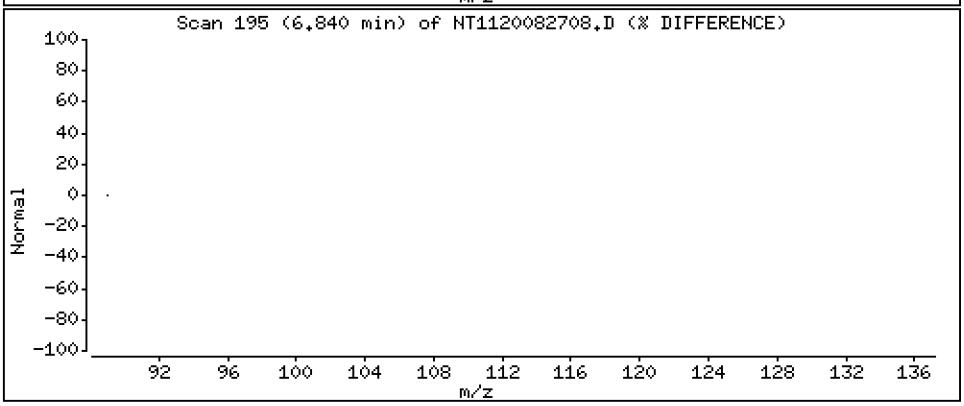
Concentration: 224 ng/mL



Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

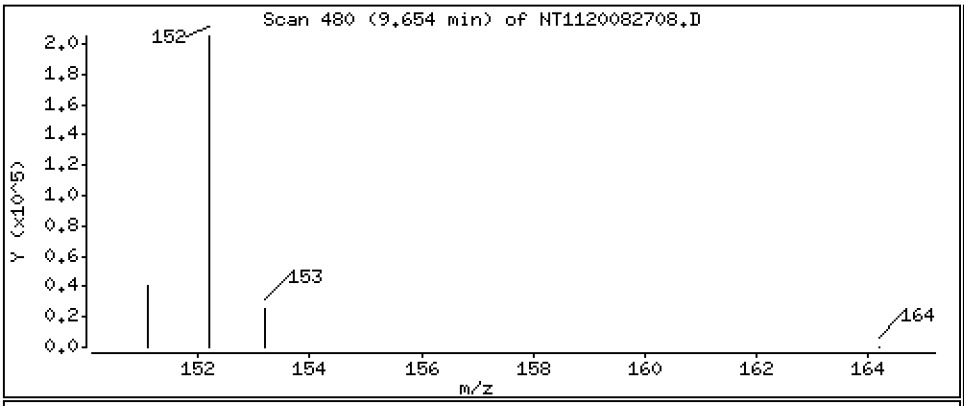
Operator: VTS

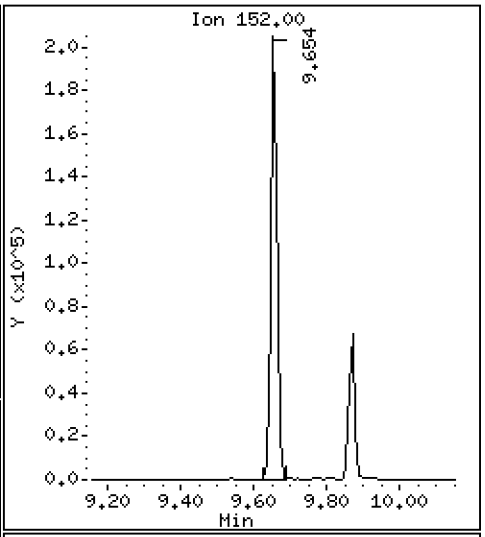
Column phase: Rxi-17Sil MS

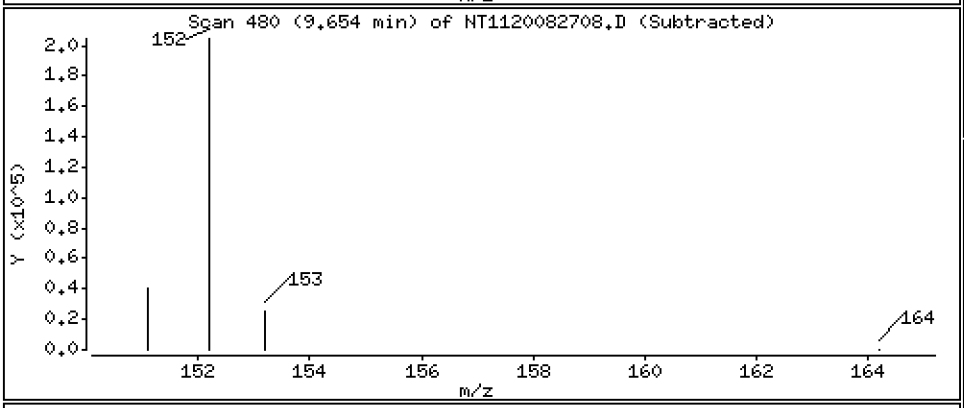
Column diameter: 0.25

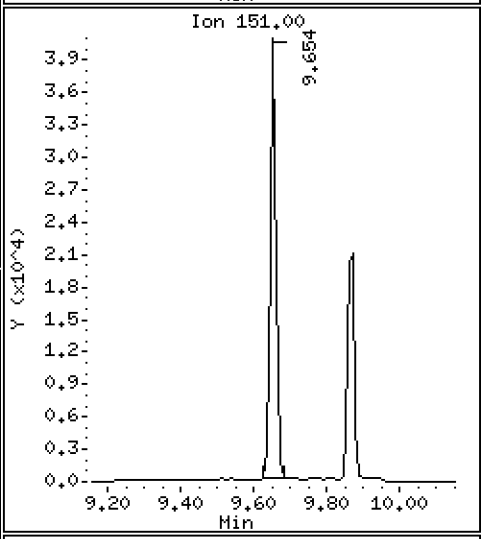
10 Acenaphthylene

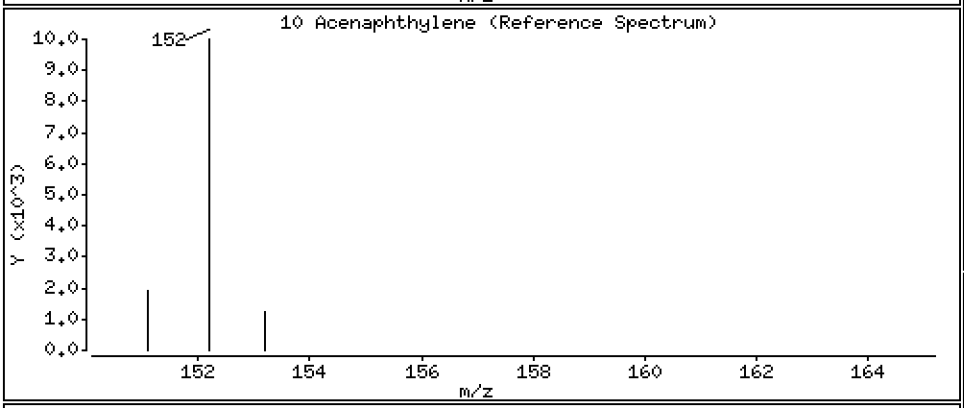
Concentration: 233 ng/mL

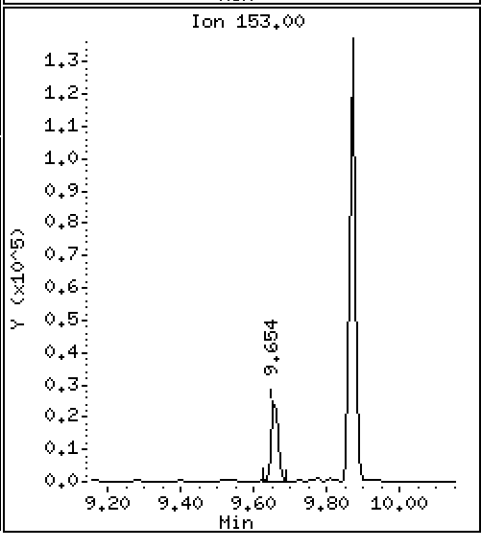


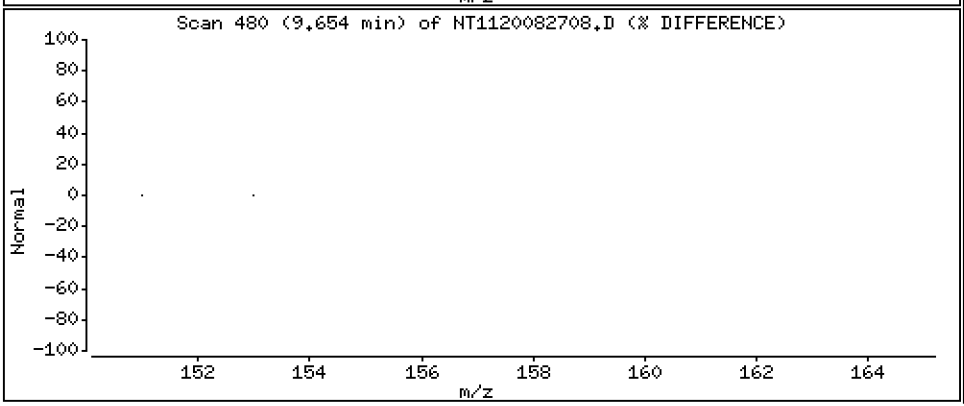



Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

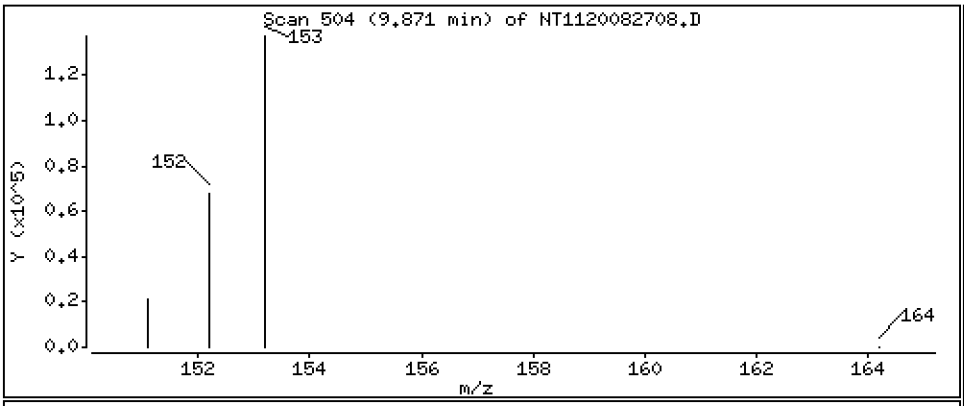
Operator: VTS

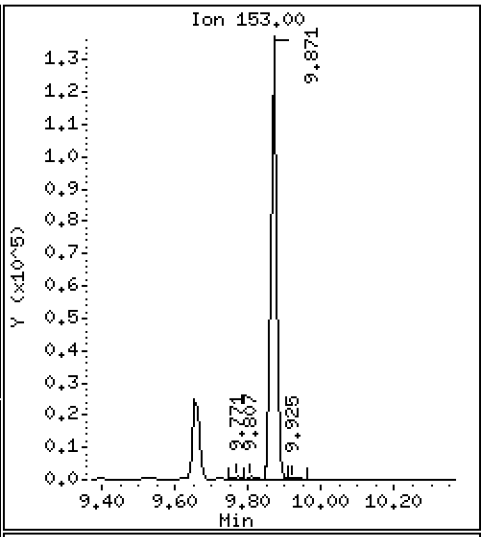
Column phase: Rxi-17Sil MS

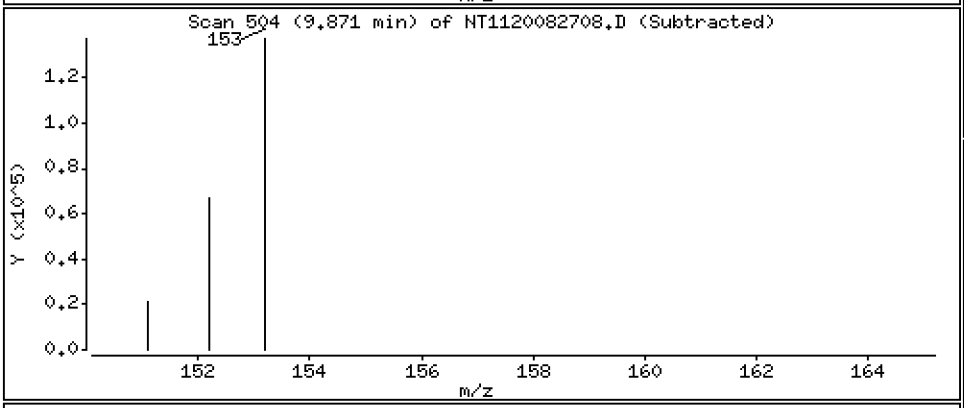
Column diameter: 0.25

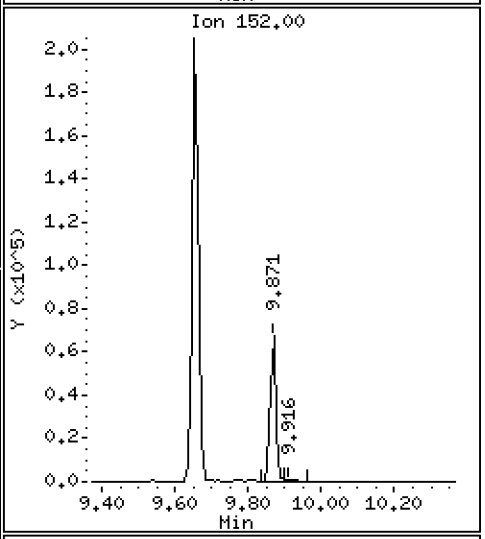
12 Acenaphthene

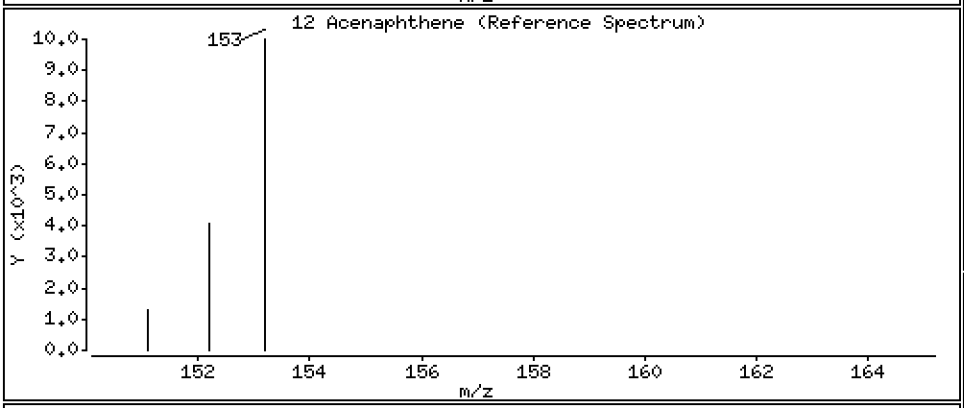
Concentration: 222 ng/mL

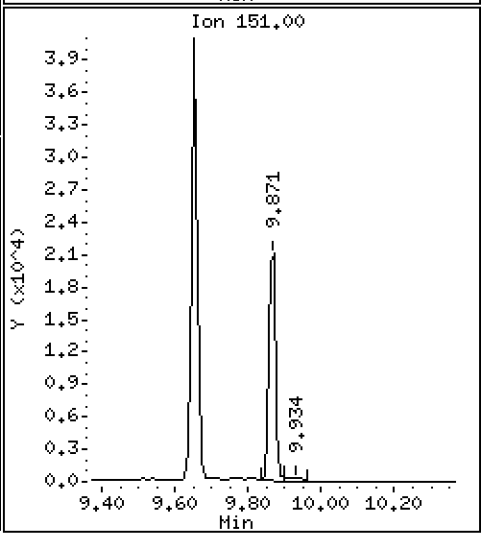


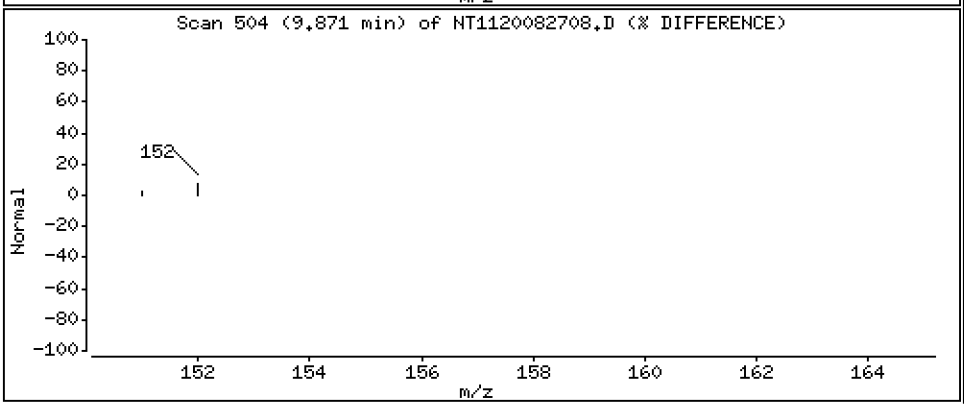



Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

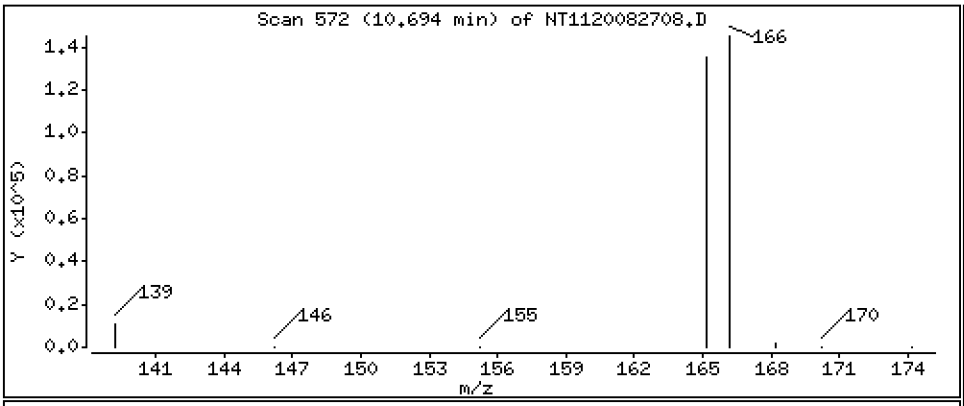
Operator: VTS

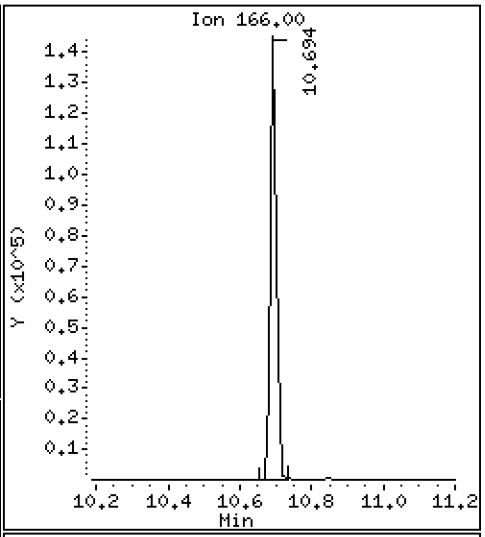
Column phase: Rxi-17Sil MS

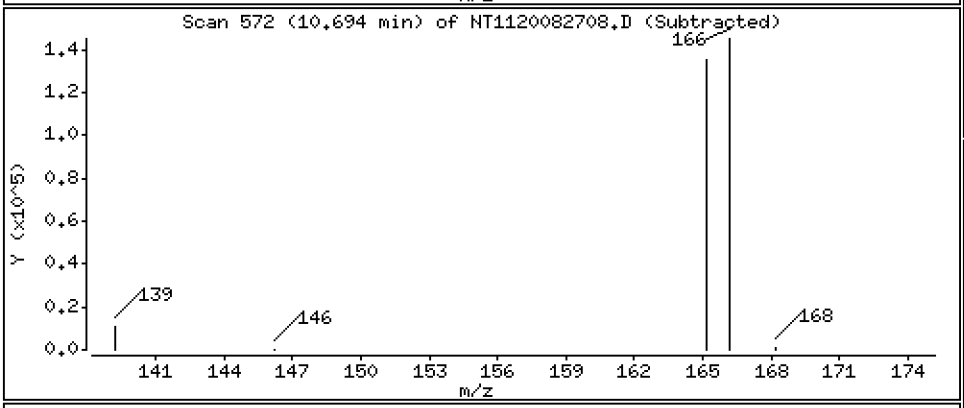
Column diameter: 0.25

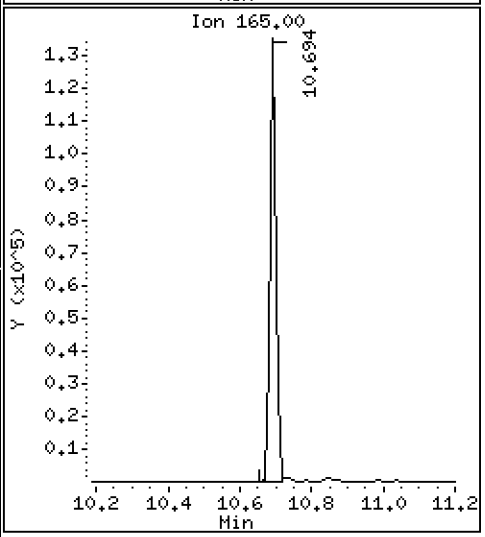
16 Fluorene

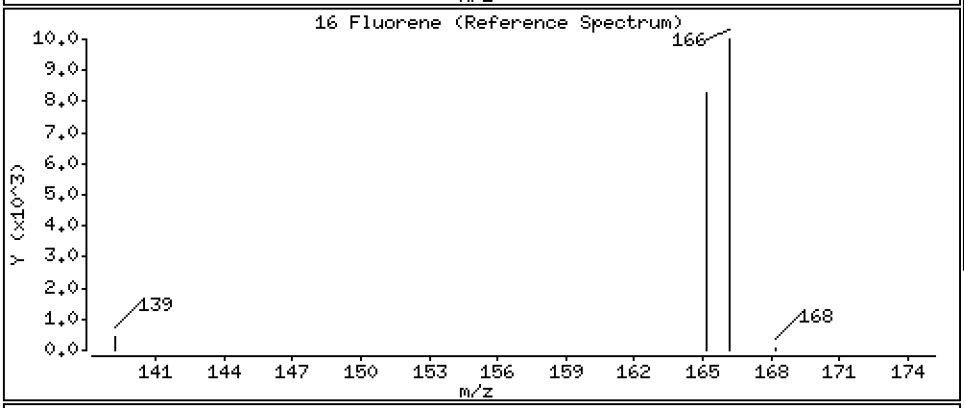
Concentration: 233 ng/mL

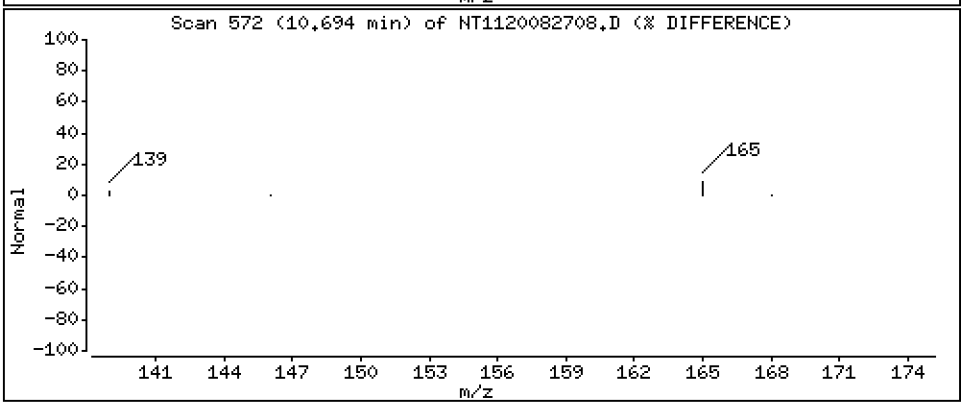


Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

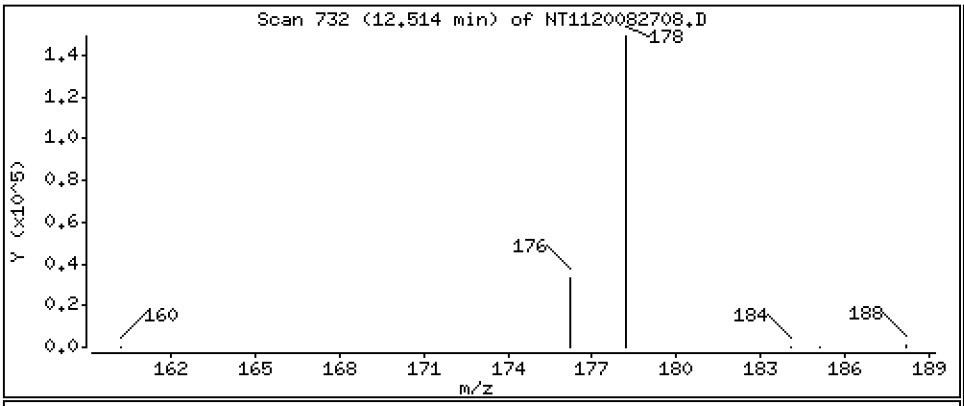
Operator: VTS

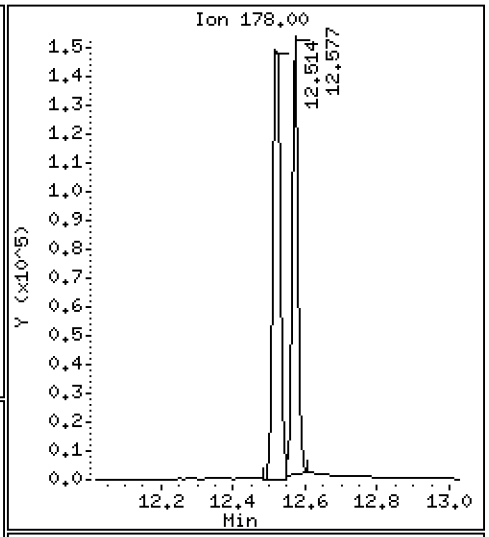
Column phase: Rxi-17Sil MS

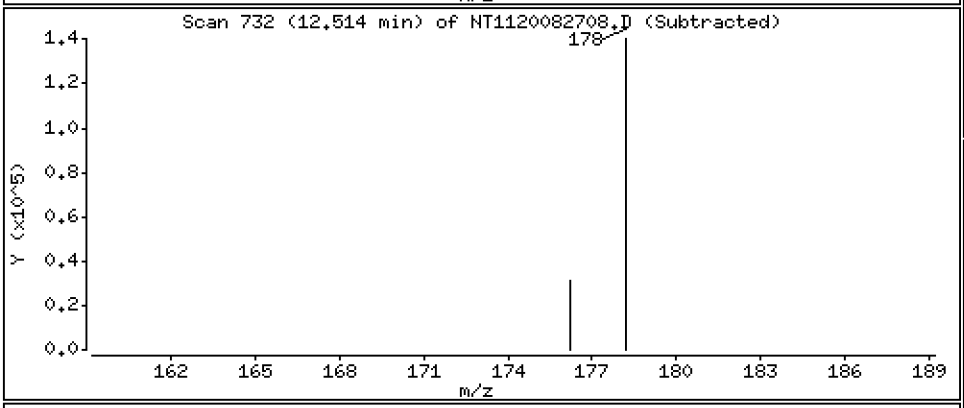
Column diameter: 0.25

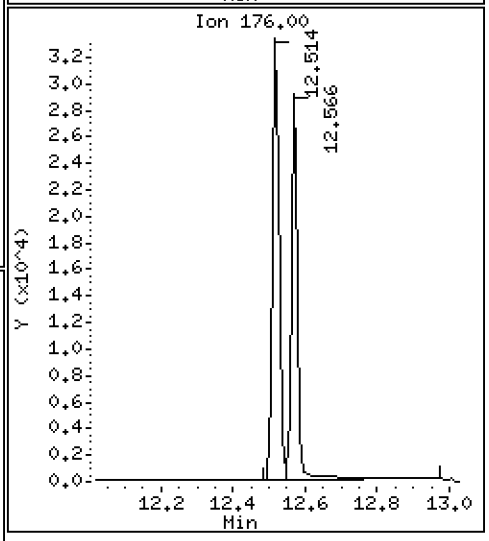
19 Phenanthrene

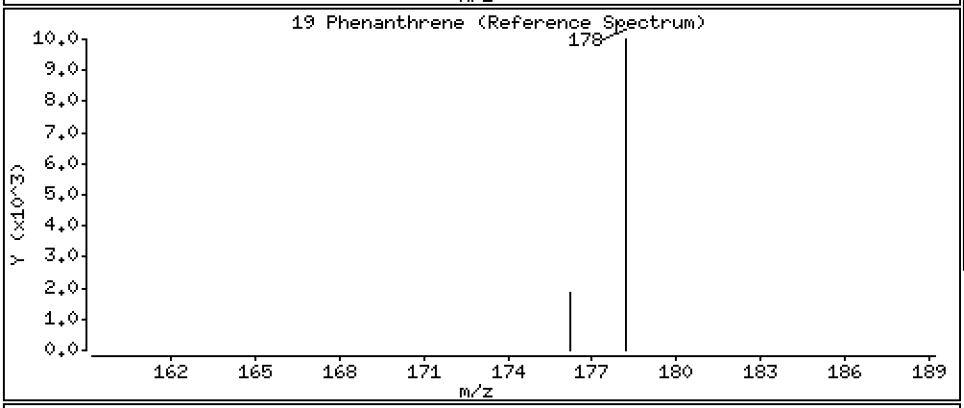
Concentration: 233 ng/mL

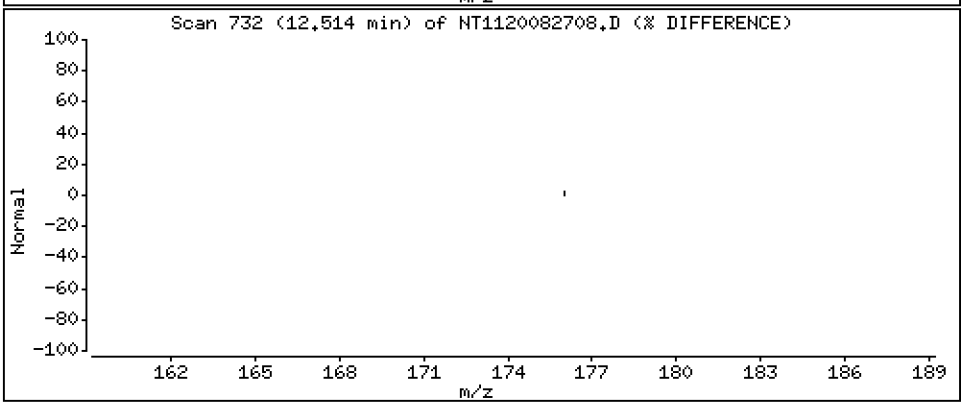


Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

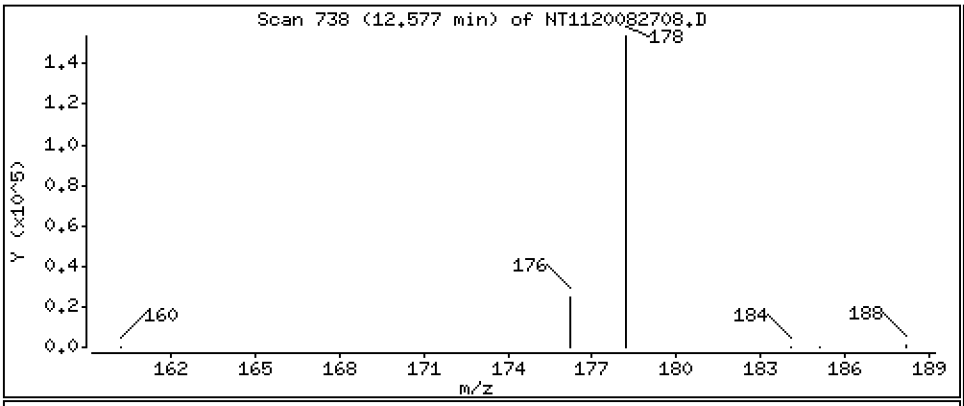
Operator: VTS

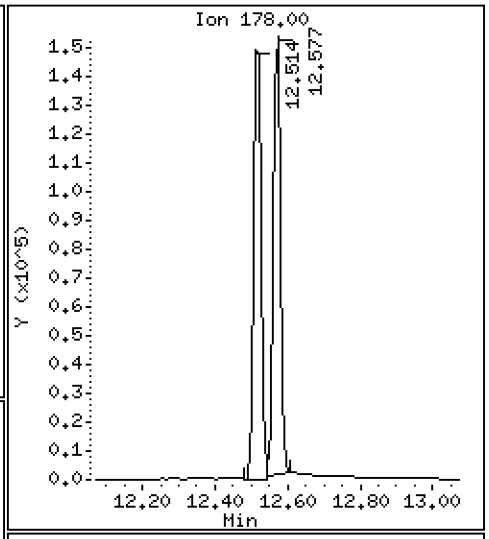
Column phase: Rxi-17Sil MS

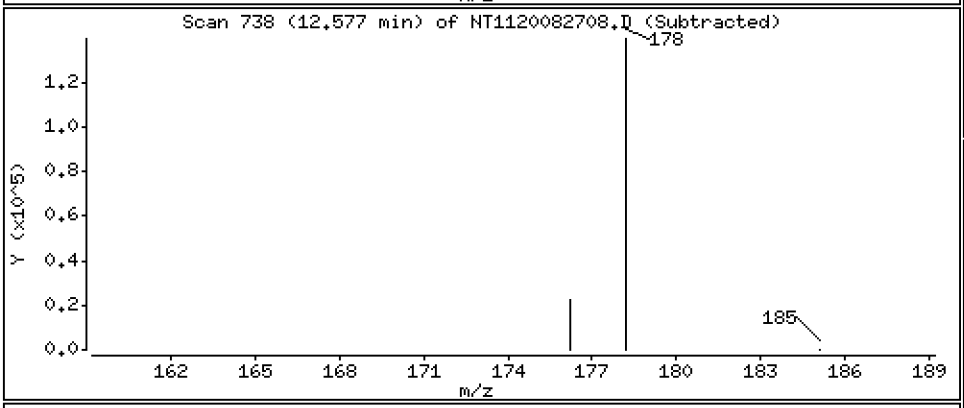
Column diameter: 0.25

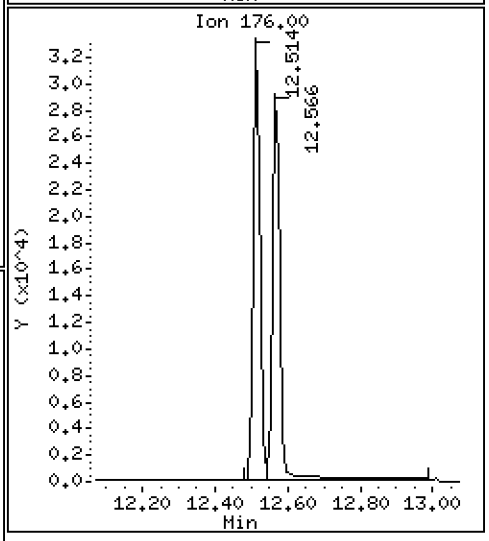
21 Anthracene

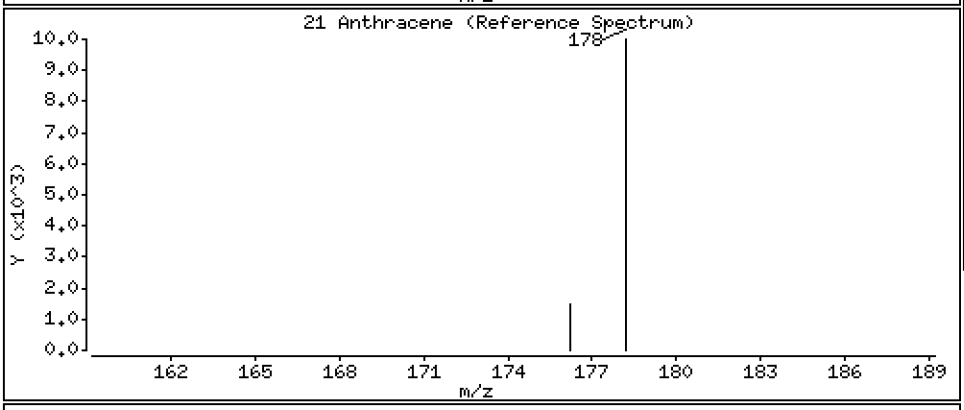
Concentration: 223 ng/mL

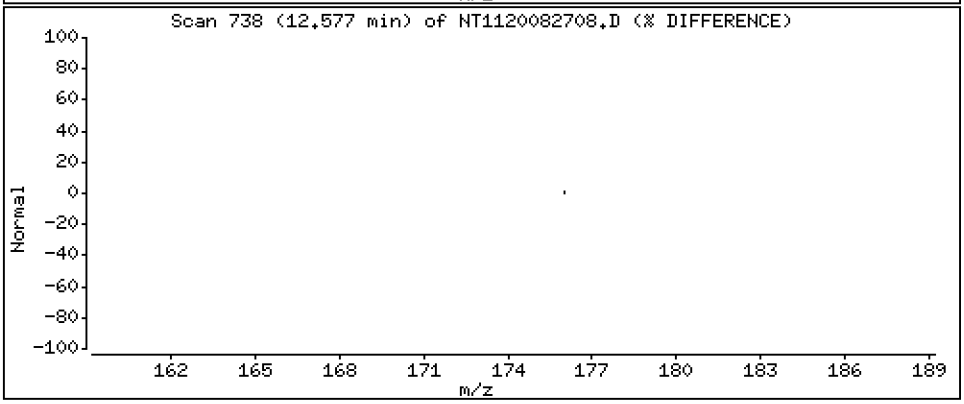


Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

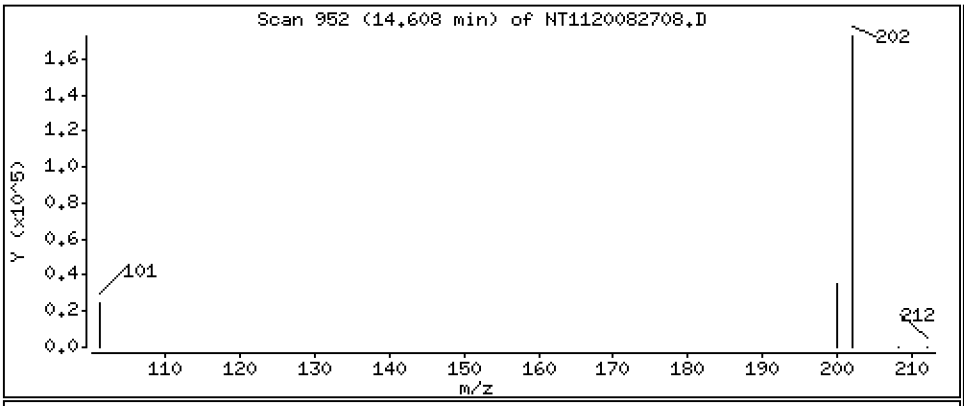
Operator: VTS

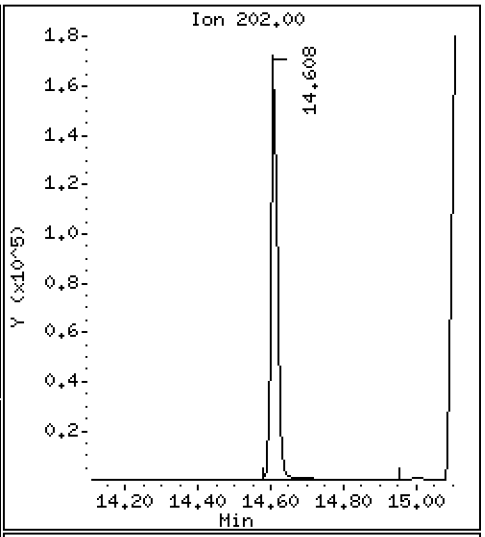
Column phase: Rxi-17Sil MS

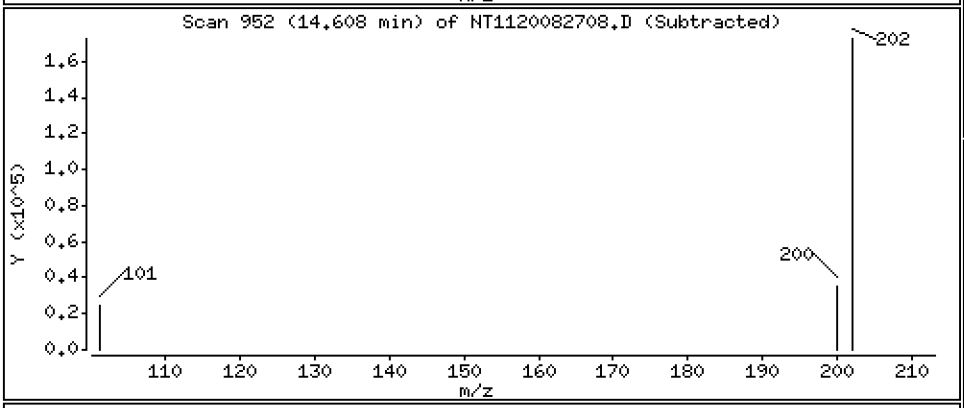
Column diameter: 0.25

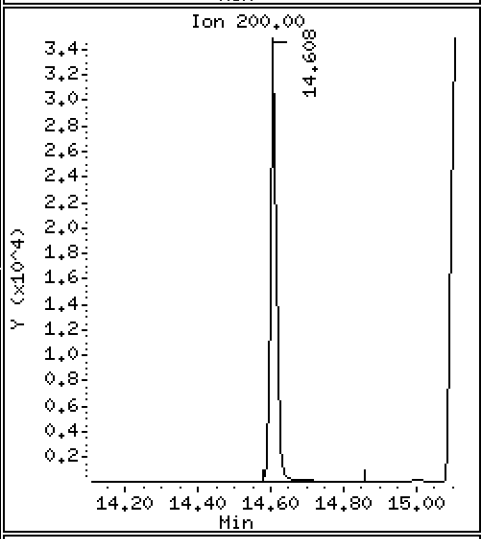
25 Fluoranthene

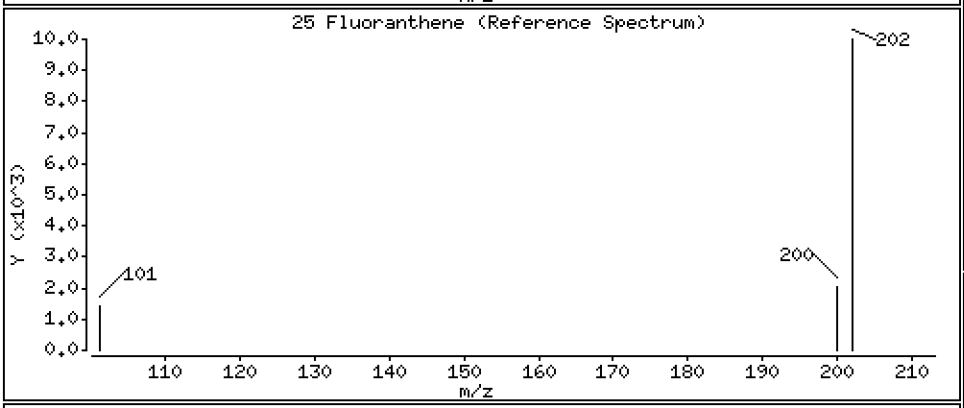
Concentration: 236 ng/mL

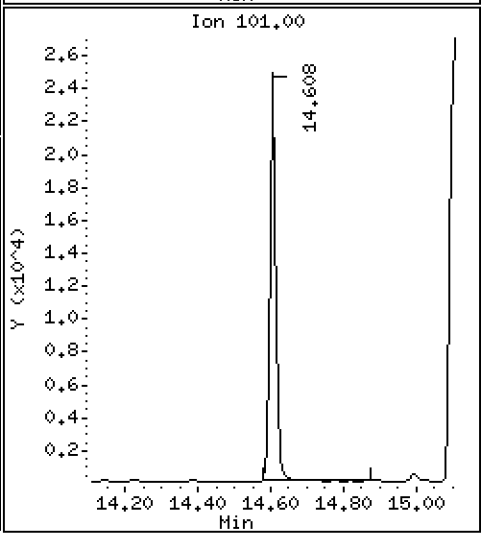


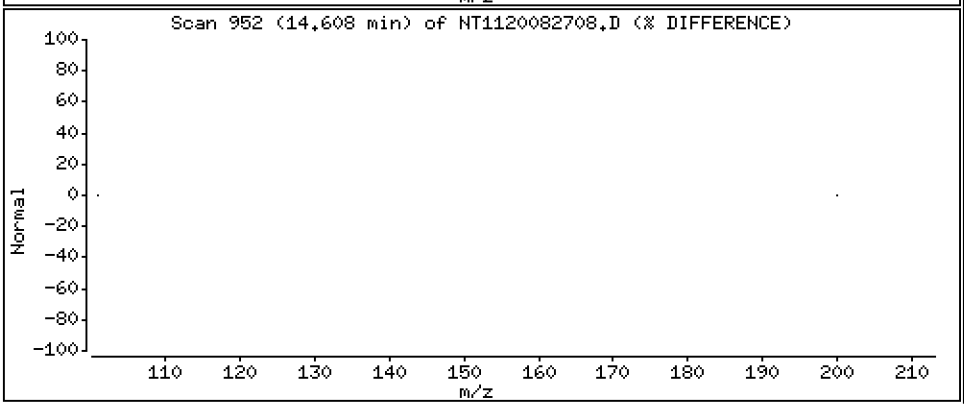



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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

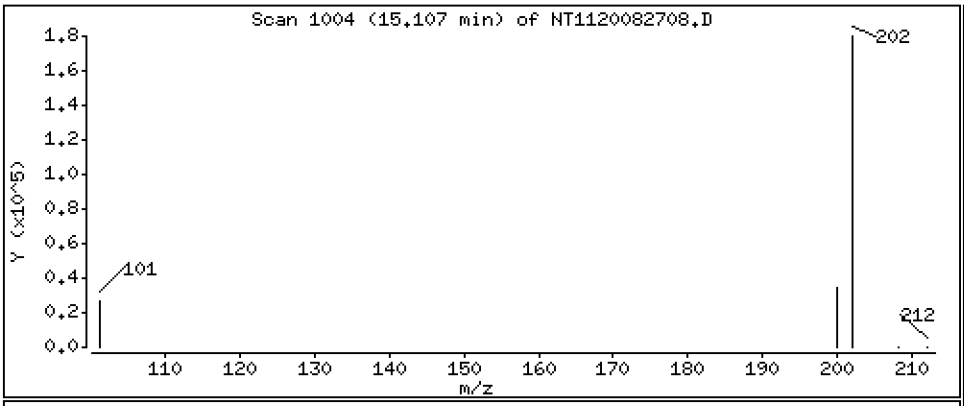
Operator: VTS

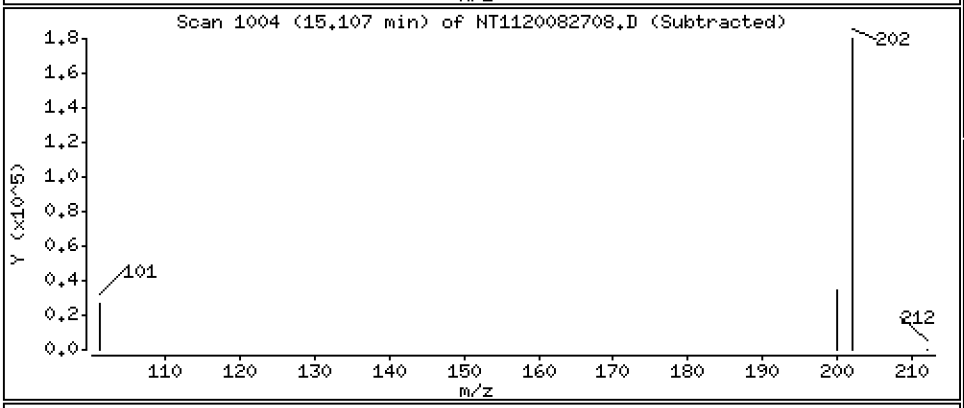
Column phase: Rxi-17Sil MS

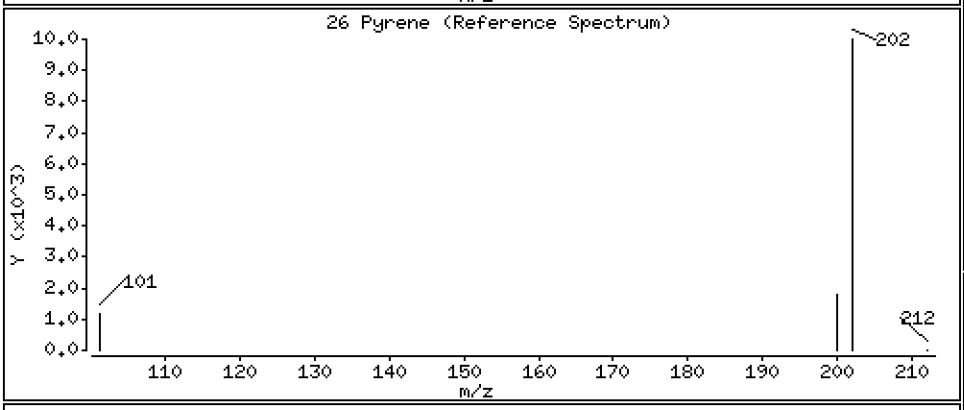
Column diameter: 0.25

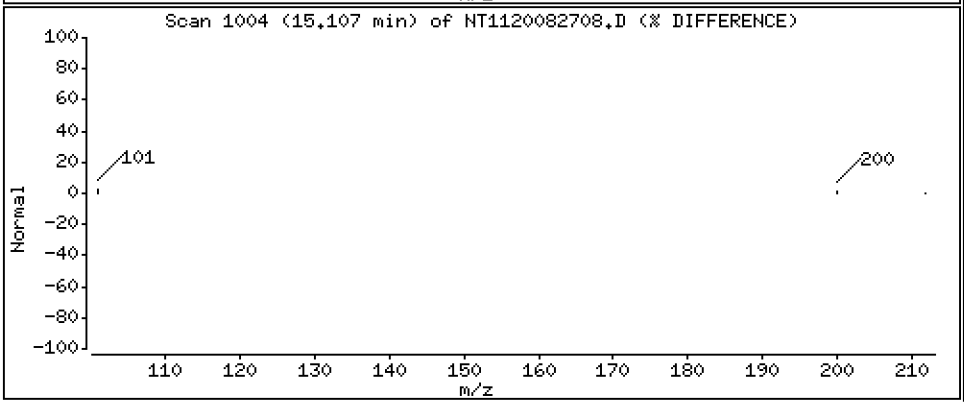
26 Pyrene

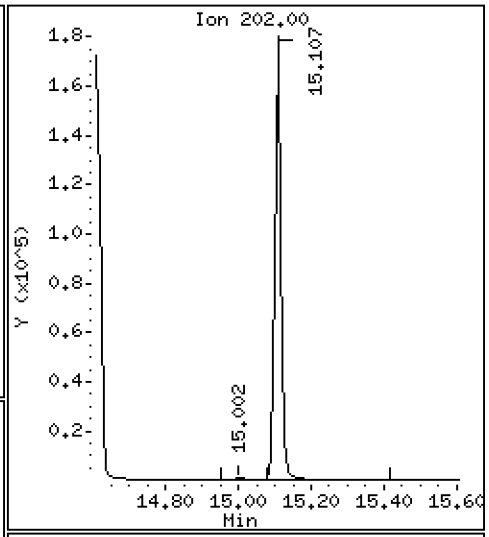
Concentration: 235 ng/mL

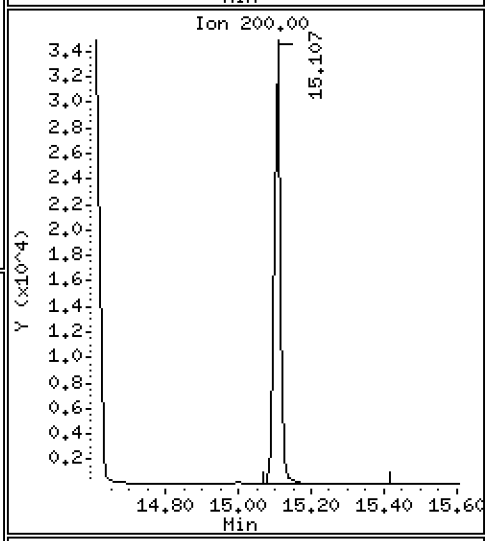


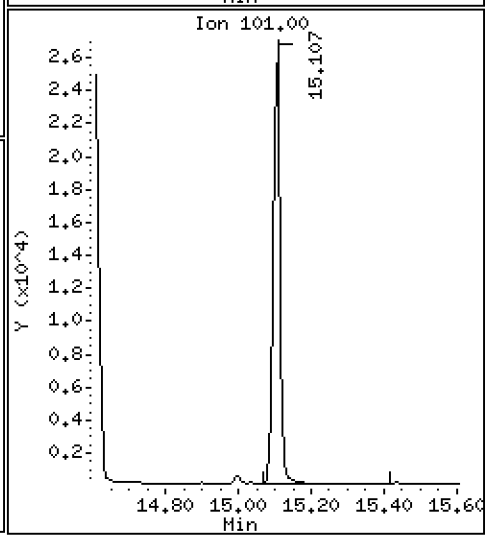



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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

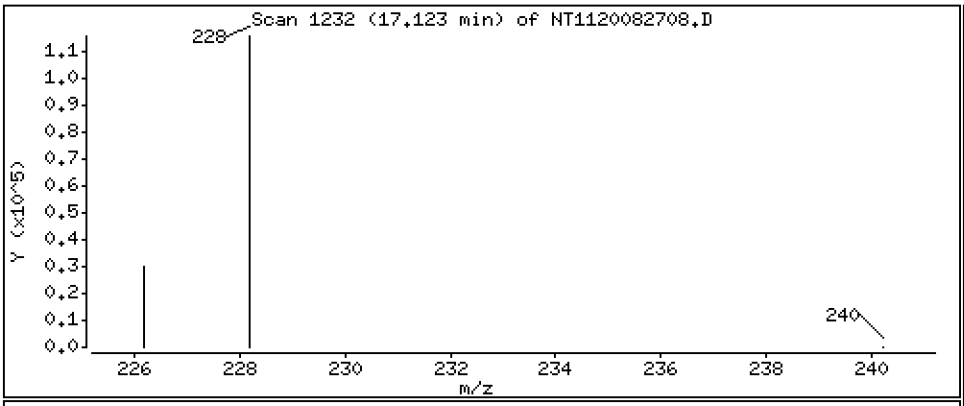
Operator: VTS

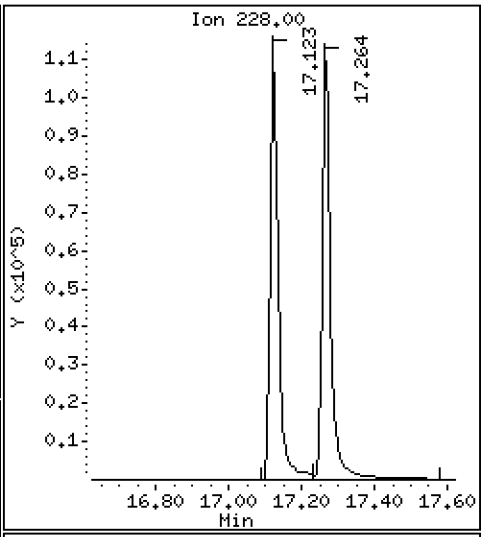
Column phase: Rxi-17Sil MS

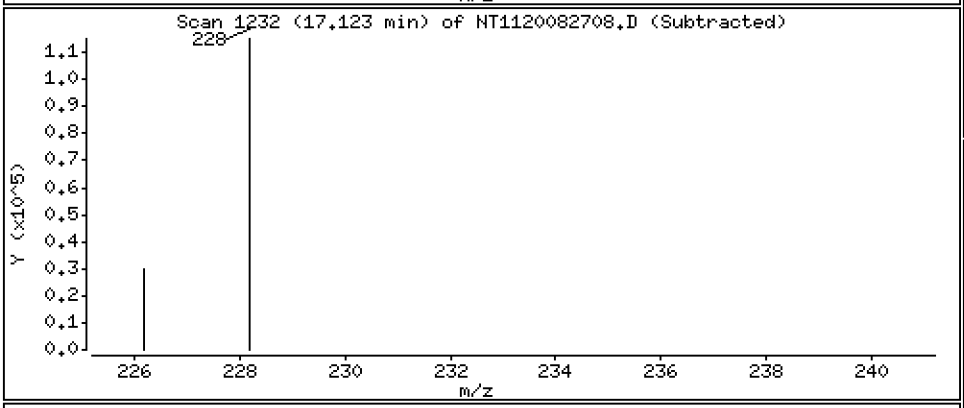
Column diameter: 0.25

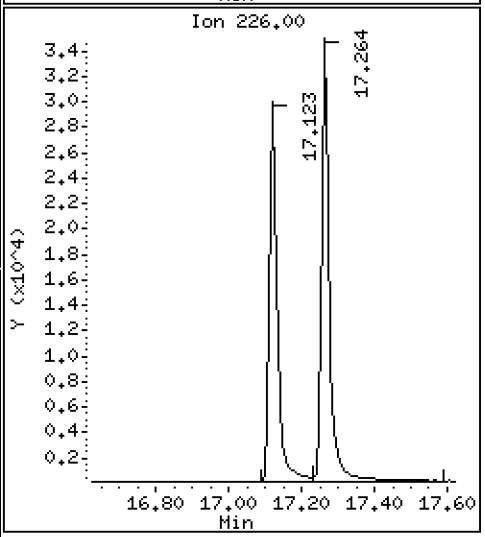
27 Benzo(a)anthracene

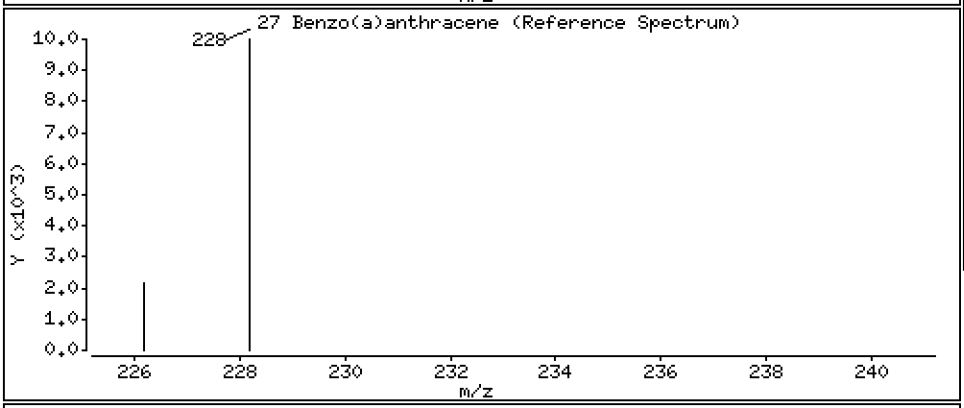
Concentration: 223 ng/mL

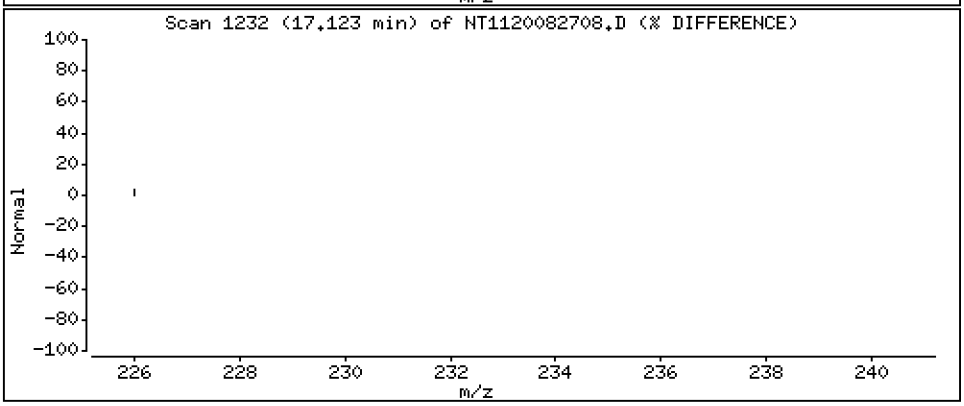


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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

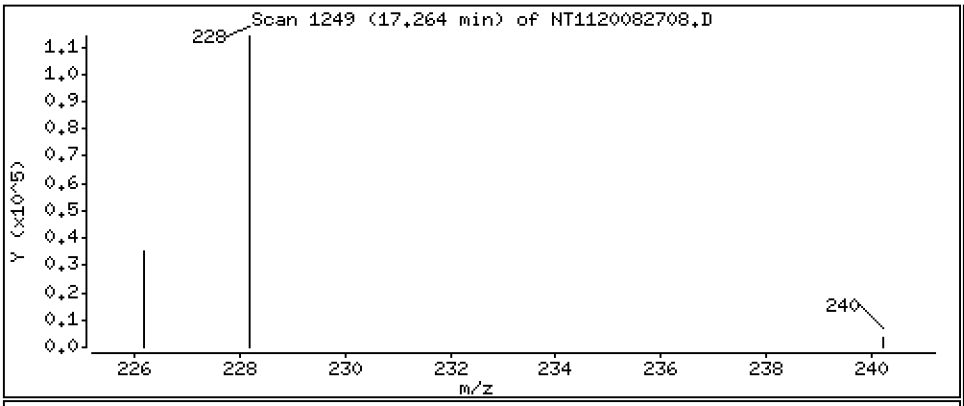
Operator: VTS

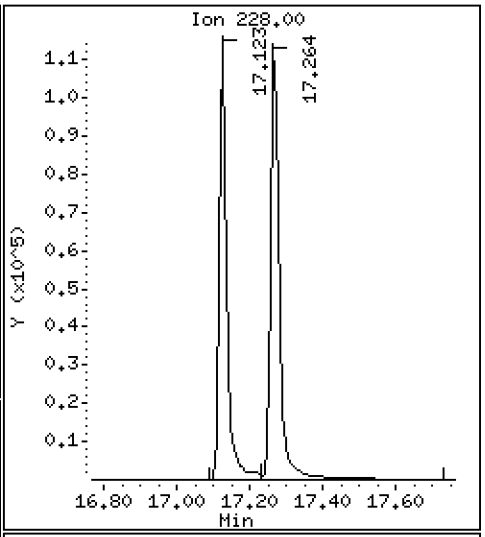
Column phase: Rxi-17Sil MS

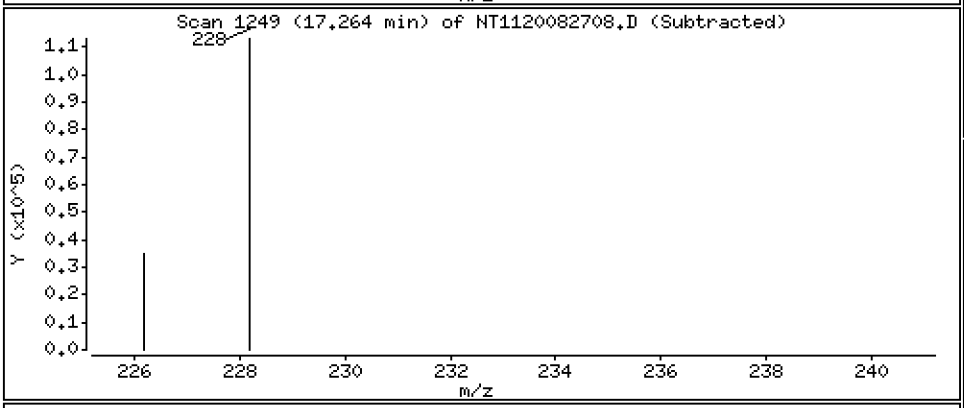
Column diameter: 0.25

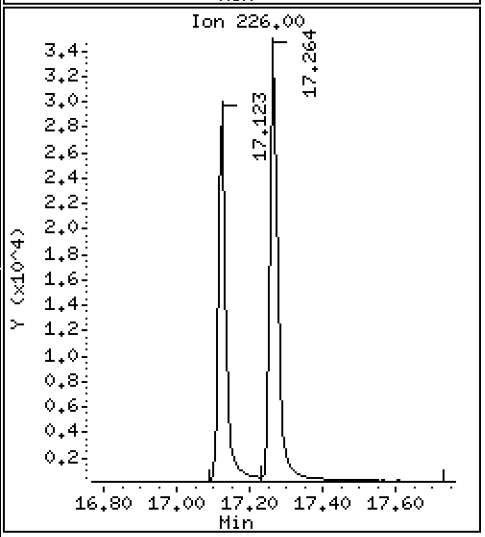
29 Chrysene

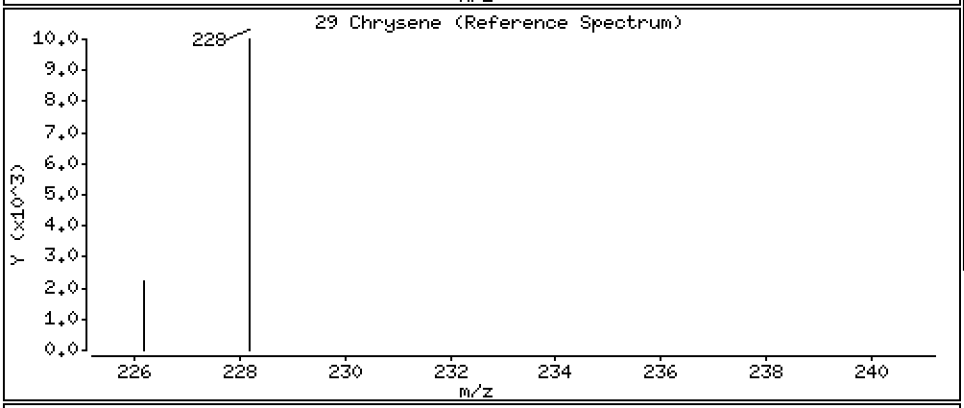
Concentration: 215 ng/mL

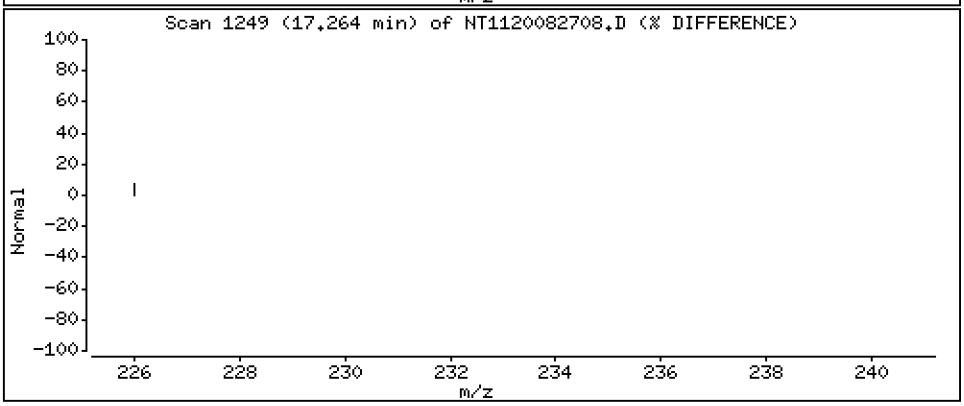


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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

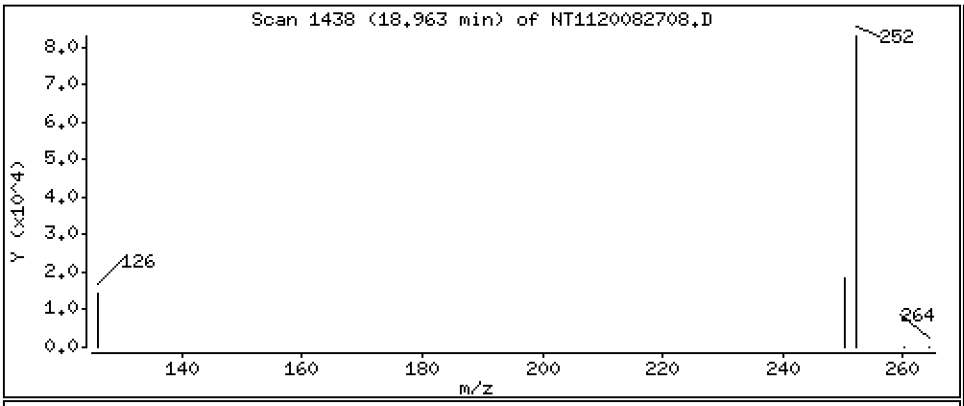
Operator: VTS

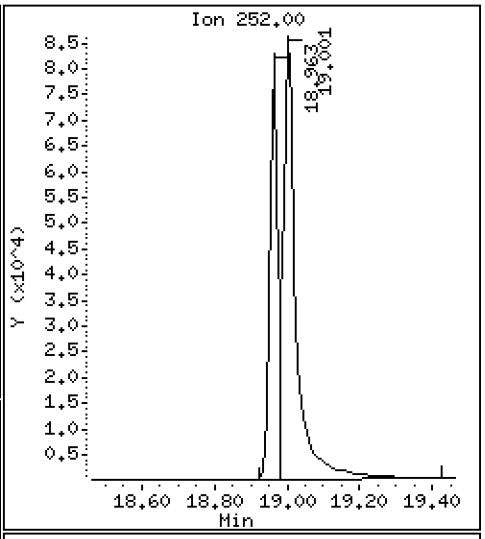
Column phase: Rxi-17Sil MS

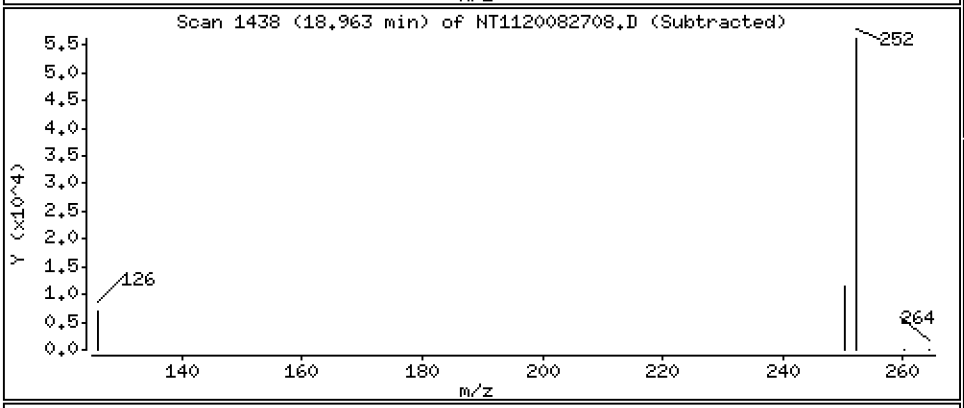
Column diameter: 0.25

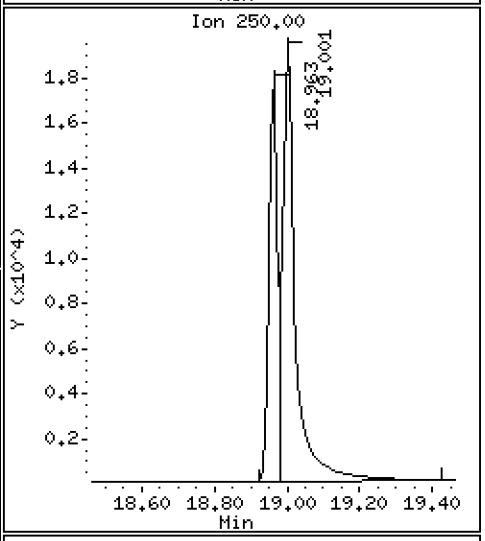
30 Benzo(b)fluoranthene

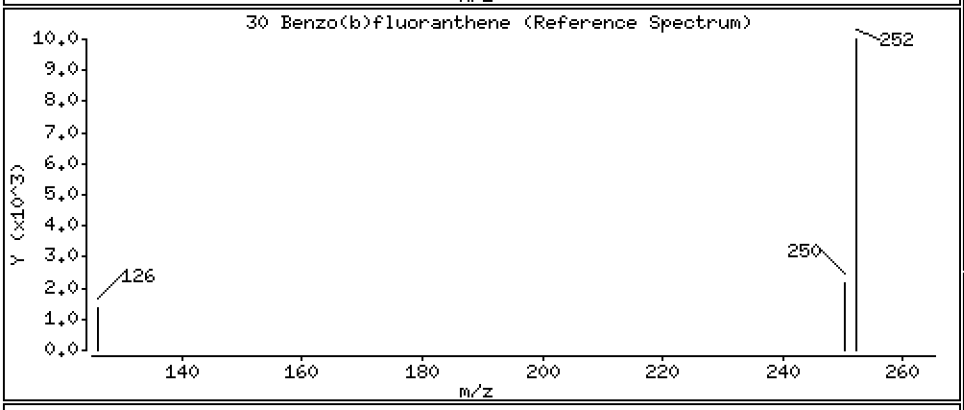
Concentration: 212 ng/mL

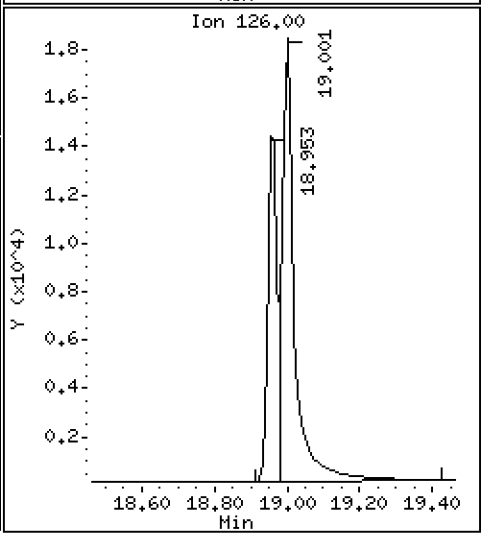


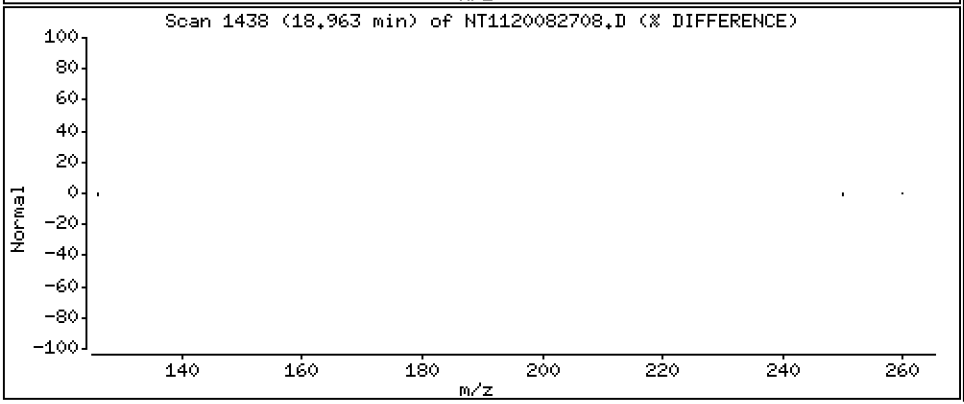



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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

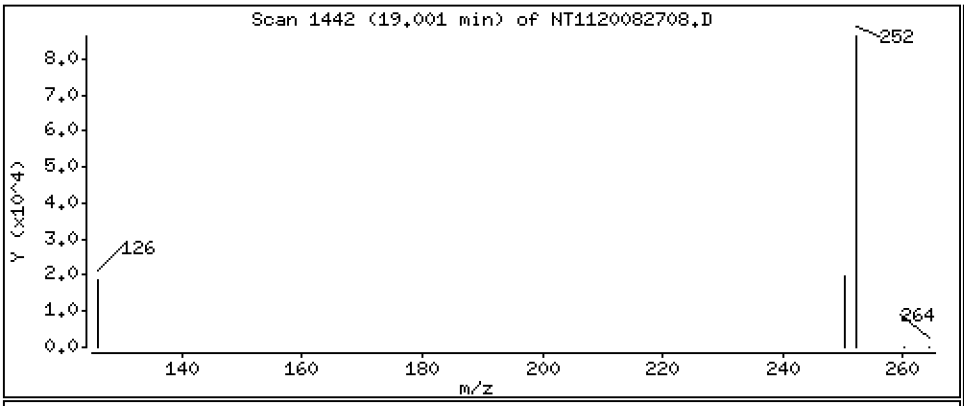
Operator: VTS

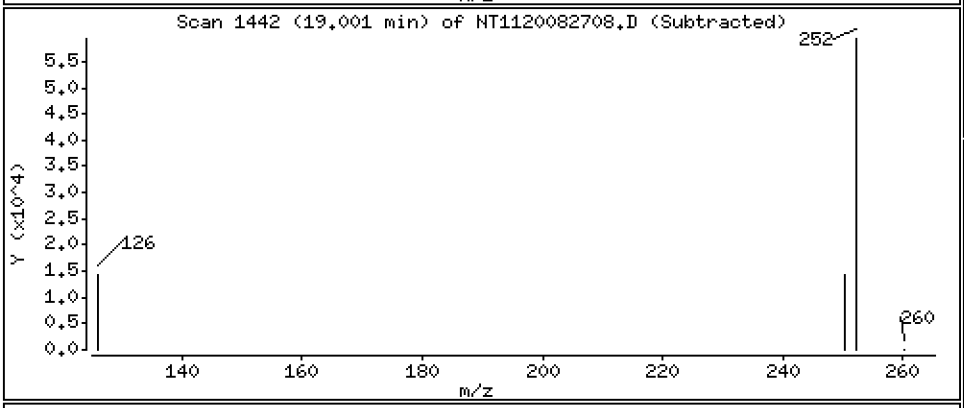
Column phase: Rxi-17Sil MS

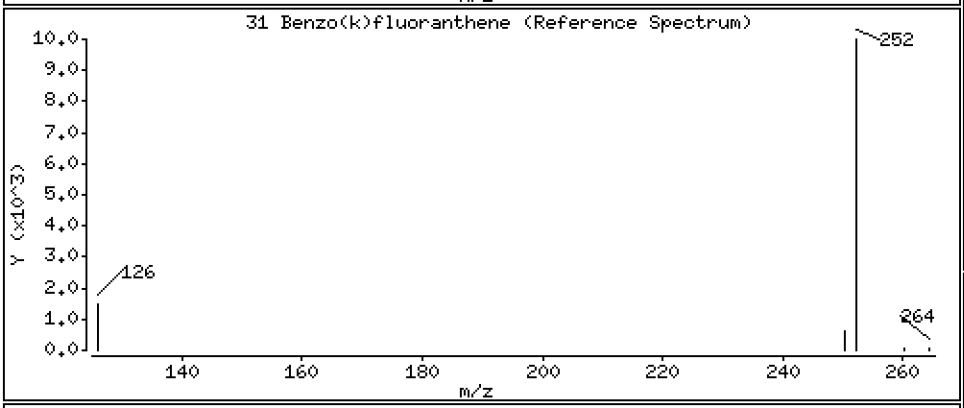
Column diameter: 0.25

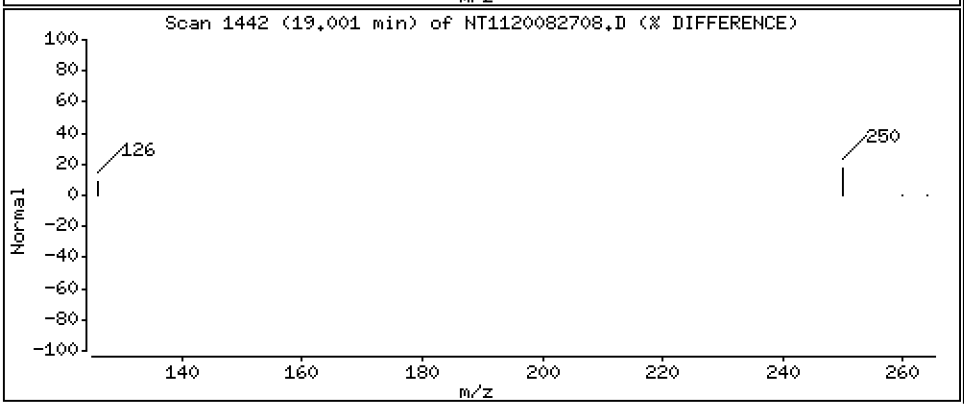
31 Benzo(k)fluoranthene

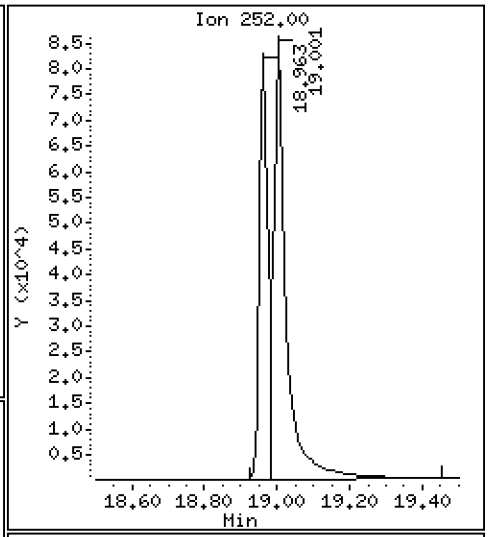
Concentration: 260 ng/mL

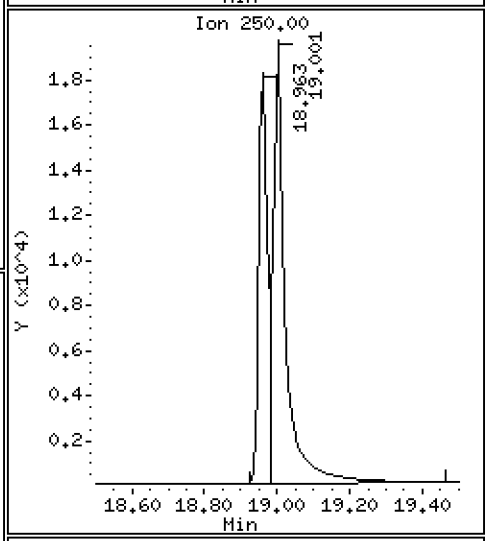


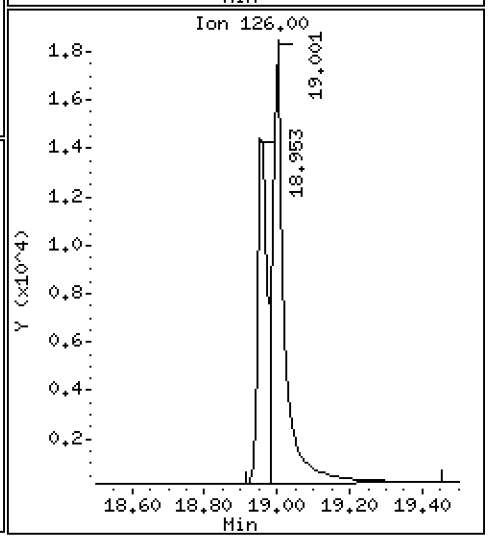



Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

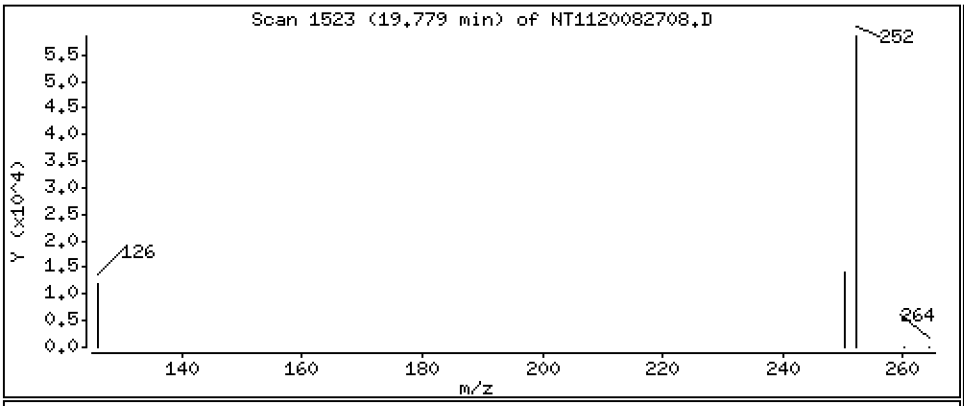
Operator: VTS

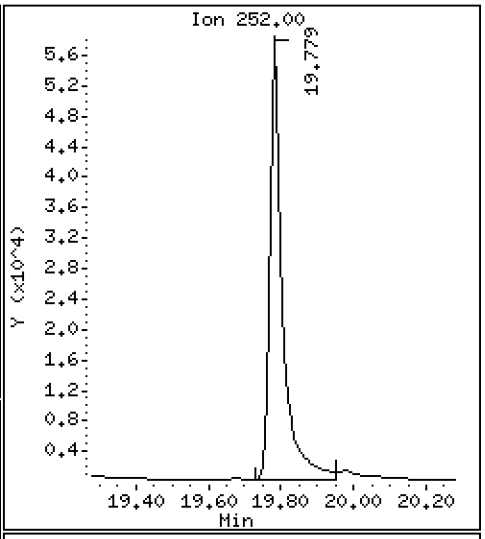
Column phase: Rxi-17Sil MS

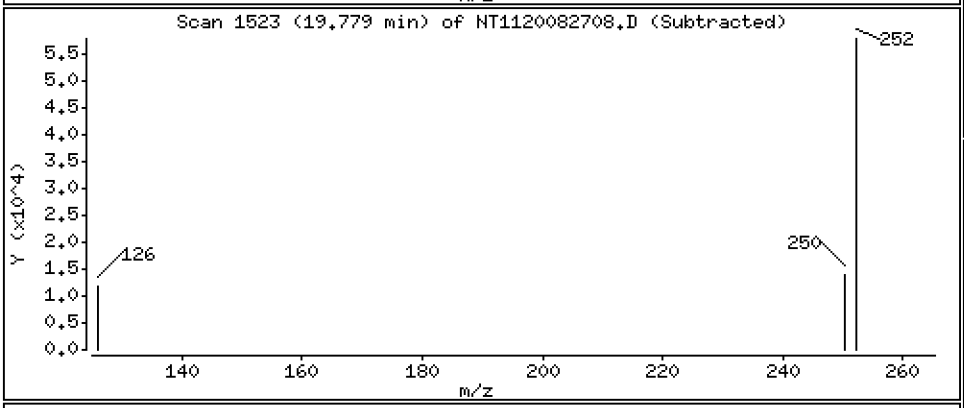
Column diameter: 0.25

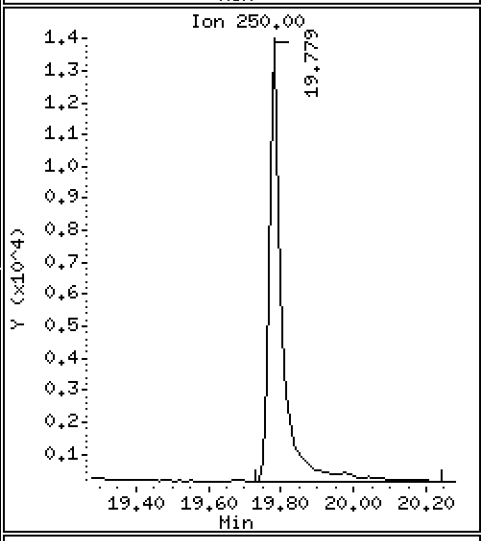
35 Benzo(a)pyrene

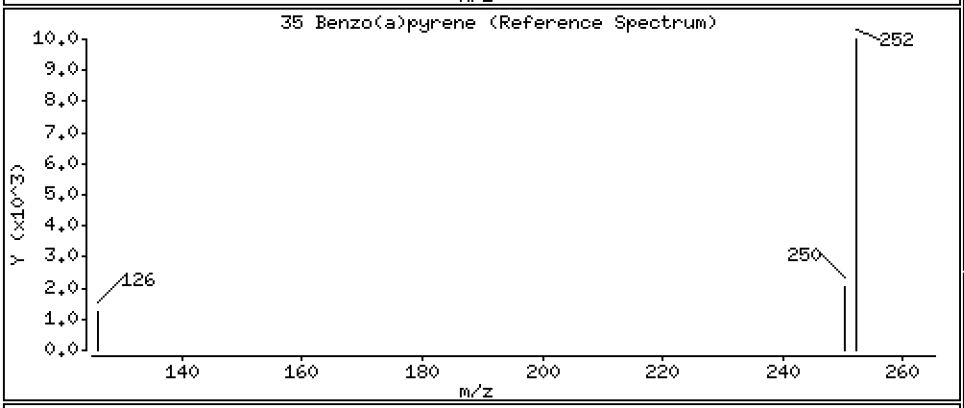
Concentration: 213 ng/mL

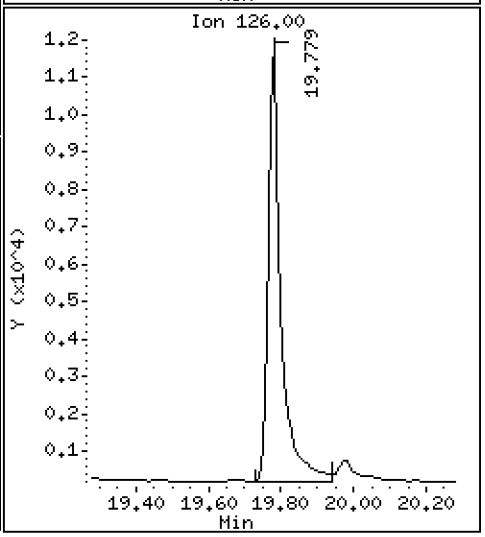


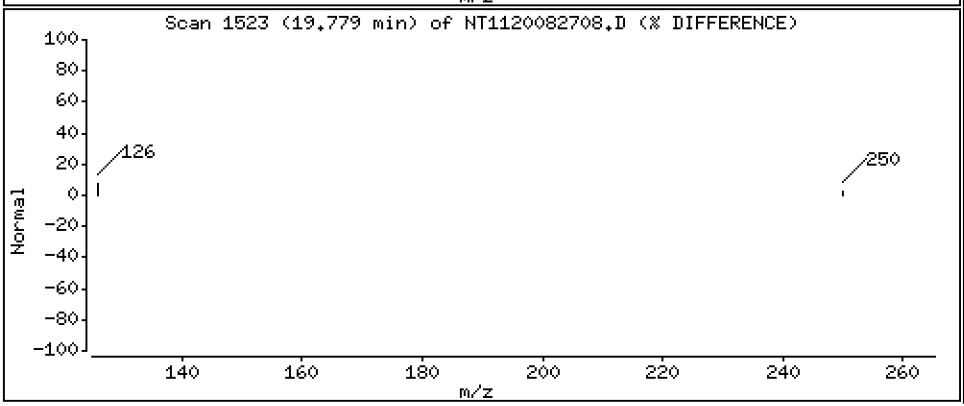



Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

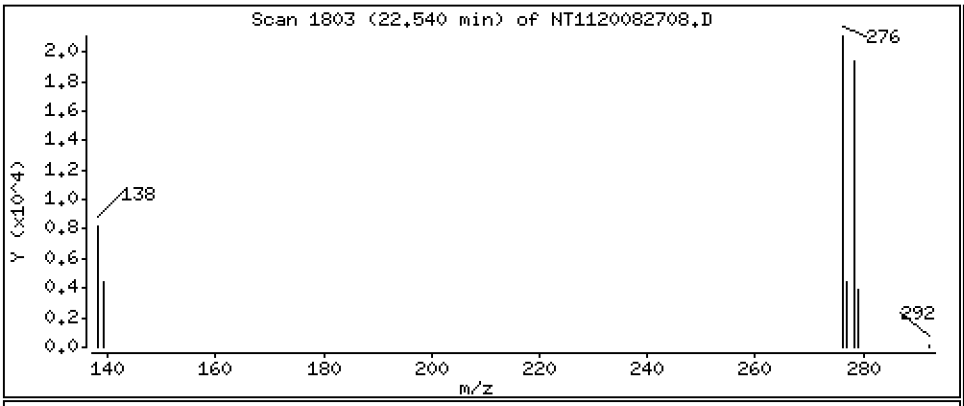
Operator: VTS

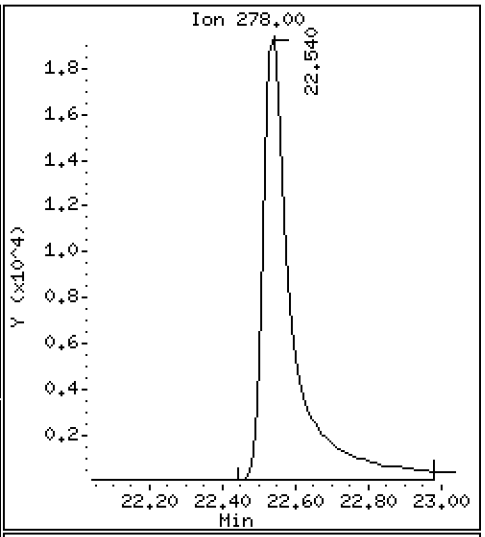
Column phase: Rxi-17Sil MS

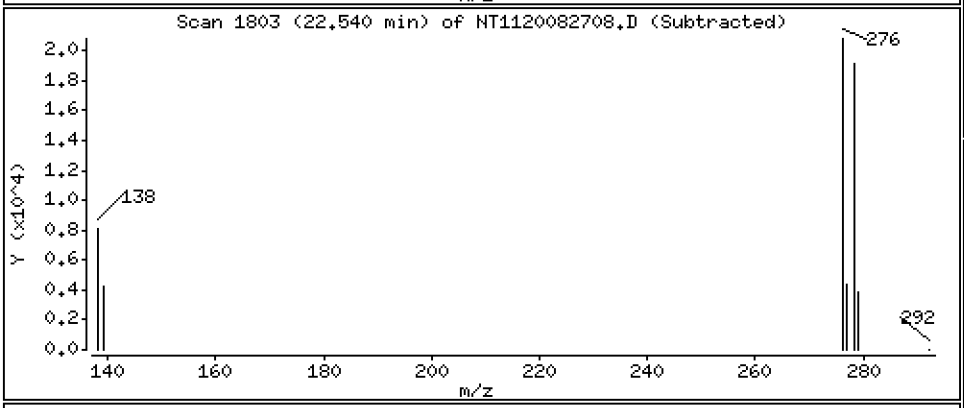
Column diameter: 0.25

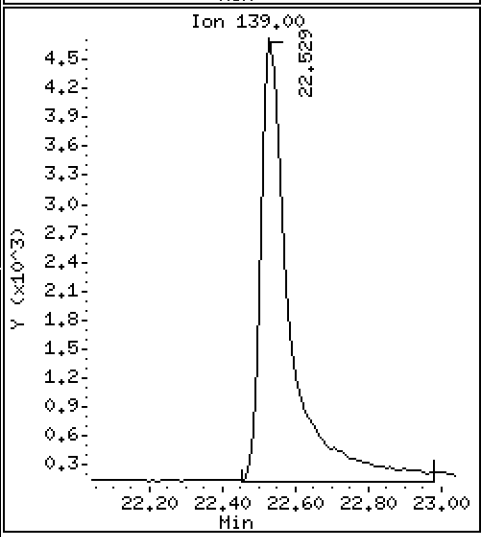
39 Dibenzo(a,h)anthracene

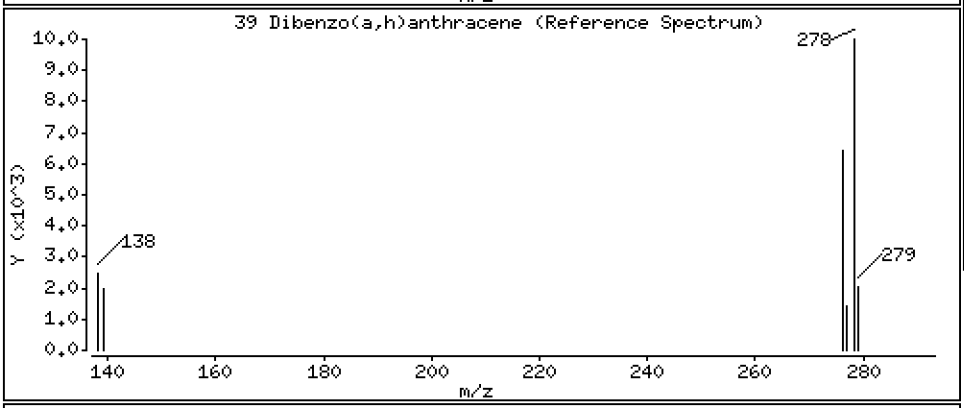
Concentration: 192 ng/mL

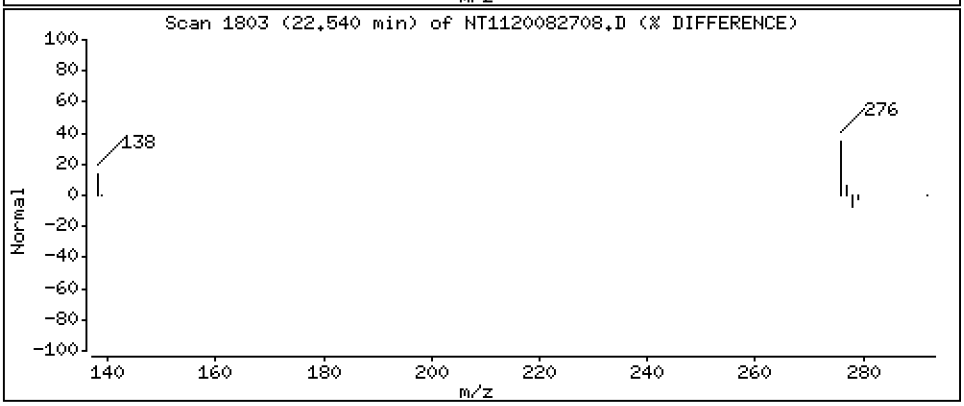


Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

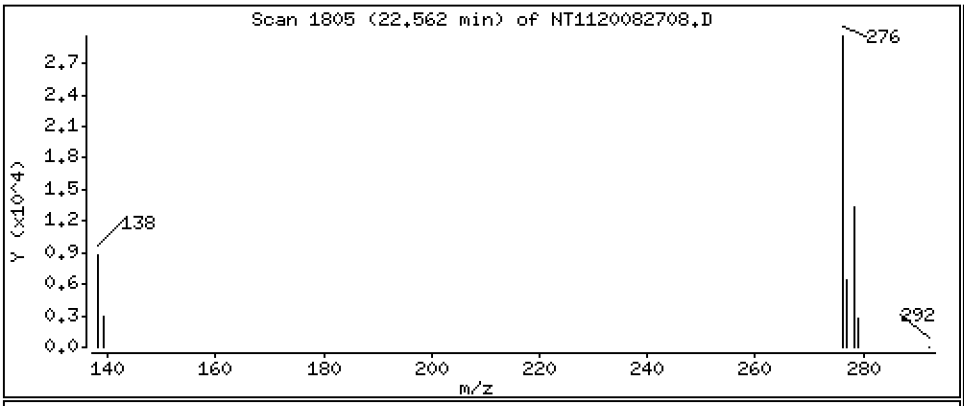
Operator: VTS

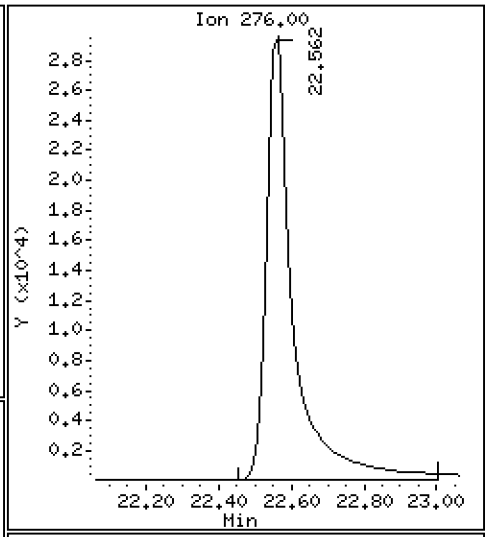
Column phase: Rxi-17Sil MS

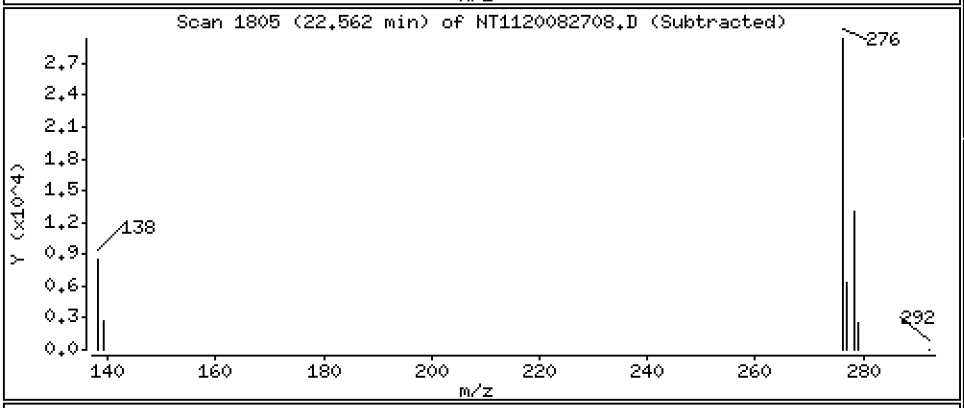
Column diameter: 0.25

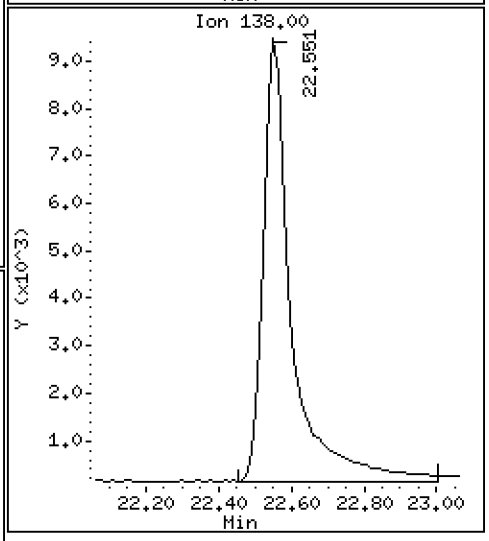
40 Indeno(1,2,3-cd)pyrene

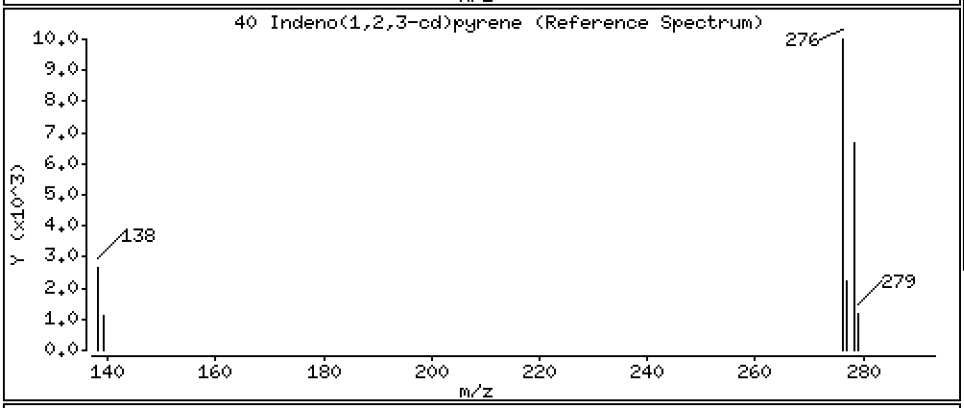
Concentration: 227 ng/mL

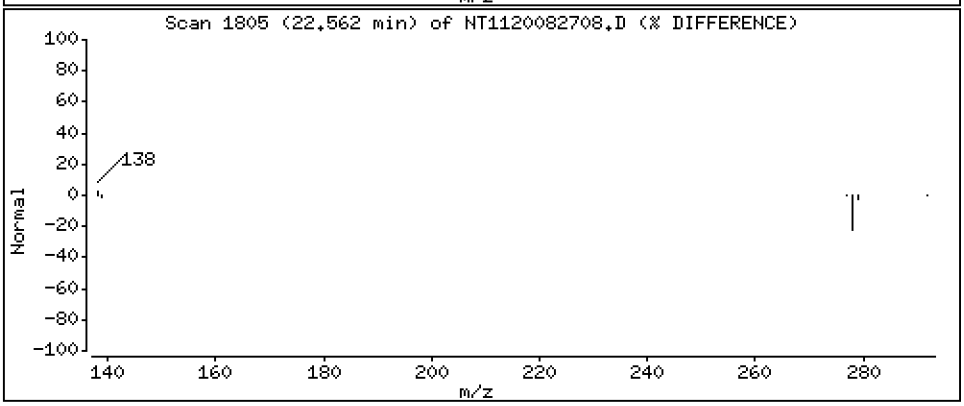


Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

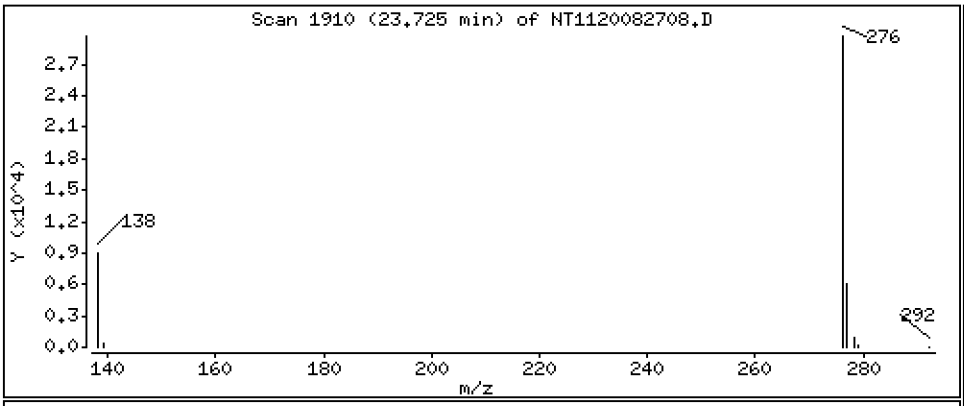
Operator: VTS

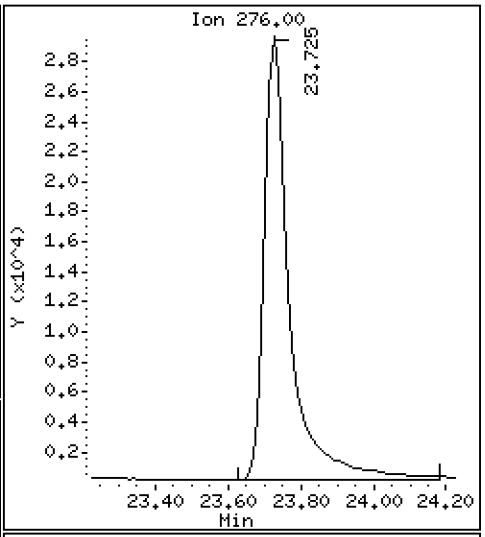
Column phase: Rxi-17Sil MS

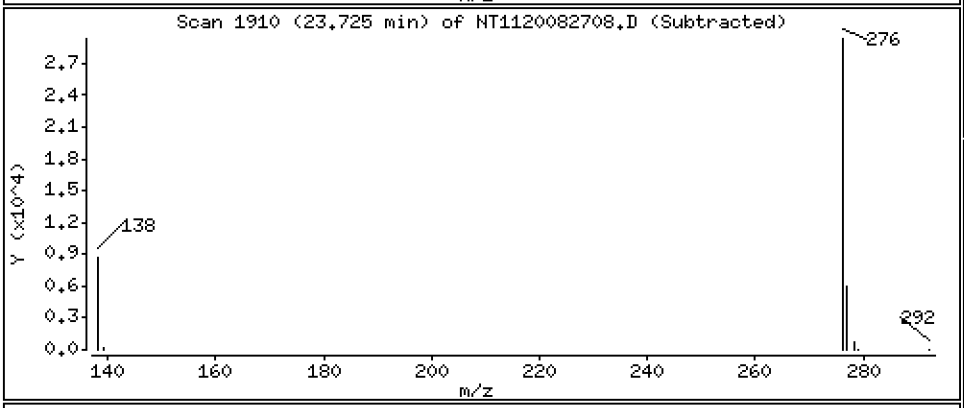
Column diameter: 0.25

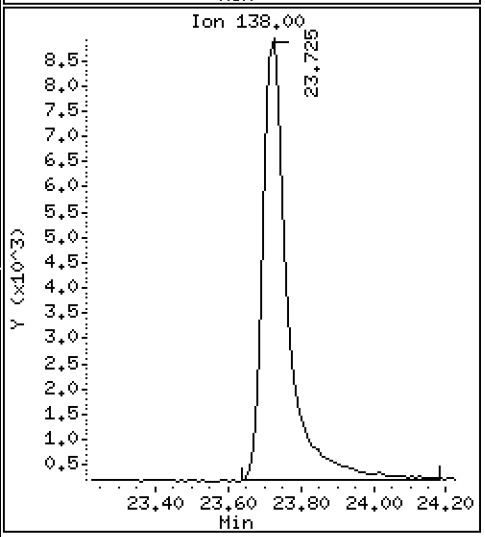
41 Benzo(g,h,i)perylene

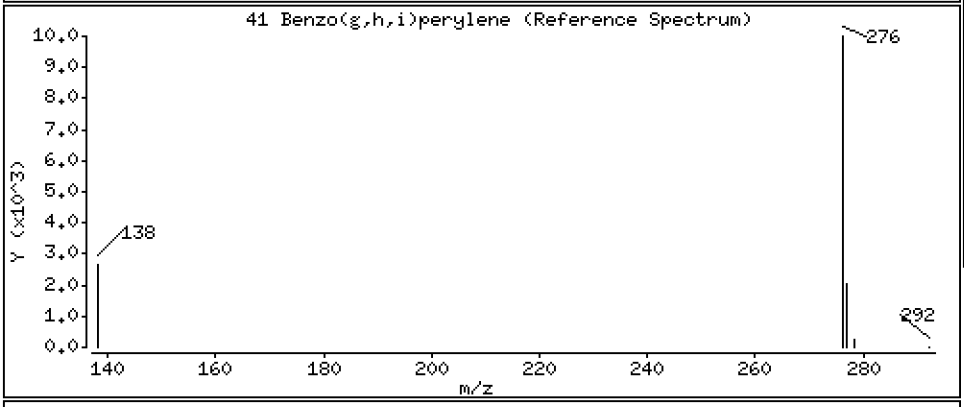
Concentration: 214 ng/mL

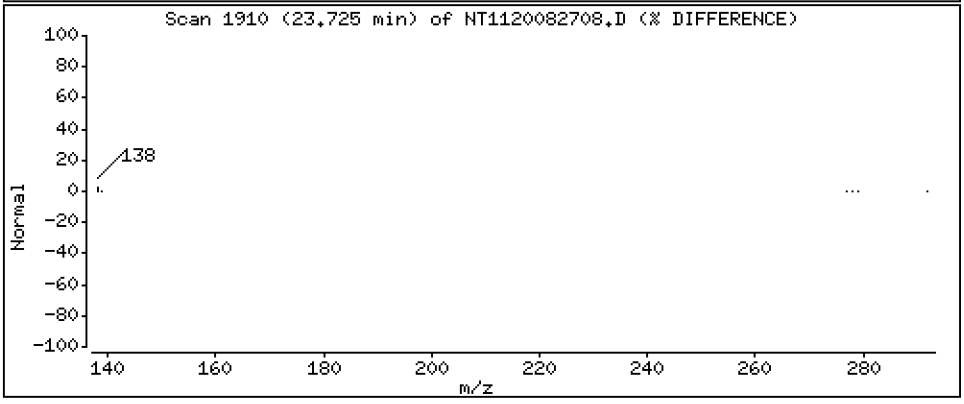


ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

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

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

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1120082708.D
Lab Smp Id: SIH0304-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Misc Info:

Calibration Date: 27-AUG-2020
Calibration Time: 12:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1120082708.D

Lab ID: SIH0304-SCV1
nt11.i,  20200827.b\lowsim.m,    27-AUG-2020 15:38

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

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

RRT CHECK

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

NONE

RRT check based on Ccal File: NT1120082704.D

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

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

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

# SECOND-SOURCE
# CONTINUING CALIBRATION CHECK
## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | NT14 | Calibration: | EE00001 |
| Lab File ID: | NT1421043010.D | Calibration Date: | 04/30/2021 |
| Sequence: | SJD0305 | Injection Date: | 04/30/21 |
| Lab Sample ID: | SJD0305-SCV1 | Injection Time: | 14:41 |
| Sequence Name: | Secondary Cal Check | | |

| | | CONC. (ug/mL) | | RESPONSE FACTOR (RRF) | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN | CCV | LIMIT |
| trans-Decalin | A | 2.5000 | 2.8 | 0.1489821 | 0.1694308 | | 13.7 | +/-20 |
| cis-Decalin | A | 2.5000 | 2.9 | 0.1028504 | 0.1197037 | | 16.4 | +/-20 |
| Naphthalene | A | 2.5000 | 2.8 | 1.1740120 | 1.3066770 | | 11.3 | +/-20 |
| 1-Methylnaphthalene | A | 2.5000 | 2.8 | 0.5936130 | 0.6698969 | | 12.9 | +/-20 |
| 2-Methylnaphthalene | A | 2.5000 | 2.8 | 0.6265036 | 0.7129189 | | 13.8 | +/-20 |
| Biphenyl | A | 2.5000 | 2.8 | 0.8966280 | 0.9915355 | | 10.6 | +/-20 |
| 2,6-Dimethylnaphthalene | A | 2.5000 | 2.8 | 0.6169792 | 0.6964435 | | 12.9 | +/-20 |
| Acenaphthylene | A | 2.5000 | 2.9 | 0.9709370 | 1.1221330 | | 15.6 | +/-20 |
| Acenaphthene | A | 2.5000 | 3.0 | 0.6240076 | 0.7513532 | | 20.4 | +/-20 |
| Dibenzofuran | A | 2.5000 | 2.8 | 0.9455456 | 1.0467550 | | 10.7 | +/-20 |
| 2,3,5-Trimethylnaphthalene | A | 2.5000 | 2.9 | 0.5414731 | 0.6331332 | | 16.9 | +/-20 |
| Fluorene | A | 2.5000 | 2.8 | 0.6871732 | 0.7816603 | | 13.8 | +/-20 |
| Benzo(b)thiophene | A | 2.5000 | 2.8 | 0.9340302 | 1.0411940 | | 11.5 | +/-20 |
| Phenanthrene | A | 2.5000 | 2.5 | 1.2066070 | 1.1909420 | | -1.3 | +/-20 |
| Anthracene | A | 2.5000 | 2.5 | 1.1122650 | 1.1088410 | | -0.3 | +/-20 |
| Carbazole | A | 2.5000 | 2.3 | 0.8290303 | 0.8761635 | | -6.3 | +/-20 |
| 1-Methylphenanthrene | A | 2.5000 | 2.6 | 0.7326040 | 0.7601497 | | 3.8 | +/-20 |
| Fluoranthene | A | 2.5000 | 2.6 | 1.0715980 | 1.1290490 | | 5.4 | +/-20 |
| Dibenzothiophene | A | 2.5000 | 2.8 | 0.8674458 | 0.9653991 | | 11.3 | +/-20 |
| Pyrene | A | 2.5000 | 2.5 | 1.1104570 | 1.1222460 | | 1.1 | +/-20 |
| Benzo(a)anthracene | A | 2.5000 | 2.3 | 0.8222601 | 0.8333426 | | -8.9 | +/-20 |
| Chrysene | A | 2.5000 | 2.6 | 0.9340580 | 0.9617117 | | 3.0 | +/-20 |
| Benzo(b)fluoranthene | A | 2.5000 | 2.3 | 0.7491309 | 0.7897226 | | -7.0 | |
| Benzo(j)fluoranthene | A | 2.5000 | 2.5 | 0.9513865 | 0.9573485 | | 0.6 | |
| Benzo(k)fluoranthene | A | 2.5000 | 2.3 | 0.9278309 | 0.9533091 | | -7.8 | |
| Benzo(e)pyrene | A | 2.5000 | 2.5 | 0.8518347 | 0.8360988 | | -1.8 | +/-20 |
| Benzo(a)pyrene | A | 2.5000 | 2.2 | 0.7422947 | 0.7739619 | | -11.6 | +/-20 |
| Indeno(1,2,3-cd)pyrene | A | 2.5000 | 2.2 | 0.7887712 | 0.8086680 | | -10.6 | +/-20 |
| Dibenzo(a,h)anthracene | A | 2.5000 | 2.3 | 0.6549683 | 0.7164658 | | -8.4 | +/-20 |
| Benzo(g,h,i)perylene | A | 2.5000 | 2.4 | 0.7663214 | 0.7209995 | | -5.9 | +/-20 |
| Perylene | A | 2.5000 | 2.4 | 0.8135951 | 0.7860752 | | -3.4 | +/-20 |
| Naphthalene-d8 | A | 2.5000 | 2.99 | 1.1542130 | 1.3787570 | | 19.5 | +/-20 |
| Acenaphthene-d10 | A | 2.5000 | 3.02 | 0.5635830 | 0.6801208 | | 20.7 | +/-20 |
| Phenanthrene-d10 | A | 2.5000 | 2.67 | 1.0807840 | 1.1540520 | | 6.8 | +/-20 |

* Values outside of QC limits

# SECOND-SOURCE
# CONTINUING CALIBRATION CHECK
## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | NT14 | Calibration: | EE00001 |
| Lab File ID: | NT1421043010.D | Calibration Date: | 04/30/2021 |
| Sequence: | SJD0305 | Injection Date: | 04/30/21 |
| Lab Sample ID: | SJD0305-SCV1 | Injection Time: | 14:41 |
| Sequence Name: | Secondary Cal Check | | |

| | | CONC. (ug/mL) | | RESPONSE FACTOR (RRF) | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN | CCV | LIMIT |
| Chrysene-d12 | A | 2.5000 | 2.83 | 0.7267179 | 0.8221423 | | 13.1 | +/-20 |
| Perylene-d12 | A | 2.5000 | 2.51 | 0.6899017 | 0.7793940 | | 0.2 | +/-20 |

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Page 1

Date : 30-APR-2021 14:41

Client ID:

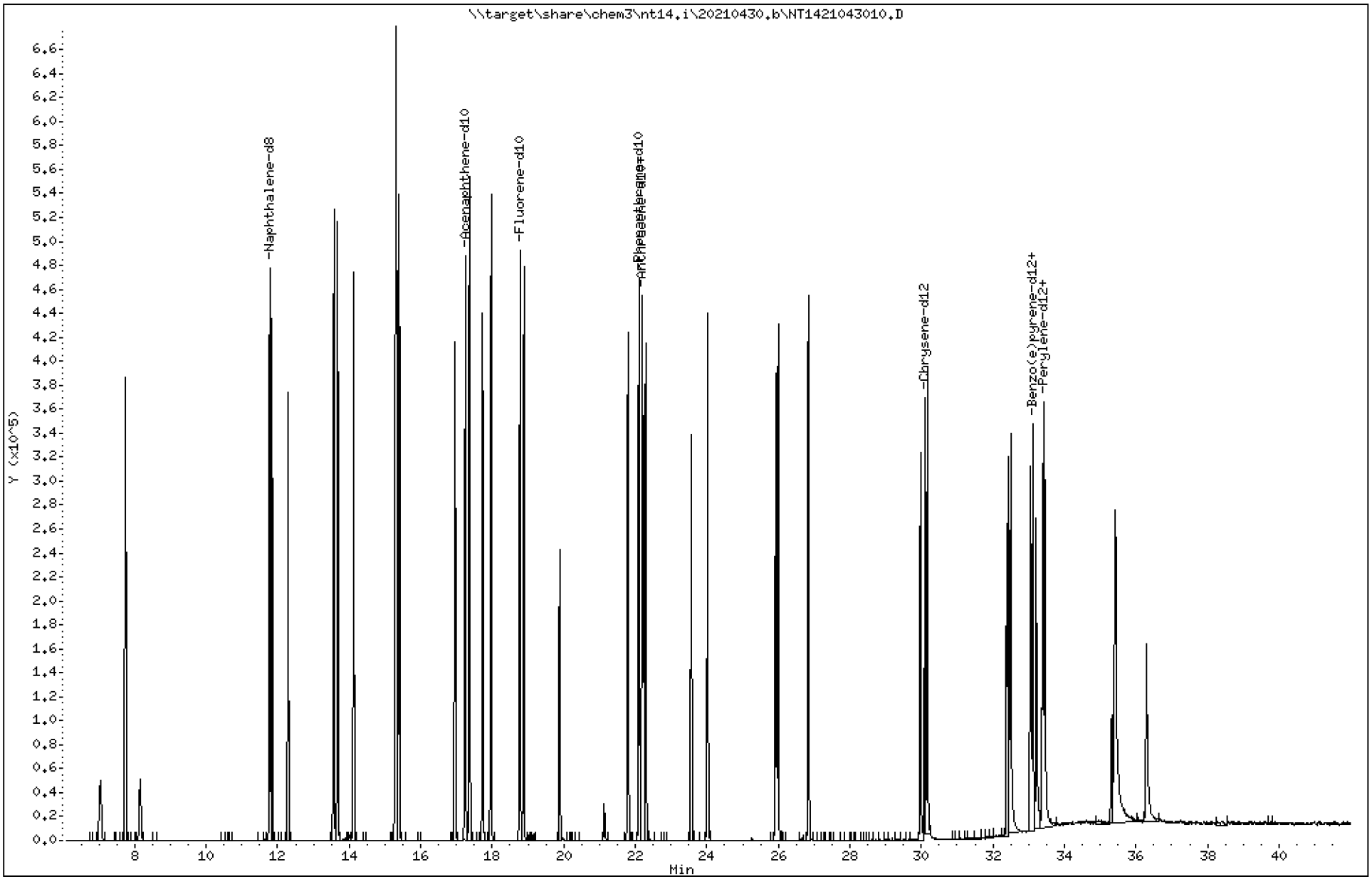
Instrument: nt14.i

Sample Info: SJD0305-SCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

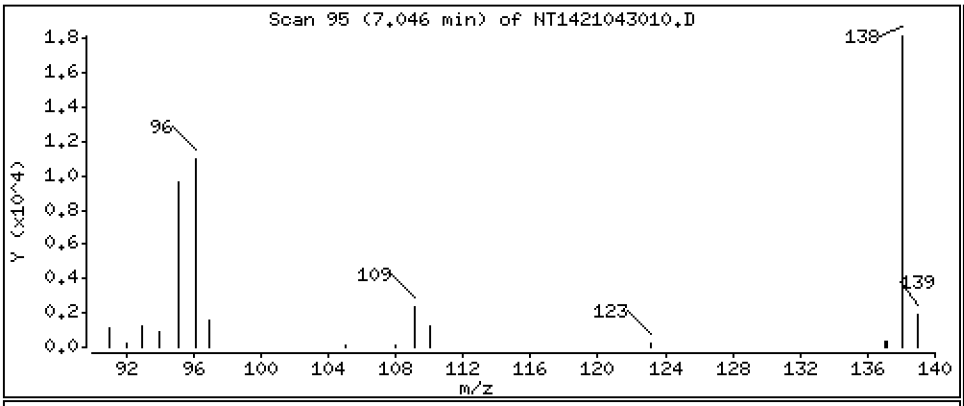
Operator: VTS

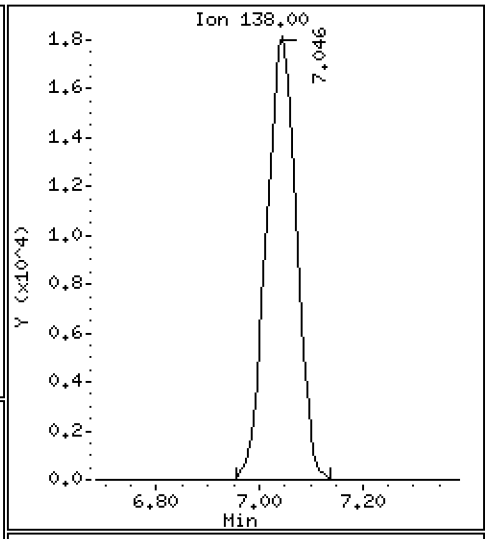
Column phase: Rxi-17Sil MS

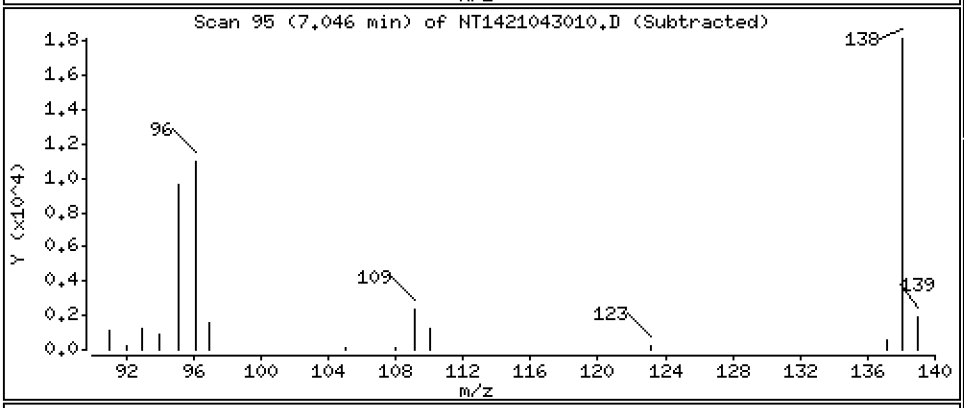
Column diameter: 0.25

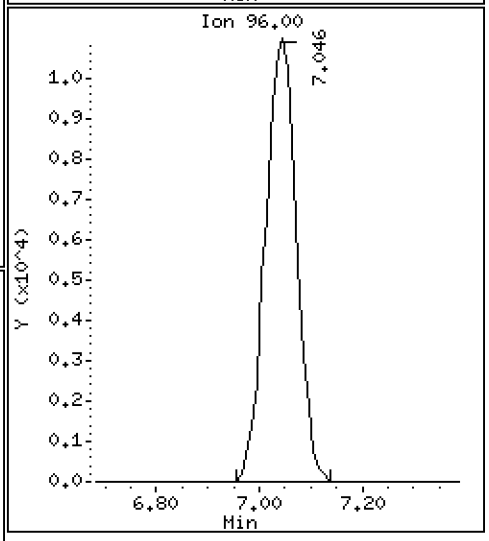
1 trans-Decalin

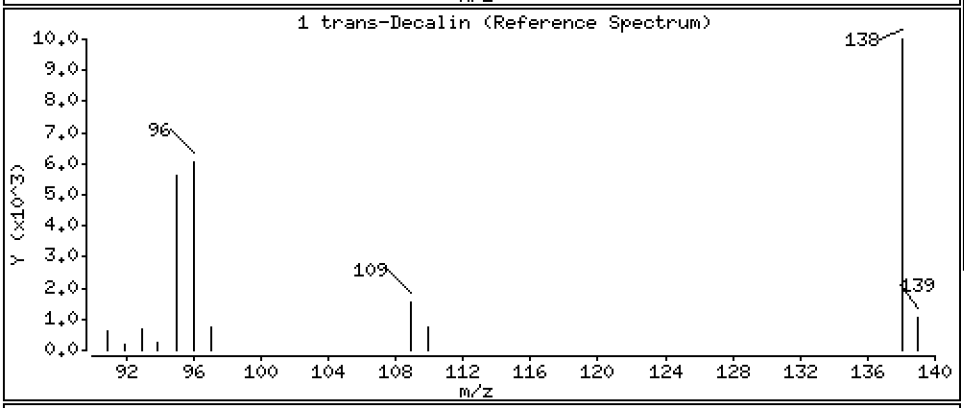
Concentration: 2.843 ug/mL

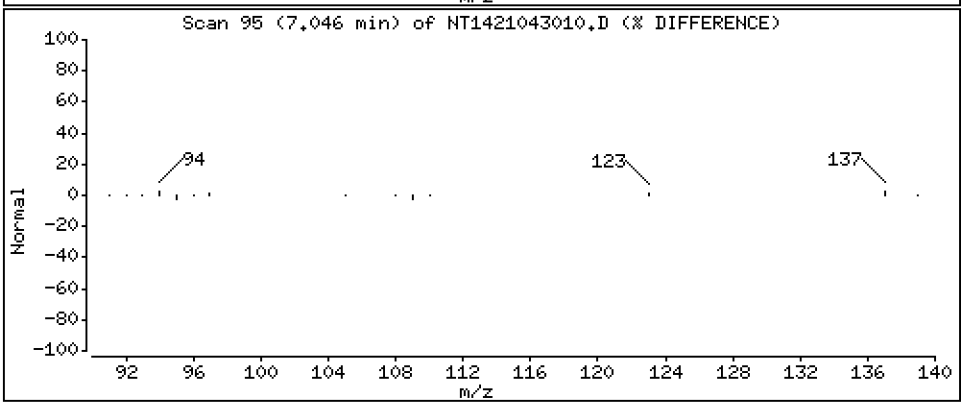


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

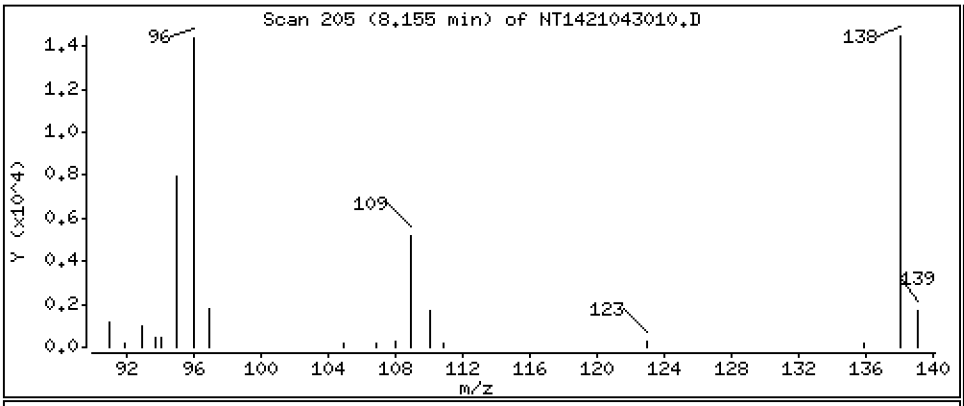
Operator: VTS

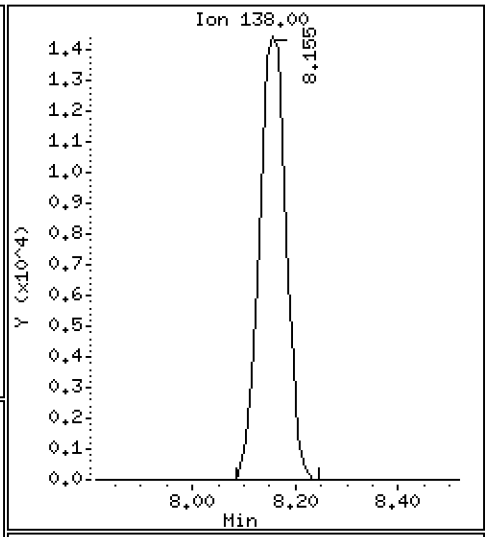
Column phase: Rxi-17Sil MS

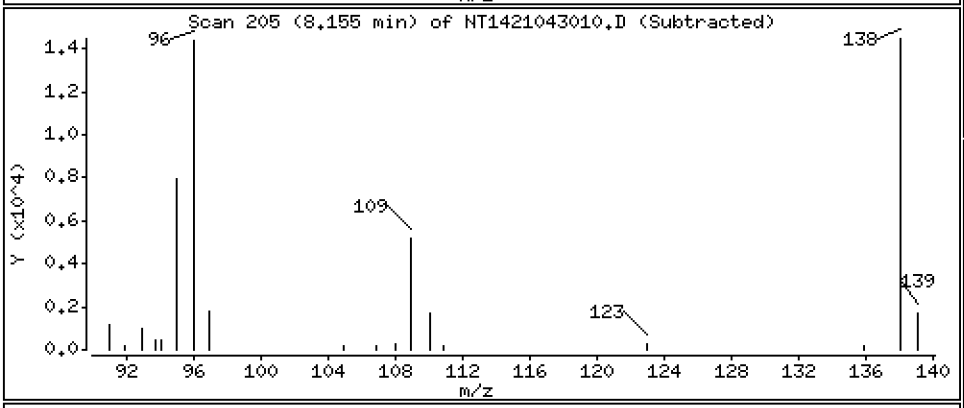
Column diameter: 0.25

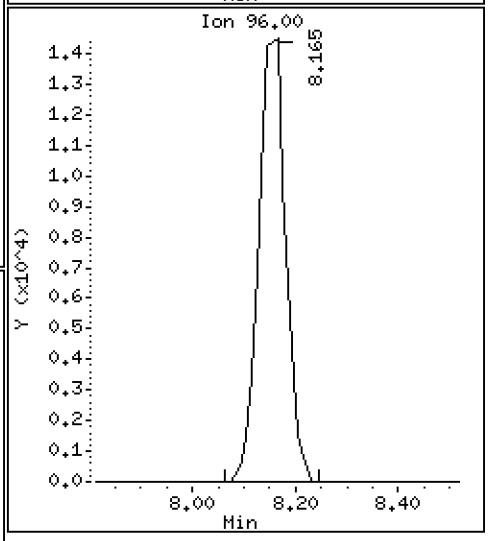
2 cis-Decalin

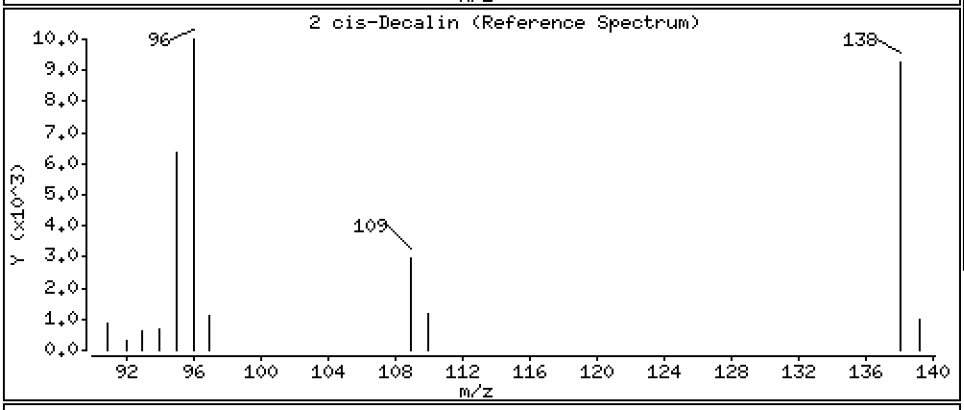
Concentration: 2.910 ug/mL

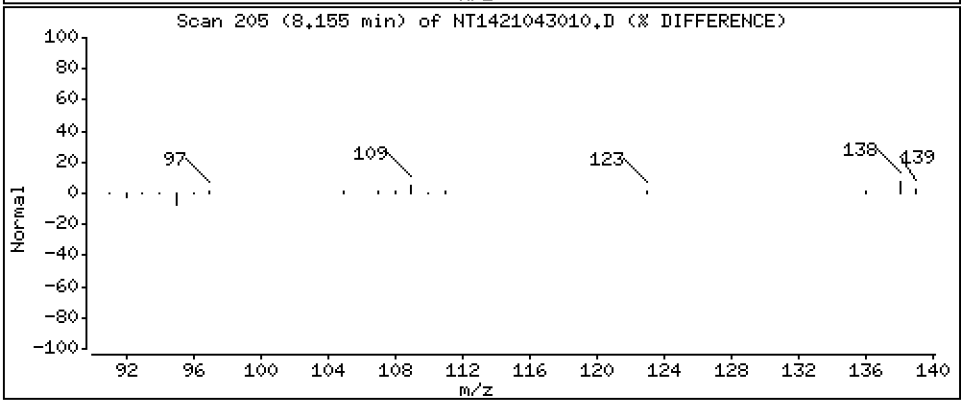


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

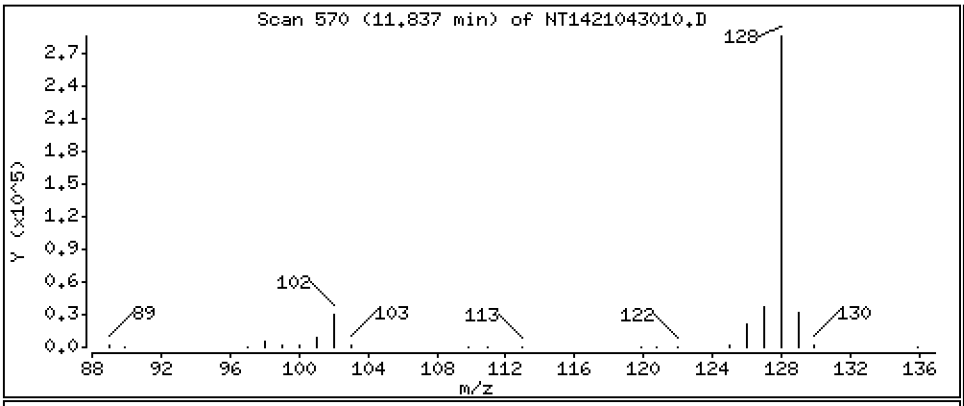
Operator: VTS

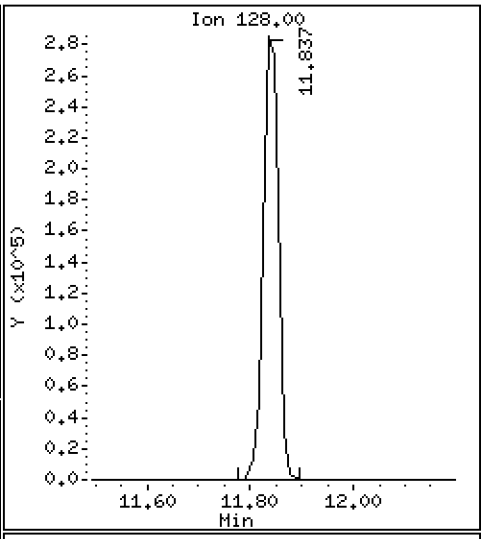
Column phase: Rxi-17Sil MS

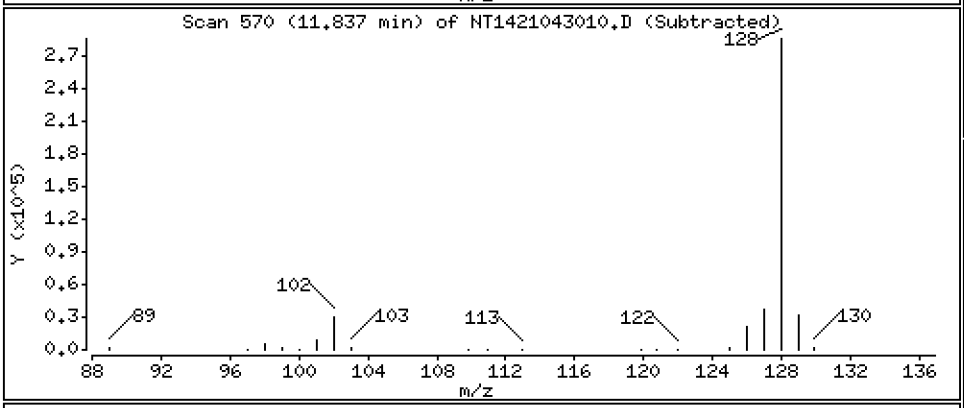
Column diameter: 0.25

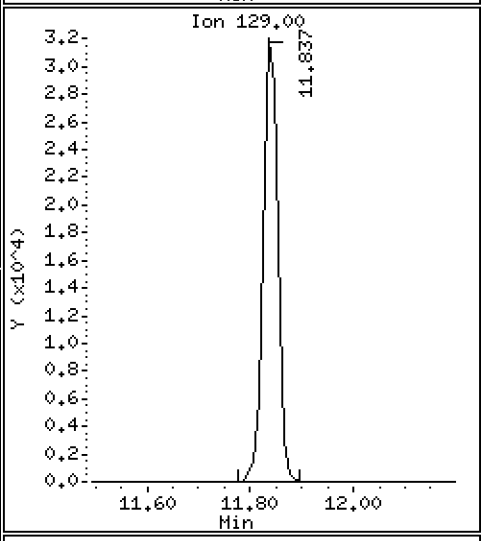
7 Naphthalene

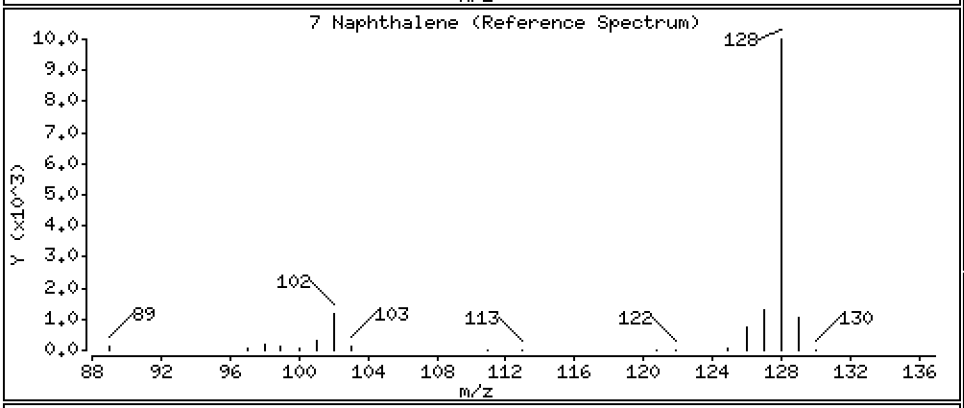
Concentration: 2.783 ug/mL

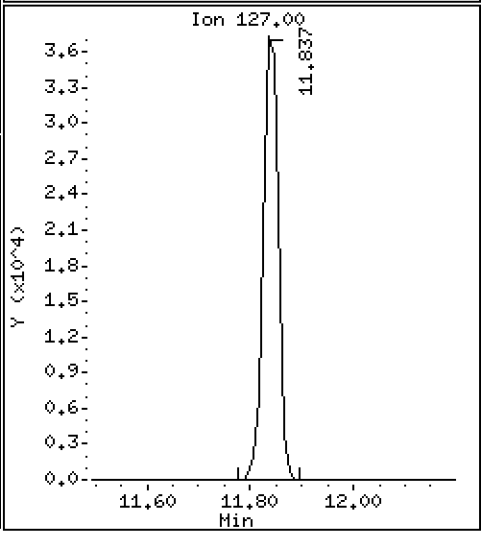


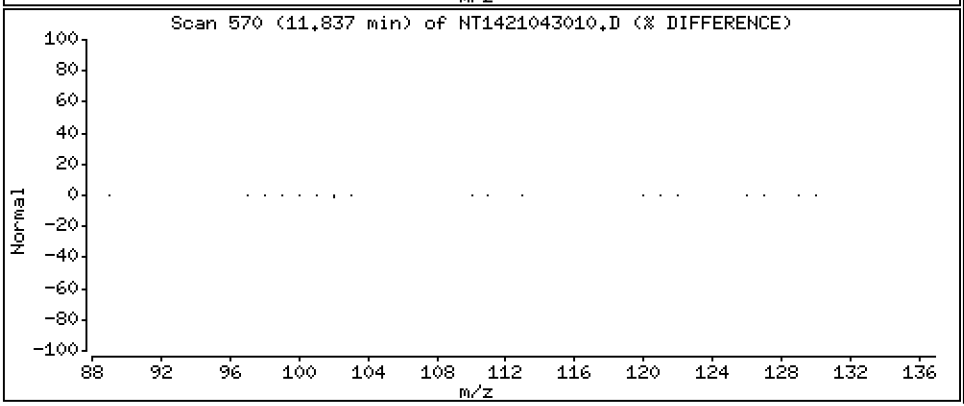



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

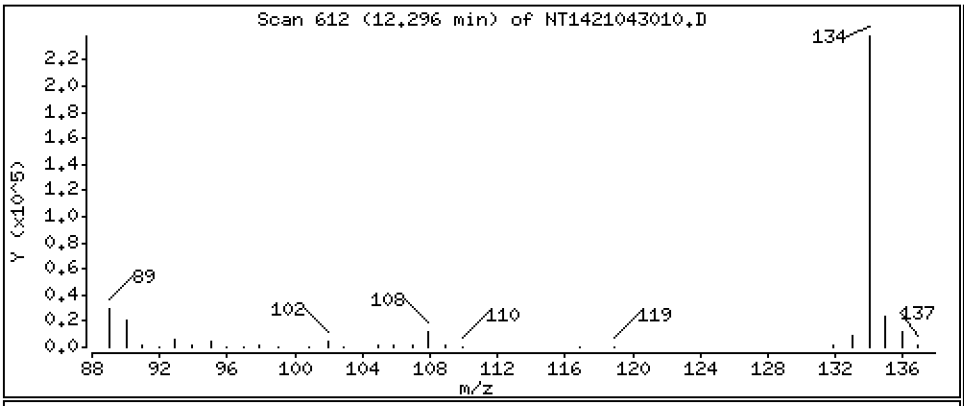
Operator: VTS

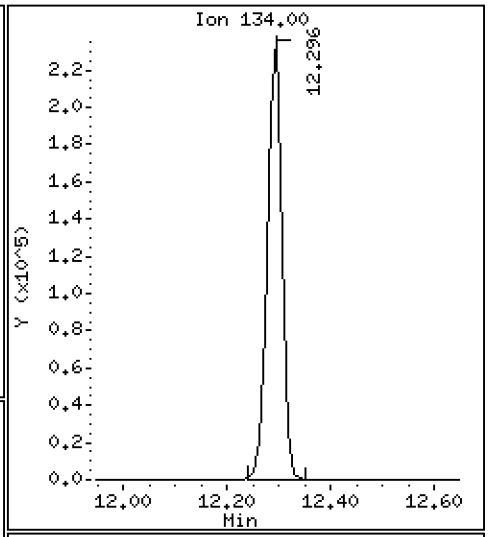
Column phase: Rxi-17Sil MS

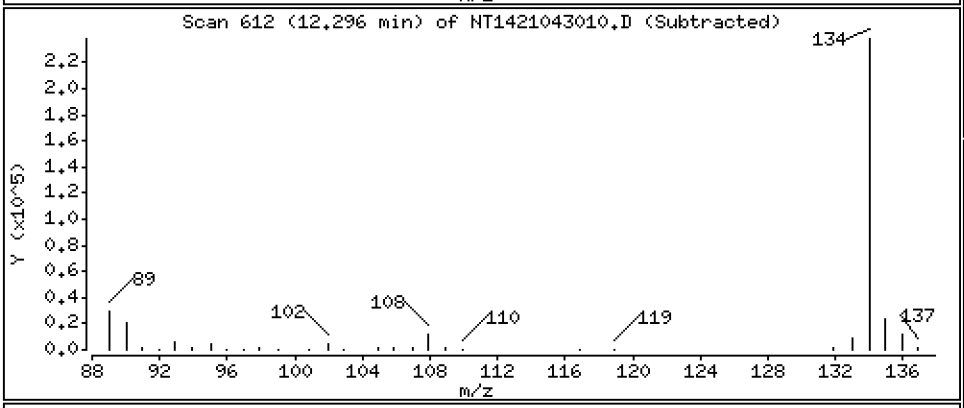
Column diameter: 0.25

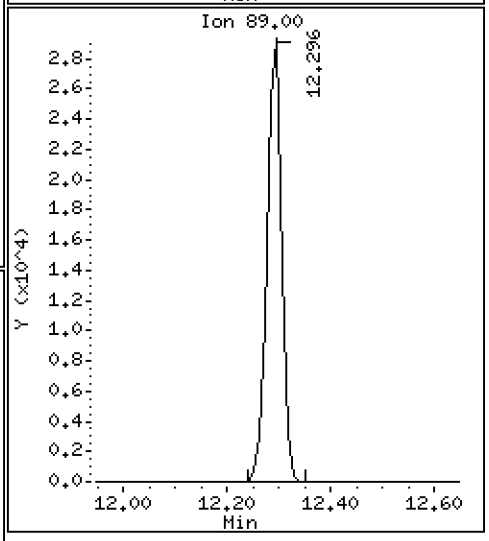
12 Benzo(b)thiophene

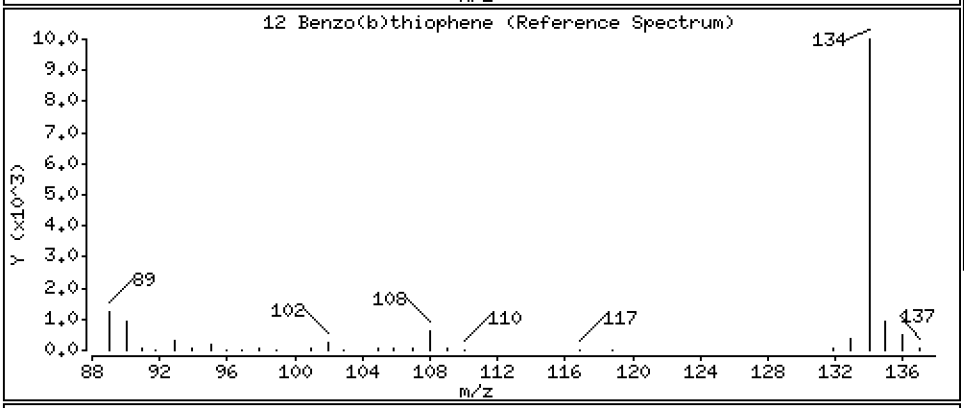
Concentration: 2.787 ug/mL

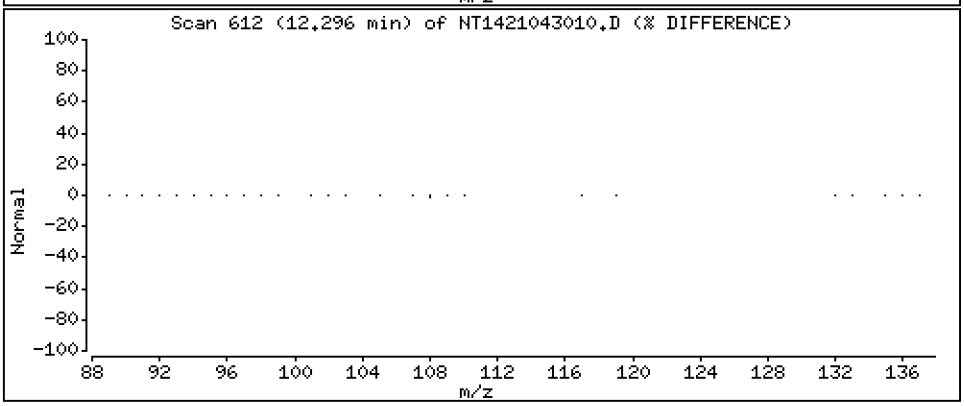


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

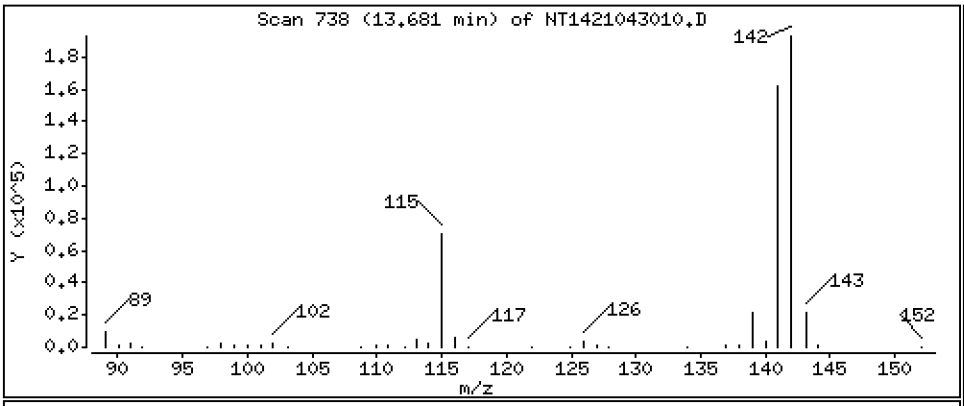
Operator: VTS

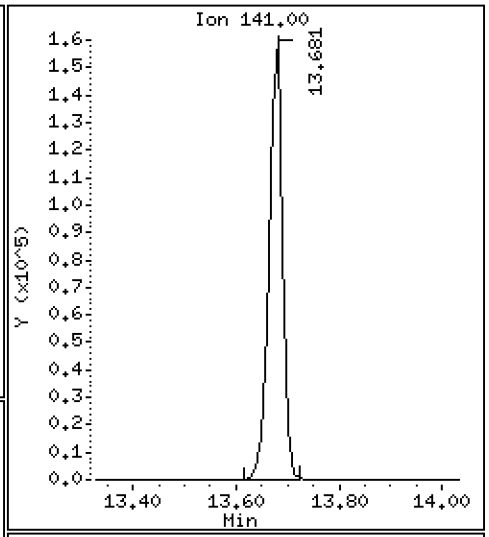
Column phase: Rxi-17Sil MS

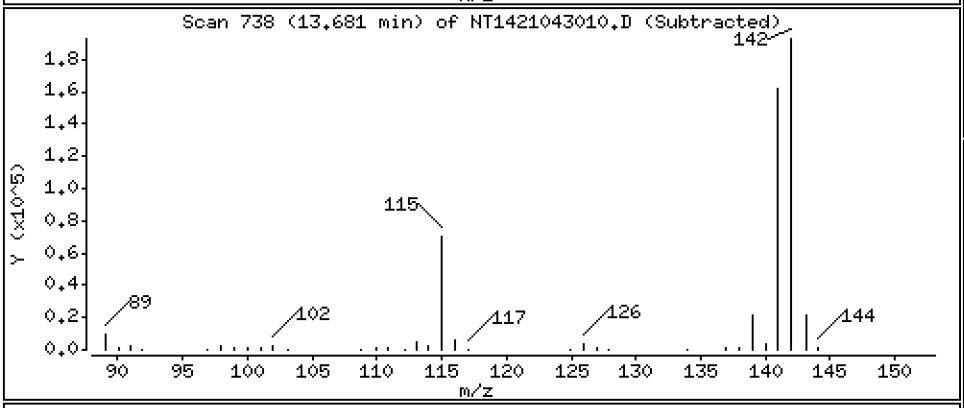
Column diameter: 0.25

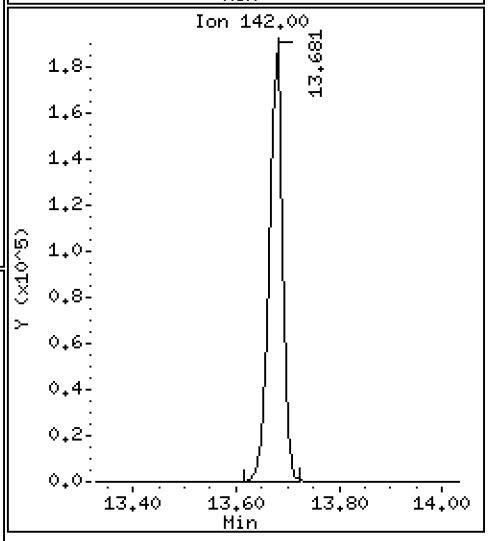
16 2-Methylnaphthalene

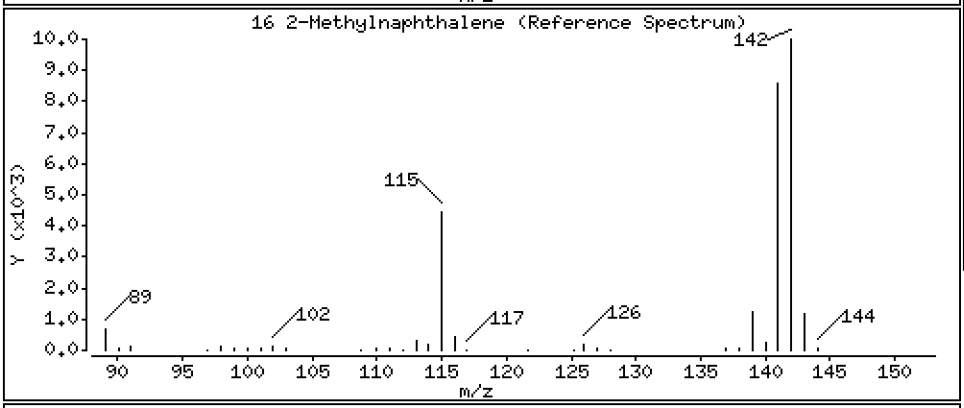
Concentration: 2.845 ug/mL

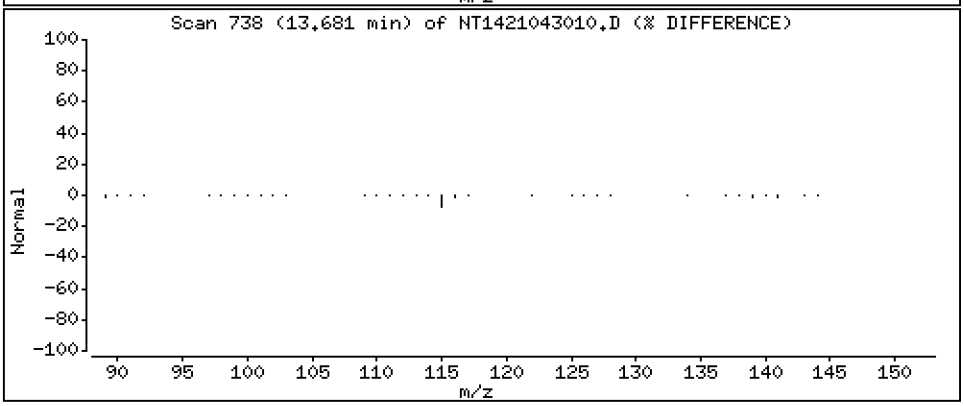


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

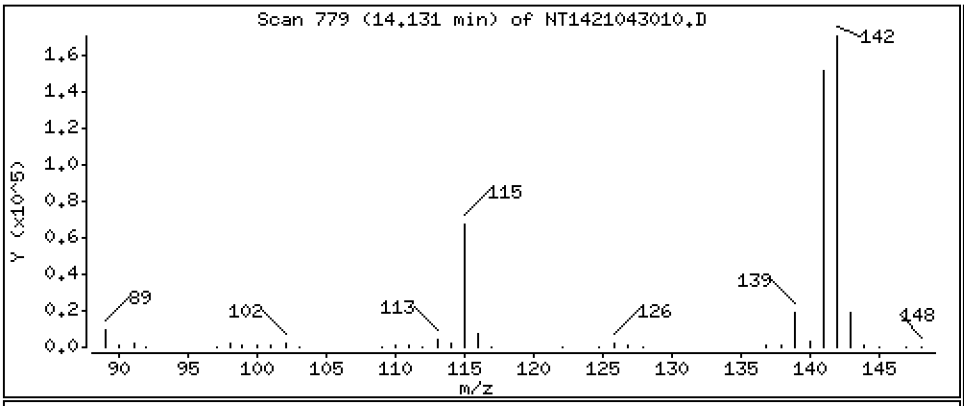
Operator: VTS

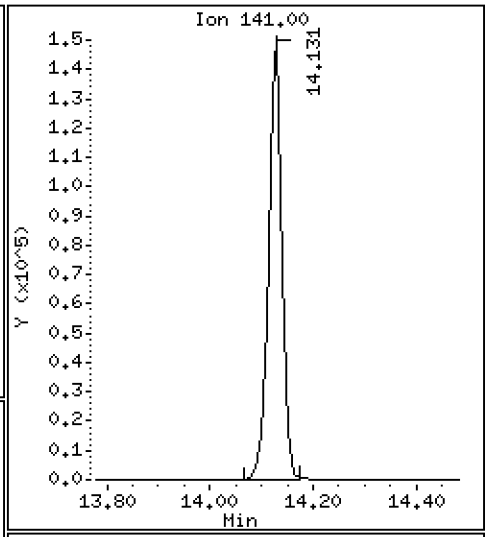
Column phase: Rxi-17Sil MS

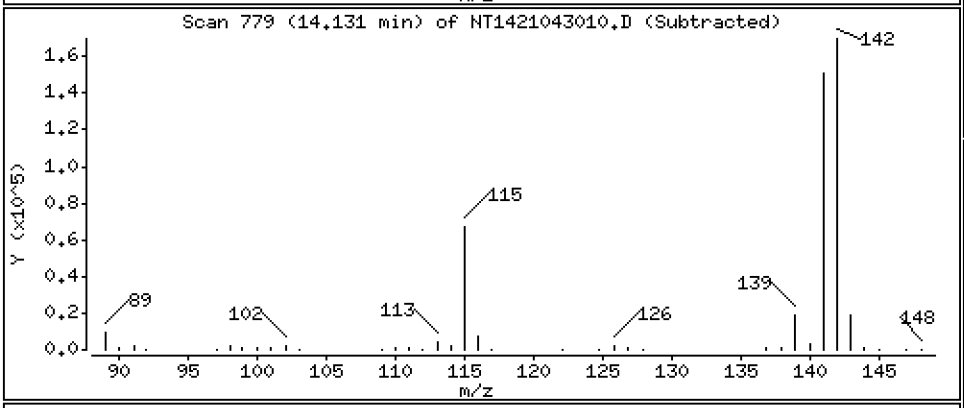
Column diameter: 0.25

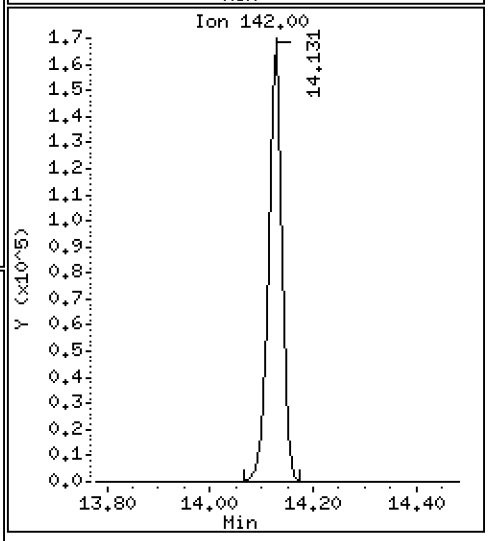
17 1-methylnaphthalene

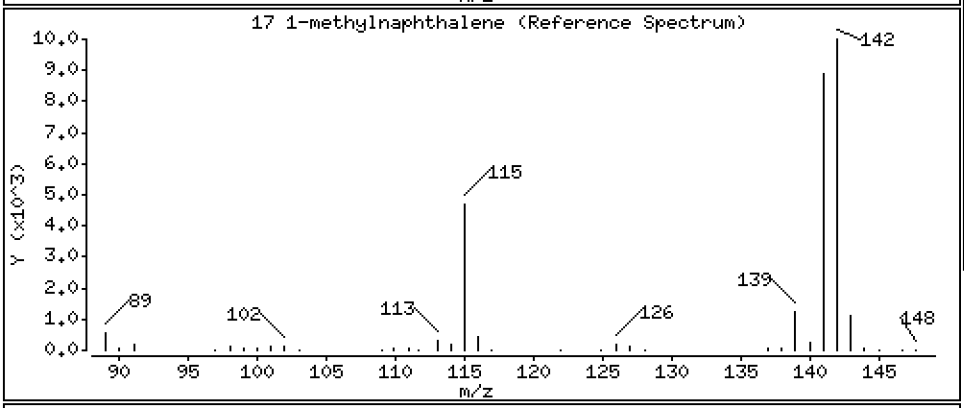
Concentration: 2.821 ug/mL

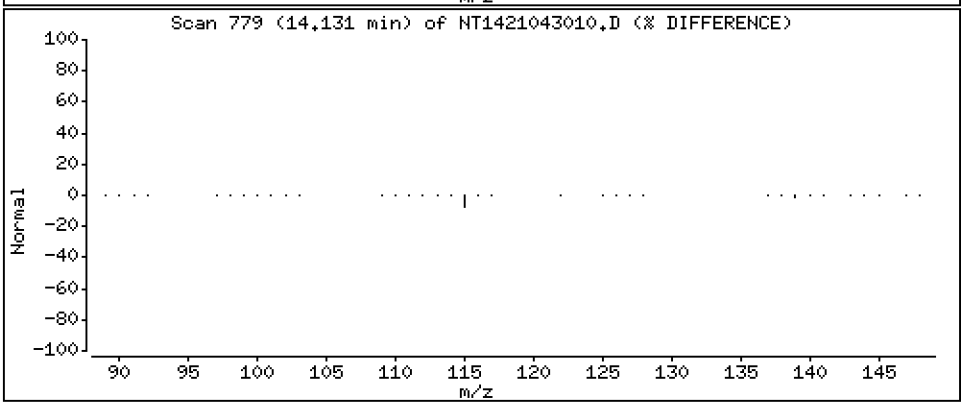


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

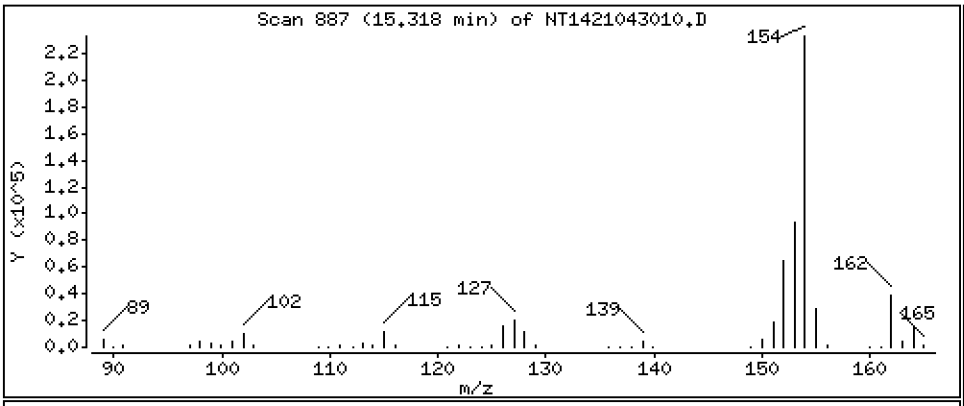
Operator: VTS

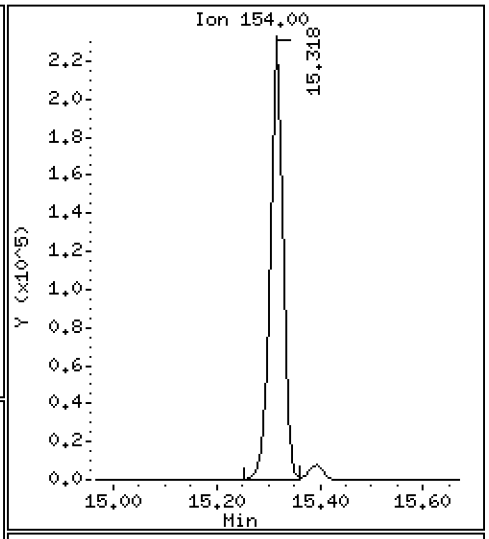
Column phase: Rxi-17Sil MS

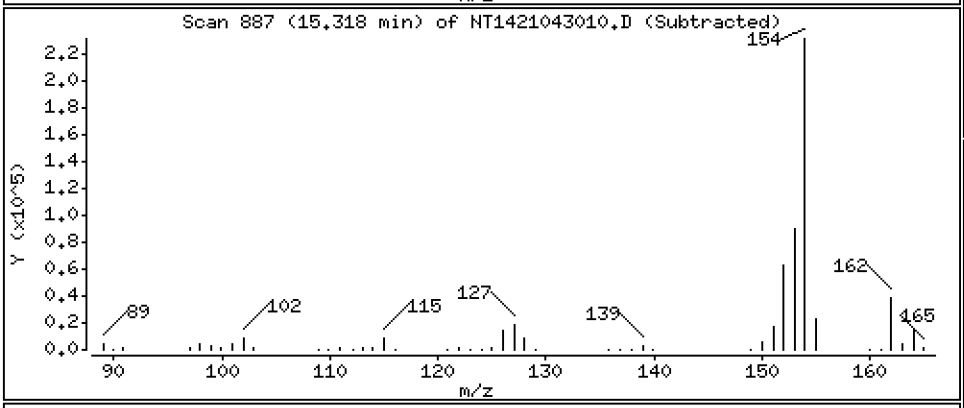
Column diameter: 0.25

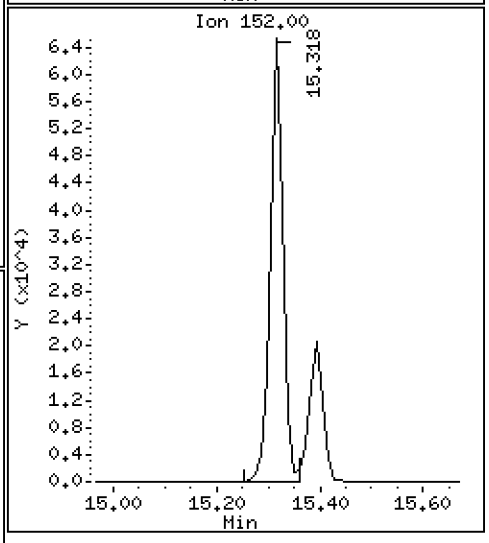
18 Biphenyl

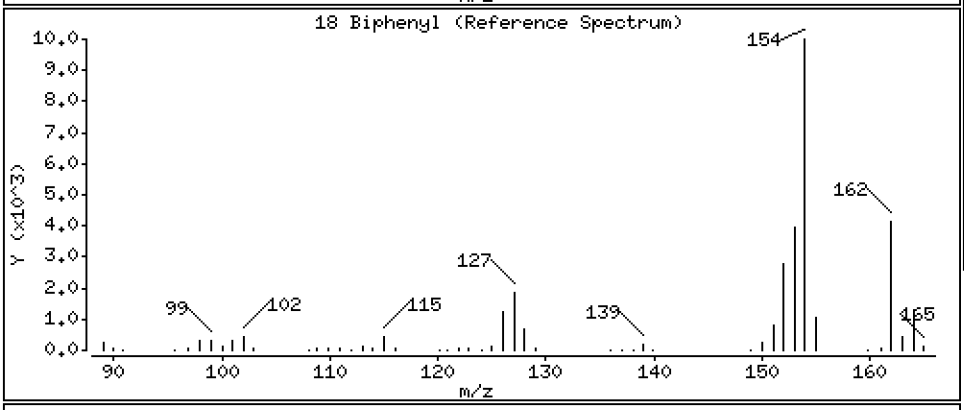
Concentration: 2.765 ug/mL

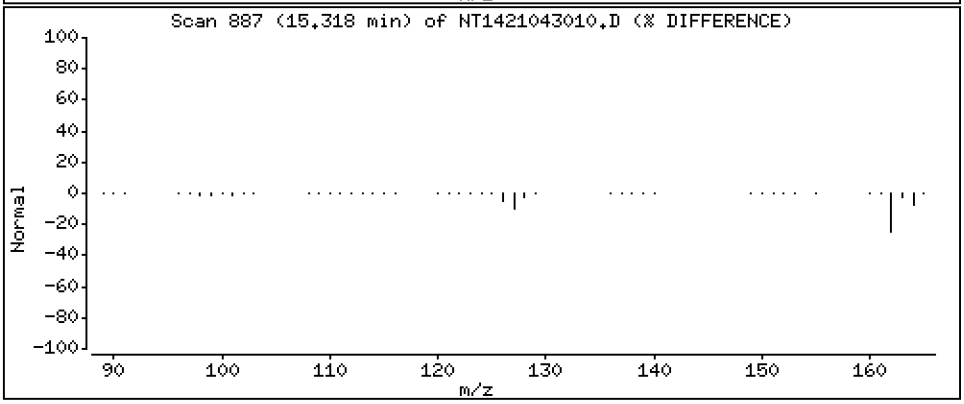


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

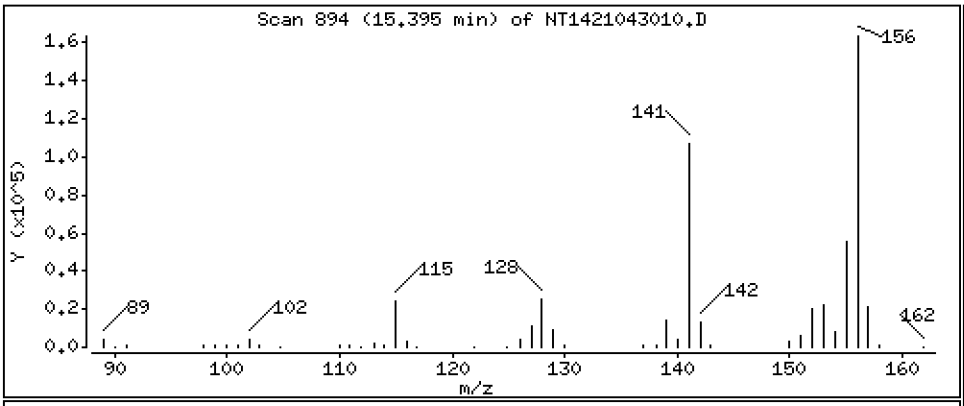
Operator: VTS

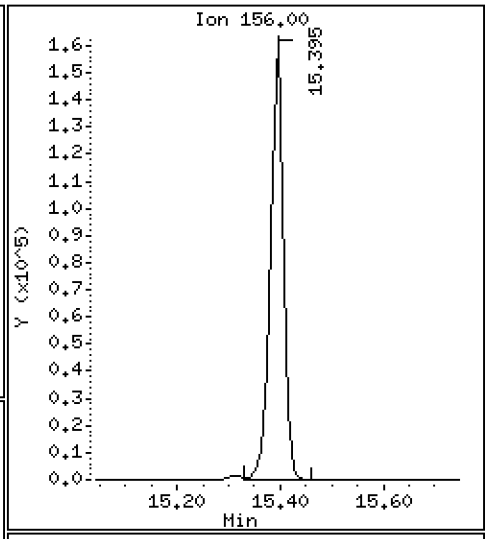
Column phase: Rxi-17Sil MS

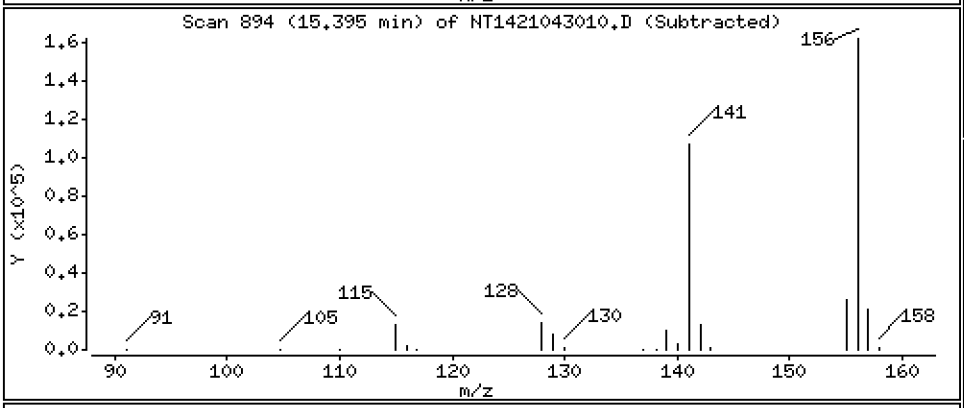
Column diameter: 0.25

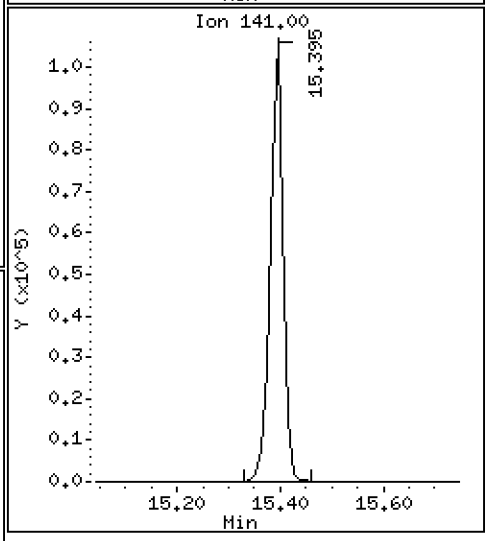
19 2,6-Dimethylnaphthalene

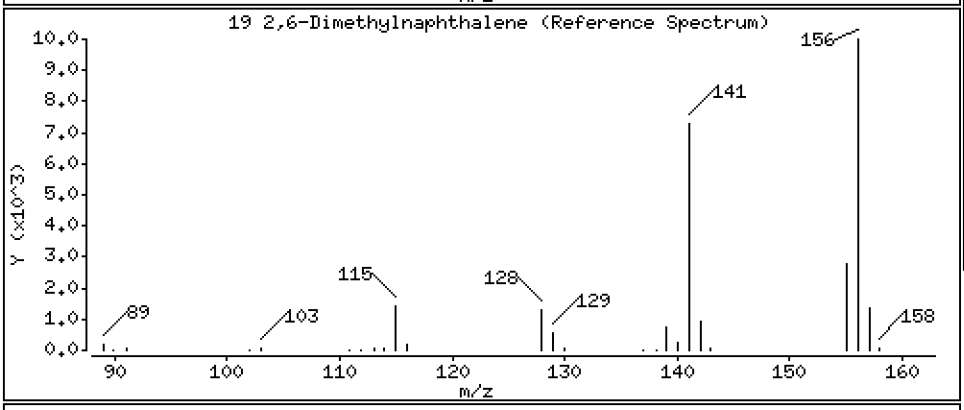
Concentration: 2.822 ug/mL

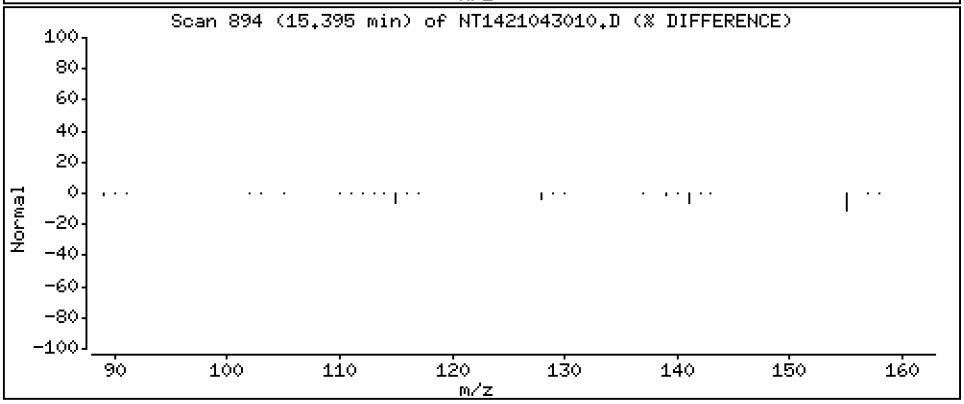


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

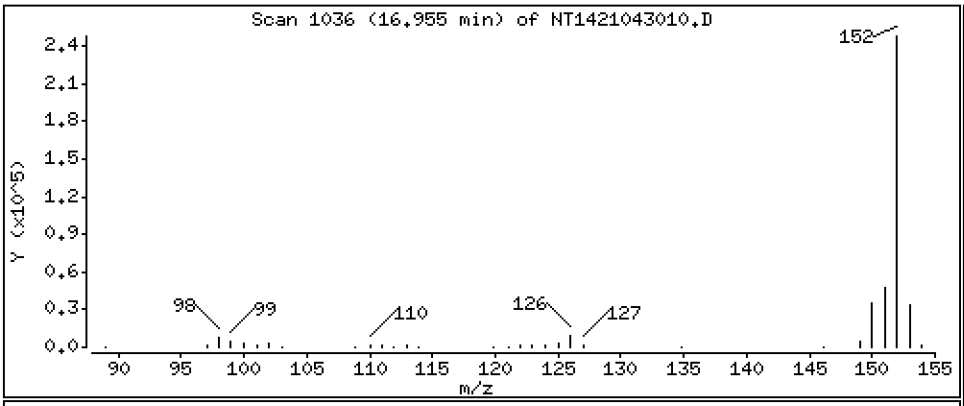
Operator: VTS

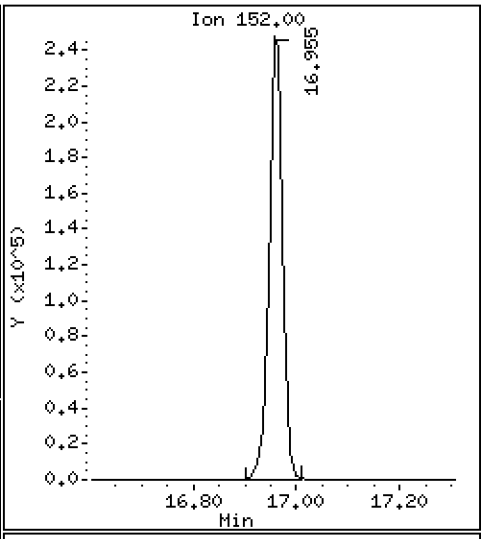
Column phase: Rxi-17Sil MS

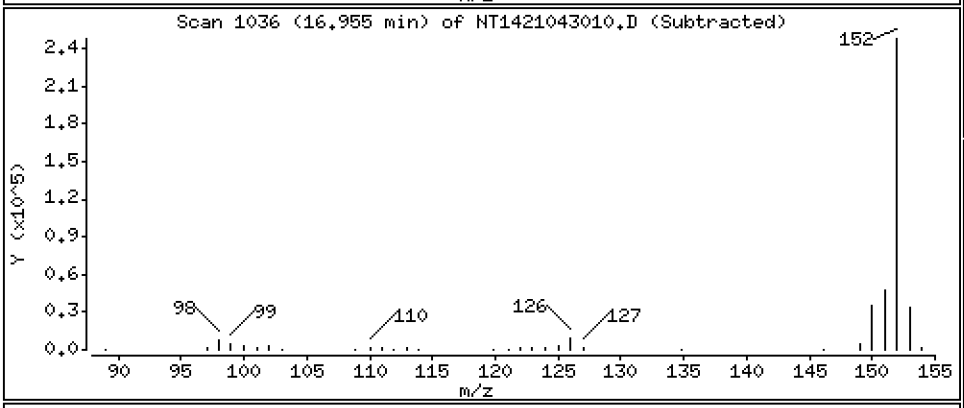
Column diameter: 0.25

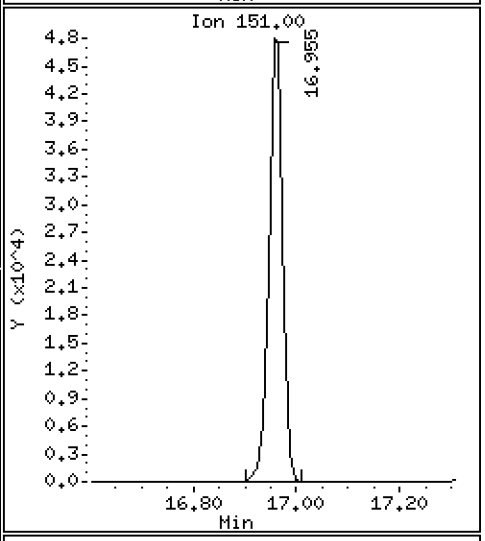
20 Acenaphthylene

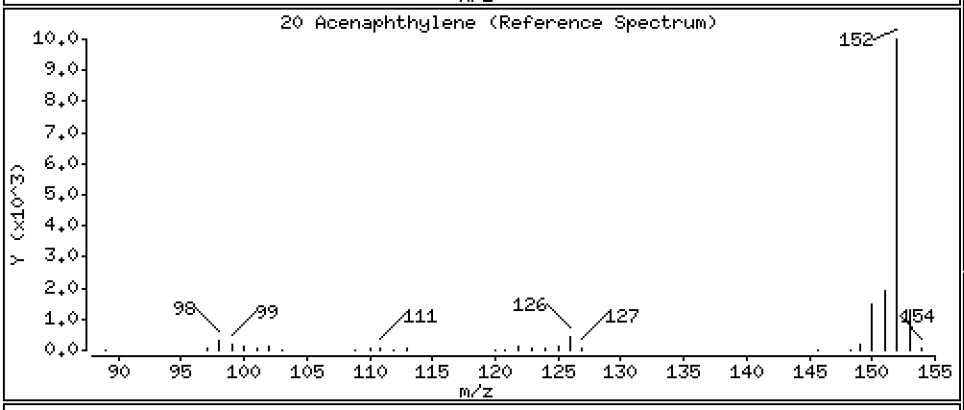
Concentration: 2.889 ug/mL

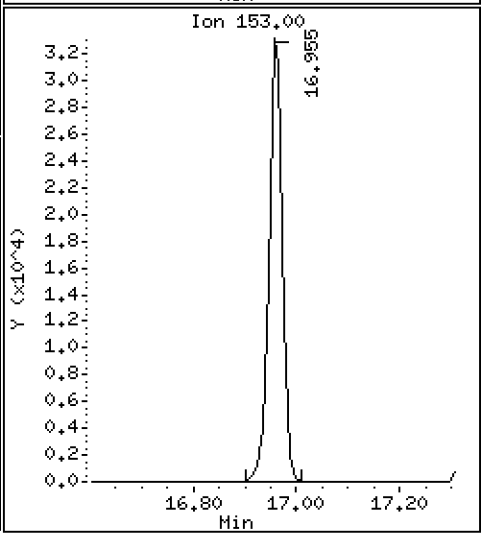


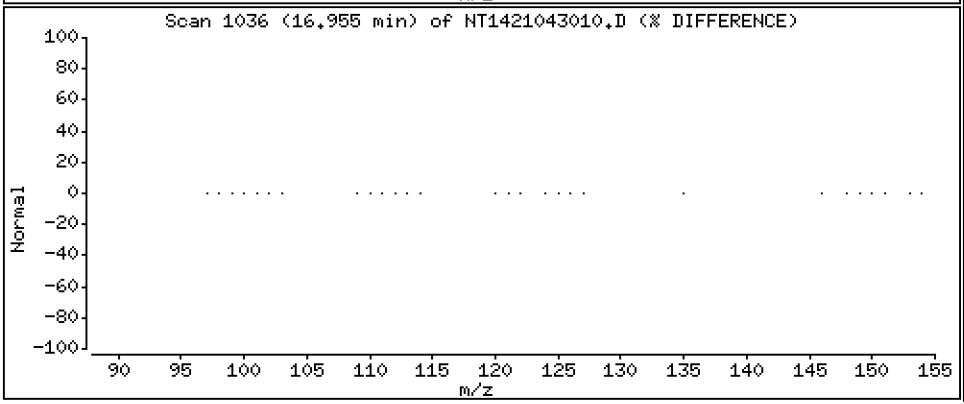



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

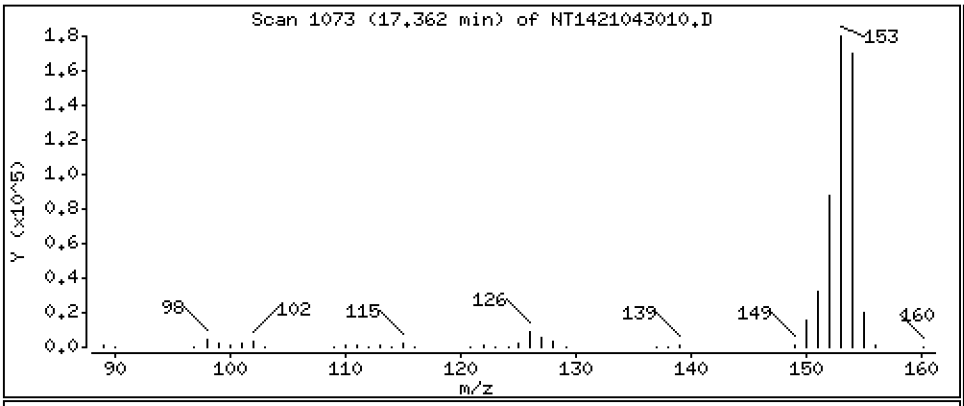
Operator: VTS

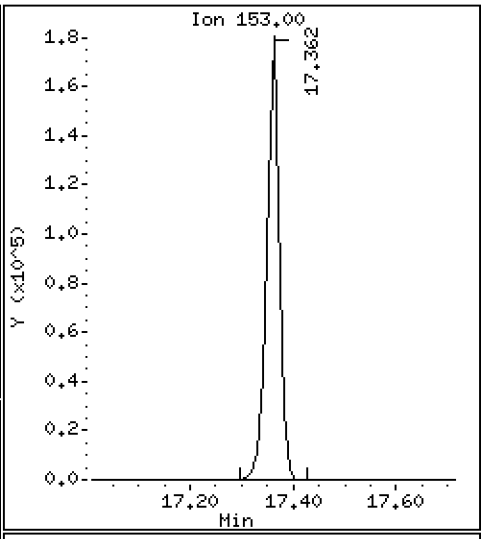
Column phase: Rxi-17Sil MS

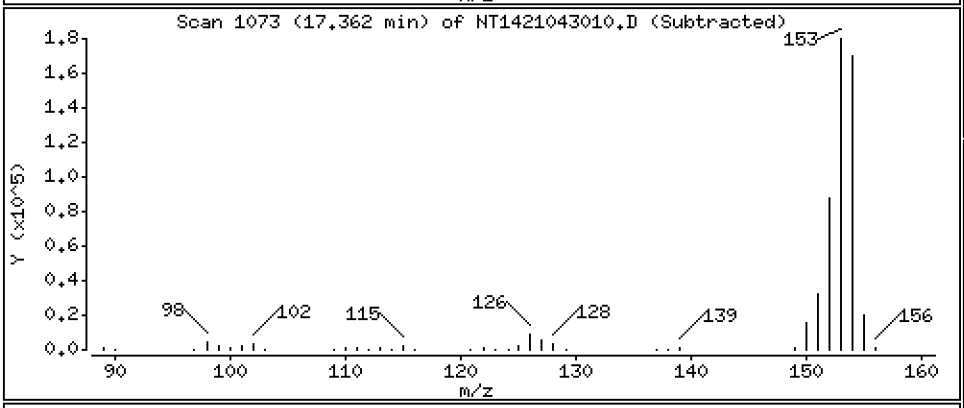
Column diameter: 0.25

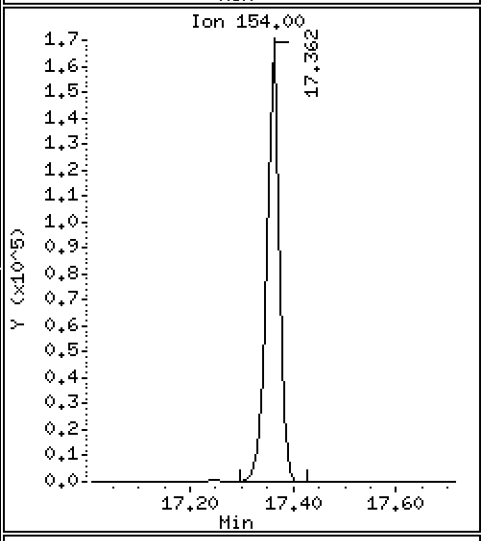
22 Acenaphthene

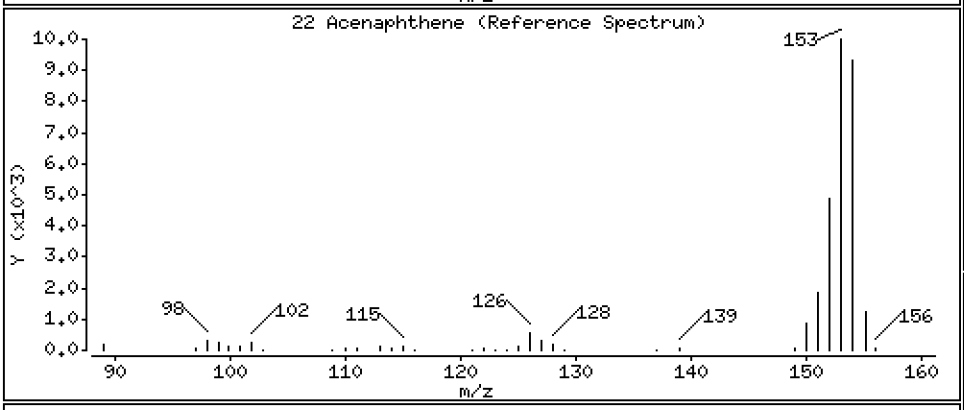
Concentration: 3.010 ug/mL

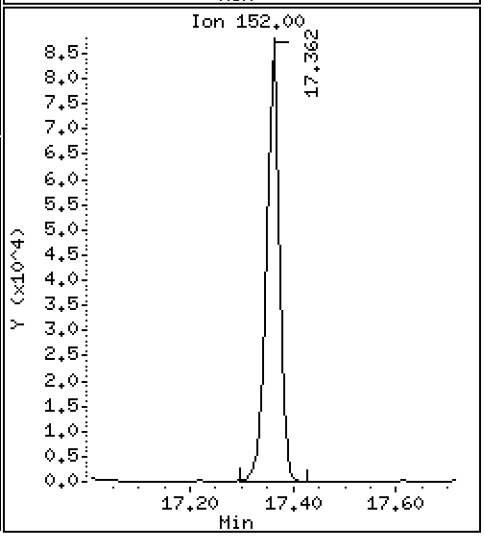


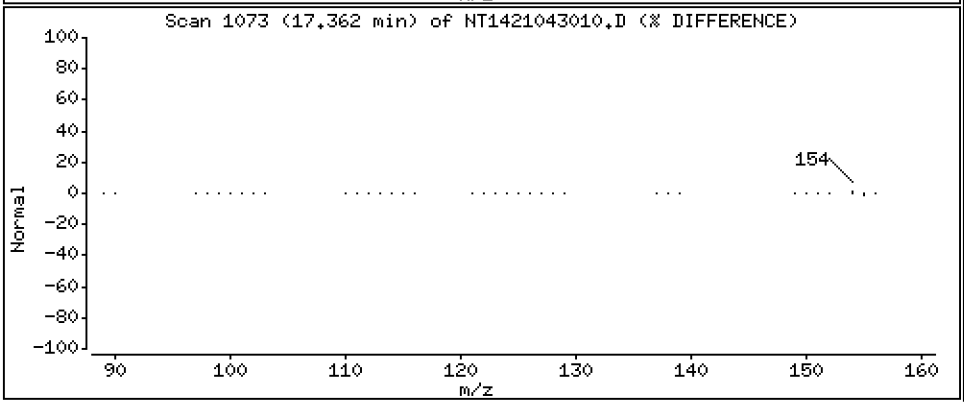



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

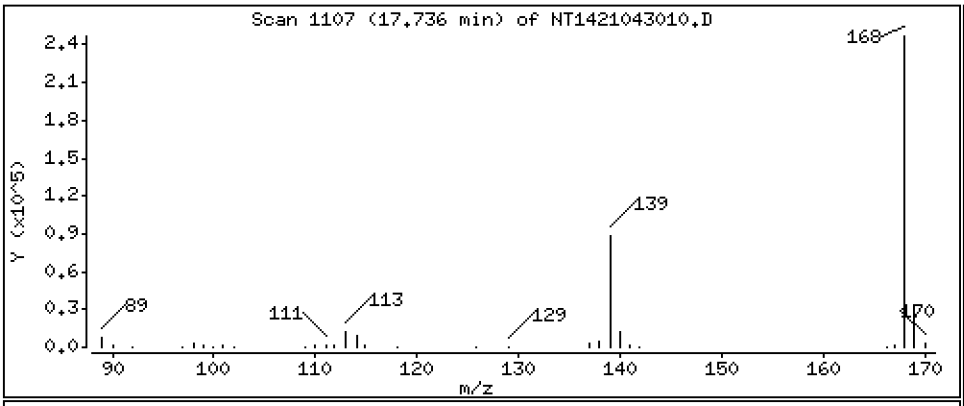
Operator: VTS

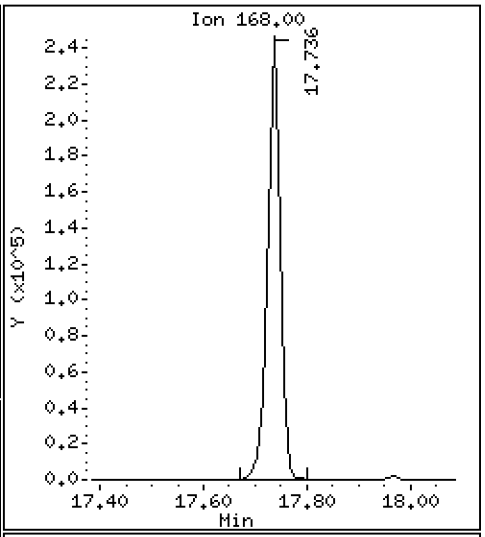
Column phase: Rxi-17Sil MS

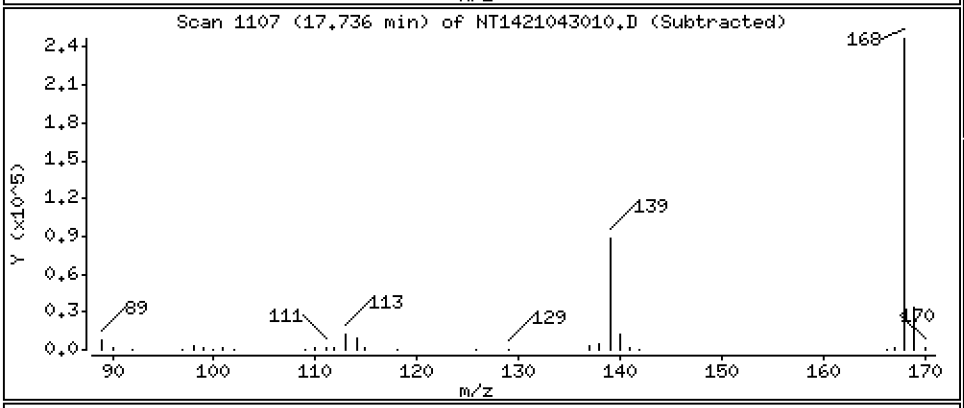
Column diameter: 0.25

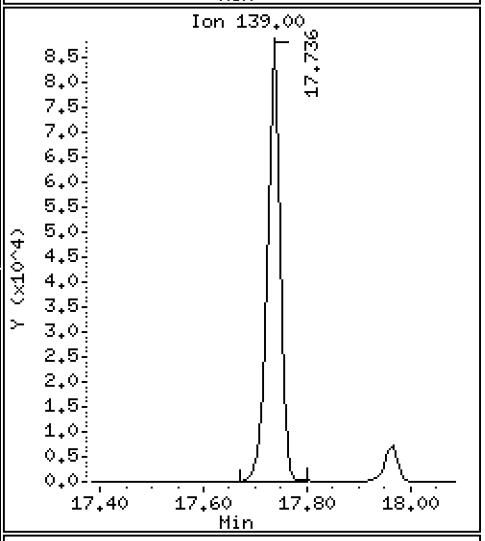
23 Dibenzofuran

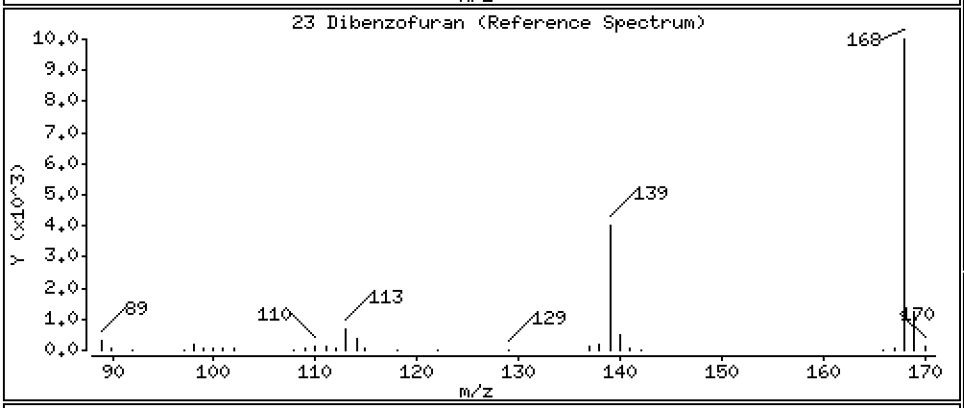
Concentration: 2.768 ug/mL

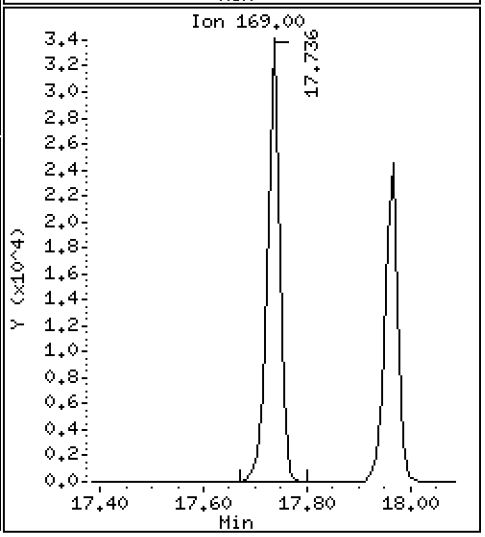


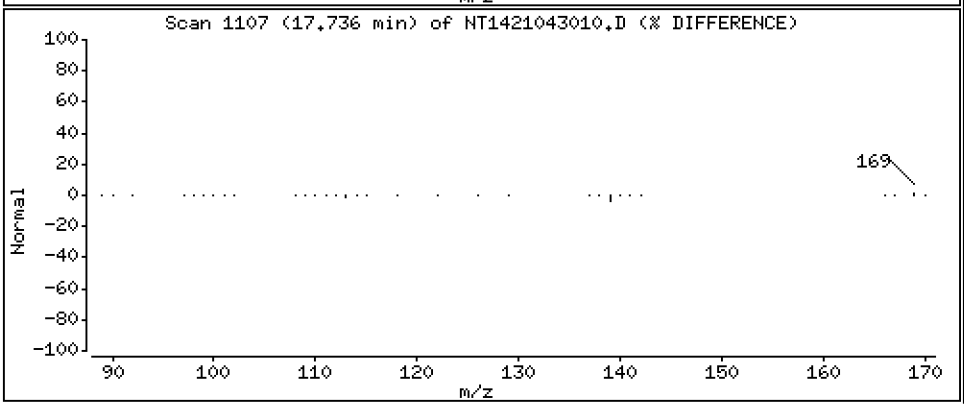



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

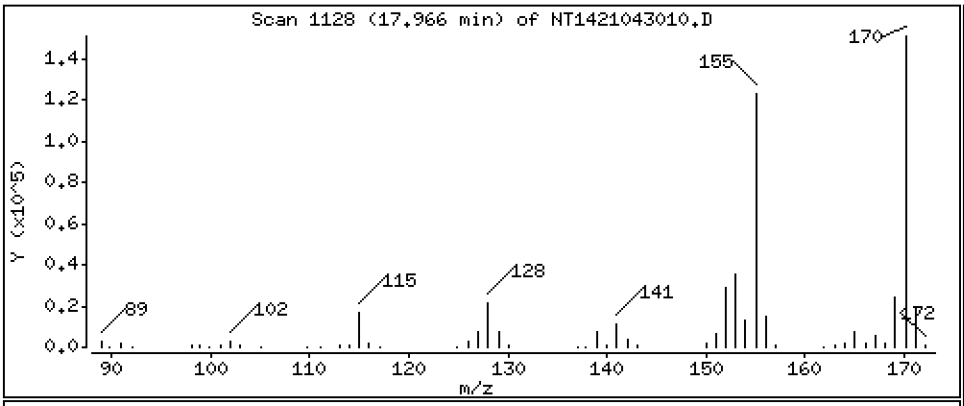
Operator: VTS

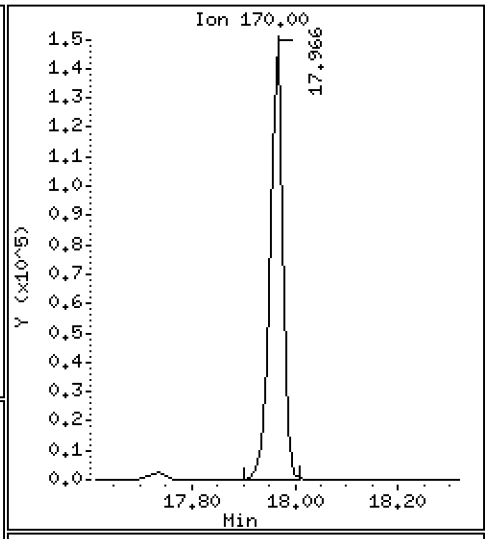
Column phase: Rxi-17Sil MS

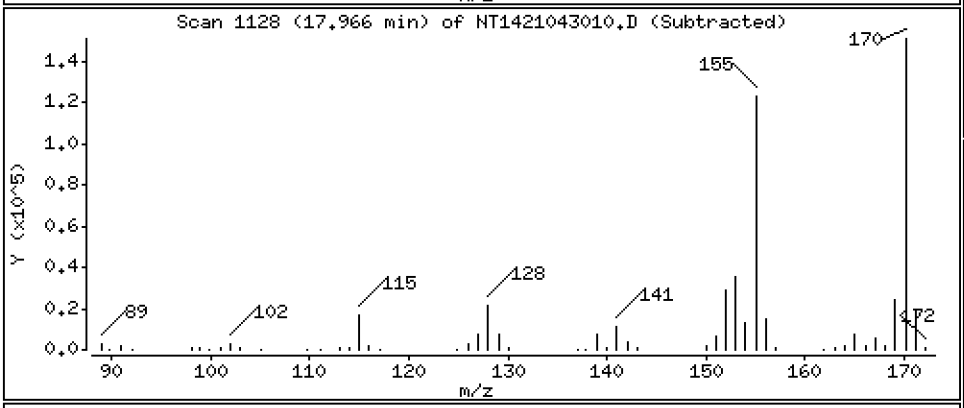
Column diameter: 0.25

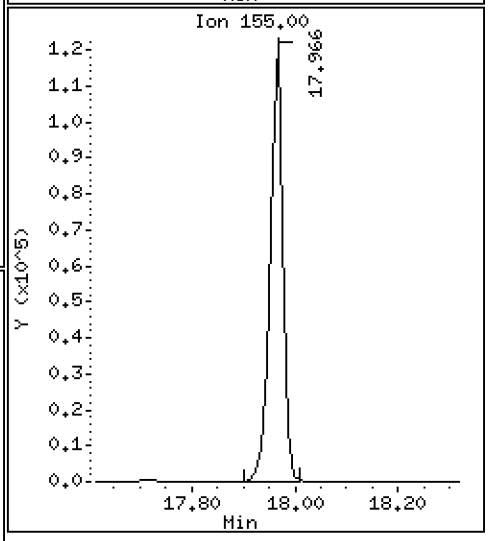
24 1,6,7-Trimethylnaphthalene

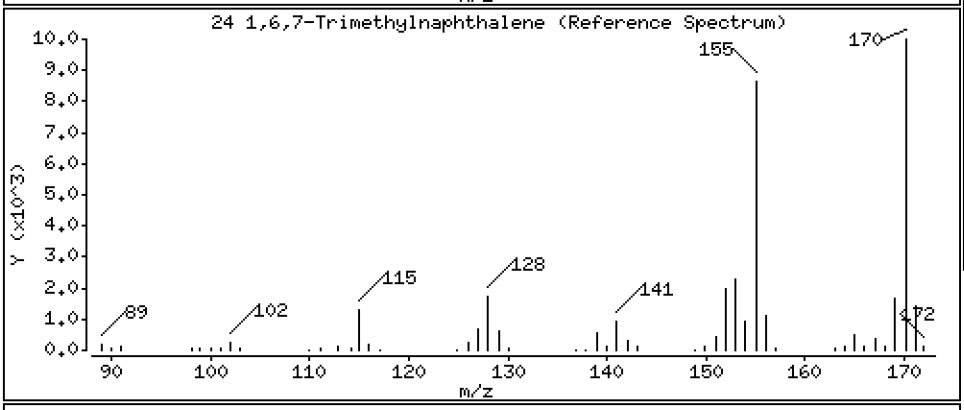
Concentration: 2.923 ug/mL

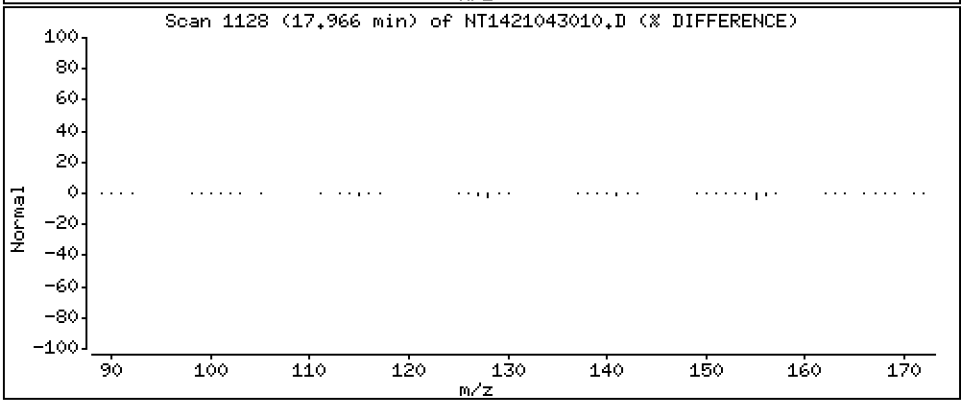


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

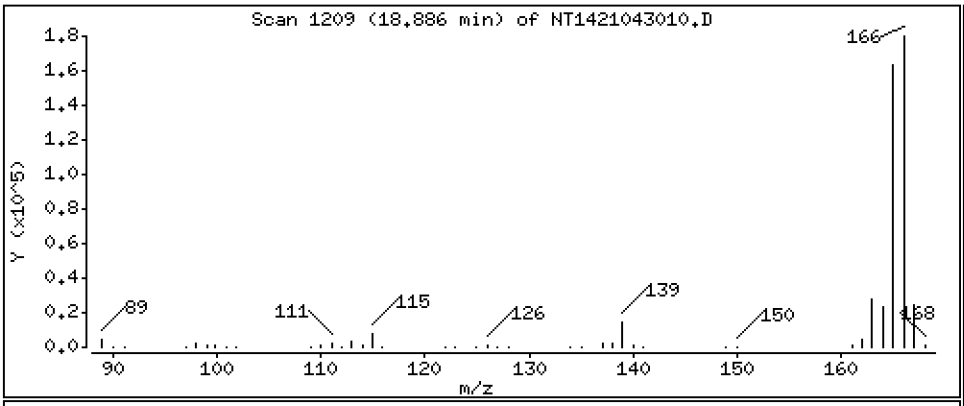
Operator: VTS

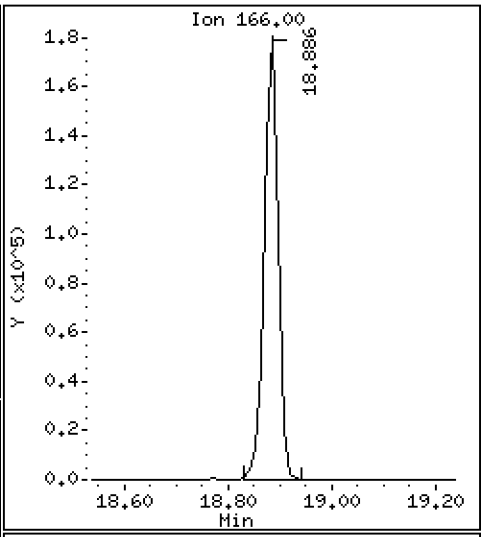
Column phase: Rxi-17Sil MS

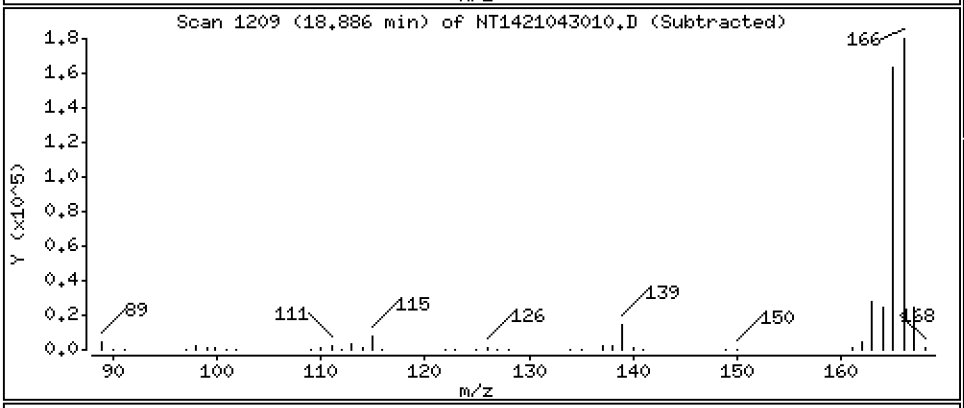
Column diameter: 0.25

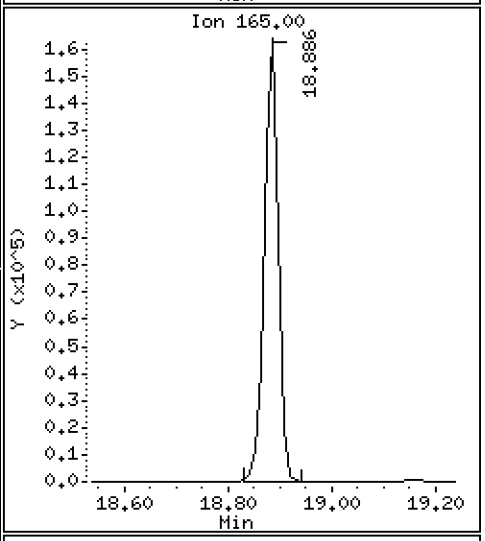
26 Fluorene

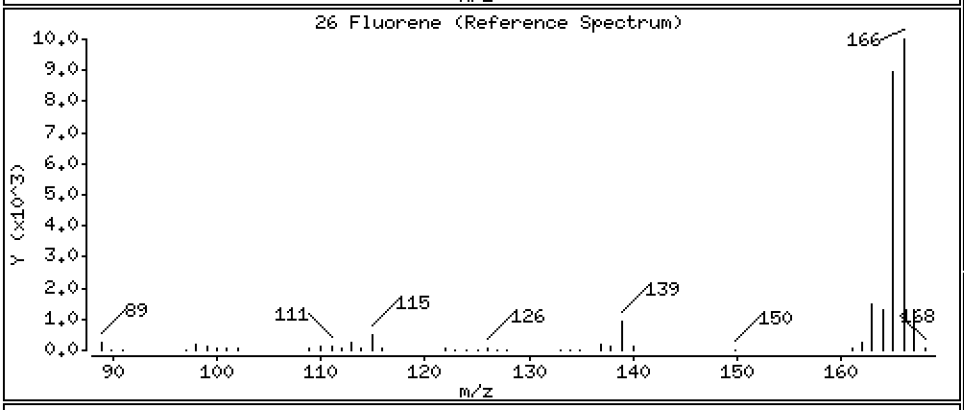
Concentration: 2.844 ug/mL

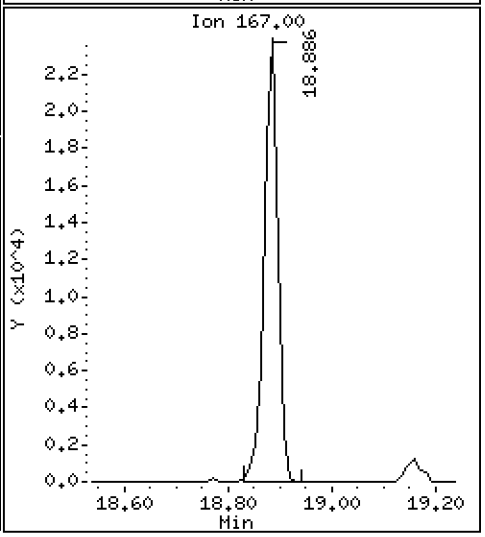


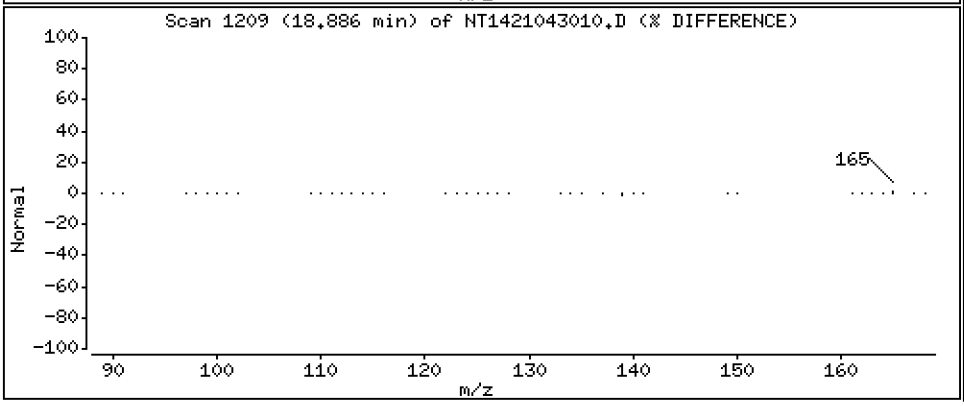



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

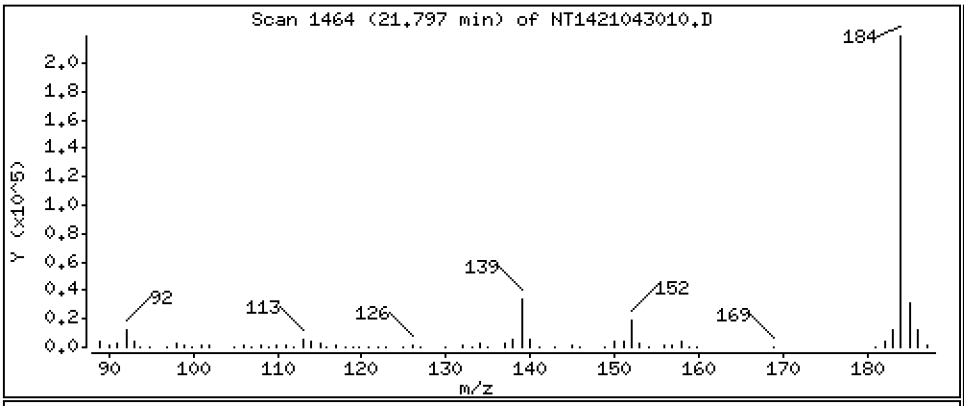
Operator: VTS

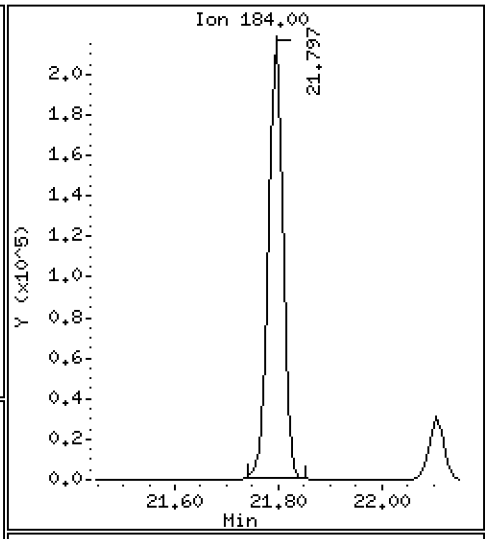
Column phase: Rxi-17Sil MS

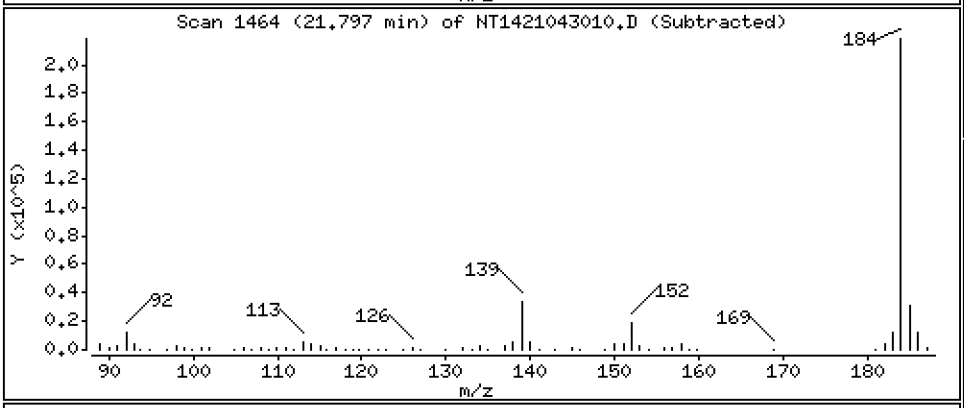
Column diameter: 0.25

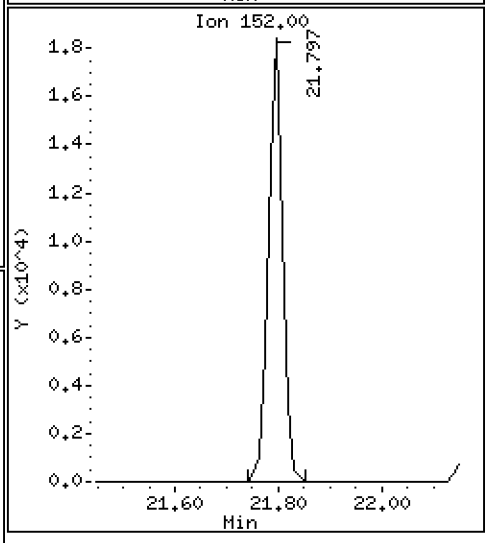
30 Dibenzothiophene

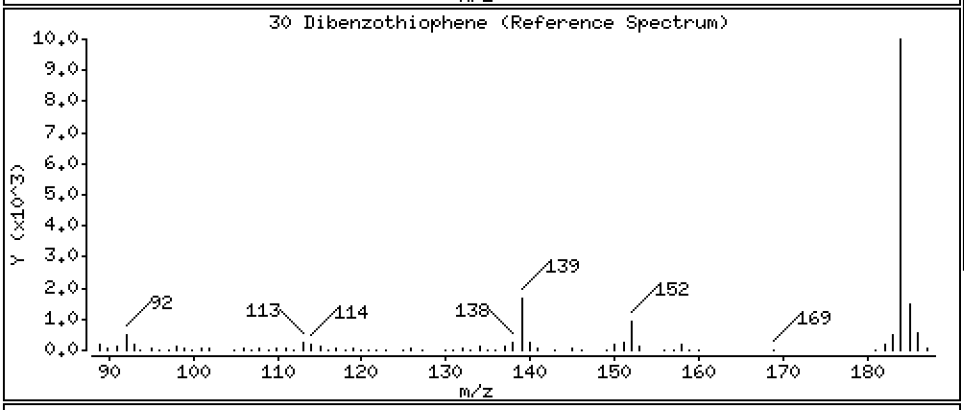
Concentration: 2.782 ug/mL

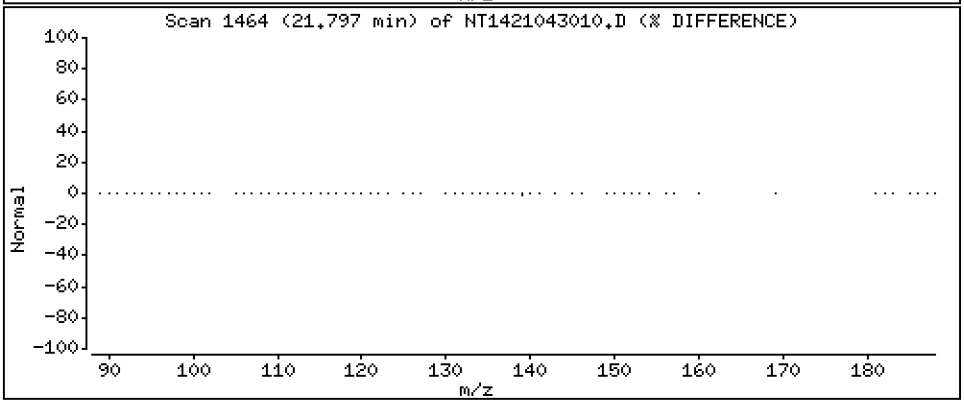


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

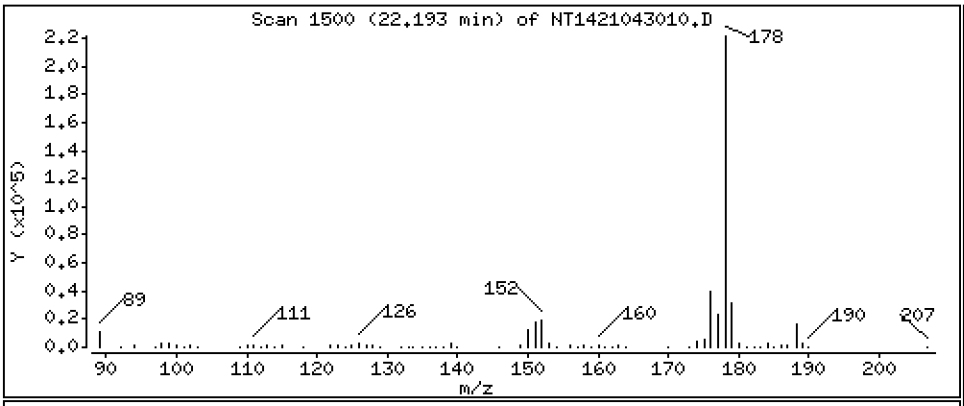
Operator: VTS

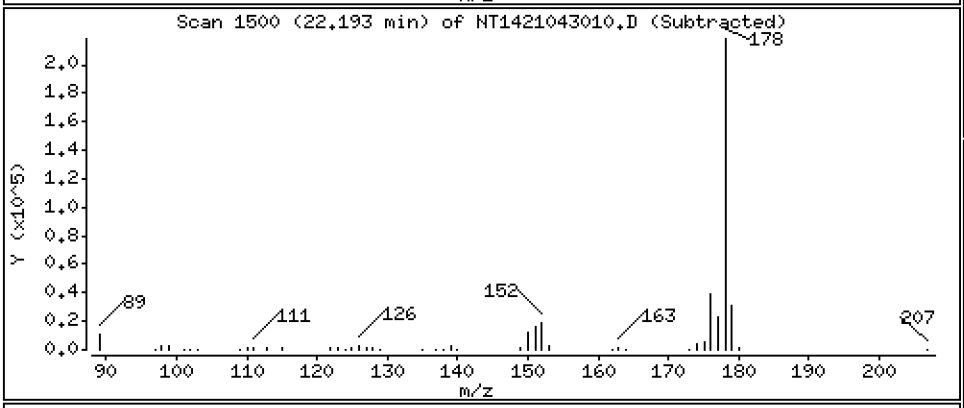
Column phase: Rxi-17Sil MS

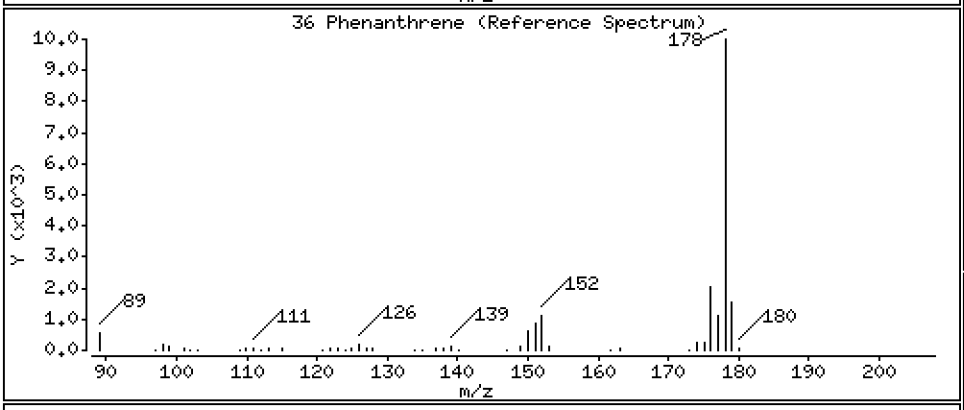
Column diameter: 0.25

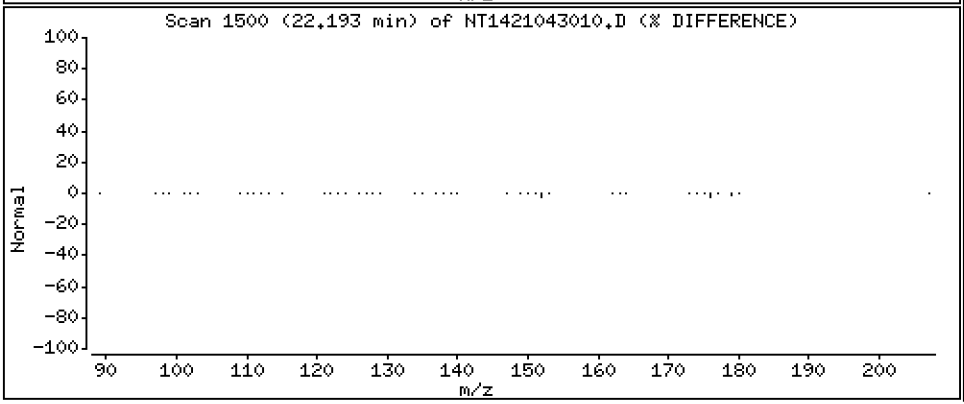
36 Phenanthrene

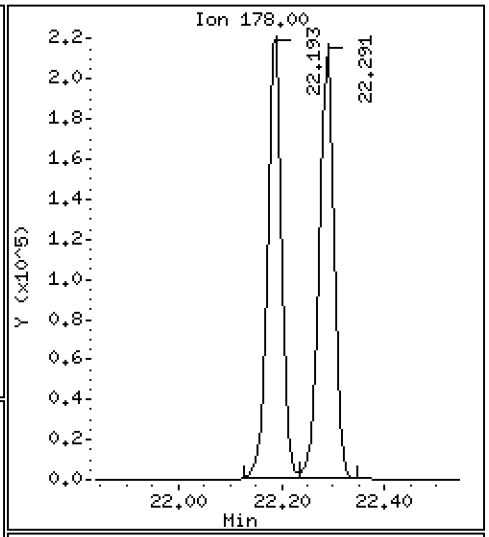
Concentration: 2.468 ug/mL

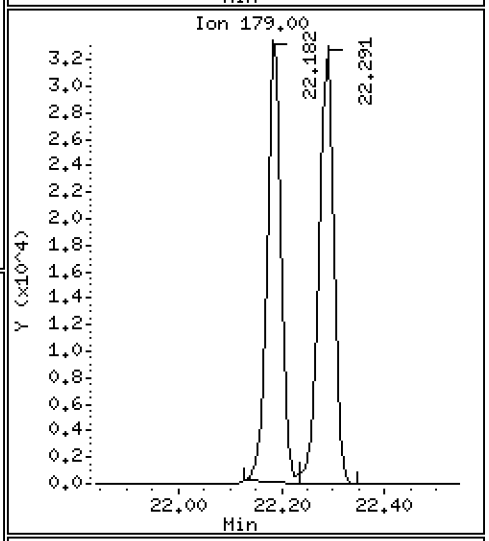


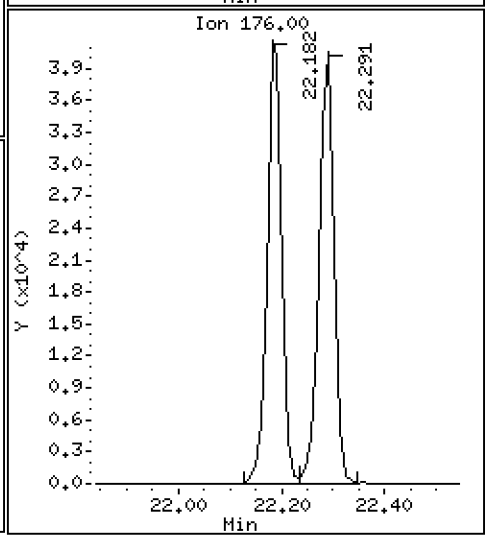



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

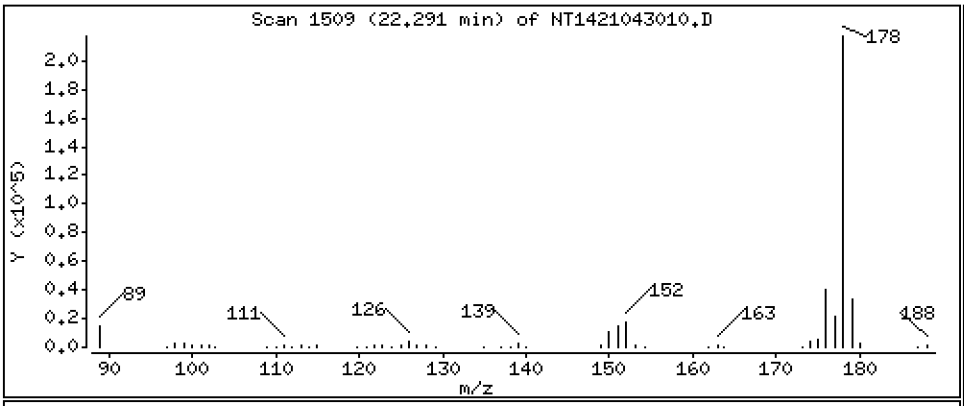
Operator: VTS

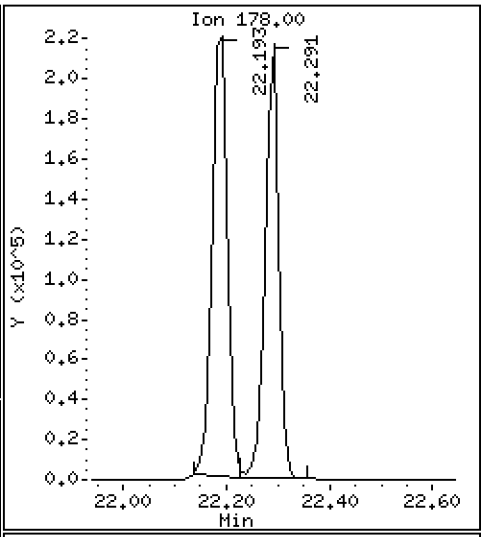
Column phase: Rxi-17Sil MS

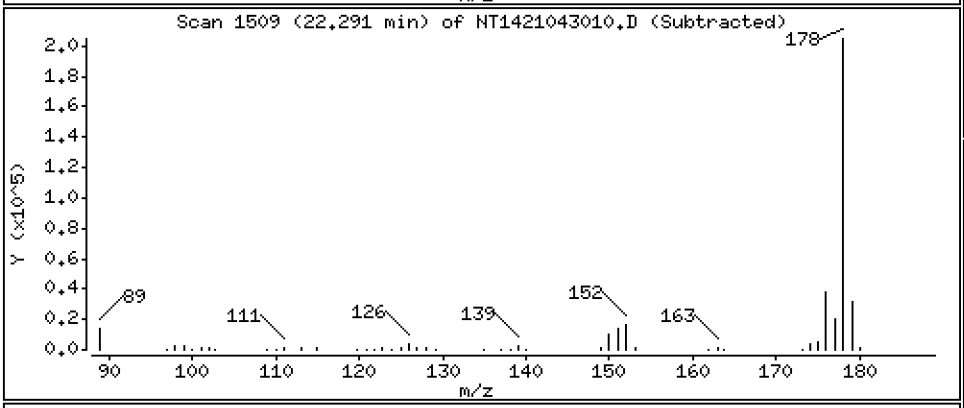
Column diameter: 0.25

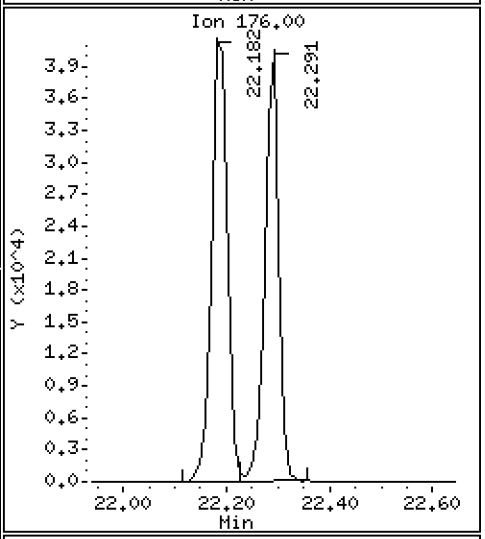
37 Anthracene

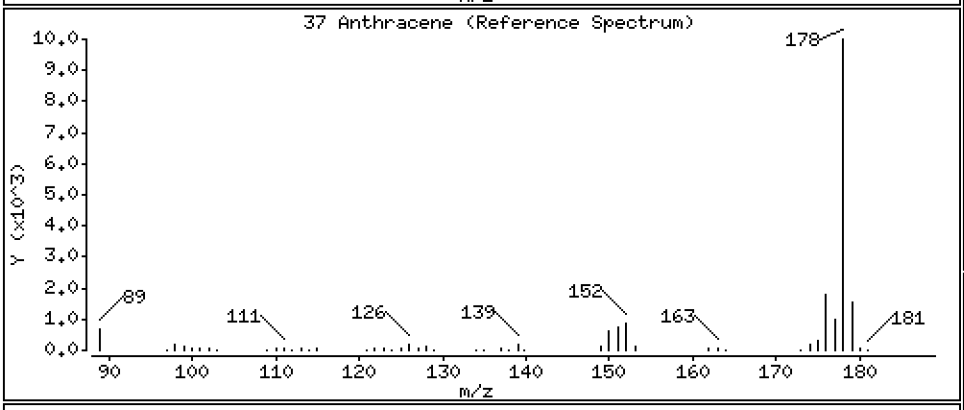
Concentration: 2.492 ug/mL

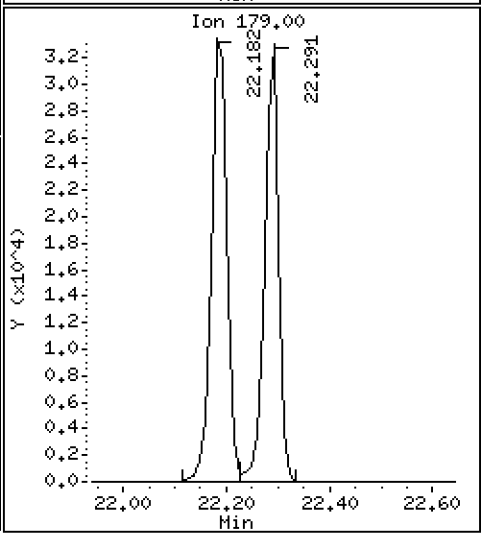


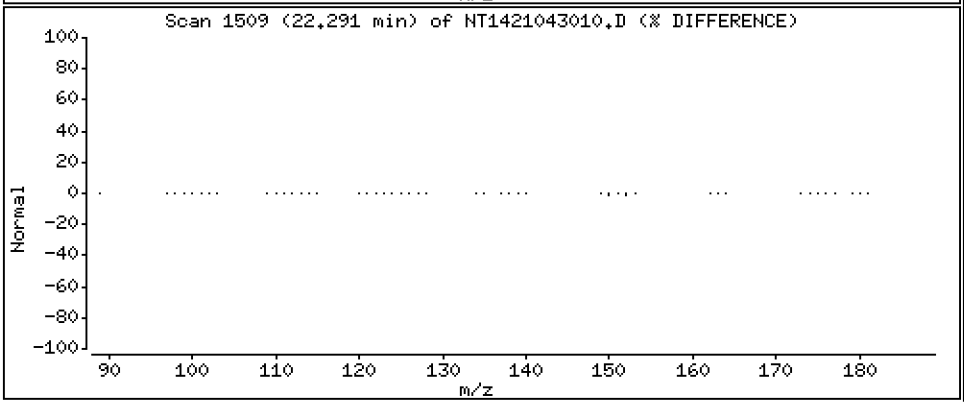



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

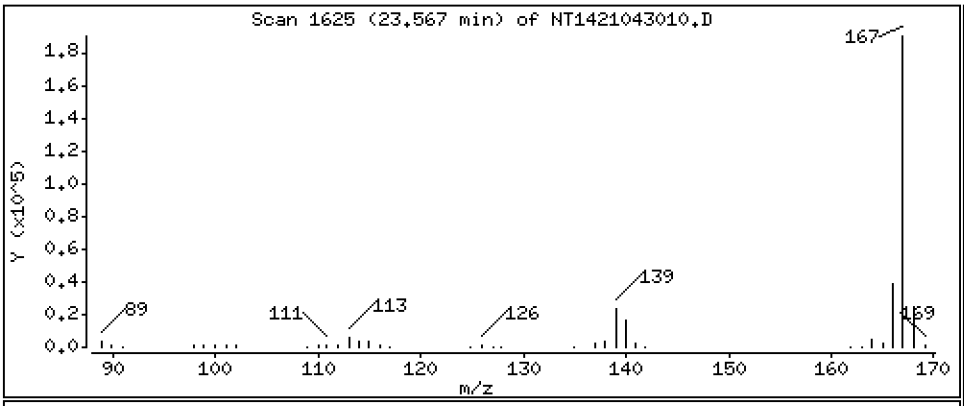
Operator: VTS

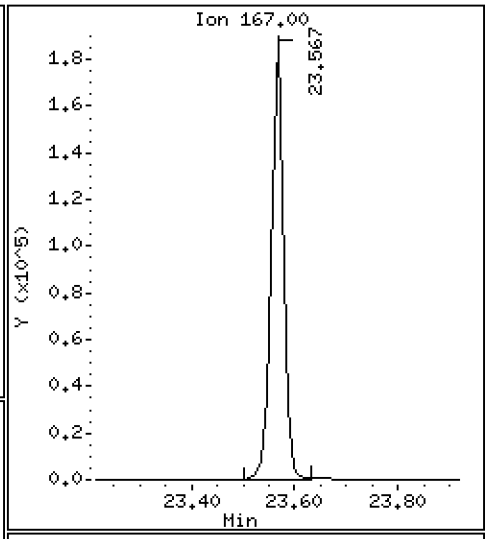
Column phase: Rxi-17Sil MS

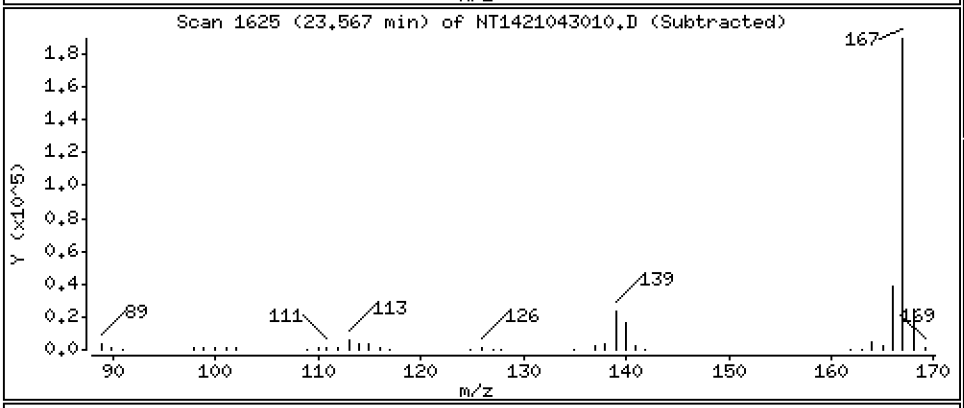
Column diameter: 0.25

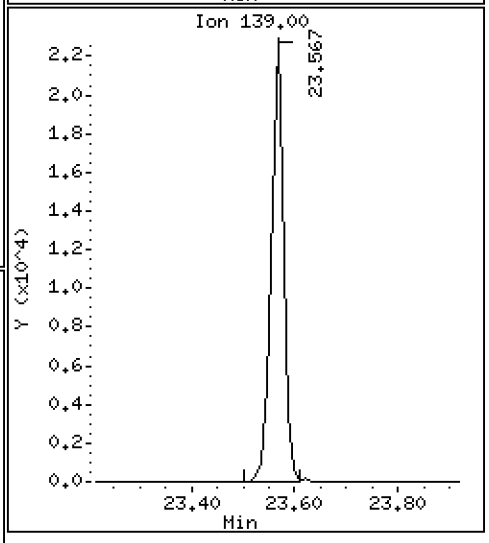
42 Carbazole

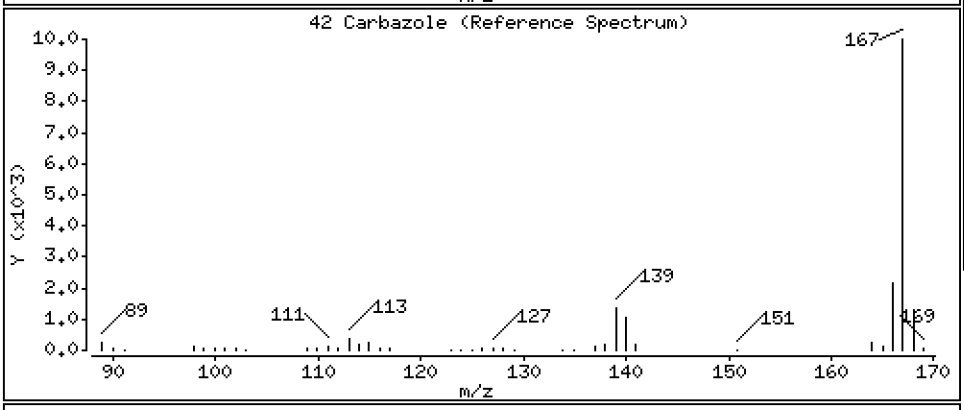
Concentration: 2.343 ug/mL

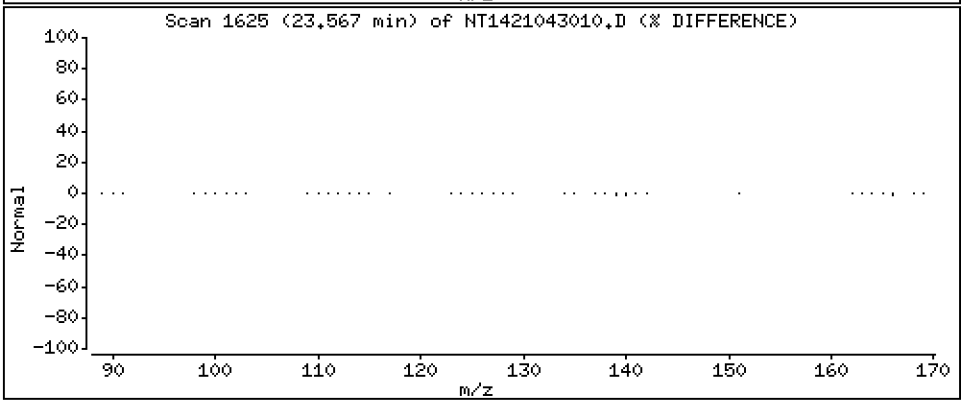


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

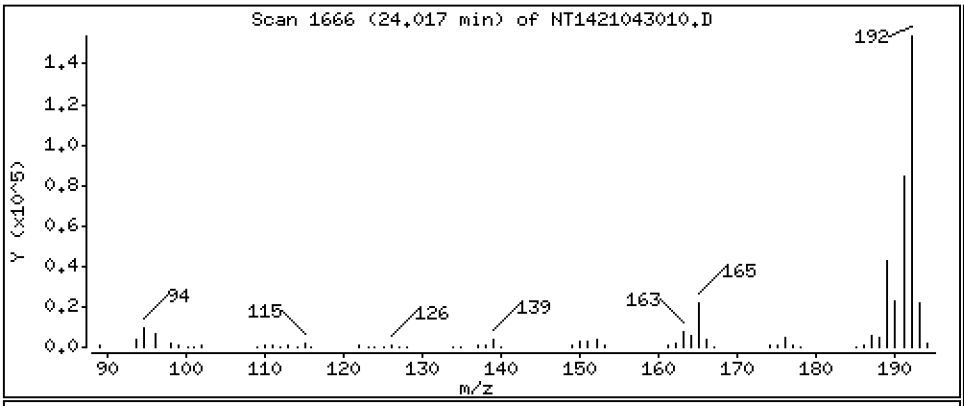
Operator: VTS

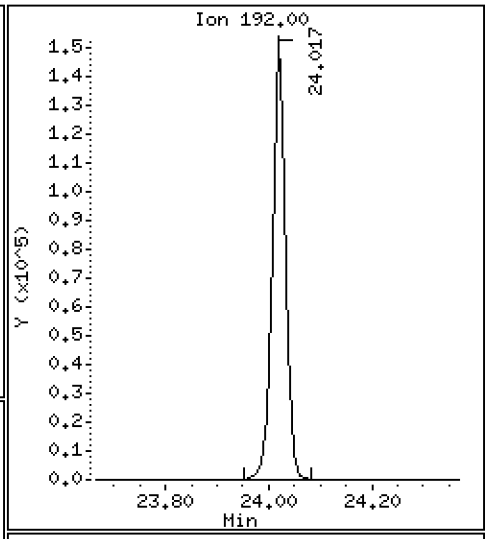
Column phase: Rxi-17Sil MS

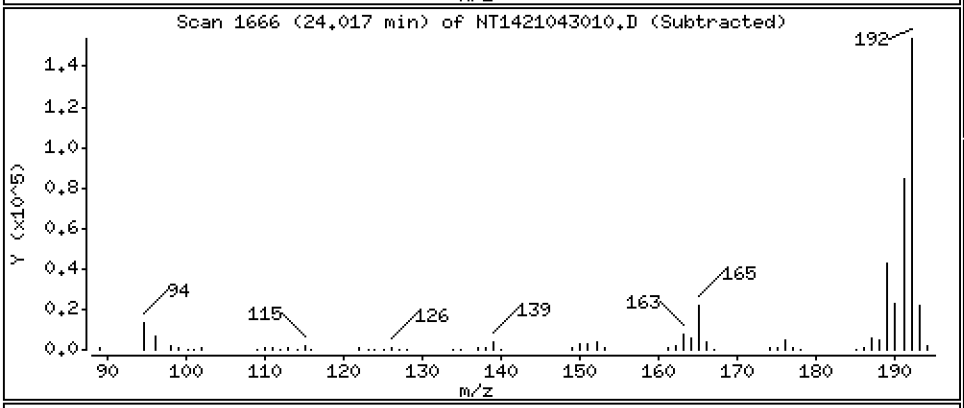
Column diameter: 0.25

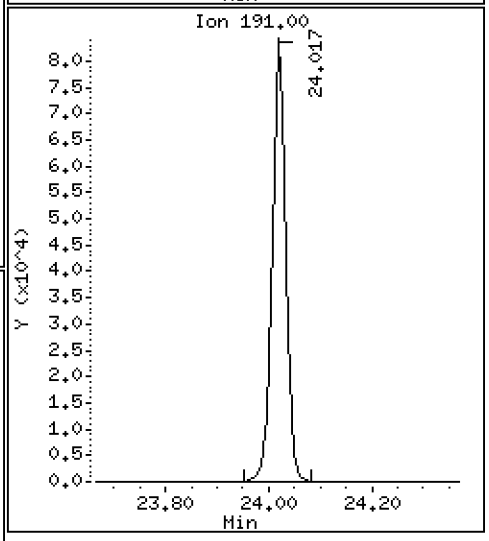
43 1-Methylphenanthrene

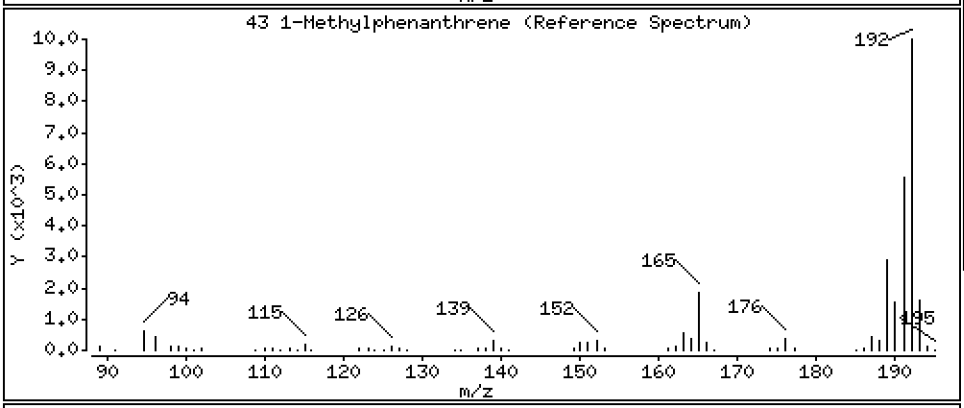
Concentration: 2.594 ug/mL

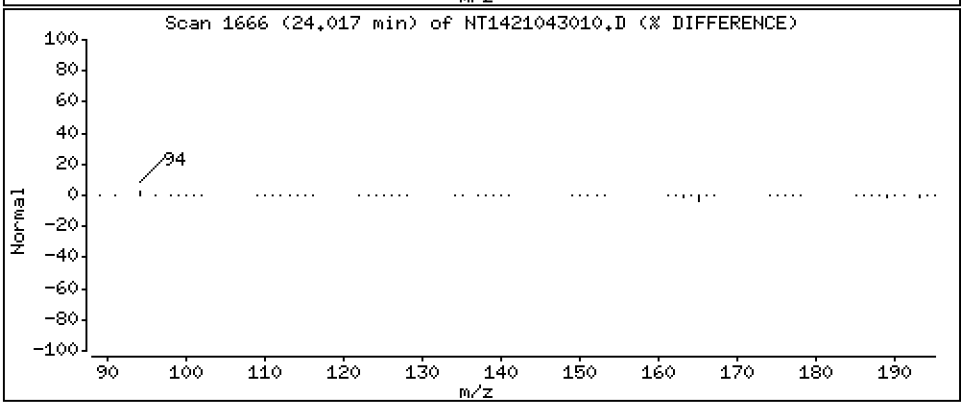


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

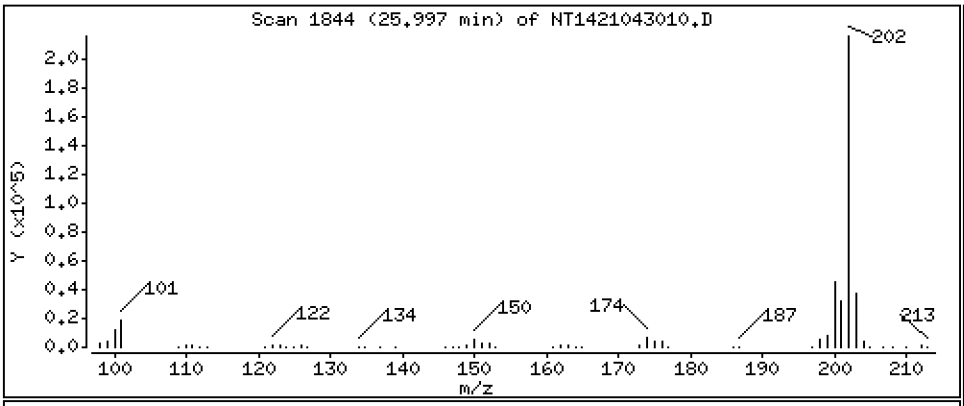
Operator: VTS

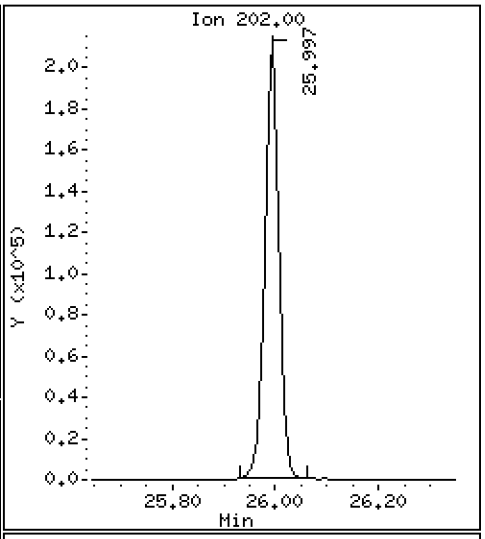
Column phase: Rxi-17Sil MS

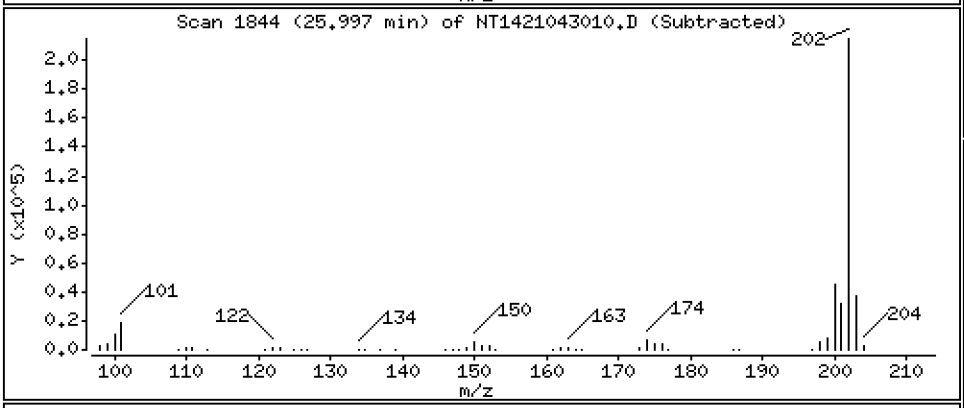
Column diameter: 0.25

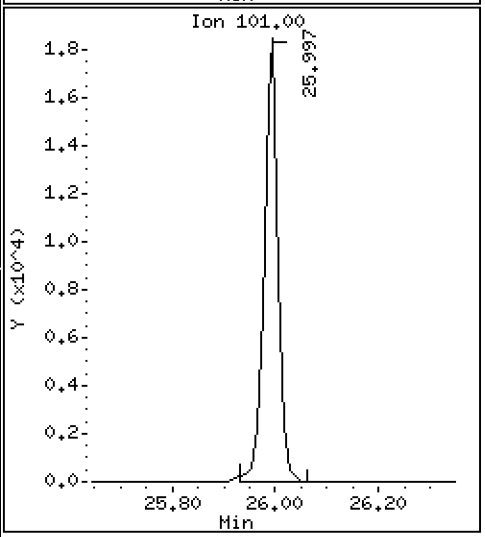
44 Fluoranthene

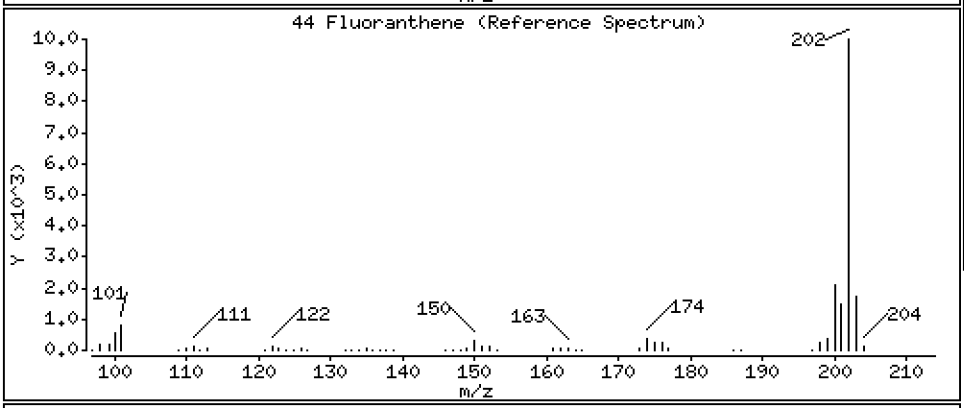
Concentration: 2.634 ug/mL

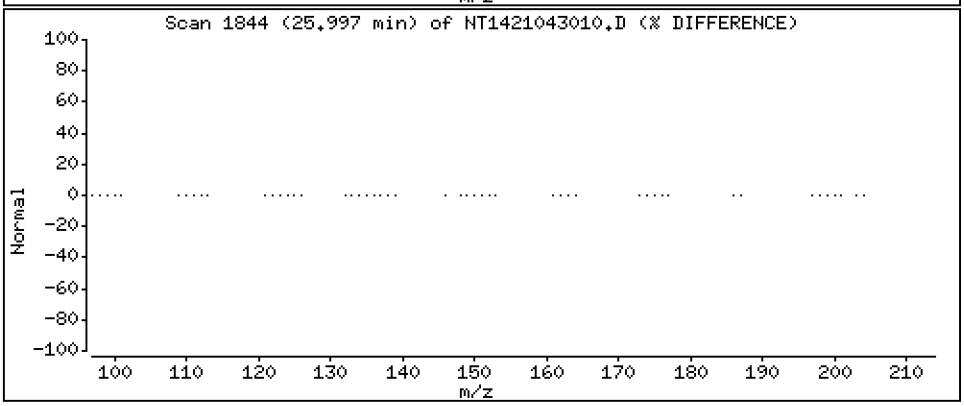


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

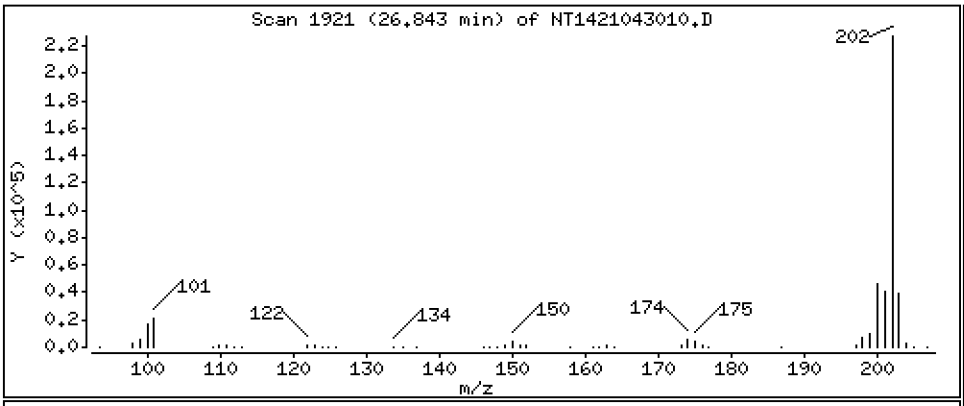
Operator: VTS

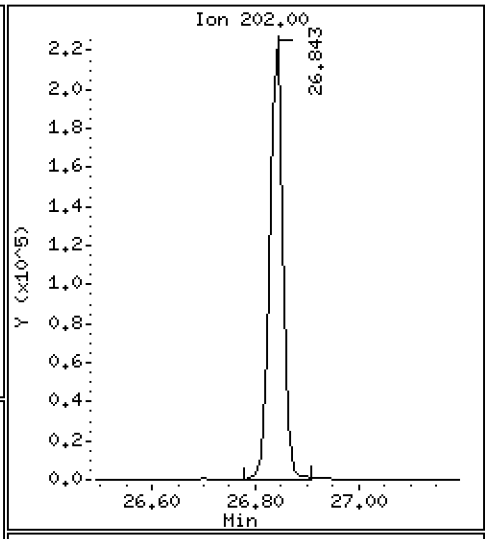
Column phase: Rxi-17Sil MS

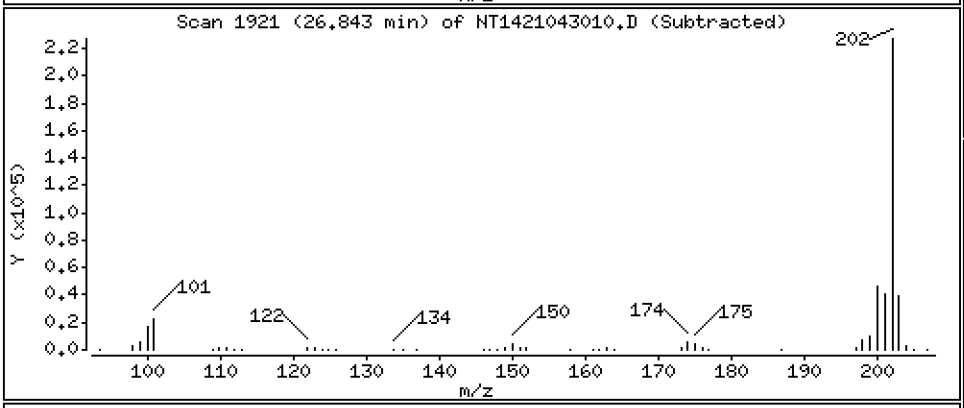
Column diameter: 0.25

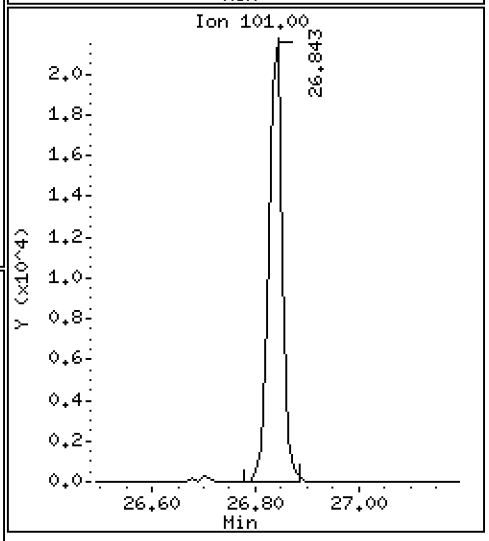
46 Pyrene

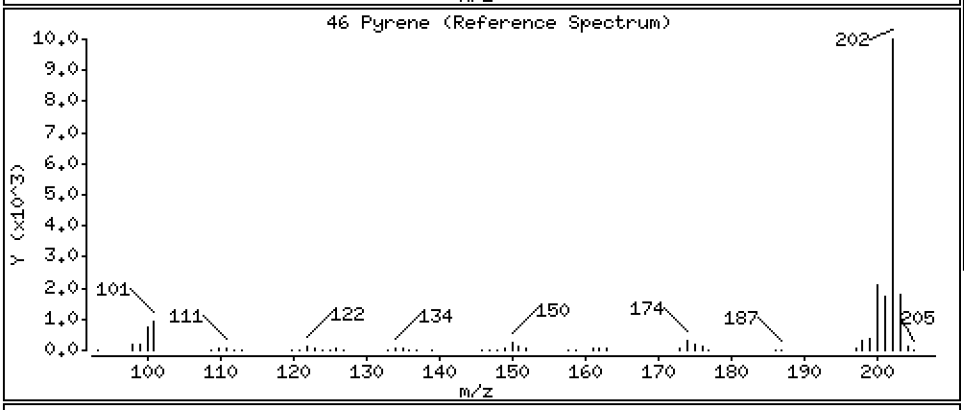
Concentration: 2.527 ug/mL

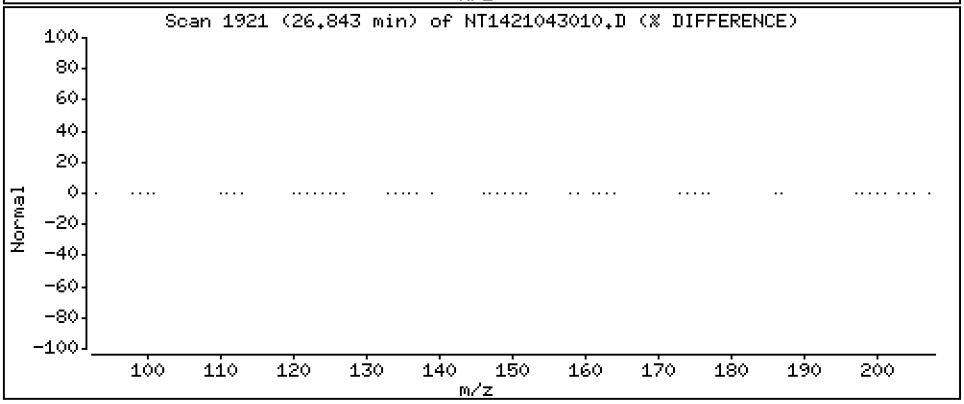


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

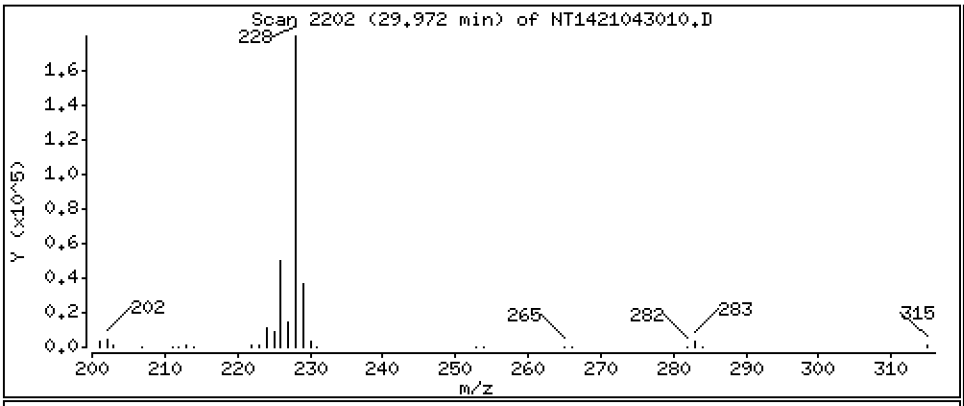
Operator: VTS

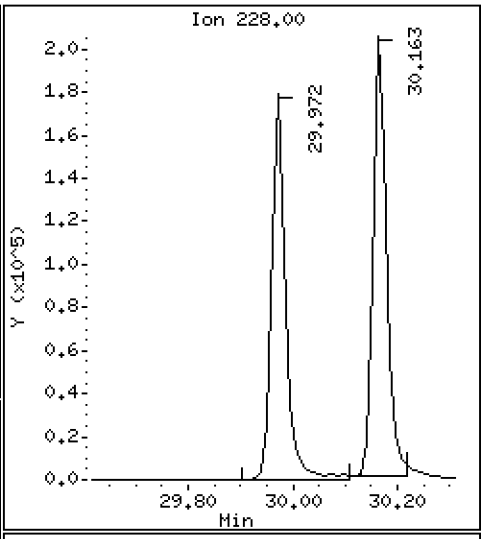
Column phase: Rxi-17Sil MS

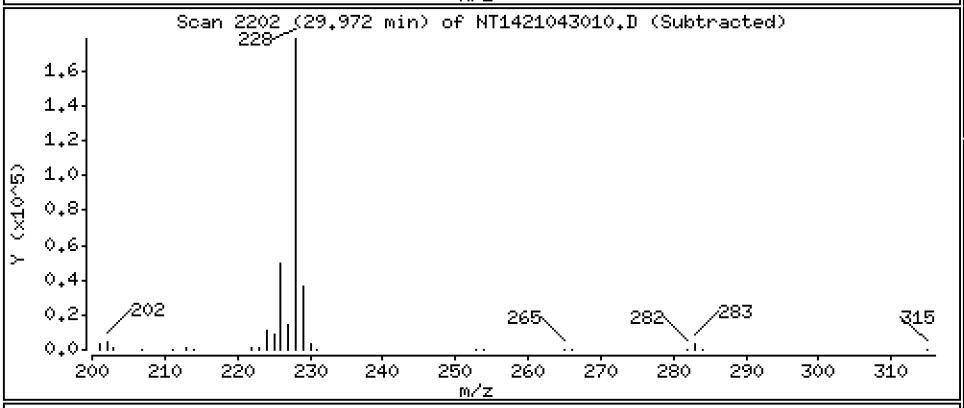
Column diameter: 0.25

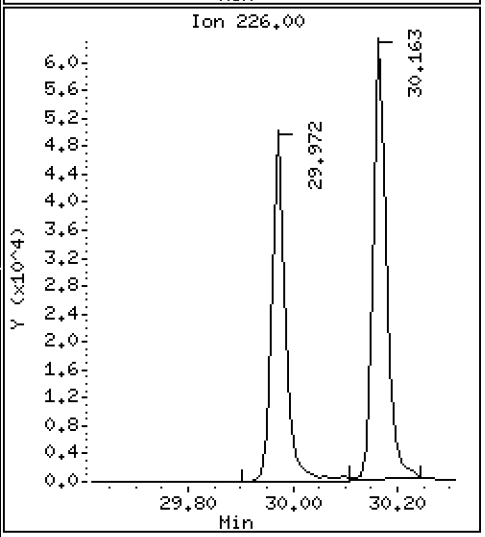
55 Benzo(a)anthracene

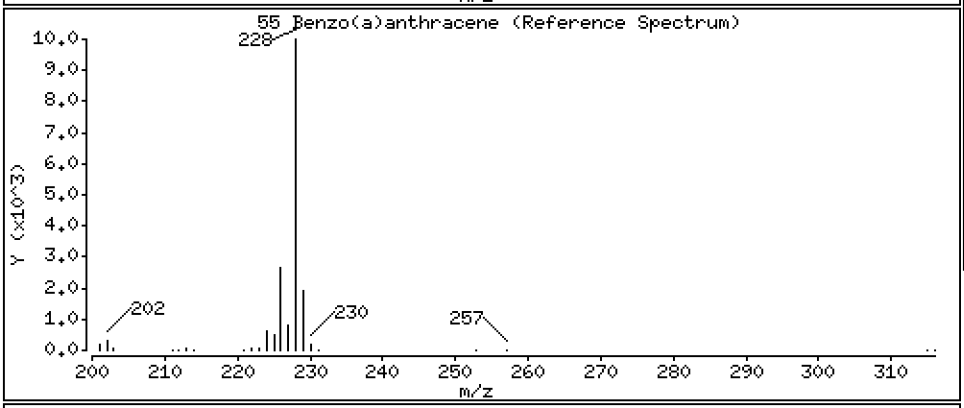
Concentration: 2.278 ug/mL

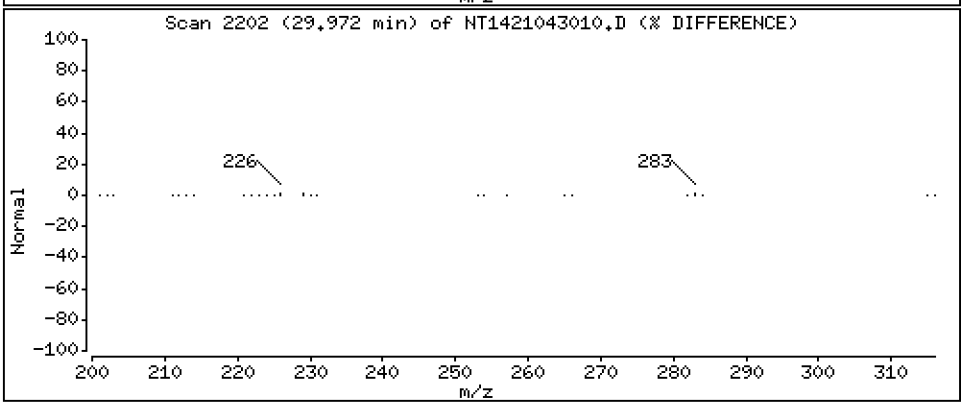


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

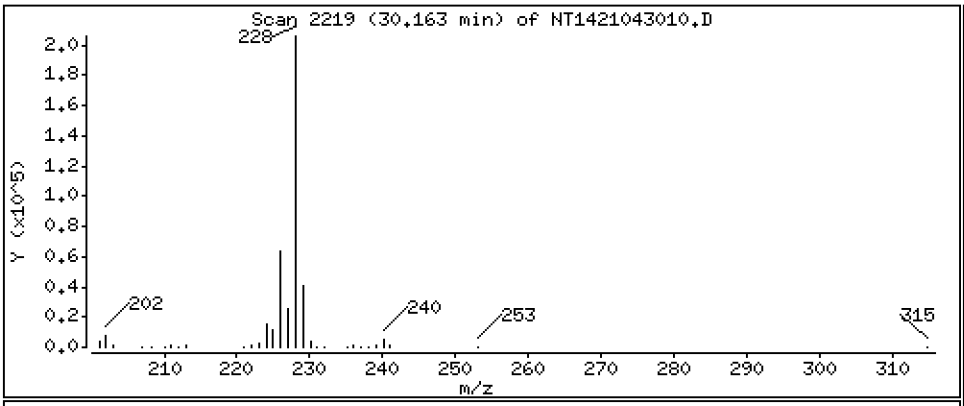
Operator: VTS

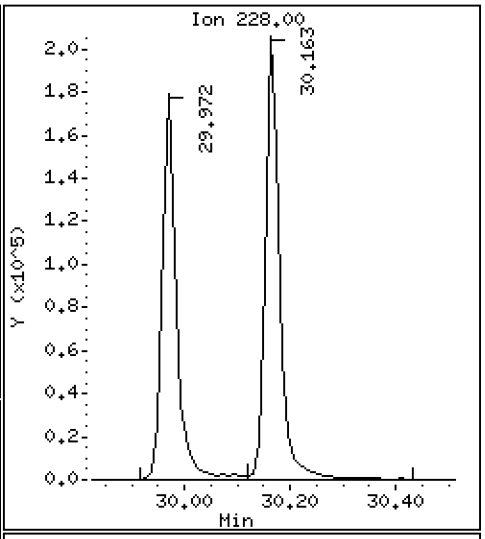
Column phase: Rxi-17Sil MS

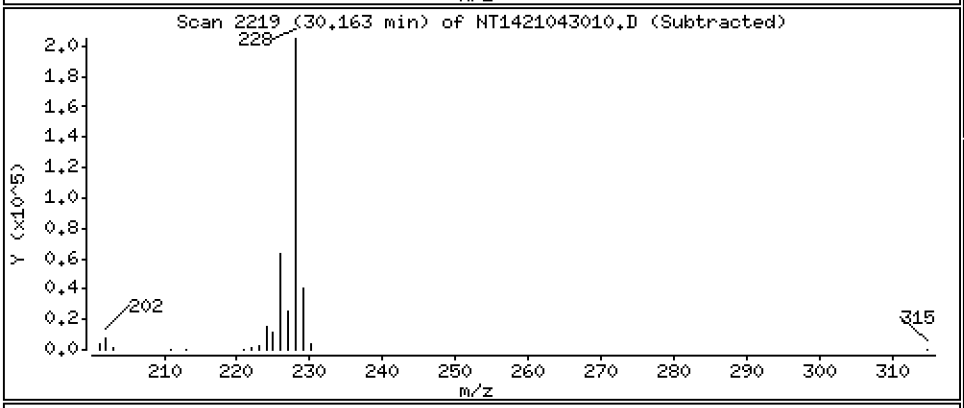
Column diameter: 0.25

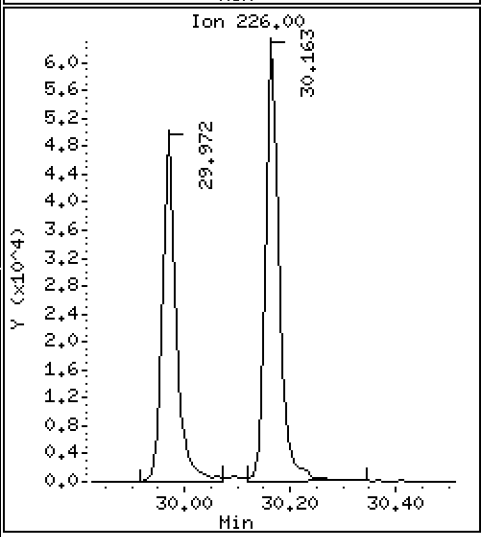
57 Chrysene

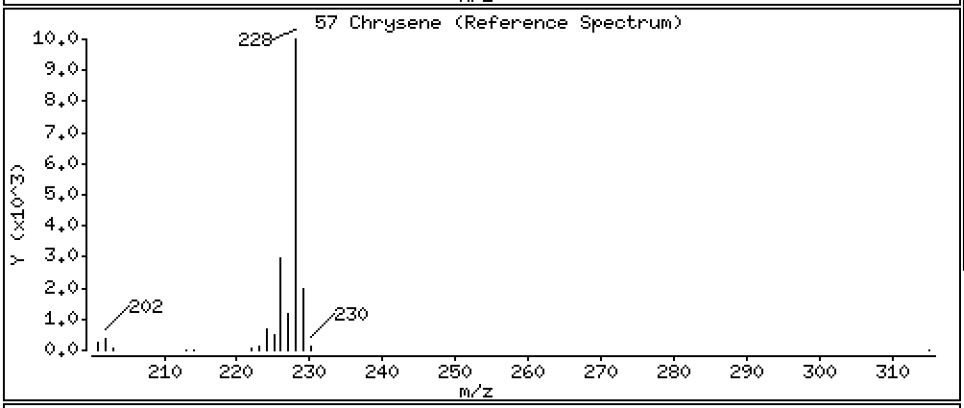
Concentration: 2.574 ug/mL

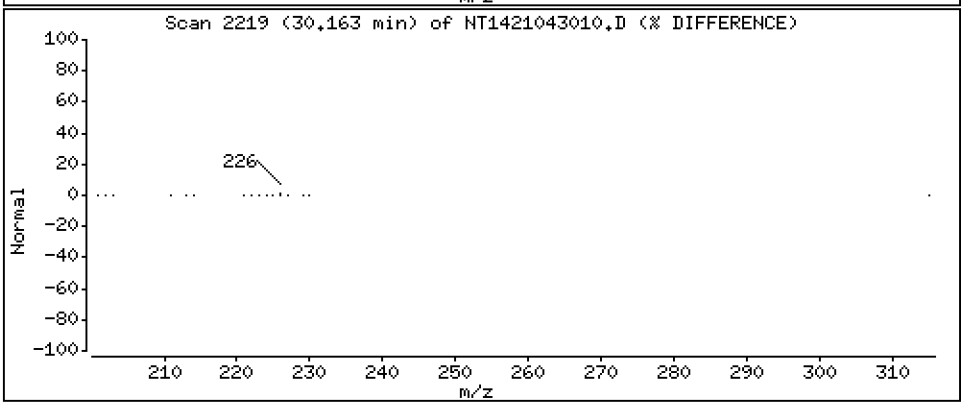


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

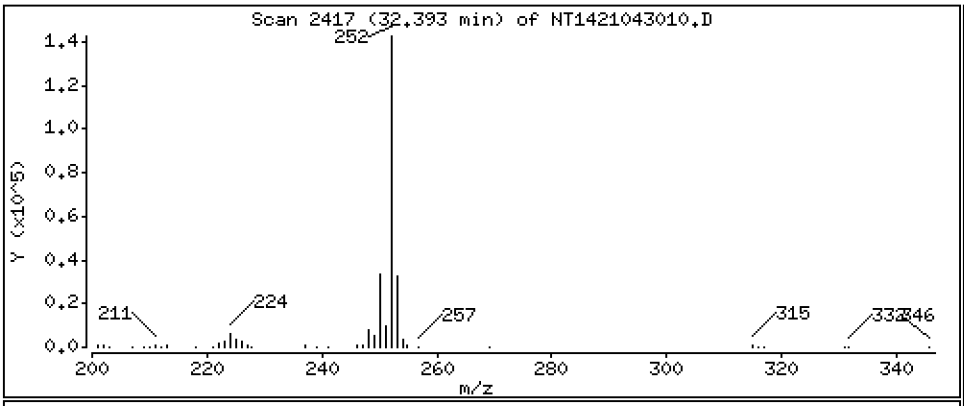
Operator: VTS

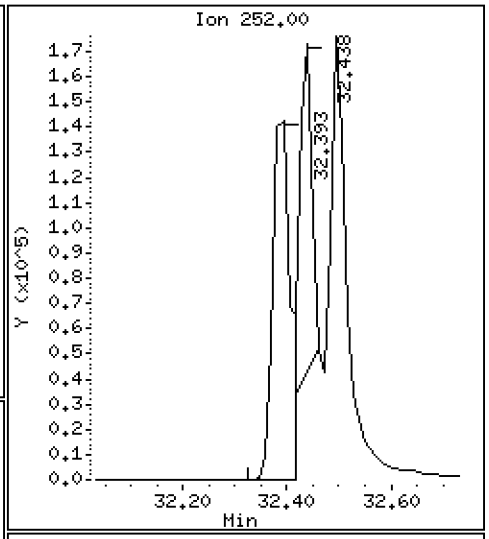
Column phase: Rxi-17Sil MS

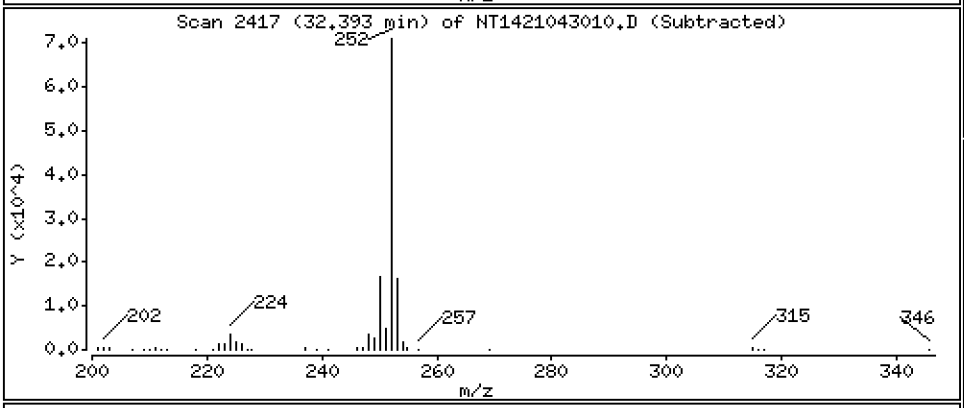
Column diameter: 0.25

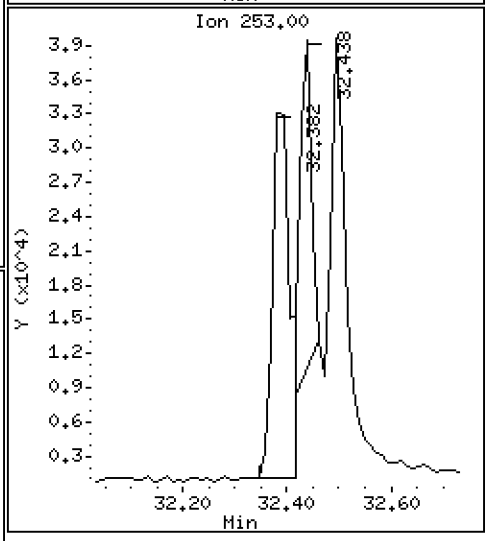
62 Benzo(b)fluoranthene

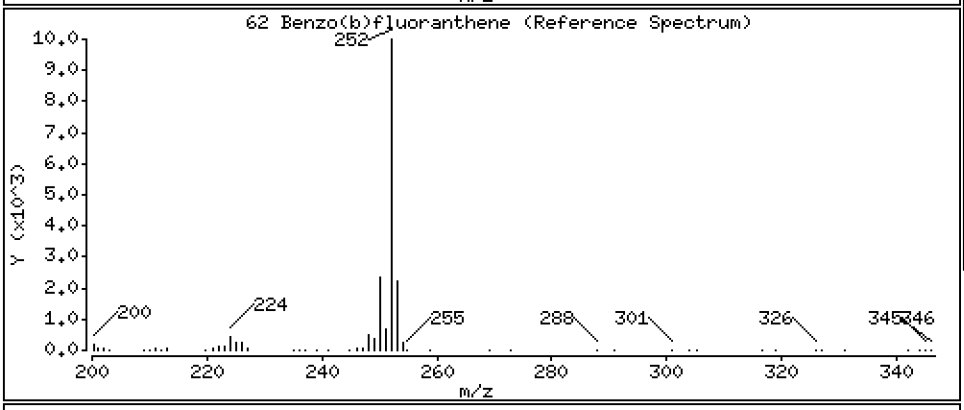
Concentration: 2.326 ug/mL

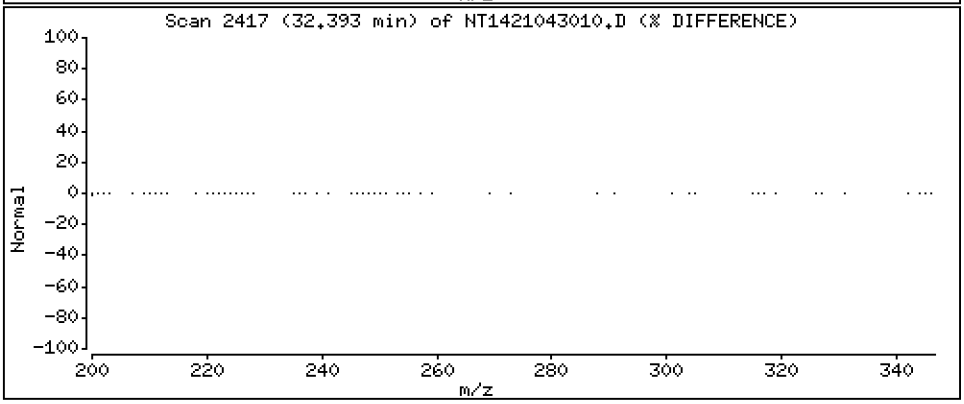


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

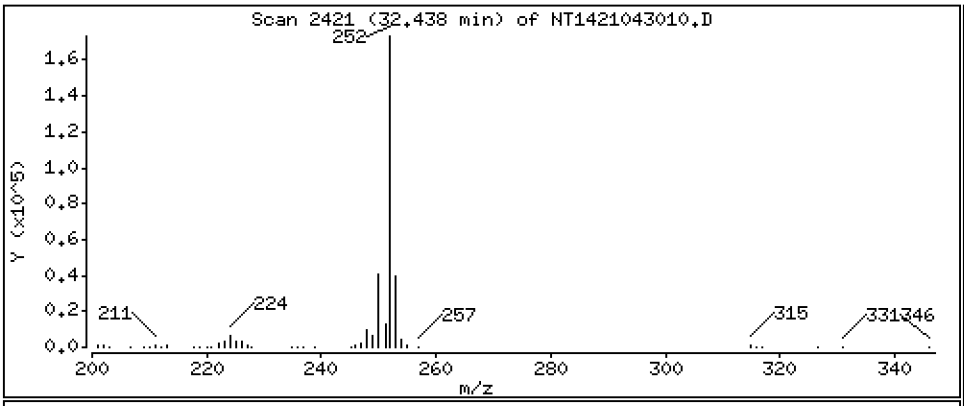
Operator: VTS

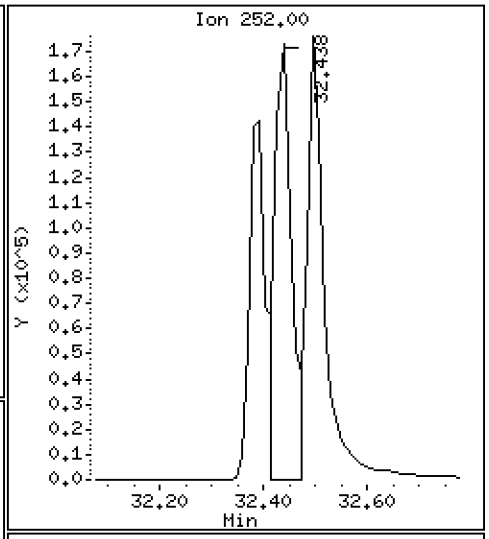
Column phase: Rxi-17Sil MS

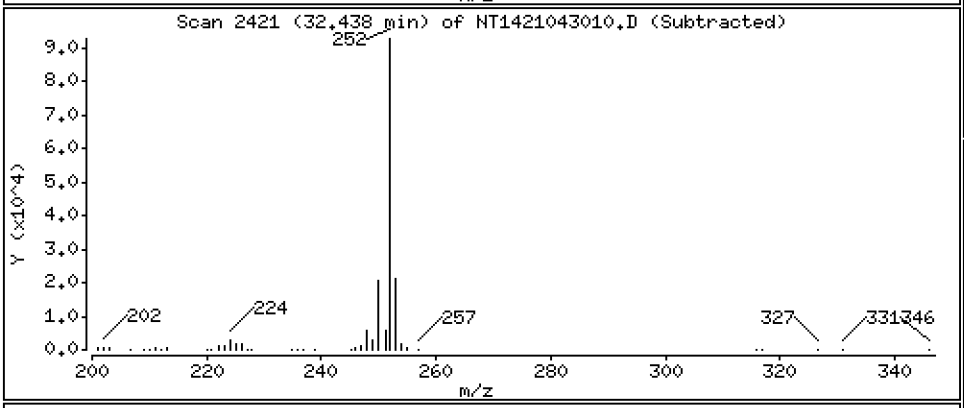
Column diameter: 0.25

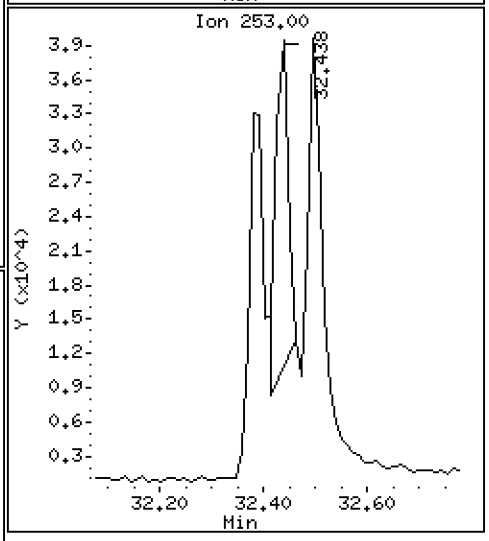
63 Benzo(k)fluoranthene

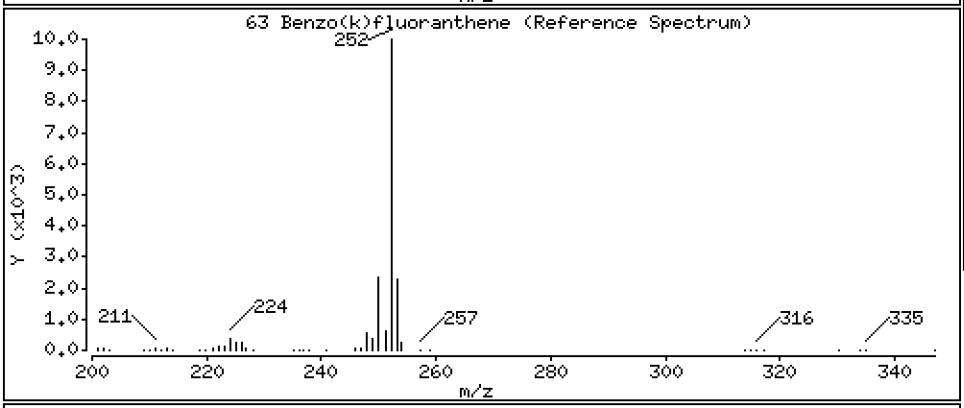
Concentration: 2.304 ug/mL

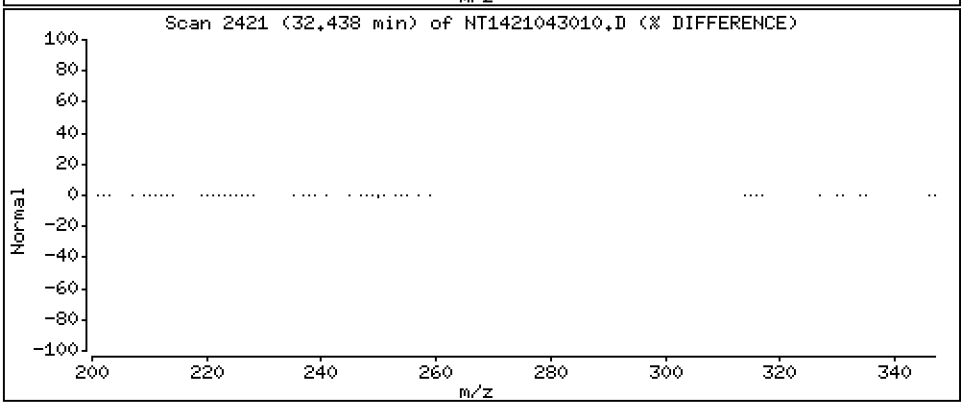


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

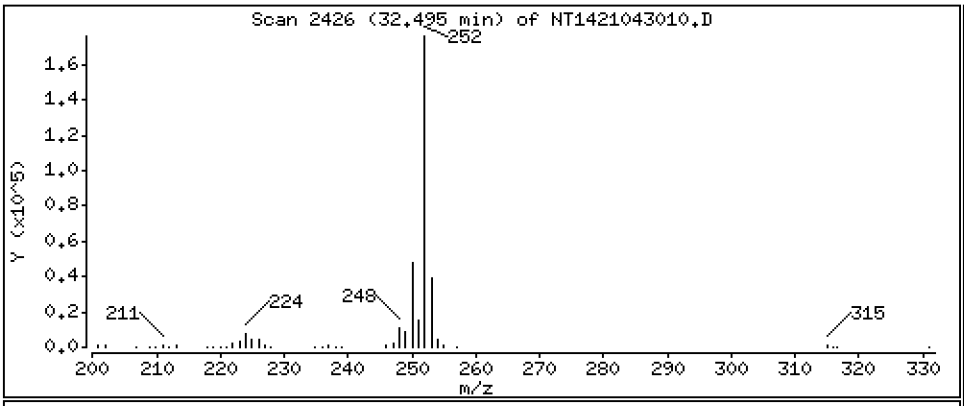
Operator: VTS

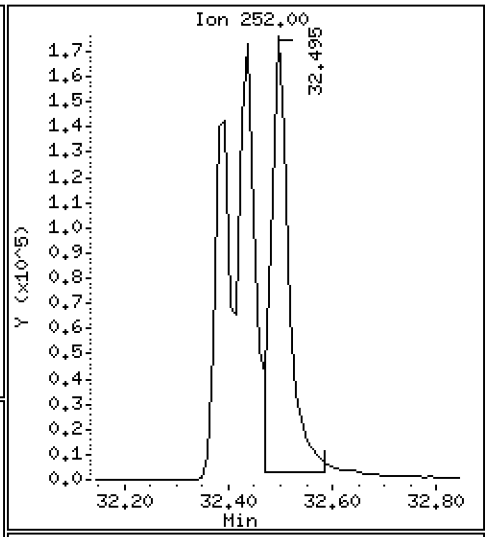
Column phase: Rxi-17Sil MS

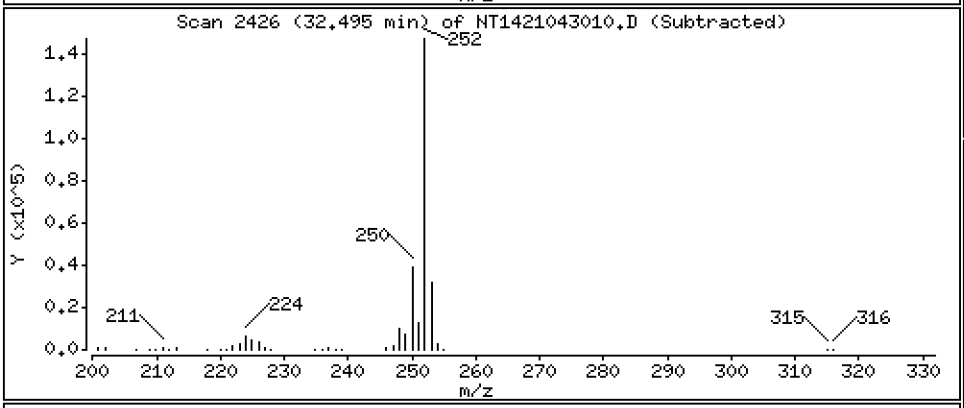
Column diameter: 0.25

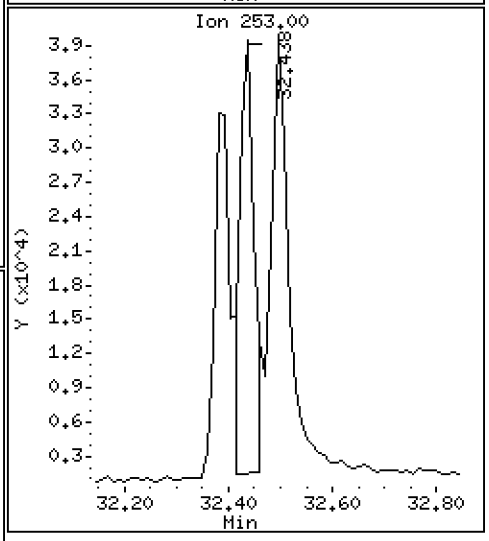
293 Benzo(j)fluoranthene

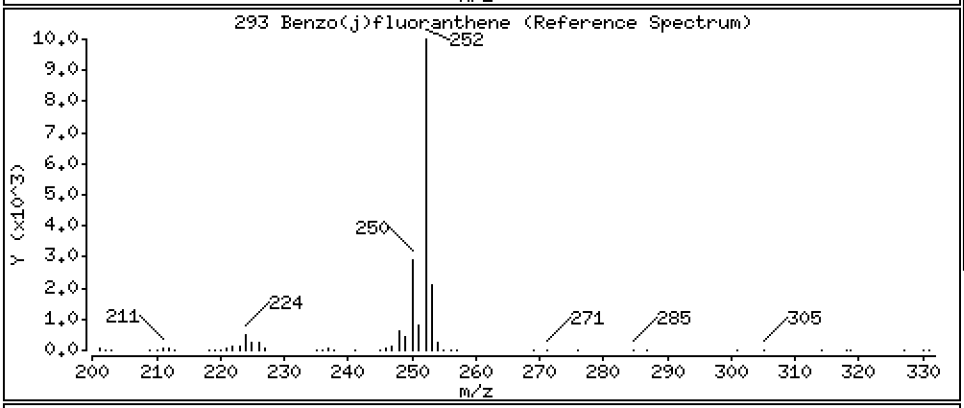
Concentration: 2.516 ug/mL

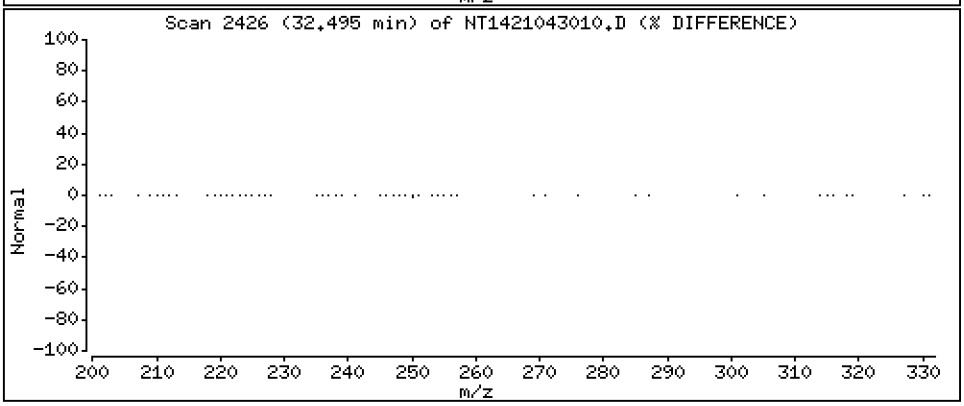


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

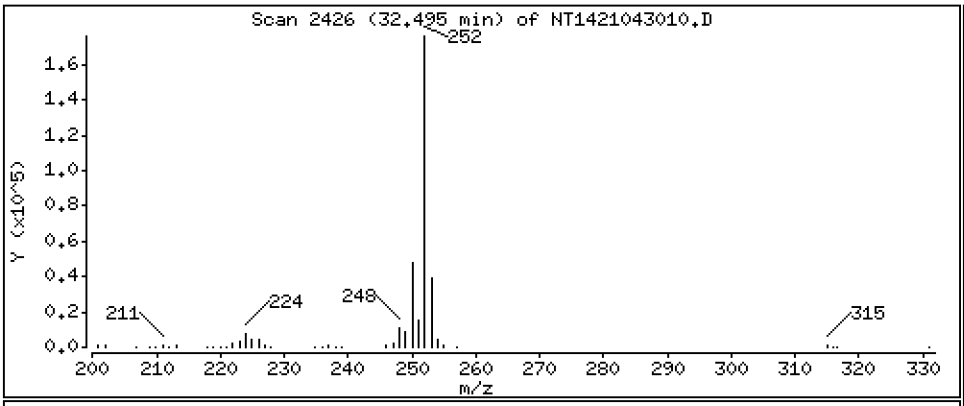
Operator: VTS

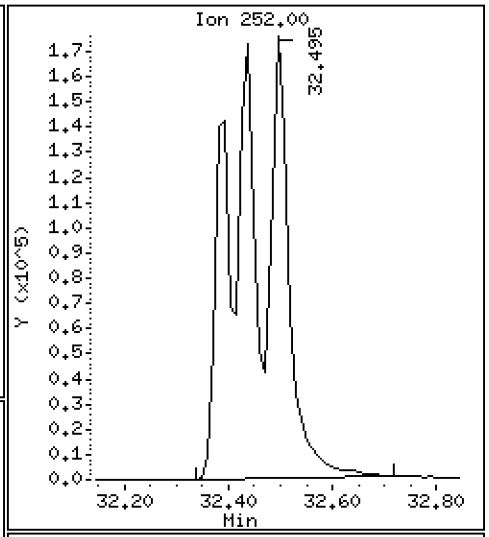
Column phase: Rxi-17Sil MS

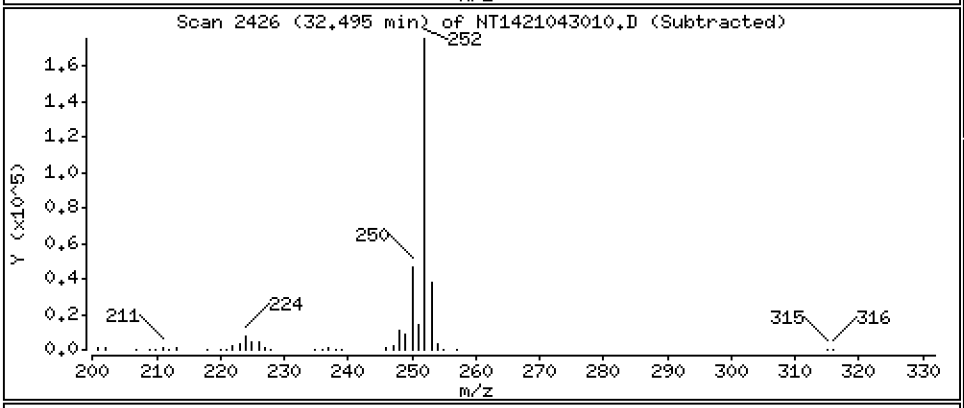
Column diameter: 0.25

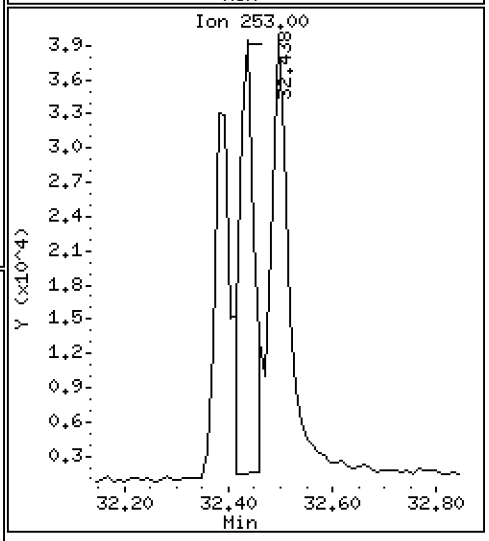
246 Total Benzofluoranthenes

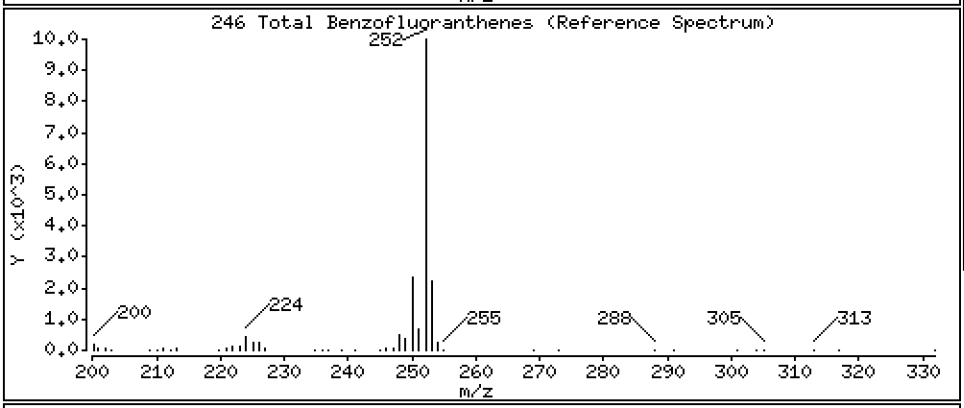
Concentration: 6.960 ug/mL

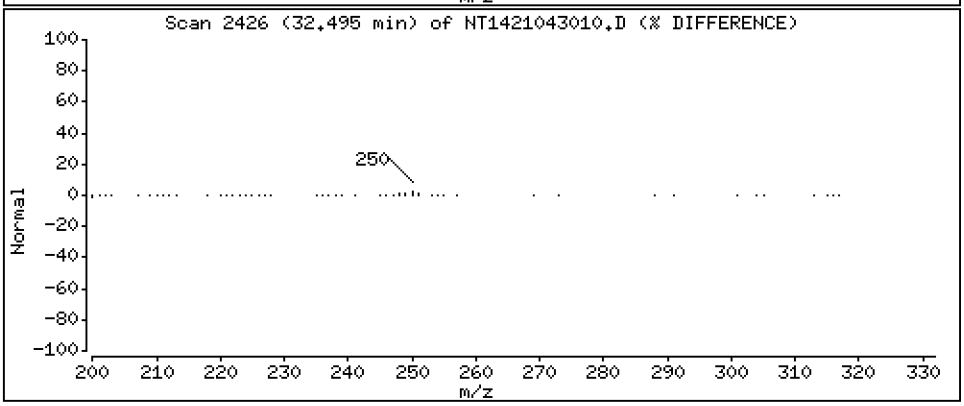


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

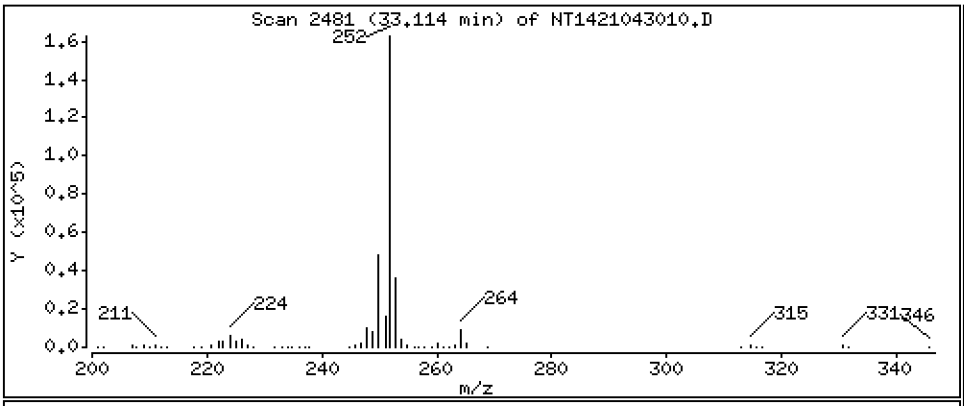
Operator: VTS

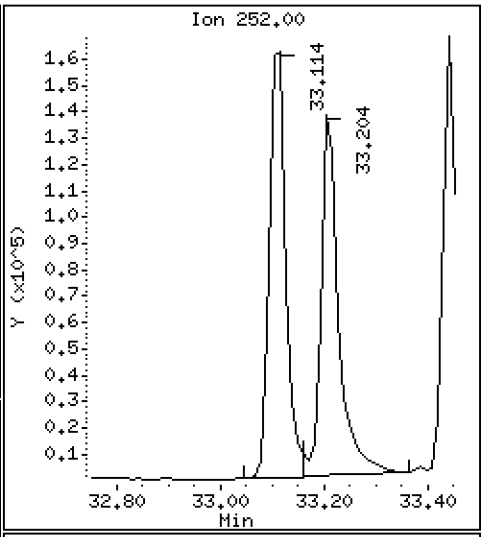
Column phase: Rxi-17Sil MS

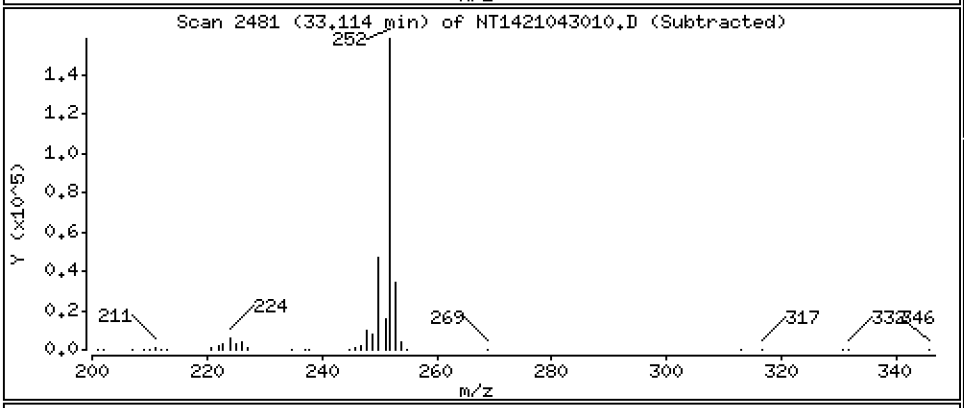
Column diameter: 0.25

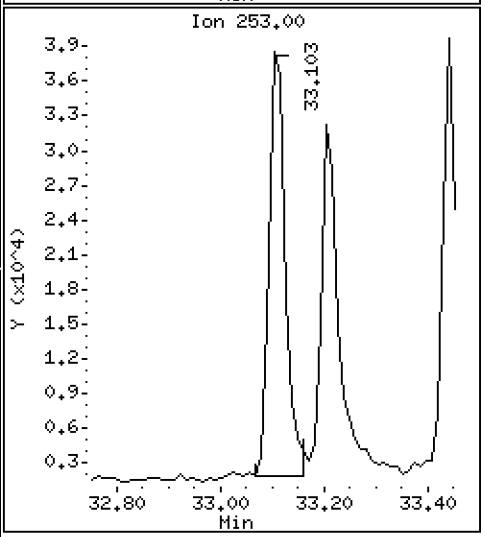
64 Benzo(e)pyrene

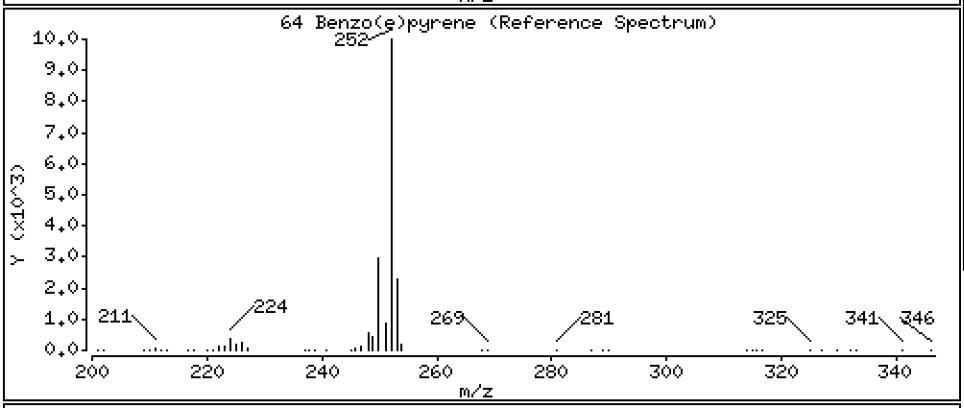
Concentration: 2.454 ug/mL

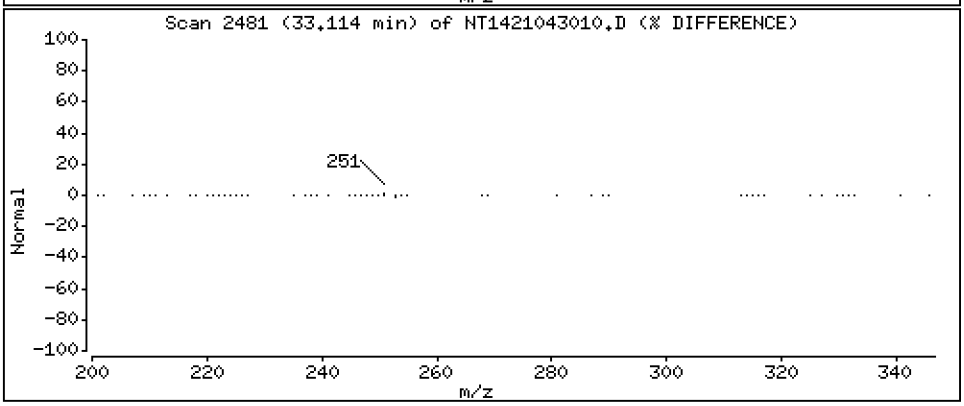


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

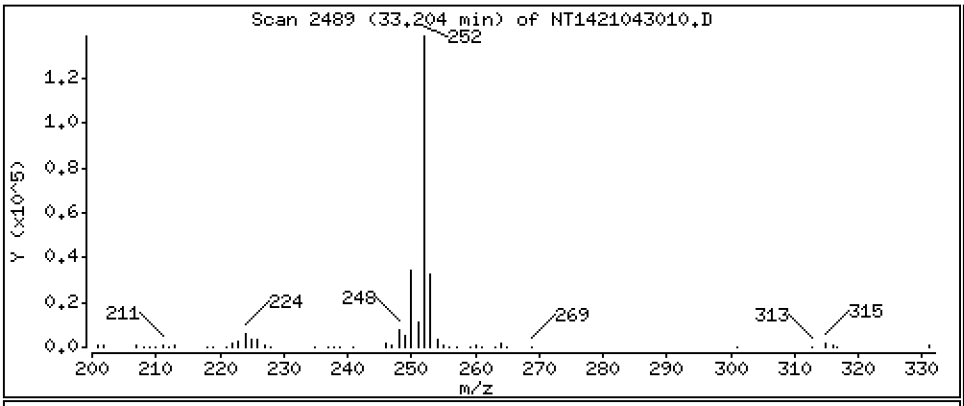
Operator: VTS

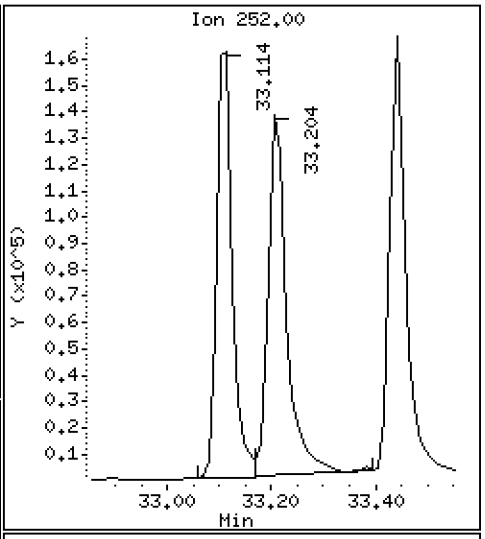
Column phase: Rxi-17Sil MS

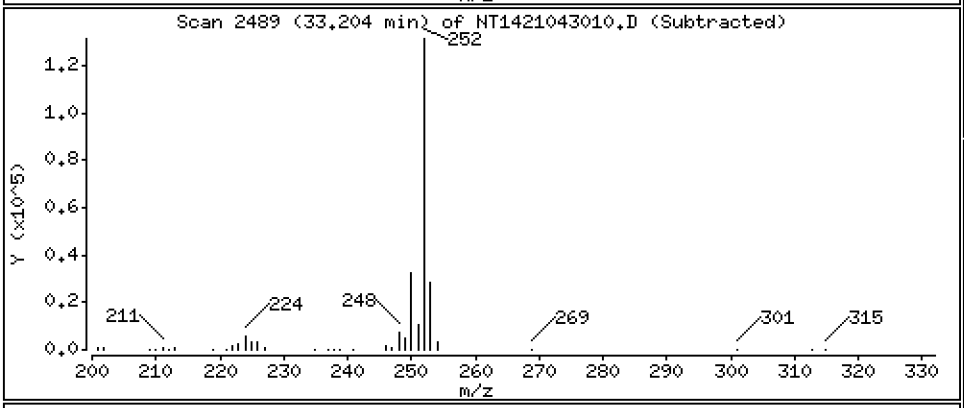
Column diameter: 0.25

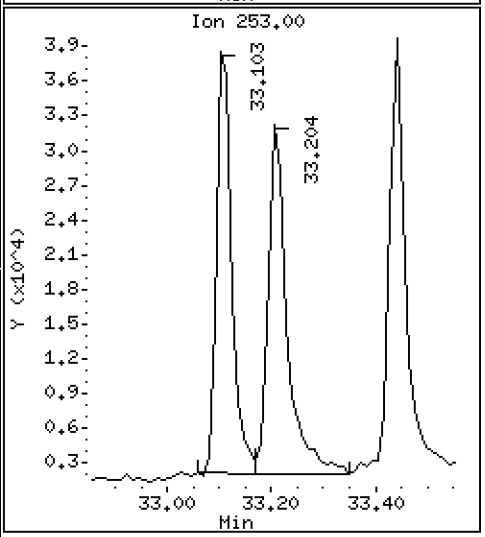
66 Benzo(a)pyrene

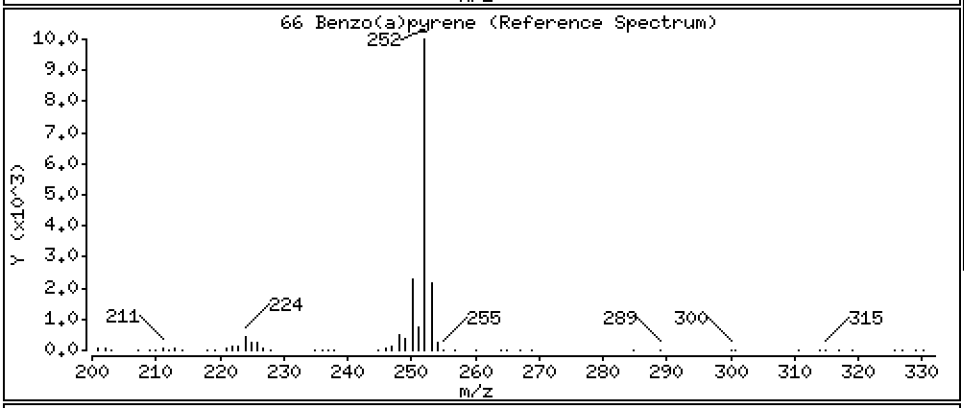
Concentration: 2.211 ug/mL

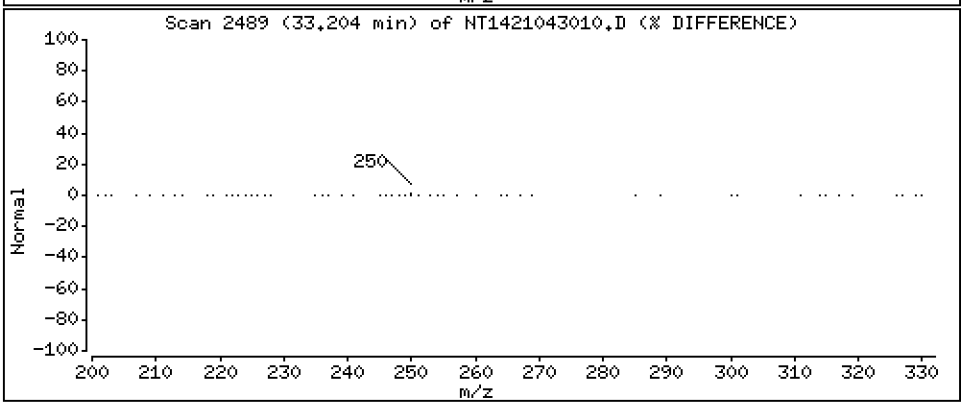


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

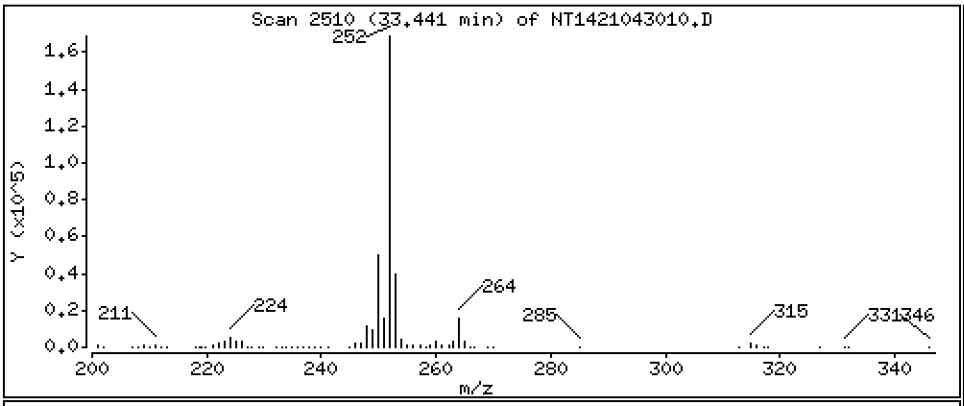
Operator: VTS

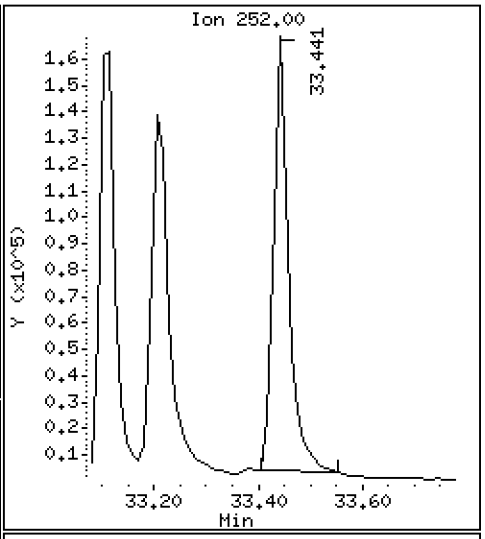
Column phase: Rxi-17Sil MS

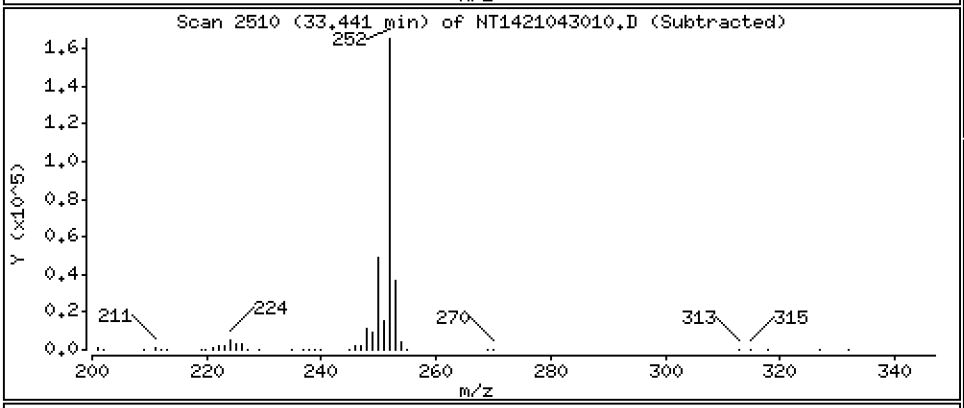
Column diameter: 0.25

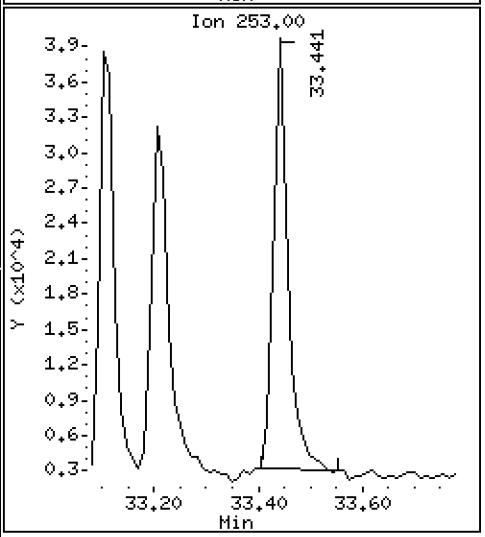
68 Perylene

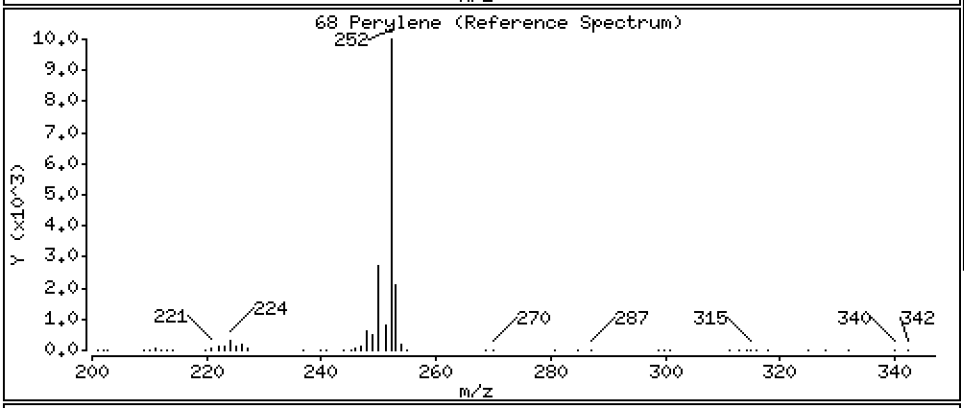
Concentration: 2.415 ug/mL

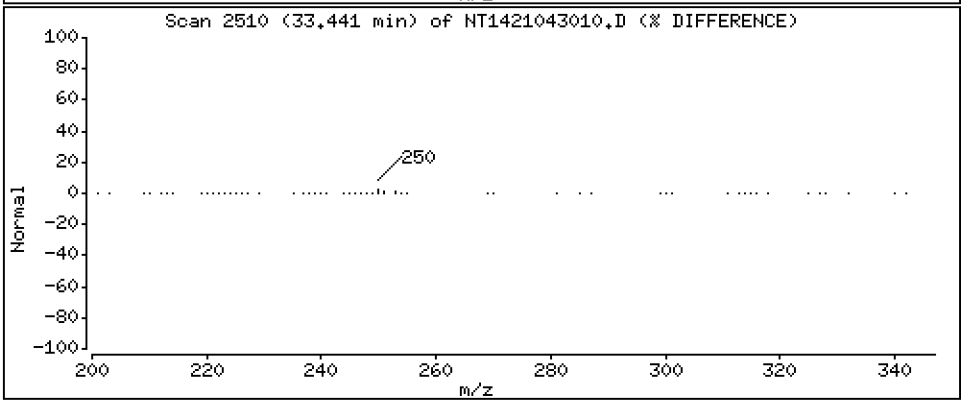


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

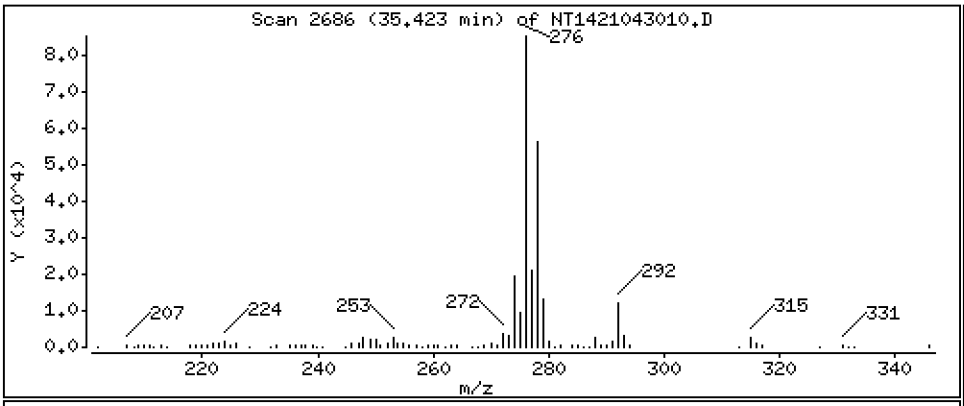
Operator: VTS

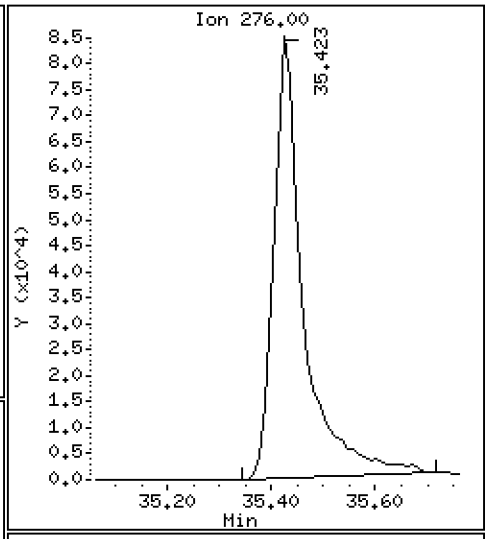
Column phase: Rxi-17Sil MS

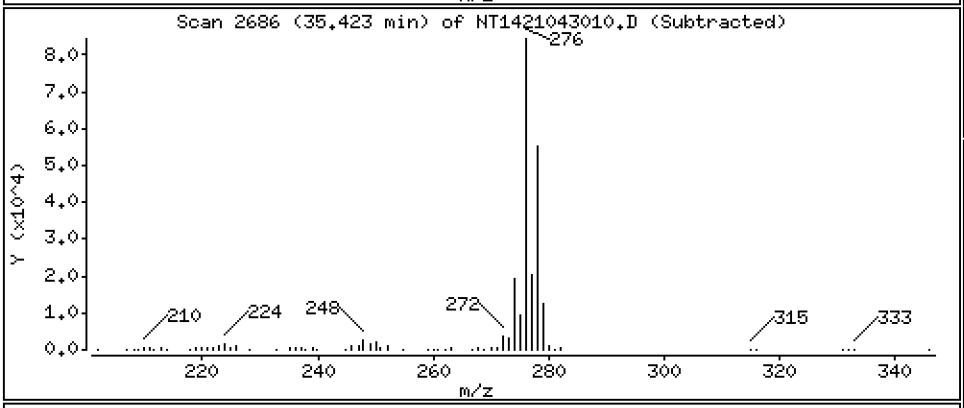
Column diameter: 0.25

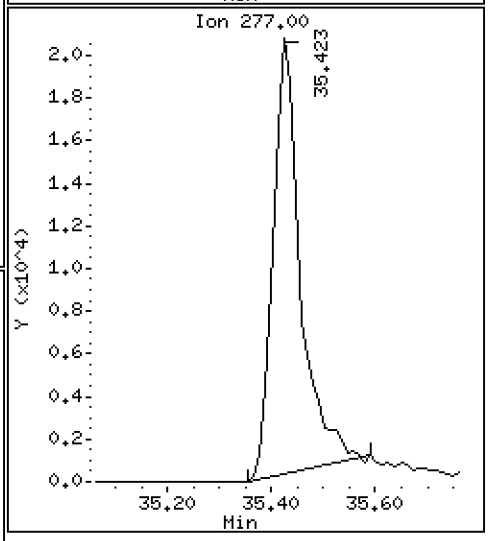
69 Indeno(1,2,3-cd)pyrene

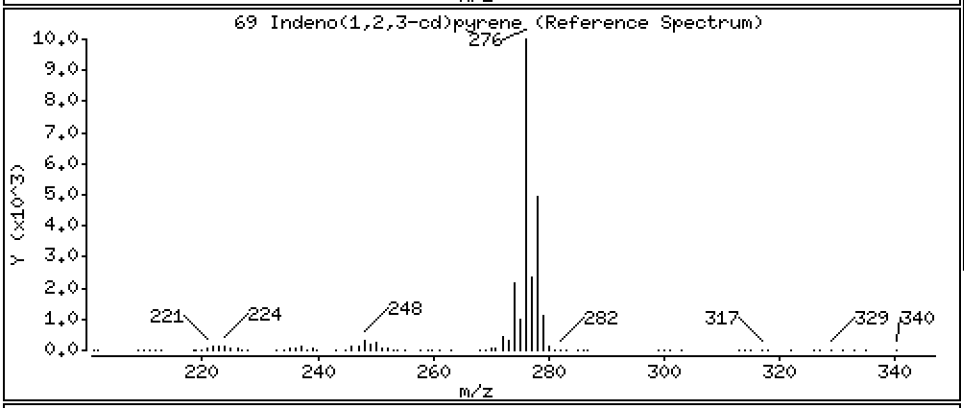
Concentration: 2.236 ug/mL

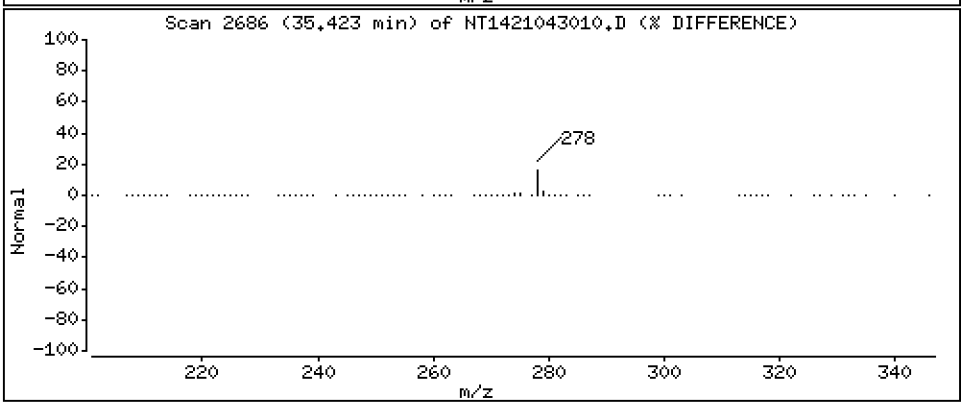


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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

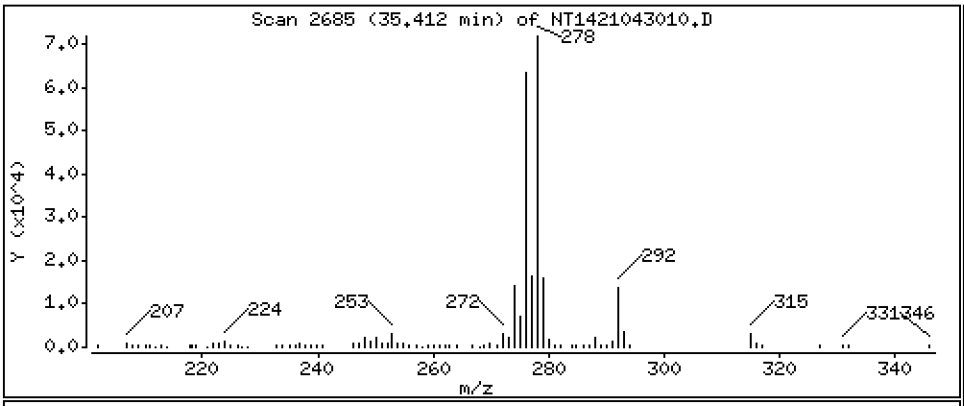
Operator: VTS

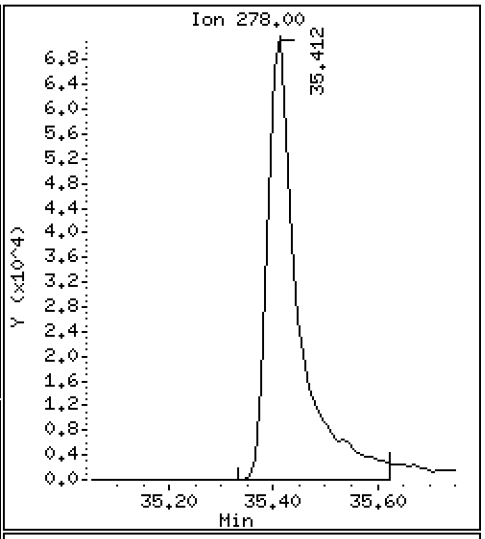
Column phase: Rxi-17Sil MS

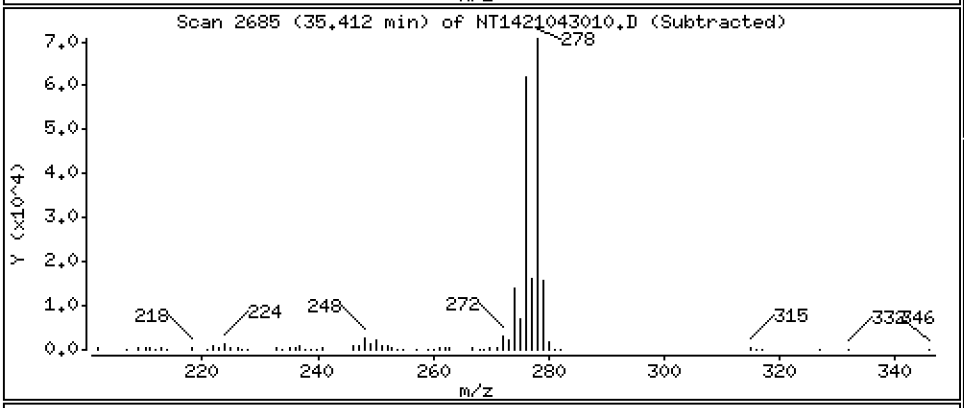
Column diameter: 0.25

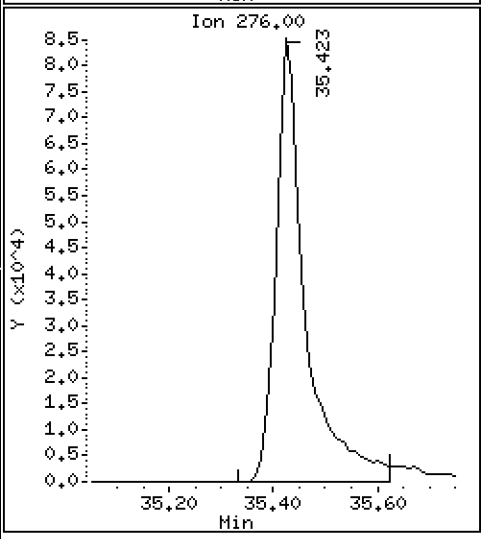
70 Dibenzo(a,h)anthracene

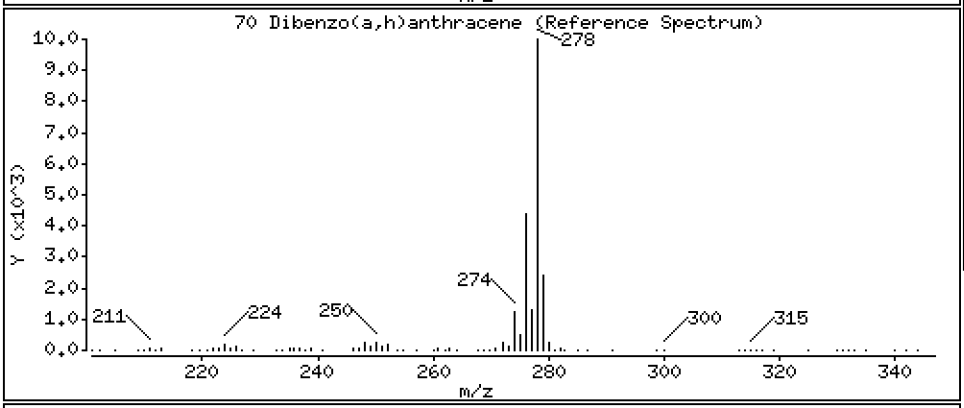
Concentration: 2.291 ug/mL

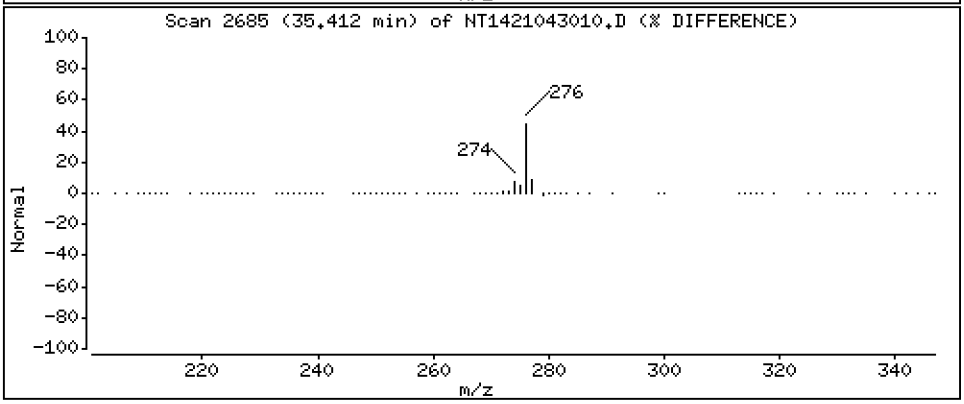


Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

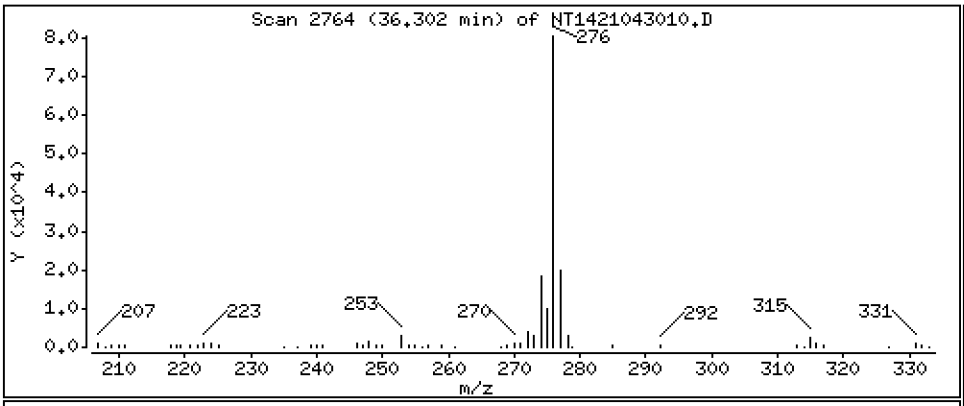
Operator: VTS

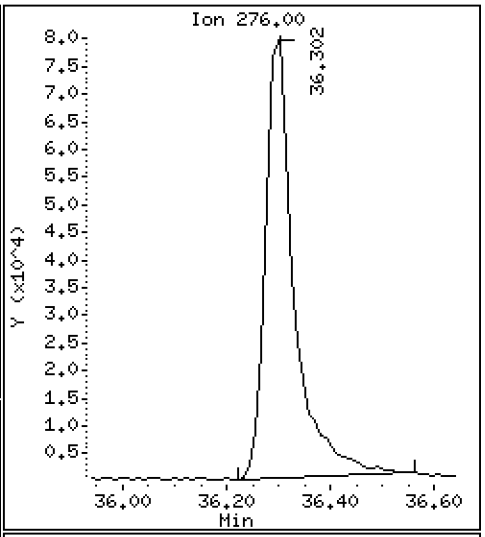
Column phase: Rxi-17Sil MS

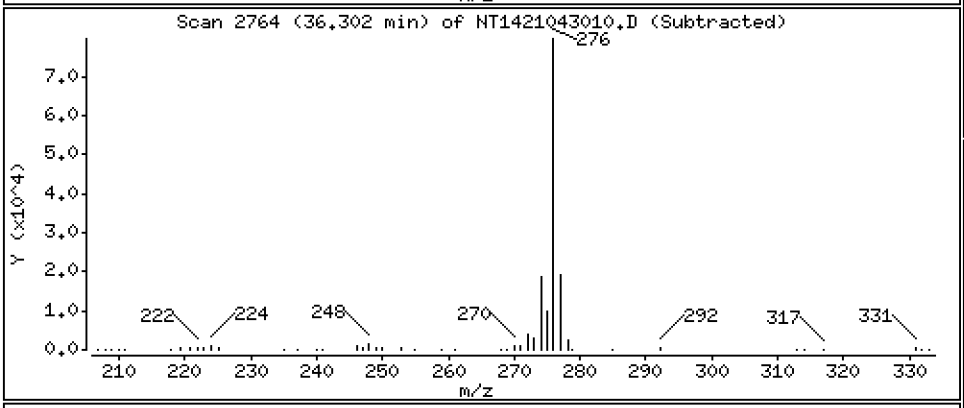
Column diameter: 0.25

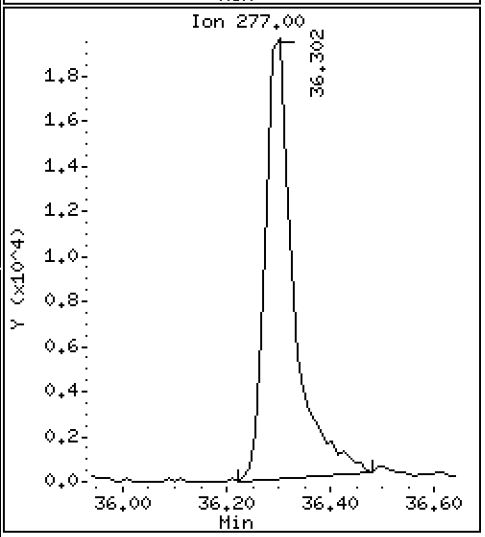
74 Benzo(g,h,i)perylene

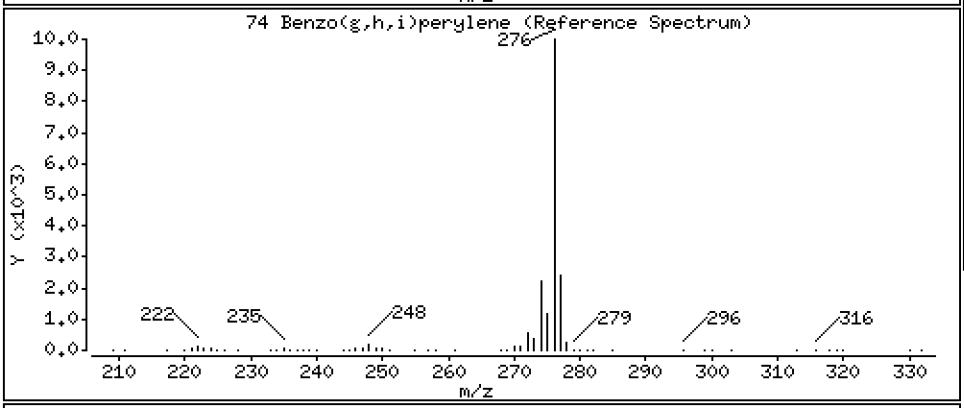
Concentration: 2.352 ug/mL

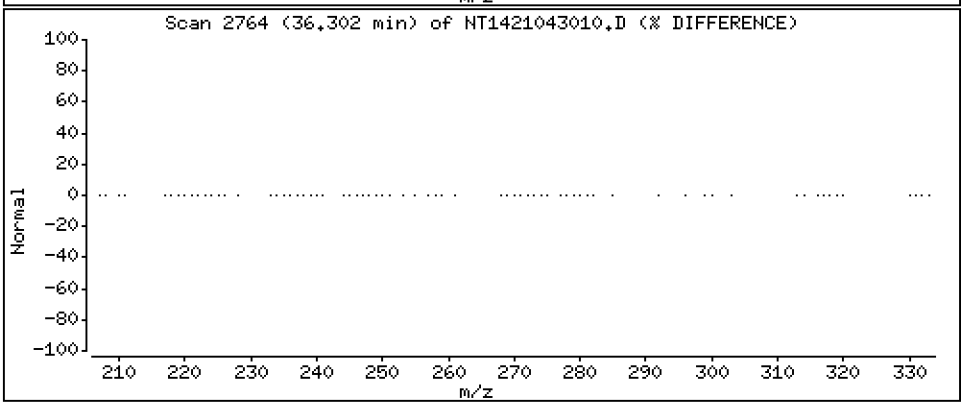


ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D
Lab Smp Id: SJD0305-SCV1
Inj Date : 30-APR-2021 14:41
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-SCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Meth Date : 01-May-2021 07:40 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 9
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 | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 1 trans-Decalin | 138 | 7.045 | 7.035 | (0.375) | 74342 | 2.84314 | 2.843 |
| | 2 cis-Decalin | 138 | 8.155 | 8.165 | (0.434) | 52523 | 2.90966 | 2.910 |
| $ | 6 Naphthalene-d8 | 136 | 11.776 | 11.776 | (0.627) | 604964 | 2.98636 | 2.986(R) |
| | 7 Naphthalene | 128 | 11.836 | 11.846 | (0.630) | 573337 | 2.78250 | 2.783 |
| | 12 Benzo(b)thiophene | 134 | 12.295 | 12.295 | (0.655) | 456850 | 2.78683 | 2.787 |
| | 16 2-Methylnaphthalene | 141 | 13.680 | 13.680 | (0.728) | 312811 | 2.84483 | 2.845 |
| | 17 1-methylnaphthalene | 141 | 14.131 | 14.131 | (0.752) | 293934 | 2.82127 | 2.821 |
| | 18 Biphenyl | 154 | 15.317 | 15.317 | (0.815) | 435061 | 2.76462 | 2.765 |
| | 19 2,6-Dimethylnaphthalene | 156 | 15.394 | 15.394 | (0.820) | 305582 | 2.82199 | 2.822 |
| | 20 Acenaphthylene | 152 | 16.955 | 16.955 | (0.903) | 492364 | 2.88930 | 2.889 |
| $ | 21 Acenaphthene-d10 | 164 | 17.252 | 17.241 | (0.918) | 298420 | 3.01695 | 3.017(R) |
| | 22 Acenaphthene | 153 | 17.362 | 17.361 | (0.924) | 329675 | 3.01019 | 3.010 |
| | 23 Dibenzofuran | 168 | 17.735 | 17.735 | (0.944) | 459290 | 2.76760 | 2.768 |
| | 24 1,6,7-Trimethylnaphthalene | 170 | 17.966 | 17.966 | (0.957) | 277803 | 2.92320 | 2.923 |
| * | 25 Fluorene-d10 | 176 | 18.783 | 18.781 | (1.000) | 351020 | 2.00000 | |
| | 26 Fluorene | 166 | 18.885 | 18.883 | (1.005) | 342973 | 2.84375 | 2.844 |
| | 30 Dibenzothiophene | 184 | 21.796 | 21.794 | (1.160) | 423593 | 2.78230 | 2.782 |
| $ | 35 Phenanthrene-d10 | 188 | 22.104 | 22.102 | (0.995) | 446008 | 2.66948 | 2.669(R) |
| | 36 Phenanthrene | 178 | 22.192 | 22.190 | (0.999) | 460265 | 2.46754 | 2.468 |
| * | 250 Anthracene-d10 | 188 | 22.225 | 22.223 | (1.000) | 309177 | 2.00000 | |
| | 37 Anthracene | 178 | 22.291 | 22.289 | (1.003) | 428535 | 2.49230 | 2.492 |
| | 42 Carbazole | 167 | 23.566 | 23.565 | (1.060) | 338612 | 2.34287 | 2.343 |
| | 43 1-Methylphenanthrene | 192 | 24.017 | 24.015 | (1.081) | 293776 | 2.59400 | 2.594 |
| | 44 Fluoranthene | 202 | 25.996 | 25.994 | (1.170) | 436345 | 2.63403 | 2.634 |
| | 46 Pyrene | 202 | 26.843 | 26.841 | (1.208) | 433716 | 2.52654 | 2.527 |
| | 51 Naphthobenzothiophene | 234 | Compound Not Detected. | | | | | |
| | 55 Benzo(a)anthracene | 228 | 29.971 | 29.964 | (0.907) | 342259 | 2.27793 | 2.278 |
| $ | 56 Chrysene-d12 | 240 | 30.095 | 30.087 | (0.911) | 337659 | 2.82827 | 2.828(RM) |
| | 57 Chrysene | 228 | 30.163 | 30.166 | (0.913) | 394981 | 2.57401 | 2.574 |
| | 62 Benzo(b)fluoranthene | 252 | 32.393 | 32.386 | (0.980) | 324344 | 2.32564 | 2.326 |
| | 63 Benzo(k)fluoranthene | 252 | 32.438 | 32.430 | (0.982) | 391530 | 2.30379 | 2.304(M) |
| | 293 Benzo(j)fluoranthene | 252 | 32.494 | 32.498 | (0.983) | 393189 | 2.51567 | 2.516(M) |
| | 246 Total Benzofluoranthenes | 252 | 32.494 | 32.497 | (0.983) | 1066161 | 6.96004 | 6.960(M) |

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

## QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043010.D
Lab Smp Id: SJD0305-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

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

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

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

REVIEW SUMMARY FOR FILE - NT1421043010.D

Lab ID: SJD0305-SCV1
nt14.i,  20210430.b\ALKYLPNA.m,    30-APR-2021 14:41

| RT | CO-ELUTION COMPOUNDS |
|---|---|
| NO CO-ELUTIONS | |

Quant Method: ICAL

RRT CHECK

| RRT | CCV RRT | DELTA | COMPOUND |
|---|---|---|---|
| NONE | | | |

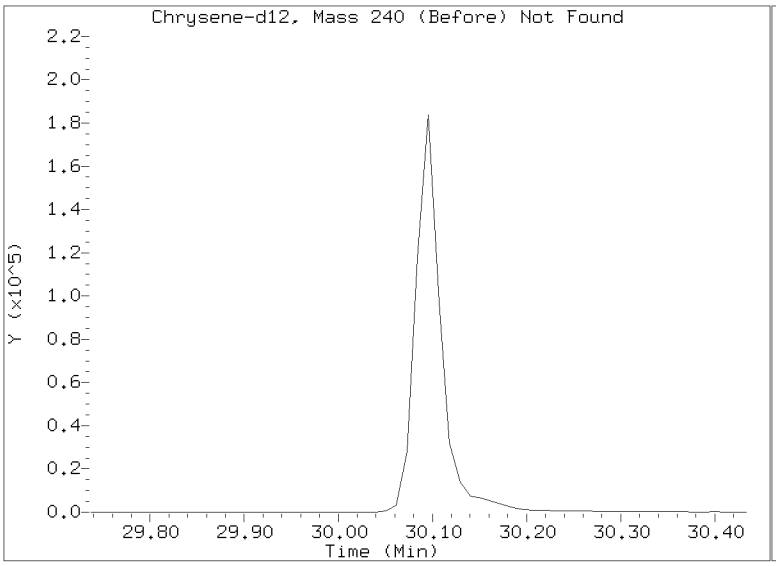
RRT check based on Ccal File: NT1421043009.D

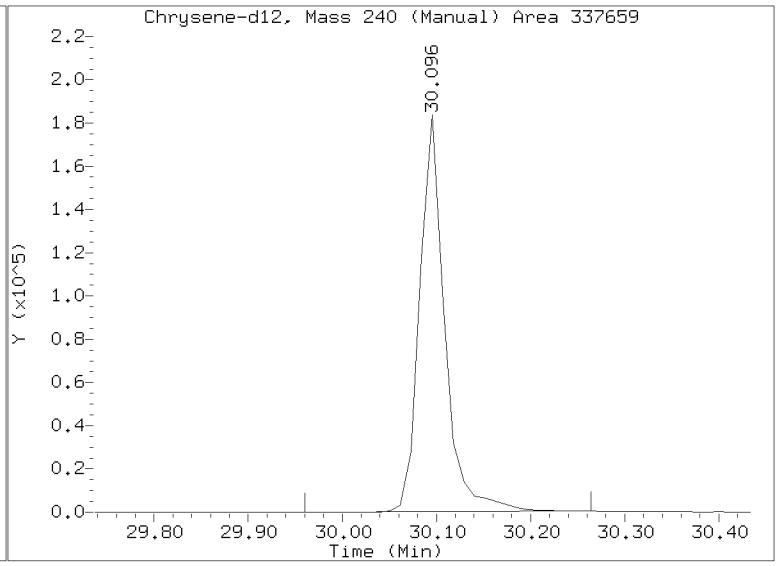
On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

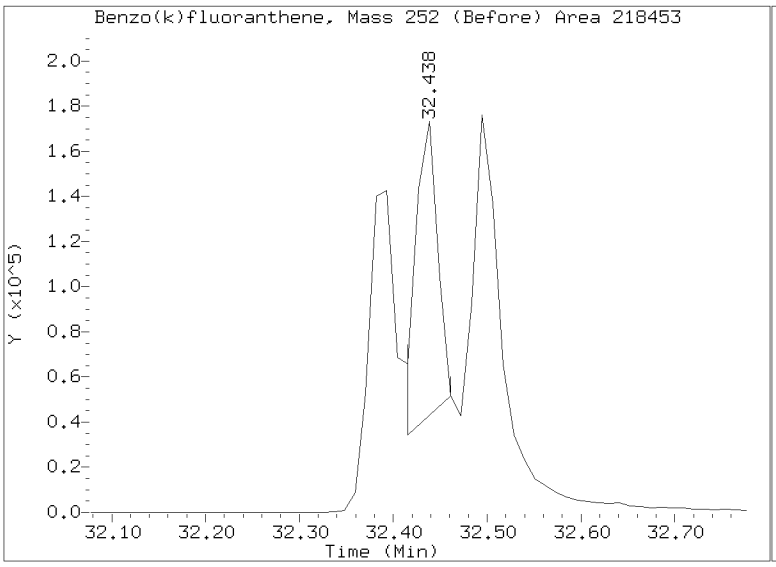
* Only compounds listed in the work order have been verified by the analyst *

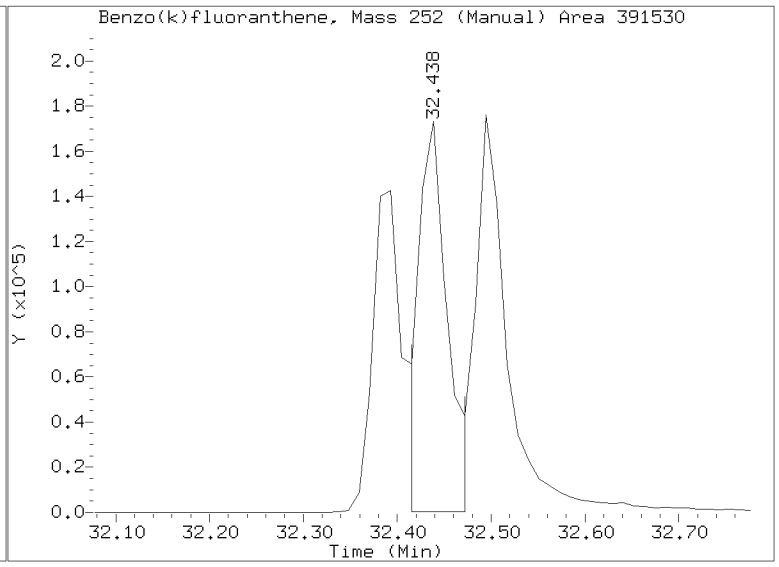
# Quant Ion Manual Peak Adjustment Report

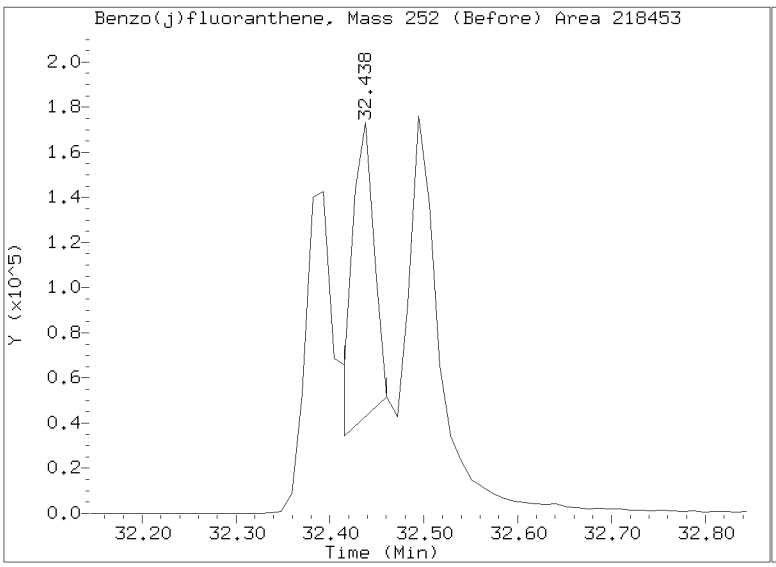
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D
Injection Date: 30-APR-2021 14:41
Lab ID:SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18

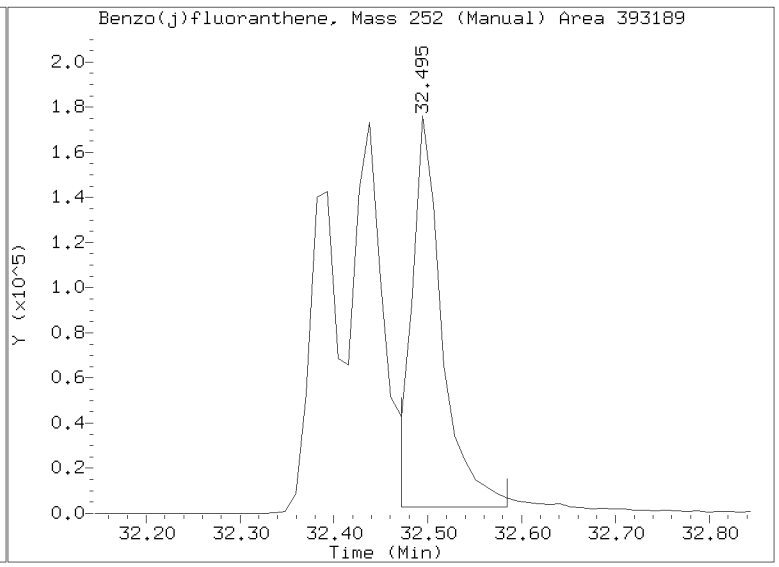


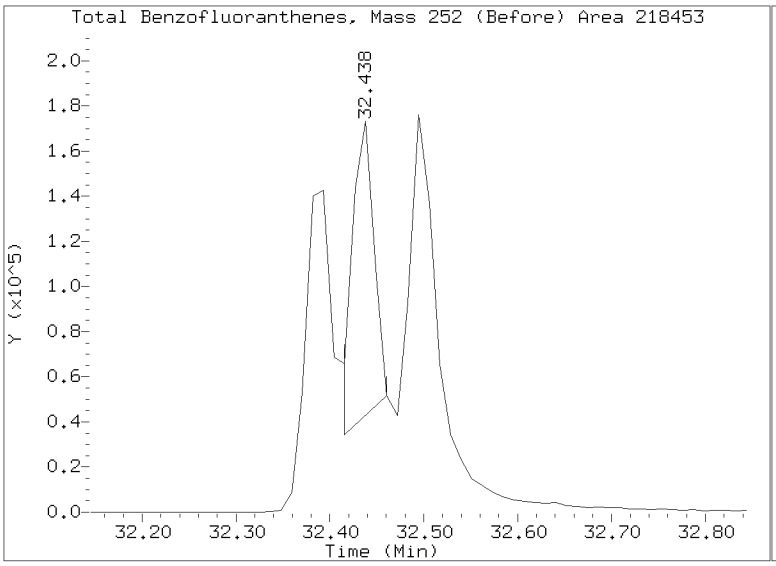



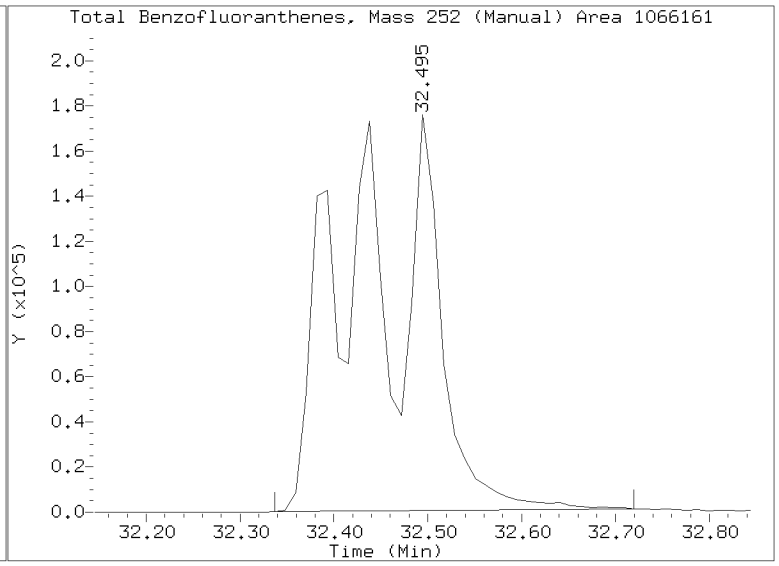



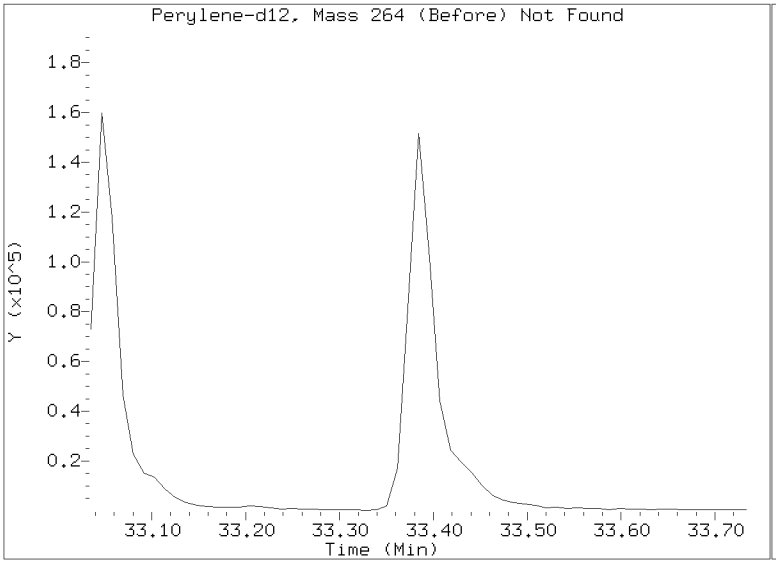



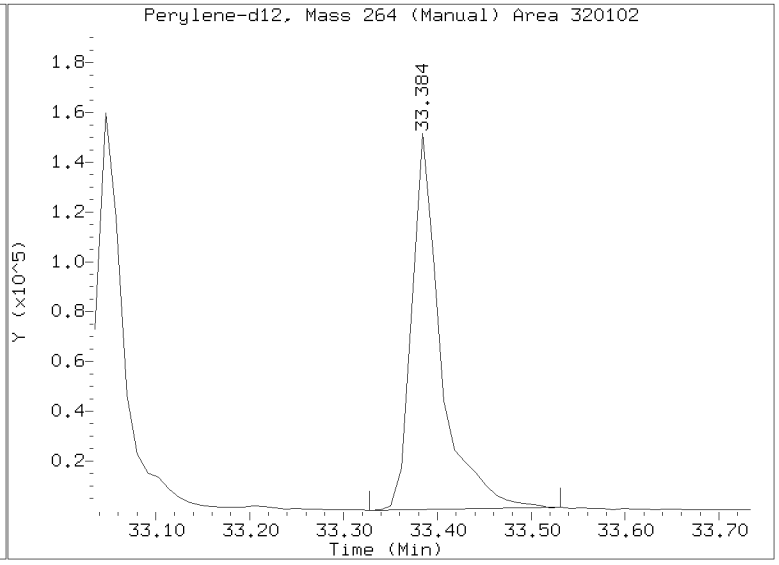
# Quant Ion Manual Peak Adjustment Report

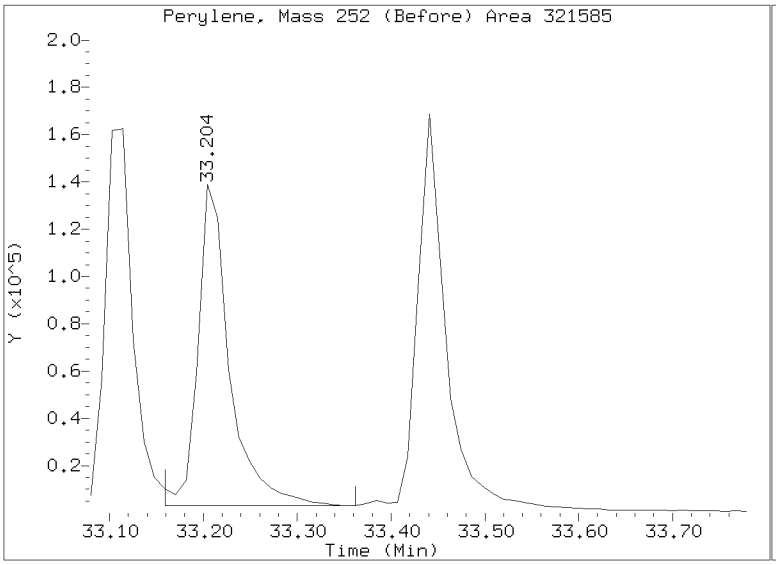
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D
Injection Date: 30-APR-2021 14:41
Lab ID:SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18

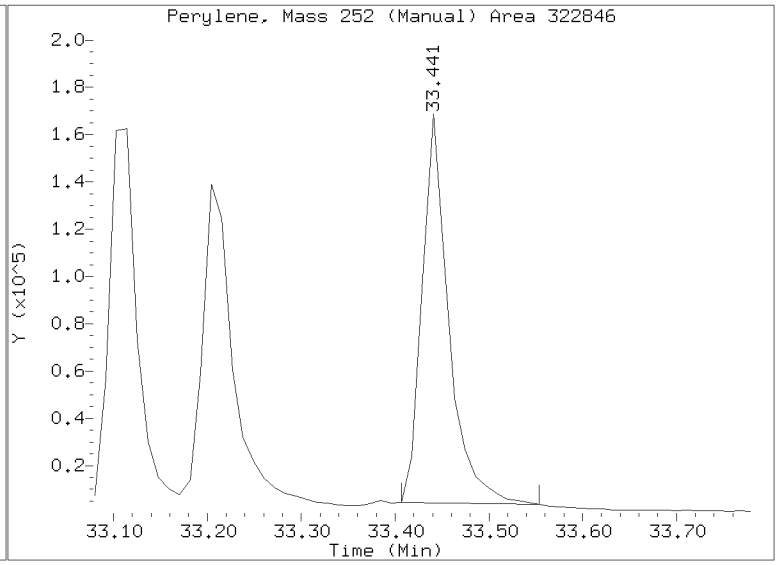


# Quant Ion Manual Peak Adjustment Report

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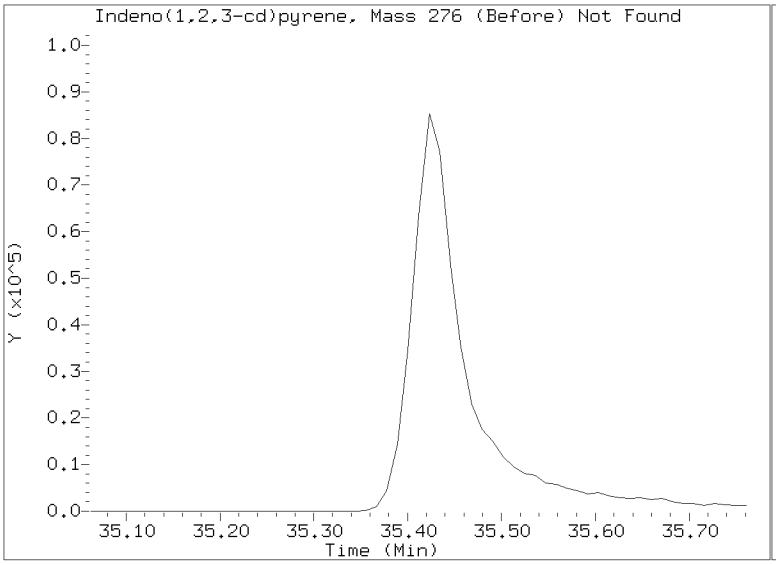
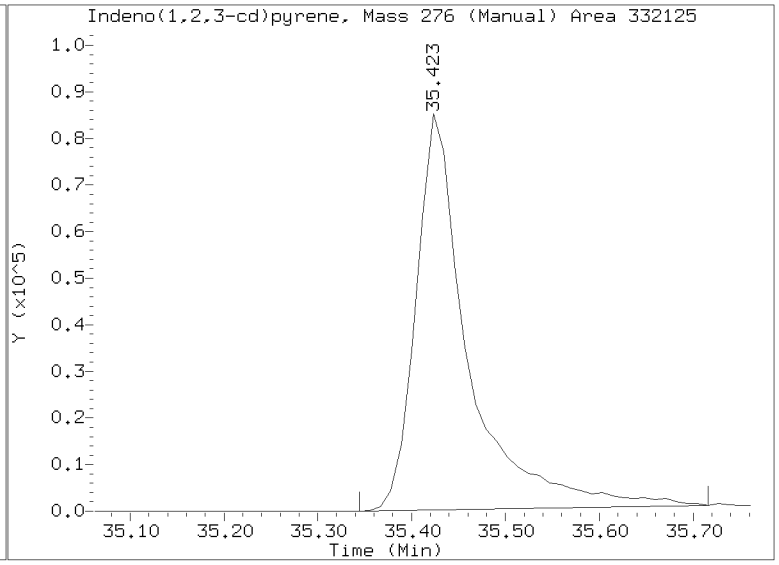
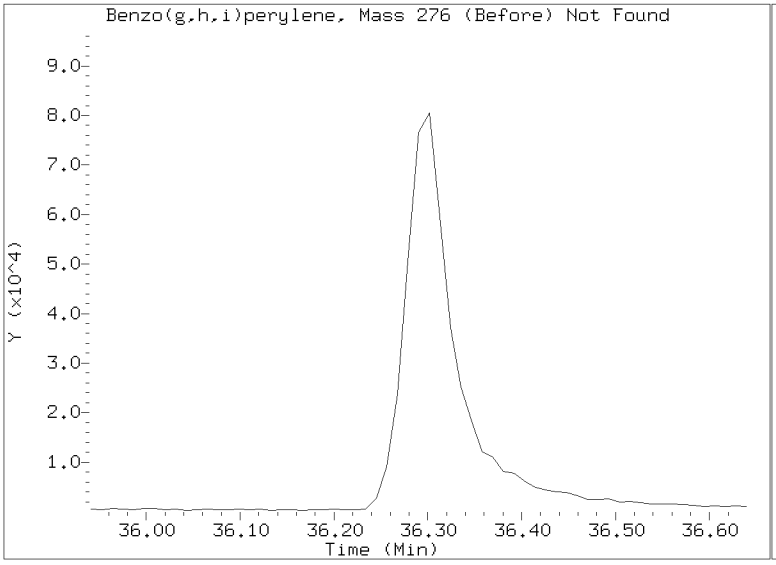
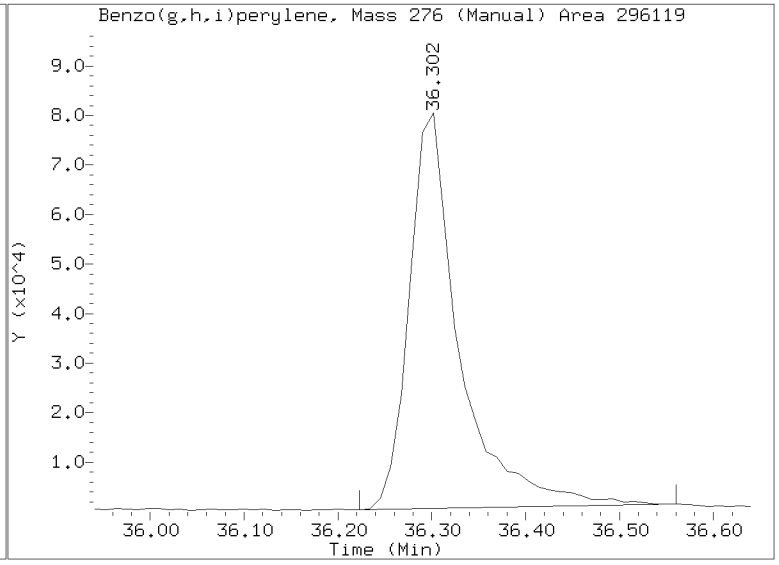
Injection Date: 30-APR-2021 14:41
Lab ID:SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18



# CONTINUING CALIBRATION CHECK
## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | NT11 | Calibration: | DH00073 |
| Lab File ID: | NT1121042418.D | Calibration Date: | 08/27/2020 |
| Sequence: | SJD0344 | Injection Date: | 04/24/21 |
| Lab Sample ID: | SJD0344-CCV1 | Injection Time: | 18:49 |
| Sequence Name: | Calibration Check | | |

| | | CONC. (ng/mL) | | RESPONSE FACTOR (RRF) | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN | CCV | LIMIT |
| Naphthalene | A | 250.00 | 224 | 1.1612470 | 1.0402180 | | -10.4 | +/-50 |
| 2-Methylnaphthalene | A | 250.00 | 235 | 0.9361384 | 0.8807144 | | -5.9 | +/-50 |
| Acenaphthylene | A | 250.00 | 194 | 2.2945630 | 1.7809820 | | -22.4 | +/-50 |
| Acenaphthene | A | 250.00 | 197 | 1.5175830 | 1.1933830 | | -21.4 | +/-50 |
| Fluorene | A | 250.00 | 196 | 1.5604500 | 1.2230670 | | -21.6 | +/-50 |
| Phenanthrene | A | 250.00 | 215 | 1.3083250 | 1.1271240 | | -13.9 | +/-50 |
| Anthracene | A | 250.00 | 226 | 1.3072390 | 1.1815080 | | -9.6 | +/-50 |
| Fluoranthene | A | 250.00 | 229 | 1.3043810 | 1.1943210 | | -8.4 | +/-50 |
| Pyrene | A | 250.00 | 229 | 1.3381820 | 1.2231400 | | -8.6 | +/-50 |
| Benzo(a)anthracene | A | 250.00 | 216 | 1.4691530 | 1.2716940 | | -13.4 | +/-50 |
| Chrysene | A | 250.00 | 204 | 1.6542610 | 1.3530840 | | -18.2 | +/-50 |
| Benzo(b)fluoranthene | A | 250.00 | 247 | 1.0886210 | 1.0773040 | | -1.0 | +/-50 |
| Benzo(k)fluoranthene | A | 250.00 | 211 | 1.4304320 | 1.2044650 | | -15.8 | +/-50 |
| Benzo(j)fluoranthene | A | 250.00 | 186 | 1.5458300 | 1.1530420 | | -25.4 | +/-50 |
| Benzo(a)pyrene | A | 250.00 | 241 | 1.1369780 | 1.0938470 | | -3.8 | +/-50 |
| Indeno(1,2,3-cd)pyrene | A | 250.00 | 270 | 1.1041170 | 1.1935840 | | 8.1 | +/-50 |
| Dibenzo(a,h)anthracene | A | 250.00 | 273 | 0.8775199 | 1.0298410 | | 9.2 | +/-50 |
| Benzo(g,h,i)perylene | A | 250.00 | 242 | 1.1039640 | 1.0706940 | | -3.0 | +/-50 |
| 2-Methylnaphthalene-d10 | A | 250.00 | 239 | 0.8041846 | 0.7680178 | | -4.5 | +/-50 |
| Dibenzo[a,h]anthracene-d14 | A | 250.00 | 273 | 0.7035414 | 0.8570089 | | 9.0 | +/-50 |
| Fluoranthene-d10 | A | 250.00 | 215 | 1.0485620 | 0.9008127 | | -14.1 | +/-50 |

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042418.D



Date : 24-APR-2021 18:49

Client ID:

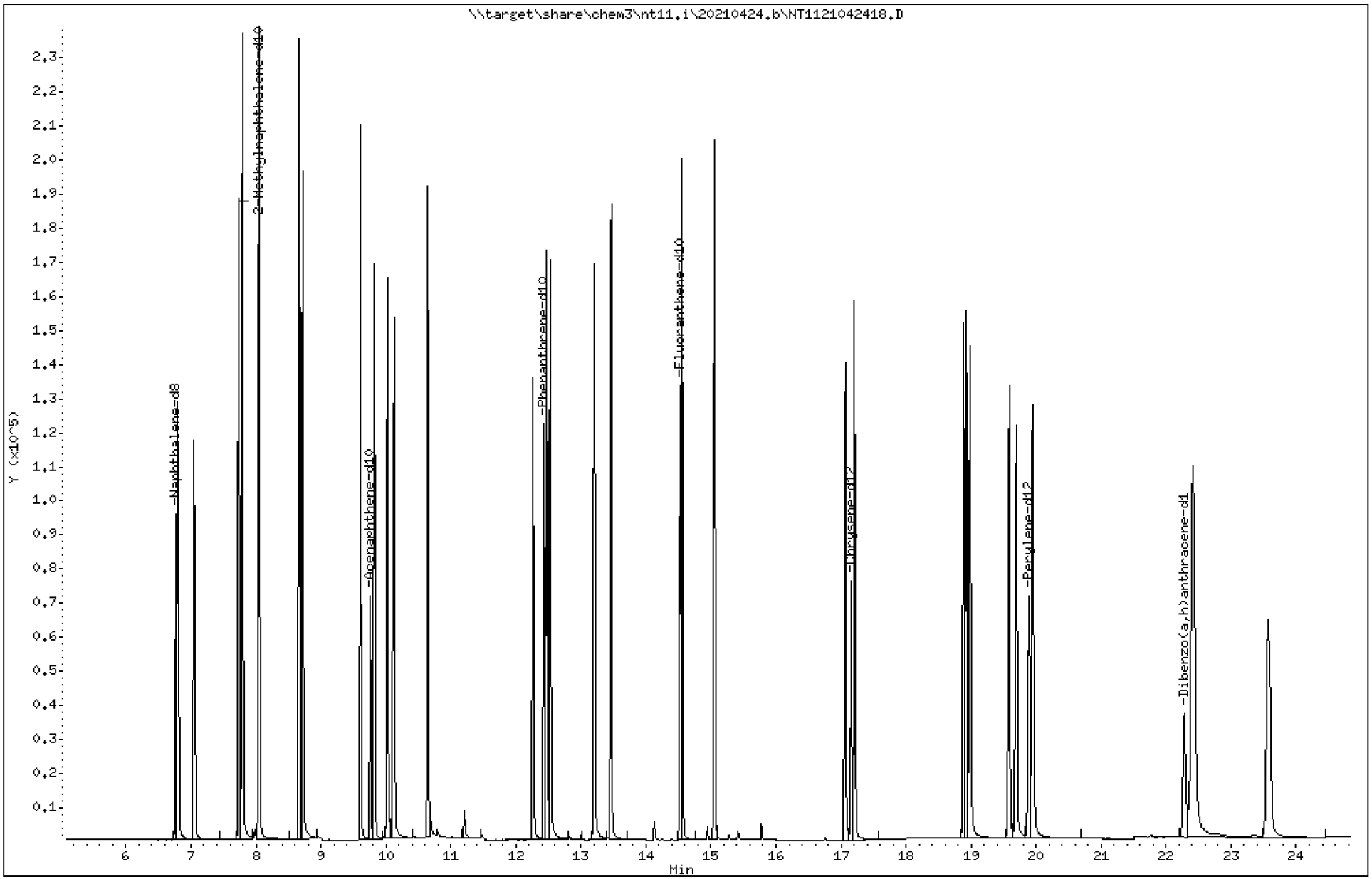
Instrument: nt11.i

Sample Info: SJD0344-CCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25




Revised Report 21D0180 07/07/2021 Page 1154 of 1709

Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042418.D

Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

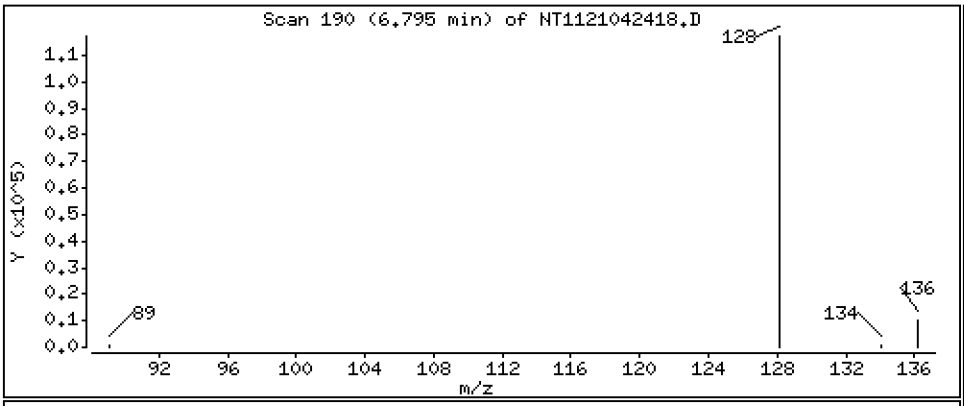
Operator: VTS

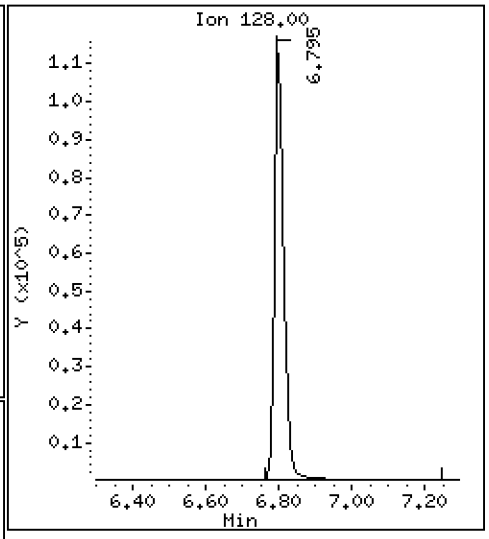
Column phase: Rxi-17Sil MS

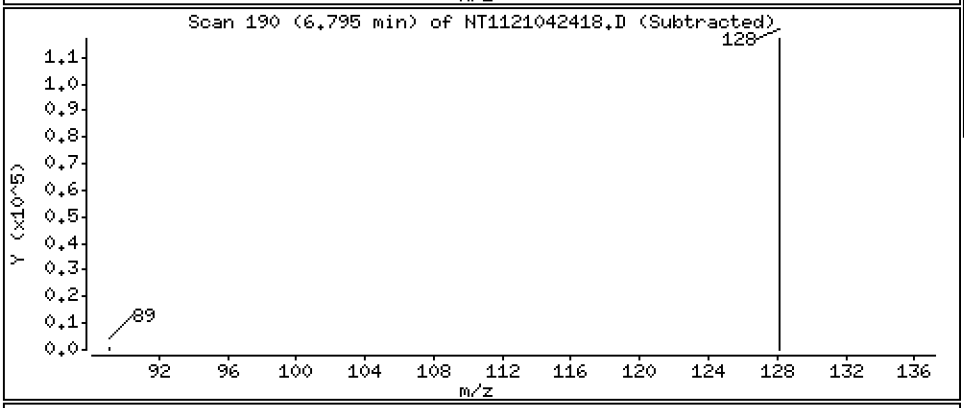
Column diameter: 0.25

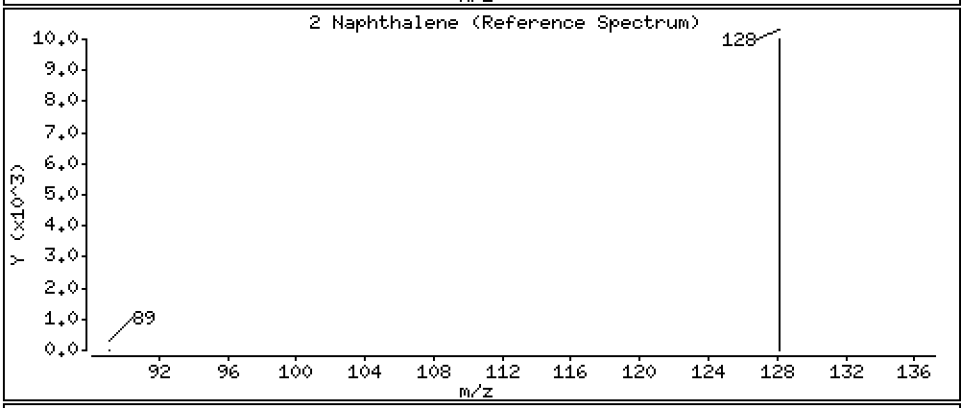
2 Naphthalene

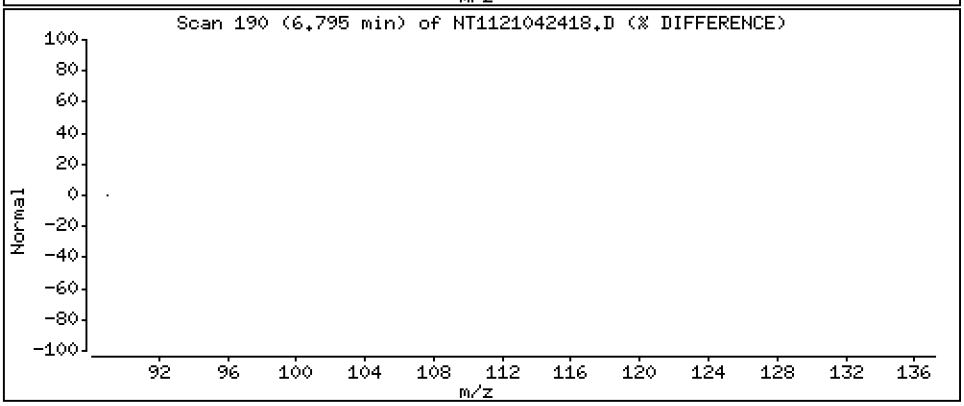
Concentration: 224 ng/mL



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Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

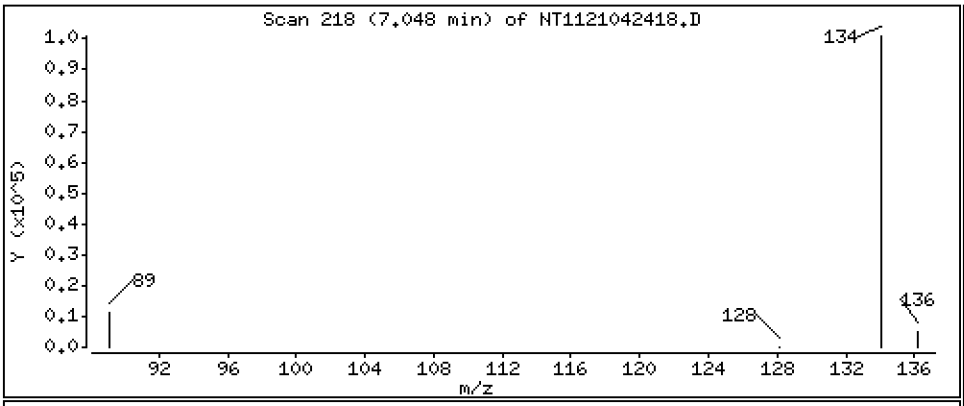
Operator: VTS

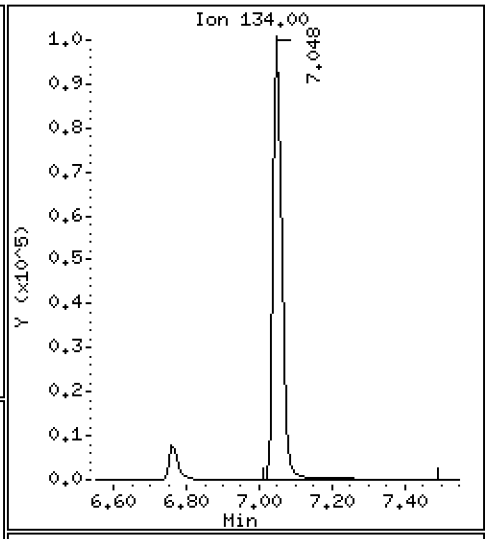
Column phase: Rxi-17Sil MS

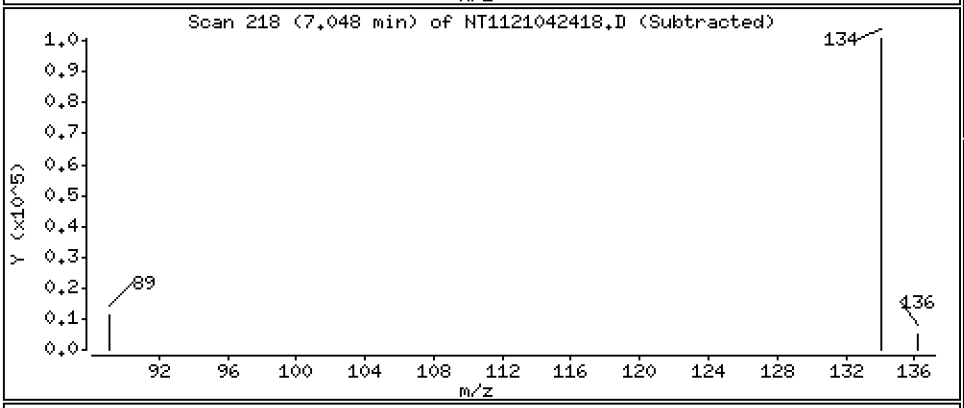
Column diameter: 0.25

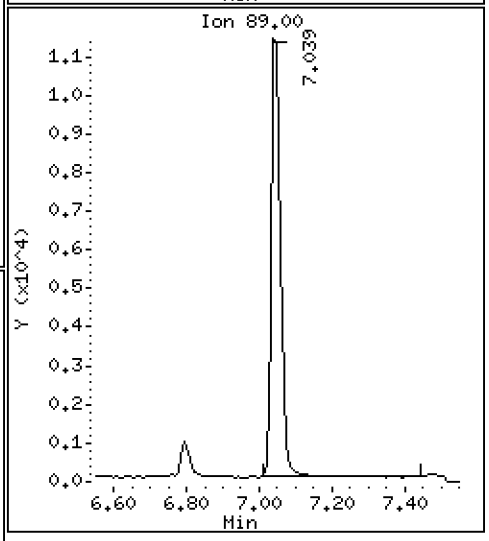
3 Benzo(b)thiophene

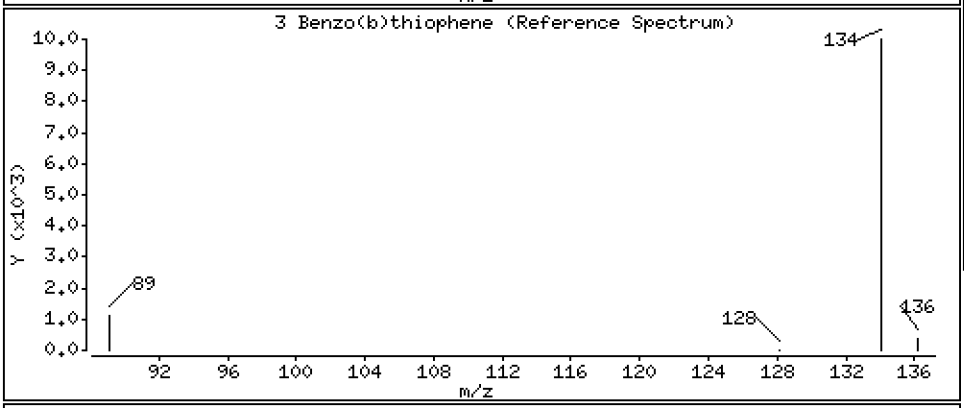
Concentration: 230 ng/mL

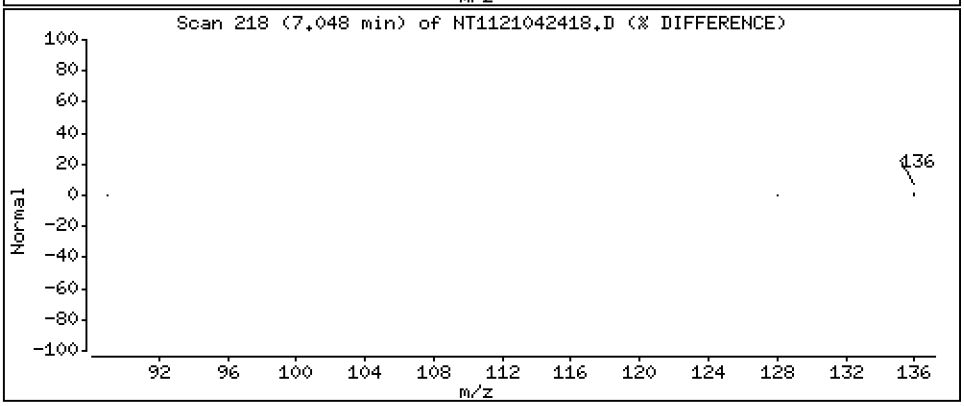


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Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

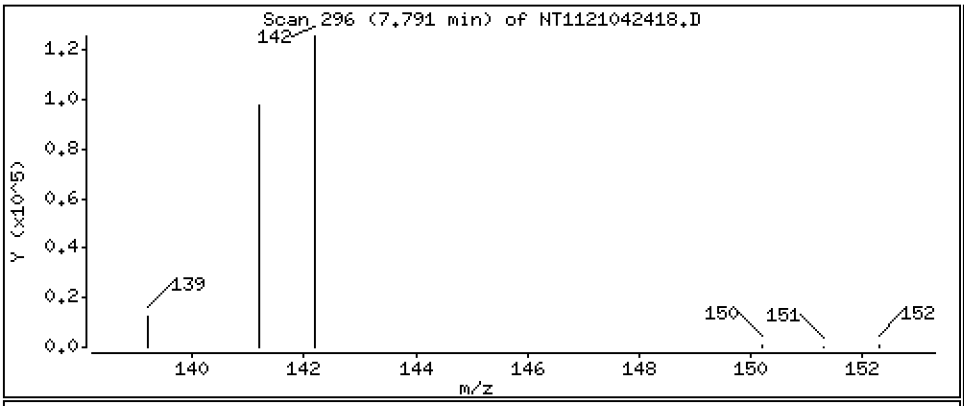
Operator: VTS

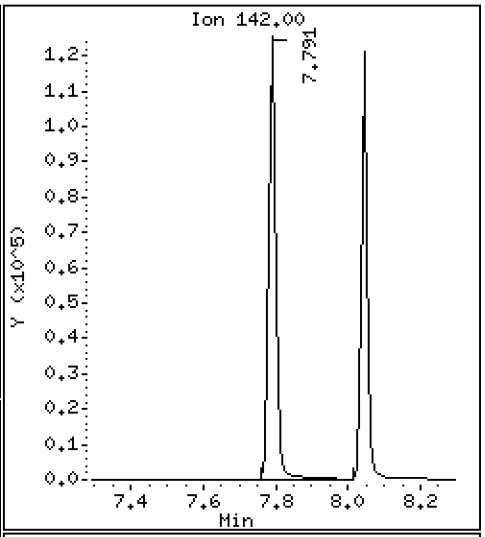
Column phase: Rxi-17Sil MS

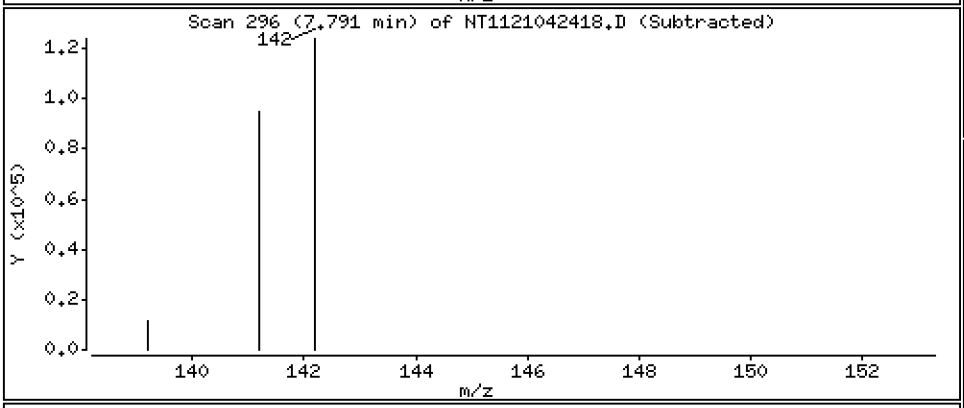
Column diameter: 0.25

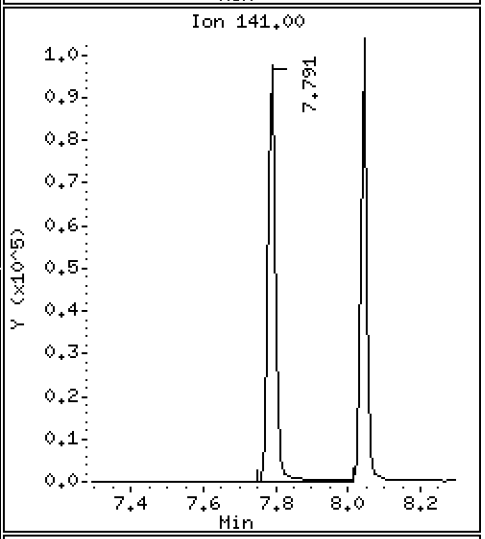
5 2-Methylnaphthalene

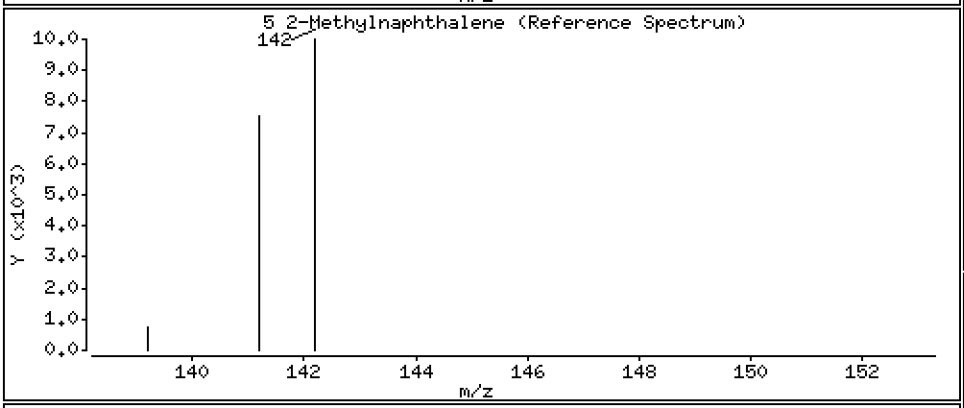
Concentration: 235 ng/mL

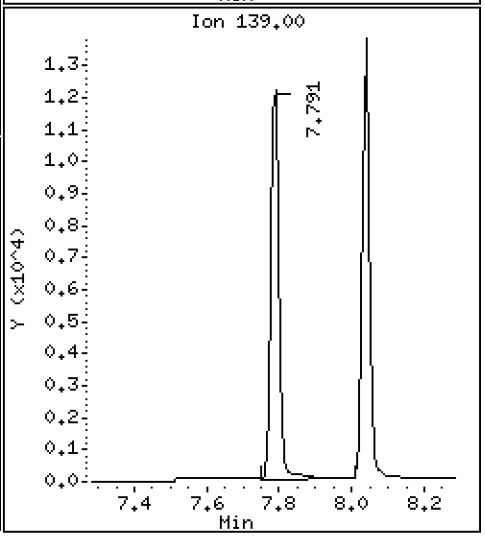


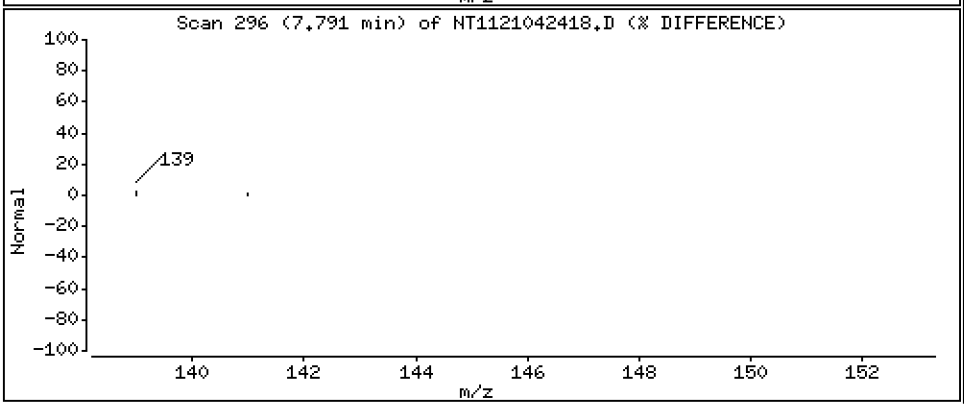



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Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

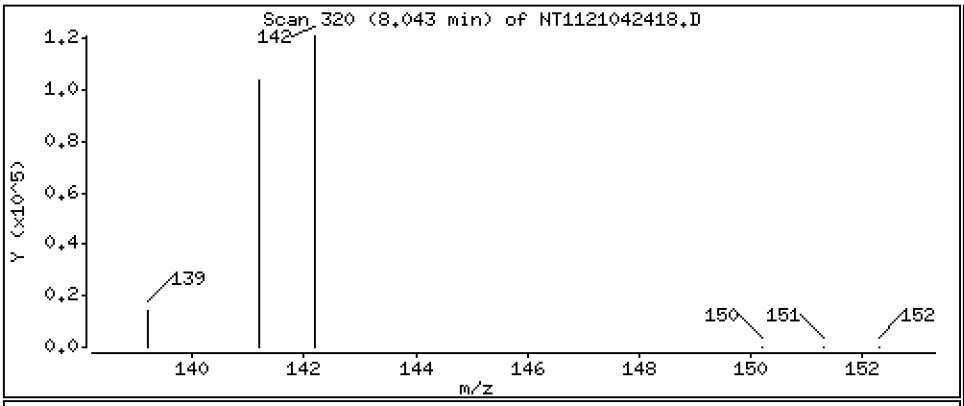
Operator: VTS

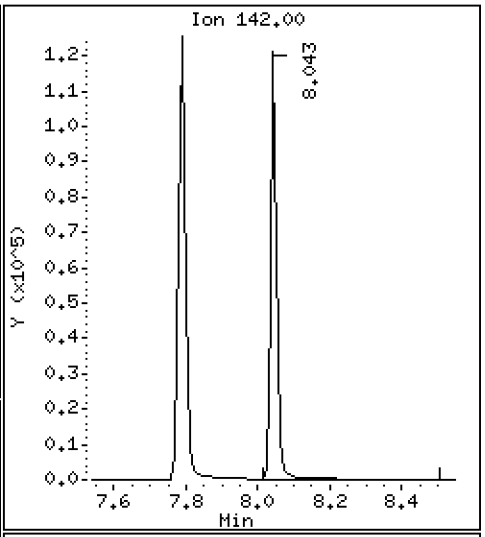
Column phase: Rxi-17Sil MS

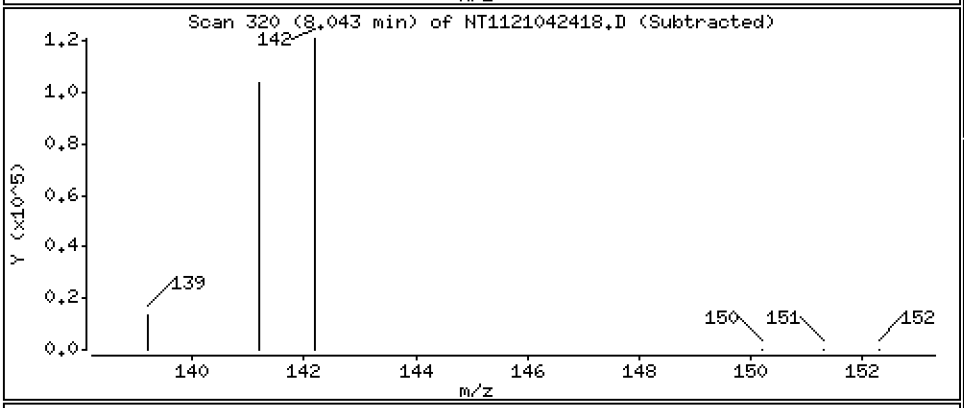
Column diameter: 0.25

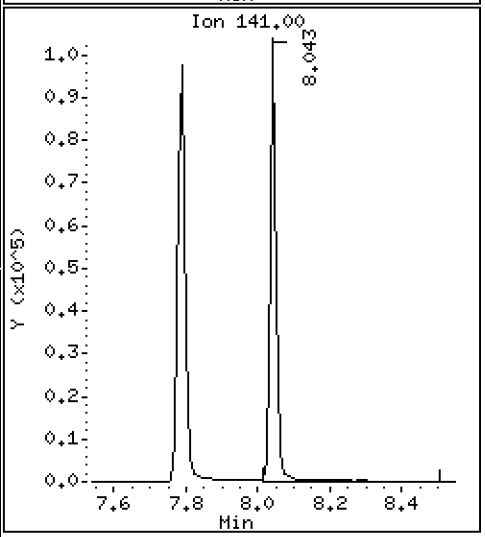
6 1-Methylnaphthalene

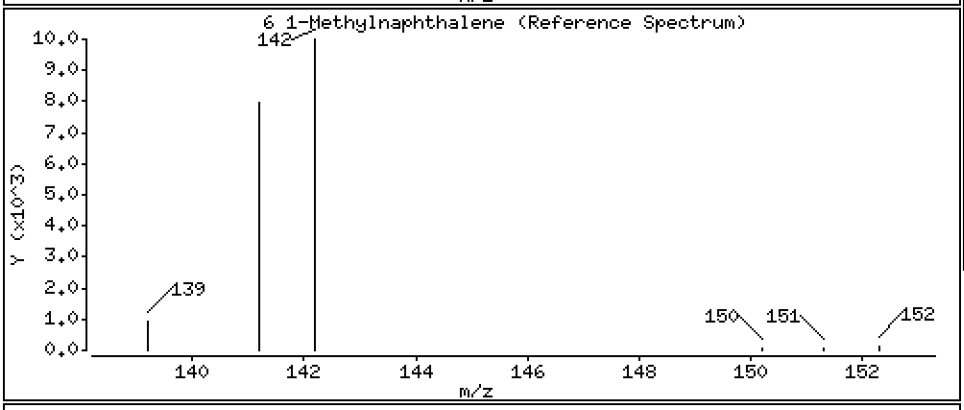
Concentration: 246 ng/mL

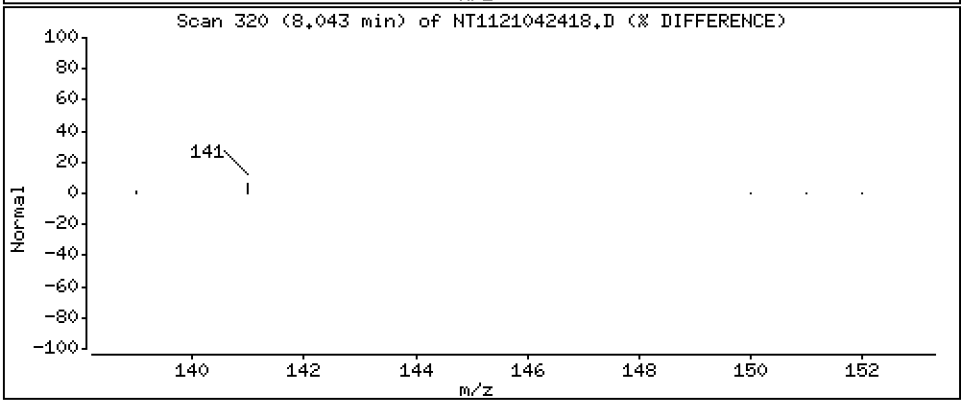


Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042418.D

Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

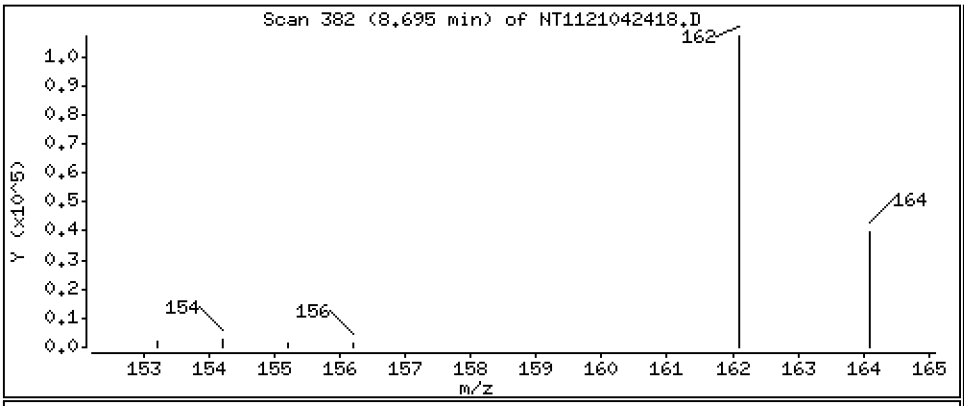
Operator: VTS

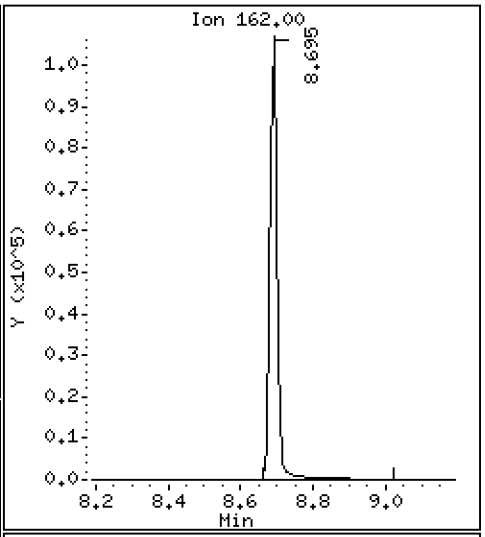
Column phase: Rxi-17Sil MS

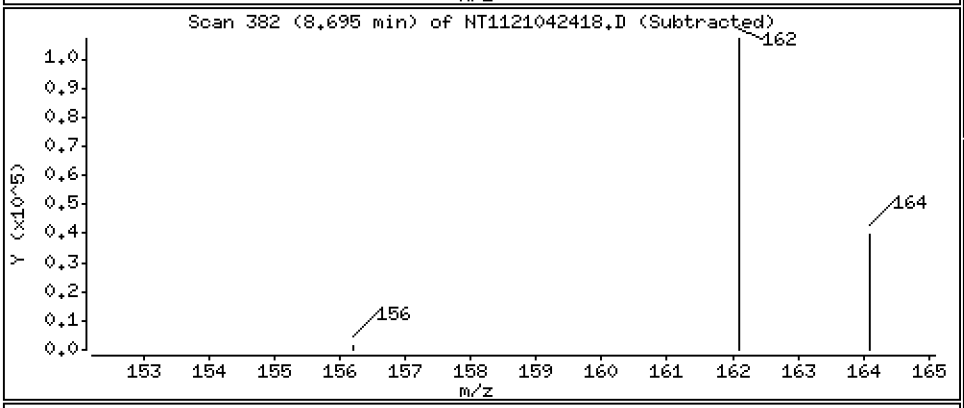
Column diameter: 0.25

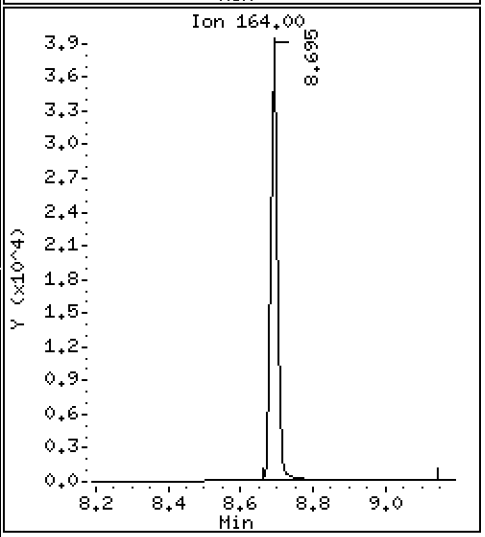
7 2-Chloronaphthalene

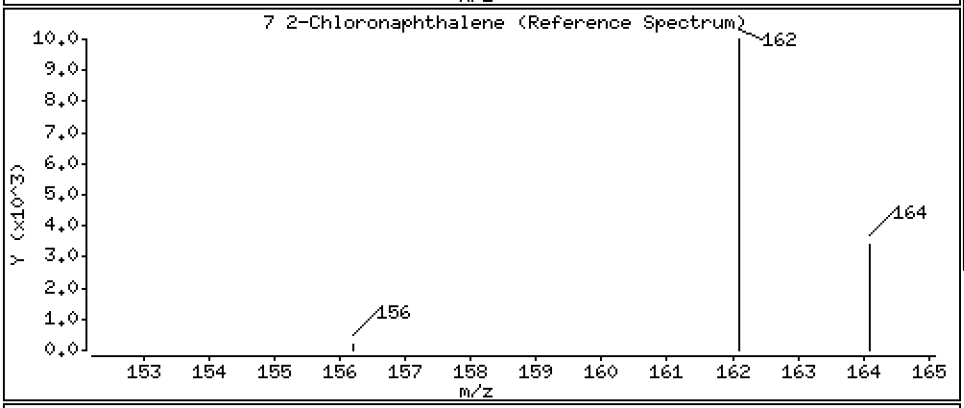
Concentration: 196 ng/mL

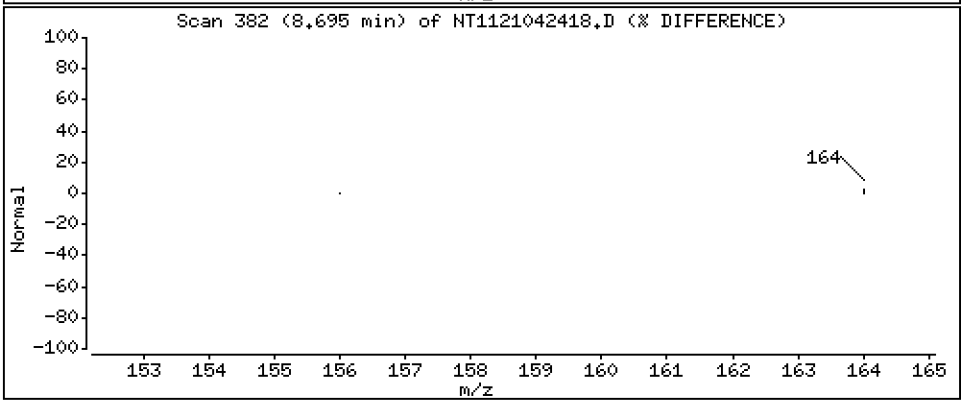


Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042418.D

Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

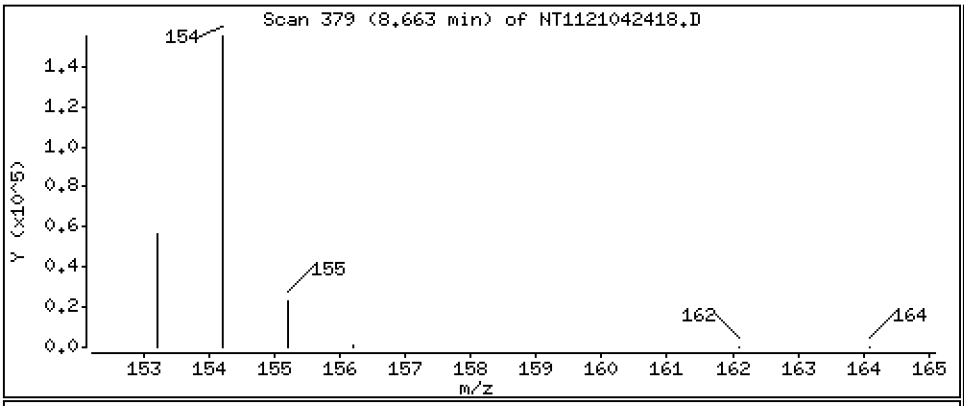
Operator: VTS

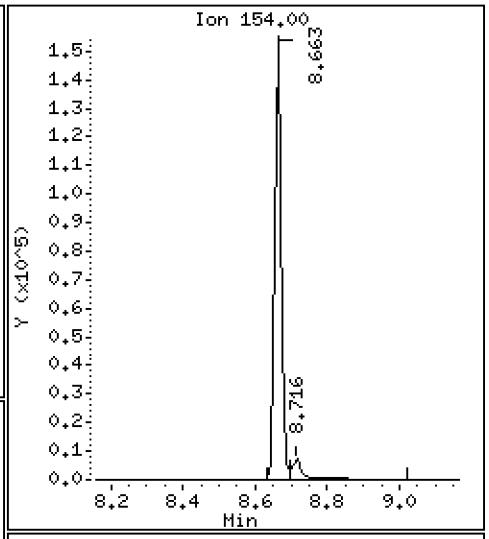
Column phase: Rxi-17Sil MS

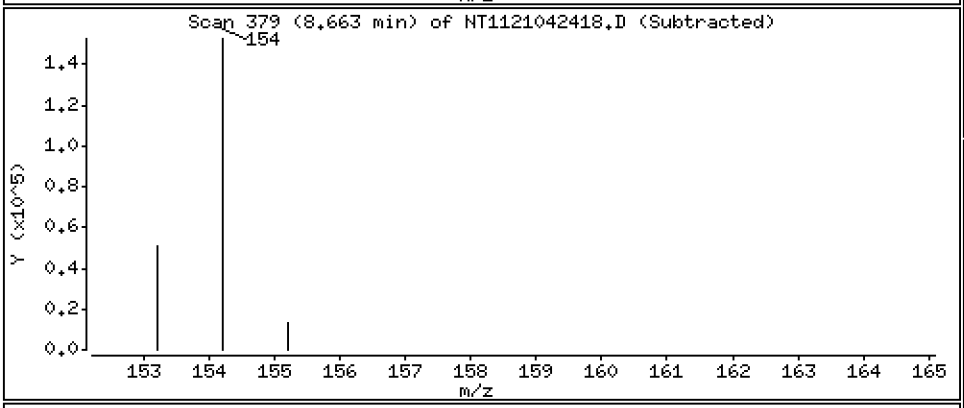
Column diameter: 0.25

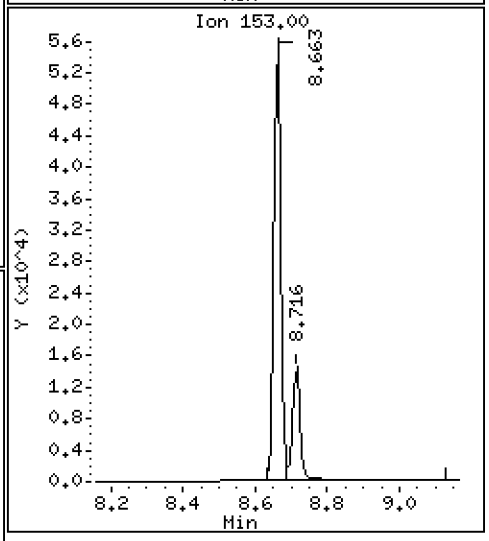
8 Biphenyl

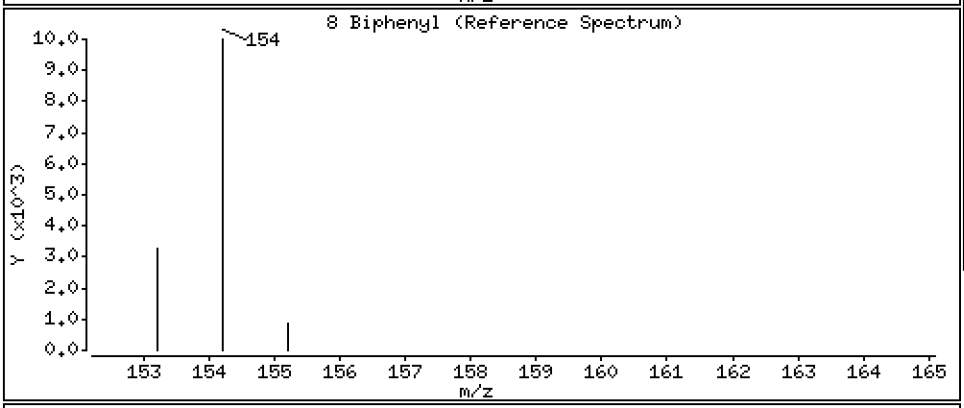
Concentration: 187 ng/mL

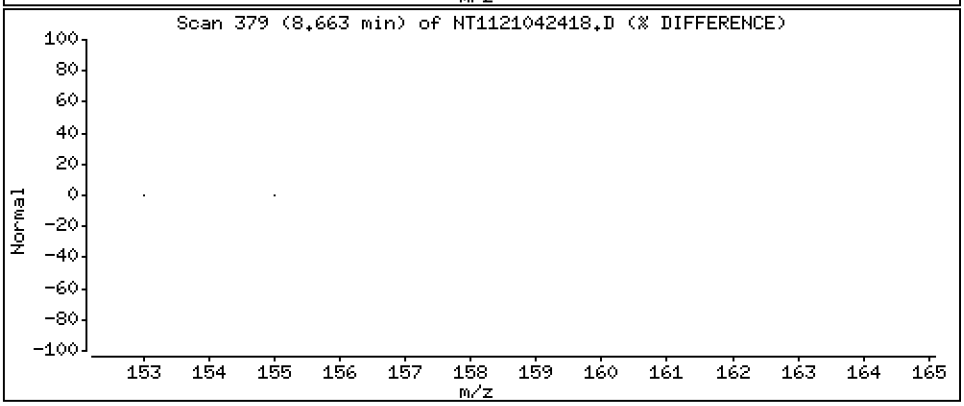


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Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

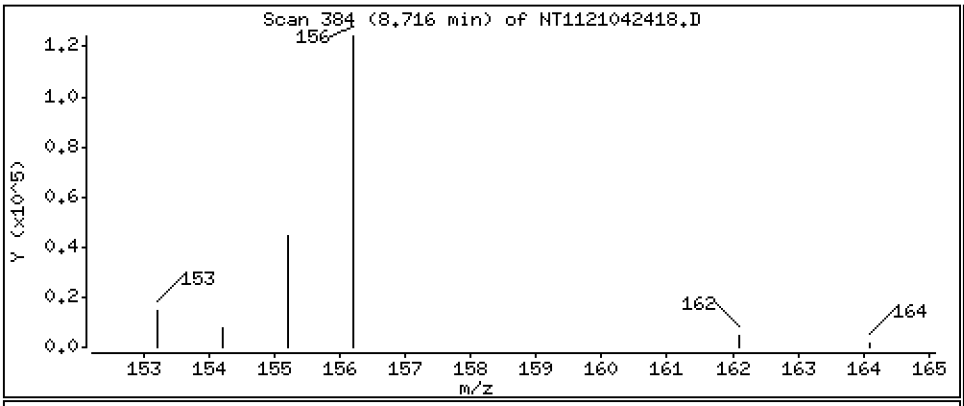
Operator: VTS

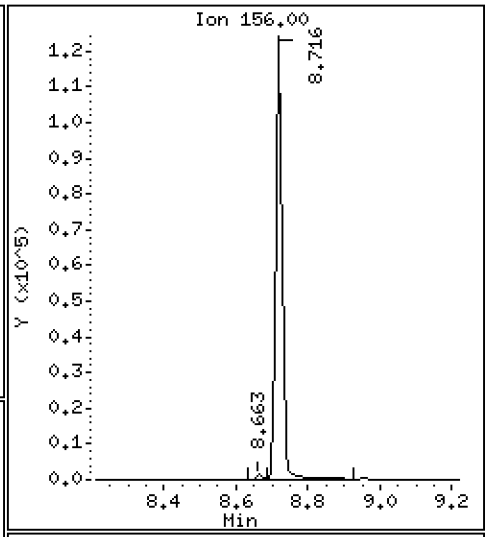
Column phase: Rxi-17Sil MS

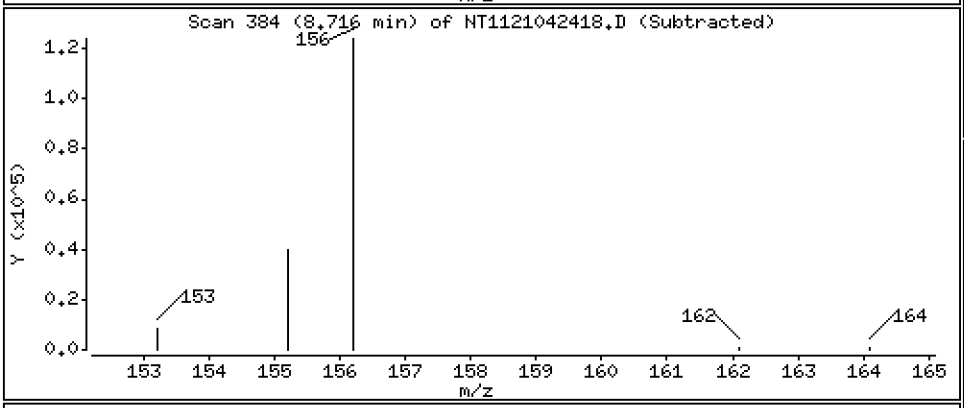
Column diameter: 0.25

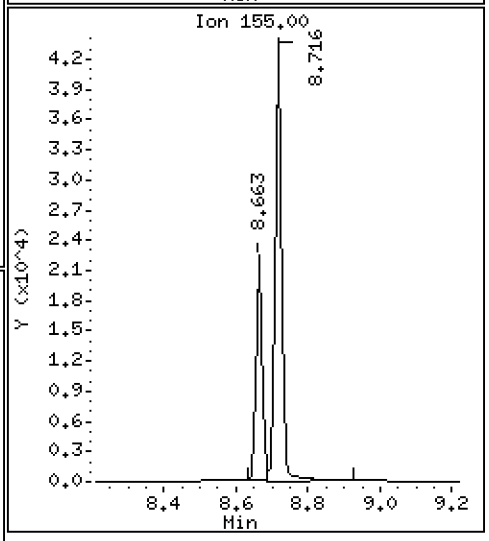
9 2,6-Dimethylnaphthalene

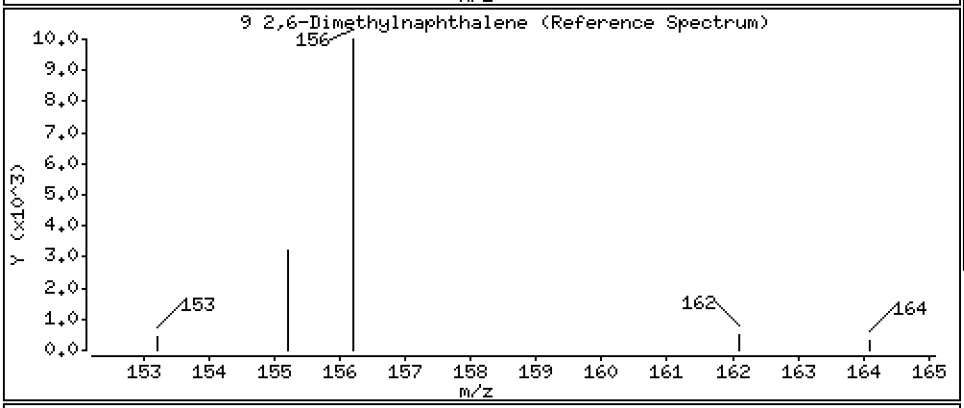
Concentration: 202 ng/mL

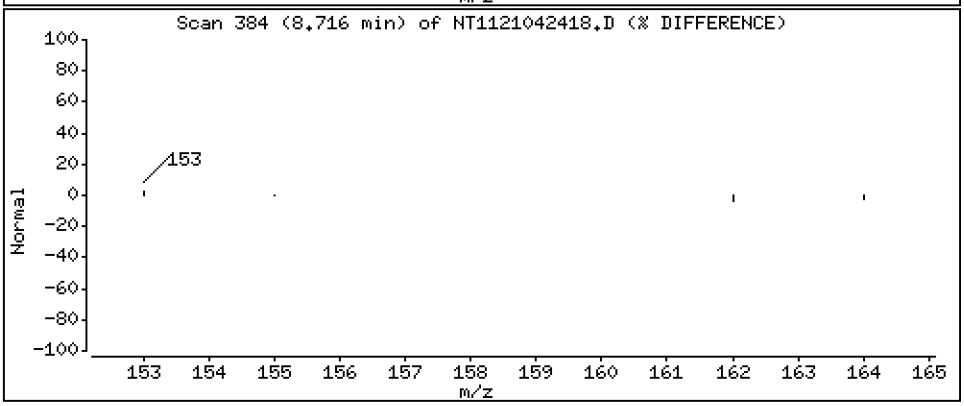


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Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

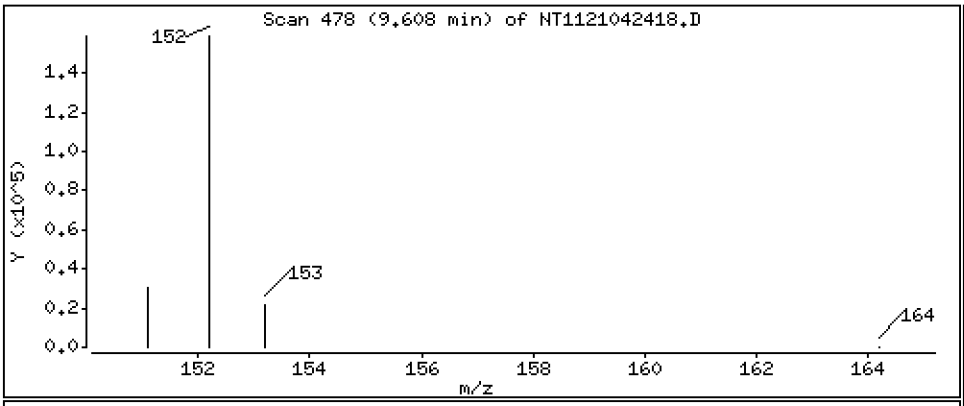
Operator: VTS

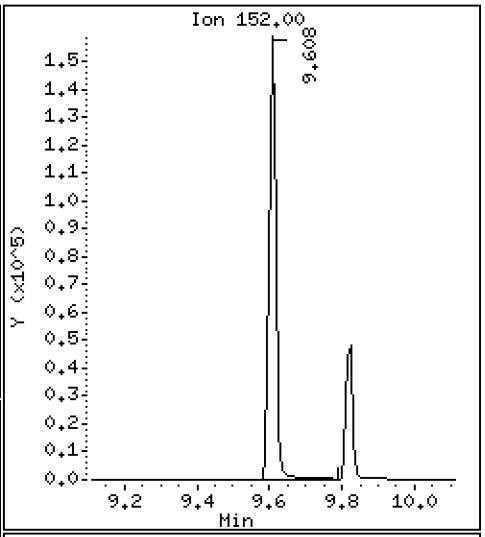
Column phase: Rxi-17Sil MS

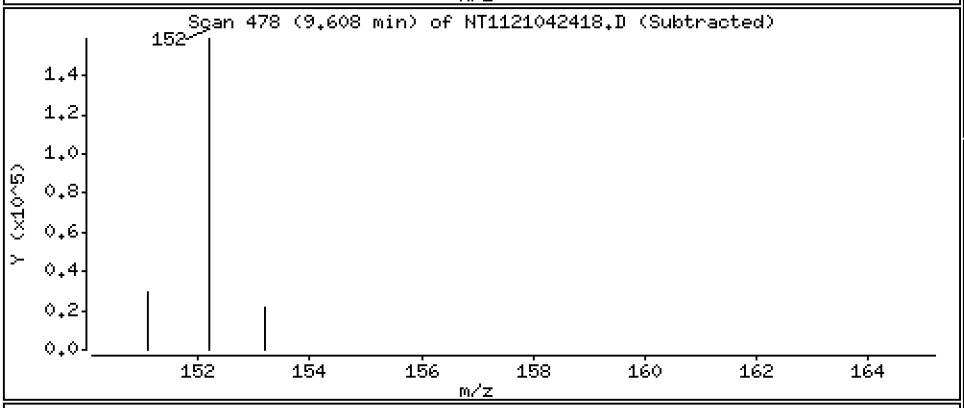
Column diameter: 0.25

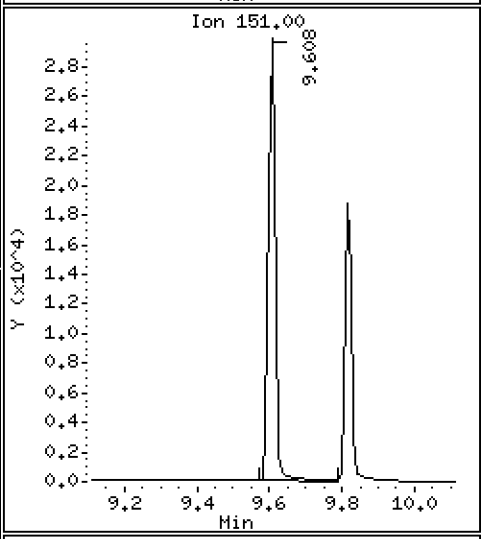
10 Acenaphthylene

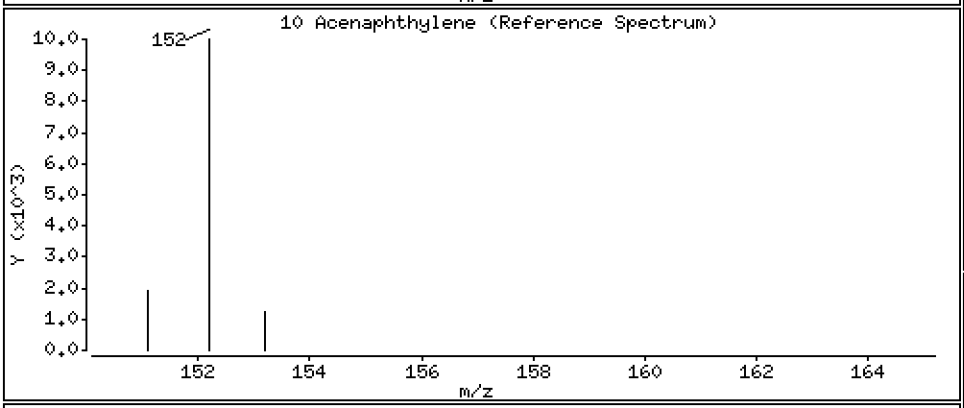
Concentration: 194 ng/mL

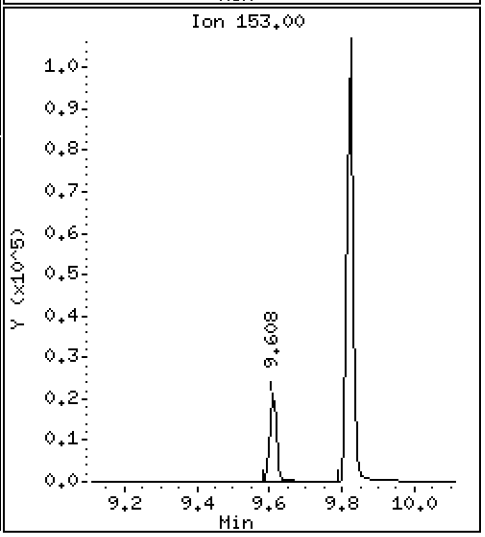


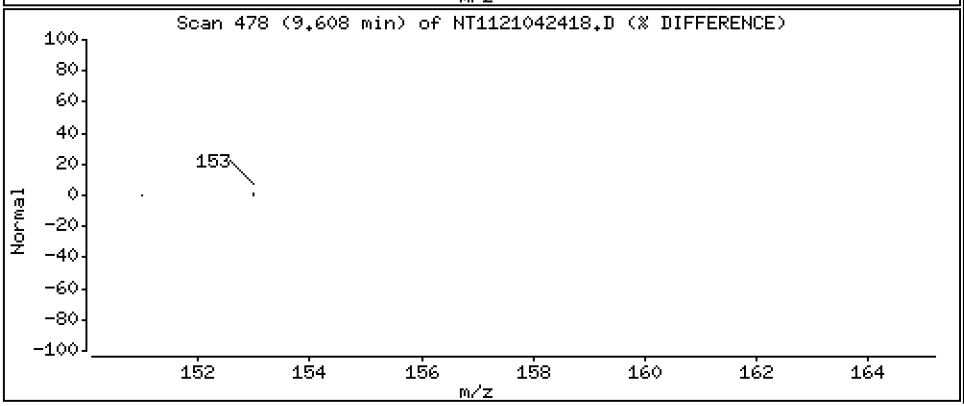



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Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

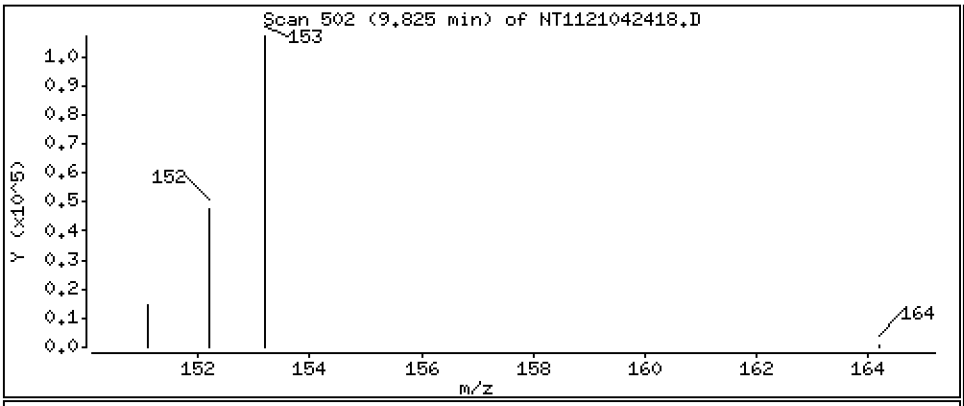
Operator: VTS

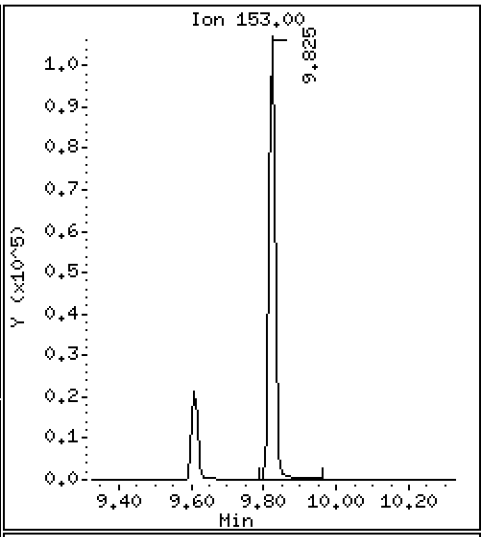
Column phase: Rxi-17Sil MS

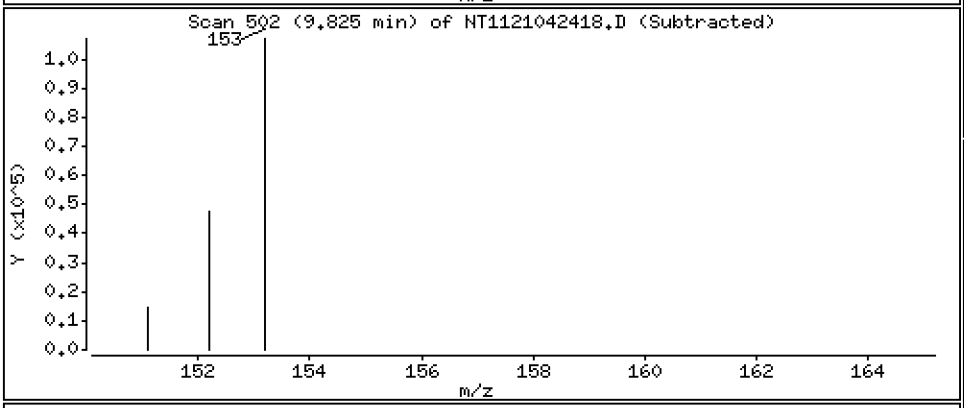
Column diameter: 0.25

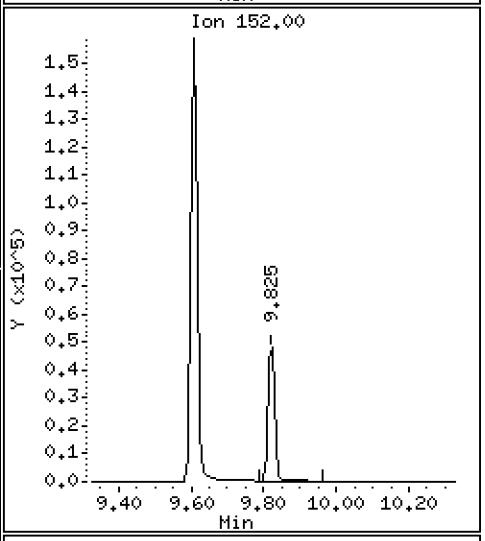
12 Acenaphthene

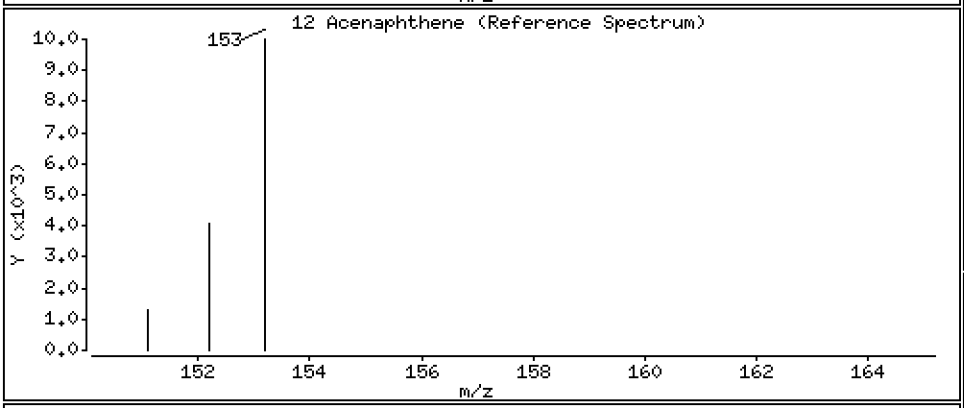
Concentration: 197 ng/mL

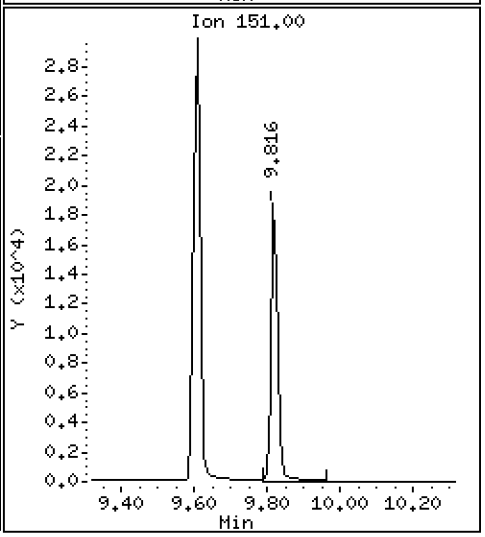


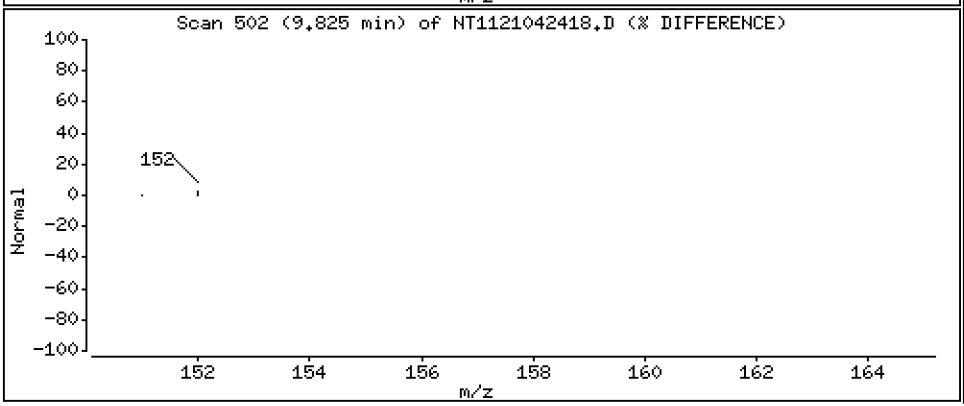



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Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

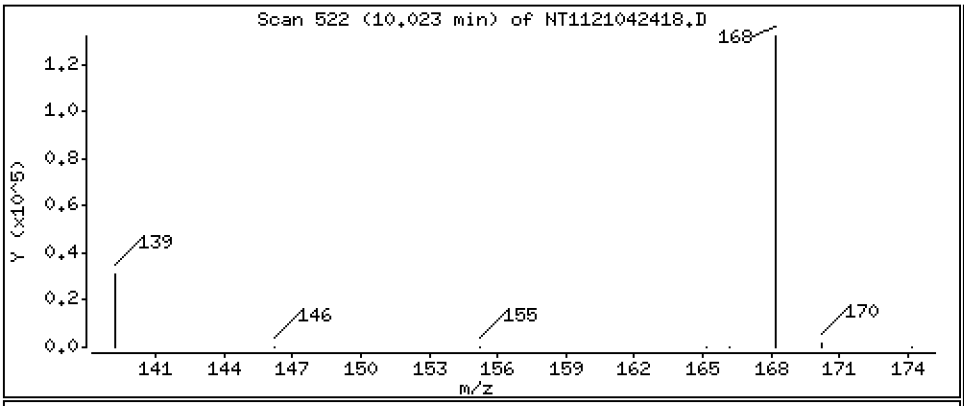
Operator: VTS

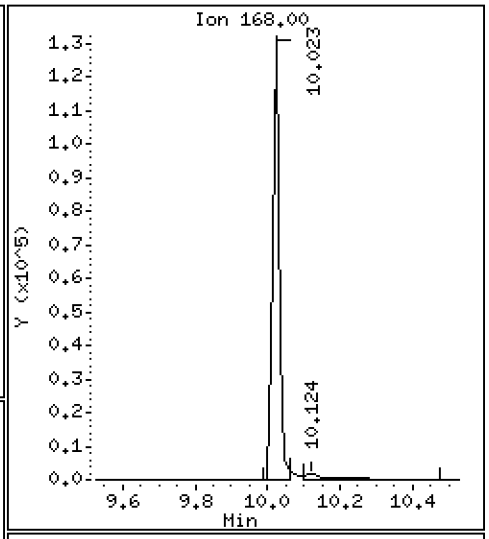
Column phase: Rxi-17Sil MS

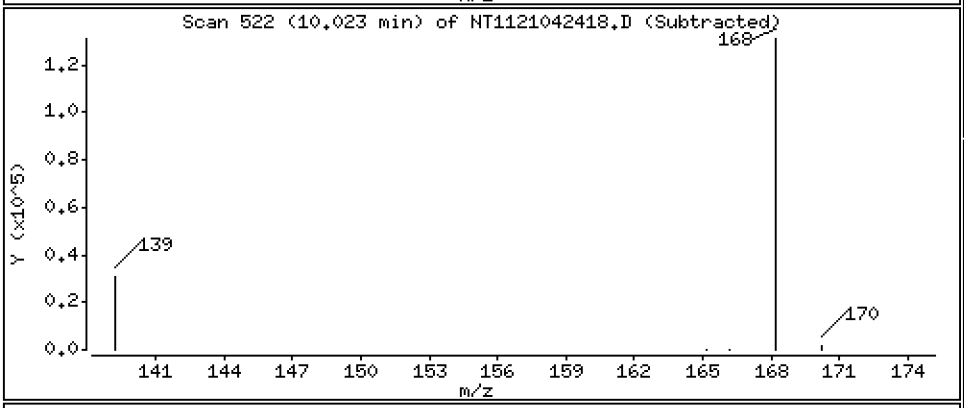
Column diameter: 0.25

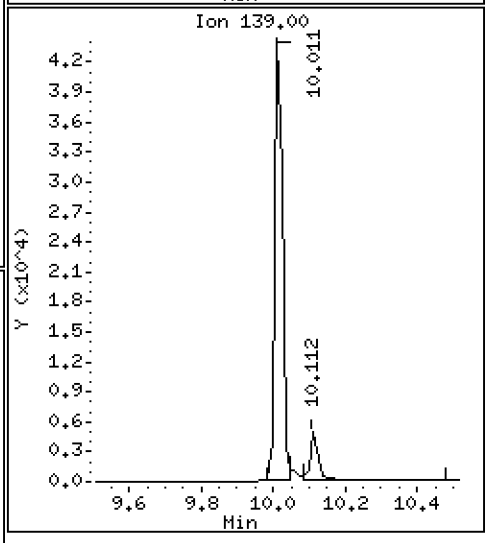
13 Dibenzofuran

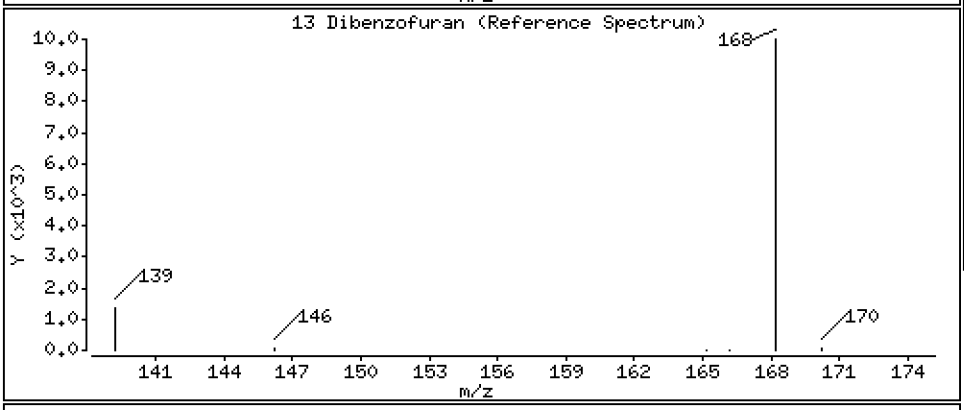
Concentration: 184 ng/mL

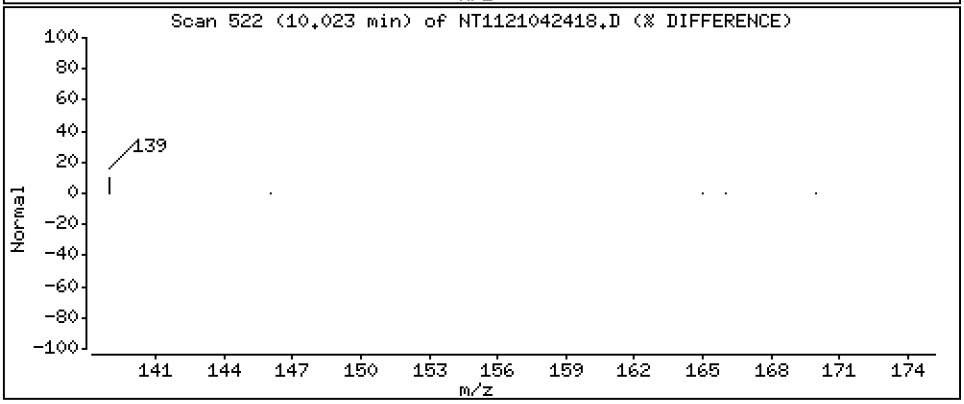


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Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

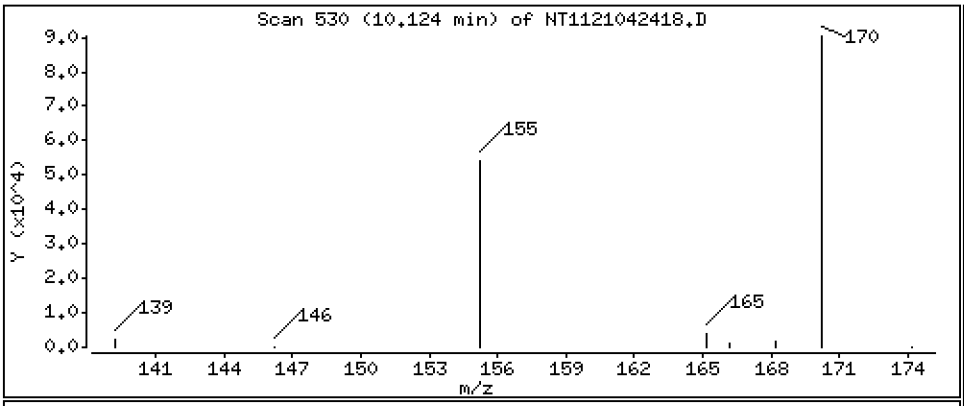
Operator: VTS

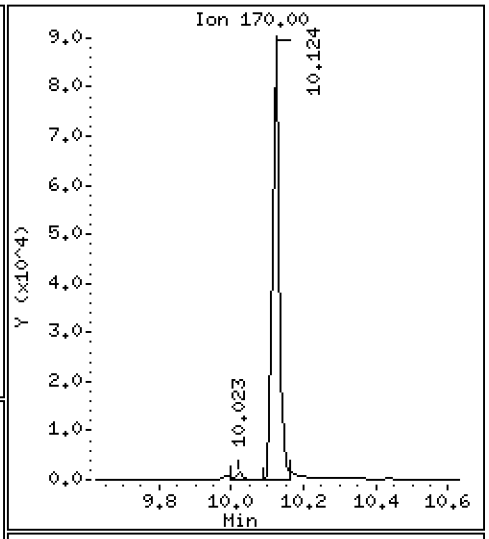
Column phase: Rxi-17Sil MS

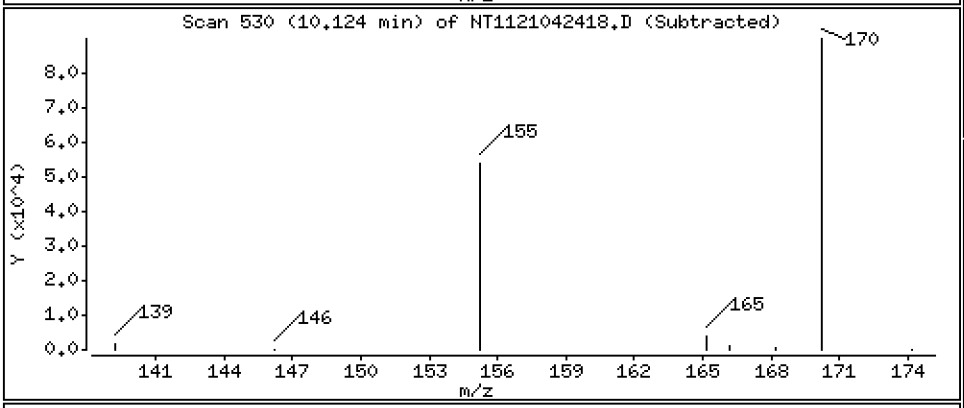
Column diameter: 0.25

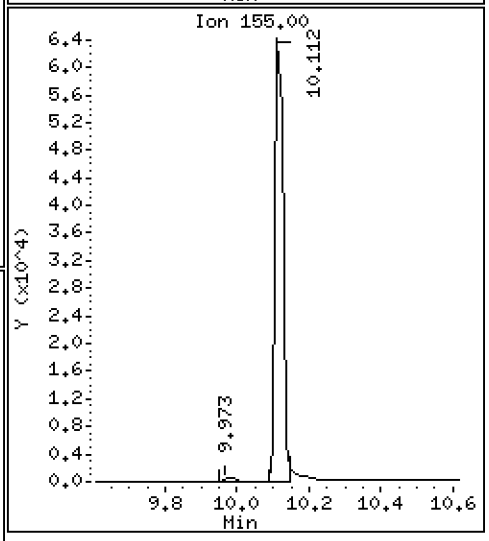
14 2,3,5-Trimethylnaphthalene

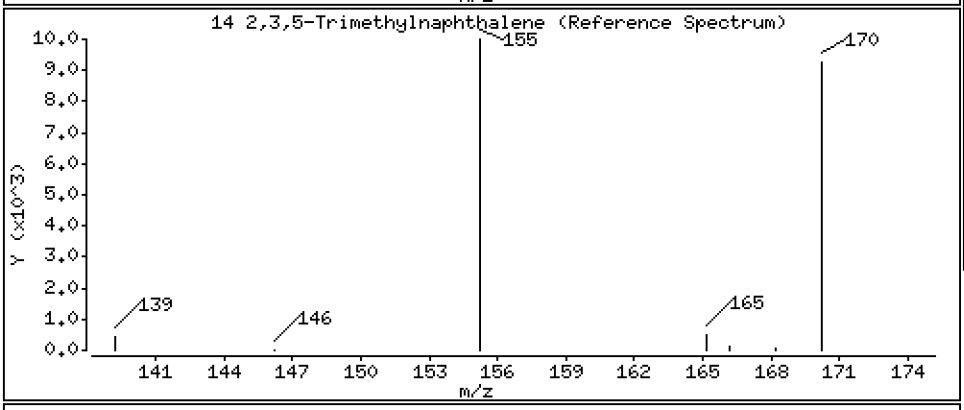
Concentration: 199 ng/mL

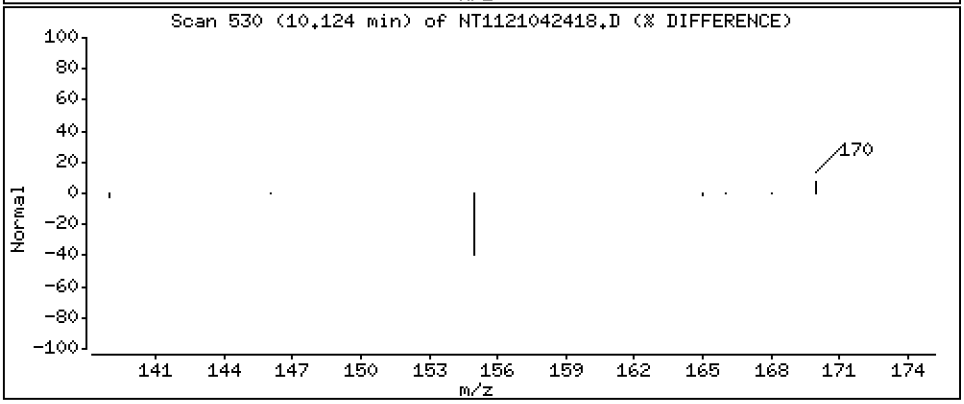


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Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

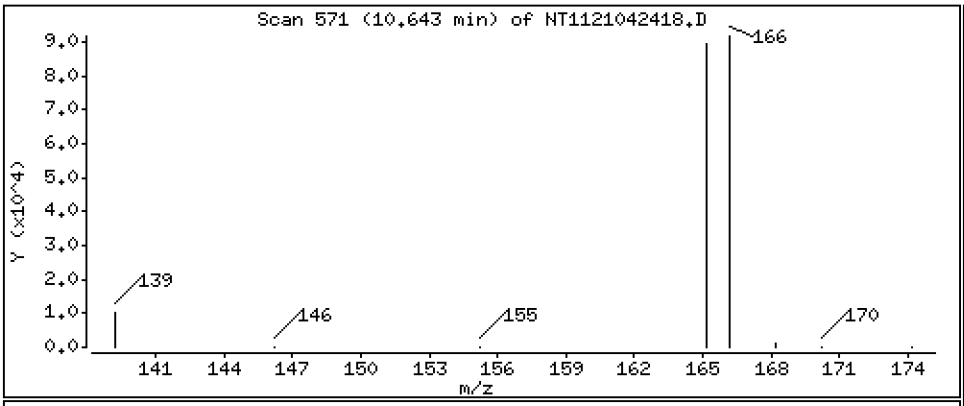
Operator: VTS

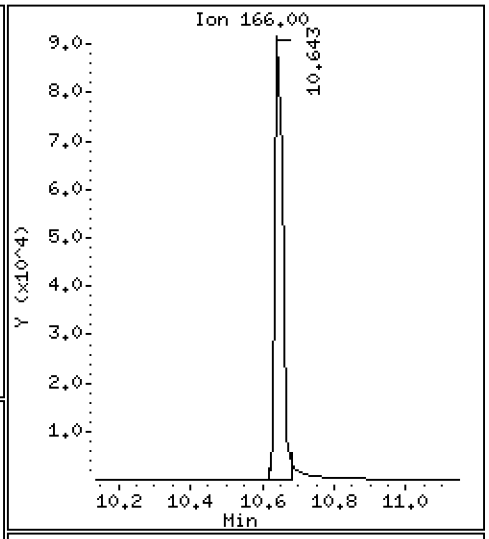
Column phase: Rxi-17Sil MS

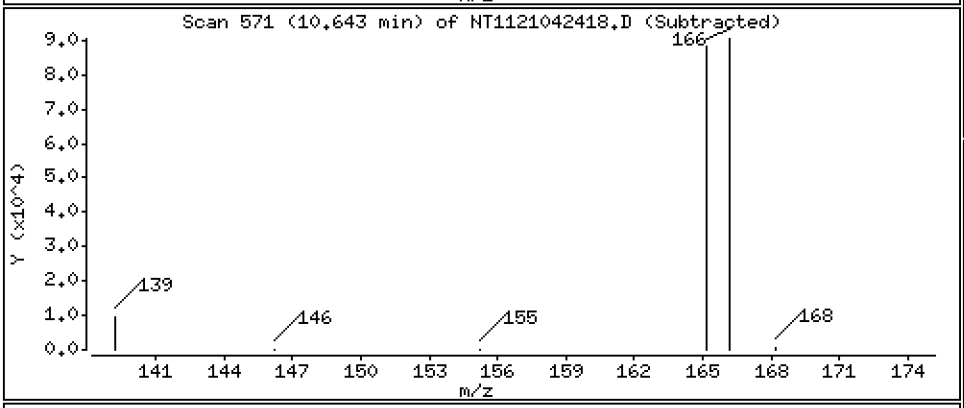
Column diameter: 0.25

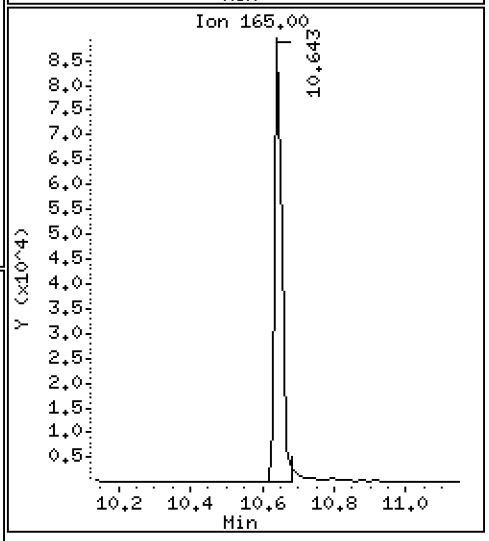
16 Fluorene

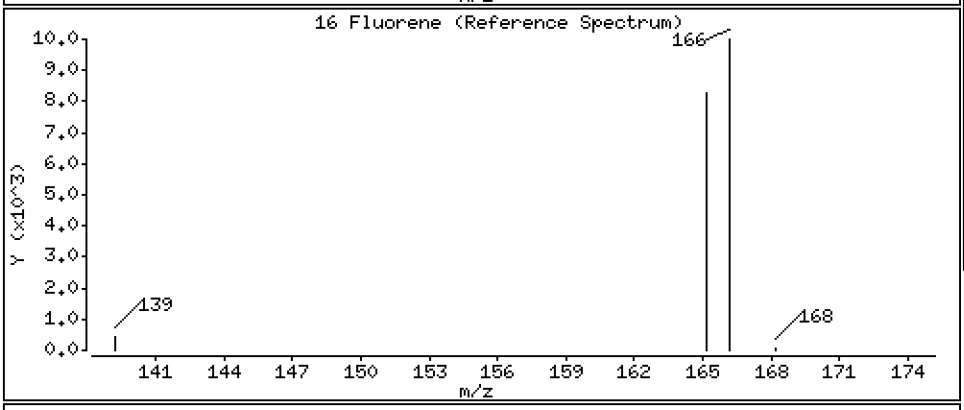
Concentration: 196 ng/mL

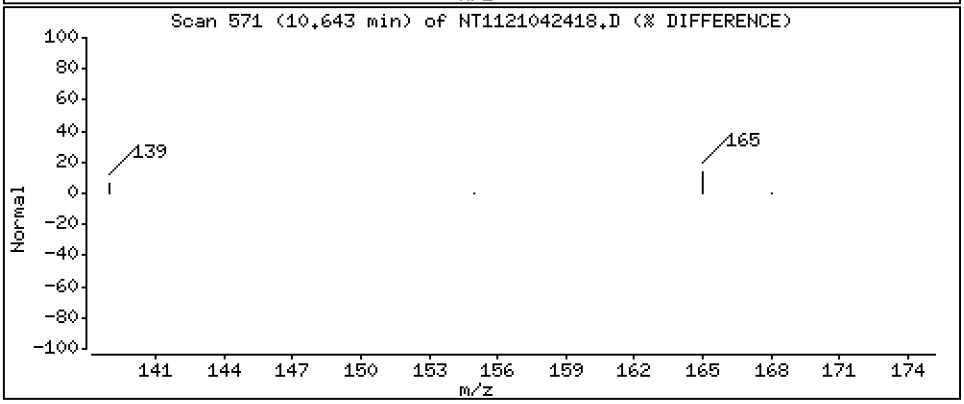


Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042418.D

Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

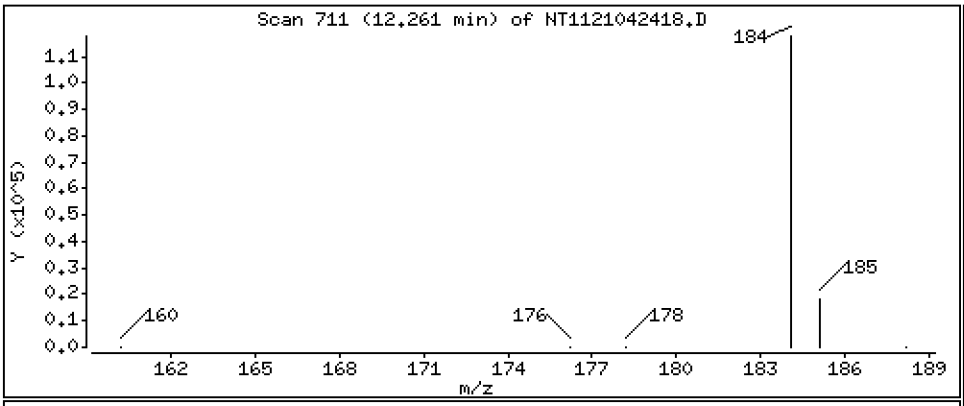
Operator: VTS

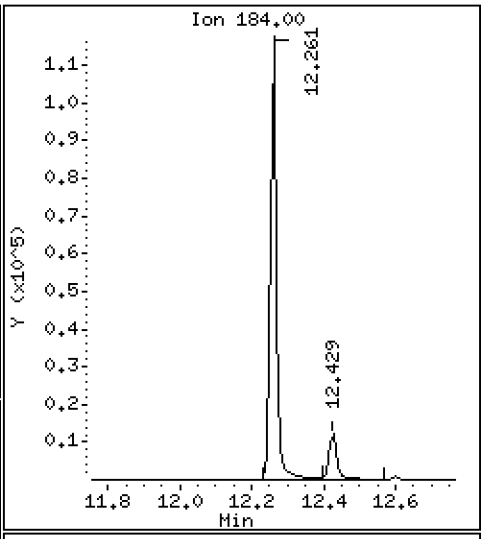
Column phase: Rxi-17Sil MS

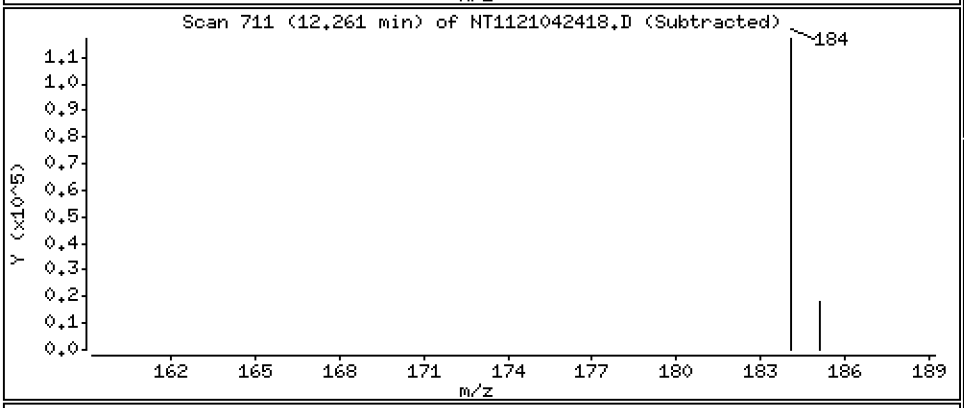
Column diameter: 0.25

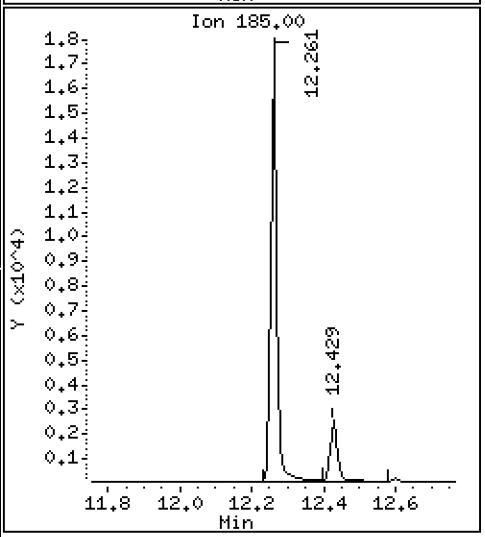
17 Dibenzothiophene

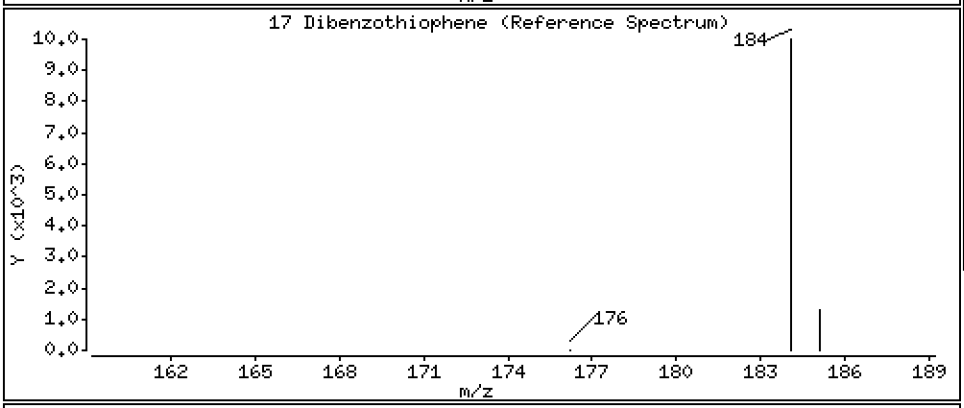
Concentration: 213 ng/mL

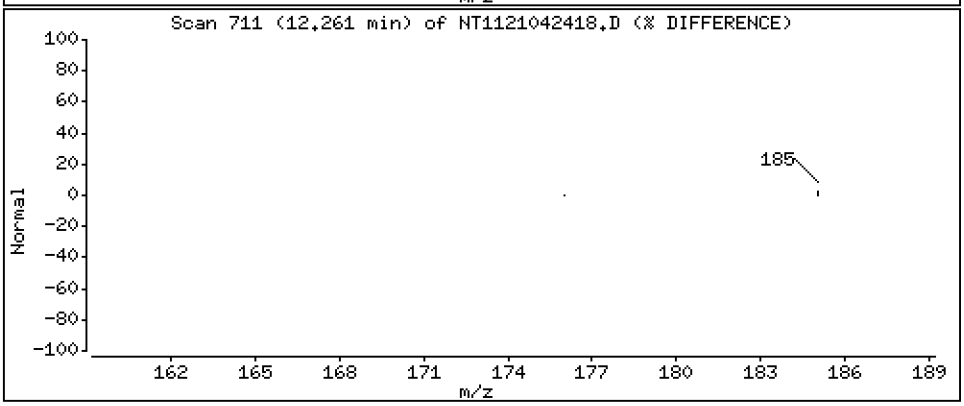


Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042418.D

Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

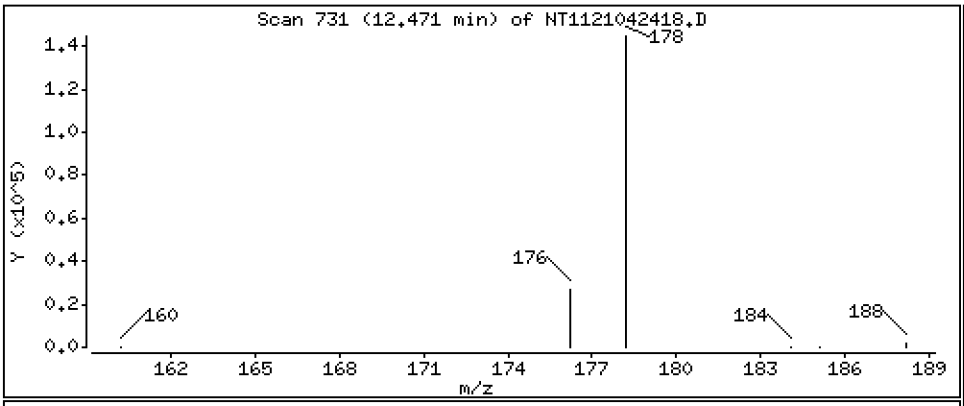
Operator: VTS

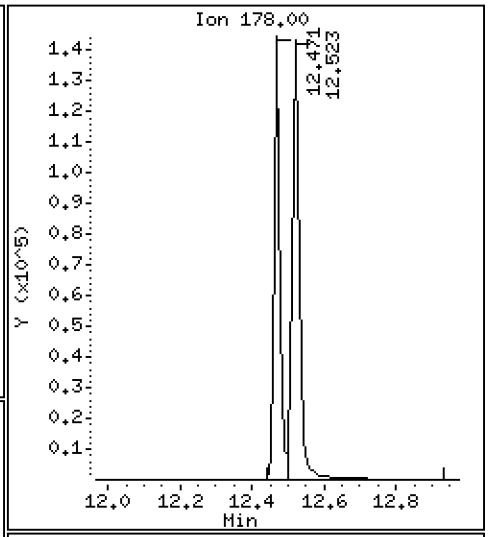
Column phase: Rxi-17Sil MS

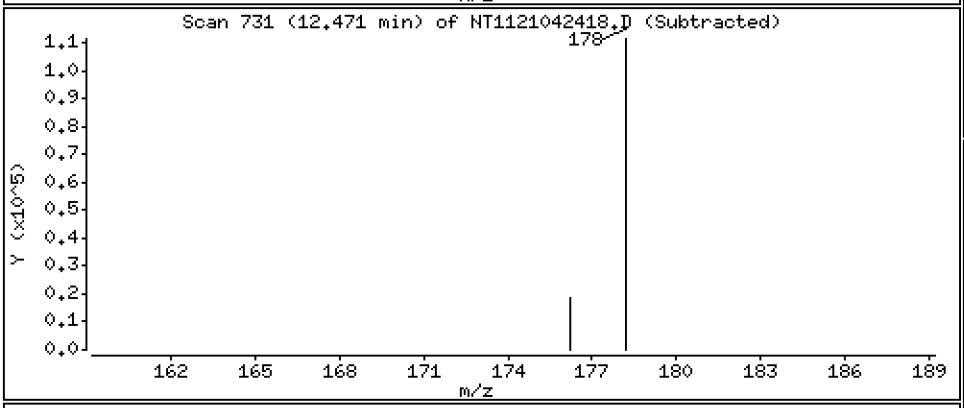
Column diameter: 0.25

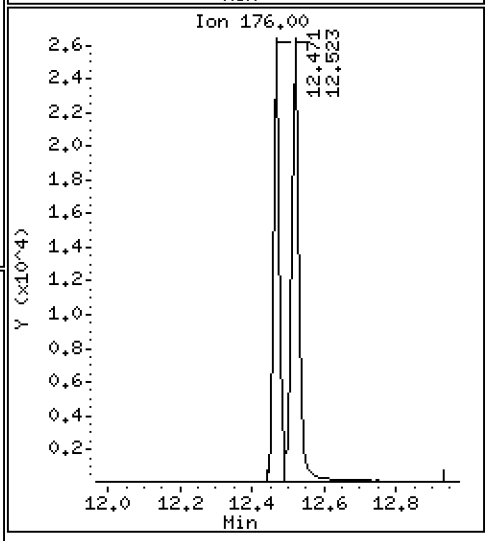
19 Phenanthrene

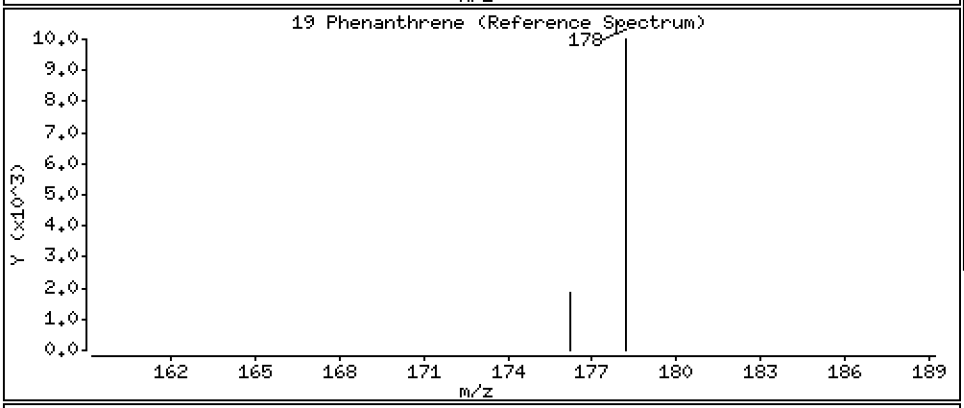
Concentration: 215 ng/mL

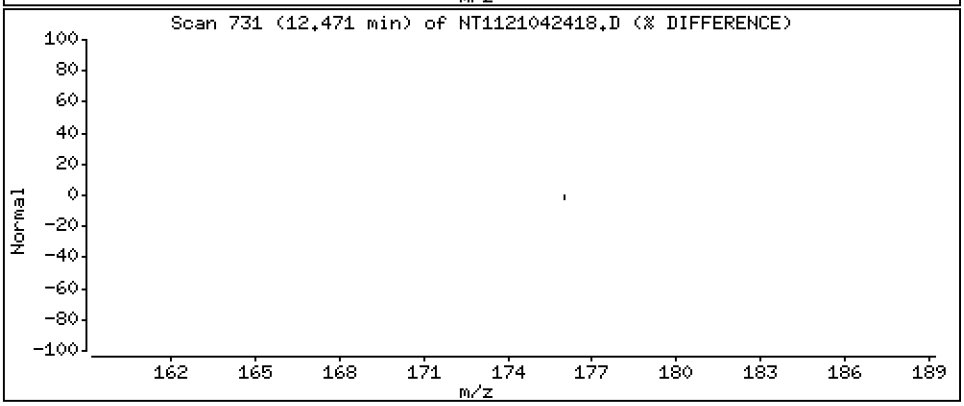


Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042418.D

Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

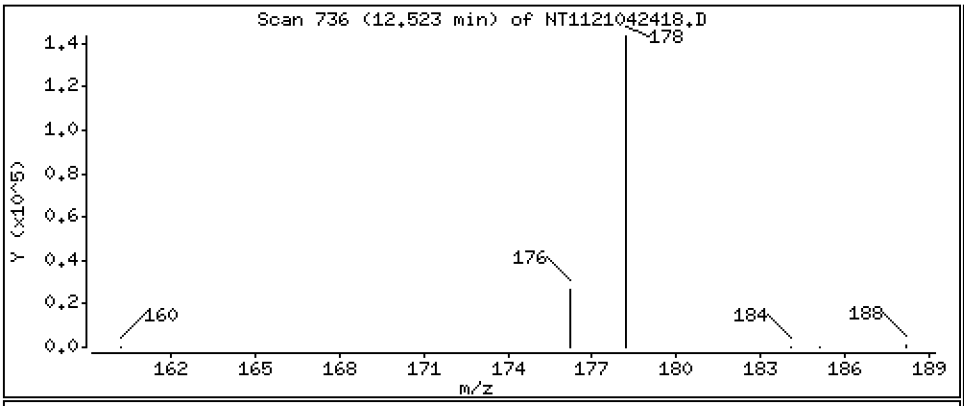
Operator: VTS

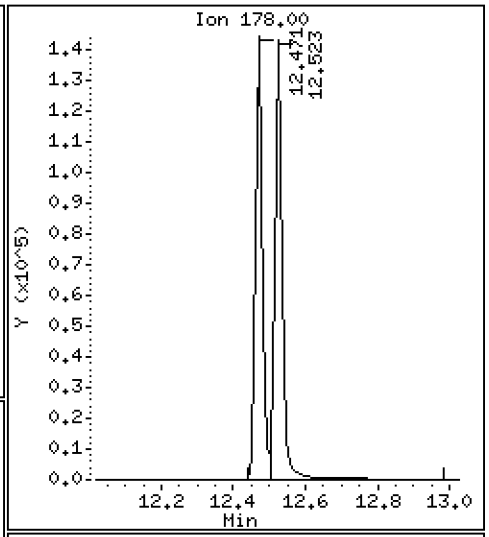
Column phase: Rxi-17Sil MS

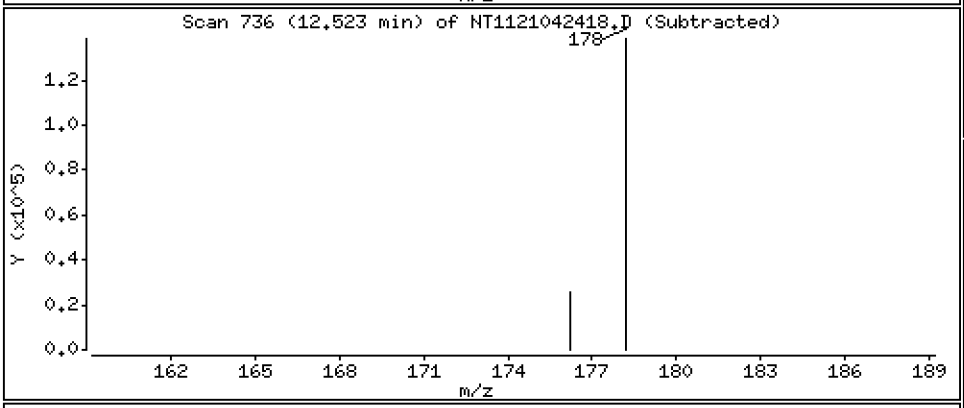
Column diameter: 0.25

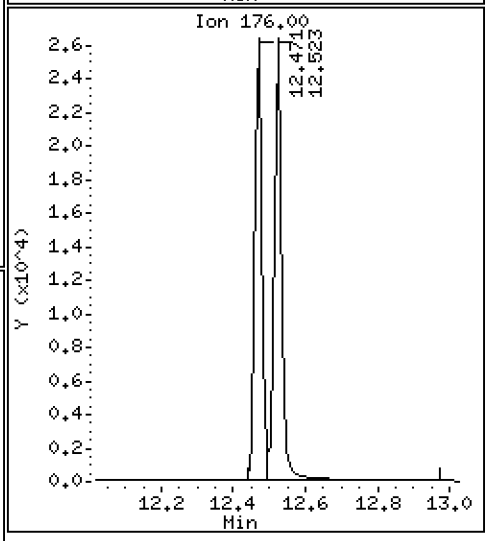
21 Anthracene

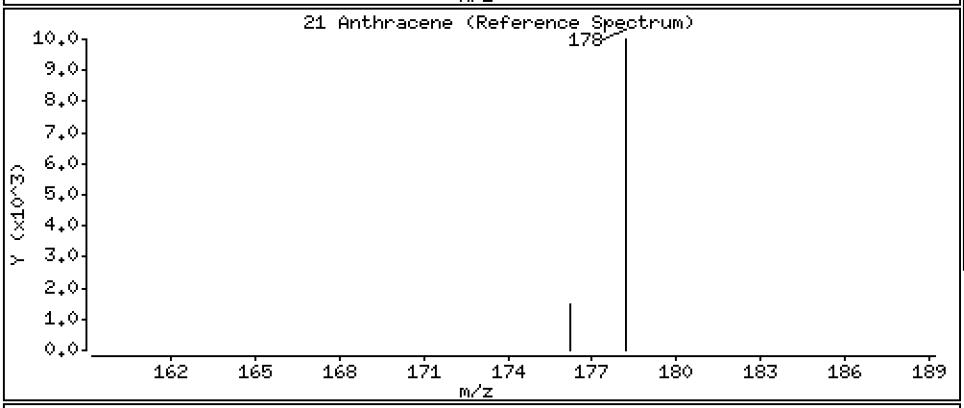
Concentration: 226 ng/mL

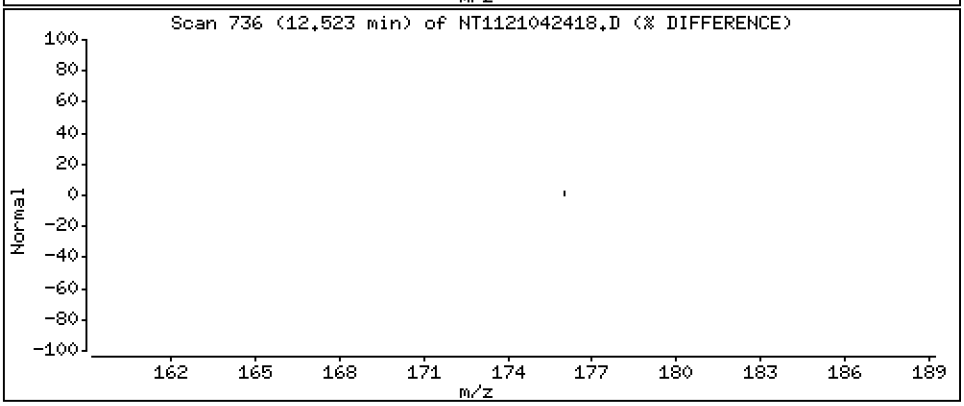


Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042418.D

Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

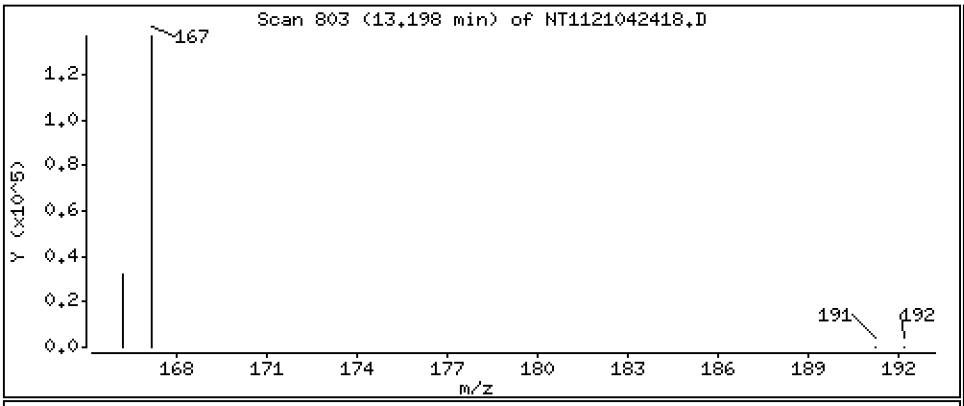
Operator: VTS

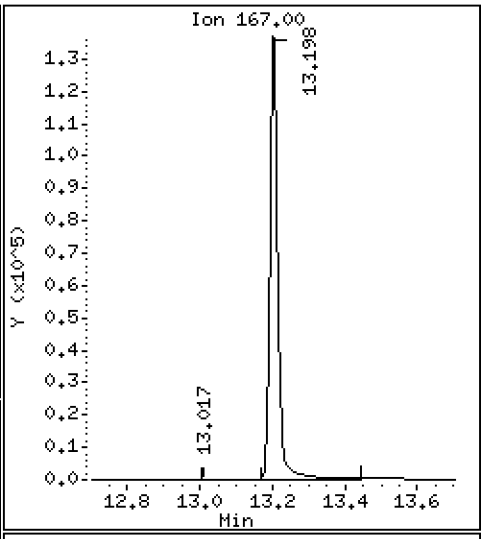
Column phase: Rxi-17Sil MS

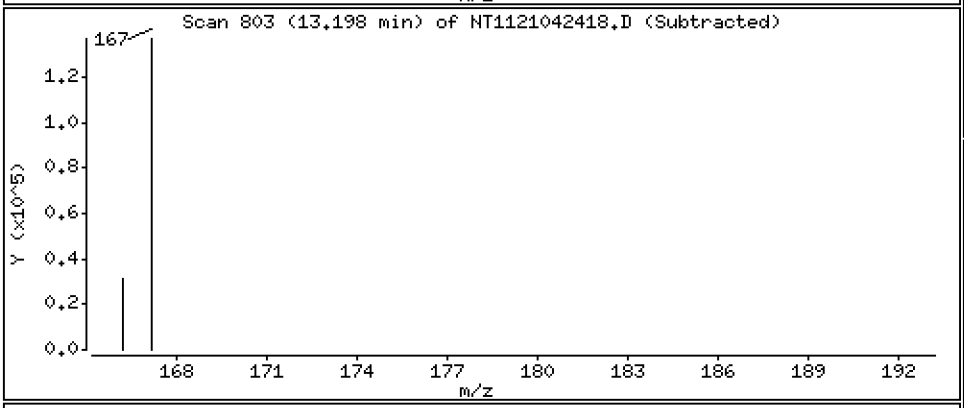
Column diameter: 0.25

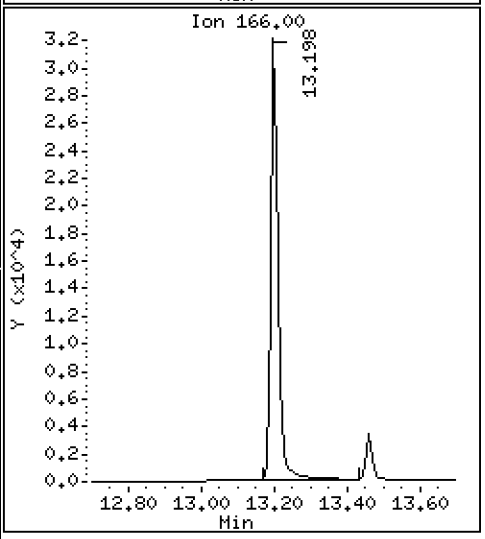
22 Carbazole

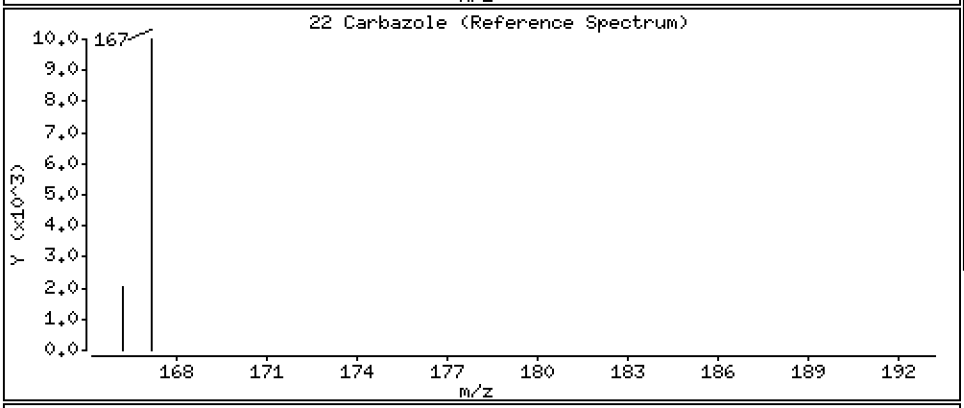
Concentration: 234 ng/mL

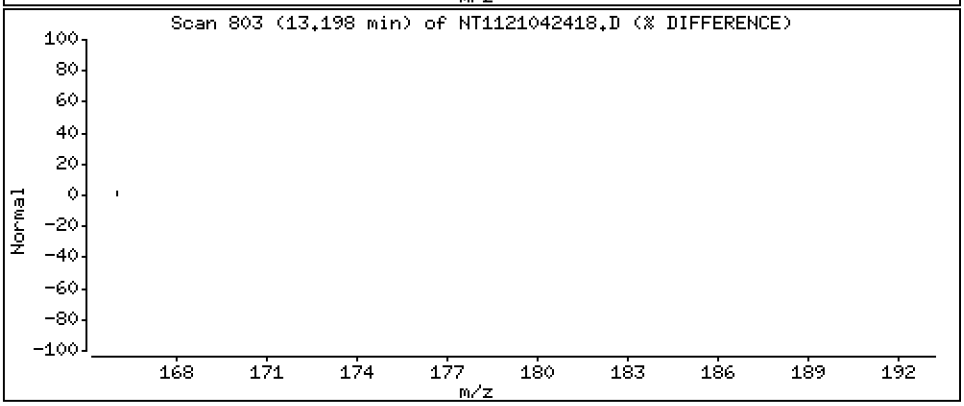


Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042418.D

Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

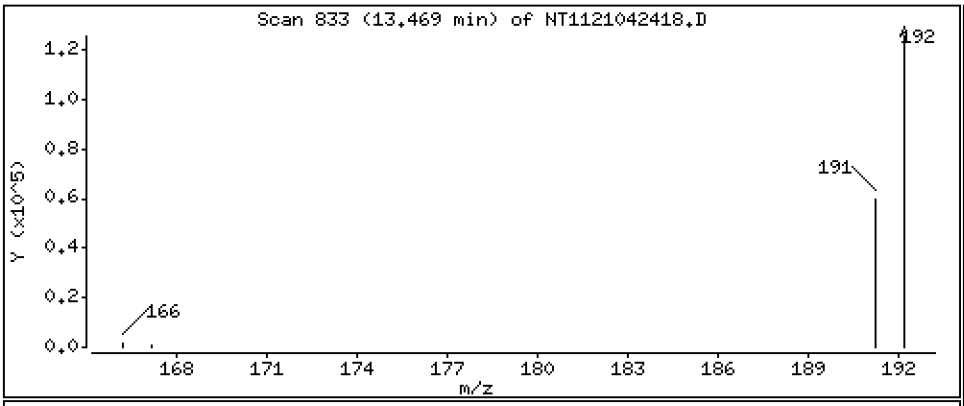
Operator: VTS

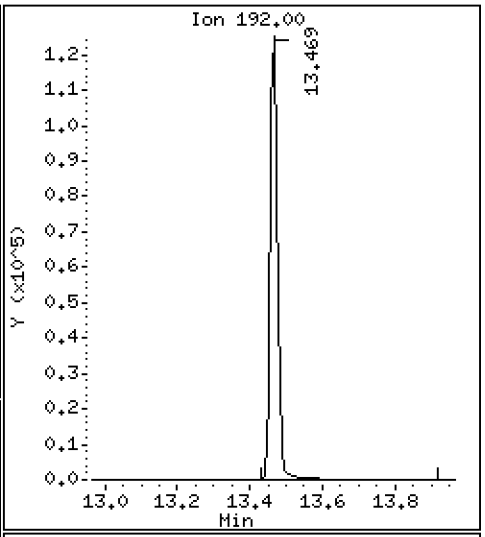
Column phase: Rxi-17Sil MS

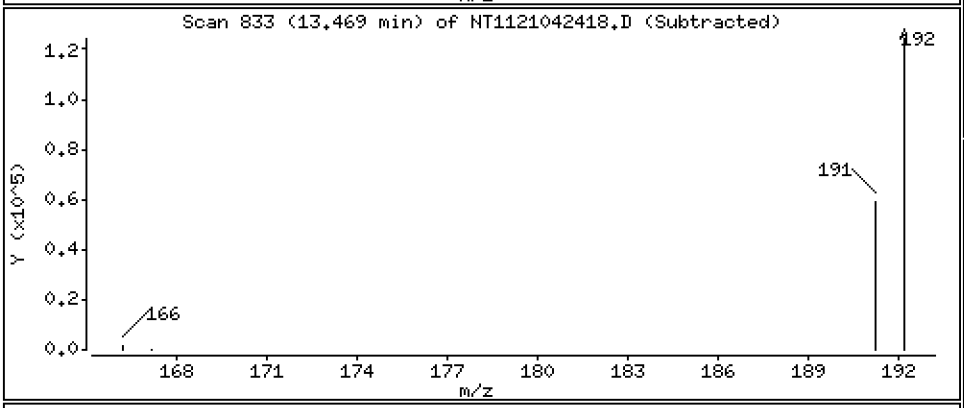
Column diameter: 0.25

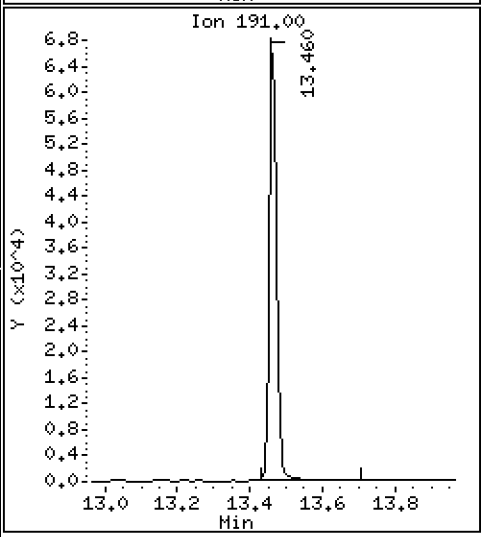
23 1-Methylphenanthrene

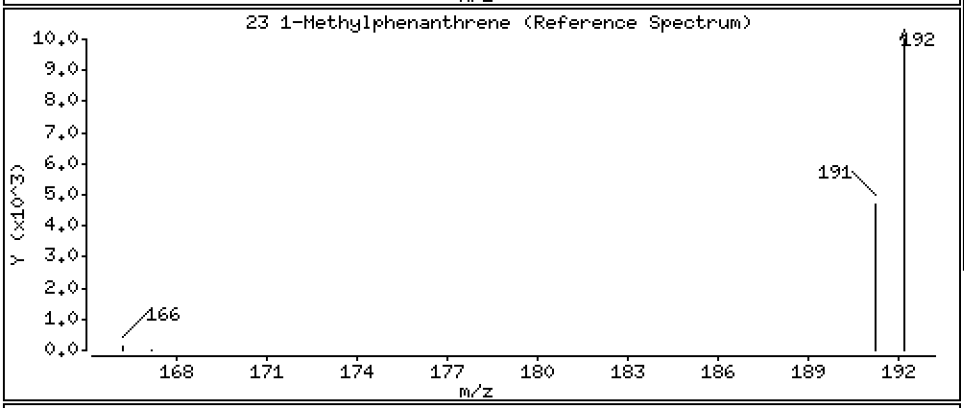
Concentration: 223 ng/mL

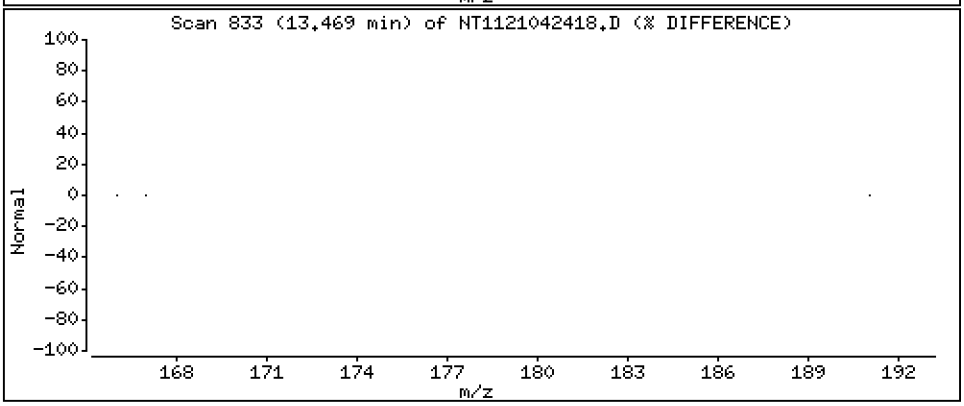


Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042418.D

Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

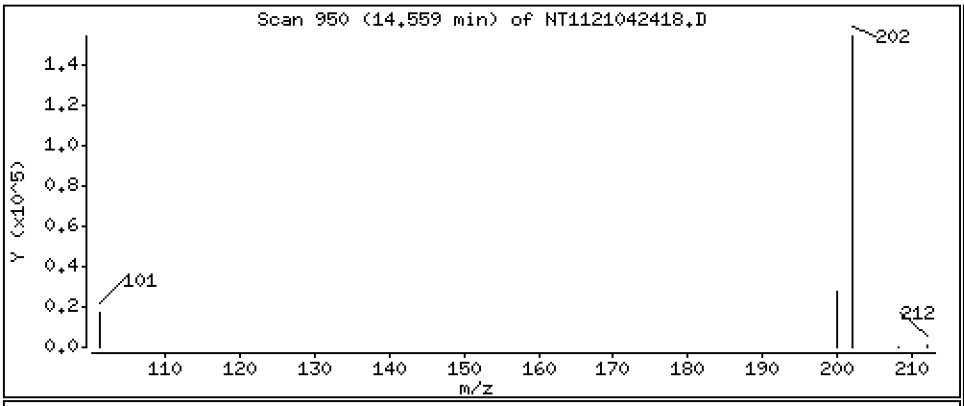
Operator: VTS

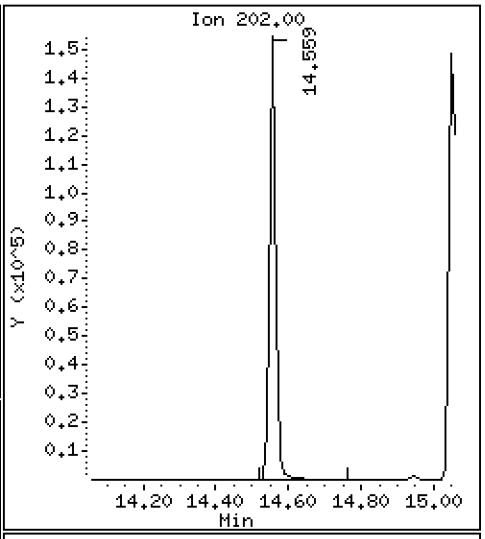
Column phase: Rxi-17Sil MS

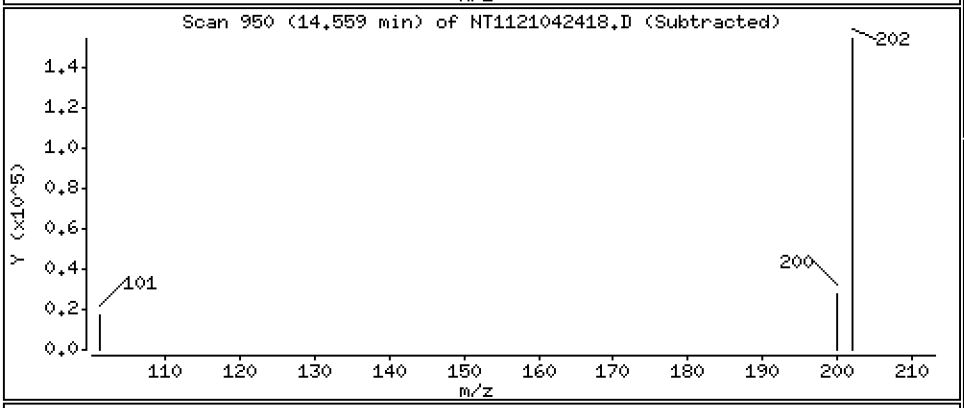
Column diameter: 0.25

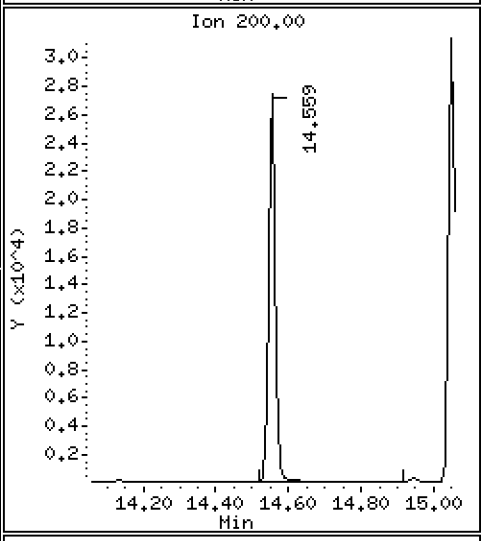
25 Fluoranthene

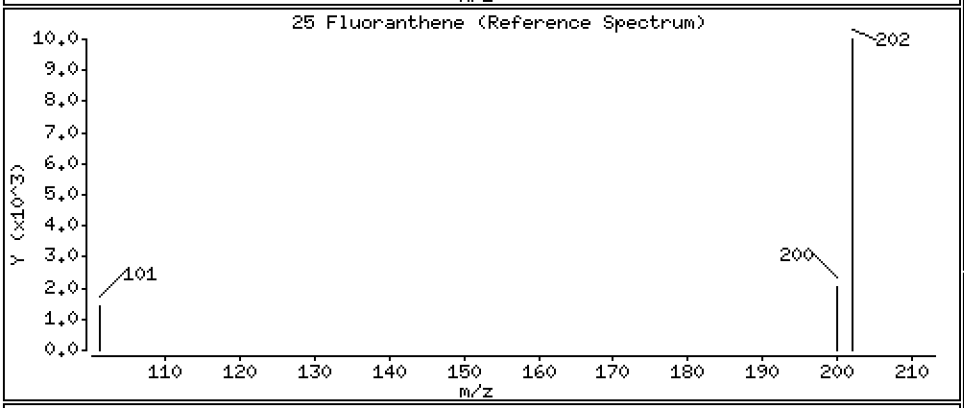
Concentration: 229 ng/mL

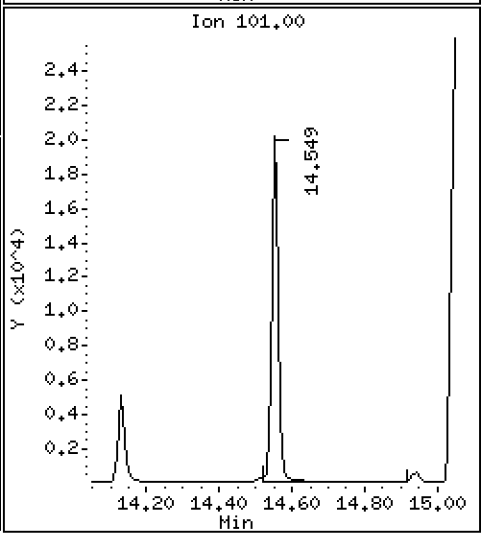


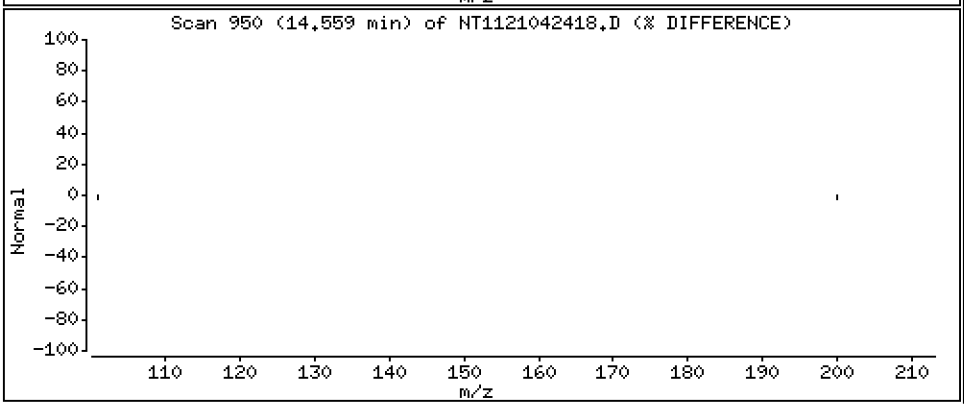



Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042418.D

Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

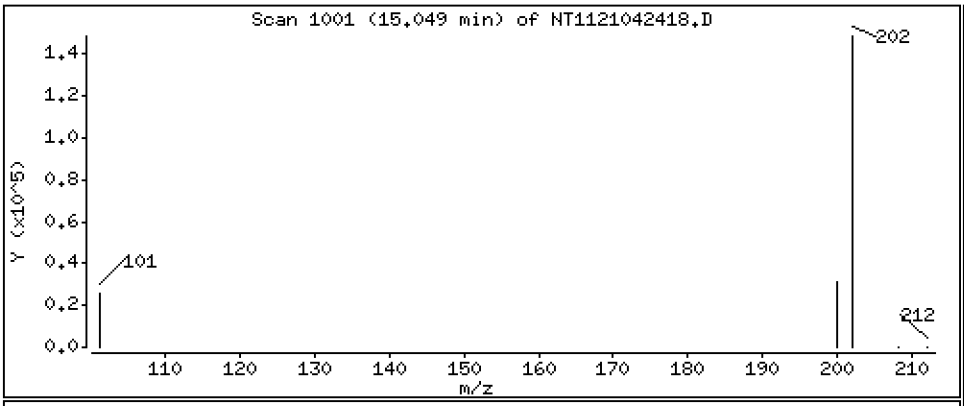
Operator: VTS

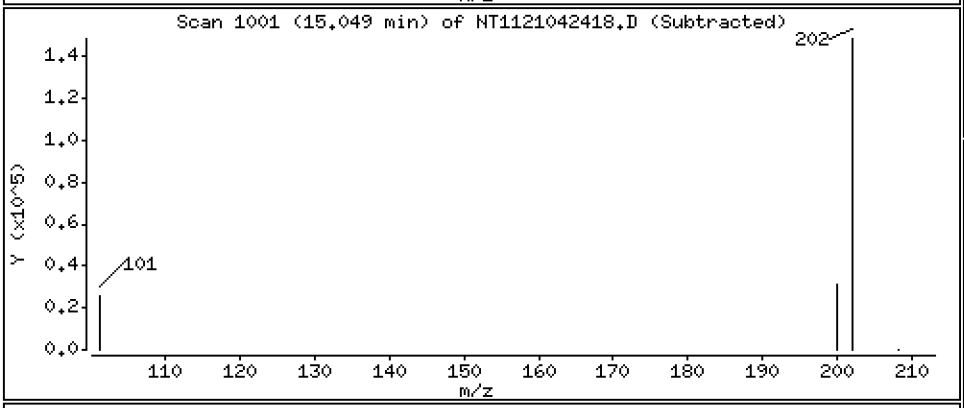
Column phase: Rxi-17Sil MS

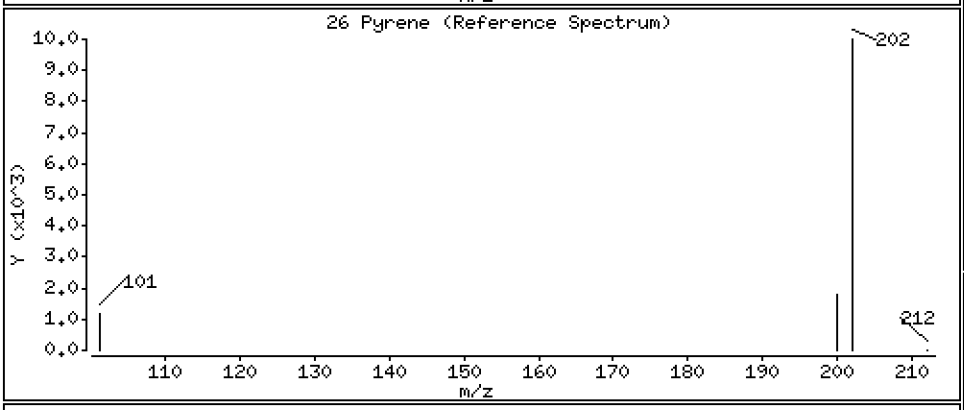
Column diameter: 0.25

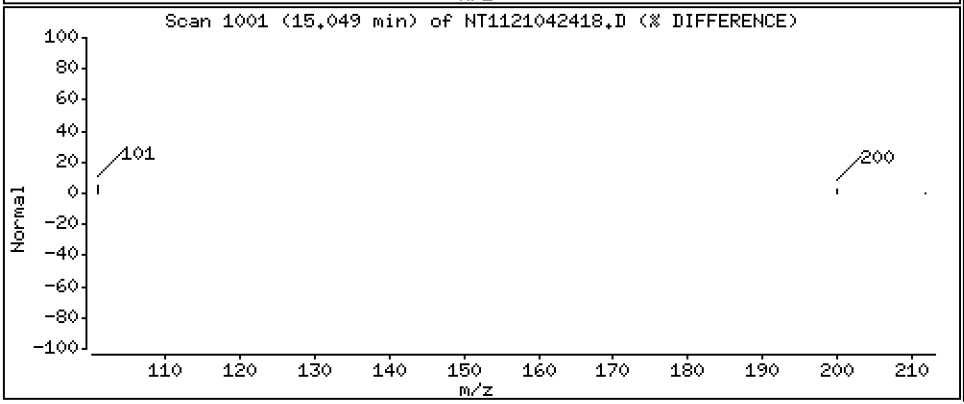
26 Pyrene

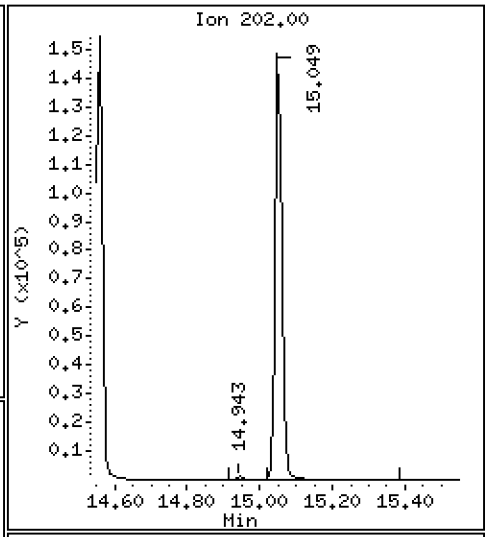
Concentration: 229 ng/mL

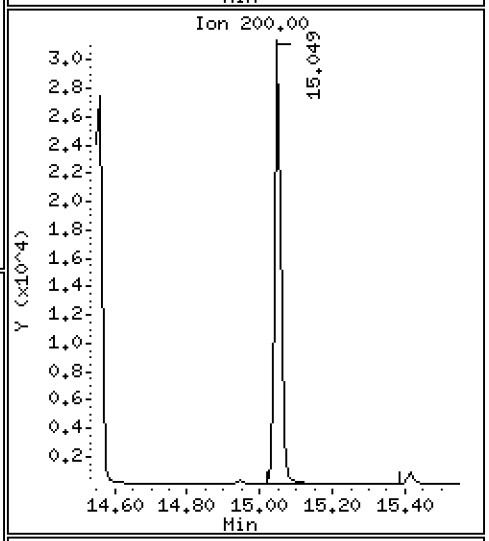


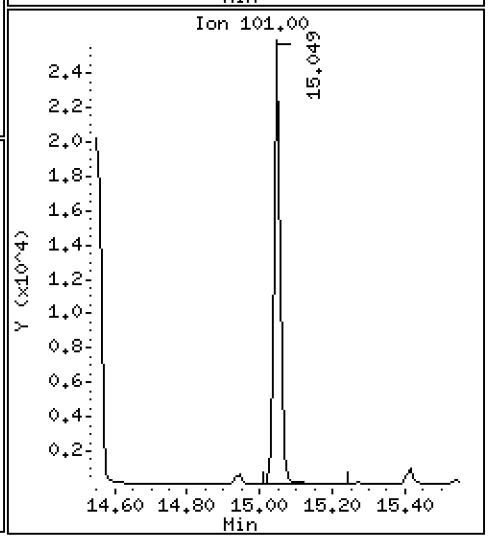



Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042418.D

Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

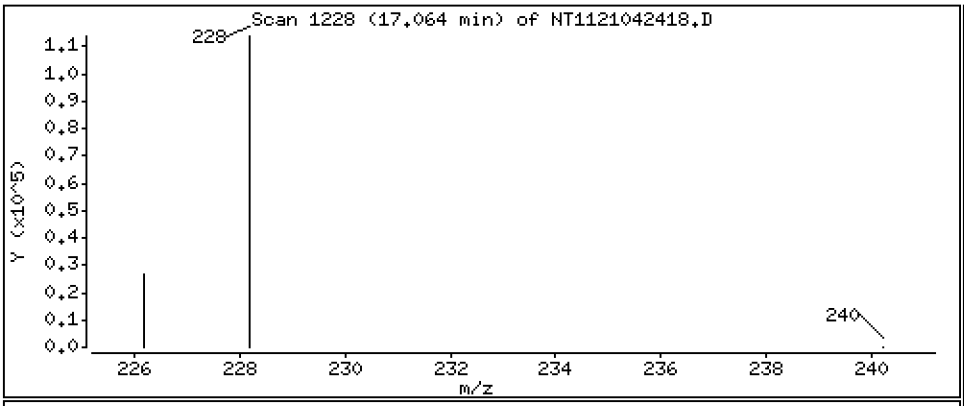
Operator: VTS

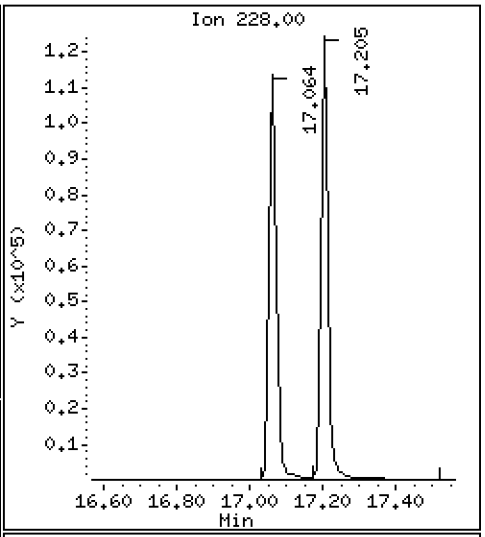
Column phase: Rxi-17Sil MS

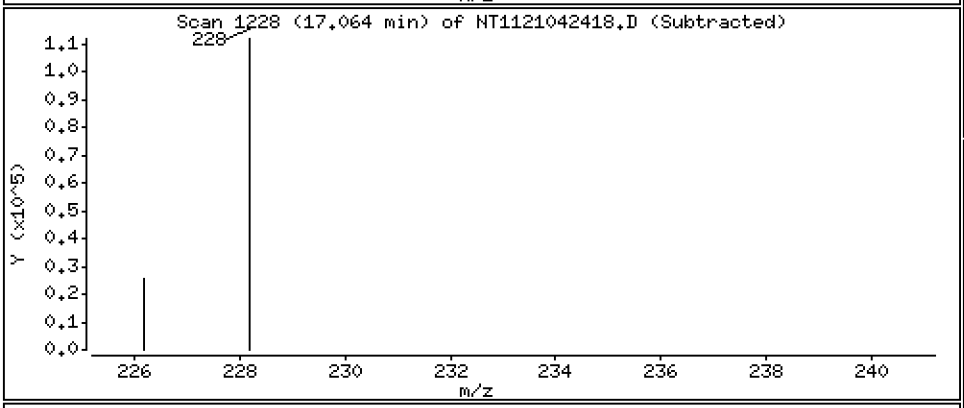
Column diameter: 0.25

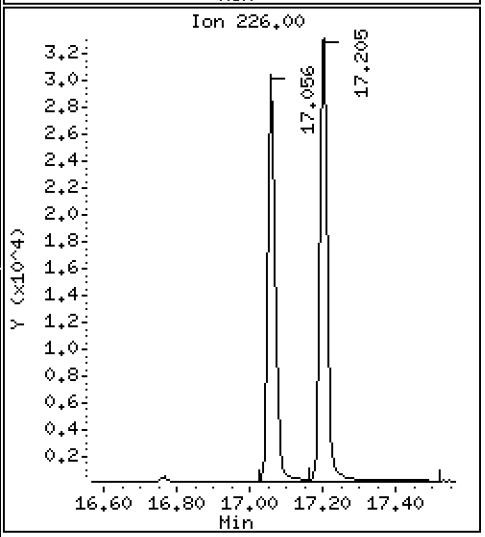
27 Benzo(a)anthracene

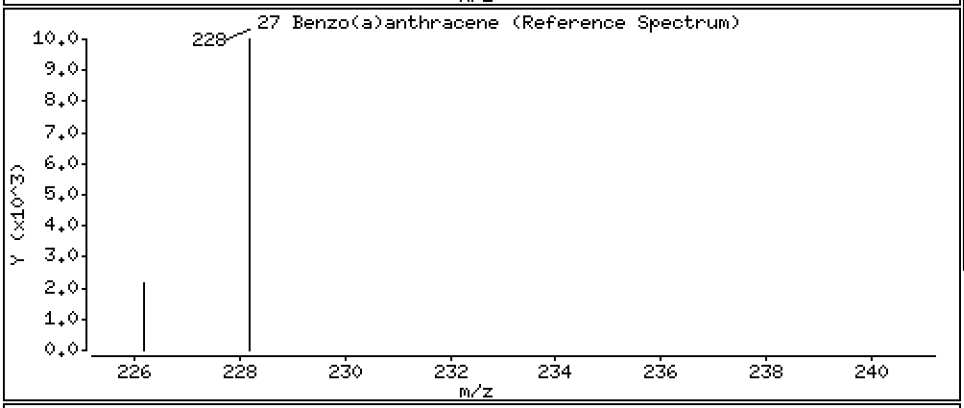
Concentration: 216 ng/mL

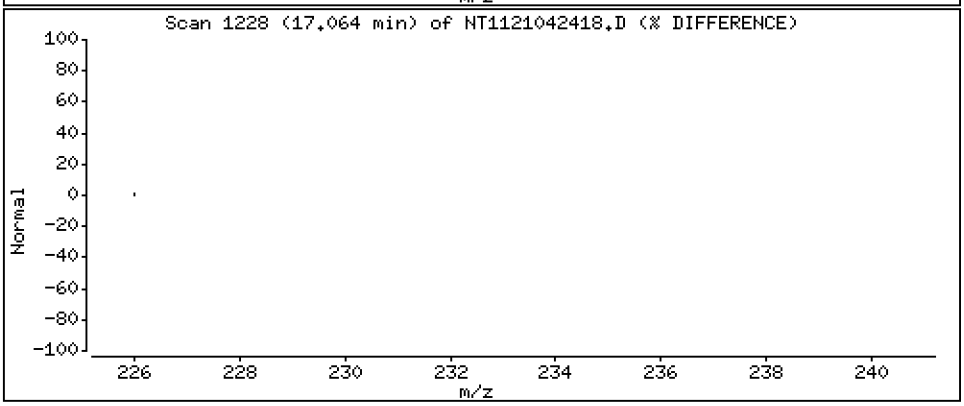


Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042418.D

Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

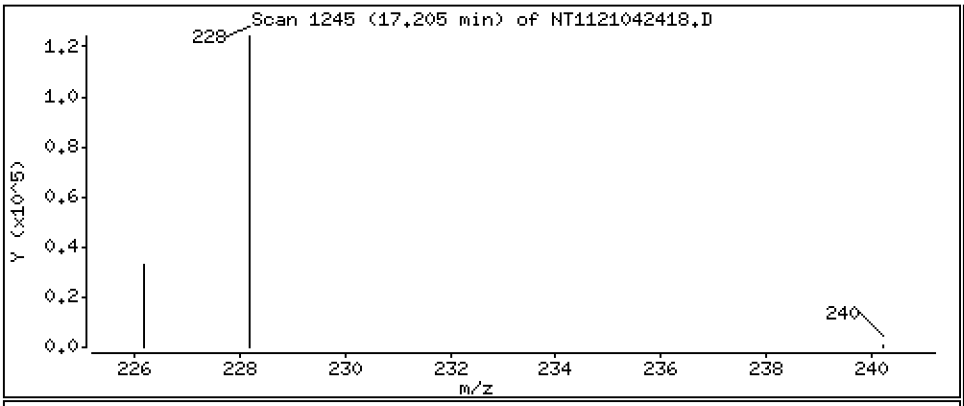
Operator: VTS

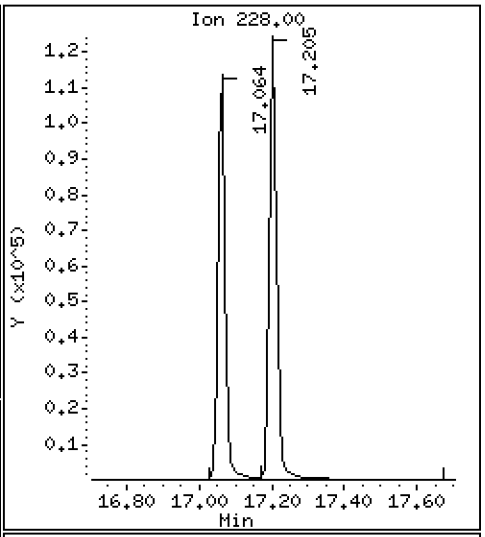
Column phase: Rxi-17Sil MS

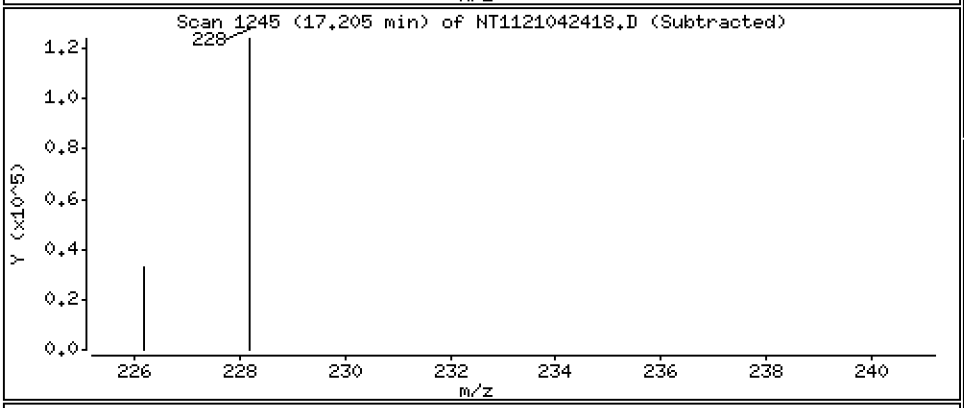
Column diameter: 0.25

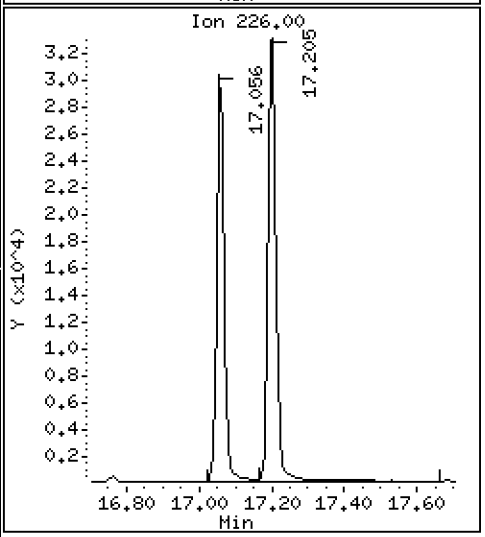
29 Chrysene

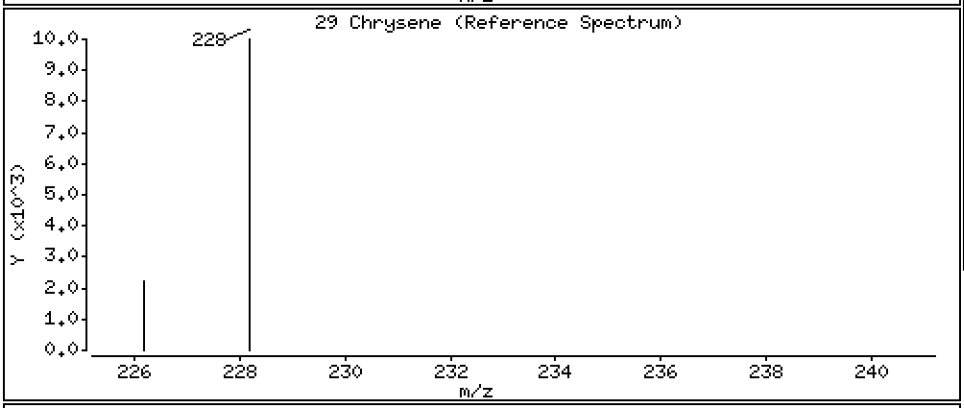
Concentration: 204 ng/mL

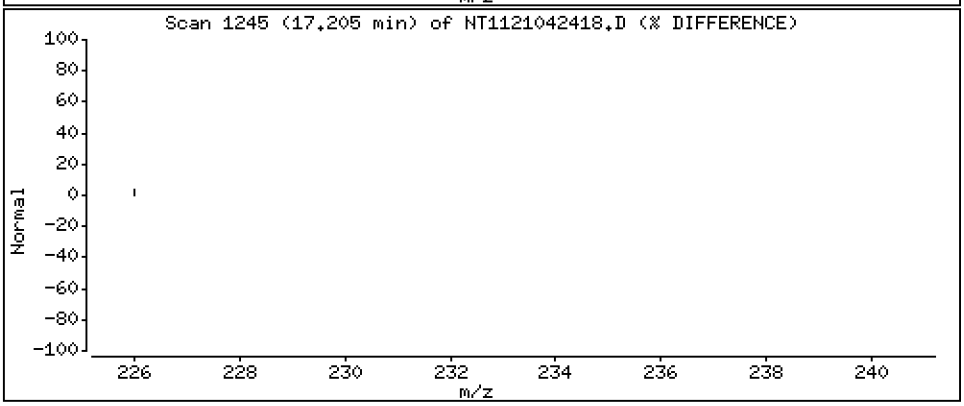


Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042418.D

Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

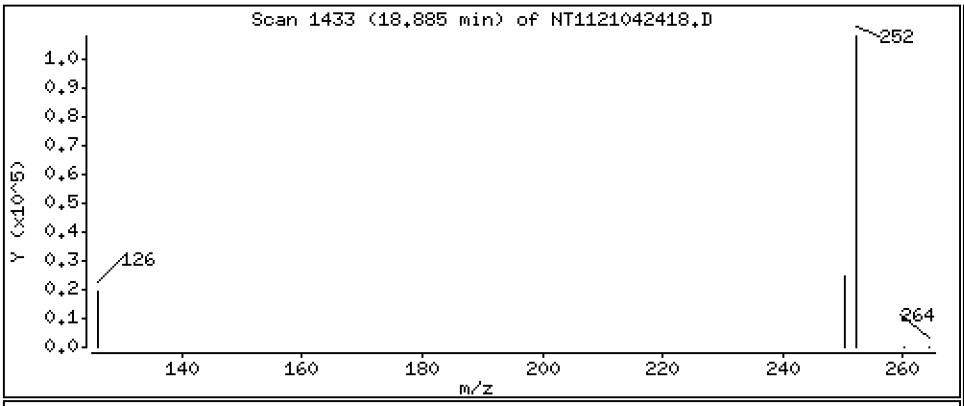
Operator: VTS

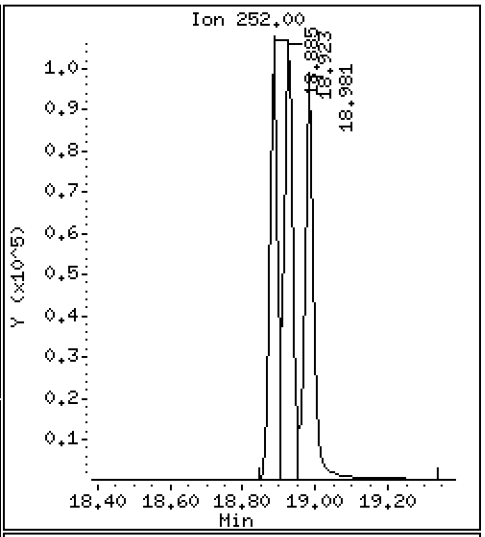
Column phase: Rxi-17Sil MS

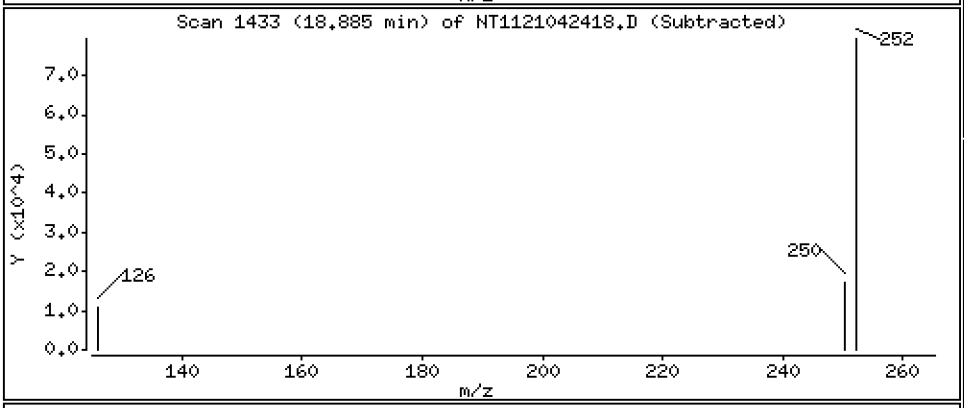
Column diameter: 0.25

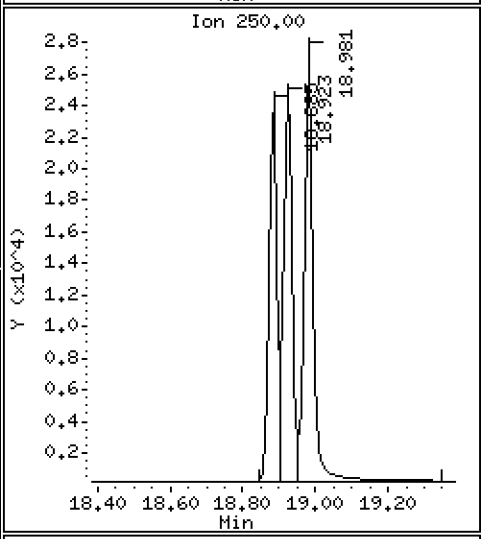
30 Benzo(b)fluoranthene

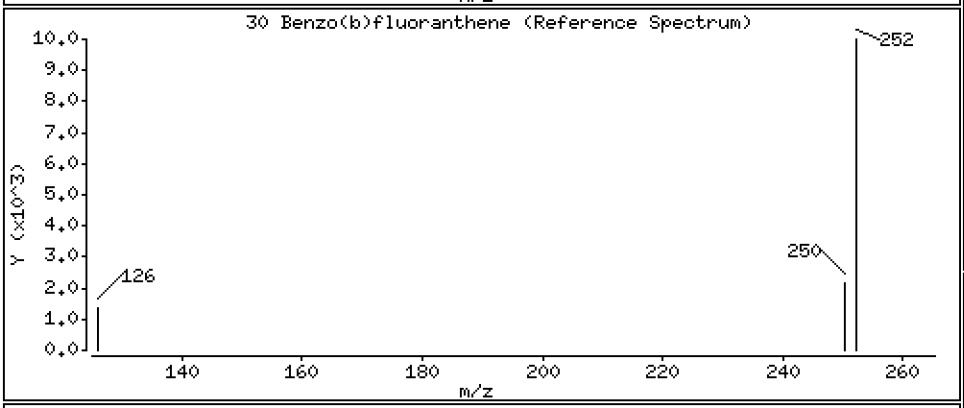
Concentration: 247 ng/mL

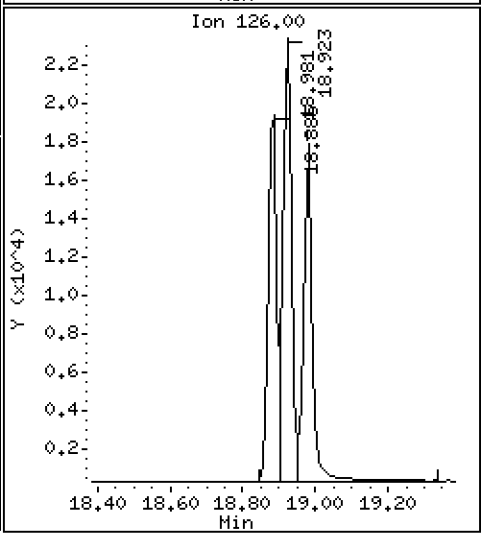


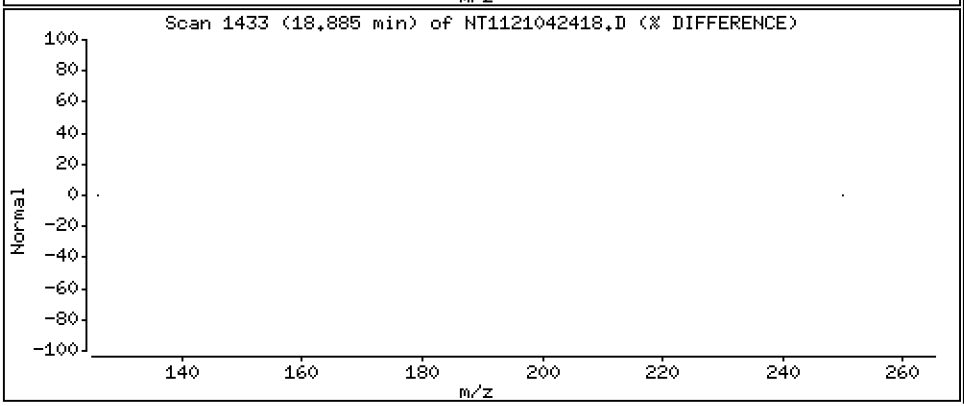



Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042418.D

Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

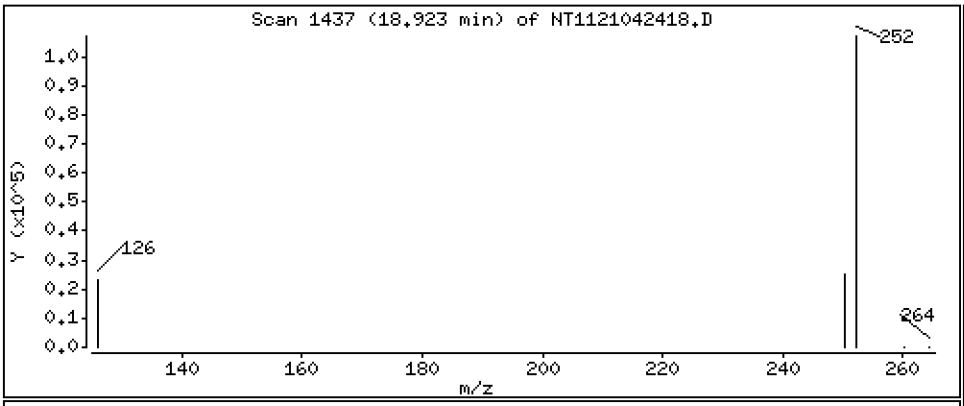
Operator: VTS

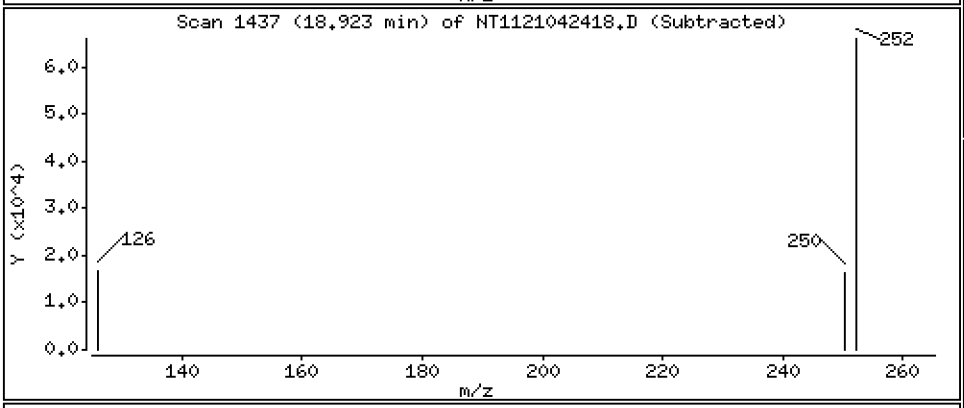
Column phase: Rxi-17Sil MS

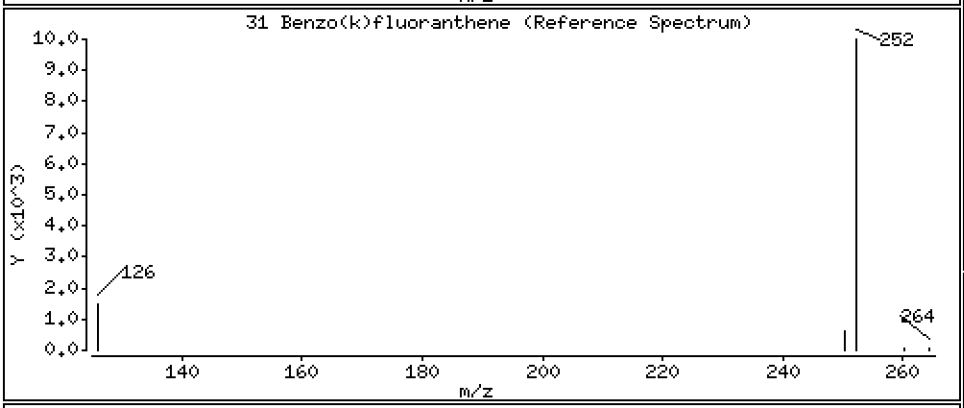
Column diameter: 0.25

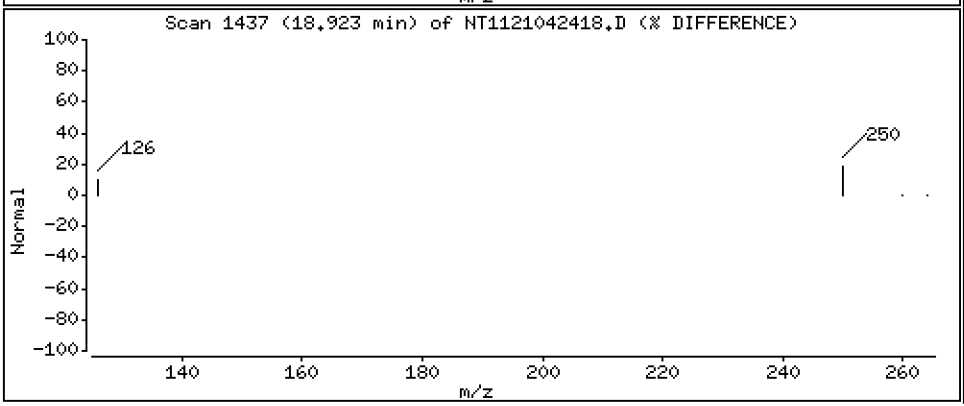
31 Benzo(k)fluoranthene

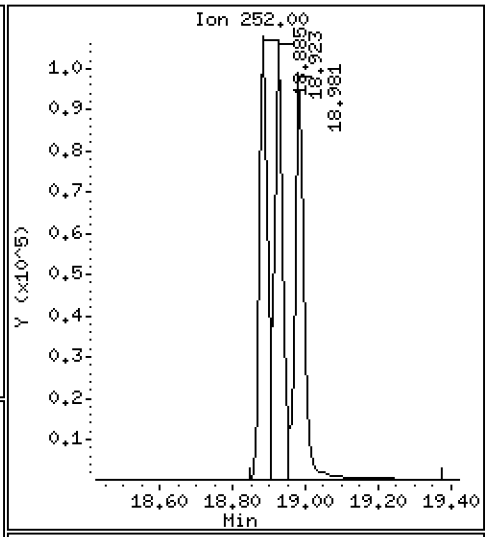
Concentration: 211 ng/mL

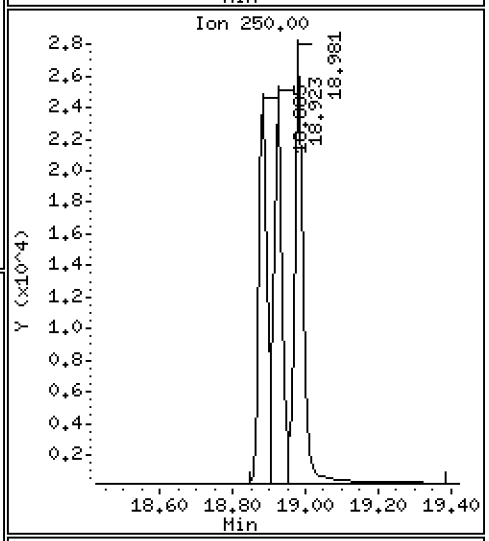


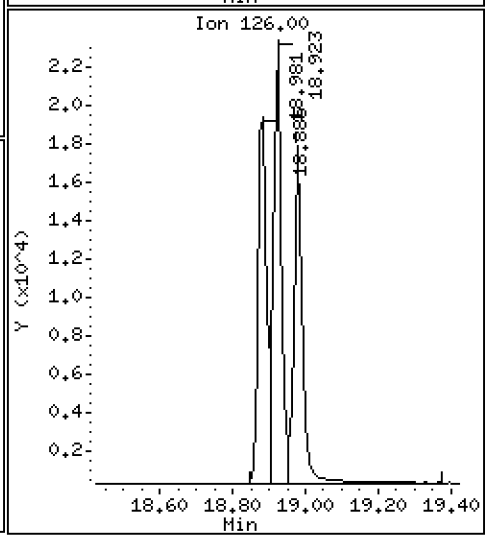



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Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

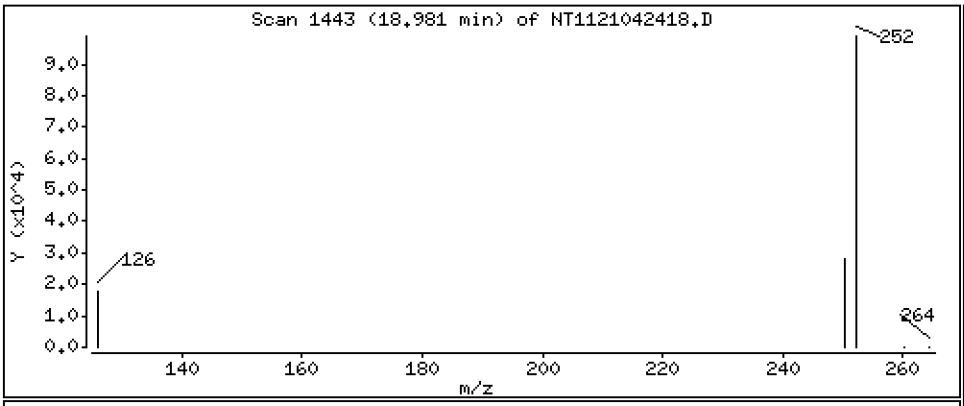
Operator: VTS

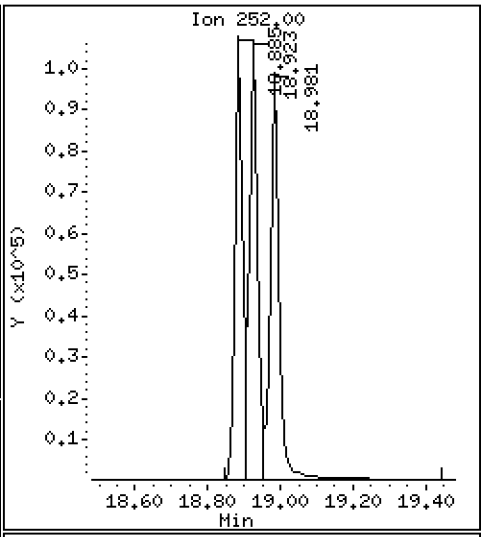
Column phase: Rxi-17Sil MS

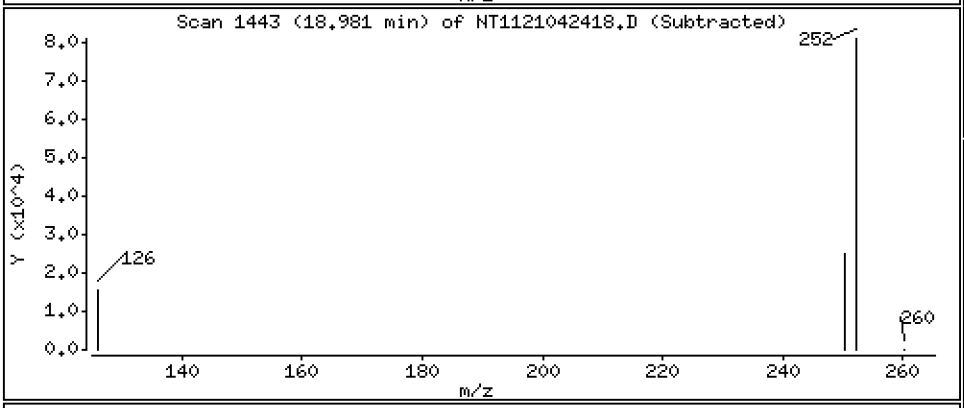
Column diameter: 0.25

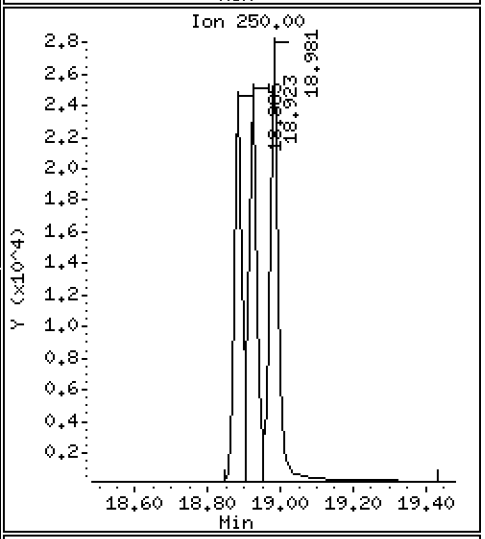
32 Benzo(j)fluoranthene

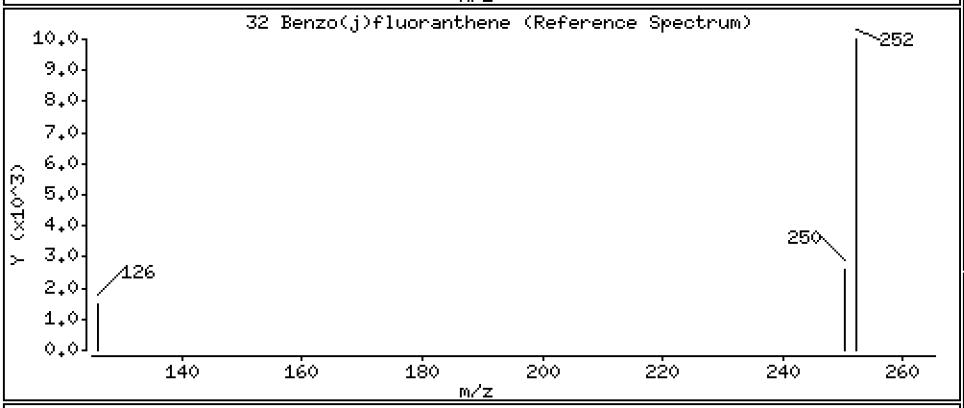
Concentration: 186 ng/mL

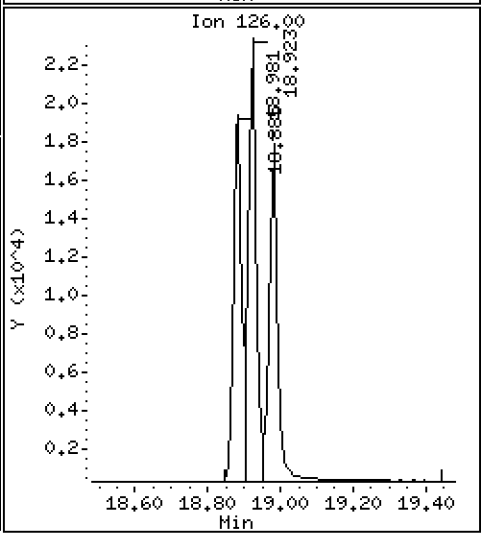


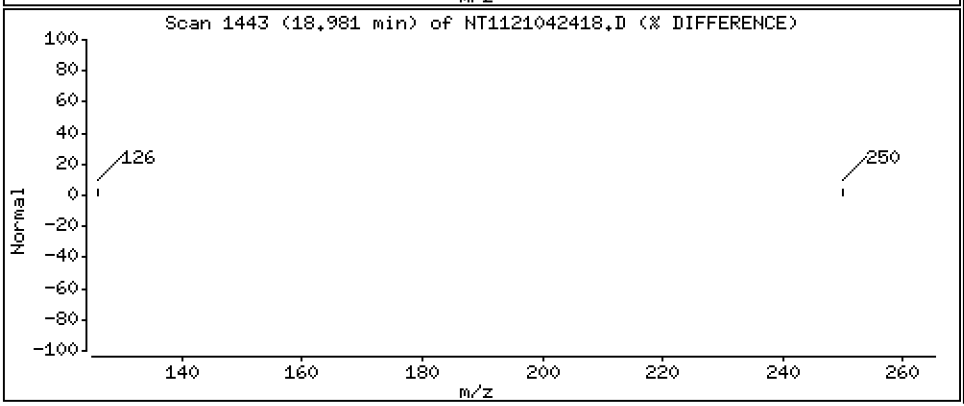



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Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

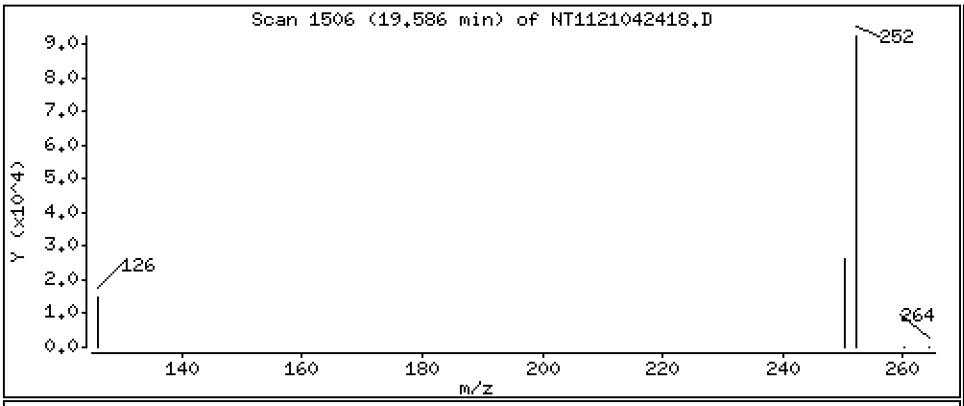
Operator: VTS

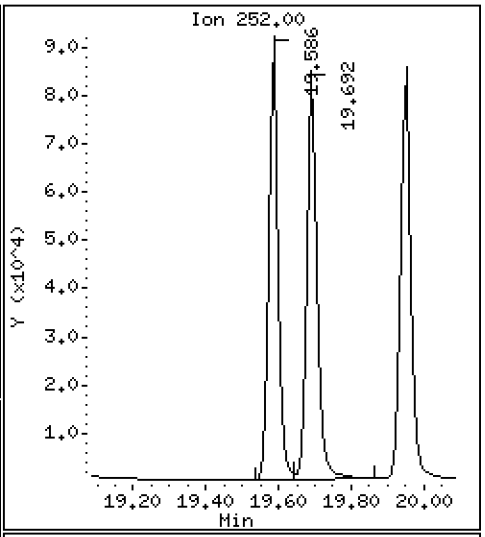
Column phase: Rxi-17Sil MS

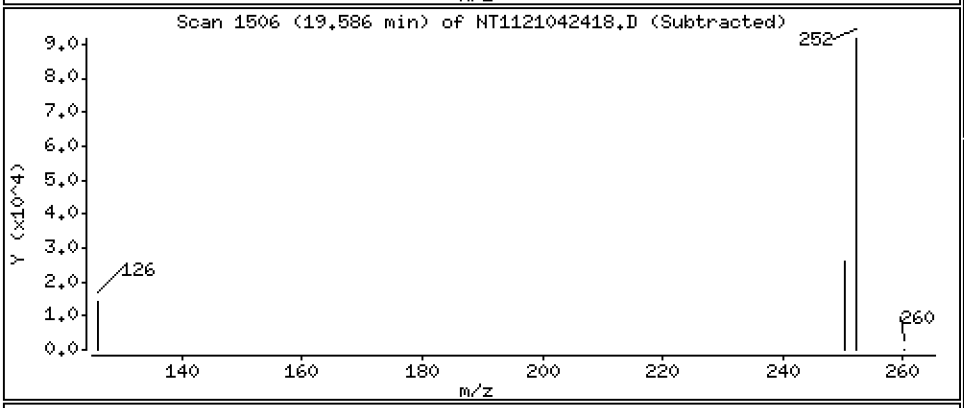
Column diameter: 0.25

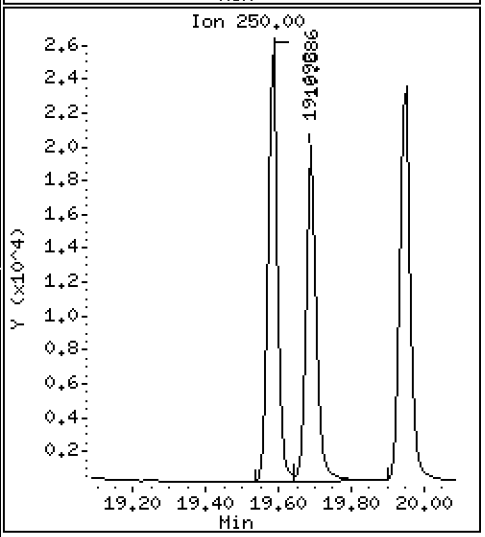
34 Benzo(e)pyrene

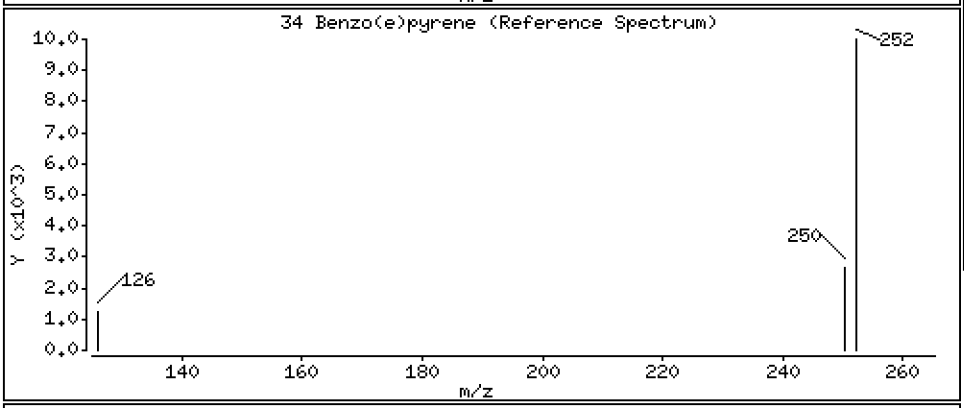
Concentration: 216 ng/mL

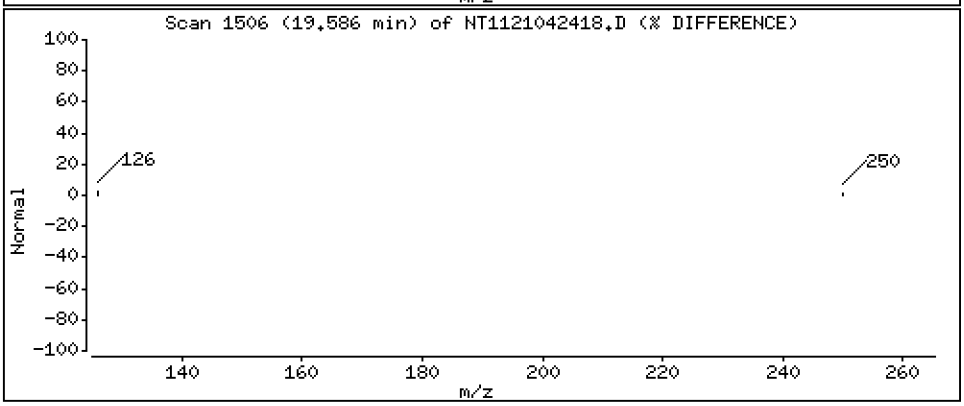


Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042418.D

Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

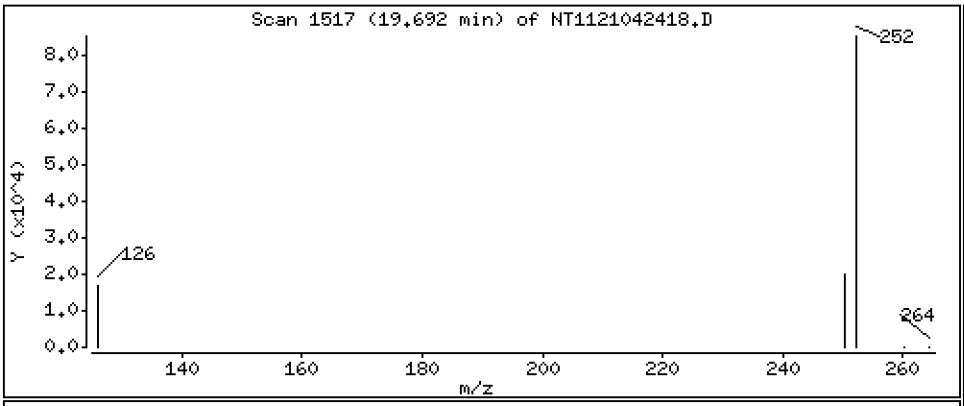
Operator: VTS

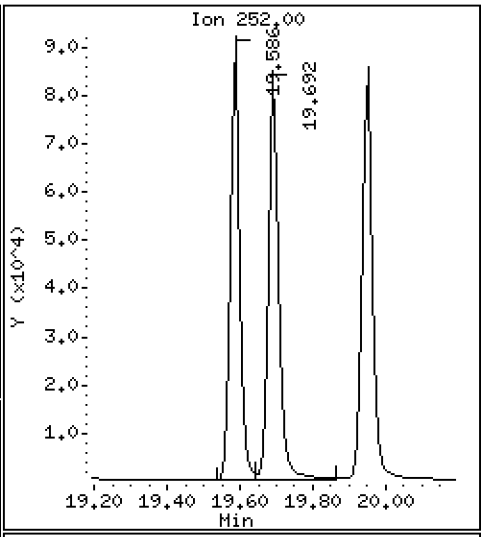
Column phase: Rxi-17Sil MS

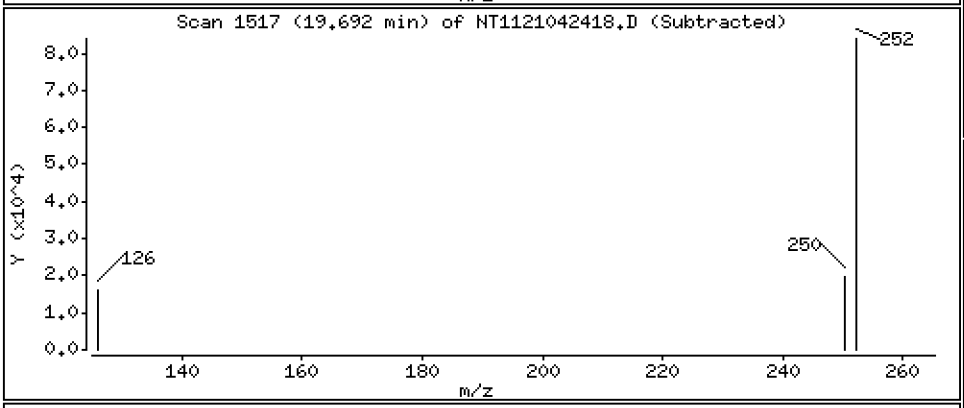
Column diameter: 0.25

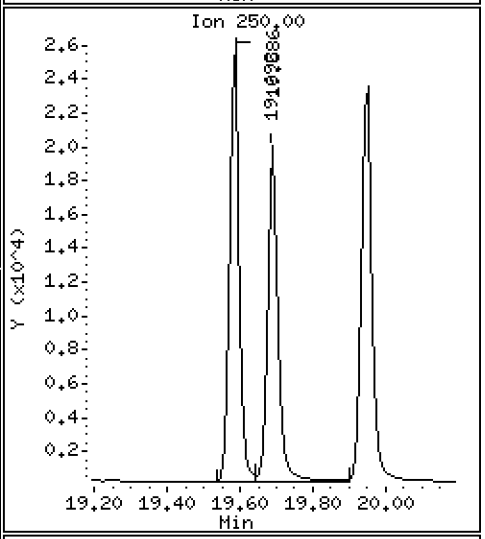
35 Benzo(a)pyrene

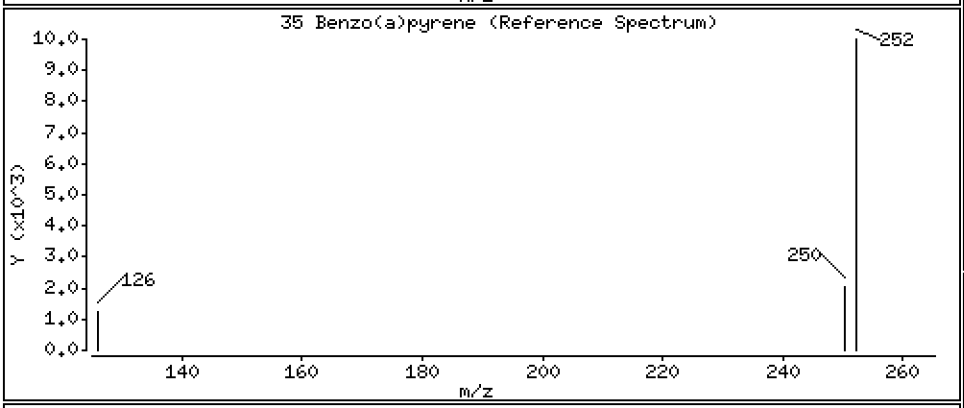
Concentration: 241 ng/mL

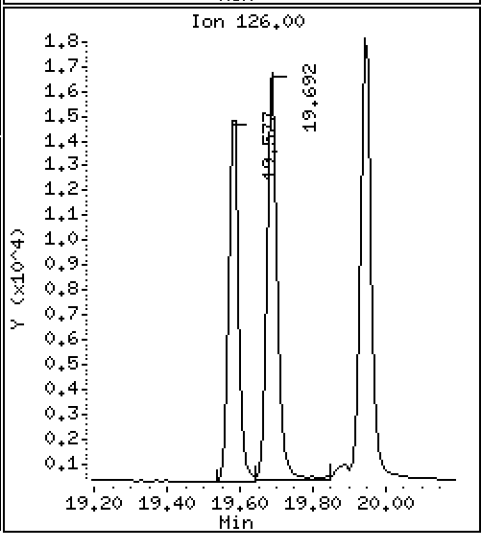


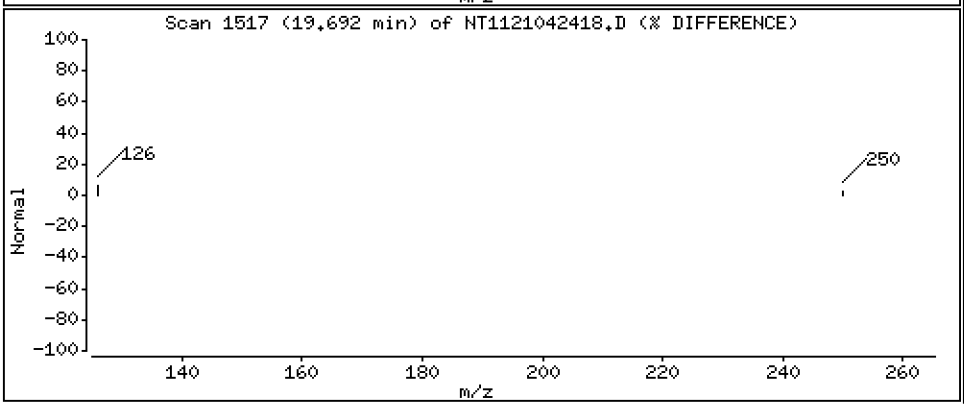



Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042418.D

Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

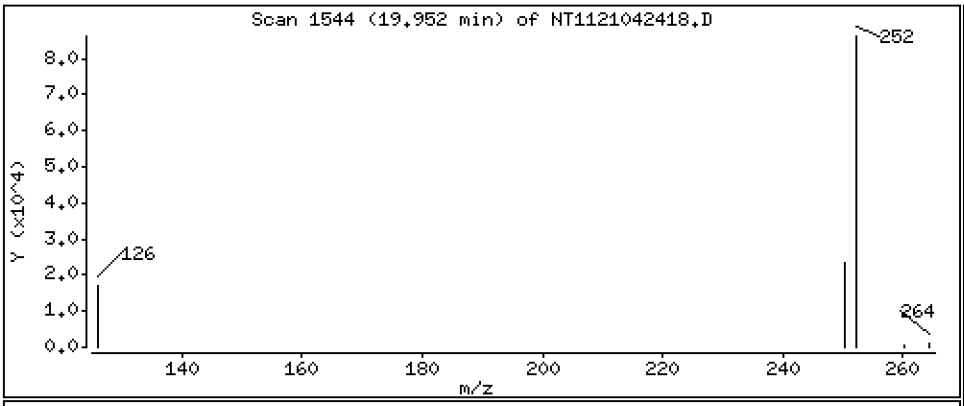
Operator: VTS

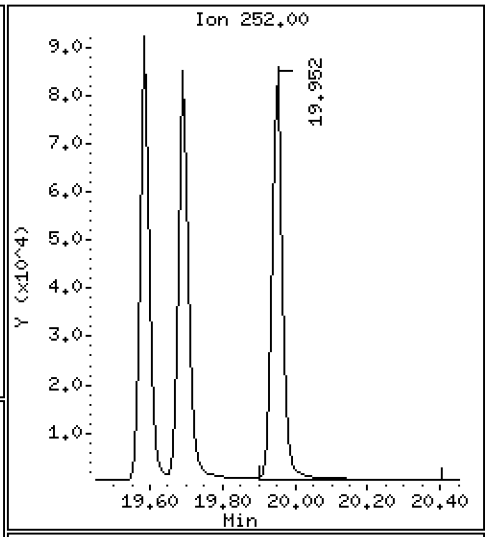
Column phase: Rxi-17Sil MS

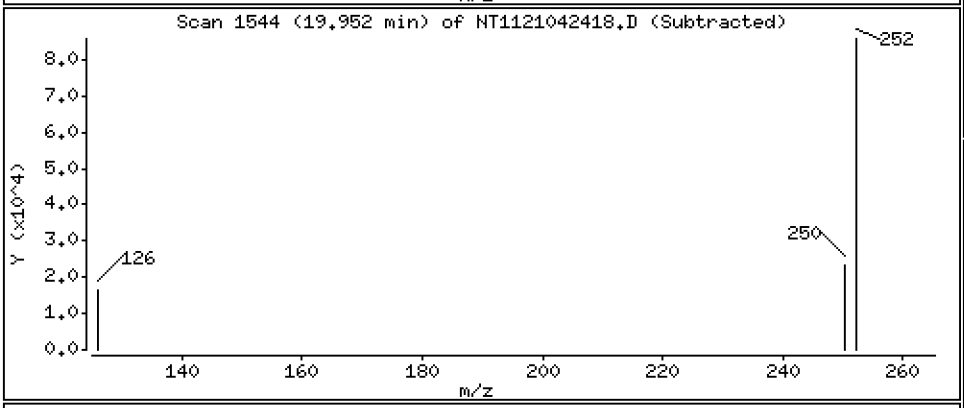
Column diameter: 0.25

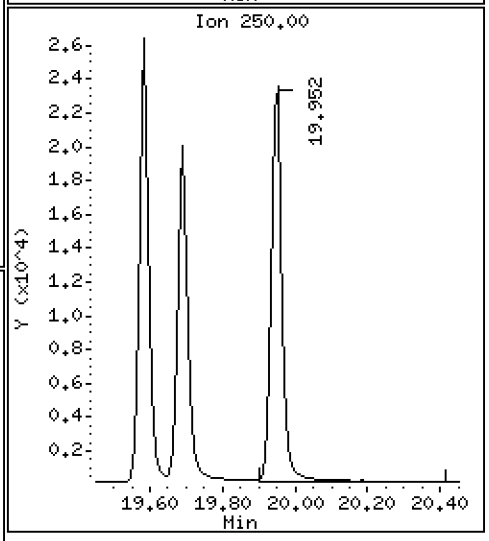
37 Perylene

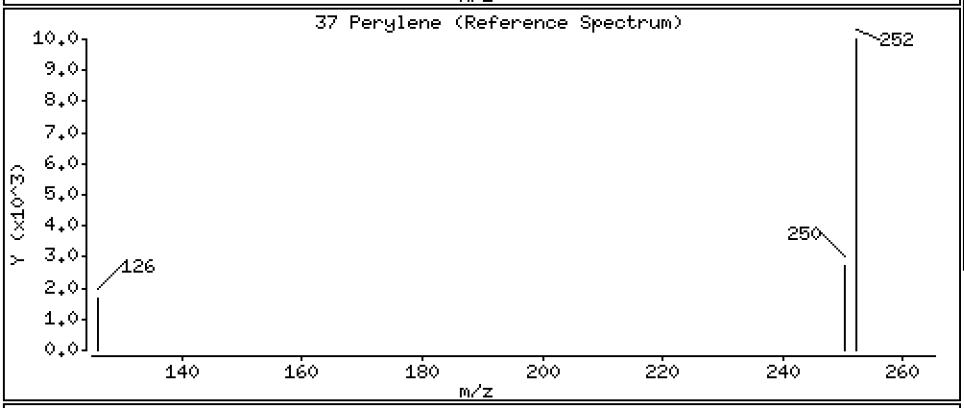
Concentration: 218 ng/mL

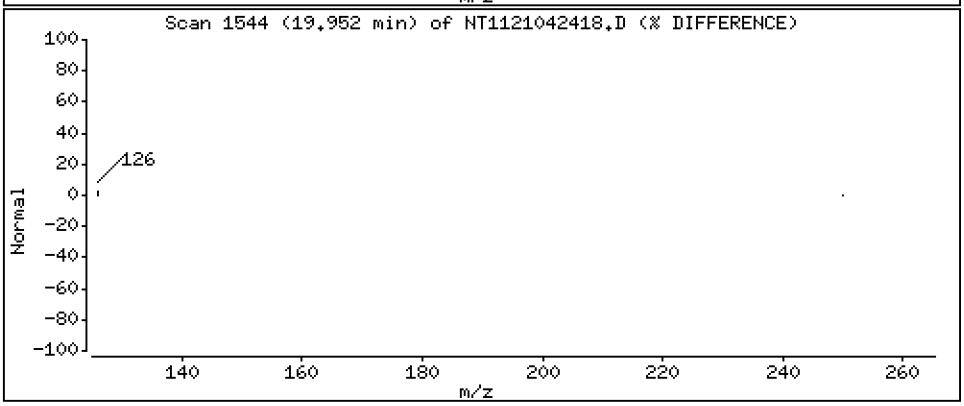


Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042418.D

Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

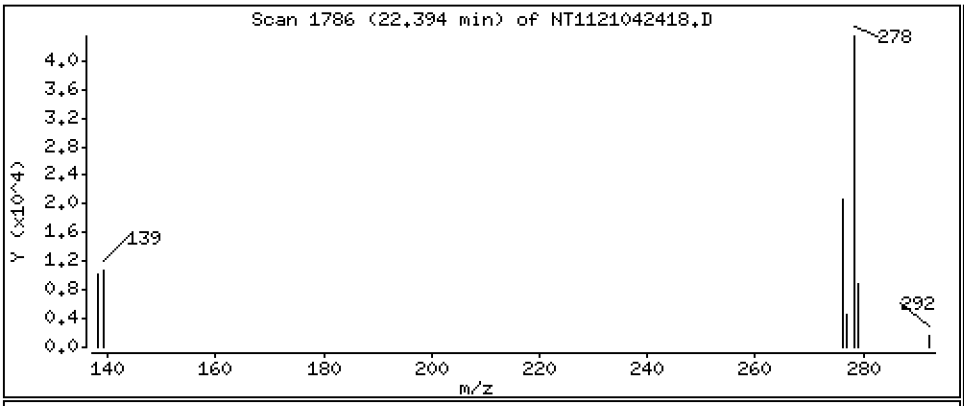
Operator: VTS

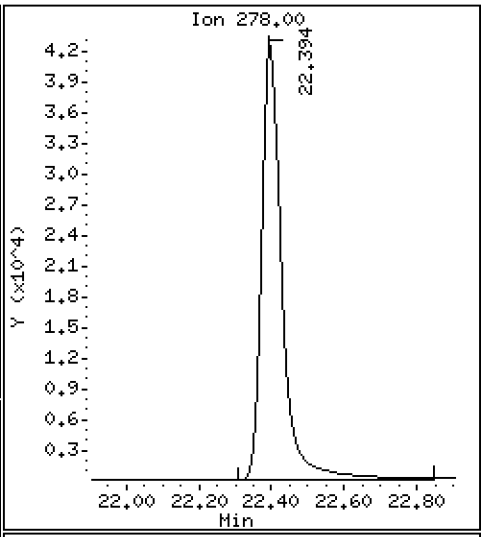
Column phase: Rxi-17Sil MS

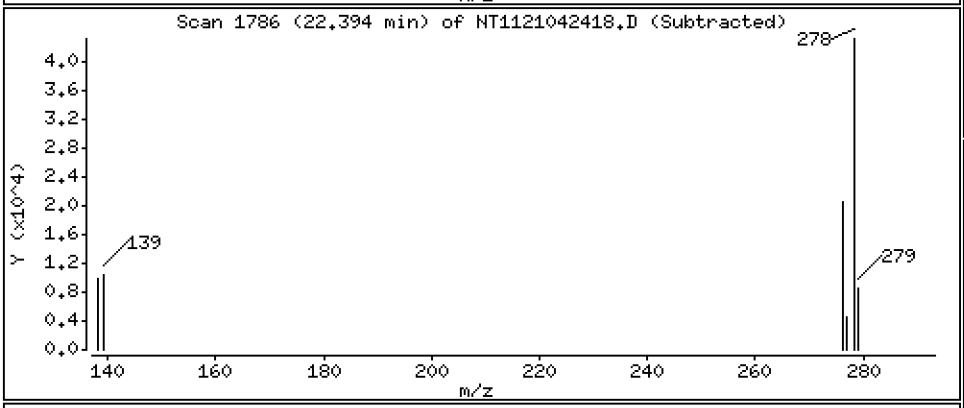
Column diameter: 0.25

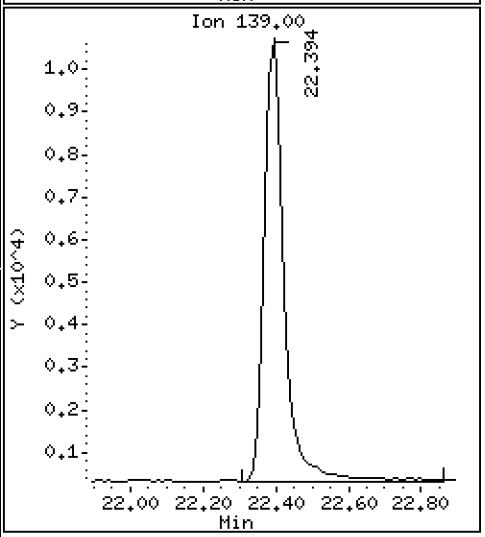
39 Dibenzo(a,h)anthracene

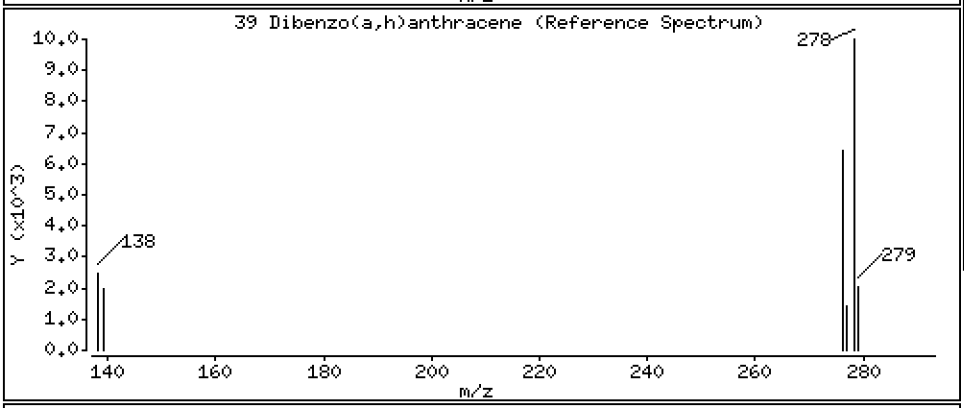
Concentration: 273 ng/mL

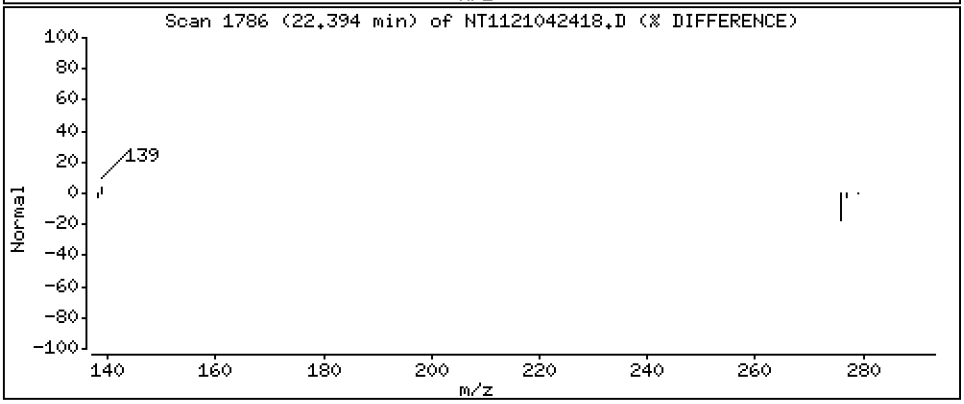


Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042418.D

Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

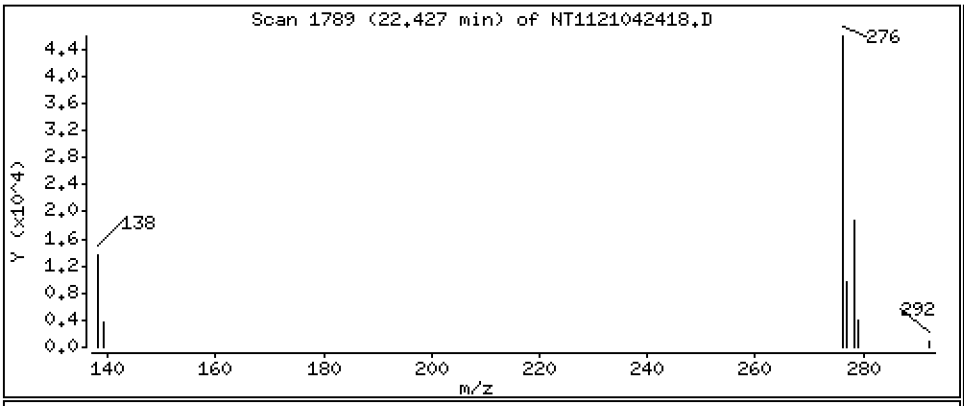
Operator: VTS

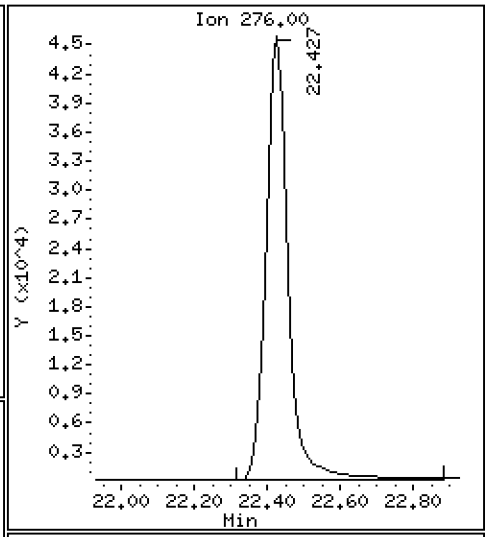
Column phase: Rxi-17Sil MS

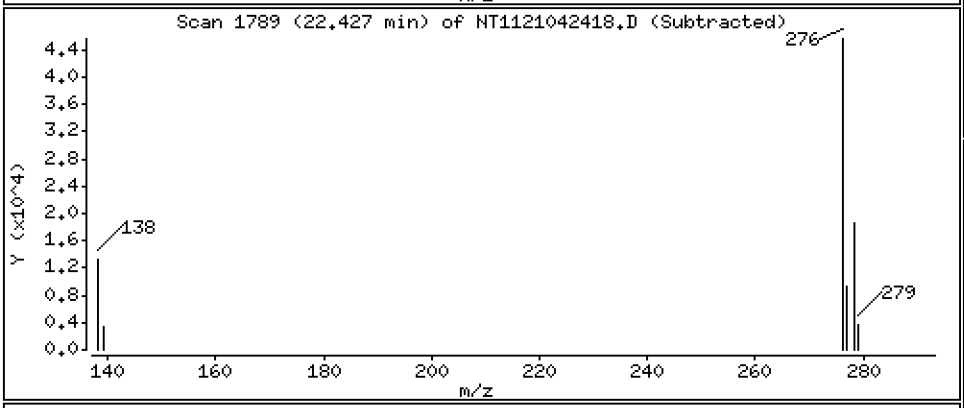
Column diameter: 0.25

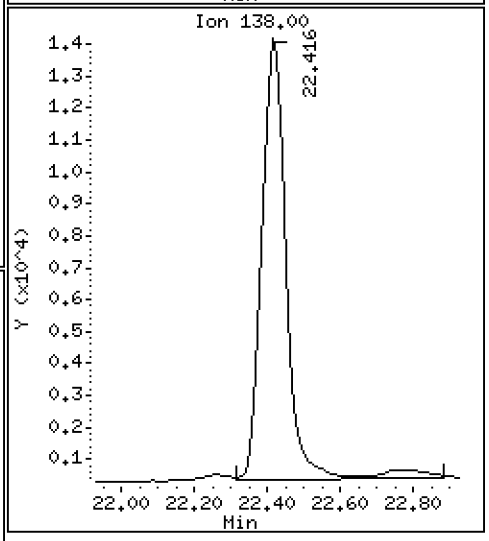
40 Indeno(1,2,3-cd)pyrene

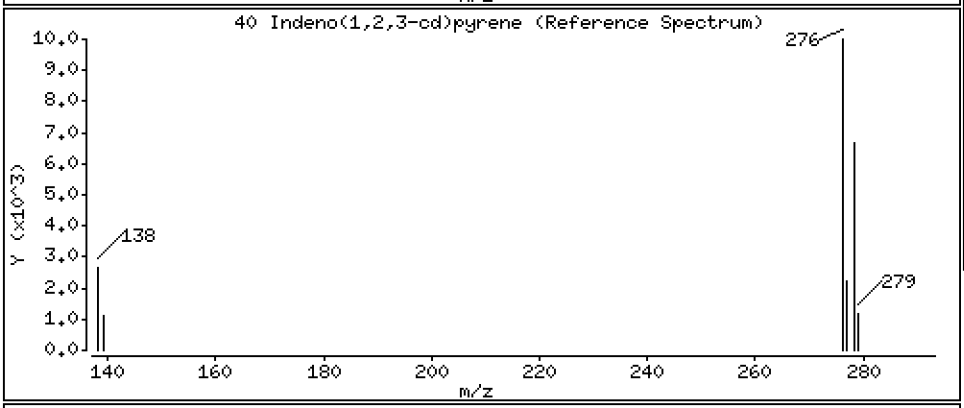
Concentration: 270 ng/mL

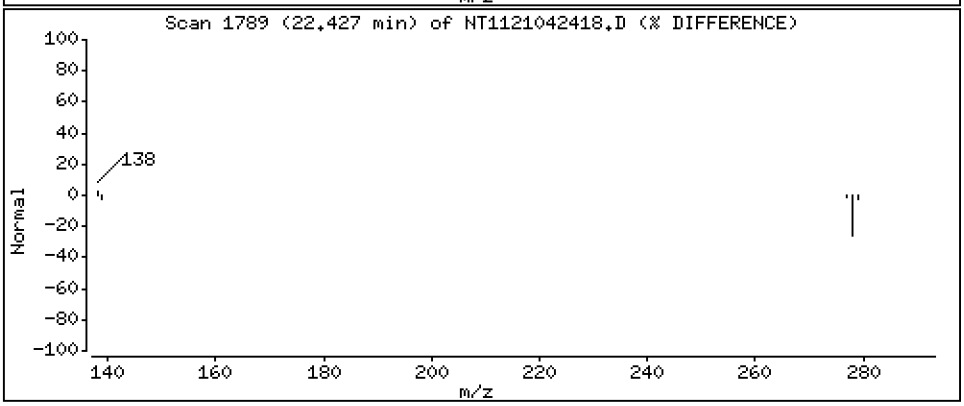


Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042418.D

Date : 24-APR-2021 18:49

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-CCV1

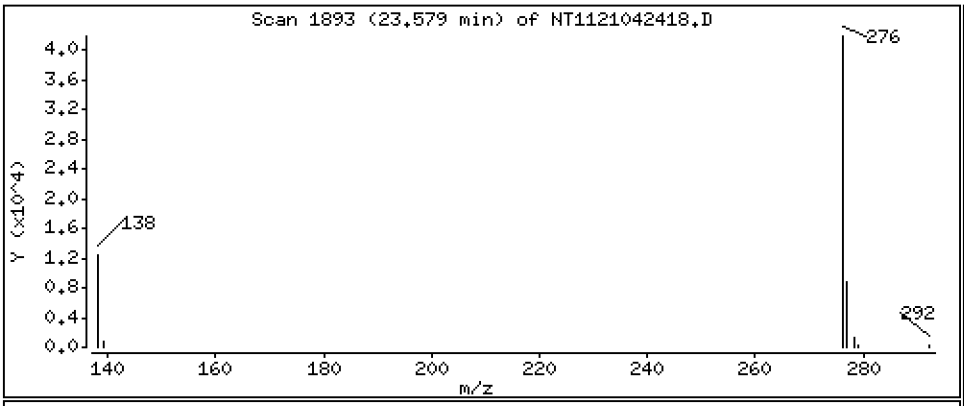
Operator: VTS

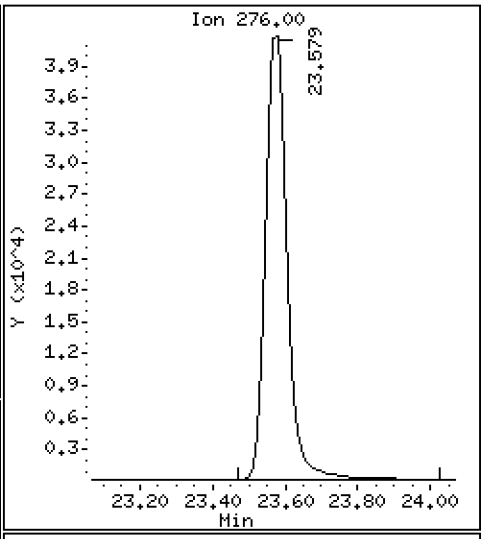
Column phase: Rxi-17Sil MS

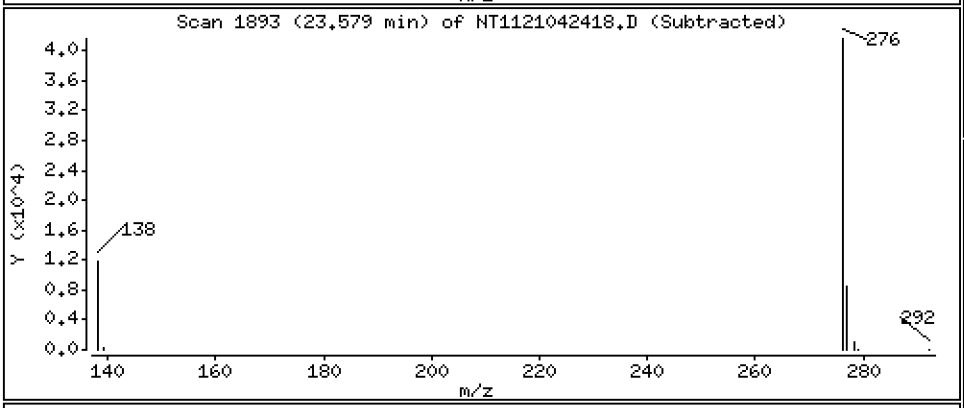
Column diameter: 0.25

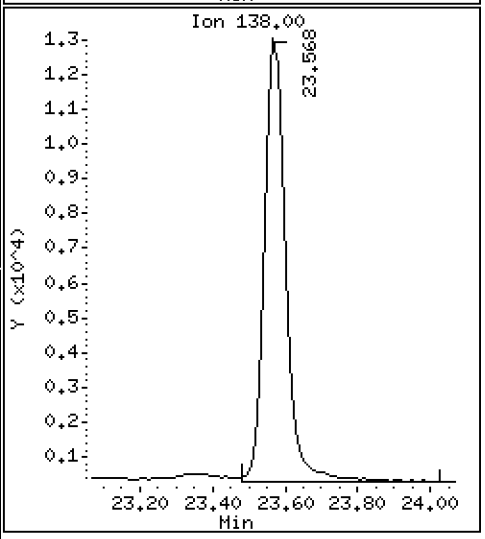
41 Benzo(g,h,i)perylene

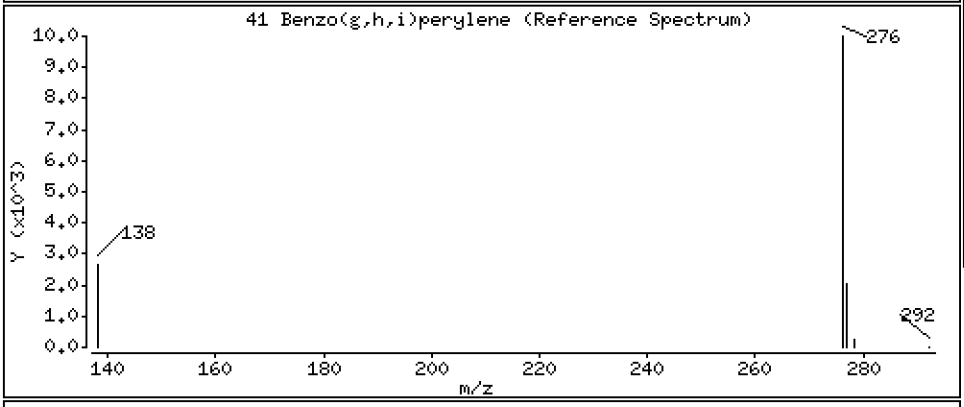
Concentration: 242 ng/mL

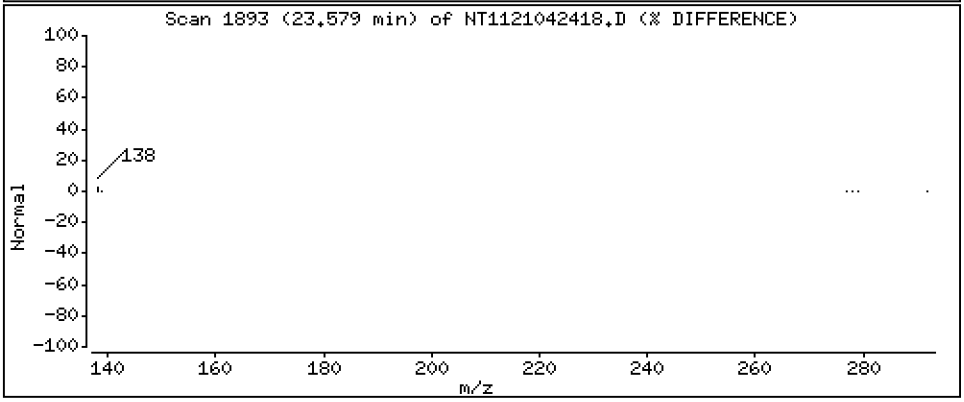


ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20210424.b\NT1121042418.D
Lab Smp Id: SJD0344-CCV1
Inj Date : 24-APR-2021 18:49 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SJD0344-CCV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20210424.b\lowsim.m
Meth Date : 24-Apr-2021 10:50 van Quant Type: ISTD
Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: VANS-202011

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | FINAL (ng/mL) |
|---|---|---|---|---|---|---|---|---|
| * | 1 Naphthalene-d8 | 136 | 6.768 | 6.768 | (1.000) | 154986 | 200.000 | |
| | 2 Naphthalene | 128 | 6.795 | 6.795 | (1.004) | 201524 | 223.944 | 224 |
| | 3 Benzo(b)thiophene | 134 | 7.048 | 7.048 | (1.041) | 163145 | 229.804 | 230 |
| $ | 4 2-Methylnaphthalene-d10 | 152 | 7.728 | 7.738 | (1.142) | 148790 | 238.757 | 239 |
| | 5 2-Methylnaphthalene | 142 | 7.791 | 7.791 | (1.151) | 170623 | 235.199 | 235 |
| | 6 1-Methylnaphthalene | 142 | 8.043 | 8.043 | (1.188) | 165700 | 245.717 | 246 |
| | 7 2-Chloronaphthalene | 162 | 8.694 | 8.694 | (0.891) | 150497 | 196.208 | 196 |
| | 8 Biphenyl | 154 | 8.663 | 8.663 | (0.888) | 190565 | 186.595 | 187 |
| | 9 2,6-Dimethylnaphthalene | 156 | 8.715 | 8.715 | (0.893) | 153365 | 202.396 | 202 |
| | 10 Acenaphthylene | 152 | 9.607 | 9.607 | (0.984) | 196075 | 194.044 | 194 |
| * | 11 Acenaphthene-d10 | 164 | 9.761 | 9.761 | (1.000) | 88075 | 200.000 | |
| | 12 Acenaphthene | 153 | 9.824 | 9.824 | (1.006) | 131384 | 196.593 | 197 |
| | 13 Dibenzofuran | 168 | 10.023 | 10.023 | (1.027) | 164566 | 184.470 | 184 |
| | 14 2,3,5-Trimethylnaphthalene | 170 | 10.124 | 10.124 | (1.037) | 108991 | 198.634 | 199 |
| | 16 Fluorene | 166 | 10.642 | 10.642 | (1.090) | 134652 | 195.948 | 196 |
| | 17 Dibenzothiophene | 184 | 12.260 | 12.260 | (0.986) | 157720 | 213.004 | 213 |
| * | 18 Phenanthrene-d10 | 188 | 12.428 | 12.428 | (1.000) | 133745 | 200.000 | |
| | 19 Phenanthrene | 178 | 12.470 | 12.470 | (1.003) | 188434 | 215.375 | 215 |
| | 21 Anthracene | 178 | 12.523 | 12.523 | (1.008) | 197526 | 225.955 | 226 |
| | 22 Carbazole | 167 | 13.197 | 13.206 | (1.062) | 218033 | 234.063 | 234 |
| | 23 1-Methylphenanthrene | 192 | 13.468 | 13.469 | (1.084) | 172503 | 223.208 | 223 |
| $ | 24 Fluoranthene-d10 | 212 | 14.520 | 14.520 | (1.168) | 150599 | 214.773 | 215 |
| | 25 Fluoranthene | 202 | 14.558 | 14.558 | (1.171) | 199668 | 228.906 | 229 |
| | 26 Pyrene | 202 | 15.048 | 15.048 | (1.211) | 204486 | 228.508 | 229 |
| | 27 Benzo(a)anthracene | 228 | 17.064 | 17.064 | (0.995) | 162389 | 216.399 | 216 |
| * | 28 Chrysene-d12 | 240 | 17.155 | 17.155 | (1.000) | 102156 | 200.000 | |
| | 29 Chrysene | 228 | 17.205 | 17.205 | (1.003) | 172782 | 204.485 | 204 |
| | 30 Benzo(b)fluoranthene | 252 | 18.884 | 18.885 | (0.950) | 169507 | 247.401 | 247 |
| | 31 Benzo(k)fluoranthene | 252 | 18.923 | 18.923 | (0.952) | 189515 | 210.507 | 211 |
| | 32 Benzo(j)fluoranthene | 252 | 18.981 | 18.981 | (0.955) | 181424 | 186.476 | 186 |
| | 34 Benzo(e)pyrene | 252 | 19.586 | 19.586 | (0.985) | 167295 | 215.620 | 216 |
| | 35 Benzo(a)pyrene | 252 | 19.692 | 19.692 | (0.990) | 172110 | 240.516 | 241 |
| * | 36 Perylene-d12 | 264 | 19.884 | 19.893 | (1.000) | 125875 | 200.000 | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | CONCENTRATIONS FINAL (ng/mL) |
|---|---|---|---|---|---|---|---|---|
| | 37 Perylene | 252 | 19.951 | 19.951 | (1.003) | 177518 | 217.740 | 218 |
| $ | 38 Dibenzo(a,h)anthracene-d14 | 292 | 22.283 | 22.283 | (1.121) | 134845 | 272.532 | 273 |
| | 39 Dibenzo(a,h)anthracene | 278 | 22.394 | 22.405 | (1.126) | 162039 | 273.110 | 273 |
| | 40 Indeno(1,2,3-cd)pyrene | 276 | 22.427 | 22.427 | (1.128) | 187803 | 270.258 | 270 |
| | 41 Benzo(g,h,i)perylene | 276 | 23.579 | 23.568 | (1.186) | 168467 | 242.466 | 242 |

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1121042418.D
Lab Smp Id: SJD0344-CCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20210424.b\lowsim.m
Misc Info:

Calibration Date: 24-APR-2021
Calibration Time: 10:14
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 1 Naphthalene-d8 | 134531 | 67266 | 269062 | 154986 | 15.20 |
| 11 Acenaphthene-d10 | 76981 | 38491 | 153962 | 88075 | 14.41 |
| 18 Phenanthrene-d10 | 116022 | 58011 | 232044 | 133745 | 15.28 |
| 28 Chrysene-d12 | 83386 | 41693 | 166772 | 102156 | 22.51 |
| 36 Perylene-d12 | 98043 | 49022 | 196086 | 125875 | 28.39 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 1 Naphthalene-d8 | 6.77 | 6.27 | 7.27 | 6.77 | -0.00 |
| 11 Acenaphthene-d10 | 9.76 | 9.26 | 10.26 | 9.76 | -0.00 |
| 18 Phenanthrene-d10 | 12.43 | 11.93 | 12.93 | 12.43 | -0.00 |
| 28 Chrysene-d12 | 17.16 | 16.66 | 17.66 | 17.16 | -0.00 |
| 36 Perylene-d12 | 19.89 | 19.39 | 20.39 | 19.88 | -0.05 |

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

REVIEW SUMMARY FOR FILE - NT1121042418.D

Lab ID: SJD0344-CCV1
nt11.i,  20210424.b\lowsim.m,    24-APR-2021 18:49

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

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

NONE

RRT check based on Ccal File: NT1121042402.D

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

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

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

# LOW-CONCENTRATION
# CONTINUING CALIBRATION CHECK
## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | NT11 | Calibration: | DH00073 |
| Lab File ID: | NT1121042403.D | Calibration Date: | 08/27/2020 |
| Sequence: | SJD0344 | Injection Date: | 04/24/21 |
| Lab Sample ID: | SJD0344-LCV1 | Injection Time: | 10:46 |
| Sequence Name: | LCV 10 | | |

| | | CONC. (ng/mL) | | RESPONSE FACTOR (RRF) | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN | CCV | LIMIT |
| Naphthalene | A | 10.000 | 10.3 | 1.1612470 | 1.1925690 | | 2.7 | |
| 2-Methylnaphthalene | A | 10.000 | 9.46 | 0.9361384 | 0.8851426 | | -5.4 | |
| Acenaphthylene | A | 10.000 | 8.71 | 2.2945630 | 1.9974430 | | -12.9 | |
| Acenaphthene | A | 10.000 | 8.66 | 1.5175830 | 1.3142710 | | -13.4 | |
| Fluorene | A | 10.000 | 8.51 | 1.5604500 | 1.3279910 | | -14.9 | |
| Phenanthrene | A | 10.000 | 9.23 | 1.3083250 | 1.2072030 | | -7.7 | |
| Anthracene | A | 10.000 | 9.86 | 1.3072390 | 1.2892970 | | -1.4 | |
| Fluoranthene | A | 10.000 | 9.47 | 1.3043810 | 1.2354100 | | -5.3 | |
| Pyrene | A | 10.000 | 9.68 | 1.3381820 | 1.2956120 | | -3.2 | |
| Benzo(a)anthracene | A | 10.000 | 8.26 | 1.4691530 | 1.2133210 | | -17.4 | |
| Chrysene | A | 10.000 | 9.67 | 1.6542610 | 1.5993770 | | -3.3 | |
| Benzo(b)fluoranthene | A | 10.000 | 5.93 | 1.0886210 | 0.6456175 | | -40.7 | |
| Benzo(k)fluoranthene | A | 10.000 | 7.98 | 1.4304320 | 1.1420240 | | -20.2 | |
| Benzo(j)fluoranthene | A | 10.000 | 11.5 | 1.5458300 | 1.7824470 | | 15.3 | |
| Benzo(a)pyrene | A | 10.000 | 8.35 | 1.1369780 | 0.9495224 | | -16.5 | |
| Indeno(1,2,3-cd)pyrene | A | 10.000 | 7.91 | 1.1041170 | 0.8733297 | | -20.9 | |
| Dibenzo(a,h)anthracene | A | 10.000 | 7.49 | 0.8775199 | 0.6894860 | | -25.1 | |
| Benzo(g,h,i)perylene | A | 10.000 | 8.99 | 1.1039640 | 0.9925250 | | -10.1 | |
| 2-Methylnaphthalene-d10 | A | 10.000 | 9.25 | 0.8041846 | 0.7439882 | | -7.5 | |
| Dibenzo[a,h]anthracene-d14 | A | 10.000 | 7.07 | 0.7035414 | 0.5422956 | | -29.3 | |
| Fluoranthene-d10 | A | 10.000 | 9.28 | 1.0485620 | 0.9727090 | | -7.2 | |

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042403.D



Date : 24-APR-2021 10:46

Client ID:

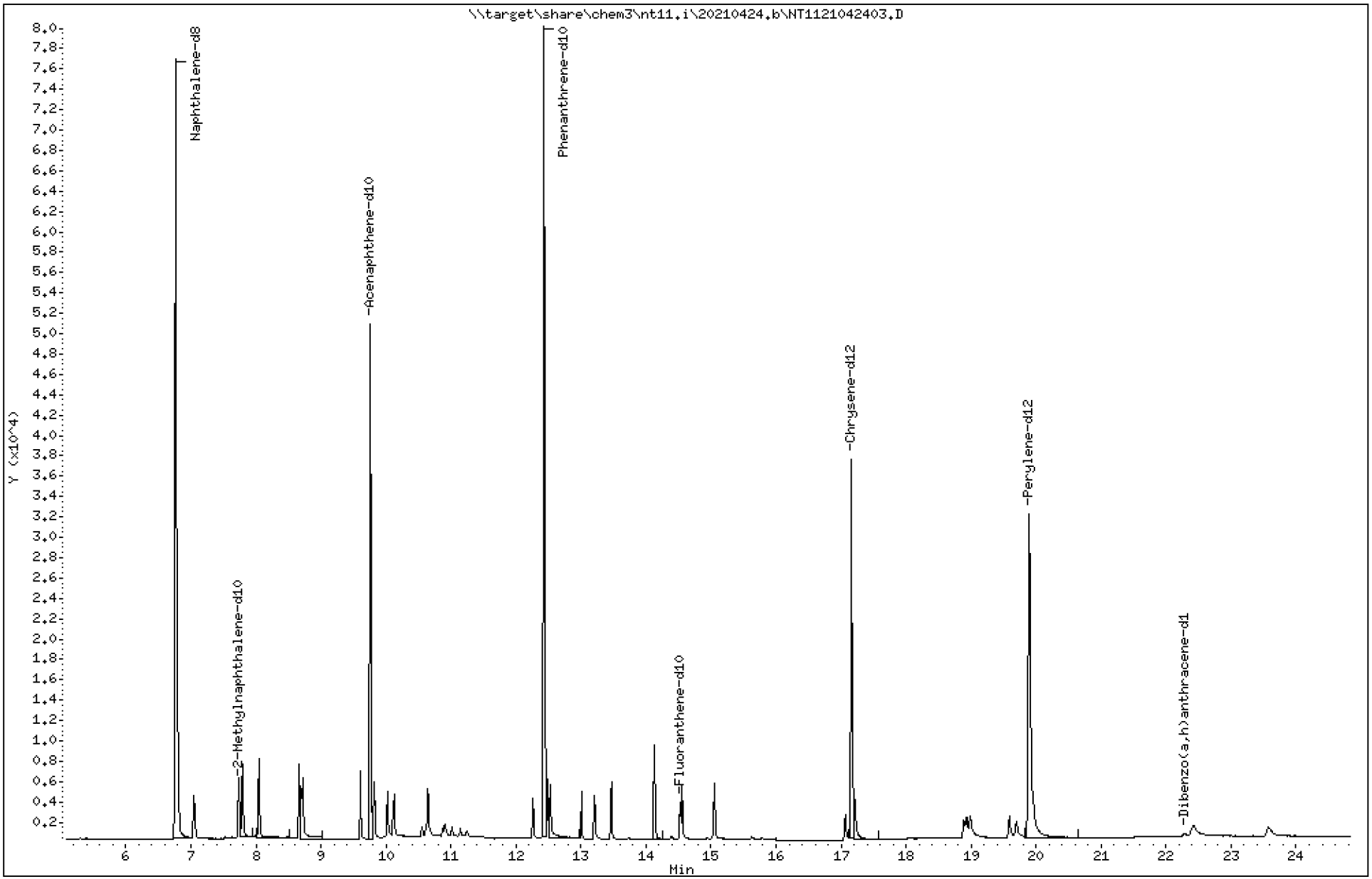
Instrument: nt11.i

Sample Info: SJD0344-LCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

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Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042403.D

Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

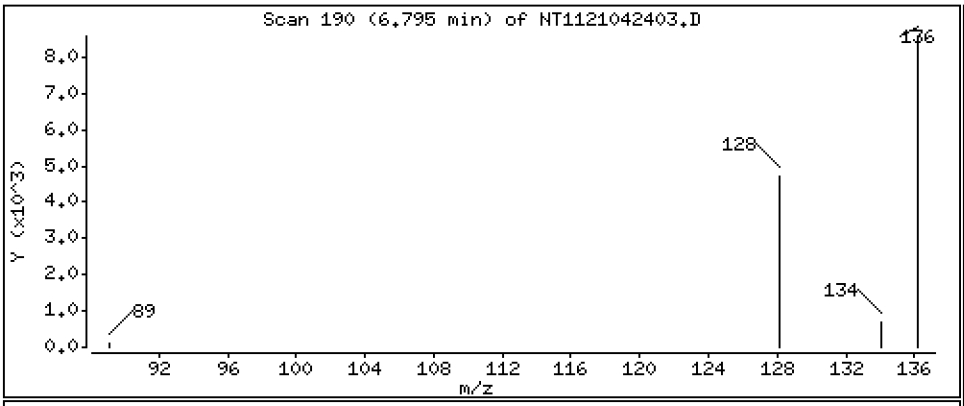
Operator: VTS

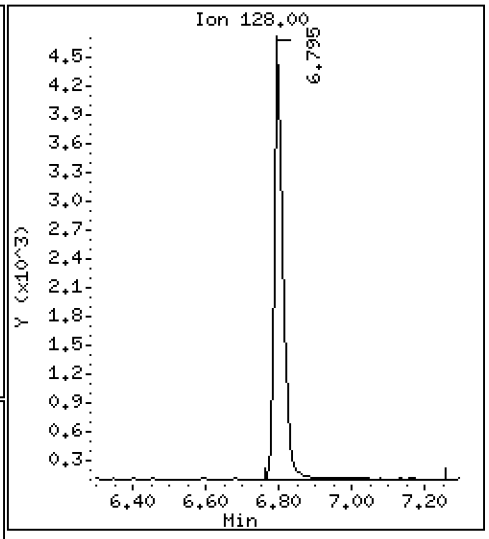
Column phase: Rxi-17Sil MS

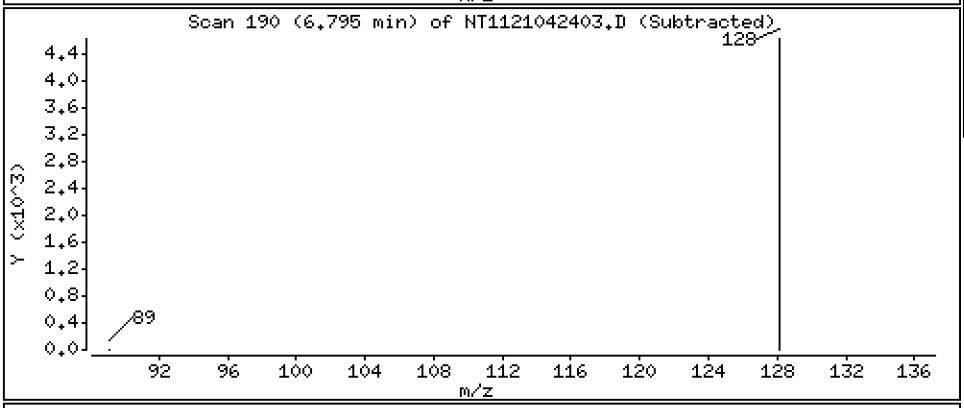
Column diameter: 0.25

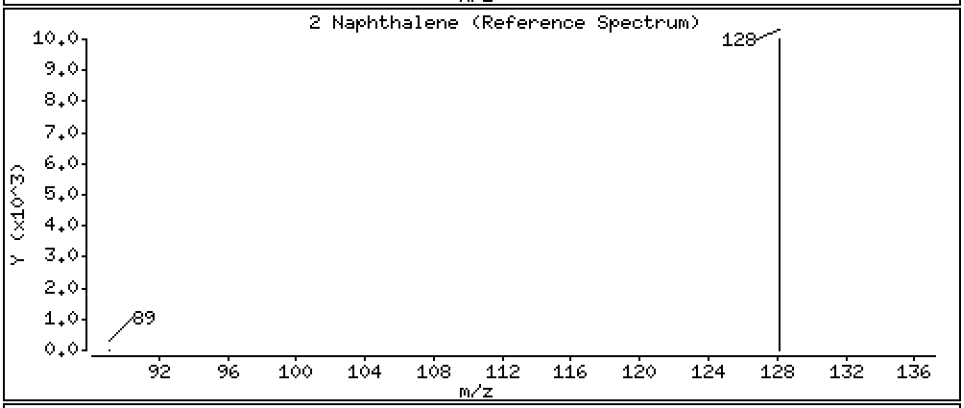
2 Naphthalene

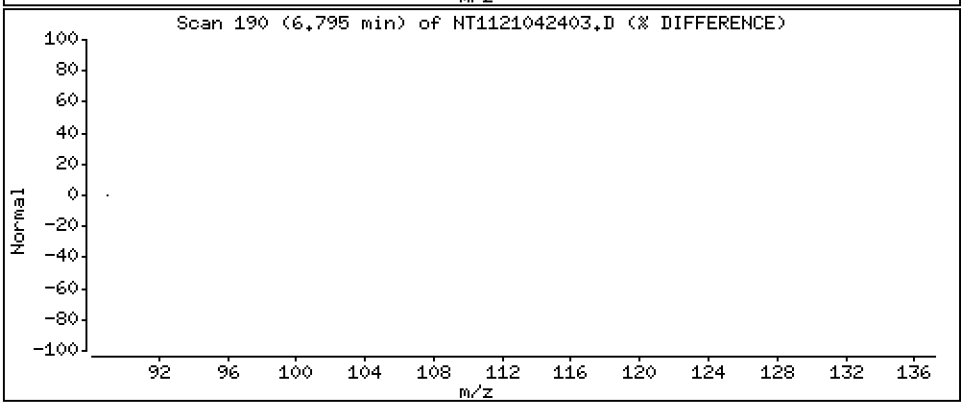
Concentration: 10.3 ng/mL



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Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

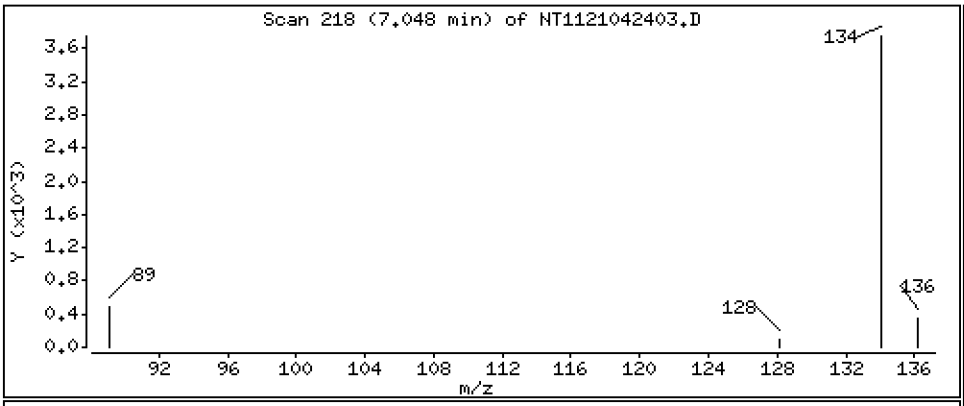
Operator: VTS

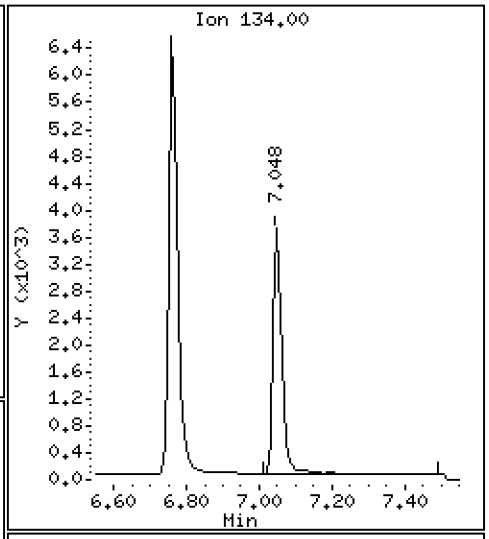
Column phase: Rxi-17Sil MS

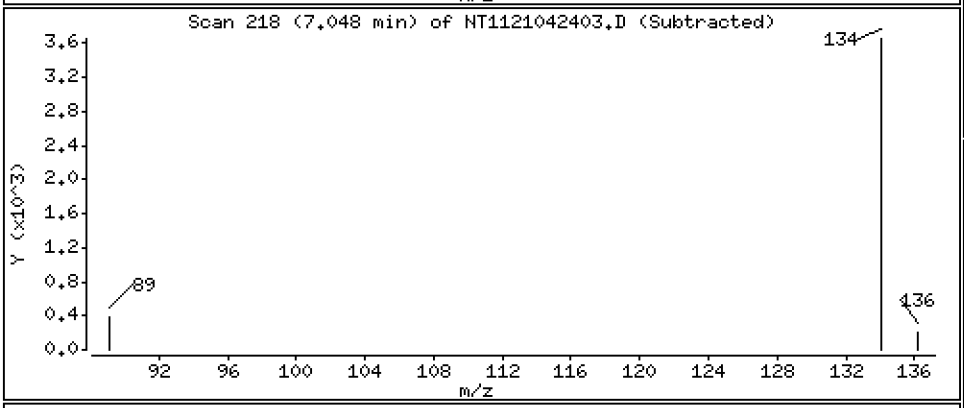
Column diameter: 0.25

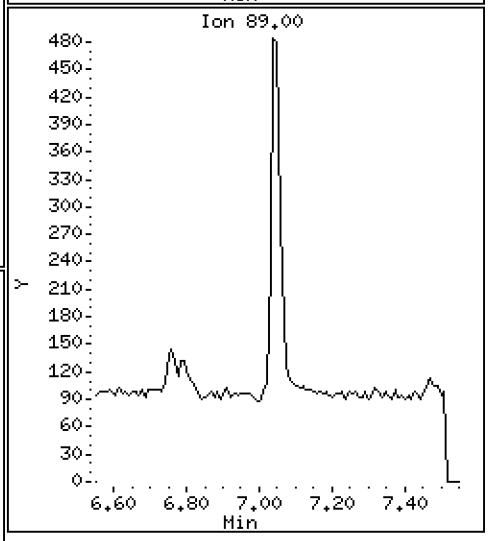
3 Benzo(b)thiophene

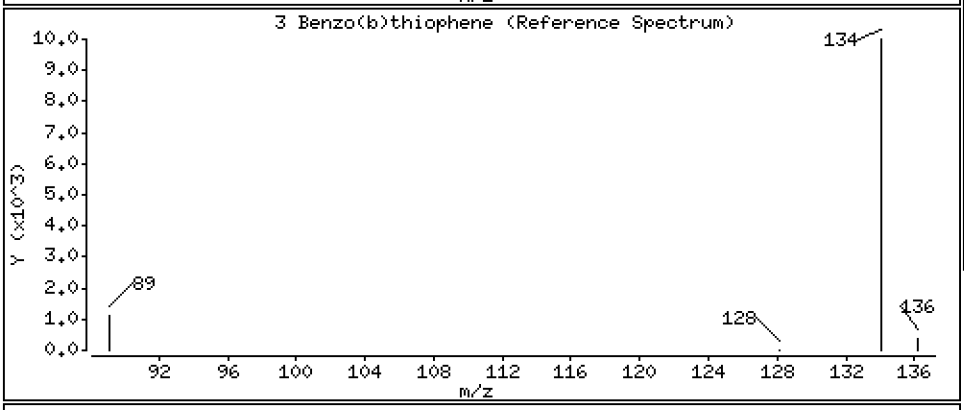
Concentration: 10.2 ng/mL

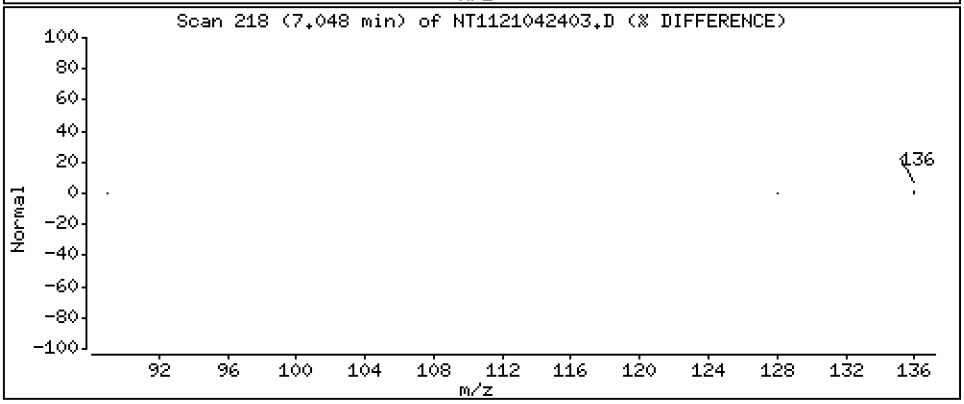


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Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

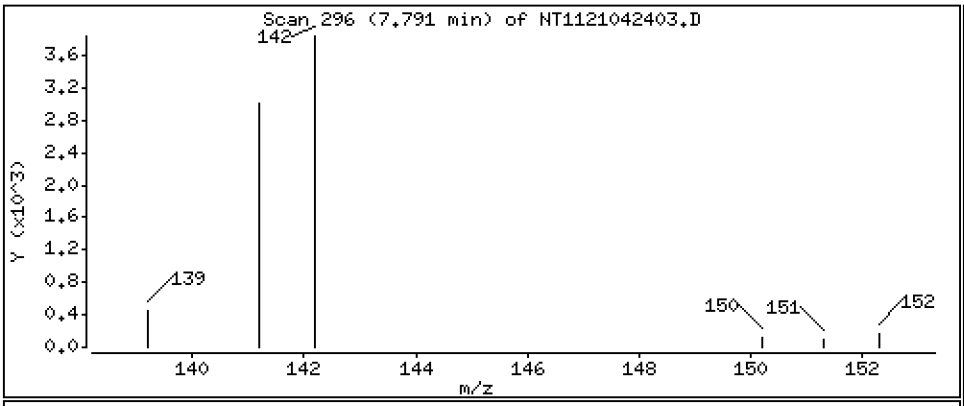
Operator: VTS

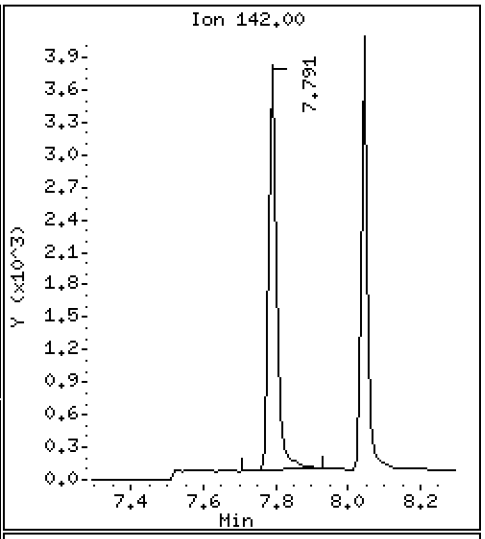
Column phase: Rxi-17Sil MS

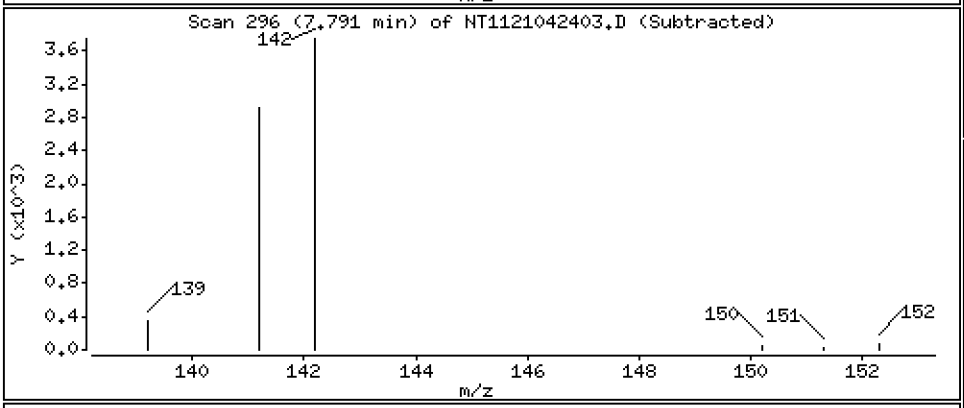
Column diameter: 0.25

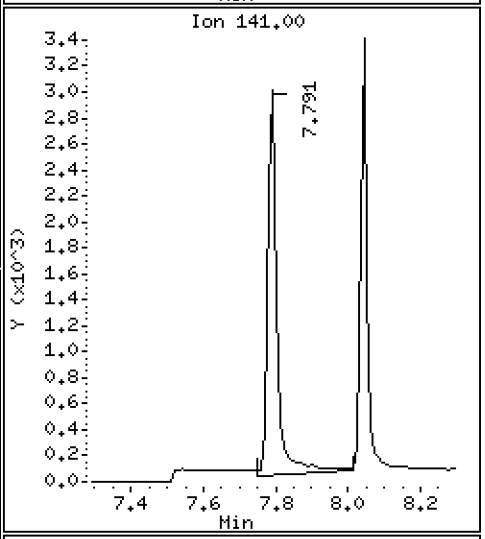
5 2-Methylnaphthalene

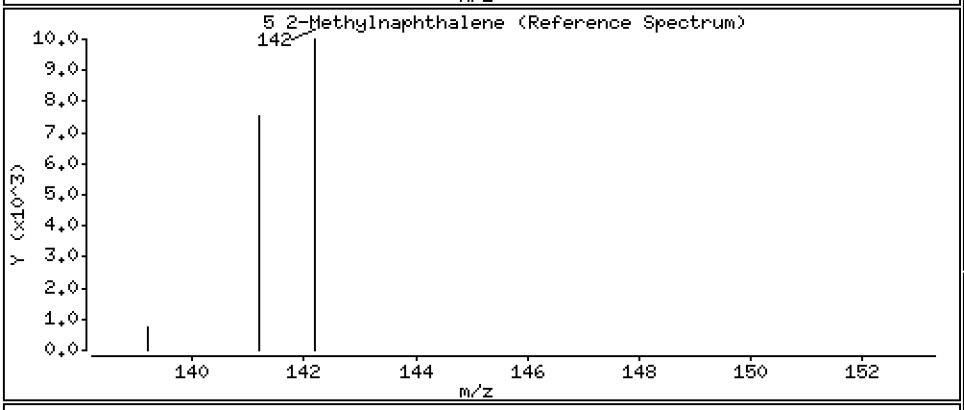
Concentration: 9.46 ng/mL

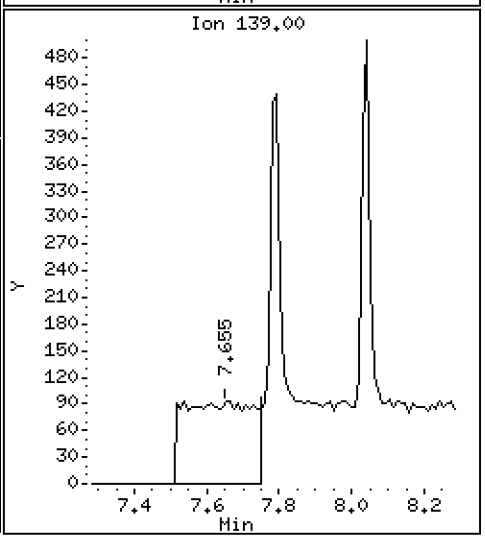


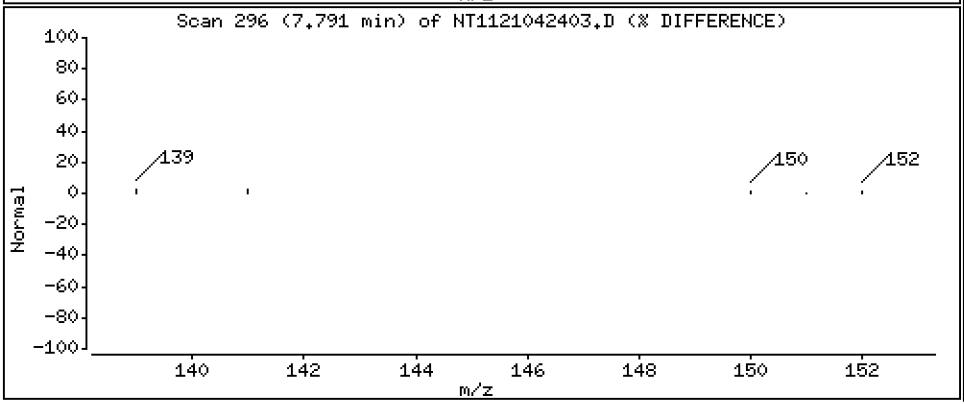



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Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

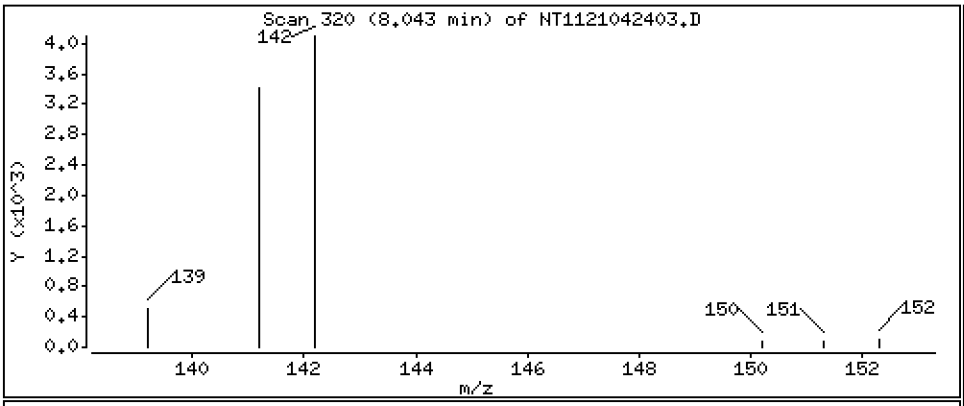
Operator: VTS

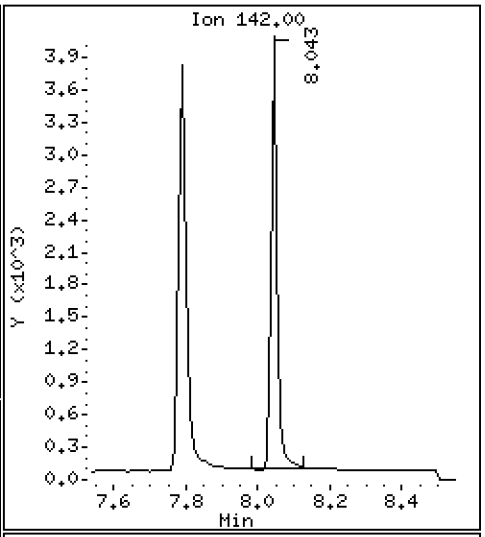
Column phase: Rxi-17Sil MS

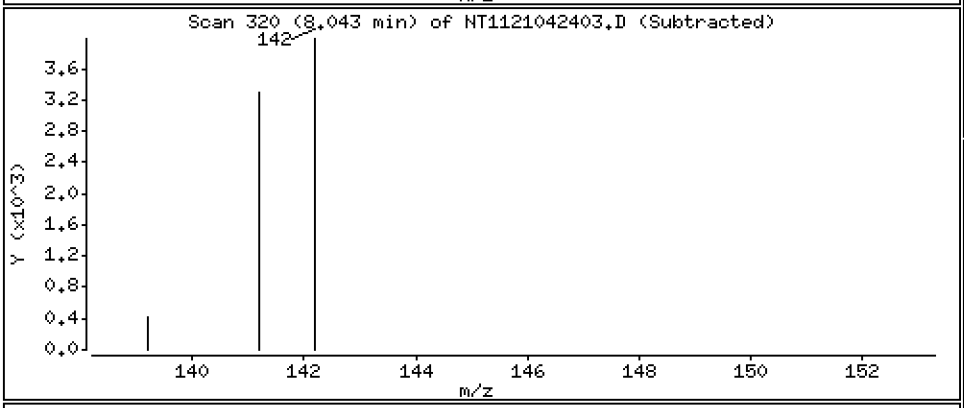
Column diameter: 0.25

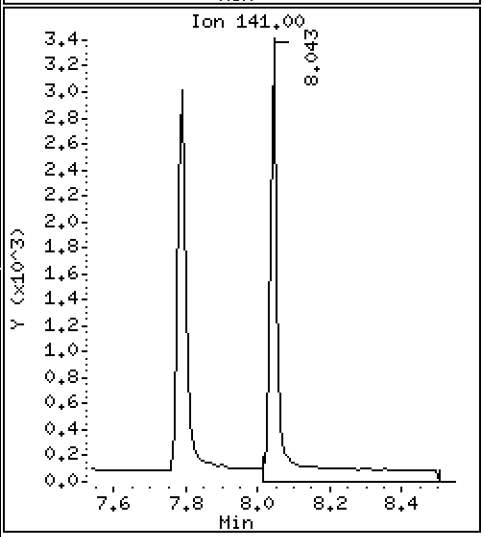
6 1-Methylnaphthalene

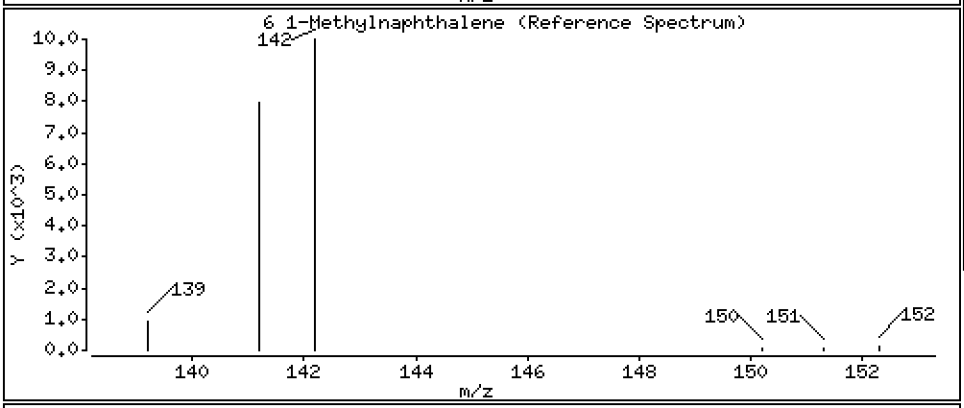
Concentration: 9.39 ng/mL

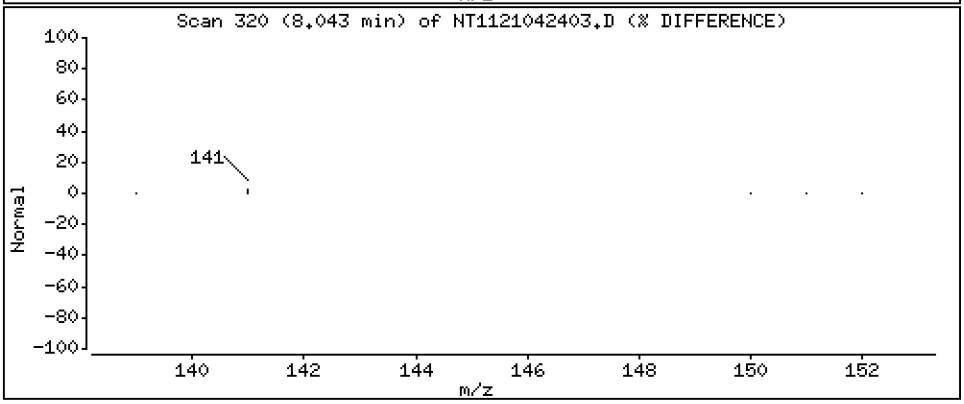


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Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

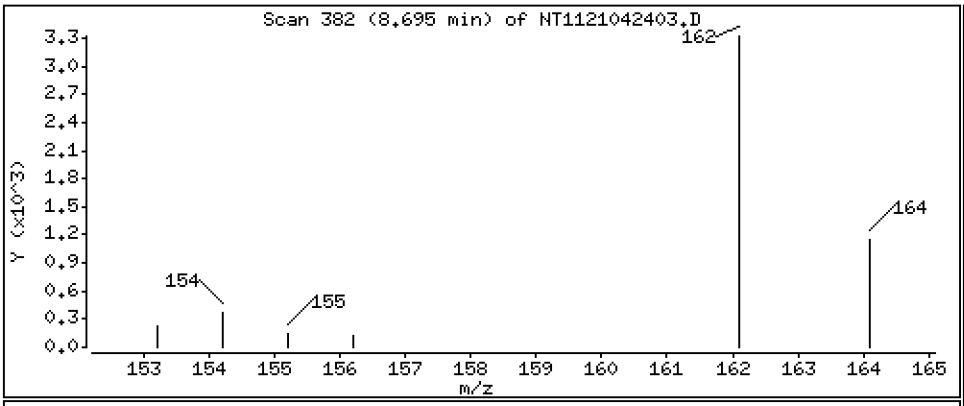
Operator: VTS

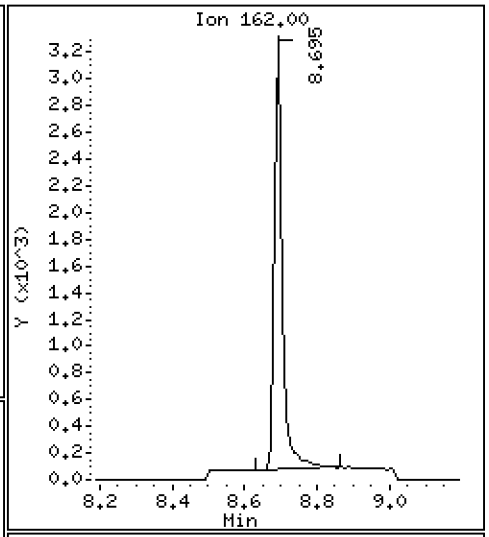
Column phase: Rxi-17Sil MS

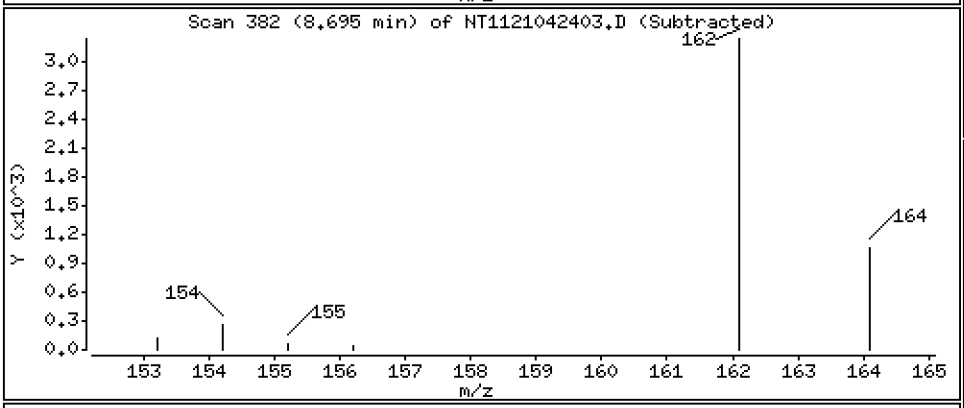
Column diameter: 0.25

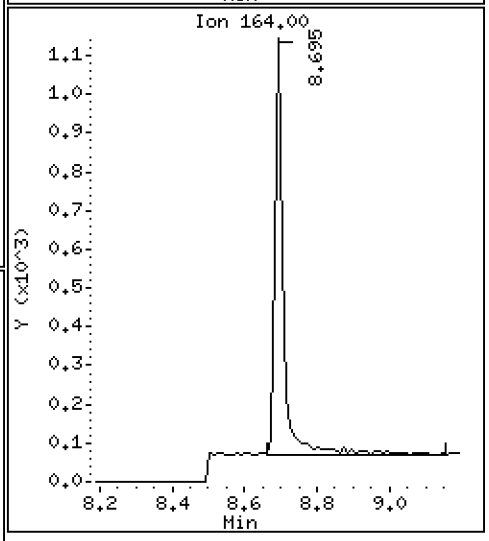
7 2-Chloronaphthalene

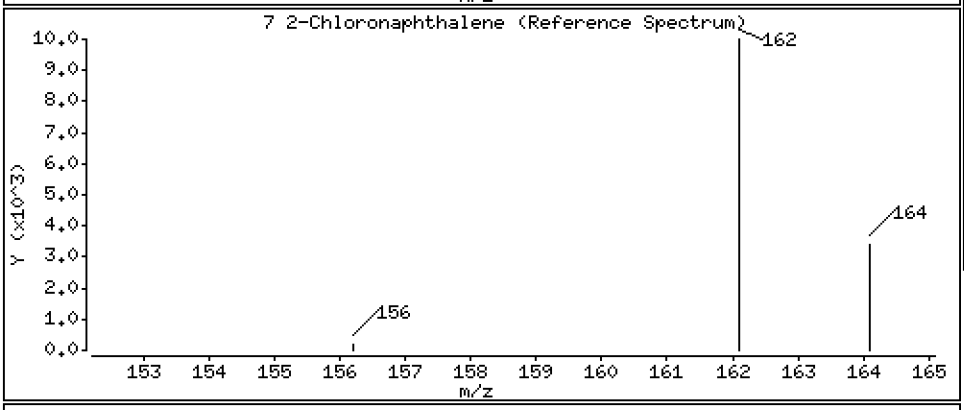
Concentration: 8.69 ng/mL

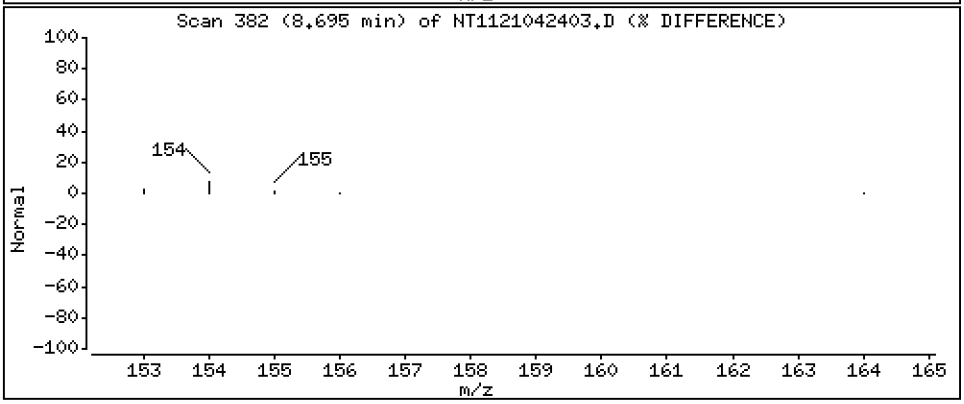


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Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

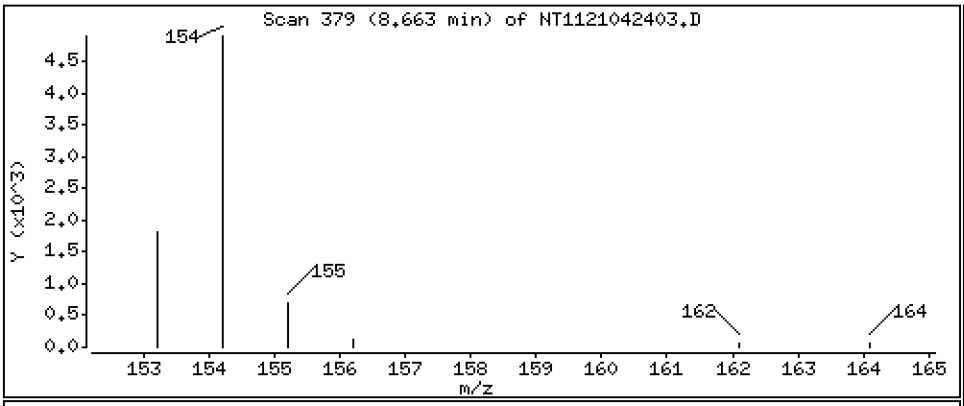
Operator: VTS

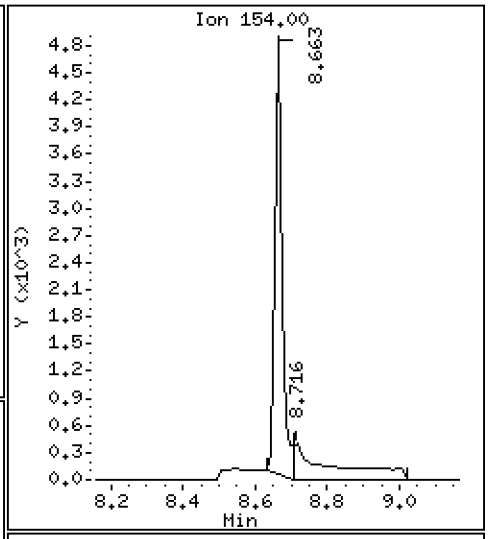
Column phase: Rxi-17Sil MS

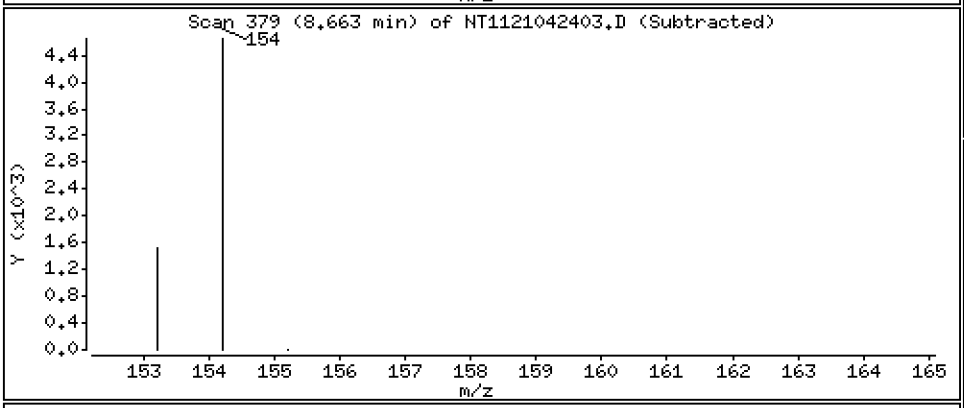
Column diameter: 0.25

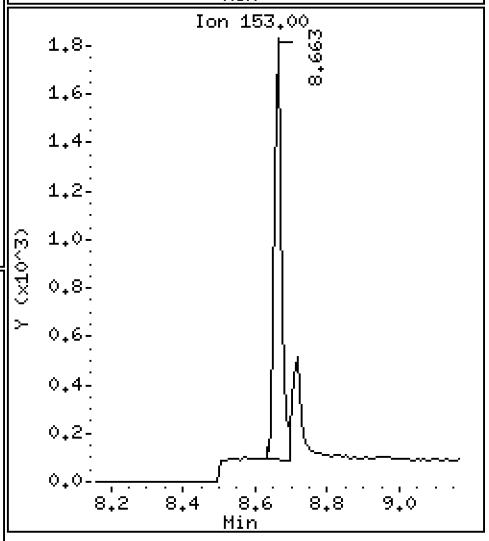
8 Biphenyl

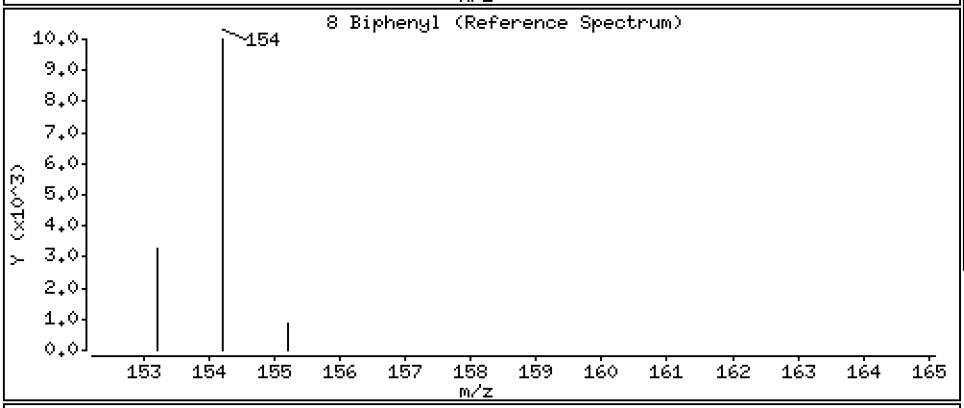
Concentration: 9.00 ng/mL

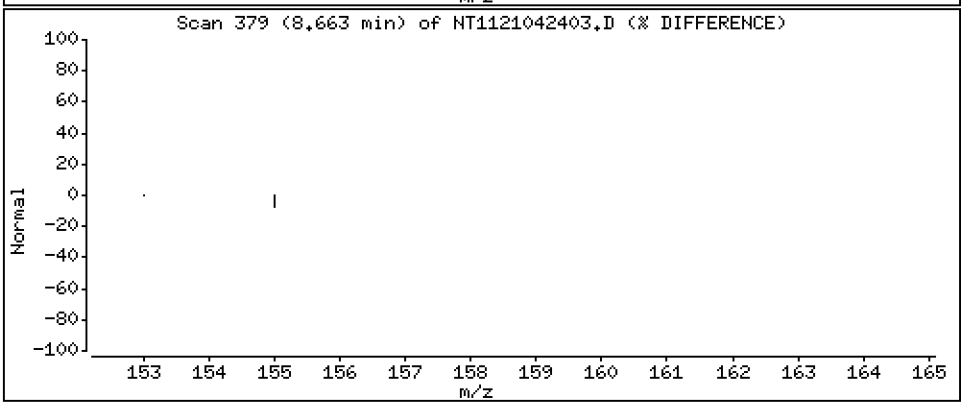


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Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

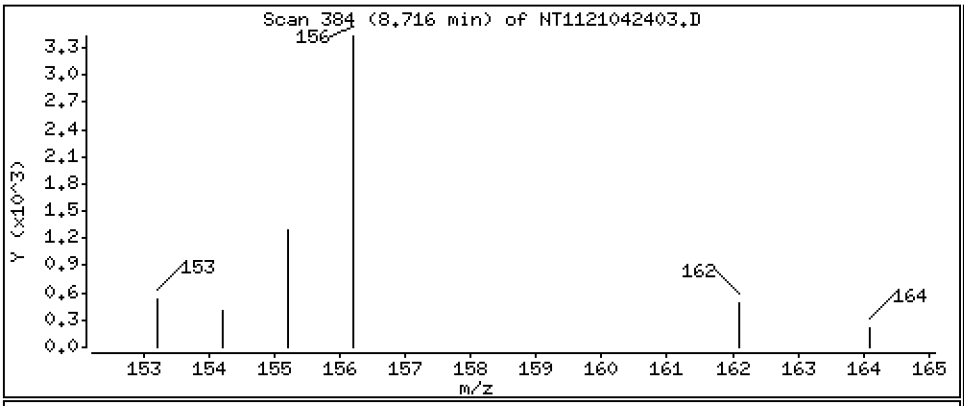
Operator: VTS

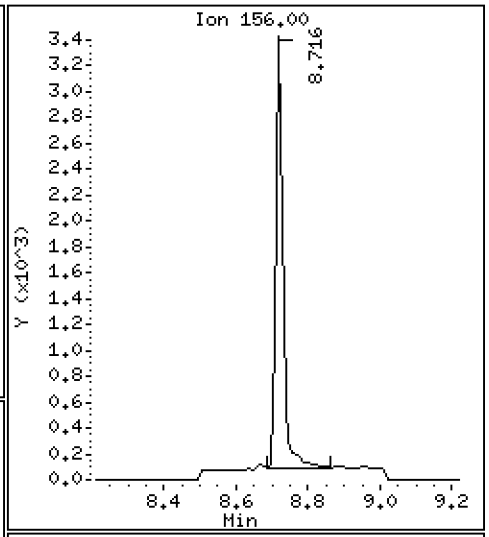
Column phase: Rxi-17Sil MS

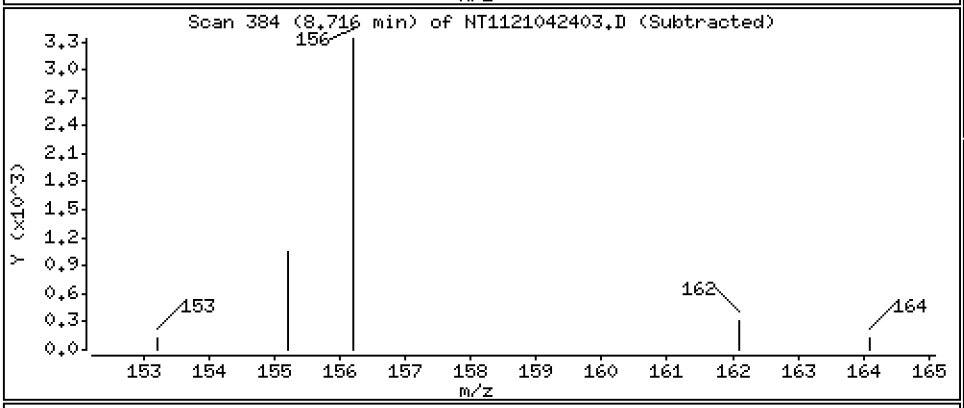
Column diameter: 0.25

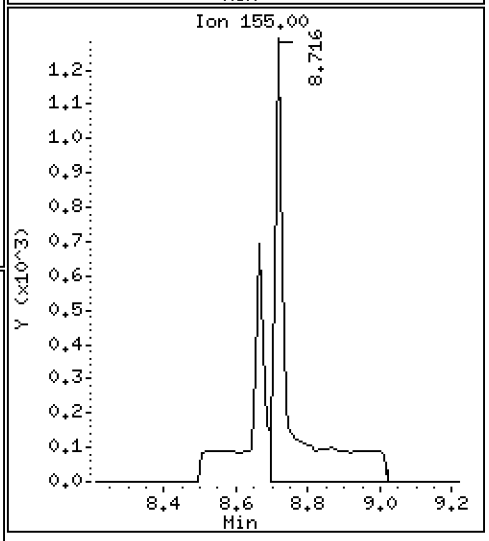
9 2,6-Dimethylnaphthalene

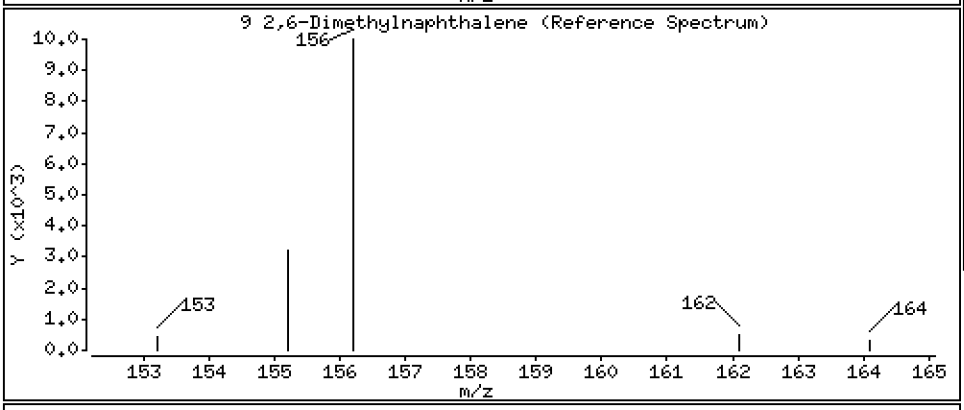
Concentration: 8.56 ng/mL

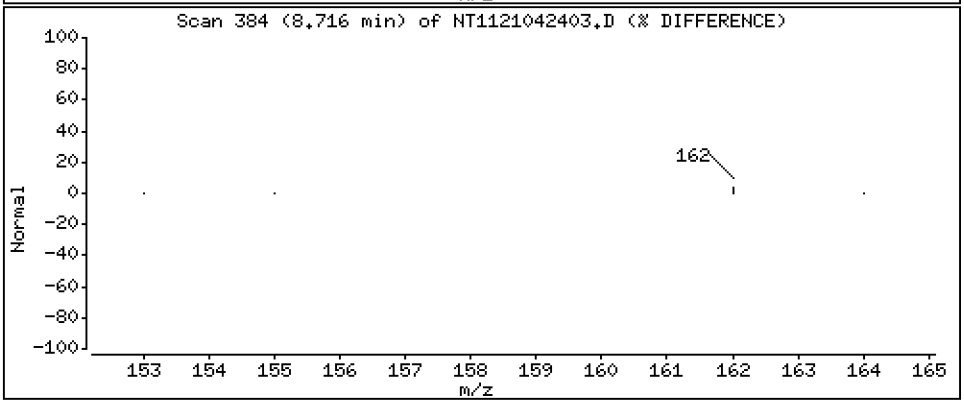


Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042403.D

Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

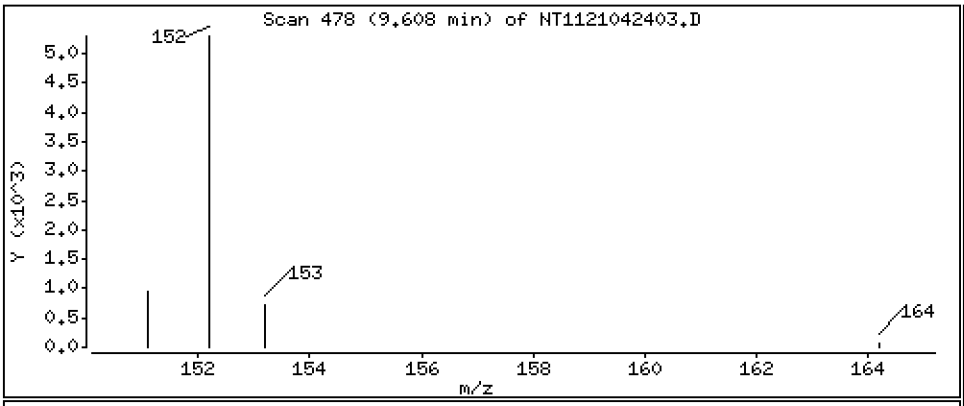
Operator: VTS

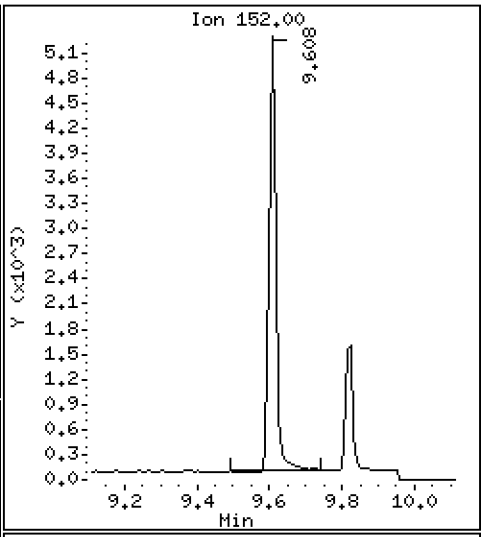
Column phase: Rxi-17Sil MS

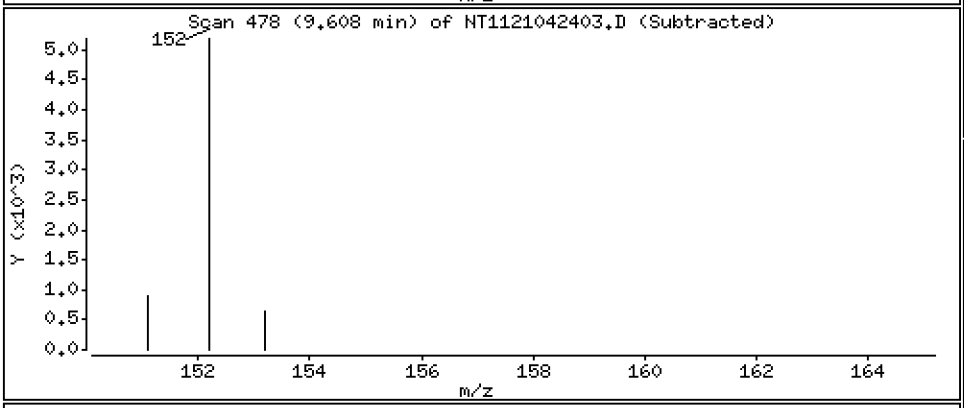
Column diameter: 0.25

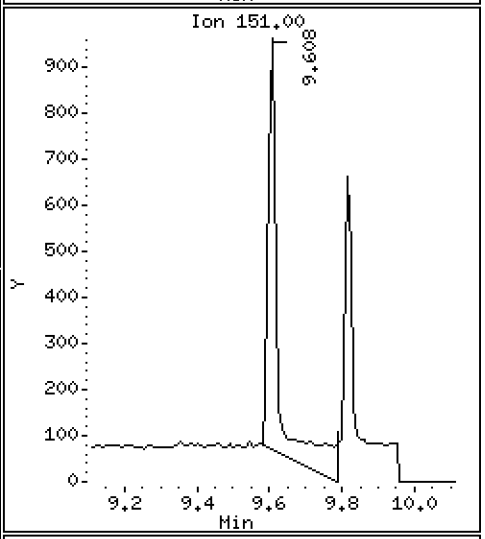
10 Acenaphthylene

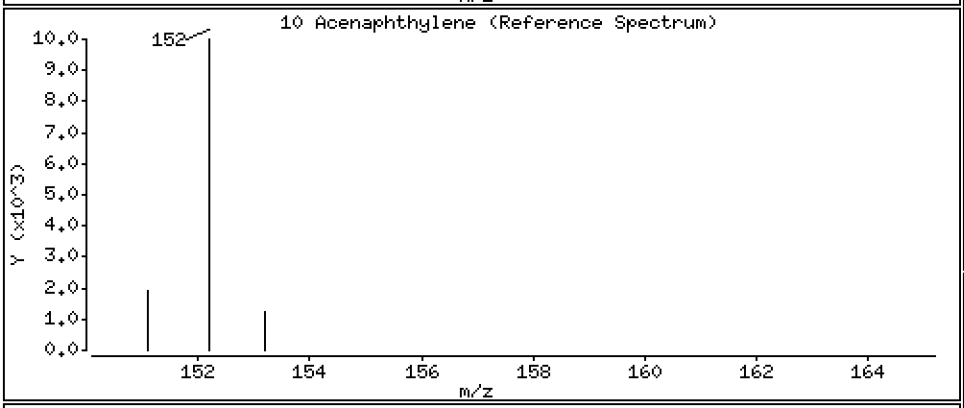
Concentration: 8.71 ng/mL

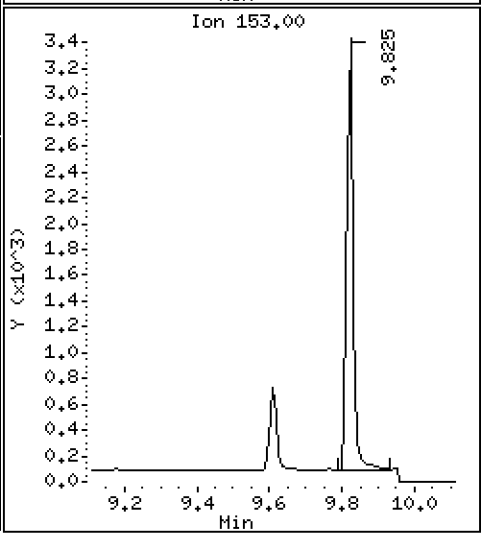


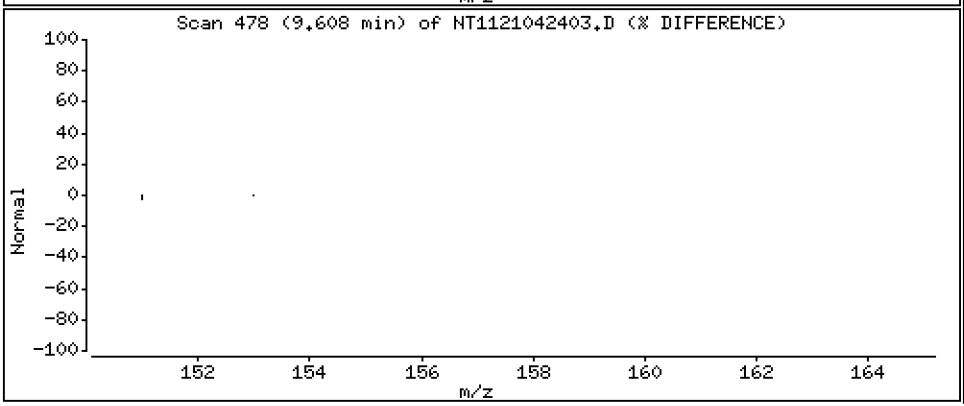



Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042403.D

Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

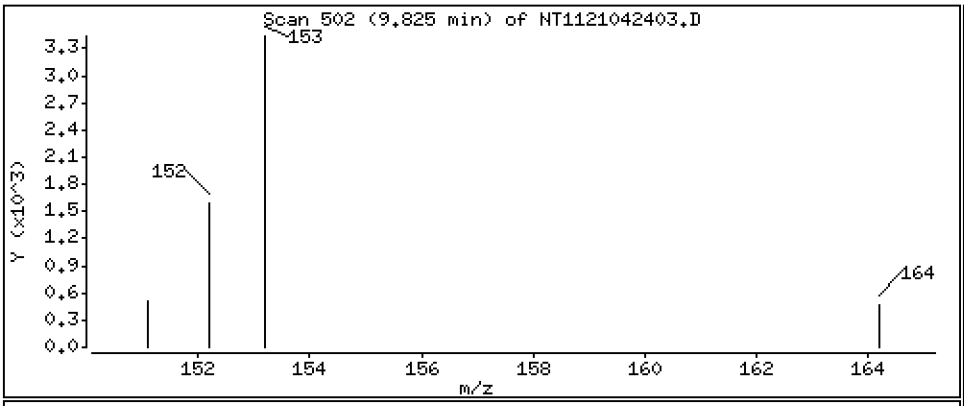
Operator: VTS

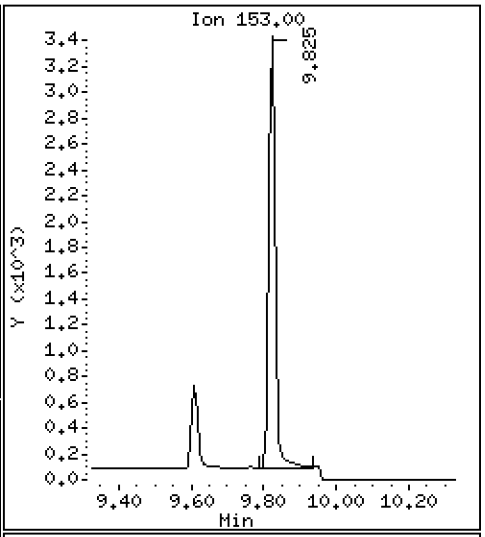
Column phase: Rxi-17Sil MS

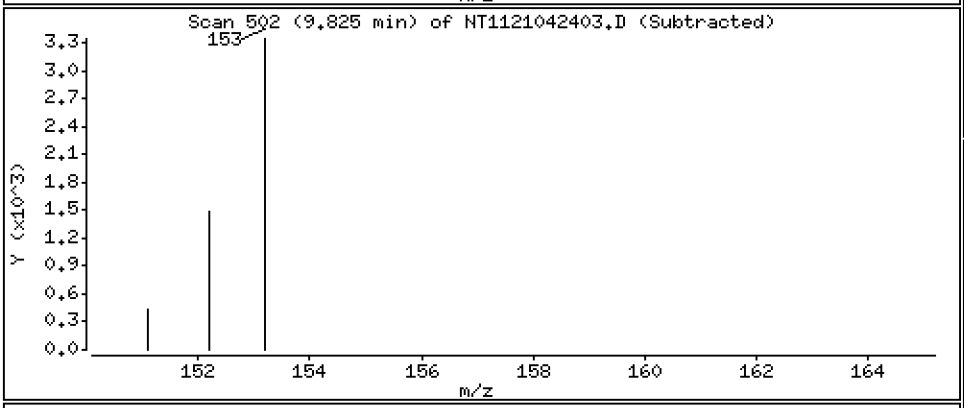
Column diameter: 0.25

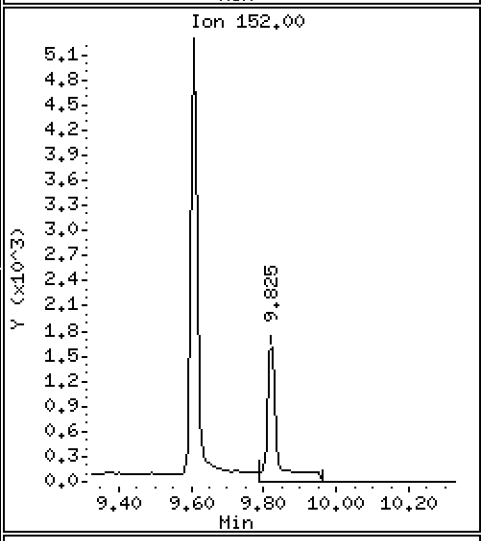
12 Acenaphthene

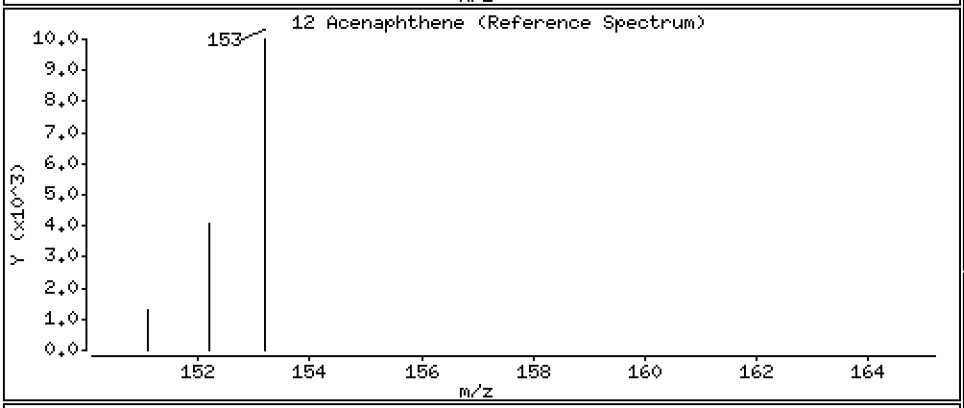
Concentration: 8.66 ng/mL

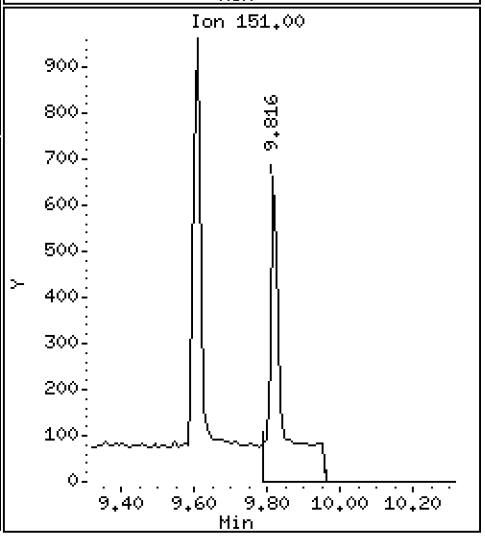


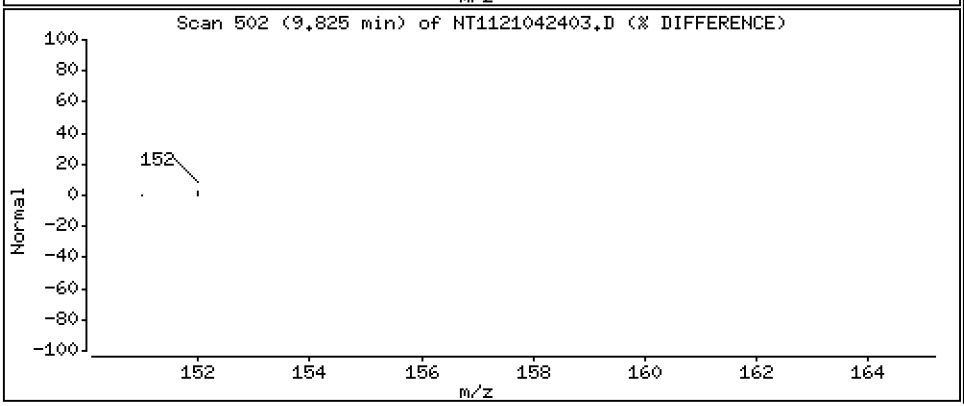



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Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

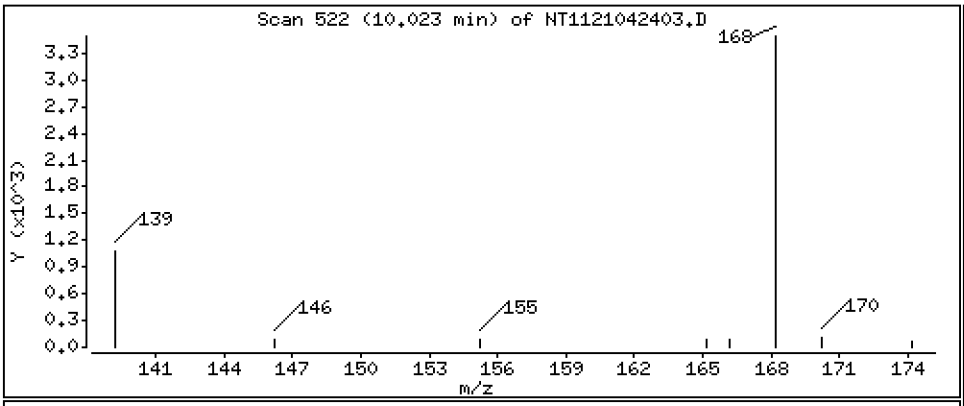
Operator: VTS

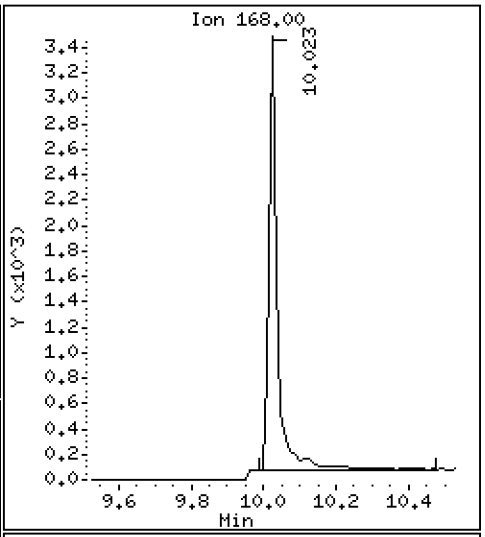
Column phase: Rxi-17Sil MS

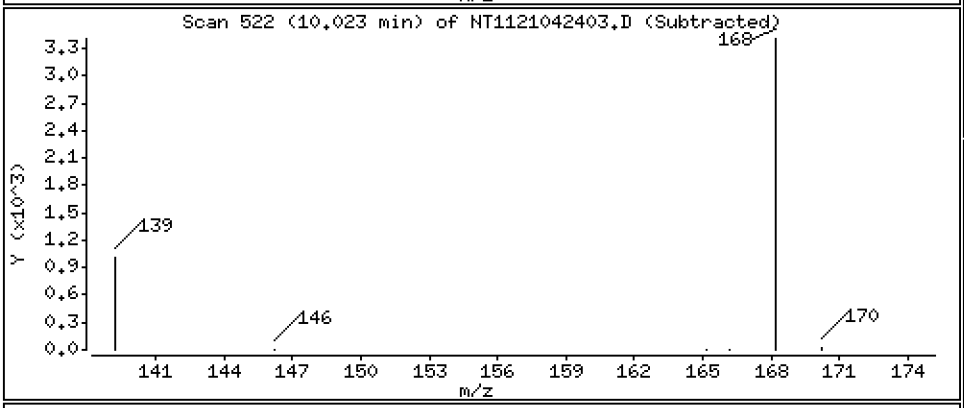
Column diameter: 0.25

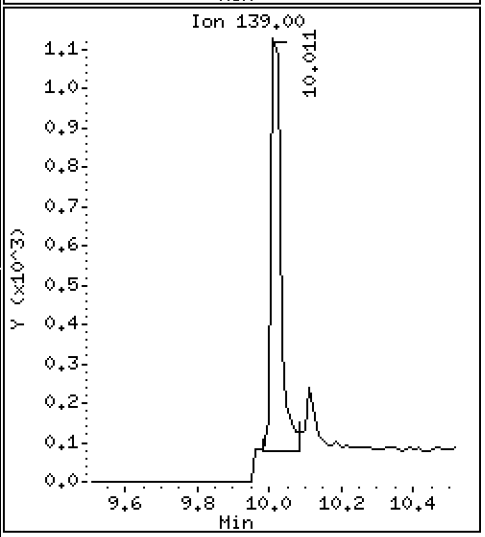
13 Dibenzofuran

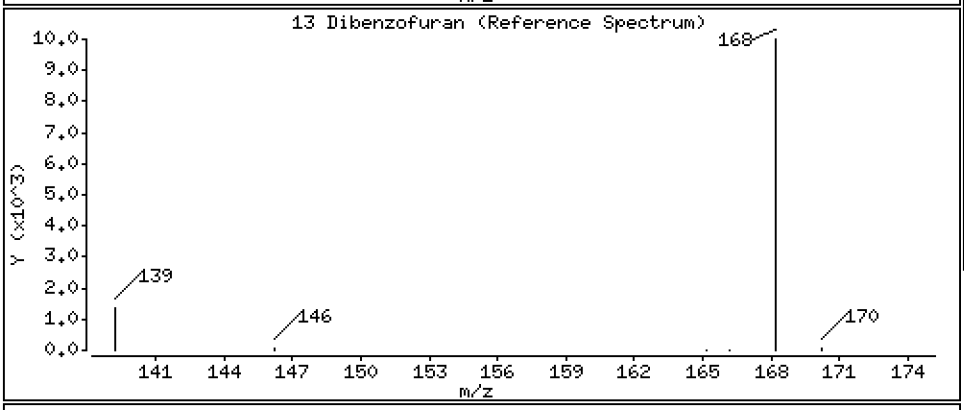
Concentration: 8.60 ng/mL

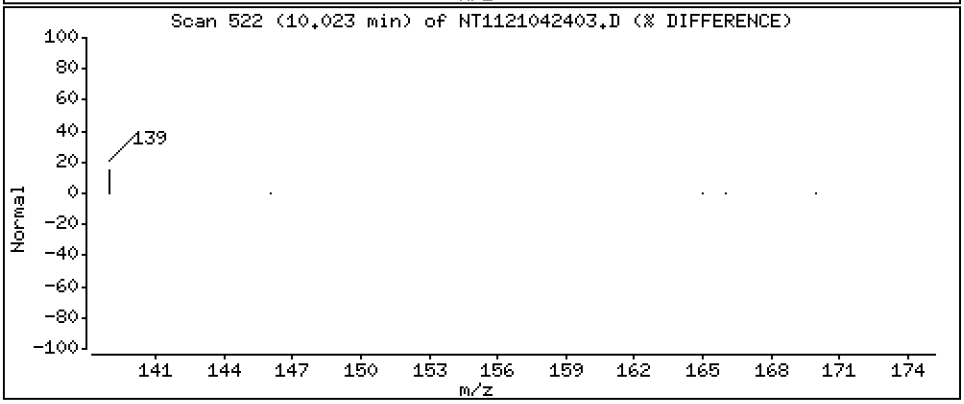


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Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

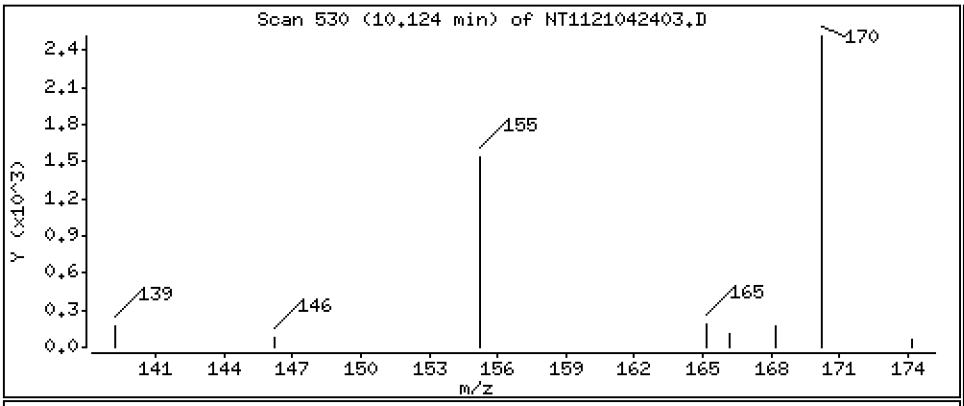
Operator: VTS

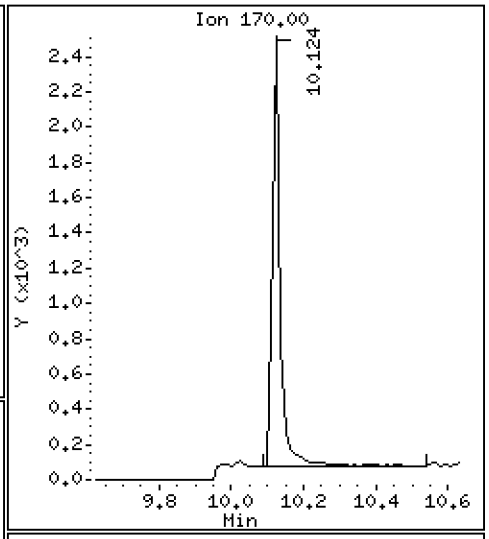
Column phase: Rxi-17Sil MS

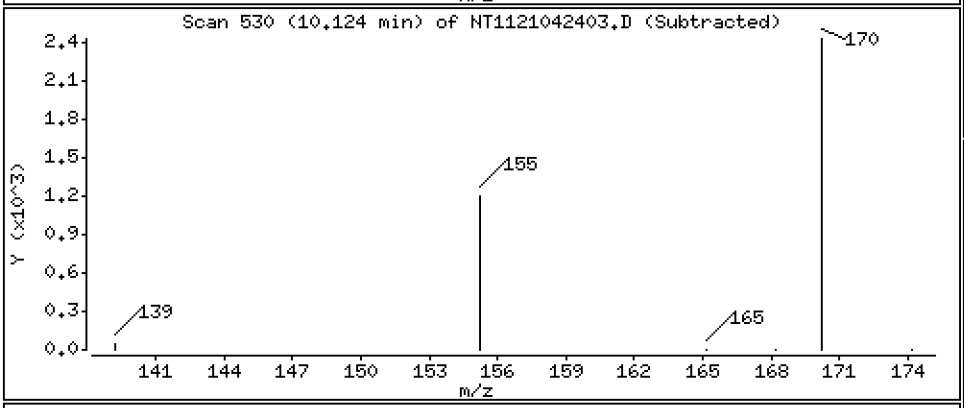
Column diameter: 0.25

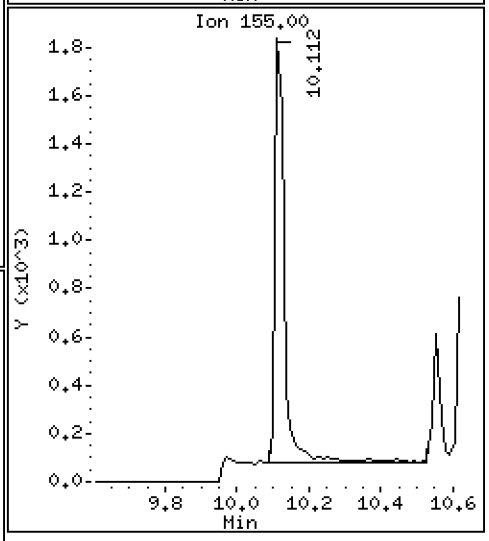
14 2,3,5-Trimethylnaphthalene

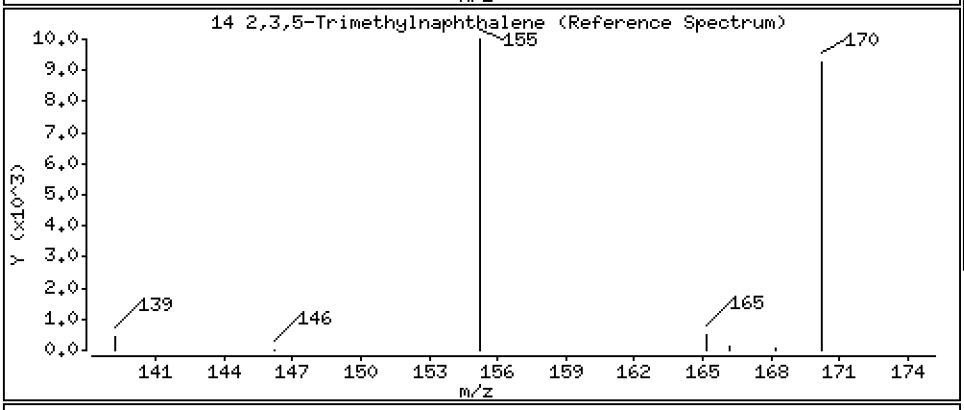
Concentration: 8.86 ng/mL

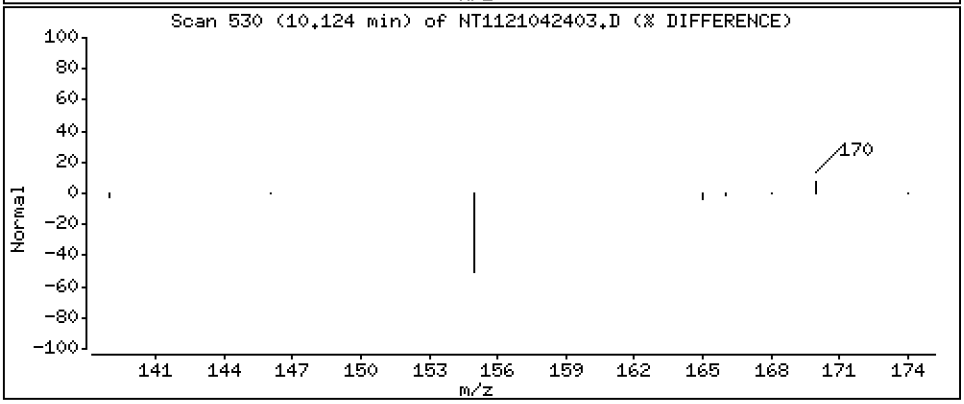


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Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

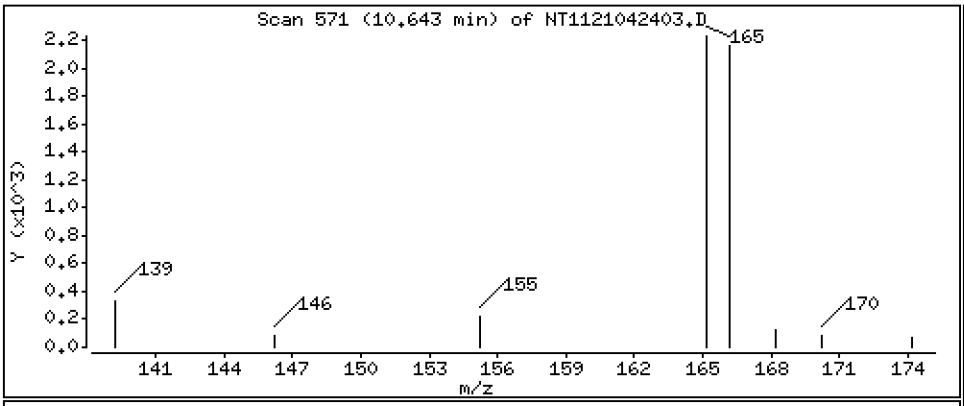
Operator: VTS

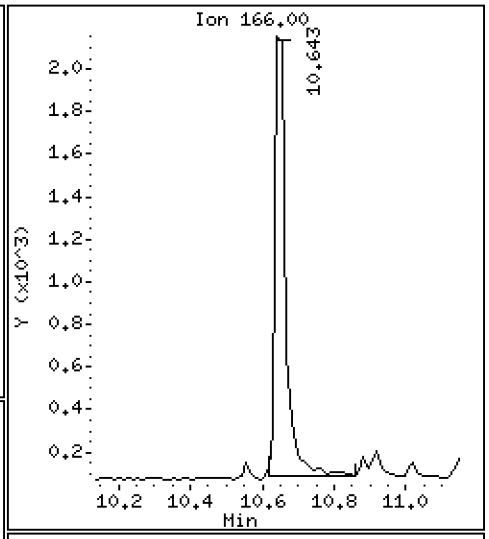
Column phase: Rxi-17Sil MS

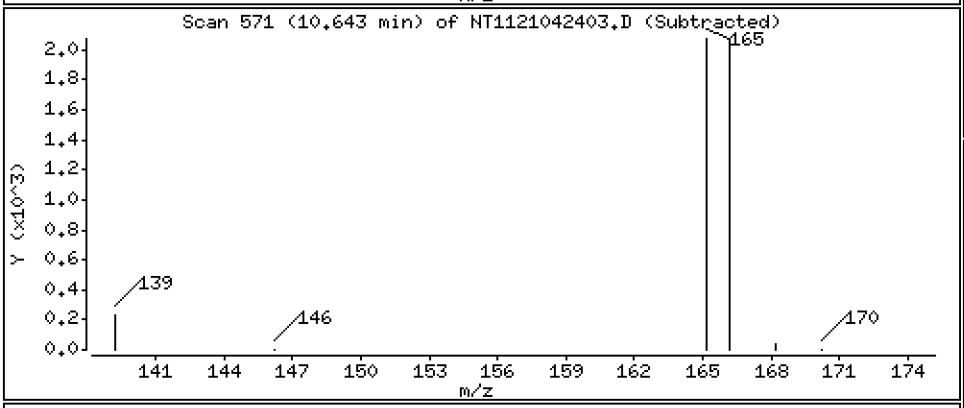
Column diameter: 0.25

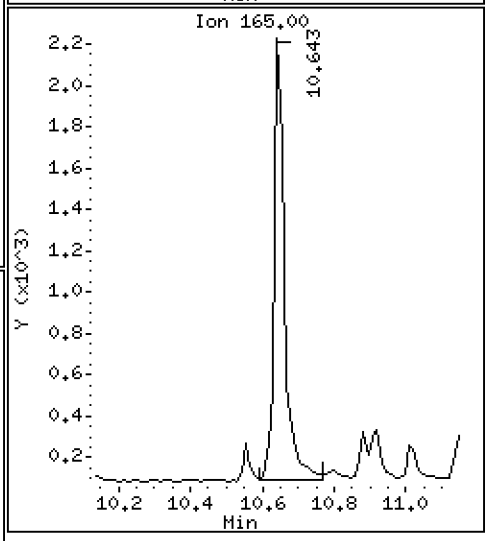
16 Fluorene

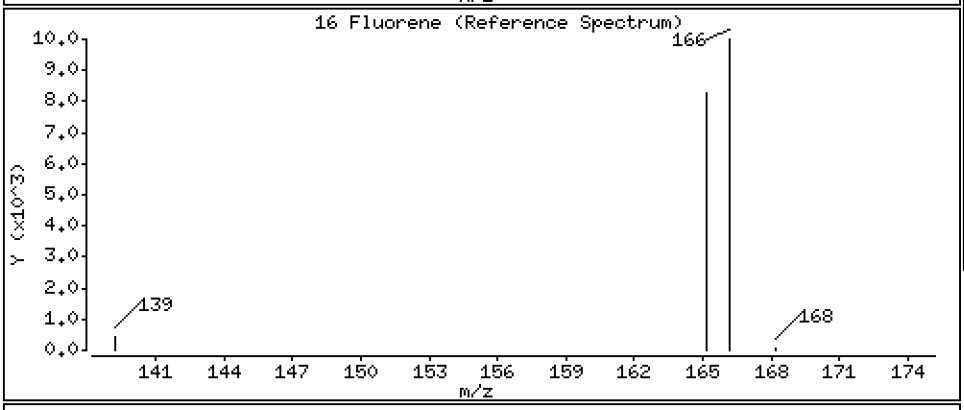
Concentration: 8.51 ng/mL

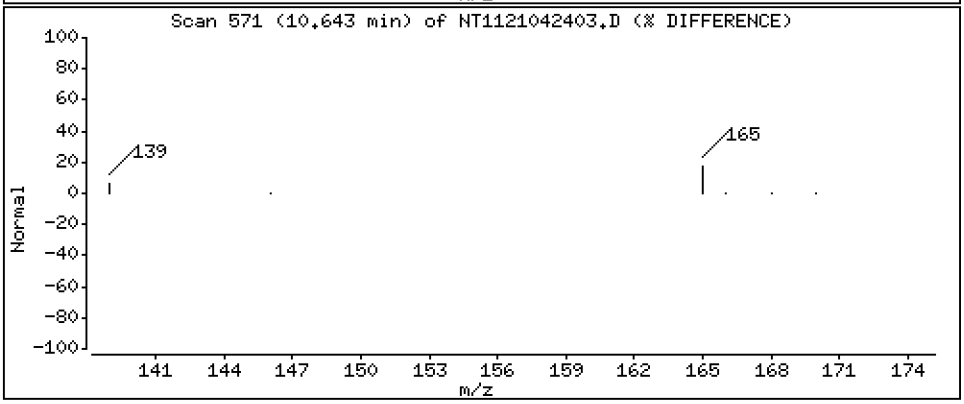


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Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

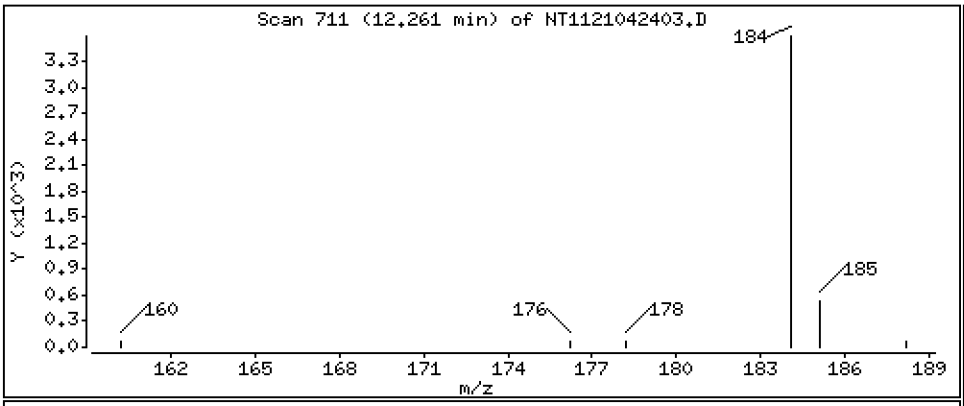
Operator: VTS

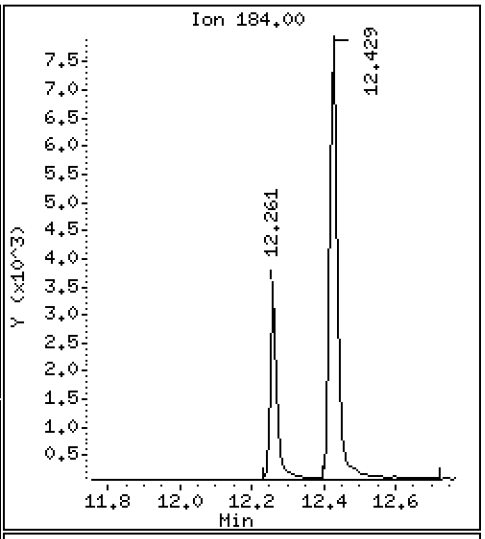
Column phase: Rxi-17Sil MS

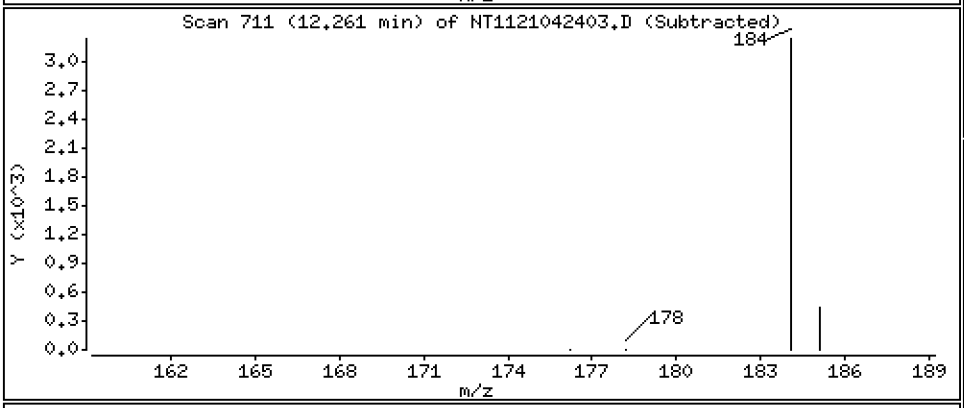
Column diameter: 0.25

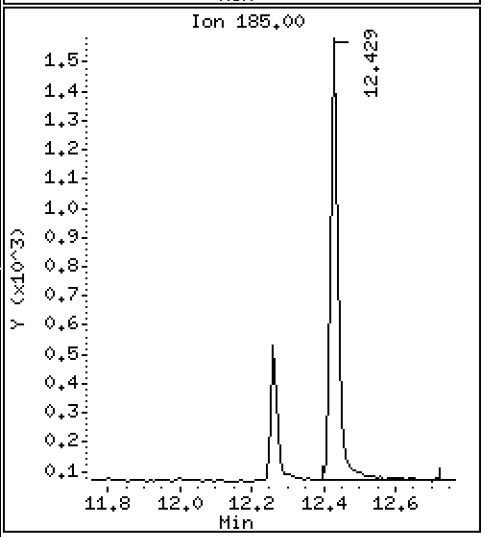
17 Dibenzothiophene

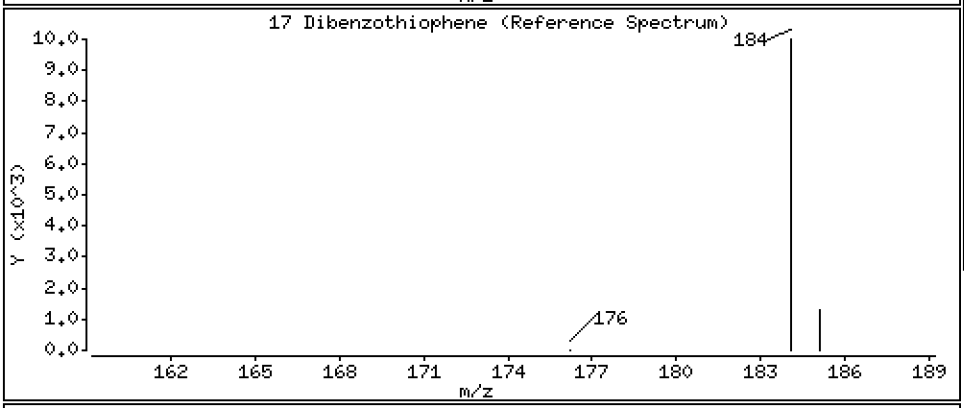
Concentration: 9.72 ng/mL

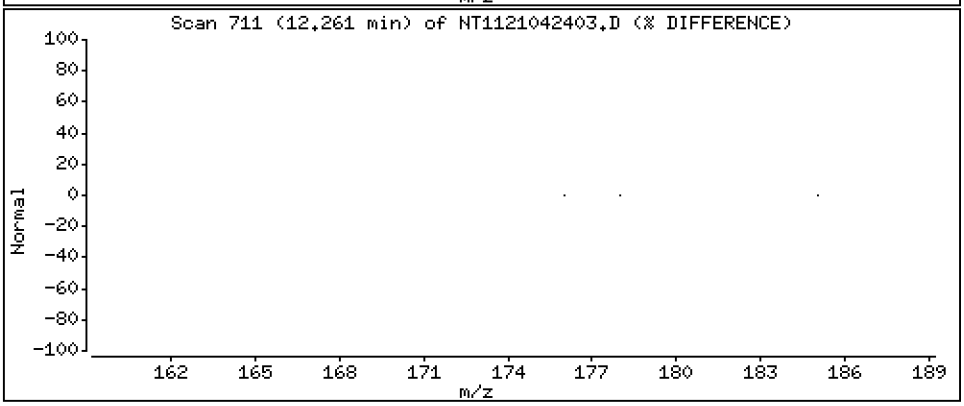


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Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

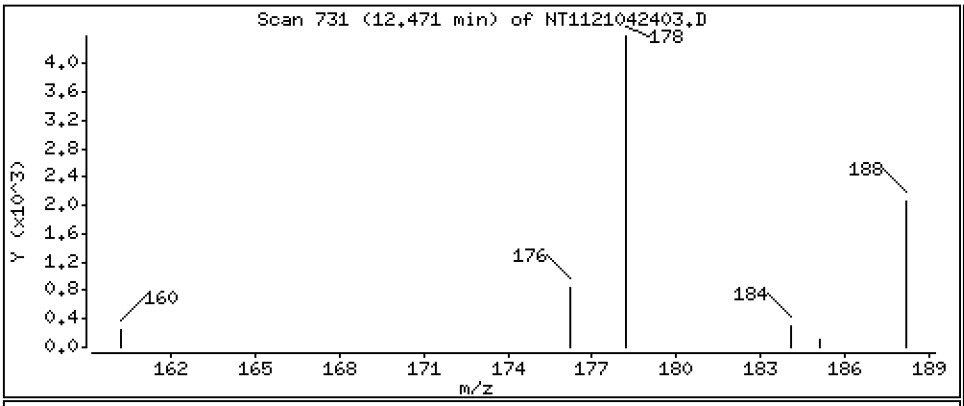
Operator: VTS

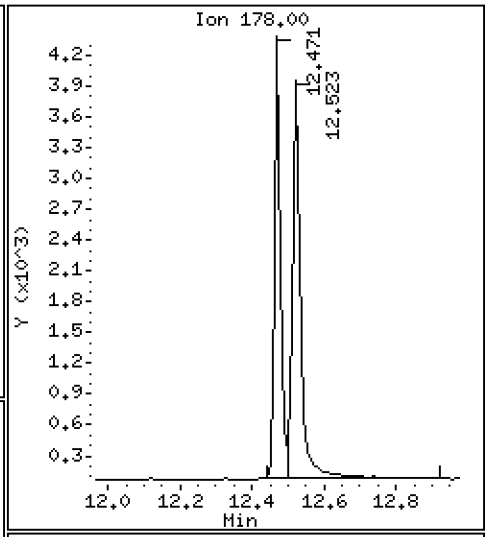
Column phase: Rxi-17Sil MS

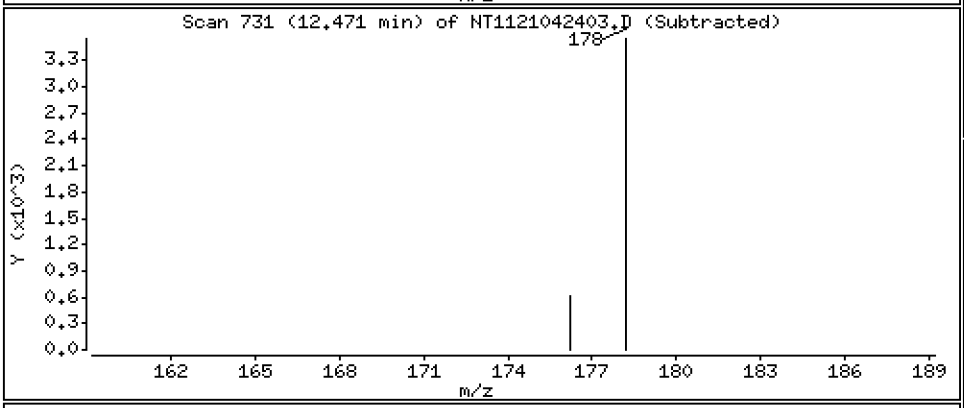
Column diameter: 0.25

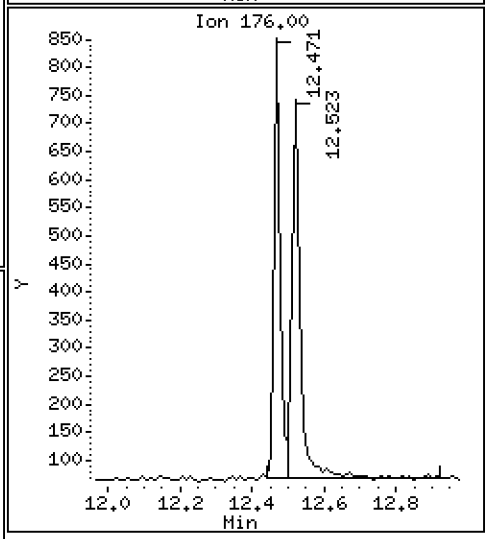
19 Phenanthrene

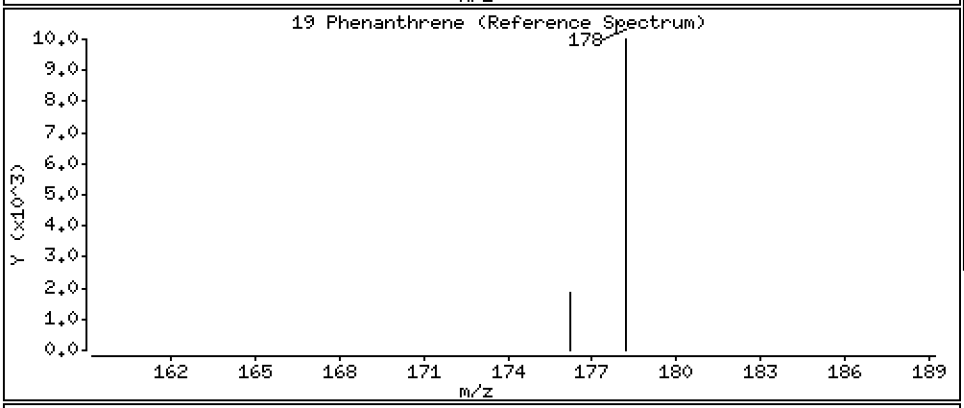
Concentration: 9.23 ng/mL

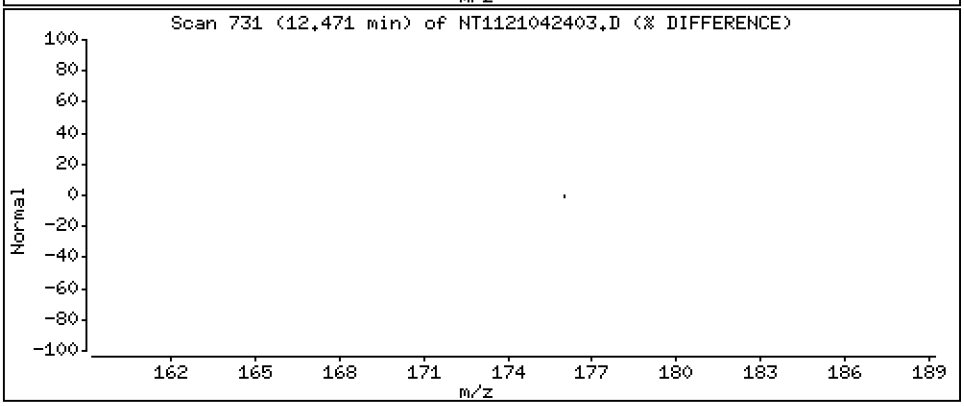


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Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

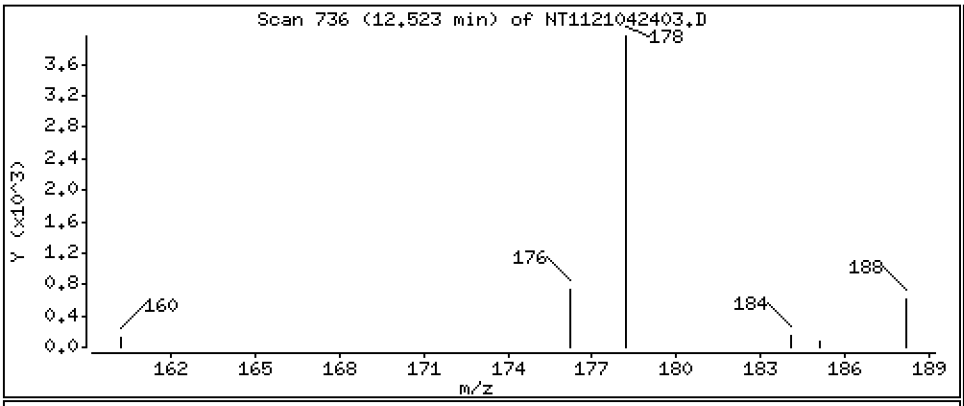
Operator: VTS

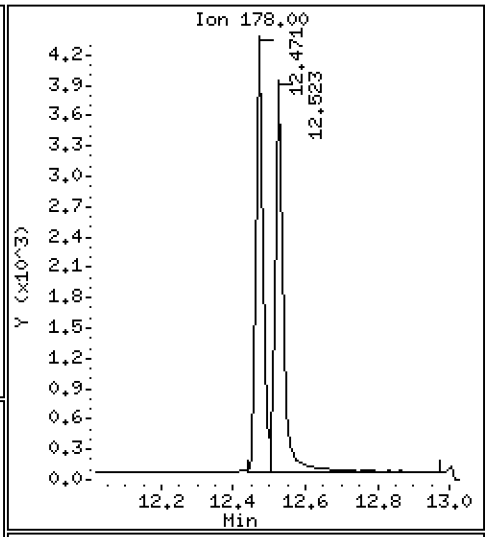
Column phase: Rxi-17Sil MS

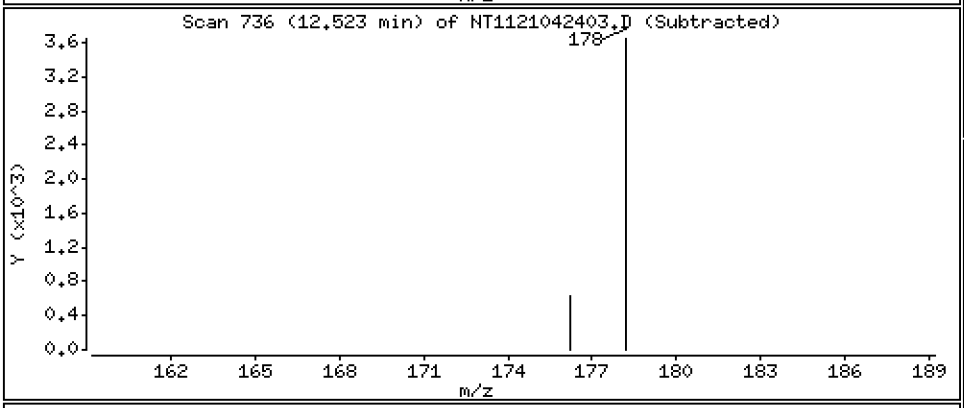
Column diameter: 0.25

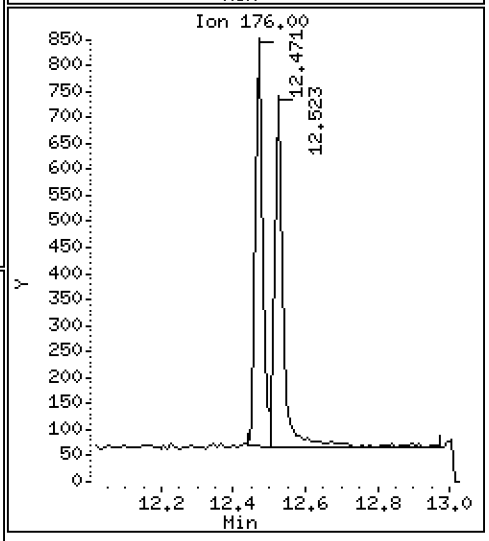
21 Anthracene

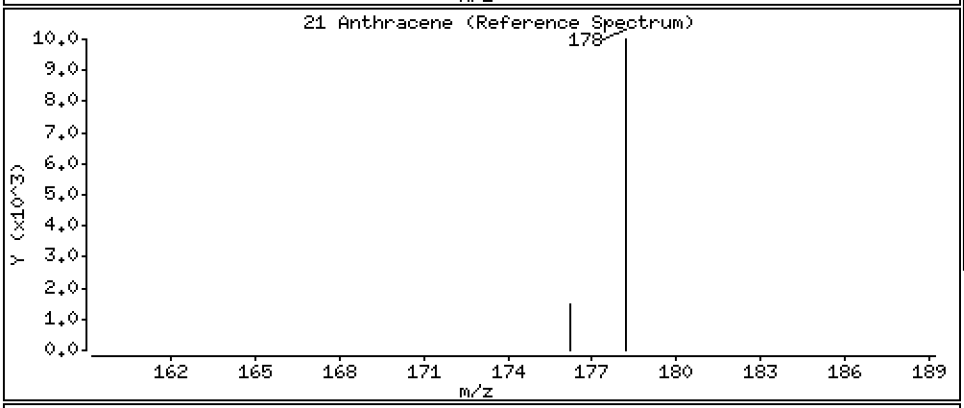
Concentration: 9.86 ng/mL

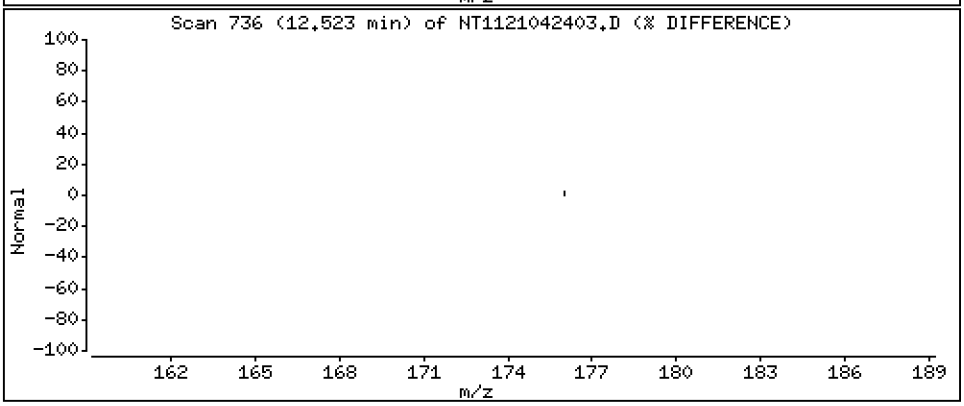


Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042403.D

Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

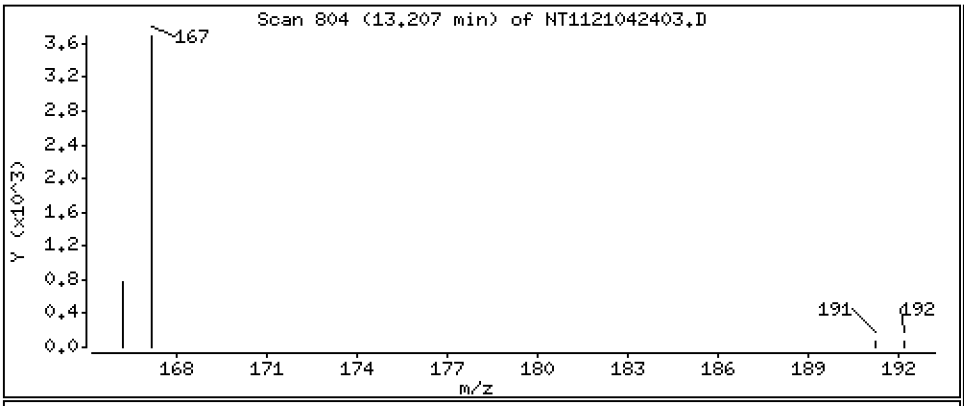
Operator: VTS

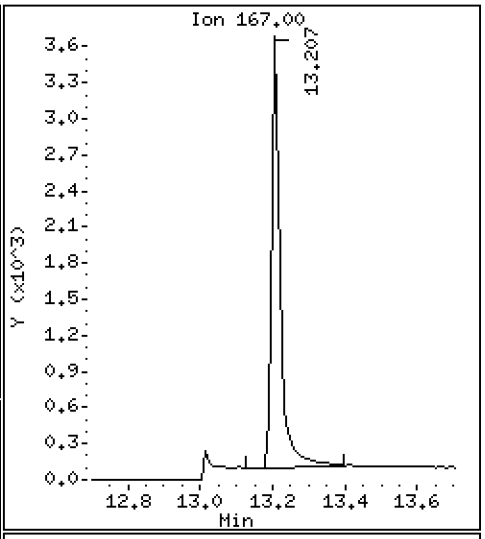
Column phase: Rxi-17Sil MS

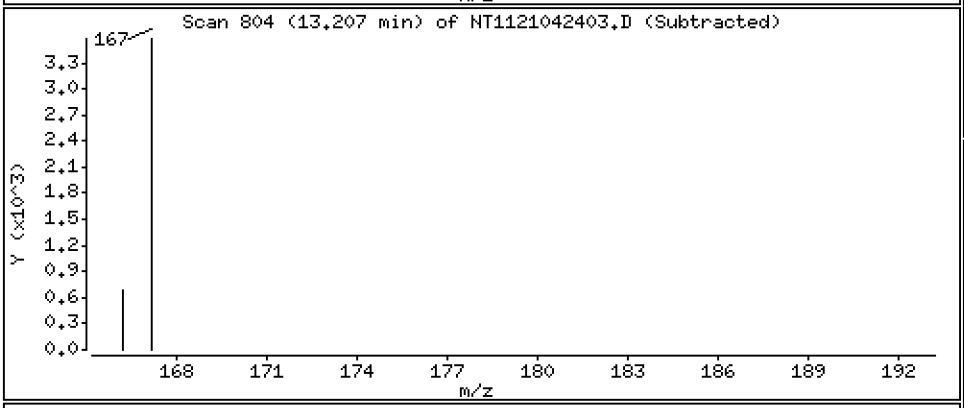
Column diameter: 0.25

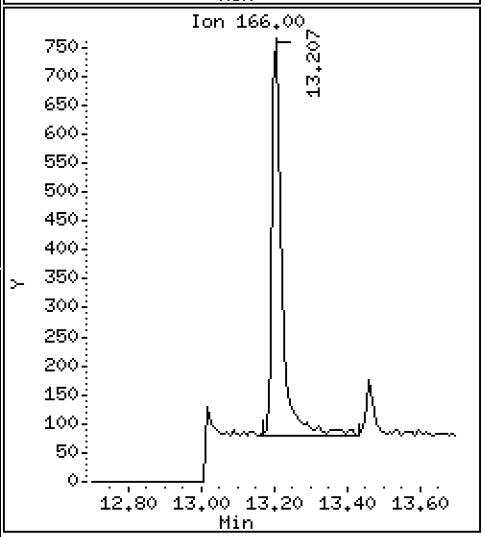
22 Carbazole

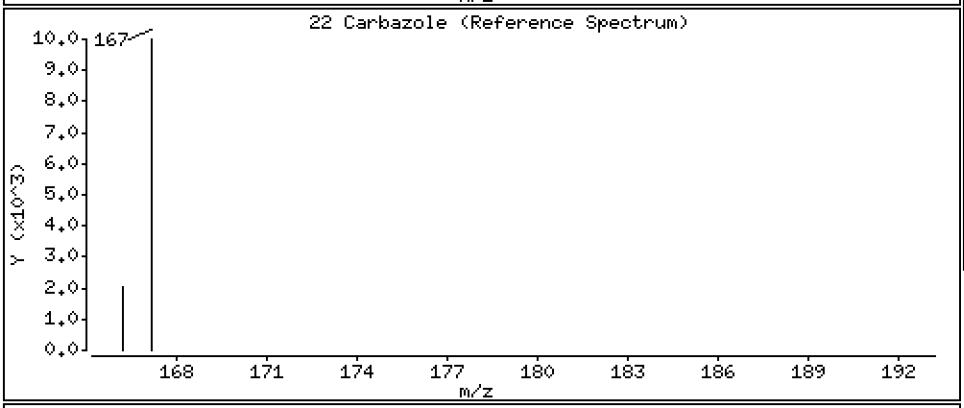
Concentration: 9.25 ng/mL

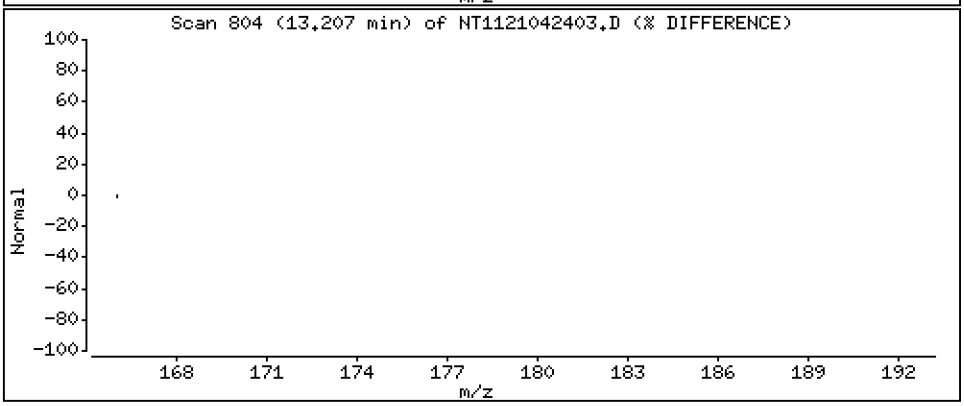


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Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

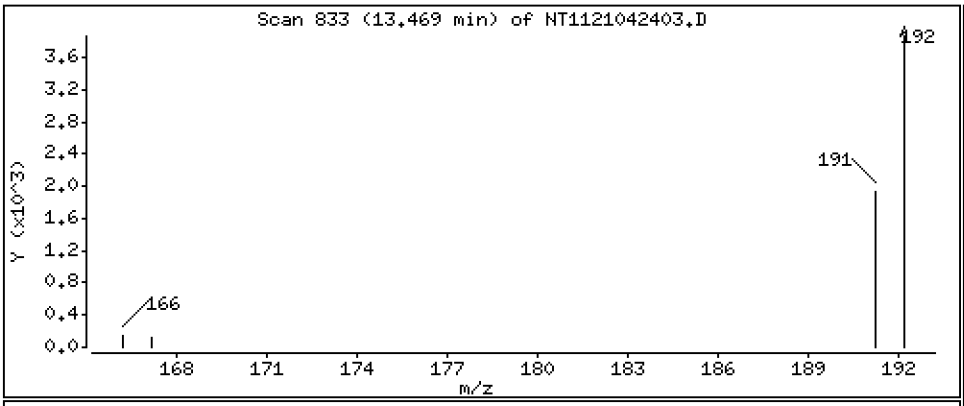
Operator: VTS

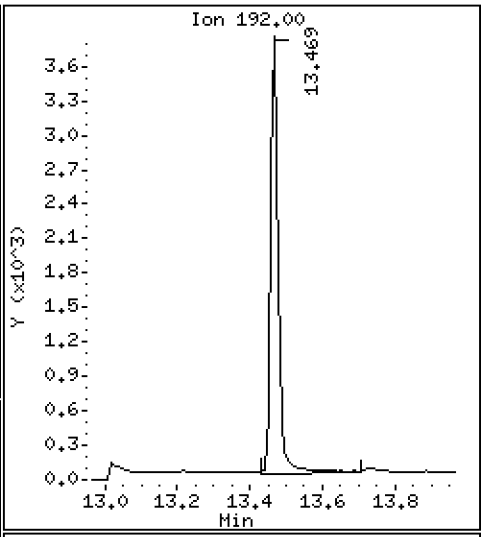
Column phase: Rxi-17Sil MS

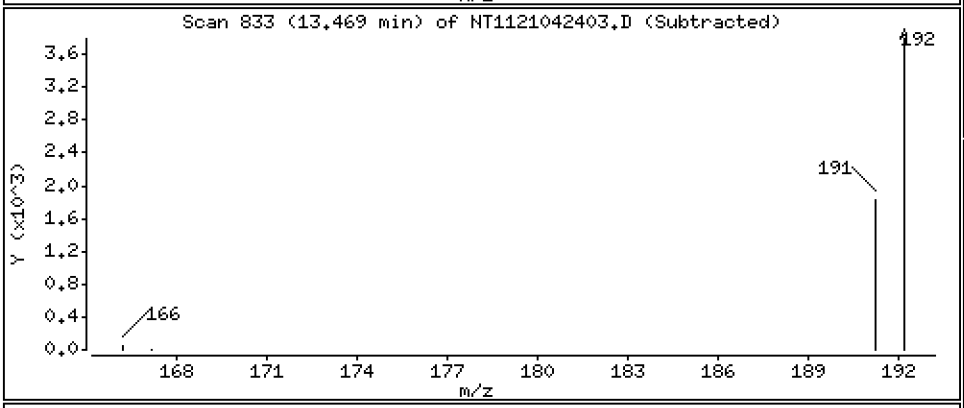
Column diameter: 0.25

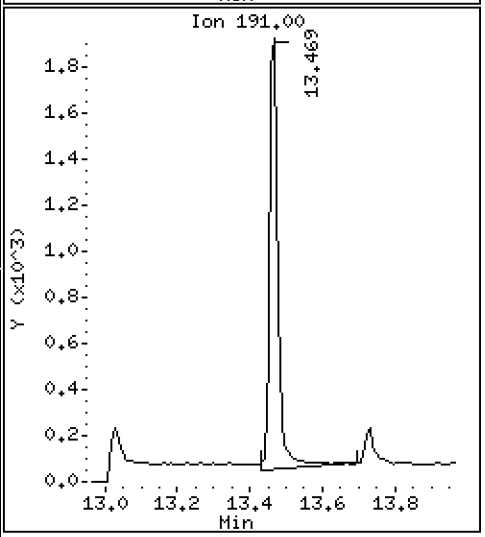
23 1-Methylphenanthrene

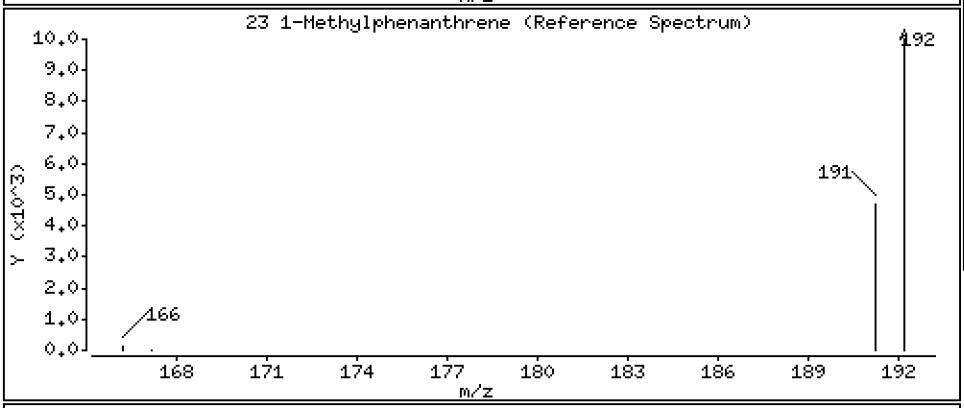
Concentration: 9.95 ng/mL

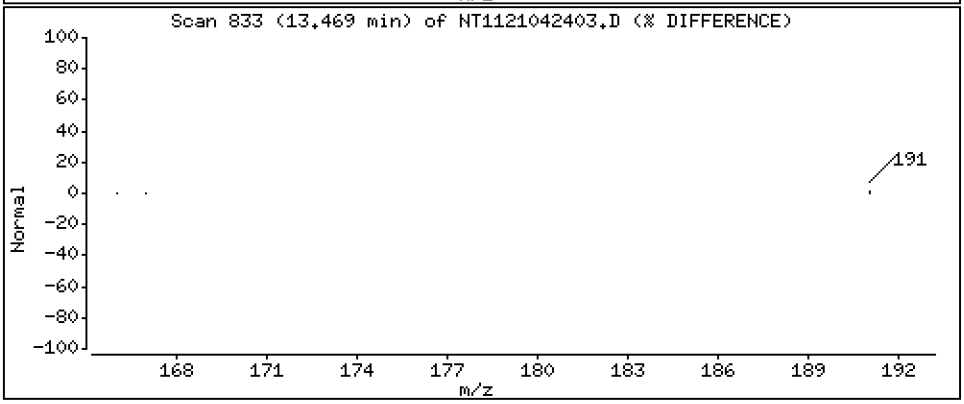


Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042403.D

Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

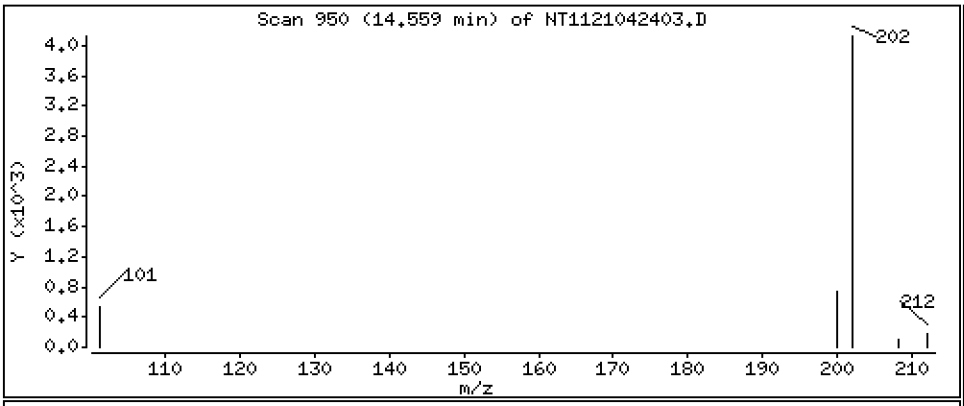
Operator: VTS

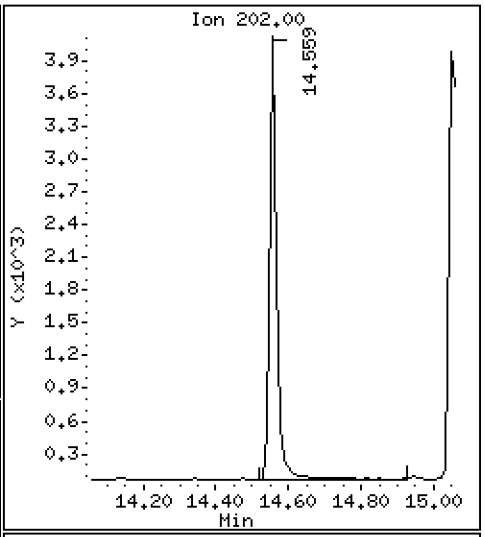
Column phase: Rxi-17Sil MS

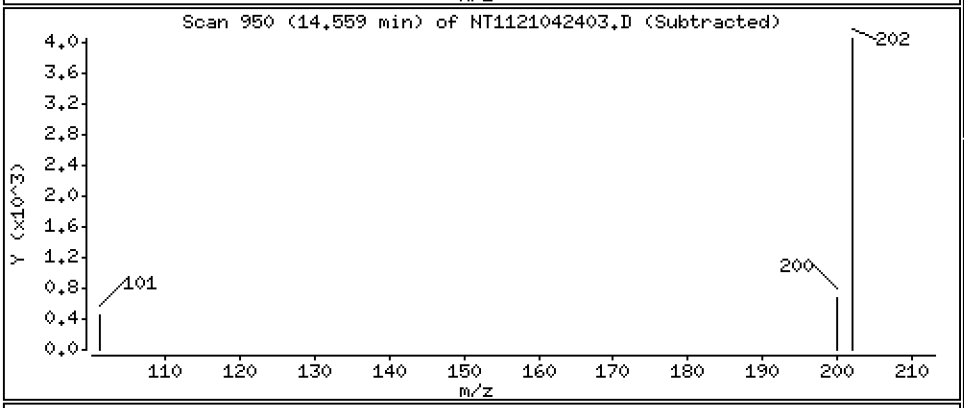
Column diameter: 0.25

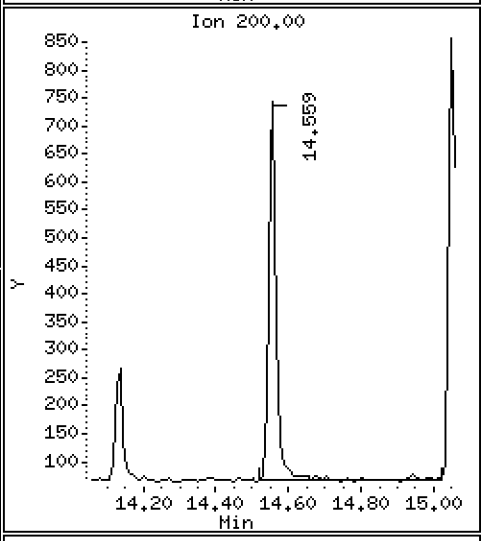
25 Fluoranthene

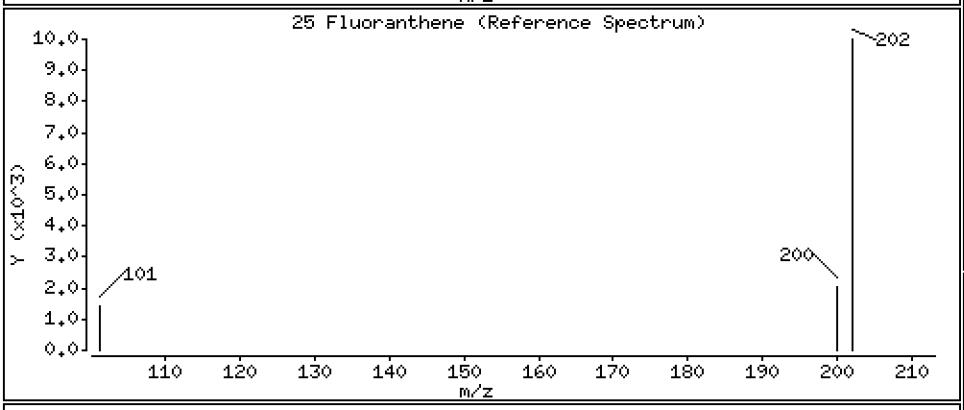
Concentration: 9.47 ng/mL

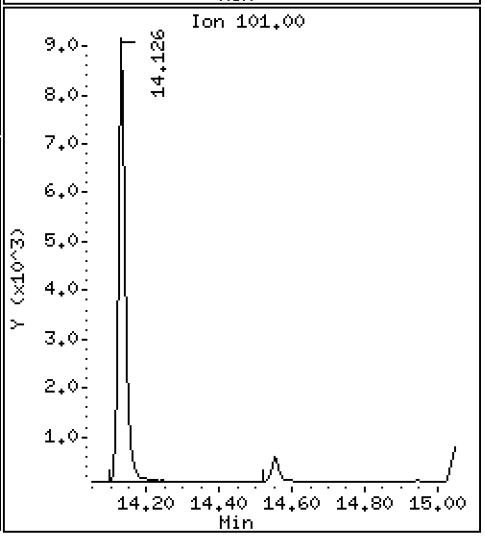


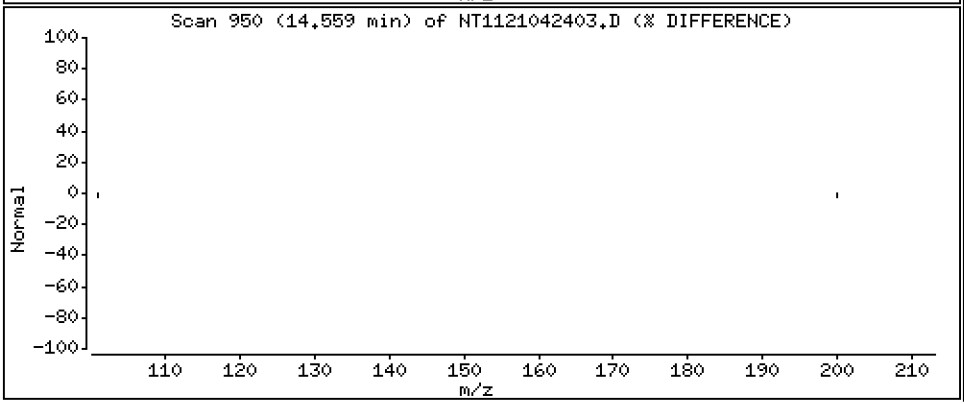



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Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

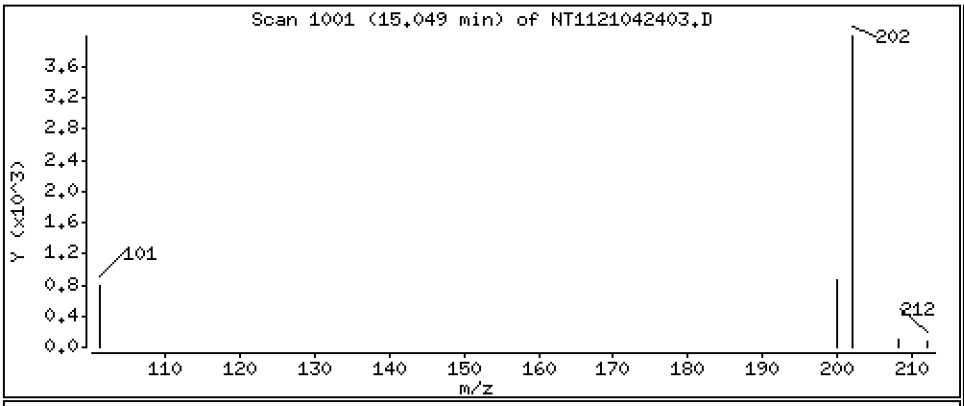
Operator: VTS

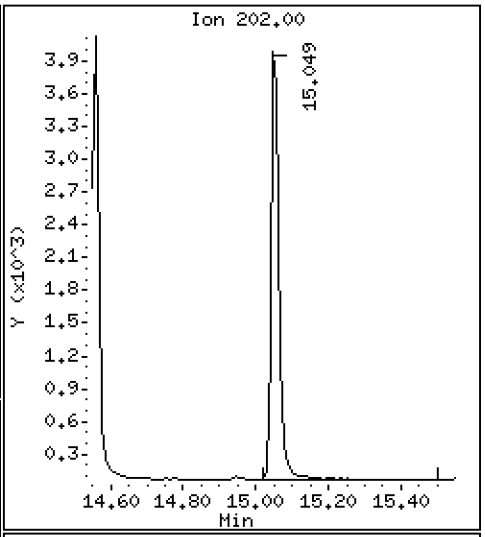
Column phase: Rxi-17Sil MS

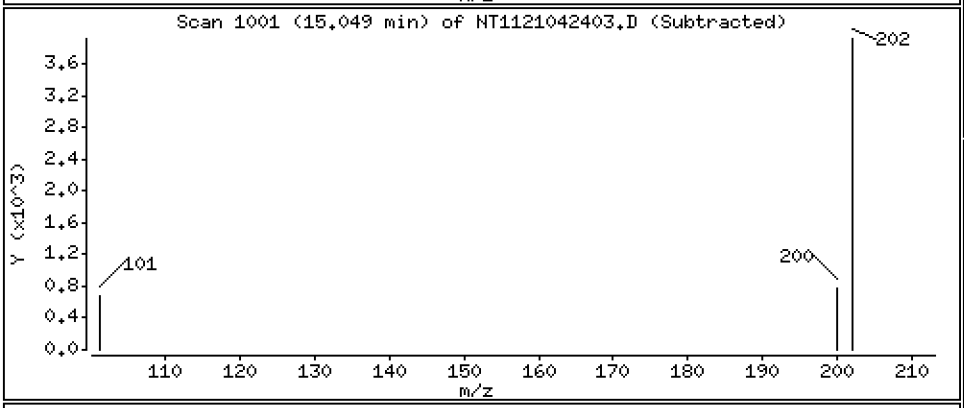
Column diameter: 0.25

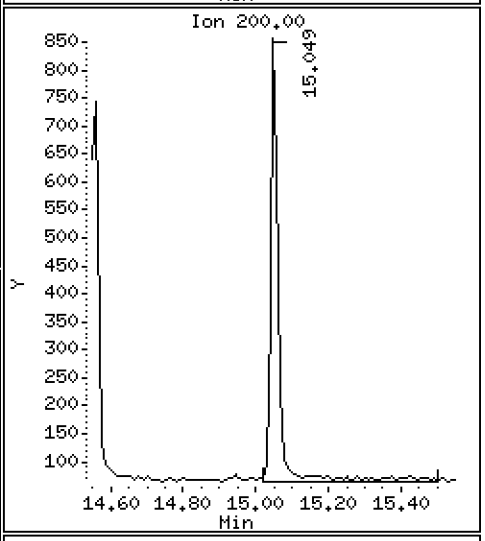
26 Pyrene

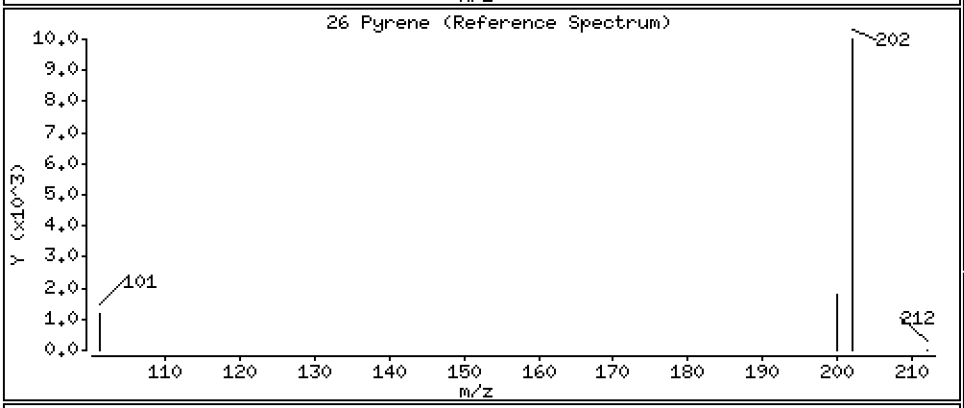
Concentration: 9.68 ng/mL

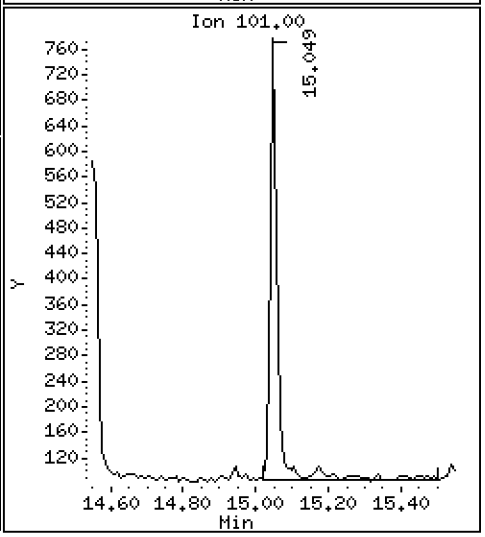


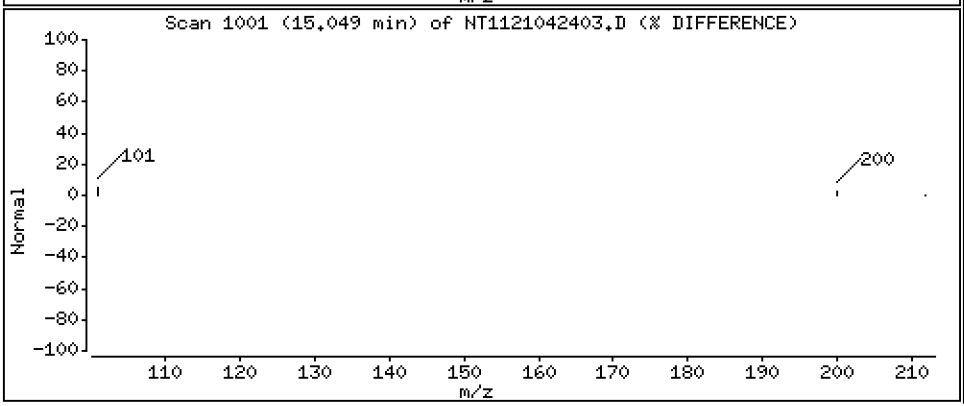



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Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

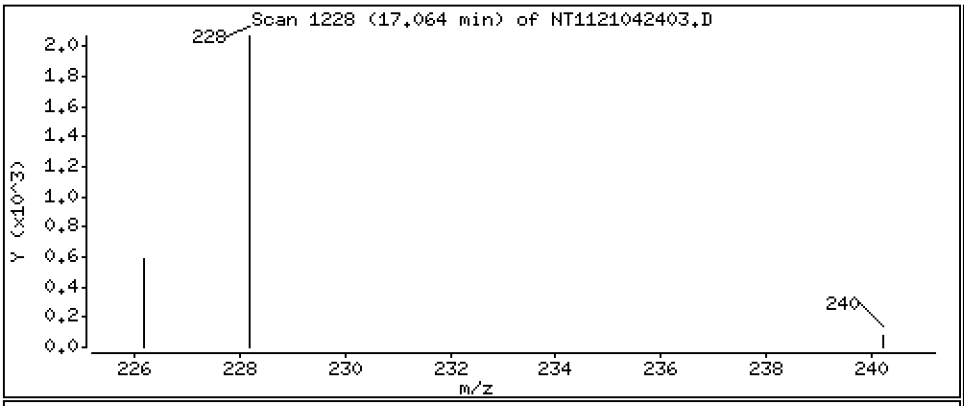
Operator: VTS

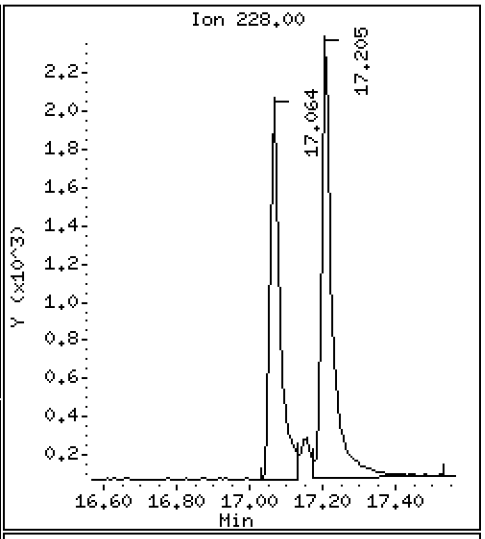
Column phase: Rxi-17Sil MS

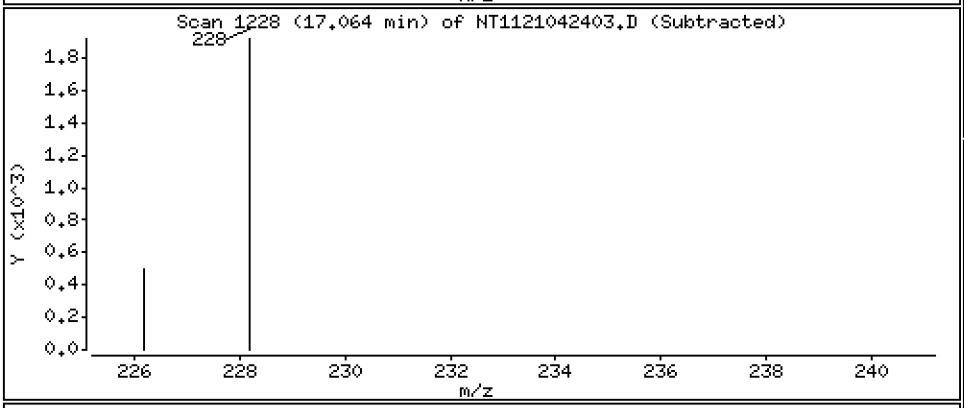
Column diameter: 0.25

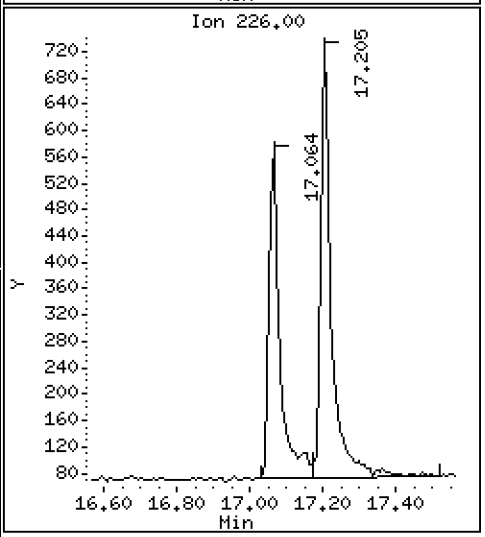
27 Benzo(a)anthracene

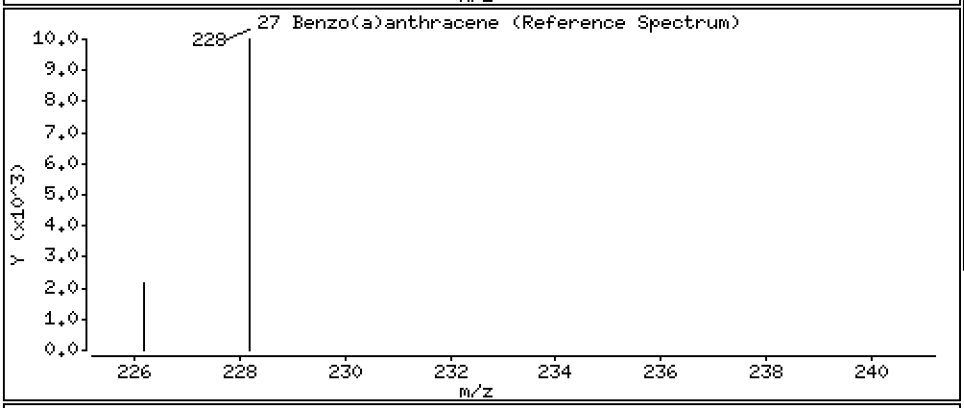
Concentration: 8.26 ng/mL

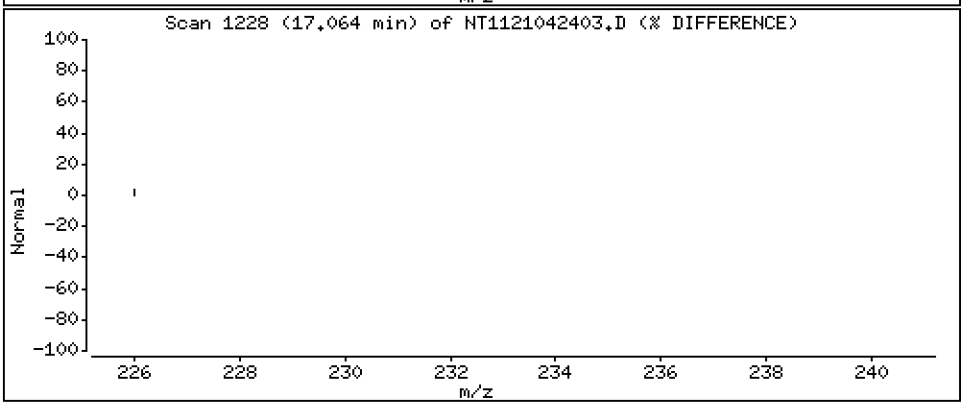


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Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

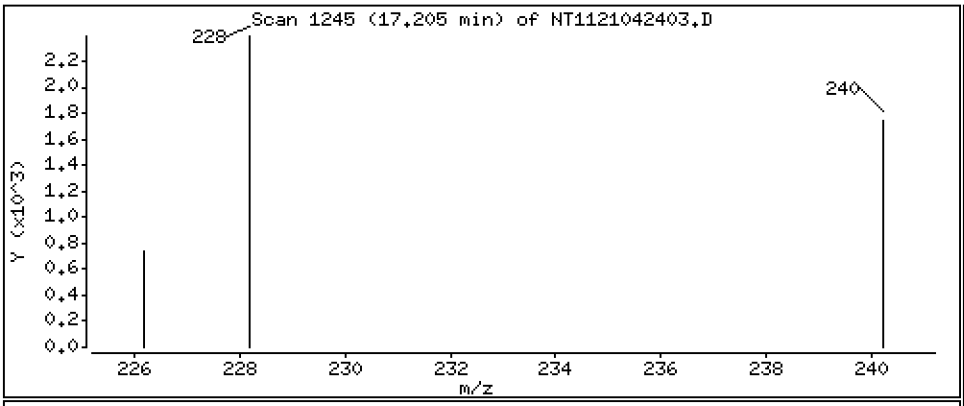
Operator: VTS

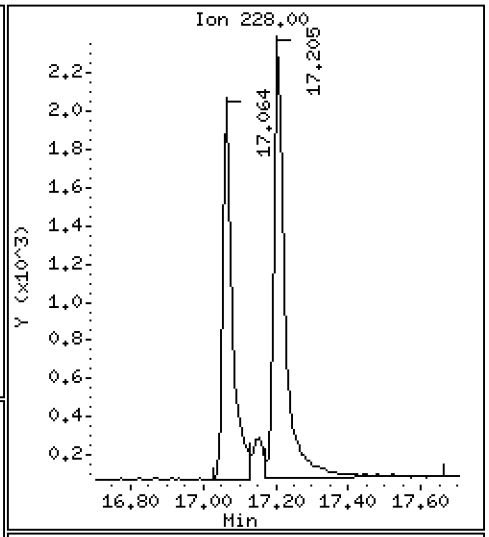
Column phase: Rxi-17Sil MS

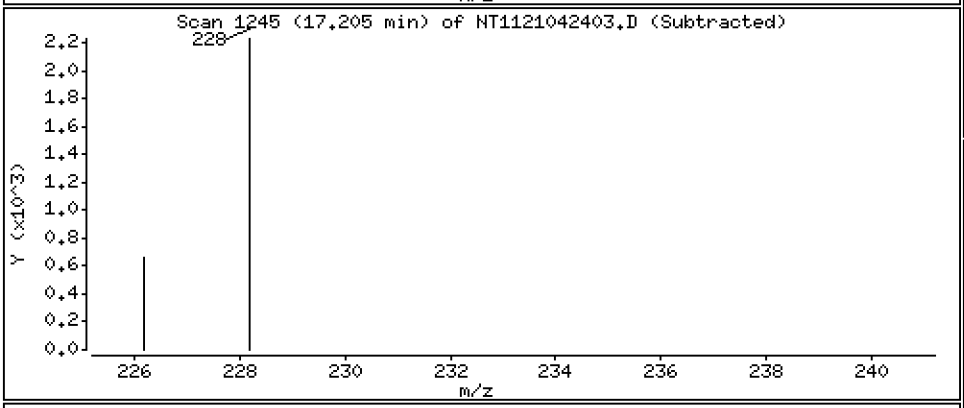
Column diameter: 0.25

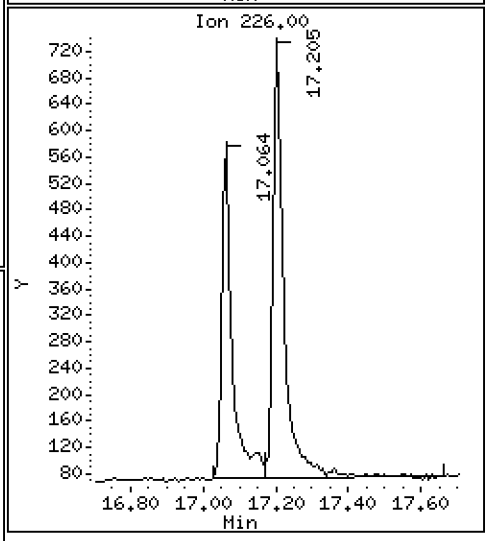
29 Chrysene

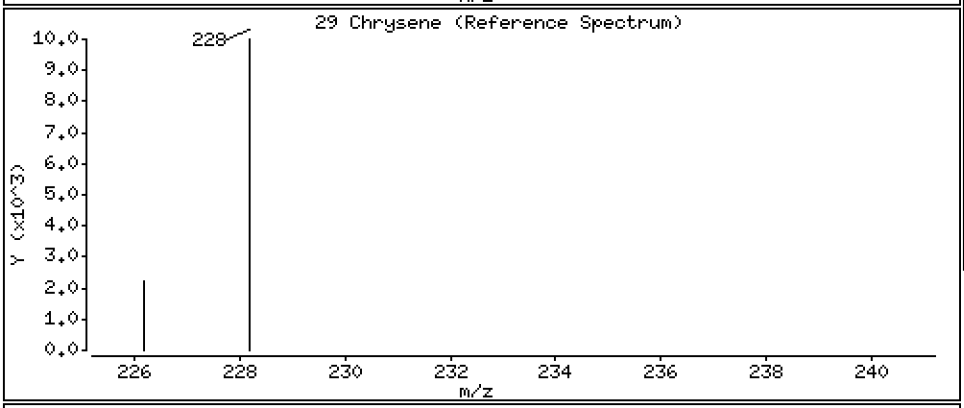
Concentration: 9.67 ng/mL

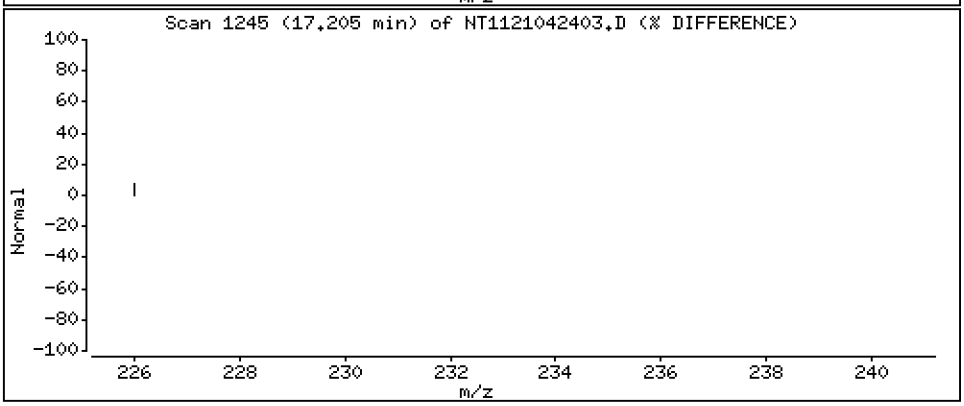


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Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

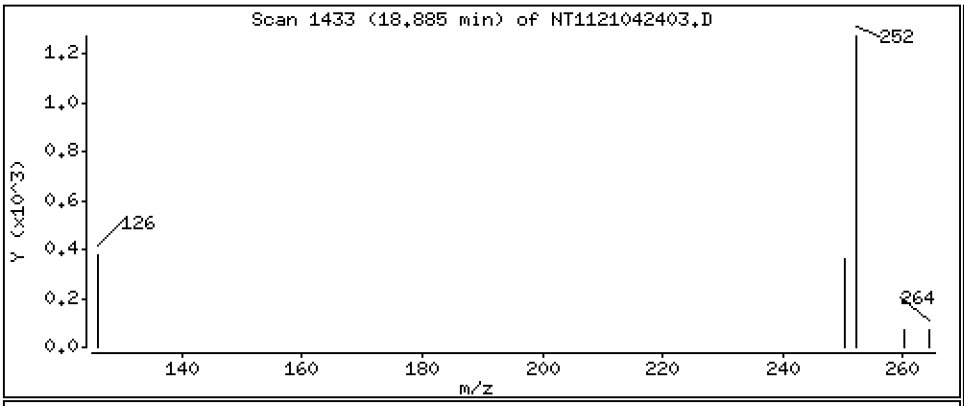
Operator: VTS

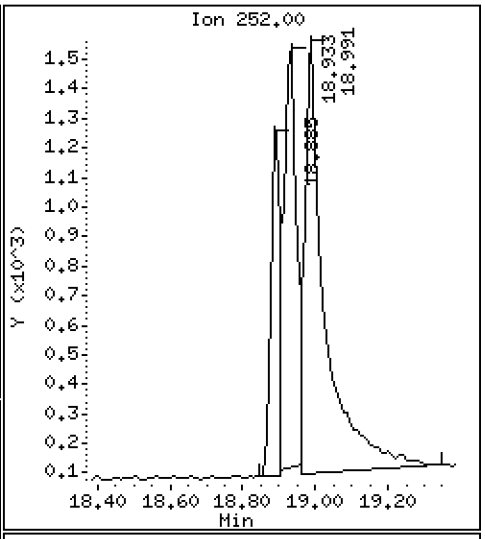
Column phase: Rxi-17Sil MS

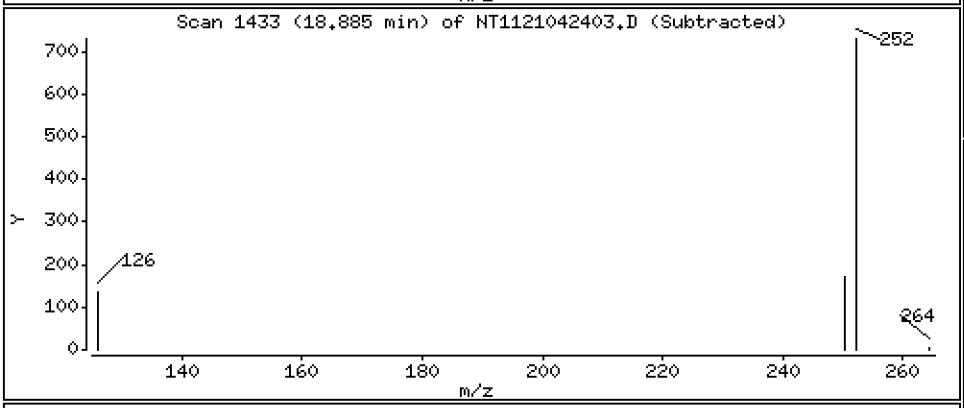
Column diameter: 0.25

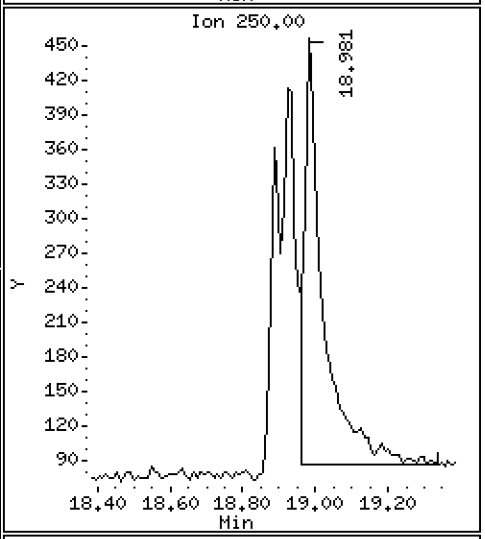
30 Benzo(b)fluoranthene

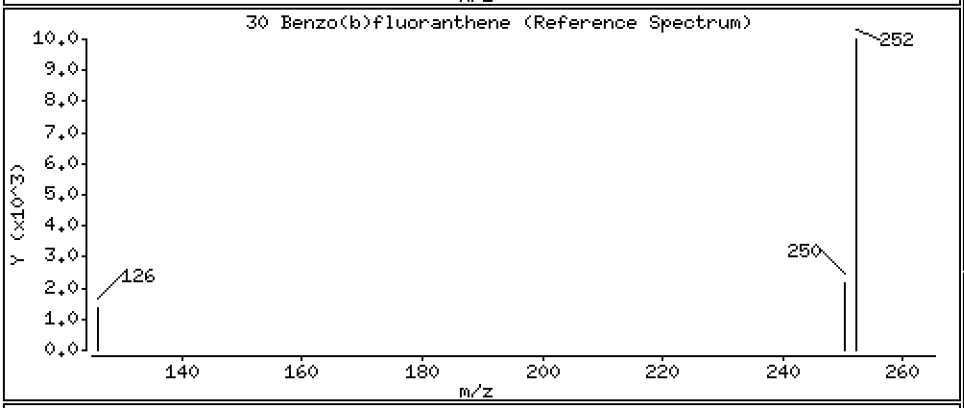
Concentration: 5.93 ng/mL

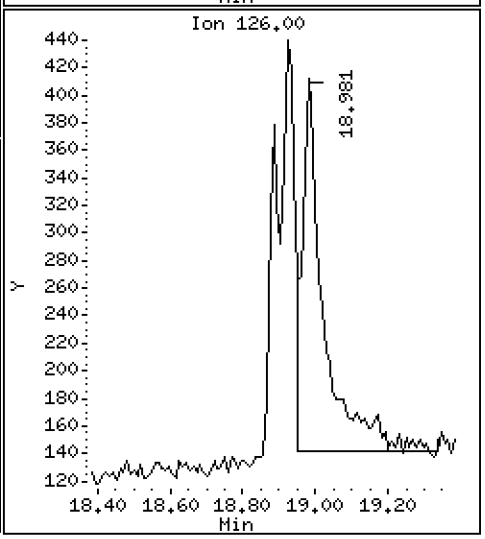


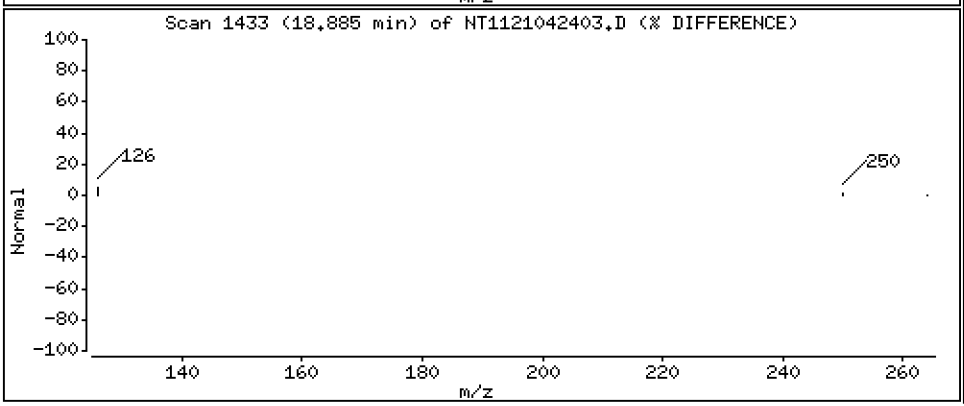



Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042403.D

Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

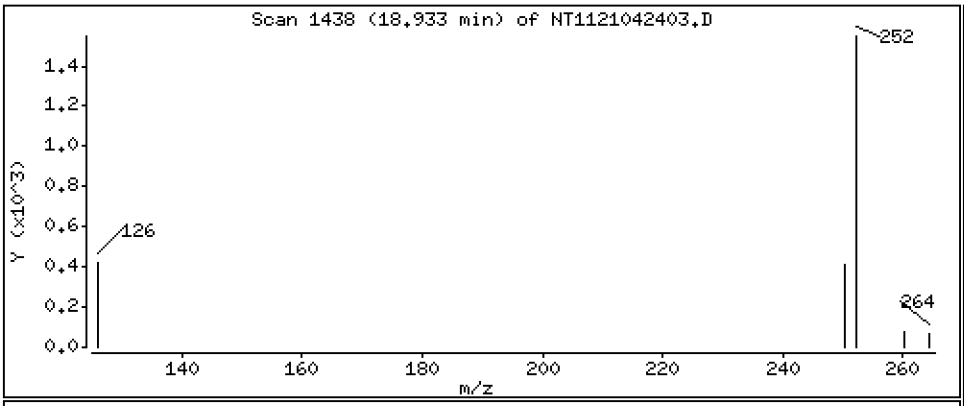
Operator: VTS

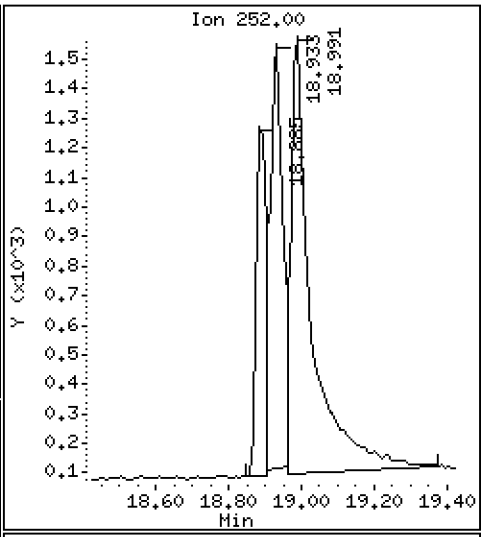
Column phase: Rxi-17Sil MS

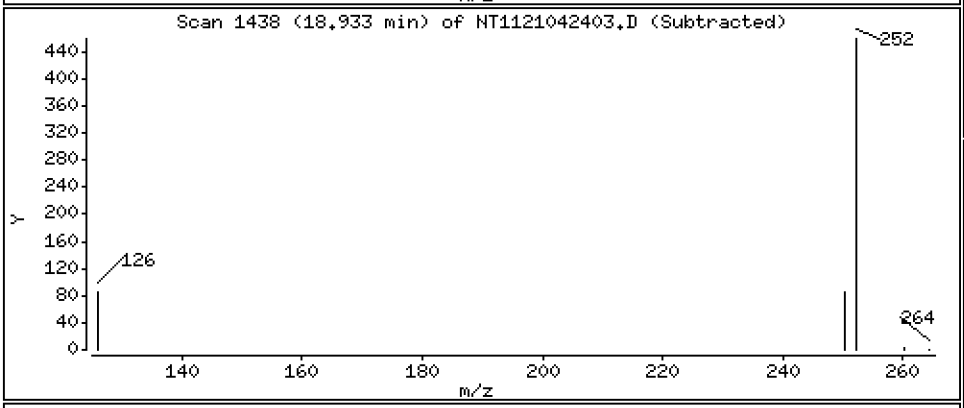
Column diameter: 0.25

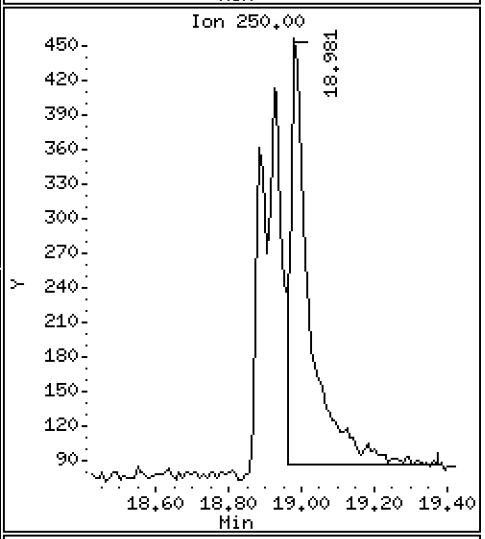
31 Benzo(k)fluoranthene

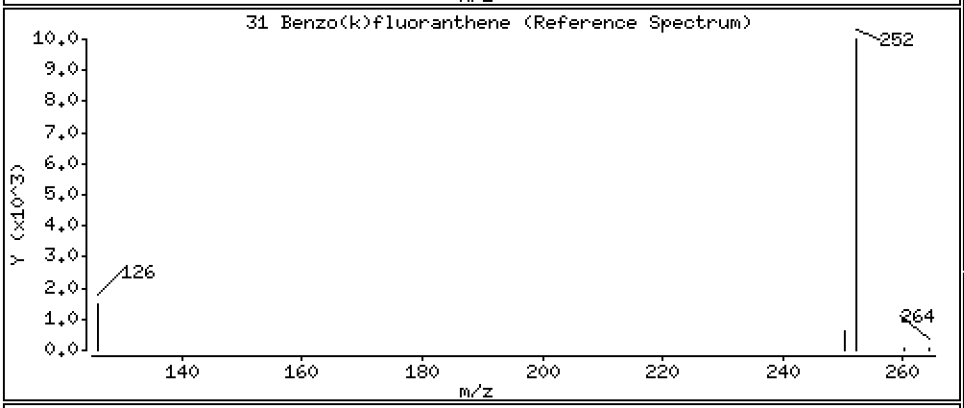
Concentration: 7.98 ng/mL

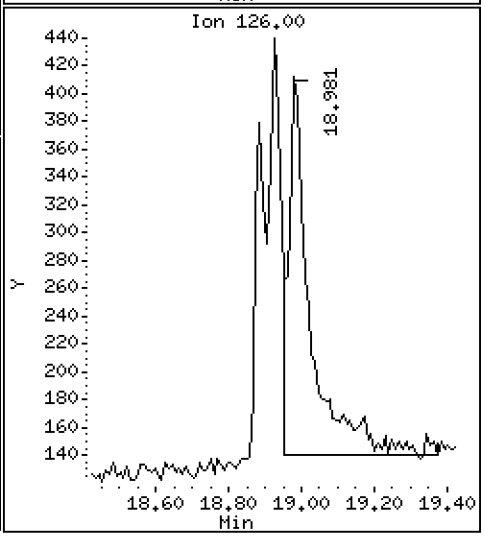


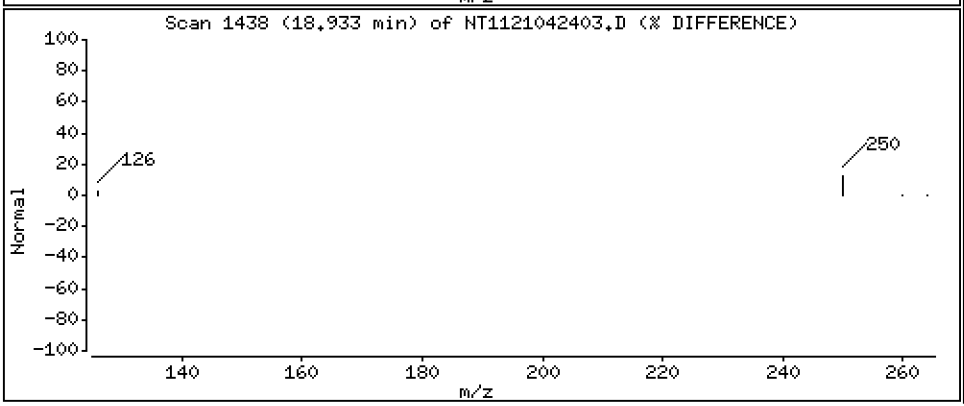



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Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

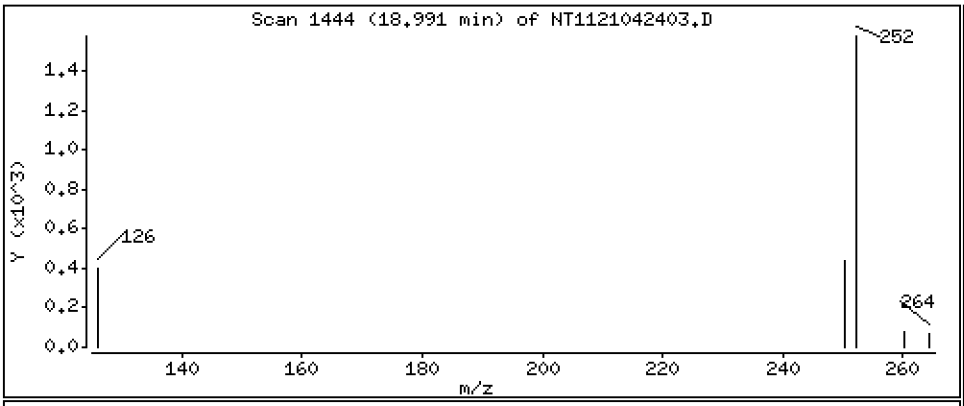
Operator: VTS

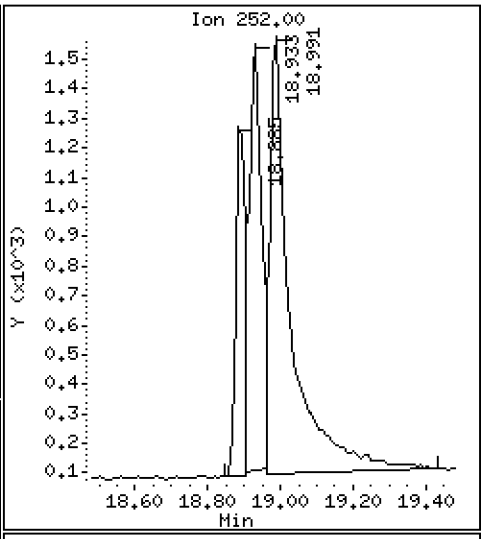
Column phase: Rxi-17Sil MS

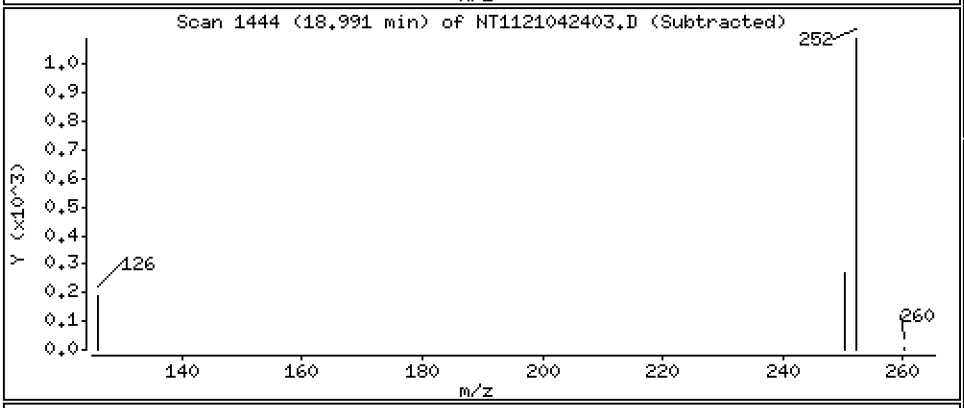
Column diameter: 0.25

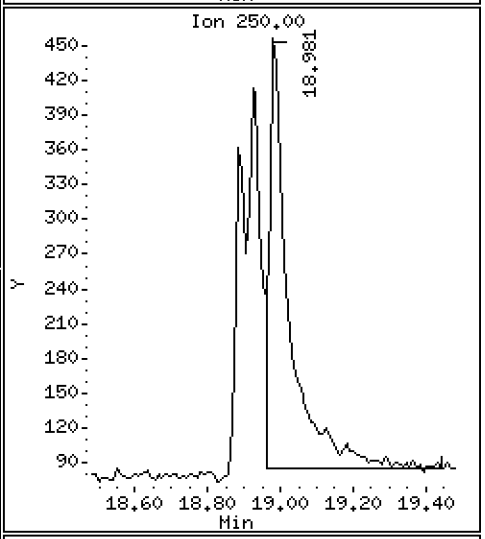
32 Benzo(j)fluoranthene

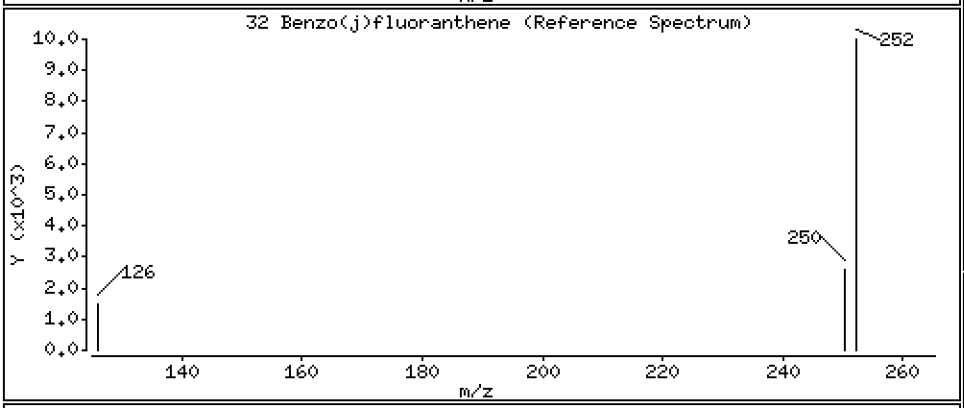
Concentration: 11.5 ng/mL

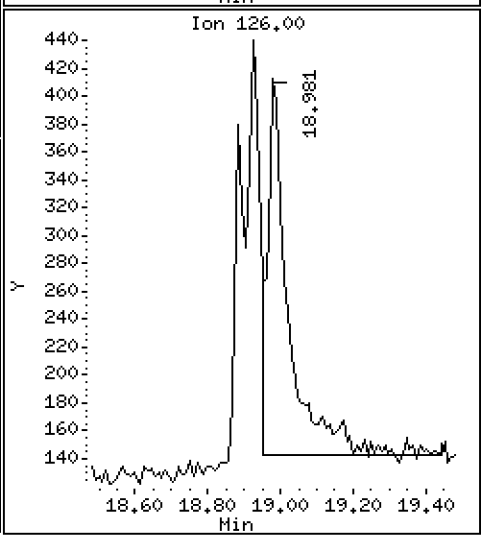


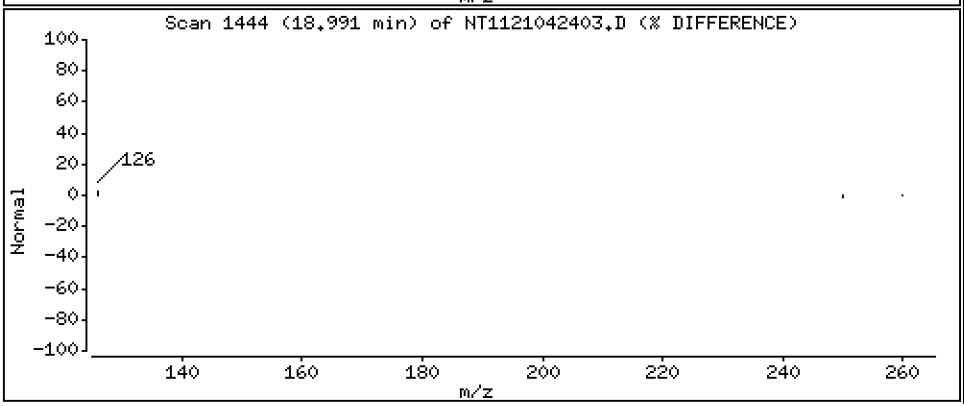



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Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

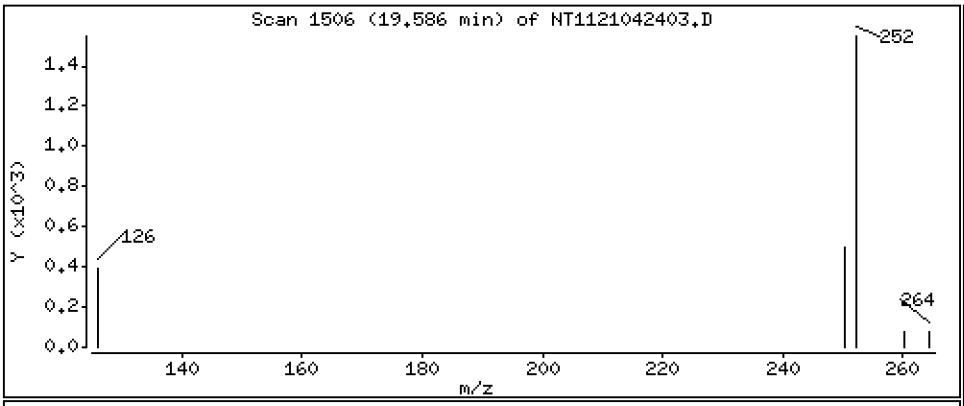
Operator: VTS

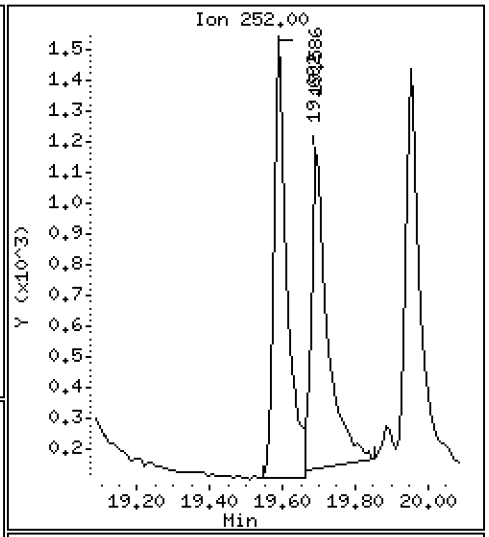
Column phase: Rxi-17Sil MS

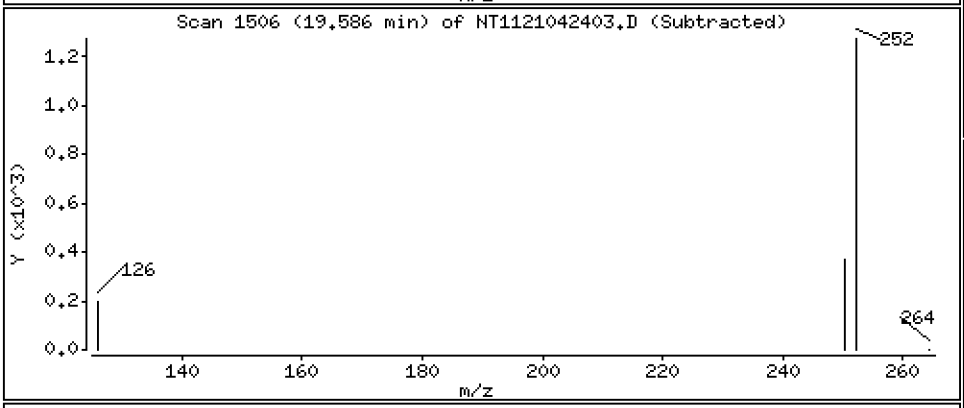
Column diameter: 0.25

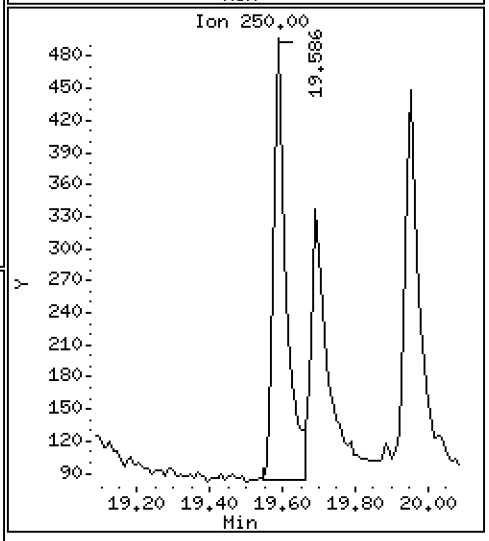
34 Benzo(e)pyrene

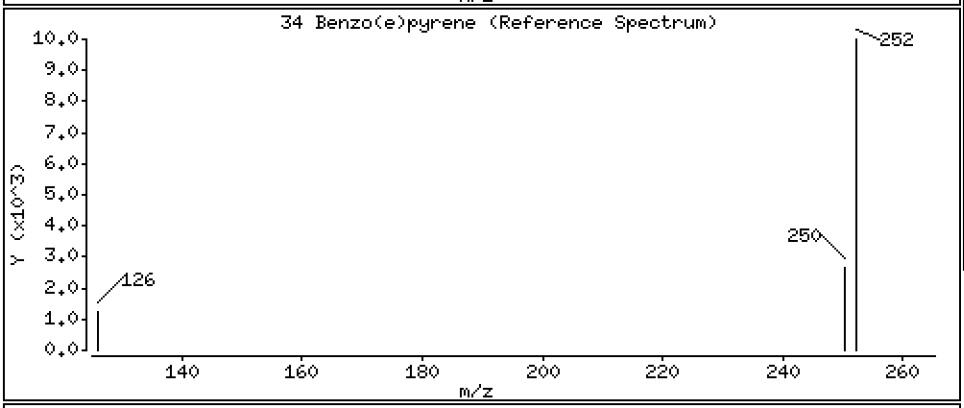
Concentration: 8.68 ng/mL

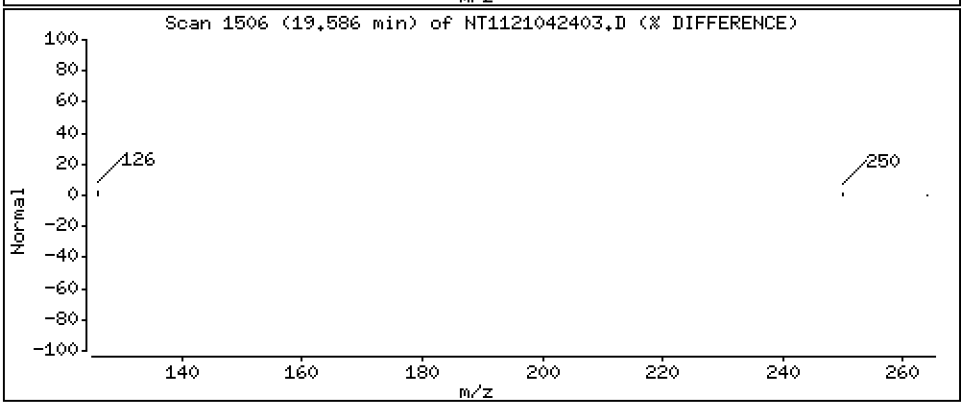


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Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

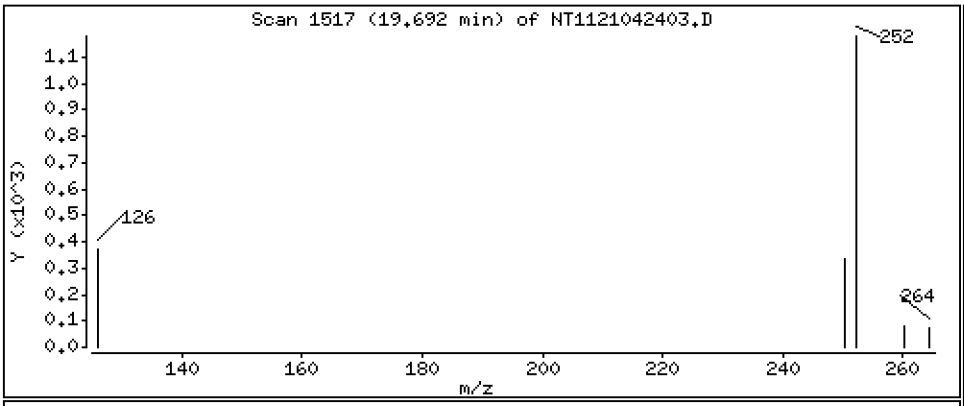
Operator: VTS

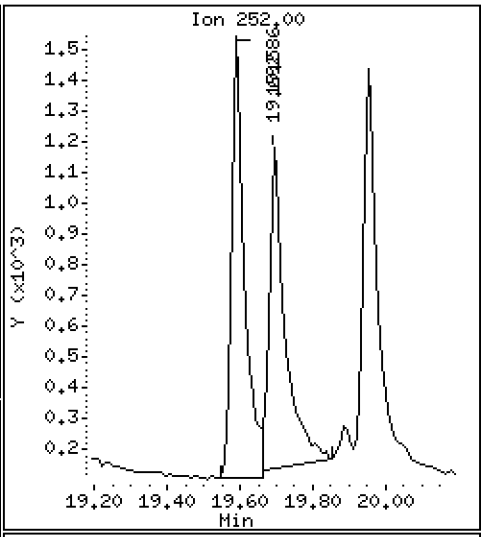
Column phase: Rxi-17Sil MS

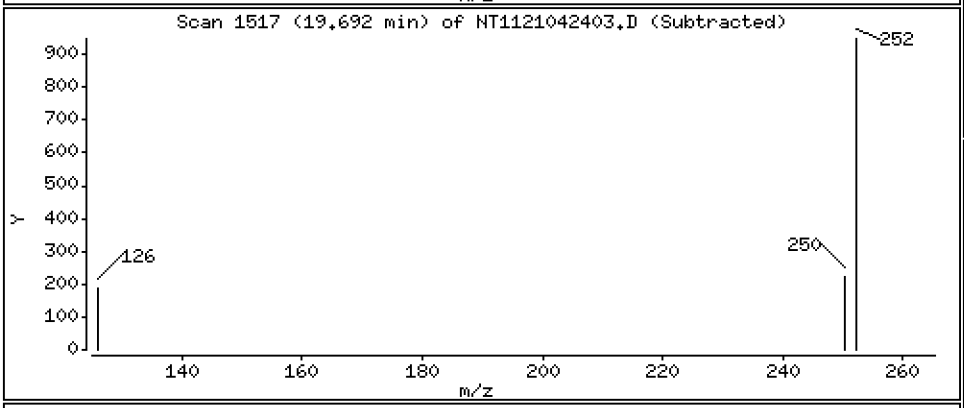
Column diameter: 0.25

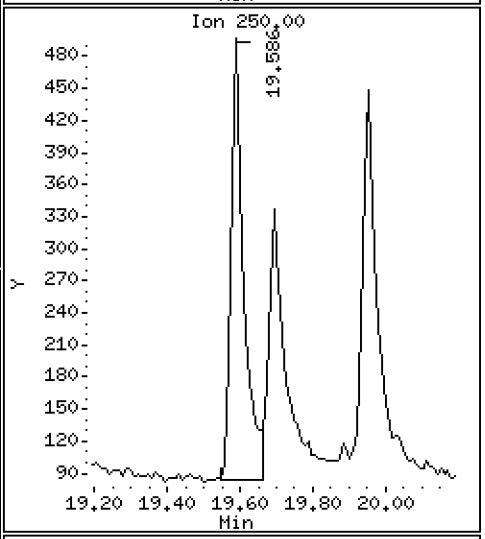
35 Benzo(a)pyrene

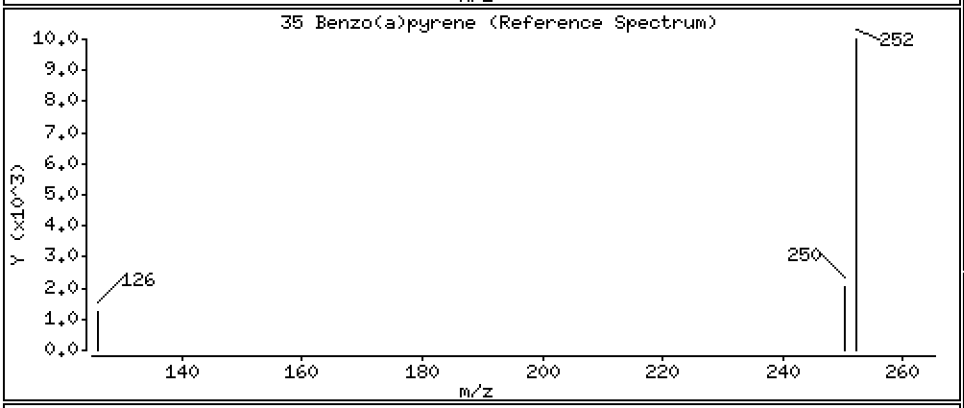
Concentration: 8.35 ng/mL

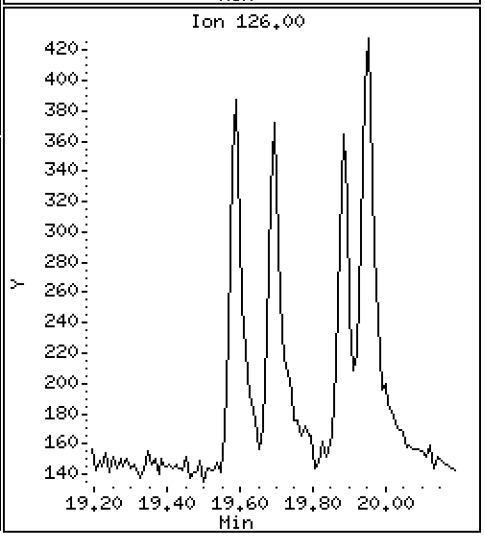


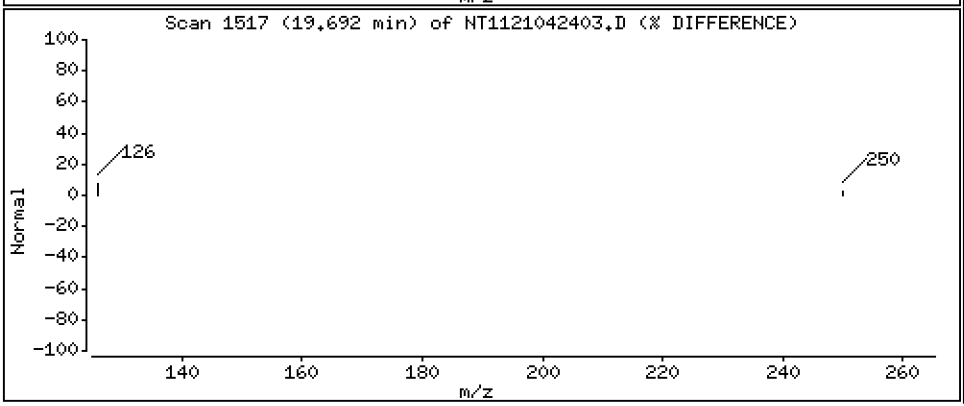



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Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

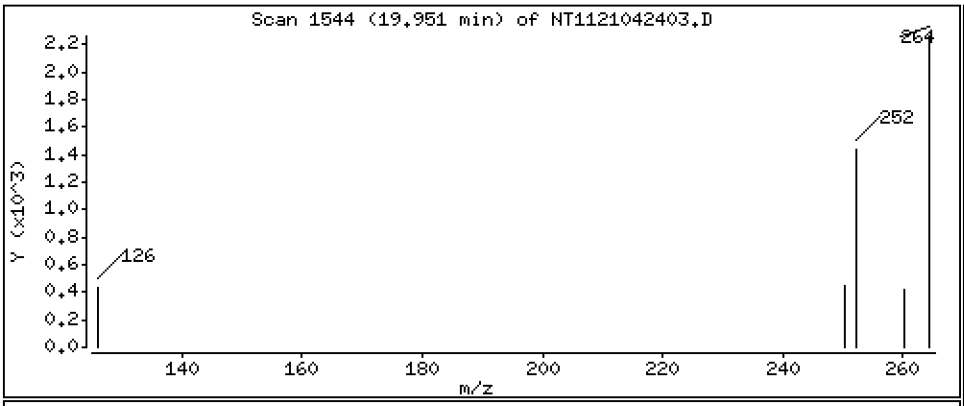
Operator: VTS

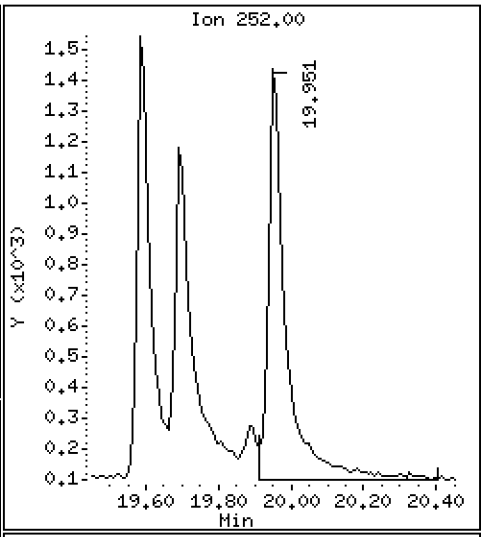
Column phase: Rxi-17Sil MS

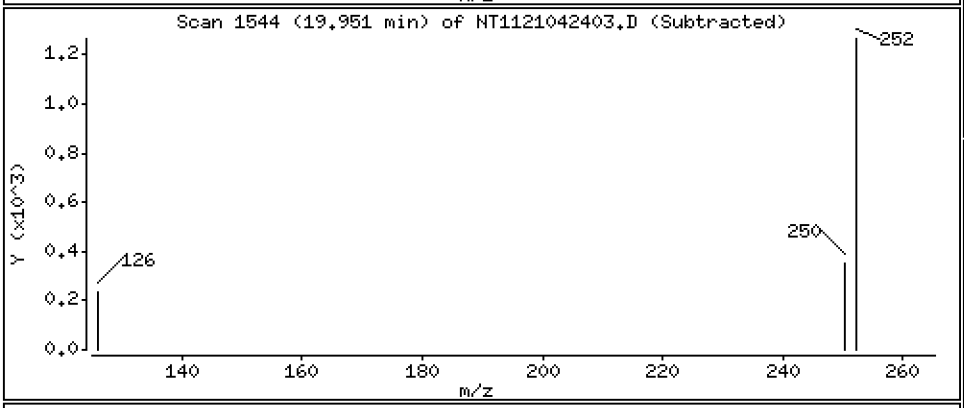
Column diameter: 0.25

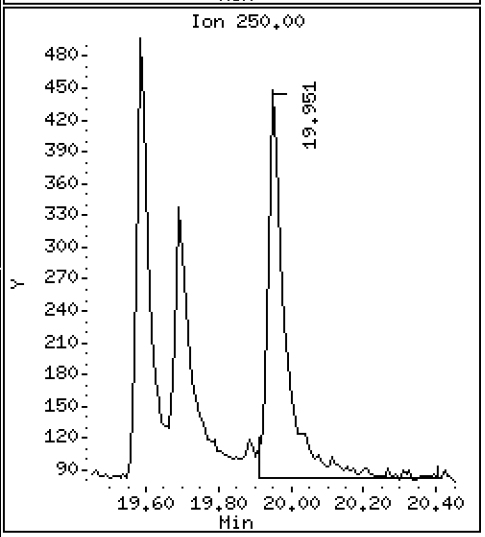
37 Perylene

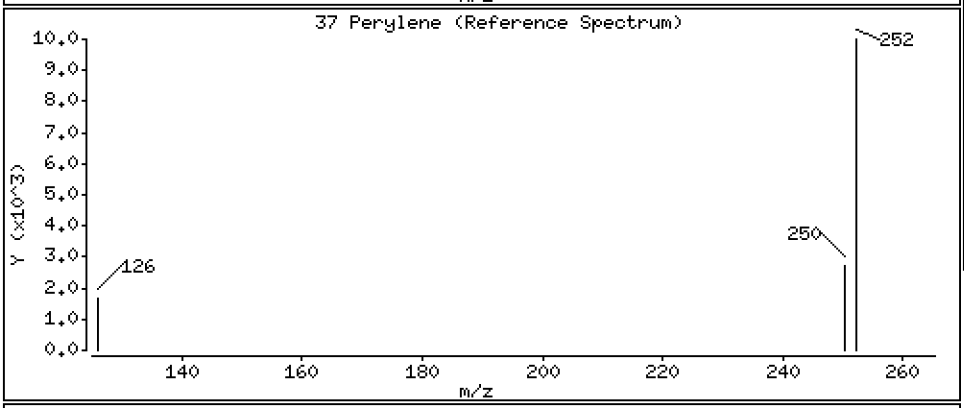
Concentration: 10.2 ng/mL

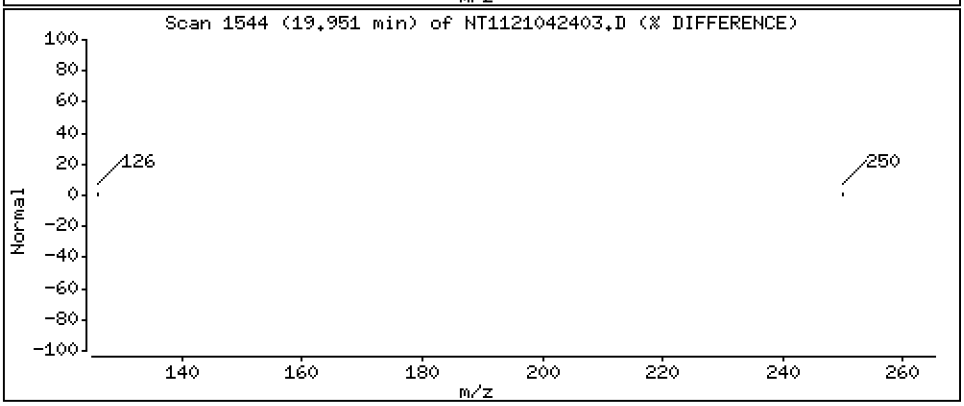


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Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

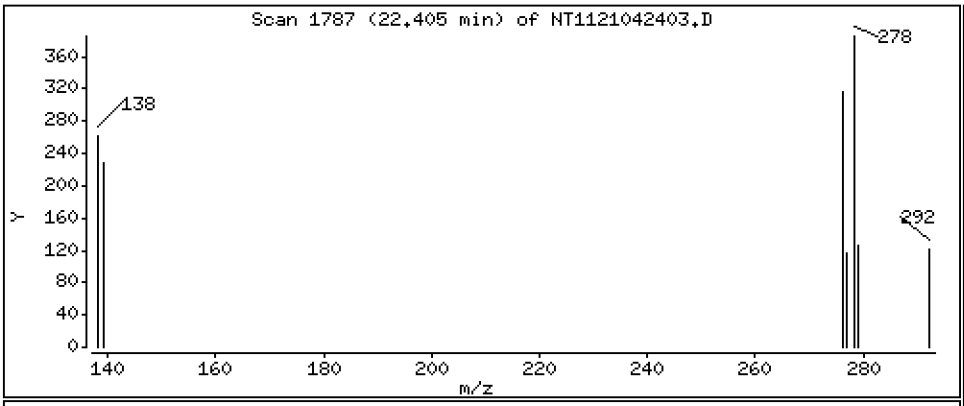
Operator: VTS

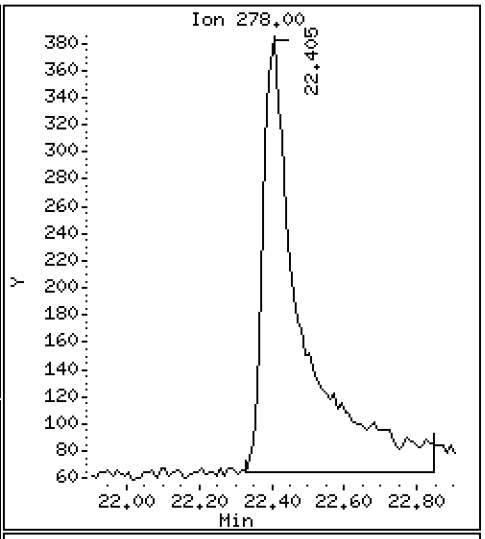
Column phase: Rxi-17Sil MS

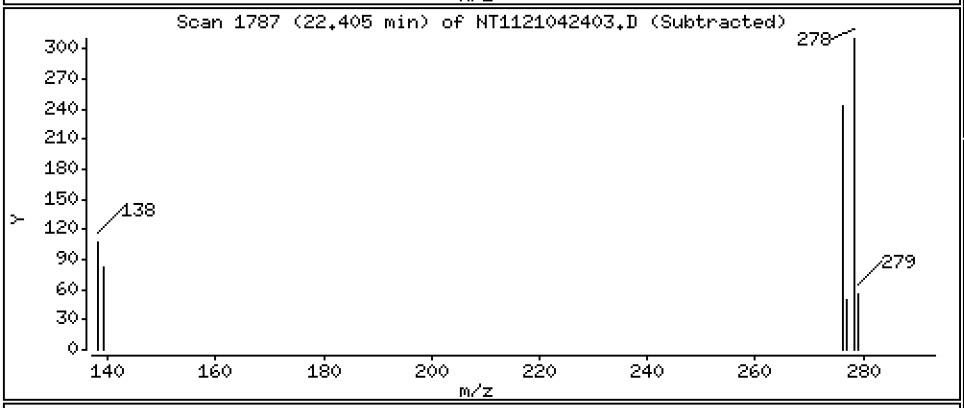
Column diameter: 0.25

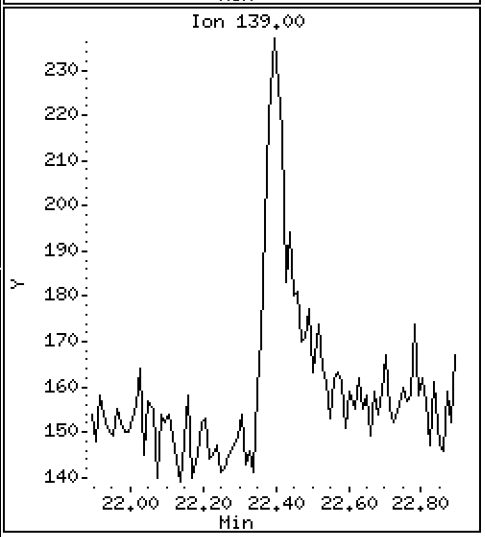
39 Dibenzo(a,h)anthracene

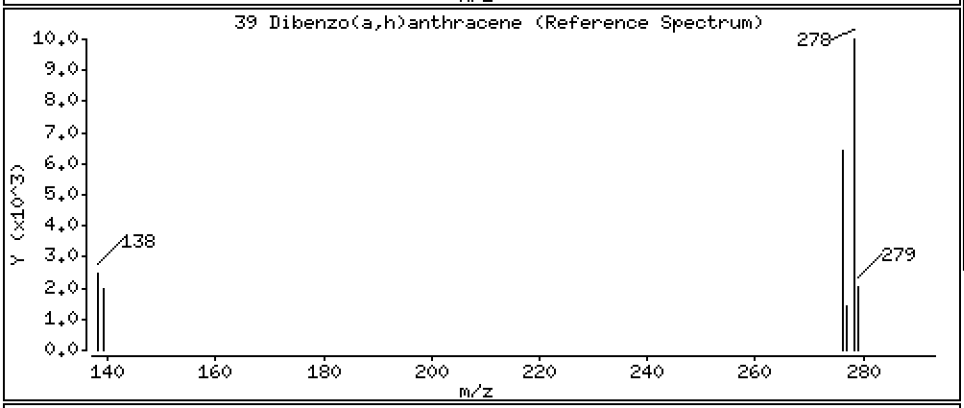
Concentration: 7.49 ng/mL

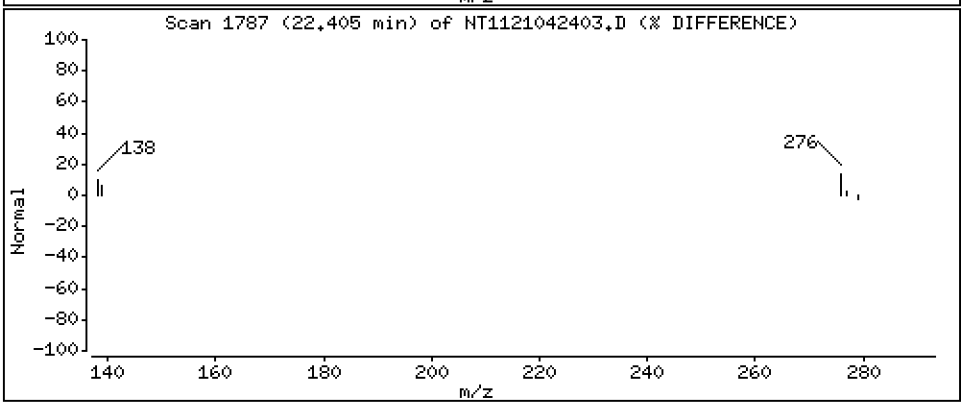


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Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

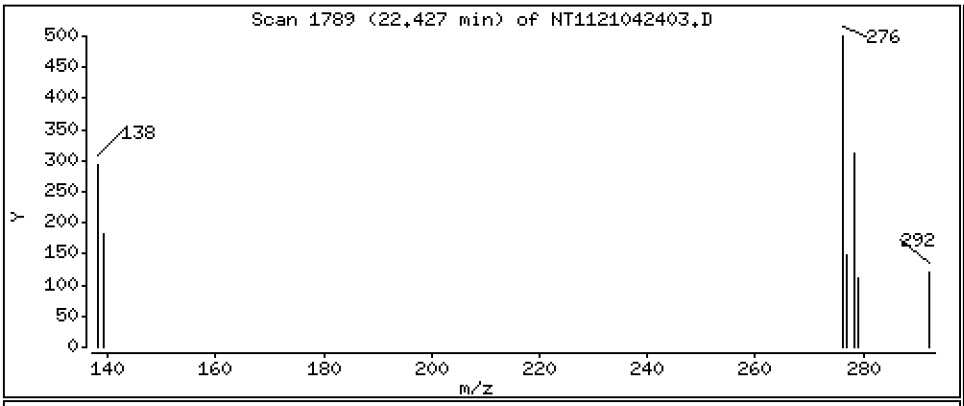
Operator: VTS

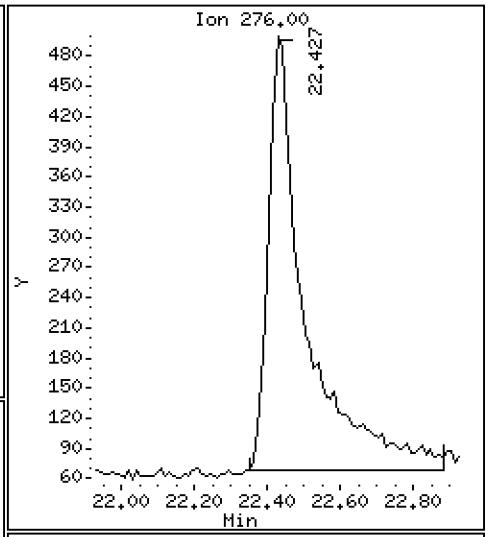
Column phase: Rxi-17Sil MS

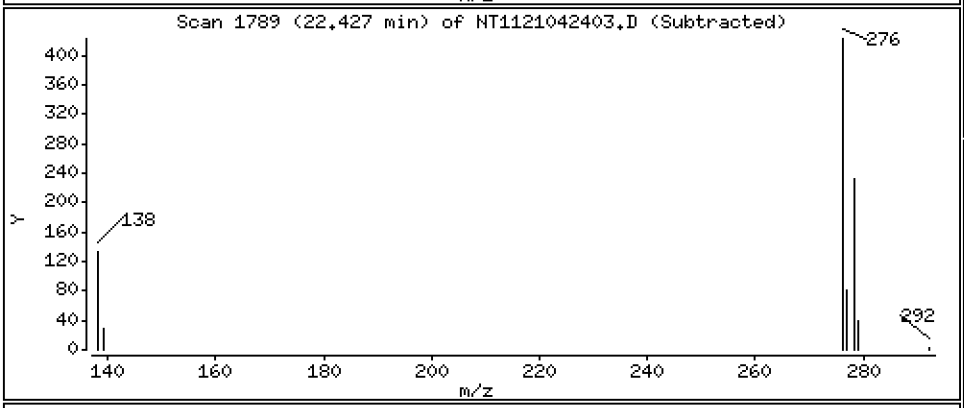
Column diameter: 0.25

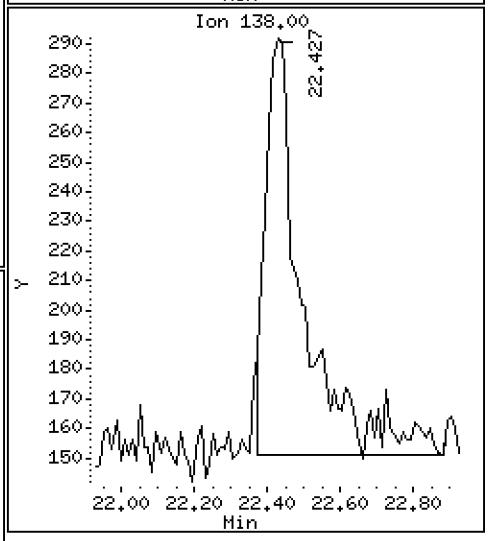
40 Indeno(1,2,3-cd)pyrene

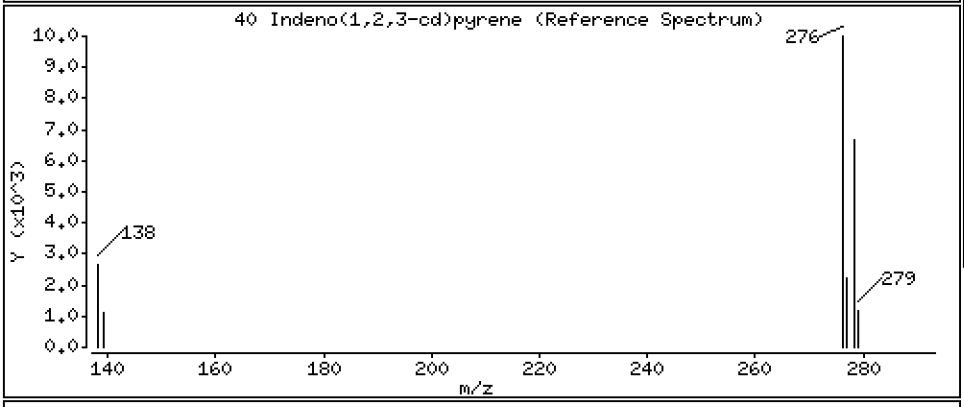
Concentration: 7.91 ng/mL

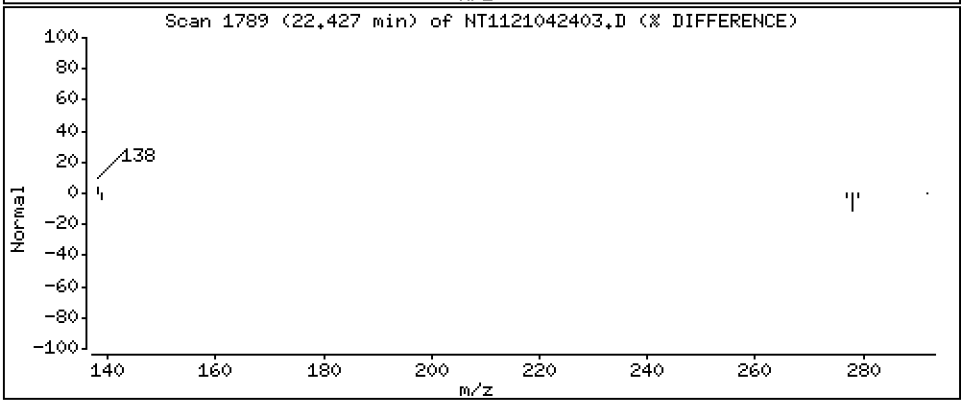


Data File: \\target\share\chem3\nt11.i\20210424.b\NT1121042403.D

Date : 24-APR-2021 10:46

Client ID:

Instrument: nt11.i

Sample Info: SJD0344-LCV1

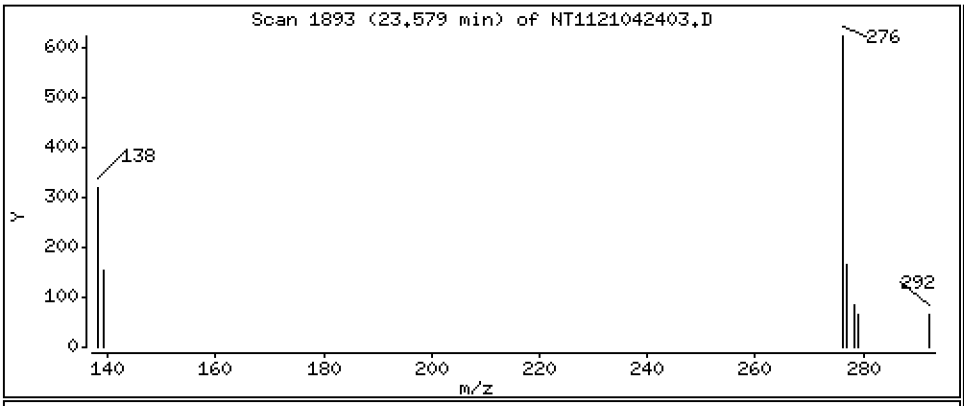
Operator: VTS

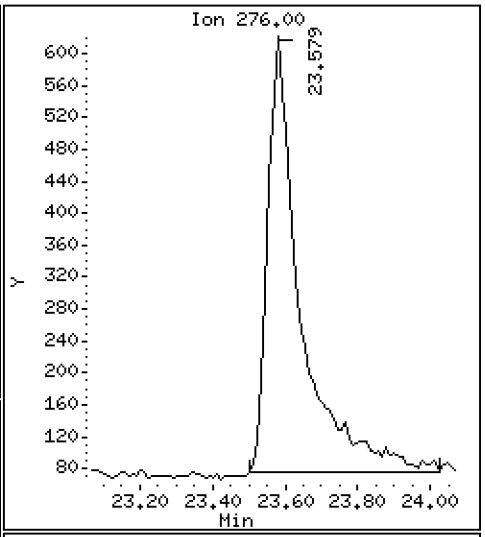
Column phase: Rxi-17Sil MS

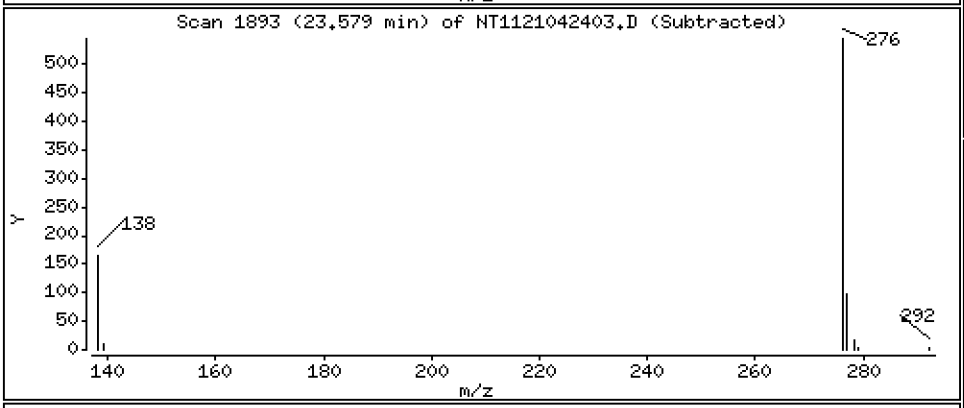
Column diameter: 0.25

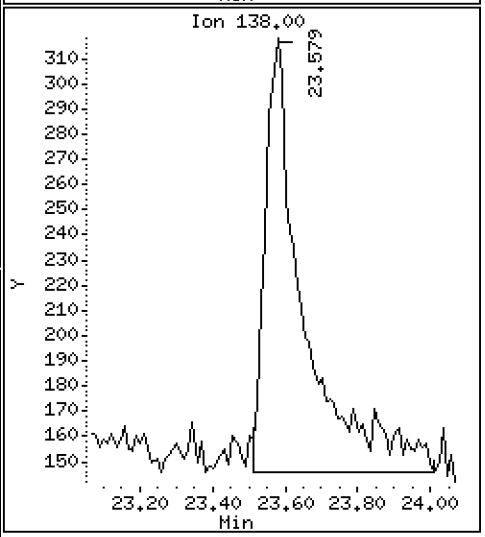
41 Benzo(g,h,i)perylene

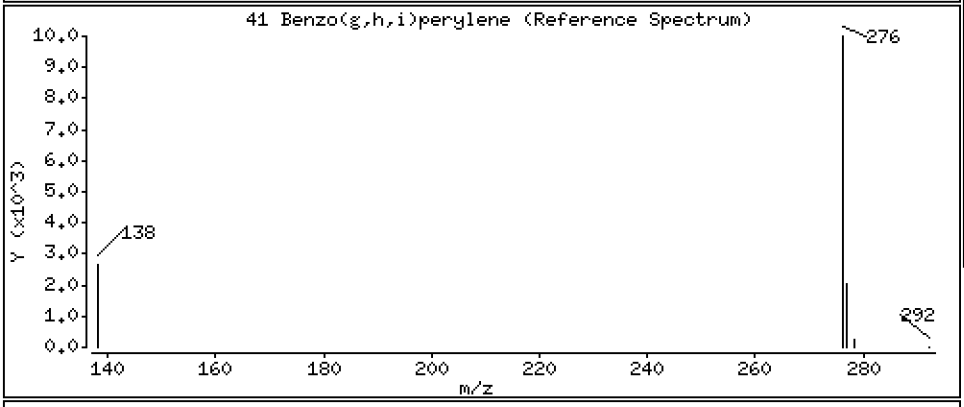
Concentration: 8.99 ng/mL

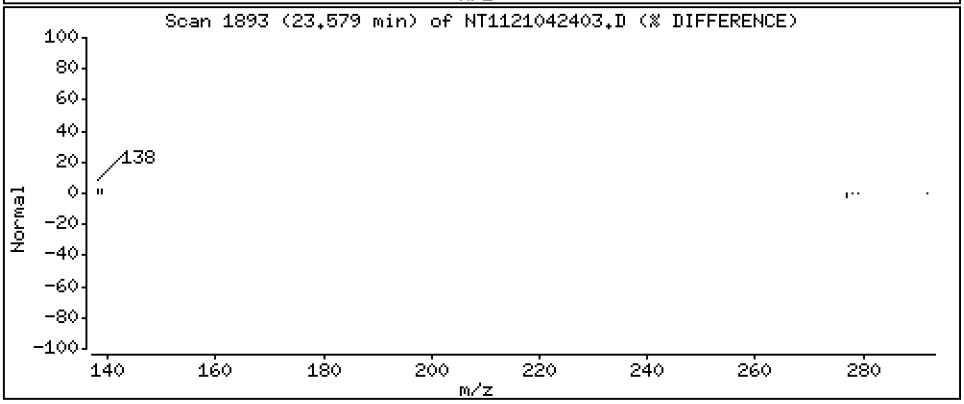


ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20210424.b\NT1121042403.D
Lab Smp Id: SJD0344-LCV1
Inj Date : 24-APR-2021 10:46 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SJD0344-LCV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20210424.b\lowsim.m
Meth Date : 24-Apr-2021 10:50 van Quant Type: ISTD
Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: VANS-202011

| | | | | | | | CONCENTRATIONS | |
|---|---|---|---|---|---|---|---|---|
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | ON-COLUMN (ng/mL) | FINAL (ng/mL) |
| * | 1 Naphthalene-d8 | 136 | 6.759 | 6.768 | (1.000) | 129787 | 200.000 | |
| | 2 Naphthalene | 128 | 6.795 | 6.795 | (1.005) | 7739 | 10.2697 | 10.3 |
| | 3 Benzo(b)thiophene | 134 | 7.048 | 7.048 | (1.043) | 6037 | 10.1547 | 10.2 |
| $ | 4 2-Methylnaphthalene-d10 | 152 | 7.738 | 7.738 | (1.145) | 4828 | 9.25146 | 9.25(M) |
| | 5 2-Methylnaphthalene | 142 | 7.791 | 7.791 | (1.153) | 5744 | 9.45525 | 9.46(M) |
| | 6 1-Methylnaphthalene | 142 | 8.043 | 8.043 | (1.190) | 5302 | 9.38887 | 9.39(M) |
| | 7 2-Chloronaphthalene | 162 | 8.694 | 8.694 | (0.891) | 4852 | 8.68600 | 8.69(M) |
| | 8 Biphenyl | 154 | 8.663 | 8.663 | (0.888) | 6693 | 8.99888 | 9.00 |
| | 9 2,6-Dimethylnaphthalene | 156 | 8.715 | 8.715 | (0.893) | 4724 | 8.56042 | 8.56(M) |
| | 10 Acenaphthylene | 152 | 9.607 | 9.607 | (0.984) | 6406 | 8.70512 | 8.71(M) |
| * | 11 Acenaphthene-d10 | 164 | 9.761 | 9.761 | (1.000) | 64142 | 200.000 | |
| | 12 Acenaphthene | 153 | 9.824 | 9.824 | (1.006) | 4215 | 8.66029 | 8.66 |
| | 13 Dibenzofuran | 168 | 10.023 | 10.023 | (1.027) | 5585 | 8.59643 | 8.60 |
| | 14 2,3,5-Trimethylnaphthalene | 170 | 10.124 | 10.124 | (1.037) | 3539 | 8.85635 | 8.86 |
| | 16 Fluorene | 166 | 10.642 | 10.642 | (1.090) | 4259 | 8.51031 | 8.51 |
| | 17 Dibenzothiophene | 184 | 12.260 | 12.260 | (0.986) | 5112 | 9.71820 | 9.72 |
| * | 18 Phenanthrene-d10 | 188 | 12.428 | 12.428 | (1.000) | 95013 | 200.000 | |
| | 19 Phenanthrene | 178 | 12.470 | 12.470 | (1.003) | 5735 | 9.22709 | 9.23 |
| | 21 Anthracene | 178 | 12.523 | 12.523 | (1.008) | 6125 | 9.86275 | 9.86 |
| | 22 Carbazole | 167 | 13.206 | 13.206 | (1.063) | 6121 | 9.24971 | 9.25(M) |
| | 23 1-Methylphenanthrene | 192 | 13.468 | 13.469 | (1.084) | 5464 | 9.95216 | 9.95 |
| $ | 24 Fluoranthene-d10 | 212 | 14.520 | 14.520 | (1.168) | 4621 | 9.27660 | 9.28 |
| | 25 Fluoranthene | 202 | 14.558 | 14.558 | (1.171) | 5869 | 9.47124 | 9.47 |
| | 26 Pyrene | 202 | 15.048 | 15.048 | (1.211) | 6155 | 9.68188 | 9.68 |
| | 27 Benzo(a)anthracene | 228 | 17.064 | 17.064 | (0.995) | 3740 | 8.25864 | 8.26 |
| * | 28 Chrysene-d12 | 240 | 17.155 | 17.155 | (1.000) | 61649 | 200.000 | |
| | 29 Chrysene | 228 | 17.205 | 17.205 | (1.003) | 4930 | 9.66823 | 9.67 |
| | 30 Benzo(b)fluoranthene | 252 | 18.884 | 18.885 | (0.949) | 2237 | 5.93060 | 5.93 |
| | 31 Benzo(k)fluoranthene | 252 | 18.932 | 18.923 | (0.952) | 3957 | 7.98377 | 7.98 |
| | 32 Benzo(j)fluoranthene | 252 | 18.990 | 18.981 | (0.955) | 6176 | 11.5307 | 11.5 |
| | 34 Benzo(e)pyrene | 252 | 19.586 | 19.586 | (0.985) | 3709 | 8.68322 | 8.68 |
| | 35 Benzo(a)pyrene | 252 | 19.692 | 19.692 | (0.990) | 3290 | 8.35128 | 8.35 |
| * | 36 Perylene-d12 | 264 | 19.893 | 19.893 | (1.000) | 69298 | 200.000 | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | CONCENTRATIONS FINAL (ng/mL) |
|---|---|---|---|---|---|---|---|---|
| | 37 Perylene | 252 | 19.951 | 19.951 | (1.003) | 4571 | 10.1842 | 10.2 |
| $ | 38 Dibenzo(a,h)anthracene-d14 | 292 | 22.294 | 22.283 | (1.121) | 1879 | 7.07261 | 7.07 |
| | 39 Dibenzo(a,h)anthracene | 278 | 22.405 | 22.405 | (1.126) | 2389 | 7.49188 | 7.49 |
| | 40 Indeno(1,2,3-cd)pyrene | 276 | 22.427 | 22.427 | (1.127) | 3026 | 7.90975 | 7.91 |
| | 41 Benzo(g,h,i)perylene | 276 | 23.579 | 23.568 | (1.185) | 3439 | 8.99056 | 8.99 |

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1121042403.D
Lab Smp Id: SJD0344-LCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20210424.b\lowsim.m
Misc Info:

Calibration Date: 24-APR-2021
Calibration Time: 10:14
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 1 Naphthalene-d8 | 134531 | 67266 | 269062 | 129787 | -3.53 |
| 11 Acenaphthene-d10 | 76981 | 38491 | 153962 | 64142 | -16.68 |
| 18 Phenanthrene-d10 | 116022 | 58011 | 232044 | 95013 | -18.11 |
| 28 Chrysene-d12 | 83386 | 41693 | 166772 | 61649 | -26.07 |
| 36 Perylene-d12 | 98043 | 49022 | 196086 | 69298 | -29.32 |

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

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

REVIEW SUMMARY FOR FILE - NT1121042403.D

Lab ID: SJD0344-LCV1
nt11.i,  20210424.b\lowsim.m,    24-APR-2021 10:46

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

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

NONE

RRT check based on Ccal File: NT1121042402.D

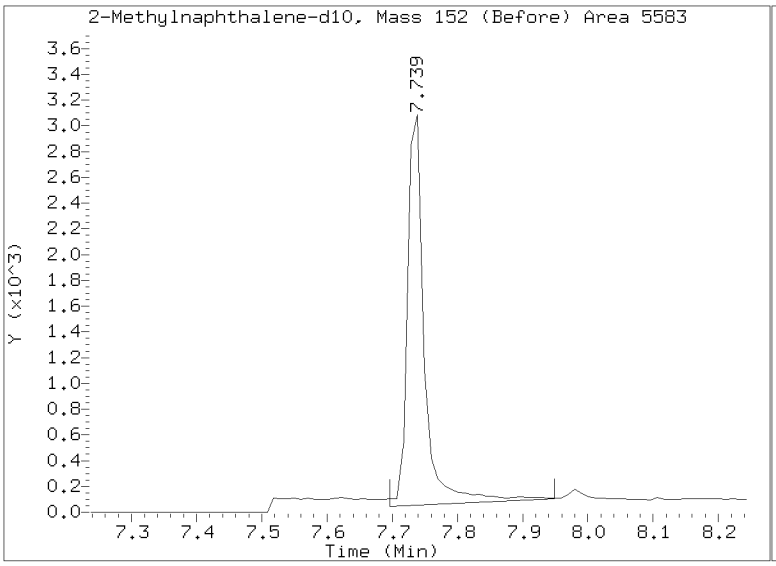
On Column LOD for nt11.i, 20210424.b\lowsim.m, PAH.sub = 0.0000

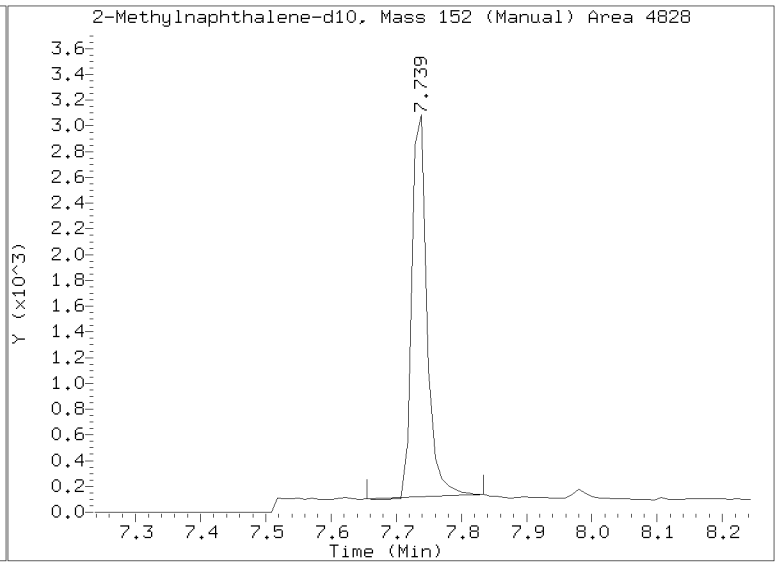
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000

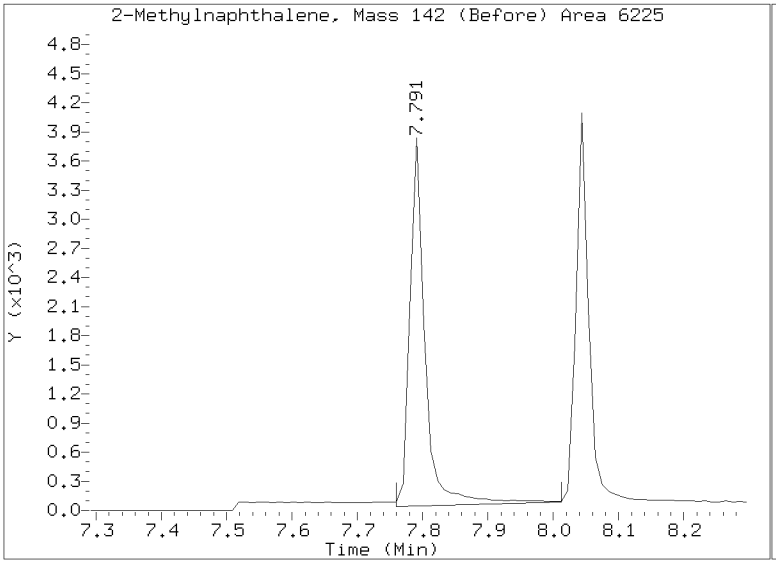
* Only compounds listed in the work order have been verified by the analyst *

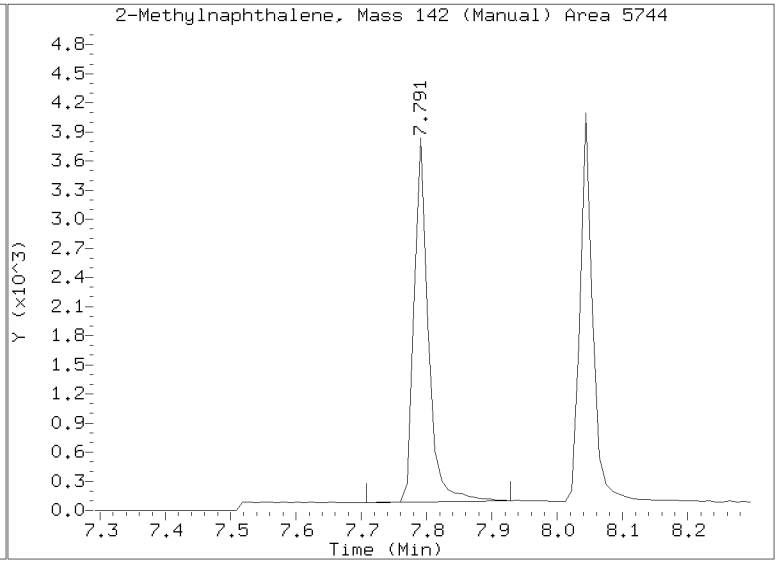
# Quant Ion Manual Peak Adjustment Report

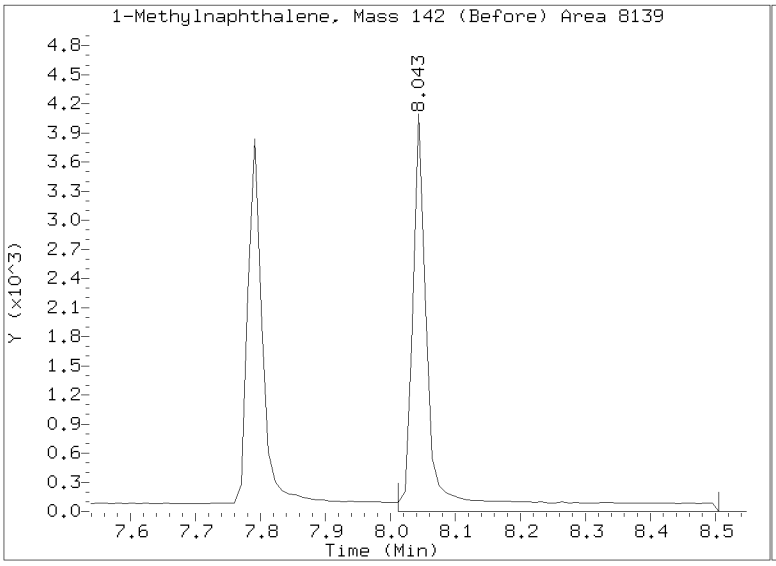
Datafile: //target/share/chem3/nt11.i/20210424.b/NT1121042403.D
Injection Date: 24-APR-2021 10:46
Lab ID:SJD0344-LCV1 Client ID:
Report Date: 04/27/2021 14:15

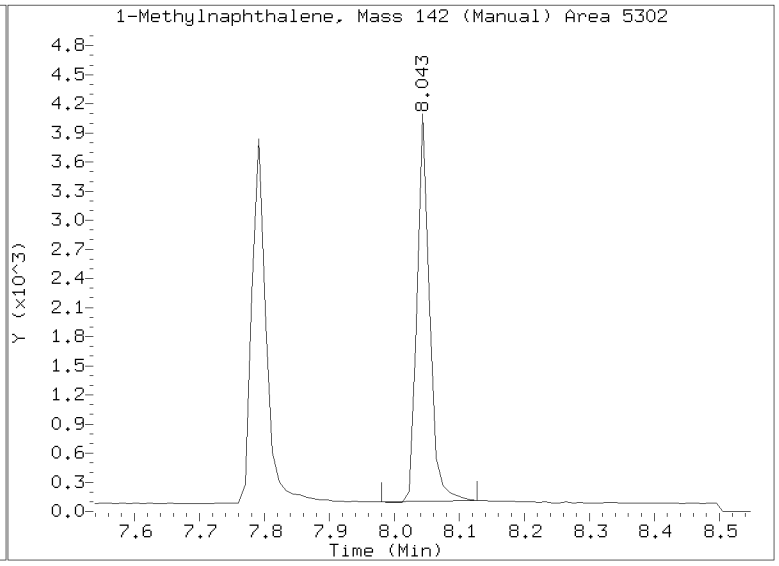


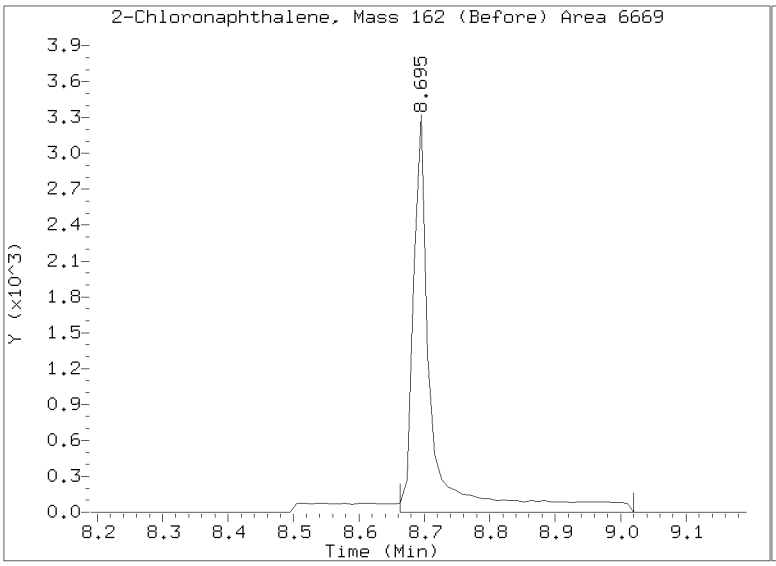



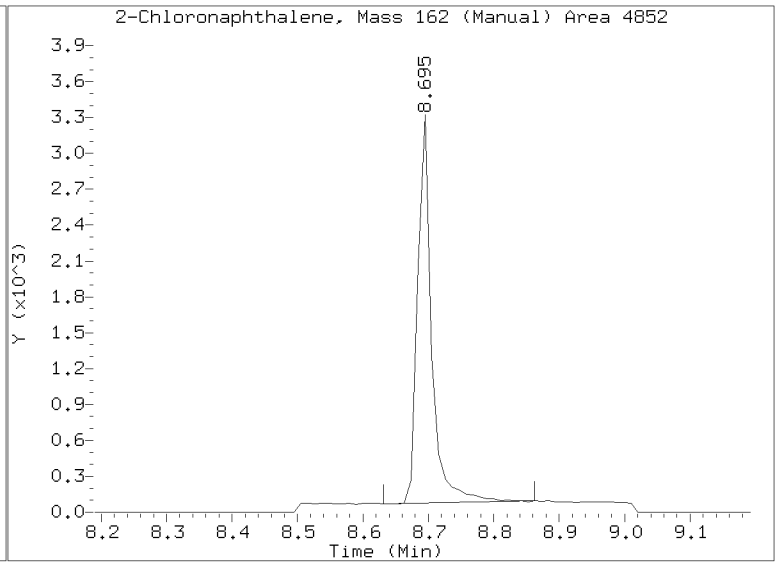



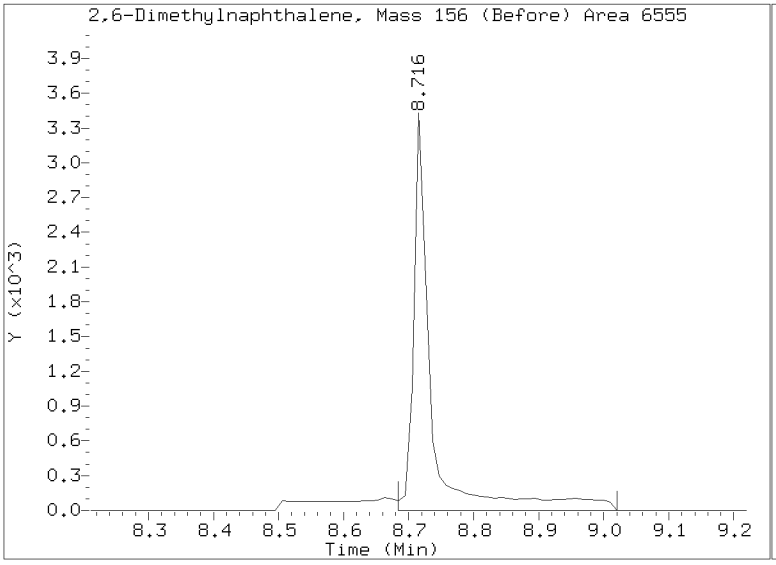



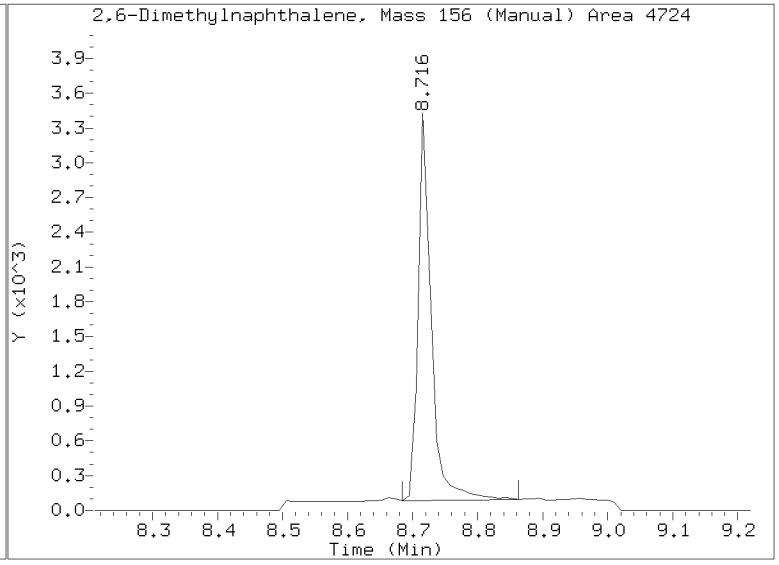
# Quant Ion Manual Peak Adjustment Report

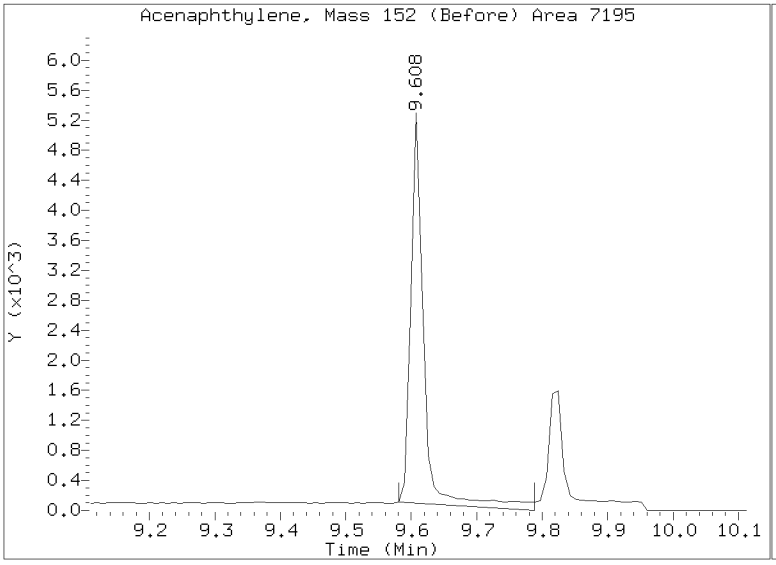
Datafile: //target/share/chem3/nt11.i/20210424.b/NT1121042403.D
Injection Date: 24-APR-2021 10:46
Lab ID:SJD0344-LCV1 Client ID:
Report Date: 04/27/2021 14:15

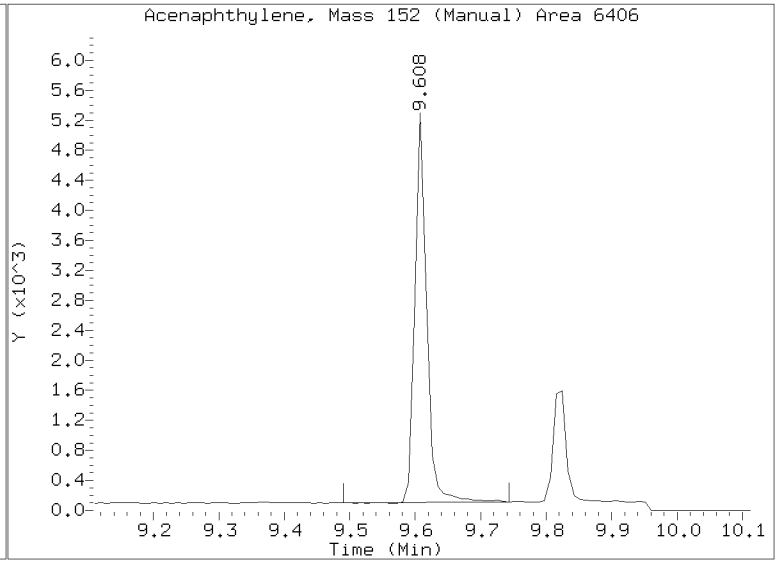


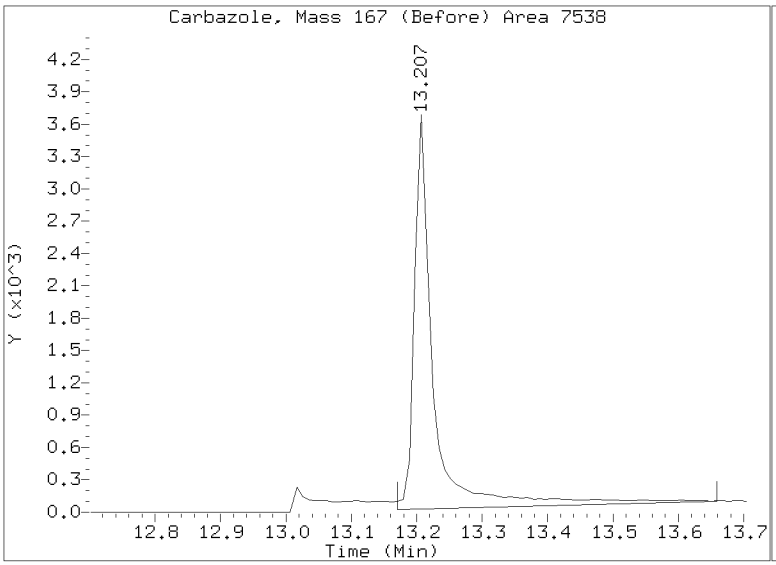



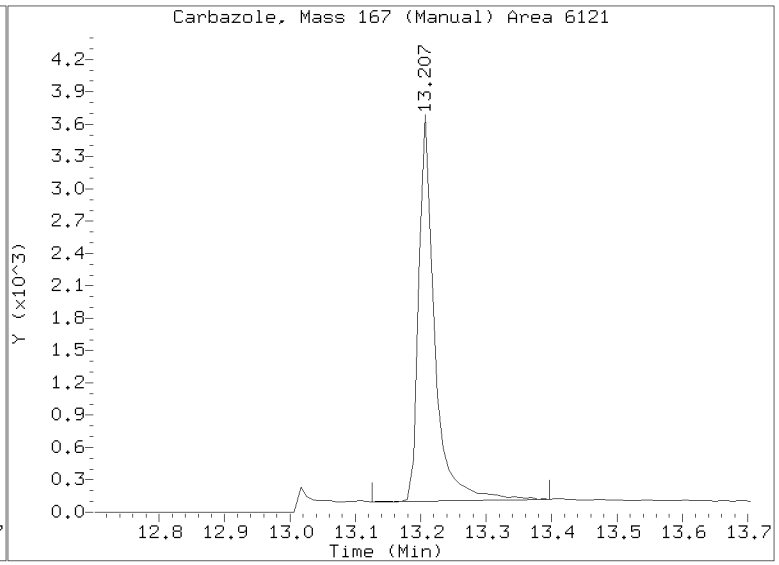



# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20210424.b/NT1121042403.D
Injection Date: 24-APR-2021 10:46
Lab ID:SJD0344-LCV1 Client ID:
Report Date: 04/27/2021 14:15



# CONTINUING CALIBRATION CHECK
## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | NT11 | Calibration: | DH00073 |
| Lab File ID: | NT1121042715.D | Calibration Date: | 08/27/2020 |
| Sequence: | SJD0374 | Injection Date: | 04/27/21 |
| Lab Sample ID: | SJD0374-CCV1 | Injection Time: | 19:48 |
| Sequence Name: | Calibration Check | | |

| | | CONC. (ng/mL) | | RESPONSE FACTOR (RRF) | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN | CCV | LIMIT |
| Naphthalene | A | 250.00 | 230 | 1.1612470 | 1.0694010 | | -7.9 | +/-50 |
| 2-Methylnaphthalene | A | 250.00 | 238 | 0.9361384 | 0.8930171 | | -4.6 | +/-50 |
| 1-Methylnaphthalene | A | 250.00 | 252 | 0.8702122 | 0.8760606 | | 0.7 | +/-50 |
| 2-Chloronaphthalene | A | 250.00 | 210 | 1.7417600 | 1.4634560 | | -16.0 | +/-50 |
| Acenaphthylene | A | 250.00 | 208 | 2.2945630 | 1.9090550 | | -16.8 | +/-50 |
| Acenaphthene | A | 250.00 | 210 | 1.5175830 | 1.2764620 | | -15.9 | +/-50 |
| Dibenzofuran | A | 250.00 | 199 | 2.0257800 | 1.6148550 | | -20.3 | +/-50 |
| Fluorene | A | 250.00 | 217 | 1.5604500 | 1.3527920 | | -13.3 | +/-50 |
| Phenanthrene | A | 250.00 | 223 | 1.3083250 | 1.1668100 | | -10.8 | +/-50 |
| Anthracene | A | 250.00 | 251 | 1.3072390 | 1.3123020 | | 0.4 | +/-50 |
| Carbazole | A | 250.00 | 244 | 1.3929680 | 1.3571880 | | -2.6 | +/-50 |
| Fluoranthene | A | 250.00 | 232 | 1.3043810 | 1.2123980 | | -7.1 | +/-50 |
| Pyrene | A | 250.00 | 236 | 1.3381820 | 1.2629270 | | -5.6 | +/-50 |
| Benzo(a)anthracene | A | 250.00 | 235 | 1.4691530 | 1.3835060 | | -5.8 | +/-50 |
| Chrysene | A | 250.00 | 229 | 1.6542610 | 1.5173420 | | -8.3 | +/-50 |
| Benzo(b)fluoranthene | A | 250.00 | 230 | 1.0886210 | 1.0015730 | | -8.0 | +/-50 |
| Benzo(k)fluoranthene | A | 250.00 | 238 | 1.4304320 | 1.3626670 | | -4.7 | +/-50 |
| Benzo(j)fluoranthene | A | 250.00 | 228 | 1.5458300 | 1.4121340 | | -8.6 | +/-50 |
| Benzofluoranthenes, Total | A | 750.00 | 697 | 1.3549610 | 1.2587910 | | -7.1 | +/-50 |
| Benzo(a)pyrene | A | 250.00 | 254 | 1.1369780 | 1.1564160 | | 1.7 | +/-50 |
| Perylene | A | 250.00 | 241 | 1.2953700 | 1.2461910 | | -3.8 | +/-50 |
| Indeno(1,2,3-cd)pyrene | A | 250.00 | 277 | 1.1041170 | 1.2221960 | | 10.7 | +/-50 |
| Dibenzo(a,h)anthracene | A | 250.00 | 268 | 0.8775199 | 1.0114250 | | 7.3 | +/-50 |
| Benzo(g,h,i)perylene | A | 250.00 | 267 | 1.1039640 | 1.1770110 | | 6.6 | +/-50 |
| 2-Methylnaphthalene-d10 | A | 250.00 | 245 | 0.8041846 | 0.7894203 | | -1.8 | +/-50 |
| Dibenzo[a,h]anthracene-d14 | A | 250.00 | 268 | 0.7035414 | 0.8414188 | | 7.1 | +/-50 |
| Fluoranthene-d10 | A | 250.00 | 228 | 1.0485620 | 0.9576391 | | -8.7 | +/-50 |

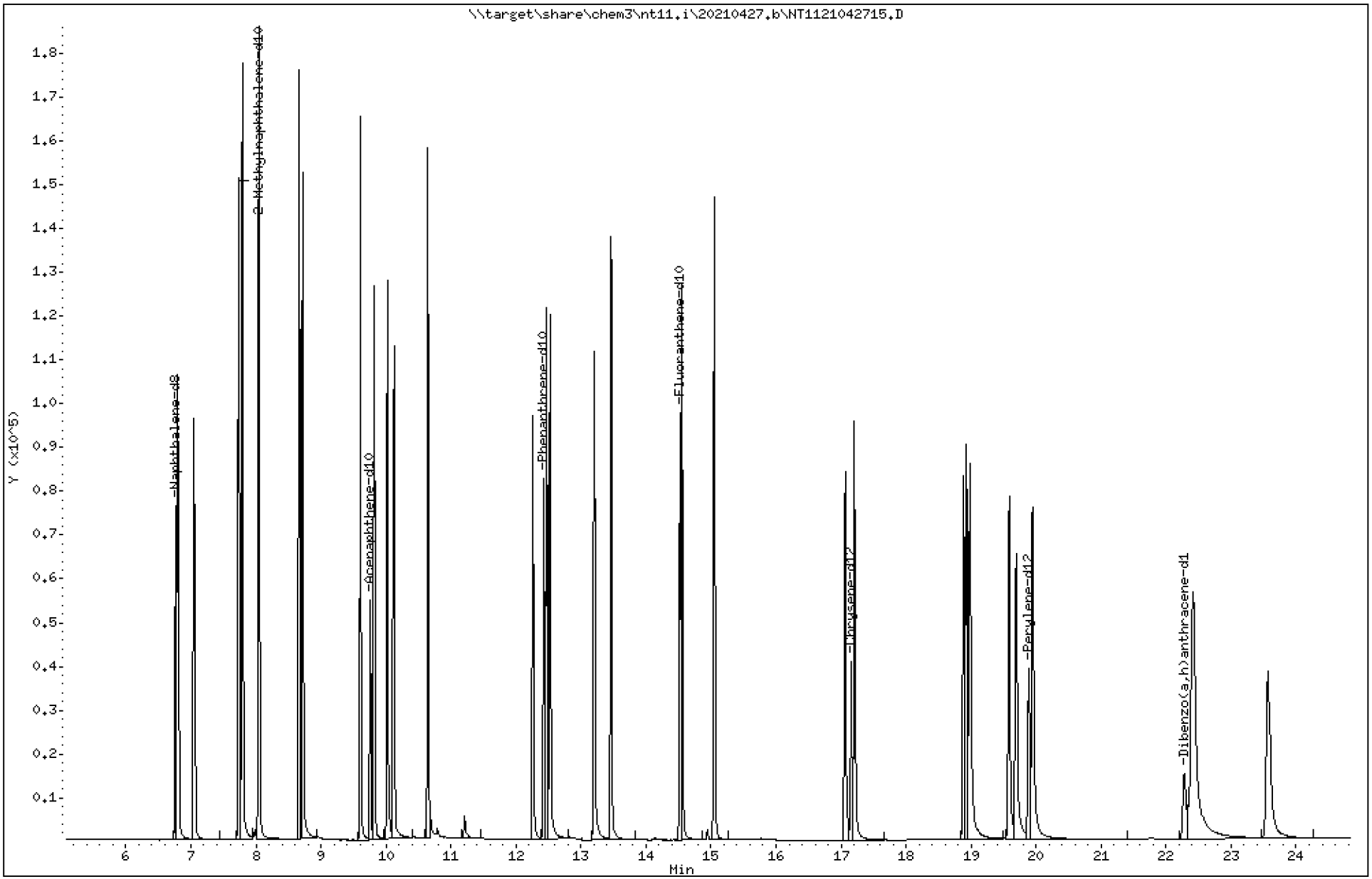
* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042715.D
Date : 27-APR-2021 19:48
Client ID:
Sample Info: SJD0374-CCV1

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS

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Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042715.D

Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

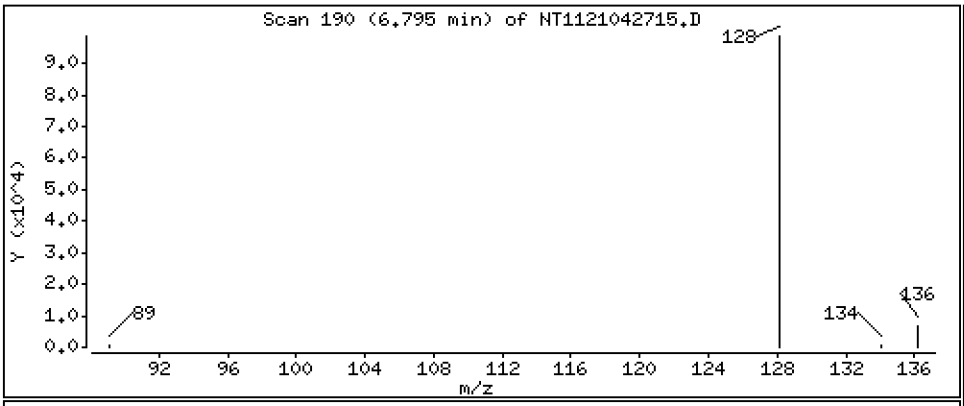
Operator: VTS

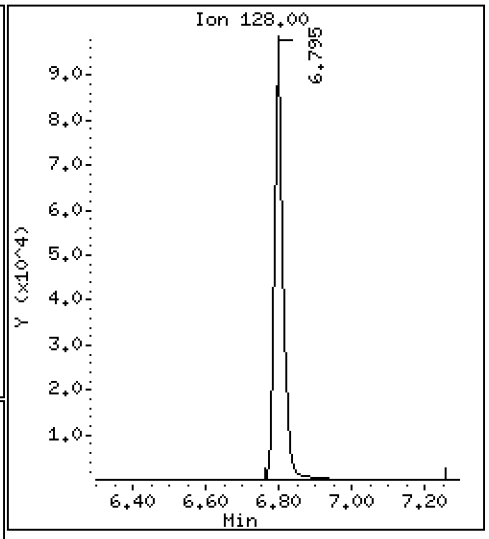
Column phase: Rxi-17Sil MS

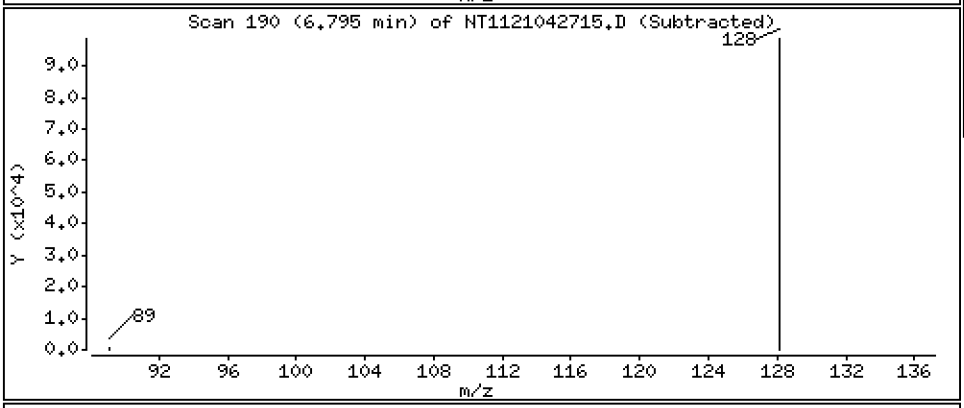
Column diameter: 0.25

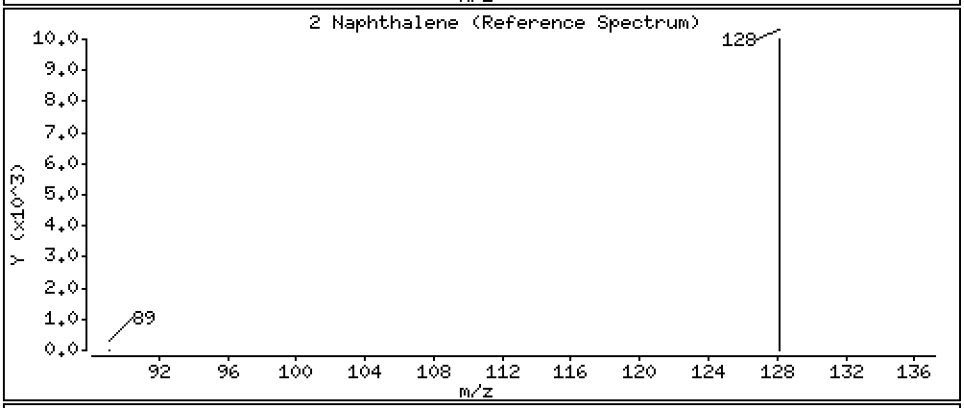
2 Naphthalene

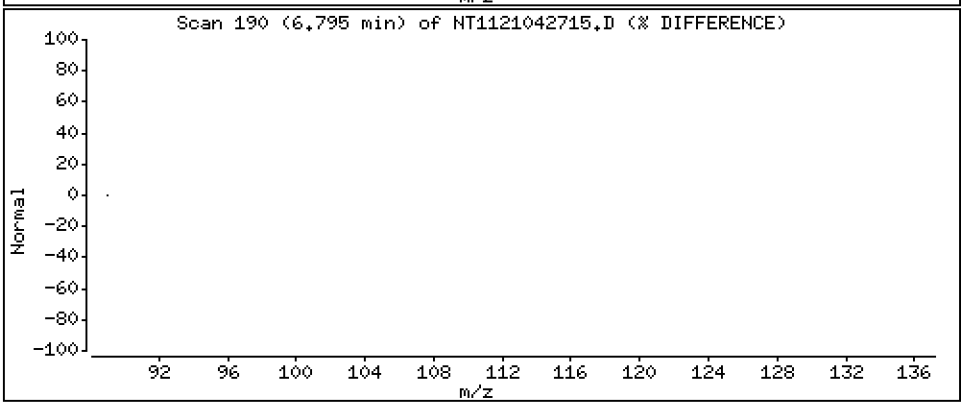
Concentration: 230 ng/mL



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Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

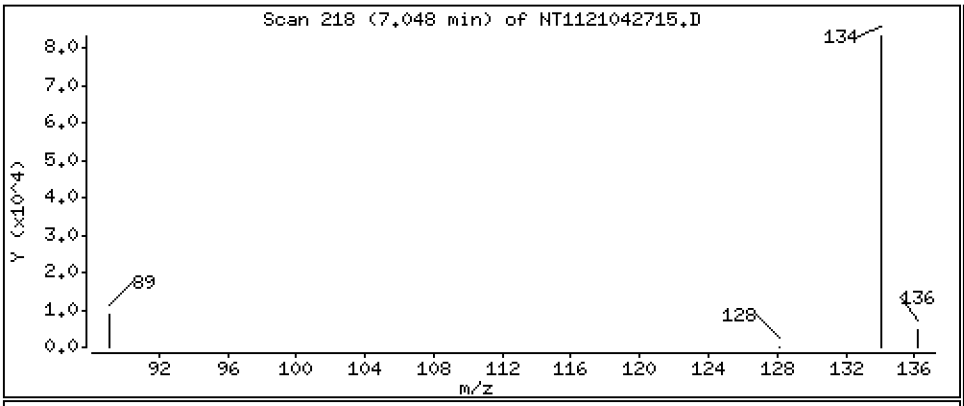
Operator: VTS

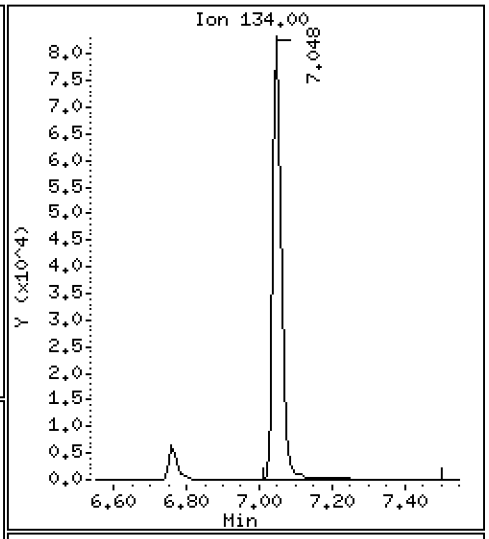
Column phase: Rxi-17Sil MS

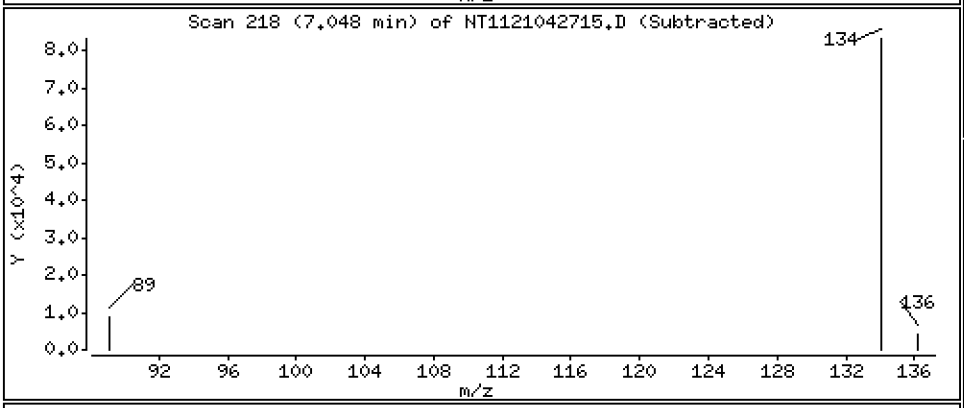
Column diameter: 0.25

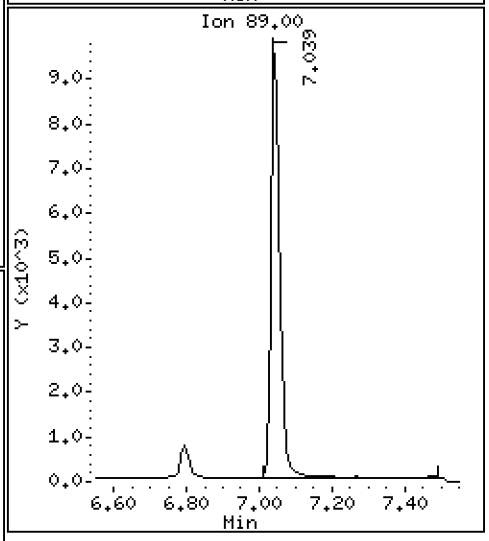
3 Benzo(b)thiophene

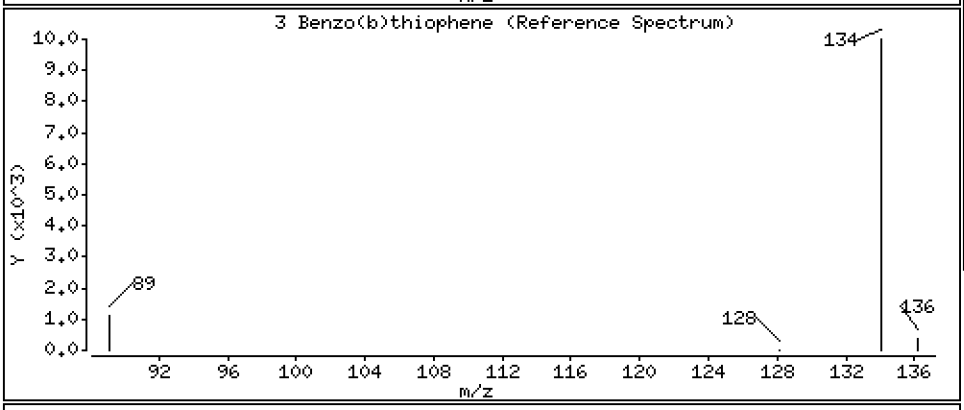
Concentration: 238 ng/mL

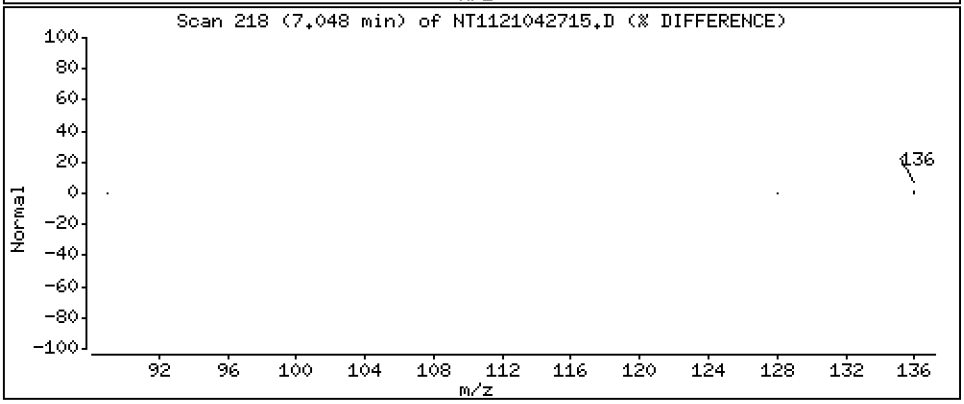


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Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

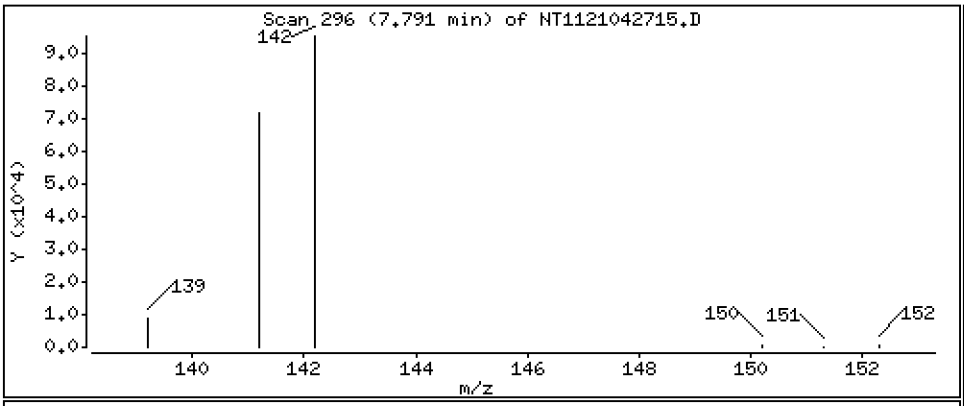
Operator: VTS

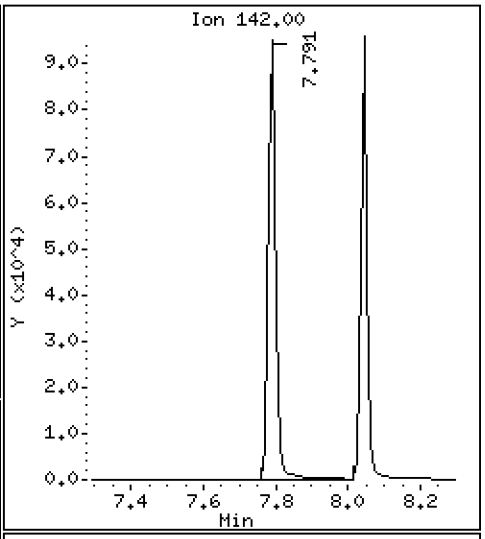
Column phase: Rxi-17Sil MS

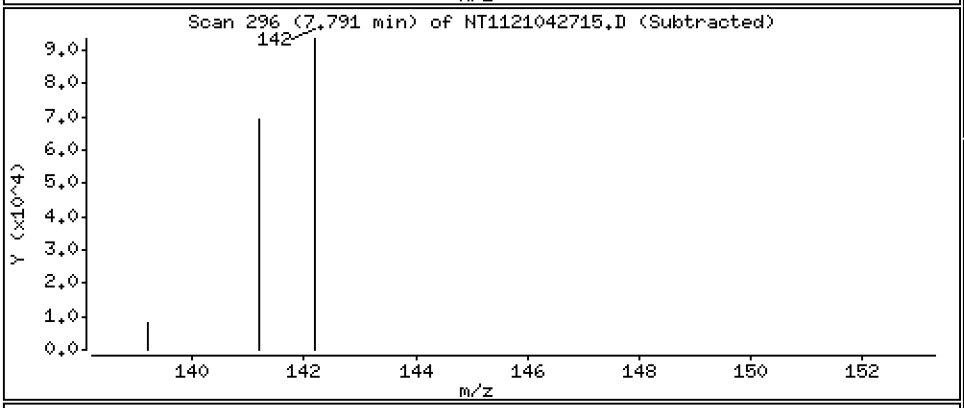
Column diameter: 0.25

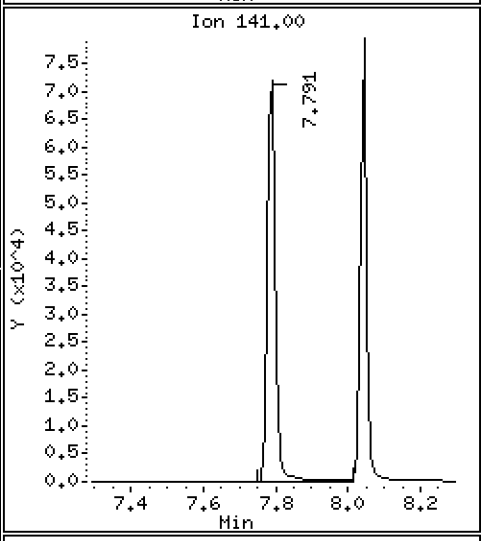
5 2-Methylnaphthalene

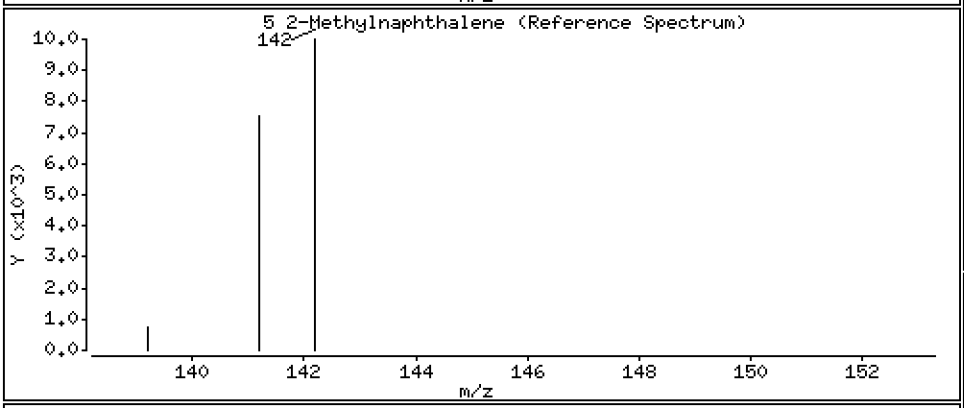
Concentration: 238 ng/mL

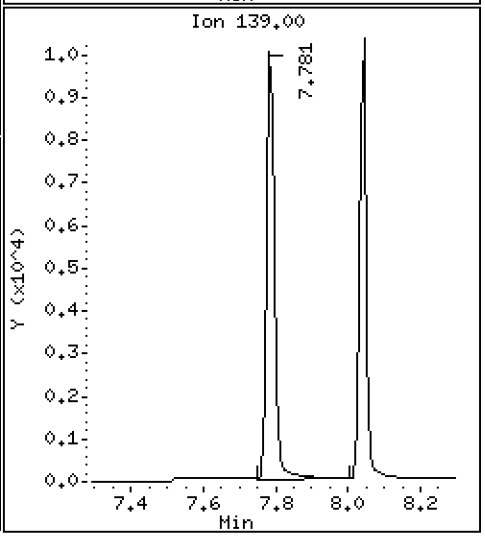


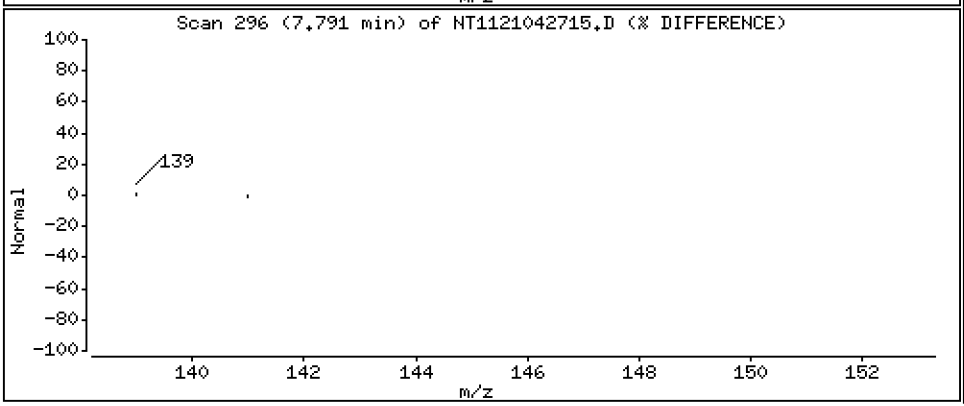



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Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

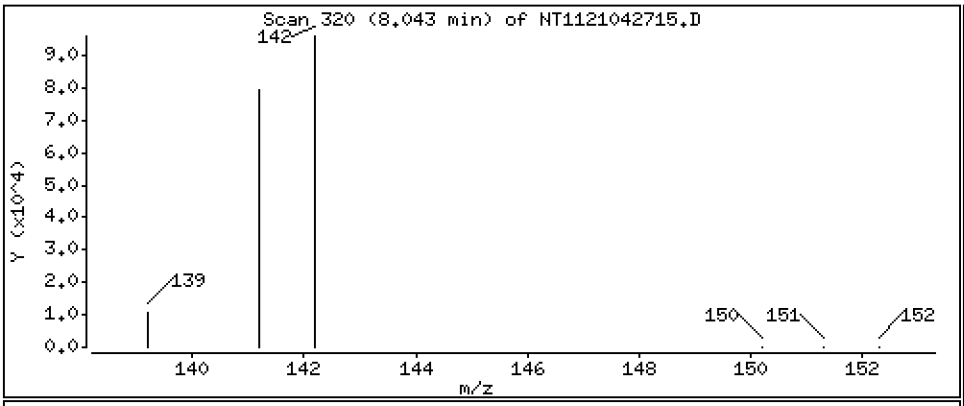
Operator: VTS

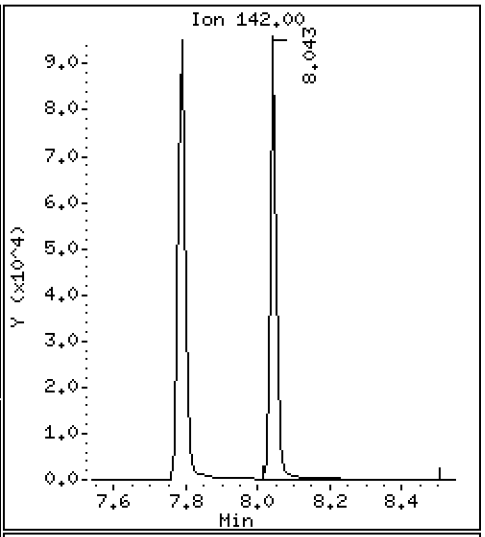
Column phase: Rxi-17Sil MS

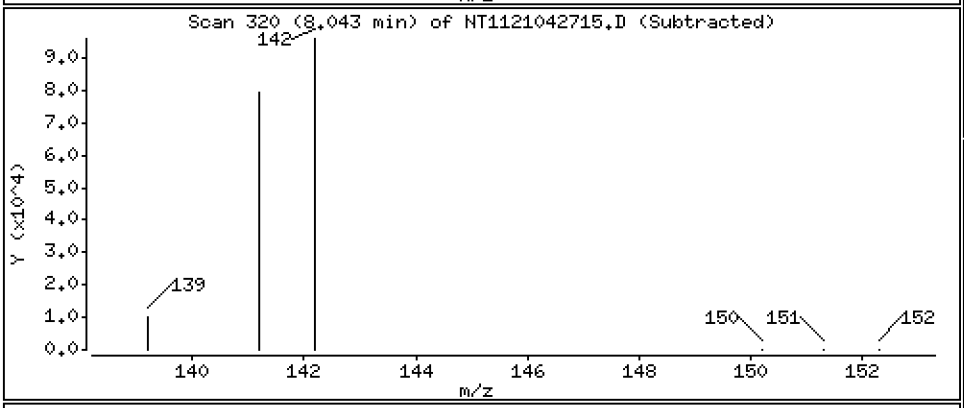
Column diameter: 0.25

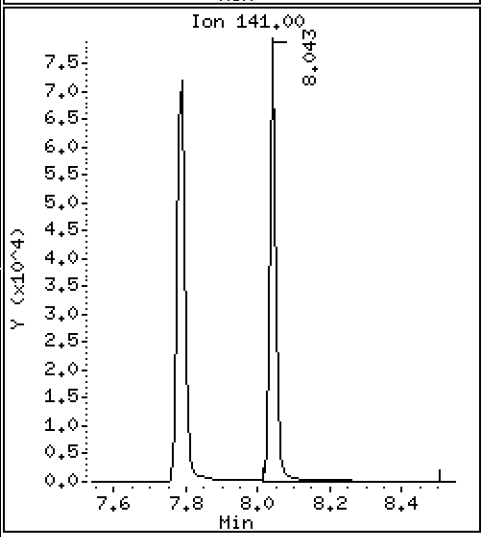
6 1-Methylnaphthalene

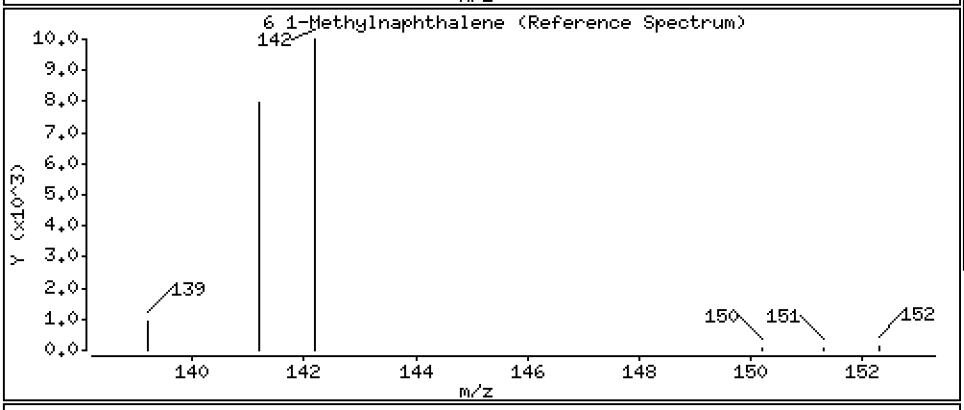
Concentration: 252 ng/mL

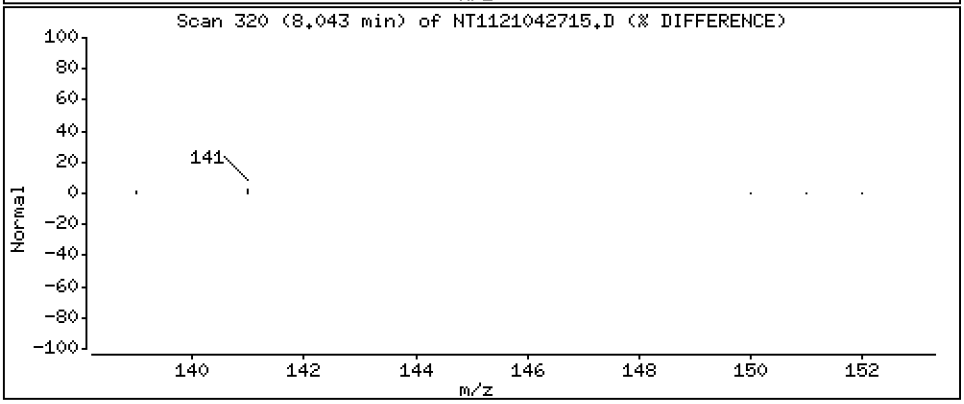


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Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

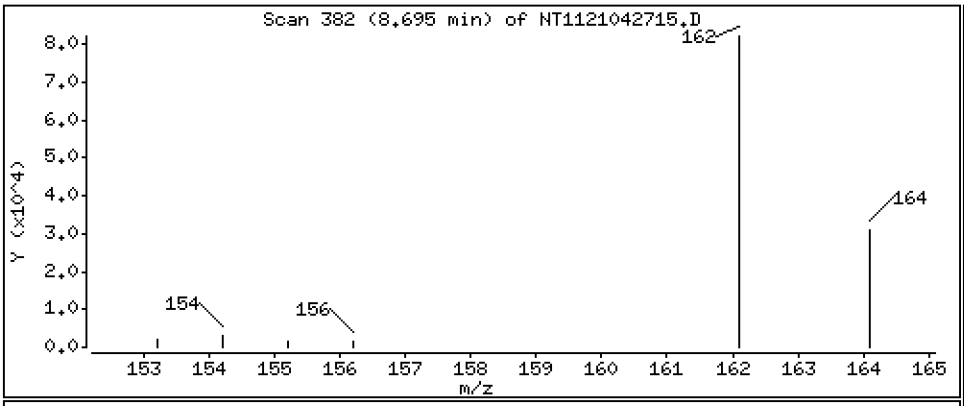
Operator: VTS

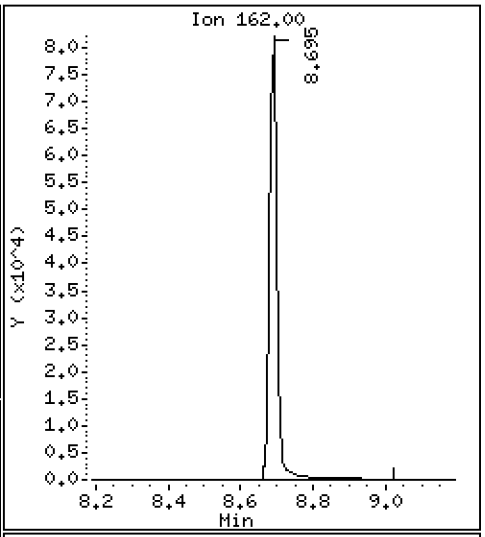
Column phase: Rxi-17Sil MS

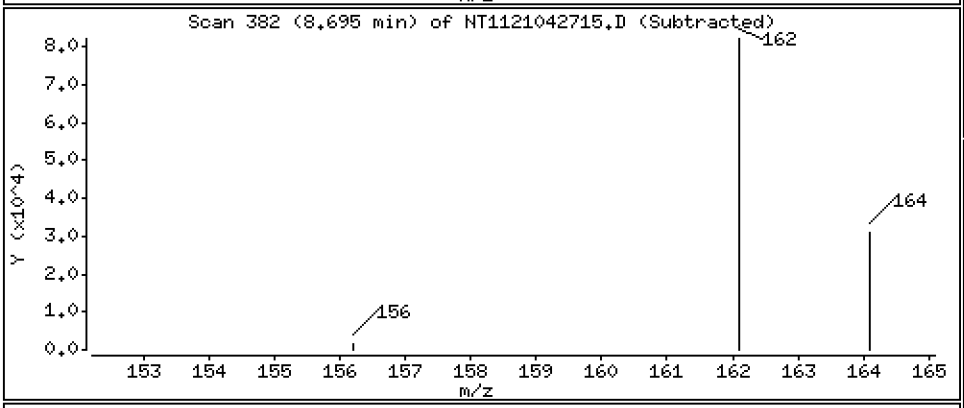
Column diameter: 0.25

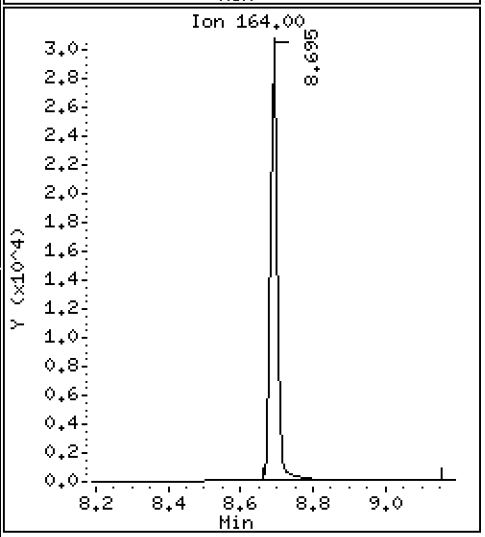
7 2-Chloronaphthalene

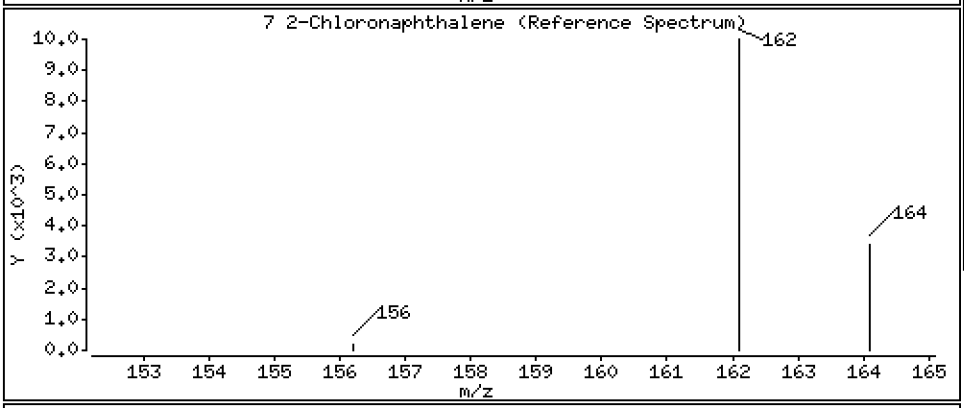
Concentration: 210 ng/mL

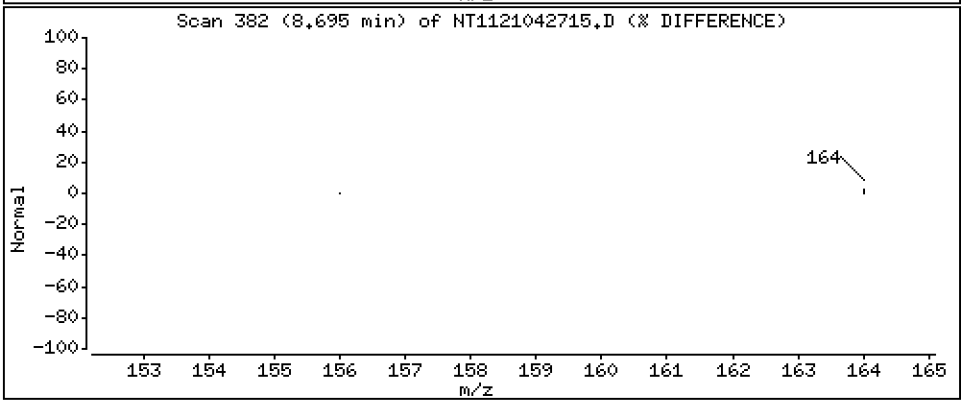


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Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

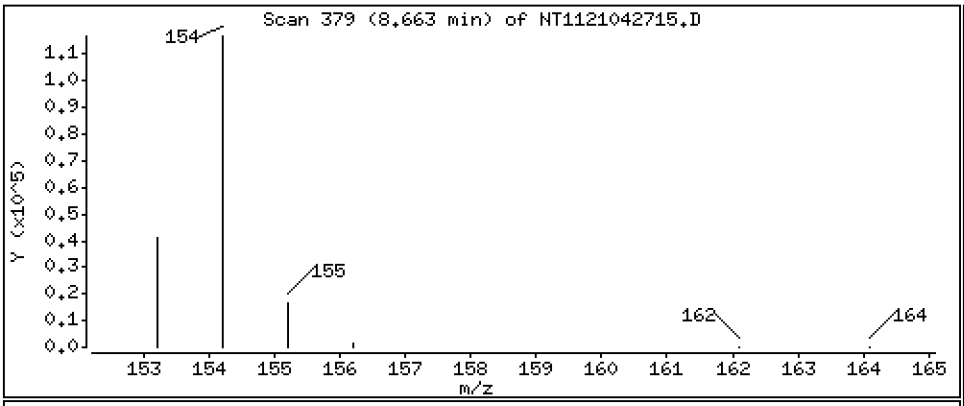
Operator: VTS

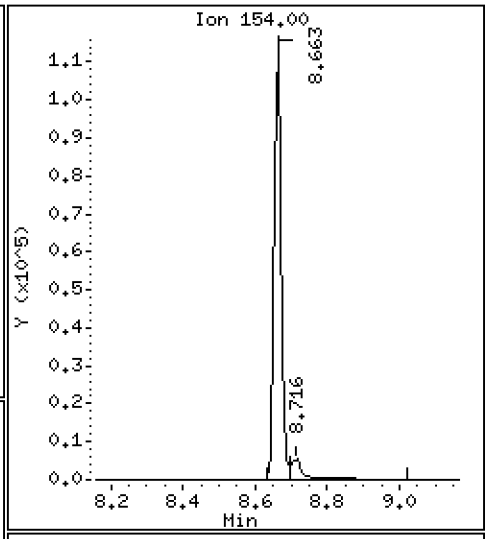
Column phase: Rxi-17Sil MS

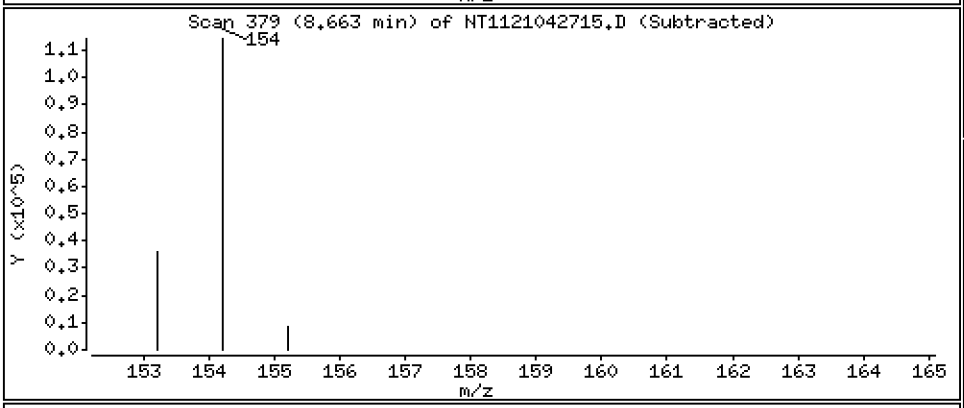
Column diameter: 0.25

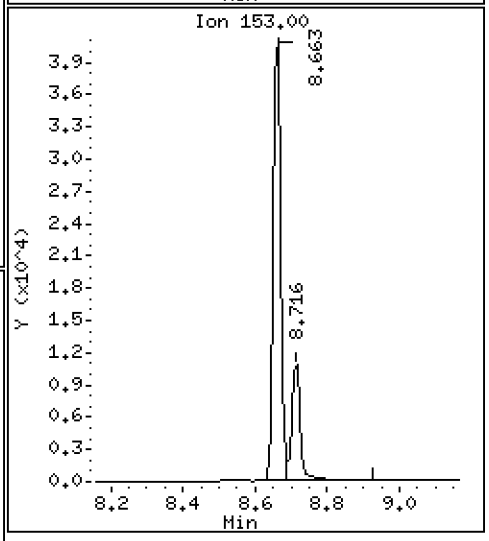
8 Biphenyl

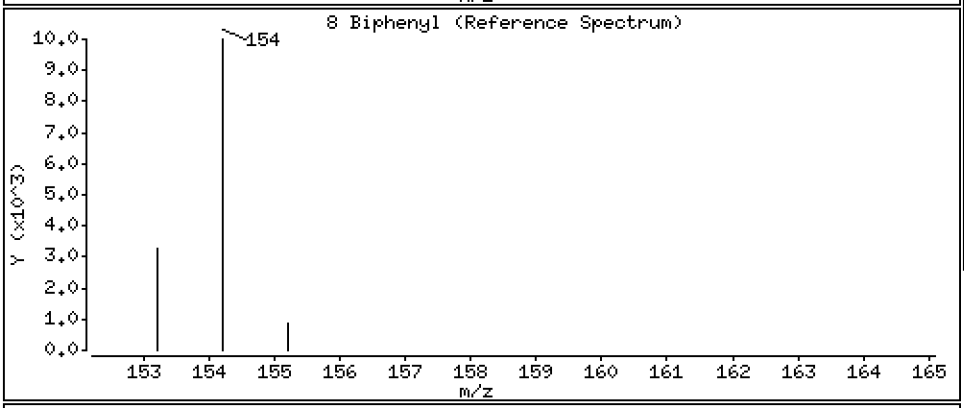
Concentration: 199 ng/mL

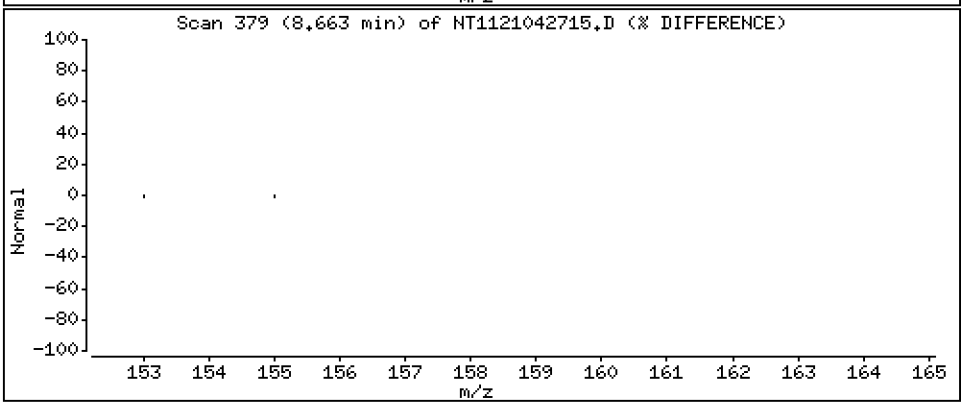


Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042715.D

Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

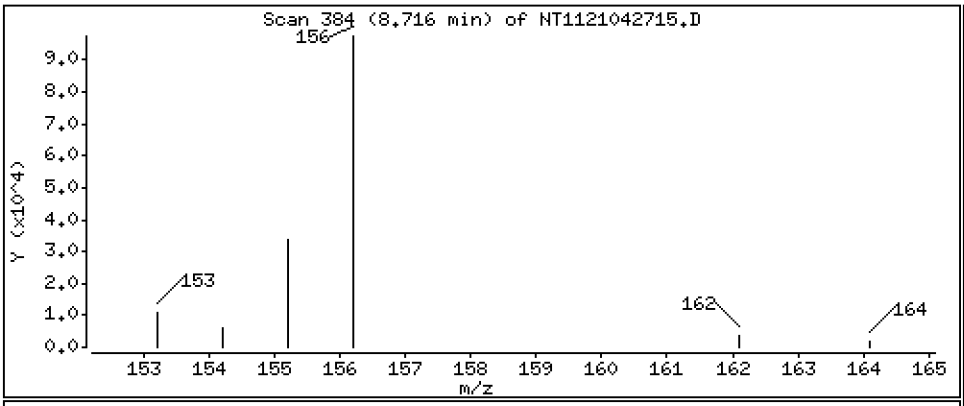
Operator: VTS

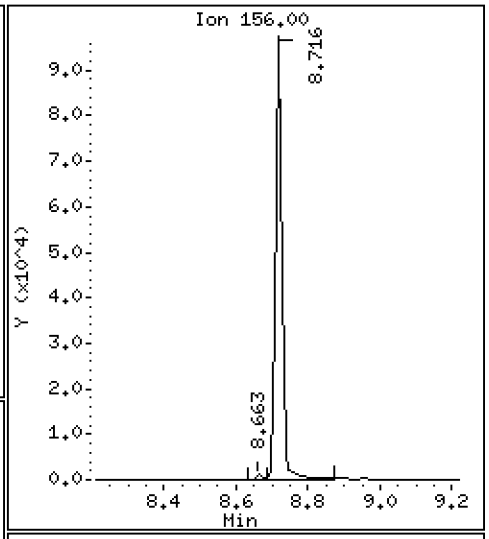
Column phase: Rxi-17Sil MS

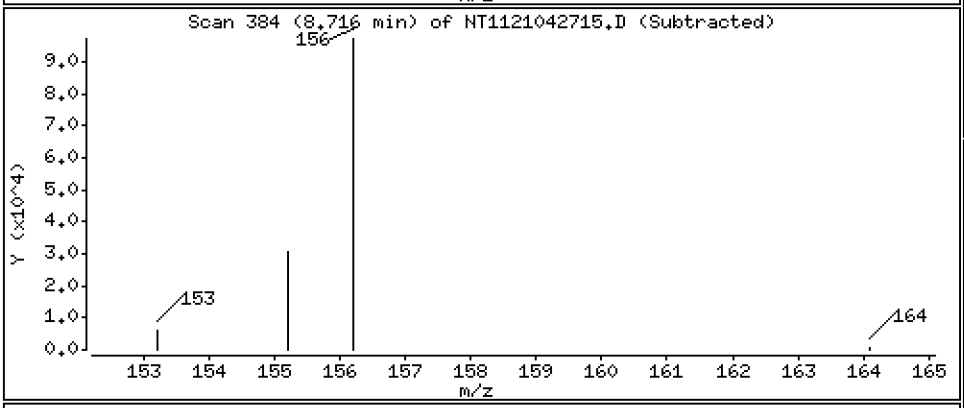
Column diameter: 0.25

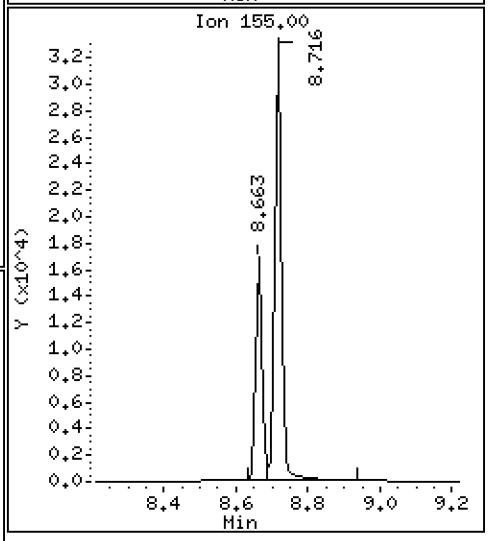
9 2,6-Dimethylnaphthalene

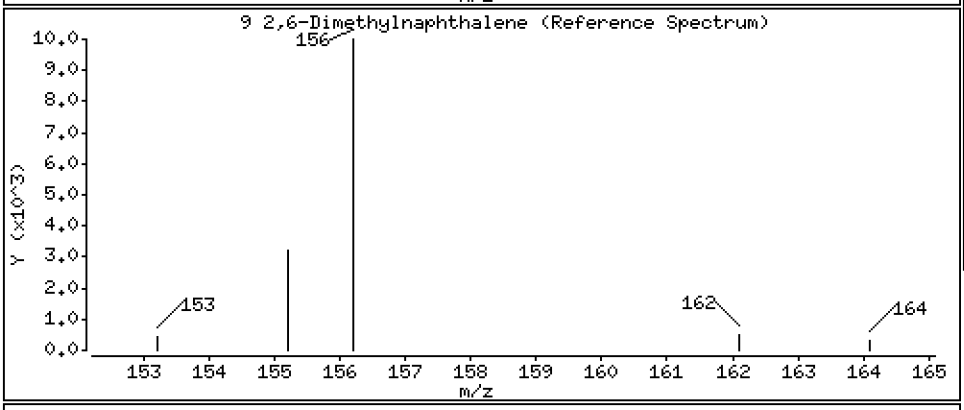
Concentration: 208 ng/mL

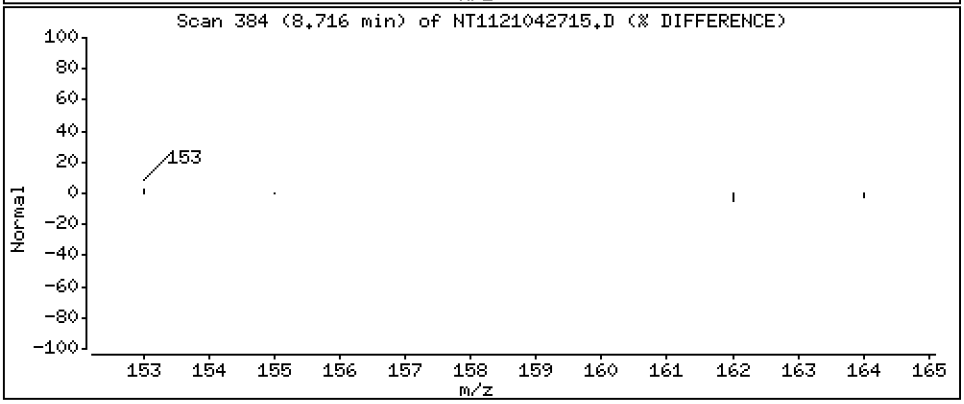


Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042715.D

Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

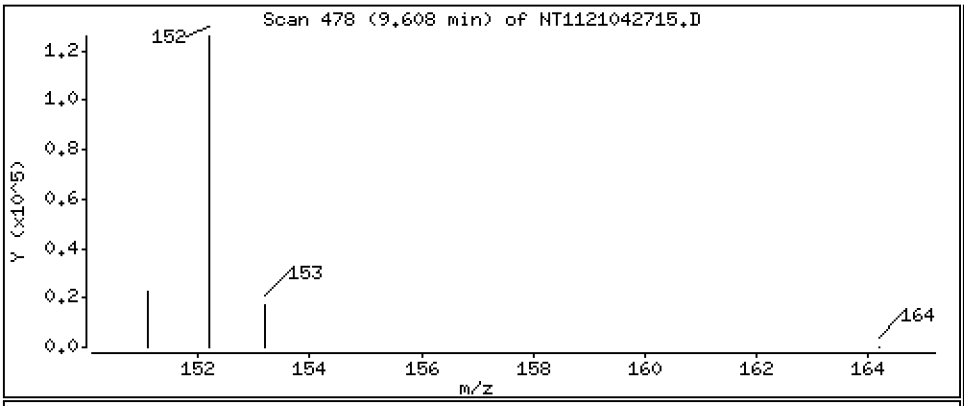
Operator: VTS

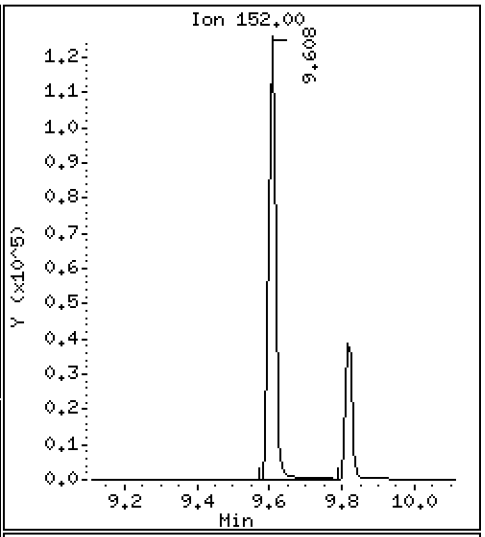
Column phase: Rxi-17Sil MS

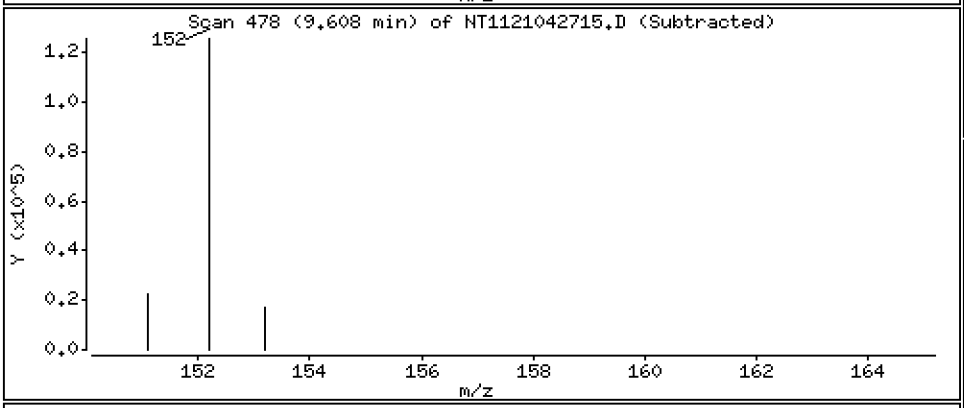
Column diameter: 0.25

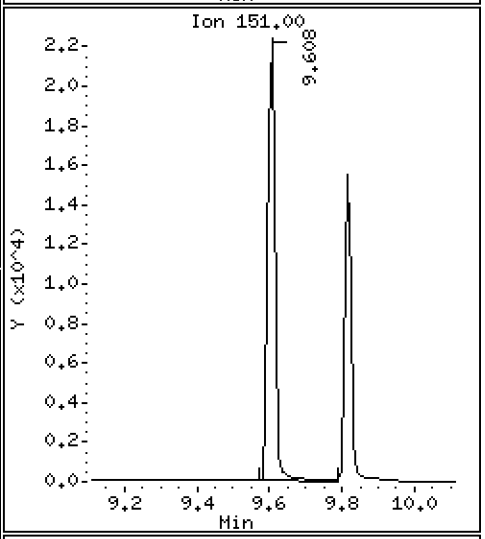
10 Acenaphthylene

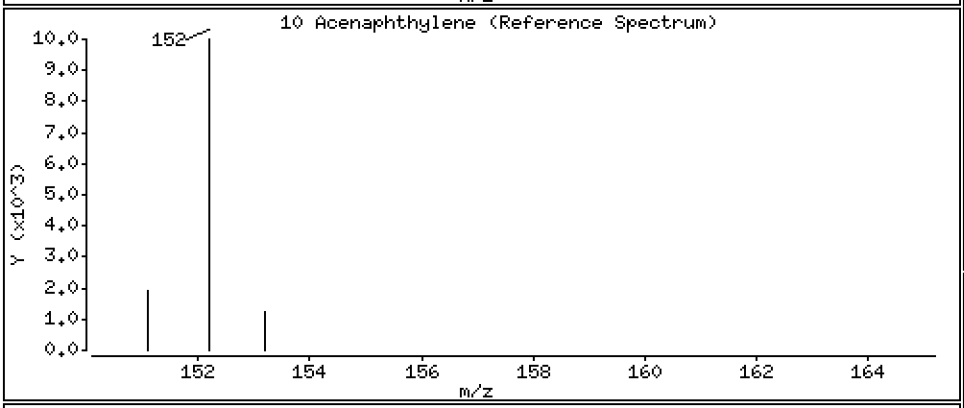
Concentration: 208 ng/mL

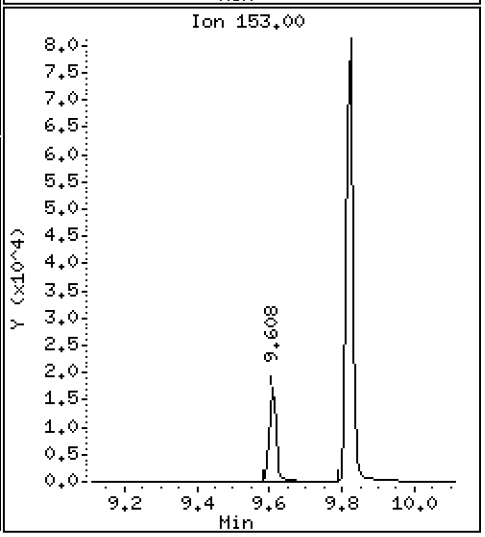


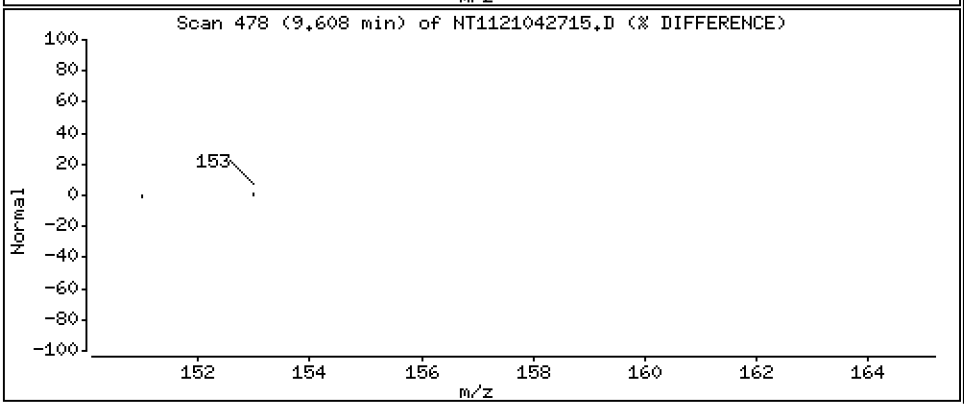



Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042715.D

Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

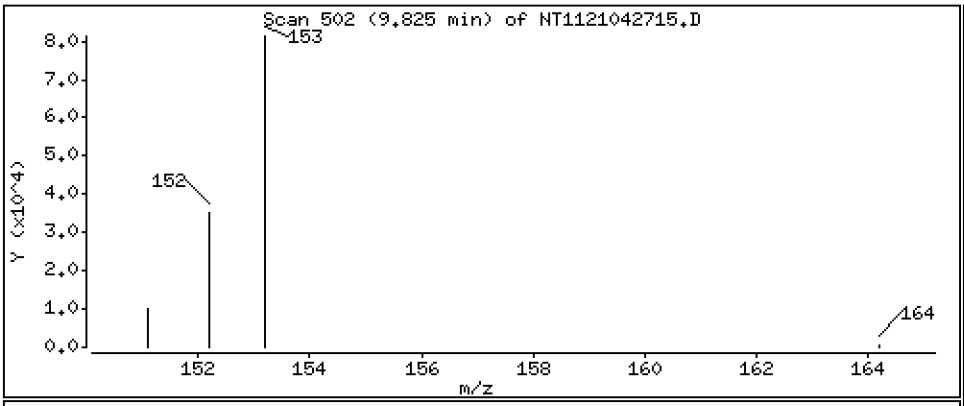
Operator: VTS

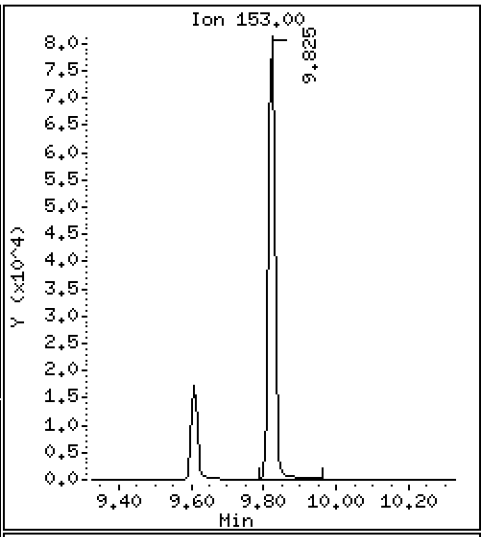
Column phase: Rxi-17Sil MS

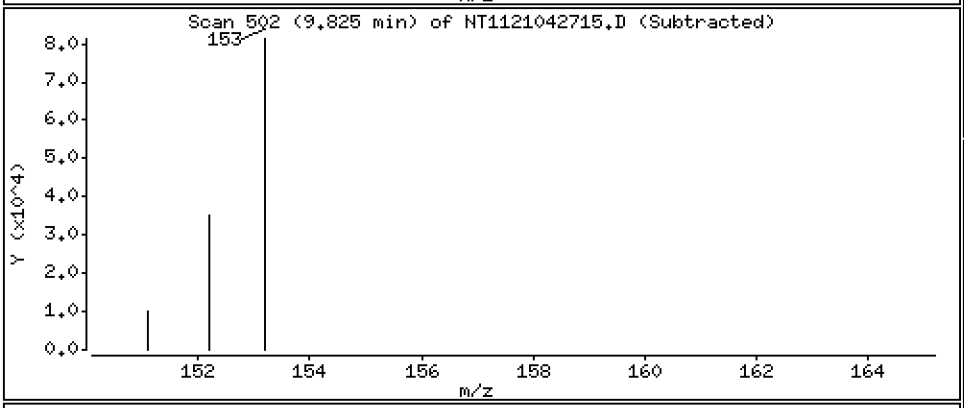
Column diameter: 0.25

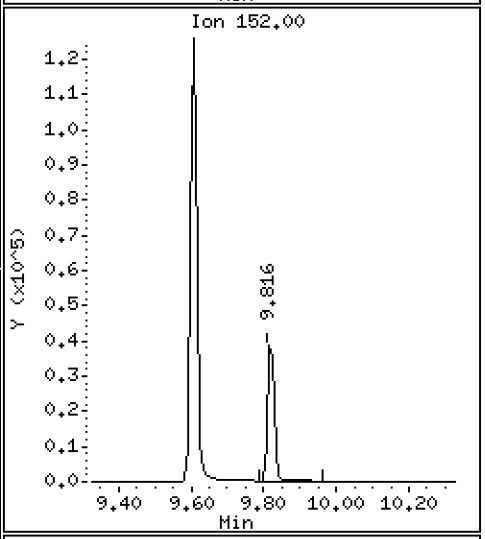
12 Acenaphthene

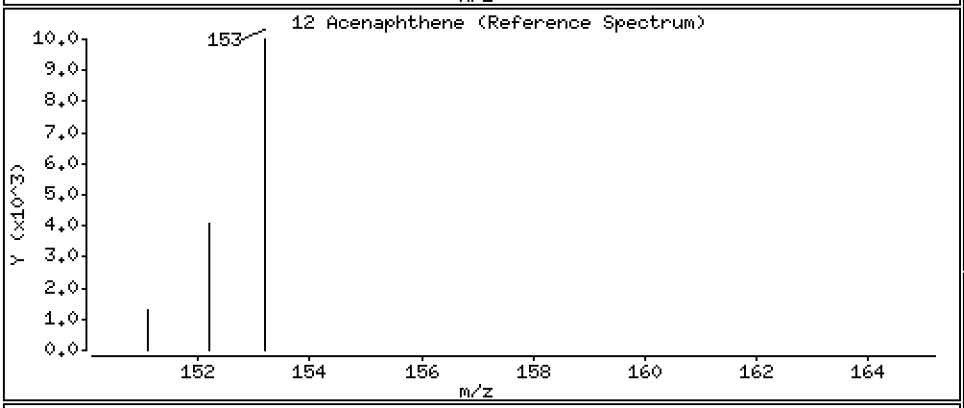
Concentration: 210 ng/mL

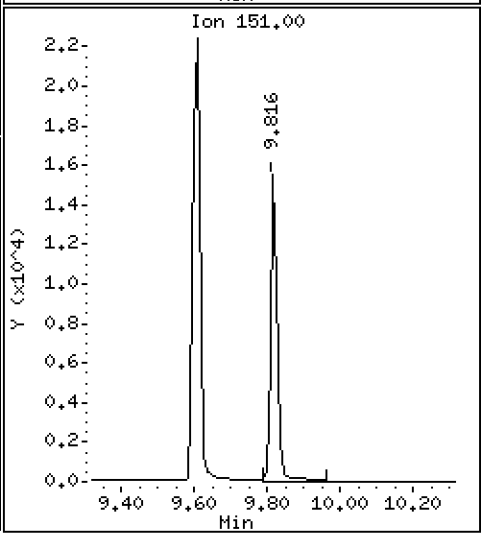


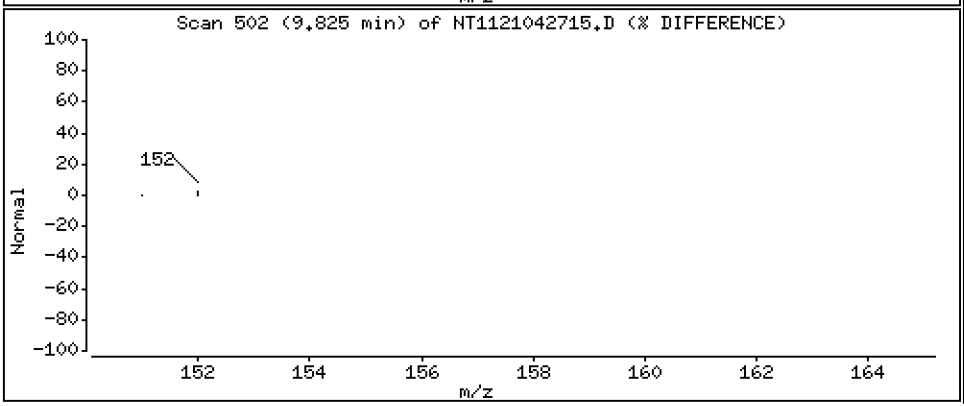



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Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

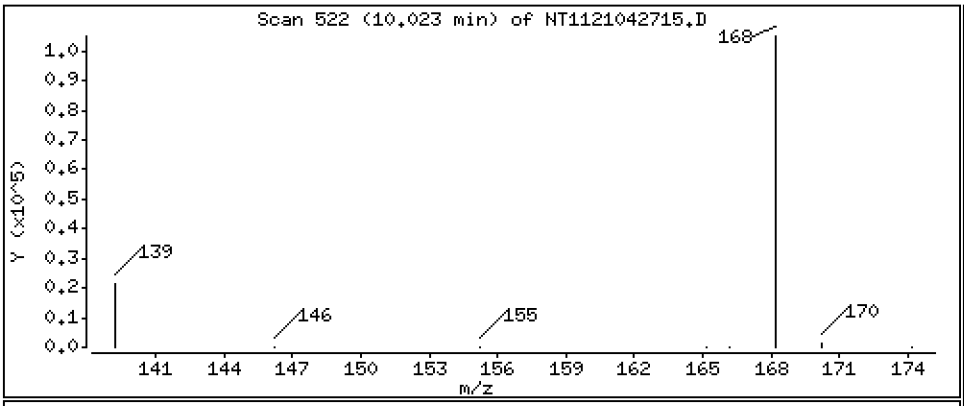
Operator: VTS

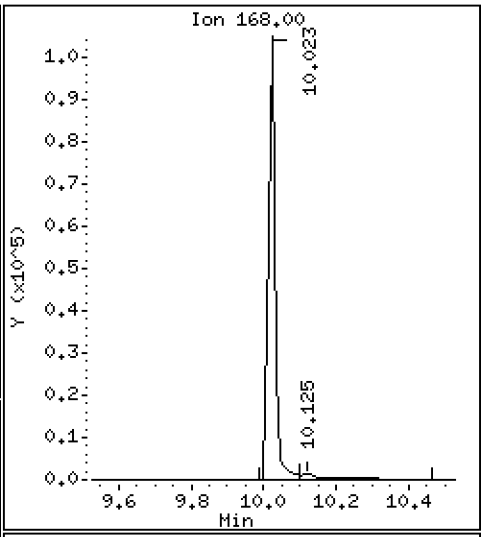
Column phase: Rxi-17Sil MS

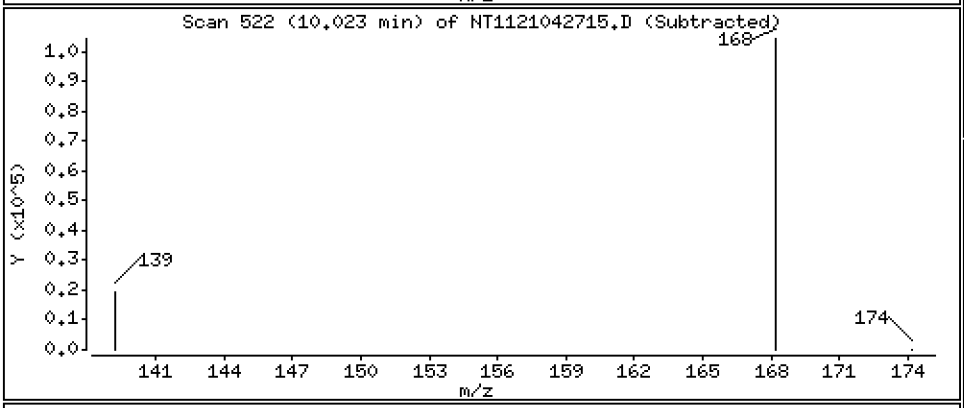
Column diameter: 0.25

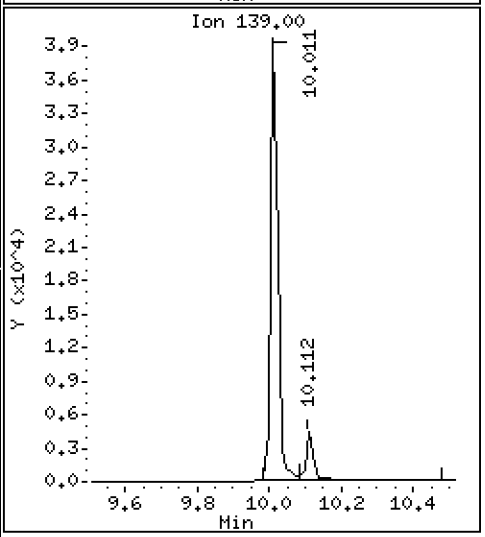
13 Dibenzofuran

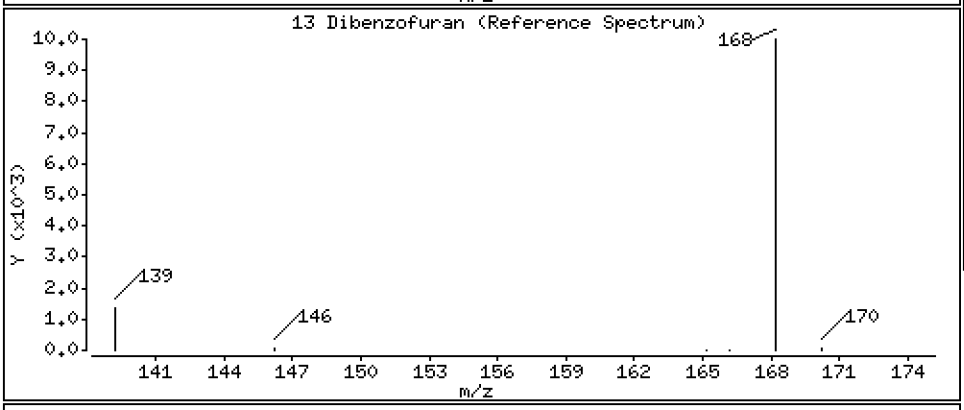
Concentration: 199 ng/mL

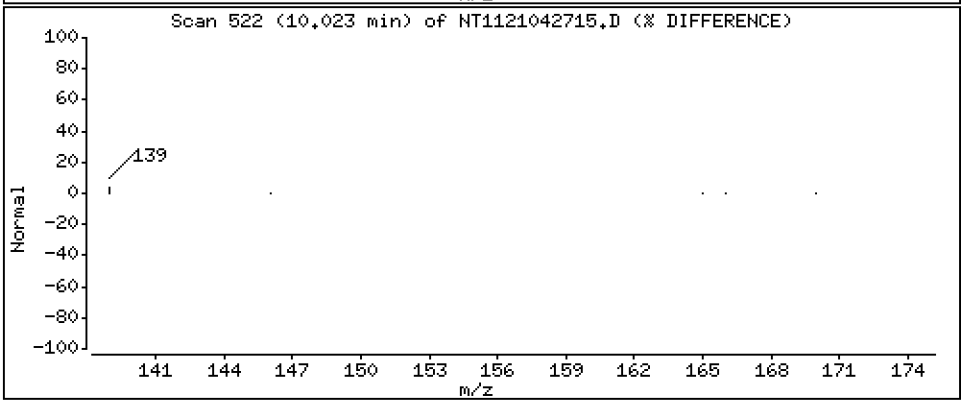


Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042715.D

Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

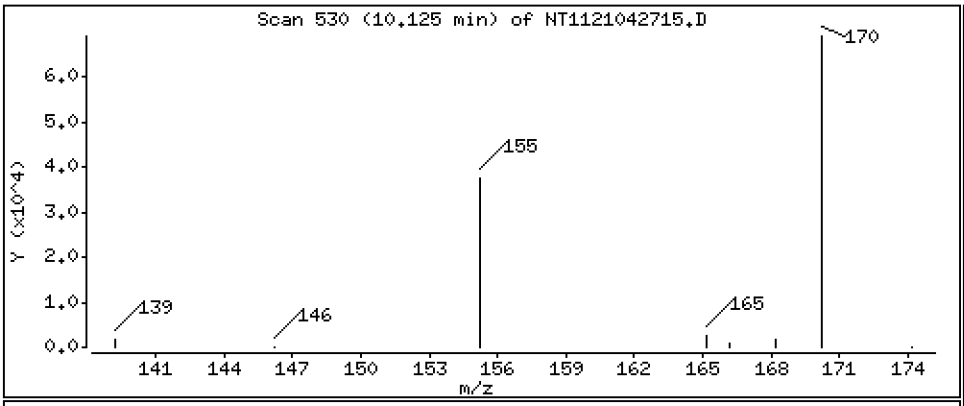
Operator: VTS

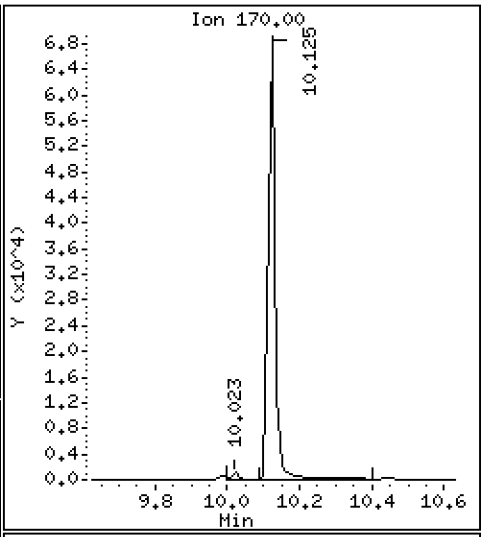
Column phase: Rxi-17Sil MS

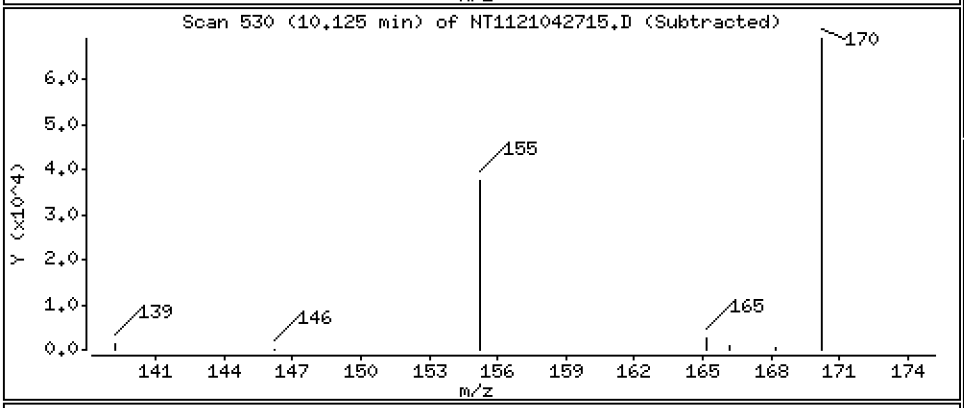
Column diameter: 0.25

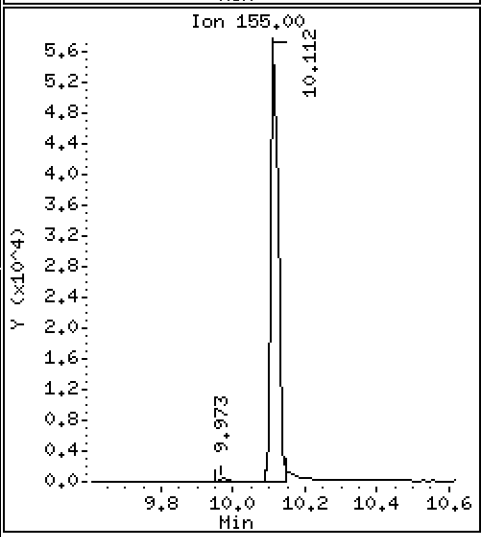
14 2,3,5-Trimethylnaphthalene

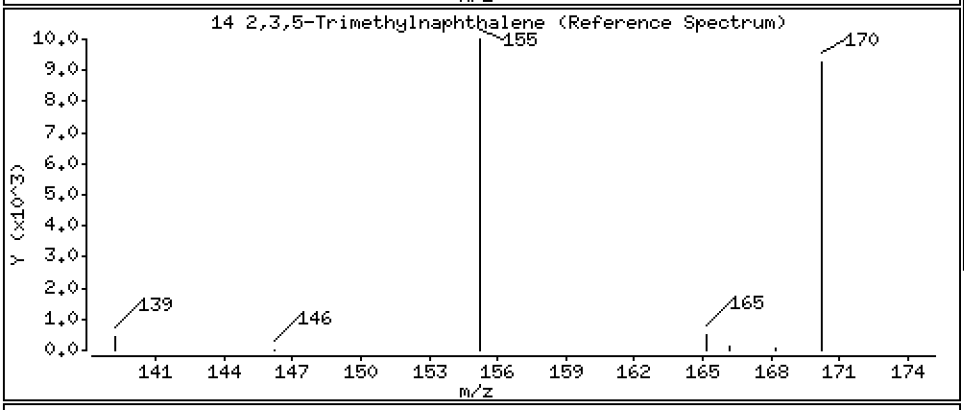
Concentration: 212 ng/mL

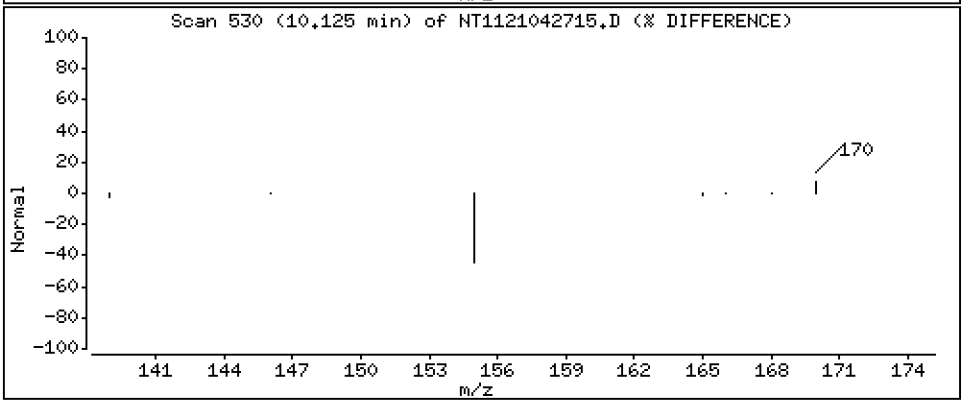


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Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

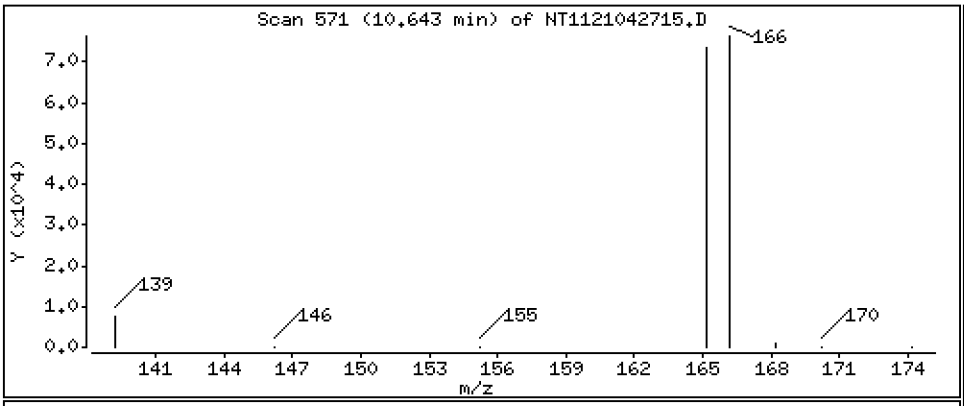
Operator: VTS

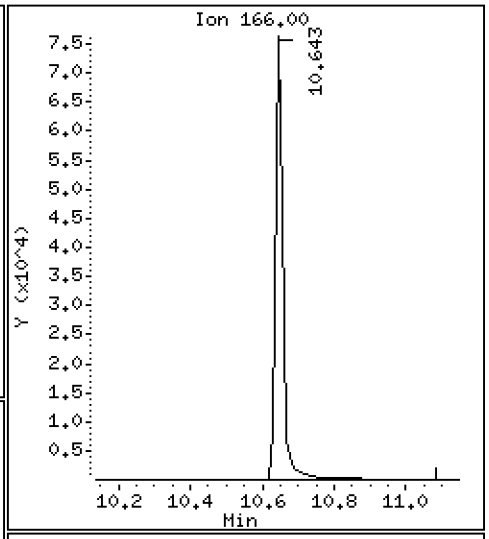
Column phase: Rxi-17Sil MS

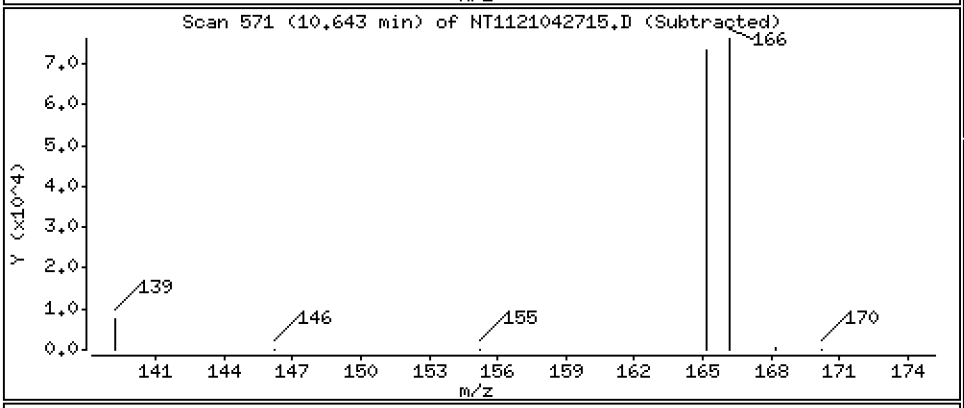
Column diameter: 0.25

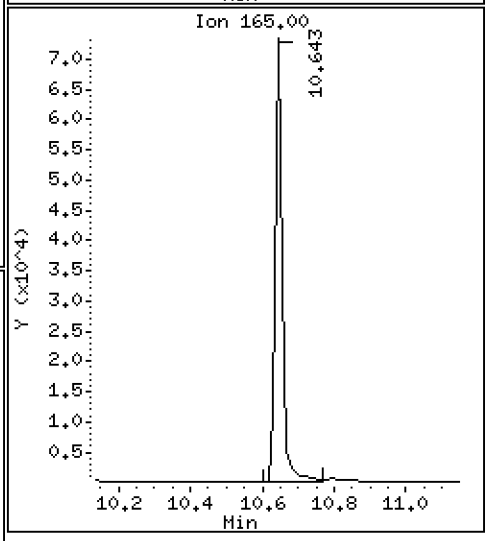
16 Fluorene

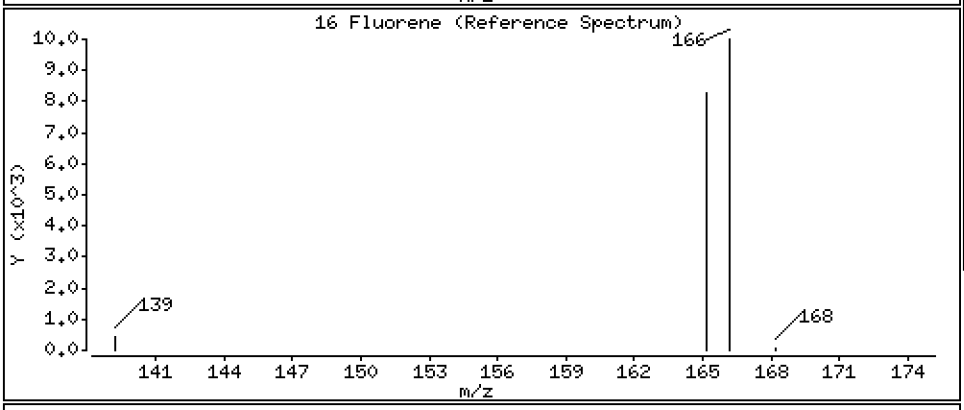
Concentration: 217 ng/mL

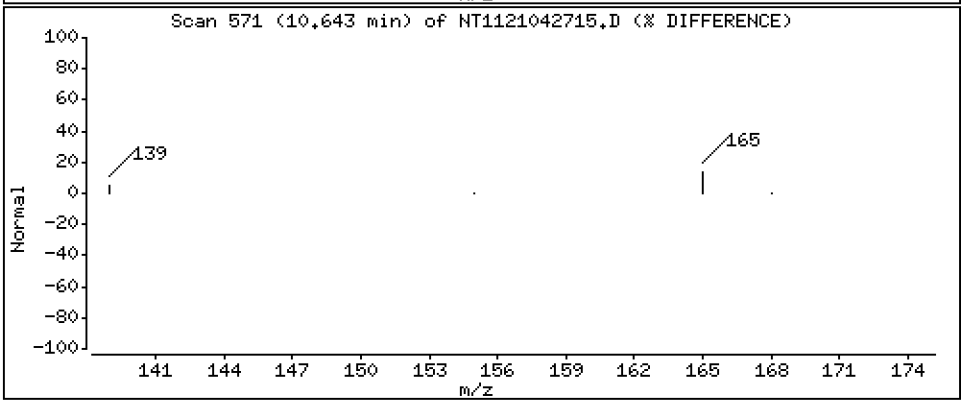


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Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

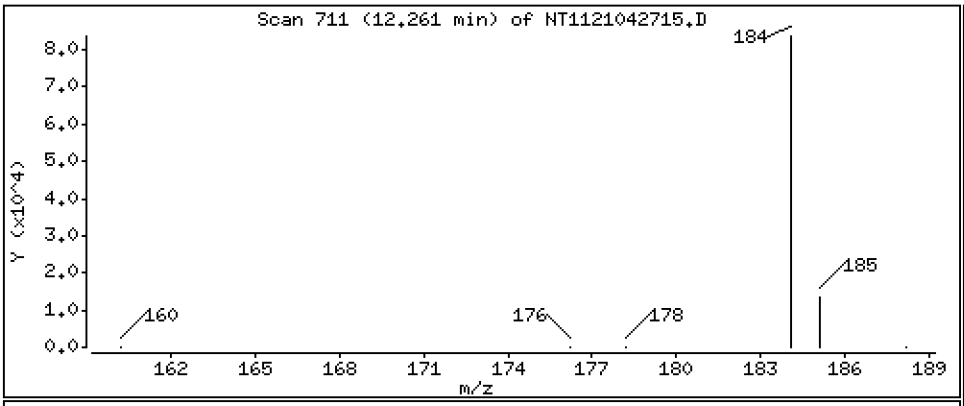
Operator: VTS

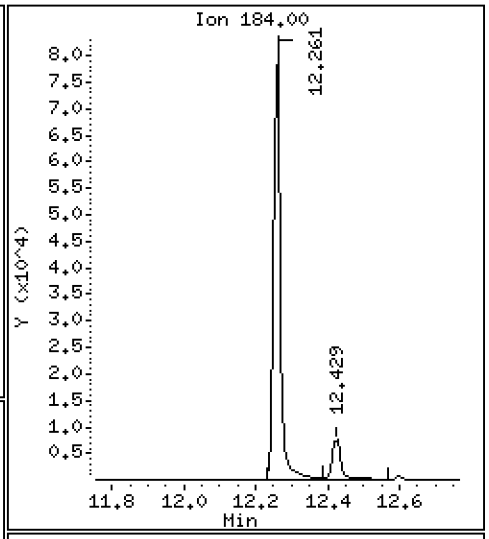
Column phase: Rxi-17Sil MS

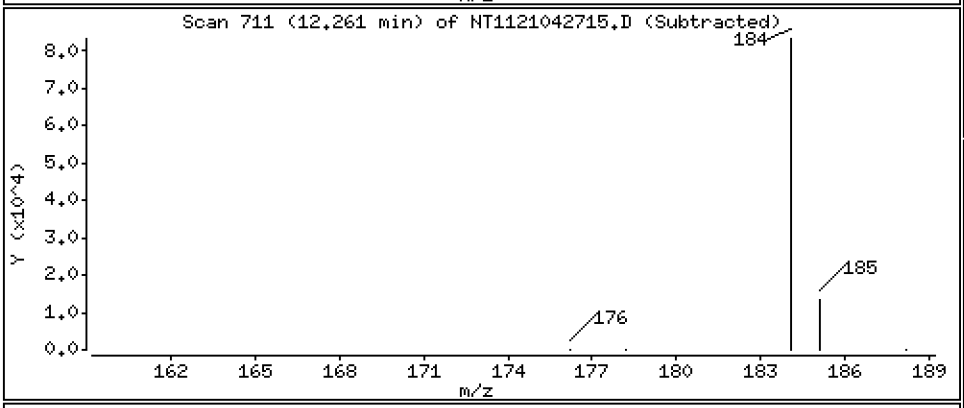
Column diameter: 0.25

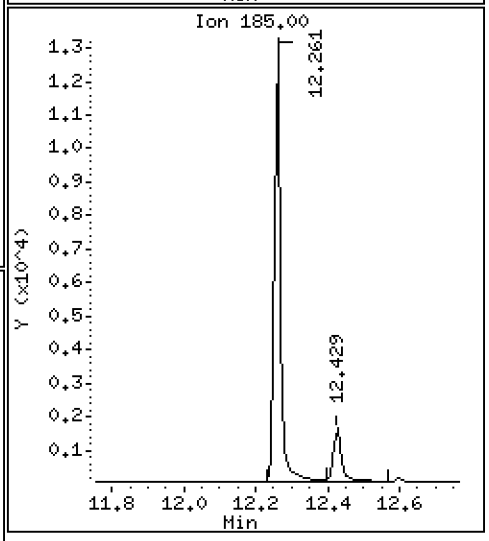
17 Dibenzothiophene

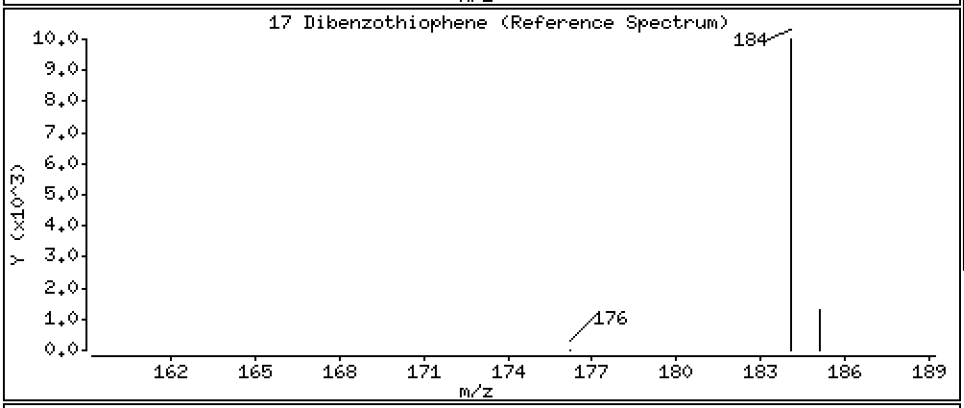
Concentration: 230 ng/mL

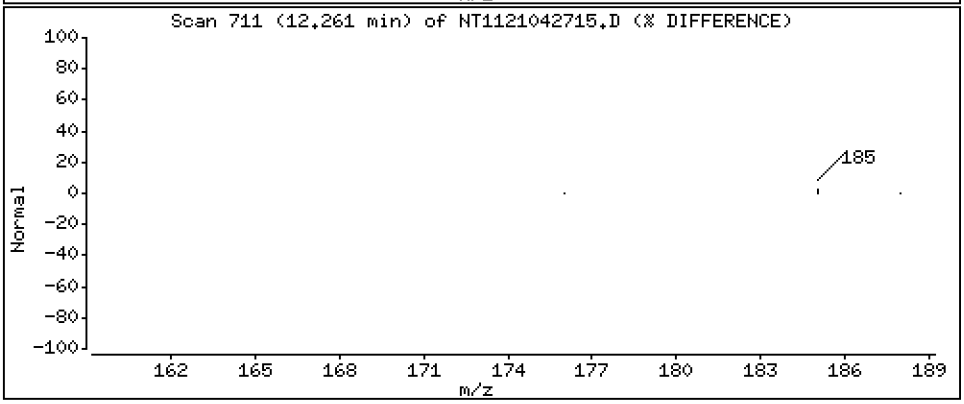


Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042715.D

Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

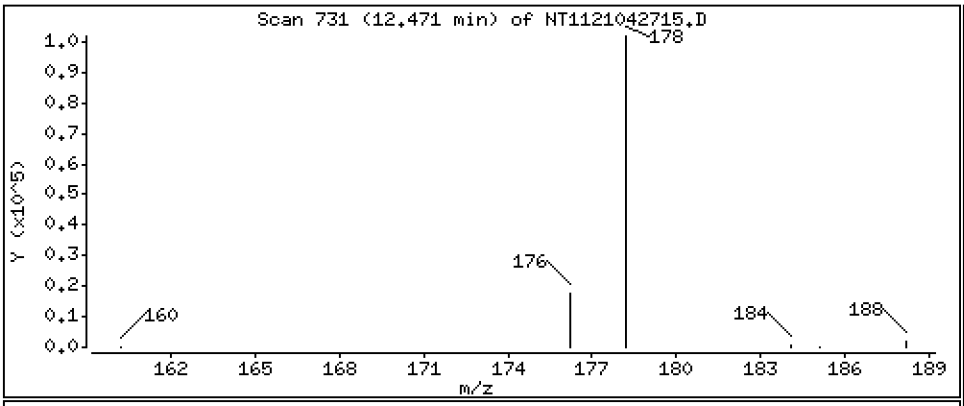
Operator: VTS

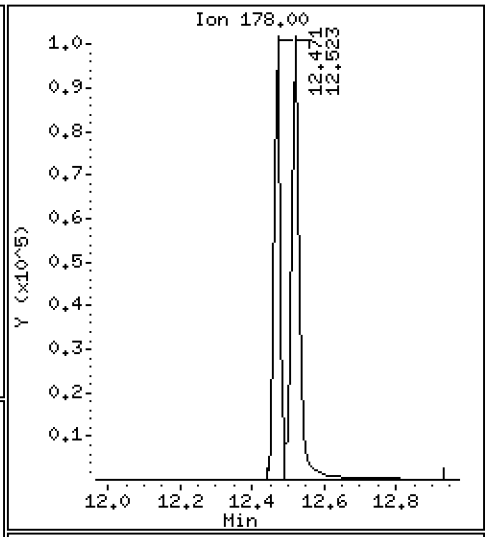
Column phase: Rxi-17Sil MS

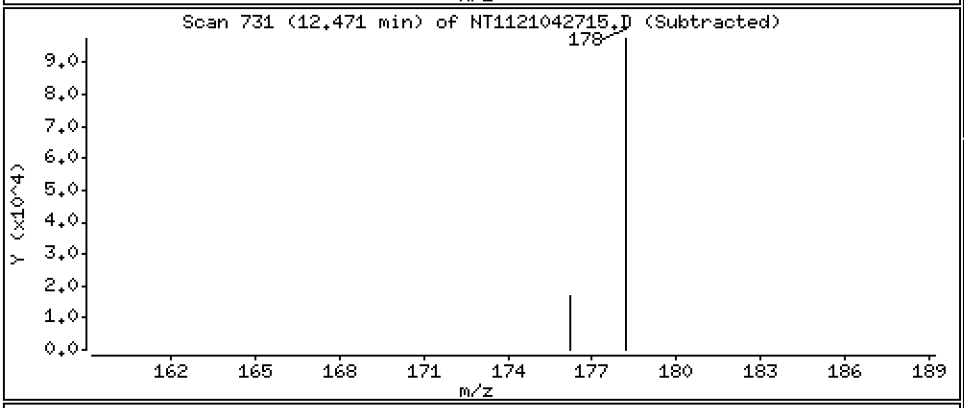
Column diameter: 0.25

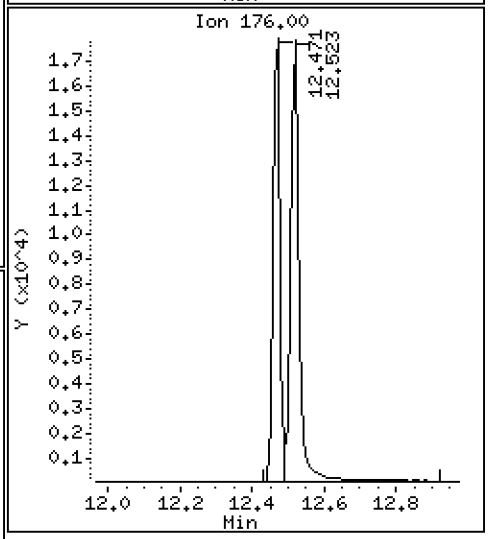
19 Phenanthrene

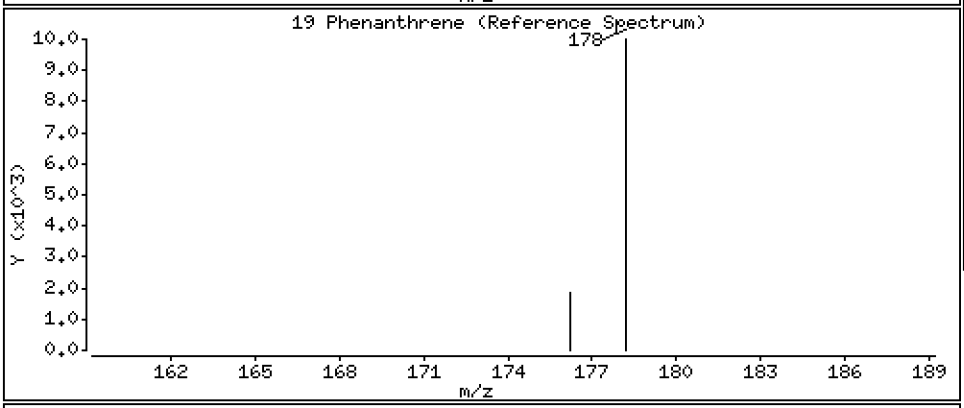
Concentration: 223 ng/mL

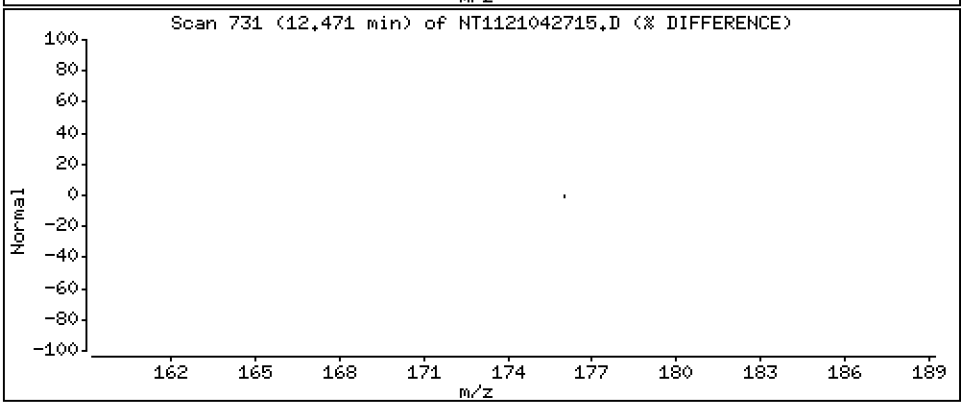


Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042715.D

Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

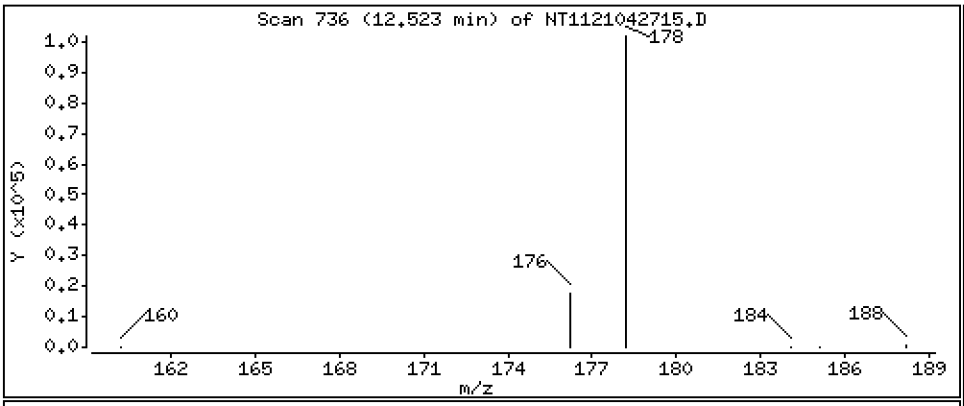
Operator: VTS

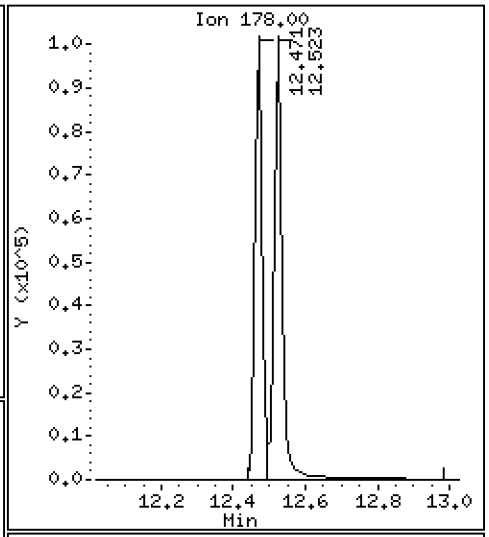
Column phase: Rxi-17Sil MS

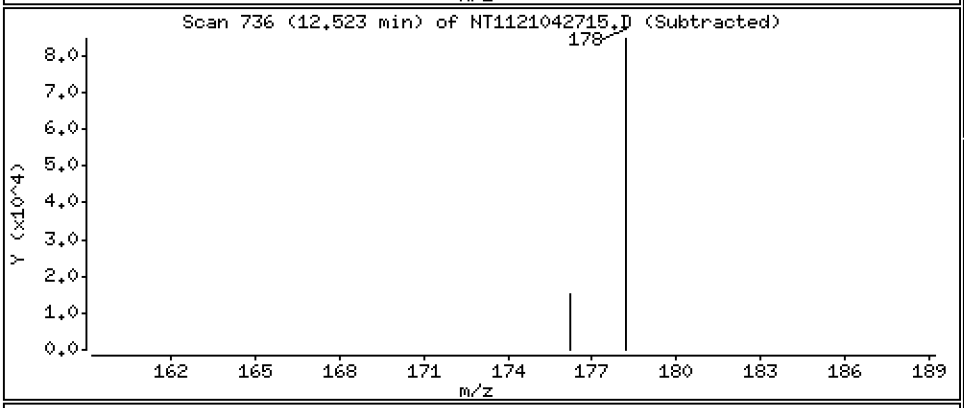
Column diameter: 0.25

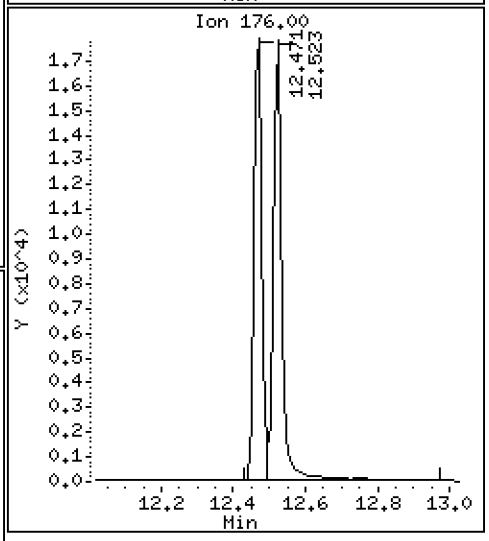
21 Anthracene

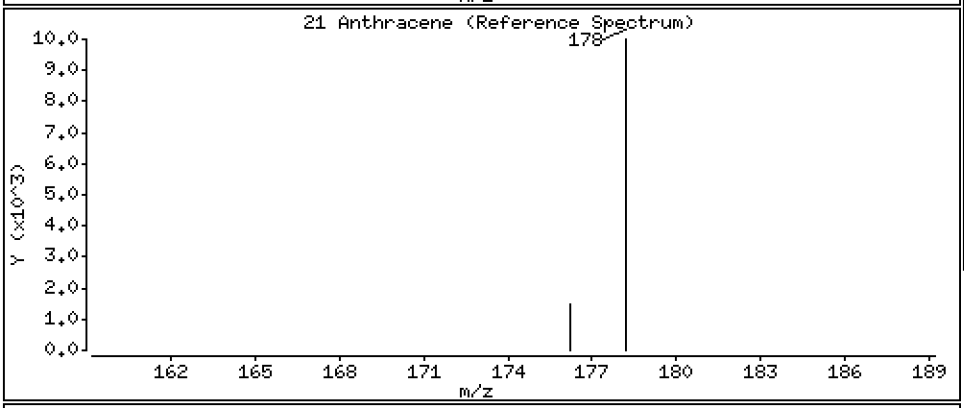
Concentration: 251 ng/mL

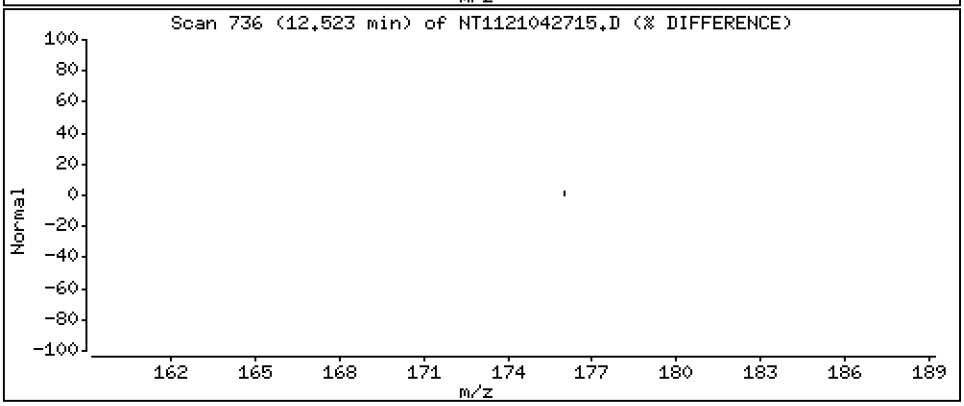


Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042715.D

Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

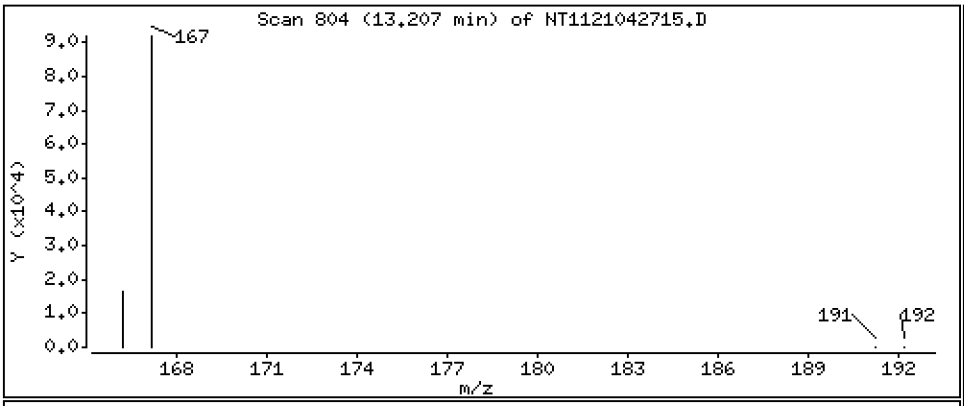
Operator: VTS

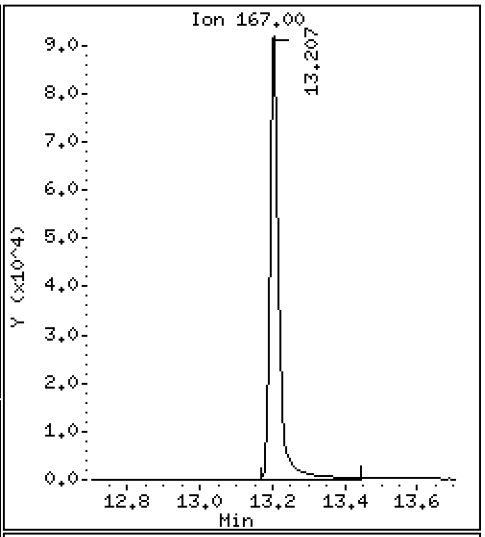
Column phase: Rxi-17Sil MS

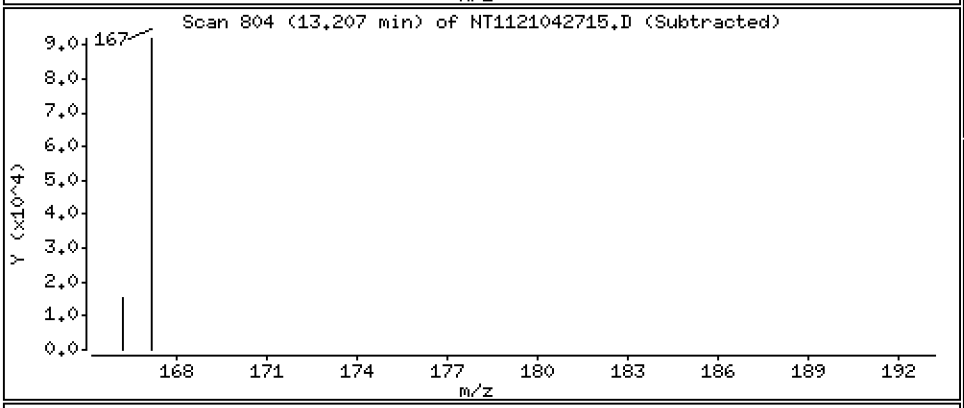
Column diameter: 0.25

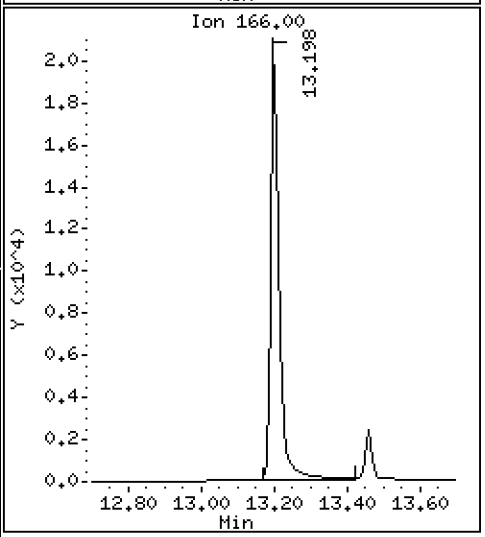
22 Carbazole

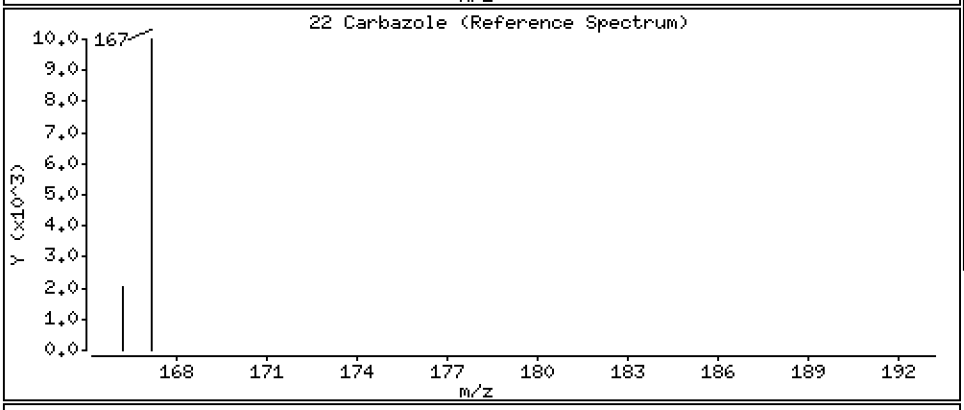
Concentration: 244 ng/mL

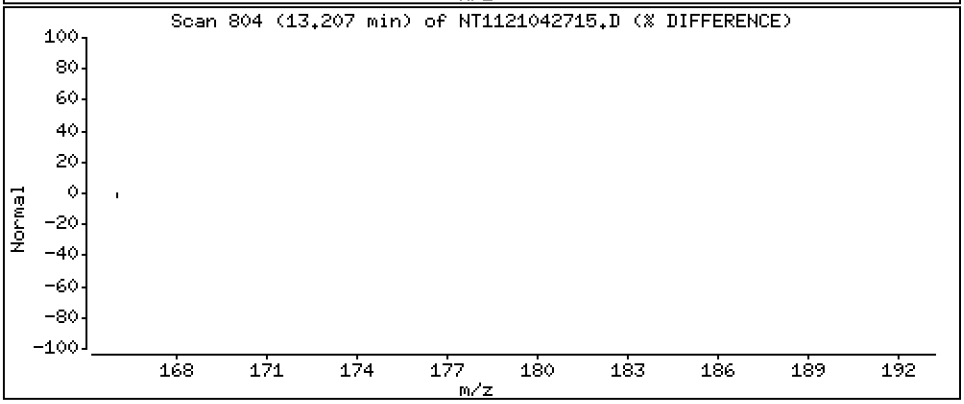


Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042715.D

Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

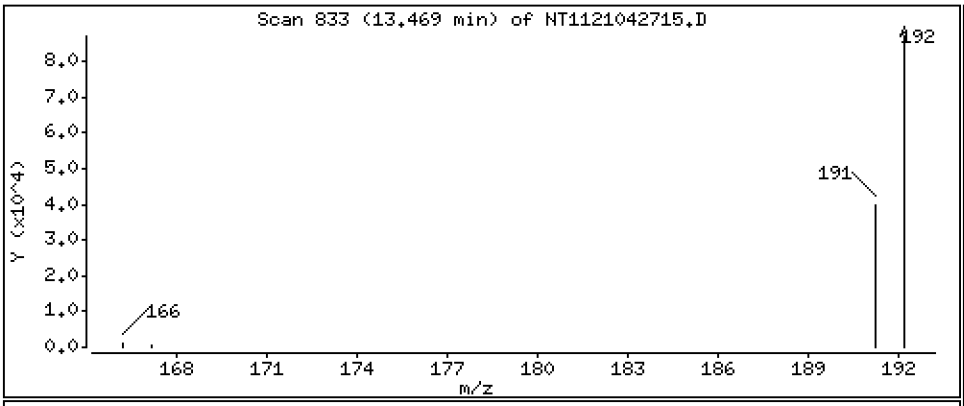
Operator: VTS

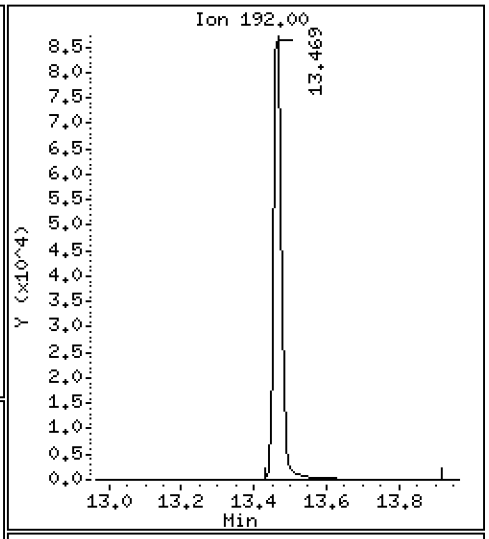
Column phase: Rxi-17Sil MS

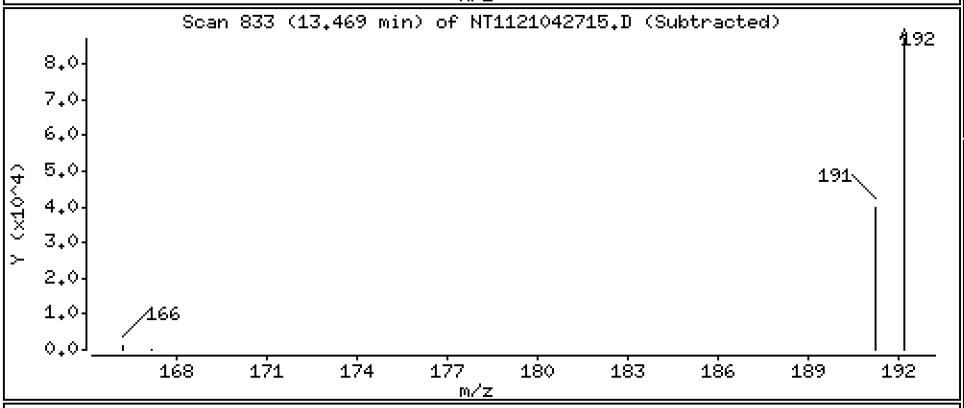
Column diameter: 0.25

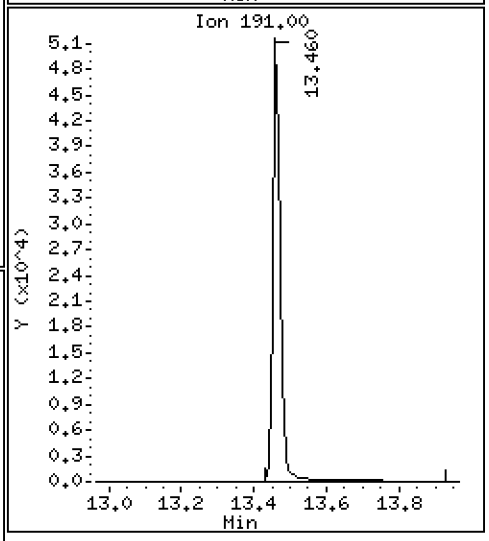
23 1-Methylphenanthrene

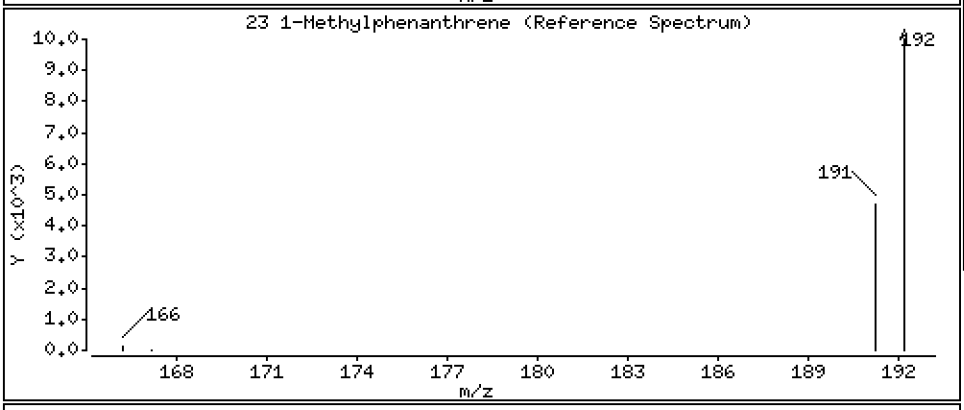
Concentration: 241 ng/mL

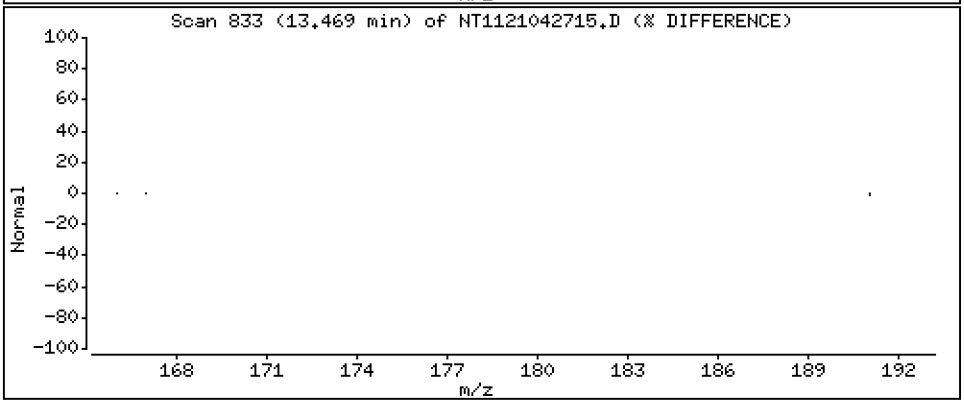


Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042715.D

Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

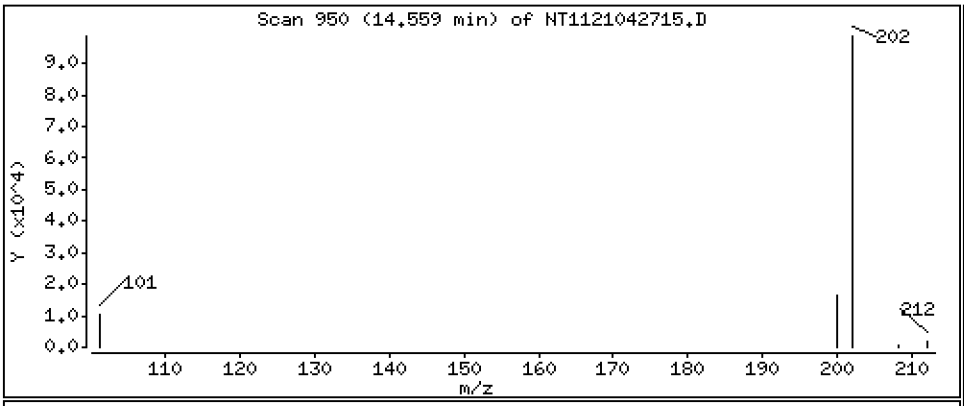
Operator: VTS

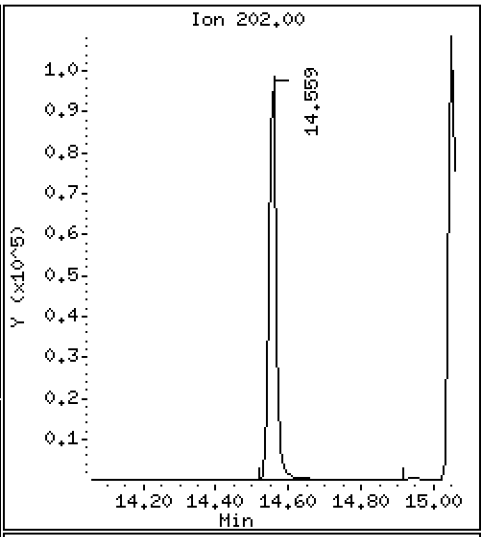
Column phase: Rxi-17Sil MS

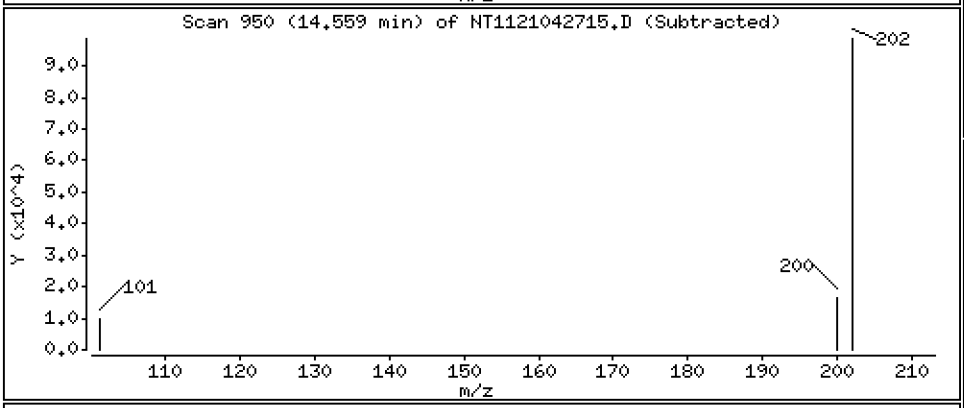
Column diameter: 0.25

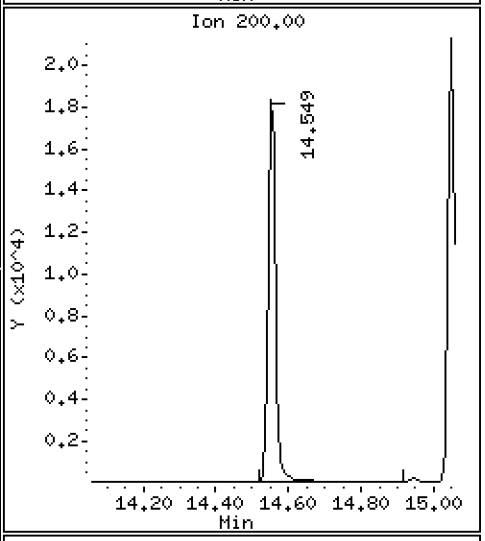
25 Fluoranthene

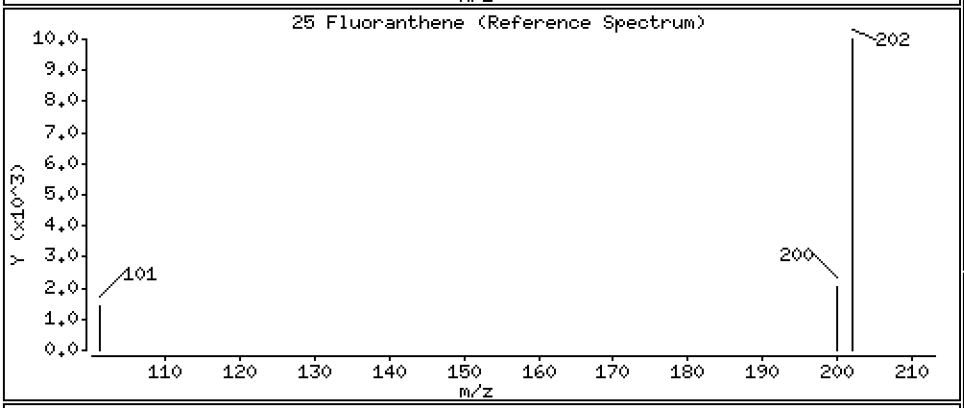
Concentration: 232 ng/mL

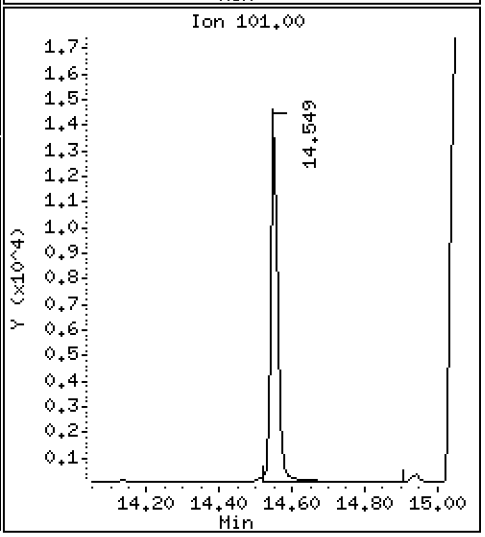


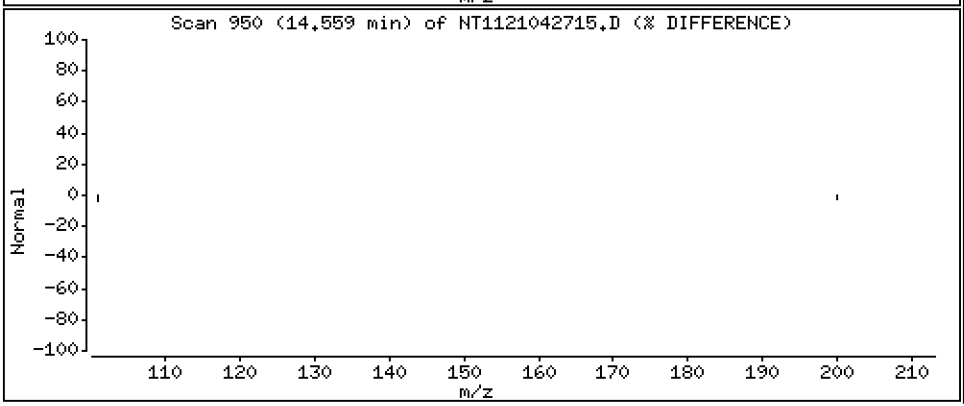



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Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

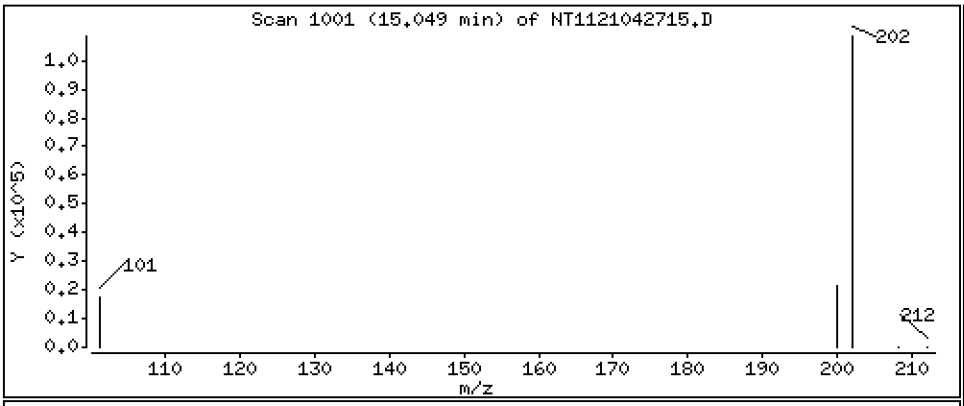
Operator: VTS

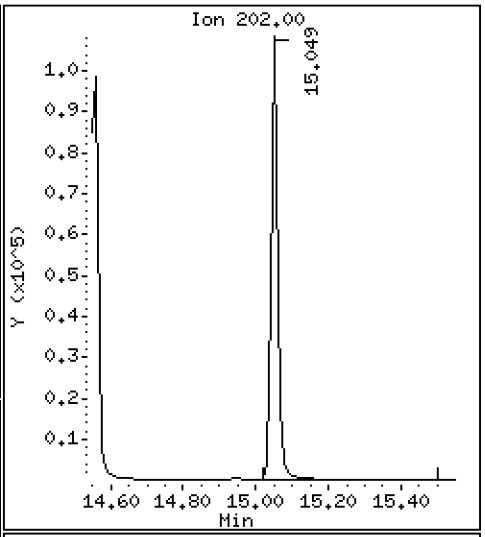
Column phase: Rxi-17Sil MS

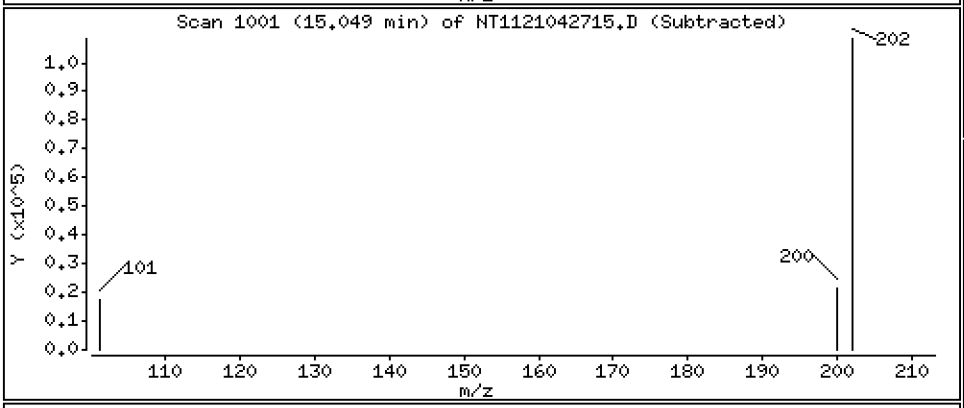
Column diameter: 0.25

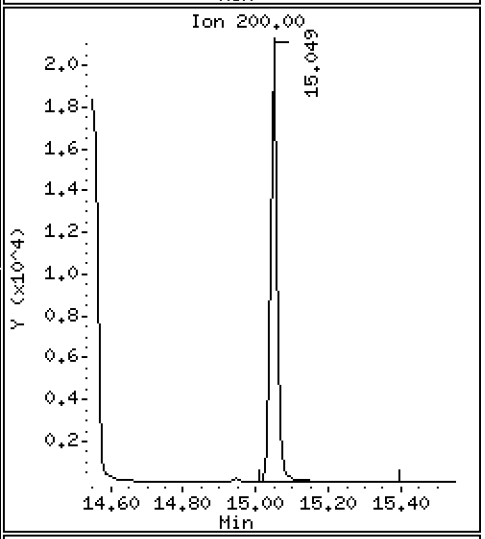
26 Pyrene

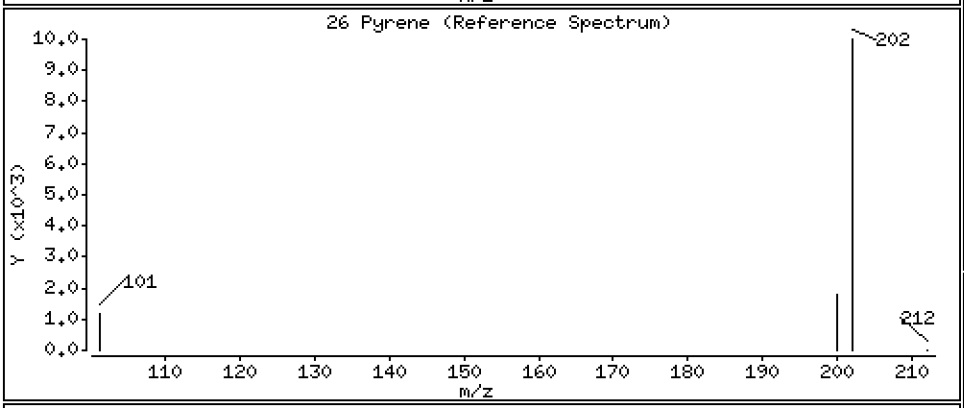
Concentration: 236 ng/mL

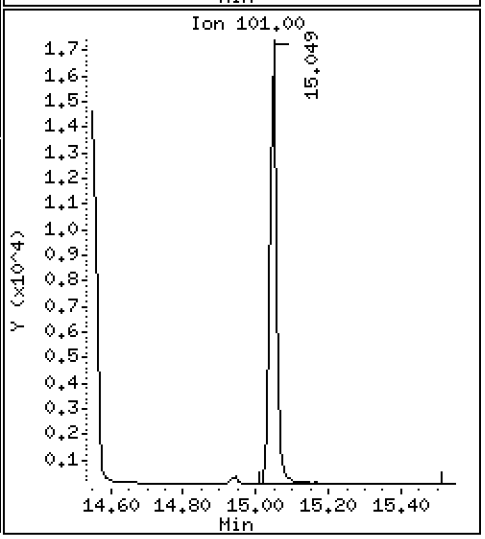


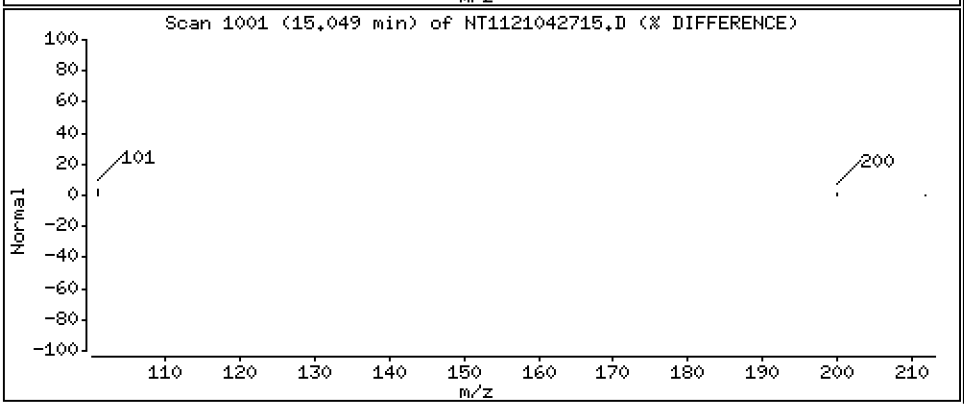



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Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

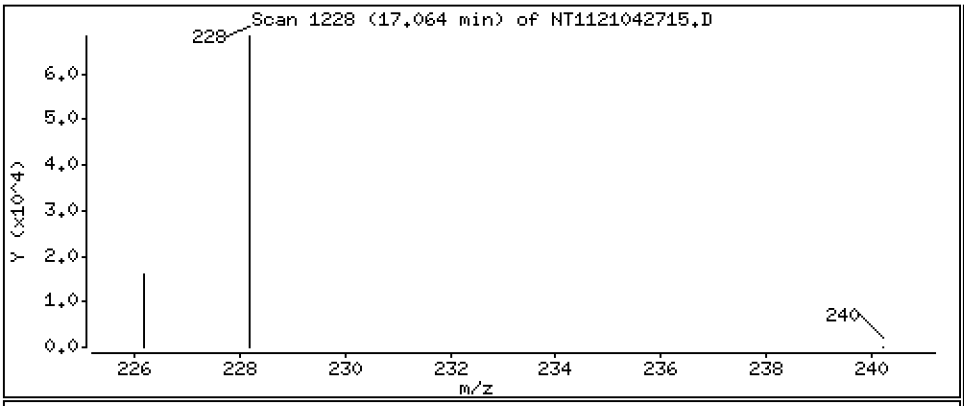
Operator: VTS

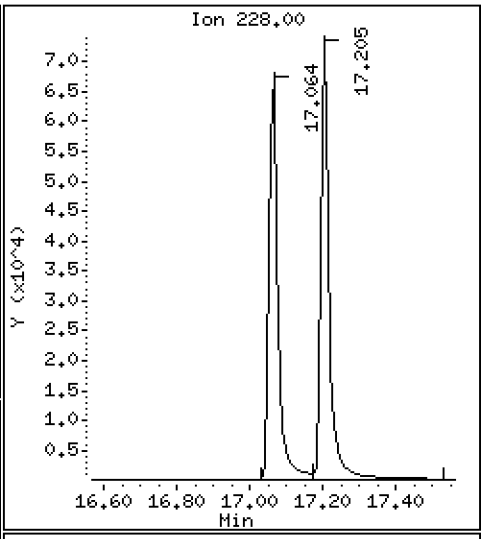
Column phase: Rxi-17Sil MS

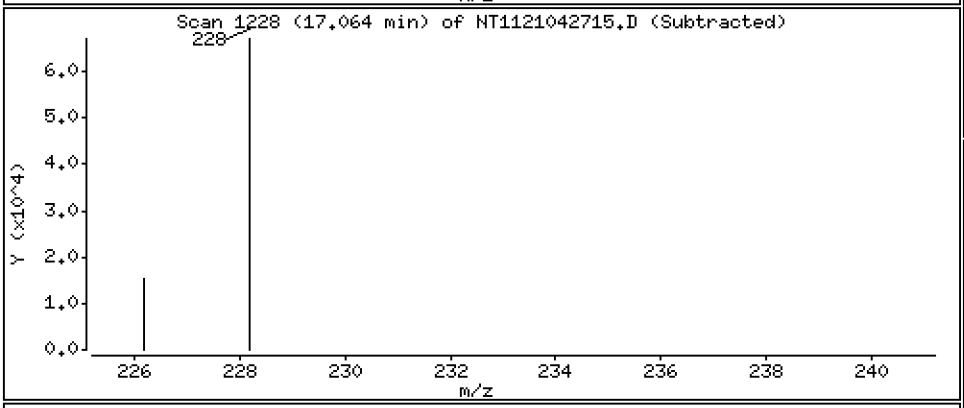
Column diameter: 0.25

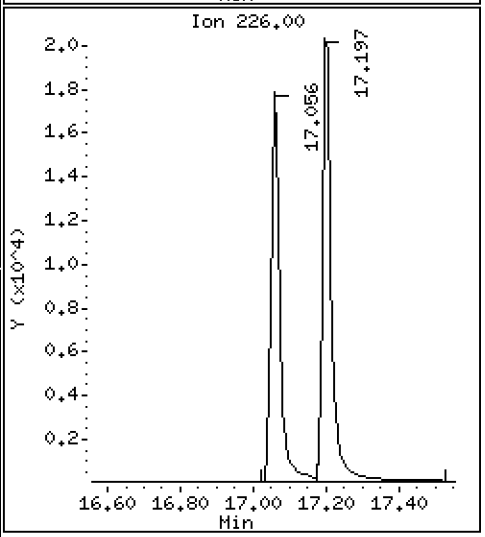
27 Benzo(a)anthracene

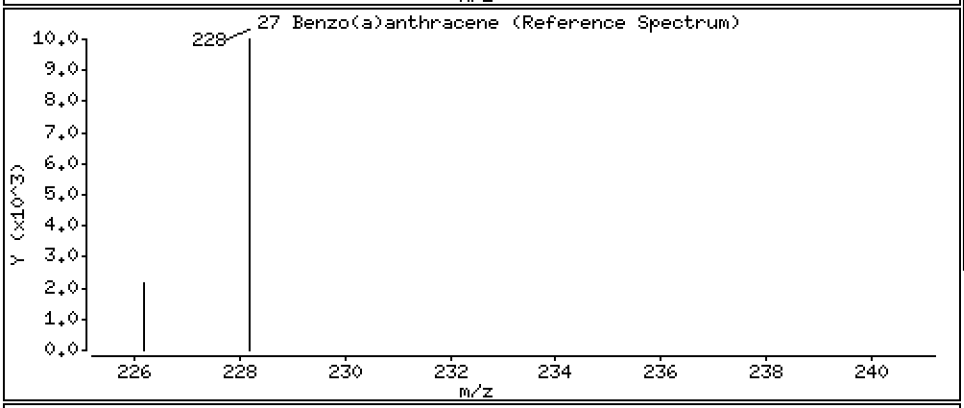
Concentration: 235 ng/mL

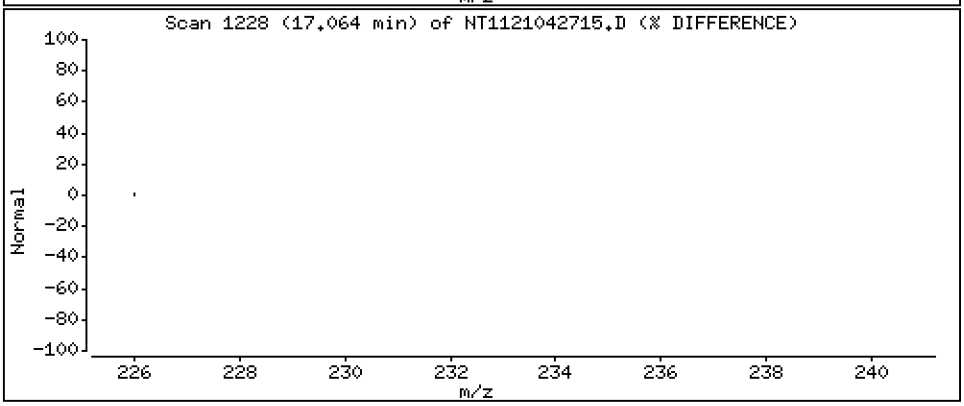


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Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

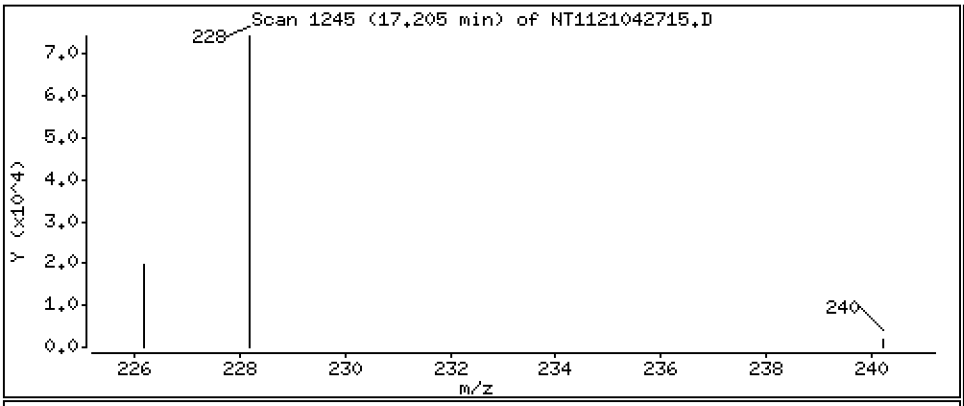
Operator: VTS

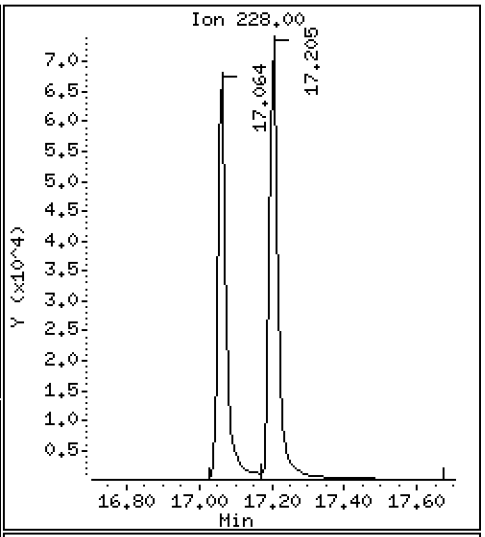
Column phase: Rxi-17Sil MS

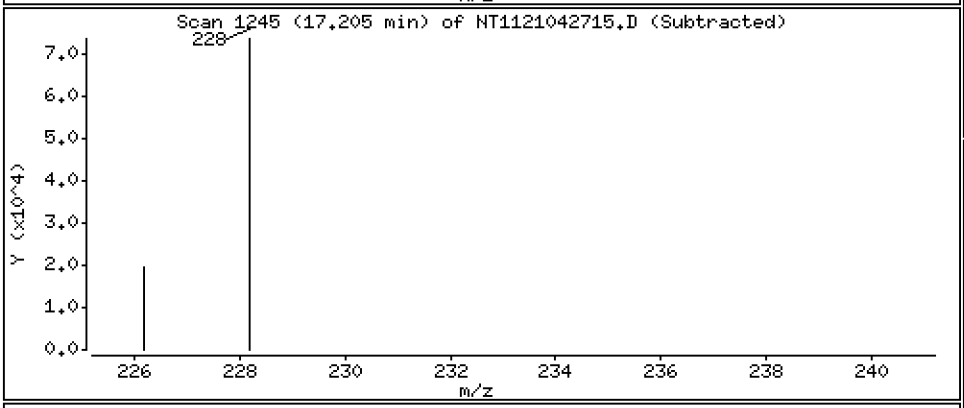
Column diameter: 0.25

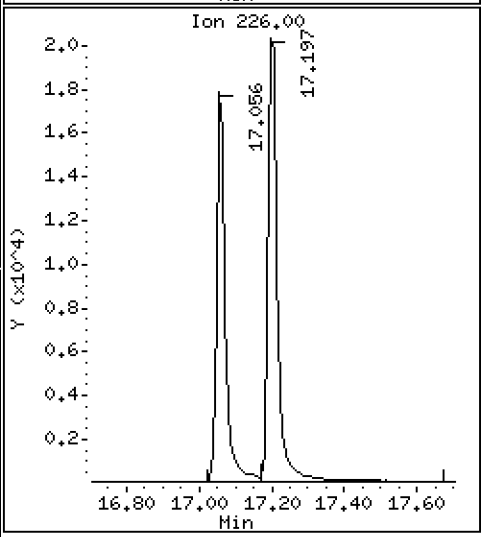
29 Chrysene

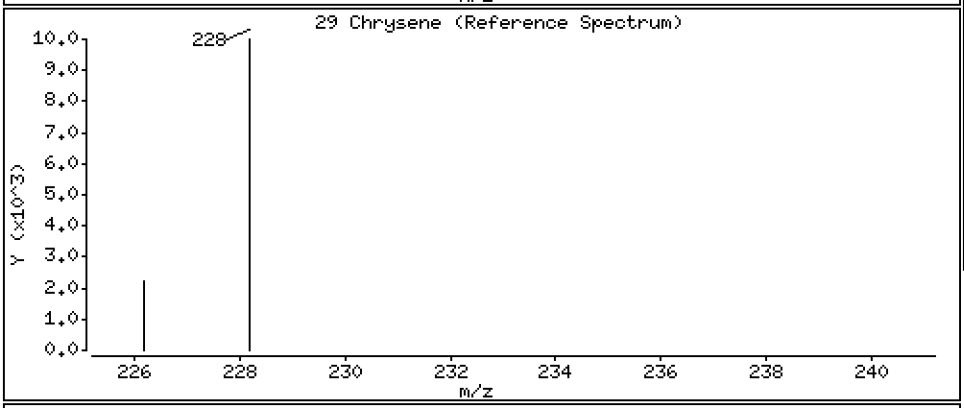
Concentration: 229 ng/mL

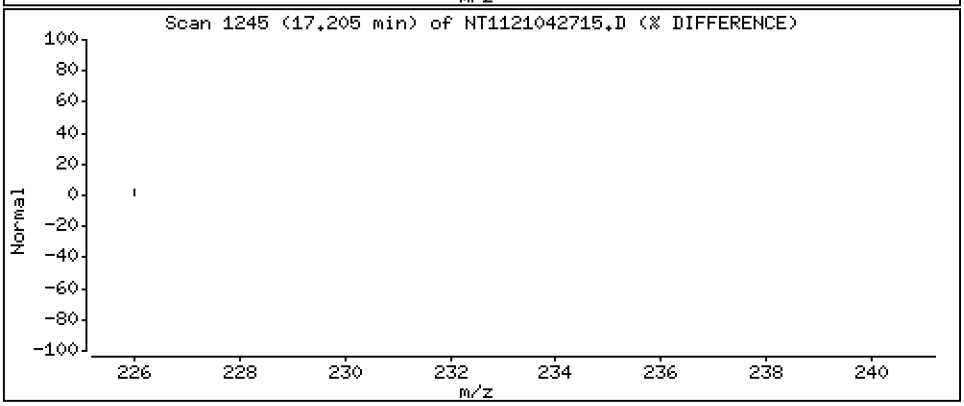


Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042715.D

Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

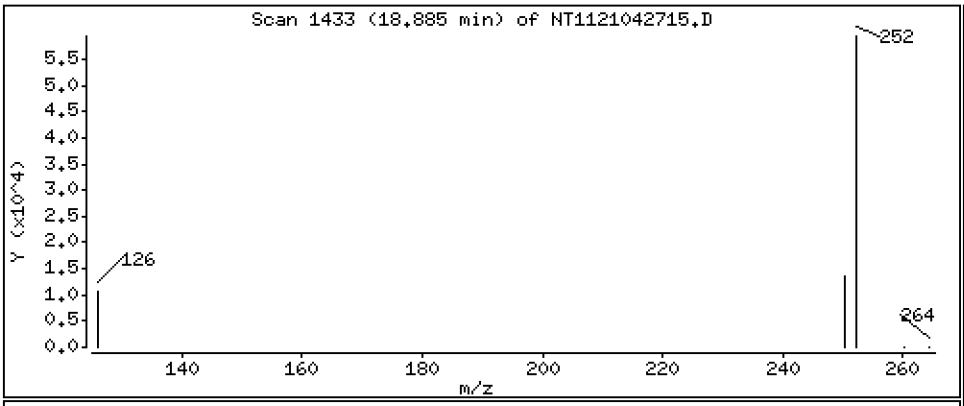
Operator: VTS

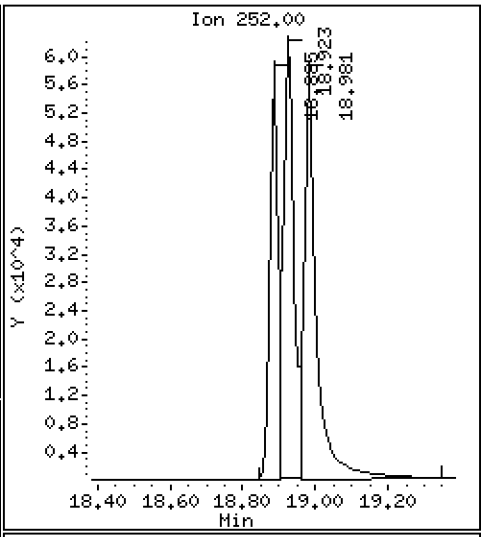
Column phase: Rxi-17Sil MS

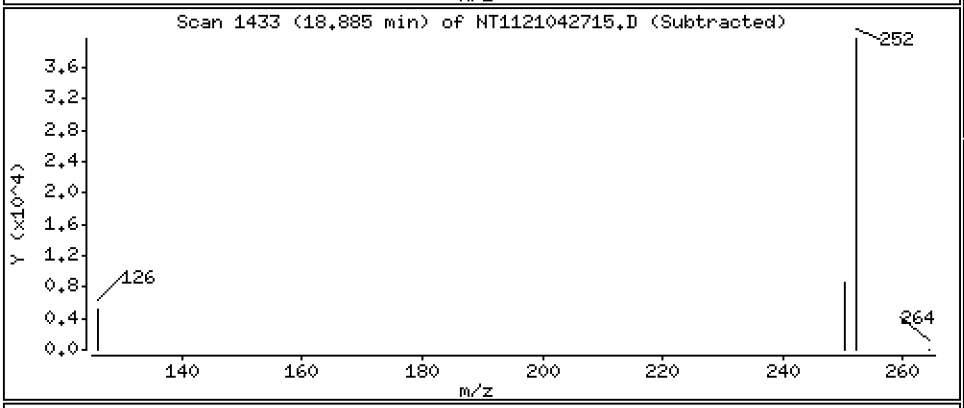
Column diameter: 0.25

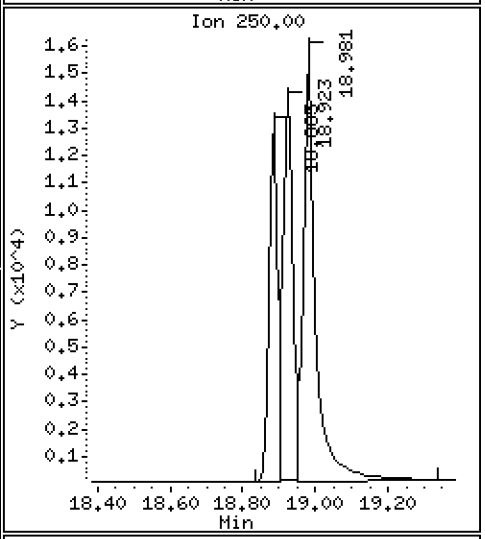
30 Benzo(b)fluoranthene

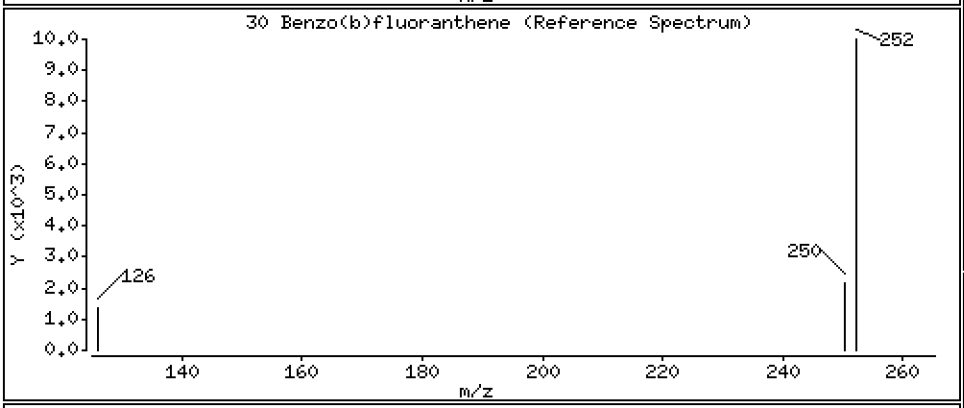
Concentration: 230 ng/mL

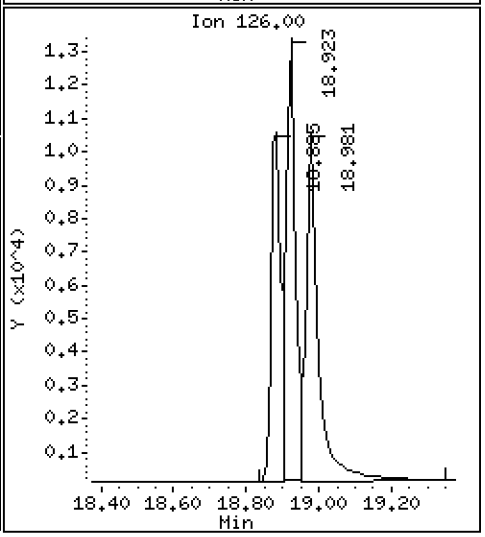


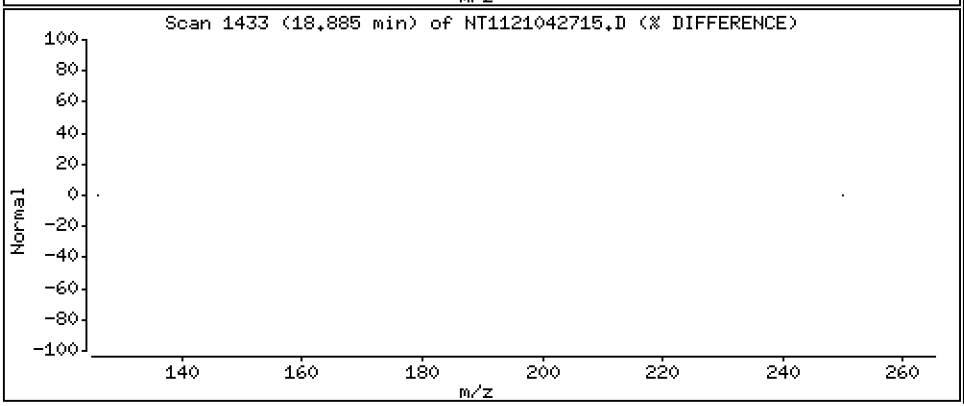



Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042715.D

Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

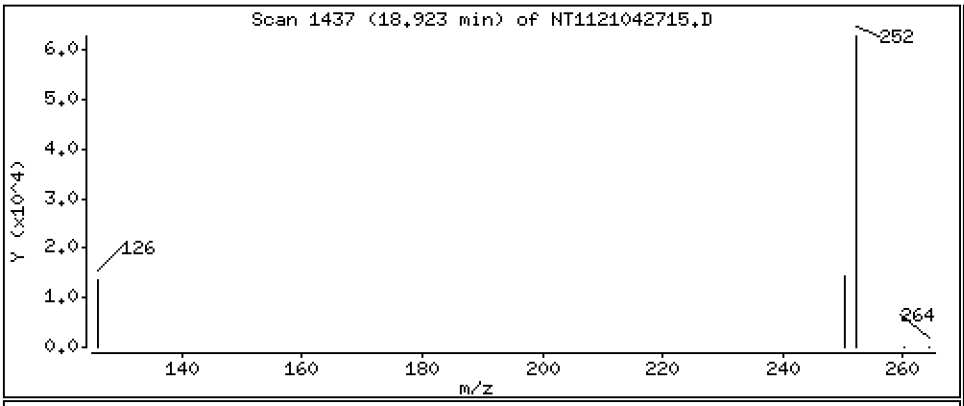
Operator: VTS

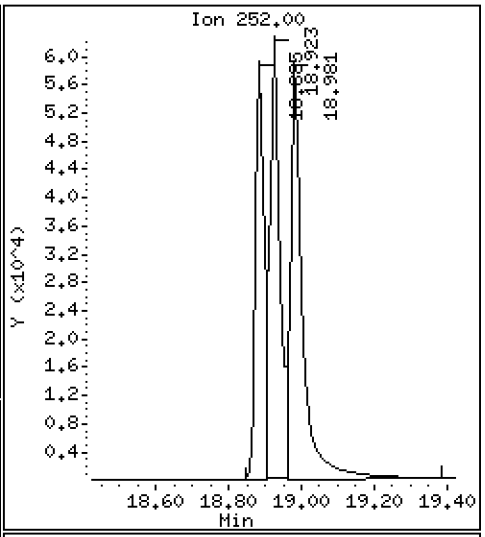
Column phase: Rxi-17Sil MS

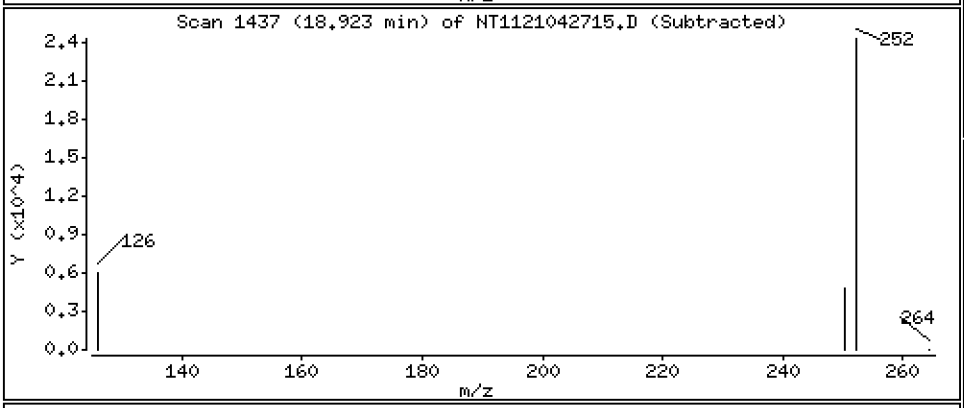
Column diameter: 0.25

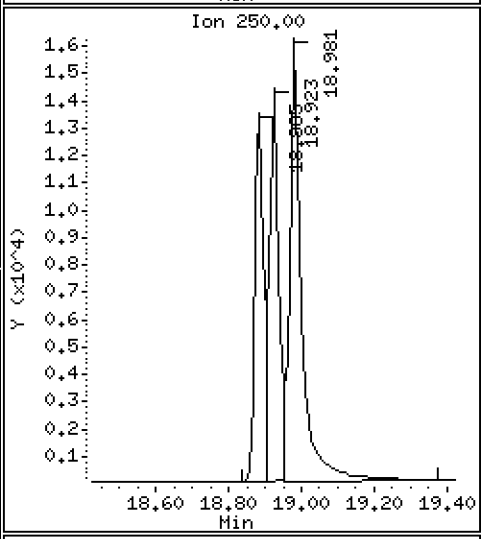
31 Benzo(k)fluoranthene

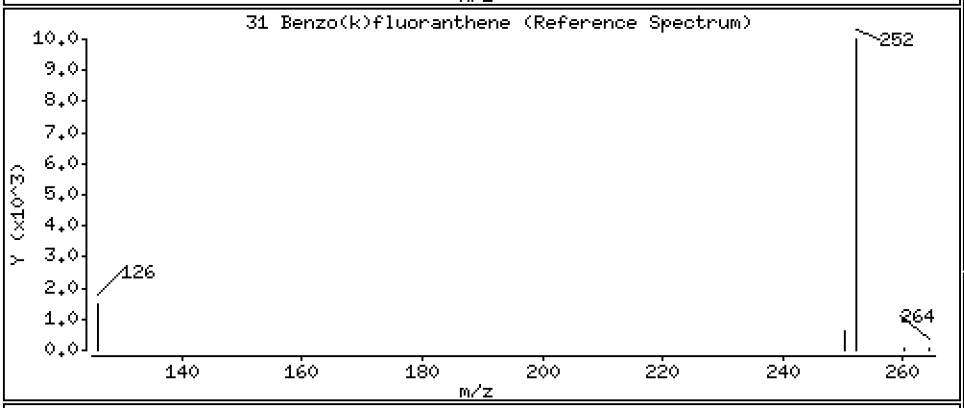
Concentration: 238 ng/mL

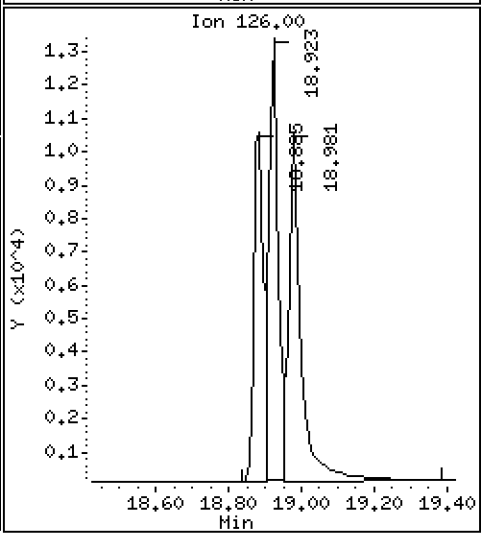


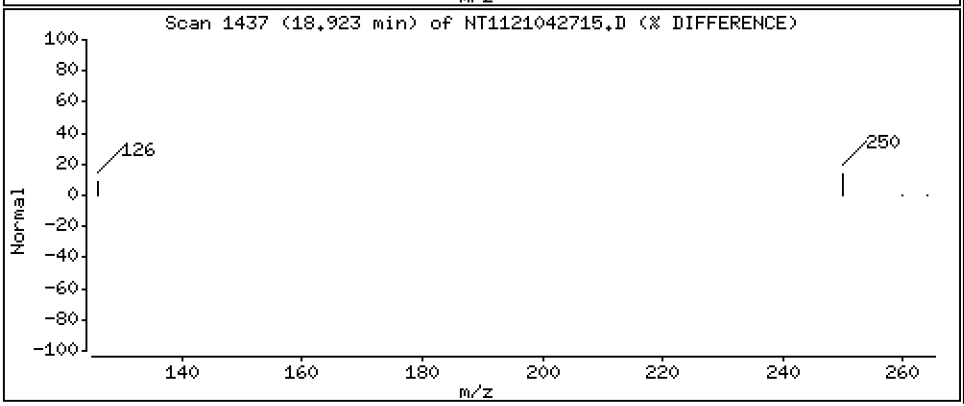



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Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

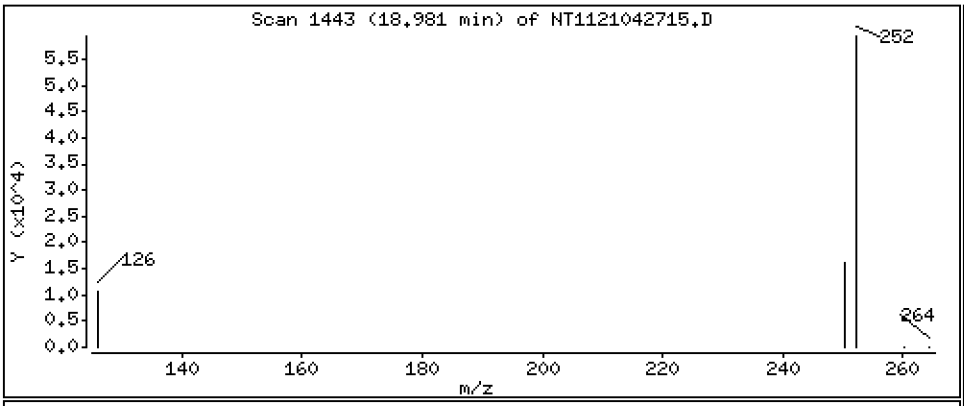
Operator: VTS

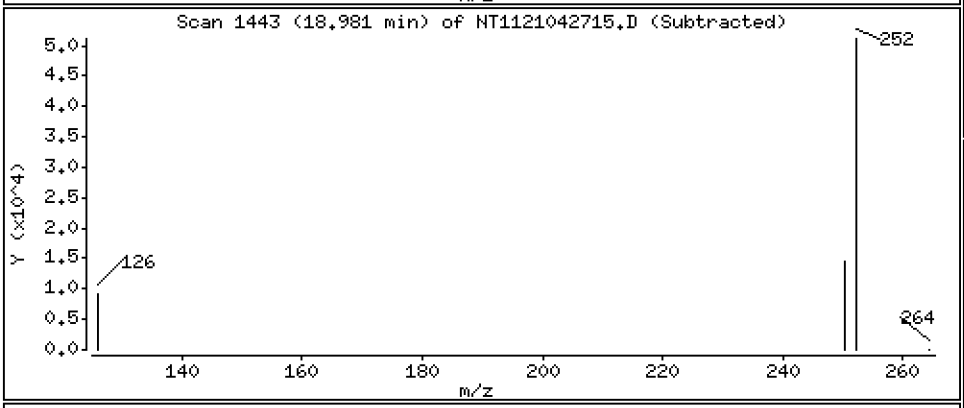
Column phase: Rxi-17Sil MS

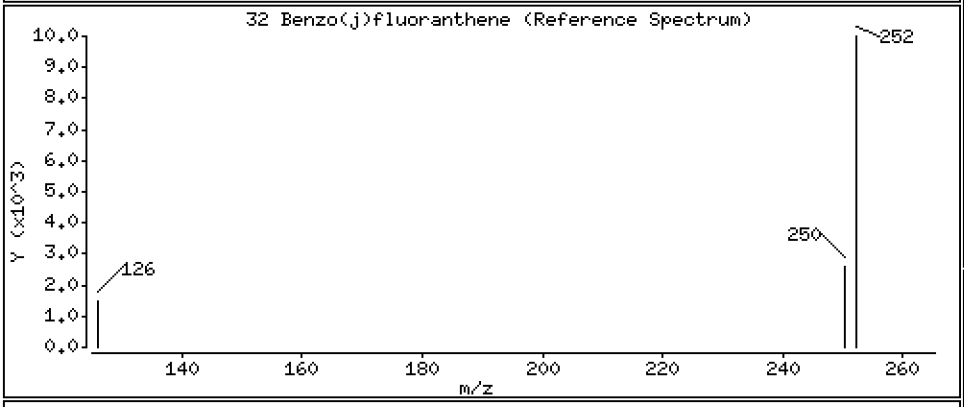
Column diameter: 0.25

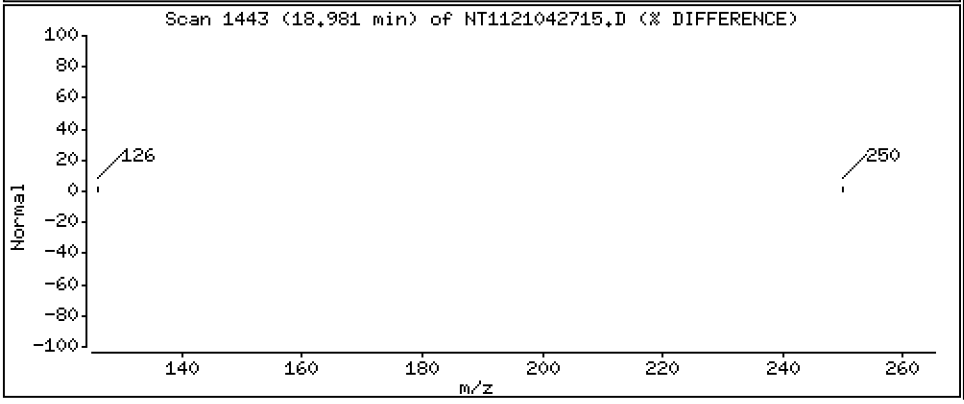
32 Benzo(j)fluoranthene

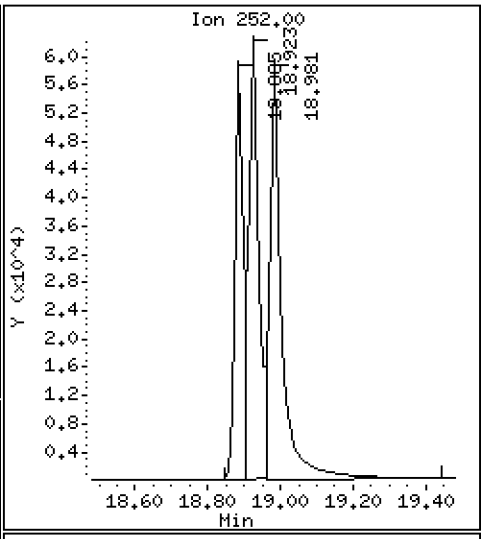
Concentration: 228 ng/mL

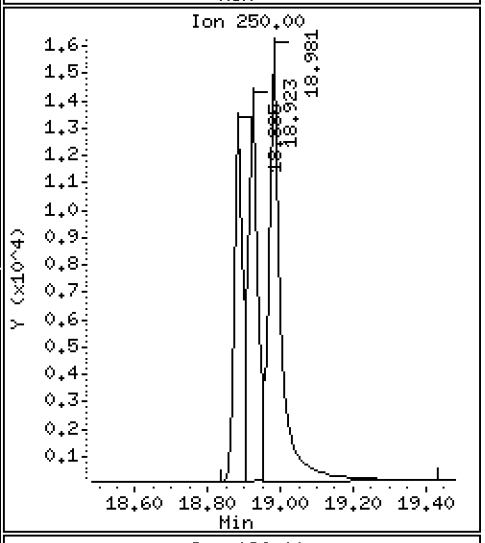


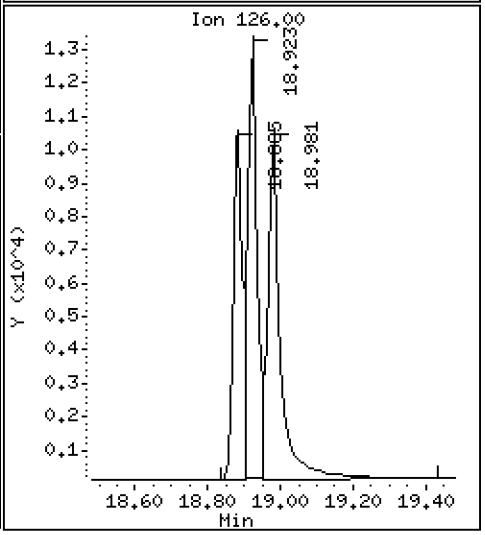



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Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

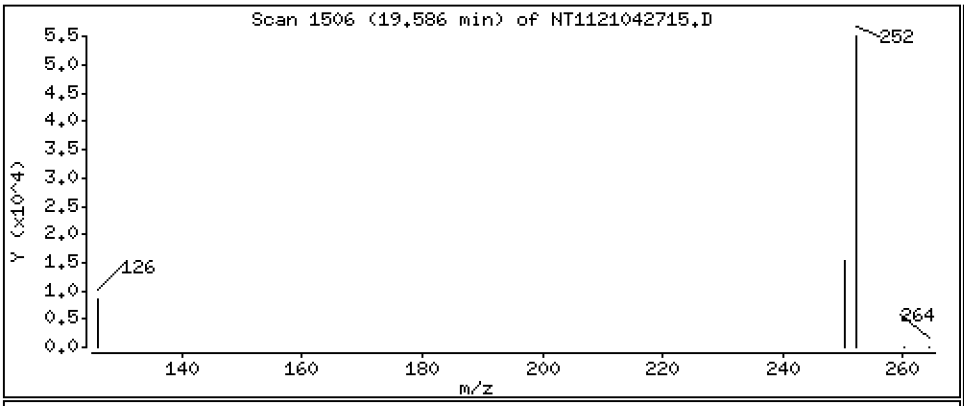
Operator: VTS

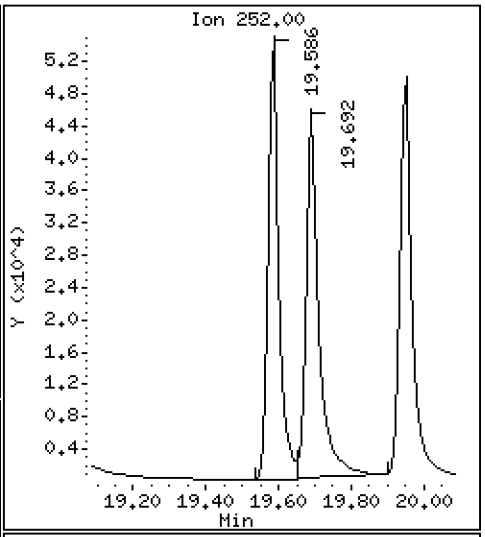
Column phase: Rxi-17Sil MS

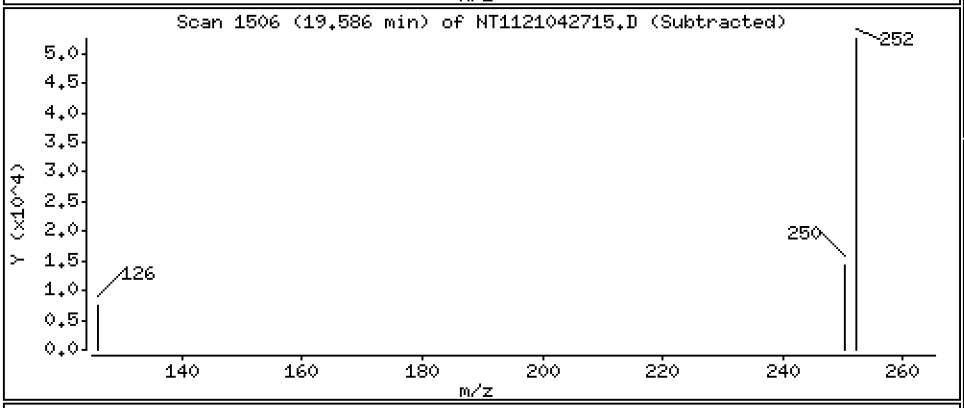
Column diameter: 0.25

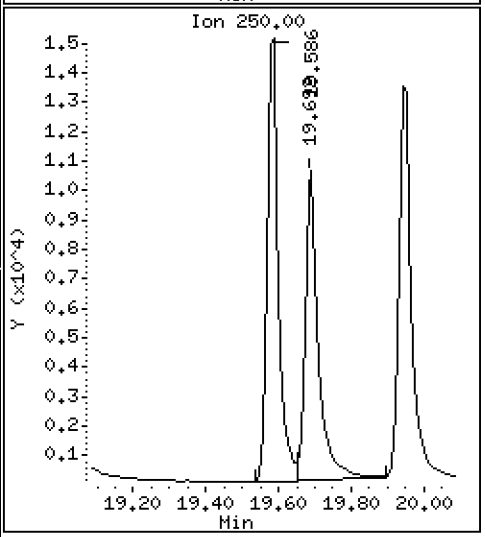
34 Benzo(e)pyrene

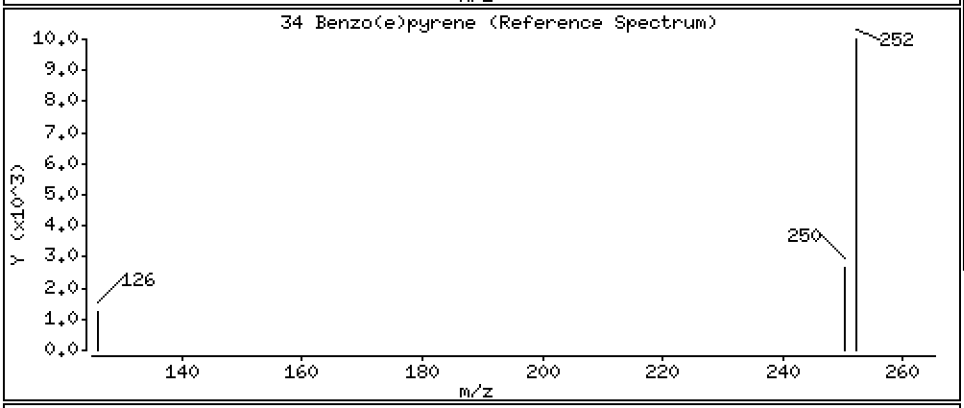
Concentration: 233 ng/mL

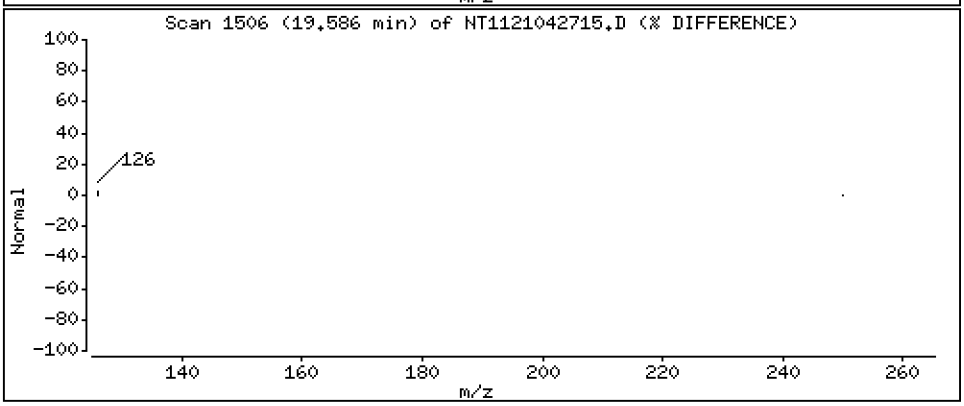


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Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

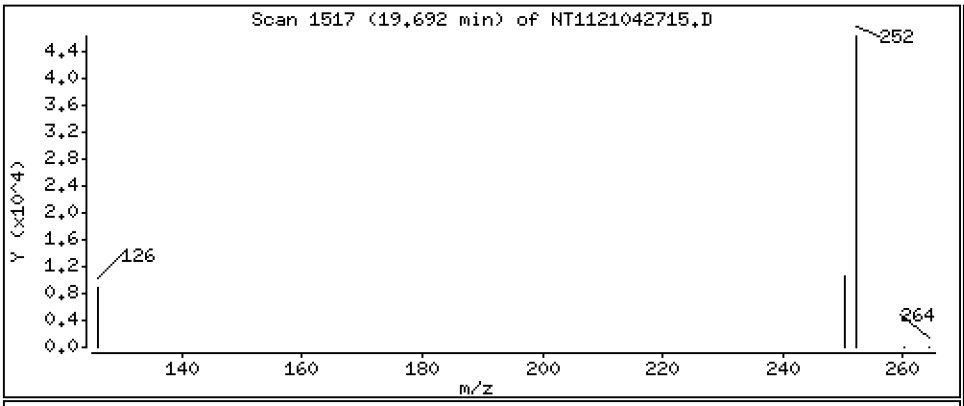
Operator: VTS

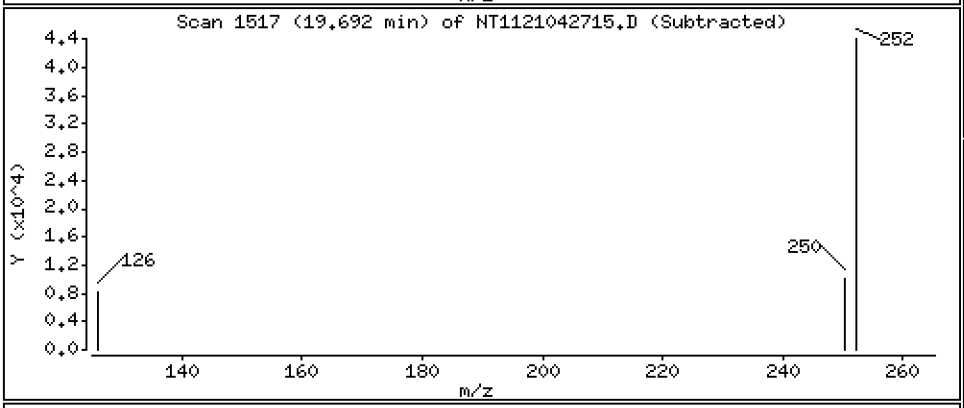
Column phase: Rxi-17Sil MS

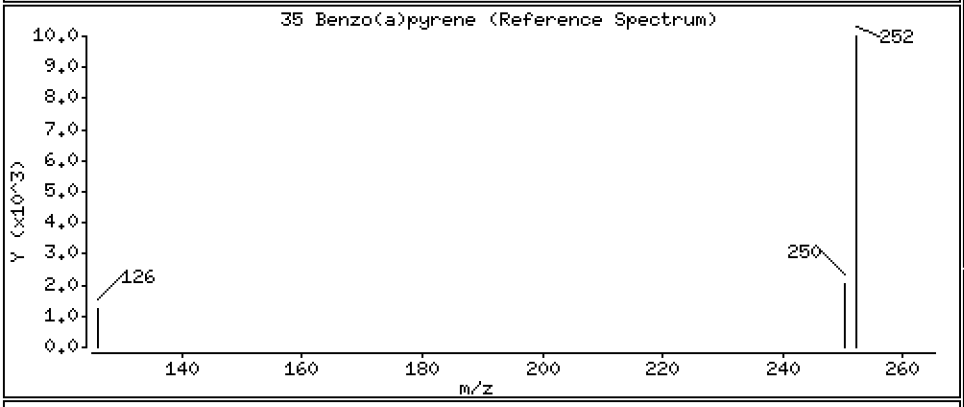
Column diameter: 0.25

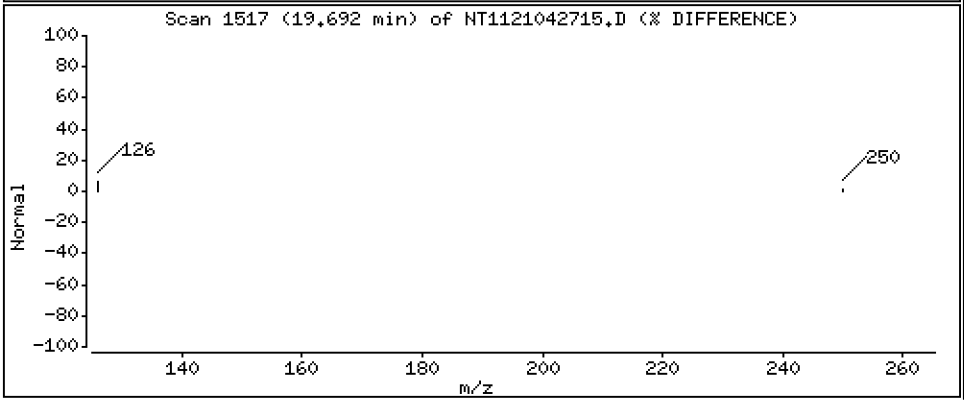
35 Benzo(a)pyrene

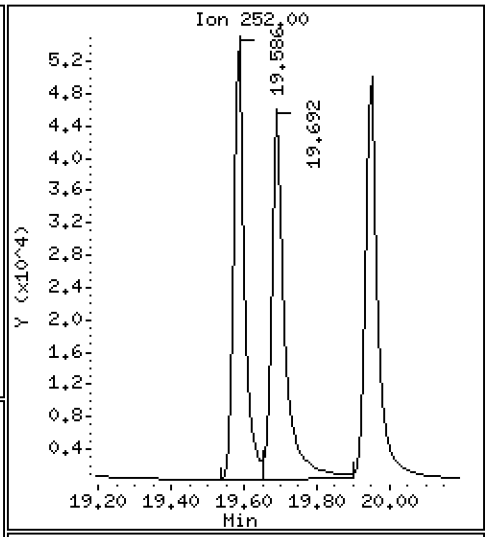
Concentration: 254 ng/mL

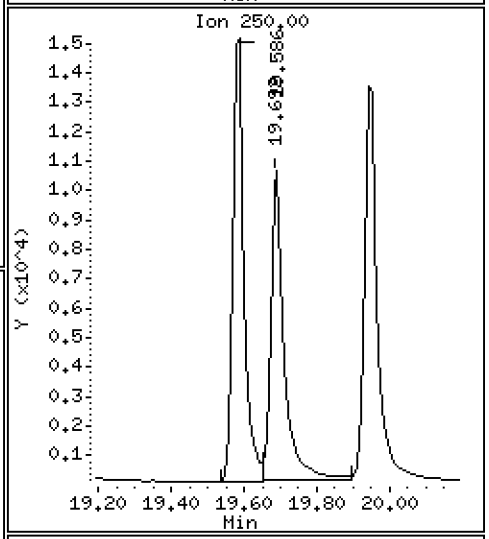


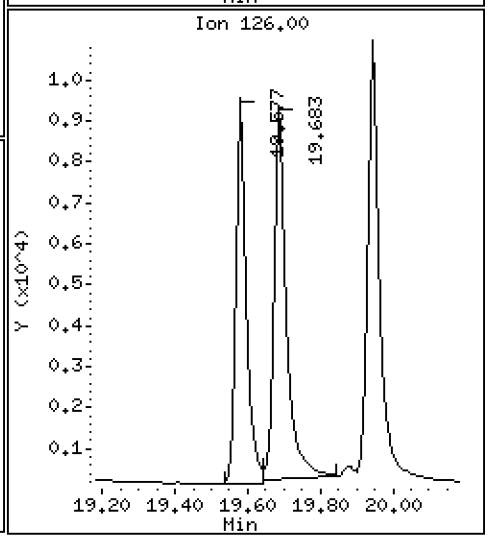



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Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

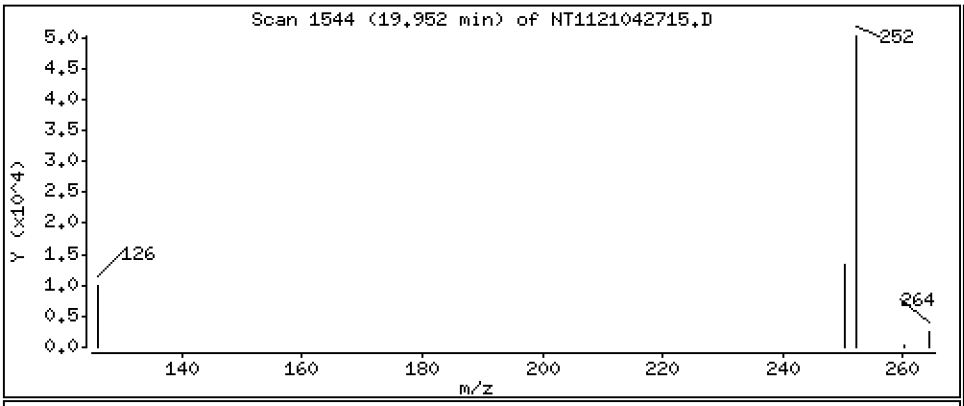
Operator: VTS

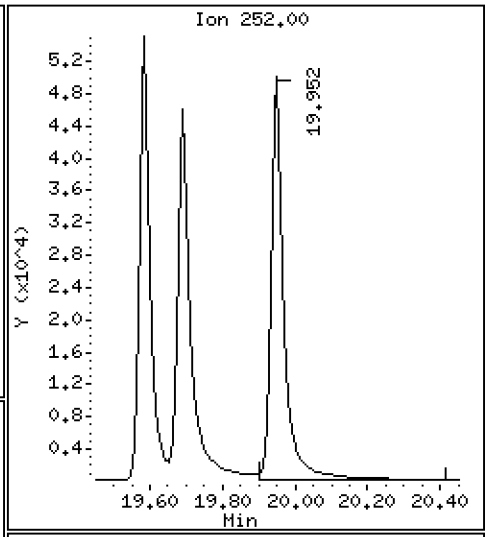
Column phase: Rxi-17Sil MS

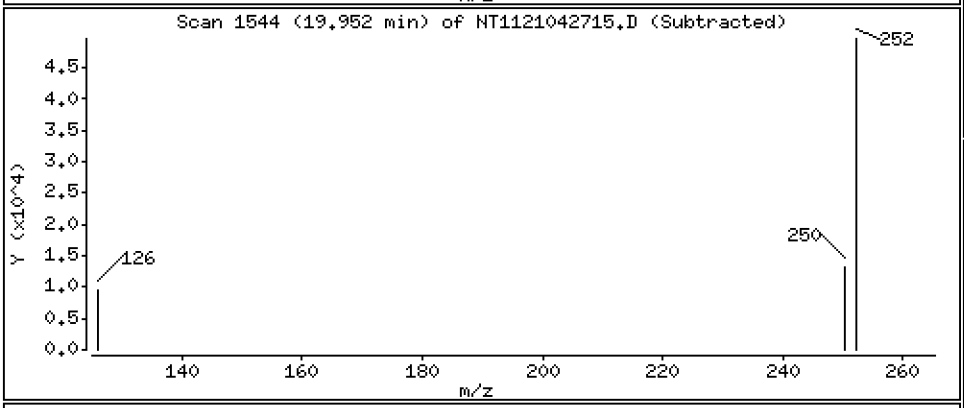
Column diameter: 0.25

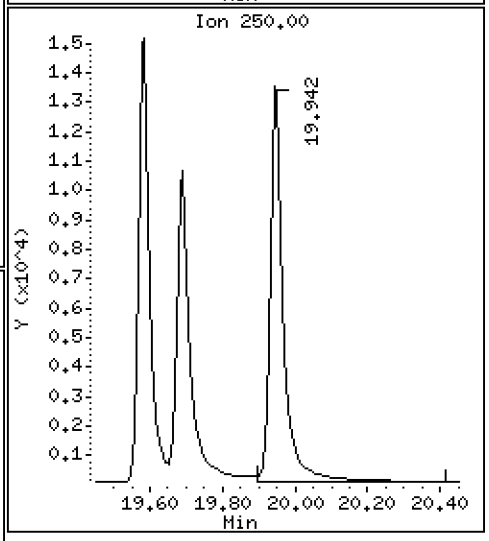
37 Perylene

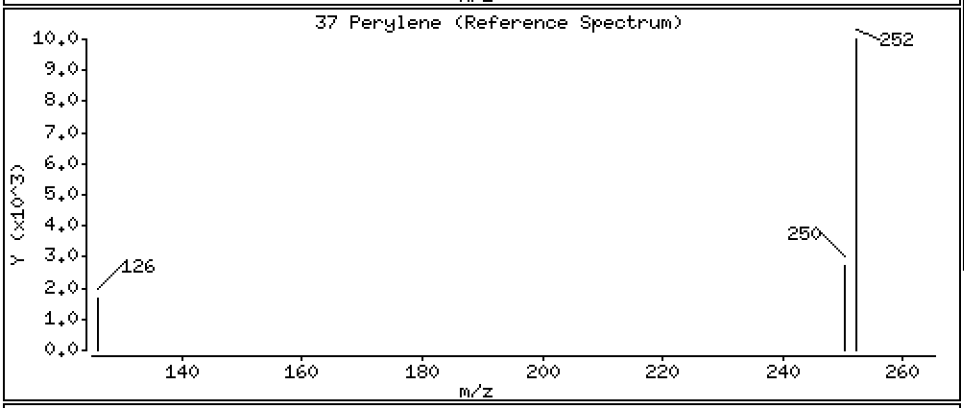
Concentration: 241 ng/mL

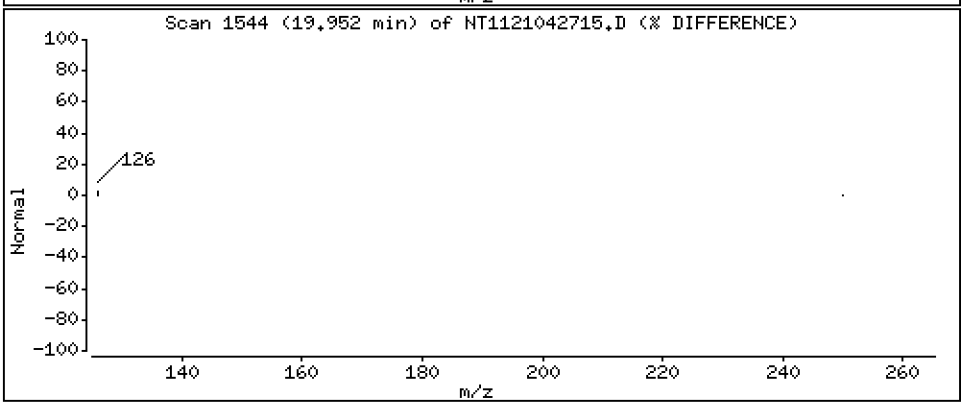


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Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

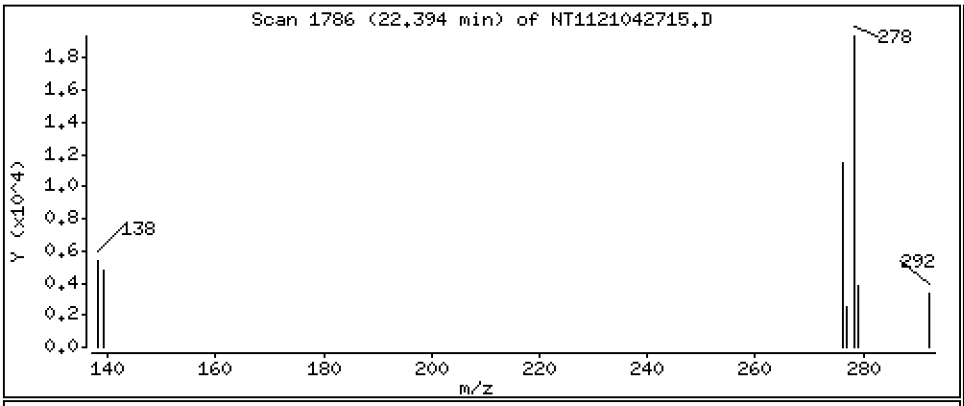
Operator: VTS

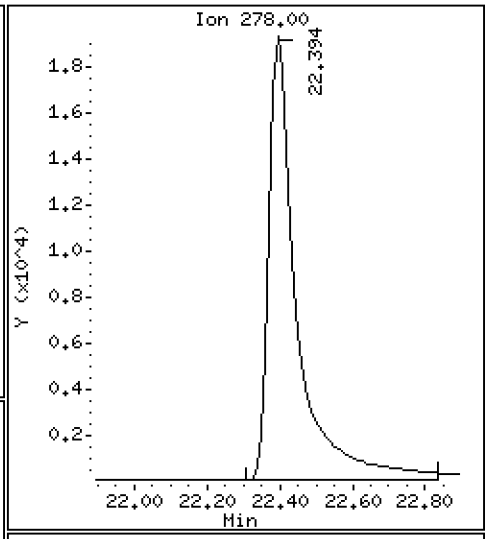
Column phase: Rxi-17Sil MS

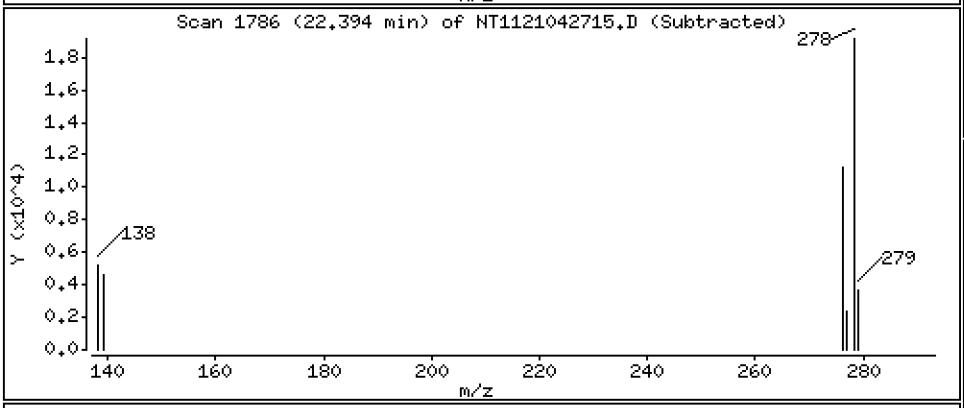
Column diameter: 0.25

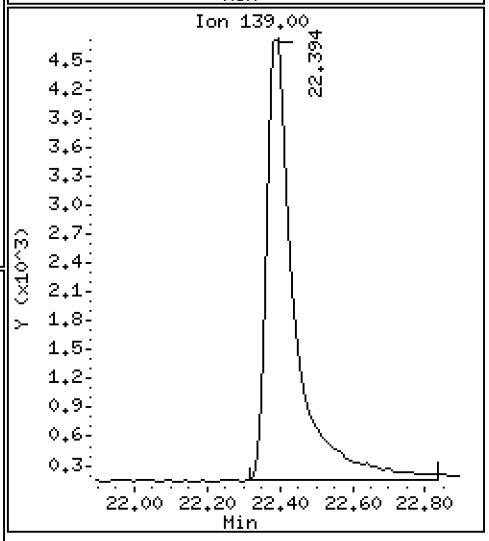
39 Dibenzo(a,h)anthracene

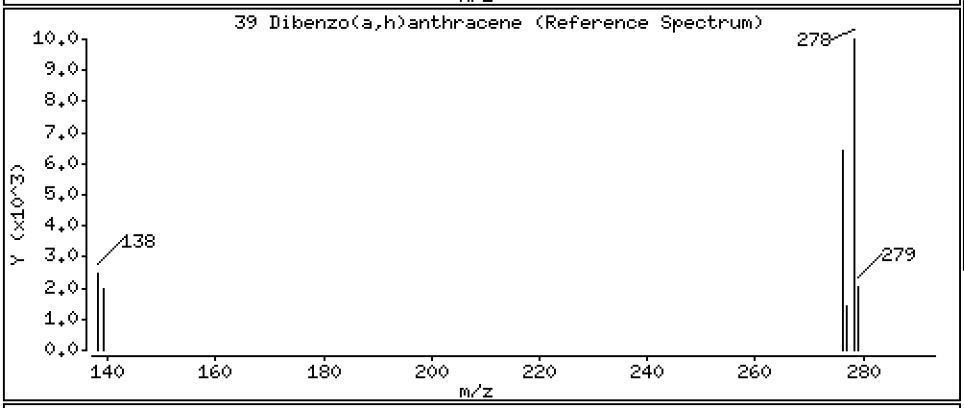
Concentration: 268 ng/mL

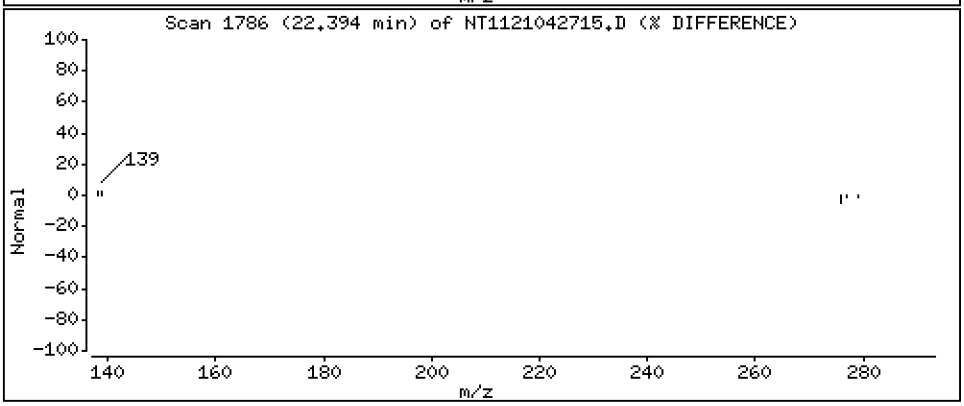


Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042715.D

Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

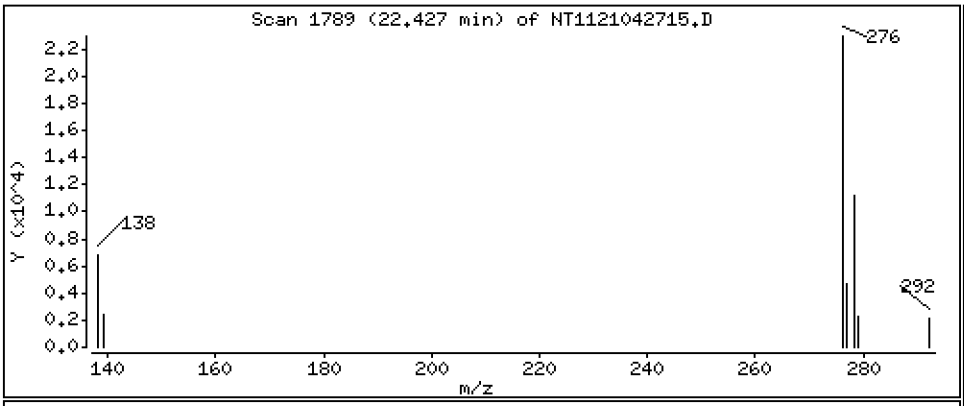
Operator: VTS

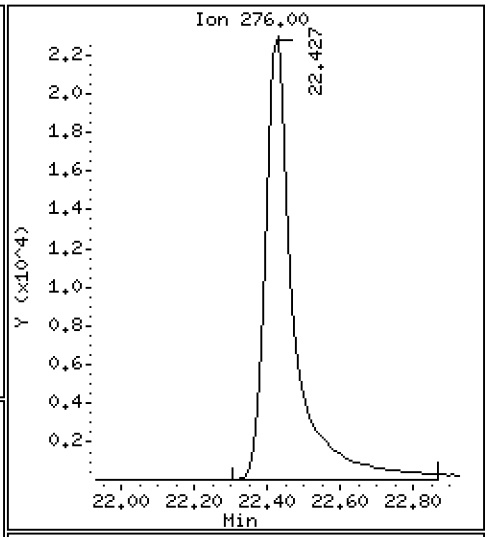
Column phase: Rxi-17Sil MS

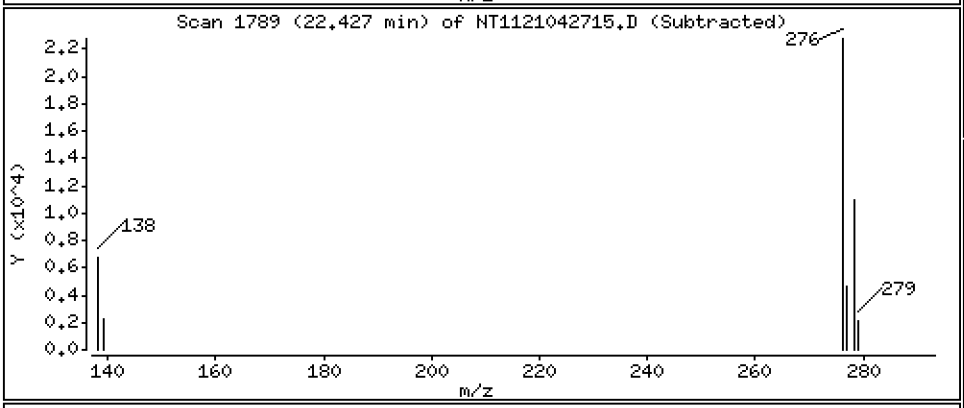
Column diameter: 0.25

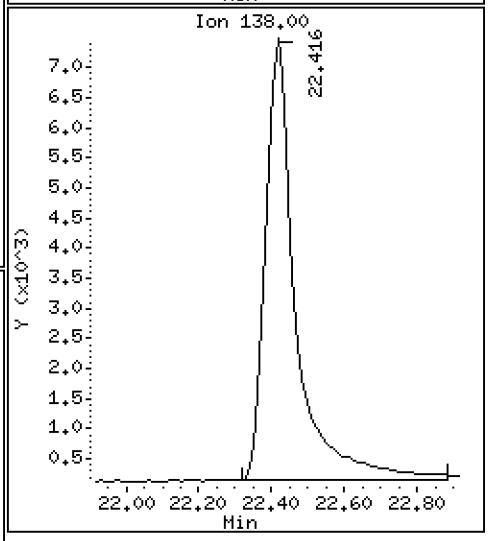
40 Indeno(1,2,3-cd)pyrene

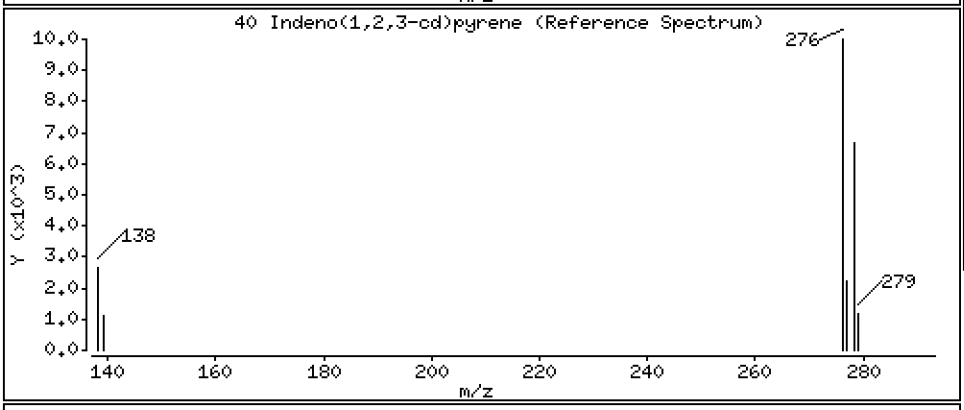
Concentration: 277 ng/mL

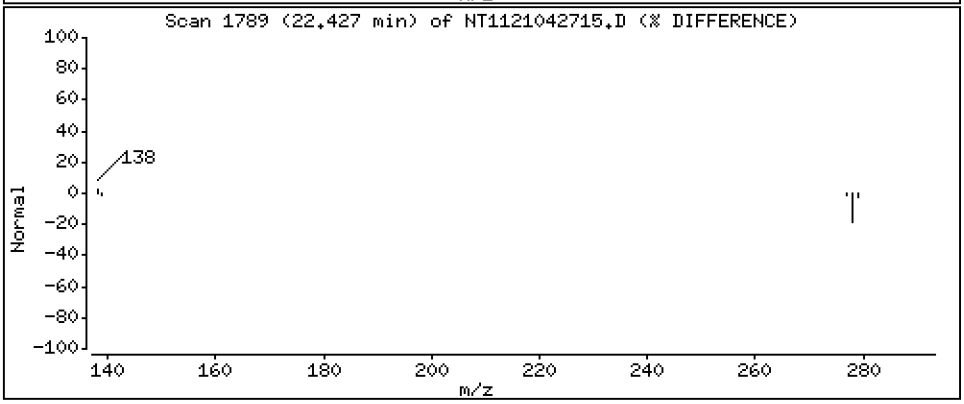


Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042715.D

Date : 27-APR-2021 19:48

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-CCV1

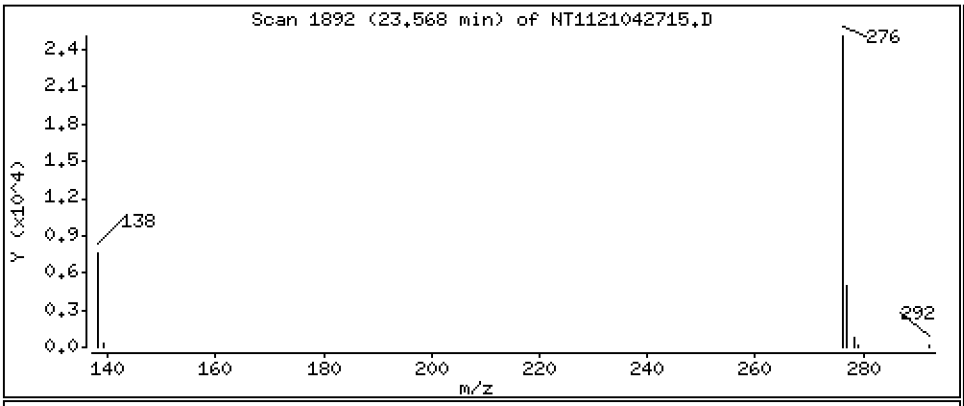
Operator: VTS

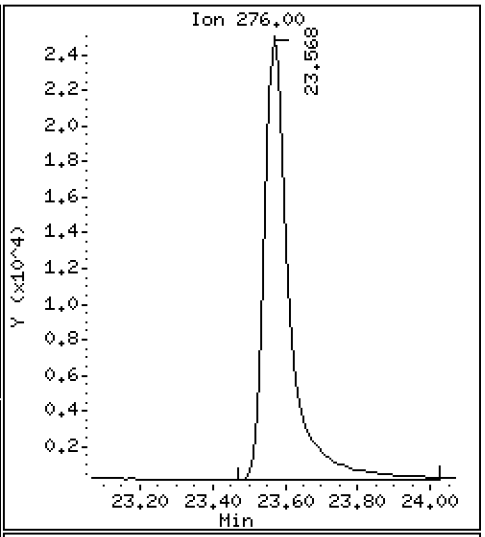
Column phase: Rxi-17Sil MS

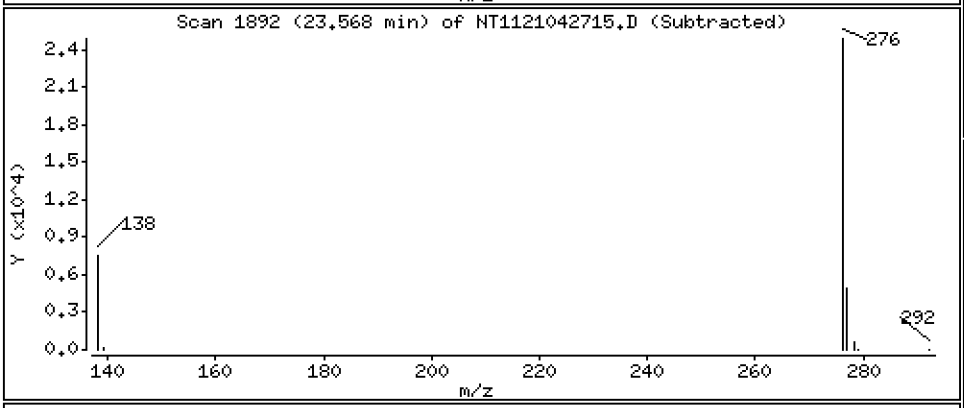
Column diameter: 0.25

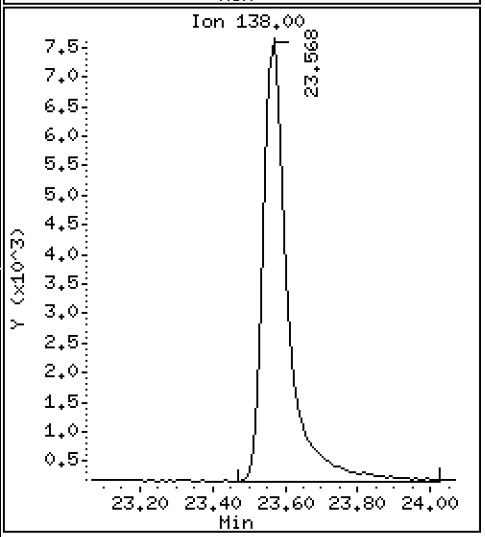
41 Benzo(g,h,i)perylene

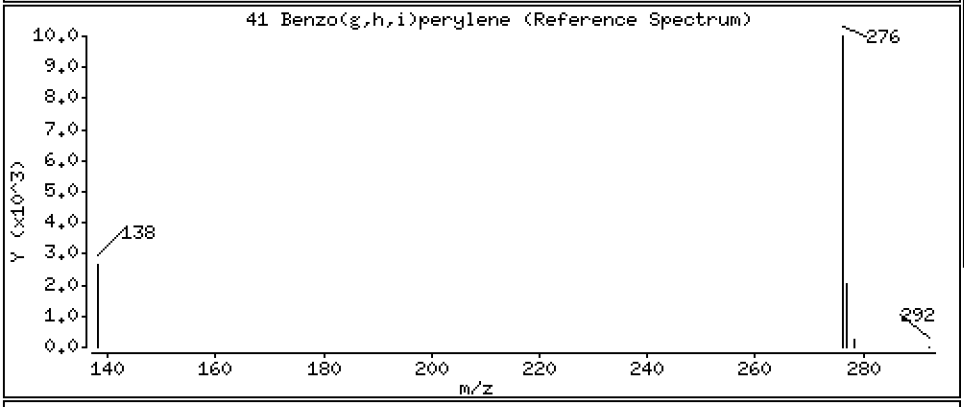
Concentration: 267 ng/mL

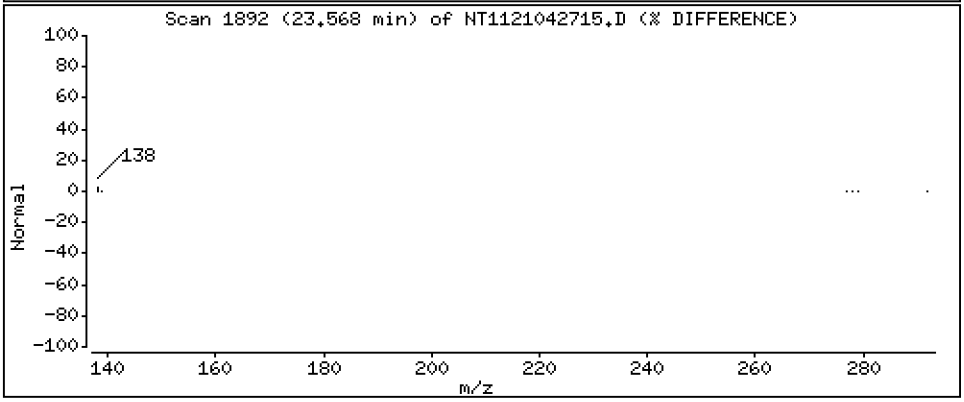


ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20210427.b\NT1121042715.D
Lab Smp Id: SJD0374-CCV1
Inj Date : 27-APR-2021 19:48 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SJD0374-CCV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20210427.b\lowsim.m
Meth Date : 27-Apr-2021 13:08 van Quant Type: ISTD
Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: VANS-202011

| | | | | | | | CONCENTRATIONS | |
|---|---|---|---|---|---|---|---|---|
| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | ON-COLUMN (ng/mL) | FINAL (ng/mL) |
| * | 1 Naphthalene-d8 | 136 | 6.759 | 6.768 | (1.000) | 121440 | 200.000 | |
| | 2 Naphthalene | 128 | 6.795 | 6.795 | (1.005) | 162335 | 230.227 | 230 |
| | 3 Benzo(b)thiophene | 134 | 7.048 | 7.048 | (1.043) | 132597 | 238.368 | 238 |
| $ | 4 2-Methylnaphthalene-d10 | 152 | 7.728 | 7.738 | (1.143) | 119834 | 245.410 | 245 |
| | 5 2-Methylnaphthalene | 142 | 7.791 | 7.791 | (1.153) | 135560 | 238.484 | 238 |
| | 6 1-Methylnaphthalene | 142 | 8.043 | 8.043 | (1.190) | 132986 | 251.680 | 252 |
| | 7 2-Chloronaphthalene | 162 | 8.694 | 8.694 | (0.891) | 121862 | 210.054 | 210 |
| | 8 Biphenyl | 154 | 8.663 | 8.663 | (0.888) | 153686 | 198.960 | 199 |
| | 9 2,6-Dimethylnaphthalene | 156 | 8.715 | 8.715 | (0.893) | 119431 | 208.385 | 208 |
| | 10 Acenaphthylene | 152 | 9.607 | 9.607 | (0.984) | 158967 | 207.998 | 208 |
| * | 11 Acenaphthene-d10 | 164 | 9.761 | 9.761 | (1.000) | 66616 | 200.000 | |
| | 12 Acenaphthene | 153 | 9.824 | 9.824 | (1.006) | 106291 | 210.279 | 210 |
| | 13 Dibenzofuran | 168 | 10.023 | 10.023 | (1.027) | 134469 | 199.288 | 199 |
| | 14 2,3,5-Trimethylnaphthalene | 170 | 10.124 | 10.124 | (1.037) | 87878 | 211.747 | 212 |
| | 16 Fluorene | 166 | 10.642 | 10.642 | (1.090) | 112647 | 216.731 | 217 |
| | 17 Dibenzothiophene | 184 | 12.260 | 12.260 | (0.986) | 121712 | 229.740 | 230 |
| * | 18 Phenanthrene-d10 | 188 | 12.428 | 12.428 | (1.000) | 95692 | 200.000 | |
| | 19 Phenanthrene | 178 | 12.470 | 12.470 | (1.003) | 139568 | 222.959 | 223 |
| | 21 Anthracene | 178 | 12.523 | 12.523 | (1.008) | 156971 | 250.968 | 251 |
| | 22 Carbazole | 167 | 13.206 | 13.207 | (1.063) | 162340 | 243.578 | 244 |
| | 23 1-Methylphenanthrene | 192 | 13.468 | 13.469 | (1.084) | 133297 | 241.065 | 241 |
| $ | 24 Fluoranthene-d10 | 212 | 14.520 | 14.520 | (1.168) | 114548 | 228.322 | 228 |
| | 25 Fluoranthene | 202 | 14.558 | 14.558 | (1.171) | 145021 | 232.370 | 232 |
| | 26 Pyrene | 202 | 15.048 | 15.048 | (1.211) | 151065 | 235.941 | 236 |
| | 27 Benzo(a)anthracene | 228 | 17.064 | 17.064 | (0.995) | 112377 | 235.426 | 235 |
| * | 28 Chrysene-d12 | 240 | 17.155 | 17.155 | (1.000) | 64981 | 200.000 | |
| | 29 Chrysene | 228 | 17.205 | 17.205 | (1.003) | 123248 | 229.308 | 229 |
| | 30 Benzo(b)fluoranthene | 252 | 18.884 | 18.885 | (0.950) | 101055 | 230.010 | 230 |
| | 31 Benzo(k)fluoranthene | 252 | 18.923 | 18.923 | (0.952) | 137488 | 238.157 | 238 |
| | 32 Benzo(j)fluoranthene | 252 | 18.981 | 18.981 | (0.955) | 142479 | 228.378 | 228 |
| | 34 Benzo(e)pyrene | 252 | 19.586 | 19.586 | (0.985) | 115797 | 232.743 | 233 |
| | 35 Benzo(a)pyrene | 252 | 19.692 | 19.692 | (0.990) | 116678 | 254.274 | 254 |
| * | 36 Perylene-d12 | 264 | 19.884 | 19.893 | (1.000) | 80717 | 200.000 | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | CONCENTRATIONS FINAL (ng/mL) |
|---|---|---|---|---|---|---|---|---|
| | 37 Perylene | 252 | 19.951 | 19.951 | (1.003) | 125736 | 240.509 | 241 |
| $ | 38 Dibenzo(a,h)anthracene-d14 | 292 | 22.283 | 22.283 | (1.121) | 84896 | 267.701 | 268 |
| | 39 Dibenzo(a,h)anthracene | 278 | 22.394 | 22.394 | (1.126) | 102049 | 268.346 | 268 |
| | 40 Indeno(1,2,3-cd)pyrene | 276 | 22.427 | 22.427 | (1.128) | 123315 | 276.736 | 277 |
| | 41 Benzo(g,h,i)perylene | 276 | 23.568 | 23.568 | (1.185) | 118756 | 266.542 | 267 |

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1121042715.D
Lab Smp Id: SJD0374-CCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20210427.b\lowsim.m
Misc Info:

Calibration Date: 27-APR-2021
Calibration Time: 12:42
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 1 Naphthalene-d8 | 112036 | 56018 | 224072 | 121440 | 8.39 |
| 11 Acenaphthene-d10 | 64624 | 32312 | 129248 | 66616 | 3.08 |
| 18 Phenanthrene-d10 | 96378 | 48189 | 192756 | 95692 | -0.71 |
| 28 Chrysene-d12 | 68803 | 34402 | 137606 | 64981 | -5.55 |
| 36 Perylene-d12 | 87167 | 43584 | 174334 | 80717 | -7.40 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 1 Naphthalene-d8 | 6.77 | 6.27 | 7.27 | 6.76 | -0.13 |
| 11 Acenaphthene-d10 | 9.76 | 9.26 | 10.26 | 9.76 | -0.00 |
| 18 Phenanthrene-d10 | 12.43 | 11.93 | 12.93 | 12.43 | -0.00 |
| 28 Chrysene-d12 | 17.16 | 16.66 | 17.66 | 17.16 | -0.00 |
| 36 Perylene-d12 | 19.89 | 19.39 | 20.39 | 19.88 | -0.05 |

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

REVIEW SUMMARY FOR FILE - NT1121042715.D

Lab ID: SJD0374-CCV1
nt11.i,  20210427.b\lowsim.m,    27-APR-2021 19:48

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

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

NONE

RRT check based on Ccal File: NT1121042702.D

On Column LOD for nt11.i, 20210427.b\lowsim.m, PAH.sub = 0.0000

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

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

# LOW-CONCENTRATION
# CONTINUING CALIBRATION CHECK
## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | NT11 | Calibration: | DH00073 |
| Lab File ID: | NT1121042703.D | Calibration Date: | 08/27/2020 |
| Sequence: | SJD0374 | Injection Date: | 04/27/21 |
| Lab Sample ID: | SJD0374-LCV1 | Injection Time: | 13:17 |
| Sequence Name: | LCV 10 | | |

| | | CONC. (ng/mL) | | RESPONSE FACTOR (RRF) | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN | CCV | LIMIT |
| Naphthalene | A | 10.000 | 10.4 | 1.1612470 | 1.2053880 | | 3.8 | |
| 2-Methylnaphthalene | A | 10.000 | 10.3 | 0.9361384 | 0.9662918 | | 3.2 | |
| 1-Methylnaphthalene | A | 10.000 | 9.75 | 0.8702122 | 0.8483435 | | -2.5 | |
| 2-Chloronaphthalene | A | 10.000 | 8.81 | 1.7417600 | 1.5339840 | | -11.9 | |
| Acenaphthylene | A | 10.000 | 8.82 | 2.2945630 | 2.0237730 | | -11.8 | |
| Acenaphthene | A | 10.000 | 8.47 | 1.5175830 | 1.2852790 | | -15.3 | |
| Dibenzofuran | A | 10.000 | 8.86 | 2.0257800 | 1.7939650 | | -11.4 | |
| Fluorene | A | 10.000 | 8.65 | 1.5604500 | 1.3498930 | | -13.5 | |
| Phenanthrene | A | 10.000 | 9.34 | 1.3083250 | 1.2214880 | | -6.6 | |
| Anthracene | A | 10.000 | 9.77 | 1.3072390 | 1.2776910 | | -2.3 | |
| Carbazole | A | 10.000 | 9.42 | 1.3929680 | 1.3119460 | | -5.8 | |
| Fluoranthene | A | 10.000 | 9.87 | 1.3043810 | 1.2869220 | | -1.3 | |
| Pyrene | A | 10.000 | 10.0 | 1.3381820 | 1.3377910 | | -0.03 | |
| Benzo(a)anthracene | A | 10.000 | 9.48 | 1.4691530 | 1.3927390 | | -5.2 | |
| Chrysene | A | 10.000 | 9.53 | 1.6542610 | 1.5759710 | | -4.7 | |
| Benzo(b)fluoranthene | A | 10.000 | 9.29 | 1.0886210 | 1.0118070 | | -7.1 | |
| Benzo(k)fluoranthene | A | 10.000 | 9.80 | 1.4304320 | 1.4022420 | | -2.0 | |
| Benzo(j)fluoranthene | A | 10.000 | 9.75 | 1.5458300 | 1.5066730 | | -2.5 | |
| Benzofluoranthenes, Total | A | 30.000 | 28.8 | 1.3549610 | 1.3069070 | | -3.9 | |
| Benzo(a)pyrene | A | 10.000 | 9.92 | 1.1369780 | 1.1274000 | | -0.8 | |
| Perylene | A | 10.000 | 9.71 | 1.2953700 | 1.2573800 | | -2.9 | |
| Indeno(1,2,3-cd)pyrene | A | 10.000 | 11.2 | 1.1041170 | 1.2338150 | | 11.7 | |
| Dibenzo(a,h)anthracene | A | 10.000 | 11.3 | 0.8775199 | 1.0368610 | | 12.6 | |
| Benzo(g,h,i)perylene | A | 10.000 | 11.4 | 1.1039640 | 1.2534110 | | 13.5 | |
| 2-Methylnaphthalene-d10 | A | 10.000 | 10.2 | 0.8041846 | 0.8190851 | | 1.9 | |
| Dibenzo[a,h]anthracene-d14 | A | 10.000 | 10.0 | 0.7035414 | 0.7694597 | | 0.3 | |
| Fluoranthene-d10 | A | 10.000 | 9.67 | 1.0485620 | 1.0143170 | | -3.3 | |

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042703.D



Date : 27-APR-2021 13:17

Client ID:

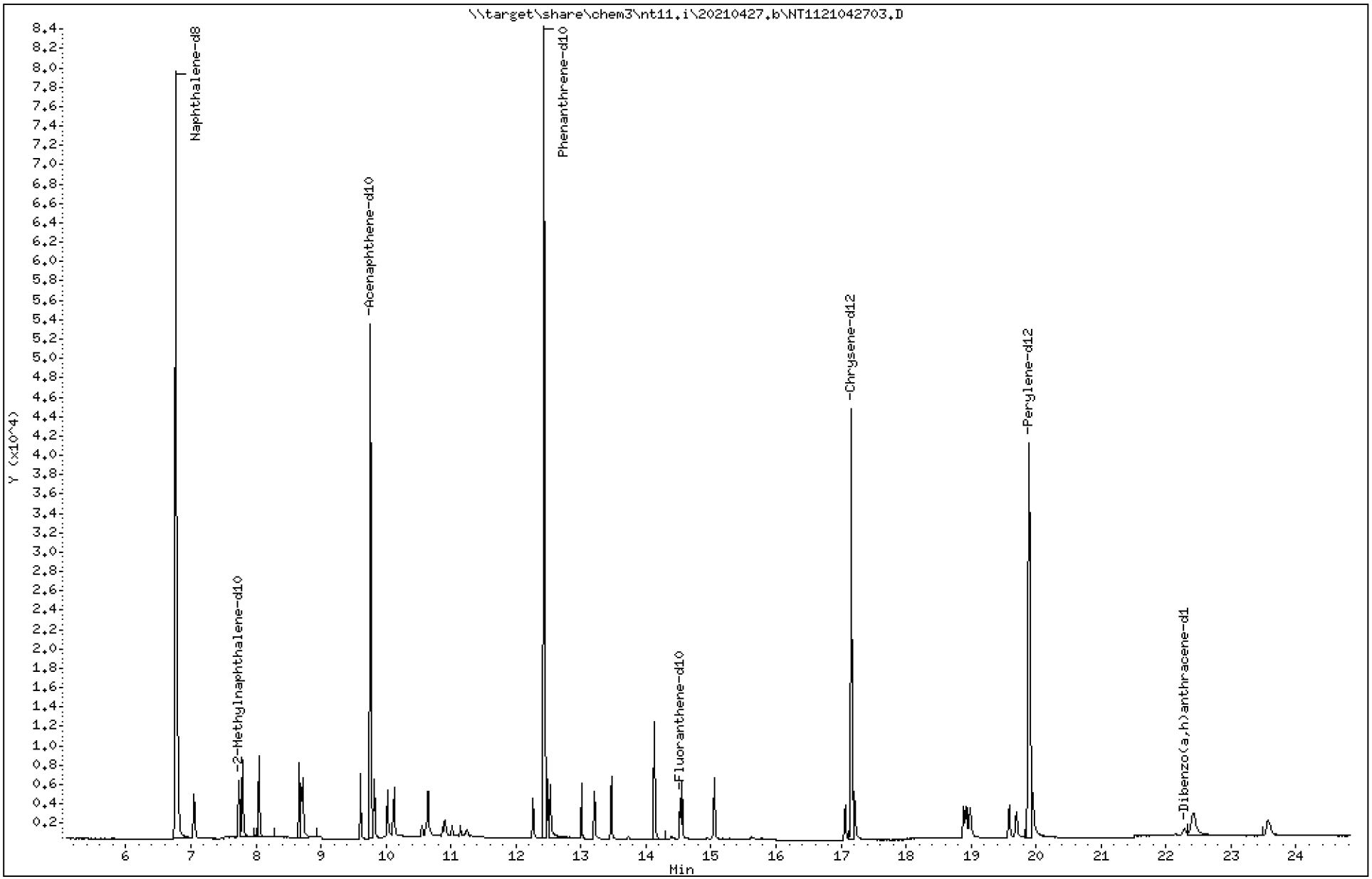
Instrument: nt11.i

Sample Info: SJD0374-LCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25




Revised Report 21D0180 07/07/2021 Page 1265 of 1709

Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042703.D

Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

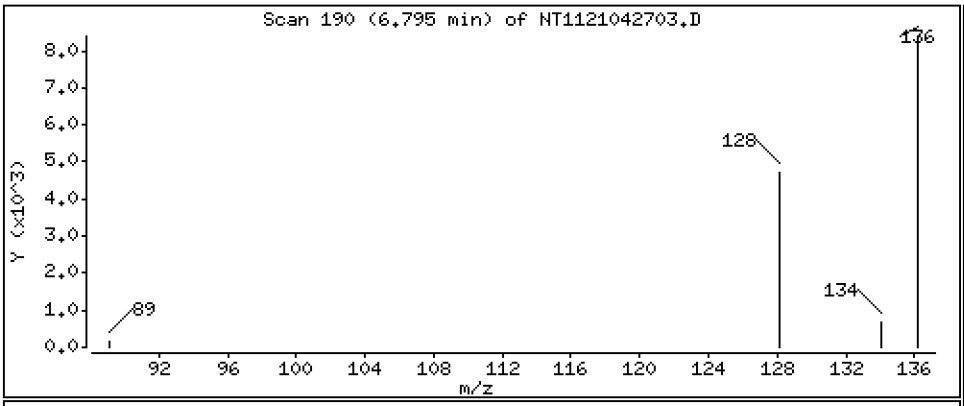
Operator: VTS

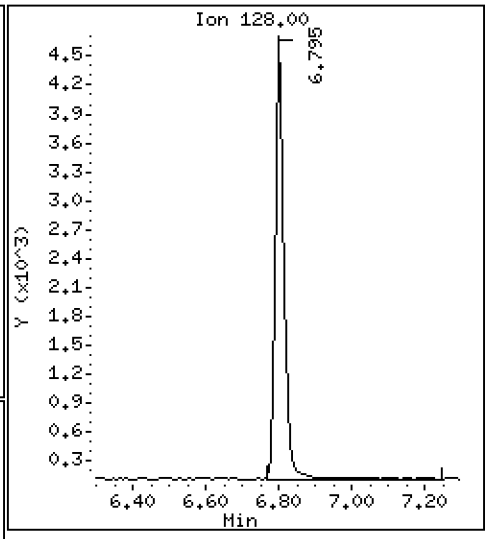
Column phase: Rxi-17Sil MS

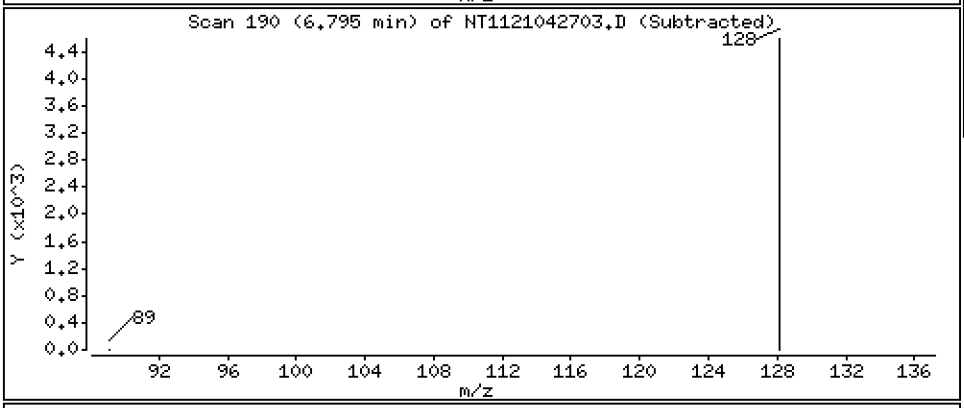
Column diameter: 0.25

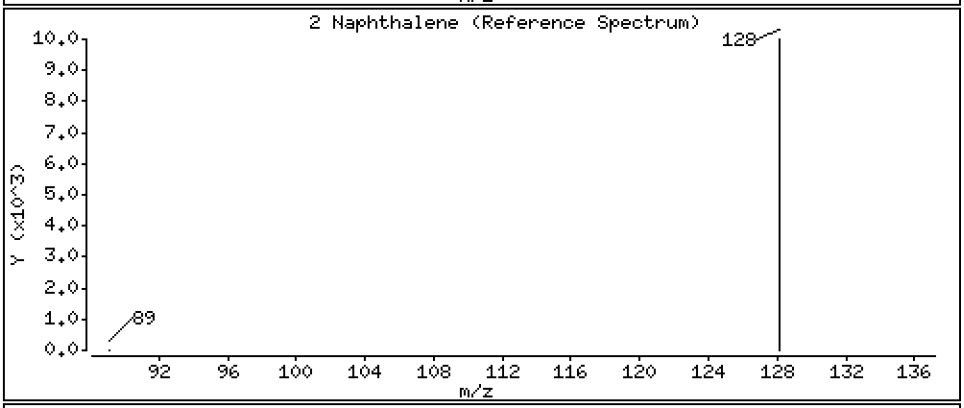
2 Naphthalene

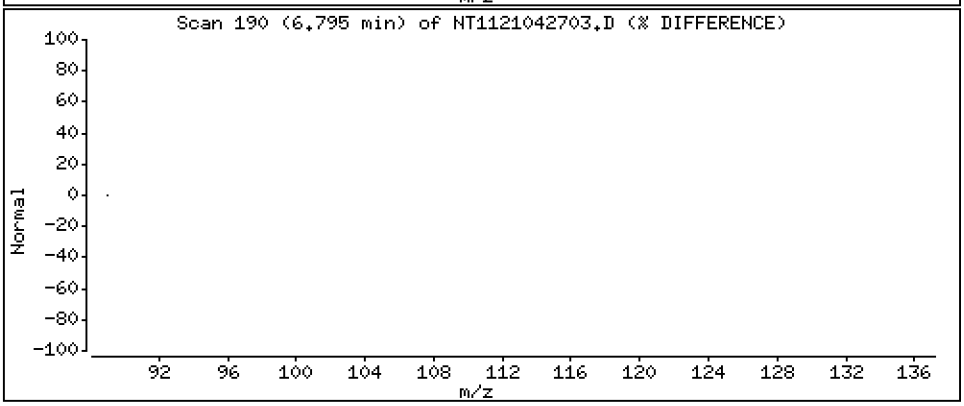
Concentration: 10.4 ng/mL



Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042703.D

Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

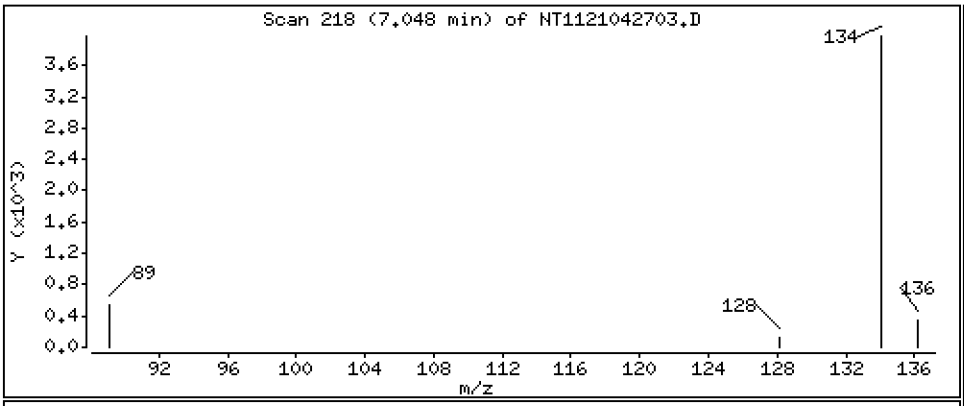
Operator: VTS

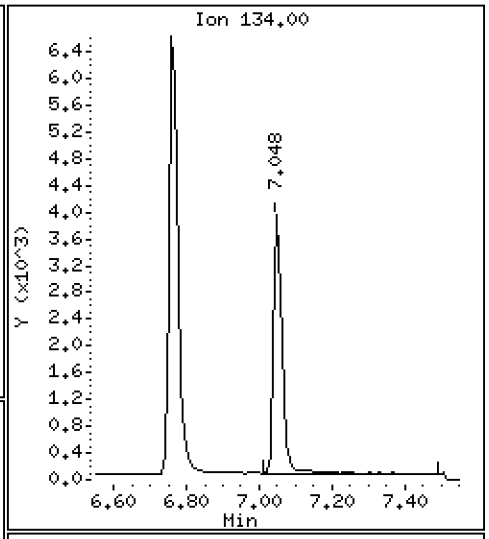
Column phase: Rxi-17Sil MS

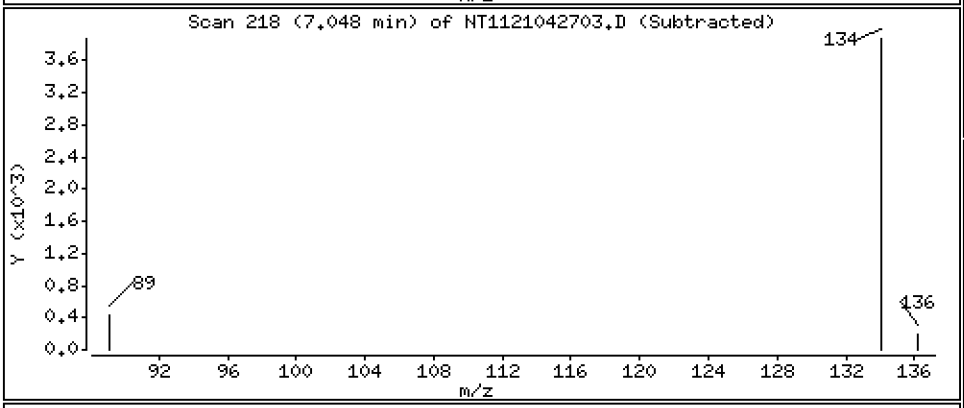
Column diameter: 0.25

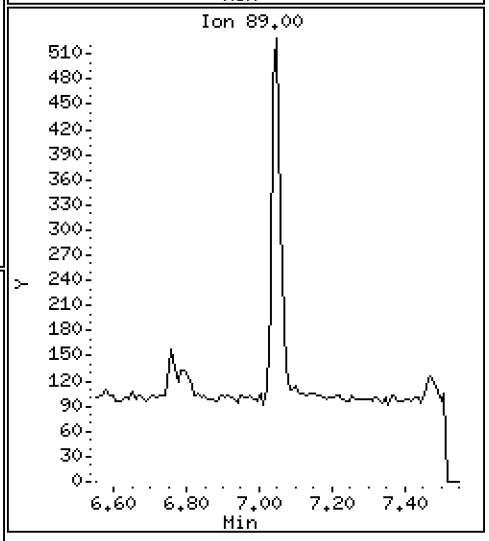
3 Benzo(b)thiophene

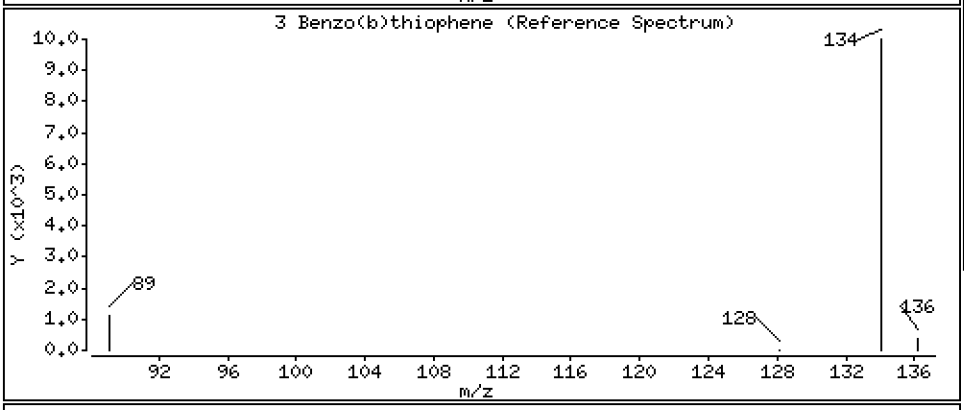
Concentration: 10.1 ng/mL

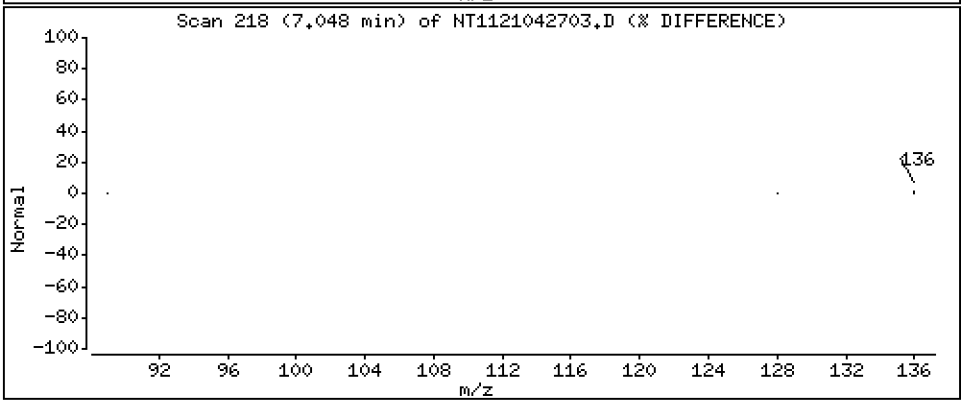


Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042703.D

Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

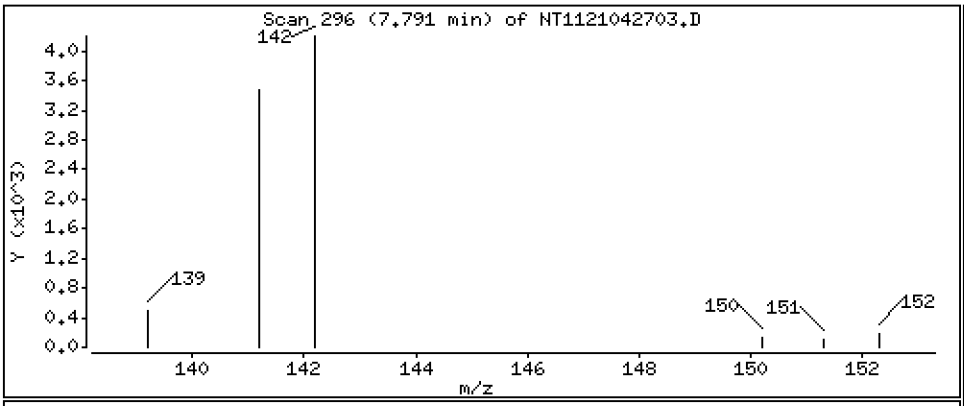
Operator: VTS

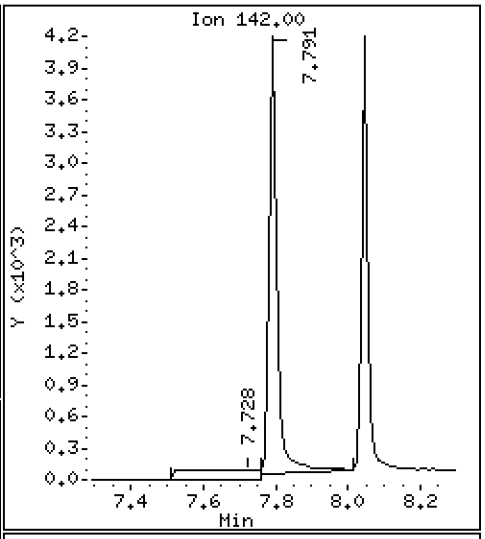
Column phase: Rxi-17Sil MS

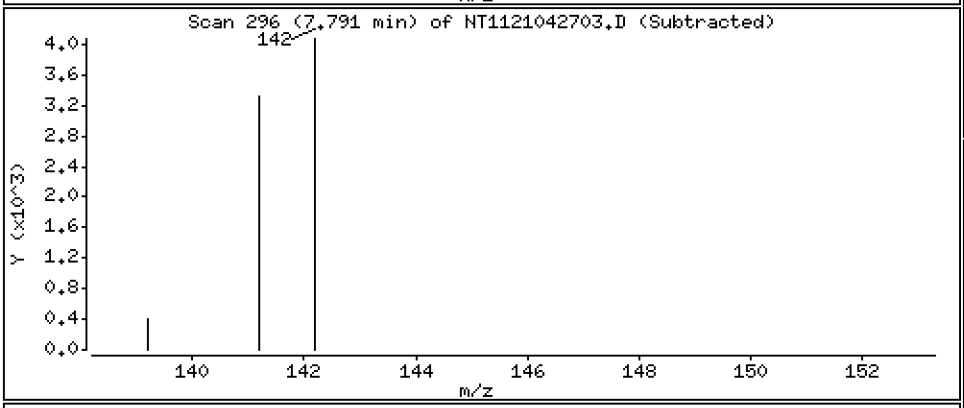
Column diameter: 0.25

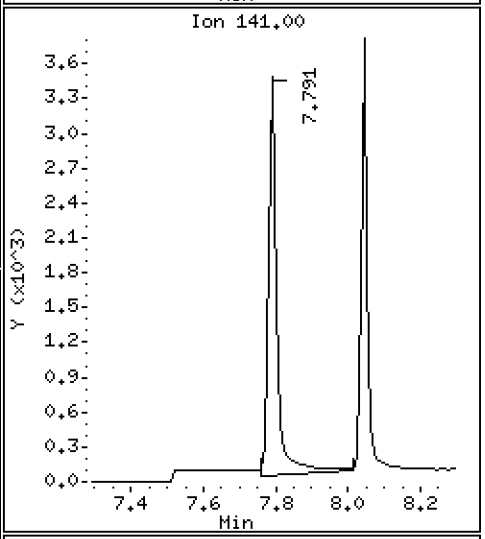
5 2-Methylnaphthalene

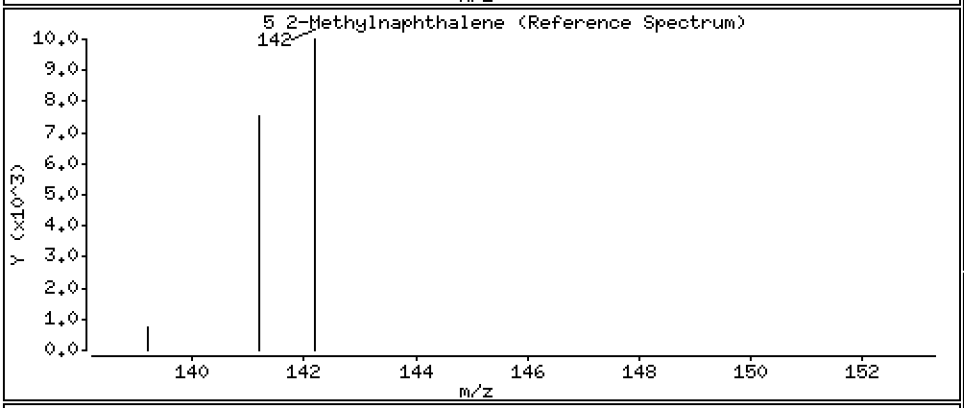
Concentration: 10.3 ng/mL

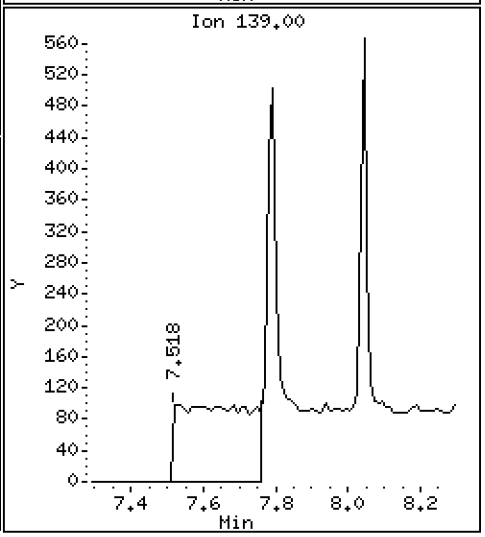


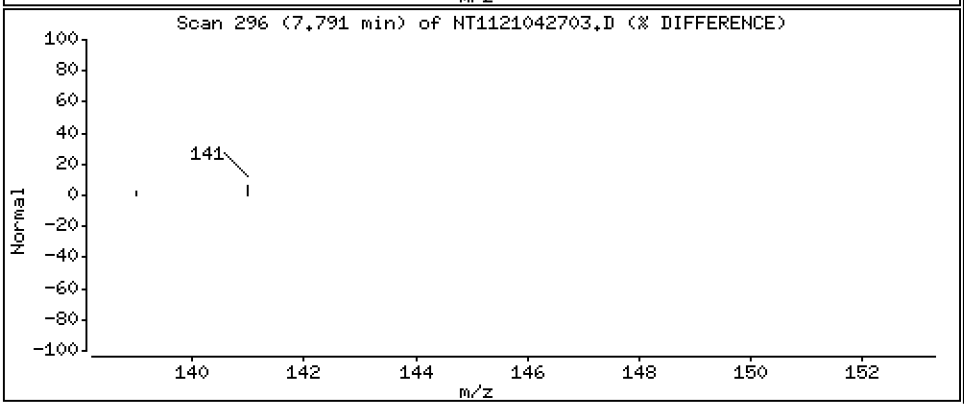



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Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

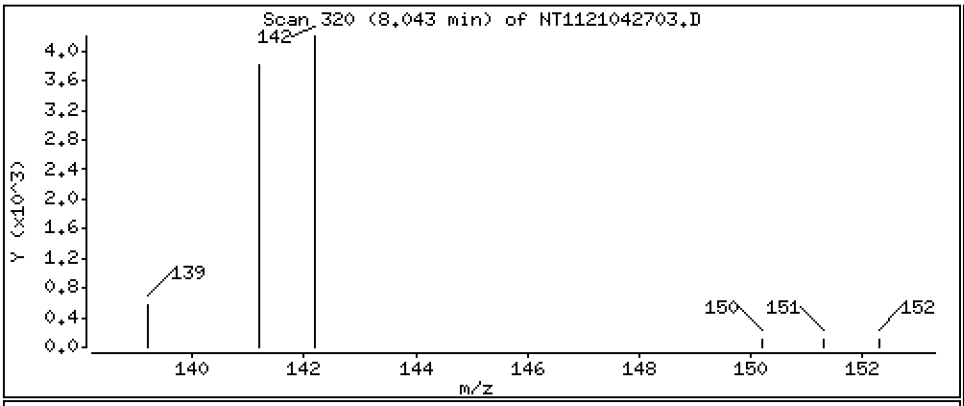
Operator: VTS

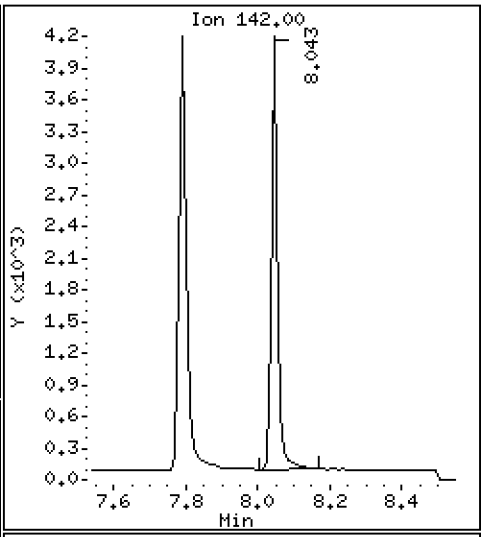
Column phase: Rxi-17Sil MS

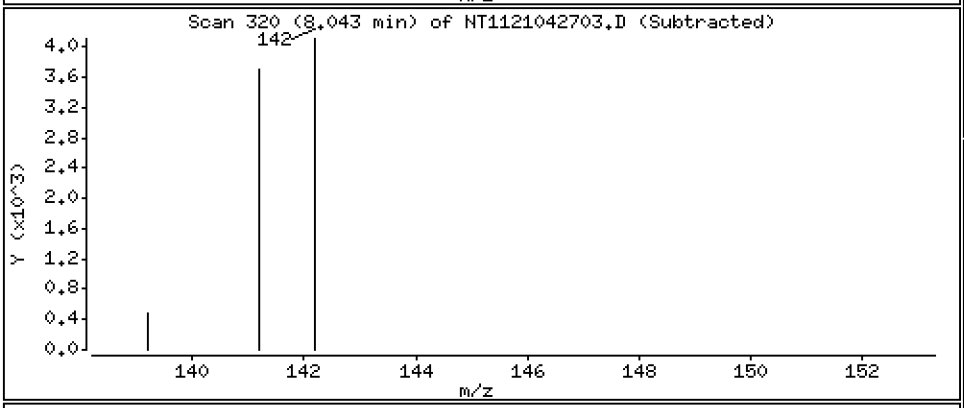
Column diameter: 0.25

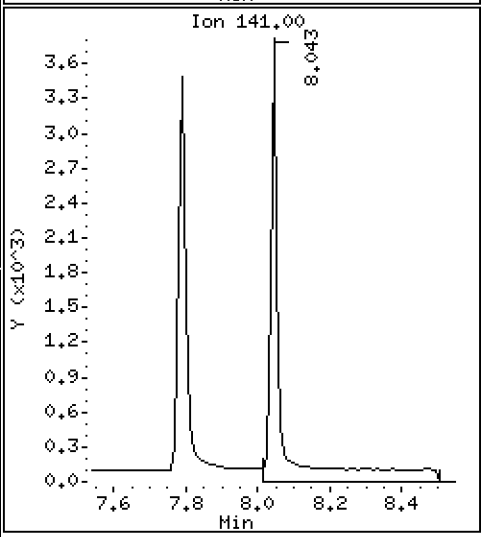
6 1-Methylnaphthalene

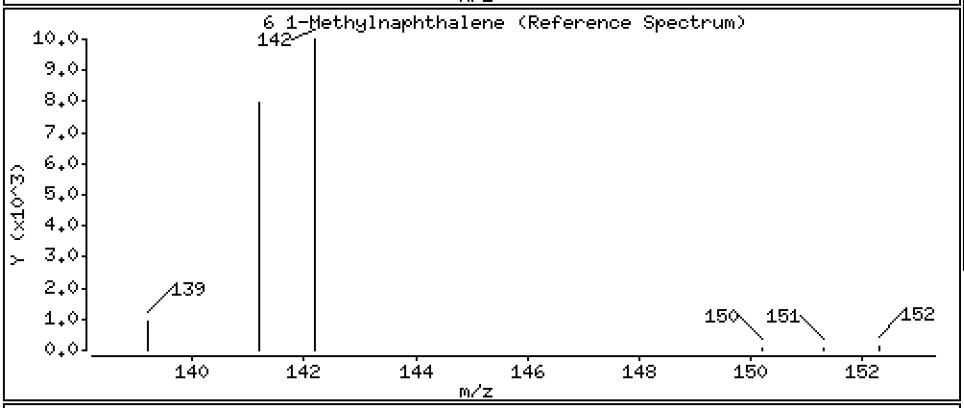
Concentration: 9.75 ng/mL

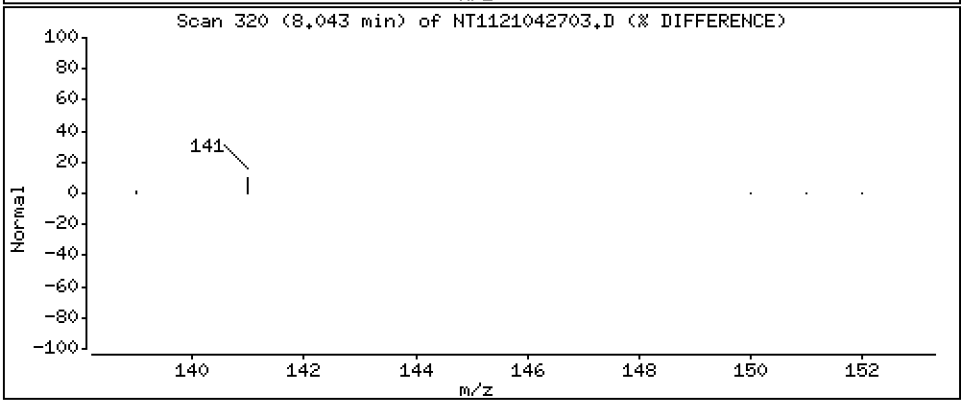


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Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

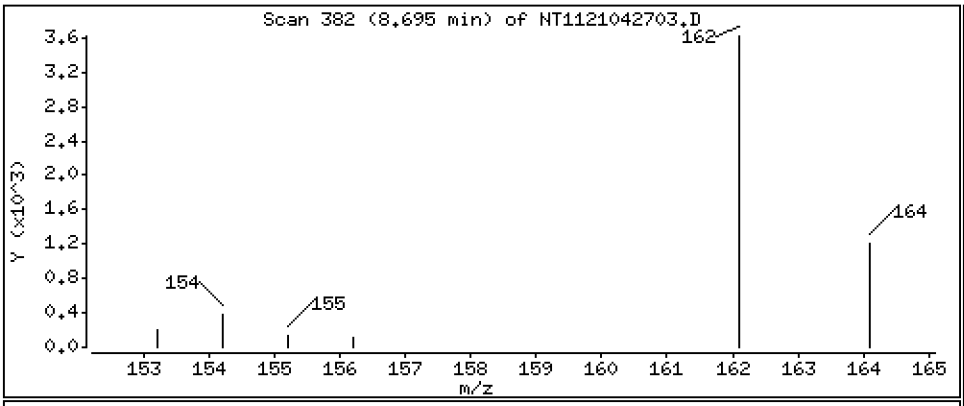
Operator: VTS

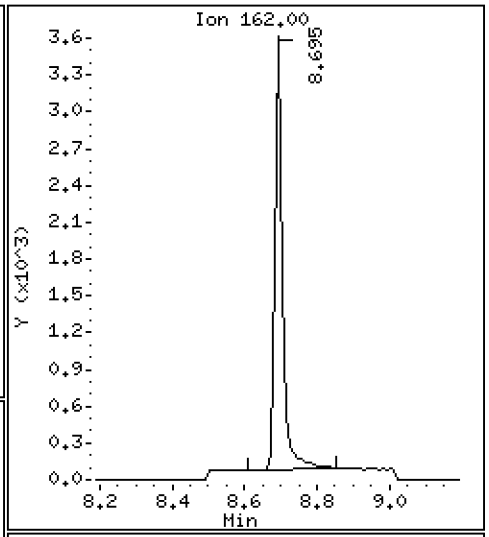
Column phase: Rxi-17Sil MS

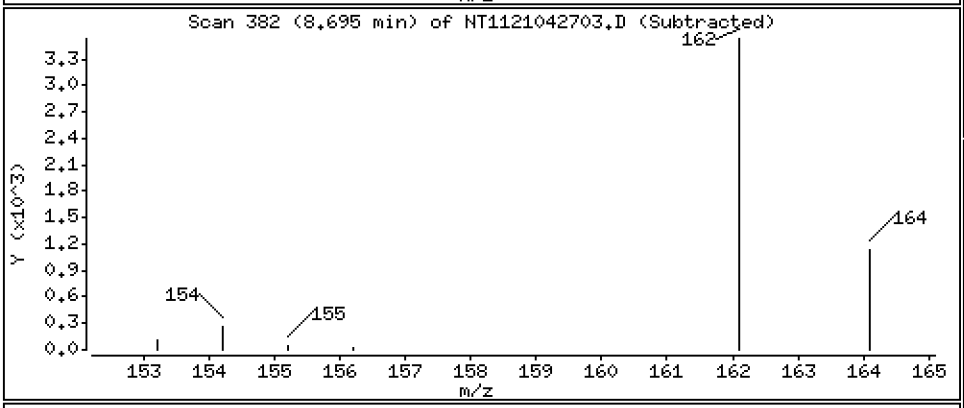
Column diameter: 0.25

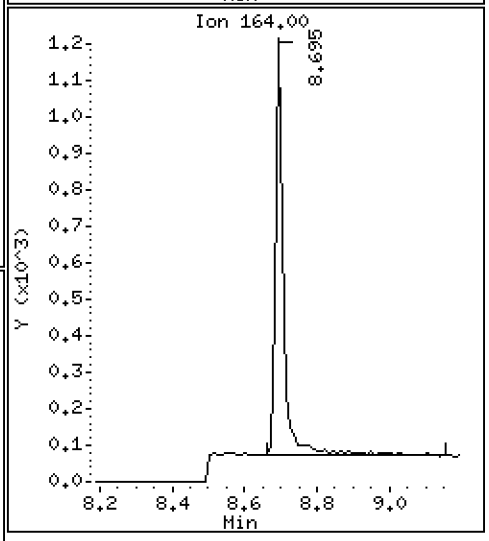
7 2-Chloronaphthalene

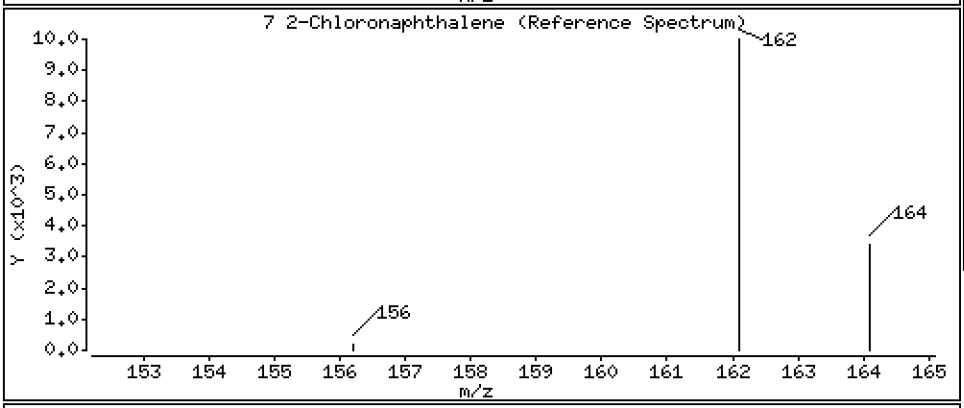
Concentration: 8.81 ng/mL

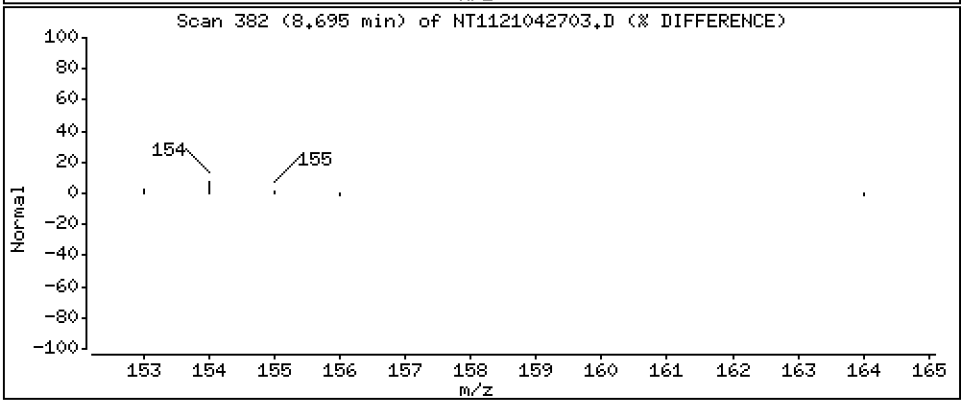


Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042703.D

Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

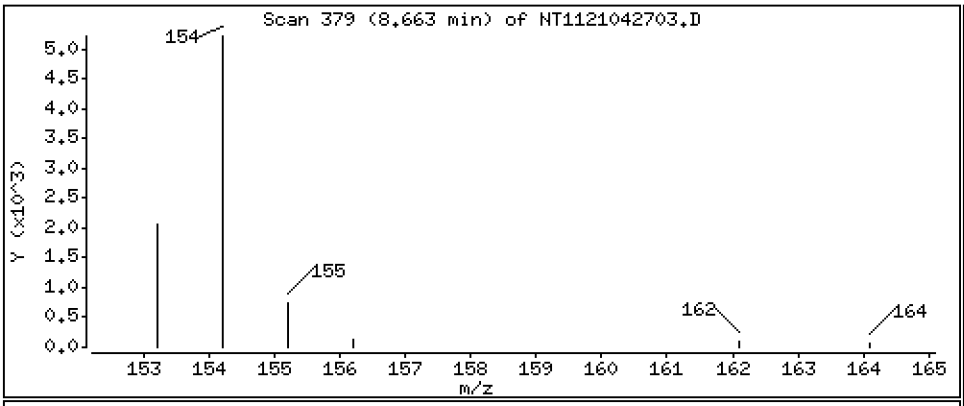
Operator: VTS

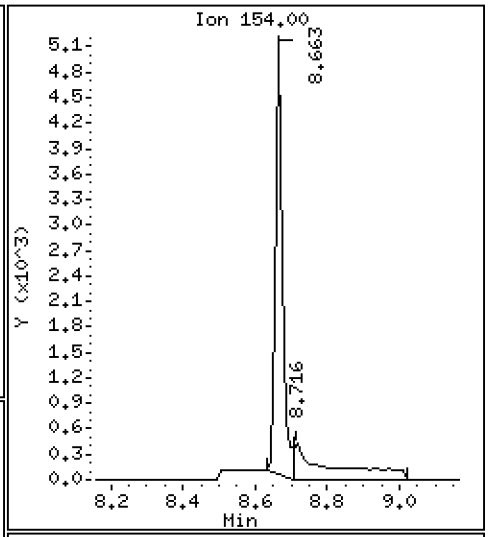
Column phase: Rxi-17Sil MS

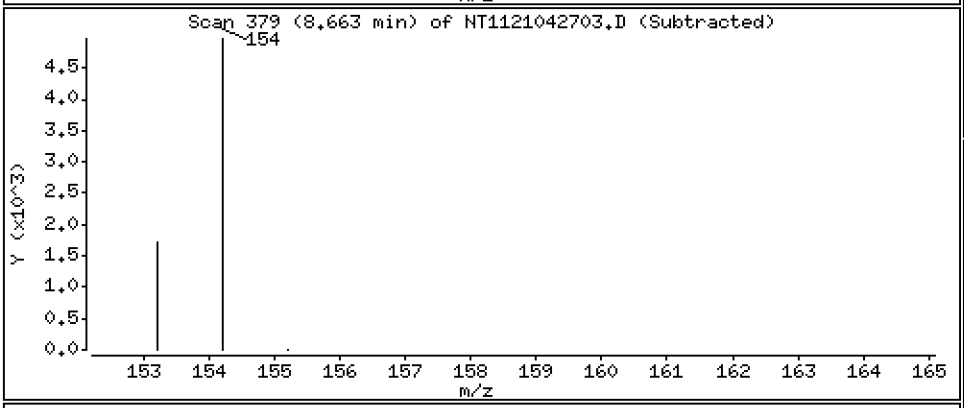
Column diameter: 0.25

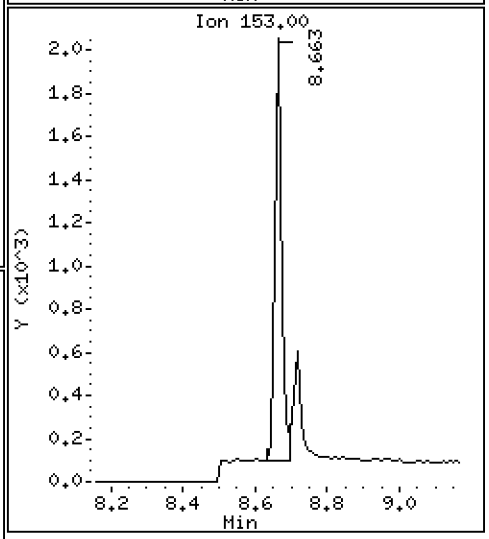
8 Biphenyl

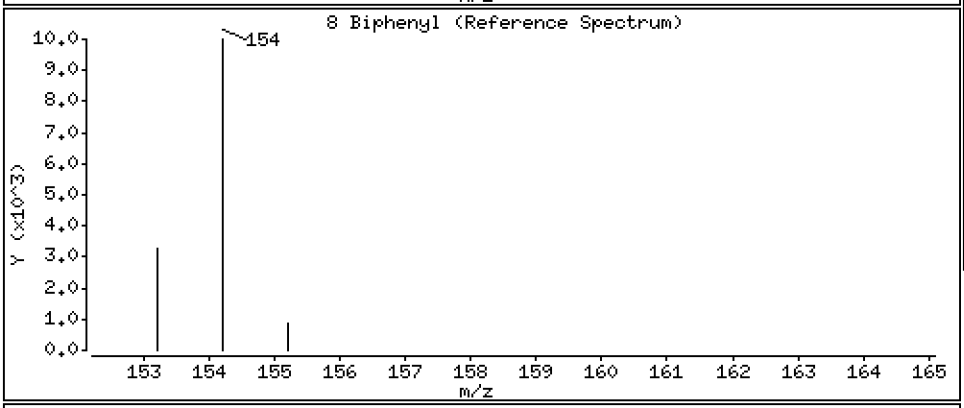
Concentration: 9.07 ng/mL

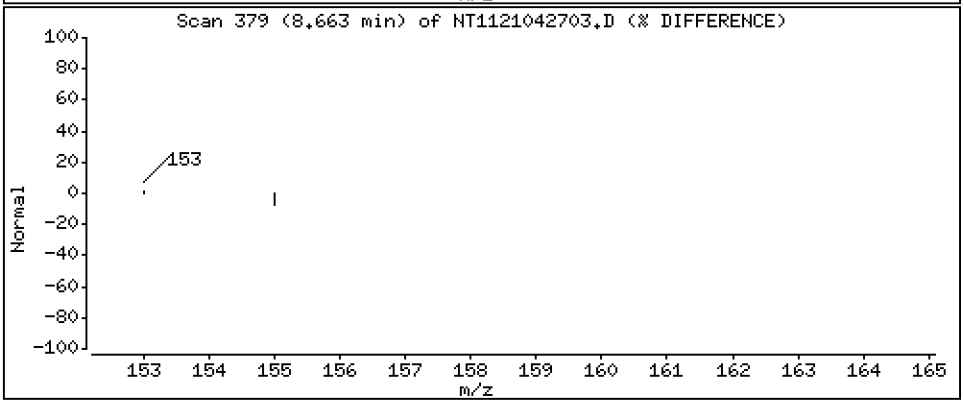


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Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

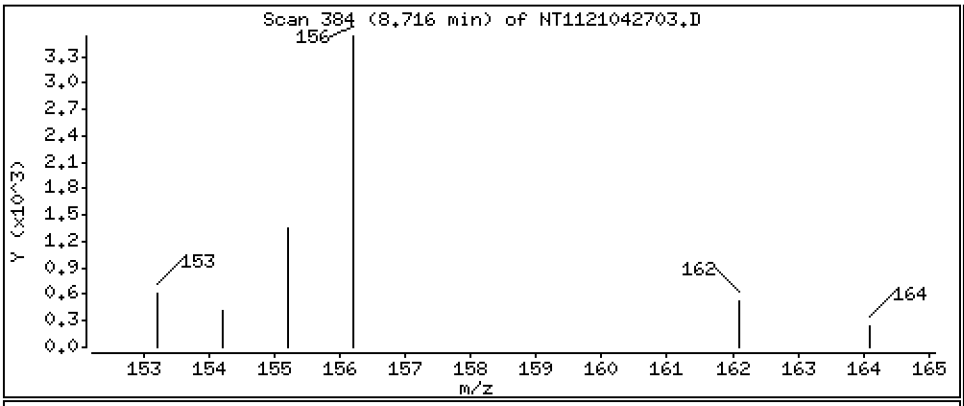
Operator: VTS

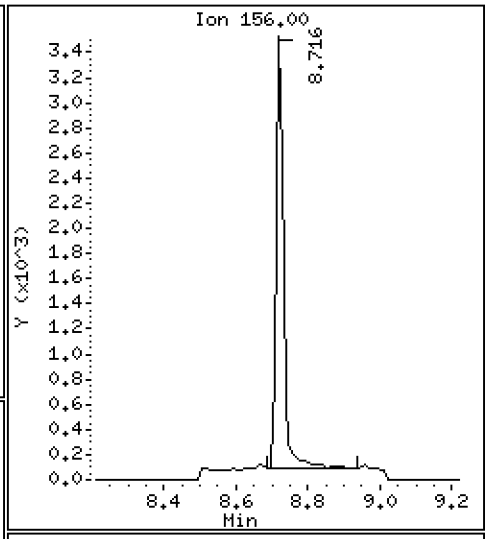
Column phase: Rxi-17Sil MS

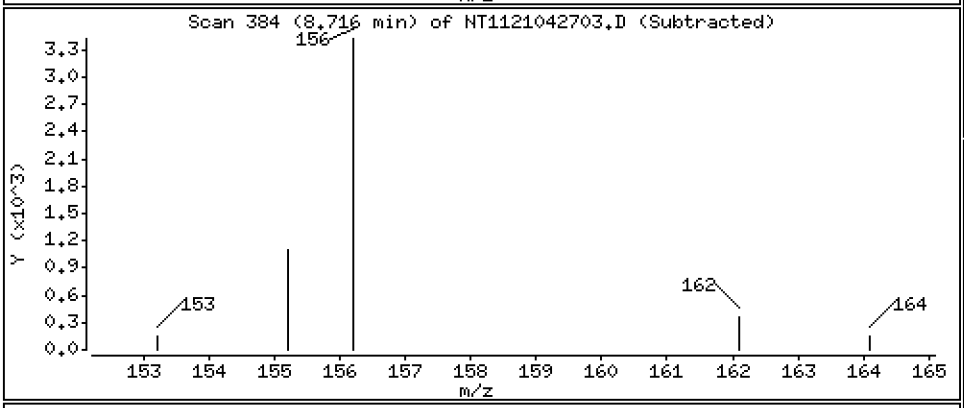
Column diameter: 0.25

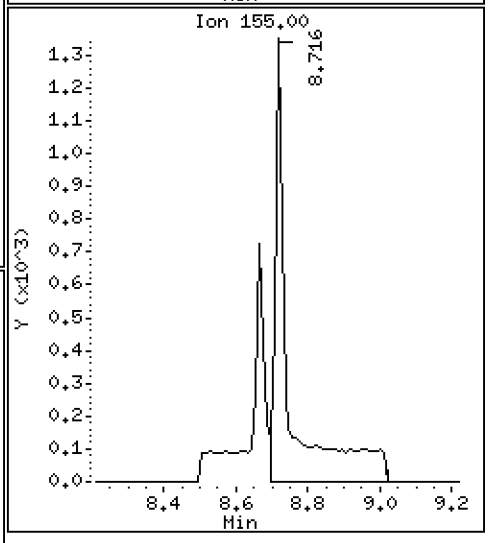
9 2,6-Dimethylnaphthalene

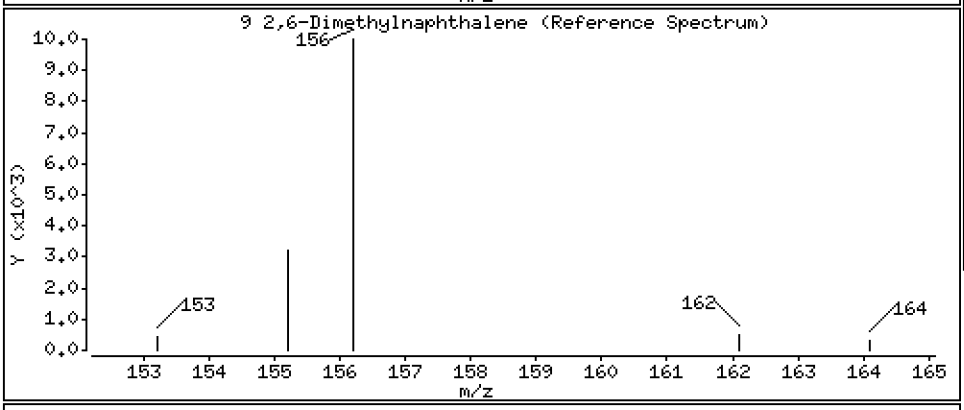
Concentration: 8.87 ng/mL

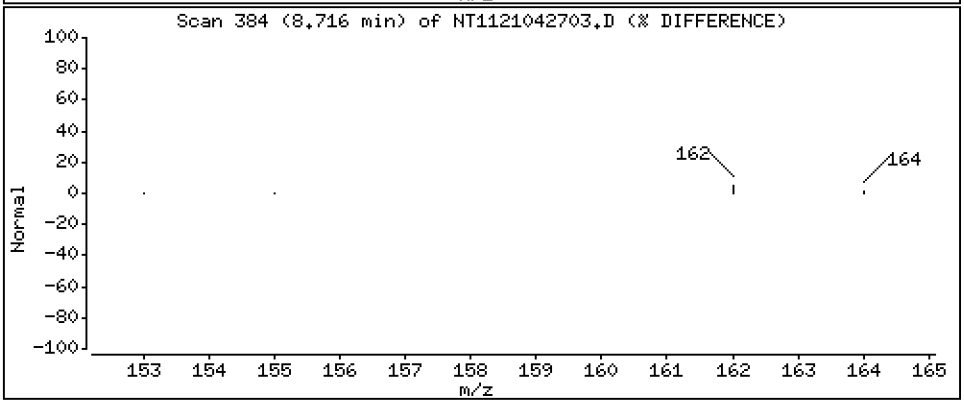


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Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

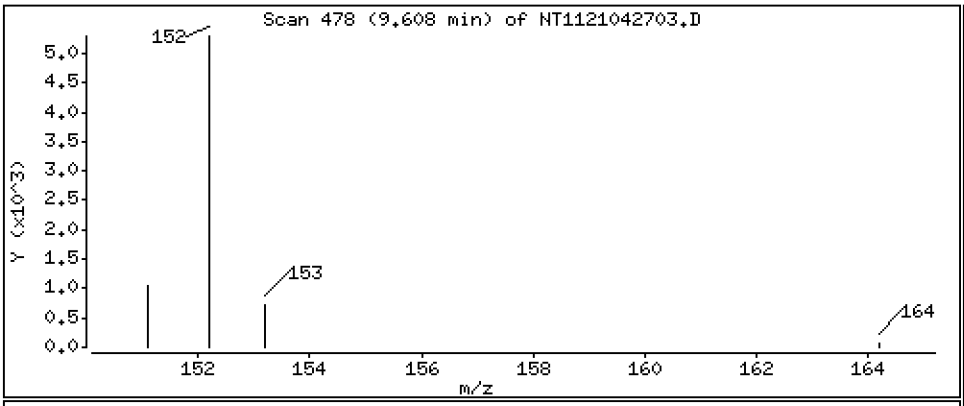
Operator: VTS

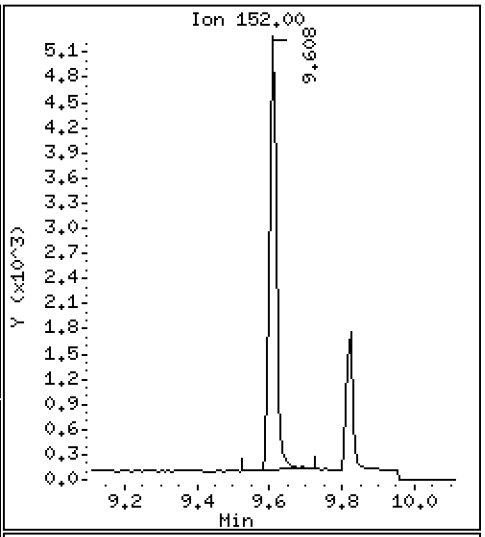
Column phase: Rxi-17Sil MS

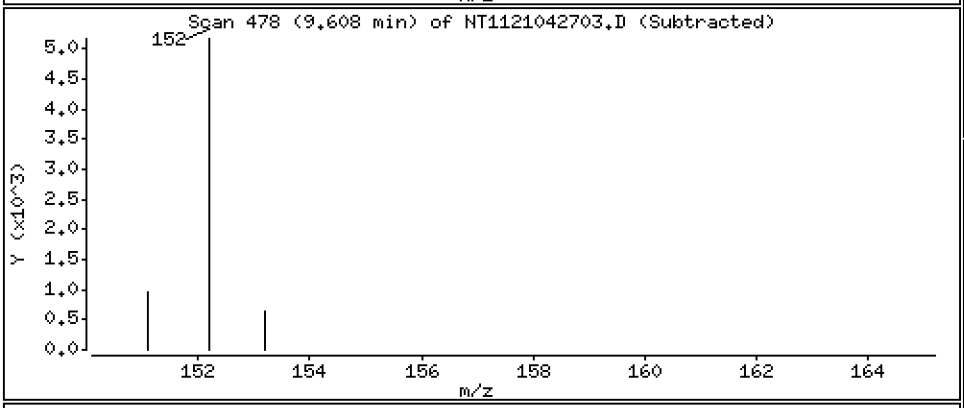
Column diameter: 0.25

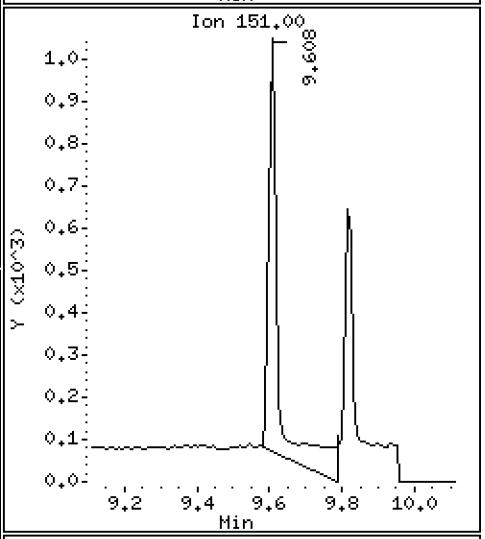
10 Acenaphthylene

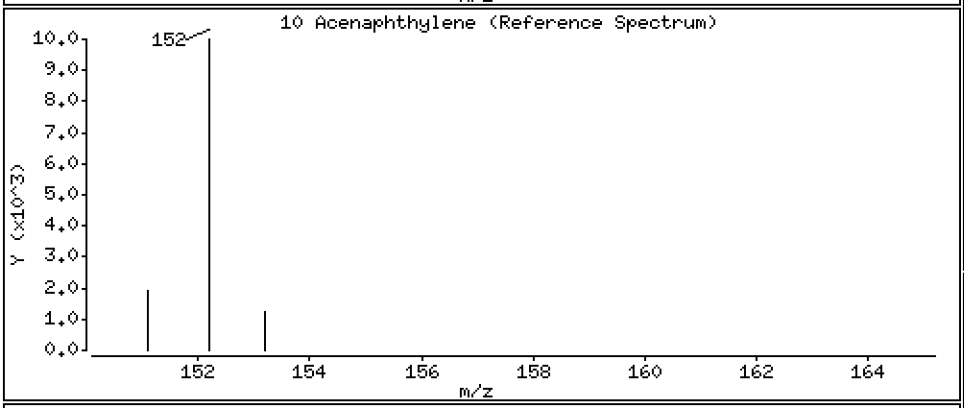
Concentration: 8.82 ng/mL

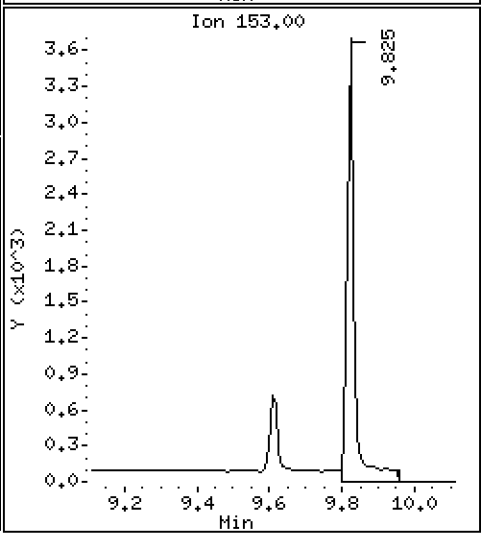


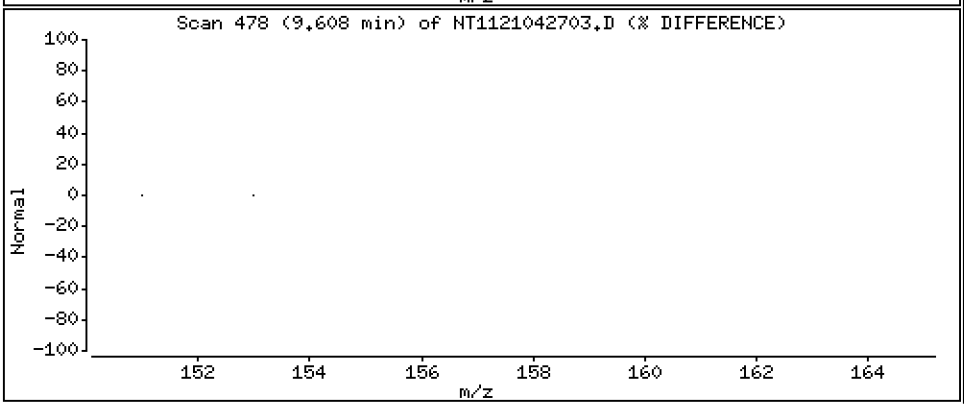



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Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

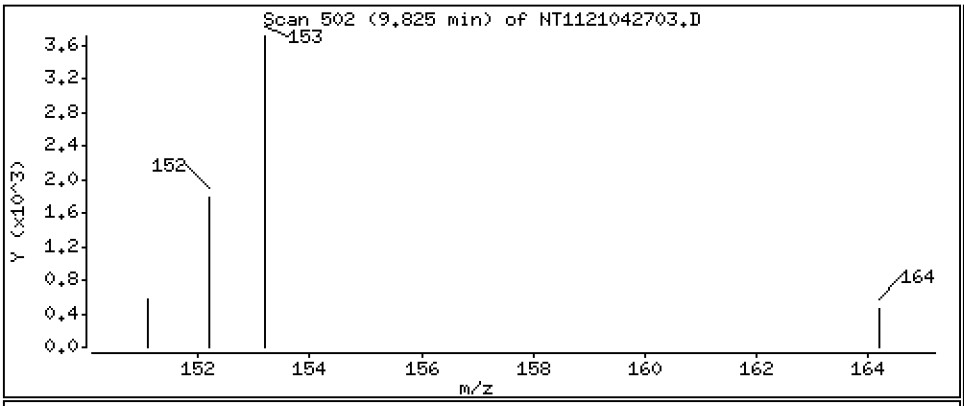
Operator: VTS

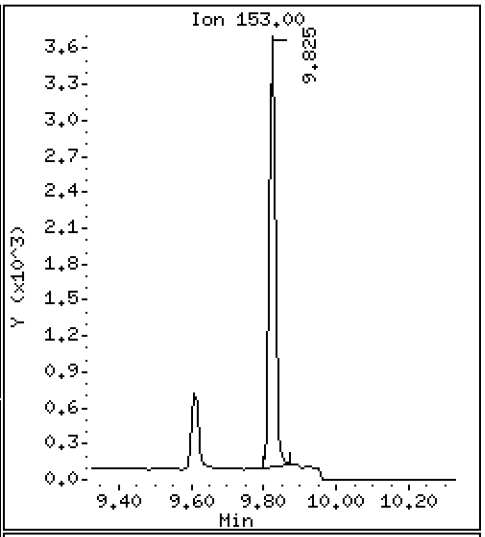
Column phase: Rxi-17Sil MS

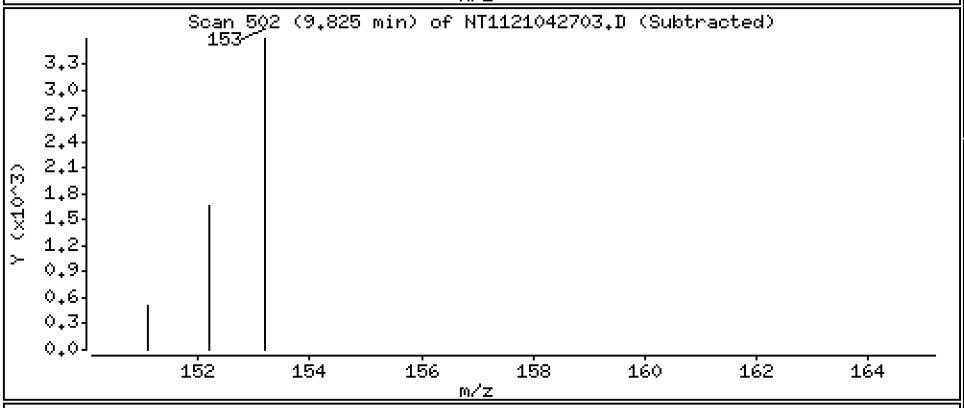
Column diameter: 0.25

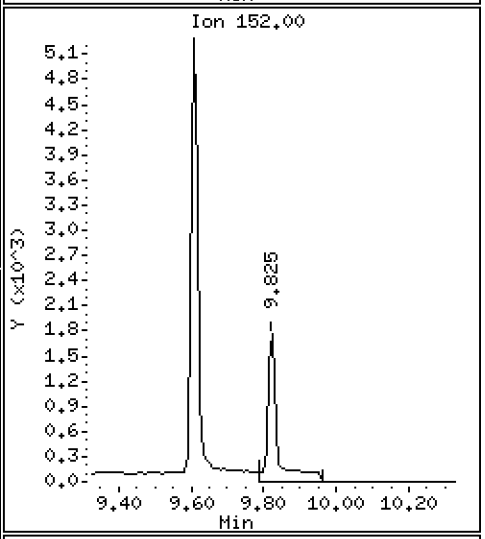
12 Acenaphthene

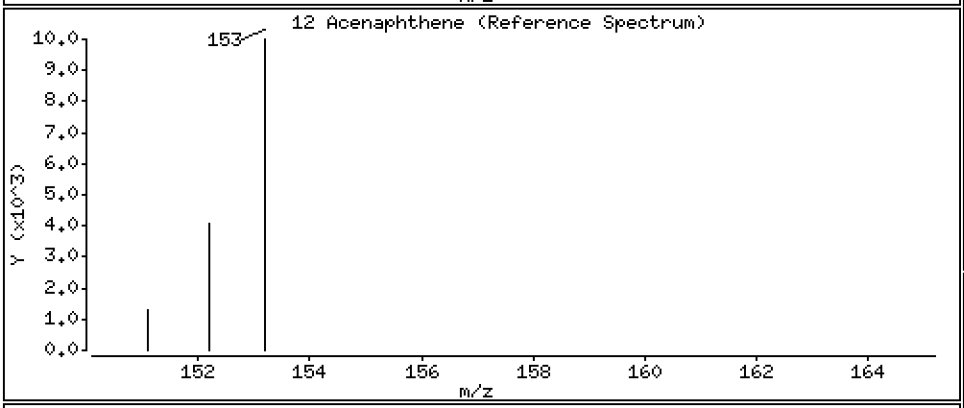
Concentration: 8.47 ng/mL

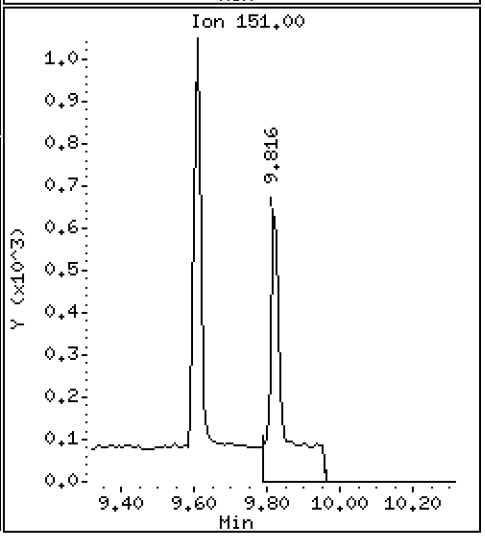


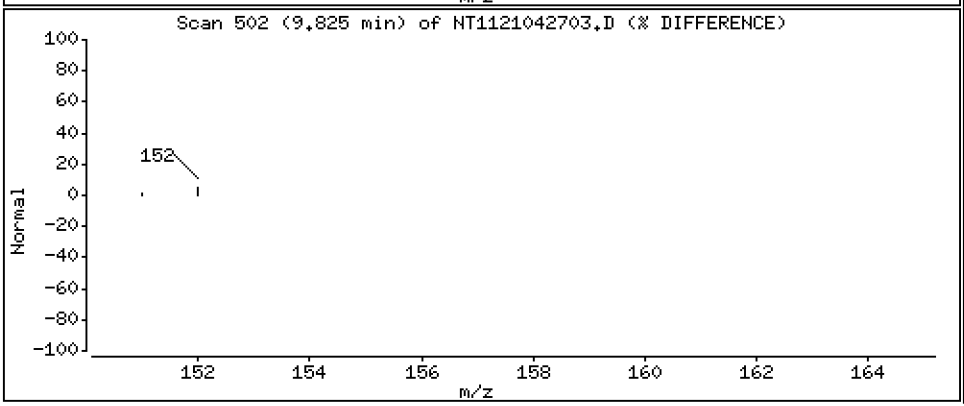



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Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

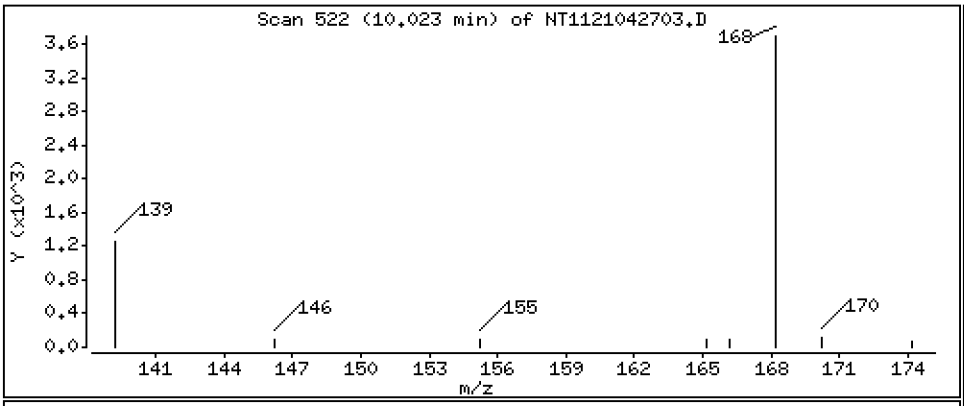
Operator: VTS

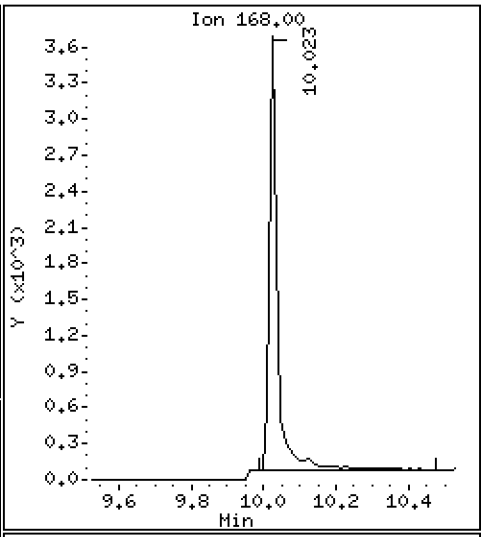
Column phase: Rxi-17Sil MS

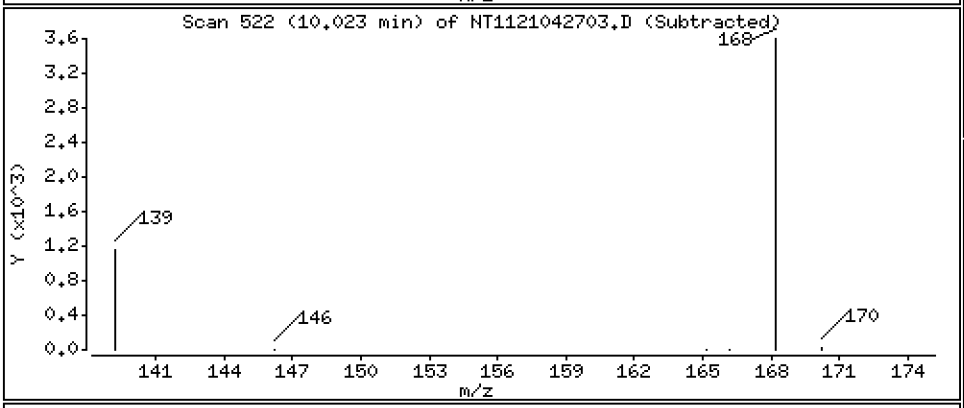
Column diameter: 0.25

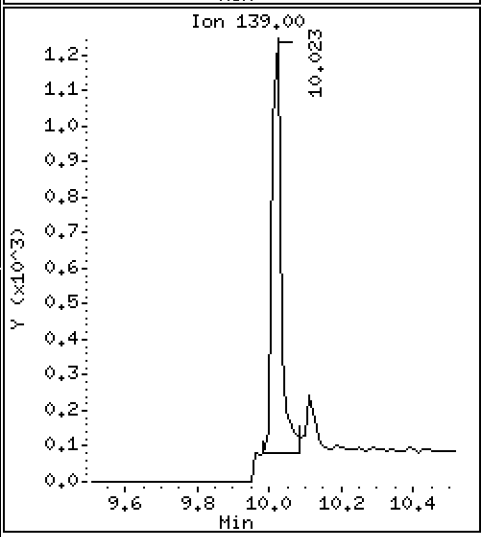
13 Dibenzofuran

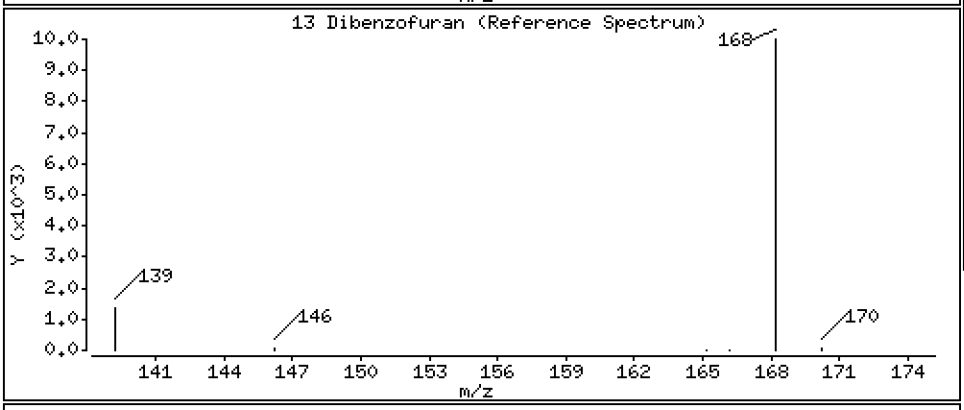
Concentration: 8.86 ng/mL

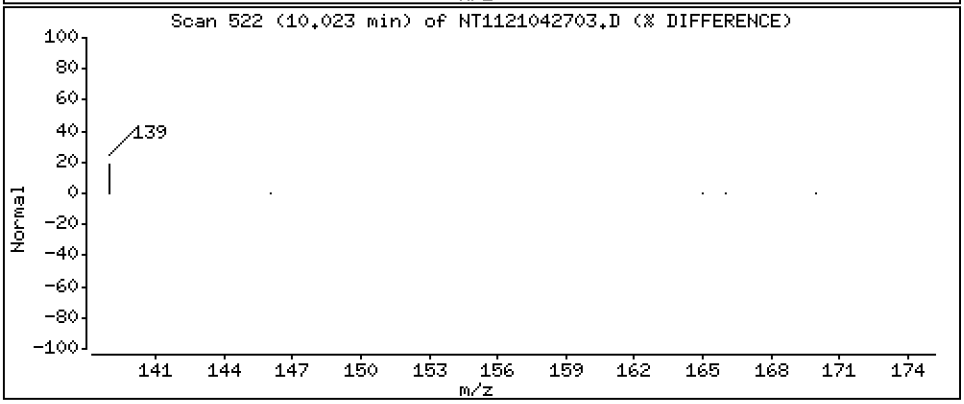


Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042703.D

Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

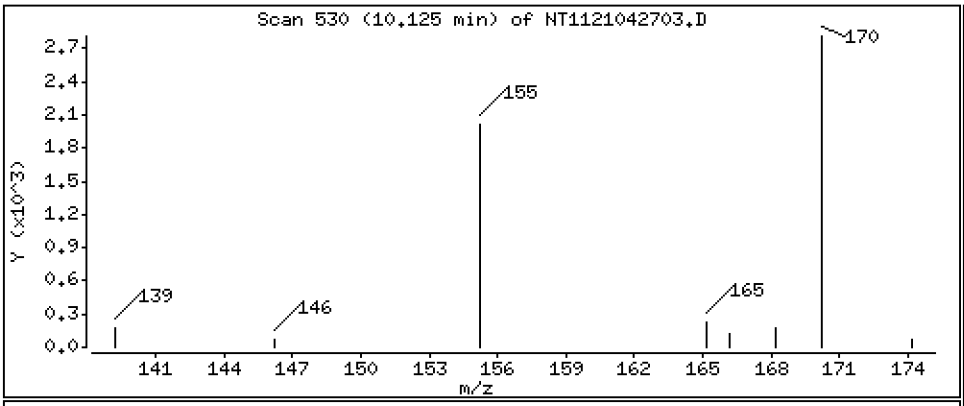
Operator: VTS

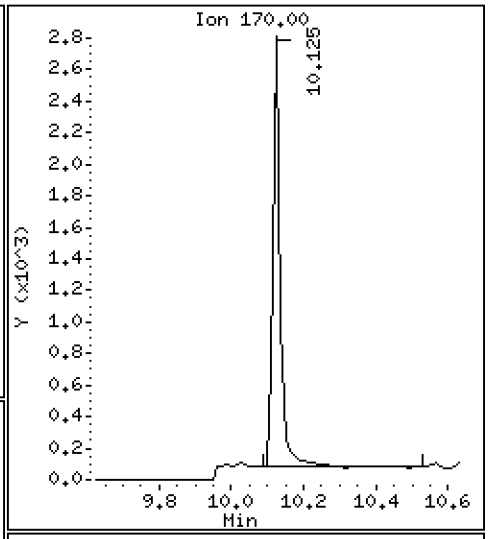
Column phase: Rxi-17Sil MS

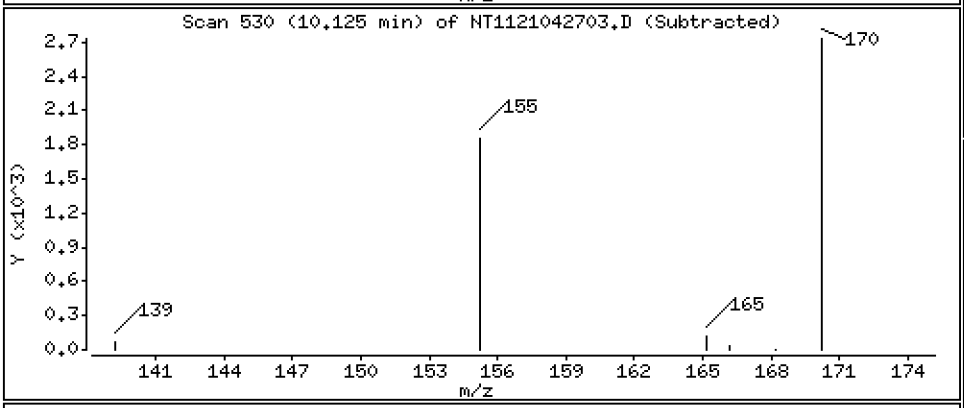
Column diameter: 0.25

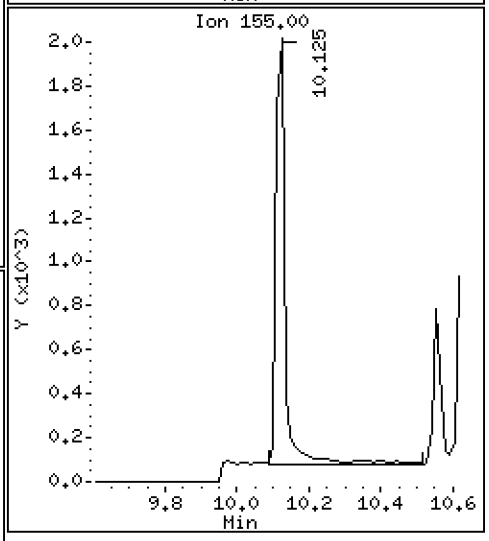
14 2,3,5-Trimethylnaphthalene

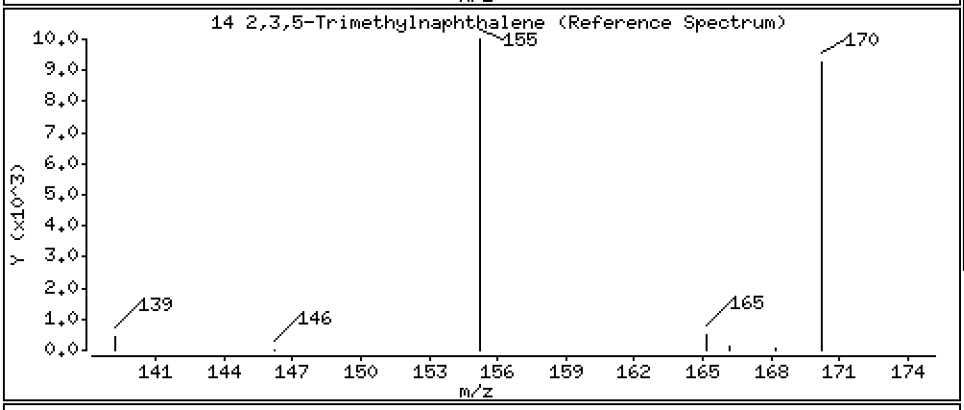
Concentration: 8.99 ng/mL

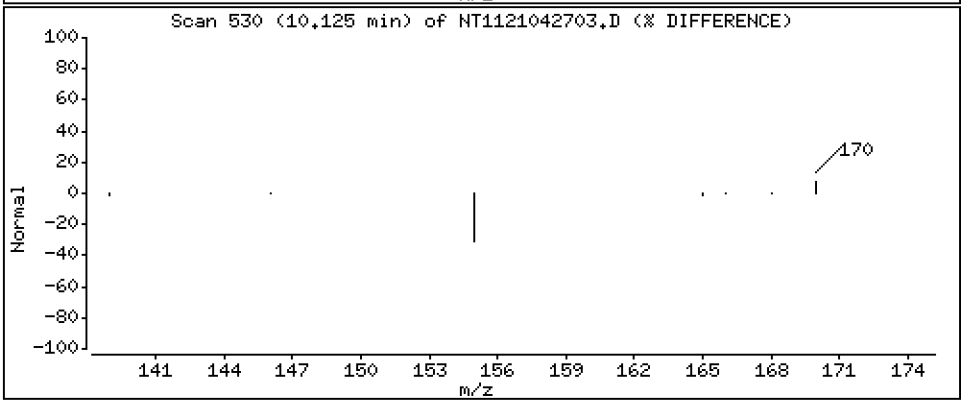


Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042703.D

Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

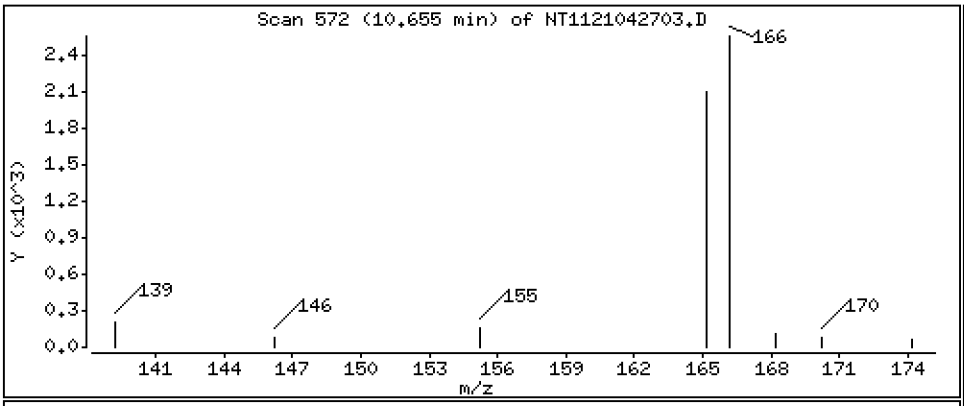
Operator: VTS

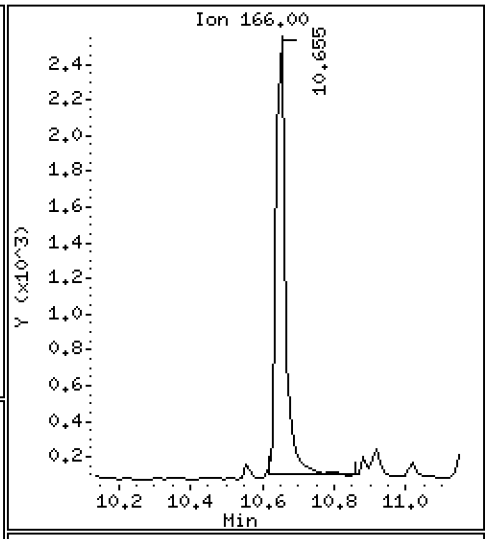
Column phase: Rxi-17Sil MS

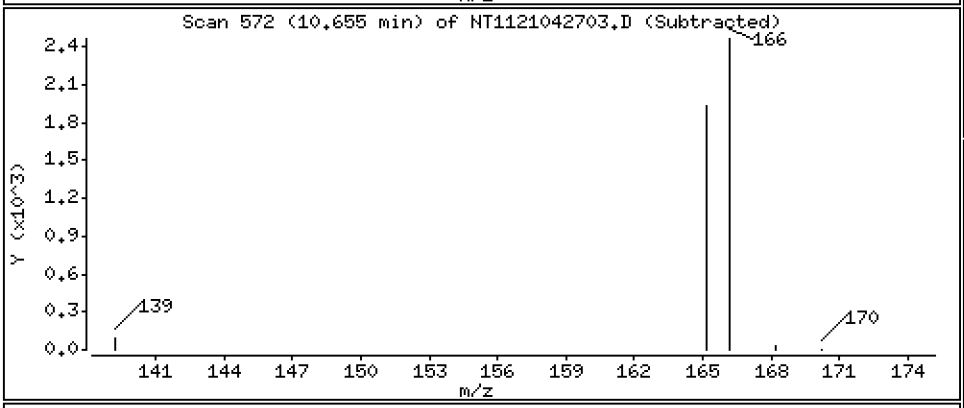
Column diameter: 0.25

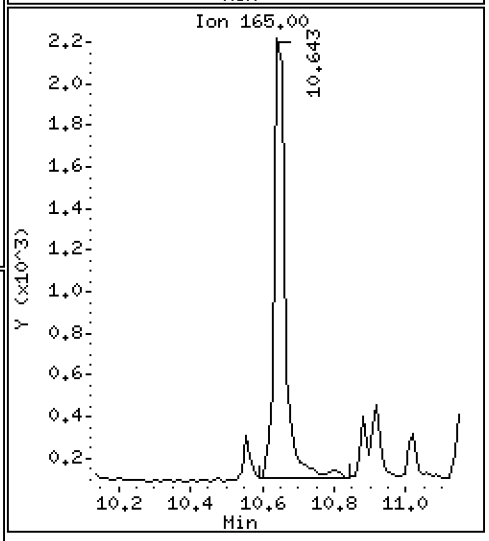
16 Fluorene

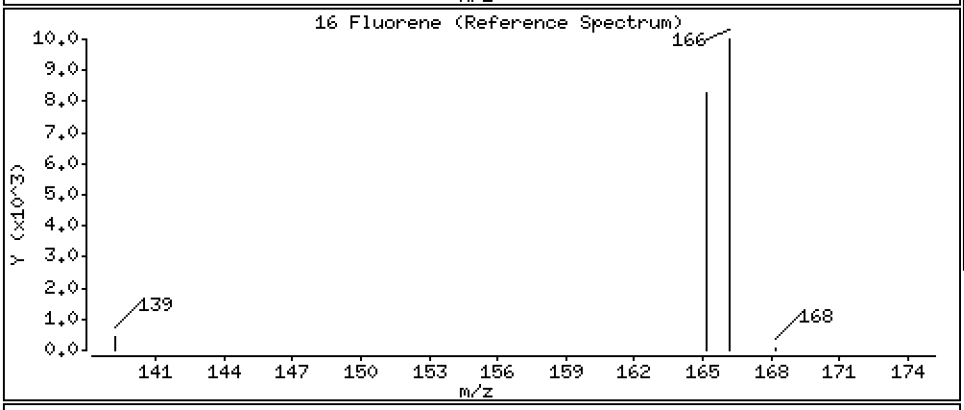
Concentration: 8.65 ng/mL

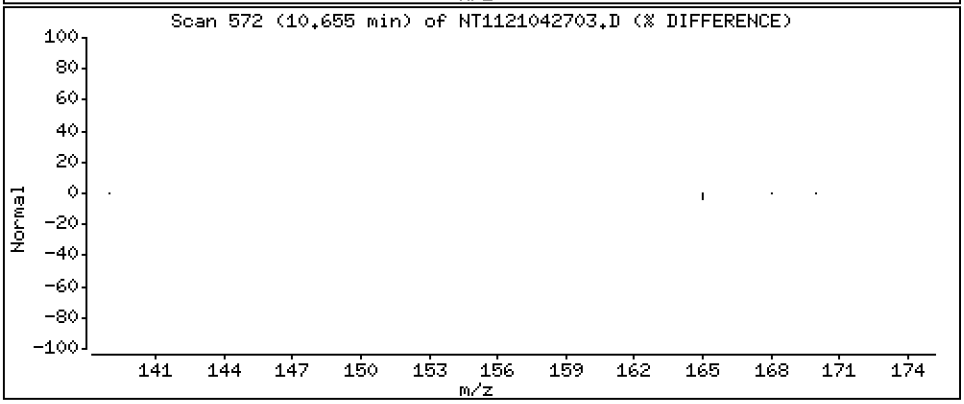


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Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

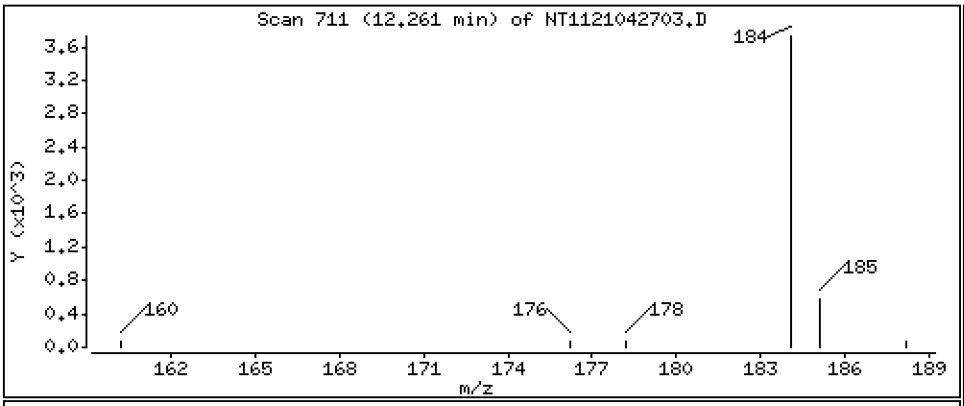
Operator: VTS

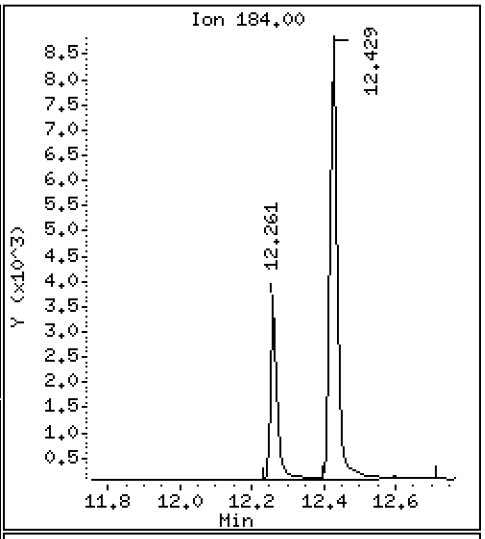
Column phase: Rxi-17Sil MS

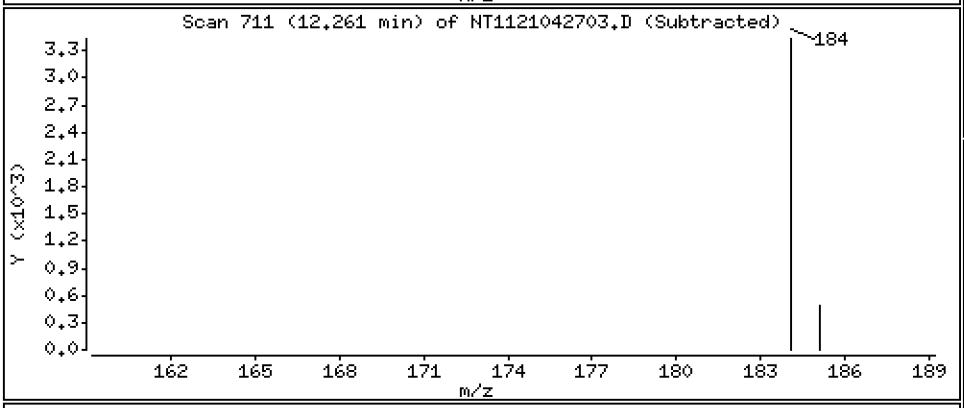
Column diameter: 0.25

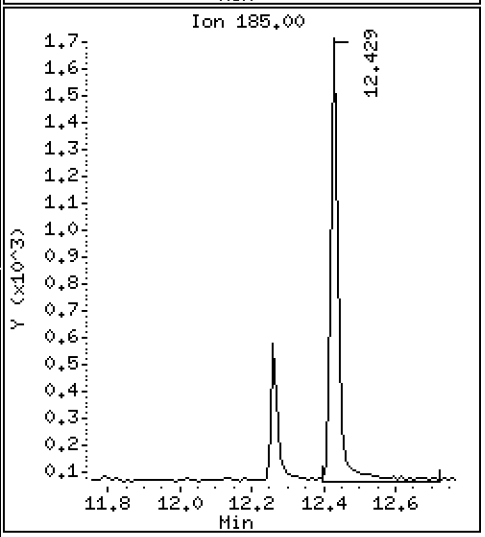
17 Dibenzothiophene

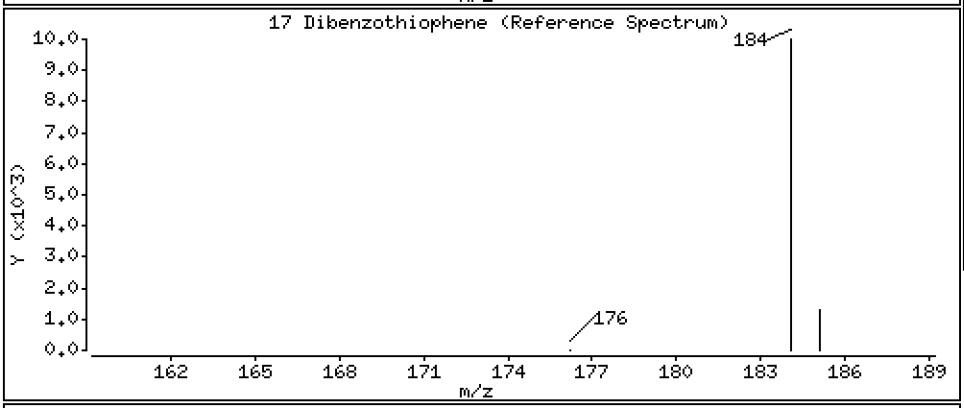
Concentration: 9.78 ng/mL

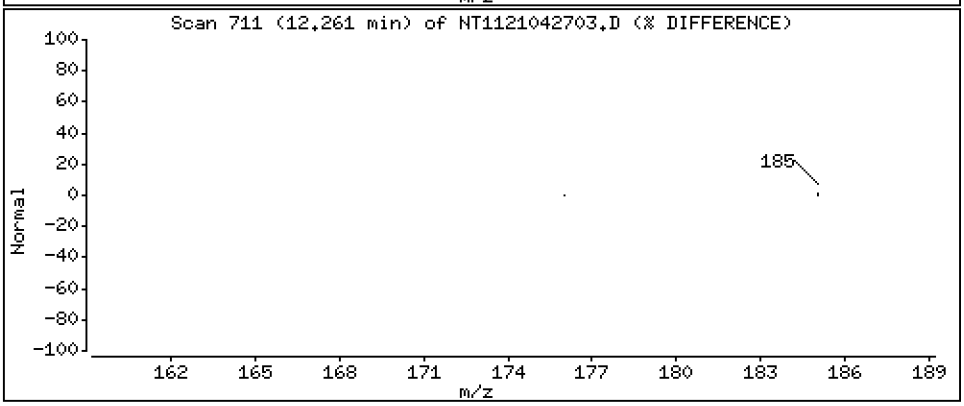


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Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

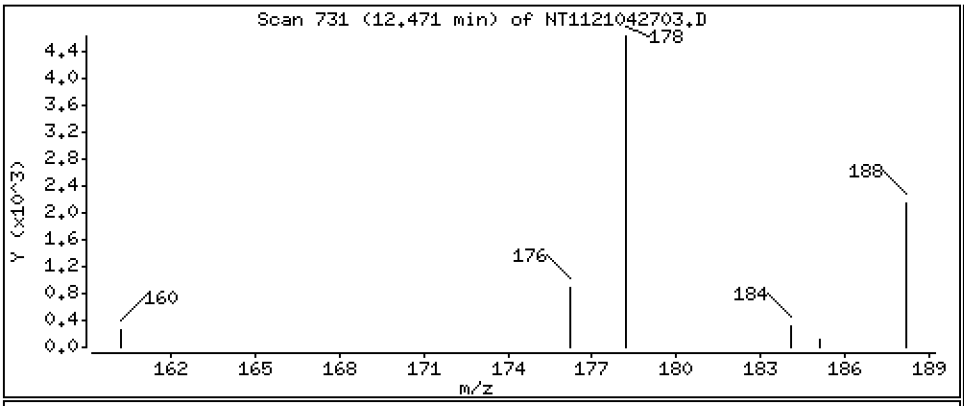
Operator: VTS

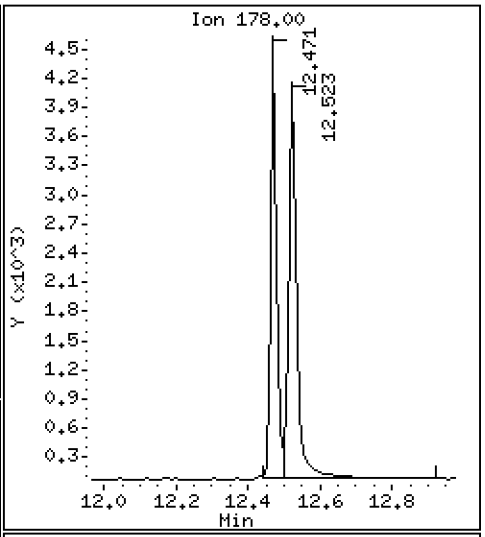
Column phase: Rxi-17Sil MS

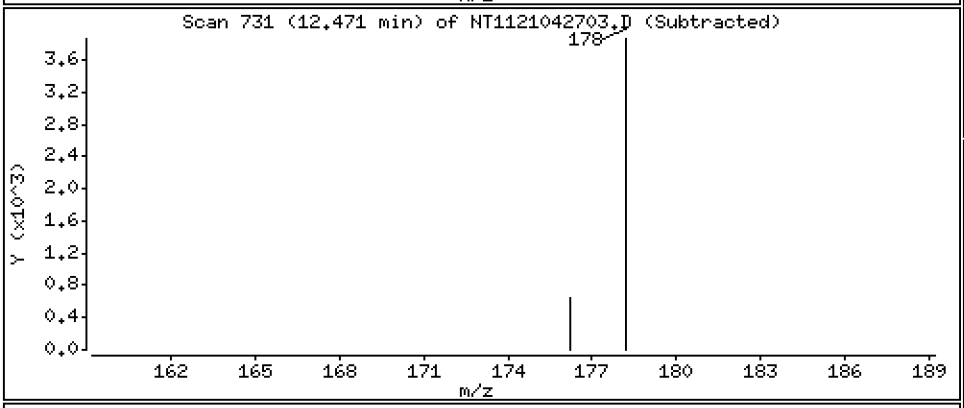
Column diameter: 0.25

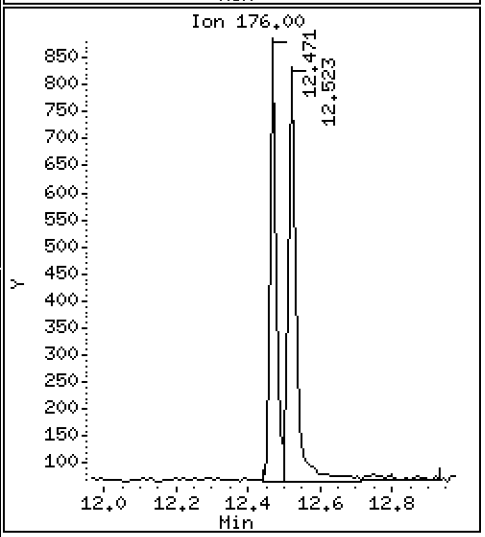
19 Phenanthrene

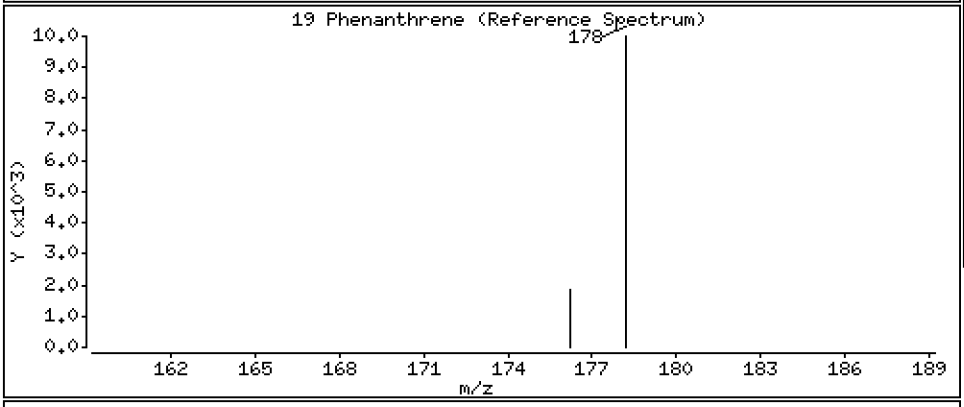
Concentration: 9.34 ng/mL

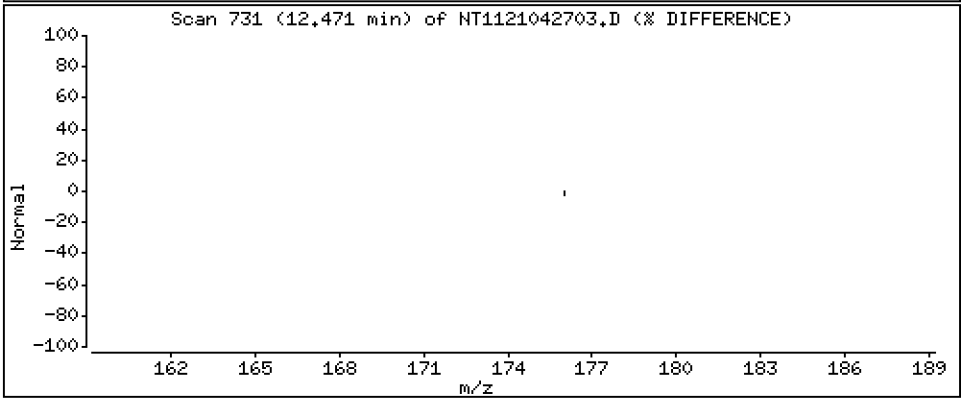


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Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

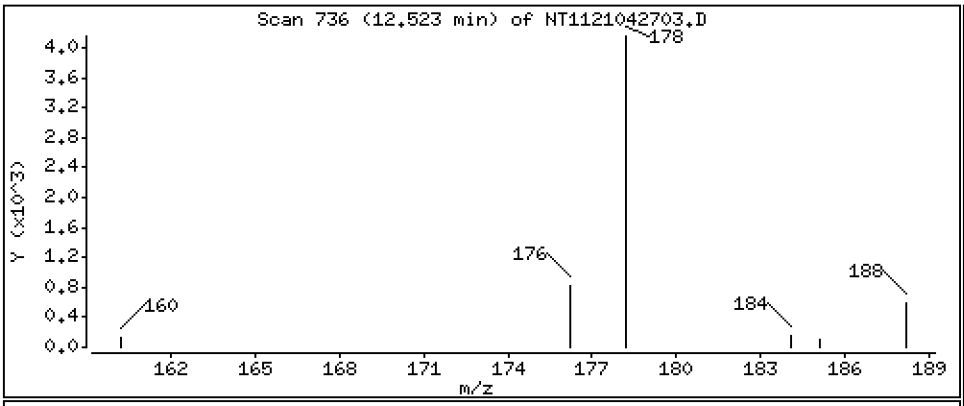
Operator: VTS

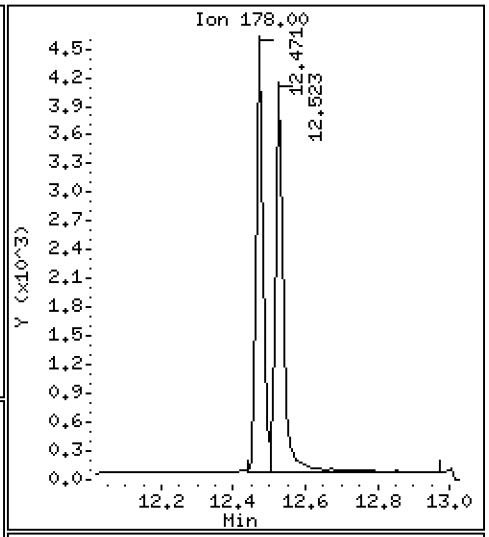
Column phase: Rxi-17Sil MS

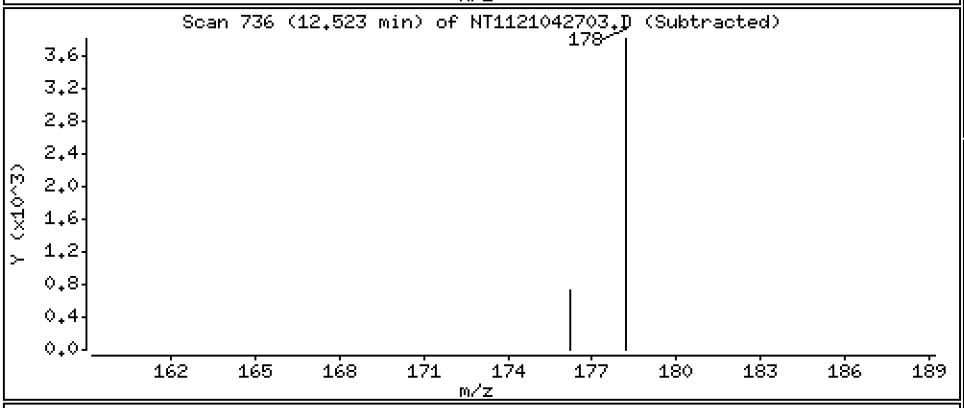
Column diameter: 0.25

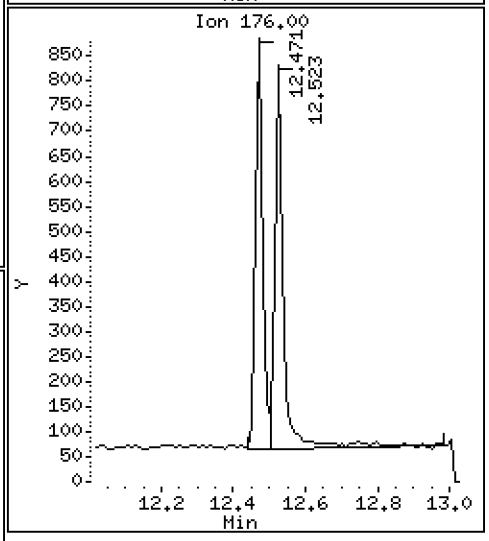
21 Anthracene

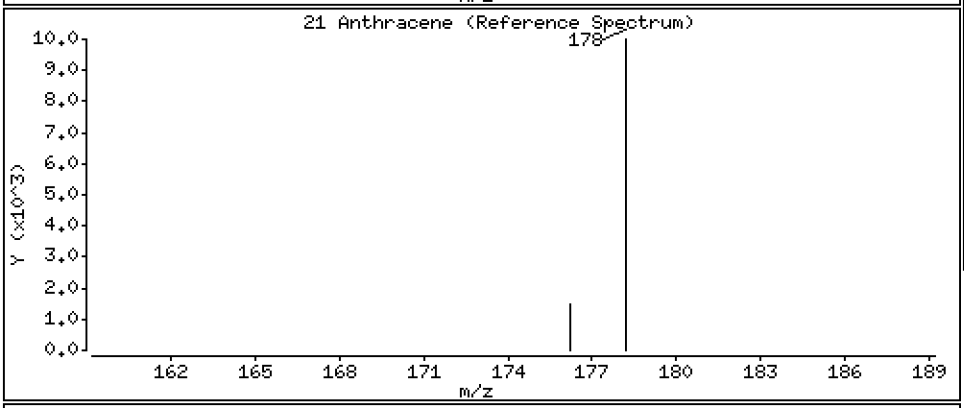
Concentration: 9.77 ng/mL

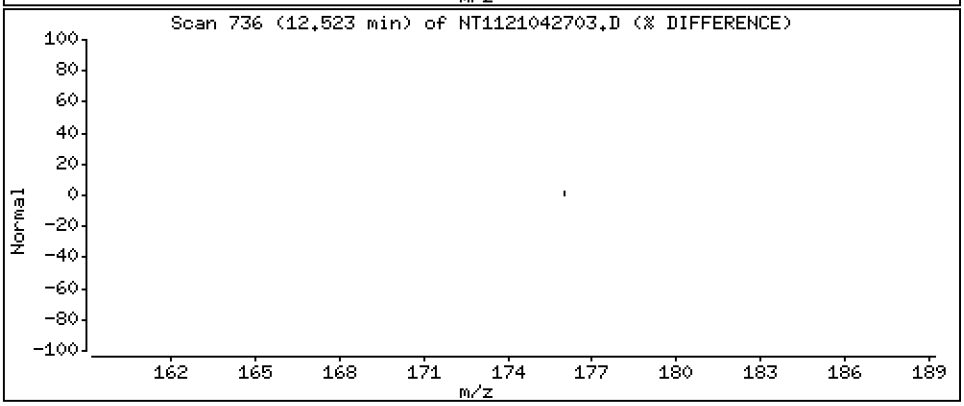


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Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

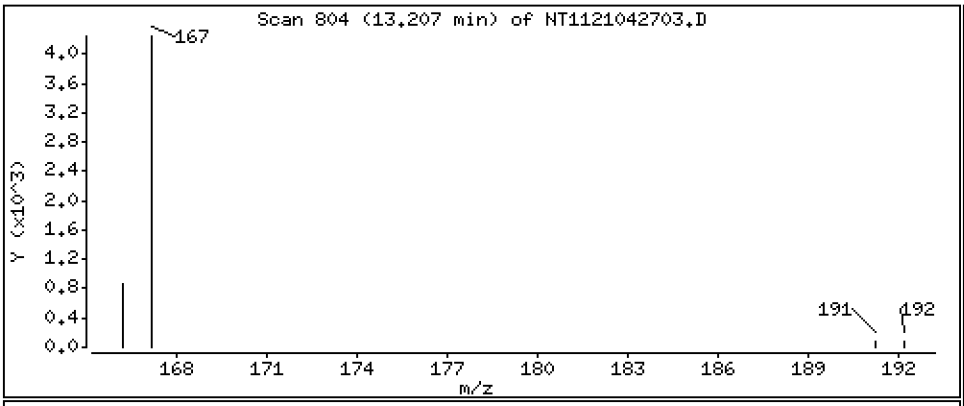
Operator: VTS

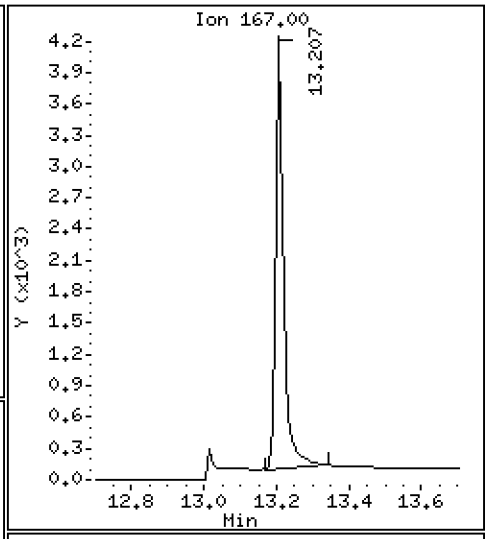
Column phase: Rxi-17Sil MS

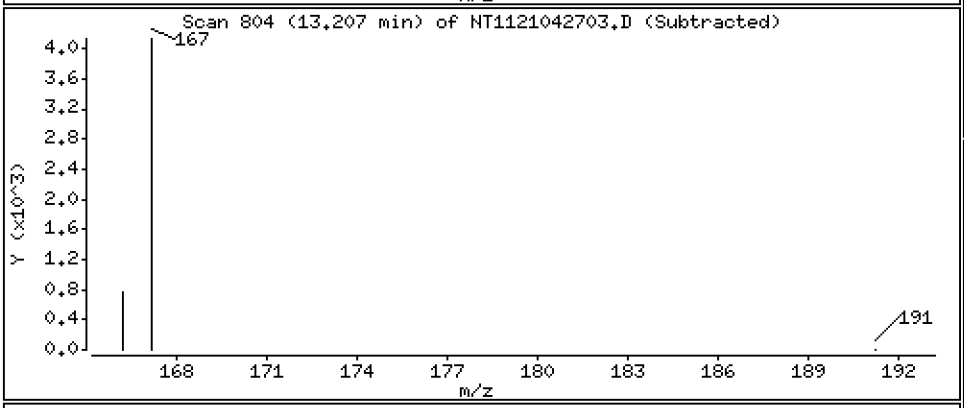
Column diameter: 0.25

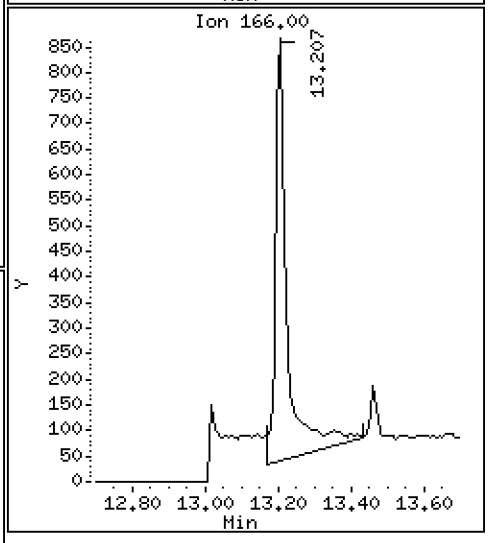
22 Carbazole

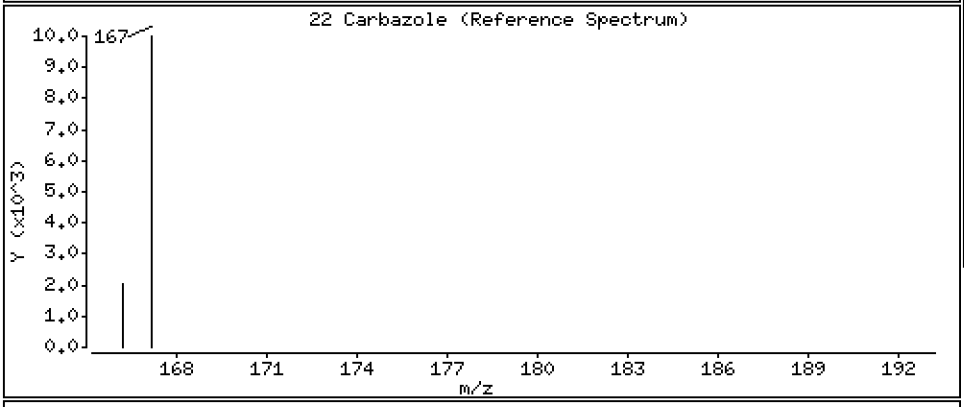
Concentration: 9.42 ng/mL

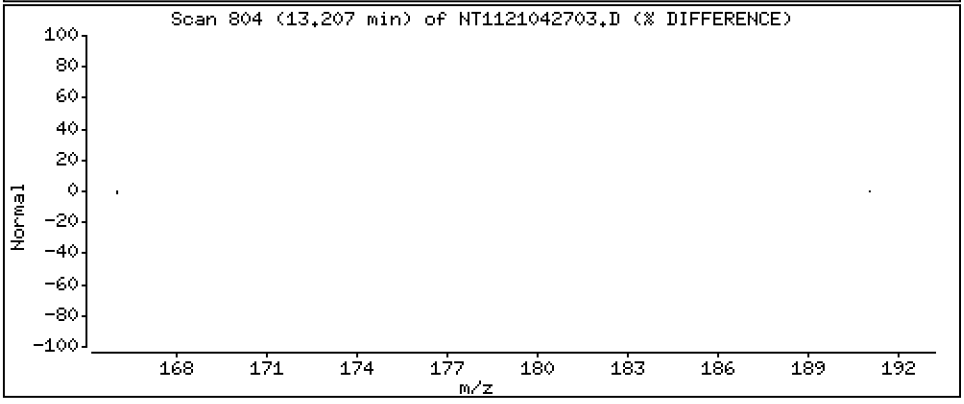


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Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

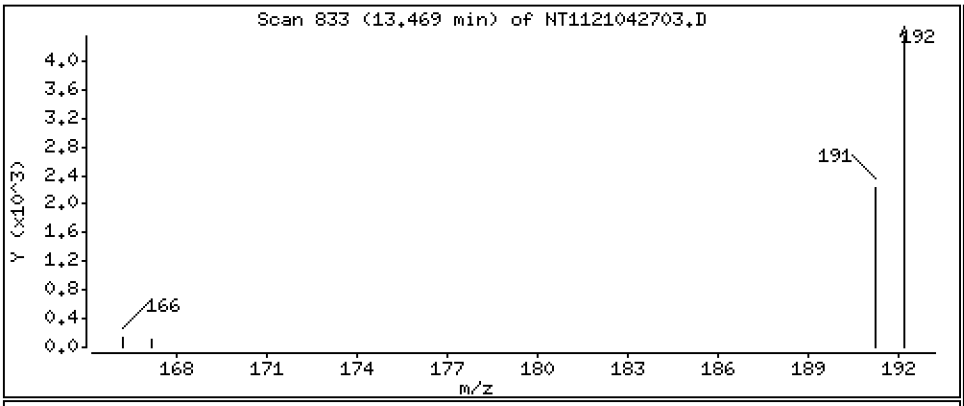
Operator: VTS

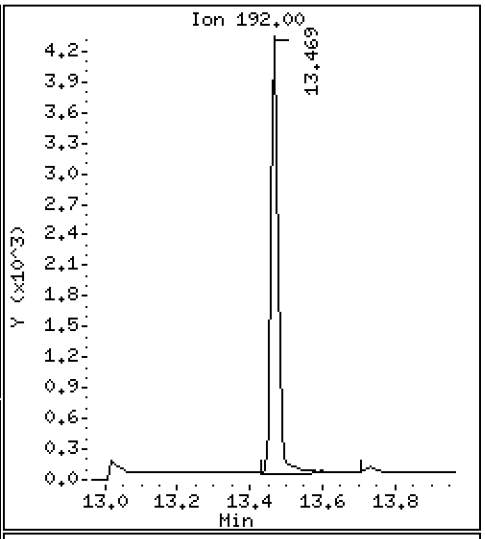
Column phase: Rxi-17Sil MS

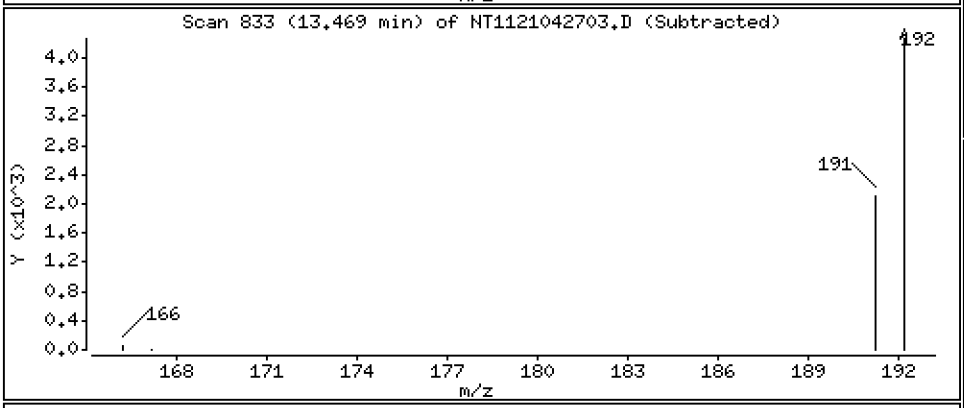
Column diameter: 0.25

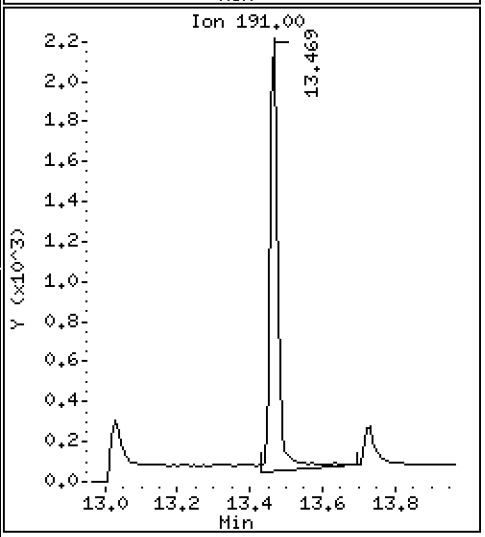
23 1-Methylphenanthrene

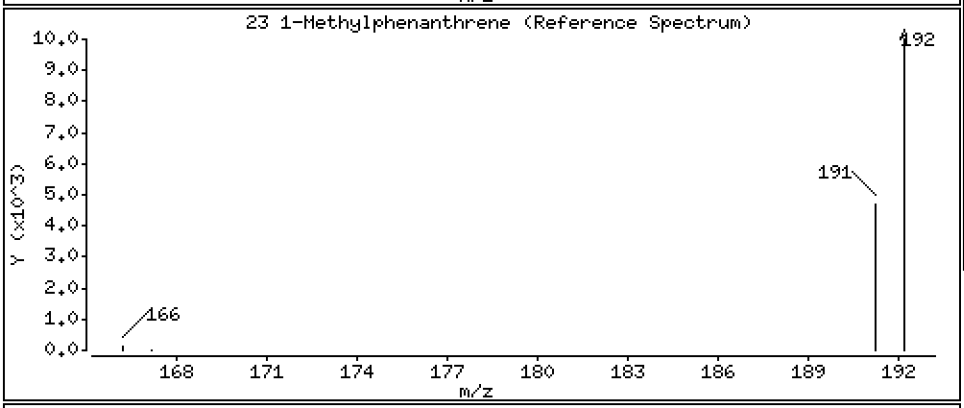
Concentration: 10.2 ng/mL

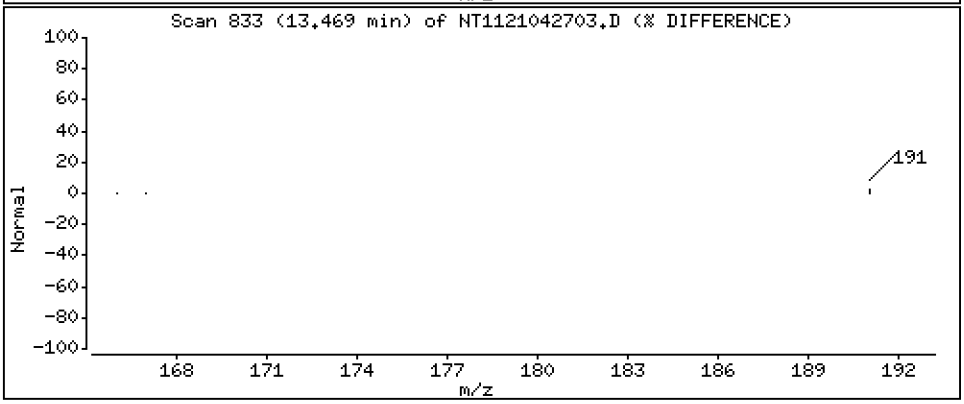


Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042703.D

Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

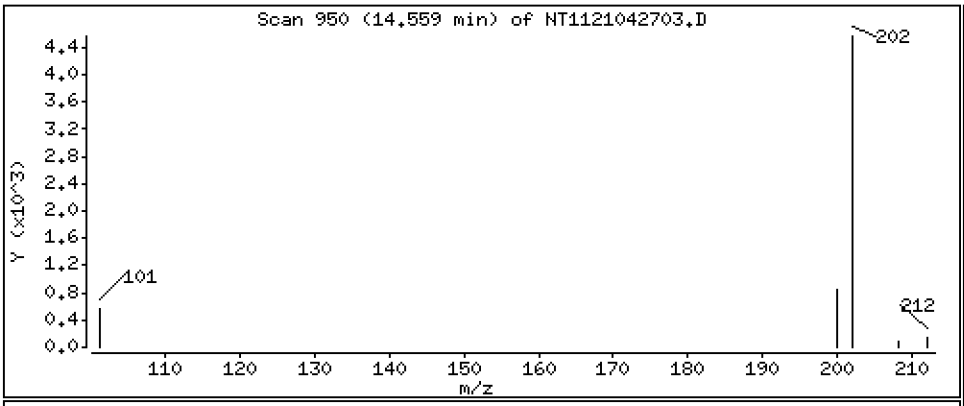
Operator: VTS

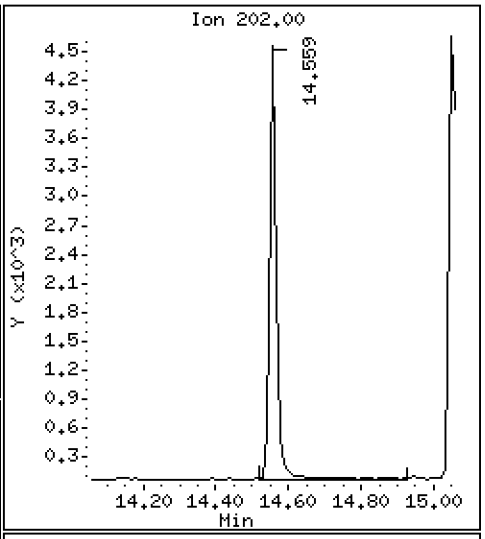
Column phase: Rxi-17Sil MS

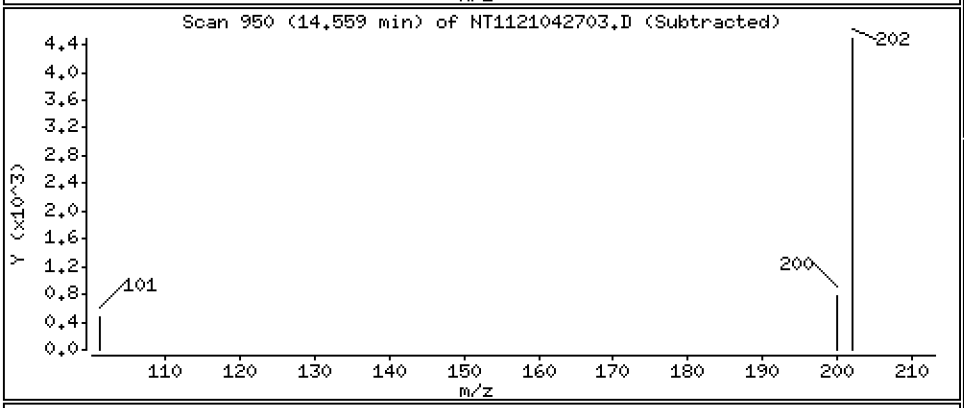
Column diameter: 0.25

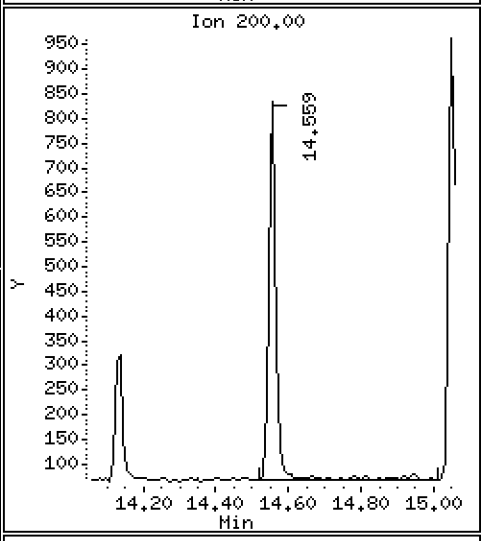
25 Fluoranthene

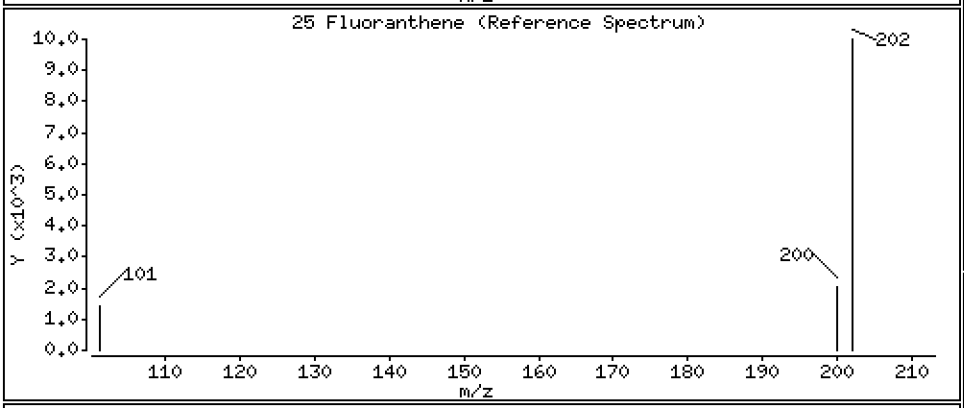
Concentration: 9.87 ng/mL

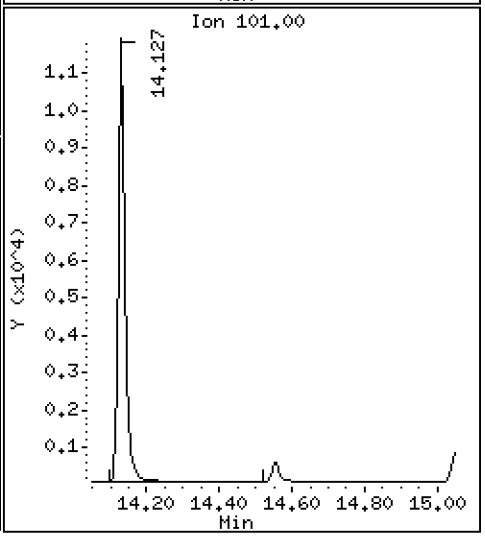


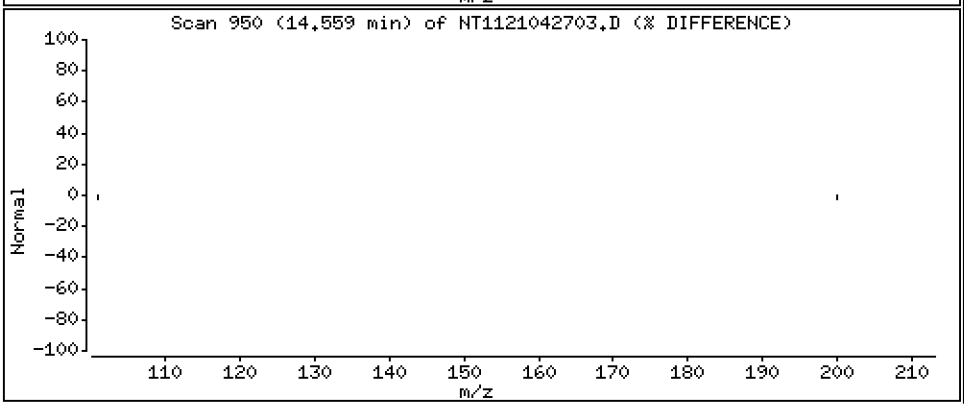



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Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

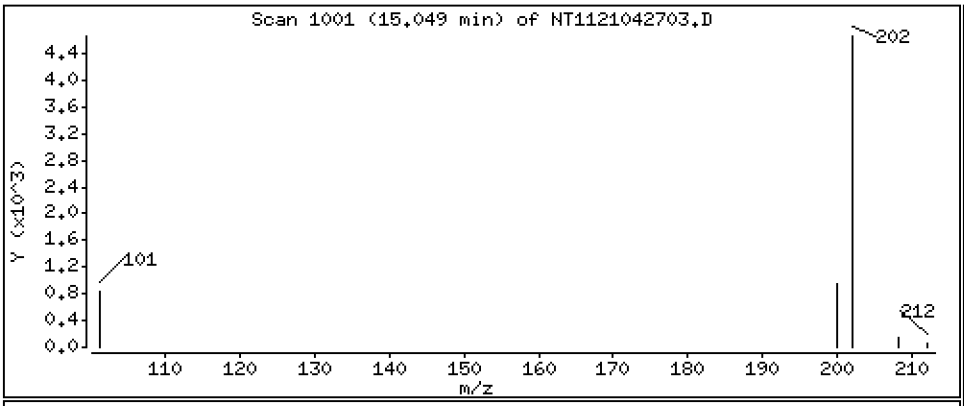
Operator: VTS

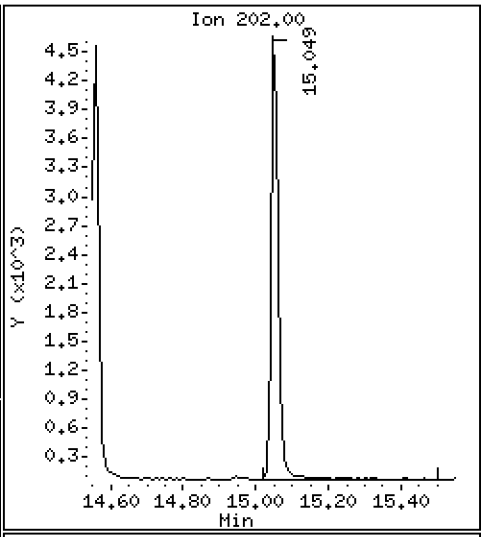
Column phase: Rxi-17Sil MS

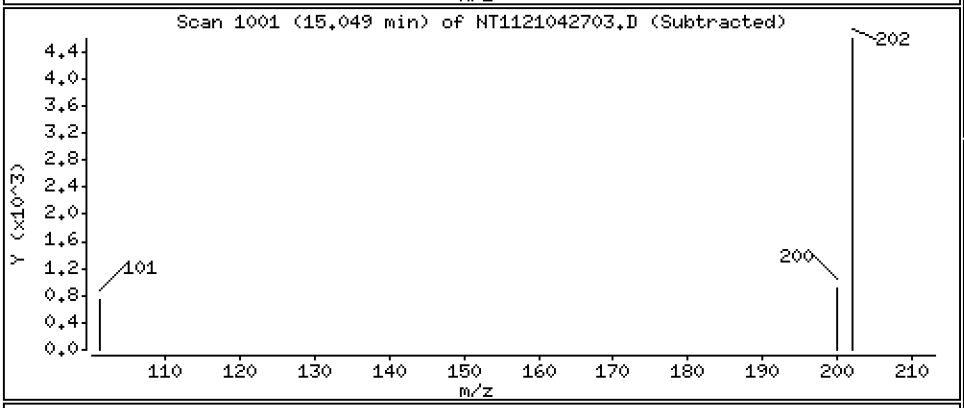
Column diameter: 0.25

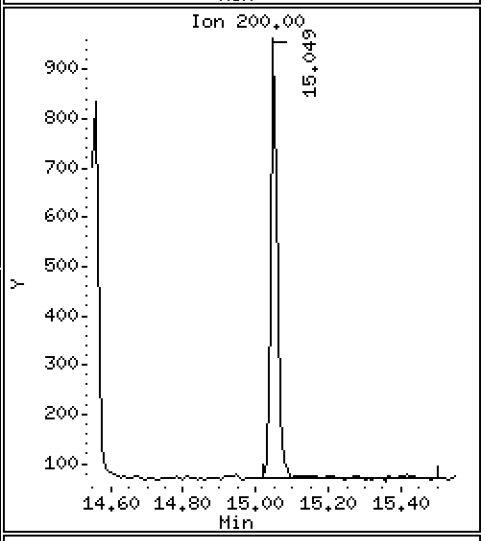
26 Pyrene

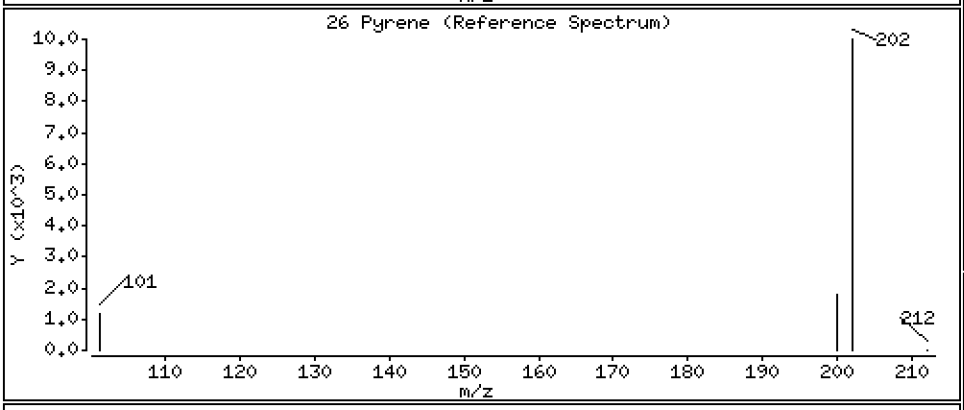
Concentration: 10.0 ng/mL

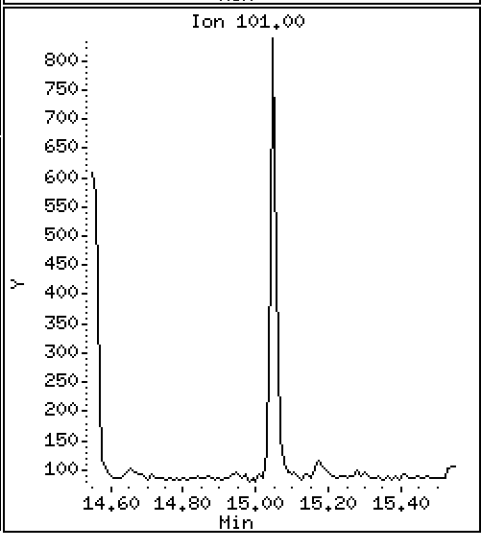


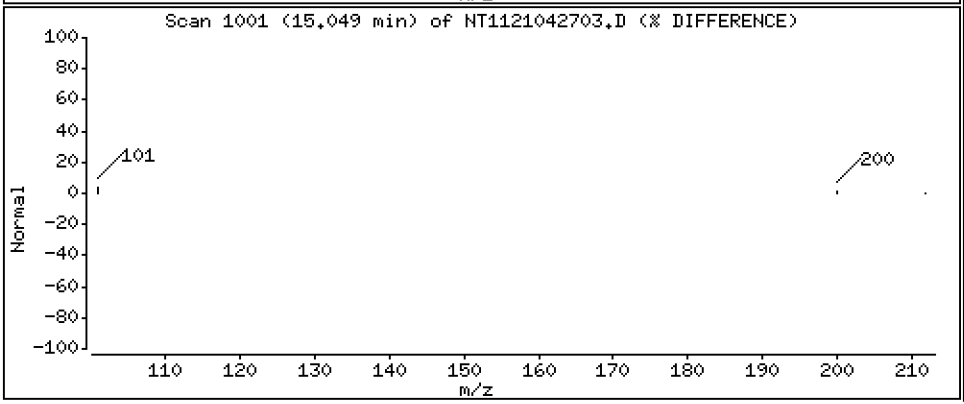



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Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

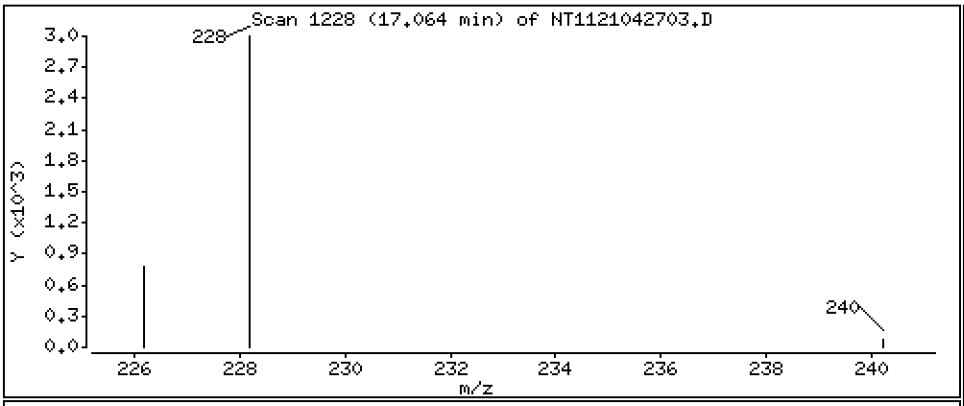
Operator: VTS

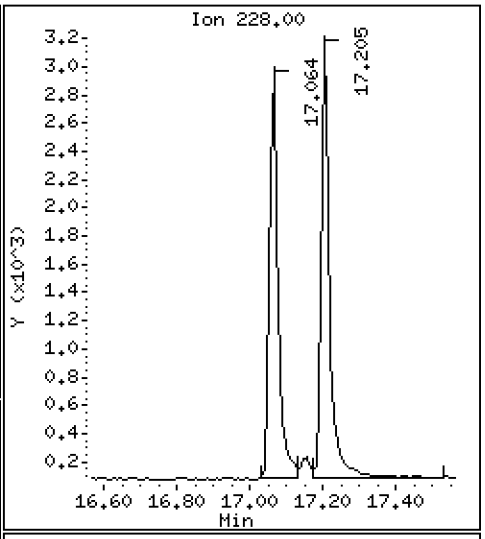
Column phase: Rxi-17Sil MS

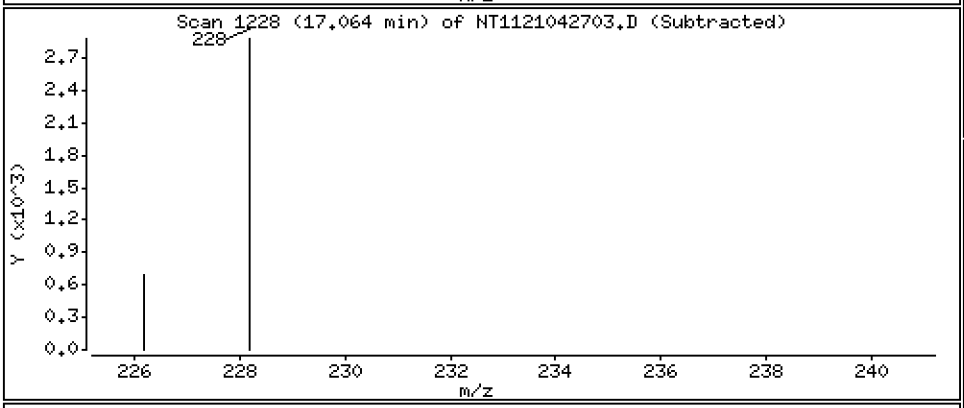
Column diameter: 0.25

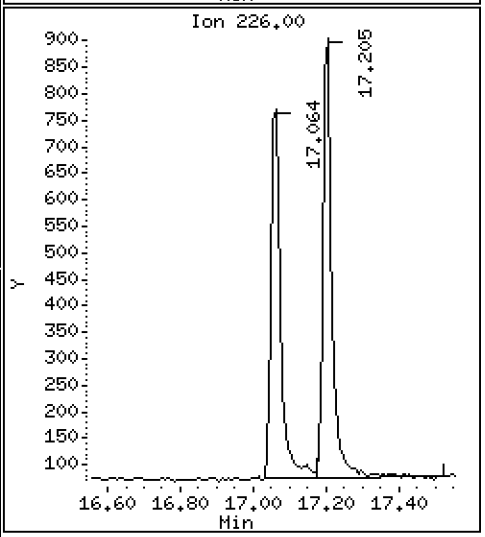
27 Benzo(a)anthracene

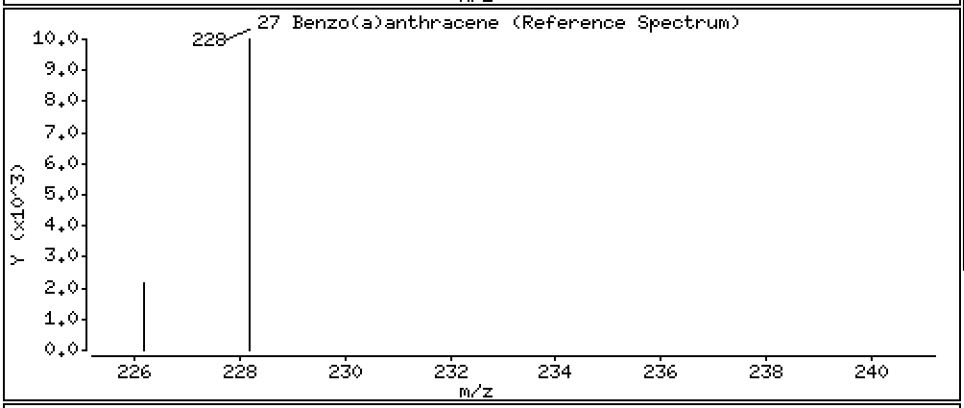
Concentration: 9.48 ng/mL

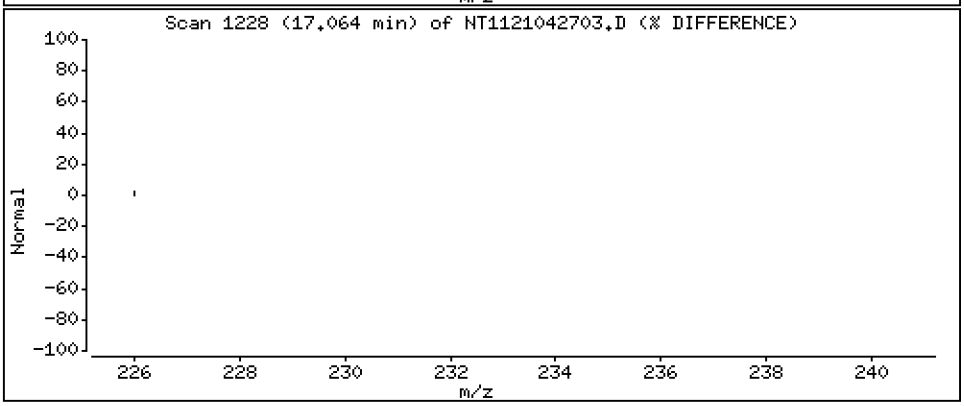


Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042703.D

Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

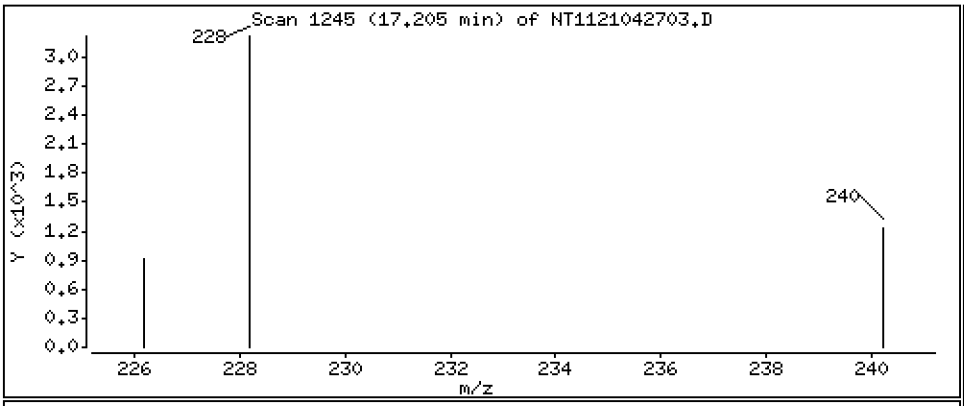
Operator: VTS

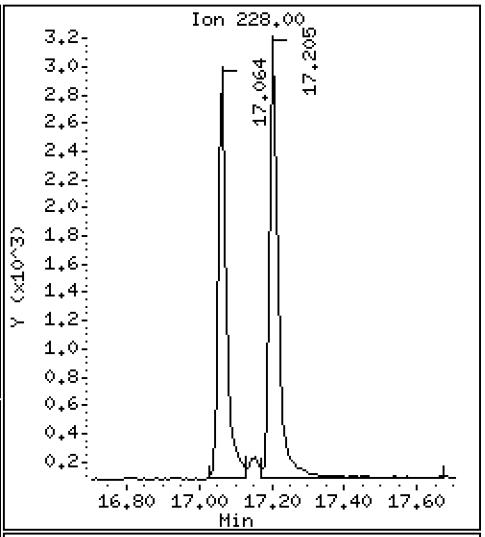
Column phase: Rxi-17Sil MS

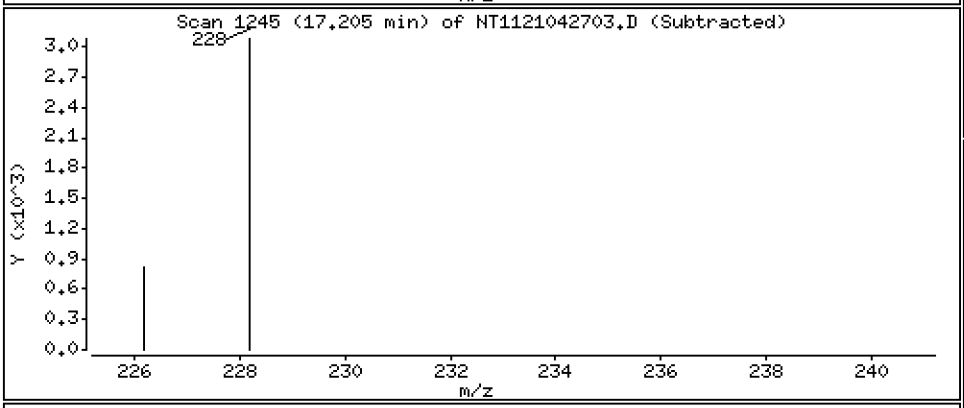
Column diameter: 0.25

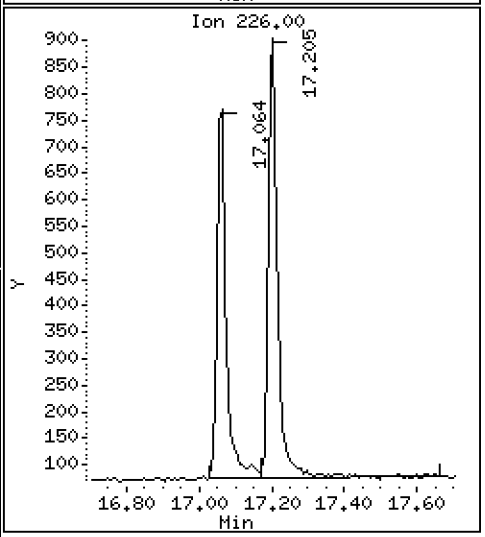
29 Chrysene

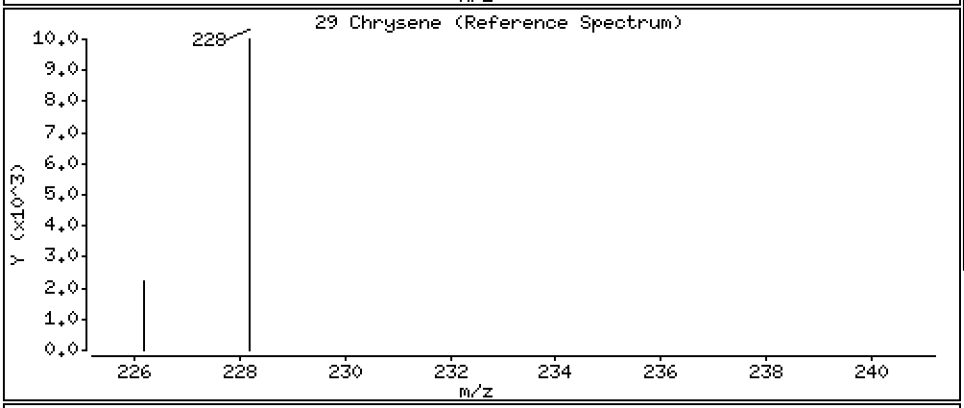
Concentration: 9.53 ng/mL

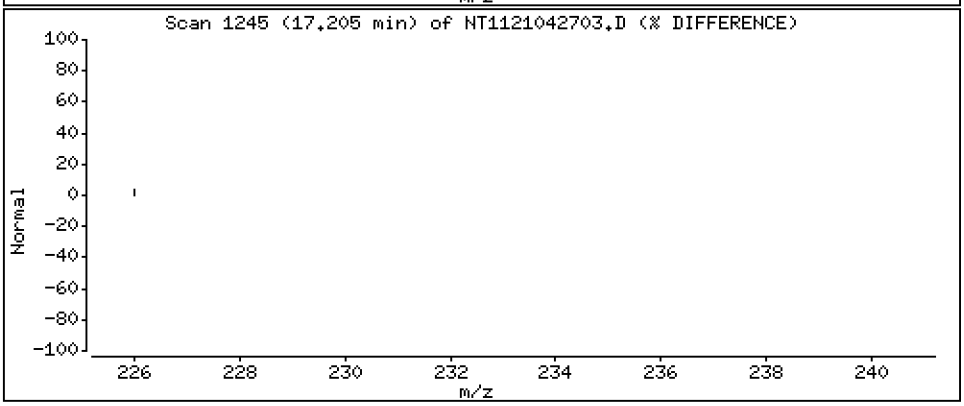


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Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

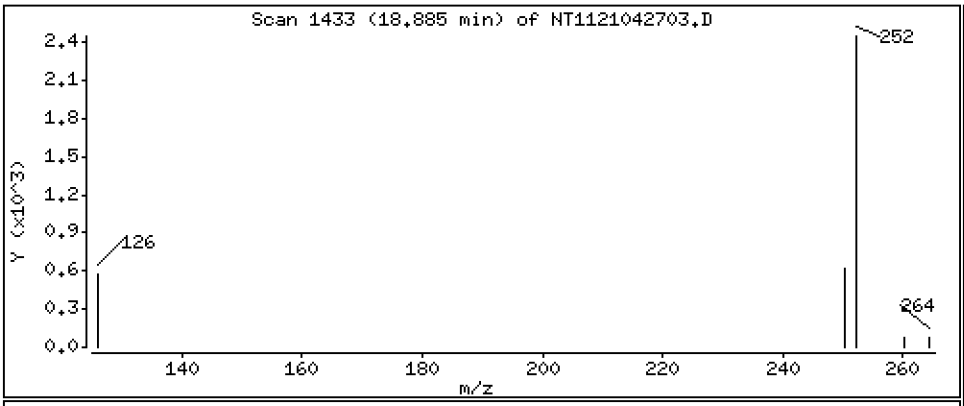
Operator: VTS

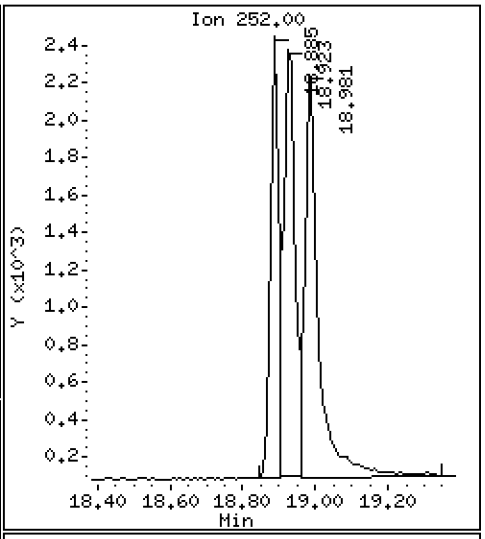
Column phase: Rxi-17Sil MS

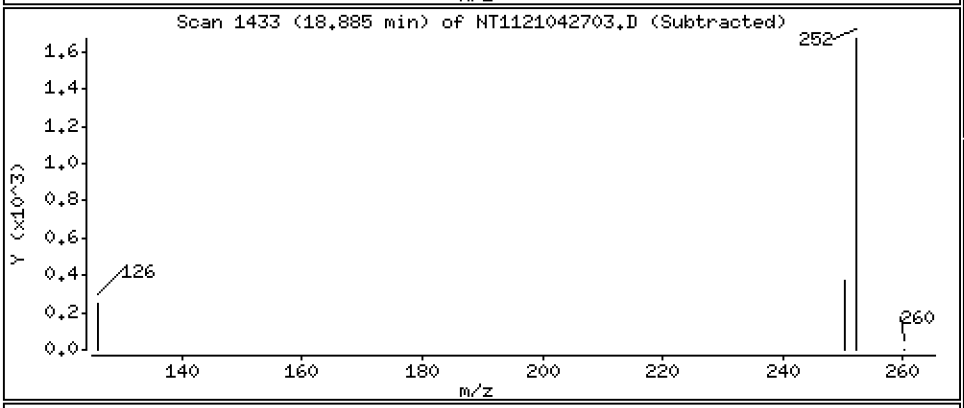
Column diameter: 0.25

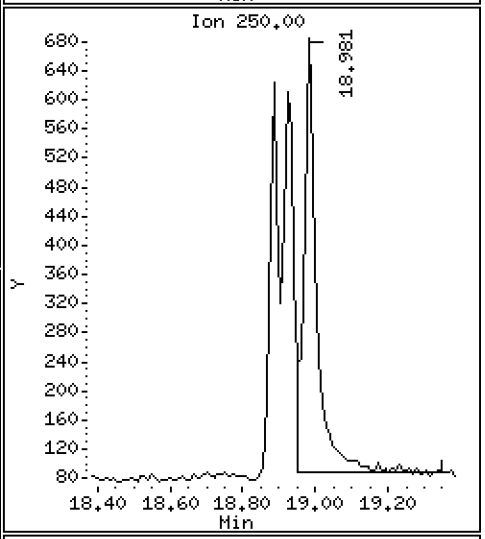
30 Benzo(b)fluoranthene

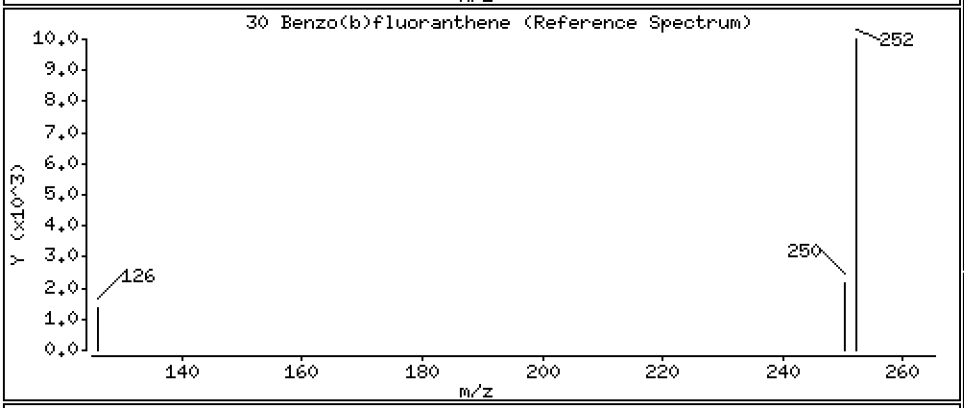
Concentration: 9.29 ng/mL

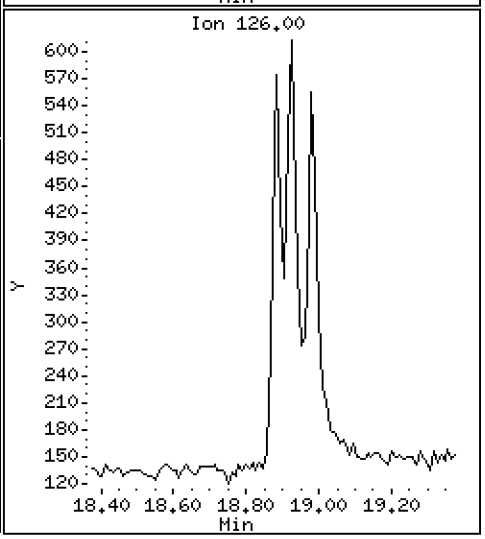


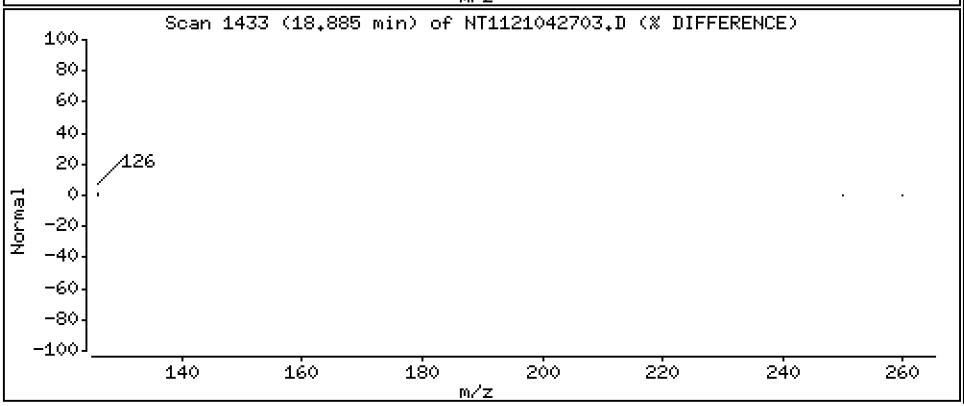



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Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

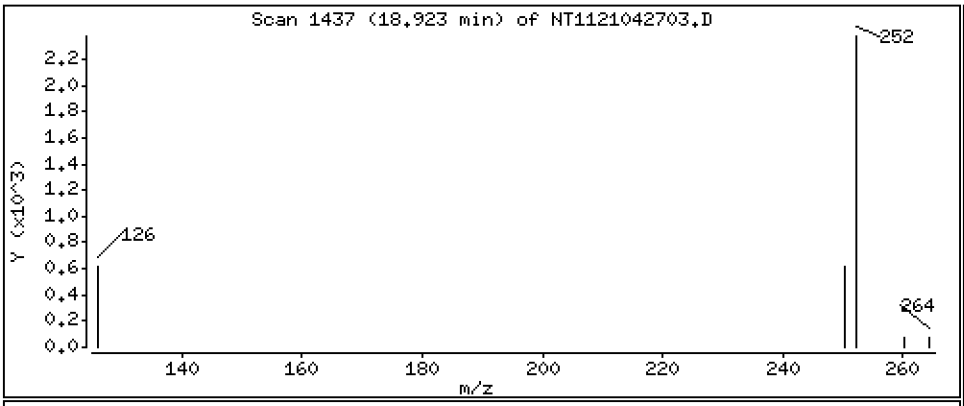
Operator: VTS

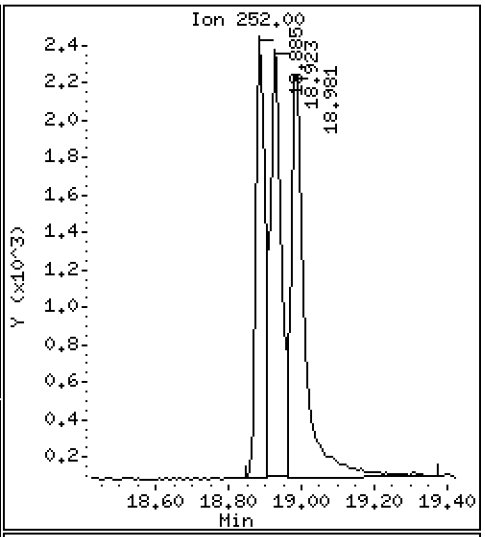
Column phase: Rxi-17Sil MS

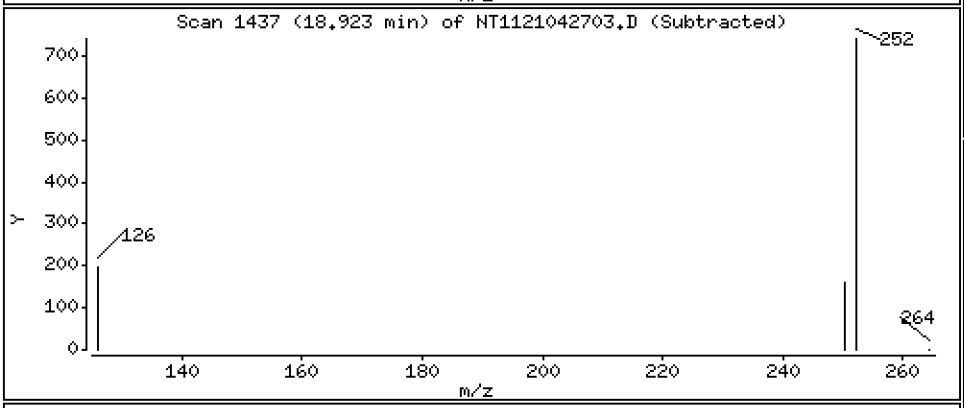
Column diameter: 0.25

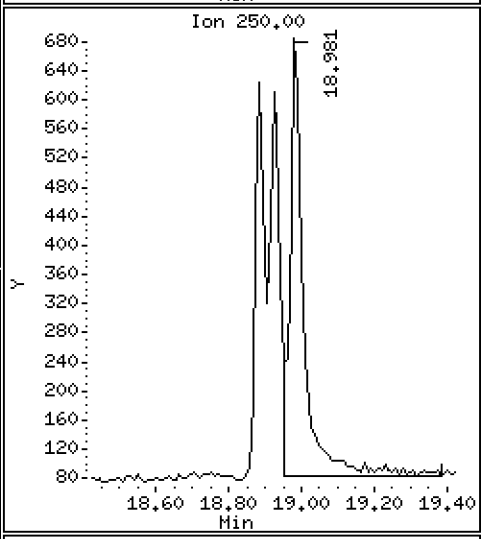
31 Benzo(k)fluoranthene

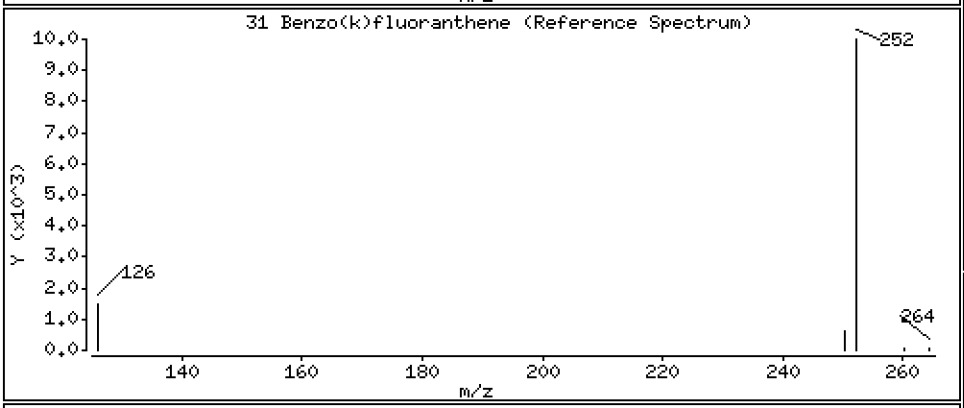
Concentration: 9.80 ng/mL

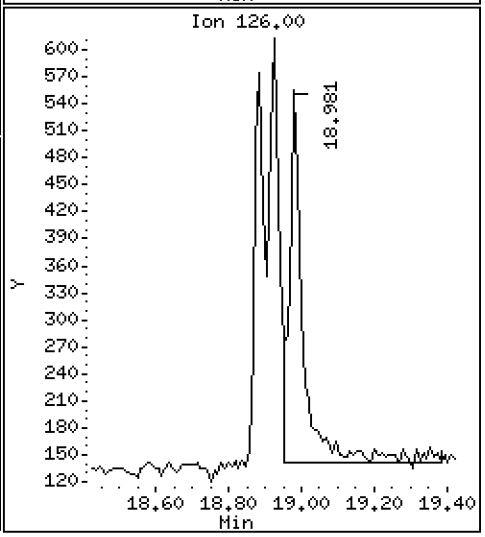


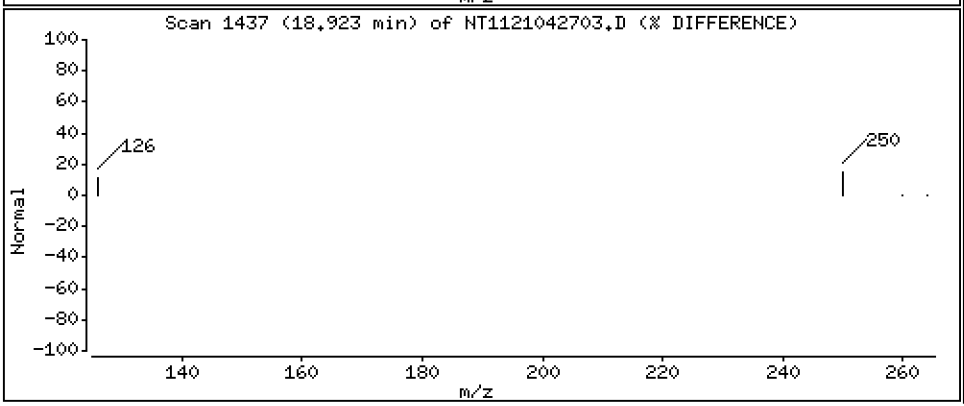



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Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

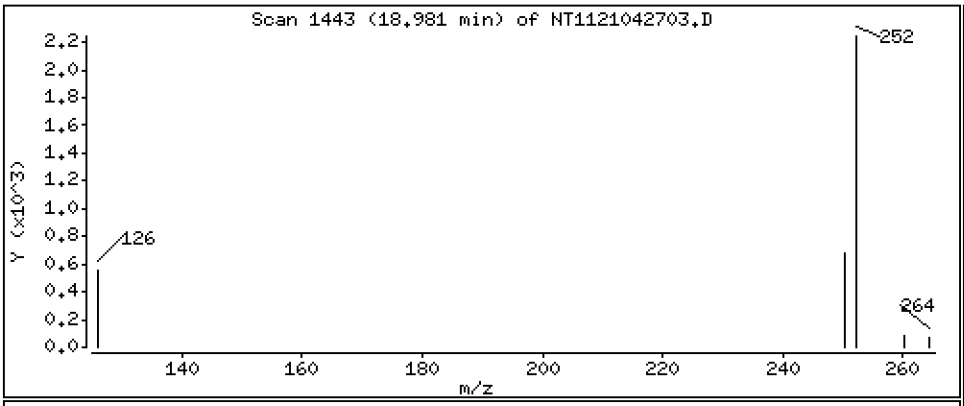
Operator: VTS

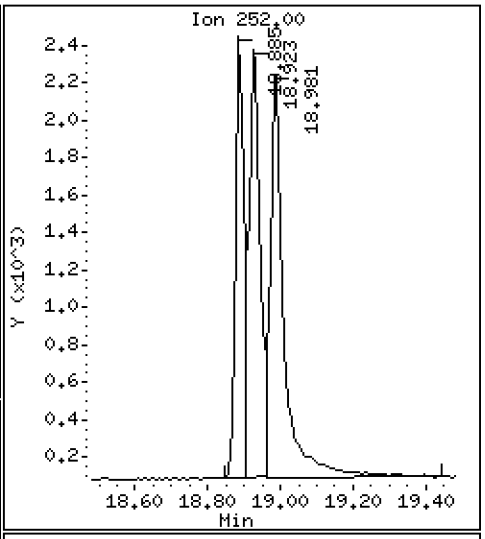
Column phase: Rxi-17Sil MS

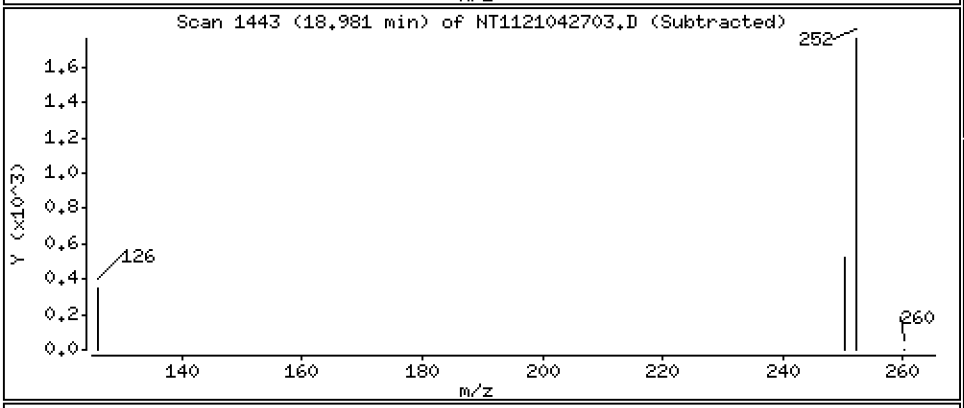
Column diameter: 0.25

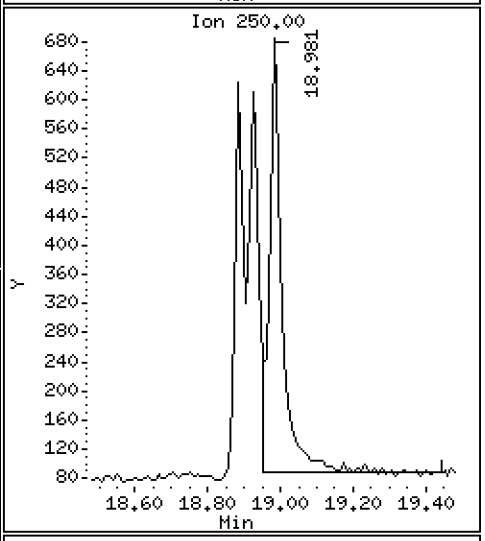
32 Benzo(j)fluoranthene

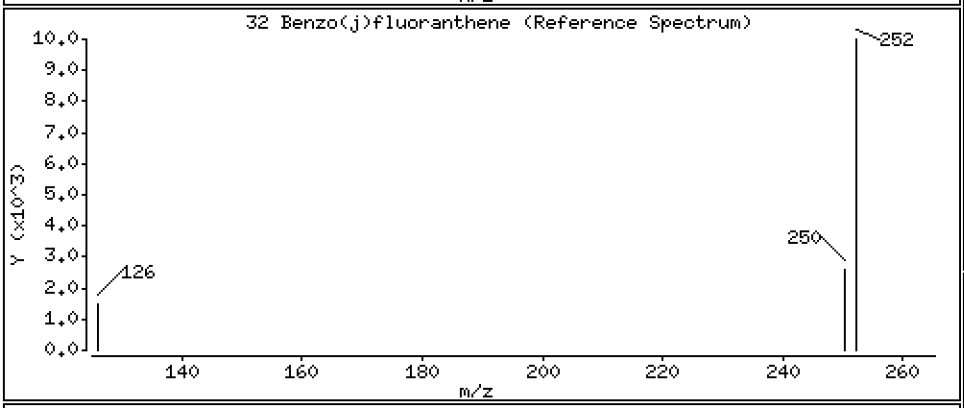
Concentration: 9.75 ng/mL

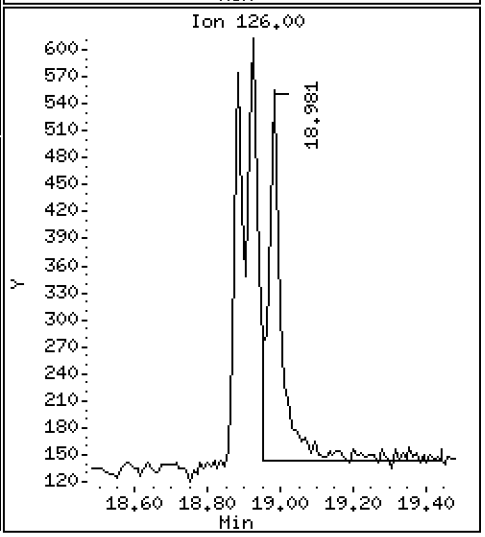


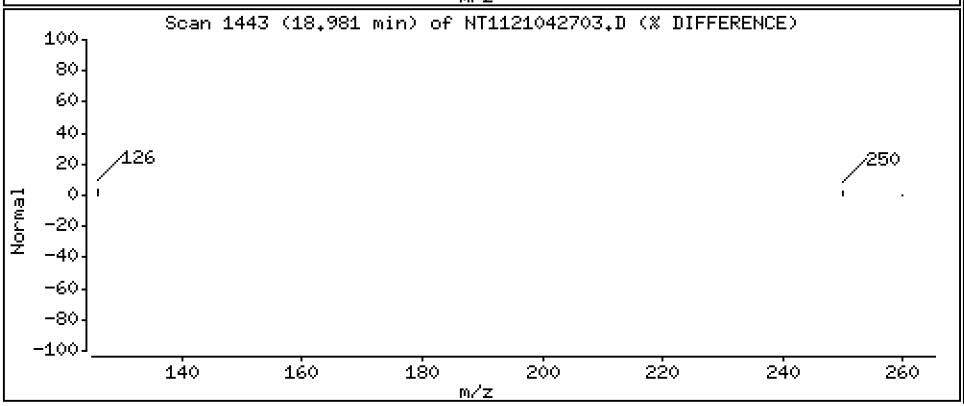



Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042703.D

Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

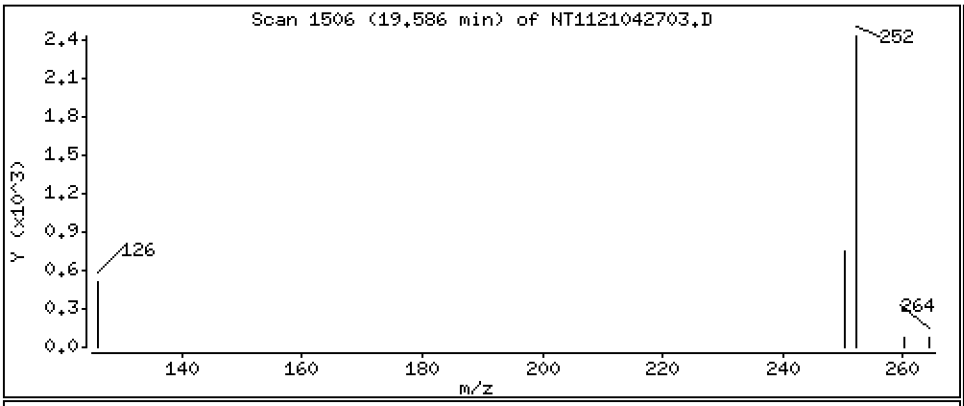
Operator: VTS

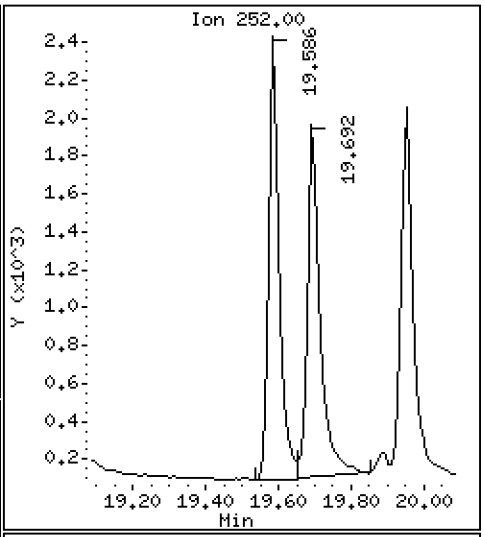
Column phase: Rxi-17Sil MS

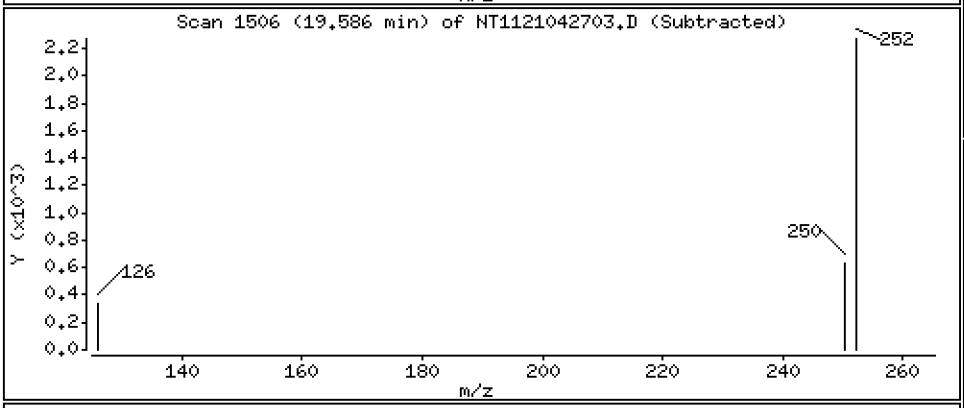
Column diameter: 0.25

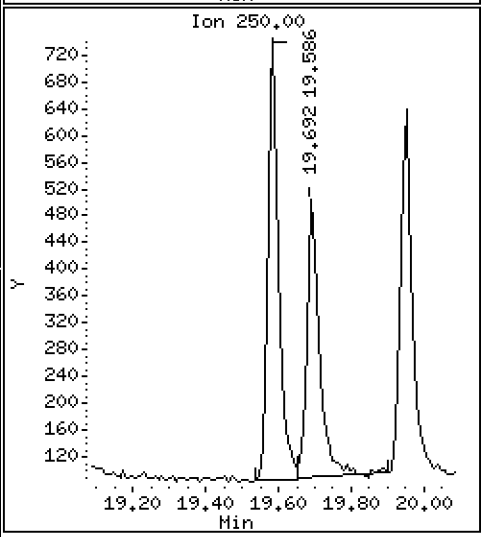
34 Benzo(e)pyrene

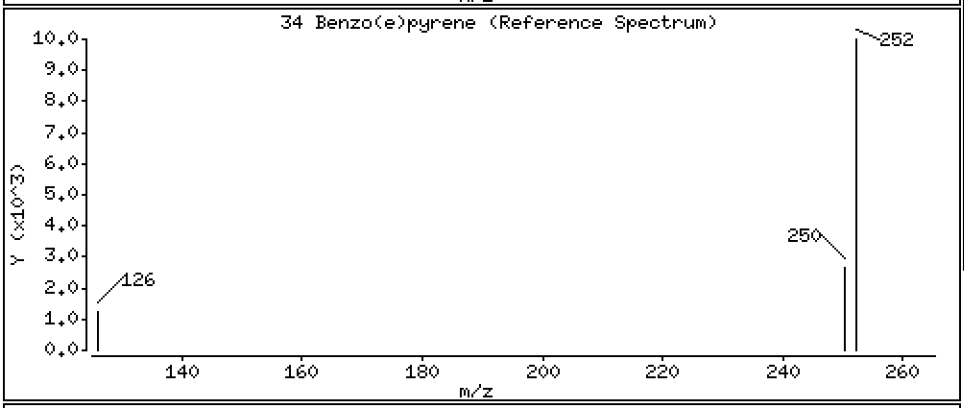
Concentration: 9.84 ng/mL

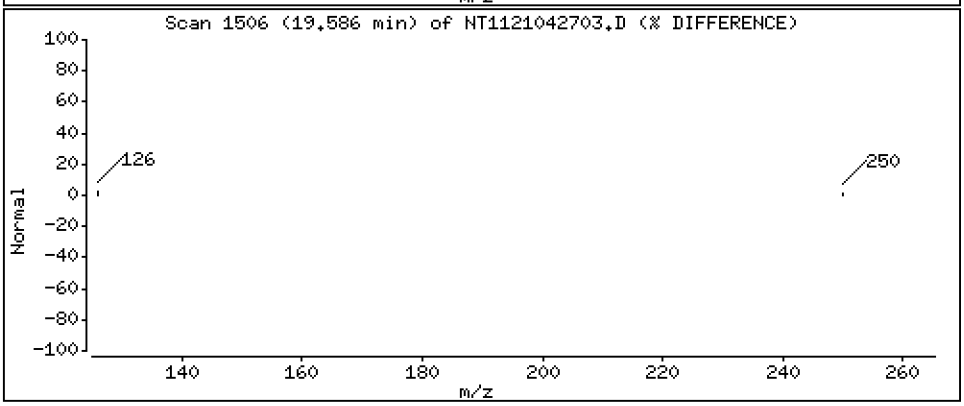


Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042703.D

Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

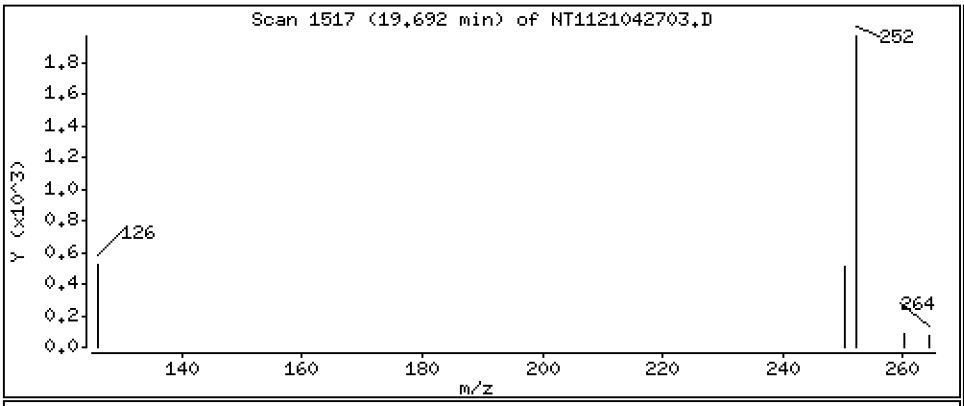
Operator: VTS

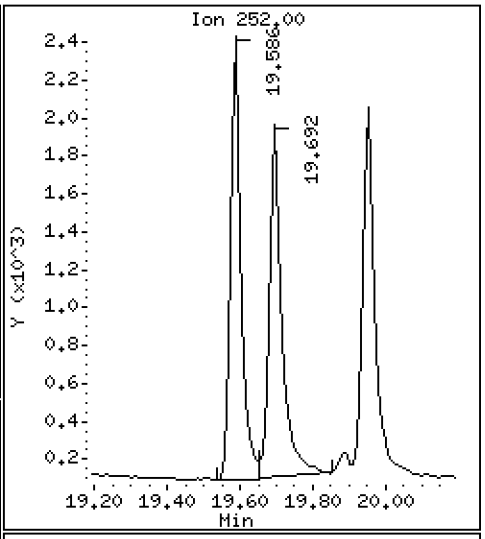
Column phase: Rxi-17Sil MS

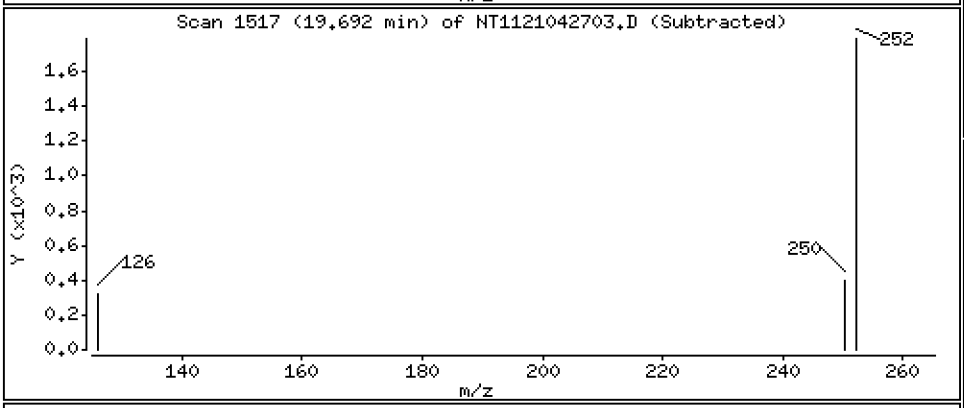
Column diameter: 0.25

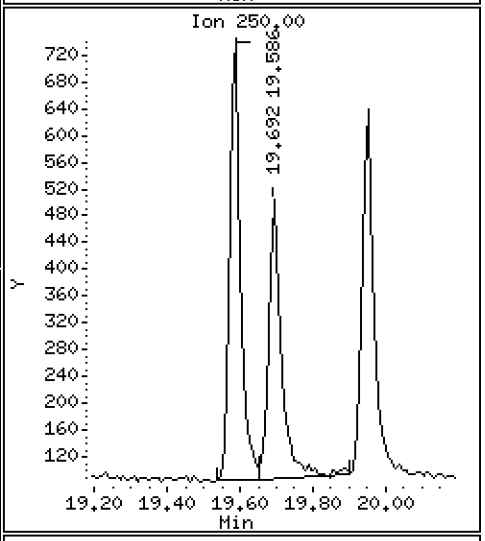
35 Benzo(a)pyrene

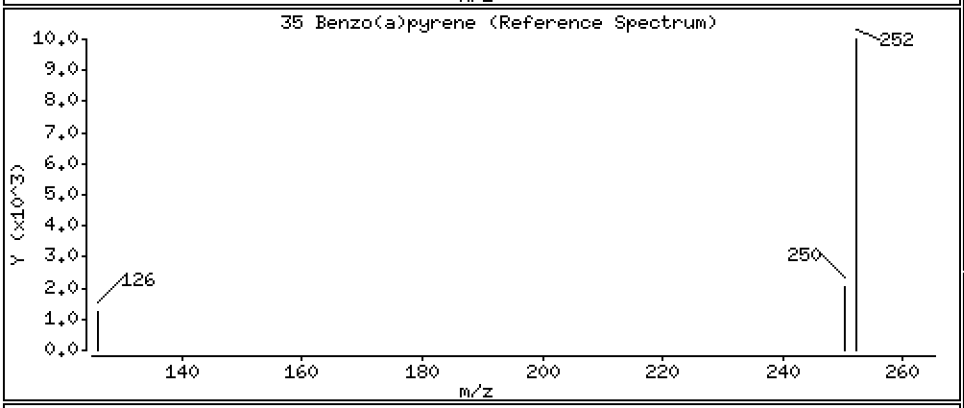
Concentration: 9.92 ng/mL

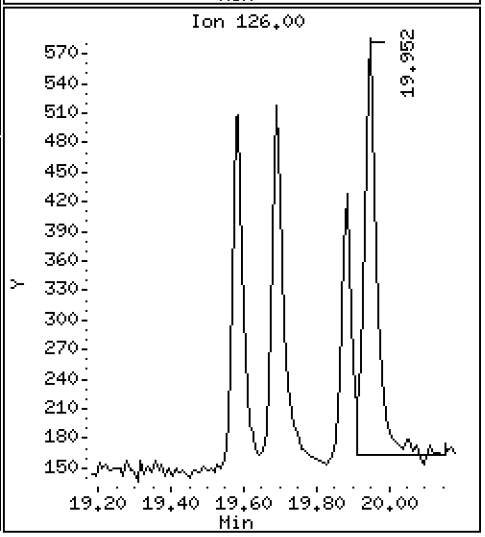


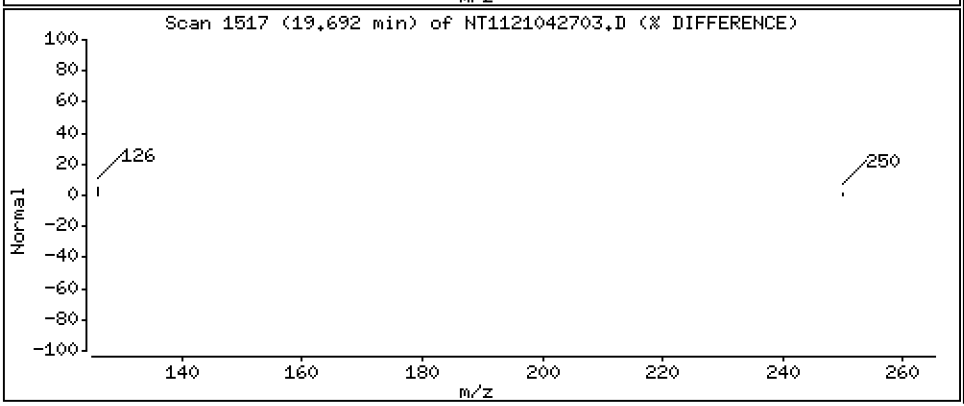



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Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

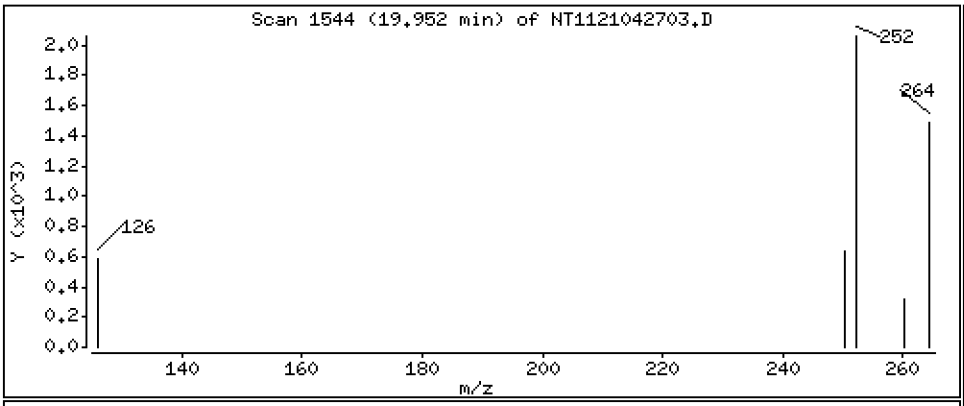
Operator: VTS

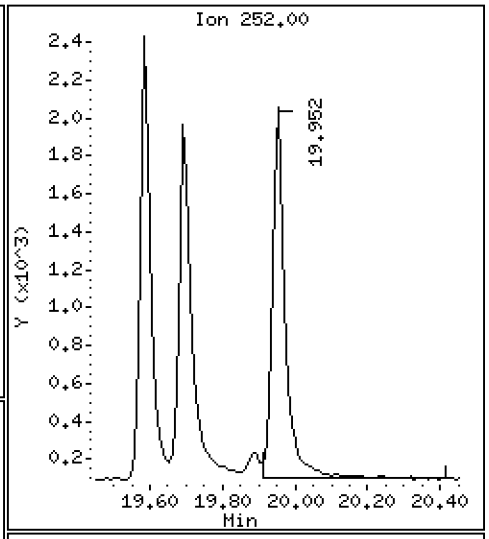
Column phase: Rxi-17Sil MS

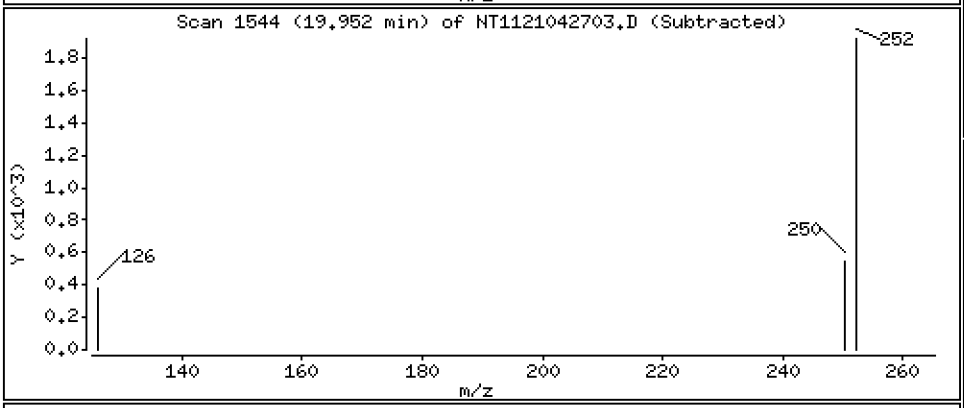
Column diameter: 0.25

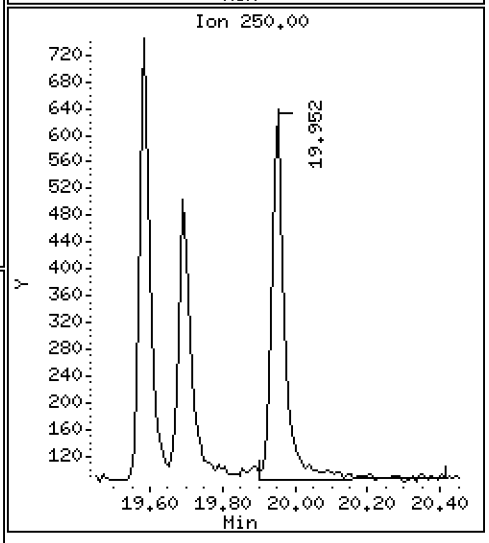
37 Perylene

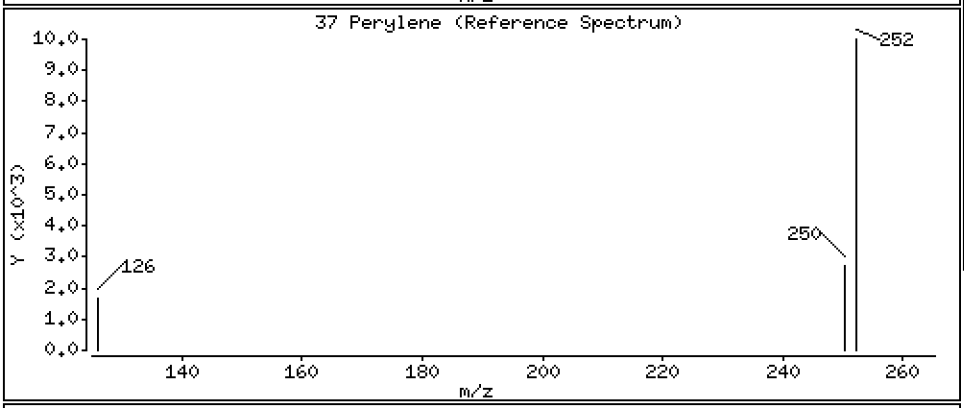
Concentration: 9.71 ng/mL

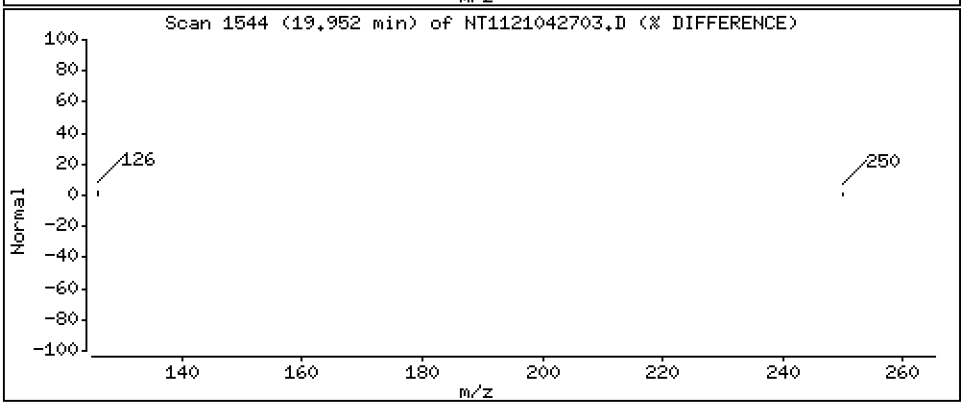


Data File: \\target\share\chem3\nt11.i\20210427.b\NT1121042703.D

Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

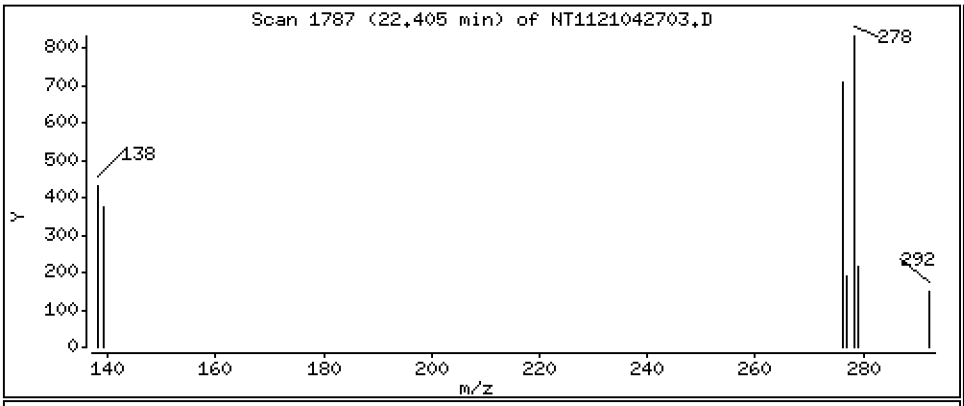
Operator: VTS

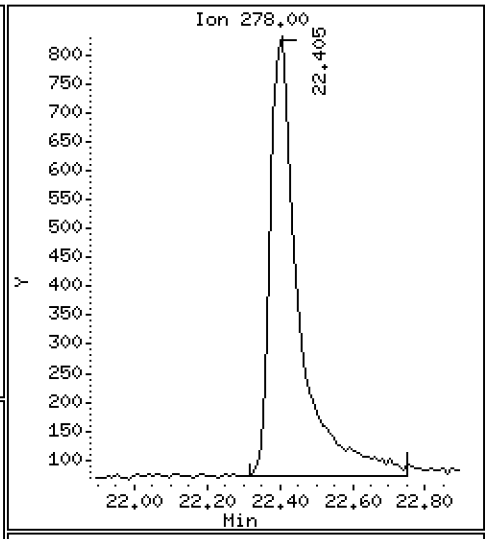
Column phase: Rxi-17Sil MS

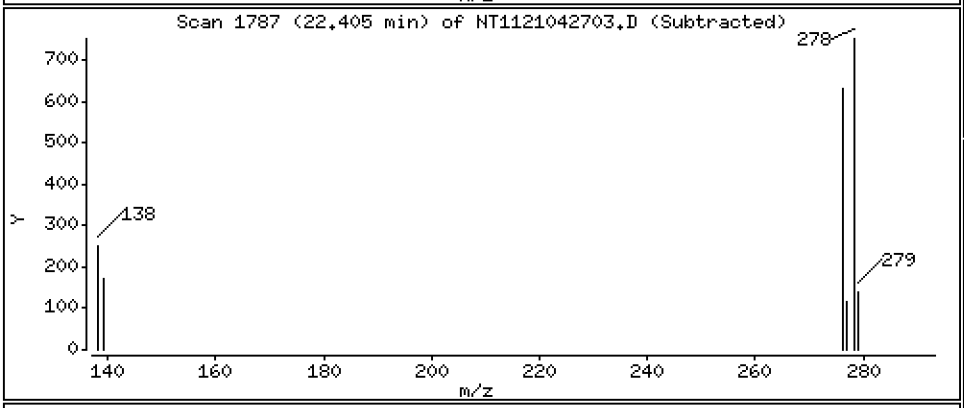
Column diameter: 0.25

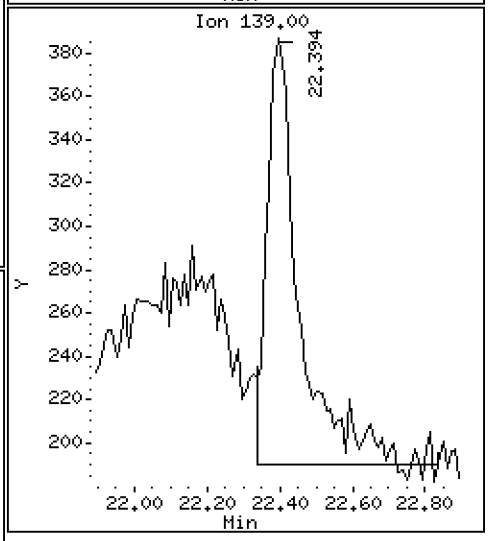
39 Dibenzo(a,h)anthracene

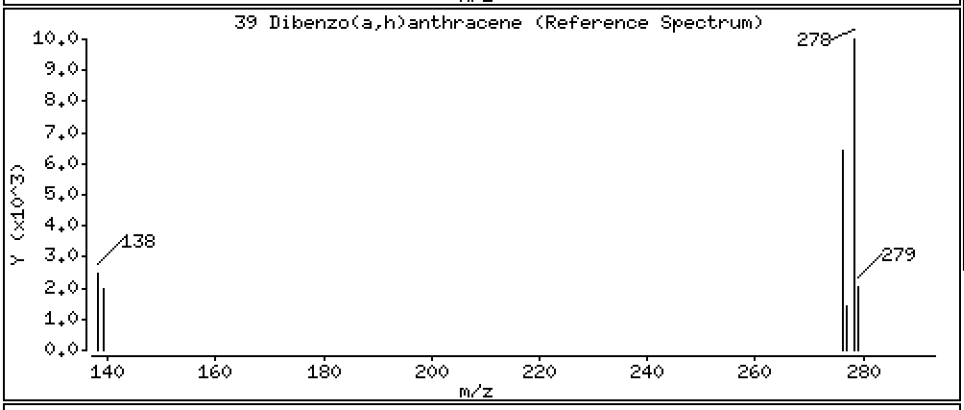
Concentration: 11.3 ng/mL

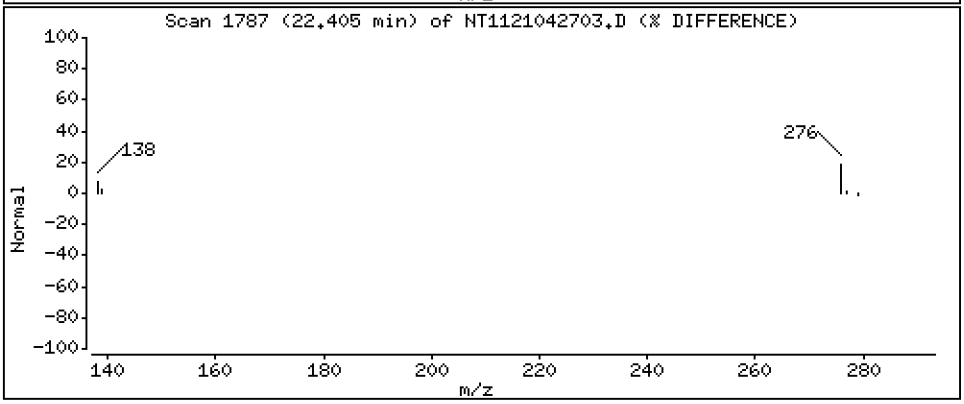


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Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

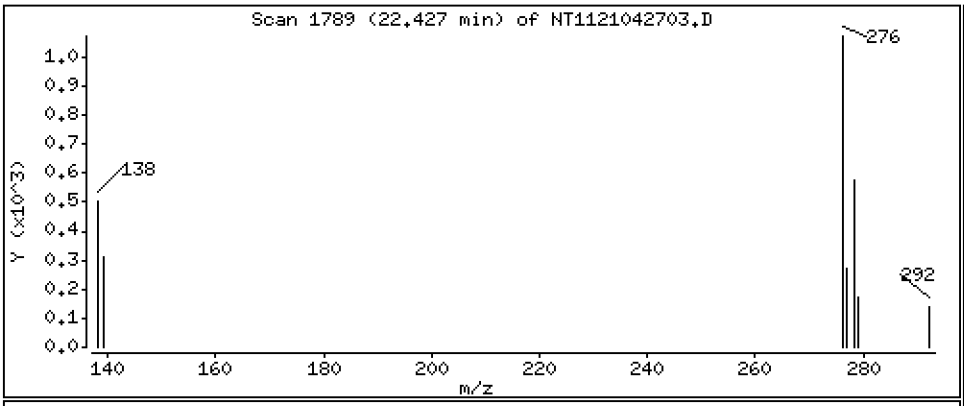
Operator: VTS

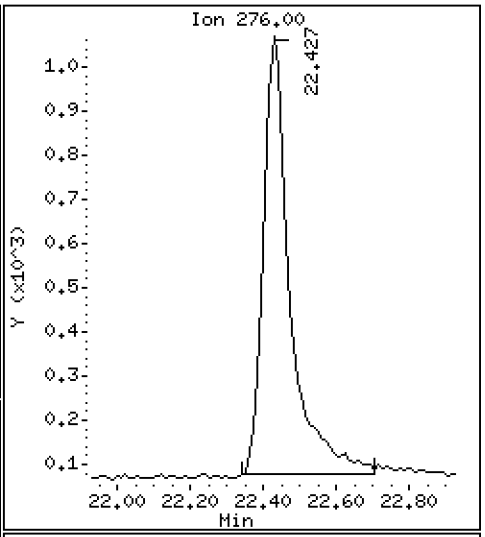
Column phase: Rxi-17Sil MS

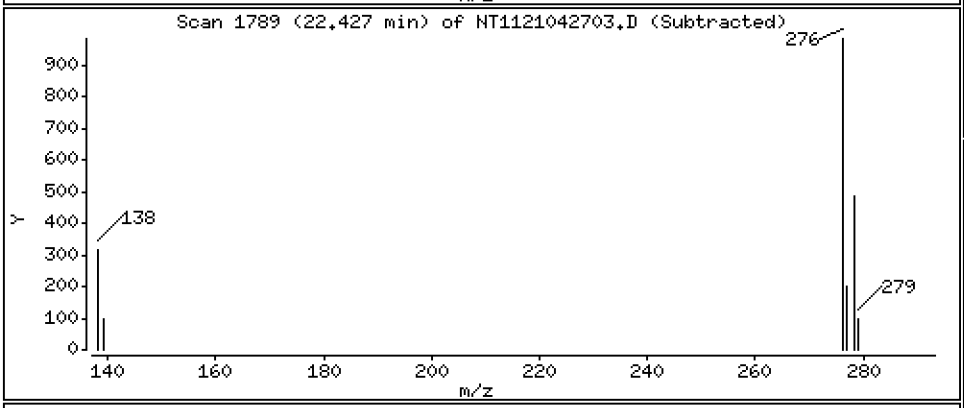
Column diameter: 0.25

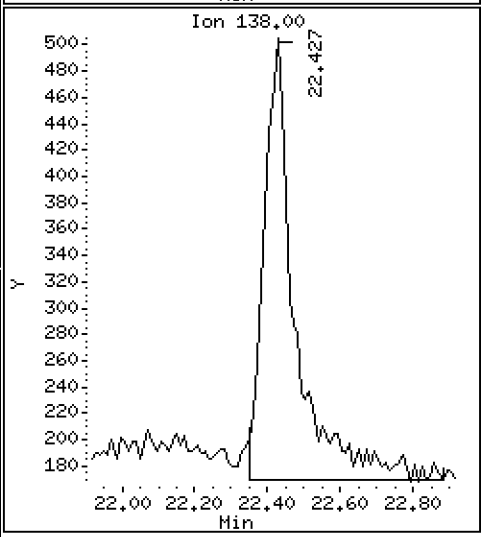
40 Indeno(1,2,3-cd)pyrene

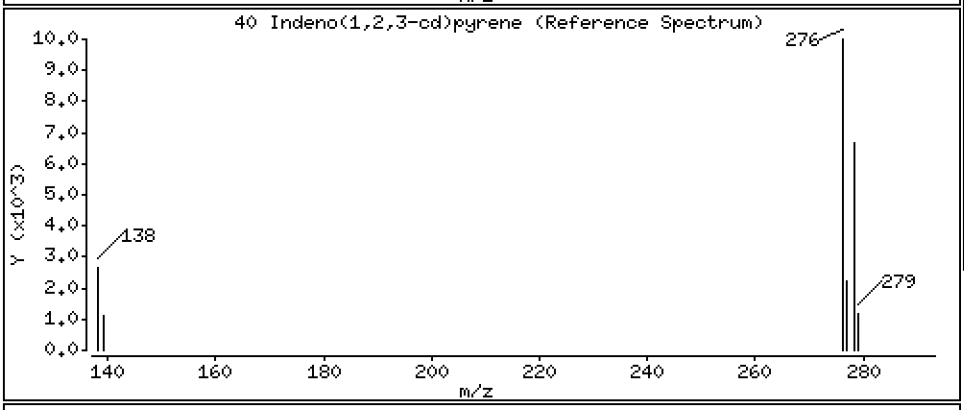
Concentration: 11.2 ng/mL

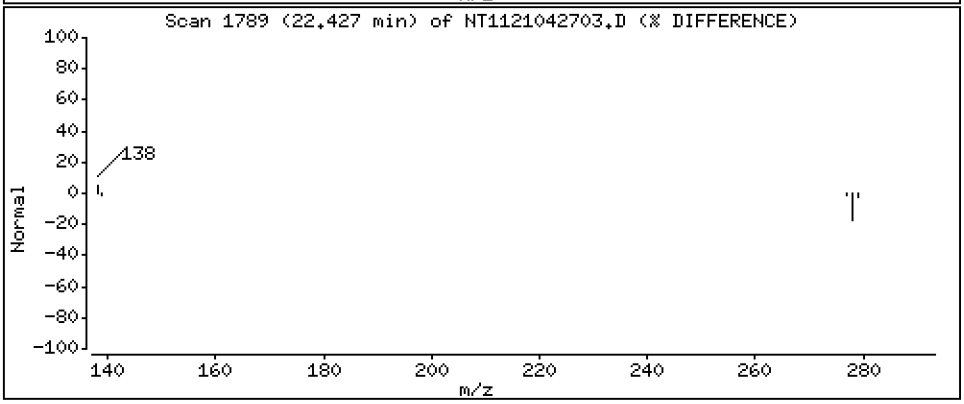


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Date : 27-APR-2021 13:17

Client ID:

Instrument: nt11.i

Sample Info: SJD0374-LCV1

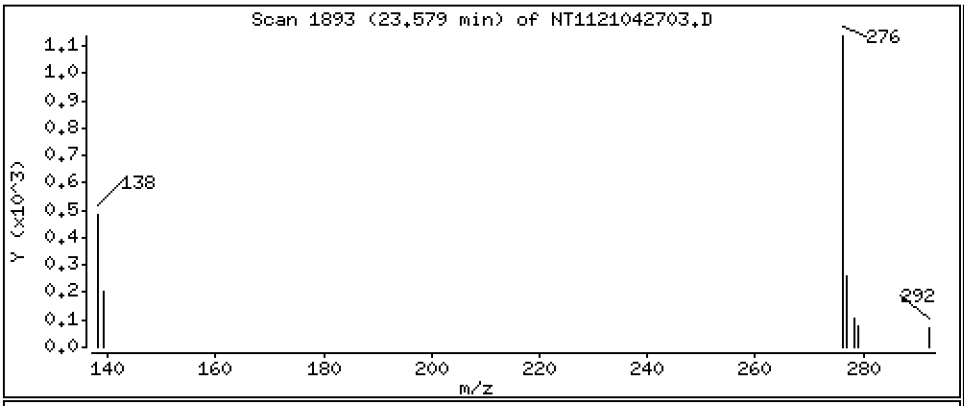
Operator: VTS

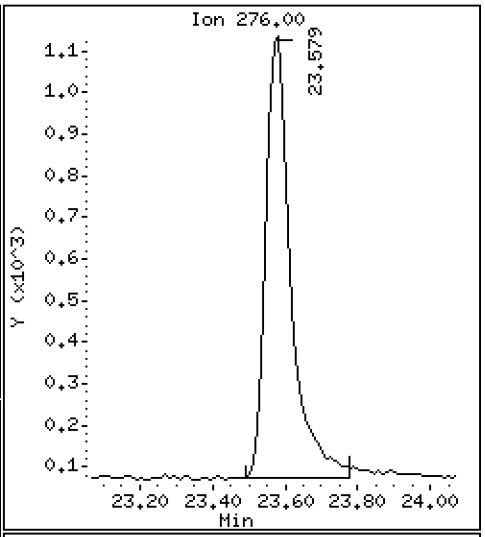
Column phase: Rxi-17Sil MS

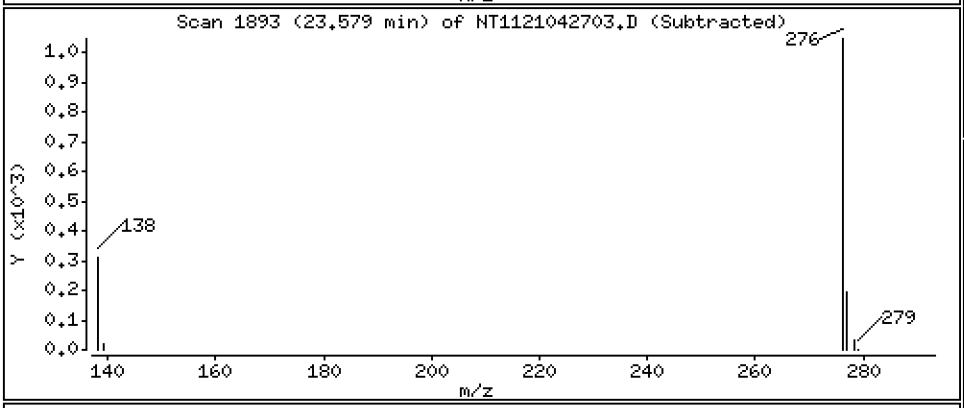
Column diameter: 0.25

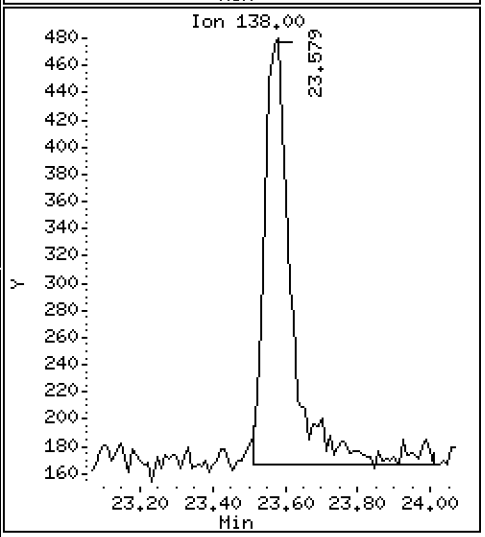
41 Benzo(g,h,i)perylene

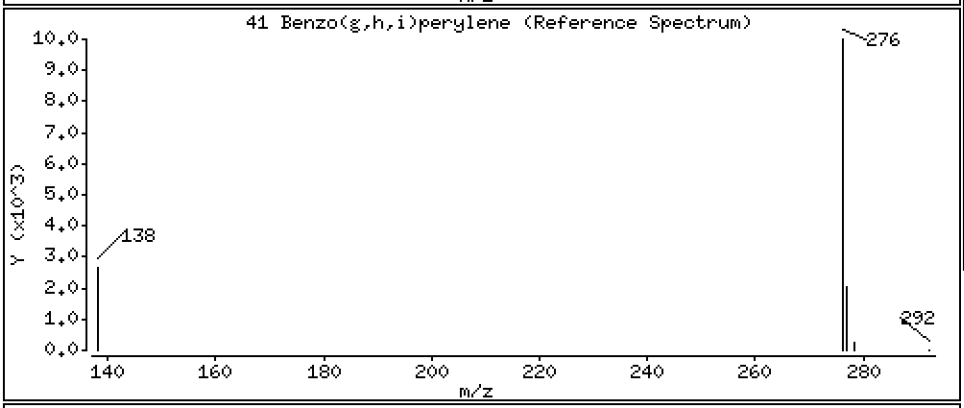
Concentration: 11.4 ng/mL

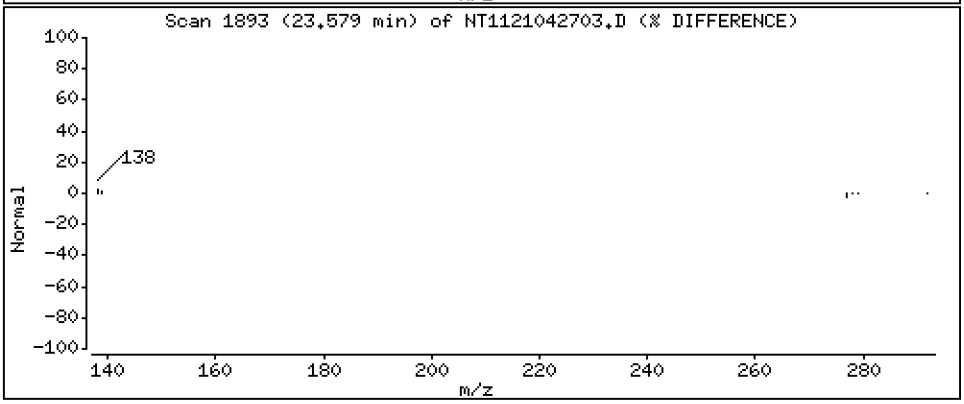


ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20210427.b\NT1121042703.D
Lab Smp Id: SJD0374-LCV1
Inj Date : 27-APR-2021 13:17 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SJD0374-LCV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20210427.b\lowsim.m
Meth Date : 27-Apr-2021 13:08 van Quant Type: ISTD
Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: VANS-202011

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | FINAL (ng/mL) |
|---|---|---|---|---|---|---|---|---|
| * | 1 Naphthalene-d8 | 136 | 6.768 | 6.768 | (1.000) | 131244 | 200.000 | |
| | 2 Naphthalene | 128 | 6.795 | 6.795 | (1.004) | 7910 | 10.3801 | 10.4 |
| | 3 Benzo(b)thiophene | 134 | 7.048 | 7.048 | (1.041) | 6094 | 10.1367 | 10.1 |
| $ | 4 2-Methylnaphthalene-d10 | 152 | 7.738 | 7.738 | (1.143) | 5375 | 10.1853 | 10.2 |
| | 5 2-Methylnaphthalene | 142 | 7.791 | 7.791 | (1.151) | 6341 | 10.3221 | 10.3 |
| | 6 1-Methylnaphthalene | 142 | 8.043 | 8.043 | (1.188) | 5567 | 9.74870 | 9.75(M) |
| | 7 2-Chloronaphthalene | 162 | 8.694 | 8.694 | (0.891) | 5033 | 8.80709 | 8.81(M) |
| | 8 Biphenyl | 154 | 8.663 | 8.663 | (0.888) | 6899 | 9.06693 | 9.07 |
| | 9 2,6-Dimethylnaphthalene | 156 | 8.715 | 8.715 | (0.893) | 5009 | 8.87242 | 8.87 |
| | 10 Acenaphthylene | 152 | 9.607 | 9.607 | (0.984) | 6640 | 8.81987 | 8.82(M) |
| * | 11 Acenaphthene-d10 | 164 | 9.761 | 9.761 | (1.000) | 65620 | 200.000 | |
| | 12 Acenaphthene | 153 | 9.824 | 9.824 | (1.006) | 4217 | 8.46925 | 8.47(M) |
| | 13 Dibenzofuran | 168 | 10.023 | 10.023 | (1.027) | 5886 | 8.85568 | 8.86 |
| | 14 2,3,5-Trimethylnaphthalene | 170 | 10.124 | 10.124 | (1.037) | 3674 | 8.98710 | 8.99 |
| | 16 Fluorene | 166 | 10.655 | 10.642 | (1.092) | 4429 | 8.65067 | 8.65 |
| | 17 Dibenzothiophene | 184 | 12.260 | 12.260 | (0.986) | 5280 | 9.78115 | 9.78 |
| * | 18 Phenanthrene-d10 | 188 | 12.428 | 12.428 | (1.000) | 97504 | 200.000 | |
| | 19 Phenanthrene | 178 | 12.470 | 12.470 | (1.003) | 5955 | 9.33627 | 9.34 |
| | 21 Anthracene | 178 | 12.523 | 12.523 | (1.008) | 6229 | 9.77397 | 9.77 |
| | 22 Carbazole | 167 | 13.206 | 13.207 | (1.063) | 6396 | 9.41835 | 9.42(M) |
| | 23 1-Methylphenanthrene | 192 | 13.469 | 13.469 | (1.084) | 5753 | 10.2108 | 10.2 |
| $ | 24 Fluoranthene-d10 | 212 | 14.520 | 14.520 | (1.168) | 4945 | 9.67341 | 9.67 |
| | 25 Fluoranthene | 202 | 14.558 | 14.558 | (1.171) | 6274 | 9.86615 | 9.87 |
| | 26 Pyrene | 202 | 15.048 | 15.048 | (1.211) | 6522 | 9.99708 | 10.0 |
| | 27 Benzo(a)anthracene | 228 | 17.064 | 17.064 | (0.995) | 4667 | 9.47988 | 9.48 |
| * | 28 Chrysene-d12 | 240 | 17.155 | 17.155 | (1.000) | 67019 | 200.000 | |
| | 29 Chrysene | 228 | 17.205 | 17.205 | (1.003) | 5281 | 9.52674 | 9.53 |
| | 30 Benzo(b)fluoranthene | 252 | 18.885 | 18.885 | (0.949) | 4079 | 9.29440 | 9.29 |
| | 31 Benzo(k)fluoranthene | 252 | 18.923 | 18.923 | (0.951) | 5653 | 9.80293 | 9.80 |
| | 32 Benzo(j)fluoranthene | 252 | 18.981 | 18.981 | (0.954) | 6074 | 9.74669 | 9.75 |
| | 34 Benzo(e)pyrene | 252 | 19.586 | 19.586 | (0.985) | 4892 | 9.84340 | 9.84 |
| | 35 Benzo(a)pyrene | 252 | 19.692 | 19.692 | (0.990) | 4545 | 9.91576 | 9.92 |
| * | 36 Perylene-d12 | 264 | 19.893 | 19.893 | (1.000) | 80628 | 200.000 | |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | CONCENTRATIONS FINAL (ng/mL) |
|---|---|---|---|---|---|---|---|---|
| | 37 Perylene | 252 | 19.951 | 19.951 | (1.003) | 5069 | 9.70672 | 9.71 |
| $ | 38 Dibenzo(a,h)anthracene-d14 | 292 | 22.283 | 22.283 | (1.120) | 3102 | 10.0326 | 10.0(M) |
| | 39 Dibenzo(a,h)anthracene | 278 | 22.405 | 22.394 | (1.126) | 4180 | 11.2627 | 11.3(M) |
| | 40 Indeno(1,2,3-cd)pyrene | 276 | 22.427 | 22.427 | (1.127) | 4974 | 11.1747 | 11.2(M) |
| | 41 Benzo(g,h,i)perylene | 276 | 23.579 | 23.568 | (1.185) | 5053 | 11.3537 | 11.4(M) |

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1121042703.D
Lab Smp Id: SJD0374-LCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20210427.b\lowsim.m
Misc Info:

Calibration Date: 27-APR-2021
Calibration Time: 12:42
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 1 Naphthalene-d8 | 112036 | 56018 | 224072 | 131244 | 17.14 |
| 11 Acenaphthene-d10 | 64624 | 32312 | 129248 | 65620 | 1.54 |
| 18 Phenanthrene-d10 | 96378 | 48189 | 192756 | 97504 | 1.17 |
| 28 Chrysene-d12 | 68803 | 34402 | 137606 | 67019 | -2.59 |
| 36 Perylene-d12 | 87167 | 43584 | 174334 | 80628 | -7.50 |

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

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

REVIEW SUMMARY FOR FILE - NT1121042703.D

Lab ID: SJD0374-LCV1
nt11.i,  20210427.b\lowsim.m,    27-APR-2021 13:17

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

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

NONE

RRT check based on Ccal File: NT1121042702.D

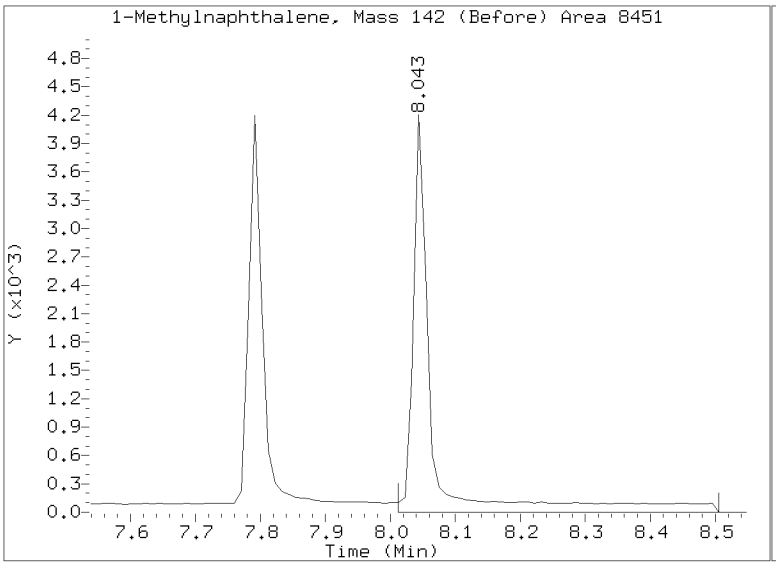
On Column LOD for nt11.i, 20210427.b\lowsim.m, PAH.sub = 0.0000

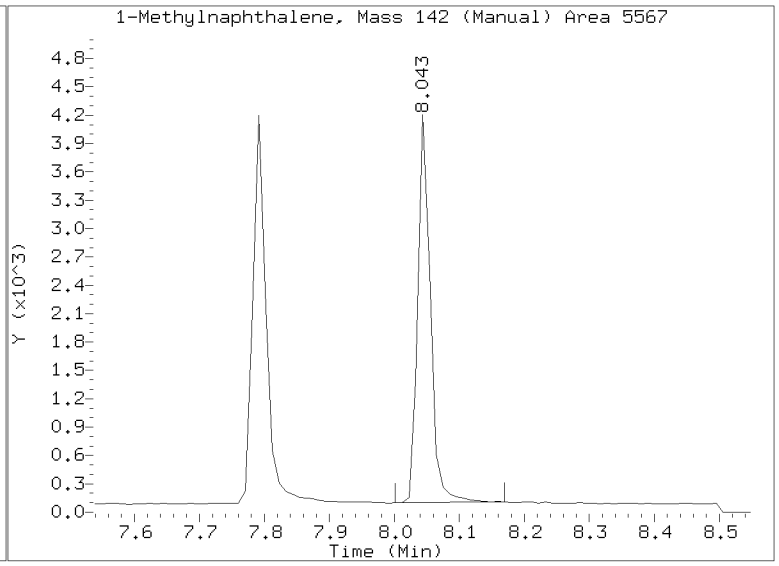
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000

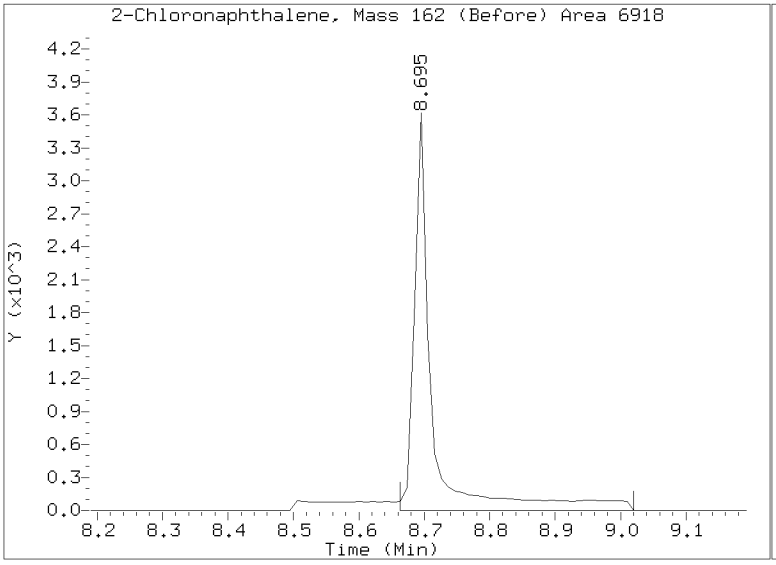
* Only compounds listed in the work order have been verified by the analyst *

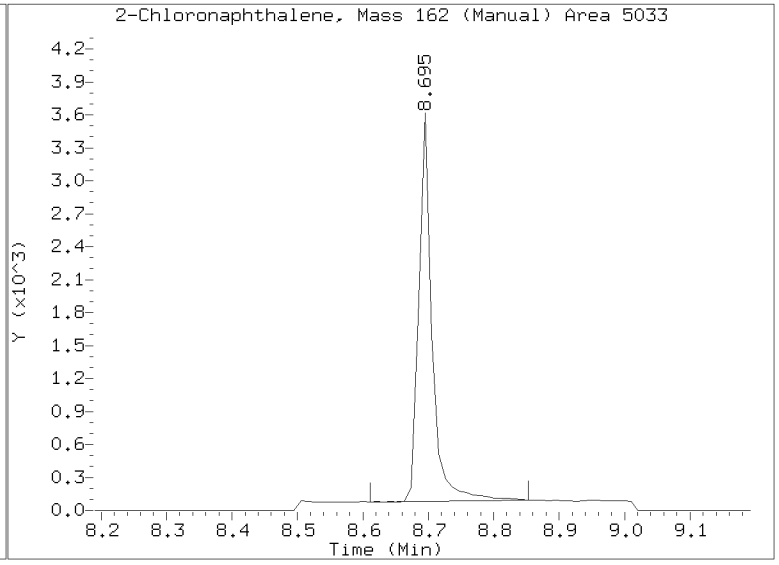
# Quant Ion Manual Peak Adjustment Report

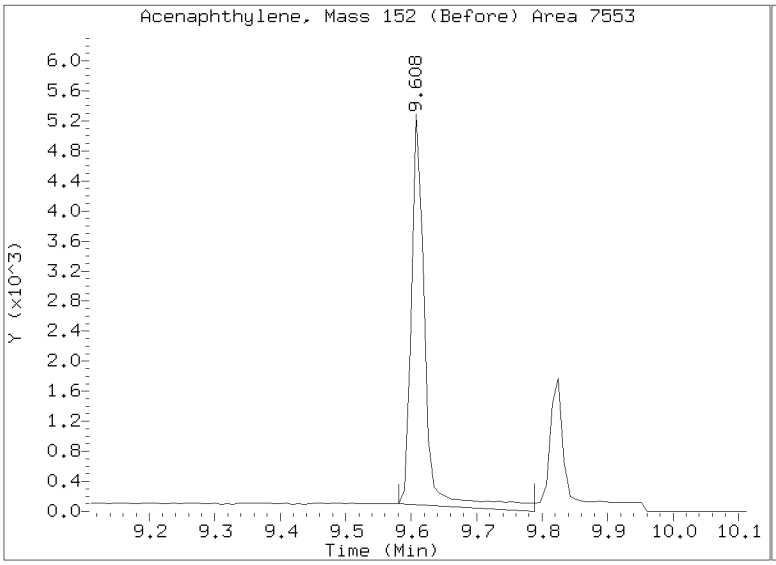
Datafile: //target/share/chem3/nt11.i/20210427.b/NT1121042703.D
Injection Date: 27-APR-2021 13:17
Lab ID:SJD0374-LCV1 Client ID:
Report Date: 04/28/2021 10:50

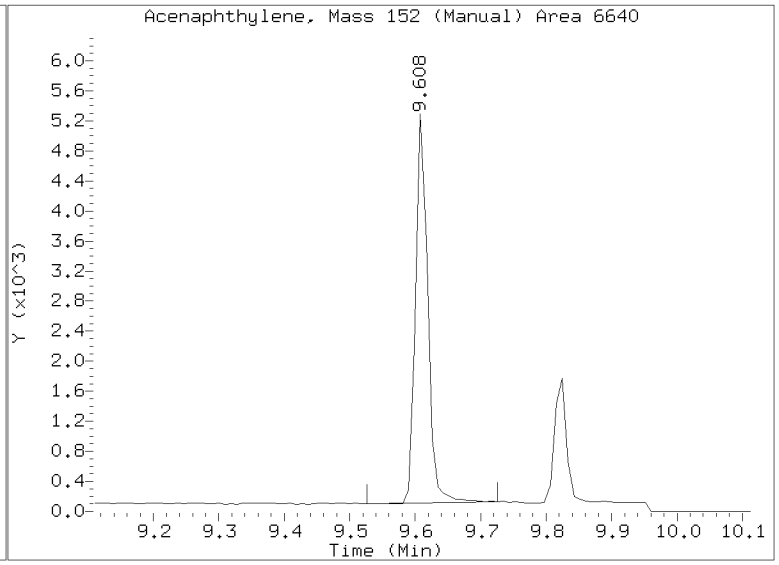


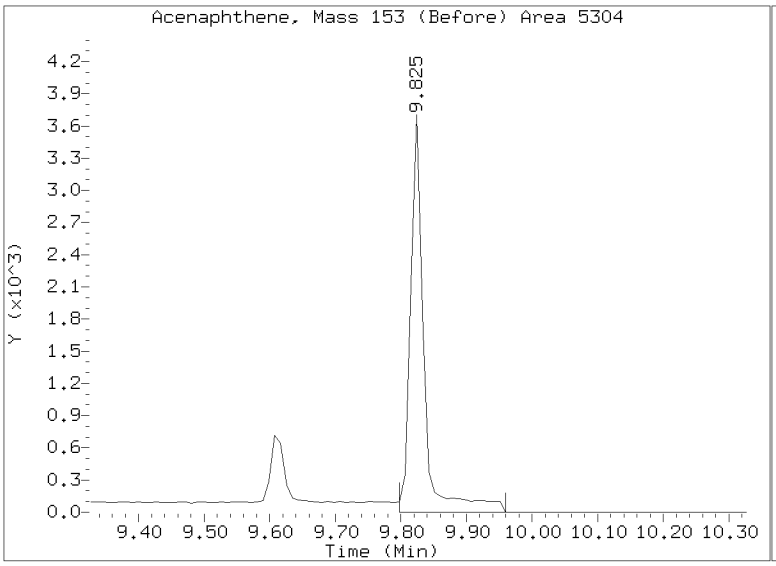



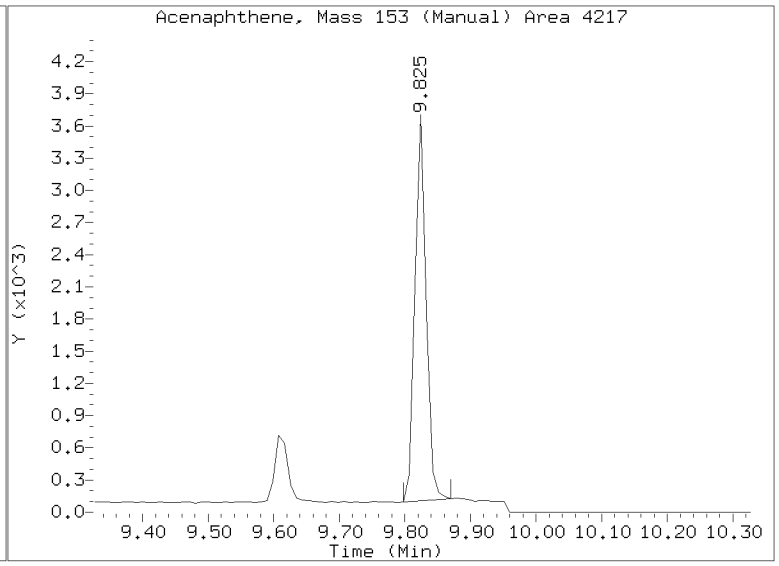



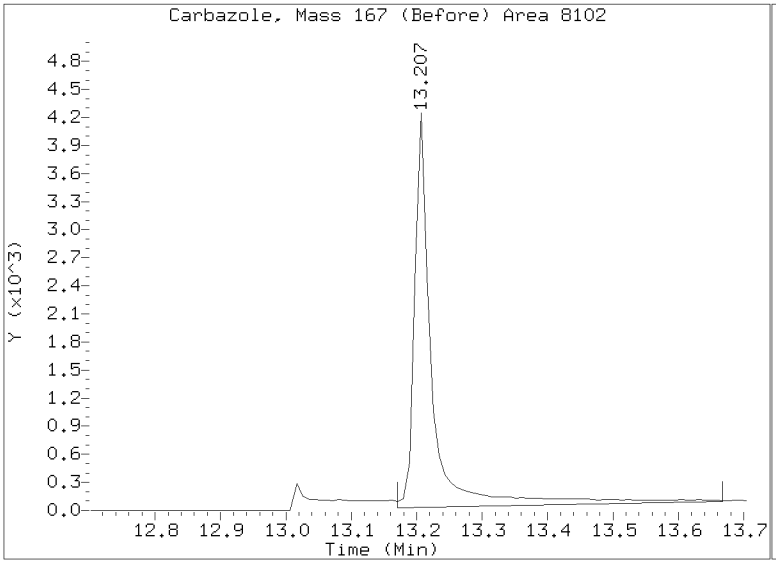



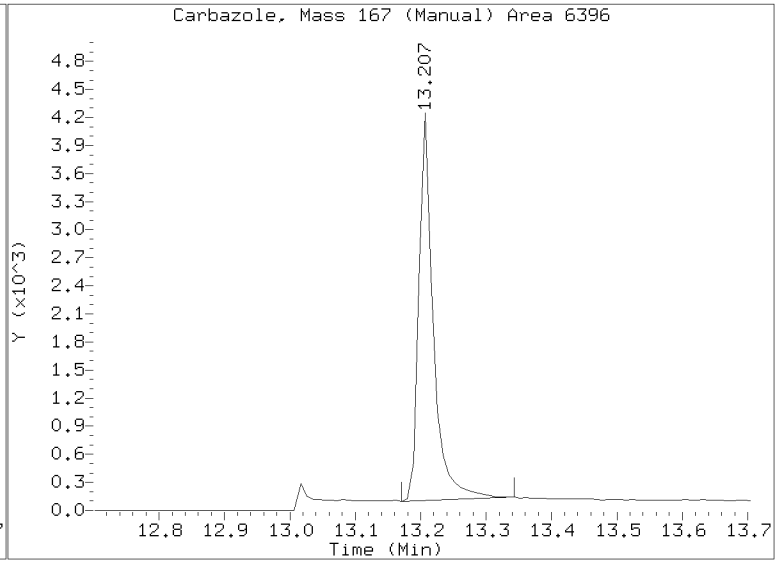
# Quant Ion Manual Peak Adjustment Report

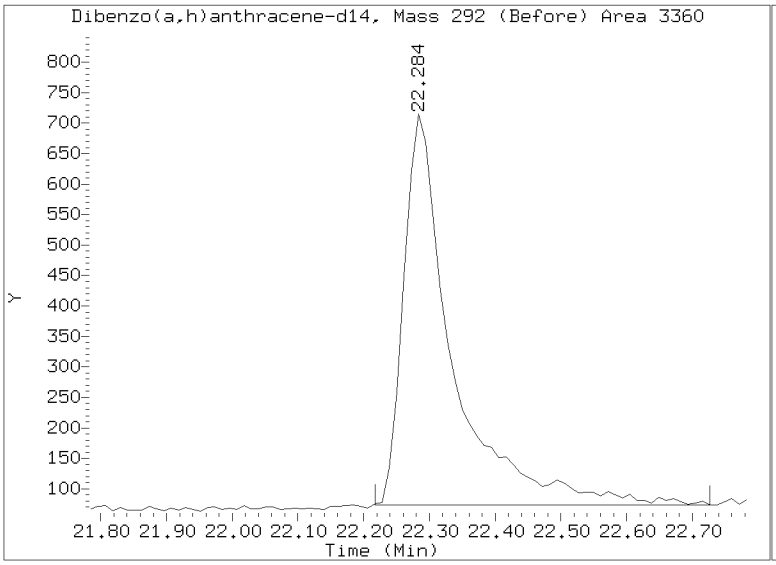
Datafile: //target/share/chem3/nt11.i/20210427.b/NT1121042703.D
Injection Date: 27-APR-2021 13:17
Lab ID:SJD0374-LCV1 Client ID:
Report Date: 04/28/2021 10:50

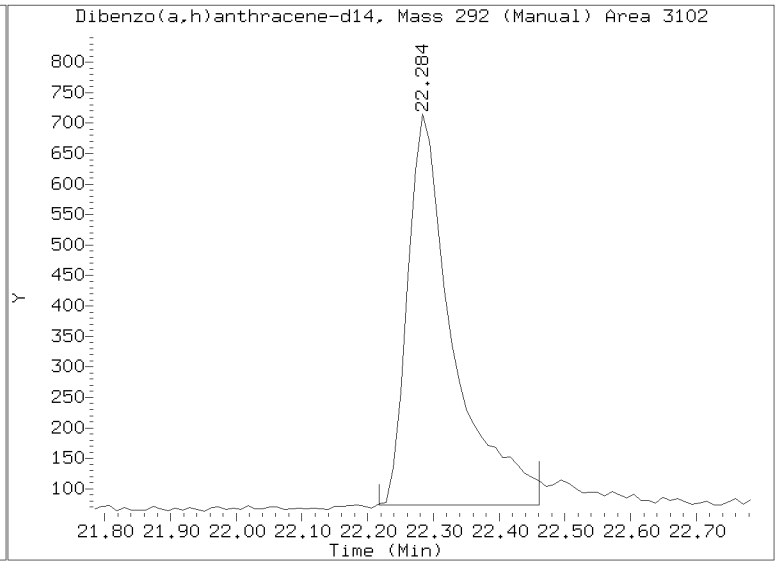


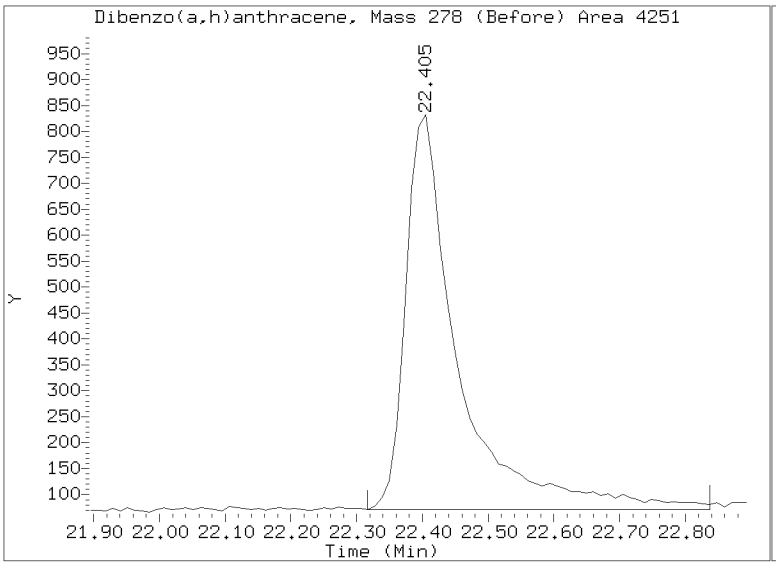



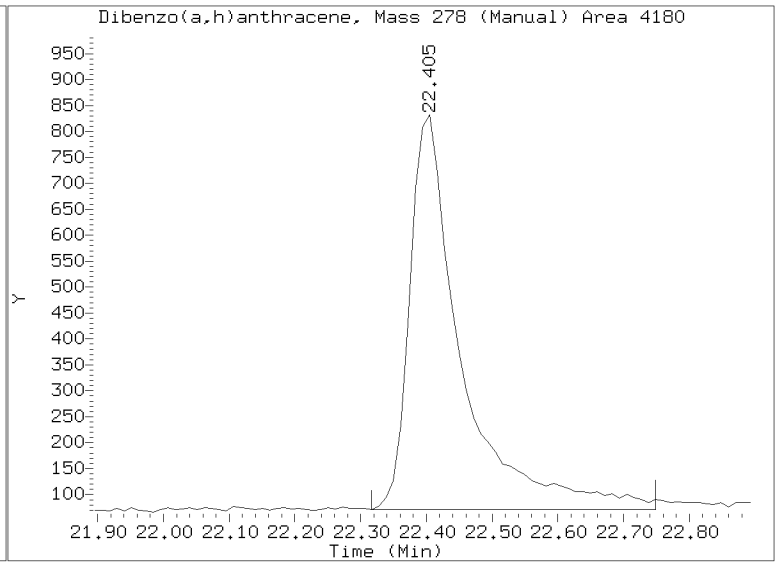



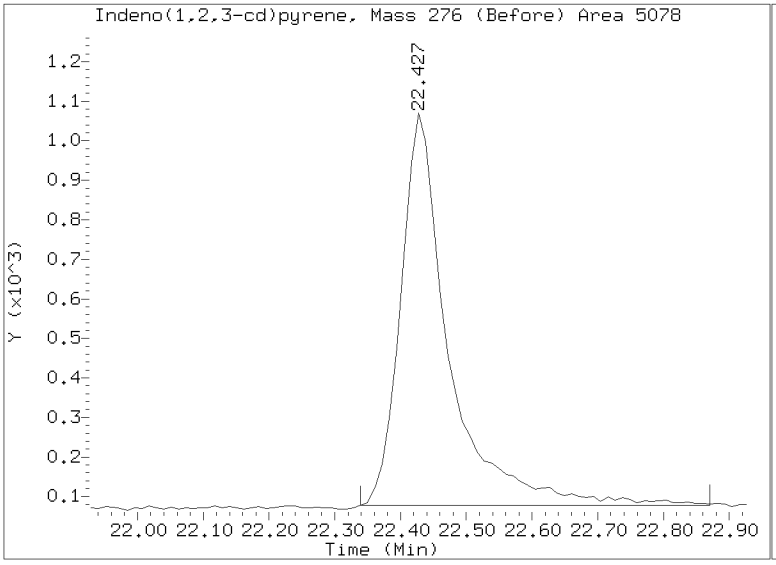



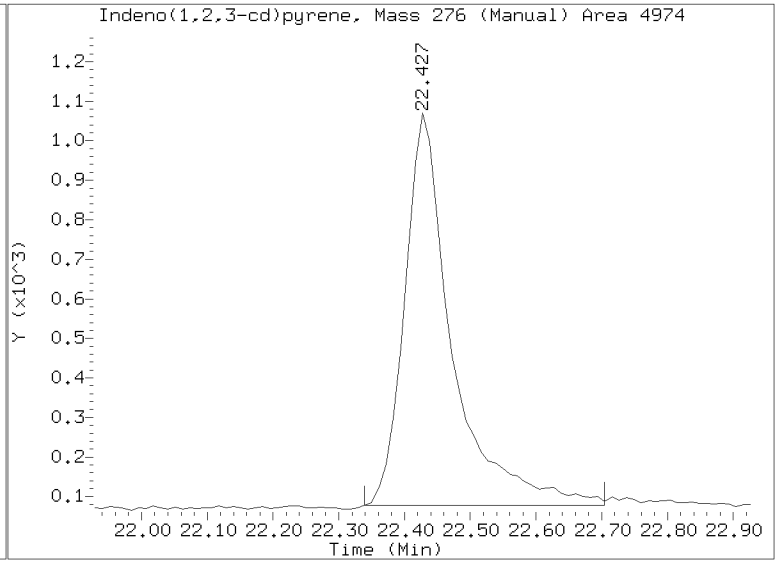
# Quant Ion Manual Peak Adjustment Report

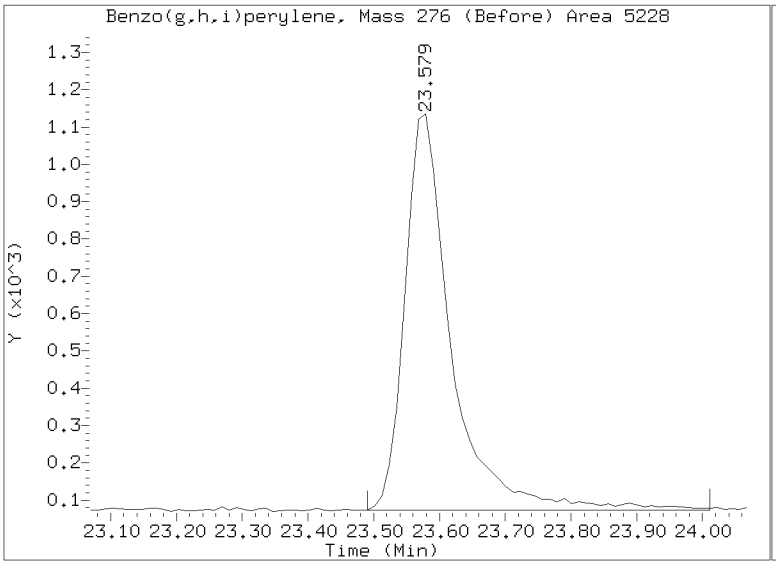
Datafile: //target/share/chem3/nt11.i/20210427.b/NT1121042703.D
Injection Date: 27-APR-2021 13:17
Lab ID:SJD0374-LCV1 Client ID:
Report Date: 04/28/2021 10:50

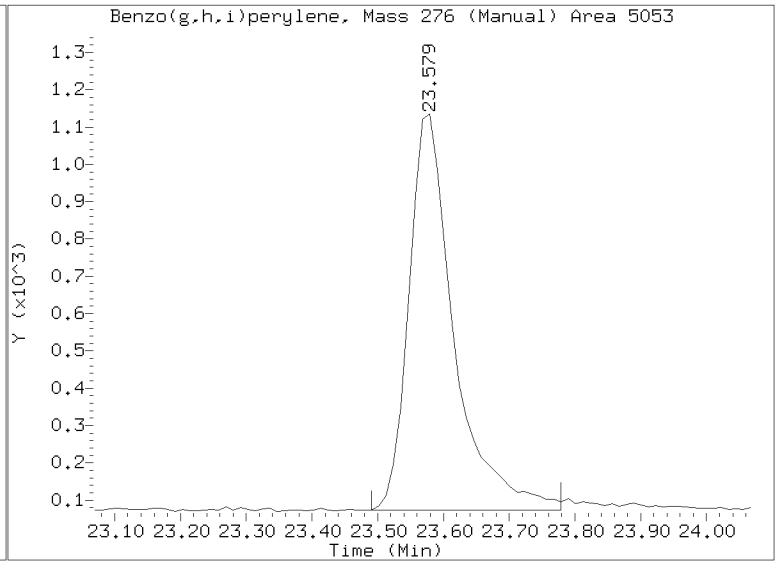


Analytical Resources, Incorporated
Analytical Chemists and Consultants

# CONTINUING CALIBRATION CHECK
## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | NT14 | Calibration: | EE00001 |
| Lab File ID: | NT1421043067.D | Calibration Date: | 04/30/2021 |
| Sequence: | SJE0004 | Injection Date: | 05/02/21 |
| Lab Sample ID: | SJE0004-CCV1 | Injection Time: | 12:25 |
| Sequence Name: | Calibration Check | | |

| | | CONC. (ug/mL) | | RESPONSE FACTOR (RRF) | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN | CCV | LIMIT |
| trans-Decalin | A | 2.5000 | 2.7 | 0.1489821 | 0.1596959 | | 7.2 | +/-50 |
| cis-Decalin | A | 2.5000 | 2.8 | 0.1028504 | 0.1153761 | | 12.2 | +/-50 |
| Naphthalene | A | 2.5000 | 2.8 | 1.1740120 | 1.2972150 | | 10.5 | +/-50 |
| 1-Methylnaphthalene | A | 2.5000 | 2.8 | 0.5936130 | 0.6676038 | | 12.5 | +/-50 |
| 2-Methylnaphthalene | A | 2.5000 | 2.8 | 0.6265036 | 0.7104216 | | 13.4 | +/-50 |
| Biphenyl | A | 2.5000 | 2.8 | 0.8966280 | 0.9956843 | | 11.0 | +/-50 |
| 2,6-Dimethylnaphthalene | A | 2.5000 | 2.9 | 0.6169792 | 0.7086500 | | 14.9 | +/-50 |
| Acenaphthylene | A | 2.5000 | 3.1 | 0.9709370 | 1.2203490 | | 25.7 | +/-50 |
| Acenaphthene | A | 2.5000 | 2.9 | 0.6240076 | 0.7299559 | | 17.0 | +/-50 |
| Dibenzofuran | A | 2.5000 | 2.8 | 0.9455456 | 1.0687310 | | 13.0 | +/-50 |
| 2,3,5-Trimethylnaphthalene | A | 2.5000 | 3.1 | 0.5414731 | 0.6648609 | | 22.8 | +/-50 |
| Fluorene | A | 2.5000 | 2.9 | 0.6871732 | 0.8055957 | | 17.2 | +/-50 |
| Benzo(b)thiophene | A | 2.5000 | 2.8 | 0.9340302 | 1.0430630 | | 11.7 | +/-50 |
| Phenanthrene | A | 2.5000 | 2.4 | 1.2066070 | 1.1410070 | | -5.4 | +/-50 |
| Anthracene | A | 2.5000 | 2.6 | 1.1122650 | 1.1410070 | | 2.6 | +/-50 |
| Carbazole | A | 2.5000 | 2.6 | 0.8290303 | 0.9815243 | | 4.7 | +/-50 |
| 1-Methylphenanthrene | A | 2.5000 | 2.7 | 0.7326040 | 0.8025132 | | 9.5 | +/-50 |
| Fluoranthene | A | 2.5000 | 2.7 | 1.0715980 | 1.1695000 | | 9.1 | +/-50 |
| Dibenzothiophene | A | 2.5000 | 3.0 | 0.8674458 | 1.0429230 | | 20.2 | +/-50 |
| Pyrene | A | 2.5000 | 2.8 | 1.1104570 | 1.2286710 | | 10.6 | +/-50 |
| Benzo(a)anthracene | A | 2.5000 | 2.6 | 0.8222601 | 0.9567589 | | 4.1 | +/-50 |
| Chrysene | A | 2.5000 | 2.5 | 0.9340580 | 0.9417928 | | 0.8 | +/-50 |
| Benzo(b)fluoranthene | A | 2.5000 | 2.8 | 0.7491309 | 0.9480621 | | 10.8 | +/-50 |
| Benzo(j)fluoranthene | A | 2.5000 | 2.5 | 0.9513865 | 0.9519634 | | 0.06 | +/-50 |
| Benzo(k)fluoranthene | A | 2.5000 | 2.6 | 0.9278309 | 1.0771370 | | 3.7 | +/-50 |
| Benzo(e)pyrene | A | 2.5000 | 2.8 | 0.8518347 | 0.9462694 | | 11.1 | +/-50 |
| Benzo(a)pyrene | A | 2.5000 | 2.6 | 0.7422947 | 0.9121621 | | 4.0 | +/-50 |
| Indeno(1,2,3-cd)pyrene | A | 2.5000 | 2.7 | 0.7887712 | 0.9862033 | | 8.3 | +/-50 |
| Dibenzo(a,h)anthracene | A | 2.5000 | 2.7 | 0.6549683 | 0.8583470 | | 8.9 | +/-50 |
| Benzo(g,h,i)perylene | A | 2.5000 | 3.0 | 0.7663214 | 0.9147397 | | 19.4 | +/-50 |
| Perylene | A | 2.5000 | 2.9 | 0.8135951 | 0.9492533 | | 16.7 | +/-50 |
| Benzo(b)naphtho(2,1-d)thiophene | A | 2.5000 | 2.7 | 1.0821370 | 1.1659770 | | 7.7 | +/-50 |
| Naphthalene-d8 | A | 2.5000 | 2.80 | 1.1542130 | 1.2910940 | | 11.9 | +/-50 |
| Acenaphthene-d10 | A | 2.5000 | 2.94 | 0.5635830 | 0.6621506 | | 17.5 | +/-50 |

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK
## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | NT14 | Calibration: | EE00001 |
| Lab File ID: | NT1421043067.D | Calibration Date: | 04/30/2021 |
| Sequence: | SJE0004 | Injection Date: | 05/02/21 |
| Lab Sample ID: | SJE0004-CCV1 | Injection Time: | 12:25 |
| Sequence Name: | Calibration Check | | |

| | | CONC. (ug/mL) | | RESPONSE FACTOR (RRF) | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN | CCV | LIMIT |
| Phenanthrene-d10 | A | 2.5000 | 2.50 | 1.0807840 | 1.0791240 | | -0.2 | +/-50 |
| Chrysene-d12 | A | 2.5000 | 2.71 | 0.7267179 | 0.7879071 | | 8.4 | +/-50 |
| Perylene-d12 | A | 2.5000 | 2.61 | 0.6899017 | 0.8123637 | | 4.3 | +/-50 |

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D



Date : 02-MAY-2021 12:25

Client ID:

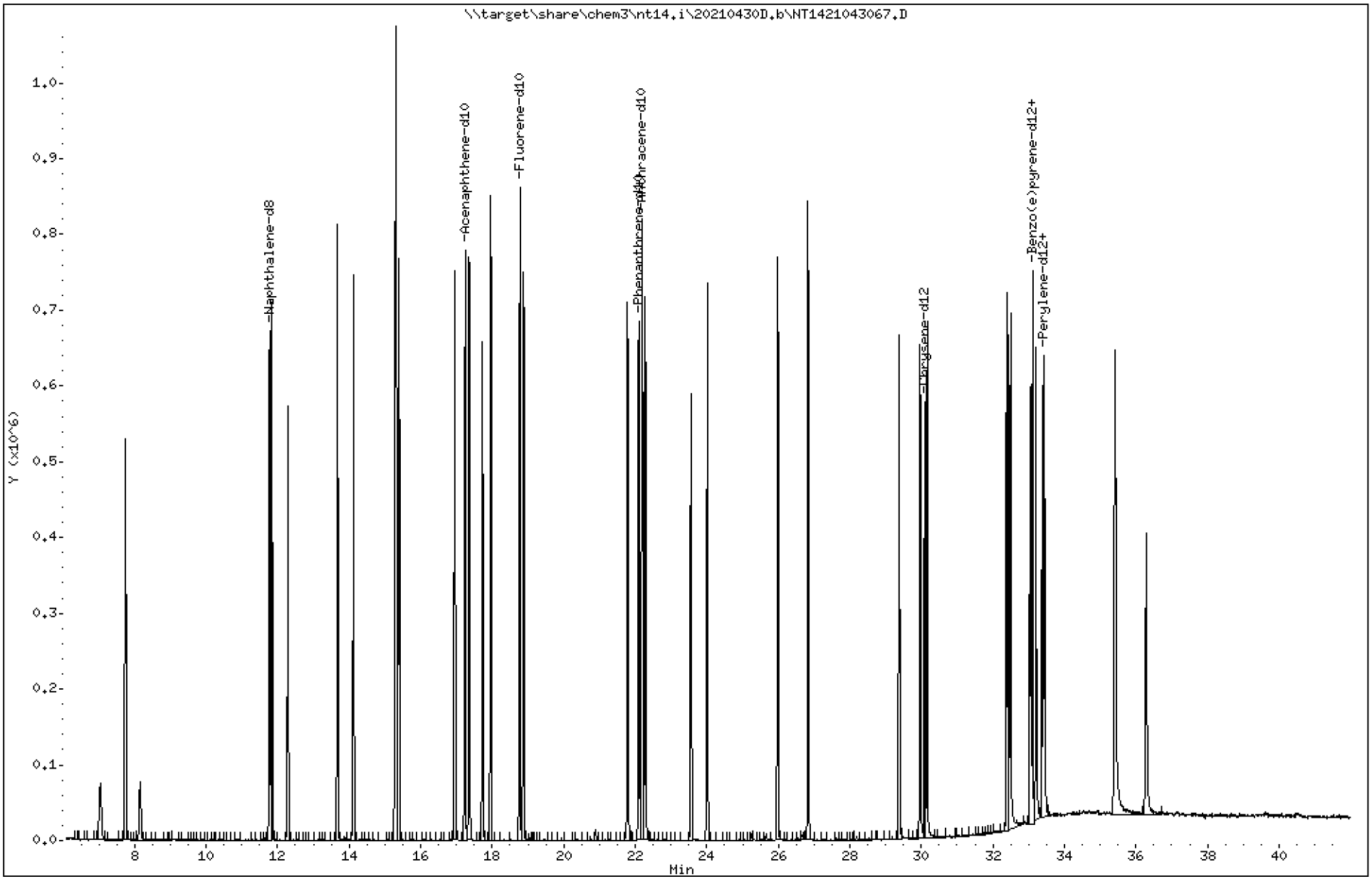
Instrument: nt14.i

Sample Info: SJE0004-CCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25




Revised Report 21D0180 07/07/2021 Page 1305 of 1709

Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D

Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

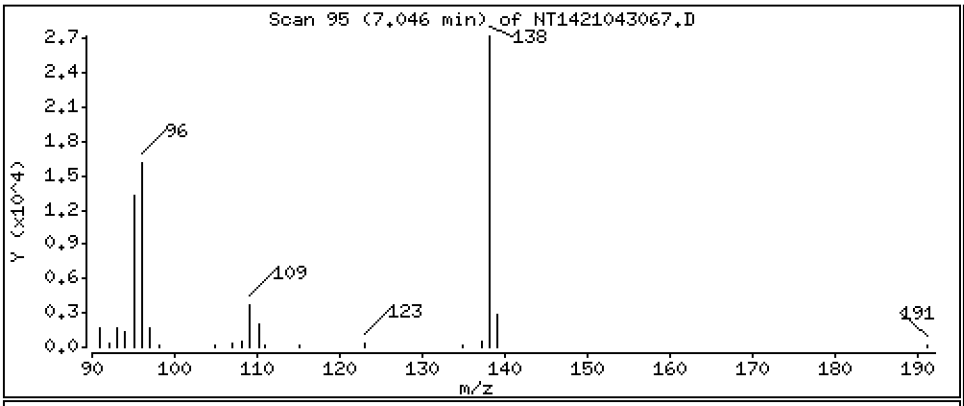
Operator: VTS

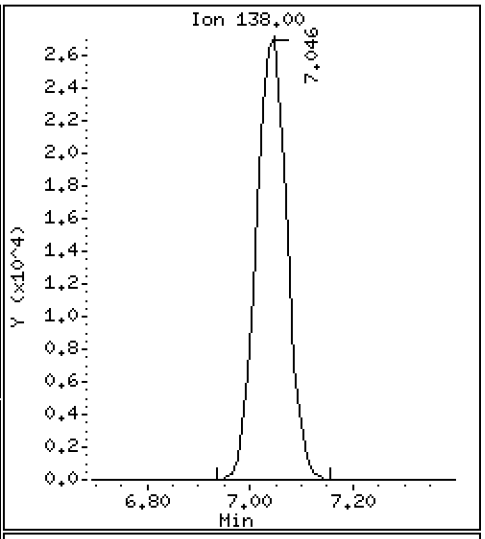
Column phase: Rxi-17Sil MS

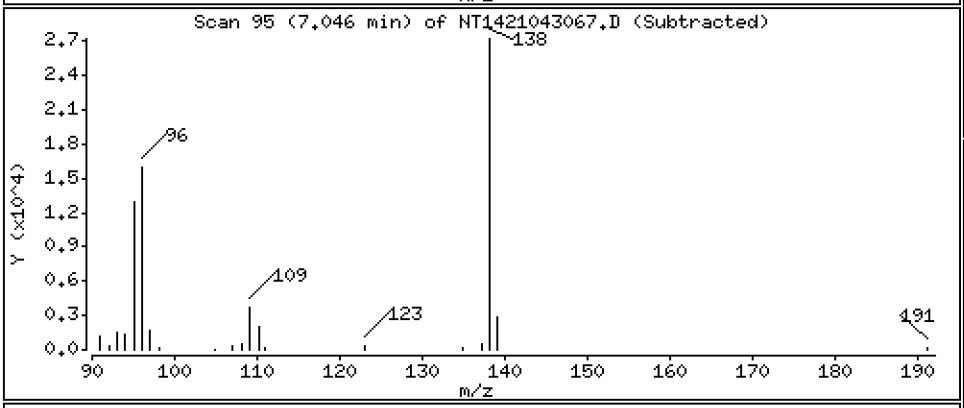
Column diameter: 0.25

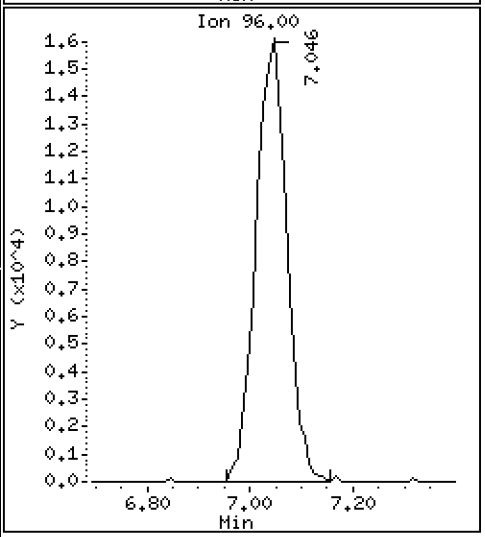
1 trans-Decalin

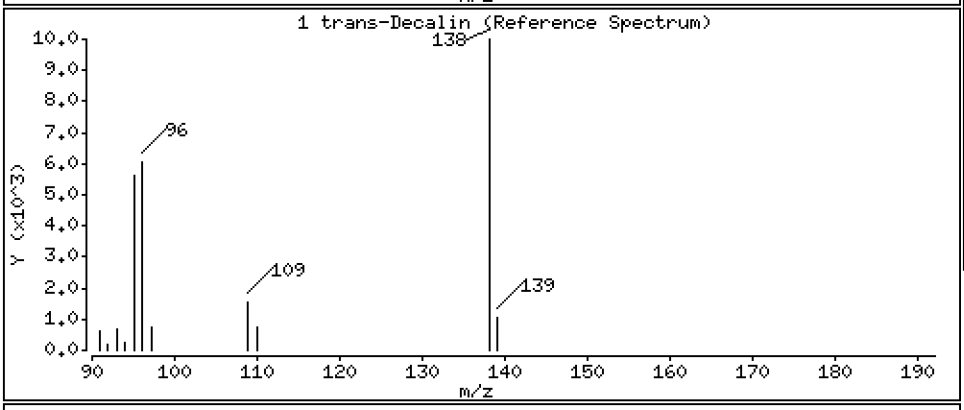
Concentration: 2.680 ug/mL

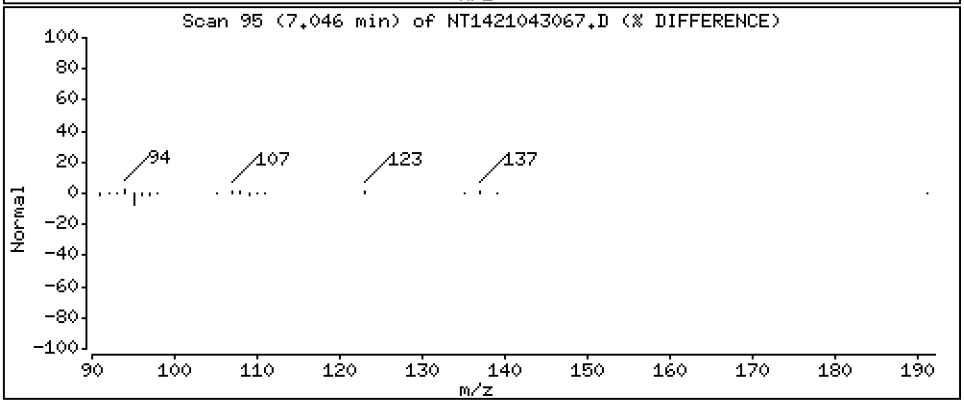


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D

Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

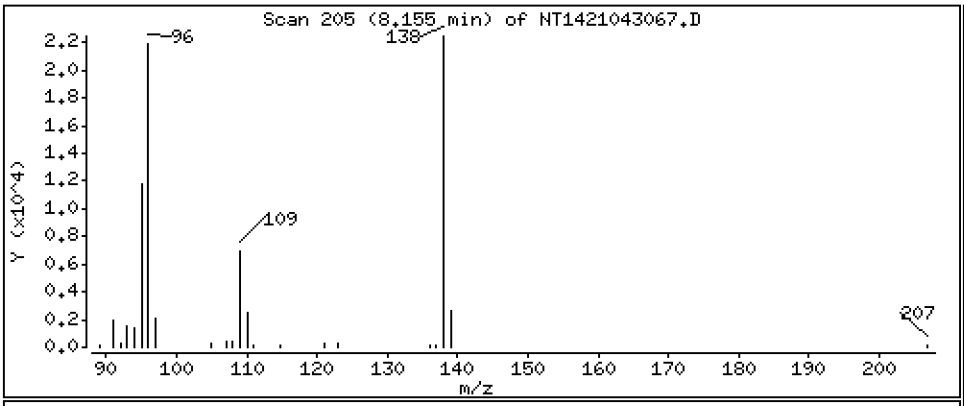
Operator: VTS

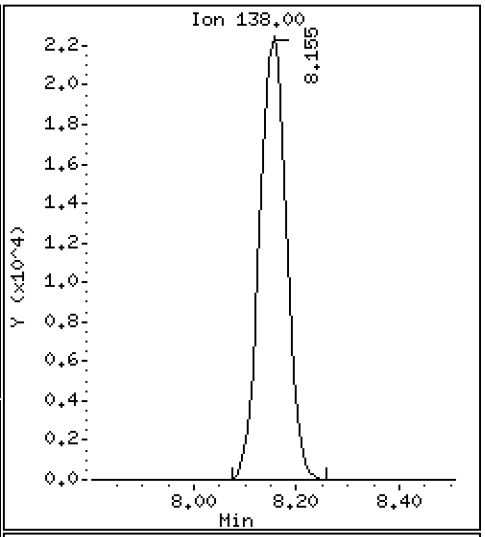
Column phase: Rxi-17Sil MS

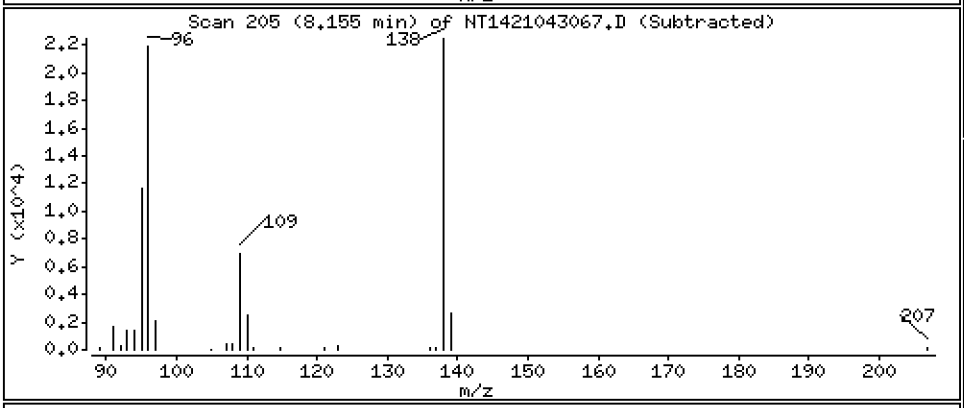
Column diameter: 0.25

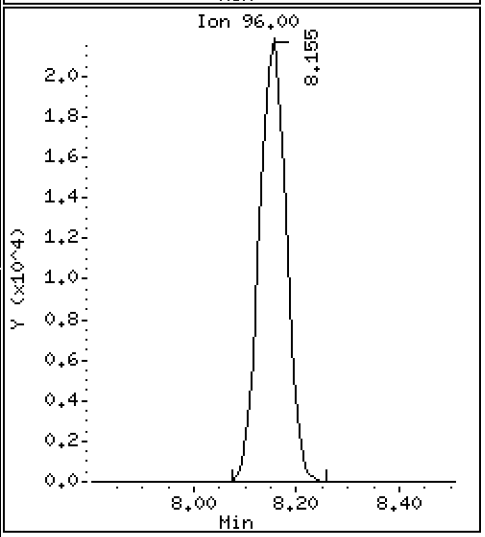
2 cis-Decalin

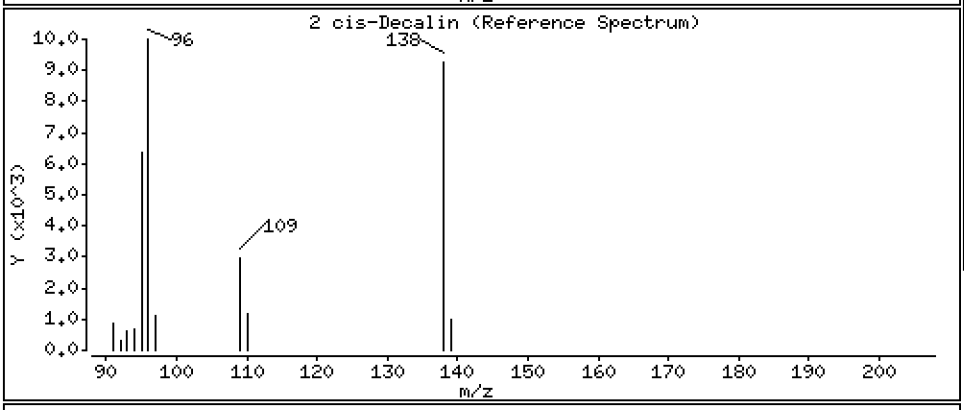
Concentration: 2.804 ug/mL

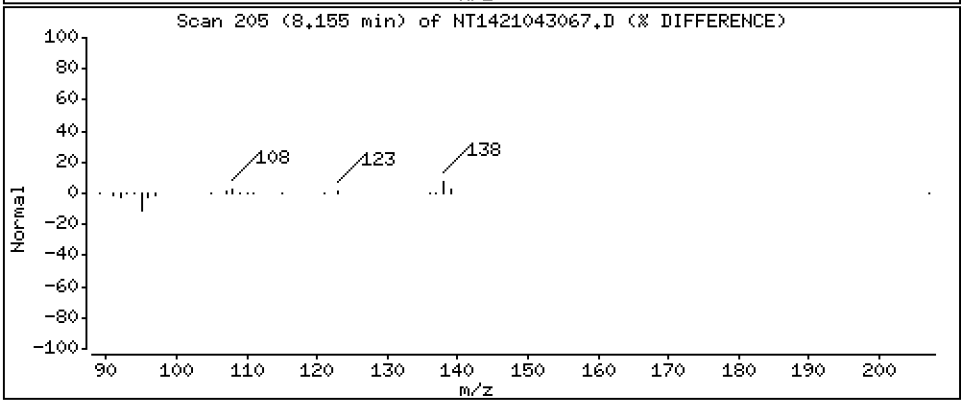


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D

Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

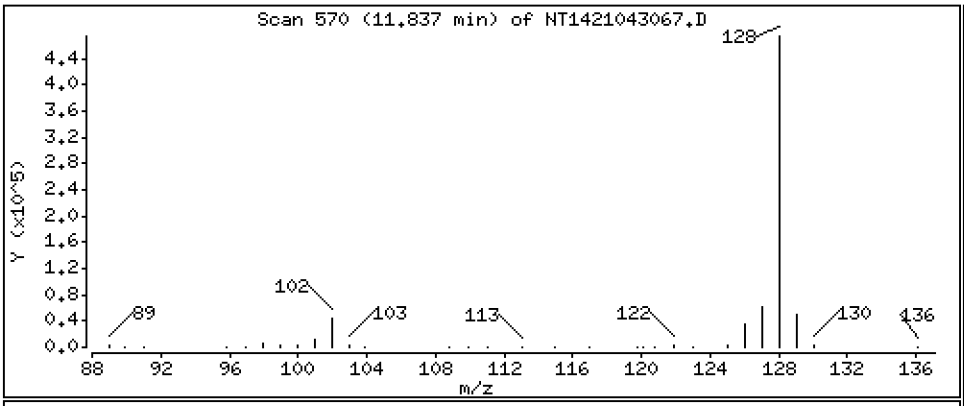
Operator: VTS

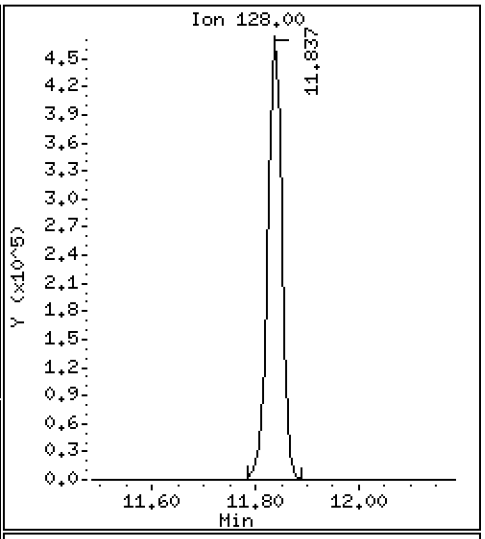
Column phase: Rxi-17Sil MS

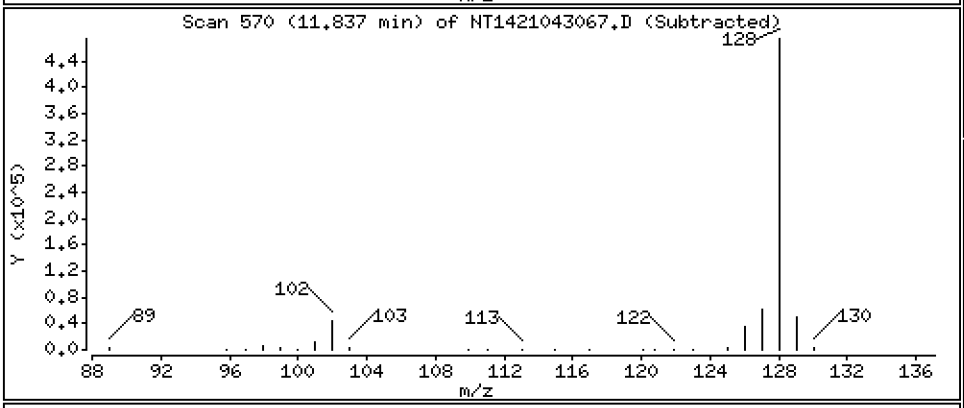
Column diameter: 0.25

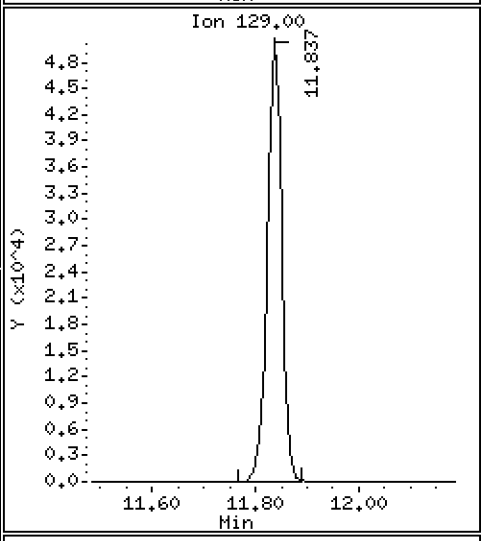
7 Naphthalene

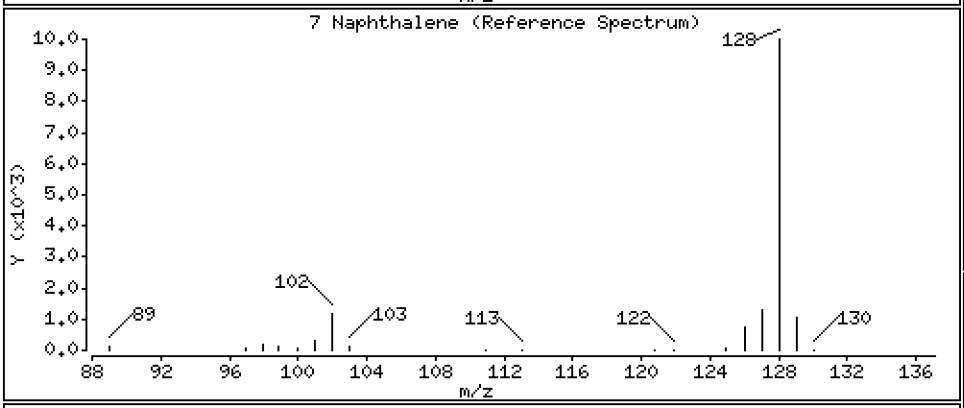
Concentration: 2.762 ug/mL

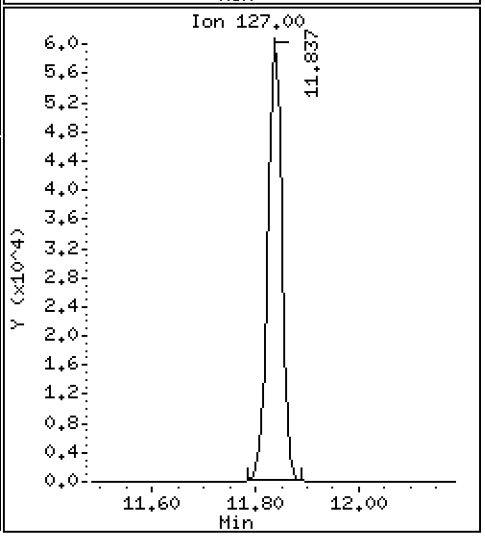


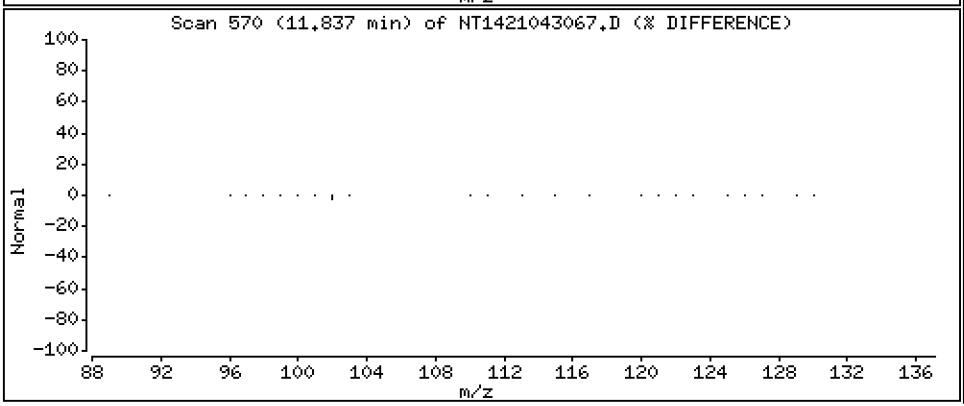



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Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

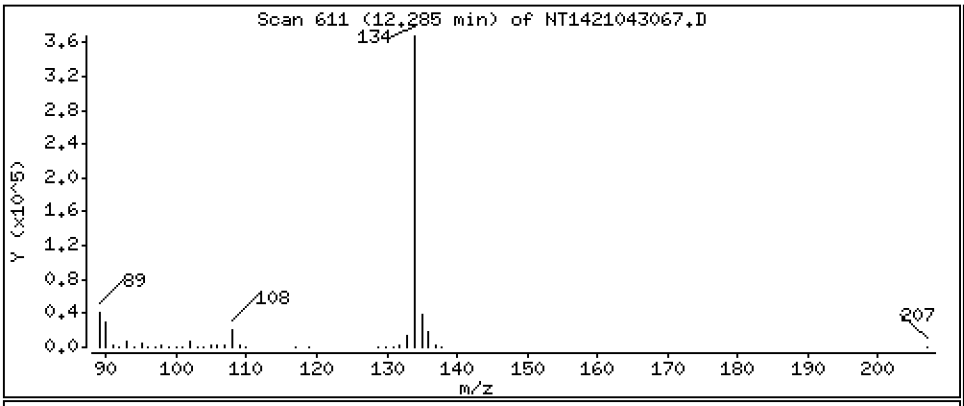
Operator: VTS

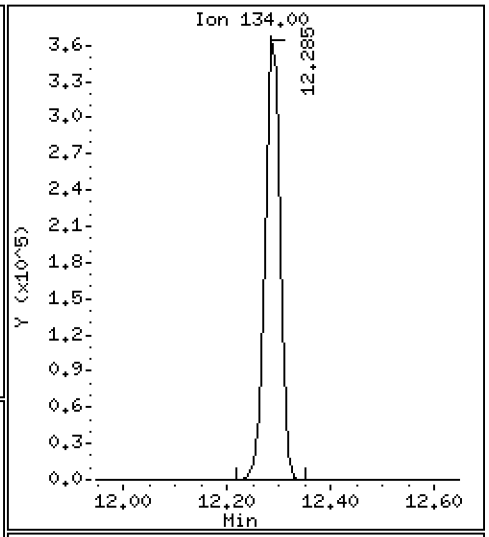
Column phase: Rxi-17Sil MS

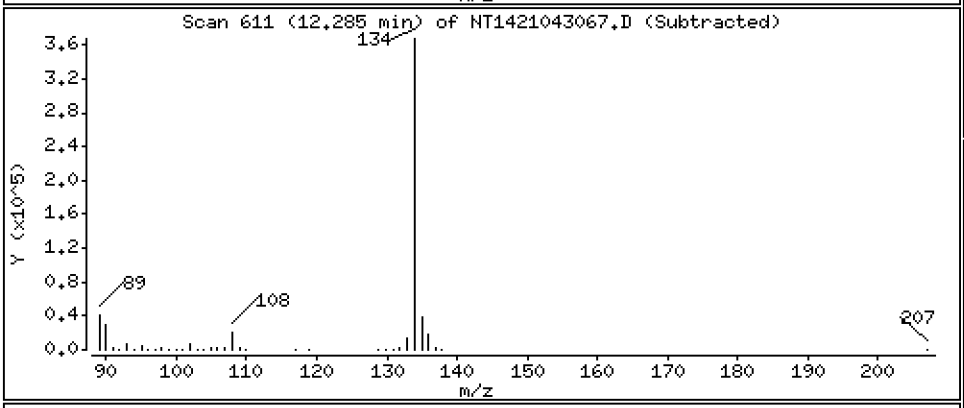
Column diameter: 0.25

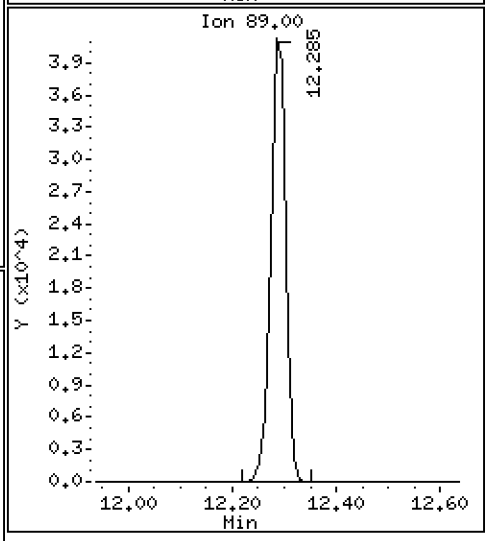
12 Benzo(b)thiophene

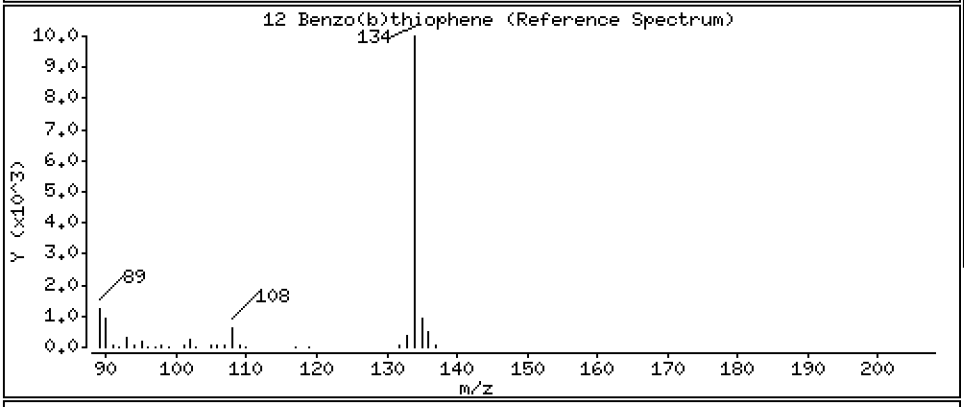
Concentration: 2.792 ug/mL

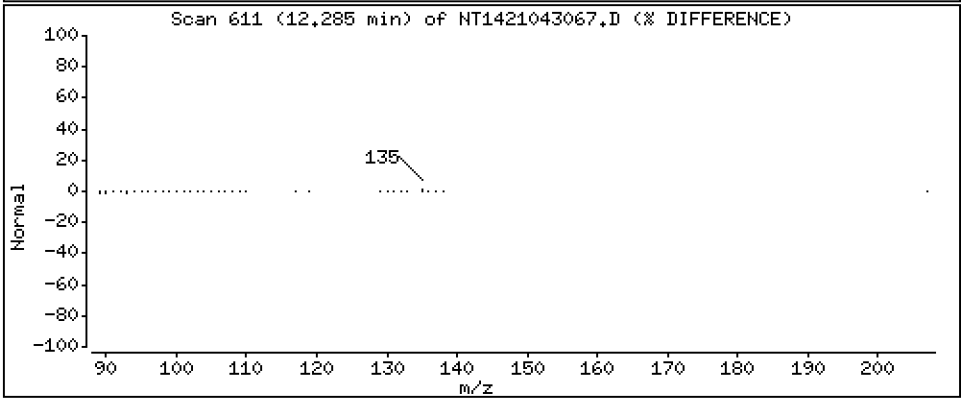


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D

Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

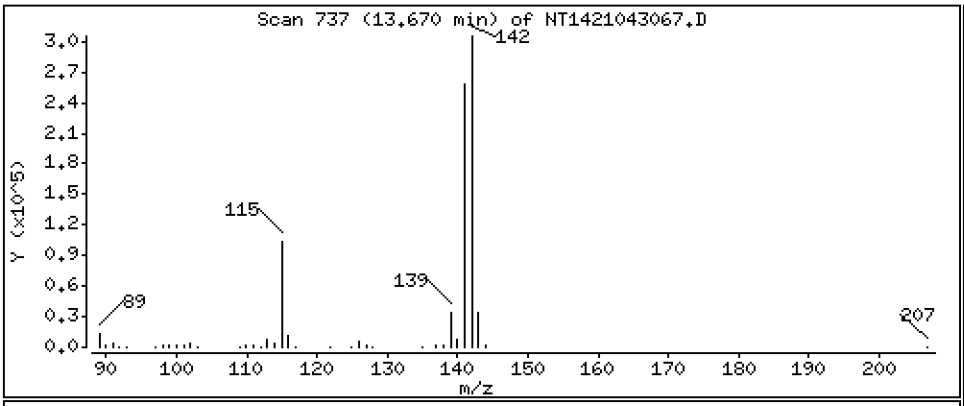
Operator: VTS

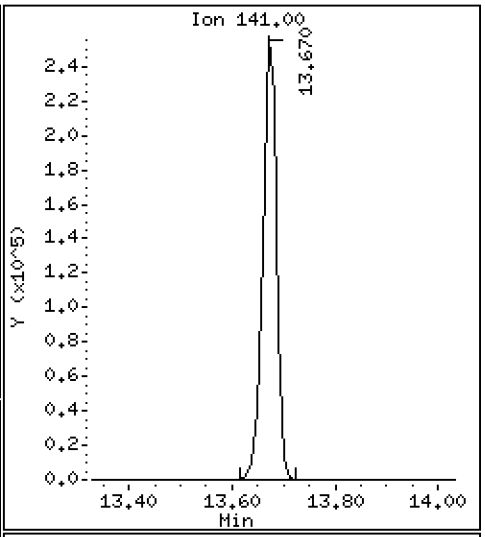
Column phase: Rxi-17Sil MS

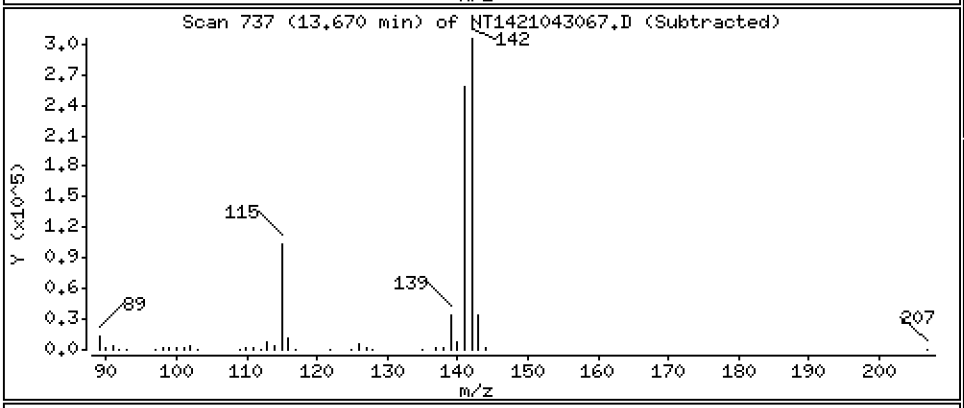
Column diameter: 0.25

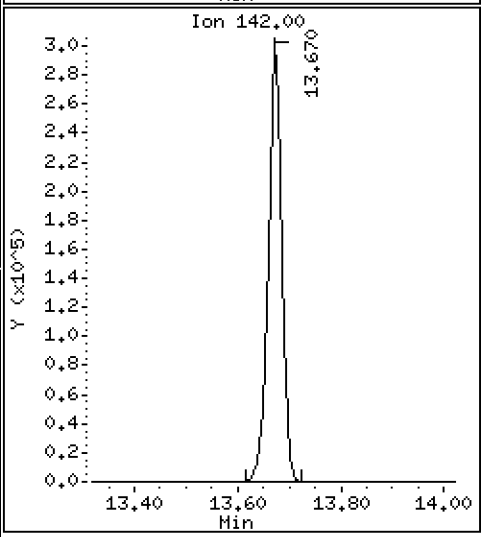
16 2-Methylnaphthalene

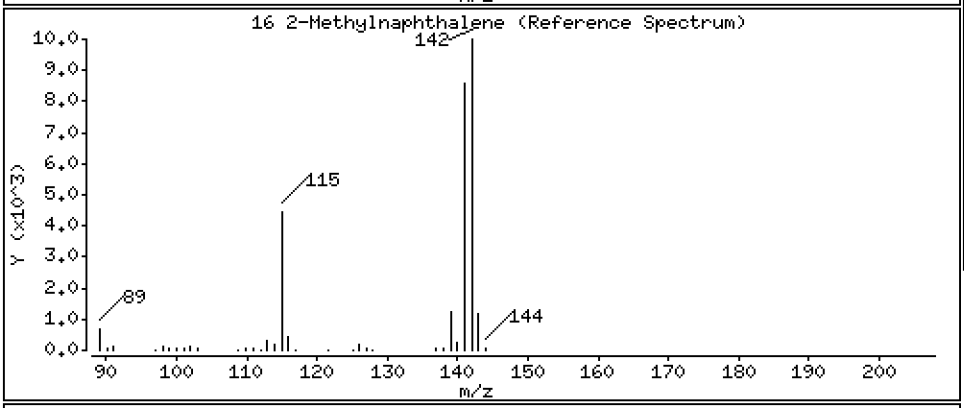
Concentration: 2.835 ug/mL

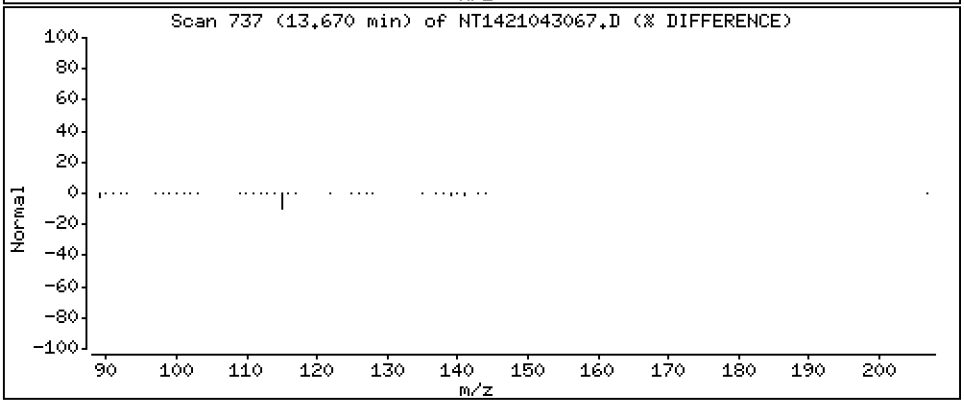


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D

Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

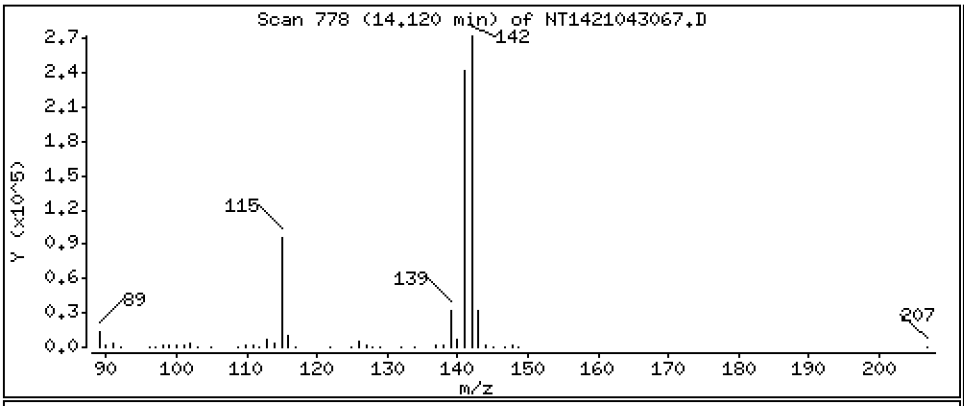
Operator: VTS

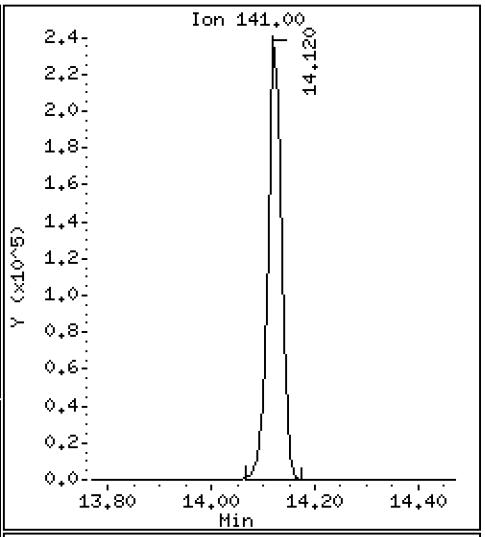
Column phase: Rxi-17Sil MS

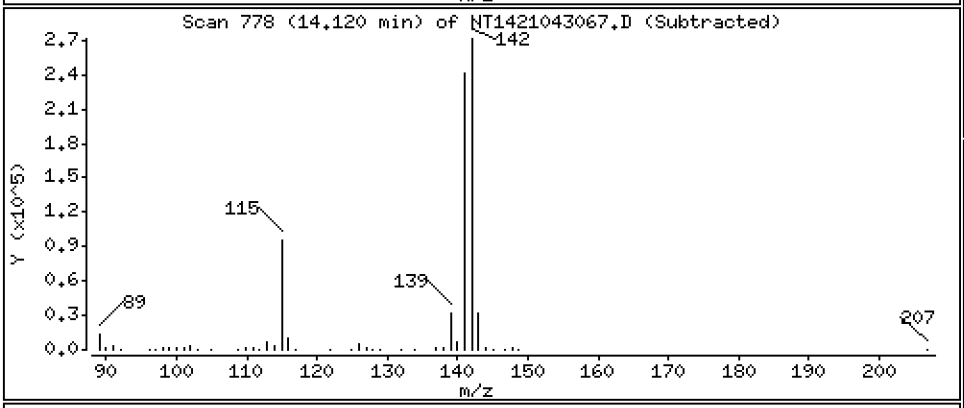
Column diameter: 0.25

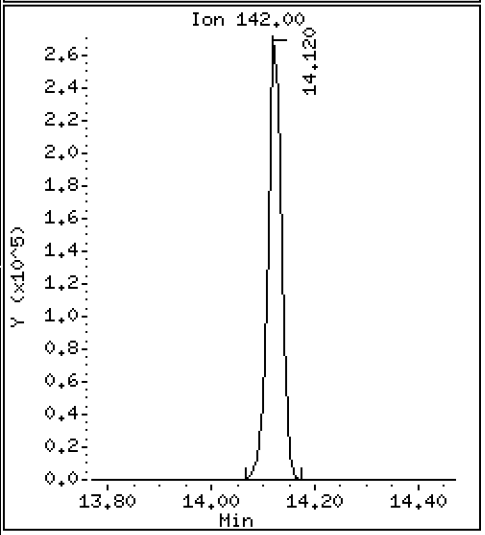
17 1-methylnaphthalene

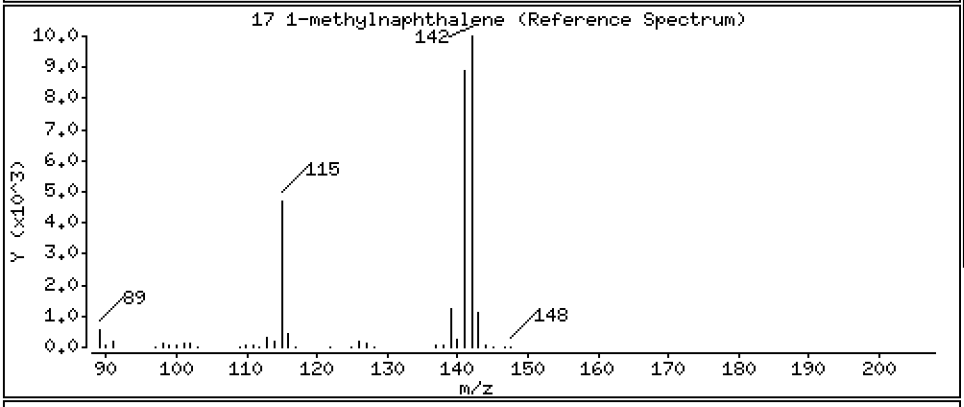
Concentration: 2.812 ug/mL

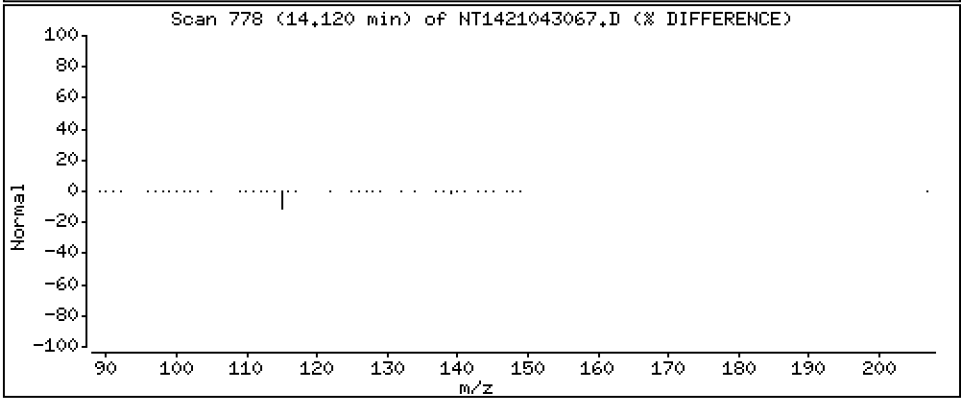


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D

Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

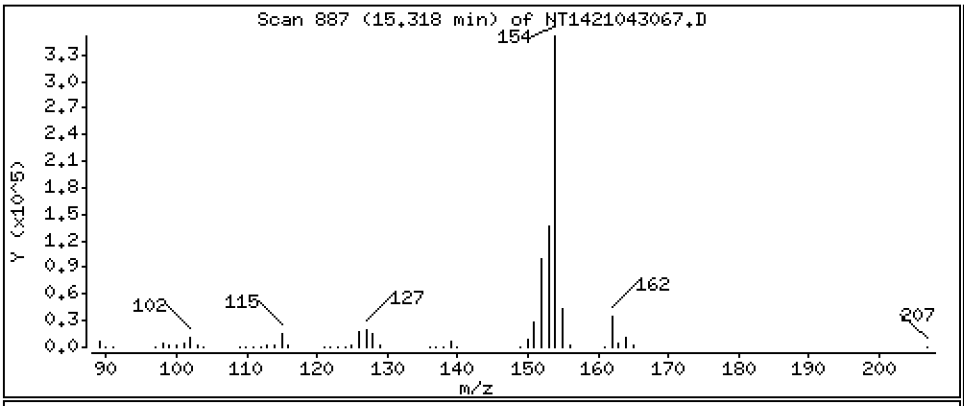
Operator: VTS

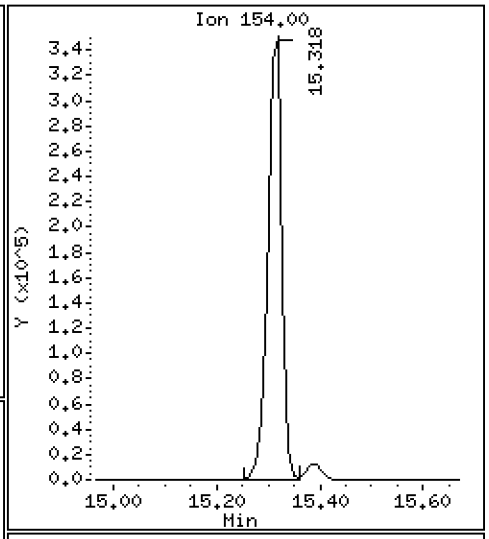
Column phase: Rxi-17Sil MS

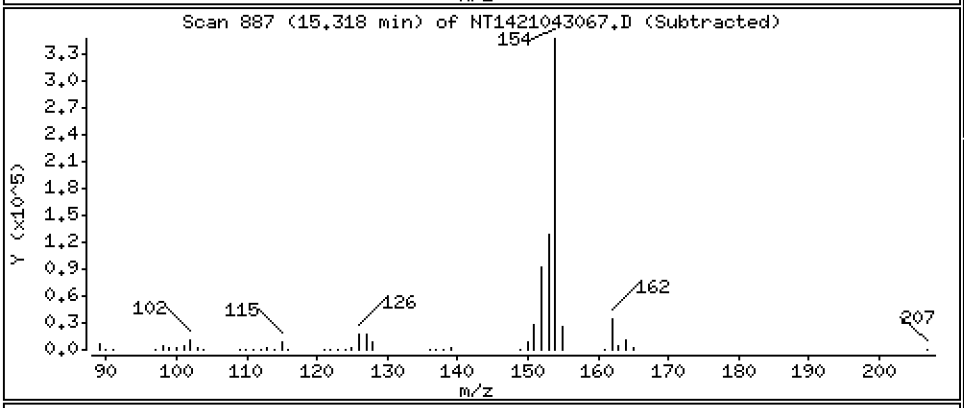
Column diameter: 0.25

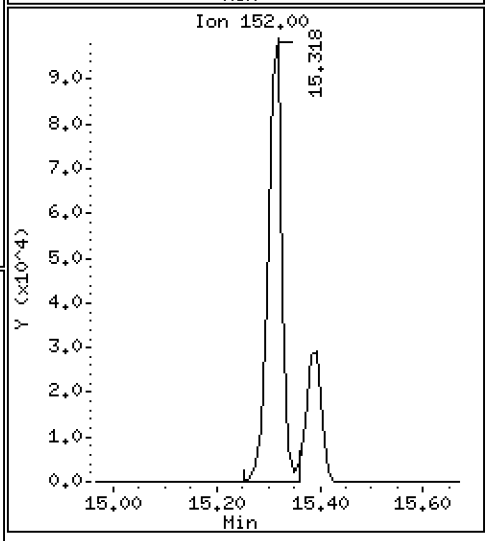
18 Biphenyl

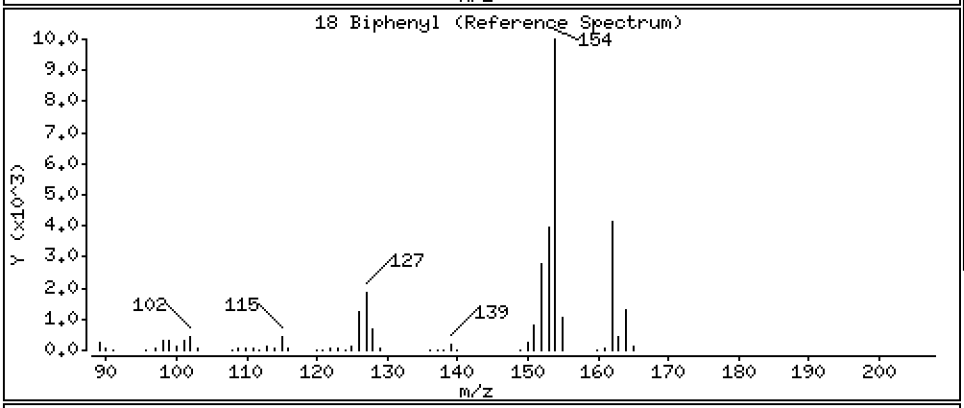
Concentration: 2.776 ug/mL

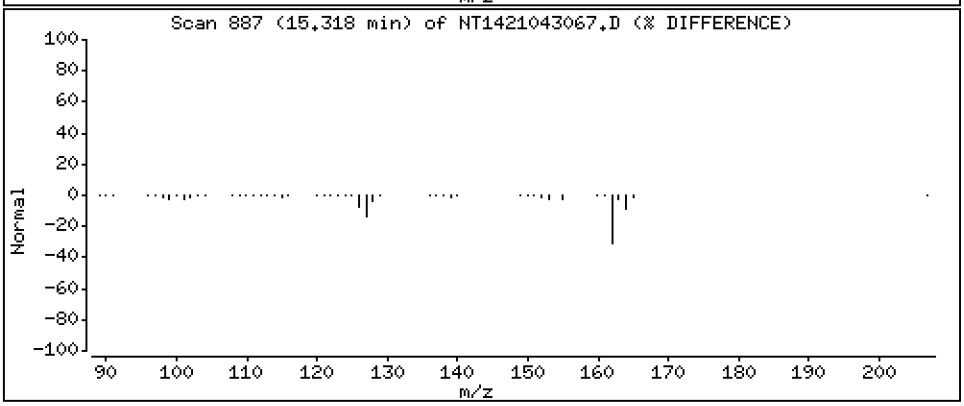


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D

Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

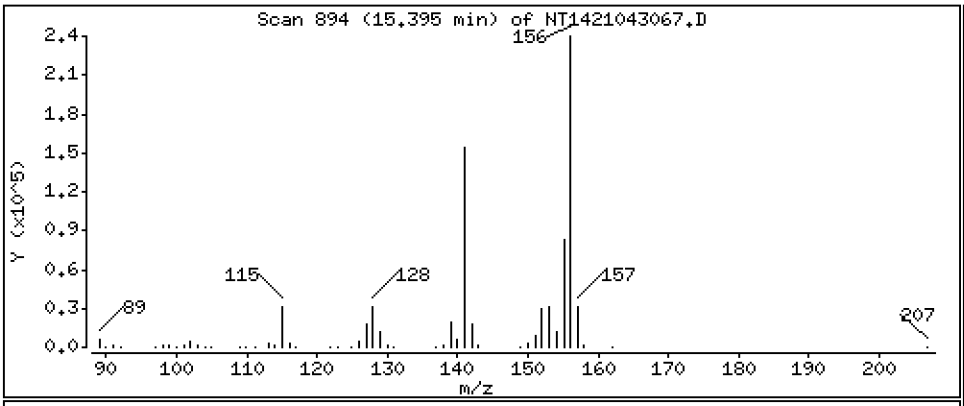
Operator: VTS

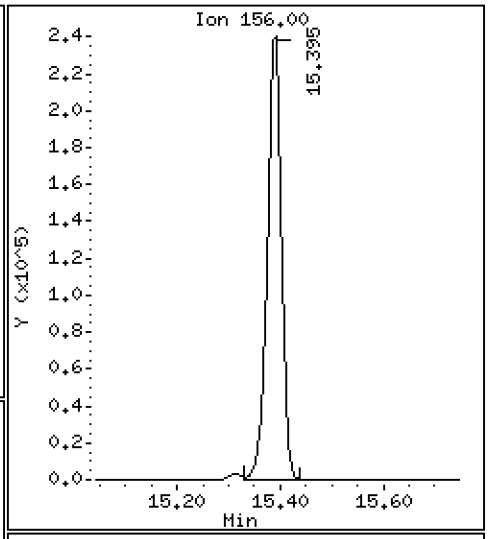
Column phase: Rxi-17Sil MS

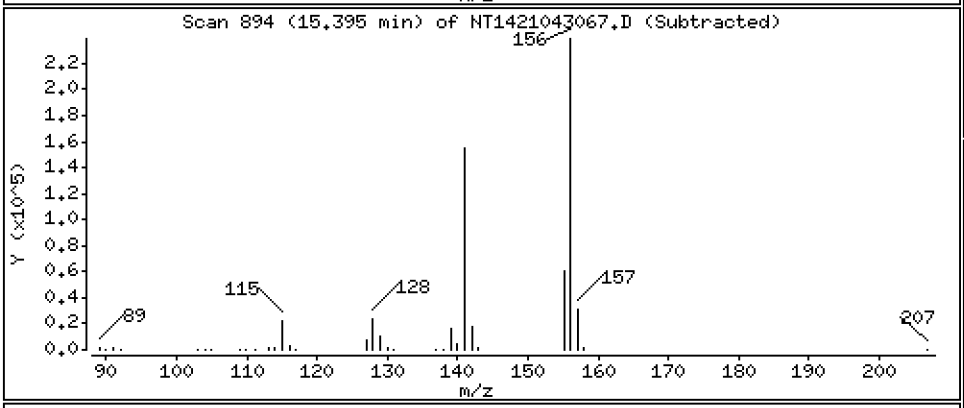
Column diameter: 0.25

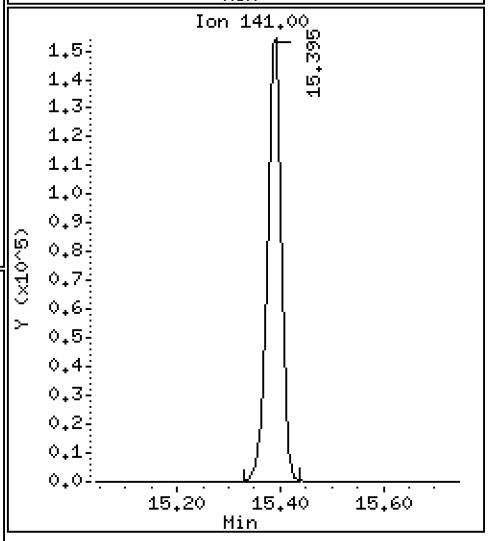
19 2,6-Dimethylnaphthalene

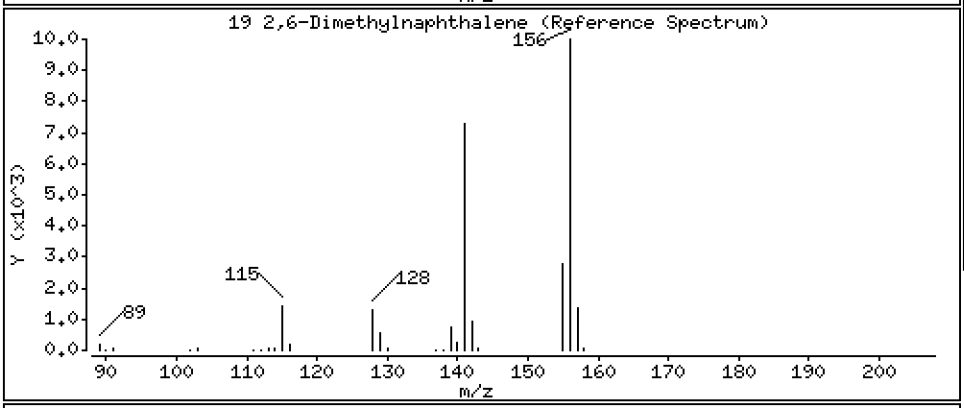
Concentration: 2.871 ug/mL

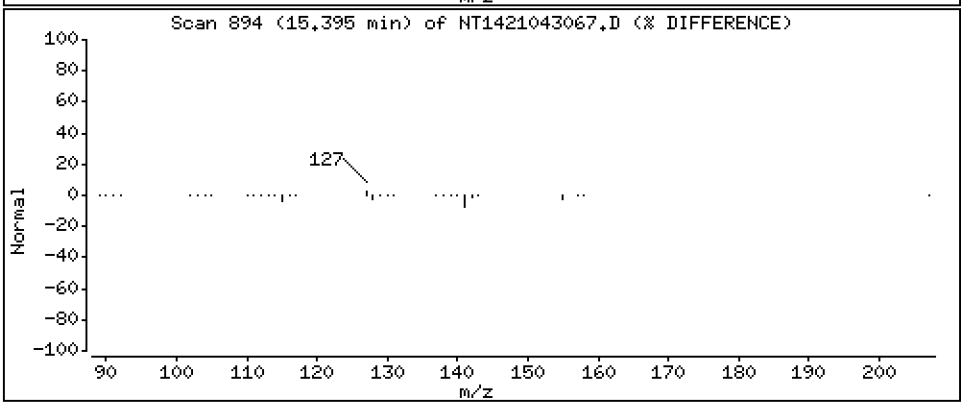


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Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

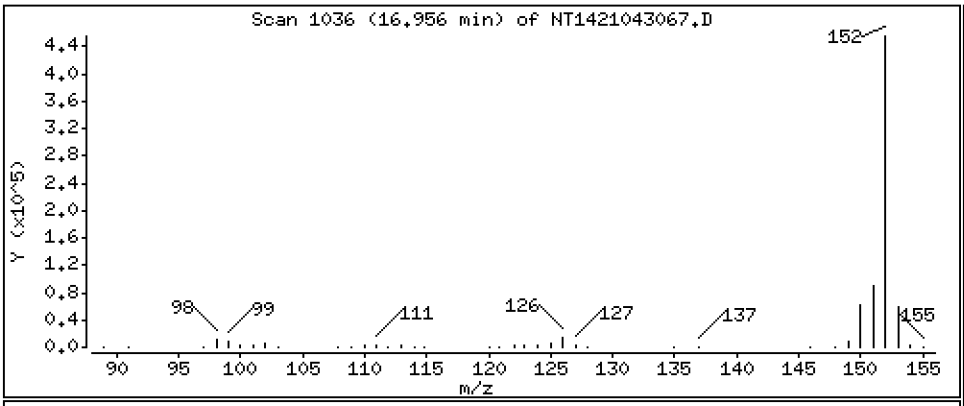
Operator: VTS

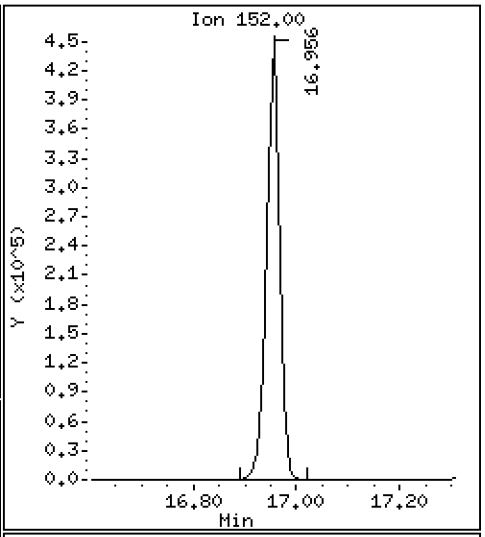
Column phase: Rxi-17Sil MS

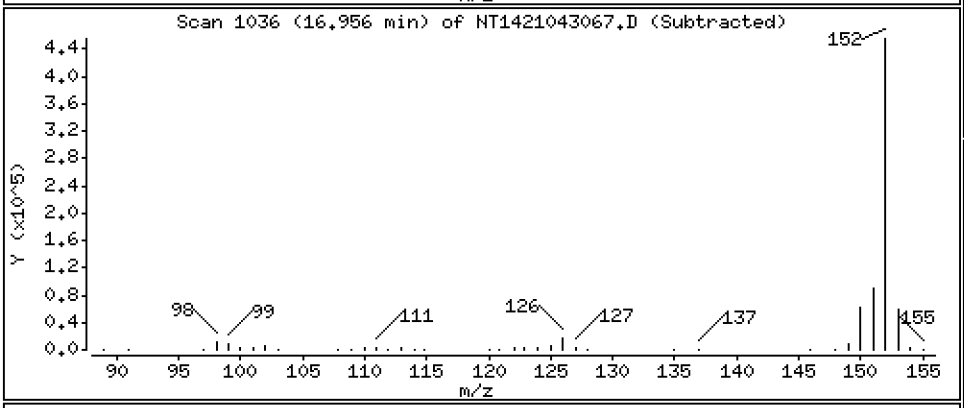
Column diameter: 0.25

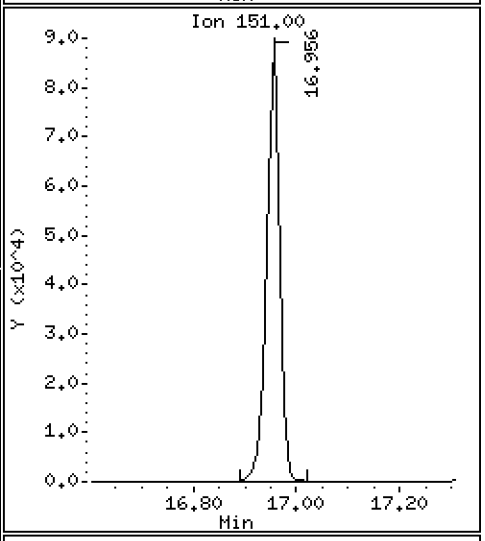
20 Acenaphthylene

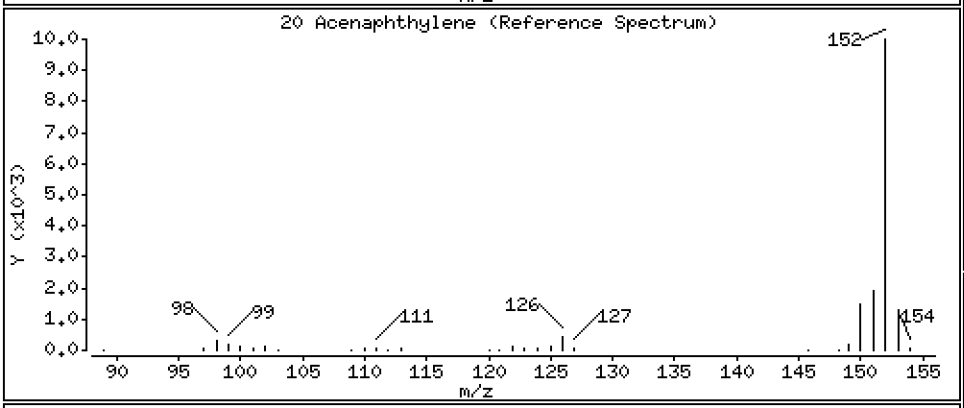
Concentration: 3.142 ug/mL

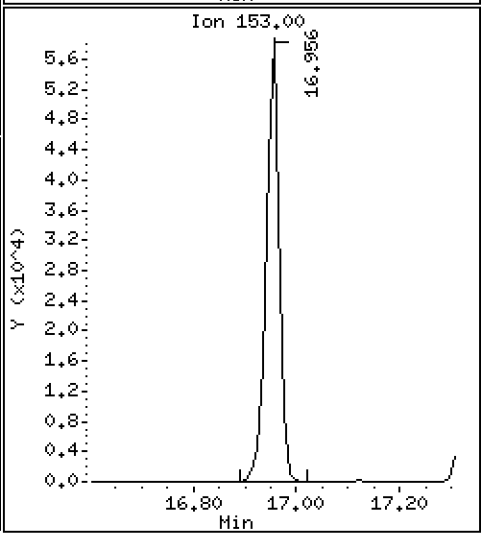


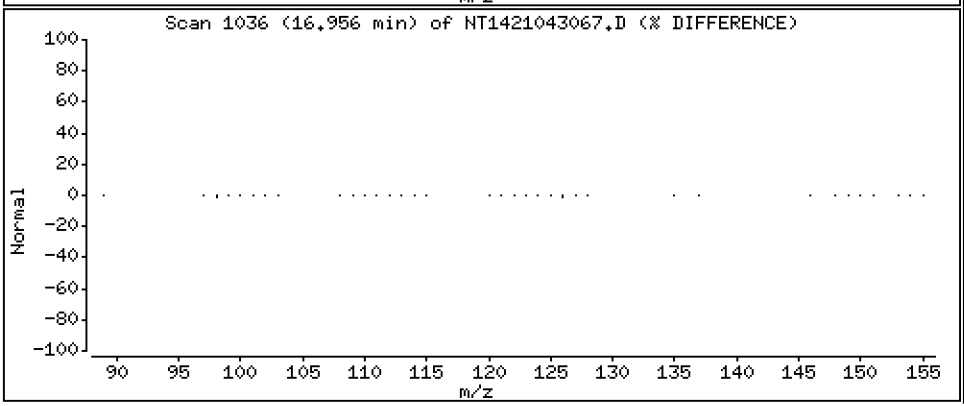



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Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

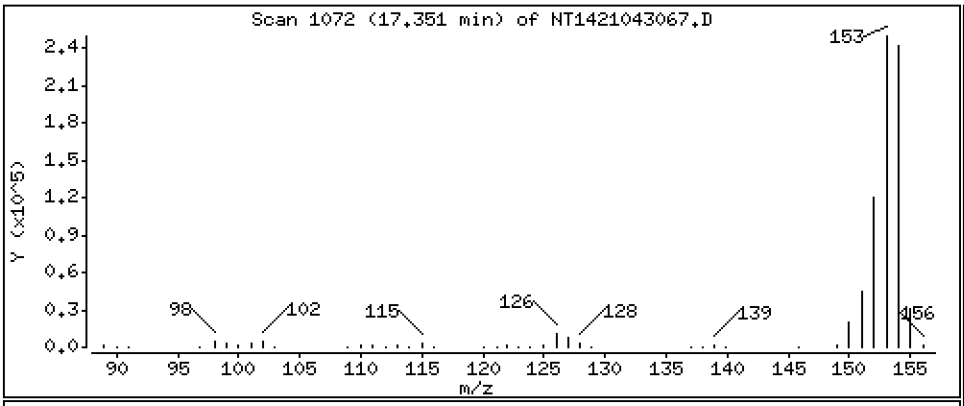
Operator: VTS

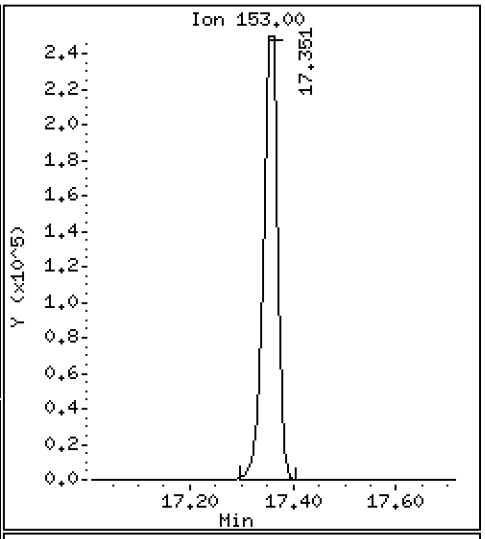
Column phase: Rxi-17Sil MS

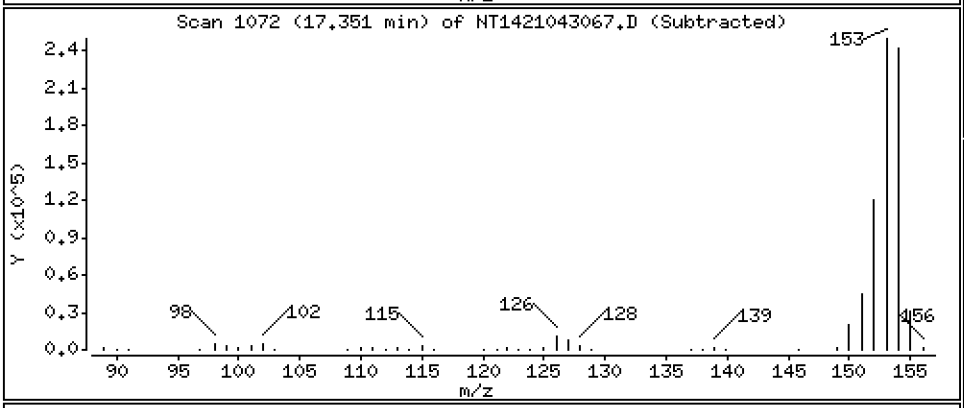
Column diameter: 0.25

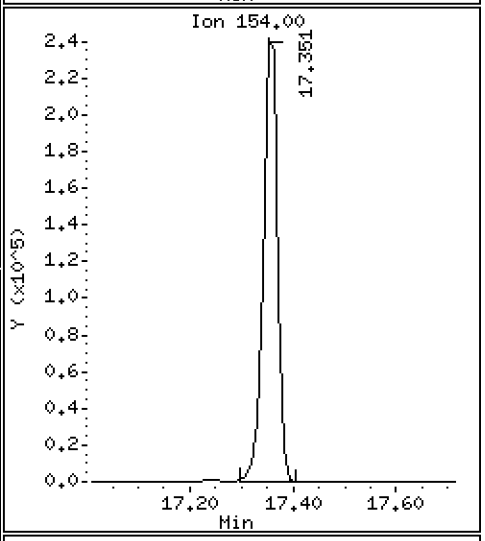
22 Acenaphthene

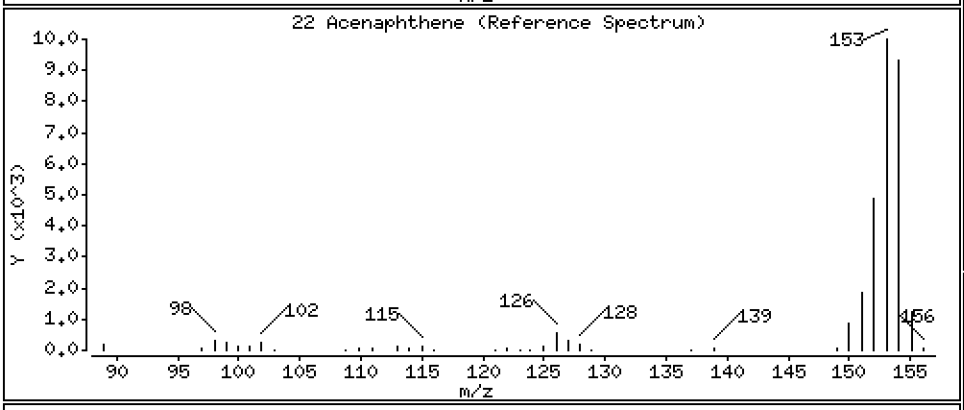
Concentration: 2.924 ug/mL

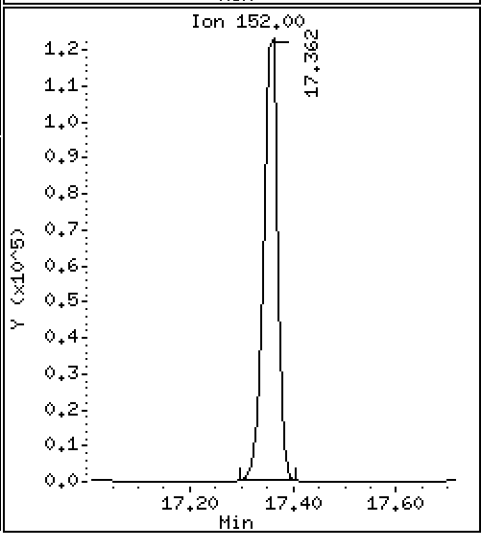


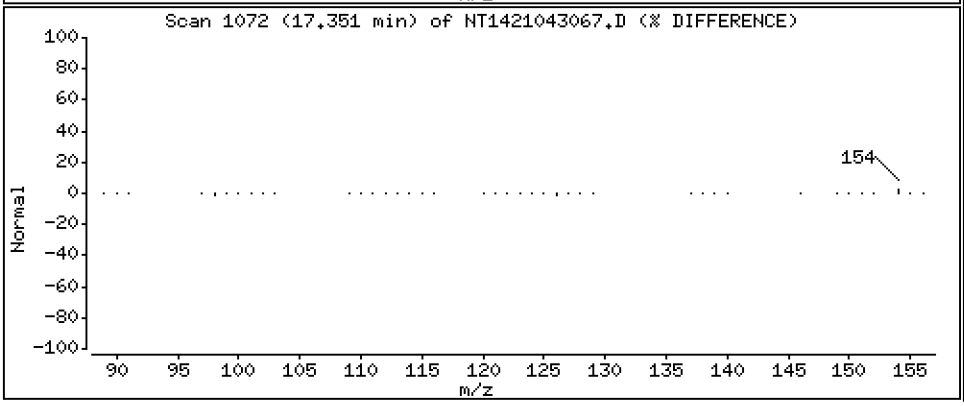



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Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

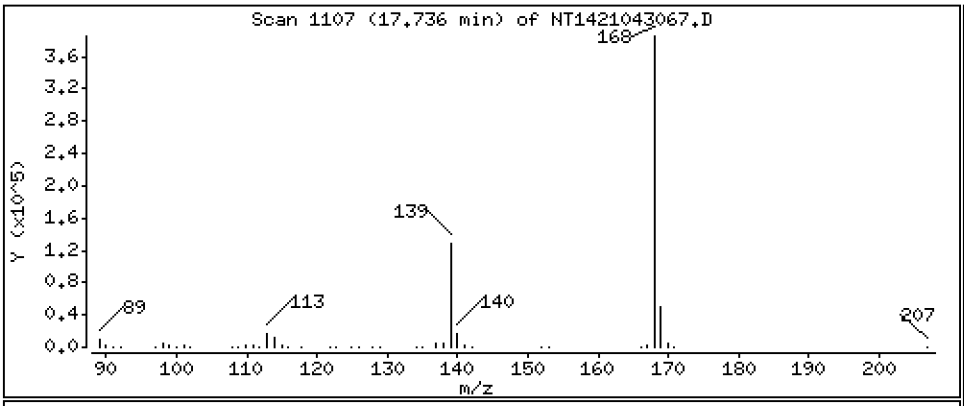
Operator: VTS

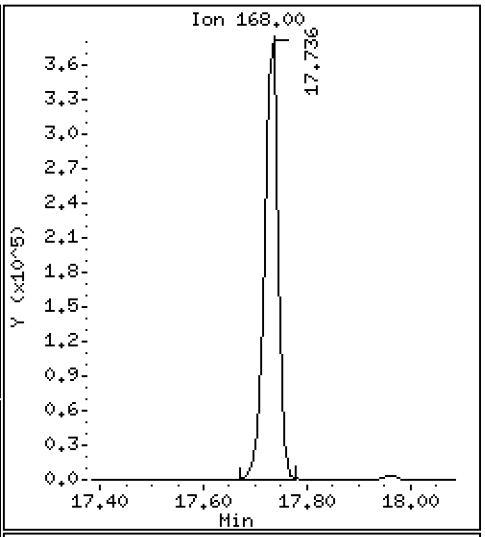
Column phase: Rxi-17Sil MS

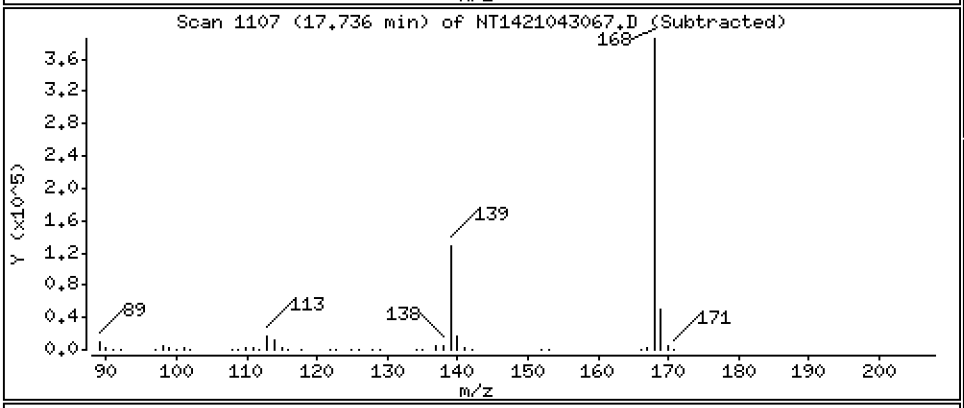
Column diameter: 0.25

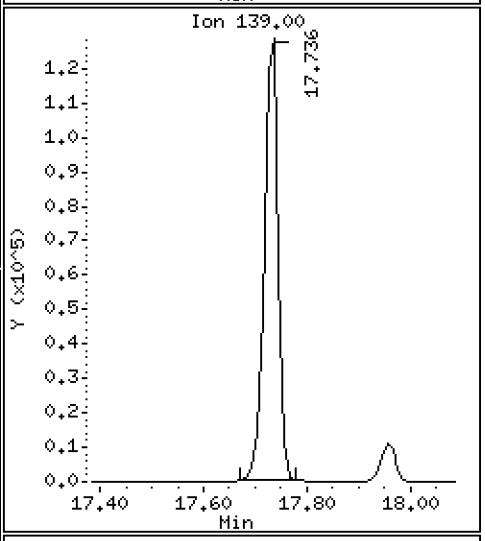
23 Dibenzofuran

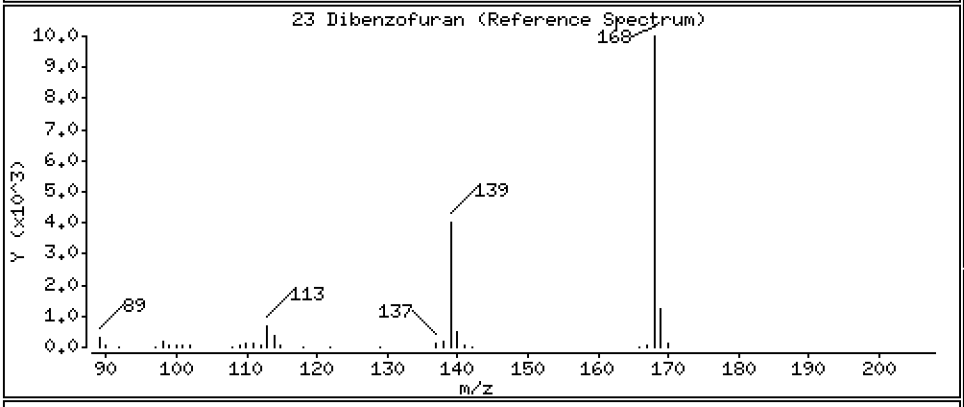
Concentration: 2.826 ug/mL

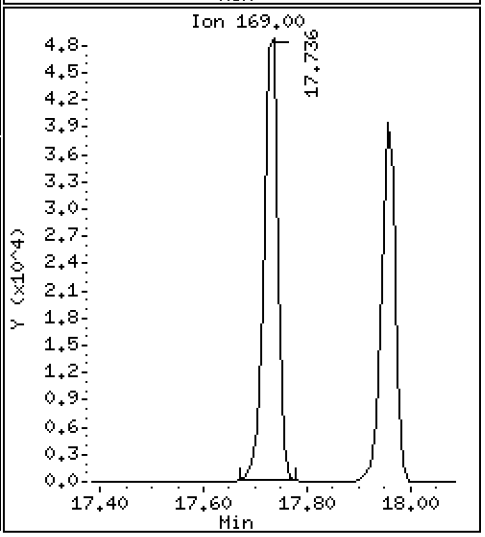


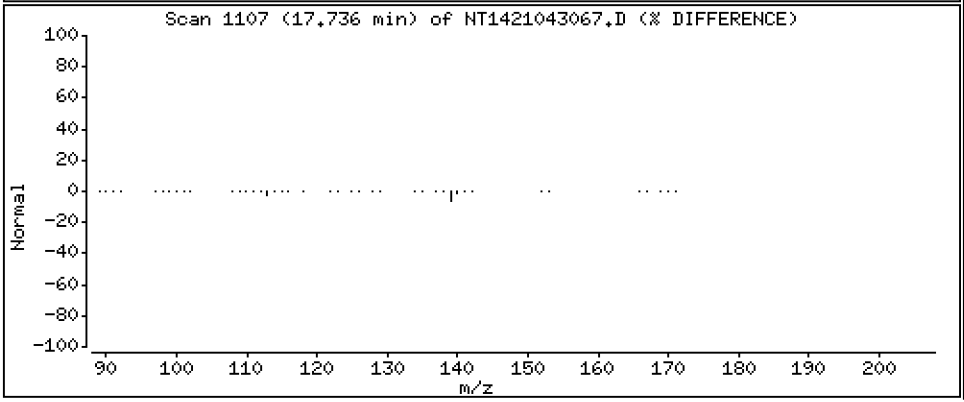



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Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

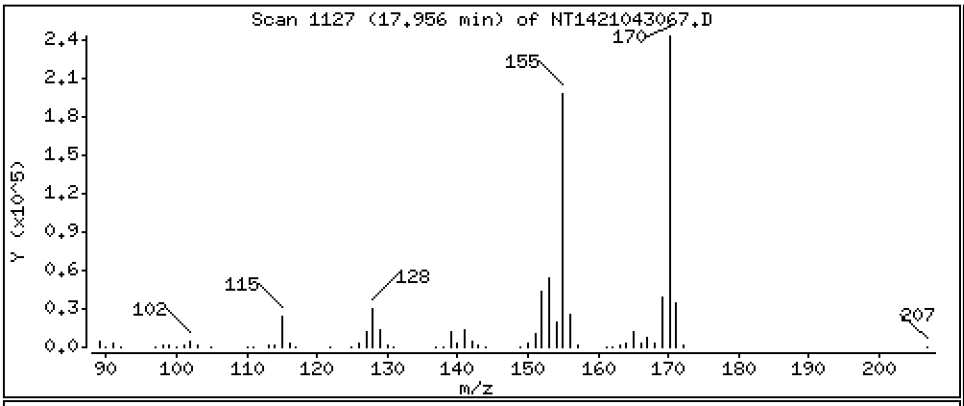
Operator: VTS

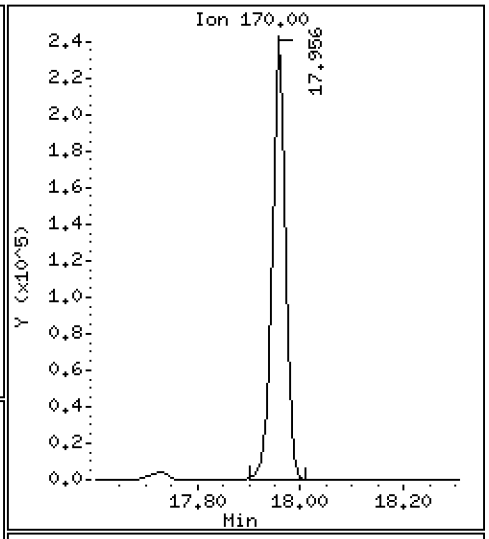
Column phase: Rxi-17Sil MS

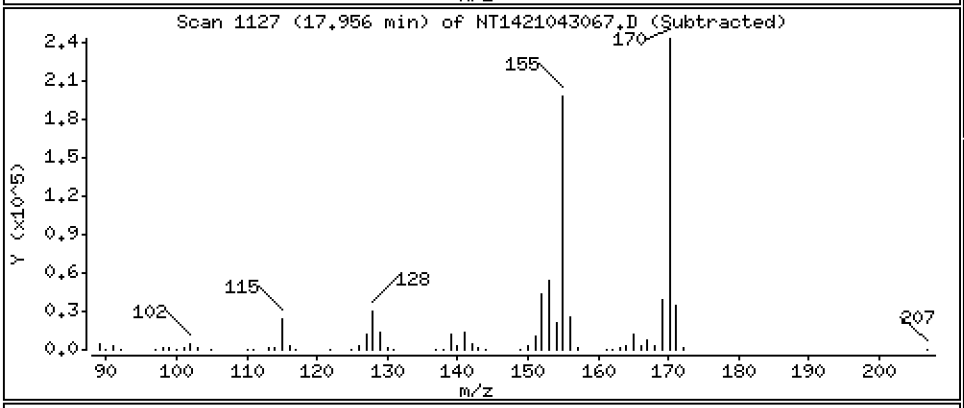
Column diameter: 0.25

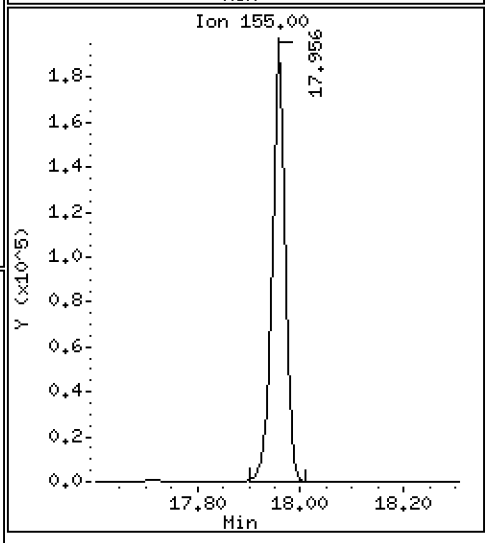
24 1,6,7-Trimethylnaphthalene

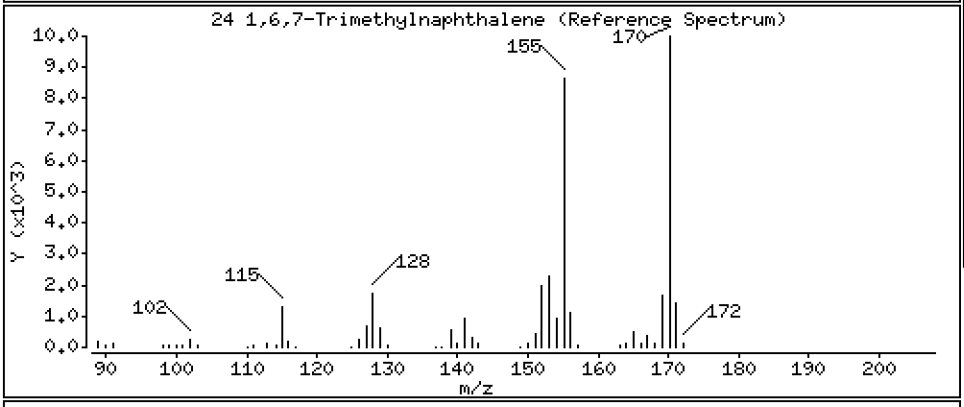
Concentration: 3.070 ug/mL

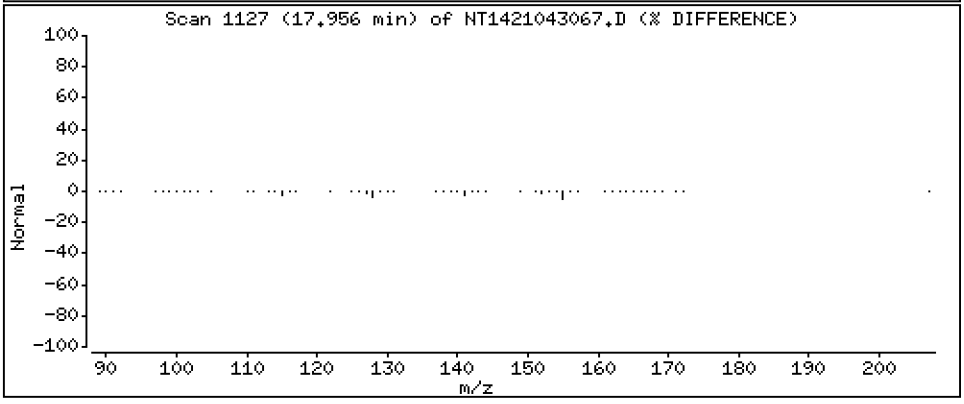


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Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

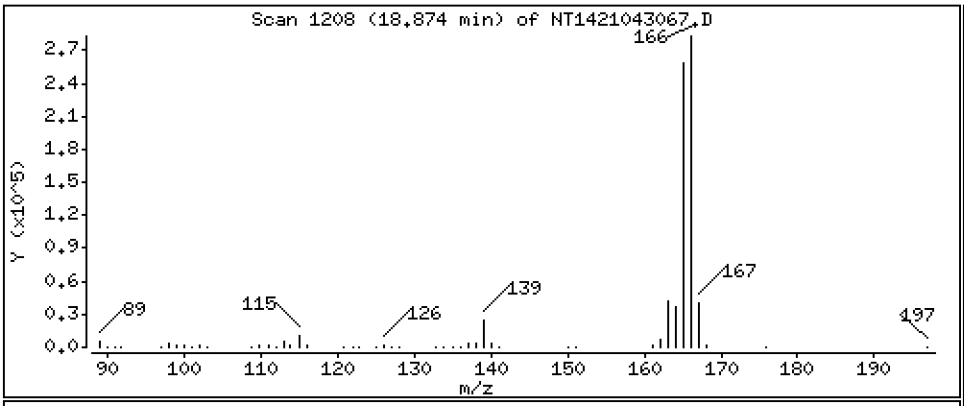
Operator: VTS

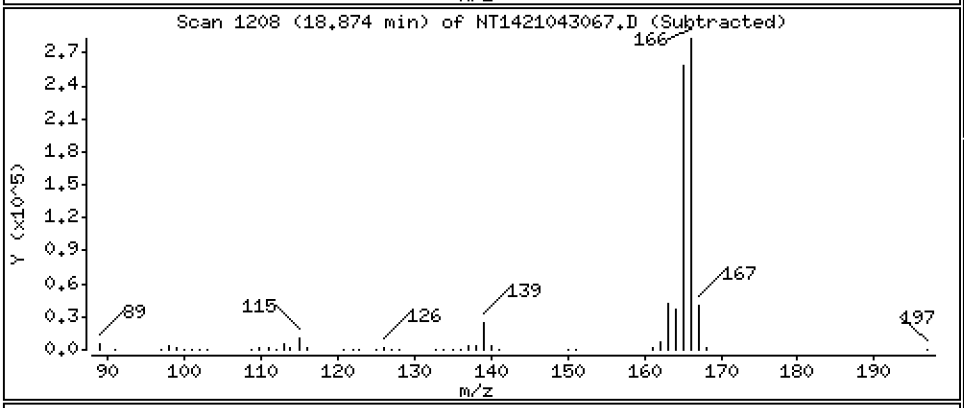
Column phase: Rxi-17Sil MS

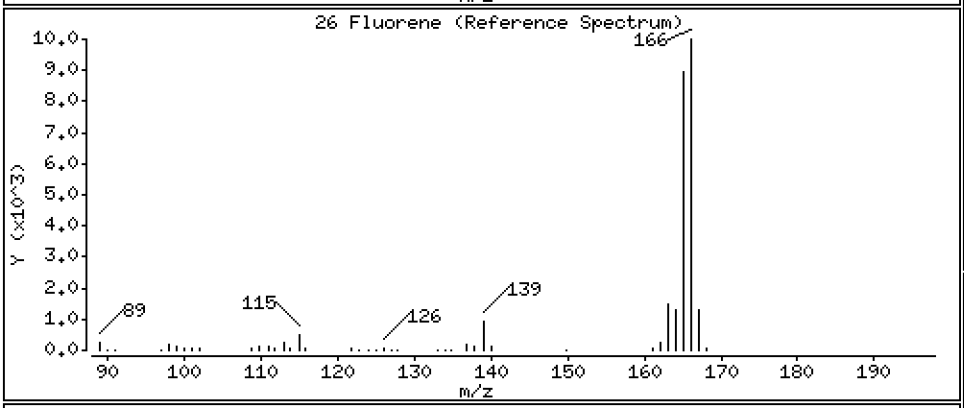
Column diameter: 0.25

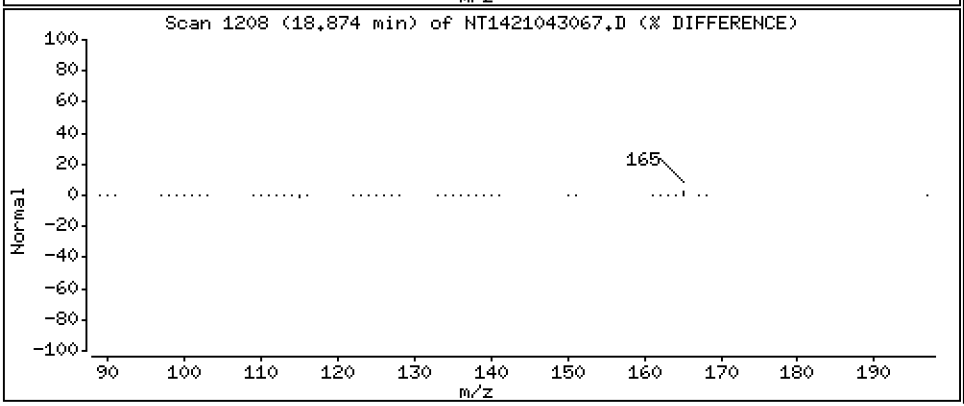
26 Fluorene

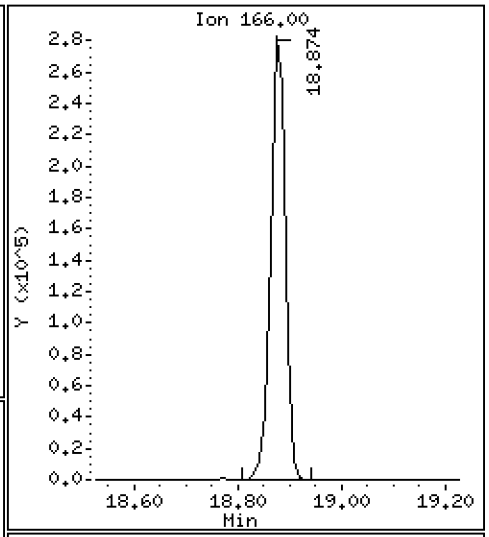
Concentration: 2.931 ug/mL

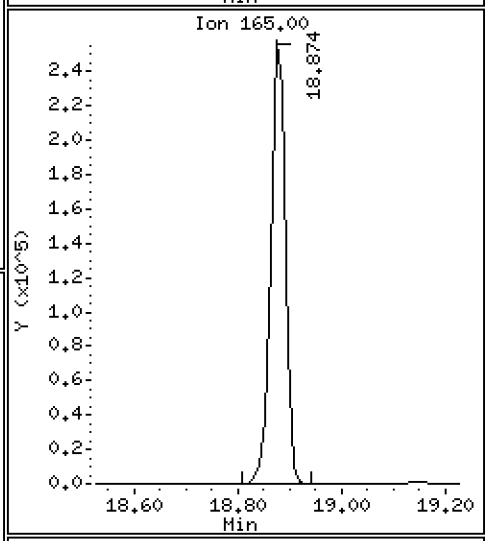


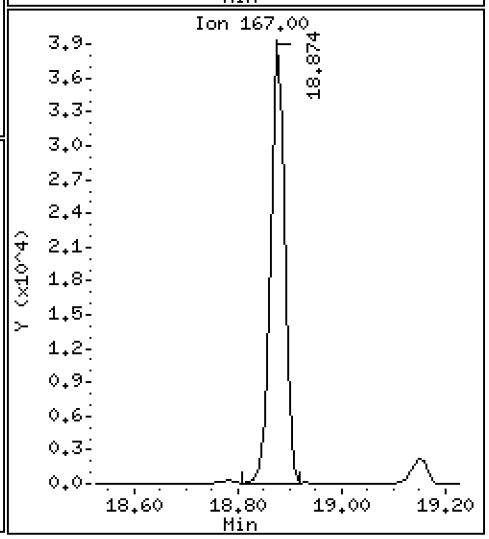



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Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

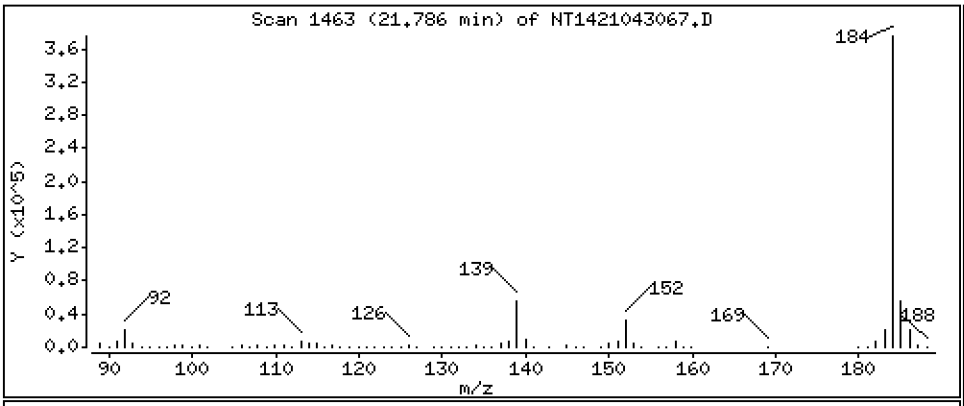
Operator: VTS

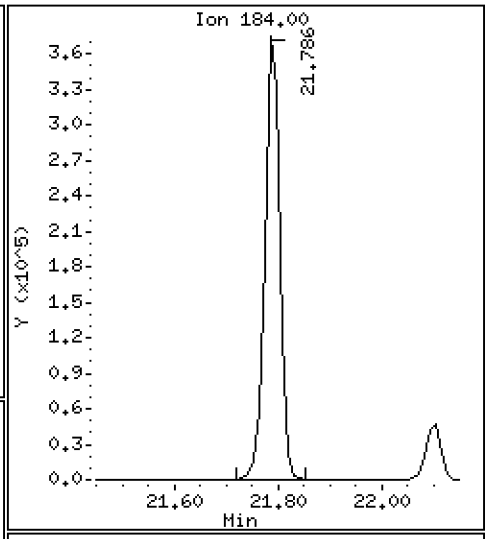
Column phase: Rxi-17Sil MS

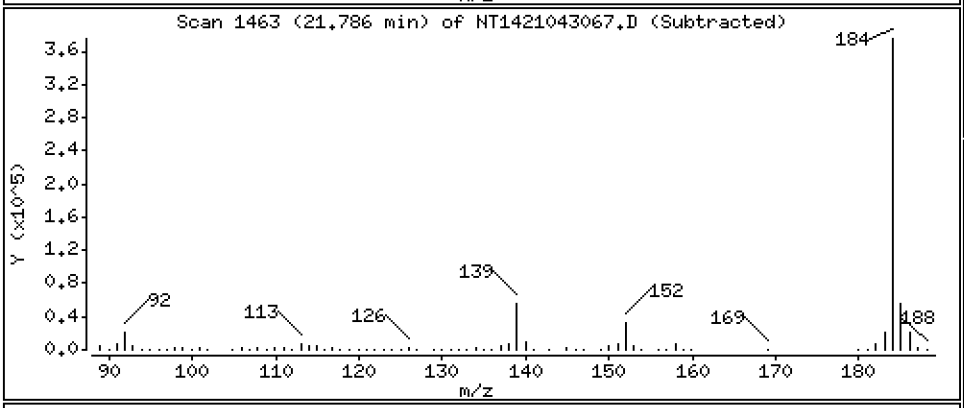
Column diameter: 0.25

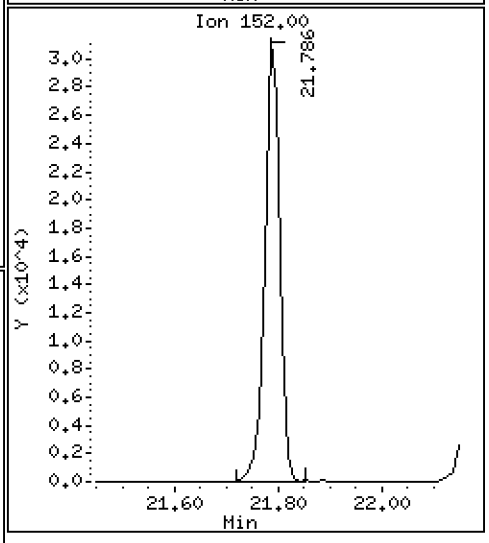
30 Dibenzothiophene

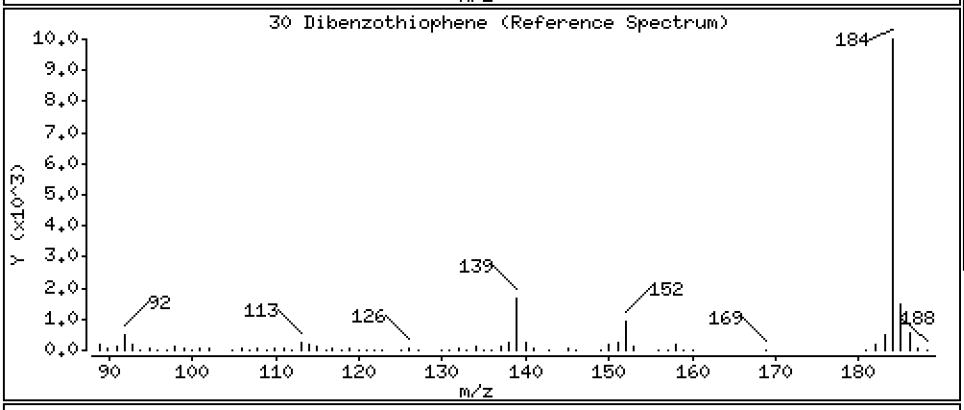
Concentration: 3.006 ug/mL

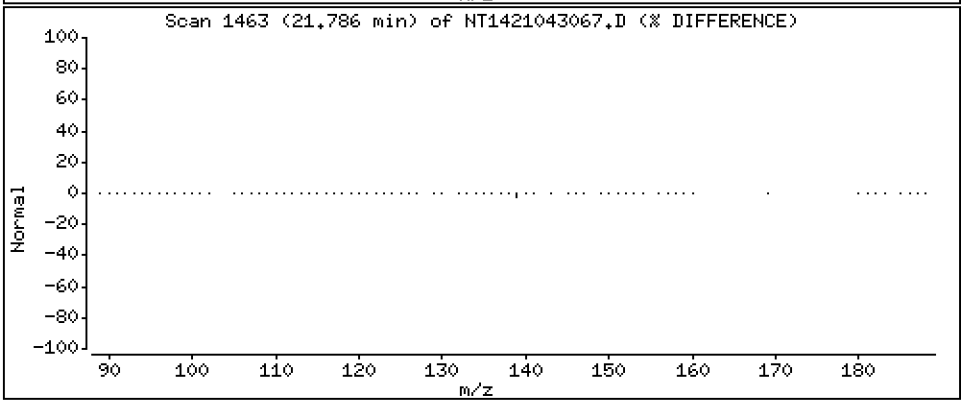


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Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

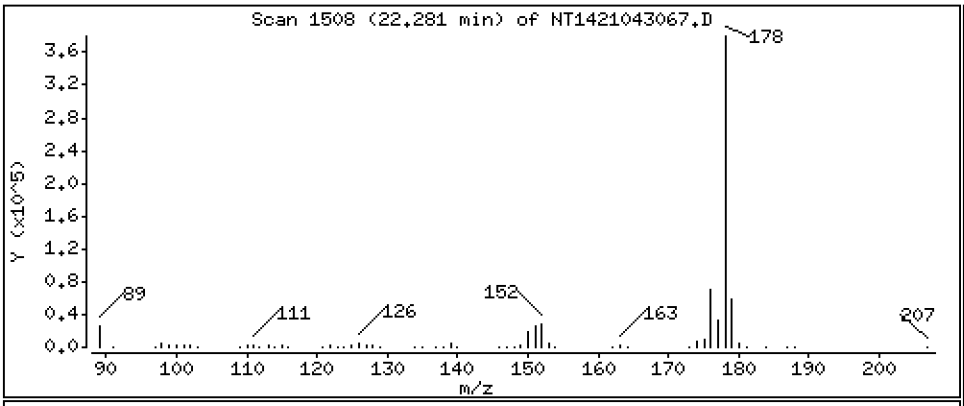
Operator: VTS

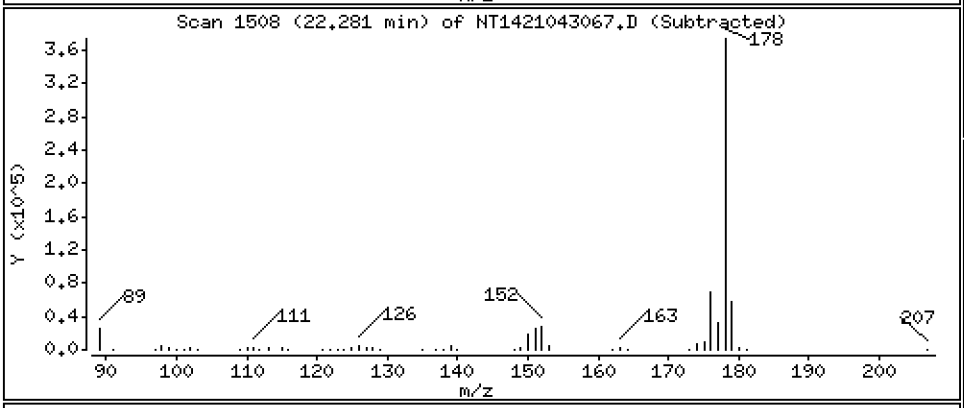
Column phase: Rxi-17Sil MS

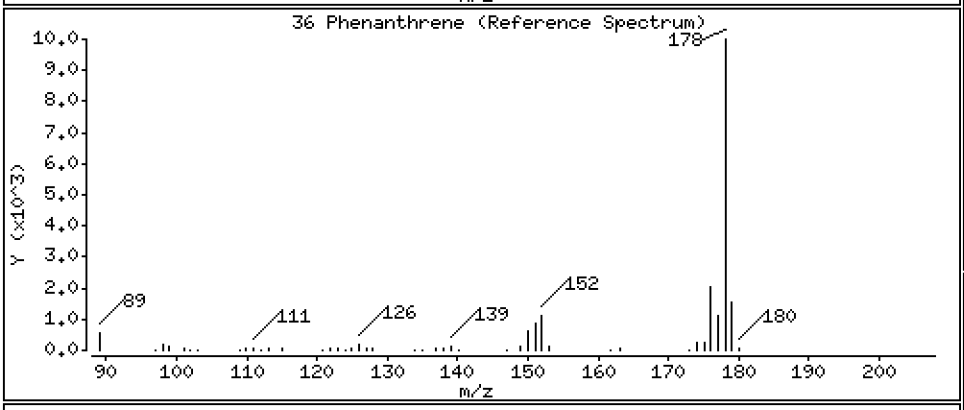
Column diameter: 0.25

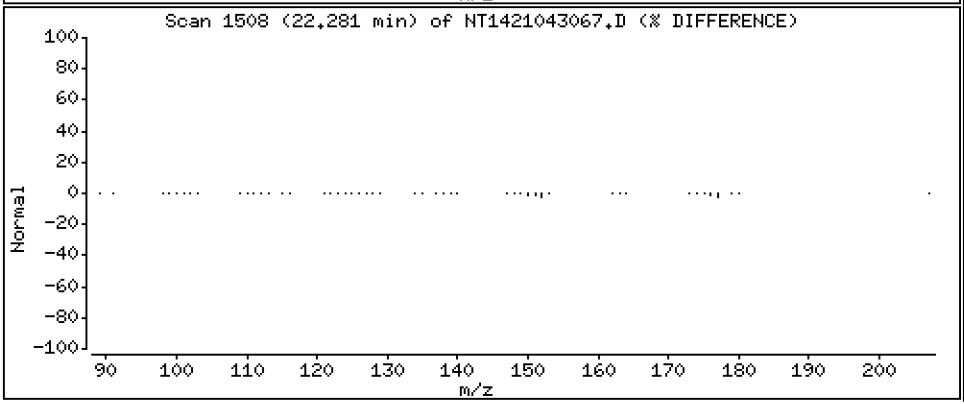
36 Phenanthrene

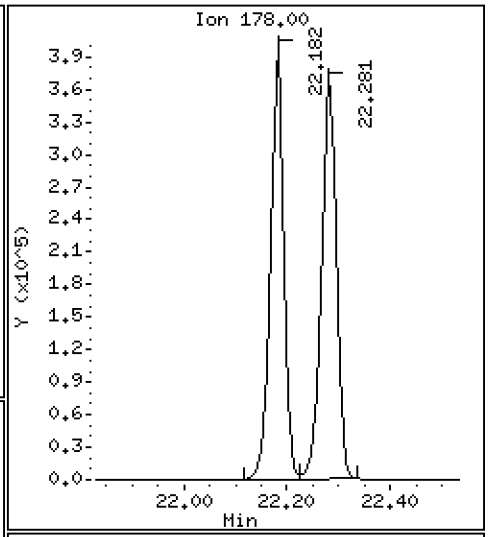
Concentration: 2.364 ug/mL

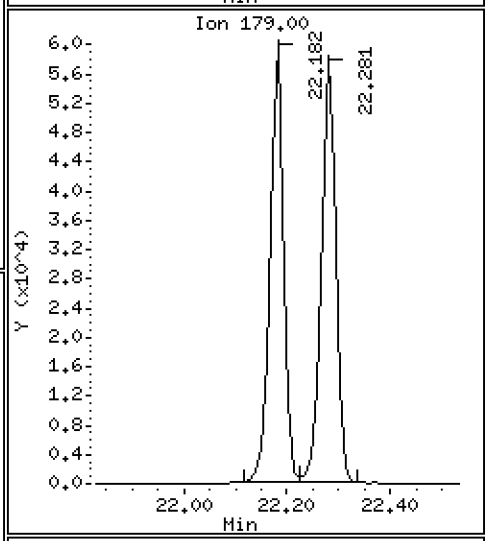


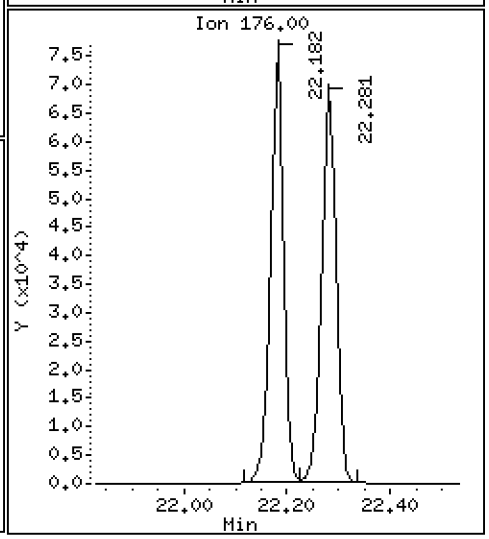



Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D

Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

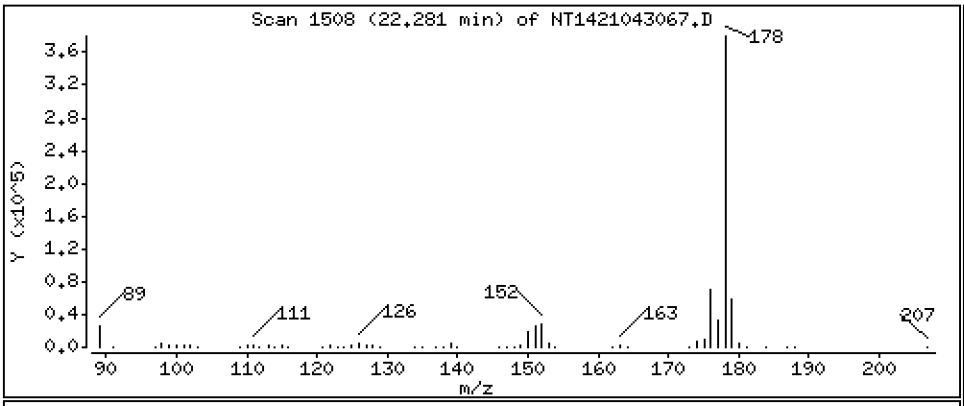
Operator: VTS

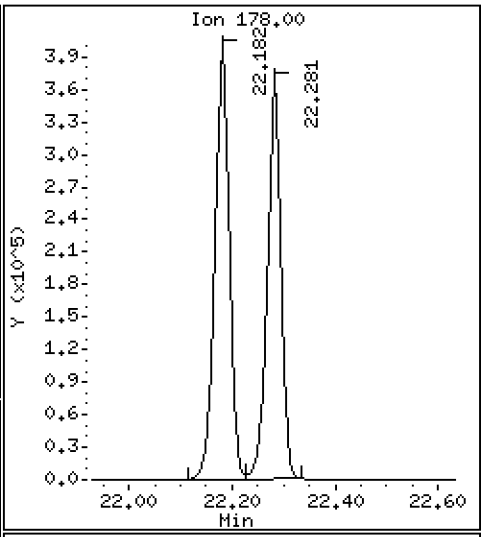
Column phase: Rxi-17Sil MS

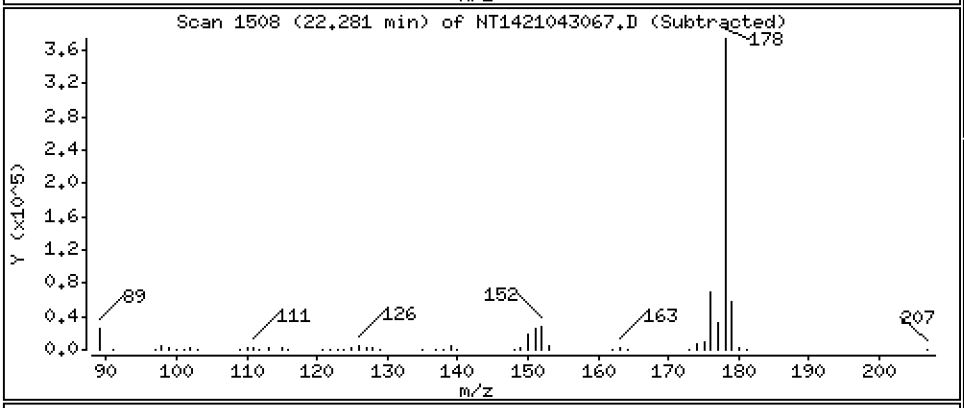
Column diameter: 0.25

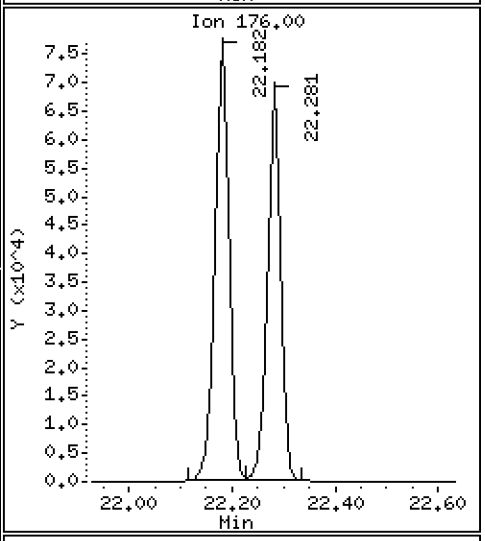
37 Anthracene

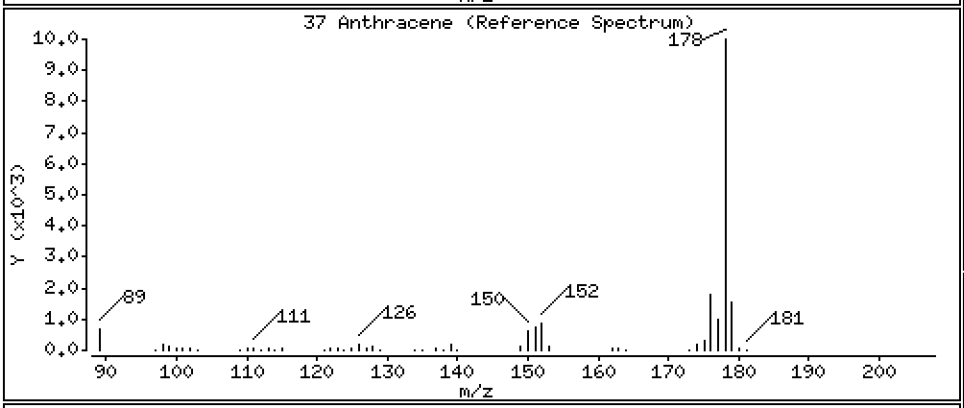
Concentration: 2.565 ug/mL

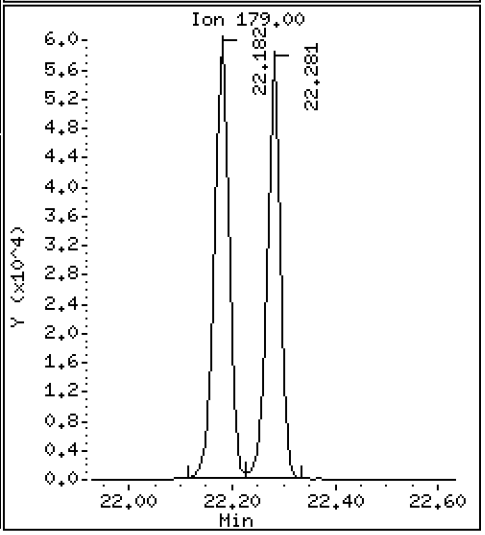


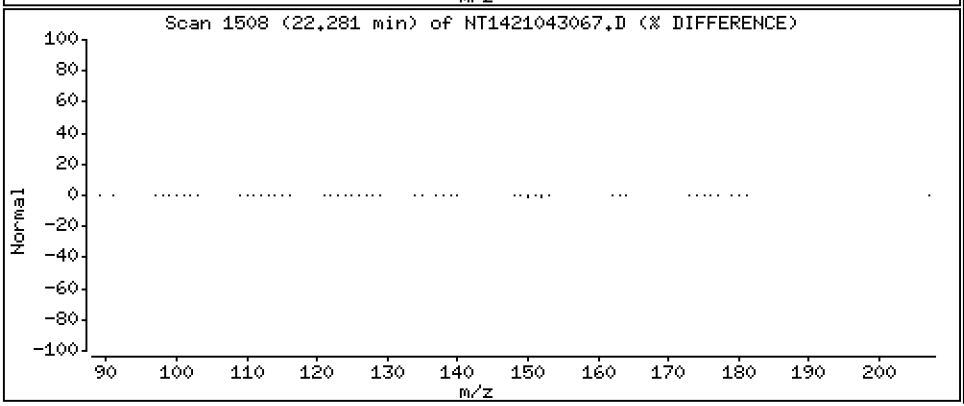



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Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

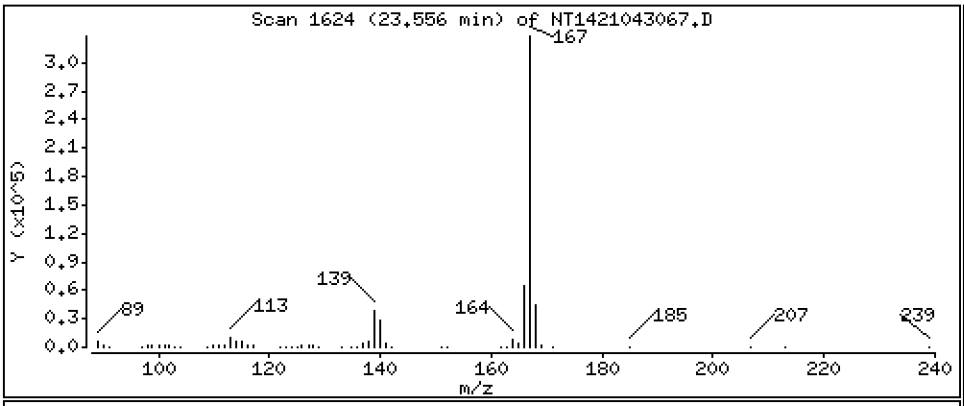
Operator: VTS

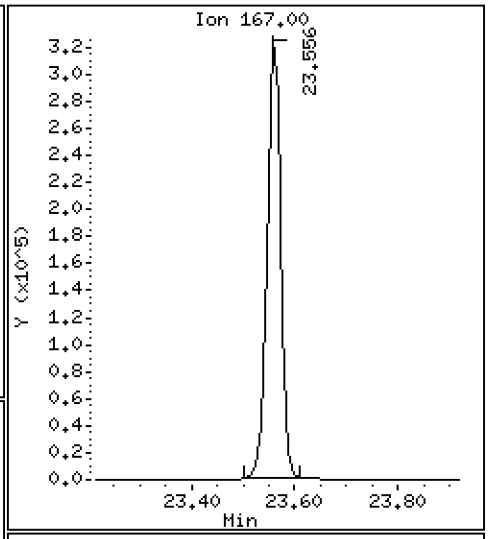
Column phase: Rxi-17Sil MS

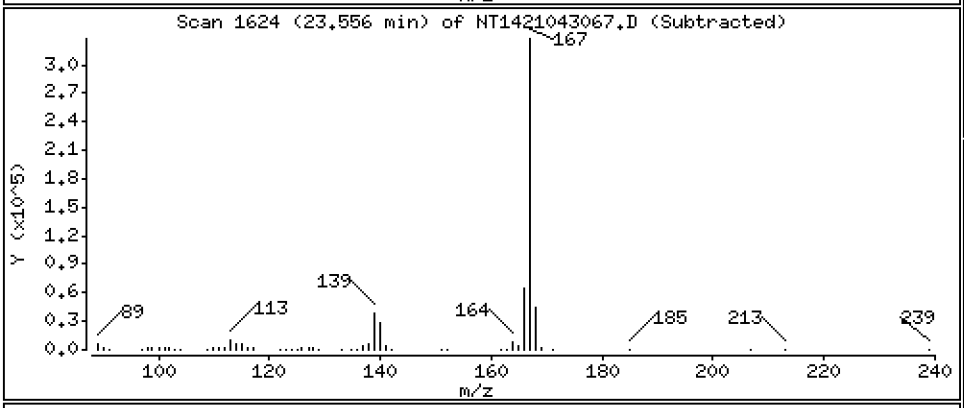
Column diameter: 0.25

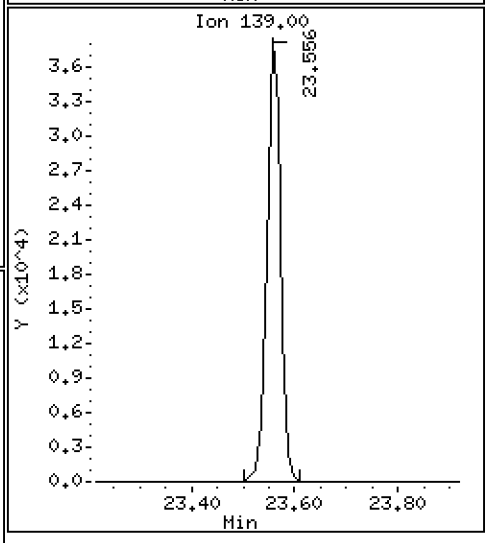
42 Carbazole

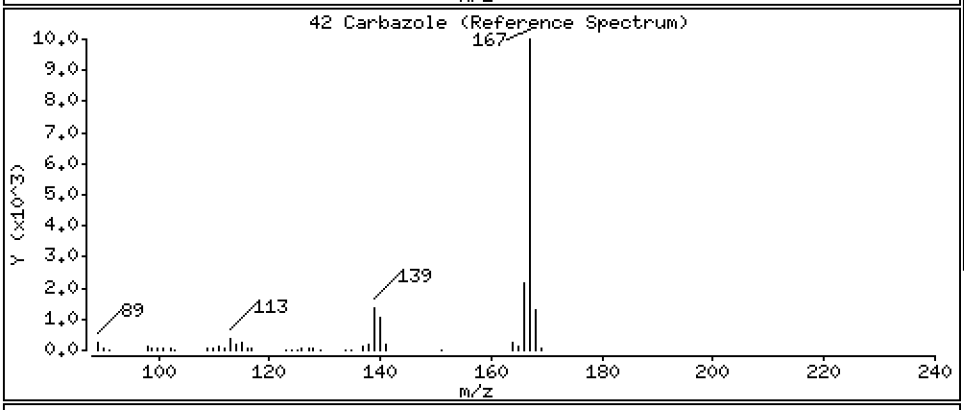
Concentration: 2.617 ug/mL

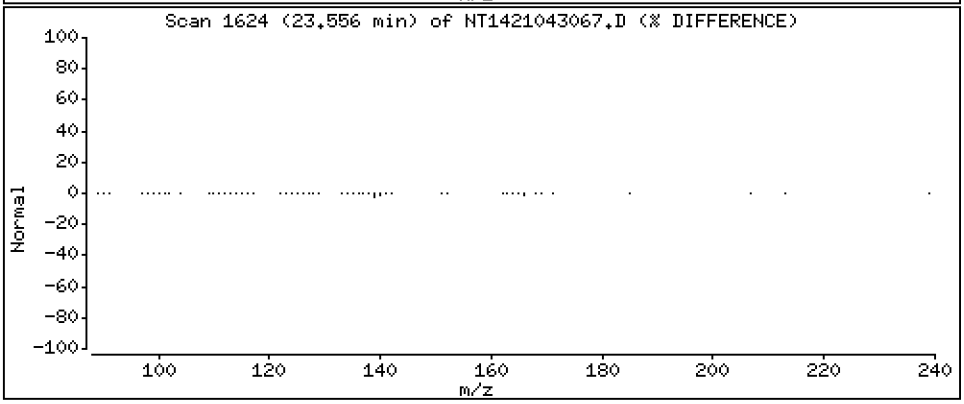


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D

Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

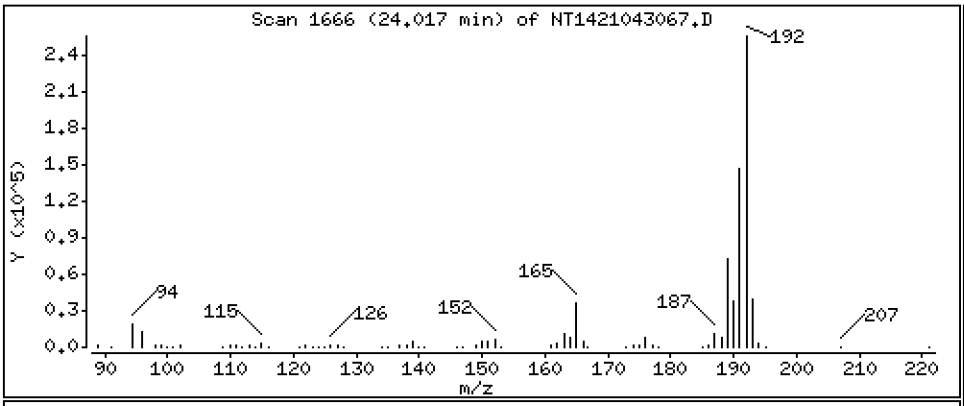
Operator: VTS

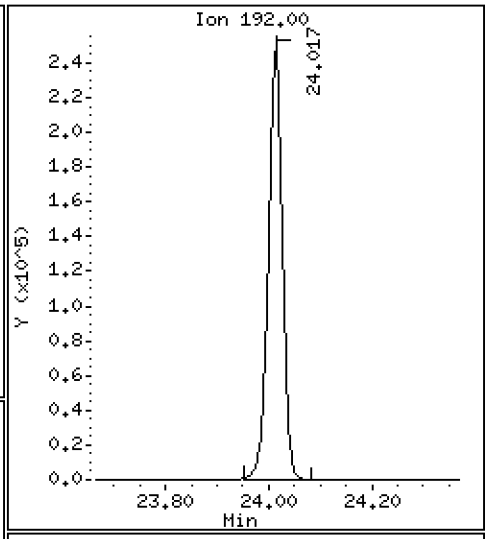
Column phase: Rxi-17Sil MS

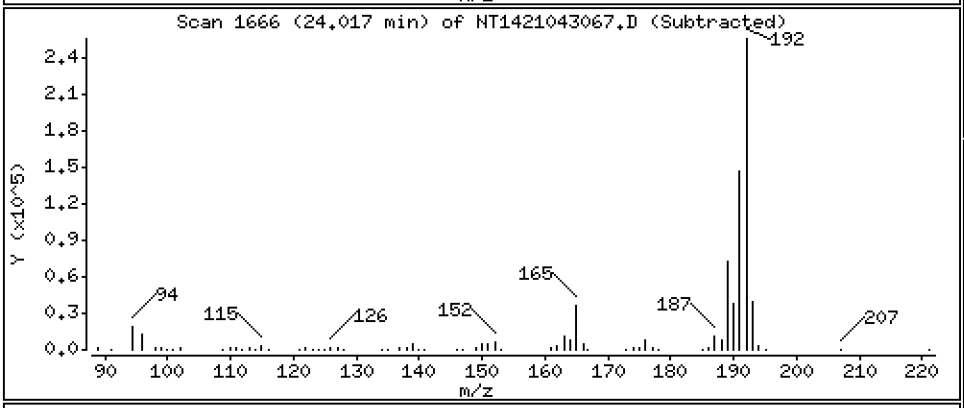
Column diameter: 0.25

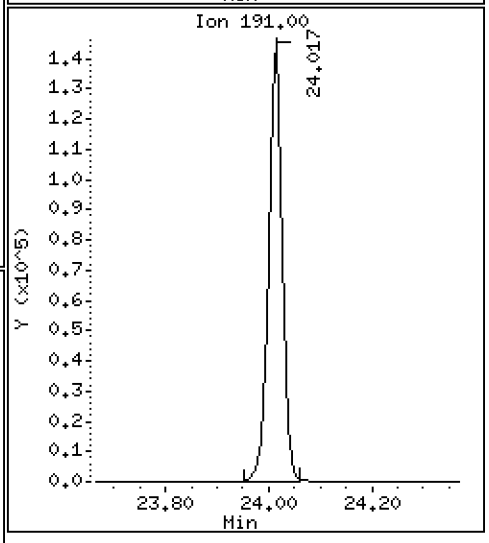
43 1-Methylphenanthrene

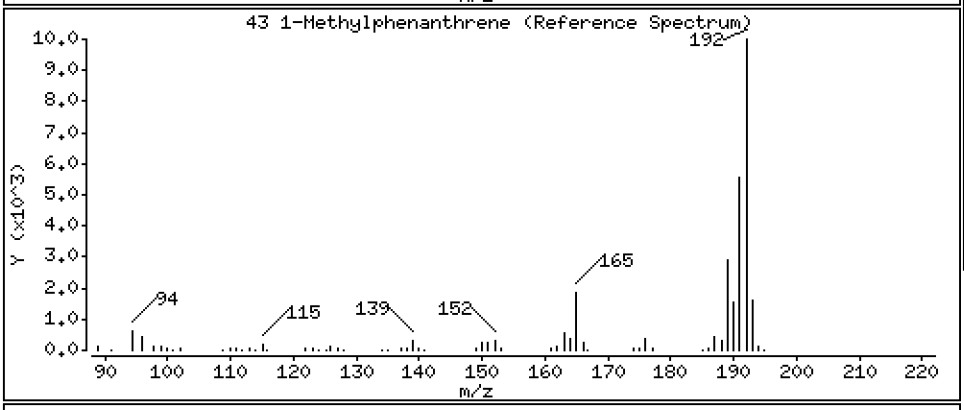
Concentration: 2.739 ug/mL

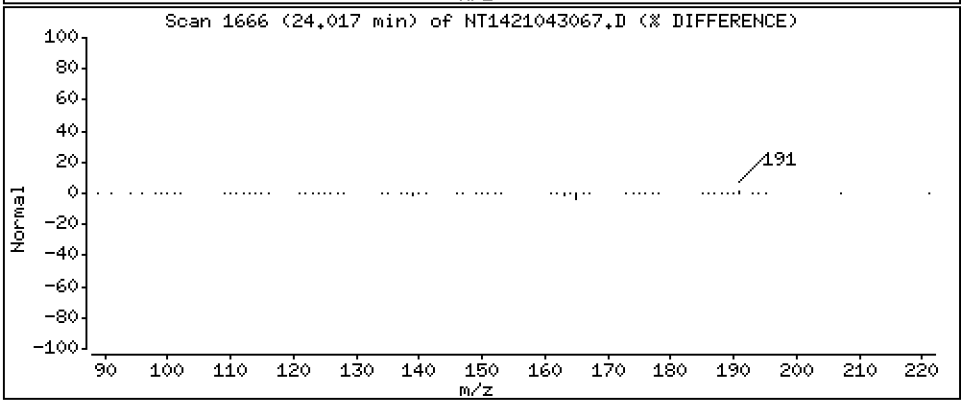


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D

Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

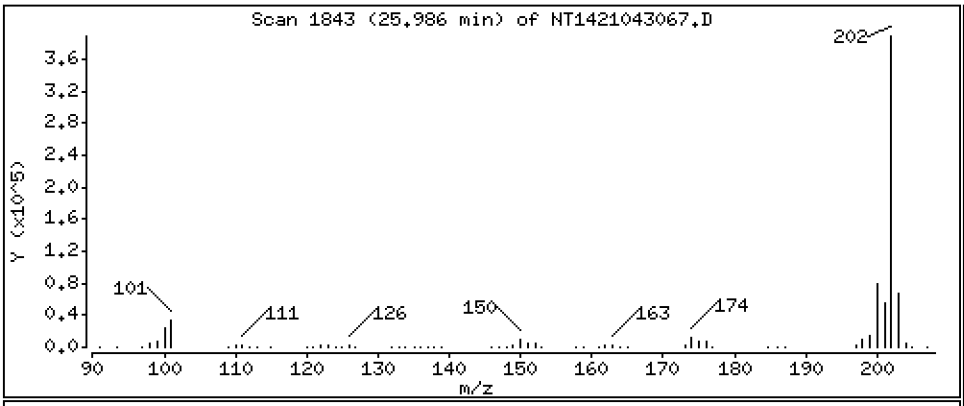
Operator: VTS

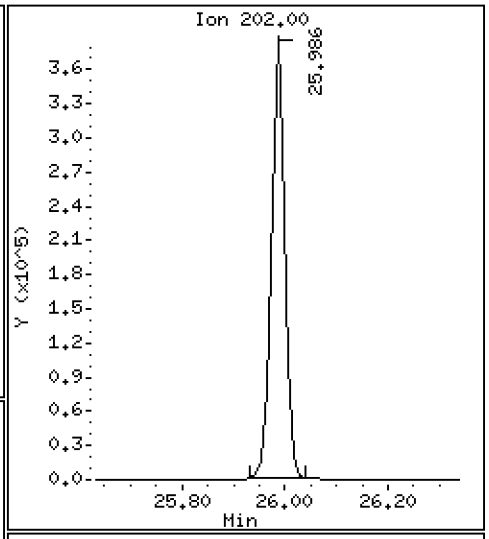
Column phase: Rxi-17Sil MS

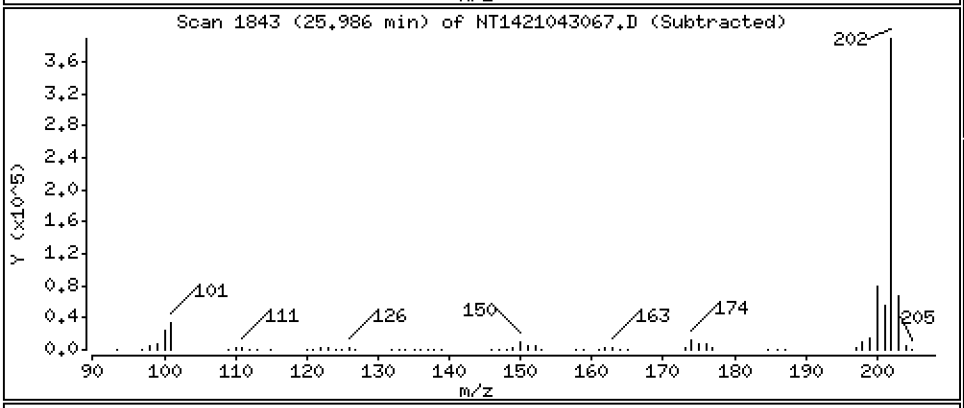
Column diameter: 0.25

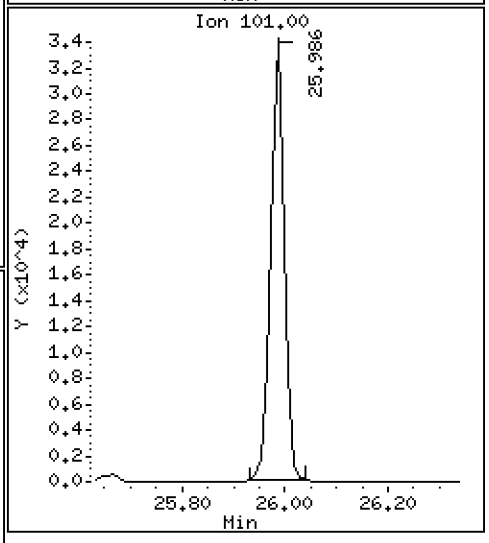
44 Fluoranthene

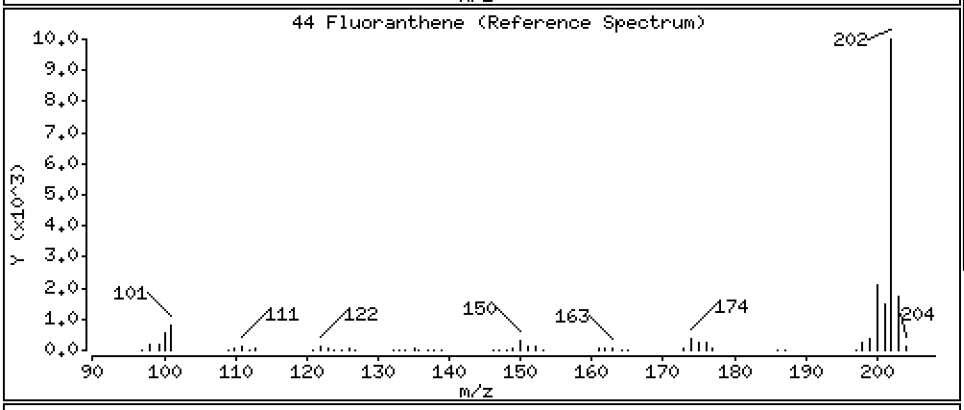
Concentration: 2.728 ug/mL

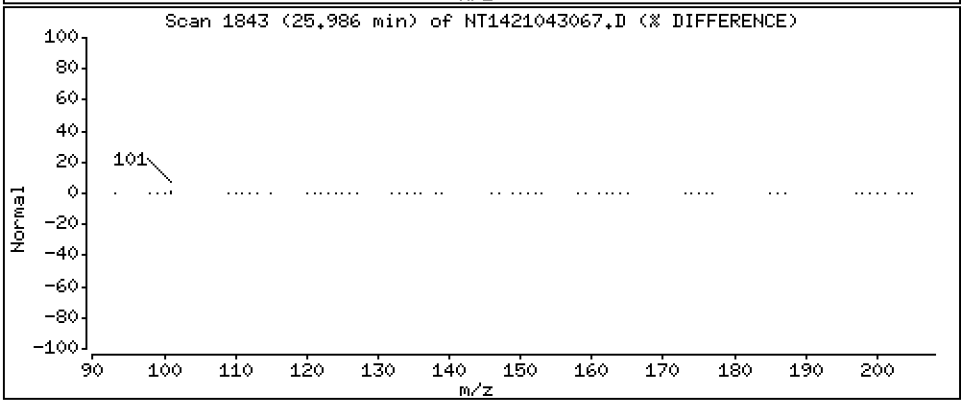


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D

Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

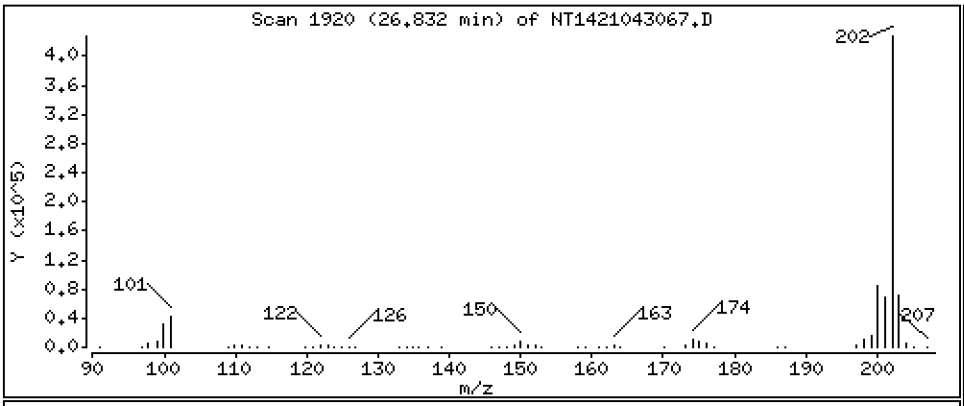
Operator: VTS

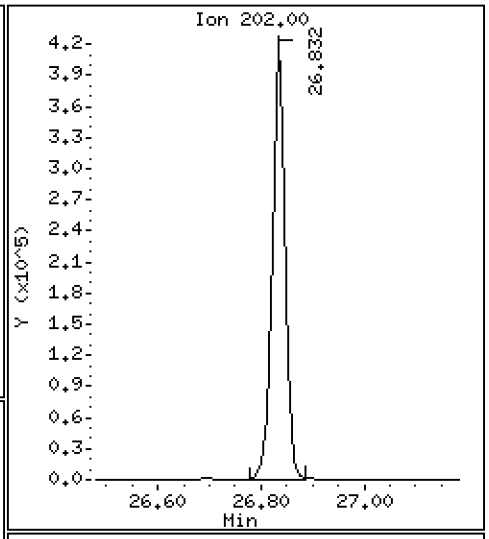
Column phase: Rxi-17Sil MS

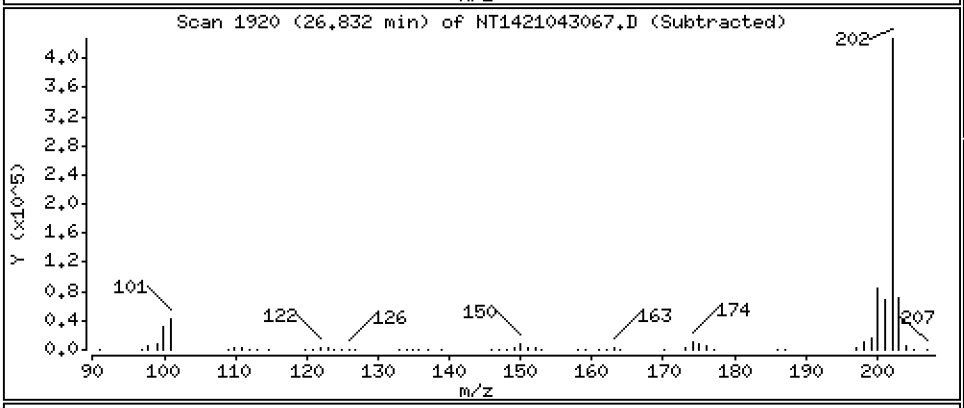
Column diameter: 0.25

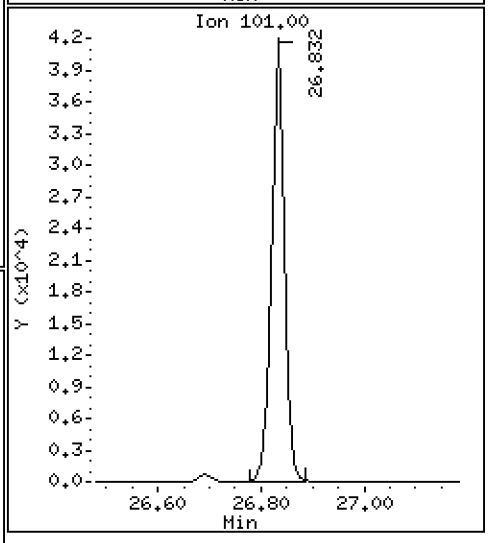
46 Pyrene

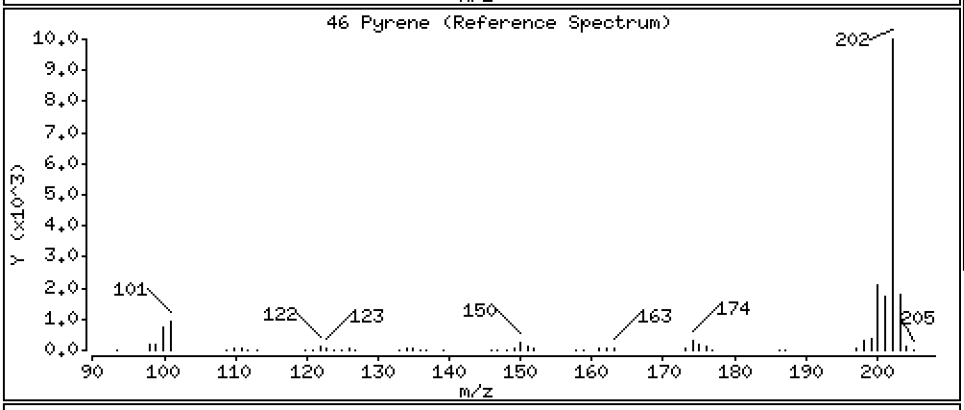
Concentration: 2.766 ug/mL

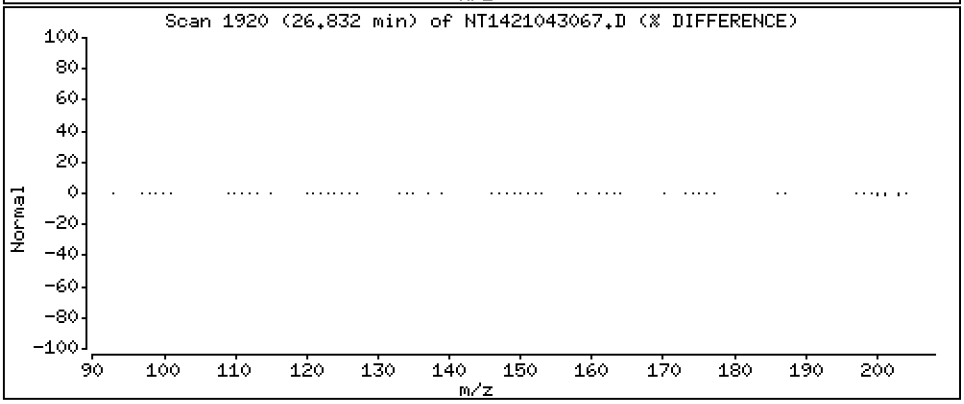


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Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

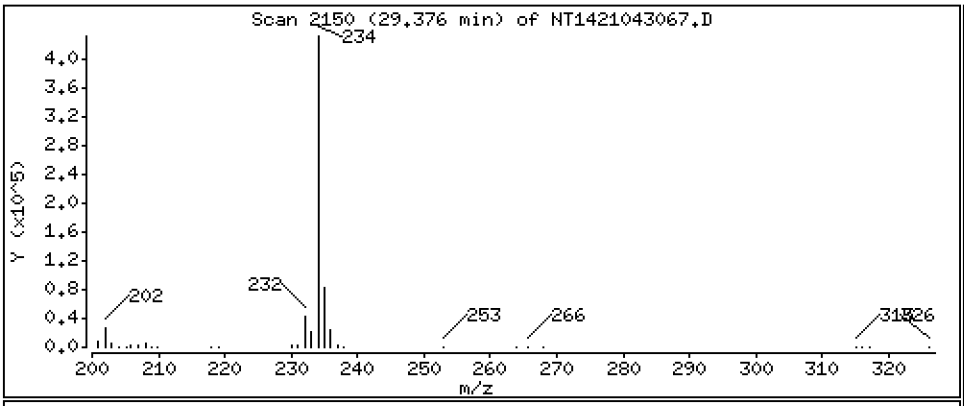
Operator: VTS

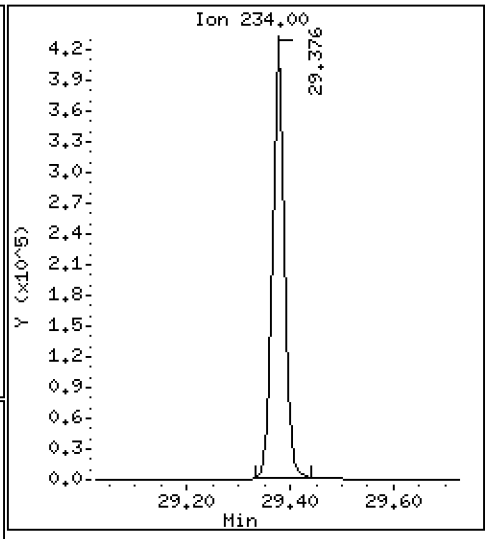
Column phase: Rxi-17Sil MS

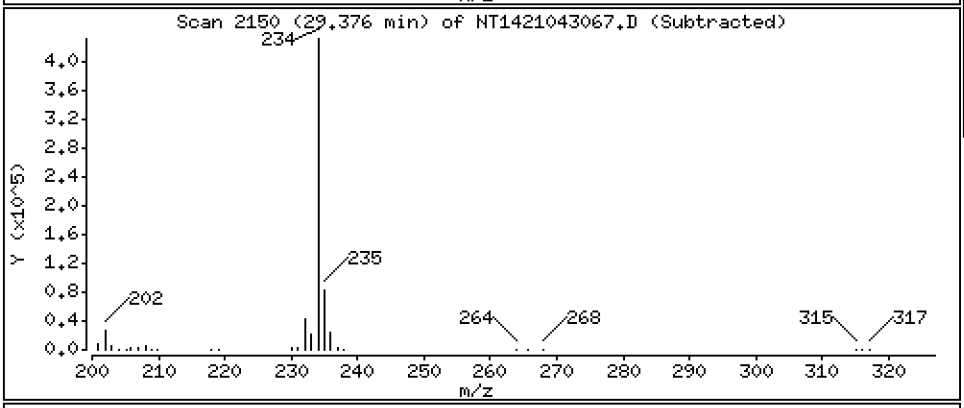
Column diameter: 0.25

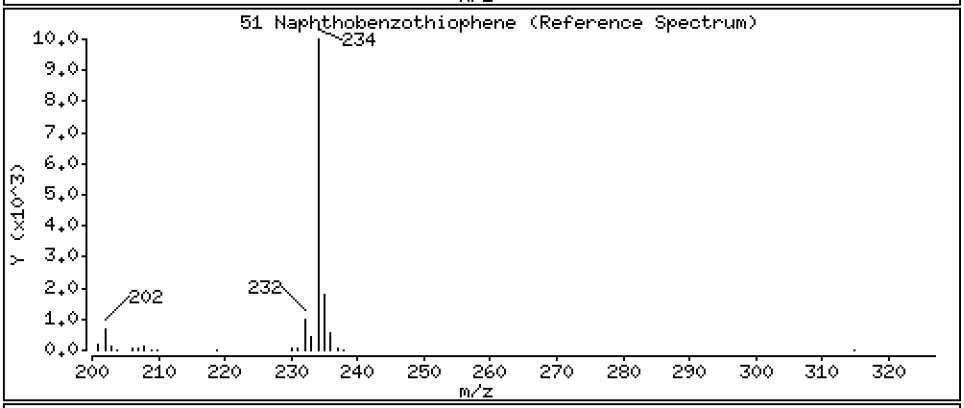
51 Naphthobenzothiophene

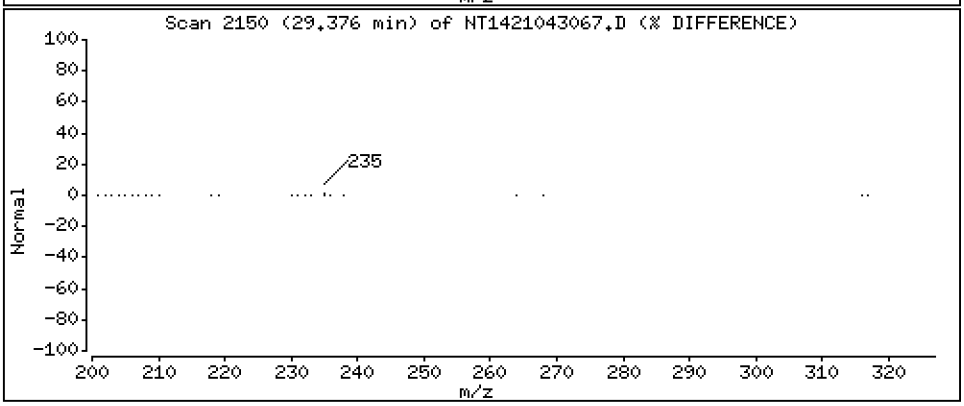
Concentration: 2.694 ug/mL



Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D

Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

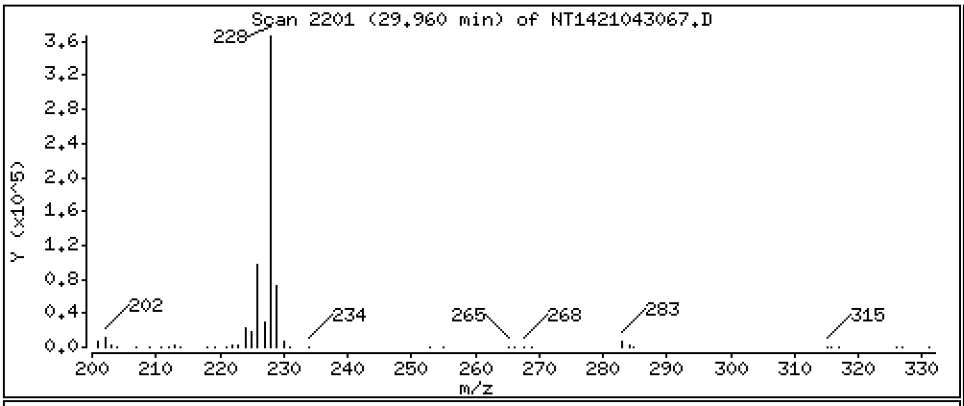
Operator: VTS

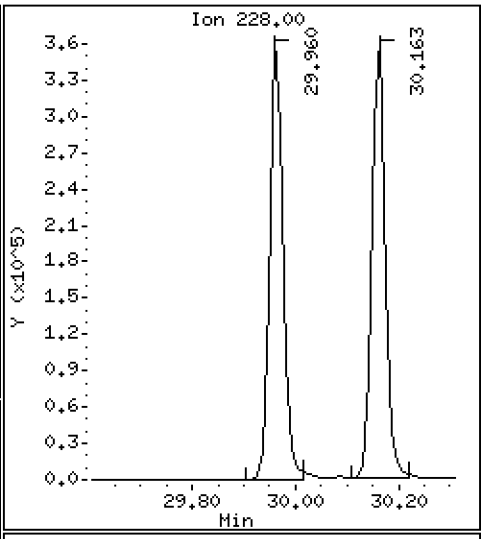
Column phase: Rxi-17Sil MS

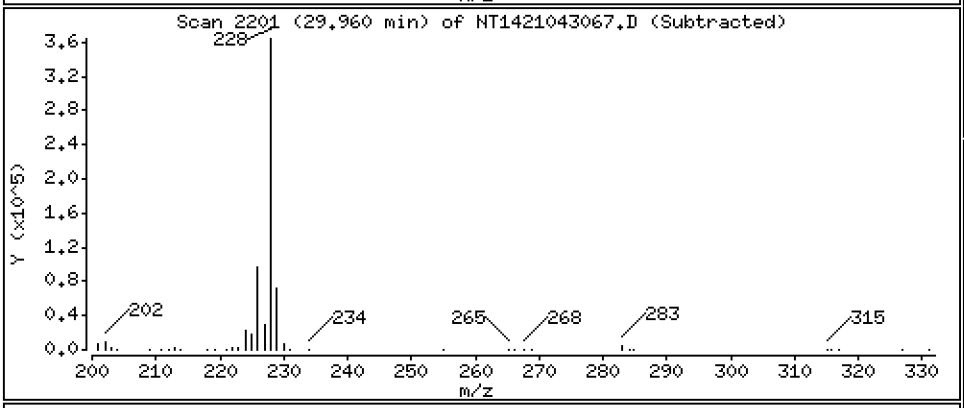
Column diameter: 0.25

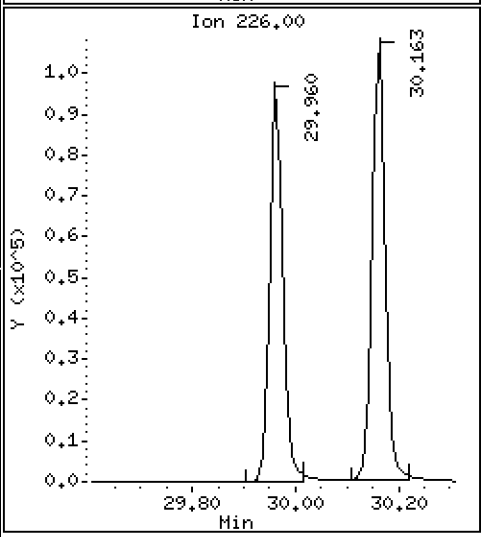
55 Benzo(a)anthracene

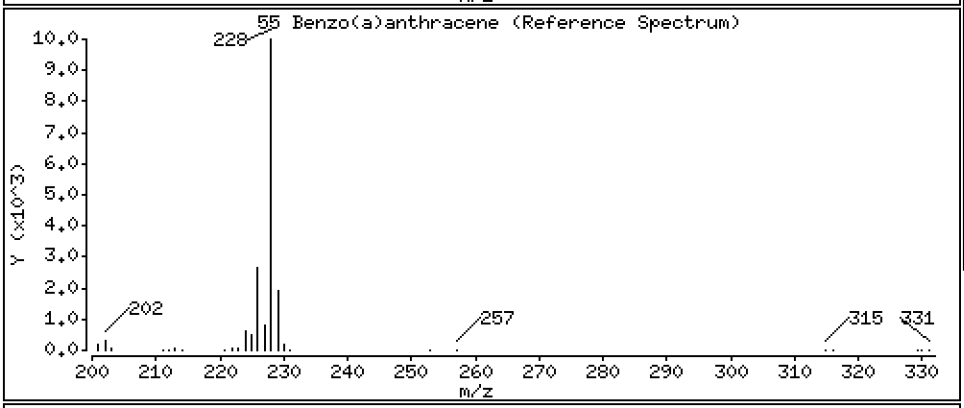
Concentration: 2.602 ug/mL

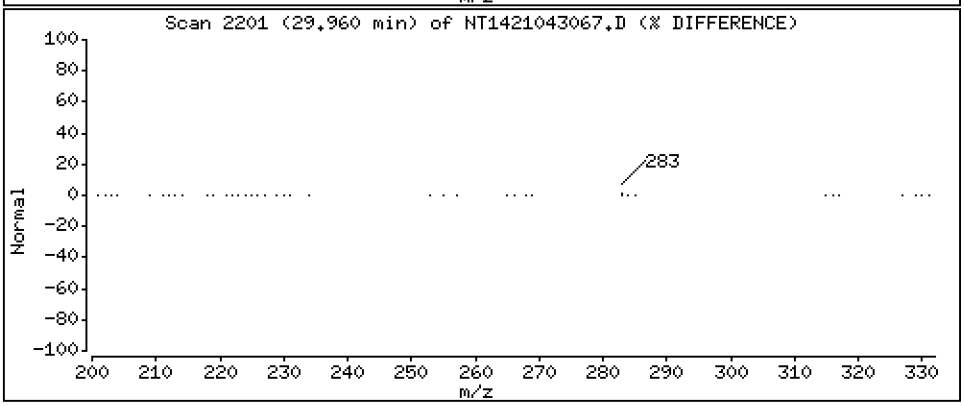


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D

Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

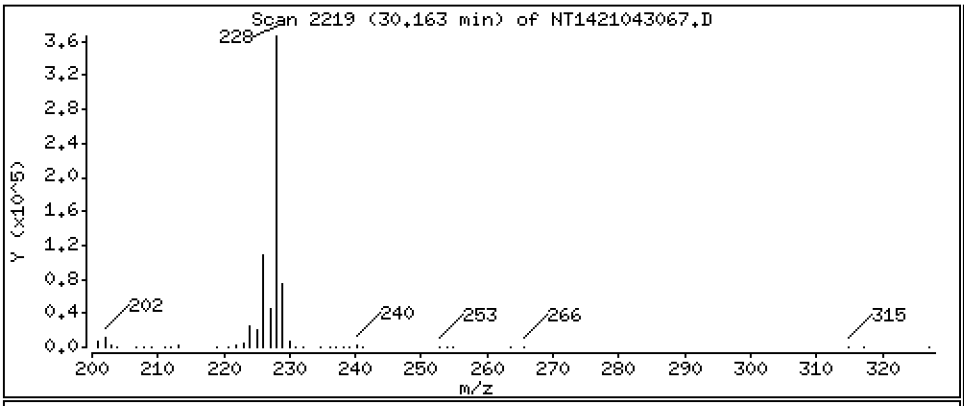
Operator: VTS

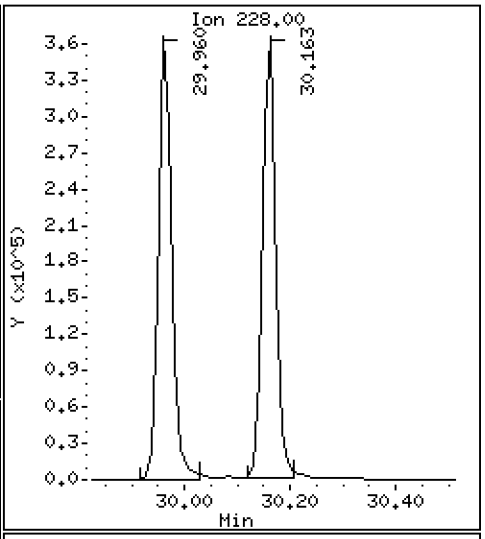
Column phase: Rxi-17Sil MS

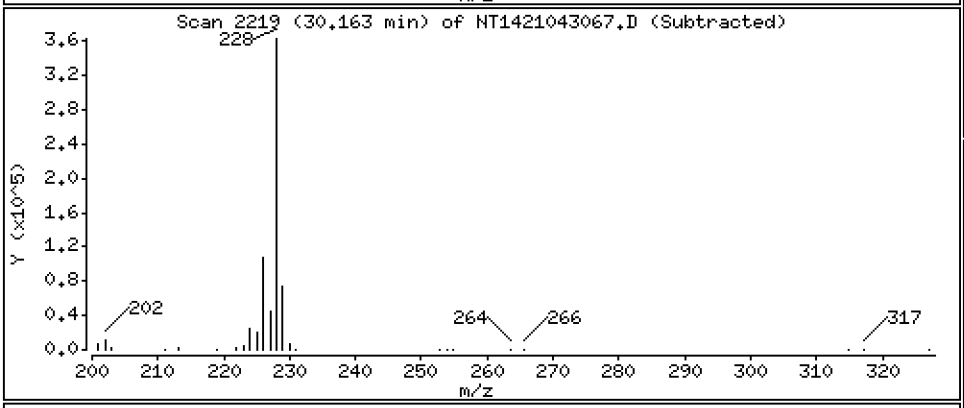
Column diameter: 0.25

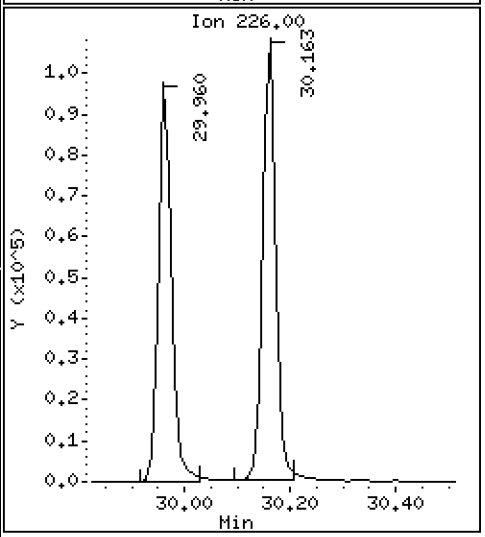
57 Chrysene

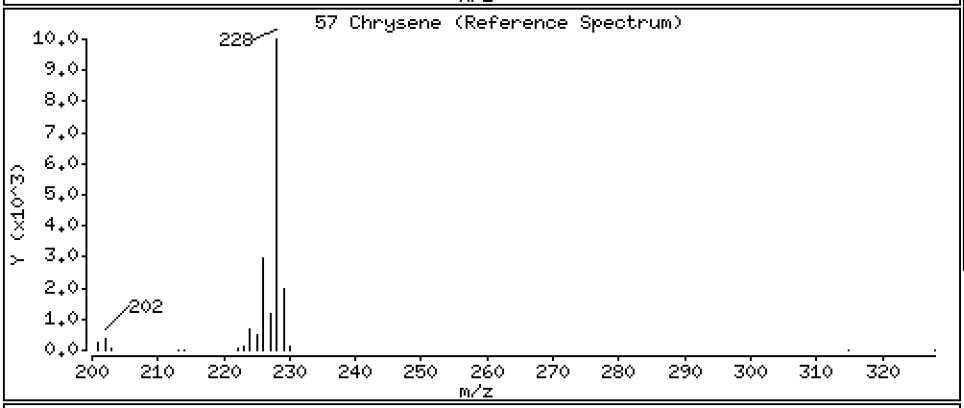
Concentration: 2.521 ug/mL

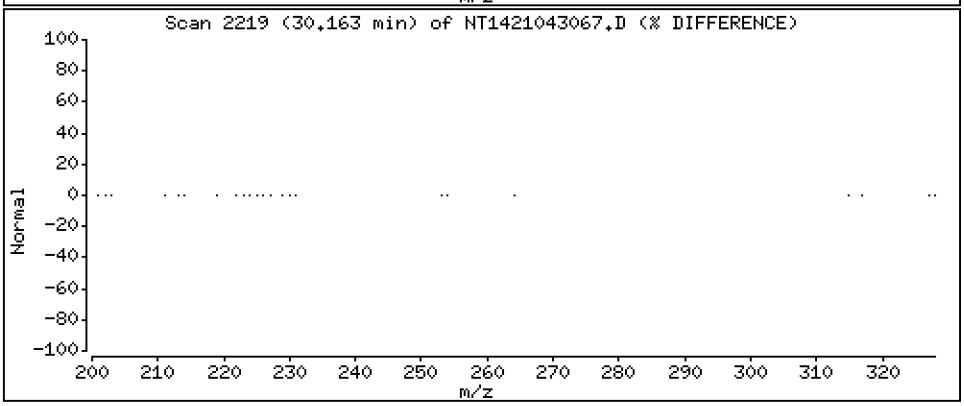


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D

Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

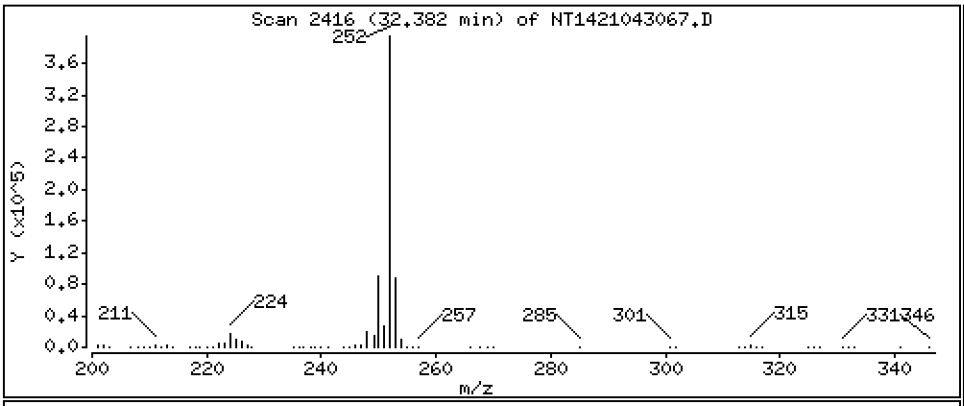
Operator: VTS

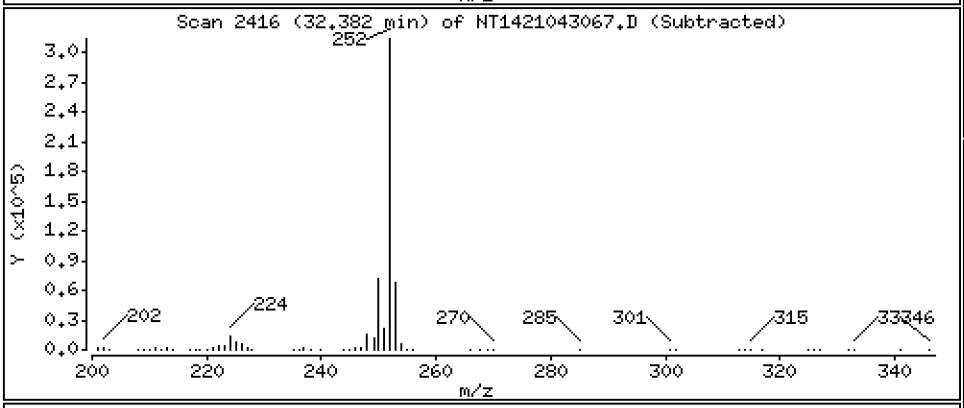
Column phase: Rxi-17Sil MS

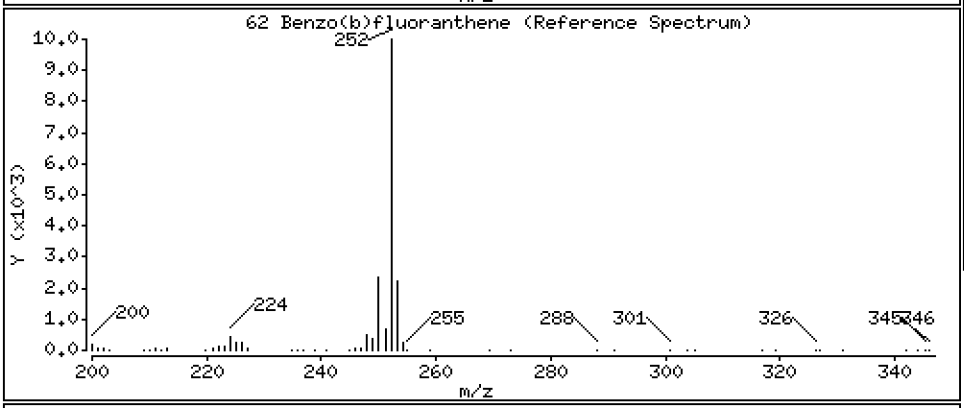
Column diameter: 0.25

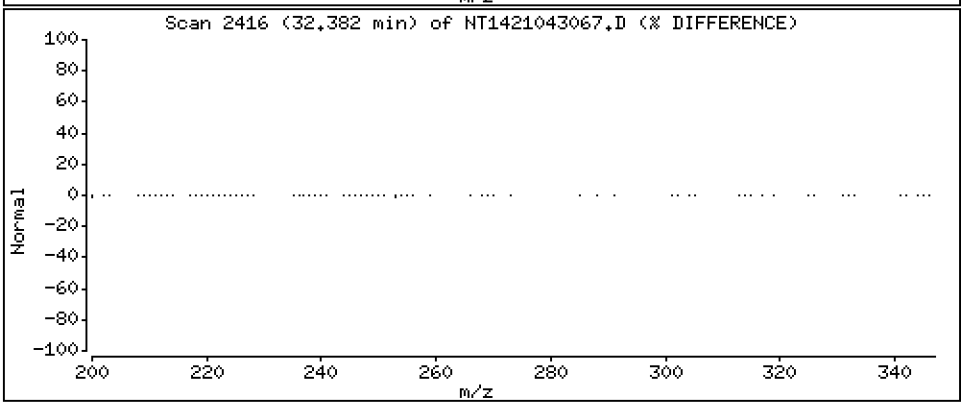
62 Benzo(b)fluoranthene

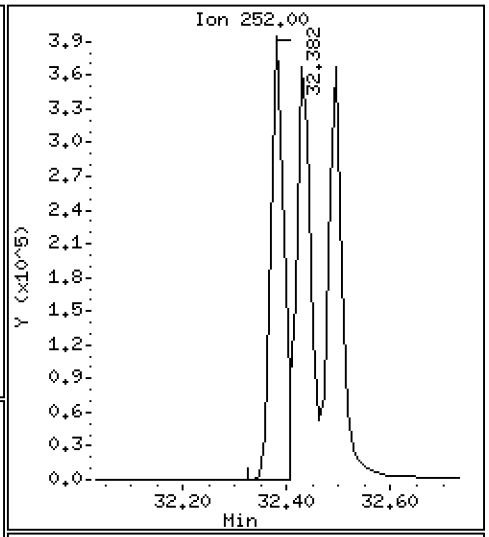
Concentration: 2.771 ug/mL

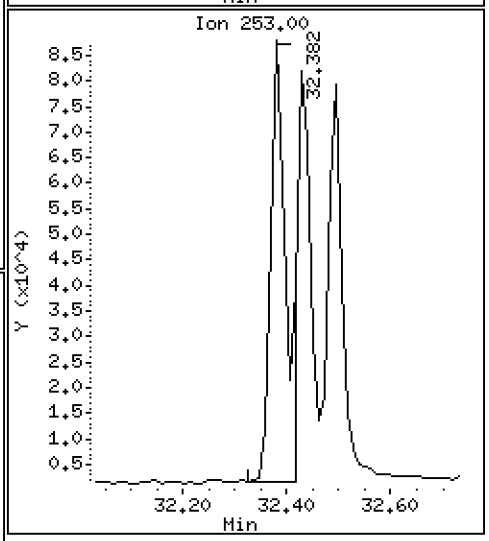


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D

Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

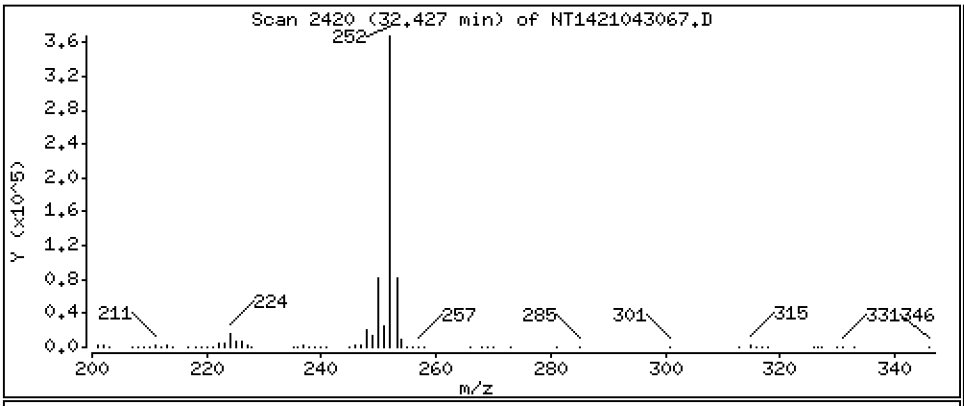
Operator: VTS

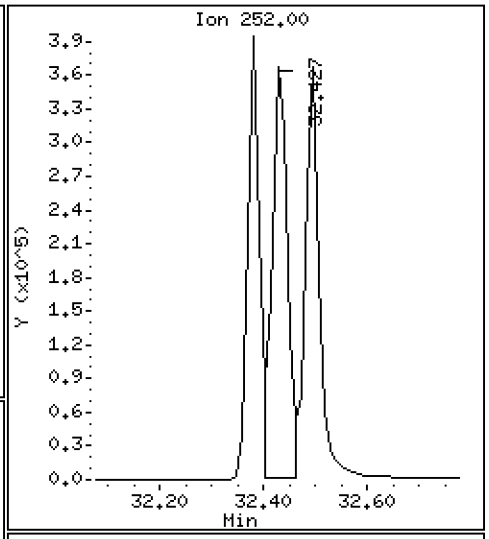
Column phase: Rxi-17Sil MS

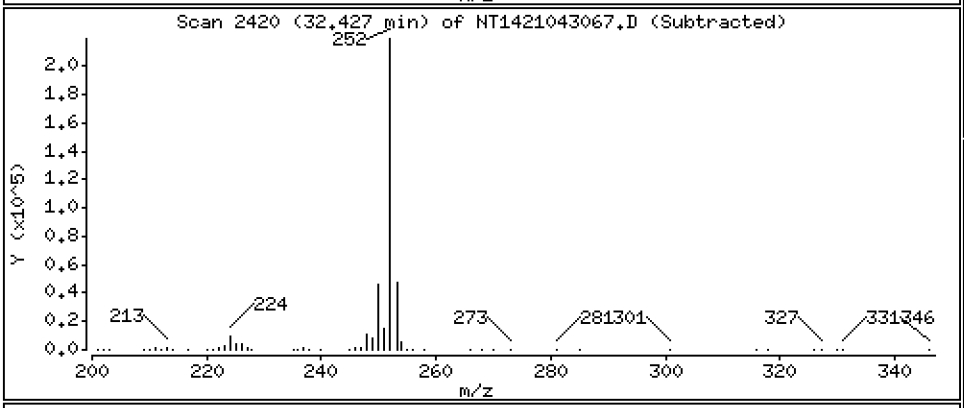
Column diameter: 0.25

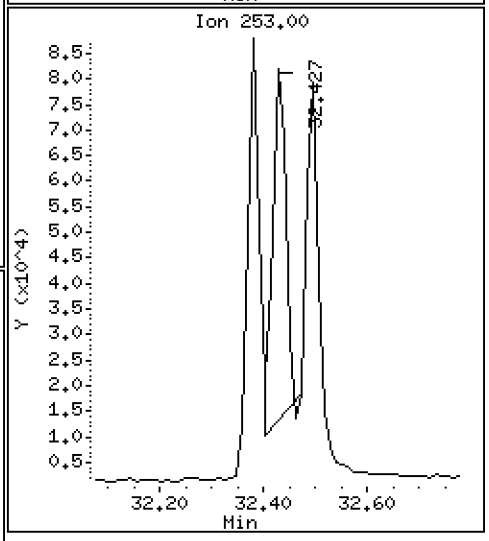
63 Benzo(k)fluoranthene

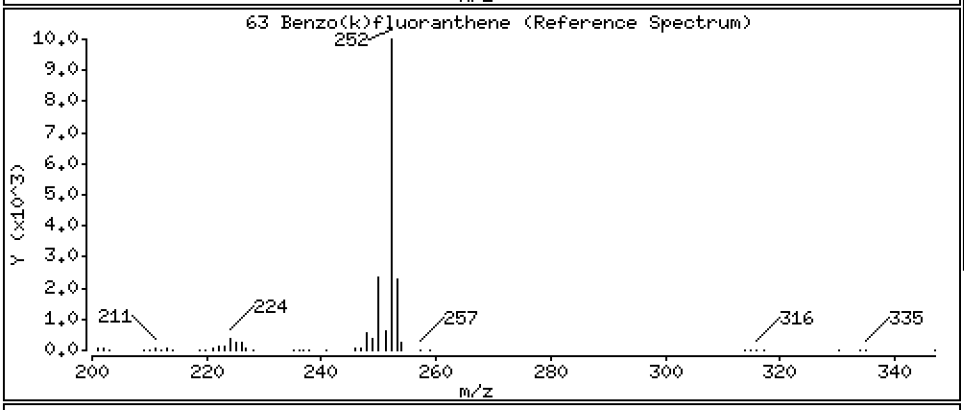
Concentration: 2.591 ug/mL

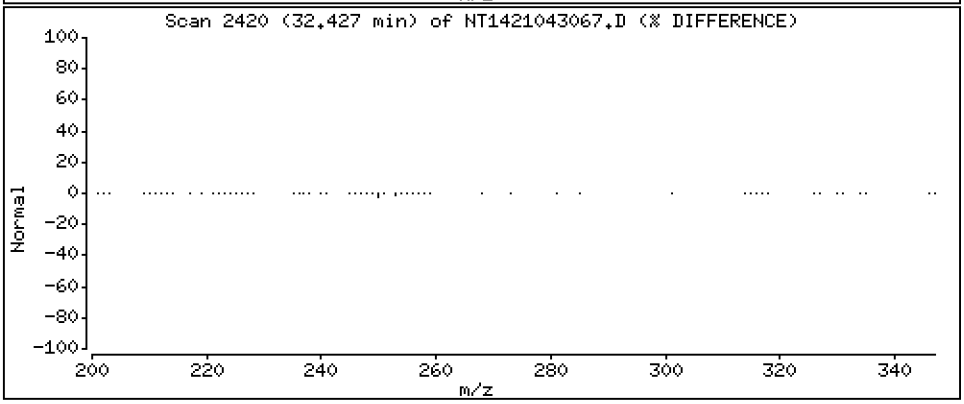


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D

Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

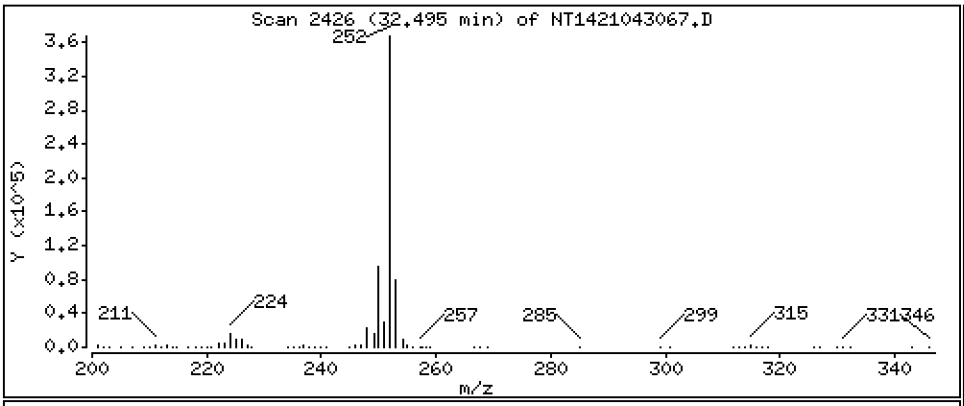
Operator: VTS

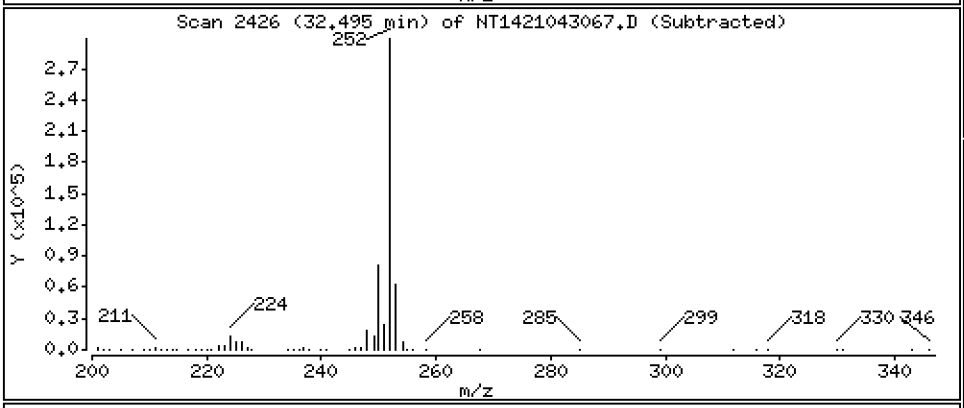
Column phase: Rxi-17Sil MS

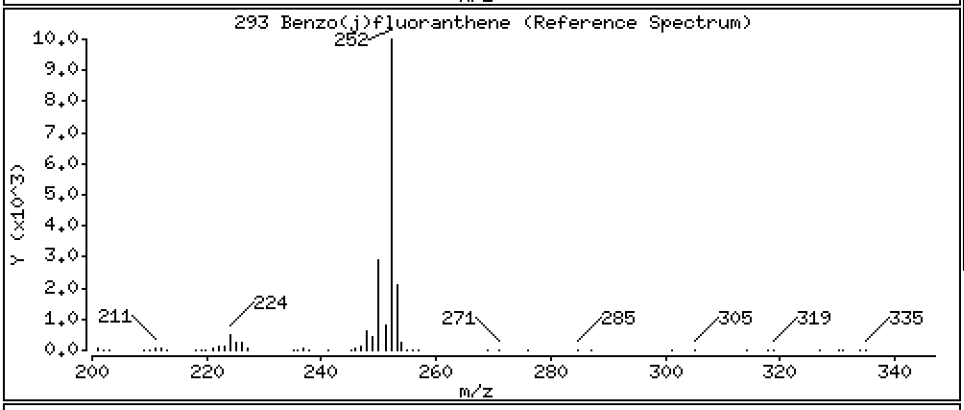
Column diameter: 0.25

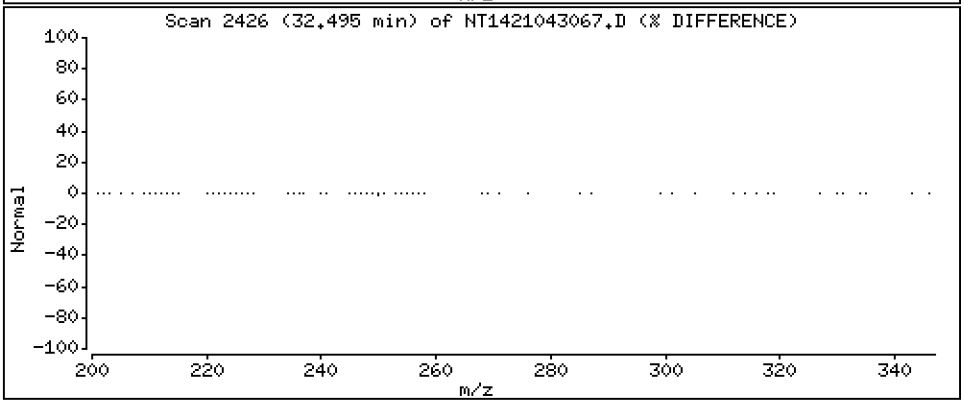
293 Benzo(j)fluoranthene

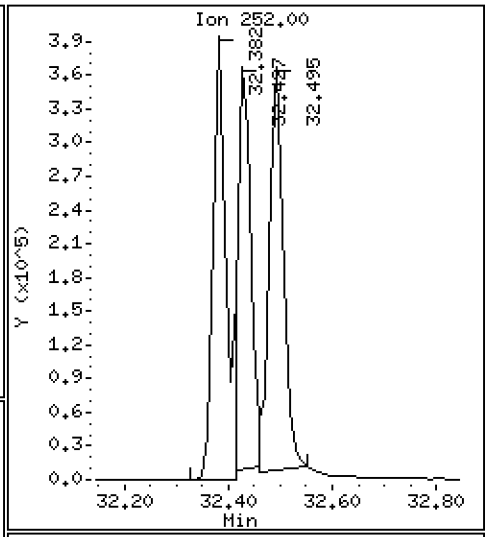
Concentration: 2.502 ug/mL

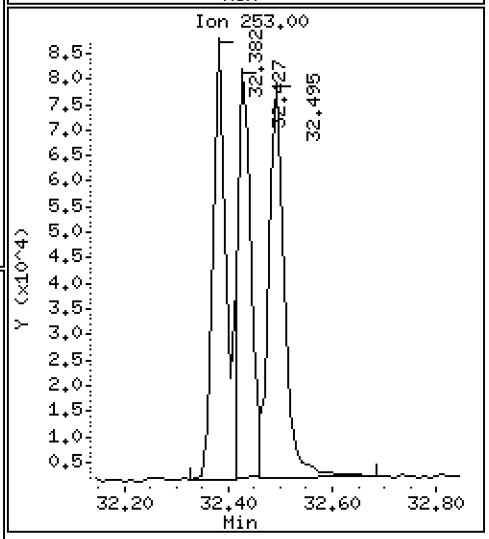


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D

Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

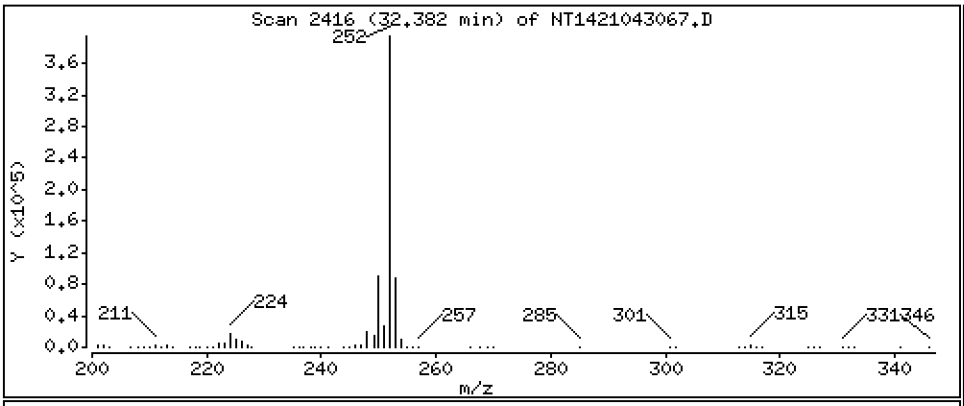
Operator: VTS

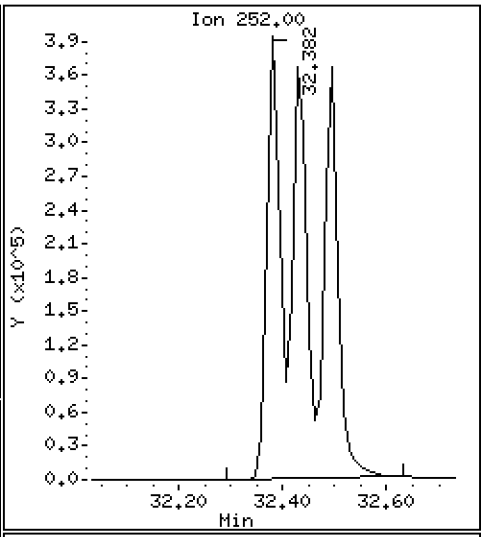
Column phase: Rxi-17Sil MS

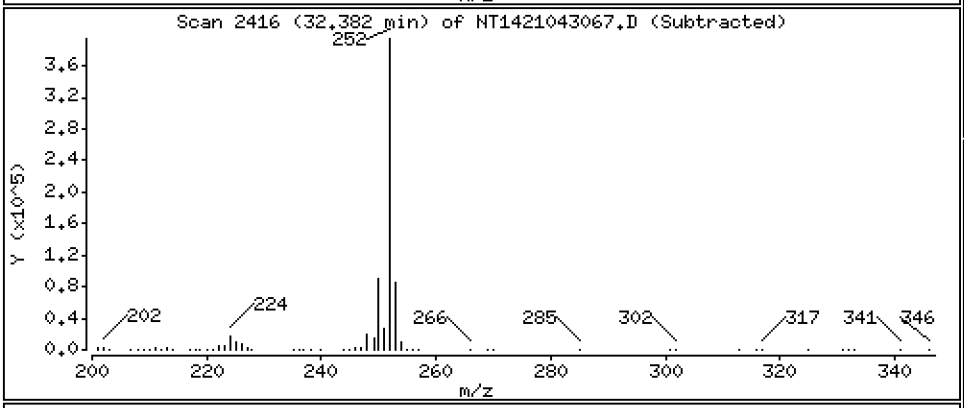
Column diameter: 0.25

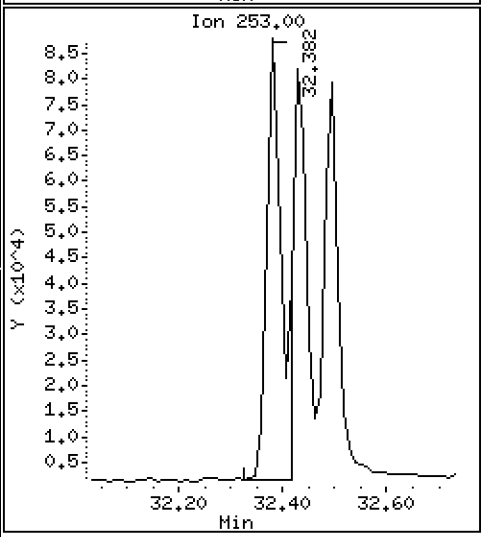
246 Total Benzofluoranthenes

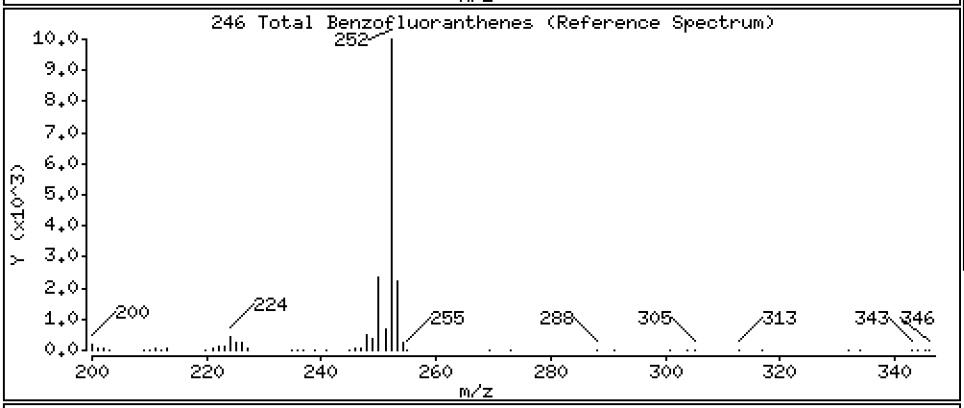
Concentration: 7.815 ug/mL

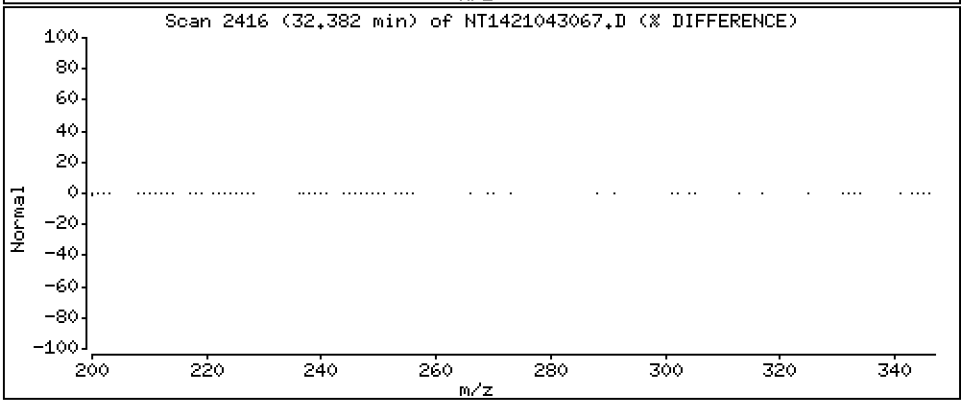


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D

Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

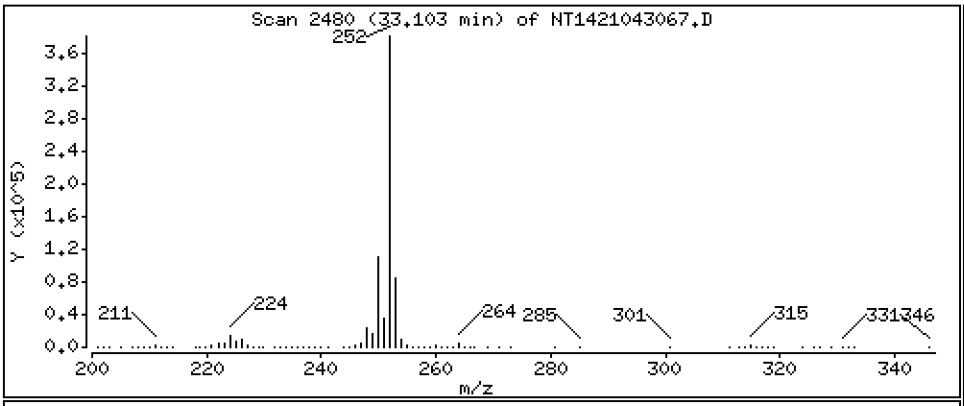
Operator: VTS

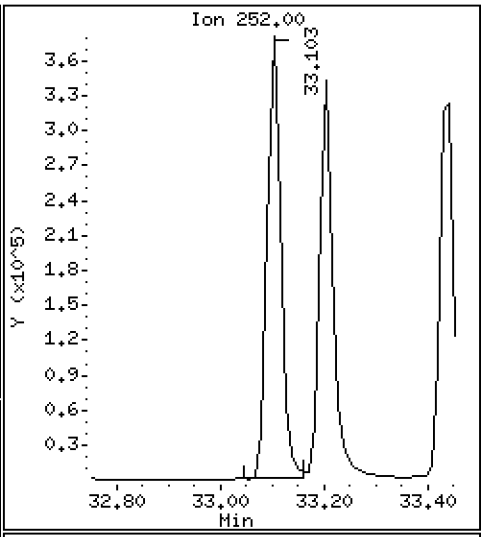
Column phase: Rxi-17Sil MS

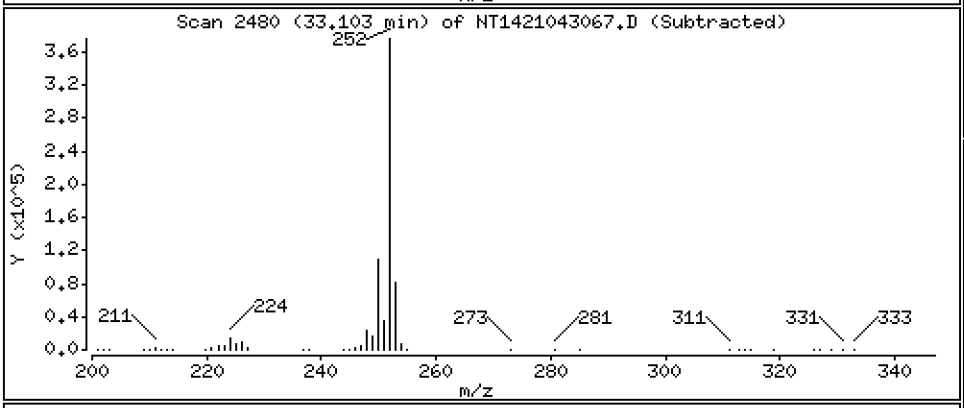
Column diameter: 0.25

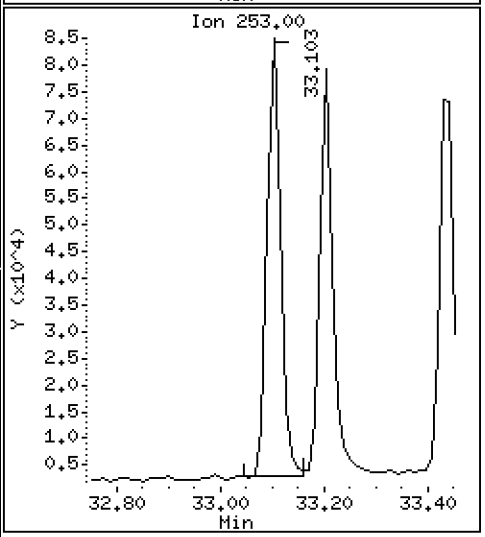
64 Benzo(e)pyrene

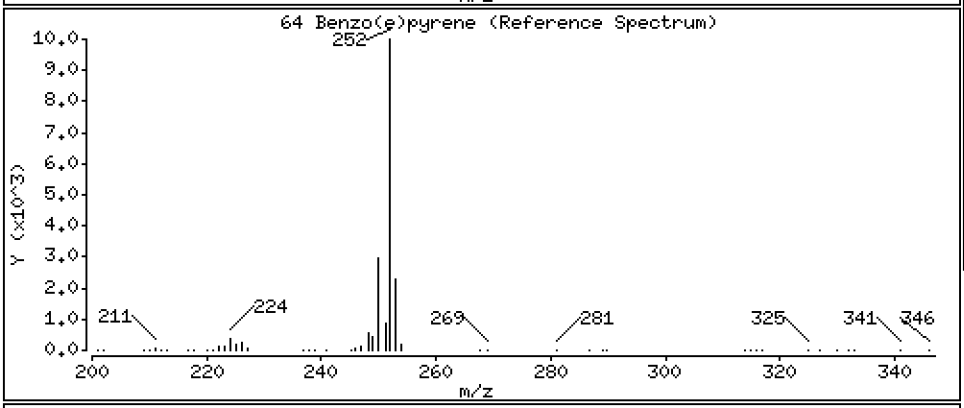
Concentration: 2.777 ug/mL

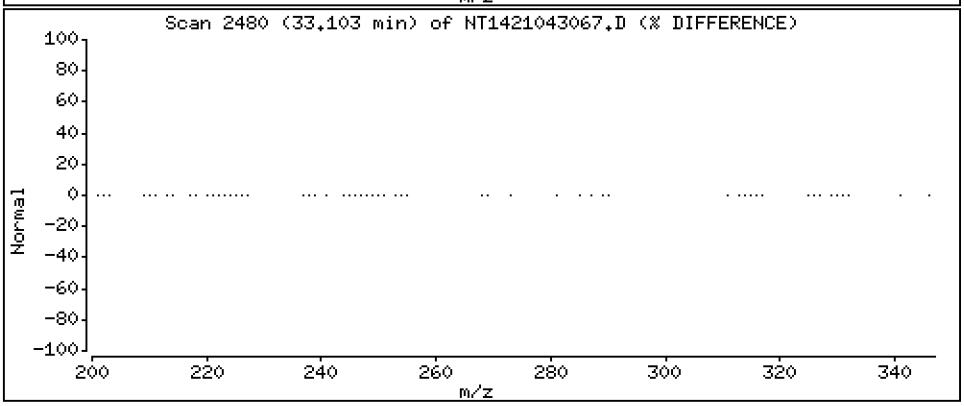


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D

Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

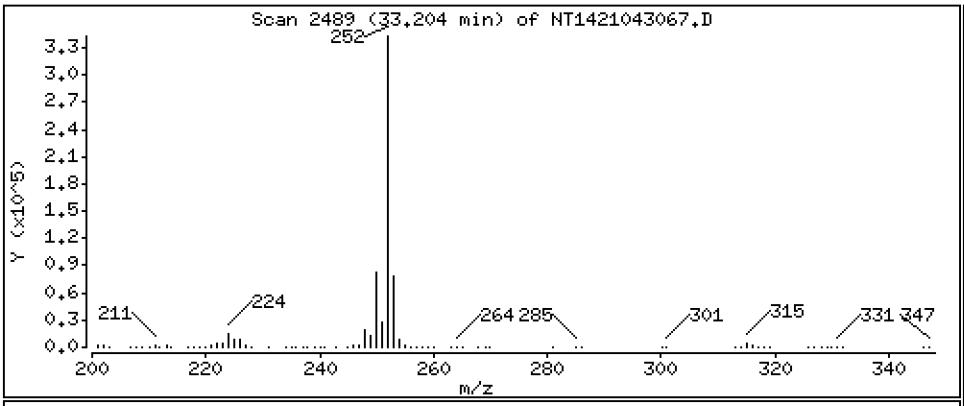
Operator: VTS

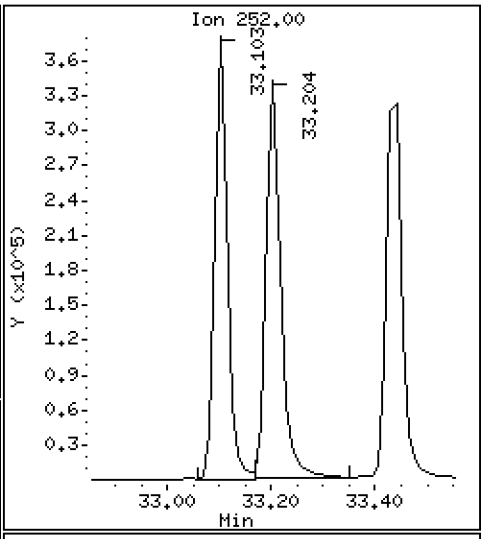
Column phase: Rxi-17Sil MS

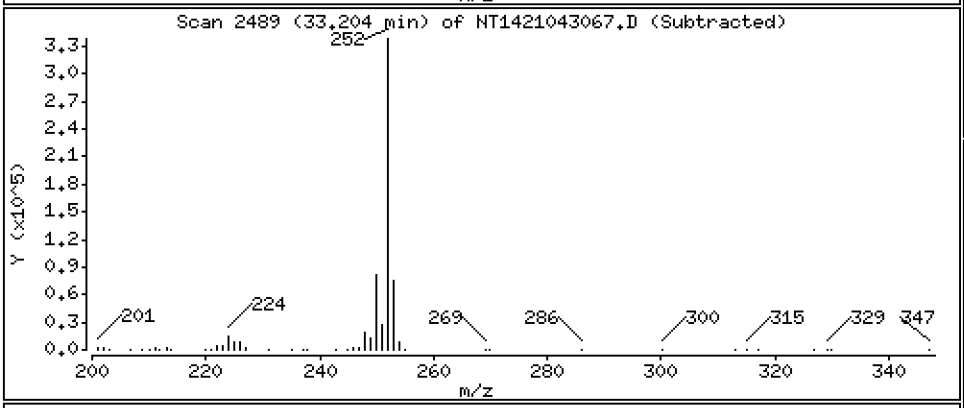
Column diameter: 0.25

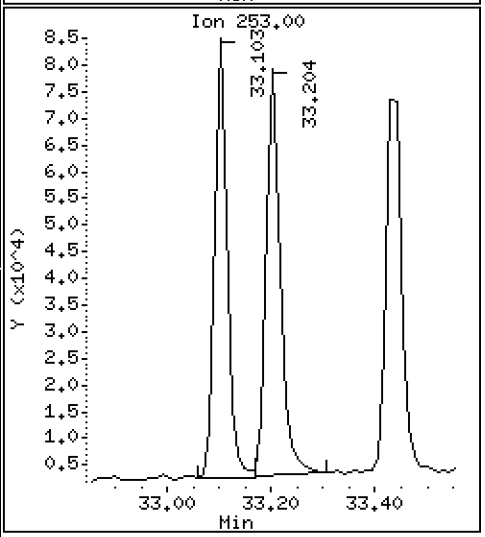
66 Benzo(a)pyrene

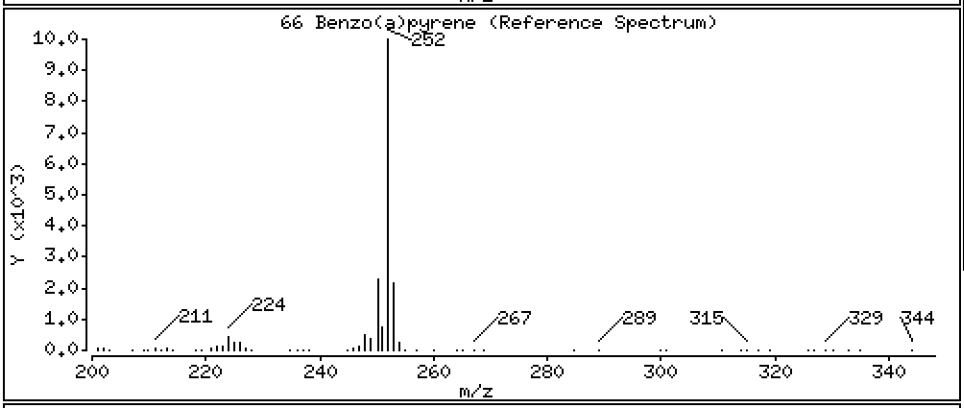
Concentration: 2.599 ug/mL

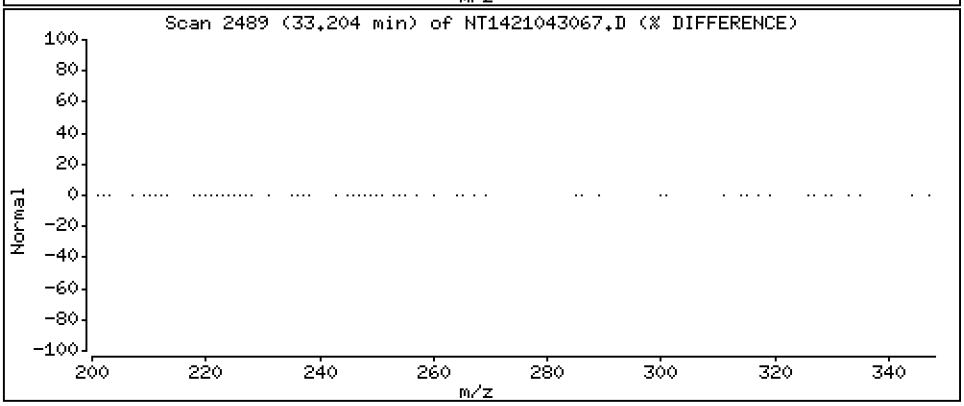


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D

Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

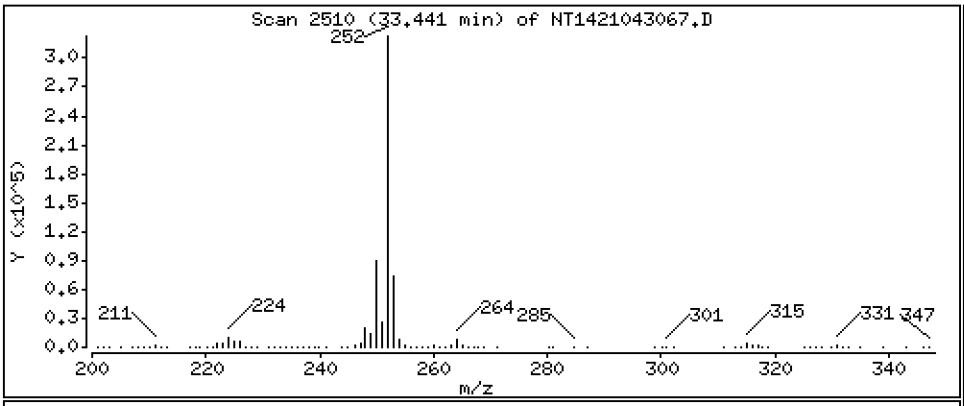
Operator: VTS

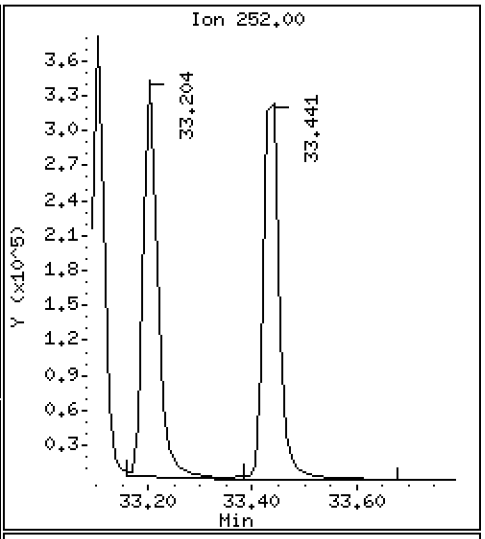
Column phase: Rxi-17Sil MS

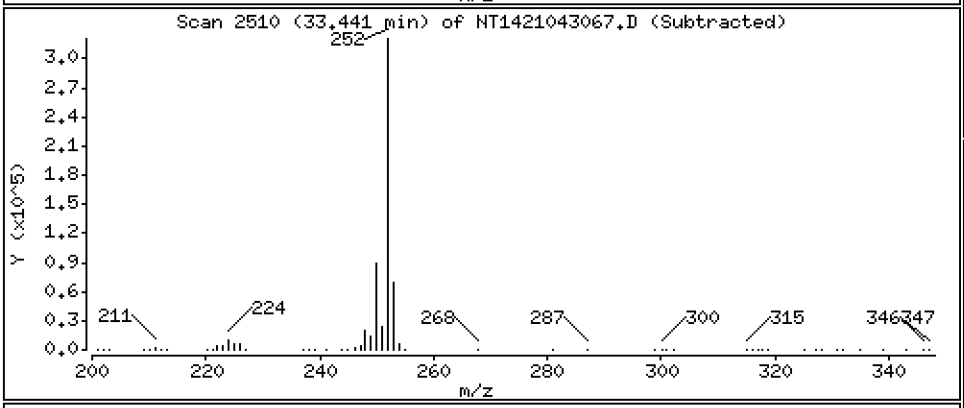
Column diameter: 0.25

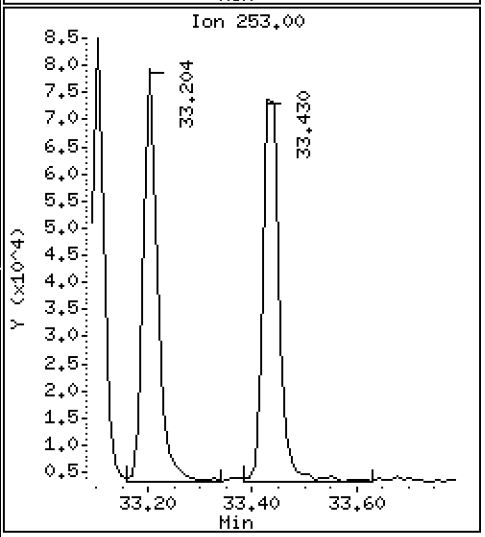
68 Perylene

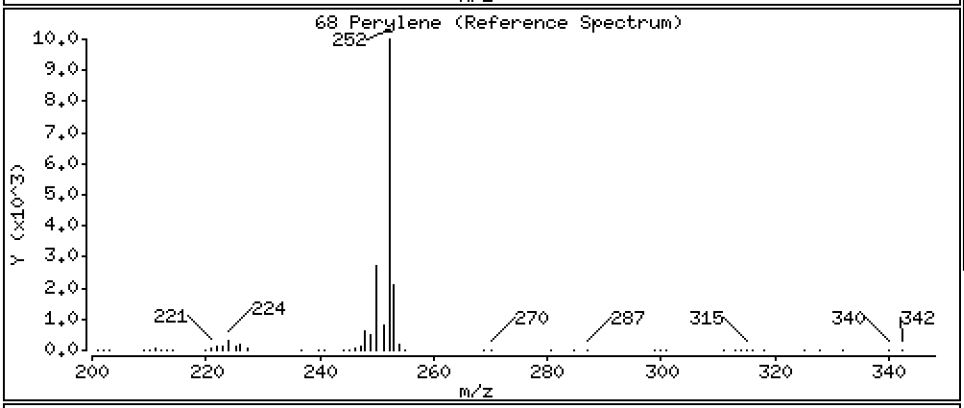
Concentration: 2.917 ug/mL

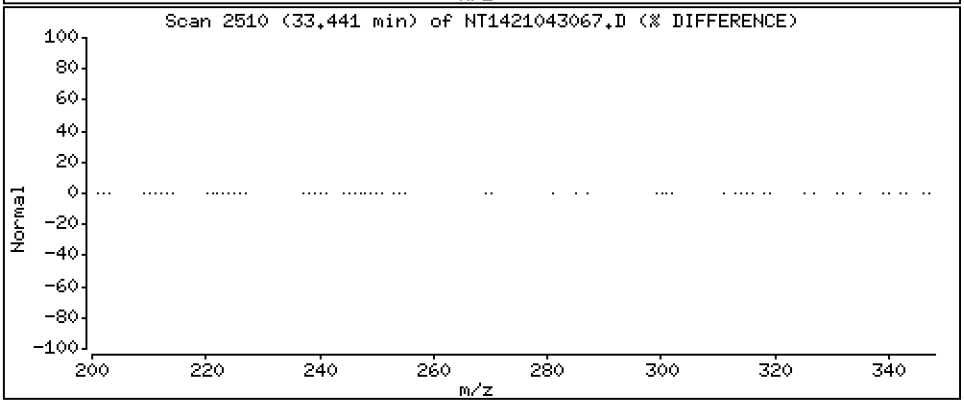


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D

Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

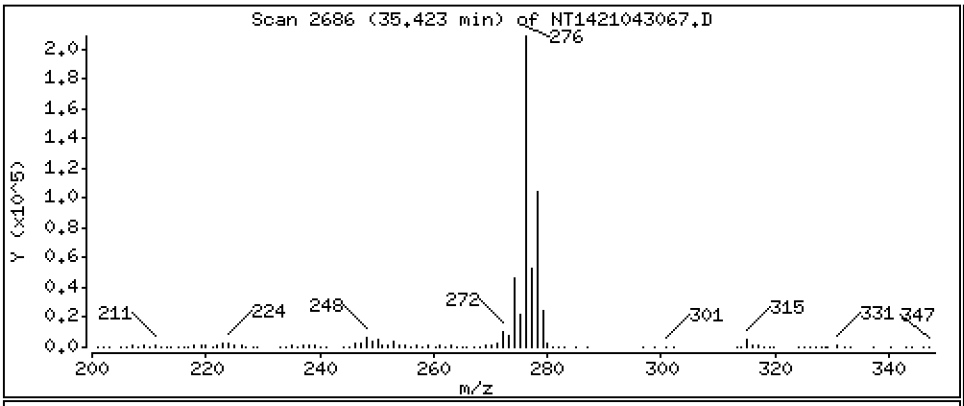
Operator: VTS

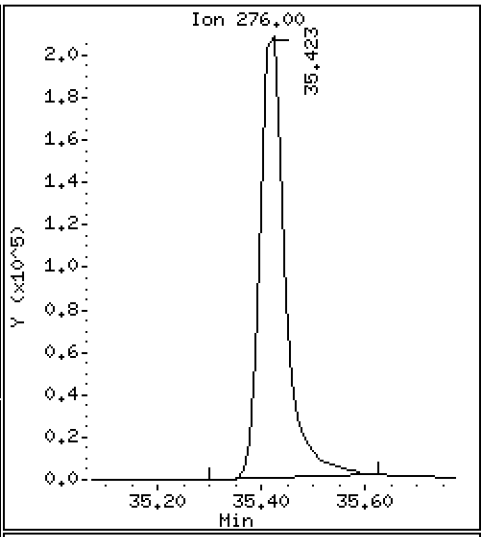
Column phase: Rxi-17Sil MS

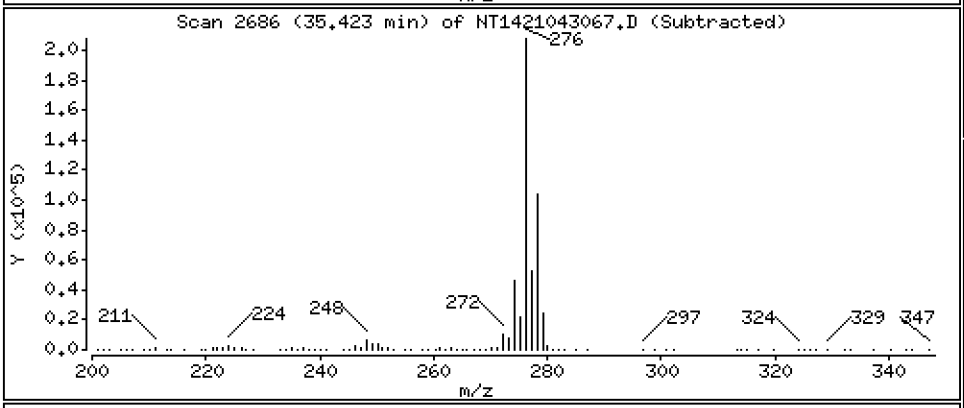
Column diameter: 0.25

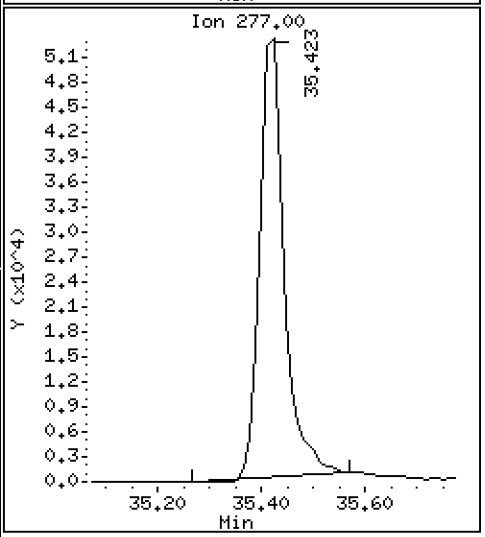
69 Indeno(1,2,3-cd)pyrene

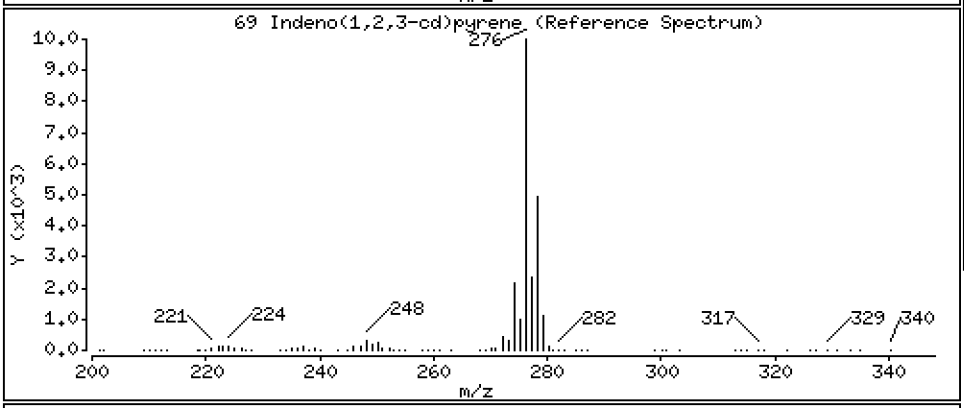
Concentration: 2.707 ug/mL

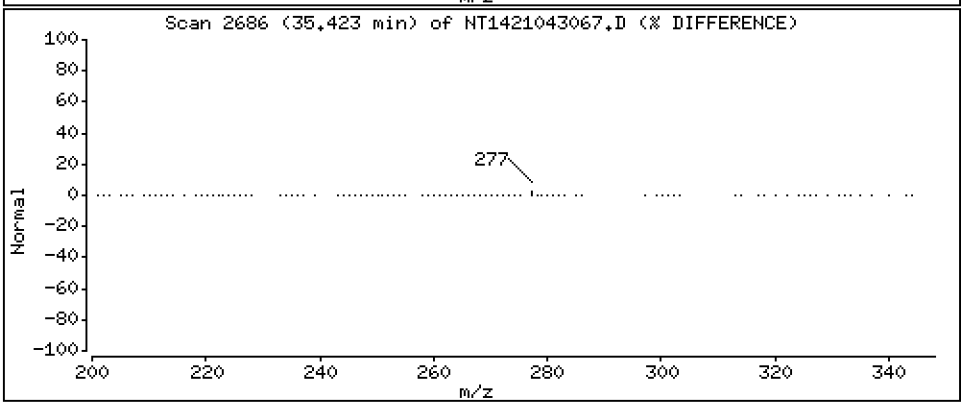


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D

Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

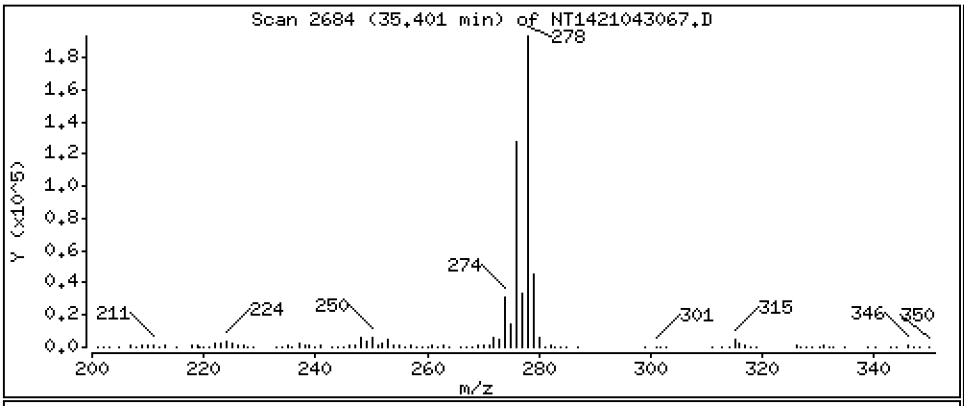
Operator: VTS

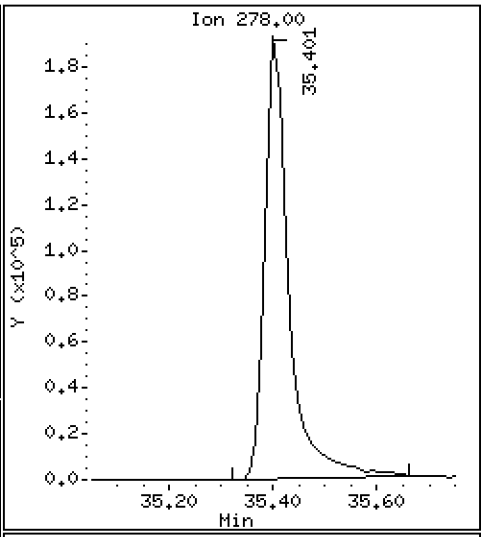
Column phase: Rxi-17Sil MS

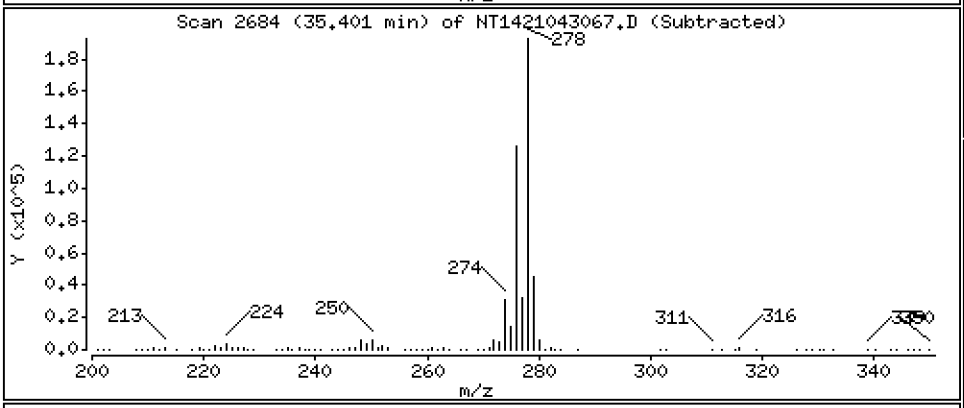
Column diameter: 0.25

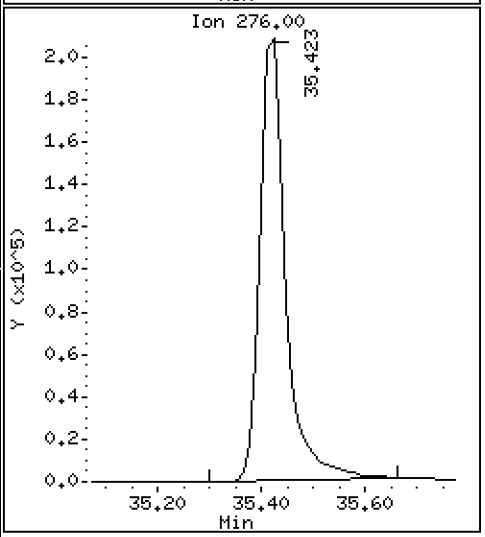
70 Dibenzo(a,h)anthracene

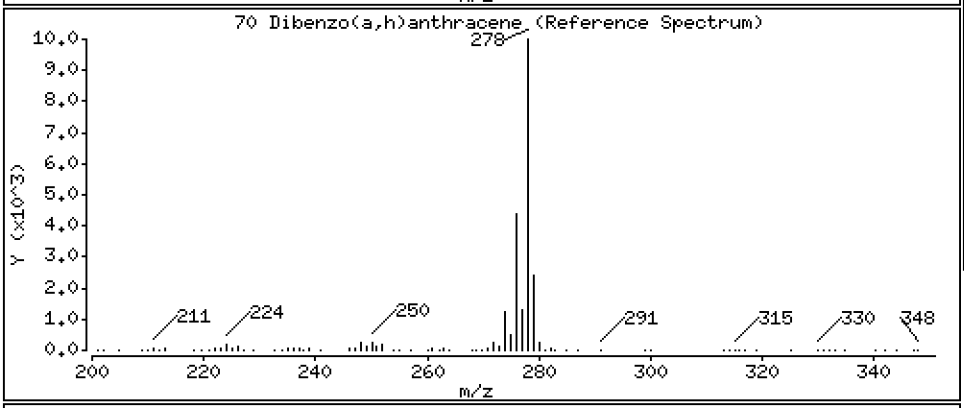
Concentration: 2.723 ug/mL

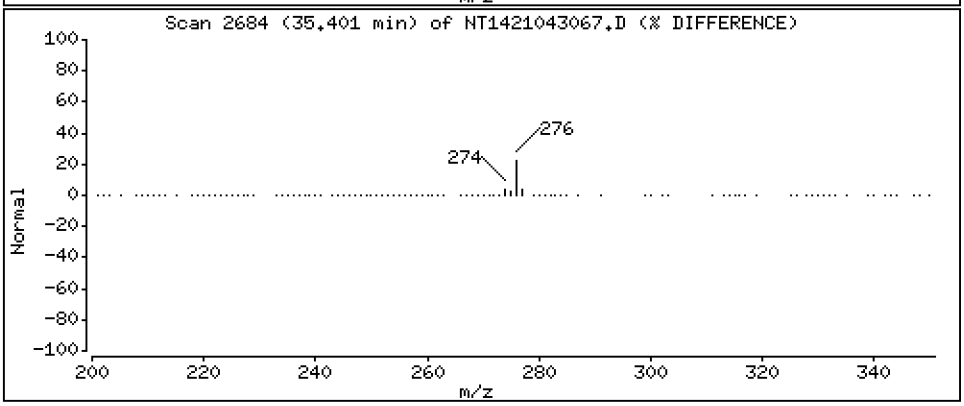


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D

Date : 02-MAY-2021 12:25

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-CCV1

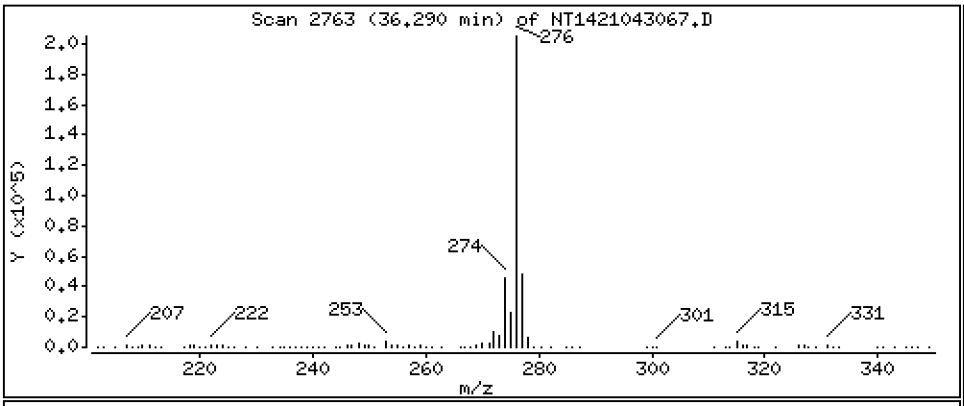
Operator: VTS

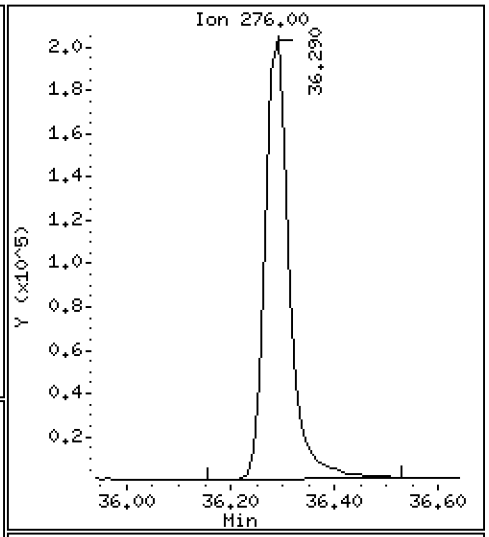
Column phase: Rxi-17Sil MS

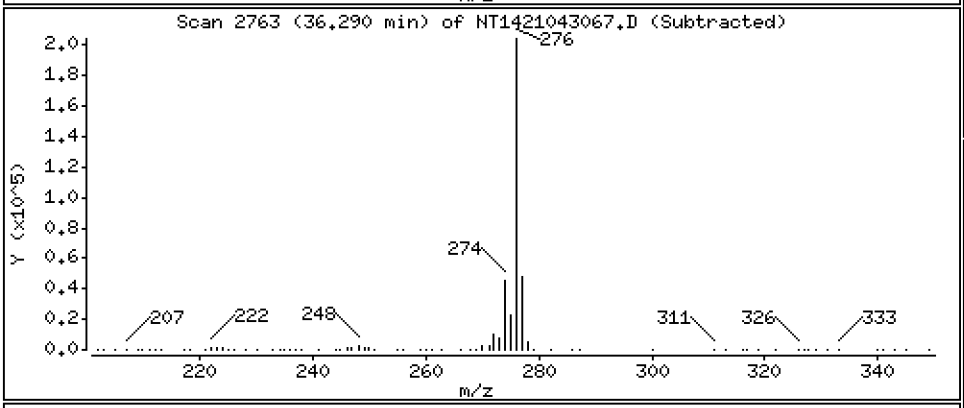
Column diameter: 0.25

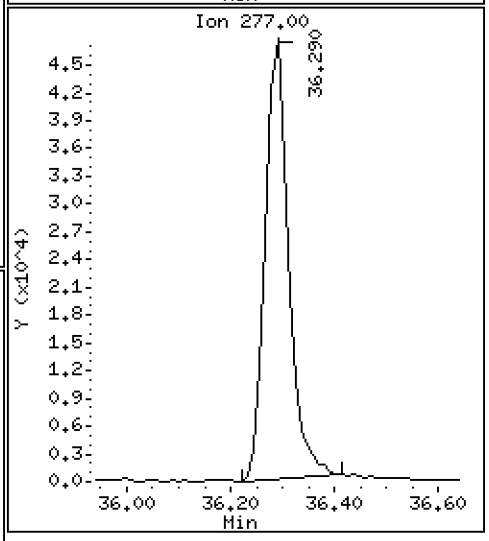
74 Benzo(g,h,i)perylene

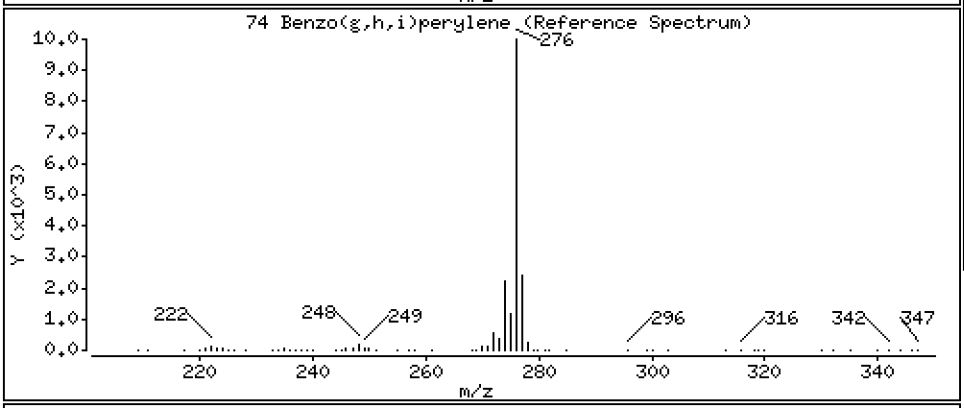
Concentration: 2.984 ug/mL

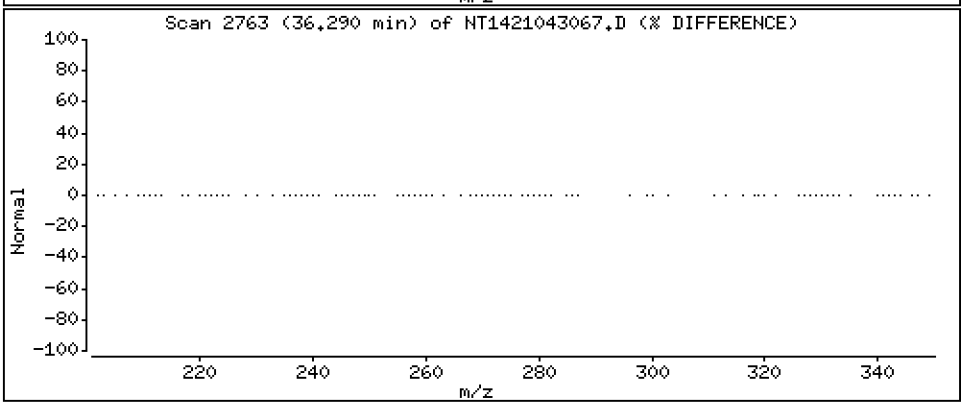


ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430D.b\NT1421043067.D
Lab Smp Id: SJE0004-CCV1
Inj Date : 02-MAY-2021 12:25
Operator : VTS Inst ID: nt14.i
Smp Info : SJE0004-CCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
Meth Date : 04-May-2021 08:25 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 2
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 | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 1 trans-Decalin | 138 | 7.045 | 7.045 | (0.375) | 113128 | 2.67978 | 2.680 |
| | 2 cis-Decalin | 138 | 8.155 | 8.155 | (0.434) | 81732 | 2.80446 | 2.804 |
| $ | 6 Naphthalene-d8 | 136 | 11.776 | 11.776 | (0.627) | 914606 | 2.79648 | 2.796(R) |
| | 7 Naphthalene | 128 | 11.836 | 11.836 | (0.631) | 918942 | 2.76236 | 2.762 |
| | 12 Benzo(b)thiophene | 134 | 12.284 | 12.295 | (0.654) | 738902 | 2.79183 | 2.792 |
| | 16 2-Methylnaphthalene | 141 | 13.669 | 13.680 | (0.728) | 503260 | 2.83487 | 2.835 |
| | 17 1-methylnaphthalene | 141 | 14.120 | 14.120 | (0.752) | 472928 | 2.81161 | 2.812 |
| | 18 Biphenyl | 154 | 15.318 | 15.318 | (0.816) | 705339 | 2.77619 | 2.776 |
| | 19 2,6-Dimethylnaphthalene | 156 | 15.394 | 15.394 | (0.820) | 502005 | 2.87145 | 2.871 |
| | 20 Acenaphthylene | 152 | 16.955 | 16.955 | (0.903) | 864491 | 3.14220 | 3.142 |
| $ | 21 Acenaphthene-d10 | 164 | 17.241 | 17.241 | (0.918) | 469065 | 2.93724 | 2.937(R) |
| | 22 Acenaphthene | 153 | 17.351 | 17.362 | (0.924) | 517098 | 2.92447 | 2.924 |
| | 23 Dibenzofuran | 168 | 17.735 | 17.735 | (0.945) | 757085 | 2.82570 | 2.826 |
| | 24 1,6,7-Trimethylnaphthalene | 170 | 17.955 | 17.955 | (0.956) | 470985 | 3.06969 | 3.070 |
| * | 25 Fluorene-d10 | 176 | 18.772 | 18.772 | (1.000) | 566717 | 2.00000 | |
| | 26 Fluorene | 166 | 18.874 | 18.874 | (1.005) | 570681 | 2.93083 | 2.931 |
| | 30 Dibenzothiophene | 184 | 21.785 | 21.796 | (1.161) | 738803 | 3.00573 | 3.006 |
| $ | 35 Phenanthrene-d10 | 188 | 22.104 | 22.104 | (0.995) | 693460 | 2.49616 | 2.496(R) |
| | 36 Phenanthrene | 178 | 22.280 | 22.181 | (1.003) | 733227 | 2.36408 | 2.364(H) |
| * | 250 Anthracene-d10 | 188 | 22.214 | 22.214 | (1.000) | 514091 | 2.00000 | |
| | 37 Anthracene | 178 | 22.280 | 22.280 | (1.003) | 733227 | 2.56460 | 2.565 |
| | 42 Carbazole | 167 | 23.555 | 23.566 | (1.060) | 630741 | 2.61742 | 2.617 |
| | 43 1-Methylphenanthrene | 192 | 24.017 | 24.017 | (1.081) | 515706 | 2.73856 | 2.739 |
| | 44 Fluoranthene | 202 | 25.985 | 25.985 | (1.170) | 751537 | 2.72840 | 2.728 |
| | 46 Pyrene | 202 | 26.832 | 26.832 | (1.208) | 789561 | 2.76614 | 2.766 |
| | 51 Naphthobenzothiophene | 234 | 29.375 | 29.375 | (1.322) | 749273 | 2.69369 | 2.694 |
| | 55 Benzo(a)anthracene | 228 | 29.960 | 29.960 | (0.907) | 656992 | 2.60191 | 2.602 |
| $ | 56 Chrysene-d12 | 240 | 30.084 | 30.084 | (0.910) | 541044 | 2.71050 | 2.710(R) |
| | 57 Chrysene | 228 | 30.163 | 30.163 | (0.913) | 646715 | 2.52070 | 2.521 |
| | 62 Benzo(b)fluoranthene | 252 | 32.382 | 32.382 | (0.980) | 651020 | 2.77099 | 2.771(M) |
| | 63 Benzo(k)fluoranthene | 252 | 32.427 | 32.427 | (0.981) | 739654 | 2.59148 | 2.591(M) |
| | 293 Benzo(j)fluoranthene | 252 | 32.494 | 32.494 | (0.983) | 653699 | 2.50152 | 2.502 |
| | 246 Total Benzofluoranthenes | 252 | 32.382 | 32.382 | (0.980) | 2008486 | 7.81492 | 7.815(M) |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/mL) |
|---|---|---|---|---|---|---|---|
| * 251 Benzo(e)pyrene-d12 | 264 | 33.046 | 33.046 | (1.000) | 549348 | 2.00000 | |
| 64 Benzo(e)pyrene | 252 | 33.102 | 33.102 | (1.002) | 649789 | 2.77715 | 2.777 |
| 66 Benzo(a)pyrene | 252 | 33.204 | 33.204 | (1.005) | 626368 | 2.59937 | 2.599 |
| $ 67 Perylene-d12 | 264 | 33.384 | 33.373 | (1.010) | 557838 | 2.60822 | 2.608(R) |
| 68 Perylene | 252 | 33.440 | 33.440 | (1.012) | 651838 | 2.91685 | 2.917 |
| 69 Indeno(1,2,3-cd)pyrene | 276 | 35.423 | 35.423 | (1.072) | 677211 | 2.70703 | 2.707(M) |
| 70 Dibenzo(a,h)anthracene | 278 | 35.400 | 35.400 | (1.071) | 589414 | 2.72350 | 2.723(M) |
| 74 Benzo(g,h,i)perylene | 276 | 36.290 | 36.290 | (1.098) | 628138 | 2.98419 | 2.984(M) |

## QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043067.D
Lab Smp Id: SJE0004-CCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
Misc Info:

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

Test Mode:
Use Last Continuing Calibrator.

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 25 Fluorene-d10 | 504442 | 252221 | 1008884 | 566717 | 12.35 |
| 250 Anthracene-d10 | 459103 | 229552 | 918206 | 514091 | 11.98 |
| 251 Benzo(e)pyrene-d1 | 516794 | 258397 | 1033588 | 549348 | 6.30 |

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

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

REVIEW SUMMARY FOR FILE - NT1421043067.D

Lab ID: SJE0004-CCV1
nt14.i,  20210430D.b\ALKYLPNA.m,    02-MAY-2021 12:25

| RT | CO-ELUTION COMPOUNDS |
|---|---|
| 22.281 | Anthracene and Phenanthrene |

Quant Method: ICAL

RRT CHECK

| RRT | CCV RRT | DELTA | COMPOUND |
|---|---|---|---|
| NONE | | | |

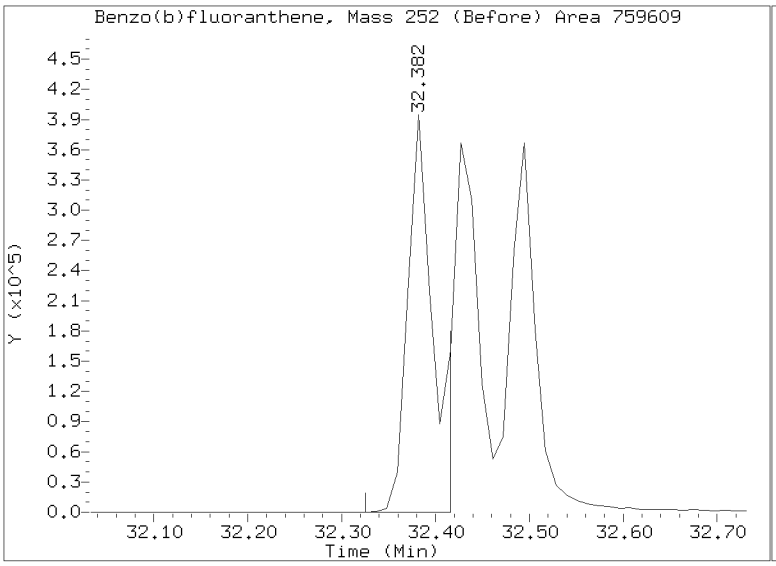
RRT check based on Ccal File: NT1421043051ICV.D

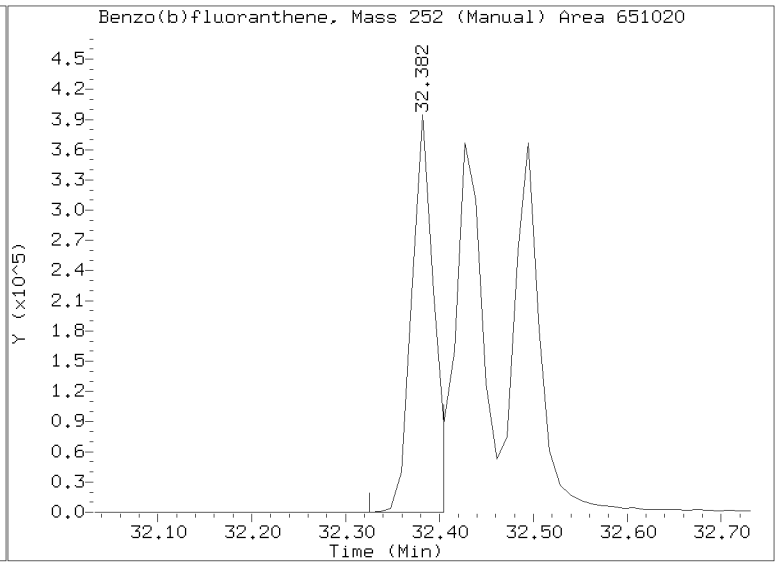
On Column LOD for nt14.i, 20210430D.b\ALKYLPNA.m, TARGETS.sub = 0.0000

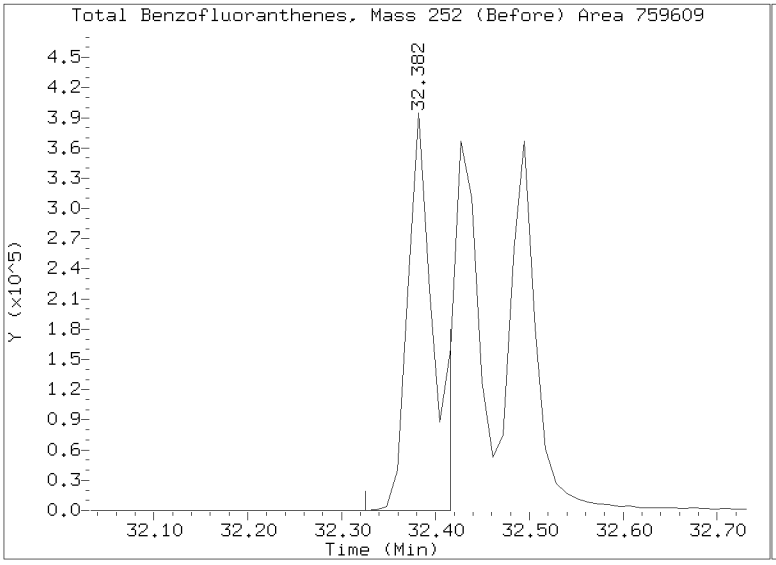
* Only compounds listed in the work order have been verified by the analyst *

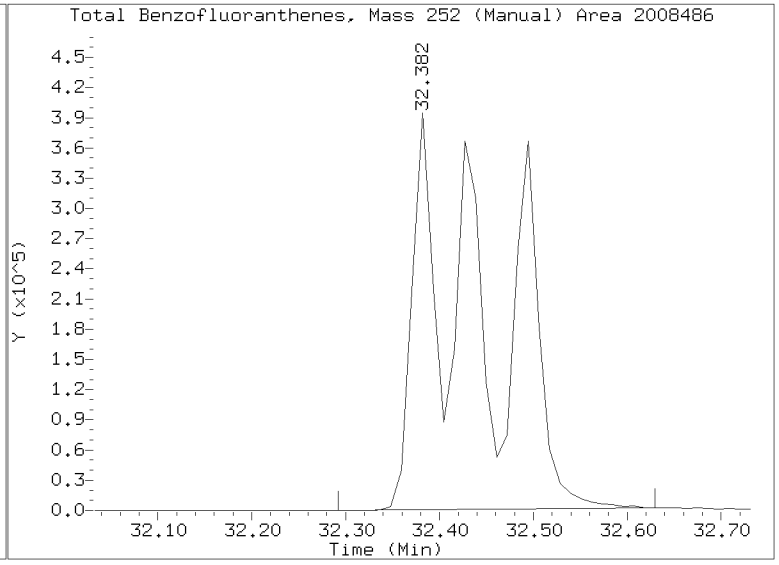
# Quant Ion Manual Peak Adjustment Report

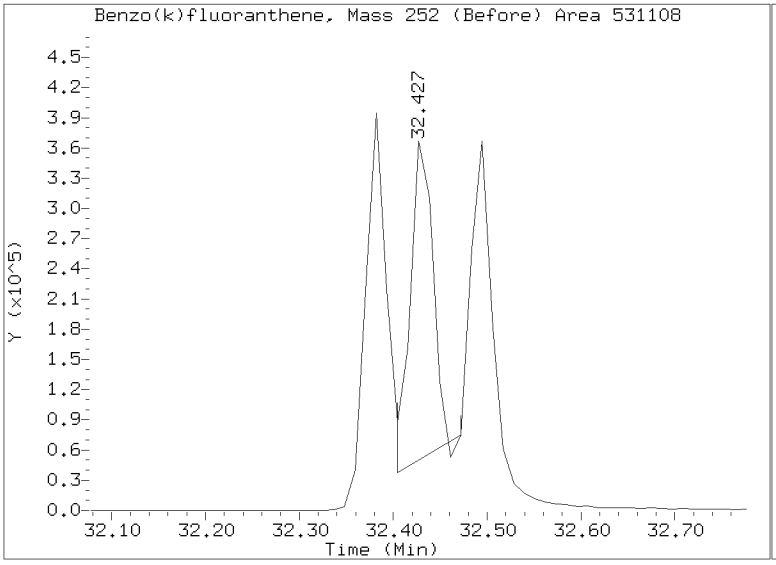
Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043067.D
Injection Date: 02-MAY-2021 12:25
Lab ID:SJE0004-CCV1 Client ID:
Report Date: 05/04/2021 13:21

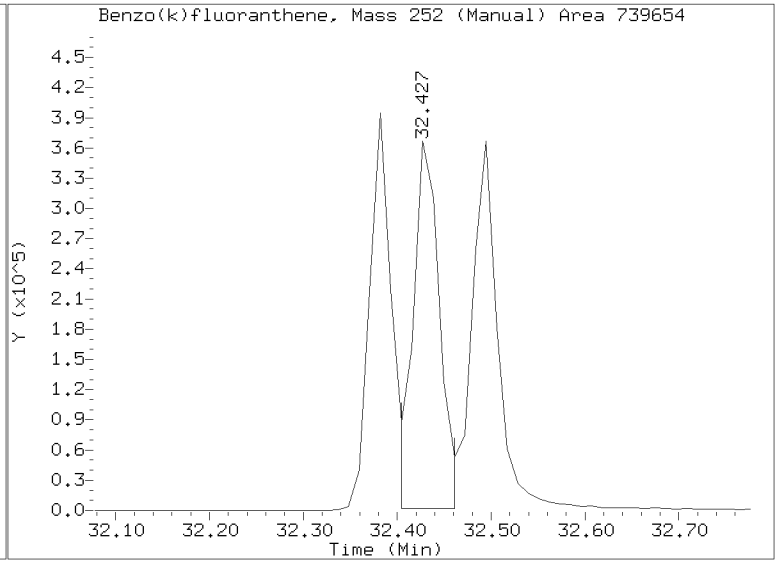


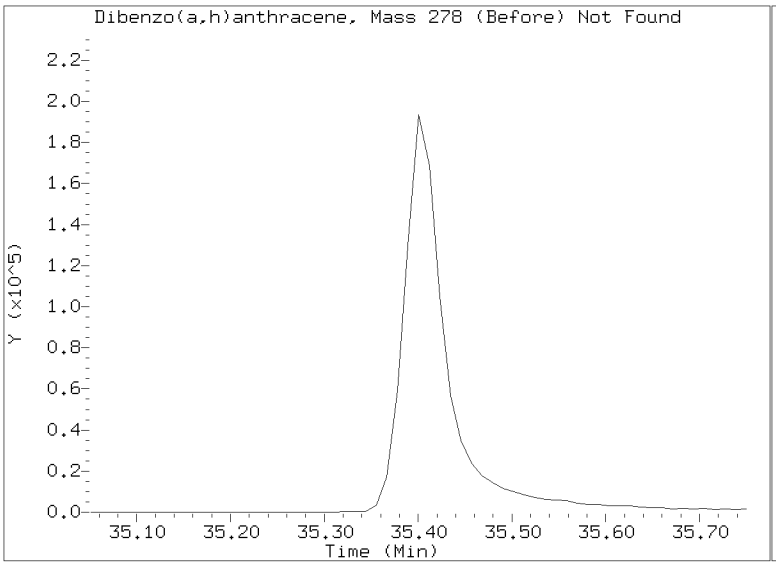



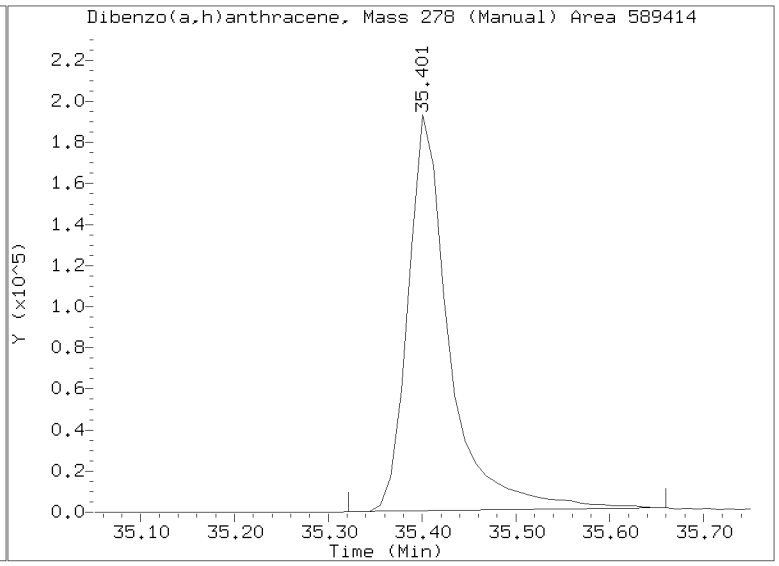



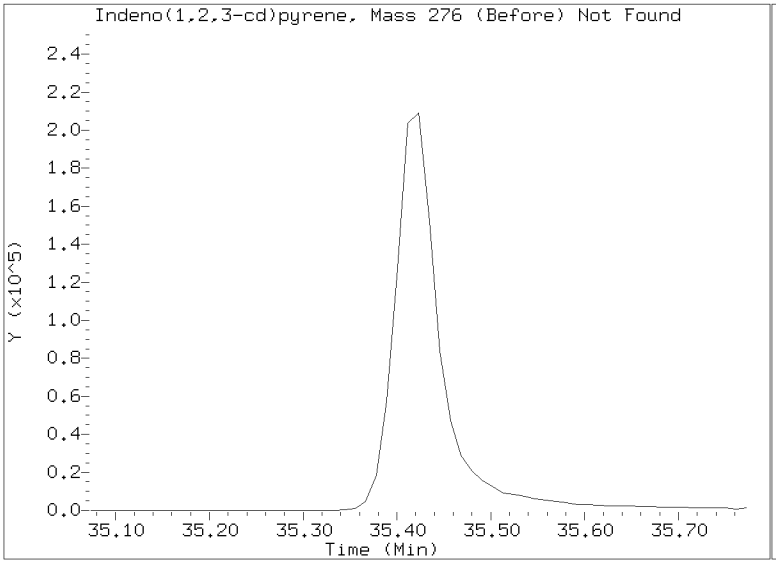



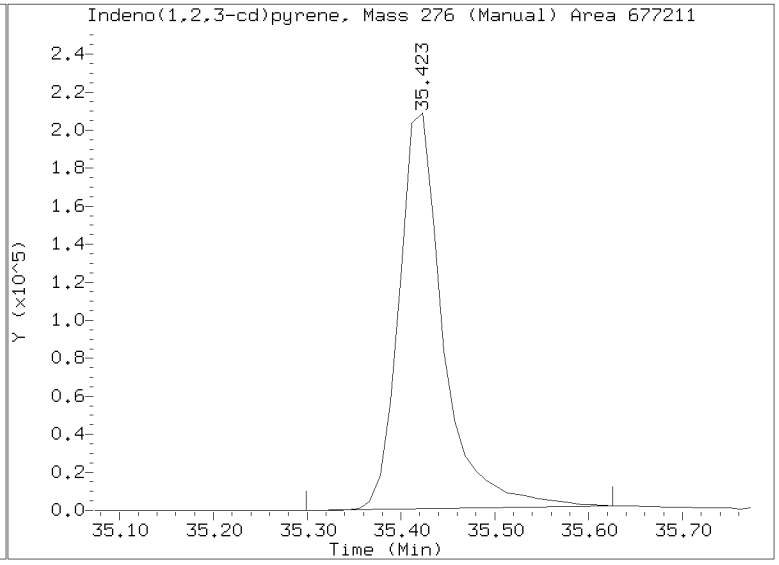
# Quant Ion Manual Peak Adjustment Report

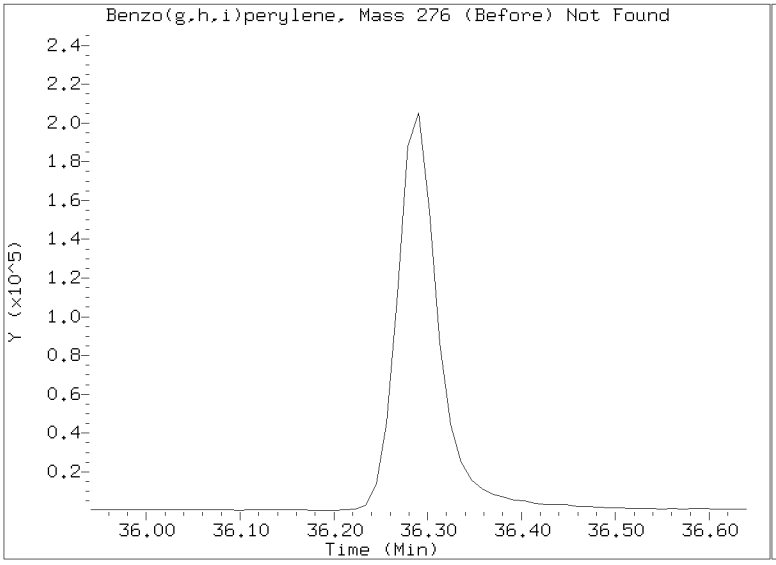
Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043067.D
Injection Date: 02-MAY-2021 12:25
Lab ID:SJE0004-CCV1 Client ID:
Report Date: 05/04/2021 13:21

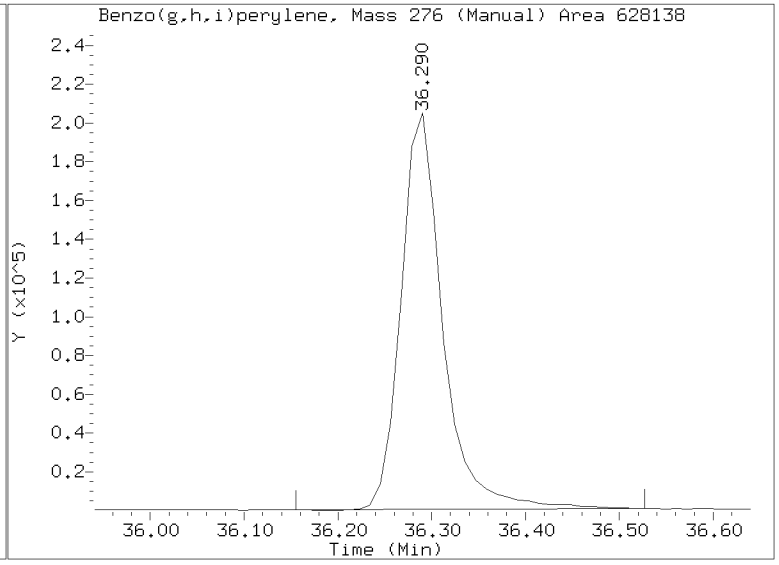


Analytical Resources, Incorporated
Analytical Chemists and Consultants

# LOW-CONCENTRATION
# CONTINUING CALIBRATION CHECK
## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | NT14 | Calibration: | EE00001 |
| Lab File ID: | NT1421043052.D | Calibration Date: | 04/30/2021 |
| Sequence: | SJE0004 | Injection Date: | 05/02/21 |
| Lab Sample ID: | SJE0004-LCV1 | Injection Time: | 00:23 |
| Sequence Name: | PAH 0.1 | | |

| | | CONC. (ug/mL) | | RESPONSE FACTOR (RRF) | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN | CCV | LIMIT |
| trans-Decalin | A | 0.10000 | 0.1 | 0.1489821 | 0.1560202 | | 4.7 | |
| cis-Decalin | A | 0.10000 | 0.1 | 0.1028504 | 0.1171229 | | 13.9 | |
| Naphthalene | A | 0.10000 | 0.1 | 1.1740120 | 1.3386700 | | 14.0 | |
| 1-Methylnaphthalene | A | 0.10000 | 0.1 | 0.5936130 | 0.7714451 | | 30.0 | |
| 2-Methylnaphthalene | A | 0.10000 | 0.1 | 0.6265036 | 0.7349183 | | 17.3 | |
| Biphenyl | A | 0.10000 | 0.1 | 0.8966280 | 1.0679700 | | 19.1 | |
| 2,6-Dimethylnaphthalene | A | 0.10000 | 0.1 | 0.6169792 | 0.7444002 | | 20.7 | |
| Acenaphthylene | A | 0.10000 | 0.1 | 0.9709370 | 1.2092280 | | 24.5 | |
| Acenaphthene | A | 0.10000 | 0.1 | 0.6240076 | 0.7417783 | | 18.9 | |
| Dibenzofuran | A | 0.10000 | 0.1 | 0.9455456 | 1.1052150 | | 16.9 | |
| 2,3,5-Trimethylnaphthalene | A | 0.10000 | 0.1 | 0.5414731 | 0.6576265 | | 21.5 | |
| Fluorene | A | 0.10000 | 0.1 | 0.6871732 | 0.8269717 | | 20.3 | |
| Benzo(b)thiophene | A | 0.10000 | 0.1 | 0.9340302 | 1.1364260 | | 21.7 | |
| Phenanthrene | A | 0.10000 | 0.1 | 1.2066070 | 1.2785930 | | 6.0 | |
| Anthracene | A | 0.10000 | 0.1 | 1.1122650 | 1.1502710 | | 3.4 | |
| Carbazole | A | 0.10000 | 0.1 | 0.8290303 | 0.8982205 | | -1.8 | |
| 1-Methylphenanthrene | A | 0.10000 | 0.1 | 0.7326040 | 0.7651403 | | 4.4 | |
| Fluoranthene | A | 0.10000 | 0.1 | 1.0715980 | 1.2364640 | | 15.4 | |
| Dibenzothiophene | A | 0.10000 | 0.1 | 0.8674458 | 1.0500120 | | 21.1 | |
| Pyrene | A | 0.10000 | 0.1 | 1.1104570 | 1.2241680 | | 10.2 | |
| Benzo(a)anthracene | A | 0.10000 | 0.09 | 0.8222601 | 0.8205727 | | -7.3 | |
| Chrysene | A | 0.10000 | 0.1 | 0.9340580 | 0.9130757 | | -2.3 | |
| Benzo(b)fluoranthene | A | 0.10000 | 0.1 | 0.7491309 | 0.8338433 | | 1.7 | |
| Benzo(j)fluoranthene | A | 0.10000 | 0.1 | 0.9513865 | 0.9058177 | | -4.8 | |
| Benzo(k)fluoranthene | A | 0.10000 | 0.1 | 0.9278309 | 0.9703208 | | -3.1 | |
| Benzo(e)pyrene | A | 0.10000 | 0.1 | 0.8518347 | 0.9058889 | | 6.4 | |
| Benzo(a)pyrene | A | 0.10000 | 0.1 | 0.7422947 | 0.8468293 | | -2.0 | |
| Indeno(1,2,3-cd)pyrene | A | 0.10000 | 0.1 | 0.7887712 | 0.9607858 | | 9.7 | |
| Dibenzo(a,h)anthracene | A | 0.10000 | 0.1 | 0.6549683 | 0.7422653 | | -1.5 | |
| Benzo(g,h,i)perylene | A | 0.10000 | 0.1 | 0.7663214 | 0.9931619 | | 29.6 | |
| Perylene | A | 0.10000 | 0.1 | 0.8135951 | 0.9618888 | | 18.2 | |
| Benzo(b)naphtho(2,1-d)thiophene | A | 0.10000 | 0.1 | 1.0821370 | 1.1075370 | | 2.4 | |
| Naphthalene-d8 | A | 0.10000 | 0.116 | 1.1542130 | 1.3407900 | | 16.2 | |
| Acenaphthene-d10 | A | 0.10000 | 0.123 | 0.5635830 | 0.6947999 | | 23.3 | |

* Values outside of QC limits

# LOW-CONCENTRATION
# CONTINUING CALIBRATION CHECK
## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | NT14 | Calibration: | EE00001 |
| Lab File ID: | NT1421043052.D | Calibration Date: | 04/30/2021 |
| Sequence: | SJE0004 | Injection Date: | 05/02/21 |
| Lab Sample ID: | SJE0004-LCV1 | Injection Time: | 00:23 |
| Sequence Name: | PAH 0.1 | | |

| | | CONC. (ug/mL) | | RESPONSE FACTOR (RRF) | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN | CCV | LIMIT |
| Phenanthrene-d10 | A | 0.10000 | 0.0982 | 1.0807840 | 1.0611340 | | -1.8 | |
| Chrysene-d12 | A | 0.10000 | 0.0989 | 0.7267179 | 0.7183924 | | -1.2 | |
| Perylene-d12 | A | 0.10000 | 0.114 | 0.6899017 | 0.8652231 | | 14.0 | |

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043052.D



Date : 02-MAY-2021 00:23

Client ID:

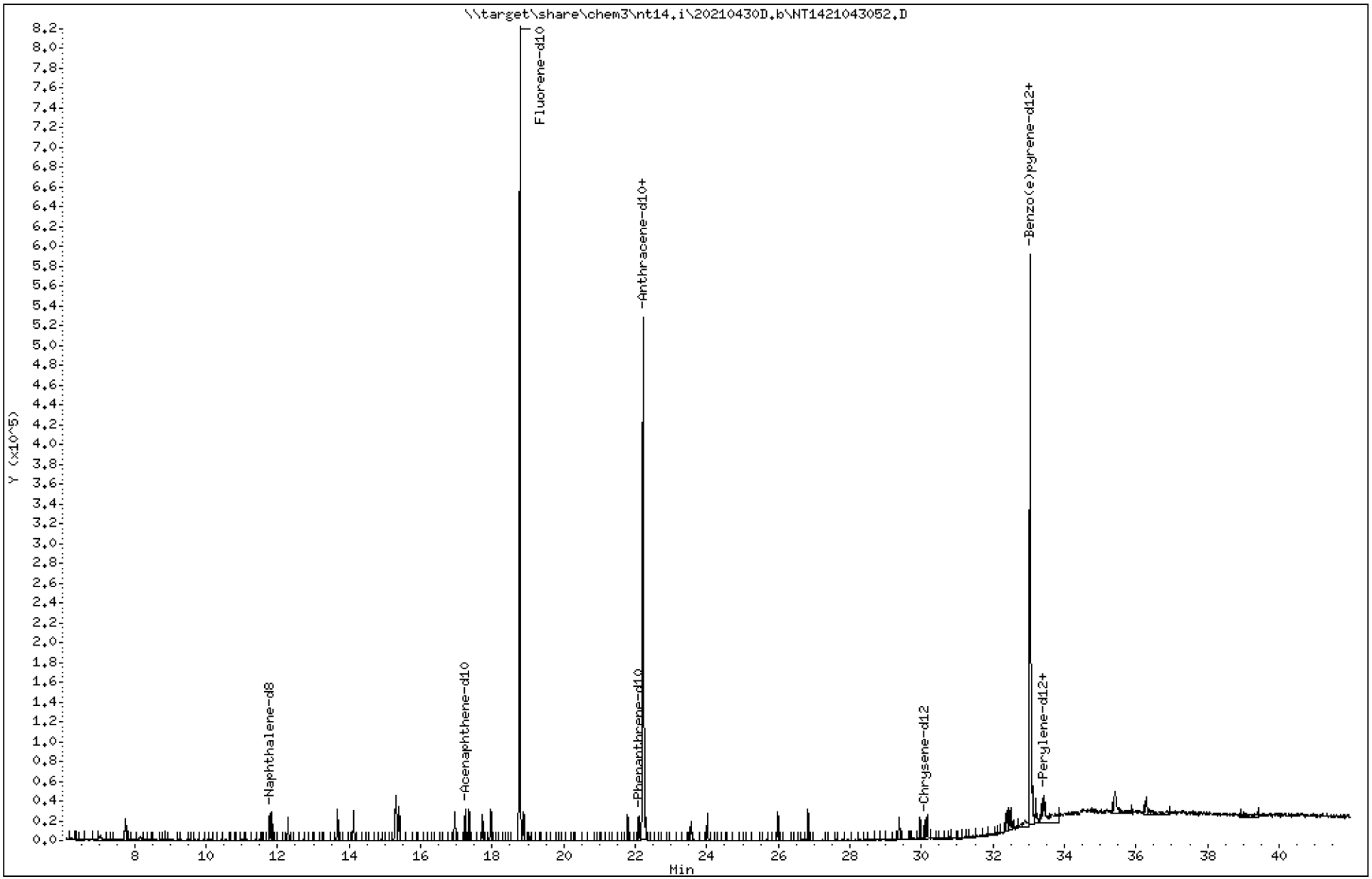
Instrument: nt14.i

Sample Info: SJE0004-LCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

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Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043052.D

Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

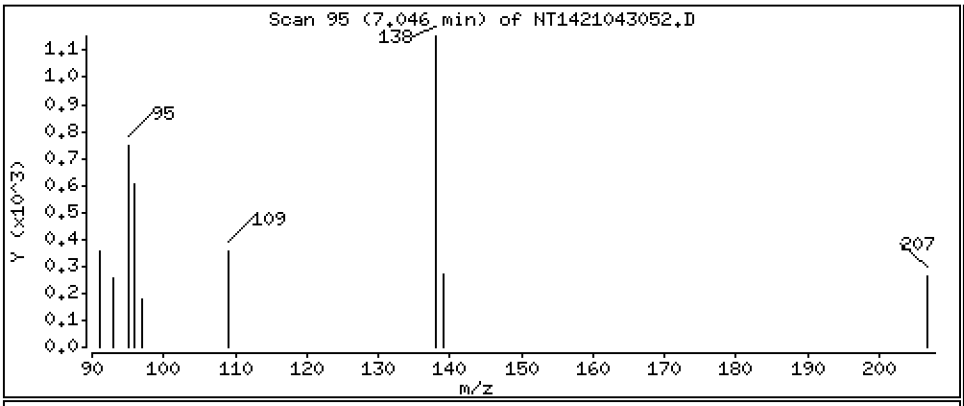
Operator: VTS

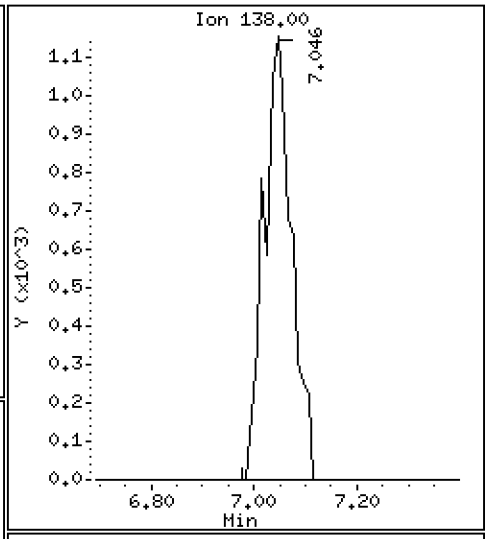
Column phase: Rxi-17Sil MS

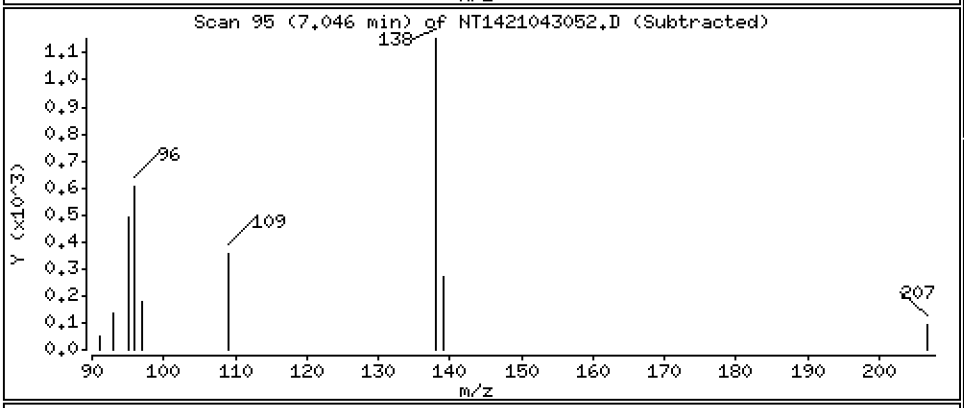
Column diameter: 0.25

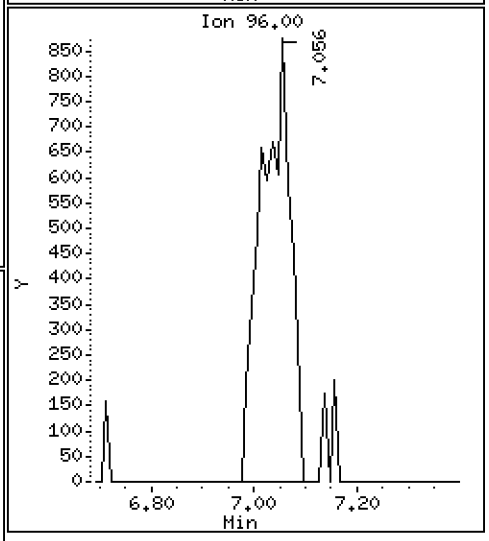
1 trans-Decalin

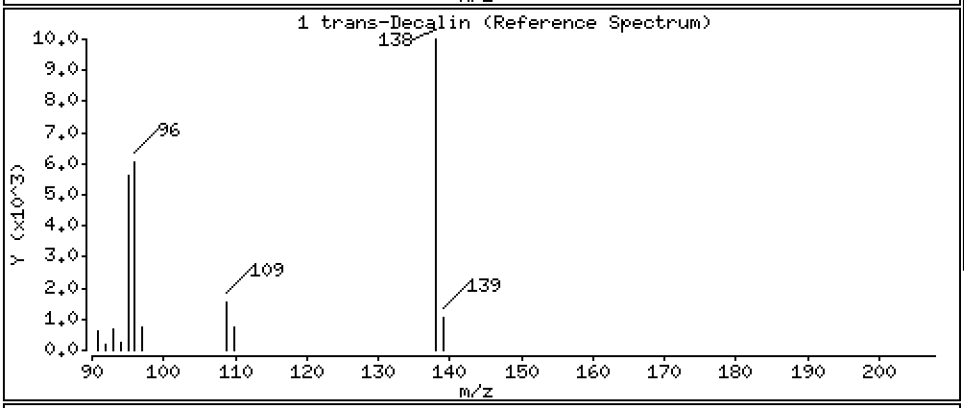
Concentration: 0.1047 ug/mL

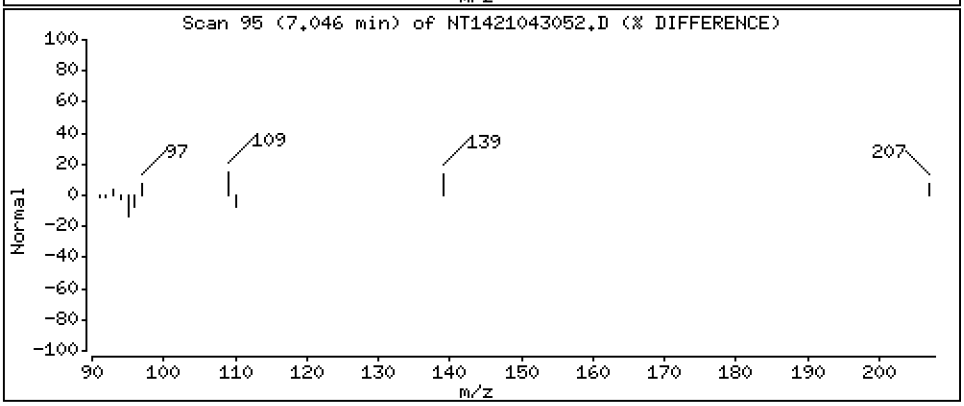


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Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

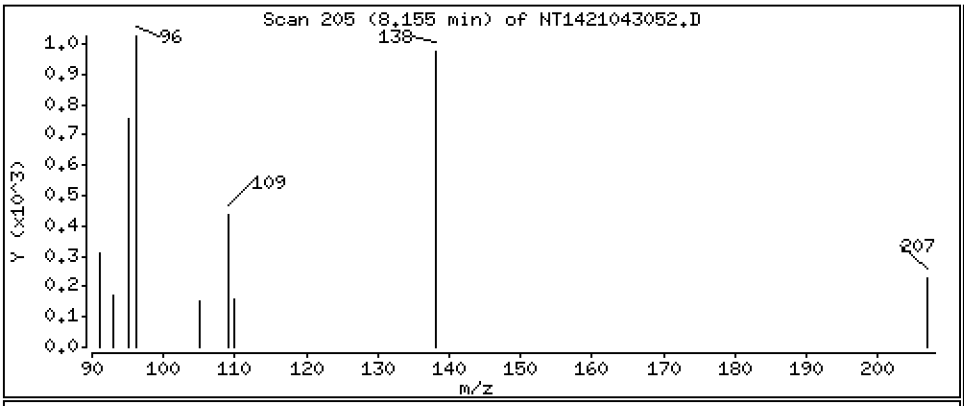
Operator: VTS

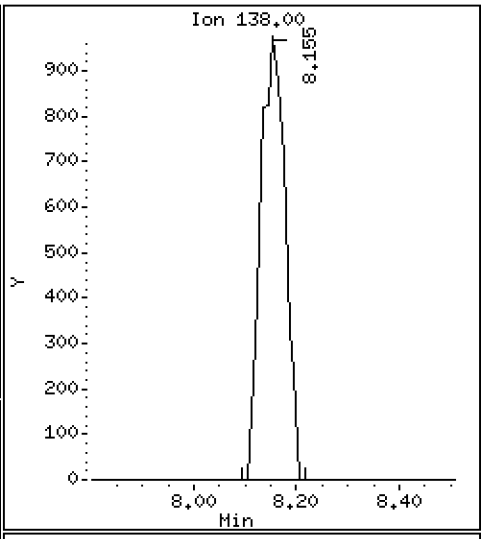
Column phase: Rxi-17Sil MS

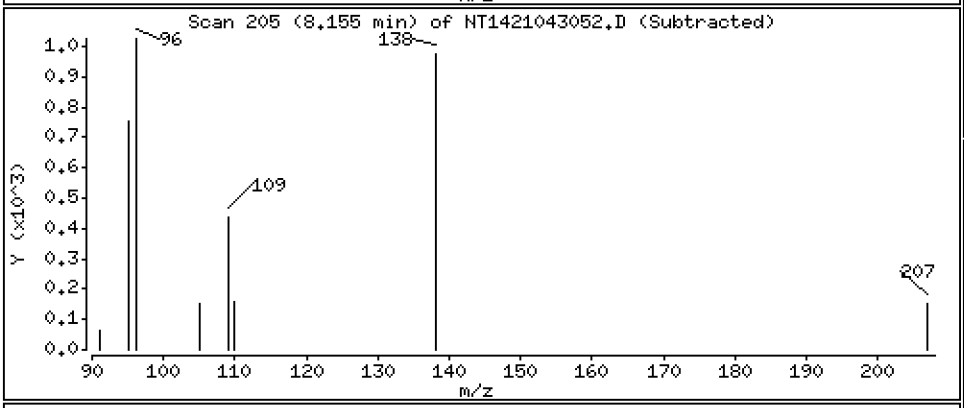
Column diameter: 0.25

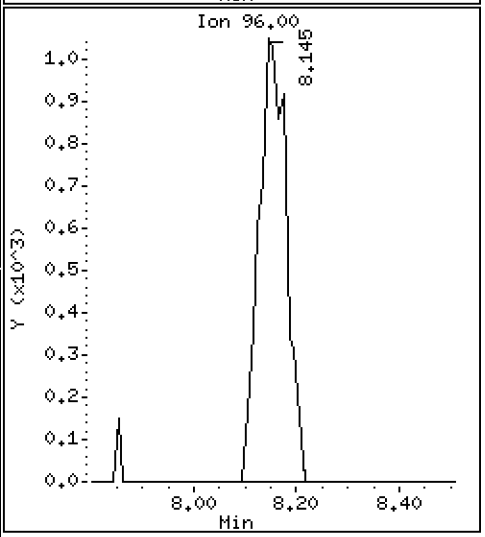
2 cis-Decalin

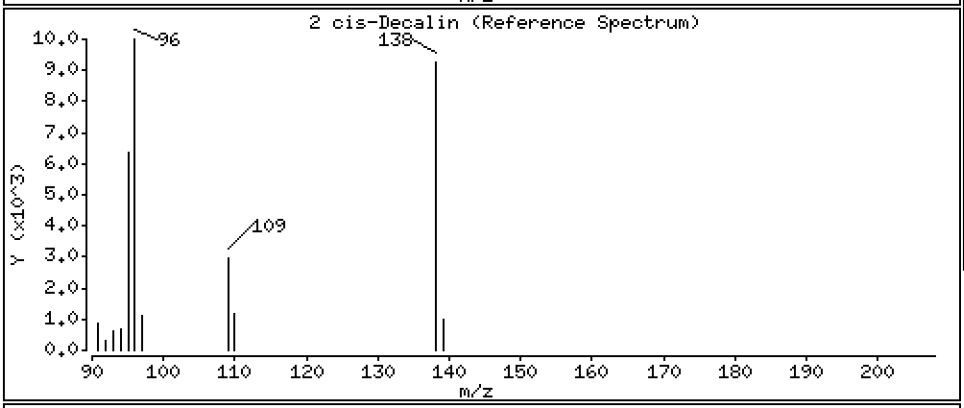
Concentration: 0.1139 ug/mL

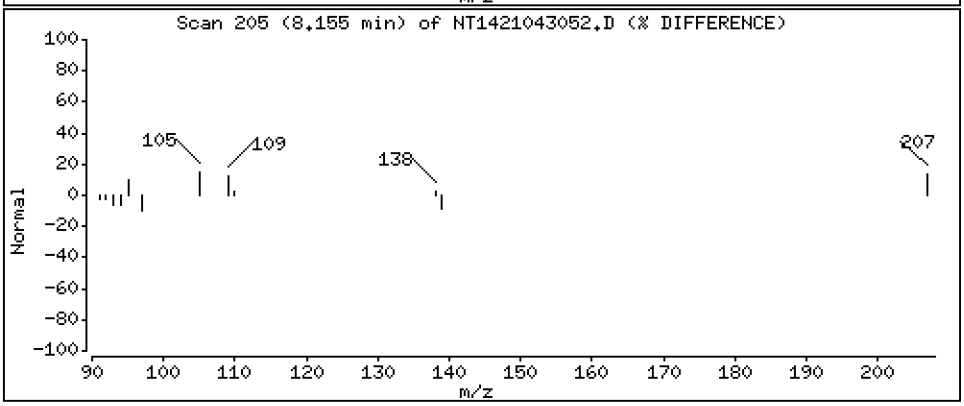


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043052.D

Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

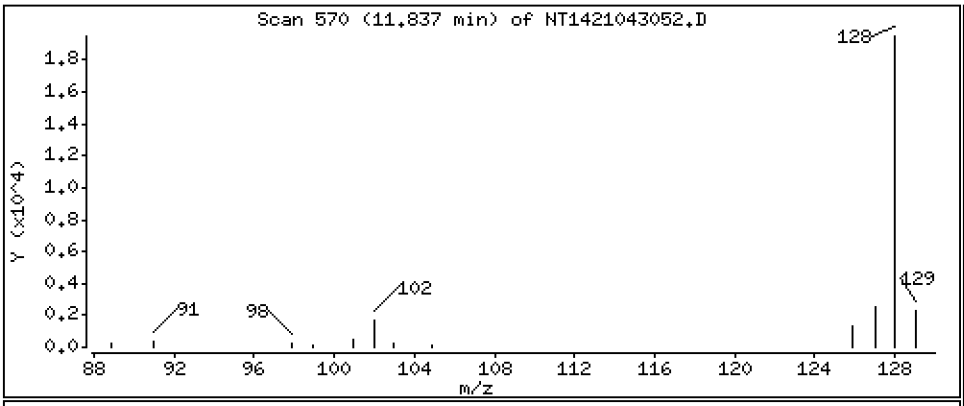
Operator: VTS

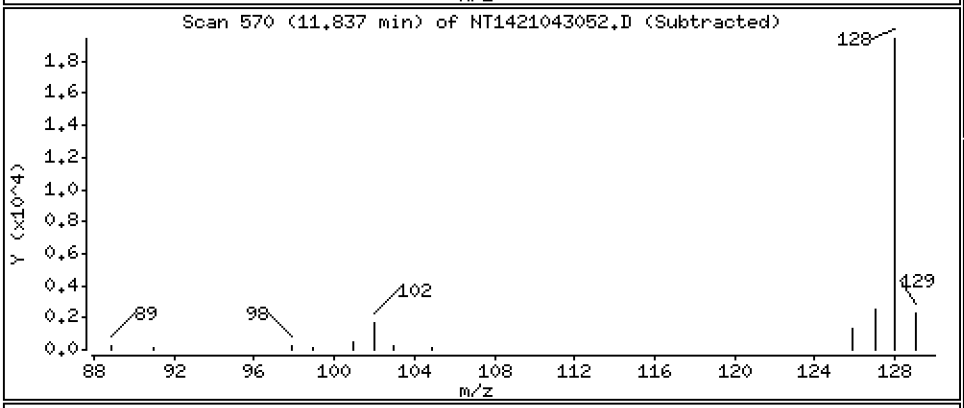
Column phase: Rxi-17Sil MS

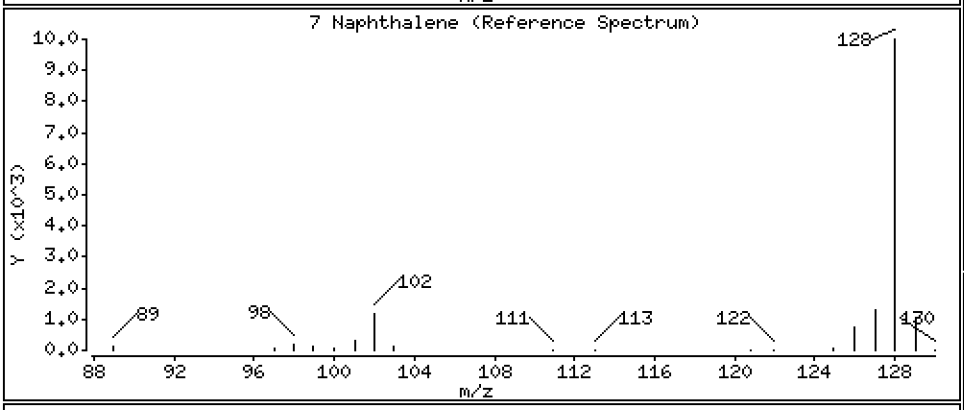
Column diameter: 0.25

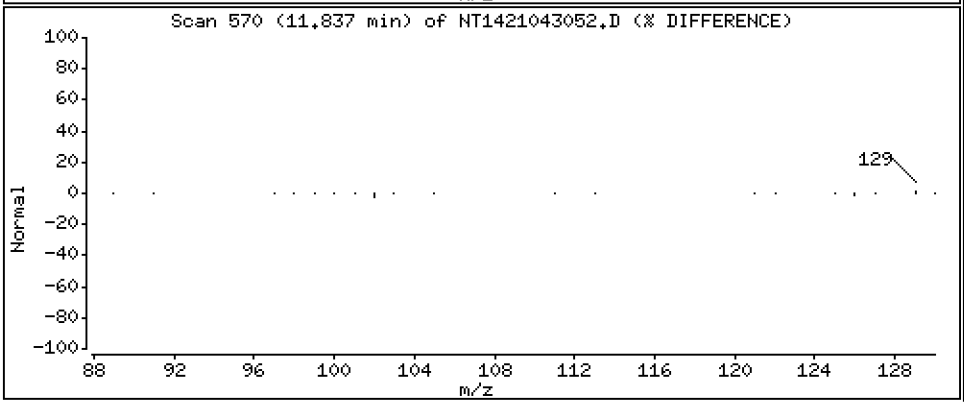
7 Naphthalene

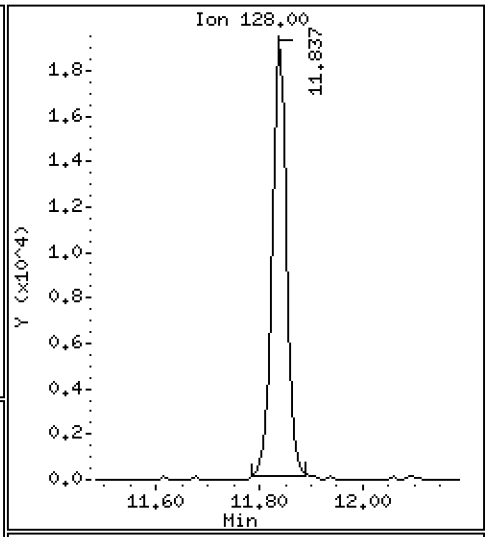
Concentration: 0.1140 ug/mL

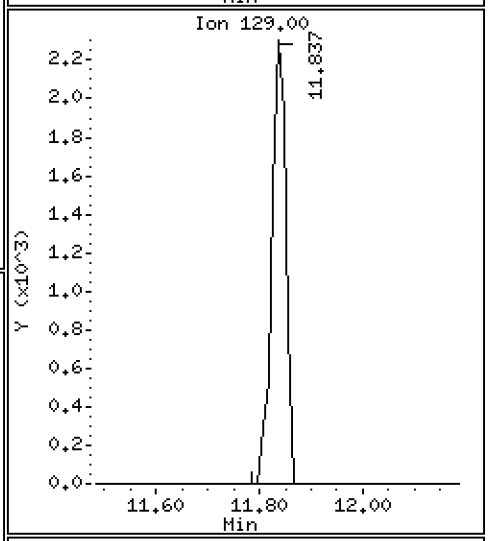


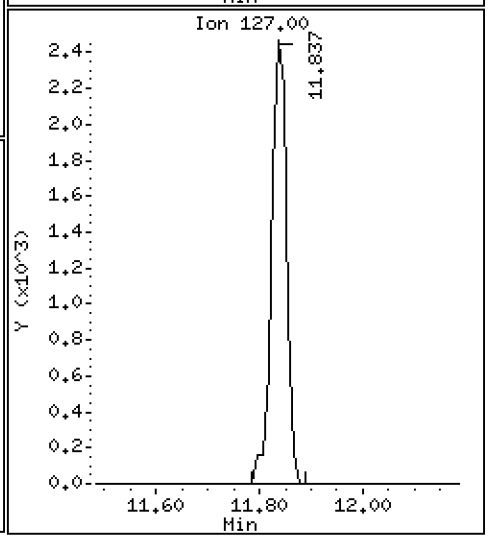



Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043052.D

Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

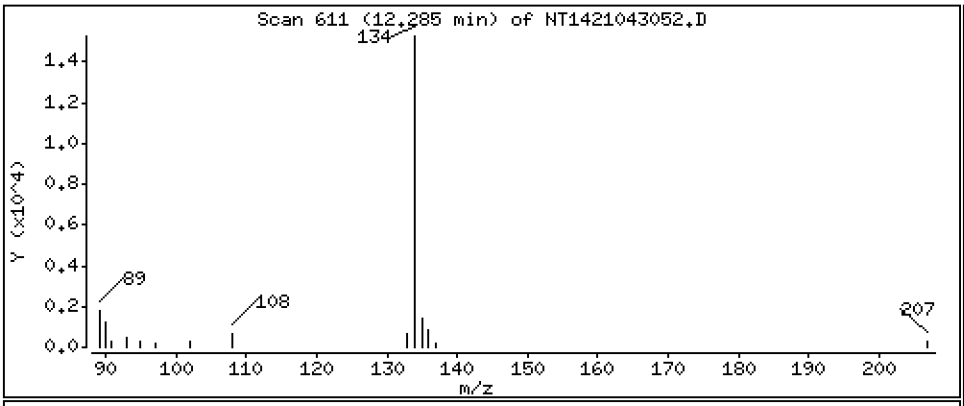
Operator: VTS

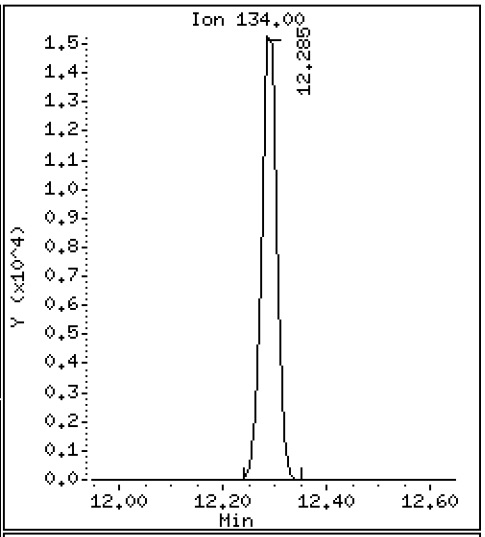
Column phase: Rxi-17Sil MS

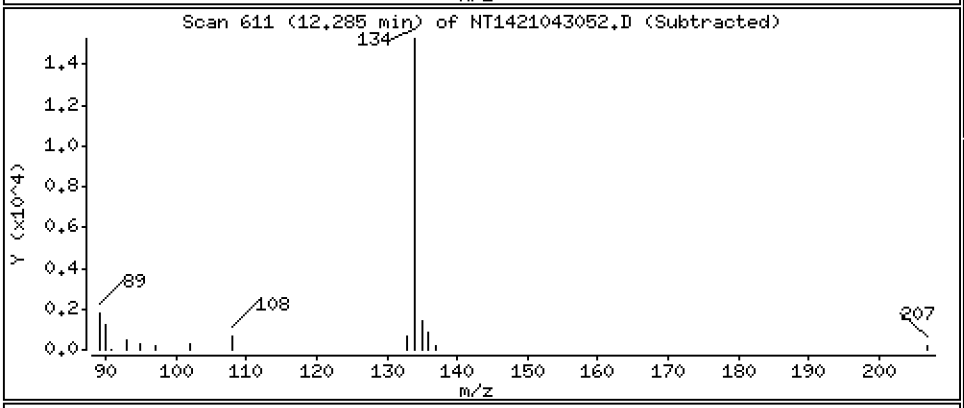
Column diameter: 0.25

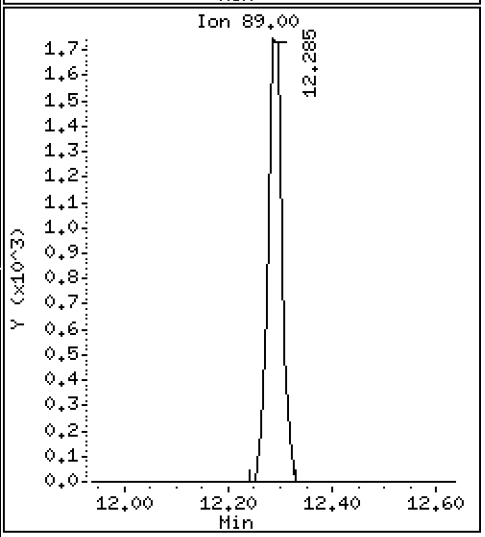
12 Benzo(b)thiophene

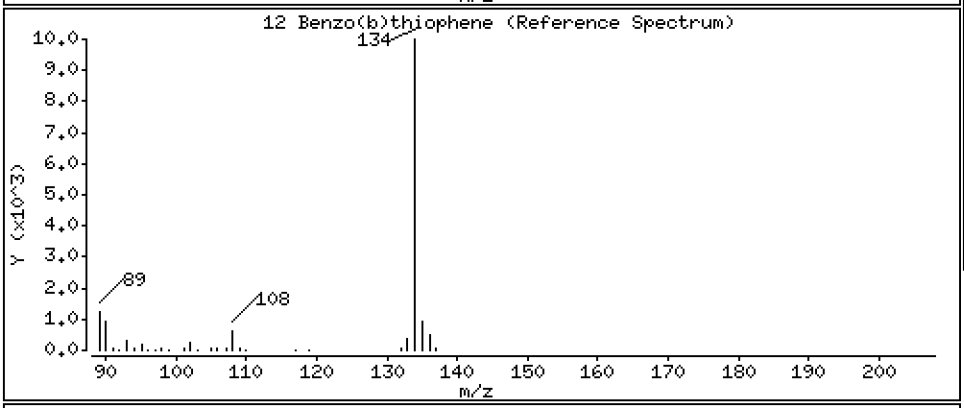
Concentration: 0.1217 ug/mL

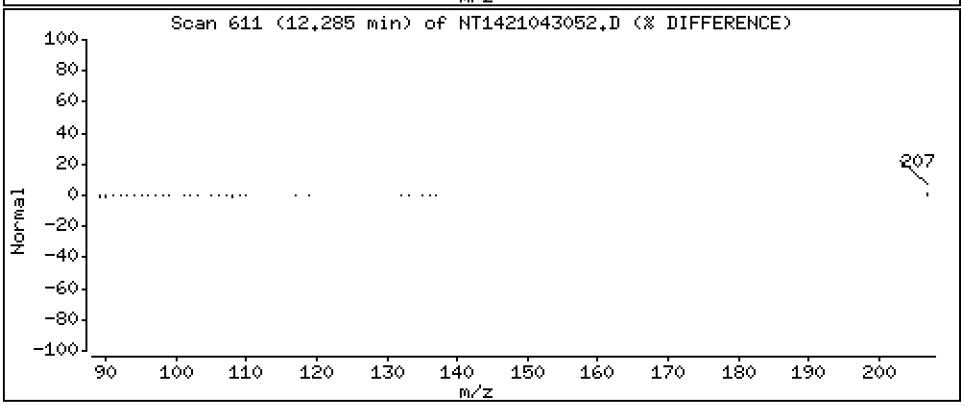


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043052.D

Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

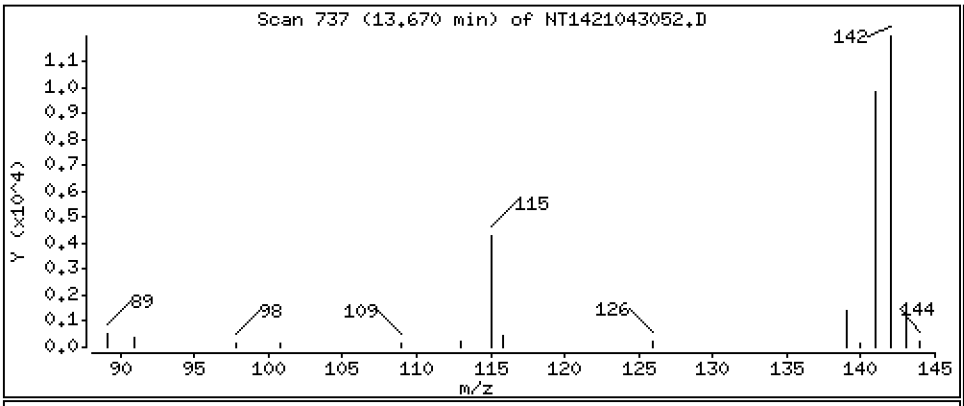
Operator: VTS

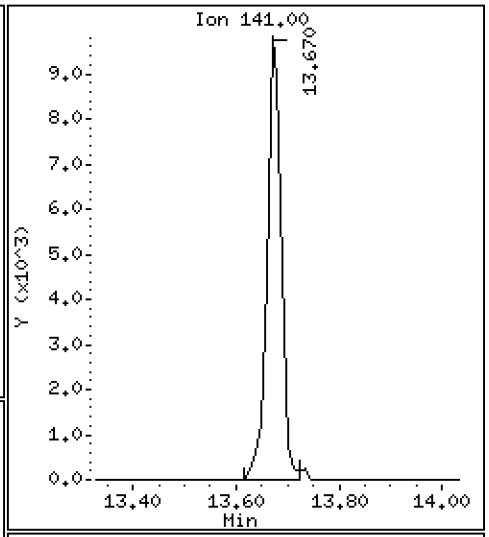
Column phase: Rxi-17Sil MS

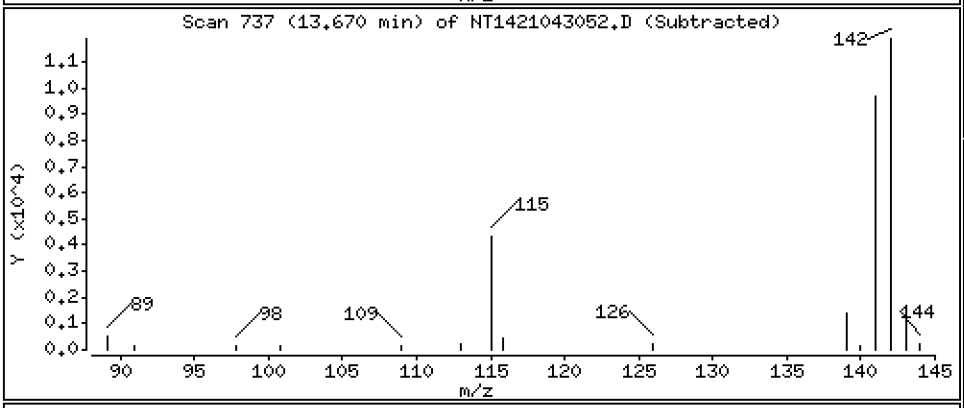
Column diameter: 0.25

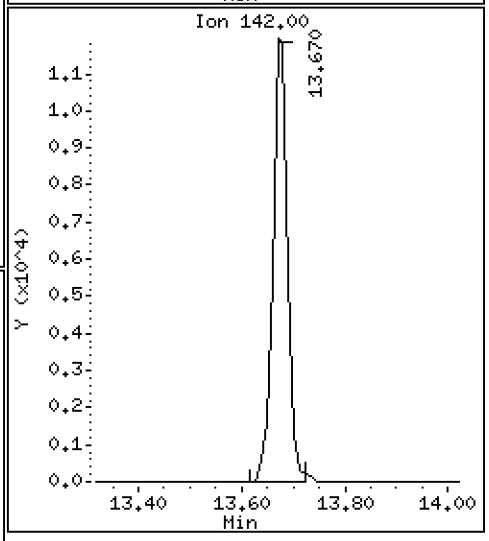
16 2-Methylnaphthalene

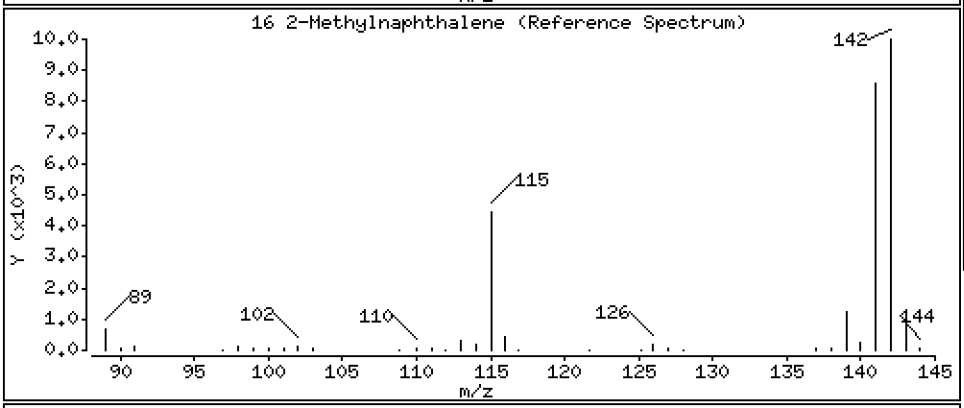
Concentration: 0.1173 ug/mL

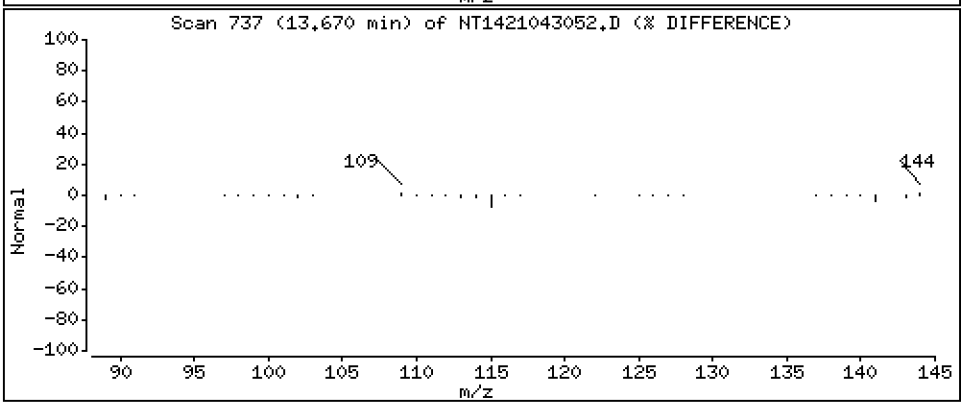


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Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

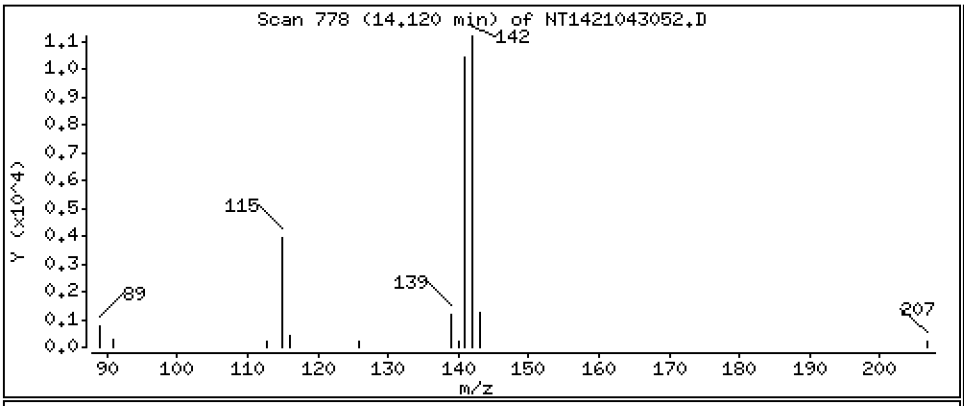
Operator: VTS

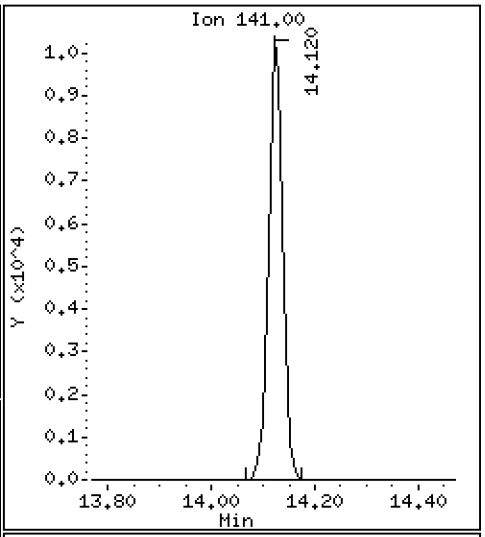
Column phase: Rxi-17Sil MS

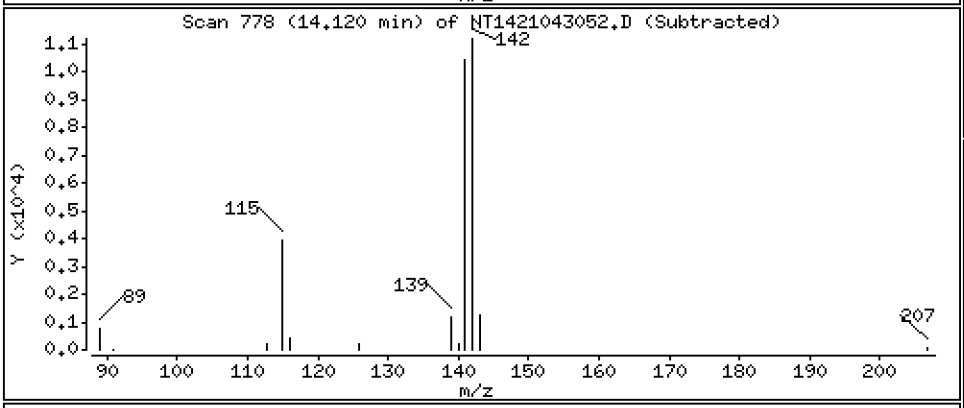
Column diameter: 0.25

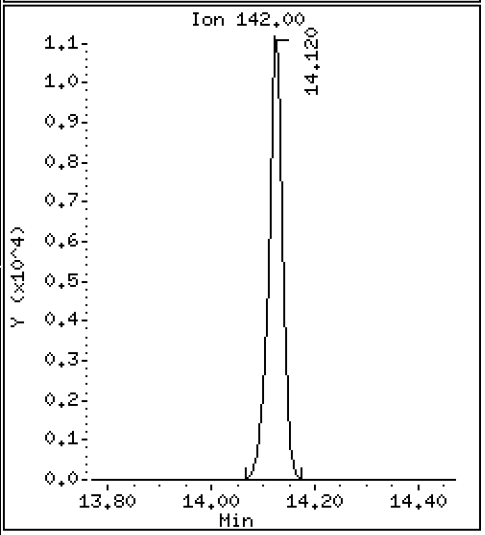
17 1-methylnaphthalene

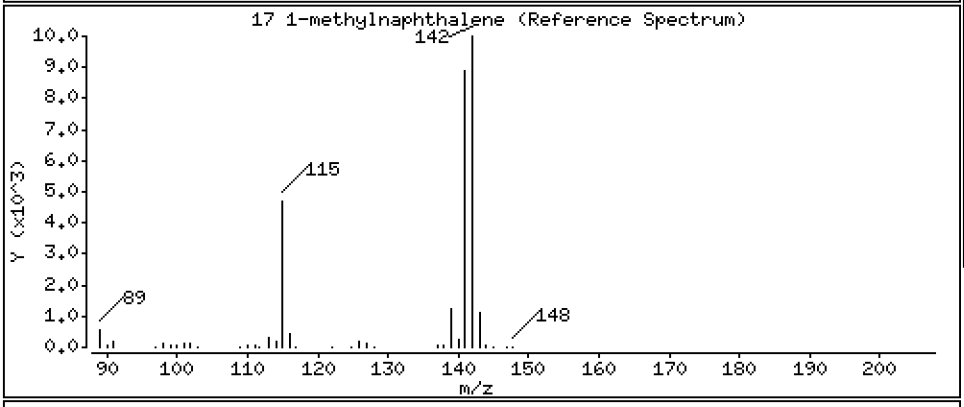
Concentration: 0.1300 ug/mL

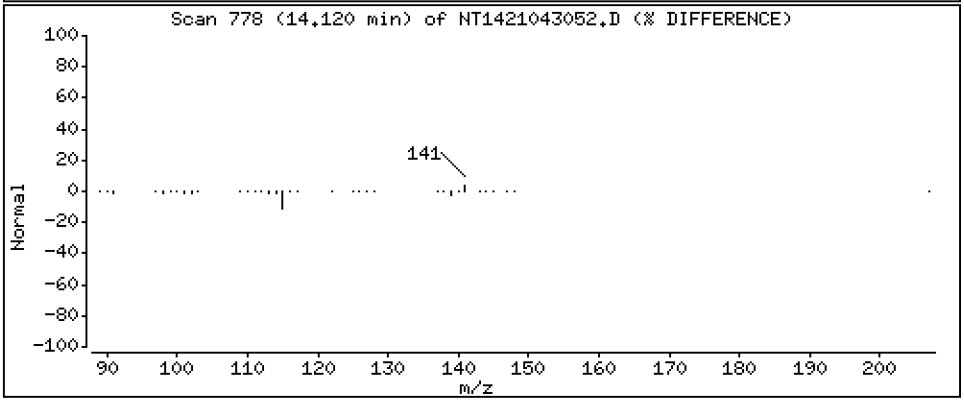


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Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

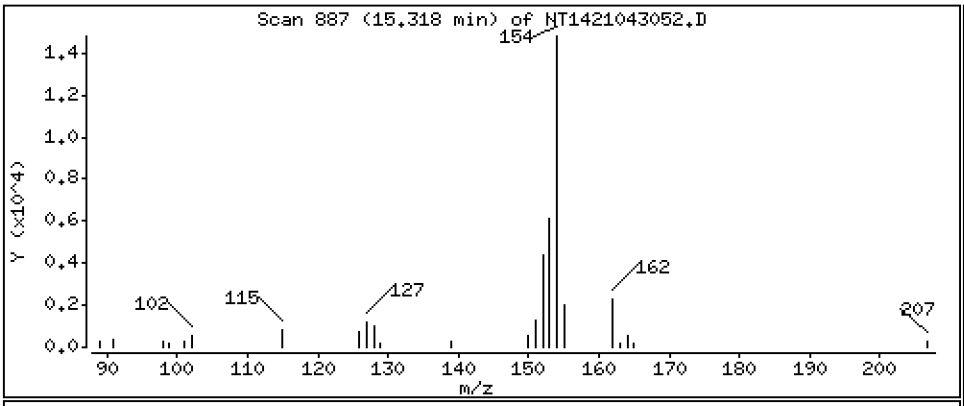
Operator: VTS

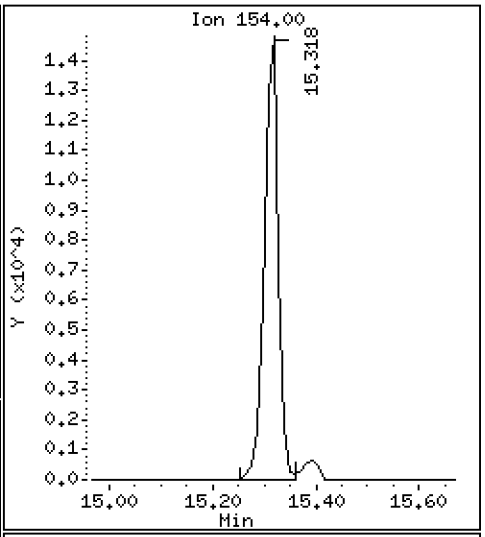
Column phase: Rxi-17Sil MS

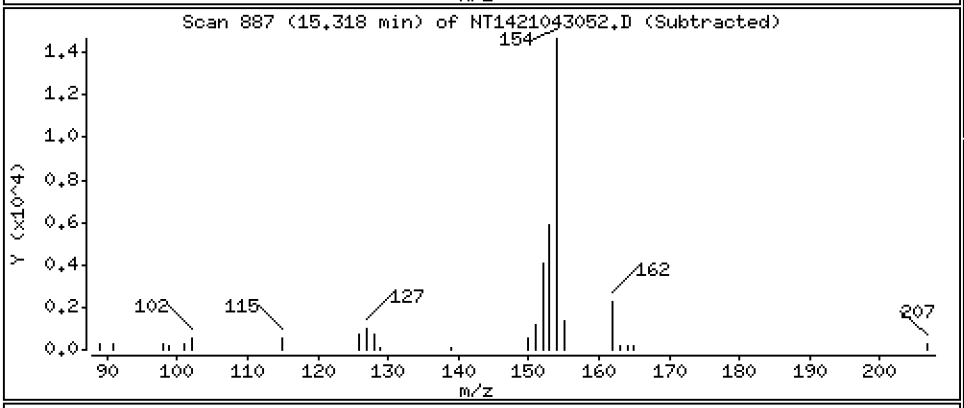
Column diameter: 0.25

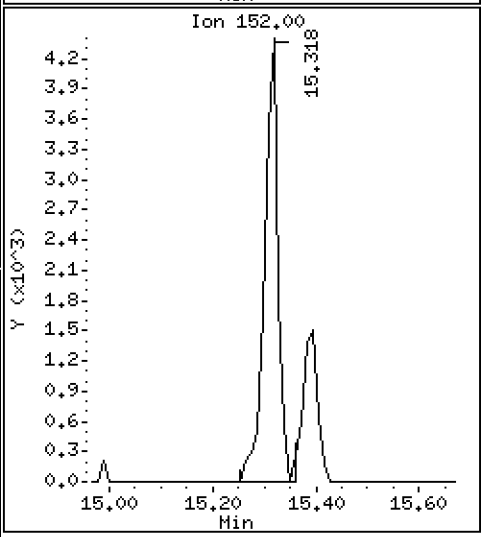
18 Biphenyl

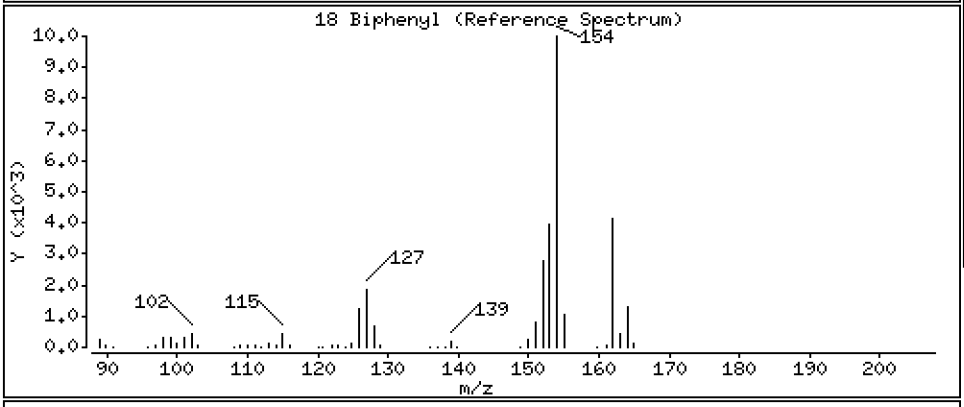
Concentration: 0.1191 ug/mL

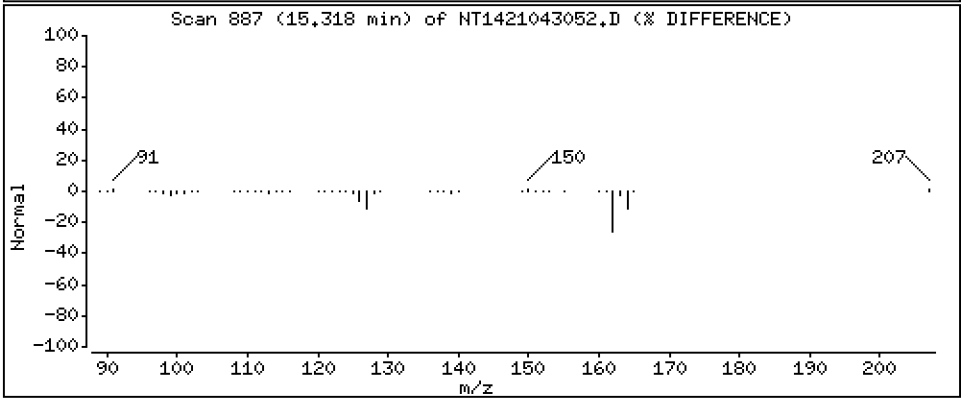


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Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

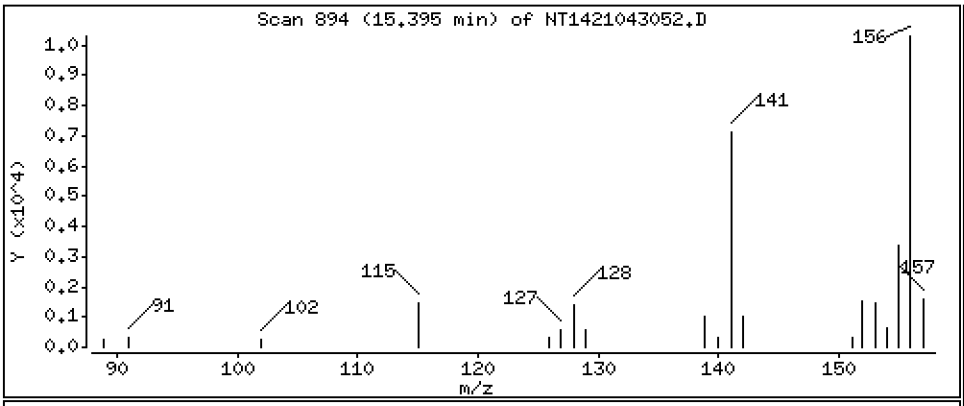
Operator: VTS

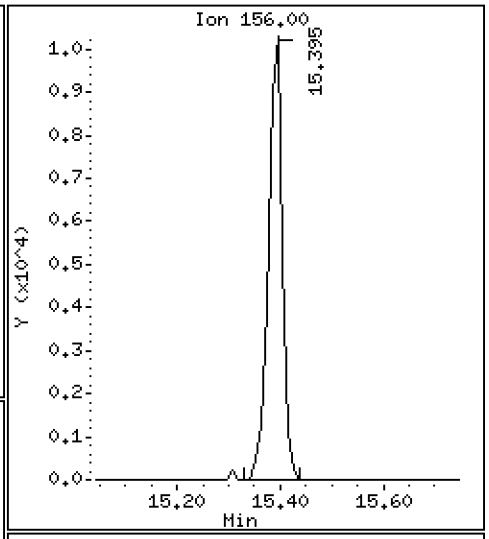
Column phase: Rxi-17Sil MS

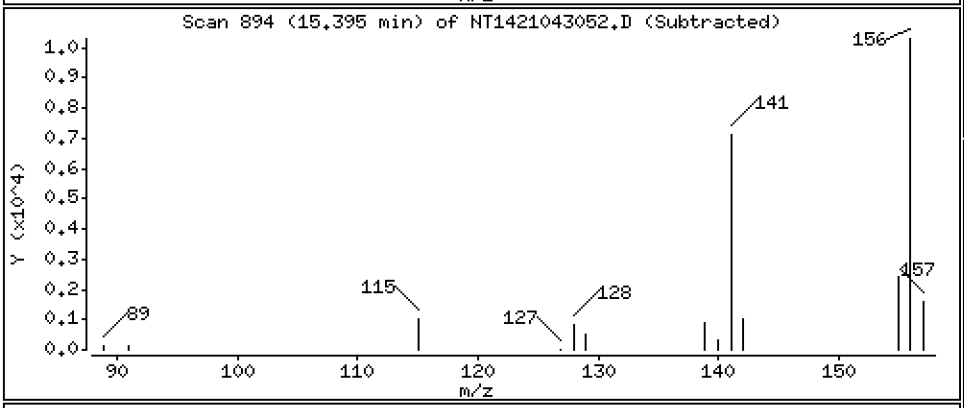
Column diameter: 0.25

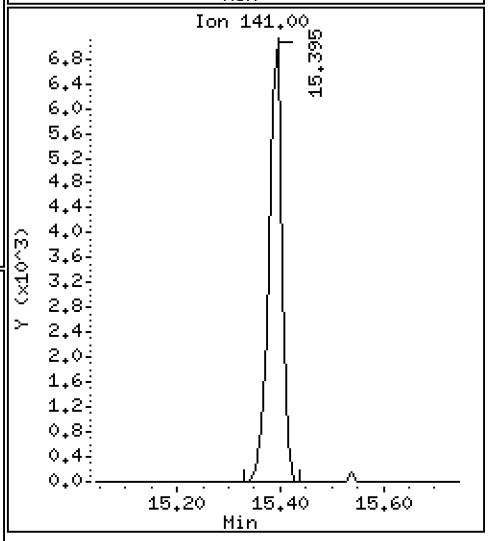
19 2,6-Dimethylnaphthalene

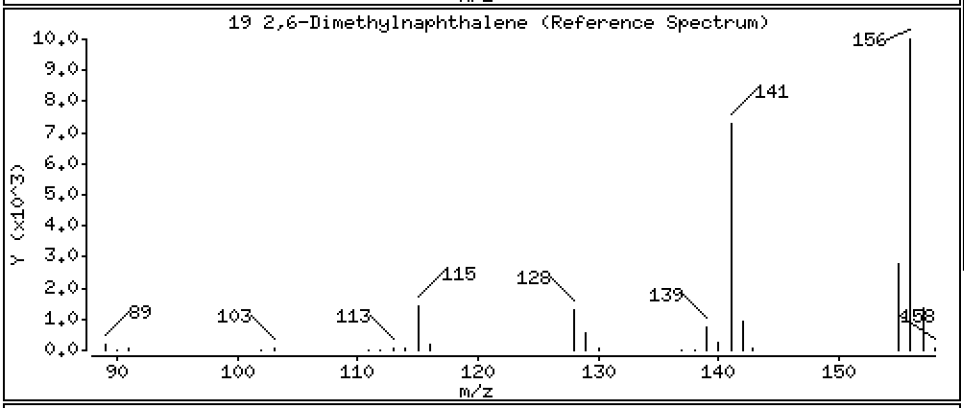
Concentration: 0.1207 ug/mL

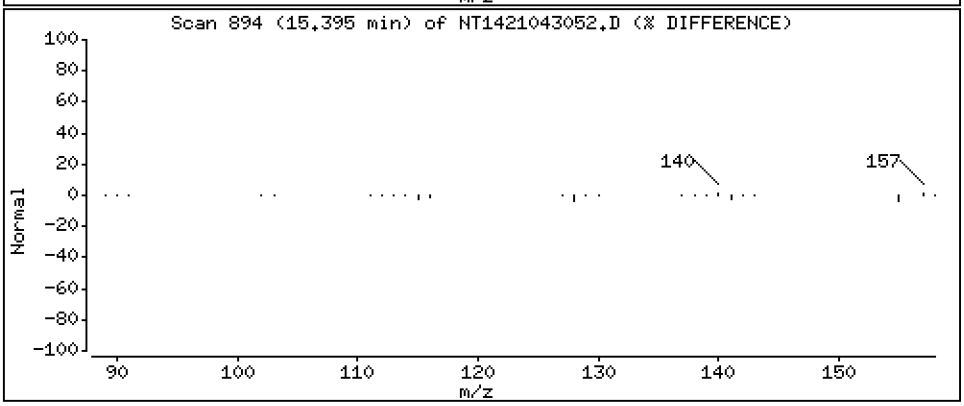


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Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

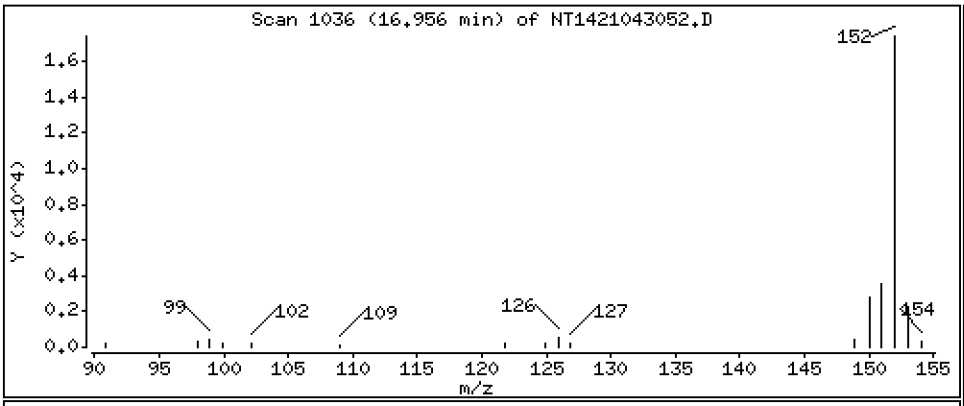
Operator: VTS

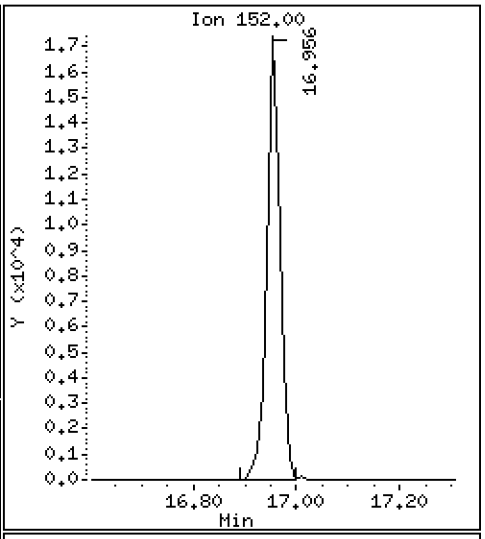
Column phase: Rxi-17Sil MS

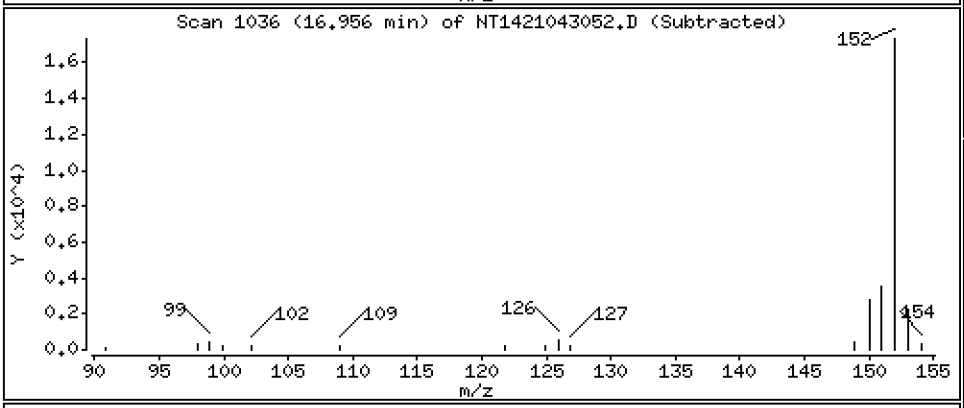
Column diameter: 0.25

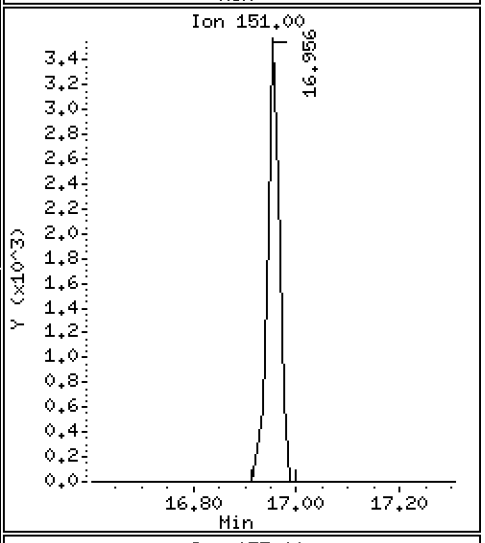
20 Acenaphthylene

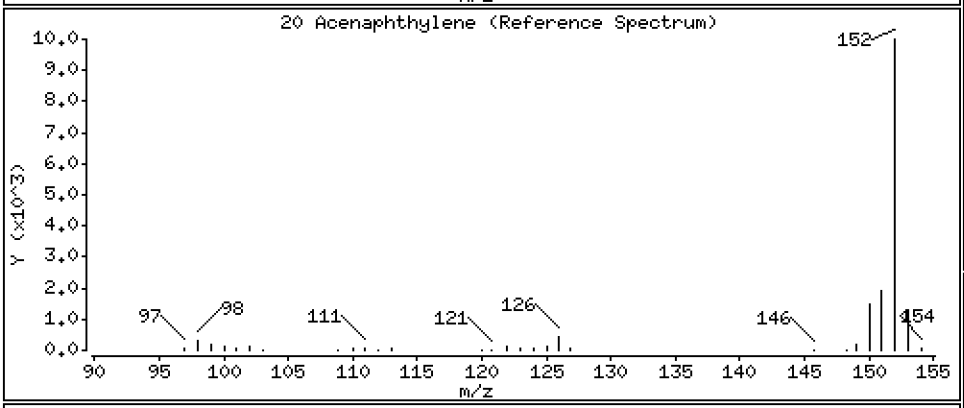
Concentration: 0.1245 ug/mL

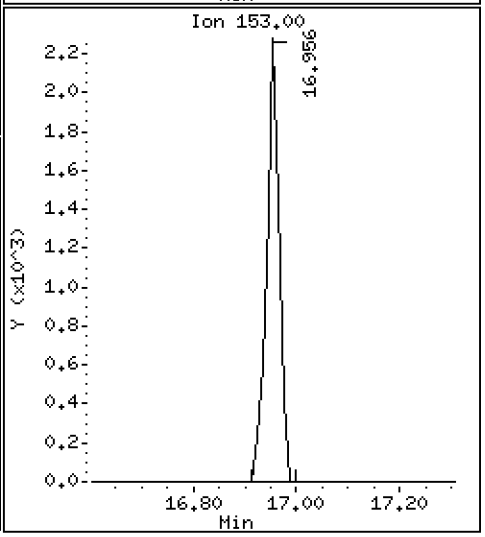


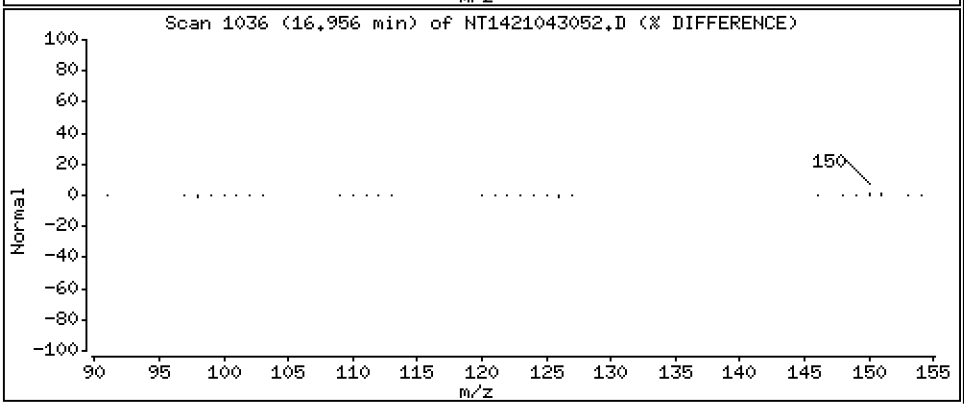



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Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

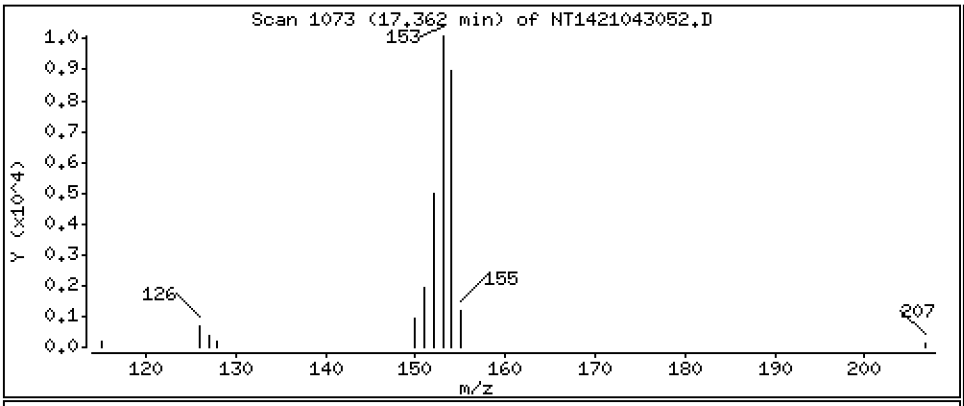
Operator: VTS

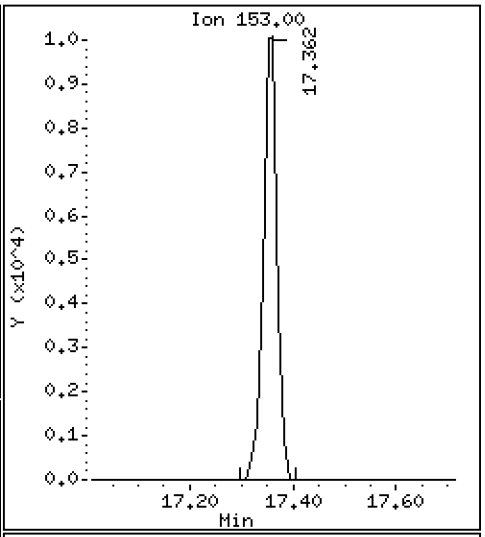
Column phase: Rxi-17Sil MS

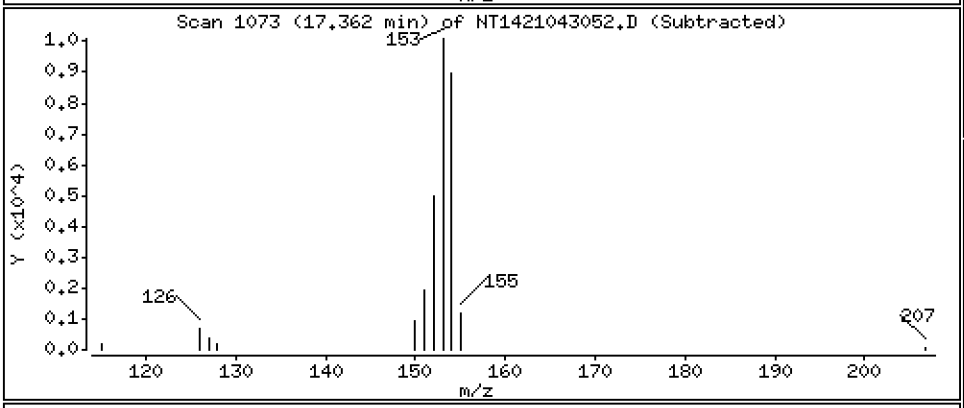
Column diameter: 0.25

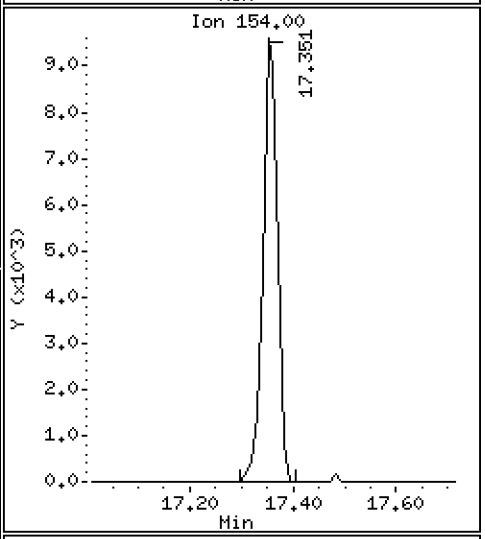
22 Acenaphthene

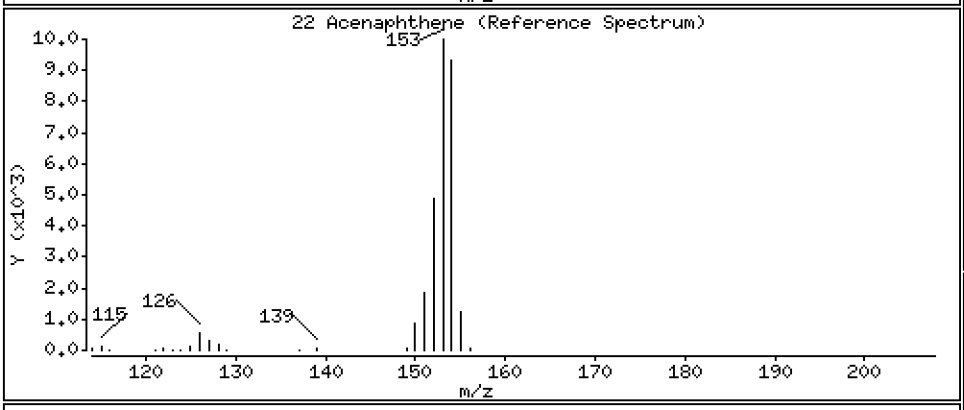
Concentration: 0.1189 ug/mL

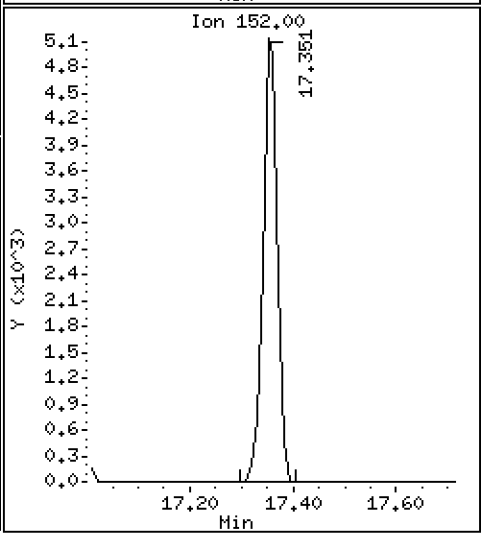


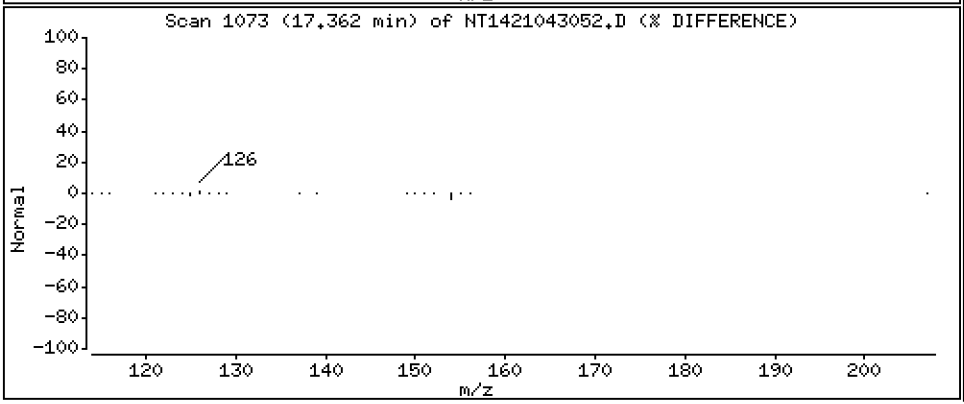



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Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

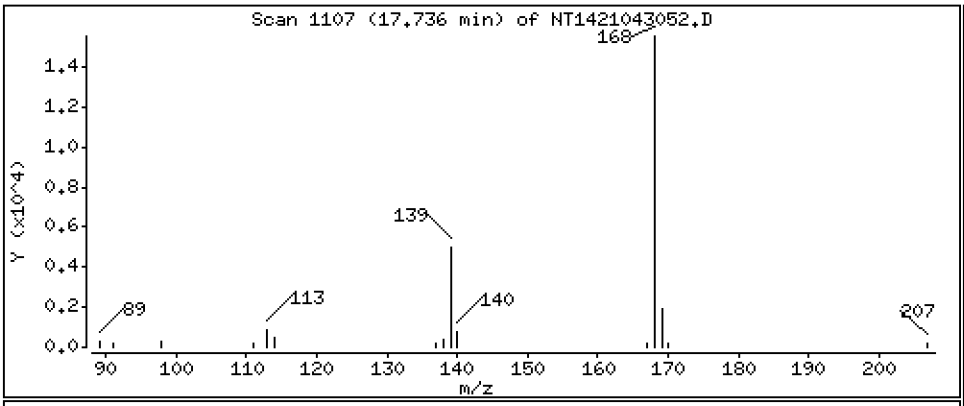
Operator: VTS

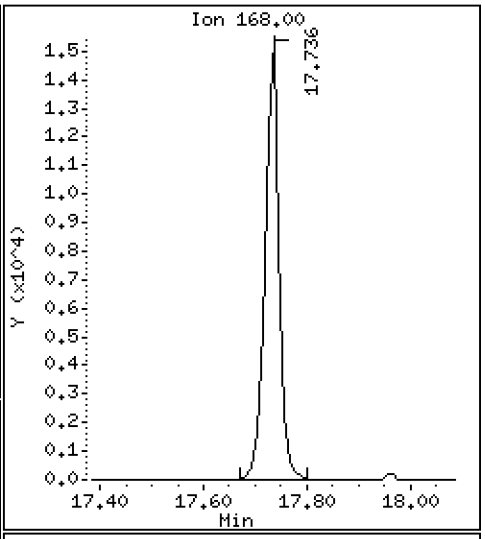
Column phase: Rxi-17Sil MS

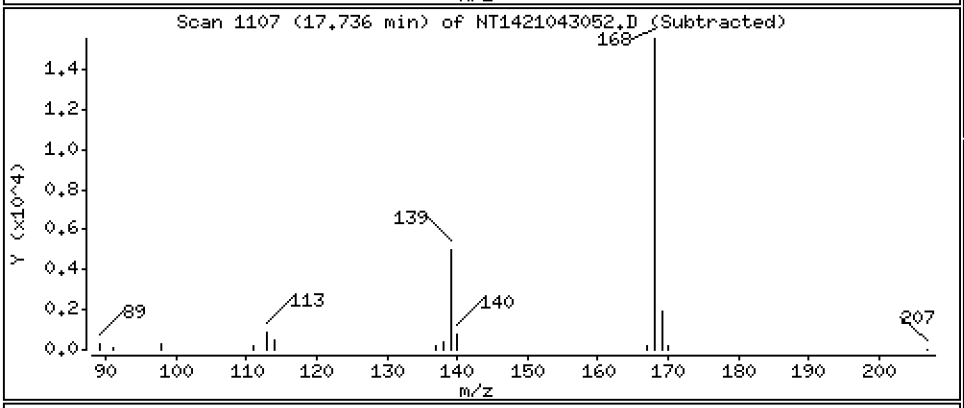
Column diameter: 0.25

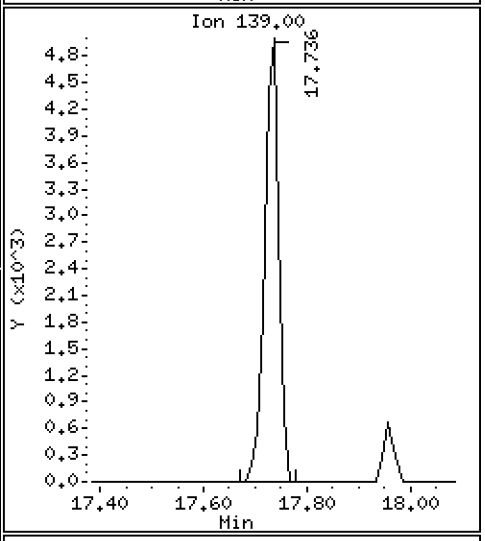
23 Dibenzofuran

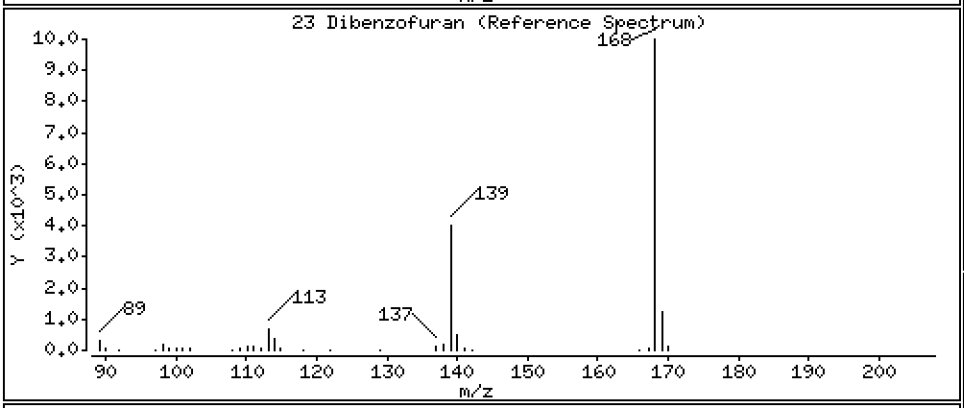
Concentration: 0.1169 ug/mL

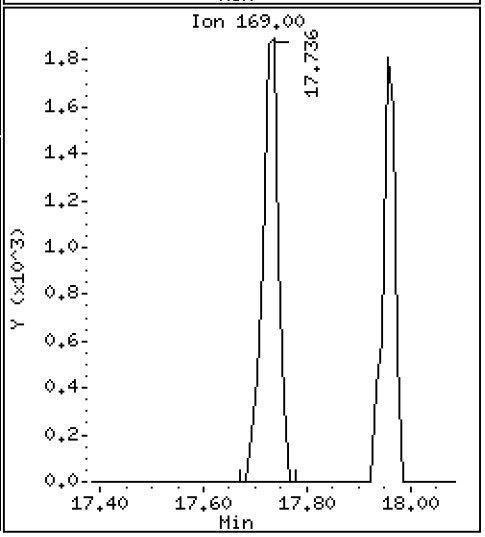


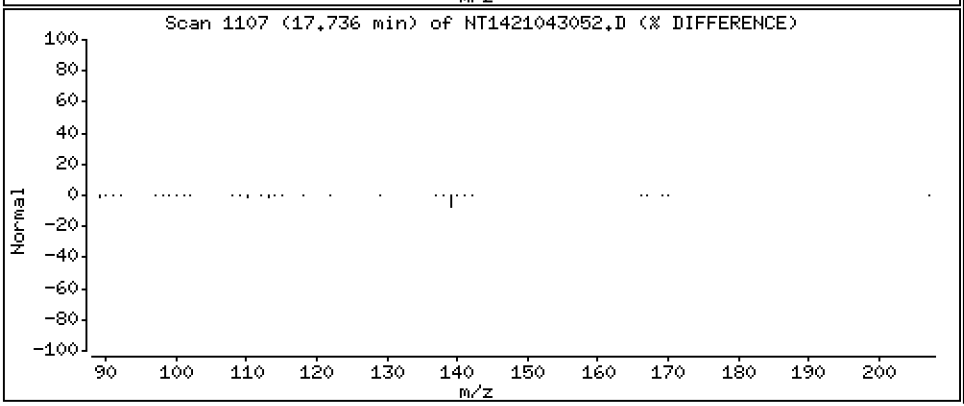



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Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

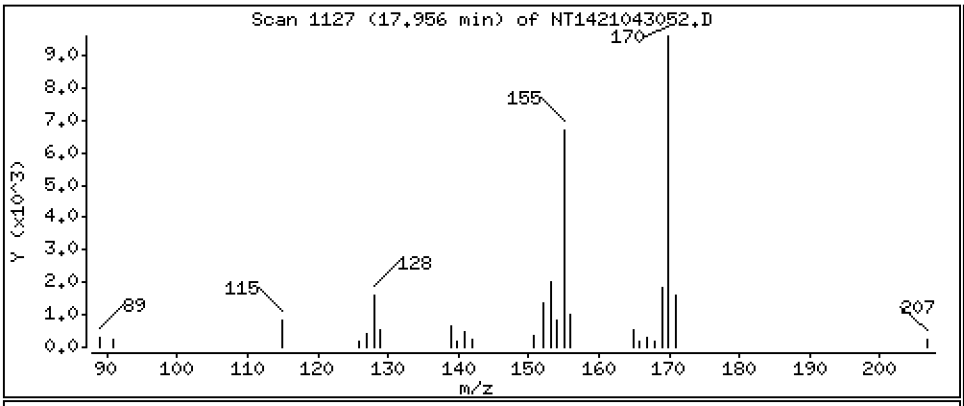
Operator: VTS

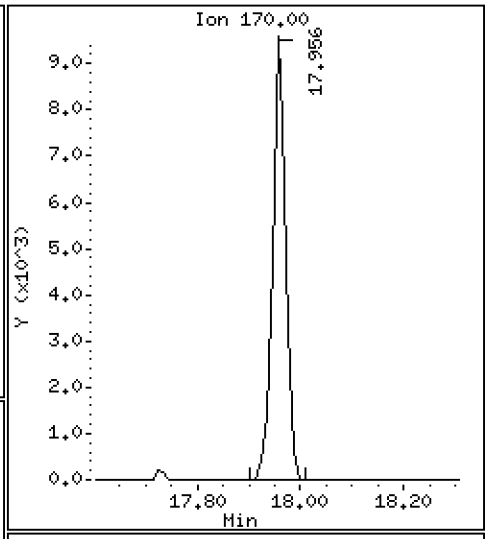
Column phase: Rxi-17Sil MS

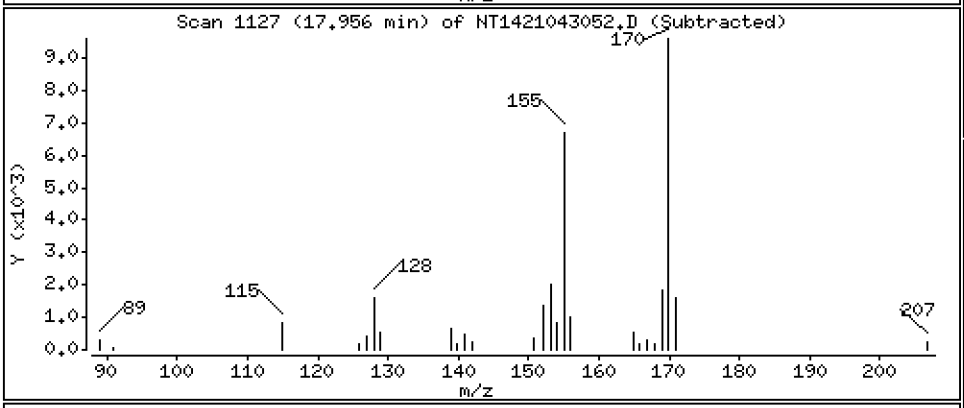
Column diameter: 0.25

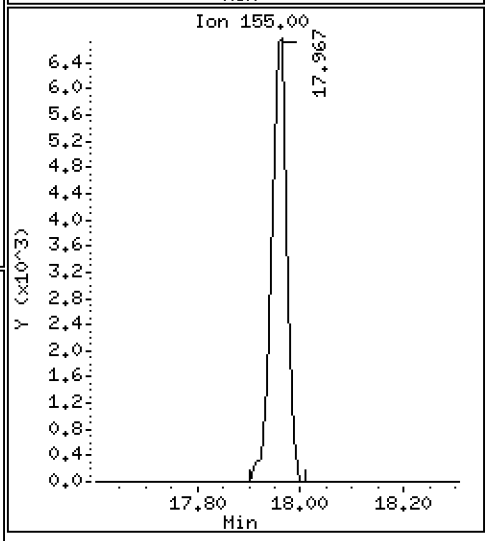
24 1,6,7-Trimethylnaphthalene

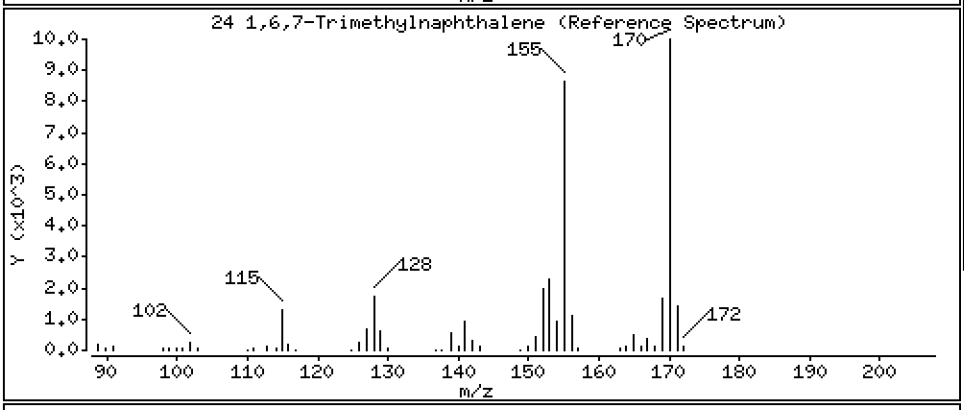
Concentration: 0.1215 ug/mL

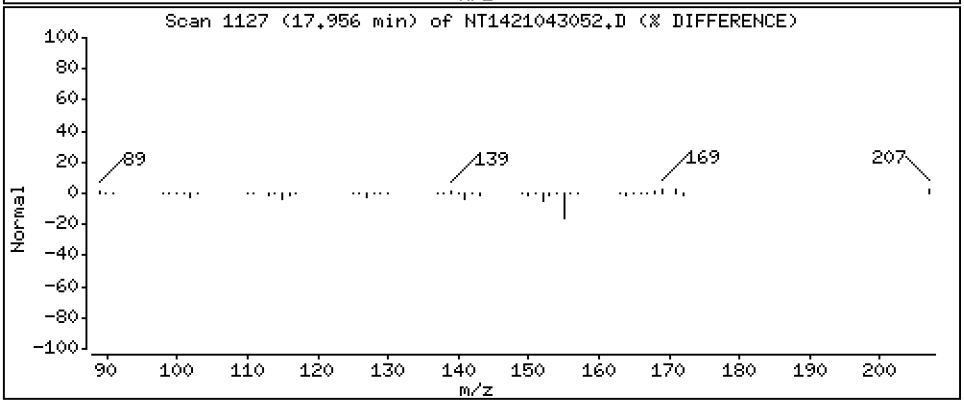


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043052.D

Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

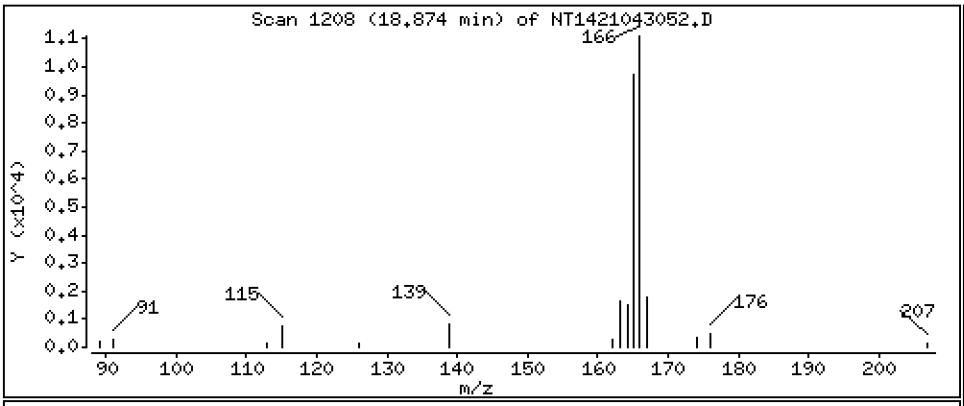
Operator: VTS

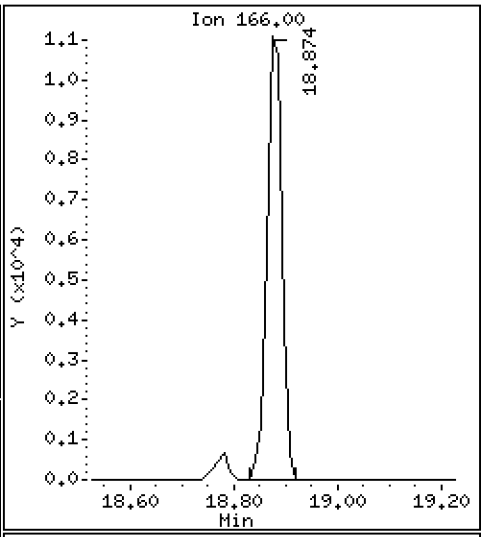
Column phase: Rxi-17Sil MS

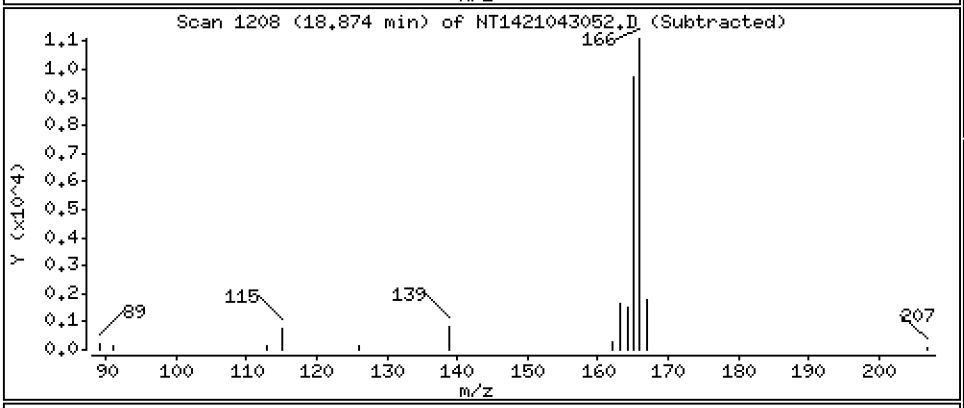
Column diameter: 0.25

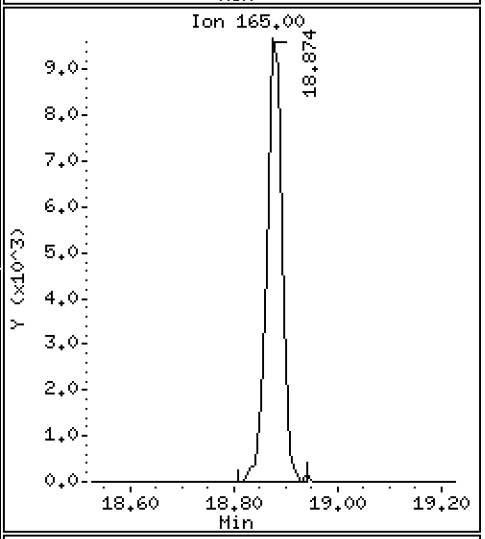
26 Fluorene

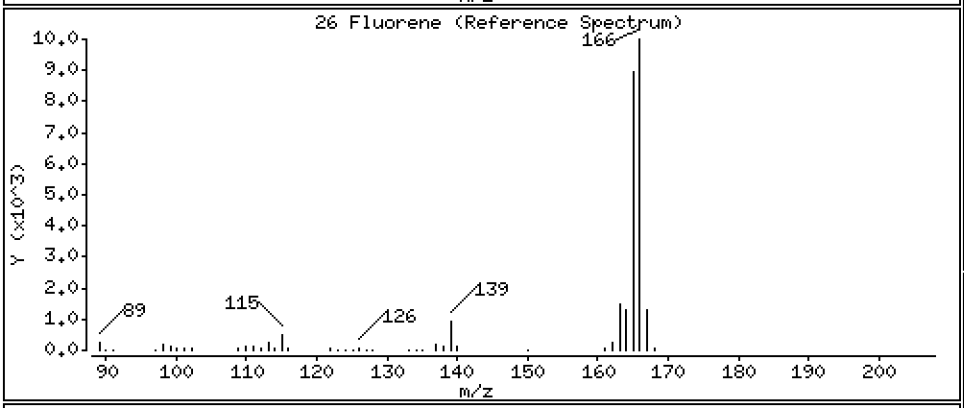
Concentration: 0.1203 ug/mL

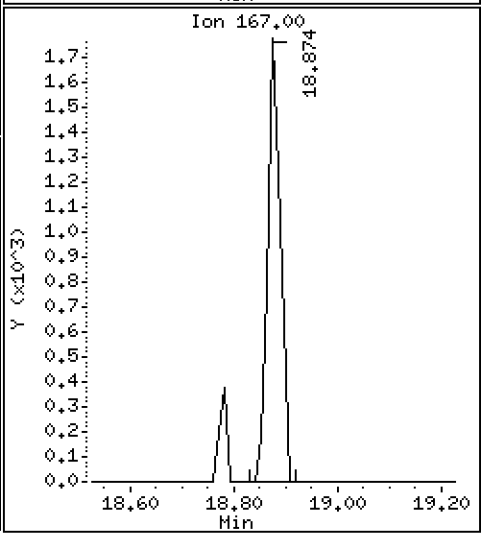


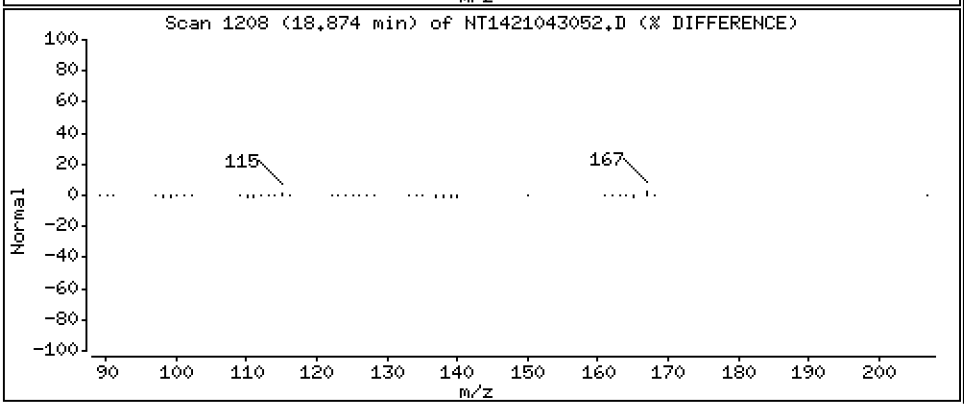



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Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

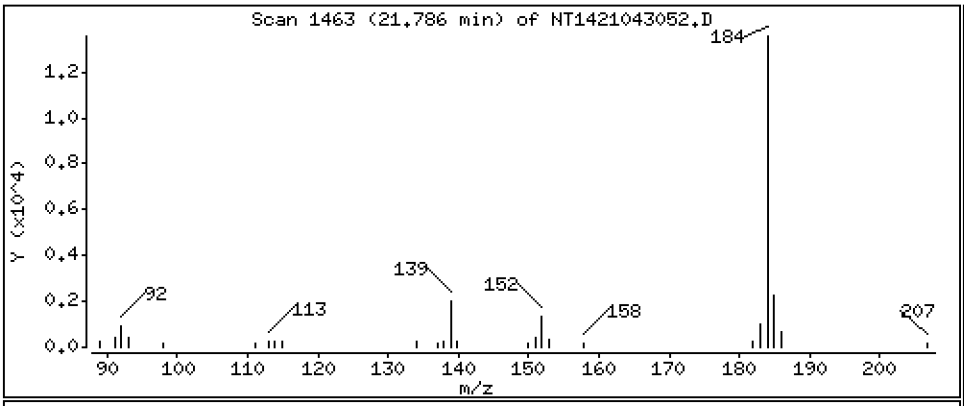
Operator: VTS

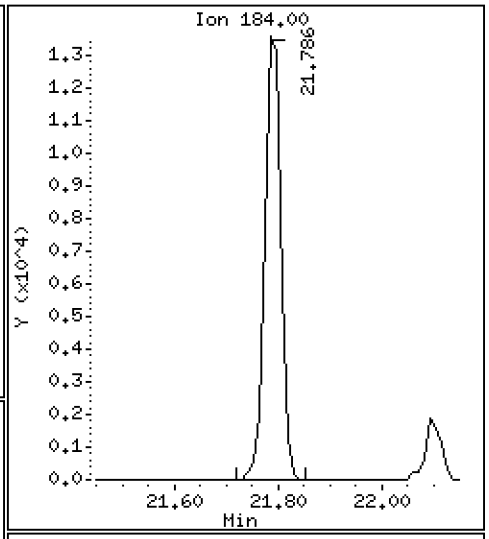
Column phase: Rxi-17Sil MS

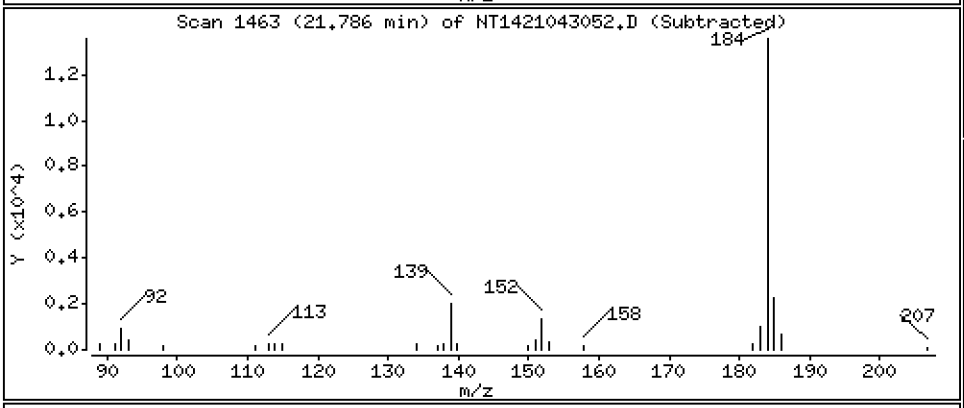
Column diameter: 0.25

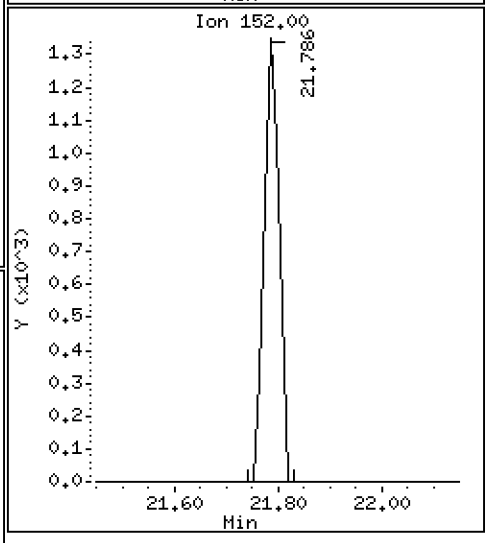
30 Dibenzothiophene

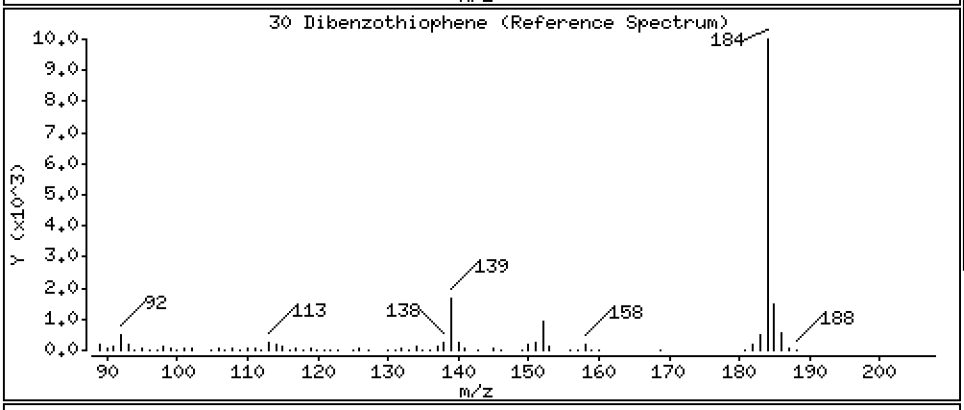
Concentration: 0.1210 ug/mL

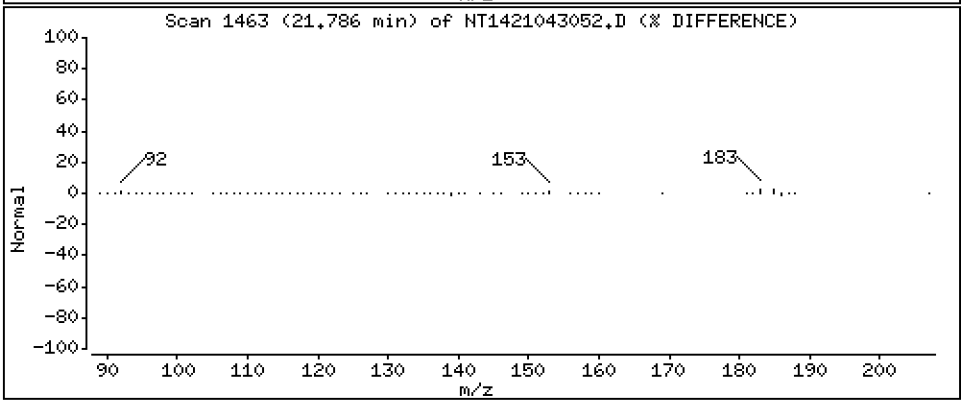


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043052.D

Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

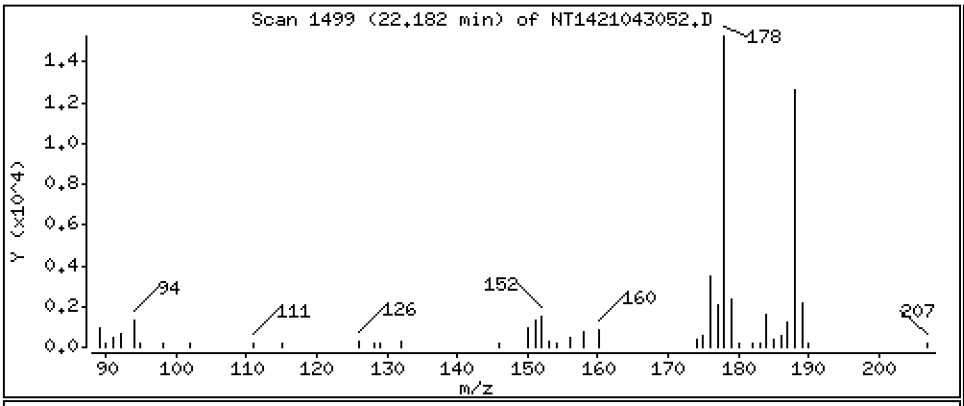
Operator: VTS

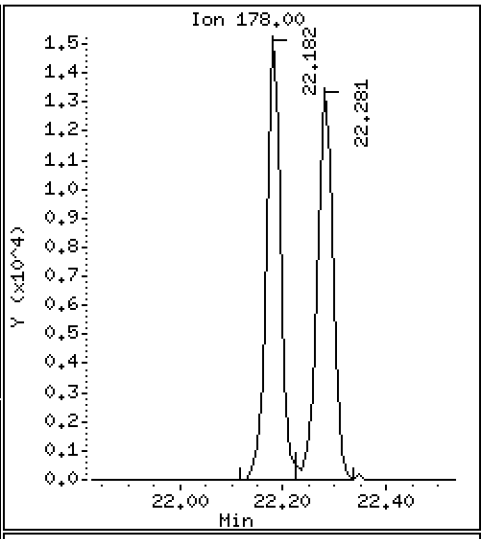
Column phase: Rxi-17Sil MS

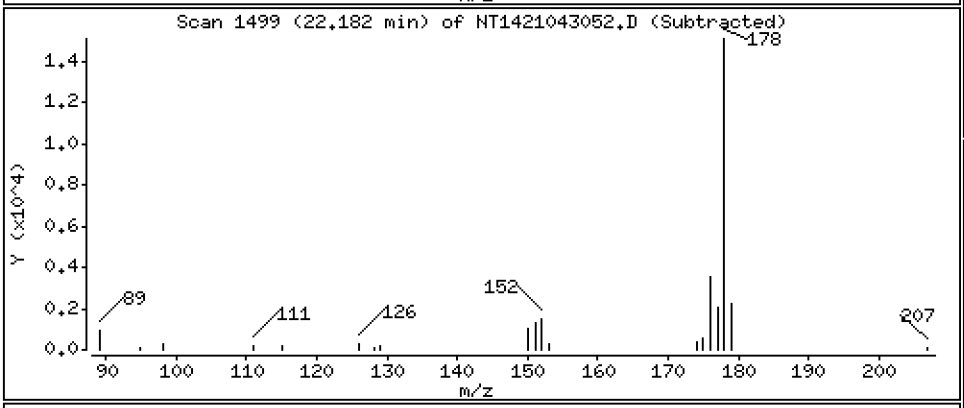
Column diameter: 0.25

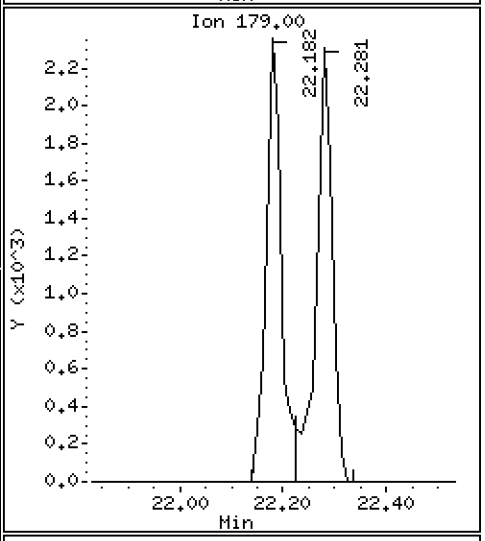
36 Phenanthrene

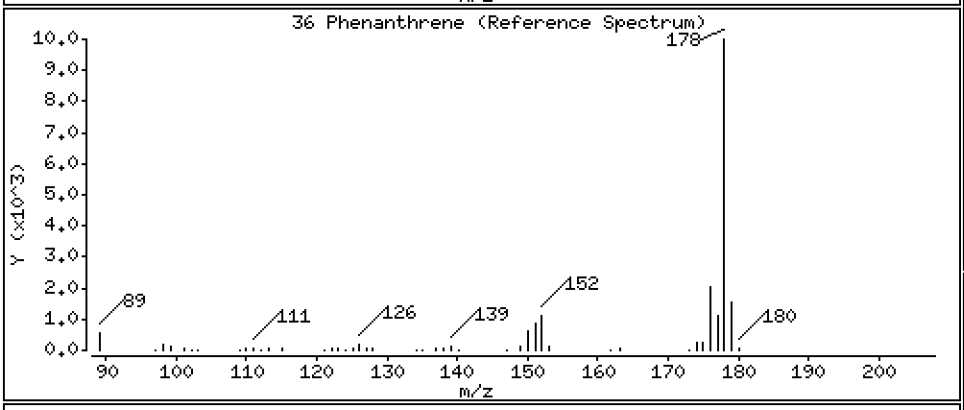
Concentration: 0.1060 ug/mL

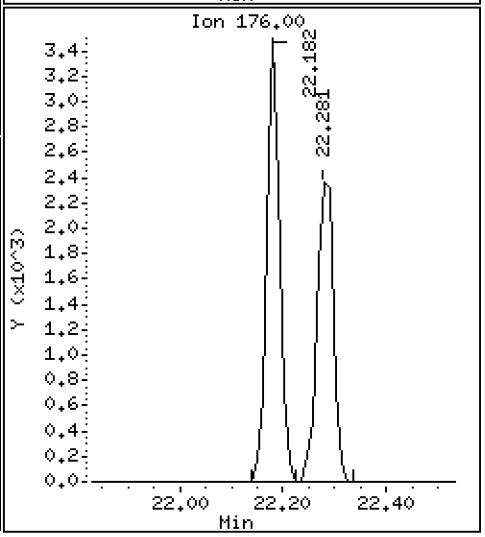


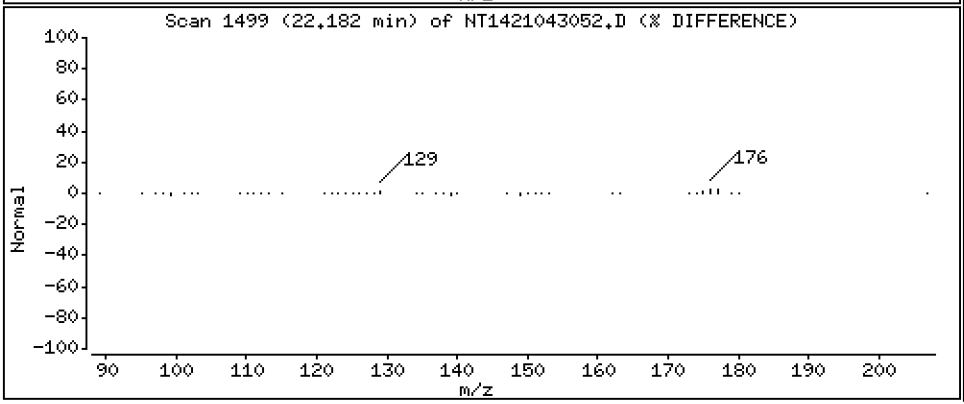



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Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

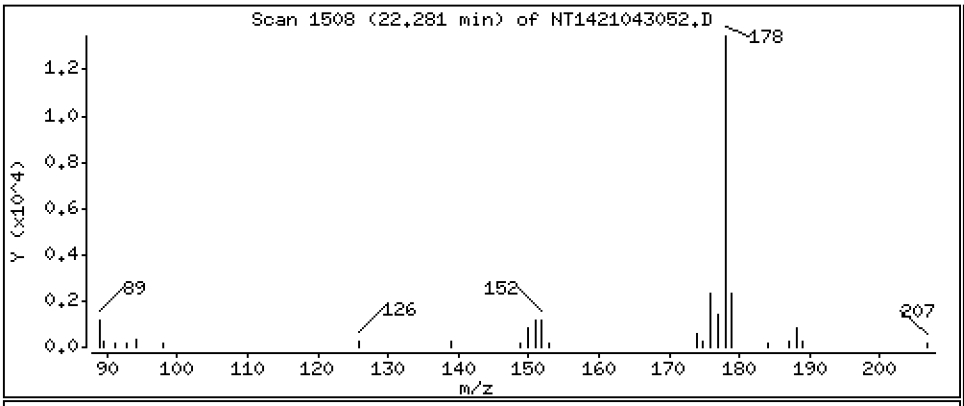
Operator: VTS

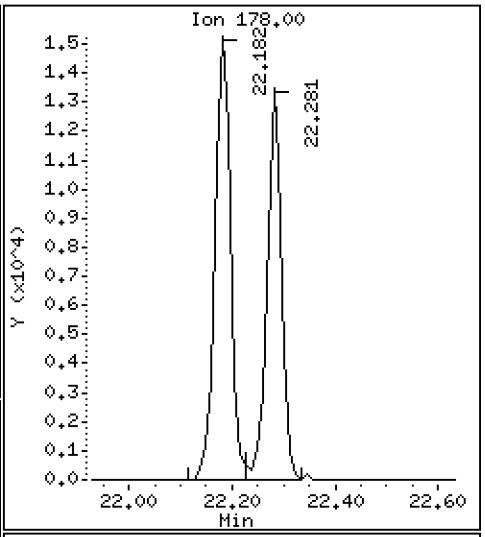
Column phase: Rxi-17Sil MS

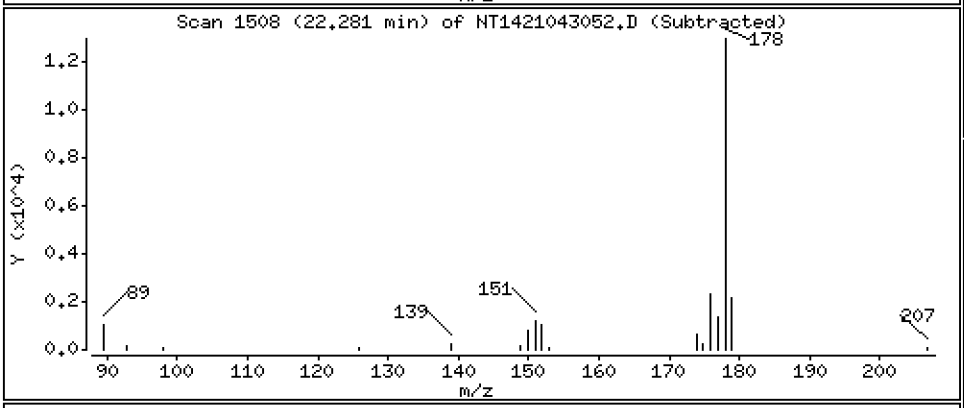
Column diameter: 0.25

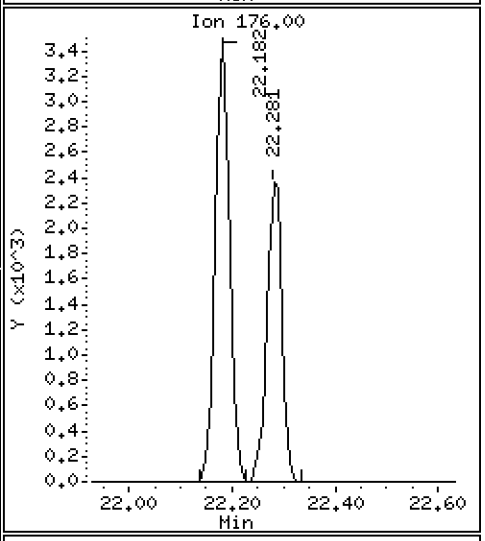
37 Anthracene

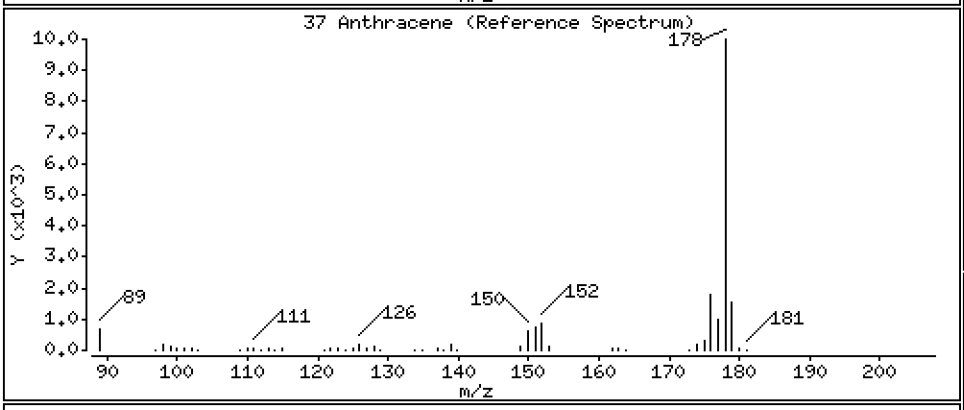
Concentration: 0.1034 ug/mL

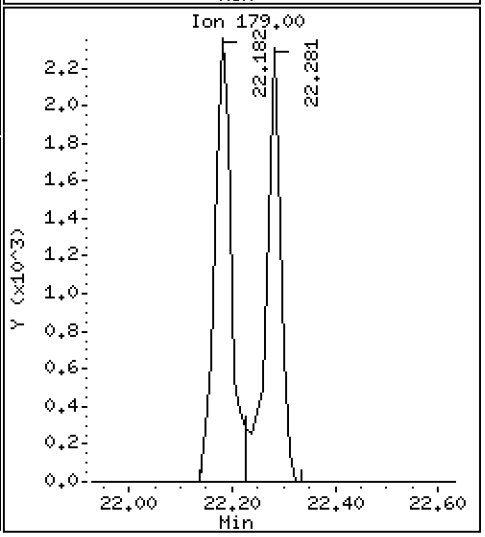


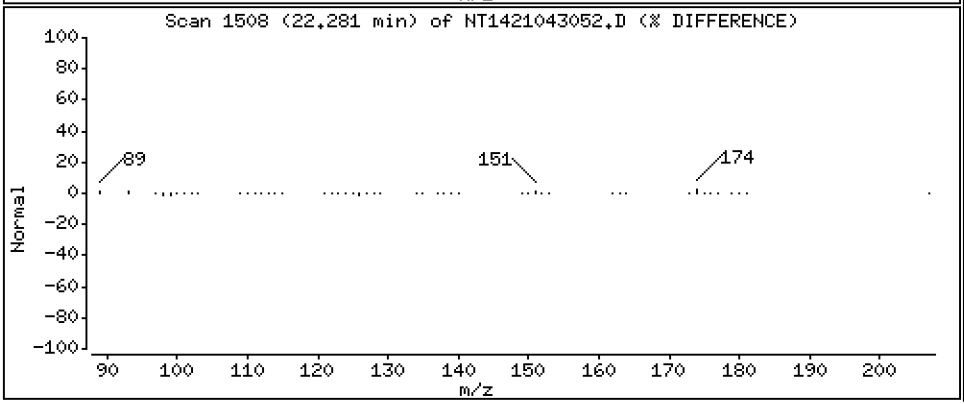



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Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

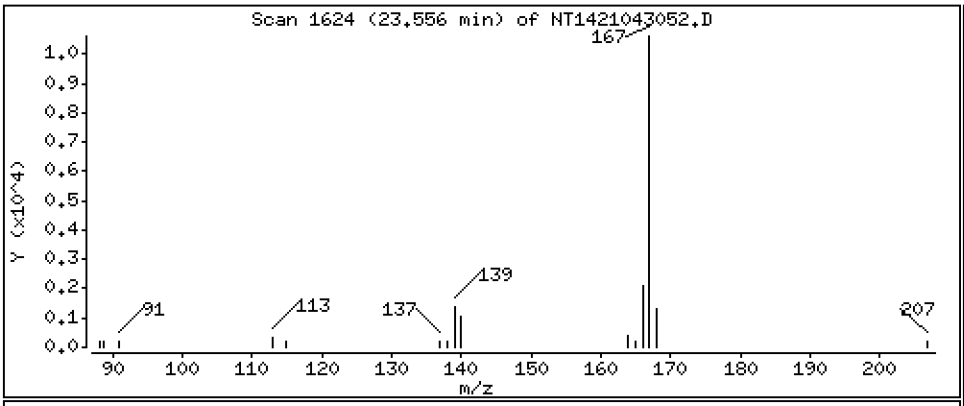
Operator: VTS

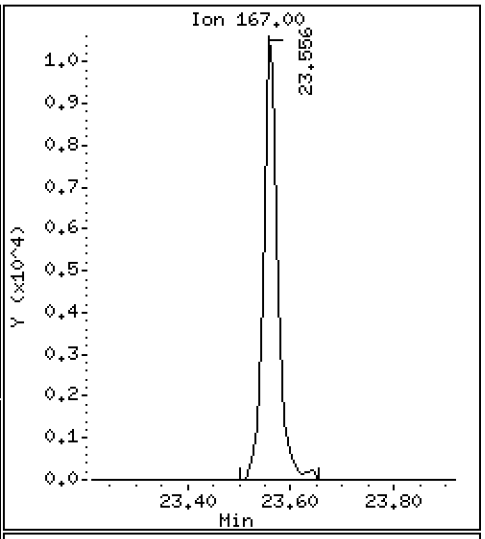
Column phase: Rxi-17Sil MS

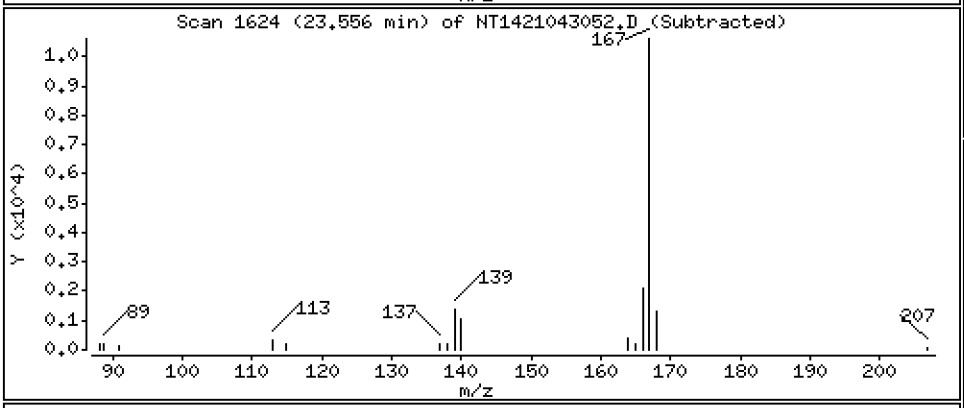
Column diameter: 0.25

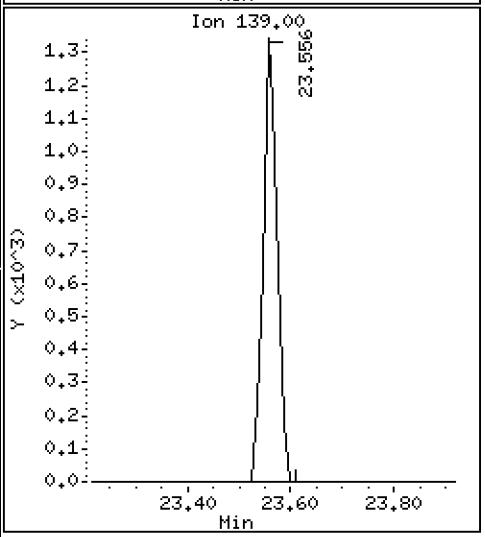
42 Carbazole

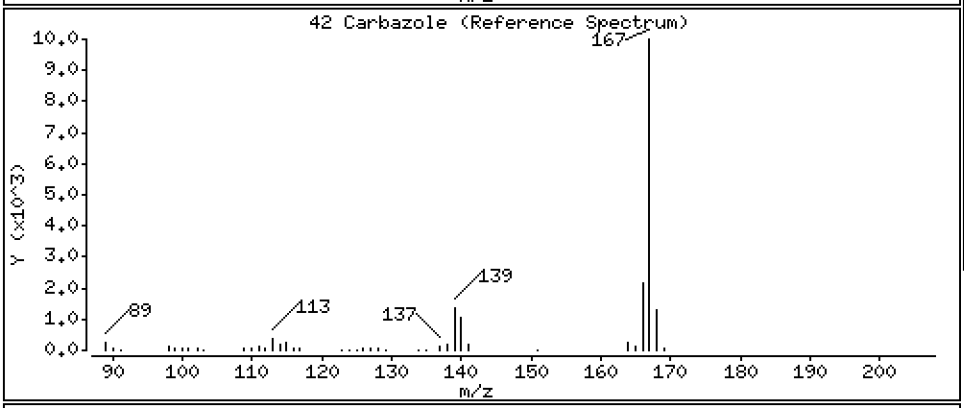
Concentration: 0.09817 ug/mL

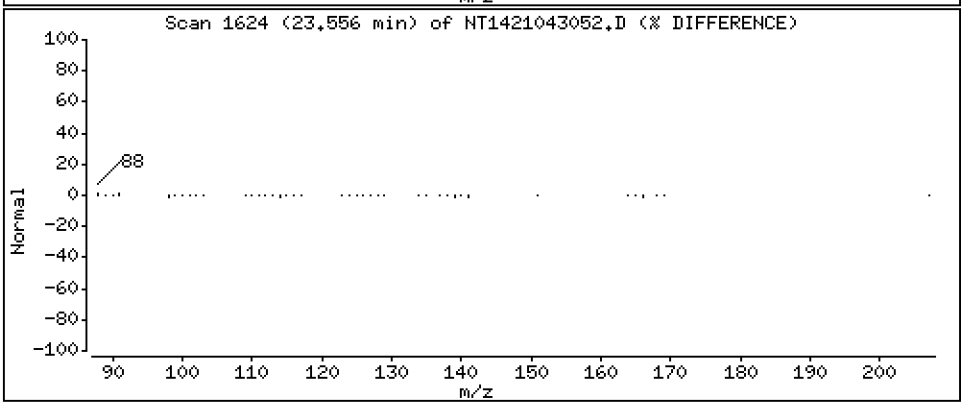


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Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

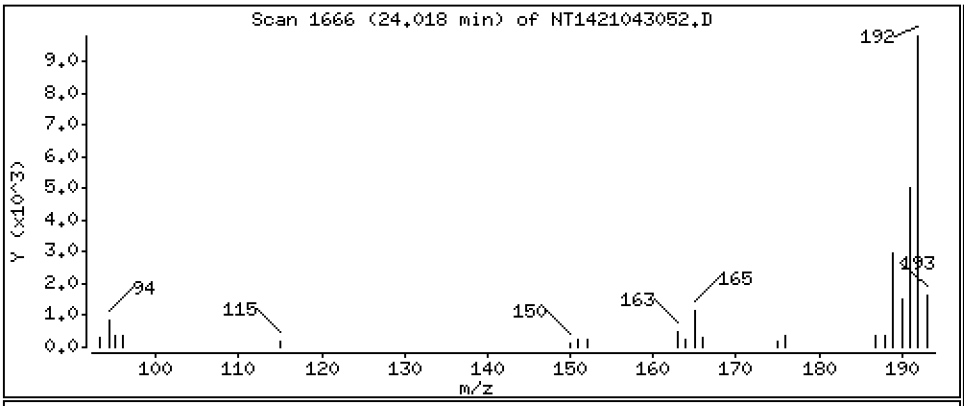
Operator: VTS

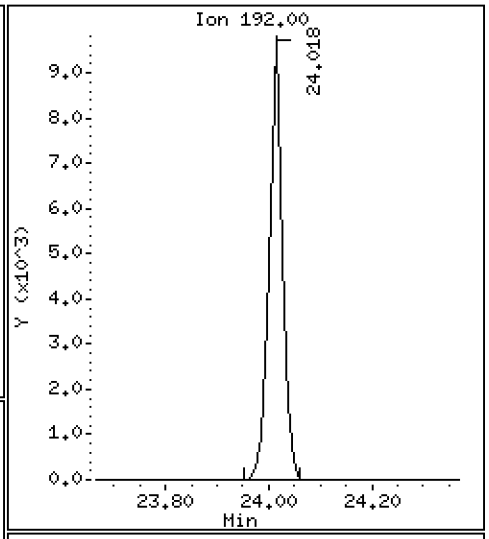
Column phase: Rxi-17Sil MS

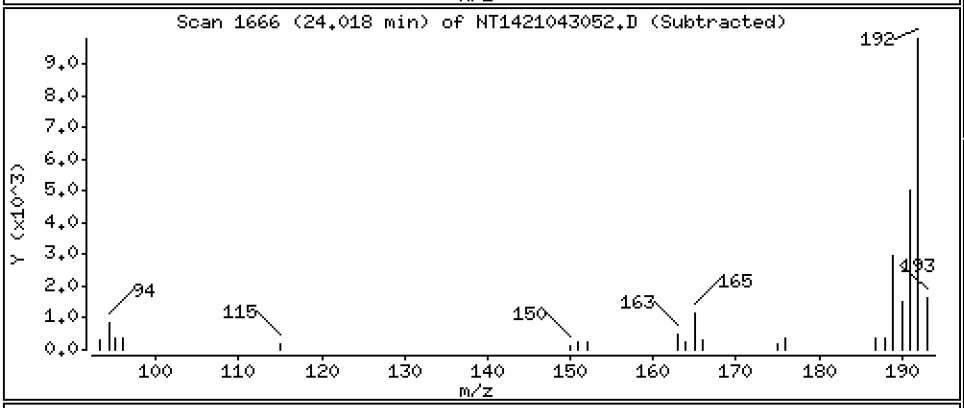
Column diameter: 0.25

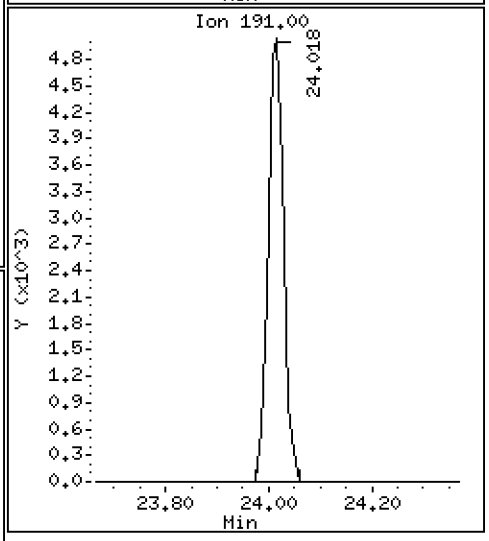
43 1-Methylphenanthrene

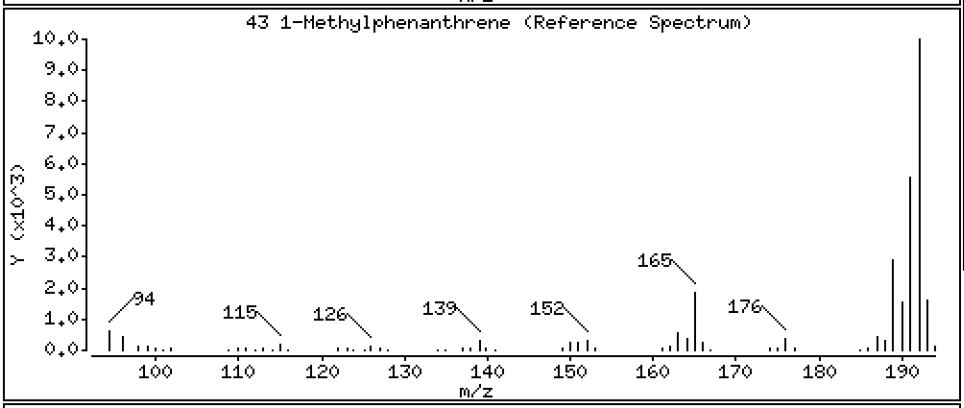
Concentration: 0.1044 ug/mL

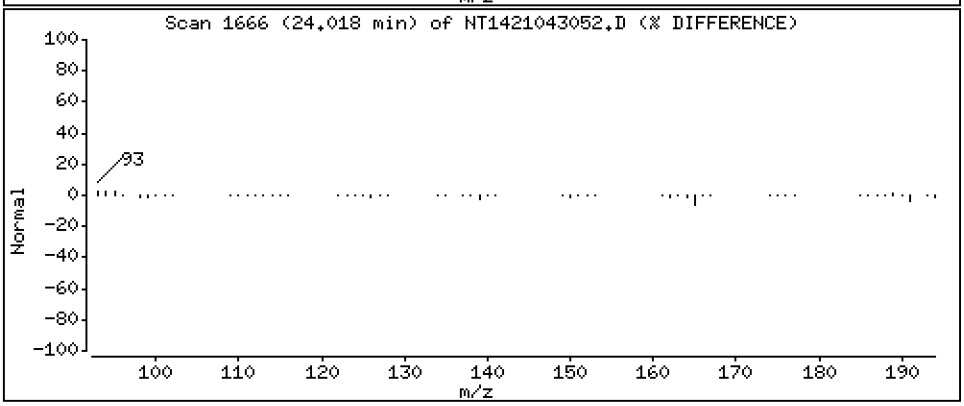


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Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

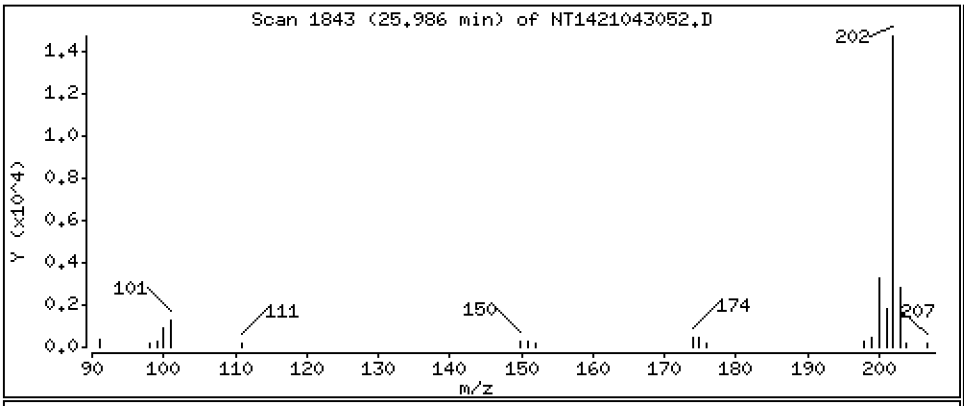
Operator: VTS

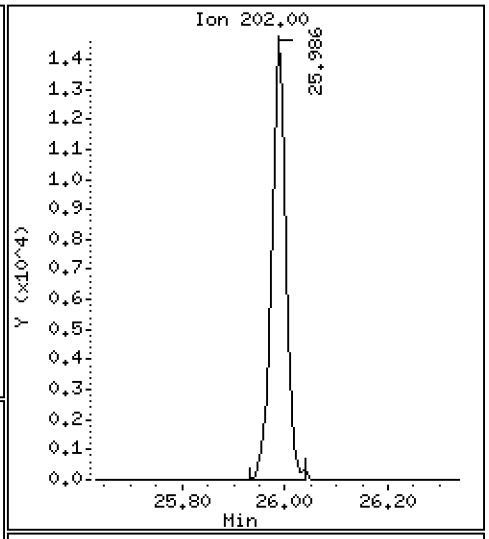
Column phase: Rxi-17Sil MS

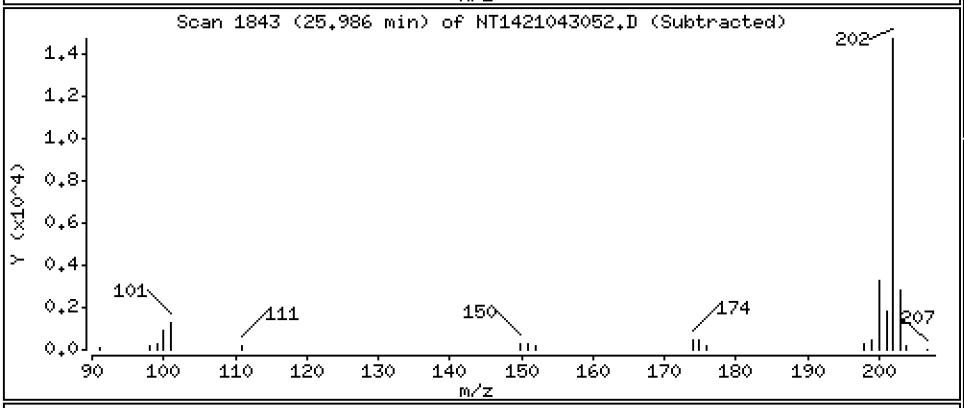
Column diameter: 0.25

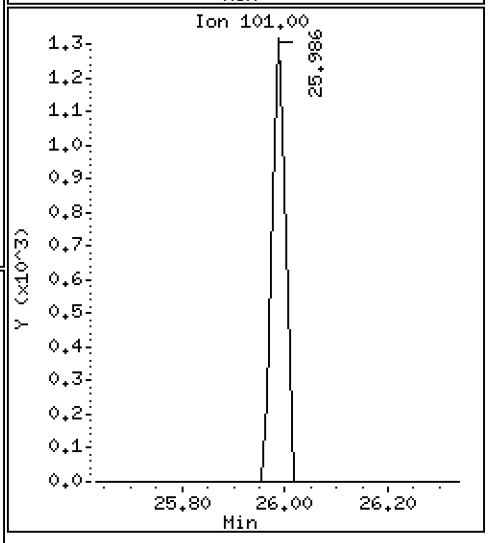
44 Fluoranthene

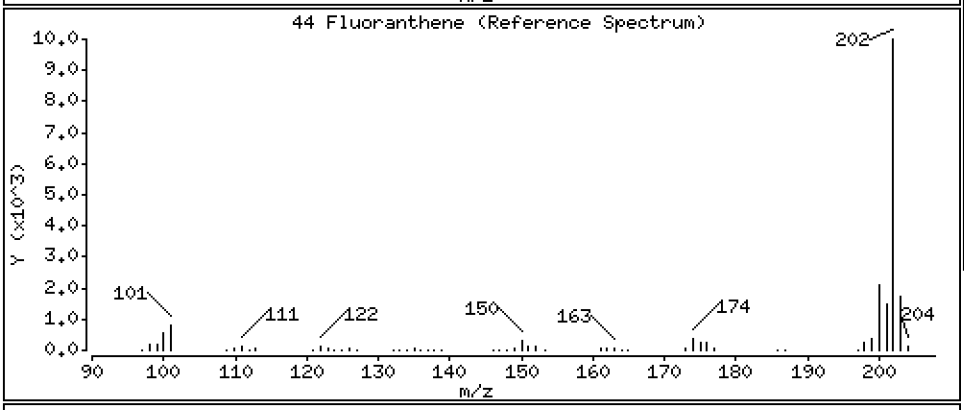
Concentration: 0.1154 ug/mL

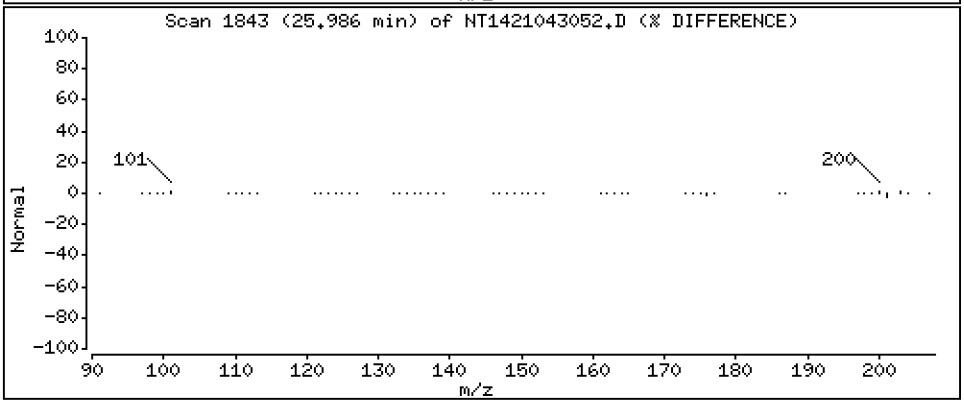


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043052.D

Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

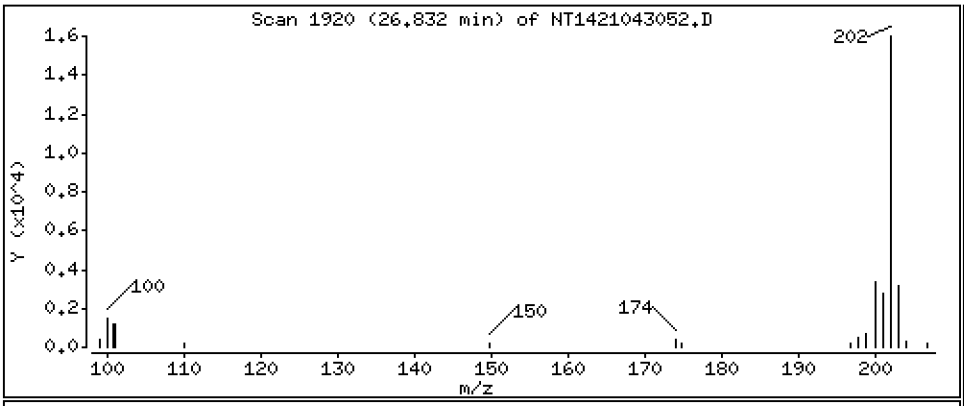
Operator: VTS

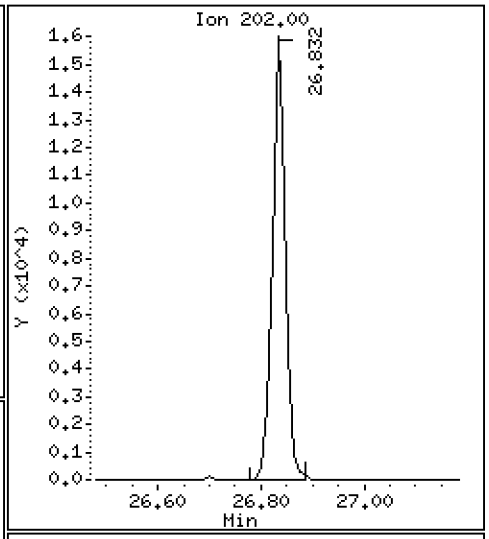
Column phase: Rxi-17Sil MS

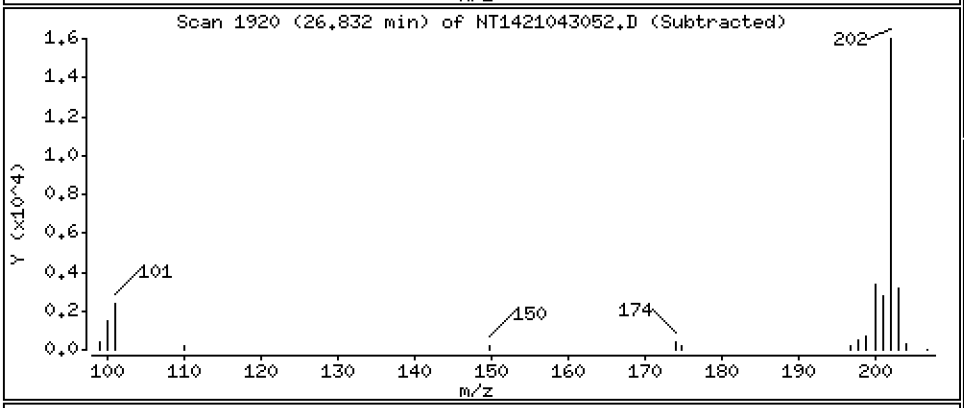
Column diameter: 0.25

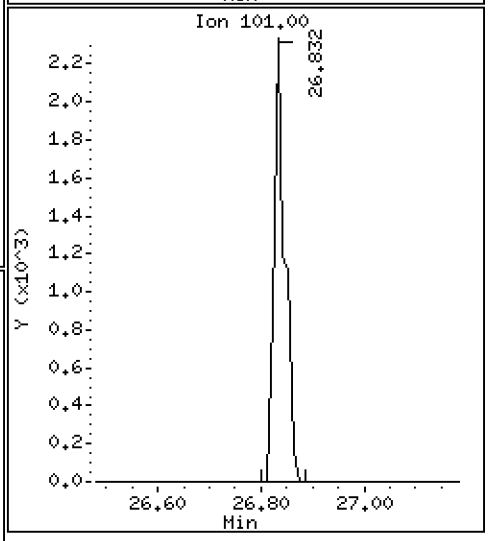
46 Pyrene

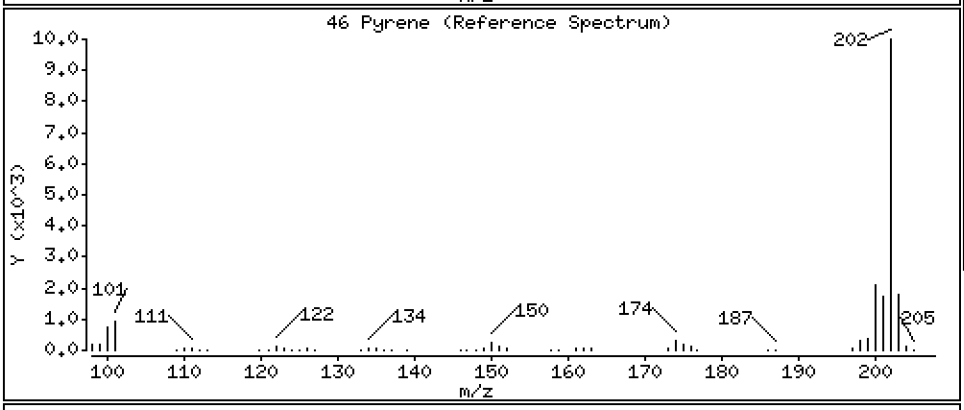
Concentration: 0.1102 ug/mL

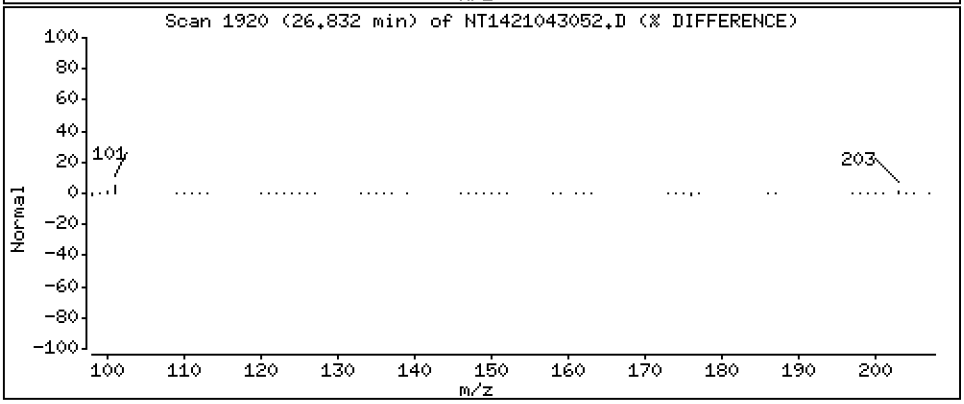


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043052.D

Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

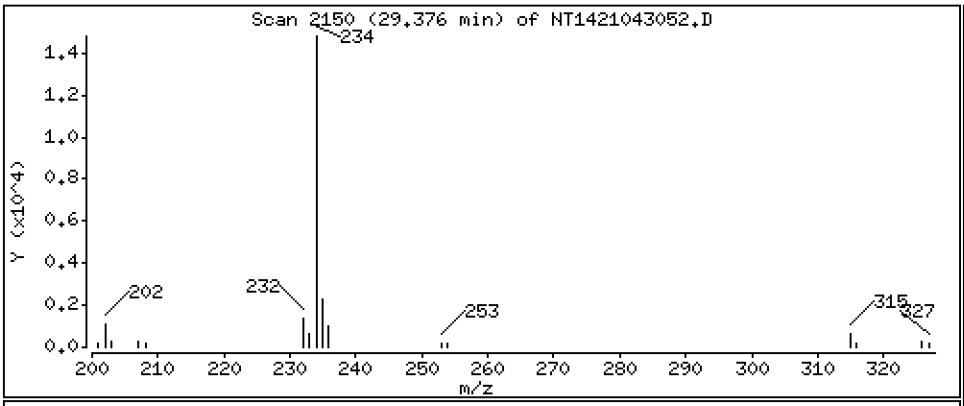
Operator: VTS

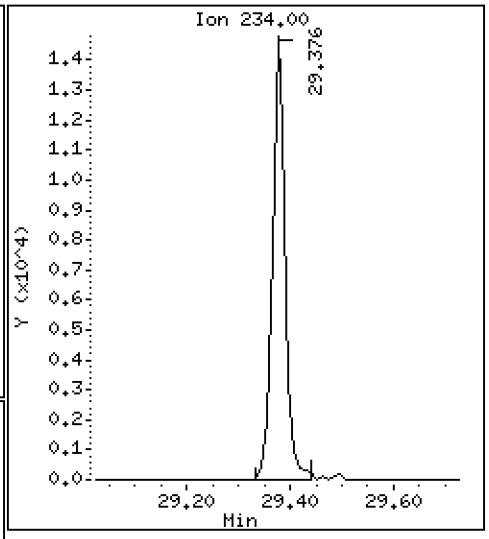
Column phase: Rxi-17Sil MS

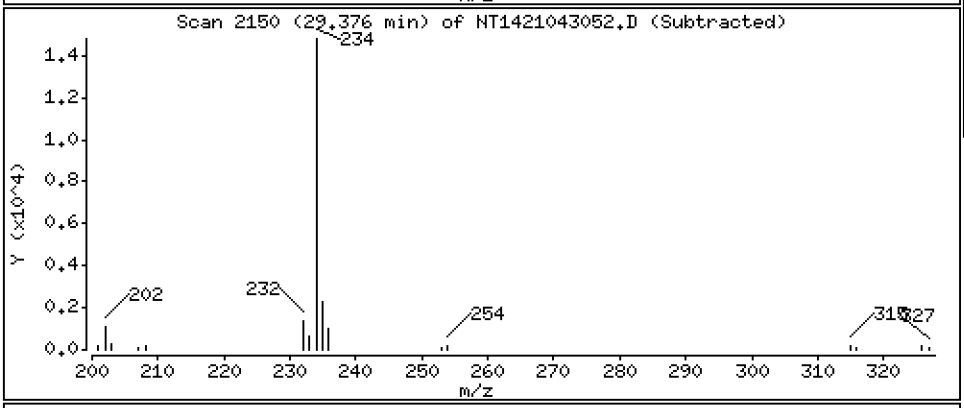
Column diameter: 0.25

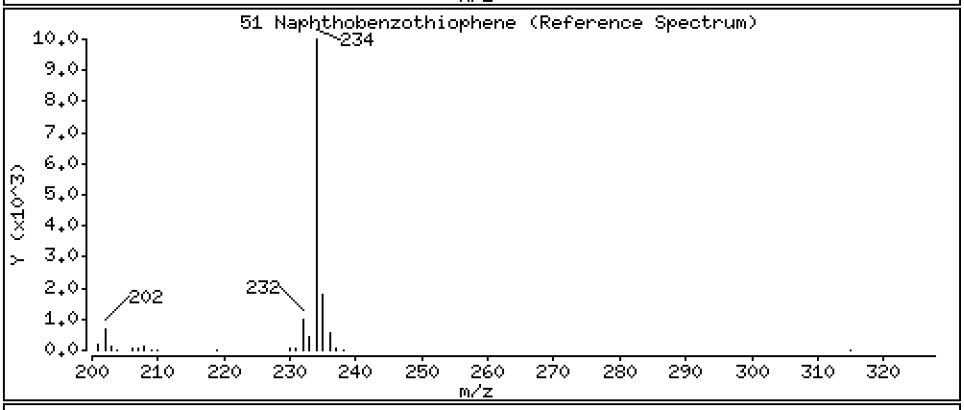
51 Naphthobenzothiophene

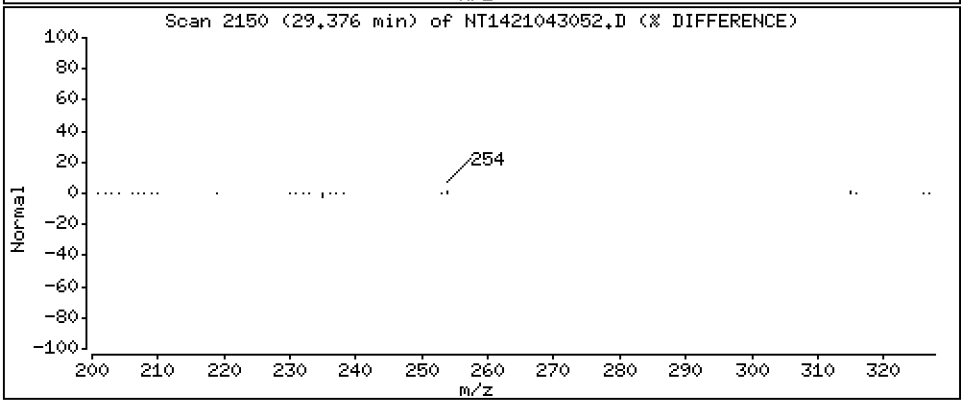
Concentration: 0.1023 ug/mL



Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043052.D

Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

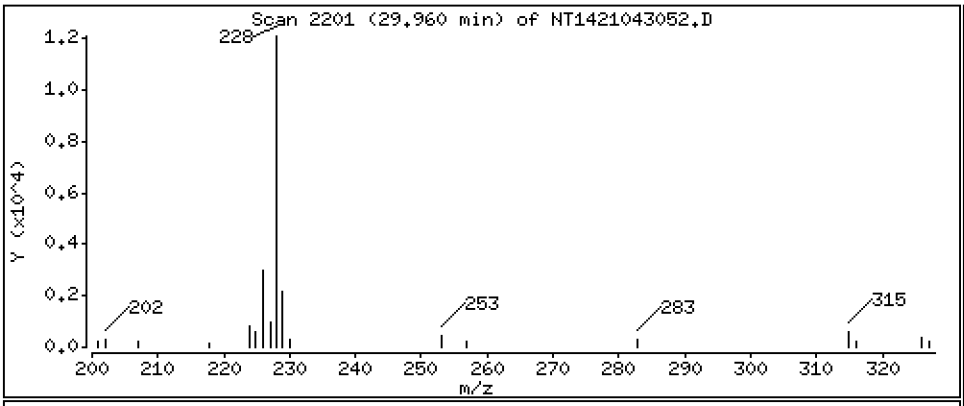
Operator: VTS

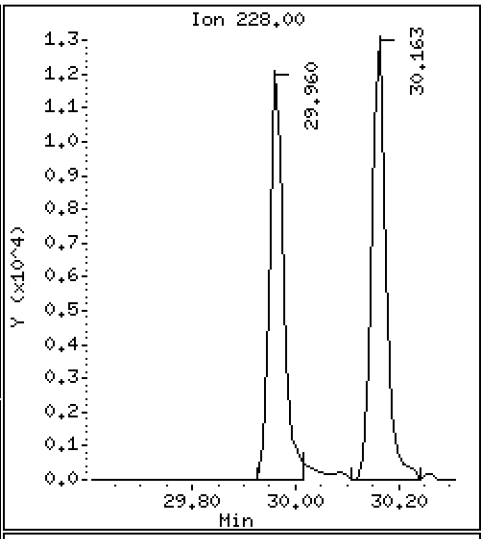
Column phase: Rxi-17Sil MS

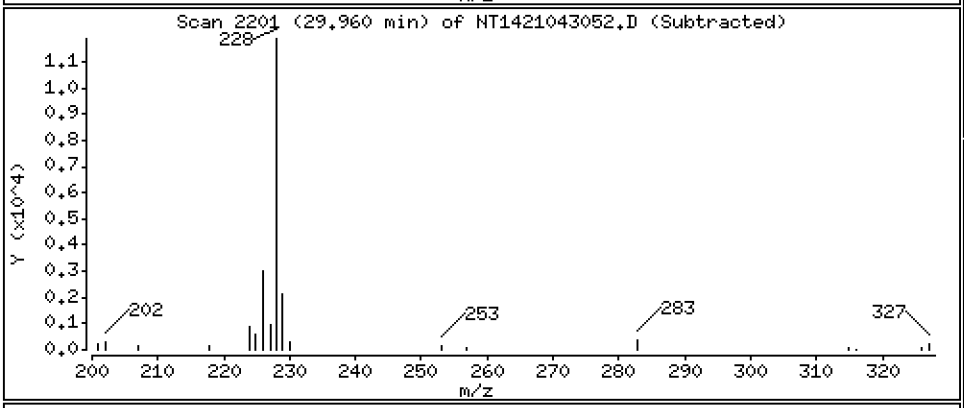
Column diameter: 0.25

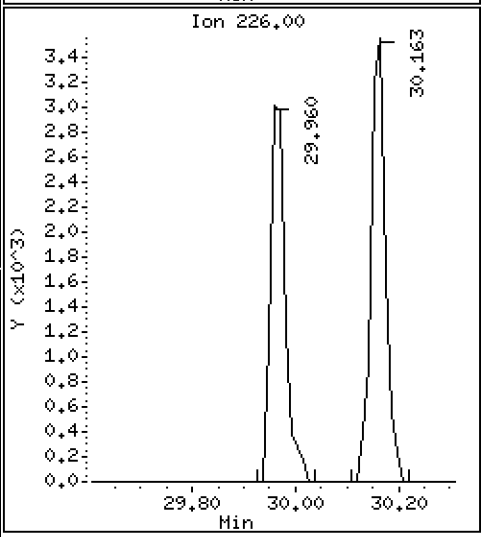
55 Benzo(a)anthracene

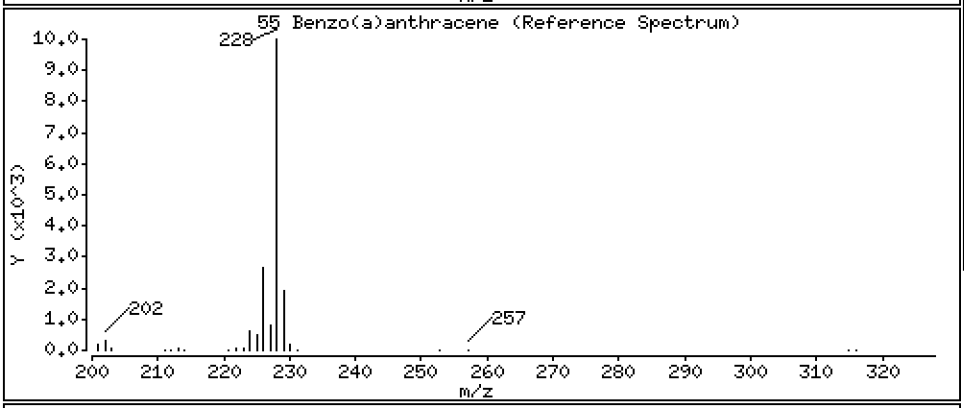
Concentration: 0.09270 ug/mL

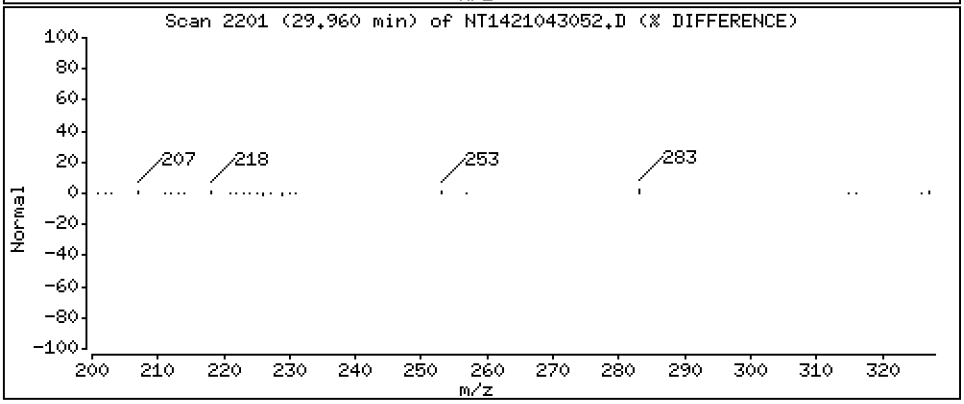


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043052.D

Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

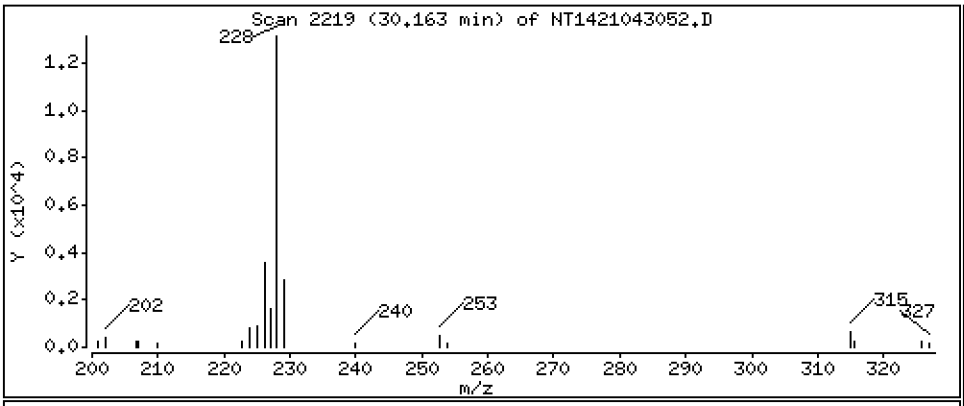
Operator: VTS

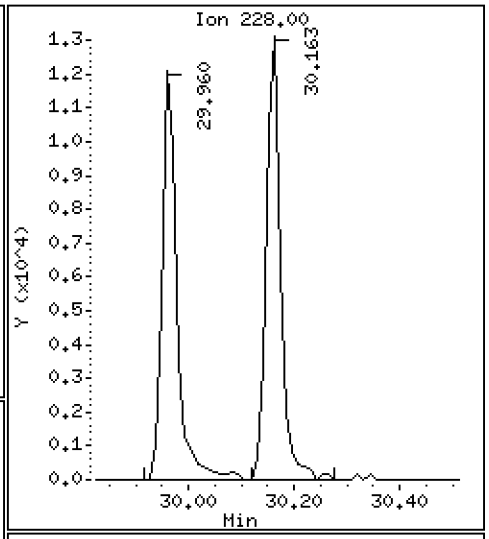
Column phase: Rxi-17Sil MS

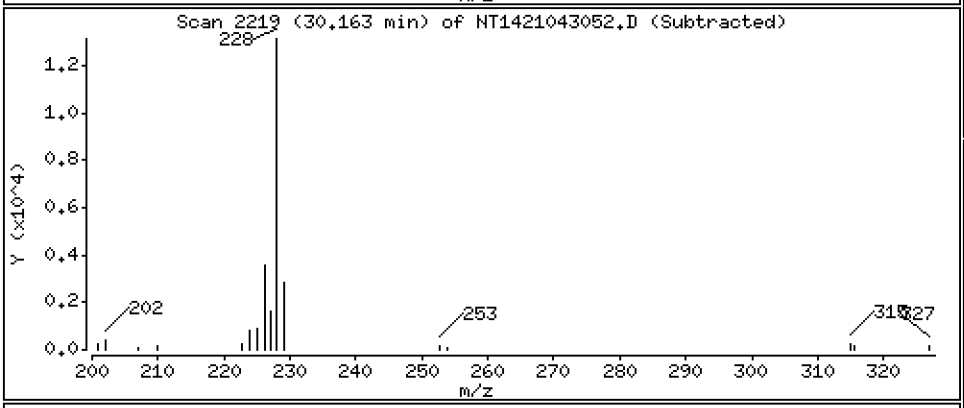
Column diameter: 0.25

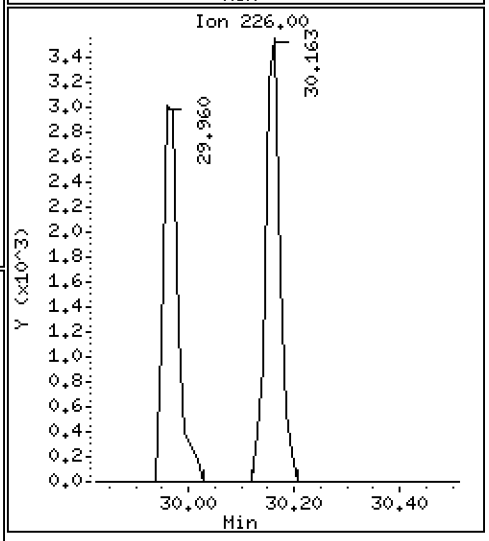
57 Chrysene

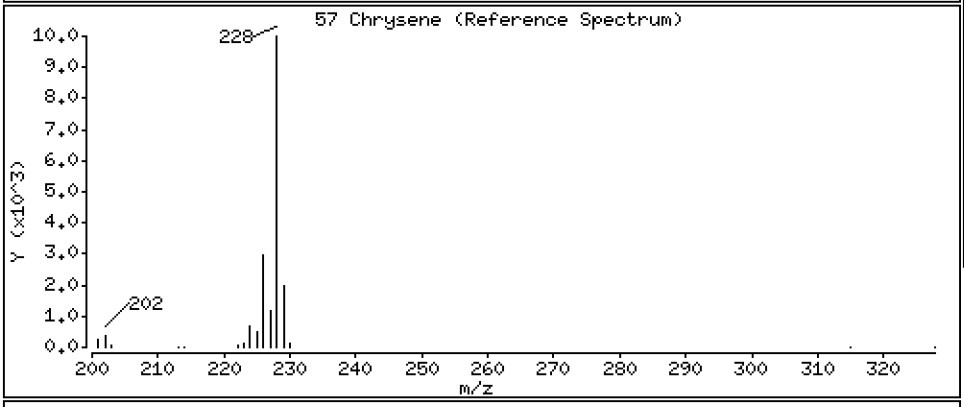
Concentration: 0.09775 ug/mL

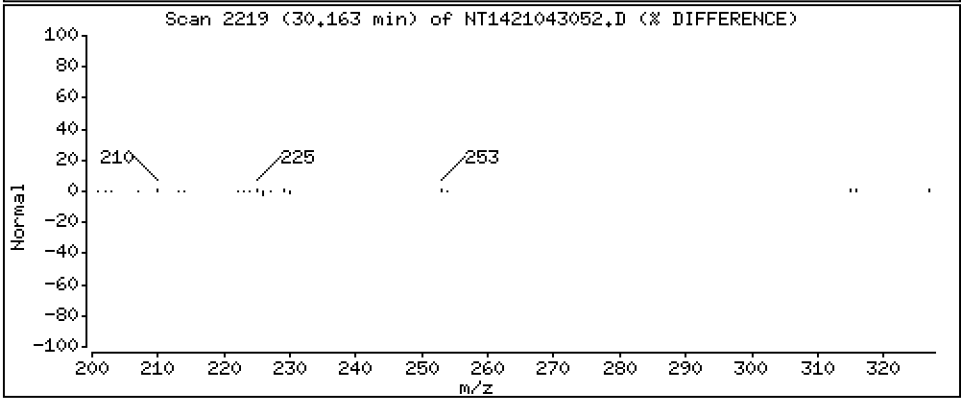


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043052.D

Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

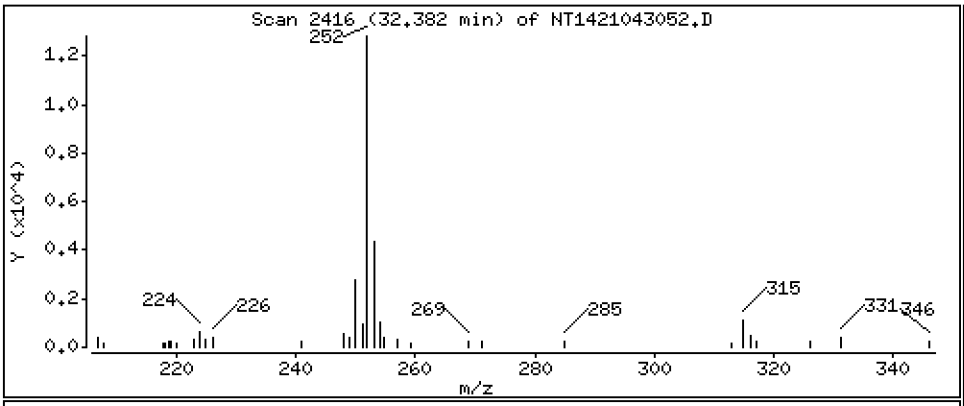
Operator: VTS

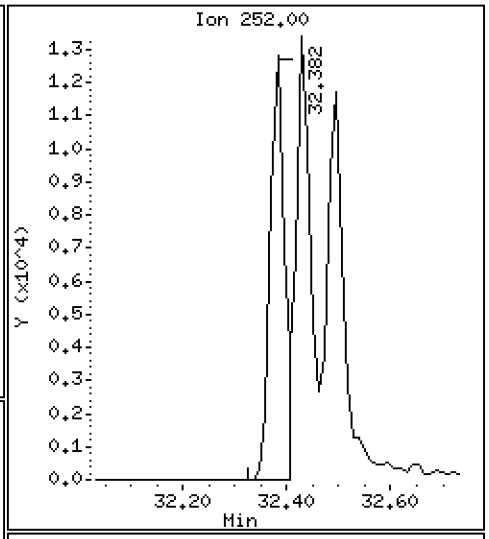
Column phase: Rxi-17Sil MS

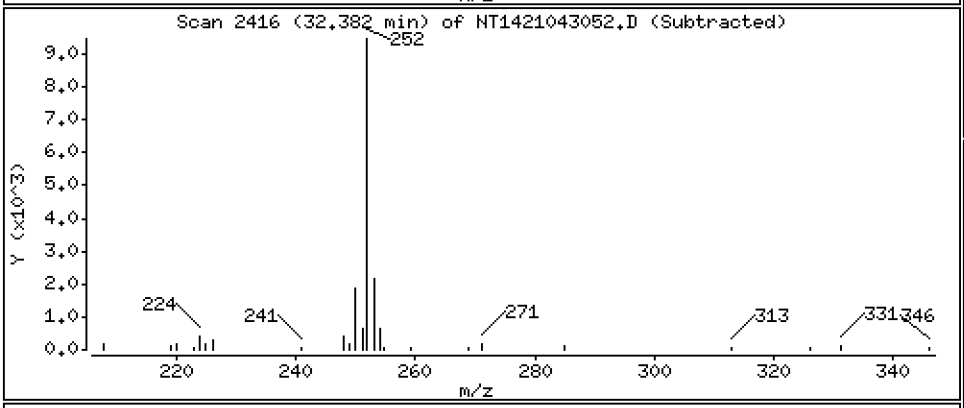
Column diameter: 0.25

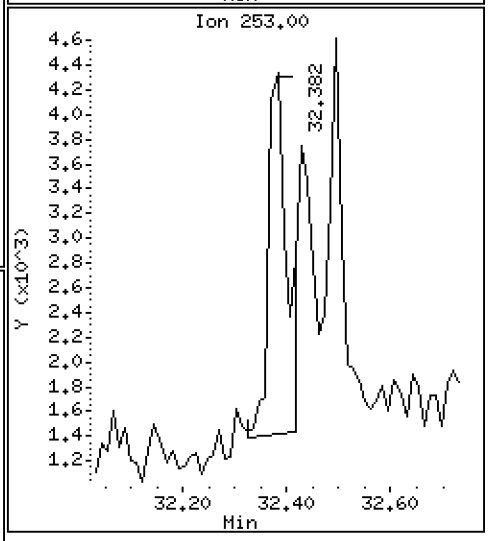
62 Benzo(b)fluoranthene

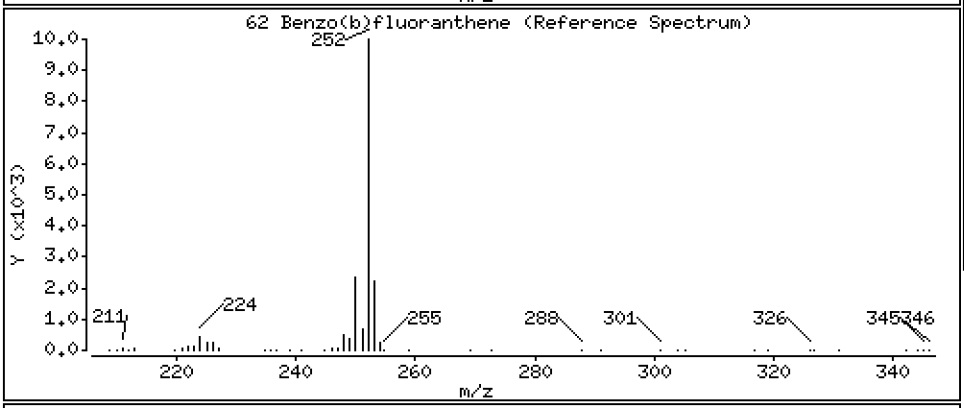
Concentration: 0.1017 ug/mL

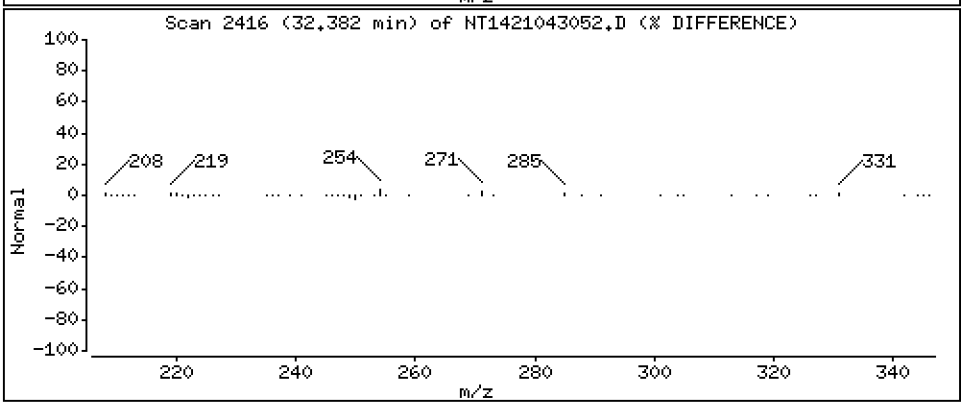


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043052.D

Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

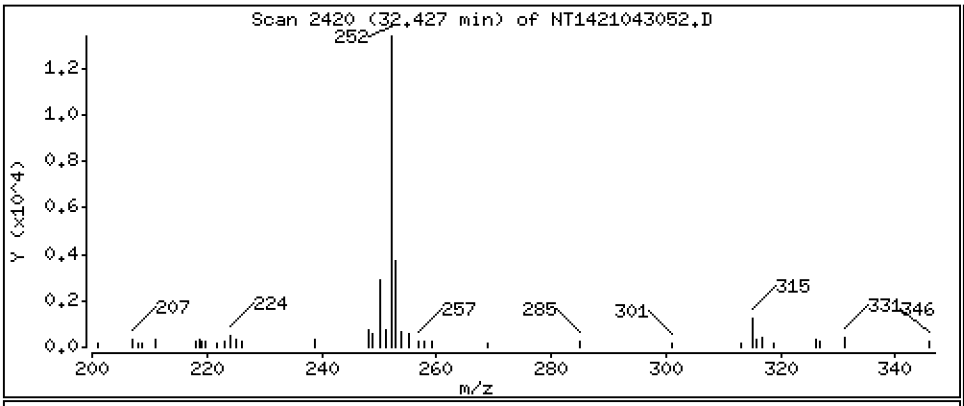
Operator: VTS

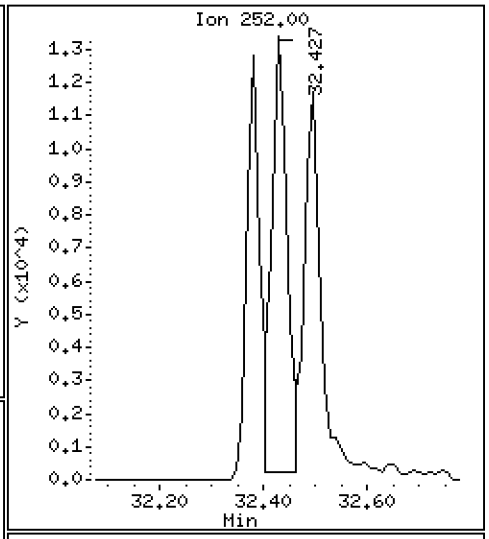
Column phase: Rxi-17Sil MS

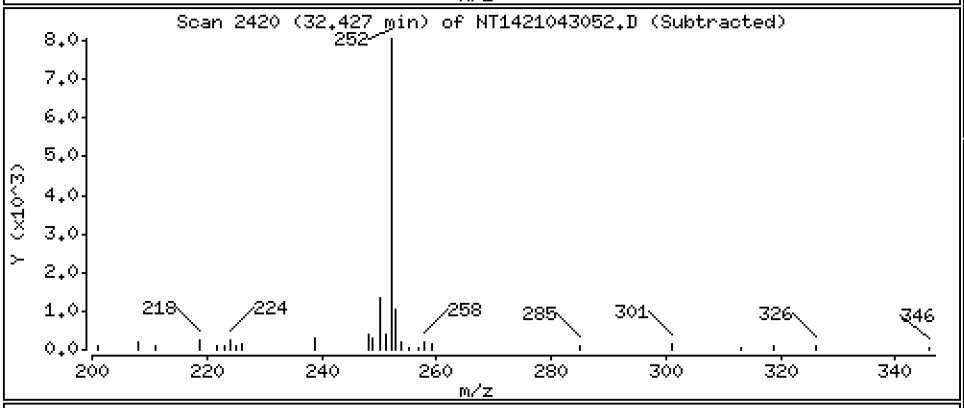
Column diameter: 0.25

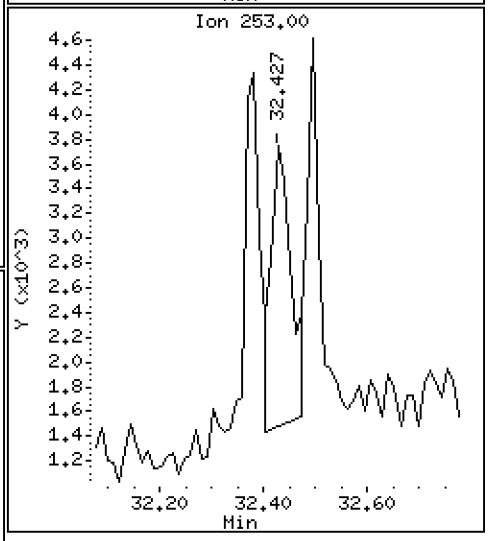
63 Benzo(k)fluoranthene

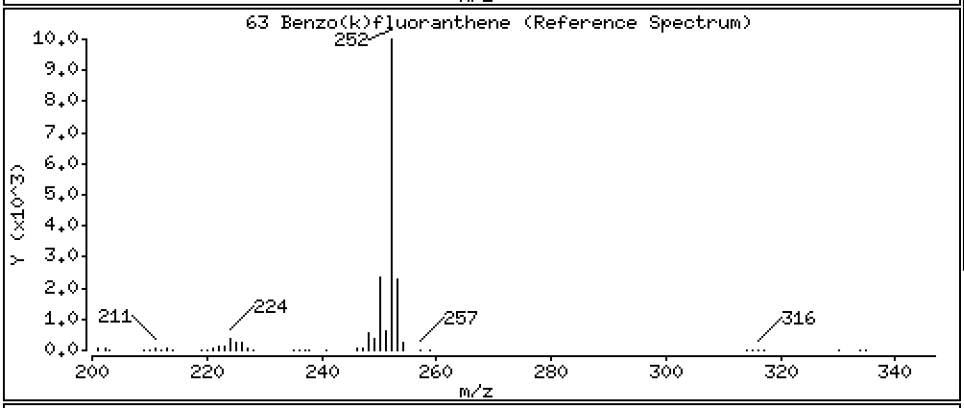
Concentration: 0.09687 ug/mL

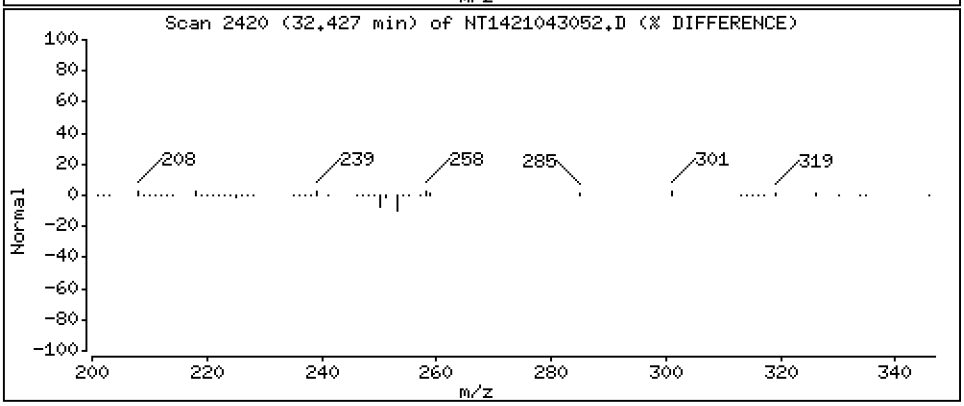


Data File: \\target\share\chem3\nt14.i\20210430D.b\NT1421043052.D

Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

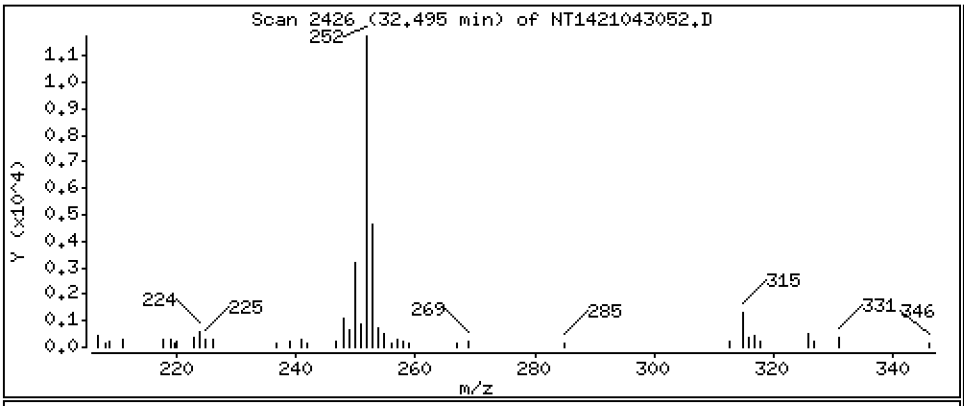
Operator: VTS

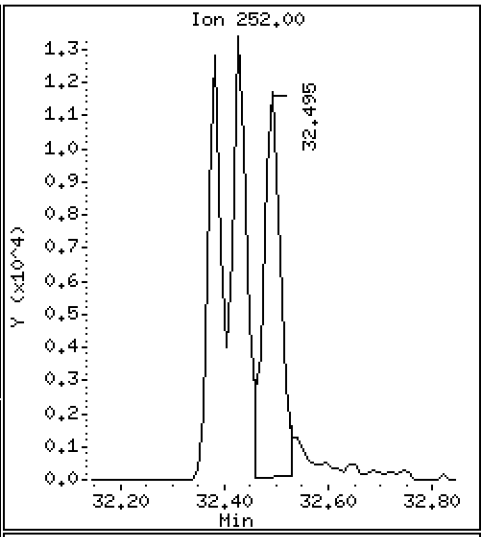
Column phase: Rxi-17Sil MS

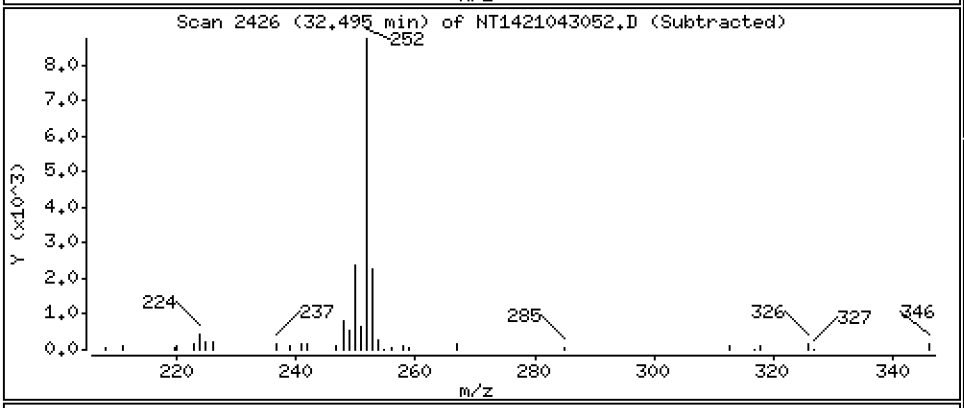
Column diameter: 0.25

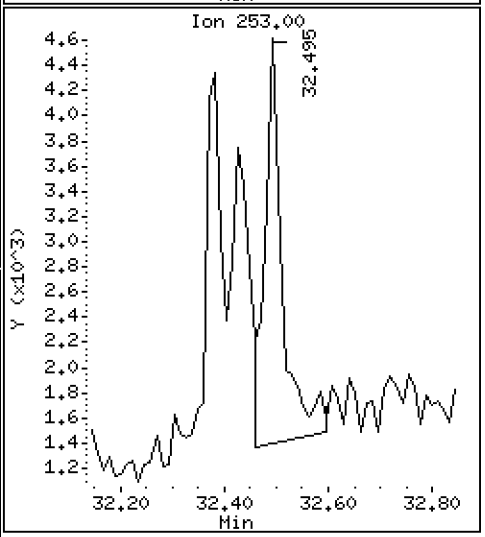
293 Benzo(j)fluoranthene

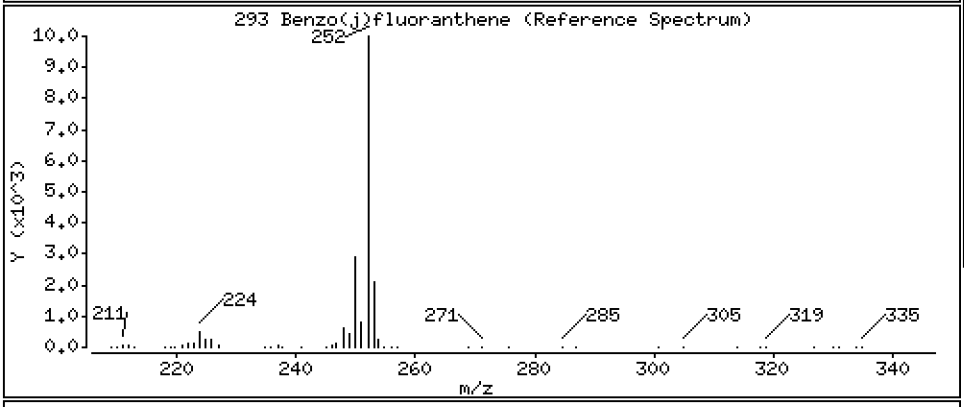
Concentration: 0.09521 ug/mL

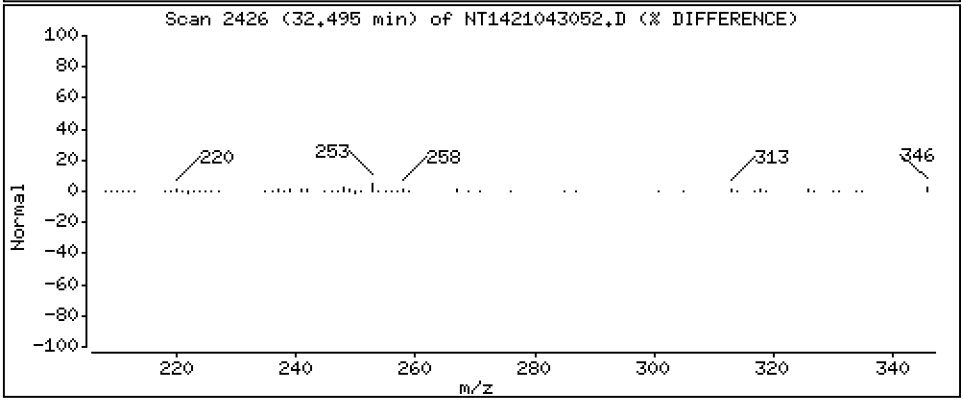


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Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

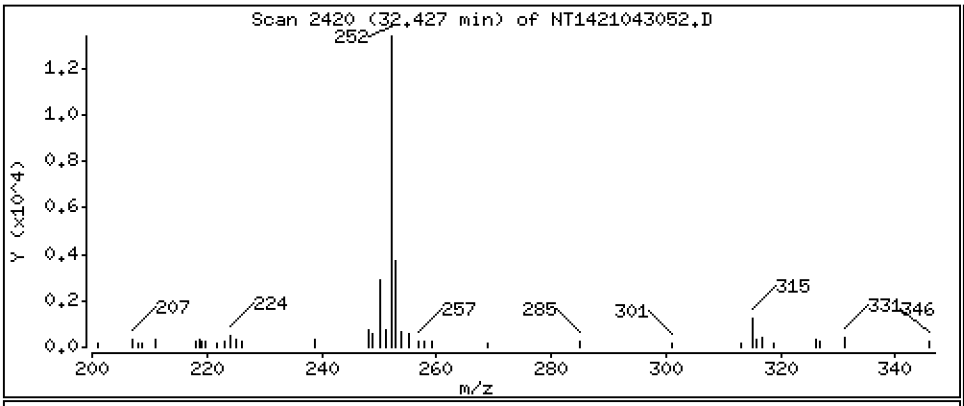
Operator: VTS

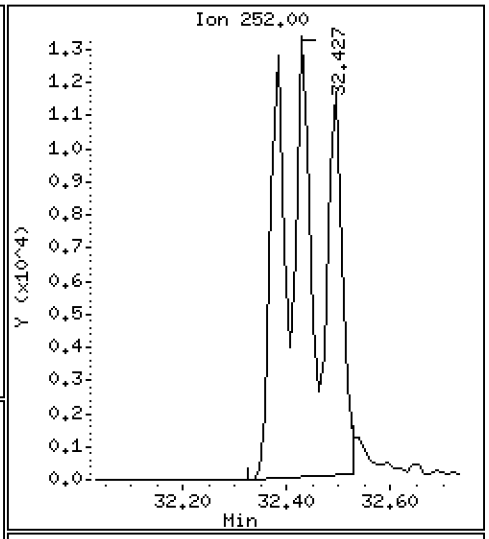
Column phase: Rxi-17Sil MS

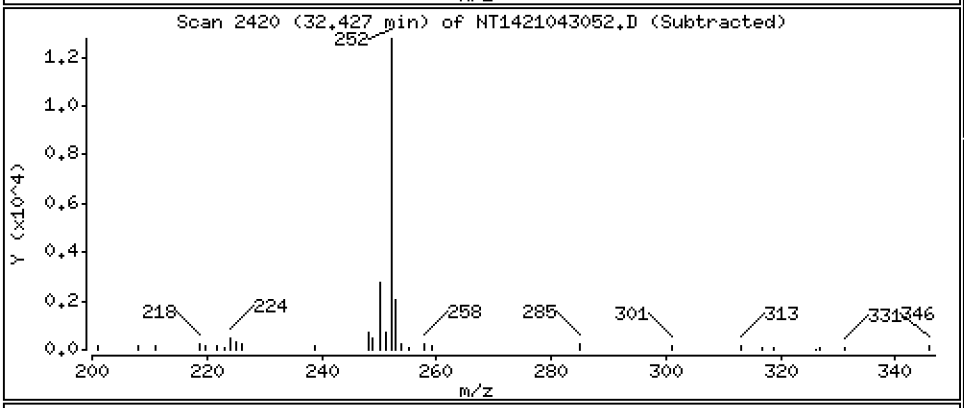
Column diameter: 0.25

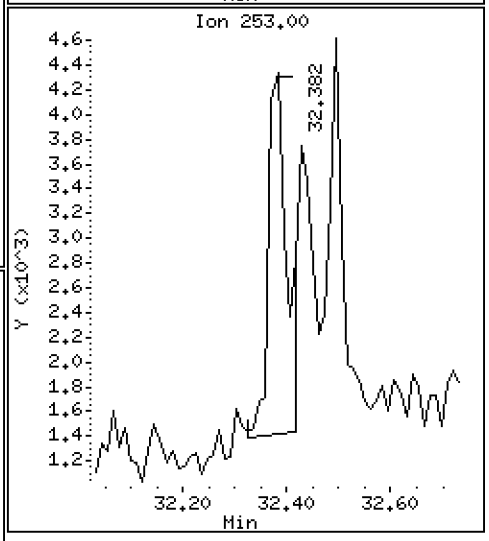
246 Total Benzofluoranthenes

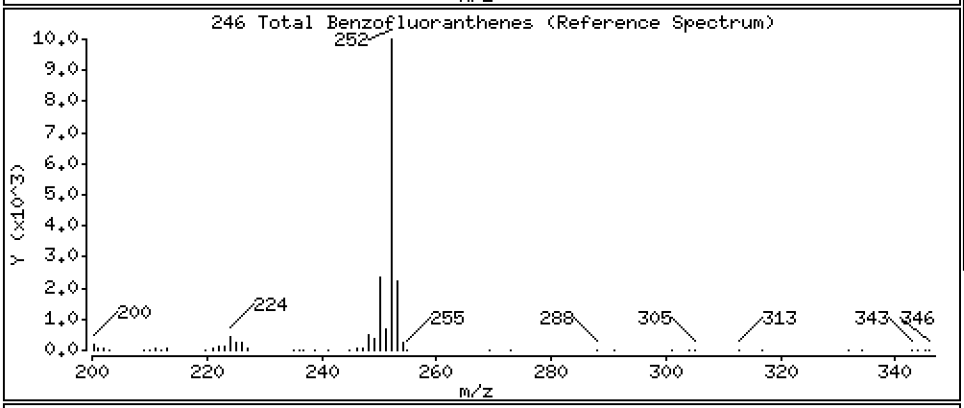
Concentration: 0.2815 ug/mL

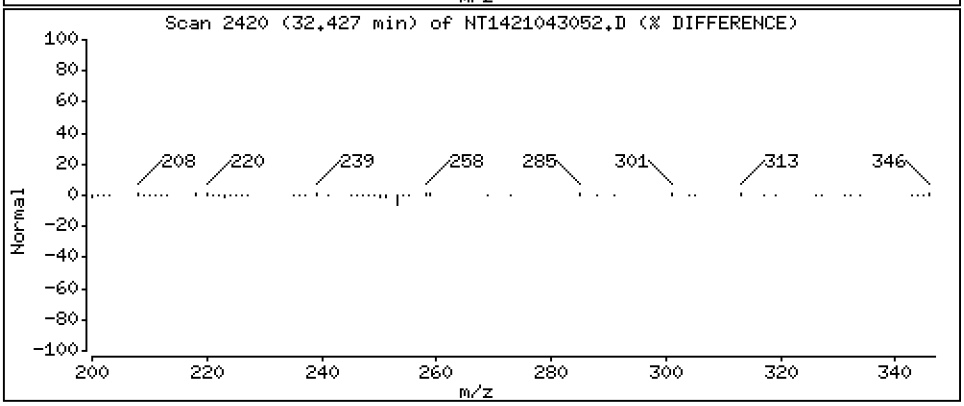


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Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

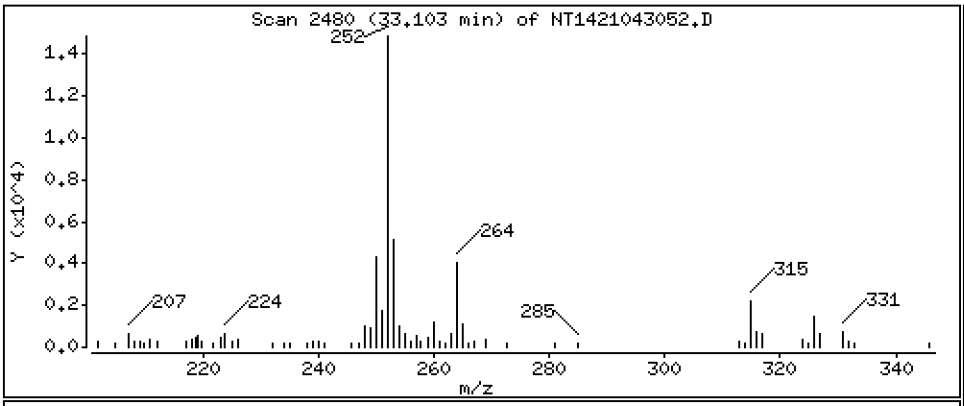
Operator: VTS

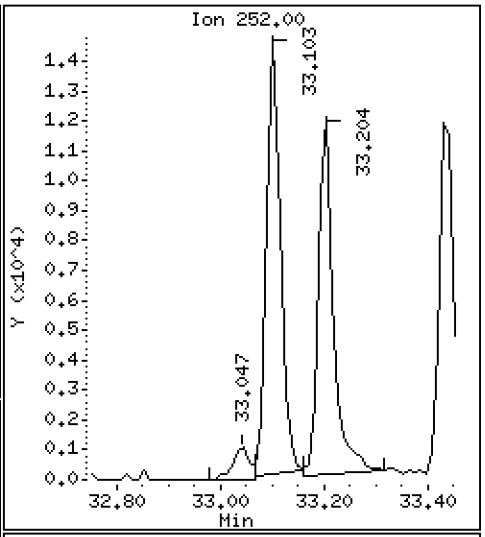
Column phase: Rxi-17Sil MS

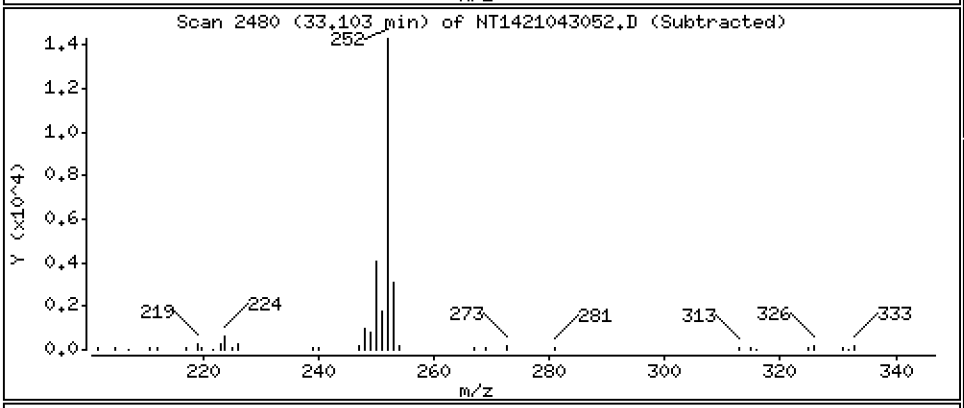
Column diameter: 0.25

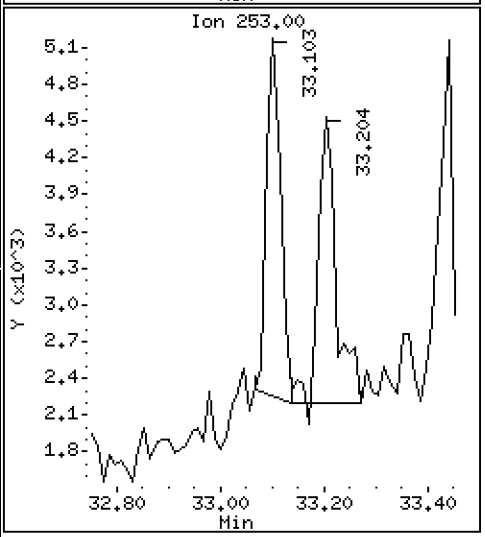
64 Benzo(e)pyrene

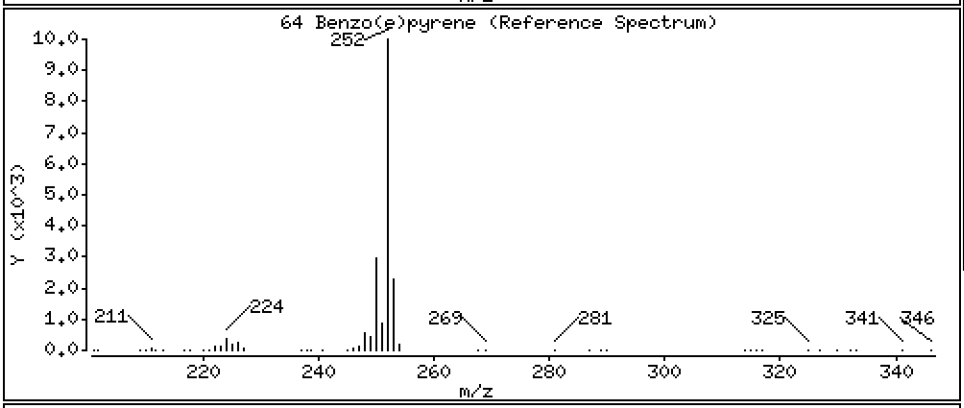
Concentration: 0.1063 ug/mL

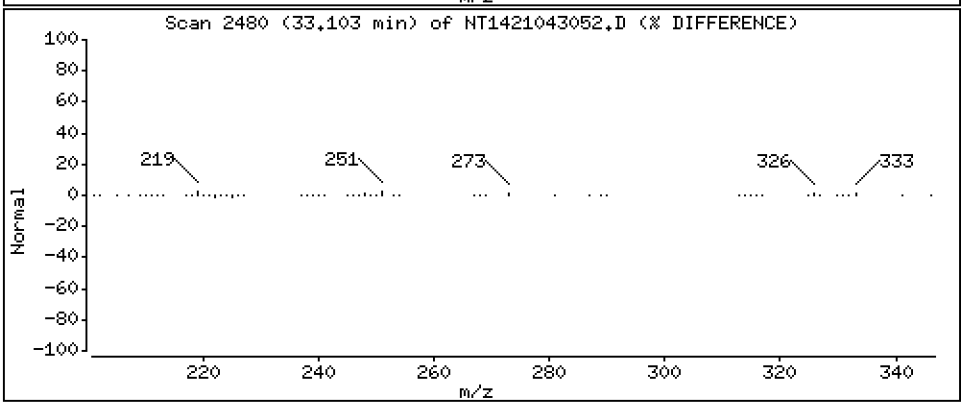


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Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

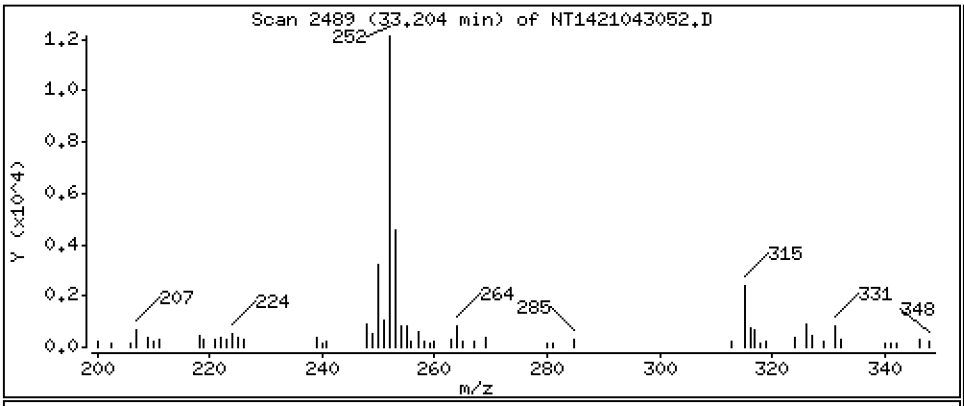
Operator: VTS

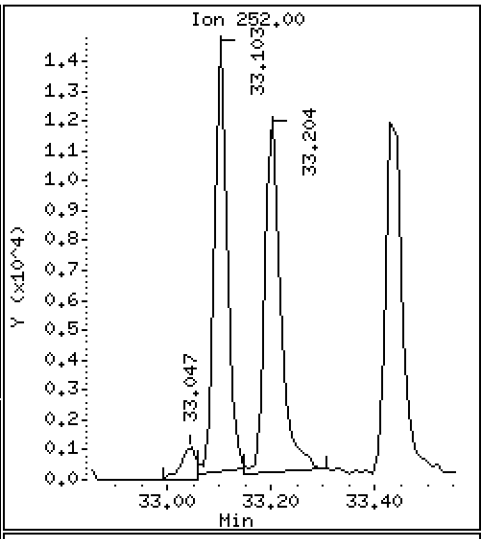
Column phase: Rxi-17Sil MS

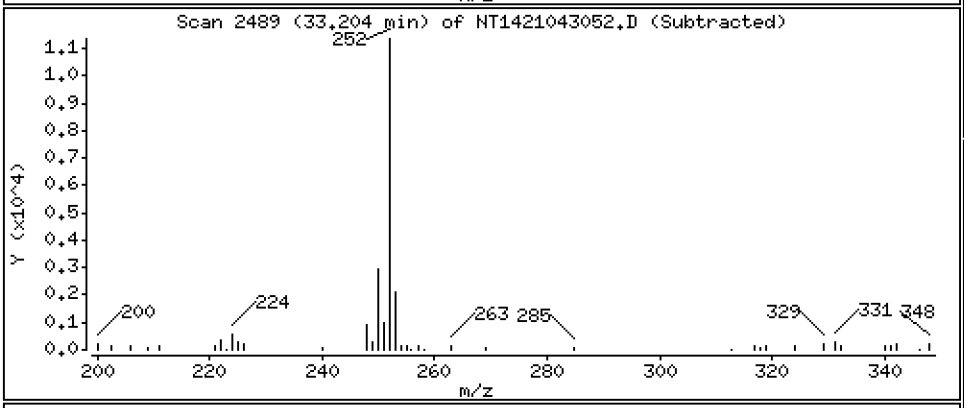
Column diameter: 0.25

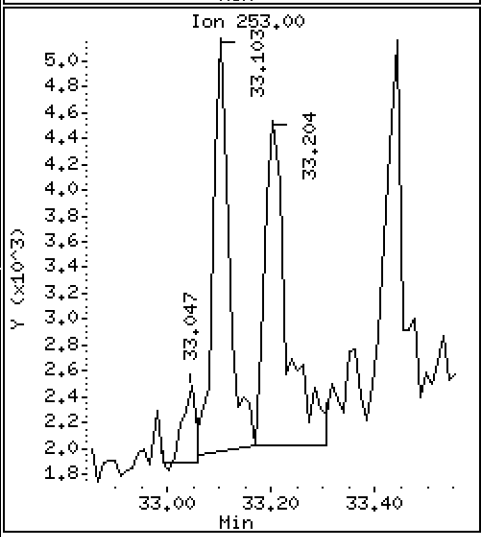
66 Benzo(a)pyrene

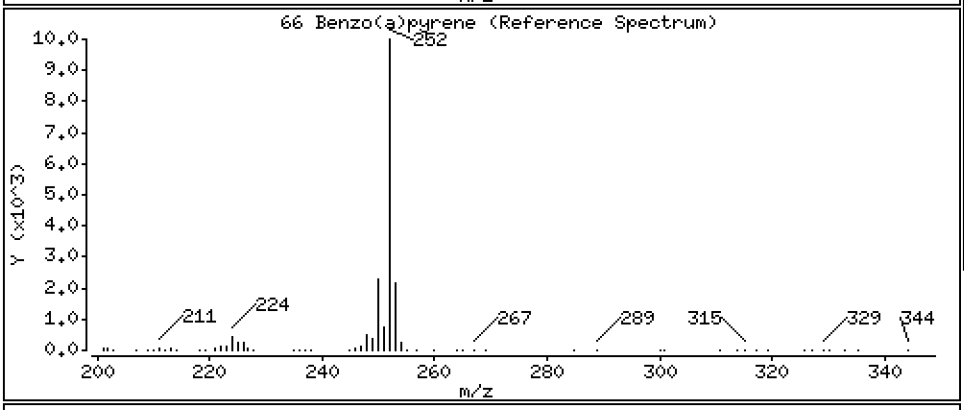
Concentration: 0.09800 ug/mL

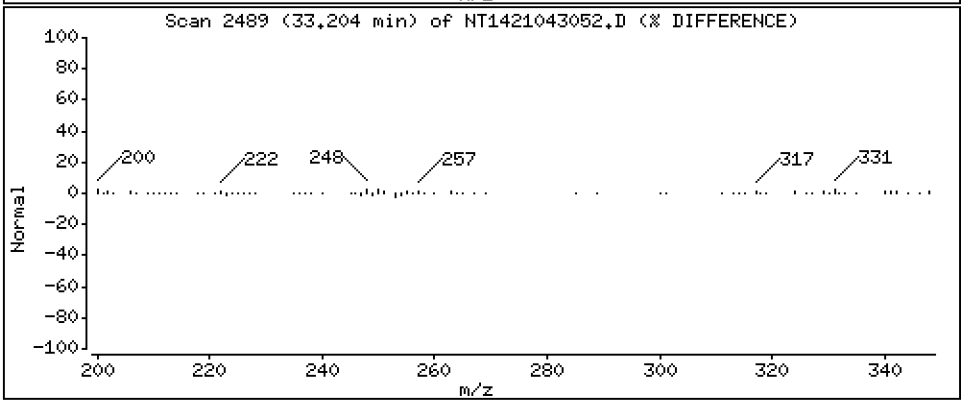


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Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

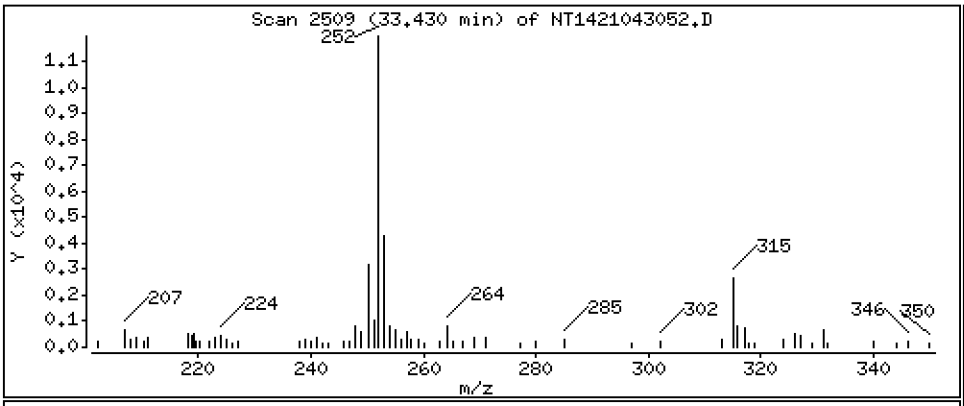
Operator: VTS

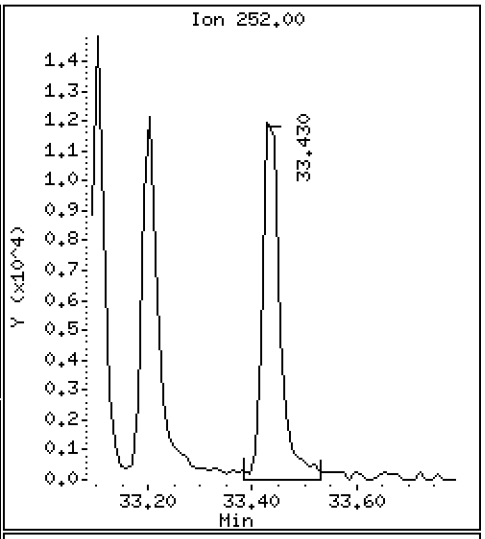
Column phase: Rxi-17Sil MS

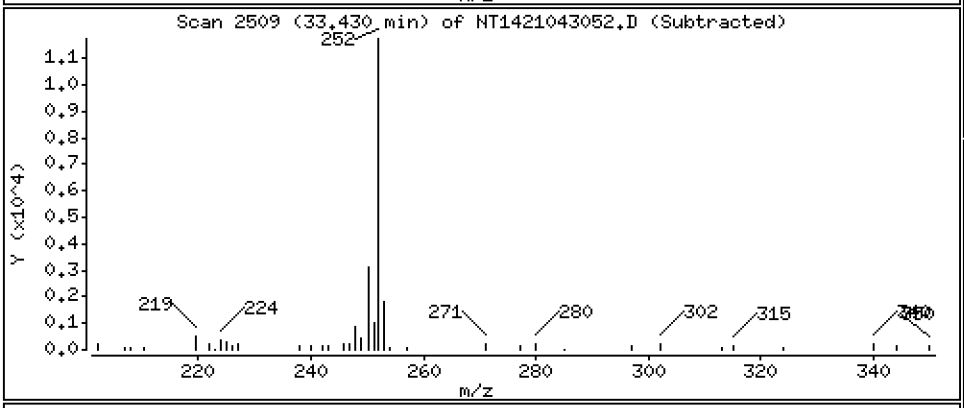
Column diameter: 0.25

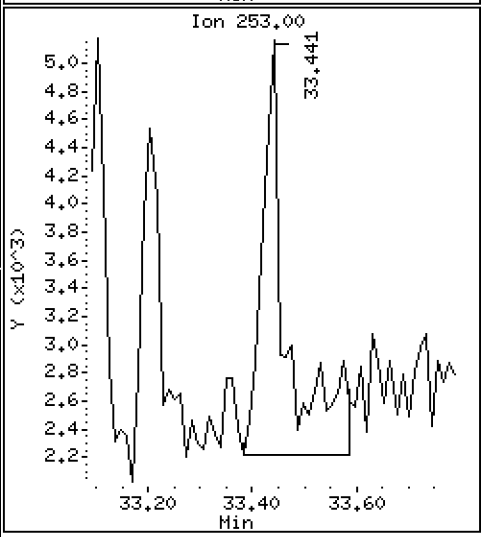
68 Perylene

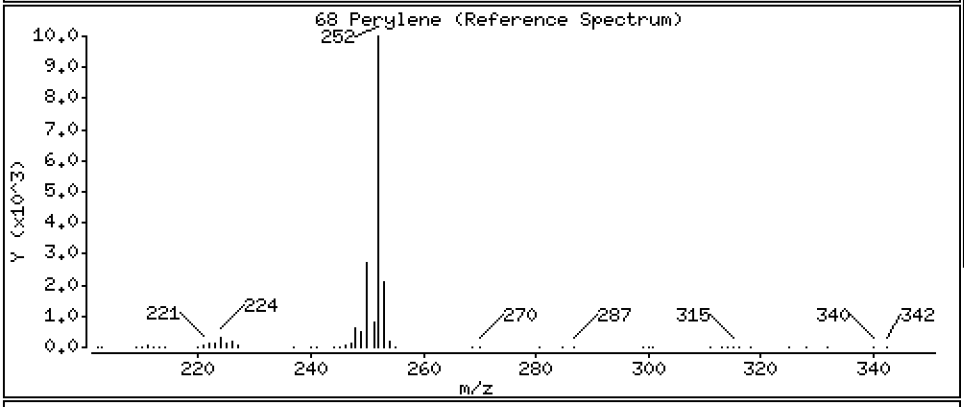
Concentration: 0.1182 ug/mL

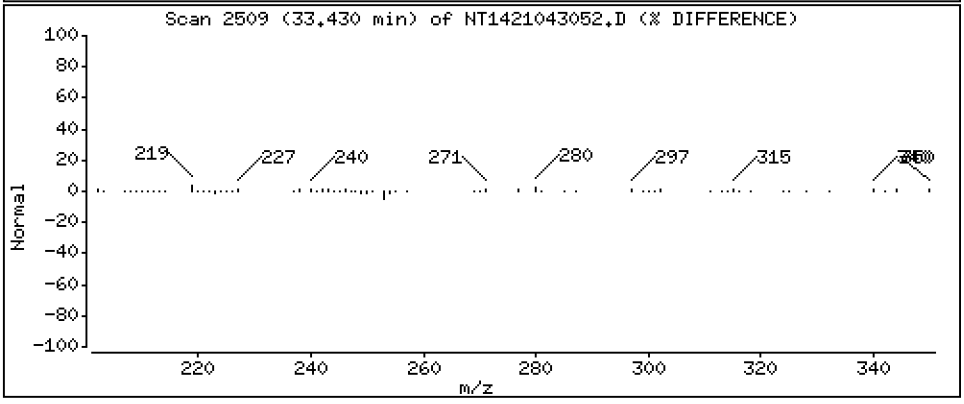


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Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

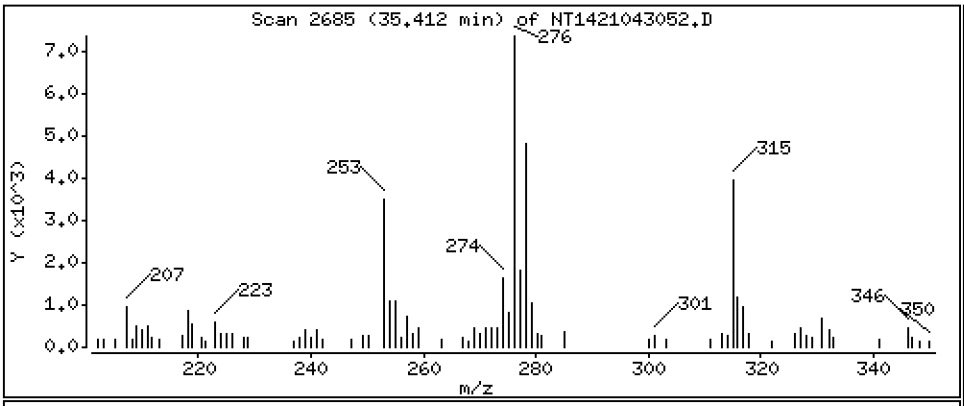
Operator: VTS

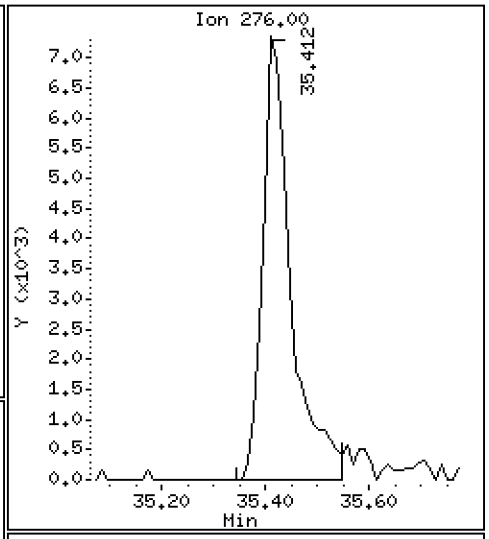
Column phase: Rxi-17Sil MS

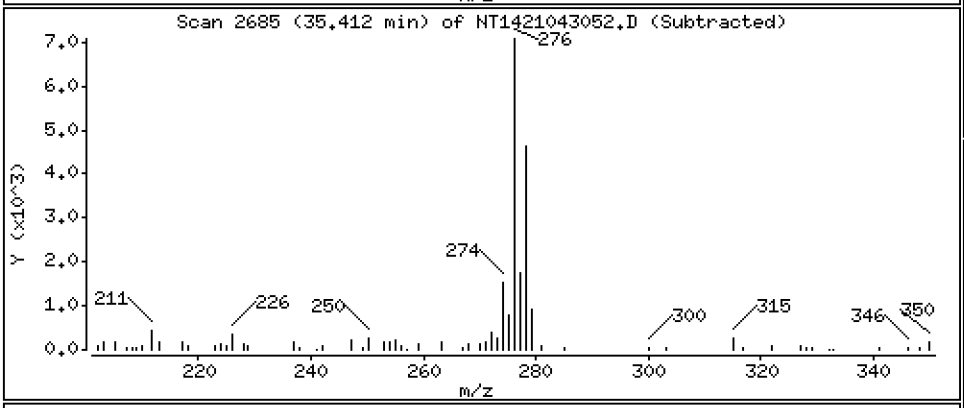
Column diameter: 0.25

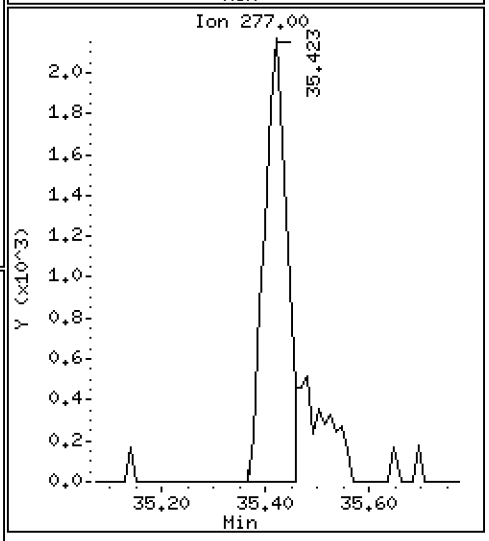
69 Indeno(1,2,3-cd)pyrene

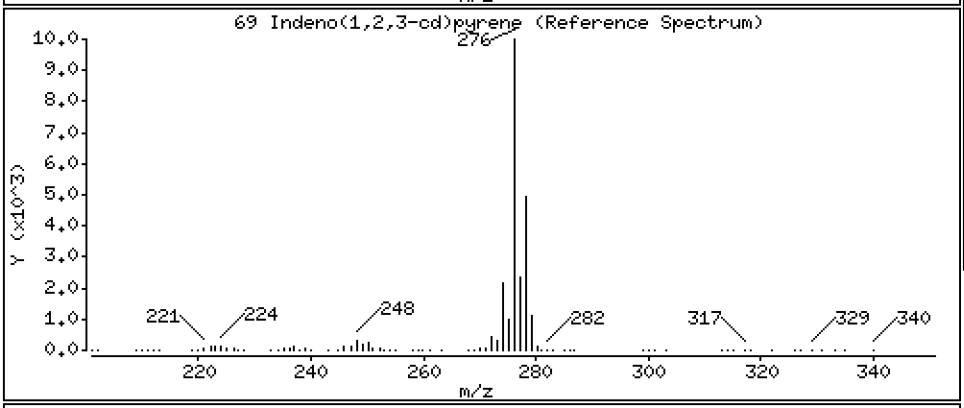
Concentration: 0.1097 ug/mL

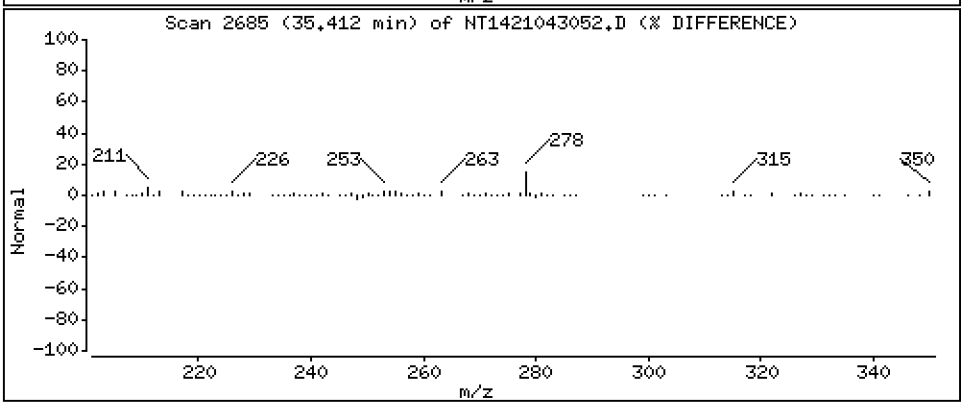


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Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

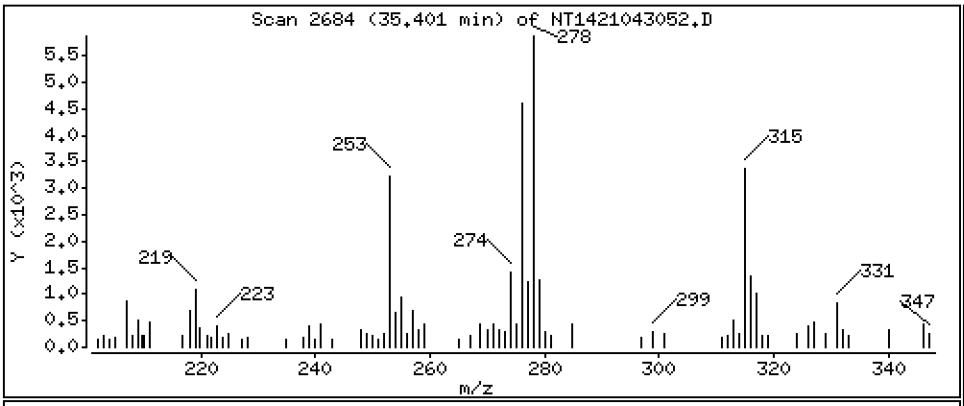
Operator: VTS

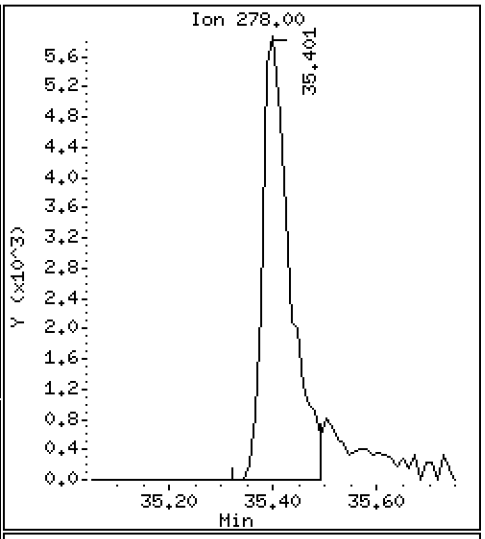
Column phase: Rxi-17Sil MS

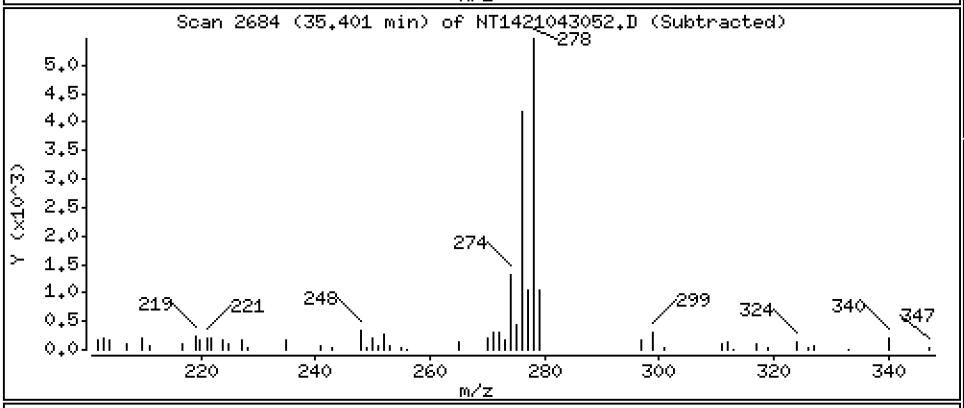
Column diameter: 0.25

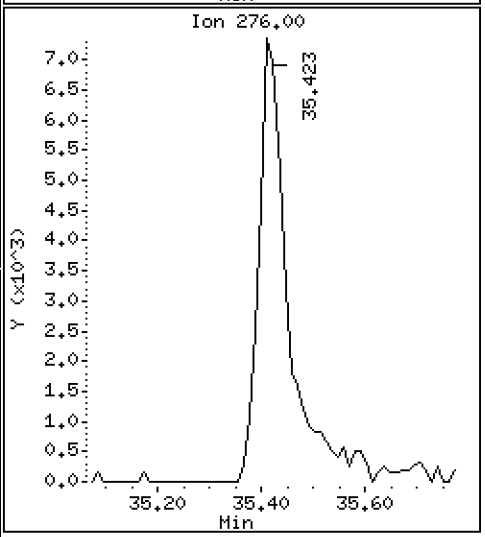
70 Dibenzo(a,h)anthracene

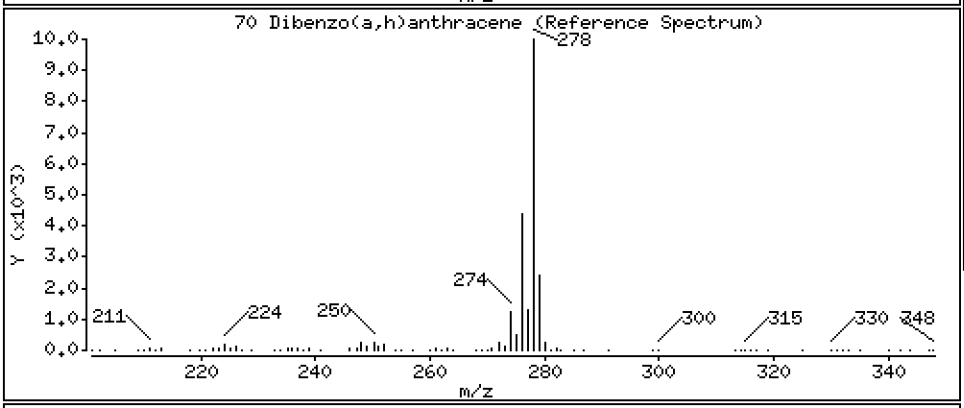
Concentration: 0.09847 ug/mL

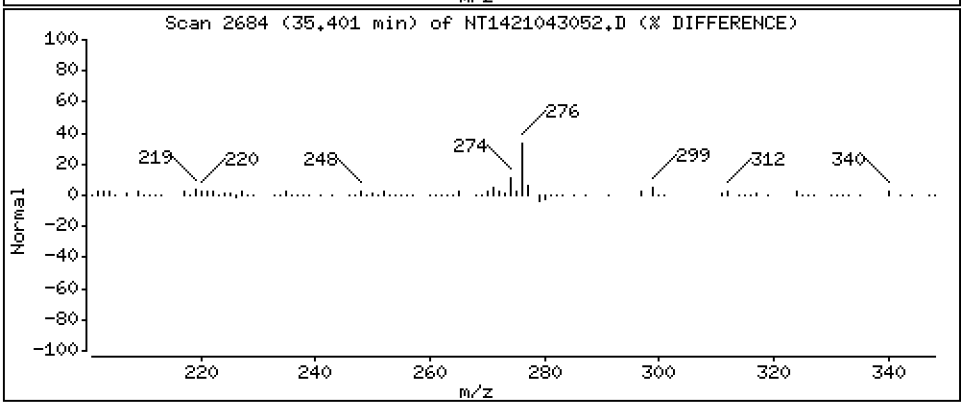


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Date : 02-MAY-2021 00:23

Client ID:

Instrument: nt14.i

Sample Info: SJE0004-LCV1

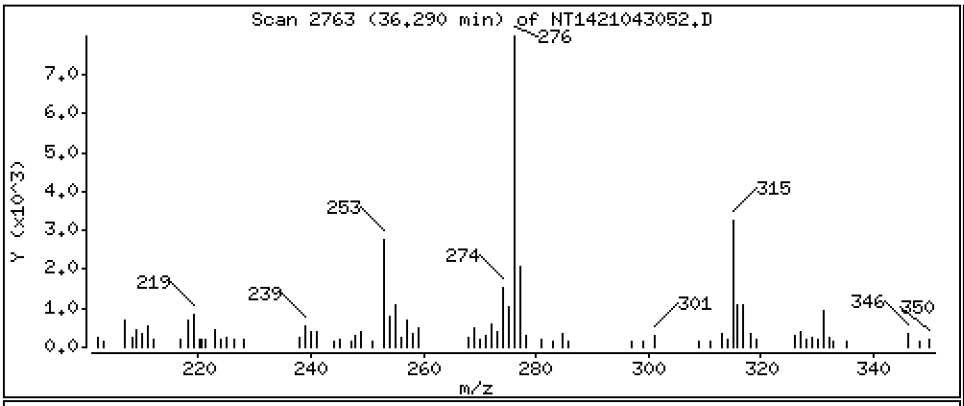
Operator: VTS

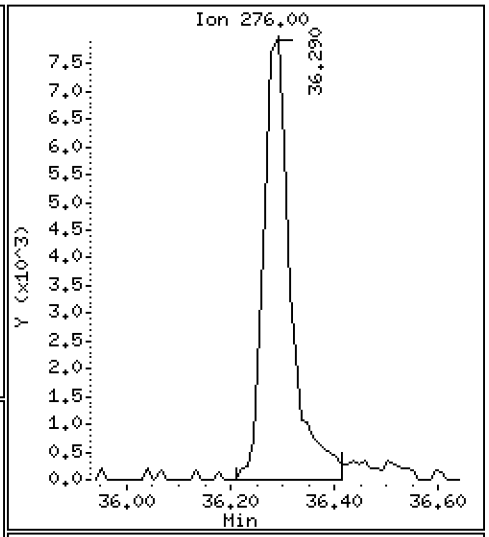
Column phase: Rxi-17Sil MS

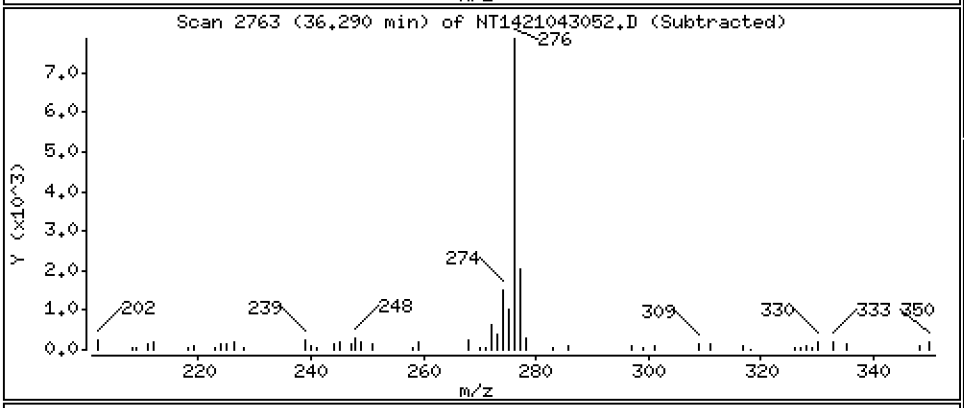
Column diameter: 0.25

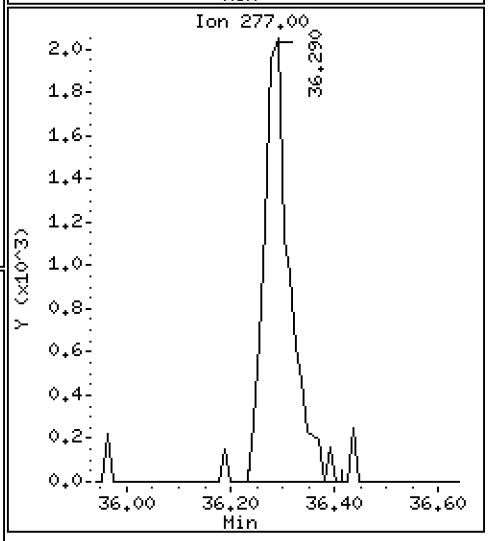
74 Benzo(g,h,i)perylene

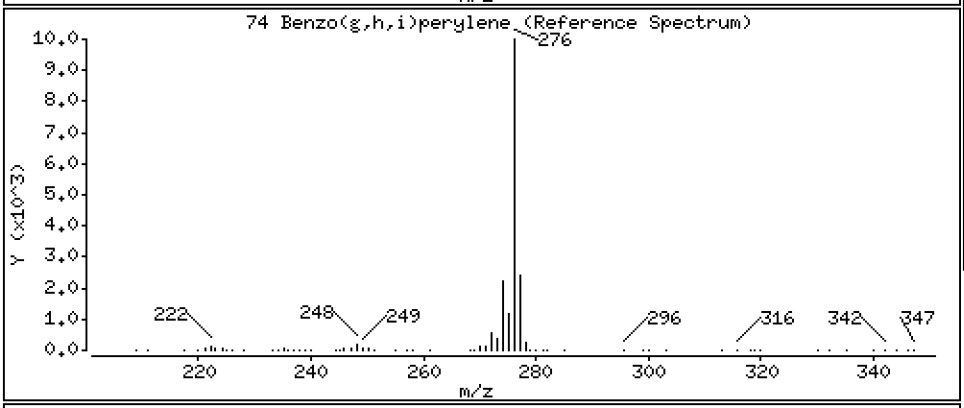
Concentration: 0.1296 ug/mL

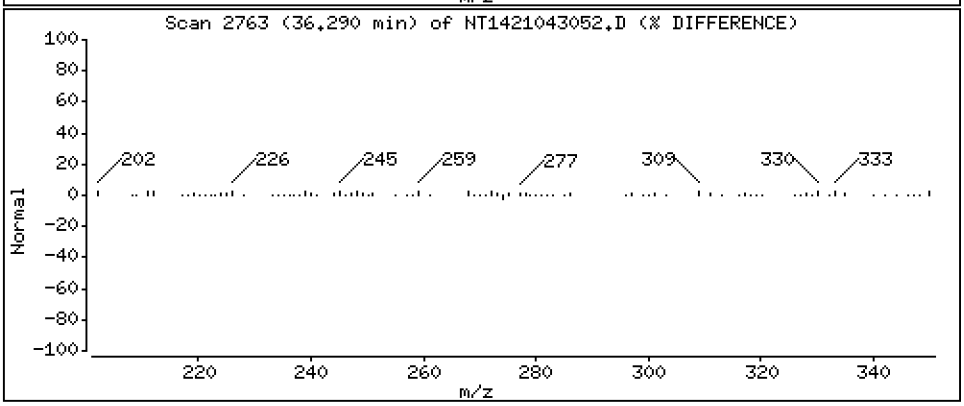


ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430D.b\NT1421043052.D
Lab Smp Id: SJE0004-LCV1
Inj Date : 02-MAY-2021 00:23
Operator : VTS Inst ID: nt14.i
Smp Info : SJE0004-LCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
Meth Date : 04-May-2021 08:25 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 3
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 | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 1 trans-Decalin | 138 | 7.045 | 7.045 | (0.375) | 4344 | 0.10472 | 0.1047 |
| | 2 cis-Decalin | 138 | 8.155 | 8.155 | (0.434) | 3261 | 0.11388 | 0.1139 |
| $ | 6 Naphthalene-d8 | 136 | 11.776 | 11.776 | (0.627) | 37331 | 0.11616 | 0.1162(R) |
| | 7 Naphthalene | 128 | 11.836 | 11.836 | (0.631) | 37272 | 0.11403 | 0.1140 |
| | 12 Benzo(b)thiophene | 134 | 12.284 | 12.295 | (0.654) | 31641 | 0.12167 | 0.1217 |
| | 16 2-Methylnaphthalene | 141 | 13.669 | 13.680 | (0.728) | 20462 | 0.11730 | 0.1173 |
| | 17 1-methylnaphthalene | 141 | 14.120 | 14.120 | (0.752) | 21479 | 0.12996 | 0.1300 |
| | 18 Biphenyl | 154 | 15.318 | 15.318 | (0.816) | 29735 | 0.11911 | 0.1191 |
| | 19 2,6-Dimethylnaphthalene | 156 | 15.395 | 15.394 | (0.820) | 20726 | 0.12065 | 0.1207 |
| | 20 Acenaphthylene | 152 | 16.955 | 16.955 | (0.903) | 33668 | 0.12454 | 0.1245 |
| $ | 21 Acenaphthene-d10 | 164 | 17.241 | 17.241 | (0.918) | 19345 | 0.12328 | 0.1233(R) |
| | 22 Acenaphthene | 153 | 17.362 | 17.362 | (0.925) | 20653 | 0.11887 | 0.1189 |
| | 23 Dibenzofuran | 168 | 17.735 | 17.735 | (0.945) | 30772 | 0.11689 | 0.1169 |
| | 24 1,6,7-Trimethylnaphthalene | 170 | 17.955 | 17.955 | (0.956) | 18310 | 0.12145 | 0.1215 |
| * | 25 Fluorene-d10 | 176 | 18.772 | 18.772 | (1.000) | 556851 | 2.00000 | |
| | 26 Fluorene | 166 | 18.874 | 18.874 | (1.005) | 23025 | 0.12034 | 0.1203 |
| | 30 Dibenzothiophene | 184 | 21.785 | 21.796 | (1.161) | 29235 | 0.12105 | 0.1210 |
| $ | 35 Phenanthrene-d10 | 188 | 22.104 | 22.104 | (0.995) | 26321 | 0.09818 | 0.09818(R) |
| | 36 Phenanthrene | 178 | 22.181 | 22.181 | (0.999) | 31715 | 0.10597 | 0.1060 |
| * | 250 Anthracene-d10 | 188 | 22.214 | 22.214 | (1.000) | 496092 | 2.00000 | |
| | 37 Anthracene | 178 | 22.280 | 22.280 | (1.003) | 28532 | 0.10342 | 0.1034 |
| | 42 Carbazole | 167 | 23.555 | 23.566 | (1.060) | 22280 | 0.09817 | 0.09817 |
| | 43 1-Methylphenanthrene | 192 | 24.017 | 24.017 | (1.081) | 18979 | 0.10444 | 0.1044 |
| | 44 Fluoranthene | 202 | 25.985 | 25.985 | (1.170) | 30670 | 0.11539 | 0.1154 |
| | 46 Pyrene | 202 | 26.832 | 26.832 | (1.208) | 30365 | 0.11024 | 0.1102 |
| | 51 Naphthobenzothiophene | 234 | 29.375 | 29.375 | (1.322) | 27472 | 0.10235 | 0.1023 |
| | 55 Benzo(a)anthracene | 228 | 29.960 | 29.960 | (0.907) | 23064 | 0.09270 | 0.09270 |
| $ | 56 Chrysene-d12 | 240 | 30.095 | 30.084 | (0.911) | 20192 | 0.09885 | 0.09885(R) |
| | 57 Chrysene | 228 | 30.163 | 30.163 | (0.913) | 25664 | 0.09775 | 0.09775 |
| | 62 Benzo(b)fluoranthene | 252 | 32.382 | 32.382 | (0.980) | 23437 | 0.10174 | 0.1017(M) |
| | 63 Benzo(k)fluoranthene | 252 | 32.427 | 32.427 | (0.981) | 27273 | 0.09687 | 0.09687(M) |
| | 293 Benzo(j)fluoranthene | 252 | 32.494 | 32.494 | (0.983) | 25460 | 0.09521 | 0.09521(M) |
| | 246 Total Benzofluoranthenes | 252 | 32.427 | 32.382 | (0.981) | 71877 | 0.28145 | 0.2815(M) |

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| * | 251 Benzo(e)pyrene-d12 | 264 | 33.046 | 33.046 | (1.000) | 562144 | 2.00000 | |
| | 64 Benzo(e)pyrene | 252 | 33.102 | 33.102 | (1.002) | 25462 | 0.10635 | 0.1063 |
| | 66 Benzo(a)pyrene | 252 | 33.204 | 33.204 | (1.005) | 23802 | 0.09800 | 0.09800 |
| $ | 67 Perylene-d12 | 264 | 33.373 | 33.373 | (1.010) | 24319 | 0.11402 | 0.1140(R) |
| | 68 Perylene | 252 | 33.429 | 33.440 | (1.012) | 27036 | 0.11823 | 0.1182(M) |
| | 69 Indeno(1,2,3-cd)pyrene | 276 | 35.411 | 35.423 | (1.072) | 27005 | 0.10967 | 0.1097(M) |
| | 70 Dibenzo(a,h)anthracene | 278 | 35.400 | 35.400 | (1.071) | 20863 | 0.09847 | 0.09847(M) |
| | 74 Benzo(g,h,i)perylene | 276 | 36.290 | 36.290 | (1.098) | 27915 | 0.12960 | 0.1296 |

## QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043052.D
Lab Smp Id: SJE0004-LCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430D.b\ALKYLPNA.m
Misc Info:

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

Test Mode:
Use Last Continuing Calibrator.

| | | AREA LIMIT | | | |
|---|---|---|---|---|---|
| COMPOUND | STANDARD | LOWER | UPPER | SAMPLE | %DIFF |
| 25 Fluorene-d10 | 504442 | 252221 | 1008884 | 556851 | 10.39 |
| 250 Anthracene-d10 | 459103 | 229552 | 918206 | 496092 | 8.06 |
| 251 Benzo(e)pyrene-d1 | 516794 | 258397 | 1033588 | 562144 | 8.78 |

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

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

REVIEW SUMMARY FOR FILE - NT1421043052.D

Lab ID: SJE0004-LCV1
nt14.i,  20210430D.b\ALKYLPNA.m,    02-MAY-2021 00:23

| RT | CO-ELUTION COMPOUNDS |
|---|---|
| NO CO-ELUTIONS | |

Quant Method: ICAL

RRT CHECK

| RRT | CCV RRT | DELTA | COMPOUND |
|---|---|---|---|
| NONE | | | |

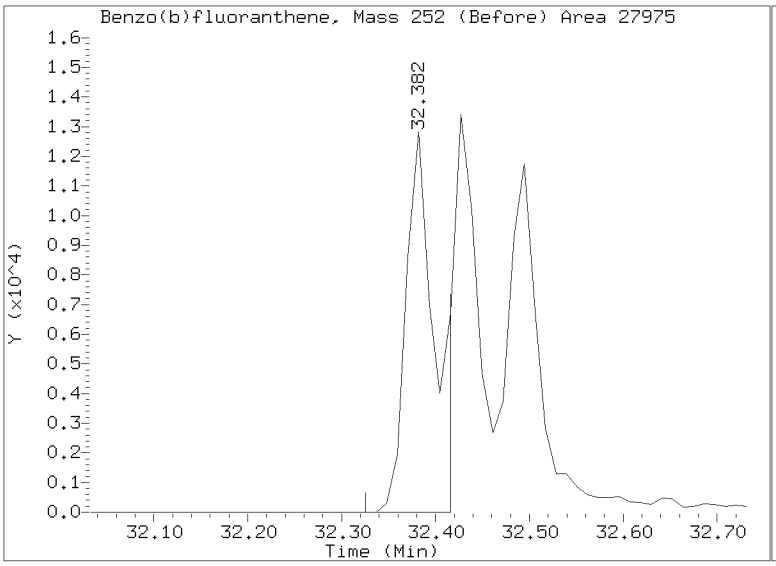
RRT check based on Ccal File: NT1421043051ICV.D

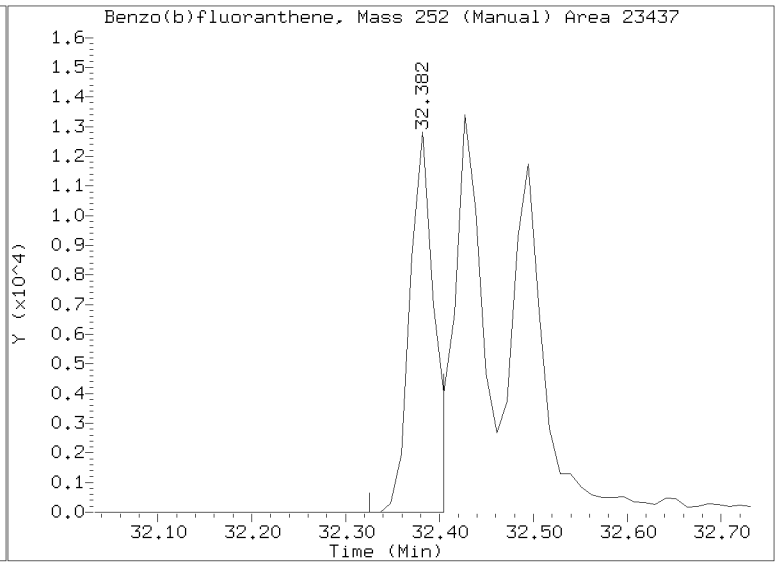
On Column LOD for nt14.i, 20210430D.b\ALKYLPNA.m, TARGETS.sub = 0.0000

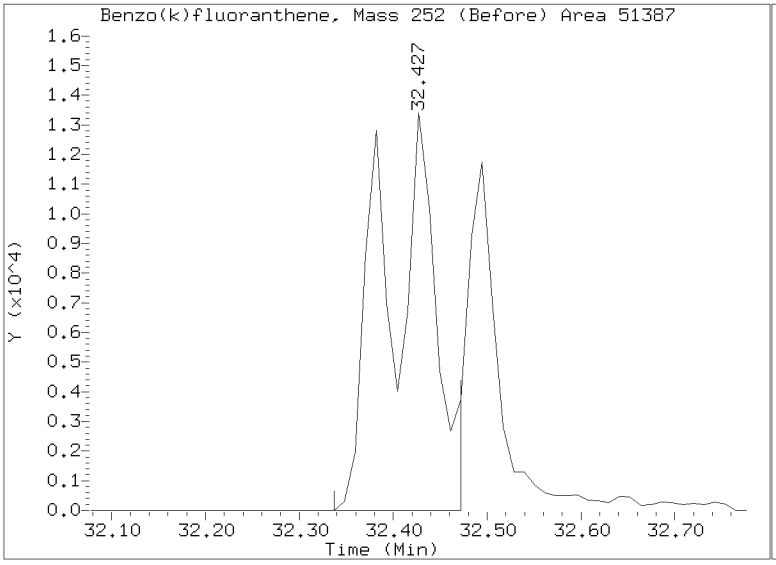
* Only compounds listed in the work order have been verified by the analyst *

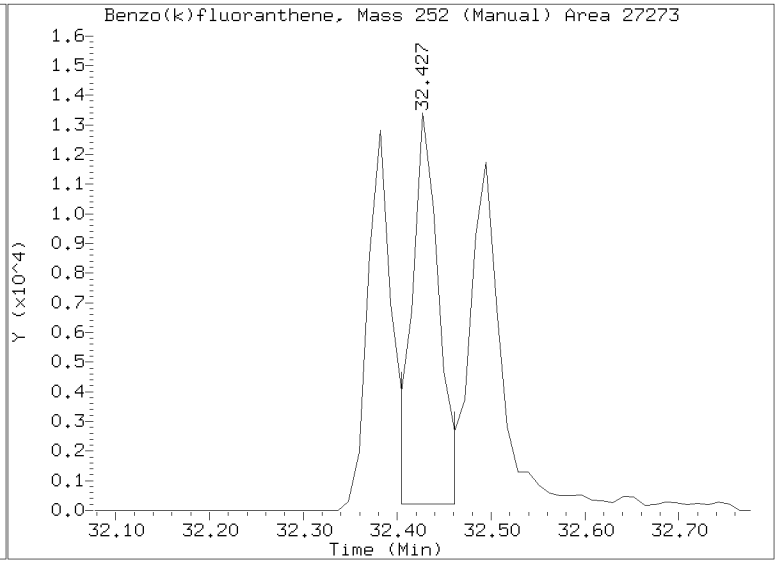
# Quant Ion Manual Peak Adjustment Report

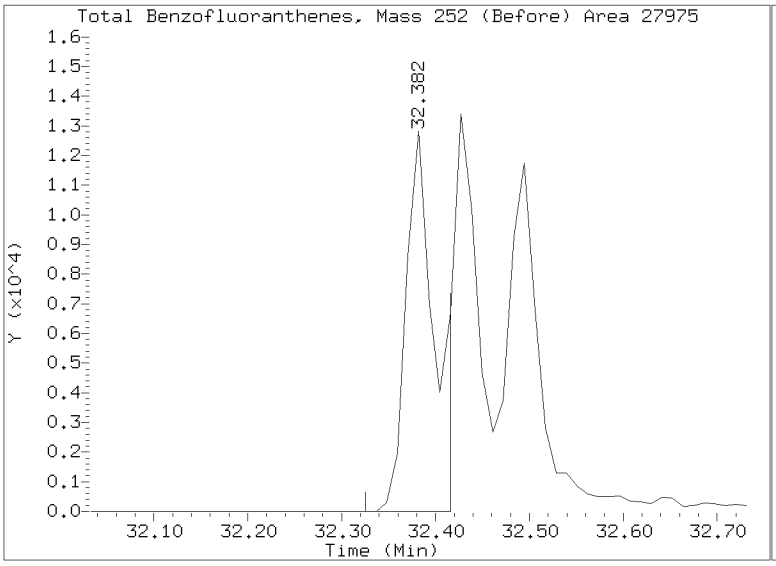
Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043052.D
Injection Date: 02-MAY-2021 00:23
Lab ID:SJE0004-LCV1 Client ID:
Report Date: 05/04/2021 13:20

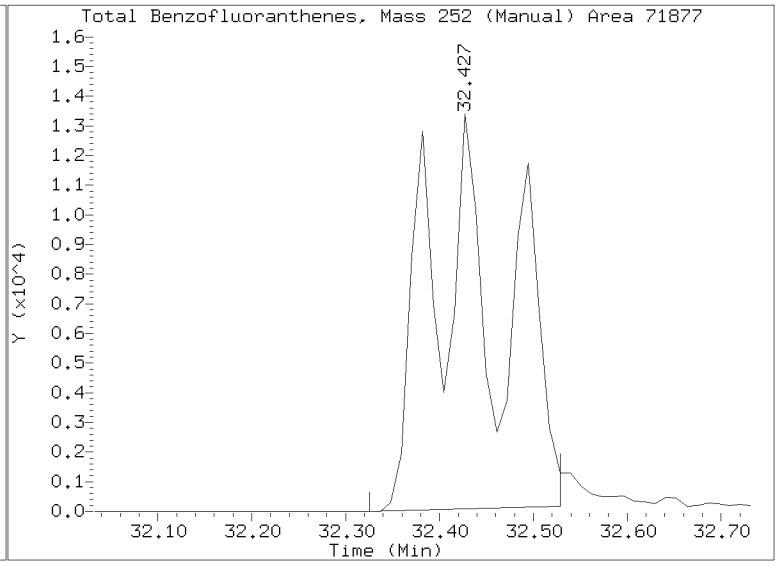


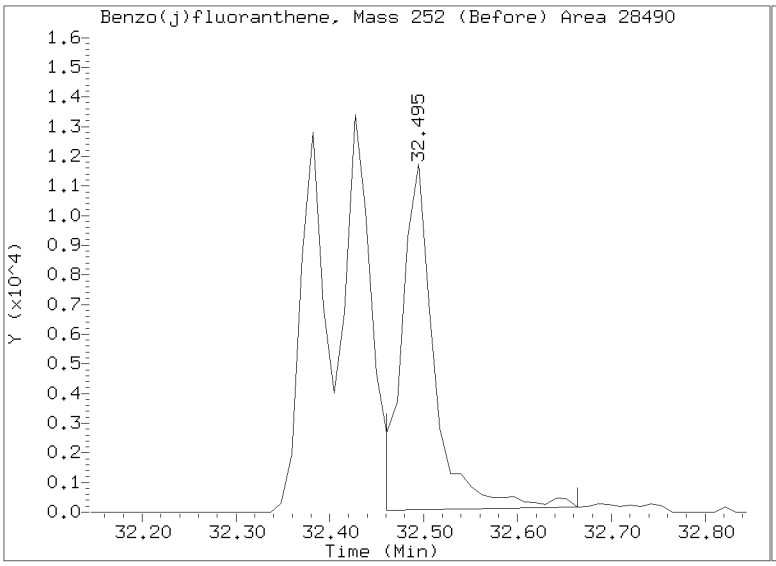



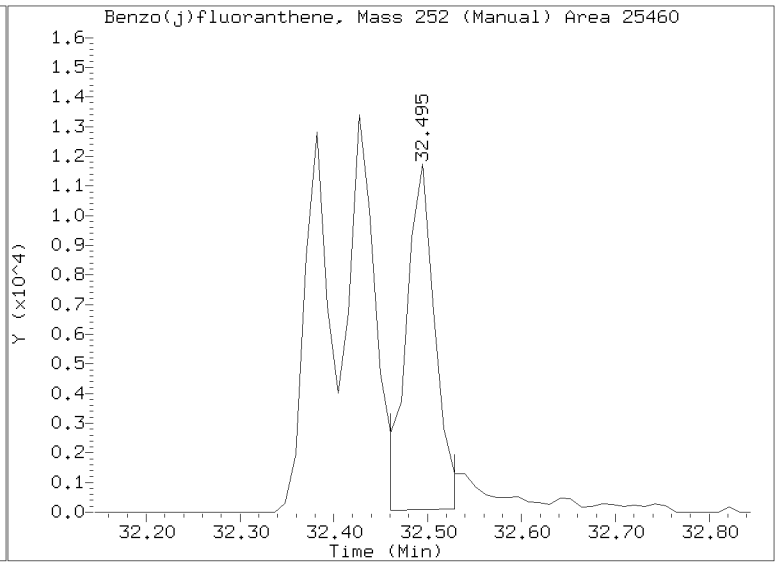



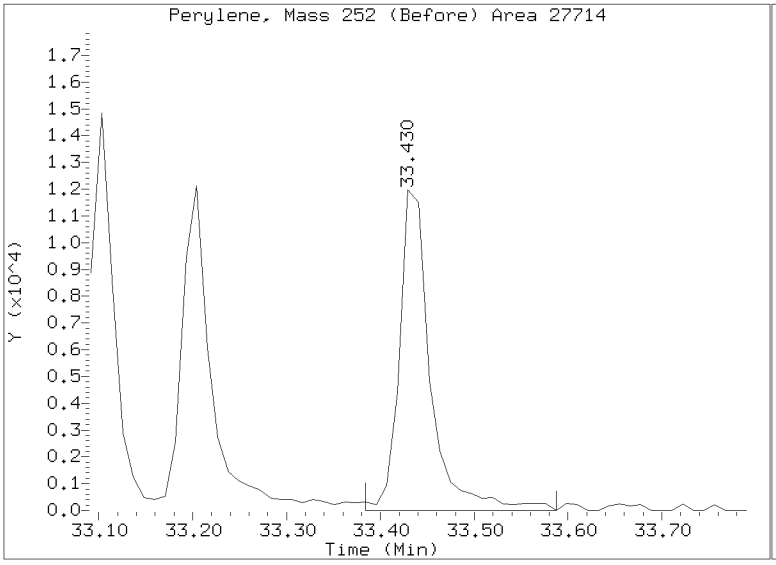



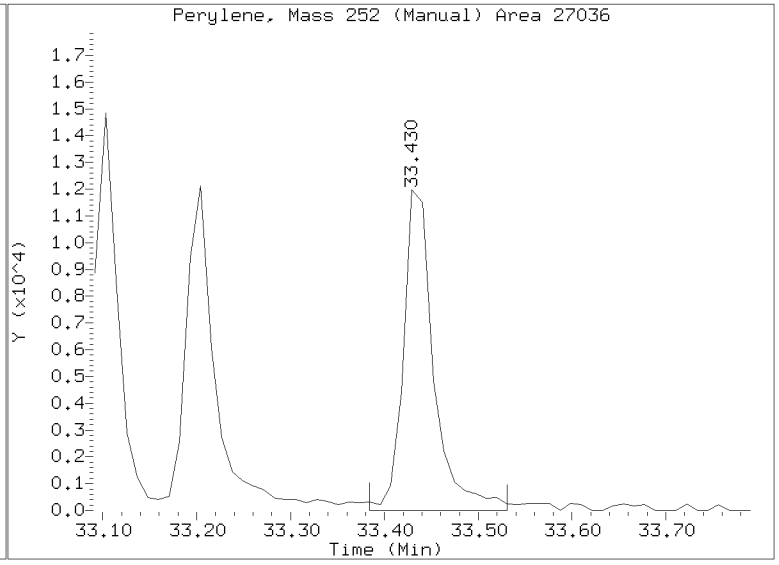
# Quant Ion Manual Peak Adjustment Report

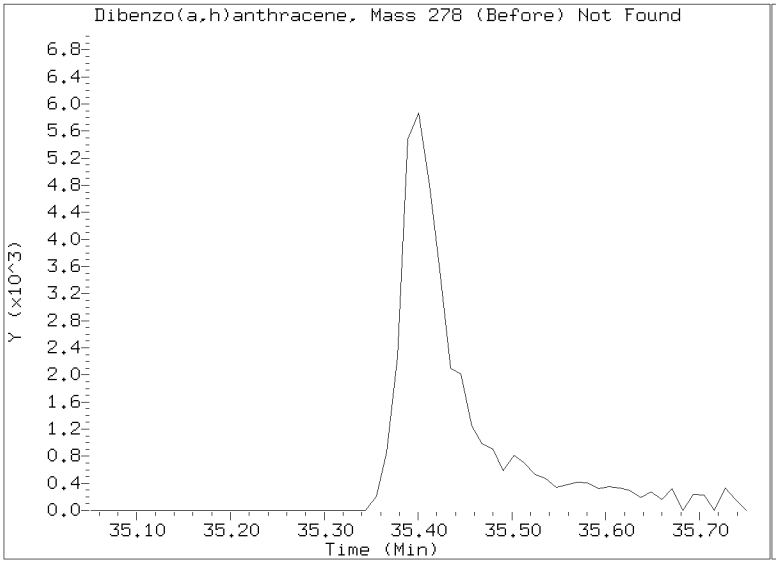
Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043052.D
Injection Date: 02-MAY-2021 00:23
Lab ID:SJE0004-LCV1 Client ID:
Report Date: 05/04/2021 13:20

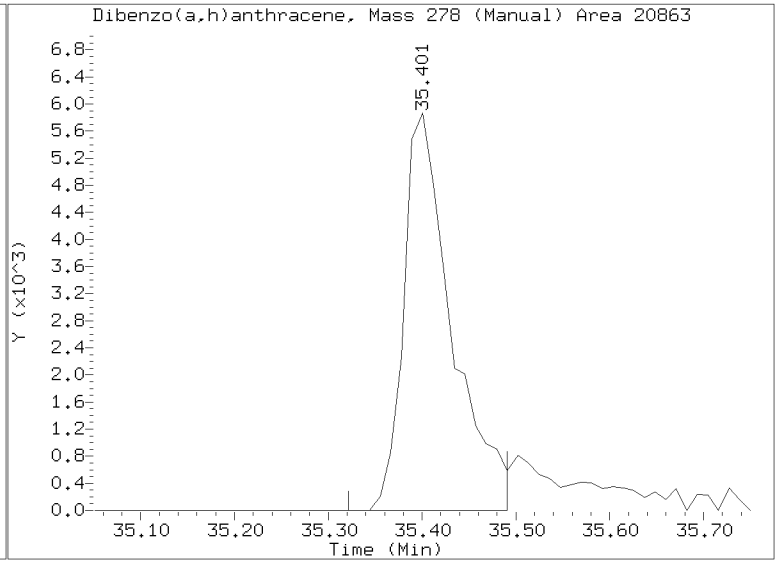


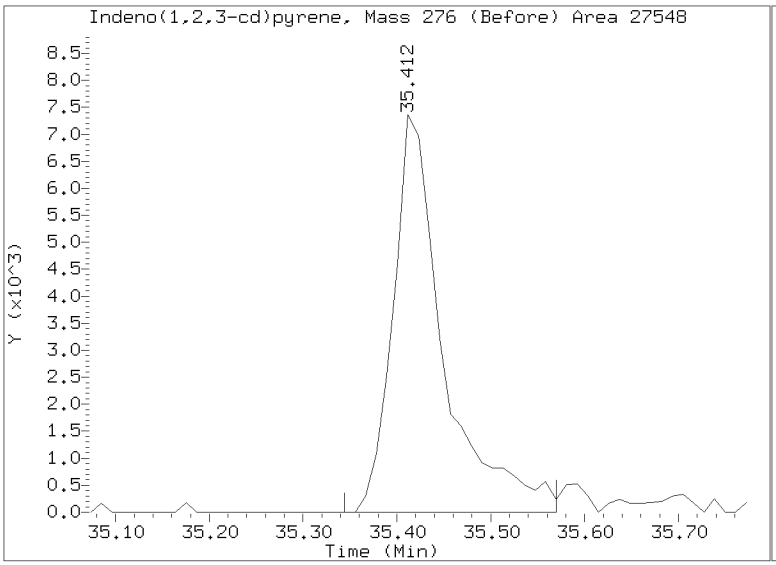



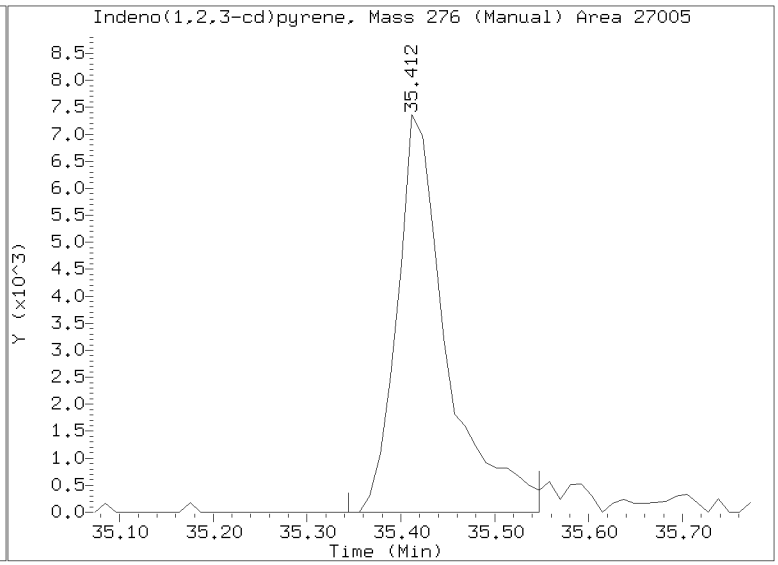



# Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430D.b/NT1421043052.D
Injection Date: 02-MAY-2021 00:23
Lab ID:SJE0004-LCV1 Client ID:
Report Date: 05/04/2021 13:20



# CONTINUING CALIBRATION CHECK
## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | NT14 | Calibration: | EE00001 |
| Lab File ID: | NT1421050405.D | Calibration Date: | 04/30/2021 |
| Sequence: | SJE0028 | Injection Date: | 05/04/21 |
| Lab Sample ID: | SJE0028-CCV1 | Injection Time: | 16:08 |
| 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 | 2.73 | 0.1489821 | 0.1624172 | | 9.0 | +/-50 |
| cis-Decalin | A | 2.5000 | 2.79 | 0.1028504 | 0.1147037 | | 11.5 | +/-50 |
| Naphthalene | A | 2.5000 | 2.76 | 1.1740120 | 1.2944790 | | 10.3 | +/-50 |
| 1-Methylnaphthalene | A | 2.5000 | 2.82 | 0.5936130 | 0.6701847 | | 12.9 | +/-50 |
| 2-Methylnaphthalene | A | 2.5000 | 2.83 | 0.6265036 | 0.7097288 | | 13.3 | +/-50 |
| Biphenyl | A | 2.5000 | 2.79 | 0.8966280 | 0.9990733 | | 11.4 | +/-50 |
| 2,6-Dimethylnaphthalene | A | 2.5000 | 2.87 | 0.6169792 | 0.7078611 | | 14.7 | +/-50 |
| Acenaphthylene | A | 2.5000 | 3.07 | 0.9709370 | 1.1906340 | | 22.6 | +/-50 |
| Acenaphthene | A | 2.5000 | 2.90 | 0.6240076 | 0.7237160 | | 16.0 | +/-50 |
| Dibenzofuran | A | 2.5000 | 2.82 | 0.9455456 | 1.0649890 | | 12.6 | +/-50 |
| 2,3,5-Trimethylnaphthalene | A | 2.5000 | 3.02 | 0.5414731 | 0.6534756 | | 20.7 | +/-50 |
| Fluorene | A | 2.5000 | 2.85 | 0.6871732 | 0.7828099 | | 13.9 | +/-50 |
| Benzo(b)thiophene | A | 2.5000 | 2.80 | 0.9340302 | 1.0451920 | | 11.9 | +/-50 |
| Phenanthrene | A | 2.5000 | 2.53 | 1.2066070 | 1.2199620 | | 1.1 | +/-50 |
| Anthracene | A | 2.5000 | 2.56 | 1.1122650 | 1.1406750 | | 2.6 | +/-50 |
| Carbazole | A | 2.5000 | 2.63 | 0.8290303 | 0.9868937 | | 5.3 | +/-50 |
| 1-Methylphenanthrene | A | 2.5000 | 2.82 | 0.7326040 | 0.8265388 | | 12.8 | +/-50 |
| Fluoranthene | A | 2.5000 | 2.88 | 1.0715980 | 1.2348560 | | 15.2 | +/-50 |
| Dibenzothiophene | A | 2.5000 | 2.97 | 0.8674458 | 1.0300640 | | 18.7 | +/-50 |
| Pyrene | A | 2.5000 | 2.87 | 1.1104570 | 1.2732900 | | 14.7 | +/-50 |
| Benzo(a)anthracene | A | 2.5000 | 2.61 | 0.8222601 | 0.9616053 | | 4.6 | +/-50 |
| Chrysene | A | 2.5000 | 2.53 | 0.9340580 | 0.9453515 | | 1.2 | +/-50 |
| Benzo(b)fluoranthene | A | 2.5000 | 2.65 | 0.7491309 | 0.9040213 | | 5.9 | +/-50 |
| Benzo(j)fluoranthene | A | 2.5000 | 2.60 | 0.9513865 | 0.9908602 | | 4.1 | |
| Benzo(k)fluoranthene | A | 2.5000 | 2.63 | 0.9278309 | 1.0958000 | | 5.4 | +/-50 |
| Benzofluoranthenes, Total | A | 7.5000 | 7.74 | 0.8388531 | 0.9657782 | | 3.2 | |
| Benzo(e)pyrene | A | 2.5000 | 2.72 | 0.8518347 | 0.9268700 | | 8.8 | +/-50 |
| Benzo(a)pyrene | A | 2.5000 | 2.52 | 0.7422947 | 0.8822030 | | 0.6 | +/-50 |
| Indeno(1,2,3-cd)pyrene | A | 2.5000 | 2.61 | 0.7887712 | 0.9499198 | | 4.5 | +/-50 |
| Dibenzo(a,h)anthracene | A | 2.5000 | 2.55 | 0.6549683 | 0.7998939 | | 1.8 | +/-50 |
| Benzo(g,h,i)perylene | A | 2.5000 | 2.78 | 0.7663214 | 0.8533738 | | 11.4 | +/-50 |
| Perylene | A | 2.5000 | 2.74 | 0.8135951 | 0.8925604 | | 9.7 | +/-50 |
| Benzo(b)naphtho(2,1-d)thiophene | A | 2.5000 | 2.75 | 1.0821370 | 1.1906010 | | 10.0 | +/-50 |
| Naphthalene-d8 | A | 2.5000 | 2.77 | 1.1542130 | 1.2769540 | | 10.6 | |

* Values outside of QC limits

# CONTINUING CALIBRATION CHECK
## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | NT14 | Calibration: | EE00001 |
| Lab File ID: | NT1421050405.D | Calibration Date: | 04/30/2021 |
| Sequence: | SJE0028 | Injection Date: | 05/04/21 |
| Lab Sample ID: | SJE0028-CCV1 | Injection Time: | 16:08 |
| Sequence Name: | Calibration Check | | |

| | | CONC. (ug/mL) | | RESPONSE FACTOR (RRF) | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN | CCV | LIMIT |
| Acenaphthene-d10 | A | 2.5000 | 2.87 | 0.5635830 | 0.6479537 | | 15.0 | |
| Phenanthrene-d10 | A | 2.5000 | 2.56 | 1.0807840 | 1.1072680 | | 2.5 | |
| Chrysene-d12 | A | 2.5000 | 2.71 | 0.7267179 | 0.7883642 | | 8.5 | |
| Perylene-d12 | A | 2.5000 | 2.52 | 0.6899017 | 0.7841237 | | 0.8 | |

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050405.D



Date : 04-MAY-2021 16:08

Client ID:

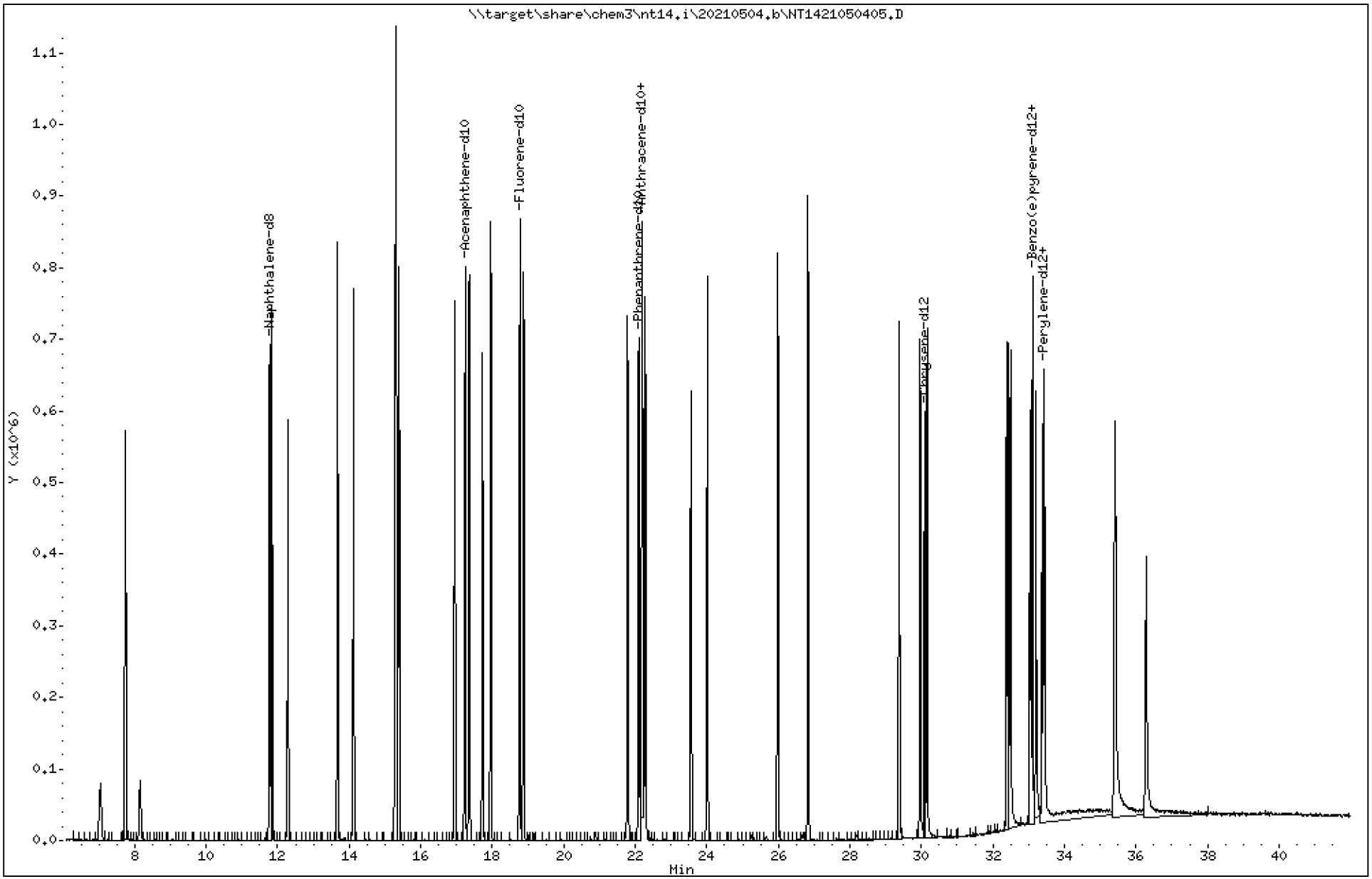
Instrument: nt14.i

Sample Info: SJE0028-CCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25




Revised Report 21D0180 07/07/2021 Page 1390 of 1709

Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050405.D

Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

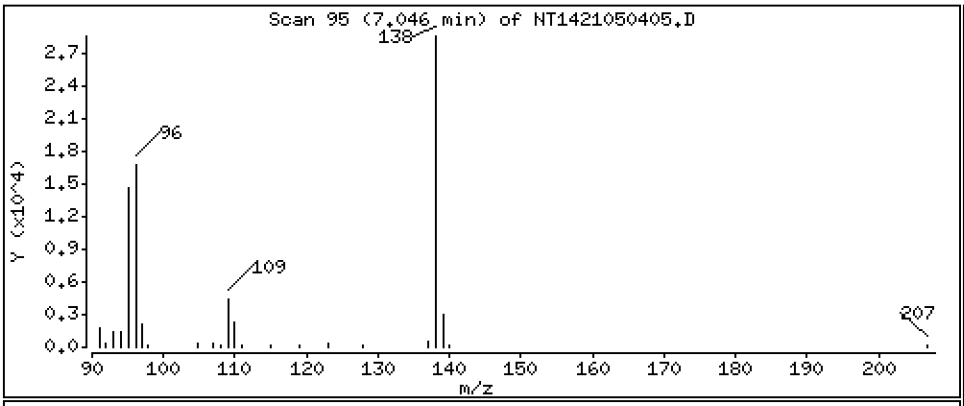
Operator: VTS

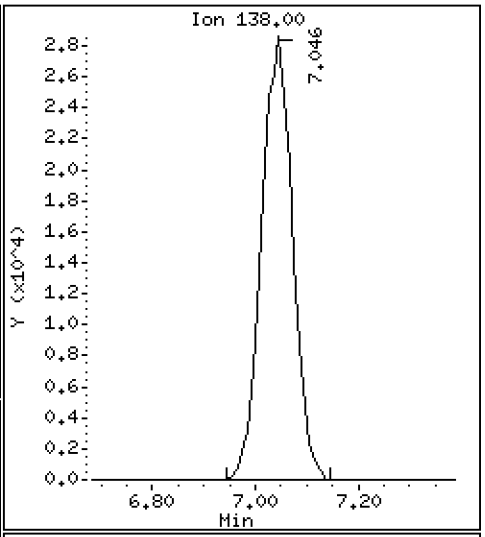
Column phase: Rxi-17Sil MS

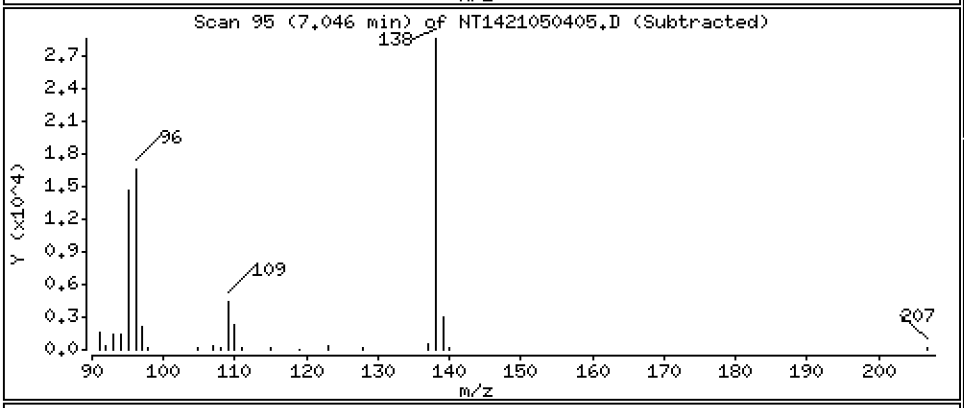
Column diameter: 0.25

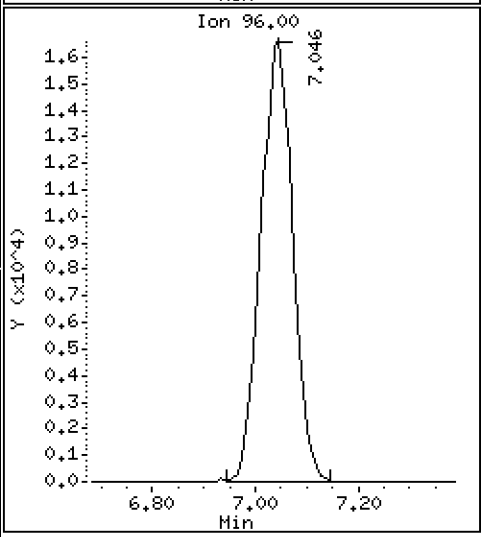
1 trans-Decalin

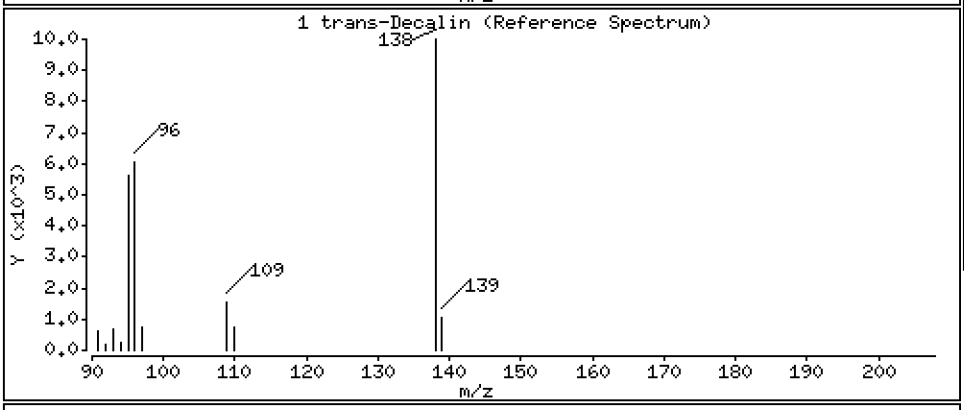
Concentration: 2.725 ug/mL

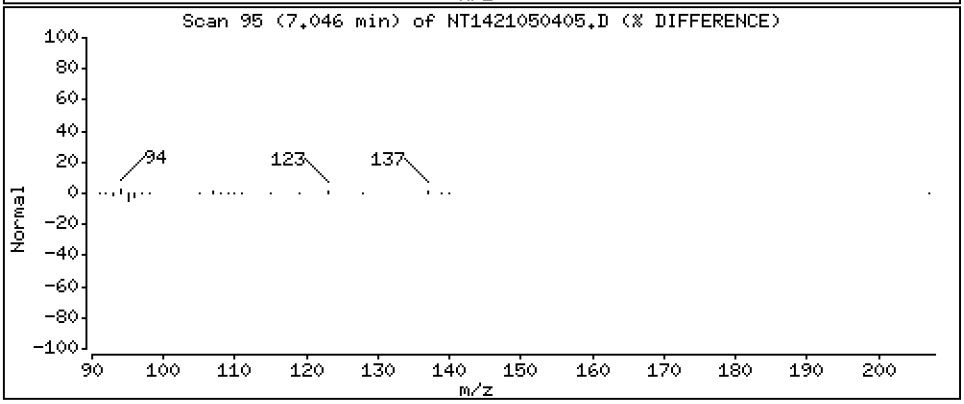


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Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

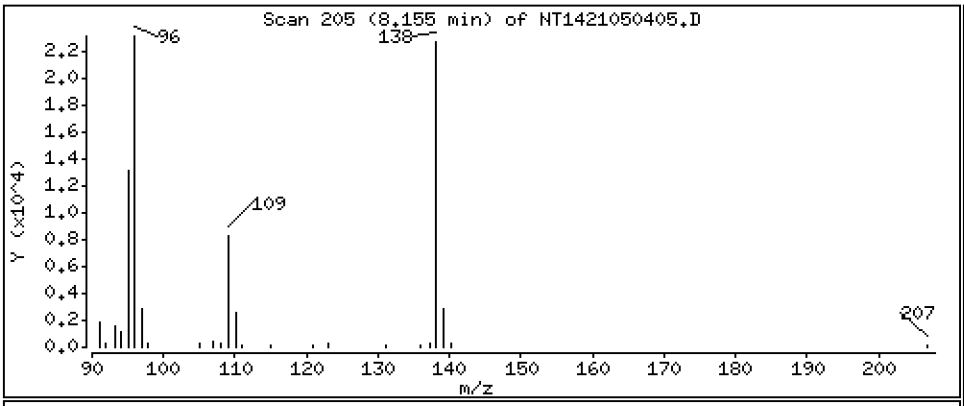
Operator: VTS

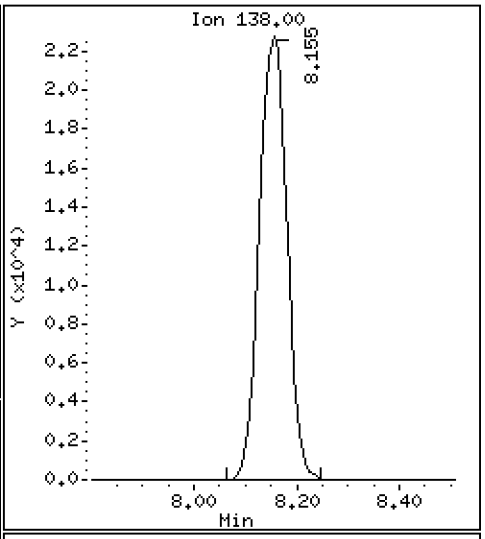
Column phase: Rxi-17Sil MS

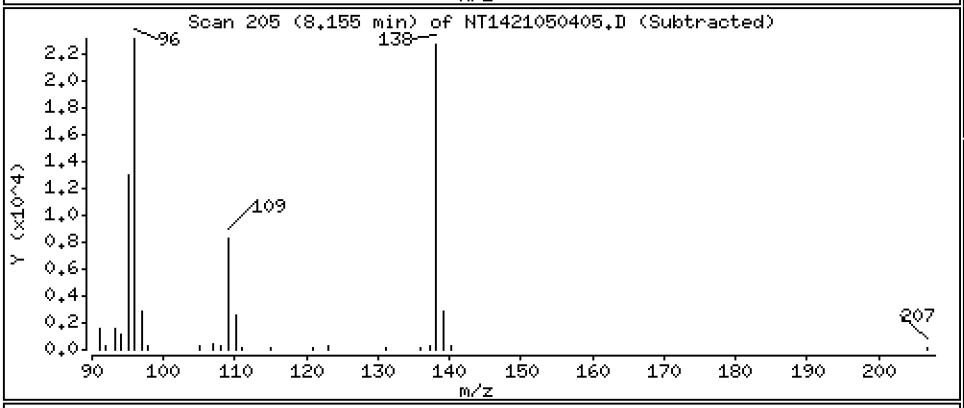
Column diameter: 0.25

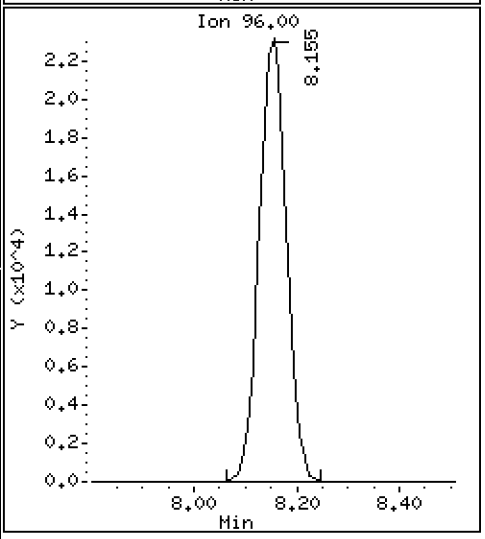
2 cis-Decalin

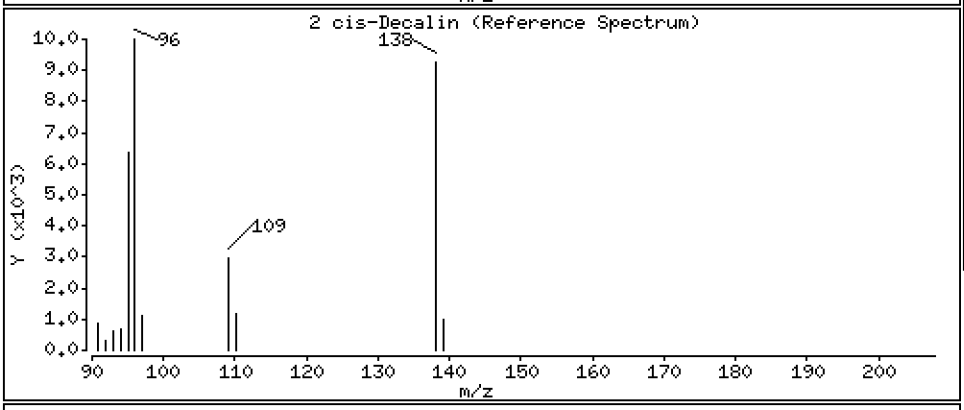
Concentration: 2.788 ug/mL

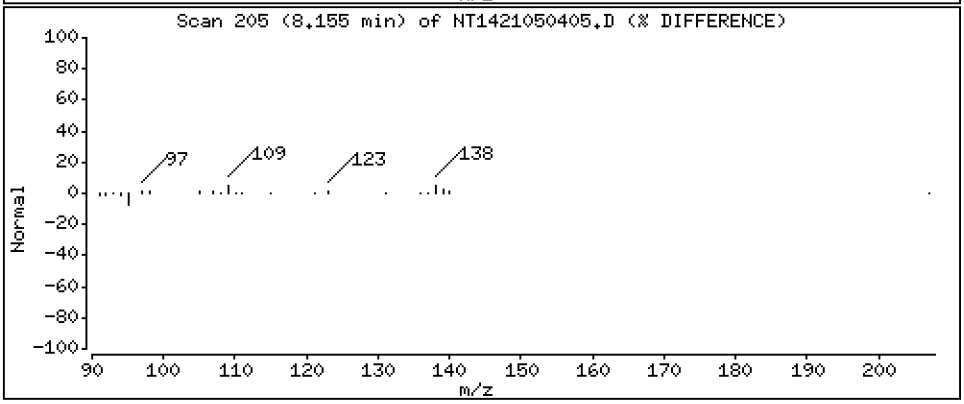


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050405.D

Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

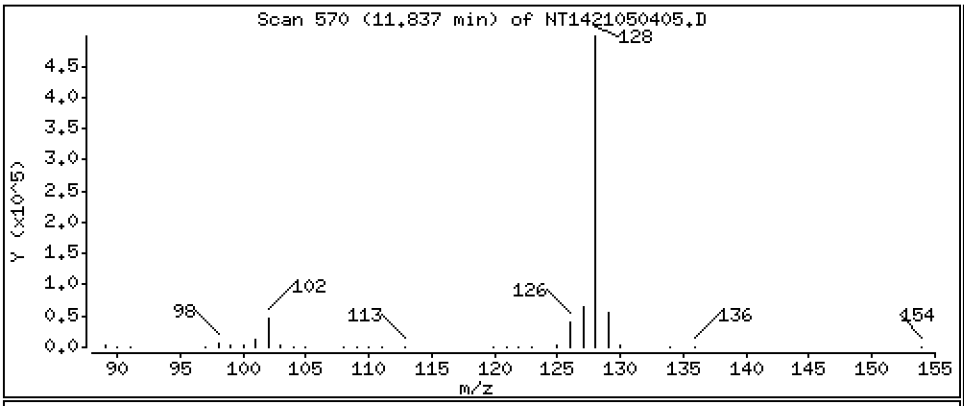
Operator: VTS

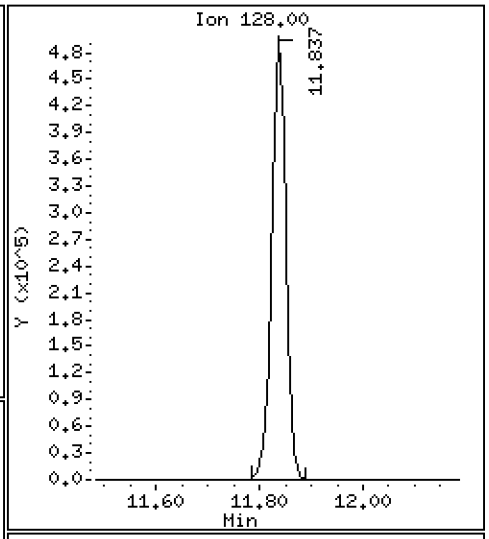
Column phase: Rxi-17Sil MS

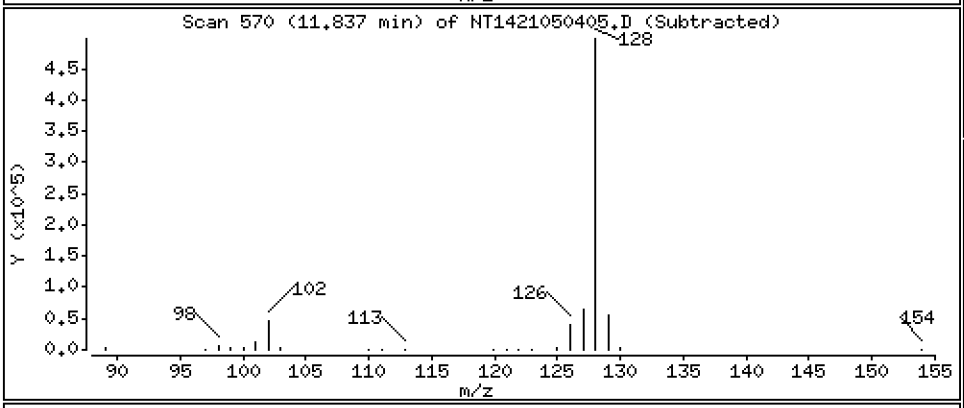
Column diameter: 0.25

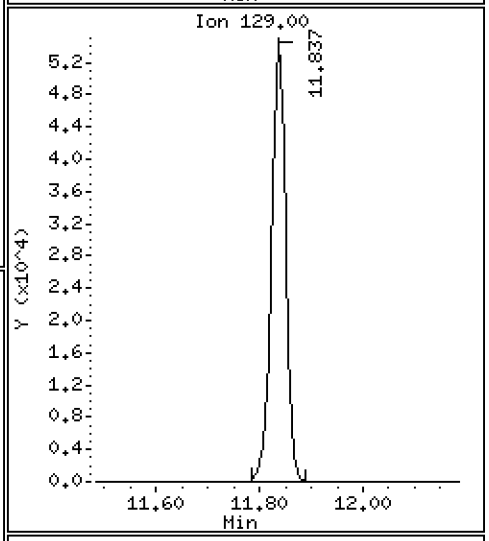
7 Naphthalene

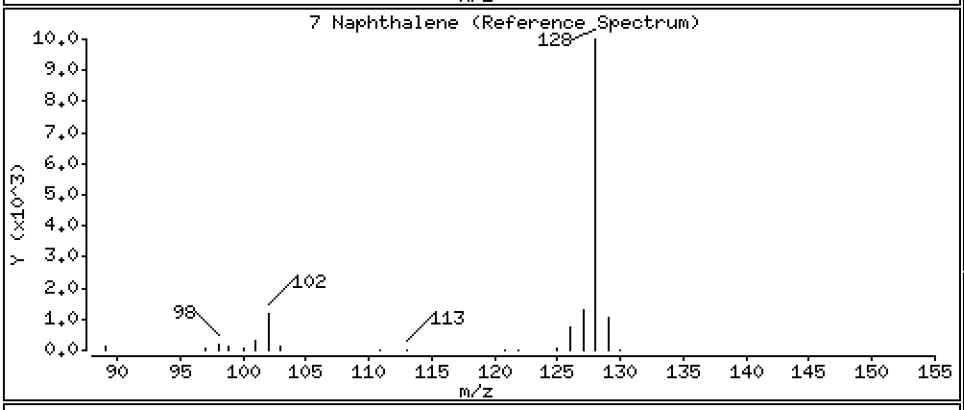
Concentration: 2.757 ug/mL

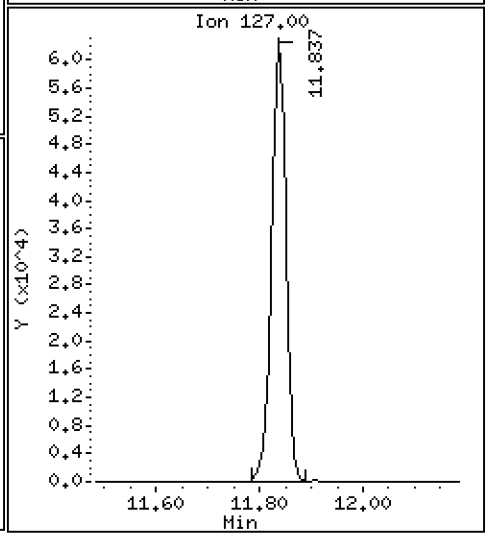


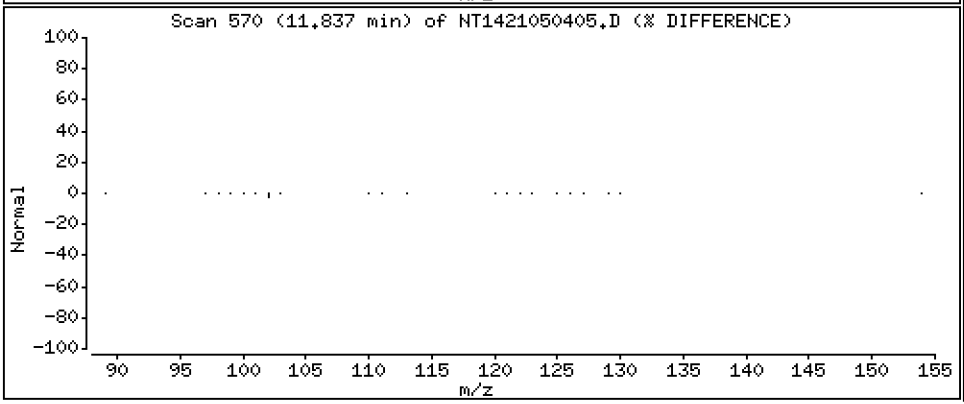



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Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

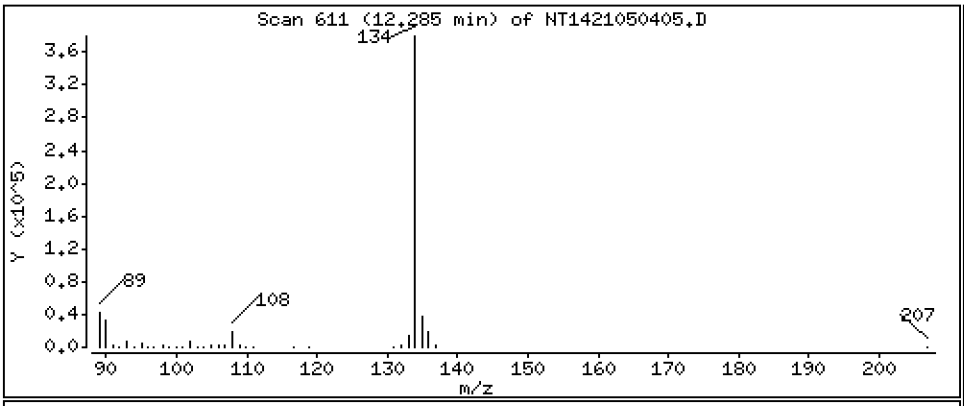
Operator: VTS

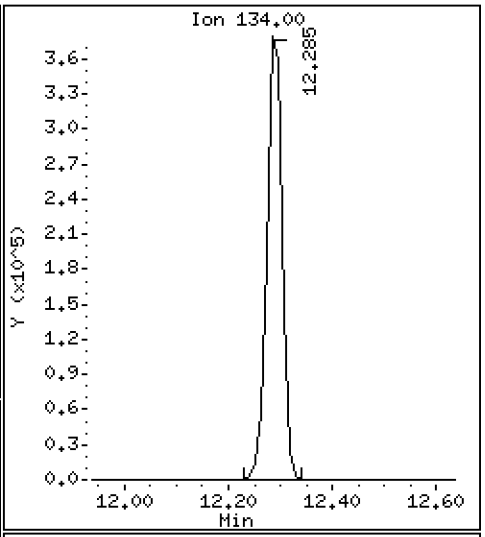
Column phase: Rxi-17Sil MS

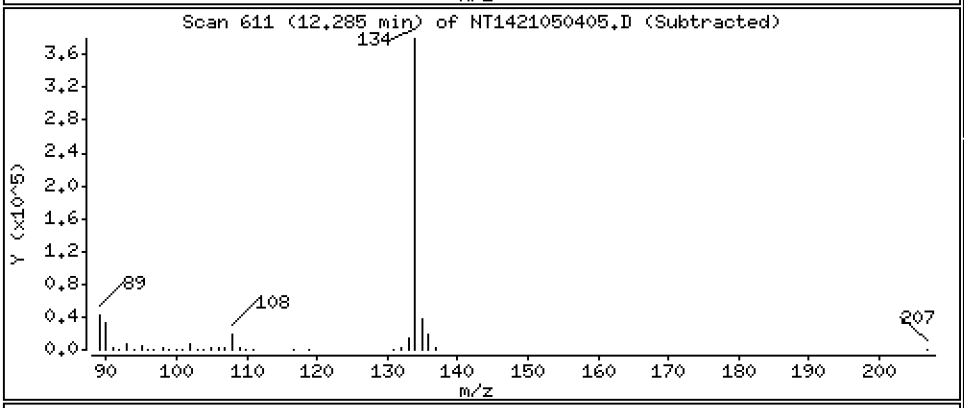
Column diameter: 0.25

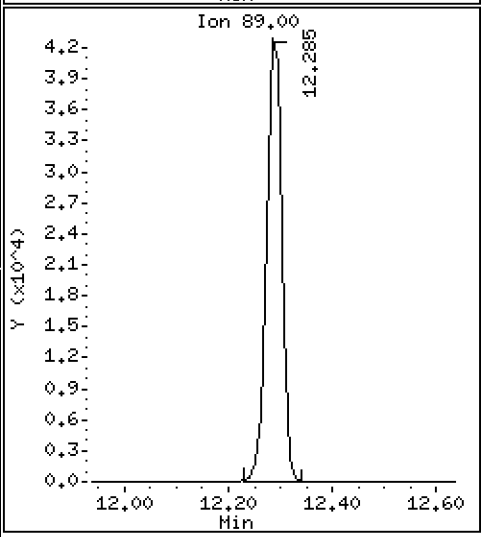
12 Benzo(b)thiophene

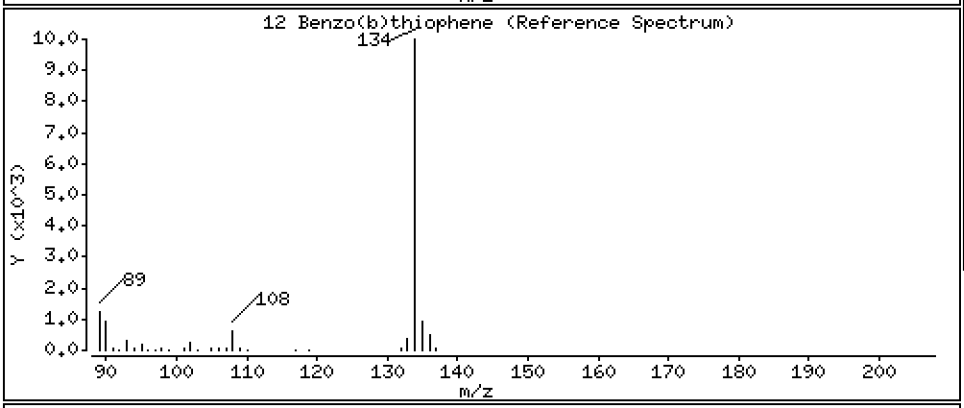
Concentration: 2.798 ug/mL

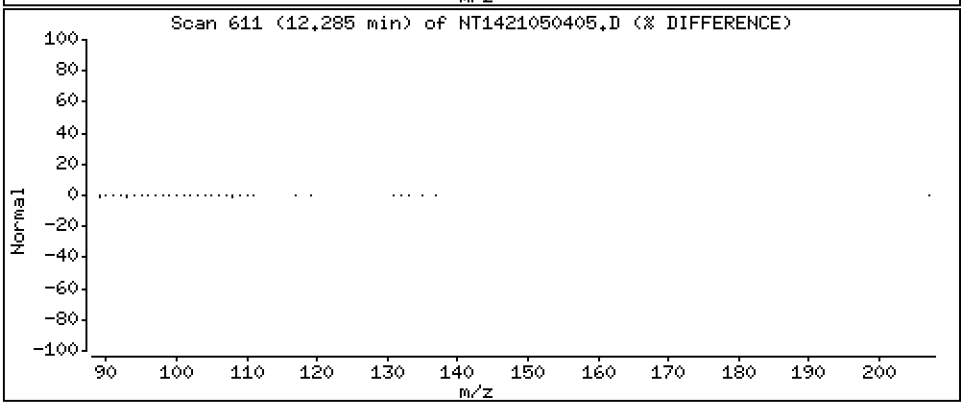


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Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

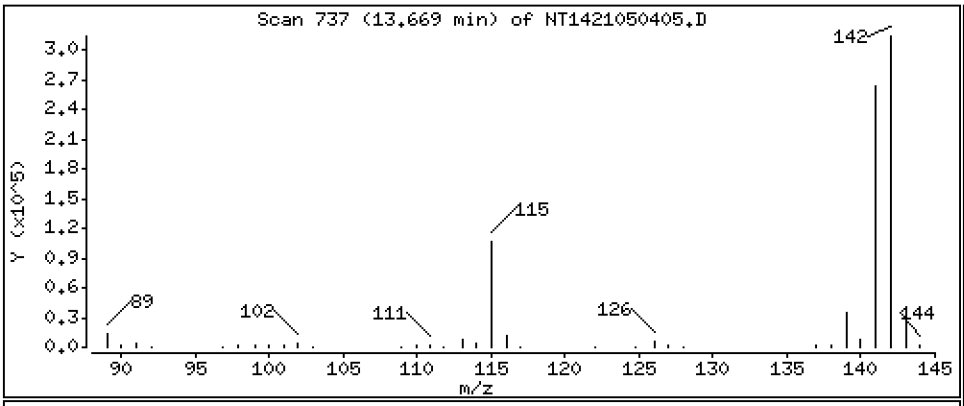
Operator: VTS

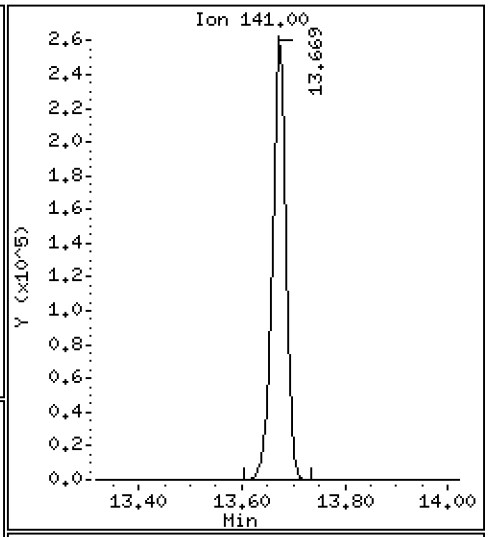
Column phase: Rxi-17Sil MS

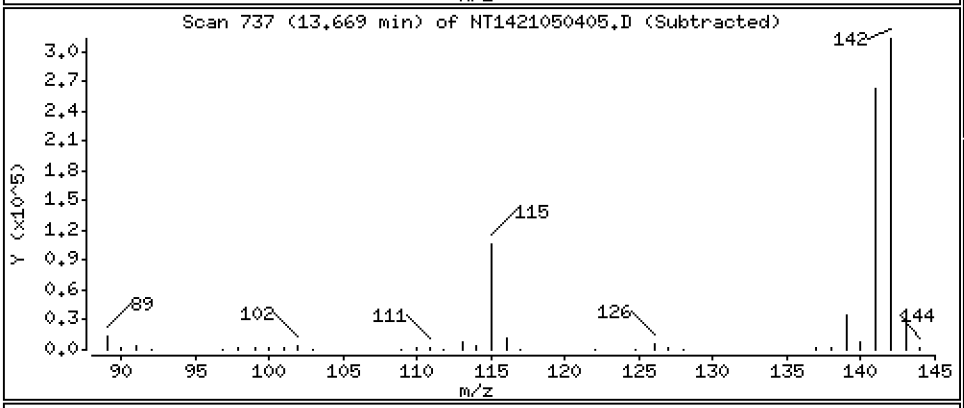
Column diameter: 0.25

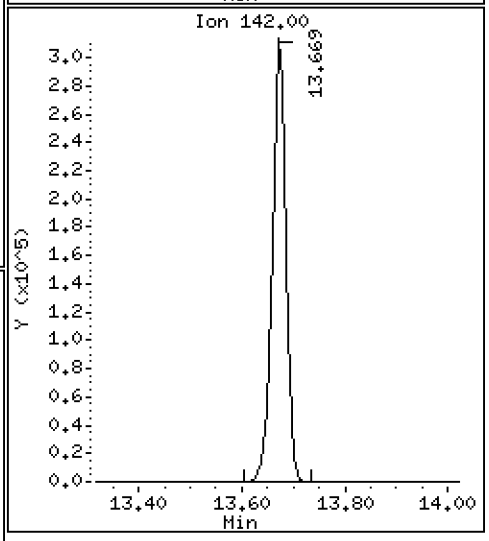
16 2-Methylnaphthalene

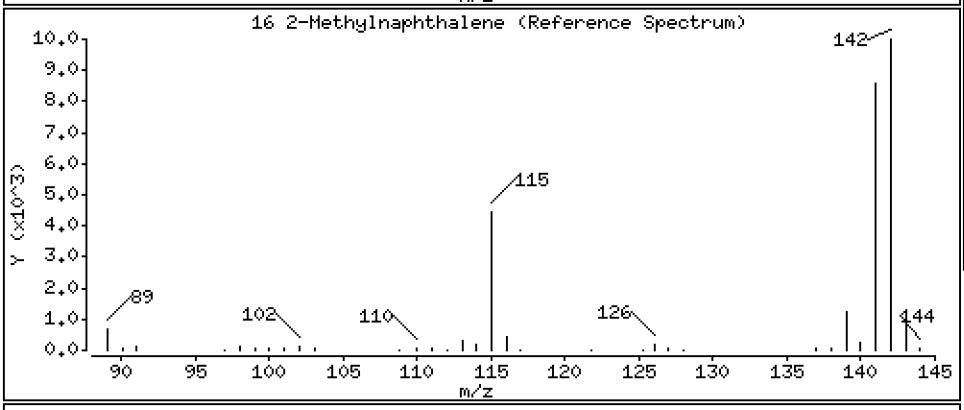
Concentration: 2.832 ug/mL

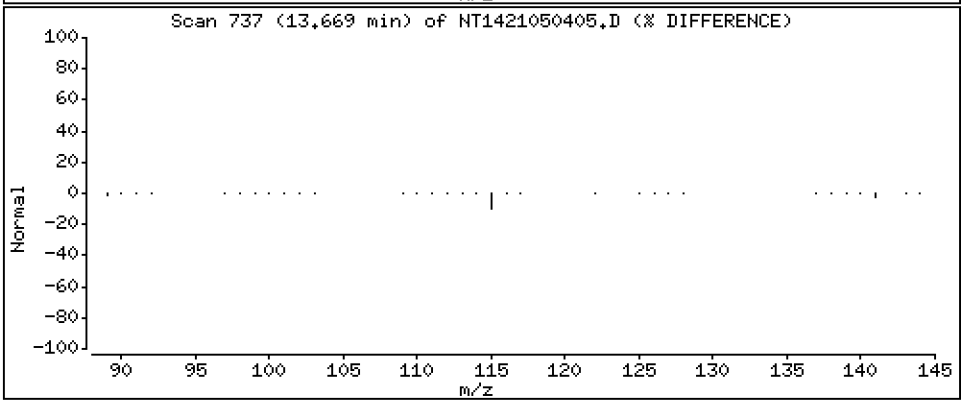


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050405.D

Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

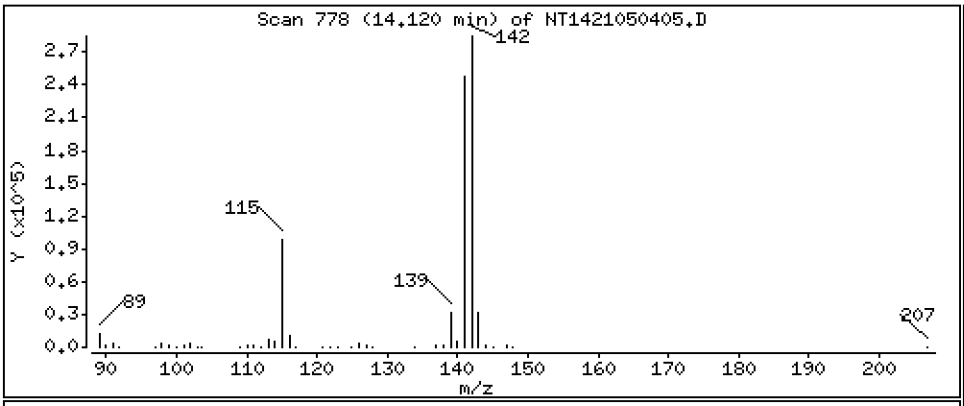
Operator: VTS

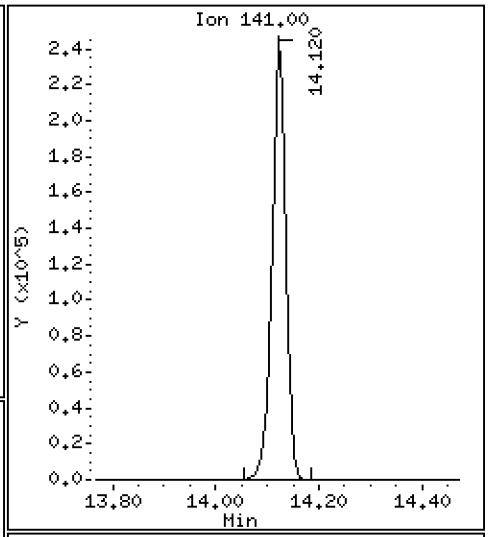
Column phase: Rxi-17Sil MS

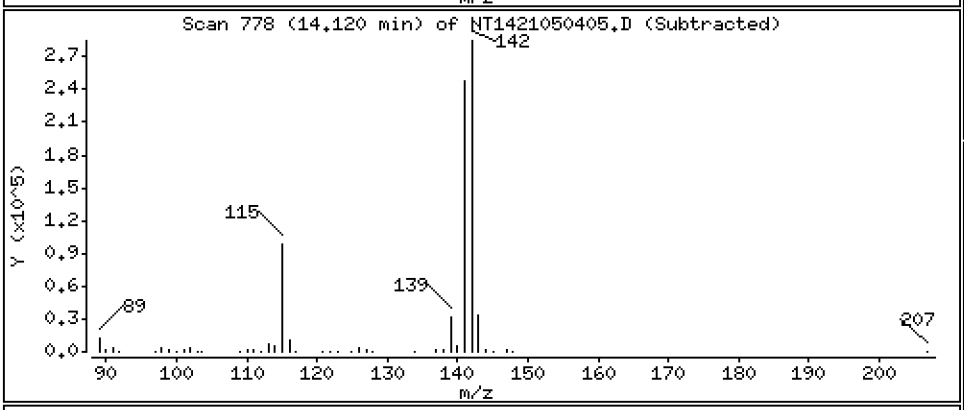
Column diameter: 0.25

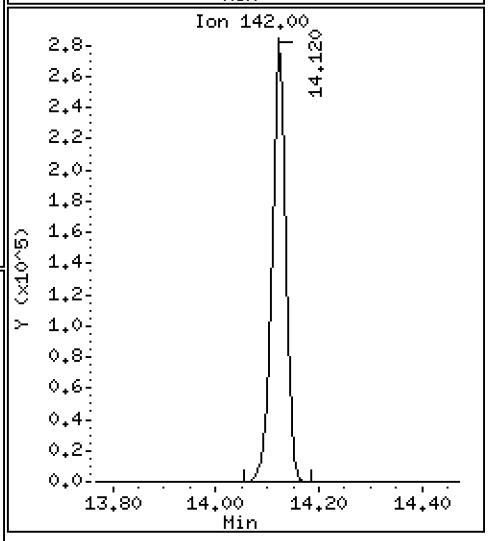
17 1-methylnaphthalene

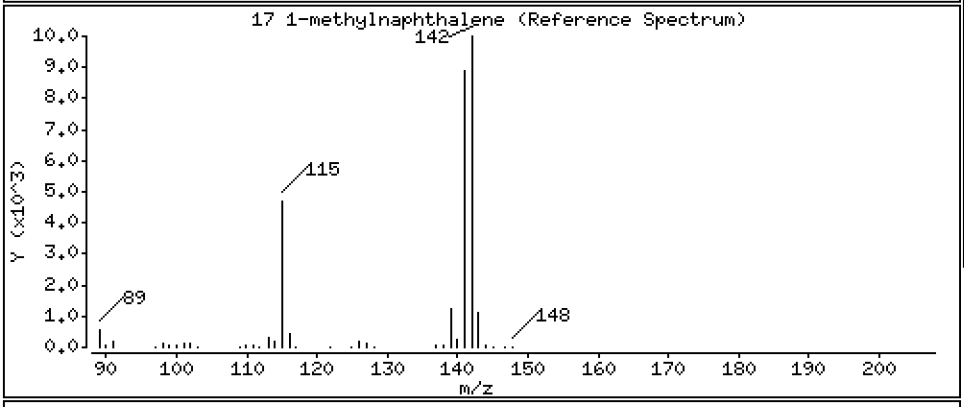
Concentration: 2.822 ug/mL

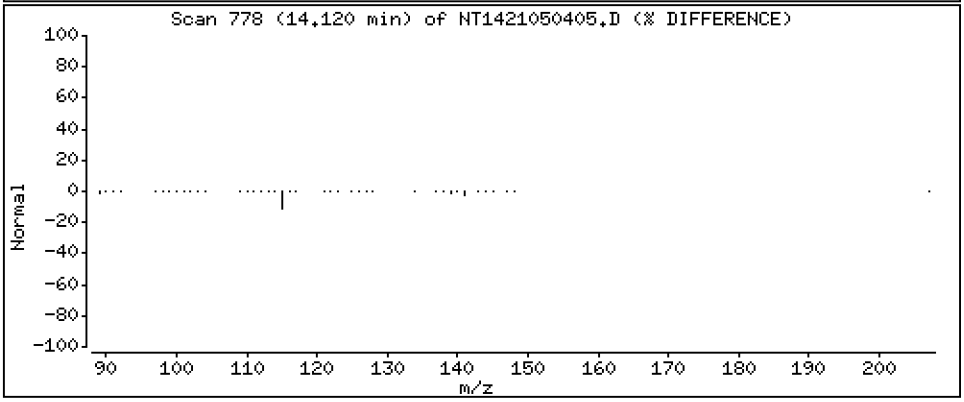


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Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

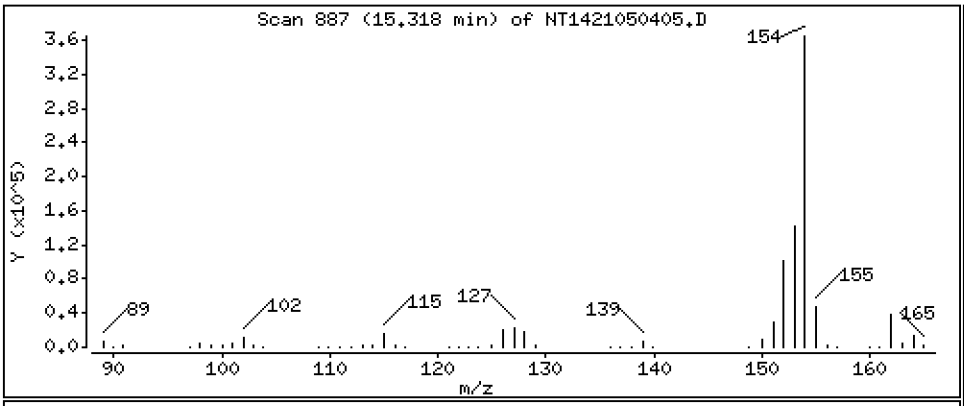
Operator: VTS

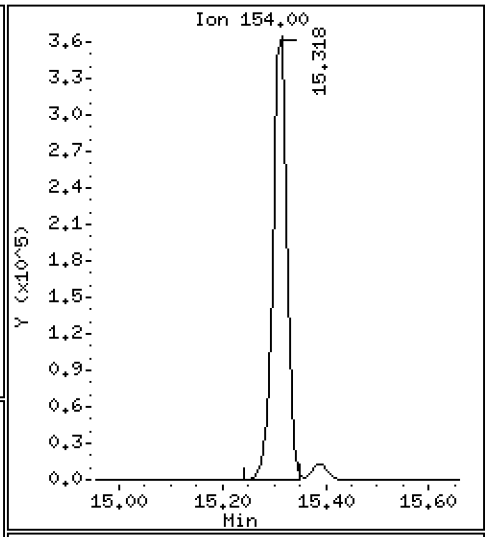
Column phase: Rxi-17Sil MS

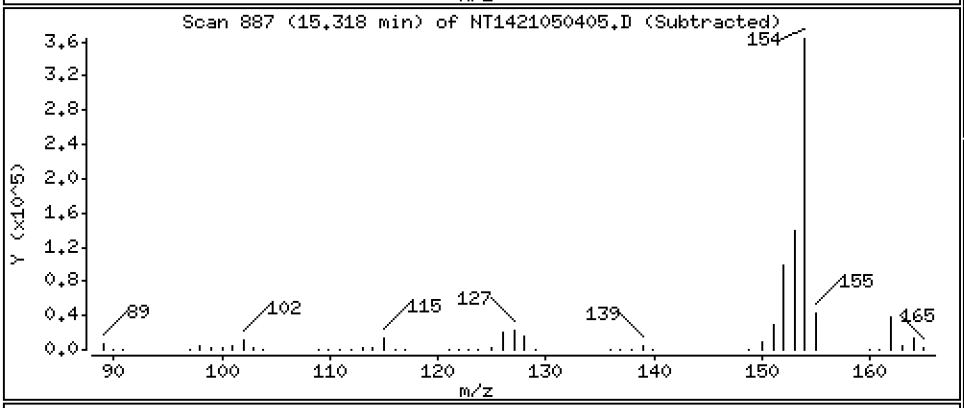
Column diameter: 0.25

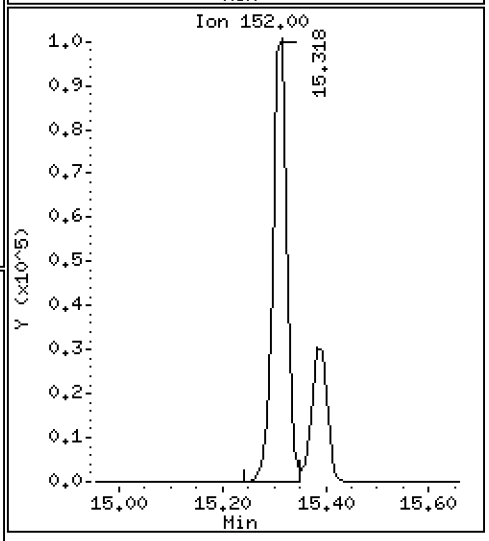
18 Biphenyl

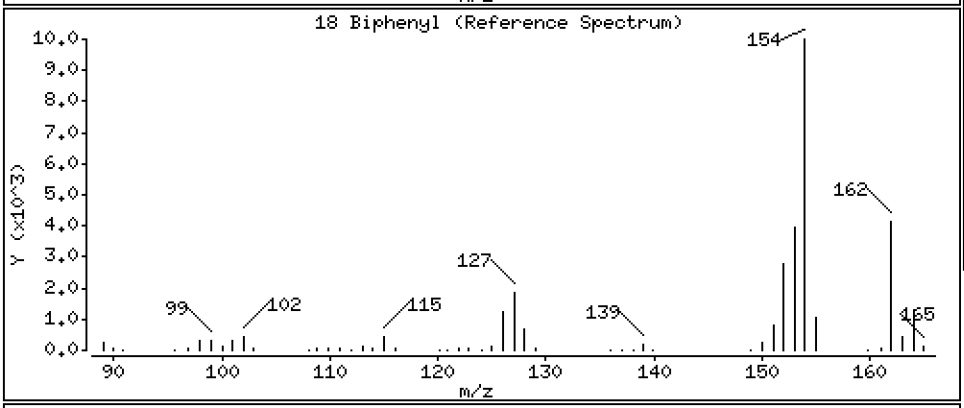
Concentration: 2.786 ug/mL

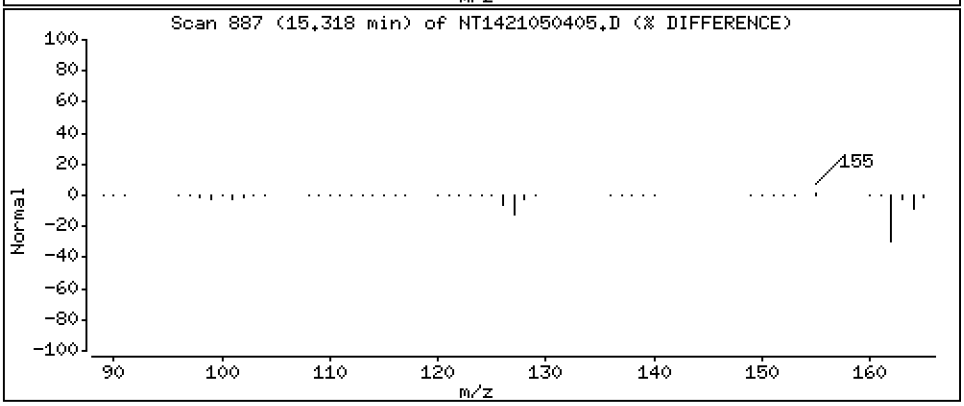


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Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

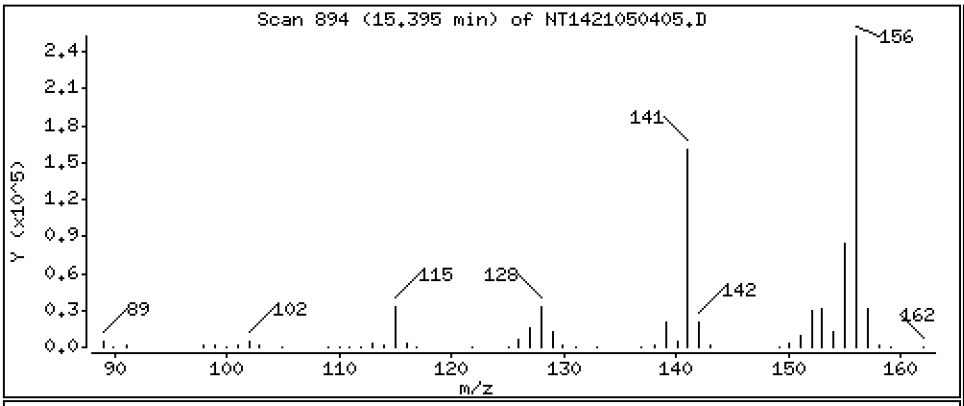
Operator: VTS

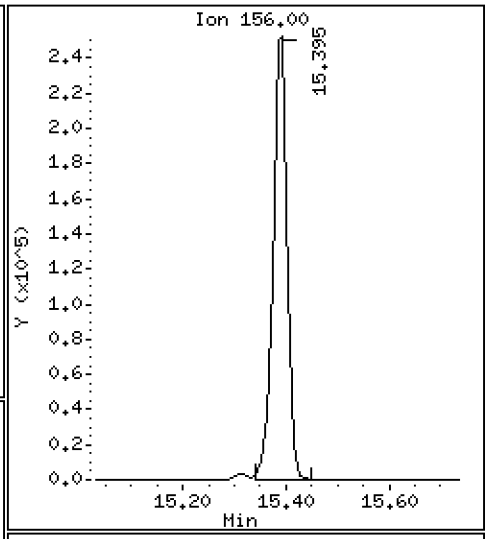
Column phase: Rxi-17Sil MS

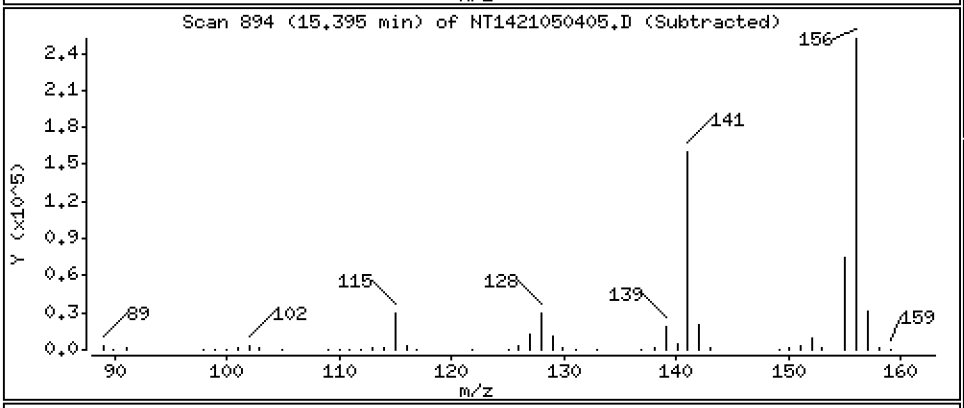
Column diameter: 0.25

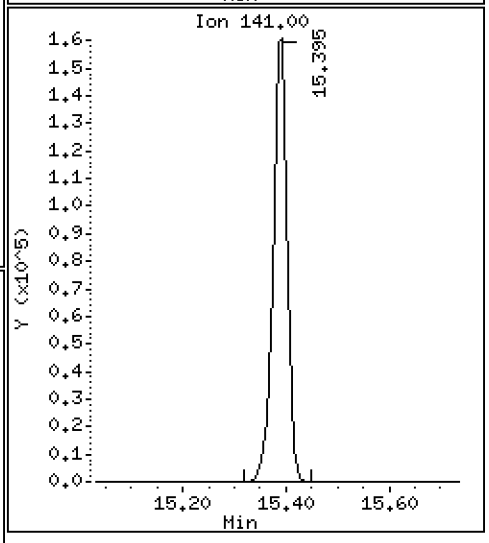
19 2,6-Dimethylnaphthalene

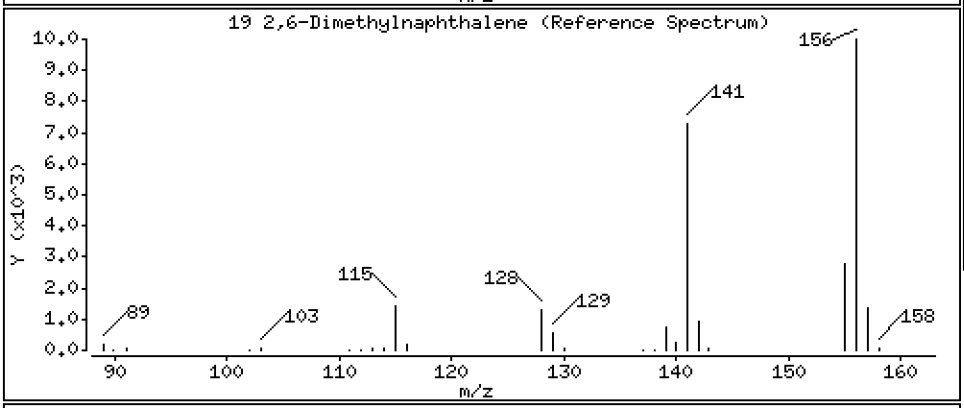
Concentration: 2.868 ug/mL

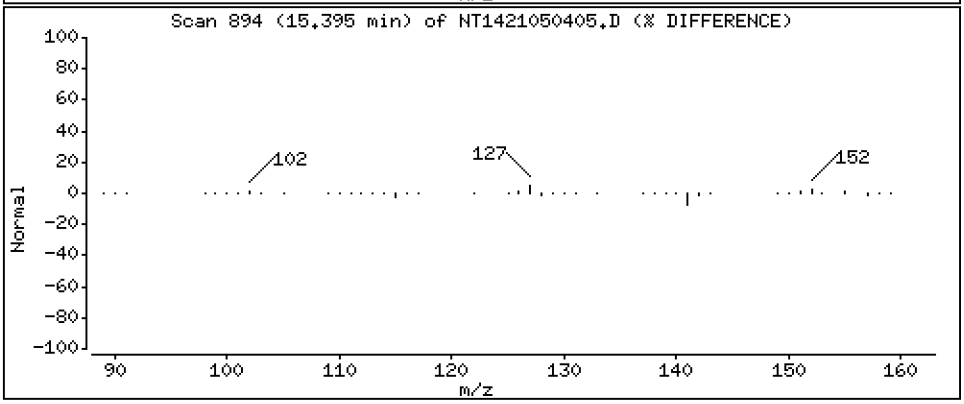


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Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

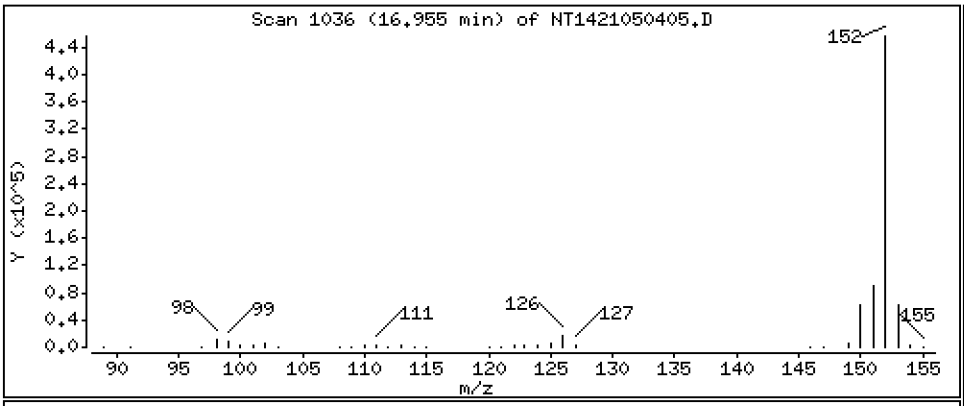
Operator: VTS

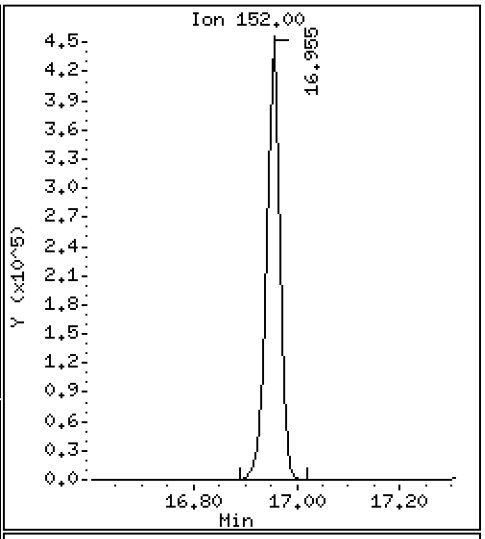
Column phase: Rxi-17Sil MS

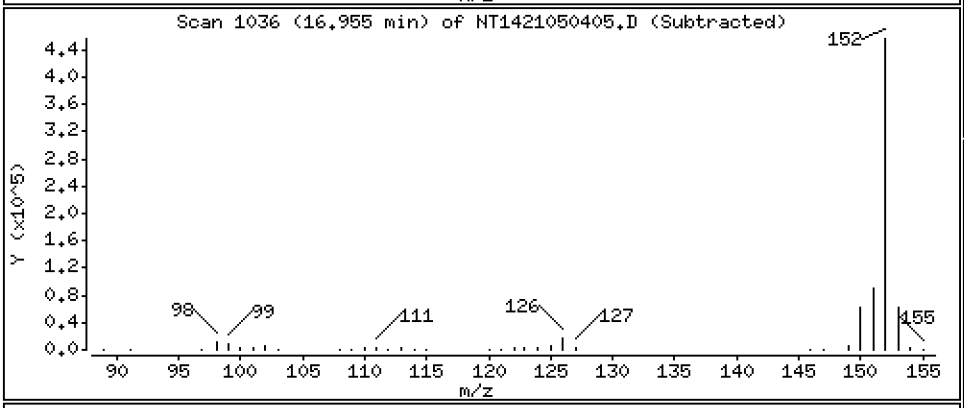
Column diameter: 0.25

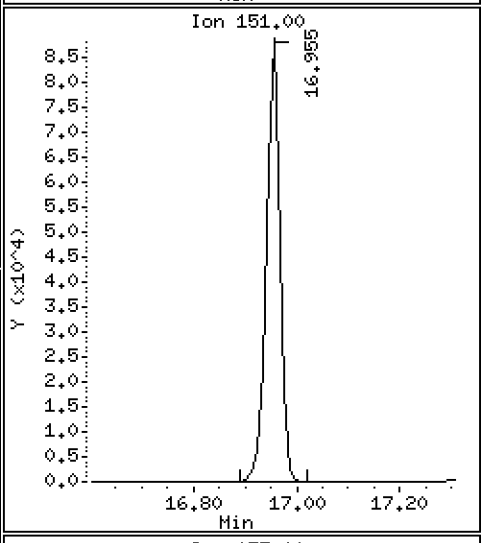
20 Acenaphthylene

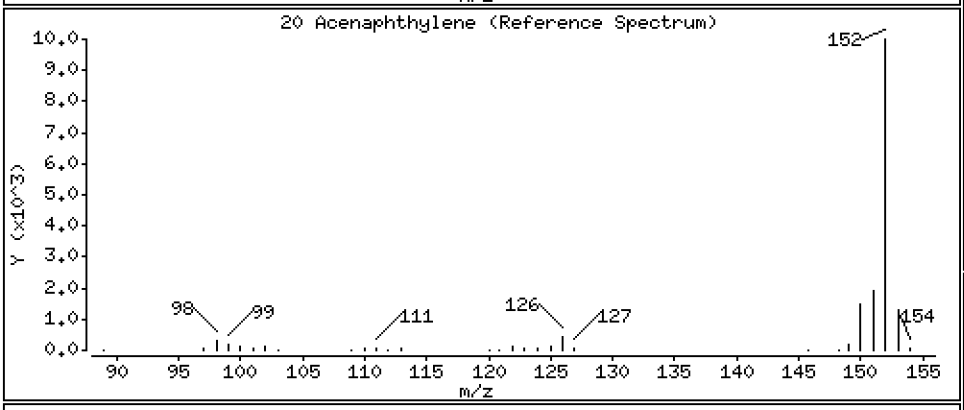
Concentration: 3.066 ug/mL

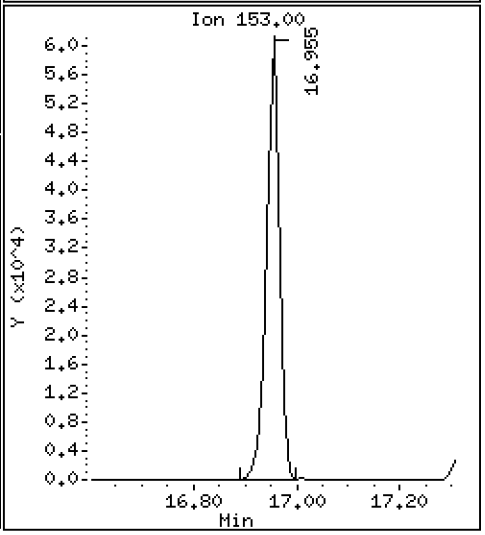


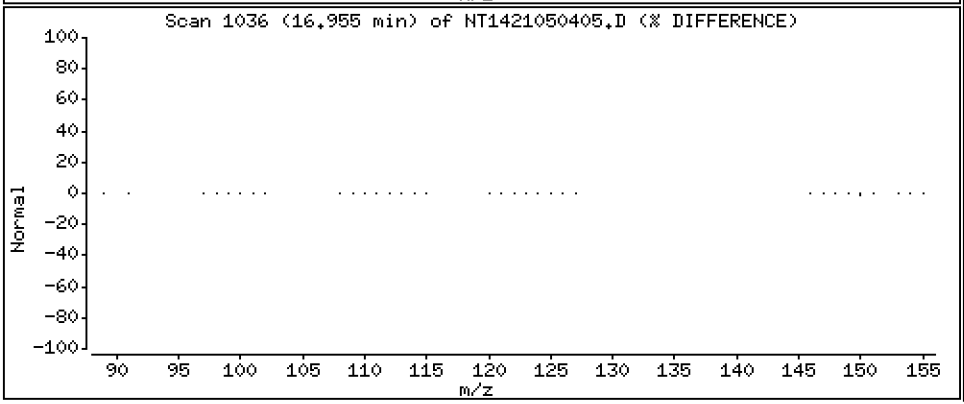



Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050405.D

Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

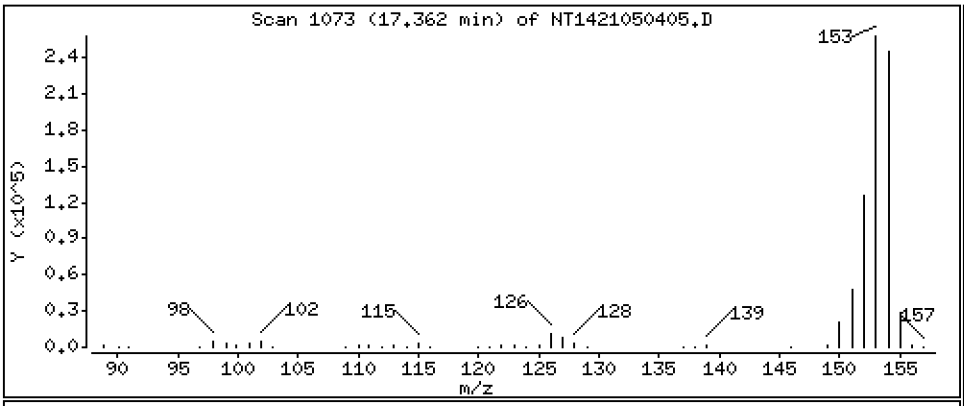
Operator: VTS

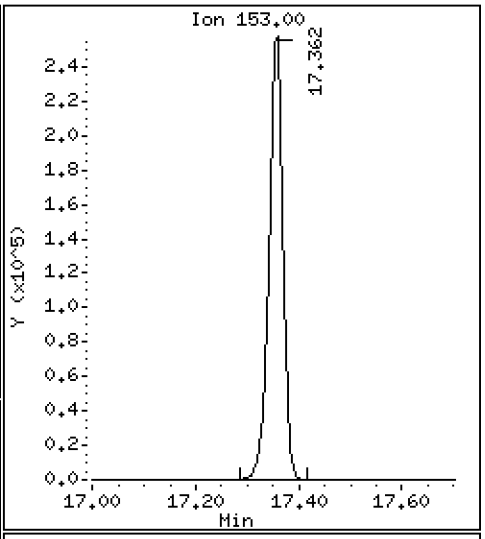
Column phase: Rxi-17Sil MS

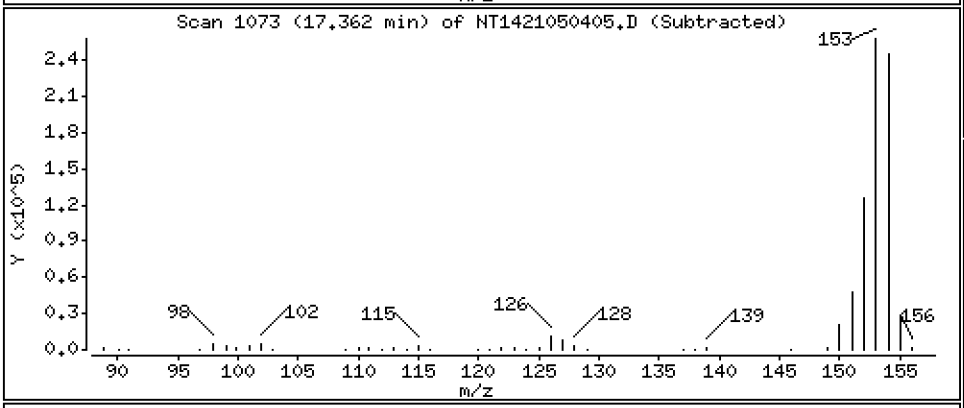
Column diameter: 0.25

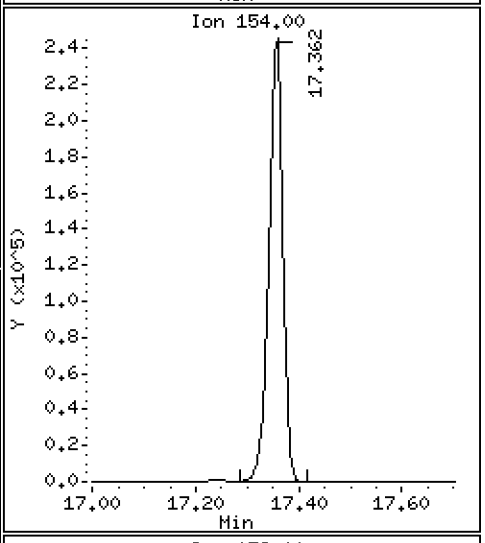
22 Acenaphthene

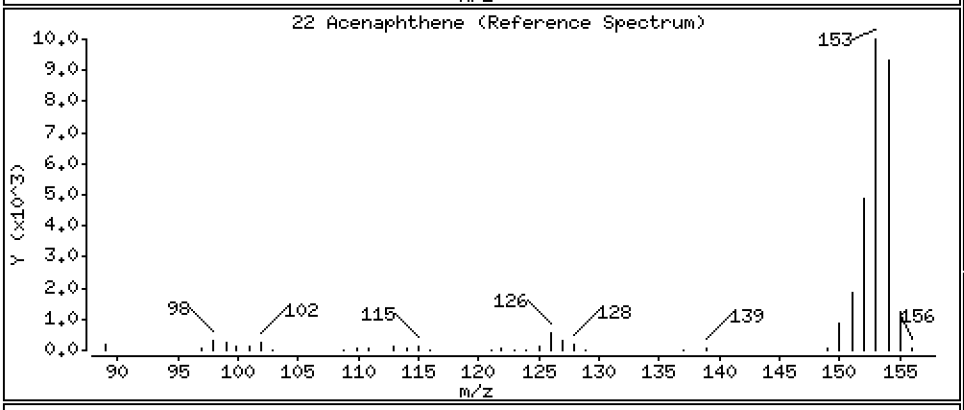
Concentration: 2.899 ug/mL

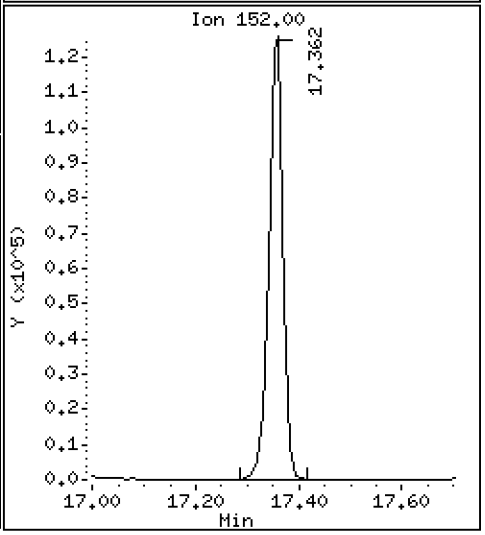


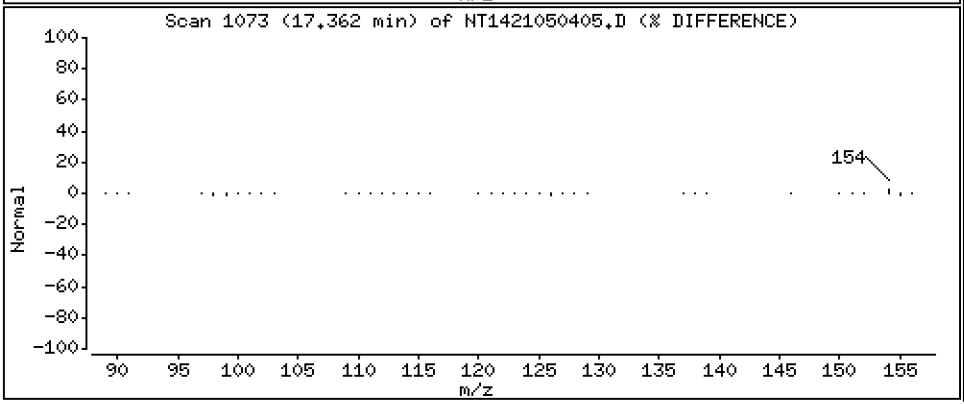



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Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

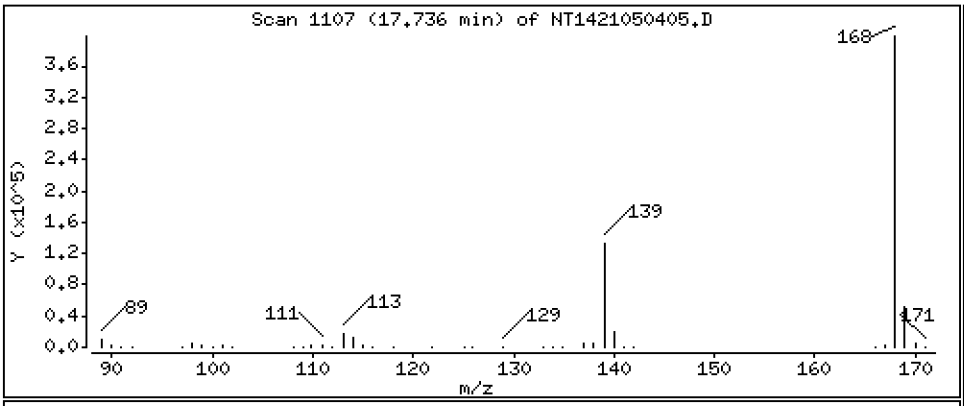
Operator: VTS

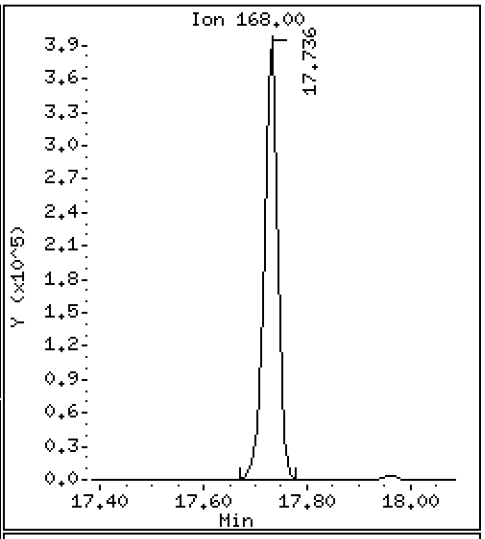
Column phase: Rxi-17Sil MS

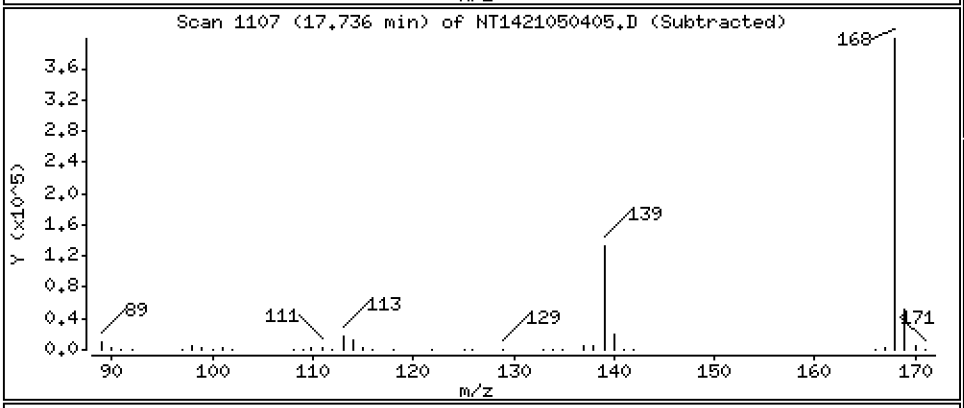
Column diameter: 0.25

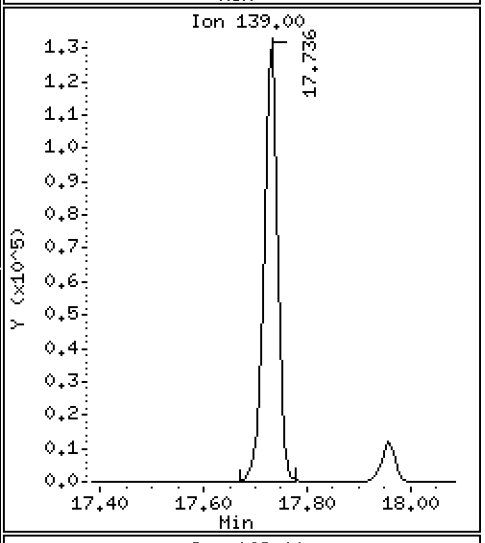
23 Dibenzofuran

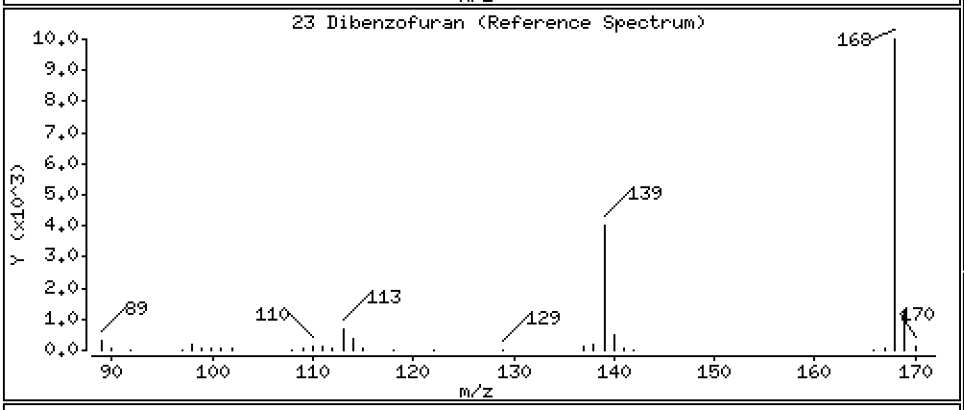
Concentration: 2.816 ug/mL

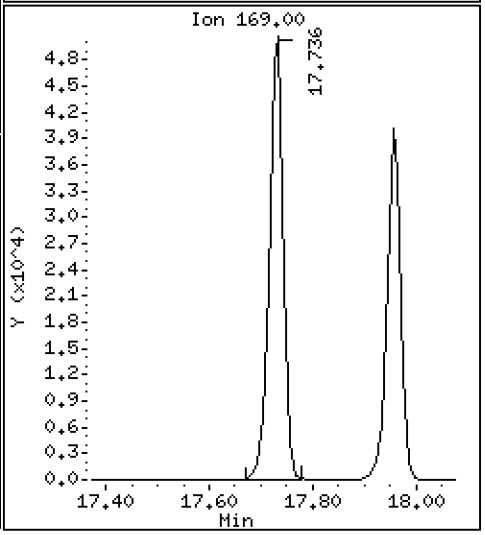


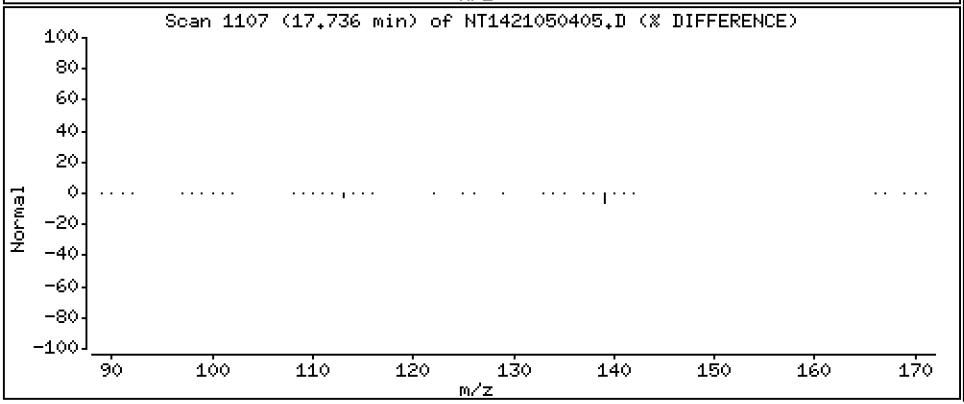



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Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

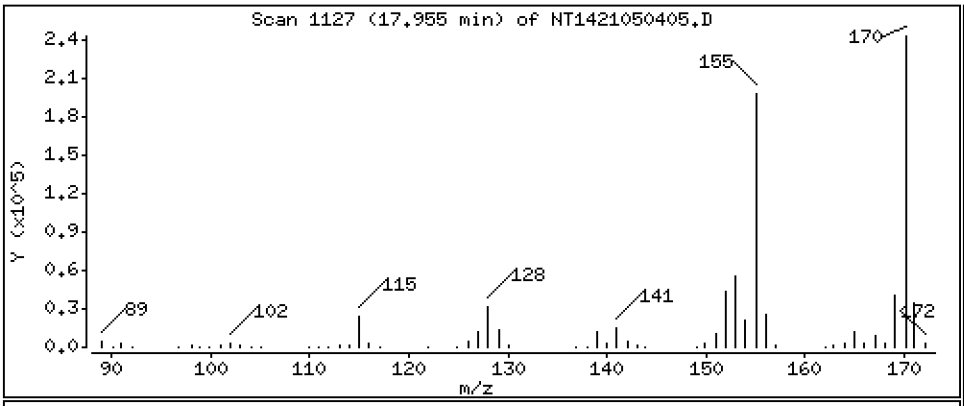
Operator: VTS

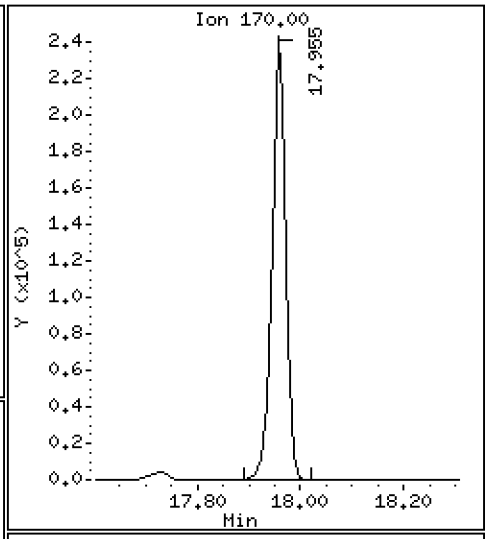
Column phase: Rxi-17Sil MS

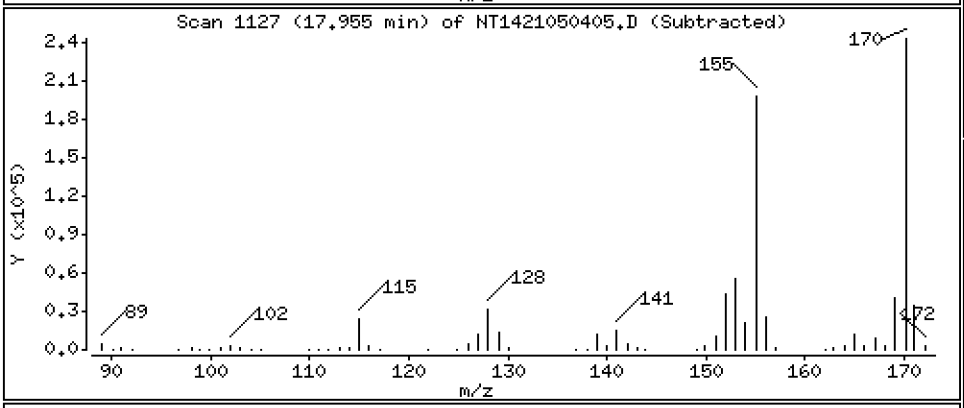
Column diameter: 0.25

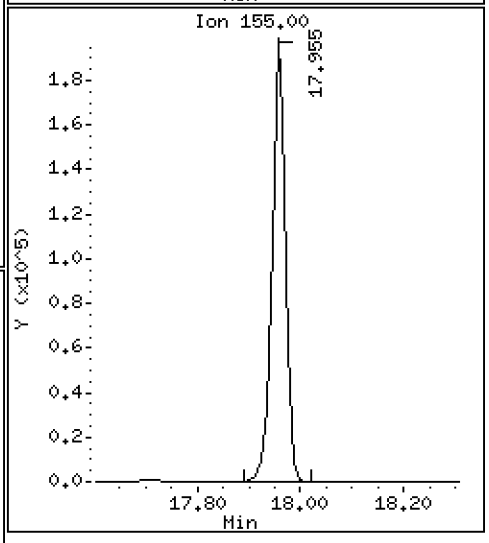
24 1,6,7-Trimethylnaphthalene

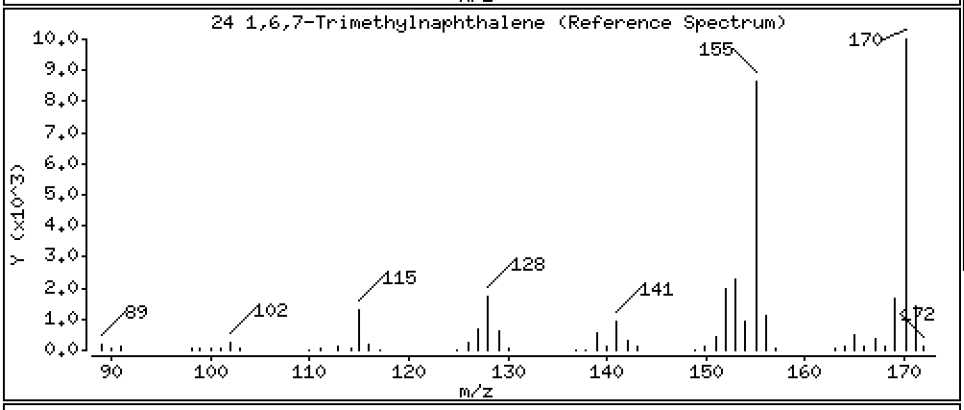
Concentration: 3.017 ug/mL

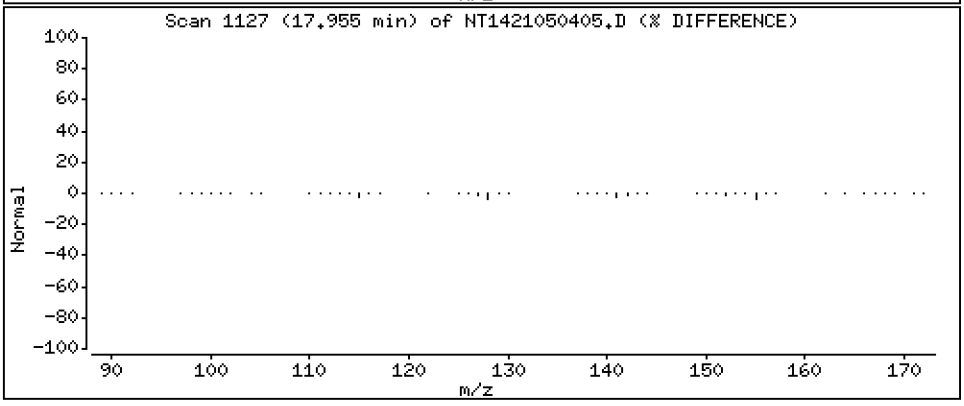


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Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

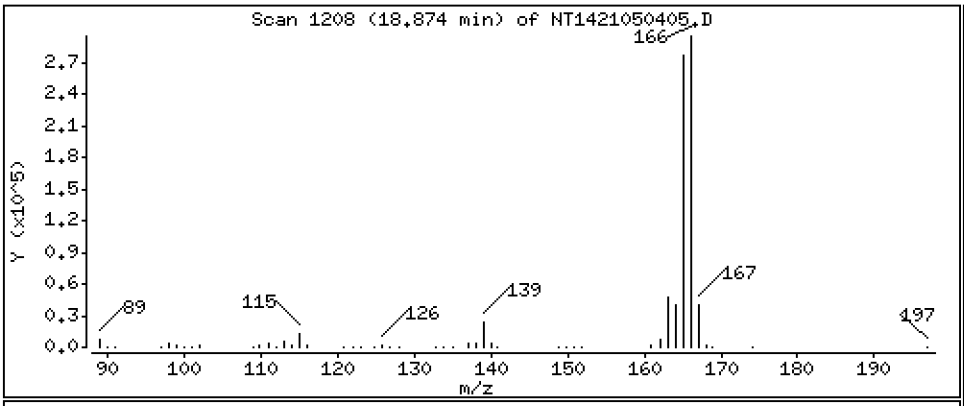
Operator: VTS

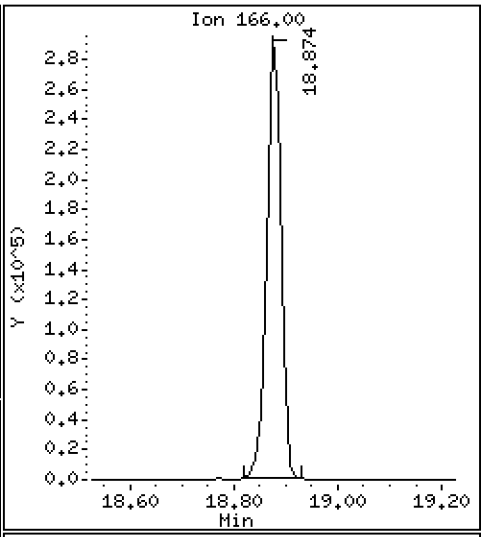
Column phase: Rxi-17Sil MS

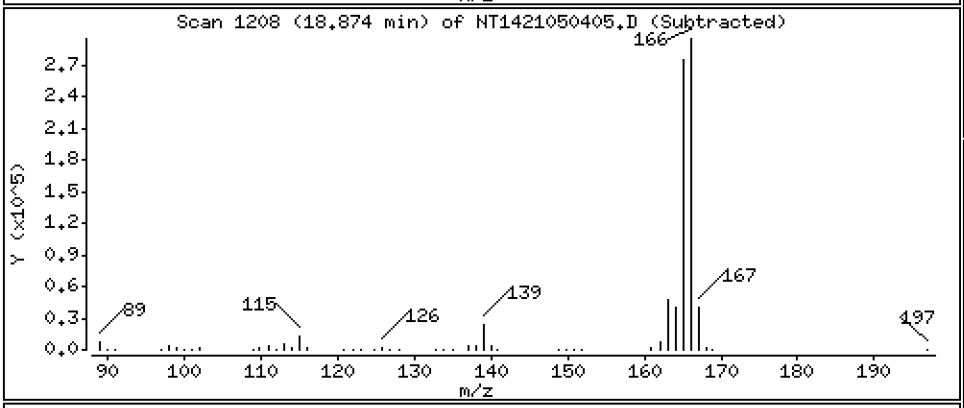
Column diameter: 0.25

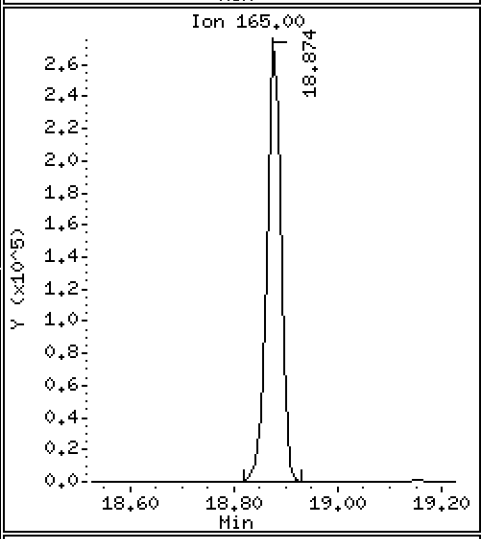
26 Fluorene

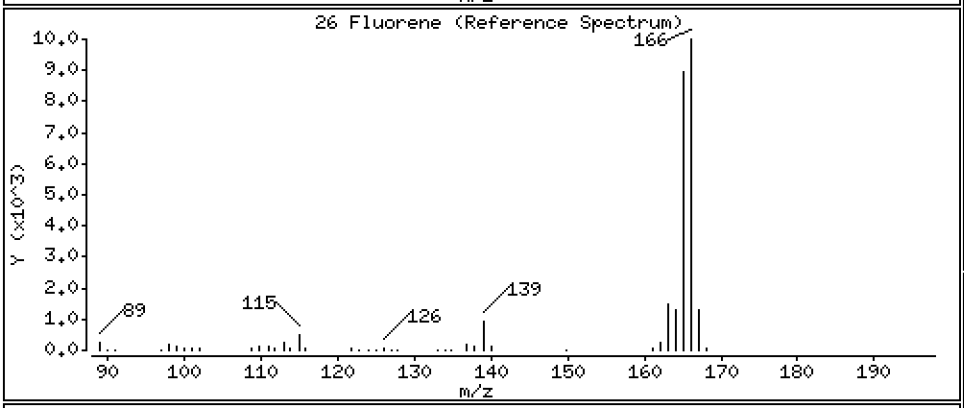
Concentration: 2.848 ug/mL

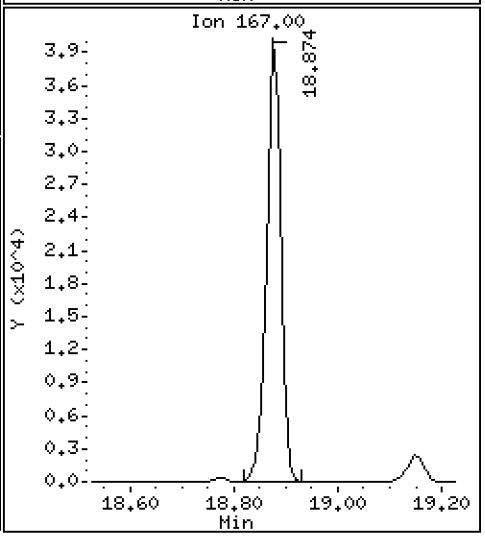


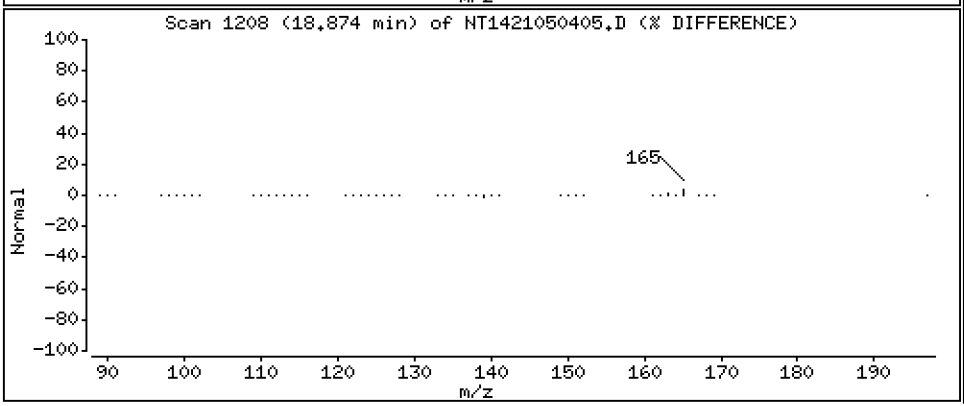



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Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

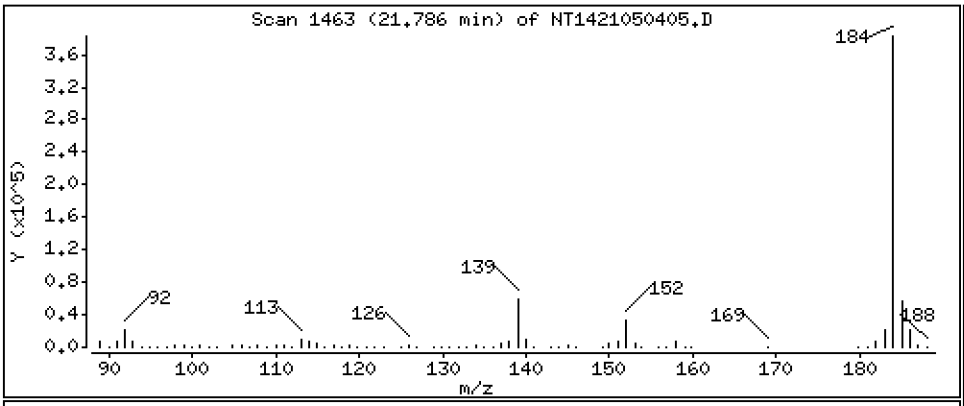
Operator: VTS

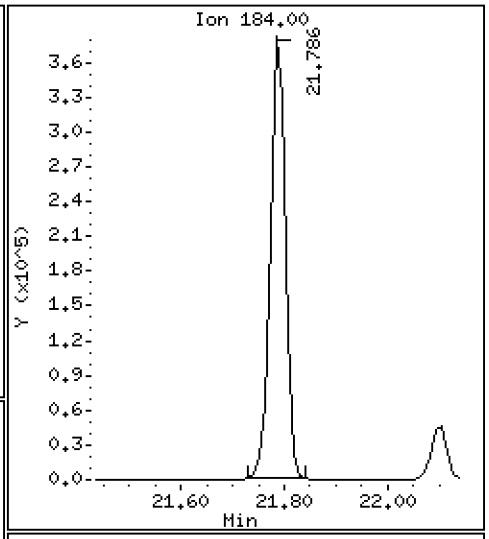
Column phase: Rxi-17Sil MS

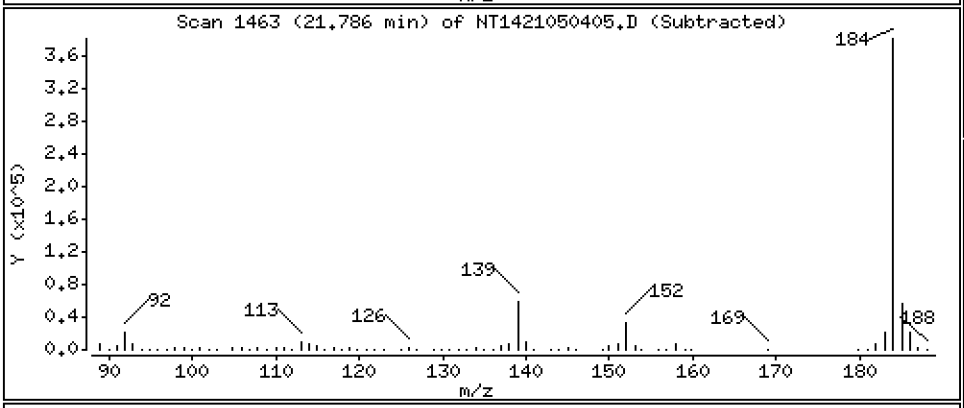
Column diameter: 0.25

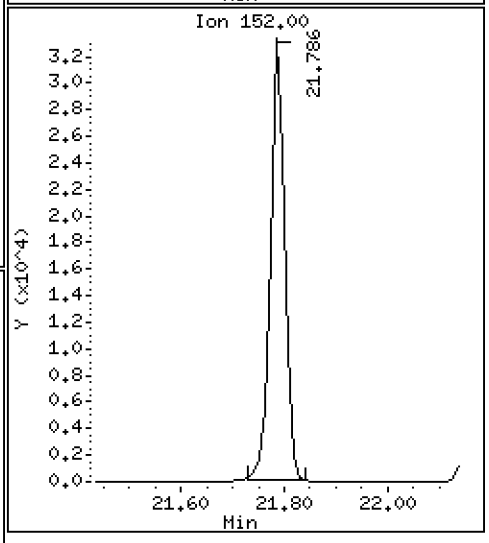
30 Dibenzothiophene

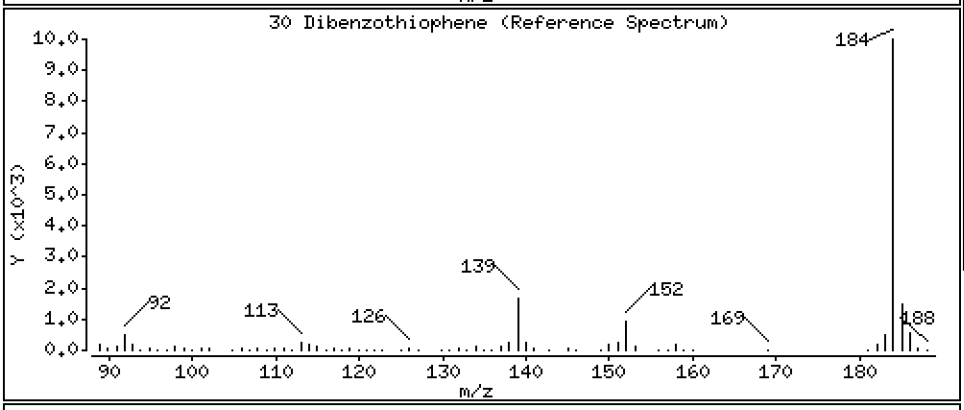
Concentration: 2.969 ug/mL

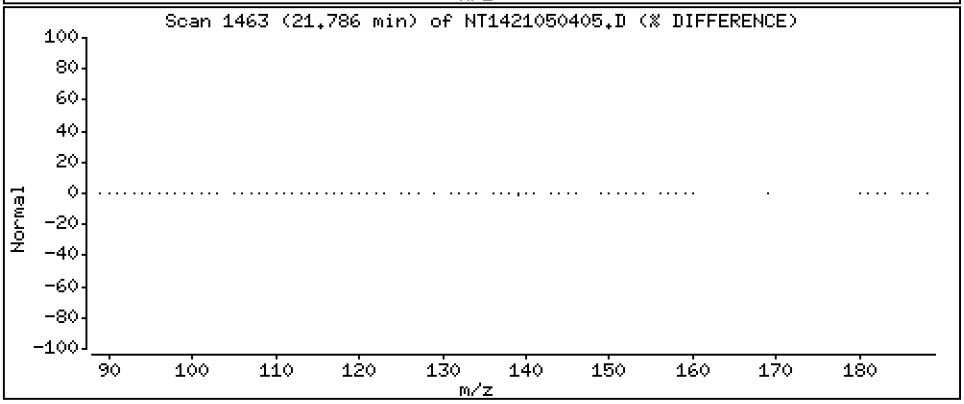


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Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

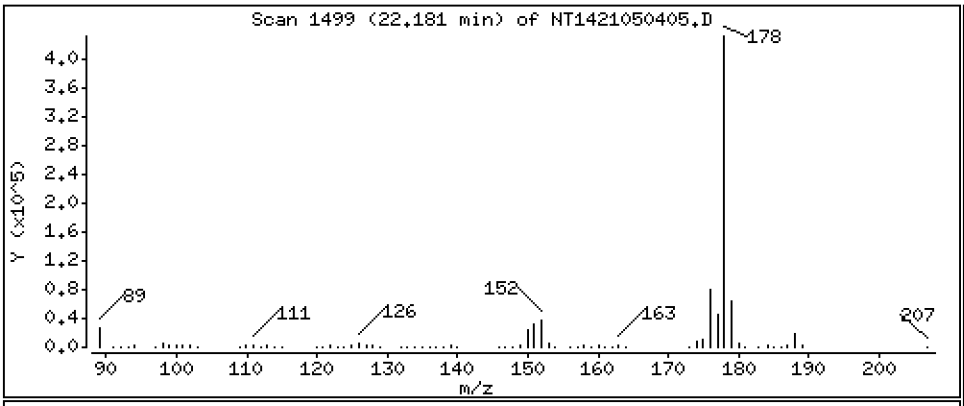
Operator: VTS

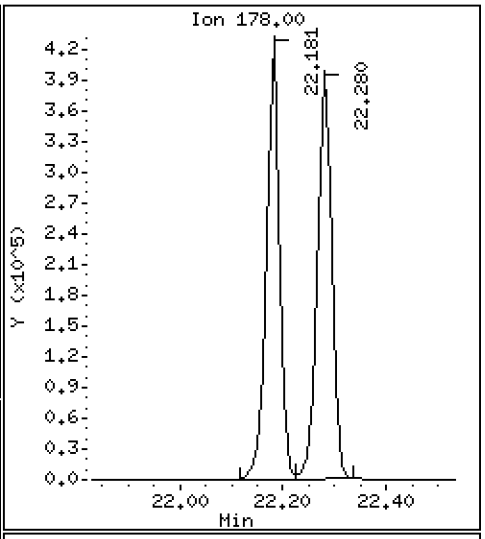
Column phase: Rxi-17Sil MS

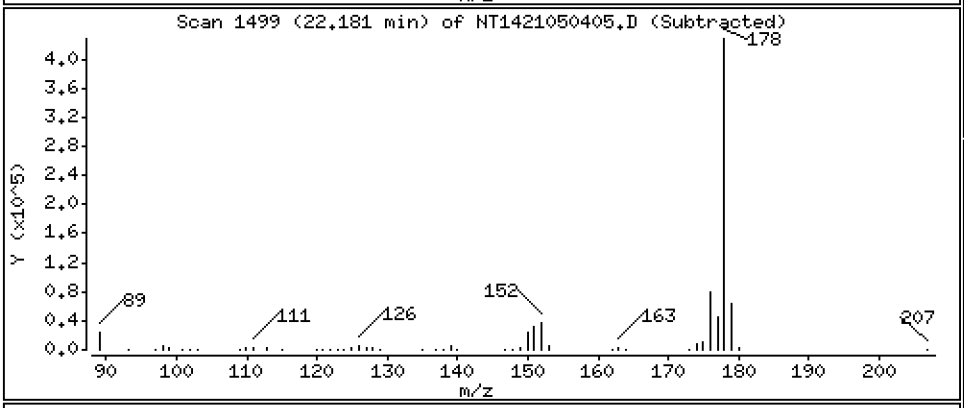
Column diameter: 0.25

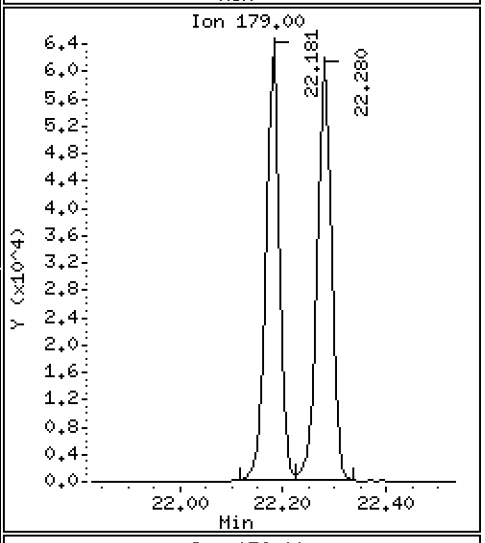
36 Phenanthrene

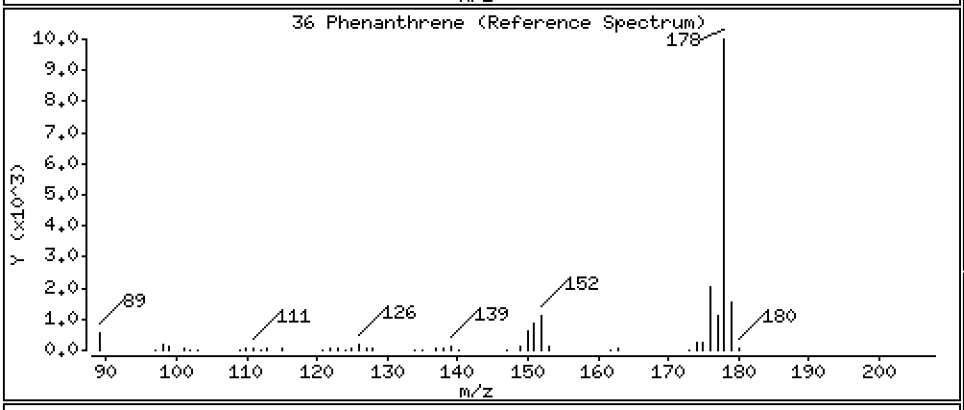
Concentration: 2.528 ug/mL

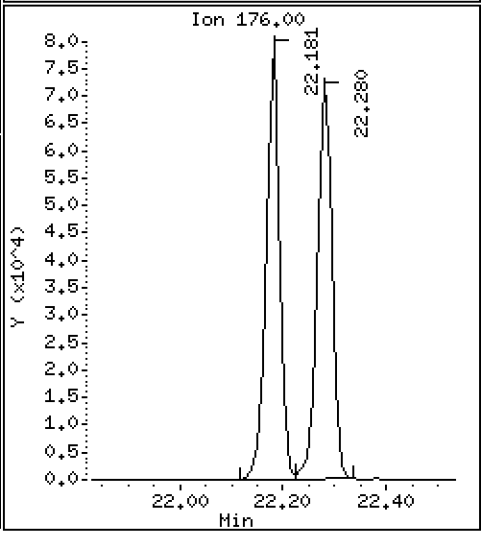


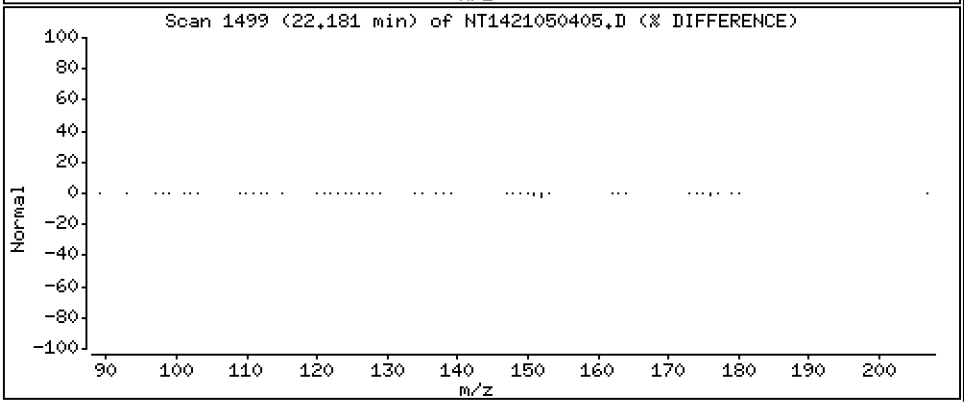



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Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

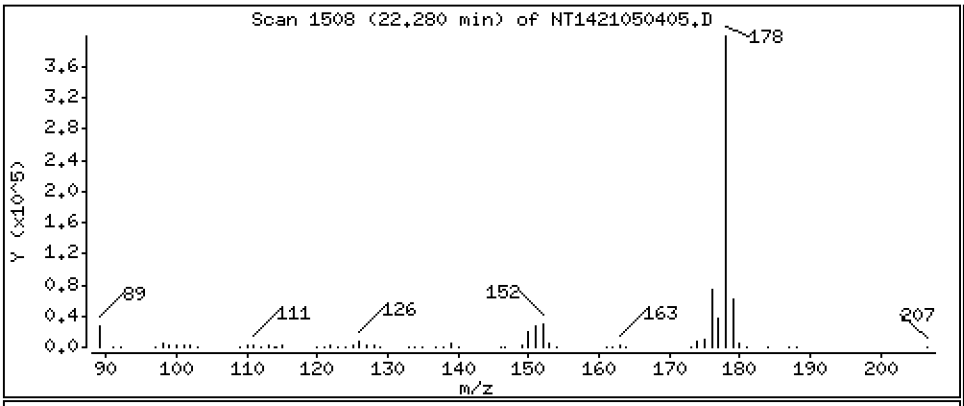
Operator: VTS

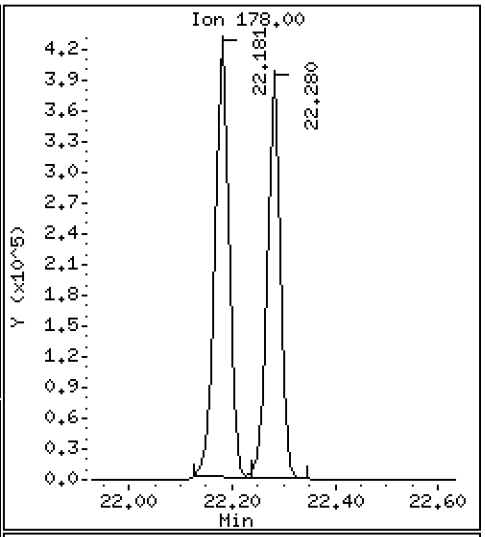
Column phase: Rxi-17Sil MS

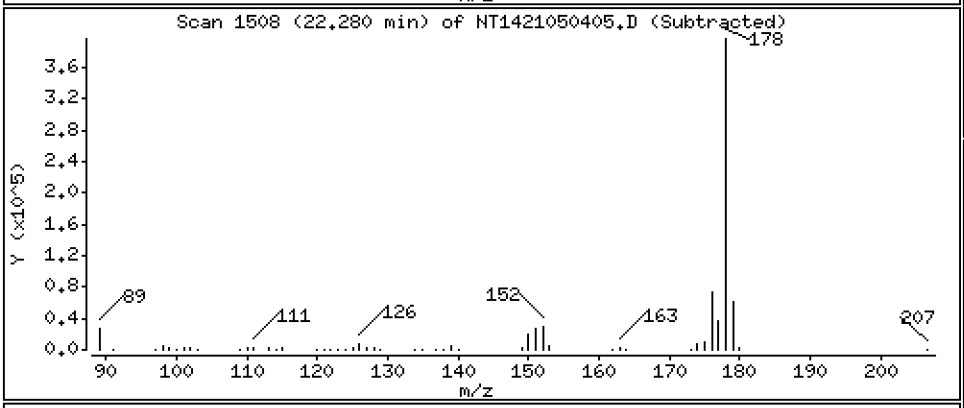
Column diameter: 0.25

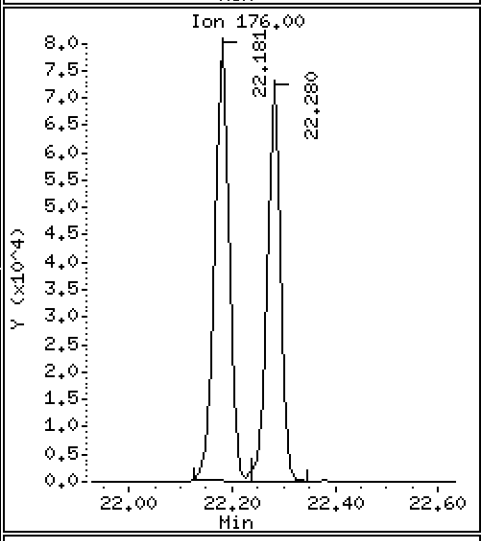
37 Anthracene

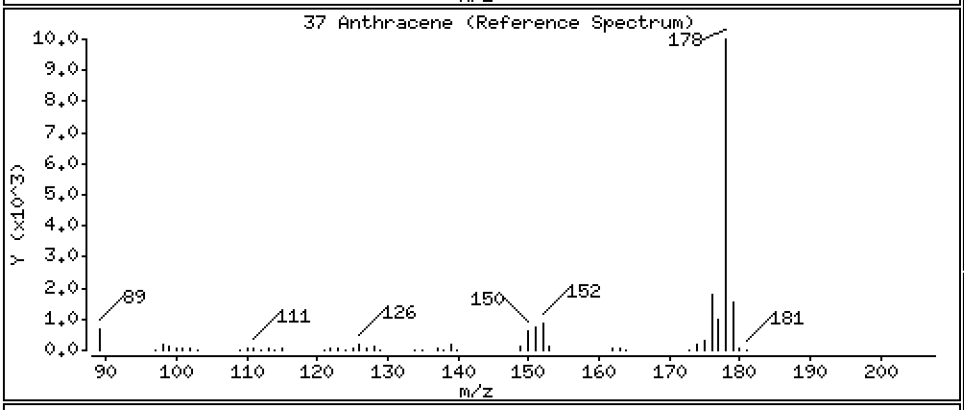
Concentration: 2.564 ug/mL

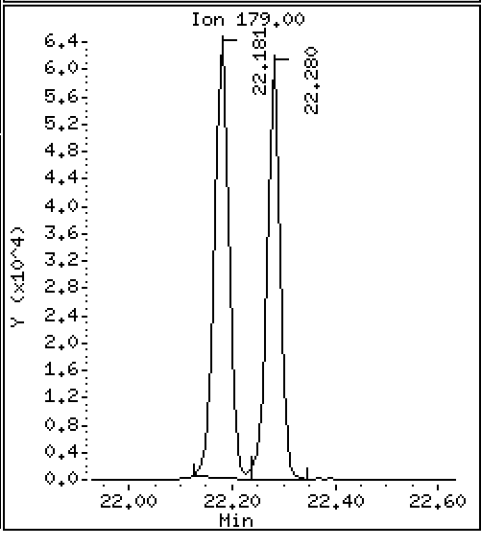


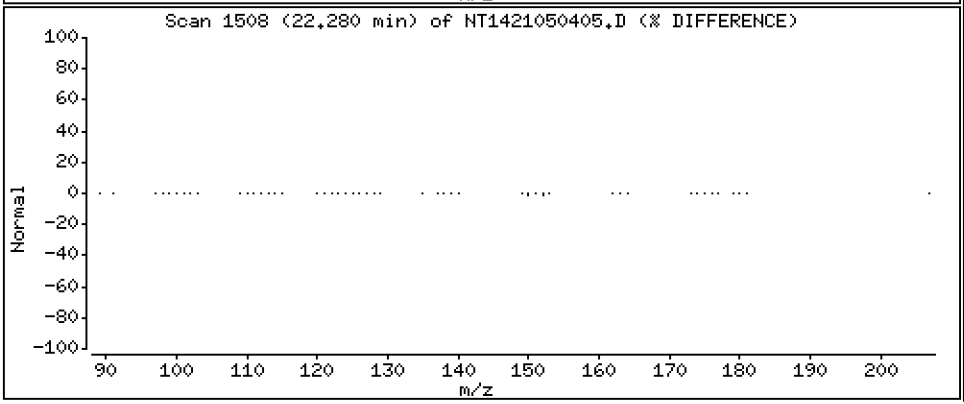



Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050405.D

Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

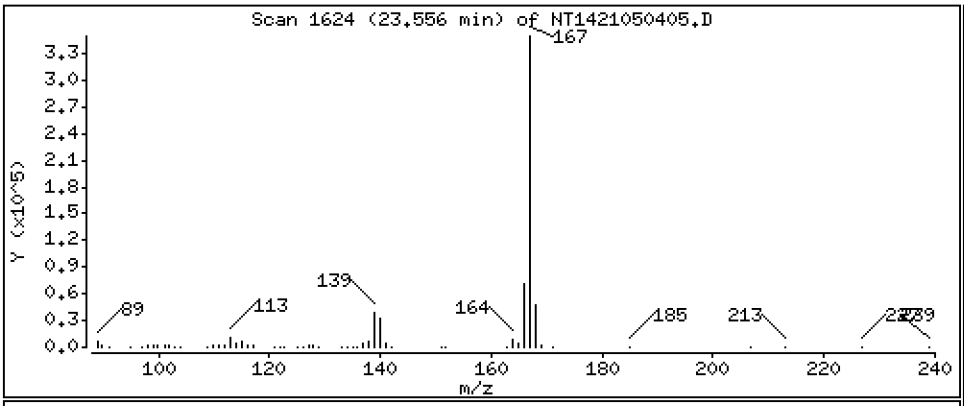
Operator: VTS

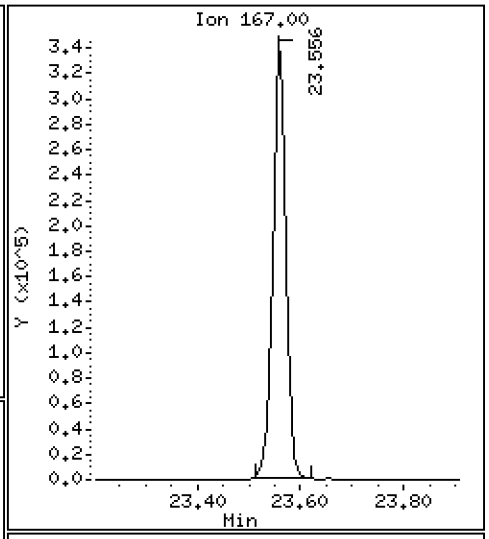
Column phase: Rxi-17Sil MS

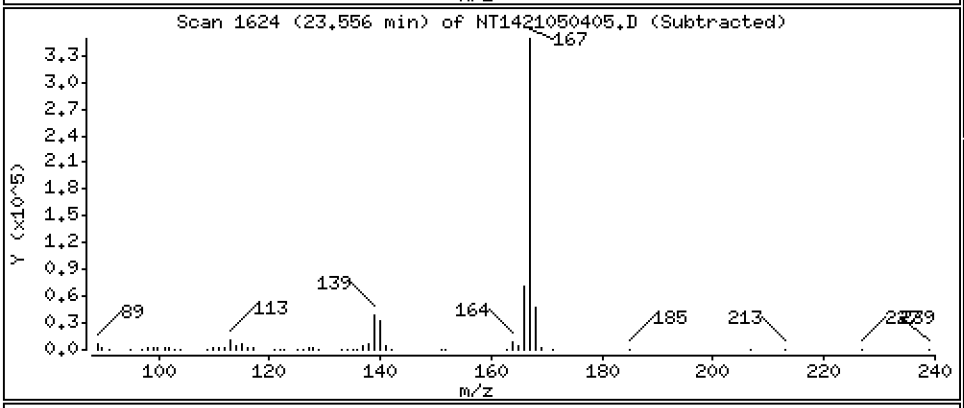
Column diameter: 0.25

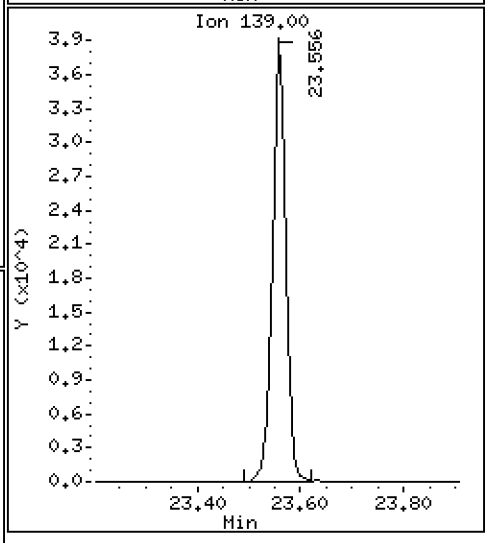
42 Carbazole

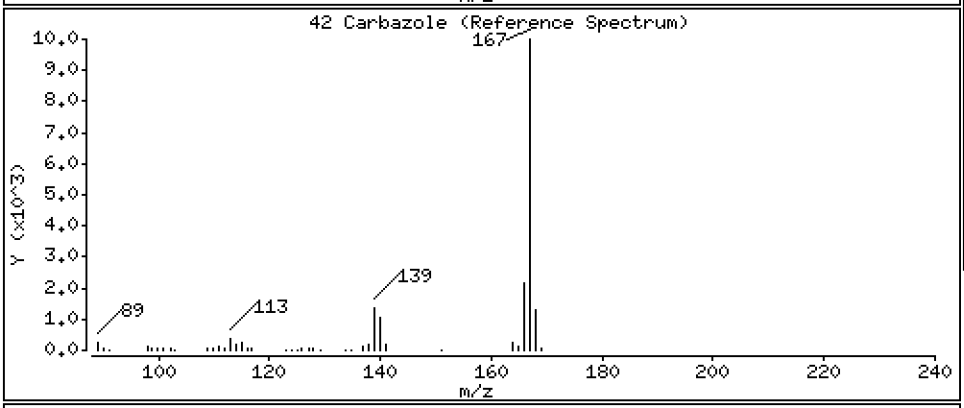
Concentration: 2.631 ug/mL

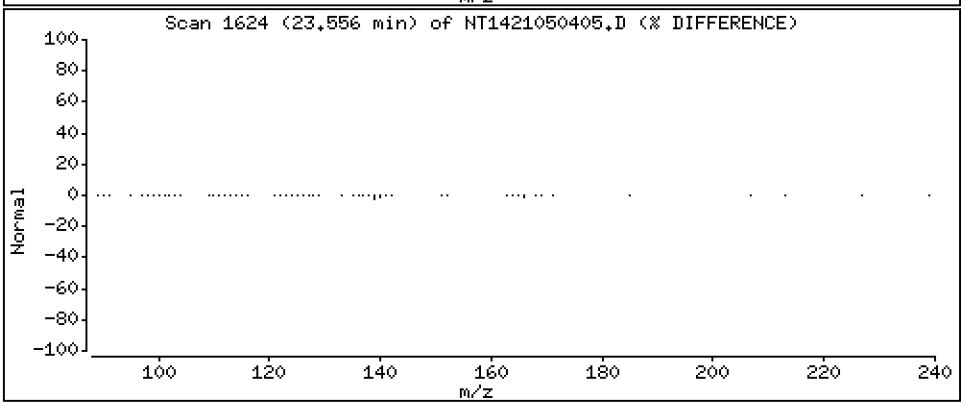


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050405.D

Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

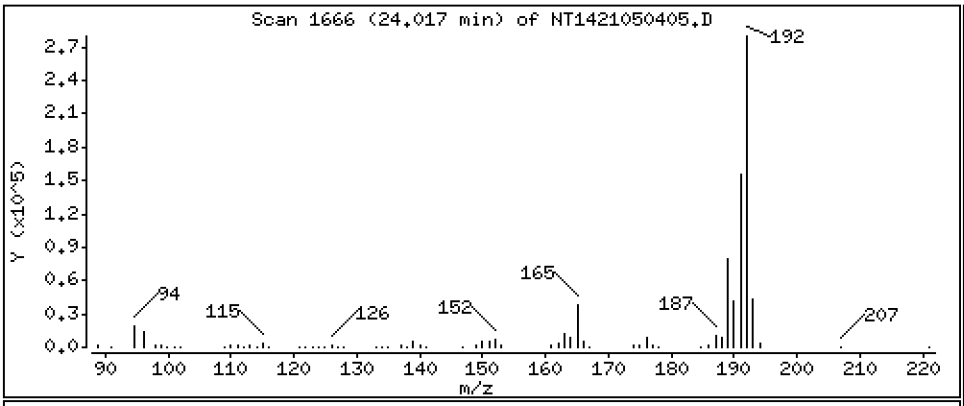
Operator: VTS

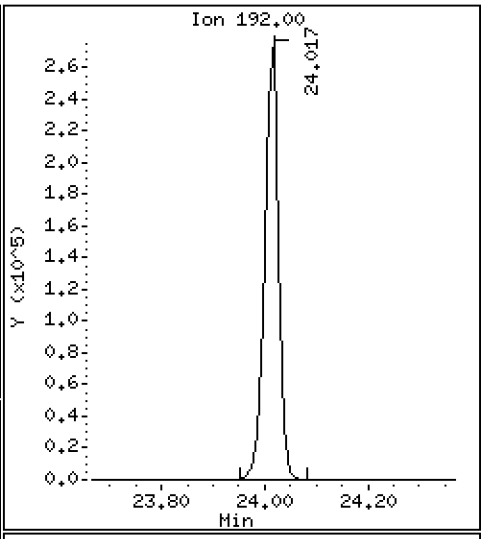
Column phase: Rxi-17Sil MS

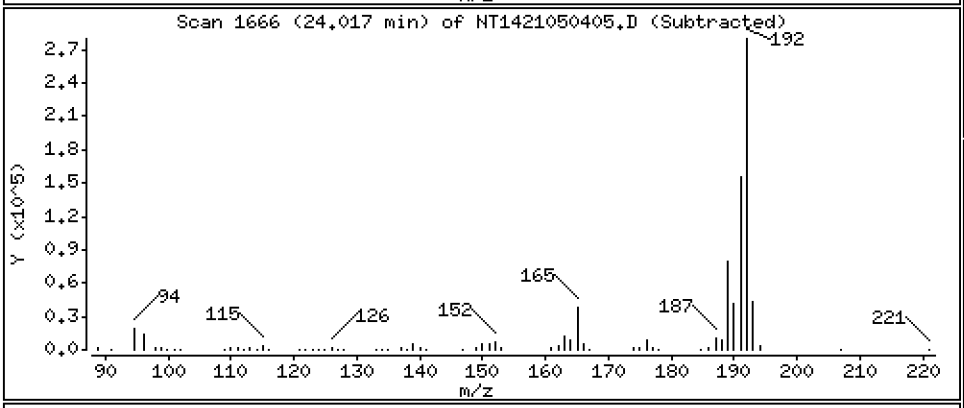
Column diameter: 0.25

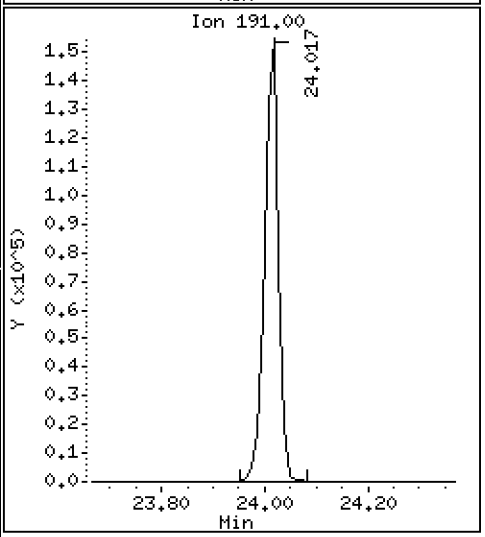
43 1-Methylphenanthrene

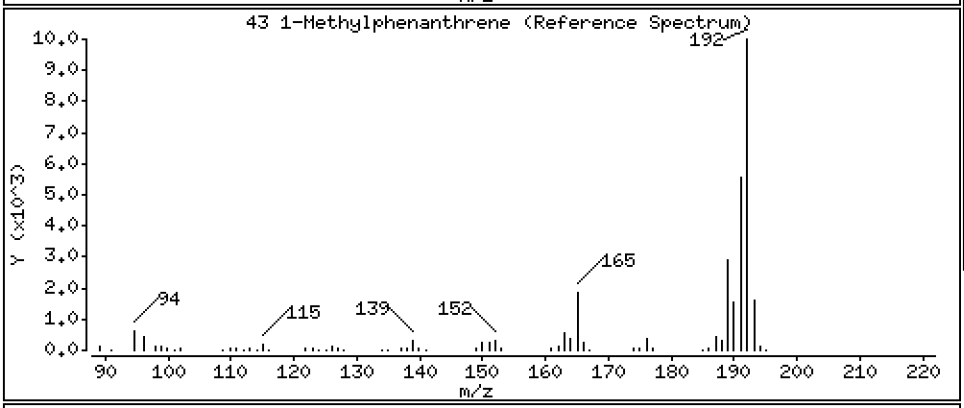
Concentration: 2.821 ug/mL

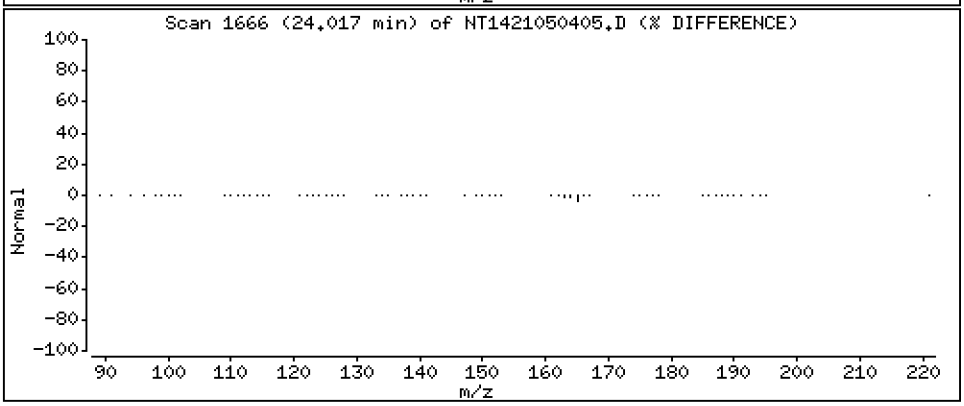


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050405.D

Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

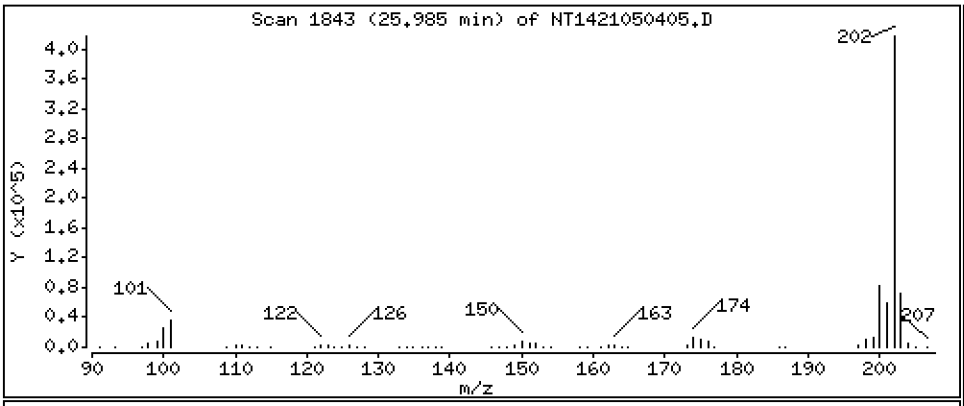
Operator: VTS

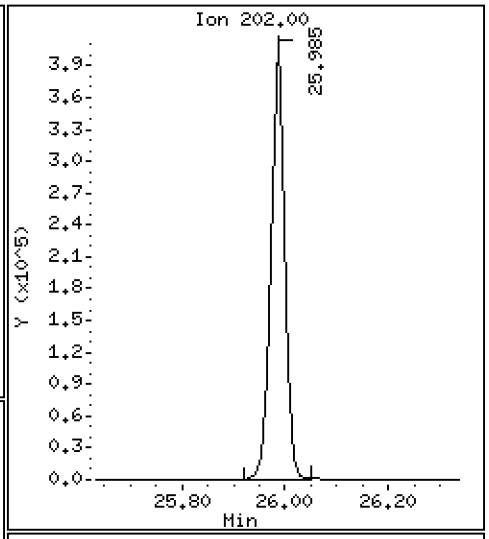
Column phase: Rxi-17Sil MS

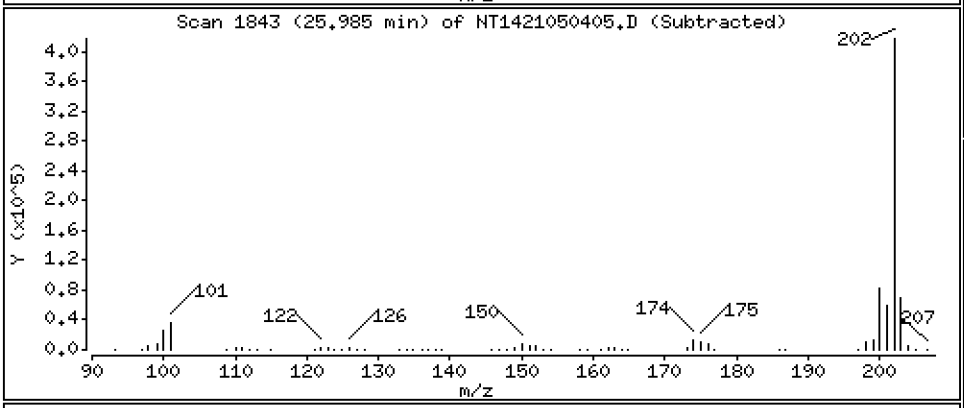
Column diameter: 0.25

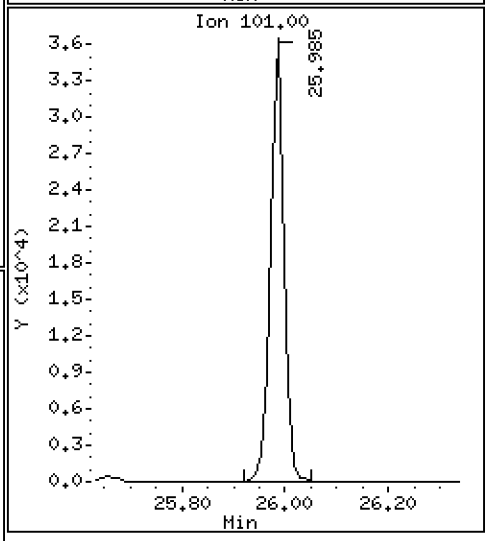
44 Fluoranthene

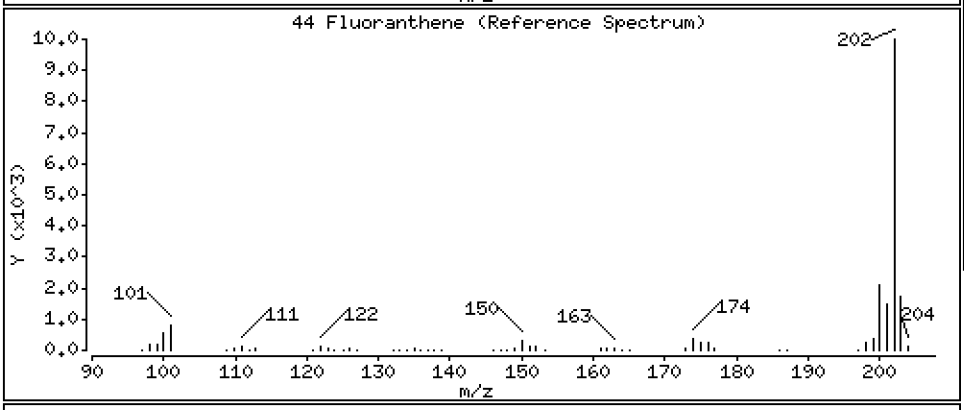
Concentration: 2.881 ug/mL

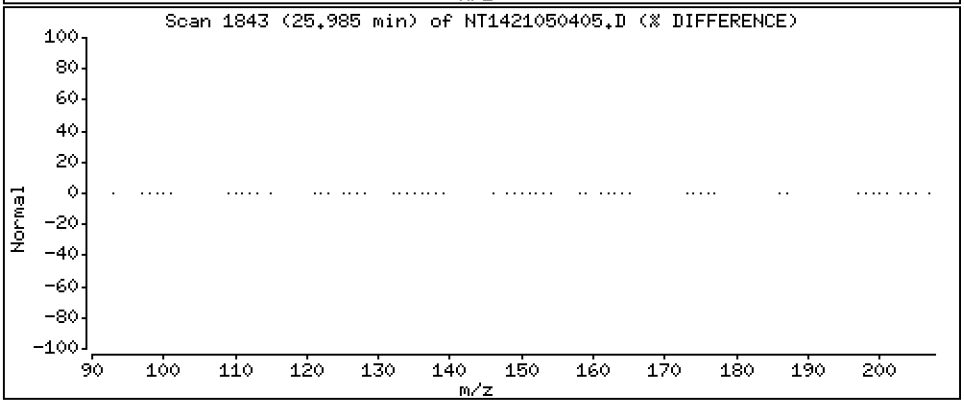


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050405.D

Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

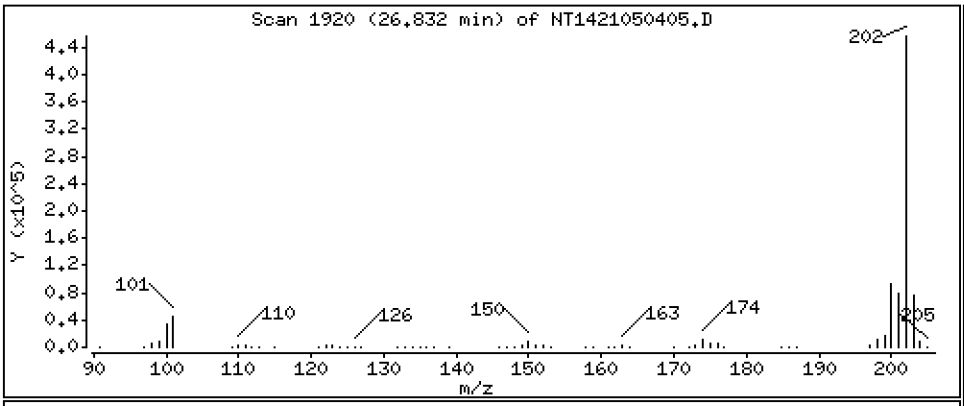
Operator: VTS

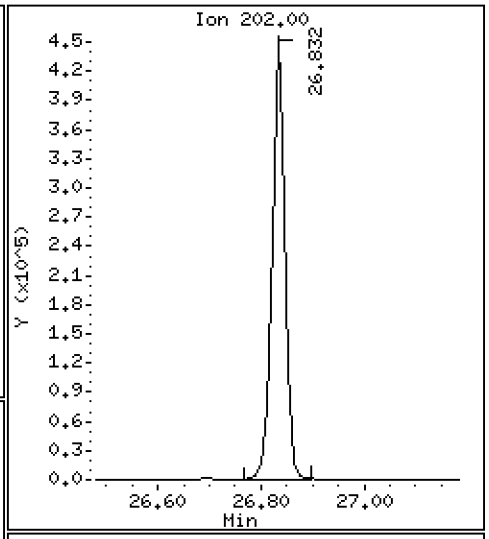
Column phase: Rxi-17Sil MS

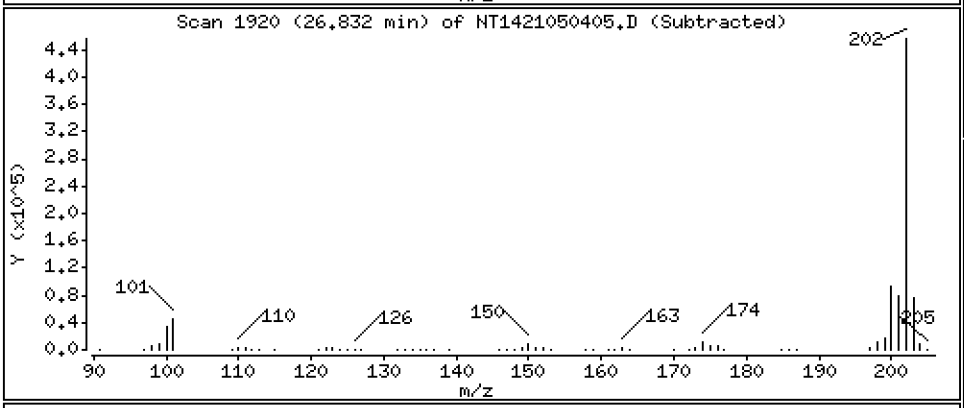
Column diameter: 0.25

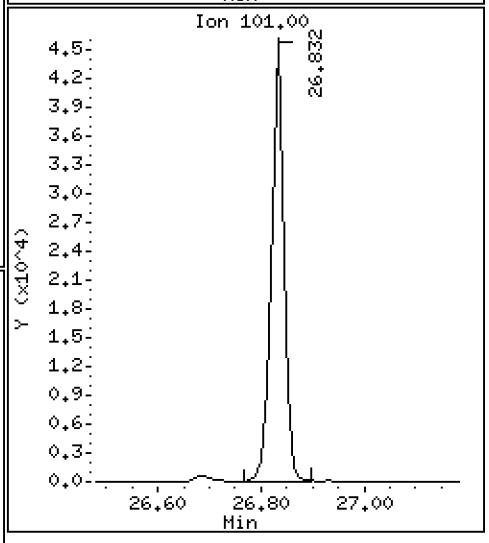
46 Pyrene

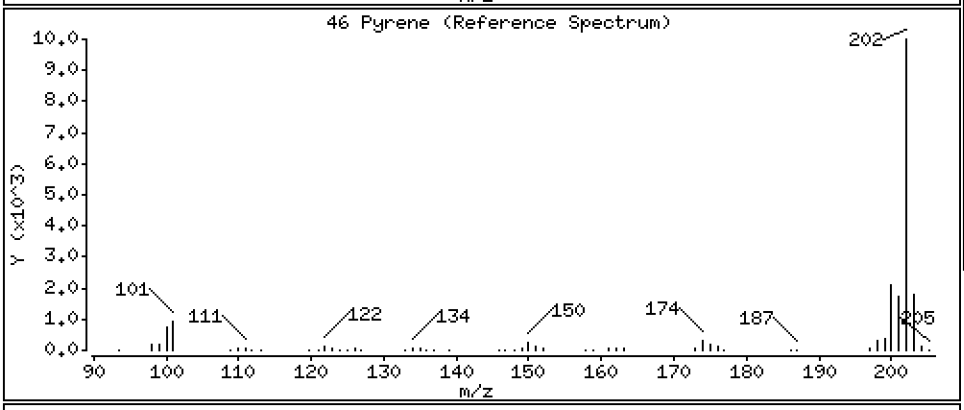
Concentration: 2.867 ug/mL

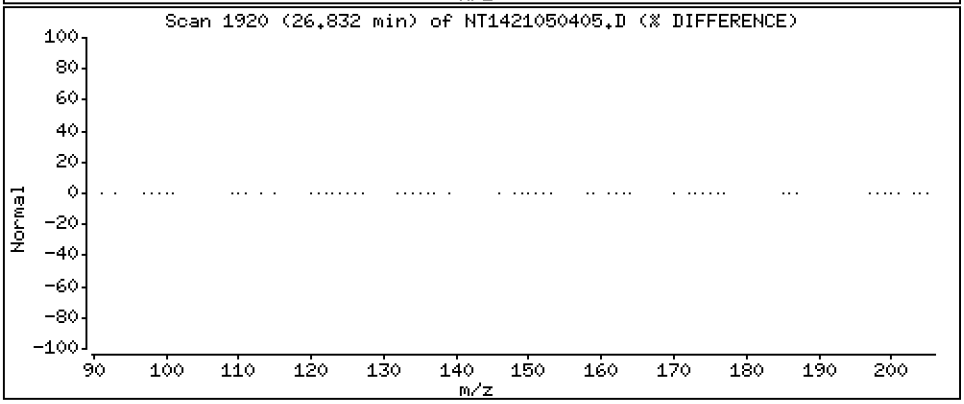


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Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

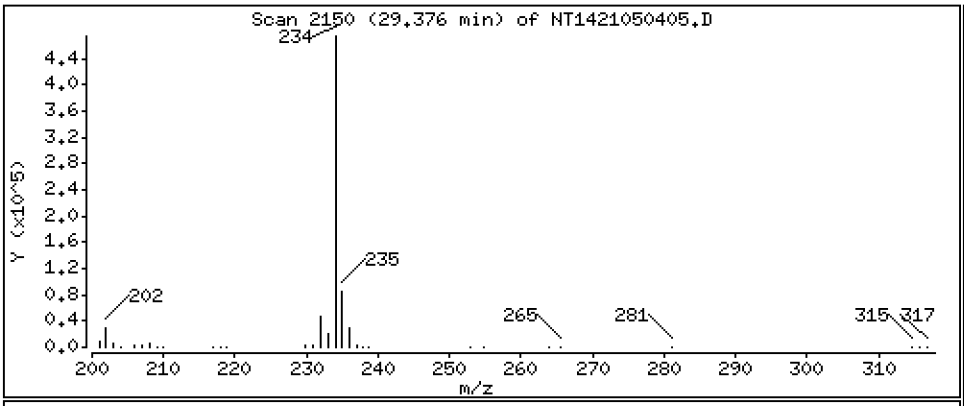
Operator: VTS

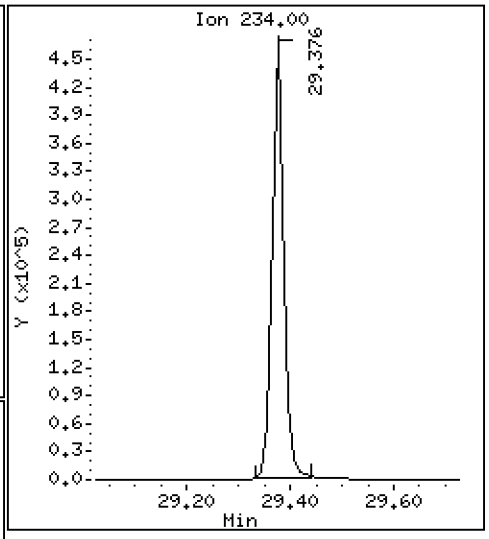
Column phase: Rxi-17Sil MS

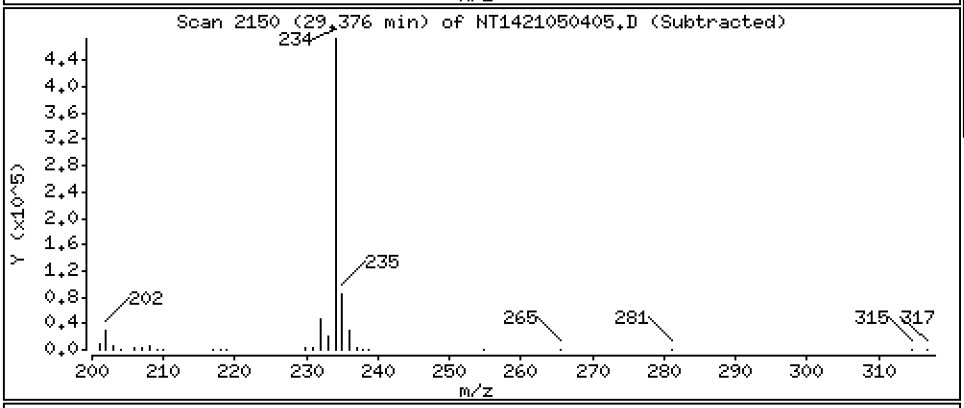
Column diameter: 0.25

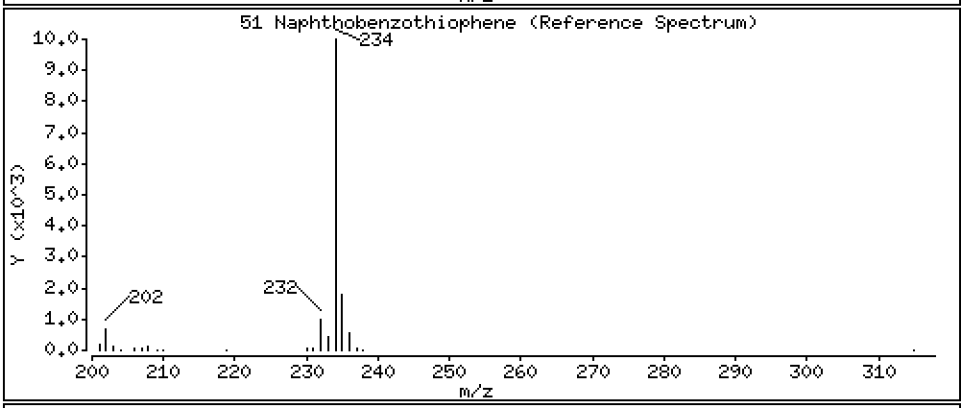
51 Naphthobenzothiophene

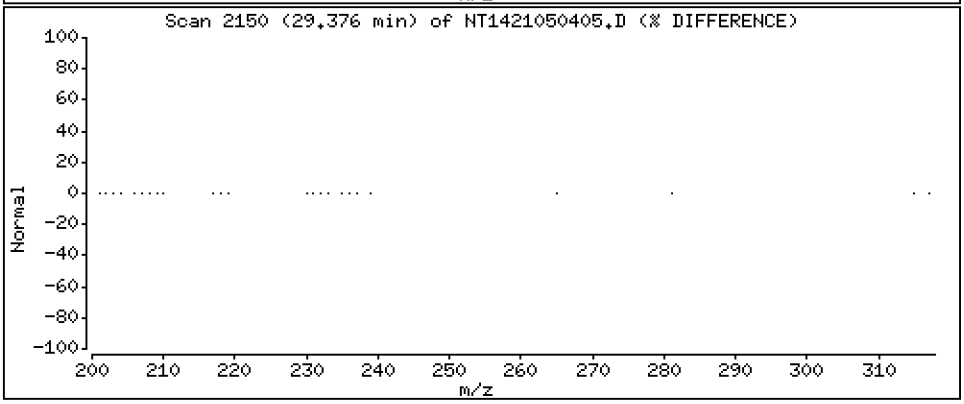
Concentration: 2.751 ug/mL



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Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

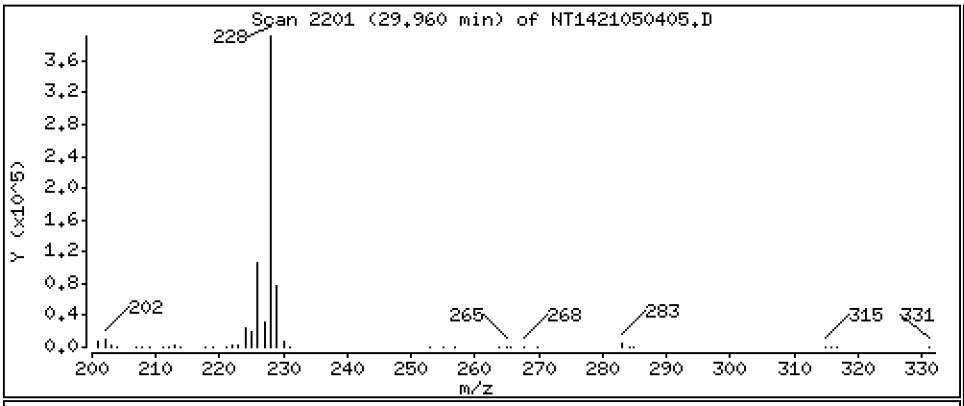
Operator: VTS

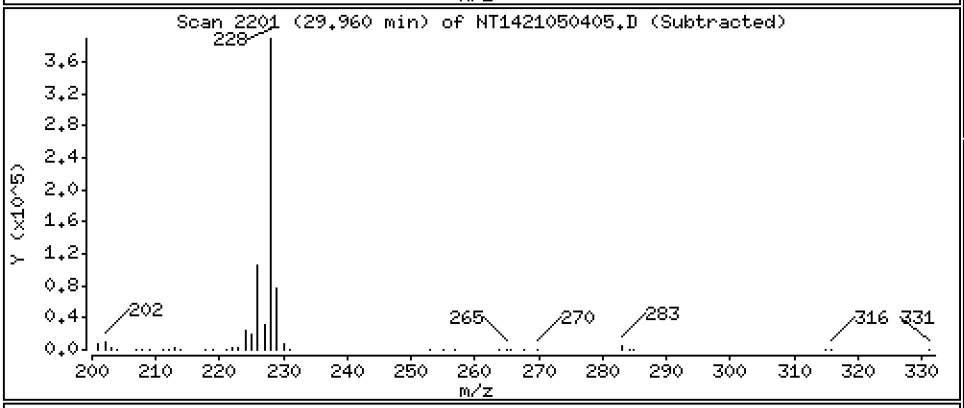
Column phase: Rxi-17Sil MS

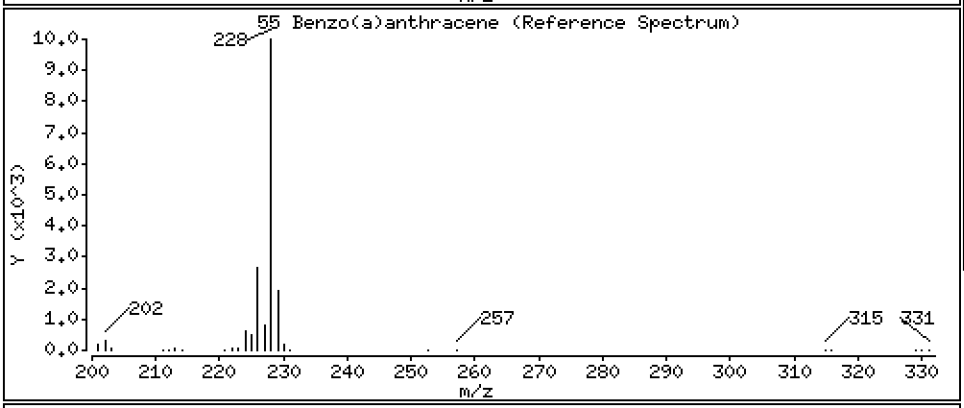
Column diameter: 0.25

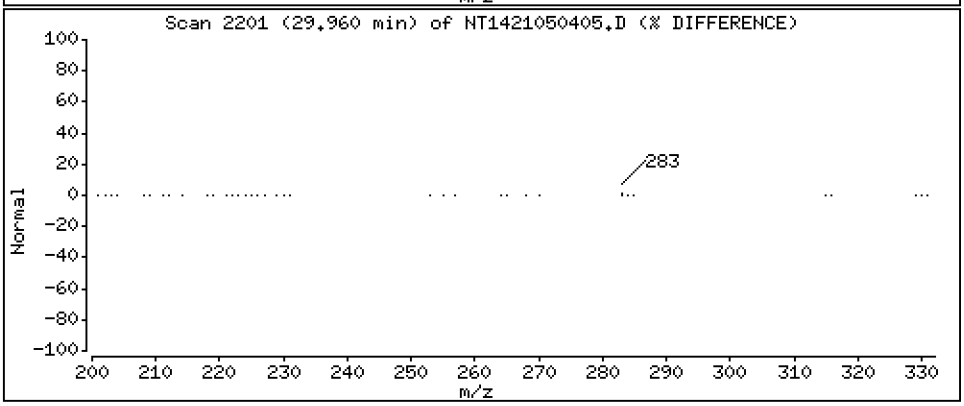
55 Benzo(a)anthracene

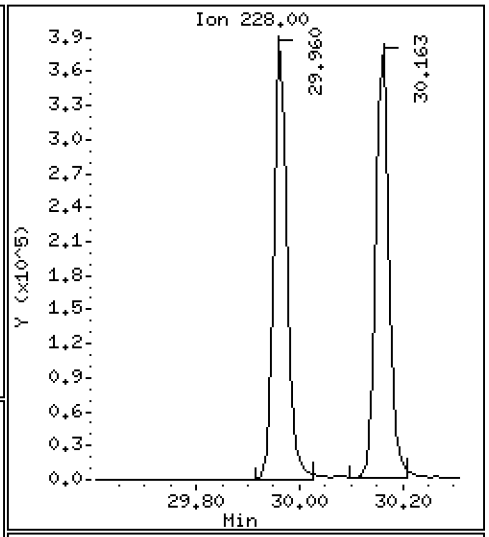
Concentration: 2.615 ug/mL

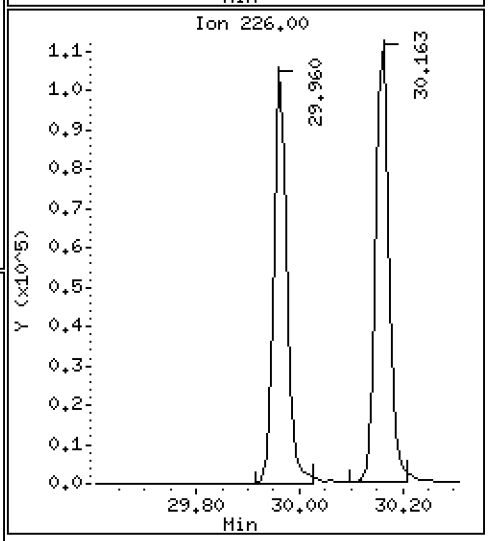


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050405.D

Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

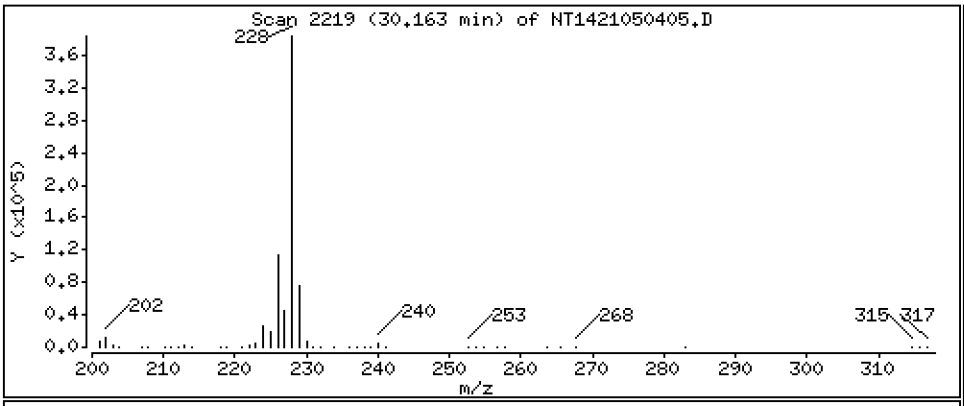
Operator: VTS

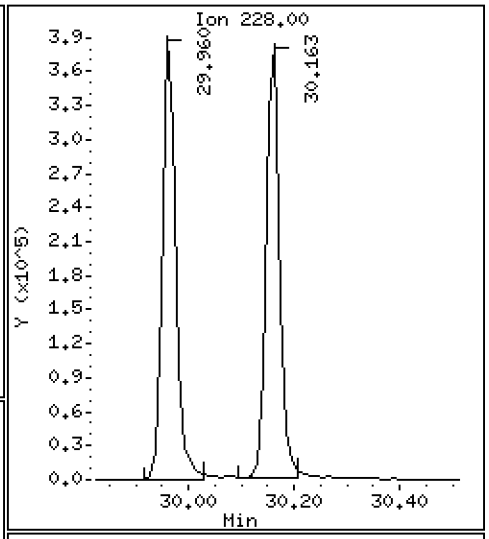
Column phase: Rxi-17Sil MS

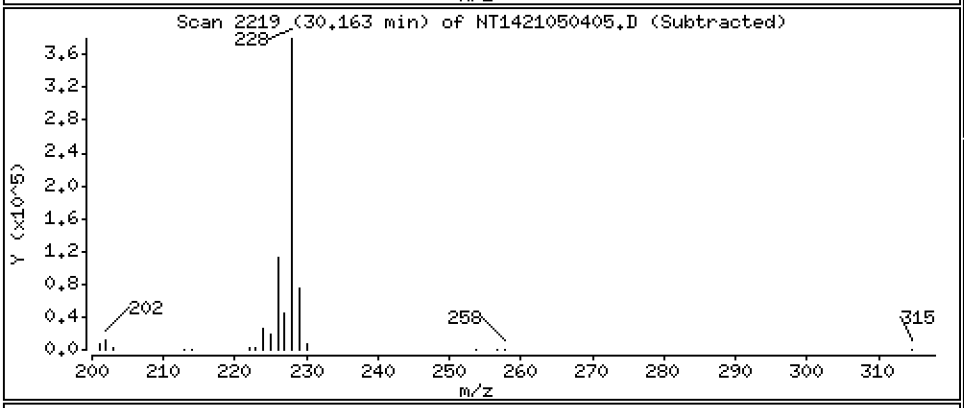
Column diameter: 0.25

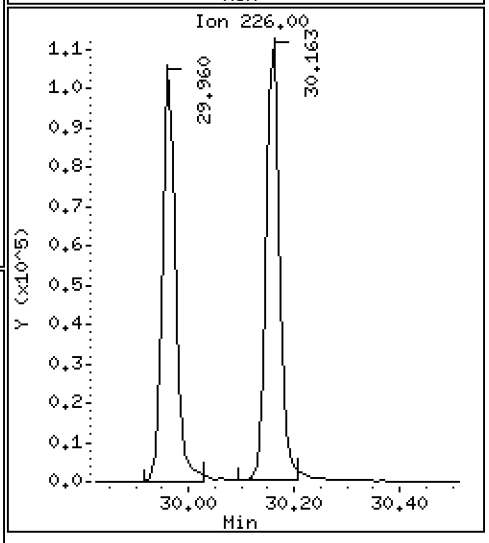
57 Chrysene

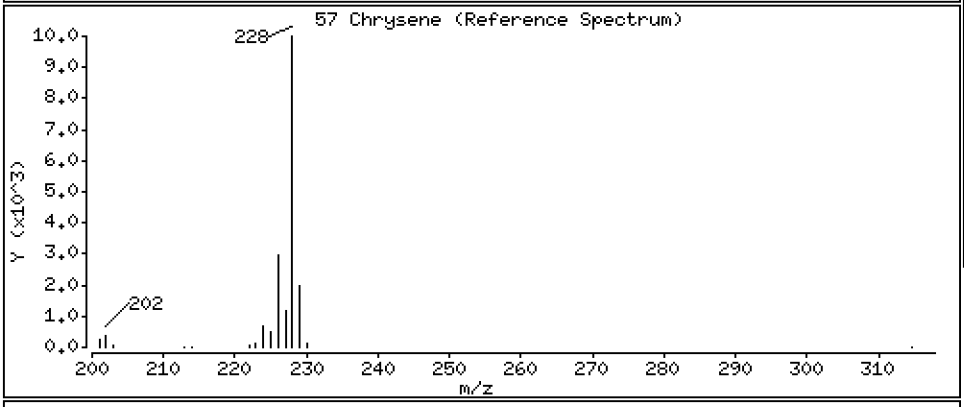
Concentration: 2.530 ug/mL

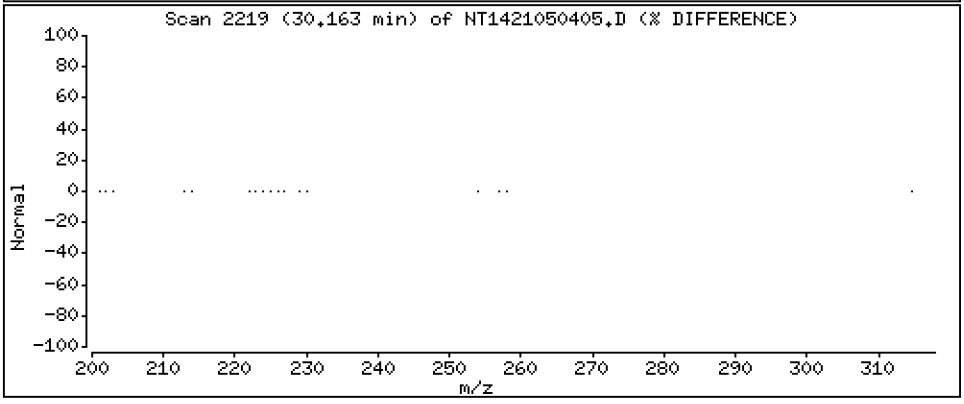


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Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

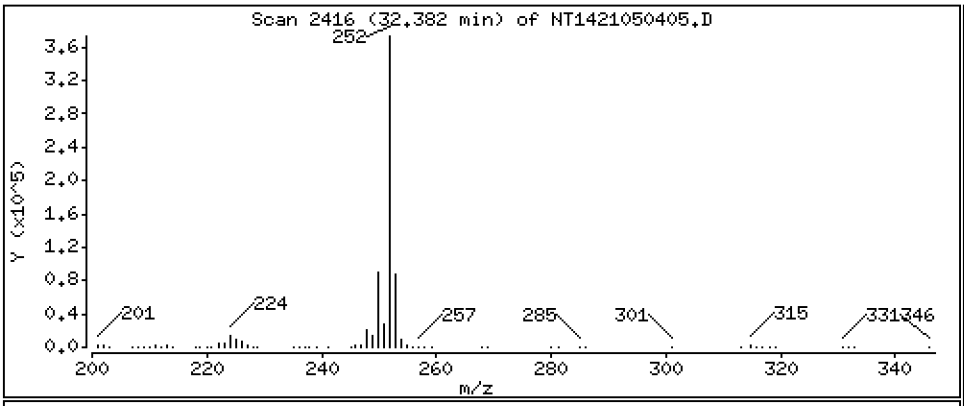
Operator: VTS

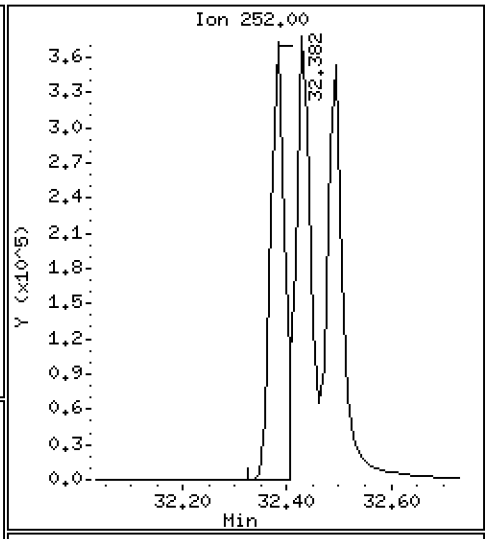
Column phase: Rxi-17Sil MS

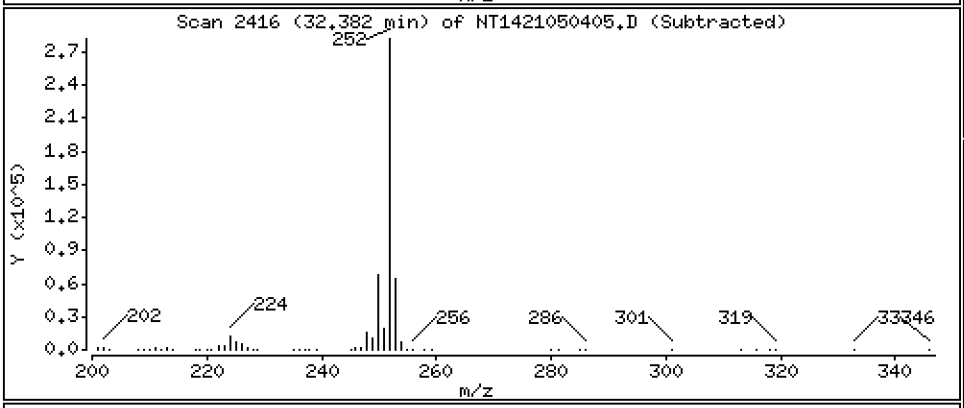
Column diameter: 0.25

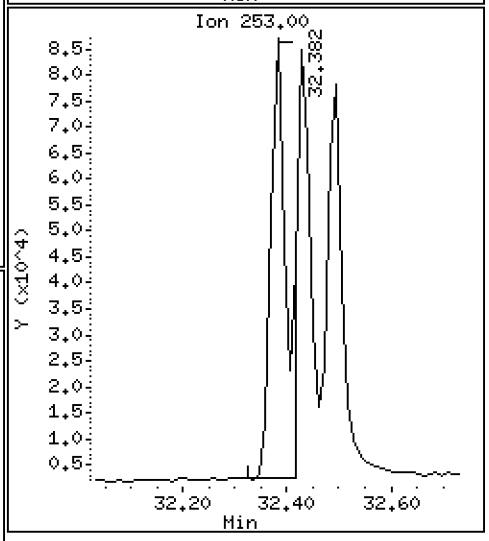
62 Benzo(b)fluoranthene

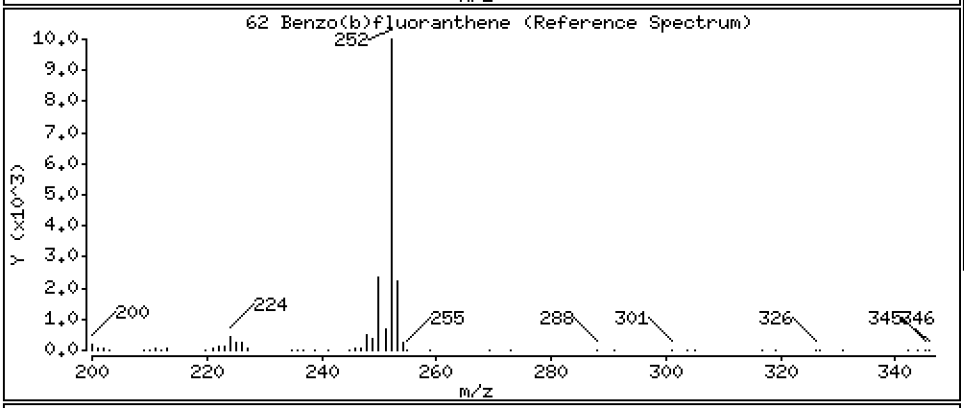
Concentration: 2.648 ug/mL

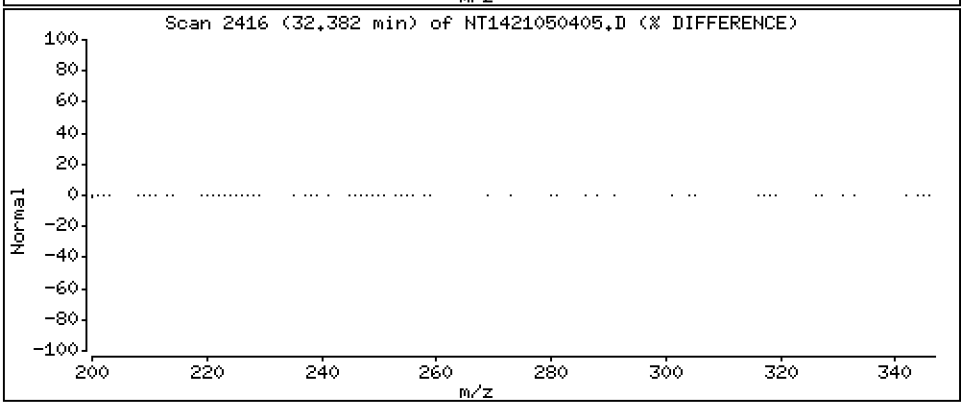


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050405.D

Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

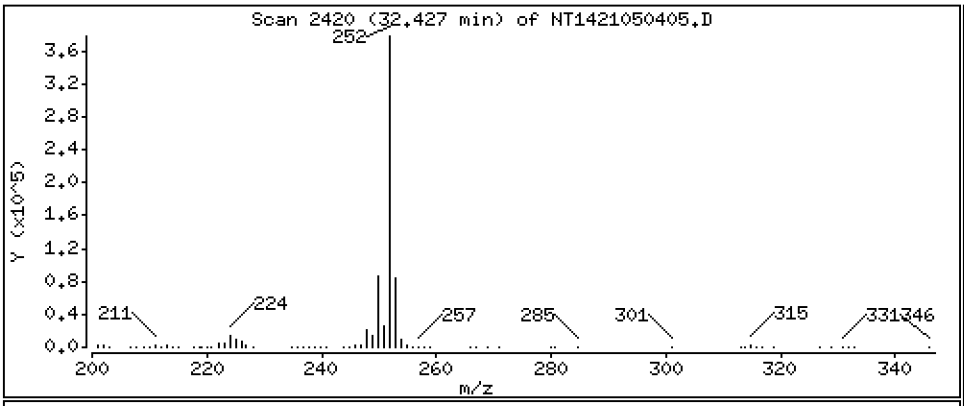
Operator: VTS

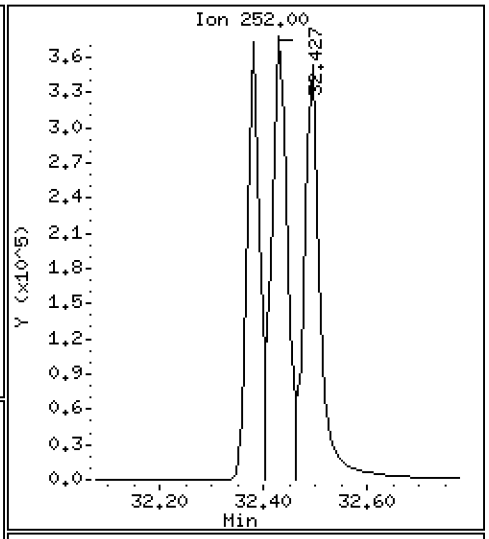
Column phase: Rxi-17Sil MS

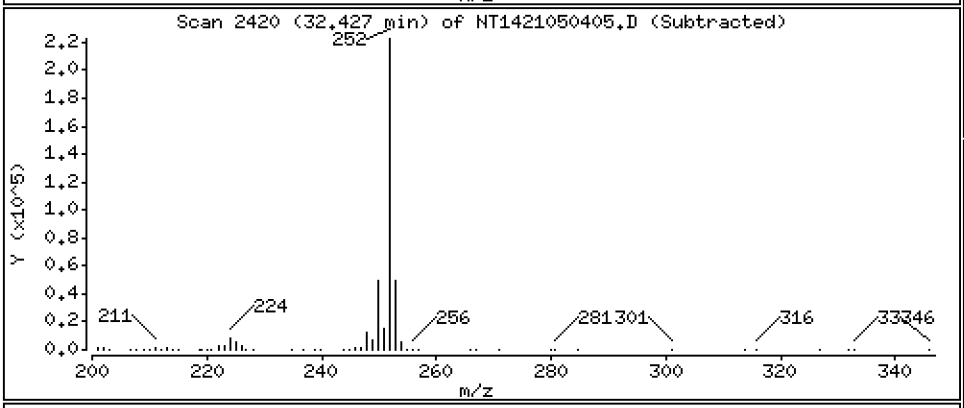
Column diameter: 0.25

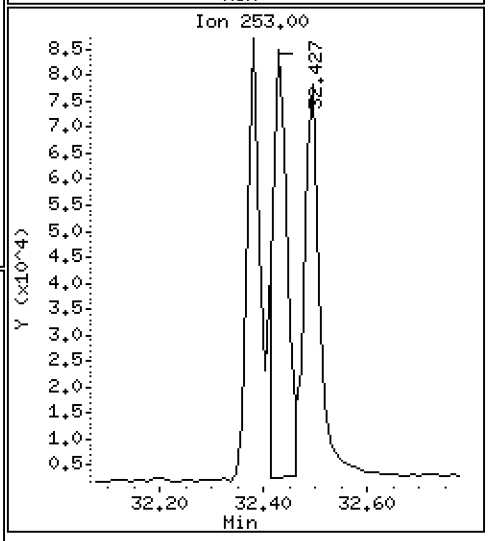
63 Benzo(k)fluoranthene

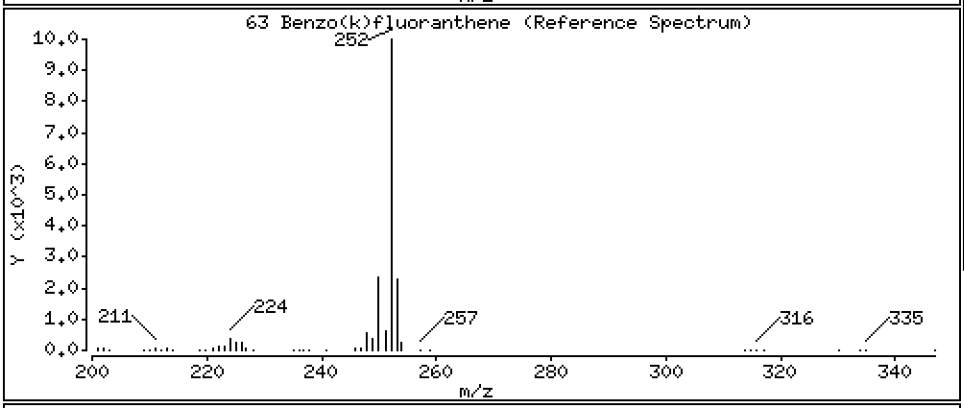
Concentration: 2.635 ug/mL

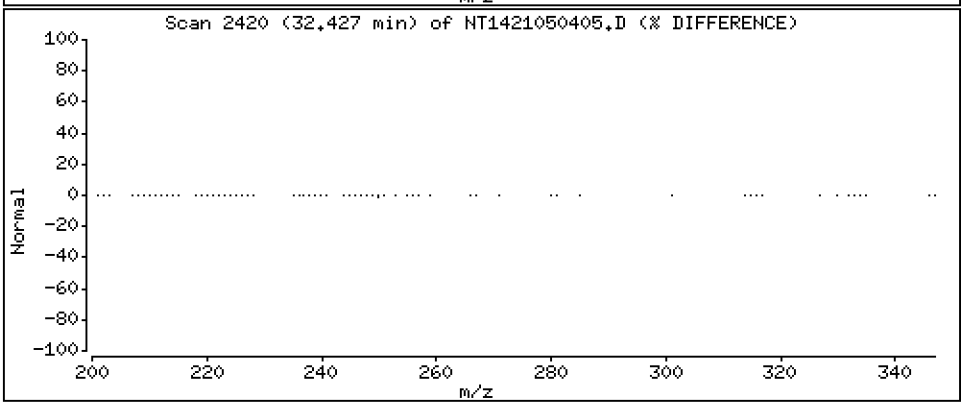


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050405.D

Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

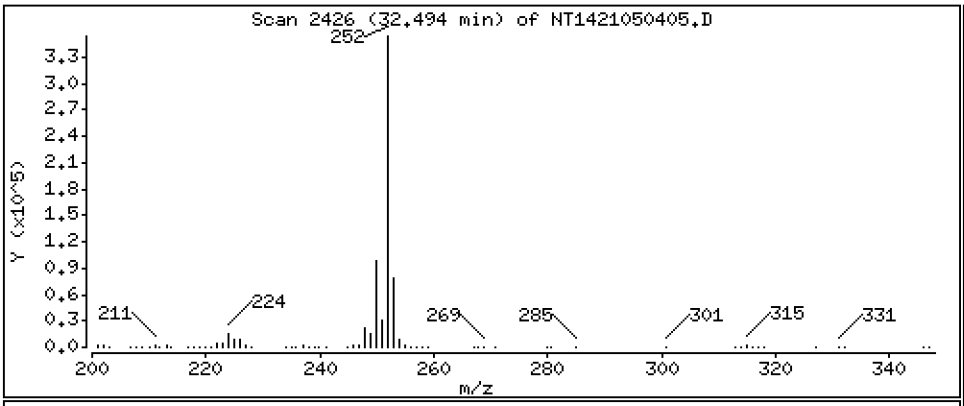
Operator: VTS

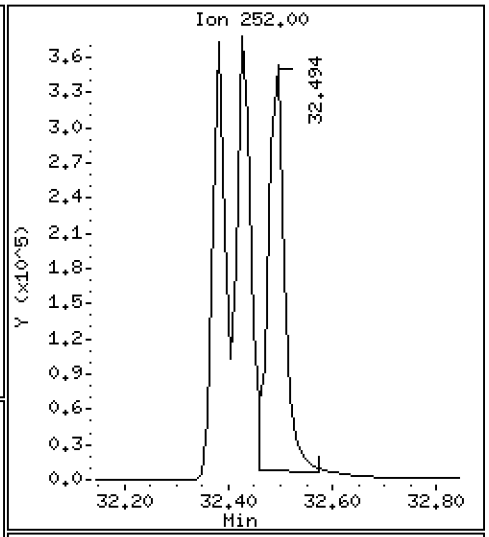
Column phase: Rxi-17Sil MS

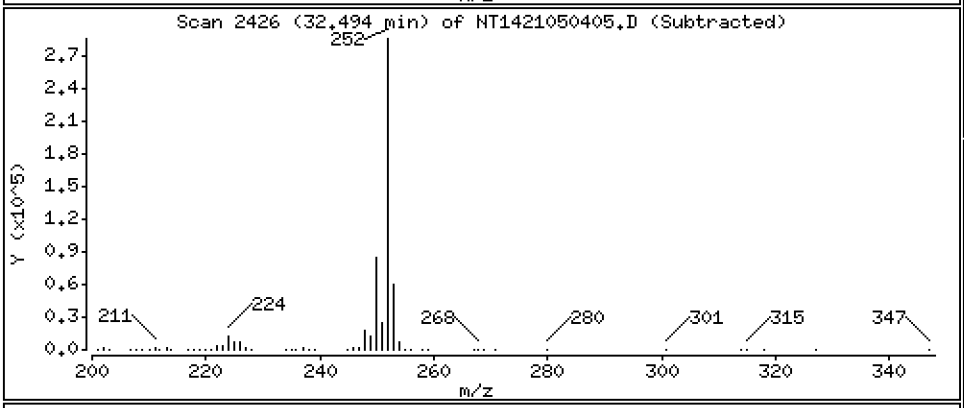
Column diameter: 0.25

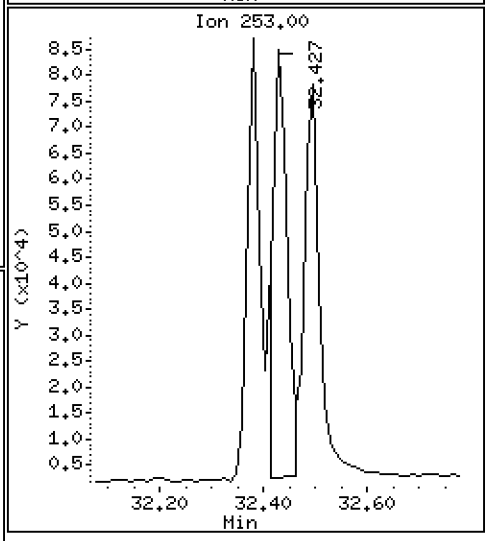
293 Benzo(j)fluoranthene

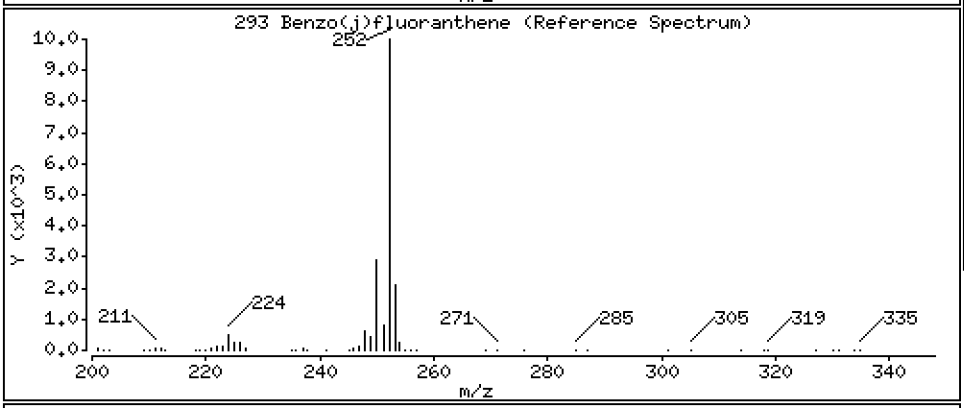
Concentration: 2.604 ug/mL

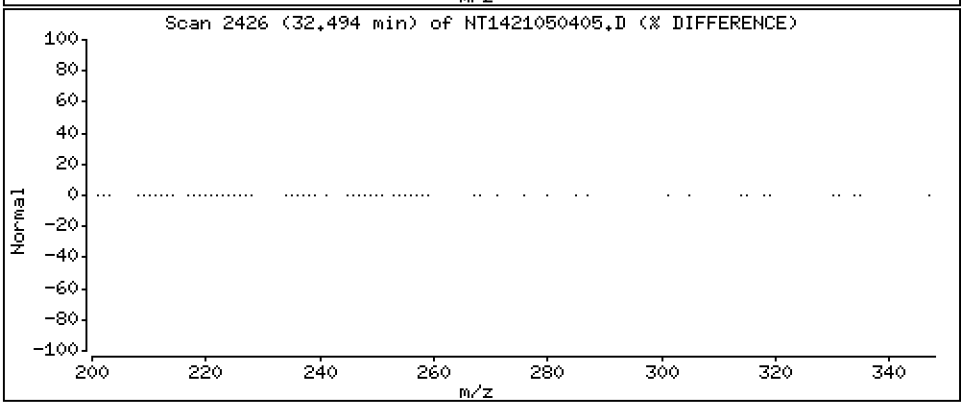


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050405.D

Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

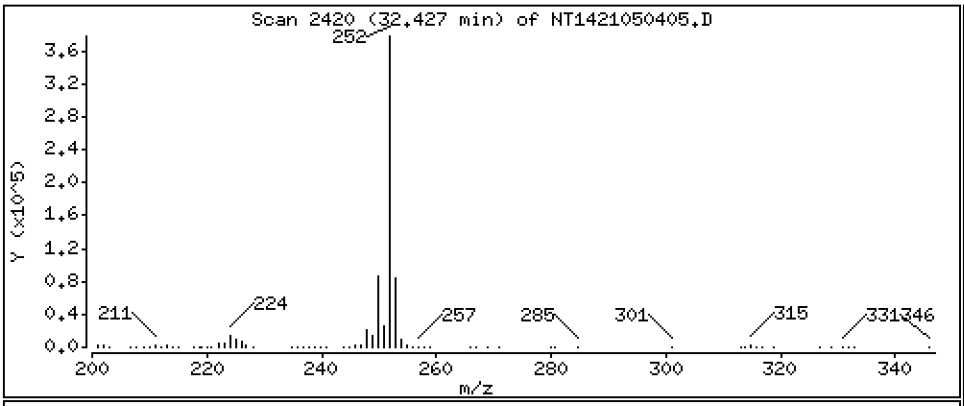
Operator: VTS

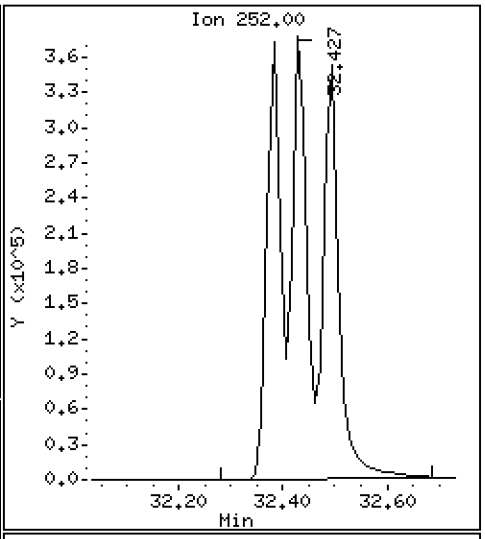
Column phase: Rxi-17Sil MS

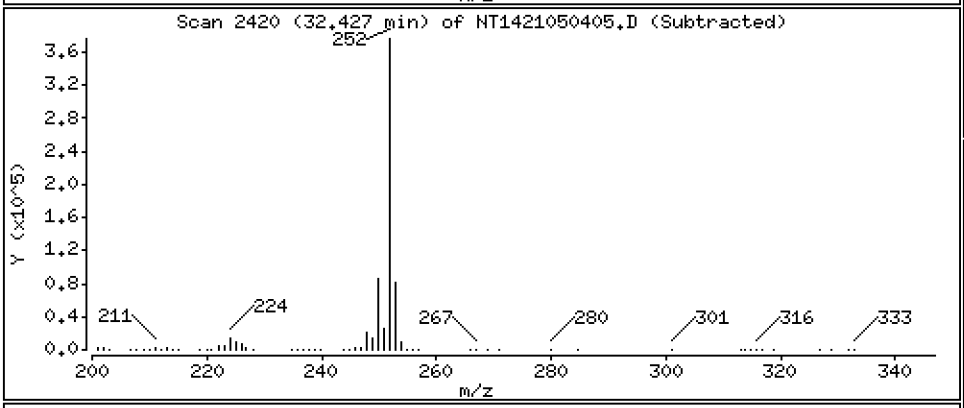
Column diameter: 0.25

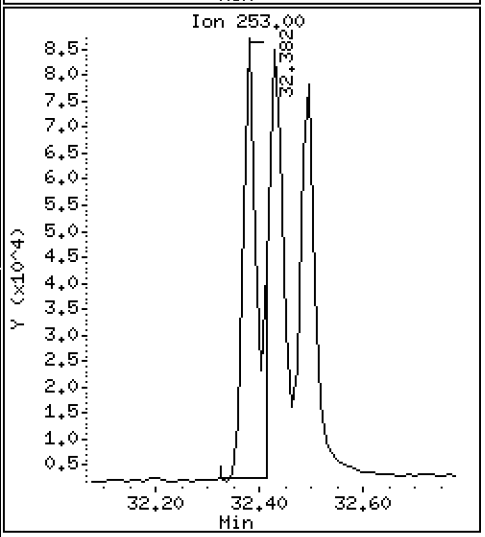
246 Total Benzofluoranthenes

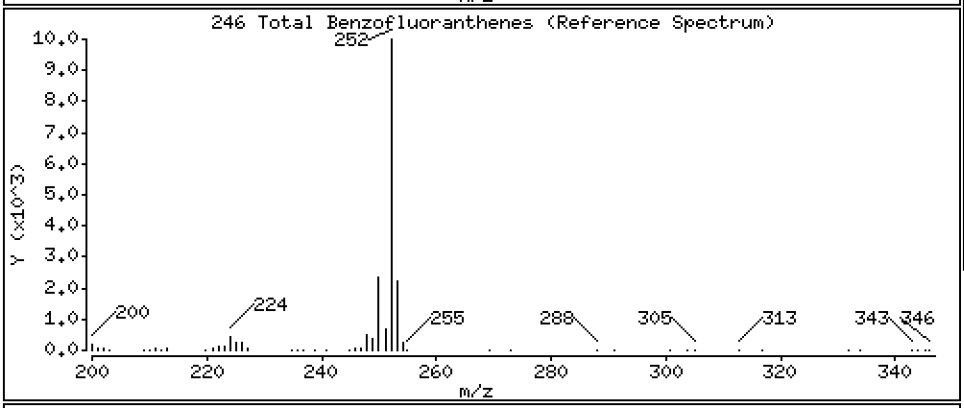
Concentration: 7.744 ug/mL

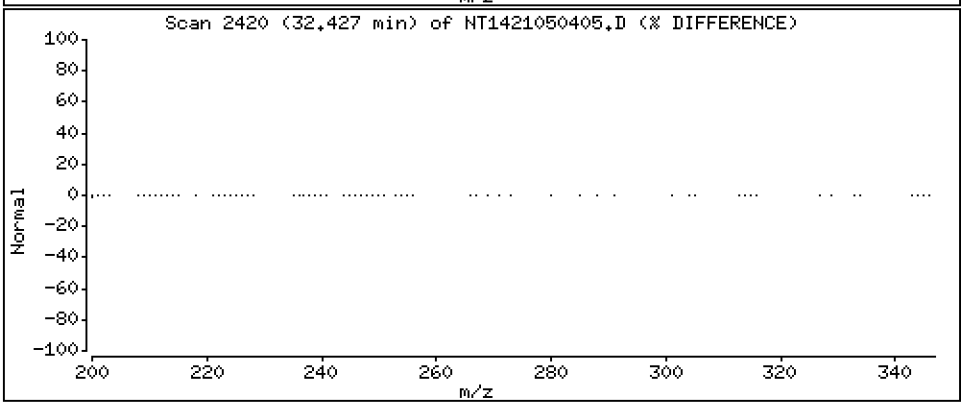


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050405.D

Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

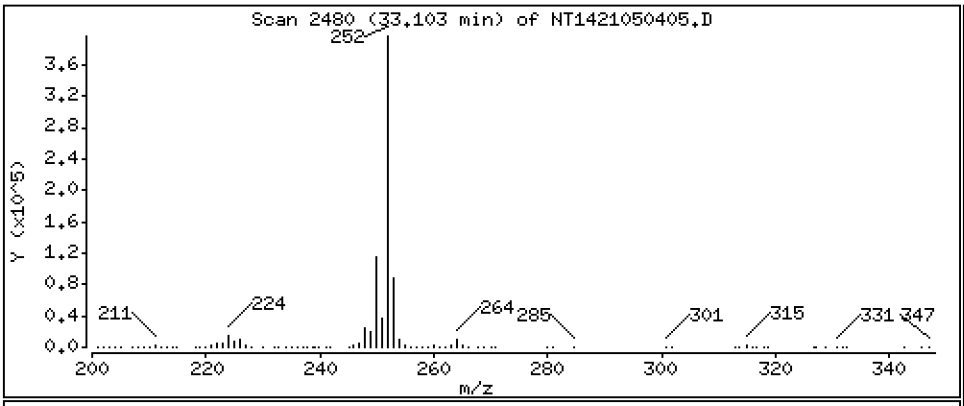
Operator: VTS

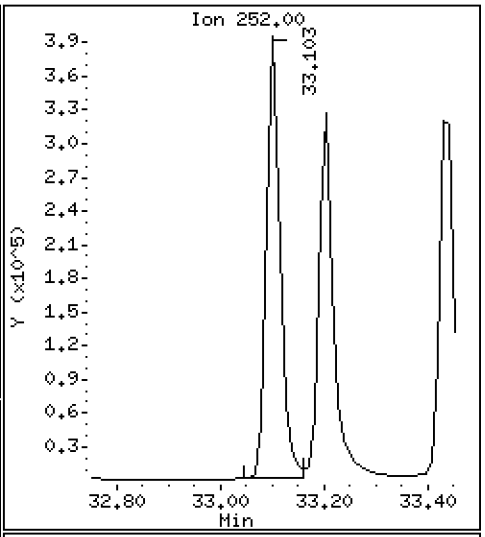
Column phase: Rxi-17Sil MS

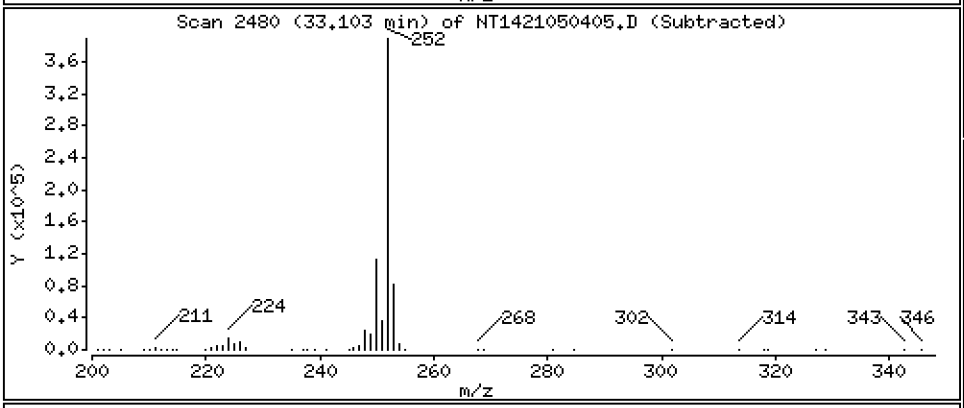
Column diameter: 0.25

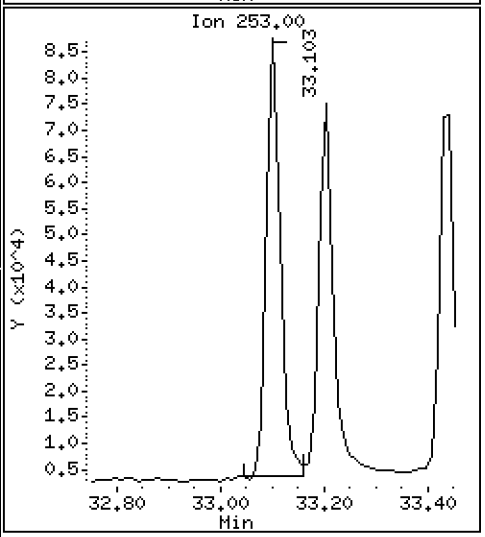
64 Benzo(e)pyrene

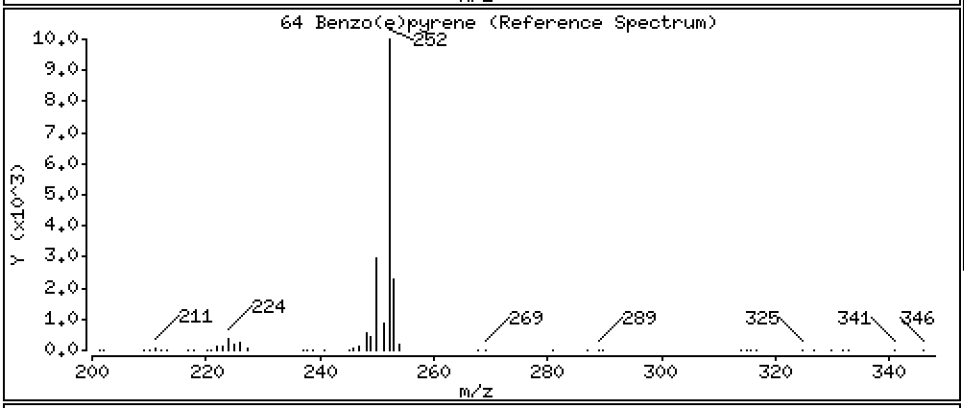
Concentration: 2.720 ug/mL

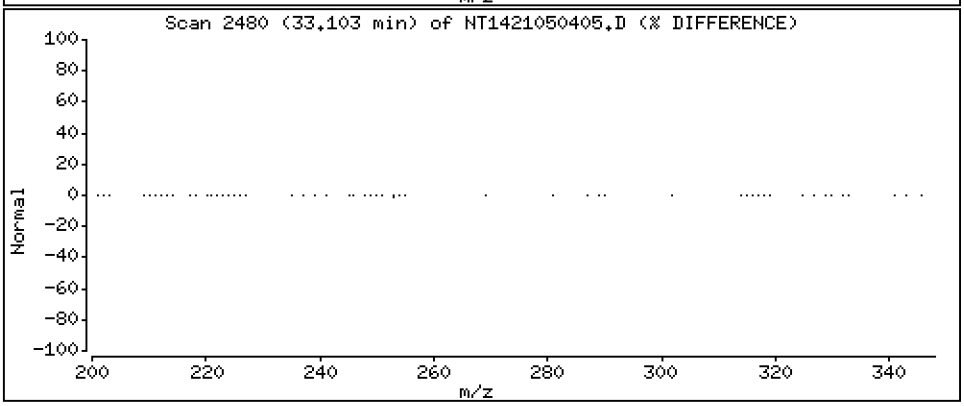


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Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

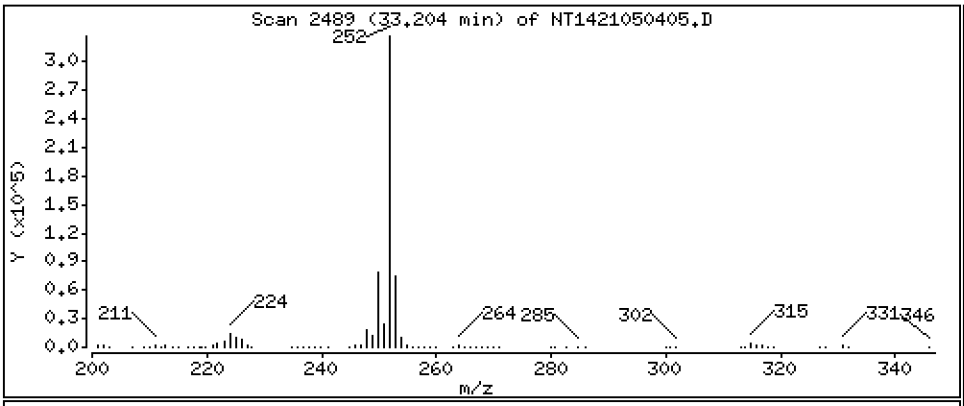
Operator: VTS

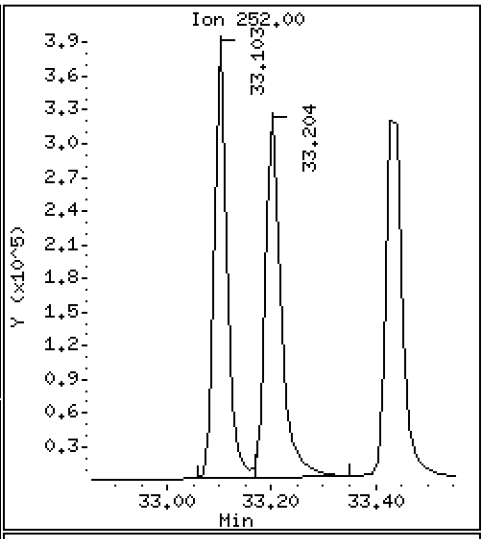
Column phase: Rxi-17Sil MS

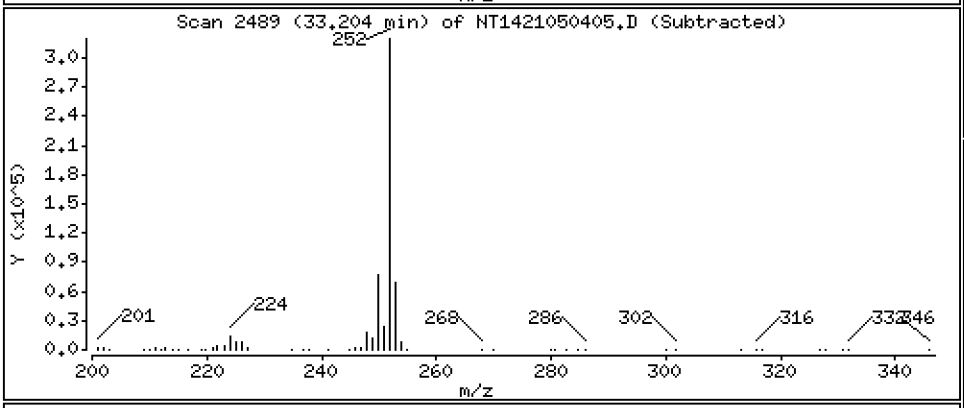
Column diameter: 0.25

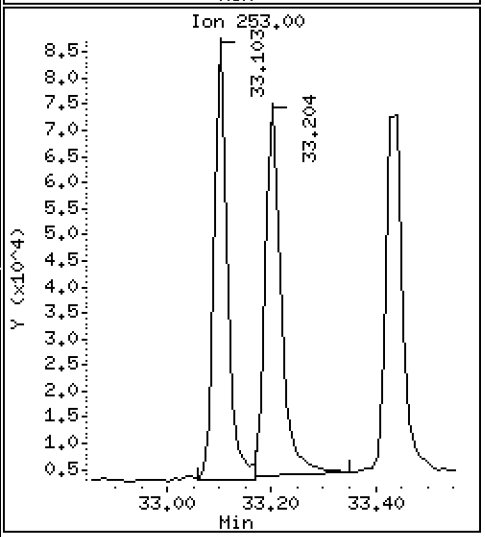
66 Benzo(a)pyrene

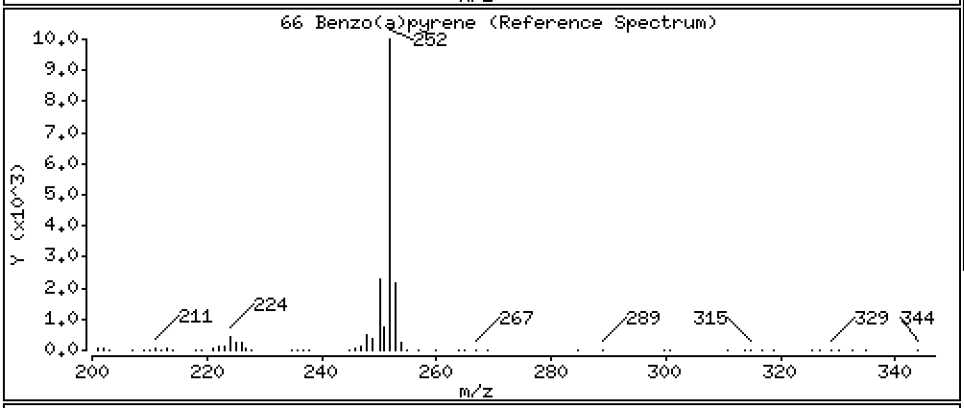
Concentration: 2.515 ug/mL

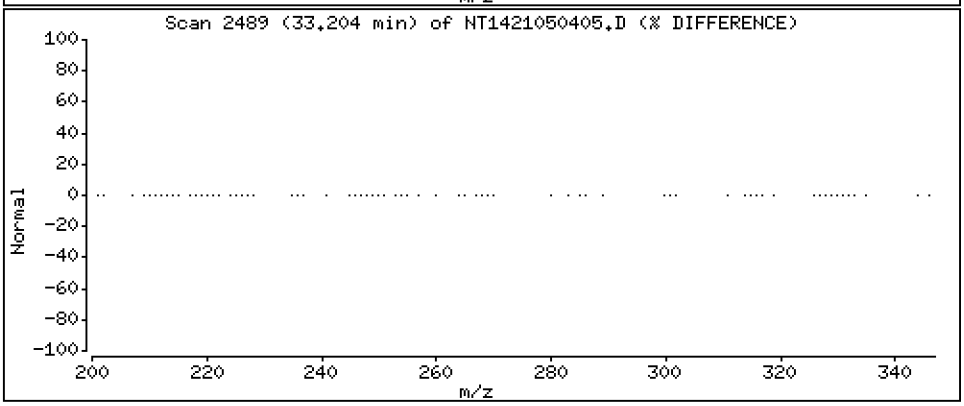


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Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

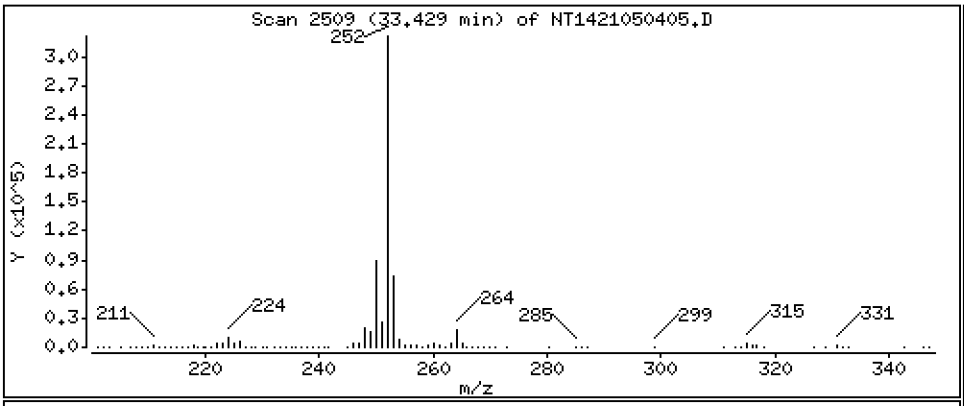
Operator: VTS

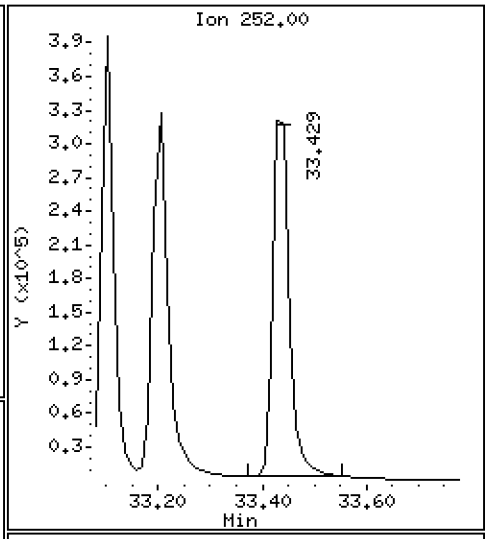
Column phase: Rxi-17Sil MS

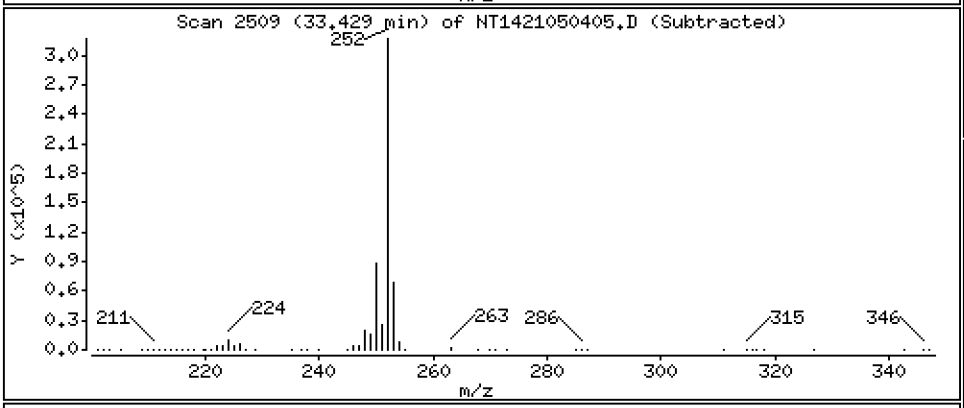
Column diameter: 0.25

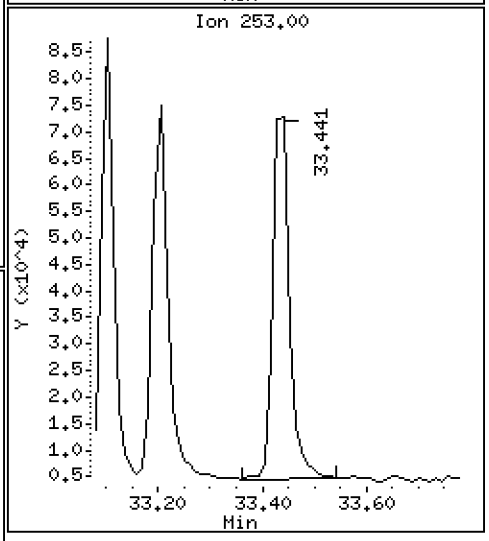
68 Perylene

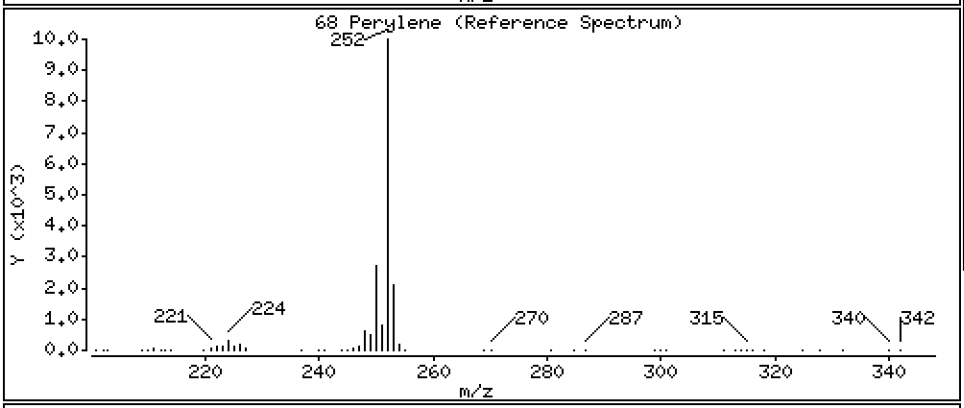
Concentration: 2.743 ug/mL

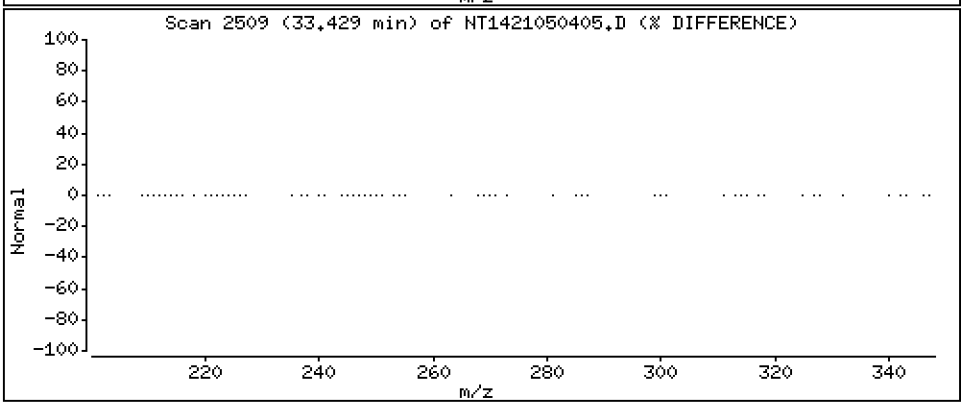


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050405.D

Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

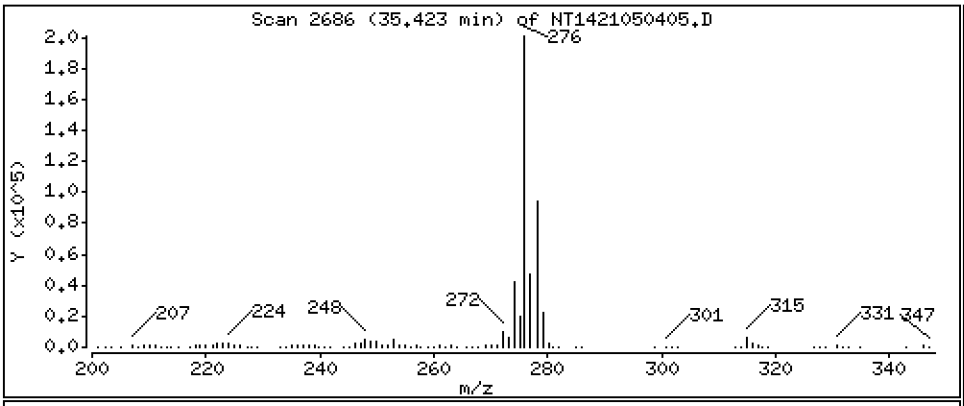
Operator: VTS

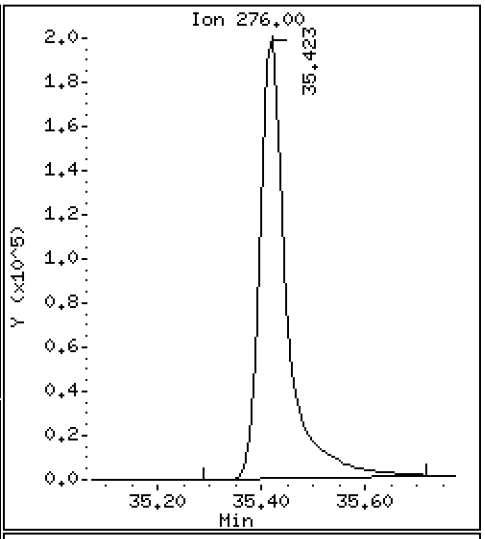
Column phase: Rxi-17Sil MS

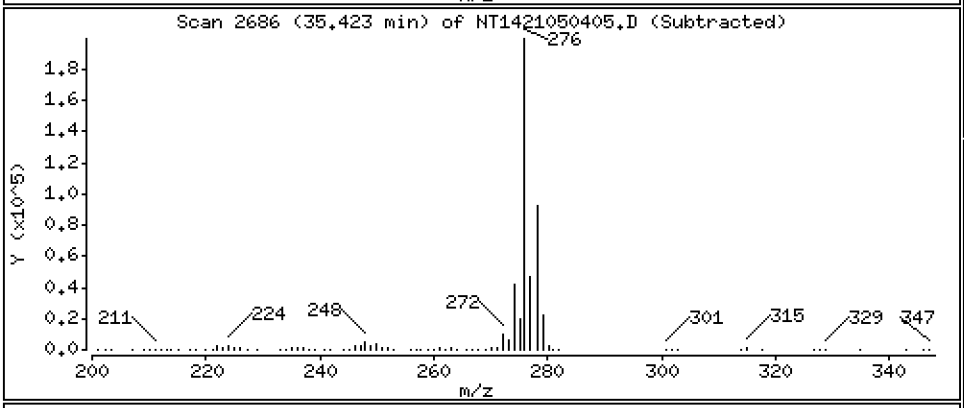
Column diameter: 0.25

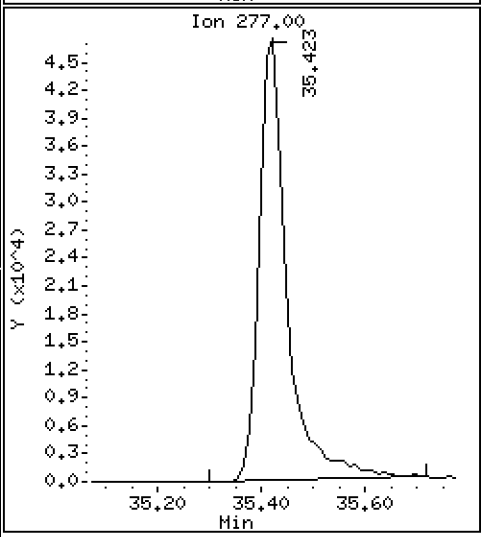
69 Indeno(1,2,3-cd)pyrene

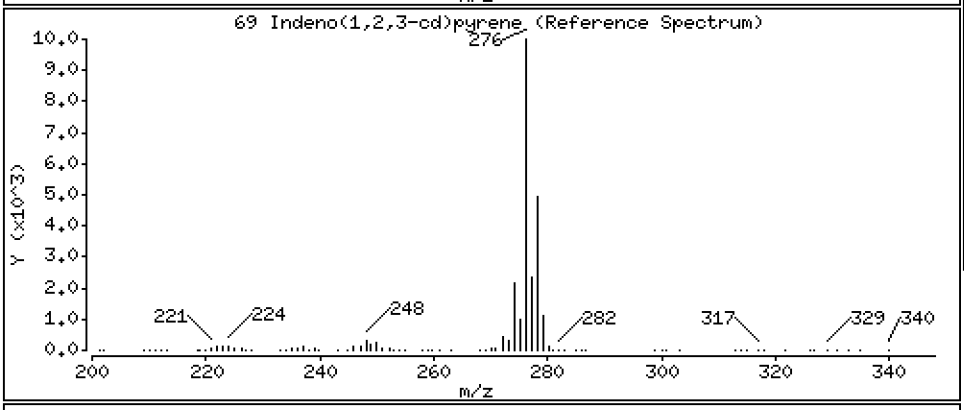
Concentration: 2.611 ug/mL

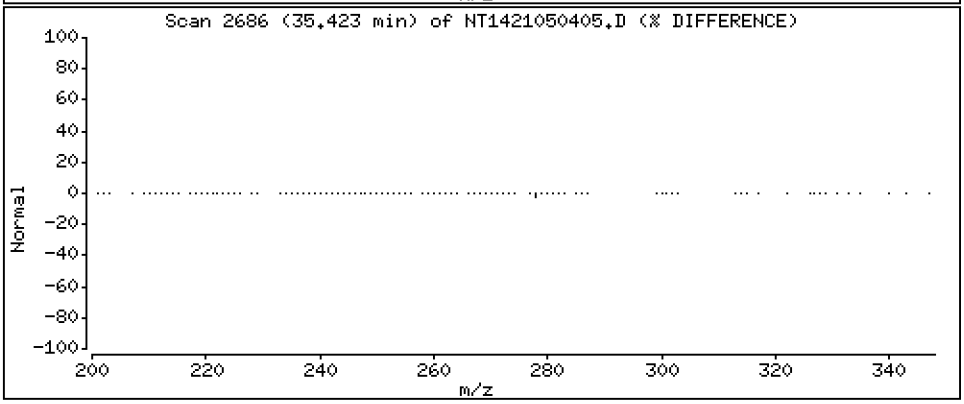


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050405.D

Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

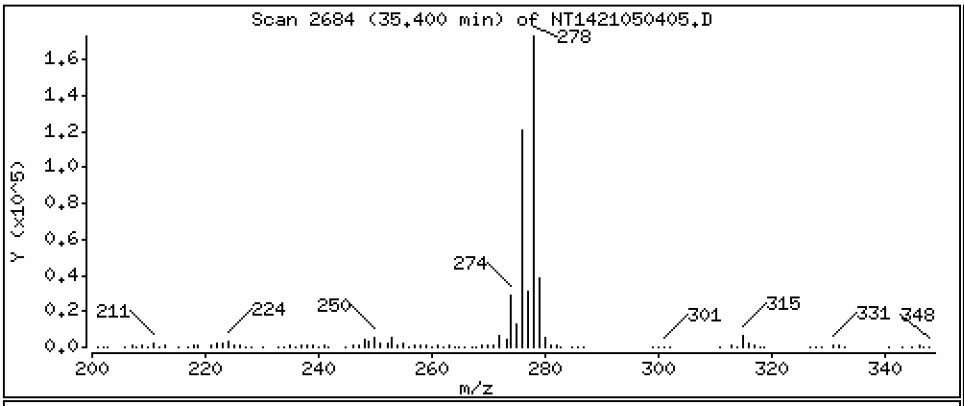
Operator: VTS

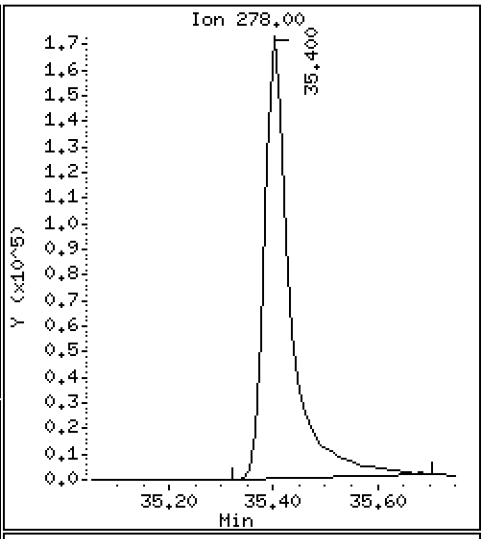
Column phase: Rxi-17Sil MS

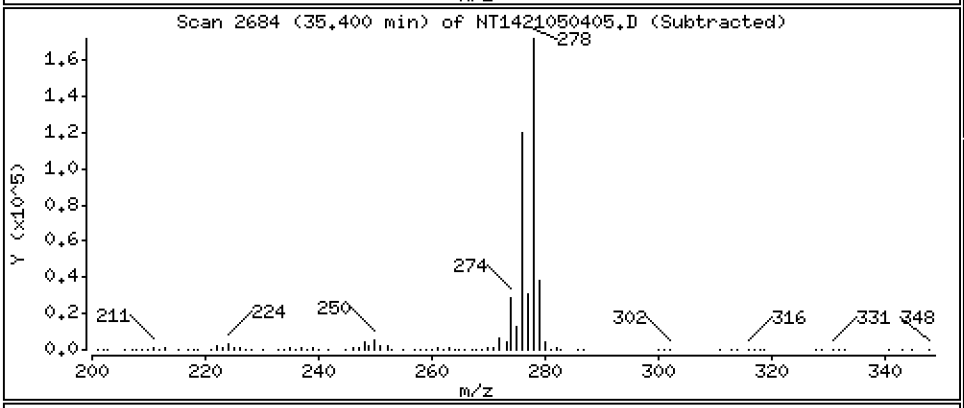
Column diameter: 0.25

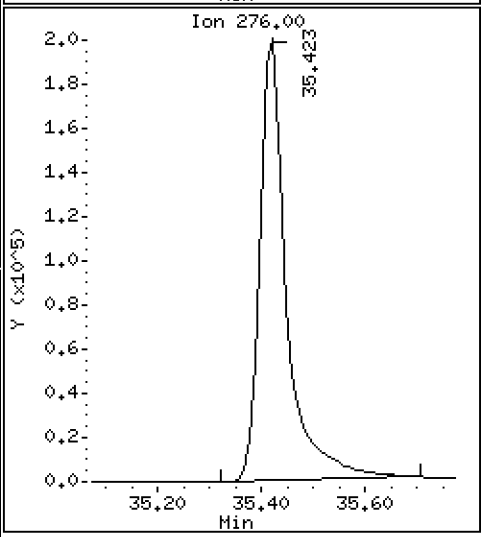
70 Dibenzo(a,h)anthracene

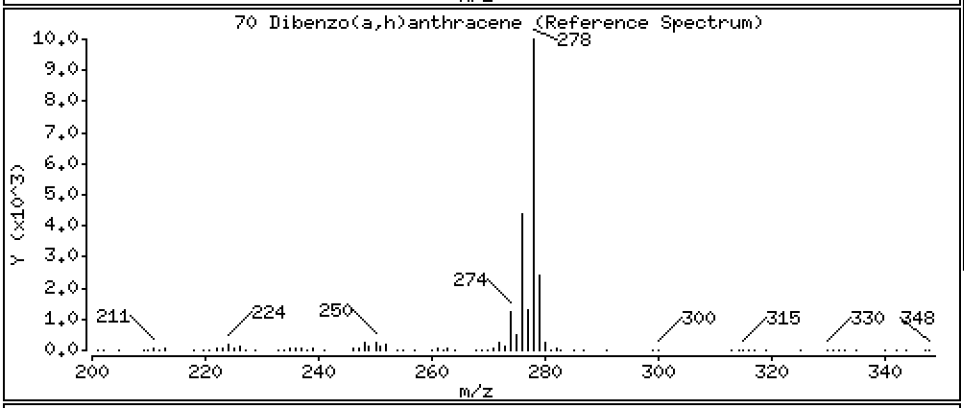
Concentration: 2.546 ug/mL

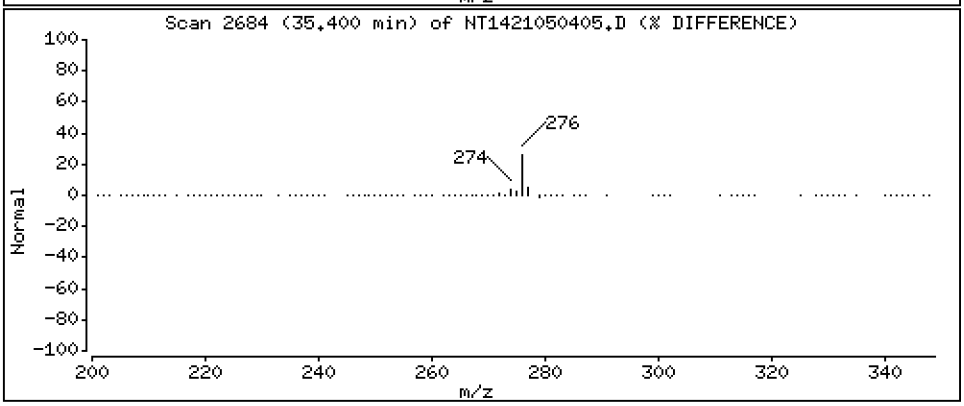


Data File: \\target\share\chem3\nt14.i\20210504.b\NT1421050405.D

Date : 04-MAY-2021 16:08

Client ID:

Instrument: nt14.i

Sample Info: SJE0028-CCV1

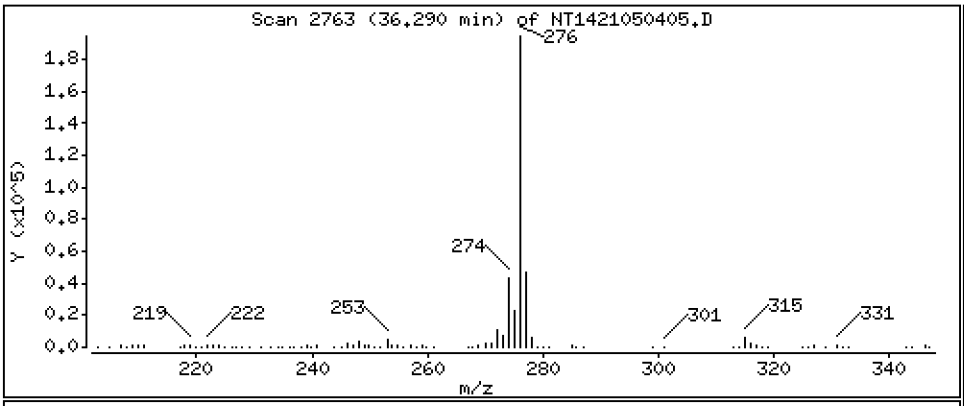
Operator: VTS

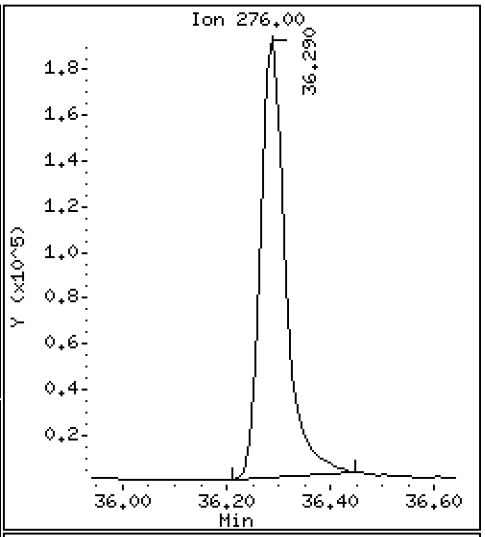
Column phase: Rxi-17Sil MS

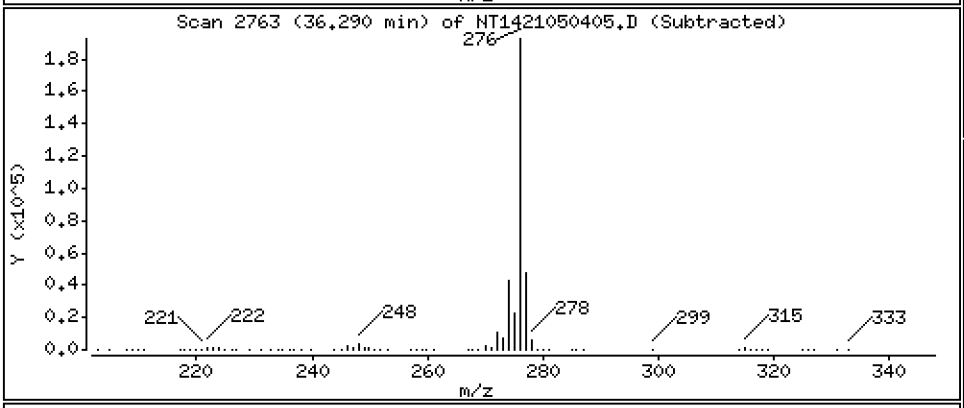
Column diameter: 0.25

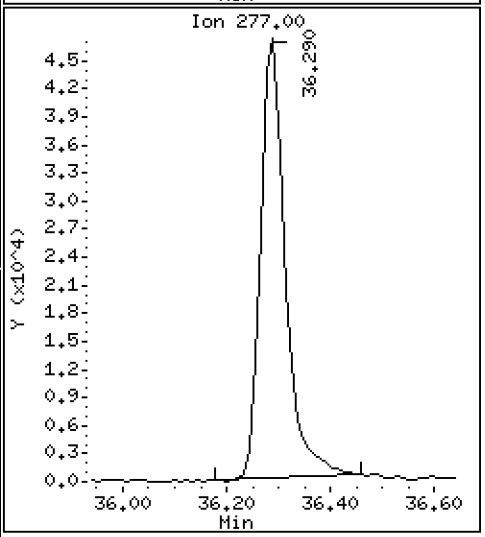
74 Benzo(g,h,i)perylene

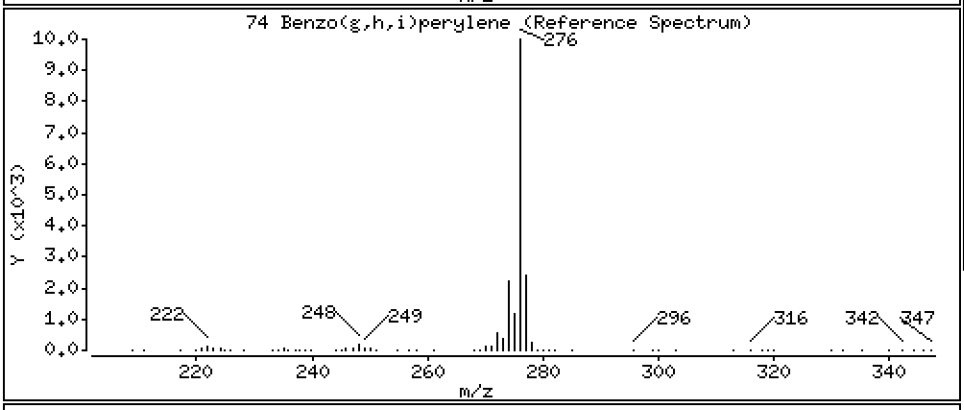
Concentration: 2.784 ug/mL

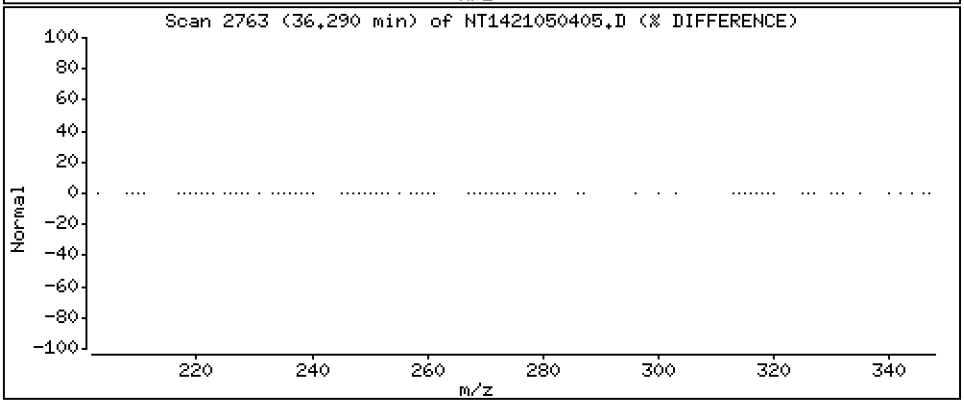


ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210504.b\NT1421050405.D
Lab Smp Id: SJE0028-CCV1
Inj Date : 04-MAY-2021 16:08
Operator : VTS Inst ID: nt14.i
Smp Info : SJE0028-CCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210504.b\ALKYLPNA.m
Meth Date : 04-May-2021 14:17 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 2
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 | CONCENTRATIONS ON-COLUMN (ug/mL) | FINAL (ug/mL) |
|---|---|---|---|---|---|---|---|---|
| | 1 trans-Decalin | 138 | 7.045 | 7.035 | (0.375) | 120182 | 2.72545 | 2.725 |
| | 2 cis-Decalin | 138 | 8.155 | 8.155 | (0.434) | 84876 | 2.78812 | 2.788 |
| $ | 6 Naphthalene-d8 | 136 | 11.776 | 11.766 | (0.627) | 944893 | 2.76585 | 2.766(R) |
| | 7 Naphthalene | 128 | 11.836 | 11.836 | (0.631) | 957861 | 2.75653 | 2.757 |
| | 12 Benzo(b)thiophene | 134 | 12.284 | 12.284 | (0.654) | 773399 | 2.79753 | 2.798 |
| | 16 2-Methylnaphthalene | 141 | 13.669 | 13.669 | (0.728) | 525170 | 2.83210 | 2.832 |
| | 17 1-methylnaphthalene | 141 | 14.120 | 14.120 | (0.752) | 495909 | 2.82248 | 2.822 |
| | 18 Biphenyl | 154 | 15.317 | 15.307 | (0.816) | 739273 | 2.78564 | 2.786 |
| | 19 2,6-Dimethylnaphthalene | 156 | 15.394 | 15.384 | (0.820) | 523788 | 2.86825 | 2.868 |
| | 20 Acenaphthylene | 152 | 16.955 | 16.955 | (0.903) | 881020 | 3.06568 | 3.066 |
| $ | 21 Acenaphthene-d10 | 164 | 17.241 | 17.241 | (0.918) | 479459 | 2.87426 | 2.874(R) |
| | 22 Acenaphthene | 153 | 17.361 | 17.351 | (0.925) | 535520 | 2.89947 | 2.899 |
| | 23 Dibenzofuran | 168 | 17.735 | 17.735 | (0.945) | 788048 | 2.81581 | 2.816 |
| | 24 1,6,7-Trimethylnaphthalene | 170 | 17.955 | 17.955 | (0.956) | 483545 | 3.01712 | 3.017 |
| * | 25 Fluorene-d10 | 176 | 18.772 | 18.772 | (1.000) | 591967 | 2.00000 | |
| | 26 Fluorene | 166 | 18.874 | 18.874 | (1.005) | 579247 | 2.84793 | 2.848 |
| | 30 Dibenzothiophene | 184 | 21.785 | 21.785 | (1.161) | 762205 | 2.96867 | 2.969 |
| $ | 35 Phenanthrene-d10 | 188 | 22.104 | 22.093 | (0.995) | 738156 | 2.56126 | 2.561(R) |
| | 36 Phenanthrene | 178 | 22.181 | 22.181 | (0.999) | 813283 | 2.52767 | 2.528 |
| * | 250 Anthracene-d10 | 188 | 22.214 | 22.214 | (1.000) | 533317 | 2.00000 | |
| | 37 Anthracene | 178 | 22.280 | 22.280 | (1.003) | 760427 | 2.56386 | 2.564 |
| | 42 Carbazole | 167 | 23.555 | 23.555 | (1.060) | 657909 | 2.63137 | 2.631 |
| | 43 1-Methylphenanthrene | 192 | 24.017 | 24.017 | (1.081) | 551009 | 2.82055 | 2.821 |
| | 44 Fluoranthene | 202 | 25.985 | 25.985 | (1.170) | 823212 | 2.88087 | 2.881 |
| | 46 Pyrene | 202 | 26.832 | 26.832 | (1.208) | 848834 | 2.86659 | 2.867 |
| | 51 Naphthobenzothiophene | 234 | 29.375 | 29.375 | (1.322) | 793710 | 2.75058 | 2.751 |
| | 55 Benzo(a)anthracene | 228 | 29.960 | 29.960 | (0.907) | 697992 | 2.61456 | 2.615 |
| $ | 56 Chrysene-d12 | 240 | 30.084 | 30.084 | (0.910) | 572243 | 2.71207 | 2.712(R) |
| | 57 Chrysene | 228 | 30.163 | 30.163 | (0.913) | 686194 | 2.53023 | 2.530 |
| | 62 Benzo(b)fluoranthene | 252 | 32.381 | 32.382 | (0.980) | 656194 | 2.64782 | 2.648(M) |
| | 63 Benzo(k)fluoranthene | 252 | 32.426 | 32.427 | (0.981) | 795399 | 2.63461 | 2.635(M) |
| | 293 Benzo(j)fluoranthene | 252 | 32.494 | 32.494 | (0.983) | 719227 | 2.60373 | 2.604(M) |
| | 246 Total Benzofluoranthenes | 252 | 32.426 | 32.382 | (0.981) | 2103063 | 7.74352 | 7.744(M) |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ug/mL) | CONCENTRATIONS FINAL (ug/mL) |
|---|---|---|---|---|---|---|---|
| * 251 Benzo(e)pyrene-d12 | 264 | 33.046 | 33.046 | (1.000) | 580689 | 2.00000 | |
| 64 Benzo(e)pyrene | 252 | 33.102 | 33.102 | (1.002) | 672779 | 2.72022 | 2.720 |
| 66 Benzo(a)pyrene | 252 | 33.204 | 33.204 | (1.005) | 640357 | 2.51531 | 2.515 |
| $ 67 Perylene-d12 | 264 | 33.384 | 33.373 | (1.010) | 569165 | 2.51994 | 2.520(RM) |
| 68 Perylene | 252 | 33.429 | 33.429 | (1.012) | 647875 | 2.74264 | 2.743(M) |
| 69 Indeno(1,2,3-cd)pyrene | 276 | 35.422 | 35.423 | (1.072) | 689510 | 2.61139 | 2.611(M) |
| 70 Dibenzo(a,h)anthracene | 278 | 35.400 | 35.400 | (1.071) | 580612 | 2.54613 | 2.546(M) |
| 74 Benzo(g,h,i)perylene | 276 | 36.290 | 36.290 | (1.098) | 619431 | 2.78399 | 2.784(M) |

## QC Flag Legend

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

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421050405.D
Lab Smp Id: SJE0028-CCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210504.b\ALKYLPNA.m
Misc Info:

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

Test Mode:
Use Last Continuing Calibrator.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 25 Fluorene-d10 | 560901 | 280451 | 1121802 | 591967 | 5.54 |
| 250 Anthracene-d10 | 511244 | 255622 | 1022488 | 533317 | 4.32 |
| 251 Benzo(e)pyrene-d1 | 574536 | 287268 | 1149072 | 580689 | 1.07 |

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

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

REVIEW SUMMARY FOR FILE - NT1421050405.D

Lab ID: SJE0028-CCV1
nt14.i,  20210504.b\ALKYLPNA.m,    04-MAY-2021 16:08

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

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

NONE

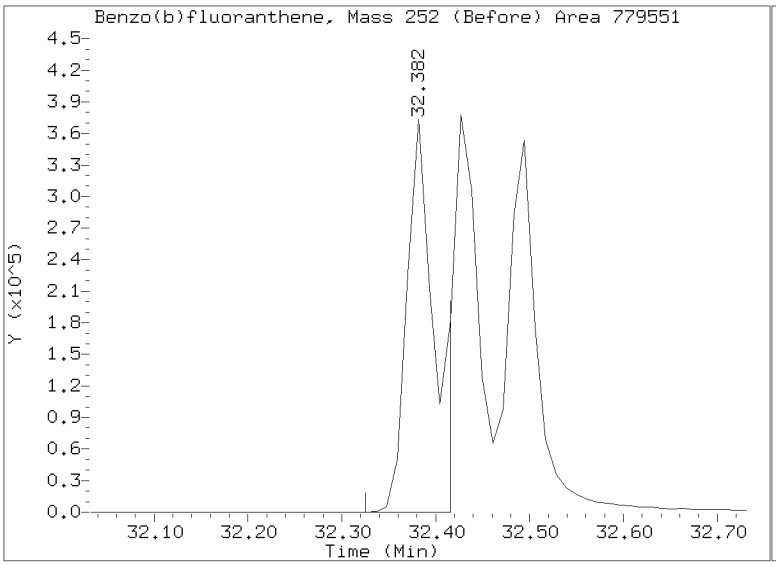
RRT check based on Ccal File: NT1421050402.D

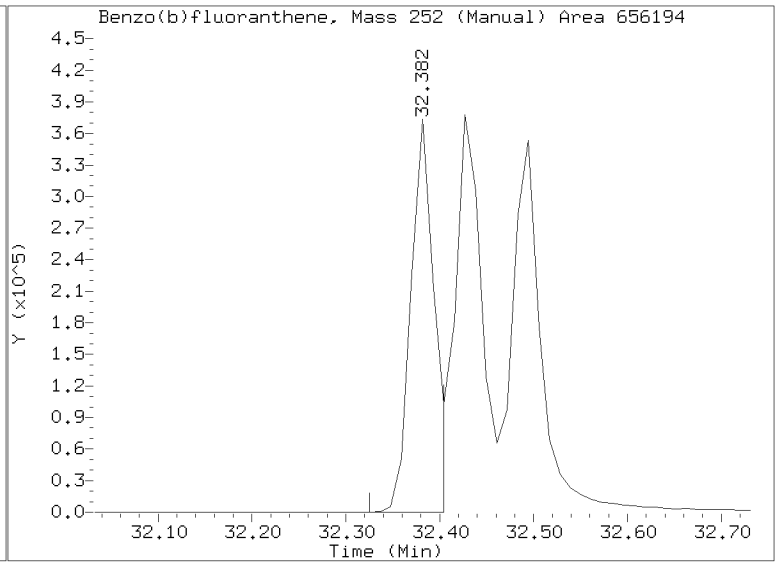
On Column LOD for nt14.i, 20210504.b\ALKYLPNA.m, TARGETS.sub = 0.0000

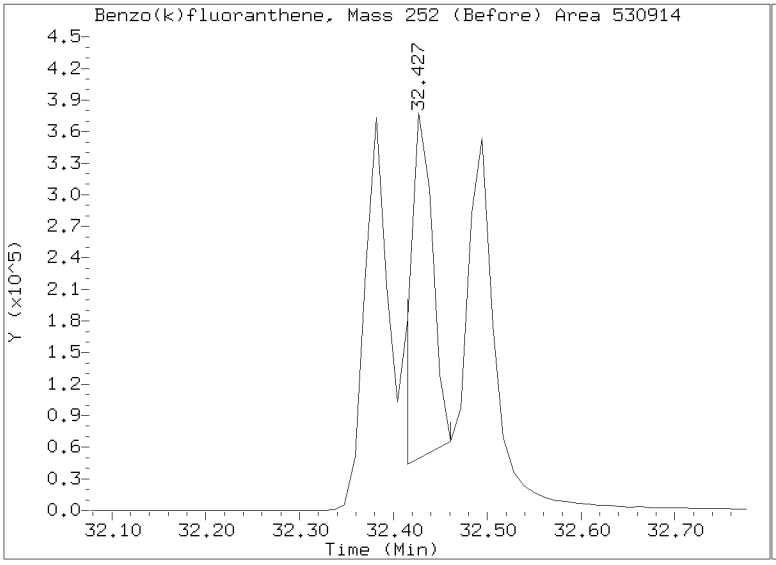
* Only compounds listed in the work order have been verified by the analyst *

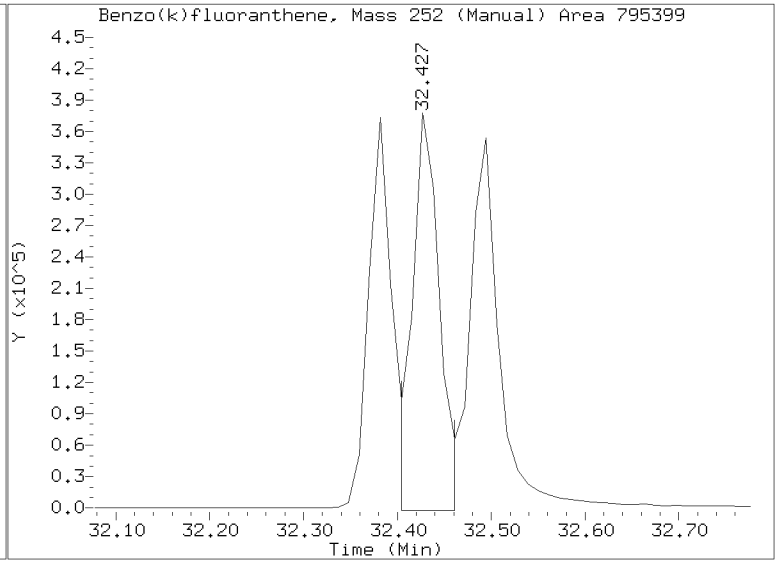
# Quant Ion Manual Peak Adjustment Report

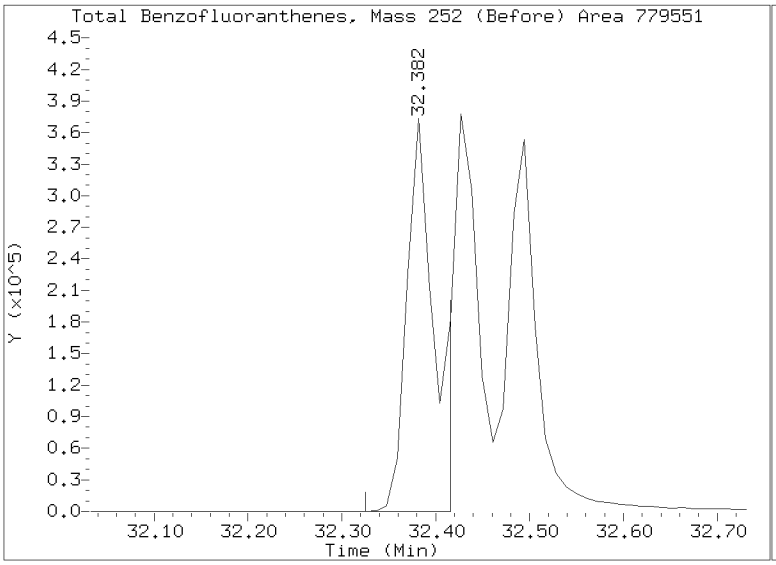
Datafile: //target/share/chem3/nt14.i/20210504.b/NT1421050405.D
Injection Date: 04-MAY-2021 16:08
Lab ID:SJE0028-CCV1 Client ID:
Report Date: 05/05/2021 12:34

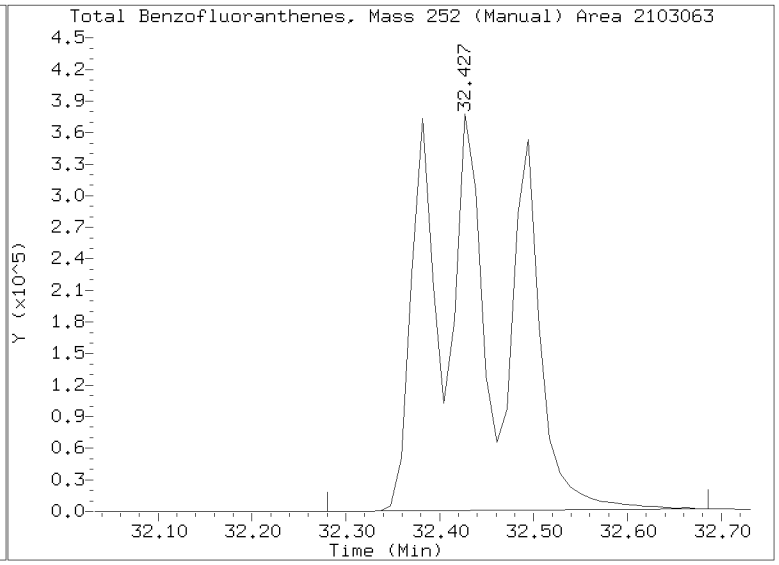


# Quant Ion Manual Peak Adjustment Report

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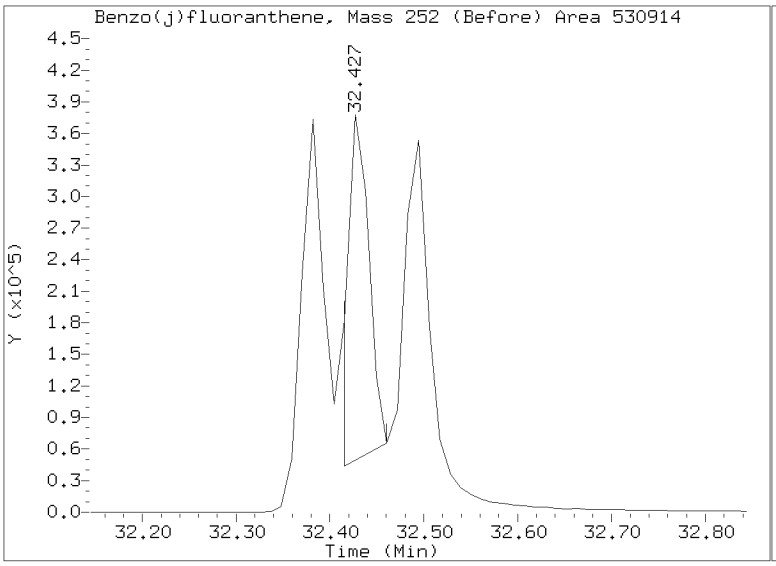
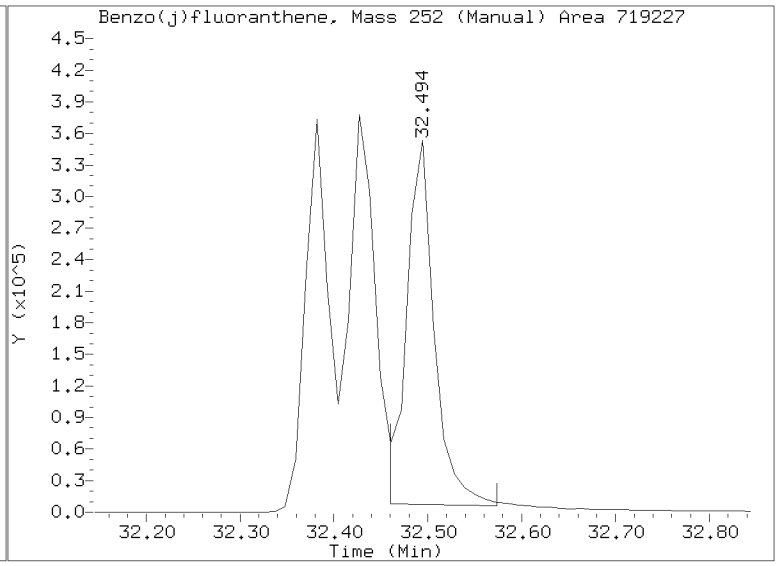
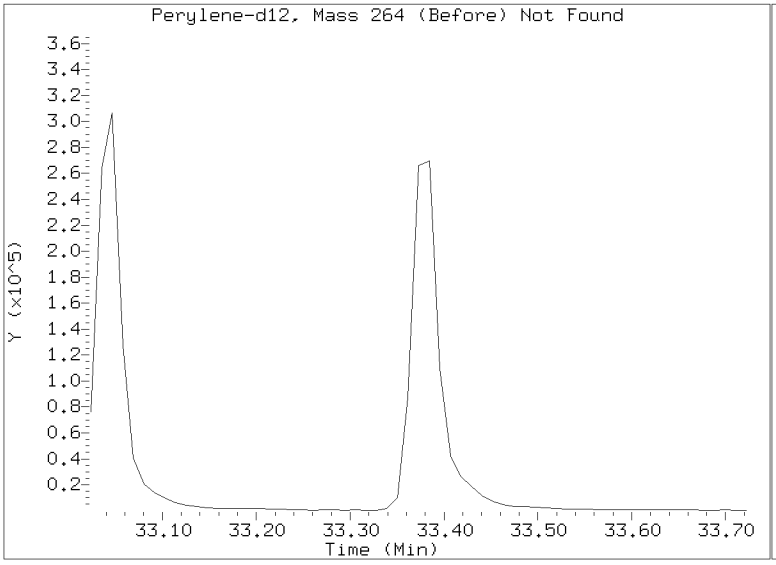
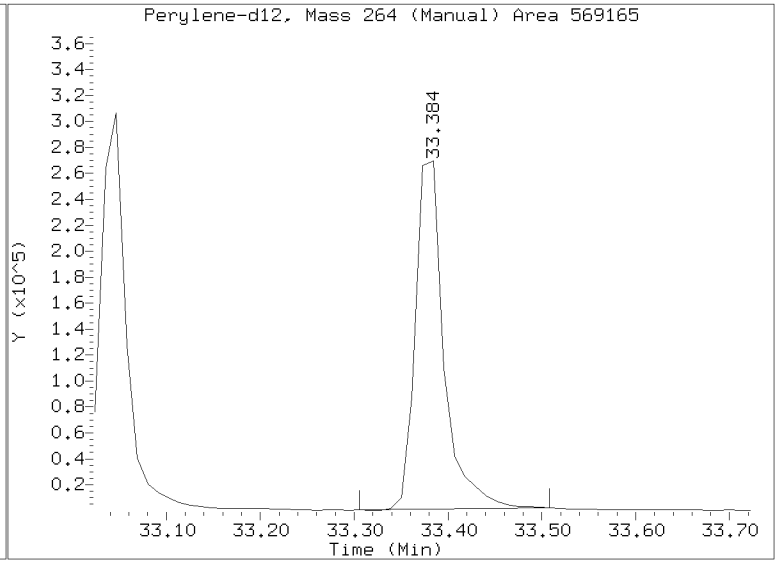
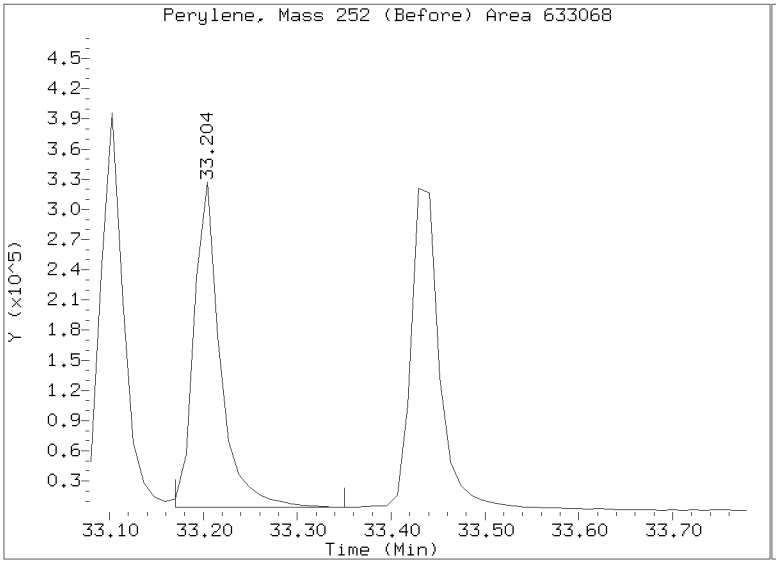
Injection Date: 04-MAY-2021 16:08
Lab ID:SJE0028-CCV1 Client ID:
Report Date: 05/05/2021 12:34

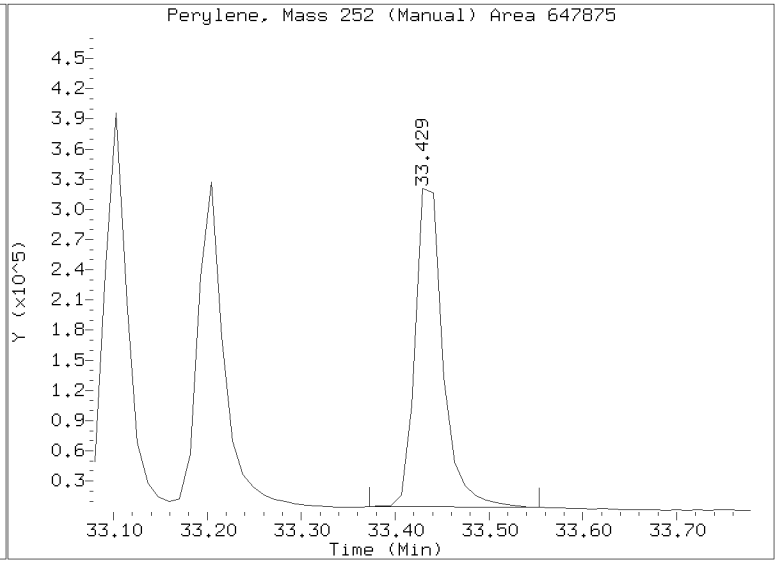


# Quant Ion Manual Peak Adjustment Report

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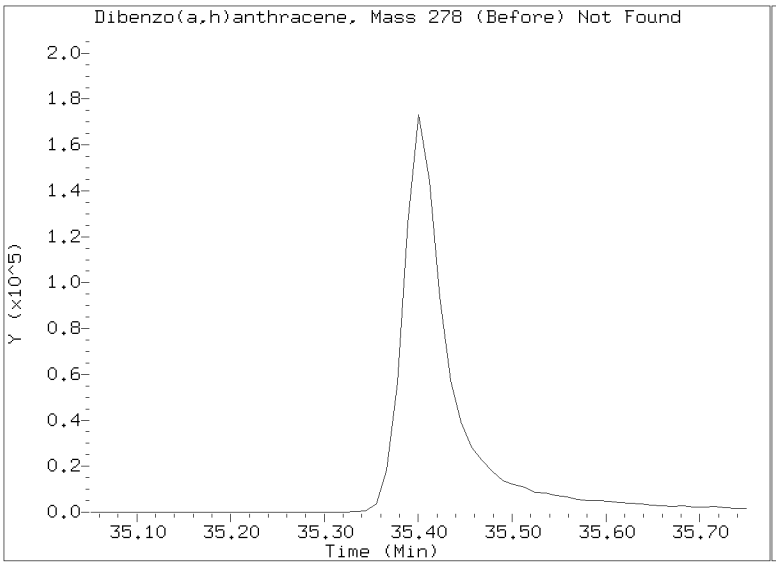
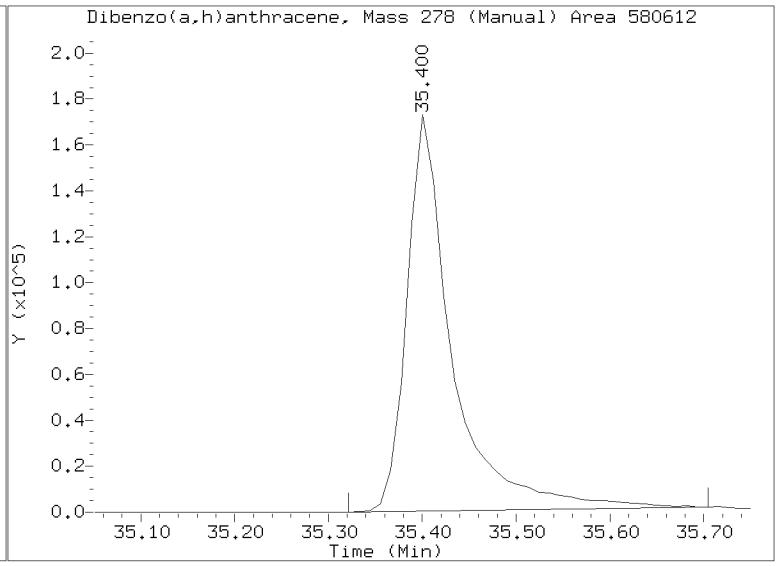
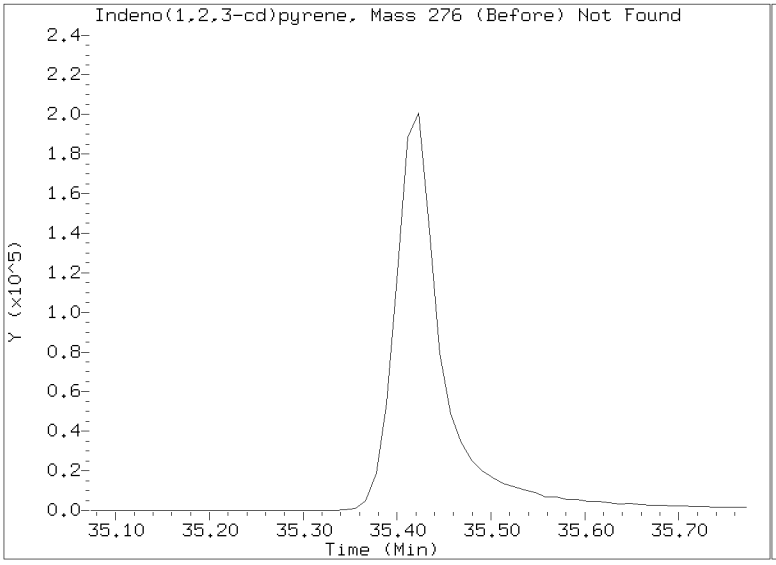
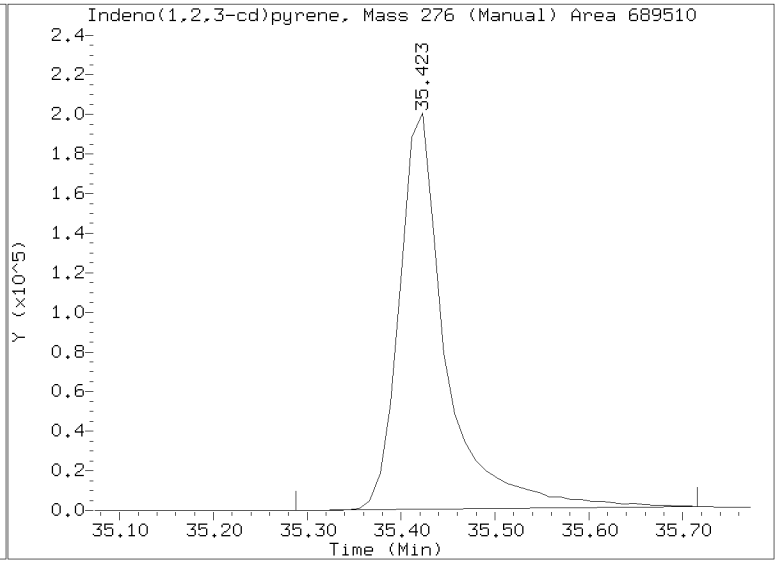
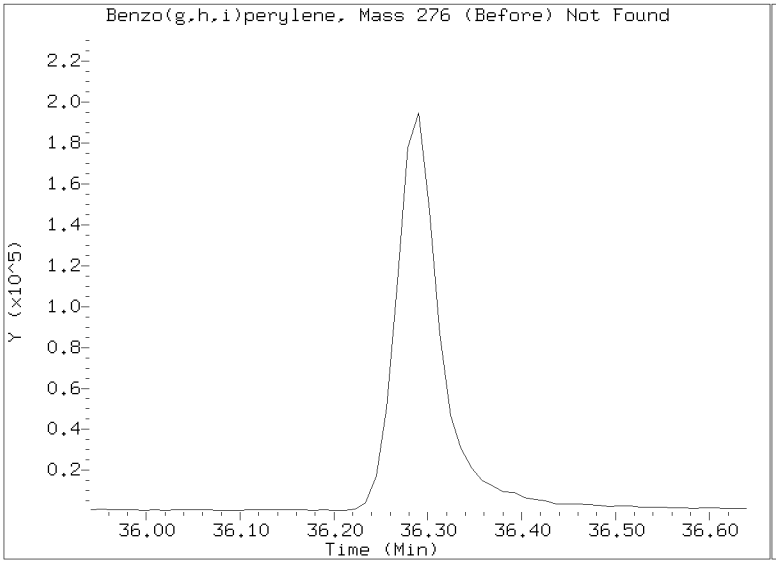
Injection Date: 04-MAY-2021 16:08
Lab ID:SJE0028-CCV1 Client ID:
Report Date: 05/05/2021 12:34

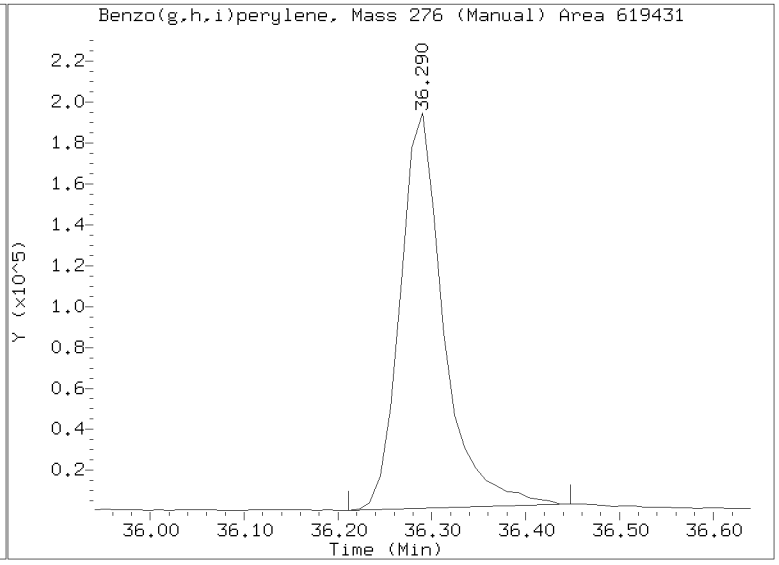


# ANALYSIS BATCH (SEQUENCE) SUMMARY

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SIH0304 | Instrument: | NT11 |
| | | Calibration: | DH00073 |

| Sample Name | Lab Sample ID | Lab File ID | Matrix | Analysis Date/Time |
|---|---|---|---|---|
| DFTPP | SIH0304-TUN1 | NT1120082701.D | NA | 08/27/20 12:20 |
| PAH 250 | SIH0304-CAL4 | NT1120082702.D | NA | 08/27/20 12:35 |
| PAH 1000 | SIH0304-CAL6 | NT1120082703.D | NA | 08/27/20 13:07 |
| PAH 10 | SIH0304-CAL1 | NT1120082704.D | NA | 08/27/20 13:38 |
| PAH 500 | SIH0304-CAL5 | NT1120082705.D | NA | 08/27/20 14:08 |
| PAH 50 | SIH0304-CAL2 | NT1120082706.D | NA | 08/27/20 14:38 |
| PAH 100 | SIH0304-CAL3 | NT1120082707.D | NA | 08/27/20 15:08 |
| PAH 250 SCV | SIH0304-SCV1 | NT1120082708.D | NA | 08/27/20 15:38 |
| Initial Cal Blank | SIH0304-ICB1 | NT1120082709.D | NA | 08/27/20 16:09 |

Printed: 8/28/2020 9:29:05AM

# ANALYSIS SEQUENCE

**SIH0304**

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

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

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

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

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

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

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

Security Status Report

Date: 28-Aug-2020 09:31

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

# ANALYSIS BATCH (SEQUENCE) SUMMARY

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SJD0305 | Instrument: | NT14 |
| | | Calibration: | EE00001 |

| Sample Name | Lab Sample ID | Lab File ID | Matrix | Analysis Date/Time |
|---|---|---|---|---|
| MS Tune | SJD0305-TUN1 | NT1421043001.D | NA | 04/30/21 07:42 |
| PAH 2.5 | SJD0305-CAL5 | NT1421043002.D | NA | 04/30/21 07:56 |
| PAH 10.0 | SJD0305-CAL7 | NT1421043003.D | NA | 04/30/21 08:43 |
| PAH 5.0 | SJD0305-CAL6 | NT1421043005.D | NA | 04/30/21 10:19 |
| PAH 0.25 | SJD0305-CAL2 | NT1421043006.D | NA | 04/30/21 11:07 |
| PAH 1.0 | SJD0305-CAL4 | NT1421043007.D | NA | 04/30/21 11:55 |
| PAH 0.5 | SJD0305-CAL3 | NT1421043008.D | NA | 04/30/21 12:43 |
| PAH 0.1 | SJD0305-CAL1 | NT1421043009.D | NA | 04/30/21 13:32 |
| Secondary Cal Check | SJD0305-SCV1 | NT1421043010.D | NA | 04/30/21 14:41 |
| Initial Cal Blank | SJD0305-ICB1 | NT1421043011.D | NA | 04/30/21 15:29 |

Printed: 5/1/2021 9:45:57AM

## ANALYSIS SEQUENCE

**SJD0305**

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

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

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

| | Time | Filename | LabID | ClientId | DF | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0742 | NT1421043001.D | SJD0305-TUN1 | | 1 | \|NO ISTDS FOUND\|\| | | | | | |
| 2 | 0756 | NT1421043002.D | SJD0305-CAL5 | | 1 | \|18.78 | 420456\|\|22.22 | 381033\|\|33.05 | 370998\| | | |
| 3 | 0843 | NT1421043003.D | SJD0305-CAL7 | | 1 | \|18.78 | 463680\|\|22.22 | 358366\|\|33.05 | 363264\| | | |
| 4 | 0931 | NT1421043004.D | SJD0305-CAL1 | | 1 | \|18.78 | 393878\|\|22.22 | 335095\|\|33.05 | 358059\| | | |
| 5 | 1019 | NT1421043005.D | SJD0305-CAL6 | | 1 | \|18.78 | 459220\|\|22.22 | 341294\|\|33.05 | 348573\| | | |
| 6 | 1107 | NT1421043006.D | SJD0305-CAL2 | | 1 | \|18.77 | 514907\|\|22.22 | 378499\|\|33.05 | 385845\| | | |
| 7 | 1155 | NT1421043007.D | SJD0305-CAL4 | | 1 | \|18.78 | 445719\|\|22.22 | 328813\|\|33.05 | 341443\| | | |
| 8 | 1243 | NT1421043008.D | SJD0305-CAL3 | | 1 | \|18.78 | 369261\|\|22.22 | 315516\|\|33.05 | 324493\| | | |
| 9 | 1332 | NT1421043009.D | SJD0305-CAL1 | | 1 | \|18.78 | 472157\|\|22.22 | 325856\|\|33.05 | 333740\| | | |
| 10 | 1441 | NT1421043010.D | SJD0305-SCV1 | | 1 | \|18.78 | 351020\|\|22.23 | 309177\|\|33.05 | 328565\| | | |
| 11 | 1529 | NT1421043011.D | SJD0305-ICB1 | | 1 | \|18.77 | 376278\|\|22.23 | 322067\|\|33.05 | 328767\| | | |

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

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

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

Security Status Report

Date: 01-May-2021 09:39

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

# ANALYSIS BATCH (SEQUENCE) SUMMARY

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SJD0344 | Instrument: | NT11 |
| | | Calibration: | DH00073 |

| Sample Name | Lab Sample ID | Lab File ID | Matrix | Analysis Date/Time |
|---|---|---|---|---|
| DFTPP | SJD0344-TUN1 | NT1121042401.D | NA | 04/24/21 09:58 |
| Initial Cal Check | SJD0344-ICV1 | NT1121042402.D | NA | 04/24/21 10:14 |
| LCV 10 | SJD0344-LCV1 | NT1121042403.D | NA | 04/24/21 10:46 |
| Blank | BJD0479-BLK1 | NT1121042404.D | Solid | 04/24/21 11:18 |
| LCS | BJD0479-BS1 | NT1121042405.D | Solid | 04/24/21 11:51 |
| ZZZZZ | 21D0179-01 | NT1121042406.D | Solid | 04/24/21 12:23 |
| ZZZZZ | 21D0179-02 | NT1121042407.D | Solid | 04/24/21 12:55 |
| ZZZZZ | 21D0179-03 | NT1121042408.D | Solid | 04/24/21 13:27 |
| ZZZZZ | 21D0179-05 | NT1121042412.D | Solid | 04/24/21 15:36 |
| ZZZZZ | 21D0179-06 | NT1121042413.D | Solid | 04/24/21 16:08 |
| Calibration Check | SJD0344-CCV1 | NT1121042418.D | NA | 04/24/21 18:49 |

Printed: 4/27/2021 2:24:40PM

# ANALYSIS SEQUENCE

**SJD0344**

Instrument: NT11 Element Column ID: J000057
Calibration ID: DH00073 Tune File: 190904.U
EM Voltage: 1753

| Lab Number | Sample Name | Analysis | Container | Order | STD ID | ISTD ID | Comments |
|---|---|---|---|---|---|---|---|
| SJD0344-TUN1 | DFTPP | QC | | 1 | I007631 | | |
| SJD0344-ICV1 | Initial Cal Check | QC | | 2 | I009255 | J002777 | |
| SJD0344-LCV1 | LCV 10 | QC | | 3 | I010630 | J002777 | |
| BJD0479-BLK1 | Blank | QC | | 4 | | J002777 | |
| BJD0479-BS1 | LCS | QC | | 5 | | J002777 | |
| 21D0179-01 | USMPDI-008SG-210413 | 270E-SIM PAH Low (0.01ug/L or 0.5ug/k | A 02 | 6 | | J002777 | Version |
| 21D0179-02 | USMPDI-016SG-210413 | 270E-SIM PAH Low (0.01ug/L or 0.5ug/k | A 02 | 7 | | J002777 | Version |
| 21D0179-03 | USMPDI-024SG-210413 | 270E-SIM PAH Low (0.01ug/L or 0.5ug/k | A 02 | 8 | | J002777 | Version |
| 21D0179-04 | USMPDI-036SG-210413 | 270E-SIM PAH Low (0.01ug/L or 0.5ug/k | A 02 | 9 | | J002777 | Version |
| BJD0479-MS1 | Matrix Spike | QC | | 10 | | J002777 | |
| BJD0479-MSD1 | Matrix Spike Dup | QC | | 11 | | J002777 | |
| 21D0179-05 | USMPDI-037SG-210413 | 270E-SIM PAH Low (0.01ug/L or 0.5ug/k | A 02 | 12 | | J002777 | Version |
| 21D0179-06 | USMPDI-1037SG-210413 | 270E-SIM PAH Low (0.01ug/L or 0.5ug/k | A 02 | 13 | | J002777 | Version |
| 21D0180-01 | USMPDI-010SG-210414 | 270E-SIM PAH Low (0.01ug/L or 0.5ug/k | A 02 | 14 | | J002777 | Version |
| 21D0180-02 | USMPDI-015SG-210414 | 270E-SIM PAH Low (0.01ug/L or 0.5ug/k | A 02 | 15 | | J002777 | Version |
| 21D0180-03 | USMPDI-019SG-210414 | 270E-SIM PAH Low (0.01ug/L or 0.5ug/k | A 02 | 16 | | J002777 | Version |
| 21D0180-04 | USMPDI-029SG-210414 | 270E-SIM PAH Low (0.01ug/L or 0.5ug/k | A 02 | 17 | | J002777 | Version |
| SJD0344-CCV1 | Calibration Check | QC | | 18 | I009255 | J002777 | |

# INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20210424.b

| | Time | Filename | LabID | ClientId | DF | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0958 | NT1121042401.D | SJD0344-TUN1 | | 1 | \|NO ISTDS FOUND\|\| | | | | | | | | | |
| 2 | 1014 | NT1121042402.D | SJD0344-ICV1 | | 1 | \| 6.77 | 134531 | \| 9.76 | 76981 | \|12.43 | 116022 | \|17.16 | 83386 | \|19.89 | 98043\| |
| 3 | 1046 | NT1121042403.D | SJD0344-LCV1 | | 1 | \| 6.76 | 129787 | \| 9.76 | 64142 | \|12.43 | 95013 | \|17.16 | 61649 | \|19.89 | 69298\| |
| 4 | 1118 | NT1121042404.D | BJD0479-BLK1 | | 1 | \| 6.76 | 126302 | \| 9.76 | 64954 | \|12.43 | 94766 | \|17.16 | 67946 | \|19.89 | 74191\| |
| 5 | 1151 | NT1121042405.D | BJD0479-BS1 | | 1 | \| 6.76 | 121416 | \| 9.76 | 64822 | \|12.43 | 98925 | \|17.16 | 67104 | \|19.89 | 74558\| |
| 6 | 1223 | NT1121042406.D | 21D0179-01 | | 1 | \| 6.76 | 124723 | \| 9.76 | 68327 | \|12.43 | 112705 | \|17.16 | 105072 | \|19.89 | 143450\| |
| 7 | 1255 | NT1121042407.D | 21D0179-02 | | 1 | \| 6.76 | 152198 | \| 9.76 | 82271 | \|12.43 | 129173 | \|17.16 | 112519 | \|19.89 | 147247\| |
| 8 | 1327 | NT1121042408.D | 21D0179-03 | | 1 | \| 6.76 | 153179 | \| 9.76 | 83190 | \|12.43 | 131290 | \|17.16 | 111167 | \|19.89 | 149867\| |
| 9 | 1400 | NT1121042409.D | 21D0179-04 | | 1 | \| 6.76 | 157541 | \| 9.76 | 86263 | \|12.43 | 136522 | \|17.16 | 120152 | \|19.89 | 159896\| |
| 10 | 1432 | NT1121042410.D | BJD0479-MS1 | | 1 | \| 6.76 | 157343 | \| 9.76 | 88290 | \|12.43 | 139235 | \|17.16 | 118505 | \|19.89 | 157133\| |
| 11 | 1504 | NT1121042411.D | BJD0479-MSD1 | | 1 | \| 6.76 | 156235 | \| 9.76 | 87778 | \|12.43 | 137200 | \|17.16 | 117868 | \|19.89 | 157737\| |
| 12 | 1536 | NT1121042412.D | 21D0179-05 | | 1 | \| 6.76 | 159591 | \| 9.76 | 87164 | \|12.43 | 138545 | \|17.16 | 117390 | \|19.89 | 144294\| |
| 13 | 1608 | NT1121042413.D | 21D0179-06 | | 1 | \| 6.76 | 155708 | \| 9.76 | 85460 | \|12.43 | 136309 | \|17.16 | 115110 | \|19.89 | 161407\| |
| 14 | 1641 | NT1121042414.D | 21D0180-01 | | 1 | \| 6.76 | 158242 | \| 9.76 | 87082 | \|12.43 | 138985 | \|17.16 | 118929 | \|19.89 | 158803\| |
| 15 | 1713 | NT1121042415.D | 21D0180-02 | | 1 | \| 6.76 | 158550 | \| 9.76 | 87526 | \|12.43 | 139555 | \|17.16 | 122450 | \|19.89 | 159458\| |
| 16 | 1745 | NT1121042416.D | 21D0180-03 | | 1 | \| 6.76 | 156457 | \| 9.76 | 85357 | \|12.43 | 137133 | \|17.16 | 118589 | \|19.89 | 156864\| |
| 17 | 1817 | NT1121042417.D | 21D0180-04 | | 1 | \| 6.76 | 156652 | \| 9.76 | 84364 | \|12.43 | 136457 | \|17.16 | 112507 | \|19.89 | 153731\| |
| 18 | 1849 | NT1121042418.D | SJD0344-CCV1 | | 1 | \| 6.77 | 154986 | \| 9.76 | 88075 | \|12.43 | 133745 | \|17.16 | 102156 | \|19.88 | 125875\| |

# MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20210424.b

## Instrument: nt11.i  Date: 24-APR-2021

| Time | Filename | LabID | DF | Manually Integrated Compounds |
|---|---|---|---|---|
| 0958 | NT1121042401.D | SJD0344-TUN1 | 1 | NO MANUAL INTEGRATION |
| 1014 | NT1121042402.D | SJD0344-ICV1 | 1 | NO MANUAL INTEGRATION |
| 1046 | NT1121042403.D | SJD0344-LCV1 | 1 | 2-Methylnaphthalene, Acenaphthylene, 1-Methylnaphthalene, 2-Chloronaphthalene, 2,6-Dimethylnaphthalene, Carbaz 2-Methylnaphthalene-d10, |
| 1118 | NT1121042404.D | BJD0479-BLK1 | 1 | Naphthalene, Chrysene, |
| 1151 | NT1121042405.D | BJD0479-BS1 | 1 | NO MANUAL INTEGRATION |
| 1223 | NT1121042406.D | 21D0179-01 | 1 | Benzo(a)anthracene, 2,6-Dimethylnaphthalene, Carbazole, |
| 1255 | NT1121042407.D | 21D0179-02 | 1 | Perylene-d12, 2,6-Dimethylnaphthalene, Biphenyl, |
| 1327 | NT1121042408.D | 21D0179-03 | 1 | Perylene-d12, Benzo(b)thiophene, 2,6-Dimethylnaphthalene, 1-Methylphenanthrene, Carbazole, Biphenyl, Dibenzo(a,h)anthracene-d14, |
| 1400 | NT1121042409.D | 21D0179-04 | 1 | Acenaphthylene, Indeno(1,2,3-cd)pyrene, Benzo(g,h,i)perylene, Perylene, Perylene-d12, 2,6-Dimethylnaphthalene, Dibenzo(a,h)anthracene-d14, |
| 1432 | NT1121042410.D | BJD0479-MS1 | 1 | Indeno(1,2,3-cd)pyrene, Perylene-d12, |
| 1504 | NT1121042411.D | BJD0479-MSD1 | 1 | Perylene-d12, |
| 1536 | NT1121042412.D | 21D0179-05 | 1 | Acenaphthylene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Perylene-d12, 2,6-Dimethylnaphthalene, 1-Methy 2-Methylnaphthalene-d10, Dibenzo(a,h)anthracene-d14, |
| 1608 | NT1121042413.D | 21D0179-06 | 1 | Acenaphthylene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Perylene, Perylene-d12, 2,6-Dimethylnaphthalene, 1-Methylphenanthrene, Dibenzo(a,h)anthracene-d14, |
| 1641 | NT1121042414.D | 21D0180-01 | 1 | Acenaphthylene, Perylene, Perylene-d12, 2,6-Dimethylnaphthalene, |
| 1713 | NT1121042415.D | 21D0180-02 | 1 | Acenaphthylene, Benzo(g,h,i)perylene, Perylene-d12, 2,6-Dimethylnaphthalene, |
| 1745 | NT1121042416.D | 21D0180-03 | 1 | Acenaphthylene, Benzo(g,h,i)perylene, Perylene-d12, 2,6-Dimethylnaphthalene, Carbazole, Biphenyl, Dibenzo(a,h)anthracene-d14, Fluoranthene-d10, |
| 1817 | NT1121042417.D | 21D0180-04 | 1 | Acenaphthylene, Indeno(1,2,3-cd)pyrene, Perylene-d12, 2,6-Dimethylnaphthalene, Dibenzo(a,h)anthracene-d14, |

Instrument: nt11.i Date: 24-APR-2021

| Time | Filename | LabID | DF | Manually Integrated Compounds |
|---|---|---|---|---|
| 1849 | NT1121042418.D | SJD0344-CCV1 | 1 | NO MANUAL INTEGRATION |

Security Status Report

Date: 27-Apr-2021 14:25

| | | |
|---|---|---|
| NT1121042401.D | Data Locked | van, 27-Apr-2021 14:25 |
| NT1121042402.D | Data Locked | van, 27-Apr-2021 14:25 |
| NT1121042403.D | Data Locked | van, 27-Apr-2021 14:25 |
| NT1121042404.D | Data Locked | van, 27-Apr-2021 14:25 |
| NT1121042405.D | Data Locked | van, 27-Apr-2021 14:25 |
| NT1121042406.D | Data Locked | van, 27-Apr-2021 14:25 |
| NT1121042407.D | Data Locked | van, 27-Apr-2021 14:25 |
| NT1121042408.D | Data Locked | van, 27-Apr-2021 14:25 |
| NT1121042409.D | Data Locked | van, 27-Apr-2021 14:25 |
| NT1121042410.D | Data Locked | van, 27-Apr-2021 14:25 |
| NT1121042411.D | Data Locked | van, 27-Apr-2021 14:25 |
| NT1121042412.D | Data Locked | van, 27-Apr-2021 14:25 |
| NT1121042413.D | Data Locked | van, 27-Apr-2021 14:25 |
| NT1121042414.D | Data Locked | van, 27-Apr-2021 14:25 |
| NT1121042415.D | Data Locked | van, 27-Apr-2021 14:25 |
| NT1121042416.D | Data Locked | van, 27-Apr-2021 14:25 |
| NT1121042417.D | Data Locked | van, 27-Apr-2021 14:25 |
| NT1121042418.D | Data Locked | van, 27-Apr-2021 14:25 |

# ANALYSIS BATCH (SEQUENCE) SUMMARY

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SJD0374 | Instrument: | NT11 |
| | | Calibration: | DH00073 |

| Sample Name | Lab Sample ID | Lab File ID | Matrix | Analysis Date/Time |
|---|---|---|---|---|
| DFTPP | SJD0374-TUN1 | NT1121042701.D | NA | 04/27/21 12:25 |
| Initial Cal Check | SJD0374-ICV1 | NT1121042702.D | NA | 04/27/21 12:42 |
| LCV 10 | SJD0374-LCV1 | NT1121042703.D | NA | 04/27/21 13:17 |
| Instrument Blank | SJD0374-IBL1 | NT1121042704.D | NA | 04/27/21 13:50 |
| ZZZZZ | 21D0179-01RE1 | NT1121042705.D | Solid | 04/27/21 14:22 |
| ZZZZZ | 21D0179-02RE1 | NT1121042706.D | Solid | 04/27/21 14:55 |
| ZZZZZ | 21D0179-03RE1 | NT1121042707.D | Solid | 04/27/21 15:27 |
| ZZZZZ | 21D0179-04RE1 | NT1121042708.D | Solid | 04/27/21 15:59 |
| ZZZZZ | 21D0179-05RE1 | NT1121042709.D | Solid | 04/27/21 16:32 |
| ZZZZZ | 21D0179-06RE1 | NT1121042710.D | Solid | 04/27/21 17:05 |
| Calibration Check | SJD0374-CCV1 | NT1121042715.D | NA | 04/27/21 19:48 |

Printed: 4/28/2021 11:01:06AM

# ANALYSIS SEQUENCE

**SJD0374**

Instrument: NT11 Element Column ID: J000057
Calibration ID: DH00073 Tune File: 190904.U
EM Voltage: 1753

| Lab Number | Sample Name | Analysis | Container | Order | STD ID | ISTD ID | Comments |
|---|---|---|---|---|---|---|---|
| SJD0374-TUN1 | DFTPP | QC | | 1 | I007631 | | |
| SJD0374-ICV1 | Initial Cal Check | QC | | 2 | I009255 | J002777 | |
| SJD0374-LCV1 | LCV 10 | QC | | 3 | I010630 | J002777 | |
| SJD0374-IBL1 | Instrument Blank | QC | | 4 | J003707 | J002777 | |
| 21D0179-01RE1 | USMPDI-008SG-210413 | 270E-SIM PAH Low (0.01ug/L or 0.5ug/k | A 02 | 5 | | J002777 | Version |
| 21D0179-02RE1 | USMPDI-016SG-210413 | 270E-SIM PAH Low (0.01ug/L or 0.5ug/k | A 02 | 6 | | J002777 | Version |
| 21D0179-03RE1 | USMPDI-024SG-210413 | 270E-SIM PAH Low (0.01ug/L or 0.5ug/k | A 02 | 7 | | J002777 | Version |
| 21D0179-04RE1 | USMPDI-036SG-210413 | 270E-SIM PAH Low (0.01ug/L or 0.5ug/k | A 02 | 8 | | J002777 | Version |
| 21D0179-05RE1 | USMPDI-037SG-210413 | 270E-SIM PAH Low (0.01ug/L or 0.5ug/k | A 02 | 9 | | J002777 | Version |
| 21D0179-06RE1 | USMPDI-1037SG-210413 | 270E-SIM PAH Low (0.01ug/L or 0.5ug/k | A 02 | 10 | | J002777 | Version |
| 21D0180-01RE1 | USMPDI-010SG-210414 | 270E-SIM PAH Low (0.01ug/L or 0.5ug/k | A 02 | 11 | | J002777 | Version |
| 21D0180-02RE1 | USMPDI-015SG-210414 | 270E-SIM PAH Low (0.01ug/L or 0.5ug/k | A 02 | 12 | | J002777 | Version |
| 21D0180-03RE1 | USMPDI-019SG-210414 | 270E-SIM PAH Low (0.01ug/L or 0.5ug/k | A 02 | 13 | | J002777 | Version |
| 21D0180-04RE1 | USMPDI-029SG-210414 | 270E-SIM PAH Low (0.01ug/L or 0.5ug/k | A 02 | 14 | | J002777 | Version |
| SJD0374-CCV1 | Calibration Check | QC | | 15 | I009255 | J002777 | |

# INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20210427.b

| | Time | Filename | LabID | ClientId | DF | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1225 | NT1121042701.D | SJD0374-TUN1 | | 1 | \|NO ISTDS FOUND\|\| | | | | | | | | |
| 2 | 1242 | NT1121042702.D | SJD0374-ICV1 | | 1 | \| 6.77 | 112036\|\| | 9.76 | 64624\|\|12.43 | | 96378\|\|17.16 | | 68803\|\|19.89 | 87167\| |
| 3 | 1317 | NT1121042703.D | SJD0374-LCV1 | | 1 | \| 6.77 | 131244\|\| | 9.76 | 65620\|\|12.43 | | 97504\|\|17.16 | | 67019\|\|19.89 | 80628\| |
| 4 | 1350 | NT1121042704.D | SJD0374-IBL1 | | 1 | \| 6.77 | 108457\|\| | 9.76 | 55701\|\|12.43 | | 83735\|\|17.16 | | 54682\|\|19.89 | 65619\| |
| 5 | 1422 | NT1121042705.D | 21D0179-01RE1 | | 20 | \| 6.77 | 108132\|\| | 9.76 | 57070\|\|12.43 | | 86686\|\|17.16 | | 66489\|\|19.89 | 82298\| |
| 6 | 1455 | NT1121042706.D | 21D0179-02RE1 | | 10 | \| 6.76 | 112474\|\| | 9.76 | 59964\|\|12.43 | | 90210\|\|17.16 | | 66723\|\|19.88 | 84285\| |
| 7 | 1527 | NT1121042707.D | 21D0179-03RE1 | | 10 | \| 6.77 | 113668\|\| | 9.76 | 60220\|\|12.43 | | 89649\|\|17.16 | | 66910\|\|19.88 | 84676\| |
| 8 | 1559 | NT1121042708.D | 21D0179-04RE1 | | 20 | \| 6.77 | 118406\|\| | 9.76 | 61809\|\|12.43 | | 92759\|\|17.16 | | 68279\|\|19.88 | 85508\| |
| 9 | 1632 | NT1121042709.D | 21D0179-05RE1 | | 10 | \| 6.77 | 119175\|\| | 9.76 | 63613\|\|12.43 | | 95259\|\|17.16 | | 71349\|\|19.88 | 90492\| |
| 10 | 1705 | NT1121042710.D | 21D0179-06RE1 | | 10 | \| 6.77 | 118542\|\| | 9.76 | 63157\|\|12.43 | | 95111\|\|17.16 | | 69426\|\|19.88 | 88464\| |
| 11 | 1737 | NT1121042711.D | 21D0180-01RE1 | | 20 | \| 6.76 | 121924\|\| | 9.76 | 64187\|\|12.43 | | 95969\|\|17.16 | | 70684\|\|19.88 | 87768\| |
| 12 | 1810 | NT1121042712.D | 21D0180-02RE1 | | 20 | \| 6.76 | 117583\|\| | 9.76 | 61610\|\|12.43 | | 92382\|\|17.16 | | 68544\|\|19.88 | 86013\| |
| 13 | 1842 | NT1121042713.D | 21D0180-03RE1 | | 20 | \| 6.77 | 115708\|\| | 9.76 | 60257\|\|12.43 | | 90072\|\|17.16 | | 67146\|\|19.88 | 82610\| |
| 14 | 1915 | NT1121042714.D | 21D0180-04RE1 | | 10 | \| 6.77 | 115344\|\| | 9.76 | 61178\|\|12.43 | | 91333\|\|17.16 | | 70336\|\|19.88 | 90132\| |
| 15 | 1948 | NT1121042715.D | SJD0374-CCV1 | | 1 | \| 6.76 | 121440\|\| | 9.76 | 66616\|\|12.43 | | 95692\|\|17.16 | | 64981\|\|19.88 | 80717\| |

# MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20210427.b

## Instrument: nt11.i  Date: 27-APR-2021

| Time | Filename | LabID | DF | Manually Integrated Compounds |
|---|---|---|---|---|
| 1225 | NT1121042701.D | SJD0374-TUN1 | 1 | NO MANUAL INTEGRATION |
| 1242 | NT1121042702.D | SJD0374-ICV1 | 1 | NO MANUAL INTEGRATION |
| 1317 | NT1121042703.D | SJD0374-LCV1 | 1 | Acenaphthylene, Aceraphthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, 1-Methylna 2-Chloronaphthalene, Carbazole, Dibenzo(a,h)anthracene-d14, |
| 1350 | NT1121042704.D | SJD0374-IBL1 | 1 | NO MANUAL INTEGRATION |
| 1422 | NT1121042705.D | 21D0179-01RE1 | 20 | 2-Methylnaphthalene, Dibenzofuran, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, 1-Methylnaphthalene, 2,6-Dime Biphenyl, 2-Methylnaphthalene-d10, Dibenzo(a,h)anthracene-d14, Fluoranthene-d10, |
| 1455 | NT1121042706.D | 21D0179-02RE1 | 10 | Naphthalene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, 1-Methylnaphthalene, Benzo(b)thiophene, 2,6-Dimet 2-Methylnaphthalene-d10, Dibenzo(a,h)anthracene-d14, |
| 1527 | NT1121042707.D | 21D0179-03RE1 | 10 | Dibenzo(a,h)anthracene, Phenanthrene-d10, 2,6-Dimethylnaphthalene, 1-Methylphenanthrene, Biphenyl, 2-Methylnap Dibenzo(a,h)anthracene-d14, |
| 1559 | NT1121042708.D | 21D0179-04RE1 | 20 | Naphthalene, 2-Methylnaphthalene, Dibenzofuran, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)pe 1-Methylnaphthalene, 2,6-Dimethylnaphthalene, Biphenyl, 2-Methylnaphthalene-d10, Dibenzo(a,h)anthracene-d1 |
| 1632 | NT1121042709.D | 21D0179-05RE1 | 10 | Dibenzofuran, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, 1-Methylnaphthalene, 2,6-Dimethylnaphthalene, 2-Me Dibenzo(a,h)anthracene-d14, |
| 1705 | NT1121042710.D | 21D0179-06RE1 | 10 | Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, 2,6-Dimethylnaphthalene, Carbazole, Biphenyl, 2-Methylnaphthalen Dibenzo(a,h)anthracene-d14, |
| 1737 | NT1121042711.D | 21D0180-01RE1 | 20 | Naphthalene, Dibenzofuran, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, 1-Methylnapht 2,6-Dimethylnaphthalene, 2-Methylnaphthalene-d10, Dibenzo(a,h)anthracene-d14, Fluoranthene-d10, |
| 1810 | NT1121042712.D | 21D0180-02RE1 | 20 | Naphthalene, 2-Methylnaphthalene, Dibenzofuran, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)pe 1-Methylnaphthalene, 2,6-Dimethylnaphthalene, Biphenyl, 2-Methylnaphthalene-d10, Dibenzo(a,h)anthracene-d1 |
| 1842 | NT1121042713.D | 21D0180-03RE1 | 20 | Naphthalene, 2-Methylnaphthalene, Dibenzofuran, Fluorene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, 1-Methylnaphthalene, 2,6-Dimethylnaphthalene, Biphenyl, 2-Methylnaphthalene-d10, Fluoranthene-d10, |
| 1915 | NT1121042714.D | 21D0180-04RE1 | 10 | Naphthalene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, 1-Methylnaphthalene, 2,6-Di 2-Methylnaphthalene-d10, Dibenzo(a,h)anthracene-d14, |
| 1948 | NT1121042715.D | SJD0374-CCV1 | 1 | NO MANUAL INTEGRATION |

Security Status Report

Date: 28-Apr-2021 11:04

| | | |
|---|---|---|
| NT1121042701.D | Data Locked | van, 28-Apr-2021 10:45 |
| NT1121042702.D | Data Locked | van, 28-Apr-2021 10:45 |
| NT1121042703.D | Data Locked | van, 28-Apr-2021 10:45 |
| NT1121042704.D | Data Locked | van, 28-Apr-2021 10:45 |
| NT1121042705.D | Data Locked | van, 28-Apr-2021 10:45 |
| NT1121042706.D | Data Locked | van, 28-Apr-2021 10:45 |
| NT1121042707.D | Data Locked | van, 28-Apr-2021 10:45 |
| NT1121042708.D | Data Locked | van, 28-Apr-2021 10:45 |
| NT1121042709.D | Data Locked | van, 28-Apr-2021 10:45 |
| NT1121042710.D | Data Locked | van, 28-Apr-2021 10:45 |
| NT1121042711.D | Data Locked | van, 28-Apr-2021 10:45 |
| NT1121042712.D | Data Locked | van, 28-Apr-2021 10:45 |
| NT1121042713.D | Data Locked | van, 28-Apr-2021 10:45 |
| NT1121042714.D | Data Locked | van, 28-Apr-2021 10:45 |
| NT1121042715.D | Data Locked | van, 28-Apr-2021 10:45 |

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Extract Dilution Bench Sheet

Sequence: SJD0374
Analyst: VB Date: 4/27/2021

| Sample ID | Primary Dilution | | | | Secondary Dilution | | | |
|---|---|---|---|---|---|---|---|---|
| | Extract Volume (uL) | Diluent ID | Diluent Volume (uL) | Dilution Factor | Extract Volume (uL) | Diluent ID | Diluent Volume (uL) | Dilution Factor |
| 21D0179-01, -04 | 25 | DCM | 475 | 20 | | | | |
| 21D0180-01 thru -03 | | | | | | | | |
| | | | | | | | | |
| 21D0179-02, -03, | 50 | DCM | 450 | 10 | | | | |
| 21D0180-04 | | | | | | | | |

# ANALYSIS BATCH (SEQUENCE) SUMMARY

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SJE0004 | Instrument: | NT14 |
| | | Calibration: | EE00001 |

| Sample Name | Lab Sample ID | Lab File ID | Matrix | Analysis Date/Time |
|---|---|---|---|---|
| Initial Cal Check | SJE0004-ICV1 | NT1421043051ICV.D | NA | 05/01/21 23:35 |
| PAH 0.1 | SJE0004-LCV1 | NT1421043052.D | NA | 05/02/21 00:23 |
| Blank | BJD0507-BLK1 | NT1421043053.D | Solid | 05/02/21 01:11 |
| LCS | BJD0507-BS1 | NT1421043054.D | Solid | 05/02/21 02:00 |
| ZZZZZ | 21D0179-01 | NT1421043055.D | Solid | 05/02/21 02:48 |
| ZZZZZ | 21D0179-02 | NT1421043056.D | Solid | 05/02/21 03:36 |
| ZZZZZ | 21D0179-03 | NT1421043059.D | Solid | 05/02/21 06:00 |
| ZZZZZ | 21D0179-04 | NT1421043060.D | Solid | 05/02/21 06:48 |
| ZZZZZ | 21D0179-05 | NT1421043061.D | Solid | 05/02/21 07:37 |
| ZZZZZ | 21D0179-06 | NT1421043062.D | Solid | 05/02/21 08:25 |
| USMPDI-010SG-210414 | 21D0180-01 | NT1421043063.D | Solid | 05/02/21 09:13 |
| USMPDI-015SG-210414 | 21D0180-02 | NT1421043064.D | Solid | 05/02/21 10:01 |
| USMPDI-019SG-210414 | 21D0180-03 | NT1421043065.D | Solid | 05/02/21 10:49 |
| Calibration Check | SJE0004-CCV1 | NT1421043067.D | NA | 05/02/21 12:25 |

Printed: 5/4/2021 1:26:19PM

# ANALYSIS SEQUENCE

**SJE0004**

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

| Lab Number | Sample Name | Analysis | Container | Order | STD ID | ISTD ID | Comments |
|---|---|---|---|---|---|---|---|
| SJE0004-ICV1 | Initial Cal Check | QC | | 1 | J004383 | J004384 | |
| SJE0004-LCV1 | PAH 0.1 | QC | | 2 | J004706 | J004384 | |
| BJD0507-BLK1 | Blank | QC | | 3 | | J004384 | |
| BJD0507-BS1 | LCS | QC | | 4 | | J004384 | |
| 21D0179-01 | USMPDI-008SG-210413 | 8270E-SIM Alkyl PAH (Parents) Dual Scan | A 03 | 5 | | J004384 | |
| 21D0179-02 | USMPDI-016SG-210413 | 8270E-SIM Alkyl PAH (Parents) Dual Scan | A 03 | 6 | | J004384 | |
| BJD0507-MS1 | Matrix Spike | QC | | 7 | | J004384 | |
| BJD0507-MSD1 | Matrix Spike Dup | QC | | 8 | | J004384 | |
| 21D0179-03 | USMPDI-024SG-210413 | 8270E-SIM Alkyl PAH (Parents) Dual Scan | A 03 | 9 | | J004384 | |
| 21D0179-04 | USMPDI-036SG-210413 | 8270E-SIM Alkyl PAH (Parents) Dual Scan | A 03 | 10 | | J004384 | |
| 21D0179-05 | USMPDI-037SG-210413 | 8270E-SIM Alkyl PAH (Parents) Dual Scan | A 03 | 11 | | J004384 | |
| 21D0179-06 | USMPDI-1037SG-210413 | 8270E-SIM Alkyl PAH (Parents) Dual Scan | A 03 | 12 | | J004384 | |
| 21D0180-01 | USMPDI-010SG-210414 | 8270E-SIM Alkyl PAH (Parents) Dual Scan | A 03 | 13 | | J004384 | |
| 21D0180-02 | USMPDI-015SG-210414 | 8270E-SIM Alkyl PAH (Parents) Dual Scan | A 03 | 14 | | J004384 | |
| 21D0180-03 | USMPDI-019SG-210414 | 8270E-SIM Alkyl PAH (Parents) Dual Scan | A 03 | 15 | | J004384 | |
| SJE0004-CCV1 | Calibration Check | QC | | 16 | J004383 | J004384 | |

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

| | Time | Filename | LabID | ClientId | DF | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2335 | NT1421043051ICV.D | SJE0004-ICV1 | | 1 | 18.77 | 504442 | 22.21 | 459103 | 33.05 | 516794 | | |
| 2 | 0023 | NT1421043052.D | SJE0004-LCV1 | | 1 | 18.77 | 556851 | 22.21 | 496092 | 33.05 | 562144 | | |
| 3 | 0111 | NT1421043053.D | BJD0507-BLK1 | | 1 | 18.77 | 587393 | 22.21 | 510143 | 33.05 | 530125 | | |
| 4 | 0200 | NT1421043054.D | BJD0507-BS1 | | 1 | 18.77 | 576235 | 22.21 | 511706 | 33.05 | 543631 | | |
| 5 | 0248 | NT1421043055.D | 21D0179-01 | | 1 | 18.77 | 521236 | 22.21 | 468631 | 33.05 | 595479 | | |
| 6 | 0336 | NT1421043056.D | 21D0179-02 | | 1 | 18.77 | 541850 | 22.21 | 479683 | 33.05 | 583696 | | |
| 7 | 0424 | NT1421043057.D | BJD0507-MS1 | | 1 | 18.77 | 531490 | 22.21 | 479467 | 33.05 | 607139 | | |
| 8 | 0512 | NT1421043058.D | BJD0507-MSD1 | | 1 | 18.77 | 550369 | 22.21 | 487258 | 33.05 | 607317 | | |
| 9 | 0600 | NT1421043059.D | 21D0179-03 | | 1 | 18.77 | 545278 | 22.21 | 496380 | 33.05 | 601963 | | |
| 10 | 0648 | NT1421043060.D | 21D0179-04 | | 1 | 18.77 | 527209 | 22.21 | 480476 | 33.05 | 611152 | | |
| 11 | 0737 | NT1421043061.D | 21D0179-05 | | 1 | 18.77 | 591865 | 22.21 | 536548 | 33.05 | 603473 | | |
| 12 | 0825 | NT1421043062.D | 21D0179-06 | | 1 | 18.77 | 536018 | 22.21 | 493480 | 33.05 | 612523 | | |
| 13 | 0913 | NT1421043063.D | 21D0180-01 | | 1 | 18.77 | 524796 | 22.21 | 475082 | 33.05 | 616810 | | |
| 14 | 1001 | NT1421043064.D | 21D0180-02 | | 1 | 18.77 | 533752 | 22.21 | 494716 | 33.05 | 608015 | | |
| 15 | 1049 | NT1421043065.D | 21D0180-03 | | 1 | 18.77 | 562163 | 22.21 | 511717 | 33.05 | 618257 | | |
| 16 | 1137 | NT1421043066.D | 21D0180-04 | | 1 | 18.77 | 585765 | 22.21 | 529751 | 33.05 | 626065 | | |
| 17 | 1225 | NT1421043067.D | SJE0004-CCV1 | | 1 | 18.77 | 566717 | 22.21 | 514091 | 33.05 | 549348 | | |

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

## Instrument: nt14.i  Date: 01-MAY-2021

| Time | Filename | LabID | DF | Manually Integrated Compounds |
|---|---|---|---|---|
| 2335 | NT1421043051ICV.D | SJE0004-ICV1 | 1 | Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene |
| 0023 | NT1421043052.D | SJE0004-LCV1 | 1 | Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Perylene, Total Be Benzo(j)fluoranthene, |
| 0111 | NT1421043053.D | BJD0507-BLK1 | 1 | Perylene-d12, |
| 0200 | NT1421043054.D | BJD0507-BS1 | 1 | Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Perylene-d12, |
| 0248 | NT1421043055.D | 21D0179-01 | 1 | Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Dibenzothiophene, 2,6-Dimethylnaphthalene, |
| 0336 | NT1421043056.D | 21D0179-02 | 1 | Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Dibenzothiophene, Naphthobenzothiophene, Total Benzofluoranthenes, |
| 0424 | NT1421043057.D | BJD0507-MS1 | 1 | Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Total Benzofluoranthenes, |
| 0512 | NT1421043058.D | BJD0507-MSD1 | 1 | Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes |
| 0600 | NT1421043059.D | 21D0179-03 | 1 | Pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Dibenzothiophene, 2,6-Dimethylnaph Total Benzofluoranthenes, |
| 0648 | NT1421043060.D | 21D0179-04 | 1 | Carbazole, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Dibenzothiophene, 2,6-Dimethyln Naphthobenzothiophene, Total Benzofluoranthenes, |
| 0737 | NT1421043061.D | 21D0179-05 | 1 | Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Dibenzothiophene, 2,6-Dimethylnaphthalene, |
| 0825 | NT1421043062.D | 21D0179-06 | 1 | Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Total Benzofluoranthenes, |
| 0913 | NT1421043063.D | 21D0180-01 | 1 | Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Dibenzothiophene, Naphthobenzothiophene, Total Benzofluoranthenes, |
| 1001 | NT1421043064.D | 21D0180-02 | 1 | Pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Dibenzothiophene, 2,6-Dimethylnaph Naphthobenzothiophene, Total Benzofluoranthenes, |
| 1049 | NT1421043065.D | 21D0180-03 | 1 | Pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Dibenzothiophene, 2,6-Dimethylnaph Naphthobenzothiophene, Total Benzofluoranthenes, |
| 1137 | NT1421043066.D | 21D0180-04 | 1 | Dibenzofuran, Pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthrace 2,6-Dimethylnaphthalene, Total Benzofluoranthenes, |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1225 | NT1421043067.D | SJE0004-CCV1 | 1 | Benzo(b)fluoranthene, | Benzo(k)fluoranthene, | Indeno(1,2,3-cd)pyrene, | Dibenzo(a,h)anthracene, | Benzo(g,h,i)perylene, | |

Security Status Report

Date: 04-May-2021 13:25

| | | |
|---|---|---|
| NT1421043051ICV.D | Data Locked | van, 04-May-2021 13:25 |
| NT1421043052.D | Data Locked | van, 04-May-2021 13:25 |
| NT1421043053.D | Data Locked | van, 04-May-2021 13:25 |
| NT1421043054.D | Data Locked | van, 04-May-2021 13:25 |
| NT1421043055.D | Data Locked | van, 04-May-2021 13:25 |
| NT1421043056.D | Data Locked | van, 04-May-2021 13:25 |
| NT1421043057.D | Data Locked | van, 04-May-2021 13:25 |
| NT1421043058.D | Data Locked | van, 04-May-2021 13:25 |
| NT1421043059.D | Data Locked | van, 04-May-2021 13:25 |
| NT1421043060.D | Data Locked | van, 04-May-2021 13:25 |
| NT1421043061.D | Data Locked | van, 04-May-2021 13:25 |
| NT1421043062.D | Data Locked | van, 04-May-2021 13:25 |
| NT1421043063.D | Data Locked | van, 04-May-2021 13:25 |
| NT1421043064.D | Data Locked | van, 04-May-2021 13:25 |
| NT1421043065.D | Data Locked | van, 04-May-2021 13:25 |
| NT1421043066.D | Data Locked | van, 04-May-2021 13:25 |
| NT1421043067.D | Data Locked | van, 04-May-2021 13:25 |

# ANALYSIS BATCH (SEQUENCE) SUMMARY

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SJE0028 | Instrument: | NT14 |
| | | Calibration: | EE00001 |

| Sample Name | Lab Sample ID | Lab File ID | Matrix | Analysis Date/Time |
|---|---|---|---|---|
| MS Tune | SJE0028-TUN1 | NT1421050401.D | NA | 05/04/21 12:38 |
| Initial Cal Check | SJE0028-ICV1 | NT1421050402.D | NA | 05/04/21 12:52 |
| Instrument Blank | SJE0028-IBL1 | NT1421050403.D | NA | 05/04/21 14:30 |
| USMPDI-029SG-210414 | 21D0180-04 | NT1421050404.D | Solid | 05/04/21 15:19 |
| Calibration Check | SJE0028-CCV1 | NT1421050405.D | NA | 05/04/21 16:08 |

Printed: 5/5/2021 12:40:44PM

## ANALYSIS SEQUENCE

**SJE0028**

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

| Lab Number | Sample Name | Analysis | Container | Order | STD ID | ISTD ID | Comments |
|---|---|---|---|---|---|---|---|
| SJE0028-TUN1 | MS Tune | QC | | 1 | I007631 | | |
| SJE0028-ICV1 | Initial Cal Check | QC | | 2 | J004383 | J004384 | |
| SJE0028-IBL1 | Instrument Blank | QC | | 3 | J004708 | J004384 | |
| 21D0180-04 | USMPDI-029SG-210414 | 8270E-SIM Alkyl PAH (Parents) Dual Scar | A 03 | 4 | | J004384 | |
| SJE0028-CCV1 | Calibration Check | QC | | 5 | J004383 | J004384 | |

# INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210504.b

| | Time | Filename | LabID | ClientId | DF | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1238 | NT1421050401.D | SJE0028-TUN1 | | 1 | \|NO ISTDS FOUND\|\| | | | | | |
| 2 | 1252 | NT1421050402.D | SJE0028-ICV1 | | 1 | \|18.77 | 560901\|\|22.21 | 511244\|\|33.05 | 574536\| | | |
| 3 | 1430 | NT1421050403.D | SJE0028-IBL1 | | 1 | \|18.77 | 511447\|\|22.21 | 442739\|\|33.05 | 537579\| | | |
| 4 | 1519 | NT1421050404.D | 21D0180-04 | | 1 | \|18.77 | 514283\|\|22.21 | 476033\|\|33.05 | 553821\| | | |
| 5 | 1608 | NT1421050405.D | SJE0028-CCV1 | | 1 | \|18.77 | 591967\|\|22.21 | 533317\|\|33.05 | 580689\| | | |

# MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210504.b

## Instrument: nt14.i  Date: 04-MAY-2021

| Time | Filename | LabID | DF | Manually Integrated Compounds |
|---|---|---|---|---|
| 1238 | NT1421050401.D | SJE0028-TUN1 | 1 | NO MANUAL INTEGRATION |
| 1252 | NT1421050402.D | SJE0028-ICV1 | 1 | Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene, Perylene-d12, |
| 1430 | NT1421050403.D | SJE0028-IBL1 | 1 | Perylene-d12, |
| 1519 | NT1421050404.D | 21D0180-04 | 1 | Carbazole, Pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, 2,6-Dimethylnaphthalene, Total Benzofluoranthenes, |
| 1608 | NT1421050405.D | SJE0028-CCV1 | 1 | Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene, Perylene-d12, |

Security Status Report

Date: 05-May-2021 12:36

| | | |
|---|---|---|
| NT1421050401.D | Data Locked | van, 05-May-2021 12:36 |
| NT1421050402.D | Data Locked | van, 05-May-2021 12:36 |
| NT1421050403.D | Data Locked | van, 05-May-2021 12:36 |
| NT1421050404.D | Data Locked | van, 05-May-2021 12:36 |
| NT1421050405.D | Data Locked | van, 05-May-2021 12:36 |

# ANALYSIS BATCH (SEQUENCE) SUMMARY

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SJE0095 | Instrument: | NT14 |
| | | Calibration: | EE00019 |

| Sample Name | Lab Sample ID | Lab File ID | Matrix | Analysis Date/Time |
|---|---|---|---|---|
| Blank | BJD0507-BLK2 | NT1421043053S.D | Solid | 05/02/21 01:11 |
| ZZZZZ | 21D0179-01 | NT1421043055S.D | Solid | 05/02/21 02:48 |
| ZZZZZ | 21D0179-02 | NT1421043056S.D | Solid | 05/02/21 03:36 |
| ZZZZZ | 21D0179-03 | NT1421043059S.D | Solid | 05/02/21 06:00 |
| ZZZZZ | 21D0179-04 | NT1421043060S.D | Solid | 05/02/21 06:48 |
| ZZZZZ | 21D0179-05 | NT1421043061S.D | Solid | 05/02/21 07:37 |
| ZZZZZ | 21D0179-06 | NT1421043062S.D | Solid | 05/02/21 08:25 |
| USMPDI-010SG-210414 | 21D0180-01 | NT1421043063S.D | Solid | 05/02/21 09:13 |
| USMPDI-015SG-210414 | 21D0180-02 | NT1421043064S.D | Solid | 05/02/21 10:01 |
| USMPDI-019SG-210414 | 21D0180-03 | NT1421043065S.D | Solid | 05/02/21 10:49 |

Printed: 5/7/2021 3:28:37PM

# ANALYSIS SEQUENCE

**SJE0095**

Instrument: NT14 Element Column ID: i008815
Calibration ID: EE00019 Tune File: 200104u
EM Voltage: 2000

| Lab Number | Sample Name | Analysis | Container | Order | STD ID | ISTD ID | Comments |
|---|---|---|---|---|---|---|---|
| SJE0095-ICV1 | Initial Cal Check | QC | | 1 | J004700 | J004384 | |
| BJD0507-BLK2 | Blank | QC | | 2 | | J004384 | |
| 21D0179-01 | USMPDI-008SG-210413 | 8270E-SIM Alkyl PAH (Range) Dual Scan | A 04 | 3 | | J004384 | |
| 21D0179-02 | USMPDI-016SG-210413 | 8270E-SIM Alkyl PAH (Range) Dual Scan | A 04 | 4 | | J004384 | |
| 21D0179-03 | USMPDI-024SG-210413 | 8270E-SIM Alkyl PAH (Range) Dual Scan | A 04 | 5 | | J004384 | |
| 21D0179-04 | USMPDI-036SG-210413 | 8270E-SIM Alkyl PAH (Range) Dual Scan | A 04 | 6 | | J004384 | |
| 21D0179-05 | USMPDI-037SG-210413 | 8270E-SIM Alkyl PAH (Range) Dual Scan | A 04 | 7 | | J004384 | |
| 21D0179-06 | USMPDI-1037SG-210413 | 8270E-SIM Alkyl PAH (Range) Dual Scan | A 04 | 8 | | J004384 | |
| 21D0180-01 | USMPDI-010SG-210414 | 8270E-SIM Alkyl PAH (Range) Dual Scan | A 04 | 9 | | J004384 | |
| 21D0180-02 | USMPDI-015SG-210414 | 8270E-SIM Alkyl PAH (Range) Dual Scan | A 04 | 10 | | J004384 | |
| 21D0180-03 | USMPDI-019SG-210414 | 8270E-SIM Alkyl PAH (Range) Dual Scan | A 04 | 11 | | J004384 | |

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

| | Time | Filename | LabID | ClientId | DF | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2335 | NT1421043051S.D | SJE0095-ICV1 | | 1 | \|18.76 | 584738\|\|22.21 | 550360\|\|33.04 | 638375\| | | | |
| 2 | 0023 | NT1421043052S.D | SJE0004-LCV1 | | 1 | \|18.77 | 656654\|\|22.21 | 595106\|\|33.04 | 681943\| | | | |
| 3 | 0111 | NT1421043053S.D | BJD0507-BLK1 | | 1 | \|18.76 | 682587\|\|22.21 | 602752\|\|33.04 | 662179\| | | | |
| 4 | 0200 | NT1421043054S.D | BJD0507-BS1 | | 1 | \|18.76 | 679346\|\|22.21 | 609083\|\|33.04 | 657303\| | | | |
| 5 | 0248 | NT1421043055S.D | 21D0179-01 | | 1 | \|18.76 | 614375\|\|22.21 | 556137\|\|33.04 | 699237\| | | | |
| 6 | 0336 | NT1421043056S.D | 21D0179-02 | | 1 | \|18.76 | 632296\|\|22.21 | 580031\|\|33.04 | 717054\| | | | |
| 7 | 0424 | NT1421043057S.D | BJD0507-MS1 | | 1 | \|18.76 | 618506\|\|22.21 | 564851\|\|33.04 | 736387\| | | | |
| 8 | 0512 | NT1421043058S.D | BJD0507-MSD1 | | 1 | \|18.76 | 636567\|\|22.21 | 583753\|\|33.04 | 744743\| | | | |
| 9 | 0600 | NT1421043059S.D | 21D0179-03 | | 1 | \|18.76 | 634484\|\|22.21 | 588214\|\|33.04 | 732745\| | | | |
| 10 | 0648 | NT1421043060S.D | 21D0179-04 | | 1 | \|18.76 | 620148\|\|22.21 | 576893\|\|33.04 | 741525\| | | | |
| 11 | 0737 | NT1421043061S.D | 21D0179-05 | | 1 | \|18.76 | 689453\|\|22.21 | 640961\|\|33.04 | 739479\| | | | |
| 12 | 0825 | NT1421043062S.D | 21D0179-06 | | 1 | \|18.76 | 626202\|\|22.21 | 581202\|\|33.04 | 742844\| | | | |
| 13 | 0913 | NT1421043063S.D | 21D0180-01 | | 1 | \|18.76 | 614005\|\|22.21 | 559042\|\|33.04 | 749516\| | | | |
| 14 | 1001 | NT1421043064S.D | 21D0180-02 | | 1 | \|18.77 | 533752\|\|22.21 | 494716\|\|33.05 | 612826\| | | | |
| 15 | 1049 | NT1421043065S.D | 21D0180-03 | | 1 | \|18.76 | 645514\|\|22.21 | 607222\|\|33.04 | 752067\| | | | |

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

## ARI Job No.: SJE0  Method: SIM.b\ALKYLRANGES.m  Instrument: nt14.i  Date: 01-MAY-2021

| Time | Filename | LabID | ClientId | DF | Manually Integrated Compounds |
|---|---|---|---|---|---|
| 2335 | NT1421043051S.D | SJE0095-ICV1 | | 1 | NO MANUAL INTEGRATION |
| 0023 | NT1421043052S.D | SJE0004-LCV1 | | 1 | NO MANUAL INTEGRATION |
| 0111 | NT1421043053S.D | BJD0507-BLK1 | | 1 | NO MANUAL INTEGRATION |
| 0200 | NT1421043054S.D | BJD0507-BS1 | | 1 | NO MANUAL INTEGRATION |
| 0248 | NT1421043055S.D | 21D0179-01 | | 1 | C2-Decalin, C3-Decalin, C1-Naphthalenes, C4-Naphthobenzothiophenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophenes, C2-Benzothiophenes, C3_Benzothiophenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C1-Phenanthrenes/Anthracenes, C2-Phe |
| 0336 | NT1421043056S.D | 21D0179-02 | | 1 | C1-Decalin, C2-Decalin, C3-Decalin, C1-Naphthalenes, C4-Naphthobenzothiophenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophenes, C2-Benzothiophenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C1-Phenanthrenes/Anthracenes, C2-Phe |
| 0424 | NT1421043057S.D | BJD0507-MS1 | | 1 | NO MANUAL INTEGRATION |
| 0512 | NT1421043058S.D | BJD0507-MSD1 | | 1 | NO MANUAL INTEGRATION |
| 0600 | NT1421043059S.D | 21D0179-03 | | 1 | C1-Decalin, C2-Decalin, C3-Decalin, C4-Decalin, C1-Naphthalenes, C4-Naphthobenzothiophenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophenes, C2-Benzothiophenes, C3_Benzothiophenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C1 |
| 0648 | NT1421043060S.D | 21D0179-04 | | 1 | C1-Decalin, C2-Decalin, C3-Decalin, C1-Naphthalenes, C4-Naphthobenzothiophenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophenes, C2-Benzothiophenes, C3_Benzothiophenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C1-Phenanthrenes/Anthr |
| 0737 | NT1421043061S.D | 21D0179-05 | | 1 | C1-Decalin, C2-Decalin, C3-Decalin, C4-Decalin, C1-Naphthalenes, C4-Naphthobenzothiophenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophenes, C2-Benzothiophenes, C3_Benzothiophenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C1 |
| 0825 | NT1421043062S.D | 21D0179-06 | | 1 | C1-Decalin, C2-Decalin, C3-Decalin, C1-Naphthalenes, C4-Naphthobenzothiophenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophenes, C2-Benzothiophenes, C3_Benzothiophenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C1-Phenanthrenes/Anthr |
| 0913 | NT1421043063S.D | 21D0180-01 | | 1 | C1-Decalin, C2-Decalin, C3-Decalin, C1-Naphthalenes, C4-Naphthobenzothiophenes, C4-Fluoranthenes/Pyrenes, |

| | | | |
|---|---|---|---|
| | | | C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophenes, C2-Benzothiophenes, C3_Benzothiophenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C1-Phenanthrenes/Anthr |
| 1001 | NT1421043064S.D 21D0180-02 | 1 | C1-Naphthalenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C1-Benzothiophenes, C2-Benzothiophenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C1-Phenanthrenes/Anthracenes, C2-Phenanthrenes/Anthracenes, C3-Phenanthrenes/Anthracenes, C4-Phenanthrenes/Anthracenes, C1-Fluoran |
| 1049 | NT1421043065S.D 21D0180-03 | 1 | C1-Decalin, C2-Decalin, C1-Naphthalenes, C4-Naphthobenzothiophenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophenes, C2-Benzothiophenes, C3_Benzothiophenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C1-Phenanthrenes/Anthracenes, C2-Phe |

Security Status Report

Date: 07-May-2021 15:33

| | | |
|---|---|---|
| NT1421043051S.D | Data Locked | yev, 07- |
| NT1421043052S.D | Data Locked | yev, 07- |
| NT1421043053S.D | Data Locked | yev, 07- |
| NT1421043054S.D | Data Locked | yev, 07- |
| NT1421043055S.D | Data Locked | yev, 07- |
| NT1421043056S.D | Data Locked | yev, 07- |
| NT1421043057S.D | Data Locked | yev, 07- |
| NT1421043058S.D | Data Locked | yev, 07- |
| NT1421043059S.D | Data Locked | yev, 07- |
| NT1421043060S.D | Data Locked | yev, 07- |
| NT1421043061S.D | Data Locked | yev, 07- |
| NT1421043062S.D | Data Locked | yev, 07- |
| NT1421043063S.D | Data Locked | yev, 07- |
| NT1421043064S.D | Data Locked | yev, 07- |
| NT1421043065S.D | Data Locked | yev, 07- |

# ANALYSIS BATCH (SEQUENCE) SUMMARY

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SJE0097 | Instrument: | NT14 |
| | | Calibration: | EE00019 |

| Sample Name | Lab Sample ID | Lab File ID | Matrix | Analysis Date/Time |
|---|---|---|---|---|
| Instrument Blank | SJE0097-IBL1 | NT1421050403S.D | NA | 05/04/21 14:30 |
| USMPDI-029SG-210414 | 21D0180-04 | NT1421050404S.D | Solid | 05/04/21 15:19 |

# SURROGATE RECOVERY AND RT SUMMARY

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG/WO: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SIH0304 | Instrument: | NT11 |
| Calibration: | DH00073 | Calibration Date: | 08/27/2020 |

| Surrogate Compound | Spike Level ng/mL | % Recovery | Recovery Limits | RT | Calibration Mean RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **SIH0304-ICB1 (Water)** | | | Lab File ID: NT1120082709.D | | | Analyzed: 08/27/20 16:09 | | |
| 2-Methylnaphthalene-d10 | 250.00 | 87.1 | 30 - 160 | 7.78 | 7.78 | 0.0000 | N/A | |
| Dibenzo[a,h]anthracene-d14 | 250.00 | 71.3 | 30 - 160 | 22.418 | 22.418 | 0.0000 | N/A | |
| Fluoranthene-d10 | 250.00 | 92.6 | 30 - 160 | 14.578 | 14.578 | 0.0000 | N/A | |

# SURROGATE RECOVERY AND RT SUMMARY

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG/WO: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SJD0305 | Instrument: | NT14 |
| Calibration: | EE00001 | Calibration Date: | 04/30/2021 |

| Surrogate Compound | Spike Level ug/mL | % Recovery | Recovery Limits | RT | Calibration Mean RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **SJD0305-SCV1 (Solid)** | | | Lab File ID: NT1421043010.D | | | Analyzed: 04/30/21 14:41 | | |
| Naphthalene-d8 | 2.5000 | 119 | 80 - 120 | 11.776 | 11.776 | 0.0000 | N/A | |
| Acenaphthene-d10 | 2.5000 | 121 | 80 - 120 | 17.252 | 17.24414 | 0.0079 | N/A | |
| Phenanthrene-d10 | 2.5000 | 107 | 80 - 120 | 22.104 | 22.102 | 0.0020 | N/A | |
| Chrysene-d12 | 2.5000 | 113 | 80 - 120 | 30.095 | 30.08914 | 0.0059 | N/A | |
| Perylene-d12 | 2.5000 | 100 | 80 - 120 | 33.384 | 33.38629 | -0.0023 | N/A | |
| **SJD0305-ICB1 (Solid)** | | | Lab File ID: NT1421043011.D | | | Analyzed: 04/30/21 15:29 | | |
| Naphthalene-d8 | 2.5000 | 120 | 30 - 160 | 11.776 | 11.776 | 0.0000 | N/A | |
| Acenaphthene-d10 | 2.5000 | 121 | 30 - 160 | 17.241 | 17.24414 | -0.0031 | N/A | |
| Phenanthrene-d10 | 2.5000 | 112 | 30 - 160 | 22.104 | 22.102 | 0.0020 | N/A | |
| Chrysene-d12 | 2.5000 | 116 | 30 - 160 | 30.095 | 30.08914 | 0.0059 | N/A | |
| Perylene-d12 | 2.5000 | 91.5 | 30 - 160 | 33.384 | 33.38629 | -0.0023 | N/A | |

# SURROGATE RECOVERY AND RT SUMMARY

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG/WO: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SJD0344 | Instrument: | NT11 |
| Calibration: | DH00073 | Calibration Date: | 08/27/2020 |

| Surrogate Compound | Spike Level ng/mL | % Recovery | Recovery Limits | RT | Calibration Mean RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **SJD0344-ICV1 (Solid)** | | | Lab File ID: NT1121042402.D | | | Analyzed: 04/24/21 10:14 | | |
| 2-Methylnaphthalene-d10 | 250.00 | 97.2 | 80 - 120 | 7.738 | 7.78 | -0.0420 | N/A | |
| Dibenzo[a,h]anthracene-d14 | 250.00 | 98.4 | 80 - 120 | 22.283 | 22.418 | -0.1350 | N/A | |
| Fluoranthene-d10 | 250.00 | 84.4 | 80 - 120 | 14.52 | 14.578 | -0.0580 | N/A | |
| **SJD0344-LCV1 (Solid)** | | | Lab File ID: NT1121042403.D | | | Analyzed: 04/24/21 10:46 | | |
| 2-Methylnaphthalene-d10 | 10.000 | 92.5 | 0 - 200 | 7.738 | 7.78 | -0.0420 | N/A | |
| Dibenzo[a,h]anthracene-d14 | 10.000 | 70.7 | 0 - 200 | 22.294 | 22.418 | -0.1240 | N/A | |
| Fluoranthene-d10 | 10.000 | 92.8 | 0 - 200 | 14.52 | 14.578 | -0.0580 | N/A | |
| **SJD0344-CCV1 (Solid)** | | | Lab File ID: NT1121042418.D | | | Analyzed: 04/24/21 18:49 | | |
| 2-Methylnaphthalene-d10 | 250.00 | 95.5 | 50 - 150 | 7.728 | 7.78 | -0.0520 | N/A | |
| Dibenzo[a,h]anthracene-d14 | 250.00 | 109 | 50 - 150 | 22.283 | 22.418 | -0.1350 | N/A | |
| Fluoranthene-d10 | 250.00 | 85.9 | 50 - 150 | 14.52 | 14.578 | -0.0580 | N/A | |

# SURROGATE RECOVERY AND RT SUMMARY

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG/WO: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SJD0374 | Instrument: | NT11 |
| Calibration: | DH00073 | Calibration Date: | 08/27/2020 |

| Surrogate Compound | Spike Level ng/mL | % Recovery | Recovery Limits | RT | Calibration Mean RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **SJD0374-ICV1 (Water)** | | | Lab File ID: NT1121042702.D | | | Analyzed: 04/27/21 12:42 | | |
| 2-Methylnaphthalene-d10 | 250.00 | 102 | 80 - 120 | 7.738 | 7.78 | -0.0420 | N/A | |
| Dibenzo[a,h]anthracene-d14 | 250.00 | 119 | 80 - 120 | 22.283 | 22.418 | -0.1350 | N/A | |
| Fluoranthene-d10 | 250.00 | 91.6 | 80 - 120 | 14.52 | 14.578 | -0.0580 | N/A | |
| **SJD0374-LCV1 (Water)** | | | Lab File ID: NT1121042703.D | | | Analyzed: 04/27/21 13:17 | | |
| 2-Methylnaphthalene-d10 | 10.000 | 102 | 0 - 200 | 7.738 | 7.78 | -0.0420 | N/A | |
| Dibenzo[a,h]anthracene-d14 | 10.000 | 100 | 0 - 200 | 22.283 | 22.418 | -0.1350 | N/A | |
| Fluoranthene-d10 | 10.000 | 96.7 | 0 - 200 | 14.52 | 14.578 | -0.0580 | N/A | |
| **SJD0374-IBL1 (Water)** | | | Lab File ID: NT1121042704.D | | | Analyzed: 04/27/21 13:50 | | |
| 2-Methylnaphthalene-d10 | 250.00 | 97.5 | 42 - 120 | 7.728 | 7.78 | -0.0520 | N/A | |
| Dibenzo[a,h]anthracene-d14 | 250.00 | 115 | 29 - 120 | 22.283 | 22.418 | -0.1350 | N/A | |
| Fluoranthene-d10 | 250.00 | 91.0 | 57 - 120 | 14.52 | 14.578 | -0.0580 | N/A | |
| **SJD0374-CCV1 (Water)** | | | Lab File ID: NT1121042715.D | | | Analyzed: 04/27/21 19:48 | | |
| 2-Methylnaphthalene-d10 | 250.00 | 98.2 | 50 - 150 | 7.728 | 7.78 | -0.0520 | N/A | |
| Dibenzo[a,h]anthracene-d14 | 250.00 | 107 | 50 - 150 | 22.283 | 22.418 | -0.1350 | N/A | |
| Fluoranthene-d10 | 250.00 | 91.3 | 50 - 150 | 14.52 | 14.578 | -0.0580 | N/A | |

# SURROGATE RECOVERY AND RT SUMMARY

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG/WO: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SJE0004 | Instrument: | NT14 |
| Calibration: | EE00001 | Calibration Date: | 04/30/2021 |

| Surrogate Compound | Spike Level ug/mL | % Recovery | Recovery Limits | RT | Calibration Mean RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **SJE0004-ICV1 (Solid)** | | | Lab File ID: NT1421043051ICV.D | | | Analyzed: 05/01/21 23:35 | | |
| Naphthalene-d8 | 2.5000 | 109 | 80 - 120 | 11.776 | 11.776 | 0.0000 | N/A | |
| Acenaphthene-d10 | 2.5000 | 115 | 80 - 120 | 17.241 | 17.24414 | -0.0031 | N/A | |
| Phenanthrene-d10 | 2.5000 | 101 | 80 - 120 | 22.104 | 22.102 | 0.0020 | N/A | |
| Chrysene-d12 | 2.5000 | 106 | 80 - 120 | 30.084 | 30.08914 | -0.0051 | N/A | |
| Perylene-d12 | 2.5000 | 106 | 80 - 120 | 33.373 | 33.38629 | -0.0133 | N/A | |
| **SJE0004-LCV1 (Solid)** | | | Lab File ID: NT1421043052.D | | | Analyzed: 05/02/21 00:23 | | |
| Naphthalene-d8 | 0.10000 | 116 | 0 - 200 | 11.776 | 11.776 | 0.0000 | N/A | |
| Acenaphthene-d10 | 0.10000 | 123 | 0 - 200 | 17.241 | 17.24414 | -0.0031 | N/A | |
| Phenanthrene-d10 | 0.10000 | 98.2 | 0 - 200 | 22.104 | 22.102 | 0.0020 | N/A | |
| Chrysene-d12 | 0.10000 | 98.9 | 0 - 200 | 30.095 | 30.08914 | 0.0059 | N/A | |
| Perylene-d12 | 0.10000 | 114 | 0 - 200 | 33.373 | 33.38629 | -0.0133 | N/A | |
| **BJD0507-BLK1 (Solid)** | | | Lab File ID: NT1421043053.D | | | Analyzed: 05/02/21 01:11 | | |
| Naphthalene-d8 | 150.00 | 62.1 | 30 - 160 | 11.766 | 11.776 | -0.0100 | N/A | |
| Acenaphthene-d10 | 150.00 | 70.8 | 30 - 160 | 17.241 | 17.24414 | -0.0031 | N/A | |
| Phenanthrene-d10 | 150.00 | 69.6 | 30 - 160 | 22.093 | 22.102 | -0.0090 | N/A | |
| Chrysene-d12 | 150.00 | 74.1 | 30 - 160 | 30.084 | 30.08914 | -0.0051 | N/A | |
| Perylene-d12 | 150.00 | 76.0 | 30 - 160 | 33.384 | 33.38629 | -0.0023 | N/A | |
| **BJD0507-BS1 (Solid)** | | | Lab File ID: NT1421043054.D | | | Analyzed: 05/02/21 02:00 | | |
| Naphthalene-d8 | 150.00 | 65.5 | 30 - 160 | 11.766 | 11.776 | -0.0100 | N/A | |
| Acenaphthene-d10 | 150.00 | 72.2 | 30 - 160 | 17.241 | 17.24414 | -0.0031 | N/A | |
| Phenanthrene-d10 | 150.00 | 69.0 | 30 - 160 | 22.104 | 22.102 | 0.0020 | N/A | |
| Chrysene-d12 | 150.00 | 74.5 | 30 - 160 | 30.084 | 30.08914 | -0.0051 | N/A | |
| Perylene-d12 | 150.00 | 76.0 | 30 - 160 | 33.384 | 33.38629 | -0.0023 | N/A | |
| **21D0180-01 (Solid)** | | | Lab File ID: NT1421043063.D | | | Analyzed: 05/02/21 09:13 | | |
| Naphthalene-d8 | 149.55 | 68.1 | 30 - 160 | 11.766 | 11.776 | -0.0100 | N/A | |
| Acenaphthene-d10 | 149.55 | 75.5 | 30 - 160 | 17.241 | 17.24414 | -0.0031 | N/A | |
| Phenanthrene-d10 | 149.55 | 67.9 | 30 - 160 | 22.104 | 22.102 | 0.0020 | N/A | |
| Chrysene-d12 | 149.55 | 67.0 | 30 - 160 | 30.095 | 30.08914 | 0.0059 | N/A | |
| Perylene-d12 | 149.55 | 75.7 | 30 - 160 | 33.384 | 33.38629 | -0.0023 | N/A | |

# SURROGATE RECOVERY AND RT SUMMARY

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG/WO: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SJE0004 | Instrument: | NT14 |
| Calibration: | EE00001 | Calibration Date: | 04/30/2021 |

| Surrogate Compound | Spike Level ug/kg dry | % Recovery | Recovery Limits | RT | Calibration Mean RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **21D0180-02 (Solid)** | | | Lab File ID: NT1421043064.D | | | Analyzed: 05/02/21 10:01 | | |
| Naphthalene-d8 | 150.02 | 63.6 | 30 - 160 | 11.766 | 11.776 | -0.0100 | N/A | |
| Acenaphthene-d10 | 150.02 | 71.5 | 30 - 160 | 17.241 | 17.24414 | -0.0031 | N/A | |
| Phenanthrene-d10 | 150.02 | 65.0 | 30 - 160 | 22.104 | 22.102 | 0.0020 | N/A | |
| Chrysene-d12 | 150.02 | 67.4 | 30 - 160 | 30.084 | 30.08914 | -0.0051 | N/A | |
| Perylene-d12 | 150.02 | 75.6 | 30 - 160 | 33.384 | 33.38629 | -0.0023 | N/A | |
| **21D0180-03 (Solid)** | | | Lab File ID: NT1421043065.D | | | Analyzed: 05/02/21 10:49 | | |
| Naphthalene-d8 | 149.99 | 59.8 | 30 - 160 | 11.766 | 11.776 | -0.0100 | N/A | |
| Acenaphthene-d10 | 149.99 | 69.4 | 30 - 160 | 17.241 | 17.24414 | -0.0031 | N/A | |
| Phenanthrene-d10 | 149.99 | 63.4 | 30 - 160 | 22.104 | 22.102 | 0.0020 | N/A | |
| Chrysene-d12 | 149.99 | 65.8 | 30 - 160 | 30.084 | 30.08914 | -0.0051 | N/A | |
| Perylene-d12 | 149.99 | 72.4 | 30 - 160 | 33.384 | 33.38629 | -0.0023 | N/A | |
| **SJE0004-CCV1 (Solid)** | | | Lab File ID: NT1421043067.D | | | Analyzed: 05/02/21 12:25 | | |
| Naphthalene-d8 | 2.5000 | 112 | 50 - 150 | 11.776 | 11.776 | 0.0000 | N/A | |
| Acenaphthene-d10 | 2.5000 | 117 | 50 - 150 | 17.241 | 17.24414 | -0.0031 | N/A | |
| Phenanthrene-d10 | 2.5000 | 99.8 | 50 - 150 | 22.104 | 22.102 | 0.0020 | N/A | |
| Chrysene-d12 | 2.5000 | 108 | 50 - 150 | 30.084 | 30.08914 | -0.0051 | N/A | |
| Perylene-d12 | 2.5000 | 104 | 50 - 150 | 33.384 | 33.38629 | -0.0023 | N/A | |

# SURROGATE RECOVERY AND RT SUMMARY

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG/WO: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SJE0028 | Instrument: | NT14 |
| Calibration: | EE00001 | Calibration Date: | 04/30/2021 |

| Surrogate Compound | Spike Level ug/mL | % Recovery | Recovery Limits | RT | Calibration Mean RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **SJE0028-ICV1 (Water)** | | | Lab File ID: NT1421050402.D | | | Analyzed: 05/04/21 12:52 | | |
| Naphthalene-d8 | 2.5000 | 114 | 0 - 200 | 11.766 | 11.776 | -0.0100 | N/A | |
| Acenaphthene-d10 | 2.5000 | 118 | 0 - 200 | 17.241 | 17.24414 | -0.0031 | N/A | |
| Phenanthrene-d10 | 2.5000 | 102 | 0 - 200 | 22.093 | 22.102 | -0.0090 | N/A | |
| Chrysene-d12 | 2.5000 | 108 | 0 - 200 | 30.084 | 30.08914 | -0.0051 | N/A | |
| Perylene-d12 | 2.5000 | 103 | 0 - 200 | 33.373 | 33.38629 | -0.0133 | N/A | |
| **SJE0028-IBL1 (Water)** | | | Lab File ID: NT1421050403.D | | | Analyzed: 05/04/21 14:30 | | |
| Naphthalene-d8 | 2.5000 | 117 | 30 - 160 | 11.766 | 11.776 | -0.0100 | N/A | |
| Acenaphthene-d10 | 2.5000 | 119 | 30 - 160 | 17.241 | 17.24414 | -0.0031 | N/A | |
| Phenanthrene-d10 | 2.5000 | 110 | 30 - 160 | 22.104 | 22.102 | 0.0020 | N/A | |
| Chrysene-d12 | 2.5000 | 107 | 30 - 160 | 30.084 | 30.08914 | -0.0051 | N/A | |
| Perylene-d12 | 2.5000 | 96.6 | 30 - 160 | 33.384 | 33.38629 | -0.0023 | N/A | |
| **21D0180-04 (Solid)** | | | Lab File ID: NT1421050404.D | | | Analyzed: 05/04/21 15:19 | | |
| Naphthalene-d8 | 149.89 | 62.9 | 30 - 160 | 11.766 | 11.776 | -0.0100 | N/A | |
| Acenaphthene-d10 | 149.89 | 71.5 | 30 - 160 | 17.241 | 17.24414 | -0.0031 | N/A | |
| Phenanthrene-d10 | 149.89 | 66.8 | 30 - 160 | 22.093 | 22.102 | -0.0090 | N/A | |
| Chrysene-d12 | 149.89 | 68.0 | 30 - 160 | 30.084 | 30.08914 | -0.0051 | N/A | |
| Perylene-d12 | 149.89 | 71.2 | 30 - 160 | 33.373 | 33.38629 | -0.0133 | N/A | |
| **SJE0028-CCV1 (Water)** | | | Lab File ID: NT1421050405.D | | | Analyzed: 05/04/21 16:08 | | |
| Naphthalene-d8 | 2.5000 | 111 | 0 - 200 | 11.776 | 11.776 | 0.0000 | N/A | |
| Acenaphthene-d10 | 2.5000 | 115 | 0 - 200 | 17.241 | 17.24414 | -0.0031 | N/A | |
| Phenanthrene-d10 | 2.5000 | 102 | 0 - 200 | 22.104 | 22.102 | 0.0020 | N/A | |
| Chrysene-d12 | 2.5000 | 108 | 0 - 200 | 30.084 | 30.08914 | -0.0051 | N/A | |
| Perylene-d12 | 2.5000 | 101 | 0 - 200 | 33.384 | 33.38629 | -0.0023 | N/A | |

# INTERNAL STANDARD AREA AND RT SUMMARY

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SIH0304 | Instrument: | NT11 |
| | | Calibration: | DH00073 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Secondary Cal Check (SIH0304-SCV1 )** | | (Water) | | Lab File ID: NT1120082708.D | | | | Analyzed: 08/27/20 15:38 | |
| Naphthalene-d8 | 202035 | 6.804 | 215332 | 6.813 | 94 | 50 - 200 | -0.009 | +/-0.50 | |
| Acenaphthene-d10 | 90189 | 9.807 | 102217 | 9.807 | 88 | 50 - 200 | 0.000 | +/-0.50 | |
| Phenanthrene-d10 | 142829 | 12.482 | 170387 | 12.482 | 84 | 50 - 200 | 0.000 | +/-0.50 | |
| Chrysene-d12 | 104063 | 17.222 | 116138 | 17.214 | 90 | 50 - 200 | 0.008 | +/-0.50 | |
| Perylene-d12 | 119273 | 19.981 | 139038 | 19.981 | 86 | 50 - 200 | 0.000 | +/-0.50 | |
| **Initial Cal Blank (SIH0304-ICB1 )** | | (Water) | | Lab File ID: NT1120082709.D | | | | Analyzed: 08/27/20 16:09 | |
| Naphthalene-d8 | 216694 | 6.804 | 215332 | 6.813 | 101 | 50 - 200 | -0.009 | +/-0.50 | |
| Acenaphthene-d10 | 94656 | 9.807 | 102217 | 9.807 | 93 | 50 - 200 | 0.000 | +/-0.50 | |
| Phenanthrene-d10 | 145070 | 12.482 | 170387 | 12.482 | 85 | 50 - 200 | 0.000 | +/-0.50 | |
| Chrysene-d12 | 97049 | 17.222 | 116138 | 17.214 | 84 | 50 - 200 | 0.008 | +/-0.50 | |
| Perylene-d12 | 107633 | 19.981 | 139038 | 19.981 | 77 | 50 - 200 | 0.000 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SJD0305 | Instrument: | NT14 |
| | | Calibration: | EE00001 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Secondary Cal Check (SJD0305-SCV1 )** | | (Solid) | | Lab File ID: NT1421043010.D | | | | Analyzed: 04/30/21 14:41 | |
| Fluorene-d10 | 351020 | 18.783 | 420456 | 18.781 | 83 | 50 - 200 | 0.002 | +/-0.50 | |
| Anthracene-d10 | 309177 | 22.225 | 381033 | 22.223 | 81 | 50 - 200 | 0.002 | +/-0.50 | |
| Benzo(e)pyrene-d12 | 328565 | 33.046 | 370998 | 33.05 | 89 | 50 - 200 | -0.004 | +/-0.50 | |
| **Initial Cal Blank (SJD0305-ICB1 )** | | (Solid) | | Lab File ID: NT1421043011.D | | | | Analyzed: 04/30/21 15:29 | |
| Fluorene-d10 | 376278 | 18.772 | 420456 | 18.781 | 89 | 50 - 200 | -0.009 | +/-0.50 | |
| Anthracene-d10 | 322067 | 22.225 | 381033 | 22.223 | 85 | 50 - 200 | 0.002 | +/-0.50 | |
| Benzo(e)pyrene-d12 | 328767 | 33.046 | 370998 | 33.05 | 89 | 50 - 200 | -0.004 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SJD0344 | Instrument: | NT11 |
| | | Calibration: | DH00073 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Initial Cal Check (SJD0344-ICV1 )** | | (Solid) | Lab File ID: NT1121042402.D | | | | Analyzed: 04/24/21 10:14 | | |
| Naphthalene-d8 | 134531 | 6.768 | 134531 | 6.768 | 100 | 50 - 200 | 0.000 | +/-0.50 | |
| Acenaphthene-d10 | 76981 | 9.761 | 76981 | 9.761 | 100 | 50 - 200 | 0.000 | +/-0.50 | |
| Phenanthrene-d10 | 116022 | 12.428 | 116022 | 12.428 | 100 | 50 - 200 | 0.000 | +/-0.50 | |
| Chrysene-d12 | 83386 | 17.155 | 83386 | 17.155 | 100 | 50 - 200 | 0.000 | +/-0.50 | |
| Perylene-d12 | 98043 | 19.893 | 98043 | 19.893 | 100 | 50 - 200 | 0.000 | +/-0.50 | |
| **Low Cal Check (SJD0344-LCV1 )** | | (Solid) | Lab File ID: NT1121042403.D | | | | Analyzed: 04/24/21 10:46 | | |
| Naphthalene-d8 | 129787 | 6.759 | 134531 | 6.768 | 96 | 50 - 200 | -0.009 | +/-0.50 | |
| Acenaphthene-d10 | 64142 | 9.761 | 76981 | 9.761 | 83 | 50 - 200 | 0.000 | +/-0.50 | |
| Phenanthrene-d10 | 95013 | 12.428 | 116022 | 12.428 | 82 | 50 - 200 | 0.000 | +/-0.50 | |
| Chrysene-d12 | 61649 | 17.155 | 83386 | 17.155 | 74 | 50 - 200 | 0.000 | +/-0.50 | |
| Perylene-d12 | 69298 | 19.893 | 98043 | 19.893 | 71 | 50 - 200 | 0.000 | +/-0.50 | |
| **Blank (BJD0479-BLK1 )** | | (Solid) | Lab File ID: NT1121042404.D | | | | Analyzed: 04/24/21 11:18 | | |
| Naphthalene-d8 | 126302 | 6.758 | 134531 | 6.768 | 94 | 50 - 200 | -0.010 | +/-0.50 | |
| Acenaphthene-d10 | 64954 | 9.761 | 76981 | 9.761 | 84 | 50 - 200 | 0.000 | +/-0.50 | |
| Phenanthrene-d10 | 94766 | 12.428 | 116022 | 12.428 | 82 | 50 - 200 | 0.000 | +/-0.50 | |
| Chrysene-d12 | 67946 | 17.155 | 83386 | 17.155 | 81 | 50 - 200 | 0.000 | +/-0.50 | |
| Perylene-d12 | 74191 | 19.893 | 98043 | 19.893 | 76 | 50 - 200 | 0.000 | +/-0.50 | |
| **LCS (BJD0479-BS1 )** | | (Solid) | Lab File ID: NT1121042405.D | | | | Analyzed: 04/24/21 11:51 | | |
| Naphthalene-d8 | 121416 | 6.759 | 134531 | 6.768 | 90 | 50 - 200 | -0.009 | +/-0.50 | |
| Acenaphthene-d10 | 64822 | 9.761 | 76981 | 9.761 | 84 | 50 - 200 | 0.000 | +/-0.50 | |
| Phenanthrene-d10 | 98925 | 12.428 | 116022 | 12.428 | 85 | 50 - 200 | 0.000 | +/-0.50 | |
| Chrysene-d12 | 67104 | 17.155 | 83386 | 17.155 | 80 | 50 - 200 | 0.000 | +/-0.50 | |
| Perylene-d12 | 74558 | 19.893 | 98043 | 19.893 | 76 | 50 - 200 | 0.000 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SJD0374 | Instrument: | NT11 |
| | | Calibration: | DH00073 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Initial Cal Check (SJD0374-ICV1 )** | | (Water) | Lab File ID: NT1121042702.D | | | | Analyzed: 04/27/21 12:42 | | |
| Naphthalene-d8 | 112036 | 6.768 | 112036 | 6.768 | 100 | 50 - 200 | 0.000 | +/-0.50 | |
| Acenaphthene-d10 | 64624 | 9.761 | 64624 | 9.761 | 100 | 50 - 200 | 0.000 | +/-0.50 | |
| Phenanthrene-d10 | 96378 | 12.428 | 96378 | 12.428 | 100 | 50 - 200 | 0.000 | +/-0.50 | |
| Chrysene-d12 | 68803 | 17.155 | 68803 | 17.155 | 100 | 50 - 200 | 0.000 | +/-0.50 | |
| Perylene-d12 | 87167 | 19.893 | 87167 | 19.893 | 100 | 50 - 200 | 0.000 | +/-0.50 | |
| **Low Cal Check (SJD0374-LCV1 )** | | (Water) | Lab File ID: NT1121042703.D | | | | Analyzed: 04/27/21 13:17 | | |
| Naphthalene-d8 | 131244 | 6.768 | 112036 | 6.768 | 117 | 50 - 200 | 0.000 | +/-0.50 | |
| Acenaphthene-d10 | 65620 | 9.761 | 64624 | 9.761 | 102 | 50 - 200 | 0.000 | +/-0.50 | |
| Phenanthrene-d10 | 97504 | 12.428 | 96378 | 12.428 | 101 | 50 - 200 | 0.000 | +/-0.50 | |
| Chrysene-d12 | 67019 | 17.155 | 68803 | 17.155 | 97 | 50 - 200 | 0.000 | +/-0.50 | |
| Perylene-d12 | 80628 | 19.893 | 87167 | 19.893 | 92 | 50 - 200 | 0.000 | +/-0.50 | |
| **Instrument Blank (SJD0374-IBL1 )** | | (Water) | Lab File ID: NT1121042704.D | | | | Analyzed: 04/27/21 13:50 | | |
| Naphthalene-d8 | 108457 | 6.768 | 112036 | 6.768 | 97 | 50 - 200 | 0.000 | +/-0.50 | |
| Acenaphthene-d10 | 55701 | 9.761 | 64624 | 9.761 | 86 | 50 - 200 | 0.000 | +/-0.50 | |
| Phenanthrene-d10 | 83735 | 12.429 | 96378 | 12.428 | 87 | 50 - 200 | 0.001 | +/-0.50 | |
| Chrysene-d12 | 54682 | 17.155 | 68803 | 17.155 | 79 | 50 - 200 | 0.000 | +/-0.50 | |
| Perylene-d12 | 65619 | 19.894 | 87167 | 19.893 | 75 | 50 - 200 | 0.001 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY

## EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.
SDG: 21D0180
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Sequence: SJE0004
Instrument: NT14
Calibration: EE00001

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Initial Cal Check (SJE0004-ICV1 )** | | (Solid) | Lab File ID: NT1421043051ICV.D | | | | Analyzed: 05/01/21 23:35 | | |
| Fluorene-d10 | 504442 | 18.772 | 504442 | 18.772 | 100 | 50 - 200 | 0.000 | +/-0.50 | |
| Anthracene-d10 | 459103 | 22.214 | 459103 | 22.214 | 100 | 50 - 200 | 0.000 | +/-0.50 | |
| Benzo(e)pyrene-d12 | 516794 | 33.046 | 516794 | 33.046 | 100 | 50 - 200 | 0.000 | +/-0.50 | |
| **Low Cal Check (SJE0004-LCV1 )** | | (Solid) | Lab File ID: NT1421043052.D | | | | Analyzed: 05/02/21 00:23 | | |
| Fluorene-d10 | 556851 | 18.772 | 504442 | 18.772 | 110 | 50 - 200 | 0.000 | +/-0.50 | |
| Anthracene-d10 | 496092 | 22.214 | 459103 | 22.214 | 108 | 50 - 200 | 0.000 | +/-0.50 | |
| Benzo(e)pyrene-d12 | 562144 | 33.046 | 516794 | 33.046 | 109 | 50 - 200 | 0.000 | +/-0.50 | |
| **Blank (BJD0507-BLK1 )** | | (Solid) | Lab File ID: NT1421043053.D | | | | Analyzed: 05/02/21 01:11 | | |
| Fluorene-d10 | 587393 | 18.772 | 504442 | 18.772 | 116 | 50 - 200 | 0.000 | +/-0.50 | |
| Anthracene-d10 | 510143 | 22.214 | 459103 | 22.214 | 111 | 50 - 200 | 0.000 | +/-0.50 | |
| Benzo(e)pyrene-d12 | 530125 | 33.046 | 516794 | 33.046 | 103 | 50 - 200 | 0.000 | +/-0.50 | |
| **LCS (BJD0507-BS1 )** | | (Solid) | Lab File ID: NT1421043054.D | | | | Analyzed: 05/02/21 02:00 | | |
| Fluorene-d10 | 576235 | 18.772 | 504442 | 18.772 | 114 | 50 - 200 | 0.000 | +/-0.50 | |
| Anthracene-d10 | 511706 | 22.214 | 459103 | 22.214 | 111 | 50 - 200 | 0.000 | +/-0.50 | |
| Benzo(e)pyrene-d12 | 543631 | 33.046 | 516794 | 33.046 | 105 | 50 - 200 | 0.000 | +/-0.50 | |
| **USMPDI-010SG-210414 (21D0180-01 )** | | (Solid) | Lab File ID: NT1421043063.D | | | | Analyzed: 05/02/21 09:13 | | |
| Fluorene-d10 | 524796 | 18.772 | 504442 | 18.772 | 104 | 50 - 200 | 0.000 | +/-0.50 | |
| Anthracene-d10 | 475082 | 22.214 | 459103 | 22.214 | 103 | 50 - 200 | 0.000 | +/-0.50 | |
| Benzo(e)pyrene-d12 | 616810 | 33.046 | 516794 | 33.046 | 119 | 50 - 200 | 0.000 | +/-0.50 | |
| **USMPDI-015SG-210414 (21D0180-02 )** | | (Solid) | Lab File ID: NT1421043064.D | | | | Analyzed: 05/02/21 10:01 | | |
| Fluorene-d10 | 533752 | 18.772 | 504442 | 18.772 | 106 | 50 - 200 | 0.000 | +/-0.50 | |
| Anthracene-d10 | 494716 | 22.214 | 459103 | 22.214 | 108 | 50 - 200 | 0.000 | +/-0.50 | |
| Benzo(e)pyrene-d12 | 608015 | 33.046 | 516794 | 33.046 | 118 | 50 - 200 | 0.000 | +/-0.50 | |
| **USMPDI-019SG-210414 (21D0180-03 )** | | (Solid) | Lab File ID: NT1421043065.D | | | | Analyzed: 05/02/21 10:49 | | |
| Fluorene-d10 | 562163 | 18.772 | 504442 | 18.772 | 111 | 50 - 200 | 0.000 | +/-0.50 | |
| Anthracene-d10 | 511717 | 22.214 | 459103 | 22.214 | 111 | 50 - 200 | 0.000 | +/-0.50 | |
| Benzo(e)pyrene-d12 | 618257 | 33.046 | 516794 | 33.046 | 120 | 50 - 200 | 0.000 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SJE0028 | Instrument: | NT14 |
| | | Calibration: | EE00001 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Initial Cal Check (SJE0028-ICV1 )** | | (Water) | | Lab File ID: NT1421050402.D | | | | Analyzed: 05/04/21 12:52 | |
| Fluorene-d10 | 560901 | 18.772 | 560901 | 18.772 | 100 | 50 - 200 | 0.000 | +/-0.50 | |
| Anthracene-d10 | 511244 | 22.214 | 511244 | 22.214 | 100 | 50 - 200 | 0.000 | +/-0.50 | |
| Benzo(e)pyrene-d12 | 574536 | 33.046 | 574536 | 33.046 | 100 | 50 - 200 | 0.000 | +/-0.50 | |
| **Instrument Blank (SJE0028-IBL1 )** | | (Water) | | Lab File ID: NT1421050403.D | | | | Analyzed: 05/04/21 14:30 | |
| Fluorene-d10 | 511447 | 18.772 | 560901 | 18.772 | 91 | 50 - 200 | 0.000 | +/-0.50 | |
| Anthracene-d10 | 442739 | 22.214 | 511244 | 22.214 | 87 | 50 - 200 | 0.000 | +/-0.50 | |
| Benzo(e)pyrene-d12 | 537579 | 33.046 | 574536 | 33.046 | 94 | 50 - 200 | 0.000 | +/-0.50 | |
| **USMPDI-029SG-210414 (21D0180-04 )** | | (Solid) | | Lab File ID: NT1421050404.D | | | | Analyzed: 05/04/21 15:19 | |
| Fluorene-d10 | 514283 | 18.772 | 560901 | 18.772 | 92 | 50 - 200 | 0.000 | +/-0.50 | |
| Anthracene-d10 | 476033 | 22.214 | 511244 | 22.214 | 93 | 50 - 200 | 0.000 | +/-0.50 | |
| Benzo(e)pyrene-d12 | 553821 | 33.046 | 574536 | 33.046 | 96 | 50 - 200 | 0.000 | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY

## EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.
SDG: 21D0180
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Sequence: SJE0095
Instrument: NT14
Calibration: EE00019

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Blank (BJD0507-BLK2 )** | | (Solid) | Lab File ID: NT1421043053S.D | | | | | Analyzed: 05/02/21 01:11 | |
| Fluorene-d10 | 682587 | 18.762 | 584738 | 18.762 | 117 | 50 - 200 | | +/-0.50 | |
| Anthracene-d10 | 602752 | 22.205 | 550360 | 22.205 | 110 | 50 - 200 | | +/-0.50 | |
| Benzo(e)pyrene-d12 | 662179 | 33.036 | 638375 | 33.036 | 104 | 50 - 200 | | +/-0.50 | |
| **USMPDI-010SG-210414 (21D0180-01 )** | | (Solid) | Lab File ID: NT1421043063S.D | | | | | Analyzed: 05/02/21 09:13 | |
| Fluorene-d10 | 614005 | 18.762 | 584738 | 18.762 | 105 | 50 - 200 | | +/-0.50 | |
| Anthracene-d10 | 559042 | 22.205 | 550360 | 22.205 | 102 | 50 - 200 | | +/-0.50 | |
| Benzo(e)pyrene-d12 | 749516 | 33.036 | 638375 | 33.036 | 117 | 50 - 200 | | +/-0.50 | |
| **USMPDI-015SG-210414 (21D0180-02 )** | | (Solid) | Lab File ID: NT1421043064S.D | | | | | Analyzed: 05/02/21 10:01 | |
| Fluorene-d10 | 533752 | 18.772 | 584738 | 18.762 | 91 | 50 - 200 | | +/-0.50 | |
| Anthracene-d10 | 494716 | 22.214 | 550360 | 22.205 | 90 | 50 - 200 | | +/-0.50 | |
| Benzo(e)pyrene-d12 | 612826 | 33.046 | 638375 | 33.036 | 96 | 50 - 200 | | +/-0.50 | |
| **USMPDI-019SG-210414 (21D0180-03 )** | | (Solid) | Lab File ID: NT1421043065S.D | | | | | Analyzed: 05/02/21 10:49 | |
| Fluorene-d10 | 645514 | 18.762 | 584738 | 18.762 | 110 | 50 - 200 | | +/-0.50 | |
| Anthracene-d10 | 607222 | 22.205 | 550360 | 22.205 | 110 | 50 - 200 | | +/-0.50 | |
| Benzo(e)pyrene-d12 | 752067 | 33.037 | 638375 | 33.036 | 118 | 50 - 200 | | +/-0.50 | |

# INTERNAL STANDARD AREA AND RT SUMMARY

## EPA 8270E-SIM

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SJE0097 | Instrument: | NT14 |
| | | Calibration: | EE00019 |

| Internal Standard | Response | RT | Reference Response | Reference RT | Area % | Area % Limits | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|---|
| **Instrument Blank (SJE0097-IBL1 )** | | (Solid) | Lab File ID: NT1421050403S.D | | | | | Analyzed: 05/04/21 14:30 | |
| Fluorene-d10 | 593152 | 18.762 | 660770 | 18.762 | 90 | 50 - 200 | | +/-0.50 | |
| Anthracene-d10 | 526933 | 22.205 | 604254 | 22.205 | 87 | 50 - 200 | | +/-0.50 | |
| Benzo(e)pyrene-d12 | 644323 | 33.037 | 721275 | 33.037 | 89 | 50 - 200 | | +/-0.50 | |
| **USMPDI-029SG-210414 (21D0180-04 )** | | (Solid) | Lab File ID: NT1421050404S.D | | | | | Analyzed: 05/04/21 15:19 | |
| Fluorene-d10 | 606225 | 18.762 | 660770 | 18.762 | 92 | 50 - 200 | | +/-0.50 | |
| Anthracene-d10 | 561691 | 22.205 | 604254 | 22.205 | 93 | 50 - 200 | | +/-0.50 | |
| Benzo(e)pyrene-d12 | 703623 | 33.036 | 721275 | 33.037 | 98 | 50 - 200 | | +/-0.50 | |

# HOLDING TIME SUMMARY

**Analysis: EPA 8270E-SIM**

Laboratory: Analytical Resources, Inc. SDG: 21D0180

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

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| USMPDI-010SG-210414 21D0180-01 | 04/14/21 11:41 | 04/16/21 10:30 | 04/22/21 11:05 | 7 | 14 | 05/02/21 09:13 | 10 | 40 | |
| USMPDI-010SG-210414 21D0180-01 | 04/14/21 11:41 | 04/16/21 10:30 | 04/22/21 11:05 | 7 | 14 | 05/02/21 09:13 | 10 | 40 | |
| USMPDI-015SG-210414 21D0180-02 | 04/14/21 10:35 | 04/16/21 10:30 | 04/22/21 11:05 | 8 | 14 | 05/02/21 10:01 | 10 | 40 | |
| USMPDI-015SG-210414 21D0180-02 | 04/14/21 10:35 | 04/16/21 10:30 | 04/22/21 11:05 | 8 | 14 | 05/02/21 10:01 | 10 | 40 | |
| USMPDI-019SG-210414 21D0180-03 | 04/14/21 08:36 | 04/16/21 10:30 | 04/22/21 11:05 | 8 | 14 | 05/02/21 10:49 | 10 | 40 | |
| USMPDI-019SG-210414 21D0180-03 | 04/14/21 08:36 | 04/16/21 10:30 | 04/22/21 11:05 | 8 | 14 | 05/02/21 10:49 | 10 | 40 | |
| USMPDI-029SG-210414 21D0180-04 | 04/14/21 09:22 | 04/16/21 10:30 | 04/22/21 11:05 | 8 | 14 | 05/04/21 15:19 | 12 | 40 | |
| USMPDI-029SG-210414 21D0180-04 | 04/14/21 09:22 | 04/16/21 10:30 | 04/22/21 11:05 | 8 | 14 | 05/04/21 15:19 | 12 | 40 | |

* Indicates hold time exceedance.

# METHOD DETECTION AND REPORTING LIMITS

## EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21D0180

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

Matrix: Solid Instrument: NT11

| Analyte | MDL | RL | Units |
|---|---|---|---|
| Naphthalene | 0.44 | 0.60 | ug/kg |
| 2-Methylnaphthalene | 0.13 | 0.50 | ug/kg |
| Acenaphthylene | 0.06 | 0.50 | ug/kg |
| Acenaphthene | 0.09 | 0.50 | ug/kg |
| Fluorene | 0.07 | 0.50 | ug/kg |
| Phenanthrene | 0.11 | 0.50 | ug/kg |
| Anthracene | 0.07 | 0.50 | ug/kg |
| Fluoranthene | 0.08 | 0.50 | ug/kg |
| Pyrene | 0.09 | 0.50 | ug/kg |
| Benzo(a)anthracene | 0.07 | 0.50 | ug/kg |
| Chrysene | 0.07 | 0.50 | ug/kg |
| Benzo(b)fluoranthene | 0.07 | 0.50 | ug/kg |
| Benzo(k)fluoranthene | 0.10 | 0.50 | ug/kg |
| Benzo(j)fluoranthene | 0.10 | 0.50 | ug/kg |
| Benzo(a)pyrene | 0.09 | 0.50 | ug/kg |
| Indeno(1,2,3-cd)pyrene | 0.09 | 0.50 | ug/kg |
| Dibenzo(a,h)anthracene | 0.11 | 0.50 | ug/kg |
| Benzo(g,h,i)perylene | 0.09 | 0.50 | ug/kg |

# METHOD DETECTION AND REPORTING LIMITS

## EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21D0180

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

Matrix: Solid Instrument: NT14

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

# METHOD DETECTION AND REPORTING LIMITS

## EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21D0180

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

Matrix: Solid Instrument: NT14

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

# METHOD DETECTION AND REPORTING LIMITS

## EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21D0180

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

Matrix: Water Instrument: NT11

| Analyte | MDL | RL | Units |
|---|---|---|---|
| Naphthalene | 0.001 | 0.010 | ug/L |
| 2-Methylnaphthalene | 0.001 | 0.010 | ug/L |
| 1-Methylnaphthalene | 0.0009 | 0.010 | ug/L |
| Acenaphthylene | 0.002 | 0.010 | ug/L |
| Acenaphthene | 0.003 | 0.010 | ug/L |
| Dibenzofuran | 0.002 | 0.010 | ug/L |
| Fluorene | 0.002 | 0.010 | ug/L |
| Phenanthrene | 0.001 | 0.010 | ug/L |
| Anthracene | 0.001 | 0.010 | ug/L |
| Carbazole | 0.001 | 0.010 | ug/L |
| Fluoranthene | 0.002 | 0.010 | ug/L |
| Pyrene | 0.001 | 0.010 | ug/L |
| Benzo(a)anthracene | 0.0008 | 0.010 | ug/L |
| Chrysene | 0.0009 | 0.010 | ug/L |
| Benzo(b)fluoranthene | 0.0005 | 0.010 | ug/L |
| Benzo(k)fluoranthene | 0.003 | 0.010 | ug/L |
| Benzo(j)fluoranthene | 0.002 | 0.010 | ug/L |
| Benzofluoranthenes, Total | 0.004 | 0.010 | ug/L |
| Benzo(a)pyrene | 0.002 | 0.010 | ug/L |
| Perylene | 0.006 | 0.010 | ug/L |
| Indeno(1,2,3-cd)pyrene | 0.001 | 0.010 | ug/L |
| Dibenzo(a,h)anthracene | 0.001 | 0.010 | ug/L |
| Benzo(g,h,i)perylene | 0.001 | 0.010 | ug/L |

# METHOD DETECTION AND REPORTING LIMITS

## EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21D0180

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

Matrix: Water Instrument: NT14

| Analyte | MDL | RL | Units |
|---|---|---|---|
| trans-Decalin | 0.007 | 0.100 | ug/L |
| cis-Decalin | 0.007 | 0.100 | ug/L |
| Naphthalene | 0.011 | 0.100 | ug/L |
| 1-Methylnaphthalene | 0.010 | 0.100 | ug/L |
| 2-Methylnaphthalene | 0.010 | 0.100 | ug/L |
| Biphenyl | 0.012 | 0.100 | ug/L |
| 2,6-Dimethylnaphthalene | 0.013 | 0.100 | ug/L |
| Acenaphthylene | 0.006 | 0.100 | ug/L |
| Acenaphthene | 0.011 | 0.100 | ug/L |
| Dibenzofuran | 0.009 | 0.100 | ug/L |
| 2,3,5-Trimethylnaphthalene | 0.008 | 0.100 | ug/L |
| Fluorene | 0.007 | 0.100 | ug/L |
| Benzo(b)thiophene | 0.009 | 0.100 | ug/L |
| Phenanthrene | 0.009 | 0.100 | ug/L |
| Anthracene | 0.025 | 0.100 | ug/L |
| Carbazole | 0.028 | 0.100 | ug/L |
| 1-Methylphenanthrene | 0.005 | 0.100 | ug/L |
| Fluoranthene | 0.007 | 0.100 | ug/L |
| Dibenzothiophene | 0.021 | 0.100 | ug/L |
| Pyrene | 0.014 | 0.100 | ug/L |
| Benzo(a)anthracene | 0.017 | 0.100 | ug/L |
| Chrysene | 0.010 | 0.100 | ug/L |
| Benzo(b)fluoranthene | 0.010 | 0.100 | ug/L |
| Benzo(j)fluoranthene | 0.038 | 0.100 | ug/L |
| Benzo(k)fluoranthene | 0.010 | 0.100 | ug/L |
| Benzofluoranthenes, Total | 0.085 | 0.200 | ug/L |
| Benzo(e)pyrene | 0.014 | 0.100 | ug/L |
| Benzo(a)pyrene | 0.022 | 0.100 | ug/L |
| Indeno(1,2,3-cd)pyrene | 0.014 | 0.100 | ug/L |
| Dibenzo(a,h)anthracene | 0.013 | 0.100 | ug/L |
| Benzo(g,h,i)perylene | 0.009 | 0.100 | ug/L |
| Perylene | 0.032 | 0.100 | ug/L |
| Benzo(b)naphtho(2,1-d)thiophene | 0.100 | 0.100 | ug/L |

I-8227

# Certificate of Analysis

SIGMA-ALDRICH

| | |
|---|---|
| **Product Name** | Pentachlorophenol, 97% |
| **Product Number** | P2604 |
| **Product Brand** | ALDRICH |
| **CAS Number** | 87-86-5 |
| **Molecular Formula** | $C_6Cl_5OH$ |
| **Molecular Weight** | 266.34 |

| TEST | SPECIFICATION | LOT 07119HO RESULTS |
|---|---|---|
| **APPEARANCE** | WHITE TO OFF-WHITE OR LIGHT BLUE POWDER | OFF-WHITE POWDER |
| **INFRARED SPECTRUM** | CONFORMS TO STRUCTURE. | CONFORMS TO STRUCTURE AND STANDARD |
| **TITRATION** | 97.5% - 102.5% (WITH AGNO3 AFTER OXYGEN | 100.5 % (WITH AGNO3 AFTER OXYGEN COMBUSTION) |
| **GAS LIQUID CHROMATOGRAPHY** | 97.5% (MINIMUM) | 99.9 % |
| **SOLUBILITY** | | 100 MG/ML, 95% ETOH: VERY HAZY, FAINT YELLOW SOLUTION |
| **QUALITY CONTROL ACCEPTANCE DATE** | | JUNE 2001 |

Barbara Rajzer

Barbara Rajzer, Supervisor
Quality Control
Milwaukee, Wisconsin USA

# Certificate of Analysis

SIGMA-ALDRICH

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

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

Barbara Rajzer, Supervisor
Quality Control
Milwaukee, Wisconsin USA

Please wait...

I 8244


Revised Report 21D0130771/6/2021 Page 1094 of 1709

# Certificate of Analysis

G006587
7/19/18

## PAH Mixture

**Product Number:** US-106N **Page:** 1 of 1

**Lot Number:** CS-2324 **Lot Issue Date:** 04-May-2018 **Expiration Date:** 31-May-2021

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

| Analyte | CAS# | Analyte Lot | True Value |
|---|---|---|---|
| acenaphthene | 000083-32-9 | RM09993 | 2003 ± 10 µg/mL |
| acenaphthylene | 000208-96-8 | RM09993 | 2002 ± 10 µg/mL |
| anthracene | 000120-12-7 | RM03477 | 2004 ± 10 µg/mL |
| benz[a]anthracene | 000056-55-3 | RM13735 | 2007 ± 10 µg/mL |
| benzo[b]fluoranthene | 000205-99-2 | RM09988 | 2002 ± 10 µg/mL |
| benzo[k]fluoranthene | 000207-08-9 | RM10962 | 2009 ± 10 µg/mL |
| benzo[ghi]perylene | 000191-24-2 | RM10337 | 2008 ± 10 µg/mL |
| benzo[a]pyrene | 000050-32-8 | RM13734 | 2006 ± 10 µg/mL |
| chrysene | 000218-01-9 | RM11308 | 2002 ± 10 µg/mL |
| dibenz[a,h]anthracene | 000053-70-3 | RM06786 | 2001 ± 10 µg/mL |
| fluoranthene | 000206-44-0 | RM12277 | 2006 ± 10 µg/mL |
| fluorene | 000086-73-7 | RM09441 | 2001 ± 10 µg/mL |
| indeno[1,2,3-cd]pyrene | 000193-39-5 | RM06789 | 2008 ± 10 µg/mL |
| naphthalene | 000091-20-3 | RM10445 | 2001 ± 10 µg/mL |
| phenanthrene | 000085-01-8 | RM10495 | 2006 ± 10 µg/mL |
| pyrene | 000129-00-0 | RM03479 | 2006 ± 10 µg/mL |

**Matrix:** methylene chloride/benzene (1:1)

**Storage:** Store at Room Temperature (15° to 30°C).

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

John Russo
President

Monica Bourgeois
Director of QA/RA

ISO 9001
Registered
TUV USA, Inc.

Cambridge Isotope Laboratories, Inc.

# Certificate of Analysis

**Product Name:** DIBENZ[A,H]ANTHRACENE
(Isotopic Label & Enrichment Specification) (D14, 97%)

**Lot Number:** PR-28018

**Catalog Number:** DLM-677-0

## Product Information

| | |
|---|---|
| Chemical Purity Specification: | ≥ 98% |
| MW*: ** For isotopically labeled compounds, MW listed is for the fully enriched product.* | 292.43 |
| Labeled CAS Number: | 13250-98-1 |
| Unlabeled CAS Number: | 53-70-3 |
| Chemical Formula: | C22D14 |
| Storage: | Store at room temperature away from light and moisture. |

G 01 04 36 JK
Read 11/09/18

## Certification

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

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

**Approved by:** Sashi Sivendran-Basak

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

## Quality Control Tests and Results

| | |
|---|---|
| 1H NMR for Chemical Purity | Pass |
| 1H NMR for Isotopic Enrichment | 99.6% |
| 2H NMR for Chemical Purity | Pass |
| GC/FID for Chemical Purity | 99.3% |
| GC/MS for Identification | Conforms |
| GC/MS for Isotopic Enrichment | 99.3% |
| Melting Point Range Determination | 257-267°C |

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

Cambridge Isotope Laboratories, Inc.

# Certificate of Analysis

**Product Name:** DIBENZ[A,H]ANTHRACENE
(Isotopic Label & Enrichment Specification) (D14, 97%)

**Lot Number:** PR-28018

**Catalog Number:** DLM-677-0

Additional Testing Information:
Retest/Review Date: 02/28/27

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

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

# CERTIFICATE OF ANALYSIS

## 2-Chloronaphthalene

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

| Analytical Test | Value |
|---|---|
| % PURITY (GC/FID) | 99.5 |

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

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

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

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

ISO/IEC 17025
Accreditation Number: 3320

ISO GUIDE 34
Accreditation Number: 3320

COA Form
Revision 3 (3/2015)

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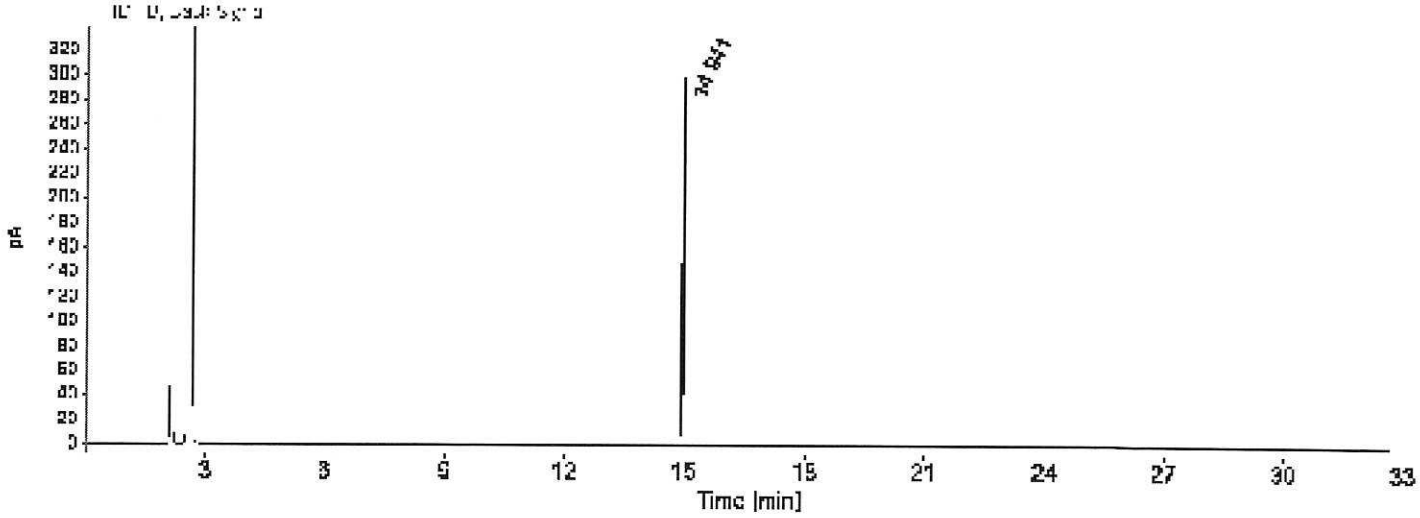
info@chemservice.com • www.chemservice.com

# 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-G006-17-C **Diameter** 250.000 **Length** 30.000




**Signal:** FID1 B, Back Signal

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

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

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

CERTIFIED WEIGHT REPORT

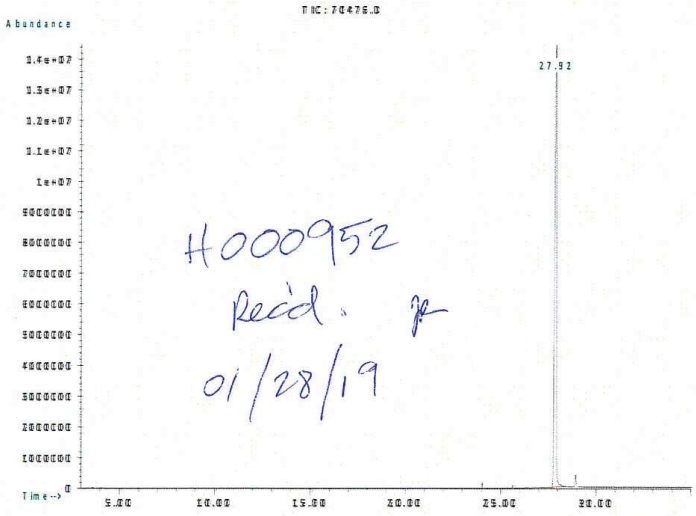
| | | | |
|---|---|---|---|
| **Part Number:** | 70476 | **Solvent(s):** | **Lot#** |
| Lot Number: | 011619 | Methylene chloride | 102669 |
| Description: | Benzo(j)fluoranthene | | |
| Expiration Date: | 011624 | | |
| Recommended Storage: | Refrigerate (4 °C) | | |
| Nominal Concentration (µg/mL): | 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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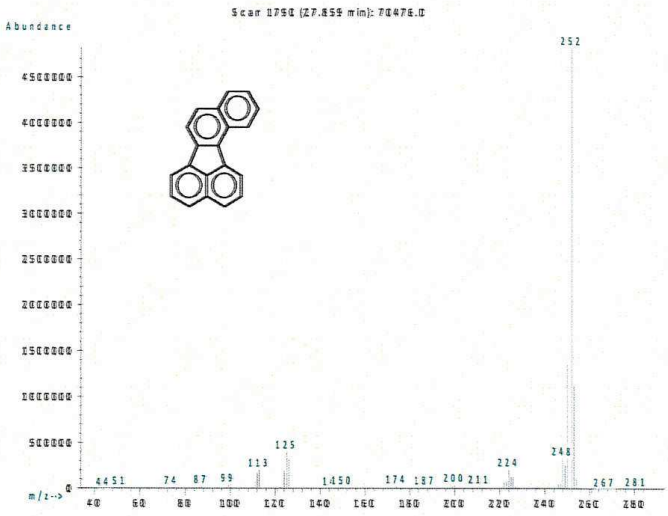
Recd. JP
01/28/19




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

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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)

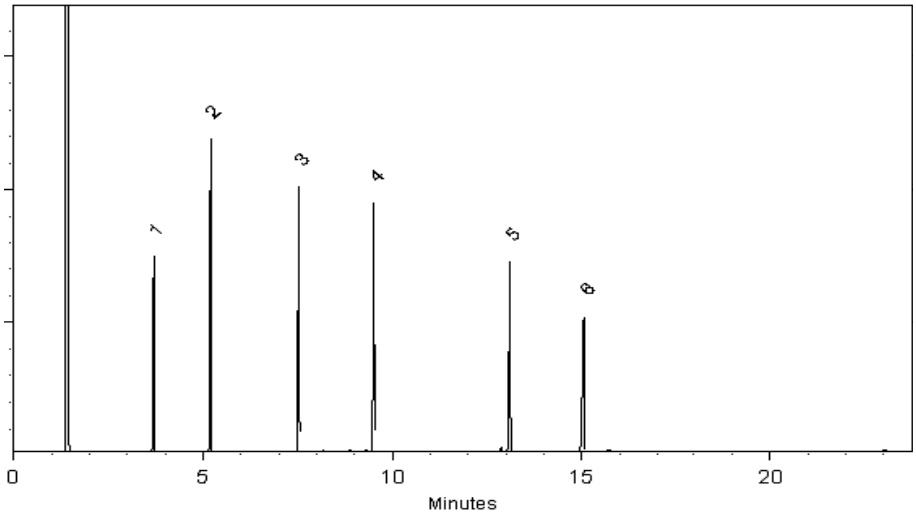
**Carrier Gas:**
hydrogen-constant pressure 10 psi.

**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.

**H009550**
SVOA-d14-Dibenzo(a,h)anthracene-2500ug/ml
Solvent / Lot: DCM/H008760
Prep: 10/2/2019 by VS
Exp: 10/2/2020
Location: Warm to 30C

Data :
Repor

L910C

**H009569**
LOW SIM PAH CAL-5ug/ml
Solvent / Lot: DCM/H008760
Prep: 10/3/2019 by VS
Exp: 5/17/2020
Location:

ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20191003.b\NT1119100302.D
Lab Smp Id: H009569-250
Inj Date : 03-OCT-2019 11:00 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : H009569-250
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20191003.b\lowsim.m
Meth Date : 03-Oct-2019 12:25 van Quant Type: ISTD
Cal Date : 03-OCT-2019 10:30 Cal File: NT1119100301.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: VANS

@ 250
Compard to old mix

| | Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | FINAL (ng/mL) | |
|---|---|---|---|---|---|---|---|---|---|
| * | 1 Naphthalene-d8 | 136 | 6.650 | 6.650 | (1.000) | 150999 | 200.000 | | |
| | 2 Naphthalene | 128 | 6.677 | 6.677 | (1.004) | 196187 | 256.450 | 256 | |
| | 3 Benzo(b)thiophene | 134 | 6.930 | 6.930 | (1.042) | 159213 | 256.263 | 256 | |
| $ | 4 2-Methylnaphthalene-d10 | 152 | 7.618 | 7.618 | (1.146) | 112539 | 239.085 | 239 | |
| | 5 2-Methylnaphthalene | 142 | 7.670 | 7.670 | (1.153) | 141284 | 258.781 | 259 | |
| | 6 1-Methylnaphthalene | 142 | 7.923 | 7.933 | (1.191) | 141015 | 257.499 | 257 | |
| | 7 2-Chloronaphthalene | 162 | 8.574 | 8.574 | (0.889) | 130821 | 262.182 | 262 | |
| | 8 Biphenyl | 154 | 8.542 | 8.553 | (0.885) | 167818 | 263.154 | 263 | |
| | 9 2,6-Dimethylnaphthalene | 156 | 8.605 | 8.605 | (0.892) | 128101 | 261.452 | 261 | |
| | 10 Acenaphthylene | 152 | 9.494 | 9.494 | (0.984) | 155523 | 257.952 | 258 | |
| * | 11 Acenaphthene-d10 | 164 | 9.648 | 9.648 | (1.000) | 73006 | 200.000 | | |
| | 12 Acenaphthene | 153 | 9.702 | 9.702 | (1.006) | 111115 | 261.393 | 261 | |
| | 13 Dibenzofuran | 168 | 9.906 | 9.906 | (1.027) | 142747 | 262.407 | 262 | |
| | 14 2,3,5-Trimethylnaphthalene | 170 | 10.007 | 10.007 | (1.037) | 101355 | 262.119 | 262 | |
| | 16 Fluorene | 166 | 10.538 | 10.538 | (1.092) | 115264 | 260.004 | 260 | |
| | 17 Dibenzothiophene | 184 | 12.142 | 12.142 | (0.986) | 154483 | 262.360 | 262 | |
| * | 18 Phenanthrene-d10 | 188 | 12.311 | 12.310 | (1.000) | 128794 | 200.000 | | |
| | 19 Phenanthrene | 178 | 12.353 | 12.353 | (1.003) | 155069 | 260.459 | 260 | |
| | 21 Anthracene | 178 | 12.405 | 12.405 | (1.008) | 181695 | 259.415 | 259 | |
| | 22 Carbazole | 167 | 13.095 | 13.095 | (1.064) | 179113 | 260.252 | 260 | |
| | 23 1-Methylphenanthrene | 192 | 13.348 | 13.348 | (1.084) | 146014 | 260.198 | 260 | |
| $ | 24 Fluoranthene-d10 | 212 | 14.411 | 14.411 | (1.171) | 136675 | 239.312 | 239 | |
| | 25 Fluoranthene | 202 | 14.439 | 14.439 | (1.173) | 177769 | 261.870 | 262 | |
| | 26 Pyrene | 202 | 14.939 | 14.939 | (1.214) | 181289 | 262.196 | 262 | |
| | 27 Benzo(a)anthracene | 228 | 16.944 | 16.944 | (0.995) | 142356 | 260.815 | 261 | |
| * | 28 Chrysene-d12 | 240 | 17.035 | 17.043 | (1.000) | 97091 | 200.000 | | |
| | 29 Chrysene | 228 | 17.085 | 17.085 | (1.003) | 160479 | 268.375 | 268 | |
| | 30 Benzo(b)fluoranthene | 252 | 18.755 | 18.755 | (0.951) | 144336 | 274.209 | 274 | 110% |
| | 31 Benzo(k)fluoranthene | 252 | 18.793 | 18.793 | (0.953) | 165195 | 266.919 | 267 | |
| | 32 Benzo(j)fluoranthene | 252 | 18.851 | 18.851 | (0.956) | 169926 | 269.517 | 270 | |
| | 34 Benzo(e)pyrene | 252 | 19.427 | 19.437 | (0.985) | 146932 | 270.097 | 270 | |
| | 35 Benzo(a)pyrene | 252 | 19.533 | 19.533 | (0.990) | 139050 | 268.012 | 268 | |
| * | 36 Perylene-d12 | 264 | 19.725 | 19.725 | (1.000) | 104829 | 200.000 | | |

| Compounds | QUANT SIG MASS | RT | EXP RT | REL RT | RESPONSE | CONCENTRATIONS ON-COLUMN (ng/mL) | CONCENTRATIONS FINAL (ng/mL) |
|---|---|---|---|---|---|---|---|
| 37 Perylene | 252 | 19.783 | 19.783 | (1.003) | 147335 | 269.490 | 269 |
| $ 38 Dibenzo(a,h)anthracene-d14 | 292 | 22.044 | 22.044 | (1.118) | 93336 | 231.868 | 232 |
| 39 Dibenzo(a,h)anthracene | 278 | 22.155 | 22.155 | (1.123) | 117340 | 266.540 | 267 |
| 40 Indeno(1,2,3-cd)pyrene | 276 | 22.177 | 22.177 | (1.124) | 137482 | 266.881 | 267 |
| 41 Benzo(g,h,i)perylene | 276 | 23.285 | 23.285 | (1.180) | 128893 | 267.641 | 268 |

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1119100302.D
Lab Smp Id: H009569-250
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20191003.b\lowsim.m
Misc Info:

Calibration Date: 03-OCT-2019
Calibration Time: 10:30

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

| COMPOUND | STANDARD | AREA LIMIT LOWER | AREA LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 1 Naphthalene-d8 | 201797 | 100899 | 403594 | 150999 | -25.17 |
| 11 Acenaphthene-d10 | 96586 | 48293 | 193172 | 73006 | -24.41 |
| 18 Phenanthrene-d10 | 169149 | 84575 | 338298 | 128794 | -23.86 |
| 28 Chrysene-d12 | 126783 | 63392 | 253566 | 97091 | -23.42 |
| 36 Perylene-d12 | 124340 | 62170 | 248680 | 104829 | -15.69 |

| COMPOUND | STANDARD | RT LIMIT LOWER | RT LIMIT UPPER | SAMPLE | %DIFF |
|---|---|---|---|---|---|
| 1 Naphthalene-d8 | 6.65 | 6.15 | 7.15 | 6.65 | 0.00 |
| 11 Acenaphthene-d10 | 9.65 | 9.15 | 10.15 | 9.65 | 0.00 |
| 18 Phenanthrene-d10 | 12.31 | 11.81 | 12.81 | 12.31 | 0.00 |
| 28 Chrysene-d12 | 17.04 | 16.54 | 17.54 | 17.04 | -0.05 |
| 36 Perylene-d12 | 19.73 | 19.23 | 20.23 | 19.73 | 0.00 |

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

REVIEW SUMMARY FOR FILE - NT1119100302.D

Lab ID: H009569-250
nt11.i, 20191003.b\lowsim.m, 03-OCT-2019 11:00

| RT | CO-ELUTION COMPOUNDS |
|---|---|

NO CO-ELUTIONS

** CHECK CAL FILE ON TARGET REPORT! QUANT FROM CCAL. **

RRT CHECK

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

NONE

RRT check based on Ccal File: NT1119100301.D

On Column LOD for nt11.i, 20191003.b\lowsim.m, PAH.sub = 0.0000

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

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

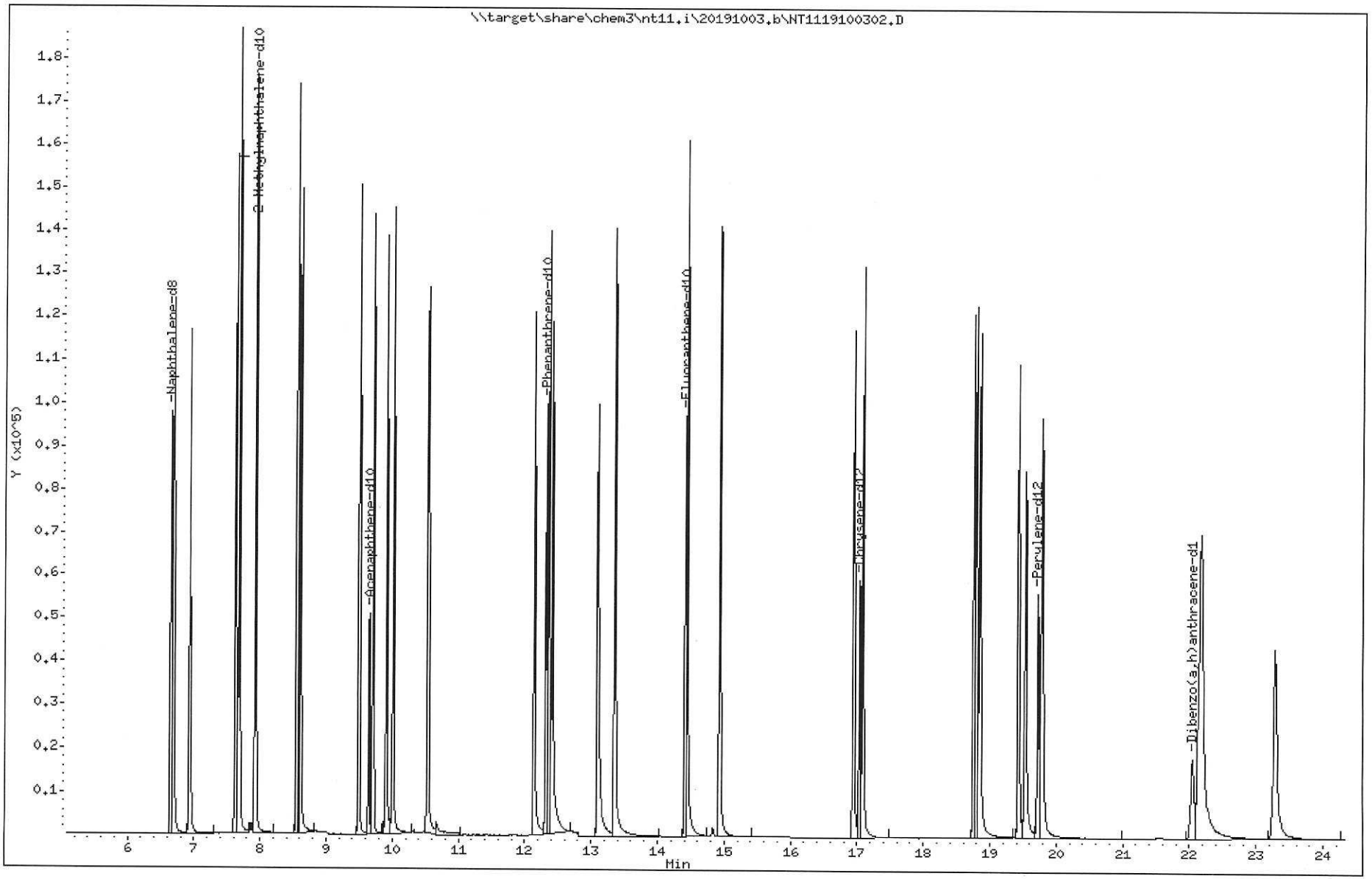
Data File: \\target\share\chem3\nt11.i\20191003.b\NT1119100302.D
Date : 03-OCT-2019 11:00
Client ID:
Sample Info: H009569-250

Column phase: Rxi-17Sil MS

Instrument: nt11.i

Operator: VTS
Column diameter: 0.25



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RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

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

**Catalog No. :** 33913 **Lot No.:** A0149554

**Description :** SOM01.0 SIM Analysis Standard

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

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

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

**Handling:** Sonication required. Mix is photosensitive.

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|
| 1 | 2-Methylnaphthalene-d10<br>**CAS #** 7297-45-2 (Lot AC-257)<br>**Purity** 98% | 2,000.2 µg/mL | +/- 11.7382 µg/mL<br>+/- 90.1034 µg/mL<br>+/- 99.9779 µg/mL | | Gravimetric<br>Unstressed<br>Stressed |
| 2 | Fluoranthene-d10<br>**CAS #** 93951-69-0 (Lot PR-20668)<br>**Purity** 98% | 2,000.2 µg/mL | +/- 11.7382 µg/mL<br>+/- 90.1034 µg/mL<br>+/- 99.9779 µg/mL | | Gravimetric<br>Unstressed<br>Stressed |

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

**H010524**
SOMO 1.0 SIM DMC
Solvent / Lot: A0149554
Prep: 10/26/2019 by VS
Exp: 4/30/2025
Location:

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

**Carrier Gas:**
hydrogen-constant pressure 10 psi.

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

**Inj. Temp:**
250°C

**Det. Temp:**
330°C

**Det. Type:**
FID




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

Cheryl Graham - Mix Technician

**Date Mixed:** 26-May-2019 **Balance:** B345965662

Justine Alderson - Operations Tech-ARM QC

**Date Passed:** 29-May-2019

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

**General Certified Reference Material Notes**

**Expiration Notes:**

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

**Purity Notes:**

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/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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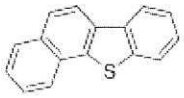
3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

# Certificate of Analysis

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

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



| Test | Specification | Result |
|---|---|---|
| Appearance (Color) | White to Off White | White |
| Appearance (Form)<br>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)<br>2.5% in CHCL3 | Clear to Slightly Hazy | Clear |
| Solubility (Color) | Colorless to Faint Yellow | Colorless |

Michael Grady, Manager
Quality Control
Milwaukee, WI US

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

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

Cambridge Isotope Laboratories, Inc.

# Certificate of Analysis

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

**Lot Number:** PR-14719

**Catalog Number:** DLM-1630-0

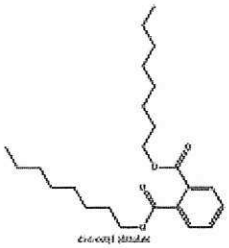
## Product Information

Chemical Purity Specification: ≥ 98%

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

Labeled CAS Number: 93952-13-7

Unlabeled CAS Number: 117-84-0



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

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

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

## Certification

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

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

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

## Quality Control Tests and Results

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

I2078
I2079
I2080

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

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

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

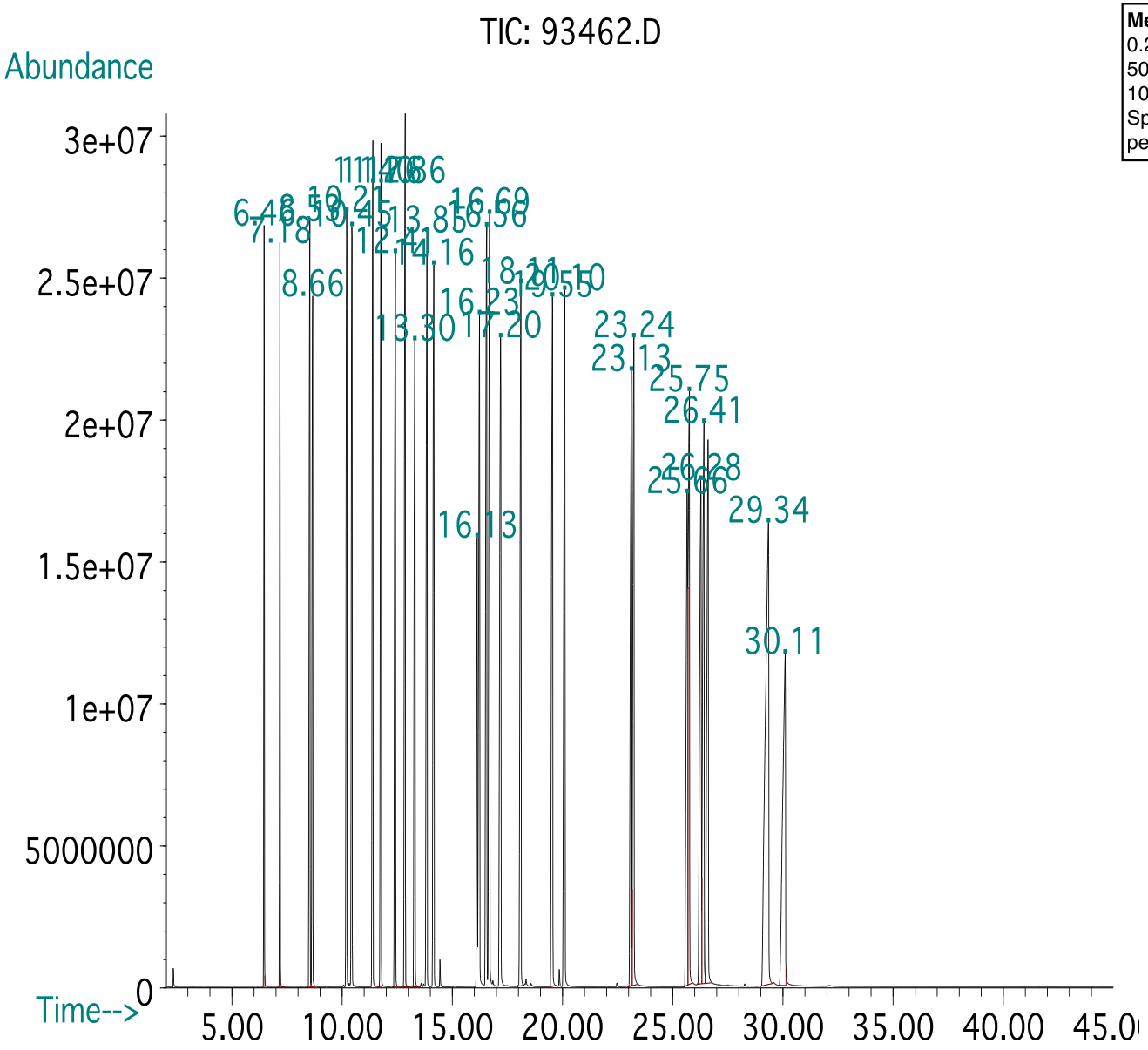
5E-05 Balance Uncertainty
Volume(s) shown below were combined and diluted to (mL): 20.0 0.003 Flask Uncertainty

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 |

- **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).**




**Method GC8MSD-2Long:** Column:SPB-5 (30m X 0.25mm ID X 0.25$\mu$m 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.

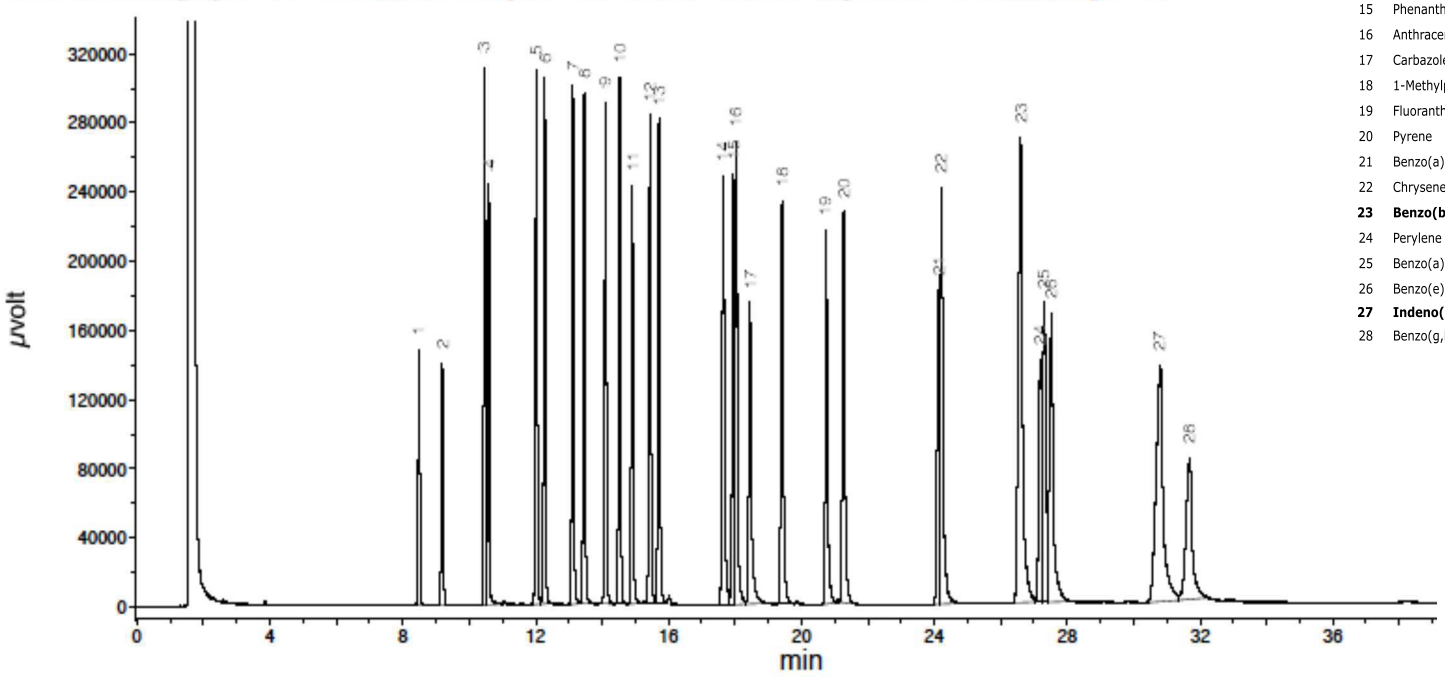
| Retention Time (min.) | |
|---|---|
| Decahydronaphthalene (Decalin) (isomer) | 6.46 |
| Decahydronaphthalene (Decalin) (isomer) | 7.18 |
| Naphthalene | 8.53 |
| Thianaphthene | 8.66 |
| 2-Methylnaphthalene | 10.21 |
| 1-Methylnaphthalene | 10.45 |
| Biphenyl | 11.4 |
| 2,6-Dimethylnaphthalene | 11.76 |
| 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

## Certificate of Analysis

ACCREDITED
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Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

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

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

**Description :** SOM01.0 SIM Analysis Standard

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

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

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

**Handling:** Sonication required. Mix is photosensitive.

**CERTIFIED VALUES**

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

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

I 4369

Cambridge Isotope Laboratories, Inc.

# Certificate of Analysis

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

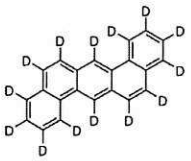
**Lot Number:** PR-30906

**Catalog Number:** DLM-677-0

## Product Information

Chemical Purity Specification: ≥ 98%

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



Labeled CAS Number: 13250-98-1

Unlabeled CAS Number: 53-70-3

Chemical Formula: $C_{22}D_{14}$

I4874

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

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

## Certification

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

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

**Approved by:** Sashi Sivendran-Basak

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

## Quality Control Tests and Results

| | |
|---|---|
| 1H NMR for Chemical Purity | Pass |
| 1H NMR for Isotopic Enrichment | 99.4% |
| 2H NMR for Chemical Purity | Pass |
| GC/FID for Chemical Purity | 99.4% |
| GC/MS for Identification | Conforms |
| Melting Point Range Determination | 261-267°C |

Additional Testing Information:

CIL subscribes to the following standards for different products: ISO Guide 34, ISO/IEC 17025, ISO 13485 and cGMP as appropriate.

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Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 33913 **Lot No.:** A0161454

**Description :** SOM01.0 SIM Analysis Standard

SOM01.0 SIM Analysis Standard 2000µg/mL, Methylene chloride, 1mL /ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** May 31, 2026 **Storage:** 10°C or colder

**Handling:** Sonication required. Mix is photosensitive.

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | 2-Methylnaphthalene-d10<br>**CAS #** 7297-45-2 (Lot EF-135)<br>**Purity** 96% | 2,013.1 µg/mL | +/- 11.8141 µg/mL<br>+/- 90.6864 µg/mL<br>+/- 100.6247 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | Fluoranthene-d10<br>**CAS #** 93951-69-0 (Lot PR-20668)<br>**Purity** 98% | 2,002.1 µg/mL | +/- 11.7497 µg/mL<br>+/- 90.1917 µg/mL<br>+/- 100.0759 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

**Solvent:** Methylene chloride
**CAS #** 75-09-2
**Purity** 99%

I5177

**Column:**
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

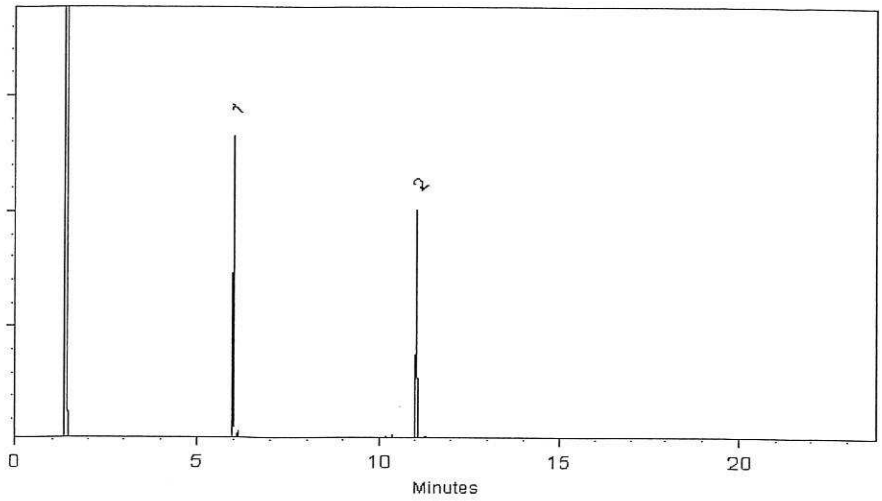
**Carrier Gas:**
hydrogen-constant pressure 10 psi.

**Temp. Program:**
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

**Inj. Temp:**
250°C

**Det. Temp:**
330°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Kylie Struble - Operations Technician I

**Date Mixed:** 04-Jun-2020 **Balance:** 1128360905

Fang-Yun Lo - QC Analyst

**Date Passed:** 08-Jun-2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

# Certificate of Analysis

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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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Certificate No. 2427.02

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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.

ilac-MRA ACCREDITED
Chemical Testing Laboratory
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IL111110613_us

# Certificate of Analysis



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Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31[1] and ISO Guide 35.[2]

2. Quality Standards: Phenova is accredited by A2LA to ISO 17034[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.

4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 25 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.

12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

**References:**

[1] ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
[3] ISO 17034 – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
[5] ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

**Absolute Standards, Inc.**
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www.absolutestandards.com

***Certified Reference Material CRM***

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

**Part Number:** 93462
**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): | Lot# |
|---|---|
| Methylene chloride | 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

**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:** 70476
Lot Number: 092220
Description: Benzo(j)fluoranthene

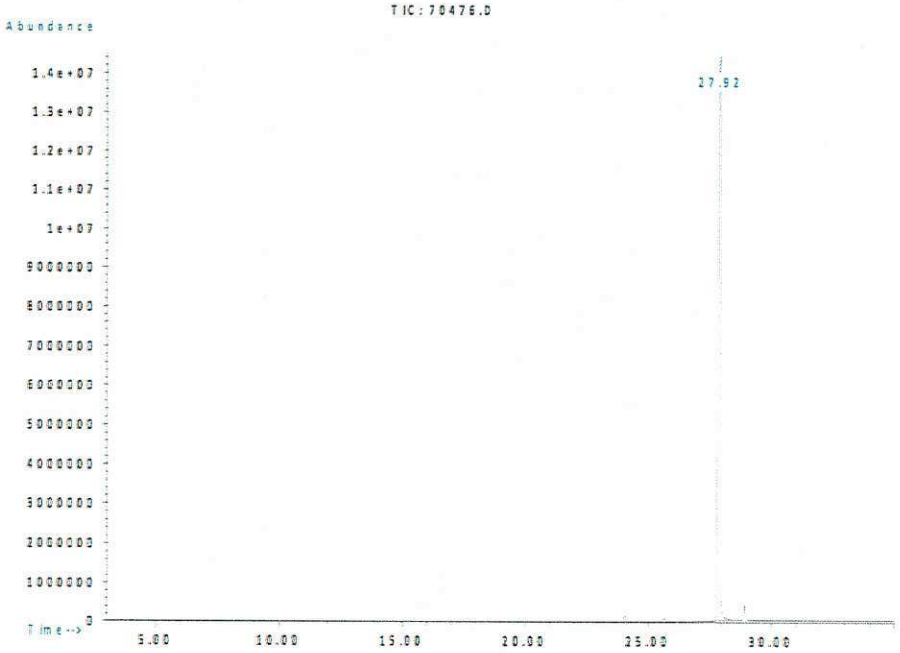
**Solvent(s):** **Lot#**
Methylene chloride 104929

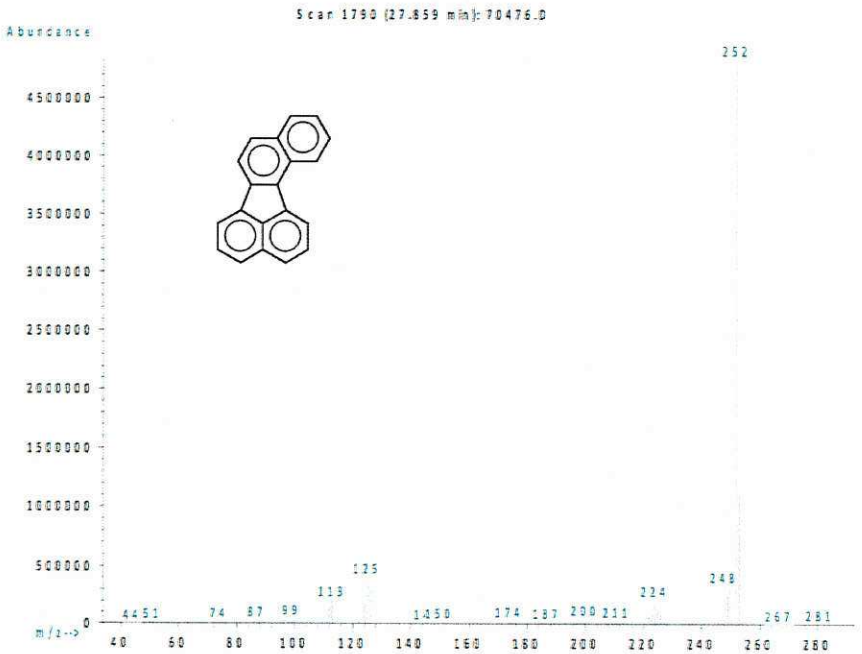
Expiration Date: 092225
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 23060 5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 25.0 0.001 Flask Uncertainty

| Formulated By: | Benson Chan | 092220 DATE |
|---|---|---|
| Reviewed By: | Pedro L. Rentas | 092220 DATE |

| Compound | RM# | Lot Number | Nominal Conc (µg/mL) | Purity (%) | Uncertainty Purity | Target Weight(g) | Actual Weight(g) | Actual Conc (µg/mL) | Expanded Uncertainty (+/-) (µg/mL) | SDS Information (Solvent Safety Info. On Attached pg.) CAS# | OSHA PEL (TWA) | LD50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Benzo(j)fluoranthene | 476 | 3-CSZ-153-20 | 1000 | 98.1 | 0.2 | 0.02547 | 0.02552 | 1001.8 | 5.7 | 205-82-3 | 0.2mg/m3 | N/A |

**Method GC8MSD1M:** Column:SBB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9 min.), Rate = 10°C/min., Injector B= 200°C, Detector B = 290°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by Candice Warren.




- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

I009061
Benzo(j)fluoranthene 1000ug/mL
Solvent / Lot: 092220
Prep: 10/3/2020 by VS
Exp: 9/22/2025
Location:

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

# CERTIFIED REFERENCE MATERIAL

## Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

ilac-MRA

AB 11/19/2020

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 31206 **Lot No.:** A0162879

**Description :** SV Internal Standard Mix 2mg/ml

SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** June 30, 2026 **Storage:** 10°C or colder

**Handling:** Sonication required. Mix is photosensitive.

**I010724**
SVOA 8270 IS Mix-2mg/ml
Solvent / Lot: DCM
Prep: 11/19/2020 by JZ
Exp: 5/31/2026
Location: GC

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | 1,4-Dichlorobenzene-d4<br>**CAS #** 3855-82-1 (Lot PR-18488)<br>**Purity** 99% | 2,014.5 µg/mL | +/- 11.7123 µg/mL<br>+/- 90.7328 µg/mL<br>+/- 100.6792 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | Naphthalene-d8<br>**CAS #** 1146-65-2 (Lot M-1452)<br>**Purity** 99% | 2,014.9 µg/mL | +/- 11.7150 µg/mL<br>+/- 90.7538 µg/mL<br>+/- 100.7026 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | Acenaphthene-d10<br>**CAS #** 15067-26-2 (Lot PR-30913)<br>**Purity** 99% | 2,011.9 µg/mL | +/- 11.6972 µg/mL<br>+/- 90.6157 µg/mL<br>+/- 100.5493 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | Phenanthrene-d10<br>**CAS #** 1517-22-2 (Lot PR-29119)<br>**Purity** 99% | 2,015.7 µg/mL | +/- 11.7196 µg/mL<br>+/- 90.7898 µg/mL<br>+/- 100.7425 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 5 | Chrysene-d12<br>**CAS #** 1719-03-5 (Lot PR-30486)<br>**Purity** 99% | 2,004.0 µg/mL | +/- 11.6514 µg/mL<br>+/- 90.2614 µg/mL<br>+/- 100.1561 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 6 | Perylene-d12<br>**CAS #** 1520-96-3 (Lot PR-30020)<br>**Purity** 99% | 2,013.6 µg/mL | +/- 11.7072 µg/mL<br>+/- 90.6938 µg/mL<br>+/- 100.6359 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

**Solvent:** Methylene chloride
**CAS #** 75-09-2
**Purity** 99%

**Column:**
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

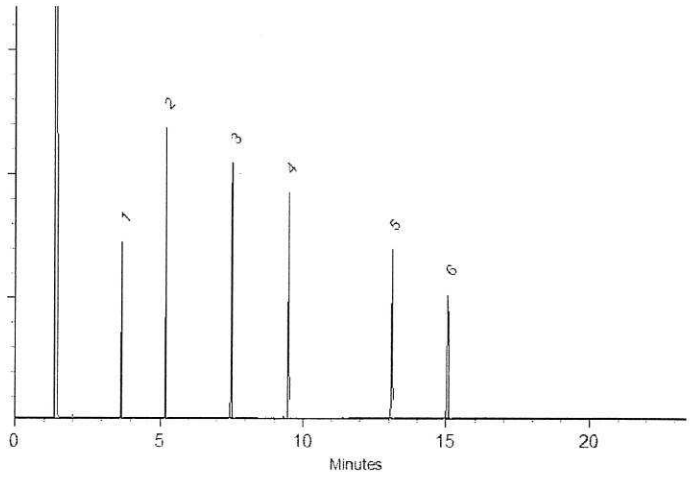
**Carrier Gas:**
hydrogen-constant pressure 10 psi.

**Temp. Program:**
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

**Inj. Temp:**
250°C

**Det. Temp:**
330°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cydnei L. Crust
Cydnei L. Crust - Mix Technician

**Date Mixed:** 23-Jul-2020 **Balance:** B251644995

Justine Albertson
Justine Albertson - Operations Tech-ARM QC

**Date Passed:** 24-Jul-2020

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

**Certified Uncertainty Value Notes:**

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

$k$ 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)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

USMPDI-010SG-210414

# Form I

## ORGANIC ANALYSIS DATA SHEET

## NWTPH-Dx

**TPH (Extractables) low level**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | | | | |
| Client: | Anchor QEA, LLC | | | | |
| Project: | Gasco Siltronic - US Moorings | | | | |
| Matrix: | Sediment | Laboratory ID: | 21D0180-01 A | SDG: | 21D0180 |
| Sampled: | 04/14/21 11:41 | Prepared: | 04/21/21 10:48 | File ID: | 421D2817.D |
| % Solids: | 46.63 | Preparation: | EPA 3546 (Microwave) | Analyzed: | 04/28/21 20:01 |
| Batch: | BJD0478 | Sequence: | SJD0413 | Initial/Final: | 10.02 g Wet / 1 mL |
| Instrument: | FID4 | Column: | RTX-1 | Calibration: | ED00037 |

| CAS NO. | COMPOUND | DILUTION | CONC: (mg/kg dry) | Q | DL | RL |
|---|---|---|---|---|---|---|
| DRO | Diesel Range Organics (C12-C24) | 1 | 37.3 | | 5.01 | 10.7 |
| RRO | Motor Oil Range Organics (C24-C38) | 1 | 266 | | 6.40 | 21.4 |

| SURROGATES | ADDED: (mg/kg dry) | FOUND: (mg/kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| o-Terphenyl | 24.078 | 20.3 | 84.4 | 50 - 150 | |

Data File: \\target\share\chem2\fid4a.i\20210428.b\421D2817.D

Page 1

Date : 28-APR-2021 20:01

Client ID:

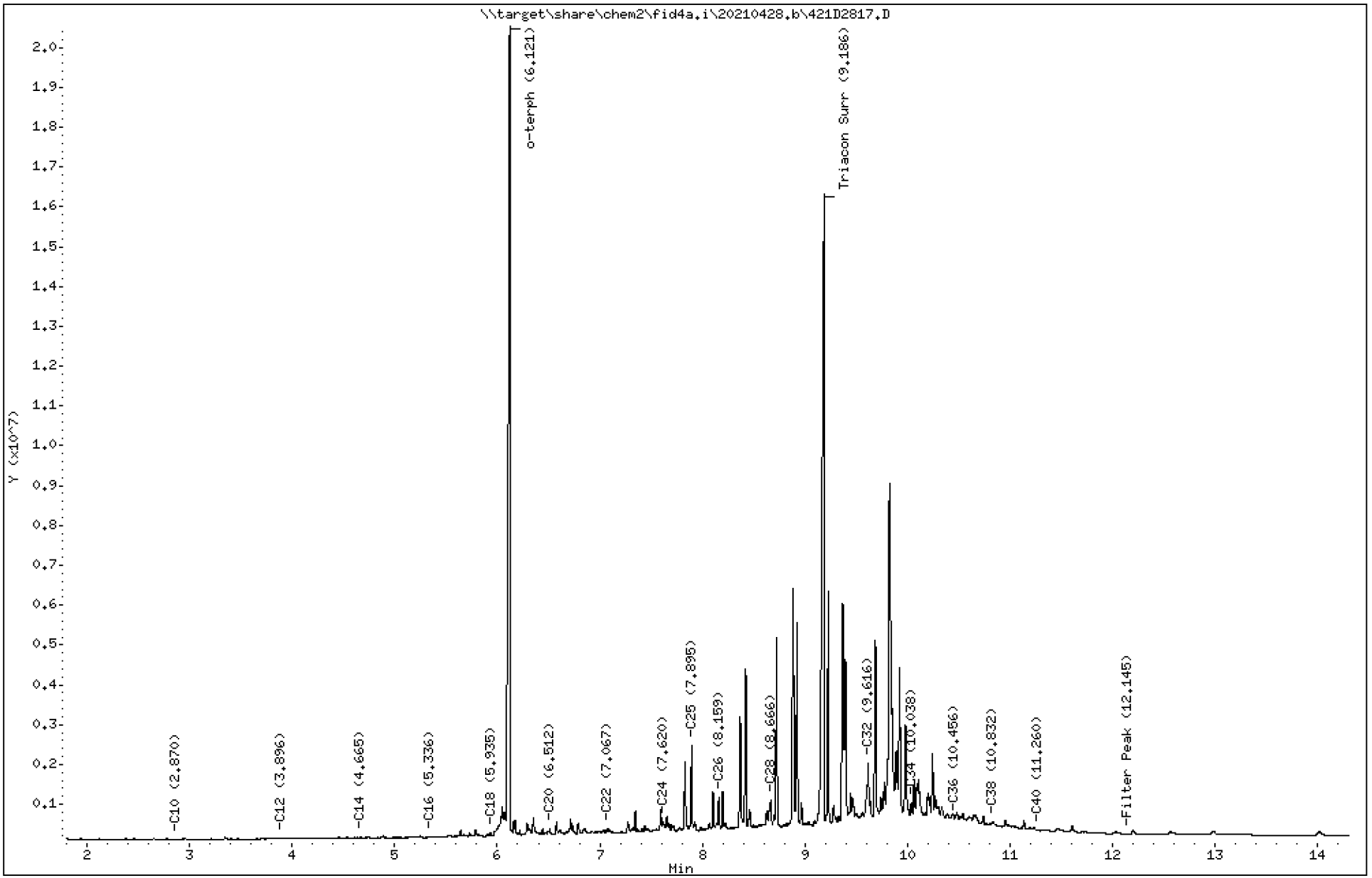
Instrument: fid4a.i

Sample Info: 21D0180-01

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25




Revised Report 21D0180 07/07/2021 Page 1530 of 1709

Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210428.b/421D2817.D
Method: 20210428.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/29/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: 21D0180-01
Client ID:
Injection: 28-APR-2021 20:01
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Method | Range | Total Area | Conc(mg/L) |
|---|---|---|---|---|---|---|---|---|
| C8 | 1.601 | 0.018 | 8177 | 13103 | WATPHD | (C12-C24) | 31827444 | 174.1 |
| C10 | 2.870 | -0.006 | 15677 | 15562 | WATPHM | (C24-C38) | 163536305 | 1244.2 |
| C12 | 3.896 | 0.008 | 34307 | 83298 | AK102 | (C10-C25) | 36778542 | 170.7 |
| C14 | 4.665 | -0.004 | 58586 | 65720 | AK103 | (C25-C36) | 149040571 | 1474.8 |
| C16 | 5.336 | -0.005 | 74249 | 143882 | OR.DIES | (C10-C28) | 63194457 | 322.4 |
| C18 | 5.935 | -0.007 | 171157 | 227426 | | | | |
| C20 | 6.512 | 0.002 | 257461 | 258360 | JET-A | (C10-C18) | 8490075 | 57.9 |
| C22 | 7.067 | -0.008 | 257130 | 294410 | | | | |
| C24 | 7.620 | -0.007 | 433424 | 481391 | | | | |
| C25 | 7.895 | -0.005 | 2358625 | 2034459 | | | | |
| C26 | 8.159 | -0.004 | 1048062 | 1264364 | | | | |
| C28 | 8.666 | -0.008 | 986757 | 1871585 | | | | |
| C32 | 9.616 | 0.003 | 1908019 | 2265494 | | | | |
| C34 | 10.038 | -0.005 | 928207 | 1348129 | | | | |
| Filter Peak | 12.145 | 0.006 | 143684 | 57315 | BUNKERC | (C10-C38) | 196360228 | 4374.0 |
| C36 | 10.456 | 0.003 | 510366 | 76369 | | | | |
| C38 | 10.832 | -0.010 | 434142 | 885720 | | | | |
| C40 | 11.260 | 0.010 | 237406 | 117908 | | | | |
| o-terph | 6.121 | 0.001 | 20424408 | 23625386 | | | | |
| Triacon Surr | 9.186 | 0.004 | 15735179 | 21906646 | NAS DIES | (C10-C24) | 32823924 | 168.2 |

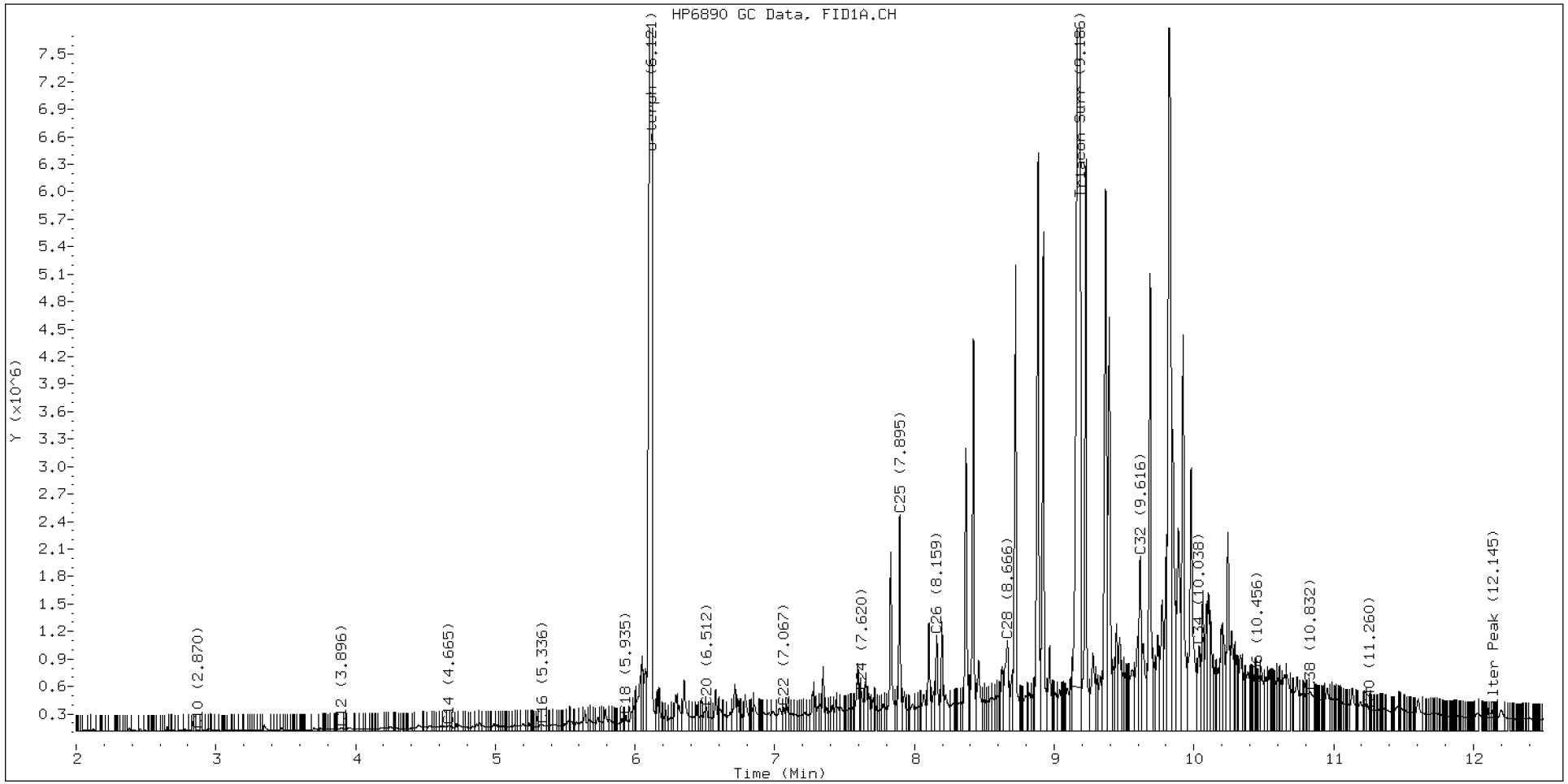
Range Times: NW Diesel(3.887 - 7.627) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.67)

| Surrogate | Area | Amount | |
|---|---|---|---|
| o-Terphenyl | 23625386 | 94.9 | |
| Triacontane | 21906646 | 103.4 | M |

M Indicates the peak was manually integrated

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 249011.3 | 25-OCT-2019 |
| Triacon Surr | 211827.9 | 25-OCT-2019 |
| Gas | 15000.0 | XX-XXX-XXXX |
| Diesel | 182831.3 | 14-APR-2021 |
| Motor Oil | 131440.7 | 14-APR-2021 |
| AK102 | 215421.2 | 14-APR-2021 |
| AK103 | 101056.3 | 14-APR-2021 |
| JetA | 146652.4 | 20-MAY-2020 |
| OR Diesel | 195999.1 | 25-OCT-2019 |
| NAS Diesel | 195148.2 | 25-OCT-2019 |
| Bunker C | 44892.5 | 21-APR-2021 |

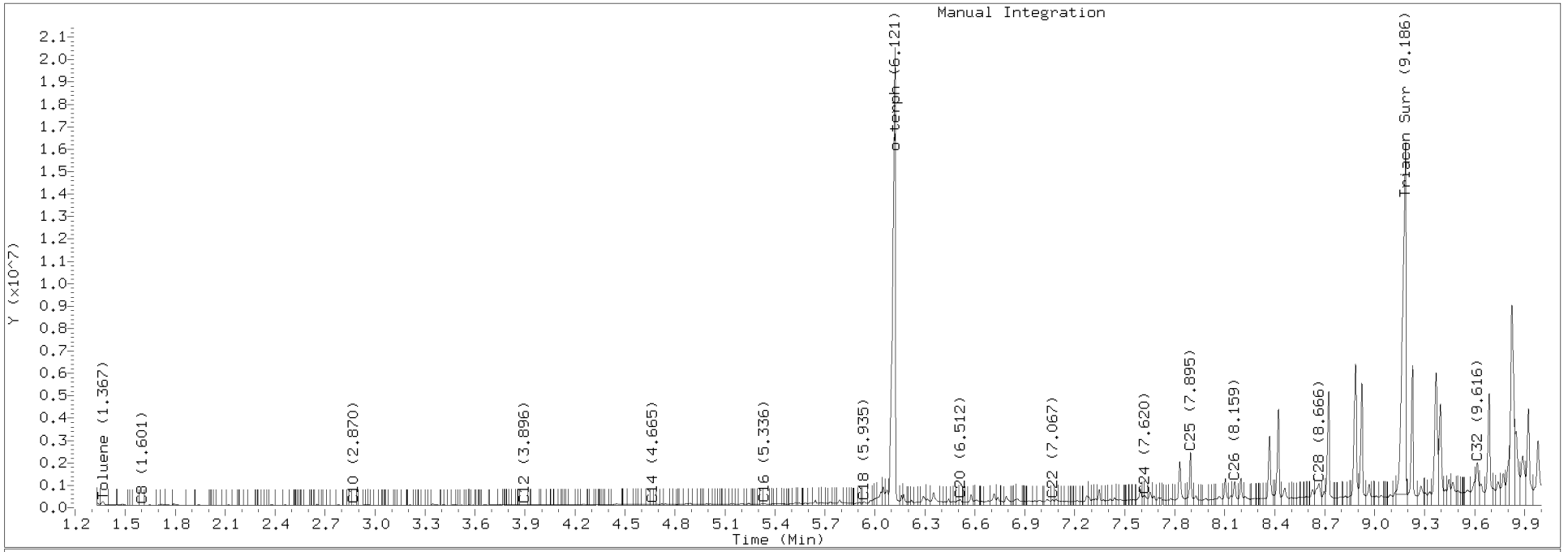
Datafile: FID4A, 20210428.b/421D2817.D 21D0180-01

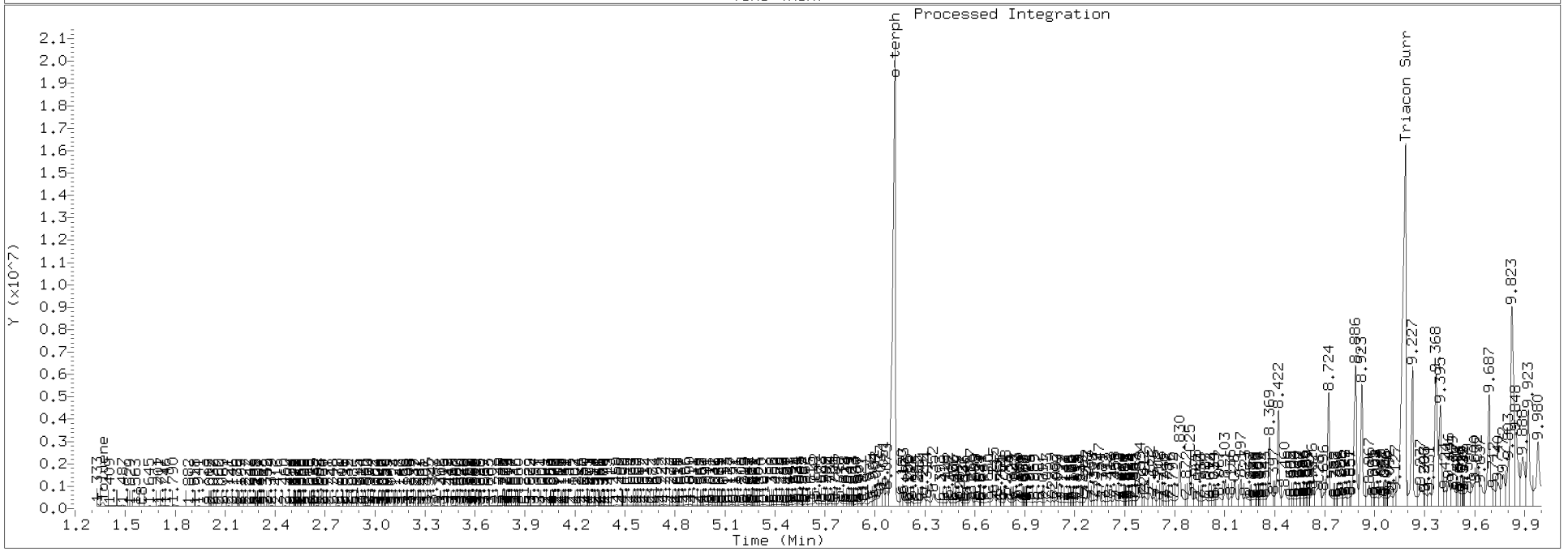


TPH Manual Integrations Report

Datafile: FID4A, 20210428.b/421D2817.D Injection: 28-APR-2021 20:01

Lab ID:21D0180-01



USMPDI-015SG-210414

# Form I

## ORGANIC ANALYSIS DATA SHEET

## NWTPH-Dx

**TPH (Extractables) low level**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | | | | |
| Client: | Anchor QEA, LLC | | | | |
| Project: | Gasco Siltronic - US Moorings | | | | |
| Matrix: | Sediment | Laboratory ID: | 21D0180-02 A | SDG: | 21D0180 |
| Sampled: | 04/14/21 10:35 | Prepared: | 04/21/21 10:48 | File ID: | 421D2818.D |
| % Solids: | 45.49 | Preparation: | EPA 3546 (Microwave) | Analyzed: | 04/28/21 20:22 |
| Batch: | BJD0478 | Sequence: | SJD0413 | Initial/Final: | 10.02 g Wet / 1 mL |
| Instrument: | FID4 | Column: | RTX-1 | Calibration: | ED00037 |

| CAS NO. | COMPOUND | DILUTION | CONC: (mg/kg dry) | Q | DL | RL |
|---|---|---|---|---|---|---|
| DRO | Diesel Range Organics (C12-C24) | 1 | 32.8 | | 5.13 | 11.0 |
| RRO | Motor Oil Range Organics (C24-C38) | 1 | 232 | | 6.56 | 21.9 |

| SURROGATES | ADDED: (mg/kg dry) | FOUND: (mg/kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| o-Terphenyl | 24.681 | 18.8 | 76.2 | 50 - 150 | |

Data File: \\target\share\chem2\fid4a.i\20210428.b\421D2818.D



Date : 28-APR-2021 20:22

Client ID:

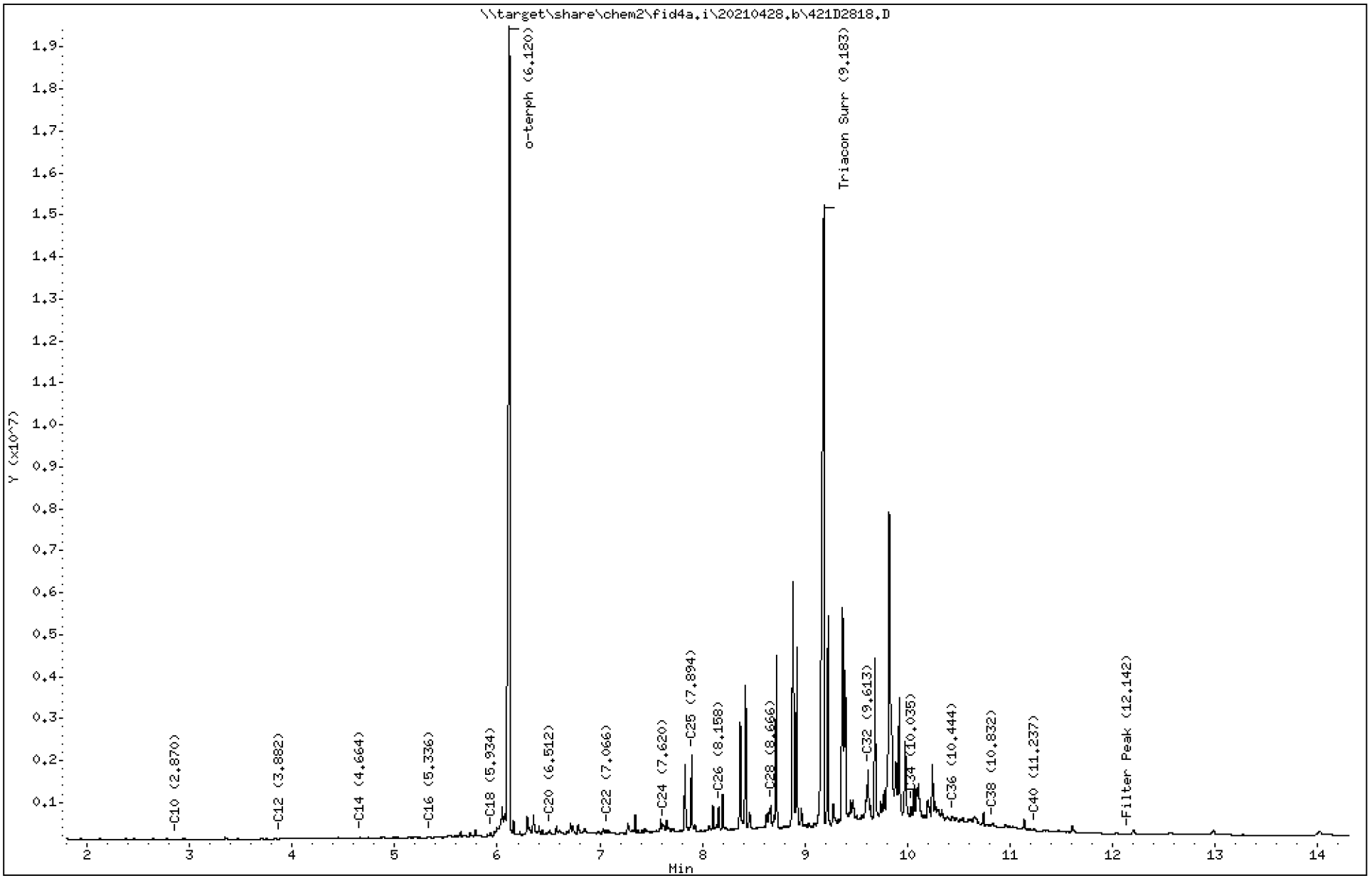
Instrument: fid4a.i

Sample Info: 21D0180-02

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25

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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210428.b/421D2818.D
Method: 20210428.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/29/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: 21D0180-02
Client ID:
Injection: 28-APR-2021 20:22
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Method | Range | Total Area | Conc(mg/L) |
|---|---|---|---|---|---|---|---|---|
| C8 | 1.598 | 0.016 | 12348 | 19787 | WATPHD | (C12-C24) | 27311465 | 149.4 |
| C10 | 2.870 | -0.006 | 13444 | 11288 | WATPHM | (C24-C38) | 138926638 | 1057.0 |
| C12 | 3.882 | -0.005 | 19440 | 17558 | AK102 | (C10-C25) | 31565354 | 146.5 |
| C14 | 4.664 | -0.005 | 48952 | 54004 | AK103 | (C25-C36) | 125814152 | 1245.0 |
| C16 | 5.336 | -0.005 | 61859 | 53479 | OR.DIES | (C10-C28) | 57445810 | 293.1 |
| C18 | 5.934 | -0.008 | 150523 | 206015 | | | | |
| C20 | 6.512 | 0.002 | 239459 | 257052 | JET-A | (C10-C18) | 7022757 | 47.9 |
| C22 | 7.066 | -0.009 | 219964 | 242258 | | | | |
| C24 | 7.620 | -0.007 | 362439 | 604624 | | | | |
| C25 | 7.894 | -0.006 | 2001200 | 1947755 | | | | |
| C26 | 8.158 | -0.005 | 769985 | 914460 | | | | |
| C28 | 8.666 | -0.008 | 802421 | 1063559 | | | | |
| C32 | 9.613 | 0.000 | 1661607 | 2005912 | | | | |
| C34 | 10.035 | -0.008 | 787423 | 1166269 | | | | |
| Filter Peak | 12.142 | 0.003 | 130943 | 45781 | BUNKERC | (C10-C38) | 166966105 | 3719.2 |
| C36 | 10.444 | -0.008 | 547446 | 396115 | | | | |
| C38 | 10.832 | -0.009 | 376381 | 778987 | | | | |
| C40 | 11.237 | -0.013 | 254682 | 398285 | | | | |
| o-terph | 6.120 | 0.000 | 19390867 | 21344541 | | | | |
| Triacon Surr | 9.183 | 0.002 | 14763956 | 20241792 | NAS DIES | (C10-C24) | 28039467 | 143.7 |

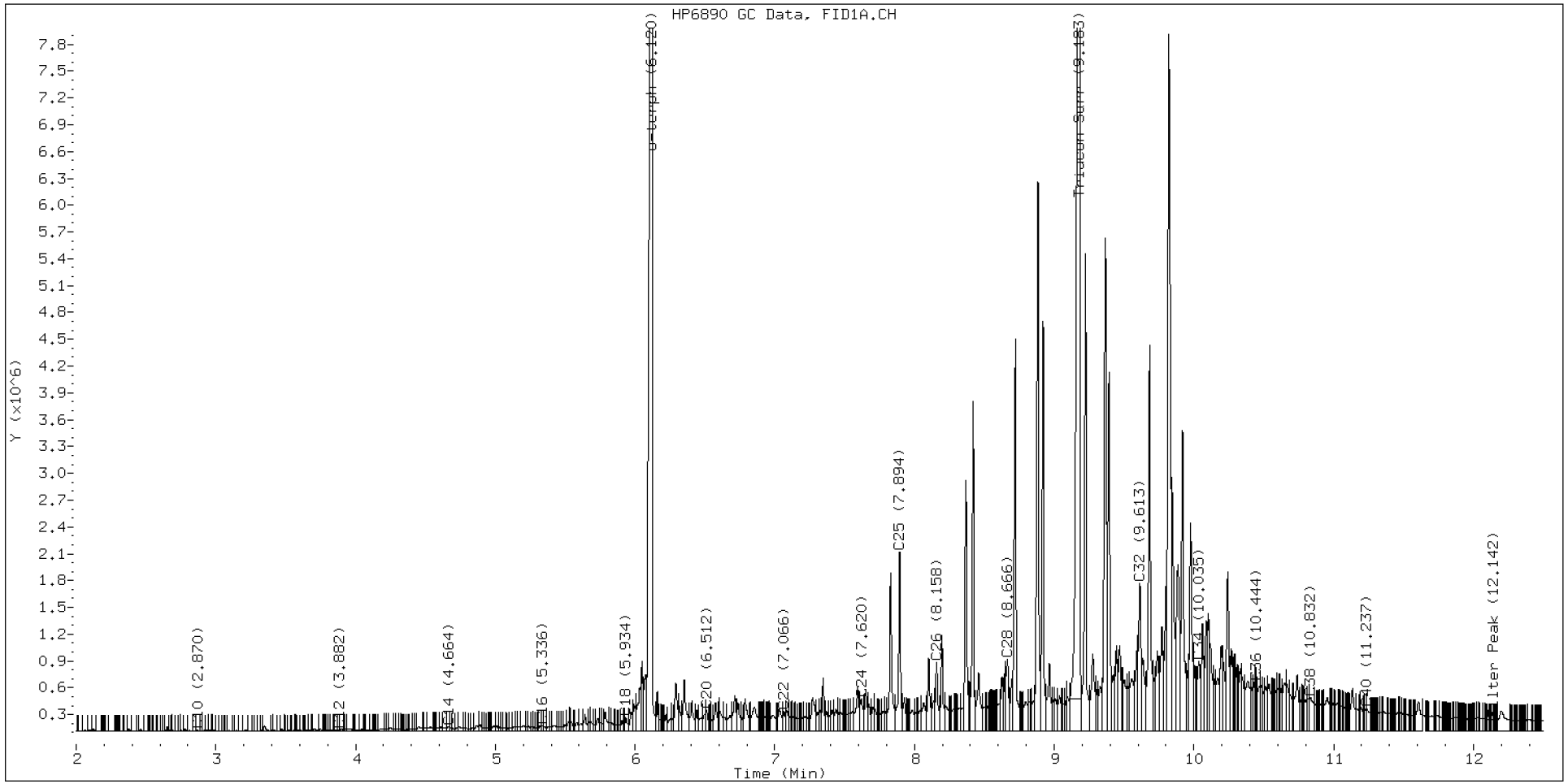
Range Times: NW Diesel(3.887 - 7.627) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.67)

| Surrogate | Area | Amount | |
|---|---|---|---|
| o-Terphenyl | 21344541 | 85.7 | |
| Triacontane | 20241792 | 95.6 | M |

M Indicates the peak was manually integrated

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 249011.3 | 25-OCT-2019 |
| Triacon Surr | 211827.9 | 25-OCT-2019 |
| Gas | 15000.0 | XX-XXX-XXXX |
| Diesel | 182831.3 | 14-APR-2021 |
| Motor Oil | 131440.7 | 14-APR-2021 |
| AK102 | 215421.2 | 14-APR-2021 |
| AK103 | 101056.3 | 14-APR-2021 |
| JetA | 146652.4 | 20-MAY-2020 |
| OR Diesel | 195999.1 | 25-OCT-2019 |
| NAS Diesel | 195148.2 | 25-OCT-2019 |
| Bunker C | 44892.5 | 21-APR-2021 |

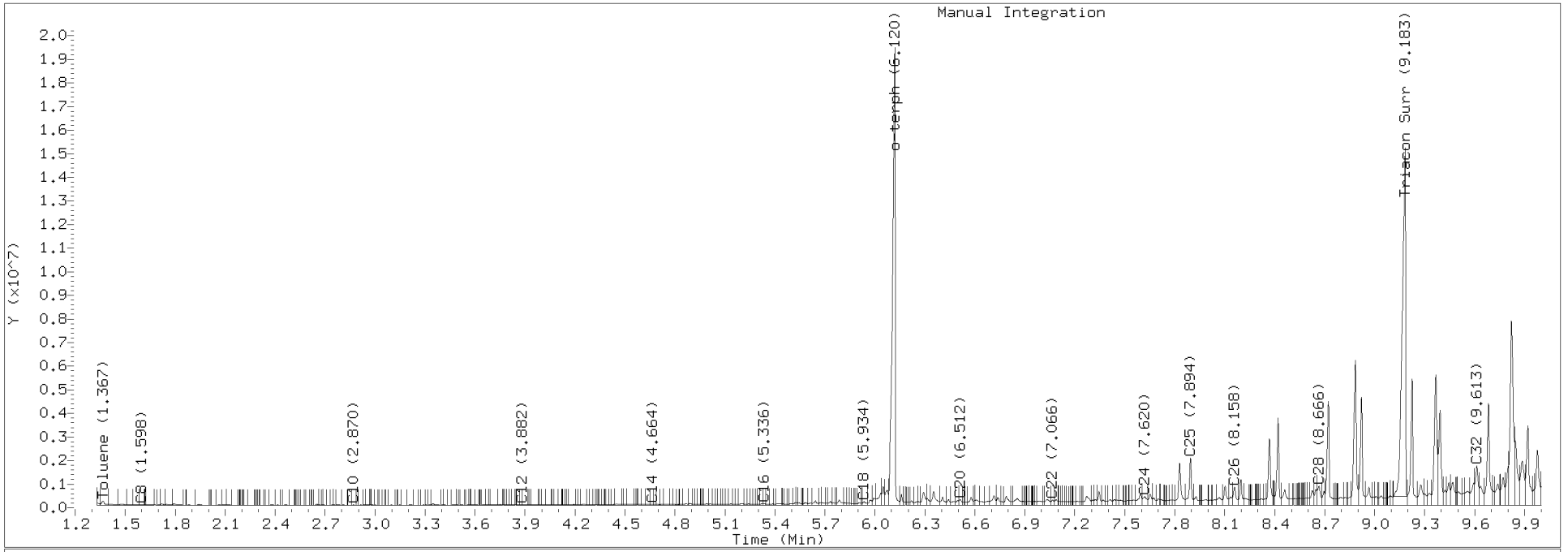
Datafile: FID4A, 20210428.b/421D2818.D 21D0180-02

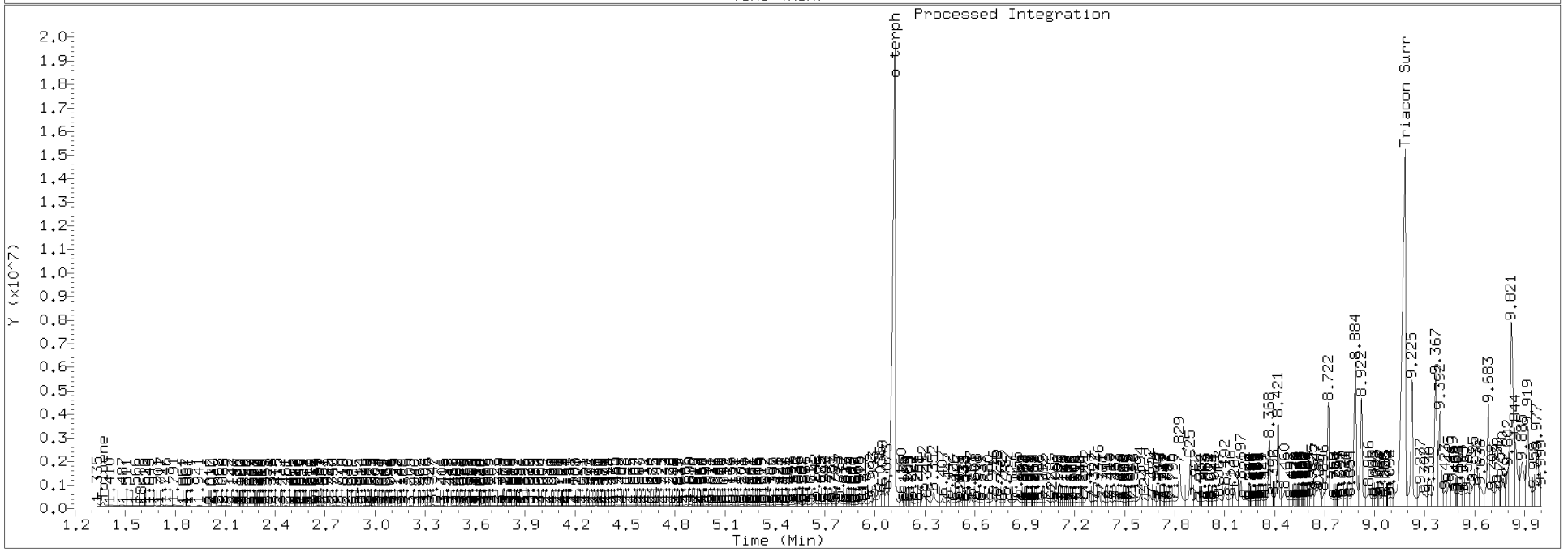


TPH Manual Integrations Report

Datafile: FID4A, 20210428.b/421D2818.D Injection: 28-APR-2021 20:22

Lab ID:21D0180-02



USMPDI-019SG-210414

# Form I

## ORGANIC ANALYSIS DATA SHEET

## NWTPH-Dx

**TPH (Extractables) low level**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | | | | |
| Client: | Anchor QEA, LLC | | | | |
| Project: | Gasco Siltronic - US Moorings | | | | |
| Matrix: | Sediment | Laboratory ID: | 21D0180-03 A | SDG: | 21D0180 |
| Sampled: | 04/14/21 08:36 | Prepared: | 04/21/21 10:48 | File ID: | 421D2819.D |
| % Solids: | 46.60 | Preparation: | EPA 3546 (Microwave) | Analyzed: | 04/28/21 20:44 |
| Batch: | BJD0478 | Sequence: | SJD0413 | Initial/Final: | 10.02 g Wet / 1 mL |
| Instrument: | FID4 | Column: | RTX-1 | Calibration: | ED00037 |

| CAS NO. | COMPOUND | DILUTION | CONC: (mg/kg dry) | Q | DL | RL |
|---|---|---|---|---|---|---|
| DRO | Diesel Range Organics (C12-C24) | 1 | 33.2 | | 5.01 | 10.7 |
| RRO | Motor Oil Range Organics (C24-C38) | 1 | 225 | | 6.40 | 21.4 |

| SURROGATES | ADDED: (mg/kg dry) | FOUND: (mg/kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| o-Terphenyl | 24.093 | 18.0 | 74.6 | 50 - 150 | |

Data File: \\target\share\chem2\fid4a.i\20210428.b\421D2819.D



Date : 28-APR-2021 20:44

Client ID:

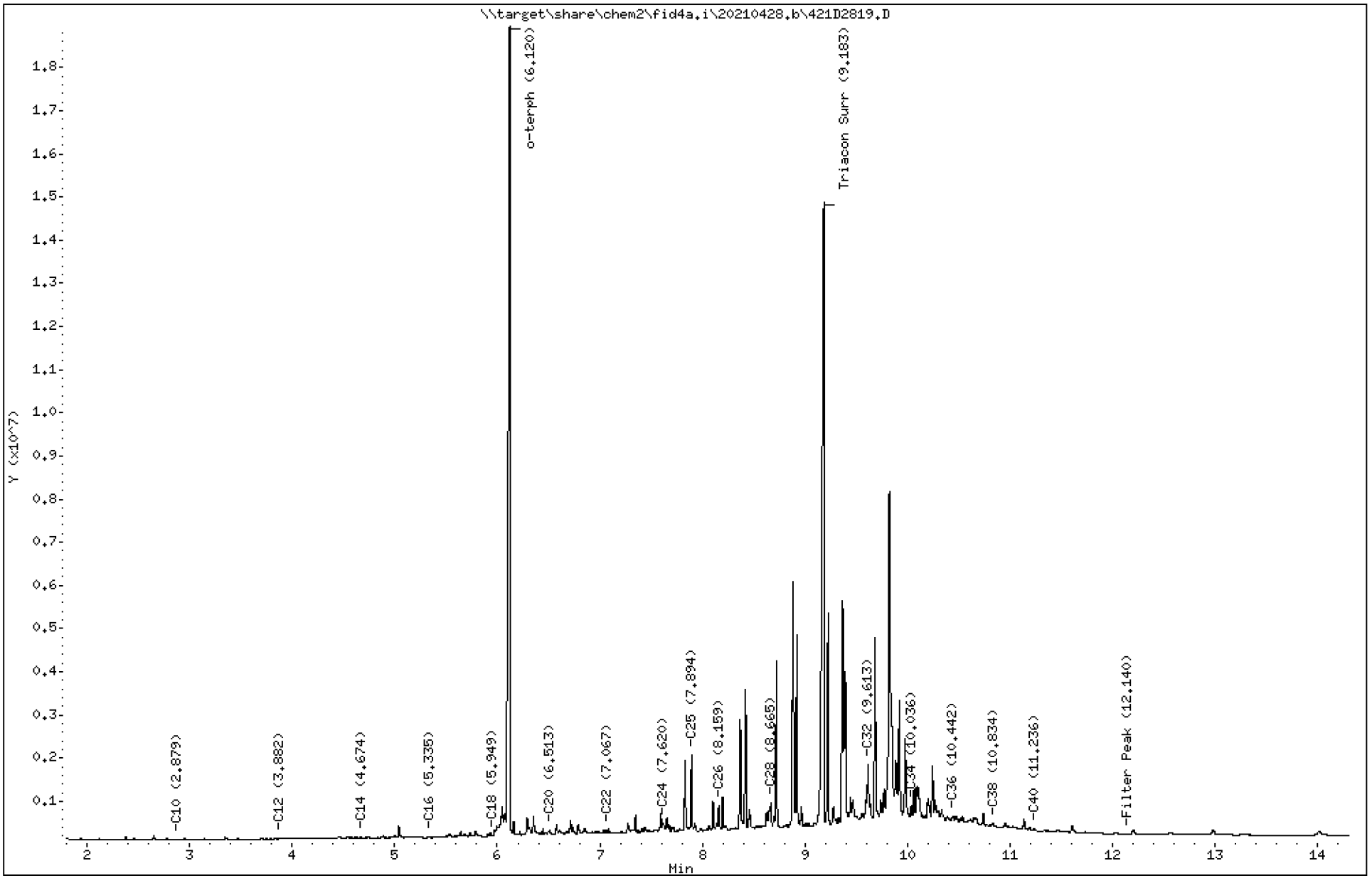
Instrument: fid4a.i

Sample Info: 21D0180-03

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25




Revised Report 21D0180 07/07/2021 Page 1540 of 1709

Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210428.b/421D2819.D
Method: 20210428.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/29/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: 21D0180-03
Client ID:
Injection: 28-APR-2021 20:44
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Method | Range | Total Area | Conc(mg/L) |
|---|---|---|---|---|---|---|---|---|
| C8 | 1.564 | -0.019 | 11750 | 20043 | WATPHD | (C12-C24) | 28359587 | 155.1 |
| C10 | 2.879 | 0.004 | 3887 | 1984 | WATPHM | (C24-C38) | 138105078 | 1050.7 |
| C12 | 3.882 | -0.005 | 18624 | 18780 | AK102 | (C10-C25) | 32684612 | 151.7 |
| C14 | 4.674 | 0.005 | 50729 | 53350 | AK103 | (C25-C36) | 125208668 | 1239.0 |
| C16 | 5.335 | -0.005 | 62343 | 52279 | OR.DIES | (C10-C28) | 58874299 | 300.4 |
| C18 | 5.949 | 0.006 | 94461 | 45552 | | | | |
| C20 | 6.513 | 0.002 | 233042 | 237535 | JET-A | (C10-C18) | 7905282 | 53.9 |
| C22 | 7.067 | -0.008 | 222668 | 245461 | | | | |
| C24 | 7.620 | -0.007 | 374716 | 390267 | | | | |
| C25 | 7.894 | -0.006 | 1955517 | 1623246 | | | | |
| C26 | 8.159 | -0.004 | 795592 | 994427 | | | | |
| C28 | 8.665 | -0.009 | 840371 | 1045598 | | | | |
| C32 | 9.613 | -0.000 | 1724850 | 1989998 | | | | |
| C34 | 10.036 | -0.007 | 778867 | 1124072 | | | | |
| Filter Peak | 12.140 | 0.001 | 131615 | 58796 | BUNKERC | (C10-C38) | 167207401 | 3724.6 |
| C36 | 10.442 | -0.010 | 543998 | 578217 | | | | |
| C38 | 10.834 | -0.008 | 365914 | 645450 | | | | |
| C40 | 11.236 | -0.014 | 254415 | 570672 | | | | |
| o-terph | 6.120 | 0.000 | 18845471 | 20883641 | | | | |
| Triacon Surr | 9.183 | 0.001 | 14330026 | 19918347 | NAS DIES | (C10-C24) | 29102324 | 149.1 |

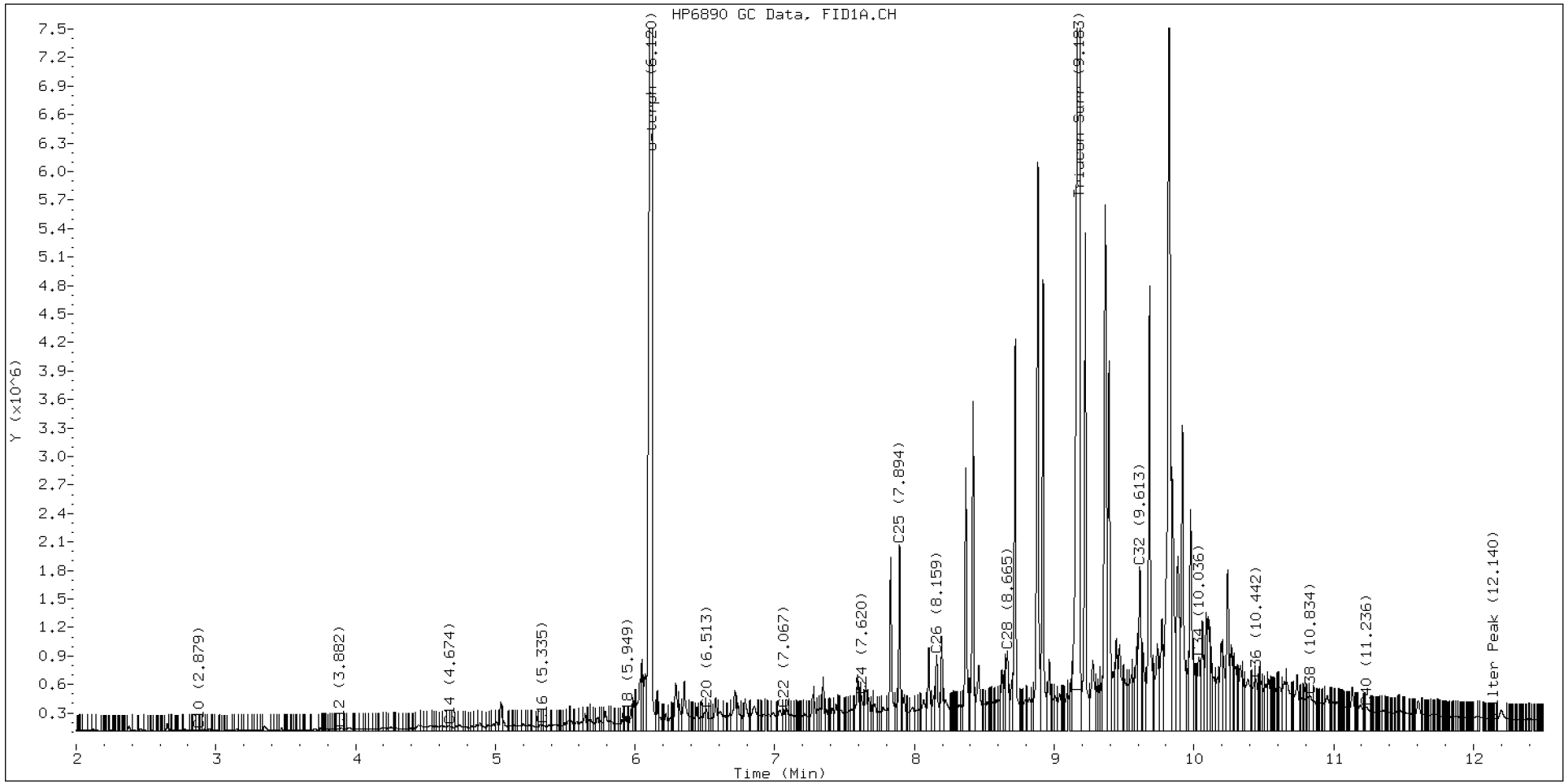
Range Times: NW Diesel(3.887 - 7.627) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.67)

| Surrogate | Area | Amount | |
|---|---|---|---|
| o-Terphenyl | 20883641 | 83.9 | |
| Triacontane | 19918347 | 94.0 | M |

M Indicates the peak was manually integrated

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 249011.3 | 25-OCT-2019 |
| Triacon Surr | 211827.9 | 25-OCT-2019 |
| Gas | 15000.0 | XX-XXX-XXXX |
| Diesel | 182831.3 | 14-APR-2021 |
| Motor Oil | 131440.7 | 14-APR-2021 |
| AK102 | 215421.2 | 14-APR-2021 |
| AK103 | 101056.3 | 14-APR-2021 |
| JetA | 146652.4 | 20-MAY-2020 |
| OR Diesel | 195999.1 | 25-OCT-2019 |
| NAS Diesel | 195148.2 | 25-OCT-2019 |
| Bunker C | 44892.5 | 21-APR-2021 |

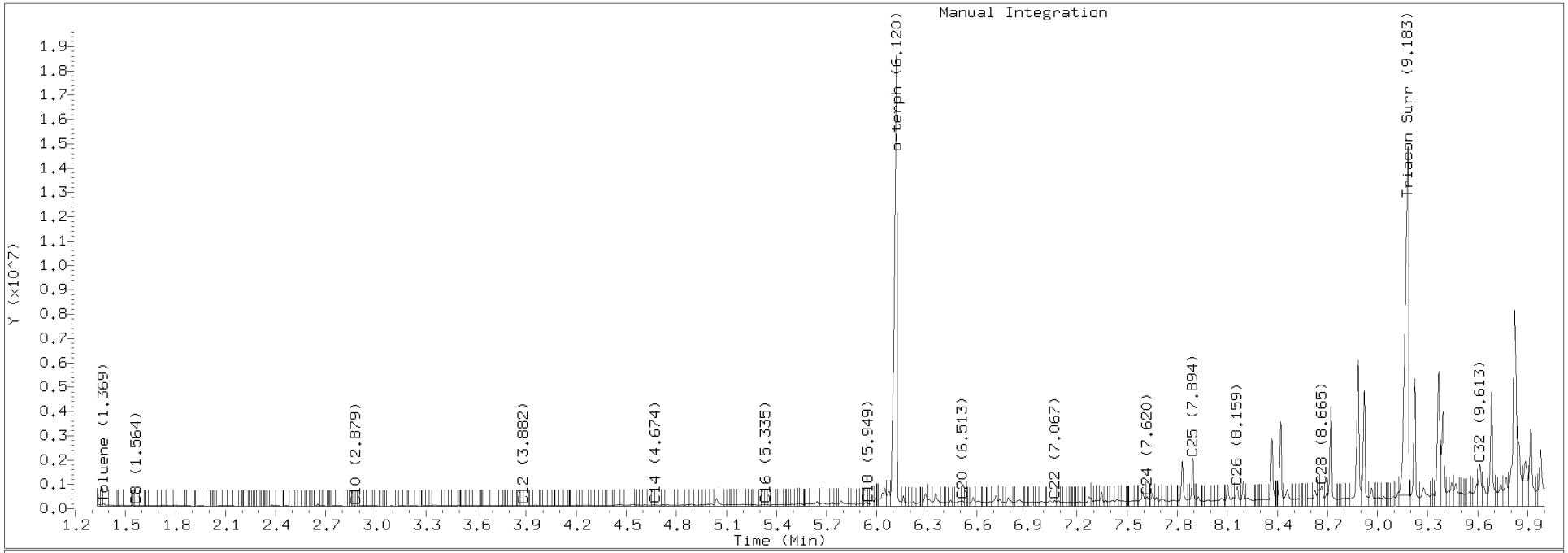
Datafile: FID4A, 20210428.b/421D2819.D 21D0180-03

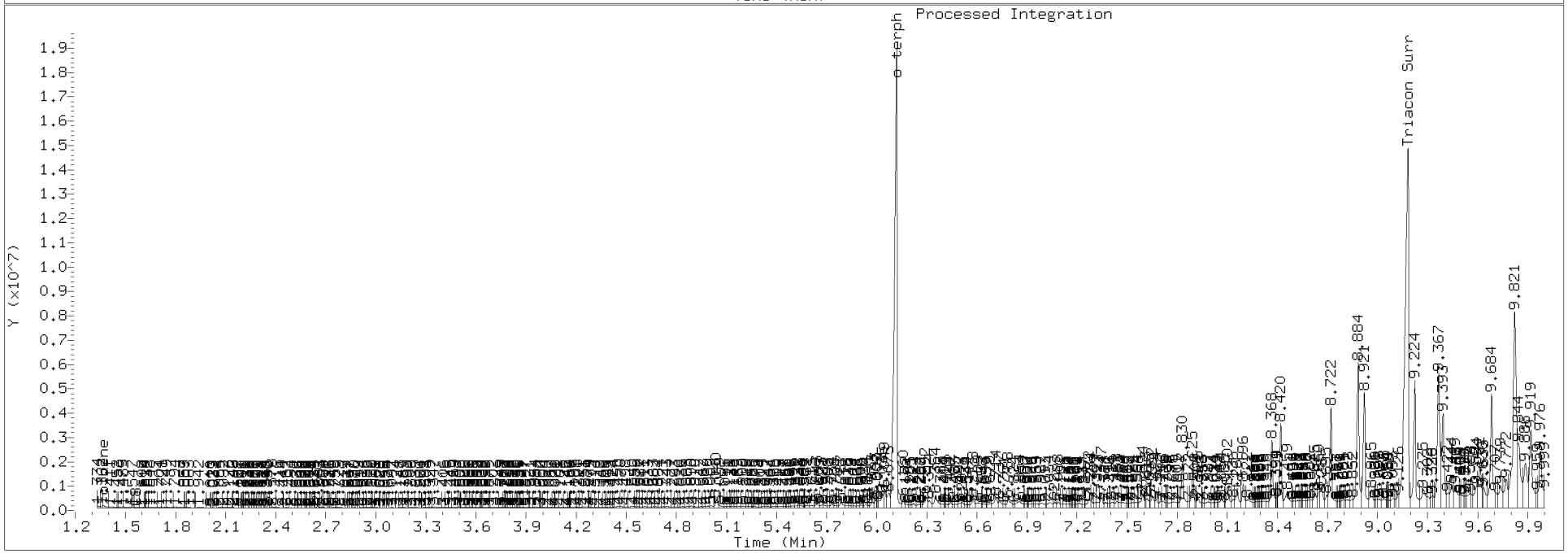


TPH Manual Integrations Report

Datafile: FID4A, 20210428.b/421D2819.D Injection: 28-APR-2021 20:44

Lab ID:21D0180-03



USMPDI-029SG-210414

# Form I

## ORGANIC ANALYSIS DATA SHEET

## NWTPH-Dx

**TPH (Extractables) low level**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | | | | |
| Client: | Anchor QEA, LLC | | | | |
| Project: | Gasco Siltronic - US Moorings | | | | |
| Matrix: | Sediment | Laboratory ID: | 21D0180-04 A | SDG: | 21D0180 |
| Sampled: | 04/14/21 09:22 | Prepared: | 04/21/21 10:48 | File ID: | 421D2820.D |
| % Solids: | 35.60 | Preparation: | EPA 3546 (Microwave) | Analyzed: | 04/28/21 21:05 |
| Batch: | BJD0478 | Sequence: | SJD0413 | Initial/Final: | 10.01 g Wet / 1 mL |
| Instrument: | FID4 | Column: | RTX-1 | Calibration: | ED00037 |

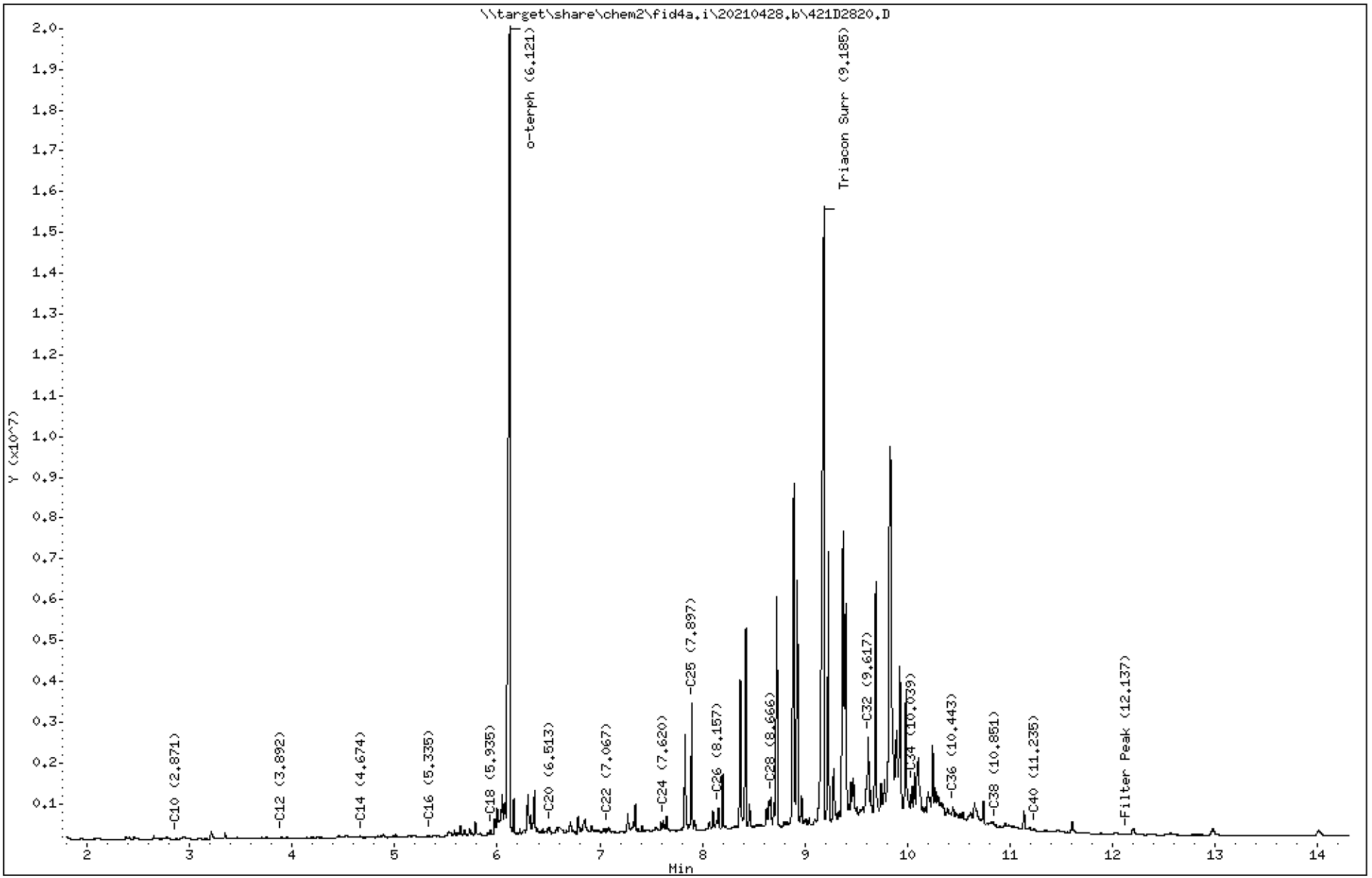
| CAS NO. | COMPOUND | DILUTION | CONC: (mg/kg dry) | Q | DL | RL |
|---|---|---|---|---|---|---|
| DRO | Diesel Range Organics (C12-C24) | 1 | 59.5 | | 6.57 | 14.0 |
| RRO | Motor Oil Range Organics (C24-C38) | 1 | 403 | | 8.39 | 28.1 |

| SURROGATES | ADDED: (mg/kg dry) | FOUND: (mg/kg dry) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| o-Terphenyl | 31.570 | 25.6 | 81.2 | 50 - 150 | |

Data File: \\target\share\chem2\fid4a.i\20210428.b\421D2820.D
Date : 28-APR-2021 21:05
Client ID:
Sample Info: 21D0180-04

Instrument: fid4a.i
Operator: CTO
Column diameter: 0.25

Column phase: RTX-1

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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210428.b/421D2820.D
Method: 20210428.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/29/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: 21D0180-04
Client ID:
Injection: 28-APR-2021 21:05
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Method | Range | Total Area | Conc(mg/L) |
|---|---|---|---|---|---|---|---|---|
| C8 | 1.567 | -0.016 | 27694 | 45834 | WATPHD | (C12-C24) | 38784469 | 212.1 |
| C10 | 2.871 | -0.005 | 24246 | 20511 | WATPHM | (C24-C38) | 188870051 | 1436.9 |
| C12 | 3.892 | 0.004 | 66765 | 143148 | AK102 | (C10-C25) | 45298642 | 210.3 |
| C14 | 4.674 | 0.005 | 78904 | 60618 | AK103 | (C25-C36) | 172600150 | 1708.0 |
| C16 | 5.335 | -0.006 | 93571 | 74300 | OR.DIES | (C10-C28) | 73893178 | 377.0 |
| C18 | 5.935 | -0.007 | 239230 | 289792 | | | | |
| C20 | 6.513 | 0.003 | 311654 | 293388 | JET-A | (C10-C18) | 12759279 | 87.0 |
| C22 | 7.067 | -0.007 | 266426 | 294754 | | | | |
| C24 | 7.620 | -0.007 | 481826 | 590488 | | | | |
| C25 | 7.897 | -0.003 | 3358795 | 2962867 | | | | |
| C26 | 8.157 | -0.007 | 774140 | 933990 | | | | |
| C28 | 8.666 | -0.008 | 1040383 | 1152879 | | | | |
| C32 | 9.617 | 0.003 | 2512276 | 2926850 | | | | |
| C34 | 10.039 | -0.004 | 1289510 | 1774535 | | | | |
| Filter Peak | 12.137 | -0.002 | 131693 | 72136 | BUNKERC | (C10-C38) | 229763205 | 5118.1 |
| C36 | 10.443 | -0.009 | 805298 | 1398827 | | | | |
| C38 | 10.851 | 0.009 | 361909 | 196694 | | | | |
| C40 | 11.235 | -0.015 | 271257 | 785660 | | | | |
| o-terph | 6.121 | 0.001 | 19937769 | 22737851 | | | | |
| Triacon Surr | 9.185 | 0.003 | 14982442 | 21267111 | NAS DIES | (C10-C24) | 40893154 | 209.5 |

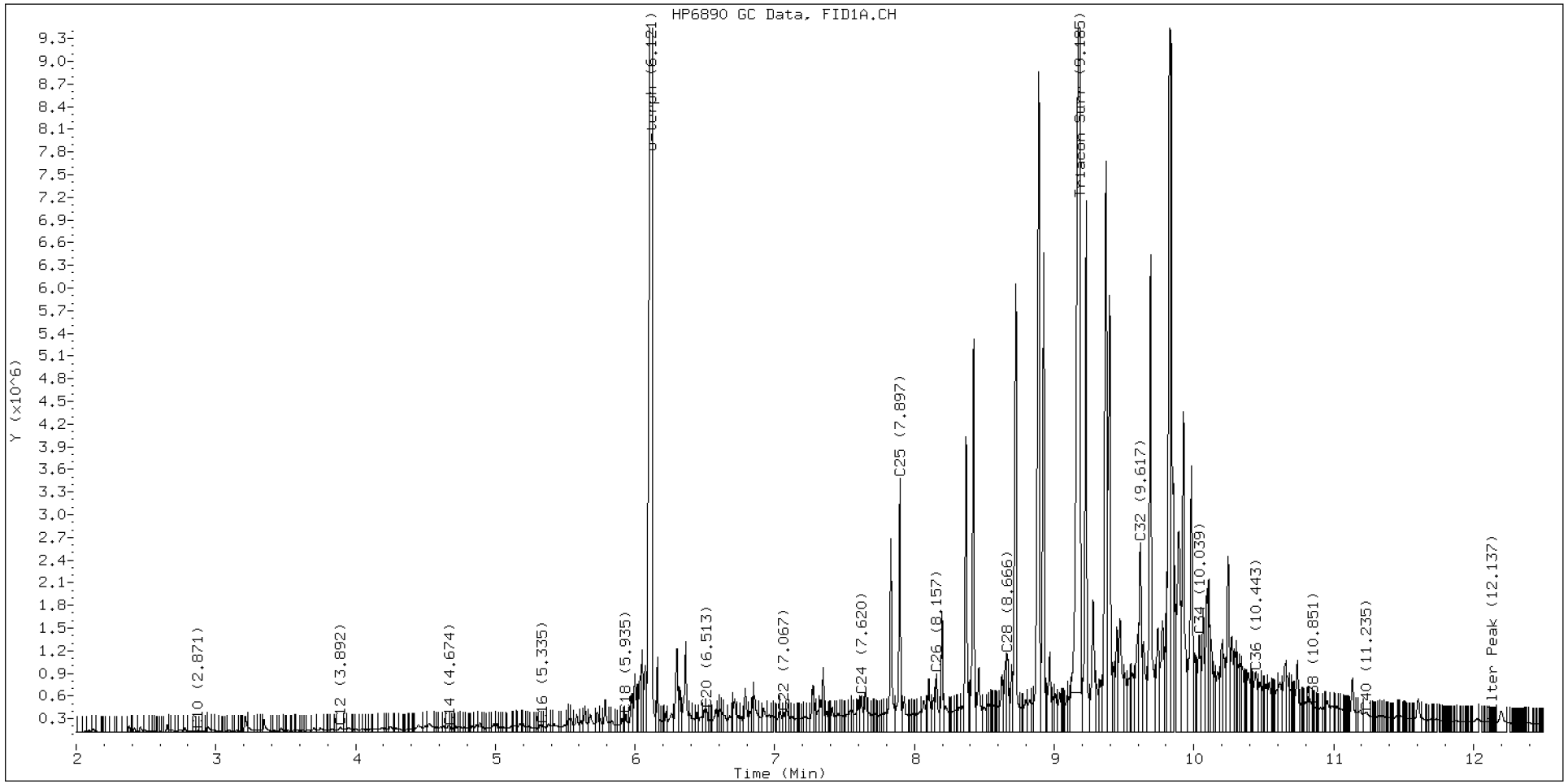
Range Times: NW Diesel(3.887 - 7.627) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.67)

| Surrogate | Area | Amount | |
|---|---|---|---|
| o-Terphenyl | 22737851 | 91.3 | |
| Triacontane | 21267111 | 100.4 | M |

M Indicates the peak was manually integrated

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 249011.3 | 25-OCT-2019 |
| Triacon Surr | 211827.9 | 25-OCT-2019 |
| Gas | 15000.0 | XX-XXX-XXXX |
| Diesel | 182831.3 | 14-APR-2021 |
| Motor Oil | 131440.7 | 14-APR-2021 |
| AK102 | 215421.2 | 14-APR-2021 |
| AK103 | 101056.3 | 14-APR-2021 |
| JetA | 146652.4 | 20-MAY-2020 |
| OR Diesel | 195999.1 | 25-OCT-2019 |
| NAS Diesel | 195148.2 | 25-OCT-2019 |
| Bunker C | 44892.5 | 21-APR-2021 |

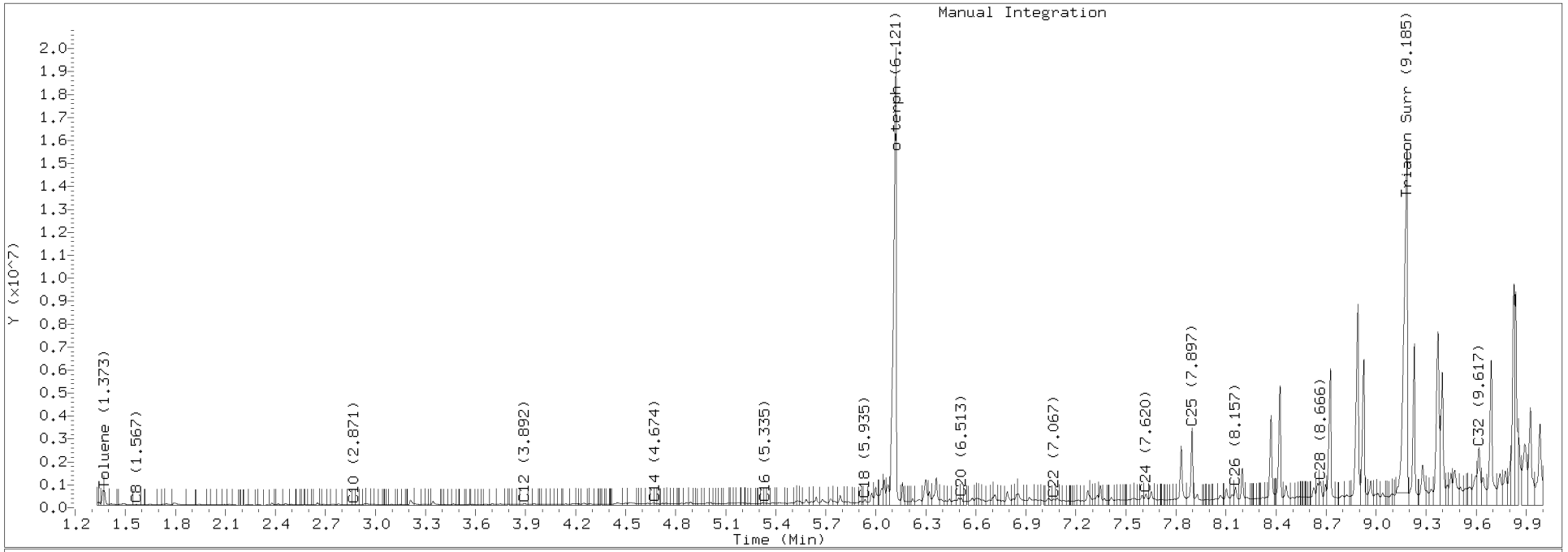
Datafile: FID4A, 20210428.b/421D2820.D 21D0180-04

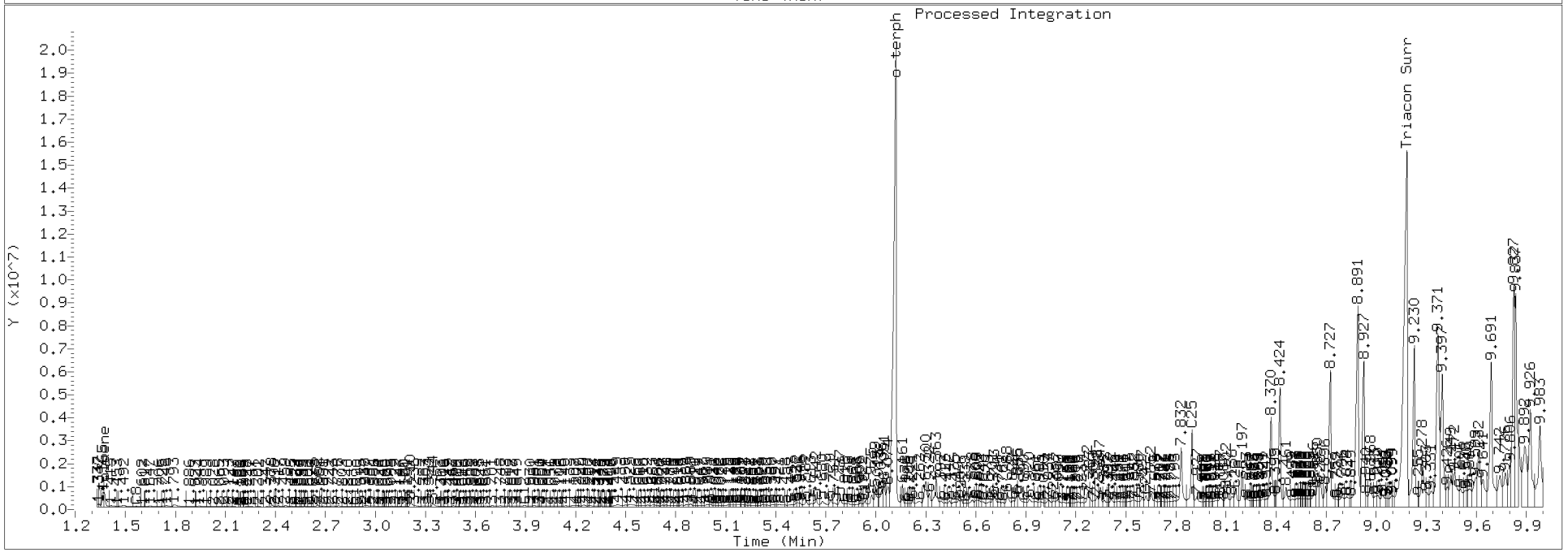


TPH Manual Integrations Report

Datafile: FID4A, 20210428.b/421D2820.D Injection: 28-APR-2021 21:05

Lab ID:21D0180-04



# PREPARATION BATCH SUMMARY

## NWTPH-Dx

Laboratory: Analytical Resources, Inc.
SDG: 21D0180
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Batch: BJD0478 Batch Matrix: Solid
Preparation: EPA 3546 (Microwave)

| SAMPLE NAME | LAB SAMPLE ID | LAB FILE ID | DATE PREPARED | OBSERVATIONS |
|---|---|---|---|---|
| USMPDI-010SG-210414 | 21D0180-01 | 421D2817.D | 04/21/21 10:48 | |
| USMPDI-015SG-210414 | 21D0180-02 | 421D2818.D | 04/21/21 10:48 | |
| USMPDI-019SG-210414 | 21D0180-03 | 421D2819.D | 04/21/21 10:48 | |
| USMPDI-029SG-210414 | 21D0180-04 | 421D2820.D | 04/21/21 10:48 | |
| Blank | BJD0478-BLK1 | 421D2807.D | 04/21/21 10:48 | |
| LCS | BJD0478-BS1 | 421D2808.D | 04/21/21 10:48 | |

**Analytical Resources, Incorporated**
Analytical Chemists and Consultants

**ORGANICS PREPARATION BENCH SHEET**

Batch: BJD0478

**Prepared using: EPA 3546 (Microwave)**

**TPH NW (Extractables) low level in Solid (Version:DRO)**

**Matrix: Solid** **Date Prepared:** 04/21/21 **Balance ID:** B1464626l4 **Set Up By:** GTO 4/20/21

The following standards may be missing from this batch!

| Designator | Description |
|---|---|
| QLS 18 | QLS Spike |

**Analysis: TPH NW (Extractables) low level**

| Lab Number & Container | Initial (g) Target Wet: 10 (Wet) Actual | Acid C/U (1:1) Y / N | Silica Gel C/U (1:1) Y / N | Final Effective Vol (mL) | Vol to Lab | Extraction Comments |
|---|---|---|---|---|---|---|
| 21D0179-01 A | (10.000) 10.00 | (1:1) Y / N | (1:1) Y / N | 1 | 1.0 | |
| 21D0179-02 A | (10.000) 10.02 | (1:1) Y / N | (1:1) Y / N | 1 | 1.0 | |
| 21D0179-03 A | (10.000) 10.00 | (1:1) Y / N | (1:1) Y / N | 1 | 1.0 | |
| 21D0179-04 A | (10.000) 10.00 | (1:1) Y / N | (1:1) Y / N | 1 | 1.0 | |
| 21D0179-05 A | (10.000) 10.02 | (1:1) Y / N | (1:1) Y / N | 1 | 1.0 | |
| 21D0179-06 A | (10.000) 10.02 | (1:1) Y / N | (1:1) Y / N | 1 | 1.0 | |
| 21D0180-01 A | (10.000) 10.02 | (1:1) Y / N | (1:1) Y / N | 1 | 1.0 | |
| 21D0180-02 A | (10.000) 10.02 | (1:1) Y / N | (1:1) Y / N | 1 | 1.0 | |
| 21D0180-03 A | (10.000) 10.02 | (1:1) Y / N | (1:1) Y / N | 1 | 1.0 | |
| 21D0180-04 A | (10.000) 10.01 | (1:1) Y / N | (1:1) Y / N | 1 | 1.0 | |

**Batch QC**

| Lab Number | Initial (g) Target Wet: 10 (Wet) Actual | Acid C/U (1:1) Y / N | Silica Gel C/U (1:1) Y / N | Final Effective Vol (mL) | Vol to Lab | Extraction Comments |
|---|---|---|---|---|---|---|
| BJD0478-BLK1 | (10.000) 10.00 | (1:1) Y / N | (1:1) Y / N | 1 | 1.0 | |
| BJD0478-BS1 | (10.000) 10.00 | (1:1) Y / N | (1:1) Y / N | 1 | 1.0 | |
| BJD0478-MS1 | (10.000) 10.00 | (1:1) Y / N | (1:1) Y / N | 1 | 1.0 | Use 21D0179-04 |
| BJD0478-MSD1 | (10.000) 10.00 | (1:1) Y / N | (1:1) Y / N | 1 | 1.0 | Use 21D0179-04 |

04/21/21 — Client ID verified By — Date

BT 04/22/21 — Preparation Reviewed By — Date

04/21/21 10:48 — Extraction Date and Time

Printed: 4/20/2021 8:30:44AM

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# ORGANICS PREPARATION BENCH SHEET

Batch: BJD0478

**Prepared using: EPA 3546 (Microwave)**

**TPH NW (Extractables) low level in Solid (Version:DRO)**

**Prep Steps**

**Microwave**

1 2 3

Analyst/Date 04/21/21

**TurboVap**
**Pre Acid/Silica Clean**

1 2 3 4 (5)

BT 04/21/21
Analyst/Date

**Vialing**

BT 04/21/21
Analyst/Date

**Reagents Used**

| Station/Reagent | Standard ID |
|---|---|
| **Microwave** Analyst: Date: 04/21/21 | |
| Methylene Chloride | J003349 |
| Anhydrous Sodium Sulfate | J003527 |
| Neutral Glass Wool | J003346 |
| **Vialing** Analyst: BT Date: 04/21/21 | |
| Methylene Chloride | J003349 |
| [redacted] | |
| [redacted] | |

**Surrogates & Spike Standards Used**

| Type | Vial ID / Standard ID | Vol uL | Analyst | Witness |
|---|---|---|---|---|
| **Surrogate** 1125µg/mL | P J002741 Exp: 08/08/2021 | 100µL | CLP for Lab | |
| **Spike** 15000µg/mL | I1 I011054 Exp: 12/01/2021 | 100µL | CLP for Lab | |

(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).

**ORGANICS PREPARATION BENCH SHEET**

Batch: BJD0478

**Prepared using: EPA 3546 (Microwave)**

**TPH NW (Extractables) low level in Solid (Version:DRO)**

| Prep Instructions | |
|---|---|
| SPECIAL INSTRUCTIONS:<br>1. Weigh into 100mL beakers-dry with Sodium Sulfate.<br>2. Transfer to microwave vessel.<br>3. Add DCM to the vessel until the solvent is 1 inch above soil layer after homogenization.<br>4. Add surr/spike.<br>5. Microwave on appropriate power setting determined by # of samples.<br>6. After microwave-Re-homogenize while hot then let cool 15 min. in Refridgerator 05. Re-homogenize while cool.<br>7. Collect into turbo tube with sm. funnel containing glasswool and 1 Inch sodium sulfate.<br>8. Add (2) 10mL DCM rinses to vessel and transfer to turbo tube.<br>9. TurboVap.<br>10. Acid/Silica Clean-up?= Y / (N)<br>11. Vial in DCM.<br><br>A. Need Total Solids Y (N)<br><br>B. Archive/Freeze Y / (N) | |

Batch: BJD0478
Batch Comment: **NONE**
Project: Gasco Siltronic - US Moorings
Project Comments: <G> MS/MSD per 20 samples, please batch with other work orders, SM2540 Needed </G>
Work Order:21D0179
Work Order Comments: <G> MS/MSD per 20 samples, please batch with other work orders, SM2540 Needed </G>
Sample: 21D0179-01
Sample Comments: **NONE**
Sample: 21D0179-02
Sample Comments: **NONE**
Sample: 21D0179-03
Sample Comments: **NONE**
Sample: 21D0179-04
Sample Comments: MS/MSD
Sample: 21D0179-05
Sample Comments: **NONE**
Sample: 21D0179-06
Sample Comments: **NONE**
Work Order:21D0180
Work Order Comments: <G> MS/MSD per 20 samples, please batch with other work orders, SM2540 Needed </G>
Sample: 21D0180-01
Sample Comments: **NONE**
Sample: 21D0180-02
Sample Comments: **NONE**
Sample: 21D0180-03
Sample Comments: **NONE**
Sample: 21D0180-04
Sample Comments: **NONE**

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Organic Extractions Laboratory Analyst Notes

Extraction Parameter: (TPH) | LLSIM | SIMALKH2 Extraction Batch BJD0478

Total Solids Batch: BJD0425 Work Order(s): 21D0179

| Screens: Soil/Sediment/Solid/Other: | Analyst/Date |
|---|---|
| ☐ No Anomalies (standard soil/wet sediment/sand/gravel)= | |
| ☒ Standing Water Decanted (Not shared)= Φ1, Φ2, Φ3, Φ4, Φ5, Φ6. | MJ Φ4/16/21 |
| ☐ Standing Water Homogenized (Shared samples)= | |
| ☐ Clay/Clumps (Difficult to homogenize)= | |
| ☐ Rocks (%+size)? | |
| ☐ Organics (Leaves/sticks/grass)= | |
| ☒ Oily, obvious fuel/sulfur odors= sulfur odor = Φ1, Φ2, Φ3, Φ4, Φ5, Φ6. | MJ Φ4/16/21 |
| ☐ 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 | MJ Φ4/16/21 |
| ☒ Multiple Jars Y / N | MJ Φ4/16/21 |
| ☐ Sample Pre-Screens indicate analyte activity= | |
| ☐ Sample weights/volumes reduced based on Pre-Screen= | |

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Organic Extractions Laboratory Analyst Notes

Extraction Parameter: TPH  Extraction Batch BJD0478

Total Solids Batch: BJD0427  Work Order(s): 21D0180

| Screens: Soil/Sediment/Solid/Other: | Analyst/Date |
|---|---|
| ☐ No Anomalies (standard soil/wet sediment/sand/gravel)= | |
| ☒ Standing Water Decanted (Not shared)= Φ1, Φ2, Φ3, Φ4. | MJ Φ4/16/21 |
| ☐ Standing Water Homogenized (Shared samples)= | |
| ☐ Clay/Clumps (Difficult to homogenize)= | |
| ☐ Rocks (%+size)? | |
| ☐ Organics (Leaves/sticks/grass)= | |
| ☒ Oily, obvious fuel/sulfur odors= Sulfur odor = Φ1, Φ2, Φ3, Φ4. | MJ Φ4/16/21 |
| ☐ Received in 32oz jar(s)=Homogenized in Pyrex dish= | |
| ☐ Previously Frozen = | |
| ☒ Other (Details)= 180-04 low volume on vap | DT 04/21/21 |
| | |
| | |
| **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) | MJ Φ4/16/21 |
| ☒ Multiple Jars Y / (N) | MJ Φ4/16/21 |
| ☐ Sample Pre-Screens indicate analyte activity= | |
| ☐ Sample weights/volumes reduced based on Pre-Screen= | |

**Analytical Resources, Incorporated**
Analytical Chemists and Consultants

**ORGANICS PREPARATION BENCH SHEET**

Batch: BJD0478

**Prepared using: EPA 3546 (Microwave)**

**TPH NW (Extractables) low level in Solid (Version:DRO)**

**Matrix: Solid** **Date Prepared:** 04/21/21 **Balance ID:** B1464626l4 **Set Up By:** CTO 4/20/21

The following standards may be missing from this batch!

| Designator | Description |
|---|---|
| QLS 18 | QLS Spike |

**Analysis: TPH NW (Extractables) low level**

| Lab Number & Container | Initial (g) Target Wet: 10 (Wet) Actual | Acid C/U (1:1) Y / N | Silica Gel C/U (1:1) Y / N | Final Effective Vol (mL) | Vol to Lab | Extraction Comments |
|---|---|---|---|---|---|---|
| 21D0179-01 A | (10.000) 10.00 | (1:1) Y / N | (1:1) Y / N | 1 ____ | 1.0 ____ | |
| 21D0179-02 A | (10.000) 10.02 | (1:1) Y / N | (1:1) Y / N | 1 ____ | 1.0 ____ | |
| 21D0179-03 A | (10.000) 10.00 | (1:1) Y / N | (1:1) Y / N | 1 ____ | 1.0 ____ | |
| 21D0179-04 A | (10.000) 10.00 | (1:1) Y / N | (1:1) Y / N | 1 ____ | 1.0 ____ | |
| 21D0179-05 A | (10.000) 10.02 | (1:1) Y / N | (1:1) Y / N | 1 ____ | 1.0 ____ | |
| 21D0179-06 A | (10.000) 10.02 | (1:1) Y / N | (1:1) Y / N | 1 ____ | 1.0 ____ | |
| 21D0180-01 A | (10.000) 10.02 | (1:1) Y / N | (1:1) Y / N | 1 ____ | 1.0 ____ | |
| 21D0180-02 A | (10.000) 10.02 | (1:1) Y / N | (1:1) Y / N | 1 ____ | 1.0 ____ | |
| 21D0180-03 A | (10.000) 10.02 | (1:1) Y / N | (1:1) Y / N | 1 ____ | 1.0 ____ | |
| 21D0180-04 A | (10.000) 10.01 | (1:1) Y / N | (1:1) Y / N | 1 ____ | 1.0 ____ | |

**Batch QC**

| Lab Number | Initial (g) Target Wet: 10 (Wet) Actual | Acid C/U (1:1) Y / N | Silica Gel C/U (1:1) Y / N | Final Effective Vol (mL) | Vol to Lab | Extraction Comments |
|---|---|---|---|---|---|---|
| BJD0478-BLK1 | (10.000) 10.00 | (1:1) Y / N | (1:1) Y / N | 1 ____ | 1.0 ____ | |
| BJD0478-BS1 | (10.000) 10.00 | (1:1) Y / N | (1:1) Y / N | 1 ____ | 1.0 ____ | |
| BJD0478-MS1 | (10.000) 10.00 | (1:1) Y / N | (1:1) Y / N | 1 ____ | 1.0 ____ | Use 21D0179-04 |
| BJD0478-MSD1 | (10.000) 10.00 | (1:1) Y / N | (1:1) Y / N | 1 ____ | 1.0 ____ | Use 21D0179-04 |

04/21/21 — Client ID verified By — Date

BT 04/22/21 — Preparation Reviewed By — Date

04/21/21 14:48 — Extraction Date and Time

Printed: 4/20/2021 8:30:44AM

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# ORGANICS PREPARATION BENCH SHEET

Batch: BJD0478

**Prepared using: EPA 3546 (Microwave)**

**TPH NW (Extractables) low level in Solid (Version:DRO)**

**Prep Steps**

**Microwave**

1 2 3

04/21/21
Analyst/Date

**TurboVap**
**Pre Acid/Silica Clean**

1 2 3 4 (5)

BT 04/21/21
Analyst/Date

**Vialing**

BT 04/21/21
Analyst/Date

**Reagents Used**

| Station/Reagent | Standard ID |
|---|---|
| **Microwave** Analyst: [illegible] Date: 04/21/21 | |
| Methylene Chloride | J#43349 |
| Anhydrous Sodium Sulfate | J#43527 |
| Neutral Glass Wool | J#43346 |
| **Vialing** Analyst: BT Date: 04/21/21 | |
| Methylene Chloride | J003349 |
| [redacted] | |
| [redacted] | |

**Surrogates & Spike Standards Used**

| Type | Vial ID / Standard ID | Vol uL | Analyst | Witness |
|---|---|---|---|---|
| **Surrogate** 1125µg/mL | P J002741 (V) Exp: 08/08/2021 | 100µL | CLT for Lab | |
| **Spike** 15000µg/mL | 11 I011054 (V) Exp: 12/01/2021 | 100µL | CLT for Lab | |

(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).

**ORGANICS PREPARATION BENCH SHEET**

Batch: BJD0478

**Prepared using: EPA 3546 (Microwave)**

**TPH NW (Extractables) low level in Solid (Version:DRO)**

| Prep Instructions | |
|---|---|
| SPECIAL INSTRUCTIONS:<br>1. Weigh into 100mL beakers-dry with Sodium Sulfate.<br>2. Transfer to microwave vessel.<br>3. Add DCM to the vessel until the solvent is 1 inch above soil layer after homogenization.<br>4. Add surr/spike.<br>5. Microwave on appropriate power setting determined by # of samples.<br>6. After microwave-Re-homogenize while hot then let cool 15 min. in Refridgerator 05. Re-homogenize while cool.<br>7. Collect into turbo tube with sm. funnel containing glasswool and 1 Inch sodium sulfate.<br>8. Add (2) 10mL DCM rinses to vessel and transfer to turbo tube.<br>9. TurboVap.<br>10. Acid/Silica Clean-up?= Y / (N)<br>11. Vial in DCM.<br><br>A. Need Total Solids Y (N)<br><br>B. Archive/Freeze Y / (N) | |

Batch: BJD0478
Batch Comment: **NONE**
Project: Gasco Siltronic - US Moorings
Project Comments: <G> MS/MSD per 20 samples, please batch with other work orders, SM2540 Needed </G>
Work Order:21D0179
Work Order Comments: <G> MS/MSD per 20 samples, please batch with other work orders, SM2540 Needed </G>
Sample: 21D0179-01
Sample Comments: **NONE**
Sample: 21D0179-02
Sample Comments: **NONE**
Sample: 21D0179-03
Sample Comments: **NONE**
Sample: 21D0179-04
Sample Comments: MS/MSD
Sample: 21D0179-05
Sample Comments: **NONE**
Sample: 21D0179-06
Sample Comments: **NONE**
Work Order:21D0180
Work Order Comments: <G> MS/MSD per 20 samples, please batch with other work orders, SM2540 Needed </G>
Sample: 21D0180-01
Sample Comments: **NONE**
Sample: 21D0180-02
Sample Comments: **NONE**
Sample: 21D0180-03
Sample Comments: **NONE**
Sample: 21D0180-04
Sample Comments: **NONE**

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Organic Extractions Laboratory Analyst Notes

Extraction Parameter: (TPH) | LLSIM | SIMALKYL Extraction Batch BJD0478

Total Solids Batch: BJD0425 Work Order(s): 21D0179

| Screens: Soil/Sediment/Solid/Other: | Analyst/Date |
|---|---|
| ☐ No Anomalies (standard soil/wet sediment/sand/gravel)= | |
| ☒ Standing Water Decanted (Not shared)= ϕ1, ϕ2, ϕ3, ϕ4, ϕ5, ϕ6. | YL ϕ4/16/21 |
| ☐ Standing Water Homogenized (Shared samples)= | |
| ☐ Clay/Clumps (Difficult to homogenize)= | |
| ☐ Rocks (%+size)? | |
| ☐ Organics (Leaves/sticks/grass)= | |
| ☒ Oily, obvious fuel/sulfur odors= sulfur odor = ϕ1, ϕ2, ϕ3, ϕ4, ϕ5, ϕ6. | YL ϕ4/16/21 |
| ☐ 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) | YL ϕ4/16/21 |
| ☒ Multiple Jars Y / (N) | YL ϕ4/16/21 |
| ☐ Sample Pre-Screens indicate analyte activity= | |
| ☐ Sample weights/volumes reduced based on Pre-Screen= | |

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Organic Extractions Laboratory Analyst Notes

Extraction Parameter: TPH  Extraction Batch BJD0478

Total Solids Batch: BJD0427  Work Order(s): 21D0180

| Screens: Soil/Sediment/Solid/Other: | Analyst/Date |
|---|---|
| ☐ No Anomalies (standard soil/wet sediment/sand/gravel)= | |
| ☒ Standing Water Decanted (Not shared)= ϕ1, ϕ2, ϕ3, ϕ4. | MJ ϕ4/16/21 |
| ☐ Standing Water Homogenized (Shared samples)= | |
| ☐ Clay/Clumps (Difficult to homogenize)= | |
| ☐ Rocks (%+size)? | |
| ☐ Organics (Leaves/sticks/grass)= | |
| ☒ Oily, obvious fuel/sulfur odors= Sulfur odor = ϕ1, ϕ2, ϕ3, ϕ4. | MJ ϕ4/16/21 |
| ☐ Received in 32oz jar(s)=Homogenized in Pyrex dish= | |
| ☐ Previously Frozen = | |
| ☒ Other (Details)= 180-04 low volume on vap | DF 04/21/21 |
| | |
| | |
| **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 | MJ ϕ4/16/21 |
| ☒ Multiple Jars Y / N | MJ ϕ4/16/21 |
| ☐ Sample Pre-Screens indicate analyte activity= | |
| ☐ Sample weights/volumes reduced based on Pre-Screen= | |

# Form I

## METHOD BLANK DATA SHEET

## NWTPH-Dx

**Blank**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | | | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | | | Project: | Gasco Siltronic - US Moorings |
| Matrix: | Solid | Laboratory ID: | BJD0478-BLK1 | File ID: | 421D2807.D |
| Sampled: | N/A | Prepared: | 04/21/21 10:48 | Analyzed: | 04/28/21 16:30 |
| Solids: | | Preparation: | EPA 3546 (Microwave) | Initial/Final: | 10 g / 1 mL |
| Batch: | BJD0478 | Sequence: | SJD0413 | Calibration: | ED00037 |
| Instrument: | FID4 | Column: | RTX-1 | | |

| CAS NO. | COMPOUND | DILUTION | CONC: (mg/kg wet) | Q | DL | RL |
|---|---|---|---|---|---|---|
| DRO | Diesel Range Organics (C12-C24) | 1 | 5.00 | U | 2.34 | 5.00 |
| RRO | Motor Oil Range Organics (C24-C38) | 1 | 10.0 | U | 2.99 | 10.0 |

| SURROGATES | ADDED: (mg/kg wet) | FOUND: (mg/kg wet) | % REC | QC LIMITS | Q |
|---|---|---|---|---|---|
| o-Terphenyl | 11.250 | 10.1 | 89.7 | 50 - 150 | |

Data File: \\target\share\chem2\fid4a.i\20210428.b\421D2807.D



Date : 28-APR-2021 16:30

Client ID:

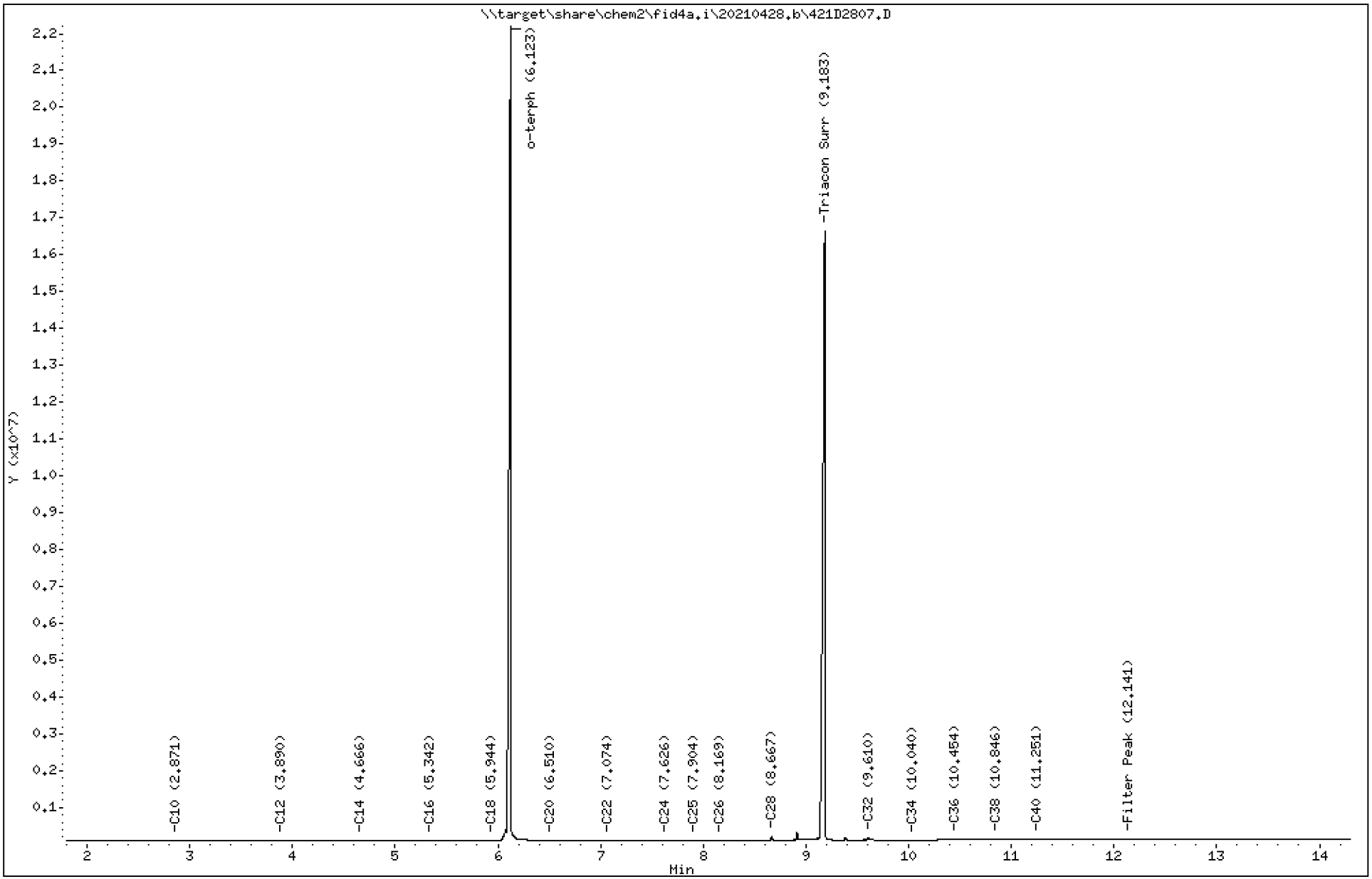
Instrument: fid4a.i

Sample Info: BJD0478-BLK1

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25




Revised Report 21D0180 07/07/2021 Page 1563 of 1709

Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210428.b/421D2807.D
Method: 20210428.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/29/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: BJD0478-BLK1
Client ID:
Injection: 28-APR-2021 16:30
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Method | Range | Total Area | Conc(mg/L) |
|---|---|---|---|---|---|---|---|---|
| C8 | 1.582 | -0.000 | 17470 | 3481 | WATPHD | (C12-C24) | 1210307 | 6.6 |
| C10 | 2.871 | -0.005 | 13880 | 21400 | WATPHM | (C24-C38) | 3148691 | 24.0 |
| C12 | 3.890 | 0.003 | 3798 | 1295 | AK102 | (C10-C25) | 1700389 | 7.9 |
| C14 | 4.666 | -0.003 | 1436 | 686 | AK103 | (C25-C36) | 2472539 | 24.5 |
| C16 | 5.342 | 0.001 | 674 | 126 | OR.DIES | (C10-C28) | 2175910 | 11.1 |
| C18 | 5.944 | 0.002 | 1921 | 619 | | | | |
| C20 | 6.510 | -0.000 | 6670 | 2950 | JET-A | (C10-C18) | 593307 | 4.0 |
| C22 | 7.074 | -0.000 | 5245 | 1537 | | | | |
| C24 | 7.626 | -0.001 | 6869 | 1368 | | | | |
| C25 | 7.904 | 0.005 | 7657 | 7559 | | | | |
| C26 | 8.169 | 0.005 | 9557 | 17950 | | | | |
| C28 | 8.667 | -0.007 | 108135 | 108137 | | | | |
| C32 | 9.610 | -0.003 | 64510 | 184445 | | | | |
| C34 | 10.040 | -0.003 | 14458 | 3568 | | | | |
| Filter Peak | 12.141 | 0.002 | 34263 | 15332 | BUNKERC | (C10-C38) | 4784077 | 106.6 |
| C36 | 10.454 | 0.001 | 22232 | 11002 | | | | |
| C38 | 10.846 | 0.005 | 30374 | 9064 | | | | |
| C40 | 11.251 | 0.001 | 33770 | 18452 | | | | |
| o-terph | 6.123 | 0.003 | 22098259 | 25113458 | | | | |
| Triacon Surr | 9.183 | 0.001 | 16537890 | 23386607 | NAS DIES | (C10-C24) | 1635386 | 8.4 |

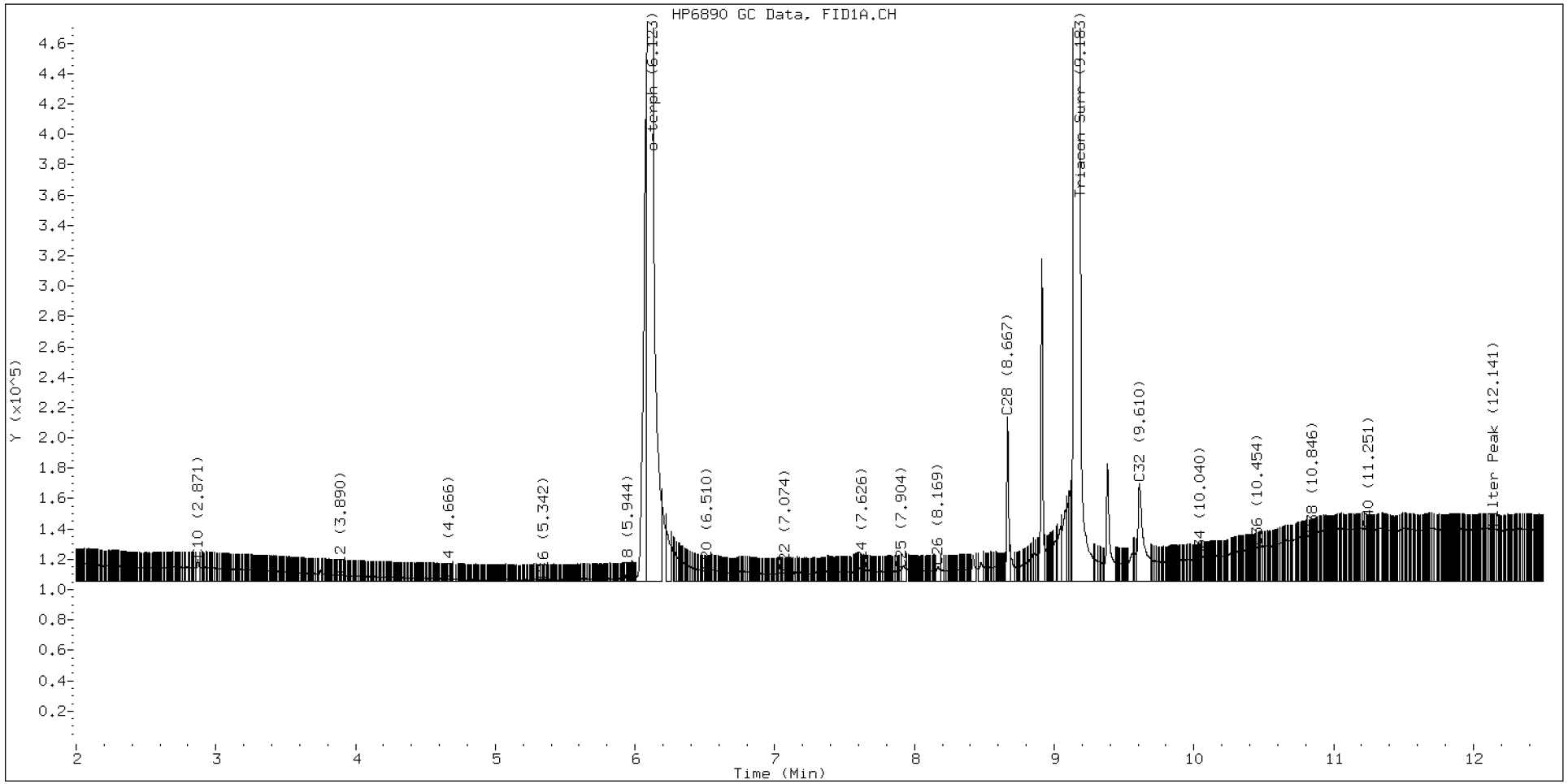
Range Times: NW Diesel(3.887 - 7.627) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.67)

| Surrogate | Area | Amount |
|---|---|---|
| o-Terphenyl | 25113458 | 100.9 |
| Triacontane | 23386607 | 110.4 |

M Indicates the peak was manually integrated

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 249011.3 | 25-OCT-2019 |
| Triacon Surr | 211827.9 | 25-OCT-2019 |
| Gas | 15000.0 | XX-XXX-XXXX |
| Diesel | 182831.3 | 14-APR-2021 |
| Motor Oil | 131440.7 | 14-APR-2021 |
| AK102 | 215421.2 | 14-APR-2021 |
| AK103 | 101056.3 | 14-APR-2021 |
| JetA | 146652.4 | 20-MAY-2020 |
| OR Diesel | 195999.1 | 25-OCT-2019 |
| NAS Diesel | 195148.2 | 25-OCT-2019 |
| Bunker C | 44892.5 | 21-APR-2021 |

Datafile: FID4A, 20210428.b/421D2807.D BJD0478-BLK1



# LCS / LCS DUPLICATE RECOVERY

## NWTPH-Dx

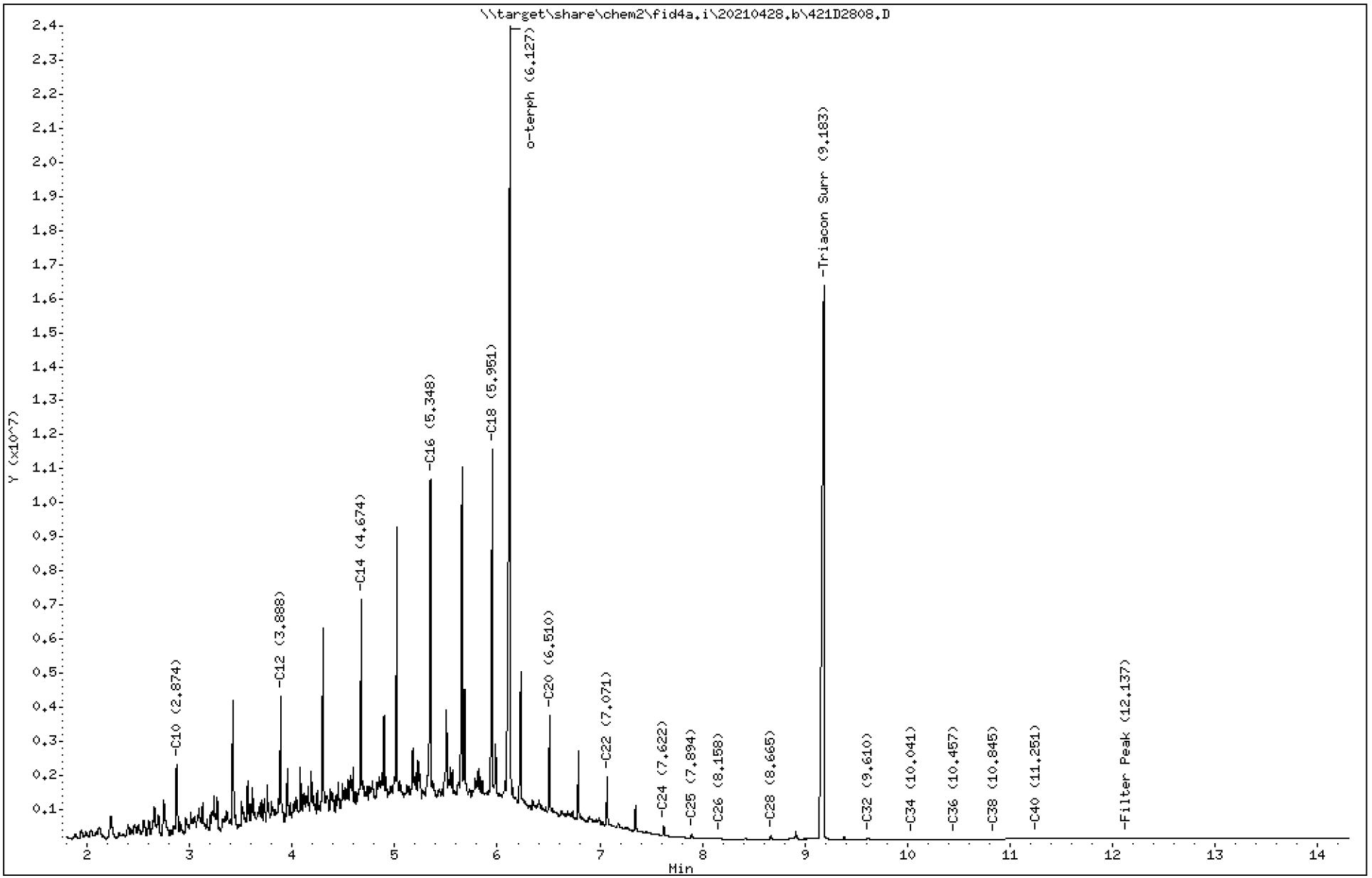
| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Matrix: | Solid | Analyzed: | 04/28/21 16:51 |
| Batch: | BJD0478 | Laboratory ID: | BJD0478-BS1 |
| Preparation: | EPA 3546 (Microwave) | Sequence Name: | LCS |
| Initial/Final: | 10 g / 1 mL | | |

| COMPOUND | SPIKE ADDED (mg/kg wet) | LCS CONCENTRATION (mg/kg wet) | Q | LCS % REC. # | QC LIMITS REC. |
|---|---|---|---|---|---|
| Diesel Range Organics (C12-C24) | 150 | 154 | | 103 | 63 - 120 |

* Indicates values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210428.b\421D2808.D
Date : 28-APR-2021 16:51
Client ID:
Sample Info: BJD0478-BS1

Instrument: fid4a.i
Operator: CTO
Column phase: RTX-1
Column diameter: 0.25




Revised Report 21D0180 07/07/2021 Page 1567 of 1709

Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210428.b/421D2808.D
Method: 20210428.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/29/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: BJD0478-BS1
Client ID:
Injection: 28-APR-2021 16:51
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Method | Range | Total Area | Conc(mg/L) |
|---|---|---|---|---|---|---|---|---|
| C8 | 1.581 | -0.002 | 92480 | 115748 | WATPHD | (C12-C24) | 282460810 | 1544.9 |
| C10 | 2.874 | -0.002 | 2205953 | 2364810 | WATPHM | (C24-C38) | 3247147 | 24.7 |
| C12 | 3.888 | 0.001 | 4217485 | 3340428 | AK102 | (C10-C25) | 332430469 | 1543.2 |
| C14 | 4.674 | 0.005 | 7052114 | 6128186 | AK103 | (C25-C36) | 2212613 | 21.9 |
| C16 | 5.348 | 0.007 | 10570058 | 9361720 | OR.DIES | (C10-C28) | 333611429 | 1702.1 |
| C18 | 5.951 | 0.009 | 11462133 | 11046617 | | | | |
| C20 | 6.510 | -0.001 | 3648604 | 3522205 | JET-A | (C10-C18) | 259076836 | 1766.6 |
| C22 | 7.071 | -0.004 | 1827125 | 2044290 | | | | |
| C24 | 7.622 | -0.005 | 407030 | 604618 | | | | |
| C25 | 7.894 | -0.006 | 152055 | 275202 | | | | |
| C26 | 8.158 | -0.005 | 58262 | 110357 | | | | |
| C28 | 8.665 | -0.008 | 119751 | 121112 | | | | |
| C32 | 9.610 | -0.003 | 58266 | 110078 | | | | |
| C34 | 10.041 | -0.002 | 2554 | 1283 | | | | |
| Filter Peak | 12.137 | -0.002 | 22266 | 5539 | BUNKERC | (C10-C38) | 334962949 | 7461.4 |
| C36 | 10.457 | 0.005 | 8589 | 5036 | | | | |
| C38 | 10.845 | 0.003 | 17495 | 10421 | | | | |
| C40 | 11.251 | 0.002 | 21047 | 8384 | | | | |
| o-terph | 6.127 | 0.007 | 22551300 | 26048687 | | | | |
| Triacon Surr | 9.183 | 0.002 | 16251852 | 24157661 | NAS DIES | (C10-C24) | 331715802 | 1699.8 |

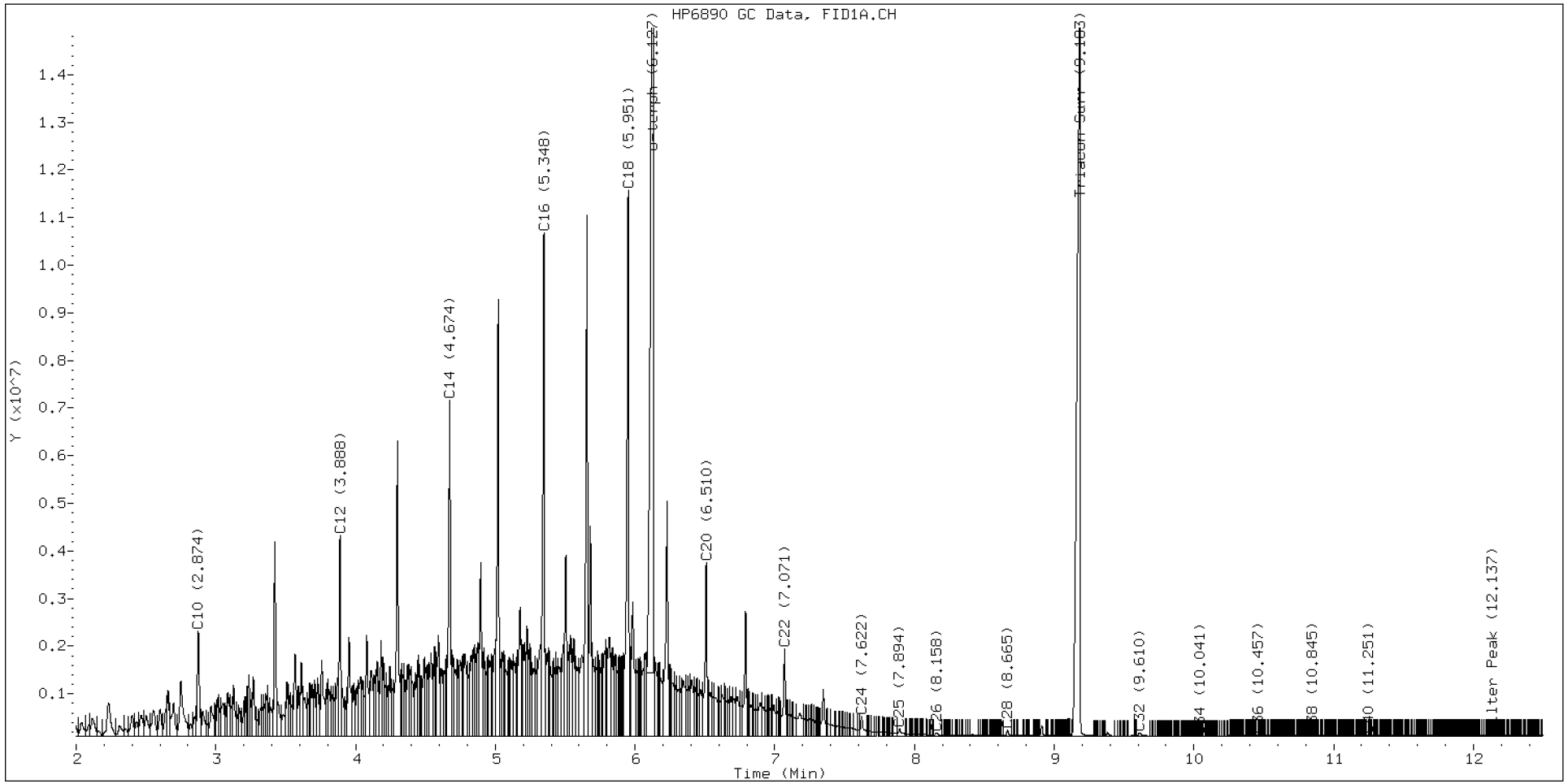
Range Times: NW Diesel(3.887 - 7.627) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.67)

| Surrogate | Area | Amount | |
|---|---|---|---|
| o-Terphenyl | 26048687 | 104.6 | M |
| Triacontane | 24157661 | 114.0 | |

M Indicates the peak was manually integrated

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 249011.3 | 25-OCT-2019 |
| Triacon Surr | 211827.9 | 25-OCT-2019 |
| Gas | 15000.0 | XX-XXX-XXXX |
| Diesel | 182831.3 | 14-APR-2021 |
| Motor Oil | 131440.7 | 14-APR-2021 |
| AK102 | 215421.2 | 14-APR-2021 |
| AK103 | 101056.3 | 14-APR-2021 |
| JetA | 146652.4 | 20-MAY-2020 |
| OR Diesel | 195999.1 | 25-OCT-2019 |
| NAS Diesel | 195148.2 | 25-OCT-2019 |
| Bunker C | 44892.5 | 21-APR-2021 |

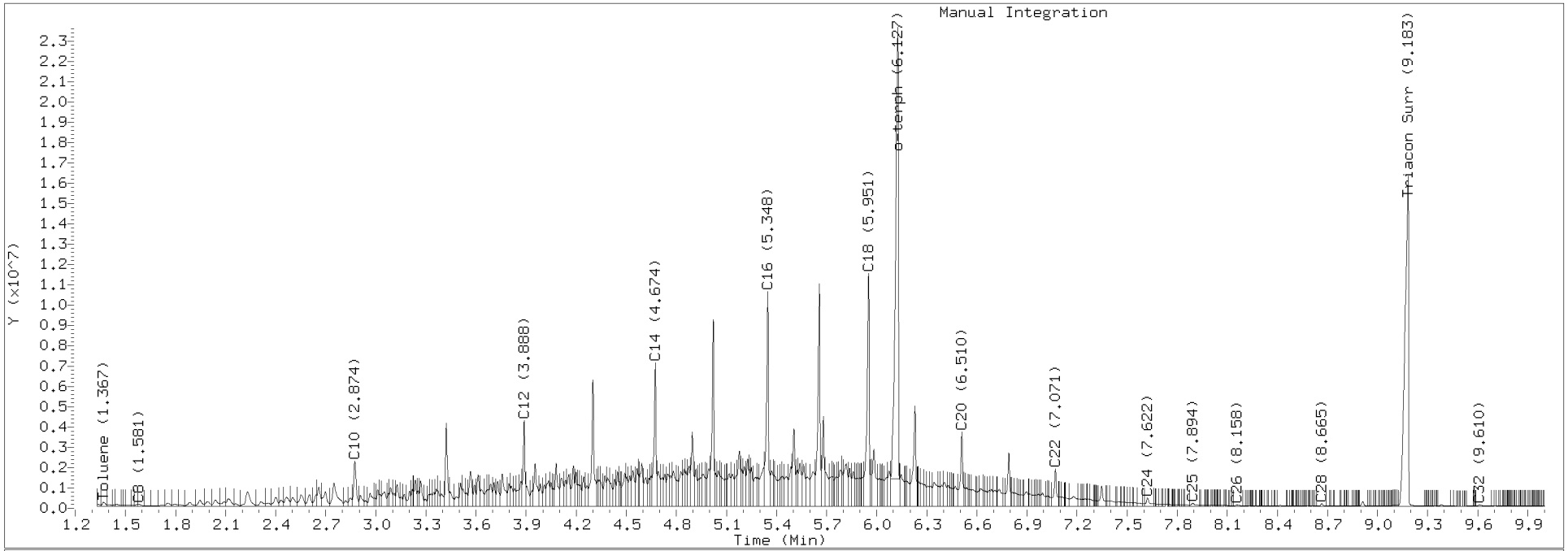
Datafile: FID4A, 20210428.b/421D2808.D BJD0478-BS1

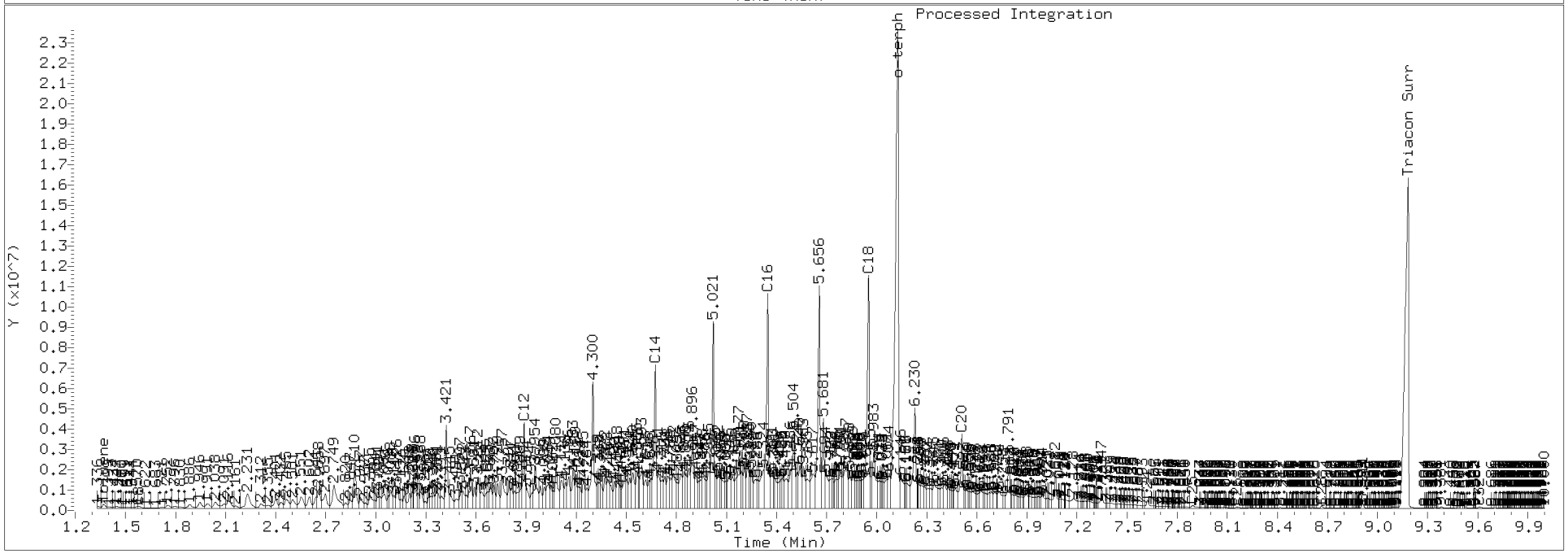


TPH Manual Integrations Report

Datafile: FID4A, 20210428.b/421D2808.D Injection: 28-APR-2021 16:51

Lab ID:BJD0478-BS1



# INITIAL CALIBRATION DATA

## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Calibration: | ED00037 | Instrument: | FID4 |
| Calibration Date: | 04/13/2021 | Column (1): | RTX-1 |
| Comments: | CTO 4/19/21 Added A/S Creosote Curve<br>CTO 4/21/21 Added A/S LAI Bunker C | | |

| Compound | Level 01 | | Level 02 | | Level 03 | | Level 04 | | Level 05 | | Level 06 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RF | | RF | | RF | | RF | | RF | | RF |
| Diesel Range Organics (C12-C24) | 50 | 185091.5 | 100 | 192889.4 | 250 | 190655.4 | 500 | 180854 | 1000 | 186039.7 | 2500 | 161458 |
| o-Terphenyl | 9 | 255700.8 | 18 | 256232.4 | 45 | 251136.4 | 90 | 247098.2 | 180 | 257460.6 | 450 | 226439.8 |

# INITIAL CALIBRATION DATA

## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Calibration: | ED00037 | Instrument: | FID4 |
| Calibration Date: | 04/13/2021 | Column (1): | RTX-1 |
| Comments: | CTO 4/19/21 Added A/S Creosote Curve<br>CTO 4/21/21 Added A/S LAI Bunker C | | |

| Compound | Level 07 | | Level 08 | | Level 09 | | Level 10 | | Level 11 | | Level 12 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RF | | RF | | RF | | RF | | RF | | RF |
| Motor Oil Range Organics (C24-C38) | 100 | 141072.4 | 250 | 134029.6 | 500 | 128843.9 | 1000 | 129766.7 | 2500 | 127391.3 | 5000 | 127540.4 |

# INITIAL CALIBRATION DATA

## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Calibration: | ED00037 | Instrument: | FID4 |
| Calibration Date: | 04/13/2021 | Column (1): | RTX-1 |
| Comments: | CTO 4/19/21 Added A/S Creosote Curve<br>CTO 4/21/21 Added A/S LAI Bunker C | | |

| Compound | Level 13 | | Level 14 | | Level 15 | | Level 16 | | Level 17 | | Level 18 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

# INITIAL CALIBRATION DATA

## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Calibration: | ED00037 | Instrument: | FID4 |
| Calibration Date: | 04/13/2021 | Column (1): | RTX-1 |
| Comments: | CTO 4/19/21 Added A/S Creosote Curve<br>CTO 4/21/21 Added A/S LAI Bunker C | | |

| Compound | Level 19 | | Level 20 | | Level 21 | | Level 22 | | Level 23 | | Level 24 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RF | | RF | | RF | | RF | | RF | | RF |
| Creosote Range Organics (C12-C22) | 100 | 43842.26 | 250 | 36736.52 | 500 | 36068.84 | 1000 | 42528.1 | 2500 | 36907.96 | 5000 | 38011.38 |

# INITIAL CALIBRATION DATA

## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Calibration: | ED00037 | Instrument: | FID4 |
| Calibration Date: | 04/13/2021 | Column (1): | RTX-1 |
| Comments: | CTO 4/19/21 Added A/S Creosote Curve<br>CTO 4/21/21 Added A/S LAI Bunker C | | |

| Compound | Level 25 | | Level 26 | | Level 27 | | Level 28 | | Level 29 | | Level 30 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RF | | RF | | RF | | RF | | RF | | RF |
| Bunker C Range Organics (C10-C38) | 100 | 42522.64 | 250 | 42298 | 500 | 41787.4 | 1000 | 44367.74 | 2500 | 49793.08 | 5000 | 48586.3 |

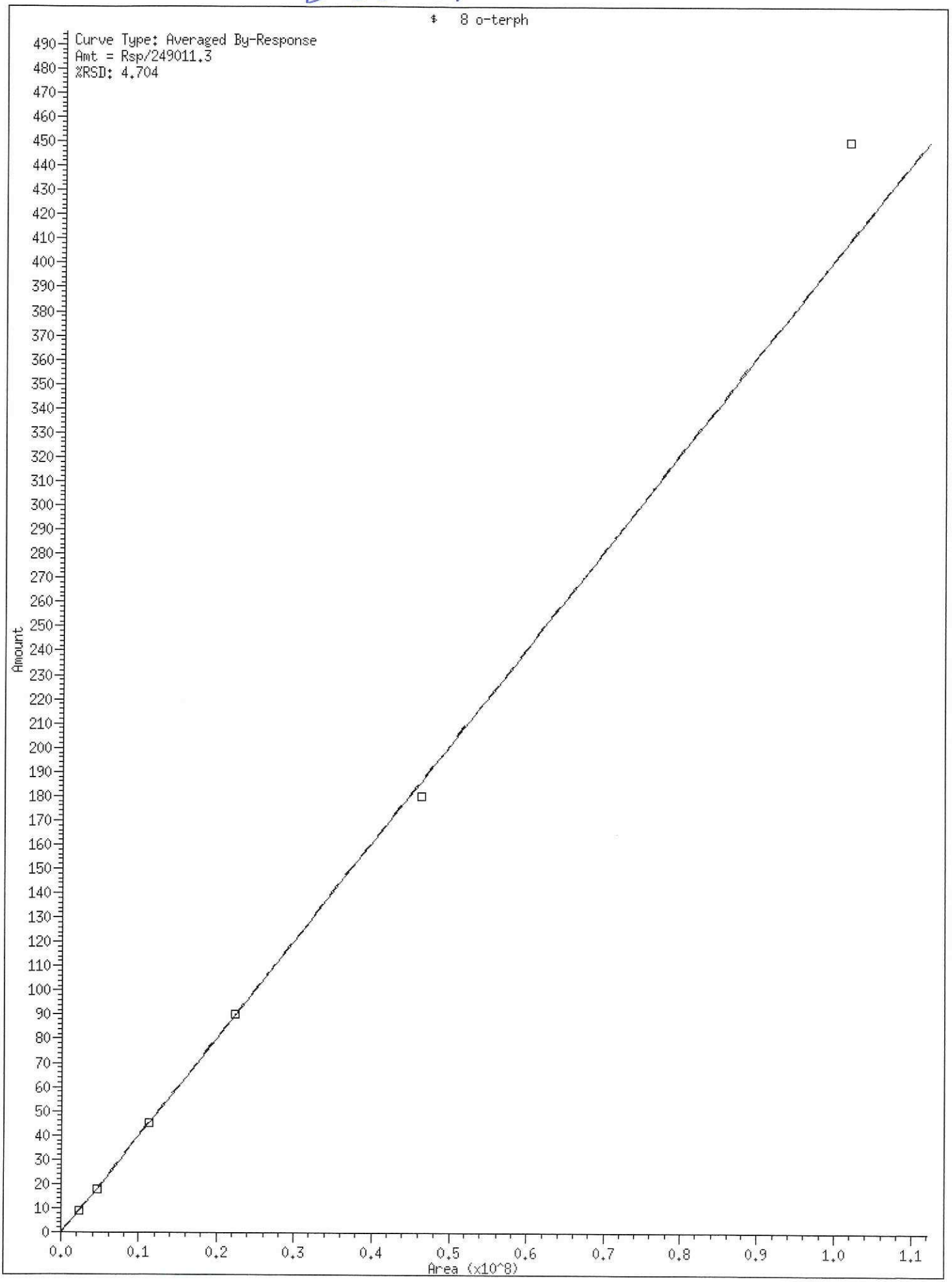
# INITIAL CALIBRATION DATA

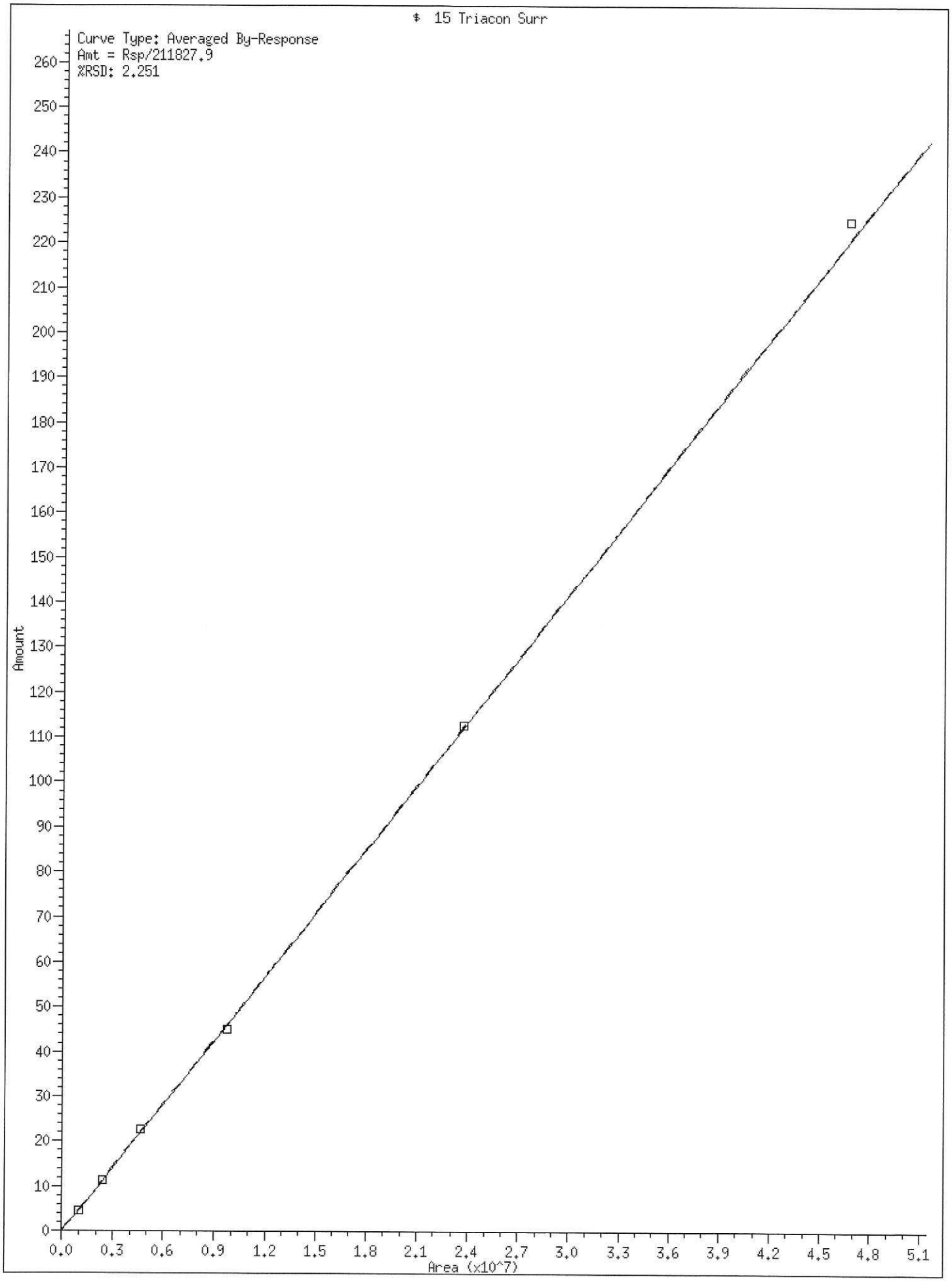
## NWTPH-Dx

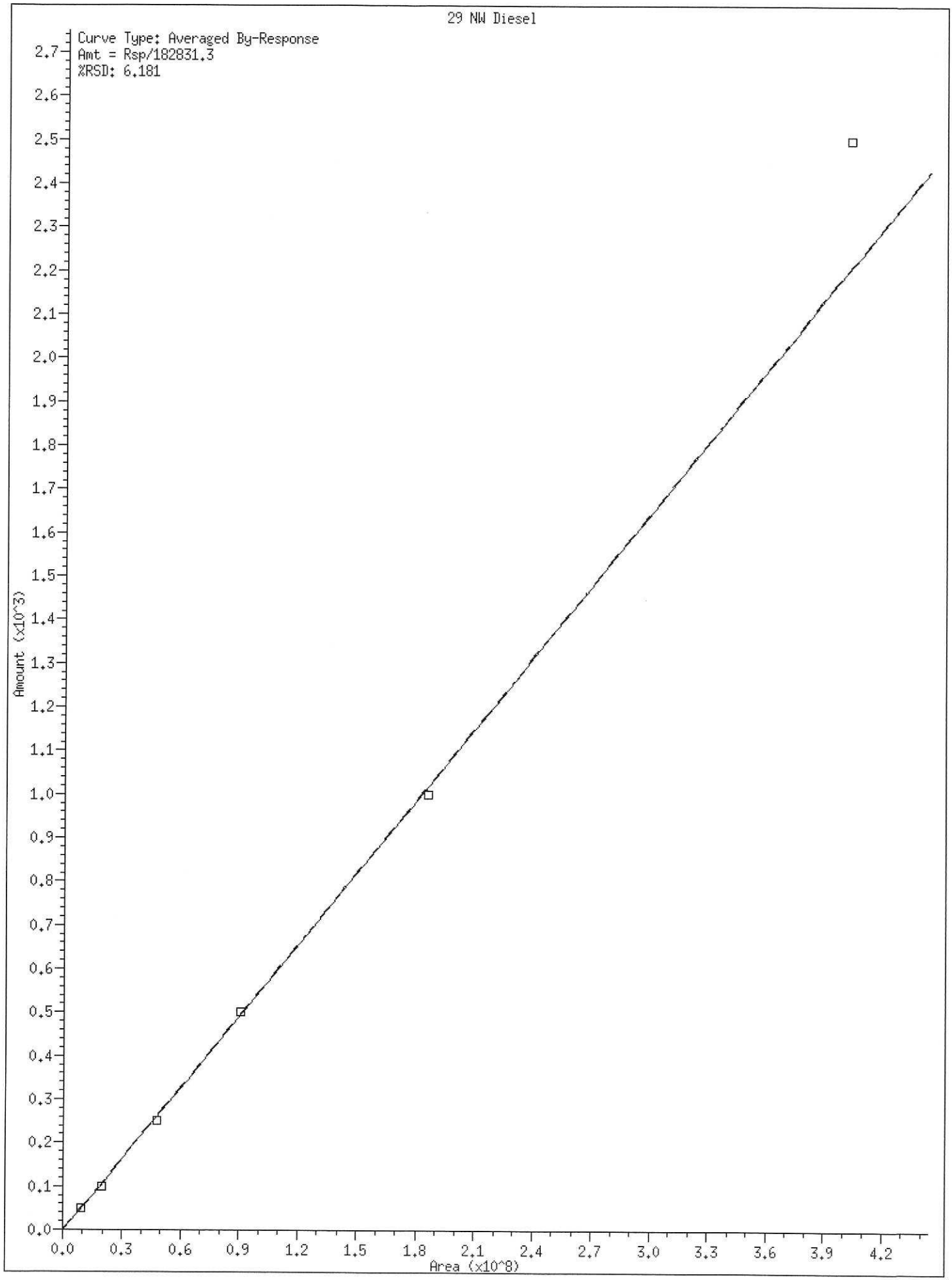
| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Calibration: | ED00037 | Instrument: | FID4 |
| Calibration Date: | 04/13/2021 | Column (1): | RTX-1 |
| Comments: | CTO 4/19/21 Added A/S Creosote Curve<br>CTO 4/21/21 Added A/S LAI Bunker C | | |

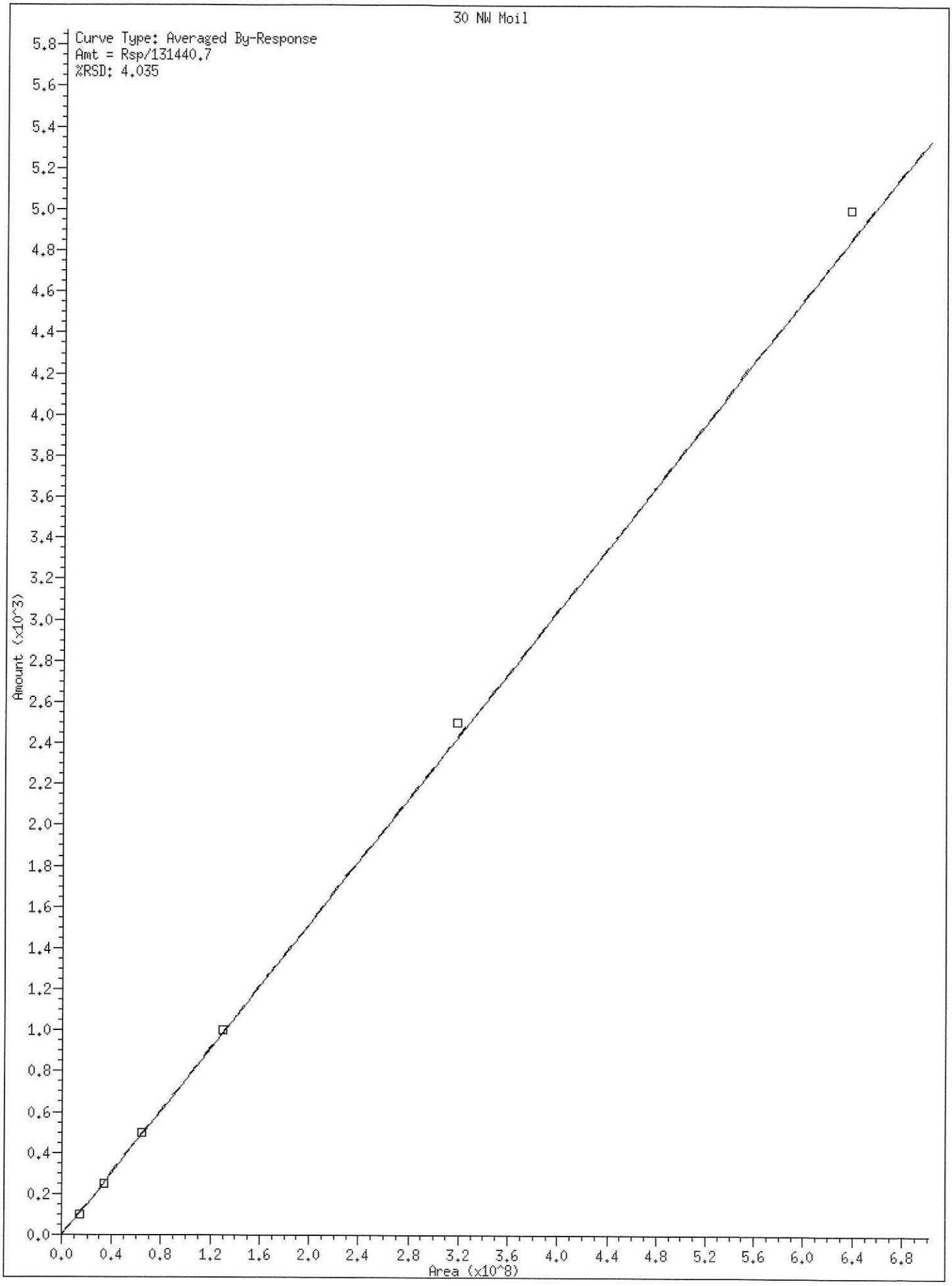
| COMPOUND | Mean RF | RF RSD | Linear COD | Quad COD | Limit Type & Limit | Q |
|---|---|---|---|---|---|---|
| Diesel Range Organics (C12-C24) | 182831.3 | 6.2 | | | RSD (20) | |
| Motor Oil Range Organics (C24-C38) | 131440.7 | 4.0 | | | RSD (20) | |
| Creosote Range Organics (C12-C22) | 39015.84 | 8.5 | | | RSD (20) | |
| Bunker C Range Organics (C10-C38) | 44892.53 | 7.7 | | | RSD (20) | |
| o-Terphenyl | 249011.4 | 4.7 | | | RSD (20) | |

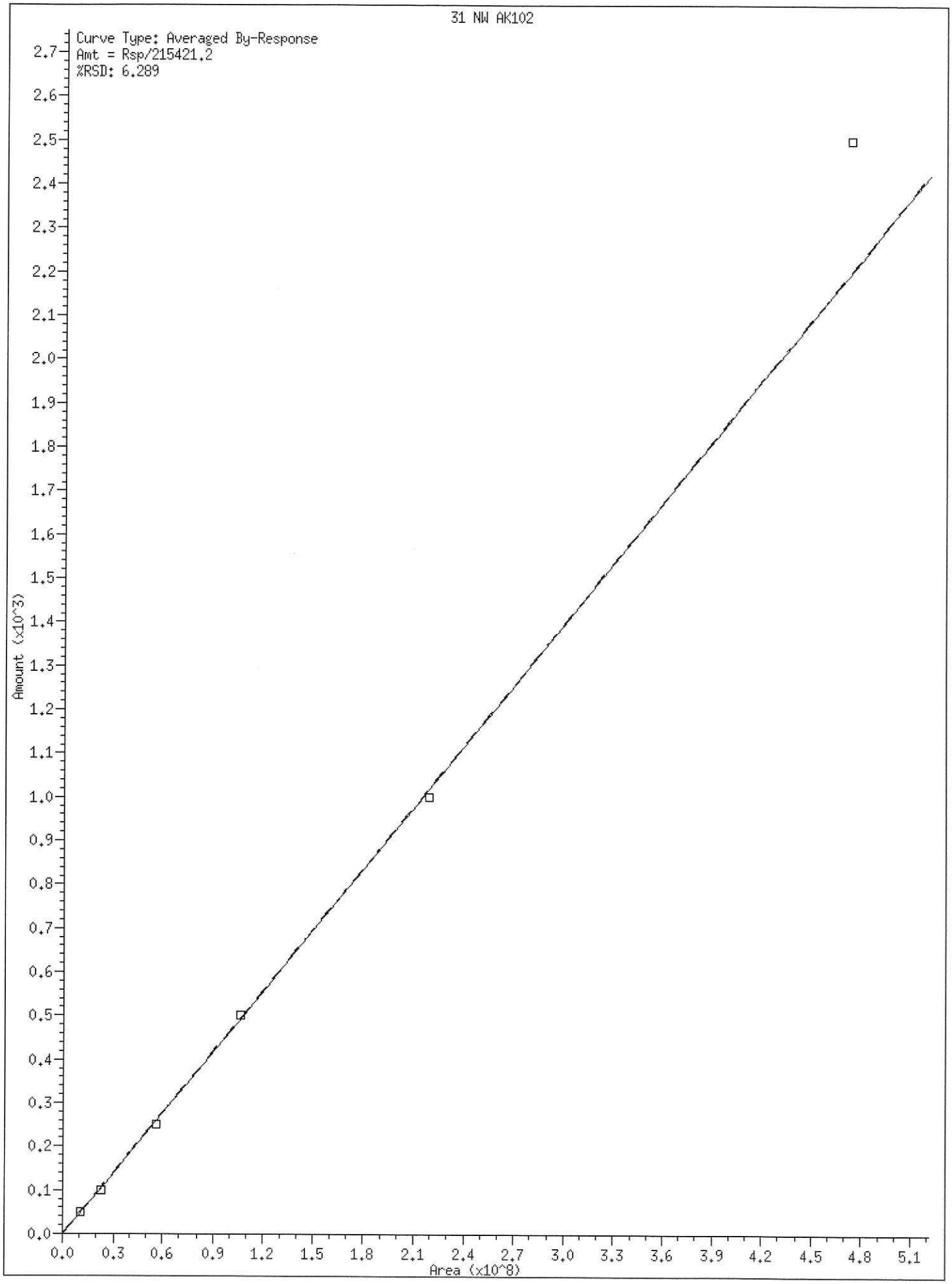
ED00037

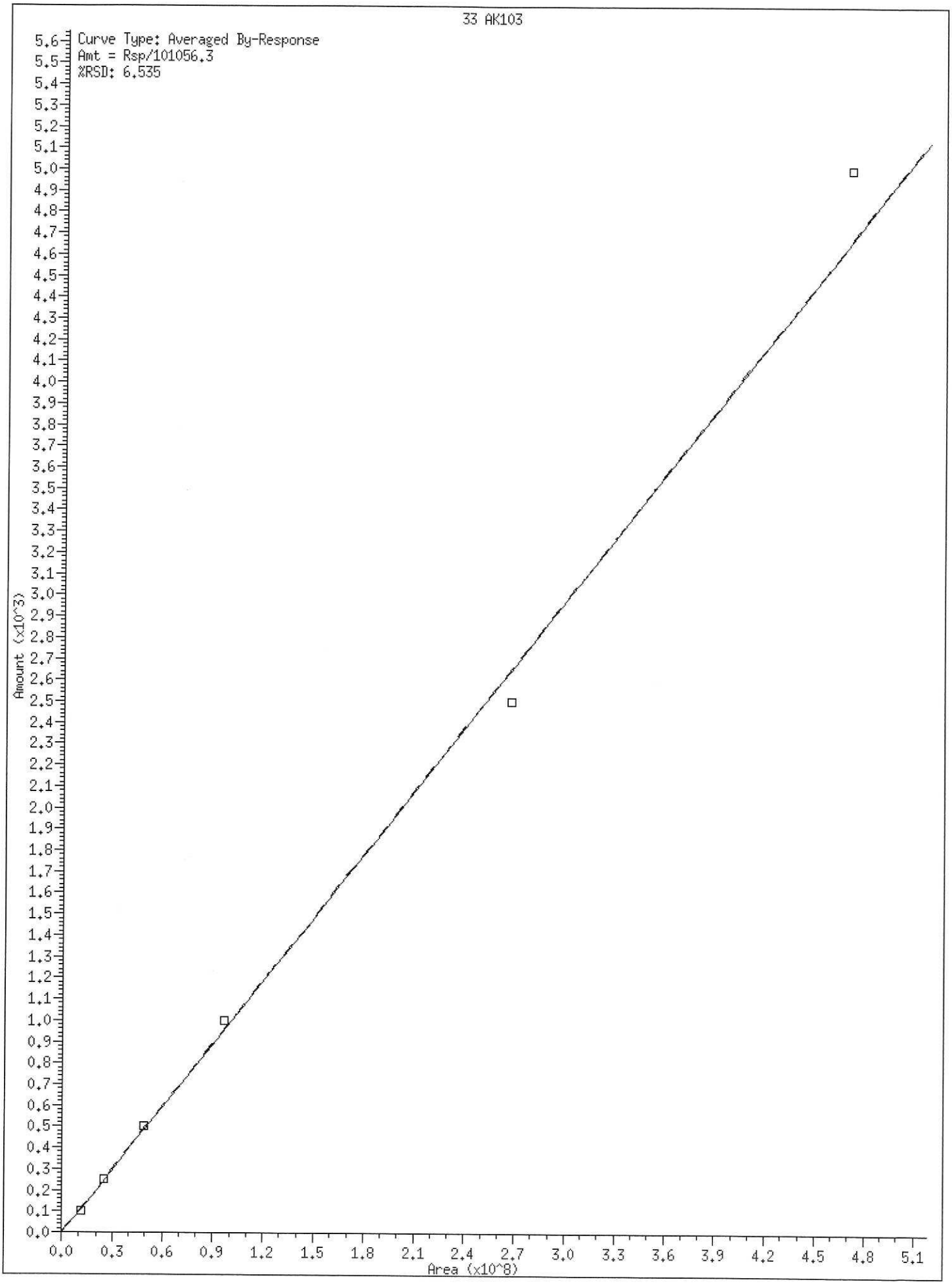

8 o-terph
Curve Type: Averaged By-Response
Amt = Rsp/249011.3
%RSD: 4.704
Amount
Area (x10^8)
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
210
220
230
240
250
260
270
280
290
300
310
320
330
340
350
360
370
380
390
400
410
420
430
440
450
460
470
480
490
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1


$ 15 Triacon Surr
Curve Type: Averaged By-Response
Amt = Rsp/211827.9
%RSD: 2.251
Amount
Area (x10^7)
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
210
220
230
240
250
260
0.0
0.3
0.6
0.9
1.2
1.5
1.8
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2
4.5
4.8
5.1


29 NW Diesel
Curve Type: Averaged By-Response
Amt = Rsp/182831.3
%RSD: 6.181
Amount (x10^3)
Area (x10^8)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1.0
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2.0
2.1
2.2
2.3
2.4
2.5
2.6
2.7
0.0
0.3
0.6
0.9
1.2
1.5
1.8
2.1
2.4
2.7
3.0
3.3
3.6
3.9
4.2


30 NW Moil
Curve Type: Averaged By-Response
Amt = Rsp/131440.7
%RSD: 4.035
Amount (x10^3)
Area (x10^8)
0.0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
1.6
1.8
2.0
2.2
2.4
2.6
2.8
3.0
3.2
3.4
3.6
3.8
4.0
4.2
4.4
4.6
4.8
5.0
5.2
5.4
5.6
5.8
0.0
0.4
0.8
1.2
1.6
2.0
2.4
2.8
3.2
3.6
4.0
4.4
4.8
5.2
5.6
6.0
6.4
6.8


31 NW AK102
Curve Type: Averaged By-Response
Amt = Rsp/215421.2
%RSD: 6.289
Amount (x10^3)
Area (x10^8)
0.0 0.3 0.6 0.9 1.2 1.5 1.8 2.1 2.4 2.7 3.0 3.3 3.6 3.9 4.2 4.5 4.8 5.1
0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.7


33 AK103
Curve Type: Averaged By-Response
Amt = Rsp/101056.3
%RSD: 6.535
Amount (x10^3)
Area (x10^8)

# SECOND-SOURCE CALIBRATION VERIFICATION

## NWTPH-Dx

**Laboratory:** Analytical Resources, Inc.
**SDG:** 21D0180
**Client:** Anchor QEA, LLC
**Project:** Gasco Siltronic - US Moorings
**Calibration:** ED00037
**Laboratory ID:** SJD0189-SCV1
**Sequence:** SJD0189
**Sequence Name:** DIESEL SCV
**Standard ID:** I004025

| ANALYTE | EXPECTED (mg/L) | FOUND (mg/L) | % DRIFT | QC LIMIT |
|---|---|---|---|---|
| Diesel Range Organics (C12-C24) | 500.00 | 492 | -1.7 | 30.00 |

* Indicates values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210413.b\421D1315.D



Date : 13-APR-2021 15:37

Client ID:

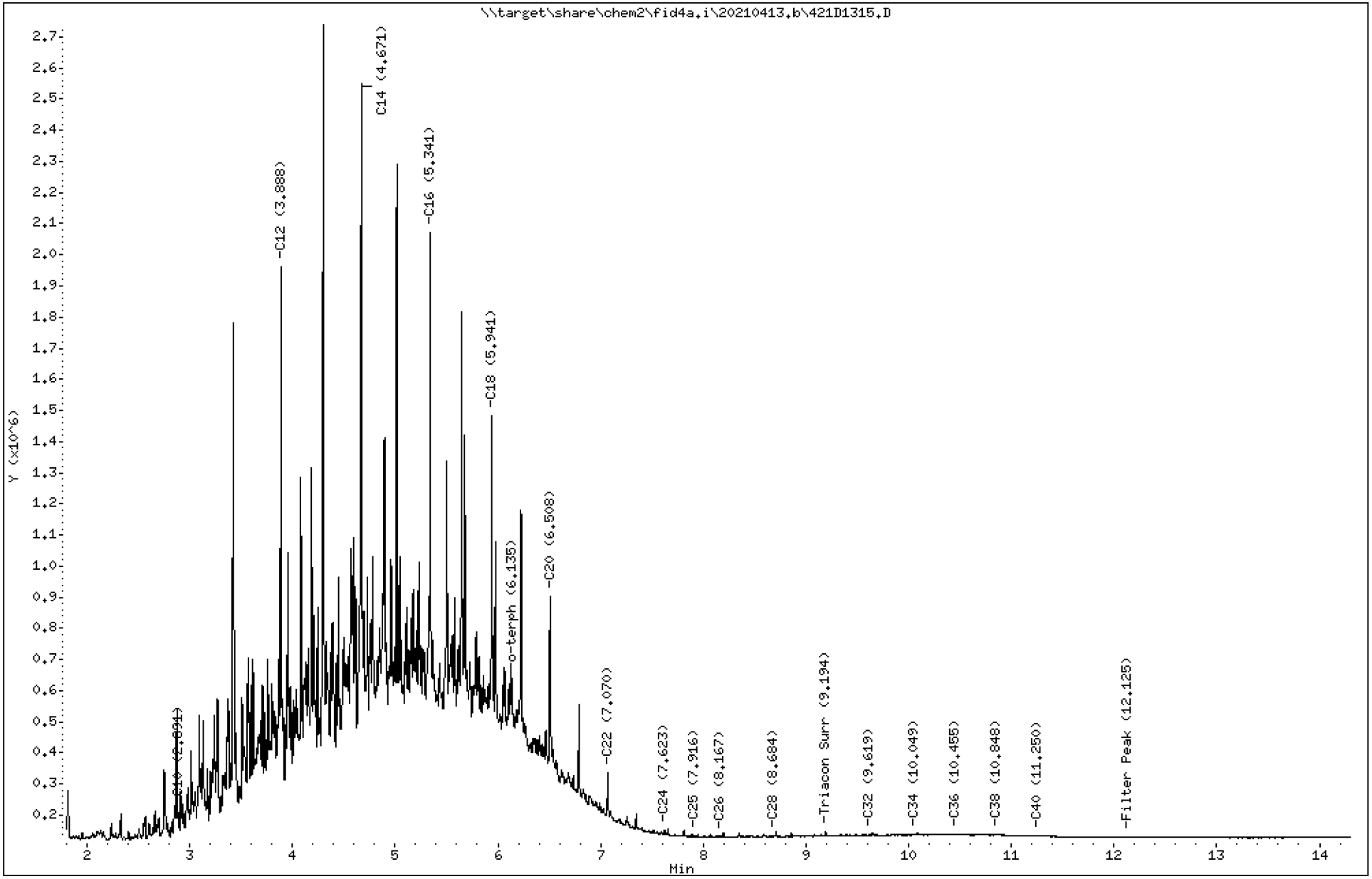
Instrument: fid4a.i

Sample Info: SEQ-SCV1

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25




Revised Report 21D0180 07/07/2021 Page 1584 of 1709

Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210413.b/421D1315.D
Method: 20210413.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/14/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-SCV1
Client ID:
Injection: 13-APR-2021 15:37
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Method | Range | Total Area | Conc(mg/L) |
|---|---|---|---|---|---|---|---|---|
| C8 | 1.643 | 0.008 | 54603 | 64091 | WATPHD | (C12-C24) | 89863949 | 491.5 |
| C10 | 2.891 | 0.001 | 88521 | 60047 | WATPHM | (C24-C38) | 2579689 | 19.6 |
| C12 | 3.888 | -0.007 | 1839965 | 1228653 | AK102 | (C10-C25) | 107410855 | 498.6 |
| C14 | 4.671 | -0.006 | 2430486 | 1810508 | AK103 | (C25-C36) | 2086166 | 20.6 |
| C16 | 5.341 | -0.007 | 1950234 | 1476241 | OR.DIES | (C10-C28) | 107974378 | 550.9 |
| C18 | 5.941 | -0.008 | 1361376 | 1097598 | | | | |
| C20 | 6.508 | -0.009 | 783405 | 864803 | JET-A | (C10-C18) | 89494855 | 610.3 |
| C22 | 7.070 | -0.012 | 216300 | 223341 | | | | |
| C24 | 7.623 | -0.012 | 29214 | 46183 | | | | |
| C25 | 7.916 | 0.008 | 13547 | 12777 | | | | |
| C26 | 8.167 | -0.005 | 8723 | 1733 | | | | |
| C28 | 8.684 | 0.003 | 11097 | 3231 | | | | |
| C32 | 9.619 | -0.004 | 16094 | 18913 | | | | |
| C34 | 10.049 | -0.003 | 16451 | 8995 | | | | |
| Filter Peak | 12.125 | 0.003 | 8610 | 2562 | CREOSOT | (C12-C22) | 88684804 | 8332.6 |
| C36 | 10.455 | -0.004 | 16099 | 8787 | | | | |
| C38 | 10.848 | 0.002 | 15723 | 4681 | | | | |
| C40 | 11.250 | -0.002 | 12238 | 2441 | | | | |
| o-terph | 6.135 | 0.005 | 518842 | 594571 | | | | |
| Triacon Surr | 9.194 | 0.000 | 24981 | 26960 | NAS DIES | (C10-C24) | 107276298 | 549.7 |

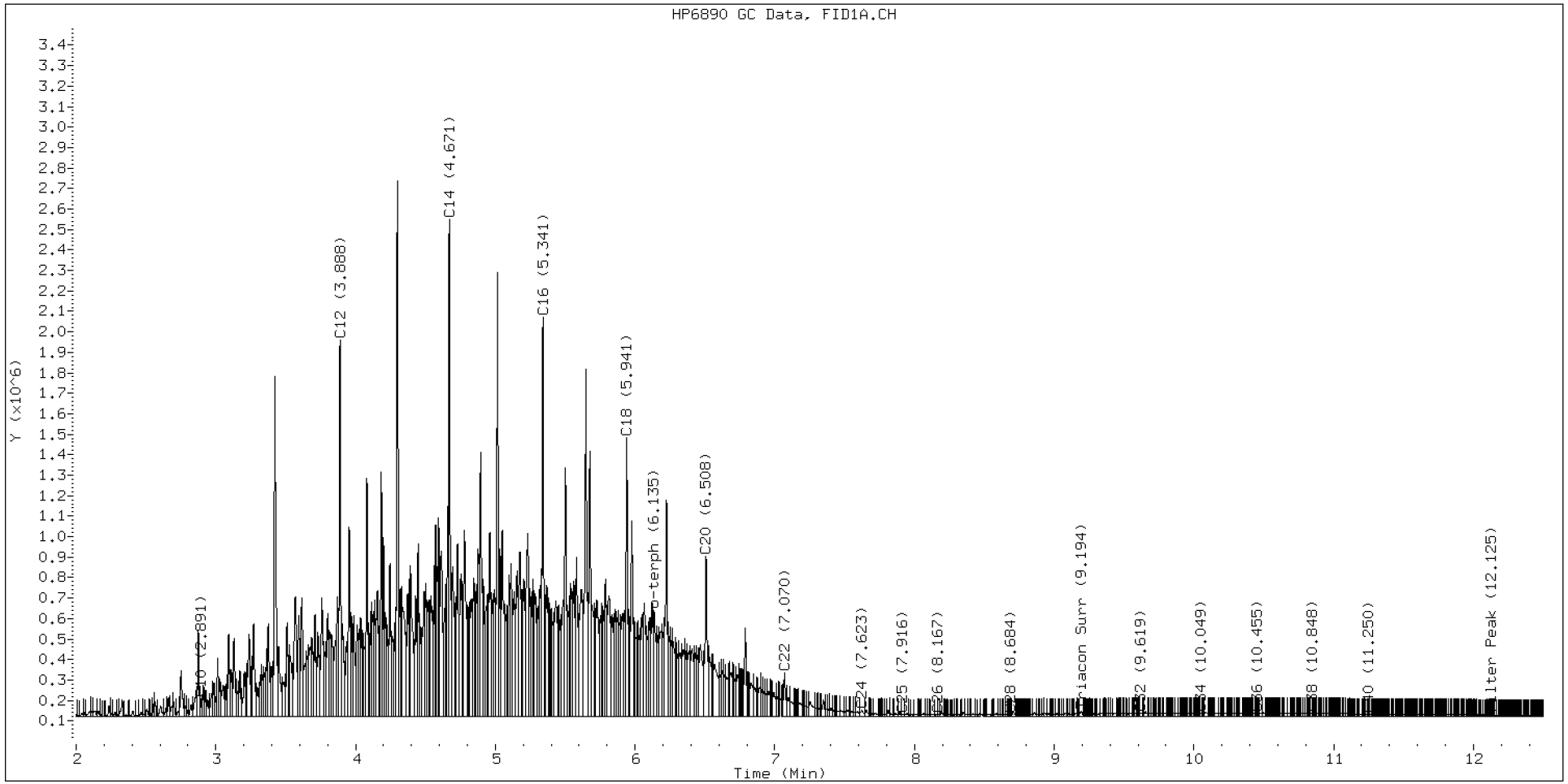
Range Times: NW Diesel(3.894 - 7.635) AK102(2.89 - 7.91) Jet A(2.89 - 5.95)
NW M.Oil(7.64 - 10.85) AK103(7.91 - 10.46) OR Diesel(2.89 - 8.68)

| Surrogate | Area | Amount |
|---|---|---|
| o-Terphenyl | 594571 | 2.4 |
| Triacontane | 26960 | 0.1 |

M Indicates the peak was manually integrated

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 249011.3 | 25-OCT-2019 |
| Triacon Surr | 211827.9 | 25-OCT-2019 |
| Gas | 15000.0 | XX-XXX-XXXX |
| Diesel | 182831.3 | 14-APR-2021 |
| Motor Oil | 131440.7 | 14-APR-2021 |
| AK102 | 215421.2 | 14-APR-2021 |
| AK103 | 101056.3 | 14-APR-2021 |
| JetA | 146652.4 | 20-MAY-2020 |
| OR Diesel | 195999.1 | 25-OCT-2019 |
| NAS Diesel | 195148.2 | 25-OCT-2019 |
| Creosote | 10643.2 | 30-MAR-2020 |

Datafile: FID4A, 20210413.b/421D1315.D SEQ-SCV1



# SECOND-SOURCE CALIBRATION VERIFICATION

## NWTPH-Dx

**Laboratory:** Analytical Resources, Inc.
**SDG:** 21D0180
**Client:** Anchor QEA, LLC
**Project:** Gasco Siltronic - US Moorings
**Calibration:** ED00037
**Laboratory ID:** SJD0189-SCV2
**Sequence:** SJD0189
**Sequence Name:** MOIL SCV
**Standard ID:** I004757

| ANALYTE | EXPECTED (mg/L) | FOUND (mg/L) | % DRIFT | QC LIMIT |
|---|---|---|---|---|
| Motor Oil Range Organics (C24-C38) | 1000.0 | 918 | -8.2 | 30.00 |

* Indicates values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210413.b\421D1322.D



Date : 13-APR-2021 18:07

Client ID:

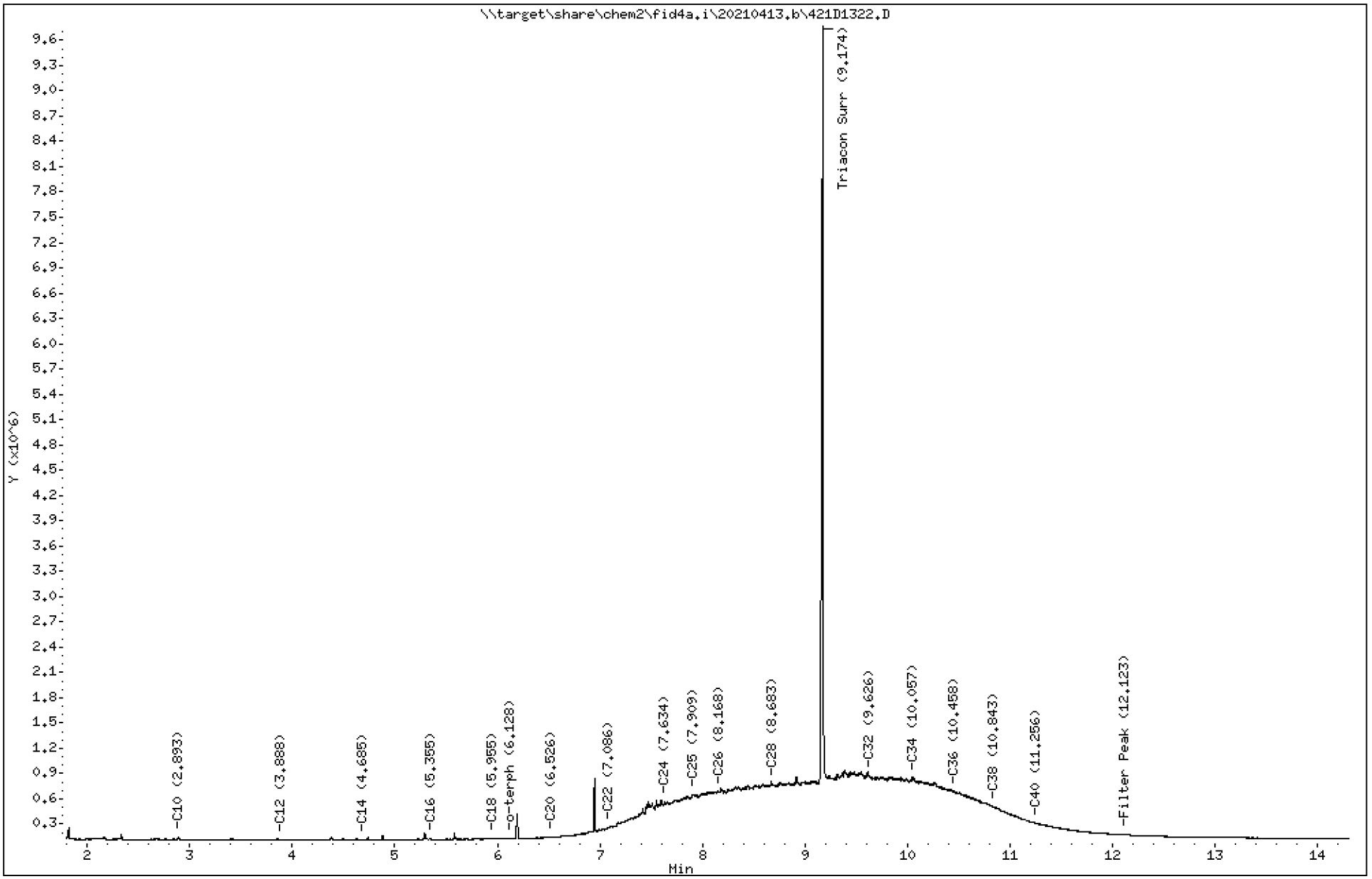
Instrument: fid4a.i

Sample Info: SEQ-SCV2

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25




Revised Report 21D0180 07/07/2021 Page 1588 of 1709

Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210413.b/421D1322.D
Method: 20210413.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/14/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-SCV2
Client ID:
Injection: 13-APR-2021 18:07
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Method | Range | Total Area | Conc(mg/L) |
|---|---|---|---|---|---|---|---|---|
| C8 | 1.626 | -0.008 | 65747 | 96813 | WATPHD | (C12-C24) | 15532252 | 85.0 |
| C10 | 2.893 | 0.003 | 32970 | 23142 | WATPHM | (C24-C38) | 120611856 | 917.6 |
| C12 | 3.888 | -0.006 | 5389 | 3628 | AK102 | (C10-C25) | 20669789 | 96.0 |
| C14 | 4.685 | 0.008 | 3945 | 1476 | AK103 | (C25-C36) | 105207415 | 1041.1 |
| C16 | 5.355 | 0.007 | 9584 | 10953 | OR.DIES | (C10-C28) | 51331560 | 261.9 |
| C18 | 5.955 | 0.006 | 19031 | 17530 | | | | |
| C20 | 6.526 | 0.009 | 34956 | 39910 | JET-A | (C10-C18) | 962360 | 6.6 |
| C22 | 7.086 | 0.004 | 142736 | 70767 | | | | |
| C24 | 7.634 | -0.001 | 455529 | 454995 | | | | |
| C25 | 7.909 | 0.002 | 536300 | 187150 | | | | |
| C26 | 8.168 | -0.004 | 569572 | 113374 | | | | |
| C28 | 8.683 | 0.001 | 657302 | 357915 | | | | |
| C32 | 9.626 | 0.003 | 760723 | 638055 | | | | |
| C34 | 10.057 | 0.005 | 726792 | 323841 | | | | |
| Filter Peak | 12.123 | 0.002 | 60871 | 41807 | CREOSOT | (C12-C22) | 4882924 | 458.8 |
| C36 | 10.458 | -0.002 | 571891 | 252641 | | | | |
| C38 | 10.843 | -0.003 | 392748 | 215443 | | | | |
| C40 | 11.256 | 0.004 | 196755 | 78044 | | | | |
| o-terph | 6.128 | -0.002 | 13513 | 9103 | | | | |
| Triacon Surr | 9.174 | -0.019 | 8966637 | 9459500 | NAS DIES | (C10-C24) | 15747411 | 80.7 |

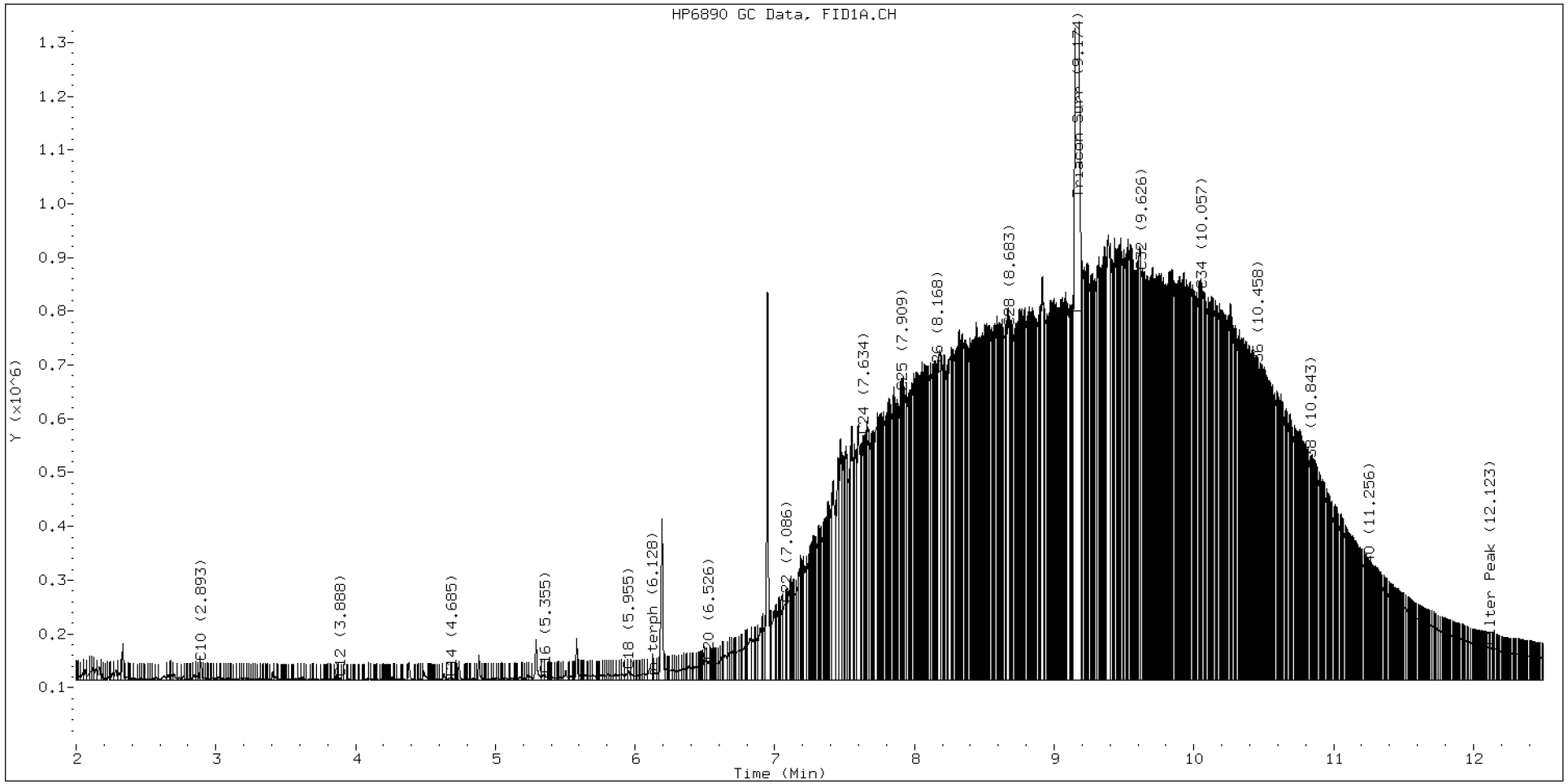
Range Times: NW Diesel(3.894 - 7.635) AK102(2.89 - 7.91) Jet A(2.89 - 5.95)
NW M.Oil(7.64 - 10.85) AK103(7.91 - 10.46) OR Diesel(2.89 - 8.68)

| Surrogate | Area | Amount | |
|---|---|---|---|
| o-Terphenyl | 9103 | 0.0 | |
| Triacontane | 9459500 | 44.7 | M |

M Indicates the peak was manually integrated

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 249011.3 | 25-OCT-2019 |
| Triacon Surr | 211827.9 | 25-OCT-2019 |
| Gas | 15000.0 | XX-XXX-XXXX |
| Diesel | 182831.3 | 14-APR-2021 |
| Motor Oil | 131440.7 | 14-APR-2021 |
| AK102 | 215421.2 | 14-APR-2021 |
| AK103 | 101056.3 | 14-APR-2021 |
| JetA | 146652.4 | 20-MAY-2020 |
| OR Diesel | 195999.1 | 25-OCT-2019 |
| NAS Diesel | 195148.2 | 25-OCT-2019 |
| Creosote | 10643.2 | 30-MAR-2020 |

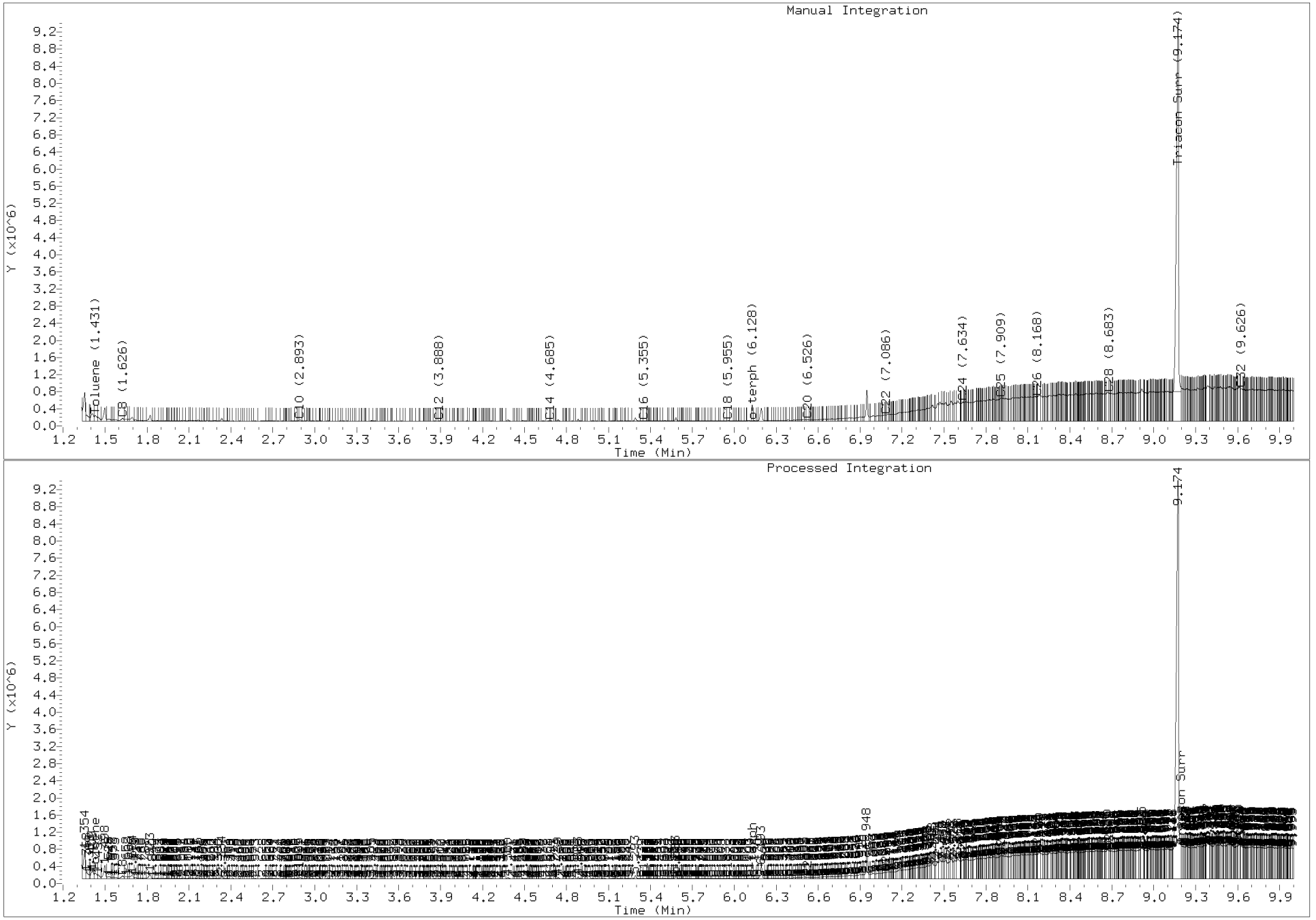
Datafile: FID4A, 20210413.b/421D1322.D SEQ-SCV2



TPH Manual Integrations Report

Datafile: FID4A,  20210413.b/421D1322.D  Injection: 13-APR-2021 18:07

Lab ID:SEQ-SCV2



# INITIAL CALIBRATION CHECK

## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | FID4 | Calibration: | ED00037 |
| Lab File ID: | 421D1561.D | Calibration Date: | 04/13/2021 |
| Sequence: | SJD0260 | Injection Date: | 04/16/21 |
| Lab Sample ID: | SJD0260-ICV1 | Injection Time: | 06:21 |
| Sequence Name: | DIESEL ICV | | |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN | ICV | LIMIT |
| Diesel Range Organics (C12-C24) | A | 500.00 | 499 | 182831.3000 | 182439.2000 | | -0.2 | +/-15 |
| o-Terphenyl | A | 90.000 | 87.0 | 249011.4000 | 240625.8000 | | -3.3 | +/-15 |

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210415b.b\421D1561.D



Date : 16-APR-2021 06:21

Client ID:

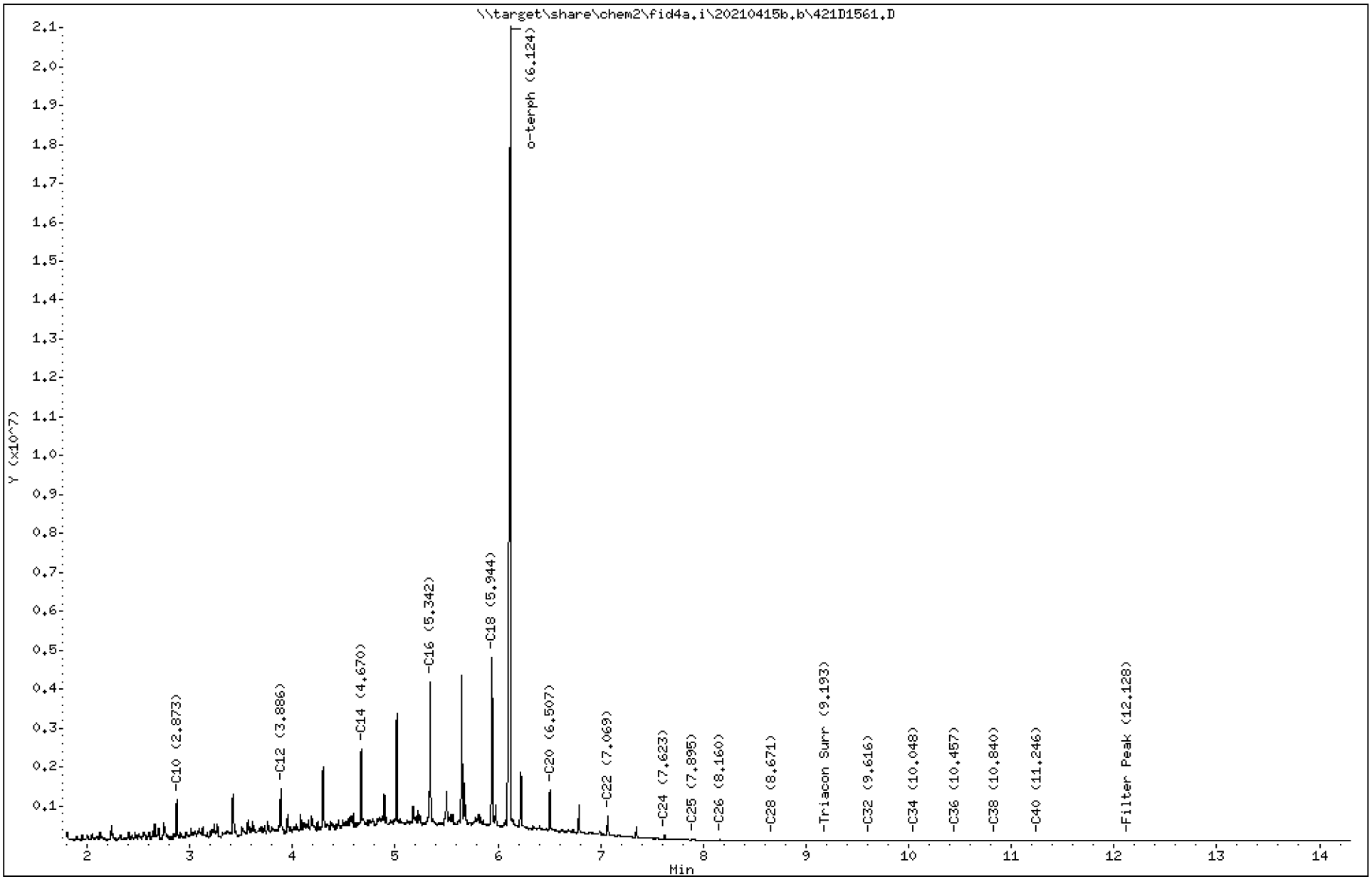
Instrument: fid4a.i

Sample Info: SEQ-ICV1

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25

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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210415b.b/421D1561.D
Method: 20210415b.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/19/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-ICV1
Client ID:
Injection: 16-APR-2021 06:21
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Method | Range | Total Area | Conc(mg/L) |
|---|---|---|---|---|---|---|---|---|
| C8 | 1.609 | -0.001 | 112644 | 125856 | WATPHD | (C12-C24) | 91219617 | 498.9 |
| C10 | 2.873 | -0.006 | 1038507 | 786922 | WATPHM | (C24-C38) | 877375 | 6.7 |
| C12 | 3.886 | -0.002 | 1337018 | 1070306 | AK102 | (C10-C25) | 107631460 | 499.6 |
| C14 | 4.670 | -0.001 | 2351029 | 2027178 | AK103 | (C25-C36) | 532809 | 5.3 |
| C16 | 5.342 | -0.001 | 4060546 | 3872792 | OR.DIES | (C10-C28) | 108018043 | 551.1 |
| C18 | 5.944 | -0.001 | 4691534 | 3670982 | | | | |
| C20 | 6.507 | -0.007 | 1287445 | 1292118 | JET-A | (C10-C18) | 84182999 | 574.0 |
| C22 | 7.069 | -0.008 | 632412 | 655045 | | | | |
| C24 | 7.623 | -0.008 | 140665 | 184376 | | | | |
| C25 | 7.895 | -0.007 | 48878 | 80604 | | | | |
| C26 | 8.160 | -0.007 | 17884 | 30824 | | | | |
| C28 | 8.671 | -0.005 | 3768 | 5029 | | | | |
| C32 | 9.616 | -0.000 | 702 | 162 | | | | |
| C34 | 10.048 | 0.002 | 1056 | 404 | | | | |
| Filter Peak | 12.128 | 0.003 | 6822 | 1932 | CREOSOT | (C12-C22) | 88435872 | 2266.7 |
| C36 | 10.457 | 0.003 | 2877 | 818 | | | | |
| C38 | 10.840 | 0.001 | 5073 | 3458 | | | | |
| C40 | 11.246 | -0.001 | 6257 | 1849 | | | | |
| o-terph | 6.124 | 0.001 | 20516680 | 21656325 | | | | |
| Triacon Surr | 9.193 | 0.007 | 3523 | 3605 | NAS DIES | (C10-C24) | 107377182 | 550.2 |

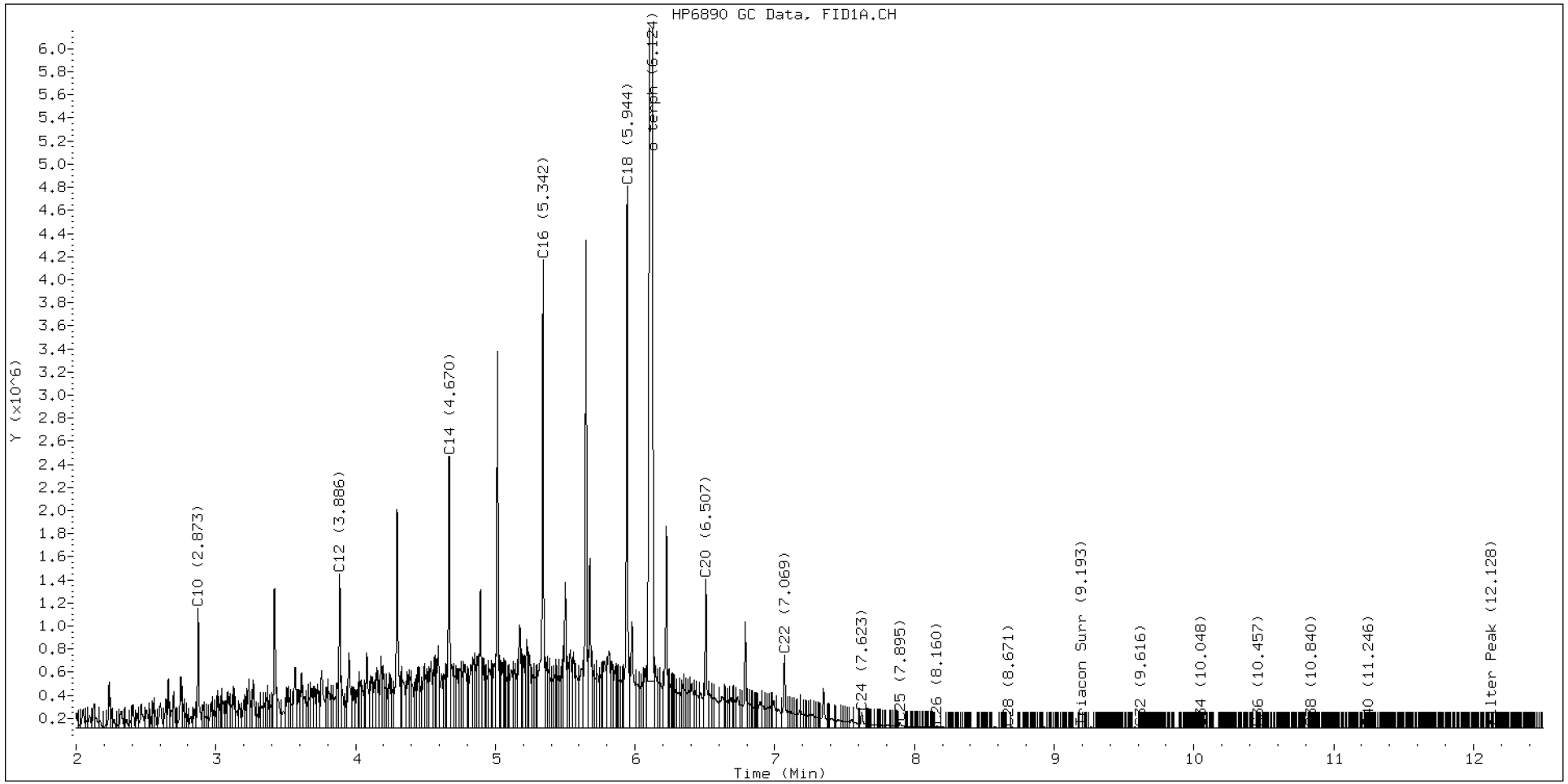
Range Times: NW Diesel(3.888 - 7.631) AK102(2.88 - 7.90) Jet A(2.88 - 5.95)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.68)

| Surrogate | Area | Amount | |
|---|---|---|---|
| o-Terphenyl | 21656325 | 87.0 | M |
| Triacontane | 3605 | 0.0 | |

M Indicates the peak was manually integrated

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 249011.3 | 25-OCT-2019 |
| Triacon Surr | 211827.9 | 25-OCT-2019 |
| Gas | 15000.0 | XX-XXX-XXXX |
| Diesel | 182831.3 | 14-APR-2021 |
| Motor Oil | 131440.7 | 14-APR-2021 |
| AK102 | 215421.2 | 14-APR-2021 |
| AK103 | 101056.3 | 14-APR-2021 |
| JetA | 146652.4 | 20-MAY-2020 |
| OR Diesel | 195999.1 | 25-OCT-2019 |
| NAS Diesel | 195148.2 | 25-OCT-2019 |
| Creosote | 39015.8 | 30-MAR-2020 |

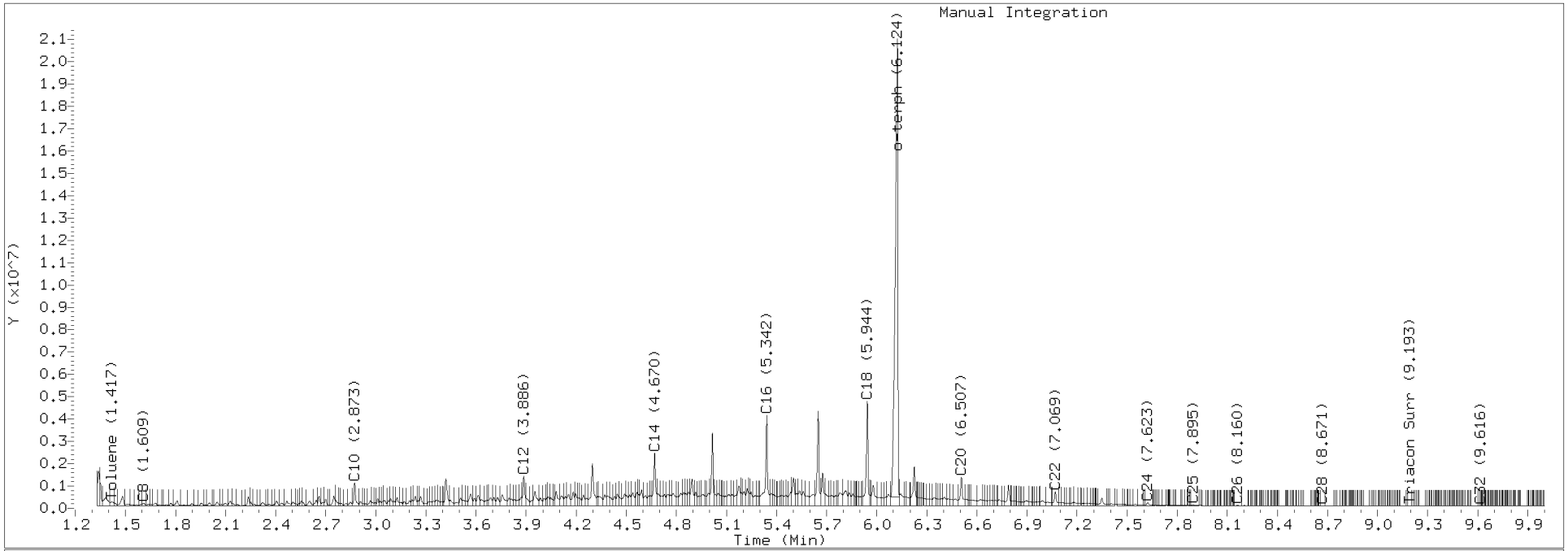
Datafile: FID4A, 20210415b.b/421D1561.D SEQ-ICV1

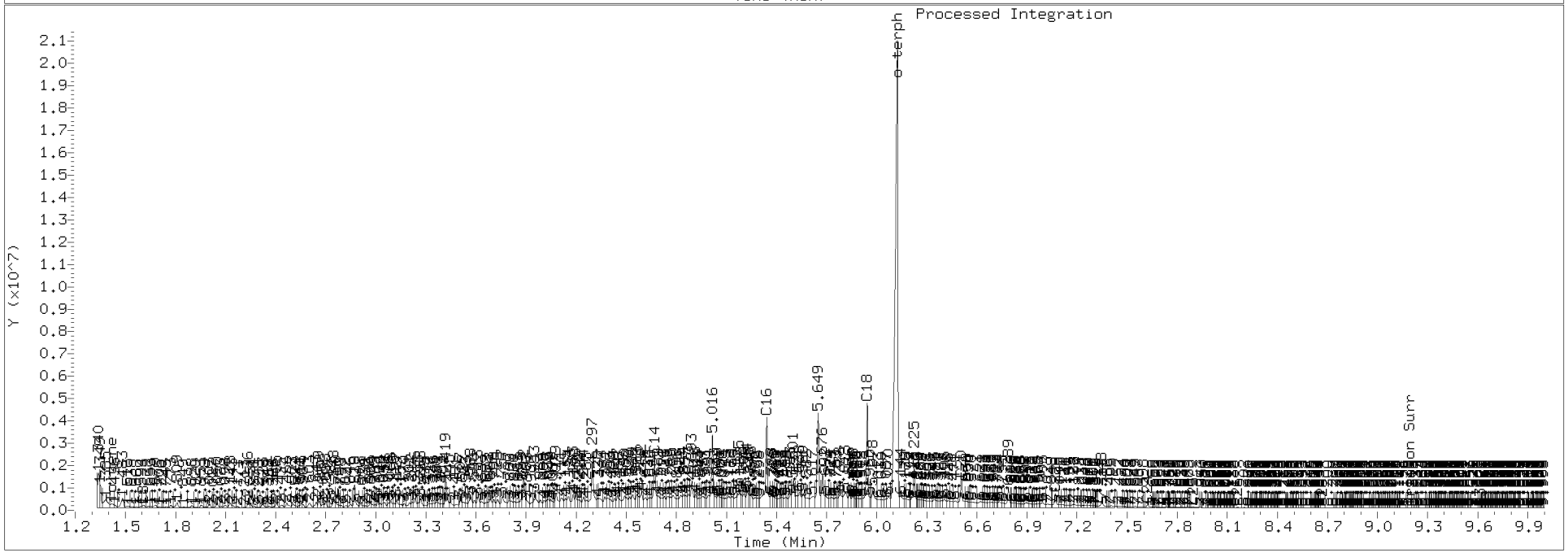


TPH Manual Integrations Report

Datafile: FID4A,  20210415b.b/421D1561.D  Injection: 16-APR-2021 06:21

Lab ID:SEQ-ICV1



# INITIAL CALIBRATION CHECK

## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | FID4 | Calibration: | ED00037 |
| Lab File ID: | 421D1562.D | Calibration Date: | 04/13/2021 |
| Sequence: | SJD0260 | Injection Date: | 04/16/21 |
| Lab Sample ID: | SJD0260-ICV2 | Injection Time: | 06:42 |
| Sequence Name: | MOIL ICV | | |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN | ICV | LIMIT |
| Motor Oil Range Organics (C24-C38) | A | 1000.0 | 1180 | 131440.7000 | 155644.0000 | | 18.4 | +/-15 * |

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210415b.b\421D1562.D



Date : 16-APR-2021 06:42

Client ID:

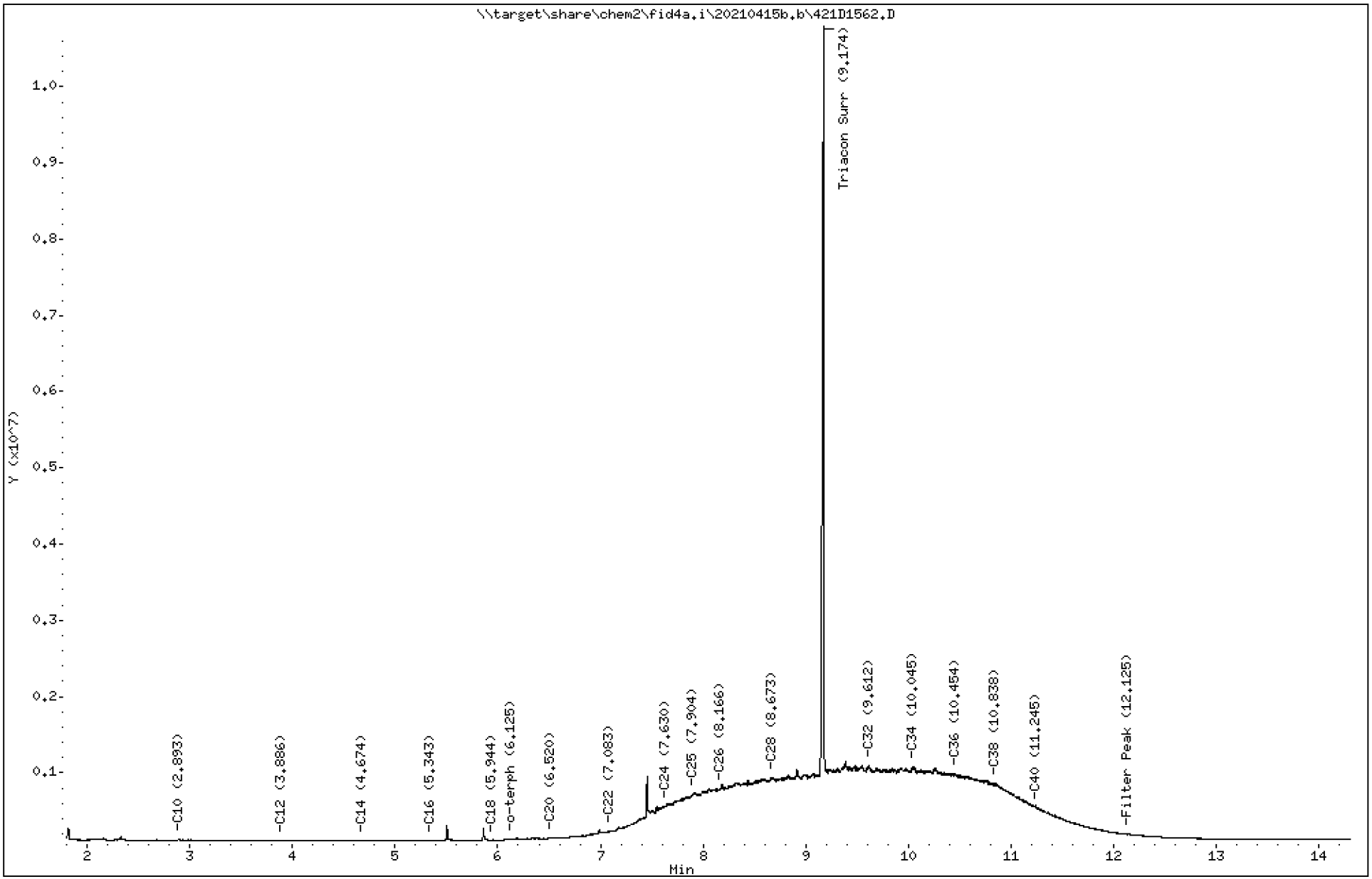
Instrument: fid4a.i

Sample Info: SEQ-ICV2

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25

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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210415b.b/421D1562.D
Method: 20210415b.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/19/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-ICV2
Client ID:
Injection: 16-APR-2021 06:42
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Method | Range | Total Area | Conc(mg/L) |
|---|---|---|---|---|---|---|---|---|
| C8 | 1.620 | 0.010 | 79445 | 114551 | WATPHD | (C12-C24) | 13969364 | 76.4 |
| C10 | 2.893 | 0.014 | 21986 | 28723 | WATPHM | (C24-C38) | 155644038 | 1184.1 |
| C12 | 3.886 | -0.001 | 1914 | 1485 | AK102 | (C10-C25) | 19406620 | 90.1 |
| C14 | 4.674 | 0.003 | 3193 | 943 | AK103 | (C25-C36) | 132173405 | 1307.9 |
| C16 | 5.343 | 0.000 | 4315 | 2109 | OR.DIES | (C10-C28) | 56265963 | 287.1 |
| C18 | 5.944 | -0.001 | 8251 | 1644 | | | | |
| C20 | 6.520 | 0.006 | 30709 | 20749 | JET-A | (C10-C18) | 821458 | 5.6 |
| C22 | 7.083 | 0.005 | 116656 | 28892 | | | | |
| C24 | 7.630 | -0.001 | 451736 | 112436 | | | | |
| C25 | 7.904 | 0.002 | 610127 | 479843 | | | | |
| C26 | 8.166 | -0.001 | 689125 | 272337 | | | | |
| C28 | 8.673 | -0.003 | 832047 | 329420 | | | | |
| C32 | 9.612 | -0.004 | 989937 | 532388 | | | | |
| C34 | 10.045 | -0.001 | 964151 | 381225 | | | | |
| Filter Peak | 12.125 | -0.001 | 84250 | 29053 | CREOSOT | (C12-C22) | 3721874 | 95.4 |
| C36 | 10.454 | 0.000 | 871779 | 518981 | | | | |
| C38 | 10.838 | -0.001 | 751332 | 514765 | | | | |
| C40 | 11.245 | -0.001 | 436685 | 108472 | | | | |
| o-terph | 6.125 | 0.001 | 11073 | 3279 | | | | |
| Triacon Surr | 9.174 | -0.012 | 9847122 | 10778658 | NAS DIES | (C10-C24) | 14137722 | 72.4 |

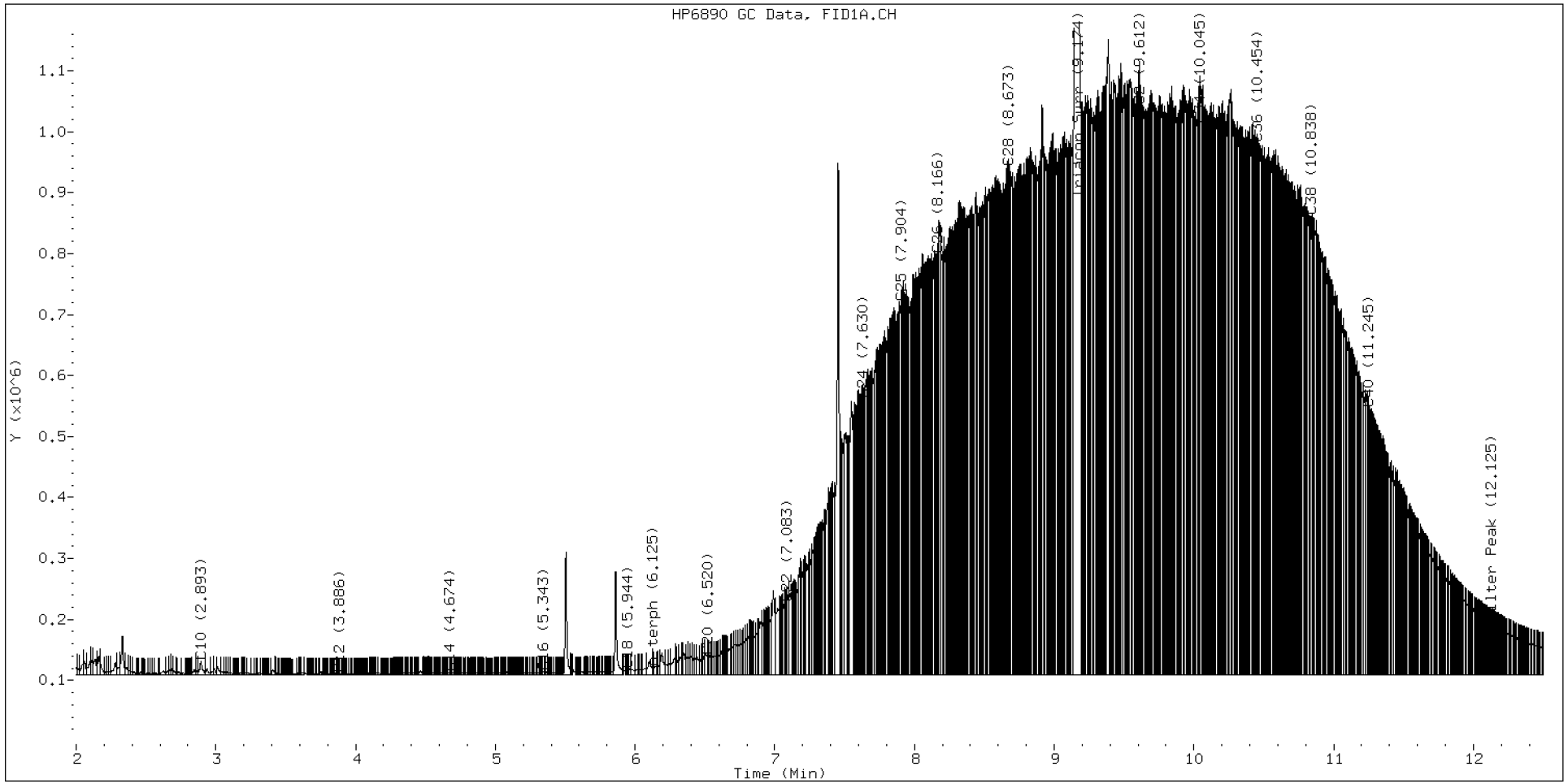
Range Times: NW Diesel(3.888 - 7.631) AK102(2.88 - 7.90) Jet A(2.88 - 5.95)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.68)

| Surrogate | Area | Amount | |
|---|---|---|---|
| o-Terphenyl | 3279 | 0.0 | |
| Triacontane | 10778658 | 50.9 | M |

M Indicates the peak was manually integrated

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 249011.3 | 25-OCT-2019 |
| Triacon Surr | 211827.9 | 25-OCT-2019 |
| Gas | 15000.0 | XX-XXX-XXXX |
| Diesel | 182831.3 | 14-APR-2021 |
| Motor Oil | 131440.7 | 14-APR-2021 |
| AK102 | 215421.2 | 14-APR-2021 |
| AK103 | 101056.3 | 14-APR-2021 |
| JetA | 146652.4 | 20-MAY-2020 |
| OR Diesel | 195999.1 | 25-OCT-2019 |
| NAS Diesel | 195148.2 | 25-OCT-2019 |
| Creosote | 39015.8 | 30-MAR-2020 |

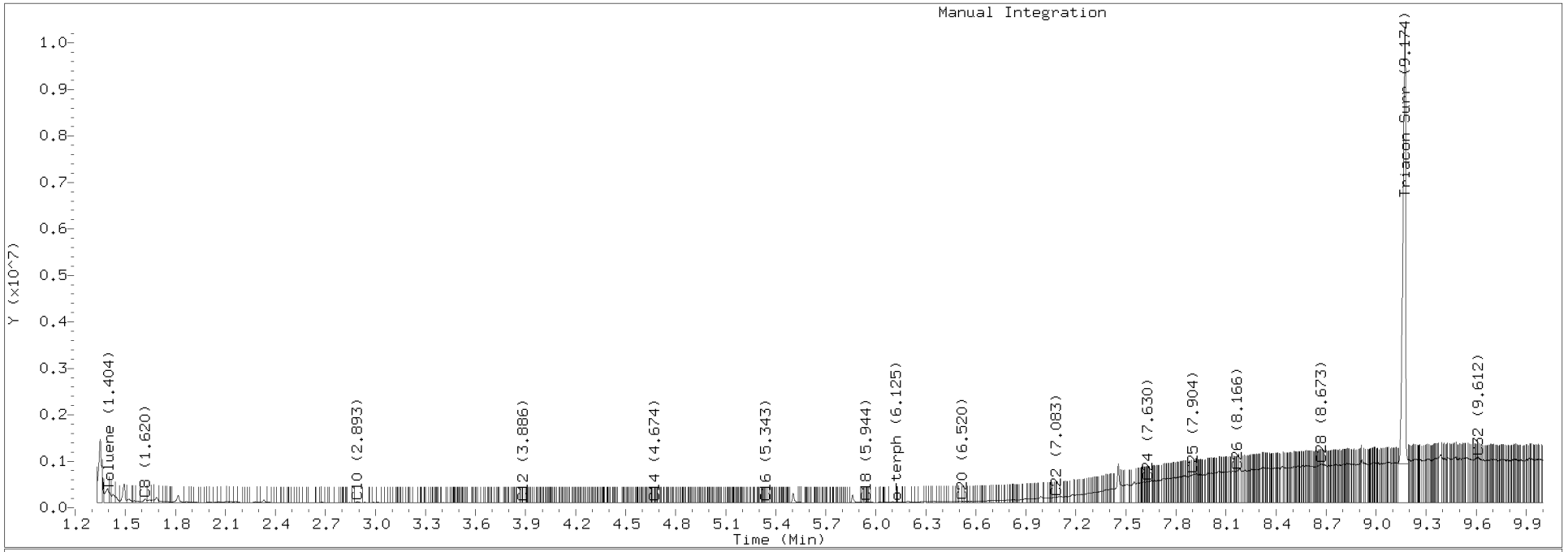
Datafile: FID4A, 20210415b.b/421D1562.D SEQ-ICV2

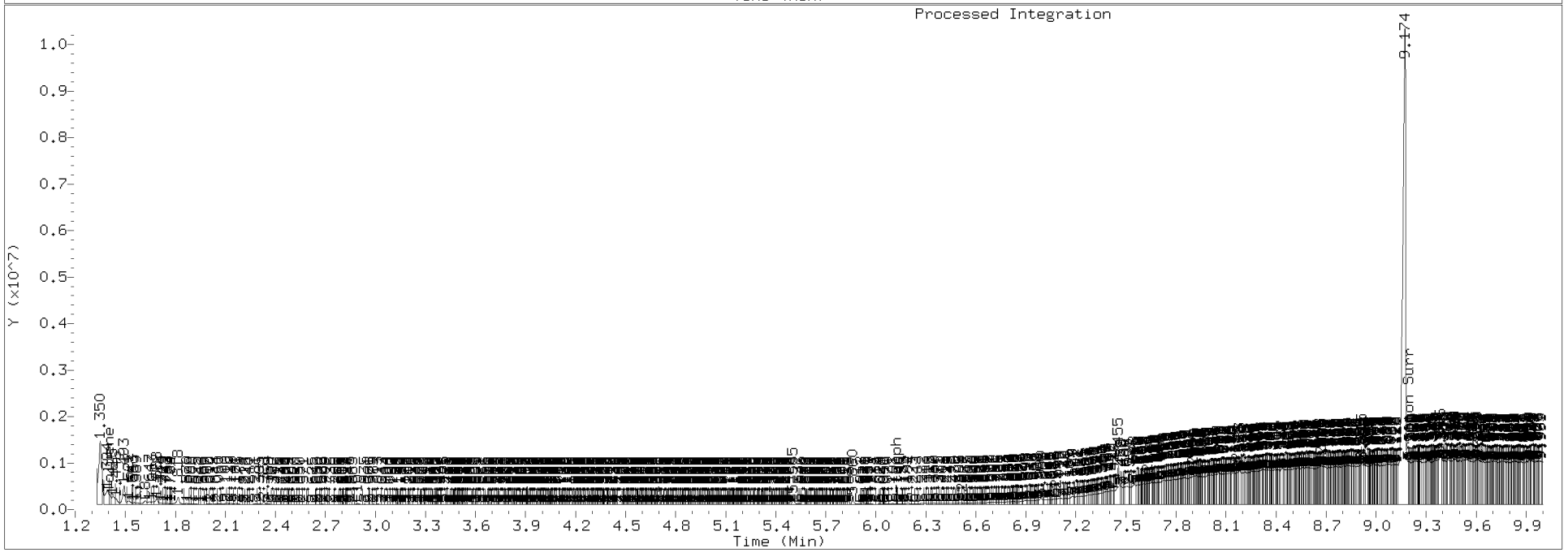


TPH Manual Integrations Report

Datafile: FID4A, 20210415b.b/421D1562.D Injection: 16-APR-2021 06:42

Lab ID:SEQ-ICV2



# INITIAL CALIBRATION CHECK

## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | FID4 | Calibration: | ED00037 |
| Lab File ID: | 421D1563.D | Calibration Date: | 04/13/2021 |
| Sequence: | SJD0260 | Injection Date: | 04/16/21 |
| Lab Sample ID: | SJD0260-ICV3 | Injection Time: | 07:03 |
| Sequence Name: | A/S Creosote ICV | | |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN | ICV | LIMIT |
| Creosote Range Organics (C12-C22) | A | 1000.0 | 942 | 39015.8400 | 36759.2300 | | -5.8 | +/-15 |
| o-Terphenyl | A | 90.000 | 80.9 | 249011.4000 | 223885.7000 | | -10.1 | +/-15 |

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210415b.b\421D1563.D



Date : 16-APR-2021 07:03

Client ID:

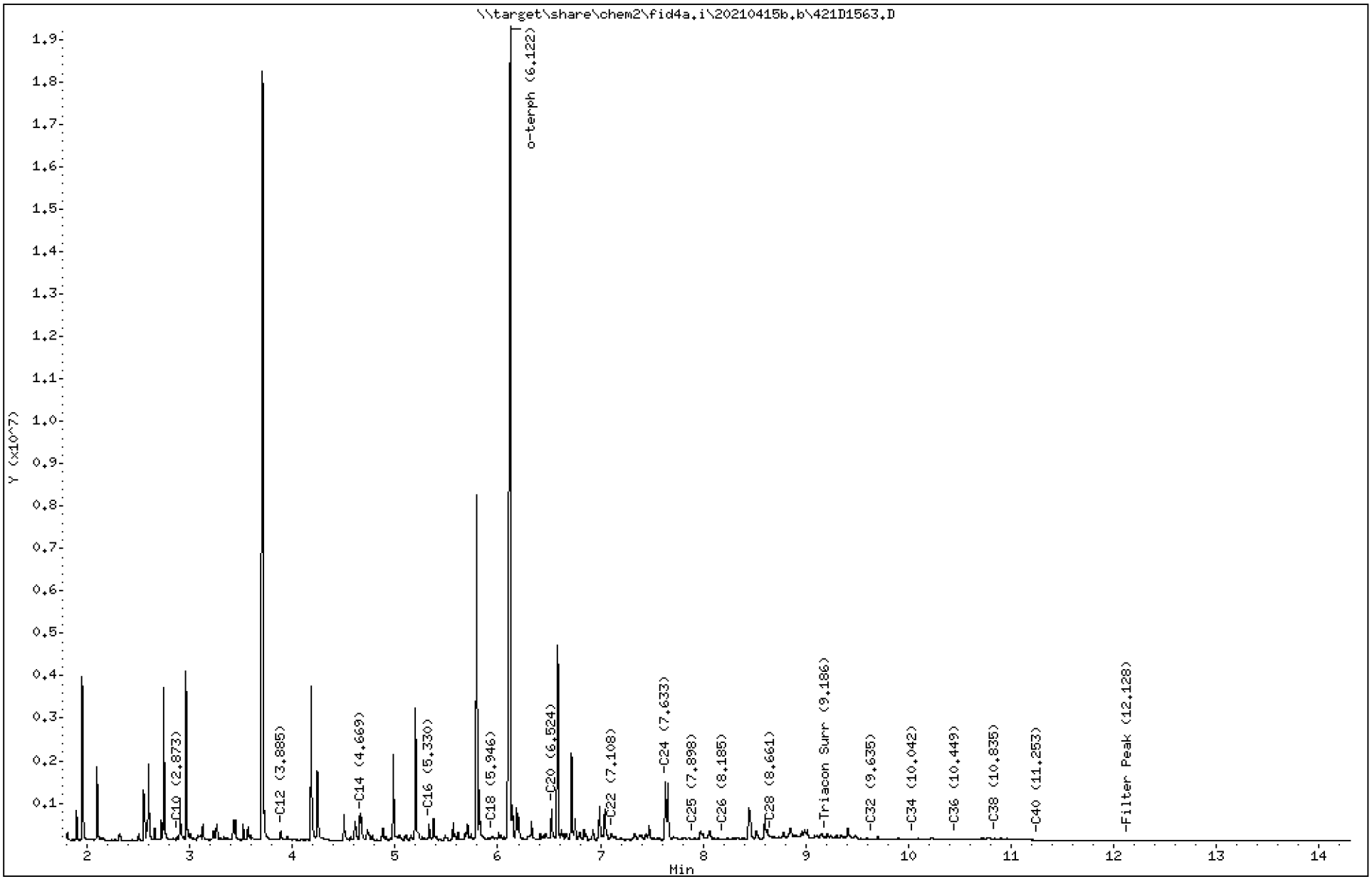
Instrument: fid4a.i

Sample Info: SEQ-ICV3

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25

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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210415b.b/421D1563.D
Method: 20210415b.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/19/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-ICV3
Client ID:
Injection: 16-APR-2021 07:03
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Method | Range | Total Area | Conc(mg/L) |
|---|---|---|---|---|---|---|---|---|
| C8 | 1.610 | 0.000 | 83533 | 121908 | WATPHD | (C12-C24) | 41084434 | 224.7 |
| C10 | 2.873 | -0.006 | 84020 | 54114 | WATPHM | (C24-C38) | 13445948 | 102.3 |
| C12 | 3.885 | -0.002 | 228898 | 243746 | AK102 | (C10-C25) | 65972947 | 306.3 |
| C14 | 4.669 | -0.002 | 544251 | 492987 | AK103 | (C25-C36) | 12179350 | 120.5 |
| C16 | 5.330 | -0.013 | 379787 | 343677 | OR.DIES | (C10-C28) | 71078269 | 362.6 |
| C18 | 5.946 | 0.001 | 81234 | 101276 | | | | |
| C20 | 6.524 | 0.010 | 756175 | 690943 | JET-A | (C10-C18) | 47063943 | 320.9 |
| C22 | 7.108 | 0.030 | 157344 | 256653 | | | | |
| C24 | 7.633 | 0.002 | 1383061 | 1245338 | | | | |
| C25 | 7.898 | -0.004 | 39353 | 35911 | | | | |
| C26 | 8.185 | 0.019 | 28749 | 21842 | | | | |
| C28 | 8.661 | -0.015 | 97719 | 140386 | | | | |
| C32 | 9.635 | 0.019 | 36560 | 57770 | | | | |
| C34 | 10.042 | -0.004 | 30823 | 16346 | | | | |
| Filter Peak | 12.128 | 0.003 | 4121 | 2203 | CREOSOT | (C12-C22) | 36759229 | 942.2 |
| C36 | 10.449 | -0.005 | 38987 | 62090 | | | | |
| C38 | 10.835 | -0.005 | 48555 | 63116 | | | | |
| C40 | 11.253 | 0.006 | 13503 | 12291 | | | | |
| o-terph | 6.122 | -0.001 | 19198875 | 20149713 | | | | |
| Triacon Surr | 9.186 | 0.000 | 89900 | 105769 | NAS DIES | (C10-C24) | 65524403 | 335.8 |

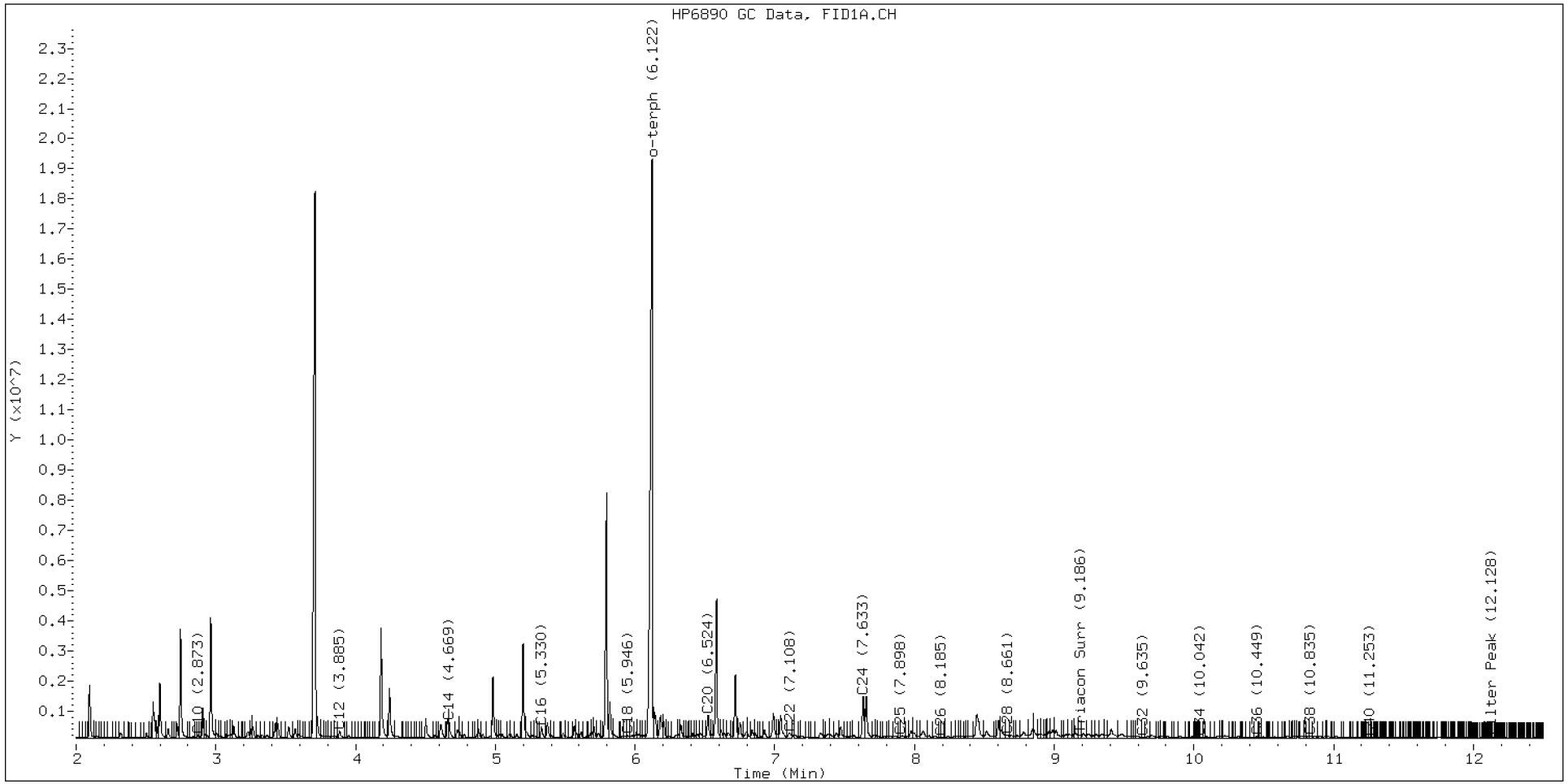
Range Times: NW Diesel(3.888 - 7.631) AK102(2.88 - 7.90) Jet A(2.88 - 5.95)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.68)

| Surrogate | Area | Amount |
|---|---|---|
| o-Terphenyl | 20149713 | 80.9 |
| Triacontane | 105769 | 0.5 |

M Indicates the peak was manually integrated

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 249011.3 | 25-OCT-2019 |
| Triacon Surr | 211827.9 | 25-OCT-2019 |
| Gas | 15000.0 | XX-XXX-XXXX |
| Diesel | 182831.3 | 14-APR-2021 |
| Motor Oil | 131440.7 | 14-APR-2021 |
| AK102 | 215421.2 | 14-APR-2021 |
| AK103 | 101056.3 | 14-APR-2021 |
| JetA | 146652.4 | 20-MAY-2020 |
| OR Diesel | 195999.1 | 25-OCT-2019 |
| NAS Diesel | 195148.2 | 25-OCT-2019 |
| Creosote | 39015.8 | 30-MAR-2020 |

Datafile: FID4A, 20210415b.b/421D1563.D SEQ-ICV3



# INITIAL CALIBRATION CHECK

## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | FID4 | Calibration: | ED00037 |
| Lab File ID: | 421D2011.D | Calibration Date: | 04/13/2021 |
| Sequence: | SJD0282 | Injection Date: | 04/20/21 |
| Lab Sample ID: | SJD0282-ICV1 | Injection Time: | 17:08 |
| Sequence Name: | DIESEL ICV | | |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN | ICV | LIMIT |
| Diesel Range Organics (C12-C24) | A | 500.00 | 516 | 182831.3000 | 188573.8000 | | 3.1 | +/-15 |
| o-Terphenyl | A | 90.000 | 90.7 | 249011.4000 | 250908.6000 | | 0.8 | +/-15 |

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210420.b\421D2011.D



Date : 20-APR-2021 17:08

Client ID:

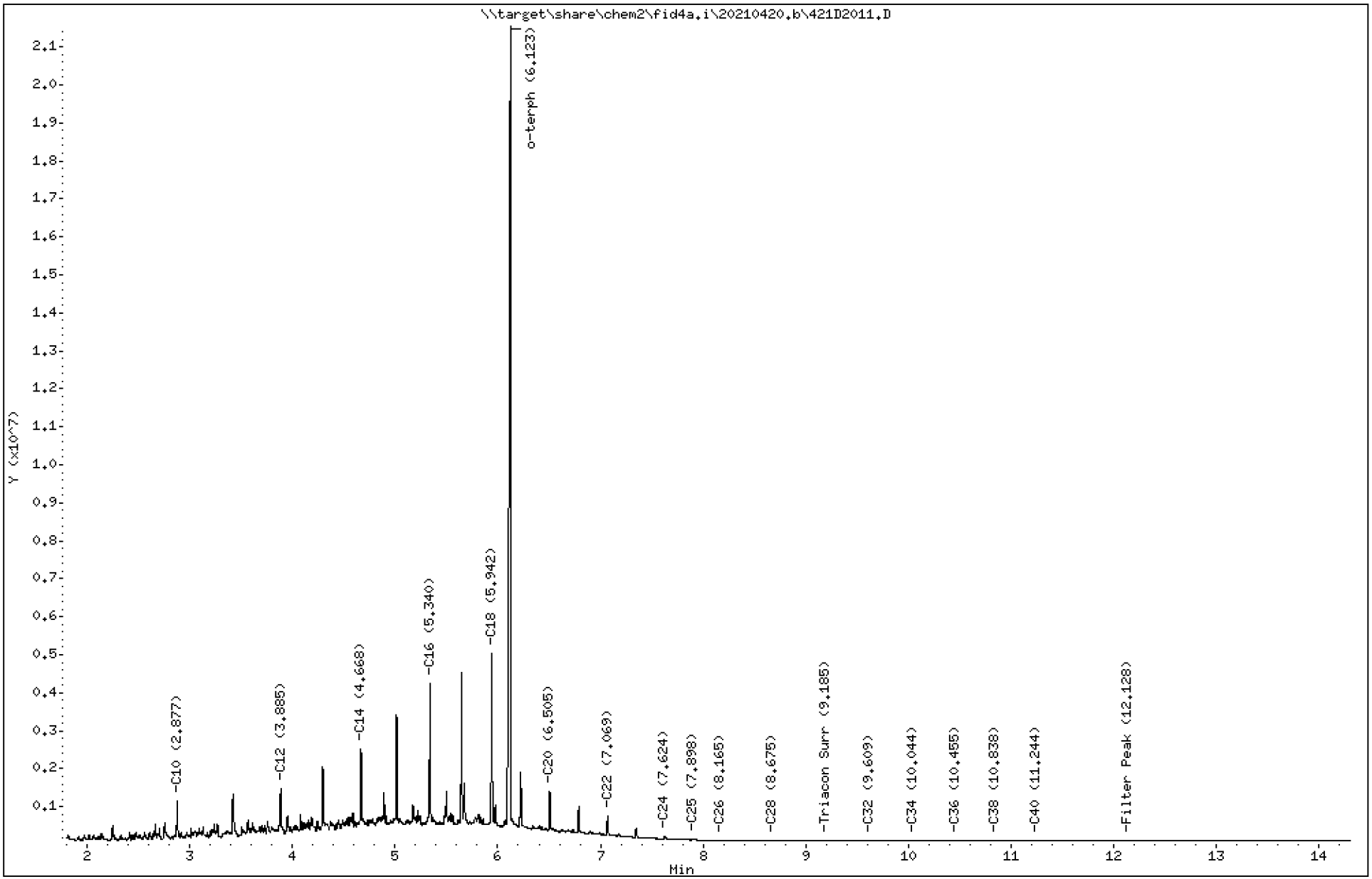
Instrument: fid4a.i

Sample Info: SEQ-ICV1

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25

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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210420.b/421D2011.D
Method: 20210420.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/21/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-ICV1
Client ID:
Injection: 20-APR-2021 17:08
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Method | Range | Total Area | Conc(mg/L) |
|---|---|---|---|---|---|---|---|---|
| C8 | 1.619 | 0.001 | 103614 | 105478 | WATPHD | (C12-C24) | 94286922 | 515.7 |
| C10 | 2.877 | -0.004 | 1058088 | 793077 | WATPHM | (C24-C38) | 899507 | 6.8 |
| C12 | 3.885 | -0.002 | 1354738 | 1093753 | AK102 | (C10-C25) | 110996676 | 515.3 |
| C14 | 4.668 | -0.003 | 2418638 | 2102930 | AK103 | (C25-C36) | 554262 | 5.5 |
| C16 | 5.340 | -0.002 | 4151721 | 4161098 | OR.DIES | (C10-C28) | 111424849 | 568.5 |
| C18 | 5.942 | -0.002 | 4921098 | 3981609 | | | | |
| C20 | 6.505 | -0.007 | 1301000 | 1397131 | JET-A | (C10-C18) | 86483930 | 589.7 |
| C22 | 7.069 | -0.007 | 637950 | 634934 | | | | |
| C24 | 7.624 | -0.006 | 123389 | 210018 | | | | |
| C25 | 7.898 | -0.003 | 42457 | 92565 | | | | |
| C26 | 8.165 | -0.001 | 16568 | 32758 | | | | |
| C28 | 8.675 | -0.001 | 2665 | 2524 | | | | |
| C32 | 9.609 | -0.007 | 676 | 370 | | | | |
| C34 | 10.044 | -0.002 | 1322 | 254 | | | | |
| Filter Peak | 12.128 | 0.002 | 6596 | 2905 | BUNKERC | (C10-C38) | 111639644 | 2486.8 |
| C36 | 10.455 | 0.003 | 2681 | 1046 | | | | |
| C38 | 10.838 | -0.002 | 4581 | 2420 | | | | |
| C40 | 11.244 | 0.000 | 6106 | 1804 | | | | |
| o-terph | 6.123 | 0.001 | 21002714 | 22581772 | | | | |
| Triacon Surr | 9.185 | 0.001 | 1079 | 403 | NAS DIES | (C10-C24) | 110740137 | 567.5 |

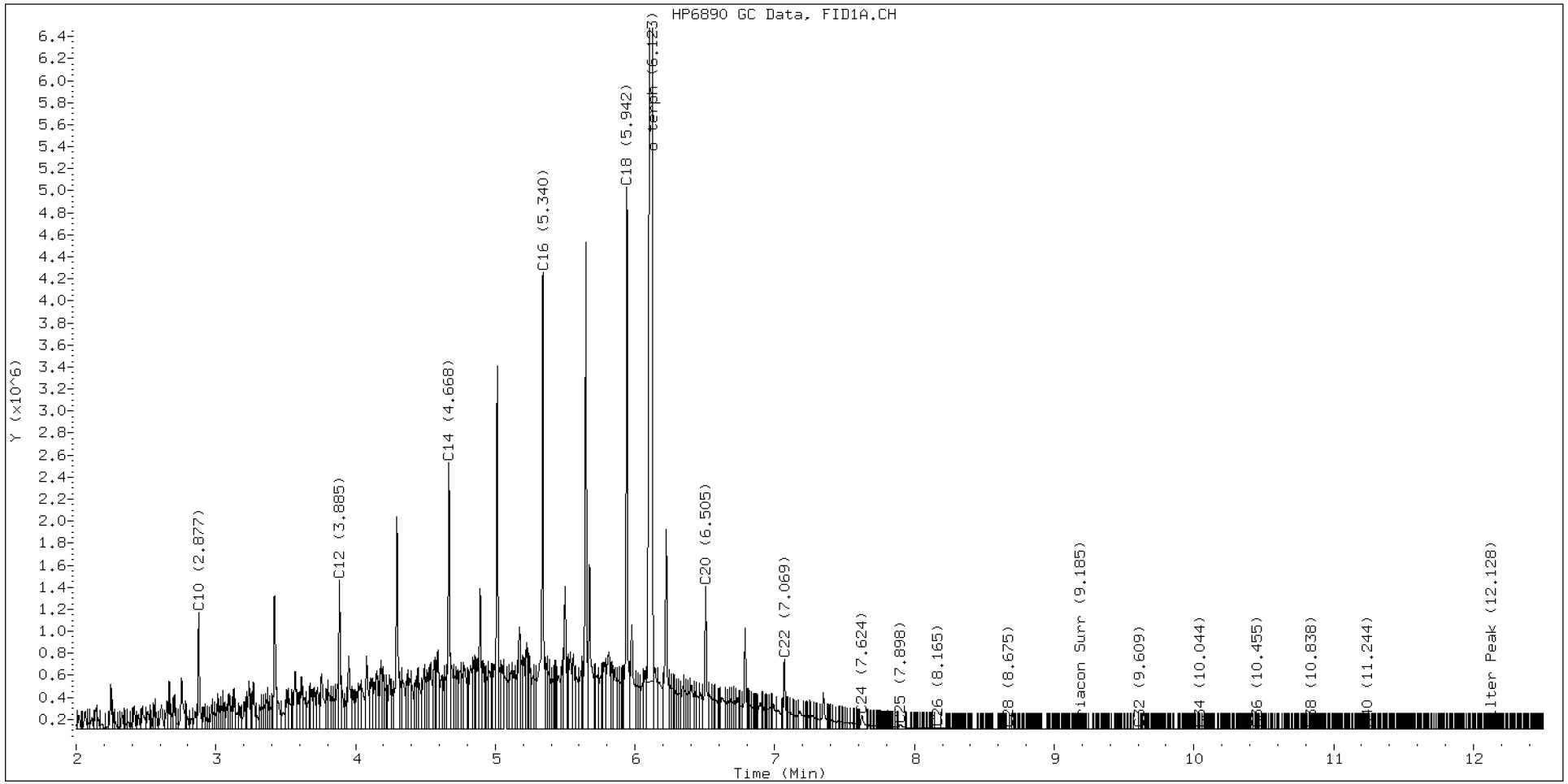
Range Times: NW Diesel(3.888 - 7.630) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.68)

| Surrogate | Area | Amount | |
|---|---|---|---|
| o-Terphenyl | 22581772 | 90.7 | M |
| Triacontane | 403 | 0.0 | |

M Indicates the peak was manually integrated

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 249011.3 | 25-OCT-2019 |
| Triacon Surr | 211827.9 | 25-OCT-2019 |
| Gas | 15000.0 | XX-XXX-XXXX |
| Diesel | 182831.3 | 14-APR-2021 |
| Motor Oil | 131440.7 | 14-APR-2021 |
| AK102 | 215421.2 | 14-APR-2021 |
| AK103 | 101056.3 | 14-APR-2021 |
| JetA | 146652.4 | 20-MAY-2020 |
| OR Diesel | 195999.1 | 25-OCT-2019 |
| NAS Diesel | 195148.2 | 25-OCT-2019 |
| Bunker C | 44892.5 | 21-APR-2021 |

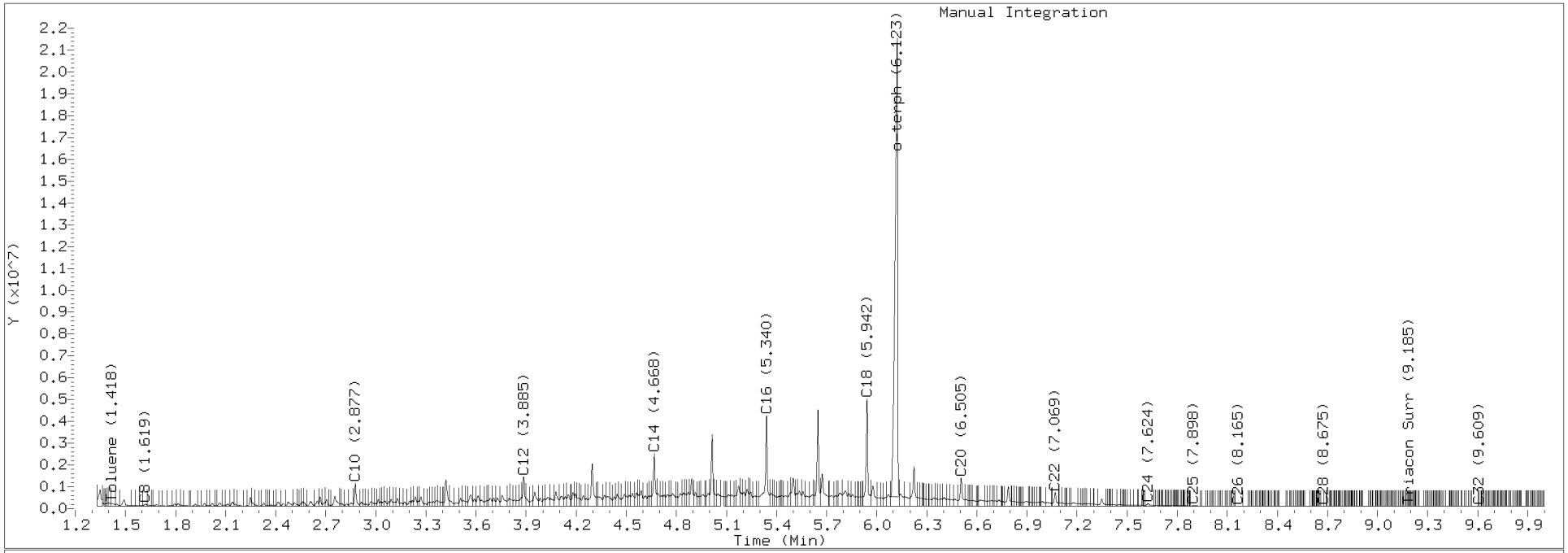
Datafile: FID4A, 20210420.b/421D2011.D SEQ-ICV1

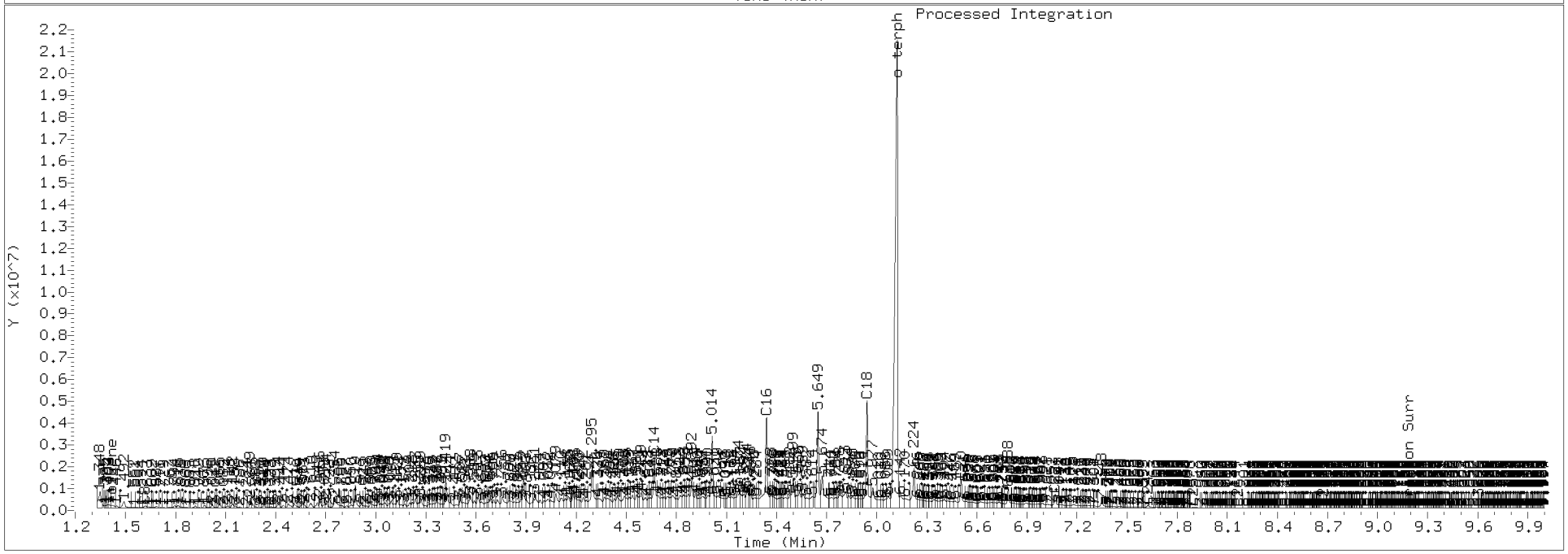


TPH Manual Integrations Report

Datafile: FID4A, 20210420.b/421D2011.D Injection: 20-APR-2021 17:08

Lab ID:SEQ-ICV1



Analytical Resources, Incorporated
Analytical Chemists and Consultants

# INITIAL CALIBRATION CHECK

## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | FID4 | Calibration: | ED00037 |
| Lab File ID: | 421D2012.D | Calibration Date: | 04/13/2021 |
| Sequence: | SJD0282 | Injection Date: | 04/20/21 |
| Lab Sample ID: | SJD0282-ICV2 | Injection Time: | 17:30 |
| Sequence Name: | MOIL ICV | | |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN | ICV | LIMIT |
| Motor Oil Range Organics (C24-C38) | A | 1000.0 | 1030 | 131440.7000 | 135055.5000 | | 2.8 | +/-15 |

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210420.b\421D2012.D



Date : 20-APR-2021 17:30

Client ID:

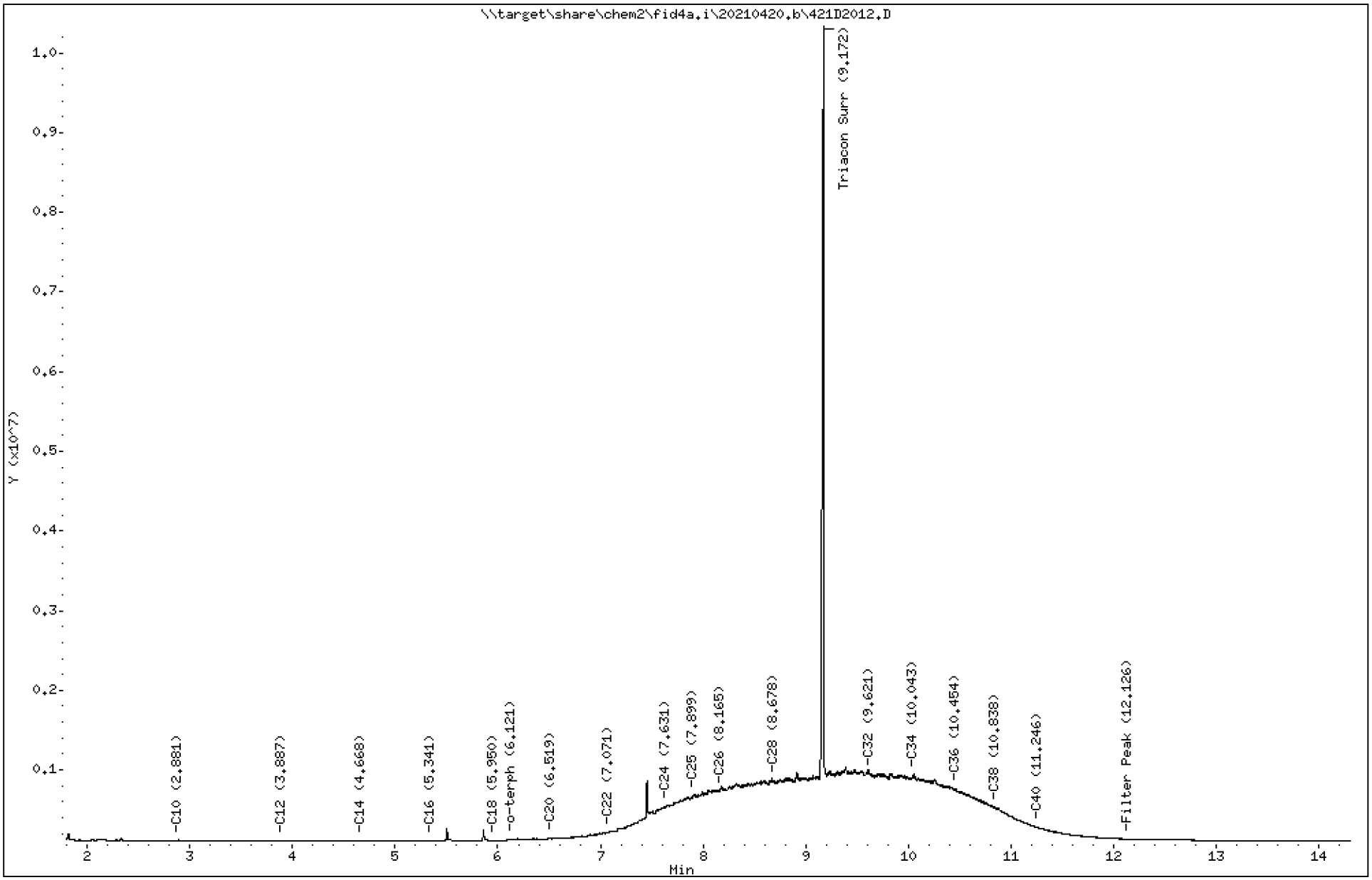
Instrument: fid4a.i

Sample Info: SEQ-ICV2

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25

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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210420.b/421D2012.D
Method: 20210420.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/21/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-ICV2
Client ID:
Injection: 20-APR-2021 17:30
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Method | Range | Total Area | Conc(mg/L) |
|---|---|---|---|---|---|---|---|---|
| C8 | 1.621 | 0.004 | 53060 | 80480 | WATPHD | (C12-C24) | 12568205 | 68.7 |
| C10 | 2.881 | -0.000 | 6786 | 4387 | WATPHM | (C24-C38) | 135055495 | 1027.5 |
| C12 | 3.887 | -0.000 | 558 | 245 | AK102 | (C10-C25) | 18071372 | 83.9 |
| C14 | 4.668 | -0.003 | 1753 | 835 | AK103 | (C25-C36) | 117930032 | 1167.0 |
| C16 | 5.341 | -0.001 | 2390 | 1581 | OR.DIES | (C10-C28) | 52471110 | 267.7 |
| C18 | 5.950 | 0.006 | 7086 | 6144 | | | | |
| C20 | 6.519 | 0.006 | 26720 | 16957 | JET-A | (C10-C18) | 561683 | 3.8 |
| C22 | 7.071 | -0.005 | 110635 | 147977 | | | | |
| C24 | 7.631 | 0.000 | 422151 | 105029 | | | | |
| C25 | 7.899 | -0.002 | 561091 | 112008 | | | | |
| C26 | 8.165 | -0.001 | 626123 | 93800 | | | | |
| C28 | 8.678 | 0.002 | 746837 | 111880 | | | | |
| C32 | 9.621 | 0.005 | 841443 | 125750 | | | | |
| C34 | 10.043 | -0.002 | 818926 | 203248 | | | | |
| Filter Peak | 12.126 | 0.000 | 22603 | 8933 | BUNKERC | (C10-C38) | 147709173 | 3290.3 |
| C36 | 10.454 | 0.001 | 644112 | 160284 | | | | |
| C38 | 10.838 | -0.001 | 412466 | 82315 | | | | |
| C40 | 11.246 | 0.002 | 171620 | 109739 | | | | |
| o-terph | 6.121 | -0.000 | 9962 | 3418 | | | | |
| Triacon Surr | 9.172 | -0.012 | 9430808 | 9858755 | NAS DIES | (C10-C24) | 12653678 | 64.8 |

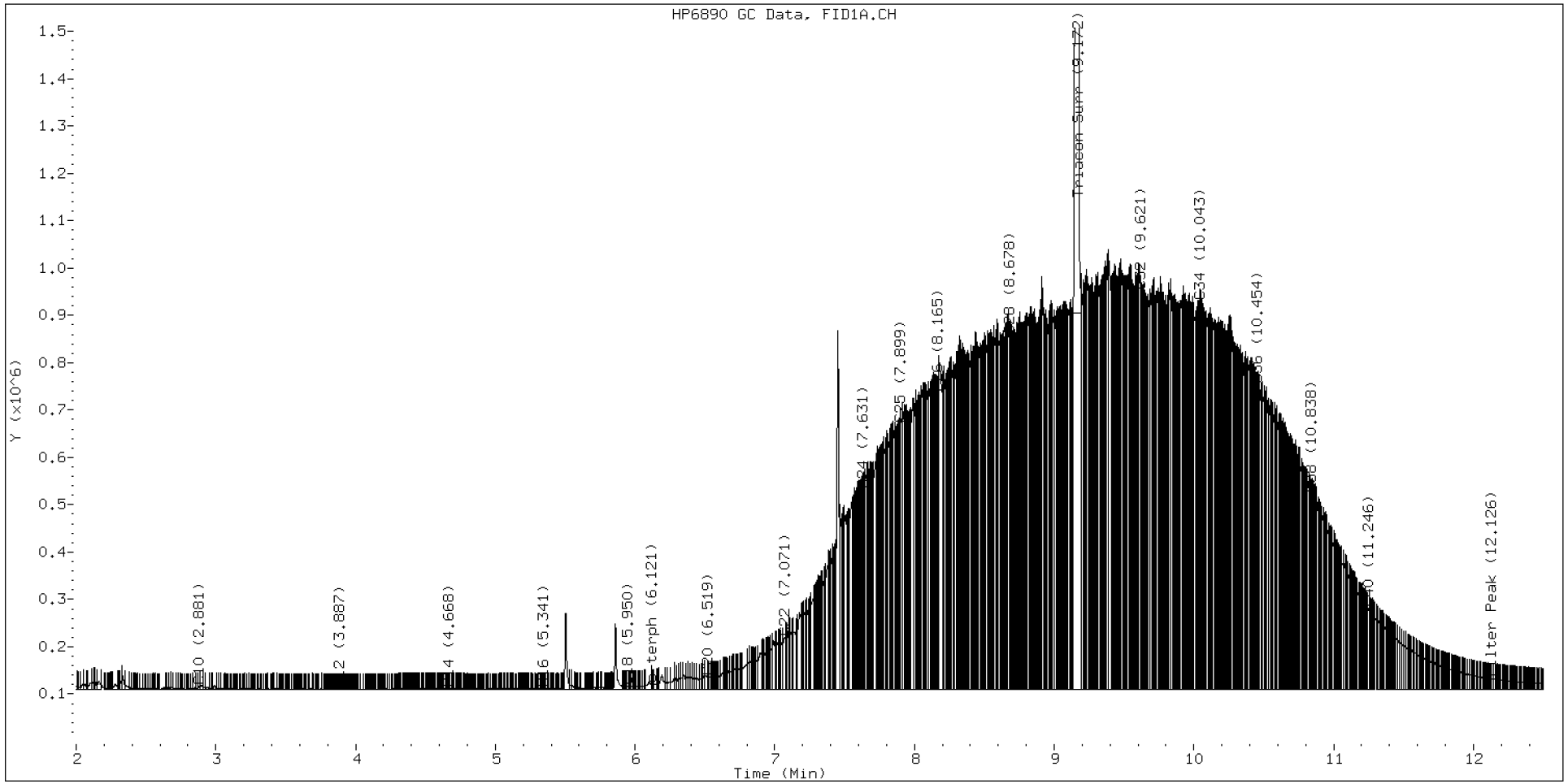
Range Times: NW Diesel(3.888 - 7.630) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.68)

| Surrogate | Area | Amount | |
|---|---|---|---|
| o-Terphenyl | 3418 | 0.0 | |
| Triacontane | 9858755 | 46.5 | M |

M Indicates the peak was manually integrated

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 249011.3 | 25-OCT-2019 |
| Triacon Surr | 211827.9 | 25-OCT-2019 |
| Gas | 15000.0 | XX-XXX-XXXX |
| Diesel | 182831.3 | 14-APR-2021 |
| Motor Oil | 131440.7 | 14-APR-2021 |
| AK102 | 215421.2 | 14-APR-2021 |
| AK103 | 101056.3 | 14-APR-2021 |
| JetA | 146652.4 | 20-MAY-2020 |
| OR Diesel | 195999.1 | 25-OCT-2019 |
| NAS Diesel | 195148.2 | 25-OCT-2019 |
| Bunker C | 44892.5 | 21-APR-2021 |

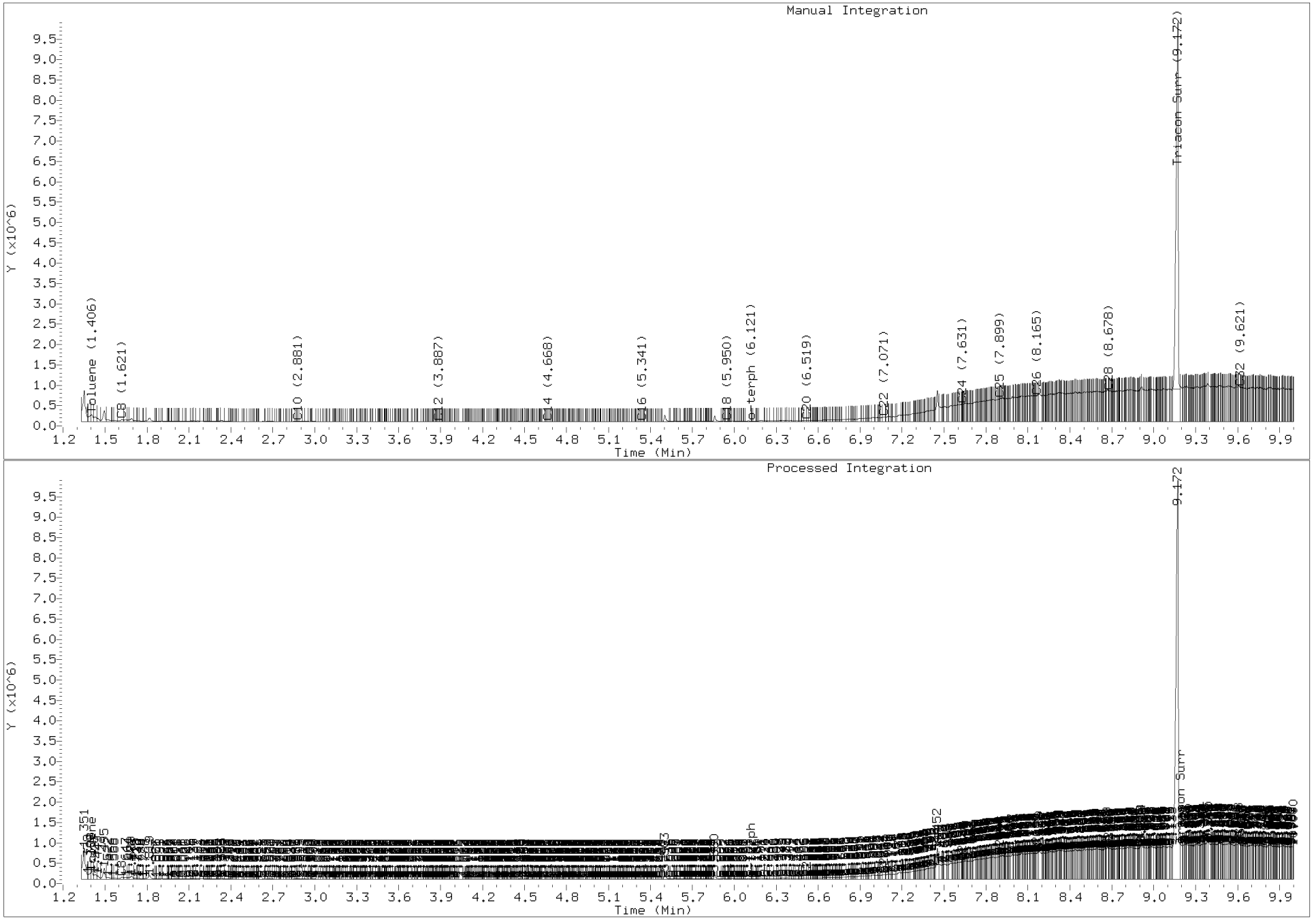
Datafile: FID4A, 20210420.b/421D2012.D SEQ-ICV2



TPH Manual Integrations Report

Datafile: FID4A, 20210420.b/421D2012.D Injection: 20-APR-2021 17:30

Lab ID:SEQ-ICV2



# INITIAL CALIBRATION CHECK

## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | FID4 | Calibration: | ED00037 |
| Lab File ID: | 421D2013.D | Calibration Date: | 04/13/2021 |
| Sequence: | SJD0282 | Injection Date: | 04/20/21 |
| Lab Sample ID: | SJD0282-ICV3 | Injection Time: | 17:51 |
| Sequence Name: | A/S BUNKER C | | |

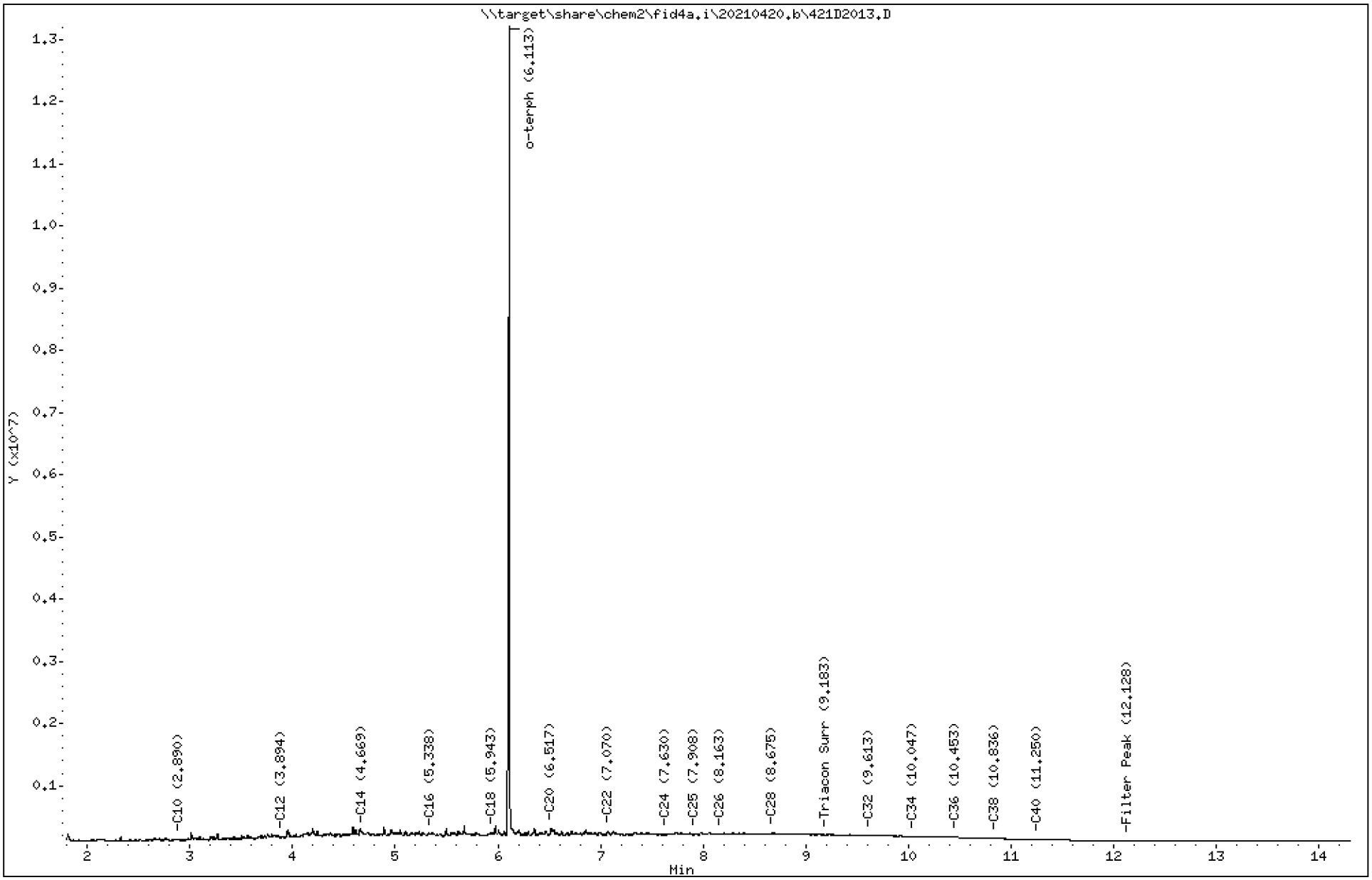
| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN | ICV | LIMIT |
| Bunker C Range Organics (C10-C38) | A | 1000.0 | 990 | 44892.5300 | 44426.3000 | | -1.0 | +/-15 |
| o-Terphenyl | A | 45.000 | 41.9 | 249011.4000 | 231845.8000 | | -6.9 | +/-15 |

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210420.b\421D2013.D
Date : 20-APR-2021 17:51
Client ID:
Sample Info: SEQ-ICV3

Instrument: fid4a.i
Operator: CTO
Column diameter: 0.25

Column phase: RTX-1

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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210420.b/421D2013.D
Method: 20210420.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/21/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-ICV3
Client ID:
Injection: 20-APR-2021 17:51
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Method | Range | Total Area | Conc(mg/L) |
|---|---|---|---|---|---|---|---|---|
| C8 | 1.618 | -0.000 | 56846 | 81837 | WATPHD | (C12-C24) | 24686907 | 135.0 |
| C10 | 2.890 | 0.009 | 31460 | 32944 | WATPHM | (C24-C38) | 16748650 | 127.4 |
| C12 | 3.894 | 0.007 | 60229 | 54024 | AK102 | (C10-C25) | 28783068 | 133.6 |
| C14 | 4.669 | -0.002 | 162251 | 193126 | AK103 | (C25-C36) | 14611153 | 144.6 |
| C16 | 5.338 | -0.003 | 116117 | 72644 | OR.DIES | (C10-C28) | 34465621 | 175.8 |
| C18 | 5.943 | -0.000 | 128718 | 153387 | | | | |
| C20 | 6.517 | 0.004 | 203137 | 295452 | JET-A | (C10-C18) | 16273777 | 111.0 |
| C22 | 7.070 | -0.006 | 147032 | 356588 | | | | |
| C24 | 7.630 | -0.000 | 101705 | 89852 | | | | |
| C25 | 7.908 | 0.007 | 99410 | 63450 | | | | |
| C26 | 8.163 | -0.003 | 113186 | 39538 | | | | |
| C28 | 8.675 | -0.001 | 123368 | 89655 | | | | |
| C32 | 9.613 | -0.003 | 85304 | 59072 | | | | |
| C34 | 10.047 | 0.002 | 75936 | 26390 | | | | |
| Filter Peak | 12.128 | 0.002 | 5931 | 1469 | BUNKERC | (C10-C38) | 44426295 | 989.6 |
| C36 | 10.453 | 0.001 | 56466 | 27924 | | | | |
| C38 | 10.836 | -0.003 | 38070 | 24375 | | | | |
| C40 | 11.250 | 0.007 | 18675 | 7354 | | | | |
| o-terph | 6.113 | -0.009 | 13005175 | 10433064 | | | | |
| Triacon Surr | 9.183 | -0.001 | 96919 | 19322 | NAS DIES | (C10-C24) | 27677645 | 141.8 |

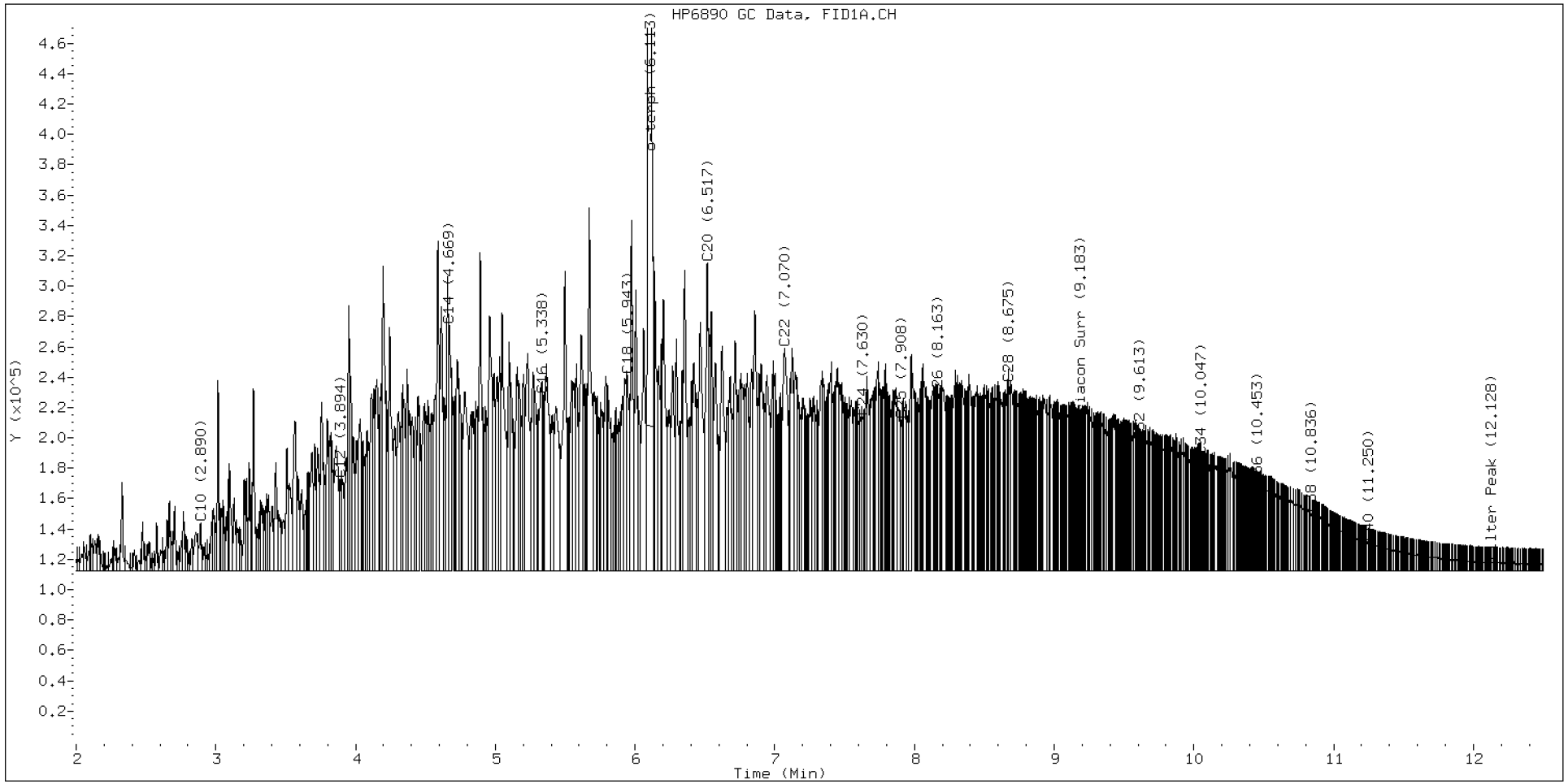
Range Times: NW Diesel(3.888 - 7.630) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.68)

| Surrogate | Area | Amount | |
|---|---|---|---|
| o-Terphenyl | 10433064 | 41.9 | M |
| Triacontane | 19322 | 0.1 | |

M Indicates the peak was manually integrated

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 249011.3 | 25-OCT-2019 |
| Triacon Surr | 211827.9 | 25-OCT-2019 |
| Gas | 15000.0 | XX-XXX-XXXX |
| Diesel | 182831.3 | 14-APR-2021 |
| Motor Oil | 131440.7 | 14-APR-2021 |
| AK102 | 215421.2 | 14-APR-2021 |
| AK103 | 101056.3 | 14-APR-2021 |
| JetA | 146652.4 | 20-MAY-2020 |
| OR Diesel | 195999.1 | 25-OCT-2019 |
| NAS Diesel | 195148.2 | 25-OCT-2019 |
| Bunker C | 44892.5 | 21-APR-2021 |

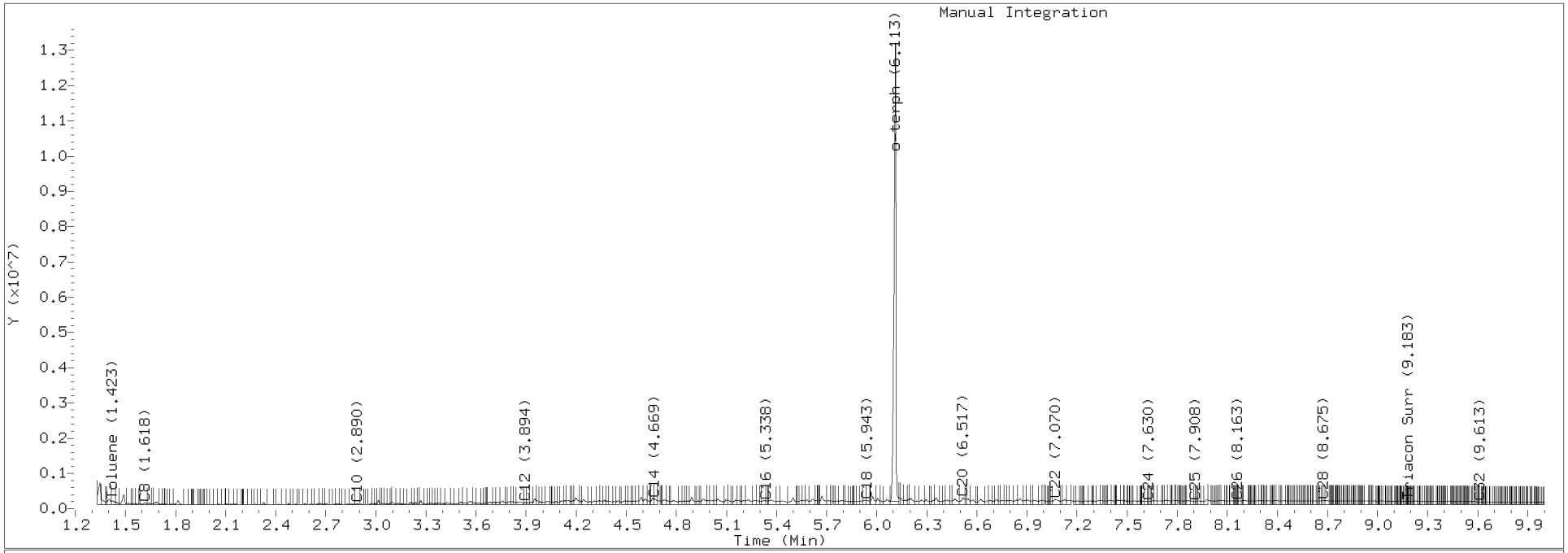
Datafile: FID4A, 20210420.b/421D2013.D SEQ-ICV3

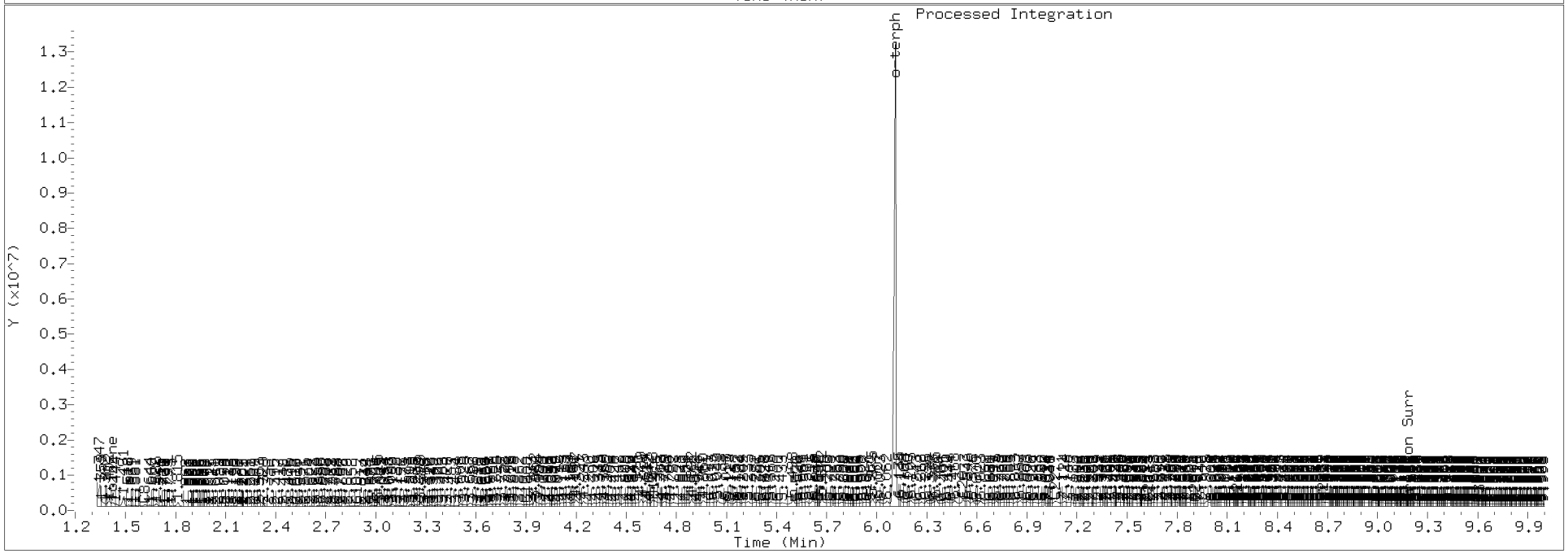


TPH Manual Integrations Report

Datafile: FID4A, 20210420.b/421D2013.D Injection: 20-APR-2021 17:51

Lab ID:SEQ-ICV3



# INITIAL CALIBRATION CHECK

## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | FID4 | Calibration: | ED00037 |
| Lab File ID: | 421D2805.D | Calibration Date: | 04/13/2021 |
| Sequence: | SJD0413 | Injection Date: | 04/28/21 |
| Lab Sample ID: | SJD0413-ICV1 | Injection Time: | 15:48 |
| Sequence Name: | DIESEL ICV | | |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN | ICV | LIMIT |
| Diesel Range Organics (C12-C24) | A | 500.00 | 472 | 182831.3000 | 172658.0000 | | -5.6 | +/-15 |
| o-Terphenyl | A | 90.000 | 84.4 | 249011.4000 | 233576.9000 | | -6.2 | +/-15 |

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210428.b\421D2805.D



Date : 28-APR-2021 15:48

Client ID:

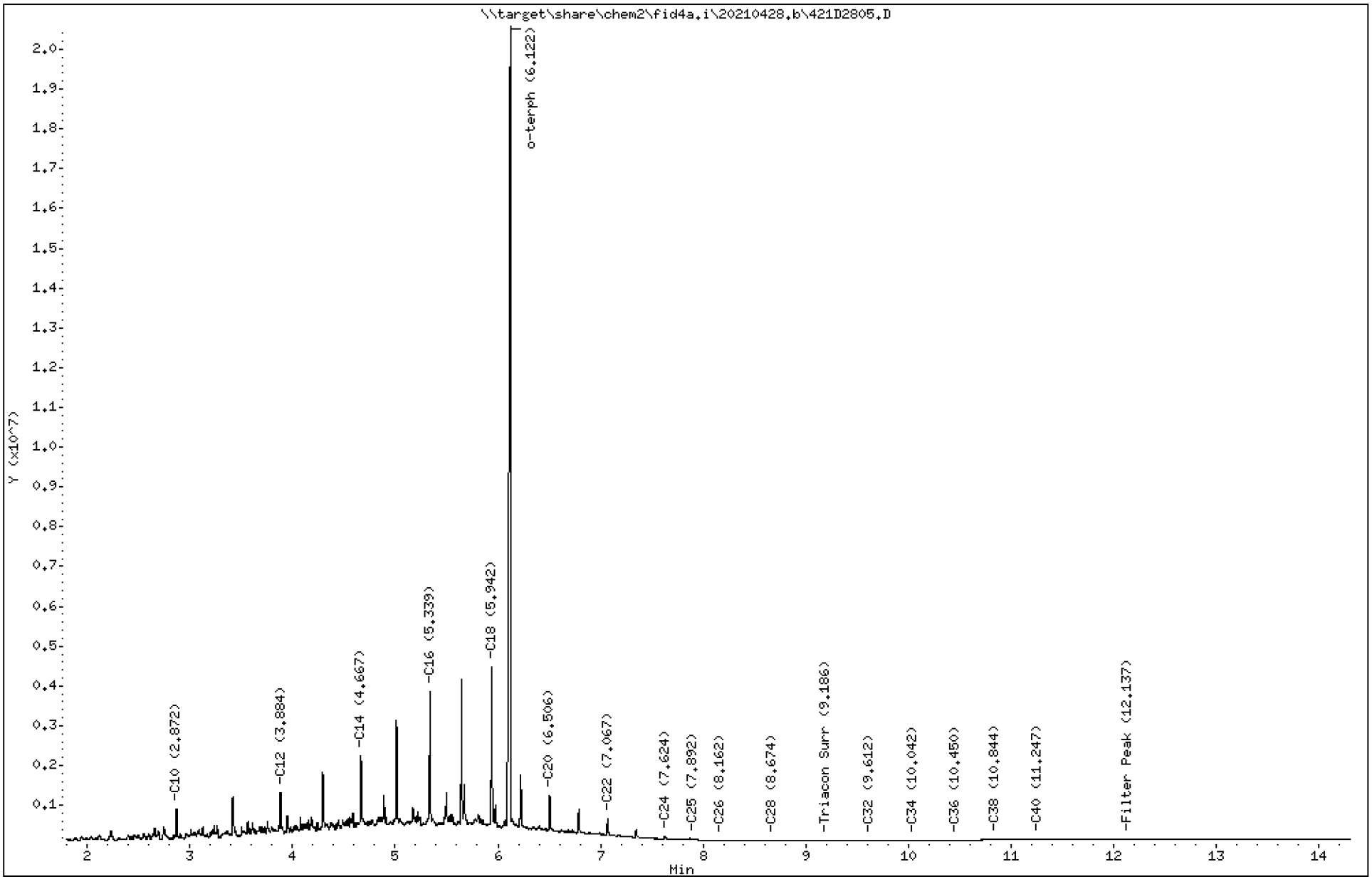
Instrument: fid4a.i

Sample Info: SEQ-ICV1

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25

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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210428.b/421D2805.D
Method: 20210428.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/29/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-ICV1
Client ID:
Injection: 28-APR-2021 15:48
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Method | Range | Total Area | Conc(mg/L) |
|---|---|---|---|---|---|---|---|---|
| C8 | 1.580 | -0.002 | 37840 | 79835 | WATPHD | (C12-C24) | 86328989 | 472.2 |
| C10 | 2.872 | -0.004 | 786870 | 695687 | WATPHM | (C24-C38) | 1435590 | 10.9 |
| C12 | 3.884 | -0.003 | 1217323 | 941668 | AK102 | (C10-C25) | 101276361 | 470.1 |
| C14 | 4.667 | -0.002 | 2138825 | 1879554 | AK103 | (C25-C36) | 808219 | 8.0 |
| C16 | 5.339 | -0.002 | 3752997 | 2930144 | OR.DIES | (C10-C28) | 101758471 | 519.2 |
| C18 | 5.942 | -0.001 | 4347773 | 3747920 | | | | |
| C20 | 6.506 | -0.005 | 1137748 | 1300198 | JET-A | (C10-C18) | 79233577 | 540.3 |
| C22 | 7.067 | -0.007 | 536582 | 606018 | | | | |
| C24 | 7.624 | -0.003 | 102752 | 195140 | | | | |
| C25 | 7.892 | -0.007 | 47553 | 117556 | | | | |
| C26 | 8.162 | -0.001 | 14145 | 30911 | | | | |
| C28 | 8.674 | 0.000 | 2392 | 797 | | | | |
| C32 | 9.612 | -0.002 | 1334 | 386 | | | | |
| C34 | 10.042 | -0.001 | 4696 | 1395 | | | | |
| Filter Peak | 12.137 | -0.002 | 25931 | 15475 | BUNKERC | (C10-C38) | 102480334 | 2282.8 |
| C36 | 10.450 | -0.002 | 11299 | 5027 | | | | |
| C38 | 10.844 | 0.003 | 21258 | 8450 | | | | |
| C40 | 11.247 | -0.003 | 25145 | 11271 | | | | |
| o-terph | 6.122 | 0.002 | 20086252 | 21021916 | | | | |
| Triacon Surr | 9.186 | 0.004 | 959 | 475 | NAS DIES | (C10-C24) | 101044744 | 517.8 |

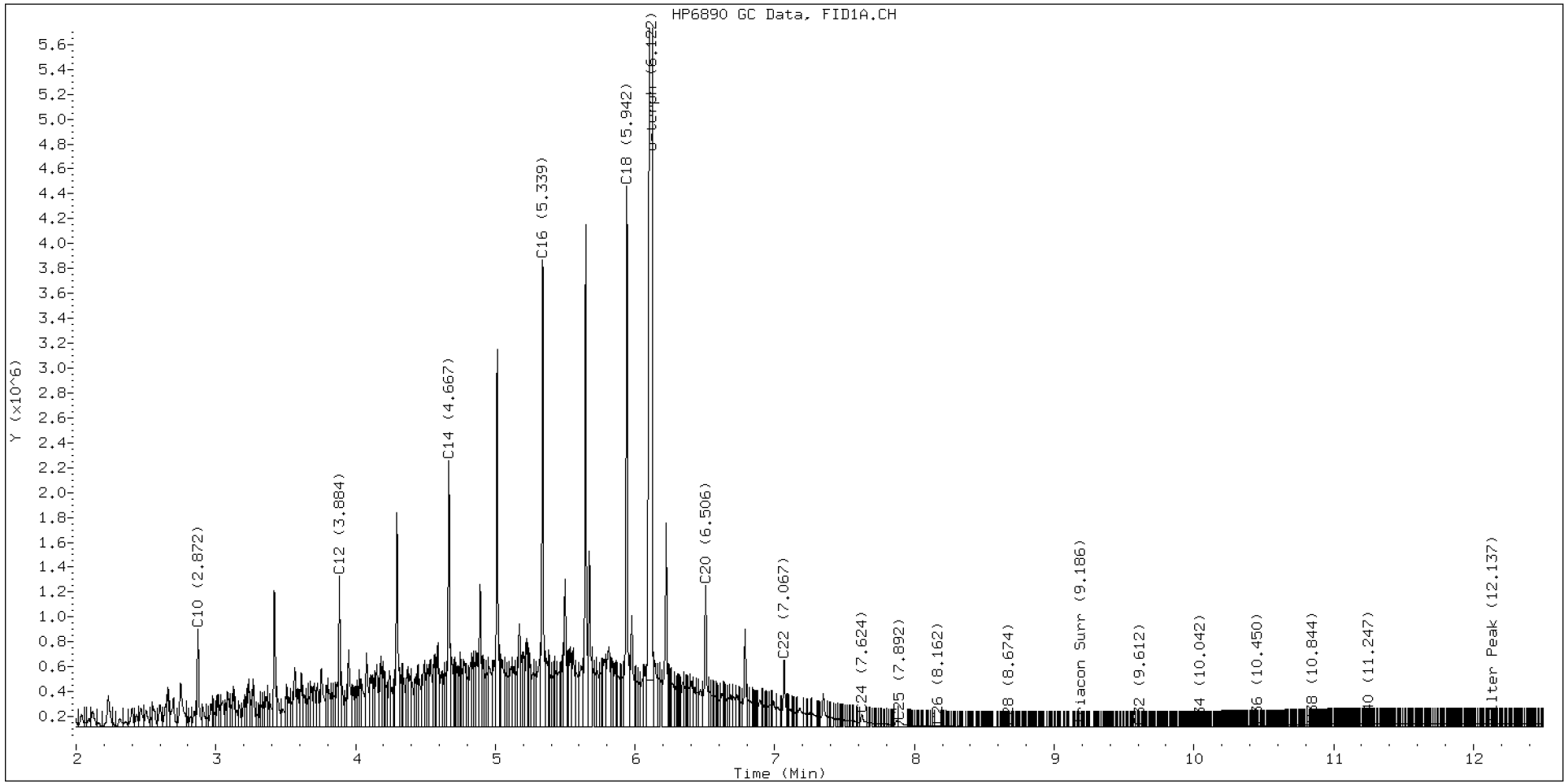
Range Times: NW Diesel(3.887 - 7.627) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.67)

| Surrogate | Area | Amount | |
|---|---|---|---|
| o-Terphenyl | 21021916 | 84.4 | M |
| Triacontane | 475 | 0.0 | |

M Indicates the peak was manually integrated

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 249011.3 | 25-OCT-2019 |
| Triacon Surr | 211827.9 | 25-OCT-2019 |
| Gas | 15000.0 | XX-XXX-XXXX |
| Diesel | 182831.3 | 14-APR-2021 |
| Motor Oil | 131440.7 | 14-APR-2021 |
| AK102 | 215421.2 | 14-APR-2021 |
| AK103 | 101056.3 | 14-APR-2021 |
| JetA | 146652.4 | 20-MAY-2020 |
| OR Diesel | 195999.1 | 25-OCT-2019 |
| NAS Diesel | 195148.2 | 25-OCT-2019 |
| Bunker C | 44892.5 | 21-APR-2021 |

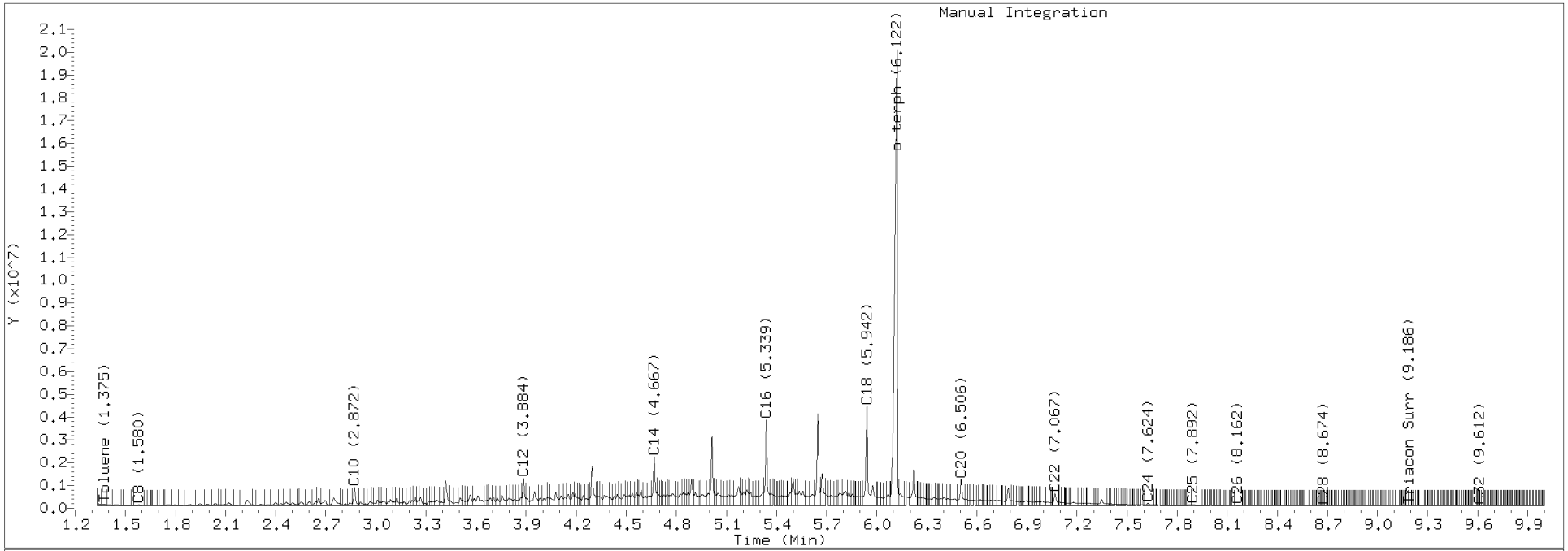
Datafile: FID4A, 20210428.b/421D2805.D SEQ-ICV1

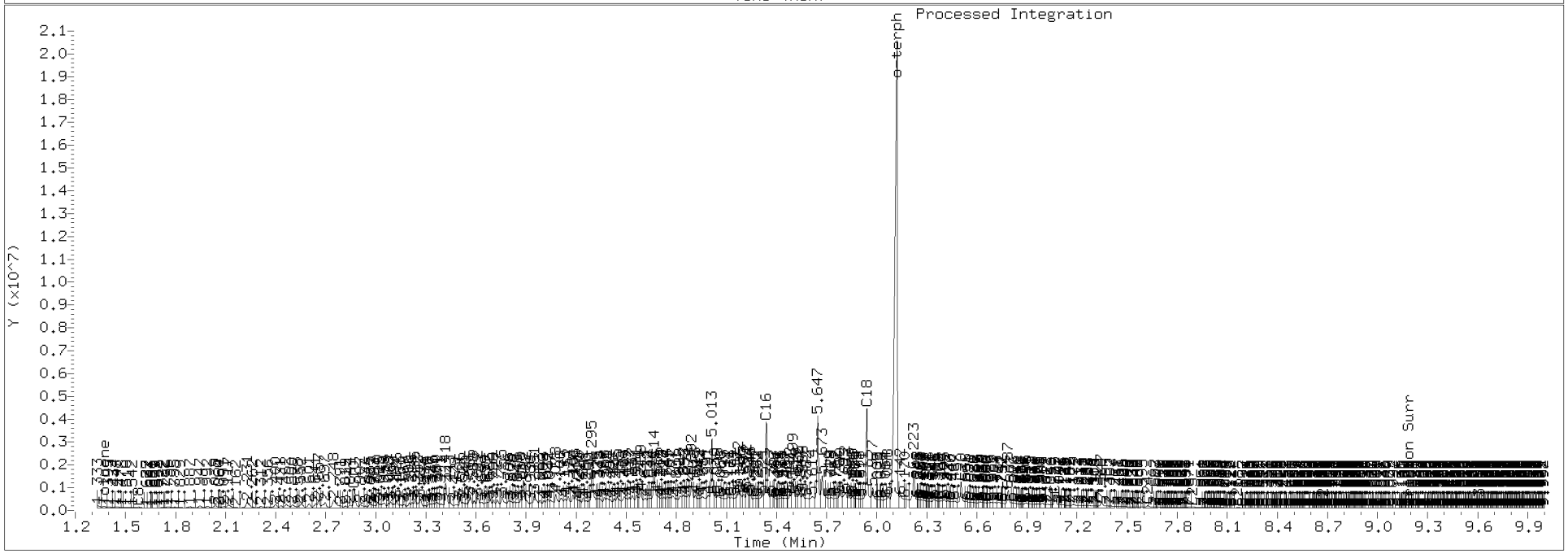


TPH Manual Integrations Report

Datafile: FID4A,  20210428.b/421D2805.D    Injection: 28-APR-2021 15:48

Lab ID:SEQ-ICV1



Analytical Resources, Incorporated
Analytical Chemists and Consultants

# INITIAL CALIBRATION CHECK

## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | FID4 | Calibration: | ED00037 |
| Lab File ID: | 421D2806.D | Calibration Date: | 04/13/2021 |
| Sequence: | SJD0413 | Injection Date: | 04/28/21 |
| Lab Sample ID: | SJD0413-ICV2 | Injection Time: | 16:09 |
| Sequence Name: | MOIL ICV | | |

| | | CONC. (mg/L) | | RESPONSE FACTOR | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | ICV | ICAL | ICV | MIN | ICV | LIMIT |
| Motor Oil Range Organics (C24-C38) | A | 1000.0 | 1040 | 131440.7000 | 136892.8000 | | 4.2 | +/-15 |

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210428.b\421D2806.D



Date : 28-APR-2021 16:09

Client ID:

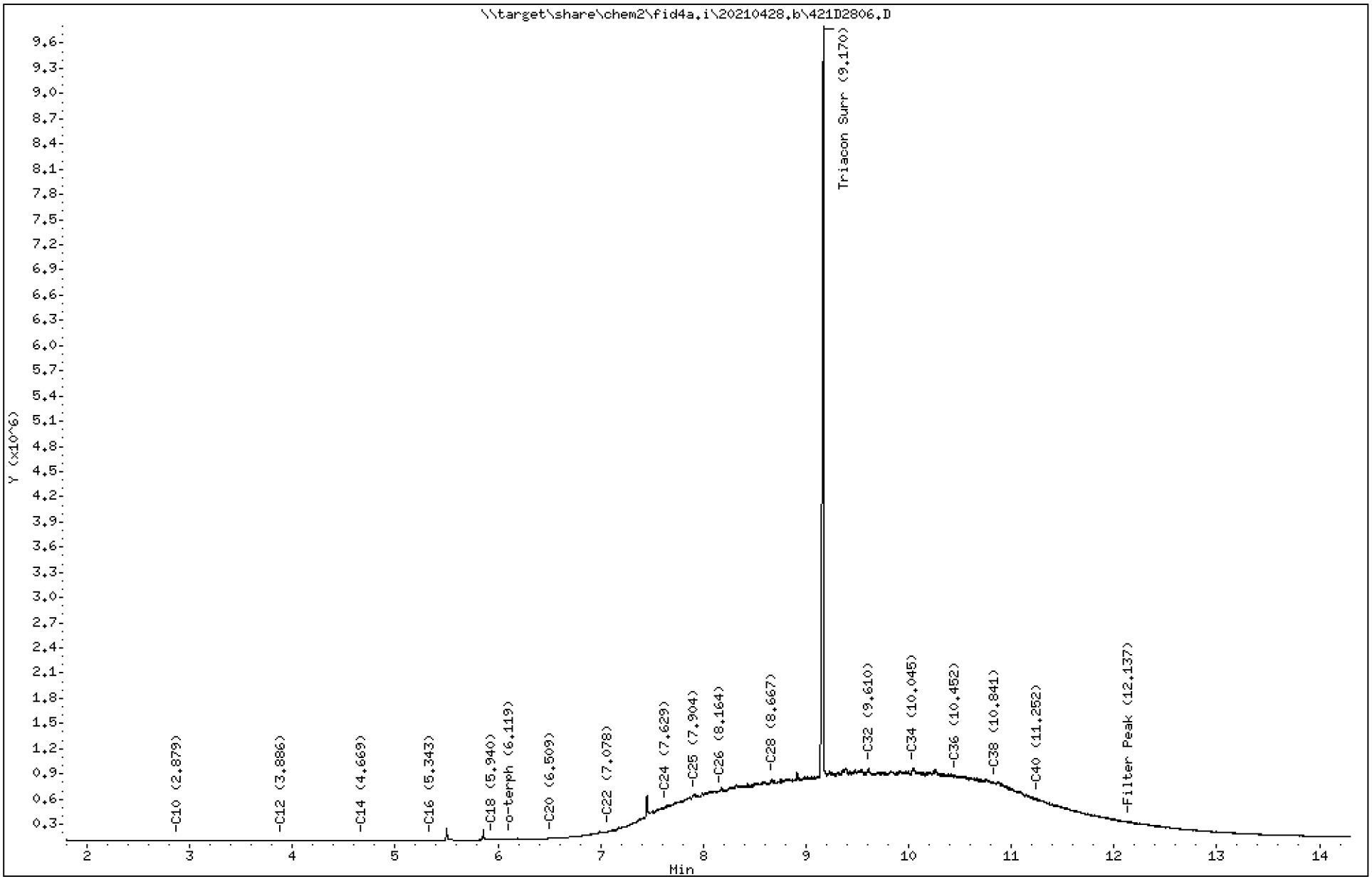
Instrument: fid4a.i

Sample Info: SEQ-ICV2

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25

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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210428.b/421D2806.D
Method: 20210428.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/29/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-ICV2
Client ID:
Injection: 28-APR-2021 16:09
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Method | Range | Total Area | Conc(mg/L) |
|---|---|---|---|---|---|---|---|---|
| C8 | 1.585 | 0.003 | 10956 | 4350 | WATPHD | (C12-C24) | 12554202 | 68.7 |
| C10 | 2.879 | 0.004 | 5206 | 6295 | WATPHM | (C24-C38) | 136892808 | 1041.5 |
| C12 | 3.886 | -0.001 | 1112 | 373 | AK102 | (C10-C25) | 17347979 | 80.5 |
| C14 | 4.669 | 0.000 | 3367 | 825 | AK103 | (C25-C36) | 115232473 | 1140.3 |
| C16 | 5.343 | 0.002 | 4834 | 2485 | OR.DIES | (C10-C28) | 49402022 | 252.1 |
| C18 | 5.940 | -0.002 | 8730 | 2165 | | | | |
| C20 | 6.509 | -0.001 | 27183 | 9444 | JET-A | (C10-C18) | 786193 | 5.4 |
| C22 | 7.078 | 0.003 | 109026 | 43348 | | | | |
| C24 | 7.629 | 0.002 | 399361 | 79417 | | | | |
| C25 | 7.904 | 0.004 | 541650 | 318817 | | | | |
| C26 | 8.164 | 0.001 | 588441 | 117186 | | | | |
| C28 | 8.667 | -0.007 | 737581 | 748677 | | | | |
| C32 | 9.610 | -0.003 | 863828 | 675214 | | | | |
| C34 | 10.045 | 0.002 | 855170 | 212423 | | | | |
| Filter Peak | 12.137 | -0.002 | 225464 | 100070 | BUNKERC | (C10-C38) | 149512986 | 3330.5 |
| C36 | 10.452 | -0.000 | 771846 | 192033 | | | | |
| C38 | 10.841 | -0.000 | 688859 | 171342 | | | | |
| C40 | 11.252 | 0.002 | 499496 | 293347 | | | | |
| o-terph | 6.119 | -0.000 | 12241 | 4808 | | | | |
| Triacon Surr | 9.170 | -0.011 | 8946814 | 9162809 | NAS DIES | (C10-C24) | 12620178 | 64.7 |

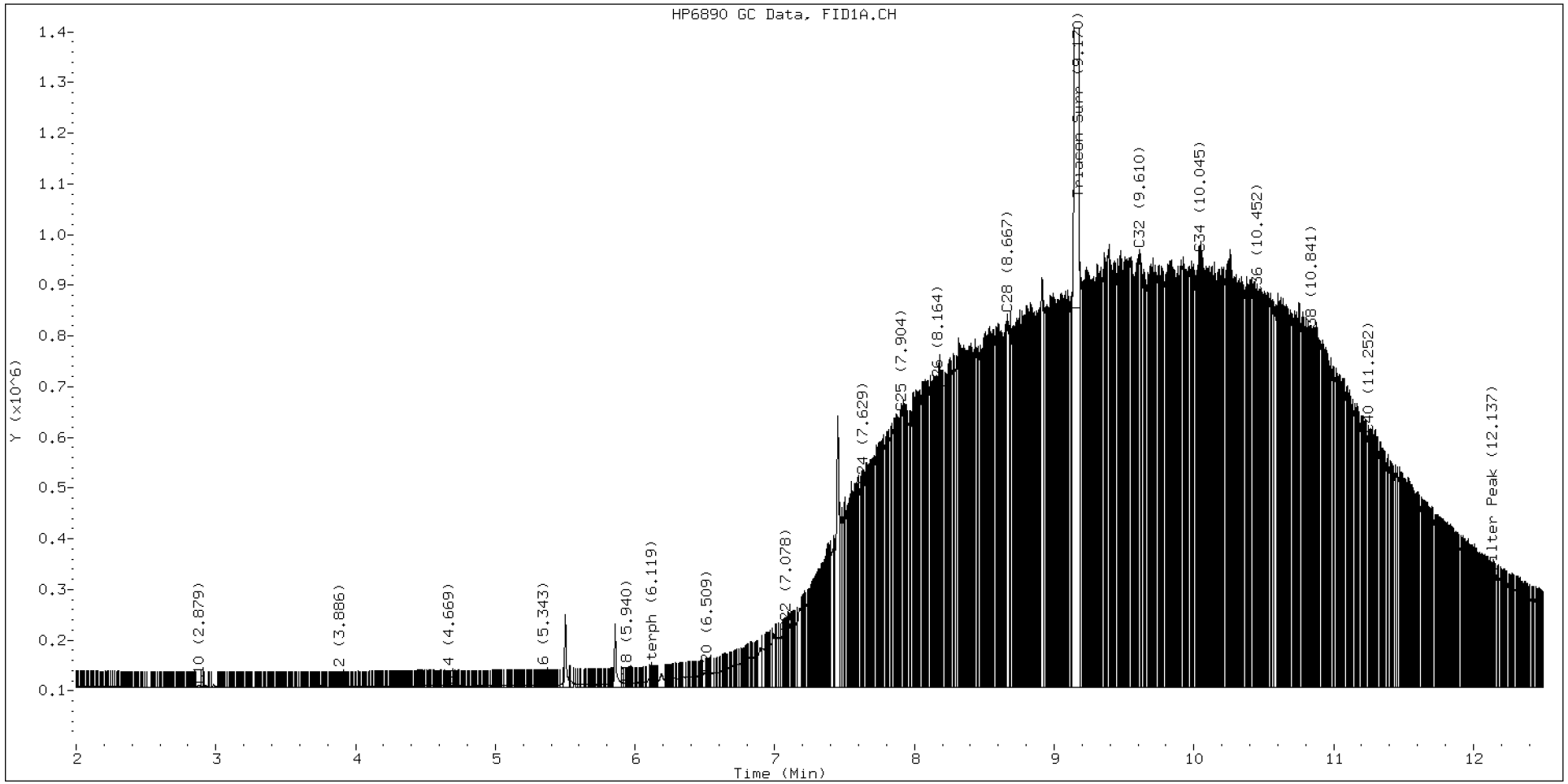
Range Times: NW Diesel(3.887 - 7.627) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.67)

| Surrogate | Area | Amount | |
|---|---|---|---|
| o-Terphenyl | 4808 | 0.0 | |
| Triacontane | 9162809 | 43.3 | M |

M Indicates the peak was manually integrated

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 249011.3 | 25-OCT-2019 |
| Triacon Surr | 211827.9 | 25-OCT-2019 |
| Gas | 15000.0 | XX-XXX-XXXX |
| Diesel | 182831.3 | 14-APR-2021 |
| Motor Oil | 131440.7 | 14-APR-2021 |
| AK102 | 215421.2 | 14-APR-2021 |
| AK103 | 101056.3 | 14-APR-2021 |
| JetA | 146652.4 | 20-MAY-2020 |
| OR Diesel | 195999.1 | 25-OCT-2019 |
| NAS Diesel | 195148.2 | 25-OCT-2019 |
| Bunker C | 44892.5 | 21-APR-2021 |

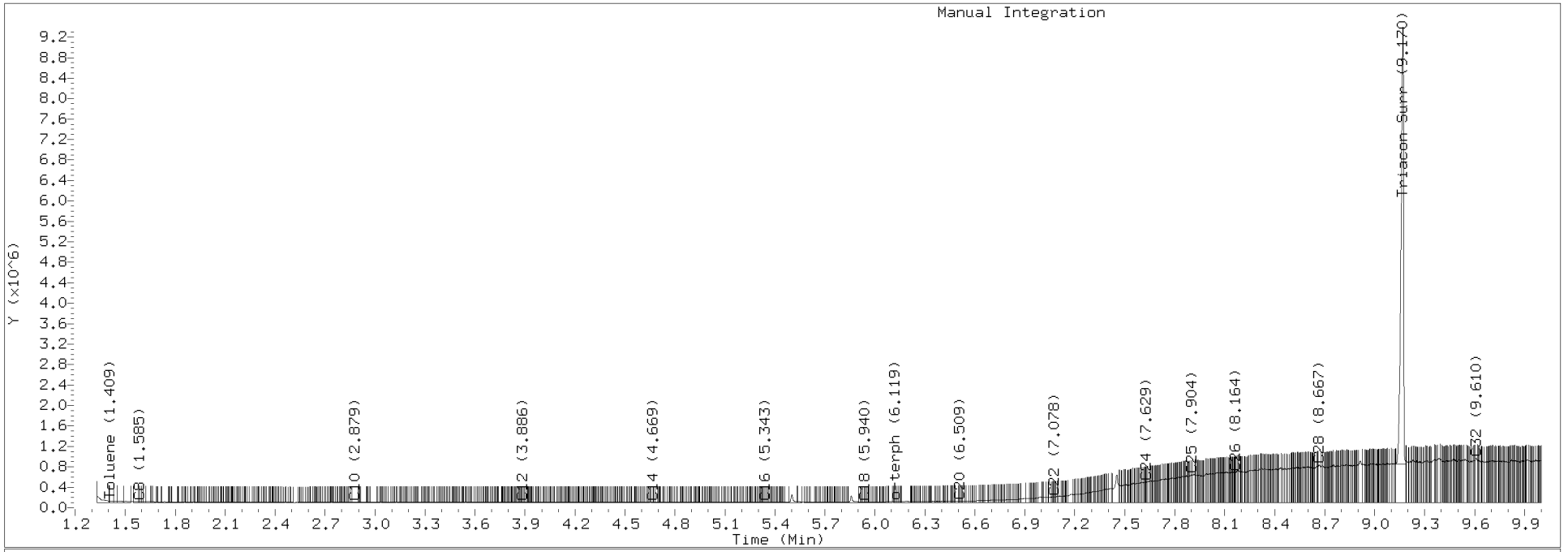
Datafile: FID4A, 20210428.b/421D2806.D SEQ-ICV2

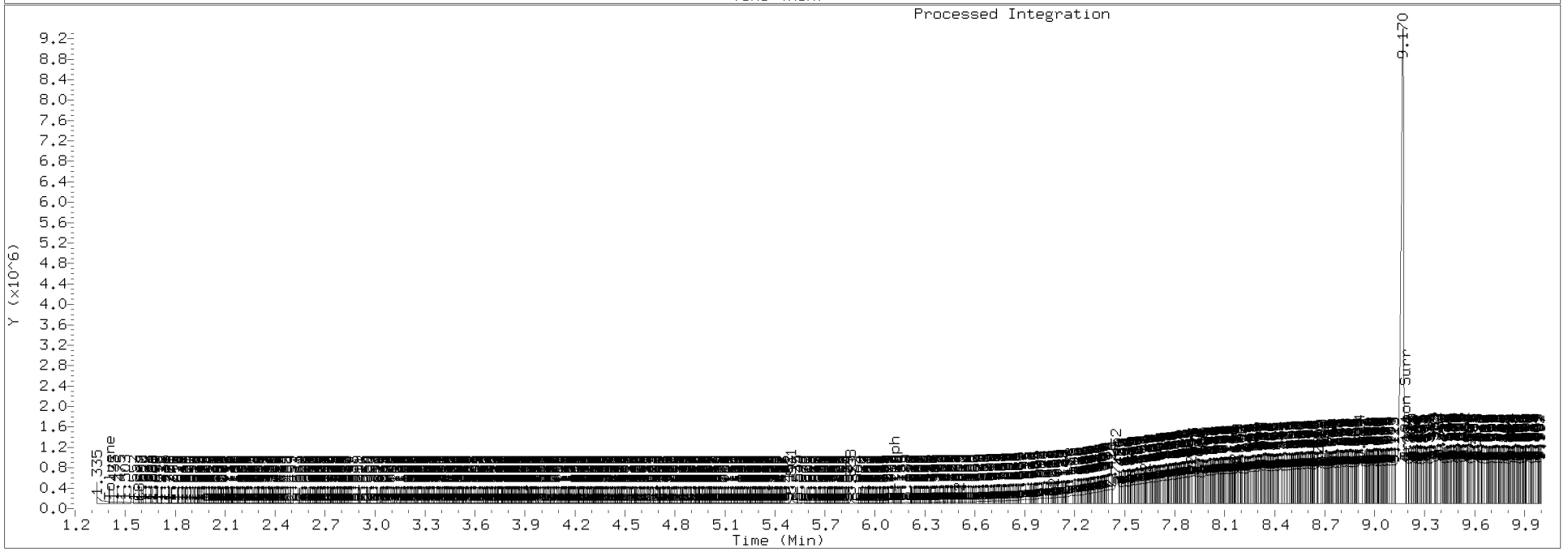


TPH Manual Integrations Report

Datafile: FID4A,  20210428.b/421D2806.D  Injection: 28-APR-2021 16:09

Lab ID:SEQ-ICV2



# SECOND-SOURCE
# CONTINUING CALIBRATION CHECK
## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | FID4 | Calibration: | ED00037 |
| Lab File ID: | 421D1315.D | Calibration Date: | 04/13/2021 |
| Sequence: | SJD0189 | Injection Date: | 04/13/21 |
| Lab Sample ID: | SJD0189-SCV1 | Injection Time: | 15:37 |
| Sequence Name: | DIESEL SCV | | |

| | | CONC. (mg/L) | | RESPONSE FACTOR (RF) | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN | CCV | LIMIT |
| Diesel Range Organics (C12-C24) | A | 500.00 | 492 | 182831.3 | 179727.9 | | -1.7 | +/-30 |

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210413.b\421D1315.D



Date : 13-APR-2021 15:37

Client ID:

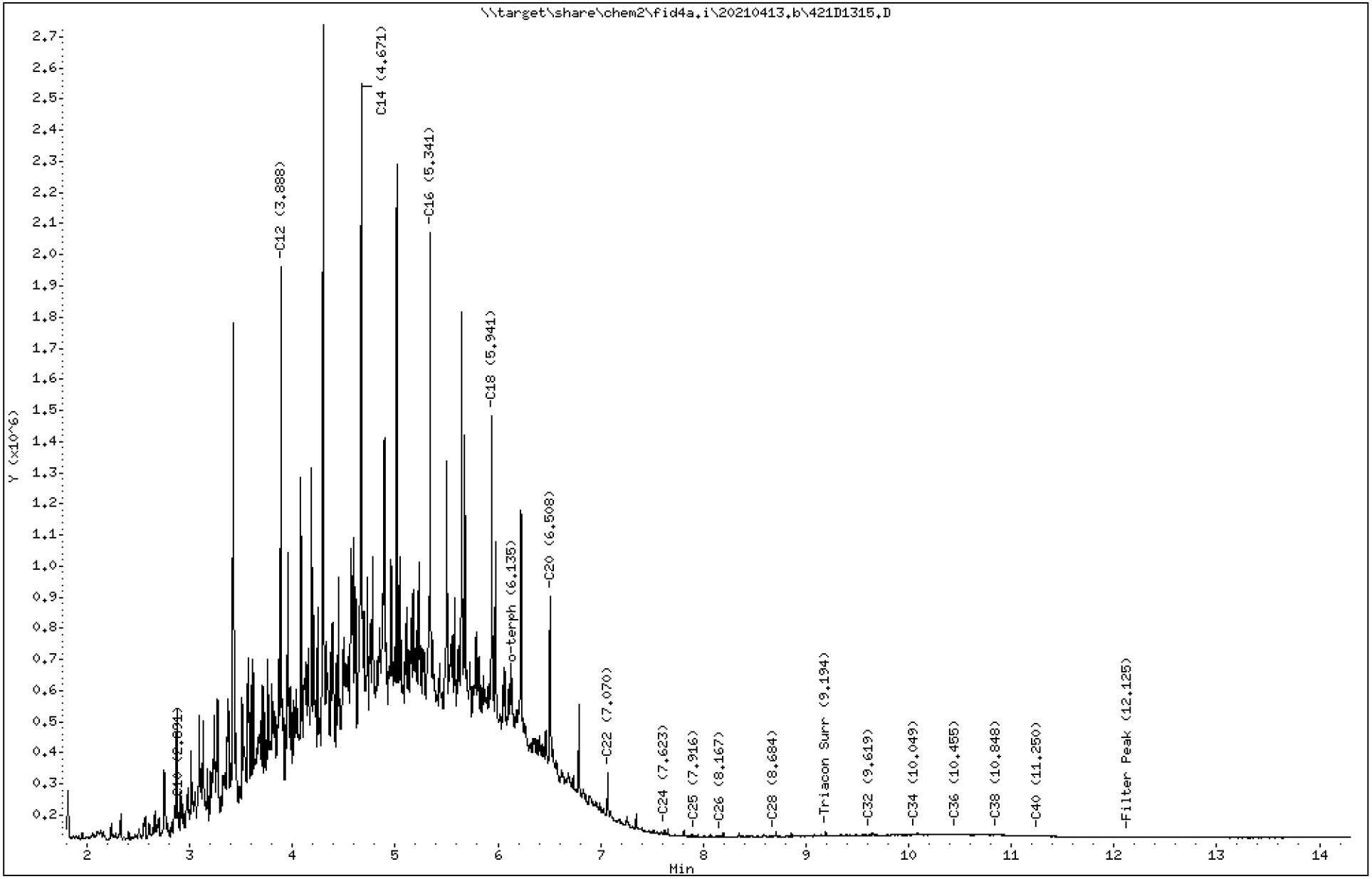
Instrument: fid4a.i

Sample Info: SEQ-SCV1

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25

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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210413.b/421D1315.D
Method: 20210413.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/14/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-SCV1
Client ID:
Injection: 13-APR-2021 15:37
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Method | Range | Total Area | Conc(mg/L) |
|---|---|---|---|---|---|---|---|---|
| C8 | 1.643 | 0.008 | 54603 | 64091 | WATPHD | (C12-C24) | 89863949 | 491.5 |
| C10 | 2.891 | 0.001 | 88521 | 60047 | WATPHM | (C24-C38) | 2579689 | 19.6 |
| C12 | 3.888 | -0.007 | 1839965 | 1228653 | AK102 | (C10-C25) | 107410855 | 498.6 |
| C14 | 4.671 | -0.006 | 2430486 | 1810508 | AK103 | (C25-C36) | 2086166 | 20.6 |
| C16 | 5.341 | -0.007 | 1950234 | 1476241 | OR.DIES | (C10-C28) | 107974378 | 550.9 |
| C18 | 5.941 | -0.008 | 1361376 | 1097598 | | | | |
| C20 | 6.508 | -0.009 | 783405 | 864803 | JET-A | (C10-C18) | 89494855 | 610.3 |
| C22 | 7.070 | -0.012 | 216300 | 223341 | | | | |
| C24 | 7.623 | -0.012 | 29214 | 46183 | | | | |
| C25 | 7.916 | 0.008 | 13547 | 12777 | | | | |
| C26 | 8.167 | -0.005 | 8723 | 1733 | | | | |
| C28 | 8.684 | 0.003 | 11097 | 3231 | | | | |
| C32 | 9.619 | -0.004 | 16094 | 18913 | | | | |
| C34 | 10.049 | -0.003 | 16451 | 8995 | | | | |
| Filter Peak | 12.125 | 0.003 | 8610 | 2562 | CREOSOT | (C12-C22) | 88684804 | 8332.6 |
| C36 | 10.455 | -0.004 | 16099 | 8787 | | | | |
| C38 | 10.848 | 0.002 | 15723 | 4681 | | | | |
| C40 | 11.250 | -0.002 | 12238 | 2441 | | | | |
| o-terph | 6.135 | 0.005 | 518842 | 594571 | | | | |
| Triacon Surr | 9.194 | 0.000 | 24981 | 26960 | NAS DIES | (C10-C24) | 107276298 | 549.7 |

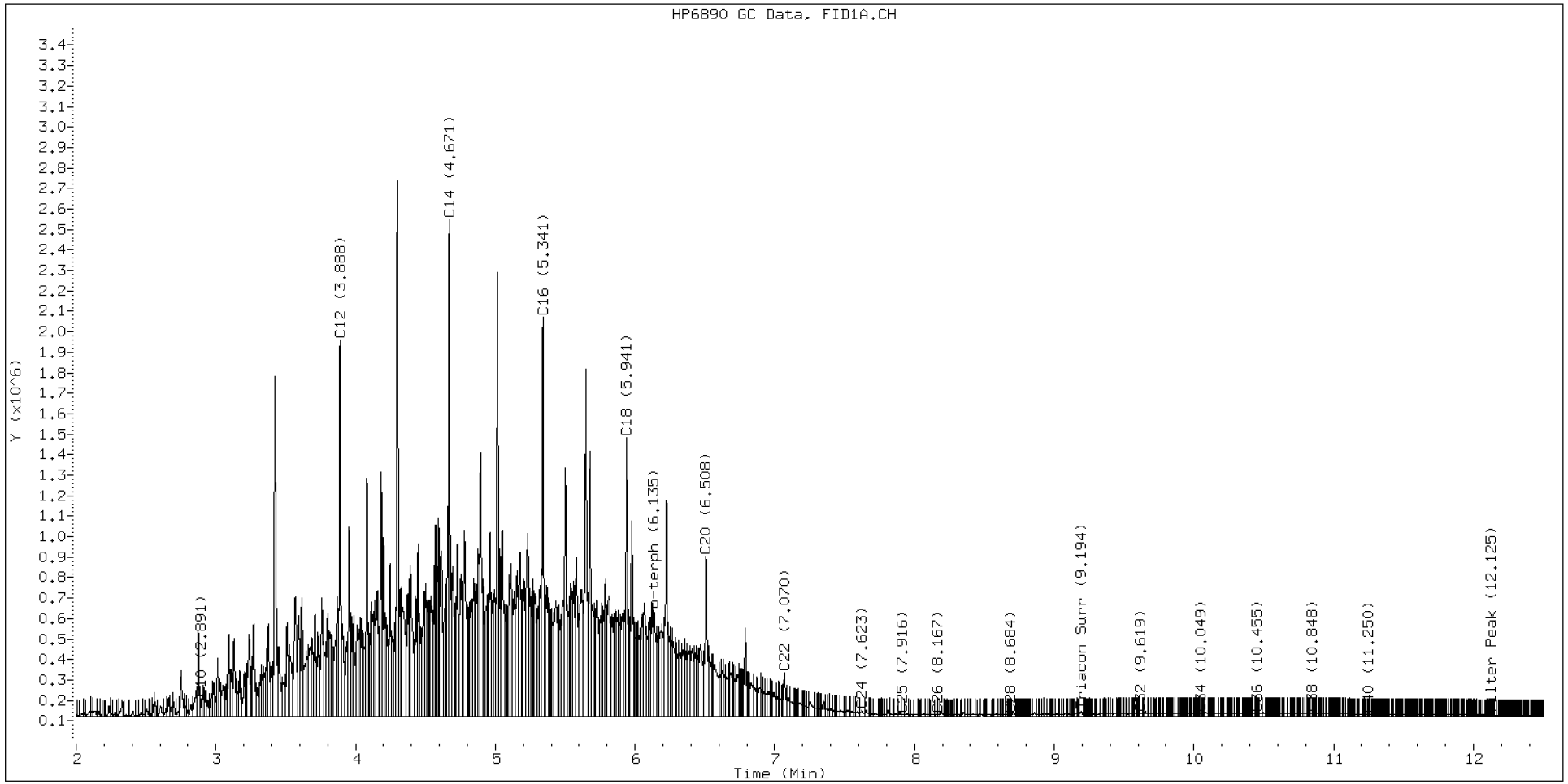
Range Times: NW Diesel(3.894 - 7.635) AK102(2.89 - 7.91) Jet A(2.89 - 5.95)
NW M.Oil(7.64 - 10.85) AK103(7.91 - 10.46) OR Diesel(2.89 - 8.68)

| Surrogate | Area | Amount |
|---|---|---|
| o-Terphenyl | 594571 | 2.4 |
| Triacontane | 26960 | 0.1 |

M Indicates the peak was manually integrated

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 249011.3 | 25-OCT-2019 |
| Triacon Surr | 211827.9 | 25-OCT-2019 |
| Gas | 15000.0 | XX-XXX-XXXX |
| Diesel | 182831.3 | 14-APR-2021 |
| Motor Oil | 131440.7 | 14-APR-2021 |
| AK102 | 215421.2 | 14-APR-2021 |
| AK103 | 101056.3 | 14-APR-2021 |
| JetA | 146652.4 | 20-MAY-2020 |
| OR Diesel | 195999.1 | 25-OCT-2019 |
| NAS Diesel | 195148.2 | 25-OCT-2019 |
| Creosote | 10643.2 | 30-MAR-2020 |

Datafile: FID4A,  20210413.b/421D1315.D  SEQ-SCV1



Analytical Resources, Incorporated
Analytical Chemists and Consultants

# SECOND-SOURCE
# CONTINUING CALIBRATION CHECK
## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | FID4 | Calibration: | ED00037 |
| Lab File ID: | 421D1322.D | Calibration Date: | 04/13/2021 |
| Sequence: | SJD0189 | Injection Date: | 04/13/21 |
| Lab Sample ID: | SJD0189-SCV2 | Injection Time: | 18:07 |
| Sequence Name: | MOIL SCV | | |

| | | CONC. (mg/L) | | RESPONSE FACTOR (RF) | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN | CCV | LIMIT |
| Motor Oil Range Organics (C24-C38) | A | 1000.0 | 918 | 131440.7 | 120611.9 | | -8.2 | +/-30 |

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210413.b\421D1322.D



Date : 13-APR-2021 18:07

Client ID:

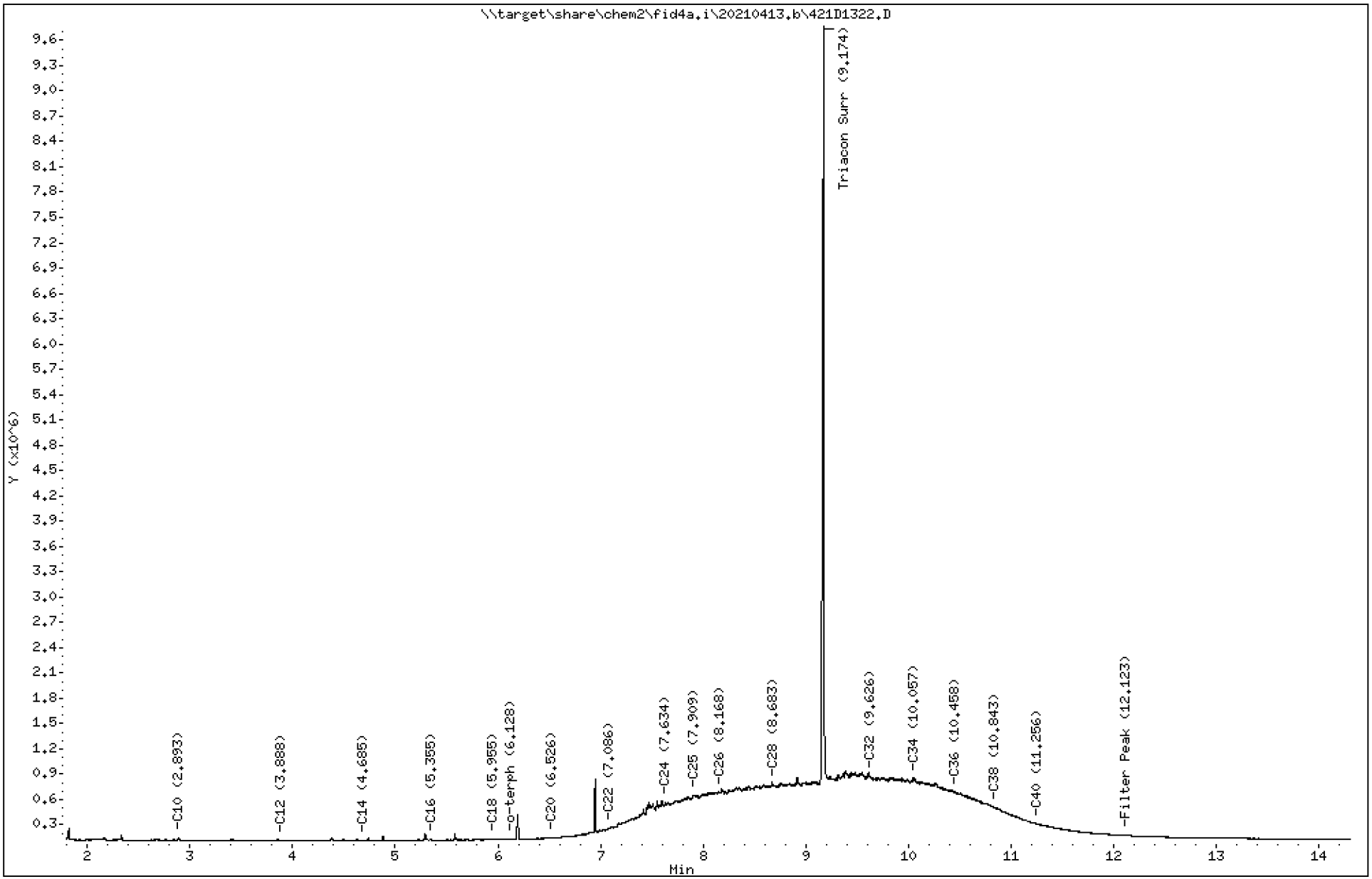
Instrument: fid4a.i

Sample Info: SEQ-SCV2

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25

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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210413.b/421D1322.D
Method: 20210413.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/14/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-SCV2
Client ID:
Injection: 13-APR-2021 18:07
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Method | Range | Total Area | Conc(mg/L) |
|---|---|---|---|---|---|---|---|---|
| C8 | 1.626 | -0.008 | 65747 | 96813 | WATPHD | (C12-C24) | 15532252 | 85.0 |
| C10 | 2.893 | 0.003 | 32970 | 23142 | WATPHM | (C24-C38) | 120611856 | 917.6 |
| C12 | 3.888 | -0.006 | 5389 | 3628 | AK102 | (C10-C25) | 20669789 | 96.0 |
| C14 | 4.685 | 0.008 | 3945 | 1476 | AK103 | (C25-C36) | 105207415 | 1041.1 |
| C16 | 5.355 | 0.007 | 9584 | 10953 | OR.DIES | (C10-C28) | 51331560 | 261.9 |
| C18 | 5.955 | 0.006 | 19031 | 17530 | | | | |
| C20 | 6.526 | 0.009 | 34956 | 39910 | JET-A | (C10-C18) | 962360 | 6.6 |
| C22 | 7.086 | 0.004 | 142736 | 70767 | | | | |
| C24 | 7.634 | -0.001 | 455529 | 454995 | | | | |
| C25 | 7.909 | 0.002 | 536300 | 187150 | | | | |
| C26 | 8.168 | -0.004 | 569572 | 113374 | | | | |
| C28 | 8.683 | 0.001 | 657302 | 357915 | | | | |
| C32 | 9.626 | 0.003 | 760723 | 638055 | | | | |
| C34 | 10.057 | 0.005 | 726792 | 323841 | | | | |
| Filter Peak | 12.123 | 0.002 | 60871 | 41807 | CREOSOT | (C12-C22) | 4882924 | 458.8 |
| C36 | 10.458 | -0.002 | 571891 | 252641 | | | | |
| C38 | 10.843 | -0.003 | 392748 | 215443 | | | | |
| C40 | 11.256 | 0.004 | 196755 | 78044 | | | | |
| o-terph | 6.128 | -0.002 | 13513 | 9103 | | | | |
| Triacon Surr | 9.174 | -0.019 | 8966637 | 9459500 | NAS DIES | (C10-C24) | 15747411 | 80.7 |

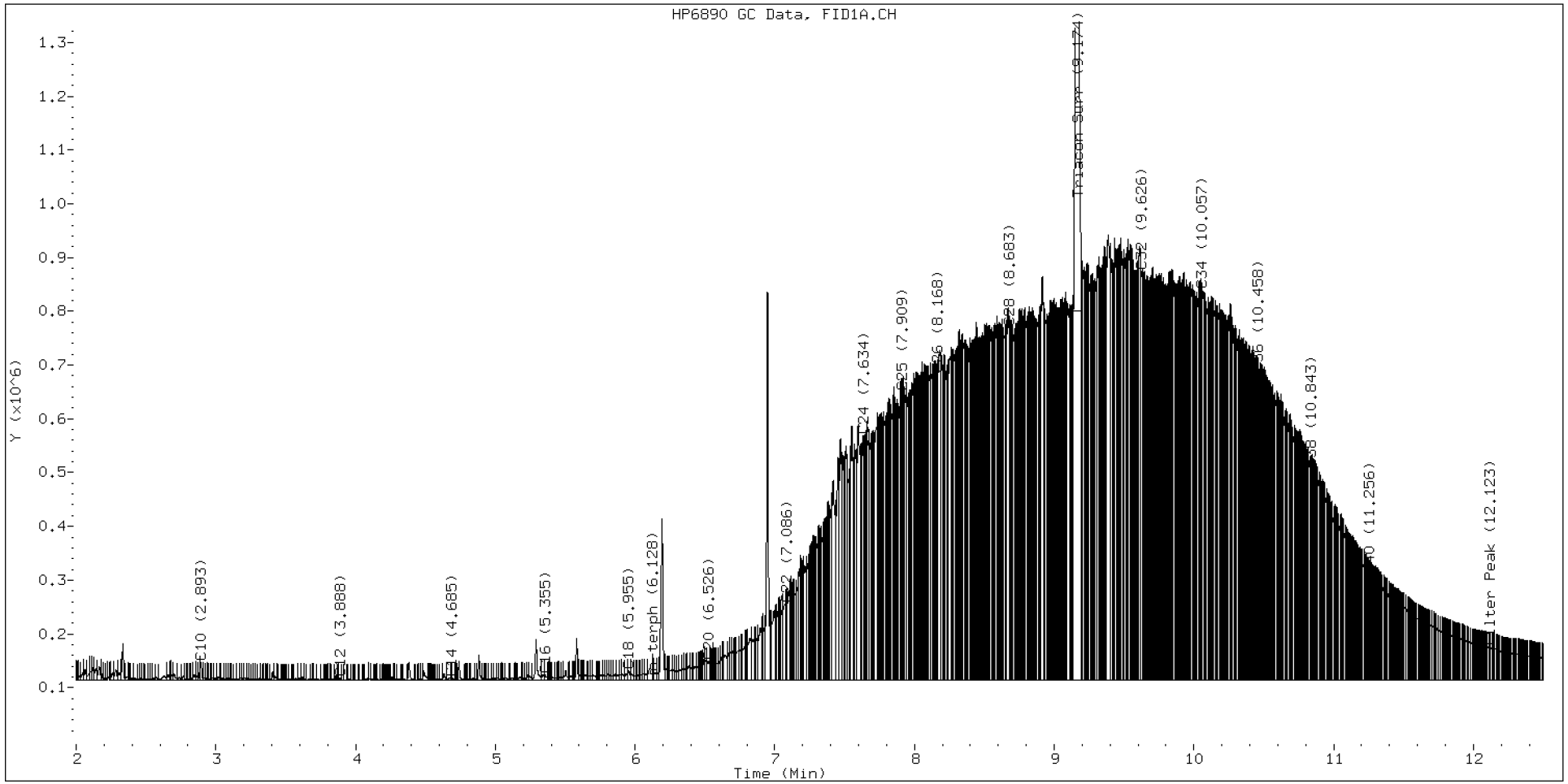
Range Times: NW Diesel(3.894 - 7.635) AK102(2.89 - 7.91) Jet A(2.89 - 5.95)
NW M.Oil(7.64 - 10.85) AK103(7.91 - 10.46) OR Diesel(2.89 - 8.68)

| Surrogate | Area | Amount | |
|---|---|---|---|
| o-Terphenyl | 9103 | 0.0 | |
| Triacontane | 9459500 | 44.7 | M |

M Indicates the peak was manually integrated

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 249011.3 | 25-OCT-2019 |
| Triacon Surr | 211827.9 | 25-OCT-2019 |
| Gas | 15000.0 | XX-XXX-XXXX |
| Diesel | 182831.3 | 14-APR-2021 |
| Motor Oil | 131440.7 | 14-APR-2021 |
| AK102 | 215421.2 | 14-APR-2021 |
| AK103 | 101056.3 | 14-APR-2021 |
| JetA | 146652.4 | 20-MAY-2020 |
| OR Diesel | 195999.1 | 25-OCT-2019 |
| NAS Diesel | 195148.2 | 25-OCT-2019 |
| Creosote | 10643.2 | 30-MAR-2020 |

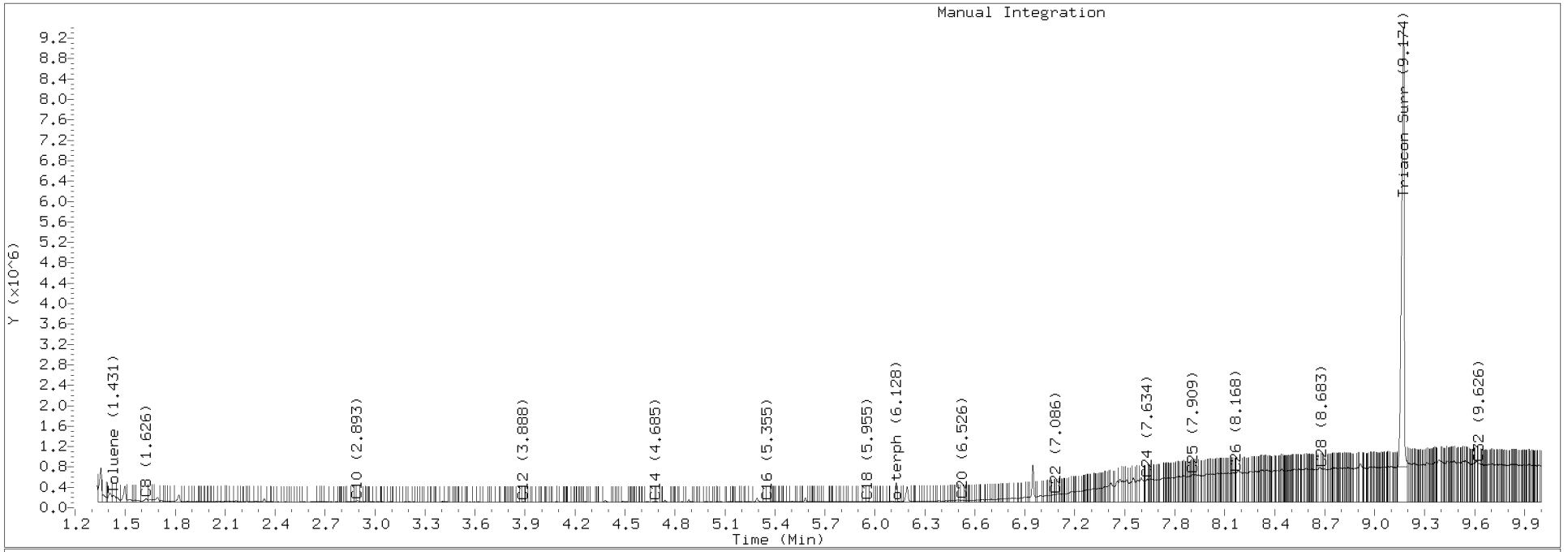
Datafile: FID4A, 20210413.b/421D1322.D SEQ-SCV2

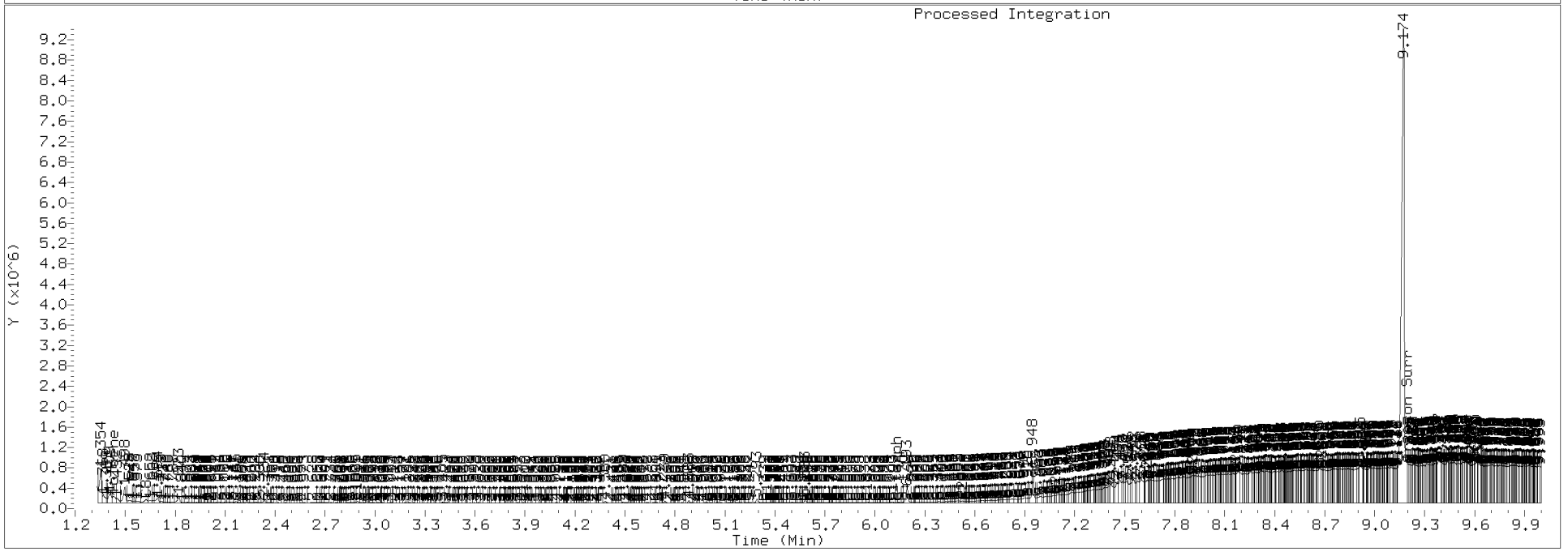


TPH Manual Integrations Report

Datafile: FID4A, 20210413.b/421D1322.D Injection: 13-APR-2021 18:07

Lab ID:SEQ-SCV2



# CONTINUING CALIBRATION CHECK
## NWTPH-Dx

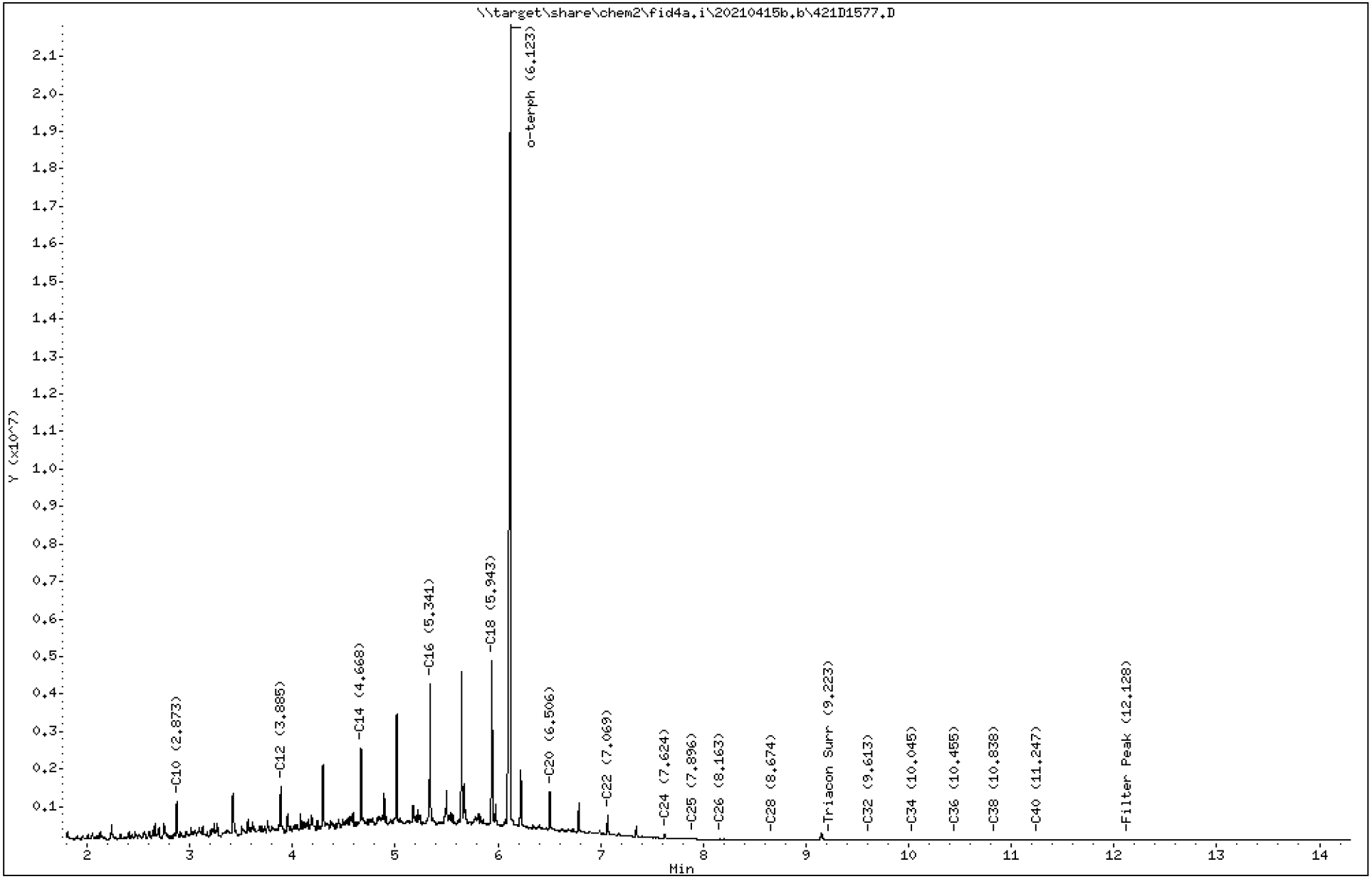
| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | FID4 | Calibration: | ED00037 |
| Lab File ID: | 421D1577.D | Calibration Date: | 04/13/2021 |
| Sequence: | SJD0260 | Injection Date: | 04/16/21 |
| Lab Sample ID: | SJD0260-CCV1 | Injection Time: | 11:57 |
| Sequence Name: | DIESEL CCV | | |

| | | CONC. (mg/L) | | RESPONSE FACTOR (RF) | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN | CCV | LIMIT |
| Diesel Range Organics (C12-C24) | A | 500.00 | 515 | 182831.3 | 188269 | | 3.0 | +/-15 |
| o-Terphenyl | A | 90.000 | 90.2 | 249011.4 | 249451.7 | | 0.2 | +/-15 |

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210415b.b\421D1577.D
Date : 16-APR-2021 11:57
Client ID:
Sample Info: SEQ-CCV1

Instrument: fid4a.i
Operator: CTO
Column phase: RTX-1
Column diameter: 0.25

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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210415b.b/421D1577.D
Method: 20210415b.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/19/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-CCV1
Client ID:
Injection: 16-APR-2021 11:57
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Method | Range | Total Area | Conc(mg/L) |
|---|---|---|---|---|---|---|---|---|
| C8 | 1.612 | 0.001 | 114564 | 177969 | WATPHD | (C12-C24) | 94134493 | 514.9 |
| C10 | 2.873 | -0.006 | 1034638 | 810602 | WATPHM | (C24-C38) | 1468613 | 11.2 |
| C12 | 3.885 | -0.003 | 1407224 | 1128460 | AK102 | (C10-C25) | 111146558 | 515.9 |
| C14 | 4.668 | -0.003 | 2455286 | 2074212 | AK103 | (C25-C36) | 1060863 | 10.5 |
| C16 | 5.341 | -0.002 | 4174787 | 3340301 | OR.DIES | (C10-C28) | 111641998 | 569.6 |
| C18 | 5.943 | -0.003 | 4791783 | 4018537 | | | | |
| C20 | 6.506 | -0.008 | 1290571 | 1389200 | JET-A | (C10-C18) | 87086990 | 593.8 |
| C22 | 7.069 | -0.009 | 655790 | 684291 | | | | |
| C24 | 7.624 | -0.007 | 140932 | 208203 | | | | |
| C25 | 7.896 | -0.006 | 50322 | 85262 | | | | |
| C26 | 8.163 | -0.004 | 20433 | 37327 | | | | |
| C28 | 8.674 | -0.002 | 6930 | 11139 | | | | |
| C32 | 9.613 | -0.003 | 3397 | 2064 | | | | |
| C34 | 10.045 | -0.001 | 2956 | 864 | | | | |
| Filter Peak | 12.128 | 0.002 | 7502 | 2589 | CREOSOT | (C12-C22) | 91360417 | 2341.6 |
| C36 | 10.455 | 0.001 | 4121 | 612 | | | | |
| C38 | 10.838 | -0.001 | 5509 | 2412 | | | | |
| C40 | 11.247 | -0.000 | 7077 | 2460 | | | | |
| o-terph | 6.123 | -0.000 | 21299849 | 22450648 | | | | |
| Triacon Surr | 9.223 | 0.037 | 4283 | 3481 | NAS DIES | (C10-C24) | 110846579 | 568.0 |

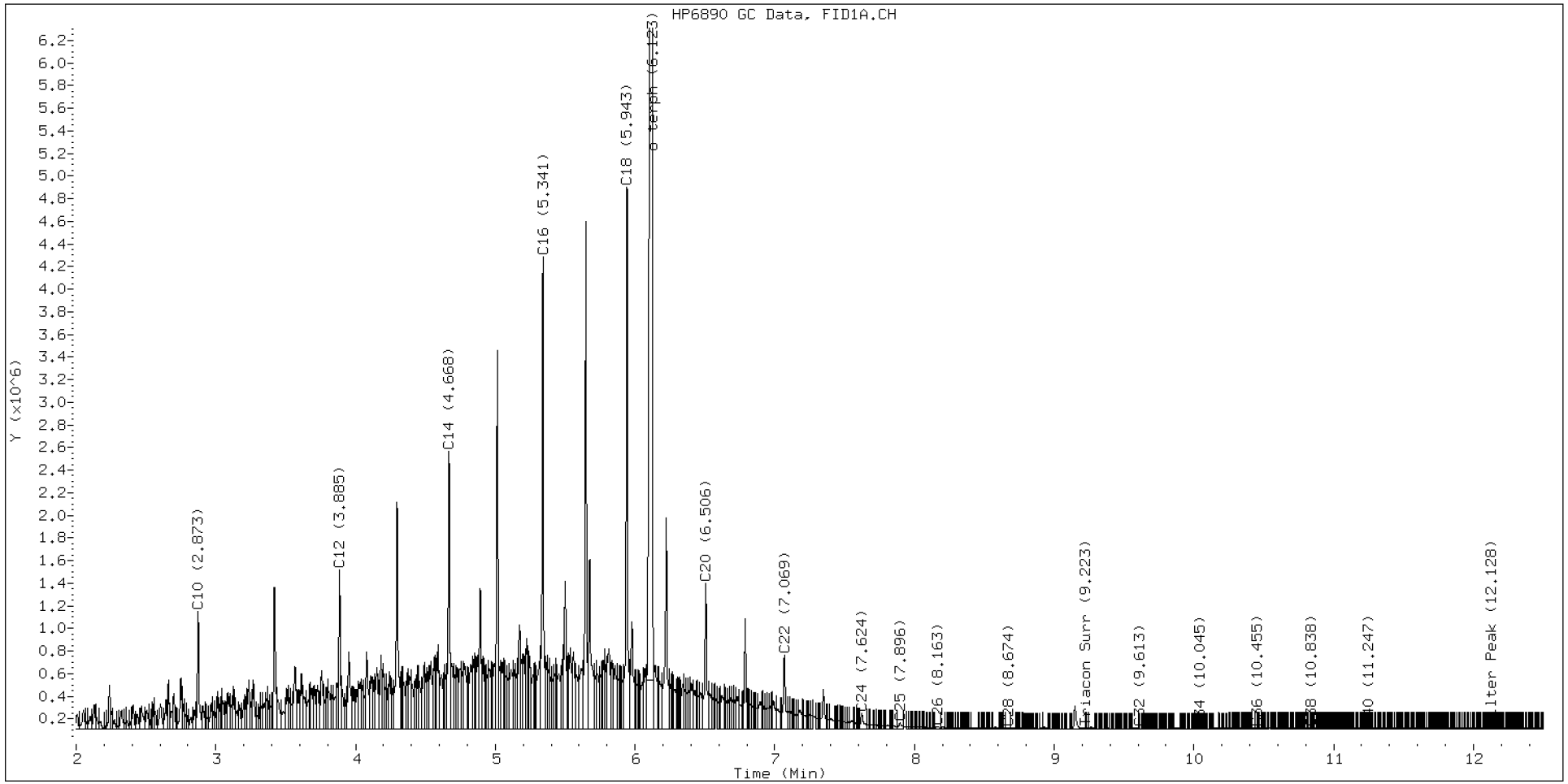
Range Times: NW Diesel(3.888 - 7.631) AK102(2.88 - 7.90) Jet A(2.88 - 5.95)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.68)

| Surrogate | Area | Amount | |
|---|---|---|---|
| o-Terphenyl | 22450648 | 90.2 | M |
| Triacontane | 3481 | 0.0 | |

M Indicates the peak was manually integrated

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 249011.3 | 25-OCT-2019 |
| Triacon Surr | 211827.9 | 25-OCT-2019 |
| Gas | 15000.0 | XX-XXX-XXXX |
| Diesel | 182831.3 | 14-APR-2021 |
| Motor Oil | 131440.7 | 14-APR-2021 |
| AK102 | 215421.2 | 14-APR-2021 |
| AK103 | 101056.3 | 14-APR-2021 |
| JetA | 146652.4 | 20-MAY-2020 |
| OR Diesel | 195999.1 | 25-OCT-2019 |
| NAS Diesel | 195148.2 | 25-OCT-2019 |
| Creosote | 39015.8 | 30-MAR-2020 |

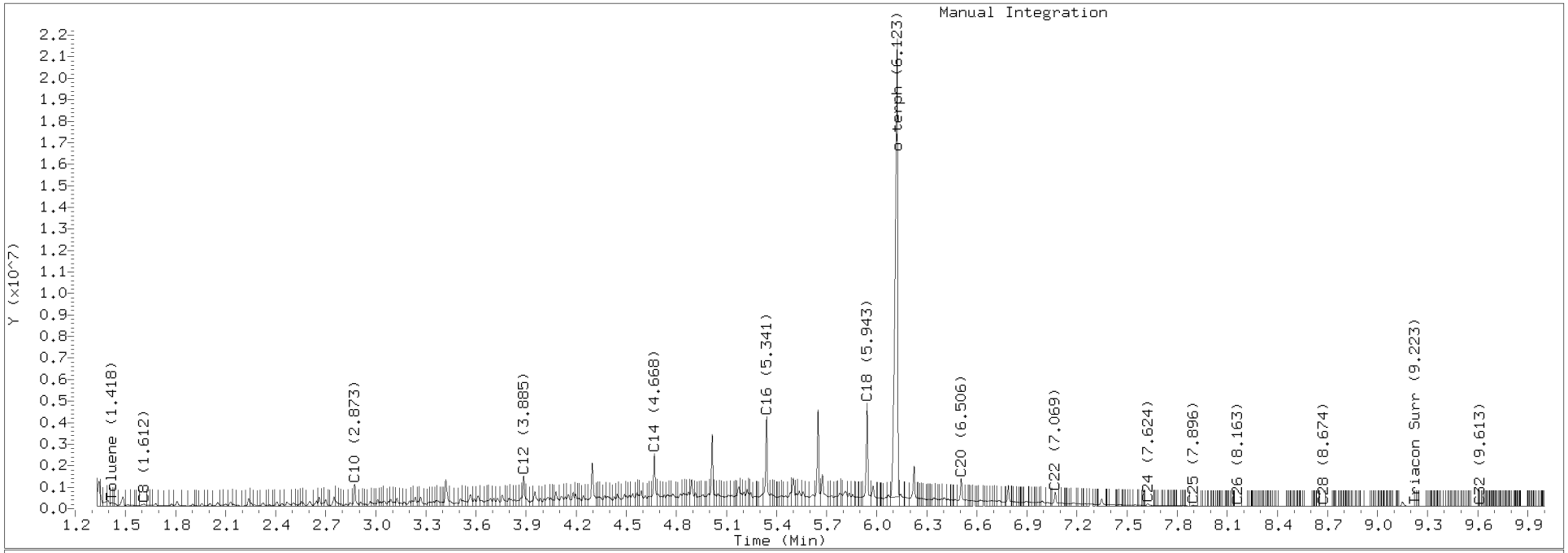
Datafile: FID4A, 20210415b.b/421D1577.D SEQ-CCV1

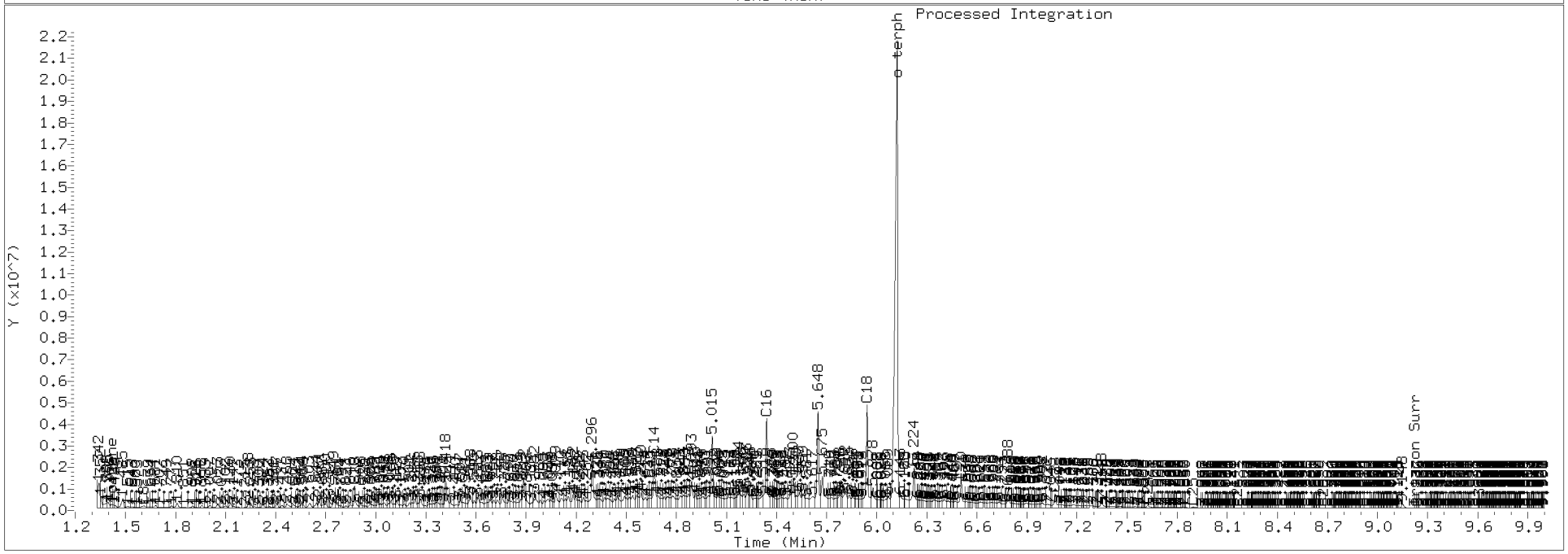


TPH Manual Integrations Report

Datafile: FID4A, 20210415b.b/421D1577.D Injection: 16-APR-2021 11:57

Lab ID:SEQ-CCV1



# CONTINUING CALIBRATION CHECK
## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | FID4 | Calibration: | ED00037 |
| Lab File ID: | 421D2029.D | Calibration Date: | 04/13/2021 |
| Sequence: | SJD0282 | Injection Date: | 04/21/21 |
| Lab Sample ID: | SJD0282-CCV1 | Injection Time: | 23:31 |
| Sequence Name: | DIESEL CCV | | |

| | | CONC. (mg/L) | | RESPONSE FACTOR (RF) | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN | CCV | LIMIT |
| Diesel Range Organics (C12-C24) | A | 500.00 | 482 | 182831.3 | 176249.6 | | -3.6 | +/-15 |
| o-Terphenyl | A | 90.000 | 84.8 | 249011.4 | 234688.2 | | -5.8 | +/-15 |

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210420.b\421D2029.D



Date : 21-APR-2021 23:31

Client ID:

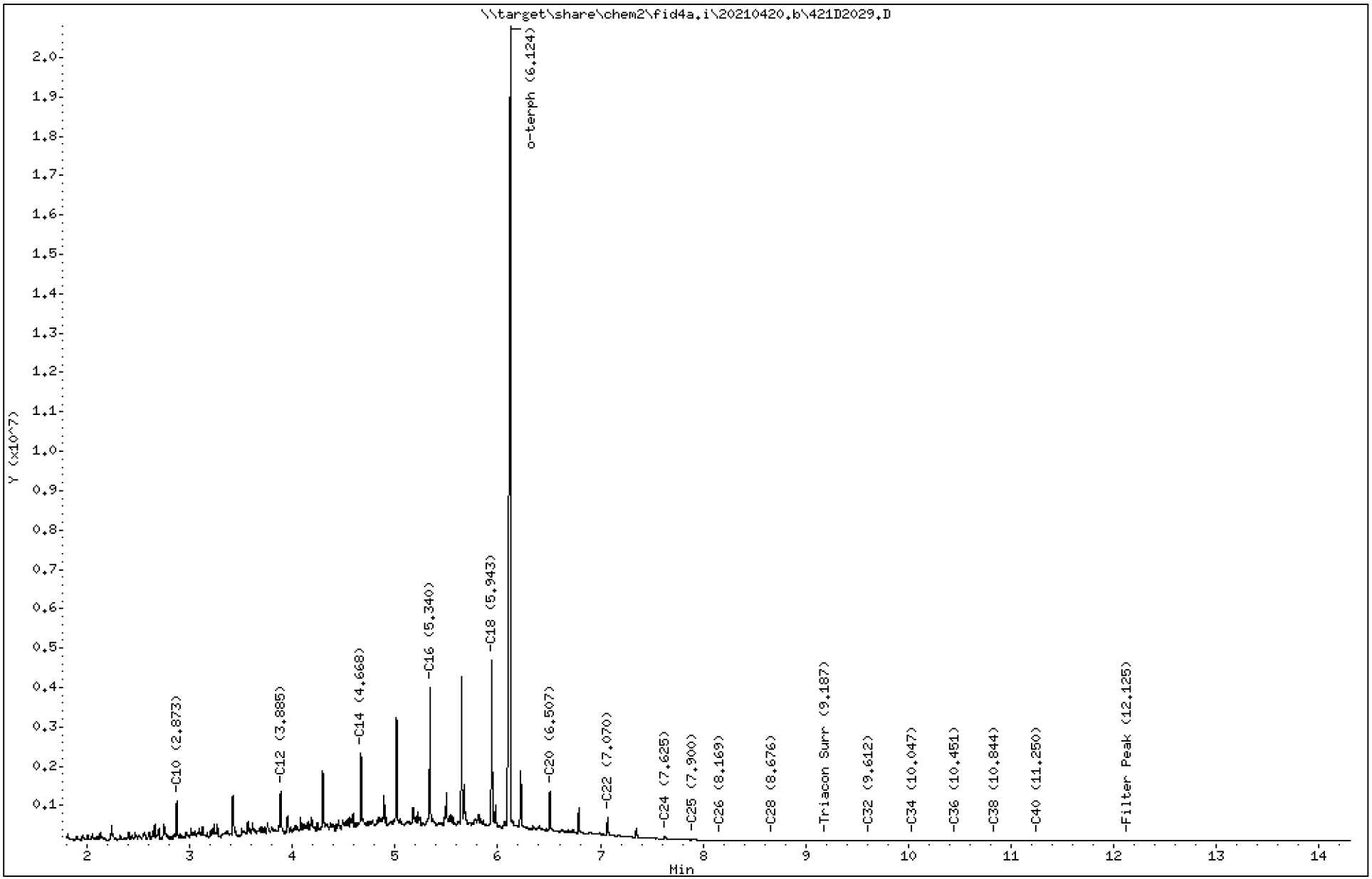
Instrument: fid4a.i

Sample Info: SEQ-CCV1

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25

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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210420.b/421D2029.D
Method: 20210420.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/21/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-CCV1
Client ID:
Injection: 21-APR-2021 23:31
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Method | Range | Total Area | Conc(mg/L) |
|---|---|---|---|---|---|---|---|---|
| C8 | 1.613 | -0.005 | 93917 | 105034 | WATPHD | (C12-C24) | 88124796 | 482.0 |
| C10 | 2.873 | -0.008 | 994047 | 753291 | WATPHM | (C24-C38) | 787518 | 6.0 |
| C12 | 3.885 | -0.003 | 1243946 | 1041847 | AK102 | (C10-C25) | 103702663 | 481.4 |
| C14 | 4.668 | -0.003 | 2230259 | 1918845 | AK103 | (C25-C36) | 492064 | 4.9 |
| C16 | 5.340 | -0.001 | 3899335 | 3006283 | OR.DIES | (C10-C28) | 104099901 | 531.1 |
| C18 | 5.943 | -0.001 | 4581380 | 3772430 | | | | |
| C20 | 6.507 | -0.006 | 1249279 | 1279848 | JET-A | (C10-C18) | 80822380 | 551.1 |
| C22 | 7.070 | -0.006 | 576910 | 673910 | | | | |
| C24 | 7.625 | -0.005 | 107559 | 187239 | | | | |
| C25 | 7.900 | -0.001 | 36739 | 96562 | | | | |
| C26 | 8.169 | 0.003 | 13760 | 17559 | | | | |
| C28 | 8.676 | 0.000 | 2645 | 896 | | | | |
| C32 | 9.612 | -0.003 | 619 | 294 | | | | |
| C34 | 10.047 | 0.002 | 735 | 225 | | | | |
| Filter Peak | 12.125 | -0.001 | 4128 | 2803 | BUNKERC | (C10-C38) | 104238929 | 2322.0 |
| C36 | 10.451 | -0.001 | 1377 | 390 | | | | |
| C38 | 10.844 | 0.004 | 2337 | 462 | | | | |
| C40 | 11.250 | 0.007 | 3571 | 2254 | | | | |
| o-terph | 6.124 | 0.002 | 20299823 | 21121939 | | | | |
| Triacon Surr | 9.187 | 0.003 | 1352 | 576 | NAS DIES | (C10-C24) | 103451411 | 530.1 |

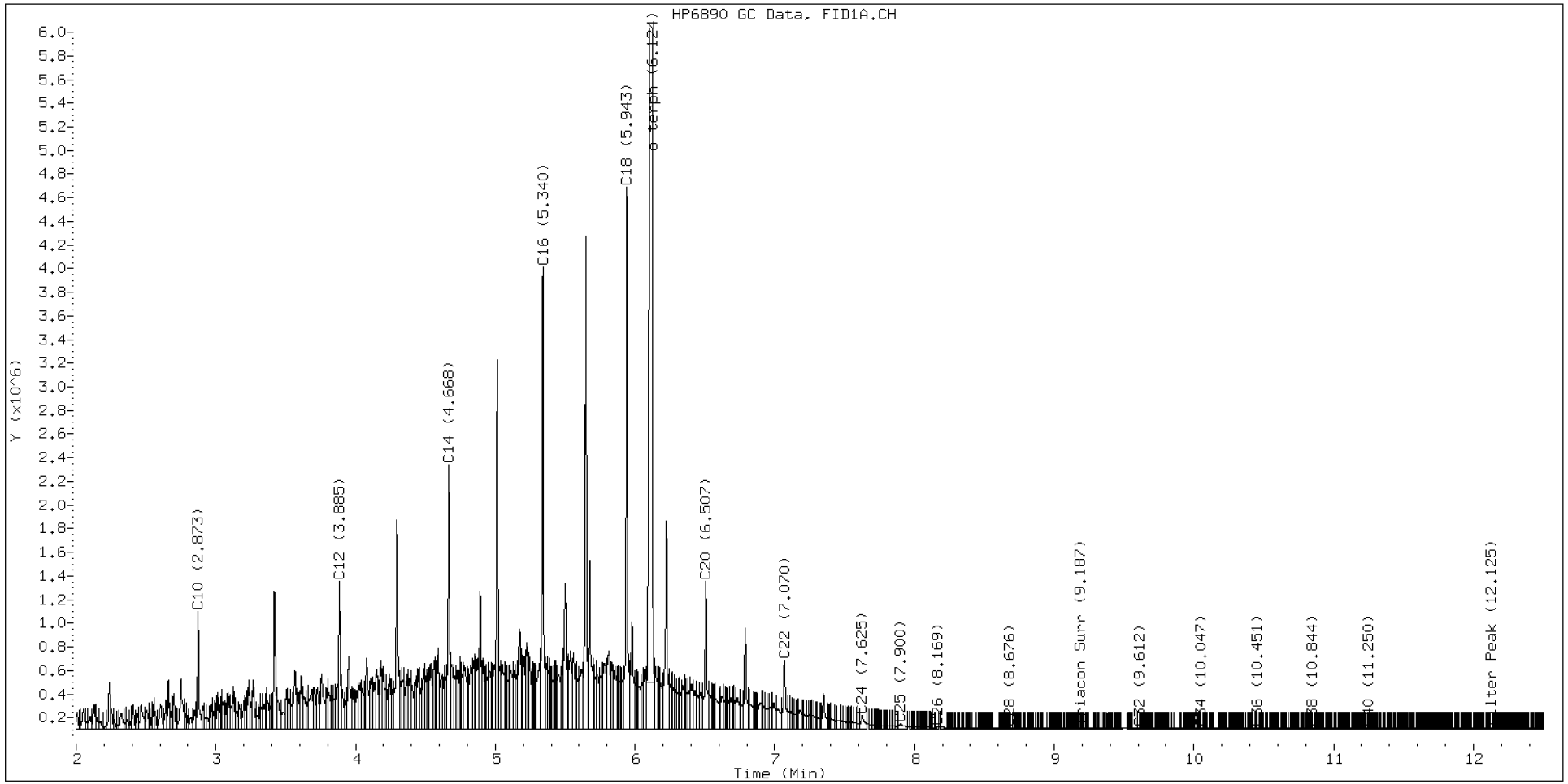
Range Times: NW Diesel(3.888 - 7.630) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.68)

| Surrogate | Area | Amount | |
|---|---|---|---|
| o-Terphenyl | 21121939 | 84.8 | M |
| Triacontane | 576 | 0.0 | |

M Indicates the peak was manually integrated

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 249011.3 | 25-OCT-2019 |
| Triacon Surr | 211827.9 | 25-OCT-2019 |
| Gas | 15000.0 | XX-XXX-XXXX |
| Diesel | 182831.3 | 14-APR-2021 |
| Motor Oil | 131440.7 | 14-APR-2021 |
| AK102 | 215421.2 | 14-APR-2021 |
| AK103 | 101056.3 | 14-APR-2021 |
| JetA | 146652.4 | 20-MAY-2020 |
| OR Diesel | 195999.1 | 25-OCT-2019 |
| NAS Diesel | 195148.2 | 25-OCT-2019 |
| Bunker C | 44892.5 | 21-APR-2021 |

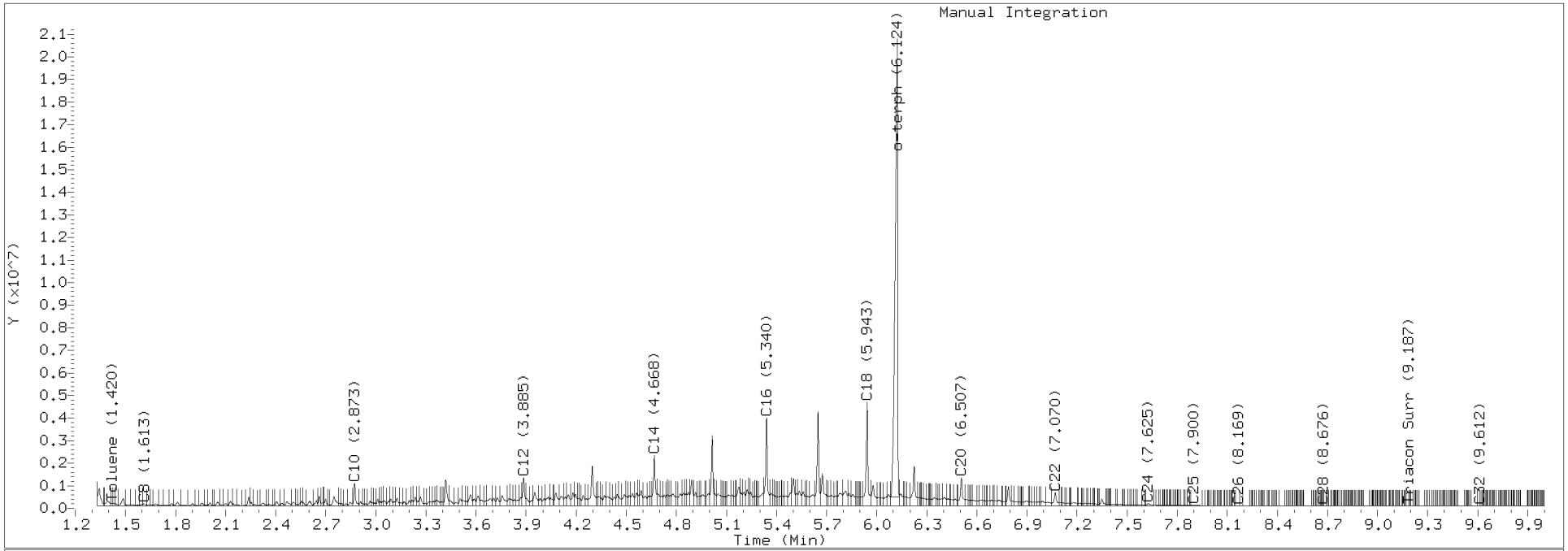
Datafile: FID4A, 20210420.b/421D2029.D SEQ-CCV1

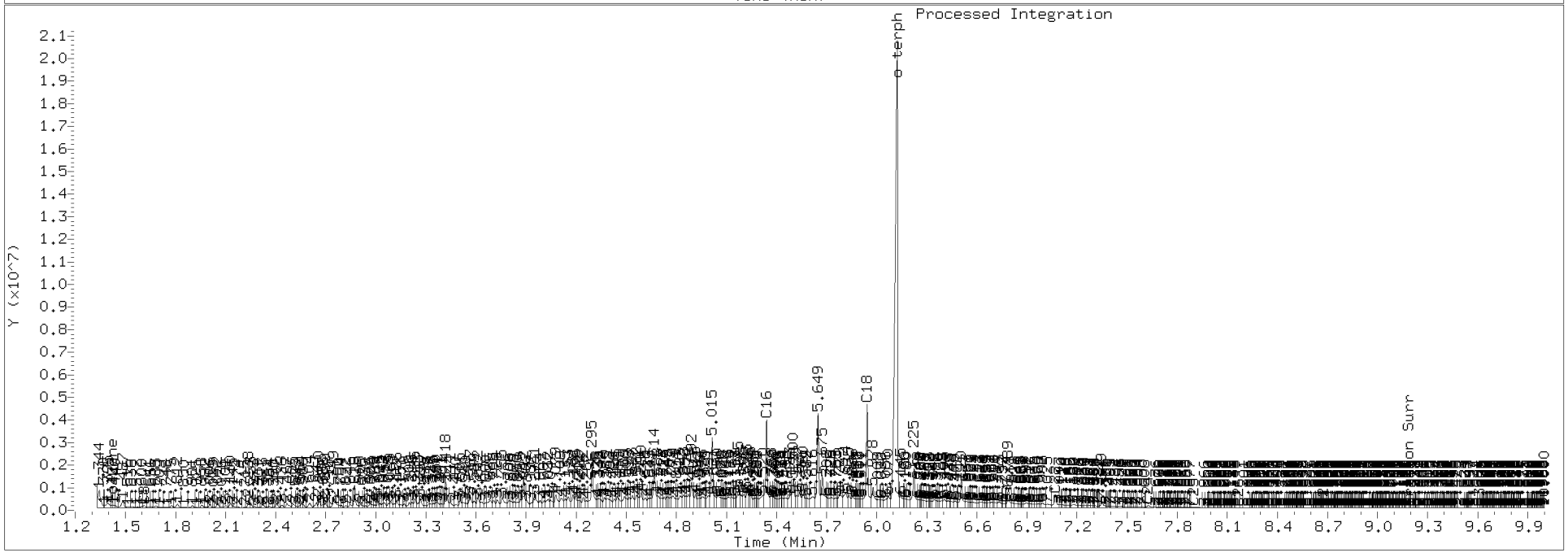


TPH Manual Integrations Report

Datafile: FID4A,  20210420.b/421D2029.D  Injection: 21-APR-2021 23:31

Lab ID:SEQ-CCV1



# CONTINUING CALIBRATION CHECK
## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | FID4 | Calibration: | ED00037 |
| Lab File ID: | 421D2821.D | Calibration Date: | 04/13/2021 |
| Sequence: | SJD0413 | Injection Date: | 04/28/21 |
| Lab Sample ID: | SJD0413-CCV1 | Injection Time: | 21:26 |
| Sequence Name: | DIESEL CCV | | |

| | | CONC. (mg/L) | | RESPONSE FACTOR (RF) | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN | CCV | LIMIT |
| Diesel Range Organics (C12-C24) | A | 500.00 | 495 | 182831.3 | 181162.5 | | -0.9 | +/-15 |
| o-Terphenyl | A | 90.000 | 84.3 | 249011.4 | 233175.8 | | -6.3 | +/-15 |

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210428.b\421D2821.D

Page 1

Date : 28-APR-2021 21:26

Client ID:

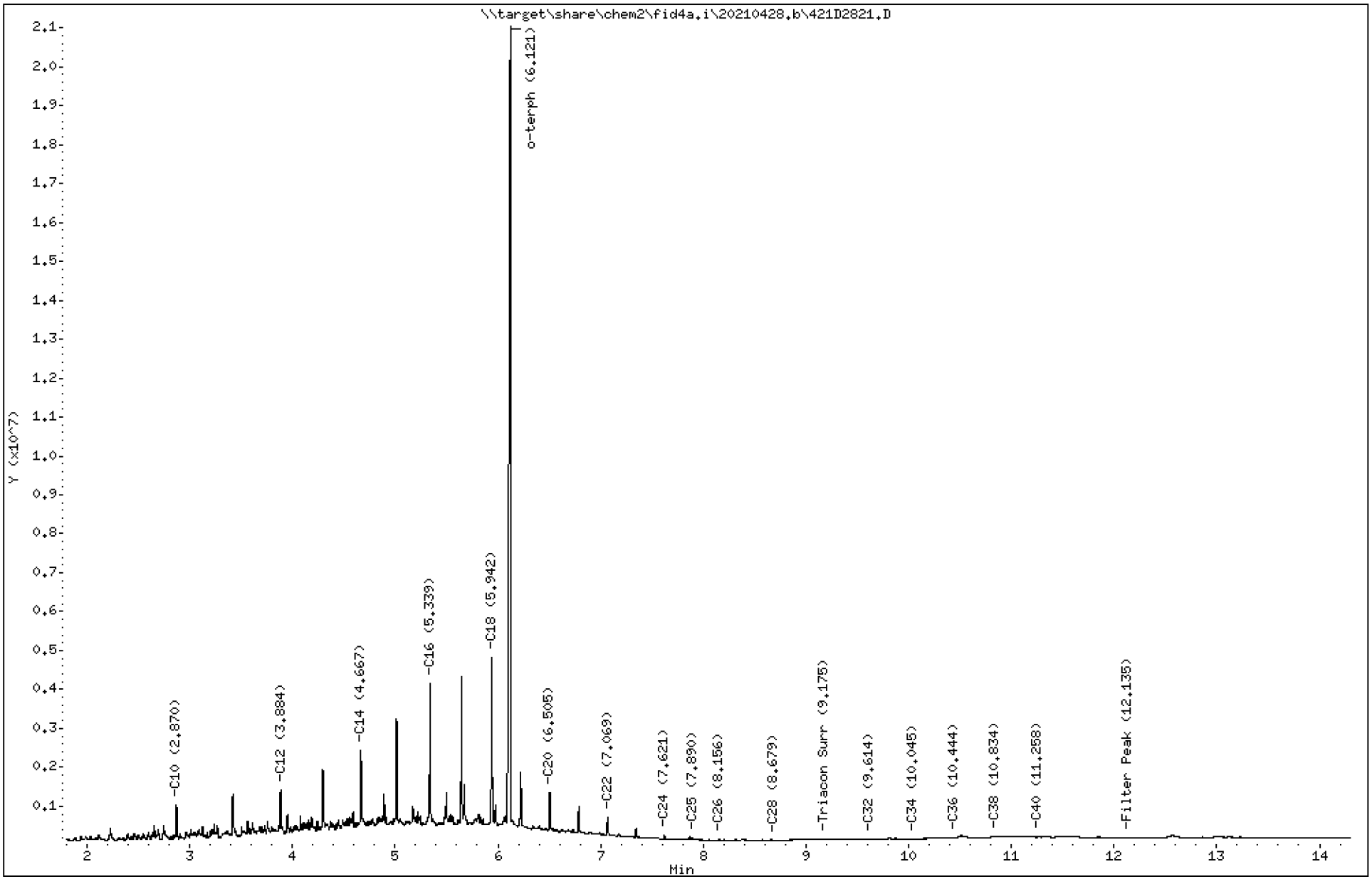
Instrument: fid4a.i

Sample Info: SEQ-CCV1

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25

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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210428.b/421D2821.D
Method: 20210428.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/29/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-CCV1
Client ID:
Injection: 28-APR-2021 21:26
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Method | Range | Total Area | Conc(mg/L) |
|---|---|---|---|---|---|---|---|---|
| C8 | 1.570 | -0.012 | 41613 | 71612 | WATPHD | (C12-C24) | 90581239 | 495.4 |
| C10 | 2.870 | -0.005 | 910094 | 718151 | WATPHM | (C24-C38) | 7385315 | 56.2 |
| C12 | 3.884 | -0.003 | 1282446 | 1000406 | AK102 | (C10-C25) | 106047812 | 492.3 |
| C14 | 4.667 | -0.002 | 2331655 | 1919020 | AK103 | (C25-C36) | 4781678 | 47.3 |
| C16 | 5.339 | -0.001 | 4046877 | 2956957 | OR.DIES | (C10-C28) | 106991838 | 545.9 |
| C18 | 5.942 | -0.000 | 4721139 | 3749354 | | | | |
| C20 | 6.505 | -0.005 | 1231466 | 1342083 | JET-A | (C10-C18) | 81806861 | 557.8 |
| C22 | 7.069 | -0.006 | 582078 | 615127 | | | | |
| C24 | 7.621 | -0.006 | 137485 | 230714 | | | | |
| C25 | 7.890 | -0.010 | 63200 | 85217 | | | | |
| C26 | 8.156 | -0.007 | 30009 | 46143 | | | | |
| C28 | 8.679 | 0.005 | 15242 | 7993 | | | | |
| C32 | 9.614 | 0.000 | 36958 | 11011 | | | | |
| C34 | 10.045 | 0.002 | 45340 | 13567 | | | | |
| Filter Peak | 12.135 | -0.004 | 83048 | 45565 | BUNKERC | (C10-C38) | 113128161 | 2520.0 |
| C36 | 10.444 | -0.009 | 65591 | 51795 | | | | |
| C38 | 10.834 | -0.008 | 97944 | 160642 | | | | |
| C40 | 11.258 | 0.008 | 88628 | 52597 | | | | |
| o-terph | 6.121 | 0.001 | 20458126 | 20985821 | | | | |
| Triacon Surr | 9.175 | -0.006 | 25064 | 6246 | NAS DIES | (C10-C24) | 105742846 | 541.9 |

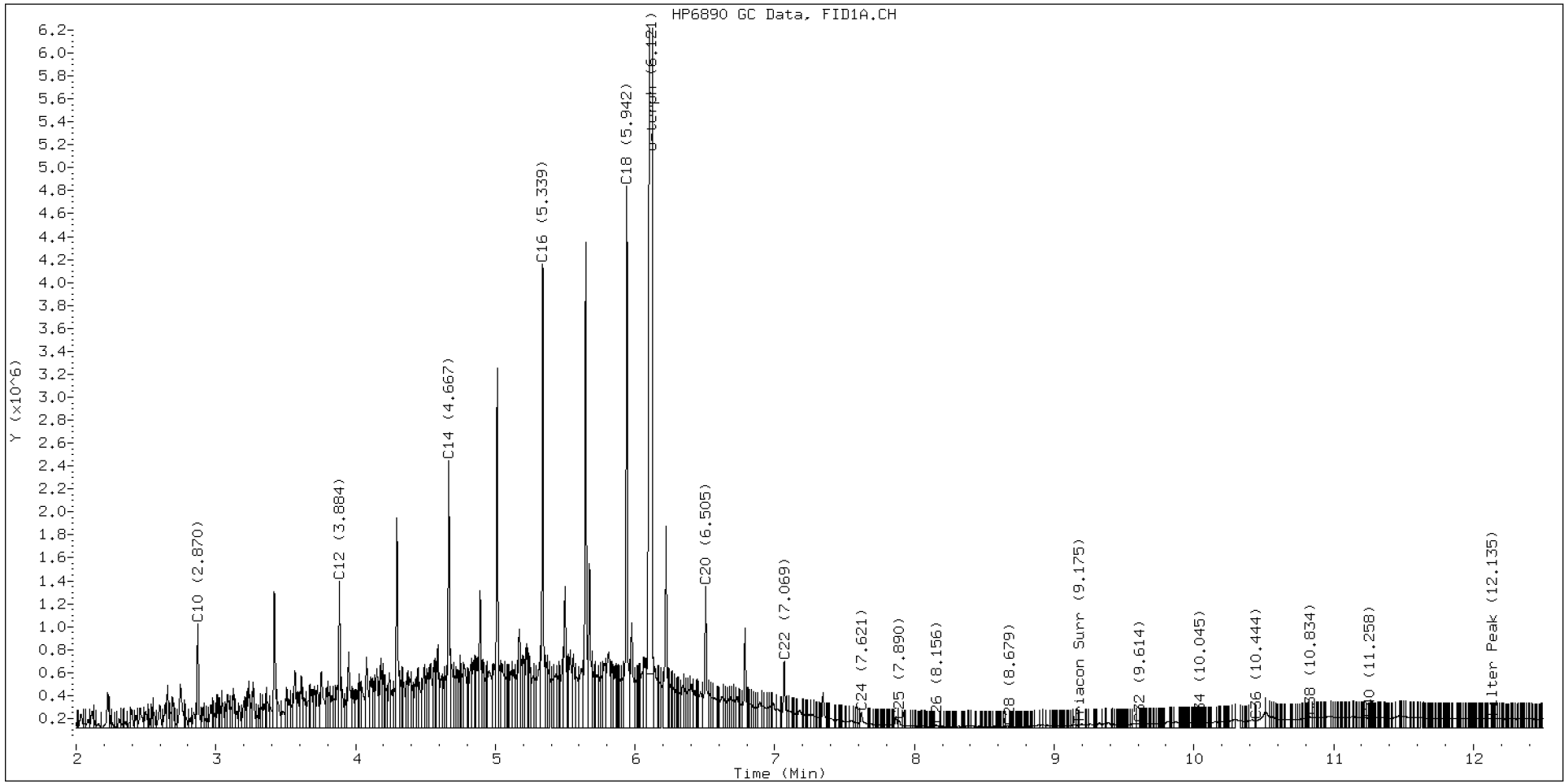
Range Times: NW Diesel(3.887 - 7.627) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.67)

| Surrogate | Area | Amount | |
|---|---|---|---|
| o-Terphenyl | 20985821 | 84.3 | M |
| Triacontane | 6246 | 0.0 | |

M Indicates the peak was manually integrated

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 249011.3 | 25-OCT-2019 |
| Triacon Surr | 211827.9 | 25-OCT-2019 |
| Gas | 15000.0 | XX-XXX-XXXX |
| Diesel | 182831.3 | 14-APR-2021 |
| Motor Oil | 131440.7 | 14-APR-2021 |
| AK102 | 215421.2 | 14-APR-2021 |
| AK103 | 101056.3 | 14-APR-2021 |
| JetA | 146652.4 | 20-MAY-2020 |
| OR Diesel | 195999.1 | 25-OCT-2019 |
| NAS Diesel | 195148.2 | 25-OCT-2019 |
| Bunker C | 44892.5 | 21-APR-2021 |

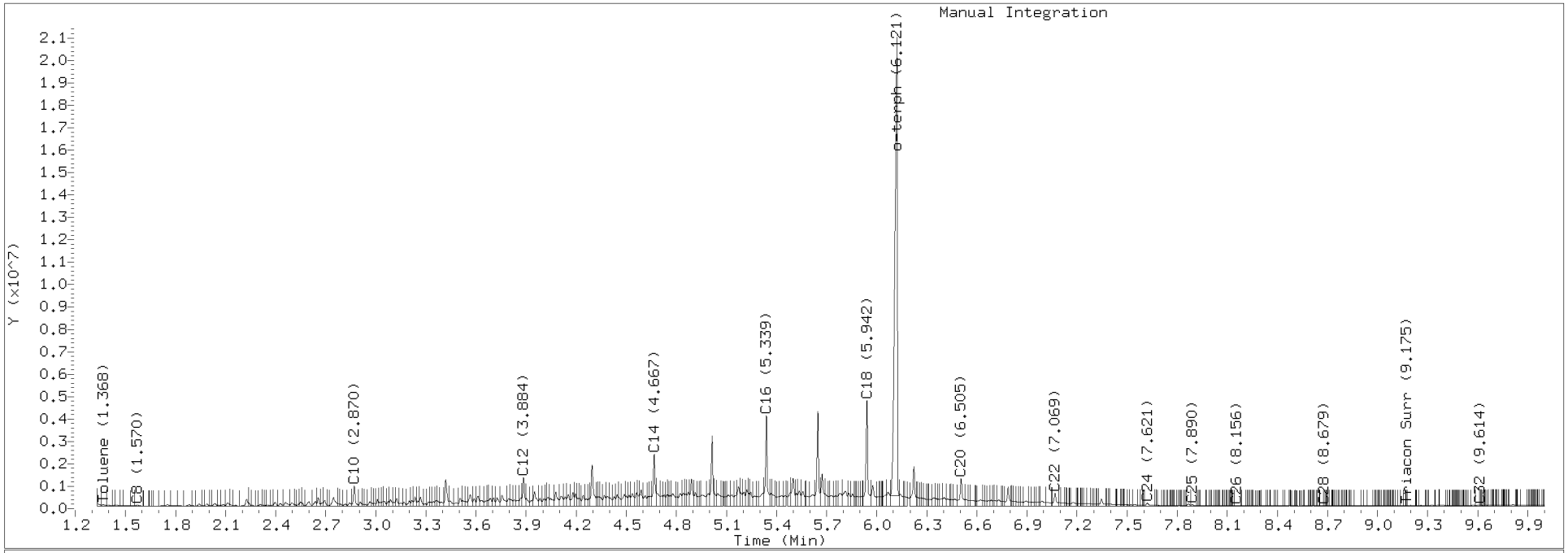
Datafile: FID4A, 20210428.b/421D2821.D SEQ-CCV1

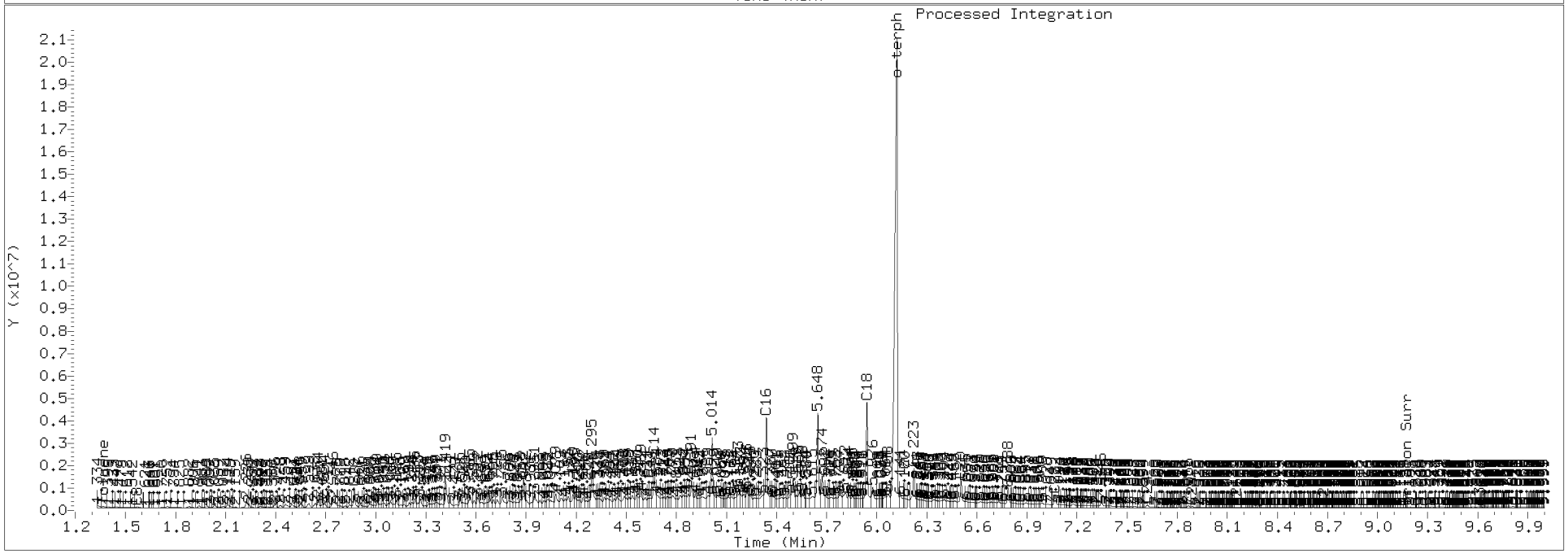


TPH Manual Integrations Report

Datafile: FID4A, 20210428.b/421D2821.D Injection: 28-APR-2021 21:26

Lab ID:SEQ-CCV1



# CONTINUING CALIBRATION CHECK

## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | FID4 | Calibration: | ED00037 |
| Lab File ID: | 421D2822.D | Calibration Date: | 04/13/2021 |
| Sequence: | SJD0413 | Injection Date: | 04/28/21 |
| Lab Sample ID: | SJD0413-CCV2 | Injection Time: | 21:47 |
| Sequence Name: | MOIL CCV | | |

| | | CONC. (mg/L) | | RESPONSE FACTOR (RF) | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN | CCV | LIMIT |
| Motor Oil Range Organics (C24-C38) | A | 1000.0 | 1070 | 131440.7 | 140410.1 | | 6.8 | +/-15 |

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210428.b\421D2822.D



Date : 28-APR-2021 21:47

Client ID:

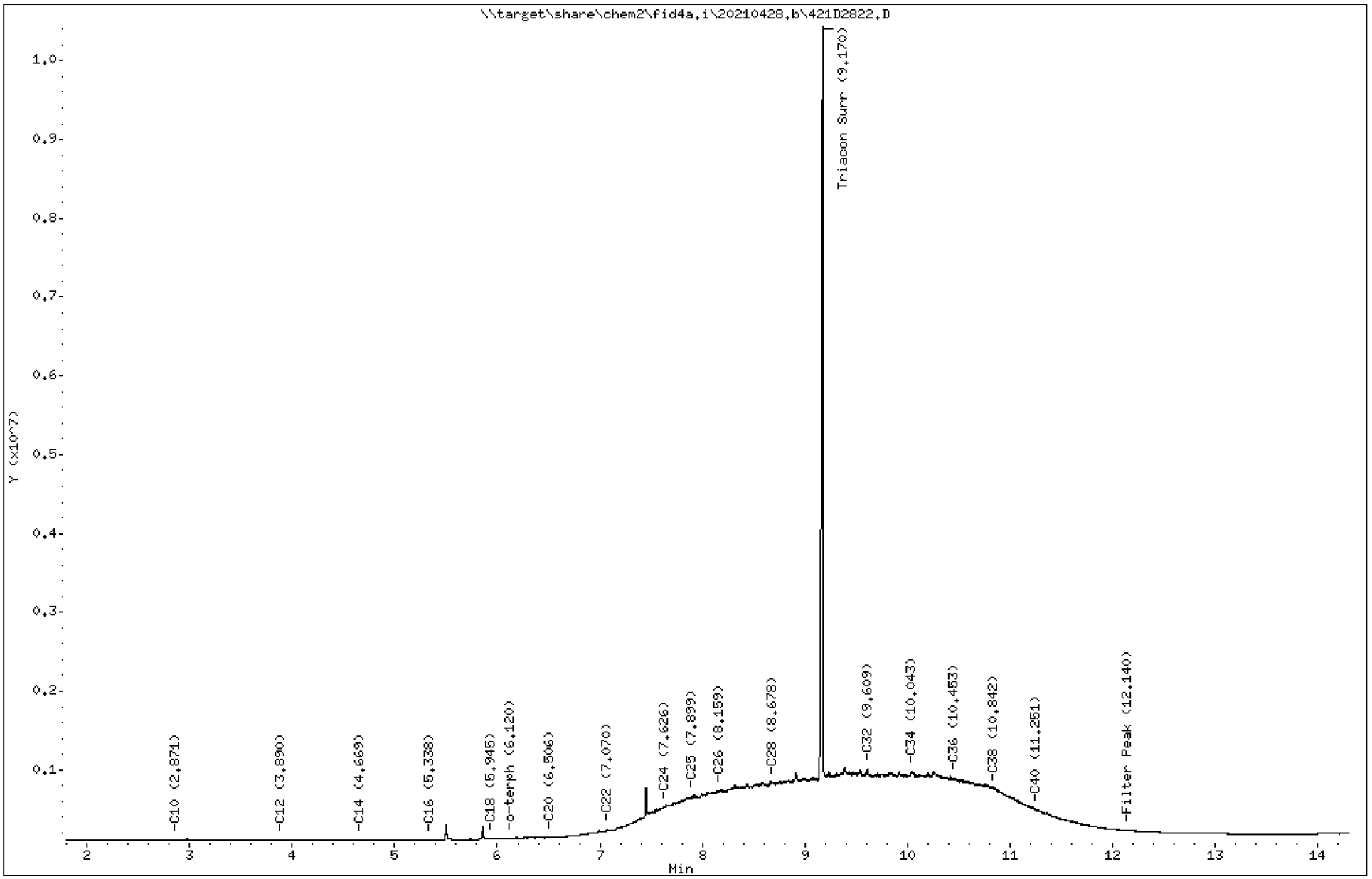
Instrument: fid4a.i

Sample Info: SEQ-CCV2

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25

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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210428.b/421D2822.D
Method: 20210428.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/29/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-CCV2
Client ID:
Injection: 28-APR-2021 21:47
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Method | Range | Total Area | Conc(mg/L) |
|---|---|---|---|---|---|---|---|---|
| C8 | 1.582 | -0.000 | 7264 | 2153 | WATPHD | (C12-C24) | 13277218 | 72.6 |
| C10 | 2.871 | -0.004 | 4980 | 5063 | WATPHM | (C24-C38) | 140410077 | 1068.2 |
| C12 | 3.890 | 0.002 | 1376 | 260 | AK102 | (C10-C25) | 18671831 | 86.7 |
| C14 | 4.669 | -0.000 | 3595 | 1940 | AK103 | (C25-C36) | 118910109 | 1176.7 |
| C16 | 5.338 | -0.003 | 5204 | 3329 | OR.DIES | (C10-C28) | 51882718 | 264.7 |
| C18 | 5.945 | 0.002 | 11209 | 16844 | | | | |
| C20 | 6.506 | -0.004 | 34292 | 27986 | JET-A | (C10-C18) | 937223 | 6.4 |
| C22 | 7.070 | -0.005 | 137491 | 187278 | | | | |
| C24 | 7.626 | -0.001 | 411211 | 81914 | | | | |
| C25 | 7.899 | -0.001 | 552083 | 326643 | | | | |
| C26 | 8.159 | -0.004 | 618619 | 274729 | | | | |
| C28 | 8.678 | 0.004 | 729051 | 253689 | | | | |
| C32 | 9.609 | -0.004 | 899592 | 1235247 | | | | |
| C34 | 10.043 | -0.000 | 862893 | 598352 | | | | |
| Filter Peak | 12.140 | 0.001 | 121794 | 60048 | BUNKERC | (C10-C38) | 153814579 | 3426.3 |
| C36 | 10.453 | 0.001 | 781007 | 310534 | | | | |
| C38 | 10.842 | 0.001 | 645894 | 128845 | | | | |
| C40 | 11.251 | 0.001 | 379524 | 112959 | | | | |
| o-terph | 6.120 | 0.001 | 14241 | 7772 | | | | |
| Triacon Surr | 9.170 | -0.011 | 9557431 | 9436645 | NAS DIES | (C10-C24) | 13404502 | 68.7 |

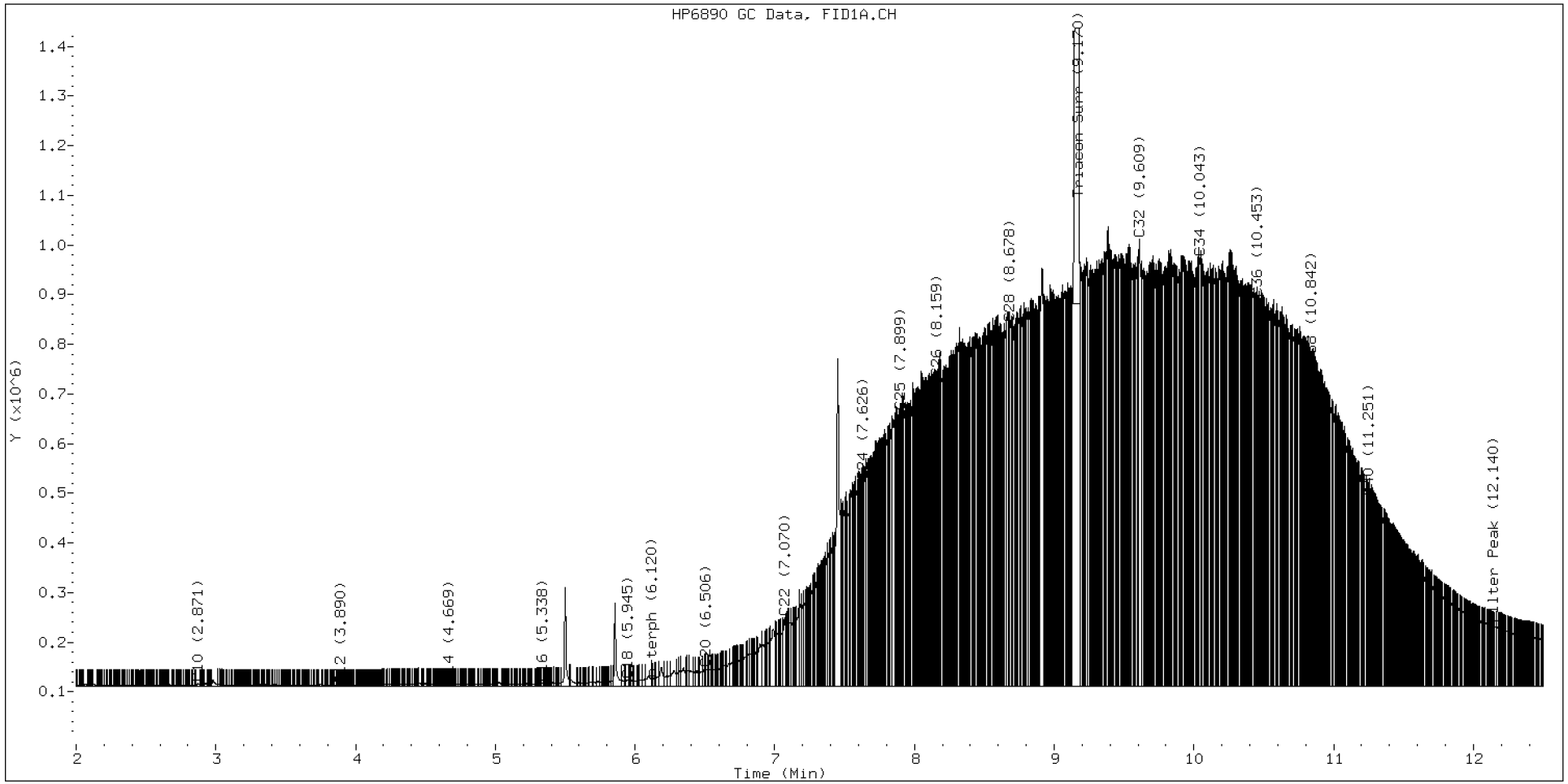
Range Times: NW Diesel(3.887 - 7.627) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.67)

| Surrogate | Area | Amount | |
|---|---|---|---|
| o-Terphenyl | 7772 | 0.0 | |
| Triacontane | 9436645 | 44.5 | M |

M Indicates the peak was manually integrated

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 249011.3 | 25-OCT-2019 |
| Triacon Surr | 211827.9 | 25-OCT-2019 |
| Gas | 15000.0 | XX-XXX-XXXX |
| Diesel | 182831.3 | 14-APR-2021 |
| Motor Oil | 131440.7 | 14-APR-2021 |
| AK102 | 215421.2 | 14-APR-2021 |
| AK103 | 101056.3 | 14-APR-2021 |
| JetA | 146652.4 | 20-MAY-2020 |
| OR Diesel | 195999.1 | 25-OCT-2019 |
| NAS Diesel | 195148.2 | 25-OCT-2019 |
| Bunker C | 44892.5 | 21-APR-2021 |

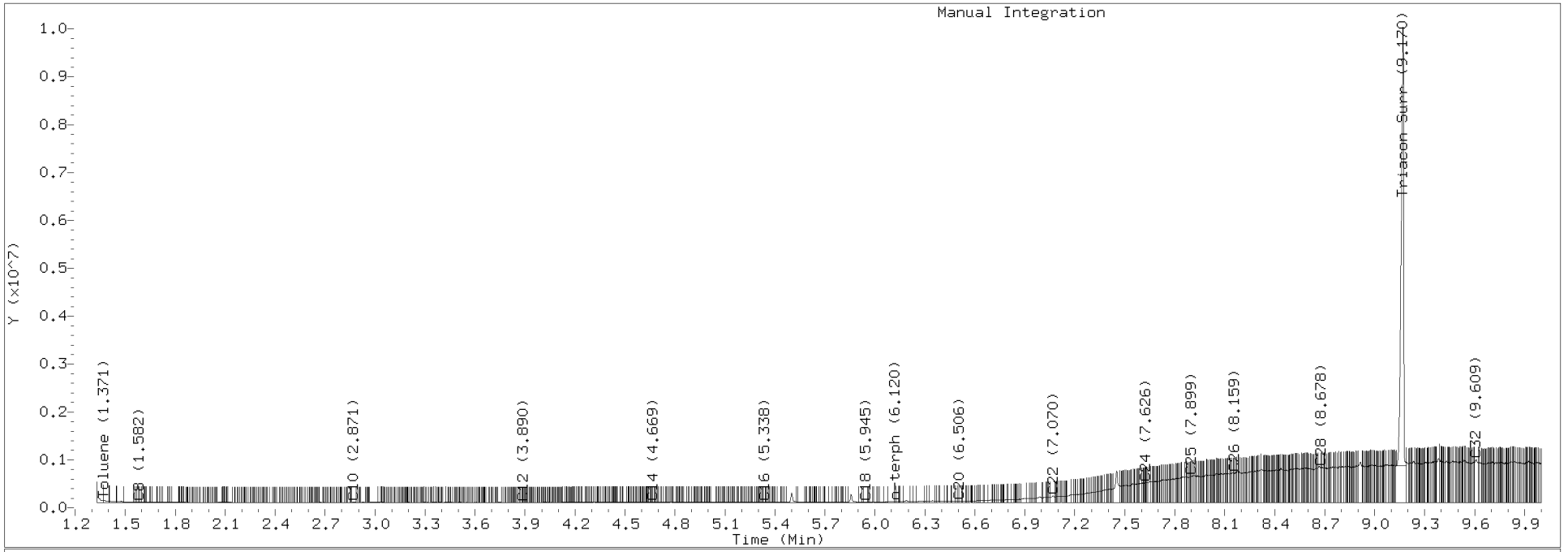
Datafile: FID4A, 20210428.b/421D2822.D SEQ-CCV2

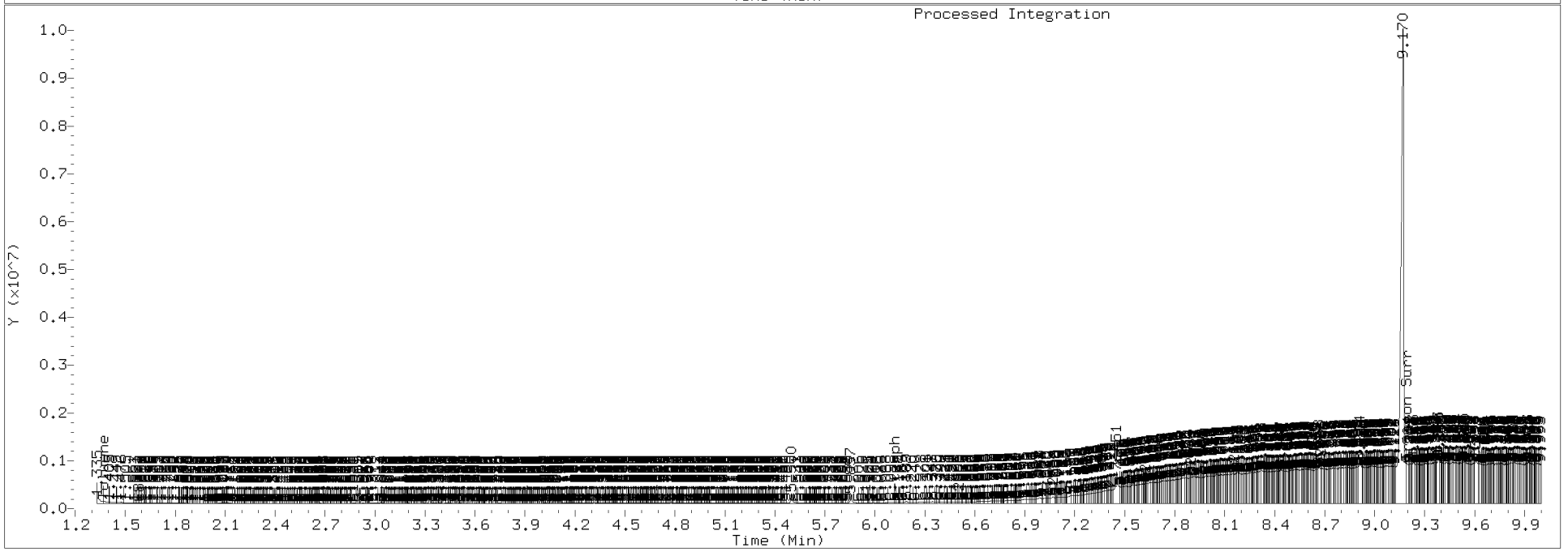


TPH Manual Integrations Report

Datafile: FID4A, 20210428.b/421D2822.D Injection: 28-APR-2021 21:47

Lab ID:SEQ-CCV2



# CONTINUING CALIBRATION CHECK
## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | FID4 | Calibration: | ED00037 |
| Lab File ID: | 421D2833.D | Calibration Date: | 04/13/2021 |
| Sequence: | SJD0413 | Injection Date: | 04/29/21 |
| Lab Sample ID: | SJD0413-CCV3 | Injection Time: | 01:38 |
| Sequence Name: | DIESEL CCV | | |

| | | CONC. (mg/L) | | RESPONSE FACTOR (RF) | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN | CCV | LIMIT |
| Diesel Range Organics (C12-C24) | A | 500.00 | 500 | 182831.3 | 182749.9 | | -0.04 | +/-15 |
| o-Terphenyl | A | 90.000 | 84.7 | 249011.4 | 234217 | | -5.9 | +/-15 |

* Values outside of QC limits

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210428.b\421D2833.D



Date : 29-APR-2021 01:38

Client ID:

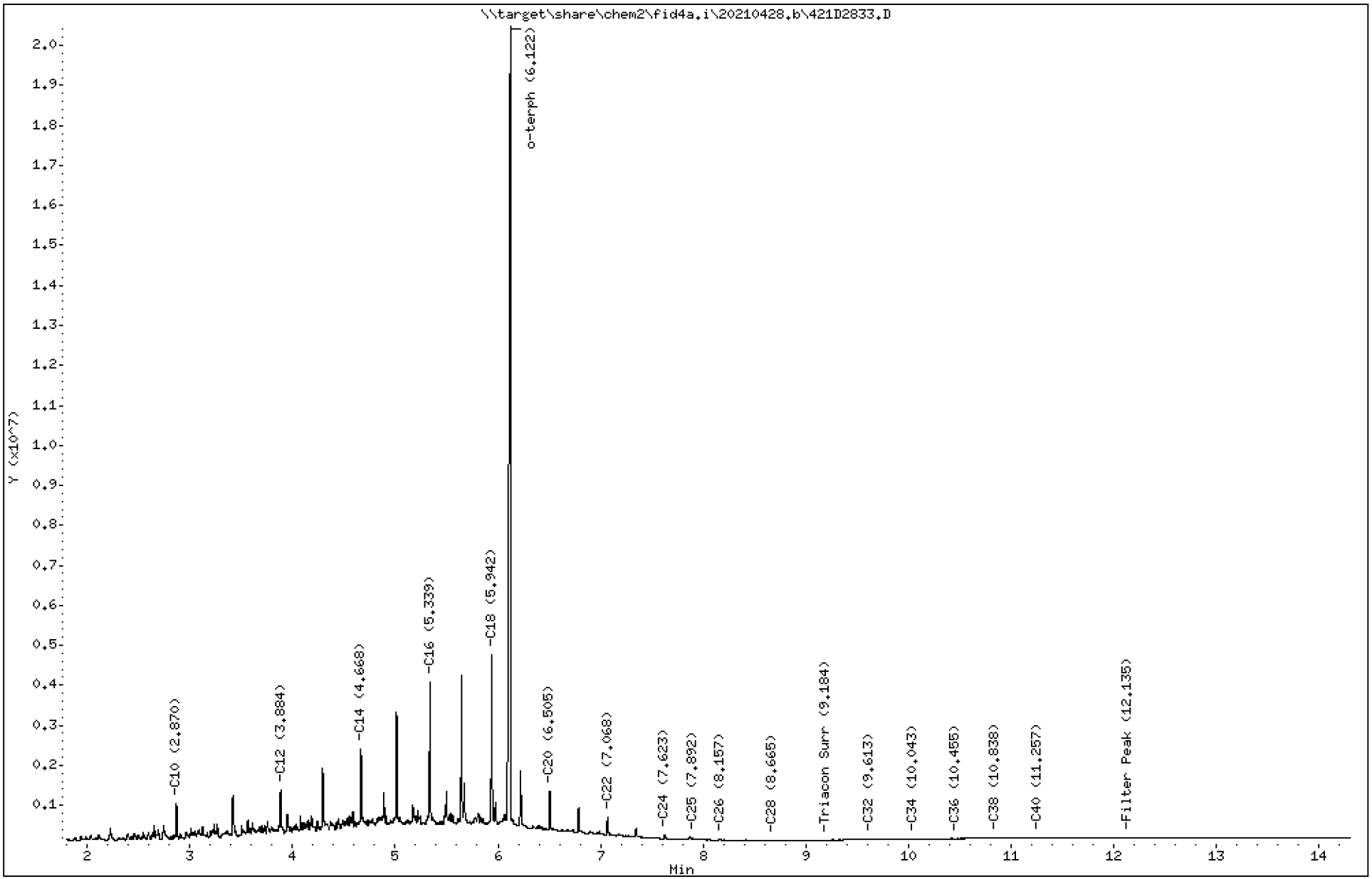
Instrument: fid4a.i

Sample Info: SEQ-CCV3

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25

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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210428.b/421D2833.D
Method: 20210428.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/29/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-CCV3
Client ID:
Injection: 29-APR-2021 01:38
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Method | Range | Total Area | Conc(mg/L) |
|---|---|---|---|---|---|---|---|---|
| C8 | 1.573 | -0.009 | 40828 | 72760 | WATPHD | (C12-C24) | 91374949 | 499.8 |
| C10 | 2.870 | -0.006 | 916473 | 726073 | WATPHM | (C24-C38) | 5145742 | 39.1 |
| C12 | 3.884 | -0.003 | 1264561 | 991952 | AK102 | (C10-C25) | 106984525 | 496.6 |
| C14 | 4.668 | -0.001 | 2281908 | 1935370 | AK103 | (C25-C36) | 3399466 | 33.6 |
| C16 | 5.339 | -0.001 | 3968421 | 3005423 | OR.DIES | (C10-C28) | 107846197 | 550.2 |
| C18 | 5.942 | -0.001 | 4639901 | 3748467 | | | | |
| C20 | 6.505 | -0.006 | 1231402 | 1378397 | JET-A | (C10-C18) | 82669398 | 563.7 |
| C22 | 7.068 | -0.007 | 568685 | 679241 | | | | |
| C24 | 7.623 | -0.005 | 131872 | 244958 | | | | |
| C25 | 7.892 | -0.008 | 61722 | 104934 | | | | |
| C26 | 8.157 | -0.006 | 26110 | 36291 | | | | |
| C28 | 8.665 | -0.009 | 12817 | 14815 | | | | |
| C32 | 9.613 | 0.000 | 21763 | 6486 | | | | |
| C34 | 10.043 | -0.001 | 32321 | 11225 | | | | |
| Filter Peak | 12.135 | -0.004 | 72821 | 74595 | BUNKERC | (C10-C38) | 111831769 | 2491.1 |
| C36 | 10.455 | 0.003 | 49340 | 12312 | | | | |
| C38 | 10.838 | -0.003 | 69406 | 34506 | | | | |
| C40 | 11.257 | 0.007 | 73161 | 43713 | | | | |
| o-terph | 6.122 | 0.002 | 19867741 | 21079534 | | | | |
| Triacon Surr | 9.184 | 0.003 | 14076 | 8307 | NAS DIES | (C10-C24) | 106686027 | 546.7 |

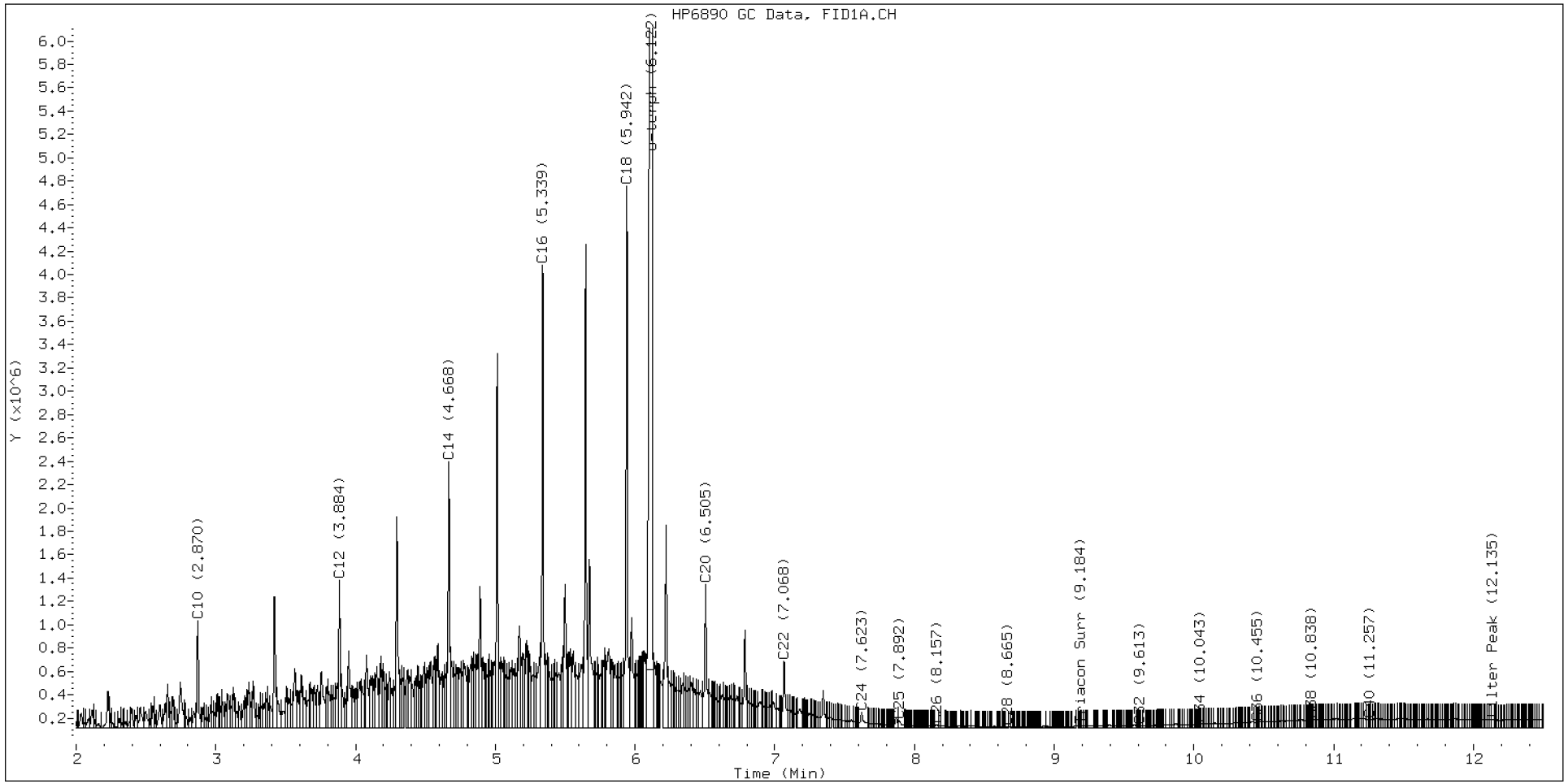
Range Times: NW Diesel(3.887 - 7.627) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.67)

| Surrogate | Area | Amount | |
|---|---|---|---|
| o-Terphenyl | 21079534 | 84.7 | M |
| Triacontane | 8307 | 0.0 | |

M Indicates the peak was manually integrated

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 249011.3 | 25-OCT-2019 |
| Triacon Surr | 211827.9 | 25-OCT-2019 |
| Gas | 15000.0 | XX-XXX-XXXX |
| Diesel | 182831.3 | 14-APR-2021 |
| Motor Oil | 131440.7 | 14-APR-2021 |
| AK102 | 215421.2 | 14-APR-2021 |
| AK103 | 101056.3 | 14-APR-2021 |
| JetA | 146652.4 | 20-MAY-2020 |
| OR Diesel | 195999.1 | 25-OCT-2019 |
| NAS Diesel | 195148.2 | 25-OCT-2019 |
| Bunker C | 44892.5 | 21-APR-2021 |

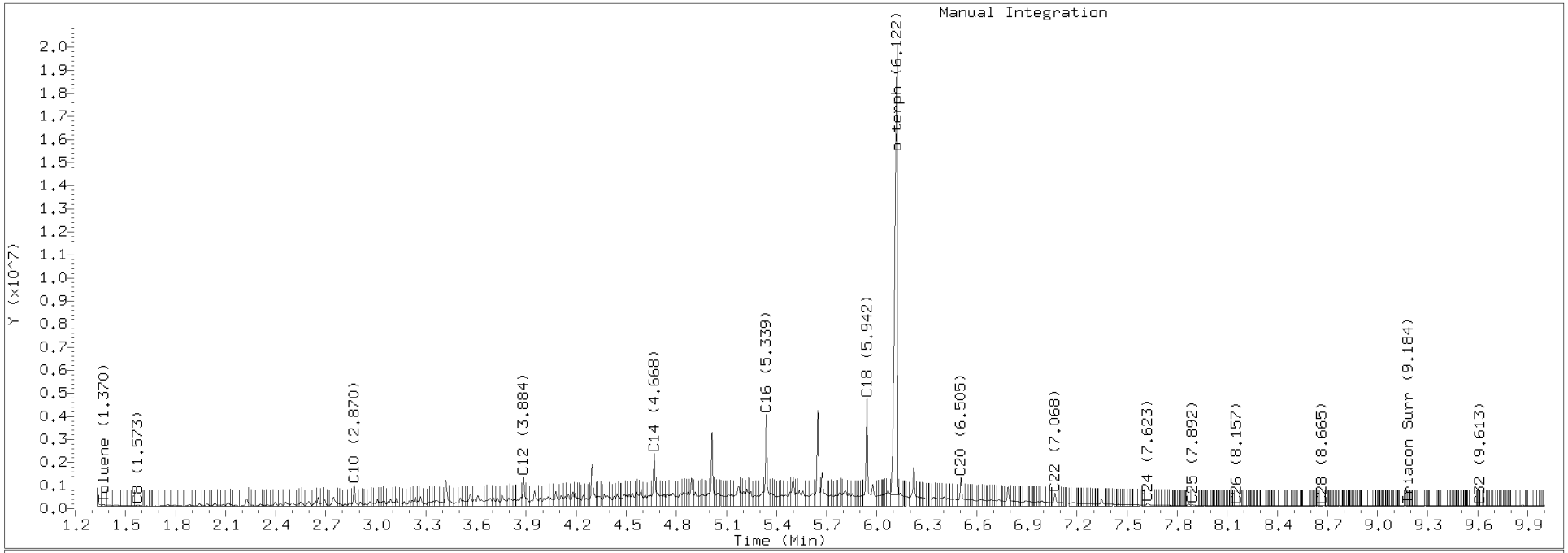
Datafile: FID4A,  20210428.b/421D2833.D  SEQ-CCV3

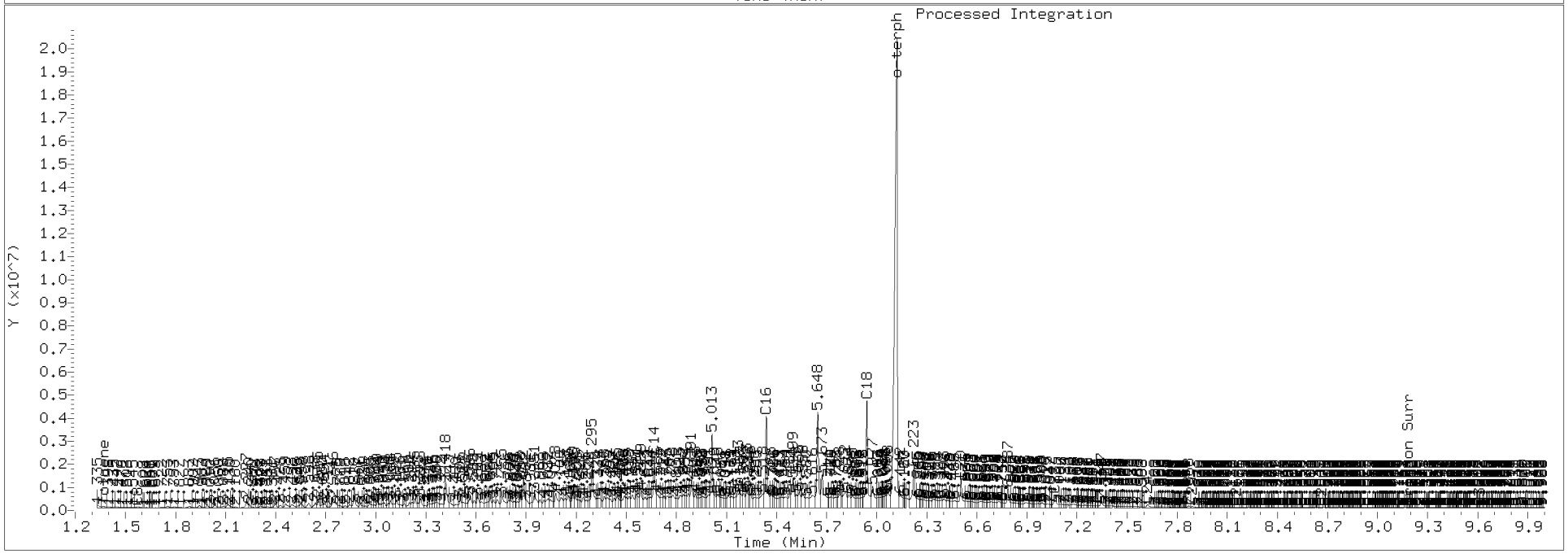


TPH Manual Integrations Report

Datafile: FID4A, 20210428.b/421D2833.D Injection: 29-APR-2021 01:38

Lab ID:SEQ-CCV3



# CONTINUING CALIBRATION CHECK
## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Instrument ID: | FID4 | Calibration: | ED00037 |
| Lab File ID: | 421D2834.D | Calibration Date: | 04/13/2021 |
| Sequence: | SJD0413 | Injection Date: | 04/29/21 |
| Lab Sample ID: | SJD0413-CCV4 | Injection Time: | 01:59 |
| Sequence Name: | MOIL CCV | | |

| | | CONC. (mg/L) | | RESPONSE FACTOR (RF) | | | % DRIFT/DIFF | |
|---|---|---|---|---|---|---|---|---|
| COMPOUND | TYPE | STD | CCV | ICAL | CCV | MIN | CCV | LIMIT |
| Motor Oil Range Organics (C24-C38) | A | 1000.0 | 1030 | 131440.7 | 135716.4 | | 3.3 | +/-15 |

* Values outside of QC limits

Data File: \\target\share\chem2\fid4a.i\20210428.b\421D2834.D



Date : 29-APR-2021 01:59

Client ID:

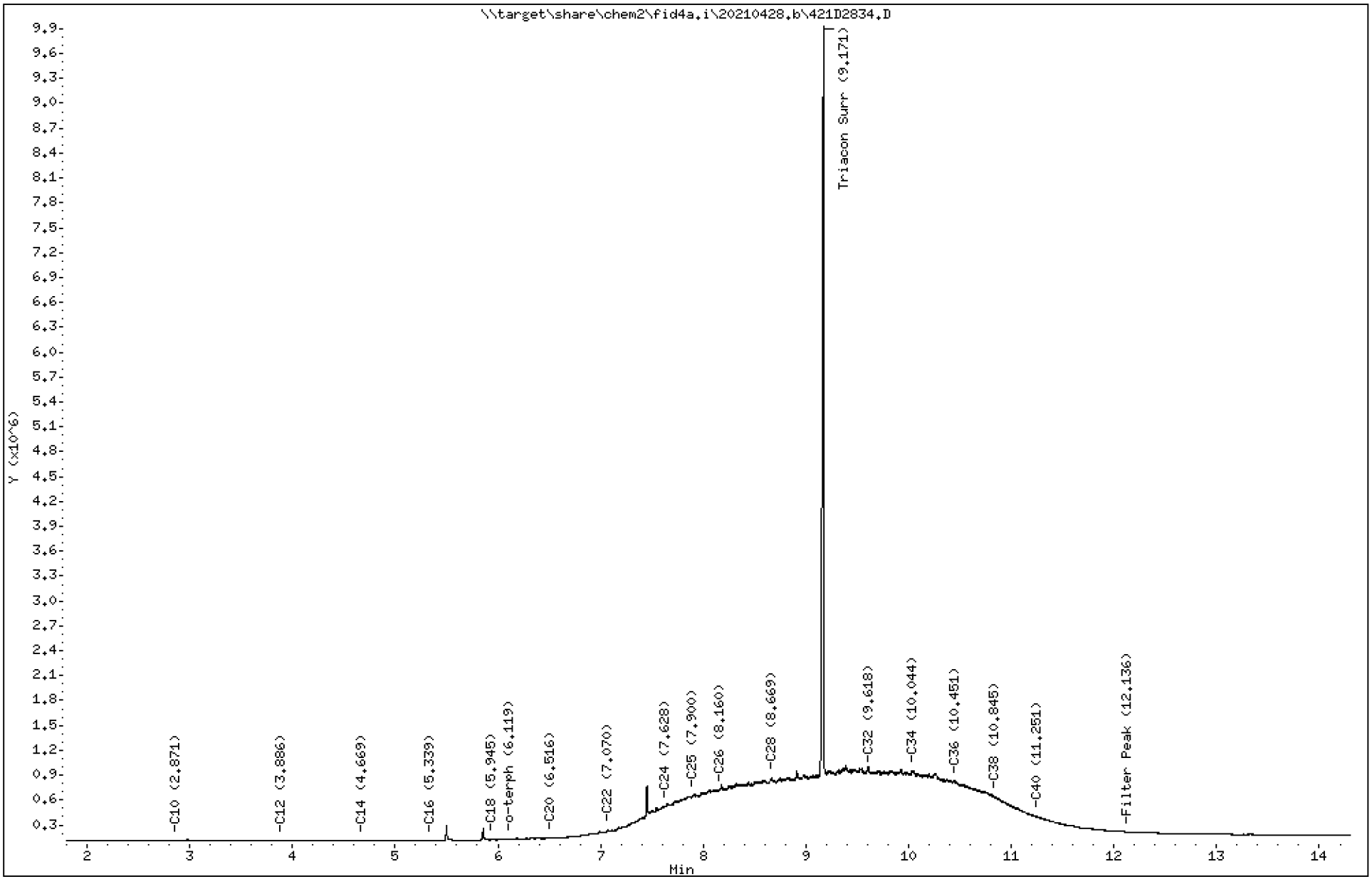
Instrument: fid4a.i

Sample Info: SEQ-CCV4

Operator: CTO

Column phase: RTX-1

Column diameter: 0.25

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Analytical Resources Inc.
TPH Quantitation Report

Data file: 20210428.b/421D2834.D
Method: 20210428.b\FID4TPH.m
Instrument: fid4a.i, CTO
Report Date: 04/29/2021
Macro: 09-SEP-2019
Calibration Dates: Gas:XX-XXX-XXXX Diesel:14-APR-2021 M.Oil:14-APR-2021

ARI ID: SEQ-CCV4
Client ID:
Injection: 29-APR-2021 01:59
Dilution Factor: 1
RT Std: 419H1603.D

FID:4A RESULTS

| Compound | RT | Shift | Height | Area | Method | Range | Total Area | Conc(mg/L) |
|---|---|---|---|---|---|---|---|---|
| C8 | 1.586 | 0.003 | 7964 | 2749 | WATPHD | (C12-C24) | 12953749 | 70.9 |
| C10 | 2.871 | -0.004 | 4775 | 5124 | WATPHM | (C24-C38) | 135716422 | 1032.5 |
| C12 | 3.886 | -0.001 | 1349 | 322 | AK102 | (C10-C25) | 18222377 | 84.6 |
| C14 | 4.669 | 0.000 | 3261 | 1434 | AK103 | (C25-C36) | 116872554 | 1156.5 |
| C16 | 5.339 | -0.002 | 4462 | 1534 | OR.DIES | (C10-C28) | 51456598 | 262.5 |
| C18 | 5.945 | 0.003 | 10289 | 8363 | | | | |
| C20 | 6.516 | 0.005 | 30026 | 8951 | JET-A | (C10-C18) | 823154 | 5.6 |
| C22 | 7.070 | -0.005 | 134447 | 162893 | | | | |
| C24 | 7.628 | 0.001 | 415835 | 206391 | | | | |
| C25 | 7.900 | 0.000 | 549673 | 482446 | | | | |
| C26 | 8.160 | -0.003 | 607052 | 151345 | | | | |
| C28 | 8.669 | -0.005 | 754567 | 514737 | | | | |
| C32 | 9.618 | 0.005 | 834885 | 289582 | | | | |
| C34 | 10.044 | 0.001 | 836747 | 208622 | | | | |
| Filter Peak | 12.136 | -0.003 | 103201 | 46140 | BUNKERC | (C10-C38) | 148781934 | 3314.2 |
| C36 | 10.451 | -0.001 | 712934 | 211421 | | | | |
| C38 | 10.845 | 0.003 | 529079 | 310483 | | | | |
| C40 | 11.251 | 0.002 | 288377 | 184030 | | | | |
| o-terph | 6.119 | -0.001 | 12250 | 3636 | | | | |
| Triacon Surr | 9.171 | -0.010 | 9036088 | 9497984 | NAS DIES | (C10-C24) | 13065512 | 67.0 |

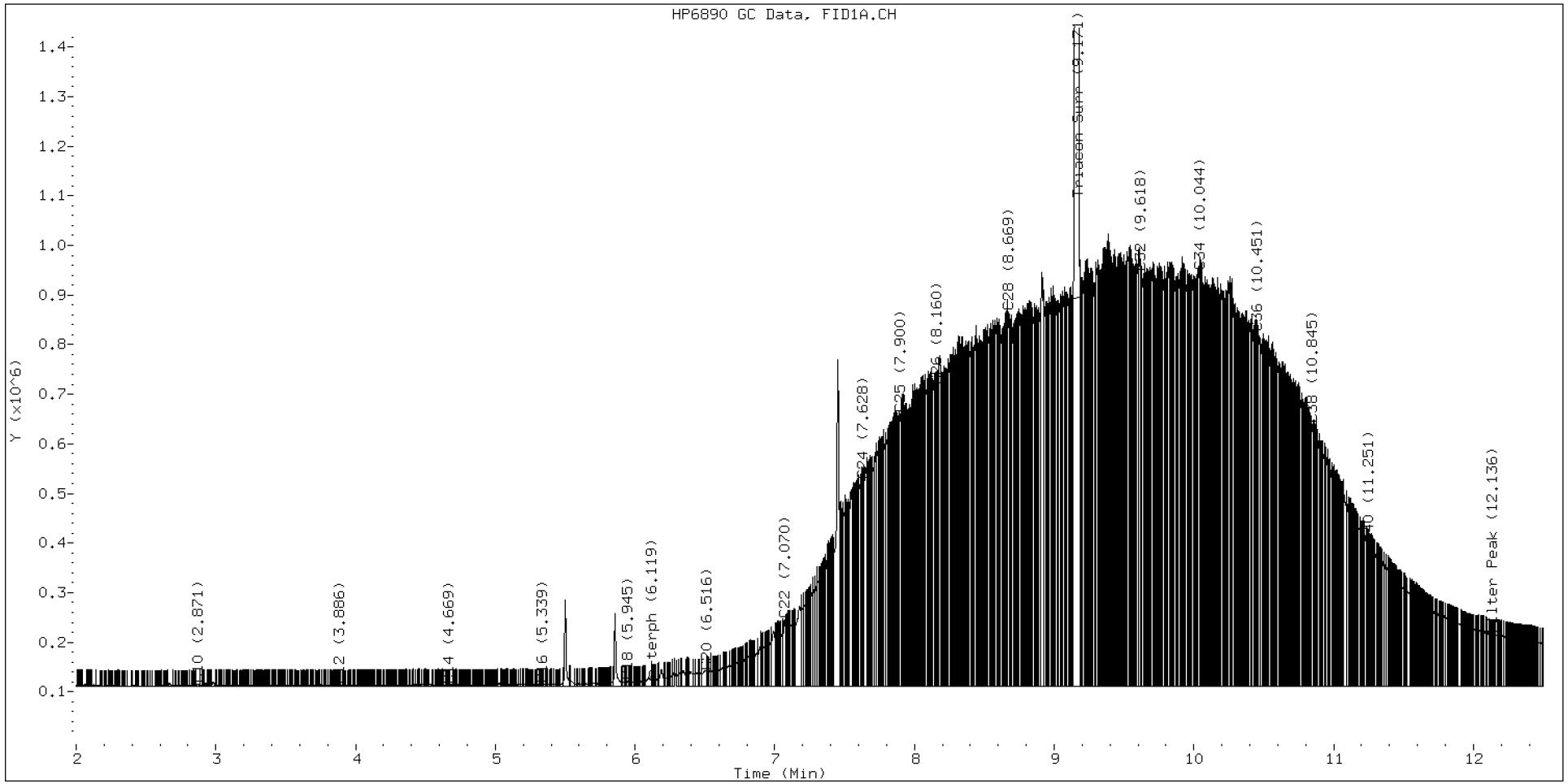
Range Times: NW Diesel(3.887 - 7.627) AK102(2.88 - 7.90) Jet A(2.88 - 5.94)
NW M.Oil(7.63 - 10.84) AK103(7.90 - 10.45) OR Diesel(2.88 - 8.67)

| Surrogate | Area | Amount | |
|---|---|---|---|
| o-Terphenyl | 3636 | 0.0 | |
| Triacontane | 9497984 | 44.8 | M |

M Indicates the peak was manually integrated

| Analyte | RF | Curve Date |
|---|---|---|
| o-Terph Surr | 249011.3 | 25-OCT-2019 |
| Triacon Surr | 211827.9 | 25-OCT-2019 |
| Gas | 15000.0 | XX-XXX-XXXX |
| Diesel | 182831.3 | 14-APR-2021 |
| Motor Oil | 131440.7 | 14-APR-2021 |
| AK102 | 215421.2 | 14-APR-2021 |
| AK103 | 101056.3 | 14-APR-2021 |
| JetA | 146652.4 | 20-MAY-2020 |
| OR Diesel | 195999.1 | 25-OCT-2019 |
| NAS Diesel | 195148.2 | 25-OCT-2019 |
| Bunker C | 44892.5 | 21-APR-2021 |

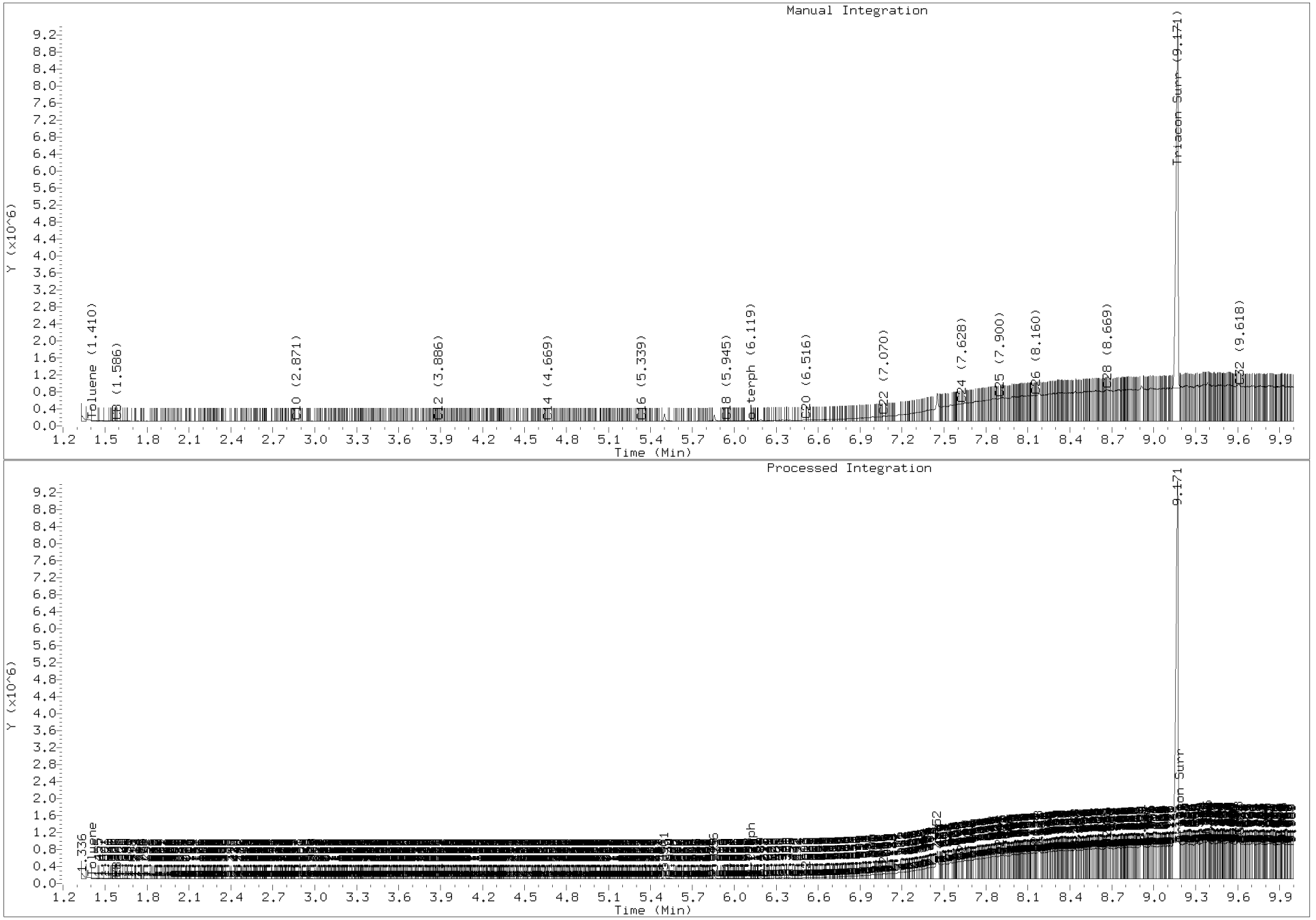
Datafile: FID4A, 20210428.b/421D2834.D SEQ-CCV4



TPH Manual Integrations Report

Datafile: FID4A, 20210428.b/421D2834.D Injection: 29-APR-2021 01:59

Lab ID:SEQ-CCV4



# ANALYSIS BATCH (SEQUENCE) SUMMARY

## NWTPH-Dx

Laboratory: Analytical Resources, Inc.
SDG: 21D0180
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Sequence: SJD0189
Instrument: FID4
Calibration: ED00037

| Sample Name | Lab Sample ID | Lab File ID | Matrix | Analysis Date/Time |
|---|---|---|---|---|
| Retention Time Standard | SJD0189-IBL1 | 421D1307.D | NA | 04/13/21 12:46 |
| Instrument Blank | SJD0189-IBL2 | 421D1308.D | NA | 04/13/21 13:07 |
| DIESEL 50 | SJD0189-CAL1 | 421D1309.D | NA | 04/13/21 13:29 |
| DIESEL 100 | SJD0189-CAL2 | 421D1310.D | NA | 04/13/21 13:50 |
| DIESEL 250 | SJD0189-CAL3 | 421D1311.D | NA | 04/13/21 14:11 |
| DIESEL 500 | SJD0189-CAL4 | 421D1312.D | NA | 04/13/21 14:33 |
| DIESEL 1000 | SJD0189-CAL5 | 421D1313.D | NA | 04/13/21 14:54 |
| DIESEL 2500 | SJD0189-CAL6 | 421D1314.D | NA | 04/13/21 15:16 |
| DIESEL SCV | SJD0189-SCV1 | 421D1315.D | NA | 04/13/21 15:37 |
| MOIL 100 | SJD0189-CAL7 | 421D1316.D | NA | 04/13/21 15:59 |
| MOIL 250 | SJD0189-CAL8 | 421D1317.D | NA | 04/13/21 16:20 |
| MOIL 500 | SJD0189-CAL9 | 421D1318.D | NA | 04/13/21 16:42 |
| MOIL 1000 | SJD0189-CALA | 421D1319.D | NA | 04/13/21 17:03 |
| MOIL 2500 | SJD0189-CALB | 421D1320.D | NA | 04/13/21 17:24 |
| MOIL 5000 | SJD0189-CALC | 421D1321.D | NA | 04/13/21 17:46 |
| MOIL SCV | SJD0189-SCV2 | 421D1322.D | NA | 04/13/21 18:07 |
| AK103 100 | SJD0189-CALD | 421D1323.D | NA | 04/13/21 18:28 |
| AK103 250 | SJD0189-CALE | 421D1324.D | NA | 04/13/21 18:50 |
| AK103 500 | SJD0189-CALF | 421D1325.D | NA | 04/13/21 19:11 |
| AK103 1000 | SJD0189-CALG | 421D1326.D | NA | 04/13/21 19:32 |
| AK103 2500 | SJD0189-CALH | 421D1327.D | NA | 04/13/21 19:53 |
| AK103 5000 | SJD0189-CALI | 421D1328.D | NA | 04/13/21 20:14 |

# ANALYSIS BATCH (SEQUENCE) SUMMARY

## NWTPH-Dx

Laboratory: Analytical Resources, Inc.
SDG: 21D0180
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Sequence: SJD0260
Instrument: FID4
Calibration: ED00037

| Sample Name | Lab Sample ID | Lab File ID | Matrix | Analysis Date/Time |
|---|---|---|---|---|
| Retention Time Standard | SJD0260-IBL1 | 421D1553.D | NA | 04/16/21 03:34 |
| Instrument Blank | SJD0260-IBL2 | 421D1554.D | NA | 04/16/21 03:55 |
| A/S CREOSOTE 100 | SJD0260-CAL1 | 421D1555.D | NA | 04/16/21 04:16 |
| A/S CREOSOTE 250 | SJD0260-CAL2 | 421D1556.D | NA | 04/16/21 04:37 |
| A/S CREOSOTE 500 | SJD0260-CAL3 | 421D1557.D | NA | 04/16/21 04:57 |
| A/S CREOSOTE 1000 | SJD0260-CAL4 | 421D1558.D | NA | 04/16/21 05:18 |
| A/S CREOSOTE 2500 | SJD0260-CAL5 | 421D1559.D | NA | 04/16/21 05:39 |
| A/S CREOSOTE 5000 | SJD0260-CAL6 | 421D1560.D | NA | 04/16/21 06:00 |
| DIESEL ICV | SJD0260-ICV1 | 421D1561.D | NA | 04/16/21 06:21 |
| MOIL ICV | SJD0260-ICV2 | 421D1562.D | NA | 04/16/21 06:42 |
| A/S Creosote ICV | SJD0260-ICV3 | 421D1563.D | NA | 04/16/21 07:03 |
| ZZZZZ | BJC0355-BLK1 | 421D1564.D | Water | 04/16/21 07:24 |
| ZZZZZ | BJC0355-BS1 | 421D1565.D | Water | 04/16/21 07:45 |
| ZZZZZ | BJC0355-BSD1 | 421D1566.D | Water | 04/16/21 08:06 |
| ZZZZZ | 21C0181-02RE1 | 421D1567.D | Water | 04/16/21 08:27 |
| ZZZZZ | 21C0181-03RE1 | 421D1568.D | Water | 04/16/21 08:48 |
| ZZZZZ | 21C0181-04RE1 | 421D1569.D | Water | 04/16/21 09:09 |
| ZZZZZ | 21C0181-05RE1 | 421D1570.D | Water | 04/16/21 09:30 |
| ZZZZZ | 21C0181-06RE1 | 421D1571.D | Water | 04/16/21 09:51 |
| ZZZZZ | 21C0181-07RE1 | 421D1572.D | Water | 04/16/21 10:12 |
| ZZZZZ | 21C0181-08RE1 | 421D1573.D | Water | 04/16/21 10:33 |
| ZZZZZ | 21C0181-09RE1 | 421D1574.D | Water | 04/16/21 10:54 |
| ZZZZZ | 21C0181-10RE1 | 421D1575.D | Water | 04/16/21 11:15 |
| ZZZZZ | 21C0181-11RE2 | 421D1576.D | Water | 04/16/21 11:36 |
| DIESEL CCV | SJD0260-CCV1 | 421D1577.D | NA | 04/16/21 11:57 |
| MOIL CCV | SJD0260-CCV2 | 421D1578.D | NA | 04/16/21 12:18 |
| A/S CRESOTE CCV | SJD0260-CCV3 | 421D1579.D | NA | 04/16/21 12:39 |
| ZZZZZ | 21C0181-12RE1 | 421D1580.D | Water | 04/16/21 13:00 |
| ZZZZZ | 21C0181-13RE1 | 421D1581.D | Water | 04/16/21 13:21 |
| ZZZZZ | 21C0181-14RE1 | 421D1582.D | Water | 04/16/21 13:42 |

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# ANALYSIS BATCH (SEQUENCE) SUMMARY

## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SJD0260 | Instrument: | FID4 |
| | | Calibration: | ED00037 |

| Sample Name | Lab Sample ID | Lab File ID | Matrix | Analysis Date/Time |
|---|---|---|---|---|
| ZZZZZ | 21C0181-15RE2 | 421D1584.D | Water | 04/16/21 14:24 |
| ZZZZZ | 21C0181-16RE1 | 421D1585.D | Water | 04/16/21 14:45 |
| DIESEL CCV | SJD0260-CCV4 | 421D1586.D | NA | 04/16/21 15:06 |
| MOIL CCV | SJD0260-CCV5 | 421D1587.D | NA | 04/16/21 15:28 |
| A/S CRESOTE CCV | SJD0260-CCV6 | 421D1588.D | NA | 04/16/21 15:49 |

# ANALYSIS BATCH (SEQUENCE) SUMMARY

## NWTPH-Dx

Laboratory: Analytical Resources, Inc.
Client: Anchor QEA, LLC
Sequence: SJD0282

SDG: 21D0180
Project: Gasco Siltronic - US Moorings
Instrument: FID4
Calibration: ED00037

| Sample Name | Lab Sample ID | Lab File ID | Matrix | Analysis Date/Time |
|---|---|---|---|---|
| Retention Time Standard | SJD0282-IBL1 | 421D2003.D | NA | 04/20/21 14:16 |
| Instrument Blank | SJD0282-IBL2 | 421D2004.D | NA | 04/20/21 14:38 |
| A/S LAI BUNKER C 100 | SJD0282-CAL1 | 421D2005.D | NA | 04/20/21 14:59 |
| A/S LAI BUNKER C 250 | SJD0282-CAL2 | 421D2006.D | NA | 04/20/21 15:21 |
| A/S LAI BUNKER C 500 | SJD0282-CAL3 | 421D2007.D | NA | 04/20/21 15:42 |
| A/S LAI BUNKER C 1000 | SJD0282-CAL4 | 421D2008.D | NA | 04/20/21 16:04 |
| A/S LAI BUNKER C 2500 | SJD0282-CAL5 | 421D2009.D | NA | 04/20/21 16:25 |
| A/S LAI BUNKER C 5000 | SJD0282-CAL6 | 421D2010.D | NA | 04/20/21 16:47 |
| DIESEL ICV | SJD0282-ICV1 | 421D2011.D | NA | 04/20/21 17:08 |
| MOIL ICV | SJD0282-ICV2 | 421D2012.D | NA | 04/20/21 17:30 |
| A/S BUNKER C | SJD0282-ICV3 | 421D2013.D | NA | 04/20/21 17:51 |
| ZZZZZ | BJC0848-BLK1 | 421D2014.D | Water | 04/20/21 18:13 |
| ZZZZZ | BJC0848-BS1 | 421D2015.D | Water | 04/20/21 18:34 |
| ZZZZZ | BJC0848-BSD1 | 421D2016.D | Water | 04/20/21 18:55 |
| ZZZZZ | 21C0428-01 | 421D2017.D | Water | 04/20/21 19:17 |
| ZZZZZ | 21C0428-02 | 421D2020.D | Water | 04/20/21 20:21 |
| ZZZZZ | 21C0428-03 | 421D2021.D | Water | 04/20/21 20:42 |
| ZZZZZ | 21C0428-04 | 421D2022.D | Water | 04/20/21 21:03 |
| ZZZZZ | 21C0428-05 | 421D2023.D | Water | 04/20/21 21:24 |
| ZZZZZ | 21C0428-06 | 421D2024.D | Water | 04/20/21 21:45 |
| ZZZZZ | 21C0428-07 | 421D2025.D | Water | 04/20/21 22:07 |
| ZZZZZ | 21C0428-08 | 421D2026.D | Water | 04/20/21 22:28 |
| ZZZZZ | 21C0428-09 | 421D2027.D | Water | 04/20/21 22:49 |
| A/S BUNKER C | SJD0282-CCV3 | 421D2031.D | NA | 04/21/21 00:13 |
| ZZZZZ | 21C0428-11 | 421D2032.D | Water | 04/21/21 00:34 |
| ZZZZZ | 21C0428-12 | 421D2033.D | Water | 04/21/21 00:55 |
| ZZZZZ | 21C0428-13 | 421D2034.D | Water | 04/21/21 01:16 |
| ZZZZZ | BJD0124-BLK1 | 421D2035.D | Water | 04/21/21 01:37 |
| ZZZZZ | BJD0124-BS1 | 421D2036.D | Water | 04/21/21 01:58 |
| ZZZZZ | 21D0041-01 | 421D2037.D | Water | 04/21/21 02:19 |

# ANALYSIS BATCH (SEQUENCE) SUMMARY

## NWTPH-Dx

Laboratory: Analytical Resources, Inc.
Client: Anchor QEA, LLC
Sequence: SJD0282

SDG: 21D0180
Project: Gasco Siltronic - US Moorings
Instrument: FID4
Calibration: ED00037

| Sample Name | Lab Sample ID | Lab File ID | Matrix | Analysis Date/Time |
|---|---|---|---|---|
| ZZZZZ | 21D0041-03 | 421D2038.D | Water | 04/21/21 02:40 |
| ZZZZZ | 21D0041-05 | 421D2039.D | Water | 04/21/21 03:01 |
| ZZZZZ | 21D0041-07 | 421D2040.D | Water | 04/21/21 03:22 |
| ZZZZZ | 21D0041-09 | 421D2041.D | Water | 04/21/21 03:43 |
| ZZZZZ | 21D0041-11 | 421D2042.D | Water | 04/21/21 04:04 |
| DIESEL CCV | SJD0282-CCV4 | 421D2043.D | NA | 04/21/21 04:25 |
| MOIL CCV | SJD0282-CCV5 | 421D2044.D | NA | 04/21/21 04:46 |
| A/S BUNKER C | SJD0282-CCV6 | 421D2045.D | NA | 04/21/21 05:07 |
| ZZZZZ | BJD0328-BLK1 | 421D2046.D | Water | 04/21/21 05:28 |
| ZZZZZ | BJD0328-BS1 | 421D2047.D | Water | 04/21/21 05:49 |
| ZZZZZ | BJD0328-BSD1 | 421D2048.D | Water | 04/21/21 06:10 |
| ZZZZZ | 21D0104-01 | 421D2049.D | Water | 04/21/21 06:31 |
| ZZZZZ | 21D0104-02 | 421D2050.D | Water | 04/21/21 06:52 |
| ZZZZZ | 21D0104-03 | 421D2051.D | Water | 04/21/21 07:13 |
| ZZZZZ | 21D0104-04 | 421D2052.D | Water | 04/21/21 07:34 |
| ZZZZZ | 21D0104-05 | 421D2053.D | Water | 04/21/21 07:55 |
| ZZZZZ | 21D0104-06 | 421D2054.D | Water | 04/21/21 08:16 |
| ZZZZZ | 21D0104-07 | 421D2055.D | Water | 04/21/21 08:37 |
| ZZZZZ | 21D0104-08 | 421D2056.D | Water | 04/21/21 08:58 |
| ZZZZZ | 21D0116-01 | 421D2057.D | Water | 04/21/21 09:19 |
| DIESEL CCV | SJD0282-CCV7 | 421D2058.D | NA | 04/21/21 09:40 |
| MOIL CCV | SJD0282-CCV8 | 421D2059.D | NA | 04/21/21 10:01 |
| ZZZZZ | 21D0116-03 | 421D2060.D | Water | 04/21/21 10:22 |
| ZZZZZ | 21D0116-04 | 421D2061.D | Water | 04/21/21 10:43 |
| ZZZZZ | 21D0116-05 | 421D2062.D | Water | 04/21/21 11:04 |
| ZZZZZ | 21D0116-06 | 421D2063.D | Water | 04/21/21 11:25 |
| ZZZZZ | 21D0116-07 | 421D2064.D | Water | 04/21/21 11:46 |
| ZZZZZ | 21D0116-08 | 421D2065.D | Water | 04/21/21 12:07 |
| ZZZZZ | 21D0116-09 | 421D2066.D | Water | 04/21/21 12:28 |
| ZZZZZ | 21D0116-10 | 421D2067.D | Water | 04/21/21 12:50 |

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# ANALYSIS BATCH (SEQUENCE) SUMMARY

## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SJD0282 | Instrument: | FID4 |
| | | Calibration: | ED00037 |

| Sample Name | Lab Sample ID | Lab File ID | Matrix | Analysis Date/Time |
|---|---|---|---|---|
| ZZZZZ | 21D0116-11 | 421D2068.D | Water | 04/21/21 13:11 |
| DIESEL CCV | SJD0282-CCV9 | 421D2069.D | NA | 04/21/21 13:32 |
| MOIL CCV | SJD0282-CCVA | 421D2070.D | NA | 04/21/21 13:53 |
| ZZZZZ | 21C0428-10 | 421D2028.D | Water | 04/21/21 23:10 |
| DIESEL CCV | SJD0282-CCV1 | 421D2029.D | NA | 04/21/21 23:31 |
| MOIL CCV | SJD0282-CCV2 | 421D2030.D | NA | 04/21/21 23:52 |

# ANALYSIS BATCH (SEQUENCE) SUMMARY

## NWTPH-Dx

Laboratory: Analytical Resources, Inc.
Client: Anchor QEA, LLC
Sequence: SJD0413

SDG: 21D0180
Project: Gasco Siltronic - US Moorings
Instrument: FID4
Calibration: ED00037

| Sample Name | Lab Sample ID | Lab File ID | Matrix | Analysis Date/Time |
|---|---|---|---|---|
| Retention Time Standard | SJD0413-IBL1 | 421D2803.D | NA | 04/28/21 15:06 |
| Instrument Blank | SJD0413-IBL2 | 421D2804.D | NA | 04/28/21 15:27 |
| DIESEL ICV | SJD0413-ICV1 | 421D2805.D | NA | 04/28/21 15:48 |
| MOIL ICV | SJD0413-ICV2 | 421D2806.D | NA | 04/28/21 16:09 |
| Blank | BJD0478-BLK1 | 421D2807.D | Solid | 04/28/21 16:30 |
| LCS | BJD0478-BS1 | 421D2808.D | Solid | 04/28/21 16:51 |
| ZZZZZ | 21D0179-01 | 421D2809.D | Solid | 04/28/21 17:12 |
| ZZZZZ | 21D0179-02 | 421D2810.D | Solid | 04/28/21 17:33 |
| ZZZZZ | 21D0179-03 | 421D2811.D | Solid | 04/28/21 17:54 |
| ZZZZZ | 21D0179-04 | 421D2812.D | Solid | 04/28/21 18:15 |
| ZZZZZ | 21D0179-05 | 421D2815.D | Solid | 04/28/21 19:18 |
| ZZZZZ | 21D0179-06 | 421D2816.D | Solid | 04/28/21 19:40 |
| USMPDI-010SG-210414 | 21D0180-01 | 421D2817.D | Solid | 04/28/21 20:01 |
| USMPDI-015SG-210414 | 21D0180-02 | 421D2818.D | Solid | 04/28/21 20:22 |
| USMPDI-019SG-210414 | 21D0180-03 | 421D2819.D | Solid | 04/28/21 20:44 |
| USMPDI-029SG-210414 | 21D0180-04 | 421D2820.D | Solid | 04/28/21 21:05 |
| DIESEL CCV | SJD0413-CCV1 | 421D2821.D | NA | 04/28/21 21:26 |
| MOIL CCV | SJD0413-CCV2 | 421D2822.D | NA | 04/28/21 21:47 |
| ZZZZZ | 21D0215-05 | 421D2829.D | Solid | 04/29/21 00:14 |
| ZZZZZ | BJD0604-BLK1 | 421D2830.D | Solid | 04/29/21 00:35 |
| ZZZZZ | BJD0604-BS1 | 421D2831.D | Solid | 04/29/21 00:56 |
| ZZZZZ | 21D0209-18 | 421D2832.D | Solid | 04/29/21 01:17 |
| DIESEL CCV | SJD0413-CCV3 | 421D2833.D | NA | 04/29/21 01:38 |
| MOIL CCV | SJD0413-CCV4 | 421D2834.D | NA | 04/29/21 01:59 |
| ZZZZZ | 21D0215-01 | 421D2826.D | Solid | 04/29/21 23:11 |
| ZZZZZ | 21D0215-02 | 421D2827.D | Solid | 04/29/21 23:32 |
| ZZZZZ | 21D0215-03 | 421D2828.D | Solid | 04/29/21 23:53 |

# SURROGATE RECOVERY AND RT SUMMARY

## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG/WO: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SJD0260 | Instrument: | FID4 |
| Calibration: | ED00037 | Calibration Date: | 04/13/2021 |

| Surrogate Compound | Spike Level mg/L | % Recovery | Recovery Limits | RT | Calibration Mean RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **SJD0260-ICV1 (Water)** | | | Lab File ID: 421D1561.D | | | | Analyzed: 04/16/21 06:21 | |
| o-Terphenyl | 90.000 | 96.7 | 85 - 115 | 6.12 | 6.13 | -0.0100 | N/A | |
| **SJD0260-ICV3 (Water)** | | | Lab File ID: 421D1563.D | | | | Analyzed: 04/16/21 07:03 | |
| o-Terphenyl | 90.000 | 89.9 | 85 - 115 | 6.12 | 6.13 | -0.0100 | N/A | |
| **SJD0260-CCV1 (Water)** | | | Lab File ID: 421D1577.D | | | | Analyzed: 04/16/21 11:57 | |
| o-Terphenyl | 90.000 | 100 | 85 - 115 | 6.12 | 6.13 | -0.0100 | N/A | |

# SURROGATE RECOVERY AND RT SUMMARY

## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG/WO: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SJD0282 | Instrument: | FID4 |
| Calibration: | ED00037 | Calibration Date: | 04/13/2021 |

| Surrogate Compound | Spike Level mg/L | % Recovery | Recovery Limits | RT | Calibration Mean RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **SJD0282-ICV1 (Water)** | | | Lab File ID: 421D2011.D | | | | Analyzed: 04/20/21 17:08 | |
| o-Terphenyl | 90.000 | 101 | 85 - 115 | 6.12 | 6.13 | -0.0100 | N/A | |
| **SJD0282-ICV3 (Water)** | | | Lab File ID: 421D2013.D | | | | Analyzed: 04/20/21 17:51 | |
| o-Terphenyl | 45.000 | 93.1 | 85 - 115 | 6.11 | 6.13 | -0.0200 | N/A | |
| **SJD0282-CCV1 (Water)** | | | Lab File ID: 421D2029.D | | | | Analyzed: 04/21/21 23:31 | |
| o-Terphenyl | 90.000 | 94.2 | 85 - 115 | 6.12 | 6.13 | -0.0100 | N/A | |

# SURROGATE RECOVERY AND RT SUMMARY

## NWTPH-Dx

| | | | |
|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | SDG/WO: | 21D0180 |
| Client: | Anchor QEA, LLC | Project: | Gasco Siltronic - US Moorings |
| Sequence: | SJD0413 | Instrument: | FID4 |
| Calibration: | ED00037 | Calibration Date: | 04/20/2021 |

| Surrogate Compound | Spike Level mg/L | % Recovery | Recovery Limits | RT | Calibration Mean RT | RT Diff | RT Diff Limit | Q |
|---|---|---|---|---|---|---|---|---|
| **SJD0413-IBL1 (Solid)** | | | | Lab File ID: 421D2803.D | | | Analyzed: 04/28/21 15:06 | |
| o-Terphenyl | 100.00 | 78.5 | 50 - 150 | 6.12 | 6.13 | -0.0100 | N/A | |
| **SJD0413-IBL2 (Solid)** | | | | Lab File ID: 421D2804.D | | | Analyzed: 04/28/21 15:27 | |
| o-Terphenyl | 100.00 | 83.2 | 50 - 150 | 6.12 | 6.13 | -0.0100 | N/A | |
| **SJD0413-ICV1 (Solid)** | | | | Lab File ID: 421D2805.D | | | Analyzed: 04/28/21 15:48 | |
| o-Terphenyl | 90.000 | 93.8 | 85 - 115 | 6.12 | 6.13 | -0.0100 | N/A | |
| **BJD0478-BLK1 (Solid)** | | | | Lab File ID: 421D2807.D | | | Analyzed: 04/28/21 16:30 | |
| o-Terphenyl | 11.250 | 89.7 | 50 - 150 | 6.12 | 6.13 | -0.0100 | N/A | |
| **BJD0478-BS1 (Solid)** | | | | Lab File ID: 421D2808.D | | | Analyzed: 04/28/21 16:51 | |
| o-Terphenyl | 11.250 | 93.0 | 50 - 150 | 6.13 | 6.13 | 0.0000 | N/A | |
| **21D0180-01 (Solid)** | | | | Lab File ID: 421D2817.D | | | Analyzed: 04/28/21 20:01 | |
| o-Terphenyl | 24.078 | 84.4 | 50 - 150 | 6.12 | 6.13 | -0.0100 | N/A | |
| **21D0180-02 (Solid)** | | | | Lab File ID: 421D2818.D | | | Analyzed: 04/28/21 20:22 | |
| o-Terphenyl | 24.681 | 76.2 | 50 - 150 | 6.12 | 6.13 | -0.0100 | N/A | |
| **21D0180-03 (Solid)** | | | | Lab File ID: 421D2819.D | | | Analyzed: 04/28/21 20:44 | |
| o-Terphenyl | 24.093 | 74.6 | 50 - 150 | 6.12 | 6.13 | -0.0100 | N/A | |
| **21D0180-04 (Solid)** | | | | Lab File ID: 421D2820.D | | | Analyzed: 04/28/21 21:05 | |
| o-Terphenyl | 31.570 | 81.2 | 50 - 150 | 6.12 | 6.13 | -0.0100 | N/A | |
| **SJD0413-CCV1 (Solid)** | | | | Lab File ID: 421D2821.D | | | Analyzed: 04/28/21 21:26 | |
| o-Terphenyl | 90.000 | 93.7 | 85 - 115 | 6.12 | 6.13 | -0.0100 | N/A | |
| **SJD0413-CCV3 (Solid)** | | | | Lab File ID: 421D2833.D | | | Analyzed: 04/29/21 01:38 | |
| o-Terphenyl | 90.000 | 94.1 | 85 - 115 | 6.12 | 6.13 | -0.0100 | N/A | |

# HOLDING TIME SUMMARY

**Analysis: NWTPH-Dx**

Laboratory: Analytical Resources, Inc. SDG: 21D0180

Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| USMPDI-010SG-210414<br>21D0180-01 | 04/14/21<br>11:41 | 04/16/21<br>10:30 | 04/21/21<br>10:48 | 6 | 14 | 04/28/21<br>20:01 | 7 | 40 | |
| USMPDI-015SG-210414<br>21D0180-02 | 04/14/21<br>10:35 | 04/16/21<br>10:30 | 04/21/21<br>10:48 | 7 | 14 | 04/28/21<br>20:22 | 7 | 40 | |
| USMPDI-019SG-210414<br>21D0180-03 | 04/14/21<br>08:36 | 04/16/21<br>10:30 | 04/21/21<br>10:48 | 7 | 14 | 04/28/21<br>20:44 | 7 | 40 | |
| USMPDI-029SG-210414<br>21D0180-04 | 04/14/21<br>09:22 | 04/16/21<br>10:30 | 04/21/21<br>10:48 | 7 | 14 | 04/28/21<br>21:05 | 7 | 40 | |

* Indicates hold time exceedance.

# METHOD DETECTION AND REPORTING LIMITS

## NWTPH-Dx

Laboratory: Analytical Resources, Inc.
SDG: 21D0180
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Matrix: Solid
Instrument: FID4

| Analyte | MDL | RL | Units |
|---|---|---|---|
| Diesel Range Organics (C12-C24) | 2.34 | 5.00 | mg/kg |
| Motor Oil Range Organics (C24-C38) | 2.99 | 10.0 | mg/kg |

# METHOD DETECTION AND REPORTING LIMITS

## NWTPH-Dx

Laboratory: Analytical Resources, Inc.
SDG: 21D0180
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Matrix: Water
Instrument: FID4

| Analyte | MDL | RL | Units |
|---|---|---|---|
| Diesel Range Organics (C12-C24) | 0.033 | 0.100 | mg/L |
| Motor Oil Range Organics (C24-C38) | 0.056 | 0.200 | mg/L |

I-6884 - Chevron Motor Oil SAE30
I-6885 - Valvoline Motor Oil SAE30
I-6886 - Valvoline Motor Oil SAE 5W-30
I-6887 - Valvoline Motor Oil SAE 40
I-6888 - Mobil 1 Synthetic Motor Oil 10W30

5/13/11

5/13/11

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PHONE (417) 862-3333

STORE PHONE # 425 021-0080
REMIT TO: PO BOX 790098
ST LOUIS MO 63179-0090

BILL TO 999990

SHIP TO

INVOICE NUMBER 2508-248059
INVOICE TYPE CHG. CARD SALE
INVOICE DATE 5/13/11

CASH SALE
CHEVRON INJECTOR CLEANER
SAVE INSTANTLY
BUY 1 GET 1 FREE 00000

| COUNTER NO. | SPECIAL INSTRUCTIONS | SHIP VIA | CUSTOMER ORDER NO. | TIME OF ORDER | FILLED BY | CHECKED BY |
|---|---|---|---|---|---|---|
| 5 | | | | 09:09:50 | | |

| TAX | R C | QTY. | LINE | ITEM NUMBER | UNIT MEAS. | CD. | DESCRIPTION | LIST PRICE | NET PRICE | DISC % | CORE PRICE | EXTENDED PRICE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T | * | 1 | | CAS EDGE10 30 | EA | | 10tMotorOil | 14.77 | 5.99 | | | 5.99 |
| T | * | 1 | | CAS EDGE10 30 | EA | | 10tMotorOil | 14.77 | 5.99 | | | 5.99 |
| T | * | 1 | | MOB 1-10-30 | EA | | 10tSynthcOil | 13.99 | 8.19 | | | 8.19 |
| T | * | 1 | | VAL 5-30 | EA | | 10tMotorOil | 7.95 | 4.69 | | | 4.69 |
| T | * | 1 | | VAL HD30 | EA | | 10tMotorOil | 7.95 | 4.69 | | | 4.69 |
| T | * | 1 | | VAL HD40 | EA | | 10tMotorOil | 7.95 | 4.69 | | | 4.69 |
| T | * | 1 | | CHV HD30 | EA | | MOTOR OIL | 6.25 | 3.69 | | | 3.69 |
| | * | = | | MFG. DEFECT WARRANTY | | | | | | | | |

CREDIT CARD-MASTER CARD 1264 EXPIRATION DATE-XX/XX AUTHORIZATION-966947

| TOTALS | 7 | CUSTOMER COPY | "We appreciate your business" | PAGE 1 | 73.44 | 37.93 | SUB-TOTAL | 37.93 |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | MISC. | |
| | | | | | | | TAX/FEES | |
| | | | | | CASH TEND. | | TOTAL | |
| | | | | | CHANGE | | | |

CUSTOMER SIGNATURE _____

***ALL MERCHANDISE RETURNED MUST BE ACCOMPANIED BY THIS INVOICE***

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|---|---|---|---|---|---|---|
| 5 | | | | 09:09:50 | | |

| TAX | R C | QTY. | LINE | ITEM NUMBER | UNIT MEAS. | CD. | DESCRIPTION | LIST PRICE | NET PRICE | DISC % | CORE PRICE | EXTENDED PRICE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|


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I-6884 - Chevron Motor Oil SAE30
I-6885 - Valvoline Motor Oil SAE30
I-6886 - Valvoline Motor Oil SAE 5W-30
I-6887 - Valvoline Motor Oil SAE 40
I-6888 - Mobil 1 Synthetic Motor Oil 10W30

5/13/11

5/13/11

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| COUNTER NO. | SPECIAL INSTRUCTIONS | SHIP VIA | CUSTOMER ORDER NO. | TIME OF ORDER | FILLED BY | CHECKED BY |
|---|---|---|---|---|---|---|
| 5 | | | | 00:00:50 | | |

| TAX | R C | QTY. | LINE | ITEM NUMBER | UNIT MEAS. | CD. | DESCRIPTION | LIST PRICE | NET PRICE | DISC % | CORE PRICE | EXTENDED PRICE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T | * | 1 | | CAS EDGE10 30 | EA | | 10tMotorOil | 14.77 | 5.99 | | | 5.99 |
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| T | * | 1 | | VAL 5-30 | EA | | 10tMotorOil | 7.95 | 4.69 | | | 4.69 |
| T | * | 1 | | VAL HD30 | EA | | 10tMotorOil | 7.95 | 4.69 | | | 4.69 |
| T | * | 1 | | VAL HD40 | EA | | 10tMotorOil | 7.95 | 4.69 | | | 4.69 |
| T | * | 1 | | CHV HD30 | EA | | MOTOR OIL | 6.25 | 3.69 | | | 3.69 |
| | * | = | | MFG. DEFECT WARRANTY | | | | | | | | |

CREDIT CARD-MASTER CARD 1264 EXPIRATION DATE-XX/XX AUTHORIZATION-966947

| TOTALS | 7 | CUSTOMER COPY | 73.44 | 37.93 | SUB-TOTAL | 37.93 |
|---|---|---|---|---|---|---|
| | | | | | MISC. | |
| | | | | | TAX/FEES | |
| | | | | | TOTAL | |

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PAGE 1

CASH TEND.
CHANGE

CUSTOMER SIGNATURE

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| COUNTER NO. | SPECIAL INSTRUCTIONS | SHIP VIA | CUSTOMER ORDER NO. | TIME OF ORDER | FILLED BY | CHECKED BY |
|---|---|---|---|---|---|---|
| 5 | | | | 00:00:50 | | |

| TAX | R C | QTY. | LINE | ITEM NUMBER | UNIT MEAS. | CD. | DESCRIPTION | LIST PRICE | NET PRICE | DISC % | CORE PRICE | EXTENDED PRICE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

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I 7906

**SIGMA-ALDRICH**

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Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

**C003092**
TPHD Triacontane NEAT
Solvent / Lot: NEAT
Prep: 8/19/2014 by VS
Exp: 2/15/2030
Location: GC

# Certificate of Analysis

Product Name
Triacontane - 98%

$CH_3(CH_2)_{28}CH_3$

| | |
|---|---|
| **Product Number:** | **263842** |
| **Batch Number:** | **MKBL2826V** |
| Brand: | ALDRICH |
| CAS Number: | 638-68-6 |
| MDL Number: | MFCD00009410 |
| Formula: | C30H62 |
| Formula Weight: | 422.81 g/mol |
| Quality Release Date: | 20 JUN 2012 |

| Test | Specification | Result |
|---|---|---|
| Appearance (Color) | White | White |
| Appearance (Form) Flakes or Crystalline Flakes | Conforms to Requirements | Flakes |
| Melting Point | 65.0 - 69.0 °C | 65.7 °C |
| Infrared spectrum | Conforms to Structure | Conforms |
| Purity (GC) | ≥ 97.5 % | 98.1 % |

Jamie Gleason

Jamie Gleason, Manager
Quality Control
Milwaukee, Wisconsin US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

E003343

Alfa Aesar

# Certificate of analysis

| | |
|---|---|
| Product No.: | A19680 |
| Product: | o-Terphenyl, 98% |
| Lot No.: | 10114703 |

| | |
|---|---|
| Appearance | White, crystalline powder |
| Melting point | 55.0-55.9ºC |
| Assay (GC) | 99.9+ % |

This document has been electronically generated and does not require a signature.

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Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

# Certificate of Analysis

Product Name:
Triacontane - 98%

$CH_3(CH_2)_{28}CH_3$

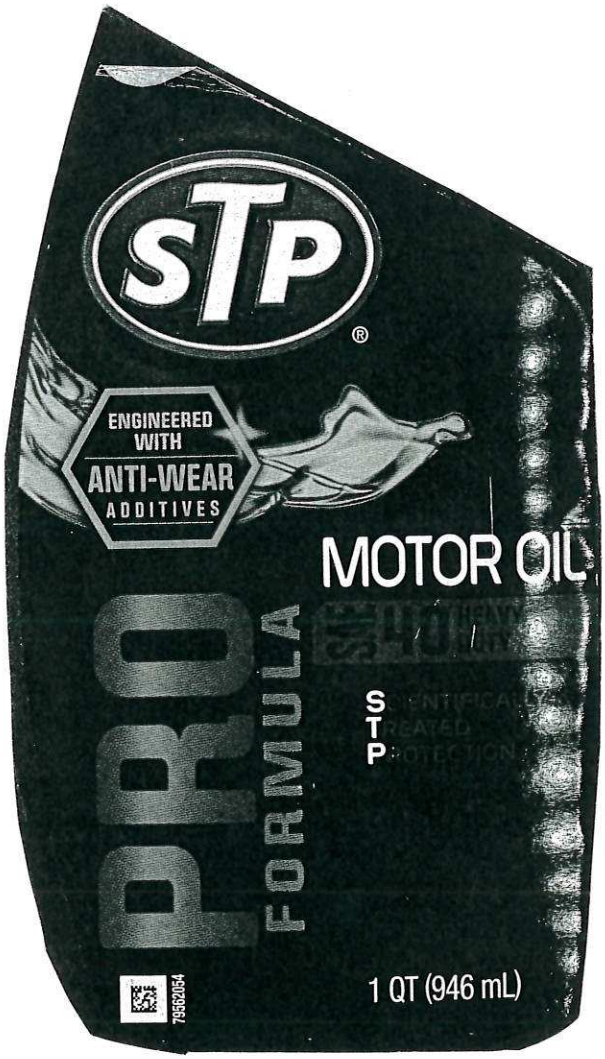
| | |
|---|---|
| **Product Number:** | **263842** |
| **Batch Number:** | **MKCD2349** |
| Brand: | ALDRICH |
| CAS Number: | 638-68-6 |
| MDL Number: | MFCD00009410 |
| Formula: | C30H62 |
| Formula Weight: | 422.81 g/mol |
| Quality Release Date: | 01 JUN 2017 |

F8659
Recd-
09/21/17 JR

| Test | Specification | Result |
|---|---|---|
| Appearance (Color) | White | White |
| Appearance (Form)<br>Flakes or Crystalline Flakes | Conforms to Requirements | Flakes |
| Melting Point | 65.0 - 69.0 °C | 65.4 °C |
| Infrared Spectrum | Conforms to Structure | Conforms |
| Purity (GC) | ≥ 97.5 % | 98.2 % |

Michael Grady, Manager
Quality Control
Milwaukee, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.




front


back

G 004796

# 5264

## Chain of Custody Record & Laboratory Analysis Request

| | |
|---|---|
| ARI Assigned Number: | Turn-around Requested: |
| ARI Client Company: Landau Associates | Phone: 509 327-9737 |
| Client Contact: Ryan Reich | |
| Client Project Name: Avista Central Steam Plant (CSP) | |
| Client Project #: 0236040 | Samplers: Ryan Reich |

| | |
|---|---|
| Page: 2 of 2 | |
| Date: 3-27-19 | Ice Present? Yes |
| No. of Coolers: 2 | Cooler Temps: 2.7°C 2.4°C |

**Analytical Resources, Incorporated**
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

| Sample ID | Date | Time | Matrix | No. Containers | Analysis Requested: NWTPH-Dx w/ Bunker | Notes/Comments |
|---|---|---|---|---|---|---|
| MW28-032719 | 3-27-19 | 15:45 | w | 2 | X | |
| MW 25-032819 | 3-28-19 | 9:05 | w | 2 | X | |
| MW7-032819 | 3-28-19 | 9:55 | w | 2 | X | |
| EW3-102418 | 10-24-18 | 13:00 | Product Liquid | 2 | | Site Bunker C Standard |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

#003225

| Comments/Special Instructions | Relinquished by: (Signature) | Received by: (Signature) | Relinquished by: (Signature) | Received by: (Signature) |
|---|---|---|---|---|
| * w/ acid silica gel cleanup | Printed Name: Ryan Reich | Printed Name: Jacob Haltz | Printed Name: | Printed Name: |
| | Company: Landau Assoc | Company: ARI | Company: | Company: |
| | Date & Time: 3-28-19 16:30 | Date & Time: 03/29/19 0950 | Date & Time: | Date & Time: |

***Limits of Liability:*** *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

**Sample Retention Policy:** All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

## Appendix 20.1

## ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer: 7.16.19 - not requested.

Chemical: Pentacosane-N

Manufacturer: Chem Service

Product #: NA

Lot #: 184-125A

Purity: 99%

Analyst: VTS

**H006758**
n-Pentacosane-Neat
Solvent / Lot: NA
Prep: 7/15/2019 by VS
Exp: 1/12/2030
Location: GC

125 Market Street
New Haven, CT 06513
USA

AccuStandard®

Tel (203)786-5290
Fax (203)786-5287
www.AccuStandard.com

# CERTIFICATE OF ANALYSIS

**Catalog No:** DRH-004S-R1-5X
**Description:** Calibration/Window Defining Hydrocarbon Standard
**Lot:** 219041075
**Solvent:** Chloroform
**Hazards:** *Refer to SDS for complete safety information*

**Signal Word: Warning**

**Date Certified:** Apr 8, 2019
**Expiration:** Apr 8, 2029
**Sample Size:** 1 mL
**Components:** 17
**Storage Condition:** Ambient (>5 °C)/Sonicate

**Certified Reference Material**

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER AR-1463

ANAB ACCREDITED TESTING LABORATORY AT-1339

ilac-MRA

| Component | CAS # | Purity % (GC/MS) | Prepared Concentration[2] (µg/mL) | Certified Analyte Concentration[1] (µg/mL) |
|---|---|---|---|---|
| n-Octane | 111-65-9 | 100.0 | 1017 | 1017 |
| Decane | 124-18-5 | 100.0 | 1014 | 1014 |
| Dodecane | 112-40-3 | 98.1 | 1013 | 994 |
| n-Tetradecane | 629-59-4 | 99.9 | 1008 | 1007 |
| Hexadecane | 544-76-3 | 98.9 | 1004 | 993 |
| n-Octadecane | 593-45-3 | 99.1 | 1013 | 1004 |
| Eicosane | 112-95-8 | 99.8 | 1008 | 1006 |
| Docosane | 629-97-0 | 99.1 | 1002 | 993 |
| n-Tetracosane | 646-31-1 | 100.0 | 1000 | 1000 |
| Hexacosane | 630-01-3 | 99.5 | 1008 | 1003 |
| n-Octacosane | 630-02-4 | 99.0 | 1017 | 1007 |
| n-Triacontane | 638-68-6 | 100.0 | 1017 | 1017 |
| Dotriacontane | 544-85-4 | 98.0 | 1014 | 994 |
| Tetratriacontane | 14167-59-0 | 99.0 | 1012 | 1002 |
| Hexatriacontane | 630-06-8 | 98.0 | 1003 | 983 |
| n-Octatriacontane | 7194-85-6 | 98.5 | 1009 | 994 |
| Tetracontane | 4181-95-7 | 99.0 | 1009 | 999 |

H007050
Recd
07/24/19

A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

[2] All weights are traceable through NIST, Test No. 684/289871-17

[1] Certified Analyte Concentration = Purity x Prepared Concentration.

The Uncertainty associated with the certified concentration reported on this certificate is ±2.4%. This value is the combined expanded uncertainty and represents an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Labels and certificates follow U.S. Conventions in reporting numerical values: A comma (,) is used to separate units of one-thousand or greater. A period (.) is used as a decimal place marker.

The information on this certificate may not be reproduced without the express permission of the manufacturer. See reverse side for additional information

Certified By: Larry Decker, Organic QC Manager



*For use in routine laboratory analysis.*

**AccuStandard is accredited to ISO 17034, ISO/IEC 17025 and certified to ISO 9001:2015**

QR-ORG/INO-001
Rev. 5/18

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Appendix 13.1

## ALTERNATE CERTIFICATE OF ANALYSIS

An effort has been made to locate the Certificate of Analysis for the below chemical and the manufacturer of the chemical was unable to provide a certificate at the time of request by ARI. This form is serving as a substitute for documentation purposes.

Date Requested from Manufacturer: 09/20/19 purchased at gas station

Chemical: Diesel #2 NEAT

Manufacturer: 76 gas station

Product #: N/A

Lot #: N/A

Purity: NEAT

Analyst: JL

1+009117

Aug/20/19

13310 Interurban Ave S
Tukwila Wa 98168

STANLEY H & REBECCA
00061106449
13310 INTERURBAN A
TUKWILA , WA
09/20/2019 415774136
11:10:20 AM

3605
MASTERCRD

INVOICE 110939
AUTH 00-024386
REF370230920191109

PUMP# 8
DIESEL 2 0.056G
PRICE/GAL $3.599

FUEL TOTAL $ 0.20

CREDIT $ 0.20

COMPLETION
SWIPE Exp.Date:**/**
Batch: 37 Seq Num: 23
Term ID: 8
Workstation ID: 00
Your opinion
counts! Enter to
Win 1 of 60 $25
gas gift cards!!!
Provide feedback
www.gasvisit.com
Learn how to earn
50 cents/gallon in
fuel statement
credits. Go to
drivesavvy.com or
see details at the
pump. Restrictions
apply. Offer
expires 9/30/19.
18

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REGISTER TO WIN!!

H009117
M
09/20/19

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# CERTIFIED REFERENCE MATERIAL

## Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 31233 **Lot No.:** A0157505

**Description :** Diesel Fuel #2 Standard (Unweathered)

Diesel Fuel #2 Standard (Unweathered) 5,000 µg/mL, Methylene Chloride, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** March 31, 2027 **Storage:** 25°C nominal

**CERTIFIED VALUES**

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Diesel Fuel #2 - Single Source | 5,000.0 µg/mL | +/- 29.3428 µg/mL | Gravimetric |
| | **CAS #** 68334-30-5.C (Lot 032404SZ) | | +/- 148.9194 µg/mL | Unstressed |
| | **Purity** ----% | | +/- 158.8208 µg/mL | Stressed |

**Solvent:** Methylene chloride
**CAS #** 75-09-2
**Purity** 99%

I 3995
Recd. JR
05/07/20

Analytical Resources, Incorporated
Analytical Chemists and Consultants

# Dioxin Extractions QC Benchsheet

## Reagent and Standard QC

| Chemical Receiving Inventory # | Reageant/ Standard | Brand | Lot # | Date Received/ Made | Intial Amount | Solvent Exchange | FEV | GC/ HRMS Pass Y/N |
|---|---|---|---|---|---|---|---|---|
| | **Toluene** | Omni Solv | I0405216 | 6/15/24 | 100mL | Nonane | 10µL | |
| | **DCM** | Omni Solv | | | 100mL | Nonane | 10µL | |
| | **Hexane** | Omni Solv | OK | | 100mL | Nonane | 10µL | |
| | **MeOH** | B&J | | 6/6/24 | 100mL | Nonane | 10µL | |
| | **Nonane** | Acros Organics | | | 100µL | N/A | 10µL | |
| | **Purified Sand** | Sakrete | | | 2 scoop | Nonane | 10µL | |
| | **Glasswool** | Corning Life Sciences | | | 1" in column | Nonane | 10µL | |
| | **0% Silica** | Fisher | | | 2 scoop | Nonane | 10µL | |
| | **Acid Silica** | Fisher | | | 2 scoop | Nonane | 10µL | |
| | **Basic Silica** | Fisher | | | 2 scoop | Nonane | 10µL | |
| | **Florisil** | Fluka | | | 1 scoop | Nonane | 10µL | |
| | **Rec Standard** | Wellington Labs | | | 1mL | Nonane | 10µL | |
| | **Clean-up Standard** | Wellington Labs | | | 1mL | Nonane | 10µL | |
| | **OPR Standard** | Wellington Labs | | | 20µL | Nonane | 10µL | |
| | **QLS Standard** | Wellington Labs | | | 20µL | Nonane | 10µL | |

| **Prep Analyst/Date:** 6/24/24 | **Inst. Run Date:** |
|---|---|

**Quantify Sample Summary Report** **MassLynx MassLynx V4.1 SCN909**
Dataset: Untitled
Last Altered: Monday, June 29, 2020 10:03:07 Pacific Daylight Time
Printed: Monday, June 29, 2020 10:04:40 Pacific Daylight Time

**Method: T:\Autospec\Methods\Dioxin200625.mdb 26 Jun 2020 07:56:21**
**Calibration: T:\Autospec\Curves\200530ICIH.cdb 01 Jun 2020 10:55:54**

**ID: TOL I5216, Name: 20062529, Date: 26-Jun-2020, Time: 13:22:47, Conditions: AUTOSPEC01, User: pk**

| Compound | RT | RRT | Ion1Area | Ion2Area | RRF | Ratio | Pred R | Noise 1 | Noise 2 | Height 1 | Height 2 | S/N 1 | SNFlag | EMPC | Int.1 | Int.2 | pg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2378-TCDF | | | | | 0.795 | | 0.770 | 502 | 912 | | | | | | | | |
| 12378-PeCDF | | | | | 0.797 | | 1.550 | 617 | 1077 | | | | | | | | |
| 23478-PeCDF | 30.165 | 1.001 | 1.227e2 | 1.579e2 | 0.962 | 0.777 | 1.550 | 617 | 1077 | 2.10e3 | 3.93e3 | 3.4 | YES | YES | bb | db | 0.021 |
| 123478-HxCDF | | | | | 0.973 | | 1.240 | 730 | 521 | | | | | | | | |
| 234678-HxCDF | | | | | 0.984 | | 1.240 | 730 | 521 | | | | | | | | |
| 123678-HxCDF | | | | | 0.916 | | 1.240 | 730 | 521 | | | | | | | | |
| 123789-HxCDF | | | | | 0.922 | | 1.240 | 730 | 521 | | | | | | | | |
| 1234678-HpCDF | | | | | 1.096 | | 1.050 | 407 | 561 | | | | | | | | |
| 1234789-HpCDF | | | | | 1.055 | | 1.050 | 407 | 561 | | | | | | | | |
| OCDF | | | | | 1.325 | | 0.890 | 699 | 892 | | | | | | | | |
| 2378-TCDD | | | | | 1.140 | | 0.770 | 598 | 496 | | | | | | | | |
| 12378-PeCDD | | | | | 1.091 | | 1.550 | 796 | 359 | | | | | | | | |
| 123478-HxCDD | | | | | 0.922 | | 1.240 | 426 | 461 | | | | | | | | |
| 123678-HxCDD | | | | | 0.949 | | 1.240 | 426 | 461 | | | | | | | | |
| 123789-HxCDD | | | | | 0.847 | | 1.240 | 426 | 461 | | | | | | | | |
| 1234678-HpCDD | 39.214 | 1.000 | 1.780e2 | 1.648e2 | 1.124 | 1.080 | 1.050 | 623 | 450 | 5.26e3 | 4.42e3 | 8.4 | YES | NO | db | bd | 0.056 |
| OCDD | 43.632 | 1.001 | 7.460e2 | 8.959e2 | 1.237 | 0.833 | 0.890 | 548 | 755 | 1.46e4 | 1.18e4 | 26.6 | YES | NO | db | bb | 0.395 |
| 13C-2378-TCDF | 24.683 | 1.007 | 8.253e5 | 1.052e6 | 2.214 | 0.784 | 0.770 | 2142 | 1231 | 1.27e7 | 1.60e7 | 5920.7 | YES | NO | bb | bb | 104.193 |
| 13C-12378-PeCDF | 28.785 | 1.175 | 9.077e5 | 5.652e5 | 1.903 | 1.606 | 1.550 | 3236 | 2267 | 1.39e7 | 8.73e6 | 4292.3 | YES | NO | bb | bb | 95.101 |
| 13C-23478-PeCDF | 30.132 | 1.230 | 8.542e5 | 5.386e5 | 1.845 | 1.586 | 1.550 | 3236 | 2267 | 1.36e7 | 8.60e6 | 4196.7 | YES | NO | bb | bb | 92.784 |
| 13C-123478-HxCDF | 33.782 | 0.953 | 3.067e5 | 6.177e5 | 1.198 | 0.496 | 0.510 | 985 | 2180 | 4.77e6 | 9.43e6 | 4845.3 | YES | NO | bd | bd | 100.338 |
| 13C-123678-HxCDF | 33.927 | 0.957 | 3.240e5 | 6.472e5 | 1.488 | 0.501 | 0.510 | 985 | 2180 | 4.94e6 | 9.69e6 | 5021.3 | YES | NO | db | db | 84.878 |
| 13C-234678-HxCDF | 34.828 | 0.982 | 2.825e5 | 5.661e5 | 1.195 | 0.499 | 0.510 | 985 | 2180 | 4.58e6 | 9.04e6 | 4654.9 | YES | NO | bb | bb | 92.321 |
| 13C-123789-HxCDF | 35.875 | 1.012 | 2.245e5 | 4.600e5 | 1.014 | 0.488 | 0.510 | 985 | 2180 | 3.58e6 | 7.24e6 | 3633.6 | YES | NO | bb | bb | 87.800 |
| 13C-1234678-HpCDF | 37.756 | 1.065 | 2.347e5 | 5.376e5 | 1.197 | 0.437 | 0.440 | 1921 | 1828 | 3.90e6 | 8.90e6 | 2030.5 | YES | NO | bb | bb | 83.898 |
| 13C-1234789-HpCDF | 39.893 | 1.125 | 1.546e5 | 3.545e5 | 0.893 | 0.436 | 0.440 | 1921 | 1828 | 2.31e6 | 5.25e6 | 1200.4 | YES | NO | bb | bb | 74.159 |
| 13C-1234-TCDD | 24.501 | 0.000 | 3.592e5 | 4.546e5 | 1.000 | 0.790 | 0.770 | 1294 | 805 | 5.73e6 | 7.24e6 | 4430.9 | YES | NO | bb | bb | 100.000 |
| 13C-2378-TCDD | 25.302 | 1.033 | 4.262e5 | 5.508e5 | 1.193 | 0.774 | 0.770 | 1294 | 805 | 6.55e6 | 8.49e6 | 5063.6 | YES | NO | bb | bb | 100.651 |
| 13C-12378-PeCDD | 30.388 | 1.240 | 5.085e5 | 2.920e5 | 0.962 | 1.741 | 1.550 | 1585 | 769 | 8.14e6 | 4.57e6 | 5135.1 | YES | NO | bb | bb | 102.293 |
| 13C-123478-HxCDD | 34.951 | 0.986 | 4.607e5 | 3.535e5 | 1.059 | 1.303 | 1.240 | 1709 | 1194 | 7.44e6 | 5.71e6 | 4354.5 | YES | NO | bd | bd | 99.975 |
| 13C-123678-HxCDD | 35.062 | 0.989 | 4.656e5 | 3.558e5 | 1.278 | 1.309 | 1.240 | 1709 | 1194 | 7.41e6 | 5.66e6 | 4332.5 | YES | NO | db | db | 83.562 |
| 13C-1234678-HpCDD | 39.203 | 1.105 | 2.827e5 | 2.610e5 | 0.843 | 1.083 | 1.050 | 1161 | 1015 | 4.45e6 | 4.04e6 | 3833.9 | YES | NO | bb | bb | 83.842 |
| 13C-OCDD | 43.605 | 1.230 | 3.233e5 | 3.491e5 | 0.616 | 0.926 | 0.890 | 1678 | 2408 | 4.02e6 | 4.31e6 | 2392.6 | YES | NO | bb | bb | 141.987 |

**ID: TOL I5216, Name: 20062529, Date: 26-Jun-2020, Time: 13:22:47, Conditions: AUTOSPEC01, User: pk**

| Compound | RT | RRT | Ion1Area | Ion2Area | RRF | Ratio | Pred R | Noise 1 | Noise 2 | Height 1 | Height 2 | S/N 1 | SNFlag | EMPC | Int.1 | Int.2 | pg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13C-123789-HxCDD | 35.463 | 0.000 | 4.323e5 | 3.368e5 | 1.000 | 1.283 | 1.240 | 1709 | 1194 | 6.94e6 | 5.37e6 | 4058.0 | YES | NO | bb | bb | 100.000 |
| 37CL-2378-TCDD | 25.227 | 1.030 | 1.071e2 | | 1.258 | | | 1328 | | 2.42e3 | | 1.8 | NO | | db | | 0.010 |
| 1368-TCDF | | | | | 1.007 | | 0.770 | 502 | 912 | | | | | | | | |
| 1289-TCDF | | | | | 0.754 | | 0.770 | 502 | 912 | | | | | | | | |
| 13468-PECDF | | | | | 1.099 | | 1.550 | 293 | 640 | | | | | | | | |
| 12389-PECDF | 31.178 | 1.083 | 1.504e2 | 7.409e1 | 0.841 | 2.030 | 1.550 | 617 | 1077 | 2.46e3 | 2.87e3 | 4.0 | NO | YES | bb | bb | 0.018 |
| 123468-HXCDF | | | | | 1.142 | | 1.240 | 730 | 521 | | | | | | | | |
| 1368-TCDD | | | | | 1.214 | | 0.770 | 598 | 496 | | | | | | | | |
| 1289-TCDD | | | | | 1.061 | | 0.770 | 598 | 496 | | | | | | | | |
| 12479-PECDD | | | | | 2.040 | | 1.550 | 796 | 359 | | | | | | | | |
| 12389-PECDD | | | | | 1.257 | | 1.550 | 796 | 359 | | | | | | | | |
| 124679-HXCDD | | | | | 1.164 | | 1.240 | 426 | 461 | | | | | | | | |
| 1234679-HPCDD | 38.245 | 0.976 | 8.609e1 | 1.019e2 | 1.378 | 0.845 | 1.050 | 623 | 450 | 1.89e3 | 2.90e3 | 3.0 | YES | YES | bb | bb | 0.025 |
| Total-tetrafurans | | | 0.000e0 | | 0.852 | | | 502 | | 0.00e0 | | | | | | | |
| Total-penta1 | | | 0.000e0 | | | | | 293 | | 0.00e0 | | | | | | | |
| Total-pentafurans | | | 0.000e0 | | 0.867 | | | 617 | | 0.00e0 | | | | | | | |
| Total-hexafurans | | | 0.000e0 | | 0.987 | | | 730 | | 0.00e0 | | | | | | | |
| Total-heptafurans | | | 0.000e0 | | 1.076 | | | 407 | | 0.00e0 | | | | | | | |
| Total-Furans | | | 0.000e0 | | 0.978 | | | 502 | | 0.00e0 | | | | | | | |
| Total-tetradioxins | | | 0.000e0 | | 1.138 | | | 598 | | 0.00e0 | | | | | | | |
| Total-pentadioxins | | | 0.000e0 | | 1.463 | | | 796 | | 0.00e0 | | | | | | | |
| Total-hexadioxins | | | 0.000e0 | | 0.971 | | | 426 | | 0.00e0 | | | | | | | |
| Total-heptadioxins | | | 1.780e2 | | 1.251 | | | 623 | | 5.26e3 | | | | | | | 0.056 |
| Total-Dioxins | | | 9.240e2 | | 1.187 | | | 598 | | 1.99e4 | | | | | | | 0.451 |
| Total-TEQ | | | 9.240e2 | | | | | 598 | | 1.99e4 | | | | | | | 0.451 |
| FUNCTION1 PFK | | | 1.728e5 | | | | | 220633 | | 4.73e6 | | | | | | | |
| FUNCTION2 PFK | | | 0.000e0 | | | | | 159655 | | 0.00e0 | | | | | | | |
| FUNCTION3 PFK | | | 0.000e0 | | | | | 198585 | | 0.00e0 | | | | | | | |
| FUNCTION4 PFK | | | 2.228e5 | | | | | 179610 | | 7.02e6 | | | | | | | |
| FUNCTION5 PFK | | | 2.507e4 | | | | | 138501 | | 1.09e6 | | | | | | | |
| FUNCTION1 HXCDPE | | | 0.000e0 | | | | | 189 | | 0.00e0 | | | | | | | |
| FUNCTION1 HPCDPE | | | 4.279e2 | | | | | 738 | | 9.46e3 | | | | | | | 0.000 |
| FUNCTION2 HPCDPE | | | 1.573e2 | | | | | 792 | | 4.18e3 | | | | | | | 0.000 |
| FUNCTION3 OCDPE | | | 8.296e1 | | | | | 216 | | 3.72e3 | | | | | | | 0.000 |
| FUNCTION4 NCDPE | | | 0.000e0 | | | | | 279 | | 0.00e0 | | | | | | | |
| FUNCTION5 DCDPE | | | 0.000e0 | | | | | 233 | | 0.00e0 | | | | | | | |

ThermoFisher SCIENTIFIC

# Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

ThermoFisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0090918

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. ThermoFisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing.ThermoFisher does not maintain DMF's with the FDA. The following are the actual analytical results obtained:

| | | | |
|---|---|---|---|
| Catalog Number | T291 | Quality Test / Release Date | 08/15/2018 |
| Lot Number | 184485 | | |
| Description | TOLUENE - OPTIMA | | |
| Country of Origin | United States | Suggested Retest Date | Aug/2023 |
| Chemical Origin | Organic - non animal | | |
| BSE/TSE Comment | No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product. | | |
| Chemical Comment | | | |

N/A

| Result Name | Units | Specifications | Test Value |
|---|---|---|---|
| APPEARANCE | | REPORT | Clear colorless liquid free of suspended matter |
| ASSAY | % | >= 99.8 | 99.9 |
| BENZENE | % | <= 0.05 | <0.05 |
| COLOR | APHA | <= 10 | <5 |
| EVAPORATION RESIDUE | ppm | <= 1 | <0.1 |
| IDENTIFICATION | PASS/FAIL | = PASS TEST | PASS TEST |
| OPTICAL ABS AT 285 NM | ABSORBANCE UNITS | <= 1 | 0.69 |
| WATER (H2O) | % | <= 0.02 | 0.02 |
| OPTICAL ABS AT 325 NM | ABSORBANCE UNITS | <= 0.02 | 0.01 |
| OPTICAL ABS AT 350 NM | ABSORBANCE UNITS | <= 0.005 | 0.001 |
| PESTICIDE RESIDUE ANALYSIS | NG/L | <= 10 | <1 |
| REFRACTIVE INDEX @ 25 DEG C | | Inclusive Between 1.4930 - 1.4950 | 1.4940 |
| SUBSTANCES DARKENED BY H2SO4 | PASS/FAIL | = PASS TEST | PASS TEST |
| SULFUR COMPOUNDS | % | <= 0.003 | <0.0003 |
| OPTICAL ABS AT 300 NM | ABSORBANCE UNITS | <= 0.1 | 0.07 |

Teresa Bailey-Wyche

Quality Assurance Specialist - Certificate of Analysis Bridgewater

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

# Form I
# INORGANIC ANALYSIS DATA SHEET
# SM 2540 G-97

**USMPDI-010SG-210414**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | | | | |
| Client: | Anchor QEA, LLC | | | | |
| Project: | Gasco Siltronic - US Moorings | | | | |
| Matrix: | Sediment | Laboratory ID: | 21D0180-01 A | SDG: | 21D0180 |
| Sampled: | 04/14/21 11:41 | Prepared: | 04/18/21 07:28 | File ID: | |
| % Solids: | 45.11 | Preparation: | No Prep Wet Chem | Analyzed: | 04/18/21 08:16 |
| Batch: | BJD0433 | Sequence: | | Initial/Final: | 5 g Wet / 5 g |
| Instrument: | BAL2 | | | Calibration: | |

| CAS NO. | Analyte | Concentration (%) | Dilution Factor | MDL | MRL | Q |
|---|---|---|---|---|---|---|
| | Total Solids | 45.11 | 1 | 0.04 | 0.04 | |

# Form I
# INORGANIC ANALYSIS DATA SHEET
# SM 2540 G-97

**USMPDI-015SG-210414**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | | | | |
| Client: | Anchor QEA, LLC | | | | |
| Project: | Gasco Siltronic - US Moorings | | | | |
| Matrix: | Sediment | Laboratory ID: | 21D0180-02 A | SDG: | 21D0180 |
| Sampled: | 04/14/21 10:35 | Prepared: | 04/18/21 07:28 | File ID: | |
| % Solids: | 45.88 | Preparation: | No Prep Wet Chem | Analyzed: | 04/18/21 08:16 |
| Batch: | BJD0433 | Sequence: | | Initial/Final: | 5 g Wet / 5 g |
| Instrument: | BAL2 | | | Calibration: | |

| CAS NO. | Analyte | Concentration (%) | Dilution Factor | MDL | MRL | Q |
|---|---|---|---|---|---|---|
| | Total Solids | 45.88 | 1 | 0.04 | 0.04 | |

# Form I
# INORGANIC ANALYSIS DATA SHEET
# SM 2540 G-97

**USMPDI-019SG-210414**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | | | | |
| Client: | Anchor QEA, LLC | | | | |
| Project: | Gasco Siltronic - US Moorings | | | | |
| Matrix: | Sediment | Laboratory ID: | 21D0180-03 A | SDG: | 21D0180 |
| Sampled: | 04/14/21 08:36 | Prepared: | 04/18/21 07:28 | File ID: | |
| % Solids: | 45.65 | Preparation: | No Prep Wet Chem | Analyzed: | 04/18/21 08:16 |
| Batch: | BJD0433 | Sequence: | | Initial/Final: | 5 g Wet / 5 g |
| Instrument: | BAL2 | | | Calibration: | |

| CAS NO. | Analyte | Concentration (%) | Dilution Factor | MDL | MRL | Q |
|---|---|---|---|---|---|---|
| | Total Solids | 45.65 | 1 | 0.04 | 0.04 | |

# Form I
# INORGANIC ANALYSIS DATA SHEET
# SM 2540 G-97

**USMPDI-029SG-210414**

| | | | | | |
|---|---|---|---|---|---|
| Laboratory: | Analytical Resources, Inc. | | | | |
| Client: | Anchor QEA, LLC | | | | |
| Project: | Gasco Siltronic - US Moorings | | | | |
| Matrix: | Sediment | Laboratory ID: | 21D0180-04 A | SDG: | 21D0180 |
| Sampled: | 04/14/21 09:22 | Prepared: | 04/18/21 07:28 | File ID: | |
| % Solids: | 35.70 | Preparation: | No Prep Wet Chem | Analyzed: | 04/18/21 08:16 |
| Batch: | BJD0433 | Sequence: | | Initial/Final: | 5 g Wet / 5 g |
| Instrument: | BAL2 | | | Calibration: | |

| CAS NO. | Analyte | Concentration (%) | Dilution Factor | MDL | MRL | Q |
|---|---|---|---|---|---|---|
| | Total Solids | 35.70 | 1 | 0.04 | 0.04 | |

# PREPARATION BATCH SUMMARY

## SM 2540 G-97

Laboratory: Analytical Resources, Inc.
SDG: 21D0180
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Batch: BJD0433 Batch Matrix: Solid
Preparation: No Prep Wet Chem

| SAMPLE NAME | LAB SAMPLE ID | LAB FILE ID | DATE PREPARED | OBSERVATIONS |
|---|---|---|---|---|
| USMPDI-010SG-210414 | 21D0180-01 | | 04/18/21 07:28 | |
| USMPDI-015SG-210414 | 21D0180-02 | | 04/18/21 07:28 | |
| USMPDI-019SG-210414 | 21D0180-03 | | 04/18/21 07:28 | |
| USMPDI-029SG-210414 | 21D0180-04 | | 04/18/21 07:28 | |
| Blank | BJD0433-BLK1 | | 04/18/21 07:28 | |

**TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET for Solid samples**

**Method: PSEP 1986, SM2540, EPA 160.1**

(dry at 104 (12-24 hr) then combust at 550 (30 min))

| | |
|---|---|
| **Batch:** | BJD0433 |
| **Date:** | 4/18/2021 8:16 |
| **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:** | 4/18/2021 8:16 | |
| **date/time out:** | 4/19/2021 15:40 | |
| **elapsed hrs =** | 31.4 | > 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:** | 4/18/21 7:30 | 4/18/21 7:58 | 4/19/21 16:15 | | | | | | | |
| **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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BJD0433-BLK1 | 1 | 0.7877 | 0.0000 | 0.7877 | | | 0.0000 | 0.00% | | | | | | | | |
| 21D0161-01 | 2 | 0.7816 | 6.6971 | 5.0007 | | | 4.2191 | 71.32% | | | | | | | | |
| 21D0161-02 | 3 | 0.7838 | 6.1086 | 4.5806 | | | 3.7968 | 71.30% | | | | | | | | |
| 21D0179-01 | 4 | 0.7903 | 8.2115 | 4.1551 | | | 3.3648 | 45.34% | | | | | | | | |
| 21D0179-02 | 5 | 0.8092 | 7.6281 | 3.5716 | | | 2.7624 | 40.51% | | | | | | | | |
| 21D0179-03 | 6 | 0.8004 | 7.9311 | 3.7942 | | | 2.9938 | 41.98% | | | | | | | | |
| 21D0179-04 | 7 | 0.7967 | 6.6442 | 3.0222 | | | 2.2255 | 38.06% | | | | | | | | |
| BJD0433-DUP1 | 8 | 0.8036 | 6.6768 | 3.0531 | | | 2.2495 | 38.30% | RPD=0.6 | | | | | | | |
| 21D0179-05 | 9 | 0.8107 | 6.7248 | 3.0617 | | | 2.2510 | 38.06% | | | | | | | | |
| 21D0179-06 | 10 | 0.8057 | 6.4811 | 2.9380 | | | 2.1323 | 37.57% | | | | | | | | |
| 21D0180-01 | 11 | 0.7917 | 6.6794 | 3.4479 | | | 2.6562 | 45.11% | | | | | | | | |
| 21D0180-02 | 12 | 0.7883 | 7.1433 | 3.7039 | | | 2.9156 | 45.88% | | | | | | | | |
| 21D0180-03 | 13 | 0.7952 | 7.1270 | 3.6859 | | | 2.8907 | 45.65% | | | | | | | | |
| 21D0180-04 | 14 | 0.7899 | 7.6633 | 3.2437 | | | 2.4538 | 35.70% | | | | | | | | |

# Form I

## METHOD BLANK DATA SHEET

## SM 2540 G-97

TotalAnalytes

**Blank**

Laboratory: Analytical Resources, Inc.
SDG: 21D0180
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Batch: BJD0433
Laboratory ID: BJD0433-BLK1
Prepared: 04/18/21 07:28
Matrix: Solid
Preparation: No Prep Wet Chem
Analyzed: 04/18/21 08:16
Sequence:
Calibration:
Instrument: BAL2

| CAS NO. | Analyte | Concentration (%) | Dilution Factor | MDL | MRL | Q |
|---|---|---|---|---|---|---|
| | Total Solids | ND | 1 | 0.04 | 0.04 | U |

# HOLDING TIME SUMMARY

**Analysis: SM 2540 G-97**

Laboratory: Analytical Resources, Inc. SDG: 21D0180

Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings

| Sample Name | Date Collected | Date Received | Date Prepared | Days to Prep | Max Days to Prep | Date Analyzed | Days to Analysis | Max Days to Analysis | Q |
|---|---|---|---|---|---|---|---|---|---|
| USMPDI-010SG-210414<br>21D0180-01 | 04/14/21<br>11:41 | 04/16/21<br>10:30 | 04/18/21<br>07:28 | 3 | 28 | 04/18/21<br>08:16 | 4 | 28 | |
| USMPDI-015SG-210414<br>21D0180-02 | 04/14/21<br>10:35 | 04/16/21<br>10:30 | 04/18/21<br>07:28 | 3 | 28 | 04/18/21<br>08:16 | 4 | 28 | |
| USMPDI-019SG-210414<br>21D0180-03 | 04/14/21<br>08:36 | 04/16/21<br>10:30 | 04/18/21<br>07:28 | 3 | 28 | 04/18/21<br>08:16 | 4 | 28 | |
| USMPDI-029SG-210414<br>21D0180-04 | 04/14/21<br>09:22 | 04/16/21<br>10:30 | 04/18/21<br>07:28 | 3 | 28 | 04/18/21<br>08:16 | 4 | 28 | |

* Indicates hold time exceedance.

# METHOD DETECTION AND REPORTING LIMITS

## SM 2540 G-97

Laboratory: Analytical Resources, Inc.
SDG: 21D0180
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Matrix: Solid
Instrument:

| Analyte | MDL | RL | Units |
|---|---|---|---|
| Total Solids | 0.04 | 0.04 | % |

## TOTAL SOLIDS BENCHSHEET

**Method: PSEP 1986**

**(dry at 103-105 C)**

**Instrumentation**

| | |
|---|---|
| **Batch:** | BJD0427 |
| **Date:** | 4/16/2021 14:31 |
| **Analyst:** | YL |
| **Drying Oven:** | 15 |
| **Analytical Balance:** | B146462614 |

| Batch drying time | | |
|---|---|---|
| record times as mm/dd/yy hh:mm | | |
| date/time in oven: | 4/16/2021 15:26 | |
| date/time out: | 4/19/2021 8:30 | |
| elapsed hrs: | 65.1 | > 24 hr |

**TS (%) calculated as:**

Final dry wt (g) = (Dry Wt - Tare Wt)

TS = (Final Dry Wt X 100)/ (sample & dish -dish tare)

| SAMPLE ID | Dish Tare Wt (g) | Dish with Sample (g) | Dry Wt (g) | Solids Wt (g) | TS (%) | Sample Decanted |
|---|---|---|---|---|---|---|
| 21D0180-01 | 1.1300 | 11.3800 | 5.9100 | 4.78 | **46.63%** | Yes |
| 21D0180-02 | 1.1300 | 12.1000 | 6.1200 | 4.99 | **45.49%** | Yes |
| 21D0180-03 | 1.1000 | 12.1300 | 6.2400 | 5.14 | **46.60%** | Yes |
| 21D0180-04 | 1.1300 | 12.1700 | 5.0600 | 3.93 | **35.60%** | Yes |

| TOTAL SOLIDS BENCHSHEET | | | | | | | Batch: | BJD0427 |
|---|---|---|---|---|---|---|---|---|
| Method: PSEP 1986 | | | | | | | Date: | 4/16/2021 14:31 |
| (dry at 103-105 C) | | | | | | | Analyst: | |
| Instrumentation | | | | | | | Drying Oven: | Ø15 |
| | | | | | | | Analytical Balance: | B146462614 |

| Batch drying time | | |
|---|---|---|
| record times as mm/dd/yy hh:mm | | |
| date/time in oven: | 04/16/21 | 15:26 |
| date/time out: | 04/19/21 | 08:30 |
| elapsed hrs: | 0.0 | |

**TS (%) calculated as:**

Final dry wt (g) = (Dry Wt - Tare Wt)

TS = (Final Dry Wt X 100)/ (sample & dish -dish tare)

| SAMPLE ID | Dish Tare Wt (g) | Dish with Sample (g) | Dry Wt (g) | Solids Wt (g) | TS (%) | Sample Decanted |
|---|---|---|---|---|---|---|
| 21D0180-01 A | 1.13 | 11.38 | 5.91 | | | ~~No~~ Yes |
| 21D0180-02 | 1.13 | 12.10 | 6.12 | | | ~~No~~ Yes |
| 21D0180-03 | 1.10 | 12.13 | 6.24 | | | ~~No~~ Yes |
| 21D0180-04 A | 1.13 | 12.17 | 5.06 | | | ~~No~~ Yes |

T/S + Screens

2 copies